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SOUTHEAST ASIA ASSOCIATION OF SEISMOLOGY AND EARTHQUAKE ENGINEERING

Series on Seismology

VOLUME II

THAILAND

Front Cover

The Great Pagoda of Chiangmai was constructed by King Saen Muang Ma (King Lakha Burakom), the 8th King of Mengrai dynasty in A.D. 1391. Its base (on each side) was 14 metres. In 1454 King Tilokaraj, tenth in the same dynasty, remodeled and enlarged it. The base, now in rectansular form was 54 metres wide, while the entire structure was 86 metres high. In 1545 during the reign of Queen Mahadevi Jiriprabha (16th in the Mengrai dynasty) a violent earthquake caused the upper parts of the pagoda to crumble down and only 60 odd some metres was left standing.

SOUTHEAST ASIA ASSOCIATION OF SEISMOLOGY AND EARTHQUAKE ENGINEERING

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Series on Seismology

Volume II - THAILAND

PART A - SEISMICITY DATA OF THAILAND AND ADJACENT AREAS
PART B - ADDITIONAL SEISMICITY DATA OF THAILAND AND ADJACENT AREAS
PART C - SEISMIC SOURCE ZONES AND EARTHQUAKE RECURRENCE RELATIONSHIP OF THE BURMA - THAILAND - INDOCHINA AREA

by

Prinya Nutalaya, Sopit Sodsri and E.P. Arnold

E.P. Arnold, Series Editor and Programme Co-ordinator

June 1985

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PART A

SEISMICITY DATA OF THAILAND AND ADJACENT AREAS

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PART A SEISMICITY DATA OF THAILAND AND ADJACENT AREAS

Introduction

The objective of this paper is to collect as complete a seismological data base as possible within the region bounded by Lat. 5°-100°E which includes Thailand, Indochina, and parts of Burma, People's Republic of China, Malaysia, Northern Sumatra, and the Andaman-Nicobar Islands.

This data base includes:

1. Historical earthquakes which occurred prior to 1900
2. Macro- and microseismic (instrumental) data, and
3. Focal mechanism data.

Historical Earthquakes

From the historical texts, annals, stone inscriptions, and astrological documents in Thai language, forty four earthquakes were found to occur in Thailand and Burma dating back to 624 B.C. (Appendix A). The compiled data are arranged in chronological order and include date and time, location where the event was observed, brief description of the event, intensity, and source of data. The dates of all events in the original sources were recorded in lunar calendar and wherever possible they are converted to the Gregorian equivalents. These records yield only the locations where the earthquakes were felt and not the epicentral locations. The intensities of these events are assigned using the Modified Mercalli Scale. Listing of the events is arranged under the following format.

* probably aftershock
** probably the same earthquake
A. Date and time
B. Location of observation or epicentre
C. Description of first-hand experience and/or destruction
D. Magnitude and/or intensity, and
E. Source of information

In addition, during 1446 to 1909 fifty events in the Yunnan region were reported by Lee (U.S. National Geophysical Data Center, 1983). These events are listed in Appendix B.

Instrumental Data

The compiled macro- and microseismic data are tabulated in Appendix B and the seismicity map is shown in Fig. 1. The macroseismic events (magnitude 6 or greater) are typed in boldfaced letters. These listings are arranged chronologically from earliest to most recent events. The records from different sources which may be duplicates are asterisked.

The seismic data are arranged to include source (see Table 1 for the list of agency abbreviations), date and time, epicentre, depth, and magnitude of the earthquake, either Mb, ML, Ms, or local, maximum intensity, standard deviation, and number of observations.

The sources of data used in this tabulation are:

1. Earthquake listings of the U.S. National Geophysical and Solar-Terrestrial Data Center's Earthquake Data File, National Oceanic and Atmospheric Administration (1447-1981).

2. International Seismological Summary (ISS) (1914-1963).

3. International Seismological Centre (ISC): List of Events and Associated Observations; and Regional Catalogue of Earthquakes (1964-1980).

4. National Earthquake Information Service (NEIS) of the U.S. Geological Survey.

5. Earthquake listings of the UNDP Seismological Programme for Southeast Asia (1912-1976).

6. Records of earthquakes of the Meteorological Department of Thailand (1976-1983).

7. Earthquake Data Reports of the U.S. Geological Survey (1975-1982).

8. Seismological Report of Thailand Seismic Activity compiled by the Network Headquarters, Studies and Research Division, Meteorological Department of Thailand (1981).

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11. Earthquake Data Reports (EDR) of the U.S. Geological Survey (1975-1982).

In addition the summary of descriptions of the damage caused by destructive earthquakes is listed in Appendix C.

Table 1 List of Agency Abbreviations

BCI	Bureau Central International de Sèismologie, Strasbourg, France
BKK	Meteorological Department, Bangkok, Thailand
BRK	Berkeley, University of California, USA
BSS	Bulletin of the Seismological Society of America
BUL	Bulawayo, Goetz Observatory, Meteorological Service, Rhodesia
CGS	Coast and Geodetic Survey, USA (prior to 1970)
CNSK	Canadian and Scandinavian Network
COL	Collmberg, German Democratic Republic
ERL	Environmental Research Laboratories, USA (1971-1973)
G-R	Gutenberg-Richter (see Reference)
GS	U.S. Geological Survey, Denver, Colorado, USA
HFS	Hagfors, Sweden
ISC	International Seismological Centre, Newbury, England
ISS	International Seismological Summary, Kew, England
JMA	Japan Meteorological Agency, Tokyo, Japan
KEW	Kew, Kew Observatory, Richmond, Surrey, England
KIR	Kiruna, Sweden
LAO	LASA Centre, Lincoln Laboratory, MIT, Massachusetts, USA
LEM	Lembang, Java, Indonesia
MAT	Matsushiro, Honshu, Japan
MOS	Moscow, Institute of Physics of the Earth, USSR
NDI	Delhi, Meteorological Department, India
NEIS	National Earthquake Information Service, USA
NOS	National Ocean Survey, USA (1970-1971)
NUR	Nurmijarvi, Finland
PAL	Palisades, New York, USA
PAS	Pasadena, Seismological Laboratory, California, USA
PEK	Peking, Division of Seismology, Academia Sinica, China
PMG	Port Moresby, Papua New Guinea
QUE	Quetta, Geophysical Institute, Pakistan
ROM	Rome, Istituto Nazionale di Geofisica, Italy
SHL	Shillong, Central Seismological Observatory, India
UPP	Uppsala, Seismological Institute, Sweden

Focal Mechanism Data

The available focal mechanism solutions from the published literature are in two forms, i.e. tables and plots. The numerical data are adjusted to the same format and tabulated in Appendix D and the plots are shown in Fig. 2.

The data are arranged to include date and time, epicentre, depth, and magnitude of the earthquake. The poles of the two nodal planes, the compression (P), tension (T), and null axes (B), and data source are provided for each of the earthquakes in the list. The azimuthal trends are always taken clockwise from the north and the plunge is the angle the axis or pole makes with the horizontal.

Additional data on first motions of eight earthquakes are found and their mechanism solutions are plotted manually. These plots are shown in Fig. 3 and the calculated parameters are also tabulated in Appendix D.

Conclusions

1. There are at least forty-four historical earthquakes records in Thailand dating back to 624 B.C. In addition, fifty historical quakes whose epicentres were in Yunnan area were reported.

2. Between 1912 and April 1983 the seismographs registered 3202 quakes within this region.

3. The largest quake known in this region was probably the one which occurred in 460 A.D. in Chiang Saen area.

4. The largest quake instrumentally recorded occurred on June 26, 1941 in the Andaman Sea. Its magnitude is 8.7.

5. The most destructive quakes in recent time in this area occurred on May 5, 1980 in upper Burma. The magnitude is 7.3. Pegu was almost entirely destroyed. Hundreds of people were reported killed or injured.

6. There are 91 quakes recorded in the region whose magnitudes were 6 or greater.

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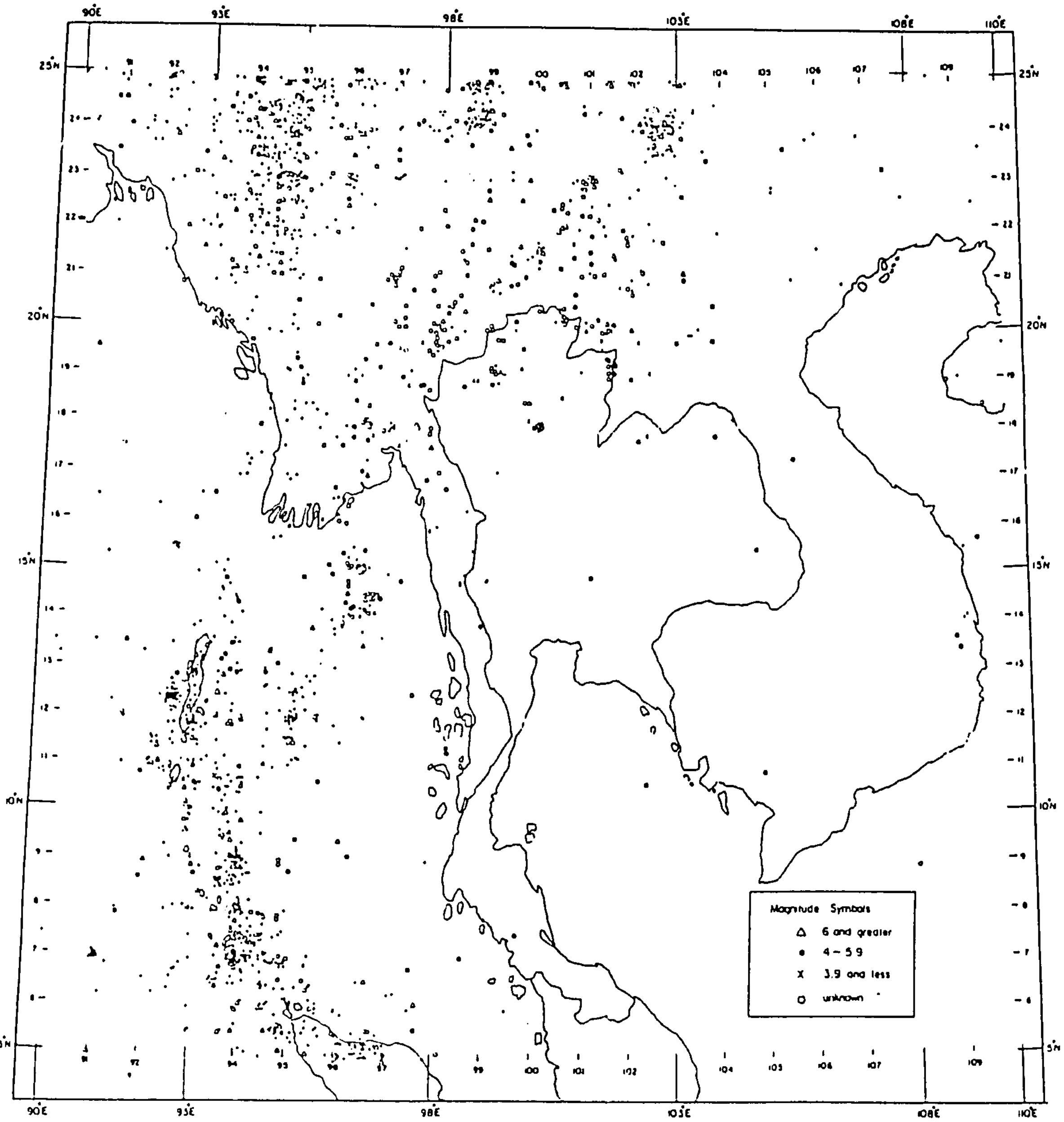


Fig. 1 Seismicity Map of Burma, Thailand, Indochina and Andaman - Nicobar Islands

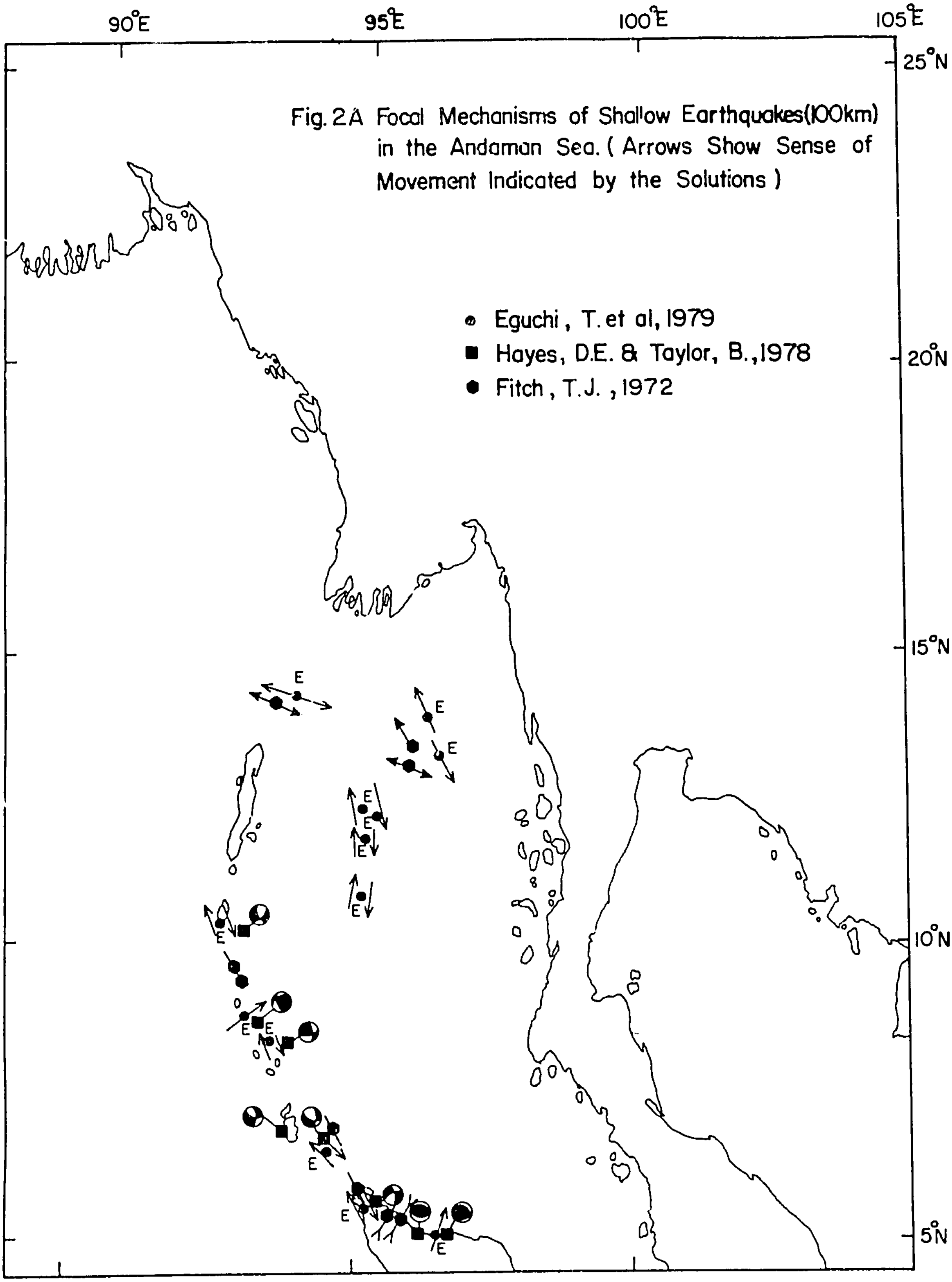


Fig. 2A Focal Mechanisms of Shallow Earthquakes(100km) in the Andaman Sea. (Arrows Show Sense of Movement Indicated by the Solutions)

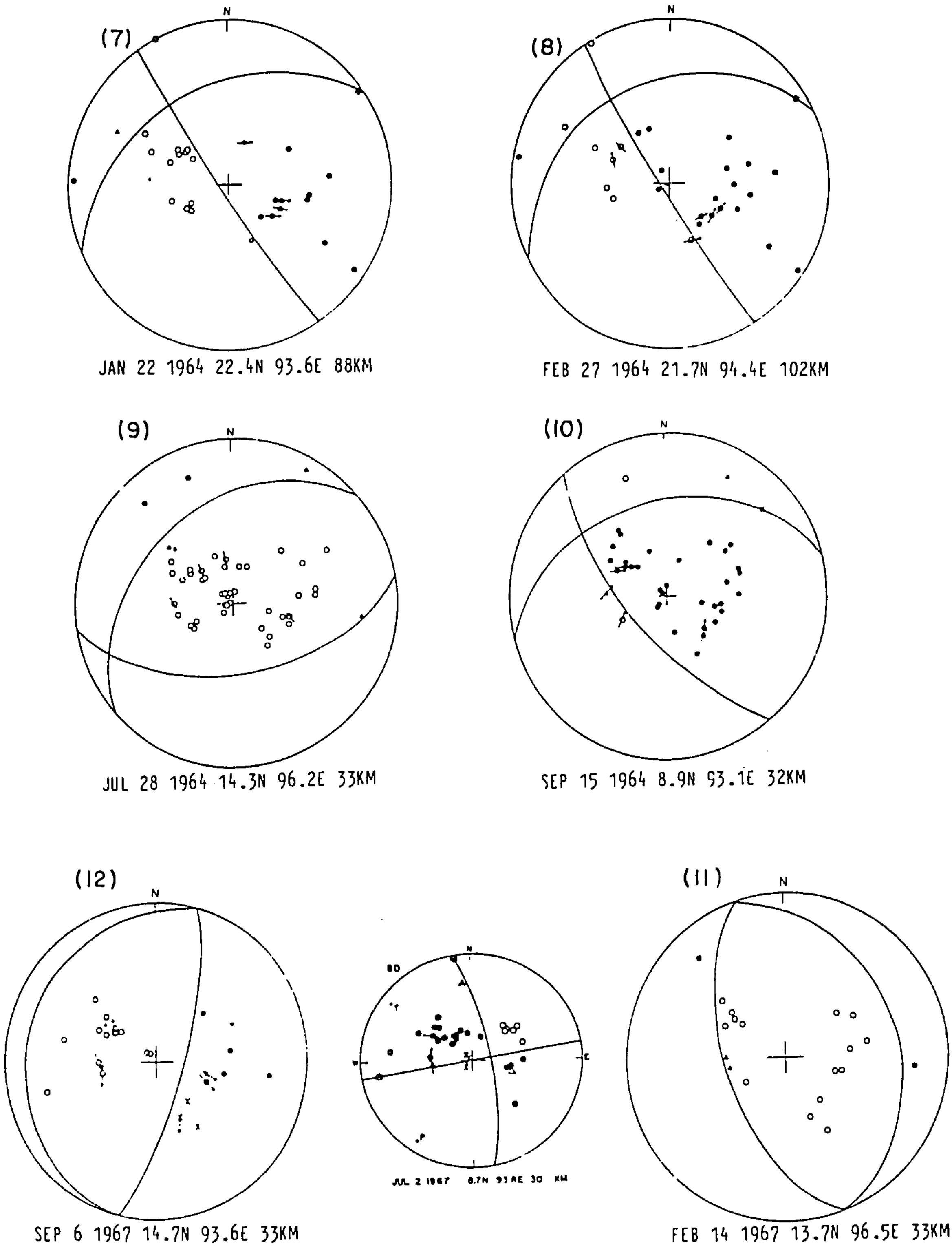
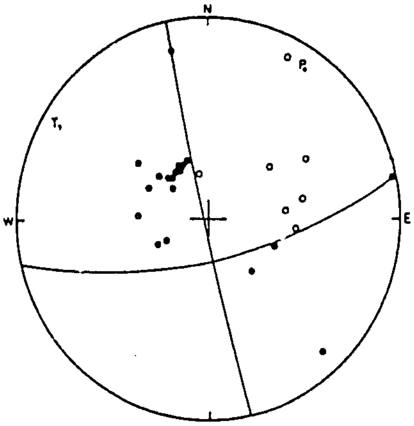
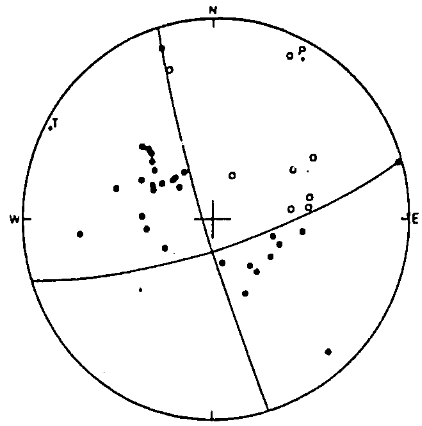


Fig. 2 B Collection of Fault Plane Solutions
(Fitch, 1970 & 1972)



AUG 12 1971 12.5N 95.1E 20KM



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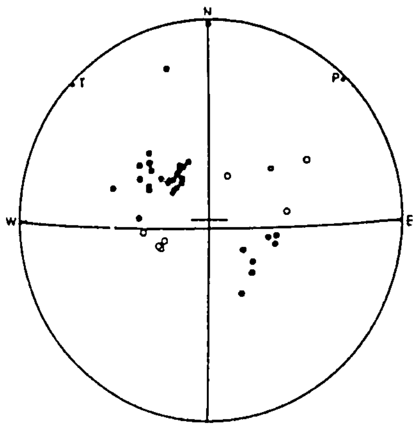

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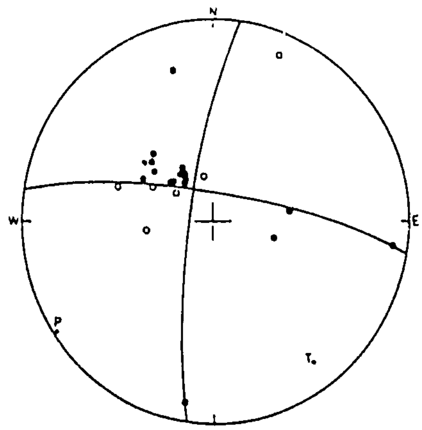

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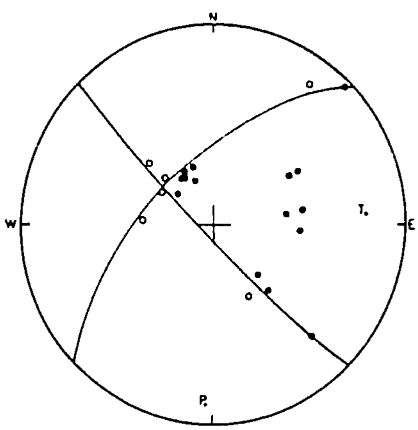

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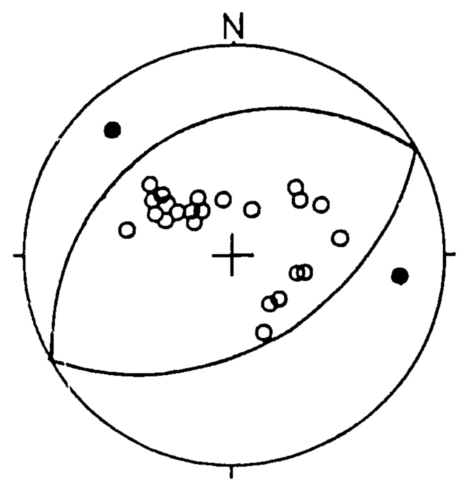
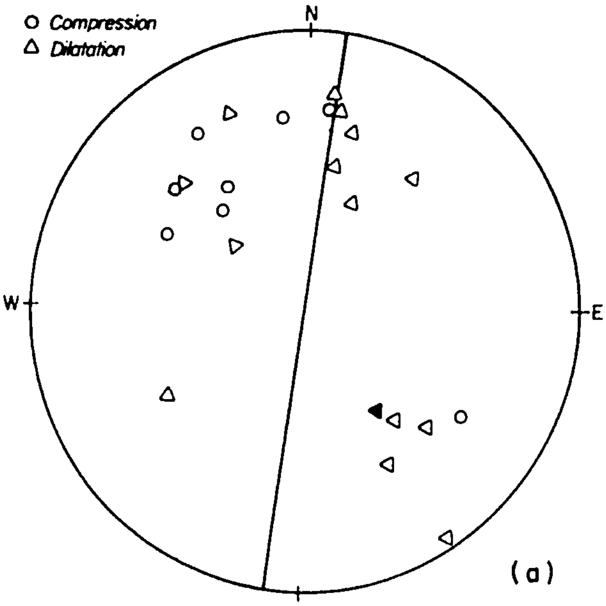
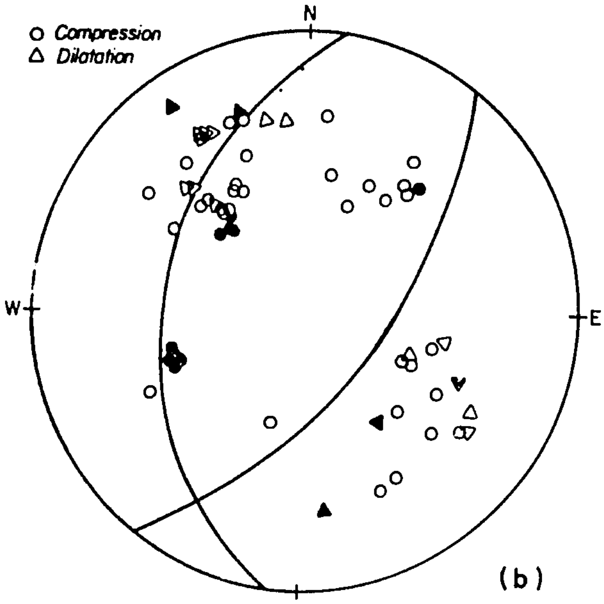


FEB 14 1967 13.7N 96.5E 33KM

Fig.2 C Collection of Fault Plane Solutions (Eguchi et. al., 1979)



Fault plane solution of earthquake of 28 March 1971



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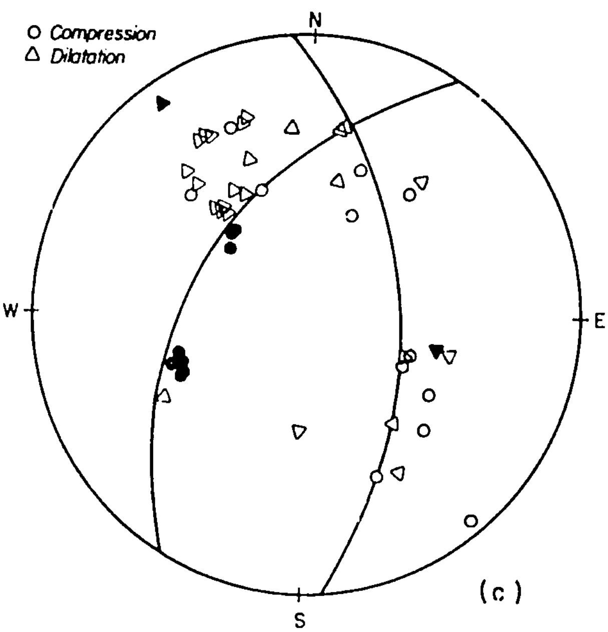

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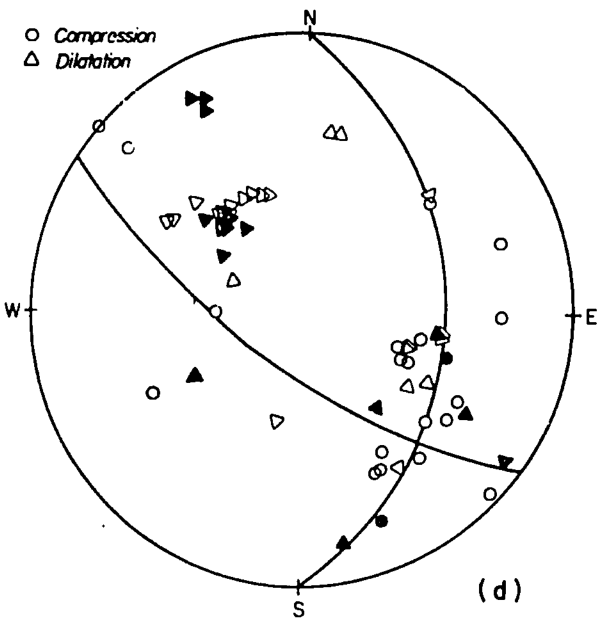
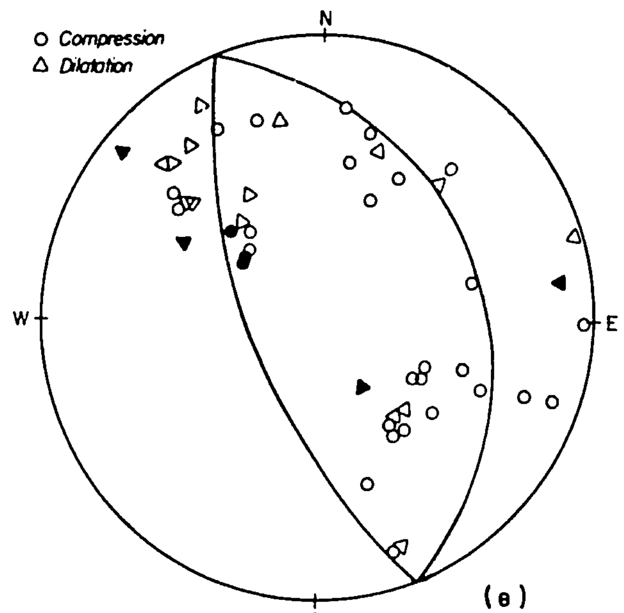


Fault plane solution of earthquake of 7 April 1973

Fig. 3



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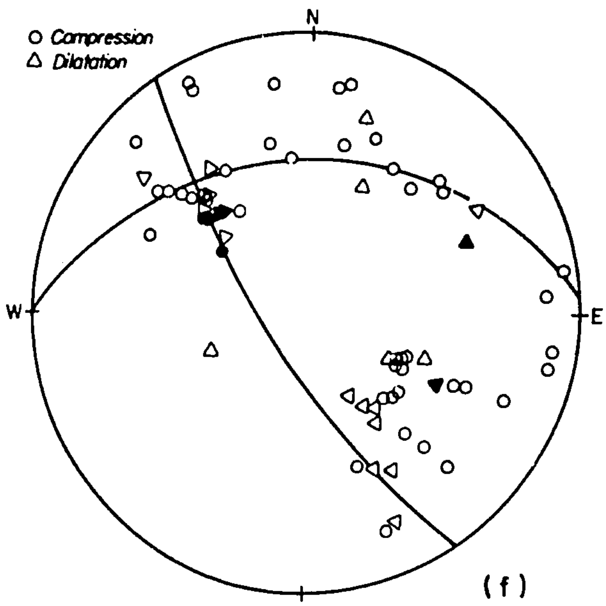
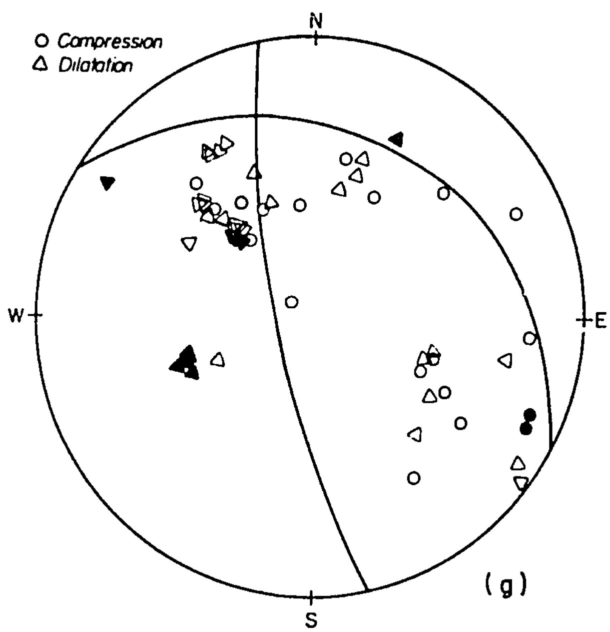
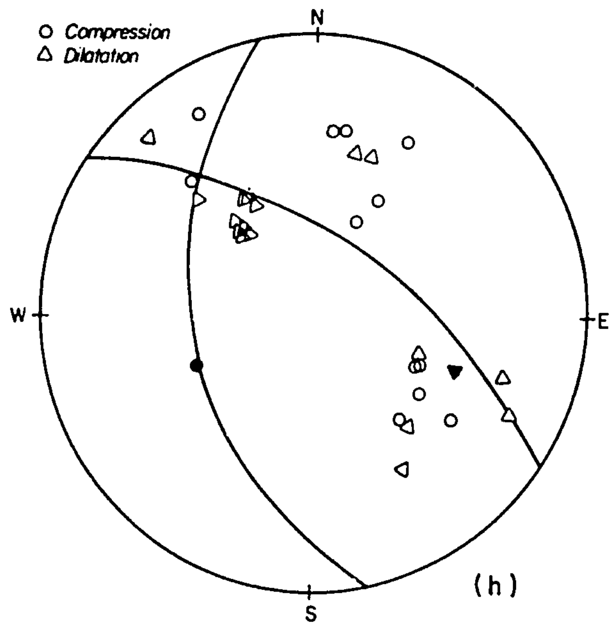


Fault plane solution of earthquake of 8 July 1975



Fault plane solution of earthquake of 17 Dec. 1975



Fault plane solution of earthquake of 11 Dec. 1976

Fig. 3

APPENDIX A

Historical Earthquakes in Thailand and Burma

A. 624 BC., 10^{th} lunar month, 15^{th} Thursady dawn
B. Yonok-Nagabandhu, 20°15'N, 100°05'E
C. Earthquakes; thunder; mountains trembled violently; people's hair stood on ends.
D. VI
E. Collections of Annals Section 61, 1969

A. 623 BC., 8^{th} lunar month, 15^{th} Friday dawn
B. Yonok-Nagabandhu, 20°15'N, 100°05'E
C. Earthquakes; thunder; mountains trembled, heavy rains.
D. VI
E. Collections of Annals Section 61, 1969

A. 594 BC., 10^{th} lunar month, 15^{th} Tuesday almost dawn
B. Yonok-Nagabandhu, 20°15'N, 100°05'E
C. Earthquakes; thunder; mountains trembled.
D. VI
E. Collections of Annals Section 61, 1969

A. 589 BC., 8^{th} lunar month, 14^{th} Tuesday early afternoon
B. Yonok-Nagabandhu, 20°15'N, 100°05'E
C. Earthquakes; thunder; mountains trembled more intensely than during the first three quakes.
D. VI
E. Collections of Annals Section 61, 1969

A. 460, 7^{th} lunar month, 22^{nd} Saturday night
B. Yonok-Nagabandhu, 20°15'N, 100°05'E
C. In the evening the earth trembled violently and loudly once; in the middle of the night it shook once more, and late that night the tremor hit again; the whole town submerged and became a big lake; the king and all of his subjects died except one old widow.
D. XII
E. Collections of Annals Section 61-62, 1969

A. 534, 7^{th} lunar month, 6^{th} morning
B. Yonok-Nagabandhu, 20°15'N, 100°05'E
C. Four pagodas were toppled; thunder.
D. VIII
E. Collections of Annals Section 61-62, 1969

A. 1362, 12^{th} lunar month, 22^{nd} Wednesday
B. Sukhothai, 17°N, 99°55'E
C. Earth trembled greatly in all directions
D. VI
E. Collections of Stone Inscriptions, 1972

A. 1366, 11^{th} lunar month, 23^{th} Wednesday
B. Sukhothai, 17°N, 99°55'E

C. Earthquakes occurred.
D. V
E. Collections of Stone Inscriptions, 1972

A. 1482, almost dawn
B. Chiang Mai, $18^{o}47'$N, 99^{o}E
C. The earth trembled greatly and made loud noises.
D. VI
E. Chotisukharat, 1973

A. 1505
B. Ayuthaya, $14^{o}21'$N, $100^{o}34'$E
C. Earthquakes occurred in that year.
D. VI
E. Pan Chantnumas, 1964

A. 1527
B. Ayuthaya, $14^{o}21'$N, $100^{o}34'$E
C. Earthquakes occurred.

A. 1545
B. Chiang Mai, $18^{o}47'$N, 99^{o}E
C. Great pagoda (whose total height was 86 metres) was toppled and only 60 odd metres were left standing.
D. VII
E. Srisavasti, 1961

A. 1546, 6^{th} lunar month
B. Ayuthaya, $14^{o}21'$N, $100^{o}34'$E
C. Earthquake occurred in that year.
E. Luang Prasert, 1967

A. 1568, 7^{th} lunar month, 9^{th} Tuesday
B. Rangoon, $16^{o}47'$N, $96^{o}10'$E
C. Earthquake occurred; the Rangoon Pagoda was toppled down to the middle part.
D. VIII
E. Collections of Annals Section I, 1963

A. 1584, 5^{th} lunar month, 24^{th} Wednesday
B. Ayuthaya, $14^{o}21'$N, $100^{o}31'$E
C. Earthquake occurred on that day.
D. VI
E. Luang Prasert, 1967

A. 1588, 12^{th} lunar month, 23^{rd} Monday
B. Ayuthaya, $14^{o}21'$N, $100^{o}31'$E
C. Earthquake occurred.
D. VI
E. Luang Prasert, 1967

A. 1629, 3^{rd} lunar month, 21^{st} Saturday, 7:00 p.m.
B. Rangoon, Burma, $16^{o}47'$N, $96^{o}10'$E
C. Earthquake occurred, the multitiered umbrella on top of the Rangoon Pagoda was toppled toward the east.

D. VII
E. Collections of Annals Section I, 1963

A. 1661, 3rd lunar month, 10th Monday, 4:00 p.m.
B. Rangoon, Burma, 16°47'N, 96°10'E
C. Earthquake occurred, the multitiered umbrella on top of the Rangoon Pagoda was toppled toward the southwest.
D. VII
E. Collections of Annals Section I, 1963

A. 1664, 2nd lunar month, 14th Monday
B. Rangoon, Burma, 16°47'N, 96°10'E
C. Earthquake occurred, the 2.5 metres upper portion of the Rangoon Pagoda was toppled toward the southwest and the pagoda structure was seriously damaged.
D. IX
E. Collections of Annals Section I, 1963

A. 1685, Night
B. Ayuthaya, 14°21'N, 100°31'E
C. Earthquake occurred at night.
D. V
E. Collections of Annals, Royal Autograph Edition, Vol. 2, 1973

A. 1689, 10th lunar month
B. Ayuthaya, 14°21'N, 100°31'E
C. Earthquake occurred that night.
D. VI
E. Pan Chantnumas, 1964

A. 1715, 7th lunar month, 6th almost dawn
B. Chiang Saen, 20°16'N, 100°05'E
C. Earthquakes occurred; the temples and gapoda in four districts were destroyed; the earth trembled throughout that month before quietening down.
D. VII
E. Phraya Prachakich Karachakr, 1972

A. 1715, 9th lunar month, 19th day
B. Chiang Mai, 18°47'N, 99°E
C. Large-scale earthquake occurred once again.
D. VI
E. Phraya Prachakich Karachakr, 1972

A. 1739, 5th lunar month, 4th Thursday morning
B. Hanthawadi (Pegu), Burma, 17°18'N, 97°45'E
C. Earth trembled for a long time; the multi-tiered umbrella on top of the Mutao Pagoda in the town of Hanthawadi (Pegu) was toppled.
D. IX
E. Collections of Annals Section I, 1963

A. 1757, 9th lunar month, 20th Friday
B. Hanthawadi (Pegu), Burma, 17°18'N, 97°45'E
C. Earthquake occurred, the multi-tiered umbrella and the top

of the Mutao Pagoda in the town of Hanthawadi were toppled; only the bell-shaped portion remained.
D. IX
E. Collections of Annals Section I, 1963

A. 1761, 4th lunar month
B. Burma
C. Earth trembled and made loud noises in all directions.
D. IX
E. Collections of Annals Section 13-14, 1964

A. 1768, 1st lunar month (= December), 19th Tuesday, 7.00 a.m.
B. Bangkok, 13°45'N, 100°30'E
C. Earth trembled for longer than 2 hours.
D. VI
E. Collections of Annals, Royal Autograph Edition, Vol. 2, 1973

A. 1769, 5th lunar month (= April), 2nd Saturday, midnight
B. Bangkok, 13°45'N, 100°30'E
C. Earthquake occurred again but was less severe than the previous one.
D. V

A. 1774, 2nd lunar month, 12th Friday, 3.00 a.m.
B. Chiang Mai, 18°47'N, 99°E
C. Earthquake occurred
D. V
E. Collections of Annals, Royal Autograph Edition, Vol. 2, 1973

A. 1799, 8th lunar month (= 16 July), 14th Tuesday, evening
B. Bangkok, 13°45'N, 100°31'E
C. Earthquake occurred.
D. V
E. Collections of Annals Section 13-14, 1964

A. 1799, 12th lunar month (= 7 November), 10th Thursday, 8:00 p.m.
B. Bangkok, 13°45'N, 100°31'E
C. Earthquake occurred.
D. V
E. Collections of Annals Section 13-14, 1964

A. 1826, 11th lunar month, 14th-15th, after midnight
B. Vientiane
C. Earthquake occurred at Vientiane, dishes and crockery clinked and clashed. Cracked ground (about 2 metres long, 50 cm. wide) found near the city wall.
D. VII
E. Collection of Annals, 1961, King Rama III, Vol. 2, Chao Phraya Dhipakaravongs

A. 1832, 3rd lunar month (= 24 February), 7th Sunday, after 7:00 p.m.
B. Bangkok, 13°45'N, 100°31'E
C. Earthquake occurred.

D. V
E. Collections of Annals Section 8, 1964

A. 1833, 12th lunar month (= 22 October), 10th Tuesday, after midnight
B. Bangkok, $13^{o}45'N$, $100^{o}30'N$
C. Earthquake occurred.
D. V
E. Collection of Annals Section 8, 1964

A. 1833, 1st lunar month (= 24 November), 13th Sunday, 8:00 p.m.
B. Bangkok, $13^{o}45'N$, $100^{o}30'E$
C. Earthquake occurred, more intense than the previous one.
D. VI
E. Collections of Annals Section 8, 1964 and Chao Phraya Dhipakaravongs, 1969

A. 1835, March 26th
B. Bangkok, $13^{o}45'N$, $100^{o}30'E$
C. Earthquake occurred once again.
D. VI
E. Chao Phraya Dhipakaravongs, 1969

A. 1835, 10th lunar month (= 26 August), 3rd Wednesday, after 9:00 p.m.
B. Bangkok, $13^{o}45'N$, $100^{o}30'E$
C. Water in the river swayed and spilled.
D. V
E. Collections of Annals, National Library Edition, 1963

A. 1839
B. Burma
C. 3 quakes occurred, water in the river swayed.
D. V
E. Collections of Annals Section 13-14, 1964

A. 1839, 5th lunar month (= 16 March), 7th Friday, after 3:00 a.m.
B. Bangkok, $13^{o}45'N$, $100^{o}30'E$
C. General panic among the people; those who lived in houses felt as though the houses would fall apart; those who lived in house-boats were tossed about as the oscillating water sloshed back and forth from one bank to another. This quake was also felt in Burma where a rift in the ground surface was reported. In Thailand the quake died out west of the Bang Pakong River. It was not felt no the eastern side of the river either in Panas Nikom District or in Cholburi Province.

A. 1841, October 14th, 9:00 a.m.
B. Bangkok, $13^{o}45'N$, $100^{o}30'E$
C. Earthquake occurred.
D. V
E. Chao Phraya Dhipakaravongs, 1969

A. 1860, 4th lunar month (= 16 February), 7th Saturday, 7:16 p.m.

B. Bangkok, $13^{o}45'N$, $100^{o}30'E$
C. Lamp swayed.
D. V
E. Collections of Annals, National Library Edition, 1963

A. 1874, 3^{rd} lunar month (= March), 3^{rd} Tuesday
B. Bangkok, $13^{o}45'N$, $100^{o}30'E$
C. Earthquake occurred.
D. V
E. Collections of Annals, National Library Edition, 1963

A. 1886, 3^{rd} lunar month (= 6 February), 14^{th} Sunday, 5:32 p.m.
B. Bangkok, $13^{o}45'N$, $100^{o}30'E$
C. Earthquake occurred, roof shaken 4-5 times, chandeliers swayed.
D. VI
E. Collections of Annals, National Library Edition, 1963

A. 1886, 12^{th} lunar month (= 22 November), 27^{th} Monday, 11.06 a.m.
B. Bangkok, $13^{o}45'N$, $100^{o}30'E$
C. Earthquake swayed houses 6-7 times from east to west.
D. VI
E. Collections of Annals, National Library Edition, 1963

A. 1887, 12^{th} lunar month (= 30 November), 15^{th} Monday, 1.35 p.m.
B. Bangkok, $13^{o}45'N$, $100^{o}30'E$
C. Earthquake occurred.
D. V
E. Collections of Annals, National Library Edition, 1963

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
LEE	1446						23.6 N	102.9 E				5. LEE		VII		
LEE	**1500**	**01**	**04**				**24.9 N**	**103.1 E**				**6.75LEE**		**IX**		
LEE	1507	11	04				24.5 N	102.5 E				5.25LEE		VI		
LEE	1511	05	12				25.0 N	101.5 E				5.5 LEE		VII		
LEE	**1512**	**1C**	**08**				**25.0 N**	**098.7 E**				**6.5 LEE**		**VIII**		
LEE	1517	07	12				24.1 N	102.6 E				5.5 LEE		VII		
LEE	1520	08	18				24.5 N	100.9 E				5.75LEE		VII		
LEE	1539	08	08				23.6 N	102.8 E				5.5 LEE		VII		
LEE	1560						24.1 N	102.7 E				5.5 LEE		VII		
LEE	1560	04					24.9 N	103.2 E				5.5 LEE		VII		
LEE	**1571**	**09**	**09**				**24.1 N**	**102.7 E**				**6. LEE**		**VIII**		
LEE	**1577**	**03**	**13**				**25.0 N**	**098.6 E**				**6.5 LEE**		**VIII**		
LEE	1588	01					25.0 N	098.6 E				5.5 LEE		VII		
LEE	**1588**	**08**	**09**				**24.0 N**	**102.8 E**				**6. LEE**		**VIII**		
LEE	**1606**	**11**	**30**				**23.6 N**	**102.8 E**				**6.5 LEE**		**IX**		
LEE	1611	04					24.0 N	097.8 E				4.75LEE		VI		
LEE	1615	08	24				25.0 N	101.5 E				5.5 LEE		VII		
LEE	1618						19.7 N	110.0 E				5. LEE		VI		
LEE	1655	04	17				24.4 N	102.5 E				5. LEE		VII		
LEE	**1680**	**09**	**09**				**25.0 N**	**101.5 E**				**6.5 LEE**		**IX**		
LEE	1692	09	12				24.5 N	103.8 E				5.5 LEE		VII		
LEE	1722	02					24.1 N	102.5 E				5. LEE		VI		
LEE	1732	11					23.7 N	102.5 E				5. LEE		VI		
LEE	1740	09					24.0 N	102.8 E				5. LEE		VII		
LEE	1750	09	15				24.7 N	102.9 E				5.5 LEE		VII		

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
LEE	1751						23.7 N	102.4 E				5. LEE		VI		
LEE	1751	03					23.8 N	106.9 E				4.75LEE		VI		
LEE	1754	04					25.0 N	101.5 E				5. LEE		VI		
LEE	**1755**	**01**	**27**				**24.7 N**	**102.2 E**				**6.5 LEE**		**VIII**		
LEE	**1755**	**02**	**08**				**23.8 N**	**102.7 E**				**6. LEE**		**VIII**		
LEE	1757	06	13				25.0 N	098.5 E				5.25LEE		VII		
LEE	**1761**	**05**	**23**				**24.4 N**	**102.5 E**				**6. LEE**		**VIII**		
LEE	**1761**	**11**	**03**				**24.4 N**	**102.5 E**				**6. LEE**		**VII**		
LEE	**1763**	**12**	**30**				**24.3 N**	**102.8 E**				**6.5 LEE**		**VIII**		
LEE	1785						25.0 N	098.5 E				5. LEE		VI		
LEE	1786	07					25.0 N	098.5 E				5. LEE		VI		
LEE	**1789**	**06**	**07**				**24.2 N**	**102.8 E**				**6.5 LEE**		**IX**		
LEE	**1799**	**08**	**27**				**23.8 N**	**102.4 E**				**6.5 LEE**		**IX**		
LEE	**1814**	**11**	**24**				**23.7 N**	**102.5 E**				**6. LEE**		**VIII**		
LEE	1834	04	11				24.9 N	103.0 E				5. LEE		VI		
LEE	1861	07					24.3 N	102.9 E				4.75LEE		VI		
LEE	1870	07	05				24.0 N	102.0 E				5. LEE		VII		
LEE	1879	11	23				24.6 N	098.7 E				5. LEE		VI		
LEE	1879	12					24.4 N	103.4 E				5.5 LEE		VII		
LEE	1882	01					24.4 N	103.4 E				5.75LEE		VII		
LEE	**1884**	**11**	**14**				**23.0 N**	**101.1 E**				**6.5 LEE**		**VIII**		
LEE	**1887**	**12**	**16**				**23.7 N**	**102.5 E**				**6.75LEE**		**IX**		
LEE	1893	11	26				22.7 N	107.8 E				5. LEE		VI		
LEE	1899	11					23.6 N	109.6 E				5. LEE		VI		
LEE	**1909**	**05**	**11**				**24.4 N**	**103.0 E**				**6.5 LEE**		**VIII**		

Appendix B Earthquake data of Burma, Thailand and Indochina

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH	MAGNITUDES				INT		
											(KM)	BODY	SURF	OTHER	LOCAL	MAX	S.D.	OBS.
G-R	1912	05	23	02	24	06.0	21.0	N	097.0	E	025A			7.9 PAS				
G-R	1912	09	11	00	47	54.0	05.0	N	096.5	E	100			6.5 PAS				
LEE	1913	12	21	15	37	35	24.2	N	102.5	E				6.5 LEE		IX		
* 1 LEE	1914	03	28	10	44	48	25.0	N	099.0	E	100			6.9 LEE				
* 2 G-R	1914	03	28	10	44	48.0	25.0	N	099.0	E	100			6.9 PAS				
* 3 ISS	1914	03	28	10	44	31	23.0	N	095.0	E								
* 1 G-R	1914	10	11	16	17	06.0	12.0	N	094.0	E	080			7.20PAS				
* 2 ISS	1914	10	11	16	17	12	14.7	N	093.2	E								
* 1 G-R	1915	08	12	09	17	06.0	09.0	N	092.0	E				6.25PAS				
* 2 ISS	1915	08	12	09	16	43	07.0	N	094.0	E								
ISS	1916	10	21	19	25	23	11.0	N	094.5	E								
ISS	1917	01	20	23	48	44	12.0	N	095.0	E								
ISS	1917	04	12	02	54	35	18.0	N	097.0	E								
ISS	1918	01	18	10	35	05	12.0	N	095.0	E								
ISS	1918	03	22	05	51	50	19.8	N	103.3	E								
G-R	1918	07	08	10	22	07.0	24.5	N	091.0	E				7.6 PAS				
ISS	1918	08	16	07	22	20	09.0	N	110.0	E								
ISS	1918	09	07	23	31	51	12.0	N	095.0	E								
ISS	1918	12	16	03	03	20	12.0	N	095.0	E								
ISS	1919	09	08	04	08	00	18.0	N	097.0	E								
ISS	1919	11	16	03	05	33	15.5	N	109.0	E								
ISS	1919	12	09	20	23	15	19.8	N	103.3	E								
ISS	1920	02	26	01	26	00	05.0	N	110.0	E	350							
ISS	1920	05	27	05	49	12	05.0	N	110.0	E								
ISS	1920	05	27	05	49	30	19.0	N	109.0	E								
ISS	1920	08	15	06	59	08	22.2	N	093.2	E								
ISS	1921	03	05	06	24	08	07.0	N	094.0	E								

* Indicates a possible duplicate

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISS	1921	03	30	10	26	30	22.2 N	093.2 E								
ISS	1921	09	12	05	09	48	18.0 N	097.0 E								
ISS	1922	05	02	11	10	45	20.0 N	098.0 E								
* 1 ISS	1922	10	17	06	37	54	12.0 N	095.0 E								
* 2 G-R	1922	10	17	06	37	59.0	12.5 N	096.0 E				6.25PAS				
ISS	1922	10	17	09	56	00	12.0 N	095.0 E								
ISS	1922	10	17	17	46	15	12.0 N	095.0 E								
ISS	1922	10	17	21	14	30	12.0 N	095.0 E								
ISS	1922	12	24	00	06	26	21.0 N	097.0 E								
* 1 ISS	1923	06	22	06	44	30	22.7 N	099.0 E								
* 2 G-R	1923	06	22	06	44	33.0	22.75 N	098.75 E				7.3 PAS				
ISS	1923	06	22	12	06	04	22.7 N	099.0 E								
* 1 ISS	1923	07	01	07	54	55	22.0 N	100.5 E								
* 2 LEE	1923	07	01	07	54	55	23.0 N	101.0 E				6.5 LEE		VIII		
ISS	1923	08	10	15	58	06	22.6 N	093.4 E								
ISS	1924	01	24	18	34	42	07.0 N	094.0 E								
ISS	1924	01	30	00	05	24	25.0 N	093.0 E								
ISS	1924	09	02	02	03	00	23.0 N	095.0 E								
ISS	1924	12	26	23	40	30	14.0 N	109.0 E								
ISS	1925	03	16	14	42	06	25.0 N	100.5 E								
* 1 ISS	1925	03	16	23	50	26	25.0 N	100.5 E								
* 2 LEE	1925	03	16	23	50	26	25.0 N	100.5 E				6.25LEE				
ISS	1925	04	14	01	34	10	12.0 N	095.0 E								
* 1 ISS	1925	05	13	23	54	24	10.5 N	092.5 E								
* 2 G-R	1925	05	13	23	54	34.0	11.0 N	092.0 E				6.0 PAS				
* 1 ISS	1925	06	28	13	41	35	10.2 N	092.8 E								
* 2 G-R	1925	06	28	13	41	45.0	11.0 N	093.0 E	060			6.5 PAS				

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISS	1925	12	22	05	05	25	20.0	N	101.5	E								
* 2 G-R	1925	12	22	05	05	30.0	21.0	N	101.5	E				6.75PAS				
ISS	1925	12	23	23	04	12	20.0	N	101.5	E								
ISS	1926	03	29	15	52	55	20.0	N	101.5	E								
* 1 ISS	1926	05	29	22	37	25	15.5	N	092.5	E								
* 2 G-R	1926	05	29	22	37	32.0	15.0	N	092.0	E				5.6 PAS				
ISS	1926	07	06	21	20	30	12.7	N	094.5	E								
ISS	1926	07	12	22	12	30	15.5	N	092.5	E								
ISS	1926	08	15	09	53	45	14.0	N	109.0	E								
ISS	1926	08	18	23	58	48	24.5	N	094.5	E								
ISS	1926	09	08	15	49	30	23.0	N	095.0	E								
ISS	1926	09	11	17	01	30	20.8	N	106.6	E								
ISS	1926	10	23	14	30	18	25.0	N	093.0	E								
ISS	1926	11	21	11	14	45	23.0	N	097.0	E								
ISS	1926	11	23	20	37	08	25.0	N	108.5	E								
G-R	1927	03	15	16	56	32.0	24.5	N	095.0	E	130			6.5 PAS				
ISS	1927	04	28	02	04	42	15.5	N	092.5	E								
ISS	1927	05	17	06	11	40	08.0	N	094.0	E								
ISS	1927	05	20	10	51	00	24.5	N	094.5	E								
ISS	1927	06	16	02	40	12	06.0	N	099.5	E								
ISS	1927	07	20	19	06	00	22.7	N	099.0	E								
ISS	1927	08	25	22	56	38	22.0	N	090.0	E								
ISS	1928	05	19	03	28	36	13.0	N	093.0	E								
G-R	1928	05	19	03	28	46.0	13.5	N	091.5	E	060			6.25PAS				
ISS	1928	07	27	15	22	34	07.0	N	094.0	E								
G-R	1928	07	27	15	23	04.0	06.0	N	095.5	E	100			6.0 PAS				

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISS	1928	10	12	07	26	09	23.0 N	095.0 E								
ISS	1929	02	09	01	55	40	23.5 N	102.5 E								
* 1 ISS	1929	03	22	03	03	54	25.0 N	102.0 E								
* 2 LEE	1929	03	22	03	04	04	24.0 N	103.0 E				6.25LEE				
* 3 G-R	1929	03	22	03	04	04.0	24.0 N	103.0 E				5.6 PAS				
ISS	1929	03	25	14	54	24	05.5 N	093.0 E								
ISS	1929	04	30	18	48	36	12.7 N	094.5 E								
ISS	1929	06	08	06	10	40	05.5 N	093.0 E								
* 1 ISS	1929	08	01	05	01	48	12.0 N	095.5 E								
* 2 G-R	1929	08	01	05	01	48.0	10.0 N	093.0 E				6.5 PAS				
ISS	1929	08	08	12	57	13	21.0 N	097.0 E								
ISS	1929	12	15	19	54	28	18.0 N	097.0 E								
* 1 G-R	1930	05	05	13	45	57.0	17.0 N	096.5 E				7.3 PAS				
* 2 ISS	1930	05	05	13	45	58	17.3 N	096.5 E								
ISS	1930	05	14	19	48	22	25.0 N	100.5 E								
ISS	1930	05	16	02	16	00	20.0 N	101.5 E								
ISS	1930	07	11	07	06	34	25.0 N	093.5 E								
ISS	1930	07	17	14	34	44	08.0 N	094.0 E								
ISS	1930	09	13	17	58	58	23.0 N	096.0 E								
G-R	1930	09	22	14	19	11.0	25.0 N	094.0 E				6.25PAS				
ISS	1930	09	30	13	05	00	09.0 N	094.0 E								
ISS	1930	11	04	15	38	02	24.3 N	097.9 E								
ISS	1930	12	03	15	42	14	15.0 N	097.0 E								
ISS	1930	12	03	16	36	20	17.3 N	096.5 E								
* 1 G-R	1930	12	03	18	51	44.0	18.0 N	096.5 E				7.3 PAS				
* 2 ISS	1930	12	03	18	51	51	18.2 N	096.4 E								
ISS	1930	12	04	06	18	39	23.0 N	097.0 E								

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISS	1930	12	09	00	27	30	25.0 N	100.5 E								
ISS	1930	12	12	02	53	12	25.0 N	100.5 E								
ISS	1930	12	13	16	28	27	08.0 N	094.0 E								
ISS	1931	01	20	15	26	32	05.0 N	099.0 E								
ISS	1931	01	31	20	42	50	25.0 N	100.5 E								
ISS	1931	02	13	22	17	30	11.5 N	096.0 E								
ISS	1931	02	28	22	25	51	12.0 N	093.5 E								
ISS	1931	03	15	15	15	05	24.3 N	097.9 E								
ISS	1931	07	29	17	09	45	24.0 N	097.0 E								
* 1 G-R	1931	08	08	04	07	06.0	09.5 N	093.0 E				5.6 PAS				
* 2 ISS	1931	08	08	04	07	08	08.0 N	094.0 E								
ISS	1931	08	10	10	21	40	18.0 N	097.0 E								
* 1 G-R	1931	09	06	05	38	07.0	18.5 N	096.0 E				5.6 PAS				
* 2 ISS	1931	09	06	05	38	12	18.2 N	096.4 E								
* 1 G-R	1931	11	30	17	01	36.0	15.5 N	092.5 E				5.6 PAS				
* 2 ISS	1931	11	30	17	01	41	15.5 N	092.5 E								
G-R	1932	03	24	16	08	36.0	25.0 N	090.0 E				5.6 PAS				
G-R	1932	03	27	08	44	40.0	24.5 N	092.0 E				5.6 PAS				
ISS	1932	08	14	07	10	37	22.0 N	095.5 E								
* 1 G-R	1932	09	20	15	43	25.0	08.5 N	093.5 E				5.6 PAS				
* 2 ISS	1932	09	20	15	43	32	08.5 N	093.6 E								
* 1 G-R	1932	12	11	04	25	55.0	09.0 N	093.5 E				6.0 PAS				
* 2 ISS	1932	12	11	04	26	01	08.8 N	093.9 E								
ISS	1933	05	12	16	10	43	24.3 N	097.9 E								
* 1 G-R	1933	05	16	01	12	28.0	07.0 N	096.5 E				6.5 PAS				
* 2 ISS	1933	05	16	01	12	31	06.6 N	096.6 E								
* 1 G-R	1933	07	03	15	09	05.0	19.0 N	097.0 E				5.6 PAS				
* 2 ISS	1933	07	03	15	09	10	19.0 N	096.0 E								

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 G-R	1933	11	19	09	08	29.0	25.0 N	098.0 E				5.6 PAS				
* 2 ISS	1933	11	19	09	08	33	24.0 N	097.0 E								
* 1 G-R	1934	01	12	13	31	49.0	23.75 N	102.5 E				6.0 PAS				
* 2 LEE	1934	01	12	13	31	52	23.7 N	102.7 E				6. LEE		VIII		
* 3 ISS	1934	01	12	13	31	57	23.5 N	102.5 E								
* 1 G-R	1934	02	12	11	30	50.0	20.0 N	101.25 E				6.0 PAS				
* 2 ISS	1934	02	12	11	30	58	20.0 N	101.5 E								
ISS	1934	03	03	00	34	05	25.0 N	102.0 E								
ISS	1934	05	22	01	21	47	08.0 N	094.0 E								
G-R	1934	06	02	05	54	29.0	24.5 N	095.0 E	130			6.5 PAS				
* 1 G-R	1935	04	11	01	17	55.0	13.25 N	095.5 E				6.0 PAS				
* 2 ISS	1935	04	11	01	18	01	13.0 N	095.8 E								
G-R	1935	04	23	16	45	41.0	24.0 N	094.75 E	110			6.25PAS				
* 1 G-R	1935	05	13	19	53	33.0	19.5 N	101.0 E				6.5 PAS				
* 2 ISS	1935	05	13	19	53	41	19.2 N	100.9 E								
ISS	1935	08	03	01	10	09	05.1 N	096.2 E								
* 1 G-R	1935	11	01	16	22	01.0	20.5 N	103.5 E				6.75PAS				
* 2 ISS	1935	11	01	16	22	11	21.2 N	103.2 E								
* 1 G-R	1935	11	25	10	03	02.0	06.0 N	094.0 E				6.50PAS				
* 2 ISS	1935	11	25	10	03	05	05.5 N	093.7 E								
ISS	1935	11	26	18	33	24	05.5 N	093.7 E								
* 1 G-R	1936	02	21	06	20	40.0	23.0 N	096.0 E				5.6 PAS				
* 2 ISS	1936	02	21	06	20	47	24.0 N	096.3 E								
ISS	1936	03	11	10	58	40	20.0 N	101.5 E								
LEE	1936	04	01				22.5 N	109.4 E				6.75LEE		IX		
* 1 G-R	1936	04	19	09	04	0.0	10.5 N	093.0 E				6.5 PAS				
* 2 ISS	1936	04	19	09	04	05	10.5 N	092.5 E								
ISS	1936	07	04	08	57	14	06.0 N	097.5 E								

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	---MAGNITUDES--- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 G-R	1936	08	23	21	12	13.0	05.0 N	095.0 E	040			7.3 PAS				
* 2 ISS	1936	08	23	21	12	17	06.1 N	094.7 E								
ISS	1936	08	27	03	04	51	06.1 N	094.7 E								
ISS	1936	11	19	21	44	19	13.5 N	090.8 E								
ISS	1937	03	12	09	25	14	06.5 N	094.5 E								
ISS	1937	07	12	00	02	31	05.6 N	095.7 E								
* 1 ISS	1937	08	04	23	35	18	06.0 N	094.5 E								
* 2 G-R	1937	08	04	23	35	22.0	06.0 N	095.0 E	120			6.0 PAS				
ISS	1937	09	09	23	37	27	24.9 N	094.7 E								
* 1 ISS	1937	09	21	07	46	47	20.0 N	102.0 E								
* 2 G-R	1937	09	21	07	46	47.0	20.5 N	101.75 E				6.0 PAS				
* 3 CGS	1937	09	21	07	46	48	21.0 N	102.0 E								
* 1 ISS	1937	11	30	00	40	27	05.0 N	091.0 E								
* 2 G-R	1937	11	30	00	40	27.0	05.5 N	090.0 E				6.5 PAS				
ISS	1937	12	24	01	29	48	16.3 N	098.6 E								
ISS	1938	03	01	04	24	30	11.0 N	092.0 E								
* 1 ISS	1938	04	14	01	16	30	22.5 N	094.5 E	096							
* 2 G-R	1938	04	14	01	16	35.0	23.5 N	095.0 E	130			6.75PAS				
* 1 ISS	1938	05	06	03	40	57	24.9 N	094.7 E								
* 2 G-R	1938	05	06	03	41	08.0	24.5 N	095.0 E	100			5.75PAS				
ISS	1938	05	14	12	03	03	21.5 N	099.5 E								
LEE	1938	05	14	12	03	03	23.0 N	099.8 E				6. LEE				
* 1 G-R	1938	08	16	04	27	50.0	23.5 N	094.25 E				7.2 PAS				
* 2 ISS	1938	08	16	04	27	55	22.5 N	094.5 E	060							
* 1 ISS	1938	10	07	06	11	33	09.5 N	093.7 E								
* 2 CGS	1938	10	07	06	11	36.0	10.3 N	095.0 E								
ISS	1938	10	07	10	53	40	09.5 N	093.7 E								
* 1 ISS	1938	10	07	16	23	42	09.5 N	093.7 E								
* 2 G-R	1938	10	07	16	23	45.0	09.5 N	094.0 E	120			6.25PAS				
* 3 CGS	1938	10	07	16	23	48	10.0 N	094.5 E								

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH	--------MAGNITUDES--------				INT		
									(KM)	BODY	SURF	OTHER	LOCAL	MAX	S.D.	OBS.
ISS	1938	10	09	20	39	09	09.5 N	093.7 E								
ISS	1938	10	26	03	27	36	25.0 N	102.0 E								
ISS	1939	01	10	02	50	40	06.5 N	094.5 E								
ISS	1939	01	10	10	07	03	06.5 N	094.5 E								
* 1 ISS	1939	01	29	15	25	41	05.6 N	095.7 E								
* 2 G-R	1939	01	29	15	25	50.0	05.0 N	094.5 E				5.6 PAS				
* 1 ISS	1939	05	27	03	45	37	24.3 N	094.1 E	070					VII		
* 2 G-R	1939	05	27	03	45	44.0	24.5 N	094.0 E	075			6.75PAS				
* 1 G-R	1939	06	19	21	56	40.0	23.5 N	094.0 E				5.6 PAS				
* 2 ISS	1939	06	19	21	56	47	23.3 N	093.4 E								
ISS	1939	07	18	11	23	58	06.5 N	093.5 E								
G-R	1939	07	18	11	24	09.0	08.0 N	093.0 E	060			5.6 PAS				
* 1 ISS	1939	09	14	09	00	58	11.5 N	095.0 E								
* 2 G-R	1939	09	14	09	01	06.0	12.0 N	095.0 E	100			6.0 PAS				
* 3 CGS	1939	09	14	09	01	06	13.0 N	095.0 E								
* 1 ISS	1939	09	25	15	31	01	08.7 N	093.9 E								
* 2 G-R	1939	09	25	15	31	03.0	09.0 N	094.0 E				5.6 PAS				
* 1 G-R	1940	04	06	13	42	52.0	24.5 N	103.0 E				6.0 PAS				
* 2 ISS	1940	04	06	13	42	58	23.8 N	102.6 E								
* 3 LEE	1940	04	06	13	43	02	23.8 N	102.4 E				6. LEE		VIII		
* 1 ISS	1940	05	11	21	00	19	24.3 N	094.1 E								
* 2 G-R	1940	05	11	21	00	20.0	23.75 N	094.25 E	080			6.5 PAS				
ISS	1940	07	02	20	58	24	11.5 N	095.0 E								
ISS	1940	09	22	03	38	23	08.7 N	093.9 E								
* 1 ISS	1940	11	13	11	35	44	06.5 N	093.5 E								
* 2 G-R	1940	11	13	11	35	58.0	08.5 N	093.5 E				5.6 PAS				
* 1 ISS	1941	05	16	07	14	29	23.7 N	099.4 E								
* 2 LEE	1941	05	16	07	14	32	23.6 N	099.4 E				6.9 LEE				
* 3 G-R	1941	05	16	07	14	32.0	24.0 N	099.0 E				6.9 PAS				

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISS	1941	06	26	11	52	00	12.4 N	092.5 E								
* 2 G-R	1941	06	26	11	52	03.0	12.5 N	092.5 E				8.7 PAS				
* 3 CGS	1941	06	26	11	52	00	12.8 N	092.7 E								
ISS	1941	06	27	07	32	47	12.4 N	092.5 E								
ISS	1941	06	27	08	32	19	12.4 N	092.5 E								
ISS	1941	06	27	19	04	06	12.4 N	092.5 E								
CGS	1941	06	27	19	04	06.0	11.0 N	091.5 E								
ISS	1941	06	28	17	55	23	12.4 N	092.5 E								
ISS	1941	06	28	23	07	23	12.4 N	092.5 E								
ISS	1941	06	30	03	13	41	12.4 N	092.5 E								
ISS	1941	06	30	18	23	33	12.4 N	092.5 E								
ISS	1941	07	02	02	42	06	12.4 N	092.5 E								
ISS	1941	07	09	00	39	11	12.4 N	092.5 E								
* 1 G-R	1941	07	14	02	02	25.0	12.0 N	093.0 E				6.0 PAS				
* 2 ISS	1941	07	14	02	02	26	12.4 N	092.5 E								
ISS	1941	07	21	20	19	30	12.4 N	092.5 E								
* 1 G-R	1941	08	09	22	17	38.0	12.5 N	093.0 E				6.0 PAS				
* 2 ISS	1941	08	09	22	17	40	12.4 N	092.5 E								
* 1 ISS	1941	08	19	16	19	30	09.5 N	093.7 E								
* 2 G-R	1941	08	19	16	19	30.0	09.0 N	093.0 E				5.6 PAS				
ISS	1941	08	30	16	44	47	12.4 N	092.5 E								
ISS	1941	09	21	18	53	21	11.0 N	092.0 E								
ISS	1941	10	23	21	02	39	12.4 N	092.5 E								
ISS	1941	10	30				12.4 N	092.5 E								
* 1 ISS	1941	11	12	06	51	14	06.5 N	093.5 E								
* 2 G-R	1941	11	12	06	51	15.0	06.0 N	094.0 E	060			6.25PAS				

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH	--------MAGNITUDES--------				INT		
									(KM)	BODY	SURF	OTHER	LOCAL	MAX	S.D.	OBS.
* 1 ISS	1941	12	26	14	47	59	21.7 N	099.7 E								
* 2 G-R	1941	12	26	14	48	04.0	21.5 N	099.0 E				7.0 PAS				
* 3 LEE	1941	12	26	14	48	09	22.2 N	100.1 E				7. LEE				
ISS	1942	01	30	12	12	08	06.1 N	095.1 E	120							
* 1 ISS	1942	01	31	17	30	35	22.0 N	100.5 E								
* 2 LEE	1942	01	31	17	30	47	22.8 N	101.0 E				6.75LEE		VIII		
ISS	1942	02	21	21	46	52	24.0 N	090.3 E						VII		
CGS	1942	04	11	01	25	06	15.3 N	091.1 E								
ISS	1942	05	15	14	08	36	24.0 N	090.3 E						VI		
* 1 ISS	1942	05	24	03	26	28	05.3 N	096.9 E								
* 2 G-R	1942	05	24	03	26	30.0	05.0 N	096.5 E	060			6.75PAS				
ISS	1942	08	19	18	29	37	18.0 N	096.0 E								
ISS	1942	10	30	06	17	50	12.4 N	092.5 E								
ISS	1943	02	23	23	19	49	22.0 N	100.5 E								
ISS	1943	12	06	06	10	07	15.0 N	093.6 E								
ISS	1944	05	30	09	56	02	12.4 N	092.5 E								
* 1 CGS	1944	07	27	08	18	48.0	12.0 N	093.0 E								
* 2 ISS	1944	07	27	08	18	40	12.4 N	092.5 E								
ISS	1944	12	24	14	46	40	24.7 N	092.2 E								
ISS	1945	06	13	23	44	18	06.5 N	093.5 E								
ISS	1945	06	28	04	30	17	12.0 N	094.0 E								
G-R	1945	07	23	03	54	55.0	05.0 N	096.0 E				6.75PAS				
* 1 G-R	1945	08	08	09	53	40.0	11.0 N	092.5 E	050			6.75PAS				
* 2 CGS	1945	08	08	09	53	40	12.0 N	092.0 E								
* 3 ISS	1945	08	08	09	53	38	11.0 N	092.0 E								

Appendix B Earthquake data of Burma, Thailand and Indochina

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	--------MAGNITUDES-------- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISS	1946	01	26	06	36	56	24.0 N	098.5 E								
ISS	1946	02	05	19	34	47	19.5 N	095.0 E								
ISS	1946	03	31	11	30	00	23.0 N	096.0 E								
G-R	1946	09	12	15	17	15.0	23.5 N	096.0 E				7.5 PAS				
ISS	1946	09	12	15	17	17	23.9 N	096.2 E								
G-R	1946	09	12	15	20	20.0	23.5 N	096.0 E				7.75PAS				
ISS	1946	09	12	15	20	23	23.9 N	096.2 E								
ISS	1946	10	08	06	30	40	24.0 N	098.5 E								
ISS	1946	12	05	08	41	19	12.4 N	092.5 E								
ISS	1946	12	21	21	59	18	23.9 N	096.2 E								
ISS	1947	01	30	01	02	16	12.4 N	092.5 E								
ISS	1947	03	08	14	33	05	24.9 N	094.7 E								
ISS	1947	05	08	18	44	57	23.8 N	094.8 E								
ISS	1947	08	23	04	34	14	23.8 N	094.8 E								
ISS	1947	08	23	14	01	22	23.8 N	094.8 E								
ISS	1947	09	11	07	22	57	23.9 N	096.2 E								
ISS	1947	09	11	10	30	54	23.9 N	096.2 E								
ISS	1948	06	01	03	19	54	06.5 N	094.5 E								
ISS	1948	06	01	18	56	13	06.5 N	094.5 E								
ISS	1948	09	21	17	33	43	06.0 N	094.5 E								
ISS	1948	09	28	21	36	46	22.3 N	094.1 E	005							
CGS	1949	06	14	00	21	15	11.5 N	095.0 E								
CGS	1949	06	14	00	21	14	12.0 N	095.5 E								
CGS	1949	07	15	10	59	58	25.0 N	095.0 E								
CGS	1949	07	15	11	00	03	24.0 N	093.0 E								
CGS	1949	11	11	16	59	28	15.5 N	093.0 E								

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISS	1949	11	13	05	27	00	21.0 N	095.0 E								
* 1 LEE	1950	02	02	23	33	39	21.7 N	100.1 E				7. LEE				
* 2 G-R	1950	02	02	23	33	39.0	22.0 N	100.0 E				7.0 PAS				
G-R	1950	02	02	23	33	37	21.7 N	100.2 E								
* 1 ISS	1950	02	03	02	51	46	21.7 N	100.2 E				6.5 PAS				
* 2 LEE	1950	02	03	02	51	52	21.1 N	099.9 E				6.75LEE				
* 1 ISS	1950	02	03	13	03	52.0	21.7 N	100.2 E								
* 2 CGS	1950	02	03	13	03	56.0	22.5 N	099.5 E								
CGS	1950	02	15	14	36	45.0	11.0 N	093.5 E								
CGS	1950	02	15	14	36	59	11.2 N	093.3 E	010							
* 1 ISS	1950	04	05	09	26	13.0	11.0 N	092.0 E								
* 2 CGS	1950	04	05	09	26	14.0	11.0 N	091.5 E								
ISS	1950	08	15	21	42	14.0	25.0 N	093.0 E						VI		
ISS	1950	09	13	00	03	05.0	23.5 N	103.0 E								
ISS	1950	09	25	12	25	28.0	24.0 N	093.0 E								
ISS	1950	11	18	00	44	00.0	24.9 N	094.7 E								
* 1 ISS	1950	12	22	09	10	40.0	08.0 N	091.5 E								
* 2 CGS	1950	12	22	09	10	37.0	08.0 N	091.5 E								
ISS	1950	12	29	22	35	20.0	24.0 N	091.8 E								
ISS	1951	07	09	09	03	51.1	21.0 N	095.0 E								
ISS	1951	10	01	23	59	37.0	22.3 N	094.1 E								
ISS	1952	01	15	02	31	38.0	23.8 N	094.8 E	096					VI		
BCIS	1952	05	05	09	34	42	20.0 N	103.5 E								
ISS	1952	05	05	09	35	17.0	23.0 N	096.0 E								
* 1 ISS	1952	06	19	12	12	56.0	22.6 N	099.7 E				6.5 PAS				
* 2 LEE	1952	06	19	12	12	59	22.7 N	099.8 E				6.5 LEE		VIII		
* 1 ISS	1952	07	26	14	26	39.0	18.3 N	095.4 E	064							
* 2 BCIS	1952	07	26	14	26	35	20.0 N	095.0 E								

Appendix B Earthquake data of Burma, Thailand and Indochina

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	ISS	1952	08	12	06	31	03.0	06.0	N	094.5	E								
* 2	BCIS	1952	08	12	06	31	03	05.75	N	094.0	E								
* 1	ISS	1952	08	29	05	28	19.0	05.3	N	096.1	E	096			5.5 ROM		IV		
* 2	POO	1952	08	29	05	28	07	05.5	N	096.0	E				5.5 ROM				
* 3	BCIS	1952	08	29	05	28	17	06.0	N	095.75	E	100			5.5 ROM				
* 4	STR	1952	08	29	05	28	19	04.9	N	096.1	E								
* 5	DJA	1952	08	29	05	28	19	06.0	N	096.0	E								
* 6	MOS	1952	08	29	05	28	19	03.5	N	096.5	E								
	ISS	1952	11	28	05	34	17.0	25.0	N	095.2	E								
* 1	ISS	1952	12	08	15	09	25.0	21.7	N	100.2	E								
* 2	PDE	1952	12	08	15	09	30	23.0	N	99.5	E								
* 3	POO	1952	12	08	15	09	30	24.0	N	100.0	E								
	BCI	1953	01	03	21	31	15.0	16.717	N	093.083	E								
	BCI	1953	01	27	13	55	36.0	22.25	N	095.0	E								
	ISS	1953	05	03	23	57	05.0	25.0	N	102.9	E								
* 1	ISS	1953	06	06	01	10	18.0	11.0	N	093.0	E	064							
* 2	BCIS	1953	06	06	01	10	08	10.75	N	093.25	E								
	BCIS	1953	07	16	06	47	19	13.3	N	090.2	E	100							
	BCIS	1953	10	05	02	45	56.0	23.5	N	095.25	E								
* 1	CGS	1954	03	21	23	42	00.0	24.5	N	095.0	E	180			7.4 PAS				
* 2	ISS	1954	03	21	23	42	17	24.2	N	095.1	E								
* 1	ISS	1954	04	14	13	24	46.0	09.9	N	092.9	E								
* 2	SHL	1954	04	14	13	24	44.0	09.5	N	093.5	E								
* 3	BCIS	1954	04	14	13	24	46.0	10.0	N	093.25	E								
* 4	CGS	1954	04	14	13	24	47.0	10.0	N	093.0	E								
	BCI	1955	01	03	19	29	18.0	05.25	N	095.5	E								
	BCI	1955	01	14	07	44	42.0	24.9	N	094.0	E	100							
	SHL	1955	03	15	08	13	23.0	23.8	N	093.0	E								
* 1	CGS	1955	05	17	14	49	47.0	07.0	N	094.5	E				7.1 PAS				
* 2	ISS	1955	05	17	14	49	49	06.7	N	093.7	E								
* 3	BCI	1955	05	17	14	49	49	07.0	N	094.0	E				7.0 PAS				

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BCI	1955	05	26	13	15	18.0*	07.0	N	093.0	E								
* 1 ISS	1955	07	14	09	51	35.0	07.8	N	094.0	E				6.0 UPP				
* 2 SHL	1955	07	14	09	51	28	06.0	N	095.0	E				6.25KIR				
* 3 BCIS	1955	07	14	09	51	35	08.0	N	094.0	E				6.0 UPP				
* 4 CGS	1955	07	14	09	51	37	08.5	N	094.0	E								
* 1 ISS	1955	08	02	06	50	19.0	09.2	N	093.8	E								
* 2 SHL	1955	08	02	06	50	28	09.0	N	094.0	E								
* 3 BCIS	1955	08	02	06	50	20	09.5	N	094.25	E								
* 1 CGS	1955	08	21	16	04	01.0	24.0	N	096.5	E				5.0 SHL				
* 2 ISS	1955	08	21	16	04	04	23.9	N	095.8	E								
CGS	1955	09	08	04	45	26.0	25.0	N	095.0	E	150			5.68SHL				
* 1 CGS	1955	12	14	10	51	44.0	22.0	N	092.5	E				6.5 KIR				
* 2 BCIS	1955	12	14	10	51	46	21.8	N	092.5	E				6.25KIR				
* 3 QUE	1955	12	14	10	51	47	22.0	N	093.0	E				6.5 KIR				
* 4 ISS	1955	12	14	10	51	45	21.6	N	092.7	E								
CGS	1956	01	02	01	30	15.0	08.0	N	095.0	E								
* 1 ISS	1956	01	11	06	10	06.0	07.7	N	094.0	E				6.3 UPP				
* 2 SHL	1956	01	11	06	10	00	07.0	N	094.0	E				6.3 KIR				
* 3 CGS	1956	01	11	06	10	03	07.5	N	094.0	E								
* 4 BCIS	1956	01	11	06	10	06	08.0	N	094.25	E				6.3 UPP				
* 5 MOS	1956	01	11	06	10	10	09.5	N	096.0	E				6.0 MOS				
CGS	1956	01	21	17	35	34.0	23.0	N	094.0	E				6.1 KIR				
* 1 CGS	1956	02	11	05	38	38.0	05.0	N	094.5	E								
* 2 ISS	1956	02	11	05	38	39.0	04.9	N	094.5	E								
ISS	1956	02	29	20	51	19.0	23.4	N	094.2	E	033							
ISS	1956	02	29	21	25	59.0	23.4	N	094.2	E	033			6.0 UPP				
* 1 CGS	1956	03	03	10	13	44.0	23.5	N	094.5	E	060			5.0 MOS				
* 2 ISS	1956	03	03	10	13	48	23.1	N	094.2	E								
* 1 ISS	1956	03	18	08	17	52.0	05.4	N	093.8	E				5.5 MOS				
* 2 MOS	1956	03	18	08	17	54	05.0	N	094.0	E				5.5 MOS				
* 3 CGS	1956	03	18	08	17	57	06.0	N	093.0	E								

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	ISS	1956	06	12	03	12	26.0	24.8	N	090.9	E				5.25MOS				
	ISS	1956	07	12	15	01	26.0	22.62	N	093.95	E	064							
* 1	ISS	1956	07	16	15	07	11.0	22.24	N	095.73	E	039			7.0 PAS				
* 2	SHL	1956	07	16	15	07	08	21.8	N	096.3	E				6.5 SHL				
* 3	CGS	1956	07	16	15	07	18	22.0	N	095.5	E	100			7.0 PAS				
* 4	QUE	1956	07	16	15	07	12	22.6	N	095.6	E				7.0 PAS				
* 5	BCIS	1956	07	16	15	07	13	22.25	N	096.0	E	100			7.0 PAS				
* 6	MOS	1956	07	16	15	07	15	23.0	N	095.0	E				6.75MOS				
	CGS	1956	07	16	20	40	25.0	22.5	N	096.5	E	100							
	CGS	1956	08	07	00	29	53.0	22.5	N	093.5	E	150							
* 1	CGS	1956	09	17	28	19	07	05.5	N	095.0	E	150							
* 2	ISS	1956	09	17	28	18	52	04.12	N	095.19	E	058							
* 1	CGS	1956	09	19	23	47	44.0	23.5	N	094.5	E	150			6.13KIR				
* 2	ISS	1956	09	19	23	47	48	23.88	N	94.79	E								
* 1	CGS	1956	09	29	09	03	37.0	07.5	N	094.5	E				6.3 UPP				
* 2	ISS	1956	09	29	09	03	39	07.07	N	094.41	E								
* 3	BCIS	1956	09	29	09	03	39	07.0	N	094.5	E				6.3 UPP				
* 4	ISS	1956	09	29	09	03	39	07.07	N	094.41	E								
	CGS	1956	11	10	15	41	02.0	25.0	N	094.5	E	150							
* 1	CGS	1956	12	30	21	59	06.0	24.0	N	094.5	E				5.0 MOS				
* 2	ISS	1956	12	30	21	59	07	23.37	N	094.17	E								
	SHL	1956	12	31	21	59	13.0	23.0	N	094.0	E				5.2 SHL				
* 1	ISS	1957	01	10	04	14	44.0	06.03	N	095.28	E								
* 2	SHL	1957	01	10	04	14	35	05.0	N	096.0	E								
* 3	BCIS	1957	01	10	04	14	44	06.0	N	095.5	E								
* 4	CGS	1957	01	10	04	14	44	06.0	N	095.5	E								
* 1	CGS	1957	06	18	02	12	12.0	14.5	N	096.0	E								
* 2	ISS	1957	06	18	02	12	20	14.39	N	095.65	E	043							
* 3	CGS	1957	06	18	02	12	12	14.5	N	096.0	E								
* 4	MOS	1957	06	18	02	12	13	13.5	N	096.5	E				6.2 MOT				
* 5	ISS	1957	06	18	02	12	28	14.39	N	095.65	E	043							

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 CGS	1957	06	18	14	48	17.0	14.0 N	096.0 E				6.5 MAT				
* 2 ISS	1957	06	18	14	48	21	14.47 N	095.66 E								
* 3 MOS	1957	06	18	14	48	28	13.0 N	096.5 E				6.5 MAT				
* 1 CGS	1957	06	25	10	11	17.0	10.0 N	094.0 E								
* 2 MOS	1957	06	25	18	11	22	10.0 N	094.0 E								
* 1 CGS	1957	07	01	19	30	16.0	25.0 N	094.0 E								
* 2 ISS	1957	07	01	19	30	22	24.38 N	093.76 E	041							
BCI	1957	07	08	00	33	06.0	24.0 N	094.5 E								
BCI	1957	10	12	00	07	42.0	25.0 N	095.0 E								
SHL	1957	12	12	20	05	10.0	24.5 N	093.0 E								
BCI	1957	12	16	13	11	30.0	24.0 N	090.0 E								
* 1 CGS	1958	01	13	20	14	27.0	11.5 N	092.5 E								
* 2 ISS	1958	01	13	20	14	36	11.79 N	092.79 E	054							
* 3 MOS	1958	01	13	20	14	34	12.5 N	093.5 E				6.1 QUE				
* 4 ISS	1958	01	13	20	14	36	11.79 N	092.79 E	054							
* 1 CGS	1958	01	19	16	50	13.0	05.5 N	095.0 E								
* 2 BCIS	1958	01	19	16	50	18	06.75 N	095.0 E								
BCI	1958	01	20	02	17	40.0	23.0 N	098.0 E								
BCI	1958	01	22	21	42	06.0	13.5 N	090.0 E								
* 1 CGS	1958	02	09	09	31	03.0	25.0 N	090.5 E				5.0 SHL				
* 2 ISS	1958	02	09	09	31	09	24.93 N	090.86 E	036							
* 1 ISS	1958	02	12	18	17	09.0	05.96 N	095.68 E								
* 2 CGS	1958	02	12	18	17	09	06.5 N	095.5 E								
BCI	1958	02	25	14	56	29.0	06.0 N	096.0 E								
* 1 CGS	1958	03	17	21	07	24.0	08.0 N	093.5 E								
* 2 SHL	1958	03	17	21	07	25	07.0 N	094.0 E								
* 3 BCIS	1958	03	17	21	07	29	08.5 N	094.0 E								
CGS	1958	03	21	18	32	54.0	13.5 N	092.5 E								
ISS	1958	03	22	10	11	33.0	23.53 N	093.8 E	051					V		

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 CGS	1958	05	14	12	35	42.0	12.5 N	095.0 E								
* 2 ISS	1958	05	14	12	35	43	12.03 N	094.86 E								
BCIS	1958	05	15	06	45	24	15.0 N	093.0 E								
SHL	1958	05	17	16	42	40.0	12.5 N	095.0 E								
BCI	1958	05	22	05	35	18.0	07.0 N	095.0 E								
BCI	1958	05	28	00	17	42.0*	08.0 N	093.0 E								
CGS	1958	07	13	15	28	00.0	24.5 N	094.0 E								
* 1 CGS	1958	09	20	05	17	23.0	20.5 N	105.0 E								
* 2 BCIS	1958	09	20	05	17	20	21.0 N	105.5 E								
CGS	1958	10	16	11	52	30.0	23.0 N	094.5 E								
* 1 CGS	1958	11	08	19	36	48.0	11.5 N	093.0 E								
* 2 ISS	1958	11	08	19	36	50	11.37 N	092.33 E								
* 3 MOS	1958	11	08	19	36	54	11.5 N	093.0 E								
* 4 ISS	1958	11	08	19	36	50	11.37 N	092.33 E								
* 1 ISS	1958	11	13	16	16	25.0	08.74 N	093.3 E				5.25MAT				
* 2 SHL	1958	11	13	16	16	23	08.0 N	094.25 E								
* 3 CGS	1958	11	13	16	16	25	09.0 N	093.5 E								
* 1 CGS	1959	03	04	19	57	57.0	12.0 N	093.0 E	033							
* 2 ISS	1959	03	04	19	57	59	12.15 N	092.67 E								
BCI	1959	04	03	16	04	24.0	09.0 N	094.25 E								
* 1 CGS	1959	04	13	18	31	57.0	23.0 N	093.5 E								
* 2 ISS	1959	04	13	18	32	05	22.0 N	093.33 E								
ISS	1959	07	24	16	17	47.0	24.06 N	095.01 E	163							
BCI	1959	08	11	16	37	20.0	08.0 N	092.5 E								
SHL	1959	08	24	08	13	17.0	25.0 N	097.0 E								
CGS	1959	08	27	23	53	10.0	25.0 N	096.0 E				5.63MAT				
* 1 ISS	1959	11	02	13	15	37.0	21.51 N	092.38 E	030							
* 2 MOS	1959	11	02	13	15	34	21.5 N	092.5 E				5.4 MAT				
* 3 PEK	1959	11	02	13	15	35	21.5 N	092.0 E				5.4 PEK				

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 4 QUE	1959	11	02	13	15	36	22.0 N	093.0 E				5.4 MAT				
* 5 CGS	1959	11	02	13	15	48	22.0 N	092.5 E	100							
* 6 SHL	1959	11	02	13	15	48	22.0 N	092.0 E				5.4 PEK				
* 1 CGS	1959	12	02	07	43	55.0	21.5 N	094.5 E	150							
* 2 ISS	1959	12	02	07	43	57	21.54 N	094.48 E	133							
BCI	1959	12	03	14	00	24.0	25.0 N	094.0 E								
CGS	1960	01	06	18	45	08.0	23.5 N	095.0 E								
* 1 CGS	1960	01	07	08	15	21.0	06.5 N	094.0 E								
* 2 ISS	1960	01	07	08	15	04	06.0 N	094.0 E				5.9 KIR				
* 3 ISS	1960	01	07	08	15	26	06.5 N	094.0 E				5.9 UPP				
* 4 ISS	1960	01	07	08	15	24	06.5 N	094.7 E								
* 1 CGS	1960	01	07	23	17	18.0	06.5 N	094.5 E								
* 2 SHL	1960	01	07	23	17	05	06.0 N	094.0 E				6.0 KIR				
* 3 ISS	1960	01	07	23	17	23	06.67 N	094.68 E								
* 1 CGS	1960	01	11	03	10	14.0	16.0 N	096.5 E								
* 2 ISS	1960	01	11	03	10	15	16.1 N	095.99 E								
* 3 SHL	1960	01	11	03	10	08	16.0 N	098.0 E				5.8 UPP				
BCI	1960	01	12	21	44	10.0	16.25 N	095.75 E								
BCI	1960	01	14	02	41	24.0	05.0 N	096.5 E								
BCI	1960	01	21	20	45	00.0	05.0 N	095.0 E								
BCI	1960	02	14	12	51	18.0	12.5 N	092.5 E								
CGS	1960	02	29	08	34	30.0	23.5 N	094.5 E								
* 1 CGS	1960	03	04	21	05	45.0	07.5 N	094.0 E				6.0 MAT				
* 2 SHL	1960	03	04	21	05	38	06.5 N	096.0 E				6.0 MAT				
* 3 QUE	1960	03	04	21	05	46	07.75 N	094.5 E				6.0 MAT				
* 4 MOS	1960	03	04	21	05	54	07.5 N	094.0 E				6.0 MAT				
* 5 ISS	1960	03	04	21	05	47	07.45 N	094.24 E								
CGS	1960	03	21	03	45	50.0	25.0 N	097.5 E								
CGS	1960	05	06	13	59	04.0	22.0 N	094.0 E	100							
* 1 MOS	1960	06	18	00	53	58	07.0 N	094.0 E	150			5.75MAT				
* 2 BCI	1960	06	18	00	54	07	07.0 N	094.0 E	150			5.75MAT				
* 3 ISS	1960	06	18	00	54	08	07.22 N	094.44 E	098							

Appendix B Earthquake data of Burma, Thailand and Indochina

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
CGS	1960	06	19	02	21	21.0	11.5 N	093.0 E								
* 1 CGS	1960	07	18	00	54	07.0	07.0 N	094.0 E	150			5.75MAT				
* 2 ISS	1960	07	18	00	54	08	07.22 N	094.44 E	098							
CGS	1960	07	18	01	15	24.0	06.5 N	095.5 E								
BCI	1960	07	18	01	43	54.0	07.0 N	095.0 E								
CGS	1960	08	03	21	48	46.7	12.6 N	095.2 E	062							
* 1 CGS	1960	08	24	19	27	50.3	24.7 N	095.0 E	086							
* 2 ISS	1960	08	24	19	27	53	24.55 N	094.9 E	105							
CGS	1960	09	10	15	45	21.2	06.9 N	094.7 E	025							
CGS	1960	10	01	03	00	47.0	23.5 N	094.6 E	022							
* 1 CGS	1960	10	02	18	08	10.5	18.5 N	094.9 E	095							
* 2 MOS	1960	10	02	18	08	12	19.5 N	096.0 E								
* 3 BCI	1960	10	02	18	08	12.4	18.6 N	094.9 E	184							
* 4 ISS	1960	10	02	18	08	18	18.44 N	094.95 E	072							
* 1 CGS	1960	10	08	20	40	06.6	08.0 N	092.9 E	084			5.25MOS				
* 2 MOS	1960	10	08	20	40	00	07.5 N	093.0 E				5.25MOS				
* 3 BCI	1960	10	08	20	40	06.6	07.9 N	092.9 E	084			5.8 KEW				
* 4 ISS	1960	10	08	20	40	05	08.0 N	093.0 E	041							
ISS	1960	10	20	40	05		08.0 N	093.14 E	041							
* 1 CGS	1960	10	21	02	00	07.6	07.4 N	094.0 E	133							
* 2 BCI	1960	10	21	02	00	07.6	07.0 N	094.0 E	133							
* 1 CGS	1960	11	02	16	31	53.2	23.3 N	093.8 E	124							
* 2 ISS	1960	11	02	16	31	53	23.49 N	093.84 E	079							
CGS	1960	11	11	22	22	18.2	06.8 N	094.4 E	031							
CGS	1960	11	14	15	55	57.2	24.5 N	096.2 E	058							
* 1 CGS	1960	11	15	09	05	59.1	23.4 N	094.3 E	103							
* 2 ISS	1960	11	15	09	05	59	23.65 N	094.32 E	056							
SHL	1960	11	16	09	06	01.0	23.0 N	093.0 E								
BCI	1960	11	22	17	51	38.0	06.5 N	093.75 E								

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 CGS	1960	12	22	03	02	20.6	09.8	N	094.1	E	036			6.0 QUE				
* 2 SHL	1960	12	22	03	02	18	08.5	N	095.0	E				6.0 QUE				
* 3 MOS	1960	12	22	03	02	28	08.0	N	094.0	E				5.5 MOS				
* 4 BCI	1960	12	22	03	02	28.6	09.8	N	094.1	E	036			6.8 QUE				
* 5 ISS	1960	12	22	03	02	19	08.84	N	094.87	E	015							
CGS	1961	01	26	01	47	05.0	15.3	N	093.6	E	074							
* 1 CGS	1961	02	04	08	51	48.6	24.8	N	095.3	E	135			5.38MAT				
* 2 ISS	1961	02	04	08	51	50	24.86	N	095.34	E	141							
CGS	1961	02	20	18	47	02.2	05.5	N	096.4	E	171							
CGS	1961	04	13	04	25	58.1	23.0	N	094.7	E	025N							
* 1 CGS	1961	06	12	09	58	17.1	21.6	N	106.0	E	033N			5.0 MOS		VII		
* 2 ISS	1961	06	12	09	58	17	21.6	N	106.02	E	028							
* 1 CGS	1961	06	14	00	41	13.0	24.5	N	094.8	E	062			5.25MAT				
* 2 ISS	1961	06	14	00	41	17	24.55	N	094.69	E	091							
CGS	1961	07	07	17	01	51.9	23.9	N	098.5	E	033N			4.75MOS				
* 1 CGS	1961	07	11	09	31	42.6	08.0	N	093.1	E	017			5.38PAL				
* 2 ISS	1961	07	11	09	31	45	07.88	N	093.07	E	051							
* 3 SHL	1961	07	11	09	31	38	07.0	N	094.0	E				5.6 PAL				
* 4 MOS	1961	07	11	09	31	48	08.0	N	093.0	E				5.75MOS				
CGS	1961	07	21	02	48	58.7	08.3	N	093.4	E	024							
BCIS	1961	07	29	02	13	35	11.5	N	092.5	E								
CGS	1961	08	05	19	00	20.1	21.8	N	093.9	E	050							
* 1 CGS	1961	09	29	08	45	22.3	13.5	N	093.9	E	060							
* 2 SHL	1961	09	29	08	45	35	14.0	N	093.0	E								
CGS	1961	10	18	15	31	18.5	23.1	N	094.6	E	069							
* 1 CGS	1961	12	06	05	48	38.3	13.6	N	093.4	E	035			5.25PAL				
* 2 QUE	1961	12	06	05	48	16	13.5	N	096.5	E				6.6 QUE				
* 3 OBN	1961	12	06	05	48	35	13.0	N	093.0	E				6.4 KIR				
* 4 MOS	1961	12	06	05	48	35	13.5	N	093.0	E				5.75MOS				
* 5 SHL	1961	12	06	05	48	35	13.0	N	093.0	E				5.25PAL				
* 6 ISS	1961	12	06	05	48	40	13.46	N	093.12	E	032							

Appendix B Earthquake data of Burma, Thailand and Indochina

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
CGS	1961	12	11	09	52	15.8	23.3 N	094.6 E	083							
CGS	1962	02	19	11	11	06.9	22.2 N	094.6 E	033							
* 1 CGS	1962	02	20	09	15	58.3	06.7 N	092.4 E	033							
* 2 SHL	1962	02	20	09	15	50	06.0 N	093.0 E				5.6 MAT				
* 3 QUE	1962	02	20	09	15	52	06.0 N	093.0 E				5.25PEK				
* 4 PEK	1962	02	20	09	15	58	07.0 N	092.25 E				5.25PEK				
* 5 MOS	1962	02	20	09	15	58	07.0 N	092.0 E				5.0 MOS				
* 6 EBN	1962	02	20	09	15	58	06.0 N	093.0 E				5.0 MOS				
* 7 ISS	1962	02	20	09	15	58	06.8 N	092.5 E	020							
* 1 CGS	1962	03	06	05	55	44.8	13.6 N	093.4 E	033							
* 2 EBN	1962	03	06	05	55	46	14.0 N	093.0 E				5.8 UPP				
* 3 PEK	1962	03	06	05	55	47	13.5 N	093.0 E				5.5 PEK				
* 4 MOS	1962	03	06	05	55	48	14.0 N	093.0 E				5.0 MOS				
* 5 ISS	1962	03	06	05	55	41	13.54 N	093.27 E								
* 1 CGS	1962	05	26	19	44	15.7	06.7 N	094.6 E	030							
* 2 SHL	1962	05	26	19	44	25	08.0 N	094.0 E				5.4 MAT				
* 3 PEK	1962	05	26	19	44	26	07.0 N	094.25 E	080			5.5 PEK				
* 4 MOS	1962	05	26	19	44	35	06.8 N	094.5 E				5.4 MAT				
* 5 ISS	1962	05	26	19	44	23	06.58 N	094.53 E	094							
* 1 CGS	1962	08	03	22	46	19.2	12.8 N	092.8 E	033							
* 2 PEK	1962	08	03	22	46	00	11.25 N	091.75 E								
* 3 MOS	1962	08	03	22	46	45	16.0 N	092.5 E								
* 1 CGS	1962	08	07	03	01	52.4	12.2 N	092.5 E	033							
* 2 PEK	1962	08	07	03	01	41	11.5 N	092.0 E								
* 1 CGS	1962	09	16	19	06	29.2	16.7 N	094.2 E	033							
* 2 PEK	1962	09	16	19	06	24	16.25 N	093.5 E				5.0 PEK				
* 3 MOS	1962	09	16	19	06	28	17.0 N	094.0 E				5.0 MOS				
* 4 ISS	1962	09	16	19	06	32	16.67 N	093.86 E	042							
CGS	1962	10	01	07	50	56.4	06.9 N	094.4 E	027							
* 1 CGS	1962	11	16	21	10	01.8	13.5 N	093.2 E	033			6.13PAL				
* 2 BCI	1962	11	16	21	09	56	13.5 N	093.25 E				6.25PAL				
* 3 QUE	1962	11	16	21	09	58	13.5 N	093.75 E				6.4 QUE				
* 4 SHL	1962	11	16	21	10	00	14.0 N	093.5 E				6.7 UPP				
* 5 MOS	1962	11	16	21	10	01	13.5 N	093.0 E	040			6.0 MOS				

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 6 ISS	1962	11	16	21	10	00	13.58 N	092.93 E	009							
CGS	1962	11	16	22	45	41.9	13.8 N	092.90 E	033							
* 1 CGS	1962	11	28	15	25	58.7	09.9 N	093.4 E	053							
* 2 SHL	1962	11	28	15	25	47	10.0 N	094.5 E				5.5 PEK				
* 3 PEK	1962	11	28	15	26	05	10.25 N	093.0 E				5.5 PEK				
* 4 ISS	1962	11	28	15	26	04	10.04 N	093.57 E	091							
CGS	1962	11	30	16	02	05.9	24.3 N	094.8 E	098							
CGS	1962	12	13	00	25	24.5	07.9 N	093.8 E	224							
CGS	1962	12	18	03	51	00.2	23.8 N	093.9 E	124							
BCI	1962	12	25	18	26	42	12.0 N	094.0 E								
CGS	1963	01	16	04	49	10.5	09.6 N	093.8 E	061							
CGS	1963	03	02	02	45	37.1	23.8 N	092.2 E	036	4.20MB						
* 1 CGS	1963	03	20	14	41	47.4	11.6 N	092.8 E	033	4.50MB						
* 2 MOS	1963	03	20	14	41	43	11.0 N	093.0 E				4.4 COL				
CGS	1963	04	15	21	22	35.8	24.8 N	096.9 E	194							
BCI	1963	04	30	09	52	10	10.0 N	094.0 E								
* 1 CGS	1963	04	30	10	20	52.0	10.7 N	094.4 E	028							
* 2 MOS	1963	04	30	10	20	51	10.5 N	094.8 E								
BCI	1963	05	19	09	40	12	11.0 N	094.5 E								
* 1 CGS	1963	06	06	08	21	18.4	06.5 N	094.6 E	090	5.0 MB						
* 2 PEK	1963	06	06	08	21	12	06.0 N	094.0 E				5.7 PMG				
* 3 MOS	1963	06	06	08	21	14	07.0 N	095.0 E				5.4 NUR				
* 1 CGS	1963	06	19	10	47	24.6	25.0 N	092.1 E	051	5.9 MB						
* 2 ISS	1963	06	19	10	47	24.0	24.97 N	092.06 E	044							
CGS	1963	06	21	15	26	29.3	24.9 N	092.1 E	053	5.7 MB						
CGS	1963	06	26	17	21	57.3	24.3 N	095.1 E	079	5.4 MB						
* 1 CGS	1963	06	27	15	32	53.1	14.4 N	093.7 E	033	5.2 MB						
* 2 PEK	1963	06	27	15	32	50	13.75 N	094.0 E	040			4.75PEK				
* 3 MOS	1963	06	27	15	32	55	14.4 N	093.5 E				4.5 MOS				
* 4 ISS	1963	06	27	15	32	53	14.0 N	094.0 E	041							

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
CGS	1963	09	04	18	36	28.1	24.1 N	096.0 E	148	5.0 MB						
CGS	1963	09	28	06	00	25.4	22.9 N	094.5 E	108	5.6 MB						
SHL	1963	10	12	08	29	39	12.7 N	092.5 E								
BCI	1963	10	18	22	05	54	12.0 N	096.5 E								
* 1 CGS	1963	10	20	21	49	36.0	21.9 N	094.7 E	115							
* 2 QUE	1963	10	20	21	48	44.7	21.9 N	094.7 E								
CGS	1963	11	22	16	15	54.0	10.4 N	094.0 E	033	5.7 MB						
* 1 CGS	1963	11	30	21	40	20.3	06.6 N	094.2 E	033	5.3 MB						
* 2 MOS	1963	11	30	21	40	17	06.2 N	094.2 E				5.3 CGS				
CGS	1963	12	01	09	34	55.7	07.4 N	093.5 E	027							
NDI	1963	12	27	02	51	55	12.0 N	091.5 E								
* 1 CGS	1963	12	30	22	06	07.1	06.9 N	094.7 E	064	5.6 MB						
* 2 MOS	1963	12	30	22	06	03	06.8 N	094.6 E								
* 3 ISS	1963	12	30	22	06	16	06.99 N	094.66 E	139							
*** 1 ISC**	**1964**	**01**	**22**	**15**	**58**	**43.7**	**22.33 N**	**093.58 E**	**060**	**6.0 MB**						153
* 2 MOS	1964	01	22	15	58	38.0	21.9 N	093.8 E		5.5 MB						
* 3 SHL	1964	01	22	15	58	45.0	22.0 N	093.0 E		5.5 MB						
*** 4 CGS**	**1964**	**01**	**22**	**15**	**58**	**46.5**	**22.4 N**	**093.6 E**	**088**	**6.1 MB**						
ISC	1964	01	31	16	56	05.9	010.7 N	095.6 E	033							
* 1 ISC	1964	02	27	15	10	47.8	021.65 N	094.4 E	091	5.7 MB						212
* 2 SHL	1964	02	27	15	10	45.0	021.5 N	094.0 E								
* 3 MOS	1964	02	27	15	10	46	021.4 N	094.8 E	100							
*** 4 CGS**	**1964**	**02**	**27**	**15**	**10**	**48.8**	**021.7 N**	**094.4 E**	**102**	**6.4**						
* 1 ISC	1964	02	28	17	47	06.9	018.28 N	094.44 E	046	5.1 MB						115
* 2 QUE	1964	02	28	17	47	01	017.6 N	094.5 E	040	5.6 MB						
* 3 CGS	1964	02	28	17	47	05.9	018.2 N	094.3 E	043	5.3 MB						
* 4 MOS	1964	02	28	17	47	06	018.3 N	094.7 E		5.25MB						
* 1 ISC	1964	03	14	06	52	03.6	006.33 N	092.25 E	076	4.8 MB						027
* 2 CGS	1964	03	14	06	51	58.6	006.2 N	092.1 E	033	4.7 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1964	03	20	19	00	53.2	023.47 N	094.39 E	094	5.0 MB						052
* 2 MOS	1964	03	20	19	00	52	023.6 N	094.4 E	080							
* 3 CGS	1964	03	20	19	00	52.7	023.6 N	094.4 E	086	5.7 MB						
* 4 SHL	1964	03	20	19	01	01	023.6 N	093.0 E								
* 1 ISC	1964	04	02	01	11	48.6	005.75 N	095.42 E	065	5.6 MB					2.53s	194
*** 2 CGS**	**1964**	**04**	**02**	**01**	**11**	**43.5**	**005.8 N**	**095.6 E**	**033**	**6.7 MB**						
*** 3 MOS**	**1964**	**04**	02	01	**11**	**45**	005.8 **N**	**095.4 E**		**6.75MB**						
* 1 ISC	1964	04	02	03	09	45.8	005.43 N	095.72 E	108	4.6 MB					1.66s	049
* 2 MOS	1964	04	02	03	09	38	005.6 N	095.7 E								
* 3 CGS	1964	04	02	03	09	45.4	005.5 N	095.7 E	108	5.1 MB					0.4 s	014
* 1 ISC	1964	04	04	06	57	12.4	005.63 N	095.4 E	156						1.38s	014
* 2 CGS	1964	04	04	06	57	12.4	005.5 N	095.3 E	157	4.6 MB					0.6 s	007
* 1 ISC	1964	04	22	14	56	51.7	011.79 N	095.02 E	025	5.1 MB					1.08s	030
* 2 USGS	1964	04	22	14	56	53.1	012.4 N	095.7 E	033	5.0 MB					0.6 s	008
* 3 MOS	1964	04	22	14	56	54	011.8 N	094.9 E								
* 1 ISC	1964	05	01	01	11	00.5	013.88 N	093.74 E	086	5.1 MB					0.97s	019
* 2 MOS	1964	05	01	01	10	51	013.3 N	093.9 E								
* 3 USGS	1964	05	01	01	10	54.4	014.1 N	093.9 E	033						0.5 s	008
* 1 ISC	1964	06	13	08	23	52.7	010.04 N	092.9 E	096	5.2 MB					1.08s	039
* 2 USGS	1964	06	13	08	23	45.6	010.0 N	093.0 E	033	6.1 MB					0.5 s	018
* 1 ISC	1964	06	13	17	35	58.3	023.0 N	093.95 E	060	5.2 MB						108
* 2 MOS	1964	06	13	17	35	56	023.2 N	094.2 E								
* 3 CGS	1964	06	13	17	35	57.8	023.0 N	094.0 E	061	5.8 MB						
* 4 SHL	1964	06	13	17	36	10	023.9 N	092.3 E								
* 1 ISC	1964	06	15	00	05	36.1	005.28 N	096.82 E	071	5.3 MB						188
* 2 SHL	1964	06	15	00	05	21	005.0 N	097.5 E								
*** 3 MOS**	**1964**	**06**	**15**	**00**	**05**	**31**	**005.3 N**	**096.7 E**		**6.25MB**						
* 4 CGS	1964	06	15	00	05	31.1	005.4 N	097.0 E	033	5.5 MB					1.20s	044
ISC	1964	06	15	01	07	4.5	005.28 N	096.97 E	033	5.1 MB					1.40s	023

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1964	06	23	04	32	21.7	013.83 N	093.1 E	010	5.1 MB						035
* 2 MOS	1964	06	23	04	32	18	012.9 N	093.5 E								
* 3 CGS	1964	06	23	04	32	18.9	013.9 N	094.7 E	033						2.2 s	006
* 1 ISC	1964	07	12	20	15	58.8	024.88 N	095.31 E	152	5.5 MB					0.95s	090
* 2 MOS	1964	07	12	20	15	58	024.9 N	095.4 E	150							
*** 3 CGS**	**1964**	**07**	**12**	**20**	**15**	**59.0**	**024.9 N**	**095.3 E**	**155**	**6.7 MB**					**0.7 s**	**033**
* 4 SHL	1964	07	12	20	16		027.0 N	094.5 E								
* 1 ISC	1964	07	13	10	58	47.0	023.51 N	094.67 E	110	5.4 MB						138
*** 2 CGS**	**1964**	**07**	**13**	**10**	**58**	**47.7**	**023.7 N**	**094.7 E**	**117**	**6.5 MB**					**0.5 s**	**037**
* 3 MOS	1964	07	13	10	58	48	023.5 N	094.8 E	100							
* 4 SHL	1964	07	13	10	58	50	024.0 N	094.0 E								
NDI	1964	07	20	01	17	06	016.2 N	092.8 E								
* 1 ISC	1964	07	28	21	38	42.4	014.17 N	096.12 E	022	5.9 MB						166
*** 2 MOS**	**1964**	**07**	**28**	**21**	**38**	**42**	**013.9 N**	**096.3 E**		**6.25MB**						
* 3 CGS	1964	07	28	21	38	43.5	014.3 N	096.2 E	033	5.5 MB					1.5 s	038
* 1 ISC	1964	07	28	22	46	39.0	014.10 N	096.03 E	049	5.2 MB					0.94s	083
* 2 CGS	1964	07	28	22	46	34.0	014.1 N	096.1 E	014	5.6 MB					0.7 s	019
* 3 MOS	1964	07	28	22	46	36	014.0 N	096.0 E	033							
* 1 ISC	1964	07	29	13	38	49.2	014.23 N	096.15 E	011						0.81s	024
* 2 MOS	1964	07	29	13	38	50	014.0 N	096.0 E								
* 3 CGS	1964	07	29	13	38	52.3	014.3 N	096.1 E	033						0.5 s	010
* 1 ISC	1964	07	30	22	52	20.0	014.32 N	096.22 E	032						1.07s	032
* 2 MOS	1964	07	30	22	52	09	013.4 N	096.4 E								
* 3 CGS	1964	07	30	22	52	19.4	014.3 N	096.2 E	033						0.5 s	009
* 1 ISC	1964	08	11	13	35	12.6	006.3 N	097.2 E	033	5.1 MB					2.39s	015
* 2 CGS	1964	08	11	13	35	13.9	006.3 N	097.3 E	033	5.1 MB					1.7 s	006
* 3 MOS	1964	08	11	13	35	15	006.0 N	097.0 E								
* 1 ISC	1964	08	17	14	42	54.0	024.32 N	094.18 E	158	4.8 MB					0.95s	024
* 2 CGS	1964	08	17	14	42	56.6	024.2 N	094.0 E	184	4.7 MB					0.7 s	010
* 1 ISC	1964	08	28	13	21	30.2	006.89 N	094.95 E	181	5.2 MB					1.25s	076
* 2 CGS	1964	08	28	13	21	13.5	007.1 N	095.1 E	033	5.1 MB					0.8 s	030
* 3 MOS	1964	08	28	13	21	32	007.0 N	095.0 E	200							

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1964	08	28	13	22	02.3	007.1	N	095.4	E	033	5.1 MB					2.23s	038
* 2 CGS	1964	08	28	13	22	05.3	007.6	N	095.6	E	033	5.2 MB					1.1 s	011
* 1 ISC	1964	09	06	18	57	23	007.08	N	093.62	E	069	5.0 MB					0.88s	058
* 2 CGS	1964	09	06	18	57	20.4	007.1	N	093.7	E	046	5.2 MB					0.8 s	027
* 1 ISC	1964	09	15	15	29	38.8	008.9	N	093.03	E	089	6.3 MB					1.38s	249
* 2 MOS	1964	09	15	15	29	32	008.8	N	093.0	E		6.25MB						
* 3 CGS	1964	09	15	15	29	32.2	008.9	N	093.1	E	037	6.2 MB					0.5 s	022
* 4 SHL	1964	09	15	15	29	40	009.0	N	095.0	E								
* 1 ISC	1964	09	16	01	26	26.6	010.71	N	092.81	E	040	5.7 MB						143
* 2 SHL	1964	09	16	01	26	20	011.0	N	094.0	E								
* 3 MOS	1964	09	16	01	26	23	010.3	N	093.0	E		5.5 MB						
* 4 CGS	1964	09	16	01	26	26.9	010.9	N	093.1	E	047	5.7 MB					1.4 s	032
* 1 ISC	1964	09	30	08	54	30.0	015.38	N	096.16	E	035						0.95s	018
* 2 MOS	1964	09	30	08	54	25	014.7	N	098.8	E								
* 1 ISC	1964	10	13	10	36	55.8	024.0	N	091.2	E	028						3.28s	012
* 2 NDI	1964	10	13	10	36	50	024.0	N	091.5	E								
NDI	1964	10	31	17	10	31	011.5	N	095.0	E								005
* 1 ISC	1964	11	04	15	20	22.2	025.0	N	096.13	E	024							020
* 2 MOS	1964	11	04	15	20	21	024.7	N	096.2	E		4.75MB						
* 3 CGS	1964	11	04	15	20	23.5	024.8	N	096.1	E	043							
* 4 NDI	1964	11	04	15	20	28	024.5	N	095.3	E								
ISC	1964	11	20	06	34	37.8	023.8	N	100.9	E	128							010
* 1 ISC	1964	11	30	12	24	12.7	006.64	N	094.8	E	045						2.11s	030
* 2 CGS	1964	11	30	12	24	09.4	006.2	N	093.7	E	033						1.3 s	008
* 1 ISC	1964	11	30	12	27	37.9	006.75	N	094.54	E	024	5.7 MB						217
* 2 SHL	1964	11	30	12	27	20	006.0	N	096.0	E								
* 3 CGS	1964	11	30	12	27	38.6	006.8	N	094.8	E	033	5.7 MB					1.5 s	047
* 4 MOS	1964	11	30	12	27	39	006.8	N	094.5	E		6.25MB						
* 1 ISC	1964	12	01	11	45	30.9	010.72	N	093.56	E	123	4.5 MB					1.93s	028
* 2 CGS	1964	12	01	11	45	20.6	010.6	N	093.4	E	033	4.7 MB					1.3 s	005

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISC	1964	12	01	15	10	24.2	021.18	N	094.46	E	104						1.35s	009
* 1 ISC	1965	01	07	17	09	03.5	009.86	N	093.70	E	015	5.0 MB					1.19s	024
* 2 CGS	1965	01	07	17	09	03.2	009.9	N	093.8	E	012						0.7 s	007
* 1 ISC	1965	01	22	02	41	35.3	019.96	N	094.44	E	080	4.8 MB					1.14s	037
* 2 PEK	1965	01	22	02	41	33	020.5	N	094.5	E		4.0 MB						
* 3 CGS	1965	01	22	02	41	34.7	020.1	N	094.5	E	076	5.5 MB					1.0 s	012
* 1 ISC	1965	02	18	04	26	34.7	024.97	N	094.21	E	045	5.4 MB						122
* 2 CGS	1965	02	18	04	26	33.5	025.0	N	094.3	E	036	5.4 MB						
* 3 MOS	1965	02	18	04	26	34	024.9	N	094.4	E		5.0 MB						
* 4 PEK	1965	02	18	04	26	36	025.25	N	094.5	E	050	5.25MB						
* 5 SHL	1965	02	18	04	26	46	025.0	N	094.0	E								
* 1 ISC	1965	02	25	10	34	06.9	023.63	N	094.64	E	094	5.2 MB						098
* 2 PEK	1965	02	25	10	34	04	023.5	N	094.5	E	090	5.0 MB						
* 3 CGS	1965	02	25	10	34	06.1	023.8	N	094.8	E	087	5.4 MB						
* 4 MOS	1965	02	25	10	34	10	023.7	N	094.8	E	116							
* 5 SHL	1965	02	25	10	34	15	023.0	N	093.0	E								
* 1 ISC	1965	04	25	05	38	19.2	006.47	N	094.54	E	142	4.5 MB						032
* 2 CGS	1965	04	25	05	38	12.6	006.5	N	094.6	E	085							
* 1 ISC	1965	04	26	13	27	08.1	010.7	N	094.0	E	029	5.1 MB						055
* 2 CGS	1965	04	26	13	27	09.8	011.2	N	094.2	E	033	5.2 MB						
* 1 ISC	1965	05	23	16	05	29.3	024.28	N	102.47	E	000	5.2 MB						036
* 2 PEK	1965	05	23	16	05	27	024.0	N	102.5	E		5.0 MB						
* 3 CGS	1965	05	23	16	05	32.7	024.0	N	102.5	E	033							
* 1 ISC	1965	06	01	04	32	48.5	020.13	N	094.83	E	081	5.2 MB						124
* 2 CGS	1965	06	01	04	32	42.8	020.3	N	095.0	E	033	5.5 MB						
* 3 SHL	1965	06	01	04	32	45	020.0	N	095.0	E								
* 4 PEK	1965	06	01	04	32	46	020.5	N	095.25	E	060	5.5 MB						
* 1 ISC	1965	06	01	04	33	04.6	019.9	N	094.7	E	033	5.1 MB						025
* 2 CGS	1965	06	01	04	33	05.5	020.4	N	095.0	E	033	4.6 MB						
* 1 ISC	1965	06	11	15	43	11.6	024.68	N	095.33	E	149	4.8 MB						028
* 2 CGS	1965	06	11	15	43	09.1	024.8	N	095.5	E	124	5.3 MB						

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	ISC	1965	06	18	08	17	38.1	024.94 N	093.67 E	048	5.2 MB						105
* 2	CGS	1965	06	18	08	17	40.0	025.0 N	093.7 E	063	5.8 MB						
* 3	PEK	1965	06	18	08	17	41	025.5 N	093.75 E		4.25MB						
* 1	ISC	1965	06	26	22	01	35.7	009.6 N	094.5 E	171							016
* 2	CGS	1965	06	26	22	01	21.1	009.2 N	093.8 E	033	4.4 MB						
* 1	ISC	1965	06	27	01	04	29.1	009.07 N	093.99 E	045	5.0 MB						097
* 2	PEK	1965	06	27	01	04	26	009.25 N	093.5 E		4.75MB						
* 3	MOS	1965	06	27	01	04	28	009.2 N	094.1 E		5.0 MB						
* 4	CGS	1965	06	27	01	04	29.0	009.0 N	094.0 E	049	5.0 MB						
*** 1**	**LEE**	**1965**	**07**	**03**	**11**	**26**	**12**	**022.4 N**	**101.6 E**	**015**	**6.1 MB**						
* 2	ISC	1965	07	03	11	26	09.7	022.52 N	101.48 E	020	5.2 MB						107
* 3	PEK	1965	07	03	11	26	01	022.0 N	101.25 E		5.5 MB						
* 4	CGS	1965	07	03	11	26	08.7	022.6 N	101.4 E	014	5.3 MB						
* 5	MOS	1965	07	03	11	26	10	022.4 N	101.6 E		5.75MB						
	CGS	1965	07	03	11	51	25.5	022.3 N	101.1 E	033							012
* 1	ISC	1965	07	05	23	41	39.0	021.2 N	094.8 E	013	4.4 MB						029
* 2	CGS	1965	07	05	23	41	46.9	021.3 N	094.0 E	065	4.5 MB						
* 3	NDI	1965	07	05	23	41	53.0	021.7 N	093.8 E								
	CGS	1965	08	17	10	35	04.4	005.3 N	096.2 E	043	5.4 MB						
* 1	ISC	1965	08	17	12	52	41.5	005.3 N	096.18 E	069	4.7 MB						051
* 2	CGS	1965	08	17	12	52	39.4	005.3 N	096.2 E	053	4.9 MB						
	CGS	1965	08	19	02	37	52.7	013.6 N	093.8 E	033	4.5 MB						014
* 1	ISC	1965	08	31	03	45	55.8	008.05 N	094.2 E	070	4.8 MB						026
* 2	CGS	1965	08	31	03	45	55.4	008.0 N	094.2 E	067	5.0 MB						
* 3	SHL	1965	08	31	03	46	06	010.0 N	094.3 E								
* 1	ISC	1965	09	22	04	24	43.4	020.75 N	099.26 E	005	5.3 MB					1.83s	142
* 2	PEK	1965	09	22	04	24	38	020.25 N	099.25 E		5.75MB						
* 3	CGS	1965	09	22	04	24	43.2	020.7 N	099.3 E	011	5.5 MB					1.1 s	081
* 4	MOS	1965	09	22	04	24	46	020.6 N	099.4 E		5.75MB						
* 1	ISC	1965	09	24	20	38	09.8	005.11 N	096.03 E	052	5.1 MB					1.53s	078
* 2	CGS	1965	09	24	20	38	07.1	005.2 N	096.2 E	033	5.3 MB					1.0 s	044
	NDI	1965	09	30	08	48	27	025.0 N	094.0 E								003

Appendix B Earthquake data of Burma, Thailand and Indochina

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1965	10	05	15	51	24.1	005.45 N	096.0 E	168	4.7 MB					2.17s	028
* 2 CGS	1965	10	05	15	51	16.9	005.1 N	095.9 E	110	4.8 MB					1.4 s	014
* 1 ISC	1965	10	15	14	18	38.9	014.43 N	093.79 E	026	5.1 MB					0.95s	057
* 2 CGS	1965	10	15	14	18	39.0	014.3 N	093.7 E	028	5.3 MB					0.5 s	026
* 1 ISC	1965	10	16	19	33	26.4	017.54 N	094.79 E	044	5.0 MB					0.9 s	045
* 2 CGS	1965	10	16	19	33	25.8	017.5 N	094.8 E	040	5.4 MB					1.0 s	034
* 1 ISC	1965	12	03	07	06	18.0	005.64 N	095.3 E	060						1.3 s	020
* 2 CGS	1965	12	03	07	06	12.7	005.6 N	095.4 E	021	4.7 MB					1.2 s	009
* 1 ISC	1965	12	05	22	01	38.7	023.34 N	094.46 E	097	5.0 MB						082
* 2 CGS	1965	12	05	22	01	38.1	023.3 N	094.3 E	096	5.4 MB						
* 1 ISC	1965	12	15	04	43	47.4	022.0 N	094.47 E	109	5.2 MB						121
* 2 PEK	1965	12	15	04	43	34	021.75 N	094.5 E		4.5 MB						
* 3 CGS	1965	12	15	04	43	45.9	022.0 N	094.4 E	095	5.4 MB						
* 4 MOS	1965	12	15	04	43	48	022.2 N	094.6 E	108							
CGS	1965	12	17	22	46	10.8	022.0 N	094.5 E	114	5.1 MB						010
* 1 ISC	1966	01	04	07	47	05	011.94 N	095.13 E	077	4.8 MB					0.95s	053
* 2 PEK	1966	01	04	07	46	50	011.5 N	094.75 E		4.75MB						
* 3 CGS	1966	01	04	07	47	00.1	012.0 N	095.4 E	033	5.1 MB					0.8 s	032
* 1 ISC	1966	01	05	17	21	28.7	013.39 N	095.61 E	032	5.3 MB					2.5 s	155
* 2 PEK	1966	01	05	17	21	17	013.25 N	094.75 E		6.25MB						
* 3 MOS	1966	01	05	17	21	26	013.2 N	095.8 E		5.5 MB						
* 4 CGS	1966	01	05	17	21	27.9	013.2 N	095.5 E	033	5.2 MB					0.7 s	063
* 1 ISC	1966	01	16	07	07	56.2	009.0 N	093.93 E	029	5.0 MB					2.6 s	079
* 2 CGS	1966	01	16	07	07	56.5	009.1 N	093.8 E	033	5.2 MB					1.1 s	042
* 1 ISC	1966	03	04	17	47	15	012.0 N	093.48 E	147	4.5 MB					1.9 s	012
* 2 NDI	1966	03	04	17	47	13	012.8 N	092.7 E								
NDI	1966	03	10	19	08	49	009.7 N	092.8 E								
* 1 ISC	1966	04	04	02	17	17.2	011.7 N	092.56 E	025	4.8 MB					2.3 s	046
* 2 CGS	1966	04	04	02	17	16.6	011.8 N	092.5 E	025	4.9 MB					1.0 s	024
* 1 ISC	1966	04	04	02	51	37.7	011.89 N	092.69 E	021	4.9 MB					2.2 s	086
* 2 CGS	1966	04	04	02	51	37.6	011.9 N	092.5 E	025	5.1 MB					0.5 s	040

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1966	04	04	06	42	12.8	011.84 N	092.59 E	022	5.1 MB					1.8 s	141
* 2 CGS	1966	04	04	06	42	12.2	011.8 N	092.5 E	022	5.1 MB					1.7 s	085
* 3 MOS	1966	04	04	06	42	14	011.9 N	092.6 E		5.75MB						
* 1 ISC	1966	04	05	00	07	31	011.85 N	092.48 E	010	4.5 MB					0.83s	025
* 2 CGS	1966	04	05	00	07	31.8	011.8 N	092.5 E	017	4.6 MB					1.0 s	018
* 1 ISC	1966	04	05	17	07	56	011.7 N	094.6 E	000	4.6 MB					1.06s	006
* 2 NDI	1966	04	05	17	07	52	011.3 N	094.8 E								
* 1 CGS	1966	04	21	09	31	19.5	005.6 N	095.4 E	099	4.6 MB					1.3 s	011
* 2 ISC	1966	04	21	09	31	19.0	005.5 N	095.17 E	085	4.5 MB					2.29s	018
* 1 ISC	1966	04	26	10	45	30	024.9 N	096.47 E	001	4.8 MB						037
* 2 CGS	1966	04	26	10	45	33.6	024.7 N	096.4 E	033	4.8 MB						
* 1 ISC	1966	05	06	00	08	31	022.1 N	092.8 E	043							029
* 2 CGS	1966	05	06	00	08	23.9	022.1 N	093.2 E	043	4.1 MB						
* 3 NDI	1966	05	06	00	08	27	022.3 N	093.0 E	065							
NDI	1966	05	14	07	31	05	012.8 N	092.6 E								001
* 1 ISC	1966	05	23	07	48	25.7	024.21 N	095.54 E	025							013
* 2 CGS	1966	05	23	07	48	25.1	024.2 N	095.6 E	025	4.6 MB						
* 1 ISC	1966	05	29	15	03	52	023.7 N	094.8 E	089							009
* 2 CGS	1966	05	29	15	03	50.2	024.0 N	095.2 E	068							
* 1 ISC	1966	06	05	08	29	27	024.6 N	093.5 E	045	4.2 MB						023
* 2 CGS	1966	06	05	08	29	24.1	024.6 N	093.4 E	045							
* 1 ISC	1966	06	09	00	12	12	007.71 N	093.93 E	041	5.2 MB					1.9 s	129
* 2 CGS	1966	06	09	00	12	11.5	007.7 N	094.2 E	050	5.2 MB					0.9 s	069
* 1 ISC	1966	07	08	07	18	44	007.5 N	094.35 E	024	4.5 MB					2.3 s	031
* 2 CGS	1966	07	08	07	18	46.5	007.4 N	094.5 E	061	4.5 MB					1.0 s	014
* 1 ISC	1966	07	12	10	01	56.4	009.65 N	092.9 E	056	4.6 MB					0.81s	012
* 2 CGS	1966	07	12	10	01	55.9	009.6 N	092.9 E	050	4.4 MB					1.0 s	011
* 1 ISC	1966	07	25	03	11	45.8	012.3 N	092.4 E	000	5.1 MB					2.21s	007
* 2 NDI	1966	07	25	03	11	53	013.2 N	092.8 E								
* 1 ISC	1966	09	04	04	37	07	012.2 N	093.1 E	052	5.2 MB						093
* 2 CGS	1966	09	04	04	37	05.6	012.0 N	092.9 E	039	5.2 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1966	09	18	12	19	37	022.67 N	101.91 E	019	4.7 MB						010
* 2 CGS	1966	09	18	12	19	35.0	022.7 N	101.9 E	007	4.9 MB						
* 1 ISC	1966	09	18	14	15	55.4	022.83 N	102.17 E	011	5.2 MB						089
* 2 MOS	1966	09	18	14	15	58	022.8 N	102.0 E		5.5 MB						
* 3 CGS	1966	09	18	14	15	58.9	022.8 N	102.0 E	033	5.3 MB						
* 1 ISC	1966	09	19	05	03	50.4	024.01 N	097.73 E	033	4.8 MB						061
* 2 CGS	1966	09	19	05	03	50.1	024.0 N	097.7 E	033	4.9 MB						
* 1 ISC	1966	09	20	23	37	22	024.09 N	097.68 E	032	4.9 MB						060
* 2 CGS	1966	09	20	23	37	20.0	024.2 N	097.7 E	015	5.1 MB						
* 1 ISC	1966	09	25	01	23	34.0	024.68 N	094.84 E	079	4.2 MB						013
* 2 CGS	1966	09	25	01	23	33.9	024.6 N	094.8 E	076	4.2 MB						
* 1 ISC	1966	09	26	19	40	32.9	015.56 N	096.24 E	033	4.8 MB						020
* 2 CGS	1966	09	26	19	40	33.0	015.3 N	096.3 E	033	4.8 MB						
* 1 ISC	1966	09	27	19	22	44	014.75 N	093.70 E	042	4.5 MB						023
* 2 CGS	1966	09	27	19	22	45.5	014.7 N	093.7 E	058	5.1 MB						
* 3 NDI	1966	09	27	19	22	50	015.3 N	092.7 E								
* 1 ISC	1966	10	02	04	31	48.7	024.41 N	094.81 E	075	4.9 MB						046
* 2 CGS	1966	10	02	04	31	49.5	024.4 N	094.8 E	084	5.0 MB						
* 1 ISC	1966	10	05	13	32	46.4	006.58 N	093.59 E	033							008
* 2 CGS	1966	10	05	13	32	47.1	006.6 N	093.7 E	033	4.2 MB						
* 1 ISC	1966	10	18	20	34	37.4	024.28 N	094.87 E	086	4.9 MB						050
* 2 CGS	1966	10	18	20	34	37.4	024.3 N	094.9 E	085	5.2 MB						
* 1 ISC	1966	10	22	03	03	24.4	023.04 N	094.28 E	072	5.1 MB						115
* 2 CGS	1966	10	22	03	03	24.0	023.1 N	094.4 E	071	5.2 MB						
* 1 ISC	1966	10	27	17	32	59	023.84 N	093.72 E	038	4.3 MB						015
* 2 CGS	1966	10	27	17	33	00.0	023.9 N	093.8 E	047	4.5 MB						
* 1 ISC	1966	11	01	04	52	12	010.93 N	094.71 E	027	4.7 MB						028
* 2 CGS	1966	11	01	04	52	13.2	010.8 N	094.7 E	048	4.8 MB						
* 1 CGS	1966	11	19	07	42	27.8	018.4 N	095.3 E	053	5.3 MB						
* 2 ISC	1966	11	19	07	42	30.7	018.35 N	095.32 E	079	5.1 MB						
LAO	1966	12	02	09	39	18	025.0 N	100.0 E		5.5 MB						001

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	--------MAGNITUDES-------- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1966	12	15	02	08	03.1	021.51 N	094.43 E	084	5.4 MB						165
* 2 CGS	1966	12	15	02	08	04.8	021.5 N	094.4 E	098	5.6 MB						
* 3 MOS	1966	12	15	02	08	05	021.5 N	094.5 E	100							
* 4 QUE	1966	12	15	02	08	08	021.9 N	093.9 E		5.3 MB						
* 1 ISC	1966	12	18	09	59	12	011.1 N	093.0 E	155	4.5 MB						015
* 2 CGS	1966	12	18	09	58	58.5	011.1 N	093.1 E	033	4.4 MB						
* 1 ISC	1967	01	01	02	59	39.6	010.95 N	093.17 E	108	4.6 MB					1.16s	059
* 2 CGS	1967	01	01	02	59	35.9	011.0 N	093.1 E	070	4.9 MB					1.1 s	041
* 1 ISC	1967	01	01	03	35	44.4	007.5 N	094.5 E	034	4.4 MB					3.3 s	019
* 2 CGS	1967	01	01	03	35	43.2	007.6 N	094.4 E	034	4.2 MB					1.5 s	011
* 1 ISC	1967	01	04	11	26	46	023.55 N	094.19 E	054	4.9 MB						051
* 2 CGS	1967	01	04	11	26	46	023.6 N	094.2 E	058	5.1 MB						
* 1 ISC	1967	01	13	14	04	30.3	023.94 N	094.72 E	084	4.8 MB						042
* 2 CGS	1967	01	13	14	04	32.5	023.9 N	094.6 E	106	4.8 MB						
* 1 ISC	1967	01	22	12	09	50	008.65 N	093.63 E	016	4.9 MB					2.0 s	086
* 2 CGS	1967	01	22	12	09	52.6	008.7 N	093.6 E	039	4.9 MB					1.0 s	049
* 1 ISC	1967	02	08	17	17	48.0	023.13 N	093.8 E	051	4.9 MB						081
* 2 CGS	1967	02	08	17	17	41.3	023.1 N	093.9 E	005	5.1 MB						
* 1 ISC	1967	02	11	00	32	34.5	011.92 N	094.06 E	140	4.7 MB					0.91s	026
* 2 CGS	1967	02	11	00	32	23.9	012.1 N	094.3 E	033	5.0 MB					1.3 s	018
* 3 NDI	1967	02	11	00	32	32	012.7 N	093.5 E								
* 1 ISC	1967	02	14	01	36	04	013.75 N	096.47 E	013	5.6 MB					1.9 s	277
* 2 CGS	1967	02	14	01	36	05.4	013.7 N	096.5 E	030	5.6 MB					1.1 s	181
* 3 MOS	1967	02	14	01	36	07	013.9 N	096.5 E		6.75MB						
* 1 ISC	1967	02	15	05	57	30.5	020.33 N	093.99 E	051	5.4 MB					1.32s	164
* 2 CGS	1967	02	15	05	57	26.1	020.3 N	094.1 E	019	5.5 MB					1.0 s	112
* 3 QUE	1967	02	15	05	57	40	021.3 N	093.8 E	033							
* 1 ISC	1967	02	25	21	35	55	005.0 N	093.7 E	033						2.85s	014
* 2 CGS	1967	02	25	21	35	58.4	005.7 N	094.0 E	033	4.4 MB					0.5 s	009
* 1 ISC	1967	04	11	03	09	35.5	006.3 N	097.1 E	033	4.7 MB					4.2 s	025
* 2 CGS	1967	04	11	03	09	31.9	006.9 N	097.1 E	033	4.9 MB					1.6 s	011

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1967	04	12	04	51	41.8	005.16 N	096.31 E	063	6.1 MB					1.9 s	375
* 2 MOS	1967	04	12	04	51	38	005.2 N	096.5 E		6.75MB						
* 3 CGS	1967	04	12	04	51	40.2	005.3 N	096.5 E	055	6.1 MB					1.2 s	093
BUL	1967	04	12	04	55	50	005.3 N	096.6 E								004
BUL	1967	04	12	04	59	49	005.3 N	096.6 E								002
BUL	1967	04	12	05	01	33	005.3 N	096.6 E								006
BUL	1967	04	12	05	03	49	005.3 N	096.6 E								002
* 1 ISC	1967	04	12	05	04	20.2	005.57 N	096.7 E	000							006
* 2 BUL	1967	04	12	05	04	26	005.3 N	096.6 E								
BUL	1967	04	12	05	06	22	005.3 N	096.6 E								001
BUL	1967	04	12	05	07	16	005.3 N	096.6 E								001
* 1 ISC	1967	04	12	05	11	16	005.32 N	096.45 E	045	5.4 MB					1.1 s	057
* 2 CGS	1967	04	12	05	11	14.1	005.5 N	096.7 E	033	5.7 MB					0.6 s	027
* 1 ISC	1967	04	12	05	18	10.2	005.45 N	096.59 E	082						0.6 s	026
* 2 BUL	1967	04	12	05	18	05	005.3 N	096.6 E								
* 3 CGS	1967	04	12	05	18	11.9	005.6 N	096.7 E	102	5.0 MB					0.7 s	015
* 1 ISC	196	04	12	05	59	06.3	005.04 N	096.5 E	000	5.0 MB					1.23s	007
* 2 BUL	1967	04	12	05	59	11	005.3 N	096.6 E								
BUL	1967	04	12	06	02	21	005.3 N	096.6 E								001
* 1 ISC	1967	04	12	06	03	37.0	005.32 N	096.61 E	033	5.0 MB					1.09s	019
* 2 CGS	1967	04	12	06	03	37.3	005.3 N	096.6 E	033	5.1 MB					0.6 s	012
BUL	1967	04	12	08	11	31	005.3 N	096.6 E								003
BUL	1967	04	12	09	35	30	005.3 N	096.6 E								004
BUL	1967	04	12	12	10	41	005.3 N	096.6 E								005
* 1 ISC	1967	04	12	18	47	34.0	005.08 N	096.66 E	000	4.6 MB					0.28s	008
* 2 BUL	1967	04	12	18	47	39	005.3 N	096.6 E								
* 1 ISC	1967	04	12	19	33	48	005.25 N	096.75 E	062	5.2 MB					1.13s	072
* 2 CGS	1967	04	12	19	33	47.3	005.2 N	096.7 E	056	5.2 MB					1.0 s	035
BUL	1967	04	12	20	36	16	005.3 N	096.6 E								004

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1967	04	13	08	25	44	005.3	N	096.46	E	067	5.1 MB					1.35s	084
* 2 CGS	1967	04	13	08	25	43.8	005.5	N	096.6	E	068	5.2 MB					0.7 s	034
* 1 ISC	1967	04	14	12	05	13.9	005.05	N	096.64	E	000	4.9 MB					0.45s	006
* 2 BUL	1967	04	14	12	05	18	005.3	N	096.6	E								
* 1 ISC	1967	04	15	00	19	43.0	024.04	N	095.0	E	000	4.7 MB						008
* 2 NDI	1967	04	15	00	19	56	023.7	N	094.0	E								
* 1 ISC	1967	04	21	16	28	37	005.19	N	096.81	E	066	4.9 MB					1.0 s	028
* 2 CGS	1967	04	21	16	28	37.8	005.3	N	096.8	E	072	4.8 MB					0.8 s	017
* 1 ISC	1967	04	22	13	07	38	005.12	N	096.39	E	044	5.4 MB					1.41s	161
* 2 CGS	1967	04	22	13	07	38.1	005.1	N	096.4	E	042	5.4 MB					1.1 s	062
* 1 ISC	1967	04	23	20	18	52	024.76	N	094.95	E	053	4.6 MB						028
* 2 CGS	1967	04	23	20	18	55.3	025.0	N	094.7	E	075	4.8 MB						
* 3 QUE	1967	04	23	20	19	08	025.8	N	093.9	E	033							
* 1 ISC	1967	04	28	16	14	09	005.08	N	096.69	E	046	4.8 MB					1.54s	029
* 2 CGS	1967	04	28	16	14	11.0	005.3	N	096.7	E	073	5.1 MB					0.9 s	014
* 1 ISC	1967	05	15	18	50	10	005.3	N	096.61	E	058	4.8 MB					0.94s	031
* 2 CGS	1967	05	15	18	50	08.9	005.3	N	096.6	E	051	5.0 MB					0.8 s	016
* 1 ISC	1967	06	17	13	14	05.1	023.05	N	094.68	E	122							014
* 2 CGS	1967	06	17	13	14	05.0	023.1	N	094.7	E	120	4.5 MB						
* 1 ISC	1967	06	26	12	28	05	023.5	N	094.8	E	007							012
* 2 CGS	1967	06	26	12	28	03.7	022.7	N	093.9	E	007	4.7 MB						
* 1 ISC	1967	07	02	07	03	54	008.65	N	093.59	E	044	5.7 MB					2.1 s	245
* 2 CGS	1967	07	02	07	03	52.9	008.7	N	093.8	E	033	5.7 MB					1.3 s	079
*** 3 MOS**	**1967**	**07**	**02**	**07**	**03**	**53**	**008.7**	**N**	**093.8**	**E**		**6.1 MB**	6.05S					
* 1 ISC	1967	07	02	13	06	16	008.5	N	093.7	E	000	4.8 MB						006
* 2 BUL	1967	07	02	13	06	25	008.6	N	093.8	E		4.7 MB						
* 1 ISC	1967	07	02	14	09	44	008.65	N	094.01	E	094	4.6 MB					1.32s	034
* 2 CGS	1967	07	02	14	09	37.6	008.5	N	093.8	E	036	5.2 MB					1.0 s	013
* 1 ISC	1967	07	02	14	19	24	008.6	N	094.1	E	132	4.4 MB					1.83s	021
* 2 CGS	1967	07	02	14	19	13.6	008.5	N	093.8	E	033	4.9 MB					1.0 s	011

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1967	07	02	16	11	55.0	008.51 N	093.65 E	000						0.05s	005
* 2 BUL	1967	07	02	16	12	00	008.5 N	093.8 E		4.7 MB						
* 1 ISC	1967	07	02	18	36	23	008.73 N	093.83 E	073	4.4 MB					0.99s	015
* 2 CGS	1967	07	02	18	36	18.9	008.6 N	093.8 E	033	4.5 MB					0.7 s	010
* 1 ISC	1967	08	14	06	41	53	005.2 N	096.43 E	094	5.0 MB					1.1 s	064
* 2 CGS	1967	08	14	06	41	46.2	005.4 N	096.6 E	033	5.2 MB					0.6 s	032
* 1 ISC	1967	08	27	11	11	57	023.2 N	094.27 E	066	4.7 MB						016
* 2 CGS	1967	08	27	11	11	57.2	023.1 N	094.2 E	061	4.5 MB						
* 1 ISC	1967	09	06	01	43	30	024.0 N	091.9 E	002	4.9 MB					3.96s	068
* 2 CGS	1967	09	06	01	43	31.8	024.1 N	091.7 E	018	5.0 MB					0.9 s	020
* 1 ISC	1967	09	06	07	30	11.1	014.65 N	093.55 E	036	5.5 MB					1.02s	209
* 2 CGS	1967	09	06	07	30	10.8	014.7 N	093.6 E	033	5.6 MB					0.9 s	093
* 1 ISC	1967	10	18	00	55	07.8	023.38 N	094.89 E	058	4.6 MB					0.88s	033
* 2 CGS	1967	10	18	00	55	07.3	023.4 N	094.9 E	054	4.8 MB					0.9 s	014
NDI	1967	11	02	17	49	20	009.1 N	094.8 E								002
* 1 ISC	1967	11	12	12	32	46	005.54 N	094.79 E	131	4.5 MB						047
* 2 CGS	1967	11	12	12	32	43.4	006.1 N	095.2 E	105	4.7 MB						
* 1 ISC	1967	11	14	00	04	17	024.05 N	091.61 E	024	4.9 MB						057
* 2 CGS	1967	11	14	00	04	17.8	024.0 N	091.5 E	033	5.1 MB						
* 1 ISC	1967	12	10	18	43	33.8	022.49 N	094.88 E	153	5.0 MB						095
* 2 CGS	1967	12	10	18	43	34.4	022.5 N	094.8 E	158	5.2 MB						
* 1 ISC	1967	12	20	11	34	25.9	011.8 N	093.09 E	061	5.4 MB					1.4 s	195
* 2 CGS	1967	12	20	11	34	25.9	011.8 N	093.0 E	061	5.4 MB					1.2 s	092
* 1 ISC	1967	12	21	23	43	13	011.77 N	093.09 E	048	5.0 MB					0.89s	085
* 2 CGS	1967	12	21	23	43	11.4	011.8 N	093.1 E	033	5.0 MB					1.1 s	023
ISC	1968	01	04	10	21	15.8	013.33 N	091.89 E	033	4.8 MB					1.99s	018
* 1 ISC	1968	01	06	15	13	28.1	016.4 N	092.08 E	028	4.9 MB					1.2 s	083
* 2 CGS	1968	01	06	15	13	28.7	016.4 N	092.1 E	033	5.1 MB					0.8 s	029

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1968	01	12	04	17	37	13.27 N	093.12 E	000	5.5 MB					1.02s	095
* 2 CGS	1968	01	12	04	17	43.1	013.4 N	093.1 E	033	5.5 MB					1.0 s	034
* 1 ISC	1968	01	18	19	57	05.9	023.64 N	093.2 E	075							013
* 2 CGS	1968	01	18	19	57	12.9	024.3 N	093.2 E	100	4.7 MB						
* 1 ISC	1968	02	12	22	17	34	022.87 N	095.36 E	006	4.4 MB						040
* 2 CGS	1968	02	12	22	17	36.0	022.9 N	095.4 E	023	4.7 MB						
* 1 ISC	1968	02	24	12	53	49	008.59 N	093.73 E	058						0.86s	021
* 2 CGS	1968	02	24	12	53	48.8	008.7 N	094.0 E	058	4.7 MB					1.0 s	010
* 1 ISC	1968	03	08	23	08	22	008.73 N	094.19 E	054	4.2 MB					0.99s	020
* 2 CGS	1968	03	08	23	08	21.3	008.7 N	094.1 E	033	4.6 MB					0.7 s	008
* 1 ISC	1968	03	09	00	45	57	008.83 N	094.01 E	003	5.1 MB					2.27s	132
* 2 CGS	1968	03	09	00	46	00.9	008.7 N	094.0 E	033	5.0 MB					1.4 s	025
* 1 ISC	1968	03	31	03	16	37	012.9 N	094.0 E	033	5.0 MB					5.73s	048
* 2 MOS	1968	03	31	03	16	54	015.4 N	094.7 E								
LAO	1968	04	06	05	34	02	019.9 N	097.8 E								004
* 1 ISC	1968	04	13	23	31	30	024.51 N	095.0 E	119	4.7 MB						024
* 2 CGS	1968	04	13	23	31	31.0	024.6 N	094.8 E	123	4.7 MB						
LAO	1968	04	18	12	30	02	020.1 N	097.1 E								001
LAO	1968	05	16	15	09	30	017.3 N	105.5 E								003
* 1 ISC	1968	06	09	04	13	08.9	006.46 N	095.21 E	033	4.5 MB					1.63s	042
* 2 CGS	1968	06	09	04	13	08.0	006.4 N	095.2 E	033	4.2 MB					1.5 s	022
* 1 ISC	1968	06	12	04	29	21.7	024.83 N	091.94 E	039	5.3 MB					1.08s	117
* 2 CGS	1968	06	12	04	29	22.6	024.9 N	091.9 E	044	5.3 MB					1.0 s	055
LAO	1968	06	18	02	52	18	015.7 N	109.3 E								010
* 1 ISC	1968	07	18	17	20	31	008.85 N	093.67 E	039	4.6 MB						057
* 2 MOS	1968	07	18	17	20	25	008.3 N	094.1 E								
* 3 CGS	1968	07	18	17	20	29.0	008.9 N	093.9 E	033	4.8 MB						
* 1 ISC	1968	07	18	17	43	36	009.14 N	093.94 E	133	4.1 MB						029
* 2 CGS	1968	07	18	17	43	24.0	008.8 N	093.8 E	033	4.3 MB						

Appendix B Earthquake data of Burma, Thailand and Indochina

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1968	07	19	04	56	28	008.68 N	093.67 E	036	5.5 MB						242
* 2 MOS	1968	07	19	04	56	25	008.6 N	093.8 E	023							
* 3 CGS	1968	07	19	04	56	27.2	008.7 N	093.6 E	033	5.3 MB	5.5S					
* 1 ISC	1968	07	19	06	07	27	009.01 N	093.77 E	078	4.7 MB					1.12s	077
* 2 MOS	1968	07	19	06	07	20	008.6 N	093.9 E								
* 3 CGS	1968	07	19	06	07	22.0	008.9 N	093.8 E	033	4.8 MB					0.7 s	014
* 1 ISC	1968	07	19	16	42	24	008.78 N	093.78 E	069	4.6 MB					1.37s	036
* 2 CGS	1968	07	19	16	42	15.9	008.7 N	093.7 E	008	5.1 MB					1.2 s	011
* 1 ISC	1968	09	05	05	32	01.5	014.35 N	096.61 E	033						1.29s	016
* 2 CGS	1968	09	05	05	32	01.1	014.7 N	096.8 E	033	4.8 MB					1.1 s	009
* 1 ISC	1968	09	10	05	04	55	015.22 N	093.40 E	008	4.5 MB					0.86s	034
* 2 CGS	1968	09	10	05	04	58.3	015.2 N	093.2 E	033	4.2 MB					1.1 s	012
* 1 ISC	1968	10	03	15	20	56	018.3 N	094.98 E	097						2.13s	023
* 2 CGS	1968	10	03	15	20	48.6	018.3 N	094.8 E	030	4.9 MB					0.6 s	014
* 1 ISC	1968	10	06	07	42	26.5	009.98 N	093.61 E	124	5.0 MB					1.09s	125
* 2 MOS	1968	10	06	07	42	14	009.7 N	093.8 E								
* 3 CGS	1968	10	06	07	42	25.2	010.0 N	093.7 E	111	5.1 MB					0.9 s	050
* 1 ISC	1968	10	14	05	22	44.8	012.83 N	095.09 E	023	5.1 MB					2.76s	110
* 2 MOS	1968	10	14	05	22	44	013.1 N	095.2 E	015							
* 3 CGS	1968	10	14	05	22	44.3	012.6 N	095.2 E	033	5.5 MB					1.3 s	030
* 1 ISC	1968	10	15	17	47	47	006.1 N	095.62 E	105	4.8 MB					0.84s	039
* 2 CGS	1968	10	15	17	47	39.0	006.1 N	095.5 E	035	4.9 MB					0.6 s	018
* 1 ISC	1968	10	18	18	53	11	012.5 N	095.2 E	009	4.6 MB					3.0 s	047
* 2 MOS	1968	10	18	18	53	11	012.1 N	095.4 E								
* 3 CGS	1968	10	18	18	53	12.9	012.3 N	095.1 E	033	4.6 MB					1.2 s	017
* 1 ISC	1968	11	12	12	32	43.4	006.1 N	095.2 E	105	4.7 MB					1.0 s	015
* 2 CGS	1968	11	12	12	32	46.0	005.54 N	094.79 E	131	4.5 MB					1.38s	037
* 1 ISC	1968	11	19	22	48	07.9	008.78 N	094.26 E	068	4.7 MB					0.9 s	070
* 2 CGS	1968	11	19	22	48	03.9	008.7 N	094.1 E	033	4.9 MB					0.7 s	019
* 3 MOS	1968	11	19	22	48	04	008.8 N	094.3 E								

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	---------MAGNITUDES--------- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1968	12	05	09	01	28	005.1 N	095.87 E	049	4.9 MB					0.89s	048
* 2 MOS	1968	12	05	09	01	24	004.6 N	095.6 E								
* 3 CGS	1968	12	05	09	01	26.4	005.1 N	095.8 E	033	4.8 MB					0.9 s	018
* 1 ISC	1968	12	27	14	38	12	024.12 N	091.61 E	027	5.1 MB						087
* 2 CGS	1968	12	27	14	38	11.6	024.1 N	091.6 E	026	5.2 MB						
* 3 MOS	1968	12	27	14	38	12	024.0 N	091.6 E								
* 1 ISC	1969	01	25	23	34	28.4	022.98 N	092.4 E	049	5.2 MB						118
* 2 MOS	1969	01	25	23	34	28	023.0 N	092.4 E	050							
* 3 CGS	1969	01	25	23	34	28.4	022.9 N	092.3 E	050	5.2 MB						
* 1 ISC	1969	02	09	15	34	42	021.85 N	101.41 E	006	4.8 MB					1.56s	056
* 2 MOS	1969	02	09	15	34	42	021.5 N	101.6 E		5.25MB						
* 3 CGS	1969	02	09	15	34	44.4	021.6 N	101.3 E	033	5.0 MB					0.8 s	022
ISC	1969	02	11	20	37	03	014.4 N	093.8 E	033						5.05s	011
* 1 ISC	1969	02	18	21	03	37.9	024.53 N	095.37 E	164	4.7 MB						036
* 2 CGS	1969	02	18	21	03	37.6	024.5 N	095.4 E	160	5.0 MB						
* 1 ISC	1969	04	02	12	36	38	008.6 N	093.64 E	034						1.68s	024
* 2 CGS	1969	04	02	12	36	38.2	008.7 N	093.9 E	033	4.5 MB					1.4 s	012
* 3 MOS	1969	04	02	12	36	42	009.2 N	094.4 E								
* 1 ISC	1969	04	22	09	06	58	023.15 N	092.62 E	035							014
* 2 CGS	1969	04	22	09	06	58.5	023.2 N	092.7 E	039							
* 1 ISC	1969	04	25	04	53	01	005.03 N	097.83 E	047	4.8 MB					2.08s	031
* 2 CGS	1969	04	25	04	52	58.4	005.0 N	097.9 E	033	4.9 MB					1.0 s	020
* 1 ISC	1969	04	30	16	34	47	008.1 N	092.87 E	039	4.7 MB					2.01s	026
* 2 CGS	1969	04	30	16	34	44.9	008.2 N	093.0 E	033	5.0 MB					1.3 s	015
* 1 ISC	1969	06	03	10	19	17.6	006.82 N	094.91 E	153	4.9 MB					1.02s	033
* 2 CGS	1969	06	03	10	19	15.9	006.7 N	094.8 E	134	4.5 MB					1.0 s	013
* 1 ISC	1969	06	18	20	08	38.2	005.86 N	094.79 E	090	5.0 MB					0.92s	060
* 2 MOS	1969	06	18	20	08	30	005.5 N	094.9 E								
* 3 CGS	1969	06	18	20	08	36.4	005.9 N	094.7 E	069	5.1 MB					1.0 s	030
* 1 ISC	1969	07	02	09	59	53	020.9 N	099.57 E	028	4.9 MB					1.61s	085
* 2 MOS	1969	07	02	09	59	52	020.7 N	099.5 E			5.05S					
* 3 CGS	1969	07	02	09	59	53.4	020.7 N	099.4 E	033	5.0 MB					0.9 s	030

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	LAO	1969	07	20	12	28	46	021.1 N	096.9 E								001
* 1	ISC	1969	08	10	05	02	05	021.81 N	094.68 E	076						0.84s	023
* 2	CGS	1969	08	10	05	02	00.7	022.0 N	094.4 E	033	4.9 MB					1.2 s	010
	LAO	1969	08	23	18	37	36	010.7 N	102.4 E								001
	LAO	1969	09	21	02	13	00	010.9 N	104.9 E								005
* 1	ISC	1969	09	29	19	57	50.1	024.8 N	095.37 E	118	4.8 MB					0.79s	043
* 2	MOS	1969	09	29	19	57	34	023.6 N	095.6 E								
* 3	CGS	1969	09	29	19	57	50.3	024.8 N	095.3 E	119	4.9 MB					0.7 s	033
	LAO	1969	09	30	07	43	49	018.9 N	108.7 E	040							005
*** 1**	**ISC**	**1969**	**10**	**17**	**01**	**25**	**11.5**	**023.09 N**	**094.7 E**	**124**	**6.1 MB**					**1.41s**	**296**
*** 2**	**CGS**	**1969**	**10**	**17**	**01**	**25**	**12.4**	**023.1 N**	**094.7 E**	**134**	**6.0 MB**					**1.2 s**	**138**
*** 3**	**MOS**	**1969**	**10**	**17**	**01**	**25**	**14**	**023.2 N**	**094.9 E**	**150**							
* 1	ISC	1969	10	29	22	24	22	023.61 N	094.38 E	070							020
* 2	CGS	1969	10	29	22	24	22.0	023.6 N	094.3 E	076	4.6 MB						
	LAO	1969	11	02	17	21	06	014.9 N	101.2 E								004
	LAO	1969	11	07	04	10	13	008.8 N	093.6 E								001
	LAO	1969	11	17	01	32	12	009.2 N	096.2 E								002
	LAO	1969	11	18	11	04	13	005.6 N	097.6 E								
	ISC	1969	11	27	15	57	13.5	012.9 N	093.9 E	033						0.92s	006
	ISC	1969	11	28	08	27	07	008.7 N	091.9 E	033						2.81s	007
* 1	ISC	1969	12	04	00	35	04.3	012.45 N	093.62 E	081	5.2 MB					0.89s	074
* 2	MOS	1969	12	04	00	34	55	011.9 N	093.8 E								
* 3	CGS	1969	12	04	00	34	58.6	012.4 N	093.7 E	033	5.3 MB					0.8 s	023
* 1	ISC	1969	12	19	14	41	19.0	024.43 N	093.64 E	057	4.8 MB						024
* 2	MOS	1969	12	19	14	41	14	024.1 N	094.0 E								
* 3	CGS	1969	12	19	14	41	18.8	024.4 N	093.6 E	057	4.7 MB						
	LEE	**1970**	**01**	**04**	**17**	**00**	**37**	**024.2 N**	**102.68 E**	**013**	**7.7 MB**				**XI**		
* 1	ISC	1970	01	04	17	00	39.4	024.12 N	102.49 E	015	5.8 MB						338
* 2	SHL	1970	01	04	17	00	20	025.5 N	105.0 E								

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	--------MAGNITUDES-------- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
*** 3 MOS**	**1970**	**01**	**04**	**17**	**00**	**37**	**024.1**	**N**	**102.7**	**E**	**020**	**7.55MB**						
* 4 CGS	1970	01	04	17	00	40.2	024.1	N	102.5	E	031	5.9 MB						
* 1 ISC	1970	01	04	17	32	40.1	024.2	N	102.45	E	033	5.3 MB						050
* 2 CGS	1970	01	04	17	32	40.2	024.2	N	102.5	E	033	5.2 MB						
* 1 ISC	1970	01	04	18	32	10	024.28	N	102.29	E	041	4.6 MB						027
* 2 CGS	1970	01	04	18	32	09.5	024.3	N	102.3	E	033	4.9 MB						
* 1 ISC	1970	01	04	21	01	12.0	024.3	N	102.81	E	000	4.8 MB						014
* 2 BUL	1970	01	04	21	01	19	024.0	N	103.0	E								
* 1 ISC	1970	01	04	21	44	32	024.15	N	102.53	E	027	4.9 MB						093
* 2 MOS	1970	01	04	21	44	31	024.0	N	102.7	E			5.2S					
* 3 CGS	1970	01	04	21	44	32.8	024.1	N	102.5	E	033	5.0 MB						
* 1 ISC	1970	01	05	04	20	00	024.11	N	102.5	E	039	4.5 MB						037
* 2 MOS	1970	01	05	04	19	47	023.0	N	102.9	E								
* 3 CGS	1970	01	05	04	19	59.3	024.1	N	102.5	E	033	4.3 MB						
* 1 ISC	1970	01	05	11	49	10.7	023.92	N	102.84	E	033	4.8 MB						087
* 2 MOS	1970	01	05	11	49	07	023.6	N	103.2	E			5.5S					
* 3 CGS	1970	01	05	11	49	10.2	024.0	N	102.7	E	033	4.9 MB						
* 1 ISC	1970	01	05	14	21	36	024.18	N	102.31	E	037	4.7 MB						052
* 2 CGS	1970	01	05	14	21	35.3	023.9	N	102.2	E	033	4.8 MB						
* 3 MOS	1970	01	05	14	21	37	024.5	N	102.6	E								
* 1 ISC	1970	01	05	17	58	53	024.02	N	102.8	E	002	4.7 MB						017
* 2 CGS	1970	01	05	17	58	57.4	023.9	N	102.6	E	033	4.7 MB						
* 1 ISC	1970	01	06	09	40	31.3	024.10	N	103.1	E	000							014
* 2 HFS	1970	01	06	09	40	29.3	023.3	N	102.7	E								
* 1 ISC	1970	01	07	01	11	05	024.22	N	102.34	E	048	4.8 MB						029
* 2 CGS	1970	01	07	01	11	03.6	024.3	N	102.4	E	033	4.8 MB						
* 1 ISC	1970	01	07	02	43	15.9	024.14	N	102.81	E	033							014
* 2 CGS	1970	01	07	02	43	15.8	024.0	N	102.7	E	033	4.6 MB						
* 1 ISC	1970	01	08	11	07	18.9	024.0	N	102.91	E	033	4.7 MB						020
* 2 CGS	1970	01	08	11	07	18.5	023.9	N	102.8	E	033	4.6 MB						
* 1 ISC	1970	01	09	10	31	44	023.96	N	102.76	E	028	4.7 MB						030
* 2 CGS	1970	01	09	10	31	44.5	023.8	N	102.6	E	033	5.0 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1970	01	12	09	33	04.8	024.0 N	102.9 E	033	4.7 MB						021
* 2 CGS	1970	01	12	09	33	04.8	023.9 N	102.9 E	033	4.5 MB						
* 1 ISC	1970	01	14	10	14	17.4	024.25 N	102.46 E	010	5.0 MB						075
* 2 MOS	1970	01	14	10	14	21	024.4 N	102.6 E			5.0S					
* 3 CGS	1970	01	14	10	14	22.3	024.3 N	102.2 E	039	5.2 MB						
LAO	1970	01	19	03	20	38	007.6 N	099.7 E								002
* 1 ISC	1970	01	21	03	34	08.1	007.69 N	094.32 E	047	5.0 MB					1.07s	071
* 2 CGS	1970	01	21	03	34	04.6	007.6 N	094.3 E	019	5.0 MB					1.1 s	035
* 3 MOS	1970	01	21	03	34	09	007.6 N	094.2 E								
* 1 HFS	1970	01	23	05	53	31.5	018.2 N	112.5 E								
* 2 ISC	1970	01	23	05	53	37.7	018.44 N	109.5 E	000						1.33s	012
LAO	1970	02	04	09	38	11	007.1 N	109.5 E								004
* 1 ISC	1970	02	05	03	39	59	024.4 N	102.33 E	004	5.2 MB						142
* 2 SHL	1970	02	05	03	40	02	024.8 N	102.2 E								
* 3 MOS	1970	02	05	03	40	03	024.5 N	102.4 E			5.5S					
* 4 CGS	1970	02	05	03	40	03.1	024.3 N	102.3 E	033	5.2 MB						
* 1 ISC	1970	02	06	22	10	42.4	023.02 N	100.76 E	030	5.4 MB						190
* 2 CGS	1970	02	06	22	10	41.6	023.1 N	100.8 E	033	5.4 MB						
* 3 MOS	1970	02	06	22	10	42	023.2 N	101.1 E			6.0S					
LEE	**1970**	**02**	**06**	**22**	**10**	**39.7**	**023.08 N**	**101.03 E**	**015**	**6.2 MB**						
* 1 ISC	1970	02	06	22	32	37	022.87 N	100.85 E	011	4.8 MB					1.08s	062
* 2 MOS	1970	02	06	22	32	40	022.8 N	100.9 E								
* 3 CGS	1970	02	06	22	32	41.3	023.0 N	100.8 E	033	4.8 MB					0.7 s	021
* 1 ISC	1970	02	08	22	08	05	006.69 N	093.49 E	014	5.0 MB						085
* 2 MOS	1970	02	08	22	08	06	006.5 N	093.5 E								
* 3 CGS	1970	02	08	22	08	07.3	006.7 N	093.5 E	033	5.2 MB					0.6 s	032
* 1 ISC	1970	02	24	06	40	56	013.5 N	093.35 E	020	4.8 MB					0.85s	025
* 2 CGS	1970	02	24	06	40	58.5	013.4 N	093.3 E	036	5.1 MB					0.7 s	013
ISC	1970	03	01	10	29	30	011.91 N	093.76 E	143						1.62s	007
* 1 ISC	1970	03	11	01	37	20	023.93 N	102.93 E	028	4.3 MB						038
* 2 MOS	1970	03	11	01	37	16	023.4 N	103.1 E								
* 3 CGS	1970	03	11	01	37	22.8	023.8 N	102.8 E	053	4.3 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1970	03	12	18	09	53.1	024.0 N	102.87 E	033	5.0 MB						087
* 2 CGS	1970	03	12	18	09	53.6	024.2 N	102.8 E	033	5.2 MB						
* 3 MOS	1970	03	12	18	09	56	024.6 N	103.0 E			5.4S					
* 1 ISC	1970	03	13	18	24	53.4	024.91 N	093.99 E	059	4.8 MB					0.97s	052
* 2 MOS	1970	03	13	18	24	49	024.7 N	094.1 E								
* 3 CGS	1970	03	13	18	24	54.0	024.9 N	093.9 E	062	4.9 MB					0.9 s	021
HFS	1970	04	07	14	30	27.9	020.1 N	093.5 E								003
HFS	1970	04	12	05	37	21.8	013.4 N	108.9 E								006
LAO	1970	04	18	16	08	13	008.9 N	108.0 E								001
* 1 ISC	1970	04	20	13	22	22	007.9 N	094.8 E	000						2.72s	011
* 2 HFS	1970	04	20	13	22	39.6	011.0 N	094.5 E								
* 1 ISC	1970	05	01	01	01	10	022.8 N	103.1 E	000							010
* 2 HFS	1970	05	01	01	01	08.8	023.3 N	105.2 E								
* 1 ISC	1970	05	06	15	21	55	009.81 N	092.91 E	032	5.3 MB	5.1S				1.07s	189
* 2 SHL	1970	05	06	15	21	40.0	009.5 N	094.4 E	033							
* 3 MOS	1970	05	06	15	21	53	009.6 N	093.0 E			5.1S					
* 4 CGS	1970	05	06	15	21	55.1	009.8 N	092.9 E	033	5.3 MB					0.9 s	070
* 1 ISC	1970	05	19	01	28	40.4	009.62 N	092.83 E	057							013
* 2 CGS	1970	05	19	01	28	41.5	009.7 N	092.9 E	068	4.4 MB						
* 1 ISC	1970	05	24	21	49	39.1	009.85 N	092.95 E	05[illegible]	4.7 MB					1.04s	050
* 2 MOS	1970	05	24	21	49	35	009.6 N	092.9 E								
* 3 CGS	1970	05	24	21	49	36.8	009.8 N	092.9 E	033	4.8 MB					1.1 s	021
* 1 ISC	1970	05	29	10	33	58.7	023.96 N	094.06 E	049	5.1 MB					1.08s	154
* 2 MOS	1970	05	29	10	33	58	023.7 N	094.3 E	060							
* 3 CGS	1970	05	29	10	33	58.6	024.0 N	094.1 E	047	5.0 MB					0.9 s	057
* 4 SHL	1970	05	29	10	34	02.0	024.2 N	093.6 E	033							
* 1 ISC	1970	06	17	11	50	03	024.24 N	102.42 E	008	4.8 MB						059
* 2 MOS	1970	06	17	11	50	06	024.2 N	102.5 E								
* 3 CGS	1970	06	17	11	50	06.9	024.2 N	102.4 E	033	4.8 MB						
* 1 ISC	1970	07	07	04	13	39	024.34 N	094.64 E	095	4.4 MB					1.67s	017
* 2 CGS	1970	07	07	04	13	45.3	024.8 N	094.2 E	134	4.2 MB					0.4 s	007

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	---------MAGNITUDES---------				INT MAX	S.D.	OBS.
												BODY	SURF	OTHER	LOCAL			
* 1 ISC	1970	08	13	07	00	41.5	024.62	N	093.87	E	042	4.7 MB					1.04s	072
* 2 MOS	1970	08	13	07	00	40	024.6	M	093.9	E								
* 3 CGS	1970	08	13	07	00	41.6	024.7	N	093.9	E	040	4.7 MB					0.8 s	017
* 4 SHL	1970	08	13	07	00	45.0	026.0	N	093.5	E	033	5.0 MB						
* 1 ISC	1970	08	23	18	54	07.1	013.92	N	096.0	E	000						0.76s	005
* 2 HFS	1970	08	23	18	54	12.9	014.9	N	096.1	E								
* 1 ISC	1970	08	25	19	09	03	012.35	N	091.25	E	016	4.6 MB					1.07s	021
* 2 CGS	1970	08	25	19	09	05.2	012.4	N	091.2	E	033						1.00s	013
* 1 ISC	1970	08	28	01	24	07.4	024.78	N	091.55	E	039	4.9 MB						060
* 2 CGS	1970	08	28	01	24	04.4	024.7	N	091.7	E	017	4.9 MB						
* 3 SHL	1970	08	28	01	24	08.0	026.0	N	091.3	E		5.0 MB						
* 1 ISC	1970	10	14	16	51	37.6	021.83	N	094.2	E	068	4.7 MB					0.99s	076
* 2 CGS	1970	10	14	16	51	37.9	021.9	N	094.2	E	071	5.2 MB					0.9 s	039
* 3 MOS	1970	10	14	16	51	38	022.2	N	094.1	E								
* 1 ISC	1970	10	18	21	20	36.8	010.85	N	093.56	E	107	4.9 MB					1.05s	107
* 2 MOS	1970	10	18	21	20	22	009.9	N	094.0	E								
* 3 CGS	1970	10	18	21	20	35.7	010.8	N	093.5	E	095	5.3 MB					0.9 s	053
* 1 ISC	1970	10	25	05	14	37.2	009.17	N	094.06	E	071	4.7 MB					1.38s	098
* 2 MOS	1970	10	25	05	14	30	009.0	N	094.4	E								
* 3 CGS	1970	10	25	05	14	32.6	009.1	N	094.0	E	[illegible]3	4.9 MB					1.0 s	083
* 1 ISC	1970	10	25	07	44	26.6	009.1	N	094.01	E	058	5.0 MB					1.19s	120
* 2 MOS	1970	10	25	07	44	20	008.7	N	094.1	E								
* 3 CGS	1970	10	25	07	44	23.7	009.0	N	094.0	E	033	5.1 MB	4.9S				1.0 s	049
* 1 ISC	1970	10	25	10	05	29	009.08	N	094.08	E	034	4.8 MB.					3.0 s	090
* 2 MOS	1970	10	25	10	05	23	008.6	N	094.3	E								
* 3 CGS	1970	10	25	10	05	27.2	009.0	N	094.0	E	033	4.8 MB	4.9S				1.1 s	024
* 1 ISC	1970	10	25	10	15	18.2	009.16	N	094.02	E	059	4.9 MB					0.93s	114
* 2 MOS	1970	10	25	10	15	13	009.0	N	094.3	E								
* 3 CGS	1970	10	25	10	15	15.2	009.1	N	094.0	E	033	5.0 MB					0.7 s	055
* 1 ISC	1970	10	25	15	09	51	009.17	N	093.91	E	036	5.5 MB					2.33s	284
* 2 SHL	1970	10	25	15	09	45.0	009.0	N	094.3	E								
* 3 CGS	1970	10	25	15	09	49.4	009.0	N	093.9	E	033	5.5 MB	6.3S					
* 4 MOS	1970	10	25	15	09	51	009.3	N	093.8	E			6.4S					

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1970	10	25	15	21	49	009.05 N	094.06 E	028	4.9 MB					1.52s	095
* 2 MOS	1970	10	25	15	21	46	009.3 N	095.5 E								
* 3 CGS	1970	10	25	15	21	49.2	009.0 N	094.0 E	033	5.1 MB					0.9 s	047
* 1 ISC	1970	10	25	15	25	35	009.33 N	094.0 E	000	4.9 MB					0.79s	008
* 2 BUL	1970	10	25	15	25	40	009.0 N	094.0 E								
* 1 ISC	1970	10	25	15	42	28	009.04 N	094.17 E	008	4.7 MB					1.42s	054
* 2 MOS	1970	10	25	15	42	26	008.4 N	094.4 E								
* 3 CGS	1970	10	25	15	42	31.2	009.0 N	094.1 E	033	4.9 MB					1.0 s	021
* 1 ISC	1970	10	25	17	50	08	009.10 N	094.02 E	059	4.8 MB					0.91s	040
* 2 CGS	1970	10	25	17	50	03.9	009.1 N	094.1 E	033	4.9 MB					1.0 s	016
* 1 ISC	1970	10	25	17	53	47	009.12 N	093.96 E	059	4.8 MB					1.05s	022
* 2 CGS	1970	10	25	17	53	43.5	009.0 N	094.0 E	033	4.8 MB					0.7 s	011
* 1 ISC	1970	10	25	22	08	18.2	009.18 N	094.13 E	054	4.8 MB					1.2 s	076
* 2 MOS	1970	10	25	22	08	14	009.0 N	094.2 E								
* 3 CGS	1970	10	25	22	08	16.1	009.1 N	094.1 E	033	4.9 MB					1.0 s	031
* 1 ISC	1970	10	25	22	20	51	009.15 N	094.1 E	060	4.8 MB					1.07s	072
* 2 MOS	1970	10	25	22	20	45	008.8 N	094.2 E								
* 3 CGS	1970	10	25	22	20	46.7	009.1 N	094.4 E	031	4.9 MB					0.9 s	024
* 1 ISC	1970	11	27	07	58	17	006.48 N	094.69 E	109	5.1 MB					1.02s	096
* 2 MOS	1970	11	27	07	57	49	003.5 N	094.8 E			5.0S					
* 3 CGS	1970	11	27	07	58	13.9	006.5 N	094.7 E	085	5.2 MB					1.1 s	055
* 1 ISC	1970	12	01	19	17	53	021.3 N	093.5 E	000						3.07s	019
* 2 HFS	1970	12	01	19	17	13.4	014.2 N	094.9 E								
* 3 MOS	1970	12	01	19	17	56	021.1 N	093.5 E								
* 1 ISC	1970	12	25	04	14	02.1	024.49 N	096.42 E	000	4.5 MB					0.66s	011
* 2 HFS	1970	12	25	04	13	54.6	023.0 N	097.1 E								
* 1 ISC	1970	12	26	10	02	47.0	009.29 N	094.0 E	039	5.2 MB					1.37s	232
* 2 MOS	1970	12	26	10	02	46	009.2 N	094.1 E			5.5S					
* 3 CGS	1970	12	26	10	02	47.9	009.3 N	094.1 E	047	5.4 MB	5.5S				1.1 s	076
* 4 SHL	1970	12	26	10	02	53.0	010.0 N	093.3 E								
* 1 ISC	1970	12	26	10	15	48	009.2 N	094.01 E	022	4.8 MB					2.60s	068
* 2 MOS	1970	12	26	10	15	46	009.1 N	094.0 E								
* 3 CGS	1970	12	26	10	15	49.3	009.4 N	094.0 E	033	4.8 MB					1.0 s	016

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS
* 1 ISC	1970	12	27	04	50	38	009.4 N	094.16 E	111	4.3 MB					1.31s	036
* 2 MOS	1970	12	27	04	50	29	009.2 N	094.0 E								
* 3 CGS	1970	12	27	04	50	29.6	009.2 N	094.1 E	033	4.6 MB					0.8 s	013
* 1 ISC	1970	12	31	02	40	38.9	012.44 N	092.61 E	042	4.7 MB					1.4 s	035
* 2 CGS	1970	12	31	02	40	37.7	012.3 N	092.5 E	029	5.0 MB					0.9 s	019
* 1 MOS	1971	01	26	01	44	36	005.4 N	095.1 E		5.4 MB						
* 2 NEIS	1971	01	26	01	44	51.2	006.244N	094.983E	119	5.0 MB					0.9 s	
* 3 ISC	1971	01	26	01	44	51.6	006.12 N	094.91 E	125	5.0 MB					1.01s	046
* 1 ISC	1971	02	02	07	59	55.8	023.71 N	091.66 E	037	5.4 MB						141
* 2 MOS	1971	02	02	07	59	53	023.4 N	091.7 E			4.7S					
* 3 NEIS	1971	02	02	07	59	57.0	023.8 N	091.8 E	048	5.4 MB						
* 4 QUE	1971	02	02	07	59	59.0	023.5 N	090.9 E	033							
MOS	1971	02	25	04	27	37	010.6 N	094.1 E		5.4 MB			5.5 L			
* 1 NEIS	1971	02	25	04	27	53.6	011.199N	093.680E	132	5.0 MB					1.0 s	
* 2 ISC	1971	02	25	04	27	56.1	011.29 N	093.77 E	160	4.8 MB					0.89s	042
HFS	1971	03	01	12	41	18.4	009.5 N	095.2 E								
* 1 HFS	1971	03	28	01	17	13.1	009.1 N	097.0 E								
* 2 MOS	1971	03	28	01	17	36	012.9 N	096.1 E		5.0 MB						
* 3 ISC	1971	03	28	01	17	44	013.4 N	094.6 E	033						3.5 s	025
* 1 NEIS	1971	03	28	02	54	12.2	019.1 N	096.338E	034	4.4 MB					1.2 s	
* 2 MOS	1971	03	28	02	54	15	019.3 N	096.3 E					4.9 L			
* 3 ISC	1971	03	28	02	54	12	019.01 N	096.32 E	027	4.6 MB					1.72s	071
* 1 HFS	1971	03	28	08	16	15.6	011.7 N	095.5 E								
* 2 MOS	1971	03	28	08	16	23	012.8 N	095.4 E		5.5 MB						
* 3 ISC	1971	03	28	08	16	15	011.4 N	095.3 E	033	5.0 MB					3.39s	044
* 1 MOS	1971	03	28	08	23	19	012.0 N	095.2 E	020	5.8 MB			6.2 L			
* 2 NEIS	1971	03	28	08	23	19.9	011.77 N	095.052E	033	5.5 MB			6.3 L		1.1 s	
* 3 ISC	1971	03	28	08	23	21.5	012.12 N	095.22 E	022	5.2 MB					3.49s	227
* 1 HFS	1971	03	28	08	41	24.8	009.1 N	092.8 E								
* 2 BUL	1971	03	28	08	41	30	012.0 N	095.0 E		5.2 MB						
* 3 ISC	1971	03	28	08	41	26.4	011.1 N	094.9 E	000	5.1 MB					2.88s	027

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 NEIS	1971	03	28	14	20	59.0	011.826N	094.822E	033	5.0 MB					1.0 s	
* 2 MOS	1971	03	28	14	21	04	012.9 N	094.6 E		4.9 MB						
* 3 ISC	1971	03	28	14	20	59.6	012.21 N	094.77 E	033	4.8 MB					1.82s	054
* 1 MOS	1971	03	28	14	39	40	011.7 N	095.2 E	020	5.2 MB						
* 2 NEIS	1971	03	28	14	39	42.4	011.771N	095.09 E	033	4.8 MB					1.1 s	
* 3 ISC	1971	03	28	14	39	44	011.78 N	095.08 E	046	4.6 MB					1.09s	062
* 1 MOS	1971	03	29	17	55	41	010.9 N	095.2 E	020	5.2 MB						
* 2 NEIS	1971	03	29	17	55	44.0	011.099N	095.058E	025	5.2 MB					0.7 s	
* 3 ISC	1971	03	29	17	55	43	011.16 N	095.11 E	017	5.1 MB					0.93s	079
* 1 NEIS	1971	04	10	14	32	54.2	016.469N	093.148E	024						0.8 s	
* 2 ISC	1971	04	10	14	32	58.1	016.62 N	093.31 E	055						0.88s	015
LEE	**1971**	**04**	**28**	**15**	**32**	**0.5**	**023.0 N**	**101.2 E**	**015**			**6.3 LEE**				
* 1 ISC	1971	04	28	15	32	01	022.98 N	101.02 E	011	5.6 MB						244
* 2 NEIS	1971	04	28	15	32	0.9	022.9 N	101.0 E	015	5.6 MB		6.3S				
* 3 MOS	1971	04	28	15	32	02	022.8 N	101.2 E		5.9 MB		6.3S				
* 1 ISC	1971	05	17	08	43	21	024.34 N	094.82 E	163	4.7 MB						040
* 2 MOS	1971	05	17	08	42	58	023.2 N	095.4 E		5.0 MB						
* 3 NEIS	1971	05	17	08	43	21.8	024.3 N	094.7 E	167	4.7 MB						
* 1 MOS	1971	06	05	01	38	10	009.3 N	092.5 E		5.6 MB						
* 2 NEIS	1971	06	05	01	38	10.9	009.399N	092.464E	033	5.3 MB					0.9 s	
* 3 ISC	1971	06	05	01	38	10	009.38 N	092.46 E	025	5.3 MB					1.0 s	195
* 1 MOS	1971	06	09	07	47	41	006.0 N	093.9 E		5.3 MB						
* 2 NEIS	1971	06	09	07	47	45.2	006.763N	093.969E	033						0.8 s	
* 3 ISC	1971	06	09	07	47	53.7	006.63 N	093.89 E	113	5.0 MB					0.9 s	053
* 1 ISC	1971	06	16	20	06	13.4	023.78 N	094.31 E	018	4.6 MB						017
* 2 NEIS	1971	06	16	20	06	13.7	023.9 N	094.5 E	018	4.6 MB						
* 1 MOS	1971	06	23	17	56	01	009.9 N	094.0 E		5.4 MB						
* 2 NEIS	1971	06	23	17	56	13.4	010.598N	093.664E	090	5.0 MB					1.1 s	
* 3 ISC	1971	06	23	17	56	18.9	010.72 N	093.74 E	144	4.6 MB					0.9 s	056
* 1 ISC	1971	06	26	02	16	36.9	024.6 N	094.78 E	074	5.0 MB						112
* 2 MOS	1971	06	26	02	16	28	024.1 N	095.0 E		5.2 MB						
* 3 NEIS	1971	06	26	02	16	37.0	024.6 N	094.7 E	076	5.2 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	--------MAGNITUDES-------- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 MOS	1971	06	29	19	05	30	007.2 N	094.3 E		5.4 MB						
* 2 NEIS	1971	06	29	19	05	37.0	006.708N	094.195E	112	4.7 MB					0.6 s	
* 3 ISC	1971	06	29	19	05	36.4	006.75 N	094.19 E	107						0.81s	031
* 1 MOS	1971	07	17	05	32	40	006.9 N	094.6 E	120	5.8 MB						
* 2 SHL	1971	07	17	05	32	42.0	007.8 N	093.2 E								
* 3 NEIS	1971	07	17	05	32	42.9	007.008N	094.686E	130	5.8 MB						
* 4 ISC	1971	07	17	05	32	43.4	006.98 N	094.65 E	144	5.6 MB					1.23s	289
* 1 SHL	1971	07	27	14	25	20.0	013.3 N	096.7 E								
* 2 MOS	1971	07	27	14	25	29	013.7 N	096.1 E	025				5.8 L			
* 3 NEIS	1971	07	27	14	25	31.2	013.802N	095.843E	036	5.4 MB			5.8 L			
* 4 ISC	1971	07	27	14	25	30	013.71 N	095.87 E	029	5.3 MB					1.12s	161
* 1 NEIS	1971	08	05	13	24	44.9	012.62 N	095.728E	033							
* 2 MOS	1971	08	05	13	24	56	014.0 N	094.3 E		5.1 MB						
* 3 ISC	1971	08	05	13	24	43.9	012.45 N	095.1 E	033	4.8 MB					2.8 s	053
* 1 SHL	1971	08	05	22	37	04.0	012.7 N	095.3 E								
* 2 NEIS	1971	08	05	22	37	10.9	012.573N	094.773E	031	5.0 MB						
* 3 MOS	1971	08	05	22	37	22	012.9 N	094.7 E	110	5.1 MB						
* 4 ISC	1971	08	05	22	37	10	012.6 N	094.78 E	021	4.9 MB					1.93s	110
* 1 MOS	1971	08	12	04	17	05	012.9 N	095.0 E	020	5.5 MB						
* 2 NEIS	1971	08	12	04	17	05.6	012.564N	095.145E	040	5.3 MB			5.1 L			
* 3 ISC	1971	08	12	04	17	03	012.5 N	095.08 E	020	5.3 MB					1.1 s	163
* 1 MOS	1971	09	11	05	49	23	015.2 N	096.5 E		5.1 MB						
* 2 NEIS	1971	09	11	05	49	24.4	015.24 N	096.181E	033	4.9 MB					0.0 s	
* 3 ISC	1971	09	71	05	49	22	015.32 N	096.32 E	016	4.8 MB					1.49s	055
* 1 HFS	1971	09	11	06	28	09.5	015.6 N	098.2 E								
* 2 MOS	1971	09	11	06	28	11	015.1 N	096.5 E		5.4 MB						
* 3 NEIS	1971	09	11	06	28	11.1	015.136N	096.291E	028	5.3 MB					0.0 s	
* 4 ISC	1971	09	11	06	28	12	015.14 N	096.33 E	030	5.0 MB					1.34s	100
* 1 ISC	1971	09	11	14	54	36	015.19 N	096.43 E	019	4.6 MB						044
* 2 HFS	1971	09	11	14	53	50.1	013.7 N	101.0 E								
* 3 MOS	1971	09	11	14	54	39	015.2 N	096.2 E			4.6S					
* 4 NEIS	1971	09	11	14	54	39.4	015.3 N	096.3 E	033	4.6 MB						
*** 1 LEE**	**1971**	**09**	**14**	**03**	**11**	**04.5**	**023.0 N**	**100.9 E**	**033**			**6.2 LEE**				

Appendix B Earthquake data of Burma, Thailand and Indochina

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 2 ISC	1971	09	14	03	11	06	022.97	N	100.71	E	042	5.3 MB						111
* 3 HFS	1971	09	14	03	10	58.4	022.6	N	101.4	E								
* 4 NEIS	1971	09	14	03	11	04.3	022.9	N	100.8	E	033	5.4 MB						
* 1 ISC	1971	10	10	18	25	16.8	023.0	N	095.92	E	046	4.9 MB						117
* 2 MOS	1971	10	10	18	25	13	022.8	N	096.2	E		5.5 MB	5.3S					
* 3 NEIS	1971	10	10	18	25	14.6	023.0	N	096.0	E	033	5.1 MB						
* 4 SHL	1971	10	10	18	25	17.0	022.5	N	095.9	E		5.4 MB						
* 1 ISC	1971	10	10	19	02	44.0	024.97	N	095.29	E	133	4.7 MB						036
* 2 NEIS	1971	10	10	19	02	43.8	024.9	N	095.2	E	133	4.7 MB						
* 1 ISC	1971	10	14	12	55	21.6	023.06	N	095.56	E	047	5.1 MB						151
* 2 MOS	1971	10	14	12	55	16	022.6	N	096.1	E			5.6S					
* 3 NEIS	1971	10	14	12	55	23.3	023.1	N	095.8	E	063	5.2 MB						
* 4 SHL	1971	10	14	12	55	28.0	022.5	N	094.9	E	033							
* 1 SHL	1971	11	05	22	11	0.0	009.3	N	093.7	E								
* 2 NEIS	1971	11	05	22	11	15.5	010.8	N	092.976	E	055	5.7 MB					0.9 s	
* 3 MOS	1971	11	05	22	11	17	010.1	N	092.9	E	080	6.4 MB						
* 4 ISC	1971	11	05	22	11	15.1	010.11	N	092.93	E	053	5.9 MB					1.14s	260
* 1 MOS	1971	11	11	04	40	51	020.9	N	094.2	E		5.5 MB						
* 2 NEIS	1971	11	11	04	40	56.7	021.434	N	093.87	E	048	4.8 MB					0.7 s	
* 3 ISC	1971	11	11	04	40	57.6	021.44	N	093.88	E	055	5.0 MB					0.95s	068
* 1 MOS	1971	12	01	04	03	03	013.7	N	096.4	E		4.9 MB						
* 2 NEIS	1971	12	01	04	03	06.6	013.845	N	096.048	E	047	4.8 MB					1.1 s	
* 3 ISC	1971	12	01	04	03	04	013.82	N	096.0	E	023	4.6 MB					1.47s	039
HFS	1971	12	12	09	38	31.7	015.5	N	104.7	E								
* 1 NEIS	1971	12	28	12	45	56.7	009.064	N	094.189	E	033	5.1 MB					1.0 s	
* 2 MOS	1971	12	28	12	45	57	009.2	N	094.1	E		5.0 MB						
* 3 ISC	1971	12	28	12	45	58	009.06	N	094.11	E	052	5.1 MB					1.17s	064
* 1 ISC	1972	01	23	02	06	01.5	023.59	N	102.72	E	033	5.1 MB						115
* 2 MOS	1972	01	23	02	05	55	023.3	N	102.7	E		5.4 MB						
* 3 NEIS	1972	01	23	02	06	01.2	023.6	N	102.7	E	033	5.2 MB	4.8S					
* 1 MOS	1972	01	30	02	39	27	004.0	N	096.8	E		5.3 MB						
* 2 ISC	1972	01	30	02	39	56	005.15	N	096.8	E	230	4.5 MB					1.11s	026

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 MOS	1972	02	02	19	13	17	010.0 N	093.9 E		5.2 MB						
* 2 NEIS	1972	02	02	19	13	19.8	010.235N	093.773E	045	4.7 MB	4.4S				1.2 s	
* 3 ISC	1972	02	02	19	13	20.0	010.33 N	093.71 E	044	4.8 MB						059
* 1 ISC	1972	02	03	07	22	49	023.4 N	102.35 E	033							012
* 2 NEIS	1972	02	03	07	22	48.5	023.4 N	102.4 E	033	4.5 MB	4.2S					
* 1 MOS	1972	02	04	15	20	08	007.6 N	094.0 E		5.6 MB						
* 2 NEIS	1972	02	04	15	20	04.1	007.954N	094.029E	055	5.4 MB					0.9 s	
* 3 ISC	1972	02	04	15	20	07.9	007.95 N	094.03 E	089	5.2 MB					0.91s	085
* 1 MOS	1972	02	22	18	43	41	010.0 N	092.6 E	050	5.6 MB						
* 2 NEIS	1972	02	22	18	43	42.0	010.422N	092.459E	033	5.4 MB					1.0 s	
* 3 SHL	1972	02	22	18	43	43.0	010.2 N	092.0 E								
* 4 ISC	1972	02	22	18	43	38	010.42 N	092.48 E	004	5.4 MB					1.02s	157
* 1 ISC	1972	03	07	16	46	25.1	023.3 N	094.95 E	141							017
* 2 NEIS	1972	03	07	16	46	25.0	023.3 N	094.9 E	140	4.3 MB						
* 1 CNSK	1972	04	01	21	34	14.1	020.7 N	096.0 E								
* 2 ISC	1972	04	01	21	34	46.3	022.94 N	094.83 E	155	4.4 MB					1.01s	024
* 1 NEIS	1972	04	22	13	17	57.7	017.489N	094.305E	033	4.8 MB					1.2 s	
* 2 MOS	1972	04	22	13	17	58	017.4 N	094.6 E		5.2 MB						
* 3 ISC	1972	04	22	13	17	58.2	017.43 N	094.34 E	033	4.8 MB					1.12s	049
* 1 MOS	1972	04	28	11	30	17	016.8 N	094.9 E		5.5 MB	5.1S					
* 2 NEIS	1972	04	28	11	30	18.1	017.039N	094.772E	033	5.4 MB					0.8 s	
* 3 ISC	1972	04	28	11	30	17.4	016.99 N	094.85 E	028	5.3 MB					0.88s	167
* 1 MOS	1972	05	18	12	48	36	021.1 N	095.1 E		5.0 MB						
* 2 NEIS	1972	05	18	12	48	44.4	021.358N	094.44 E	089	4.8 MB					0.9 s	
* 3 ISC	1972	05	18	12	48	44	021.37 N	094.58 E	084	4.9 MB					1.17s	042
* 1 ISC	1972	05	24	13	18	30.3	013.64 N	108.82 E	000							017
* 2 CNSK	1972	05	24	13	18	25.9	012.4 N	108.5 E								
* 1 CNSK	1972	06	08	16	07	48.5	016.5 N	094.0 E								
* 2 ISC	1972	06	08	16	08	01	018.03 N	094.26 E	046						0.79s	020
* 1 NEIS	1972	07	07	12	04	11.6	020.466N	098.09 E	027	5.0 MB			5.5 L		1.1 s	
* 2 MOS	1972	07	07	12	04	12	020.4 N	098.1 E		5.5 MB			5.3 L			
* 3 ISC	1972	07	07	12	04	13.5	020.49 N	098.14 E	037	4.8 MB					1.36s	152

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1972	07	09	13	03	07.1	024.78	N	095.31	E	181							016
* 2 NEIS	1972	07	09	13	03	03.6	025.0	N	095.5	E	147	4.2 MB						
* 1 ISC	1972	07	11	20	46	13.4	024.24	N	094.6	E	061	4.6 MB						041
* 2 NEIS	1972	07	11	20	46	11.6	024.3	N	094.7	E	048	4.6 MB						
* 1 MOS	1972	07	16	22	41	18	021.9	N	103.9	E		4.8 MB	5.0S					
* 2 ISC	1972	07	16	22	41	44	024.2	N	102.8	E	105						2.16s	021
* 1 ISC	1972	07	29	09	22	07	007.0	N	095.0	E	000							
* 2 CNSK	1972	07	29	09	22	01.8	006.2	N	094.3	E								
* 1 ISC	1972	08	09	04	17	34.9	008.04	N	094.13	E	009	5.2 MB						
* 2 MOS	1972	08	09	04	17	35	008.0	N	094.1	E	020	5.6 MB	5.5S					223
* 3 NEIS	1972	08	09	04	17	37.3	007.9	N	094.1	E	033	5.1 MB	5.6S					
CNSK	1972	08	09	04	31	57.3	006.4	N	095.4	E								
* 1 ISC	1972	08	09	12	48	40	007.95	N	094.22	E	023	5.0 MB						
* 2 MOS	1972	08	09	12	48	38	007.8	N	094.2	E	020							101
* 3 NEIS	1972	08	09	12	48	41.4	008.0	N	094.2	E	033	5.0 MB						
* 1 CNSK	1972	08	14	14	34	16.2	005.5	N	095.5	E								
* 2 MOS	1972	08	14	14	34	22	006.0	N	095.3	E		4.93MB						
* 3 ISC	1972	08	14	14	34	41	006.8	N	095.0	E	163						1.48s	029
* 1 ISC	1972	08	21	14	23	56	023.6	N	093.9	E	045							009
* 2 NEIS	1972	08	21	14	23	55.1	023.6	N	093.9	E	033							
* 1 ISC	1972	08	27	14	49	31.7	022.67	N	100.64	E	033	4.6 MB						
* 2 NEIS	1972	08	27	14	49	31.9	022.6	N	100.7	E	033	4.8 MB	5.1S					075
* 3 MOS	1972	08	27	14	49	32	022.8	N	100.7	E		5.3 MB	5.1S					
* 1 MOS	1972	09	20	00	10	11	012.3	N	092.5	E		5.27MB						
* 2 NEIS	1972	09	20	00	10	12.8	012.47	N	092.274	E	033	4.6 MB					0.7 s	
* 3 ISC	1972	09	20	00	10	13	012.43	N	092.28	E	034	4.7 MB					0.8 s	040
* 1 CNSK	1972	09	22	19	02	21.6	005.2	N	097.0	E								
* 2 ISC	1972	09	22	19	02	26.1	006.8	N	097.5	E	008						1.85s	010
* 1 CNSK	1972	09	24	00	35	27.9	019.1	N	095.7	E								
* 2 ISC	1972	09	24	08	35	28.1	019.7	N	096.16	E	000						1.22s	010

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 MOS	1972	09	25	11	30	16	009.5 N	093.8 E		5.5 MB						
* 2 NEIS	1972	09	25	11	30	17.8	009.828N	093.943E	033	5.3 MB					1.1 s	
* 3 ISC	1972	09	25	11	30	17.7	009.67 N	093.7 E	033	5.2 MB					1.25s	111
* 1 CNSK	1972	10	02	10	56	49.1	017.5 N	094.8 E								
* 2 ISC	1972	10	02	10	56	53.6	018.9 N	095.13 E	000	4.7 MB					1.26s	016
* 1 ISC	1972	10	06	11	48	11.2	010.07 N	093.4 E	033						1.73s	011
* 2 NEIS	1972	10	06	11	48	10.2	009.770N	092.9 E	033							
* 1 ISC	1972	11	11	01	47	16	024.75 N	095.58 E	172	4.8 MB						037
* 2 MOS	1972	11	11	01	46	55	023.9 N	096.0 E								
* 3 NEIS	1972	11	11	01	47	13.4	024.8 N	095.4 E	143	5.0 MB						
* 1 MOS	1972	11	13	23	15	00	011.6 N	095.9 E		4.94MB						
* 2 ISC	1972	11	13	23	15	12.3	012.2 N	095.3 E	033						4.2 s	036
* 1 MOS	1972	11	13	23	34	12	012.3 N	095.1 E		5.4 MB	5.5S					
* 2 NEIS	1972	11	13	23	34	12.8	012.483N	095.172E	033	5.4 MB			5.5 L		1.1 s	
* 3 ISC	1972	11	13	23	34	11.8	012.44 N	095.23 E		5.0 MB					1.9 s	192
* 1 ISC	1972	11	22	21	05	21.2	025.09 N	096.25 E	000	5.0 MB						012
* 2 CNSK	1972	11	22	21	05	06.1	022.6 N	097.4 E								
* 1 NEIS	1972	12	08	02	41	14.6	011.889N	093.18 E	033	4.3 MB					1.1 s	
* 2 ISC	1972	12	08	02	41	15	011.82 N	093.23 E	037	4.4 MB					1.29s	020
* 1 MOS	1972	12	18	11	20	27	021.1 N	094.7 E		5.27MB						
* 2 NEIS	1972	12	18	11	20	31.4	021.225N	094.172E	072	5.3 MB					0.8 s	
* 3 ISC	1972	12	18	11	20	32.0	021.25 N	094.35 E	076	5.0 MB					1.1 s	069
* 1 MOS	1973	01	15	23	24	45	011.2 N	093.9 E		5.12MB						
* 2 ISC	1973	01	15	23	24	31	008.9 N	094.0 E	043						3.07s	026
* 1 ISC	1973	02	10	04	25	29	024.43 N	094.53 E	067	4.3 MB						023
* 2 MOS	1973	02	10	04	25	29.7	024.3 N	094.4 E	074	4.4 MB						
* 1 HFS	1973	02	14	23	04	15	006.0 N	095.0 E		4.6 MB						
* 2 ISC	1973	02	14	23	04	22.9	007.54 N	094.88 E	000						0.71s	006
* 1 HFS2	1973	02	16	13	47	06	007.0 N	095.0 E								
* 2 NEIS	1973	02	16	13	47	08.0	006.779N	094.288E	027	5.1 MB					0.9 s	
* 3 MOS	1973	02	16	13	47	11	007.0 N	094.2 E		5.28MB	4.72S					
* 4 HFS1	1973	02	16	13	47	13	008.0 N	093.0 E		4.8 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 5 ISC	1973	02	16	13	47	05	006.74 N	094.2 E	007	4.8 MB					1.17s	105
* 1 NEIS	1973	03	07	00	59	40.6	010.06 N	093.338E	033	4.3 MB					1.0 s	
* 2 ISC	1973	03	07	00	59	40.8	010.08 N	093.46 E	033	4.5 MB					1.48s	016
* 1 HFS	1973	03	22	06	10	20	021.0 N	101.0 E								
* 2 MOS	1973	03	22	06	10	26	021.8 N	101.2 E		5.38MB	5.18S					
* 3 NEIS	1973	03	22	06	10	28.3	022.017N	100.62 E	033	4.7 MB			5.4 L		1.0 s	
* 4 ISC	1973	03	22	06	10	28.3	022.0 N	100.81 E	033	4.5 MB					1.85s	074
* 1 MOS	1973	03	24	00	27	28	020.7 N	098.5 E		4.98MB						
* 2 HFS	1973	03	24	00	27	32	022.0 N	098.0 E								
* 3 NEIS	1973	03	24	00	27	32.7	021.624N	098.323E	033	4.9 MB					1.1 s	
* 4 ISC	1973	03	24	00	27	30	021.42 N	098.46 E	018	4.5 MB					2.15s	074
*** 1 HFS1**	**1973**	**04**	**07**	**03**	**00**	**54**	**008.0 N**	**093.0 E**		**6.1 MB**						
* 2 HFS2	1973	04	07	03	00	57	007.0 N	092.0 E								
* 3 NEIS	1973	04	07	03	00	58.8	006.966N	091.384E	033	5.9 MB			6.6 L		0.9 s	
*** 1 MOS**	**1973**	**04**	**07**	**03**	**00**	**59**	**006.9 N**	**091.3 E**		**6.23MB**	**6.64S**					
* 2 ISC	1973	04	07	03	00	59.6	007.0 N	091.32 E		5.8 MB					1.04s	356
* 1 NEIS	1973	04	07	03	14	46.9	006.871N	091.383F	033	4.8 MB					0.8 s	
* 2 MOS	1973	04	07	03	14	48	007.1 N	091.5 E								
* 3 HFS	1973	04	07	03	14	55	009.0 N	091.0 E		5.1 MB						
* 4 ISC	1973	04	07	03	14	47.2	006.9 N	091.39 E	033	4.8 MB					1.06s	067
* 1 HFS1	1973	04	10	19	05	21	013.0 N	095.0 E		5.0 MB						
* 2 MOS	1973	04	10	19	05	25	011.5 N	093.2 E		5.0 MB						
* 3 HFS2	1973	04	10	19	05	27	012.0 N	093.0 E								
* 4 NEIS	1973	04	10	19	05	27.8	012.005N	093.019E	033	4.7 MB					0.5 s	
* 5 ISC	1973	04	10	19	05	29	012.1 N	093.14 E	038	4.7 MB					1.27s	032
* 1 HFS1	1973	04	12	12	03	24	007.0 N	097.0 E		4.9 MB						
* 2 HFS2	1973	04	12	12	03	29	007.0 N	095.0 E								
* 3 MOS	1973	04	12	12	03	31	006.3 N	095.2 E		5.4 MB						
* 4 NEIS	1973	04	12	12	03	58.9	007.566N	095.054E	229	4.7 MB					1.0 s	
* 5 ISC	1973	04	12	12	03	59.5	007.53 N	094.97 E	229	4.7 MB					1.15s	071
* 1 NOS	1973	05	07	10	53	26	006.7 N	091.5 E		5.4 MB	4.6S					
* 2 HFS2	1973	05	07	10	53	27	008.0 N	092.0 E								
* 3 NEIS	1973	05	07	10	53	29.2	007.158N	091.304E	035	4.8 MB					0.8 s	
* 4 ISC	1973	05	07	10	53	28	007.13 N	091.22 E	019	4.9 MB					1.69s	079

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1973	05	23	01	57	54	024.6 N	094.9 E	062	4.2 MB						031
* 2 HFS2	1973	05	23	01	57	43	024.0 N	095.0 E								
* 3 NEIS	1973	05	23	01	57	53.2	024.3 N	094.9 E	063	4.2 MB						
* 1 ISC	1973	05	31	23	39	52	024.31 N	093.52 E	001	5.8 MB						313
* 2 HFS2	1973	05	31	23	39	56	025.0 N	094.0 E								
* 3 NEIS	1973	05	31	23	39	56.7	024.3 N	093.5 E	030	5.9 MB	5.7S					
* 4 MOS	1973	05	31	23	39	57	024.0 N	093.6 E	050							
* 1 ISC	1973	06	01	16	39	53	024.85 N	098.51 E	026	4.5 MB						043
* 2 MOS	1973	06	01	16	39	49	024.3 N	098.7 E		5.0 MB	4.8S					
* 3 HFS2	1973	06	01	16	40	00	026.0 N	098.0 E								
* 1 HFS1	1973	06	09	21	57	00	012.0 N	097.0 E		4.9 MB						
* 2 HFS2	1973	06	09	21	57	12	012.0 N	095.0 E								
* 3 MOS	1973	06	09	21	57	13	011.5 N	095.0 E	020	5.4 MB	4.7S					
* 4 NEIS	1973	06	09	21	57	14.1	011.583N	095.87 E	033	5.0 MB			4.8 L		0.8 s	
* 5 ISC	1973	06	09	21	57	10	011.59 N	095.09 E	005	4.9 MB					0.93s	121
* 1 ISC	1973	06	19	15	03	08.6	010.48 N	093.47 E	085	4.3 MB						017
* 2 NEIS	1973	06	19	15	03	02.9	010.495N	093.553E	033	4.1 MB					1.0 s	
* 3 HFS2	1973	06	19	15	03	05	012.0 N	094.0 E								
* 1 ISC	1973	07	03	23	18	58.1	024.2 N	094.85 E	000							014
* 2 HFS2	1973	07	03	23	18	49	022.0 N	094.0 E								
* 3 HFS1	1973	07	03	23	19	14	028.0 N	097.0 E		4.8 MB						
* 1 ISC	1973	07	04	21	04	46.2	023.6 N	094.86 E	126	5.0 MB						111
* 2 MOS	1973	07	04	21	04	30	022.7 N	095.3 E		4.9 MB	5.2S					
* 3 HFS2	1973	07	04	21	04	34	024.0 N	095.0 E								
* 4 HFS1	1973	07	04	21	04	43	027.0 N	099.0 E		5.4 MB						
* 5 NEIS	1973	07	04	21	04	46.3	023.6 N	094.8 E	127	5.2 MB						
* 1 HFS2	1973	07	09	16	19	42	011.0 N	093.0 E								
* 2 NEIS	1973	07	09	16	19	46.8	010.686N	092.583E	046	5.7 MB			5.2 L		1.1 s	
* 3 MOS	1973	07	09	16	19	47	010.6 N	092.6 E	050	5.9 MB	5.4S					
* 4 ISC	1973	07	09	16	19	46.7	010.66N	092.59 E	044	5.6 MB					1.03s	316
* 1 ISC	1973	07	12	21	31	02	024.05 N	095.06 E	115	4.3 MB						028
* 2 MOS	1973	07	12	21	30	46	023.2 N	095.6 E		5.2 MB						
* 3 NEIS	1973	07	12	21	31	03.7	024.2 N	095.0 E	135	4.4 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 NEIS	1973	07	26	04	23	36.3	010.457N	093.276E	066	4.4 MB					1.2 s	
* 2 ISC	1973	07	26	04	23	35	010.5 N	093.7 E	070	4.3 MB					2.09s	018
* 1 MOS	1973	07	26	14	14	09	009.5 N	094.2 E		5.3 MB						
* 2 NEIS	1973	07	26	14	14	14.4	010.586N	094.064E	033	4.4 MB					0.9 s	
* 3 ISC	1973	07	26	14	14	15	010.57 N	094.08 E	038						1.44s	028
* 1 NEIS	1973	07	26	14	51	33.0	010.28 N	093.916E	033	4.2 MB					0.8 s	
* 2 ISC	1973	07	26	14	51	33.5	010.4 N	094.1 E	033						1.96s	010
* 1 MOS	1973	07	26	19	00	16	009.5 N	093.9 E		4.9 MB						
* 2 ISC	1973	07	26	19	00	30	010.6 N	093.8 E	103						1.71s	023
* 1 MOS	1973	07	26	19	25	23	009.6 N	094.0 E		5.1 MB						
* 2 NEIS	1973	07	26	19	25	25.1	010.371N	094.32 E	033	4.5 MB					1.1 s	
* 3 HFS2	1973	07	26	19	25	27	011.0 N	094.0 E								
* 4 ISC	1973	07	26	19	25	27	010.18 N	094.12 E	048	4.5 MB					1.94s	074
* 1 NEIS	1973	07	26	19	35	26.4	010.412N	095.083E	033	4.2 MB					0.8 s	
* 2 MOS	1973	07	26	19	35	33	010.5 N	094.0 E		5.23MB						
* 3 ISC	1973	07	26	19	35	31	010.3 N	093.8 E	033	4.4 MB					5.46s	030
* 1 HFS2	1973	07	26	20	06	28	010.0 N	094.0 E								
* 2 HFS1	1973	07	26	20	06	31	012.0 N	096.0 E		4.6 MB						
* 3 MOS	1973	07	26	20	06	32	010.2 N	094.1 E		5.6 MB			5.0 L			
* 4 NEIS	1973	07	26	20	06	33.2	010.472N	093.893E	033	5.1 MB					1.1 s	
* 5 ISC	1973	07	26	20	06	36.5	010.38 N	093.76 E	056	5.0 MB					1.99s	183
* 1 ISC	1973	07	27	20	23	48.6	023.27 N	094.49 E	060	5.4 MB						211
* 2 HFS2	1973	07	27	20	23	43	024.0 N	095.0 E								
* 3 MOS	1973	07	27	20	23	44	023.0 N	094.7 E		5.4 MB	5.0S					
* 4 NEIS	1973	07	27	20	23	50.7	023.3 N	094.5 E	079	5.3 MB						
* 1 NEIS	1973	08	04	07	28	00.1	007.0 N	091.23 E	033	4.5 MB					0.8 s	
* 2 HFS	1973	08	04	07	28	07	009.0 N	092.0 E								
* 3 MOS	1973	08	04	07	28	17	009.2 N	091.8 E		5.8 MB						
* 4 ISC	1973	08	04	07	27	00	007.0 N	091.36 E	030	4.7 MB					1.22s	036
*** 1 LEE**	**1973**	**08**	**16**	**03**	**58**	**07.1**	**022.9 N**	**101.1 E**	**010**			**6.3 LEE**				
* 2 ERC	1973	08	16	03	58	10.7	023.052N	101.11 E		5.4 MB	6.4S					
ERC	1973	08	16	06	05	28.2	023.19 N	100.944E	033	5.1 MB						
* 1 NEIS	1973	08	24	07	52	19.8	014.185N	093.698E	033	4.3 MB					1.4 s	
* 2 ISC	1973	08	24	07	52	22	014.08 N	093.62 E	049	4.4 MB					1.56s	013

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	HFS	1973	09	02	09	49	41	012.0 N	095.0 E								
* 2	NEIS	1973	09	02	09	49	54.4	013.508N	093.743E	033	4.3 MB					0.4 s	
* 3	ISC	1973	09	02	09	49	54.7	013.5 N	093.73 E	035						0.35s	014
* 1	MOS	1973	10	30	02	44	55	020.3 N	093.7 E		4.93MB						
* 2	HFS2	1973	10	30	02	44	57	021.0 N	094.0 E								
* 3	NEIS	1973	10	30	02	45	00.6	020.928N	093.215E	032	4.9 MB					0.6 s	
* 4	ISC	1973	10	30	02	45	01.4	020.97 N	093.29 E	037	4.7 MB						045
* 1	HFS1	1973	11	09	23	26	30	006.0 N	096.0 E		5.1 MB						
* 2	MOS	1973	11	09	23	26	37	005.7 N	094.0 E		5.3 MB						
* 3	NEIS	1973	11	09	23	26	39.0	006.019N	093.976E	033	5.1 MB					0.8 s	
* 4	HFS2	1973	11	09	23	26	39	007.0 N	094.0 E								
* 5	ISC	1973	11	09	23	26	40.1	005.98 N	093.9 E	044	5.1 MB					1.23s	160
* 1	HFS2	1973	11	15	08	20	07	010.0 N	094.0 E								
* 2	MOS	1973	11	15	08	20	09.3	009.912N	093.752E	033	5.2 MB					0.9 s	
* 3	NEIS	1973	11	15	08	20	11	010.2 N	093.8 E		5.6 MB			4.6 L			
* 4	HFS1	1973	11	15	08	20	15	012.0 N	094.0 E		5.1 MB						
* 5	ISC	1973	11	15	08	20	12.9	010.09 N	093.69 E	057	5.0 MB					1.47s	143
* 1	ISC	1973	12	04	12	48	50.4	022.65 N	094.08 E	063	4.5 MB						053
* 2	HFS2	1973	12	04	12	48	39	022.0 N	094.0 E								
* 3	MOS	1973	12	04	12	48	42	022.0 N	094.4 E		5.1 MB						
* 4	HFS1	1973	12	04	12	48	50	026.0 N	097.0 E		5.0 MB						
* 5	NEIS	1973	12	04	12	48	50.1	022.6 N	094.1 E	063	4.6 MB						
* 1	ISC	1973	12	26	01	42	20	022.43 N	093.38 E	031	4.8 MB						081
* 2	HFS2	1973	12	26	01	41	58	019.0 N	093.0 E								
* 3	MOS	1973	12	26	01	42	19	022.3 N	093.6 E		5.1 MB						
* 4	NEIS	1973	12	26	01	42	21.6	022.5 N	093.4 E	050	5.1 MB						
* 1	HFS2	1974	01	01	13	52	37	020.0 N	096.0 E								
* 2	HFS1	1974	01	01	13	53	02	025.0 N	098.0 E		5.3 MB						
* 3	ISC	1974	01	01	13	53	31	023.9 N	094.1 E	285	4.1 MB					2.46s	032
* 1	HFS1	1974	01	01	14	07	33	005.0 N	097.0 E		5.2 MB						
* 2	HFS2	1974	01	01	14	07	35	005.0 N	096.0 E								
* 3	NEIS	1974	01	01	14	07	40.1	004.63 N	095.896E	059	5.4 MB					0.9 s	
* 4	MOS	1974	01	01	14	07	41	004.8 N	096.1 E	065	5.5 MB						
* 5	ISC	1974	01	01	14	07	42	004.64 N	095.87 E	076	5.1 MB					1.33s	155

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	HFS1	1974	01	01	14	13	27	005.0 N	097.0 E		4.9 MB						
* 2	HFS2	1974	01	01	14	13	28	005.0 N	095.0 E								
* 3	NEIS	1974	01	01	14	13	31.5	004.774N	095.726E	033	5.1 MB					1.0 s	
* 4	MOS	1974	01	01	14	13	33	004.8 N	096.1 E	065	5.3 MB						
* 5	ISC	1974	01	01	14	13	43	005.2 N	095.92 E	121	4.6 MB					1.68s	037
* 1	ISC	1974	01	07	05	18	24.5	023.43 N	094.72 E	108	4.7 MB						080
* 2	HFS2	1974	01	07	05	18	15	024.0 N	095.0 E								
* 3	MOS	1974	01	07	05	18	19	023.54 N	094.9 E		4.8 MB						
* 4	NEIS	1974	01	07	05	18	24.3	023.5 N	094.8 E	105	4.9 MB						
* 5	HFS1	1974	01	07	05	18	37	029.0 N	097.0 E		5.2 MB						
	GS	1974	01	20	20	05	18.7	022.837N	092.936E	033	4.8 MB						
* 1	NEIS	1974	02	11	14	10	12.6	006.913N	091.337E	007	5.2 MB					0.8 s	
* 2	HFS2	1974	02	11	14	10	13	007.0 N	092.0 E								
* 3	MOS	1974	02	11	14	10	15	006.6 N	091.4 E		5.4 MB	5.0S					
* 4	HFS1	1974	02	11	14	10	29	000.0 N	092.0 E		5.1 MB						
* 5	ISC	1974	02	11	14	10	12.7	006.86 N	091.31 E	007	4.8 MB					1.04s	087
* 1	MOS	1974	02	16	01	51	09	011.4 N	092.4 E	020	5.7 MB						
* 2	NEIS	1974	02	16	01	51	10.8	011.4[illegible] N	092.346E	025	5.5 MB			6.0 L		1.3 s	
* 3	HFS1	1974	02	16	01	51	23	015.0 N	094.0 E		5.2 MB						
* 4	ISC	1974	02	16	01	51	10.2	011.47 N	092.32 E		5.2 MB					1.63s	244
* 1	MOS	1974	02	16	01	53	46	011.5 N	092.6 E		5.9 MB	6.0S					
* 2	NEIS	1974	02	16	01	53	46.6	011.446N	092.357E	033	5.7 MB			6.1 L		0.9 s	
* 3	HFS1	1974	02	16	01	53	52	014.0 N	094.0 E		5.4 MB						
* 4	ISC	1974	02	16	01	53	53	011.5 N	092.53 E	088	5.2 MB					1.66s	146
* 1	MOS	1974	02	16	02	14	22	011.3 N	092.5 E		5.0 MB						
* 2	NEIS	1974	02	16	02	14	23.1	011.485N	092.213E	033	4.9 MB					0.9 s	
* 3	HFS2	1974	02	16	02	14	33	013.0 N	091.0 E								
* 4	HFS1	1974	02	16	02	14	35	014.0 N	093.0 E		4.6 MB						
* 5	ISC	1974	02	16	02	14	23.2	011.48 N	092.22 E	033	4.7 MB					1.21s	036
* 1	ISC	1974	02	28	00	40	38	025.1 N	096.2 E	033							019
* 2	HFS2	1974	02	28	00	39	53	021.0 N	103.0 E								
* 3	MOS	1974	02	28	00	40	24	023.4 N	097.0 E								

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1974	03	05	03	12	17	023.1 N	094.8 E	000	4.6 MB						007
* 2 HFS1	1974	03	05	03	12	38	028.0 N	097.0 E		4.8 MB						
* 1 HFS2	1974	03	20	07	47	29	020.0 N	096.0 E								
* 2 HFS1	1974	03	20	07	48	83	027.0 N	097.0 E		4.8 MB						
* 3 ISC	1974	03	20	07	47	45.0	023.05 N	095.8 E	000	4.7 MB					0.83s	009
* 1 HFS2	1974	03	25	21	14	40	017.0 N	094.0 E								
* 2 MOS	1974	03	25	21	14	44	017.2 N	094.2 E	050	5.2 MB						
* 3 NEIS	1974	03	25	21	14	44.2	017.412N	094.0 E	033	4.9 MB					0.7 s	
* 4 HFS1	1974	03	25	21	14	49	021.0 N	097.0 E		5.3 MB						
* 5 ISC	1974	03	25	21	14	42	017.42 N	094.06 E	018	4.9 MB					1.01s	098
ISC	1974	03	27	08	08	27	007.9 N	091.5 E	081						1.53s	012
ISC	1974	03	31	20	18	29	024.1 N	095.7 E	033							009
* 1 MOS	1974	04	05	03	46	22	020.8 N	094.0 E		5.0 MB						
* 2 HFS1	1974	04	05	03	46	24	023.0 N	098.0 E		5.7 MB						
* 3 HFS2	1974	04	05	03	46	26	022.0 N	094.0 E								
* 4 NEIS	1974	04	05	03	46	30.1	021.325N	093.536E	049	5.0 MB					0.7 s	
* 5 ISC	1974	04	05	03	46	29.7	021.33 N	093.68 E	047	5.0 MB					0.85s	087
* 1 HFS2	1974	04	05	10	28	58	022.0 N	094.0 E								
* 2 HFS1	1974	04	05	10	29	09	025.0 N	097.0 E		4.9 MB						
* 3 ISC	1974	04	05	10	28	58	021.6 N	094.0 E	000						3.19s	010
* 1 HFS2	1974	04	10	06	39	45	012.2 N	093.0 E								
* 2 NEIS	1974	04	10	06	39	47.3	011.885N	092.989E	033	4.7 MB					0.6 s	
* 3 HFS1	1974	04	10	06	39	53	014.0 N	094.0 E		4.9 MB						
* 4 ISC	1974	04	10	06	39	48	011.8 N	092.9 E	040	4.4 MB					2.01s	020
* 1 MOS	1974	04	20	07	49	01	007.1 N	094.6 E		4.9 MB						
* 2 HFS1	1974	04	20	07	49	05	008.0 N	094.0 E		4.7 MB						
* 3 HFS2	1974	04	20	07	49	05	009.0 N	095.0 E								
* 4 ISC	1974	04	20	07	49	05	006.96 N	094.92 E	077	4.4 MB					1.79s	057
* 1 MOS	1974	04	22	01	38	48	013.8 N	094.2 E		5.2 MB						
* 2 NEIS	1974	04	22	01	38	51.6	014.174N	093.979E	033	4.9 MB					1.0 s	
* 3 HFS2	1974	04	22	01	38	54	015.0 N	094.0 E								
* 4 HFS1	1974	04	22	01	39	00	017.0 N	095.0 E		5.2 MB						
* 5 ISC	1974	04	22	01	38	53.7	014.22 N	094.06 E	052	4.8 MB					1.03s	103

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	--------MAGNITUDES-------- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
CGS	1974	05	25	16	07	22.9	024.67 N	095.13 E	083	4.5 MB						
* 1 HFS1	1974	06	02	11	55	12	008.0 N	095.0 E		4.8 MB						
* 2 NEIS	1974	06	02	11	55	15.1	007.186N	094.432E	033	4.6 MB					1.1 s	
* 3 LAO	1974	06	02	12	00	10	013.0 N	149.0 E	000	4.0 MB						
* 4 ISC	1974	06	02	11	55	26.3	007.49 N	094.70 E	135	4.3 MB					0.67s	014
* 1 MOS	1974	06	06	21	26	06	007.5 N	091.0 E		4.8 MB						
* 2 ISC	1974	06	06	21	26	05	007.0 N	091.2 E	046	4.4 MB					4.45s	031
ISC	1974	06	12	17	07	52	015.4 N	096.0 E	033						5.31s	009
* 1 ISC	1974	06	22	18	48	51	022.3 N	093.9 E	150							014
* 2 NEIS	1974	06	22	18	48	46.9	023.1 N	094.8 E	107	3.9 MB						
* 3 HFS1	1974	06	22	18	48	55	027.0 N	097.0 E		4.6 MB						
* 1 HFS1	1974	06	27	18	52	30	011.0 N	095.0 E		5.0 MB						
* 2 HFS2	1974	06	27	18	52	33	011.0 N	093.0 E								
* 3 MOS	1974	06	27	18	52	34	010.2 N	093.0 E		5.4 MB	4.7S					
* 4 NEIS	1974	06	27	18	52	36.2	010.501N	092.785E	033	5.3 MB					0.8 s	
* 5 ISC	1974	06	27	18	52	36	010.48 N	092.76 E	020	5.2 MB					0.95s	137
* 1 HFS2	1974	07	07	08	19	23	005.0 N	097.0 E								
* 2 HFS1	1974	07	07	08	19	26	006.0 N	098.0 E		5.1 MB						
* 3 MOS	1974	07	07	08	19	27	004.4 N	096.4 E		5.4 MB						
* 4 NEIS	1974	07	07	08	19	46.1	005.184N	096.296E	169	4.9 MB					0.8 s	
* 5 ISC	1974	07	07	08	19	46.8	005.18 N	096.31 E	175	4.9 MB					0.96s	112
ISC	1974	07	12	18	13	53.3	012.5 N	097.5 E	033						2.21s	005
* 1 NEIS	1974	07	23	03	06	30.4	021.974N	093.122E	035	4.4 MB					1.3 s	
* 2 HFS2	1974	07	23	03	06	33	023.0 N	093.0 E								
* 3 MOS	1974	07	23	03	06	37	022.7 N	093.6 E		4.8 MB						
* 4 HFS1	1974	07	23	03	06	41	026.0 N	096.0 E		5.1 MB						
* 5 ISC	1974	07	23	03	06	31.4	022.0 N	093.3 E	035	4.7 MB					3.45s	037
* 1 ISC	1974	08	30	20	02	45.8	022.97 N	094.62 E	107	4.5 MB						029
* 2 NEIS	1974	08	30	20	02	46.1	022.9 N	094.5 E	106	4.5 MB						
* 1 ISC	1974	09	21	17	53	37.0	024.14 N	094.63 E	109	4.6 MB						045
* 2 HFS2	1974	09	21	17	53	27	024.0 N	095.0 E								
* 3 NEIS	1974	09	21	17	53	34.2	024.2 N	094.7 E	082	4.8 MB						
* 4 HFS1	1974	09	21	17	53	45	028.0 N	097.0 E		5.2 MB						

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	---MAGNITUDES--- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	HFS2	1974	11	16	04	52	55	018.0	N	100.0	E								
* 2	MOS	1974	11	16	04	53	18	020.9	N	097.8	E		4.8 MB	4.9S					
* 3	ISC	1974	11	16	04	53	11.6	020.1	N	098.2	E	033	4.6 MB					3.1 s	035
* 1	ISC	1974	11	16	22	07	22.1	024.9	N	095.43	E	128	4.6 MB						075
* 2	MOS	1974	11	16	22	07	03	023.9	N	096.4	E		5.3 MB						
* 3	HFS2	1974	11	16	22	07	11	025.0	n	095.0	E								
* 4	NEIS	1974	11	16	22	07	25.0	024.9	N	095.4	E	159	4.7 MB						
* 5	HFS1	1974	11	16	22	07	34	030.0	N	097.0	E		5.9 MB						
* 1	HFS2	1974	11	21	19	44	53	019.0	N	097.0	E								
* 2	MOS	1974	11	21	19	45	03	019.7	N	095.5	E		5.0 MB						
* 3	NEIS	1974	11	21	19	45	05.6	020.071	N	095.181	E	033	5.1 MB					0.8 s	
*** 4**	**HFS1**	**1974**	**11**	**21**	**19**	**45**	**20**	**024.0**	**N**	**098.0**	**E**		**6.0 MB**						
* 5	ISC	1974	11	21	19	45	11.2	019.99	N	094.99	E	078	4.8 MB					1.08s	082
	ISC	1974	11	24	04	23	43.6	018.7	N	095.28	E	075						0.84s	008
* 1	ISC	1974	12	02	01	08	45.3	024.44	N	095.31	E	107	4.9 MB						052
* 2	HFS2	1974	12	02	01	08	34	025.0	N	096.0	E								
* 3	NEIS	1974	12	02	01	08	45.9	024.5	N	095.3	E	110	4.8 MB						
* 4	HFS1	1974	12	02	01	08	48	028.0	N	097.0	E		5.1 MB						
	ISC	1974	12	02	15	23	26	009.0	N	094.7	E	000						0.84s	009
* 1	ISC	1974	12	07	13	55	04.1	023.88	N	093.69	E	078	4.7 MB						064
* 2	MOS	1974	12	07	13	54	55	023.4	N	094.1	E		5.0 MB						
* 3	HFS2	1974	12	07	13	54	57	024.0	N	094.0	E								
* 4	NEIS	1974	12	07	13	54	58	023.9	N	093.9	E	033	4.8 MB						
* 1	ISC	1975	01	17	15	09	39	022.79	N	094.04	E	016	4.5 MB						033
* 2	HFS1	1975	01	17	15	09	31	022.0	N	095.0	E		4.8 MB						
* 3	HFS2	1975	01	17	15	09	40	023.0	N	094.0	E								
* 4	NEIS	1975	01	17	15	09	41.8	022.7	N	093.9	E	033	4.6 MB						
* 1	HFS2	1975	01	22	08	30	35	014.0	N	096.0	E								
* 2	NEIS	1975	01	22	08	30	37.1	014.65	N	096.139	E	015	5.5 MB					0.8 s	
* 3	ISC	1975	01	22	08	30	37	014.67	N	096.25	E	015	5.1 MB					1.25s	092

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	NEIS	1975	02	17	03	38	19.8	017.638N	097.902E	006	5.6 MB			5.9 L		1.2 s	
* 2	HFS2	1975	02	17	03	38	22	018.0 N	098.0 E								
* 3	MOS	1975	02	17	03	38	24	017.7 N	098.1 E		5.8 MB	5.8S					
* 4	HFS1	1975	02	17	03	38	32	019.0 N	096.0 E		6.2 MB						
* 5	ISC	1975	02	17	03	38	28.2	017.65 N	097.84 E	006	5.5 MB					1.45s	246
	NEIS	1975	03	03	02	14	54.8	022.35 N	094.55 E	092	4.4 MB						
* 1	ISC	1975	03	03	19	24	23.0	024.11 N	093.5 E	042	4.8 MB						086
* 2	HFS1	1975	03	03	19	24	15	023.0 N	093.0 E		4.8 MB						
* 3	MOS	1975	03	03	19	24	19	023.8 N	093.7 E		5.0 MB						
* 4	HFS2	1975	03	03	19	24	22	025.0 N	093.0 E								
* 5	NEIS	1975	03	03	19	24	23.1	024.1 N	093.5 E	042	5.0 MB						
* 1	HFS1	1975	03	04	00	24	16	003.0 N	096.0 E		4.8 MB						
* 2	HFS2	1975	03	04	00	24	58	011.0 N	093.0 E								
* 3	ISC	1975	03	04	00	24	56	010.6 N	093.2 E	000	4.9 MB					2.64s	020
* 1	NEIS	1975	03	13	08	11	37.7	011.108N	095.145E	033	5.2 MB					0.8 s	
* 2	HFS2	1975	03	13	08	11	48	012.0 N	095.0 E								
* 3	MOS	1975	03	13	08	11	41	011.3 N	094.8 E		5.5 MB			4.4 L			
* 4	HFS1	1975	03	13	08	12	05	016.0 N	094.0 E		5.6 MB						
* 5	ISC	1975	03	13	08	11	35	011.05 N	095.05 E	011	4.8 MB					1.86s	105
* 1	HFS2	1975	03	13	14	32	22	017.0 N	094.0 E								
* 2	ISC	1975	03	13	14	32	21	017.0 N	093.84 E	014	4.3 MB					1.85s	008
	ISC	1975	03	18	15	20	37	022.86 N	105.27 E	019	4.8 MB						023
* 1	HFS2	1975	03	29	10	08	12	017.0 N	097.0 E								
* 2	HFS1	1975	03	29	10	08	56	022.0 N	091.0 E		5.2 MB						
* 3	ISC	1975	03	29	10	08	32	019.7 N	094.0 E	000						1.8 s	013
* 1	HFS2	1975	04	22	21	23	02	005.0 N	097.0 E								
* 2	MOS	1975	04	22	21	23	13	005.4 N	095.3 E		5.4 MB	5.0S					
* 3	NEIS	1975	04	22	21	23	22.9	006.297N	095.236E	086	5.1 MB					0.7 s	
* 4	HFS1	1975	04	22	21	23	43	000.0 N	090.0 E		5.3 MB						
* 5	ISC	1975	04	22	21	23	28.4	006.20 N	095.18 E	135	4.8 MB					0.91s	092
	ISC	1975	04	30	09	08	32	020.2 N	101.0 E	033	4.4 MB					3.68s	010
* 1	HFS1	1975	05	14	03	40	36	014.0 N	094.0 E		4.6 MB						
* 2	ISC	1975	05	14	03	40	38	013.0 N	094.5 E	033	4.5 MB					5.08s	014

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 HFS2	1975	05	15	21	07	23	012.0 N	094.0 E								
* 2 MOS	1975	05	15	21	07	31	011.9 N	093.9 E	090	5.3 MB						
* 3 NEIS	1975	05	15	21	07	34.4	012.145N	093.721E	103	5.0 MB						106
* 4 HFS1	1975	05	15	21	07	44	014.0 N	090.0 E		5.4 MB						
* 5 ISC	1975	05	15	21	07	38.4	012.2 N	093.77 E	139	4.8 MB					1.2 s	151
ISC	1975	05	16	04	59	40	008.7 N	093.1 E	126						3.23s	013
* 1 ISC	1975	05	21	03	16	18.3	023.86 N	094.09 E	051	5.3 MB						255
* 2 MOS	1975	05	21	03	16	15	023.3 N	094.3 E	050	5.7 MB	4.9S					
* 3 NEIS	1975	05	21	03	16	20.6	023.9 N	094.1 E	072	5.3 MB						
* 4 HFS2	1975	05	21	03	16	21	025.0 N	093.0 E								
* 5 HFS1	1975	05	21	03	16	26	028.0 N	097.0 E		5.7 MB						
* 1 ISC	1975	05	30	18	45	02	023.8 N	098.0 E	000							012
* 2 HFS2	1975	05	30	18	44	54	022.0 N	097.0 E								
* 1 NEIS	1975	06	01	18	43	06.7	011.193N	094.278E	033	4.5 MB					1.2 s	007
* 2 ISC	1975	06	01	18	43	13	011.4 N	094.5 E	080	4.4 MB					3.28s	014
* 1 HFS1	1975	06	23	08	43	37	008.0 N	092.0 E		4.4 MB						
* 2 ISC	1975	06	23	08	43	21.0	006.94 N	094.39 E	000						0.33s	005
* 1 HFS1	1975	06	24	08	41	01	008.0 N	094.0 E		4.6 MB						
* 2 ISC	1975	06	24	08	40	54.8	007.8 N	094.8 E	000						2.12s	006
* 1 ISC	1975	06	28	21	32	03.1	022.64 N	094.89 E	137	4.8 MB						071
* 2 MOS	1975	06	28	21	31	47	022.0 N	095.4 E		5.1 MB						
* 3 HFS2	1975	06	28	21	31	53	023.0 N	095.0 E								
* 4 NEIS	1975	06	28	21	32	02.2	022.7 N	095.0 E	130	5.1 MB						
* 1 MOS	1975	06	30	08	50	41	012.8 N	093.4 E		5.2 MB	4.5S					
* 2 NEIS	1975	06	30	08	50	43.3	013.063N	093.241E	033	5.1 MB						042
* 3 HFS2	1975	06	30	08	51	06	017.0 N	092.0 E								
* 4 ISC	1975	06	30	08	50	51.1	013.13 N	093.18 E	100	4.9 MB					1.39s	102

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 HFS2	1975	07	08	12	04	30	022.0 N	095.0 E								
* 2 JMA	1975	07	08	12	04	34.4	021.5 N	094.6 E	084	6.8 MB						
* 3 MOS	1975	07	08	12	04	35	021.2 N	094.9 E	100	6.5 MB						
* 4 NEIS	1975	07	08	12	04	42.4	021.485N	094.766E	157	6.5 MB						186
* 5 ISC	1975	07	08	12	04	38.0	021.42 N	094.62 E	112	5.9 MB					1.47s	486
* 6 NDI														III		
* 1 HFS2	1975	07	08	19	36	11	018.0 N	096.0 E								
* 2 NEIS	1975	07	08	19	36	43.7	021.508N	094.76 E	094	4.6 MB					0.4 s	010
* 3 HFS1	1975	07	08	19	36	49	026.0 N	097.0 E		5.1 MB						
* 4 ISC	1975	07	08	19	36	45.1	021.37 N	094.8 E	114	4.3 MB					0.96s	019
* 1 HFS2	1975	07	09	11	30	24	022.0 N	095.0 E								
* 2 NEIS	1975	07	09	11	30	39.9	021.544N	094.698E	178	4.8 MB						044
* 3 ISC	1975	07	09	11	30	33.3	021.6 N	094.82 E	119	4.8 MB					0.93s	075
NEIS	1975	07	09	13	55	44.6	024.068N	103.34E	033	4.9 MB						
ISC	1975	08	17	01	37	00.7	010.77 N	092.52 E	033						1.82s	015
NEIS	1975	08	18	15	20	38.6	022.73 N	105.16 E	033	4.9 MB						
* 1 MOS	1975	08	29	20	39	57	008.7 N	094.3 E		5.3 MB	4.6S					
* 2 NEIS	1975	08	29	20	40	01.3	009.307N	094.186E	033	5.0 MB						051
* 3 HFS2	1975	08	29	20	40	26	014.0 N	093.0 E								
* 4 HFS1	1975	08	29	20	40	40	015.0 N	089.0 E		5.0 MB						
* 5 ISC	1975	08	29	20	39	58.6	008.86 N	094.29 E		4.9 MB					3.46s	110
* 1 HFS1	1975	09	06	01	55	30	022.0 N	093.0 E		5.1 MB						
* 2 ISC	1975	09	06	01	55	24	020.2 N	093.5 E	037	4.8 MB					5.16s	009
* 1 NEIS	1975	09	11	23	07	44.3	020.761N	099.139E	035	4.0 MB						005
* 2 ISC	1975	09	11	23	07	45.7	020.78 N	099.2 E	035	4.5 MB					2.02s	015
* 1 MOS	1975	09	17	03	00	08	021.5 N	094.7 E		5.1 MB						
* 2 HFS1	1975	09	17	03	00	13	022.0 N	093.0 E		5.4 MB						
* 3 NEIS	1975	09	17	03	00	20.1	022.369N	094.231E	088	4.9 MB						041
* 4 HFS2	1975	09	17	03	00	21	024.0 N	094.0 E								
* 5 ISC	1975	09	17	03	00	18.3	022.29 N	094.22 E	069	4.7 MB					1.26s	106
* 1 MOS	1975	09	18	23	01	53	019.2 N	098.6 E		5.1 MB	5.2S					
* 2 HFS2	1975	09	18	23	01	57	020.0 N	099.0 E								
* 3 NEIS	1975	09	18	23	01	58.8	020.031N	098.451E	033	5.1 MB					0.8 s	057
* 4 HFS1	1975	09	18	23	02	36	024.0 N	092.0 E		5.0 MB						
* 5 ISC	1975	09	18	23	01	55	019.99 N	098.52 E	010	4.7 MB					1.26s	101

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH	--------MAGNITUDES--------				INT	S.D.	OBS.
									(KM)	BODY	SURF	OTHER	LOCAL	MAX		
* 1 MOS	1975	09	29	13	42	43	018.3 N	096.6 E		5.5 MB			5.5 L			
* 2 HFS2	1975	09	29	13	42	43	019.0 N	096.0 E								
* 3 NEIS	1975	09	29	13	42	47.1	018.297N	096.367E	064	5.1 MB						090
* 4 HFS1	1975	09	29	13	43	04	021.0 N	093.0 E		5.7 MB						
* 5 ISC	1975	09	29	13	42	41	018.24 N	096.4 E	011	5.2 MB					1.75s	200
* 1 NEIS	1975	10	13	16	12	10.8	010.919N	092.509E	033	4.7 MB						008
* 2 ISC	1975	10	13	16	12	10	010.8 N	092.42 E	022	4.4 MB					2.42s	022
* 1 ISC	1975	10	21	07	10	52	022.92 N	094.34 E	052	4.9 MB						022
* 2 HFS2	1975	10	21	07	10	48	023.0 N	094.0 E								
* 3 NEIS	1975	10	21	07	10	50.4	023.0 N	094.3 E	033	4.8 MB						
* 1 NEIS	1975	10	21	08	51	19.0	021.405N	101.422E	033	4.8 MB					0.8 s	006
* 2 ISC	1975	10	21	08	51	18.4	021.44 N	101.67 E	033	4.8 MB					1.08s	022
ISC	1975	10	24	16	31	47	023.3 N	096.5 E	033							008
* 1 MOS	1975	10	27	23	18	52	021.3 N	101.8 E		5.31MB	5.4S					
* 2 HFS2	1975	10	27	23	18	53	022.0 N	102.0 E								
* 3 NEIS	1975	10	27	23	18	53.6	021.5 N	101.698E	033	5.1 MB						044
* 4 ISC	1975	10	27	23	10	50	021.58 N	101.64 E	002	5.0 MB					1.17s	129
* 1 NEIS	1975	10	28	05	40	42.3	008.663N	094.065E	033	5.0 MB					1.10s	034
* 2 HFS2	1975	10	28	05	40	51	011.0 N	094.0 E								
* 3 MOS	1975	10	28	05	40	56	010.6 N	094.3 E		5.2 MB						
* 4 HFS1	1975	10	28	05	41	17	013.0 N	088.0 E		4.8 MB						
* 5 ISC	1975	10	28	05	40	42.4	008.68 N	094.18 E		4.9 MB					3.06s	084
* 1 ISC	1975	11	04	19	27	58.5	024.09 N	095.11 E	098							012
* 2 HFS1	1975	11	04	19	27	57	024.0 N	093.0 E		5.2 MB						
* 1 HFS2	1975	11	05	10	40	05	007.0 N	094.0 E								
* 2 NEIS	1975	11	05	10	40	05.9	007.245N	094.367E	030	5.2 MB			4.9 L			077
* 3 MOS	1975	11	05	10	40	06	007.2 N	094.4 E		5.5 MB			5.3 L			
* 4 HFS1	1975	11	05	10	40	43	012.0 N	089.0 E		5.5 MB						
* 5 ISC	1975	11	05	10	40	06	007.39 N	094.39 E	026	5.3 MB					1.7 s	193
* 1 HFS2	1975	11	05	11	27	05	007.0 N	094.0 E								
* 2 NEIS	1975	11	05	11	27	05.9	007.461N	094.429E	022	5.2 MB			4.8 L			054
* 3 MOS	1975	11	05	11	27	08	007.8 N	094.4 E		5.5 MB			5.0 L			
* 4 HFS1	1975	11	05	11	27	38	011.0 N	090.0 E		5.3 MB						
* 5 ISC	1975	11	05	11	27	06	007.44 N	094.45 E	017	5.1 MB					2.01s	147

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 MOS	1975	11	06	09	49	57	007.7 N	095.7 E	020	5.47MB	5.04S					
* 2 NEIS	1975	11	06	09	50	00.4	007.268N	094.393E	062	5.0 MB			4.9 L		1.4 s	028
* 3 HFS2	1975	11	06	09	50	19	012.0 N	094.0 E								
* 4 HFS1	1975	11	06	09	50	22	000.0 N	090.0 E		4.9 MB						
* 5 ISC	1975	11	06	09	50	01	007.26 N	094.5 E	056	4.8 MB					3.47s	092
* 1 HFS1	1975	11	06	22	59	25	008.0 N	093.0 E		4.5 MB						
* 2 ISC	1975	11	06	22	59	24	007.5 N	094.4 E	094						2.11s	010
ISC	1975	11	08	22	09	28.7	011.01 N	094.09 E	184						1.83s	009
* 1 HFS1	1975	11	19	14	01	01	020.0 N	095.0 E		5.0 MB						
* 2 HFS2	1975	11	19	14	01	14	022.0 N	095.0 E								
* 3 NEIS	1975	11	19	14	01	25.1	021.429N	094.755E	121	4.4 MB					0.80s	011
* 4 ISC	1975	11	19	14	01	24.6	021.55 N	094.85 E	115	4.5 MB					0.97s	030
* 1 ISC	1975	12	13	22	35	44.2	023.62 N	094.27 E	062	5.2 MB						158
* 2 MOS	1975	12	13	22	35	36	022.9 N	094.6 E		5.4 MB						
* 3 HFS2	1975	12	13	22	35	39	024.0 N	094.0 E								
* 4 NEIS	1975	12	13	22	35	44.2	023.7 N	094.3 E	063	5.2 MB						
* 1 NEIS	1975	12	17	05	35	17.8	005.283N	095.906E	017	5.6 MB			6.2 L		1.00s	178
* 2 HFS2	1975	12	17	05	35	18	006.0 N	096.0 E								
* 3 MOS	1975	12	17	05	35	19	005.0 N	095.8 E		5.8 MB	6.2S					
* 4 HFS1	1975	12	17	05	35	30	007.0 N	093.0 E		5.8 MB						
* 5 ISC	1975	12	17	05	35	21.4	005.25 N	095.83 E	040	5.6 MB					1.58s	344
ISC	1975	12	27	09	41	06	017.7 N	103.8 E	033						3.46s	005
* 1 MOS	1975	12	30	08	57	22	017.8 N	096.8 E		5.2 MB	5.1S					
* 2 NEIS	1975	12	30	08	57	24.1	018.136N	096.431E	033	5.0 MB			5.2 L			051
* 3 HFS1	1975	12	30	08	57	38	020.0 N	095.0 E								
* 4 HFS2	1975	12	30	08	58	05	025.0 N	096.0 E		5.3 MB						
* 5 ISC	1975	12	30	08	57	23	018.15 N	096.52 E	023	4.9 MB					1.54s	102
* 1 HFS2	1975	12	31	14	04	42	015.0 N	094.0 E								
* 2 NEIS	1975	12	31	14	04	44.3	014.499N	093.740E	073	4.4 MB						012
* 3 ISC	1975	12	31	14	04	44.5	014.54 N	093.73 E	074	4.9 MB					1.14s	025
* 1 GS	1976	01	18	14	03	09.9	023.552N	090.769E	033							
* 2 ISC	1976	01	18	14	03	09.8	023.50 N	090.90 E	033							014

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	ISC	1976	01	22	21	45	28.3	021.95 N	101.2 E	033						1.43s	007
* 1	GS	1976	01	31	21	23	11.3	009.701N	092.751E	075	4.7 MB					1.0 s	013
* 2	ISC	1976	01	31	21	23	09.9	009.80 N	092.81 E	061	4.5 MB					1.15s	021
* 1	GS	1976	02	01	15	38	43.1	024.411N	093.501E	059	4.0 MB						
* 2	ISC	1976	02	01	15	38	42.1	024.45 N	093.45 E	048							012
* 3	HFS1	1976	02	01	15	38	46	026.0 N	093.0 E		5.0 MB						
	ISC	1976	02	14	00	53	25.0	008.60 N	093.77 E	075	4.0 MB					1.05s	015
* 1	GS	1976	02	16	14	45	42.2	022.742N	100.706E	033	5.0 MB	5.2S				1.10s	071
* 2	ISC	1976	02	16	14	45	41	022.75 N	100.68 E	026	4.9 MB						118
* 3	HFS2	1976	02	16	14	45	38	023.0 N	101.0 E								
* 4	MOS	1976	02	16	14	45	41	022.6 N	100.9 E		5.3 MB	5.4S					
* 5	PEK	1976	02	16	14	45	07	022.9 N	100.3 E							5.5.s	
* 1	GS	1976	02	17	07	50	54.6	020.266N	096.094E	033	4.3 MB						
* 2	ISC	1976	02	17	07	50	56.8	020.27 N	096.02 E	049		0.84S					017
* 1	GS	1976	02	19	09	38	32.7	022.787N	100.604E	017	5.1 MB						
* 2	ISC	1976	02	19	09	38	34.0	022.81 N	100.61 E	026	4.9 MB						078
* 3	MOS	1976	02	19	09	38	33	022.6 N	100.8 E		5.3 MB	5.2S					
* 4	HFS2	1976	02	19	09	38	34	02[illegible] N	101.0 E								
	BKK	1976	03	03	04	42	45.8	018.00 N	096.58 E		4.4 MB			3.7 L		0.41s	003
	BKK	1976	03	08	08	59	29.3	019.92 N	101.56 E		2.7 MB			3.3 L		0.25s	003
* 1	GS	1976	03	09	22	56	34.8	010.944N	092.228E	033	3.9 MB						
* 2	ISC	1976	03	09	22	56	35.3	010.94 N	092.24 E	037						1.15s	011
* 3	HFS2	1976	03	09	22	56	25	010.0 N	093.0 E								
* 1	GS	1976	03	16	04	55	54.8	024.444N	093.256E	059	3.8 MB						
* 2	ISC	1976	03	16	04	56	00	024.8 N	092.9 E	095							014
* 3	HFS2	1976	03	16	04	55	50	025.0 N	093.0 E								
	ISC	1976	03	18	07	26	17.4	024.34 N	093.98 E	056							009
* 1	GS	1976	03	20	04	53	29.2	019.233N	094.952E	079	4.6 MB						015
* 2	HFS1	1976	03	20	04	53	42	024.0 N	097.0 E		4.9 MB						
* 3	ISC	1976	03	20	04	53	25	019.0 N	095.3 E	060	4.6 MB					0.84s	021
	BKK	1976	03	22	08	09	33.6	020.67 N	098.32 E	010				3.5 L		0.76s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1976	03	25	03	42	46.4	007.448N	094.369E	033	5.0 MB						
* 2 ISC	1976	03	25	03	42	43	007.42 N	094.34 E	011	5.1 MB						114
* 3 HFS2	1976	03	25	03	42	41	007.0 N	094.0 E								
* 4 MOS	1976	03	25	03	42	46	007.4 N	094.3 E		5.3 MB						012
ISC	1976	03	25	04	03	29.0	007.5 N	093.9 E	033						4.19s	006
* 1 GS	1976	03	25	06	17	30.5	007.343N	094.485E	033	4.6 MB					1.3 s	016
* 2 ISC	1976	03	25	06	17	30.0	007.35 N	094.31 E	021	4.8 MB					2.76s	074
* 3 HFS2	1976	03	25	06	17	20	006.0 N	095.0 E								
* 4 HFS1	1976	03	25	06	17	32	008.0 N	094.0 E		4.8 MB						
* 5 MOS	1976	03	25	06	17	44	009.1 N	094.0 E		5.1 MB	4.8S					
* 1 GS	1976	03	25	08	16	30.3	007.477N	094.293E	033	5.3 MB	4.8S					
* 2 ISC	1976	03	25	08	16	28.2	007.41 N	094.26 E	019	5.3 MB					1.48s	207
* 3 HFS2	1976	03	25	08	16	27	007.0 N	094.0 E								
* 4 MOS	1976	03	25	08	16	28	007.1 N	094.1 E		5.5 MB	5.4S					
* 5 HFS1	1976	03	25	08	16	42	011.0 N	095.0 E		5.5 MB						
BKK	1976	03	25	08	57	16.2	017.75 N	096.61 E		3.6 MB			3.6 L		0.34s	003
BKK	1976	03	25	09	09	12.5	017.81 N	096.86 E	010				3.3 L		1.84s	003
GS	1976	03	25	16	58	16.9	005.208N	094.963E	071	5.2 MB						
BKK	1976	03	25	18	16	36.4	021.18 N	101.24 E	010				3.9 L		1.31s	003
* 1 GS	1976	03	30	06	48	10.8	024.265N	094.266E	056	4.6 MB						010
* 2 ISC	1976	03	30	06	48	10.6	024.31 N	094.38 E	055	4.4 MB					1.87s	017
* 3 HFS2	1976	03	30	06	47	50	021.0 N	098.0 E								
BKK	1976	03	31	08	09	45.3	020.37 N	099.69 E	010				3.2 L		3.09s	033
ISC	1976	04	01	11	47	14	024.5 N	090.8 E	081							
* 1 ISC	1976	04	04	08	19	23.1	021.29 N	093.76 E	064	5.2 MB	3.9S					162
* 2 MOS	1976	04	04	08	19	17.4	021.10 N	094.09 E	033	5.4 MB						
* 3 NEIS	1976	04	04	08	19	21.6	021.3 N	093.8 E	051	5.1 MB						
* 4 PEK	1976	04	04	08	19	23.5	021.4 N	093.6 E			4.7S					
* 1 GS	1976	04	05	21	23	30.8	021.817N	095.417E	044	4.8 MB	5.5S				1.1 s	036
* 2 ISC	1976	04	05	21	23	34.0	021.89 N	095.30 E	069	4.6 MB					1.4 s	083
* 3 MOS	1976	04	05	21	23	2[illegible]	021.4 N	095.7 E		5.1 MB						
* 4 HFS2	1976	04	05	21	23	32	023.0 N	095.0 E								
* 5 HFS1	1976	04	05	21	24	00	029.0 N	096.0 E		5.1 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISC	1976	04	07	15	27	12.3	007.2 N	098.6 E	033						2.21s	006
* 1 GS	1976	04	16	04	31	43.0	007.631N	094.408E	033	4.4 MB						
* 2 ISC	1976	04	16	04	31	43.2	007.8 N	094.60 E	033						1.01s	015
* 3 HFS2	1976	04	16	04	31	39	008.0 N	095.0 E								
* 4 MOS	1976	04	16	04	31	43.0	007.6 N	094.4 E	033	4.4 MB						
* 1 ISC	1976	04	16	15	09	36.0	007.5 N	094.4 E	033						3.56s	014
* 2 HFS2	1976	04	16	15	09	37	008.0 N	094.0 E		4.8 MB						
* 1 GS	1976	04	16	16	51	31.2	007.494N	094.398E	022	5.2 MB						121
* 2 ISC	1976	04	16	16	51	33.2	007.42 N	094.35 E	038	5.3 MB					1.43s	190
* 3 HFS1	1976	04	16	16	51	29	008.0 N	095.0 E		5.8 MB						
* 4 HFS2	1976	04	16	16	51	30	008.0 N	095.0 E								
* 5 MOS	1976	04	16	16	51	31	007.2 N	094.3 E		5.6 MB	5.2S					
* 1 GS	1976	04	16	17	01	43.3	007.499N	094.599E	033	4.8 MB						
* 2 ISC	1976	04	16	17	01	39	007.7 N	094.6 E		4.8 MB					2.87s	042
* 3 HFS2	1976	04	16	17	01	42	008.0 N	095.0 E								
* 4 HFS1	1976	04	16	17	01	57	000.0 N	093.0 E		4.8 MB						
* 1 GS	1976	04	16	17	47	00.4	007.335N	094.348E	021	5.0 MB						079
* 2 ISC	1976	04	16	17	47	00	007.40 N	094.39 E	014	5.1 MB					1.2 s	115
* 3 HFS2	1976	04	16	17	47	00	008.0 N	094.0 E								
* 4 MOS	1976	04	16	17	47	01	007.1 N	094.4 E		5.3 MB	5.1S					
* 5 HFS1	1976	04	16	17	47	15	000.0 N	093.0 E		5.2 MB						
* 1 GS	1976	04	17	00	20	28.6	006.355N	097.655E	074	5.4 MB						007
* 2 ISC	1976	04	17	00	20	30.0	004.7 N	096.8 E	058						2.21s	008
* 1 GS	1976	04	19	20	48	21.3	012.028N	092.861E	033	4.1 MB						007
* 2 ISC	1976	04	19	20	48	22.7	012.30 N	092.7 E	033						2.77s	017
* 3 HFS1	1976	04	19	20	48	31	015.0 N	094.0 E		4.4 MB						
* 1 GS	1976	04	21	19	09	59.6	010.281N	092.875E	033	5.7 MB						086
* 2 ISC	1976	04	21	19	10	01.7	010.29 N	092.86 E	052	5.3 MB					1.22s	175
* 3 MOS	1976	04	21	19	09	58	010.1 N	093.0 E		5.5 MB	5.0S					
* 4 HFS2	1976	04	21	19	10	05	010.0 N	095.0 E								
* 5 HFS1	1976	04	21	19	10	18	014.0 N	092.0 E		4.9 MB						
BKK	1976	04	27	14	40	15.7	021.65 N	100.73 E	010				4.2 L		1.04s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1976	05	03	13	38	23.1	020.28 N	098.50 E	010						1.14s	003
BKK	1976	05	06	08	12	04.1	020.34 N	098.56 E	013				3.7 L		1.05s	003
BKK	1976	05	06	10	10	37.6	020.47 N	098.22 E	010				3.2 L		1.22s	003
ISC	1976	05	11	14	59	02.0	011.4 N	092.6 E	033						5.01s	007
* 1 GS	1976	05	15	08	11	49.8	017.594N	095.311E	037	4.8 MB						010
* 2 ISC	1976	05	15	08	11	51.7	017.99 N	095.58 E	042	4.8 MB						024
* 3 HFS1	1976	05	15	08	12	04	023.0 N	098.0 E		5.4 MB						
BKK	1976	05	16	21	45	20.4	021.32 N	100.65 E	007				3.5 L		0.66s	003
* 1 GS	1976	05	29	11	58	21.6	024.470N	098.894E	033	4.9 MB						
* 2 ISC	1976	05	29	11	58	21.3	024.36 N	098.97 E	033	4.8 MB						061
* 3 HFS2	1976	05	29	11	58	20	025.0 N	099.0 E								
* 4 MOS	1976	05	29	11	58	23	024.7 N	098.8 E		5.1 MB	5.1S					009
* 1 GS	1976	05	29	12	23	18.7	024.570N	098.953E	008	6.1 MB	6.9S	6.90BRK				
* 2 LEE	1976	05	29	12	23	18.7	024.6 N	098.7 E				7.0 LEE				
* 3 ISC	1976	05	29	12	23	18.4	024.51 N	098.95 E	003	5.9 MB						353
* 4 HFS2	1976	05	29	12	23	21	025.0 N	099.0 E								
* 5 MOS	1976	05	29	12	23	23	024.6 N	098.9 E		6.3 MB	6.7S					
* 1 GS	1976	05	29	14	00	18.5	024.531N	098.710E	010	6.0 MB	7.0S	6.90PAS				
* 2 LEE	1976	05	29	14	00	18.5	024.6 N	098.7 E				7.1 LEE				
* 3 ISC	1976	05	29	14	00	19.4	024.54 N	098.60 E	004	5.7 MB						324
* 4 MOS	1976	05	29	14	00	18	024.6 N	098.8 E		6.1 MB	6.9S					
* 5 HFS2	1976	05	29	14	00	24	025.0 N	098.0 E								
* 6 HFS1	1976	05	29	14	00	56	013.0 N	099.0 E		5.5 MB						
* 1 GS	1976	05	29	14	31	47.7	024.392N	098.767E	033	4.9 MB						
* 2 ISC	1976	05	29	14	31	48	024.51 N	098.82 E	028	4.8 MB						049
* 3 HFS2	1976	05	29	14	31	45	024.0 N	099.0 E								
* 4 MOS	1976	05	20	14	31	49	024.5 N	098.9 E		5.2 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1976	05	29	14	52	56.3	024.321N	098.763E	033	4.5 MB						
* 2 ISC	1976	05	29	14	52	58.1	024.25 N	093.77 E	049							017
* 3 HFS2	1976	05	29	14	52	50	024.0 N	099.0 E								
* 1 GS	1976	05	29	17	08	55.9	024.468N	098.648E	033	4.0 MB						
* 2 ISC	1976	05	29	17	08	56.5	024.47 N	098.80 E	033							015
* 1 GS	1976	05	29	19	36	55.7	024.547N	098.934E	032	5.2 MB						
* 2 ISC	1976	05	29	19	36	52.1	024.56 N	098.99 E	002	5.1 MB						165
* 3 MOS	1976	05	29	19	36	57	024.7 N	099.1 E		5.7 MB	5.3S					
* 4 HFS2	1976	05	29	19	36	00	026.0 N	099.0 E								
* 1 GS	1976	05	29	23	31	21.9	024.416N	098.775E	033	4.0 MB						
* 2 ISC	1976	05	29	23	31	21.9	024.48 N	098.87 E	033							013
* 1 GS	1976	05	30	00	39	52.6	024.749N	098.763E	033	4.0 MB						
* 2 ISC	1976	05	30	00	39	52.8	024 75 N	098.04 E								
* 1 GS	1976	05	30	04	18	43.8	024.423N	098.810E	028	5.1 MB						
* 2 ISC	1976	05	30	04	18	40.7	024.51 N	098.85 E	001	5.2 MB						124
* 3 MOS	1976	05	30	04	18	45	024.4 N	098.8 E		5.4 MB	5.3S					
* 4 HFS2	1976	05	30	04	18	46	025.0 N	099.0 E								
* 5 HFS1	1976	05	30	04	18	59	029.0 N	101.0 E		5.2 MB						
ISC	1976	05	30	06	48	10.6	024.31 N	094.38 E	055							
* 1 GS	1976	05	30	22	31	33.5	024.542N	098.870E	034	4.8 MB						
* 2 ISC	1976	05	30	22	31	33	024.50 N	098.90 E	016	4.6 MB					1.13s	068
* 3 HFS2	1976	05	30	22	31	10	021.0 N	100.0 E								
* 4 MOS	1976	05	30	22	31	28	024.2 N	099.1 E		5.2 MB	4.7S					
* 1 GS	1976	05	31	05	08	28.5	024.343N	098.642E	014	5.5 MB	6.2S					
* 2 LEE	1976	05	31	05	08	28.5	024.6 N	098.7 E				6.3 LEE				
* 3 ISC	1976	05	31	05	08	30	024.37 N	098.62 E	025	5.5 MB						293
* 4 HFS2	1976	05	31	05	08	25	024.0 N	099.0 E								
* 5 MOS	1976	05	31	05	08	30	024.2 N	098.8 E		5.5.MB	6.2S					
*** 6 HFS1**	**1976**	**05**	**31**	**05**	**09**	**06**	**031.0 N**	**098.0 E**		**6.0 MB**						
* 1 GS	1976	05	31	12	32	41.6	013.423N	093.551E	102	4.4 MB					1.3 s	014
* 2 ISC	1976	05	31	12	32	40.2	013.03 N	093.74 E	112	4.5 MB					1.07s	049
* 3 HFS2	1976	05	31	12	32	19	011.0 N	094.0 E								
* 4 MOS	1976	05	31	12	32	23	011.8 N	093.8 E								
* 5 HFS1	1976	05	31	12	32	39	015.0 N	095.0 E		5.0 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1976	05	31	18	35	05.1	024.377N	098.771E	020	5.2 MB	5.5S					
* 2 ISC	1976	05	31	18	35	05.0	024.29 N	098.68 E	020	5.1 MB						183
* 3 HFS2	1976	05	31	18	35	07	025.0 N	099.0 E								
* 4 MOS	1976	05	31	18	35	08	024.5 N	098.7 E		5.8 MB	5.5S					
ISC	1976	06	01	01	58	43.1	024.21 N	098.60 E	033							010
ISC	1976	06	01	14	54	47	024.3 N	098.7 E	038							005
* 1 GS	1976	06	03	17	48	50.1	024.307N	098.623E	016							
* 2 ISC	1976	06	03	17	48	50.2	024.31 N	098.65 E	016							011
* 1 GS	1976	06	03	18	05	14.8	024.240N	098.666E	033	4.8 MB					1.3 s	020
* 2 ISC	1976	06	03	18	05	14.8	024.24 N	098.81 E	033	4.8 MB						053
* 3 HFS2	1976	06	03	18	05	12	024.0 N	099.0 E		5.2 MB						
4 MOS	1976	06	03	18	05	14	024.2 N	099.0 E		5.2 MB						
* 1 GS	1976	06	08	23	14	31.0	024.179N	098.658E	033	4.5 MB					1.3 s	018
* 2 ISC	1976	06	08	23	14	31.8	024.22 N	098.77 E	033	4.5 MB						056
* 3 MOS	1976	06	08	23	14	17	022.9 N	099.4 E		5.2 MB	5.0S					
* 4 HFS2	1976	06	08	23	14	27	024.0 N	099.0 E								
* 1 GS	1976	06	09	00	20	39.5	024.894N	098.753E	033	5.7 MB	5.9S				1.3 s	083
* 2 LEE	1976	06	09	00	20	39.5	024.6 N	098.7 E				6. LEE				
* 3 ISC	1976	06	09	00	20	37.9	024.94 N	098.74 E	013	5.6 MB						244
*** 3 MOS**	**1976**	**06**	**09**	**00**	**20**	**37**	**024.8 N**	**098.9 E**	**020**	**6.0 MB**	**5.9S**					
* 4 HFS2	1976	06	09	00	20	45	026.0 N	098.0 E								
* 1 GS	1976	06	09	17	40	31.4	024.684N	098.624E	033	4.4 MB						
* 2 ISC	1976	06	09	17	40	29.6	024.74 N	098.67 E	020							017
* 3 MOS	1976	06	09	17	40	23	024.1 N	099.2 E	020	4.8 MB						
* 4 HFS2	1976	06	09	17	40	24	024.0 N	099.0 E								
* 1 GS	1976	06	20	02	33	06.1	024.558N	098.641E	017	4.7 MB						
* 2 ISC	1976	06	20	02	33	08.0	024.50 N	098.63 E	029	4.5 MB						076
* 3 HFS2	1976	06	20	02	33	02.0	024.0 N	099.0 E								
* 4 MOS	1976	06	20	02	33	05.0	024.0 N	098.8 E		5.1 MB	5.0S					
* 1 GS	1976	06	20	15	28	04.4	024.745N	098.609E	033	4.1 MB						
* 2 ISC	1976	06	20	15	28	05.0	024.70 N	098.63 E	033							013
* 1 HFS1	1976	06	20	21	09	23	007.0 N	096.0 E		4.7 MB						
* 2 HFS2	1976	06	20	21	09	44	009.0 N	091.0 E								
* 3 ISC	1976	06	20	21	09	50.4	010.7 N	091.8 E	000						1.60s	014

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	HFS1	1976	06	20	21	26	51	006.0 N	094.0 E		5.0 MB						
* 2	ISC	1976	06	20	21	26	39.9	003.6 N	096.8 E		5.1 MB					0.59s	024
	ISC	1976	06	21	01	28	07	005.2 N	098.6 E	033						2.89s	007
* 1	GS	1976	06	25	15	41	34.0	014.794N	093.650E	033	3.8 MB						
* 2	ISC	1976	06	25	15	41	33.9	014.76 N	093.65 E	033						0.99s	007
* 1	GS	1976	06	30	23	15	15.6	022.757N	094.638E	097	4.0 MB						
* 2	ISC	1976	06	30	23	15	15	022.8 N	094.7 E	094							009
* 3	HFS1	1976	06	30	23	15	19	027.0 N	097.0 E		4.8 MB						
* 1	GS	1976	07	03	16	33	23.1	024.191N	098.676E	033	5.3 MB	5.4S					
* 2	ISC	1976	07	03	16	33	23.8	24.27 N	098.71 E	033	5.2 MB						174
* 3	MOS	1976	07	03	16	33	18	024.2 N	098.9 E		5.4 MB	5.5S					
* 4	HFS2	1976	07	03	16	33	26	025.0 N	099.0 E								
* 1	GS	1976	07	13	07	28	37.0	024.553N	098.899E	033	4.5 MB						
* 2	ISC	1976	07	13	07	28	35	024.64 N	099.05 E	012	4.5 MB						017
* 3	HFS2	1976	07	13	07	28	25	023.0 N	099.0 E								
* 4	NEIS	1976	07	13	07	28	37.0	024.6 N	098.9 E	033	4.5 MB						
	ISC	1976	07	17	07	27	30	014.0 N	093.9 E	033						7.75s	008
* 1	GS	1976	07	21	15	10	45.6	024.782N	098.698E	009	5.8 MB	6.3S					
* 2	LEE	1976	07	21	15	10	45.6	024.6 N	098.7 E				6.4 LEE				
* 3	ISC	1976	07	21	15	10	45.1	024.78 N	098.68 E	004	5.7 MB						310
* 4	HFS2	1976	07	21	15	10	47	025.0 N	099.0 E								
* 5	MOS	1976	07	21	15	10	49	024.8 N	098.8 E		6.0 MB	6.4S					
* 1	GS	1976	07	22	04	26	21.4	024.702N	098.749E	033							
* 2	ISC	1976	07	22	04	26	27	024.33 N	098.92 E	108							030
* 3	HFS2	1976	07	22	04	26	13	024.0 N	099.0 E								
* 4	MOS	1976	07	22	04	26	17	024.2 N	099.1 E								
	GS	1976	07	23	01	43	58.9	024.893N	098.676E	033	5.0 MB	4.9S					
* 1	GS	1976	07	23	15	49	18.8	024.784N	098.583E	033							
* 2	ISC	1976	07	23	15	49	19	024.78 N	098.61 E	033							007
* 1	GS	1976	07	27	09	09	52.0	008.249N	094.073E	033	5.3 MB	4.9S					
* 2	ISC	1976	07	27	09	09	51.3	008.31 N	094.13 E	026	5.2 MB					1.12s	191
* 3	HFS2	1976	07	27	09	09	49	008.0 N	094.0 E								

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 4	MOS	1976	07	27	09	09	52	008.3 N	094.1 E		5.3 MB	5.2S					
* 1	GS	1976	07	27	10	22	10.9	008.206N	094.374E	033	4.9 MB						
* 2	ISC	1976	07	27	10	22	12	008.32 N	094.32 E	037	4.7 MB					1.53s	069
* 3	MOS	1976	07	27	10	22	13	008.6 N	094.3 E		4.9 MB	4.9S					
* 4	HFS2	1976	07	27	10	22	13	009.0 N	094.0 E								
* 1	GS	1976	07	28	02	03	05.7	008.082N	093.609E	033	4.4 MB						
* 2	ISC	1976	07	28	02	03	06.0	008.0 N	093.8 E	030	4.5 MB						017
* 3	HFS1	1976	07	28	02	04		009.0 N	092.0 E		4.6 MB						
	ISC	1976	08	01	13	32	52.2	021.1 N	094.6 E	107							007
* 1	GS	1976	08	01	18	02	16.9	024.807N	098.698E	033	4.4 MB						
* 2	ISC	1976	08	01	18	02	18.8	024.83 N	098.71 E	033							014
* 1	GS	1976	08	03	09	44	34.6	014.876N	095.423E	042	4.3 MB						
* 2	ISC	1976	08	03	09	44	35	014.9 N	095.3 E	037							027
* 3	MOS	1976	08	03	09	44	39	015.7 N	095.8 E		4.9 MB	4.9S					
* 1	GS	1976	08	04	09	28	01.0	024.694N	098.903E	033	4.1 MB						
* 2	ISC	1976	08	04	09	27	59	024.73 N	098.95 E	019							011
* 1	GS	1976	08	05	13	37	16.7	006.982N	094.312E	106	5.6 MB						
* 2	ISC	1976	08	05	13	37	14.7	007.0 N	094.31 E	087	5.7 MB					1.05s	307
* 3	HFS2	1976	08	05	13	37	05	007.0 N	094.0 E								
* 4	MOS	1976	08	05	13	37	16	007.1 N	094.3 E	113	5.6 MB						
* 1	ISC	1976	08	25	03	17	07	007.1 N	094.4 E	033						2.03s	010
* 2	HFS1	1976	08	25	03	17		009.0 N	093.0 E		4.8 MB						
* 1	ISC	1976	08	30	00	08	31.6	023.1 N	097.1 E	033							006
* 2	HFS1	1976	08	30	00	09		026.0 N	097.0 E		4.8 MB						
* 1	GS	1976	09	19	13	56	13.7	022.439N	100.980E	024	4.9 MB	4.5S					
* 2	ISC	1976	09	19	13	56	13	022.55 N	101.11 E	015	4.8 MB						071
* 3	MOS	1976	09	19	13	56	10	022.0 N	101.5 E		5.2 MB	5.2S					
* 1	GS	1976	09	24	00	09	52.8	024.049N	095.014E	164	4.6 MB						
* 2	ISC	1976	09	24	00	09	50.6	024.21 N	095.07 E	138	4.6 MB						056
* 3	MOS	1976	09	24	00	09	30	023.0 N	095.6 E		4.8 MB						
* 1	GS	1976	09	25	19	09	16.7	010.919N	092.468E	027	4.7 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 2 ISC	1976	09	25	19	09	16.9	010.97 N	092.55 E	025	4.5 MB					2.68s	061
* 3 MOS	1976	09	25	19	09	27	012.2 N	093.4 E		5.3 MB						
* 1 GS	1976	09	29	15	24	48.3	017.182N	094.120E	036	3.8 MB						
* 2 ISC	1976	09	29	15	24	48	017.34 N	094.10 E	033	4.3 MB					1.54s	016
* 1 GS	1976	10	09	06	11	38.5	023.916N	102.454E	033	5.0 MB						
* 2 ISC	1976	10	09	06	11	34.7	024.06 N	102.52 E	002	4.7 MB						074
* 3 MOS	1976	10	09	06	11	36	023.6 N	102.7 E		4.9 MB	4.8S					
* 1 GS	1976	10	12	15	19	33.5	024.484N	098.805E	033	5.0 MB						
* 2 ISC	1976	10	12	15	19	31.9	024.60 N	098.78 E	013	4.9 MB						121
* 3 MOS	1976	10	12	15	19	33	024.5 N	098.9 E		5.4 MB	5.4S					
* 1 GS	1976	10	16	07	12	24.4	021.382N	099.732E	033	4.8 MB						
* 2 ISC	1976	10	16	07	12	25.0	021.50 N	099.93 E	033	4.6 MB					1.77s	045
* 3 MOS	1976	10	16	07	12	27	021.7 N	099.9 E		4.9 MB	5.1S					
* 1 GS	1976	10	30	16	02	10.0	012.341N	093.624E	119	4.7 MB					1.0 s	049
* 2 ISC	1976	10	30	16	02	09.9	012.37 N	093.59 E	117	4.7 MB					1.08s	063
* 3 MOS	1976	10	30	16	01	57	011.7 N	093.7 E								
* 4 HFS1	1976	10	30	16	02		016.0 N	096.0 E		5.4 MB						
* 1 GS	1976	11	03	05	41	04.5	024.961N	099.170E	020	4.8 MB						
* 2 ISC	1976	11	03	05	41	04.8	024.91 N	099.34 E	020	4.8 MB						061
* 3 MOS	1976	11	03	15	41	03	024.6 N	099.7 E		5.0 MB	4.9S					
* 1 GS	1976	12	06	16	13	12.3	024.205N	094.560E	097	4.7 MB						
* 2 ISC	1976	12	06	16	13	10	024.26 N	094.54 E	066	4.7 MB						035
* 1 GS	1976	12	08	07	49	31.6	024.575N	099.048E	037	4.5 MB						
* 2 ISC	1976	12	08	07	49	31	024.7 N	099.3 E	037	4.5 MB						010
ISC	1976	12	11	11	06	14.6	006.69 N	095.83 E	243						0.30s	006
* 1 GS	1976	12	11	18	08	04.4	007.494N	093.811E	033	5.6 MB	5.9S					
* 2 ISC	1976	12	11	18	08	02	007.65 N	093.90 E	008	5.4 MB					1.94s	317
* 3 MOS	1976	12	11	18	08	07	008.0 N	093.8 E		5.9 MB	6.0S					
*** 4 HFS1**	**1976**	**12**	**11**	**18**	**08**		**009.0 N**	**092.0 E**		**6.1 MB**						
* 1 G S	1976	12	11	18	31	47.6	07.601N	094.031E	033	5.0 MB						
* 2 ISC	1976	12	11	18	31	51	07.68 N	094.10 E	063	4.8 MB					1.73s	52
* 3 HFS1	1976	12	11	18	32		09.0 N	092.0 E		4.8 MB						
* 4 MOS	1976	12	11	18	31	56	08.9 N	093.6 E		5.1 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1976	12	12	05	21	44.8	07.537N	094.071E	033	4.9 MB						
* 2 ISC	1976	12	12	05	21	49	007.67 N	094.34 E	057	4.7 MB					2.73s	079
* 3 MOS	1976	12	12	05	21	50	008.4 N	094.7 E		5.3 MB	4.8S					
* 4 HFS1	1976	12	12	05	22		009.0 N	093.0 E		4.9 MB						
ISC	1976	12	13	10	11	47.5	008.0 N	094.4 E	000							018
ISC	1976	12	14	11	44	38.5	007.57 N	090.07 E	033	4.7 MB					1.80s	048
* 1 GS	1976	12	15	04	35	11.4	23.126N	094.606E	097	5.0 MB						
* 2 ISC	1976	12	15	04	35	12.3	023.10 E	094.61 E	103	4.9 MB						119
* 3 MOS	1976	12	15	04	35	07	022.6 N	095.0 E	095	5.2 MB						
* 1 ISC	1976	12	18	10	53	50	007.8 N	094.3 E	076	4.7 MB					2.94s	021
* 2 NEIS	1976	12	18	10	53	44.3	007.6 N	093.8 E	033	4.9 MB						
ISC	1976	12	28	15	16	22.9	014.66 N	096.63 E	033						2.07s	006
BKK	1977	01	06	11	03	28.50	018.58 N	099.87 E	016				3.1 L		0.23s	003
* 1 GS	1977	01	07	21	02	55.2	024.161N	098.446E	042	4.6 MB						
* 2 ISC	1977	01	07	21	02	52.0	024.28 N	098.56 E	016	4.5 MB						050
* 3 MOS	1977	01	07	21	02	55	024.3 N	098.5 E		4.9 MB						
* 1 GS	1977	01	25	02	05	52.0	017.327N	094.167E	025	4.8 MB						
* 2 ISC	1977	01	25	02	05	52	017.32 N	094.15 E	022	4.7 MB						063
* 3 MOS	1977	01	25	02	05	52	017.1 N	094.4 E		4.8 MB						
* 1 GS	1977	01	29	05	10	52.7	015.239N	096.522E	040	4.9 MB	4.6S					
* 2 ISC	1977	01	29	05	10	50	015.13 N	096.47 E	016	4.9 MB						078
* 3 MOS	1977	01	29	05	10	52	015.1 N	096.4 E		5.3 MB	4.9S					
* 1 GS	1977	02	06	16	53	57.8	024.306N	092.882E	042	4.7 MB						
* 2 ISC	1977	02	06	16	53	57.5	024.33 N	092.95 E	037	4.7 MB						071
* 3 MOS	1977	02	06	16	53	54	024.0 N	093.1 E		4.9 MB						
* 1 GS	1977	02	09	12	07	10.9	011.718N	092.361E	033	4.7 MB						
* 2 ISC	1977	02	09	12	07	10.9	011.66 N	092.32 E	033	4.4 MB						022
* 3 HFS1	1977	02	09	12	07		014.0 N	093.0 E		4.8 MB						
* 1 GS	1977	02	19	10	34	22.3	008.361N	093.766E	033	5.1 MB						
* 2 ISC	1977	02	19	10	34	22	008.28 N	093.72 E	029	5.1 MB						085
* 3 HFS1	1977	02	19	10	34		006.0 N	093.0 E		4.9 MB						
* 4 MOS	1977	02	19	10	34	23	007.9 N	093.6 E	050	5.3 MB						

Appendix B Earthquake data of Burma, Thailand and Indochina

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISC	1977	02	21	18	55	55	021.5 N	094.6 E	273							005
ISC	1977	03	03	22	29	45	007.3 N	094.3 E	033	4.4 MB						007
* 1 GS	1977	04	13	04	03	10.4	005.342N	096.637E	037	4.6 MB						
* 2 ISC	1977	04	13	04	03	11.2	005.29 N	096.65 E	045	4.8 MB						015
* 1 BKK	1977	05	01	06	21	06.9	021.17 N	098.16 E	014				4.2 L			
* 2 ISC	1977	05	01	06	21	07.0	021.6 N	098.4 E	033							006
* 1 GS	1977	05	12	12	20	0.7	021.747N	092.990E	040	5.4 MB	5.7S					
* 2 ISC	1977	05	12	12	20	0.6	021.68 N	092.96 E	039	5.4 MB						347
* 3 HFS1	1977	05	12	12	20		024.0 N	096.0 E		5.9 MB						
* 4 MOS	1977	05	12	12	19	58.0	021.5 N	093.1 E		6.0 MB	5.7S					
BKK	1977	06	17	12	51	36.9	022.48 N	098.03 E					3.7 L		1.19s	003
BKK	1977	06	27	18	46	8.0	023.78 N	098.60 E	010				4.2 L		0.90s	003
BKK	1977	07	04	09	38	54.1	020.85 N	097.07 E	011				4.2 L		0.09s	003
BKK	1977	07	05	03	18	20.9	019.08 N	102.09 E	015				3.3 L		1.28s	003
BKK	1977	07	20	14	04	9.9	021.29 N	099.74 E	006				4.1 L		0.56s	003
BKK	1977	07	20	14	16	30.7	021.26 N	099.80 E	004				4.0 L		0.41s	003
* 1 GS	1977	07	21	09	31	42.5	007.063N	094.394E	033	4.7 MB						
* 2 ISC	1977	07	21	09	31	43	007.0 N	094.5 E	026	4.8 MB						073
* 3 MOS	1977	07	21	09	31	29	005.5 N	094.2 E		5.0 MB	4.8S					
* 4 HFS1	1977	07	21	09	32		009.0 N	093.0 E		4.7 MB						
* 1 GS	1977	07	22	06	00	59.1	006.661N	094.433E	033							
* 2 ISC	1977	07	22	06	01	01.0	007.2 N	094.8 E	033							036
* 3 HFS1	1977	07	22	06	01		008.0 N	093.0 E		4.6 MB						
* 4 MOS	1977	07	22	06	01	09	008.3 N	094.2 E		5.1 MB						
* 1 GS	1977	07	22	06	40	31.3	009.342N	093.137E	047	5.4 MB						
* 2 ISC	1977	07	22	06	40	33.0	009.27 N	093.04 E	066	4.9 MB						064
* 3 MOS	1977	07	22	06	40	30	009.3 N	093.2 E		5.1 MB						
* 1 GS	1977	07	27	15	26	42.6	12.204N	092.782E	038	4.7 MB						
* 2 ISC	1977	07	27	15	26	45.7	12.51 N	092.87 E	056	4.5 MB						022
* 3 HFS1	1977	07	27	15	27		18.0 N	093.0 E		4.9 MB						
* 1 GS	1977	07	31	23	59	25.8	20.221N	094.001E	091	4.5 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 2 ISC	1977	07	31	23	59	23	020.21 N	093.94 E	062	4.7 MB						063
* 3 MOS	1977	07	31	23	59	15	019.7 N	094.3 E		5.0 MB						
ISC	1977	08	10	01	06	08	11.8 N	093.8 E	161							016
BKK	1977	08	12	06	02	14.7	019.97 N	101.46 E					3.6 L		1.46s	003
BKK	1977	08	14	04	53	5.7	016.98 N	097.71 E	015				3.2 L		0.61s	003
* 1 GS	1977	08	31	14	23	24.5	009.451N	093.245E	027	4.9 MB						
* 2 ISC	1977	08	31	14	23	29.3	009.16 N	093.01 E	072	4.5 MB						030
ISC	1977	09	08	14	02	34	25.0 N	092.2 E	033							012
BKK	1977	09	29	03	08	3.2	021.37 N	097.28 E	010				3.7 L		0.92s	003
BKK	1977	09	29	21	18	10.5	023.16 N	102.8 E					4.4 L		1.20s	003
* 1 GS	1977	10	01	13	06	8.1	009.479N	093.706E	114	4.9 MB						
* 2 ISC	1977	10	01	13	06	10.3	009.6 N	093.78 E	132	4.9 MB						138
* 3 MOS	1977	10	01	13	05	56	009.1 N	093.8 E		5.4 MB						
* 1 GS	1977	10	13	06	57	27.5	009.5 N	093.929E	033	5.0 MB						
* 2 ISC	1977	10	13	06	57	26	009.43 N	093.90 E	021	5.0 MB						153
* 3 HFS1	1977	10	13	06	57		11.0 N	093.0 E		5.1 MB						
* 4 MOS	1977	10	13	06	57	30	009.7 N	093.6 E		5.4 MB	4.7S					
* 1 GS	1977	10	13	07	50	41.3	009.487N	093.912E	033	4.8 MB						
* 2 ISC	1977	10	13	07	50	41.8	009.35 N	093.84 E	033	4.7 MB						076
* 3 HFS1	1977	10	13	07	51		11.0 N	095.0 E		5.0 MB						
* 4 MOS	1977	10	13	07	51	06	12.2 N	092.3 E		5.2 MB						
* 1 GS	1977	10	13	11	32	9.3	023.484N	093.353E	061	5.2 MB						
* 2 ISC	1977	10	13	11	32	9.1	023.47 N	093.33 E	061	5.2 MB						231
* 3 MOS	1977	10	13	11	32	08.0	023.4 N	093.5 E	060	5.6 MB	4.9S					
* 1 GS	1977	10	13	21	18	56.9	009.458N	093.794E	033	5.1 MB	4.9S					
* 2 ISC	1977	10	13	21	18	56	009.45 N	093.78 E	020	5.0 MB						191
* 3 MOS	1977	10	13	21	18	58	009.4 N	093.6 E		5.5 MB	5.9S					
GS	1977	10	19	02	44	48.4	023.229N	107.594E	033	4.9 MB	5.1S					
ISC	1977	11	04	10	51	24.7	021.05 N	103.21 E	033							009
NEIS	1977	11	24	21	06	52.6	025.0 N	096.4 E	033	4.4 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1977	11	29	01	53	40.9	022.158N	094.749E	033	4.4 MB						
* 2 ISC	1977	11	29	01	53	48	021.73 N	094.7 E	109	4.2 MB						017
ISC	1977	12	03	13	55	53.7	024.9 N	095.8 E	033							007
* 1 GS	1977	12	21	12	46	23.0	023.850N	095.847E	033	4.7 MB						
* 2 ISC	1977	12	21	12	46	22.2	023.82 N	095.91 E	033							018
* 1 GS	1977	12	23	21	00	25.8	023.636N	092.386E	033	5.1 MB	5.9S					
* 2 ISC	1977	12	23	21	00	27.1	023.71 N	092.31 E	033	5.1 MB						032
BKK	1977	12	26	15	17	37.2	018.56 N	099.92 E	008							
* 1 HFS	1978	01	02	01	18	46	009.0 N	091.0 E		4.5 MB						
* 2 GS	1978	01	02	01	18	50.1	009.261N	092.602E	033	4.8 MB					1.1 s	011
* 3 ISC	1978	01	02	01	18	51	009.26 N	092.63 E	039	4.7 MB						
* 1 GS	1978	01	08	06	32	58.7	024.759N	095.172E	100	5.1 MB					1.5 s	012
* 2 ISC	1978	01	08	06	32	59.0	024.73 N	095.20 E	097	5.0 MB						
* 1 GS	1978	01	27	19	40	3.9	008.115N	094.024E	113	4.7 MB					1.0 s	033
* 2 ISC	1978	01	27	19	39	51	007.78 N	094.31 E	009	4.7 MB	4.6S					075
* 3 MOS	1978	01	27	19	39	35	004.94 N	094.46 E		5.0 MB						
* 4 HFS	1978	01	27	19	39	40	006.0 N	094.0 E		4.7 MB						
* 1 ISC	1978	01	29	04	07	3.8	024.53 N	095.64 E	000							
* 2 HFS	1978	01	29	04	07	04	023.0 N	094.0 E		4.6 MB						
* 1 GS	1978	01	29	08	21	55.0	011.778N	092.845E	033	4.2 MB					1.3 s	007
* 2 ISC	1978	01	29	08	21	54	011.78 N	092.89 E	022							010
* 1 GS	1978	02	03	23	46	43.9	023.039N	094.707E	105	5.1 MB					0.9 s	115
* 2 ISC	1978	02	03	23	46	42.4	023.02 N	094.70 E	092	5.1 MB						156
*** 3 HFS**	**1978**	**02**	**03**	**23**	**45**	**44**	**017.0 N**	**100.0 E**		**6.0 MB**						
* 4 MOS	1978	02	03	23	46	40	022.62 N	094.68 E	100	5.1 MB						
* 1 GS	1978	02	07	12	30	40.4	012.796N	093.016E	033	5.5 MB	5.3S				1.0 s	201
* 2 ISC	1978	02	07	12	30	36	012.81 N	093.00 E	003	5.5 MB	5.3S					295
* 3 MOS	1978	02	07	12	30	39	012.71 N	093.05 E		5.7 MB	5.3S					
* 1 GS	1978	02	07	13	34	10.2	012.679N	093.029E	033	5.0 MB					1.0 s	065
* 2 ISC	1978	02	07	13	34	10	012.82 N	092.97 E	021	5.0 MB						083
* 3 HFS	1978	02	07	13	33	58	013.0 N	095.0 E		5.1 MB						
* 4 MOS	1978	02	07	13	34	11	012.79 N	093.10 E		5.3 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 ISC	1978	02	07	13	36	56.2	013.3 N	093.6 E	000							011
* 2 HFS	1978	02	07	13	36	56	014.0 N	094.0 E		4.9 MB						
* 1 GS	1978	02	07	20	31	54.6	012.863N	093.070E	033	5.6 MB	5.6S				1.1 s	202
* 2 ISC	1978	02	07	20	31	52.7	012.89 N	093.04 E	017	5.6 MB	5.6S					306
* 3 HFS	1978	02	07	20	31	07	005.0 N	094.0 E		5.8 MB						
* 4 MOS	1978	02	07	20	31	54	012.89 N	093.07 E		5.9 MB	5.6S					
* 1 GS	1978	02	07	21	00	29.3	012.706N	093.108E	033	4.9 MB					0.8 s	033
* 2 ISC	1978	02	07	21	00	30	012.83 N	092.97 E	026	4.8 MB						055
* 3 HFS	1978	02	07	21	00	11	012.0 N	096.0 E		4.9 MB						
* 4 MOS	1978	02	07	21	00	38	014.08 N	093.13 E		5.1 MB						
* 1 GS	1978	02	07	21	23	35.4	012.727N	093.104E	033	4.8 MB					0.7 s	039
* 2 ISC	1978	02	07	21	23	34	012.93 N	093.06 E	018	4.8 MB						051
* 3 HFS	1978	02	07	21	23	16	012.0 N	096.0 E		5.1 MB						
* 4 MOS	1978	02	07	21	23	34	012.60 N	093.17 E		5.0 MB						
* 1 GS	1978	02	07	22	04	1.9	012.794N	093.020E	033	4.3 MB					0.5 s	012
* 2 ISC	1978	02	07	22	03	59.2	012.65 N	093.08 E	018	4.3 MB						022
* 3 HFS	1978	02	07	22	03	51	012.0 N	094.0 E		4.9 MB						
ISC	1978	02	08	04	06	5.6	012.96 N	092.98 E	033	4.5 MB						027
* 1 GS	1978	02	09	05	36	2.6	023.945N	094.823E	103	4.9 MB					0.9 s	048
* 2 ISC	1978	02	09	05	36	0.8	023.93 N	094.76 E	086	4.8 MB						069
* 3 HFS	1978	02	09	05	35	06	019.0 N	100.0 E		5.3 MB						
* 1 GS	1978	02	09	13	09	23.6	012.731N	093.048E	033	4.4 MB					0.6 s	011
* 2 ISC	1978	02	09	13	09	24.4	012.95 N	092.97 E	033	4.4 MB						017
* 3 HFS	1978	02	09	13	09	29	015.0 N	094.0 E		4.7 MB						
* 1 GS	1978	02	11	14	45	45.6	024.351N	094.778E	109	4.8 MB					1.0 s	031
* 2 ISC	1978	02	11	14	45	44	024.31 N	094.74 E	088	4.7 MB	4.3S					050
* 3 HFS	1978	02	11	14	44	57	020.0 N	098.0 E		4.9 MB						
* 4 MOS	1978	02	11	14	45	28	022.49 N	094.50 E		5.3 MB						
* 1 GS	1978	02	15	08	19	21.7	012.750N	093.061E	033	4.9 MB					1.0 s	070
* 2 ISC	1978	02	15	08	19	20	012.80 N	093.06 E	020	4.9 MB						090
* 3 HFS	1978	02	15	08	19	12	014.0 N	096.0 E		5.1 MB						
* 4 MOS	1978	02	15	08	19	21	012.71 N	093.21 E		5.2 MB						
BKK	1978	02	15	15	29	38.3	017.76 N	096.57 E	006				3.6 L		0.65s	003

Appendix B Earthquake data of Burma, Thailand and Indochina

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISC	1978	02	15	23	58	47	013.5 N	093.9 E	033	4.3 MB						008
BKK	1978	02	18	01	19	46.5	016.73 N	095.78 E	010				3.3 L		1.47s	003
* 1 GS	1978	02	22	09	07	30.2	023.282N	094.140E	078	5.0 MB					1.0 s	037
* 2 ISC	1978	02	22	09	07	30.8	023.30 N	094.13 E	083	4.9 MB						057
* 3 HFS	1978	02	22	09	07	18	023.0 N	094.0 E		5.4 MB						
* 4 MOS	1978	02	22	09	07	21	022.78 N	094.52 E		5.1 MB						
* 1 GS	1978	02	23	23	18	33.2	023.088N	094.715E	105	5.1 MB					1.0 s	153
* 2 ISC	1978	02	23	23	18	34.0	023.08 N	094.70 E	113	5.0 MB	4.8S					197
* 3 HFS	1978	02	23	23	17	34	017.0 N	100.0 E		5.6 MB						
* 4 MOS	1978	02	23	23	18	26	022.31 N	095.26 E		5.4 MB						
BKK	1978	02	26	22	25	05.5	015.25 N	096.55 E	022				4.1 L		0.91s	003
BKK	1978	03	04	15	58	7.1	024.02 N	099.09 E	010				3.9 L		1.44s	003
BKK	1978	03	06	13	16	41.2	021.17 N	100.94 E	008				3.3 L		0.95s	003
* 1 GS	1978	03	07	15	36	59.8	015.121N	095.447E	033	4.4 MB					0.4 s	007
* 2 ISC	1978	03	07	15	36	52	014.0 N	095.8 E	033	4.5 MB						011
* 3 NAO	1978	03	07	15	36	51	012.0 N	093.0 E		4.2 MB						
BKK	1978	03	12	20	36	59.6	019.7 N	103.87 E	010				3.8 L		0.88s	003
BKK	1978	03	17	20	33	40.9	022.80 N	099.03 E	016				3.6 L		1.28s	003
* 1 GS	1978	03	18	18	40	58.1	024.283N	092.866E	039	4.6 MB					1.2 s	014
* 2 ISC	1978	03	18	18	41	01	024.38 N	093.0 E	061	4.5 MB						024
* 3 HFS	1978	03	18	18	40	09	019.0 N	097.0 E		5.0 MB						
* 4 NAO	1978	03	18	18	40	47	023.0 N	094.0 E		4.0 MB						
* 1 GS	1978	03	25	09	21	33.7	010.143N	093.166E	033	4.8 MB						
* 2 ISC	1978	03	25	09	21	38.1	010.11 N	093.05 E	073	4.7 MB						067
* 3 MOS	1978	03	25	09	21	24	009.48 N	093.35 E	033	5.0 MB						
* 4 NAO	1978	03	25	09	21	43	012.0 N	093.0 E		4.2 MB						
BKK	1978	03	27	14	58	39.1	024.26 N	098.45 E	033				4.0 L		2.74s	003
* 1 GS	1978	03	28	10	25	5.6	024.327N	094.325E	108	4.3 MB						
* 2 ISC	1978	03	28	10	25	00	024.46 N	094.54 E	053	4.5 MB						026
* 3 NAO	1978	03	28	10	24	52	023.0 N	094.0 E		4.3 MB						
BKK	1978	03	28	10	25	20.3	023.25 N	095.66 E					4.0 L		0.29s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH	--------MAGNITUDES--------				INT		
									(KM)	BODY	SURF	OTHER	LOCAL	MAX	S.D.	OBS.
* 1 GS	1978	03	28	12	37	40.0	023.205N	092.896E	033	4.8 MB					0.5 s	006
* 2 ISC	1978	03	28	12	37	40.4	023.15 N	092.74 E	033	4.8 MB						
GS	1978	03	31	19	20	21.1	024.908N	094.624E	033	4.6 MB	4.0S				1.1 s	047
* 1 GS	1978	04	07	23	32	33.8	022.664N	092.425E	040	4.6 MB						
* 2 ISC	1978	04	07	23	32	36	022.80 N	092.38 E	049	4.5 MB						022
* 3 NAO	1978	04	07	23	32	30	023.0 N	094.0 E		3.9 MB						
BKK	1978	04	04	10	24	2.9	020.89 N	098.59 E	010				4.2 L		1.31s	003
GS	1978	04	13	07	51	57.9	011.584N	093.055E	033	4.9 MB	4.5S				1.0 s	011
* 1 GS	1978	04	13	08	51	57.5	011.923N	092.879E	033	4.8 MB	4.4S				0.8 s	031
* 2 ISC	1978	04	13	08	51	59.4	012.06 N	092.90 E	043	4.8 MB	4.5S					060
* 3 HFS	1978	04	13	08	51	53	013.0 N	094.0 E		4.9 MB						
* 4 MOS	1978	04	13	08	51	57	011.81 N	092.99 E	033	4.9 MB						
* 5 NAO	1978	04	13	08	51	57	012.0 N	093.0 E		4.6 MB						
* 1 GS	1978	04	19	06	40	24.6	006.267N	095.146E	033	4.3 MB					0.6 s	016
* 2 ISC	1978	04	19	06	40	24	006.37 N	095.17 E	025	4.4 MB						024
BKK	1978	04	20	02	20	19.3	021.19 N	097.83 E	010				3.6 L		0.43s	003
BKK	1978	04	21	13	42	27.1	018.23 N	096.43 E	004				3.4 L		0.27s	03
* 1 GS	1978	04	26	14	06	51.2	006.444N	095.064E	027	4.9 MB					0.9 s	025
* 2 ISC	1978	04	26	14	06	51.1	006.39 N	095.0 E	130	4.7 MB						043
* 3 MOS	1978	04	26	14	06	32	005.08 N	095.21 E	033	5.1 MB						
* 1 GS	1978	04	27	10	18	41.9	023.634N	094.626E	059	4.5 MB					0.9 s	012
* 2 ISC	1978	04	27	10	18	41.8	023.69 N	094.64 E	061	4.5 MB						016
BKK	1978	04	27	13	29	46.1	021.04 N	095.48 E					4.3 L		1.23s	003
ISC	1978	04	27	13	29	47	022.09 N	096.05 E	034	4.3 MB						006
BKK	1978	04	28	00	29	44.7	023.68 N	097.00 E	010				4.0 L		1.95s	003
BKK	1978	04	28	16	19	12.1	020.11 N	097.94 E	010				3.5 L		1.05s	003
BKK	1978	05	03	06	46	12.4	021.48 N	100.19 E	011				3.4 L		1.20s	003
ISC	1978	05	03	19	01	34.8	006.62 N	095.59 E	260	4.2 MB						016
BKK	1978	05	04	22	53	36.5	022.68 N	098.14 E	010				4.1 L		2.31s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1978	05	04	23	16	55.0	023.031N	099.478E	033	4.3 MB					1.1 s	007
* 2 ISC	1978	05	04	23	16	56	023.2 N	099.5 E	033	4.2 MB						011
* 1 GS	1978	05	05	02	30	13.7	015.161N	096.543E	033	4.9 MB					1.2 s	014
* 2 ISC	1978	05	05	02	30	15	015.22 N	096.51 E	045	4.9 MB	4.7S					023
* 3 MOS	1978	05	05	02	29	57	012.77 N	096.81 E	033	4.9 MB	4.7S					
BKK	1978	05	09	12	24	9.7	019.74 N	099.36 E	022				3.0 L		1.19s	003
BKK	1978	05	11	13	45	38.7	019.69 N	099.70 E	005				3.6 L		0.43s	003
BKK	1978	05	14	16	19	31.7	021.97 N	095.70 E	010				3.4 L		0.34s	003
BKK	1978	05	19	22	24	12.1	023.70 N	099.98 E	010				3.3 L		0.53s	003
* 1 GS	1978	05	20	00	41	11.3	010.964N	094.548E	033	4.9 MB	4.1S				0.9 s	033
* 2 ISC	1978	05	20	00	41	14	011.06 N	094.55 E	058	4.9 MB	4.1S					060
* 3 MOS	1978	05	20	00	41	10	010.76 N	094.41 E	033	5.1 MB						
* 4 HFS	1978	05	20	00	41	22	014.0 N	094.0 E		4.4 MB						
ISC	1978	05	23	23	08	57	007.6 N	094.2 E	033	4.3 MB						007
BKK	1978	05	25	20	44	14.5	015.52 N	096.54 E	010				3.3 L		0.41s	003
* 1 GS	1978	05	25	23	22	29.1	019.279N	099.066E	008	4.8 MB					1.0 s	028
* 2 ISC	1978	05	25	23	22	32	019.14 N	099.4 E	030	4.7 MB	4.6S					040
* 3 MOS	1978	05	25	23	22	32	019.18 N	099.38 E	033	5.1 MB						
* 4 NAO	1978	05	25	23	23	08	023.0 N	094.0 E		4.3 MB						
BKK	1978	05	27	07	16	32.8	019.18 N	099.22 E	014				3.0 L		0.36s	003
BKK	1978	05	27	08	03	34.2	019.28 N	099.16 E	008				3.5 L		0.74s	003
BKK	1978	05	29	08	19	51.9	019.89 N	098.39 E	015				3.8 L		0.95s	003
* 1 ISC	1978	05	29	20	48	23	023.3 N	101.7 E	035	4.3 MB						019
* 2 HFS	1978	05	29	20	48	01	022.0 N	104.0 E		4.9 MB						
* 3 MAO	1978	05	29	20	48	21	023.0 N	101.0 E		4.3 MB						
BKK	1978	05	29	22	26	21.7	019.31 N	099.11 E	010				3.5 L		0.72s	003
BKK	1978	05	31	02	41	34.9	021.32 N	097.94 E	014				4.2 L		0.94s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1978	06	07	10	26	19.9	006.341N	094.154E	033	5.0 MB	4.5S					
* 2 ISC	1978	06	07	10	26	19	006.29 N	094.11 E	025	5.1 MB	4.5S					183
* 3 HFS	1978	06	07	10	26	08	005.0 N	094.0 E		5.3 MB						
* 4 MOS	1978	06	07	10	26	18	006.06 N	094.29 E	033	5.6 MB	4.5S					
* 1 GS	1978	06	10	11	18	18.2	022.865N	094.613E	110	4.5 MB						
* 2 ISC	1978	06	10	11	18	18.5	022.88 N	094.65 E	113	4.5 MB						023
* 3 HFS	1978	06	10	11	18	06	025.0 N	098.0 E		5.2 MB						
* 4 NAO	1978	06	10	11	18	12	023.0 N	094.0 E		4.5 MB						
BKK	1978	06	14	22	59	22.7	022.60 N	094.95 E	010				4.2 L		0.29s	003
BKK	1978	06	18	04	05	6.5	024.25 N	097.45 E	010				3.9 L		0.47s	003
BKK	1978	06	20	21	05	33.8	019.22 N	099.31 E	033				3.5 L		1.10s	003
BKK	1978	06	23	19	59	2.0	020.98 N	099.53 E					3.7 L		0.84s	003
BKK	1978	06	28	17	42	20.1	021.12 N	098.54 E	010				3.7 L		0.80s	003
BKK	1978	06	29	14	45	47.4	019.32 N	095.15 E	010				3.5 L		0.67s	003
BKK	1978	07	02	14	53	46.1	014.19 N	096.38 E	011				4.2 L		0.96s	003
* 1 GS	1978	07	03	11	04	44.3	023.029N	094.410E	067	4.3 MB					1.1 s	008
* 2 ISC	1978	07	03	11	04	44	023.13 N	094.6 E	054	4.3 MB						018
BKK	1978	07	03	19	52	17.5	019.71 N	097.94 E	012				3.8 L		0.12s	003
BKK	1978	07	06	19	32	29.4	024.38 N	099.23 E	019				3.7 L		1.18s	003
BKK	1978	07	06	19	38	20.7	024.34 N	099.01 E					3.7 L		1.39s	003
BKK	1978	07	06	23	28	3.6	024.32 N	098.38 E	014				4.5 L		1.14s	003
BKK	1978	07	07	06	02	18.4	019.65 N	098.03 E	010				3.3 L		0.33s	003
BKK	1978	07	07	11	03	15.8	024.34 N	097.50 E	015				4.0 L		1.66s	003
BKK	1978	07	07	19	12	48.6	024.34 N	099.37 E	023				4.0 L		1.62s	003
* 1 GS	1978	07	23	10	17	18.9	022.861N	094.583E	147	4.7 MB					1.2 s	018
* 2 ISC	1978	07	23	10	17	19.0	022.89 N	094.63 E	149	4.6 MB						025
* 3 NAO	1978	07	23	10	17	09	023.0 N	094.0 E		4.5 MB						
BKK	1978	07	23	21	34	37.1	017.19 N	099.30 E	005						0.39s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1978	07	26	13	32	51.3	022.07 N	098.67 E	010				3.8 L		1.33s	003
BKK	1978	07	31	13	32	25.8	016.37 N	095.50 E	010				3.5 L		1.34s	003
BKK	1978	07	31	20	56	42.7	020.06 N	098.08 E	014				3.9 L		1.44s	003
ISC	1978	08	02	00	42	46.7	005.57 N	094.81 E	073	4.9 MB						
* 1 GS	1978	08	02	07	45	52.0	020.505N	100.576E	033	5.1 MB	5.2S				1.0 s	102
* 2 ISC	1978	08	02	07	45	50	020.46 N	100.67 E	015	5.1 MB	5.2S					160
* 3 HFS	1978	08	02	07	45	01	14.0 N	106.0 E		5.2 MB						
* 4 MOS	1978	08	02	07	45	46.3	020.95 N	100.00 E								
BKK	1978	08	02	09	40	26.9	020.38 N	100.60 E	010				3.0 L		3.14s	003
* 1 GS	1978	08	14	00	42	44.8	005.522N	094.689E	055	5.1 MB					1.1 s	050
* 2 ISC	1978	08	14	00	42	46.7	005.57 N	094.81 E	073	4.9 MB						070
* 3 MOS	1978	08	14	00	42	33.2	005.08 N	095.16 E	033	5.3 MB						
GS	1978	08	31	08	40	22.2	010.677N	093.117E	055	4.9 MB					0.8 s	082
GS	1978	09	01	04	55	17.1	020.421N	100.533E	048	4.9 MB					1.2 s	043
* 1 GS	1978	09	09	23	11	13.2	022.988N	101.067E	033	5.1 MB	5.3S				1.0 s	151
* 2 ISC	1978	09	09	23	11	11	023.04 N	101.05 E	014	5.1 MB	5.3S					203
* 3 HFS	1978	09	09	23	10	39	020.0 N	105.0 E		5.3 MB						
* 4 MOS	1978	09	09	23	11	11.3	022.81 N	101.24 E	033	5.3 MB	5.2S					
* 5 NAO	1978	09	09	23	11	12	023.0 N	101.0 E		5.1 MB						
* 1 GS	1978	09	12	16	39	34.5	022.912N	101.151E	033	4.6 MB					1.0 s	015
* 2 ISC	1978	09	12	16	39	34.8	022.94 N	101.13 E	033	4.5 MB						
* 1 GS	1978	09	18	19	29	59.1	022.782N	094.726E	109	4.1 MB					1.0 s	008
* 2 ISC	1978	09	18	19	29	59.6	022.69 N	094.67 E	111	4.3 MB						011
* 3 HFS	1978	09	18	19	29	01	017.0 N	100.0 E		5.0 MB						
* 4 NAO	1978	09	18	19	29	55	023.0 N	094.0 E		4.2 MB						
ISC	1978	09	22	44	54	8.1	023.72 N	094.71 E	102	4.5 MB						008
* 1 GS	1978	09	28	10	22	30.1	021.785N	101.908E	033	4.3 MB					1.3 s	011
* 2 ISC	1978	09	28	10	22	43	021.77 N	101.99 E	155	4.1 MB						
* 3 NAO	1978	09	28	10	22	14	019.8 N	104.1 E		4.0 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1978	09	29	08	59	28.2	021.381N	094.722E	096	4.5 MB					1.0 s	038
* 2 ISC	1978	09	29	08	59	28.3	021.43 N	094.75 E	096	4.4 MB						051
* 3 HFS	1978	09	29	08	58	30	015.0 N	100.0 E		4.9 MB						
* 4 NAO	1978	09	29	08	59	30	023.0 N	094.0 E		4.6 MB						
* 1 GS	1978	09	30	09	04	31.2	016.603N	095.857E	010	5.5 MB	5.7S				1.3 s	192
* 2 ISC	1978	09	30	09	04	31.1	016.60 N	095.88 E	007	5.5 MB	5.9S					285
* 3 HFS	1978	09	30	09	03	52	011.0 N	099.0 E		5.6 MB						
* 4 MOS	1978	09	30	09	04	32.4	017.14 N	095.70 E	033							
* 5 NAO	1978	09	30	09	04	38	016.6 N	094.3 E		5.4 MB						
* 1 ISC	1978	10	04	07	02	35	016.5 N	090.72 E	033	4.4 MB						006
* 2 NAO	1978	10	04	07	02	30	017.0 N	094.0 E		4.4 MB						
ISC	1978	10	06	23	05	58	024.0 N	095.0 E	033	4.2 MB						008
GS	1978	10	10	02	42	58.6	008.793N	094.426E	033	4.8 MB					1.2 s	013
* 1 GS	1978	10	10	18	14	43.1	024.312N	093.668E	033	4.7 MB					1.3 s	014
* 2 ISC	1978	10	10	18	14	44.9	024.37 N	093.69 E	049	4.6 MB						036
* 3 NAO	1978	10	10	18	14	35	023.3 N	094.0 E		4.1 MB						
BKK	1978	10	19	09	05	48.0	020.98 N	092.48 E					4.1 L		1.75s	003
* 1 GS	1978	10	20	17	21	46.2	024.249N	094.766E	090	4.8 MB					1.0 s	060
* 2 ISC	1978	10	20	17	21	47.2	024.18 N	094.68 E	098	4.8 MB	4.8S					087
* 3 HFS	1978	10	20	17	20	50	019.0 N	099.0 E		5.2 MB						
* 4 NAO	1978	10	20	17	21	36	023.0 N	094.0 E		4.4 MB						
* 5 MOS	1978	10	20	17	21	39.0	024.01 N	094.86 E	033	4.9 MB						
* 1 BKK	1978	10	24	13	38	47.6	014.55 N	096.81 E	010						1.45s	005
* 2 GS	1978	10	24	13	38	48.3	014.564N	096.514E	033	5.0 MB	5.1S				0.9 s	095
BKK	1978	10	24	15	02	55.2	014.39 N	096.60 E	019				3.5 L		1.27s	003
BKK	1978	10	24	18	05	52.9	014.53 N	096.71 E	011				3.6 L		1.03s	003
BKK	1978	10	25	15	29	48.1	014.56 N	096.71 E	010				3.9 L		0.25s	003
BKK	1978	10	26	08	34	56.5	020.59 N	098.22 E	017				4.0 L		1.18s	003
BKK	1978	10	26	22	20	41.5	014.62 N	096.88 E	010				3.7 L		0.76s	003
ISC	1978	10	27	17	03	29.3	022.21 N	094.53 E	116	4.6 MB						

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1978	11	01	16	55	56.9	021.42 N	101.13 E	012				4.0 L		1.11s	003
* 1 GS	1978	11	05	05	45	37.4	019.578N	093.813E	058	4.4 MB					0.8 s	021
* 2 ISC	1978	11	05	05	45	37.0	019.67 N	093.81 E	051	4.4 MB						031
* 3 NAO	1978	11	05	05	45	21	017.0 N	094.0 E		4.4 MB						
* 4 HFS	1978	11	05	05	45	45	024.0 N	096.0 E		5.1 MB						
BKK	1978	11	06	17	14	24.1	020.35 N	100.79 E	007				3.4 L		0.55s	003
BKK	1978	11	08	00	07	33.4	014.45 N	096.11 E	010				2.3 L		1.84s	003
BKK	1978	11	09	12	34	5.3	014.35 N	096.54 E	026				4.1 L		1.85s	003
BKK	1978	11	16	01	22	40.1	023.25 N	101.62 E	010				3.9 L		0.00s	003
* 1 ISC	1978	12	05	01	31	25.4	024.31 N	098.57 E	033	4.2 MB						006
* 2 BKK	1978	12	05	01	31	23.7	023.78 N	097.30 E	010				4.6 L		1.09s	003
BKK	1978	12	07	23	00	42.5	016.24 N	095.93 E	015				3.8 L		1.38s	003
* 1 GS	1978	12	08	00	22	6.5	016.566N	095.950E	017	5.0 MB	5.0S				1.0 s	057
* 2 ISC	1978	12	08	00	22	6.6	016.69 N	095.94 E	012	5.0 MB	4.9S					092
* 3 MOS	1978	12	08	00	22	8.5	016.55 N	096.01 E	033	5.1 MB	4.9S					
* 4 NAO	1978	12	08	00	22	17	017.0 N	094.0 E		4.5 MB						
* 5 HFS	1978	12	08	00	22	20	020.0 N	097.0 E		5.3 MB						
* 1 GS	1978	12	08	03	42	24.5	022.302N	094.330E	093	4.4 MB					0.4 s	007
* 2 ISC	1978	12	08	03	42	26	022.8 N	094.9 E	107	4.1 MB						008
BKK	1978	12	08	09	56	30.8	014.43 N	096.53 E	018				3.9 L		1.24s	003
BKK	1978	12	08	11	24	30.6	014.57 N	096.59 E	010				4.2 L		0.62s	003
BKK	1978	12	08	12	49	38.1	016.17 N	096.19 E	010				3.3 L		0.74s	003
GS	1978	12	13	15	33	17.7	020.371N	100.623E	043	4.6 MB					0.7 s	013
ISC	1978	12	14	04	11	4.8	022.7 N	093.7 E	075	4.3 MB						007
BKK	1978	12	14	07	43	29.4	020.15 N	101.11 E	010				3.7 L		1.44s	003
BKK	1978	12	16	18	55	15.2	017.85 N	095.78 E	010				3.8 L		2.70s	003
BKK	1978	12	20	09	27	10.0	017.78 N	096.22 E	010				4.2 L		0.97s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	---MAGNITUDES--- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1978	12	21	22	36	13.2	023.173N	096.196E	033	4.4 MB					0.5 s	008
* 2 ISC	1978	12	21	22	36	16	022.9 N	095.8 E	032	4.2 MB						
BKK	1978	12	25	08	58	24.22	017.24 N	096.45 E	010				4.2 L		0.56s	003
GS	1978	12	29	08	53	21.7	023.559N	092.970E	033	4.8 MB	4.0S				1.4 s	038
* 1 GS	1978	12	30	23	33	21.9	024.458N	093.918E	033	4.6 MB					1.0 s	008
* 2 ISC	1978	12	30	23	33	23.1	024.81 N	094.17 E	033	4.5 MB						015
* 3 NAO	1978	12	30	23	33	14	023.0 N	094.0 E		4.1 MB						
* 4 HFS	1978	12	30	23	33	21	025.0 N	094.0 E		5.0 MB						
* 1 GS	1979	01	01	18	51	10.8	020.898N	093.752E	062	5.3 MB					0.9 s	166
* 2 ISC	1979	01	01	18	51	10.9	020.89 N	093.69 E	061	5.3 MB	4.7S					236
* 3 MOS	1979	01	01	18	51	5.6	020.62 N	093.76 E	033	5.5 MB	4.6S					
* 4 PEK	1979	01	01	18	51	13	020.8 N	093.8 E	050		5.0S					
ISC	1979	01	09	02	39	56	024.96 N	092.5 E	064	4.3 MB						012
BKK	1979	01	09	17	45	50.1	019.02 N	097.29 E	010				3.5 L		0.40s	003
* 1 GS	1979	01	09	23	28	44.3	020.914N	101.770E	033	4.8 MB					1.0 s	020
* 2 ISC	1979	01	09	23	28	44.5	020.97 N	101.77 E	033	4.7 MB						030
* 1 GS	1979	01	09	23	33	44.6	020.966N	102.017E	033	4.9 MB	4.7S				1.4 s	040
* 2 ISC	1979	01	09	23	33	44.8	021.05 N	102.03 E	033	4.8 MB	4.7S					056
* 3 MOS	1979	01	09	23	33	40.0	021.01 N	102.05 E	001	4.9 MB	4.8S					
* 1 BKK	1979	01	13	06	41	20.8	021.08 N	102.90 E	018				4.5 L		1.71s	003
* 2 ISC	1979	01	13	06	41	28.5	021.34 N	102.39 E	000							005
* 3 PEK	1979	01	13	06	41	26	021.2 N	103.0 E			4.4S					
BKK	1979	01	14	12	38	47.6	022.48 N	100.68 E	009				4.4 L		0.85s	003
BKK	1979	01	18	01	40	28.3	014.36 N	096.56 E	010				3.7 L		1.59s	003
* 1 GS	1979	01	20	17	06	50.5	015.847N	096.262E	033	4.1 MB					0.9 s	008
* 2 ISC	1979	01	20	17	06	48.8	016.1 N	096.08 E	033	4.1 MB						011
BKK	1979	01	20	21	40	31.2	020.79 N	102.05 E	016				3.8 L		1.18s	003
BKK	1979	01	20	21	52	44.9	020.80 N	101.91 E	007				3.6 L		0.31s	003
BKK	1979	01	21	17	19	54.2	018.05 N	096.25 E	008				4.1 L		0.87s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1979	01	22	07	34	58.8	020.344N	100.745E	033	4.5 MB	4.4S				1.3 s	025
* 2 ISC	1979	01	22	07	35	03	020.22 N	100.4 E	063	4.5 MB	4.5S					035
* 3 MOS	1979	01	22	07	34	53.3	019.45 N	101.04 E	033							
BKK	1979	01	22	22	46	28.6	020.37 N	100.67 E	005				3.3 L		0.38s	003
* 1 GS	1979	01	28	06	06	35.7	024.610N	091.166E	033	4.9 MB	4.0S				1.4 s	030
* 2 ISC	1979	01	28	06	06	38.3	024.87 N	091.02 E	042	4.9 MB	4.0S					052
* 3 MOS	1979	01	28	06	06	32.4	024.12 N	091.23 E	033	4.9 MB						
* 4 SHL														III		
* 1 GS	1979	01	29	00	29	35.5	012.707N	093.367E	033	4.8 MB	4.5S				1.5 s	026
* 2 ISC	1979	01	29	00	29	37.2	012.88 N	092.99 E	033	4.6 MB	4.5S					058
* 3 MOS	1979	01	29	00	29	40.4	013.24 N	093.25 E	033	5.0 MB						
BKK	1979	01	30	02	55	50.5	020.13 N	101.66 E	010				3.1 L		0.76s	003
ISC	1979	01	31	17	19	57.7	012.99 N	092.94 E	033							005
BKK	1979	02	02	19	37	26.3	020.92 N	099.58 E	010				4.3 L		1.27s	003
* 1 GS	1979	02	06	17	41	31.5	010.472N	092.355E	033	4.8 MB					0.6 s	012
* 2 ISC	1979	02	06	17	41	36	010.71 N	092.40 E	063	4.7 MB						025
BKK	1979	02	13	08	40	12.2	019.70 N	099.41 E	010				3.6 L		0.66s	003
* 1 GS	1979	02	18	06	16	10.7	022.974N	095.938E	033	5.1 MB					1.2 s	036
* 2 ISC	1979	02	18	06	16	12.2	023.03 N	095.98 E	043	5.0 MB	4.7S					060
* 3 PEK	1979	02	18	06	16	05	022.5 N	095.6 E			5.3S					
* 4 MOS	1979	02	18	06	16	15.7	023.78 N	096.06 E	033	5.2 MB	4.8S					
BKK	1979	02	22	19	41	10.6	021.09 N	096.79 E	006				3.9 L		0.44s	003
BKK	1979	02	25	13	14	10.8	020.25 N	095.44 E	006				3.6 L		0.89s	003
BKK	1979	02	25	18	53	47.2	017.97 N	097.43 E	014				4.2 L		1.20s	003
BKK	1979	03	01	05	42	4.6	018.01 N	097.75 E					3.1 L		1.57s	003
* 1 GS	1979	03	03	12	25	41.9	024.568N	094.547E	065	4.7 MB					0.7 s	031
* 2 ISC	1979	03	03	12	25	44.7	024.48 N	094.52 E	089	4.6 MB						057
* 3 MOS	1979	03	03	12	25	33.8	023.66 N	095.29 E	033	4.9 MB						
* 1 GS	1979	03	04	17	40	11.4	024.649N	093.398E	033	4.6 MB				II	1.2 s	023
* 2 ISC	1979	03	04	17	40	14.7	024.6 N	093.5 E	033	4.6 MB						050

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	GS	1979	03	15	12	52	29.3	023.157N	101.138E	033	5.6 MB	6.2S				1.1 s	186
* 2	ISC	1979	03	15	12	52	26	021.18 N	101.09 E	027	5.5 MB	6.2S					
	GS	1979	03	15	15	26	4.3	023.050N	101.231E	033	4.3 MB					1.1 s	016
* 1	GS	1979	03	16	15	35	22.9	005.228N	096.327E	033	5.6 MB	5.8S				1.1 s	216
* 2	ISC	1979	03	16	15	35	24.7	005.20 N	096.33 E	049	5.6 MB	5.8S					
* 1	GS	1979	03	18	06	41	22.7	020.902N	101.980E	033	4.6 MB					1.2 s	023
* 2	ISC	1979	03	18	06	41	23.1	020.92 N	102.04 E	033	4.5 MB						033
* 1	GS	1979	03	18	20	57	30.3	024.966N	096.697E	054	4.6 MB	4.4S				1.0 s	069
* 2	MOS	1979	03	18	20	57	28.5	024.98 N	096.71 E	033							
* 1	GS	1979	03	25	03	48	10.9	022.782N	094.546E	081	4.5 MB					0.9 s	007
* 2	ISC	1979	03	25	03	48	12.1	022.3 N	094.1 E	081	4.4 MB						009
* 1	GS	1979	03	28	13	16	38.5	024.900N	094.963E	033	4.5 MB					1.1 s	011
* 2	ISC	1979	03	28	13	16	43	024.61 N	094.82 E	071	4.3 MB						015
* 1	GS	1979	03	29	00	39	52.1	024.497N	094.724E	083	5.3 MB						
* 2	ISC	1978	03	29	00	39	52.1	024.5 N	094.74 E	082	5.2 MB	4.6S					
* 1	GS	1979	03	29	00	56	48.3	012.723N	095.369E	033	4.5 MB					1.5 s	011
* 2	ISC	1979	03	29	00	56	49.4	012.74 N	095.41 E	033	4.4 MB						016
* 1	GS	1979	03	29	01	07	25.0	012.773N	095.285E	033	4.3 MB					0.9 s	007
* 2	ISC	1979	03	29	01	07	27	012.8 N	095.4 E	033	4.1 MB						018
	BKK	1979	04	05	19	08	52.0	016.24 N	094.86 E	005				3.8 L		0.72s	003
	BKK	1979	04	08	04	20	15.1	014.32 N	096.44 E	010				4.0 L		1.65s	003
* 1	BKK	1979	04	08	17	52	25.8	014.98 N	096.28 E	010				4.4 L		1.07	003
* 2	ISC	1979	04	08	17	52	32.0	015.26 N	096.46 E	033	4.2 MB						012
	BKK	1979	04	08	18	30	32.3	015.06 N	096.40 E	028						1.92s	003
* 1	GS	1979	04	08	21	05	44.5	015.252N	096.458E	033	4.8 MB					0.3 s	007
* 2	ISC	1979	04	08	21	05	45.3	015.24 N	096.52 E	039	4.2 MB						012
* 1	GS	1979	04	08	21	37	50.5	014.952N	096.285E	033	4.6 MB					1.4 s	011
* 2	ISC	1979	04	08	21	37	50.1	015.04 N	096.45 E	033	4.5 MB						022

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISC	1979	04	10	17	29	16.6	024.94 N	094.62 E	033	4.2 MB						008
BKK	1979	04	12	03	06	4.6	019.05 N	097.31 E	010				3.3 L		0.56s	003
BKK	1979	04	14	08	12	41.8	019.72 N	101.30 E	022				3.5 L		1.45s	003
BKK	1979	04	17	12	33	7.0	021.65 N	098.63 E					4.0 L		0.82s	003
* 1 GS	1979	04	18	08	04	24.0	024.127N	094.045E	085	4.3 MB					0.8 s	012
* 2 ISC	1979	04	14	08	04	22.7	024.19 N	094.00 E	074	4.2 MB						021
BKK	1979	04	20	19	22	59.0	021.75 N	100.82 E					3.5 L		0.30s	003
GS	1979	05	12	06	10	9.2	023.966N	092.451E	033	4.7 MB	4.0S				0.9 s	057
* 1 GS	1979	05	18	13	49	16.1	011.670N	092.889E	063	4.9 MB					1.0 s	024
* 2 ISC	1979	05	18	13	49	17.1	011.73 N	092.89 E	071	4.7 MB						033
ISC	1979	05	18	18	54	30.5	023.73 N	095.84 E	033							008
ISC	1979	05	27	06	53	56.2	010.71 N	093.00 E	073	4.5 MB						024
* 1 ISC	1979	05	27	15	19	36.3	019.28 N	094.87 E	066	4.1 MB						011
* 2 BKK	1979	05	27	15	19	48.2	018.08 N	095.78 E	010				3.8 L		2.08s	003
* 1 GS	1979	05	29	00	39	52.1	024.497N	094.724E	083	5.3 MB						068
* 2 ISC	1979	05	29	00	39	52.1	024.50 N	094.74 E	082	5.2 MB	4.6S					290
* 3 MOS	1979	05	29	00	39	47.7	024.29 N	094.90 E	052	5.4 MB						
* 4 NEIS	1970	05	29	00	39	52.1	024.5 N	094.7 E	083	5.3 MB						
* 5 NDI														II		
* 1 GS	1979	05	30	11	06	25.9	022.10 N	094.682E	122	4.4 MB					1.0 s	073
* 2 ISC	1979	05	30	11	02	26.3	022.13 N	094.69 E	126	4.3 MB						092
* 3 MOS	1979	05	30	11	06	6.8	019.92 N	094.31 E	100	5.2 MB						
BKK	1979	06	04	13	58	43.7	019.75 N	098.29 E					3.2 L		2.27s	003
* 1 GS	1979	06	08	20	36	40.6	007.308N	094.412E	133	5.2 MB						
* 2 ISC	1979	06	08	20	36	40.6	007.30 N	094.43 E	133	5.1 MB	5.0S					214
* 3 MOS	1979	06	08	20	36	40.0	007.38 N	094.40 E	130	5.1 MB						
* 4 PEK	1979	06	08	20	36	42	007.9 N	094.0 E	096	4.5 MB						
ISC	1979	06	13	04	06	22.0	012.58 N	093.16 E	106	4.0 MB						014
* 1 BKK	1979	06	17	03	28	1.1	018.92 N	095.17 E	008				4.1 L		0.64s	003
* 2 ISC	1979	06	17	03	28	39.8	019.1 N	094.8 E	295	3.9 MB						010

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1979	06	18	03	22	30.8	021.66 N	093.34 E	003				4.4 L		0.47s	003
BKK	1979	06	18	06	22	59.6	019.75 N	097.60 E	011				3.7 L		0.69s	003
* 1 GS	1979	07	05	15	39	41.7	011.989N	092.859E	035	5.1 MB						
* 2 ISC	1979	07	05	15	39	43.7	011.98 N	092.88 E	054	5.0 MB	4.5S					
* 3 MOS	1979	07	05	15	39	40.0	011.87 N	093.05 E	033	5.5 MB						
* 1 GS	1979	07	13	23	20	8.8	024.898N	095.257E	097	4.8 MB						
* 2 ISC	1979	07	13	23	20	9.9	024.88 N	095.22 E	108	4.9 MB	4.3S					159
* 3 MOS	1979	07	13	23	20	4.6	024.61 N	095.55 E	085	5.0 MB						
* 4 NDI														III		
BKK	1979	07	19	19	16	25.2	022.19 N	101.42 E	010				4.1 L		1.37s	003
* 1 GS	1979	07	24	07	55	43.1	011.076N	092.740E	033	4.4 MB	4.1S				0.2 s	022
* 2 ISC	1979	07	24	07	55	44.0	011.19 N	092.92 E	033	4.3 MB	4.1S					036
* 1 GS	1979	08	11	20	32	7.9	024.204N	094.939E	110	5.0 MB					0.9 s	161
* 2 ISC	1979	08	11	20	32	8.3	024.20 N	094.93 E	113	5.0 MB	3.9S					212
* 3 MOS	1979	08	11	20	32	2.1	024.11 N	095.10 E	062	5.2 MB						
* 4 PEK	1979	08	11	20	32	08	024.5 N	094.8 E			4.3S					
* 5 NDI														IV		
* 1 GS	1979	08	15	07	50	57.1	011.109N	092.626E	033	4.6 MB	4.1S				0.9 s	024
* 2 ISC	1979	08	15	07	50	59.7	011.11 N	092.75 E	062	4.5 MB	4.1S					031
* 1 GS	1979	09	06	13	41	48.3	007.592N	094.466E	054	4.2 MB					0.8 s	008
* 2 ISC	1979	09	06	13	41	49	007.57 N	094.59 E	060	4.2 MB						013
GS	1979	09	12	21	52	11.6	005.021N	096.149E	033	4.0 MB					1.0 s	006
* 1 GS	1979	09	17	15	57	4.7	007.160N	094.714E	163	4.3 MB					0.7 s	065
* 2 ISC	1979	09	17	15	57	4.3	007.16 N	094.68 E	158	4.5 MB						084
* 3 MOS	1979	09	17	15	56	45.7	006.43 N	094.92 E	033	5.2 MB						
* 4 PEK	1979	09	17	15	56	47	006.6 N	094.3 E			4.2S					
* 1 ISC	1979	09	21	22	02	30	024.9 N	096.8 E	033	4.5 MB						019
* 2 NEIS	1979	09	21	22	02	30.0	025.0 N	096.7 E	033	4.9 MB						
* 1 GS	1979	09	23	15	39	41.7	011.553N	092.798E	033	4.4 MB					1.1 s	009
* 2 ISC	1979	09	23	15	39	47	011.50 N	093.17 E	091	4.4 MB						015
BKK	1979	09	23	17	51	51.7	024.16 N	098.04 E			4.2 L				0.49s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISC	1979	09	29	08	11	25.9	024.0 N	095.8 E	033	4.3 MB						
* 1 GS	1979	10	03	11	35	14.1	018.114N	094.816E	056	5.6 MB					0.9 s	200
* 2 ISC	1979	10	03	11	35	12.5	018.11 N	094.80 E	041	5.6 MB	4.9S					317
* 3 PEK	1979	10	03	11	35	14	018.5 N	094.8 E	050	5.2 MB	5.2S					
* 4 MOS	1979	10	03	11	35	15.3	018.22 N	094.88 E	067	5.9 MB	4.9S					
BKK	1979	10	05	07	09	22.7	024.14 N	098.14 E			4.2 L				0.49s	003
* 1 GS	1979	10	09	17	27	43.6	021.654N	094.754E	125	4.4 MB					1.4 s	010
* 2 ISC	1979	10	09	17	27	44	021.8 N	095.0 E	138	4.0 MB						020
* 1 GS	1979	10	10	20	43	59.4	013.109N	093.380E	033	4.2 MB					0.9 s	007
* 2 ISC	1979	10	10	20	44	06	013.5 N	093.8 E	033	4.2 MB						015
* 1 GS	1979	10	12	02	57	1.0	008.343N	093.754E	003	4.6 MB					0.8 s	006
* 2 ISC	1979	10	12	02	57	00	008.3 N	093.8 E	033	4.2 MB						010
* 1 GS	1979	10	16	22	51	23.0	006.393N	091.20 E	034	5.2 MB	5.1S				1.0 s	096
* 2 ISC	1979	10	16	22	51	23.4	006.37 N	091.21 E	038	5.2 MB	5.2S					163
* 3 PEK	1979	10	16	22	51	21	006.0 N	091.0 E			4.8S					
* 4 MOS	1979	10	16	22	51	22.3	006.34 N	091.23 E	033	5.1 MB	5.1S					
ISC	1979	10	17	16	06	40	023.6 N	096.8 E	000	4.4 MB						007
BKK	1979	10	19	11	40	47.8	021.49 N	099.89 E	014				4.0 L		1.32s	003
* 1 GS	1979	10	19	15	13	21.7	023.208N	094.547E	074	4.8 MB					1.2 s	017
* 2 ISC	1979	10	19	15	13	23.9	023.04 N	094.35 E	091	4.6 MB						038
* 3 PEK	1979	10	19	15	13	32	023.9 N	094.5 E		5.2 MB						
* 4 NDI														II		
* 1 GS	1979	10	29	17	18	18.6	005.141N	096.428E	033	3.8 MB					1.3 s	006
* 2 ISC	1979	10	29	17	18	18.2	005.2 N	096.49 E	033	3.8 MB						007
* 1 GS	1979	11	07	06	42	50.8	022.001N	093.941E	070	4.5 MB					1.5 s	011
* 2 ISC	1979	11	07	06	42	52.8	022.10 N	093.95 E	080	4.4 MB						022
BKK	1979	11	11	09	28	56.8	022.23 N	095.69 E	009				4.1 L		0.29s	003
* 1 GS	1979	11	11	17	54	43.0	011.618N	092.507E	033						0.8 s	005
* 2 ISC	1979	11	11	17	54	45.9	011.68 N	092.78 E	033							007

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1979	11	12	01	31	17.6	022.768N	095.949E	033	4.7 MB					1.1 s	019
* 2 ISC	1979	10	12	01	31	14	022.81 N	096.00 E	007	4.6 MB						036
BKK	1979	11	20	06	52	36.5	020.32 N	094.92 E	015				4.0 L		1.14s	003
* 1 GS	1979	11	29	23	27	35.6	007.562N	094.394E	128	4.3 MB					0.8 s	035
* 2 ISC	1979	11	29	23	27	35.4	007.59 N	094.38 E	125	4.4 MB						040
ISC	1979	12	03	07	24	50	024.4 N	094.9 E	000	4.4 MB						008
BKK	1979	12	05	00	30	42.6	019.75 N	102.28 E	017				3.5 L		1.27s	003
ISC	1979	12	17	07	21	49.4	024.55 N	095.04 E	132	3.7 MB						006
BKK	1979	12	25	04	51	52.4	015.95 N	097.93 E	039				3.0 L		2.69s	003
* 1 GS	1980	01	01	01	24	37.2	012.353N	095.192E	020	5.1 MB	4.9S				0.9 s	097
* 2 ISC	1980	01	01	01	24	37.0	012.36 N	095.18 E	019	5.0 MB	4.9S					173
* 3 PEK	1980	01	01	01	24	36.8	012.4 N	095.1 E	015		5.2S					
* 4 MOS	1980	01	01	01	24	37.6	012.22 N	095.29 E	033	5.4 MB	4.7S					
ISC	1980	01	10	23	43	56	012.1 N	094.58 E	091	4.2 MB						006
ISC	1980	01	14	02	51	56	013.08 N	093.9 E	143	4.6 MB						009
* 1 GS	1980	01	27	03	25	46.8	024.726N	095.218E	159	4.4 MB					0.4 s	009
* 2 ISC	1980	01	27	03	25	47.2	024.69 N	095.17 E	167	4.3 MB						011
BKK	1980	01	30	13	40	33.0	019.66 N	097.94 E	010				4.1 L		0.83s	003
BKK	1980	02	01	05	54	28.4	018.51 N	100.60 E					3.2 L		1.75s	003
BKK	1980	02	04	05	03	58.3	019.07 N	099.33 E	013				2.3 L		1.20s	003
* 1 GS	1980	02	08	01	20	20.7	021.208N	093.504E	049	4.6 MB					0.8 s	030
* 2 ISC	1980	02	08	01	20	21.6	021.27 N	093.59 E	058	4.6 MB						040
BKK	1980	02	08	12	24	40.7	016.08 N	095.64 E					3.8 L		1.80s	003
BKK	1980	02	08	20	16	03.3	019.08 N	102.45 E	010				3.8 L		4.22s	003
* 1 GS	1980	02	10	02	17	52.8	019.352N	099.226E	010	4.1 MB					0.4 s	011
* 2 ISC	1980	02	10	02	17	52	019.35 N	099.23 E	005	4.2 MB						015
* 3 BKK	1980	02	10	02	17	54.3	019.08 N	099.45 E	000				4.3 L	III		
* 1 GS	1980	02	19	17	27	36.5	006.703N	092.612E	033	5.1 MB	5.5S				1.2 s	092

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 2 ISC	1980	02	19	17	27	32	006.73 N	092.59 E	002	5.1 MB	5.5S					228
* 3 MOS	1980	02	19	17	27	32.4	007.00 N	092.75 E	003	5.6 MB	5.7S					
* 4 PEK	1980	02	19	17	27	37.3	006.8 N	092.9 E		5.7 MB	6.0S					
* 1 GS	1980	02	19	18	06	25.7	006.641N	092.660E	033	5.0 MB					1.2 s	016
* 2 ISC	1980	02	19	18	06	33	006.93 N	092.88 E	092	4.7 MB						047
* 3 MOS	1980	02	19	18	06	19.2	006.48 N	092.86 E	003	5.1 MB						
* 1 NEIS	1980	02	20	00	17	59.7	006.774N	092.792E	033	5.1 MB						
* 2 ISC	1980	02	20	00	17	56.0	006.75 N	092.70 E	009	4.6 MB						
* 1 GS	1980	02	20	00	17	59.7	006.774N	092.792E	033	5.1 MB					1.4 s	006
* 1 GS	1980	02	20	01	09	53.8	006.738N	092.718E	033	4.8 MB					0.8 s	009
* 2 ISC	1980	02	20	01	09	50	006.6 N	092.1 E	033	4.7 MB						014
* 1 GS	1980	02	21	08	23	58.3	017.938N	094.776E	033	4.4 MB					1.3 s	007
* 2 ISC	1980	02	21	08	24	3.3	018.27 N	095.17 E	079	4.3 MB						007
* 1 GS	1980	02	21	16	05	48.7	010.478N	093.038E	070	4.7 MB					1.0 s	032
* 2 ISC	1980	02	21	16	05	48.8	010.49 N	093.02 E	074	4.5 MB						067
* 3 PEK	1980	02	21	16	05	39.2	010.0 N	092.8 E								
* 1 GS	1980	02	23	17	28	8.4	023.350N	094.585E	084	4.4 MB					0.8 s	009
* 2 ISC	1980	02	23	17	28	8.5	023.37 N	094.61 E	086	4.3 MB						011
* 1 GS	1980	02	25	06	44	10.9	010.722N	093.962E	033	4.6 MB					1.2 s	016
* 2 ISC	1980	02	25	06	44	14.3	010.76 N	094.02 E	062	4.6 MB						027
ISC	1980	02	25	06	15	54	010.7 N	093.6 E	033	4.9 MB						008
ISC	1980	02	25	09	54	33.0	006.4 N	092.6 E	033	4.3 MB						006
BKK	1980	02	27	18	31	52.8	023.0 N	099.09 E					4.5 L		5.30s	003
ISC	1980	02	28	10	57	57	008.8 N	095.1 E	382							012
ISC	1980	03	03	10	54	19.5	010.75 N	093.49 E	112	4.3 MB						012
ISC	1980	03	05	23	13	44	007.0 N	093.9 E	042							009
BKK	1980	03	11	19	00	42.2	019.64 N	101.43 E	053				3.7 L		4.30s	003
* 1 GS	1980	03	16	23	55	2.9	007.146N	094.594E	033	4.3 MB					1.3 s	011
* 2 ISC	1980	03	16	23	55	04	007.15 N	094.62 E	048	4.3 MB						019

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1980	03	17	08	20	44.5	008.910N	094.115E	290	4.6 MB					0.8 s	011
* 2 ISC	1980	03	17	08	20	45.5	008.97 N	094.14 E	027	4.3 MB						020
BKK	1980	03	19	01	17	24.0	014.23 N	096.49 E	016				3.7 L		1.14s	003
* 1 GS	1980	03	21	15	38	44.0	014.334N	095.804E	033	4.6 MB	4.1S				0.9 s	026
* 2 ISC	1980	03	21	15	38	45.3	014.32 N	095.65 E	033	4.7 MB	4.1S					059
* 3 MOS	1980	03	21	15	38	44.1	014.37 N	096.11 E	033	4.9 MB						013
BKK	1980	03	24	17	50	24.1	020.87 N	099.07 E	010				4.1 L		0.99s	003
BKK	1980	03	27	13	34	36.5	024.81 N	096.29 E	010				4.7 L		2.44s	003
* 1 GS	1980	03	28	16	15	2.8	023.904N	094.738E	090	4.8 MB					0.9 s	040
* 2 ISC	1980	03	28	16	15	3.7	023.87 N	094.69 E	097	4.8 MB						076
* 3 MOS	1980	03	28	16	14	52.8	023.34 N	095.11 E	033	4.9 MB						
* 4 PEK	1980	03	28	16	15	7.0	023.9 N	094.8 E			4.2S					
* 1 GS	1980	04	04	08	19	21.6	021.335N	093.804E	051	5.1 MB					0.7 s	089
* 2 ISC	1980	04	04	08	19	23.1	021.29 N	093.76 E	064	5.2 MB						
BKK	1980	04	05	19	31	14.9	019.33 N	099.71 E					3.5 L			
* 1 GS	1980	04	06	20	29	10.6	013.131N	093.727E	119	4.5 MB					1.0 s	014
* 2 ISC	1980	04	06	20	29	10	013.25 N	093.65 E	115	4.7 MB						024
BKK	1980	04	09	17	14	21.4	018.94 N	098.70 E					3.1 L		1.29s	003
BKK	1980	04	09	18	29	35.6	018.95 N	098.74 E	010				3.0 L		0.90s	003
* 1 GS	1980	04	15	07	20	42.1	008.770N	094.116E	033	4.6 MB	4.1S				0.9 s	014
* 2 ISC	1980	04	15	07	20	42.8	008.79 N	094.15 E	039	4.6 MB	4.1S					018
* 1 GS	1980	04	18	04	20	5.1	017.043N	094.843E	038	4.2 MB					1.0 s	008
* 2 ISC	1980	04	18	04	20	6.6	016.9 N	094.92 E	038	4.3 MB						017
ISC	1980	04	20	03	48	39	006.8 N	095.4 E	311	3.4 MB						007
* 1 GS	1980	04	22	01	46	35.4	016.875N	094.899E	033	4.1 MB					0.8 s	006
* 2 ISC	1980	04	22	01	46	37.7	017.0 N	095.03 E	060	4.4 MB						008
BKK	1980	04	23	00	49	22.2	023.13 N	094.98 E	007				4.5 L		1.32s	003
GS	1980	04	23	20	14	11.8	005.835N	096.204E	252	4.4 MB					0.7 s	015
ISC	1980	04	26	09	27	43	007.7 N	094.2 E	033	4.4 MB						005

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1980	04	27	04	38	30.1	018.85 N	097.43 E					3.4 L		0.89s	003
* 1 GS	1980	05	06	22	23	20.2	022.151N	094.224E	167	4.0 MB					0.2 s	006
* 2 ISC	1980	05	06	22	23	20.0	022.3 N	094.12 E	167	4.2 MB						
BKK	1980	05	07	15	38	58.5	014.21 N	096.75 E	010				3.9 L		0.61s	003
BKK	1980	05	14	08	47	4.0	022.16 N	098.92 E	014				4.6 L		1.25s	003
ISC	1980	05	14	08	47	10	022.2 N	098.7 E	033	4.2 MB						009
ISC	1980	05	16	19	00	8.3	022.71 N	096.22 E	033	4.5 MB						006
BKK	1980	05	20	13	19	31.1	024.29 N	093.14 E					5.1 L		0.47s	003
* 1 GS	1980	05	20	13	19	52.2	023.764N	094.310E	085	4.9 MB					0.9 s	048
* 2 ISC	1980	05	20	13	19	51.9	023.72 N	094.20 E	083	4.8 MB	5.4S					098
* 3 MOS	1980	05	20	13	19	42.4	023.22 N	094.61 E	033	5.2 MB						
* 4 PEK	1980	05	20	13	19	54.0	023.9 N	094.2 E		4.7 MB						
* 5 NDI														III		
ISC	1980	05	25	22	57	06.9	008.18 N	092.72 E	055	4.1 MB						009
* 1 GS	1980	05	26	11	37	30.5	011.070N	092.969E	065	4.9 MB					1.0 s	055
* 2 ISC	1980	05	26	11	37	30.6	011.04 N	092.97 E	068	4.7 MB	4.1S					103
* 3 MOS	1980	05	26	11	37	25.8	010.92 N	093.22 E	033	5.1 MB						180
* 4 PEK	1980	05	26	11	37	26.0	011.0 N	092.8 E			4.7S					
* 1 GS	1980	06	01	23	11	24.0	010.659N	093.825E	161	5.1 MB					0.9 s	098
* 2 ISC	1980	06	01	23	11	24.3	010.7 N	093.83 E	163	4.9 MB	4.1S					212
* 3 MOS	1980	06	01	23	11	18.9	010.34 N	093.93 E	140	5.1 MB						180
* 4 PEK	1980	06	01	23	11	20.8	010.5 N	093.6 E	140	5.0 MB						
* 1 GS	1980	06	17	21	45	55.9	023.679N	103.744E	033	5.0 MB	5.3S				1.0 s	074
* 2 ISC	1980	06	17	21	45	51	023.66 N	103.69 E	001	5.0 MB	5.4S					177
* 3 PEK	1980	06	17	21	45	51.9	023.4 N	103.8 E		5.7 MB	5.8S					180
* 4 MOS	1980	06	17	21	45	54.6	023.52 N	103.77 E	033	5.4 MB	5.3S					
* 1 ISC	1980	06	21	10	57	28.0	023.42 N	103.78 E	000							007
* 2 PEK	1980	06	21	10	57	32.2	023.6 N	103.9 E			3.8S					180
BKK	1980	07	09	02	44	14.12	017.56 N	097.24 E	018				3.4 L		2.32s	003
* 1 GS	1980	07	16	20	55	28.1	022.444N	094.781E	033	4.7 MB					1.0 s	017
* 2 ISC	1980	07	16	20	55	27 7	022.51 N	094.79 E	033	4.6 MB						026

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
ISC	1980	07	17	10	07	28.6	022.5 N	093.7 E	077	4.5 MB						010
BKK	1980	07	20	20	05	49.2	019.58 N	097.80 E	024				3.5 L		1.46s	003
BKK	1980	07	29	10	06	16.8	018.86 N	098.53 E	009				3.6 L		0.27s	003
BKK	1980	07	30	20	08	30.5	024.02 N	096.41 E	025				4.2 L		2.22s	003
* 1 GS	1980	08	01	02	22	39.1	023.861N	096.076E	033	4.6 MB					0.8 s	026
* 2 ISC	1980	08	01	02	22	39.7	023.92 N	098.15 E	037	4.6 MB						081
* 3 MOS	1980	08	01	02	22	39.1	023.69 N	096.19 E	048	5.2 MB	4.4S					
* 4 PEK	1980	08	01	02	22	39.4	023.9 N	096.1 E			4.9S					
* 1 GS	1980	08	01	04	20	33.7	011.926N	093.782E	154	4.9 MB					0.7 s	068
* 2 ISC	1980	08	01	04	20	34.6	011.96 N	093.82 E	162	4.7 MB	4.1S					154
* 3 PEK	1980	08	01	04	20	30.2	011.7 N	093.7 E	140	4.8 MB						023
* 4 MOS	1980	08	01	04	20	40.6	012.12 N	093.92 E	215	4.9 MB						
BKK	1980	08	04	01	59	31.6	021.76 N	098.61 E					3.6 L		0.57s	003
BKK	1980	08	07	04	06	42.6	014.60 N	096.75 E					3.4 L		1.06s	003
* 1 GS	1980	08	12	16	44	1.5	024.784N	094.587E	050	5.1 MB					0.9 s	013
* 2 ISC	1980	08	12	16	44	1.6	024.8 N	094.62 E	052	4.9 MB						019
* 1 GS	1980	08	20	06	21	48.2	010.743N	092.806E	033	5.0 MB					1.2 s	007
* 2 ISC	1980	08	20	06	21	55.3	011.14 N	093.25 E	070	4.3 MB						017
ISC	1980	08	24	11	18	39	015.3 N	096.1 E	000							016
BKK	1980	08	24	18	05	40.5	019.77 N	098.17 E	010				3.8 L		2.11s	003
BKK	1980	08	25	20	29	41.1	014.88 N	096.17 E	012				4.0 L		1.22s	003
ISC	1980	08	26	20	24	30.4	005.02 N	096.36 E	150	4.6 MB						011
* 1 GS	1980	08	27	04	30	16.7	015.869N	094.701E	029	5.5 MB	4.8S				0.8 s	129
* 2 ISC	1980	08	27	04	30	17.0	015.83 N	094.67 E	032	5.4 MB	4.9S					233
* 3 PEK	1980	08	27	04	30	17.0	015.8 N	094.5 E			5.0S					
* 4 MOS	1980	08	27	04	30	17.4	015.74 N	094.80 E	045	5.7 MB	4.8S					
BKK	1980	08	27	07	23	31.5	017.89 N	102.26 E	010				4.0 L		1.18s	003
ISC	1980	08	27	07	23	34.5	017.91 N	102.41 E	033	3.8 MB						006
BKK	1980	08	27	17	49	48.2	020.72 N	098.74 E	011				4.2 L		0.78s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1980	08	28	03	23	35.4	021.902N	094.931E	120	4.6 MB					0.7 s	018
* 2 ISC	1980	08	28	03	33	35.3	021.90 N	094.91 E	122	4.4 MB						035
* 1 GS	1980	08	28	07	55	24.2	015.81 N	094.780E	040	4.8 MB					0.8 s	047
* 2 ISC	1980	08	28	07	55	23.6	015.86 N	094.75 E	034	4.7 MB						091
* 3 MOS	1980	08	28	07	55	24.5	016.01 N	094.78 E	033	5.1 MB						
BKK	1980	09	06	09	02	53.0	017.2 N	098.0 E								
BKK	1980	09	10	02	21	0.5	018.87 N	099.25 E	006				3.6 L	III		
* 1 GS	1980	09	14	16	03	38.2	024.874N	095.307E	112	4.5 MB					1.1 s	010
* 2 ISC	1980	09	14	16	03	38.1	024.89 N	095.33 E	109	4.3 MB						019
* 1 GS	1980	09	29	00	18	30.5	013.010N	093.168E	033	4.5 MB					1.4 s	011
* 2 ISC	1980	09	29	00	18	32	012.9 N	093.5 E	034	4.5 MB						023
ISC	1980	10	04	01	42	38.2	023.09 N	095.15 E	032	4.8 MB						006
* 1 ISC	1980	10	12	19	53	3.2	021.73 N	100.13 E	000	4.3 MB						018
* 2 PEK	1980	10	12	19	53	10.0	021.8 N	100.5 E			4.1S					
BKK	1980	10	12	19	53	4.5	021.53 N	100.70 E	015				4.6 L		1.64s	003
* 1 GS	1980	10	23	12	51	55.6	022.547N	094.994E	139	4.5 MB					0.8 s	013
* 2 ISC	1980	10	23	12	51	54.5	022.58 N	095.00 E	127	4.5 MB	4.1S					026
* 1 GS	1980	10	29	18	45	13.6	008.398N	093.350E	033	5.2 MB	6.2S				1.0 s	055
* 2 ISC	1980	10	29	18	45	15.3	008.44 N	093.34 E	051	5.2 MB	6.2S					128
* 3 MOS	1980	10	39	18	45	11.9	008.19 N	093.44 E	040	5.5 MB						
* 4 PEK	1980	10	29	18	45	12.3	008.3 N	093.0 E			4.9S					
* 1 GS	1980	10	30	05	29	39.7	023.934N	091.292E	033	5.0 MB					1.1 s	009
* 2 ISC	1980	10	30	05	29	41	023.9 N	091.5 E	030	4.6 MB						027
* 3 NDI														II		
GS	1980	10	31	08	01	7.4	012.279N	092.837E	033	4.5 MB					0.9 s	015
ISC	1980	11	08	03	37	11.7	012.18 N	093.59 E	136	4.4 MB						015
ISC	1980	11	11	20	11	38	012.6 N	095.3 E	033	4.2 MB						007
* 1 GS	1980	11	16	07	37	37.9	012.397N	092.897E	233	4.9 MB	4.1S				1.1 s	025
* 2 ISC	1980	11	16	07	37	43.2	012.47 N	093.09 E	080	4.7 MB	4.1S					051
* 3 MOS	1980	11	16	07	37	36.2	012.12 N	093.15 E	033	5.1 MB						
* 4 PEK	1980	11	16	07	37	38.3	012.5 N	093.0 E								

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1 GS	1980	11	20	18	14	11.7	022.716N	093.897E	033	5.3 MB	5.1S					
* 2 ISC	1980	11	20	18	14	11.4	022.74 N	093.92 E	030	5.2 MB	5.1S					239
* 3 MOS	1980	11	20	18	14	9.3	022.52 N	094.22 E	033	5.5 MB	4.8S					
* 4 PEK	1980	11	20	18	14	12.3	022.8 N	094.0 E			4.8S					
BKK	1980	11	29	20	32	4.9	022.68 N	095.94 E	010				4.6 L		1.75s	003
ISC	1980	12	01	20	33	26.5	022.06 N	090.94 E	033	4.7 MB						005
BKK	1980	12	02	01	09	57.5	019.83 N	097.98 E	010				3.8 L		1.00s	003
ISC	1980	12	14	04	34	16.2	012.97 N	092.88 E	208	3.6 MB						010
BKK	1980	12	19	17	47	33.0	018.03 N	100.22 E	010				3.5 L		0.86s	003
BKK	1980	12	20	10	39	00.5	018.03 N	100.22 E	010				3.2 L		1.00s	003
BKK	1980	12	20	10	42	50.8	018.04 N	100.14 E	007				3.8 L		0.61s	003
BKK	1980	12	22	07	55	50.8	018.03 N	100.08 E	008				4.0 L	IV	0.78s	003
BKK	1980	12	22	15	55	2.9	018.04 N	100.10 E	010				3.3 L		0.96s	003
BKK	1980	12	22	16	00	40.9	018.02 N	100.05 E	004				3.4 L		0.34s	003
BKK	1980	12	22	22	10	26.0	018.01 N	100.12 E	012				3.2 L		2.59s	003
BKK	1980	12	23	00	55	42.4	018.04 N	100.15 E	005							
BKK	1980	12	23	21	22	54.6	018.00 N	100.12 E	019				3.2 L		0.82s	003
* 1 ISC	1980	12	23	00	55	46.4	018.12 N	099.92 E	000	3.7 MB						007
* 2 BKK	1980	12	23	00	55	42.2	018.05 N	100.16 E	000				4.2 L	IV		
BKK	1980	12	25	08	24	36.8	018.42 N	096.54 E	011				4.3 L		0.80s	003
* 1 GS	1980	12	27	05	56	27.0	011.7 N	093.001E	033	4.8 MB					1.2 s	006
* 2 ISC	1980	12	27	05	56	42.8	012.32 N	093.84 E	058	4.5 MB						012
* 1 GS	1980	12	31	02	32	56.2	021.146N	093.627E	046	4.7 MB					1.0 s	039
* 2 ISC	1980	12	31	02	32	58.4	021.08 N	093.59 E	064	4.8 MB	4.6S					078
BKK	1980	12	31	02	33	21.1	020.37 N	095.80 E	010				4.5 L		1.20s	003
BKK	1981	01	01	11	17	40.4	018.02 N	100.14 E	009				3.4 L			
BKK	1981	01	01	13	08	40.0	018.00 N	100.14 E	014				3.9 L			
BKK	1981	01	13	14	05	5.2	018.01 N	097.50 E	088				3.6 L		0.48s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1981	01	13	18	30	54.2	020.20 N	097.88 E	012				3.2 L		0.72s	003
GS	1981	01	14	01	02	59.4	018.473N	095.267E	052	4.5 MB					0.7 s	015
BKK	1981	01	14	11	23	19.5	017.97 N	097.72 E	013				3.0 L		0.80s	003
GS	1981	01	18	17	25	50.1	011.967N	093.050E	033	4.9 MB					1.0 s	026
GS	1981	01	22	08	28	47.6	006.461N	094.800E	033	4.9 MB					0.9 s	012
GS	1981	02	01	09	37	47.7	024.866N	096.400E	033	4.7 MB					1.1 s	027
GS	1981	02	01	22	17	30.8	010.956N	092.358E	033	4.6 MB					1.1 s	013
GS	1981	02	16	21	07	53.7	011.918N	092.834E	033	4.1 MB					1.0 s	012
GS	1981	04	11	01	24	4.3	024.652N	095.106E	035	4.6 MB					1.0 s	029
BKK	1981	04	13	11	15	58.3	019.63 N	097.39 E	012				3.2 L		0.74s	003
BKK	1981	04	25	01	06	34.8	021.46 N	098.56 E	022				4.3 L		1.89s	003
GS	1981	04	25	11	32	24.6	024.941N	095.384E	148	5.7 MB					0.8 s	243
GS	1981	04	26	08	22	32.4	011.926N	092.824E	033	4.8 MB	4.1S				1.3 s	031
GS	1981	05	01	02	11	01	023.0 N	094.8 E	040				4.8 L			
GS	1981	05	01	04	08	10.4	022.964N	094.593E	101	5.0 MB					0.7 s	128
BKK	1981	05	01	02	17	0.8	022.76 N	095.24 E	006				4.6 L		0.73s	004
GS	1981	05	01	04	08	10.1	022.954N	094.583E	099	4.8 MB						
GS	1981	05	06	15	32	34.2	022.691N	094.148E	047	4.7 MB					0.7 s	029
BKK	1981	05	27	19	51	17.6	015.31 N	095.74 E	007				4.3 L		1.39s	003
BKK	1981	06	13	10	46	9.1	016.55 N	097.58 E	008				3.0 L		0.70s	002
GS	1981	06	30	21	55	48.5	022.483N	095.142E	033	5.0 MB					0.8 s	115
BKK	1981	07	22	15	31	2.9	016.87 N	098.29 E	008				3.0 L		0.80s	003
BKK	1981	07	26	01	53	25.2	014.86 N	096.25 E	014				4.2 L		1.02s	003
GS	1981	08	01	04	05	19.6	011.197N	095.311E	033	4.9 MB					1.1 s	050
BKK	1981	08	02	14	53	29.5	014.94 N	097.30 E	010				3.0 L		1.17s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
GS	1981	08	02	14	58	24.5	021.2 N	094.1 E	787	4.6 MB						
BKK	1981	08	03	14	58	35.1	020.56 N	095.07 E	004				4.1 L		0.16s	003
BKK	1981	08	04	07	32	2.9	024.97 N	100.15 E	011				4.6 L		0.75s	002
BKK	1981	08	04	11	35	52.8	024.40 N	101.38 E					4.5 L		0.89s	003
BKK	1981	08	14	13	10	31.1	024.34 N	101.72 E	010				4.7 L		0.78s	003
BKK	1981	08	17	07	26	4.4	025.00 N	099.98 E	003				4.8 L		0.18s	003
BKK	1981	08	18	15	16	57.1	019.47 N	101.54 E	005				4.1 L		0.99s	003
BKK	1981	08	18	17	09	51.9	019.48 N	101.57 E	005				4.2 L		1.06s	003
BKK	1981	08	18	17	12	23.5	019.29 N	101.64 E	009				4.0 L		0.64s	003
BKK	1981	08	18	17	18	6.2	019.46 N	101.66 E	003				3.8 L		0.72s	003
BKK	1981	08	18	19	24	49.7	019.43 N	101.63 E	003				3.4 L		0.71s	003
GS	1981	08	19	17	17	6.3	011.127N	095.297E	033	4.9 MB					0.8 s	037
BKK	1981	08	20	08	28	30.6	019.63 N	097.14 E	013				3.7 L		0.55s	005
BKK	1981	08	23	00	29	53.8	019.33 N	101.57 E	007				3.2 L		1.03s	003
BKK	1981	08	23	07	20	28.1	019.10 N	101.62 E	008				3.2 L		0.55s	003
GS	1981	08	23	01	24	38.6	024.660N	094.883E	094	4.7 MB					0.13s	024
GS	1981	08	23	09	29	58.8	022.962N	094.552E	084	4.7 MB					0.9 s	099
BKK	1981	08	25	07	55	20.7	019.03 N	101.59 E	019				3.7 L		0.76s	003
BKK	1981	08	25	09	28	56.0	019.12 N	101.51 E	018				3.0 L		1.41s	003
BKK	1981	08	25	14	30	27.7	024.09 N	102.38 E	009				4.7 L		1.17s	003
BKK	1981	08	25	22	27	58.7	024.60 N	093.80 E					4.6 L		4.36s	003
BKK	1981	08	28	20	19	44.3	018.58 N	096.22 E	016				3.7 L		0.72s	003
GS	1981	09	10	14	17	41.8	005.386N	095.281E	088	5.1 MB					0.9 s	153
GS	1981	09	12	05	25	21.7	021.088N	099.359E	033	5.0 MB	4.8S				1.0 s	111
BKK	1981	09	12	09	52	27.6	020.90 N	099.50 E					3.8 L		1.60s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1981	09	12	10	01	6.2	020.51 N	100.72 E	015				3.5 L		1.20s	003
BKK	1981	09	12	18	39	22.2	021.60 N	099.00 E					3.4 L			
BKK	1981	09	13	10	42	54.6	020.92 N	099.13 E	006				4.0 L		0.55s	003
BKK	1981	09	13	22	21	45.5	020.54 N	097.90 E	017				3.8 L		0.83s	003
BKK	1981	09	18	07	20	9.2	020.83 N	097.71 E	004				3.5 L		0.59s	003
GS	1981	09	19	06	50	59.9	023.01 N	101.336E	033	4.9 MB	5.2S				0.8 s	060
GS	1981	09	19	08	08	20.3	020.3 N	097.20 E	040				4.1 L			
BKK	1981	09	19	08	38	12.0	020.53 N	097.21 E	012				3.8 L		0.89s	003
BKK	1981	09	24	19	41	33.4	022.37 N	101.33 E					3.7 L		0.51s	003
BKK	1981	10	06	21	04	39.8	022.07 N	097.51 E					3.7 L		0.51s	003
BKK	1981	10	12	19	20	5.4	023.94 N	099.85 E	018				4.2 L		1.38s	003
GS	1981	10	21	21	41	31.3	007.40 N	093.912E	033	4.8 MB					1.1 s	036
GS	1981	10	23	03	29	16.0	016.5 N	096.0 E	033				3.1 L			
BKK	1981	10	24	20	02	24.4	015.23 N	096.32 E	012				3.6 L		0.79s	003
BKK	1981	10	25	15	27	52.6	022.72 N	103.12 E					3.8 L		0.77s	003
BKK	1981	10	27	01	44	5.3	016.42 N	096.28 E	010				3.1 L		1.51s	003
BKK	1981	11	01	07	30	15.0	020.06 N	097.74 E	008				3.6 L		1.04s	003
GS	1981	11	02	21	10	25.3	012.139N	092.907E	025	5.7 MB	5.5S				1.0 s	255
GS	1981	11	13	07	54	59.1	006.161N	095.649E	097	4.7 MB					1.0 s	042
GS	1981	11	13	08	06	26.3	006.055N	095.185E		4.8 MB	4.5S				1.1 s	042
BKK	1981	11	15	23	45	59.5	024.26 N	093.88 E					4.4 L		0.16s	003
GS	1981	11	21	01	52	40.2	022.648N	093.184E	042	4.7 MB					0.9 s	099
BKK	1981	11	29	20	40	4.8	020.05 N	099.61 E	007				3.6 L		0.51s	003
BKK	1981	11	30	21	48	22.9	022.57 N	100.51 E	029				4.4 L		2.33s	003
BKK	1981	11	30	22	55	25.2	022.51 N	100.55 E	020				4.4 L		1.76s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1981	11	30	23	54	55.9	022.48 N	100.49 E	020				3.9 L		1.54s	003
BKK	1981	12	01	08	22	52.3	020.45 N	100.16 E	010				3.5 L		1.33s	003
BKK	1981	12	01	08	51	12.9	020.42 N	100.69 E	021				3.9 L		1.66s	003
BKK	1981	12	01	08	57	34.1	020.70 N	100.71 E	015				3.8 L		1.04s	003
BKK	1981	12	03	18	31	22.8	017.60 N	095.96 E	006				3.7 L		0.54s	003
BKK	1981	12	04	04	13	29.4	020.27 N	100.65 E	010				3.3 L		0.92s	003
GS	1981	12	07	22	00	20.1	013.785N	095.991E	033	4.9 MB					0.8 s	071
BKK	1981	12	26	11	45	2.4	021.15 N	101.44 E	010				3.2 L		0.70s	003
BKK	1981	12	27	18	07	20.0	020.19 N	099.19 E	010				3.9 L		0.71s	003
BKK	1981	12	28	13	44	26.7	020.08 N	099.14 E	007				3.8 L		0.63s	003
BKK	1981	12	28	15	04	53.2	020.07 N	099.06 E	007				4.0 L		0.68s	003
GS	1981	12	28	17	54	56.7	008.632N	093.179E	051	4.5 MB					1.4 s	027
GS	1981	12	28	18	10	57.4	013.805N	095.915E	033	5.2 MB	5.1S				1.0 s	095
BKK	1981	12	28	21	32	52.9	013.44 N	094.67 E	010				4.3 L		2.62s	003
BKK	1981	12	28	22	43	5.3	012.95 N	094.51 E	010				4.8 L		0.54s	003
BKK	1981	12	30	09	47	22.7	013.16 N	094.70 E	010				3.8 L		0.68s	003
BKK	1982	01	01	09	42	16.3	018.79 N	097.71 E	004				4.8 L		0.44s	003
BKK	1982	01	01	11	45	10.3	018.83 N	097.61 E	006				3.3 L		0.44s	003
GS	1982	01	09	18	38	55.4	010.668N	092.726E	033	3.7 MB					0.9 s	012
GS	1982	01	11	20	52	59.7	024.695N	092.065E	033	4.7 MB					0.9 s	054
GS	1982	01	18	21	20	6.2	008.622N	093.616E	033	4.5 MB					1.0 s	014
BKK	1982	01	18	21	26	15.0	018.90 N	096.22 E	010				4.2 L		0.70s	003
GS	1982	01	18	21	26	17.8	019.251N	096.242E	033	4.5 MB					1.0 s	023
GS	1982	01	19	01	15	19.9	008.607N	093.743E	033	4.6 MB	4.2S				1.1 s	021
GS	1982	01	20	04	25	11.6	006.946N	094.002E	019	5.6 MB	6.3S	6.0 PAS			1.1 s	230
GS	1982	01	20	05	00	10.0	007.121N	094.099E	033	5.0 MB					1.1 s	037
GS	1982	01	20	05	10	59.8	007.183N	094.160E	033	4.3 MB					0.9 s	014

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
GS	1982	01	20	05	13	25.4	007.045N	094.026E	033	5.2 MB					0.9 s	117
GS	1982	01	20	07	09	17.4	007.119N	093.944E	027	5.7 MB	6.2S				1.1 s	230
GS	1982	01	20	08	17	31.2	006.960N	094.131E	033	4.7 MB					1.4 s	020
GS	1982	01	20	09	17	11.7	007.207N	094.015E	036	4.3 MB					1.4 s	015
GS	1982	01	20	20	50	56.6	007.012N	094.812E	033	4.1 MB					1.5 s	010
GS	1982	01	20	22	11	41.8	007.263N	094.057E	033	4.9 MB	4.6S				1.3 s	048
GS	1982	01	20	23	16	50.8	007.061N	094.095E	033	4.7 MB					1.3 s	015
GS	1982	01	21	02	32	46.5	014.611N	093.699E	033	4.4 MB					0.8 s	017
GS	1982	01	21	08	18	47.6	020.656N	094.197E	072	4.3 MB					0.9 s	008
GS	1982	01	22	18	24	37.4	007.07,N	093.989E	033	4.4 MB					1.1 s	030
GS	1982	01	24	11	35	39.5	021.451N	094.661E	113	5.4 MB					0.9 s	164
GS	1982	01	24	13	29	42.5	006.903N	094.014E	033	4.4 MB					0.9 s	022
GS	1982	01	25	10	27	9.0	006.858N	094.036E	033	5.1 MB	4.8S				1.2 s	050
BKK	1982	02	04	21	06	0.9	023.86 N	094.97 E					4.6 L		0.63s	003
GS	1982	02	10	16	17	50.4	007.0 N	106.9 E	033	5.5 MB						
BKK	1982	02	11	14	43	24.9	019.84 N	097.83 E					3.6 L		0.32s	003
GS	1982	02	12	16	00	5.0	021.905N	094.732E	116	4.7 MB					0.9 s	035
GS	1982	02	13	19	56	12.8	005.684N	094.791E	071	5.3 MB					1.1 s	178
BKK	1982	02	16	04	40	10.5	022.76 N	100.75 E	007				4.2 L		1.04s	003
GS	1982	02	16	04	57	05.1	005.46 N	094.89 E	089	4.0 MB					0.9 s	007
BKK	1982	02	18	15	56	33.6	018.21 N	104.34 E	013				4.1 L		1.45s	003
BKK	1982	02	19	01	03	57.0	022.98 N	100.98 E	030				3.8 L		2.10s	003
GS	1982	02	20	09	25	17.0	022.258N	102.422E	034	4.6 MB	4.5S				0.9 s	021
* 1 GS	1982	02	23	05	48	48.8	005.131N	097.048E	050						0.9 s	044
* 2 BKK	1982	02	23	05	48	42.3	005.11 N	096.74 E	010				4.3 L		0.25s	003
GS	1982	02	26	21	59	35.9	011.653N	092.857E	033	4.1 MB					1.3 s	009

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
GS	1982	03	05	14	56	32.3	007.243N	094.670E	033	4.2 MB					0.40s	008
GS	1982	03	07	00	31	28.4	011.060N	092.309E	033	5.1 MB					0.90s	090
BKK	1982	03	10	04	08	25.2	019.61 N	097.77 E	008				3.7 L		0.80s	003
BKK	1982	03	12	20	30	48.1	020.50 N	096.55 E	010				3.9 L		0.91s	003
BKK	1982	03	13	07	22	0.8	018.85 N	097.69 E	011				3.1 L		0.50s	003
GS	1982	03	23	13	53	7.4	005.065N	093.077E	033							
BKK	1982	03	26	12	26	33.7	020.18 N	097.33 E	010				3.4 L		0.96s	003
GS	1982	03	30	13	19	50.5	023.588N	095.532E	035	5.0 MB	4.6S				1.10s	117
BKK	1982	04	03	00	17	1.9	015.17 N	096.49 E	011				4.1 L		1.08s	003
GS	1982	04	03	07	55	54.1	022.312N	094.388E	088	4.8 MB					0.60s	046
GS	1982	04	05	02	43	58.8	007.510N	094.035E	033	5.1 MB	4.9S				1.40s	093
GS	1982	04	05	05	29	45.1	007.402N	093.830E	033	4.8 MB					0.90s	005
GS	1982	04	05	22	31	59.4	007.044N	094.165E	033	4.7 MB					1.50s	014
GS	1982	04	06	05	44	53.1	024.250N	094.413E	096	4.6 MB					1.20s	014
GS	1982	04	09	21	34	16.9	007.432N	093.954E	033	5.2 MB	4.9S				0.90s	121
BKK	1982	04	21	03	58	39.4	018.30 N	095.60 E	010				3.7 L		2.28s	003
BKK	1982	05	14	12	26	32.2	015.53 N	098.18 E	005				3.3 L		0.32s	003
GS	1982	05	22	08	52	58.8	007.564N	094.023E	033	5.5 MB	5.3S				1.1 s	230
GS	1982	05	22	09	02	27.1	024.096N	094.082E	077	4.6 MB					1.0 s	048
BKK	1982	06	01	06	12	6.8	021.88 N	101.93 E	013				4.2 L		1.12s	003
BKK	1982	06	01	08	39	23.1	021.70 N	101.93 E	007				4.2 L		0.77s	003
BKK	1982	06	04	14	01	14.7	022.06 N	101.84 E	017				4.2 L		1.59s	003
BKK	1982	06	07	02	12	2.7	021.33 N	102.32 E	009				4.0 L		0.81s	003
GS	1982	06	07	02	12	6.4	021.895N	102.068E	033	4.4 MB					1.40s	013
BKK	1982	06	10	05	57	40.5	021.82 N	100.94 E	005				3.8 L		0.35s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1982	06	12	02	05	43.1	021.81 N	102.26 E	015				4.5 L		1.36s	003
GS	1982	06	12	02	05	49.4	021.838N	102.036E	033	4.0 MB					1.70s	009
BKK	1982	06	20	13	20	40.1	018.94 N	099.18 E	003				4.3 L		0.40s	003
GS	1982	06	21	00	04	41.2	005.166N	094.338E	059	4.6 MB					0.70s	029
GS	1982	06	25	04	42	13.2	022.656N	093.599E	033	4.3 MB					1.60s	008
GS	1982	07	02	04	52	28.6	005.203N	094.295E	066	4.2 MB					0.90s	009
GS	1982	07	04	18	34	27.7	019.531N	090.615E	033	5.2 MB	5.2S				1.10s	172
GS	1982	07	05	09	38	28.6	009.847N	093.830E	143	4.5 MB					1.10s	028
GS	1982	07	05	22	17	9.3	012.891N	095.569E	033	4.8 MB					1.00s	068
GS	1982	07	10	19	22	15.1	011.717N	093.276E	087	4.5 MB					1.20s	027
GS	1982	08	03	21	15	13.7	011.910N	093.762E	149	4.2 MB					0.90s	025
GS	1982	08	13	13	57	7.7	010.519N	093.707E	120	4.8 MB					1.10s	025
GS	1982	08	26	11	35	32.2	011.715N	092.986E	033	4.8 MB					1.30s	018
GS	1982	09	04	19	51	19.1	022.993N	095.750E	033	4.8 MB	4.4S				1.20s	079
BKK	1982	09	11	05	21	2.2	019.46 N	096.43 E	008				3.9 L		0.56s	003
BKK	1982	09	12	05	40	39.0	019.47 N	095.01 E	007				3.7 L		1.15s	003
BKK	1982	09	20	17	14	12.4	022.30 N	094.50 E					5.4 L		5.02s	003
GS	1982	09	26	11	26	37.0	012.102N	092.928E	033	4.8 MB					0.70s	045
GS	1982	09	27	11	11	3.2	011.670N	092.644E	033	4.7 MB					1.50s	028
BKK	1982	10	07	01	52	23.7	022.63 N	093.74 E	005				4.5 L		0.60s	003
GS	1982	10	07	01	52	28.7	023.419N	094.416E	092	4.7 MB						
BKK	1982	10	12	02	57	31.2	019.36 N	096.786E	007				3.0 L		0.98s	003
* 1 BKK	1982	10	17	08	52	4.8	020.56 N	102.18 E					4.3 L		2.55s	003
* 2 GS	1982	10	17	08	52	3.8	020.799N	102.033E	033	4.7 MB						
GS	1982	10	21	18	40	50.7	008.235N	094.088E	033	4.3 MB						
BKK	1982	10	22	03	39	18.4	020.27 N	101.34 E	007				3.6 L		1.02s	003

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1982	10	26	01	05	35.2	019.86 N	096.98 E	004				3.6 L		0.57s	004
BKK	1982	10	27	15	36	35.9	023.66N	105.49E					5.8 L		1.55s	006
GS	1982	10	27	15	36	36.0	023.951N	106.049E	033	5.2 MB	5.1S					
BKK	1982	10	30	19	21	58.6	017.68 N	095.60 E					3.9 L		1.36s	005
GS	1982	11	01	00	20	47.1	012.430N	095.205E	033	4.3 MB					1.20s	017
GS	1982	11	09	01	36	34.7	007.042N	094.372E	033	5.1 MB	4.7S				1.30s	084
BKK	1982	11	13	15	12	20.6	020.22 N	097.04 E	006				4.0 L		0.59s	005
BKK	1982	11	14	09	05	33.5	021.20 N	097.10 E	005				4.3 L		0.57s	005
* 1 GS	1982	11	14	09	46	9.4	021.998N	094.526E	098	4.3 MB					0.90s	011
* 2 BKK	1982	11	14	09	46	24.5	021.96 N	096.86 E	006				3.9 L		0.87s	003
BKK	1982	11	19	00	24	31.9	015.39 N	096.46 E	010				3.4 L		0.74s	006
BKK	1982	11	19	00	54	19.8	015.02 N	095.73 E	014				3.6 L		0.70s	005
GS	1982	11	26	12	36	13.1	007.010N	094.032E	047	4.5 MB					1.00s	030
BKK	1982	11	26	23	27	15.6	020.76 N	097.49 E	015				3.5 L		1.03s	003
GS	1982	11	29	04	11	37.5	022.771N	094.559E	033	4.4 MB					1.20s	014
BKK	1982	11	30	02	23	44.8	019.86 N	103.03 E	010				3.8 L		1.04s	006
BKK	1982	12	01	01	34	45.5	020.58 N	103.80 E	018				3.5 L		1.65s	006
GS	1982	12	09	01	36	35.4	007.236N	094.437E	033	5.2 MB	4.7S					
GS	1982	12	11	20	55	28.7	024.525N	094.569E	023	4.9 MB	5.3S				1.00s	070
GS	1982	12	16	08	56	38.0	011.689N	092.993E	086	5.3 MB					1.10s	155
GS	1982	12	26	12	36	13.4	007.010N	094.069E	047							
* 1 GS	1982	12	28	07	30	7.5	022.355N	100.860E	026	5.2 MB					1.10s	088
* 2 BKK	1982	12	28	07	30	10.2	021.90 N	101.14 E	010				5.3 L		1.70s	006
GS	1983	01	03	11	28	14.0	024.287N	094.481E	074	5.2 MB					0.90s	062
GS	1983	01	24	23	09	21.5	012.952N	093.640E	079	6.7 MB					1.30s	215

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH	--------MAGNITUDES--------				INT	S.D.	OBS.
									(KM)	BODY	SURF	OTHER	LOCAL	MAX		
GS	1983	01	31	03	26	02.0	024.916N	095.325E	049	4.8 MB					0.20s	009
GS	1983	02	12	22	58	24.5	023.709N	105.886E	033	4.6 MB					0.60s	007
GS	1983	02	20	02	26	51.5	012.881N	092.966E	038	5.2 MB	4.4S				0.8 s	082
GS	1983	03	05	16	41	47.1	022.650N	093.971E	097	4.6 MB					0.80s	010
GS	1983	03	12	21	05	15.7	008.671N	093.809E	033	5.0 MB	4.5S				1.00s	022
GS	**1983**	**04**	**04**	**02**	**51**	**34.9**	**005.730N**	**094.811E**	**085**	**6.5 MB**					**1.00s**	**250**
GS	1983	04	04	03	03	35.0	005.752N	094.798E	074	5.8 MB					0.90s	042
GS	1983	04	04	06	58	59.5	005.585N	094.640E	076	5.0 MB					1.00s	063
GS	1983	04	08	06	21	24.8	005.640N	094.719E	076	4.8 MB					1.00s	013
GS	1983	04	13	21	07	22.8	022.816N	094.537E	130	4.7 MB					1.10s	026
GS	1983	04	15	09	23	59.1	014.954N	099.142E	010	5.3 MB					0.90s	056
GS	1983	04	17	03	30	01.0	006.409N	095.016E	033	4.4 MB					1.20s	010
GS	1983	04	17	23	16	34.5	022.001N	094.327E	100	5.1 MB					0.80s	100
GS	1983	04	22	00	37	40.5	014.952N	099.072E	033	5.8 MB	5.8S				0.90s	143
GS	1983	04	22	03	21	40.6	014.960N	099.061E	033	5.2 MB	4.4S				0.70s	085
GS	1983	04	25	20	36	49.7	009.340N	093.617E	124	4.7 MB					1.10s	014
GS	1983	04	27	17	16	09.1	015.087N	099.188E	033	4.7 MB					1.00s	011

APPENDIX C

Destructive Earthquakes' Descriptions

A. 1930, May 5, 15 45 32
B.
C. One of the worst earthquakes ever felt in Burma occurred on May 5th. The time of origin is given by the United States Coast and Geodetic Survey.

The ancient seaport of Pegu, one of the most important in British India, was almost entirely destroyed by the earthquake and a sea-wave which followed it. The roof of the famous Shwe-Maw-Daw Pagoda, an ancient temple reported to be entirely covered with gold and very valuable, was wrecked. Hundreds of people were reported killed or injured. Rangoon suffered heavily from the shocks. Many buildings in the European residential district collapsed. Press reports said that two hundred people were killed or injured by the earthquakes there.

E. Seismological Notes, 1930

A. 1930, July 18
B.
C. A severe earthquake occurring in the Tharrawaddy District of Burma was reported to have caused much damage to property. Fifty persons were reported killed or injured.
E. Seismological Notes, 1930

A. 1930, December 3
B.
C. Kew Observatory reports the epicentres of an earthquake on December 3rd as being at latitude 18° north and longitude 96°5' east. The first shock, a mild tremor, was felt in Rangoon at about 10:20 p.m. on December 3rd. The second shock, at 1:20 a.m. on December 4th, was much more severe. Press reports state that at least thirty-six persons were killed as a result of the shocks and many more were injured. The area between Nyaunglebin and Toungoo, of which Pyu is the centre, was apparently hardest hit. Buildings were destroyed, but most of them were of flimsy construction. In Pegu, Upper Burma, three very severe shocks, lasting forty-five seconds, were felt, but these did very little property damage as most of the buildings had been destroyed in the earthquakes of May, 1930, and reconstructed later along earthquake-proof lines.

Many railway bridges throughout the country were damaged and telegraphic service was completely disrupted.

Many freight cars and one locomotive were derailed and turned over.

A. 1954, March 21, 23 42 17

B. 24.2^{o}N, 95.1^{o}E
C. Very violent shock but fortunately with focus of intermediate depth; felt strongly at Calcutta, Cuttack (Orissa), Bhagalpur (Bihar), Shillong and Gauhati (Assam); buildings designed to stand up to earthquakes were damaged. This was one of the most violent earthquakes felt in India since 1898; the radius of the macroseismic area probably exceeded 1,000 km (Tandon and Mukherjee, 1956).
D. 7.4
E. Rothé, 1969

A. 1954, April 14
B. 09.9^{o}N, 92.9^{o}E
C. In the region of the Andaman Islands, off the coast of Malaysia, which link the Burmese fold systems with the Sumatra.
E. Rothé, 1969

A. 1956, July 16, 15 07 11
B. 22.2^{o}N, 95.7^{o}E
C. Destructive earthquake in upper Burma; damage at Mandalay; 38 dead and 50 injured at Sagaing, 22 km from Mandalay, 80 percent of houses damaged (press report).
D. 7
E. Rothé, 1969

A. 1956, September 19, 23 47 48
B. 23.9^{o}N, 94.8^{o}E
C. Felt at Chittagong and Decca (East Pakistan).
D. 6.3
E. Rothé, 1969

A. 1957, January 7, 04 14 44
B. 06.0^{o}N, 95.3^{o}E
C. Felt on the island of Sabang (slight damage) and in the north of Atjeh province (Sumatra).
E. Rothé, 1969

A. 1957, June 18, 02 12 20
B. 14.4^{o}N, 95.7^{o}E
C. Gulf of Martaban, off Rangoon
D. 6.4
E. Rothé, 1969

A. 1957, June 18, 14 48 21
B. 14.5^{o}N, 95.7^{o}E
C. Gulf of Martaban, off Rangoon
D. 6.7
E. Rothé, 1969

A. 1957, July 1, 19 30 22
B. 24.4^{o}N, 93.8^{o}E
C. Felt in India and East Pakistan
D. 6.8
E. Rothé, 1969

A. 1958, March 22, 01 11 33
B. 23.5^{o}, 93.8^{o}E
C. Widely felt with intensity V at Silchar, IV at Gauhati and Shillong (Assam), and Chittagong (Bangladesh).
D. 6.4
E. Rothé, 1969

A. 1961, June 12, 09 58 17.1
B. 21.6^{o}N, 106.0^{o}E
C. Unusual epicentre about 45 km northeast of Hanoi, at the northern edge of the Red River Delta (Viet-Nam). A special study has been published (Nguyen Khac Mao, et al., 1963). Damage was caused in the epicentral zone, particularly at Bacgiang and Hai Duong; movement of the Bacgiang-Anchou fault is probably the cause of the shock. The macroseismic area covers the whole of north Viet-Nam. A general study of the seismicity of north Viet-Nam, with a zoning map, has recently been published (Rezanov and Nguyen Khac Mao, 1968).

A. 1963, June 21, 15 26 29.3
B. 24.9^{o}N, 92.1^{o}E
C. Strong earthquake in Assam; intensity VII at Kailashahr, VI at Silchar, Karimganj and Shhillong, IV at north Lakhimpur, Jorhat, Gauhati. See also the premonitory shock of 19 June 1963 at 10.47 h (region 26, no. 26-041).
D. 6.4
E. Rothé, 1969

A. 1970, January 4, 17 00 40.2
B. 24.1^{o}N, 102.5^{o}E
C. Flet at Hanoi, probable heavy damage.
D. 5.6MB, 7.5MS (CGS), 7.5MS (MOS)
E. CGS, USA

A. 1975, February 17
B. 17.6^{o}N, 97.9^{o}E
C. Slight damage and injuries in Bangkok.
Felt throughout central and northern Thailand.
D. 5.6MB, 5.9MB
E. NEIS, USA

A. 1975, July 8, 12 04 42.4
B. 21.5^{o}N, 94.7^{o}E
C. Damage in the Pagan area.
D. 6.5MB
E. NEIS, USA

A. 1976, May 29, 12 23 18.7
B. 24.6^{o}N, 99.0^{o}E
C. Casualties and extensive damage reported in Lungling - Luhsi area of China. Also felt in northeastern Burma.
D. 6.1MB
E. NEIS, USA

A. 1976, May 29, 14 00 18.5
B. 24.5^{O}N, 98.7^{O}E
C. Casualties and extensive damage reported in Lungling - Luhsi area of China. Also felt in northeastern Burma.
D. 6.0MB
E. NEIS, USA

A. 1977, May 12, 12 20 00.7
B. 21.7^{O}N, 93.0^{O}E
C. Slight damage and some injuries in southeast Bangladesh.
D. 5.4MB, 5.7MS, 6.0MB (MOS)
E. NEIS, USA

A. 1978, February 7, 20 31 54.6
B. 12.9^{O}N, 93.1^{O}E
C. Minor damage reported at Port Blair.
Felt on North Andaman.
D. 5.6MB
E. NEIS, USA

A. 1978, May 25, 23 22 29.1
B. 19.3^{O}N, 99.1^{O}E
C. Slight damage in Phrao area. Felt in Chiang Mai and Chiang Rai Provinces, Thailand.
D. 4.8MB
E. NEIS, USA

A. 1978, September 30, 09 04 31.2
B. 16.6^{O}N, 95.86^{O}E
C. Slight damage in the Pegu area.
D. 5.5MB
E. NEIS, USA

A. 1982, January 20, 04 25 11.6
B. 06.95^{O}N, 94.00^{O}E
C. Considerable damage and some injuries in the Nicobar Islands Foreign Broadcast Information Service).
D. 5.6MB, 6.0PAS
E. Seismological Notes, 1982

A. 1982, January 20, 07 09 17.4
B. 07.12^{O}N, 93.94^{O}E
C. Additional damage and injuries (Foreign Broadcast Information Service)
D. 5.7MB
E. Seismological Notes, 1982

A. 1983, January 24, 23 09 21.5
B. 12.95^{O}N, 93.64^{O}E
C. Felt at Chittagong, Bangladesh.
D. 6.1MB
E. GS, USA

A. 1983, 24 January, 23 09 21.5
B. 12.95^{O}N, 93.64^{O}E

C. Casualties and damage reported in the Banda Aceh area.
D. 6.5MB
E. GS, USA

A. 1983, April 22, 00 37 40.5
B. 14.95°N, 99.07°E
C. Slight damage in Bangkok, Nakhon Pathom and Kanchanaburi province. Felt strongly throughout central part of Thailand.
D. 5.8MB
E. GS, USA, Thai Met. Dept.

Appendix D Earthquake focal mechanism solutions

DA	MO	YR	HR	MN	SE	LAT.	LONG.	DEPTH	MAG.	Pole of 1st Nodal Plane Trend/Plunge	Pole of 2nd Nodal Plane Trend/Plunge	Pole of Compression, P Trend/Plunge	Pole of Tension, T Trend/Plunge	Pole of Null Axis, B Trend/Plunge	Source (See references)
25	11	35	10	03	02.0	05.50 N	94.00 E	00	6.5	135/25	264/54	175/60	295/16	033/24	Fara, 1964
23	08	36	21	12	13.0	06.00 N	95.00 E	01	-	134/30	027/30	170/00	080/44	260/46	Fara, 1964
23	08	36	21	12	13.0	06.00 N	95.00 E	00	7.3	133/31	026/25	171/04	077/42	265/48	Fara, 1964
26	06	41	11	52	03.0	12.50 N	92.50 E	00		326/85	146/05	326/40	146/50	056/10	Fara, 1964
26	06	41	11	52	03.0	12.50 N	92.50 E	00	8.1	326/85	212/05	028/41	217/48	122/05	Fara, 1964
21	03	54	23	42	17.0	24.40 N	95.20 E	03		140/40	034/29	177/01	087/43	268/47	Fara, 1964
17	05	55	14	49	49.0	06.50 N	94.00 E	00	7.2	207/02	116/14	071/08	062/11	305/76	Fara, 1964
22	01	64	15	58	46.5	22.40 N	93.60 E	88	6.1	056/04	156/45	204/26	094/33		Fitch, 1970
27	02	64	15	10	48.8	21.70 N	94.40 E	102	6.4	056/04	153/57	208/30	090/40		Fitch, 1970
02	04	64	01	11	48.6	05.75 N	95.42 E	65	5.6	250/10	158/10	204/14	294/00	024/74	Denham, 1977
02	04	64	01	11	48.6	05.75 N	95.42 E	16	5.6	240/04	331/00	196/03	285/03	060/86	Denham, 1977
15	06	64	00	05	36.1	05.28 N	96.62 E	67	5.3	350/50	214/30	016/11	264/65	102/36	Denham, 1977
15	06	64	00	05	36.1	05.28 N	98.82 E	71	5.3	190/30	088/20	231/06	136/36	329/53	Denham, 1977
12	07	64	20	15	58.8	24.88 N	95 31 E	152	5.5	168/29	263/07	219/26	122/14	003/60	Denham, 1977
28	07	64	21	38	43.5	14.30 N	96.20 E	33	5.5	141/50	352/34	045/71	160/07		Fitch, 1970
06	09	64	18	57	23.0	07.08 N	93.62 E	69	5.0	279/17	016/21	327/27	058/03	153/62	Denham, 1977
15	09	64	15	29	38.8	08.90 N	93.03 E	32	6.3	051/20	168/52	204/17	088/52	308/34	Denham, 1977
16	09	64	01	25	26.6	10.71 N	92.81 E	40	5.7	311/21	048/18	000/28	269/02	175/62	Denham, 1977
30	11	64	12	27	37.9	06.75 N	94.54 E	32	5.7	236/00	326/00	191/00	281/00	- /90	Denham, 1977
30	11	64	12	27	37.9	06.75 N	94.54 E	24	5.7	271/68	027/10	005/51	223/32	120/19	Denham, 1977
02	07	67	07	03	54.0	08.65 N	93.59 E	30	5.7	351/00	261/15	215/10	307/10	081/76	Denham, 1977
02	07	67	07	03	54.0	08.65 N	93.59 E	30	5.7	351/00	261/15	215/10	307/10	081/76	Denham, 1977
12	04	67	04	51	41.8	05.16 N	96.31 E	55	6.1	008/62	188/26	008/17	188/73	098/00	Denham, 1977
06	09	67	07	30	10.8	14.80 N	93.60 E	33		286/14	106/75	286/59	106/31		Fitch, 1970
28	03	71	08	23	21.5	12.12 N	95.22 E	22	5.2	008/00	- /90	278/45	098/45	008/00	see Fig. 3a
28	03	71	08	23	21.5	12.12 N	95.22 E	22	5.2	000/03	090/00	045/02	315/02	180/03	Eguchi, 1979
29	03	71	17	55	43.0	11.16 N	95.11 E	17	5.1	098/09	190/11	236/01	144/15	327/15	Eguchi, 1979
17	07	71	05	32	43.4	06.98 N	94.65 E	144	5.6	097/54	307/33	350/72	114/12	208/15	see Fig. 3b
12	08	71	04	17	03.0	12.50 N	95.08 E	20	5.3	078/20	347/17	034/13	300/12	174/17	Eguchi, 1979
05	11	71	22	11	15.1	10.11 N	92.93 E	53	5.9	127/46	265/36	203/70	103/03	016/19	see Fig. 3c
13	12	72	23	34	11.8	12.44 N	95.23 E	24	5.0	074/04	297/04	030/12	297/04	182/13	Eguchi, 1979
07	04	73	03	00	59.6	07.00 N	91.32 E	39	5.8	034/22	268/56	236/19	357/57	136/25	see Fig. 3d
09	07	73	16	19	46.7	10.66 N	92.59 E	44	5.6	045/04	137/25	182/12	086/22	305/27	Eguchi, 1979
17	02	75	03	38	19.8	17.64 N	97.90 E	06	5.6	098/14	193/20	147/24	240/04	336/66	Thanvarachorn, 1975
17	02	75	03	38	20.2	17.65 N	97.84 E	06	5.5	067/28	247/62	067/73	247/17	337/00	see Fig. 3e
08	07	75	12	04	38.0	21.42 N	94.62 E	112	5.9	056/17	177/57	216/22	090/54	317/26	see Fig. 3f
17	12	75	17	05	35.0	05.25 N	95.83 E	08	5.6	211/68	079/16	098/53	246/28	344/17	see Fig. 3g
11	12	76	11	18	08.0	07.65 N	93.90 E	08	5.4	078/48	214/32	053/07	160/65	320/23	see Fig. 3h
02	11	81	21	10	26.8	12.20 N	92.86 E	25	5.7	289/69	231/16	050/28	259/59	147/13	USGS - EDR
20	10	82	04	25	11.6	06.95 N	94.00 E	19	5.6	267/21	173/09	041/08	308/21	152/67	USGS - EDR
20	01	82	07	09	17.4	07.12 N	93.94 E	27	5.7	181/13	273/07	226/04	122/75	317/14	USGS - EDR
22	05	82	08	52	58.9	07.56 N	94.02 E	33	5.5	199/67	028/22	125/67	296/23	027/03	USGS - EDR
16	12	82	08	56	35.6	11.69 N	92.95 E	86	5.3	088/38	338/23	216/09	117/46	315/43	USGS - EDR

PART B

ADDITIONAL SEISMICITY DATA OF THAILAND AND ADJACENT AREAS

PART B ADDITIONAL SEISMICITY DATA OF THAILAND AND ADJACENT AREAS

Introduction

This report supplements the seismological data report which was prepared during 1982-1983 for the region bounded by latitude 5°- 25°N and longitude 90°- 110° E. Due to the lack of reference materials in Thailand, the data searches were done in the library of the U.S. Geological Survey in Denver, the Colorado School of Mines library, the University of Colorado library and the library of the U.S. Geological Survey Branch of Global Seismology and Geomagnetism. New historical earthquake data and descriptions of major events were found and are presented in Appendices A and B. The macro- and microseismic instrumental data are presented in Appendix C, the focal mechanism data are in Appendix D and the locality index is listed in Appendix E.

Historical and Destructive Earthquakes

The Geological Survey of India Records and Memoirs provide the most comprehensive records and descriptions of historical earthquakes which occurred in northeastern India, Bangladesh, Burma and the Andaman Islands. More than 450 events were obtained from these two sources. The search through the memoirs and records of the Service Gologique de l'Indochine yielded only one earthquake event in Yunnan in 1909. These records and descriptions are tabulated in Appendix A for events prior to 1900 and in Appendix B for events from 1900 onward. Every event is listed under the following format.

- * probably after shock
- ** probably the same earthquake
- A. Date and time
- B. Location of observation or epicentre
- C. Description of first-hand experience and/or destruction
- D. Magnitude and/or intensity, and
- E. Source of information.

Boundaries of seismic areas of 19th century large earthquakes were reproduced from Oldham (1983) and are shown in Fig. 4.

The isoseismal maps of the Burmese earthquakes of May 1912, May and December 1930 were reproduced from Brown (1914) and Brown and Leicester (1933) and are shown in Fig. 5 and 6. The isoseismal maps of the 1605 earthquake of Hainan Island and that of the 1909 earthquake of Yunnan were reproduced from Chen and Huang (1979) and Deprat and Mansuy (1912) (Fig. 7).

The compiled data were then used to produce the maximum earthquake intensity map of Thailand and adjacent areas which is shown in Fig. 8.

Instrumental Data

The macro- and microseismic data are tabulated in Appendix C. The macroseismic events (magnitude 6 or greater) are typed in boldfaced letters. These additional listings are arranged chronologically from 1981 to December 1983. The records from different sources which may be duplicates are asterisked.

The seismic data are arranged to include source, data and time, epicentre, depth, magnitude (either Mb, ML, Ms, or other), maximum intensity, standard deviation and number of observations.

The source of data used in this tabulation are:

1. The Thai Meteorological Department, Bangkok, Thailand
2. National Earthquake Information Service of the U.S. Geological Survey, Denver, Colorado
3. International Seismological Centre, United Kingdom.

Focal Mechanisms

Fault plane solutions of earthquakes in northeastern India and Burma were prepared by several authors including Rastogi, et al (1973), Chandra (1975), Chauhan and Srivastava (1975), Rastogi (1976), Verma, et al (1976), Verma, et al (1980), Tapponnier and Molnar (1977), Upadhyay and Ahuja (1981) and Upadhyay, et al (1983). The fault plane solutions of the Chinese Yunnan and Indochina region were reported by Kan, et al (1983). The National Earthquake Information Service provided fault plane solutions of the 1983 earthquakes in Thailand, Yunnan and Andaman Sea areas. These results are tabulated in Appendix D.

The fault plane solutions are arranged to include date and time, epicentre, depth, magnitude of earthquakes, poles of the two nodal planes, poles of compression (P), tension (T), and null axis (B), type of movements, and reference sources. The azimuthal trends are always taken clockwise from the north and the plunge is the angle which the axis or pole makes with the horizontal. The focal mechanisms are also plotted to represent the stress distribution of the shallow and intermediate earthquakes within the region (Fig. 9 & 10).

Conclusions

1. The best source of information on historical earthquakes of Burma and northeastern India is the Geological Survey of India Memoirs and Records. Over four hundred and fifty historical earthquake records were reported.

2. Whenever there was a major earthquake occurring either in Yunnan, Burma, or Bangladesh and northeastern India it was always felt (sometimes strongly) in Bangkok. The effect of the long-period seismic waves on the characteristic ground motion of

the Bangkok subsoils and the tall building periods should be established.

3. At least two very active faults can be identified in Thailand from the seismic data. One is the Mae Tha fault zone of Chiangmai and Lamphun and the other is the Three Pagodas fault system of Kanchanaburi. In addition the earthquake along Tha Song Yang-Mae Sod area should be further studied to identify the related active fault.

4. The Khorat Plateau of Thailand, Kampuchea, Southern Vietnam and the Gulf of Thailand seem to be very stable tectonically and no earthquake, instrumental or otherwise, has been observed thus far.

5. There are three active belts of seismicity within the region. The first is the Assam-Chin Hill-Arakan Yoma-Andaman-Nicobar Island-Sumatra belt. Most of the intermediate earthquakes were associated with this belt. The second belt is the Sagaing Fault-Andaman Sea spreading centre which merges with the first belt north of Sumatra Island. The splays of this belt extend southeastward into Thailand through the Three Pagoda fault zone and the Moei-Uthai Thani fault zone. The third belt is the Yunnan-Red River fault system. The southern extension of the Yunnan fault zone passes into Thailand through Chiangrai, Nan and Phrae.

6. Seismic source zones of these earthquakes should be identified and seismotectonic maps should be made.

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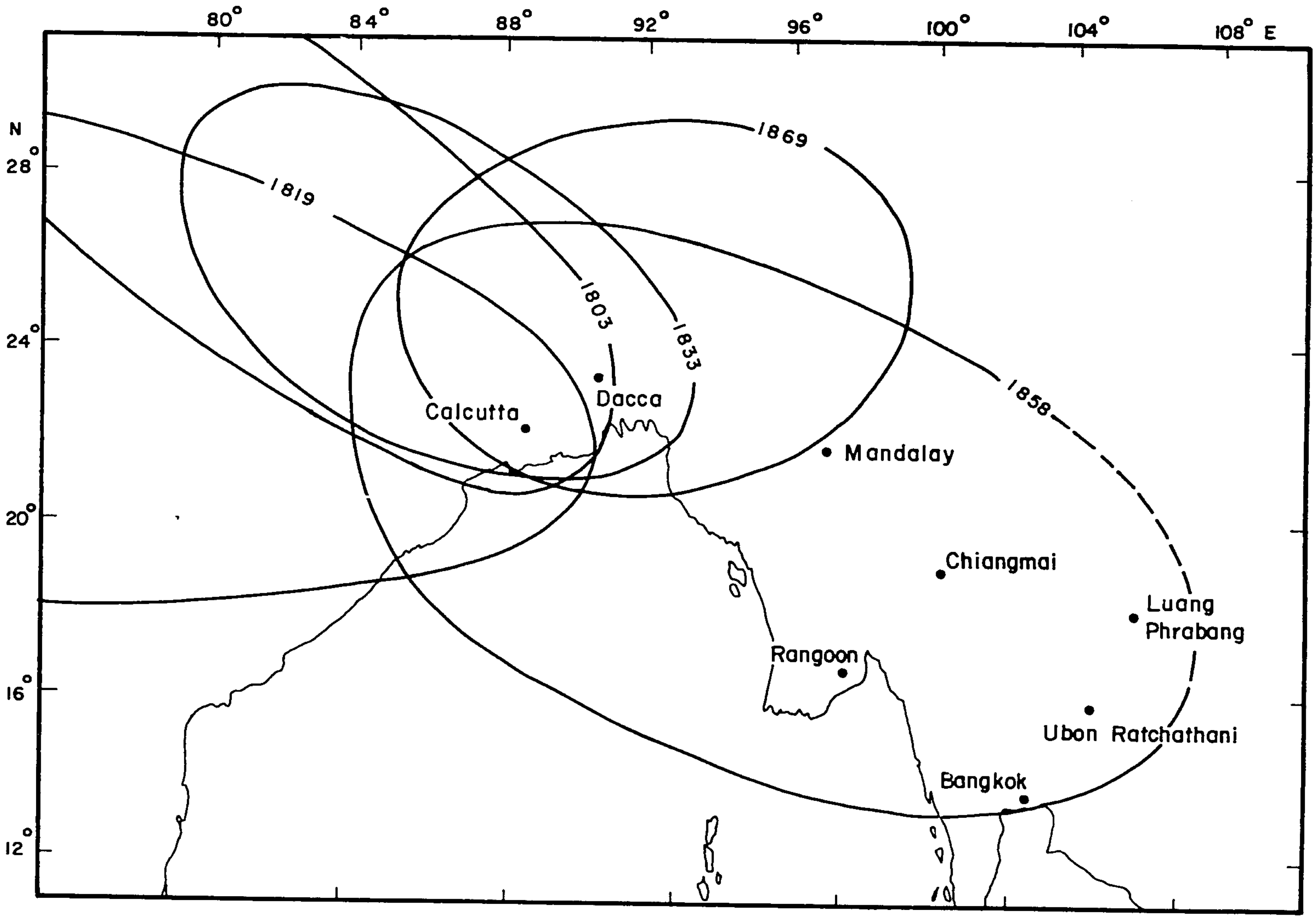


Fig. 4 Boundaries of Seismic Areas of 19 th Century Indian Earthquakes (after Oldham, 1883)

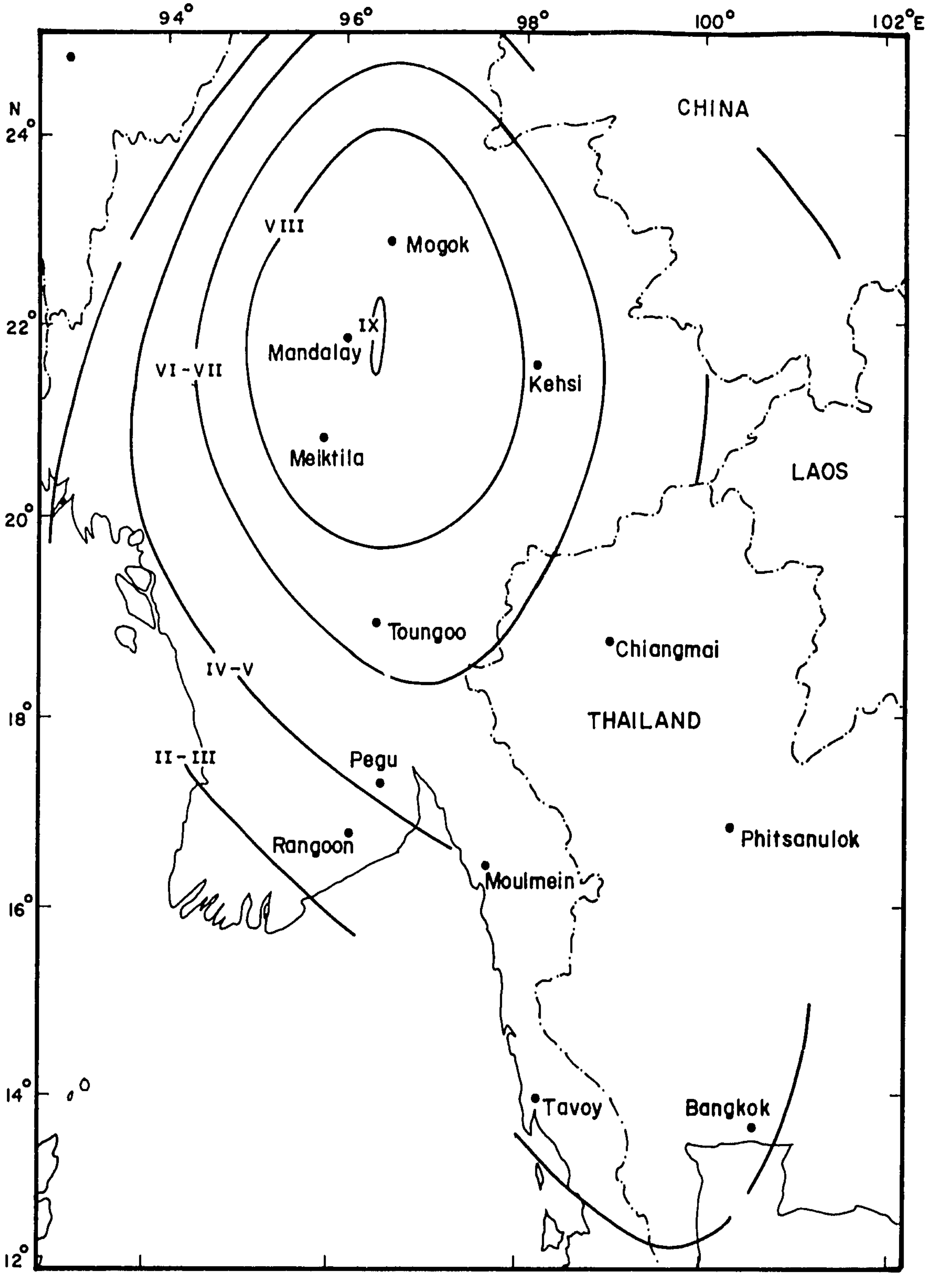


Fig. 5 Isoseismal Map of the Mandalay Earthquake of 23 May 1912 (after Brown, 1914)

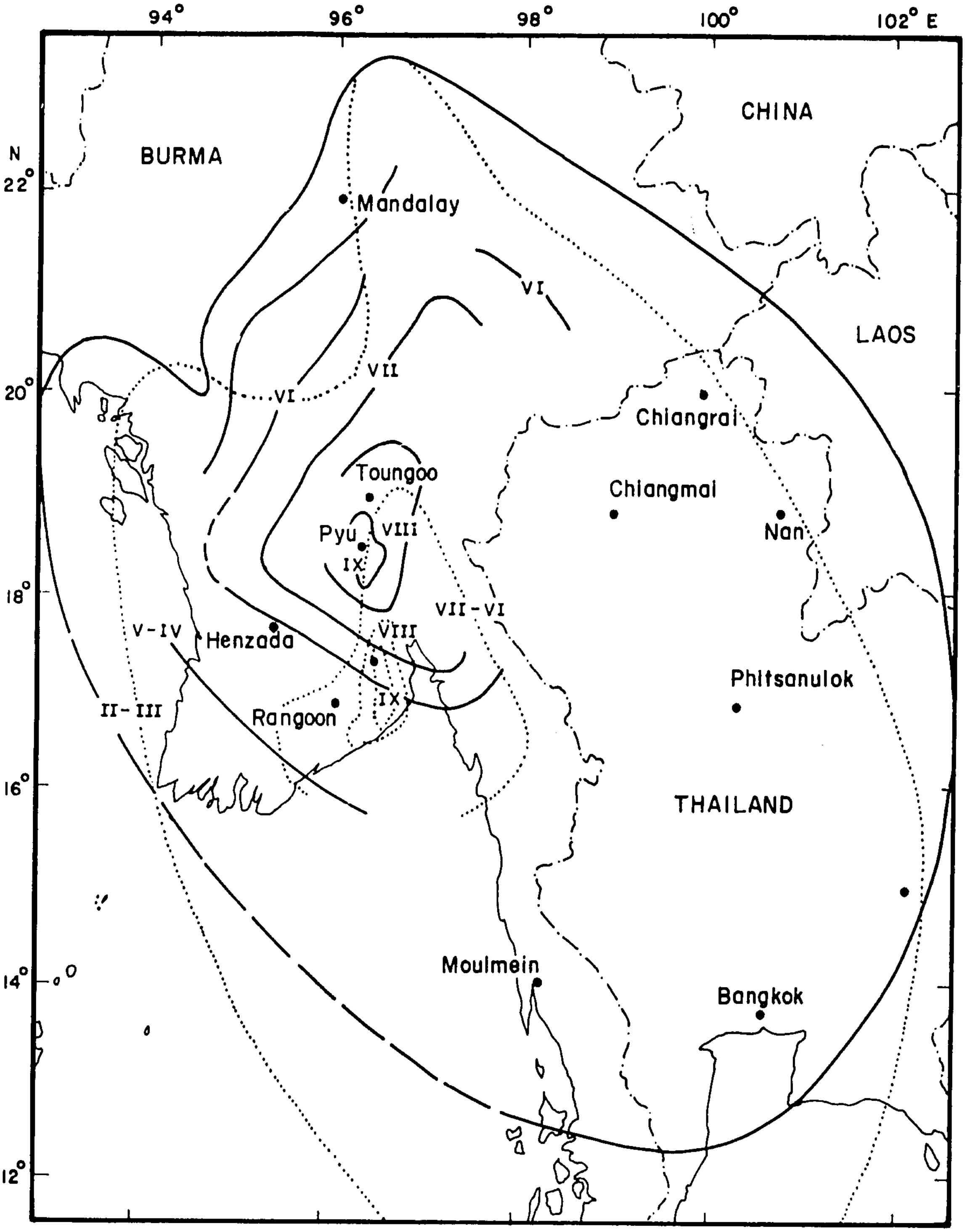


Fig. 6 Isoseismal Map of the Pegu Earthquake of 5 May 1930 (Dotted Lines) and the Pyu Earthquake of 3 and 4 December 1930 (Solid Lines)
(after Brown & Leicester, 1933)

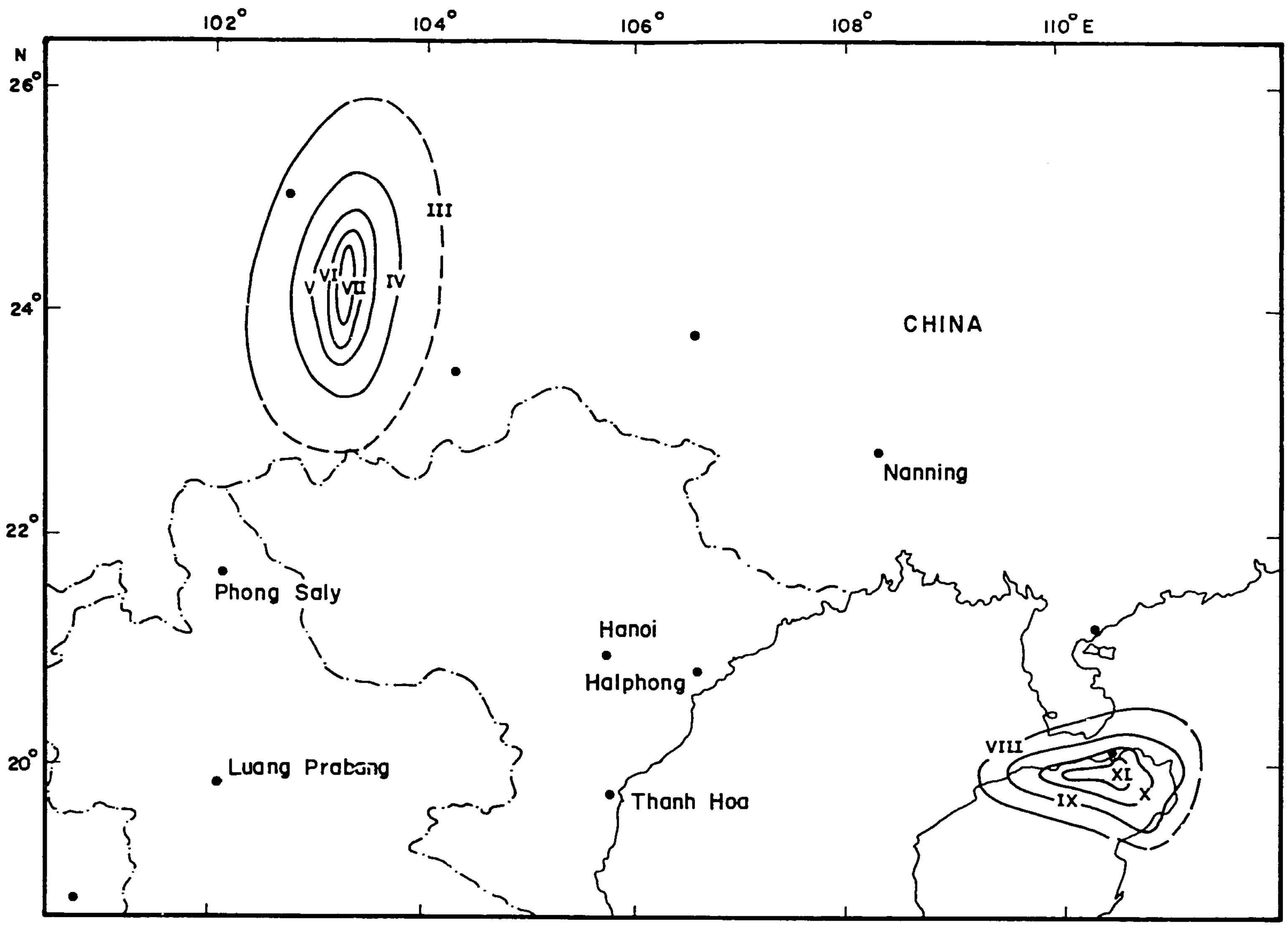


Fig. 7 Isoseismal Map of the 13 July 1605, Qiongzhou Earthquake of Hainan Island and the May to October, 1909 Earthquake of Yunnan (after Chen & Huang, 1979 and Deprat & Mansuy, 1912)

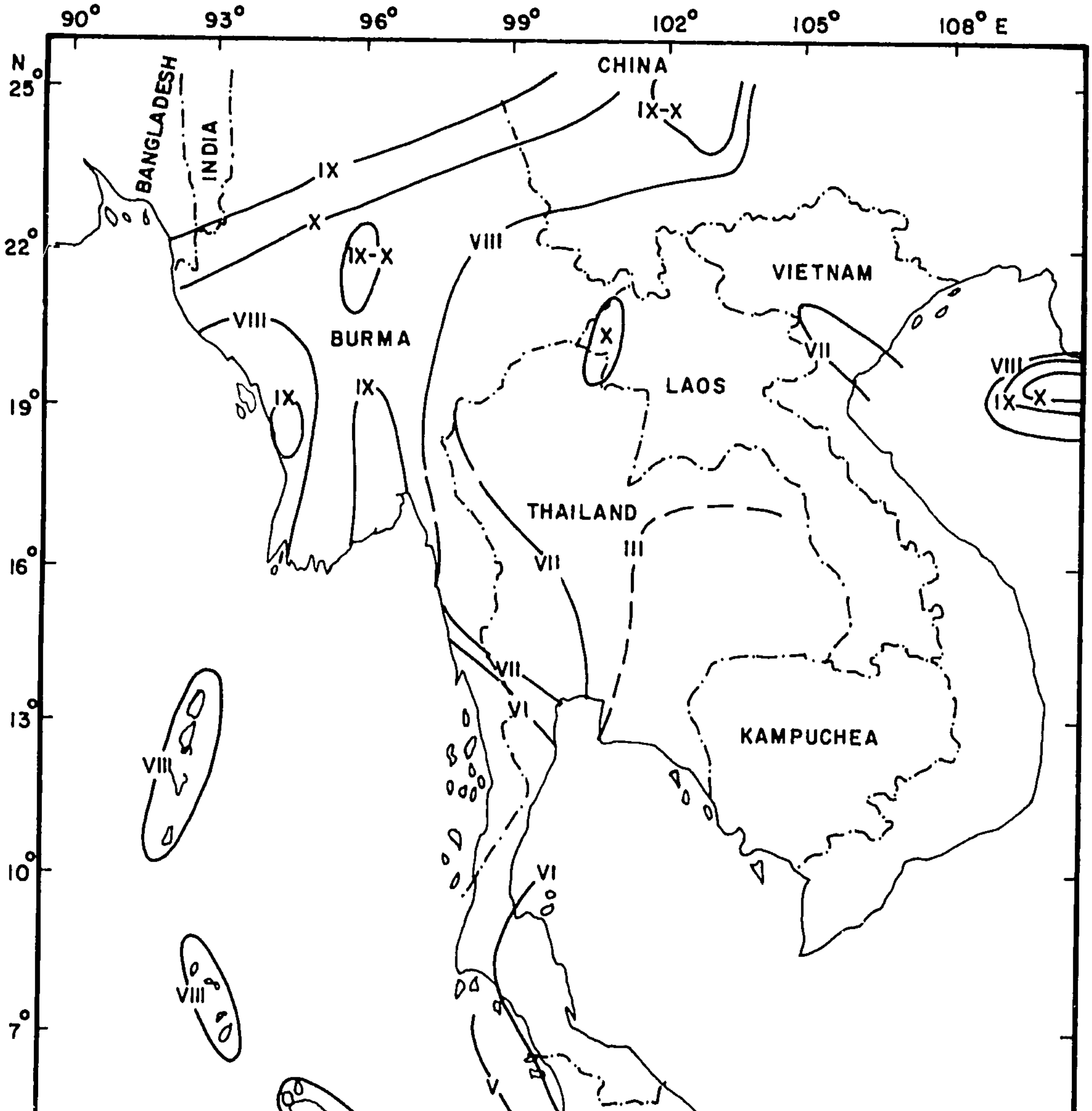
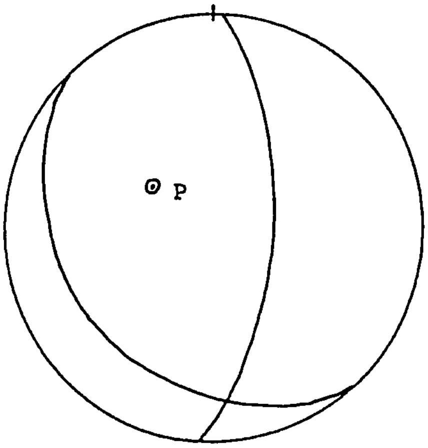
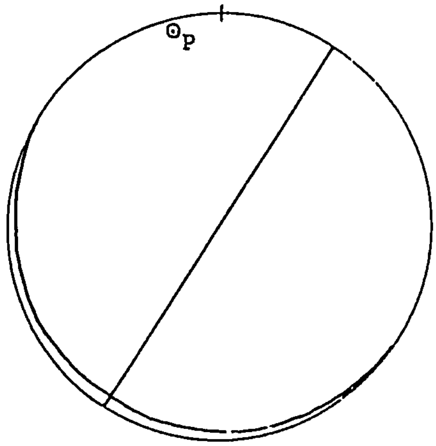


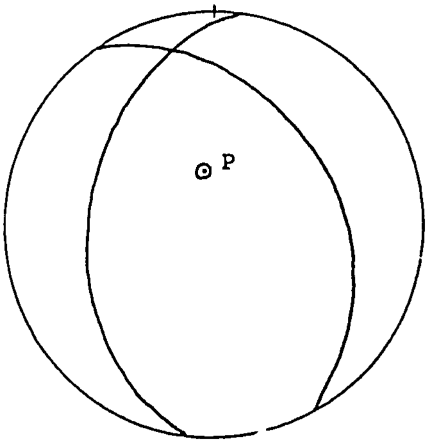
Fig. 8 Maximum Earthquake Intensity Map of Thailand and Adjacent Areas



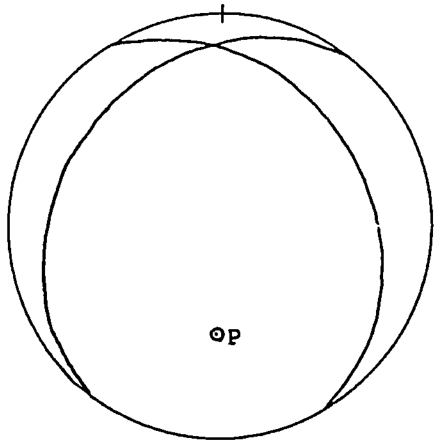
Jun.24 1962, 25.57N 100.89E, 50 km.



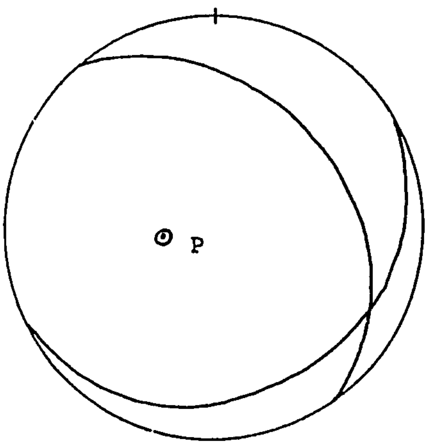
Jan.4 1970, 24.14N 102.5E, 20 km.



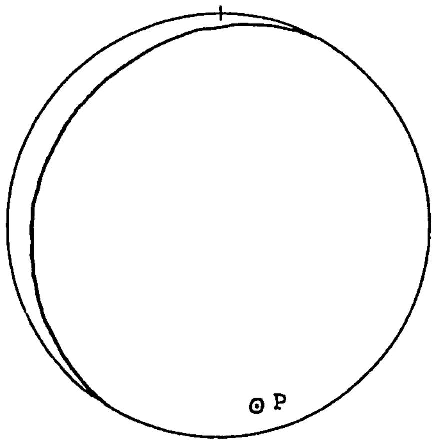
Aug.16 1973, 23.1N 100.9E, 10 km.



Jul.21 1976, 24.78N 98.69E, 9 km.

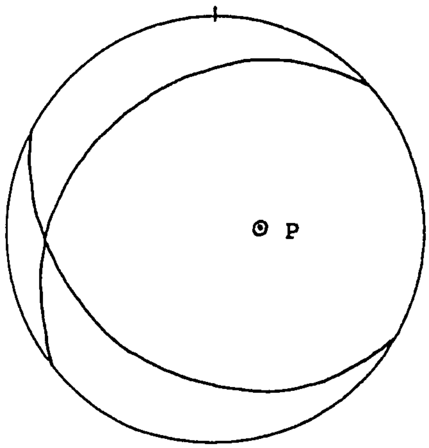


Apr.22 1983, 14.93N 99.02E, 10 km.

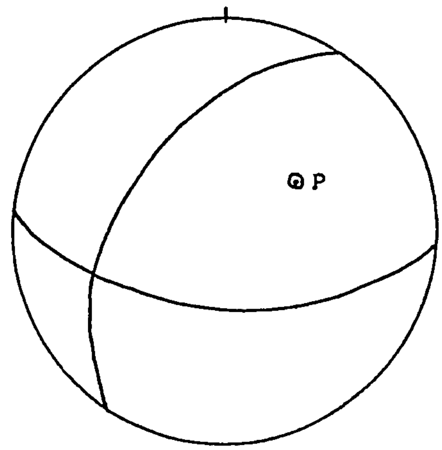


Jun.6 1983, 21.72N 103.28E, 18 km.

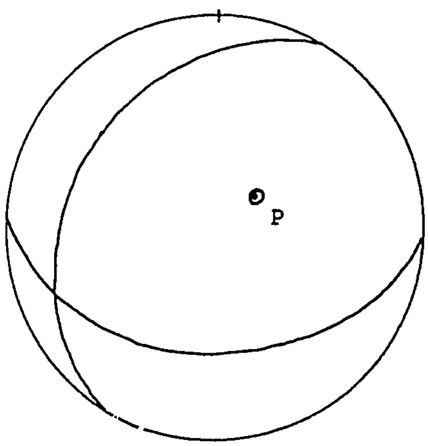
Fig.9 Fault Plane Solutions of Shallow Earthquakes



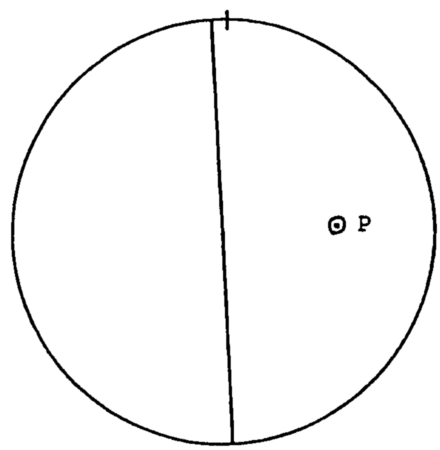
Mar.22 1954, 24.4N 95.2E, 180 km.



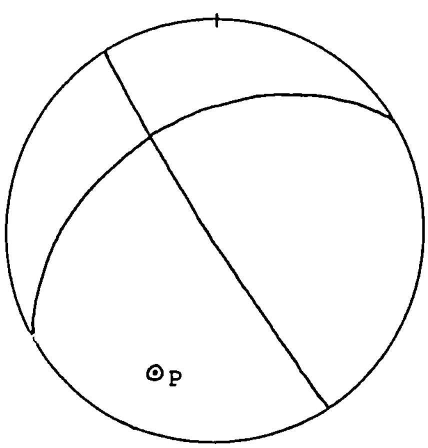
Feb.4 1957, 24.4N 95.3E.



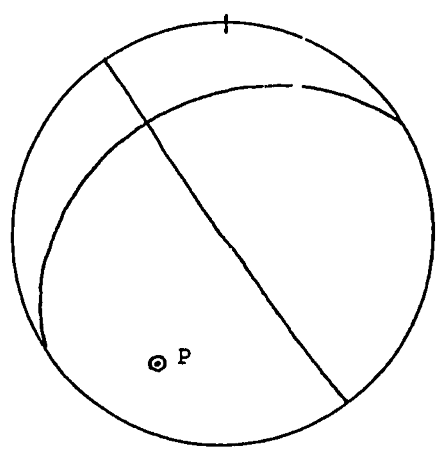
Jun.14 1961, 24.5N 94.7E, 91 km.



Apr.23 1963, 25.7N 99.6E, 93 km.

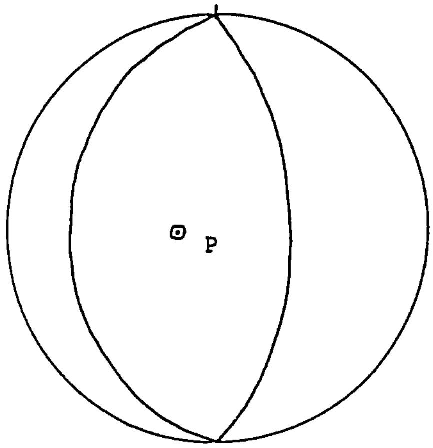


Jan.22 1964, 22.4N 93.6E, 38 km.

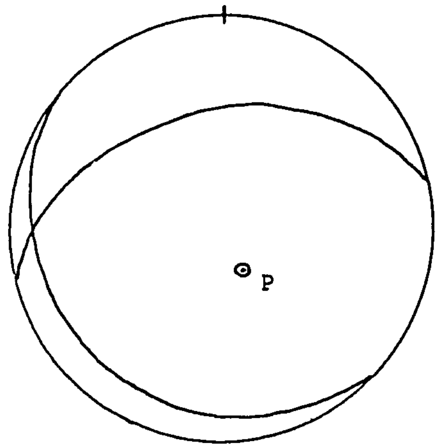


Feb.27 1964, 21.7N 94.4E, 102 km.

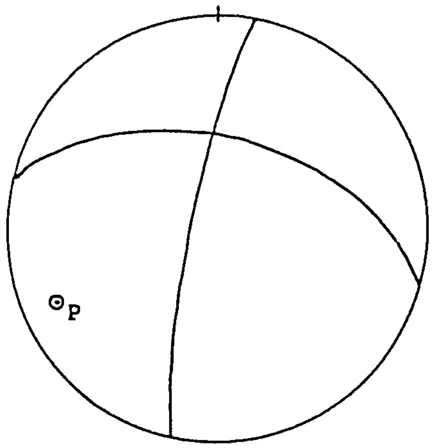
Fig. 10 Fault Plane Solutions of Intermediate Earthquakes



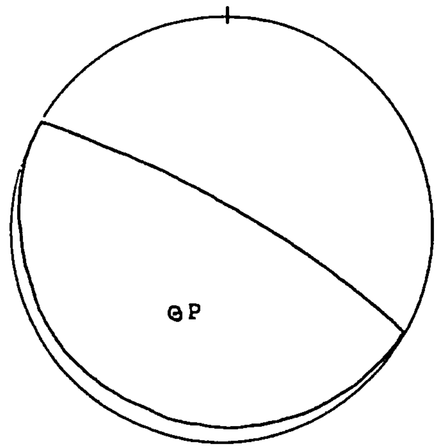
Jun.3 1964, 25.88N 95.69E, 121 km.



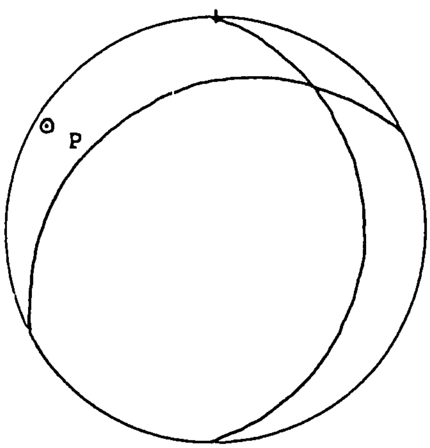
Jul.12 1964, 24.9N 95.3E, 155 km.



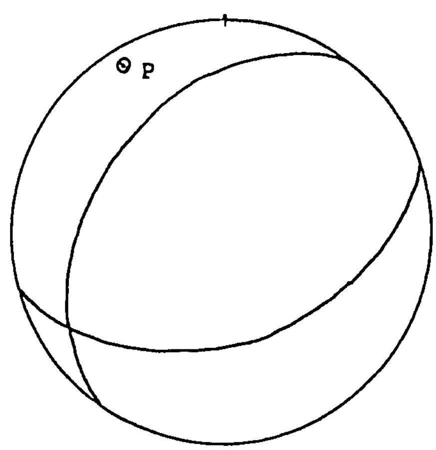
Feb.25 1965, 23.63N 94.64E, 94 km.



Dec.15 1965, 22.0N 94.47E, 109 km.



Apr.4 1983, 5.72N 94.72E, 79 km.



Jul.2 1983, 5.75N 94.72E, 93 km.

Fig. 10 Continued

APPENDIX A

Earthquakes in Thailand and Burma prior to 1900

A. 442 B.C.
B. Mt. Popa (50 km. SE of Pagan)
C. A great earthquake roared through central Burma and from out of the barren Myingyan Plains rose Mount Popa.
E. Hoefer, H.J. et al., 1982

-

A. 868
B. Pegu
C. Shwemawdaw Pagoda fell.
E. Win Swe, 1981

-

A. 875
B. Pegu
C. Shwemawdaw Pagoda fell.
E. Win Swe, 1981

-

A. 1429
B. Ava
C. Fire-break enclosure walls fell.
E. Win Swe, 1981

-

A. 1467
B. Ava
C. Pagodas, solid and hollow, and brick monasteries destroyed.
E. Win Swe, 1981

-

A. 1482
B. Hsinmyashin Pagoda (Close to Sagaing)
C. Built in 1429 by King Monhyin, it was destroyed in 1482 by an earthquake.
E. Hoefer, H.J. et al., 1982

-

A. 1485, 24 July
B. Sagaing
C. Yadana Pagoda, Kannartawyar Pagoda, Sinmyashin Pagoda destroyed.
E. Win Swe, 1981

-

A. 1499
B. Yunan Province 25.0N 103.0E
C. 20,000 people killed, severe damage.
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1500, 4 January
B. Yunan Province 24.5N 103.0E
C. Many people killed.
D. IX (Mag. 6.75 LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1501
B. Ava
C. Pagoda, fell.
E. Win Swe, 1981

-

A. 1560
B. China 24.2N 102.7E
C. 10 people killed, damage limited.
D. VII (Mag. 5.5 LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1564, 13 September
B. Pegu
C. Pagodas, including Shwemawdaw and Mahazedi, fell.
E. Win Swe, 1981

-

A. 1567
B. Pegu
C. Kyaikko Pagoda fell.
E. Win Swe, 1981

-

A. 1571, 9 September
B. China, 24.1N, 102.7E
C. 10 people killed.
D. VIII (Mag. 6.0LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1582

B. Pegu
C. Hti (umbrella) fell from Mahazedi Pagoda.
E. Win Swe, 1981

-

A. 1588
B. Pegu
C. Pagodas, etc. fell.
E. Win Swe, 1981

-

A. 1588, 9 August
B. China, 24.0N, 102.8E
C. Some people killed.
D. VIII (Mag 6.0LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1590
B. Pegu
C. The great incumbent Buddha destroyed.
E. Win Swe, 1981

-

A. 1605, 13 July
B. Qiongzhou, Hainan Island, 19.98N, 110.47E
C. The earthquake caused the most severe damage in South China and brought about a land-slip on a large scale into the sea. (h=22km).
D. XI (Mag. 7.75-8)
E. Chen Enmin and Huang Yongyin, 1979

-

A. 1606, 30 November
B. China, 23.6N, 102.8E
C. 1,000 people killed, moderate damage.
D. IX (Mag. 6.5LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1620, 8 June
B. Ava
C. Ground surface broken into pieces, fish died and were found floating in the rivers.
E. Win Swe, 1981

-

A. 1646, 10 September

B. Ava
C. Earthquake occurred.
E. Win Swe, 1981

-

A. 1648, 11 June
B. Ava
C. Earthquake occurred.
E. Win Swe, 1981

-

A. 1660, 1 September
B. Ava
C. Earthquake occurred.
E. Win Swe, 1981

-

A. 1680, 9 September
B. China, 25.0N, 101.5E
C. 2,700 people killed, severe damage.
D. IX (Mag. 6.5LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1690, 3 April
B. Ava
C. Earthquake occurred.
E. Win Swe, 1981

-

A. 1696, 15 September
B. Ava
C. Shwesayan, Shweyinhmyaw, Shwezigon and Thihadaw Pagodas destroyed.
E. Win Swe, 1981

-

A. 1714, 4 August
B. Ava
C. Pagodas, etc. fell. The water from the river gushed into the city.
E. Win Swe, 1981

-

A. 1750, 15 September
B. China, 24.7N, 102.9E
C. 37 people killed.
D. VII (Mag. 5.5LEE)

E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1755, 27 January
B. China, 24.7N, 102.2E
C. 270 people killed, moderate damage.
D. VIII (Mag. 6.5LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1755, 8 February
B. China, 23.8N, 102.7E
C. 70 people killed, moderate damage.
D. VIII (Mag. 6.0LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1757, 4 June
B. Pegu
C. Shwemawdaw Pagoda damaged.
E. Win Swe, 1981

-

A. 1761, 23 May
B. China, 24.4N, 102.5E
C. 120 people killed, moderate damage.
D. VIII (Mag. 6.0LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1761, 3 November
B. China, 24.4N, 102.5E
C. 50 people killed, moderate damage.
D. VII (Mag. 6.0LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

A. 1761
B. Arakan
C. In 1761 and 1762 Arakan was struck by a pair of exceptionally strong earthquakes. The epicentres of both were near Mrauk-U. The city survived but, along the coast, sections of land rose by as much as seven metres (23 feet).
E. Hoefer, H.J. et al., 1982

-

A. 1762, 2 April, 17.00 hr.
B. Burma, 22.0N,.92.0E
C. A very destructive and violent earthquake felt all over

Bengal, Arakan, etc., chiefly and most severely in the north part of the east coast of the Bay of Bengal. In Calcutta, water in tanks rose 6 feet; direction said to have been north and south; lasted ten minutes. At Ghirotty, 18 miles above Calcutta, river rose more than 6 feet perpendicularly. At Dacca, water rose so suddenly as to carry up hundreds of boats, and many lives were lost. Chittagong suffered very severely; great explosion heard at first; openings in the earth were formed 10 to 12 cubits in length, and chasms were filled with water. Water was spouted out like a fountain together with fine sand or mud; earth continued to sink day by day little by little. Sixty square miles said to have been permanently submerged. At Dollazari houses fell; cavity opened 200 cubits in length and filled with water. Two volcanoes said to have opened on the Seeta Kunda Hills. At Nahar Charcak the island clove asunder and was swallowed up by the waters. Minor shocks continued up to 19th. To this severe earthquake is attributed an elevation, of varying amount, of the coast of Arakan, stated to extend over more than 100 miles in length. Oysters were found adhering to a pinnacle of rock, about 40 feet high, on a line about 13 feet above the second line of beach (that produced in 1766), which was itself marked in a similar way.

E. Oldham, T., 1883

-

A. 1763, 30 December

B. China, 24.3N, 102.8E

C. 1,000 people killed, moderated damage.

D. VIII (Mag. 6.5LEE)

E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1768, 27 December

B. Pegu

C. Ponnyayadana Pagoda fell.

E. Win Swe, 1981

-

A. 1771, 15 July

B. Ava

C. Earthquake occurred.

E. Win Swe, 1981

-

A. 1776, 9 June

B. Ava

C. The Shwesayan Pagoda fell.

E. Win Swe, 1981

-

A. 1789, 7 June
B. China, 24.2N, 102.8E
C. 1,000 people killed, moderate damage.
D. IX (Mag. 6.5LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1799, 27 August
B. China, 23.8N, 102.4E
C. 2,000 people killed, severe damage.
D. IX (Mag. 6.5LEE)
E. Ganse, R.A. and Nelson J.B., 1981

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A. 1803, 1 September, midnight
B. Matura (Mattra)
C. Very violent; lasted several minutes. Many properly constructed buildings thrown down: very extensive fissures in fields, through which water rose with considerable violence, and in quantity sufficient to be used by cultivators. Principal mosques destroyed, and a considerable part of the dome swallowed up during the opening of the earth. Several slighter shocks followed.
E. Oldham, T., 1883

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A. 1814, 24 November
B. China, 23.7N, 102.5E
C. 200 people killed.
D. VIII (Mag. 6LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

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A. 1816, 1 May
B. Penang
C. Very sharp passed to north-west: chiefly confined to the northern and central parts of island; lasted 15 to 20 seconds; felt at sea also.
E. Oldham, T., 1883.

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A. 1822, 3 April, 22.00 hr.
B. Bengal
C. Several shocks felt generally over Bengal, Calcutta, Jessore (three distinct shocks, loud noise); Berhampore (lasted 2 minutes, said to be north-north-west to south-south-east); Comillah (said to be east and west, people could not stand); Bhaugulpore, Gya (apparently from north).
E. Oldham, T., 1883

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A. 1823, 22 April, morning 5.30 hr.
B. Penang
C. Two shocks were felt.
E. Oldham, T., 1883

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A. 1825, 5 January, 19.00 hr.
B. Mymensing
C. Two shocks were felt, first at 19.00, second at midnight.
E. Oldham, T., 1883

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A. 1825, 8 January
B. Mymensing
C. The shock was slight at first, severe afterwards and apparently from the north.
E. Oldham, T., 1883

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A. 1828, 8 July, 2.14-4 pm.
B. Sylhet
C. Sharp, lasted one minute.
E. Oldham, T., 1883

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A. 1828, 8 July, 14.00 hr.
B. Mymensing
C. Three shocks, apparently from north to south were felt. The last shock was the most severe. Another shock 12 minutes afterwards.
E. Oldham, T., 1883

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A. 1828, 8 October, 17.00 hr.
B. Dacca and vicinity
C. Four distinct shocks in succession; lasted about quarter of a minute; appeared to be from south to north.
E. Oldham, T., 1883

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A. 1830, 26 April
B. Pegu
C. Hti (umbrella) fell from Mahazedi Pagoda.
E. Win Swe, 1981

-

A. 1830, 26 April
B. Ava
C. Earthquake occurred.
E. Win Swe, 1981

A. 1830, 15 December, 16.50 hr.
B. Chittagong
C. Three rapidly succeeding severe shocks: loud noise from southward.
E. Oldham, T., 1883

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A. 1830, 16 December, 10.00 & 23.00 hr.
B. Chittagong
C. Two shocks at the hours mentioned.
E. Oldham, T., 1883

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A. 1830, 31 December, 02.00 hr.
B. Chittagong
C. Very violent, more so than any of the others; ten shocks felt since 15th; houses all seriously cracked.
E. Oldham, T., 1883

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A. 1833, 26 June
B. Kyoukphyu
C. During the principal shock of the violent earthquake on the 26th June, 1833 flames issued to a height of several hundred feet from one of the Kyoukphyu salses (mud volcanoes).
E. Brown, J.C., 1908-1909

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A. 1835, August
B. Penang
C. Earthquake felt.
E. Oldham, T., 1883

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A. 1837, end of September
B. Penang
C. Shocks continued seven days. Volcanic eruptions near Acheen.
E. Oldham, T., 1833

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A. 1838
B. City of Ava
C. The ruin of the Nanmyin watch-tower, which is all that

remains of Bagyidaw's palace, was damaged heavily. Its upper portion collapsed and it began leaning because the earth was sinking beneath it. The same earthquake, which caused widespread damage throughout the area, hastened the final abandonment of Ava. Seven-tiered prayer hall suffered heavy damage.

E. Hoefer, H.J., et al., 1982

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A. 1838

B. Sagaing

C. The unfinished Htupayon Pagoda in Sagaing town was destroyed.

E. Hoefer, H.J. et al., 1982

-

A. 1838

B. Mingun Village (10 km. from Mandalay)

C. The Mingun bell and its original tazaung collapsed and the upper sections of the Mingun Pagoda collapsed into the hollow shrine rooms, but the base of the structure still towers nearly 50 metres over the Irrawaddy. An enormous pair of griffins, also damaged in the quake, quard the riverfront view. The Myatheindan Pagoda, at the north end of Mingun suffered severe damage.

E. Hoefer, H.J. et al., 1981

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A. 1839, 23 March, morning

B. Ava

C. The shock was felt throughout the whole of Burma from Bhamo to Rangoon and even as far as Siam. This earthquake caused terrible destruction. The Pagoda of Mingon, undoubtedly one of the largest masses of solid brickwork in the world, was utterly shattered. Not a pagoda was to be seen standing intact. Every brick building in the town had either been thrown down, burying beneath it numbers of people, or had been damaged so severely as to render its demolition necessary. The pagodas crowning the hills of Sagaing shared the same fate as those at Amarapoora. The following are some of the extracts from Mr Apear's account. "On Saturday morning, 23rd March, 1839, at about 4.0 a.m., Amarapoora was visited by an earthquake that surprised the oldest inhabitants by its violence. I was awoke by a tremendous roar, and the tiles from the roof of the house coming down about my ears. The shock may have taken up about thirty seconds in all. Although there was not a breath of wind, the trees shook as if it were blowing a gale. The dust rising all round from the destroyed houses gave the peculiar appearance. I have little doubt the motion was from north to south. the river did rise a little, as if its bed had been obstructed. The banks of the river between Amarapoora and Ava were rent in many places, presenting chasms of from five to twenty feet in width, from which large quantities of water and sand of a blackish appearance had been ejected.

At Sagaing, the pagodas on both sides of the river presented the same appearance: that is, they were all deprived of their 'htees' (umbrella of the Burmese pagodas), and the same quantity of brick-work from the top.

This earthquake was felt at Bhamo and Rangoon: in fact, all over Burma territory. In Rangoon it did no damage, but was strong enough to ring pagoda and some house bells and alarm the inhabitants.

After the great earthquake, we had strong shocks all day every five or twenty minutes, but none coming up to the first in violence. They were almost invariably preceded, by a second or two, by a sound resembling a cannon fired at a distance, or, at other times, as if a number of carriages were passing over a rough bridge underground. For six months after, scarcely a day passed without earthquake. There never was a correct list of the number of people killed but there must have been from three to four hundred. Ava suffered most from having some brick Kyaungs (monasteries) where a great number of Poongyis (Burmese monks) were killed.

This quake was felt at Moulmein and for a distance of a thousand miles from north to south. At the same time a sharp shock was felt at Kyaukpyu, followed immediately by a magnificent burst of fire from the hills, with mud volcanoes to the south-west of the station.

In the manuscript journal of Caption McCleod, in the Foreign Office, Calcutta, there is a brief account of this earthquake. "At about half-past one this morning (23rd March, 1839) we were suddenly roused from our sleep by two terrible shocks of an earthquake. In the morning not a pagoda was to be seen intact. Every brick building in the town had either been thrown down, burying in its ruins of people, or rent and damaged so as to render its being taken down necessary. The pagodas crowning the height of Sagaing shared the fate of those of Amarapoora. In the neighbourhood of the Residency extensive and deep fissures had spread out, from which large quantities of water had been discharged, and the earth in many places hove up with water springing up from the centre. The wells were all choked up and dry."

E. Chhibber, H.L., 1934, Oldham, T., 1883 and Mallet, F.R. 1878

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A. 1839, 23 March

B. Sagaing

C. Several well known pagodas fell.
E. Win Swe, 1981

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A. 1839, 11 May, 9.50 and 9.55 hr.
B. Sylhet
C. Direction at Jamalpur, Mymensing, said to have been west to east or from north-west to south-east.
E. Oldham, T., 1883

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A. 1839, 21 May, between 20.00 and 21.00 hr.
B. Bengal
C. Slight motion from south-west to north-east. Felt at Patna, Gya, Jaunpur, Darjeeling.
E. Oldham, T., 1883

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A. 1839, 23 May
B. Bengal
C. Shock was felt.
E. Oldham, T., 1883

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A. 1842, 23 October
B. Chittagong
C. Motion east to west; stopped clocks, vibrating north to south.
E. Oldham, T., 1883

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A. 1842, 11 November, 21.38 hr.
B. Calcutta, Darjeeling, Gowhatty, Chittagong, Monghyr
C. Direction east-north-east to west-south-west. "Two or three vertical shakes or heaves of the earth, with a noise like the rumbling of a passing carriage, and one strong horizontal shake from east to west, or from northeast to southwest. The whole took place within a minute of time. "Three shocks felt at Botanic Gardens, near Calcutta; river much agitated. A remarkable luminous appearance observed in part of the river, which passed and, on its enclosing the ship, a general and severe tremor was felt throughout. Felt severely at Serampore; at Darjeeling slight motion apparently south to north. Felt also at Pubna; severe, southwest to northeast; at Burrisaul ground heaved; river greatly agitated; loud rumbling noise. At Gowhatty, slight, tremulous. At Chittagong, more severe, north to south. At Monghyr, part of fort wall overthrown. Felt also sharply at sea by the "Agincourt" about 50 miles southeast of floating light-ship.

E. Oldham, T., 1883

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A. 1843, 6 January, 0.30 hr.
B. Penang, Singapore
C. Slight, but extremely severely felt at Pulo Nias, off the coast of Sumatra, where there were two shocks accompanied by a sea wave (tsunami).
E. Oldham, T., 1883

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A. 1843, 8 January, 14.30 hr.
B. Penang, Singapore
C. At night, very slight. Said to be from east to west at Singapore; from north to south at Penang.
E. Oldham, T., 1883

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A. 1843, 6 February, 23.00 hr.
B. Kyaukpyu
C. Earthquake caused magnificent eruptions from the mud volcanoes and slight tremors at Ramri, lasting till 1 o'clock in the morning.
E. Chhibber, H.L., 1934

-

A. 1843, 12 May, 13.00 hr.
B. Penang
C. A succession of waves, northwest to southeast; lasted five or six seconds.
E. Oldham, T., 1883

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A. 1843, 30 October, 7.45 hr.
B. Sandoway
C. Violent shock from north to south, lasted two minutes; felt at Ramri, but slightly; more strongly in Cheduba; scarcely perceptible in the Yoma range, but very sharp at Gukiong, on sea, 90 miles to south.
E. Oldham, T., 1883

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A. 1845, 6 August, 11.30 hr.
B. Sylhet
C. Same shock felt severely at Sylhet; several houses damaged; also portico of church.
E. Oldham, T., 1883.

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A. 1845, 28 October
B. Sylhet
C. A sharp shock; lasted 20 seconds.
E. Oldham, T., 1883

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A. 1846, 17-19 October
B. Mymensing
C. Torrents of rain during previous week. From the morning of the 16th to 10 a.m. of 19th, no less than 15 shocks, with five or six more occurring at night.
E. Oldham, T., 1883

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A. 1846, 18 October
B.
C. Severe shock; loose sandbanks along the Burrampootra fell in several places: the Debroo was agitated as by a high wind. The Jansie, a small river in the Seebsaugor district, observed next morning to have risen 6 inches; and water of the Dakkho, which rises near the other, had sunk proportionately.
E. Oldham, T., 1883

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A. 1846, 31 October to 5 December
B. Nicobar Islands
C. Continuous shocks, producing great landslips. Fire said to have been seen on the top of one of the mountains of Great Nicobar.
E. Oldham, T., 1883

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A. 1847, October
B. Nicobar Islands
C. A great earthquake with very numerous aftershocks occurred. The epicentre seems to have been situated near the little island of Kendoel, in St. George's Channel, between the Little and Great Nicobar Islands.
E. De Ballore, M., 1911

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A. 1848, 3 January
B. Kyaukpyu
C. Severe shocks: damaged civil magazine and also sluice of salt golah.
E. Oldham, T., 1883

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A. 1851, 8 January
B. Chittagong
C. Sharp, preceded by a dull thumping sound; lasted about twenty seconds; motion apparently from south; felt also at Mymensing, Decca, and Calcutta.
E. Oldham, T., 1883

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A. 1852, 9 August, 4.37 hr.
B. Decca
C. Preceded by a dead sound; shock strong; oscillation lasted fifteen seconds; strong all that time. Abbe Kuch says "I was in bed at the time, the bed lying south to north; shocks appeared to come from north-west; some said from north-west, some south."
E. Oldham, T., 1883

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A. 1855, 18 September
B. Amarapoora
C. Slight earthquake was felt.
E. Chhibber, H.L., 1934

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A. 1855, 5 October
B. Amarapoora
C. Slight earthquake was felt.
E. Chhibber, H.L., 1934

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A. 1858, 24 August
B. Burma
C. The shock was most severe near Thayetmyo and Prome, though it extended as far as Rangoon and Moulmein, where, however, very little damage was caused. It decreased in intensity southwards, and the general direction appears to have been from east-north-east to west-south-west. The time is reported to have been 3.38 at Thayetmyo and 3.45 at Rangoon. At Henzada tops of pagodas were knocked down or canted over. At Prome the shock, which was sharp and severe, lasted almost a minute. One observer distinctly noticed the eastern end of his house raised first and then the western one. In the more northerly localities houses collapsed and tops of pagodas were torn off. At Thayetmyo three distinct waves preceded by a rocking motion of short duration were felt. Some persons who were in the open experienced a current of hot air and a rushing sound, as of a large flight of birds, immediately preceding the shock. The rumbling and clattering noise was instantly followed by a vibrating movement, which in its turn was almost immediately replaced by the passage of the first earth wave which threatened the

destruction of every house. The houses rocked considerably and most of the pagodas were badly damaged, their tops falling to the southwest, while several were entirely reduced to ruins. The north wall of the pagoda near the Assistant Commissioner's house was separated from the main body of the structure by a wide chasm. The steamer "Diana", lying at the ghat in comparatively deep water, felt "as if driving in a gale of wind". She swung completely round with her bows pointing downstream. Mud was brought up to the surface of the water, in the north of the cantonment where the river is shallow: the bed of the river was distinctly seen to rise out of the water, and to resume its old level after the shock had passed.

The shock was slightly felt at Ava. At Akyab the motion was said to be from south to north and to have lasted about a minute and a half. It was severe, as it dislodged bricks from the walls of the Collector's office. The Principal Assistant at Ramri reported of the island of Cheduba, lat. 18.6 N, long. 93.9 E, no trace of it being seen after the 24th August.

E. Chhibber, H.L., 1934 and Oldham, T., 1883

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A. 1858, 26 August, 8.30 hr.
B. Prome
C. A second shock, slight; lasted four seconds.
E. Oldham, T., 1883

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A. 1858, 27 August, 9.00 hr.
B. Thayetmyo
C. Slight shock was felt.
E. Oldham, T., 1883

A. 1858, end of August to beginning of September
B. Mandalay, 21.9N, 96.2E
C. Daily shocks felt in Mandalay.
E. Chhibber, H.L., 1934

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A. 1861, 16 February, 19.30 hr.
B. Penang
C. The earthquake was sufficient to throw crockery off shelves, stop clock, etc. There were three shocks, each lasting about thirty seconds; motion from north to south. Five minutes before the shock there was unusual commotion in the sea. Sky was clear and no wind.
E. Oldham, T., 1883

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A. 1864, 5 January, at night
B. Decca
C. Said to be east and west (southwest to east). Sharp; people thought houses were coming down; one gentleman, sleeping east and west on a couch with castors, was suddenly driven, couch and all, against the western wall, when concussion sent him back again in the opposite direction. Motion near the river severe. Felt at Naraingunge and Salem also.
E. Oldham, T., 1883

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A. 1864, 23 July
B. Rangoon, 16.8N, 96.2E
C. Two shocks were felt in Rangoon, doors rattled, but no damage. Also felt slightly in Thayetmyo.
E. Chhibber, H.L., 1934 and Oldham, T., 1883

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A. 1865, 19 December, 19.30 hr.
B. Chittagong and Bengal
C. At Chittagong a severe shock, which cracked most of the buildings of the station: five shocks were felt between 7.30 and 10.30 p.m. The first was severe, lasting about 2.5 minutes, and accompanied by a noise like that of a approaching northwester; the other four were slight, lasting only 5 or 6 seconds. Most of the buildings in the station were badly cracked.
E. Oldham, T., 1883

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A. 1866, 6 January
B. Chittagong
C. Slight shock was felt.
E. Oldham, T., 1883

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A. 1866, 23 January, noon
B. Moulmein, 16.5N, 97.7E
C. Slight shock was felt.
E. Oldham, T., 1883

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A. 1868, 6 January
B. Moulmein, 16.5N, 97.7E
C. Slight earthquake was felt.
E. Chhibber, H.L., 1934

-

A. 1868, 30 June

B. Sylhet

C. A few minutes after 12 midnight, three waves, rather abrupt; second shook all furniture: duration about half a minute: tremulous motion for half a minute more from west-south-west to east-north-east.

E. Oldham, T., 1883.

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A. 1869, 10 Jaunary, 4.45 p.m.

B. Cachar, Assam

C. The shock came with a gentle undulating movement, which, however, rapidly increased, until neither men nor animals could keep their legs, but were thrown down, and such things as bottles, glasses, lamps, were upset, and the gumlas were half empty of water. The water in tanks and river was violently agitated, and the Barak rose in huge waves, and wrecked numbers of boats. The landslips caused were numerous and extensive, and many homesteads were carried down into the stresm.

At Silchar, all the pucka (properly constructed) buildings belonging to the Department of Public Works have been damaged beyond the possibility of repair; in addition, most of the kutcha (makeshift) buildings have been entirely thrown down. The store-shed has fallen and several articles have been damaged or destroyed. Two people were killed. The new pucka church tower has fallen and the walls of the jail compound are level with the ground. The bank of the Barak adjoining the bazaar has given way and sunk about 15 feet over an area of from three to four hundred yards long by two hundred broad, doing more or less damage to all buildings upon it. The bazaar itself and the jail compound are cut up in all directions by gaps in some places eight inches or a foot wide, from many of which dark sand and warm water were forced up during the night.

At Sylhet, earthquake said to have been at 4.22 p.m. The shock was sudden; lasted about a minute; direction toward the latter part of the shock was from north-north-east to south-south-west. the palm trees all rocked very much and the ripples in the river were in this direction. The steeple of the church was shattered in all directions; two pinnacles fell and two were shifted. Court houses and circuit bungalow heavily cracked. Pendulum clocks were stopped, vessels of water had their contents thrown out, a large looking glass in the circuit-house was thrown from the table and broken to pieces.

At Pola (58 miles east of Sylhet), the shocks were violent for five or six minutes, and then abated and ended three minutes later. About 600 feet west of the Pola River and 200 feet south of the Barak River, the earth cracked in several places and sank 4 feet. The shocks were from south to north and the water of the Barak River boiled, shook, roared and ran with tremendous force against the current northward, rising 6 feet over a sandbank; the houses on the north bank of the river were shaken into an inclined position. All the country between the Pola and Dhullesur Rivers was rent into cracks from 3 to 9 inches wide, from which hot water and sand, soft and black, were thrown out with considerable force and deposited on the ground to a height in some places of more than 3 ft. On the west bank of the Pola the road was 4 ft. high, but has sunk level with the main land.

From Pola to Thittia, hot water was rushing out of cracks in the road, producing great heat and a sulphurous stench and hot, black, soft sand was deposited over the cracked ground and excavations, which were from 3 to 4 ft. deep, filled with the same.

E. Oldham, T., 1883

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A. 1871, 16 February
B. Mandalay, 21.9N, 96.2E
C. Earthquake was felt at daybreak in two successive and gentle shocks. It did no damage.
E. Chhibber, H.L., 1934

-

A. 1874
B. Southern Shan State
C. A severe earthquake occurred and its effects were widespread.
E. Chhibber, H.L., 1934

-

A. 1881, 27 February
B. Bengal
C. The earthquake on 27th February occurred when there was an eruption of a volcano on Cheduba accompanied by flames and a trembling of the earth, lasting one and a half hours.
E. Pascoe, E.H., 1927

-

A. 1881, 31 December, morning 7.55 hr.
B. Burmese coast
C. An earthquake, which is believed to have originated in the Bay of Bengal, west of the Andaman Islands, was felt over an area of 2,000,000 square miles. Besides affecting a large portion of the Indian Peninsula and Bengal, it was also felt on the Burmese coast, including some of the islands in the Mergui Archipelago and caused much damage in the Andaman and Nicobar Islands. The surface of the ocean was greatly disturbed and waves were formed which continued to roll

against the coastlines for several hours after the cessation of the earth waves, which lasted only for a few seconds. The first tidal wave (tsunami) was recorded at Port Blair at 8.10 a.m. followed by others in succession at about 15 minutes interval, with a height of about 3 ft. from creast to hollow. They continued till 9 p.m. The velocity of the waves varied from 2 to 6.9 miles per minute. At Rangoon, Moulmein and various points in the Murgui Archipelago, the earthquake was distinctly perceptible, though much less violent; but no trace of a sea-wave was met with at any of the tidal stations in this quarter.

In Bengal it was felt as far as Chunar (?), Gaya and Hazaribagh; Akra, in the 24 Parganas, was shaken; and at Akyab it was followed by the eruption of a mud volcano in Ramri. There is no record of its having been felt at Rangoon or Moulmein; at Tenasserim it is doubtful, though it was felt in the Mergui Archipelago; to the south it is reported as having been severe at Acheen in Sumatra, and in N Lat. 3.9 E Long. 91.4 it was felt by the ship "Mount Stuart"; at Ootacamund it is recorded, as also at Calicut: thus the area over which it was felt measures about 1,600 miles from north to south and 1,500 miles from east to west, or 2,000,000 square miles in all.

Port Blair is the only place where any damage was done to masonry buildings, and it is to be regretted that the damage should be so little instructive, as is the case. The infantry barracks is a long narrow building situated on the crest of a hill, the major axis bearing N20E, while the cross walls bear E20S. The latter were severely cracked, while, with a single exception, not a crack has opened in the longitudinal walls; this might indicate a direction nearly N20E or S20W.

In the Car Nicobar extensive damage was done to the coconut groves and huts of the natives and vents similar to those described in connection with the Cachar earthquake of 1869 were opened in the sandy soil. On the seashore the trees were felt standing, while further inland they were overthrown. The sea-wave broke on this island and it is recorded that the water penetrated into the houses of the Burmese residents which stood on platforms of less than 2.5 ft. high, while those on higher platforms escaped.

Simultaneous with the shock of this earthquake felt in Akyab there was a dense outburst of smoke and "broad massive flames of fire" from one of the Cheduba volcanoes witnessed from a ship off the mouth of the Sandoway River.

E. Chhibber, H.L., 1934, Oldham, R.D., 1884 and Pascoe, E.H., 1927

A: 1882, 31 December, Saturday morning, 7.55 hr.

B. Arakan, Burma

C. Shock of earthquake was felt. The vibrations commenced at about 7.55 a.m., and continued at intervals from 10 to 15 minutes. They were not severe, but doors and windows of houses rattled; furniture was made to undergo a see-saw movement, and pendulum clocks in some instances stopped. Simultaneous volcanic eruptions occurred in one of the extinct volcanoes near the southern extremity of Cheduba Island. A dense column of smoke and broad massive flames of fire were seen to rise, as it were, from the horizon and stretched far up into the distant sky.
E. Sladen, E.B., 1882

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A. 1884, 23 July
B. Rangoon, 16.8N, 96.2E
C. Another earthquake of moderate intensity occurred at Rangoon. Two shocks were felt, doors were rattled, etc. but no damage was done. It was also felt at Theyetmyo.
E. Chhibber, H.L., 1934

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A. 1884, 14 November
B. China, 23.0N, 101.1E
C. 17 people killed.
E. Ganse, R.A. and Nelson, J.B., 1981

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A. 1885, 14 July
B. Bay of Bengal
C. Having its source in Bengal, this earthquake was felt with violence throughout that province. It extended westwards into Chota Nagpur and Behar, northwards into Sikhim and Bhutan, and eastwards into Assam, Manipur and Burmah. The area over which it was felt may be roughly laid down as 230,400 square miles. An irregular ellipse drawn through Daltongunge (in Palamow), Durbhanga (in Behar), Darjeeling, Sibsagar, Manipur and Chittagong gives the external boundary of that area. Within this, again, another irregular figure may be drawn through Calcutta, Sitarampur, Monghir, Purneah, Siligori, the Garo hills, Chattack and Barisal, which will enclose the area over which the shock was felt with such considerable violence as to shake loose objects, rattle windows, and produce small cracks in double storied houses. Within the area bounded by Rampur, Bogra, Sherpur (Mymensing district), Mymensing, Decca and Pubna is where destruction to buildings was greatest and loss of life occurred.
E. Chaudhury, H.M., 1965 and Middlemiss, C.S., 1885

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A. 1886, 17 or 18 November
B. Bangkok

C. Earthquake was felt.
E. Brown, J.C., 1914

-

A. 1887, 1 January
B. Bangkok
C. Earthquake was felt.
E. Brown, J.C., 1914

-

A. 1887, 16 December
B. China, 23.7N, 102.5E
C. 2,000 people killed, moderate damage.
D. IX (Mag 6.75LEE)
E. Ganse, R.A. and Nelson, J.B., 1981

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A. 1888, 8 October
B. Pegu, 17.3N, 96.5E
C. Mahazedi Pagoda collapsed.
E. Win Swe, 1981

-

A. 1895 or 1896
B. Rangoon, 16.8N, 96.2E
C. A long series of severe shocks is believed to have damaged many buildings, including the Secretariat, and to have destroyed others including the old Currency Office in 1895 or 1896.
E. Brown, J.C., 1929

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A. 1897, 12 June, 08.15 hr.
B. Assam, 24.0N, 90.0E
C. Probably the greatest earthquake that has occurred anywhere during historic time. Felt over an area of 1,750,000 sq. miles, with the epicentre in the Shillong Plateau. Exhaustively studied by R.d. Oldham, who suggested a complicated origin for it. Destruction of stone buildings almost universal in Shillong, Goalpara, Gauhati, Nowgong and Sylhet. Calcutta seriously affected. About 1,600 lives lost. Followed by a great train of aftershocks which continued for 10 years.

Mr F.H. Smith, of the Geological Survey of India, wrote that some tremors are said to have been noticed for a few days previously by sensitive persons. At 5.15 (Shillong time) a deep rumbling sound, like near thunder, commenced, apparently coming from the south or south-west, followed immediately by the shock. The rumbling preceded the shock by about two seconds, and the shock reached its maximum violence almost at once, in the course of the first two or three seconds. The ground began to rock violently and in a few seconds it was impossible to stand upright.

It produced a very distinct sensation of sea-sickness. The surface of the ground vibrated visibly in every direction, as if it were made of soft jelly and long cracks appeared at once along the road. The sloping earth-bank round the water tank, which was some feet high, began to shake down and at one point cracked and opened out bodily. The road is bounded here and there by low banks of earth, about 2 feet high, and these were all shaken down quite flat. The school building, which was in sight, began to shake at the first shock and large slabs of plaster fell from the walls at once. A few moments afterwards the whole building was lying flat, the walls collapsed and the corrugated iron roof lying bent and broken on the ground. A pink cloud of plaster and dust was seen hanging over every house in Shillong at the end of the shock.'

Stone buildings in the neighbourhood of Shillong, including most of the bridges, are completely levelled to the ground. The stone houses, and conspicuously the church, are now reduced to flat heaps of single loose stones, covered with torn and burst sheets of corrugated iron - the remains of the roofs. A type of building, with wooden frame-work and walls of san grass covered with plaster, is ruined in the same way as the stone buildings. Small outhouses and villages have in some cases escaped with the loss of plaster. Plank buildings built on the "log hut" principle with a wooden frame-work covered with planks, resting unattached on the ground have escaped untouched, except where the supporting stone work has been shaken away, when they have been slightly displaced.

The roads and hillsides are cracked in all directions, but the cracks merely show the lines of weakness in the ground. Small banks of earth have been flattened everywhere and the surround of the artificial lake - a bank some 150 yards long and 30 or 40 feet high, made mostly of earth - gave way almost at once when the great shock began. The centre half of it was carried bodily away down the valley under the rush of water.

On the hills round Shillong four or five considerable landslips can be seen. The largest is about 300 feet in width and the same in height.

E. Ganse, R.A. and Nelson, J.B., 1981, Singh, K., 1966 and Oldham, R.A., 1981

APPENDIX B

Earthquakes in Thailand and Burma after 1900 A.D.

A. 1906, May
B. 24.6N, 98.6E
C. Two people killed.
D. Mag. 5.3
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1909, 11 May to 27 October
B. 24.4N, 103.0E
C. 19 people killed, damage limited.
D. Mag. 6.5LEE, Int. VIII
E. Ganse, R.A. and Nelson, J.B., 1981 and Deprat, 1912

-

A. 1912, 18 May
B. Maymyo & Taunggyi
C. Earthquake was felt in Maymyo and in Taunggyi at about 2.45 or 3 a.m., and consisted of a single tremor, but some people felt that two shocks occurred with an interval of 10 minutes between them. In Taunggyi, the quake occurred at 3 a.m. and lasted 15 seconds. A second tremor occurred half an hour later.
D. Int. IV-V (RF)
E. Brown, J.C., 1914

-

A. 1912, 23 May, 02 24 06
B. 21.0N, 97.0E
C. In May 1912 Burma experienced some very severe and serious earthquakes. The main one occurred on 23rd May, 1912, but it was preceded by two lesser shocks, the first occurring on 16th May. It happened at about 3 a.m., and appears to have affected the western portions of the northern and southern Shan States. Its intensity on the Rossi-Forel scale did not exceed V.

The violent earthquake of 21st May appears to have shaken the whole of the greater part of the northern and southern Shan States and the districts of Mandalay, Ruby Mines, Shwebo, Sagaing, Lower Chindwin, Kyaukse, Myingyan, Meiktila, Magwe, Yamethin, Toungoo and Pegu, as well as northern Siam. The minimum area over which it was felt approximates to 125,000 sq. miles. In the central part of the area an intensity of at least VII (RF scale) was attained, and sometimes loud rumbling noises accompanied the shocks, but the intensity appears to have died away rapidly. This shock took place at about 3 p.m. and was followed by continuous after-shocks during the remainder of that and the following day in Maymyo, Mandalay, Taunggyi, Kyaukse and elsewhere; these gradually became fewer until the great earthquake on the morning of 23rd May, which was felt over an area of approximately 375,000 sq. miles and disturbed recording instruments throughout the world. The most severely affected area lay partly in the northern Shan States, the Ruby Mines, Mandalay and Kyaukse districts, and partly in the southern Shan State. By far the larger area lay within the plateau of the Shan States. It was followed by innumerable small aftershocks during the three succeeding months, till they gradually became fewer and finally ceased.

It is remarkable that the earthquake of 1912 resulted in practically no loss of life, while damage to property was incomparably smaller than that caused by similar shocks in other parts of the world. This was due to the scanty population in the affected areas and the character of the dwellings.

Reports from Maymyo stated that nearly every year about this season the town, in common with other places in Upper Burma, is visited by an earthquake, the last big one being in 1908. As mentioned before, the first two shocks of the 18th and 21st May were felt at Maymyo, though they caused little damage. The most severe tremor was felt at 9 a.m. on 23rd May, when considerable damage was caused in all parts of the town. It could be heard approaching from a distance with a sound like low thunder, accompanied by the crash of falling bricks and plaster, while nearly every brick building in the town suffered. There were, in addition, huge landslides, and on the northern Shan States branch of the Burma Railway embankments fell in and rails were bent. Throughout the day slight shocks continued, rather like violent tremors.

At Mandalay a severe shock was felt at 9 a.m. on the morning of the 23rd May. It lasted about a minute and caused much damage. A number of brick buildings were badly cracked, some of them losing their upper portions altogether, while their inmates bolted into the open. At Taungdwingyi the duration of the shock was more than a minute and buildings in the town were considerably damaged; almost every chimney toppled down or was cracked.

At Mogok numerous fore-shocks were felt, but the greatest damage was done on the 23rd. Nearly every brick building in the town was cracked, and about 60 pagodas collapsed. The shock, it appears, was felt all over Burma, from Murgui district in the south to the northern frontiers. Reports of the tremors were received from several towns in Burma, the Shan States and from Siam. At the same time slight quakes were also reported from Teng Yueh in Yunnan, and from several towns in northern India and Siam, showing the wide extent of the main earthquake.

The maximum intensity of the shock, experienced in the neighbourhood of the Kyaukkyan fault, east of Maymyo, was IX on the Rossi-Forel scale. The railway lines were bent in a smooth curve close to the actual line of the fault, while cuttings and earth banks in the vicinity had slipped and blocked the line. Cracks in the cliffs near Myinpyu emitted streams of mud and water which were sufficiently voluminous to overwhelm or partially destroy Shan houses. Fresh cracks opened in the ground on Myinpyu Hill and elsewhere. Near the northern end of the fault, landslides occurred up the Nam-pan-se stream, but after a time the water forced its way through the barrier. The innermost isoseismal line encloses an area of about 36,000 sq. miles, the greater portion of which experienced an intensity of VIII on the RF scale. The longer axis of this oval runs in a general north-south direction, and the area affected includes the whole or greater parts of the districts of Mandalay, Sagaing, Kyaukse, Meiktila, Yamethin, Shwebo and the Ruby Mines, small portions of Bhamo, the Lower Chindwin and Myingyan, together with a very large part of the northern Shan State and a corner of the southern Shan States. The intensity gradually decreased outwards from this oval.

In Thailand the following account appeared in the "Bangkok Times" of May 23rd, 1912:-

"Bangkok experienced a slight earthquake shock this morning which lasted for three or four seconds. The very slight duration of the shock notwithstanding, it was noticed over quite a large area. At Bankolem electric lamps were all swinging, and from different business houses situated along the east bank of the river we have received the same report of lamps and electric fans swinging. At the Royal Railway Department the shock was distinctly noticed and two of the clocks stopped, the time being 9-10 a.m. At the Post and Telegraph Office the time of the disturbance is given as 9-9 a.m. The sorting staff in Post Office No. 2, at work on the English mail, noticed the disturbance and it is evident the tremors were not confined to one particular spot, as reports from the west side of the river, Bangsue military quarters, the Ordnance Department at Bang Nga and the Police School at Sapatum all tell of tremors having been experienced. At the police station near Wat Buparam the earthquake was noticed by people in the streets. At Messrs Harry A. Badman's city store the lamps in that part of the building nearest the Chakkri Palace were all set swinging, while those in the other half of the building were stationary. The last earthquake recorded in this country as far as our knowledge goes was on the 1st January 1887.

In Paknam, it was at first thought that possibly an explosion had taken place there, but a telephone message to that place brought news that everything was all right and no tremors whatever were noticed.

In Petriu, a telephone enquiry to Petriu has elicited the fact that nothing untoward was noted in that district this morning.

In Chiangmai, a telegram received this morning states that a slight shock was experienced in that city on the 21st May. The tremors this morning were more severe and lasted longer. The time of the shock is given at 9-5 a.m.

In Bangkok, later. -The boys in schools, as well as some members of the teaching staff, noticed the earth movements, which produced a feeling of giddiness. One of the shipping firms states that the fans in their office swung nearly a foot out of the perpendicular. At the railway works at Makasan a number of workmen complained of giddiness and sickness."

The following account appeared in "The Siam Observer" of May 23rd, 1912:-

"An earthquake of some force was experienced here (Bangkok) this morning, the first shock being felt at 9-8 a.m. It lasted for just on three minutes. In the Observer building the shock was felt with considerable distinctness. Pictures swung on the walls and hanging lamps gyrated. In other houses full water jars shook so that some of their contents was spilled, while the telegraph and telephone wires above the streets swung several inches. A feeling of giddiness was the first indication of the quake experienced by most people. This passed off as the tremor became more definite. During the first minute, wooden buildings swayed distinctly and even in stone buildings, such as the Chartered Bank and Post Office No. 2, the shock was strongly felt. We learn that the direction was from the south-east. An old resident informs us that the last shock felt here was on either November 17th or 18th, 1886, when tiles fell from the roofs of houses in Old Raheng, while in Bangkok the woodwork of the houses strained and creaked. This quake occurred about 11 a.m., and was much more severe than this morning's quake. A local lady informs us that the tables and chairs in her house moved across the floor at the height of the shock this morning. The tremor was less noticeable on the river, although it was distinctly felt on one or two ships at anchor."

Concerning the effects of the earthquake at Tachin the following report appeared in the "Bangkok Times" of May 24th, 1912, dated Mahachai, May 23rd:-

"The shock was of a very deliberate nature, severe enough to set the trees swaying, every hanging object swinging violently, and to stop my clock. The duration of the shock must have been at least one to one and a half minutes as I had time, first to realize what was going on, then to cross the room and to note the time (9-5 a.m.), steady a hanging lamp, rest myself and watch the lamp resume its oscillations. It was a curiously nauseating sensation and caused one occupant of my house to vomit."

In the "Bangkok Times" of the 25th May 1912, the following further reports appeared:-

"As the reports come in from the outlying Monthons, it appears that the seismic disturbances of Thursday morning occurred practically all over the country. We have received telegrams or letters from correspondents in Monthon Bayap (Chiangmai, Chiangrai and Nakon Lampang), Monthon Ratburi (Petchaburi), Monthon Nakon Sri Thammaraj, Monthon Nakon Chaisi (Mahachai) and Monthon Krung Thep. The reports from Chiangmai and Tachin have already appeared. Apparently two distinct shocks were felt in the far north. Our correspondent in Chiangmai reported a slight shock on Tuesday morning as well as on Thursday. Chiangrai also experienced two shocks. No telegram has come to hand from our Puket correspondent, and presumably the shock was not felt there. The later telegrams to hand are given below.

In Nakon Lampang, the earthshock was distinctly felt. Clocks stopped in a number of houses. No damage is reported.

In Nakon Sri Thammaraj, we experienced only a cyclonic thunderstorm. There was no earthquake. A number of roofs were slightly damaged.

In Petchaburi, no earthquake shock was noted on Thursday.

In Chiangrai, there was an earthquake shock yesterday (Thursday) morning and another, and minor one, this (Friday) morning."

His Britannic Majesty's Consul in Chiangmai in a letter to the Assistant Superintendent, southern Shan States, Keng Tung Subdivision, reported that shocks were felt there on May 21st and 23rd.

Correspondent in the "Rangoon Gazette" - Time 8.45 a.m. on May 23rd, 1912. The shock lasted some seconds. The bungalow rocked and creaked to such an extent that the writer thought it safer to get outside. It also caused a good-sized wave, very similar to that caused by a steamer going up a narrow river, to run along the banks of the creek on which the house is built. Mongpai is situated at Lat. 19 30': Long. 98 30' approximately.

D. Mag. 7.9PAS

E. Gutenberg-Richter, 1954, Chhibber, H.L., 1934 and Brown, J.C., 1914

*
A. 1912, 23 May
B. Mandalay
C. Felt in Mandalay every few minutes for some hours after the principal shock. 12 shocks occurred between 9 a.m. and 10 a.m.
E. Brown, J.C., 1914

-

*
A. 1912, 23 May
B. Maymyo
C. The main shock was followed by minor tremors at short intervals during the morning. One, at 9.28 a.m., visibly shook the walls of houses. They gradually became fainter and less frequent during the afternoon. In the late afternoon there were tremors at 3.33, 5.3, 5.14, 5.19, 5.22, 5.32, 2 or 3 tremors between 7 and 8 and one at 9.8 p.m. Further tremors occurred during the night.
E. Brown, J.C., 1914

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*
A. 1912, 23 May
B. Taunggyi
C. The severe shock was followed by 4 others during the day and by 17 well marked tremors during the following night.
E. Brown, J.C., 1914

-

*
A. 1912, 23 May
B. Loilem
C. Strong shock at 9.30 a.m., lasted about 10 to 12 seconds, 2 more slight shocks in the afternoon.
E. Brown, J.C., 1914

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*
A. 1912, 23 May
B. Mogok
C. Throughout the day constant shocks were felt. At night there were shocks also.
E. Brown, J.C., 1914

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*
A. 1912, 23 May
B. Momeik
C. 14 shocks beginning from 9 a.m. were felt.

E. Brown, J.C., 1914

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*
A. 1912, 23 May
B. Myittha
C. A shocks was felt at 3 p.m.
E. Brown, J.C., 1914

-

*
A. 1912, 23 May
B. Shwebo
C. Felt at 10.30 a.m., very slight tremor, followed a short time afterwards by another. Others at about 4 p.m. and 12.30 night.
E. Brown, J.C., 1914

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*
A. 1912, 23 May
B. Sagaing
C. There were 7 or more aftershocks.
E. Brown, J.C., 1914

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*
A. 1912, 23 May
B. Mingin
C. A slight tremor lasting 30 seconds was felt at about 10 a.m.
E. Brown, J.c., 1914

-

*
A. 1912, 23 May
B. Sadon
C. Slight shock at 4 p.m. Duration 2 seconds.
E. Brown, J.C., 1914

-

*
A. 1912, 24 May
B. Maymyo
C. Slight tremors during the day at 6 a.m., 8.28 a.m., 9.11 a.m., 9.28 a.m., 12.42 p.m., 3.41 p.m., 3.48 p.m. and during the night.
E. Brown, J.C., 1914

-

*
A. 1912, 24 May
B. Mandalay
C. 3 slight shocks felt during the day.
E. Brown, J.C., 1914

-

*
A. 1912, 24 May
B. Lashio
C. Slight shock was felt at about 10.30 a.m.
E. Brown, J.C., 1914

*
A. 1912, 24 May
B. Taunggyi
C. A distinct tremor lasting 15 seconds was felt at 3 p.m.
E. Brown, J.C., 1914

-

*
A. 1912, 24 May
B. Loilem
C. Slight shock was felt at 6.10 a.m., 9.25 a.m., 3 p.m.
E. Brown, J.C., 1914

-

*
A. 1912, 24 May
B. Mogok
C. Rather severe shock was felt at 3 a.m. and 5.10 a.m. Other numerous small ones were felt during the day.
E. Brown, J.C., 1914

-

*
A. 1912, 24 May
B. Momeik
C. Felt at 2 a.m. and 6.30 p.m.
E. Brown, J.C., 1914

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*
A. 1912, 24 May
B. Chiangrai, Thailand
C. A minor shock was felt in the morning.
E. Brown, J.C., 1914

-

*
A. 1912, 25 May
B. Mandalay
C. 5 slight shocks were felt during the day.
E. Brown, J.C., 1914

*
A. 1912, 25 May
B. Maymyo
C. A sharp tremor was felt at 9.30 a.m. and other slight ones were felt later.
E. Brown, J.C., 1914

-

*
A. 1912, 25 May
B. Taunggyi
C. 6 tremors during the night, of short duration. Others during the day at 11 a.m., 1, 2 and 5 p.m.
E. Brown, J.C., 1914

-

*
A. 1912, 25 May
B. Loilem
C. One slight shock at 11 a.m. and another one at 1 p.m.
E. Brown, J.C., 1914

-

*
A. 1912, 25 May
B. Mogok
C. 2 or 3 slight shocks between 10 and 11 a.m.
E. Brown, J.C., 1914

-

*
A. 1912, 25 May
B. Momeik
C. Felt at 9 a.m.
E. Brown, J.C., 1914

-

*
A. 1912, 26 May
B. Mandalay
C. 6 slight shocks were felt during the day.
E. Brown, J.C., 1914

*

A. 1912, 26 May
B. Maymyo
C. Slight tremors were felt in the afternoon, a sharper one at 4.20 p.m. and another about midnight.
E. Brown, J.C., 1914

-

*
A. 1912, 26 May
B. Taunggyi
C. Slight shock was felt at 8.30 a.m.
E. Brown, J.C., 1914

-

*
A. 1912, 26 May
B. Taunggyi
C. Slight shock was felt at noon, duration 10-12 seconds.
E. Brown, J.C., 1914

-

*
A. 1912, 26 May
B. Momeik
C. Felt at 9 a.m., 4, 10, 12 p.m.
E. Brown, J.C., 1914

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*
A. 1912, 26 May
B. Mandalay
C. 8 slight shocks were felt from 5 a.m. to 10 p.m. There is scarcely an hour, day or night, without its slight shock or tremor. Mortar dust fell from the cracks in the plaster.
E. Brown, J.C., 1914

-

*
A. 1912, 27 May
B. Maymyo
C. Slight tremors were felt during the morning and afternoon.
E. Brown, J.C., 1914
*
A. 1912, 27 May
B. Taunggyi
C. A slight tremor at 9.20 a.m., duration 7 seconds; 2 tremors during the night.
E. Brown, J.C., 1914

-

*
A. 1912, 27 May
B. Loilem
C. Fairly strong shock at night about 10.30 p.m.
E. Brown, J.C., 1914

-

*
A. 1912, 27 May
B. Momeik
C. Felt at 2 p.m.
E. Brown, J.C., 1914

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*
A. 1912, 28 May
B. Maymyo
C. Sharp tremors were felt at 11.51 a.m., 8.20 p.m., 10.20 p.m.
E. Brown, J.C., 1914

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*
A. 1912, 28 May
B. Taunggyi
C. 3 tremors were felt during the night and one at 4.30 p.m., lasting 8 seconds.
E. Brown, J.C., 1914

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*
A. 1912, 28 May
B. Momeik
C. Felt at noon.
E. Brown, J.C., 1914

*
A. 1912, 28 May
B. Momeik
C. Felt at noon.
E. Brown, J.C., 1914

-

*
A. 1912, 30 May
B. Maymyo
C. Felt at 2.30 p.m.
E. Brown, J.C., 1914

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*
A. 1912, 30 May
B. Taunggyi
C. 2 slight shocks were felt during the night and one at 6 a.m.
E. Brown, J.C., 1914

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*
A. 1912, 30 May
B. Momeik
C. Felt at 7 a.m.
E. Brown, J.C., 1914

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*
A. 1912, 31 May
B. Tuanggyi
C. Felt at 7.30 a.m.
E. Brown, J.C., 1914

-

*
A. 1912, 31 May
B. Momeik
C. Felt at 6.30 a.m.
E. Brown, J.C., 1914

*
A. 1912, 1 June
B. Taunggyi
C. Small tremors were felt during the night.
E. Brown, J.C., 1914

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*
A. 1912, 2 June
B. Mandalay
C. Felt at 4.30 p.m. (approx.)
E. Brown, J.C., 1914

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*
A. 1912, 2 June
B. Mandalay
C. Felt at 10.30 p.m.
E. Brown, J.C., 1914

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*

A. 1912, 3 June
B. Maymyo
C. Felt at 2 a.m. (approx.)
E. Brown, J.C., 1914

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*
A. 1912, 3 June
B. Maymyo
C. Felt at 6.30 p.m.
E. Brown, J.C., 1914

-

*
A. 1912, 3 June
B. Momeik
C. Felt at 1 a.m.
E. Brown, J.C., 1914

*
A. 1912, 3 June
B. Momeik
C. Felt at 5.30 a.m.
E. Brown, J.C., 1914

-

*
A. 1912, 4 June
B. Maymyo
C. Slight tremors were felt in the morning.
E. Brown, J.C., 1914

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*
A. 1912, 4 June
B. Taunggyi
C. 2 tremors were felt in the afternoon.
E. Brown, J.C., 1914

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*
A. 1912, 6 June
B. Taunggyi
C. Felt at 4.30 p.m.
E. Brown, J.C., 1914

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*
A. 1912, 6 June

B. Momeik
C. Felt at 7 p.m.
E. Brown, J.C., 1914

-

*
A. 1912, 7 June
B. Maymyo
C. Felt at 12:30 a.m. (approx.)
E. Brown, J.C., 1914

*
A. 1912, 7 June
B. Maymyo
C. Felt at 3.30 a.m., sharp tremor.
E. Brown, J.C., 1914

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*
A. 1912, 7 June
B. Taunggyi
C. Two shocks were felt in the afternoon.
E. Brown, J.C., 1914

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*
A. 1912, 8 June
B. Mandalay
C. Felt at 11 p.m.
E. Brown, J.C., 1914

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*
A. 1912, 8 June
B. Momeik
C. Felt at 1 a.m.
E. Brown, J.C., 1914

-

*
A. 1912, 9 June
B. Mandalay
C. A slight but smart double shock was felt between 8 and 9 o'clock.
E. Brown, J.C., 1914

-

*
A. 1912, 9 June

B. Myittha
C. Felt at 11.30 p.m.
E. Brown, J.C., 1914

*
A. 1912, 13 June
B. Maymyo
C. Felt during the night.
E. Brown, J.C., 1914

-

*
A. 1912, 16 June
B. Mandalay
C. Felt at 11.30 a.m. Duration 15 seconds. Severely felt. Plaster fell from walls. Followed by tremors off and on for about 0.5 hour.
E. Brown, J.C., 1914

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*
A. 1912, 16 June
B. Loilem
C. Felt at 11.40 p.m. Sharp shock lasting 3 to 5 seconds. Apparent direction N-S.
E. Brown, J.C., 1914

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*
A. 1912, 18 June
B. Anisekan
C. Felt at 3.30 a.m.
E. Brown, J.C., 1914

-

*
A. 1912, 18 June
B. Mandalay
C. Felt at 3 a.m.
E. Brown, J.C., 1914

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*
A. 1912, 19 June
B. Momeik
C. Felt at 4 a.m., severe.
E. Brown, J.C., 1914

*
A. 1912, 21 June

B. Anisekan
C. Felt at 8.10 p.m. Duration 10 seconds. Direction N-S.
E. Brown, J.C., 1914

-

*
A. 1912, 21 June
B. Mandalay
C. Felt at 8.30 p.m. One shock followed by small tremors. Duration 3 seconds. Strong enough to move observer's seat and to cause doors and windows to rattle slightly.
E. Brown, J.C., 1914

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*
A. 1912, 8 July
B. Momeik
C. Felt at 3.30 p.m. Duration about 3 minutes. Direction E-W.
E. Brown, J.C., 1914

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*
A. 1912, 14 July
B. Momeik
C. Felt at 4 p.m.
E. Brown, J.C., 1914

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*
A. 1912, 14 July
B. Mandalay
C. Felt at 1.25 a.m. Duration 3 seconds. One shock followed by small tremors. Strong enough to move observer's seat and to make hanging objects swing.
E. Brown, J.C., 1914

-

*
A. 1912, 14 July
B. Maymyo
C. 3 shocks were felt during the night. The first was very sharp and brought down a lot of plaster which had been used to patch up the damage done by the great shock.
E. Brown, J.C., 1914

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*
A. 1912, 15 July
B. Loikaw

C. Felt at midnight.
E. Brown, J.C., 1914

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*
A. 1912, 16 July
B. Mandalay
C. 3 shocks were felt at around midnight. Duration 6 seconds. Strong enough to throw down loose objects. Awakened observer from a deep sleep. At 12.10, 2 slight shocks were flet, duration 3 seconds. At 12.15 another shock, duration 3 seconds, slight.
E. Brown, J.C., 1914

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*
A. 1912, 16 July
B. Momeik
C. Felt at 12.11 a.m.
E. Brown, J.C., 1914

-

*
A. 1912, 16 July
B. Mogok
C. Felt at midnight.
E. Brown, J.C., 1914

-

*
A. 1912, 18 July
B. Mogok
C. Felt at 4 a.m. Quite severe but caused no serious damage.
E. Brown, J.C., 1914

*
A. 1912, 26 July
B. Momeik
C. Felt at 9.25 a.m.
E. Brown, J.C., 1914

-

A. 1912, 26 July
B. Bassein
C. Two slight shocks were felt, one at 1.54 a.m. and the other at 3.20 a.m. The meteorological observer in Bassein reported that an earthquake took place at 1.59 a.m. and lasted for 1 second. He was awakened by the shock which had a shaking movement and caused hanging objects to swing slightly.

E. Brown, J.C., 1914

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A. 1913, 6 March
B. Pegu
C. Shwemawdaw Pagoda lost its finial.
E. Win Swe, 1981

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A. 1913, 21 December, 15 37 35 (GMT)
B. 24.2N, 102.5E
C. 942 people killed, severe damage.
D. Mag. 6.5LEE, Int. IX
E. Ganse, R.A. and Nelson, J.B., 1981

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A. 1917, 5 July, 4.40 a.m.
B. Lower Burma
C. An earthquake of some intensity was felt in parts of Lower Burma when the moon was in total eclipse. The only damage reported occurred to the famous Shwemawdaw Pagoda at Pegu; its umbrella with all the jewels, worth many thousand pounds sterling, was shaken down and destroyed several smaller pagodas at its base.
E. Chhibber, H.L., 1934

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A. 1918, 8 July, 10 22 07
B. 24.5N, 91.0E
C. Many tea estates ruined. Epicentre 3.5 miles south of Srimangal on an alluvial tract. Felt over an area of about 800,000 sq. miles. Sympathetic shocks at Madras and Arakan coasts. Re-levelling suggested that the earthquake was due to subsidence along the southern side of normal fault cutting the rocks below the alluvium.
E. Gutenberg-Richter, 1954, Singh, K., 1966 and Chaudhury, H.M., 1965.

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A. 1920, 5 May
B. Pegu
C. Shwemawdaw Pagoda fell.
E. Win Swe, 1980

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A. 1923, 9 September
B. 25.5N, 91.5E
C. Some damage to structures near epicentral region over west of Assam and northern part of east Bengal. Felt over Assam,

Bengal, east Bihar and east Chota-Nagpur.
E. Singh, K., 1966

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A. 1927, 20 March
B. 24.1N, 102.0E
C. 7 people killed.
D. Mag. 5.0
E. Ganse, R.A. and Nelson, J.B., 1981

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A. 1927, 10 September, 12.5, 12.47 and 4.25 p.m.
B. Rangoon
C. Three smart shocks were experienced in Rangoon but none of them did any appreciable damage. The second shock of the three was the most noticeable of the group. It made small cracks in the crown of an arch in the entrance hall on the east side of the Engineering College, University of Rangoon, and opened up and extended a large existing crack in the north-east corner of the Geological Survey Office. Cracks are also said to have appeared in the arches of the porches of the bungalows occupied by the District Judge and the Superintendent of the Veterinary School at Insein, but there appears to be some doubt about these.
D. Int. VII (RF) in Rangoon
E. Chhibber, H.L., 1934 and Brown, J.C., 1929

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A. 1927, 17 December, 2.25 a.m.
B. Rangoon
C. A very severe shock occurred, which caused widespread alarm and a certain amount of damage to buildings in the city. It was felt over an area of 5,000 sq. miles, comprising the districts of Hanthawaddy, Insein and Thrarawaddy, and also the Maubin and Yandon townships of the Maubin district and the Dedaye township of the Pyapon district. Its duration was believed to be between 5 and 6 seconds.

The shock was the severest which has been experienced for many years. The effects were worst in bungalows and wooden structures. The main shock lasted about eight seconds. It occurred about 2.30 a.m. and was preceded by three others of minor intensity, which were, moreover, distinctly felt and accompanied by slight noises. The roof of a house fell on to the road. The walls of some of the Sergeants' quarters at the Mogul Guard were cracked and plaster was dislodged. In the servants' quarters a whole line of bricks was displaced and fell on to the veranda. The Sule Pagoda received a circular crack just below the umbrella. The towers of the Central Fire Brigade and the Lanmadaw Fire Station were cracked. Many private houses had cracked walls and dislodged plaster but big buildings seem to have escaped damage. People residing in the suburbs were greatly frightened as the houses shook to such an extent that, not only was crockery and glassware broken, but articles of furniture were actually moved. Those who were awake when the occurrence took place stated that the earth first moved up and down and then horizontally.

D. Int. VII (RF)

E. Chhibber, H.L., 1934 and Brown, J.C., 1929

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A. 1927, 15-16 March, 24.00 hr.

B. Shwebo

C. A government building was damaged.

E. Brown, J.C., 1929

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A. 1928, 28 December, 5 and 6 a.m.

B. Htawgaw

C. Severe earthquakes were felt. These earthquakes caused much damage to the stone masonry buildings at Htawgaw. The Assistent Superintendent at Htawgaw reported that on the 29th of December between 7.20 p.m. and 6 a.m. the following morning there must have been no fewer than 30 to 35 shocks. The shocks continued at least at the rate of 3-4 a day.

E. Chhibber, H.L., 1934

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A. 1929, 14 January, 4.15-4.30 p.m.

B. Rangoon

C. Slight-intensity earthquake was felt.

E. Brown, J.C., 1929

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A. 1929, 15 January

B. Rangoon

C. Earthquake was more pronounced than the one on 14the January, 1929.

E. Brown, J.C., 1929

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A. 1929, 19 January, 6 p.m.

B. Htawgaw

C. It was reported to be the severest shock ever felt in Htawgaw. All the stone masonry buildings at Htawgaw were so badly damaged that they were considered no longer fit for human habitation. This shock was reported by the Deputy Commissioners of Bhamo and Katha as felt in their districts also, and from at least as far as Teng Yueh in Yunnan. From the nature of the damage done to the buildings, raised almost on solid rock, the intensity of the shock on the

Rossi-Forel scale must have been IX.
D. Int. IX (RF)
E. Chhibber, H.L., 1934

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A. 1929, 4 June
B. Myitkyina
C. Another very severe shock was experienced in the morning and much damage was done by it. The exact extent of this seismic belt is difficult to delineate, since no careful records of the shocks were kept in the past. They appear, however, to be felt throughout the Myitkyina district, as a rule, and when particularly severe are experienced even in the adjoining districts of Bhamo, Katha and the Upper Chindwin, and at least as far east as Teng Yueh in Yunnan. The Chinese Telegraph Master, at Teng Yueh, wrote in December 1929 that "earthquakes are felt here one or two times every day since October 1928". The plains of Wausawng seem to absorb the intensity of these shocks a great deal before they reach Myitkyina itself.
E. Chhibber, H.L., 1934

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A. 1929, 8 August, 12 57 13 (GMT)
B. 21.0N, 97.0E
C. A very severe, but local shock occurred, which seems to have had its epicentre a few miles west of Swa in the Toungoo district. A metre-gauge railway was severely damaged. In places the track was twisted and bent, fishplates and bolts snapped, bridges and culverts collapsed, the sides of cuttings fell in, loaded trucks were turned upside down and coolie huts shaken to pieces. This earthquake was reported from Yamethin, Pyinmana, Yenangyang and Tharrawaddy.
E. Chhibber, H.L., 1934, Brown, J.C., Leicester, P. and Chhibber, H.L., 1932

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A. 1929, 16 December, 2.30 a.m. and 9 a.m.
B. Htawgaw
C. Very severe shocks occurred. Cracks developed in various places and landslips and rockfalls occurred on the Htawgaw-Hkam Hkam road, which was blocked in several places as a result. The earthquakes are generally preceded by earth sounds, which have been compared with "thundering of clouds", "bombardment of heavy guns" etc.
D. Int. IX (RF)
E. Chhibber, H.L., 1934

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A. 1930, 5 May, 13 45 58 (GMT)
B. Pegu

C. One of the worst earthquakes ever felt in Burma. The ancient seaport of Pegu was almost entirely destroyed by the earthquake and a sea wave (tsunami) which followed it. The roof of the famous Shwemawdaw Pagoda, reported to be entirely covered with gold and very valuable, was wrecked. The earthquake caused the practical destruction of the town of Pegu with the loss of at least 500 lives; it also caused many deaths and great damage to property in Rangoon. It was felt by human beings as far as the Kyaukpyu and Murgui districts up and down the coasts respectively, as far north as Mongmit in the northern Shan States, across the greater part of the southern Shan States and the Kingdom of Siam. The outer curve marking these approximate limits passes into the Bay of Bangal, the Andaman Sea and the Gulf of Siam, but the land area actually involved was not less than 220,000 sq. miles. The region of maximum intensity lies within isoseismal IX on the RF scale, and embraces 375 sq. miles within the Pegu and Hanthawaddy districts, stretching in an elongated pear-shaped area south of Pegu itself to beyond Thongwa - a distance of 45 miles as the crow flies. At Pegu itself a considerable portion of the town was ruined and fire, which broke out at once, added to the horror of the situation. Large cracks appeared in the ground and exuded sand and water. Big pieces of the river bank slid into the stream. Within the epicentral tract, the Tawa lock of the Pegu-Sittang canal, together with the adjoining country, was raised by 0.77 feet.

In Thailand the earthquake occurred in Bangkok at 13 h. 50 m. (G.M.T.) according to Mr H. Brandli of the Meteorological Office who personally observed the time. Telegraphic enquiries by the Ministry of the Interior to all the Circles of the Kingdom, revealed that it was felt throughout Krungdheb, Ayudhya, Chantaburi, Bisnulok, Nagor Svarga, Rajburi, Nagor Jaisri and Prachin.

In the Circle of Nagor Sridhamaraj, which is in southern Siam, the province of Chumporn alone felt the shock. In the Circle of Nagor Rajasima, the town of Korat was the only one which experienced the quake. In both these areas no damage was done and, as the other towns in these two Circles reported nothing, a valuable indication of the extent of the quake, in so far as it was felt by human beings in Siam is given.

The Circles of Pattani, in the extreme south, and of Udorn, in the east, reported that the earthquake was not noticed there.

Turning now to the accounts of the shock from various localities in Siam, and dealing with them in geographical order from north to south, we find that in Chiangrai the movements were very slight. This town thus appears to be the most easterly station in which the shock was reported as perceptible.

At Chiangmai, the northern terminus of the Royal State Railway, 751 kilometres by rail from Bangkok, the shock is stated to have been unusually protracted. Many brick buildings were cracked but no serious damage was done. The local agent of the Bombay Burmah Trading Corporation reported that there were three distinct tremors and that the plaster of the local hospital was cracked as a result.

From Lampang, (642 kilometers from Bangkok) one observer reported that the tremors were felt most unpleasantly, while another wrote that the shock was distinctly felt, causing hanging lamps to swing, though there was no damage to buildings.

Further south still at Sawankaloke, which is in approximately the same latitude as Pegu, and 38 kilometers due west of Bandara Junction, itself 458 kilometres north of Bangkok, we have the authority of the American Baptist Mission Society for stating that the shock was felt only slightly by some of the residents of the town.

Continuing down the main railway line, from Pitsanuloke, 389 kilometers from Bangkok, Dr Horste of the American Hospital reports that the earthquake was felt there.

A little further south still, but in this case far to the west of the railway, and at Kyoukket, on the Siamese bank of the Thoungyin river, 20 miles south of Myawaddy in the Amherst district, Mr J.A.C. Kiddle of the Bombay Burmah Trading Corporation was seated in a deck chair, reading, in a jungle house with a raised bamboo flooring when the earthquake occurred. He thought that buffaloes were moving amongst the poles below until he realised otherwise. The shock lasted 30 seconds and gradually worked itself up until the full force was felt.

Returning to the Siamese railway again, the shock was experienced at Nakorn Sawan and at Ayudhya (250 and 72 kilometers from Bangkok respectively).

In Bangkok itself though the damage was trivial, consisting as it did of only a few minor cracks in six- and seven-storeyed buildings, the earthquake caused considerable alarm and people ran from their houses into the streets. Lamps and fans were set in motion, unlatched doors moved to and fro, while unbraked stationary motor cars were seen to move; water in tanks was disturbed, the masts of the wireless station swayed distinctly, electrical installations were short-circuited while some clocks with heavy pendulums stopped. The duration is stated to have been about one minute and the direction from north-west to south-east.

Korat, on the eastern branch of the Siamese railway, 264 kilometres to the north-east of the Capital, appears to mark approximately the extreme eastern limit of the felt shock in that direction as no reports were received from stations further away.

To the south of the capital there are reports from the three towns of Paknam, Tahcin and Mehklong, which lie close to the coast of the northern limit of the Gulf of Siam. In all these places hanging objects moved and the shock was violent enough to cause the local populace to congregate in the streets.

Along the railway to the west of Bangkok, Nakon Patom, (64 kilometres), Ban Pong (106 kilometres) and Rathburi (117 kilometres), all experienced the quake as strong enough to cause alarm but to do no damage. The same remarks apply to Kanburi, a town on the Meklong river to the north-west of Ban Pong.

The southern limit of the shock felt by human beings appears to have been in the neighbourhood of Chumphon, 484 kilometres to the south, on the line joining Bangkok to the railway system of the Malay States.

D. Int. IX (RF)

E. Seismological Notes, 1930, Chhibber, H.L., 1934 and Brown, J.C., 1932

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A. 1930, 6 May, 2.10 p.m.

B. Pegu

C. Two threatening tremors caused panic, at about 2.10 p.m.

E. Brown, J.C., et al., 1932

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A. 1930, 6 May, 3.30 p.m.

B. Onhne

C. Felt at 3.30 p.m.

E. Brown, J.C., et al., 1932

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A. 1930, 6 May

B. Kawa (Pegu district)

C. Felt at 2.40 p.m. and 3.34 p.m.

E. Brown, J.C., et al., 1932

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A. 1930, 6 May

B. Okkan and Thongwa (Hanthawaddy district)

C. Felt at 1.30 p.m., rather severe.

E. Brown, J.C., et al., 1932

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A. 1930, 7 May
B. Kawa (Pegu district)
C. Felt at 1.40, 3.17, 3.30, 4.10, 6.30 and 11.20 p.m.
E. Brown, J.C., et al., 1932

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A. 1930, 7 May
B. Ledaunggyan (Insein district)
C. Felt at 3.15 p.m.
E. Brown, J.C., et al., 1932

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A. 1930, 8 May
B. Ledaunggyan (Insein district)
C. One shock was felt at 8.12 p.m.
E. Brown, J.C., et al., 1932

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A. 1930, 8 May
B. Dabein (Insein district)
C. Slight; felt at 8.30 p.m.
E. Brown, J.C., et al., 1932

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A. 1930, 9 May
B. Pegu
C. A very distinct tremor was felt at about 4 or 5 a.m.
E. Brown, J.C., et al., 1932

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A. 1930, 27 May
B. Thongwa
C. Felt at 7.30 a.m., slight.
E. Brown, J.C., et al., 1932

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A. 1930, 3 June
B. Kyauktan and Tada (Hanthawaddy district)
C. Clock stopped. Felt at 4.30 a.m.
E. Brown, J.C., et al., 1932

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A. 1930, 10 June
B. Shwegyin (Toungoo district)
C. Felt at 8.18 p.m., slight shock, direction W-E, duration about 4 seconds, and at 8.21 p.m., slighter shock was felt, duration about 2 seconds.
E. Brown, J.C., et al., 1932

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A. 1930, 10 June
B. Dedaye (Pyapon district)
C. Felt at 5 a.m.
E. Brown, J.C., et al., 1932

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A. 1930, 19 June
B. Pegu
C. Felt at about 4 a.m., awakened sleepers.
E. Brown, J.C., et al., 1932

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A. 1930, 22 June
B. Pegu
C. At about 10 a.m., a distinct shock caused panic.
E. Brown, J.C., et al., 1932

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A. 1930, 2 July
B. Pado
C. Earthquake was felt at 6.30 a.m., direction NW-SE, shook houses perceptibly.
E. Brown, J.C., et al., 1932

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A. 1930, 2 July
B. Twante (Hanthawaddy district)
C. Felt at about 8 p.m. The shock was slight.
E. Brown, J.C., et al., 1932

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A. 1930, 2 July
B. Kungyangone (South of Hanthawaddy district)
C. Felt at about 8.15 a.m.

E. Brown, J.C., et al., 1932

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A. 1930, 2 July
B. Sagaing
C. At 9.45 p.m., two district shocks from east to west were felt.
E. Brown, J.C., et al., 1932

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A. 1930, 2 July
B. Tada-U (Sagaing district)
C. At 9.45 p.m., 4 distinct shocks from N-S were felt, also reported from Ngazun and Chaung-U.
E. Brown, J.C., et al., 1932

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A. 1930, 3 July
B. Mogok (Katha district)
C. Felt at 3.40 a.m., one long shake then a short interval of about 10 secs., followed by a lesser tremor.
E. Brown, J.C., et al., 1932

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A. 1930, 3 July
B. 25.8N, 90.2E
C. Epicentre at northwestern end of the Garo hills. Felt over an area of about 350,000 sq. miles. Origin thought by E.R. Gee to be mainly due to movement along a line of tectonic weakness at the margin of the Assam Range, accentuated by the disturbance of isostatic equilibrium consequent upon the rapid denudation of the range.
E. Singh, K., 1966

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A. 1930, 3 July
B. Pado
C. Felt at 12.15 p.m., direction NE-SW, preceded by earth sound.
E. Brown, J.C., et al., 1932

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A. 1930, 6 July
B. Pado

C. Felt at 8.45 p.m., direction N-S, preceded by sound.
E. Brown, J.C., et al., 1932

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A. 1930, 7 July
B. Pado
C. Felt at 3.43 p.m., direction W-E, preceded by sound.
E. Brown, J.C., et al., 1932

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A. 1930, 7 July
B. Penwegon (Pegu district)
C. Felt at 11.10 a.m., and 3.50 p.m., direction S-N, preceded by sound.
E. Brown, J.C., et al., 1932

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A. 1930, 7 July
B. Kyauktaga (Pegu district)
C. Felt at 7.04 a.m., direction S-N, shock had three phases.
E. Brown, J.C., et al., 1932

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A. 1930, 9 July
B. Mogok
C. At 9.45 p.m., heavy tremors, with noise, were felt, duration 5 secs.
E. Brown, J.C., et al., 1932

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A. 1930, 9 July
B. Maymyo
C. At 0.46 p.m., two separate shocks were felt, duration about 4 secs., rattled doors and windows.
E. Brown, J.C., et al., 1932

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A. 1930, 9 July
B. Pegu
C. At about 10 p.m., slight shock was felt, duration about five secs. Direction S-N.
E. Brown, J.C., et al., 1932

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A. 1930, 10 July
B. Rangoon
C. Felt at about 2 p.m., duration a few secs.; swayed hanging lamps.
E. Brown, J.C., et al., 1932

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A. 1930, 11 July
B. Mogok
C. Felt at 1.45 p.m., slight tremors.
E. Brown, J.C., et al., 1932

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A. 1930, 12 July
B. Rangoon
C. Felt at 11.09 p.m., E-W., duration 4-5 secs., awakened sleepers.
E. Brown, J.C., et al., 1932

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A. 1930, 18 July
B. Tharrawaddy district
C. Several earthquakes were reported to have caused much damage to property. Fifty persons were reported killed or injured.
E. Seismological Notes, 1930

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A. 1930, 18 July
B. Pegu
C. Felt at 2.30 a.m., direction W-E. Three successive shocks of slight intensity were felt.
E. Brown, J.C., et al., 1932

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A. 1930, 23 July
B. Pegu
C. Felt at 8 p.m., direction S-N; slight.
E. Brown, J.C., et al., 1932

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A. 1930, 24 July
B. Sagaing
C. Felt at 9.56 p.m., one distinctly felt tremulous vibration accompanied by a rumbling sound.
E. Brown, J.C., et al., 1932

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A. 1930, 24 July
B. Tadu-U (Sagaing district)
C. Felt at 10 p.m., two distinctly felt vibrations from SE-NW.
E. Brown, J.C., et al., 1932

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A. 1930, 28 July
B. Pado
C. Felt at 5 p.m., slight shock from E-W.
E. Brown, J.C., et al., 19342

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A. 1930, 7 August
B. Onhne
C. Felt at 5.20 p.m., slight shock from W-E.
E. Brown, J.C., et al., 1932

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A. 1930, 7 August
B. Kayan (Hanthawaddy district)
C. Felt at 7 p.m., slight shock.
E. Brown, J.C., et al., 1932

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*
A. 1930, 17 August
B. Kyautaga (Pegu district)
C. Felt at 7.40 p.m., slight shock from SW-NE.
E. Brown, J.C., et al., 1932

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*
A. 1930, 19 August
B. Rangoon
C. Felt at 1.30 p.m., slight shock.
E. Brown, J.C., et al., 1932

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*
A. 1930, 24 August
B. Pado
C. Felt at 5.20 p.m., slight shock from W-E.
E. Brown, J.C., et al., 1932

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A. 1930, 1 September
B. Pado
C. Felt at 10.15 p.m., slight shock from SW-NE.
E. Brown, J.C., et al., 1932

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A. 1930, 3 September
B. Pyapon
C. Felt at 7.15 p.m., fairly severe, duration 7-8 secs., direction SW-NE. At 8.05 p.m., slighter shock was felt, duration about 6 secs.
E. Brown, J.C., et al., 1932

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A. 1930, 14 September
B. Pyapon
C. Felt at 8.45 a.m., duration 6 secs., direction W-E.
E. Brown, J.C., et al., 1932

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*
A. 1930, 16 September
B. Pegu
C. Felt at 5.30 p.m., duration 2 secs., direction N-S and at Nyaunglebin, but apparently stronger than in Pegu.
E. Brown, J.C., et al., 1932

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A. 1930, 16 September
B. Pado
C. 13 separate earthquakes, mainly of slight intensity, were recorded in the six months from July to December 1930. A smarter shock on September 16th cracked walls of the police station in Pado and was felt over an area extending at least 60 miles to the south-east.
E. Brown, J.C., Leicester, P. and Chhibber, H.L., 1932

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A. 1930, 16 September
B. Daiku
C. Felt at 5.30 p.m., slight shock; SE-NW.
E. Brown, J.C., et al., 1932

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A. 1930, 16 September
B. Pado

C. Felt at 5.30 p.m., duration one minute, cracked the brick walling of the police station.
E. Brown, J.C., et al., 1932

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A. 1930, 16 September
B. Kyauktaga (Pegu district)
C. Felt at Kyauktaga at 5.40 p.m., slight shock from W to E.
E. Brown, J.C., et al., 1932

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*
A. 1930, 16 September
B. Myitkyo
C. Felt at 5.15 p.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 16 September
B. Yitkangale
C. Felt at 5.47 p.m., slight shock from S to N.
E. Brown, J.C., et al., 1932

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A. 1930, 22 September
B. Zigon (Tharrawaddy district)
C. Felt at 9 p.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 22 September
B. Upper Chindwin district
C. Felt in Indaw, Pantha and Yenan at 8.30 p.m., fairly severe E-W, caused great alarm.
E. Brown, J.C., et al., 1932

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A. 1930, 6 October
B. Pyuntaza (Pegu district)
C. Felt at 3 p.m., slight shock, direction SW-NE.
E. Brown, J.C., et al., 1932

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A. 1930, 6 October

B. Pado
C. Felt at 9 p.m., slight shock; direction S-N.
E. Brown, J.C., et al., 1932

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A. 1930, 16 October
B. Minhla (Tharrawaddy district)
C. Felt at 9 p.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 17 October
B. Minhla (Tharrawaddy district)
C. Felt at 4.30 a.m., slight shock.
E. Brown, J.C. et al., 1932

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A. 1930, 31 October
B. Insein
C. Felt at 2-7 p.m., slight shock from S to N.
E. Brown, J.C., et al., 1932

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A. 1930, 31 October
B. Pado
C. Felt at 2 a.m., slight shock from SW to NE.
E. Brown, J.C., et al., 1932

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*
A. 1930, 3 December
B. Pyu
C. Felt at 10.15 p.m., feeble (probable origin some distance to SE).
E. Brown, J.C., et al., 1932

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A. 1930, 3 and 4 December, 18 51 51 (GMT)
B. 18.2N, 96.4E
C. The first shock, a mild tremor, was felt in Rangoon at about 10.20 p.m. on December 3rd. The second shock, at 1.20 a.m. on December 4th, was much more severe. Press report stated that at least 36 persons were killed as a result of the shocks and many more were injured. The area between Nyaunglebin and Toungoo, of which Pyu is the centre, was apparently hardest hit. Buildings were destroyed, but most

of them were of flimsy construction. In Pegu, Upper Burma, three very severe shocks, lasting 45 seconds were felt, but these did very little property damage as most of the buildings had been destroyed in the earthquake of May, 1930, and reconstructed later along earthquake-proof lines. Many railway bridges throughout the country were damaged and the telegraphic service was completely disrupted. Many freight cars and one locomotive were derailed and turned over.

The epicentre of the Pyu earthquake lies a few miles to the west of the place where the edge of the Pegu Yoma rises in a wall-like escarpment to a maximum height of over 1,700 ft. above sea level from the alluvial plains of the Sittang, which hereabouts average only some 140 feet above the sea. A local railway line crossing this tract was severely damaged and exhibited twisting of rails and displacements of embankments similar to those caused by the Swa shock. In addition, cracks in the ground and sand-vents, the wrecking of a timber house and destruction of flimsy huts, which usually escape damage, again betoken a high degree of intensity.

Results of the earthquakes which occurred in Siam on the 3rd and 4th December, Buddhist Era 2473, as reported to the Minister of the Interior from the various provincesare as follows:-

In Bangkok the shock was felt at about 2 o'clock on the 4th December. It was only a slight tremor.

In Bhayab, every district in the province of Bhayab experienced three shocks. The first was at 23-30, the second at 24-00 o'clock and the third at 1-50 on the 4th December. The first and second lasted about one minute, while the third seemed to last as long as about three minutes.

In Nagor Svarga, in the district of Tark two shocks were felt, the first at 23 o'clock, the second at 2 o'clock on the 4th December. In both cases the shocks were such as could just be felt. In the other districts of this province the earthquakes occurred at 2 o'clock.

In Rajburi, all the districts of Rajburi Province experienced the earthquake at 2 o'clock on the 4th December. In the district of Petchburi, the earthquake seemed to last as long as four minutes, in Kanburi about two minutes, while the other districts experienced a slight tremor.

In Nagor Jaisri, in every district the shock was felt at about 2 o'clock and lasted about one minute.

In Prachin, it seemed that the shock was felt only in the district of Cha Cherng Sao for as long as five minutes. No tremor was felt in any other area.

In Udorn, the district of Udorn alone experienced the shock at 1-55 a.m. No disturbances occurred in any other district.

In the province of Bisnulok, two shocks were recorded in the Utradit area. The first occurred at 22 o'clock on the 3rd December and lasted about two minutes. The second was felt at 2 o'clock on the 4th and seemed to have a duration of five minutes. In the other districts of the province the second shock alone was felt at 1-50, with a duration of about three minutes.

In the Ahudhya Province, the shock occurred at 2 o'clock on the 4th December and lasted about two minutes. It was not felt in the Sraburi neighbourhood.

The following provinces did not experience the earthquakes:- Chantaburi, Pattani, Bhuket, Nagor Rajsima and Nagor Sridhamaraj. No damage or injury was caused as a result of the shocks in any of the provinces.

Other accounts from Siam are as follows:-

According to the 'Bangkok Times' of December 4th, 1930:-

'About two o'clock this morning a number of people were conscious of earthquake shocks. There was no wind at the time, yet doors were heard to bang though not apparently loudly, and some of the people awake at the time asked themselves if their houses were not moving. The most striking evidence, however, comes from the resident who saw the water in the Klong Sen Sep greatly agitated and overflowing its banks more than once. Another reader reported that the shocks stopped both his clocks at the same instant and that several of his neighbours also experienced this.'

The following account of the earthquake appeared in the 'Siam Observer' of the 4th December, 1930:-

'Early this morning, at about 2 o'clock, at a time when most people are asleep, Bangkok experienced an earthquake shock which was said by some to have fully equalled in force and violence that which the city experienced in May last. A very common question this morning was:- Was there an earthquake? But the time at which it occurred was such that it was not likely to have been felt by any except the lightest of sleepers and so few could answer in the affirmative. A number of people, however, admitted to having been awakened by some unaccountable cause and of having experienced that very distinct feeling of nausea common on such occasions. Among those who felt it, opinions differ as to how long it lasted. So far as we can learn, no special damage was done anywhere but in some places pictures fell and clocks stopped. One man who was awake at the time said that there was a sort of rolling motion from the south but the motive force came from the north, as it is always the case that the force appears to originate from the opposite direction from that whence it really emanates.

A telegram received from our Correspondent in Lampang states that two earthquakes were felt there last night, the first at midnight and the other two hours later. The second was the more severe and caused clocks to stop at 2 a.m. The duration was from 20 to 30 seconds, and the sound of the creaking houses was like heavy rain.'

A later report in the 'Siam Observer' of December 5th, gives the time of the earthquake as 1-40 a.m., and its duration as two minutes.

Mr J. Brandli, Meteorological Office, Royal Irrigation Department, Bangkok.- At his residence, 96, Samsanguan Lane, Amphur Dusit. 'Nothing was felt by any of the inhabitants or those of the surrounding neighbourhood. According to the newspaper reports several strong shocks were felt especially in the region of Siphya road.' He received reports that pendulum clocks stopped, one in the house-boat of H.E. Chao Phraya Baladeb on the Klong Sean Sep at 1.05 a.m. (Burma time), and one at the residence of H.E. Phya Jolamark Bicharana at Rong Muang Road at 1.05 a.m. Both times should be correct within one minute of the official time. The movement of the water in the klong mentioned in the newspaper reports points to a distinctly N-S direction. A Richard's trepidometer, placed at Rangsit and registering the vertical component of the shocks must have passed there also, as the locality is situated only 30 km. north of Bangkok. It is therefore to be assumed that, like the earthquake of 5th May last year, the shocks were again only in a horizontal direction and the vertical component either nil or extremely small which also explains why again no damage was done.'

D. Mag. 7.3PAS

E. Chhibber, H.L., 1934, Brown, J.C. and Leicester, P., 1933 and Seismological Notes, 1931

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A. 1930, 3 December

B. Pyu

C. Felt at 11.06 p.m., rather severe shock.

E. Brown, J.C., et al., 1932

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A. 1930, 4 December

B. Pyu

C. Felt at 1.22 a.m., felt over large part of Burma.

E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Pyu
C. Felt at 1.43 a.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Toungoo
C. Felt at 1.43 a.m., slight direction N-S.
E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Pyu
C. Felt at 1.46 a.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Toungoo
C. Felt at 1.46 a.m., slight, direction N-S.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Pyu
C. Felt at 2.08 a.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Toungoo
C. Felt at 2.08 a.m., slight, direction N-S.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Toungoo
C. Felt at 2.13 a.m., slight, direction N-S.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Pyu
C. Felt at 2.13 a.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Pyu
C. Felt at 2.29 a.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Toungoo
C. Felt at 2.29 a.m., slight, direction N-S.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Pyu and Toungoo
C. Felt at 2.44 a.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Pyu and Toungoo
C. Felt at 3.00 a.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Pyu and Toungoo
C. Felt at 3.24 a.m., slight shock, direction N-S.
E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Pyu and Toungoo
C. Felt at 3.38 a.m., slight shock, direction N-S.
E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Pyu
C. Felt at 5.10 a.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 4 December
B. Toungoo
C. Felt at 5.10 a.m., accompanied by an explosive sound.
E. Brown, J.C. and Leicester, P., 1933

A. 1930, 4 December
B. Upper Burma
C. Some time between 12.30 and 1 p.m. on December 4th, an earthquake took place in Upper Burma which had no apparent connection with the series of aftershocks belonging to the Pyu earthquakes themselves. In Shwebo it was strong enough to cause house timbers to creak and hanging lamps to swing. At Katha it was felt in three distinct phases, moving from east to west and lasting 65 seconds: violent at first but gradually diminishing, with very short pauses between the vibrations. Here it was strong enough to rock the brick Court House though nothing was upset or overturned. A list is given below of other places from which accounts of this earthquake were received:-

Shwebo district. Wetlet; south to north; caused the Court House posts to creak.

Tantabin; distinct; east to west

Kanbalu; distinct; east to west

Ngazane; scarcely felt; east to west

Sagaing district. Sagaing; duration 3-4 seconds; caused a wooden bench to sway.

Tada-U; duration two seconds, E-W.

Myinmu; very slight intensity

Kyaukse district. Kyaukse; duration 5 secs.; caused wooden houses to creak.

Mandalay district. Maymyo; a swaying shock of six secs. duration.

Northern Shan States. Panghai in north Hsenwi; a faint shock at 12.45 p.m., which lasted about 10 secs.; direction SW-NE.

Mong Tung. The Myosa of Mong Tung reported that though the Pyu earthquake was hardly felt there, the present one was distinct, with a N-S direction.

Hsipaw. A slight shock lasting two seconds.

Southern Shan States. Kehsi Mansam; a distinct shock which caused no damage.

E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December

B. Pyinmana

C. Felt at 2.00 a.m., and again a few minutes afterwards; slight.

E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December

B. Shwegyin

C. Felt at 2.05 a.m., slight, direction NE-SW.

E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December

B. Shwegyin

C. Felt at 2.15 a.m., slight, direction NE-SW.

E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December

B. Shwegyin

C. Seven shocks followed the main one up to 4.30 a.m.

E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December

B. Kyaukgyi

C. Seven or eight shocks occurred after the main one. They were slight and short.

E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December

B. Kyauktaga

C. Felt at 3.15 a.m.

E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Kyauktaga
C. Felt at 4.30 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Loikaw
C. Felt at 1.50 a.m., distinct but slight.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Loikaw
C. Felt at 2.45 a.m., distinct but slight.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Mawchi
C. Felt at 3.20 a.m., slight, duration 3 seconds.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Mawchi
C. Felt at 5.10 a.m., slight, duration 3 secs.
E. Brown, J.C. and Leicester, P. 1933

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A. 1930, 4 December
B. Pyuntaza
C. Felt at 2.00 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Pyuntaza
C. Felt at 2.20 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Pegu
C. After the main shock, there were 4 or 5 more up to 3 a.m.
Four or five minor shocks up to 2.30 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Myitko
C. Felt at 2.08 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Myitko
C. Felt at 2.11 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Myitko
C. Felt at 2.30 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Daiku
C. Felt at 2.50 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Kalaw
C. Felt at 2.04 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Tuanggyi
C. Three minor aftershocks were felt.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Tuanggyi
C. Felt at 2.05 a.m., three or four shakes; direction SE-NW.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Inle
C. A slight shock was felt at about 2 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Allanmyo
C. Felt at 2.00 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Thaton
C. Felt at 2.15 a.m. with several minor ones till 3.45 a.m., detected only by the vibration of a door.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Bilin
C. Minor shock was felt at 1.55 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Paungdawthi
C. Felt at 2.50 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Toungoo
C. Felt at 1.32 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Toungoo
C. Felt at 2.30 a.m., direction N-S.
E. Brown, J.C. and Leicester, P., 1933

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*
A. 1930, 4 December
B. Toungoo
C. Felt at 4.00 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Pyu
C. Felt at 1.56 p.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 4 December
B. Pyu
C. Felt at 4.13 p.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 5 December
B. Pyu
C. Felt at 1.32 a.m., slight shock
E. Brown, J.C., et al., 1932

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A. 1930, 5 December
B. Pyu
C. Felt at 2.30 a.m., slight shock.
E. Brown, J.C. et al., 1932

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*
A. 1930, 5 December
B. Pado
C. Felt at 3.00 a.m., direction S-N.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 5 December
B. Pyu
C. Felt at 4.00 a.m., slight shock.
E. Brown, J.C. et al., 1932

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*
A. 1930, 5 December
B. Pyu
C. Felt at 1.56 p.m., slight shock.
E. Brown, J.C., et al., 1932

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*
A. 1930, 5 December
B. Mawchi
C. Felt at 2.30 p.m., slight.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 5 December
B. Pyu
C. Felt at 4.13 p.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 5 December
B. Pyu
C. Felt at 5.45 p.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 5 December
B. Zeyawadi
C. Felt at 5.45 p.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 5 December
B. Zeyawadi
C. Felt at 5.50 p.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 5 December

B. Pyu
C. Felt at 5.50 p.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 5 December
B. Pado
C. Felt at 7.00 p.m., direction SE-NW.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 5 December
B. Mawchi
C. Felt at 12.45 p.m., slight.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 7 December
B. Pyuntaza (Pegu district)
C. Felt at 10.40 p.m.
E. Brown, J.C., et al., 1932

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A. 1930, 7 December
B. Myitkyo
C. Felt at 10.45 p.m., direction NW-SE.
E. Brown, J.C. and Leicester, P., 1933

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*
A. 1930, 7 December
B. Pegu
C. Felt at 11.00 p.m., slight.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 7 December
B. Daiku (Pegu district)
C. Felt at 11.01 p.m., direction SE-NW.
E. Brown, J.C. et al., 1932

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A. 1930, 7 December
B. Paungdawthi

C. Felt at 11.05 p.m., direction N-S.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 8 December
B. Pegu
C. Felt at 1 a.m., very slight.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 9 December
B. Pado
C. Felt at 5 a.m., and 5.20 a.m., direction S-N, slight.
E. Brown, J.C. et al., 1932

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A. 1930, 9 December
B. Paungdawthi
C. Felt at midnight, slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 10 December
B. Pado
C. Felt at 5 a.m. and 5.05 a.m., slight shock.
E. Brown, J.C., et al., 1932

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A. 1930, 12 December
B. Kywebwe
C. Felt at 4.05 p.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 12 December
B. Kywebwe
C. Felt at 9.09 p.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 13 December
B. Kywebwe
C. Felt at 4.55 p.m.

E. Brown, J.C. and Leicester, P., 1933

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A. 1930, 13 December
B. Pado
C. Felt at 9.40 p.m., direction W-E, no damage.
E. Brown, J.C., et al., 1932

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A. 1930, 17 December
B. Pado
C. Felt at 6 p.m., slight shock from SW to NE.
E. Brown, J.C., et al., 1932

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A. 1930, 23 December
B. Pado
C. Felt at 1.35 and 1.45 p.m., slight shocks from W to E.
E. Brown, J.C., et al., 1932

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A. 1930, 25 December
B. Pado
C. Felt at 2.40 p.m., slight shock from NW to SE.
E. Brown, J.C., et al., 1932

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A. 1930, 29 December
B. Pado
C. Felt at 5 p.m., slight shock from W to E.
E. Brown, J.C., et al., 1932

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A. 1931, 7 January
B. 25.0N, 98.5E
C. Limited damage
D. Mag. 5.0
E. Ganse, R.A. and Nelson, J.B., 1981

A. 1931, 17 January
B. Nuaunghla, 20.1N, 94.9E
C. Awakened sleepers, felt at 4 a.m., slight shock.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 28 January
B. Burma
C. The main shock which occurred at 2.35 a.m. (Burma Standard Time) and came suddenly and without fore-shocks, was very violent and lasted at least thirty seconds. From the nature of the damage, the earthquake had an intensity of at least IX on the Rossi-Forel scale. The principal shock threw the inhabitants of the epicentral area and its near neighbourhood from their beds. Even in Kamaing, which is just outside the epicentral tract, all the glassware and crockery of the Inspection Bungalow were broken, three big almirahs cupboards were overturned, and mirrors and notice boards were thrown to the floor.

No masonry buildings exist in the epicentral area, but all those in Kamaing, the Court House, the Subdivisional Officer's bungalow were severely damaged. Two small pagodas in the local Pongyi Kyaung were destroyed. Even a small bamboo house in Kamaing collapsed. The bridge over the Indaw Chaung, which is 270 feet long and ten feet wide, had a general list downstream, and it sagged in the middle by about four feet. The second bridge in the 26th mile of the Mogaung-Kamaing road had its wing walls and abutments badly cracked. In the Lawa tract of the Kamaing subdivision, which constitutes the epicentral area, even bamboo and wooden houses, raised about 3 feet from the ground, were completely wrecked. Big fissures, sometimes several hundred feet long, developed in the epicentral tract and its neighbourhood. These fissures in alluvial tracts were accompanied by spoutings of sand and water. The maximum thickness of such sand deposits in the neighbourhood of Kamaing was about 4 inches; the width was about 15 feet.

The hill slopes were scarred in numerous places by big cracks, not in frequently about 2 feet wide and with a drop of about 3 to 4 feet on one side. Block fissures were also observed.

Numerous landslips and rockfalls had occurred in the epicentral tract. Not infrequently the fallen debris temporarily dammed the streams. The water in the wells in Kamaing remained dirty for 3 to 4 days after the main shock.

The shocks was felt over the whole of the Myitkyina district. Reports were received from as far north as Fort Hertz and as far east as Htawgaw. The earthquake was also reported from Maingkwan, where its intensity was reported to be severe and the duration of the main shock one minute. Southwards it was felt over the greater part of the Katha district, but not in the townships of Thabeitkyin and Pinlebu. The station masters of the Burma Railways from Myitkyina to Mawlu reported that the shock was distinctly felt. No reports were received from Bhamo and Upper Chindwin districts. The shock was reported to be fairly severe at Haungpa, which is situated on the boundary of the

Myitkyina and the Upper Chindwin districts.
E. Chhibber, H.L., 1934

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A. 1931, 28 January
B. Shwegu (Bhamo)
C. At 2.40 a.m., three distinct shocks lasting about 30 secs. were felt.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 11 February
B. Pado
C. Felt at 2.45 p.m., direction W-E, slight shock.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 27 March
B. Hanthawaddy
C. At 9.35 a.m., two sudden jerks were felt, duration 2 secs.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 27 March
B. Kayan
C. At 9.35 a.m., one shock made windows rattle, duration 2 secs.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 27 March
B. Kawa (Pegu district)
C. Felt at 9.05 a.m., slight; direction W-E.
E. Brown, J.C. and Leicester, P., 1933

A. 1931, 27 March
B. Rangoon
C. Felt at about 9.45 a.m., feeble.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 3 April
B. Thandaung
C. Felt at 1.00 a.m., one shock; direction E-W; duration 1 sec.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 7 April

B. Pegu
C. Felt at 10.35 a.m., slight, duration 1 sec.; direction E-W.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 15 April
B. Thandaung
C. At 5.00 p.m., two shocks from NW-SE accompanied by noise were felt; duration 3-5 secs.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 4 May
B. Tharrawaddy district
C. Felt slightly at 9.20 a.m. in Zigon and at 9.25 a.m. in Letpadan.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 4 May
B. Pegu
C. Felt in Paungdawthi at 9.15 a.m., direction E-W, no damage.
Felt in Yitkangyi at 9.17 a.m., direction S-N, no damage.
Felt in Daiku at 9.30 a.m., direction E-W, no damage.
Felt in Pegu at 9.15 a.m., direction E-W., slight.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 16 May
B. Rangoon
C. Felt in practically every building in Rangoon at 4.20 p.m., fan and electric lights swayed; some persons left their houses; amplitude 0.29 inches; direction approximately N-S; there were roughly five big vibrations.
E. Brown, J.C. and Leicester, P. 1933

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A. 1931, 16 May
B. Moulmein
C. Two distinct shocks following rapidly one upon the other were felt at 4.15 p.m., no damage.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 16 May
B. Pegu
C. Felt at 4.15 p.m., considerable tremors lasting 15 to 30 secs.; caused some alarm and a few cracks here and there; direction apparently from northeast.

E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 16 May
B. Pegu
C. An earthquake of sufficient intensity to cause the falling of plaster was felt at 4.35 p.m. It was accompanied by an underground rumbling and was of very short duration.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 16 May
B. Pegu
C. Slight shock was felt at 4.45 p.m.
E. Brown, J.C. and Leicester, P., 1933

A. 1931, 16 May
B. Kayan (Hanthawaddy)
C. Very slight shock was felt at 4.10 p.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 16 May
B. Yitkangyi (Pegu)
C. Felt at 4.30 p.m.; direction S-N; no damage.
E. Brown, J.C. and Leicester, P. 1933

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A. 1931, 16 May
B. Myitkyo (Pegu)
C. Felt at 4.30 p.m.; direction W-E; no damage.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 16 May
B. Syriam
C. Felt at 4.20 p.m.
E. Brown, J.C. and Leicester, P. 1933

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A. 1931, 17 May
B. Yitkangale
C. Felt at 2.35 a.m.; direction S-N; no damage.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 17 May
B. Pegu

C. Felt at 2.25 a.m., moderate intensity; duration 15 to 30 secs.
E. Brown, J.C. and Leicester, P., 1933

A. 1931, 17 May
B. Pegu
C. Felt at 7.15 a.m.; very slight intensity.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 18 May, 8.00 p.m.
B. Thandaung
C. A shock was felt at 8.00 p.m.; direction E-W; duration 3-5 secs.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 19 May
B. Pegu
C. Felt at 4.15 and 4.40 p.m.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 21 May
B. Rangoon
C. Felt at 8.42 a.m.; distinct and of sufficient duration to cause alarm in Bahan quarter; earth tremors hardly noticeable at intervals for some days previously; other accounts give the time as 8.45 and 8.54 a.m.; state that a thud was heard and hanging objects swung NW-SE.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 22 May
B. Pegu and Yitkangale
C. Felt at 11.00 p.m., moderate shock; direction S-N, no damage.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 23 May
B. Yitkangale
C. Felt at 2.39 a.m.; direction S-N, no damage.
E. Brown, J.C. and Leicester, P., 1933

A. 1931, 25 June
B. Bassein
C. Felt at 8.25 a.m.; slight shock; direction E-W; duration 15 secs.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 18 July
B.
C. Two shocks were felt in an area between Pyuntaza and Nyaunglebin at 11.29 p.m. and 11.31 p.m. The first one was gentle and the second rather more distinct.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 6-9 August
B. Amherst
C. A rather severe earthquake was felt. Its duration was about 2-3 secs. Objects such as tumblers and bottles fell and the pendulums of clocks stopped. The direction seemed to be N to S. Several shocks were felt between 8.47 a.m. and 12.55 a.m. They were at 8.47 a.m., 11.45 a.m., 12.00 noon, 3.00 a.m., 4.15 a.m., 1.15 a.m., 4.00 a.m., 8.55 a.m., 12.55 a.m., five of them being of a severe nature. The first one was the most severe, tumblers, bottles and pictures in many houses being thrown down. A large mango tree was uprooted in the village and the top of the pagoda was wrenched off and fell on to the road. Without exception all the objects fell towards the north and all clocks facing east and west stopped, which showed that the direction of the quakes was from south to north or vice versa.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 10 August
B. Pyinmana
C. Precisely at 4.50 p.m. Pyinmana was visited by a sharp earthquake shock lasting about 2 secs., but the rumbling preceding and following the shock itself must have lasted about 10 seconds in all. the shock was certainly the most severe that has been experienced in this town and caused considerable alarm as well as discomfort. A brick building appears badly cracked over the arches in the upper floor and the roof looks out of alignment. Part of the parapet surrounding the terraced roof, and a good deal of plaster inside and outside of the ground floor rooms has fallen.
E. Brown, J.C. and Leicester, P., 1933

A. 1931, 10 August
B. Lewe (Yamethin)
C. Felt at 4.50 p.m.; severe; duration about 10 secs.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 10 August
B. Yanaung
C. Felt at about 4.45 p.m.

E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 10 August
B. Yemethin
C. Felt at 4.52 p.m.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 10 August
B. Pyawbwe
C. Felt at 4.49 p.m.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 10 August
B. Toungoo
C. Felt at 4.45 p.m., slight; duration 2-3 secs.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 10 August
B. Meiktila
C. Felt at 5.00 p.m.; slight; duration a few seconds; direction E-W.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 10 August
B. Mandalay
C. Felt at 4.40 p.m.; slight; duration 2.5 secs.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 10 August
B. Maymyo
C. Felt at 5.00 p.m.; slight; direction N-S.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 10 August
B. Kalaw
C. Felt at 5.05 p.m.; fairly severe; direction NE-SW.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 10 August

B. Ywataung
C. Felt at 4.55 p.m.; slight; direction N-S.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 10 August
B. Paungdawthi
C. Felt at 5.00 p.m.; direction SW-NE.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 10 August
B. Myitkyo
C. Felt at 4.45 p.m.; direction E-W.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 10 August
B. Yitkangale
C. Felt at 5.07 p.m.; slight; direction S-N.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 10 August
B. Pyinmana
C. Felt at 11.00 p.m.; slight.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 11 August
B. Pyinmana
C. Felt at 1.00 a.m.; slight.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 11 August
B. Amherst
C. Felt at 9.00 p.m.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 12 August
B. Amherst
C. Felt at 9.40 p.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 13 August
B. Amherst
C. Felt at 1.15 a.m., 2.35 p.m. and 8.00 p.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 14 August
B. Amherst
C. Felt at 1.15 a.m. and 8.15 a.m.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 19 August
B. Kyaukse
C. Felt at 12.56 p.m., smart shock; duration 4-5 secs; second shock within ten days.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 19 August
B. Mandalay
C. Felt at 1 a.m., accompanied by a rumbling noise; duration a few seconds; minor cracks in certain buildings.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 19 August
B. Ywataung
C. Felt at 1.03 a.m., one vibration strong enough to awaken sleepers; duration 2-3 secs.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 19 August
B. Kalaw
C. One continuous severe shock lasting about 4 seconds was felt at 12.40 p.m., direction NE-SW; knocked bottles over.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 23 August
B. Paungdawthi
C. Felt at 4.00 a.m., slight shock; direction SW-NE.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 6 September, 05 38 12 (GMT)

B. Pyu, 18.2N, 96.4E
C. Felt at 12.09 p.m., duration about 6 secs.; caused general alarm but no damage.
D. Mag. 5.6PAS
E. Brown, J.C. and Leicester, P., 1933 and ISS, 1931

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**
A. 1931, 6 September
B. Pyu
C. Felt at 12.19 p.m., no damage.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 6 September
B. Toungoo
C. Felt at 12.09 and 12.19 p.m., duration very short; intensity very slight. The same shocks caused great alarm at Peinzalok.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 6 September
B. Pegu
C. Felt at 12.15 p.m., direction E-W at Penwegon; S-N at Pegu, intensity slight.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 6 September
B. Yitkangale
C. Felt at 11.39 a.m., direction S-N; intensity slight.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 6 September
B. Rangoon
C. Felt at 12.10, slight.
E. Brown, J.C. and Leicester, 1933

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**
A. 1931, 6 September
B. Gyobingauk (Tharrawaddy)
C. Felt at 12.00 noon; direction E-W; caused some alarm.

E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 6 September
B. Prome
C. Felt at about 12.50 p.m., a slight tremor; direction S-W.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 6 September
B. Henzada
C. Felt at 12.20 p.m., slight, no damage.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 6 September
B. Danubyu
C. Felt at 12.15 p.m., fairly violent; direction S-N.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 23 September
B. Toungoo
C. Felt at 3.49 p.m., very short duration; accompanied by sound; strong enough to cause alarm. It was felt in all places between Pyu to the south and Kongyi to the north of Toungoo.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 28 September
B. Amherst
C. Felt at 1.30 a.m., severe tremor; duration 2 secs.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 28 September
B. Amherst
C. Felt at 6.10 a.m.; slight tremor; duration 2 secs.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 28 September
B. Amherst
C. Felt at 12.15 p.m., slight tremor; duration 4 secs.
E. Brown, J.C. and Leicester, P., 1933

-

A. 1931, 28 September
B. Amherst
C. Felt at 7.21 p.m., slight tremor; duration 3 secs. Direction of all tremors was SW-NE. A rumbling sound like thunder preceded the third and fourth tremors and appeared to come from the sea.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 9 October
B. Mandalay
C. Felt at 10.05 p.m., slight shock; duration about 5 secs.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 9 October
B. Maymyo
C. Felt at 10.10 p.m., slight tremor followed by a sharp shock, lasting over 5 secs. from the SW.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 9 October
B. Yamethin
C. Felt at 10.00 p.m., a double shock; the first part slight, the second severe. It lasted 4 secs.; direction E-W, no damage.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 9 October
B. Kalaw
C. Felt at 10.20 p.m., a distinct continuous tremor from NE-SW.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 9 October
B. Taunggyi
C. Felt at 10.05 p.m., several distinct shocks.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 1 November
B. Toungoo

C. At 7.30 a.m. a shock consisting of a pull and a jerk of very short duration in the direction W-E was felt in all places between Toungoo and Swa.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 21 November
B. Bassein
C. At 4.50 p.m. slight intensity shock was felt. Some clocks stopped Kyaunggon, Wakema and Myaungmya.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 9 December
B. Katha
C. At 11.40 p.m. two separate shocks of duration 5 secs. were felt, causing almirahs to rattle and punkahs to swing.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 10 December
B. Gangaw (Pakokku)
C. Felt at 9.50 p.m., four vibrations; rattled the walls of houses; duration about a minute; no damage.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 10 December
B. Yaw
C. Felt at 10.00 p.m., two vibrations; duration 5 or 6 secs, no damage.
E. Brown, J.C. and Leicester, P., 1933

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**
A. 1931, 10 December
B. Yinmabin (Lower Chindwin)
C. Felt at 10.00 pm., one shock of about a second's duration from the south which shook houses and rang bells.
E. Brown, J.C. and Leicester, P., 1933

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A. 1931, 15 December
B. Yinmabin
C. Felt at 7.00 a.m., one shock of 2 secs. duration from S to N.
E. Brown, J.C. and Leicester, P., 1933

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A. 1932, 5 January, 11 p.m.
B. Between Pyuntaza and Toungoo
C. An earthquake of short duration was felt at all places between Pyuntaza and Toungoo. It was reported that the earthquake was of moderate intensity, noticed by persons walking and seated at the time and lasted 4 secs. Some preliminary warning was given by the rustling of bamboos as it approached from north-west, but it was not pronounced enough to disturb grazing elephants or to awaken a sleeping dog.
E. Brown, J.C. and Leicester, P., 1933

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A. 1932, 13 January, 11.17 p.m.
B. Toungoo
C. Toungoo and all places between Nangyun, 14 miles north of that town and Pyu, 32 miles south, were visited by an earthquake. At Toungoo itself this one was severe enough to arouse even heavy sleepers. It lasted a few seconds and was preceded by a sound described as 'not unlike that of rushing waters'. At 11.22 p.m. a gentle tremor followed. The direction appeared to be from east to west.
E. Brown, J.C. and Leicester, P., 1933

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A. 1932, 22 January, 11 p.m.
B. 20 miles W of Kanyutkwin
C. The earthquake was of slight intensity and only just felt by observers who happened to be lying down.
E. Brown, J.C. and Leicester, P., 1933

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A. 1932, 27 January, 20.30 p.m.
B. 20 miles W of Kanyutkwin
C. The earthquake was of slight intensity and only just felt by observers who happened to be lying down.
E. Brown, J.C. and Leicester, P., 1933

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A. 1932, 14 August
B. 25.8N, 95.7E
C. Focal depth about 130 km. Semi-destructive near the epicentral region and some damage over eastern part of northern Assam. Felt over Assam and north and east Bengal.
E. Singh, K., 1966

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**

A. 1933, 16 May, 8.13 hr.
B. Surat Thani
C. The earthquake was felt in Surat Thani at about the same time as in Phang-nga Province, duration about 30 seconds. Houses and shops were shaken but no damage. Some people felt giddy. Glassware was broken.
E. Prachachart Newspaper; 20 May, 1933 (p. 1)

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**
A. 1933, 16 May, 8.32 hr.
B. Trang
C. Felt in 3 districts of Trang Province. Furniture was moved, food can was knocked off shelf. Government buildings were shaken strongly. Some damage to a 21 year old building. Felt severely in Kantang and Yongs districts. Several glass cupboards were broken. Lamps swayed. Houses shook as if they were hit by storm wind. In Thaptheing and Krachong districts, people felt giddy but there was no damage.
E. Prachachart Newspaper, 22 May, 1933 (p. 3)

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**
A. 1933, 16 May 8.20 hr.
B. Phang-nga
C. Felt througout the whole province, no damage, duration about 3 minutes.
E. Prachachart Newspaper, 17 May 1933 (p. 1)

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A. 1933, 23 September, 2.00 hr.
B. Mae Sot, Tak Province
C. Earthquake was felt, duration 1 minute.
E. Prachachart Newspaper, 28 September, 1933 (p. 2)

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A. 1934, 12 January, 13 31 57 (GMT)
B. 23.5N, 102.5E
C. One person killed.
D. Mag. 6.0, Int. VIII
E. Ganse, R.A. and Nelson, J.B., 1981

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A. 1937, 7 January, 13.20 hr.
B. 15.5N, 98.0E
D. Mag. 7.6
E. Ganse, R.A. and Nelson, J.B., 1981

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A. 1938, 14 May, 12 03 03 (GMT)
B. 23.0N, 99.8E
C. Some people killed
D. Mag. 6.0LEE
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1938, 16 August
B. 23.5N, 94.75E.
D. Mag. 7.25
E. Chaudhury, H.M., 1965

-

A. 1939, 19 September
B. 24.4N, 102.6E
C. One person killed, damage limited.
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1940, 6 April, 13 42 58
B. 23.8N, 102.4E
C. 100 people killed, severe damage.
D. 6.0PAS
E. Ganse, R.A. and Nelson, J.B., 1981

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A. 1940, 19 June
B. 24.3N, 102.5E
C. 2 people killed.
D. Mag. 5.5
E. Ganse, R.A. and Nelson, J.B., 1981

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A. 1941, 26 June
B. 12.5N, 92.5E
C. A few people killed and injured. Extensive damage to buildings in the Andamans. Felt over Colombo, Madras, Calcutta and Bombay. In and around Port Blair most of the masonry structures suffered from cracks in the walls and roofs. A number of buildings partially or totally collapsed. Extensive damage was done to roads, bridges, embankments, sea walls and jetties. Fissures in the ground appeared at several places. At a place on the western coast of Baratang Island, about 35 miles north of Port Blair, a tree, having a girth of about 5 feet at breast height, was uprooted and fell westward. Several trees of similar girth were first tilted at an angle of about 30° in the same direction and later fell down. Aftershocks, moderate to slight intensity, were recorded till the end of August, 1941.

D. Mag. 8.1
E. Ganse, R.A. and Nelson, J.B., 1981 and Krishnan, M.S., 1953

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A. 1941, 26 December, 14 47 59
B. 21.7N, 99.7E
C. 15 people killed.
D. Mag. 7.0PAS
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1942, 3 January, 18.30 hr.
B. 22.8N, 101.0E
C. 30 people killed.
D. Mag. 6.8
E. Ganse, R.A. and Nelson, J.B., 1981

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A. 1942, 21 April
B. 23.5N, 99.4E
C. A few people killed.
D. Mag. 5.0
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1959, 21 March, 14.00 (Approx.)
B. Kanchanaburi Province
C. Earthquake occurred with thunder storm and earth trembled loudly. Ground crack was observed at Klondo subdistrict of the town of Kanchanaburi to be about 300 metres long and 1-2 metres wide.
E. Siam Nikorn Newspaper, 25 March 1959, (p. 1)

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A. 1964, 2 April, 01 11 48.6 (GMT)
B. 5.8N, 95.4E
C. Moderate damage.
D. Mag. 5.6Mb
E. Ganse, R.A. and Nelson, J.B., 1981

-

A. 1967, 12 April, 04 51 41.8 (GMT)
B. 5.16N, 96.31E
C. Severe damage.
E. Ganse, R.A. and Nelson, J.B., 1981

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A. 1970, 4 January, 17 00 40.2 (GMT)

B. 24.1N, 102.5E
C. Felt at Hanoi. The earthquake caused 50 km. of surface faulting along the Tung Hai fault, with a maximum of 2.5 m. right slip and some (0.5 m.) reverse faulting. (Press, F., et al., 1975).
D. Mag. 5.6 Mb, 7.5 Ms
E. Tapponnier, P. and Molnar, P., 1977

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A. 1975, March
B. Nakhon Phanom
C. Several cracks developed on the Phra That Phanom Stupa from the upper portion to its base and it started to tilt from its original axis.
E. Fine Arts Department, 1979

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A. 1976, 24 September, 00 09 50.6
B. 24.21N, 95.07E
C. Felt at Upper Shillong.
D. Mag. 4.6Mb, Int. II (RF)
E. ISC, 1976

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A. 1978, 1 September, 04 55 16.8 (GMT)
B. 20.44N, 100.6E
C. Felt at Chiangrai, Thailand and in Laos.
D. Mag. 4.9Mb, Int. IV (MM)
E. ISC, 1978

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A. 1979, 4 March, 17 40 14.7
B. 24.6N, 93.5E
C. Felt at Shillong.
D. Mag. 4.6Mb, Int. II (MM)
E. ISC, 1979

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A. 1979, 29 May, 00 39 52.1 (GMT)
B. 24.5N, 94.74E
C. Felt in the Shillong-Imphal area, India.
D. Mag. 5.2Mb, 4.6Ms, Int. II (RF)
E. ISC, 1979

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A. 1979, 13 July, 23 20 9.9
B. 24.88N, 95.22E
C. Felt at Shillong.
D. Mag. 4.9Mb, 4.3Ms, Int. III (MM)

E. ISC, 1979

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A. 1979, 19 October, 15 13 23.9 (GMT)
B. 23.04N, 94.35E
C. Felt at Shillong.
D. Mag. 4.6Mb, Int. II (MM)
E. ISC, 1979

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A. 1980, 28 March, 16 15 3.7 (GMT)
B. 23.8N, 94.69E
C. Felt in eastern India.
D. Mag. 4.8Mb
E. ISC, 1980

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A. 1980, 20 May, 13 19 51.9 (GMT)
B. 23.72N, 94.2E
C. Felt at Shillong.
D. Mag. 4.8Mb, 5.4Ms, Int. III (MM)
E. ISC, 1980

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A. 1980, 10 February, 02 17 52 (GMT)
B. 19.35N, 99.23E
C. Felt at Chiangmai, Thailand
D. Mag. 4.2Mb, Int. III (MM)
E. ISC, 1980

-

A. 1980, 10 September, 02 21 0.5 (GMT)
B. 18.87N, 99.25E
C. Felt at Chiangmai, Thailand.
D. Mag. 3.6ML, Int. III (MM)
E. ISC, 1980

-

A. 1980, 30 October, 05 29 41 (GMT)
B. 23.9N, 91.5E
C. Felt at Kailashahar Airport, Tripura.
D. Mag. 4.6Mb, Int. II (MM)
E. ISC, 1980

-

A. 1980, 22 December, 07 55 50.7 (GMT)
B. 18.03N, 100.09E
C. Felt at Phrae, Thailand, slight damage.

D. Mag. 4.0ML, Int. IV (MM)
E. ISC, 1980

-

A. 1980, 23 December, 00 55 46.4 (GMT)
B. 18.12N, 99.92E
C. Felt in Phrae, Thailand, slight damage.
D. Mag. 3.7Mb, 4.2ML, Int. IV (MM)
E. ISC, 1980

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A. 1982, 20 June, 20.20 hr.
B. Chiangmai
C. Earthquake was felt. Sound like thunder was heard.
E. Matichon Newspaper, 22 June 1982

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A. 1983, 4 April, 02 51 34.3
B. Northern Sumatra, 5.72N 94.72E
C. Casualties and damage reported in Banda Aceh area.
D. Mag. 6.6Mb, 6.8Mb(PAS)
E. NEIS, 1983

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A. 1983, 22 April, 00 37 37.0
B. Kanchanaburi Province, 14.93N 99.02E
C. Damage in Thailand. Felt strongly throughout most of the country. Also felt at Mergui, Pegu, and Tavoy, Burma.
D. Mag. 5.9Mb, 5.9MS
E. NEIS, 1983

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A. 1983, 24 June, 07 18 22.1
B. 21.72N, 103.28E
C. Felt (VI) at Haiphong, Hanoi and Hoa Binh; (V) at Thai Nguyen, Thanh Hoa and Tuyen Quang; and (IV) at Ha Bac, Vietnam. Also felt at Hong Kong.
D. Mag. 6.1Mb, 6.6MS, 6.4MS(PAS)
E. NEIS, 1983

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A. 1984, 25 April, 5.30 hr.
B. Chiangrai
C. Two shocks were felt in six districts of Chiangrai Province. Lamps swayed and vase fell.
E. Thai Rath Newspaper, 25 April, 1984 (p. 16)

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	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	BKK	1981	01	01	11	17	39.2	018.02 N	100.18 E	009						1.19s	003
	BKK	1981	01	01	13	08	38.4	018.01 N	100.15 E	010						0.14s	003
	BKK	1981	01	13	14	05	05.2	018.04 N	097.45 E	010				3.7 L		0.18s	003
	BKK	1981	01	13	18	30	56.8	020.21 N	098.05 E	024				3.2 L		1.22s	003
* 1	NEIS	1931	01	14	01	02	59.4	018.473N	095.267E	052	4.5 MB					0.70s	015
* 2	ISC	1981	01	14	01	03	00.6	018.49 N	095.36 E	062	4.8 MB					0.97s	026
	BKK	1981	01	14	11	23	20.0	017.96 N	097.71 E	024				3.0 L		1.38s	003
* 1	NEIS	1981	01	18	17	25	50.1	011.967N	093.05 E	033	4.9 MB					1.0 s	026
* 2	ISC	1981	01	18	17	26	01.3	011.98 N	093.75 E	153	4.5 MB					1.01s	051
* 1	NEIS	1981	01	22	08	28	47.6	006.461N	094.80 E	033	4.9 MB					0.90s	012
* 2	ISC	1981	01	22	08	28	47.8	006.45 N	094.71 E	121	4.4 MB					1.20s	013
* 1	NEIS	1981	02	01	09	27	47.7	024.866N	096.40 E	033	4.7 MB					1.10s	027
* 2	ISC	1981	02	01	09	27	47.0	024.77 N	096.34 E	021	4.7 MB					2.23s	047
* 3	BKK	1981	02	01	09	27	39.6	024.63 N	096.27 E	019				5.1 L		2.70s	006
* 1	NEIS	1981	02	01	22	17	30.8	010.956N	092.358E	033	4.6 MB					1.10s	013
* 2	ISC	1981	02	01	22	17	30.8	010.91 N	092.43 E	033	4.6 MB					1.29s	016
	BKK	1981	02	08	12	35	57.4	017.39 N	096.45 E	010				3.2 L		2.88s	003
* 1	NEIS	1981	02	16	21	07	53.7	011.918N	092.834E	033	4.1 MB					1.00s	012
* 2	ISC	1981	02	16	21	07	55.0	012.11 N	092.77 E	037	4.1 MB					1.77s	018
* 1	ISC	1981	03	07	17	37	37.0	022.10 N	097.80 E	000	4.9 MB					5.00s	007
* 2	BKK	1981	03	07	17	37	54.3	018.39 N	096.47 E	010				3.6 L		0.18s	003
	ISC	1981	03	07	22	16	15.0	024.70 N	094.90 E	081	4.3 MB					3.60s	009
	BKK	1981	03	30	18	13	18.7	020.26 N	100.42 E	010				3.6 L		0.45s	003
	BKK	1981	04	04	21	58	19.2	024.15 N	094.41 E	010						0.42s	004
* 1	NEIS	1981	04	11	01	24	04.3	024.652N	095.106E	035	4.6 MB					1.00s	029
* 2	PEK	1981	04	11	01	24	09.0	025.10 N	095.20 E			4.0S					
* 3	ISC	1981	04	11	01	24	04.6	024.63 N	095.040E	137	4.5 MB					1.53s	039
* 4	BKK	1981	04	11	01	24	01.8	024.56 N	095.04 E	010						0.15s	005

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	BKK	1981	04	13	11	15	59.9	019.57 N	097.38 E	005				3.2 L		0.34s	003
	BKK	1981	04	25	01	06	41.2	021.27 N	098.60 E	010				4.3 L		1.60s	003
* 1	NEIS	1981	04	25	11	32	24.6	024.941N	095.384E	148	5.7 MB					0.80s	243
* 2	MOS	1981	04	25	11	32	21.9	024.59 N	095.55 E	160	5.9 MB						
* 3	PEK	1981	04	25	11	32	23.1	024.90 N	095.40 E	148	5.7 MB						
* 4	ISC	1981	04	25	11	32	23.0	024.90 N	095.34 E	146	5.7 MB	5.0S				1.02s	348
* 5	BKK	1981	04	25	11	32	15.7	025.09 N	094.79 E	181				5.3 L		0.80s	016
* 1	NEIS	1981	04	26	08	22	32.4	011.926 N	092.824E	033	4.8 MB	4.1S				1.30s	031
* 2	MOS	1981	04	26	08	22	31.6	011.82 N	092.81 E	033	4.9 MB						
* 3	PEK	1981	04	26	08	22	33.3	011.80 N	092.60 E								
* 4	ISC	1981	04	26	08	22	37.3	011.95 N	092.80 E	080	4.5 MB	3.8S				2.08s	060
	NEIS	1981	05	01	02	11	01.0	023.00 N	094.80 E	040				4.8 L			
	BKK	1981	05	01	02	17	01.2	022.74 N	095.17 E	010				4.6 L		0.82s	004
* 1	NEIS	1981	05	01	04	08	10.4	022.964N	094.593E	101	5.0 MB					0.70s	128
* 2	MOS	1981	05	01	04	08	02.6	022.75 N	094.90 E	044	5.4 MB						
* 3	PEK	1981	05	01	04	08	12.4	023.10 N	094.60 E	100	5.0 MB						
* 4	ISC	1981	05	01	04	08	10.0	022.94 N	094.56 E	098	4.8 MB	4.1S				1.02s	193
	BKK	1981	05	02	06	34	26.8	017.95 N	100.29 E	020						1.57s	003
* 1	NEIS	1981	05	06	15	32	34.2	022.691N	094.148E	047	4.7 MB					0.70s	029
* 2	PEK	1981	05	06	15	32	31.4	022.20 N	093.59 E								
* 3	ISC	1981	05	06	15	32	37.0	022.47 N	093.87 E	076	4.4 MB					2.43s	033
* 4	BKK	1981	05	06	15	32	29.6	021.93 N	093.19 E	010						1.01s	005
	ISC	1981	05	06	19	08	46.7	023.70 N	093.20 E	033	4.3 MB					1.70s	017
	BKK	1981	05	11	12	34	37.5	014.33 N	096.44 E	027				3.3 L		1.71s	003
	KLM	1981	05	14	06	53	33.6	007.00 N	094.00 E								
	ISC	1981	05	26	14	44	03.0	008.80 N	093.70 E	108	4.1 MB					2.37s	007
	BKK	1981	05	27	19	51	17.4	015.27 N	095.71 E	006				4.3 L		1.29s	003
	BKK	1981	06	01	08	53	45.0	018.88 N	097.48 E	010				3.0 L		0.36s	003

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	NEIS	1981	06	08	15	17	27.6	011.80 N	093.00 E	094	4.2 MB						
* 2	ISC	1981	06	08	15	17	28.9	012.00 N	093.04 E	118	4.2 MB					2.06s	011
	BKK	1981	06	13	10	46	08.1	016.53 N	097.52 E	008				3.0 L		0.71s	003
* 1	NEIS	1981	06	17	11	12	55.3	023.80 N	093.80 E	059	4.7 MB						
* 2	PEK	1981	06	17	11	12	55.5	023.70 N	093.40 E		3.3 MB						
* 3	ISC	1981	06	17	11	12	55.5	023.72 N	093.68 E	067	4.3 MB					1.15s	019
* 1	NEIS	1981	06	30	21	55	47.1	022.483N	095.142E	033	5.0 MB					0.80s	115
* 2	MOS	1981	06	30	21	55	50.6	022.44 N	095.32 E	061	5.4 MB						
* 3	PEK	1981	06	30	21	55	56.7	023.00 N	095.30 E			4.9S					
* 4	ISC	1981	06	30	21	55	49.8	022.50 N	095.19 E	042	5.1 MB	4.1S				1.14s	175
* 5	BKK	1981	06	30	21	55	53.6	022.40 N	095.86 E	010				4.7 L		1.50s	004
* 1	NEIS	1981	07	15	11	52	24.3	022.60 N	094.30 E	099	4.3 MB						
* 2	ISC	1981	07	15	11	52	24.2	022.59 N	094.26 E	101	4.3 MB					1.33s	010
* 1	NEIS	1981	07	18	09	00	37.2	024.80 N	094.60 E	072	4.8 MB						
* 2	PEK	1981	07	18	09	00	36.5	024.70 N	094.60 E								
* 3	ISC	1981	07	18	09	00	38.4	024.79 N	094.65 E	081	4.7 MB					1.04s	069
* 4	BKK	1981	07	18	09	00	32.8	025.05 N	094.90 E	010	5.7 MB					0.21s	004
	BKK	1981	07	22	15	31	01.3	016.84 N	098.22 E	011						1.10s	003
	BKK	1981	07	26	01	53	25.7	014.85 N	096.25 E	017		4.2 L				1.04s	003
* 1	NEIS	1981	07	30	21	12	59.1	022.90 N	094.70 E	110	4.6 MB						
* 2	ISC	1981	07	30	21	12	59.2	022.95 N	094.68 E	113	4.6 MB					0.36s	010
* 1	NEIS	1981	08	01	04	05	19.6	011.197N	095.311E	033	5.1 MB					1.10s	050
* 2	KLM	1981	08	01	04	05	05.9	010.90 N	096.20 E					5.5 L			
* 3	PEK	1981	08	01	04	05	17.3	010.80 N	095.20 E			4.7S					
* 4	MOS	1981	08	01	04	05	17.4	010.90 N	095.22 E	029	5.2 MB						
* 5	ISC	1981	08	01	04	05	19.7	011.15 N	095.21 E	033	4.9 MB	4.2S				1.06s	079
* 6	BKK	1981	08	01	04	05	19.0	011.09 N	095.34 E	033	3.5 MB					0.45s	005
	BKK	1981	08	02	14	53	29.4	014.94 N	097.28 E	010				3.0 L		1.44s	003
* 1	NEIS	1981	08	03	14	58	24.4	021.30 N	094.20 E	079	4.6 MB			4.1 L		0.16s	003
* 2	ISC	1981	08	03	14	58	18.0	020.70 N	093.40 E	039	4.6 MB					1.57s	012
* 3	BKK	1981	08	03	14	58	34.7	020.67 N	095.01 E	006				4.1 L		0.38s	003

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	PEK	1981	08	04	07	32	02.9	024.97 N	100.15 E	001				4.5 L		0.89s	003
* 2	ISC	1981	08	04	07	32	01.4	025.00 N	097.78 E	000	4.5 MB					2.42s	015
* 3	BKK	1981	08	04	07	32	03.1	024.95 N	100.33 E	011				4.6 L		0.73s	003
	BKK	1981	08	04	11	35	50.2	024.85 N	100.00 E	015				4.6 L		1.32s	003
* 1	ISC	1981	08	14	13	10	38.0	023.80 N	097.80 E	033	4.1 MB					3.71s	005
* 2	BKK	1981	08	14	13	10	28.0	024.33 N	101.97 E	004				4.7 L		0.48s	003
	BKK	1981	08	17	07	26	04.5	024.99 N	100.15 E	003				4.8 L		0.19s	003
	BKK	1981	08	18	15	16	57.0	019.44 N	101.55 E	005				4.1 L		0.99s	003
	BKK	1981	08	18	17	09	51.7	019.46 N	101.56 E	005				4.2 L		1.05s	003
	BKK	1981	08	18	17	12	23.4	019.27 N	101.62 E	008				4.0 L		0.65s	003
	BKK	1981	08	18	17	18	06.0	019.44 N	101.64 E	004				3.8 L		0.76s	003
	BKK	1981	08	18	19	24	49.7	019.04 N	101.62 E	003				3.4 L		0.70s	003
* 1	NEIS	1981	08	19	17	17	06.6	011.127N	095.297E	003	4.7 MB					0.80s	037
* 2	ISC	1981	08	19	17	17	06.5	011.17 N	095.28 E	033	4.8 MB					0.84s	050
	BKK	1981	08	20	08	28	31.2	019.59 N	097.10 E	016				3.6 L		0.89s	005
	BKK	1981	08	23	00	29	53.6	019.31 N	101.56 E	007				3.2 L		1.08s	003
*	NEIS	1981	08	23	01	24	38.7	024.66 N	094.883E	090	4.7 MB					0.13s	024
* 2	ISC	1981	08	23	01	24	39.1	024.68 N	094.91 E	091	4.5 MB					1.93s	036
	BKK	1981	08	23	07	20	27.8	019.08 N	101.61 E	007				3.2 L		0.55s	003
* 1	NEIS	1981	08	23	09	29	59.9	022.962N	094.552E	092	4.7 MB					0.90s	099
* 2	MOS	1981	08	23	09	29	48.6	022.32 N	094.89 E	033	5.3 MB						
* 3	PEK	1981	08	23	09	30	02.1	023.00 N	094.50 E		4.4 MB	4.5S					
* 4	ISC	1981	08	23	09	29	59.7	022.89 N	094.43 E	090	4.8 MB					1.12s	153
* 5	BKK	1981	08	23	09	30	07.3	022.62 N	095.50 E	010				5.0 L		0.77s	004
	BKK	1981	08	25	07	55	20.6	019.00 N	101.57 E	019				3.7 L		0.71s	003
	BKK	1981	08	25	09	28	55.7	019.10 N	101.49 E	016				3.0 L		1.37s	003
* 1	ISC	1981	08	25	14	30	37.9	024.63 N	097.56 E	093	4.2 MB					1.91s	009
* 2	BKK	1981	08	25	14	30	27.8	024.05 N	102.46 E	009				4.7 L		1.17s	003

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	BKK	1981	08	26	22	28	04.8	024.56 N	093.81 E	010				4.6 L		1.56s	003
* 1	PEK	1981	08	28	02	41	36.0	025.10 N	097.90 E			4.0S					
* 2	ISC	1981	08	28	02	41	39.3	024.92 N	097.71 E	070	4.2 MB					1.28s	013
	BKK	1981	08	28	20	19	44.8	018.56 N	096.20 E	022				3.7 L		1.15s	003
* 1	NEIS	1981	08	29	15	22	08.7	025.00 N	097.80 E	050	4.6 MB						
* 2	ISC	1981	08	29	15	22	09.1	024.95 N	097.89 E	046	4.3 MB					1.51s	011
	KLM	1981	09	02	13	44	51.0	005.00 N	096.00 E								
* 1	NEIS	1981	09	10	14	17	43.4	005.386N	095.281E	103	5.0 MB					0.90s	153
* 2	MOS	1981	09	10	14	17	37.2	005.58 N	095.55 E	054	5.4 MB						
* 3	ISC	1981	09	10	14	17	44.2	005.50 N	095.37 E	112	5.1 MB					1.18s	196
* 4	BKK	1981	09	10	14	17	43.6	005.33 N	095.30 E	174	4.0 MB					0.75s	014
* 1	NEIS	1981	09	12	05	25	19.1	021.088N	099.359E	016	5.0 MB	4.8S				1.00s	111
* 2	MOS	1981	09	12	05	25	15.3	020.81 N	099.43 E	003	5.3 MB	5.0S					
* 3	PEK	1981	09	12	05	25	20.5	021.10 N	099.40 E			5.7S					
* 4	ISC	1981	09	12	05	25	19.9	021.09 N	099.36 E	019	4.9 MB	4.8S				1.08s	155
* 5	BKK	1981	09	12	05	25	14.0	021.03 N	099.29 E	015	4.6 MB			4.8 L		1.51s	012
	BKK	1981	09	12	09	52	28.8	020.92 N	099.58 E	010				3.8 L		2.24s	003
	BKK	1981	09	12	10	01	06.1	020.49 N	100.75 E	016				3.5 L		1.26s	003
	BKK	1981	09	12	18	39	27.1	021.30 N	098.36 E	010				3.3 L		1.30s	003
	BKK	1981	09	13	10	42	54.6	020.93 N	099.25 E	007				4.0 L		0.59s	003
	BKK	1981	09	13	22	21	46.5	020.57 N	098.00 E	025				3.8 L		1.30s	003
	BKK	1981	09	15	18	16	08.7	020.84 N	101.27 E	010				3.8 L		0.00s	003
	BKK	1981	09	18	07	20	10.0	020.86 N	097.80 E	006				3.5 L		0.90s	003
* 1	NEIS	1981	09	19	06	50	59.7	023.01 N	101.336E	033	5.0 MB	5.2S				0.80s	060
* 2	MOS	1981	09	19	06	50	56.3	023.05 N	101.32 E	003	5.3 MB	5.4S					
* 3	PEK	1981	09	19	06	50	57.5	023.05 N	101.40 E			6.0S					
* 4	ISC	1981	09	19	06	50	56.0	023.01 N	101.35 E	008	5.0 MB	5.2S				1.61s	180
* 5	BKK	1981	09	19	06	50	54.4	023.00 N	101.33 E	013	4.6 MB			5.1 L		1.31s	014

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	NEIS	1981	09	19	08	08	20.3	020.30 N	097.20 E	040				4.1 L			
	BKK	1981	09	19	08	38	13.0	020.49 N	097.17 E	008				3.8 L		0.55s	003
	BKK	1981	09	24	19	41	34.7	022.38 N	101.23 E	014				3.7 L		0.52s	003
	ISC	1981	09	24	22	05	02.0	012.00 N	093.00 E	033	4.1 MB					3.37s	007
	BKK	1981	10	06	21	04	39.1	022.20 N	097.87 E	010				3.7 L		0.02s	003
	ISC	1981	10	09	05	23	05.1	023.67 N	094.44 E	117	4.6 MB					1.75s	025
* 1	NEIS	1981	10	10	23	28	48.1	012.10 E	093.10 E	033	4.1 MB						
* 2	ISC	1981	10	10	23	28	50.0	012.00 N	093.40 E	033	4.1 MB					4.76s	014
	BKK	1981	10	12	19	20	05.3	023.93 N	100.02 E	018				4.2 L		1.37s	003
* 1	NEIS	1981	10	21	21	41	31.1	007.40 N	093.912E	033	4.7 MB					1.10s	036
* 2	KLM	1981	10	21	21	41	14.9	006.00 N	093.00 E								
* 3	MOS	1981	10	21	21	41	32.4	007.51 N	093.95 E	050	5.2 MB						
* 4	PEK	1981	10	21	21	41	33.2	007.40 N	093.90 E								
* 5	ISC	1981	10	21	21	41	35.7	007.53 N	094.05 E	075	4.7 MB					1.14s	070
* 1	NEIS	1981	10	23	03	29	16.0	016.50 N	096.00 E	033				3.1 L			
* 2	BKK	1981	10	23	03	29	04.8	016.33 N	096.56 E	028				3.0 L		1.92s	003
	BKK	1981	10	24	20	02	25.3	015.24 N	096.34 E	009				3.6 L		0.59s	003
	BKK	1981	10	25	15	27	55.1	022.40 N	103.36 E	036						0.42s	003
	BKK	1981	10	27	01	44	06.6	016.45 N	096.37 E	010				3.0 L		1.10s	003
	BKK	1981	11	01	07	30	19.1	020.02 N	097.85 E	010				3.5 L		1.36s	003
* 1	NEIS	1981	11	02	21	10	25.3	012.139N	092.907E	025	5.7 MB	5.5S				1.00s	255
* 2	BKK	1981	11	02	21	10	23.2	012.27 N	092.93 E	008						1.18s	015
	BKK	1981	11	05	19	38	04.5	020.42 N	096.91 E	010				3.5 L		1.17s	004
	NEIS	1981	11	13	07	54	59.1	006.161N	095.649E	097	4.7 MB					1.00s	042
* 1	NEIS	1981	11	13	08	06	26.3	006.055N	095.185E		4.8 MB	4.5S				1.10s	042
* 2	BKK	1981	11	13	08	06	16.9	005.82 N	094.35 E	010	4.7 MB					2.15s	006

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	BKK	1981	11	15	23	45	56.1	024.77 N	093.94 E	010				4.4 L		0.04s	003
* 1	NEIS	1981	11	21	01	52	40.2	022.648N	093.184E	042	4.7 MB					0.90s	099
* 2	BKK	1981	11	21	01	52	17.1	022.56 N	093.20 E	019						1.45s	005
	BKK	1981	11	29	20	40	04.9	020.04 N	099.66 E	008				3.6 L		0.57s	003
	BKK	1981	11	30	21	48	22.8	022.69 N	097.73 E	029				4.5 L		0.99s	003
	BKK	1981	11	30	22	55	26.9	022.62 N	098.02 E	010				4.4 L		1.44s	003
	BKK	1981	11	30	23	54	55.7	022.61 N	100.08 E	053				3.9 L		0.76s	003
	BKK	1981	12	01	08	33	52.1	020.43 N	100.65 E	010				3.5 L		1.38s	003
	BKK	1981	12	01	08	51	11.9	020.44 N	100.82 E	010				3.9 L		0.36s	003
	BKK	1981	12	01	08	57	34.0	020.68 N	100.74 E	015				3.8 L		1.10s	003
	BKK	1981	12	03	18	31	22.8	017.59 N	095.93 E	010				3.7 L		0.90s	003
	BKK	1981	12	04	04	13	29.3	020.25 N	100.67 E	010				3.3 L		0.97s	003
* 1	NEIS	1981	12	07	22	00	20.1	013.785N	095.991E	033	4.9 MB					0.80s	071
* 2	BKK	1981	12	07	22	00	16.5	013.86 N	096.15 E	012				4.5 L		1.17s	003
	BKK	1981	12	11	13	02	19.3	018.89 N	098.39 E	010				3.3 L		0.18s	003
	BKK	1981	12	11	22	44	28.6	016.19 N	096.16 E	010				3.3 L		0.70s	003
	BKK	1981	12	26	11	45	02.4	021.11 N	101.47 E	010				3.2 L		0.67s	003
	BKK	1981	12	27	18	07	20.0	020.20 N	099.27 E	010				3.9 L		0.71s	003
	BKK	1981	12	28	13	44	26.7	020.09 N	099.23 E	007				3.8 L		0.64s	003
	NEIS	1981	12	28	17	54	56.7	008.632N	093.179E	051	4.5 MB					1.40s	027
	BKK	1981	12	28	15	04	53.3	020.08 N	099.16 E	007						0.71s	003
* 1	NEIS	1981	12	28	18	10	57.4	013.805N	095.915E	033	5.2 MB	5.1S				1.00s	095
* 2	BKK	1981	12	28	18	10	56.5	013.98 N	095.93 E	015				4.5 L		0.19s	003
	BKK	1981	12	28	21	32	52.7	013.42 N	094.63 E	010				4.3 L		2.51s	003
	BKK	1981	12	28	22	43	04.3	013.00 N	094.59 E	008				4.7 L		0.75s	003

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	BKK	1981	12	30	09	47	22.5	013.15 N	094.66 E	010				3.8 L		0.58s	003
	BKK	1982	01	01	09	42	16.4	018.78 N	097.68 E	006						0.61s	003
	BKK	1982	01	01	11	45	11.8	018.82 N	097.65 E	012				3.3 L		0.81s	003
	BKK	1982	01	03	11	37	40.7	023.63 N	093.24 E	010				4.6 L		1.36s	004
	BKK	1982	01	07	04	53	23.9	014.60 N	097.30 E	010				3.0 L		1.42s	003
	NEIS	1982	01	09	18	38	55.4	010.668N	092.726E	003	3.7 MB					0.90s	012
	NEIS	1982	01	11	20	52	59.7	024.695N	092.065E	003	4.7 MB					0.90s	054
	BKK	1982	01	12	10	41	24.5	021.05 N	101.46 E	010				3.5 L		1.50s	003
	NEIS	1982	01	18	21	20	06.2	008.622N	093.616E	033	4.5 MB					1.00s	014
* 1	NEIS	1982	01	18	21	26	17.8	019.251N	096.242E	033	4.5 MB					1.00s	023
* 2	BKK	1982	01	18	21	26	16.3	018.87 N	096.23 E	009				4.1 L		0.28s	003
	NEIS	1982	01	19	01	15	19.9	008.607N	093.743E	033	4.6 MB	4.2S				1.10s	021
* 1	NEIS	1982	01	20	04	25	11.6	006.946N	094.002E	019	5.6 MB	6.3S	6.0 PAS			1.10s	230
* 2	BKK	1982	01	20	04	25	10.6	006.85 N	093.87 E	049	5.4 MB					1.27s	010
	NEIS	1982	01	20	05	00	10.0	007.121N	094.099E	033	5.0 MB					1.10s	037
	NEIS	1982	01	20	05	10	59.8	007.183N	094.160E	033	4.3 MB					0.90s	014
* 1	NEIS	1982	01	20	05	13	25.4	007.045N	094.026E	033	5.2 MB					0.90s	117
* 2	BKK	1982	01	20	05	13	25.1	006.96 N	094.03 E	033	4.5 MB					1.10s	007
* 1	NEIS	1982	01	20	07	09	17.4	007.119N	093.944E	027	5.7 MB	6.2S				1.10s	230
* 2	BKK	1982	01	20	07	09	11.7	007.12 N	094.17 E	024	5.9 MB					0.89s	011
	NEIS	1982	01	20	08	17	31.2	006.96 N	094.131E	033	4.7 MB					1.40s	020
	NEIS	1982	01	20	09	17	11.7	007.207N	094.015E	036	4.3 MB					1.40s	015
	NEIS	1982	01	20	20	50	56.6	007.012N	094.812E	033	4.1 MB					1.50s	010
* 1	NEIS	1982	01	20	22	11	41.8	007.263N	094.057E	033	4.9 MB	4.6S				1.30s	048
* 2	BKK	1982	01	20	22	11	50.5	007.15 N	094.57 E	333	4.1 MB					0.80s	007

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	NEIS	1982	01	20	23	16	50.8	007.061N	094.095E	033	4.7 MB					1.30s	015
* 1	NEIS	1982	01	21	02	32	46.5	014.611N	093.699E	033	4.4 MB					0.80s	017
* 2	BKK	1982	01	21	02	32	46.9	014.65 N	093.68 E	033	3.8 MB					0.73s	005
	NEIS	1982	01	21	08	18	47.6	020.656N	094.197E	072	4.3 MB					0.90s	008
* 1	NEIS	1982	01	22	18	24	37.4	007.077N	093.989E	033	4.4 MB					1.10s	030
* 2	BKK	1982	01	22	18	24	31.4	007.03 N	094.00 E	015	5.4 MB					1.18s	006
* 1	NEIS	1982	01	24	11	35	39.5	021.451N	094.661E	113	5.4 MB					0.90s	164
* 2	BKK	1982	01	24	11	35	39.4	021.80 N	094.97 E	189	5.3 MB					1.06s	004
	NEIS	1982	01	24	13	29	42.5	006.903N	094.014E	033	4.4 MB					0.90s	022
* 1	NEIS	1982	01	25	10	27	09.0	006.858N	094.036E	033	5.1 MB	4.8S				1.20s	050
* 2	BKK	1982	01	25	10	27	10.1	006.84 N	094.13 E	033	4.0 MB					1.21s	011
	BKK	1982	02	04	21	06	01.3	024.49 N	096.00 E	010				4.6 L		0.10s	003
	NEIS	1982	02	10	16	17	50.4	007.00 N	106.90 E	033	5.5 MB						
	BKK	1982	02	11	14	43	26.9	019.80 N	097.85 E	010				3.6 L		0.92s	003
* 1	NEIS	1982	02	12	16	00	05.0	021.905N	094.732E	116	4.7 MB					0.90s	035
* 2	BKK	1982	02	12	16	00	07.1	022.33 N	095.54 E	242				4.6 L		1.82s	004
* 1	NEIS	1982	02	13	19	56	12.8	005.684N	094.791E	071	5.3 MB					1.10s	178
* 2	BKK	1982	02	13	19	56	07.9	005.63 N	094.56 E	046						0.91s	008
	BKK	1982	02	16	04	40	10.6	022.72 N	100.87 E	007				4.2 L		1.05s	003
	NEIS	1982	02	16	04	57	05.1	005.46 N	094.89 E	089	4.0 MB					0.90s	007
	BKK	1982	02	18	15	56	33.7	018.19 N	104.29 E	013				4.1 L		1.48s	003
	BKK	1982	02	19	01	04	01.8	022.29 N	101.90 E	007				3.7 L		0.71s	003
* 1	NEIS	1982	02	20	09	25	17.0	022.258N	102.422E	034	4.6 MB	4.5S				0.90s	021
* 2	BKK	1982	02	20	09	25	12.9	021.97 N	102.96 E	010				4.8 L		1.27s	004
* 1	NEIS	1982	02	23	05	48	48.8	005.131N	097.048E	050						0.90s	044
* 2	BKK	1982	02	23	05	48	42.8	005.12 N	096.75 E	010				4.3 L		0.06s	003

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	NEIS	1982	02	26	21	59	35.9	011.653N	092.857E	033	4.1 MB					1.30s	009
	BKK	1982	02	27	06	23	35.5	018.11 N	095.97 E	033				3.6 L		2.25s	003
	NEIS	1982	03	05	14	56	32.3	007.243N	094.67 E	033	4.2 MB					0.40s	008
* 1	NEIS	1982	03	07	00	31	28.4	011.06 N	092.309E	033	5.1 MB					0.90s	090
* 2	BKK	1982	03	07	00	31	28.3	011.11 N	092.32 E	033	4.2 MB					0.26s	004
	BKK	1982	03	10	04	08	25.7	019.59 N	097.73 E	016				3.7 L		1.31s	003
	BKK	1982	03	12	20	30	49.1	020.46 N	096.51 E	012				3.9 L		1.11s	003
	BKK	1982	03	13	07	22	01.9	018.83 N	097.69 E	015				3.0 L		0.64s	003
	NEIS	1982	03	23	13	53	07.4	005.065N	093.077E	033							
	BKK	1982	03	24	08	16	49.6	023.08 N	095.60 E	010						1.60s	003
	BKK	1982	03	25	01	54	31.5	021.70 N	102.60 E	010				3.5 L		1.02s	003
	BKK	1982	03	25	12	26	31.4	020.21 N	097.22 E	012				3.4 L		1.13s	003
* 1	NEIS	1982	03	30	13	19	50.5	023.588N	095.532E	035	5.0 MB	4.6S				1.10s	117
* 2	BKK	1982	03	30	13	19	49.5	023.02 N	095.54 E	010				5.3 L		1.31s	005
	BKK	1982	04	03	00	17	01.6	015.16 N	096.46 E	010				4.1 L		0.98s	003
* 1	NEIS	1982	04	03	07	55	54.1	022.312N	094.388E	088	4.8 MB					0.60s	046
* 2	BKK	1982	04	03	07	55	55.5	022.36 N	094.55 E	197				4.4 L		1.42s	005
	NEIS	1982	04	05	02	43	58.8	007.51 N	094.035E	033	5.1 MB	4.9S				1.40s	093
* 1	NEIS	1982	04	05	05	29	45.1	007.402N	093.83 E	033	4.8 MB					0.90s	005
* 2	BKK	1982	04	05	05	29	46.2	007.44 N	093.95 E	033	3.9 MB					1.52s	009
	NEIS	1982	04	05	22	31	59.4	007.044N	094.165E	033	4.7 MB					1.50s	014
	NEIS	1982	04	06	05	44	53.1	024.25 N	094.413E	096	4.6 MB					1.20s	014
* 1	NEIS	1982	04	08	21	34	16.9	007.432N	093.954E	033	5.2 MB	4.9S				0.90s	121
* 2	BKK	1982	04	08	21	34	17.9	007.44 N	093.99 E	033	4.0 MB					1.36s	007
	BKK	1982	04	12	21	40	14.7	020.73 N	102.17 E	014				3.8 L		1.32s	003
	BKK	1982	04	14	17	33	29.1	006.36 N	095.63 E	283	3.8 MB					0.64s	010

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	BKK	1982	04	21	03	58	39.3	018.29 N	095.56 E	010				3.6 L		2.13s	003
	BKK	1982	05	14	12	26	32.1	015.53 N	098.17 E	007				3.3 L		0.46s	003
	NEIS	1982	05	22	08	52	58.8	007.564N	094.023E	033	5.5 MB	5.3S				1.10s	230
	NEIS	1982	05	22	09	02	27.1	024.096N	094.082E	077	4.6 MB					1.00s	048
	BKK	1982	06	01	06	12	09.1	021.77 N	101.93 E	010						1.27s	003
	BKK	1982	06	01	08	39	23.0	021.68 N	101.99 E	009				4.2 L		0.88s	003
	BKK	1982	06	04	14	01	14.7	022.02 N	101.89 E	017				4.2 L		1.58s	003
* 1	NEIS	1982	06	07	02	12	06.4	021.895N	102.068E	033	4.4 MB					1.40s	013
* 2	BKK	1982	06	07	02	12	02.7	021.29 N	102.34 E	009				4.0 L		0.81s	003
	BKK	1982	06	10	05	57	40.4	021.80 N	100.99 E	005				3.8 L		0.36s	003
* 1	NEIS	1982	06	12	02	05	49.4	021.838N	102.036E	033	4.0 MB					1.70s	009
* 2	BKK	1982	06	12	02	05	43.1	021.75 N	102.29 E	014				4.5 L		1.31s	003
	BKK	1982	06	20	13	20	40.0	018.92 N	099.18 E	005				4.3 L		0.72s	003
	NEIS	1982	06	21	00	04	41.2	005.166N	094.338E	059	4.6 MB					0.70s	029
	NEIS	1982	06	25	04	42	13.2	022.656N	093.599E	033	4.3 MB					1.60s	008
	NEIS	1982	07	02	04	52	28.6	005.203N	094.295E	066	4.2 MB					0.90s	009
* 1	NEIS	1982	07	04	18	34	27.7	019.531N	090.615E	033	5.2 MB	5.2S				1.10s	172
* 2	BKK	1982	07	04	18	34	40.0	019.07 N	091.91 E	113	4.2 MB			5.2 L		1.17s	019
	NEIS	1982	07	05	09	38	28.6	009.847N	093.83 E	143	4.5 MB					1.10s	023
	NEIS	1982	07	05	22	17	09.3	012.891N	095.569E	033	4.8 MB					1.00s	068
	NEIS	1982	07	10	19	22	15.1	011.717N	093.276E	087	4.5 MB					1.20s	027
	NEIS	1982	08	03	21	15	13.7	011.91 N	093.762E	149	4.2 MB					0.90s	025
	NEIS	1982	08	13	13	57	07.7	010.519N	093.707E	120	4.8 MB					1.10s	025
	NEIS	1982	08	26	11	35	32.2	011.715N	092.986E	033	4.8 MB					1.30s	018

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	NEIS	1982	09	04	19	51	19.1	022.993N	095.75 E	033	4.8 MB	4.4S				1.20s	079
* 2	BKK	1982	09	04	19	51	13.6	022.58 N	095.58 E	010				4.9 L		2.22s	005
	BKK	1982	09	11	05	21	02.5	019.43 N	096.39 E	008				3.9 L		0.67s	003
	BKK	1982	09	12	05	40	39.4	019.45 N	094.97 E	006				3.7 L		1.02s	003
	BKK	1982	09	13	03	03	21.7	017.66 N	095.82 E	010				3.3 L		3.89s	003
	NEIS	1982	09	26	11	26	37.0	012.102N	092.928E	033	4.8 MB					0.70s	045
* 1	NEIS	1982	09	27	11	11	03.2	011.67 N	092.644E	033	4.8 MB					1.50s	028
* 2	BKK	1982	09	27	11	11	06.2	011.66 N	093.29 E	010	4.9 MB					3.20s	005
* 1	NEIS	1982	10	07	01	52	28.7	023.419N	094.416E	092	4.7 MB						
* 2	BKK	1982	10	07	01	52	24.4	022.55 N	093.63 E	012				4.5 L		0.93s	003
	BKK	1982	10	12	02	57	30.9	019.37 N	096.18 E	008				3.0 L		0.99s	003
* 1	NEIS	1982	10	17	08	52	03.8	020.799N	102.33 E	033	4.7 MB						
* 2	BKK	1982	10	17	08	52	06.4	020.50 N	102.13 E	010				4.5 L		2.38s	004
	NEIS	1982	10	21	18	40	50.7	008.235N	094.088E	033	4.3 MB						
	BKK	1982	10	22	03	39	18.4	020.24 N	101.34 E	007				3.6 L		1.02s	003
	BKK	1982	10	26	01	05	35.6	019.82 N	096.93 E	007				3.8 L		0.92s	004
* 1	NEIS	1982	10	27	15	36	36.0	023.951N	106.049E	033	5.2 MB	5.1S					
* 2	BKK	1982	10	27	15	36	36.6	023.68 N	105.52 E	010				5.9 L		1.62s	006
	BKK	1982	10	30	19	21	58.3	017.65 N	095.56 E	010				4.0 L		1.52s	005
	NEIS	1982	11	01	00	20	47.1	012.43 N	095.205E	033	4.3 MB					1.20s	017
	NEIS	1982	11	09	01	36	34.7	007.042N	094.372E	033	5.1 MB	4.7S				1.30s	084
	BKK	1982	11	13	15	12	20.7	020.20 N	096.98 E	005				4.1 L		0.45s	005
	BKK	1982	11	14	09	05	34.6	021.17 N	097.07 E	010				4.3 L		0.56s	005
* 1	NEIS	1982	11	14	09	46	09.4	021.998N	094.526E	098	4.3 MB					0.90s	011
* 2	BKK	1982	11	14	09	46	24.7	021.99 N	096.92 E	007				3.9 L		0.97s	003
	BKK	1982	11	19	00	24	31.9	015.37 N	096.44 E	010				3.5 L		0.80s	006

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	BKK	1982	11	19	00	54	19.9	015.00 N	095.71 E	016				3.7 L		0.76s	005
	NEIS	1982	11	26	12	36	13.1	007.01 N	094.032E	047	4.5 MB					1.00s	030
	BKK	1982	11	26	23	27	15.9	020.74 N	097.41 E	019				3.5 L		1.33s	003
* 1	NEIS	1982	11	29	04	11	37.5	022.771N	094.559E	033	4.4 MB					1.20s	014
* 2	BKK	1982	11	29	04	11	51.7	021.87 N	095.60 E	015						0.38s	005
	BKK	1982	11	30	02	23	44.3	019.86 N	103.04 E	010				3.8 L		1.29s	006
	BKK	1982	12	01	01	34	44.6	020.58 N	103.82 E	015				4.7 L		1.72s	006
	NEIS	1982	12	09	01	36	35.4	007.236N	094.437E	033	5.2 MB	4.7S					
* 1	NEIS	1982	12	11	20	55	28.7	024.525N	094.569E	023	4.9 MB	5.3S				1.00s	070
* 2	BKK	1982	12	11	20	55	31.3	024.15 N	094.69 E	014						1.57s	007
	NEIS	1982	12	16	08	56	38.0	011.689N	092.993E	086	5.3 MB					1.10s	155
	NEIS	1982	12	26	12	36	13.4	007.01 N	094.069E	047							
	BKK	1982	12	26	15	16	41.8	014.16 N	095.41 E	010				3.7 L		1.13s	004
* 1	NEIS	1982	12	28	07	30	07.5	022.355N	100.86 E	026	5.2 MB					1.10s	088
* 2	BKK	1982	12	28	07	30	05.8	022.03 N	101.54 E	010						1.88s	007
	BKK	1982	12	30	08	01	07.4	016.04 N	096.53 E	010				3.3 L		1.09s	004
	BKK	1982	12	30	23	27	30.6	015.76 N	096.10 E	018				3.5 L		0.86s	004
	BKK	1982	12	30	23	57	20.1	016.12 N	096.23 E	010				3.5 L		0.99s	005
	BKK	1983	01	02	22	23	23.9	015.02 N	096.77 E	015				3.8 L		0.86s	003
	BKK	1983	01	03	01	11	05.7	014.95 N	096.72 E	017				4.1 L		1.09s	004
* 1	NEIS	1983	01	03	11	28	14.0	024.232N	094.432E	076	5.1 MB					1.00s	105
* 2	BKK	1983	01	03	11	28	14.8	024.21 N	094.58 E	145				4.2 L		1.51s	014
* 1	NEIS	1983	01	07	14	03	13.4	010.403N	093.185E	033	4.2 MB					1.00s	005
* 2	BKK	1983	01	07	14	02	51.9	010.11 N	092.39 E	010						0.40s	004
* 1	NEIS	1983	01	10	08	40	42.7	019.525N	102.28 E	033	4.0 MB					1.20s	014
* 2	BKK	1983	01	10	08	40	38.0	019.48 N	102.21 E	010				5.5 L		2.36s	007

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	NEIS	1983	01	13	23	00	11.6	022.857N	093.067E	151	4.7 MB					0.40s	006
* 2	BKK	1983	01	13	23	00	10.1	023.09 N	093.51 E	033				5.2 L		1.95s	004
	BKK	1983	01	14	05	28	02.9	022.21 N	101.16 E	010				3.9 L		1.50s	005
* 1	NEIS	1983	01	24	23	09	21.4	012.942N	093.582E	078	6.1 MB					1.30s	379
* 2	BKK	1983	01	24	23	09	11.1	013.19 N	093.15 E	006	6.6 MB					1.82s	023
* 1	NEIS	1983	01	29	17	52	13.3	023.748N	094.069E	081	4.5 MB					1.50s	009
* 2	BKK	1983	01	29	17	52	11.5	023.80 N	093.96 E	123	4.1 MB					1.28s	008
* 1	NEIS	1983	01	30	01	26	05.9	005.452N	094.944E	083	5.2 MB					1.10s	123
* 2	BKK	1983	01	30	01	25	59.1	005.26 N	094.67 E	033	5.5 MB					1.07s	017
* 1	NEIS	1983	01	31	03	26	04.1	024.567N	094.889E	074	4.8 MB					1.30s	019
* 2	BKK	1983	01	31	03	26	02.2	024.27 N	094.79 E	033	4.9 MB					3.03s	005
	BKK	1983	01	31	12	22	19.3	019.44 N	097.70 E	006				3.8 L		0.51s	006
	BKK	1983	02	03	00	55	34.7	021.00 N	095.18 E	033				3.7 L		0.68s	004
* 1	NEIS	1983	02	03	12	29	21.0	005.361N	094.284E	033	4.8 MB					1.00s	012
* 2	BKK	1983	02	03	12	29	14.6	004.84 N	094.24 E	033	5.7 MB					0.02s	010
	BKK	1983	02	05	17	54	56.5	022.11 N	099.78 E	033				3.9 L		1.00s	004
	BKK	1983	02	06	10	24	49.6	018.82 N	095.83 E	011				3.5 L		0.44s	003
	BKK	1983	02	07	14	14	07.8	017.91 N	096.73 E	022				3.0 L		1.43s	005
	NEIS	1983	02	08	14	46	56.2	005.564N	091.862E	033	3.9 MB					0.70s	009
* 1	NEIS	1983	02	12	22	58	23.0	023.707N	105.966E	021	4.4 MB					0.90s	021
* 2	BKK	1983	02	12	22	58	20.3	023.66 N	106.00 E	018	5.3 MB					1.51s	005
* 1	NEIS	1983	02	17	08	55	53.7	012.906N	093.483E	099	5.0 MB					1.20s	014
* 2	BKK	1983	02	17	08	55	54.5	012.94 N	093.72 E	150	4.8 MB					0.68s	010
	BKK	1983	02	18	17	42	31.9	014.90 N	098.52 E	004				3.4 L		0.81s	006
* 1	NEIS	1983	02	20	02	26	51.0	012.917N	092.916E	033	5.2 MB	4.6S				0.90s	116
* 2	BKK	1983	02	20	02	26	43.6	012.97 N	092.57 E	033	6.1 MB					1.22s	013
	BKK	1983	02	20	17	26	51.5	023.05 N	096.19 E	010				4.3 L		1 86s	005

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	NEIS	1983	03	01	09	34	47.6	023.774N	104.142E	033						0.50s	005
* 1	NEIS	1983	03	01	11	16	00.3	023.834N	104.178E	033						0.30s	006
* 2	BKK	1983	03	01	11	15	58.3	023.91 N	104.04 E	033						2.28s	003
* 1	NEIS	1983	03	03	00	38	03.9	007.581N	093.384E	033	3.5 MB					1.30s	006
* 2	BKK	1983	03	03	00	38	10.6	007.53 N	094.13 E	107	4.9 MB					1.28s	008
	NEIS	1983	03	05	16	41	40.3	022.877N	093.989E	033	4.4 MB					1.10s	016
* 1	NEIS	1983	03	12	21	05	16.1	008.668N	093.758E	037	4.8 MB	4.5S				1.00s	040
* 2	BKK	1983	03	12	21	05	12.4	008.68 N	093.66 E	033	5.1 MB					1.25s	011
	BKK	1983	03	22	20	51	12.8	020.00 N	097.21 E	015				3.8 L		1.16s	005
	BKK	1983	03	30	23	37	07.7	015.25 N	096.26 E	033				4.4 L		1.00s	006
	BKK	1983	03	31	12	23	34.9	015.22 N	096.08 E	008				3.9 L		1.39s	005
	BKK	1983	03	31	13	13	15.6	014.97 N	096.27 E	010				3.8 L		1.59s	005
* 1	NEIS	1983	04	01	01	41	52.6	015.142N	096.379E	033	4.0 MB					0.70s	010
* 2	BKK	1983	04	01	01	41	50.0	015.18 N	096.44 E	008				4.3 L		1.54s	008
* 1	NEIS	1983	04	01	04	24	08.2	021.912N	093.675E	092	4.3 MB					1.20s	009
* 2	BKK	1983	04	01	04	24	01.9	021.64 N	093.67 E	011				4.5 L		0.92s	007
	NEIS	**1983**	**04**	**04**	**02**	**51**	**34.3**	**005.723N**	**094.722E**	**079**	**6.6 MB**					**1.00s**	**426**
* 1	NEIS	1983	04	04	03	03	34.5	005.791N	094.746E	070	5.9 MB					1.00s	068
* 2	BKK	1983	04	04	03	03	32.5	005.61 N	094.65 E	120	5.3 MB					2.65s	012
	NEIS	1983	04	04	06	59	00.0	005.626N	094.681E	080	5.0 MB					1.00s	103
* 1	NEIS	1983	04	06	04	34	08.6	019.744N	094.382E	052	4.7 MB					1.30s	009
* 2	BKK	1983	04	06	04	33	57.0	019.77 N	093.62 E	023				4.7 L		1.27s	006
	NEIS	1983	04	08	06	21	24.9	005.656N	094.694E	080	4.7 MB					1.30s	027
	BKK	1983	04	09	12	47	54.6	021.74 N	099.21 E	013				4.5 L		1.11s	005
* 1	NEIS	1983	04	11	23	03	12.6	005.608N	094.631E	079	4.2 MB					0.90s	013
* 2	BKK	1983	04	11	23	03	08.1	005.58 N	094.53 E	089	4.0 MB					0.59s	007

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	NEIS	1983	04	13	21	07	20.6	022.833N	094.399E	109	4.7 MB					1.00s	049
* 2	BKK	1983	04	13	21	07	33.4	021.70 N	095.08 E	033				4.4 L		0.79s	005
* 1	NEIS	1983	04	15	09	23	58.8	014.908N	099.807E	010	5.3 MB					1.00s	112
* 2	BKK	1983	04	15	09	23	54.2	014.97 N	099.13 E	009				5.0 L		1.91s	015
* 1	NEIS	1983	04	15	11	34	04.7	014.854N	099.139E	010	3.9 MB					1.10s	007
* 2	BKK	1983	04	15	11	34	02.8	014.95 N	099.18 E	005				4.4 L		1.13s	006
	BKK	1983	04	15	12	06	44.7	014.94 N	099.24 E	010				3.1 L		1.30s	004
	BKK	1983	04	15	19	58	40.5	014.93 N	099.24 E	011				3.0 L		1.69s	004
	BKK	1983	04	17	00	41	23.0	014.92 N	099.22 E	010				3.0 L		2.18s	005
	NEIS	1983	04	17	03	30	01.3	006.37 N	095.019E	033	4.7 MB	4.6S				1.20s	012
	NEIS	1983	04	17	06	38	40.8	007.418N	095.206E	173	4.7 MB					0.50s	008
	BKK	1983	04	17	19	20	11.7	019.12 N	098.56 E	033				4.1 L		1.07s	005
	BKK	1983	04	17	21	55	13.1	019.27 N	096.54 E	033				3.6 L		1.06s	005
* 1	NEIS	1983	04	17	23	16	34.5	022.053N	094.34 E	100	5.1 MB					0.90s	156
* 2	BKK	1983	04	17	23	16	39.9	021.13 N	094.57 E	033				4.8 L		1.38s	006
* 1	NEIS	1983	04	22	00	37	37.0	014.926N	099.023E	010	5.9 MB	5.9S				1.00s	273
* 2	BKK	1983	04	22	00	37	34.8	014.95 N	099.20 E	010				5.5 L		1.32s	024
* 1	NEIS	1983	04	22	03	21	40.5	014.931N	099.076E	033	5.2 MB	4.5S				0.90s	151
* 2	BKK	1983	04	22	03	21	37.0	014.99 N	099.15 E	014				5.3 L		1.48s	017
	BKK	1983	04	22	04	33	23.4	015.03 N	099.15 E	010				3.5 L		1.45s	005
	BKK	1983	04	22	05	26	23.6	015.01 N	099.20 E	007				3.8 L		1.29s	005
	BKK	1983	04	22	06	02	18.6	015.10 N	099.16 E	010				4.2 L		1.64s	006
	BKK	1983	04	22	06	50	56.2	015.08 N	099.21 E	009				4.8 L		1.41s	006
	BKK	1983	04	22	09	28	44.7	014.98 N	099.16 E	008				3.2 L		1.27s	004
	BKK	1983	04	22	09	29	06.7	014.94 N	099.22 E	010				3.8 L		1.06s	004
	BKK	1983	04	22	10	17	24.3	015.00 N	099.18 E	010				3.1 L		1.25s	005

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	BKK	1983	04	22	10	40	48.0	014.90 N	099.20 E	008				3.8 L		1.63s	005
	BKK	1983	04	22	11	52	46.9	014.96 N	099.22 E	014				3.1 L		2.36s	006
	BKK	1983	04	22	12	18	06.0	014.95 N	099.18 E	009				4.0 L		1.70s	006
	BKK	1983	04	22	12	51	40.1	014.97 N	099.20 E	013				3.1 L		2.13s	006
	BKK	1983	04	22	12	54	54.7	014.93 N	099.15 E	008				3.8 L		1.48s	005
	BKK	1983	04	22	14	20	29.6	014.95 N	099.17 E	012				3.8 L		1.80s	005
	BKK	1983	04	22	14	39	46.8	014.94 N	099.20 E	010				3.8 L		1.47s	006
	BKK	1983	04	22	14	56	01.9	014.89 N	099.23 E	009				3.0 L		1.35s	005
	BKK	1983	04	22	15	45	47.0	014.87 N	099.21 E	007				3.0 L		1.13s	005
	BKK	1983	04	22	16	12	56.6	014.94 N	099.19 E	009				3.8 L		1.68s	005
	BKK	1983	04	22	17	03	38.6	014.96 N	099.16 E	009				4.0 L		1.79s	006
	BKK	1983	04	22	18	01	04.4	014.85 N	099.21 E	010				3.4 L		0.98s	006
	BKK	1983	04	23	02	25	14.1	014.94 N	099.21 E	010				3.6 L		1.49s	005
	BKK	1983	04	23	05	24	19.9	015.01 N	099.21 E	006				3.4 L		0.97s	005
* 1	NEIS	1983	04	23	09	31	24.9	014.961N	099.179E	033	4.4 MB	4.5S				1.10s	014
* 2	BKK	1983	04	23	09	31	17.7	014.97 N	099.22 E	010				4.8 L		1.95s	008
	BKK	1983	04	23	10	50	02.1	014.93 N	099.22 E	013				3.1 L		2.06s	006
	BKK	1983	04	23	13	44	33.4	014.91 N	099.07 E	008				3.3 L		1.22s	005
* 1	NEIS	1983	04	23	13	49	04.6	014.923N	099.037E	033	4.5 MB					1.00s	019
* 2	BKK	1983	04	23	13	48	59.3	015.00 N	099.17 E	007				4.7 L		1.28s	007
	BKK	1983	04	23	19	23	24.8	014.91 N	099.04 E	009				3.3 L		1.29s	005
	BKK	1983	04	23	22	47	19.1	014.92 N	099.09 E	012				3.1 L		1.23s	004
	BKK	1983	04	23	22	54	32.8	014.91 N	098.99 E	010				3.5 L		1.59s	005
	BKK	1983	04	23	23	07	33.5	014.90 N	099.06 E	009				3.5 L		1.50s	004
	BKK	1983	04	23	23	11	22.1	014.93 N	098.83 E	030				3.5 L		2.97s	004

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1983	04	24	01	40	34.9	014.89 N	099.12 E	014				3.1 L		1.46s	005
BKK	1983	04	24	04	19	14.0	014.98 N	099.06 E	008				3.8 L		0.95s	004
BKK	1983	04	24	06	04	34.2	014.94 N	099.05 E	010				3.0 L		1.42s	005
BKK	1983	04	24	07	14	05.3	014.90 N	099.02 E	009				3.0 L		1.25s	005
BKK	1983	04	24	15	43	19.6	014.94 N	099.00 E	009				3.8 L		1.53s	005
BKK	1983	04	24	16	28	24.1	014.97 N	099.01 E	010				3.6 L		1.63s	005
BKK	1983	04	24	17	07	25.2	014.94 N	099.03 E	013				3.1 L		1.75s	004
BKK	1983	04	24	22	10	00.5	014.91 N	099.07 E	011				3.0 L		1.42s	005
BKK	1983	04	25	19	14	55.1	014.92 N	099.05 E	011				3.0 L		1.53s	004
BKK	1983	04	25	19	39	40.7	014.93 N	099.03 E	009				3.3 L		1.27s	005
NEIS	1983	04	25	20	36	50.1	009.42 N	093.623E	129	4.6 MB					1.10s	030
BKK	1983	04	25	21	50	20.1	014.90 N	099.08 E	012				3.0 L		1.19s	004
BKK	1983	04	25	22	22	22.7	014.92 N	099.05 E	013				3.1 L		1.89s	005
BKK	1983	04	26	08	15	46.9	015.13 N	099.27 E	013				4.6 L		1.04s	003
BKK	1983	04	26	14	35	37.1	014.96 N	099.04 E	007				3.7 L		1.18s	005
BKK	1983	04	26	15	11	21.4	014.92 N	099.05 E	006				3.1 L		1.06s	005
BKK	1983	04	26	19	16	56.6	014.93 N	099.03 E	007				3.3 L		1.24s	005
BKK	1983	04	27	08	35	43.7	014.96 N	099.01 E	011				3.8 L		1.29s	005
BKK	1983	04	27	11	59	54.3	014.97 N	099.09 E	012				3.4 L		1.87s	005
* 1 NEIS	1983	04	27	17	16	09.2	014.962N	099.055E	033	4.6 MB					1.30s	027
* 2 BKK	1983	04	27	17	15	59.9	014.96 N	098.93 E	013				4.7 L		2.55s	009
BKK	1983	04	27	20	27	48.2	014.98 N	099.07 E	008				3.7 L		1.34s	005
BKK	1983	04	28	16	28	46.4	015.03 N	099.16 E	010				3.0 L		1.48s	005
BKK	1983	04	28	19	52	30.6	014.98 N	099.19 E	008				3.1 L		1.17s	005
BKK	1983	04	30	01	12	49.4	015.01 N	099.15 E	009				4.3 L		1.80s	006

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	--------MAGNITUDES-------- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	BKK	1983	04	30	05	46	44.1	014.99 N	099.13 E	012				3.5 L		1.78s	005
	BKK	1983	04	30	07	30	14.2	015.04 N	099.18 E	011				3.6 L		1.67s	005
	BKK	1983	04	30	08	25	03.7	015.05 N	099.17 E	010				3.6 L		1.53s	005
	BKK	1983	05	01	05	55	37.3	015.00 N	099.18 E	007				3.5 L		1.34s	006
	BKK	1983	05	01	06	07	05.1	015.01 N	099.17 E	009				4.2 L		1.77s	006
	BKK	1983	05	02	05	51	21.7	015.01 N	099.21 E	009				3.1 L		.1.23s	005
	BKK	1983	05	02	17	30	45.9	015.03 N	099.22 E	008				3.1 L		1.15s	005
	BKK	1983	05	03	06	10	[illegible]5.2	015.03 N	099.19 E	011				3.5 L		1.53s	004
	BKK	1983	05	03	17	40	02.1	014.99 N	099.18 E	008				3.6 L		1.60s	006
* 1	NEIS	1983	05	04	21	19	59.3	020.919N	096.904E	033	4.5 MB					1.30s	030
* 2	BKK	1983	05	04	21	19	53.4	020.89 N	097.32 E	013				5.0 L		1.69s	006
	BKK	1983	05	05	18	14	00.9	014.97 N	099.20 E	011				3.4 L		2.06s	006
	BKK	1983	05	06	19	14	23.3	014.97 N	099.21 E	010				3.5 L		1.70s	006
	BKK	1983	05	09	09	58	31.7	014.96 N	099.21 E	009				3.1 L		1.52s	005
	BKK	1983	05	10	08	05	31.5	014.94 N	099.22 E	007				3.1 L		1.26s	005
	NEIS	1983	05	13	12	27	21.8	005.09 N	095.55 E	104	4.3 MB					0.70s	007
	BKK	1983	05	13	21	54	43.7	014.93 N	099.26 E	006				3.4 L		1.13s	006
* 1	NEIS	1983	05	14	08	05	11.8	013.65 N	093.72 E	033	4.4 MB					1.80s	006
* 2	BKK	1983	05	14	08	05	15.3	013.95 N	093.86 E	051	5.3 MB					0.51s	006
* 1	NEIS	1983	05	14	11	25	14.3	006.10 N	094.983E	023	4.9 MB					1.10s	046
* 2	BKK	1983	05	14	11	25	10.8	006.08 N	095.05 E	033				4.9 L		0.84s	007
	NEIS	1983	05	14	12	16	41.4	006.046N	095.002E	033	4.2 MB					1.20s	009
	NEIS	1983	05	14	17	51	32.4	005.446N	094.56E	078	4.5 MB					0.70s	008
	NEIS	1983	05	15	23	06	49.5	006.192N	095.014E	033	4.0 MB					1.20s	006
	BKK	1983	05	16	08	05	49.9	014.93 N	099.09 E	013				3.4 L		2.04s	005

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	NEIS	1983	05	18	02	20	01.1	006.09 N	095.055E	033	3.9 MB					1.20s	011
	BKK	1983	05	18	08	31	15.6	014.96 N	099.20 E	009				3.4 L		1.58s	006
	BKK	1983	05	19	18	57	27.0	009.586N	093.566E	123	4.3 MB					1.00s	020
	BKK	1983	05	20	11	40	29.5	014.97 N	099.22 E	012				3.5 L		1.63s	006
	BKK	1983	05	21	15	25	25.4	014.97 N	099.22 E	010				3.2 L		1.56s	006
* 1	NEIS	1983	05	21	17	09	51.9	024.973N	100.685E	055	4.8 MB					1.10s	009
* 2	BKK	1983	05	21	17	09	52.3	024.45 N	100.97 E	023	4.7 MB			4.8 L		1.91s	005
	NEIS	1983	05	21	17	24	26.7	025.007N	100.547E	060	4.4 MB					1.50s	012
* 1	NEIS	1983	05	23	14	30	53.1	023.511N	100.719E	033						1.30s	016
* 2	BKK	1983	05	23	14	30	48.9	023.47 N	100.72 E	010				4.8 L		1.03s	008
* 1	NEIS	1983	05	26	12	07	14.1	022.503N	101.136E	033	4.7 MB					1.40s	031
* 2	BKK	1983	05	26	12	07	06.4	022.13 N	101.77 E	008				5.0 L		1.19s	008
* 1	NEIS	1983	05	28	03	28	07.9	022.493N	101.01 E	010	4.9 MB					1.20s	028
* 2	BKK	1983	05	28	03	28	05.6	022.37 N	101.23 E	005				5.0 L		1.22s	009
	BKK	1983	05	28	18	52	49.6	015.01 N	099.21 E	008				3.4 L		1.55s	006
	BKK	1983	05	29	07	25	13.9	014.98 N	099.22 E	011				3.0 L		1.57s	006
* 1	NEIS	1983	05	29	13	44	04.2	017.81 N	096.54 E	023	4.8 MB	4.5S				1.10s	046
* 2	BKK	1983	05	29	13	44	01.7	017.83 N	096.66 E	004	5.4 MB					0.95s	008
	BKK	1983	06	05	01	58	46.6	014.98 N	099.18 E	009				3.2 L		1.57s	006
	BKK	1983	06	05	08	35	13.2	014.99 N	099.20 E	010				3.4 L		1.41s	006
	BKK	1983	06	05	16	06	14.2	020.65 N	102.12 E	010				4.4 L		1.20s	006
	BKK	1983	06	05	22	47	08.5	014.97 N	099.18 E	010				3.2 L		1.78s	006
	BKK	1983	06	09	18	17	56.6	014.98 N	099.17 E	006				4.4 L		1.18s	006
	BKK	1983	06	10	03	19	56.3	019.08 N	099.64 E	010				3.1 L		0.54s	004
	BKK	1983	06	10	09	45	46.3	014.99 N	099.24 E	014				3.2 L		1.52s	005
	BKK	1983	06	14	00	35	27.0	017.95 N	099.79 E	015				3.1 L		1.53s	006

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	BKK	1983	06	14	16	05	12.7	017.03 N	094.92 E	005				4.3 L		0.37s	006
	BKK	1983	06	14	22	16	28.4	014.96 N	099.18 E	006				4.4 L		1.33s	006
	BKK	1983	06	15	06	55	27.8	018.52 N	097.48 E	010				3.1 L		1.30s	005
	BKK	1983	06	15	20	10	07.7	020.51 N	101.57 E	010				3.7 L		0.90s	003
	BKK	1983	06	17	19	25	15.7	014.97 N	099.15 E	006				4.4 L		1.34s	006
	BKK	1983	06	19	06	48	50.7	017.98 N	099.86 E	006				3.8 L		0.83s	006
	BKK	1983	06	19	13	12	19.7	014.98 N	099.19 E	007				3.6 L		1.42s	006
	BKK	1983	06	19	21	46	37.2	014.99 N	099.16 E	008				3.2 L		1.45s	006
	BKK	1983	06	19	23	28	22.1	019.06 N	097.92 E	010				3.0 L		0.50s	003
	NEIS	1983	06	21	02	00	39.4	006.822N	091.305E	033	4.9 MB					1.30s	011
*** 1**	**NEIS**	**1983**	**06**	**24**	**07**	**18**	**22.1**	**021.721N**	**103.282E**	**018**	**6.1 MB**	**6.6S**				**1.20s**	**308**
* 2	BKK	1983	06	24	07	18	19.9	021.66 N	103.12 E	033				5.7 L		1.89s	015
* 1	NEIS	1983	06	24	08	43	42.7	021.766N	103.766E	033	4.6 MB					1.30s	040
* 2	BKK	1983	06	24	08	43	33.5	021.77 N	103.21 E	019				5.2 L		1.60s	007
* 1	NEIS	1983	06	24	09	07	14.3	021.40 N	102.604E	033	4.6 MB					1.50s	013
* 2	BKK	1983	06	24	09	07	16.6	020.85 N	102.71 E	033				5.3 L		1.48s	007
* 1	NEIS	1983	06	24	14	25	16.0	021.713N	103.346E	033	4.5 MB					1.50s	019
* 2	BKK	1983	06	24	14	25	08.2	021.61 N	103.16 E	023	4.8 MB					2.45s	006
* 1	NEIS	1983	06	24	15	45	05.5	021.603N	103.609E	033	4.1 MB					1.30s	021
* 2	BKK	1983	06	24	15	44	58.2	021.49 N	103.55 E	018				5.0 L		1.96s	006
* 1	NEIS	1983	06	25	03	52	02.5	021.711N	103.27 E	033						0.90s	005
* 2	BKK	1983	06	25	03	51	59.8	021.59 N	103.59 E	010				4.7 L		1.29s	006
* 1	NEIS	1983	06	25	13	16	24.4	021.613N	103.609E	033						0.90s	005
* 2	BKK	1983	06	25	13	16	10.5	021.63 N	103.74 E	003				4.3 L		0.14s	004
* 1	NEIS	1983	06	25	17	40	34.2	021.69 N	103.481E	033	4.2 MB					1.40s	007
* 2	BKK	1983	06	25	17	40	22.8	021.67 N	103.42 E	036				4.6 L		2.66s	006

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	NEIS	1983	06	26	02	31	18.7	023.036N	093.848E	076	4.7 MB					0.90s	019
* 2	BKK	1983	06	26	02	31	20.3	022.89 N	093.90 E	131				4.7 L		0.37s	005
	BKK	1983	06	27	15	44	28.4	021.42 N	103.09 E	010				4.7 L		1.42s	005
	BKK	1983	07	01	16	45	01.1	021.47 N	103.07 E	033				4.0 L		0.45s	005
* 1	NEIS	1983	07	02	09	34	04.9	005.747N	094.715E	093	5.7 MB					1.00s	298
* 2	BKK	1983	07	02	09	34	04.8	005.53 N	094.67 E	162	5.5 MB			5.5 L		0.95s	018
	BKK	1983	07	06	04	58	17.5	014.96 N	099.19 E	008				4.2 L		1.61s	005
	BKK	1983	07	07	11	34	47.9	014.92 N	099.20 E	008				3.1 L		1.06s	005
* 1	NEIS	1983	07	07	19	04	45.8	006.114N	094.654E	110	4.1 MB					1.10s	013
* 2	BKK	1983	07	07	19	04	37.5	006.16 N	094.41 E	033						0.91s	008
	NEIS	1983	07	09	06	07	57.4	012.234N	093.401E	102	4.5 MB					1.10s	031
	BKK	1983	07	10	04	19	24.8	014.95 N	099.19 E	016				3.2 L		1.63s	005
	BKK	1983	07	11	10	32	00.4	021.42 N	103.46 E	033				4.5 L		0.63s	003
	BKK	1983	07	14	21	55	07.7	014.98 N	099.22 E	012				4.3 L		2.24s	005
	BKK	1983	07	15	00	42	26.0	014.90 N	099.20 E	009				4.0 L		1.40s	004
	NEIS	1983	07	15	04	48	52.6	021.771N	103.435E	010	5.1 MB	5.0S				1.30s	095
	BKK	1983	07	15	03	31	02.2	014.93 N	099.19 E	015				3.3 L		1.86s	004
	BKK	1983	07	17	16	45	21.9	014.95 N	099.19 E	012				4.5 L		1.73s	005
* 1	NEIS	1983	07	17	17	48	10.3	015.205N	099.021E	046	4.7 MB					0.70s	031
* 2	BKK	1983	07	17	17	48	01.4	014.86 N	099.22 E	012				4.8 L		2.10s	006
	BKK	1983	07	17	19	44	19.6	014.95 N	099.20 E	007				3.6 L		1.26s	005
	BKK	1983	07	20	06	42	51.0	018.68 N	101.59 E	025				4.0 L		1.74s	005
	BKK	1983	07	22	16	21	03.2	021.03 N	102.95 E	006				4.3 L		0.49s	005
	BKK	1983	07	31	05	41	01.0	014.96 N	099.20 E	010				3.2 L		1.42s	005
	NEIS	1983	07	31	16	32	34.0	005.637N	094.786E	099	4.4 MB					1.40s	021

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
	BKK	1983	08	02	15	44	49.5	014.89 N	099.15 E	008				3.2 L		1.44s	006
	BKK	1983	08	03	04	01	09.6	021.52 N	098.64 E	033				4.7 L		1.58s	005
	BKK	1983	08	05	15	46	35.1	021.44 N	098.58 E	010				3.9 L		0.99s	005
	BKK	1983	08	06	21	16	22.3	020.36 N	100.66 E	009				4.3 L		0.96s	005
	BKK	1983	08	07	10	10	43.9	021.83 N	098.95 E	025				4.2 L		2.30s	004
	BKK	1983	08	10	06	00	19.8	021.25 N	097.30 E	288				3.7 L		1.34s	003
	BKK	1983	08	10	13	56	21.2	014.91 N	099.20 E	010				3.1 L		1.66s	006
	BKK	1983	08	13	10	42	30.4	020.79 N	099.26 E	008				4.2 L		0.80s	006
	BKK	1983	08	18	07	04	23.0	015.10 N	096.90 E	006				3.8 L		0.64s	005
	NEIS	1983	08	18	19	23	16.6	006.378N	093.896E	072	4.8 MB					1.10s	040
* 1	NEIS	1983	08	21	08	31	14.9	022.655N	094.311E	115	4.8 MB					1.40s	021
* 2	BKK	1983	08	21	08	31	15.1	022.64 N	094.31 E	176						1.16s	007
* 1	NEIS	1983	08	23	12	12	17.0	024.554N	095.128E	125	5.1 MB					1.00s	160
* 2	BKK	1983	08	23	12	12	07.5	025.03 N	094.49 E	154	4.6 MB			5.4 L		0.71s	011
	BKK	1983	08	24	19	55	57.4	015.01 N	096.82 E	033				3.2 L		2.15s	004
	BKK	1983	08	24	19	56	45.0	015.26 N	096.86 E	012				3.9 L		0.63s	005
	BKK	1983	08	26	15	49	46.6	014.95 N	099.22 E	010				3.0 L		2.24s	006
	BKK	1983	08	29	15	58	59.9	014.94 N	099.27 E	012				3.2 L		2.31s	006
* 1	NEIS	1983	08	29	22	09	57.2	014.919N	099.15 E	033	4.2 MB					1.40s	012
* 2	BKK	1983	08	29	22	09	52.6	014.92 N	099.25 E	011				4.6 L		2.42s	007
* 1	NEIS	1983	08	30	10	39	27.3	025.052N	094.711E	063	5.6 MB					1.00s	265
* 2	BKK	1983	08	30	10	39	14.8	025.45 N	094.05 E	033	5.6 MB					1.05s	023
* 1	NEIS	1983	09	01	09	50	20.6	023.342N	103.906E	033	4.4 MB					0.90s	014
* 2	BKK	1983	09	01	09	50	20.0	023.59 N	103.84 E	010	5.4 MB			5.0 L		3.89s	007
	BKK	1983	09	02	12	57	21.3	018.08 N	099.95 E	005				3.0 L		0.66s	005

	SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
* 1	NEIS	1983	09	04	16	39	40.1	021.774N	103.26 E	033						0.80s	006
* 2	BKK	1983	09	04	16	39	33.2	021.72 N	103.25 E	011				4.1 L		2.10s	007
	NEIS	1983	09	07	22	24	24.8	023.73 N	094.071E	093	3.9 MB					1.20s	011
	NEIS	1983	09	15	03	38	40.3	005.962N	094.549E	079	4.9 MB					1.00s	068
	NEIS	1983	09	17	04	40	36.4	007.906N	093.157E	054	5.3 MB					0.90s	129
* 1	NEIS	1983	09	18	17	27	41.1	023.086N	094.831E	058	4.9 MB					1.20s	013
* 2	BKK	1983	09	18	17	27	44.9	023.71 N	097.37 E	033				4.8 L		1.84s	005
	BKK	1983	09	19	01	28	51.0	020.82 N	096.87 E	007				3.8 L		0.69s	004
* 1	NEIS	1983	09	22	05	27	46.1	005.484N	094.604E	082	4.5 MB					1.20s	025
* 2	BKK	1983	09	22	05	27	41.1	005.62 N	094.57 E	046	4.2 MB					1.30s	009
	NEIS	1983	09	22	23	51	55.8	020.503N	092.995E	033	5.1 MB					0.50s	007
	NEIS	1983	09	25	00	11	30.9	005.026N	096.403E	181	4.4 MB					0.20s	006
	NEIS	1983	09	30	04	28	10.1	013.918N	094.141E	033	4.4 MB					0.40s	008
	NEIS	1983	10	09	04	51	19.2	005.70 N	094.599E	033	5.0 MB					1.10s	075
	BKK	1983	10	12	03	54	55.2	021.57 N	102.96 E	033				4.2 L		1.44s	005
	NEIS	1983	10	13	00	38	45.6	010.498N	093.831E	033	4.7 MB					1.00s	035
	NEIS	1983	10	14	06	42	02.1	014.99 N	099.10 E	010						2.50s	005
* 1	NEIS	1983	10	19	09	34	44.7	022.296N	099.91 E	037	4.9 MB					1.30s	020
* 2	BKK	1983	10	19	09	34	39.3	022.41 N	099.68 E	033				5.0 L		0.98s	006
* 1	NEIS	1983	10	21	08	44	46.6	022.042N	094.375E	090	5.3 MB					0.90s	210
* 2	BKK	1983	10	21	08	44	47.8	021.88 N	094.84 E	033	5.0 MB			5.6 L		1.44s	007
	NEIS	1983	10	21	23	32	23.6	024.906N	094.459E	061	4.8 MB					1.10s	068
	BKK	1983	10	23	23	10	16.1	015.01 N	099.20 E	011				3.1 L		1.67s	006
	BKK	1983	10	24	02	38	08.8	014.96 N	099.22 E	010				3.2 L		1.68s	006
	BKK	1983	10	25	08	03	57.9	014.96 N	099.23 E	009				3.0 L		1.33s	006
	NEIS	1983	10	26	12	09	00.7	013.426N	093.798E	070	4.8 MB					1.20s	051

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT		LONG		DEPTH (KM)	---------MAGNITUDES--------- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1983	11	02	01	50	24.7	017.87	N	096.95	E	033				3.5 L		0.69s	004
BKK	1983	11	03	09	29	56.1	014.18	N	096.50	E	033				4.4 L		1.96s	006
BKK	1983	11	04	21	39	38.7	017.23	N	095.97	E	015				3.5 L		1.14s	005
BKK	1983	11	07	06	24	14.7	015.03	N	099.20	E	015				3.1 L		1.65s	006
BKK	1983	11	12	13	19	16.8	016.83	N	097.81	E	033				3.8 L		1.36s	005
BKK	1983	11	15	19	07	36.2	015.35	N	096.56	E	007				3.9 L		1.08s	006
BKK	1983	11	21	03	13	32.3	019.69	N	099.30	E	012				3.6 L		0.28s	005
BKK	1983	11	21	04	35	05.4	019.69	N	099.37	E	033				3.4 L		0.75s	005
BKK	1983	12	02	09	19	30.8	014.52	N	096.54	E	019				3.6 L		0.96s	006
BKK	1983	12	02	20	19	56.3	014.72	N	096.53	E	024				4.0 L		1.00s	005
BKK	1983	12	02	20	27	11.4	014.71	N	094.47	E	033				3.6 L		0.80s	005
BKK	1983	12	04	14	51	46.2	021.11	N	101.16	E	014				3.9 L		0.88s	005
BKK	1983	12	08	01	40	06.0	019.76	N	098.14	E	006				4.3 L		1.02s	004
BKK	1983	12	08	01	57	55.7	019.51	N	097.37	E	033				3.2 L		1.47s	004
BKK	1983	12	15	05	55	28.0	013.01	N	103.77	E	014				4.6 L		1.39s	005
BKK	1983	12	16	22	32	21.5	011.46	N	095.29	E	033				4.1 L		1.99s	005
BKK	1983	12	16	22	35	53.2	012.08	N	094.98	E	033				4.3 L		1.58s	004
BKK	1983	12	16	23	11	45.7	012.17	N	094.86	E	033				4.1 L		1.25s	004
BKK	1983	12	16	23	29	43.6	012.57	N	094.77	E	033				4.7 L		1.18s	004
BKK	1983	12	17	00	07	24.2	012.33	N	094.83	E	033				4.1 L		0.35s	003
BKK	1983	12	17	00	37	38.8	012.56	N	094.90	E	033				4.7 L		0.55s	003
BKK	1983	12	17	00	44	43.3	012.45	N	094.87	E	033				4.6 L		1.14s	004
BKK	1983	12	17	01	11	02.3	012.72	N	094.47	E	033				4.8 L		1.21s	004
BKK	1983	12	17	07	11	01.4	012.46	N	094.69	E	033				4.2 L		1.03s	004

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	---------MAGNITUDES--------- BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1983	12	17	08	29	16.7	012.57 N	094.95 E	033				4.3 L		1.78s	005
BKK	1983	12	17	08	58	46.0	012.20 N	094.90 E	033				4.4 L		0.84s	004
BKK	1983	12	17	09	17	36.0	012.39 N	094.82 E	033				4.8 L		1.14s	004
BKK	1983	12	17	10	25	29.0	012.61 N	094.78 E	033				4.6 L		1.60s	004
BKK	1983	12	17	10	56	32.8	012.59 N	094.74 E	033				4.9 L		0.60s	004
BKK	1983	12	17	12	20	53.5	012.23 N	095.04 E	033				4.0 L		2.07s	004
BKK	1983	12	17	12	43	25.2	012.39 N	094.81 E	033				4.2 L		1.95s	004
BKK	1983	12	17	13	41	15.5	012.56 N	094.86 E	033				4.2 L		2.76s	005
BKK	1983	12	17	14	59	54.0	012.25 N	094.88 E	033				4.4 L		1.22s	004
BKK	1983	12	17	16	22	55.7	012.50 N	094.83 E	033				4.1 L		1.33s	004
BKK	1983	12	17	16	25	48.3	012.25 N	094.71 E	033				4.9 L		0.89s	004
BKK	1983	12	17	16	37	06.4	012.15 N	095.17 E	033				4.6 L		1.27s	004
BKK	1983	12	17	23	31	18.7	012.49 N	094.73 E	033				4.5 L		1.45s	004
BKK	1983	12	18	01	10	42.4	012.23 N	094.87 E	033				4.3 L		1.37s	005
BKK	1983	12	18	04	28	50.8	012.33 N	094.76 E	033				4.6 L		1.05s	005
BKK	1983	12	18	06	39	47.5	012.13 N	094.81 E	033				4.6 L		1.06s	005
BKK	1983	12	18	17	36	54.1	012.23 N	094.88 E	033				4.8 L		1.70s	004
BKK	1983	12	18	21	11	35.8	012.18 N	094.87 E	033				4.3 L		1.07s	004
BKK	1983	12	19	02	14	44.6	012.15 N	094.85 E	033				4.2 L		0.21s	004
BKK	1983	12	19	02	44	05.4	012.22 N	094.84 E	010				3.9 L		0.35s	005
BKK	1983	12	19	10	31	03.3	012.14 N	094.71 E	033				4.2 L		1.61s	004
BKK	1983	12	19	11	54	13.9	012.23 N	094.79 E	033				4.1 L		0.88s	004
BKK	1983	12	19	12	20	32.3	012.33 N	094.69 E	033				4.3 L		1.26s	004
BKK	1983	12	19	19	41	05.1	011.92 N	094.99 E	033				4.1 L		2.16s	005

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1983	12	19	21	02	11.5	012.28 N	094.67 E	060				4.4 L		0.37s	005
BKK	1983	12	19	21	07	43.4	012.19 N	094.81 E	033				4.1 L		1.67s	004
BKK	1983	12	20	01	01	15.1	012.23 N	094.91 E	033				4.4 L		1.98s	004
BKK	1983	12	20	02	53	13.8	011.82 N	095.26 E	033				4.4 L		1.59s	004
BKK	1983	12	20	15	44	04.0	012.11 N	095.06 E	033				4.1 L		1.82s	005
BKK	1983	12	20	21	01	28.3	012.26 N	094.82 E	033				4.8 L		1.28s	006
BKK	1983	12	21	07	44	58.1	012.13 N	095.00 E	033				4.5 L		0.83s	006
BKK	1983	12	21	10	41	28.7	013.03 N	093.35 E	033				4.5 L		2.61s	006
BKK	1983	12	22	08	45	10.0	012.80 N	094.46 E	033				4.1 L		2.04s	005
BKK	1983	12	22	11	32	51.3	012.29 N	094.87 E	033				4.4 L		0.97s	006
BKK	1983	12	22	12	00	16.2	012.23 N	094.60 E	033				3.6 L		1.66s	005
BKK	1983	12	22	12	28	04.1	012.22 N	094.74 E	033				3.7 L		1.39s	005
BKK	1983	12	23	00	52	38.6	011.90 N	094.00 E	033				4.2 L		1.34s	005
BKK	1983	12	23	00	58	10.9	011.53 N	094.21 E	033				4.4 L		2.85s	006
BKK	1983	12	23	03	54	56.9	012.32 N	094.88 E	033				4.5 L		1.08s	006
BKK	1983	12	23	04	23	12.5	012.28 N	094.91 E	033				4.4 L		1.21s	006
BKK	1983	12	23	17	45	53.6	012.36 N	094.96 E	033				4.2 L		1.14s	006
BKK	1983	12	23	19	06	36.0	011.91 N	093.59 E	033				4.8 L		2.07s	006
BKK	1983	12	23	19	25	00.7	011.59 N	093.68 E	033				4.8 L		1.25s	005
BKK	1983	12	23	19	30	03.0	012.44 N	095.04 E	033				3.4 L		0.97s	005
BKK	1983	12	24	01	06	57.8	012.58 N	095.42 E	033				3.1 L		0.73s	006
BKK	1983	12	25	06	55	29.4	011.37 N	093.17 E	033				4.6 L		0.99s	005
BKK	1983	12	25	07	07	11.3	011.73 N	093.95 E	033				4.4 L		1.66s	005
BKK	1983	12	25	08	03	26.9	012.12 N	093.80 E	033				4.3 L		1.63s	005

SOURCE	YEAR	MO	DA	HR	MN	SEC	LAT	LONG	DEPTH (KM)	MAGNITUDES BODY	SURF	OTHER	LOCAL	INT MAX	S.D.	OBS.
BKK	1983	12	25	09	27	40.8	013.00 N	093.52 E	033				4.4 L		1.44s	006
BKK	1983	12	25	14	34	04.9	012.65 N	095.38 E	033				4.6 L		1.27s	006
BKK	1983	12	25	15	31	19.7	012.57 N	095.55 E	033				3.7 L		2.04s	005
BKK	1983	12	26	03	29	18.8	012.68 N	094.51 E	033				4.1 L		1.16s	005
BKK	1983	12	26	19	20	32.5	012.06 N	093.95 E	033				4.2 L		0.74s	005
BKK	1983	12	26	19	58	38.9	012.32 N	094.20 E	033				4.3 L		0.71s	005
BKK	1983	12	26	21	11	11.7	011.98 N	093.91 E	033				4.5 L		0.72s	005
BKK	1983	12	26	22	23	41.7	012.22 N	094.16 E	033				4.3 L		1.13s	005
BKK	1983	12	27	00	50	03.0	010.74 N	091.98 E	033				5.1 L		0.82s	005
BKK	1983	12	28	03	34	43.7	012.27 N	095.33 E	033				3.9 L		1.94s	005
BKK	1983	12	28	23	17	46.7	012.53 N	095.15 E	033				3.8 L		2.13s	005
BKK	1983	12	30	05	23	30.6	012.99 N	095.81 E	033				3.4 L		1.51s	005
BKK	1983	12	30	08	00	26.2	009.43 N	095.31 E	033	5.6 MB					0.36s	006

Appendix D Earthquake focal mechanism solutions

Date	Month	Year	Hour	Minute	Second	Lat. (N)	Long. (E)	Depth (km)	Magnitude	Pole of 1st nodal plane trend/plunge	Pole of 2nd nodal plane trend/plunge	Pole of Com-pression, P trend/plunge	Pole of tension, T trend/plunge	Pole of null axis, B trend/plunge	Type of fault*	Source (see reference)
22	03	54	23	42	12	24.4	95.2	180	7.5	140/60	034/61	068/58	187/17	285/26	T	44
01	07	57	19	30	23	24.4	93.8	41	6.0	072/69	178/65	128/76	032/02	301/14	T,S	44
04	02	61	08	51	49	24.9	95.3		5.5	036/39	216/51	040/84	216/06	306/00	T,D	44
04	02	61	08	51	50	24.9	93.3	141	7.6	005/31	123/40	059/54	157/04	250/35	N	48
12	06	61	09	58	17	21.6	106.0	28		198/30	018/60	198/75	018/15	107/00	N	48
14	06	61	00	41	10	24.5	94.7	91	5.3	120/60	360/51	052/81	154/05	246/19	T	44
24	06	62	01	21	21	25.6	100.9	50		273/21	046/62	302/61	078/23	177/13	N,S	48
23	04	63	09	55	03	25.7	99.6	93		086/88	266/02	086/43	266/47	356/00	T	48
19	06	63	10	47	24	25.0	92.1	44		183/80	003/10	183/35	003/55	273/00		38
21	06	63	15	26	31	25.1	92.1	56	5.6	091/50	271/40	271/85	091/05	181/00	T,D	44
22	01	64	15	58	46.5	22.4	93.6	88	6.1	056/04	150/45	204/26	094/33	322/45	T	48
27	02	64	15	10	48.8	21.7	94.4	102	6.4	056/04	153/54	208/30	090/40	322/36	T	48
03	06	64	02	49	17.2	25.9	95.7	121	5.4	270/28	090/62	270/73	090/17	180/00	N	48
03	06	64	02	49	14.9	25.9	95.8	100	5.5	293/84	113/06	293/39	113/51	203/00	T	48
12	07	64	20	15	59	24.9	95.3	155	6.7	048.76	166/45	211/24	340/55	110/24	T,S	7 & 44
13	07	64	10	58	47.7	23.7	94.7	117	6.5	279/59	088/31	272/14	071/75	181.05		7
18	02	65	04	26	34.7	25.0	94.2	45	5.4	089/40	308/40	022/67	288/01	288/22	N	47 & 48
18	02	65	04	26	35	25.0	94.2	36	5.4	090/70	352/07	154/38	012/46	349/20	N,S	44
25	02	65	10	34	06.9	23.6	94.6	94	5.2	098/06	192/34	243/18	139/24	360/55		11
01	06	65	04	32	42.8	20.3	95.0	53	5.5	190/24	010/66	190/69	010/21	010/00	N	48
18	06	65	08	17	38	24.9	93.7	48	5.2	229/04	144/23	190/20	095/05	058/67		11
05	12	65	22	01	38.7	23.3	94.5	97	5.0	256/10	350/04	213/05	300/12	012/79		11
15	12	65	04	43	47.4	22.0	94.5	109	5.2	209/06	038/84	208/50	028/40	029/89		47
02	10	66	04	31	49	24.4	94.8	75	4.9	097/54	204/69			073/74	T,S	44
22	10	66	03	03	24.4	23.0	94.3	72	5.1	238/08	134/60	208/45	082/31		N,S	48
19	11	66	07	42	27.8	18.4	95.3	53	5.3	176.18	058/56	138/52	019/22		N	48
15	12	66	02	08	48.0	21.5	94.4	98	5.6	252/70	072/20	255/25	064/65		T	48
15	12	66	02	08	03.1	21.5	94.4	84	5.4	089/24	237/60	258/18	116/66			11
05	02	67	05	57	26.1	20.3	94.1	19	5.5	179/12	083/30	134/29	038/11			38
12	06	68	04	29	22	24.9	91.9	44	5.3	300/65	054/40				T	44
25	07	69				21.6	111.9			070/30	160/60	119/21	021/21	250/60	S,T	43
17	10	69	01	25	12.4	23.1	94.7	134	6.0			354/31	197/57	091/10		7

Appendix D Earthquake focal mechanism solutions

Date	Month	Year	Hour	Minute	Second	Lat. (N)	Long. (E)	Depth (km)	Magnitude	Pole of 1st nodal plane trend/plunge	Pole of 2nd nodal plane trend/plunge	Pole of Compression, P trend/plunge	Pole of tension, T trend/plunge	Pole of Null axis, B trend/plunge	*Type of fault	Source (see reference)
04	01	70	17	00	40.2	24.1	102.5	15	5.9	034/06	303/10	348/12	259/02			32
04	01	70	17	00	37	24.1	102.5	20	7.5	031/05	121/00	346/04	076/04	211/85	S	43
04	01	70	17	00	39.4	24.1	102.5	15	5.8	259/41	095/49	200/80	085/03		N	48
05	02	70	03	39	59	24.4	102.3	04	5.2	317/26	120/62	333/69	130/19		N	48
06	02	70	22	10	42.4	23.0	100.8	30	5.4	146/66	326/24	146/21	326/69		T	48
05	02	71	09	10	39	25.3	99.4	58	5.0	280/42	075/46	350/77	088/03		S,N	48
28	04	71	15	32	01	23.0	101.0	11	5.6	231/50	051/40	231/05	051/85		T	48
30	05	71	15	44	15.7	25.2	96.4	15	5.8			261/11	352/03	097/78		7
31	05	71	05	13	58	25.2	96.5	22	5.2	247/14	122/16	222/54	082/29		S	48
10	10	71	18	25	17	23.0	95.9	48	4.9	050/70	164/46	098/50	202/13		S,T	42
10	10	71	18	25	16.8	23.0	95.9	46	4.9	118/54	274/33	104/10	233/74		T	48
14	10	71	12	55	22	23.1	95.9	47	5.1	254/65	352/82	313/27	212/10		S,T	42
29	12	71	22	27	02	25.1	94.7	33	5.5			214/26	337/48	107/30		7
29	12	71	22	27	24	25.2	94.7	46	5.0	118/56	240/56	090/88	180/55		N	42
29	12	71	22	27	10	25.2	94.7	46	5.0	118/60	238/56				N,T	44
01	06	73	21	02	58	24.8	98.5		5.0	278/50	017/80	051/19	156/34	299/48		16
02	06	73	00	39	49	24.9	98.6		5.1	286/86	195/82	60.5/08	329/02	228/82		16
16	08	73	11	58	01	23.1	100.9	10	6.3	238/50	098/48	355/69	257.5/02	167/21		16
20	10	73	23	34	58	25.9	100.6	20	4.2	027/40	132/78	160/23	275/44	051/37		16
04	03	74	02	33	07	25.4	102.7		4.0	345/50	088/75	126/10	228/32	021/55		16
14	03	74	07	13	13	24.8	101.2	10	4.0	331/85	237/45	115/35	005/26	246/45		16
12	01	75	05	22	24	24.8	101.5	34	5.5	191/79	283/80	328/.5	057/15	233/75		16
16	03	75	17	15	17	25.4	101.9		4.1	038/86	128/85	352.5/01	262/06	090/84		16
18	03	75	15	01	22	25.5	99.5		4.8	216/75	124/85	349/14	081/28	190/75		16
21	05	75	11	16	17	23.8	94.5	51	5.4	032/84	124/75	349/06	257/15	101/74		16
01	06	75	16	11	46	24.3	102.1		4.1	211/55	117/85	337/28	079/20	199/55		16
09	07	75	21	55	40	23.9	103.1	32	5.1	209/66	108/67	337/27	244/06	158/55		16
04	09	75	05	50	30	25.8	99.9	20	5.0	053.76	153/53	018/16	275/35	128/50		16
16	02	76	22	45	39	22.9	100.6	10	5.7	172/88	263/63	131/17	033/20	256/63		16
29	05	76	12	23	18.7	24.6	98.6	08	6.1	244/83	151/68	113/14	201/19	352/68	S	46
21	07	76	15	10	45.6	24.8	98.7	09	5.8	240/62	125/65	182/48	270/00	000/56	S	46
19	09	76	21	56	11	22.5	101.2	20	5.4	136/56	291/36.5	126/10	358/75	218/12		16
09	10	76	14	11	35	24.1	102.28	24	5.3	018/65	120/66	159/01	250/37	069/54		16

Date	Month	Year	Hour	Minute	Second	Lat. (N)	Long. (E)	Depth (km)	Magnitude	Pole of 1st nodal plane trend/plunge	Pole of 2nd nodal plane trend/plunge	Pole of Com-pression, P trend/plunge	Pole of tension, T. trend/plunge	Pole of null axis, B trend/plunge	*Type of fault	Source (see reference)
17	03	77	07	54	53	25.8	99.7	20	4.8	012/74	271/55	147/37	047/12	301/51		16
30	09	77	05	18	06	23.5	102.5	20	4.7	204/70	112/85	336/18	070/11	191/69		16
10	09	78	07	11	07	22.9	101.2	20	5.5	193/64	281.5/87	326/15	062/21	203/64		16
15	03	79	20	52	21	23.1	101.1	10	6.8	222/89	312/73	178/11	085/12	311/73		16
04	04	83	02	51	34.3	5.7	94.7	79	6.6	270/55	154/58	303/02	211/51		R,S	24
22	04	83	00	37	37	14.9	99.0	10	5.9	230/52	336/71	189/12	290/42		R,S	24
24	06	83	07	18	22.1	21.7	103.3	18	6.1	030/89	120/75	166/10	074/11		S	25
02	07	83	09	34	04.9	05.8	94.7	93	5.7	127/55	352/45	328/06	070/65		R,S	26

* T=Thrust, S=Strike slip, D=Dip slip,
N=Normal, R=Reverse

APPENDIX E

Locality Index

	Lat.N °	LongE. '
Akyab	20.08	92.54
Allanmyo	19.22	95.54
Amarapoora	21.54	96.01
Amherst	16.05	97.36
Arakan	21.00	93.00
Assam	25.00	93.00
Ava	21.34	95.54
Ayuthaya	14.20	100.35
Bacgiang	22.30	104.52
Bangkok	13.44	100.52
Barisal	22.44	90.24
Bassein	16.46	94.45
Berhampore	24.06	88.18
Bhamo	24.15	97.15
Bhaugulpore	25.14	86.59
Bihar	25.13	85.31
Bilin	17.12	97.18
Bogale	16.16	95.21
Bogra	16.12	95.24
Bombay	18.56	75.51
Calicut	11.15	75.45
Chattack	20.26	85.56
Cheduba	18.45	93.40
Chiangmai	18.48	98.59
Chiangrai	19.56	99.51
Chiangsaen	20.17	100.09
Chinwin	21.24	95.13
Chittagong	22.20	91.48
Chunar	25.08	82.54
Colombo	6.55	79.52
Comillak	23.28	91.10
Calcutta	22.35	88.21
Dabein	17.01	96.23
Daiku	17.46	96.40
Daltongunge	24.02	84.07
Danubyu	17.15	95.35
Darjeeling	27.01	88.13
Dacca	23.42	90.22
Dedaye	16.25	95.54
Dohazari	22.10	92.04
Gangaw	22.09	94.07
Gauhati	22.45	87.47
Goalpara	26.10	90.40
Gya	24.48	85.00
Gyobingauk	18.14	95.39

	Lat.N °	Long.E
Hai Duong	20.56	106.21
Hanthawaddy	17.18	96.31
Haungpa	25.30	96.06
Hazaribagh	24.00	85.23
Henzada	17.39	95.27
Hsipaw	22.36	97.18
Htawgaw	25.56	98.22
Imphal	24.47	93.55
Indaw	23.39	94.46
Inle	20.34	96.53
Insein	16.54	96.60
Jamalpur	24.54	89.12
Jauripur	25.44	82.41
Jessore	23.10	89.12
Kalaw	20.37	96.33
Kamaing	25.31	96.43
Kanbalu	14.36	98.03
Kanyutkwin	18.18	96.30
Katha	24.10	96.20
Kawa	17.60	96.30
Kayan	16.54	96.36
Kehsi Munsam	21.56	97.49
Krabi	8.30	98.56
Kungyangone	16.24	96.00
Kyaukgyi	22.59	96.09
Kyaukpyu	19.24	93.30
Kyaukse	22.32	97.02
Kyauktaga	18.12	96.36
Kyauktan	20.04	93.26
Kyaunggon	19.60	96.24
Kywebwe	18.46	96.24
Lashio	22.58	97.48
Letpadan	22.04	95.04
Lewe	19.40	96.04
Loikaw	19.40	97.14
Loilem	20.50	97.35
Madras	13.50	80.18
Mae Sot	16.44	98.28
Magwe	20.08	94.55
Maingkwan	26.18	96.34
Mandalay	21.54	96.12
Manipur	24.47	93.55
Matura	27.35	82.00

Mawchi	18.48	97.10
Mawlu	24.16	95.40
Maymyo	22.05	96.33
Meiktila	20.53	95.54
Mergui	12.56	98.36
Minhla	17.54	95.42
Mogok	22.55	96.29
Momeik	23.05	96.45
Monghyr	25.24	86.29
Mong Ting	22.48	96.38
Moulmein	16.30	97.42
Murgin	22.51	94.30
Myaungmya	16.36	94.54
Myingyan	21.27	95.23
Myinmu	21.54	95.36
Myitko	14.13	98.33
Myitkyina	25.00	97.25
Myitkyo	17.36	96.49
Myittha	21.21	96.06
Mymensing	24.70	90.50
Myosa	19.24	96.18
Nakhon Panom	17.23	104.45
Nyaunglebin	18.00	96.42
Nyaunglebin	20.60	94.54
Ngazane	21.55	95.39
Nowgong	26.22	92.42
Okkan	17.30	95.52
Ootacamund	11.28	76.42
Pado	18.30	96.34
Pantha	23.50	94.35
Patna	25.37	85.12
Paungdawthi	17.42	96.36
Pegu	17.18	96.30
Penang	5.50	100.30
Penwegon	18.12	96.30
Phang-nga	8.26	98.38
Phrae	18.07	100.09
Pinlebu	24.04	95.22
Prome	18.48	95.12
Purneah	25.47	87.28
Pyawbwe	20.41	96.04
Pyinmana	18.24	96.12
Pyu	18.24	96.24
Pyuntaza	17.48	96.42
Qiongzhou	19.59	110.28
Rampur	24.11	87.51
Ramri	19.05	93.52
Rangoon	16.48	96.12
Sadon	25.22	97.52
Sagaing	21.54	95.54
Sherpur	25.00	90.01
Shillong	25.34	91.53
Shwebo	22.35	95.42
Shwegyin	17.23	97.32
Sibsagar	26.58	94.39
Silchar	24.49	92.47
Siligori	26.42	88.30
Sittang	17.21	96.52
Sukhothai	17.00	99.51
Surat Thani	9.08	99.22
Swa	19.16	96.18
Sylhet	24.53	91.51
Tada-U	21.48	95.56
Tantabin	18.48	96.30
Taungdwingyi	20.00	95.19
Taunggyi	20.49	97.01
Tenasserim	12.05	99.02
Thabeitkyin	22.52	95.58
Thandaung	19.04	96.38
Tharrawaddy	17.39	95.47
Thaton	16.55	97.22
Thayetmyo	19.18	95.12
Thongwa	16.44	96.34
Toungoo	18.57	96.26
Trang	7.32	99.38
Twante	16.42	96.00
Vientiane	17.59	102.38
Wakema	16.36	95.11
Yamethin	20.25	96.10
Yanaung	20.33	95.57
Yaw	21.30	93.52
Yenan	23.56	94.28
Yenangyong	20.28	94.52
Yinmabin	22.00	94.54
Yitkangale	17.14	96.41
Zeyawadi	19.33	96.30
Zigon	18.18	95.30
Zinbyubin	17.36	95.00

PART C

SEISMIC SOURCE ZONES AND EARTHQUAKE RECURRENCE RELATIONSHIP OF THE BURMA - THAILAND - INDOCHINA AREA

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PART C SEISMIC SOURCE ZONES AND EARTHQUAKE RECURRENCE RELATIONSHIP OF THE BURMA - THAILAND - INDOCHINA AREA

Introduction

This paper is a part of an on-going project of the Southeast Asia Association of Seismology and Earthquake Engineering on earthquake hazards mitigation. The purpose of the project is the reduction of earthquake hazards in Southeast Asia. The countries participating in this project include Thailand, Malaysia, Indonesia and the Philippines. This report deals with the study of earthquake source zones and earthquake recurrence relations of the region bounded by latitudes 5° to 25°N and longitudes 90°-110°E covering Thailand, Indochina and part of Burma and China. The data used in the analysis are from several sources. The seismicity data are from the catalogue of earthquake data compiled in the earlier phase of this project. Literature on geology, tectonic structures, focal mechanisms and maps was used to compile the seismotectonic map. From this map the earthquake source zones were defined. The seismotectonic map was prepared on the scale of 1:3,000,000 and was presented separately. Several problems have been encountered, including the inadequacy and incompleteness of data and the difficulty in correlating known seismicity with geological features in many areas. They will be discussed in detail in the next section.

Identification of Seismic Source Zones

An attempt to characterize and describe seismic source zones in the region was made. Detailed descriptions of each source zone could not be given because of the limitation of seismic data and geologic information. However, the general pattern of the tectonic setting, combined with the seismic information, was presented and possible associated structures were identified.

The term 'seismic source zone' is described by Algermissen, et al., (1982) as having the following characteristics:

1. Seismicity,
2. A reasonable seismotectonic or seismogenic structure or zone. If a seismogenic structure or zone cannot be identified, the seismic source zone is based on historical seismicity.

A seismotectonic structure or zone is taken here to mean a specific geological feature or group of features that are known to be associated with the occurrence of earthquakes. A seismogenic structure or zone is defined as a geological feature or group of features throughout which the style of deformation and tectonic setting are similar and a relation between this deformation and historical earthquake activity can be inferred.

The outlining of a seismotectonic region was developed

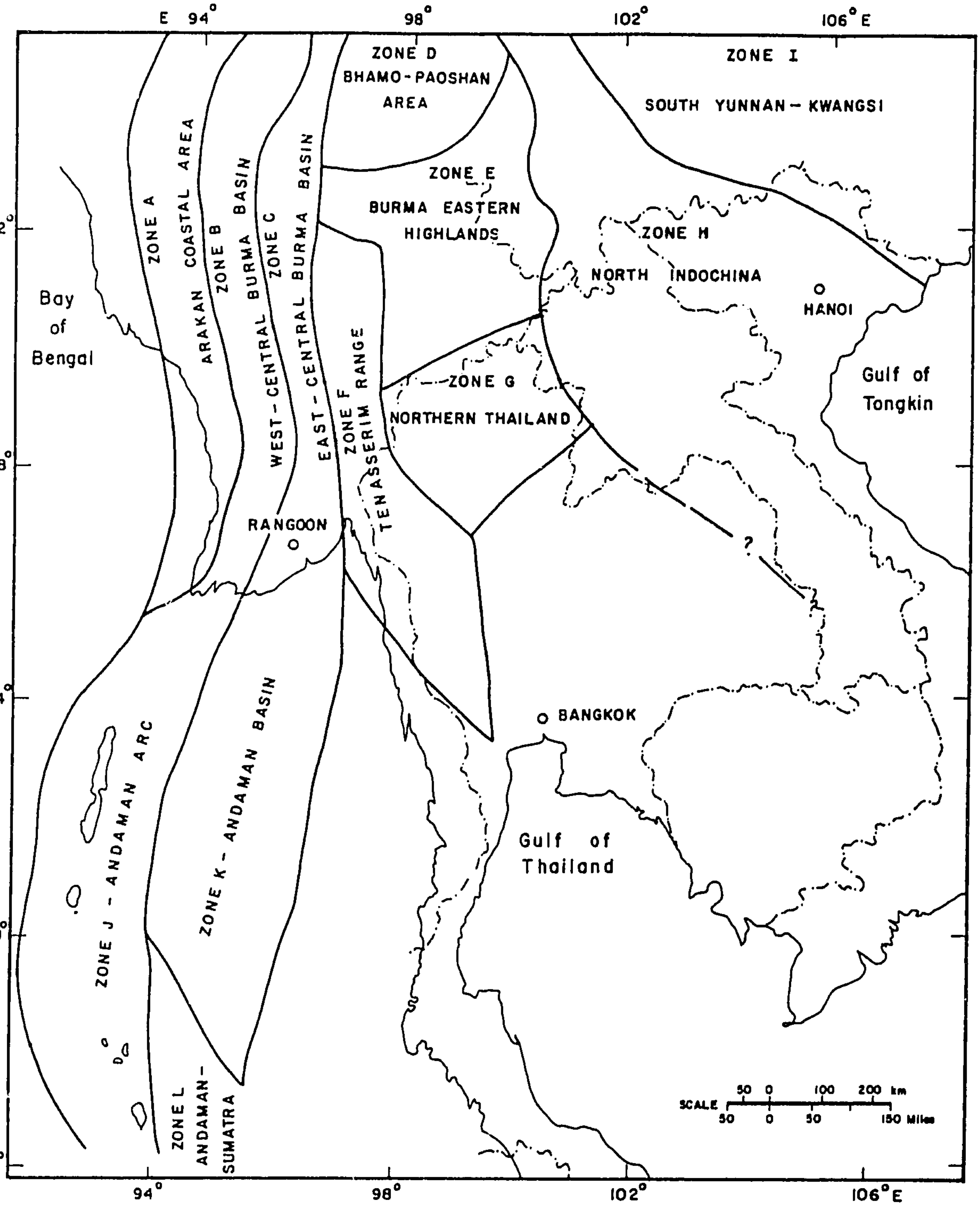


Fig. 11 Seismic Source Zone of Burma-Thailand-Indochina

employing the approach used by Thenhaus, (1982a). The approach may be characterized as:

1. seismotectonic zoning on individual faults, or the areal extent of faulting where the faults show late Quaternary or Holocene displacements, or have a distinct association with the historical seismicity,

2. zoning primarily on regional structural style,

3. zoning on the basis of the spatial distribution of seismicity in the absence of any aspects of (1) and (2) that could be used.

Using the above criteria, the study area is subdivided into 12 seismic source zones A, B, C, D, E, F, G, H, I, J, K and L. To identify these seismic source zones the recorded epicentres of past earthquakes were plotted, together with geological and tectonic information, then the areas were outlined. The size of the source reflects the geographical distribution of seismicity together with the regional tectonic style. Only one area, zone C, is characterized by seismicity associated with an individual active fault with well-documented historical records. In many other areas, faults or geological features could be tentatively related to observed seismicity and they will be described later.

Characteristics of Seismic Source Areas

Areal extents of the 12 seismic source zones are shown in Fig. 11. Table 1 gives zone names, number of events, and the maximum magnitude that has ever occurred in each source zone. Appendix A gives a listing of the earthquakes included in each source zone. The characteristics of the 12 seismic areas are summarized below.

Zone A - Arakan Area

This zone includes the narrow strip of the Arakan coastal area, Bengal Basin, Assam Valley and part of the Indo-Burmese Ranges (Arakan-Yoma Fold Belts). Lying to the northwest of this area is the Assam State of India which is one of the most active seismic areas in the world. Some of the largest earthquakes occurred in Assam, including the June 12, 1897 earthquake of magnitude 8.7 which levelled the city of Shillong and nearby areas. In the north, the Arakan area is bounded by the Himalayan frontal arc. The Arakan-Yoma Fold Belt itself trends almost NNE in the north to NNW towards the south.

Active seismicity occurs throughout historical time (Table 2). Several coastal uplifts were experienced. For example, on April 2, 1762 the shock was felt all over Bengal and Arakan and the coast lines were elevated throughout more than 100 miles in length, with varying amounts. The intensity was in the range of

X to XI MM scale (Aung and Tint, 1976). Liquefaction and mud volcanoes often occurred in association with the earthquake in this zone.

Table 1 12 Seismic source zones of Burma-Thailand-Indochina areas

Zone	Name of zone	Number of events (1912-1983)	Max.Int. (including records prior to 1912)	Max. Mag.
A	Arakan Area	134	X-XI	6.75PAS
B	West-Central Burma Basin	225		7.4 PAS
C	East-Central Burma Basin	94	XI	7.5 PAS
D	Bhamo-Paoshan Area	74	VIII	6.5 PAS
E	Burma Eastern Highlands	101		7.3 PAS
F	Tenasserim Range	106*		7.9 PAS
G	Northern Thailand	50	VII	4.7MB**
H	North Indochina	150	VIII	6.75PAS
I	South Yunnan-Kwangsi	49	XI	7.7 MB
J	Andaman Arc	329		8.7 PAS
K	Andaman Basin	224		6.5 PAS
L	Andaman-Sumatra Area	107		6.3 UPP

* aftershocks included
** 1977-1983 only

The distinct seismic activity along this belt is due to the overriding of the Assam-Arakan Basin on the Bengal Basin in the west and on Upper Assam towards the northwest (Gupta, et al., 1982). The boundary between these two plates is located along the Arakan-Yoma Fold Belt. The inference on overridden plate along this belt has been supported by many seismicity and focal mechanism studies such as those of Chandra (1975), Verma, et al., (1976, a & b) and Le Dain, et al., (1984).

Table 2 Major historical earthquake in Zone A

Date	Location	Brief Description
1761	Arakan	Very strong, the coast sections of land rose as much as 7 m
2 Apr. 1762	All over	Most severe, water in tanks and river rose, openings in earth, fountains of sand and mud, coast of Arakan elevated. I max = X to XI
3 Apr. 1822	Bengal	Distinct shocks
26 Jun. 1833	Kyaukpyu	Violent earthquake; flames issued to a height of several hundred feet
6 Feb. 1843	Kyaukpyu	Eruption of mud volcanoes
30 Oct. 1848	Sandoway	Violent shock
24 Aug. 1858	Thayetmyo & Prome	Most severe near location given, but severe also at Akyab; apparently False Island, situated SE of Cheduba Is, disappeared following the earthquake
27 Feb. 1881	Bengal	Eruption of a volcano on Cheduba accompanied by flames and trembling of the earth
31 Dec. 1881	Burmese coast	Believed to have originated in the Bay of Bengal; affected large portion of India, Bengal, and Andaman-Nicobar Is. Followed by mud volcano in Ramri Is and broad massive flames of fire from Cheduba volcano
31 Dec. 1882	Arakan	Earthquake shock followed by volcanic eruptions on Cheduba Is

A number of N-S and NNW-SSE trending folds and faults occurred throughout this belt but none of these folds and faults has been clearly identified as being the source of the earthquakes.

Zone B - West-Central Burma Basin

This zone extends north-south as a broad fluvial plain, lying to the east of the Indo-Burmese ranges (Arakan-Yoma fold belt). The eastern boundary is the north-south line of volcanic rocks where the andesitic, basaltic and rhyolitic volcanic rocks

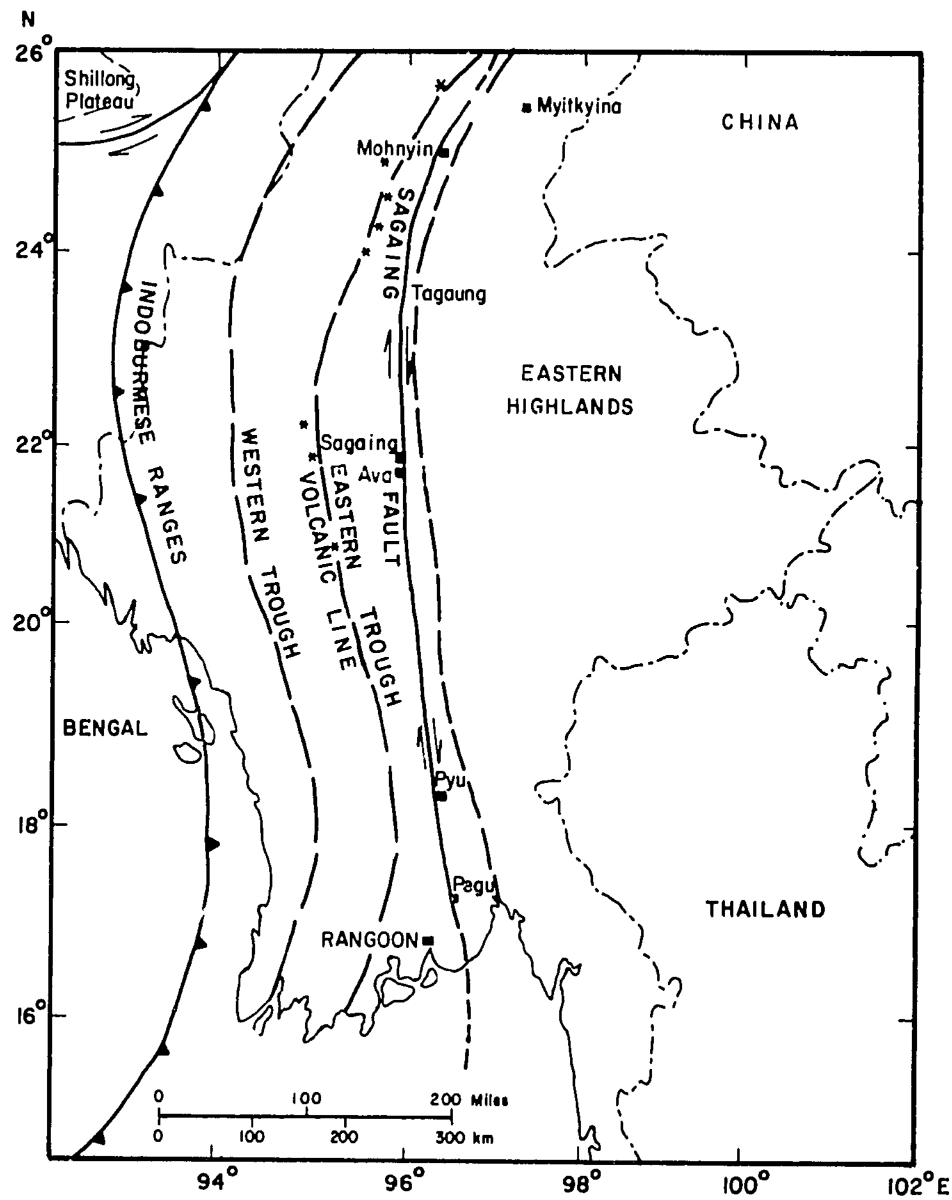


Fig. 12 Map Showing Volcanic Line along Boundary of Eastern and Western Trough of Central Burma Basin

outcrop discontinuously. This line of volcanoes separates the eastern trough from the western trough of the Central Burma Basin. Toward the south, this eastern boundary passes along the west side of Pegu Yoma (Fig. 12).

The sediments are of molasse type beginning in Eocene time and contain up to 10 km. of Tertiary and Quaternary deposits. The sediments were deformed by more or less extensive compression folding which locally led to overthrusting in the range of more than 1,000 m. (Bender, 1983). Seismic refraction profiles reported by Curray et al., (1978) suggested that the sediments are underlain by an old offscraped sedimentary "mélange" of Cretaceous and Paleogene subduction which then subsided and was covered with molasse.

The seismicity of the area shows both shallow- and intermediate-focus earthquakes beneath the basin. The frequency of the intermediate earthquakes is approximately twice the frequency of the shallow ones. The seismic distribution seems to be concentrated in the area north of 21^{o}N latitude.

Table 3 Major historical earthquakes in Zone B

Date	Location	Brief Description
442 BC	Mt. Popa	A great earthquake roared through central Burma
1858	Thayetmyo and Prome	Felt at far as Moulmein in the south, houses collapsed, pagodas toppled. Course of river reversed. Int. X to XI MM

Two major historical earthquake records found in this zone are given in Table 3. The subduction zone below the Indo-Burmese Ranges is proved to be responsible for the active seismicity in this area. Mukhopadhyay, (in press), estimated that the east-dipping Benioff zone below the Burmese Arc is about 45^{o} and, as the Benioff zone advanced eastwards, it left behind a detached part of the sinking lithosphere at a depth of over 200 km. The study of Gupta, et al., (1982) supported the existence of a very steeply dipping limb of subducted lithosphere of the India Plate. He also suggested that the thickness of the lithospheric limb could be estimated at about 100 km. Consequently, the occurrence of intracontinental intermediate-focus earthquakes is witnessed.

Zone C - East-Central Burma Basin

This zone comprises the "Sagaing Fault" a dominant structure which is clearly defined as a source of earthquakes. It runs in a NS direction near the eastern margin of the eastern trough of

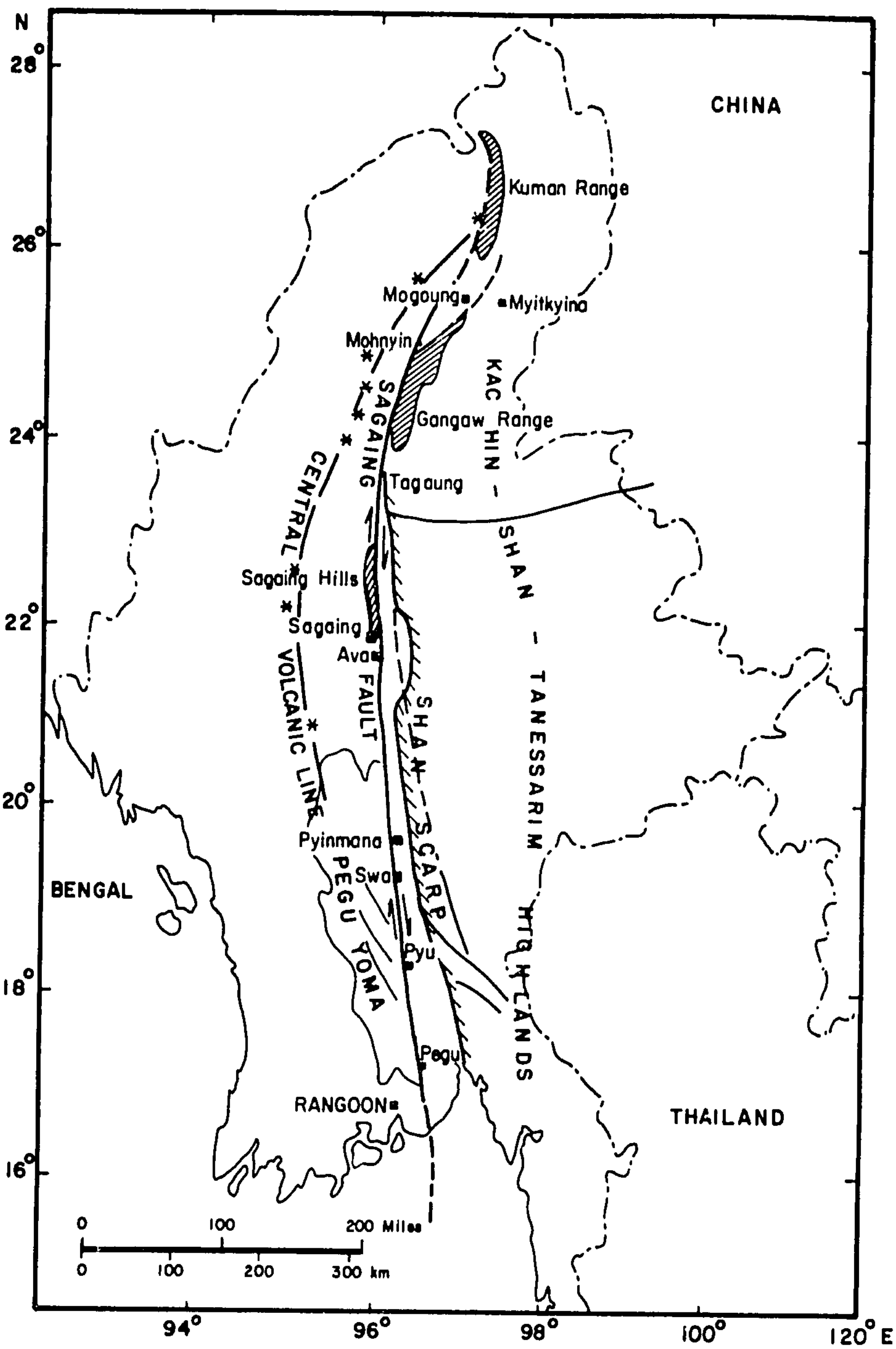


Fig. 13 Map Showing Location of Sagaing Fault (After Win Swe, 1981)

the Central Burma Basin and extends for a length of over 800 miles from northern Kachin State to the Gulf of Martaban (Fig. 13). Recent offshore geophysical surveys indicated that it extends far out into the Gulf (Than Haq, 1981). Therefore, Zone C covers the NS strip bounded in the west by the volcanic lines and in the east by the Kachin-Shan-Tenasserim Highlands. The Sagaing Fault runs along the western flank of the Sagaing - Gangaw Range in the north and southwards along the eastern flank of Pegu Yoma. This fault has been named by many authors in the past as Hninzee Fault, Sittaung Fault, Shan Boundary Fault, Shan-Burma Fault and Sagaing Fault. The name "Sagaing Fault", which was proposed by Win Swe in 1970 after the Sagaing Hills where the fault zone is superbly displayed and where it is easily accessible, (Fig. 13, Win Swe, 1980) seems to be widely used by several geoscientists working in the region. The Shan Scarp Fault or Shan Boundary Fault is located to the east along the foot of the Shan Scarp (Win Swe, 1980) (Fig. 13). Win Swe (1980) also explained that several large earthquakes which were previously believed to be located along Shan Scarp (Brown, et al., 1932; Brown and Leicester, 1933; Chhibber, 1934; Gorshkov, 1959) are in fact located along the Sagaing Fault. The cities of Sagaing, Ava and Mandalay are located right on the fault zone and were badly damaged many times by earthquakes. Other cities situated close to the fault zone south of Sagaing are Yamethin, Pyinmana, Toungoo, Swa, Pyu and Pegu, all of which were strongly affected by the earthquakes along the fault. For example, at the towns of Ava and Amorapura on March 23, 1839, all buildings were demolished and the ground surface was broken into pieces (Win Swe, 1980). The Pyu earthquake and Pegu earthquake in May and December, 1930 caused extensive damage throughout Burma and Thailand. The list of historical destructive earthquakes in this area is summarized in Table 4, and the recent ones are listed in Appendix A. It should be noted also that large earthquakes occurring in this area are usually associated with liquefaction and sometimes with sea-waves (tsunamis) following the earthquakes.

Win Swe (1980) indicated that all available data on the Sagaing Fault show a prominent strike-slip displacement, at least in recent times. The displacement may be about 2 miles, using the boulders in the late Pleistocene-Recent talus deposits as an indication and may be more than 70 miles if using the huge exotic angular blocks of marble found along the fault as evidence. The fault controls segments of the path of the Irrawaddy River north of Mandalay (Curray, et al., 1978) where Win Swe (1972) observed right-lateral offsets. Le Dain et al., (1984) confirmed the right-lateral strike-slip component by observing the shortening direction of most of the folds along the fault. Evidence suggested by Curray et al., (1978), Mitchell (1981), and Chhibber (1934) gave the same strike-slip motion. Curray, et al., (1982) estimated the spreading rate of the Andaman Sea at about 3.72 cm per year which would probably account for the right-lateral movement of the Sagaing Fault. Bender (1983) mentioned the evidence cited by Coopioc (1974) that the fault system has considerable vertical movement as well as right-lateral movement.

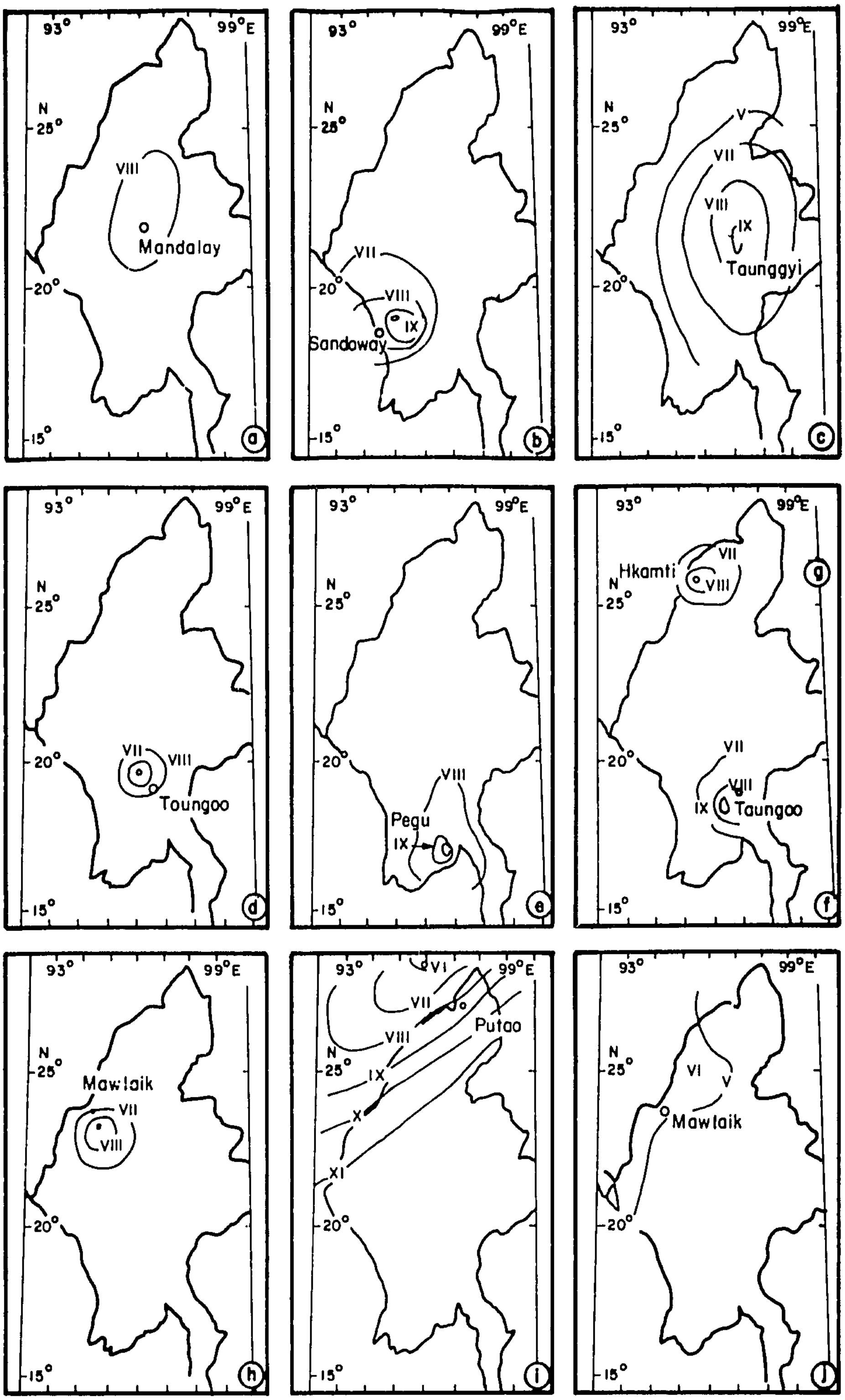
Table 4 Major historical earthquakes in Zone C

Date	Location	Brief Description
868	Pegu	Shwemawdaw Pagoda fell
875	Pegu	Shwemawdaw Pagoda fell
1429	Ava	Fire-break enclosure walls fell
1467	Ava	Pagoda, solid and hollow, and brick monasteries destroyed
1482	Sagaing	Hsinmyashin Pagoda destroyed
1485	Sagaing	Pagodas destroyed
1501	Ava	Pagodas fell
1564	Pegu	Pagodas fell
1567	Pegu	Pagodas fell
1582	Pegu	Pagodas fell
1588	Pegu	Pagodas, etc. fell
1590	Pegu	Great incumbent Buddha destroyed
1620	Ava	Ground broken into pieces
1629	Rangoon	Umbrella on top of pagoda toppled
1661	Rangoon	Umbrella on top of pagoda toppled
1664	Rangoon	Pagoda seriously damaged, top portion toppled
1699	Ava	Pagodas destroyed
1714	Ava	Pagodas fell. Water from thr river gushed into the city
1739	Pegu	Top portion of pagodas toppled
1757	Pegu	Pagoda damaged
1768	Pegu	Pagoda fell
1776	Ava	Pagoda fell
1830	Pegu	Umbrella of pagoda fell
1838	Ava	Severe damage to buildings, earth-collapse
1838	Sagaing, Mingun	Pagoda destroyed
1839	Ava	Most extensive damage, not a pagoda seen standing intact. Every building in town destroyed. Felt for a thousand miles, Int. XI
1888	Pegu	Pagoda collapsed
1895	Rangoon	Damage to buildings

Then he suggested that this could be a system of normal faulting and that the lateral movements happened to occur only recently. Isoseismal maps of 3 earthquakes along this fault are given in Fig. 14 (d, e, f) (Thein Aung and Khin Tint, 1976).

Zone D - Bhamo - Paoshan Area

Zone D lies adjacent to the northern portion of Zone C and is denoted by the ENE-WSW structural trend. It covers the broad area along the border of Burma and China. Curvilinear features in an ENE-WSW direction are indicated by three major parallel faults, namely Momeik Fault, Kyaukme Fault and Mansam Fault and they lie only a few miles apart from each other. These major



a	23 March 1839		f	4 December 1930
b	24 August 1858		g	14 August 1932
c	23 May 1912		h	15 August 1938
d	8 August 1929		i	15 August 1950
e	5 May 1930		j	21 March 1954

Fig.14 Isoseismal Map of Great Historic Earthquakes of Burma (After Thein Aung & Khin Tint, 1976)

faults are left-lateral transcurrent faults as evidenced by the S-shaped drag folds in adjacent beds (Sein Myint, et al., 1981). They are also considered to be young faults from the conspicuous landforms and sharp fault scarp but no age or rate of movement has been determined. In the eastern part of this area, around north of latitude 24^{o}-25^{o}N and longitude 98.5^{o}-99^{o}E where the ENE-WSW trending structures swing toward N-S, a high concentration of seismic activity was noted. This seismically active area lies in the western-most region of Yunnan (SW China) where the rocks are Precambrian schist along the Chinese-Burmese border, Palaeozoic of Himalayan fold zone, Mesozoic intrusive and Quaternary volcanic rocks (Pow Foong Fan, 1978).

Table 5 Major historical earthquakes in Zone D

Date	Location	Brief Description
1577	SW Yunnan (25N, 98.6E)	170 people killed, Int. VIII
1906	SW Yunnan (24.6N, 98.6E)	Two people killed, Mag. 5.3

The less seismically active area in the western part of this zone consists of a broad Quaternary deposit, Precambrian crystaliine rocks, and granite intrusion accompanied by some Palaeozoic sedimentary sequence.

The strong earthquake activity in the SW China area is believed to be the result of the action of the Indian Plate pushing from the south (Yang Guangyu, 1982). Major earthquakes in this region are given in Table 5 and the list of earthquakes that occurred in the whole area is given in Appendix A (Zone D).

Zone E - Burma Eastern Highlands

Zone E is located in northeastern Burma where the east Kachin and Shan States of Burma border with the SW Yunnan Province of China. Its southern boundary ends north of the Northern Highlands of Thailand. On the west it is bounded by the Karen-Tenasserim ranges.

The seismicity in this area is spatially distributed. There is no apparent distinct structural trend in association with the seismicity. Two major faults can be identified, one in a NE-SW direction and the other in a NW-SE direction. They are probably associated with some seismicity along them. Neither a historical record of events nor other details on the activity of these faults was found. Only recently has the seismicity in this area been known, due to the poor distribution of recording stations for this region. The list of earthquakes that occurred in this area is given in Appendix A (Zone E).

Zone F -Tenasserim Range

Zone F is characterized by the NS trending faults in the Kachin-Tenasserim ranges of Burma and the southward extending NW-SE trending faults in the western ranges of Thailand. Major faults in this area are the Taunggyi Fault, Pan Laung Fault, Moei-Uthai Thani Fault zone, Si Sawat and Three Pagodas Faults (Fig. 15). The seismicity associated with these faults is not very high but a number of events occurred along these faults proved to be very destructive. Pan Luang Fault runs into the Shan Scarp accompanied by a zone of NNW-SSE sub-parallel faults towards the north. These zones are believed to have been active during Palaeozoic time and have been reactivated from the Late Mesozoic and Tertiary block movements (Bender, 1983).

Taunggyi Fault is the NS trending fault passing through the town of Taunggyi and can be traced southward along the east side of the Pleistocene lacustrine sediments of the Inle Lake Basin. The town of Taunggyi itself was many times hit by earthquakes. The one on 23 May 1912 was 8 in magnitude (Gutenberg and Richter, 1954) and the maximum intensity was in the range of IX RF scale. The earthquake was felt all over Burma and part of Thailand. The inner most isoseismal line enclosed an area of about 36,000 square miles, the greater portion of which experienced an intensity of VIII RF Scale (Fig. 14, c) (Thein Aung and Khin Tint, 1976). It is noted that the felt area has the main axis in the north-south direction (Brown, 1914).

Portions of the Pan Laung and Taunggyi faults are traceable via the Tenasserim range into western Thailand and the directions bend towards NW-SE. There are three major faults in western Thailand, more or less parallel to each other, namely Moei Uthai Thani Fault zone, Si Sawat Fault and Three Pagodas Fault. The upper one, the Moei Uthai Thani Fault zone, is characterized by narrow and complex fault zones of normal, thrust and strike-slip nature. The horizontal displacement gives a left-lateral appearance. Also, the study done by Bunopas (1976) on the Lan Sang Fault, which is one of the faults in this zone, shows the fault contact between Ordovician limestone and Tertiary lignite beds along its left-lateral displacement.

Two earthquakes along this fault zone occurred on 23 September 1933 and 17 February 1975. The one in 1975 was of magnitude 5.6 and was felt throughout central Thailand, causing minor damage. The isoseismal map of the earthquake is given in Fig. 16.

The two lower faults, Si Sawat and Three Pagodas faults control the Kwae Yai and Kwae Noi rivers which flow towards the SE to the Gulf of Thailand. Nutalaya and Rau (1984) suggested that they indicate right-lateral movement. The movement along these faults is probably related to the movement along the Sagaing Fault of Burma in the Late Cenozoic. To the NW the extension of the Three Pagodas Fault seems to pass to the area south of Moulmein in Burma and perhaps joins with the Sagaing

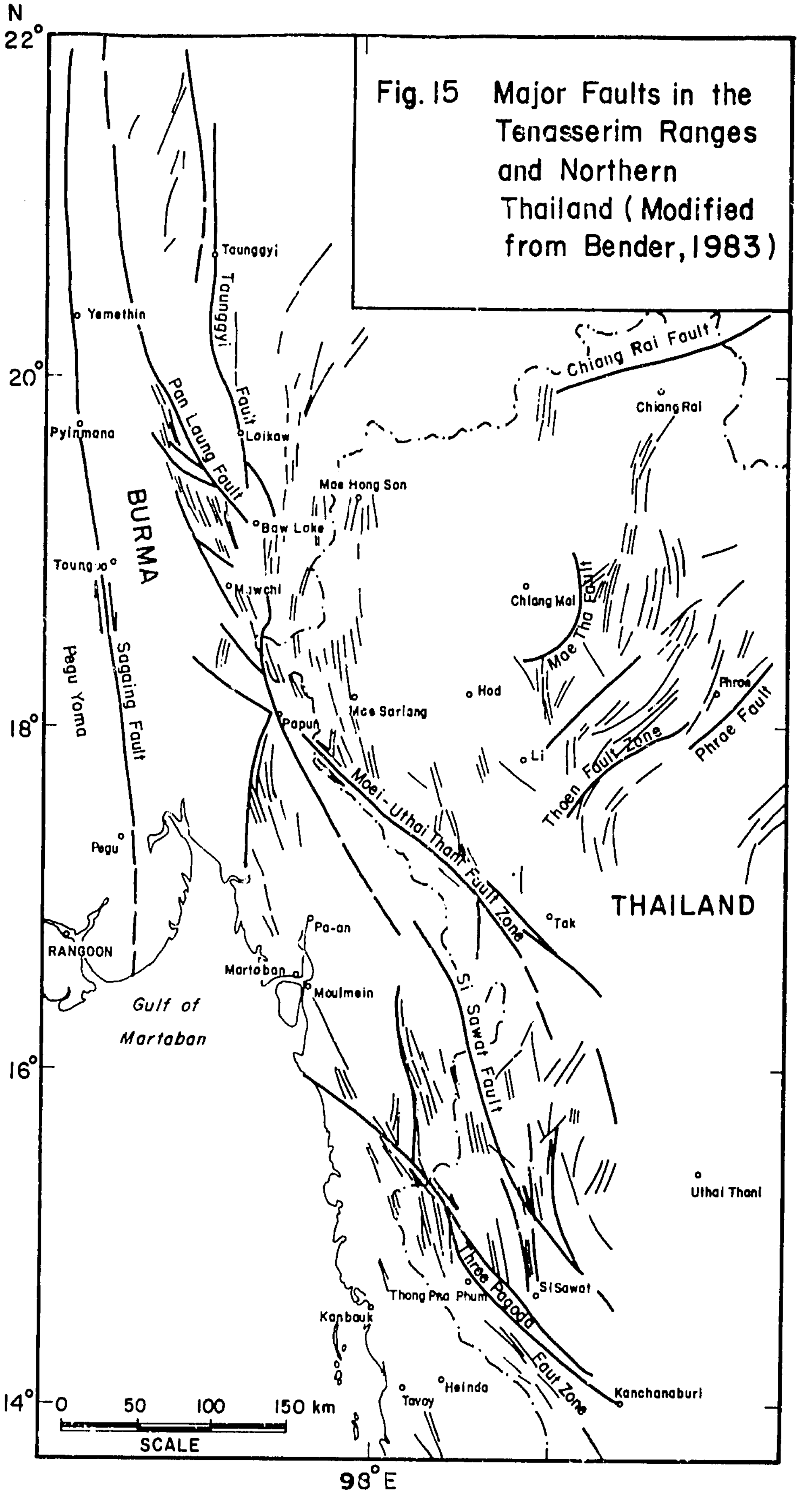


Fig. 15 Major Faults in the Tenasserim Ranges and Northern Thailand (Modified from Bender, 1983)
N
22°
20°
18°
16°
14°
98°E
Taunggyi
Taunggyi Fault
Yemethin
Pyinmana
Pan Laung Fault
Loikaw
Mae Hong Son
Baw Lake
BURMA
Toungoo
Mawchi
Chiang Rai Fault?
Chiang Rai
Chiang Mai
Mae Tha Fault
Hod
Phrae
Phrae Fault
Li
Thoen Fault Zone
Pegu Yoma
Sagaing Fault
Mae Sariang
Papun
Moei-Uthai Thani Fault Zone
Pegu
THAILAND
Tak
Pa-an
RANGOON
Martaban
Moulmein
Gulf of Martaban
Si Sawat Fault
Uthai Thani
Three Pagoda Fault Zone
Si Sawat
Thong Pha Phum
Kanbauk
Heinda
Tavoy
Kanchanaburi
0 50 100 150 km
SCALE

Fault in the Gulf of Martaban.

Two earthquake records were found in association with these two faults. The one on 21 March 1959 was reported in Klondo subdistrict of Kanchanaburi Province through which the Kwae Noi river flows. No magnitude was available on this earthquake but an account of ground cracks and fountains of water ejected from the ground was given in the newspaper at that time. Another earthquake event first occurred on April 15, 1983. It was followed by 140 aftershocks throughout the year. During the period two alarming shocks of Mag. 5.6 and 5.8 were felt on April 15 and 22 which caused widespread panic and some damage to buildings in several cities situated in the central plain of Thailand. Ground cracks and landslides were reported in the vicinity of Kanchanaburi Province (Fig. 17). The maximum intensity was in the range of VII MM scale and covered a large portion of the felt area. Fig. 18 shows the intensity map of this earthquake in comparison with the boundary of the unconsolidated Quaternary deposits. An accelerogram located about 50 km. south of the epicentre gives the max. acceleration of 0.05 g.. A list of earthquake records in this area is given in Appendix A (Zone F).

Zone G - Northern Thailand

Zone G covers the Northern Highlands of Thailand. Recent seismicity of the order 3-5 magnitude seems to be regionally distributed in two areas. The first one lies along the Chiangmai - Chiangrai belt, where there are extensive Mesozoic granite intrusions surrounded by slightly metamorphosed early Palaeozoic rocks.

There are two dominant faults in the Chiangmai - Chiangrai belt, the arc-shaped west-dipping Mae Tha Fault bounding the Chiangmai Basin on the east and the ENE trending fault north of Chiangrai Province. The second one is located within, or very close to, Phrae Basin which is flanked by the NE-SW trending faults, namely Thoen Fault zone on the west and Phrae Fault zone on the east. The study on the distribution of seismicity in the Chiangmai vicinity by the Electricity Generating Authority of Thailand shows more than 70 microearthquakes scattered throughout the basin, to the west of the Mae Tha Fault (Fig. 19) (Ramingwong, et al., 1980). Phrae Basin bears the same seismicity evidence. More than 20 microearthquakes ranging from magnitudes 3 to 4 were recorded during 1980-1983. Both the Mae Tha Fault and Phrae Fault are probably active but more evidence on both seismicity and geology is needed before definite conclusions can be made. There is evidence of young faults which affected terraces of Upper Tertiary or Pleistocene and demonstrated the present topography of northern Thailand (GGm, 1972) (Fig. 20). Another evidence of active tectonism in northern Thailand is the occurrence of hot springs. Fig. 21 shows the location of hot springs in comparison with the location of earthquakes. Ramingwong, et al., (1980) made an extensive study of the

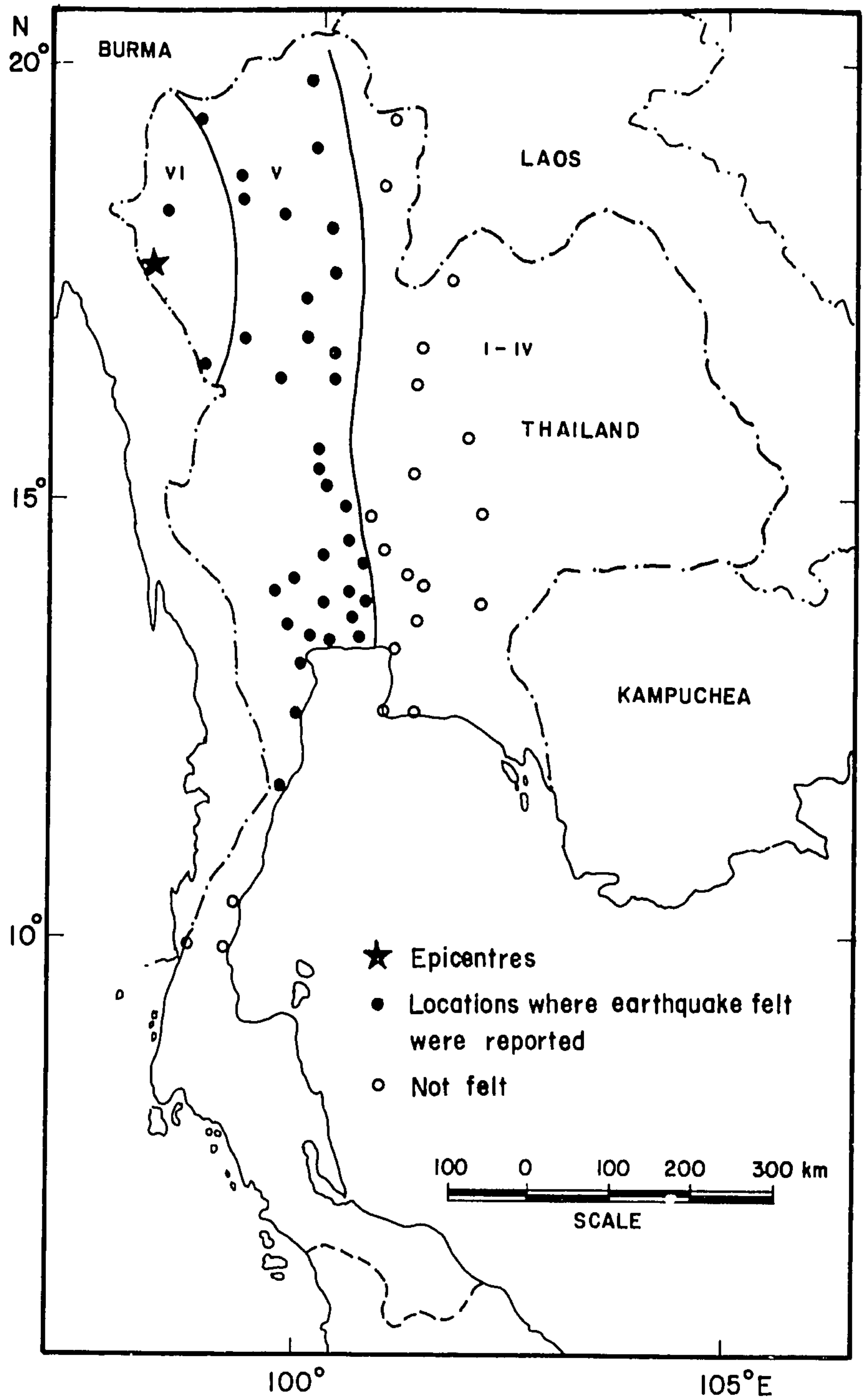


Fig. 16 Intensity Map of 17 Feb. 1975 Earthquake (From Meteorological Department of Thailand)

Fig. 17 Ground Cracks Developed along the Fault Trace on April 22, 1983 North of Kanchanaburi

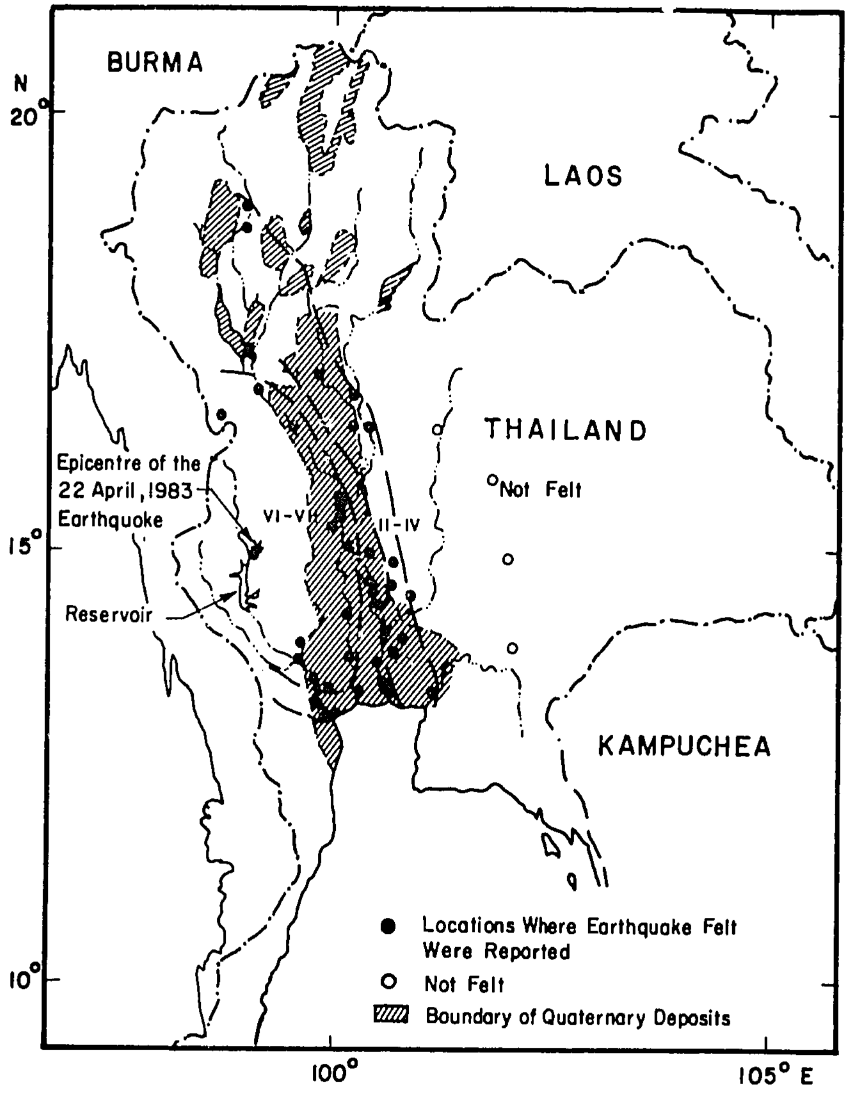


Fig. 18 Intensity Map of 22 April, 1983 Earthquake in Western Thailand

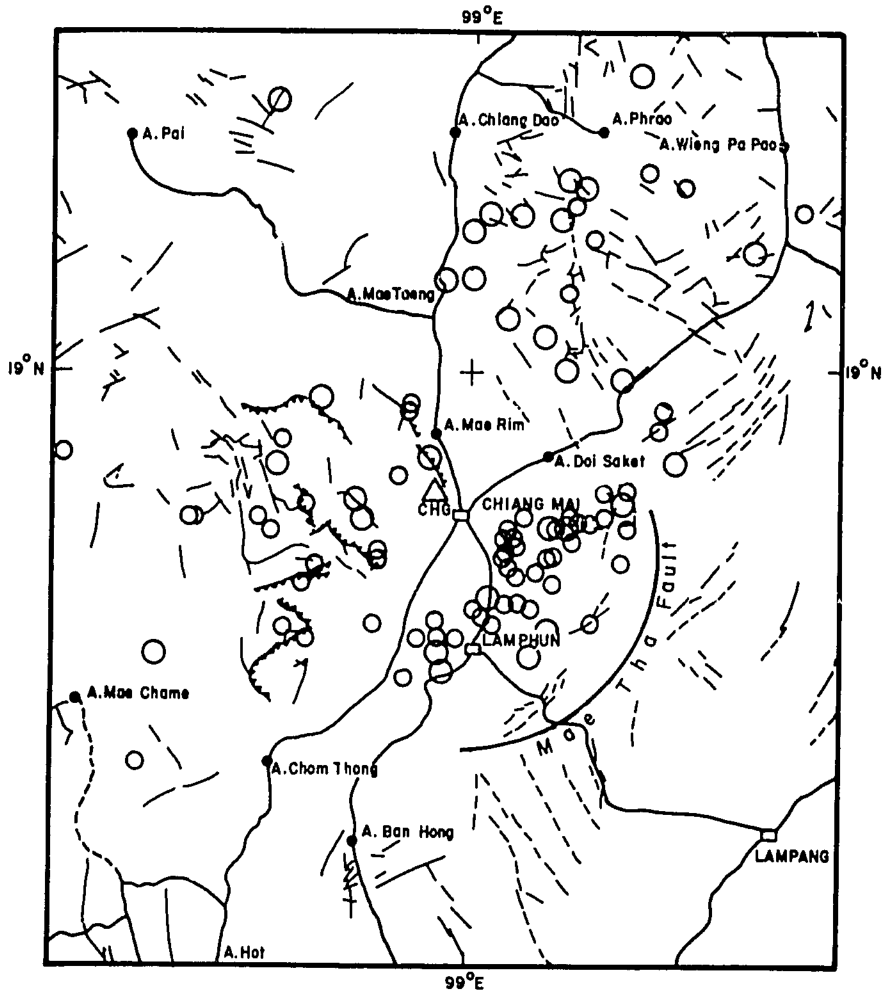
geothermal resources of Northern Thailand and suggested that north and northeast Thailand lie in or near a tectonically active area. The main reasons for this deduction are the scattering of hot springs and the abnormally high geothermal gradients and heat flow in the region. Many hot springs are also found related to the margins of Cenozoic basins (McDonald, et al., 1977). A list which summarizes the earthquake events in this area is shown in Appendix A (Zone G).

Zone H - North Indochina

This area lies to the south and west of the Red River and falls in the territories of China, Vietnam and Laos. Major tectonic structures are the NW-SE and N-S trending faults which mostly splay out from the Red River Fault. Fontaine and Workman, 1978 reviewed the geology and tectonic evolution of Indochina and identified six parallel, linear, NW trending fault zones. All the zones extend across the entire width of Vietnam from the coast to the border with Loas or, in the north, with China. The six fault zones are named, from north to south, Song Chay Fault, Red River Fault, Tu Le Fault zone, Song Da Fault zone, Song Ma Fault zone and Song Lam Fault zone. The last four are mostly deep-seated, normal faults with vertical or steep dips. No known significant lateral movement was associated with these faults according to Fontaine and Workman (1978). Among these four there seem to be clusters of epicentres on the Song Ma and Song Da faults at around the bending of these faults from NW trending to NS trending, NE of Dien Bien Phu (lat. 21.5^{o}N, long. 103.5^{o}E) (Fig. 22). No other information or report on the intensities of these earthquakes is available except one earthquake event on 24 June 1983 which had Mag. 6.1 and was located on the Song Da Fault. This earthquake was felt in Haiphong, Hanoi and northern Vietnam, as well as in Hong Kong with Intensity IV-V.

The Red River Fault is a right-lateral strike-slip fault, as observed by several geoscientists working in this area. From the study of Landsat imagery, Tapponnier and Molnar (1977) noticed the separation of two different geological and tectonic provinces by about 1150 km. They indicated the recent fault activity in various segments of the Red River where it flows continuously along the straight fault line. Allen, et al., (1984) used displaced drainages and cited various exposures of displaced terrace gravels to confirm the repeated Holocene displacements and recent movement along the fault. The southern extension of the Red River Fault might reach at least to the neighbourhood of Hanoi. Verma et al., (1974) showed that the nodal plane of an earthquake of 12 June 1961 which occurred north of Hanoi trends NW-SE, parallel to the Red River Fault trend.

There is no record of a major earthquake along the Red River Fault in historical time. Allen, et al., (1984) estimated the recurrence interval of major earthquakes along the Red River Fault to be several thousands of years.



EXPLANATION

Epicentres of Earthquakes and Magnitude Key

o	Magnitude	< 1.0
o		1.0 - 2.0
O		2.0 - 3.0
O		> 3.0

Fig. 19 Distribution of Earthquakes from February-July, 1978 and Major Faults in Northern Thailand (From EGAT Report No. 842-2301, 1980)

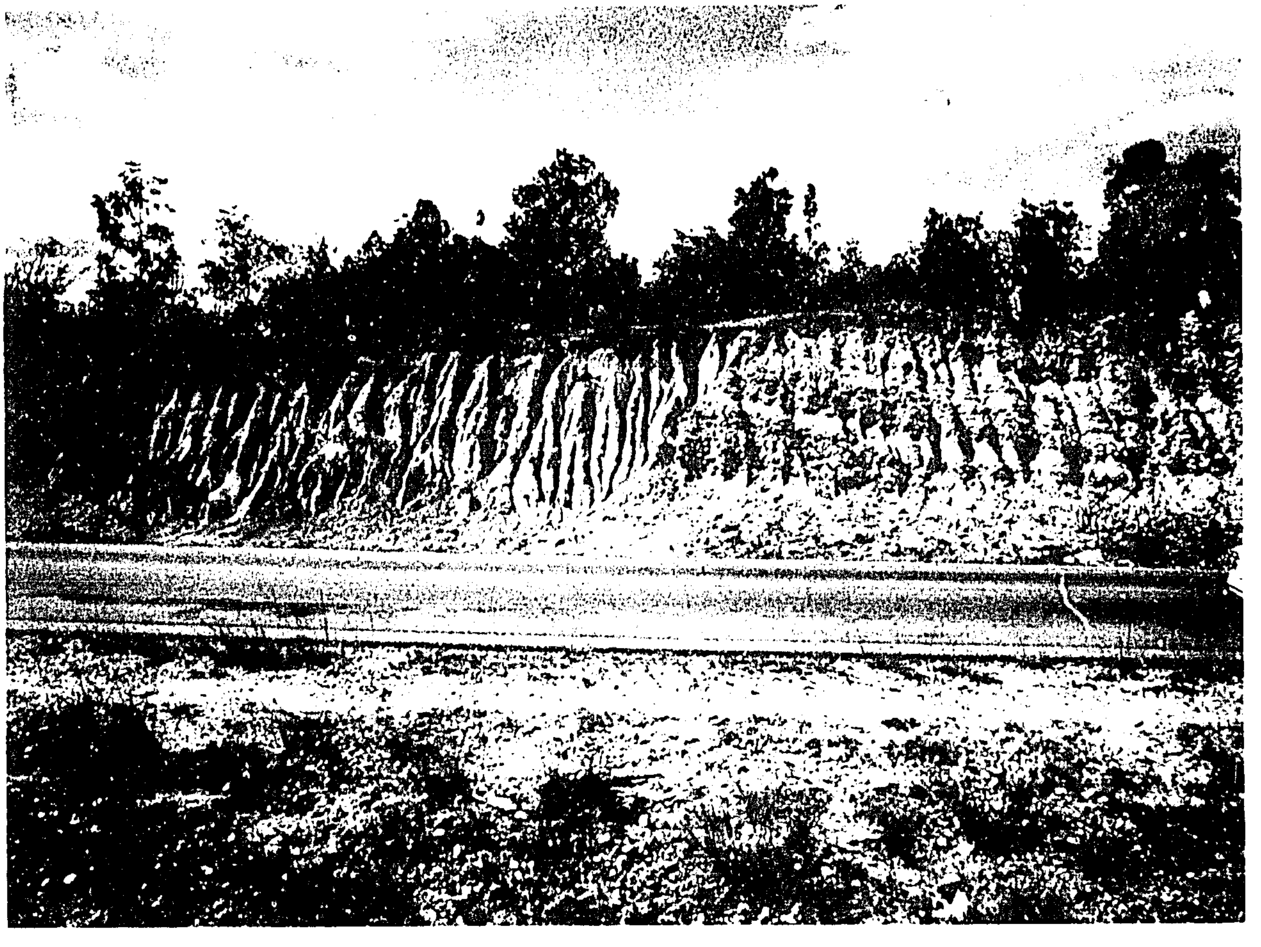


Fig. 20 Pleistocene Terrace Gravels Offset by Fault, North of Tak

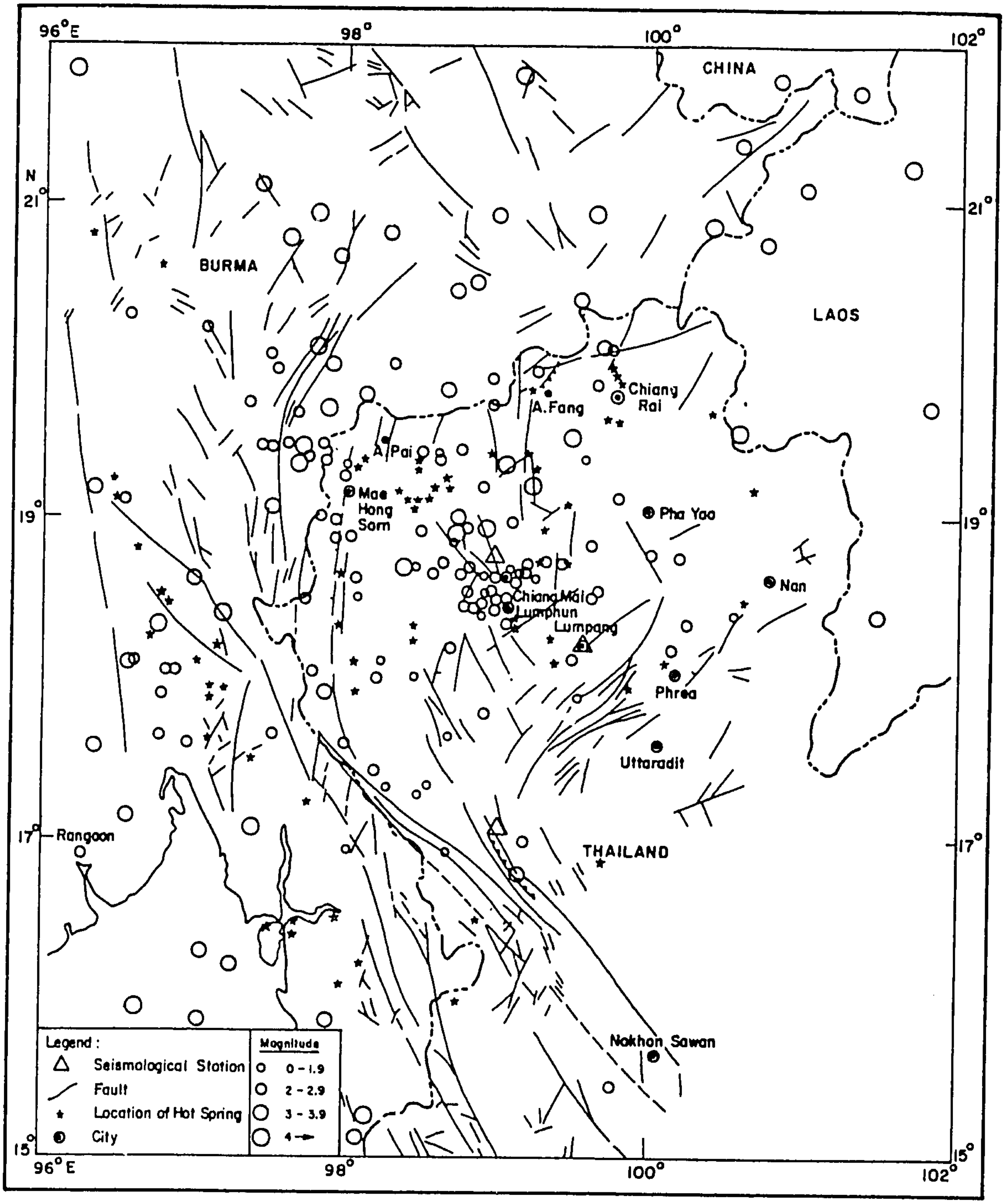


Fig. 21 Earthquake and Hot Spring Locations in Northern Thailand (After Ramingwong, et al, 1980)

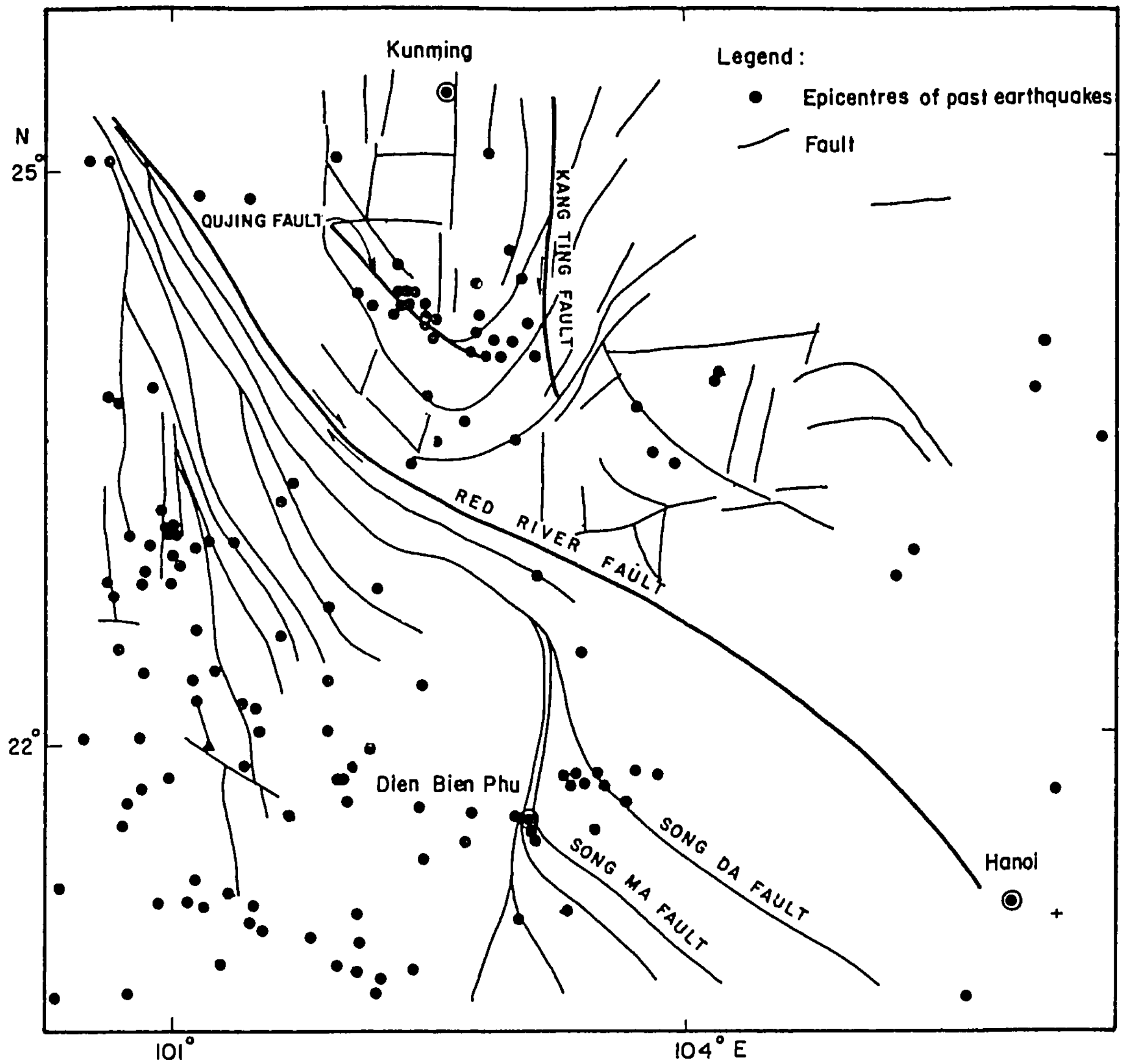


Fig.22 Seismic and Tectonic Structures of Yunnan Province, China and North Vietnam ; Fault Information Compiled from Fontaine and Workman, 1978 and Tectonic Map of China, 1975 (in Chinese)

In NW Laos, seismicity seems to line up along a NS trending fault on the west side of the Mekong River. This fault is called the Sayaboury Fault since it passes through the town of Sayaboury. The movement of this fault is probably the source of the earthquakes along it, and might well relate to the one that occurred on 12-17 Feb. 1933 which was reported in Thailand. In Nan Province, where it is located adjacent to the Laotian border, 7 shocks were felt during 12-13 February, 1933. No damage was reported. Reported received from Ngoen Province of Laos stated that there were cracks in the ground, water in the river dried up, walls cracked, loud noise similar to a rock-burst was heard from the mountain east of town.

Another seismic zone which has historical earthquakes and is associated with N-S trending fault is located in south Yunnan Province on the south side of the Red River Fault. Two fault plane solutions analysed by Verma, et al., (1979) showed a thrusting component. No other geological information on these faults is available.

A list of earthquakes in this area is given in Appendix A (Zone H).

Zone I - South Yunnan

The main seismic zone in this area is located immediately north of the Red River Fazult zone in south Yunnan Province. It lies in between the area where the left lateral Kang Ting Fault seems to terminate near the Red River Fault (Fig. 12). This crossing of the two faults causes much complication in the tectonic system of the region (Tapponnier and Molnar, 1977).

Fault information from the tectonic map of China shows a combination of the parallel NW-SE, NE-SW and N-S trending fault zones within this 100 x 100 km. area. Historical records show several severe damaging earthquakes, the list of which is shown in Table 6. One of the distinct NW-SE faults, the Qujiang Fault (Fig. 22), caused right lateral displacement during the January 4, 1970 Tonghai earthquake (Allen, et al., 1984). The surface faulting is 50 km. with a maximum of 2.5 m. right slip and some (0.5 m) reverse faulting (Press et al., 1975). The summarized list of the earthquakes in this area is given in Appendix A (Zone I).

Toward the east, another source of earthquakes is located on Hainan Island. The destructive Qiongzhou earthquake of 13 July 1605 occurred in the northern part of the island and is considered to have been the most damaging earthquake in south China (Chen and Huang, 1979). The maximum intensity is given as XI. The ruins of ancient villages were found on the tidal flat covered with oyster and barnacle shells. Another submerged village was found 10 metres below present sea-level. It is believed that a large-scale subsidence of land occurred during the earthquake (Yim, 1984). Chen and Huang (1979) also defined

Table 6 Major historical earthquakes in Zone I

Date	Location	Brief Description
1499	Yunnan (25.0N, 103.0E)	Extremely damaged, 20,000 people killed
1500	Yunnan (24.5N, 103.0E)	Many people killed, Int. IX
1560	Yunnan (24.2N, 102.7E)	10 people killed
1571	Yunnan (24.1N, 102.7E)	10 people killed, Int. VIII
1588	Yunnan (24.0N, 102.8E)	Some people killed, Int. VIII
1605	Hainan Island	Severe damage, land collapsed on a large scale, Int. XI
1606	Yunnan (23.6N, 102.8E)	1,000 people killed, Int. IX
1680	Yunnan (25.0N, 101.5E)	2,700 people killed, severely damaged, Int. IX
1750	Yunnan (24.7N, 102.9E)	37 people killed, Int. VII
1755	Yunnan (24.7N, 102.2E)	270 people killed, Int. VIII
1755	Yunnan (23.8N, 102.7E)	70 people killed, Int. VIII
1761	Yunnan (24.4N, 102.5E)	120 people killed, Int. VIII
1761	Yunnan (24.4N, 102.5E)	50 people killed, Int. VII
1762	Yunnan (24.3N, 102.8E)	1,000 people killed, Int. VIII
1789	Yunnan (24.2N, 102.8E)	1,000 people killed, Int IX
1799	Yunnan (23.8N, 102.4E)	2,000 people killed, Int. IX
1814	Yunnan (23.7N, 102.5E)	200 people killed, Int. VIII
1884	Yunnan (23.0N, 101.1E)	17 people killed
1887	Yunnan (23.7N, 102.5E)	2,000 people killed, Int. IX
1909	Yunnan (24.4N, 103.0E)	19 people killed, Int. VIII

the principal seismogenic fault as being in an ENE direction with a NNW conjugate pair crossing it.

Zone J - Andaman Arc

The seismic source zone in the Andaman Sea is subdivided into three areas, J, K and L, based on the seismicity of the area and the tectonic structures as defined by Curray, et al., 1978.

The strip of zone J along the Andaman Arc is separated from the adjacent area on the east where the segments of spreading sea floor and transform faults are characterized. This tectonic setting reflects the earthquake occurrences between the two areas. Several large earthquakes have occurred within this belt including the strongest one (Mag. 8.7) of the whole region. The active tectonic region in the Andaman Sea is due to the underthrusts of the Indian Plate from the west, the same and tectonically continuous system as the Burmese Arc in the north (Curray, et al., 1978). The eastern boundary of this area is along the West Andaman Fault (Fig. 23) which Curray, et al., (1978) indicated as apparently inactive from the seismic reflection records, except for the central section, where local mechanism studies (Fitch, 1972, Mukhopadhyay, in press) indicated a NS right lateral sense of motion. The solutions also show that the fault plane dips steeply towards the east. Mukhopadhyay, (in press), concurred that this 90-160 km wide seismic belt is delimited by the Andaman Volcanic Arc to the east and contains shocks up to intermediate focal depth. The Andaman Volcanic Arc lies in continuation with the volcanic line in Burma and is located along the West Andaman Fault line. The northern boundary is placed at around 15°N latitude, where the sediment fills of the Irrawaddy-Martaban shelf end, because of the sudden decrease in seismic activity. Kumar, (1979) thought that this decrease in seismic activity at 18°N latitude might be a consequence of the gradual conversion of subduction into a transform fault.

The line of seismicity of the area seems to follow the NS trending Andaman-Nicobar Ridge and along its eastern boundary with the Andaman basin. The epicentral alignment east of the Andaman Ridge shows good correlation with known faults in the area.

Several destructive earthquakes occurred in this area in the past, some of which are listed in Table 7. The greatest one ever recorded occurred on 26 June 1941, with a magnitude of 8.7. It occurred NW of the Andaman Islands where a few people were killed and injured and buildings in Port Blair were extensively damaged. Small tsunamis are often found associated with Andaman earthquakes. The focal mechanism of this earthquake, given by Ritsema, (1960) indicated a thrust fault trending in a NE-SW direction, with the SE side overriding the NW side. But Sinvhal, et al., (1979) suggested a nearly NS fault extending for about 800 km., based on the aftershock records. Fault plane solutions of three other earthquakes in the area analysed by Le Dain, et al., (1984) indicated underthrusting with probable fault plane dipping at a gentle angle beneath the arc.

Kumar, (1981) pointed out the high-temperature gradient in the east of the Andaman Islands and suggested that it might be due to normal faulting along the axis of the monoclinal fold, as shown by Closs, et al., (1974). Many studies were made on the active tectonism of the Andaman Sea (Fitch, 1972, Curray et al., 1974, 1978, 1982, Hamilton, 1978, Eguchi, et al., 1979, Kumar, 1981, Le Dain, et al., 1984, Sinvhal et al., 1979 and

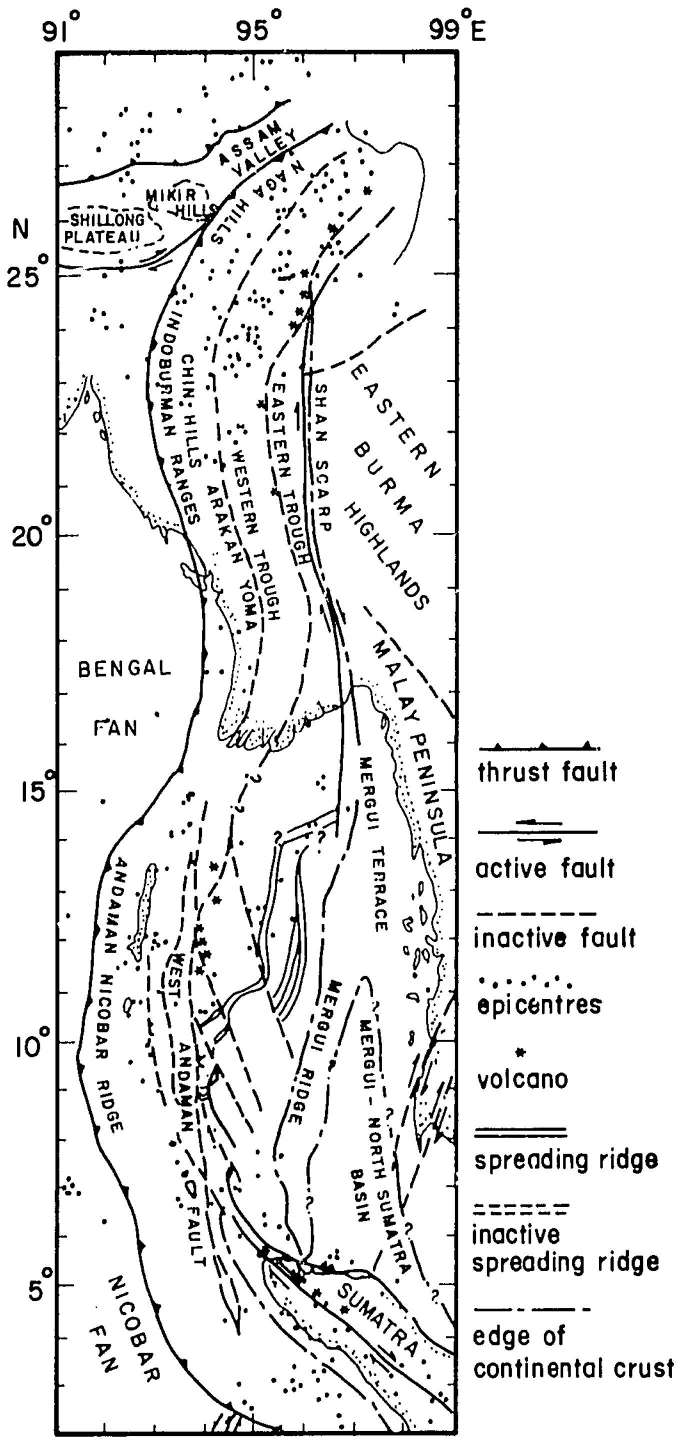


Fig.23 Tectonic Map of the Andaman Sea and Burma Modified from Curray et al.,(1979) (After Curray et al., 1982)

Table 7 Major historical earthquakes in Zone J

Date	Location	Brief Description
1846	Nicobar	Shock produced great landslips
1847	Nicobar	Great earthquake with numerous aftershocks
1881	W. Andaman Is	Damage in Andaman and Nicobar Is. Waves were found and rolled against the coast for several hours. Damage to buildings at Port Blair

Mukhopadhyay, in press) the interpretations of which all agreed that this area is a complex system of subduction tectonics on one side and spreading centres and transform faults on the other. There is no doubt that seismic activity will continue to follow the active tectonism in this region.

Zone K - Andaman Basin

Seismic source zone K lies where the topographical and seismic evidence shows that active extension is taking place along the central Andaman Sea. The tectonic map of Burma and the Andaman Sea (Fig. 23) presented by Curray, et al., (1982) shows areas where NE-SW segments of spreading axis were offset by short segments of transform faults along this active basin. He also estimated the current opening rate to be about 3.72 cm. per year and the opening seems to have started in Middle Miocene time.

Major seismicity in this area can be observed from the epicentre plot. The alignment of the epicentres seems to be in two relatively narrow areas. One is from 14^{o}N-16^{o}N, 96^{o}E, where the southern extension of the Sagaing Fault into the sea was inferred. It appears as a cluster of epicentres. At the southern end of this cluster (14^{o}N) Curray, et al., (1982) suggested that another NE trending segment of spreading axis may be presently buried beneath a thick section of sediment. The spreading axis in turn transformed northwards into the Sagaing Fault (Win Swe, 1972).

Another cluster of epicentres is concentrated where the NNW-SSE trending Fault crosses the southern end of the NS trending spreading ridge around 12^{o}N. Four focal mechanisms of earthquakes in this cluster indicate strike-slip faulting with the shearing plane striking nearly NS (Eguchi, et al., 1979).

Mukhopadhyay, (in press), studied the focal mechanism of several events in the whole area and concluded that most faults are strike-slip; only a few solutions show normal mechanism with a strike-slip component. He also made the interpretation of those faults which offset the segments of spreading ridges as being right-lateral transforms. His interpretation corresponded with those of Eguchi, et al., 1979.

Zone L - Andaman - Sumatra Area

This is the most complex seismic zone in the southern Andaman Sea where the Andaman Arc seismic zone and Andaman Basin seismic zone merge before continuing in a southeasterly direction into the Sumatra Fault system. It appears that the opening of the Andaman Sea was transformed into the Sumatra Fault system, which laterally bisects Sumatra, although the precise connection cannot yet be traced (Curray, et al., 1982). It has a similar tectonic setting to that of the Andaman Arc with the appearance of intermediate-focus as well as shallow-focus earthquakes. The shape of this area, at the northern end, is apex-like flanked on the west by the West Andaman Fault and on the east by the NNW-SSE fault. At the tip of the apex lies a cluster of epicentres. The earthquakes in this area might have been associated with the NNW-SSE trending faults as well as the NS West Andaman Fault. One fault plane solution of the earthquake close to the West Andaman Fault gives a strike-slip mechanism (Mukhopadhyay, in press). Further to the south, continuing on to north Sumatra, lies another area of major earthquake activity. These are, for the time being, grouped into one seismic source zone.

Earthquake Recurrence Relations

As described in the previous section, the 12 seismic source zones of the region are outlined using the epicentral locations of past earthquakes together with the geological and seismotectonic information. In some areas, the sources of earthquakes are well defined with the fitting of epicentre locations to the known faults or to the probable seismogenic faults. In others the epicentral locations are scattered all over the areas. This may be due to the existence of numerous faults in the region or due to errors in locating the epicentres. In order to develop the recurrence relation, the seismicity is assumed to be homogeneous over the area so that every piece of information is incorporated. The tabulation of all data according to each source zone is given in Appendix A. The data covering the period from 642 BC to 1911 AD are not included in the tabulation since they are mainly descriptive and are difficult to convert into the parameters used nowadays.

From these tabulated data, the following conclusions can be drawn.

1. Based on the 1912-1983 earthquake events in the 12 seismic sources zones, the number of occurrences in each source zone and the maximum magnitude and intensity are tabulated.

2. The reliability of the data is evaluated and the following observations can be made out.

(a) No seismographic station existed in Thailand prior to 1963. The establishment of the worldwide Standardized Seismograph Network in the 1960s has made available high-quality seismic data. The first one installed in Thailand was in Chiangmai in 1963. To give some idea of the reliability and availability of data, Fig. 24 shows the location of seismograph stations and the year in operation in the region.

(b) The availability of the data is limited, as shown in Table 8, where the comparison of the number of events during 1912-1959 (38 years) and during 1960-1983 (24 years) is shown. It can be clearly seen that the records of the latter 24 years of events are greater in number than the records of the former 38 years of events in every zone. The improved quality of the data is noticeable also. During 1912-1959, of all the 251 events, there are 221 of unknown depth, which is about 84%. Whereas, during 1960-1983, there were as many as 1436 records of events and for only 5% the focal depth is not known.

(c) The comparison between the number of earthquakes that occurred during 1912-1959 and 1960-1983 according to their magnitudes (Table 9) also confirms the low quality of the data prior to 1960. Almost 70% of the data recorded before 1960 did not give the magnitude.

(d) In view of the questionable accuracy of the geographical co-ordinates of the seismographical stations, the epicentral locations could be in error. It is hoped that the recent survey of recording station locations in Thailand (Table 10) will help to increase the accuracy of epicentral locations in the future. The re-location of epicentres of past earthquakes should also be made.

(e) For the historical records, the distribution of the data is biased. Records are found only in the capital cities in the past.

3. From the data presently available, it is felt that the analysis of earthquake frequency from these data alone can result in erroneous conclusions. Therefore, the frequency of the number of occurrences of each magnitude is shown in Table 11.

4. To obtain a reasonable analysis of the recurrence relation of the seismic sources, it is suggested that

(a) A data base of the seismic information be developed in computerized form.

Table 8 Number of recorded earthquake occurrences during 1912–1959 and 1960–1983 in comparison

Zone	Number of occurrences							
	1912–1959 (38 years)				1960–1983 (24 years)			
	S	I	U	Total	S	I	U	Total
A	4	6	18	**28**	79	22	5	**106**
B	5	11	20	**36**	72	115	2	**189**
C	1	0	17	**18**	66	2	8	**76**
D	0	0	10	**10**	58	2	4	**64**
E	0	1	18	**19**	75	0	7	**82**
F	1	0	8	**9**	145	1	5	**151**
G	0	0	1	**1**	46	0	3	**49**
H	0	0	19	**19**	123	2	6	**131**
I	0	0	11	**11**	35	2	1	**38**
J	7	2	64	**73**	184	63	9	**256**
K	1	1	24	**26**	178	12	8	**198**
L	0	0	11	**11**	65	28	3	**96**
	Total		221	**261**	Total		61	**1436**

Note:
S = Shallow-focus earthquake
I = Intermediate-focus earthquake
U = Unknown depth

Table 9 Number of recorded earthquake occurrences according to their magnitudes during 1912-1959 and 1960-1983 in comparison

		Magnitudes						
		3-4	4-4.9	5-5.9	6-6.9	>7	Unknown	Total
Zone A	1912-1959	0	0	3	4	0	21	28
	1960-1983	2	63	27	1	0	13	106
Zone B	1912-1959	0	0	3	7	2	24	36
	1960-1983	14	119	37	1	0	18	189
Zone C	1912-1959	0	0	5	0	5	8	18
	1960-1983	21	37	11	0	0	7	76
Zone D	1912-1959	0	0	1	0	0	9	10
	1960-1983	4	41	10	0	0	9	64
Zone E	1912-1959	0	0	0	6	3	10	19
	1960-1983	4	41	10	0	0	9	64
Zone F	1912-1959	0	0	0	0	1	8	9
	1960-1983	116	26	4	0	0	5	151
Zone G	1912-1959	0	0	0	1	0	0	1
	1960-1983	34	8	0	0	0	7	49
Zone H	1912-1959	0	0	1	6	0	12	19
	1960-1983	43	63	14	4	0	7	131
Zone I	1912-1959	0	0	0	5	0	6	11
	1960-1983	1	21	11	0	1	4	38
Zone J	1912-1959	0	0	7	12	3	51	73
	1960-1983	6	144	66	5	0	35	256
Zone K	1912-1959	0	0	0	7	0	19	26
	1960-1983	33	122	23	1	0	19	198

Table 10 Seismograph stations in Thailand

CODE	STATION NAME	LATITUDE	LONGITUDE	ELEV. (M)	DATE OPENED
CHG	CHIANG MAI	$18^{\circ}48'50.4''$	$98^{\circ}56'41.4''$	416	MAR 1963
SNG	SONGKHLA	$7^{\circ}10'37.2''$	$100^{\circ}36'59.4''$	4	OCT 1965
BDT	BHUMIBOL DAM	$17^{\circ}14'39.6''$	$99^{\circ}00'10.8''$	154	JAN 1976
PCT	PAK CHONG	$14^{\circ}40'51.0''$	$101^{\circ}24'39.6''$	360	OCT 1978
NST	NAKHON SAWAN	$15^{\circ}40'21.6''$	$100^{\circ}07'58.8''$	34	SEP 1982
KHT	KHAO LAEM DAM	$14^{\circ}47'05.4''$	$98^{\circ}35'33.0''$	173.3	OCT 1982
NNT	NONG PLAB	$12^{\circ}35'23.4''$	$99^{\circ}44'01.8''$	106.2	NOV 1982

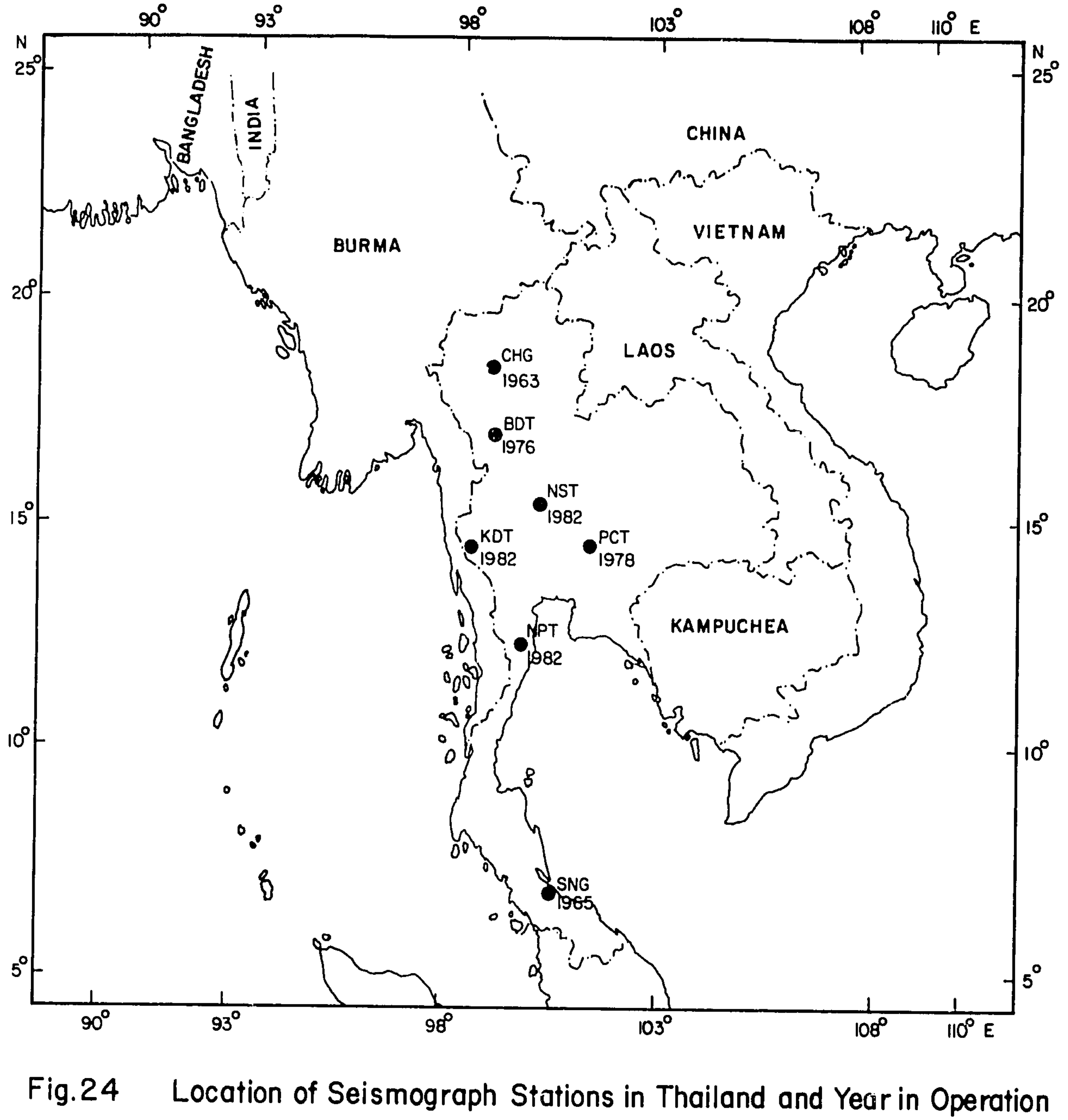


Fig.24 Location of Seismograph Stations in Thailand and Year in Operation

Table 11 Distribution of number of occurrences of each magnitude (1912–1983)

Zone	Depth	Total Occurrences	Magnitude					
			3–4	4–4.9	5–5.9	6–6.9	>7	Unknown
A	S	83	0	47	26	1	0	9
	I	28	2	16	1	2	0	7
	U	23	0	0	3	2	0	18
B	S	77	12	47	7	1	1	9
	I	126	2	72	32	7	1	12
	U	22	0	0	1	0	0	21
C	S	67	19	33	9	0	1	5
	I	2	0	1	1	0	0	0
	U	25	2	3	6	0	4	10
D	S	58	3	38	10	0	0	7
	I	2	0	1	0	0	0	1
	U	14	1	2	1	0	0	10
E	S	74	35	36	2	0	0	1
	I	1	0	0	0	0	0	1
	U	25	4	2	0	6	3	10
F	S	146	113	26	4	0	1	2
	I	1	1	0	0	0	0	0
	U	13	2	0	0	0	0	11
G	S	46	31	8	0	0	0	7
	I	0	0	0	0	0	0	0
	U	4	3	0	0	1	0	0

S = Shallow-focus earthquake
I = Intermediate-focus earthquake
U = Unknown depth

Table 11 (cont.)

Zone	Depth	Total Occurrences	Magnitude					
			3–4	4–4.9	5–5.9	6–6.9	>7	Unknown
H	S	123	40	60	13	4	0	6
	I	2	0	1	0	0	0	1
	U	25	3	2	2	6	0	12
I	S	35	1	19	11	0	1	3
	I	2	0	1	0	0	0	1
	U	12	0	1	0	5	0	6
J	S	191	5	98	57	7	0	24
	I	65	1	46	9	2	1	6
	U	73	0	0	7	8	2	56
K	S	179	32	112	22	2	0	11
	I	13	0	10	0	1	0	2
	U	32	1	0	1	5	0	25
L*	S	65	0	40	20	0	0	5
	I	28	0	18	10	0	0	0
	U	14	0	0	0	3	0	11

incomplete

(b) Several statistical approaches should be attempted on the selected data in order to deal with the uncertainties.

(c) Mean rate of occurrences for any time period should be established independently of magnitude, assuming Poisson's process.

(d) The magnitude unit should be computed into the commonly used Richter magnitude scale so that the distribution of the number of occurrences of each magnitude can be shown.

Conclusions

The area bounded by latitudes 5^{o}-25^{o}N and longitudes 90^{o}-110^{o}E can be subdivided into 12 seismic source zones based upon the seismic records and tectonic styles. They are labelled A to L, and zone names are given. Their tectonic settings and seismicities are described. Only one active fault within the entire area (the Sagaing Fault, in Zone C) has well-documented historical earthquake records associated with its movements.

The number of earthquake events in the 12 seismic source zones and their maximum magnitude and/or intensity are given. The recurrent relation cannot be properly established due to the scarcity of historical records as well as to the sudden increase in the number of instrumental records after 1960. Recommendations are made to properly analyse the earthquake recurrent relation.

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APPENDIX A

AREA : A

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	15-08-20			x						x
2	30-03-21			x						x
3	10-08-23			x						x
4	11-07-30			x						x
5	22-09-30			x				x		
6	09-09-37			x						x
7	06-05-38		x				x			
8	27-05-39		x					x		
9				x			x			
10	11-05-40		x					x		
11	08-03-47			x						x
12	28-09-48	x								x
13	15-07-49			x						x
14	25-09-50			x						x
15	18-11-50			x						x
16	01-10-51			x						x
17	14-01-55		x							x
18	15-03-55			x						x
19	21-01-56			x				x		
20	12-07-56	x								x

S = Shallow 0-70 km.
I = Intermediate 70-300 km.

AREA : A

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
21	07-08-56		x							x
22	10-11-56		x							x
23	31-12-56			x			x			
24	01-07-57	x								x
25	22-03-58	x								x
26	13-07-58			x						x
27	13-04-59			x						x
28	03-12-59			x						x
29	06-05-60		x							x
30	02-10-60		x							x
31	02-11-60		x							x
32	16-11-60			x						x
33	05-08-61	x								x
34	16-09-62	x					x			
35	18-12-62		x							x
36	22-01-64	x						x		
37	28-02-64	x					x			
38	13-06-64	x					x			
39	17-08-64		x			x				
40	22-01-65		x			x				
41	18-02-65	x					x			

AREA : A

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
42	18-06-65	x					x			
43	30-09-65			x						x
44	16-10-65	x					x			
45	06-05-66	x				x				
46	05-06-66	x				x				
47	27-10-66	x.				x				
48	08-02-67	x				x				
49	15-02-67	x					x			
50	18-01-68		x			x				
51	03-10-68	x				x				
52	19-12-69	x				x				
53	13-03-70	x				x				
54	07-04-70			x						x
55	29-05-70	x					x			
56	13-08-70	x				x				
57	01-12-70			x						x
58	11-11-71	x					x			
59	22-04-72	x				x				
60	08-06-72	x								x
61	21-08-72	x								x
62	31-05-73	x					x			

AREA : A

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
63	12-07-73		x			x				
64	30-10-73	x				x				
65	26-12-73	x					x			
66	01-01-74		x			x				
67	20-01-74	x				x				
68	25-03-74	x				x				
69	05-04-74	x					x			
70	05-04-74	x				x				
71	22-06-74		x			x				
72	23-07-74	x				x				
73	07-12-74	x				x				
74	17-01-75	x				x				
75	03-03-75	x					x			
76	13-03-75	x				x				
77	29-03-75	x					x			
78	21-05-75	x					x			
79	06-09-75	x				x				
80	01-02-76	x					x			
81	18-03-76	x								x
82	04-04-76	x					x			
83	29-09-76	x				x				

AREA : A

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
84	25-01-77	x				x				
85	12-05-77	x					x			
86	31-07-77	x				x				
87	13-10-77	x					x			
88	28-03-78	x				x				
89	31-03-78	x				x				
90	10-10-78	x				x				
91	05-11-78	x				x				
92	14-12-78		x			x				
93	29-12-78	x				x				
94	30-12-78	x				x				
95	01-01-79	x					x			
96	04-03-79	x				x				
97	25-03-79		x			x				
98	10-04-79	x				x				
99	14-04-79		x			x				
100	17-06-79		x		x					
101	18-06-79	x				x				
102	03-10-79	x					x			
103	07-11-79		x			x				
104	08-02-80	x				x				

AREA : A

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
105	04-04-80	x					x			
106	20-05-80			x			x			
107	17-07-80		x			x				
108	12-08-80	x				x				
109	20-11-80	x					x			
110	31-12-80	x				x				
111	04-04-81	x								x
112	06-05-81	x				x				
113	06-05-81	x				x				
114	17-06-81	x				x				
115	18-07-81	x					x			
116	03-08-81	x				x				
117	26-08-81	x				x				
118	15-11-81	x				x				
119	21-11-81	x				x				
120	03-01-82	x				x				
121	21-01-82		x			x				
122	22-05-82		x			x				
123	25-06-82	x				x				
124	07-10-82	x				x				
125	13-01-83	x					x			

AREA : A

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
126	29-01-83		x			x				
127	05-03-83	x				x				
128	01-04-83	x				x				
129	06-04-83	x				x				
130	26-06-83		x			x				
131	23-08-83		x			x				
132	30-08-83	x					x			
133	07-09-83		x		x					
134	21-10-83	x				x				

AREA : B

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	28-03-14		x					x		
2	02-09-24			x						x
3	18-08-26			x						x
4	08-09-26			x						x
5	15-03-27		x					x		
6	20-05-27			x						x
7	12-10-28			x						x
8	02-06-34		x					x		
9	23-04-35		x					x		
10	14-04-38		x					x		
11	16-08-38	x							x	
12	19-08-42			x						x
13	05-02-46			x						x
14	08-05-47			x						x
15	23-06-47			x						x
16	23-08-47			x						x
17	15-07-49			x						x
18	13-11-49			x						x
19	09-07-51			x						x
20	15-01-52		x							x
21	26-07-52	x								x

AREA : B

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
22	28-11-52			x						x
23	27-01-53			x						x
24	05-10-53			x						x
25	21-03-54		x						x	
26	08-09-55		x				x			
27	29-02-56	x								x
28	29-02-56	x						x		
29	03-03-56	x					x			
30	19-09-56		x					x		
31	30-12-56			x			x			
32	08-07-57			x						x
33	12-10-57			x						x
34	16-10-58			x						x
35	24-07-59		x							x
36	02-12-59		x							x
37	06-01-60			x						x
38	29-02-60			x						x
39	24-08-60		x							x
40	01-10-60	x								x
41	15-11-60	x								x
42	04-02-61		x				x			

AREA : B

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
43	13-04-61	x								x
44	14-06-61		x				x			
45	18-10-61	x								x
46	11-12-61		x							x
47	19-02-62	x								x
48	30-11-62		x							x
49	26-06-63		x				x			
50	28-09-63		x				x			
51	20-10-63		x							x
52	27-02-64		x				x			
53	20-03-64		x				x			
54	12-07-64		x				x			
55	13-07-64		x				x			
56	01-12-64		x							x
57	25-02-65		x				x			
58	01-06-65		x				x			
59	01-06-65	x					x			
60	11-06-65		x			x				
61	05-07-65	x				x				
62	05-12-65		x				x			
63	15-12-65		x				x			

AREA : B

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
64	17-12-65		x				x			
65	23-05-66	x				x				
66	29-05-66		x							x
67	25-09-66		x			x				
68	02-10-66		x			x				
69	18-10-66		x			x				
70	22-10-66		x				x			
71	19-11-66		x				x			
72	15-12-66		x				x			
73	04-01-67	x				x				
74	13-01-67		x			x				
75	15-04-67	x				x				
76	23-04-67	x				x				
77	17-06-67		x			x				
78	26-06-67	x				x				
79	27-08-67	x				x				
80	18-10-67	x				x				
81	10-12-67		x				x			
82	13-04-68		x			x				
83	18-02-69		x			x				
84	10-08-69		x			x				

AREA : B

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
85	29-09-69		x			x				
86	17-10-69		x					x		
87	29-10-69		x			x				
88	07-07-70		x			x				
89	14-10-70	x				x				
90	17-05-71		x			x				
91	16-06-71	x				x				
92	26-06-71		x				x			
93	10-10-71		x			x				
94	07-03-72		x			x				
95	01-04-72		x			x				
96	28-04-72	x					x			
97	18-05-72		x			x				
98	09-07-72		x			x				
99	11-07-72	x				x				
100	02-10-72	x				x				
101	11-11-72		x			x				
102	18-12-72		x				x			
103	10-02-73	x				x				
104	23-05-73	x				x				
105	03-07-73	x				x				

AREA : B

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
106	04-07-73		x				x			
107	27-07-73	x					x			
108	04-12-73	x				x				
109	07-01-74		x			x				
110	05-03-74	x				x				
111	25-05-74		x			x				
112	30-08-74		x			x				
113	21-09-74		x			x				
114	16-11-74		x			x				
115	21-11-74		x			x				
116	24-11-74		x							x
117	02-12-74		x			x				
118	03-03-75		x			x				
119	28-06-75		x			x				
120	08-07-75		x				x			
121	08-07-75		x			x				
122	09-07-75		x			x				
123	17-09-75	x				x				
124	21-10-75	x				x				
125	04-11-75		x				x			
126	19-11-75		x			x				

AREA : B

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
127	13-12-75	x					x			
128	20-03-76	x				x				
129	30-03-76	x				x				
130	15-05-76	x				x				
131	30-05-76	x								x
132	30-06-76		x			x				
133	01-08-76		x							x
134	24-09-76		x			x				
135	06-12-76	x				x				
136	15-12-76		x			x				
137	21-02-77		x							x
138	29-11-77		x			x				
139	03-12-77	x								x
140	08-01-78		x				x			
141	29-01-78	x				x				
142	03-02-78		x				x			
143	09-02-78		x			x				
144	11-02-78		x			x				
145	22-02-78		x			x				
146	23-02-78		x				x			
147	28-03-78	x				x				

AREA : B

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
148	27-04-78	x				x				
149	10-06-78		x			x				
150	14-06-78	x				x				
151	29-06-78	x			x					
152	03-07-78	x				x				
153	23-07-78		x			x				
154	31-07-78	x			x					
155	18-09-78		x			x				
156	22-09-78		x			x				
157	29-09-78		x			x				
158	06-10-78	x				x				
159	20-10-78		x			x				
160	27-10-78		x			x				
161	08-12-78		x			x				
162	16-12-78	x			x					
163	25-02-79	x			x					
164	03-03-79		x			x				
165	28-03-79		x			x				
166	29-03-79		x				x			
167	05-04-79	x			x					
168	27-05-79	x				x				

AREA : B

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
169	29-05-79		x				x			
170	30-05-79		x			x				
171	13-07-79		x			x				
172	11-08-79		x				x			
173	09-10-79		x			x				
174	19-10-79		x			x				
175	20-11-79	x				x				
176	03-12-79	x				x				
177	17-12-79		x		x					
178	27-01-80		x			x				
179	21-02-80		x			x				
180	23-02-80		x			x				
181	28-03-80		x			x				
182	18-04-80	x				x				
183	22-04-80	x				x				
184	23-04-80	x				x				
185	06-05-80		x			x				
186	20-05-80		x			x				
187	16-07-80	x				x				
188	27-08-80	x					x			
189	28-08-80		x			x				

AREA : B

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
190	28-08-80	x				x				
191	14-09-80		x			x				
192	04-10-80	x				x				
193	23-10-80		x			x				
194	14-01-81	x				x				
195	07-03-81		x			x				
196	11-04-81		x			x				
197	25-04-81		x				x			
198	01-05-81	x				x				
199	01-05-81		x			x				
200	01-05-81		x			x				
201	15-07-81		x			x				
202	30-07-81		x			x				
203	23-08-81		x			x				
204	23-08-81		x			x				
205	09-10-81		x			x				
206	03-12-81	x			x					
207	24-01-82		x				x			
208	27-02-82	x			x					
209	03-04-82		x			x				
210	06-04-82		x			x				

AREA : B

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
211	21-04-82		x		x					
212	11-09-82	x			x					
213	12-09-82	x			x					
214	30-10-82	x				x				
215	11-12-82	x				x				
216	03-01-83		x				x			
217	31-01-83	x				x				
218	03-02-83	x			x					
219	06-02-83	x			x					
220	13-04-83	x				x				
221	17-04-83	x				x				
222	14-06-83	x				x				
223	21-08-83		x			x				
224	21-10-83	x					x			
225	02-12-83	x			x					

AREA : C

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	05-05-30			x					x	
2	13-09-30			x						x
3	03-12-30			x						x
4	03-12-30			x					x	
5	06-09-31			x			x			
6	14-08-32			x						x
7	03-07-33			x			x			
8	21-02-36			x			x			
9	31-03-46			x						x
10	12-09-46			x					x	
11	12-09-46			x					x	
12	21-12-46			x						x
13	11-09-47			x						x
14	11-09-47			x						x
15	05-05-52			x						x
16	21-08-55			x			x			
17	16-07-56	x							x	
18	27-08-59			x			x			
19	11-01-60			x			x			
20	12-01-60			x						x
21	14-11-60			x						x

AREA : C

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
22	04-09-63		x				x			
23	04-11-64	x				x				
24	26-04-66	x				x				
25	12-02-68	x				x				
26	25-12-70	x				x				
27	28-03-71	x				x				
28	10-10-71	x				x				
29	14-10-71	x					x			
30	24-09-72	x								x
31	22-11-72	x					x			
32	28-02-74	x								x
33	20-03-74	x				x				
34	31-03-74	x								x
35	29-09-75	x					x			
36	30-12-75	x				x				
37	17-02-76	x				x				
38	03-03-76			x		x				
39	25-03-76			x	x					
40	25-03-76	x			x					
41	05-04-76	x				x				
42	24-11-77	x				x				

AREA : C

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
43	21-12-77	x				x				
44	15-02-78	x			x					
45	18-02-78	x			x					
46	28-03-78			x		x				
47	21-04-78	x			x					
48	27-04-78			x		x				
49	27-04-78	x				x				
50	14-05-78	x			x					
51	30-09-78	x					x			
52	07-12-78	x			x					
53	08-12-78	x					x			
54	08-12-78	x			x					
55	20-12-78	x				x				
56	21-12-78	x				x				
57	25-12-78	x				x				
58	20-01-79	x				x				
59	21-01-79	x				x				
60	18-02-79	x					x			
61	18-05-79	x								x
62	29-09-79	x				x				
63	11-11-79	x				x				

AREA : C

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
64	12-11-79	x				x				
65	08-02-80			x	x					
66	27-03-80	x				x				
67	16-05-80	x				x				
68	30-07-80	x				x				
69	29-11-80	x				x				
70	25-12-80	x				x				
71	31-12-80	x				x				
72	01-02-81	x				x				
73	08-02-81	x			x					
74	30-06-81	x					x			
75	23-10-81	x			x					
76	27-10-81	x			x					
77	11-12-81	x			x					
78	18-01-82	x				x				
79	04-02-82	x				x				
80	12-02-82		x			x				
81	24-03-82	x								x
82	30-03-82	x					x			
83	04-09-82	x				x				
84	11-09-82	x			x					

AREA : C

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
85	12-10-82	x			x					
86	29-11-82	x				x				
87	30-12-82	x			x					
88	30-12-82	x			x					
89	30-12-82	x			x					
90	07-02-83	x			x					
91	20-02-83	x				x				
92	17-04-83	x			x					
93	29-05-83	x					x			
94	04-11-83	x			x					

AREA : D

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	21-11-26			x						x
2	04-11-30			x						x
3	04-12-30			x						x
4	15-03-31			x						x
5	29-07-31			x						x
6	12-05-33			x						x
7	19-11-33			x			x			
8	26-01-46			x						x
9	08-10-46			x						x
10	24-08-59			x						x
11	21-03-60			x						x
12	07-07-61	x				x				
13	15-04-63		x							x
14	19-09-66	x				x				
15	20-09-66	x				x				
16	01-06-73	x				x				
17	30-05-75	x								x
18	24-10-75	x								x
19	29-05-76	x				x				
20	29-05-76	x					x			
21	29-05-76	x					x			

AREA : D

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
22	29-05-76	x				x				
23	29-05-76	x				x				
24	29-05-76	x				x				
25	29-05-76	x					x			
26	29-05-76	x				x				
27	30-05-76	x				x				
28	30-05-76	x					x			
29	30-05-76	x				x				
30	31-05-76	x					x			
31	31-05-76	x					x			
32	01-06-76	x								x
33	01-06-76	x								x
34	03-06-76	x								x
35	03-06-76	x				x				
36	08-06-76	x				x				
37	09-06-76	x					x			
38	09-06-76	x				x				
39	20-06-76	x				x				
40	20-06-76	x				x				
41	03-07-76	x					x			
42	13-07-76	x				x				

AREA : D

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
43	21-07-76	x					x			
44	22-07-76	x								x
45	23-07-76	x					x			
46	23-07-76	x								x
47	01-08-76	x				x				
48	04-08-76	x				x				
49	30-08-76	x				x				
50	12-10-76	x				x				
51	03-11-76	x				x				
52	08-12-76	x				x				
53	27-06-77	x				x				
54	04-03-78	x			x					
55	27-03-78	x				x				
56	28-04-78	x				x				
57	18-06-78	x			x					
58	06-07-78	x			x					
59	06-07-78			x	x					
60	06-07-78	x				x				
61	07-07-78	x				x				
62	07-07-78	x				x				
63	05-12-78	x				x				

AREA : D

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
64	18-03-79	x				x				
65	21-09-79	x				x				
66	23-09-79			x		x				
67	05-10-79			x		x				
68	17-10-79	x				x				
69	01-08-80	x				x				
70	04-08-81	x				x				
71	14-08-81	x				x				
72	28-08-81		x			x				
73	29-08-81	x				x				
74	18-09-83	x				x				

AREA : E

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	02-05-22			x						x
2	22-06-23			x					x	
3	22-06-23			x						x
4	01-07-23			x				x		
5	20-07-27			x						x
6	14-05-38			x						x
7	14-05-38			x				x		
8	16-05-41			x				x		
9	26-12-41			x					x	
10	31-01-42			x				x		
11	23-02-43			x						x
12	02-02-50			x					x	
13	02-02-50			x						x
14	03-02-50			x				x		
15	03-02-50			x						x
16	19-06-52			x				x		
17	08-12-52			x						x
18	16-07-56		x							x
19	20-01-58			x						x
20	22-09-65	x					x			
21	06-04-68			x						x

AREA : E

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
22	02-07-69	x				x				
23	07-07-72	x				x				
24	24-03-73	x				x				
25	16-11-74	x				x				
26	11-09-75	x				x				
27	18-09-75	x				x				
28	22-03-76	x			x					
29	31-03-76	x			x					
30	03-05-76	x								x
31	06-05-76	x			x					
32	06-05-76	x			x					
33	16-10-76	x				x				
34	01-05-77	x				x				
35	17-06-77			x	x					
36	20-07-77	x				x				
37	20-07-77	x				x				
38	17-03-78	x			x					
39	04-04-78	x				x				
40	20-04-78	x			x					
41	28-04-78	x			x					
42	03-05-78	x			x					

AREA : E

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
43	04-05-78	x				x				
44	04-05-78	x				x				
45	19-05-78	x			x					
46	29-05-78	x			x					
47	31-05-78	x				x				
48	23-06-78			x	x					
49	28-06-78	x			x					
50	03-07-78	x			x					
51	07-07-78	x			x					
52	26-07-78	x			x					
53	31-07-78	x			x					
54	01-09-78	x				x				
55	26-10-78	x				x				
56	02-02-79	x				x				
57	15-03-79	x					x			
58	17-04-79			x		x				
59	04-06-79			x	x					
60	18-06-79	x			x					
61	19-10-79	x				x				
62	30-01-80	x				x				
63	27-02-80			x		x				

AREA : E

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
64	24-03-80	x				x				
65	14- 5-80	x				x				
66	14-05-80	x				x				
67	20-07-80	x			x					
68	04-08-80			x	x					
69	24-08-80	x			x					
70	27-08-80	x				x				
71	02-12-80	x			x					
72	13-01-81	x			x					
73	07-03-81	x				x				
74	25-04-81	x				x				
75	12-09-81	x				x				
76	12-09-81	x			x					
77	12-09-81	x			x					
78	13-09-81	x				x				
79	13-09-81	x			x					
80	18-09-81	x			x					
81	06-10-81	x			x					
82	12-10-81	x				x				
83	01-11-81	x			x					
84	30-11-81	x				x				

AREA : E

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
85	30-11-81	x				x				
86	30-11-81	x			x					
87	27-12-81	x			x					
88	28-12-81	x			x					
89	28-12-81	x								x
90	11-02-82	x			x					
91	10-03-82	x			x					
92	14-11-82	x			x					
93	31-01-83	x			x					
94	05-02-83	x			x					
95	09-04-83	x				x				
96	03-08-83	x				x				
97	05-08-83	x			x					
98	07-08-83	x				x				
99	13-08-83	x				x				
100	19-10-83	x				x				
101	08-12-83	x				x				

AREA : F

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	23-05-12	x							x	
2	12-04-17			x						x
3	08-09-19			x						x
4	12-09-21			x						x
5	24-12-22			x						x
6	08-08-29			x						x
7	15-12-29			x						x
8	10-08-31			x						x
9	24-12-37			x						x
10	18-04-68			x						x
11	20-07-69			x						x
12	17-02-75	x					x			
13	04-07-77	x				x				
14	14-08-77	x			x					
15	29-09-77	x			x					
16	09-01-79	x			x					
17	22-02-79	x			x					
18	25-02-79	x				x				
19	01-03-79			x	x					
20	12-04-79	x			x					
21	25-21-79	x			x					

AREA : F

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
22	27-04-80			x	x					
23	09-07-80	x			x					
24	06-09-80			x						x
25	13-01-81	x			x					
26	14-01-81	x			x					
27	13-04-81	x			x					
28	01-06-81	x			x					
29	13-06-81	x			x					
30	22-07-81	x								x
31	20-08-81	x			x					
32	28-08-81	x			x					
33	19-09-81	x				x				
34	19-09-81	x			x					
35	05-11-81	x			x					
36	12-03-82	x			x					
37	25-03-82	x			x					
38	14-05-82	x			x					
39	26-10-82	x			x					
40	13-11-82	x				x				
41	14-11-82	x				x				
42	26-11-82	x			x					

AREA : F

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
43	18-02-83	x			x					
44	22-03-83	x			x					
45	15-04-83	x					x			
46	15-04-83	x				x				
47	15-04-83	x			x					
48	15-04-83	x			x					
49	17-04-83	x			x					
50	22-04-83	x					x			
51	22-04-83	x					x			
52	22-04-83	x			x					
53	22-04-83	x			x					
54	22-04-83	x				x				
55	22-04-83	x				x				
56	22-04-83	x			x					
57	22-04-83	x			x					
58	22-04-83	x			x					
59	22-04-83	x			x					
60	22-04-83	x			x					
61	22-04-83	x				x				
62	22-04-83	x			x					
63	22-04-83	x			x					

AREA : F

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
64	22-04-83	x			x					
65	22-04-83	x			x					
66	22-04-83	x			x					
67	22-04-83	x			x					
68	22-04-83	x			x					
69	22-04-83	x				x				
70	22-04-83	x			x					
71	23-04-83	x			x					
72	23-04-83	x			x					
73	23-04-83	x				x				
74	23-04-83	x			x					
75	23-04-83	x			x					
76	23-04-83	x				x				
77	23-04-83	x			x					
78	23-04-83	x			x					
79	23-04-83	x			x					
80	23-04-83	x			x					
81	23-04-83	x			x					
82	24-04-83	x			x					
83	24-04-83	x			x					
84	24-04-83	x			x					

AREA : F

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
85	24-04-83	x			x					
86	24-04-83	x			x					
87	24-04-83	x			x					
88	24-04-83	x			x					
89	24-04-83	x			x					
90	25-04-83	x			x					
91	25-04-83	x			x					
92	25-04-83	x			x					
93	25-04-83	x			x					
94	26-04-83	x				x				
95	26-04-83	x			x					
96	26-04-83	x			x					
97	26-04-83	x			x					
98	27-04-83	x			x					
99	27-04-83	x			x					
100	27-04-83	x				x				
101	27-04-83	x			x					
102	28-04-83	x			x					
103	28-04-83	x			x					
104	28-04-83	x				x				
105	30-04-83	x			x					

AREA : F

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
106	30-04-83	x			x					
107	30-04-83	x			x					
108	01-05-83	x			x					
109	01-05-83	x				x				
110	02-05-83	x			x					
111	02-05-83	x			x					
112	03-05-83	x			x					
113	03-05-83	x			x					
114	04-05-83	x				x				
115	05-05-83	x			x					
116	06-05-83	x			x					
117	09-05-83	x			x					
118	10-05-83	x			x					
119	13-05-83	x			x					
120	16-05-83	x			x					
121	18-05-83	x			x					
122	20-05-83	x			x					
123	21-05-83	x			x					
124	28-05-83	x			x					
125	29-05-83	x			x					
126	05-06-83	x			x					

AREA : F

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
127	05-06-83	x			x					
128	05-06-83	x			x					
129	09-06-83	x				x				
130	10-06-83	x			x					
131	14-06-83	x				x				
132	15-06-83	x			x					
133	17-06-83	x				x				
134	19-06-83	x			x					
135	19-06-83	x			x					
136	06-07-83	x				x				
137	07-07-83	x			x					
138	10-07-83	x			x					
139	14-07-83	x				x				
140	15-07-83	x				x				
141	15-07-83	x			x					
142	17-07-83	x				x				
143	17-07-83	x				x				
144	17-07-83	x			x					
145	31-07-83	x			x					
146	02-08-83	x			x					
147	10-08-83		x		x					

AREA : F

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
148	10-08-83	x			x					
149	26-08-83	x			x					
150	29-08-83	x			x					
151	29-08-83	x				x				
152	19-09-83	x			x					
153	14-10-83	x								x
154	23-10-83	x			x					
155	24-10-83	x			x					
156	25-10-83	x			x					
157	02-11-83	x			x					
158	07-11-83	x			x					
159	12-11-83	x			x					
160	08-12-83	x			x					

AREA : G

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	13-05-35			x				x		
2	07-01-77	x				x				
3	26-12-77	x								x
4	09-05-78	x			x					
5	11-05-78	x			x					
6	25-05-78	x				x				
7	27-05-78	x			x					
8	27-05-78	x			x					
9	29-05-78	x			x					
10	20-06-78	x			x					
11	23-07-78	x								x
12	22-01-79	x				x				
13	22-01-79	x			x					
14	13-02-79	x			x					
15	01-02-80			x	x					
16	04-02-80	x			x					
17	10-02-80	x				x				
18	05-04-80			x	x					
19	09-04-80			x	x					
20	09-04-80	x			x					
21	29-07-80	x			x					

AREA : G

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
22	10-09-80	x			x					
23	19-12-80	x			x					
24	20-12-80	x			x					
25	20-12-80	x			x					
26	22-12-80	x				x				
27	22-12-80	x			x					
28	22-12-80	x			x					
29	22-12-80	x			x					
30	23-12-80	x								x
31	23-12-80	x			x					
32	23-12-80	x				x				
33	01-01-81	x								x
34	01-01-81	x								x
35	30-03-81	x			x					
36	02-05-81	x								x
37	29-11-81	x			x					
38	11-12-81	x			x					
39	01-01-82	x								x
40	01-01-82	x			x					
41	13-03-82	x			x					
42	20-06-82	x				x				

AREA : G

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
43	17-04-83	x				x				
44	10-06-83	x			x					
45	14-06-83	x			x					
46	19-06-83	x			x					
47	19-06-83	x			x					
48	02-09-83	x			x					
49	21-11-83	x			x					
50	21-11-83	x			x					

AREA : H

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	22-03-18			x						x
2	09-12-19			x						x
3	16-03-25			x						x
4	16-03-25			x				x		
5	22-12-25			x				x		
6	23-12-25			x						x
7	29-03-26			x						x
8	14-05-30			x						x
9	16-05-30			x						x
10	09-12-30			x						x
11	12-12-30			x						x
12	31-01-31			x						x
13	12-02-34			x				x		
14	01-11-35			x				x		
15	11-03-36			x						x
16	21-09-37			x				x		
17	20-09-58			x						x
18	12-06-61	x					x			
19	20-11-64		x							x
20	03-07-65	x					x			
21	03-07-65	x								x

AREA : H

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
22	18-09-66	x				x				
23	18-09-66	x					x			
24	02-12-66			x			x			
25	09-02-69	x				x				
26	06-02-70	x					x			
27	06-02-70	x						x		
28	06-02-70	x				x				
29	01-05-70	x								x
30	28-04-71	x						x		
31	28-04-71	x					x			
32	14-09-71	x						x		
33	16-07-72			x		x				
34	27-08-72	x				x				
35	22-03-73	x				x				
36	16-08-73	x					x			
37	16-08-73	x					x			
38	30-04-75	x				x				
39	21-10-75	x				x				
40	27-10-75	x					x			
41	22-01-76	x								x
42	16-02-76	x				x				

AREA : H

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
43	19-02-76	x				x				
44	08-03-76			x	x					
45	25-03-76	x			x					
46	27-04-76	x				x				
47	16-05-76	x			x					
48	19-09-76	x				x				
49	12-08-77			x	x					
50	04-11-77	x								
51	06-03-78	x			x					
52	12-03-78	x			x					
53	29-05-78	x				x				
54	02-08-78	x					x			
55	02-08-78	x			x					
56	09-09-78	x					x			
57	12-09-78	x				x				
58	28-09-78		x			x				
59	01-11-78	x				x				
60	06-11-78	x			x					
61	16-11-78	x			x					
62	13-12-78	x				x				
63	14-12-78	x			x					

AREA : H

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
64	09-01-79	x				x				
65	09-01-79	x				x				
66	13-01-79	x				x				
67	14-01-79	x				x				
68	20-01-79	x			x					
69	20-01-79	x			x					
70	30-01-79	x			x					
71	15-03-79	x				x				
72	18-03-79	x				x				
73	14-04-79	x			x					
74	20-04-79			x	x					
75	19-07-79			x		x				
76	05-12-79	x			x					
77	08-02-80	x			x					
78	11-03-80	x			x					
79	27-08-80	x				x				
80	27-08-80	x			x					
81	12-10-80	x				x				
82	12-10-80	x				x				
83	04-08-81	x				x				
84	17-08-81	x				x				

AREA : H

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
85	18-08-81	x				x				
86	18-08-81	x				x				
87	18-08-81	x				x				
88	18-08-81	x			x					
89	18-08-81	x			x					
90	23-08-81	x			x					
91	23-08-81	x			x					
92	25-08-81	x			x					
93	25-08-81	x			x					
94	12-09-81	x			x					
95	15-09-81	x			x					
96	19-09-81	x					x			
97	24-09-81	x			x					
98	25-10-81	x								x
99	01-12-81	x			x					
100	01-12-81	x			x					
101	01-12-81	x			x					
102	04-12-81	x			x					
103	26-12-81	x			x					
104	12-01-82	x			x					
105	16-02-82	x				x				

AREA : H

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
106	18-02-82	x				x				
107	19-02-82	x			x					
108	20-02-82	x				x				
109	25-03-82	x			x					
110	12-04-82	x			x					
111	01-06-82	x								x
112	01-06-82	x				x				
113	04-06-82	x				x				
114	07-06-82	x				x				
115	10-06-82	x			x					
116	12-06-82	x				x				
117	17-10-82	x				x				
118	22-10-82	x			x					
119	30-11-82	x			x					
120	01-12-82	x				x				
121	28-12-82	x					x			
122	10-01-83	x				x				
123	14-01-83	x			x					
124	21-05-83	x				x				
125	21-05-83	x				x				
126	23-05-83	x				x				

AREA : H

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
127	26-05-83	x				x				
128	28-05-83	x				x				
129	05-06-83	x				x				
130	15-06-83	x			x					
131	24-06-83	x						x		
132	24-06-83	x				x				
133	24-06-83	x				x				
134	24-06-83	x				x				
135	24-06-83	x				x				
136	25-06-83	x				x				
137	25-06-83	x				x				
138	25-06-83	x				x				
139	27-06-83	x				x				
140	01-07-83	x				x				
141	11-07-83	x				x				
142	15-07-83	x					x			
143	20-07-83	x				x				
144	22-07-83	x				x				
145	06-08-83	x				x				
146	04-09-83	x				x				
147	12-10-83	x				x				
148	04-12-83	x			x					

AREA : I

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	21-12-13			x				x		
2	23-11-26			x						x
3	09-02-29			x						x
4	22-03-29			x				x		
5	12-01-34			x				x		
6	03-03-34			x						x
7	01-04-36			x				x		
8	26-10-38			x						x
9	06-04-40			x				x		
10	13-09-50			x						x
11	03-05-53			x						x
12	23-05-65	x					x			
13	04-01-70	x							x	
14	04-01-70	x					x			
15	04-01-70	x					x			
16	04-01-70	x				x				
17	04-01-70	x				x				
18	04-01-70	x				x				
19	05-01-70	x				x				
20	05-01-70	x				x				
21	05-01-70	x				x				

AREA : I

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
22	05-01-70	x				x				
23	06-01-70	x								x
24	07-01-70	x				x				
25	07-01-70	x				x				
26	08-01-70	x				x				
27	09-01-70	x				x				
28	12-01-70	x				x				
29	14-01-70	x					x			
30	05-02-70	x					x			
31	11-03-70	x				x				
32	12-03-70	x					x			
33	17-06-70	x				x				
34	23-01-72	x					x			
35	16-07-72		x							x
36	18-03-75	x				x				
37	09-07-75	x				x				
38	18-08-75	x				x				
39	09-10-76	x				x				
40	29-09-77			x		x				
41	19-10-77	x				x				
42	17-06-80	x					x			

AREA : I

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
43	21-06-80	x			x					
44	25-08-81		x			x				
45	27-10-82	x					x			
46	12-02-83	x					x			
47	01-03-83	x								x
48	01-03-83	x								x
49	01-09-83	x					x			

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	11-10-14		x						x	
2	12-08-15			x				x		
3	05-03-21			x						x
4	24-01-24			x						x
5	13-05-25			x				x		
6	28-06-25	x						x		
7	17-05-27			x						x
8	19-05-28			x						x
9	27-07-28			x						x
10	17-07-30			x						x
11	13-12-30			x						x
12	28-02-31			x						x
13	08-08-31			x			x			
14	20-09-32			x			x			
15	11-12-32			x				x		
16	22-05-34			x						x
17	19-04-36			x				x		
18	01-03-38			x						x
19	07-10-38			x						x
20	07-10-38			x						x
21	07-10-38		x					x		

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
22	09-10-38			x						x
23	18-07-39			x						x
24	18-07-39	x					x			
25	25-09-39			x			x			
26	22-09-40			x						x
27	13-11-40			x			x			
28	26-06-41			x					x	
29	27-06-41			x						x
30	27-06-41			x						x
31	27-06-41			x						x
32	27-06-41			x						x
33	28-06-41			x						x
34	28-06-41			x						x
35	30-06-41			x						x
36	30-06-41			x						x
37	02-07-41			x						x
38	09-07-41			x						x
39	14-07-41			x				x		
40	21-07-41			x						x
41	09-08-41			x				x		
42	19-08-41			x			x			

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
43	30-08-41			x						x
44	21-09-41			x						x
45	23-10-41			x						x
46	30-10-41			x						x
47	12-11-41	x						x		
48	30-10-42			x						x
49	06-12-43			x						x
50	30-05-44			x						x
51	27-07-44			x						x
52	13-06-45			x						x
53	08-08-45			x						x
54	05-12-46			x						x
55	30-01-47			x						x
56	15-02-50			x						x
57	15-02-50	x								x
58	05-04-50			x						x
59	06-06-53	x								x
60	14-04-54			x						x
61	17-05-55			x					x	
62	26-05-55			x						x
63	14-07-55			x				x		

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
64	02-08-55			x						x
65	11-01-56			x				x		
66	13-01-58	x						x		
67	17-03-58			x						x
68	21-03-58			x						x
69	28-05-58			x						x
70	08-11-58			x						x
71	13-11-58			x			x			
72	04-03-59	x								x
73	11-08-59			x						x
74	07-01-60			x			x			
75	14-02-60			x						x
76	19-06-60			x						x
77	08-10-60	x					x			
78	20-10-60	x								x
79	21-10-60		x							x
80	11-11-60	x								x
81	22-11-60			x						x
82	26-01-61		x							x
83	11-07-61	x					x			
84	21-07-61	x								x

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
85	29-09-61	x								x
86	06-12-61	x					x			
87	06-03-62	x					x			
88	03-08-62	x								x
89	07-08-62	x								x
90	16-11-62	x						x		
91	16-11-62	x								x
92	28-11-62	x					x			
93	13-12-62		x							x
94	16-01-63	x								x
95	20-03-63	x				x				
96	27-06-63	x					x			
97	12-10-63			x						x
98	30-11-63	x					x			
99	01-12-63	x								x
100	01-05-64		x				x			
101	13-06-64		x				x			
102	23-06-64	x					x			
103	06-09-64	x					x			
104	15-09-64		x					x		
105	16-09-64	x					x			

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
106	01-12-64		x			x				
107	07-01-65	x					x			
108	26-06-65		x			x				
109	19-08-65	x				x				
110	15-10-65	x					x			
111	04-03-66		x			x				
112	10-03-66			x						x
113	04-04-66	x				x				
114	04-04-66	x				x				
115	04-04-66	x					x			
116	05-04-66	x				x				
117	14-05-66			x						x
118	09-06-66	x					x			
119	12-07-66	x				x				
120	25-07-66	x					x			
121	04-09-66	x					x			
122	27-09-66	x				x				
123	05-10-66	x				x				
124	18-12-66		x			x				
125	01-01-67		x			x				
126	22-01-67	x				x				

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
127	02-07-67	x					x			
128	02-07-67	x				x				
129	02-07-67	x				x				
130	02-07-67		x			x				
131	06-09-67	x					x			
132	20-12-67	x					x			
133	21-12-67	x					x			
134	12-01-68	x					x			
135	24-02-68	x				x				
136	31-03-68	x					x			
137	18-07-68	x				x				
138	19-07-68	x					x			
139	19-07-68		x			x				
140	19-07-68	x				x				
141	10-09-68	x				x				
142	06-10-68		x				x			
143	11-02-69	x								x
144	02-04-69	x				x				
145	30-04-69	x				x				
146	07-11-69			x						x
147	27-11-69	x								x

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
148	28-11-69	x								x
149	04-12-69		x				x			
150	21-01-70	x					x			
151	08-02-70	x					x			
152	24-02-70	x				x				
153	01-03-70		x							x
154	06-05-70	x					x			
155	19-05-70	x				x				
156	24-05-70	x				x				
157	18-10-70		x			x				
158	31-12-70	x				x				
159	05-06-71	x					x			
160	09-06-71		x				x			
161	29-06-71		x				x			
162	[illegible]5-11-71	x					x			
163	04-02-72		x				x			
164	22-02-72	x					x			
165	20-09-72	x				x				
166	25-09-72	x					x			
167	06-10-72	x								x
168	08-12-72	x				x				

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
169	16-02-73	x				x				
170	07-03-73	x				x				
171	07-04-73	x						x		
172	10-04-73	x				x				
173	19-06-73		x			x				
174	09-07-73	x					x			
175	24-08-73	x				x				
176	02-09-73	x				x				
177	15-11-73	x					x			
178	16-02-74	x					x			
179	16-02-74		x				x			
180	16-02-74	x				x				
181	10-04-74	x				x				
182	22-04-74	x				x				
183	27-06-74	x					x			
184	04-03-75	x				x				
185	15-05-75		x			x				
186	16-05-75		x							x
187	30-06-75		x			x				
188	17-08-75	x								x
189	13-10-75	x				x				

AREA : J

No.	Date	Depth			Magnitude				
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
190	31-12-75		x			x				
191	31-01-76	x				x				
192	14-02-76		x			x				
193	09-03-76	x			x					
194	25-03-76	x								x
195	19-04-76	x				x				
196	21-04-76	x					x			
197	11-05-76	x								x
198	31-05-76		x			x				
199	20-06-76	x				x				
200	25-06-76	x			x					
201	17-07-76	x								x
202	28-07-76	x				x				
203	25-09-76	x				x				
204	30-10-76		x			x				
205	11-12-76	x					x			
206	11-12-76	x				x				
207	09-02-77	x				x				
208	19-02-77	x					x			
209	22-07-77	x				x				
210	27-07-77	x				x				

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
211	10-08-77		x							x
212	31-08-77		x			x				
213	01-10-77		x			x				
214	13-10-77	x					x			
215	13-10-77	x				x				
216	13-10-77	x					x			
217	02-01-78	x				x				
218	29-01-78	x				x				
219	07-02-78	x					x			
220	07-02-78	x					x			
221	07-02-78	x				x				
222	07-02-78	x					x			
223	07-02-78	x				x				
224	07-02-78	x				x				
225	07-02-78	x				x				
226	08-02-78	x				x				
227	09-02-78	x				x				
228	15-02-78	x				x				
229	15-02-78	x				x				
230	25-03-78		x			x				
231	13-04-78	x				x				

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
232	13-04-78	x				x				
233	31-08-78	x				x				
234	29-01-79	x				x				
235	31-01-79	x								x
236	06-02-79	x				x				
237	18-05-79		x			x				
238	27-05-79		x			x				
239	13-06-79		x			x				
240	05-07-79	x					x			
241	24-07-79	x				x				
242	15-08-79	x				x				
243	23-09-79		x			x				
244	10-10-79	x				x				
245	12-10-79	x				x				
246	11-11-79	x								
247	14-01-80		x			x				
248	19-02-80		x			x				
249	20-02-80	x				x				
250	20-02-80	x					x			
251	21-02-80		x			x				
252	25-02-80	x				x				

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
253	03-03-80		x			x				
254	05-03-80	x								x
255	06-04-80		x			x				
256	25-05-80	x				x				
257	26-05-80	x				x				
258	01-08-80		x			x				
259	20-08-80		x			x				
260	29-09-80	x				x				
261	29-10-80	x					x			
262	31-10-80	x				x				
263	08-11-80		x			x				
264	16-11-80		x			x				
265	14-12-80		x		x					
266	27-12-80	x				x				
267	18-01-81		x			x				
268	01-02-81	x				x				
269	16-02-81	x				x				
270	26-04-81		x			x				
271	14-05-81			x						x
272	26-05-81		x			x				
273	08-06-81		x			x				

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
274	24-09-81	x				x				
275	10-10-81	x				x				
276	21-10-81		x			x				
277	02-11-81	x					x			
278	28-12-81	x				x				
279	09-01-82	x			x					
280	18-01-82	x				x				
281	19-01-82	x				x				
282	20-01-82	x					x			
283	20-01-82	x					x			
284	20-01-82	x				x				
285	20-01-82	x				x				
286	20-01-82	x					x			
287	20-01-82	x				x				
288	20-01-82	x				x				
289	20-01-82	x				x				
290	21-01-82	x			x					
291	22-01-82	x					x			
292	24-01-82	x				x				
293	25-01-82	x				x				
294	26-02-82	x				x				

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
295	07-03-82	x				x				
296	05-04-82	x					x			
297	05-04-82	x			x					
298	05-04-82	x				x				
299	08-04-82	x				x				
300	22-05-82	x					x			
301	05-07-82		x			x				
302	10-07-82		x			x				
303	03-08-82		x			x				
304	26-08-82	x				x				
305	26-09-82	x				x				
306	27-09-82	x				x				
307	26-11-82	x				x				
308	16-12-82		x				x			
309	26-12-82	x								x
310	07-01-83	x				x				
311	24-01-83	x						x		
312	17-02-83		x			x				
313	20-02-83	x						x		
314	03-03-83		x			x				
315	12-03-83	x					x			

AREA : J

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
316	25-04-83		x			x				
317	14-05-83	x					x			
318	19-05-83		x			x				
319	09-07-83		x			x				
320	18-08-83		x			x				
321	17-09-83	x					x			
322	30-09-83	x				x				
323	26-10-83		x			x				
324	23-12-83	x				x				
325	23-12-83	x				x				
326	25-12-83	x				x				
327	25-12-83	x				x				
328	25-12-83	x				x				
329	27-12-83	x					x			

AREA : K

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	21-10-16			x						x
2	20-01-17			x						x
3	18-01-18			x						x
4	07-09-18			x						x
5	16-12-18			x						x
6	17-10-22			x				x		
7	17-10-22			x						x
8	17-10-22			x						x
9	17-10-22			x						x
10	14-04-25			x						x
11	06-07-26			x						x
12	30-04-29			x						x
13	01-08-29			x				x		
14	03-12-30			x						x
15	13-02-31			x						x
16	11-04-35			x				x		
17	14-09-39		x					x		
18	02-07-40			x						x
19	28-06-45			x						x
20	14-06-49			x						x
21	14-06-49			x						x

AREA : K

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
22	18-06-57	x						x		
23	18-06-57			x				x		
24	25-06-57			x				x		
25	14-05-58			x						x
26	17-05-58			x						x
27	03-08-60	x								x
28	22-12-60	x						x		
29	25-12-62			x						x
30	30-04-63			x						x
31	30-04-63	x								x
32	19-05-63			x						x
33	22-11-63	x					x			
34	31-01-64	x								x
35	22-04-64	x					x			
36	28-07-64	x					x			
37	28-07-64	x					x			
38	29-07-64	x								x
39	30-07-64	x								x
40	30-09-64	x								x
41	31-10-64			x						x
42	26-04-65	x					x			

AREA : K

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
43	04-01-66		x			x				
44	05-01-66	x					x			
45	05-04-66	x				x				
46	26-09-66	x				x				
47	01-11-66	x				x				
48	11-02-67		x			x				
49	14-02-67	x					x			
50	02-11-67			x						x
51	05-09-68	x				x				
52	14-10-68	x					x			
53	18-10-68	x				x				
54	23-08-70	x								x
55	25-02-71			x			x			
56	25-02-71		x			x				
57	01-03-71			x						x
58	28-03-71	x					x			
59	28-03-71	x					x			
60	28-03-71	x					x			
61	28-03-71	x					x			
62	28-03-71	x				x				
63	28-03-71	x				x				

AREA : K

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
64	29-03-71	x					x			
65	23-06-71		x			x				
66	27-07-71	x					x			
67	05-08-71	x				x				
68	05-08-71	x				x				
69	12-08-71	x					x			
70	11-09-71	x				x				
71	11-09-71	x					x			
72	11-09-71	x				x				
73	01-12-71	x				x				
74	03-02-72	x				x				
75	13-11-72	x				x				
76	13-11-72	x					x			
77	09-06-73	x				x				
78	26-07-73		x			x				
79	26-07-73	x				x				
80	26-07-73	x				x				
81	26-07-73		x			x				
82	26-07-73	x				x				
83	26-07-73	x				x				
84	26-07-73	x					x			

AREA : K

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
85	12-06-74	x								x
86	02-12-74	x								x
87	22-01-75	x					x			
88	13-03-75	x				x				
89	14-05-75	x				x				
90	01-06-75		x			x				
91	08-11-75		x							x
92	03-08-76	x				x				
93	28-12-76	x								x
94	29-01-77	x				x				
95	26-02-78	x				x				
96	07-03-78	x				x				
97	05-05-78	x				x				
98	20-05-78	x				x				
99	25-05-78	x			x					
100	02-07-78	x				x				
101	24-10-78	x					x			
102	24-10-78	x			x					
103	24-10-78	x			x					
104	25-10-78	x			x					
105	26-10-78	x			x					

AREA : K

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
106	08-11-78	x			x					
107	09-11-78	x				x				
108	08-12-78	x			x					
109	08-12-78	x				x				
110	18-01-79	x			x					
111	29-03-79	x				x				
112	29-03-79	x				x				
113	08-04-79	x				x				
114	08-04-79	x				x				
115	08-04-79	x				x				
116	08-04-79	x				x				
117	08-04-79	x				x				
118	01-01-80	x					x			
119	10-01-80		x			x				
120	25-02-80	x				x				
121	28-02-80		x							x
122	19-03-80	x			x					
123	21-03-80	x				x				
124	07-05-80	x			x					
125	01-06-80		x			x				
126	07-08-80			x	x					

AREA : K

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
127	24-08-80	x								x
128	25-08-80	x				x				
129	11-11-80	x				x				
130	11-05-81	x			x					
131	27-05-81	x				x				
132	26-07-81	x				x				
133	01-08-81	x				x				
134	19-08-81	x				x				
135	07-12-81	x				x				
136	28-12-81	x				x				
137	28-12-81	x				x				
138	28-12-81	x				x				
139	30-12-81	x			x					
140	03-04-82	x				x				
141	05-07-82	x				x				
142	13-08-82		x			x				
143	01-11-82	x				x				
144	19-11-82	x			x					
145	19-11-82	x			x					
146	26-12-82	x			x					
147	02-01-83	x			x					

AREA : K

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
148	03-01-83	x				x				
149	30-03-83	x				x				
150	31-03-83	x			x					
151	31-03-83	x			x					
152	01-04-83	x				x				
153	18-08-83	x			x					
154	24-08-83	x			x					
155	24-08-83	x			x					
156	13-10-83	x				x				
157	03-11-83	x				x				
158	15-11-83	x			x					
159	02-12-83	x			x					
160	02-12-83	x				x				
161	16-12-83	x				x				
162	16-12-83	x				x				
163	16-12-83	x				x				
164	16-12-83	x				x				
165	17-12-83	x				x				
166	17-12-83	x				x				
167	17-12-83	x				x				
168	17-12-83	x				x				

AREA : K

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
169	17-12-83	x				x				
170	17-12-83	x				x				
171	17-12-83	x				x				
172	17-12-83	x				x				
173	17-12-83	x				x				
174	17-12-83	x				x				
175	17-12-83	x				x				
176	17-12-83	x				x				
177	17-12-83	x				x				
178	17-12-83	x				x				
179	17-12-83	x				x				
180	17-12-83	x				x				
181	17-12-83	x				x				
182	17-12-83	x				x				
183	18-12-83	x				x				
184	18-12-83	x				x				
185	18-12-83	x				x				
186	18-12-83	x				x				
187	18-12-83	x				x				
188	19-12-83	x				x				
189	19-12-83	x			x					

AREA : K

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
190	19-12-83	x				x				
191	19-12-83	x				x				
192	19-12-83	x				x				
193	19-12-83	x				x				
194	19-12-83	x				x				
195	19-12-83	x				x				
196	20-12-83	x				x				
197	20-12-83	x				x				
198	20-12-83	x				x				
199	20-12-83	x				x				
200	21-12-83	x				x				
201	21-12-83	x				x				
202	22-12-83	x				x				
203	22-12-83	x				x				
204	22-12-83	x			x					
205	22-12-83	x			x					
206	23-12-83	x				x				
207	23-12-83	x				x				
208	23-12-83	x				x				
209	23-12-83	x				x				
210	23-12-83	x				x				

AREA : K

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
211	23-12-83	x			x					
212	24-12-83	x			x					
213	25-12-83	x				x				
214	25-12-83	x				x				
215	25-12-83	x			x					
216	25-12-83	x				x				
217	26-12-83	x				x				
218	26-12-83	x				x				
219	26-12-83	x				x				
220	26-12-83	x				x				
221	28-12-83	x			x					
222	28-12-83	x			x					
223	30-12-83	x			x					
224	30-12-83	x					x			

AREA : L

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
1	30-09-30			x						x
2	12-03-37			x						x
3	10-01-39			x						x
4	10-01-39			x						x
5	01-06-48			x						x
6	01-06-48			x						x
7	02-01-56			x						x
8	29-09-56			x				x		
9	19-01-58			x						x
10	22-05-58			x						x
11	03-04-59			x						x
12	07-01-59			x				x		
13	04-03-60			x				x		
14	18-06-60		x				x			
15	18-07-60		x				x			
16	18-07-60			x						x
17	10-09-60	x								x
18	26-05-62		x				x			
19	01-10-62	x								x
20	06-06-63		x				x			
21	30-12-63		x				x			

AREA : L

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
22	28-08-64		x				x			
23	30-11-64	x					x			
24	25-04-65		x			x				
25	27-06-65	x					x			
26	31-08-65		x			x				
27	16-01-66	x					x			
28	08-07-66	x				x				
29	02-07-67		x			x				
30	02-07-67		x			x				
31	08-03-68	x				x				
32	09-03-68	x					x			
33	18-07-68		x			x				
34	19-11-68	x				x				
35	03-06-69		x			x				
36	20-04-70	x								x
37	25-10-70		x			x				
38	25-10-70	x					x			
39	25-10-70	x				x				
40	25-10-70	x				x				
41	25-10-70	x					x			
42	25-10-70	x				x				

AREA : L

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
43	25-10-70	x				x				
44	25-10-70	x				x				
45	25-10-70	x				x				
46	25-10-70	x				x				
47	25-10-70	x				x				
48	25-10-70	x				x				
49	27-11-70		x				x			
50	26-12-70	x					x			
51	26-12-70	x				x				
52	27-12-70		x			x				
53	17-07-71		x				x			
54	28-12-71	x					x			
55	29-07-72	x								x
56	09-08-72	x					x			
57	09-08-72	x					x			
58	14-08-72		x			x				
59	15-01-73	x					x			
60	14-02-73	x				x				
61	12-04-73		x			x				
62	20-04-74		x			x				
63	02-06-74		x			x				

AREA : L

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
64	23-06-75	x				x				
65	24-06-75	x				x				
66	29-08-75	x				x				
67	28-10-75	x				x				
68	05-11-75	x					x			
69	05-11-75	x					x			
70	06-11-75	x				x				
71	06-11-75		x			x				
72	25-03-76	x					x			
73	25-03-76	x				x				
74	25-03-76	x					x			
75	16-04-76	x				x				
76	16-04-76	x				x				
77	16-04-76	x					x			
78	16-04-76	x				x				
79	16-04-76	x					x			
80	27-07-76	x					x			
81	27-07-76	x				x				
82	05-08-76		x				x			
83	25-08-76	x				x				
84	12-12-76	x				x				

AREA : L

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
85	13-12-76	x								x
86	18-12-76		x			x				
87	03-03-77	x				x				
88	21-07-77	x				x				
89	22-07-77	x				x				
90	27-01-78	x				x				
91	23-05-78	x				x				
92	10-10-78	x				x				
93	08-06-79		x				x			
94	06-09-79	x				x				
95	17-09-79		x			x				
96	29-11-79		x			x				
97	16-03-80	x				x				
98	17-03-80	x				x				
99	15-04-80	x				x				
100	26-04-80	x				x				
101	20-01-82	x				x				
102	20-01-82		x			x				
103	05-03-82	x				x				
104	21-10-82	x				x				
105	09-11-82	x					x			

AREA : L

No.	Date	Depth			Magnitude					
		S	I	Unknown	<4	4-4.9	5-5.9	6-6.9	>7	Unknown
106	09-12-82	x					x			
107	17-04-83		x			x				