

AERB TECHNICAL DOCUMENT NO. TD/CSE-1

**CATALOGUE OF EARTHQUAKES ( $\Rightarrow$  M. 3.0)  
IN  
PENINSULAR INDIA**

**S.K. GUHA  
CONSULTANT, AERB**

**P. C. BASU  
HEAD, CIVIL ENGINEERING SECTION, AERB**

Issued on : 16. 3. 1993

**Atomic Energy Regulatory Board  
Vikram Sarabhai Bhavan,  
Fourth Floor, North Wing,  
Anushakti Nagar,  
Bombay - 400 094.  
INDIA.**

## FOREWORD

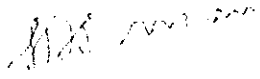
Assurance of safety of public and occupational workers, and protection of the environment are important needs to be met in pursuance of activities of economic and social progress. These activities include the establishment and utilisation of nuclear facilities and use of radioactive source which have to be carried out in accordance with the relevant provisions of the Atomic Energy Act 1962 (33 of 62). AERB has been entrusted with the responsibility of laying down safety standards, and frame rules and regulations in respect of Atomic Energy Act 1962.

AERB has taken up programme to prepare and publish Codes, Guides, Standards and Manuals in the field of design and engineering of Nuclear Power Plants (NPP) and other nuclear installations. These documents set the minimum requirements that shall be fulfilled to provide the assurance that NPP will be sited, designed, constructed and operated without undue risk to the public, operators and environment. The Safety Guide on "Seismic Studies and Design Basis Ground Motion for Nuclear Power Plant Sites", No. AERB/SG/S-11, 1990 supplements the governing principles concerning earthquakes and associated topics as stipulated in Code of Practice in Safety in Nuclear Power Plant Siting. This Safety Guide provides appropriate criteria, guidelines and outlines the procedure to be applied to derive the design basis ground motion of the sites and to assess the suitability of the sites against the hazards due to earthquakes.

To implement the requirements given in the Guide there is necessity of comprehensive earthquake database covering widest possible magnitude range over and above geological, tectonic and geophysical data of the sites. Currently, several regional earthquake catalogues are available including the latest one entitled "Catalogue of Earthquakes in India and Neighbourhood from Historical Times upto 1979" by Bapat, Kulkarni and Guha (1983). These regional catalogues contain earthquake data generally above magnitude 4.0. However, the earthquake data of magnitude below 4.0 is also of great importance for seismic studies pertaining to the engineering of NPP as given in AERB/SG/S-11.

In view of this AERB decided to publish a comprehensive catalogue containing earthquake data down to magnitude 3.0 for peninsular India. For this purpose effort has been made to collect earthquake data down to magnitude 3.0 from many new seismic networks. These data have been compiled in this catalogue. This comprehensive and enlarged database is useful to assess earthquake parameters for design of Nuclear Power Plants and also of other critical structures.

AERB wishes to thank all individuals and organisations who have contributed in preparation of this Catalogue. Cooperation received specially from Bhabha Atomic Research Centre, Bombay, Indian Meteorological Department, New Delhi and Pune, National Geophysical Research Institute, Hyderabad, Regional Research Laboratory, Jorhat, Geological Survey of India, Shillong, Trivandrum and Madras, etc. are appreciated

  
(S.D. Soman)  
Chairman, AERB

Date : 16.3.93

## LIST OF CONTENTS

Foreword	(i-ii)
List of Content	(iii)
Introduction	1-3
Content of Present Catalogue	3-5
Acknowledgement	5
Reference	5-11
Abbreviation	12-13
Catalogue of earthquakes ( $\Rightarrow$ M 3.0) in Peninsular India, ( $08^{\circ}$ - $26^{\circ}$ N; $68^{\circ}$ - $88^{\circ}$ E)	14-34
Appendix - I : List of Koyna Earthquakes ( $\Rightarrow$ M 3.0)	35-59
Appendix - IIA and IIB : List of earthquakes ( $\Rightarrow$ M 3.0) reported by Gauribidanur Seismic Array, Bhabha Atomic Research Centre (BARC), Bombay.	60-70

## INTRODUCTION

Development of global earthquake listing was reviewed in the comprehensive volume on the subject entitled, "Catalogue of Earthquakes in India and Neighbourhood from historical period upto 1979" (1983) published by Indian Society of Earthquake Technology, Roorkee. Some of the well known international works in this field are those by International Seismological Summary (ISS), U.S. Coast and Geodetic Survey (USC), Gutenberg and Richter, Oldham, Milne, Davison, Sieberg, Rothé, Vit Karnik, Medvedev, Usami, Von Hake and others in various parts of the world. For Indian region, comprehensive listings of earthquakes were done by Oldham, Montesses de Ballore, West, Milne, Banerji, Tandon et. al. and Guha et. al. from time to time. Recently, some of these lists have been updated. Since mid-sixties more comprehensive and homogenous earthquake data are available, specially through WWSSN (World Wide Standardised Seismograph Network) and are being compiled by U.S. Geological Survey (Earthquake Data Base System), Federal Center, Denver and more recently by International Seismological Centre at Edinburgh, U.K. These regional and global lists contain mostly earthquake population above magnitude 4.5 Ms, for most regions, seismograph station densities do not permit effective monitoring of lower magnitude earthquakes in general. However, there are stray mention of some lower magnitude earthquakes also in the above listings.

Apart from WWSSN stations and Seismological Stations operated by India Meteorological Department for regional

seismicity studies in the area, there have been increasing installations for seismological studies in peninsular India during the last three decades. These installations mainly relate to studies of Water Reservoir Induced Seismicity (RIS) apart from Seismic Array Station at Gauribidanur operated by Bhabha Atomic Research Centre (BARC), Bombay for their special studies. Presently, significant number of seismic nets with sophisticated microseismographs, are in operation at more than a dozen reservoir sites in the peninsular India and more such installations are expected in near future. Similar seismic installations around Nuclear Power Projects are also planned and are being executed in a phased manner. Although these networks with microseismographs are located near reservoirs for very special studies on induced local microseismicity, significant earthquake data from surrounding areas have been collected specially those with magnitude less than 4.5. These data have significantly added to the earthquake data base already available from regional seismic stations mentioned earlier. These comprehensive earthquake data would form powerful tool for seismic risk analysis of large dams and power stations, industrial infrastructures, nuclear power projects etc. in the region. Present earthquake data base for peninsular India ( $08^{\circ}$  -  $26^{\circ}$  N,  $68^{\circ}$  -  $88^{\circ}$  E) include all available earthquake data (M = 3.0 and above) both from regional and local stations and have been put within common framework suitable for use in seismic risk analysis and related studies. Naturally, these earthquake data have been obtained through widely diverse techniques such as

macro-seismic studies for historical earthquakes, regional seismic stations for earthquakes mostly above magnitude 4.5 and still lower magnitude earthquakes from microseismograph networks, and thus different methodologies have also been used for assessing earthquake parameters. Further, microseismic networks for special purposes have been sited only in the vicinity of water reservoirs and other projects disregarding the general distribution of seismic stations and hence for some areas away from these project sites, there are still paucity of earthquake data specially in the lower magnitude range. In spite of all these inherent limitations of the comprehensive earthquake data base presented here, the same would serve very useful purpose in seismic risk analysis in peninsular India.

#### CONTENT OF PRESENT CATALOGUE

Large earthquake population have been recorded since 1963 in the close vicinity of Koyna dam ( $17^{\circ} 23'.85$  N;  $73^{\circ}45'$  E). Over hundred thousand earthquakes mostly above magnitude 0.5 have been recorded in the area through a sophisticated seismic network of microseismographs. There is a broad consensus amongst the specialists all over the world that this very unusual spurt in local seismic activity around the Koyna reservoir following its impoundment may have been induced due to water load and also the same would die down in course of time. Detailed observations in the area have confirmed gradual decay of seismic activity following the major earthquake on 10th December 1967 but the observed decay rate has rather been very slow compared to similar cases all over the world. In view of temporal nature of

seismicity, the earthquake data around Koyna reservoir have been listed separately under Appendix I while maintaining the general structure of the main list of earthquakes in the peninsular India. In addition to monitoring induced seismicity in the close vicinity of Koyna reservoir, this sophisticated seismic network has been very useful to record earthquake activity in the surrounding western Maharashtra and adjoining offshore areas thereby adding vital earthquake data during the last two and half decades. Similarly, other seismic networks installed at special project sites have also registered very useful earthquake data specially in lower magnitude range, in the surrounding areas as mentioned earlier. Times given in Appendix I are earliest onset times of the events recorded in the Koyna Seismological Network for the period 1963 to 1981 and origin times of the events from 1982 onwards respectively. Koyna earthquake data base (Appendix I) has been obtained from Guha, S. K. et. al. (1974), Padale, J. G. et. al. (1983), Rastogi, B. K. et. al. (1984, 1986a, 1986b, 1986c, and 1989), Reports on Koyna Seismological Network, Maharashtra Engineering Research Institute, Nasik and U. S. Geological Survey, Denver, U.S.A.

Similarly, Seismic Array Station at Gauribidanur is eminently suitable for studies of Teleseismic events although the station since its inception in 1968 recorded large number of smaller magnitude earthquakes specially within 300 Kms. of Gauribidanur, vide Gangrade, B. K. et. al. (1987 and 1989). In view of unique character of array station and of method of



interpretation of data, the earthquake data base for the region from the Seismic Array Station at Gauribidanur have also been separately tabulated in Appendix IIA and IIB for the periods 1968 - 1975 and 1976 onwards respectively. Times given in Appendix IIA and IIB are onset and origin Times respectively.

#### ACKNOWLEDGEMENT

This is to acknowledge herein free access to similar Earthquake Catalogues and Lists published earlier and referred to above and also to express gratefulness to different organisations and scientists for communication and personal discussions while preparing this catalogue. These organisations and scientists even allowed unfettered use of unpublished data and records at their disposal during compilation of this catalogue which is gratefully acknowledged.

#### REFERENCE

1. Historical summary of Indian earthquakes with some remarks on the general distribution of Forces throughout India and its frontier countries by Baird-Smith R., J. Asiatic Soc. Bengal, 12, 1029 - 1056, 1843.
2. Memoirs on Indian earthquakes by Baird-Smith, R., J. Asiatic Soc. Bengal, 13(2), 964 - 983, 1844.
3. On geological structure of the eastern coast from latitude  $15^{\circ}$  northwards to Masulipatnam by Foote, R.B., Mem. Geol. Surv. India, 16, pps. 1 and 2, 1879.

4. A Catalogue of Indian earthquakes from the earliest to the end of A.D. 1869 by Oldham, T., Mem. Geol. Surv. Ind. 19 (Pt. 3), 163 - 215, 1883.
5. Earthquake and other earth movements by Milne, J., Kegan Paul Trench and Tribner Co. Ltd., London, 1888.
6. A Catalogue of destructive earthquakes A.D. 7 to A.D. 1899 by Milne, J. Brit. Assoc. Adv. Sci., London, 1 - 92, 1912.
7. Earthquakes in India by West, W. D., Proc. Ind. Science Congress, 24, 189 - 225, 1937.
8. Earthquakes by Krishnan, M. S., J. Madras University, 10(1), 1938.
9. Earthquakes in India and neighbourhood by Pendse, C.G. Scientific notes, Ind. Met. Dept. New Delhi 10(129), 177 - 220, 1949.
10. Seismicity of the Earth and Associated Phenomena by Gutenberg, B. and C.F. Richter, Princeton Univ. Press, 1953.
11. Earthquakes in the Himalayan Region by Banerji, S. K., Indian Association for the Cultivation of Science, Calcutta, 1957,
12. International Seismological Summaries (ISS) published by International Seismological Centre for the period of 1917 - 1964.
13. Preliminary Determination of epicenters and Earthquake Data,

Reports of U.S. Geological Survey (Department of Interior),  
U.S.A., 1964 onwards.

14. Seismic zoning of Indian Peninsula by Gubin, I.E., Bull. Int. Inst. Seism. Earthq. Eng., 5, 109 - 139, 1968.
15. Earthquakes experienced in Maharashtra during the last 300 years by Kelkar, Y.N., Daily Kesari, Poona, January 7 (in Marathi), 1968.
16. Seismicity of the Earth 1953 - 65 by Rothé, J.P., UNESCO, Paris, 1969.
17. Recent seismic disturbances in the Shivaji Sagar Lake area of the Koyna Hydroelectric Project, Maharashtra, India by Guha, S.K., P.D. Gosavi, M.M.Varma, S.P.Agarwal, J.G.Padale and S.C.Marwadi, Central Water and Power Research Station, Poona, India, 1970.
18. Prehistory and protohistory of India and Pakistan (Revised Edition) by Sankalia, H.D., New Poona Pub., Poona, India, 1970.
19. A preliminary report. The Qir, Iran Earthquake of April 10, 1972, McEvelly, V. Thomas and Reza Razani, Bull. Seism. Soc. Amer. 63(1), 339 - 354, 1973.
20. Earthquake occurrence in India by Tandon, A.N. and H.N. Srivastava, Earthquake Engineering, Sarita Prakashan, Meerut, India, 1974.

21. Koyna earthquakes (October 1963 to December 1973) by Guha, S.K., P.D.Gosavi., K. Nand., J.G.Padale and S.C.Marwadi, Govt. of India, Central Water and Power Research Station, Poona, India, 1974.
22. A catalogue of historical earthquakes in China from recent Chinese Publications by Lee, W.H.K., F.T. Wu. and Carl Jacobsen, Bull. Seism. Soc. Am. 66(6), 2003 - 2016, 1976.
23. Earthquakes of Peninsular India- A seismo-tectonic study by Chandra, U., Bull. Seism. Soc. Amer., 67(5), 1387-1413, 1977.
24. Some recent earthquakes in peninsular India by Indra Mohan, M.V.D. Sitaram and H.K. Gupta, J. Geol. Soc. India. 22, 292 - 298, 1981.
25. Historical seismicity and earthquake catalogue in the Indian region by Srivastava, H.N. and S.K. Das, Proc. Symp. on Historical Seismograms and Earthquakes, Tokyo, July 27- 30, 335 - 348, 1982.
26. Catalogue of earthquakes in India and neighbourhood from historical period upto 1979 by Bapat, A., R.C.Kulkarni and S. K. Guha, Indian Society of Earthquake Technology, Roorkee, India, 1983.
27. Koyna earthquakes vol. II (1974 - 1981) by Padale, J.G., U.A. Kulkarni, R.C. Kulkarni, and S.S. Patil, Central Water and Power Research Station, Poona, 1983.

28. Medchal, Andhra Pradesh Earthquake of June 30, 1983 by Rastogi, B.K. and R.K.Chadha. Symposium on Earthquake Effects on Plant and Equipment, B.H.E.L., Hyderabad, India, 1984.
29. Historical seismicity of peninsular India by Rao, B.R. and P.S.Rao, Bull. Seism. Soc. Amer., 74(6), 2519 - 2533, 1984.
30. New catalogue of earthquakes for peninsular India during 1839 - 1900 by Srivastava, H.N. and K. Ramachandran., Mausam, 36 (3), 351 - 358, 1985.
31. Microearthquakes near Osmansagar reservoir, Hyderabad, India by Rastogi, B.K., C.V.R.K. Rao, R.K. Chadha and H.K. Gupta. Physics of the Earth and Planetary Interiors, 44, 134 - 141, 1986 a.
32. Microearthquake investigations near Sriramsagar Project, Andhra Pradesh State, India by Rastogi, B.K., B.R.Rao and C.V.R.K.Rao. Phys. Earth Planet. Inter. 44, 149 - 159, 1986b.
33. Seismicity near Bhatsa reservoir, Maharashtra, India by Rastogi, B.K., R.K.Chadha and I.P.Raju. Phys. Earth. Planet. Inter. 44, 179 -199, 1986c.
34. Earthquakes from peninsular India : Data from the Gauribidanur array by Gangarde, B.K., A.G.V.Prasad and R.D.Sharma, B.A.R.C. 1347 and 1385, 1987.

35. Seismotectonics of Southern Peninsula of India by Rao, C.V.R., Thesis submitted to Indian School of Mines, Dhanbad, India, 1989.
36. Seismic monitoring around large dams at Nagarjunasagar and Srisaillam in the Southern part of Peninsular India by Rastogi, B.K. Phys. Earth. Planet. Inter., 58, 35 - 43, 1989.
37. Earthquakes from peninsular India : Data from the Gauribidanur seismic array for the period January 1987 - December 1988, B.A.R.C. 1454 by B. K. Gangrade, A. G. V. Prasad, E. Unnikrishnan, B. Chandrasekhar, K. R. Subbaramu and R. D. Sharma, Seismology Section (Physics Group), 1989.
38. New catalogue of felt Indian earthquakes during 1901 - 1971 by Ramachandran, K. and H.N.Srivastava, Mausam, 42(2), 171 - 182, 1991.
39. Reports on Koyna Seismological Network, Maharashtra Engineering Research Institute, Nasik.
40. Seismological Bulletins, India Meteorological Department, New Delhi.
41. Bulletins NGRI, Seismological Observatory, National Geophysical Research Institute (NGRI), Hyderabad.
42. Earthquake Data Base System, U. S. Geological Survey, Denver, U.S.A.

43. Seismological Bulletins, International Seismological Centre, Edinburgh, U. K.
44. Seismological notes published in the Bulletins of the Indian Society of Earthquake Technology, Roorkee.
45. Personal communication from Dr. B. K. Rastogi, National Geophysical Research Institute, Hyderabad.
46. Personal communication from Dr. C. V. R. Rao, National Geophysical Research Institute, Hyderabad.
47. Personal communication from Dr. S. K. Arora, Bhabha Atomic Research Centre, Bombay.
48. Personal communication from Dr. R. D. Sharma, Nuclear Power Corporation, Bombay.
49. Personal communication from Dr. H. M. Iyer, U. S. Geological Survey, Menlo Park, C.A., U.S.A.
50. Personal discussions with Dr. H. N. Srivastava, India Meteorological Department, Pune.

## ABBREVIATION

### Abbreviations for Earthquake Sources

- BAN : Banerji, S. K. (1957).
- BKG : Bapat, A., R. C. Kulkarni and S. K. Guha.  
(1983).
- BRR : Rao, B. R. and P. S. Rao. (1984).
- BST : Baird-Smith, R. (1843) and (1844).
- CVR : Rao, C. V. R. (1989).
- FOO : Foote, R. B. (1879).
- GSI : Geological Survey of India.
- GUB : Gubin, I. E. (1968).
- GUG : Guha, S. K. et. al. (1970) and (1974).
- GUR : Gutenberg, B. and C. F. Richter (1953).
- HNS : Srivastava, H. N. and K. Ramachandran.  
(1985).
- IMD : India Meteorological Department.
- INR : Indra Mohan, M. V. D. Sitaram and H. K.  
Gupta (1981).
- ISC : International Seismological Centre.
- ISS : International Seismological Summary.
- KEL : Kelkar, Y. N. (1968).
- KRN : Ramachandran, K. and H. N. Srivastava  
(1991).
- MIL : Milne, J. (1888) and (1912).
- OLD : Oldham, T. (1883).
- RAS : Rastogi, B. K. et. al. (1989), (1986a),  
(1986b), (1986c) and (1984).
- UGS : U. S. Geological Survey.



UMC : Chandra, U. (1977).

USC : U. S. Coast and Geodetic Survey.

#### Abbreviations for Places

E : East

W : West

N : North

S : South

NE : North-East

NW : North-West

SW : South-West

Nr : Near

DIST. : District

A.P.: Andhra Pradesh

T.N.: Tamil Nadu

W.B.: West Bengal

#### Abbreviations for Notations

DEG : Degree.

DY : Day

HR : Hour.

Lat : Latitude.

Long : Longitude.

M : Magnitude.

Mb : Body wave magnitude.

MD : Duration magnitude.

ML : Local magnitude.

MM INTENSITY : Modified Mercalli Intensity.

MN : Minute.

MO : Month.

Ms : Surface wave magnitude.

SEC : Second.

CATALOGUE OF EARTHQUAKES (=> M 3.0) IN PENINSULAR INDIA

LAT ( 08 - 26 ) DEG N      LONG (68 - 88 ) DEG E

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
		1341	-			MALABAR COAST, KERALA	-	-	VII/5.7	-	GUG
15	06	1505	-			ARAVALI	-	-	-	-	BST
		1594	-			BASSEIN	19.1	73.2	IV/3.7	-	KEL
26	05	1618	-			BOMBAY	18.9	72.9	IX	-	OLD
07	02	1663	-			LAKHUGARH	-	-	-	-	OLD
		1678	-			Nr BASSEIN	19.1	73.2	VI/5.0	-	KEL
02	04	1680	-			MAHAD, MAHARASHTRA	-	-	-	-	CVR
		1684	-			SURAT	21.2	72.9	IV/3.7	-	OLD
		1702	-			Nr BHIMA RIVER	19.7	73.1	IV	-	KEL
11	10	1737	-			CALCUTTA	22.6	88.4	X	-	OLD
09	12	1751	-			SALSETTE REGION	19.1	73.2	V/4.3	-	KEL
05	01	1752	-			SALSETTE REGION	19.1	73.3	V/4.3	-	KEL
05	02	1752	-			LOHAGARH	18.7	73.4	V/4.3	-	KEL
31	10	1757	-			TOKA AND DHOM	18.2	74.2	V/4.3	-	KEL
		1760	-			POONA	18.5	73.9	IV/3.7	-	KEL
13	07	1762	-			CALCUTTA	22.6	88.4	V	-	OLD
04	06	1764	-			BANKS OF GANGA	24.0	88.0	VIII	-	OLD
		08 1764	-			Nr LONAND	17.9	73.7	VII/6.0	-	KEL
29	05	1792	-			Nr JANJIRA	18.5	73.0	V/4.3	-	KEL
18	10	1800	-			ONGOLE	15.6	80.1	V/4.3	-	OLD
19	10	1800	-			ONGOLE	15.6	80.1	VI	-	OLD
09	12	1807	-			MADRAS	13.1	80.1	V/4.3	-	OLD
10	12	1807	-			MADRAS	13.1	80.3	VI	-	OLD
13	04	1808	-			CALCUTTA, CHANDERNAGORE	22.6	88.4	V	-	OLD
04	06	1808	-			BANDA	25.5	80.3	V	-	OLD
01	04	1810	-			CALCUTTA	22.6	88.4	IV	-	OLD
13	05	1810	-			CALCUTTA	22.6	88.4	V	-	OLD
01	02	1811	-			CALCUTTA	22.6	88.4	VI	-	OLD
23	02	1812	-			POONA	18.5	73.9	IV/3.7	-	KEL
16	05	1816	-			MADRAS	13.1	80.1	-	-	OLD
11	07	1816	-			CALCUTTA	22.6	88.4	IV	-	OLD
		08 1816	-			MADRAS	13.1	80.3	V	-	OLD
17	08	1816	-			MADRAS	13.1	80.1	IV	-	OLD
15	09	1816	-			MADRAS	13.1	80.3	V/4.3	-	OLD
16	09	1816	-			MADRAS	13.1	80.3	V/4.3	-	OLD
18	09	1816	-			MADRAS	13.1	80.3	-	-	OLD
16	06	1819	-			KUTCH	23.6	69.6	XI/8.3	-	OLD
16	06	1819	-			Nr SALEM	-	-	V/4.3	-	OLD
20	06	1819	-			PONDICHERRY, PULICAT	12.0	79.6	V/4.3	-	OLD
03	08	1819	-			TIRHUT	26.5	85.5	V	-	OLD
27	01	1820	-			BHUJ, GUJARAT	23.2	69.9	IV/3.7	-	OLD
13	11	1820	-			BHUJ, GUJARAT	23.2	69.9	III/3.0	-	OLD
31	12	1820	-			NELLORE	14.5	80.0	V/4.3	-	OLD
10	01	1821	-			TRAVANCORE	09.5	76.6	III/3.0	-	OLD
13	08	1821	-			KAIRA, GUJARAT	22.7	72.7	V/4.3	-	OLD
29	01	1822	-			MADRAS	12.5	79.7	VI/5.0	-	OLD
29	06	1822	-			MADRAS	13.1	80.3	-	-	OLD
16	08	1822	-			CALCUTTA	22.6	88.4	VI	-	OLD
02	03	1823	-			MADRAS, SRI LANKA	13.0	80.0	VI	-	OLD
03	04	1823	-			CALCUTTA	22.6	88.4	V	-	OLD

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
26	11	1823	-			CALCUTTA	22.6	88.4	V	-	OLD
20	03	1826	-			KONKAN	-	-	V/4.3	-	KEL
20	03	1826	-			MOJE MORVADE	16.1	73.6	VI/5.0	-	KEL
	01	1827	-			CALCUTTA	22.6	88.4	V	-	OLD
06	01	1827	-			VISHAKHAPATNAM	17.7	83.4	V/4.3	-	OLD
19	01	1827	-			CALCUTTA	22.6	88.4	V	-	OLD
08	07	1828	-			CALCUTTA	22.6	88.4	VII	-	OLD
20	07	1828	-			BHUJ, GUJARAT	23.2	69.9	V/4.3	-	OLD
22	08	1828	-			VENGURLA	13.0	75.0	V/4.5	-	OLD
18	09	1828	-			CALCUTTA	22.6	88.4	V	-	OLD
12	03	1829	-			BANGALORE	13.0	77.6	V	-	OLD
13	03	1829	-			BANGALORE	13.0	77.6	V/4.3	-	OLD
18	09	1829	-			CALCUTTA	22.6	88.4	VI	-	OLD
04	10	1832	-			MAJKUR, UGATE DIST.	15.8	73.7	VI/5.0	-	KEL
04	10	1832	-			UMATE, ALIBAG	15.8	73.7	VI/5.0	-	KEL
04	10	1833	-			JAUNPUR	25.7	82.7	V	-	OLD
24	01	1836	-			CHANDERNAGORE	22.9	88.4	V	-	OLD
15	06	1837	-			GANJAM	19.5	85.1	V/4.3	-	OLD
20	02	1839	-			GUJARAT	24.23	72.21	III	-	UGS
23	03	1839	-			AMEERPURA, BENGAL	-	-	-	-	CVR
30	04	1839	-			GUJARAT	24.23	72.21	IV	-	UGS
11	05	1839	-			JAMALPUR	25.3	86.5	VI	-	OLD
09	11	1840	-			AHMEDABAD	23.05	72.66	V	-	UGS
10	11	1840	-			AHMEDABAD, GUJARAT	23.0	72.7	V/4.3	-	HNS
15	09	1841	-			TRAVANCORE	09.5	76.6	IV/3.7	-	OLD
16	01	1842	-			NW PROVINCES	26.0	83.0	VI	-	OLD
21	05	1842	-			BENGAL	25.0	87.0	VII	-	OLD
23	05	1842	-			BENGAL	25.0	87.0	V	-	OLD
24	05	1842	-			VINDYA MOUNTAIN	-	-	-	-	BST
09	10	1842	-			BARODA	22.3	73.2	V/4.3	-	OLD
07	02	1843	-			AHMEDABAD	23.0	72.7	IV/3.7	-	OLD
08	02	1843	-			AHMEDABAD	23.0	72.7	V	-	OLD
12	03	1843	-			HYDERABAD	17.5	78.5	IV/3.7	-	OLD
31	03	1843	-			Nr BELLARY	15.2	76.9	VII/5.8	-	OLD
01	04	1843	-			BELLARY, DECCAN	15.2	76.9	VII	-	OLD
		1844	-			LUCKPUT	23.8	68.9	V/4.3	-	HNS
19	06	1845	-			LUCKPUT, KUTCH	23.8	68.9	VIII/6.3	-	BAN
24	07	1845	-			SERAMPORE, CALCUTTA	22.7	88.4	V	-	OLD
26	07	1845	-			SERAMPORE	22.7	88.4	V	-	OLD
06	08	1845	-			SERAMPORE	22.7	88.4	VII	-	OLD
27	05	1846	-			NARMADA	23.0	80.0	VI	-	OLD
05	05	1847	-			CALCUTTA	22.6	88.4	VI	-	OLD
20	02	1848	-			CALCUTTA	22.6	88.4	V	-	OLD
26	04	1848	-			MOUNT ABU	24.4	72.7	VII/6.0	-	OLD
30	11	1848	-			CALCUTTA	22.6	88.4	IV	-	OLD
02	01	1849	-			ERINPORRA	25.15	73.15	V	-	UGS
22	01	1849	-			CALCUTTA	22.6	88.4	IV	-	OLD
28	02	1849	-			TITALYAH	26.5	88.5	VI	-	OLD
02	06	1849	-			ERINPURA	-	-	VI/5.0	-	KRN
23	11	1849	-			TRAVANCORE	09.5	76.6	IV/3.7	-	OLD

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
26	12	1849	-			BOMBAY	18.9	72.9	III/3.0	-	OLD
07	05	1850	-			CALCUTTA	22.6	88.4	V	-	OLD
02	02	1851	-			SEHWAN	26.4	67.9	VI	-	OLD
09	02	1851	-			CALCUTTA	22.6	88.4	VII	-	OLD
21	03	1851	-			KATHIAWAR	-	-	III	-	HNS
09	02	1852	-			CALCUTTA, SERAMPORE	22.6	88.4	IV	-	OLD
03	06	1852	-			DEESA	24.23	72.21	III	-	UGS
10	06	1852	-			-	24.23	72.21	-	-	UGS
22	10	1852	-			107 Km N CALCUTTA	-	-	III	-	HNS
21	02	1853	-			VISHAKHAPATNAM	17.70	83.30	IV	-	UGS
26	02	1853	-			-	23.25	87.86	III	-	UGS
11	1854	-				BOMBAY	18.9	72.9	III/3.0	-	OLD
08	12	1854	-			BOMBAY	18.93	72.85	IV/3.7	-	UGS
17	03	1856	-			MADURAI	09.9	78.1	IV/3.7	-	OLD
11	08	1856	-			TRIVANDRUM	08.7	77.0	IV/3.7	-	OLD
25	08	1856	-			TRIVANDRUM	08.7	77.0	IV/3.7	-	OLD
01	09	1856	-			TRAVANCORE	09.5	76.6	IV/3.7	-	OLD
02	11	1856	-			BHUJ	23.20	69.90	III	-	UGS
24	12	1856	-			BURALPUR	-	-	III	-	HNS
25	12	1856	-			Nr DAHANU	20.0	73.0	VII/5.7	-	BAN
07	01	1857	-			-	25.45	81.83	-	-	UGS
13	08	1858	-			MALABAR	11.4	76.0	V	-	OLD
23	08	1858	-			MALABAR, KERALA	11.4	76.0	IV/3.7	-	OLD
24	08	1858	-			WALTAIR, A.P.	17.8	83.4	III/3.0	-	OLD
03	10	1858	-			GANJAM, ORISSA	19.5	85.1	III/3.0	-	OLD
12	10	1858	-			CHICACOLE, A.P.	18.3	84.0	V/4.3	-	OLD
30	12	1858	-			TIRUPATTUR, T.N.	12.4	78.4	IV/3.7	-	OLD
31	12	1858	-			KHANDESH	21.0	75.0	III/3.0	-	OLD
03	01	1859	-			N ARCOT	12.5	79.0	V/4.3	-	OLD
05	02	1859	-			TIRUPATTUR	12.5	78.6	IV/3.7	-	OLD
21	07	1859	-			GUNTUR, A.P.	16.3	80.5	III/3.0	-	OLD
02	08	1859	-			GUNTUR, A.P.	16.3	80.5	IV/3.7	-	OLD
09	08	1859	-			GUNTUR, A.P.	16.3	80.5	IV/3.7	-	OLD
24	08	1859	-			VIZIANAGARAM	18.1	83.5	IV/3.7	-	GUG
17	12	1859	-			SALEM	11.6	78.1	IV/3.7	-	OLD
17	12	1859	-			TIRUPATTUR	12.5	78.6	IV/3.7	-	OLD
17	01	1860	-			SHEVAROYS	11.9	78.2	IV/3.7	-	OLD
20	01	1860	-			SHEVAROYS	11.9	78.2	III/3.0	-	OLD
02	02	1860	-			TIRUPATTUR	13.7	79.4	V/4.3	-	OLD
25	02	1860	-			BERHAMPUR	19.4	84.9	V/4.3	-	OLD
27	04	1860	-			SURAT	21.16	72.90	III-IV	-	UGS
16	02	1861	-			CALCUTTA	22.6	88.4	VII	-	OLD
04	03	1861	-			SHEVAROYS, T.N.	11.9	78.2	IV/3.7	-	OLD
18	04	1861	-			CALCUTTA	22.6	88.4	IV	-	OLD
24	07	1861	-			KRISHNA DIST.	16.4	77.3	IV/3.7	-	OLD
31	07	1861	-			VARANASI	25.4	83.0	VI	-	MIL
26	08	1861	-			VARANASI	25.4	83.0	V	-	MIL
13	11	1861	-			VIJAYANAGARAM	18.11	83.50	III	-	UGS
13	01	1862	-			KRISHNA DIST.	16.4	77.3	IV/3.7	-	OLD
18	11	1862	-			DHULIA	20.86	74.83	IV	-	UGS

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
08	11	1863	-			BURWANI	21.8	75.3	VII/5.7	-	OLD
18	11	1863	-			NIMAR AND BARWANI	21.8	75.3	VII/5.7	-	OLD
05	01	1864	-			TRICHINOPOLY	10.8	78.7	IV/3.7	-	OLD
29	04	1864	-			AHMEDABAD	22.3	72.8	VI/5.0	-	OLD
08	1864	-				GUDUR	-	-	III	-	KRN
30	08	1864	-			LUCKNOW, PATNA	-	-	V	-	OLD
09	1864	-				OUDH	-	-	III	-	HNC
04	06	1865	-			MYSORE	12.30	76.61	IV	-	UGS
24	06	1865	-			COIMBATORE	11.00	76.95	IV	-	UGS
02	08	1865	-			PALAR HILLS	12.7	78.7	V/4.3	-	OLD
20	12	1865	-			RAMPUR, BOALIA	24.4	88.7	VI	-	OLD
25	12	1865	-			KRISHNANAGAR	23.4	88.5	VI	-	OLD
27	12	1865	-			BALASORE, ORISSA	-	-	-	-	OLD
27	12	1865	-			BANGALORE	-	-	-	-	OLD
31	12	1865	-			BOMBAY	18.93	72.85	IV	-	UGS
23	01	1866	-			CONTAI	21.8	87.8	VI	-	OLD
23	05	1866	-			BENGAL	25.0	87.0	VIII	-	OLD
03	01	1867	-			KENNALPUD, KRISHNA DIST.	16.1	79.6	III/3.0	-	OLD
06	01	1867	-			VINUKONDA, KRISHNA DIST.	16.1	79.8	III/3.0	-	OLD
07	03	1867	-			MADRAS	-	-	VII	-	BAN
11	03	1867	-			ONGOLE	16.0	80.3	IV/3.7	-	FOO
03	07	1867	-			VILLUPURA	12.0	79.6	VII/5.7	-	BAN
03	08	1867	-			VILLUPURAM, S. ARCOT	-	-	IV	-	HNS
31	07	1868	-			HAZARIBAGH, BIHAR	24.0	85.4	V/4.3	-	OLD
30	09	1868	-			MANBHUM AND VICINITY	24.0	85.0	VII/5.7	-	OLD
11	11	1868	-			JABALPUR	-	-	-	-	CVR
16	11	1868	-			JABALPUR	-	-	III	-	HNS
09	06	1869	-			CALCUTTA	22.6	88.4	V	-	OLD
04	07	1869	-			NASIK	20.2	74.2	IV/3.7	-	OLD
12	07	1869	-			DHULIA	20.9	74.8	IV/3.7	-	OLD
01	09	1869	-			NELLORE	14.5	80.0	V/4.3	-	OLD
02	09	1869	-			NELLORE	14.5	80.0	III/3.0	-	OLD
19	12	1869	-			KAKINADA	17.0	82.3	IV/3.7	-	OLD
24	12	1869	-			OOSSOOR	-	-	-	-	OLD
28	10	1870	-			SIND	25.8	68.8	V	-	MIL
19	12	1870	-			VIZIANAGARAM	17.7	83.4	IV/3.7	-	GUG
01	01	1871	-			DEESA	24.23	72.21	V	-	UGS
03	01	1871	-			MALEGAON	-	-	IV/3.7	-	KRN
03	01	1871	-			SURAT	21.2	72.9	IV/3.7	-	KRN
31	01	1871	-			BARODA	21.16	72.90	IV/3.7	-	UGS
15	02	1871	-			CALCUTTA	-	-	III	-	HNS
27	07	1871	-			-	21.16	72.90	III	-	UGS
27	09	1871	-			-	18.30	83.90	III	-	UGS
12	1871	-				CEYLON	-	-	III	-	HNS
14	04	1872	-			BHAVANGON	21.76	72.23	VI/5.0	-	UGS
06	1872	-				AMELSAD, SURAT	-	-	III	-	HNS
12	07	1872	-			-	20.86	74.83	III	-	UGS
22	10	1872	-			ANKLESHWAR	21.63	73.03	III	-	UGS
22	11	1872	-			SIRONCHA	18.86	80.01	VI/5.0	-	UGS
02	01	1875	-			ONGOLE	15.50	80.05	III	-	UGS

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
03	07	1876	-			UDAIPUR	24.60	73.78	III	-	UGS
12	1877	-				BOMBAY	18.93	72.85	IV/3.7	-	UGS
12	1878	-				CHICACOLE	18.30	83.90	IV	-	UGS
01	1879	-				CHICACOLE	-	-	IV	-	CVR
28	04	1879	-			BAGAPULLY, A.P.	-	-	IV	-	HNS
17	06	1879	-			HOSUR, T.N.	12.75	77.85	IV	-	UGS
30	07	1879	-			INDORE	22.53	75.81	III	-	UGS
01	11	1880	-			GOPALPUR	-	-	-	-	CVR
10	03	1881	-			NANGUNERI, TAMIL NADU	-	-	-	-	CVR
16	03	1881	-			TINNEVELY	08.48	77.70	III	-	UGS
10	12	1881	-			HAZARIBAGH	-	-	III	-	HNS
27	12	1881	-			RAJKOT	22.30	70.88	III	-	UGS
28	02	1882	-			OOTACAMUND	11.46	76.70	VII/5.7	-	MIL
04	1882	-				BANGALORE	12.96	77.58	III	-	UGS
10	06	1882	-			BHACHOO	23.20	71.38	IV	-	UGS
26	06	1882	-			LAKADIYA	-	-	III	-	HNS
28	06	1882	-			LAKADIYA, KUTCH	23.35	70.58	III	-	UGS
29	06	1882	-			KUTCH	23.35	70.58	III	-	UGS
15	12	1882	-			MOUNT ABU	24.70	72.80	VII	-	UGS
27	07	1883	-			NAGPUR	21.16	79.20	IV	-	UGS
06	10	1883	-			MUZAFFARPUR	-	-	III	-	HNS
20	10	1883	-			-	21.70	71.96	III	-	UGS
05	02	1884	-			LIMDA	22.48	74.20	III	-	UGS
03	1885	-				-	25.33	83.00	-	-	UGS
22	07	1885	-			-	20.06	85.36	III	-	UGS
25	07	1885	-			SANKRAIL	-	-	III	-	HNS
28	07	1885	-			SERAMPORE	-	-	-	-	HNS
03	08	1885	-			KUMARKHALI	-	-	IV	-	HNS
21	08	1885	-			MONGHYR, BIHAR	25.40	86.48	IV	-	UGS
09	1885	-				-	20.06	85.36	-	-	UGS
02	1886	-				MURSHIDABAD	-	-	III	-	HNS
12	02	1886	-			HIREKARWAR	14.48	75.43	III	-	UGS
14	04	1886	-			KALAWAR, NAVANAGAR	22.46	70.10	III	-	UGS
05	1886	-				CALCUTTA	-	-	III	-	HNS
02	05	1886	-			RANPUR	20.06	85.36	III	-	UGS
13	05	1886	-			KOLHAPUR	16.66	74.33	III	-	UGS
19	05	1886	-			BHAGIRATHPORE, W.B.	-	-	V	-	HNS
11	11	1887	-			RAJKOT	22.30	70.88	III	-	UGS
23	12	1888	-			CALCUTTA	22.6	88.4	V	-	MIL
24	12	1888	-			MURSHIDABAD	-	-	III	-	HNS
14	01	1889	-			NASHIMPUR	-	-	III	-	HNS
17	01	1889	-			JIAGANJ	-	-	-	-	HNS
27	01	1889	-			BERHAMPORE	-	-	III	-	HNS
31	03	1889	-			MANGALORE	12.90	74.85	IV	-	UGS
12	05	1889	-			DINAJPUR	-	-	III	-	HNS
12	08	1889	-			MADRAS	13.08	80.30	III	-	UGS
10	11	1889	-			ASKAL, GANJAM DIST.	-	-	IV	-	HNS
23	03	1890	-			CHINSURAH	-	-	III	-	HNS
05	1890	-				BANARAS	25.33	83.00	III	-	UGS
17	05	1890	-			DUMRAON	25.55	84.16	III	-	UGS

DY	NO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
27	09	1890	-			KATHIAWAR	22.48	74.20	III	-	UGS
17	02	1891	-			BANGALORE	12.96	77.58	IV	-	UGS
07	04	1891	-			CEYLON	-	-	III	-	HNS
06	05	1891	-			Nr BOMBAY	19.06	72.96	III	-	UGS
17	06	1891	-			SERAJGUNJ, DHAMRA, BENGAL	20.8	87.0	V	-	MIL
27	07	1891	-			-	21.33	71.36	-	-	UGS
27	07	1891	-			KUNDALA, BHIRBUM	-	-	III	-	HNS
19	02	1892	-			GOVINDPUR, MANBHOOM DIST.	-	-	V	-	HNS
06	05	1892	-			MADRAS	13.08	80.30	III	-	UGS
01		1894	-			ALLAHABAD	25.45	81.83	III	-	UGS
03	01	1896	-			BARAKUR, ORISSA	13.46	74.75	IV	-	UGS
08	03	1896	-			MURSHIDABAD	-	-	II	-	HNS
30	04	1896	-			LONAVALA, MATHERAN	18.98	73.46	III	-	UGS
12	06	1897	-			-	18.53	83.48	-	-	UGS
22	06	1897	-			BERHAMPORE, ORISSA	19.4	84.9	VII/6.0	-	HNS
08	07	1897	-			BERHAMPORE, ORISSA	-	-	III	-	HNS
29	07	1897	-			MALDA	-	-	-	-	HNS
30	07	1897	-			INDORE	-	-	-	-	CVR
09		1897	-			NADISISTOM, T.N.	11.50	76.60	-	-	UGS
27	09	1897	-			RAMPORE BOALIA	-	-	III	-	HNS
10		1897	-			AHMEDABAD	23.0	72.7	IV/3.7	-	KRN
08	10	1897	-			MALDA	-	-	II	-	KRN
15	10	1897	-			BELGAUM	-	-	III	-	CVR
19	10	1897	-			-	25.51	84.40	-	-	UGS
30	11	1897	-			-	25.31	86.50	-	-	UGS
27	03	1898	-			BANMOR	-	-	III	-	HNS
04	04	1898	-			-	25.51	84.40	III	-	UGS
06		1898	-			-	16.98	82.33	III	-	UGS
08		1898	-			-	25.63	85.05	III	-	UGS
10		1898	-			-	23.05	72.66	IV	-	UGS
09	10	1898	-			RUNGPORE	-	-	III	-	HNS
15	10	1898	-			-	15.90	74.60	III	-	UGS
17	09	1899	-			DINAJPUR	-	-	III	-	HNS
16	01	1900	-			-	20.41	72.96	III	-	UGS
07	02	1900	-			Nr COIMBATORE	09.50	76.36	VII/6.0	-	UGS
14	10	1900	-			JODHPUR	-	-	III	-	HNS
27	04	1901	-			N CALICUT	12.0	75.0	VI/5.0	-	UMC
14	01	1903	-			KUTCH	24.00	70.00	VII/6.0	-	IMD
17	05	1903	-			JABALPUR	23.0	80.0	VI	-	UMC
21	07	1904	-			JUNAGADH	-	-	III	-	KRN
24	11	1904	-			BALASORE	-	-	III	-	KRN
02	04	1905	-			ONGOLE	-	-	V	-	KRN
26	03	1906	-			BOMBAY	-	-	VI	-	KRN
15	08	1906	-			Nr MOUNT ABU	24.4	72.7	V/4.3	-	UMC
29	09	1906	-			CALCUTTA	22.6	88.4	VI	-	UMC
06	12	1906	-			CALCUTTA	22.6	88.4	VI	-	UMC
12	07	1907	-			MALLANI	26.0	72.0	VI/5.0	-	UMC
07		1909	-			CALCUTTA	-	-	III	-	KRN
09		1909	-			ONGOLE	-	-	III	-	KRN
01	09	1910	-			KALYAN	-	-	III	-	KRN

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
07	09	1910	-	-	-	BALASORE	-	-	III	-	KRN
25	09	1910	-	-	-	JODHPUR	-	-	III	-	KRN
08	12	1911	-	-	-	CALCUTTA	-	-	III	-	KRN
05	06	1912	-	-	-	KOLAR GOLD FIELD	-	-	III	-	KRN
14	12	1913	-	-	-	NARAYANAVARAM	-	-	II-III	-	KRN
07	01	1916	-	-	-	Nr BANGALORE	13.00	77.30	VI/5.0	-	IMD
17	04	1917	13	31	45	Nr VIZIANAGARAM	18.00	84.00	VII/5.5	-	ISS
18	05	1917	-	-	-	VIZIANAGARAM	-	-	III	-	KRN
19	05	1918	-	-	-	BAY OF BENGAL	15.54	83.42	VII/5.5	-	ISS
08	07	1918	-	-	-	CALCUTTA	-	-	VI	-	KRN
30	07	1918	-	-	-	RANCHI	-	-	IV	-	KRN
21	04	1919	-	-	-	BHAVNAGAR PARA	22.0	72.0	VIII	-	UMC
10	07	1920	-	-	-	Nr JERRUCK	25.00	68.00	VII/5.5	-	ISS
11	02	1921	-	-	-	Nr UMARKOT	25.00	70.42	-	-	ISS
21	02	1921	02	00	22	-	25.00	70.70	-	-	ISS
26	10	1921	07	05	35	Nr JERRUCK	25.00	68.00	VII/5.5	-	ISS
26	10	1921	23	02	40	Nr JERRUCK	25.00	68.00	VII/5.5	-	ISS
13	03	1922	-	-	-	PATDI, JHALAWAD, RAJKOT	22.0	71.0	V/4.3	-	UMC
09	09	1923	-	-	-	CALCUTTA	-	-	VI	-	KRN
16	01	1924	-	-	-	BOMBAY	-	-	IV	-	KRN
21	06	1925	-	-	-	GAGANBAVDA, RAJAPUR	-	-	IV	-	KRN
04	09	1925	-	-	-	GOPALPORE, CUTTACK	-	-	III	-	KRN
21	12	1926	-	-	-	LUKWASA	25.0	77.5	VII/5.5	-	BRR
31	12	1926	-	-	-	Nr LUKWASA	25.00	77.30	VII/5.5	-	ISS
		1927	-	-	-	VISAKHAPATNAM	17.7	83.4	V/4.3	-	CVR
15	03	1927	-	-	-	CALCUTTA	-	-	IV	-	KRN
02	06	1927	16	37	24	Nr SERAI	24.00	82.11	VIII/6.5	-	ISS
29	07	1927	-	-	-	BAY OF BENGAL	15.0	87.0	6.5	-	GUR
18	11	1927	-	-	-	ARABIAN SEA	21.30	68.00	VII/5.5	-	ISS
09	01	1928	-	-	-	MIDNAPUR	-	-	III	-	KRN
05	11	1928	-	-	-	BOMBAY	-	-	III	-	KRN
08	12	1928	-	-	-	NAGAPATAM	-	-	III	-	KRN
16	02	1929	-	-	-	100 Km S BOMBAY	-	-	V/4.2	-	IMD
10	04	1929	-	-	-	Nr LUKWASA	25.00	77.30	VII/5.5	-	ISS
05	05	1930	-	-	-	ALIPORE	-	-	III	-	KRN
25	06	1930	-	-	-	Nr LUKWASA	25.00	77.30	VII/5.5	-	ISS
11	07	1930	-	-	-	CALCUTTA	-	-	VI	-	KRN
13	08	1930	-	-	-	JAMSHEDPUR	-	-	IV	-	KRN
17	04	1933	-	-	-	MARCARA	-	-	III	-	KRN
17	07	1933	-	-	-	BOMBAY	-	-	V	-	KRN
		1934	-	-	-	HAMNABAD	-	-	IV/3.7	-	GSI
11	01	1934	-	-	-	SIVAKASI	-	-	V	-	KRN
20	02	1934	-	-	-	BOBBILI	-	-	III	-	KRN
15	10	1934	-	-	-	SHOLAPUR	-	-	III	-	KRN
		1935	-	-	-	GANDHARI	-	-	IV/3.7	-	GSI
15	01	1935	-	-	-	JAIPUR	-	-	V	-	KRN
21	03	1935	-	-	-	CALCUTTA	-	-	V	-	KRN
24	03	1935	-	-	-	SILIGURI	-	-	III	-	KRN
23	04	1935	-	-	-	CHINSURAH	-	-	III	-	KRN
20	05	1935	-	-	-	MALDA	-	-	III	-	KRN



DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
16	07	1935	-	-	-	JAIPUR	-	-	IV	-	KRN
20	07	1935	-	-	-	Nr DUMAS	21.09	72.45	VII/5.7	-	IMD
15	08	1935	-	-	-	DHANBAD	-	-	III	-	KRN
15	09	1935	-	-	-	KALYAN	-	-	IV	-	KRN
16	09	1935	-	-	-	Nr THANA	19.10	73.00	III/3.0	-	IMD
11	1935	-	-	-	-	KOTTAKKAL	-	-	III	-	KRN
21	11	1935	-	-	-	METTUR	-	-	IV	-	KRN
08	04	1936	-	-	-	PACHMARCHI	-	-	IV	-	KRN
27	05	1936	-	-	-	PATNA	-	-	IV	-	KRN
11	01	1937	-	-	-	BOMBAY	-	-	III	-	KRN
16	05	1937	-	-	-	SALEM	-	-	IV	-	KRN
22	08	1937	-	-	-	BATAMCHERLA	-	-	IV	-	KRN
08	01	1938	-	-	-	CHITTOOR	-	-	IV	-	KRN
18	01	1938	-	-	-	DARBHANGA	-	-	III	-	KRN
29	01	1938	-	-	-	MUZAFFARNAGAR	-	-	III	-	KRN
14	03	1938	00	48	38	SATPURA RANGE	21.50	75.75	VIII/6.2	050.0	UGS
14	04	1938	-	-	-	PURNEA	-	-	V	-	KRN
26	06	1938	-	-	-	PALIYAD	22.3	71.6	VI/5.0	-	UMC
07	1938	-	-	-	-	NAGAR	-	-	III	-	KRN
12	07	1938	-	-	-	BHAVNAGAR	-	-	IV	-	KRN
14	07	1938	-	-	-	PALIYAD	22.4	71.8	VI/5.0	-	BRR
19	07	1938	-	-	-	PALIYAD	22.4	71.8	VI	-	UMC
20	07	1938	-	-	-	PALIYAD	22.24	71.48	VI/5.0	-	IMD
23	07	1938	-	-	-	PALIYAD, GUJARAT	22.24	71.48	VII/6.0	-	IMD
23	07	1938	-	-	-	VIRANGAM	-	-	III	-	KRN
13	08	1938	-	-	-	PALIYAD	-	-	IV	-	KRN
26	08	1938	-	-	-	BEHRAMPURE	-	-	III	-	KRN
10	09	1938	-	-	-	DINDIGIL	-	-	V	-	KRN
17	01	1939	-	-	-	JAIPUR	-	-	IV	-	KRN
22	01	1939	-	-	-	PURNEA	-	-	III	-	KRN
19	04	1939	-	-	-	HYDERABAD/SECUNDERABAD	-	-	IV	-	KRN
29	04	1939	-	-	-	DARBHANGA	-	-	VI	-	KRN
20	08	1939	-	-	-	TIRVOTTUR	-	-	V	-	KRN
01	10	1939	-	-	-	MUZAFFARPUR	-	-	IV	-	KRN
05	11	1939	-	-	-	AMRAOTI	-	-	III	-	KRN
06	04	1940	-	-	-	SALEM DISTRICT	-	-	III	-	KRN
31	10	1940	10	43	50	NW KATHIAWAR	22.30	70.24	VII/5.8	-	IMD
11	1940	-	-	-	-	CUTCH-MANDVI	-	-	III	-	KRN
28	03	1941	-	-	-	Nr SRIVARDHAN	18.00	73.10	V/4.3	-	IMD
28	05	1941	-	-	-	RATNAGIRI	18.0	73.1	V/4.3	-	KRN
26	06	1941	-	-	-	MADRAS	-	-	VI	-	KRN
1942	-	-	-	-	-	N NANDED	-	-	IV/3.7	-	GS I
21	02	1942	-	-	-	MALDA	-	-	III	-	KRN
23	10	1943	-	-	-	BURDWAN	-	-	III	-	KRN
31	01	1944	-	-	-	DARJEELING	-	-	III	-	KRN
06	02	1944	-	-	-	CHITTOOR	-	-	III	-	KRN
18	02	1944	-	-	-	MUZAFFARPUR	-	-	IV	-	KRN
29	02	1944	-	-	-	MADURAI	-	-	V	-	KRN
02	10	1944	-	-	-	JAIPUR	-	-	III	-	KRN
06	06	1945	-	-	-	VISAKHAPATNAM	-	-	V	-	KRN

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
29	12	1945	-			MONGHYR	-	-	IV	-	KRN
19	01	1946	-			JUBBULPORE	-	-	III	-	KRN
12	05	1946	-			BAUDHRAJ	-	-	VI	-	KRN
02	11	1946	-			MUZAFFARPUR	-	-	III	-	KRN
07	11	1946	18	06	03	-	19.60	69.40	-	-	ISS
29	07	1947	-			BALURGHAT, CALCUTTA	-	-	III	-	KRN
06	02	1948	-			RAYADURG	-	-	IV	-	KRN
16	06	1948	-			GOBICHETTI-PALAYAM	-	-	III	-	KRN
09	07	1948	-			CHICACOLE	-	-	III	-	KRN
15	09	1948	-			CHITTOOR	-	-	III	-	KRN
28	09	1948	-			CALCUTTA	-	-	III	-	KRN
07	12	1948	-			CALCUTTA	-	-	III	-	KRN
19	01	1950	-			PUDUKOTTAH	-	-	III	-	KRN
23	01	1950	-			TIRUNELVELI	-	-	III	-	KRN
14	02	1950	-			BERHAMPORE	-	-	III	-	KRN
14	06	1950	-			Nr BADIN	24.30	69.00	VII/5.5	-	ISS
		1951	-			JAIGARH	17.3	73.2	V/4.7	-	UMC
08	04	1951	-			ARABIAN SEA	19.12	70.48	VII/6.0	-	IMD
02	08	1951	-			MATTUR	-	-	III	-	KRN
20	08	1951	-			MIDNAPORE	-	-	III	-	KRN
20	09	1951	-			DADVEL	-	-	III	-	KRN
09	05	1952	-			RANGAMALAI	-	-	VI	-	KRN
29	05	1952	-			RANGAMALAI	-	-	V	-	KRN
03	06	1952	-			RANGAMALAI	-	-	VI	-	KRN
06	06	1952	-			RANGAMALAI	-	-	IV	-	KRN
20	10	1952	-			KRISHNAGIRI	-	-	III	-	KRN
17	12	1952	-			KOLAR TOWN	-	-	III	-	KRN
		1953	-			BIR DIST.	-	-	IV/3.7	-	GSI
		1953	-			KOTTAYAM	-	-	IV/3.7	-	GSI
25	02	1953	-			TIRUMALVAI	-	-	IV	-	KRN
02	04	1953	-			VALLEY E OF KOTTAYAM	-	-	VII	-	KRN
22	05	1953	-			JAMSHEDPUR	-	-	III	-	KRN
26	07	1953	-			COCHIN	09.9	76.3	VI/5.0	-	GUB
29	08	1953	-			GORAKHPUR	-	-	V	-	KRN
05	01	1954	-			E GODAVARI	18.00	81.81	IV/4.0	-	IMD
11	03	1954	-			VIZIANAGARAM	-	-	III	-	KRN
02	08	1954	-			SALEM	-	-	IV	-	KRN
04	09	1954	-			GORAKHPUR	-	-	IV	-	KRN
27	11	1954	-			CALCUTTA	-	-	III	-	KRN
		1955	-			UJANI, BIR DIST.	-	-	IV/3.7	-	GSI
11	07	1955	-			MYSORE	-	-	V	-	KRN
05	08	1955	-			DHAVALGI	-	-	III	-	KRN
30	01	1956	-			SEHORE	-	-	VI	-	KRN
02	02	1956	-			SEHORE	-	-	IV-VII	-	KRN
05	02	1956	-			SEHORE	-	-	IV	-	KRN
10	02	1956	-			SEHORE	-	-	III	-	KRN
18	02	1956	-			ONGOLE	-	-	IV	-	KRN
19	02	1956	-			RAIGANJ	-	-	III	-	KRN
04	05	1956	-			DUMKA, BIHAR	24.2	87.0	-	-	ISS
		07	-			SEHORE	-	-	III	-	KRN

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
21	07	1956	-	-	-	KUTCH	23.36	70.00	IX/7.0	-	IMD
07	08	1956	-	-	-	RAMSEEN VILLAGE-RAJASTHAN	-	-	VI	-	KRN
12	08	1956	-	-	-	RAMSEEN VILLAGE	-	-	III	-	KRN
13	08	1956	-	-	-	SEHORE	-	-	III	-	KRN
16	08	1956	-	-	-	SEHORE	-	-	III	-	KRN
17	08	1956	-	-	-	RAMSEEN VILLAGE	-	-	III	-	KRN
18	08	1956	-	-	-	RAMSEEN VILLAGE	-	-	III	-	KRN
31	08	1956	-	-	-	SEHORE	-	-	III	-	KRN
10	10	1956	-	-	-	BHALKI, BIDAR DIST.	-	-	IV/3.7	-	GSI
10	10	1956	-	-	-	JAIPUR	-	-	III	-	KRN
05	11	1956	-	-	-	GULBARGA	-	-	III	-	KRN
28	02	1957	-	-	-	JABALPUR	-	-	III	-	KRN
20	04	1957	-	-	-	ONGOLE	-	-	III	-	KRN
01	07	1957	-	-	-	CALCUTTA	-	-	III	-	KRN
10	07	1957	-	-	-	ANJAR	-	-	III	-	KRN
20	07	1957	-	-	-	GAGANBAVDA	-	-	III	-	KRN
25	08	1957	21	04	50	BALAGHAT	22.00	80.00	IV/5.5	-	UGS
26	08	1957	-	-	-	SATPURA RANGE	22.00	80.00	VII/5.5	-	IMD
04	10	1957	-	-	-	TIRUCHIRAPALLI	-	-	IV	-	KRN
17	10	1957	-	-	-	Nr KHAPA	21.30	79.00	IV/4.0	-	IMD
13	01	1958	-	-	-	ONGOLE	-	-	V	-	KRN
26	04	1958	-	-	-	ANJAR	-	-	V	-	KRN
30	10	1958	-	-	-	BANGALORE	-	-	IV	-	KRN
01	11	1958	-	-	-	Nr BALJOD, ORISSA	22.00	85.00	IV/4.0	-	IMD
03	12	1958	-	-	-	PATNA	-	-	III	-	KRN
24	05	1959	-	-	-	KATI HAR	-	-	III	-	KRN
01	06	1959	-	-	-	GARGOTI, Nr KOLHAPUR	-	-	III	-	KRN
15	06	1959	-	-	-	ONGOLE	-	-	III	-	KRN
21	07	1959	-	-	-	TELLICHERRY	11.5	75.3	4.0	-	IMD
27	07	1959	-	-	-	TELLICHERRY-CANNANORE	11.50	75.25	IV/4.0	-	IMD
21	08	1959	-	-	-	UPPUGUNDURU	15.8	80.2	IV/3.7	-	UMC
25	08	1959	-	-	-	VIZIANAGARAM	-	-	III	-	KRN
09	09	1959	-	-	-	PURI	-	-	III	-	KRN
21	09	1959	-	-	-	PALGHAT DISTRICT	-	-	V	-	KRN
24	09	1959	-	-	-	DAKORE	-	-	III	-	KRN
12	10	1959	-	-	-	ONGOLE-GUNTUR	15.36	80.05	VI/5.0	-	IMD
13	10	1959	-	-	-	ONGOLE	15.6	80.1	VI/5.0	-	UMC
02	11	1959	-	-	-	MANDVI	-	-	III	-	KRN
17	12	1959	-	-	-	SALEM AND SHEVAROY RANGE	11.7	78.1	V/4.3	-	GUB
23	12	1959	-	-	-	VIZIANAGARAM	18.1	83.5	V/4.3	-	UMC
19	01	1960	-	-	-	ONGOLE	-	-	III	-	KRN
28	01	1960	-	-	-	TIRUPATI	-	-	IV	-	KRN
27	08	1960	-	-	-	JAIPUR	-	-	III	-	KRN
08	10	1960	-	-	-	ONGOLE AND GUNTUR	16.0	80.3	V/4.3	-	GUB
19	10	1960	-	-	-	SRIKAKULAM	-	-	IV	-	KRN
29	10	1960	-	-	-	NE KARACHI	25.7	67.6	-	-	UMC
26	01	1961	-	-	-	BOMBAY	-	-	III	-	KRN
18	02	1961	-	-	-	MUZAFFARPUR	-	-	III	-	KRN
13	06	1961	13	36	29	BAY OF BENGAL	08.70	83.20	-	043.0	UGS
16	06	1961	-	-	-	INDIAN OCEAN	08.30	72.00	-	-	ISS

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
02	09	1961	-	-	-	KARWAR TALUKA	-	-	IV	-	KRN
04	09	1961	-	-	-	KARWAR	-	-	III	-	KRN
05	09	1961	-	-	-	GODHA	-	-	III	-	KRN
14	09	1961	-	-	-	CHADBET(RANN OF KUTCH)	-	-	III	-	KRN
24	09	1961	-	-	-	CALICUT	-	-	III	-	KRN
27	09	1961	-	-	-	CALICUT	-	-	III	-	KRN
05	10	1961	-	-	-	Nr ATTUR	-	-	IV/3.7	-	IMD
28	10	1961	-	-	-	ANJAR	-	-	III	-	KRN
07	02	1962	-	-	-	KOTAGIRI	-	-	V	-	KRN
15	02	1962	-	-	-	PORBANDAR	-	-	V	-	KRN
09	03	1962	-	-	-	MADHI(Nr SURAT)	-	-	III	-	KRN
12	03	1962	02	11	09	RANN OF KUTCH	24.10	70.90	-	034.0	UGS
17	03	1962	-	-	-	BHUJ	-	-	III	-	KRN
29	04	1962	-	-	-	Nr NETAHAT	23.30	84.00	IV/4.0	-	IMD
09	09	1962	-	-	-	RATNAGIRI	16.59	73.17	V/4.3	-	IMD
01	09	1962	-	-	-	Nr MOMER	24.12	73.00	VI/5.0	-	IMD
28	09	1962	-	-	-	RATNAGIRI	17.0	73.5	V/4.3	-	UMC
24	03	1963	-	-	-	BOMBAY	-	-	IV	-	KRN
09	04	1963	-	-	-	CALCUTTA	-	-	III	-	KRN
09	04	1963	00	03	38	Nr TAMAR	23.00	85.30	VI/5.0	033.0	IMD
08	05	1963	14	15	03	Nr THETHANAGAR	22.30	84.30	VII/6.0	033.0	IMD
08	06	1963	-	-	-	MOUNT ABU	-	-	III	-	KRN
13	07	1963	19	08	39	Nr MITHI	24.54	70.18	VII/5.6	033.0	IMD
05	12	1963	04	07	42	Nr KHAMMAM	17.00	80.00	IV/3.7	033.0	IMD
26	03	1964	10	04	12	RANN OF KUTCH	24.40	70.00	5.3	-	IMD
15	04	1964	16	35	57	BAY OF BENGAL	21.70	88.00	VIII/5.5 Mb	036.0	UGS
16	04	1964	-	-	-	FELT AT KAKDWIP	-	-	-	-	IMD
09	06	1964	12	33	22	OFF CALCUTTA	21.50	87.90	-	-	ISC
23	06	1964	-	-	-	CHALAL VILLAGE	-	-	IV	-	KRN
31	07	1964	-	-	-	DEEGHAR	-	-	III	-	KRN
28	08	1964	13	36	36	BAY OF BENGAL	10.37	83.44	-	-	ISC
10	1964	-	-	-	-	CALICUT	11.3	75.8	V/4.3	-	GUB
07	10	1964	-	-	-	PANDALAM-ADDER	-	-	III	-	KRN
25	11	1964	-	-	-	BOMBAY	-	-	III	-	KRN
12	01	1965	-	-	-	MONGHYR	-	-	III	-	KRN
26	03	1965	10	04	07	N KUTCH	24.20	69.60	4.6 Mb	033.0	UGS
04	06	1965	03	37	12	Nr RATNAGIRI	17.00	73.24	VII/5.4	-	IMD
08	07	1965	-	-	-	JAMNAGAR	-	-	III	-	KRN
12	07	1965	-	-	-	BOMBAY	-	-	III	-	KRN
19	11	1965	-	-	-	ALIBAG	18.8	73.1	-	-	IMD
13	12	1965	-	-	-	55 Km COLABA	19.2	73.0	IV/3.7	-	IMD
08	01	1966	15	38	15	-	11.60	84.93	-	-	ISC
22	01	1966	-	-	-	KOLABA	18.3	72.7	-	-	IMD
24	04	1966	-	-	-	MADRAS	-	-	III	-	KRN
04	05	1966	-	-	-	33 Km COLABA	18.7	73.0	V	-	IMD
27	05	1966	22	14	14	S HYDERABAD, PAKISTAN	24.46	68.69	VI/5.0Mb	005.0	ISC
14	06	1966	-	-	-	Nr RATNAGIRI	17.00	73.07	VI/4.8	-	GUG
13	07	1966	-	-	-	MADRAS	-	-	III	-	KRN
28	09	1966	-	-	-	MADRAS	-	-	III	-	KRN
12	11	1966	12	16	47	HYDERABAD, PAKISTAN	25.12	68.04	VI/4.8Mb	033.0	ISC

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
06	01	1967	11	41	34	Nr BARWANI	21.97	74.27	4.5 Mb	-	ISC
11	01	1967	-	-	-	PALITANA	-	-	III	-	KRN
17	02	1967	-	-	-	THANE-KALYAN	19.3	73.0	III	-	IMD
02	03	1967	07	06	-	NE KRISHNARAJA SAGAR	-	-	-	-	CVR
04	03	1967	-	-	-	MADRAS	-	-	IV	-	KRN
05	03	1967	-	-	-	MADRAS	-	-	III	-	KRN
27	03	1967	08	09	45	ONGOLE	15.62	80.16	VII/5.2	015.0	ISC
05	04	1967	04	32	27	BAY OF BENGAL	12.30	83.00	-	-	ISC
25	04	1967	03	53	15	MAHAD	18.2	73.4	V/5.6	051.0	KRN
18	05	1967	-	-	-	Nr JANJIRA	17.55	73.02	IV/3.6	-	GUG
19	05	1967	-	-	-	RATNAGIRI	17.0	73.5	V/4.3	-	GUG
10	06	1967	12	16	-	NE CHENNAIPATNA	-	-	-	-	CVR
19	06	1967	23	25	50	30 Km BOMBAY	-	-	-	-	IMD
20	06	1967	-	-	-	ALIBAG	18.7	73.0	V/4.3	-	GUG
16	07	1967	07	44	14	E ASANSOL	22.84	87.34	III	090.0	ISC
28	07	1967	-	-	-	VIZIANAGARAM	-	-	III	-	KRN
31	07	1967	-	-	-	VIRPUR, Nr RAJKOT	-	-	VI	-	KRN
11	08	1967	01	57	05	VINUKONDA	16.00	80.00	-	-	IMD
18	10	1967	-	-	-	JAIPUR	-	-	III	-	KRN
13	01	1968	03	45	-	NE SIRA	-	-	-	-	CVR
18	03	1968	14	57	-	MEHABUBABAD, A.P.	-	-	-	-	CVR
23	03	1968	04	21	31	INDIA-PAKISTAN BORDER	24.4	68.7	4.4 Mb	015.0	UGS
26	03	1968	18	00	54	ITARSI, M.P.	22.6	78.1	4.2 Mb	-	IMD
13	04	1968	15	24	55	BHADRACHALAM	17.6	80.6	6.5 Mb	-	IMD
14	04	1968	17	58	39	ANDHRA PRADESH	18.0	80.5	6.0 Mb	-	IMD
16	04	1968	04	04	24	-	23.30	68.90	-	033.0	ISC
03	05	1968	13	23	35	Nr. BANKURA	23.0	86.6	5.7 Mb	-	IMD
10	05	1968	17	17	-	W KRISHNAGIRI	-	-	-	-	CVR
08	06	1968	03	54	-	W KRISHNAGIRI, KARNATAKA	-	-	-	-	CVR
09	06	1968	00	23	-	W KADIRI, A.P.	-	-	-	-	CVR
21	07	1968	07	44	08	Nr AMRAOTI	21.40	77.80	3.6 Ms	-	INR
27	07	1968	-	-	-	BHADRACHALAM	17.6	80.8	4.5	-	GUG
29	07	1968	-	-	-	BHADRACHALAM & KOTTAGUDEM	17.6	80.8	4.5	-	UMC
15	08	1968	-	-	-	MAMANDUR	12.0	79.0	IV/3.7	-	UMC
26	08	1968	19	54	-	W KRISHNAGIRI	-	-	-	-	CVR
25	09	1968	-	-	-	TRIVANDRUM	08.29	76.57	III/3.0	-	IMD
10	10	1968	-	-	-	KRISHNAGAR	-	-	III	-	KRN
16	10	1968	-	-	-	JATPUR TOWN	-	-	III	-	KRN
18	10	1968	-	-	-	JATPUR	-	-	VI	-	KRN
04	11	1968	08	18	19	N SAVANTVADI	16.2	74.0	3.5 ML	020.0	IMD
14	11	1968	05	05	10	BETUL	21.80	78.00	4.2 Ms	-	INR
17	12	1968	-	-	-	DHARANGADHARA-BALAMBHA	-	-	III	-	KRN
16	01	1969	20	55	52	RAYACHOTI	14.10	78.70	3.5 Ms	-	INR
07	03	1969	-	-	-	SANGAMESHWAR	17.2	73.6	V/4.7	-	GUG
16	03	1969	07	48	-	NE CHITRADURGA	-	-	-	-	CVR
23	03	1969	04	21	34	S HYDERABAD, PAKISTAN	24.54	68.79	4.4 Mb	019.0	ISC
26	03	1969	18	00	54	N MAHADEO HILLS	22.6	78.1	4.2 ML	-	IMD
13	04	1969	15	24	54	Nr KOTHAGUDEM	17.55	80.36	VII/5.3 Mb/5.7 Ms	033.0	IMD
13	04	1969	16	12	19	BHADRACHALAM	17.90	80.60	3.1 Ms	-	INR
13	04	1969	17	02	58	BHADRACHALAM	17.90	80.60	3.0 Ms	-	INR

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
13	04	1969	17	41	36	BHADRACHALAM	17.90	80.60	3.2 Ms	-	INR
13	04	1969	17	47	23	BHADRACHALAM	17.90	80.60	3.1 Ms	-	INR
13	04	1969	17	54	37	BHADRACHALAM	17.90	80.60	3.4 Ms	-	INR
13	04	1969	18	28	20	BHADRACHALAM	17.90	80.60	3.2 Ms	-	INR
13	04	1969	18	45	20	BHADRACHALAM	17.90	80.60	3.0 Ms	-	INR
13	04	1969	20	41	24	BHADRACHALAM	17.90	80.60	3.1 Ms	-	INR
13	04	1969	21	22	54	BHADRACHALAM	17.90	80.60	3.2 Ms	-	INR
14	04	1969	-	-	-	KOTHAGUDEM	18.0	80.5	VI/5.7	033.0	USC
14	04	1969	09	54	06	BHADRACHALAM	17.90	80.60	3.1 Ms	-	INR
15	04	1969	01	23	02	BHADRACHALAM	17.90	80.60	3.2 Ms	-	INR
15	04	1969	08	15	38	BHADRACHALAM	17.90	80.60	3.1 Ms	-	INR
15	04	1969	12	16	44	BHADRACHALAM	17.90	80.60	3.0 Ms	-	INR
15	04	1969	17	58	39	BHADRACHALAM	18.00	80.70	4.6 Mb	033.0	ISC
16	04	1969	07	41	00	BHADRACHALAM	17.90	80.60	3.3 Ms	-	INR
16	04	1969	12	51	27	BHADRACHALAM	17.90	80.60	3.0 Ms	-	INR
16	04	1969	19	15	30	BHADRACHALAM	17.90	80.60	3.2 Ms	-	INR
17	04	1969	00	05	09	BHADRACHALAM	17.90	80.60	3.7 Ms	-	INR
18	04	1969	13	09	28	BHADRACHALAM	17.90	80.60	4.1 Ms	-	INR
19	04	1969	21	01	36	BHADRACHALAM	17.90	80.60	4.3 Ms	-	INR
19	04	1969	21	27	19	BHADRACHALAM	17.90	80.60	3.3 Ms	-	INR
21	04	1969	09	42	52	BHADRACHALAM	17.90	80.60	3.3 Ms	-	INR
25	04	1969	17	13	06	BHADRACHALAM	17.90	80.60	3.3 Ms	-	INR
27	04	1969	23	13	16	BHADRACHALAM	17.90	80.60	3.3 Ms	-	INR
01	05	1969	00	54	56	BHADRACHALAM	17.90	80.60	3.6 Ms	-	INR
03	05	1969	-	-	-	JAMSHEDPUR	23.0	86.6	5.7 Mb	-	IMD
06	05	1969	20	18	-	W KRISHNAGIRI	-	-	-	-	CVR
10	05	1969	21	43	54	JAMSHEDPUR	22.80	86.20	IV/3.9Ms	-	INR
11	05	1969	18	18	04	BHADRACHALAM	17.90	80.60	3.2 Ms	-	INR
20	05	1969	00	53	23	BHADRACHALAM	17.90	80.60	3.6 Ms	-	INR
29	05	1969	16	21	40	BHADRACHALAM	17.90	80.60	3.2 Ms	-	INR
26	07	1969	21	37	31	BHADRACHALAM	17.90	80.60	4.0 Ms	-	INR
22	08	1969	20	45	40	BHADRACHALAM	17.90	80.60	3.6 Ms	-	INR
24	08	1969	14	43	59	-	25.70	70.60	-	025.0	ISC
30	08	1969	10	41	34	BHADRACHALAM	17.90	80.60	4.5 Ms	-	INR
15	09	1969	15	51	05	KOTTAGUDEM	17.6	80.5	3.8 ML	-	IMD
20	09	1969	21	46	04	NAGARJUNA SAGAR	16.60	79.30	-	-	INR
21	09	1969	23	43	25	NAGARJUNA SAGAR	16.60	79.30	-	-	INR
24	10	1969	11	45	53	MOUNT ABU	24.80	72.40	5.3 Mb	015.0	USC
12	01	1970	-	-	-	ONGOLE	15.5	79.6	2.9	-	BRR
19	01	1970	02	23	24	SW BANGALORE	12.60	77.10	-	-	INR
01	02	1970	10	07	12	DIVI TALUK	16.00	80.00	-	-	INR
12	02	1970	17	09	53	HASSAN	13.00	76.10	III/3.8 Ms	-	INR
13	02	1970	15	05	51	INDIA-PAKISTAN BORDER	24.40	68.60	5.2	033.0	ISC
20	02	1970	-	-	-	KALYANDURG	14.6	77.2	-	-	CVR
13	03	1970	15	05	51	INDIA-PAKISTAN BORDER	24.6	68.6	5.2	-	IMD
22	03	1970	13	33	58	BHADRACHALAM	17.90	80.60	-	-	INR
23	03	1970	01	52	59	BROACH	21.7	73.0	VII/5.4 Mb	003.0	USC
23	03	1970	02	14	04	BROACH	21.70	73.00	3.8 Ms	-	INR
23	03	1970	04	27	22	75 Kms, NW DELHI	-	-	-	-	IMD
28	03	1970	21	33	52	BHADRACHALAM	17.90	80.60	V/3.4 Ms	-	INR

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
31	03	1970	-	-	-	BHADRACHALAM	-	-	IV	-	KRN
03	04	1970	02	26	44	CUDDAPAH BASIN	14.70	78.10	3.0 Ms	-	INR
26	04	1970	-	-	-	BROACH	-	-	III	-	KRN
30	04	1970	-	-	-	S CHITRADURGA	13.7	76.6	-	-	CVR
05	05	1970	-	-	-	Nr TUMKUR	13.3	76.9	-	-	CVR
08	05	1970	-	-	-	N KOLAR	13.6	78.1	-	-	CVR
12	05	1970	-	-	-	Nr SHIMOGA	13.8	75.7	-	-	CVR
17	05	1970	09	31	16	-	18.00	87.50	-	-	ISC
24	05	1970	-	-	-	BHUJ	-	-	III	-	KRN
11	06	1970	03	24	23	BHADRACHALAM	17.90	80.60	3.3 Ms	-	INR
18	06	1970	14	14	-	BROACH	21.7	73.0	3.4 Ms	-	CVR
25	07	1970	-	-	-	KATI HAR	-	-	III	-	KRN
28	07	1970	13	05	58	BHADRACHALAM	17.90	80.60	4.0 Ms	-	INR
28	07	1970	15	45	25	-	23.10	69.30	-	096.0	ISC
29	07	1970	-	-	-	RANCHI	-	-	III	-	KRN
09	08	1970	05	02	36	BROACH	21.70	73.00	3.5 Ms	-	INR
30	08	1970	08	53	25	BROACH	21.6	72.7	3.5	-	IMD
06	09	1970	-	-	-	BROACH	-	-	VI	-	KRN
10	09	1970	12	48	13	BROACH	21.6	72.7	3.4 Ms	-	INR
09	10	1970	12	48	-	BROACH	21.6	72.7	3.4 Ms	-	CVR
05	01	1971	23	58	21	-	25.77	71.49	-	033.0	ISC
17	01	1971	13	59	50	MANDYA	12.4	77.0	4.2 ML	-	UMC
27	01	1971	-	-	-	JAMSHEDPUR	-	-	IV	-	KRN
06	03	1971	16	24	27	MANDYA	12.4	77.0	4.2 ML	-	UMC
27	03	1971	14	48	21	MANDYA	12.4	77.0	4.3 ML	-	UMC
03	04	1971	19	15	35	-	10.50	83.00	-	-	ISC
14	05	1971	17	07	28	HYDERABAD, PAKISTAN	25.20	68.00	-	033.0	ISC
14	05	1971	17	14	40	HYDERABAD, PAKISTAN	25.12	68.11	4.5 Mb	057.0	UGS
26	05	1971	-	-	-	NAGAPPATTANAM, T.N.	-	-	IV	-	KRN
18	06	1971	14	14	06	BROACH	21.7	73.0	IV/3.4	-	IMD
28	07	1971	00	07	00	ONGOLE, A.P.	15.6	80.1	V/4.3	-	IMD
26	11	1971	20	40	03	KOLAR GOLD FIELDS	12.8	78.3	4.4 Ms	-	INR
26	11	1971	21	05	41	KOLAR GOLD FIELDS	12.8	78.3	4.7 Ms	-	INR
19	12	1971	02	51	02	-	25.50	87.20	-	-	ISC
21	04	1972	22	05	30	AKOLA	20.7	77.0	4.3 Ms	-	INR
24	04	1972	07	15	-	MANDYA, MYSORE	12.4	77.0	IV	-	IMD
16	05	1972	16	36	42	MANDYA, MYSORE	12.4	77.0	4.6 ML	-	UMC
17	05	1972	09	59	53	MANDYA, MYSORE	12.4	77.0	4.5 ML	-	UMC
29	07	1972	04	30	-	COIMBATORE	11.0	77.0	VI/5.0	-	IMD
24	11	1972	13	19	14	BAY OF BENGAL	11.66	85.34	5.4 Mb/5.2 Ms	048.0	ISC
28	12	1972	16	20	21	KOLAR GOLD FIELDS	12.8	78.3	3.7 Ms	-	INR
23	02	1973	-	-	-	INDIAN OCEAN	09.8	83.5	4.7	-	USC
05	06	1973	01	19	30	HYDERABAD, PAKISTAN	25.09	68.07	4.8 Mb	009.0	UGS
12	07	1973	15	29	52	JABALPUR	23.2	80.0	IV/3.7	-	IMD
30	08	1973	19	50	03	BAY OF BENGAL	07.1	84.3	5.9	-	UGS
15	11	1973	-	-	-	SINDGI	17.0	76.3	V	-	UMC
11	02	1974	06	39	59	-	19.10	87.65	-	033.0	ISC
17	02	1974	14	06	07	Nr WEST COAST	17.5	73.1	5.0	-	IMD
17	04	1974	15	22	01	Nr WEST COAST	17.5	73.1	5.0 Mb	-	IMD
23	05	1974	12	03	28	KOLAR GOLD FIELDS	12.8	78.3	3.9 Ms	-	INR

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
05	07	1974	20	09	34	BAY OF BENGAL	14.8	81.7	5.2	023.0	IMD
31	07	1974	23	53	39	KOLAR GOLD FIELDS	12.8	78.3	4.1 Ms	-	INR
15	08	1974	08	45	27	-	19.73	71.02	4.4 Mb	033.0	ISC
20	10	1974	15	36	35	Nr TALODA	21.7	74.2	4.6 Ms	033.0	ISC
28	11	1974	21	11	53	NE ONGOLE	15.6	80.2	3.1 Ms	-	INR
22	12	1974	09	29	32	-	24.16	68.36	-	033.0	ISC
25	02	1975	00	18	57	SW ONGOLE	15.3	79.6	3.9 Ms	-	INR
26	03	1975	16	19	17	ARABIAN SEA	19.71	68.70	5.1 Mb	023.0	ISC
28	03	1975	14	27	27	VELIKONDA RANGE	14.5	79.3	3.1 Ms	-	INR
24	04	1975	02	06	13	W BIJAPUR	18.7	80.7	3.0 Ms	-	INR
05	05	1975	19	56	22	-	22.50	71.90	-	033.0	ISC
12	05	1975	15	09	28	SHIMOGA, KARNATAKA	13.8	75.3	V/5.0 Mb	-	BKG
03	07	1975	15	45	12	SW KAZIPET	18.0	79.5	3.2 Ms	-	INR
13	08	1975	21	18	24	BETUL	21.8	77.7	4.1 Ms	-	INR
15	09	1975	14	06	14	KARIMNAGAR	18.4	79.2	3.2 Ms	-	INR
19	09	1975	16	49	52	-	24.69	71.03	3.7 Mb	105.0	UGS
25	09	1975	01	55	45	W DHULIA	20.8	74.2	4.2 Ms	-	INR
13	11	1975	21	38	45	-	13.24	85.20	-	650.0	ISC
09	02	1976	11	06	35	CUDDAPAH REGION	14.7	78.1	3.5 Ms	-	INR
03	03	1976	07	13	30	-	24.96	70.38	-	014.0	ISC
04	03	1976	08	10	49	-	24.91	70.25	-	039.0	ISC
21	04	1976	12	56	09	-	25.80	68.60	-	033.0	ISC
04	06	1976	00	43	41	INDIA-PAKISTAN BORDER	24.51	68.45	5.1 Mb/5.0 Ms	018.0	ISC
23	06	1976	15	38	48	BAY OF BENGAL	21.8	87.3	6.4	-	IMD
25	10	1976	16	02	49	ONGOLE	15.5	78.8	3.5 ML	-	IMD
05	06	1977	19	21	44	INDIA-BANGLADESH BORDER	26.0	88.0	5.7 ML	-	IMD
26	09	1977	19	48	48	PAKISTAN	25.38	68.24	1V/4.5Mb	033.0	ISC
30	09	1977	03	39	18	-	25.32	68.46	-	033.0	ISC
23	04	1978	07	50	15	BAY OF BENGAL	21.3	88.4	-	-	IMD
27	09	1978	22	54	23	-	23.56	75.35	4.5 Mb	033.0	ISC
16	02	1979	07	54		S COIMBATORE	10.5	77.0	3.7 Ms	-	CVR
05	04	1979	09	08		BHADRACHALAM	17.6	81.2	3.0 Ms	-	CVR
18	04	1979	15	17		Nr SALEM	11.8	78.3	3.8 Ms	-	BRR
22	04	1979	09	21		W BILADILLA	18.5	80.8	3.5 Ms	-	CVR
09	06	1979	06	54		Nr KRISHNAGIRI	12.3	78.1	3.3 Ms	-	CVR
21	07	1979	04	49		KOLAR	13.1	78.4	3.0 Ms	-	CVR
23	07	1979	10	09		PUTTUR	13.4	79.5	3.0 Ms	-	CVR
05	08	1979	01	18	36	-	22.11	85.97	4.7 Mb	033.0	ISC
21	09	1979	09	28		E MANDYA	12.6	77.3	3.1 Ms	-	CVR
22	09	1979	17	19	18	W INDORE	18.29	73.13	3.5 Ms	-	ISC
10	10	1979	11	49		NAGARJUNASAGAR	16.11	79.06	3.6 MD	-	RAS
20	11	1979	06	31		W KOLHAPUR	16.6	73.7	3.4 Ms	-	CVR
08	01	1980	22	17		NE DHULE	20.9	75.1	3.5 Ms	-	CVR
14	01	1980	00	56		OFF COAST OF ORISSA	21.0	87.0	4.4 Ms	-	CVR
16	01	1980	00	54	37	ORISSA	20.6	87.0	5.9	-	IMD
01	02	1980	10	35		NW AKOLA	21.0	74.2	3.1 Ms	-	CVR
03	02	1980	12	36		ONGOLE REGION	15.3	80.1	3.1 Ms	-	CVR
30	03	1980	13	31	53	-	17.2	81.9	4.5 Mb	033.0	UGS
30	03	1980	13	57		Nr BULDANA	20.6	76.0	3.3 Ms	-	CVR
31	03	1980	16	26		ADDATEEGALA	17.6	81.9	3.9 Ms	033.0	CVR



DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
07	04	1980	22	13	54	-	09.48	87.00	-	-	ISC
01	05	1980	00	40		W JALGAON	21.0	76.0	4.1 Ms	-	CVR
03	05	1980	06	54		S BANGALORE	12.5	77.6	3.8 Ms	-	CVR
03	05	1980	19	56		SE BANGALORE	12.9	77.8	3.0 Ms	-	CVR
15	08	1980	17	33	03	PAKISTAN	25.4	68.0	4.4	033.0	USC
02	10	1980	21	29		RAJAHMUNDRY	16.9	82.0	4.0 Ms	-	CVR
18	11	1980	-	-		HOSPET	-	-	3.5	-	BRR
20	12	1980	12	38		Nr WEST COAST	13.6	74.5	3.1 Ms	-	CVR
25	12	1980	22	09		S BANGALORE	12.4	77.5	3.2 Ms	-	CVR
30	12	1980	00	02		BIR	22.1	76.6	3.4 Ms	-	CVR
24	01	1981	21	45	06	E BIHAR	24.5	87.1	-	100.0	IMD
24	02	1981	12	12		OFF COAST OF KERALA	11.7	75.0	4.2 Ms	-	CVR
11	03	1981	16	01	37	-	26.0	68.1	6.3	-	IMD
21	03	1981	-	-		Nr VIJAYAWADA	16.0	79.6	3.0	-	BRR
12	04	1981	10	18	29	BAY OF BENGAL	08.27	85.40	5.2 Mb/5.2 Ms	033.0	ISC
26	04	1981	18	12	20	-	24.12	69.51	4.1 Mb	033.0	ISC
06	05	1981	13	21		Nr MANMAD	20.2	74.3	3.9 Ms	-	CVR
22	07	1981	-	-		S ONGOLE	15.3	79.6	3.0	-	BRR
22	07	1981	16	11		BAY OF BENGAL	15.8	79.8	3.0 Ms	-	CVR
18	09	1981	08	31		N RAICHUR	15.9	76.4	-	-	CVR
09	10	1981	14	31	01	-	17.82	85.53	4.5 Mb	-	ISC
17	10	1981	12	42		KOLAR GOLD FIELD	12.9	78.2	-	-	CVR
22	10	1981	08	37		BELLARY	15.1	76.8	-	-	CVR
23	10	1981	10	43		NE KARIMNAGAR	18.6	79.4	-	-	CVR
26	10	1981	09	12		NE KARIMNAGAR	18.5	79.4	-	-	CVR
31	10	1981	10	30		NE KARIMNAGAR	18.5	79.4	-	-	CVR
02	11	1981	23	16		ONGOLE	15.5	78.8	3.5 Ms	-	BRR
23	11	1981	08	19		Nr BELLARY	15.1	76.6	-	-	CVR
08	12	1981	-	-		Nr GUNTUR	16.3	80.5	3.0	-	BRR
11	12	1981	09	55		NE KARIMNAGAR	18.6	79.9	-	-	CVR
16	12	1981	21	31		KOLAR GOLD FIELD	13.1	78.2	-	-	CVR
30	12	1981	10	02		SW SHIMOGA	13.8	75.0	-	-	CVR
14	01	1982	01	54		GUNDIPET-HYDERABAD	17.43	78.35	3.5 MD	-	RAS
21	01	1982	10	16		GUNDIPET	17.4	78.3	3.2 Ms	-	CVR
27	01	1982	11	08		GUNDIPET	17.4	78.3	-	-	CVR
27	01	1982	11	53		KOLAR GOLD FIELD	13.1	78.3	3.0 Ms	-	CVR
27	01	1982	14	28		GUNDIPET	17.4	78.3	-	-	CVR
27	01	1982	22	08		GUNDIPET	17.4	78.3	-	-	CVR
28	01	1982	00	09		GUNDIPET	17.4	78.3	-	-	CVR
28	01	1982	17	59		GUNDIPET	17.4	78.3	-	-	CVR
28	01	1982	18	55		GUNDIPET	17.4	78.3	-	-	CVR
28	01	1982	19	58		GUNDIPET	17.4	78.3	-	-	CVR
29	01	1982	13	39		GUNDIPET	17.4	78.3	-	-	CVR
29	01	1982	16	07		GUNDIPET	17.4	78.3	-	-	CVR
29	01	1982	18	59		GUNDIPET	17.4	78.3	-	-	CVR
29	01	1982	19	18		GUNDIPET	17.4	78.3	-	-	CVR
30	01	1982	10	07		Nr MANCHERYALA	18.9	79.8	-	-	CVR
31	01	1982	16	48	25	INDIA-PAKISTAN BORDER	24.21	69.84	4.8 Mb/4.3 Ms	033.0	ISC
01	02	1982	09	49		GUNDIPET	17.4	78.3	-	-	CVR
02	02	1982	20	14		GUNDIPET	17.4	78.3	-	-	CVR

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
02	02	1982	22	38		GUNDIPET	17.4	78.3	-	-	CVR
03	02	1982	00	22		GUNDIPET	17.4	78.3	-	-	CVR
03	02	1982	01	23		GUNDIPET	17.4	78.3	-	-	CVR
03	02	1982	01	26		GUNDIPET	17.4	78.3	-	-	CVR
03	02	1982	19	18		GUNDIPET	17.4	78.3	-	-	CVR
03	02	1982	21	20		GUNDIPET	17.4	78.3	-	-	CVR
03	02	1982	21	43		GUNDIPET	17.4	78.3	-	-	CVR
03	02	1982	22	49		GUNDIPET	17.4	78.3	-	-	CVR
03	02	1982	22	50		GUNDIPET	17.4	78.3	-	-	CVR
04	02	1982	00	23		GUNDIPET	17.4	78.3	-	-	CVR
04	02	1982	19	24		GUNDIPET	17.4	78.3	-	-	CVR
04	02	1982	22	42		GUNDIPET	17.4	78.3	-	-	CVR
05	02	1982	18	03		GUNDIPET	17.4	78.3	-	-	CVR
05	02	1982	19	32		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	00	31		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	07	42		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	07	42		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	07	54		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	08	02		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	08	07		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	16	33		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	16	33		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	16	49		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	16	49		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	16	55		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	17	16		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	17	17		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	17	43		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	18	03		GUNDIPET	17.4	78.3	-	-	CVR
06	02	1982	18	35		GUNDIPET	17.4	78.3	-	-	CVR
07	02	1982	00	39		GUNDIPET	17.4	78.3	-	-	CVR
07	02	1982	02	52		GUNDIPET	17.4	78.3	-	-	CVR
07	02	1982	10	19		GUNDIPET	17.4	78.3	-	-	CVR
07	02	1982	11	29		GUNDIPET	17.4	78.3	-	-	CVR
07	02	1982	13	28		GUNDIPET	17.4	78.3	-	-	CVR
07	02	1982	13	44		GUNDIPET	17.4	78.3	-	-	CVR
07	02	1982	14	37		GUNDIPET	17.4	78.3	-	-	CVR
07	02	1982	17	55		GUNDIPET	17.4	78.3	-	-	CVR
08	02	1982	00	39		GUNDIPET	17.4	78.3	-	-	CVR
08	02	1982	15	42		GUNDIPET	17.4	78.3	-	-	CVR
08	02	1982	18	36		GUNDIPET	17.4	78.3	-	-	CVR
11	02	1982	05	54		GUNDIPET	17.4	78.3	-	-	CVR
11	02	1982	09	09		GUNDIPET	17.4	78.3	-	-	CVR
12	02	1982	05	08		GUNDIPET	17.4	78.3	-	-	CVR
12	02	1982	05	10		GUNDIPET	17.4	78.3	-	-	CVR
12	02	1982	20	15		GUNDIPET	17.4	78.3	-	-	CVR
12	02	1982	22	21		GUNDIPET	17.4	78.3	-	-	CVR
13	02	1982	00	24		GUNDIPET	17.4	78.3	-	-	CVR
16	02	1982	14	14		GUNDIPET	17.4	78.3	-	-	CVR
17	02	1982	07	42		GUNDIPET	17.4	78.3	-	-	CVR

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
19	02	1982	13	49		GUNDIPET	17.4	78.3	-	-	CVR
20	02	1982	12	15		GUNDIPET	17.4	78.3	-	-	CVR
20	02	1982	12	55		GUNDIPET	17.4	78.3	-	-	CVR
20	02	1982	23	40		GUNDIPET	17.4	78.3	-	-	CVR
21	02	1982	14	00		GUNDIPET	17.4	78.3	-	-	CVR
21	02	1982	17	44		GUNDIPET	17.4	78.3	-	-	CVR
23	02	1982	08	01		S HOSPET	15.0	76.6	-	-	CVR
24	02	1982	19	08		BHADRACHALAM	17.8	80.4	3.1 Ms	-	CVR
24	02	1982	22	24		TIRUPATTURU	12.4	78.3	3.0 Ms	-	CVR
13	03	1982	18	43		KOLAR GOLD FILEDS	12.8	78.3	3.7 Ms	-	BRR
15	03	1982	00	45		MATHAMPALLI	16.7	80.0	-	-	CVR
20	03	1982	08	17		S HOSPET	15.0	76.3	-	-	CVR
24	03	1982	15	15		RUDRAVARAM	15.3	78.6	-	-	CVR
08	04	1982	02	41	16	BAY OF BENGAL	18.51	86.30	5.4 Mb/4.7 Ms	018.0	ISC
26	04	1982	06	06	39	NE GODHRA	21.55	74.82	4.5 Ms	-	ISC
28	04	1982	08	31		S HOSPET	15.2	76.5	-	-	CVR
30	04	1982	08	12		S HOSPET	15.4	76.4	-	-	CVR
13	06	1982	15	11		AINAVOLU	15.9	79.8	3.1 Ms	-	CVR
05	07	1982	21	05		N CHITTUR	13.4	79.1	3.1 Ms	-	CVR
18	07	1982	15	46	17	BHUJ, KUTCH	23.40	70.66	4.8 Mb/4.2 Ms	033.0	ISC
14	09	1982	15	03		ROMPICHERLA	20.4	74.0	3.0 Ms	-	CVR
14	10	1982	12	56	09	-	20.39	84.41	4.7 Mb	-	ISC
25	11	1982	04	36	30	PAKISTAN	25.5	68.5	5.6 Mb	-	IMD
24	04	1983	10	04		ONGOLE	15.5	79.8	3.0 Ms	-	BRR
20	05	1983	04	01		ONGOLE	15.5	79.8	3.1 Ms	-	BRR
30	06	1983	06	59	31	Nr HYDERABAD	17.92	78.54	4.9 Mb/4.5 MD	033.0	ISC
14	08	1983	10	09		AMMANABROLU	15.6	80.2	3.0 Ms	-	CVR
17	08	1983	09	37		BHATSA	19.56	73.4	4.4 MD	006.0	RAS
14	09	1983	21	53	41	W NASIK	19.63	73.54	4.3 Mb	033.0	ISC
15	09	1983	12	00		ONGOLE	15.5	79.6	3.2 Ms	-	BRR
15	09	1983	21	53		BHATSA	19.58	73.39	4.9 MD	005.0	RAS
02	10	1983	06	06		HASSAN	13.4	76.0	3.9 Ms	-	CVR
07	10	1983	15	04		-	-	-	4.3 Ms	-	CVR
16	10	1983	07	31		GUNDIPET	17.4	78.3	-	-	CVR
26	10	1983	01	49	26	-	23.75	85.67	3.8 Mb	033.0	ISC
14	12	1983	16	51	21	BELLAMPALLI	18.74	80.55	3.8 Ms	033.0	ISC
23	12	1983	19	35	44	-	25.86	87.90	4.3 Mb	033.0	ISC
07	01	1984	04	19		BHATSA	19.59	73.40	3.9 MD	004.0	RAS
20	03	1984	10	46		SE BANGALORE	12.7	77.8	4.5 Ms	-	BRR
28	03	1984	02	54	16	-	16.44	80.56	-	-	ISC
14	04	1984	19	41	18	BAY OF BENGAL	16.20	87.67	4.8 Mb	033.0	ISC
24	04	1984	-	-	-	BELLAMPALLI	18.8	79.5	3.5 Ms	-	CVR
27	06	1984	-	-	-	Nr CALICUT	11.3	75.8	-	-	BRR
27	06	1984	15	57		Nr VIJAYAWADA	16.0	79.6	3.3 Ms	-	BRR
21	07	1984	04	07		40 Km FROM SRIRAMSAGAR	18.61	77.98	3.2 MD	002.0	RAS
24	07	1984	16	35		MUDHOL	19.1	78.0	3.2 Ms	-	CVR
31	07	1984	14	20		MUDHOL	19.1	78.0	-	-	CVR
31	07	1984	14	26		MUDHOL	19.1	78.0	-	-	CVR
31	07	1984	21	58		KURICHEDU	15.9	79.6	3.0 Ms	-	CVR
05	08	1984	20	28		MUDHOL	19.1	78.0	-	-	CVR

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
06	08	1984	12	35		MUDHOL	19.1	78.0	-	-	CVR
07	08	1984	10	32		MUDHOL	19.1	78.0	-	-	CVR
08	08	1984	18	59		MUDHOL	19.1	78.0	-	-	CVR
09	08	1984	17	57		MUDHOL	19.1	78.0	-	-	CVR
10	08	1984	17	32		MUDHOL	19.1	78.0	-	-	CVR
11	08	1984	22	10		MUDHOL	19.1	78.0	-	-	CVR
12	08	1984	05	19		MUDHOL	19.1	78.0	-	-	CVR
12	08	1984	10	36		MUDHOL	19.1	78.0	-	-	CVR
13	08	1984	07	32		MUDHOL	19.1	78.0	-	-	CVR
13	08	1984	18	07		MUDHOL	19.1	78.0	-	-	CVR
23	08	1984	06	27		VISHAKHAPATNAM, A.P.	17.7	83.3	3.6 Ms	-	CVR
25	08	1984	00	03		SAROORNAGAR	17.3	78.5	-	-	CVR
12	09	1984	03	33		KOLAR	13.2	78.2	3.1 Ms	-	CVR
13	09	1984	04	48	50	-	24.95	70.46	4.2 Mb	033.0	ISC
24	09	1984	07	48		SW INDORE	22.0	75.0	4.3 Ms	-	CVR
21	11	1984	18	41	24	-	24.00	70.67	-	033.0	ISC
27	11	1984	17	20		BANGALORE	-	-	4.1 Ms	-	CVR
03	12	1984	17	04		T.N. KARNATAKA BORDER	12.3	78.4	4.1 Ms	-	CVR
03	12	1984	17	35		TIRUPATTUR	12.3	78.4	-	-	CVR
06	01	1985	12	50	25	MADHYA PRADESH	22.53	79.55	4.0 Ms	-	ISC
17	02	1985	23	06	54	BIHAR	24.67	85.47	4.7 Mb	011.0	ISC
07	04	1985	21	10	11	KUTCH	24.36	69.74	4.4 Mb	033.0	ISC
12	05	1985	07	24		HEERAMANDALAM	18.7	84.0	3.8 Ms	-	CVR
01	07	1985	02	23	57	BAY OF BENGAL	18.39	87.28	5.3 Mb/5.0 Ms	046.0	ISC
19	07	1985	16	54		NE BETINGALA	13.1	78.4	-	-	CVR
03	11	1985	19	41	07	N INDIA	25.89	71.25	4.4 Mb	033.0	ISC
17	12	1985	06	54	24	-	24.92	67.34	4.9 Mb/5.0 Ms	033.0	UGS
20	12	1985	00	42	42	PAKISTAN	24.7	67.6	4.7 Mb	033.0	UGS
19	01	1986	05	42	18	ORISSA	20.93	84.90	4.4 Mb	033.0	ISC
19	01	1986	06	52	59	-	21.01	85.22	4.4 Mb	033.0	ISC
16	02	1986	01	06		VALSAD REGION	20.6	73.4	3.6	-	CVR
17	02	1986	20	57		VALSAD REGION	20.6	73.4	3.7	-	CVR
18	02	1986	19	14		VALSAD REGION	20.6	73.4	3.8	-	CVR
21	02	1986	10	04		VALSAD REGION	20.6	73.4	3.5	-	CVR
21	02	1986	21	18		VALSAD REGION	20.6	73.4	3.6	-	CVR
25	02	1986	01	29		VALSAD REGION	20.6	73.4	3.6	-	CVR
25	02	1986	18	30		VALSAD REGION	20.6	73.4	3.8	-	CVR
25	02	1986	21	18	12	-	20.65	73.39	-	010.0	ISC
25	02	1986	21	45	25	NE NASIK	20.49	73.50	4.0	010.0	ISC
26	02	1986	12	47	58	GUJARAT	20.57	73.85	4.3	033.0	ISC
27	02	1986	02	54		NE ONGOLE	15.7	80.3	3.1	-	CVR
27	02	1986	05	05		NE ONGOLE	15.7	80.3	3.0	-	CVR
17	03	1986	03	03	35	NE ORISSA	22.86	85.15	4.3 Mb	033.0	ISC
31	03	1986	18	13		40 Km FROM SRISAILAM	15.9	79.35	3.2 MD	-	RAS
03	04	1986	02	26		VALSAD REGION	20.6	73.4	3.5	-	CVR
03	04	1986	09	49		VALSAD REGION	20.6	73.4	3.5	-	CVR
04	04	1986	19	55		VALSAD REGION	20.6	73.4	3.1	-	CVR
26	04	1986	23	30	37	VALSAD REGION	20.63	73.47	4.5	033.0	ISC
28	04	1986	12	21		VALSAD REGION	20.6	73.4	3.8	-	CVR
28	04	1986	13	27	52	VALSAD REGION, GUJARAT	20.67	73.38	4.1	033.0	ISC

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
05	05	1986	09	00		VALSAD REGION	20.6	73.4	3.3	-	CVR
05	05	1986	09	13		VALSAD REGION	20.6	73.4	3.5	-	CVR
14	05	1986	02	23		VALSAD REGION	20.6	73.4	3.6	-	CVR
22	05	1986	18	08		VALSAD REGION	20.6	73.4	4.1	-	CVR
04	06	1986	12	33		VALSAD REGION	20.6	73.4	3.3	-	CVR
04	06	1986	23	53	50	OFF COAST OF GUJARAT	20.6	72.8	-	-	IMD
05	06	1986	20	53	38	GUJARAT	20.5	73.6	-	-	IMD
06	06	1986	00	52	20	GUJARAT	20.3	72.9	-	-	IMD
13	06	1986	01	25	17	GUJARAT	20.7	73.2	-	-	IMD
19	06	1986	23	48	33	GUJARAT	20.7	73.2	-	-	IMD
20	06	1986	12	11	40	GUJARAT	20.5	73.2	-	-	IMD
23	06	1986	00	27	34	GUJARAT	20.5	73.2	-	-	IMD
01	07	1986	16	57		GUJARAT	21.0	73.5	4.4	-	CVR
31	07	1986	22	40		GUJARAT	21.0	73.5	3.8	-	CVR
18	08	1986	03	11		ONGOLE REGION	15.5	80.5	3.5	-	CVR
26	08	1986	14	37		GUJARAT	20.3	73.5	4.2	-	CVR
26	08	1986	14	48		GUJARAT	20.3	73.5	4.0	-	CVR
27	08	1986	11	30		GUJARAT	20.3	73.5	3.9	-	CVR
01	09	1986	02	27		GUJARAT	20.3	73.5	3.6	-	CVR
11	09	1986	03	06		GUJARAT	20.3	73.5	3.6	-	CVR
20	09	1986	10	49		GUJARAT	20.3	73.5	4.1	-	CVR
11	10	1986	16	39		GUJARAT	20.3	73.5	3.9	-	CVR
25	10	1986	21	25	39	N INDIA	25.94	87.33	-	033.0	UGS
31	10	1986	22	37		GUJARAT	20.3	73.5	4.2	-	CVR
15	11	1986	00	25	07	ARAVALLI HILLS, RAJASTHAN	24.45	73.57	4.1 Mb	022.0	ISC
23	11	1986	09	49	17	GUJARAT	20.67	73.07	-	-	IMD
04	12	1986	14	03	43	Nr VALSAD, GUJARAT	20.9	72.9	3.8	-	IMD
07	12	1986	23	08		VALSAD REGION	20.6	73.4	3.6	-	CVR
09	12	1986	03	51		VALSAD REGION	20.6	73.4	3.8	-	CVR
12	12	1986	17	31	50	RAJASTHAN	25.30	73.00	-	-	ISC
10	02	1987	22	02	57	INDIA-PAKISTAN BORDER	24.10	70.39	3.6 Mb	010.0	ISC
10	04	1987	00	40	15	GUJARAT-SIND BORDER	24.32	70.07	5.4 Mb/4.6 ML	010.0	ISC
18	04	1987	16	59	47	NAGPUR REGION	22.52	79.24	4.8 Mb	020.0	ISC
05	06	1987	18	55	54	-	16.87	73.37	-	010.0	ISC
02	11	1987	09	41	29	ARAVALLI RANGE, RAJASTHAN	25.86	73.34	4.5 ML	113.0	ISC
03	12	1987	18	15	50	ONGOLE REGION	15.51	80.21	4.5 Mb	070.0	ISC
28	12	1987	11	09	27	BAY OF BENGAL	10.0	82.2	-	-	IMD
10	01	1988	07	36	57	-	25.24	83.76	-	033.0	ISC
04	02	1988	14	14		ONGOLE REGION	15.7	79.8	3.1	-	CVR
02	03	1988	09	35	04	N INDIA	24.2	73.24	-	033.0	UGS
21	03	1988	21	23	01	NELLORE	14.39	80.23	IV/4.1	033.0	ISC
07	06	1988	03	07		IDUKKI	09.81	77.21	4.5 MD	005.0	RAS
07	06	1988	15	26		IDUKKI	09.81	77.21	4.2 MD	005.0	RAS
08	06	1988	03	04		IDUKKI	09.81	77.21	3.5 MD	005.0	RAS
17	07	1988	17	46	01	-	24.68	70.03	-	033.0	ISC
18	01	1989	09	21	08	Nr REWA, M.P.	24.0	81.6	-	-	IMD
28	02	1989	23	56	00	-	21.16	77.17	-	010.0	IMD
13	03	1989	10	35	35	180 Kms, NE DELHI	-	-	3.3 ML	-	IMD
21	03	1989	00	57	05	-	24.27	68.96	4.0 Mb	033.0	ISC
21	06	1989	15	35	33	110 Km NE BOMBAY	20.0	72.7	4.3	-	CVR

DY	MO	YEAR	HR	MN	SEC	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	DEPTH Km	SOURCE
15	07	1989	09	07		40 Km FROM SRIRAMSAGAR	18.61	77.98	3.2 MD	002.0	RAS
19	09	1989	13	19	18	-	19.39	85.45	-	033.0	UGS
10	12	1989	11	58	14	INDIA-PAKISTAN BORDER	24.67	70.99	4.7 Mb	033.0	UGS
03	05	1990	09	26		BARAPADI	20.5	86.8	4.1	-	CVR
02	06	1990	17	36		BHATSA	19.56	73.39	3.8 MD	-	RAS
09	06	1990	07	04		MANUGURU	18.1	80.5	3.5	-	CVR
09	06	1990	07	06		MANUGURU	18.1	80.5	4.0	-	CVR
24	07	1990	10	41		JANGAREDDIGUEDEM	17.1	81.3	3.6	-	CVR
20	01	1991	19	44	58	-	23.39	69.70	4.9 Mb	033.0	UGS

ADDITIONAL EARTHQUAKES :

THERE ARE FEW INSTANCES WHEN INSTEAD OF DATE OF OCCURRENCE OF EARTHQUAKE, PERIOD IS MENTIONED;  
AND THESE EARTHQUAKE DATA ARE GIVEN BELOW :-

PERIOD	PLACE	LAT DEG N	LONG DEG E	MM INTENSITY/MAGNITUDE	SOURCE
1. 02 - 11 MAY 1668	SAMAJI - DELTA OF INDUS, PAKISTAN				OLD
2. 19 - 25 APR. 1845	LUKHPUT, KUTCH			VII / 5.7	OLD
3. DEC. 1858 TO JAN. 1859	COIMBATORE, MADRAS, N. ARCOT, SALEM			IV / 3.7	OLD
4. SEP. TO OCT. 1859	DARBHANGA			III	HNS
5. OCT. TO NOV. 1876	SECUNDERABAD	17.45	78.45	VI	UGS
6. APR. TO MAY 1952	TIRUCHIRAPALLI, T.N.			IV / 3.7	GSI
7. 06-13 JULY 1955	DHAVALGI			III	KRN
8. 15-18 DEC. 1956	RAMSEEN VILLAGE			III	KRN
9. 09 AUG. TO 09 SEP. 1959	VIZIANAGARAM, A.P.	18.00	83.00	IV / 4.0	GSI
10. SEP. TO OCT. 1961	CALICUT, KERALA			IV / 4.0	GSI
11. 10 - 11 APR. 1966	TAMBARAM, T.N.	12.53	80.04	VI / 4.8	GSI

## APPENDIX - I

LIST OF KOYNA EARTHQUAKES (=> M 3.0)

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
26	04	1964	10	26		-	-	3.2 ML	-
26	04	1964	15	31		-	-	3.1 ML	-
26	04	1964	18	50		-	-	3.2 ML	-
26	04	1964	19	02		-	-	3.2 ML	-
26	04	1964	19	49		-	-	3.2 ML	-
26	04	1964	22	44		-	-	3.2 ML	-
03	05	1964	03	24		-	-	3.1 ML	-
21	07	1964	15	12		-	-	3.1 ML	-
23	07	1964	11	13		-	-	3.0 ML	-
24	07	1964	19	20		-	-	3.4 ML	-
24	07	1964	19	23		-	-	3.4 ML	-
07	08	1964	11	10		-	-	3.2 ML	-
28	10	1964	13	56	17.63	73.79	3.5 ML	013.0	
28	10	1964	13	57	17.63	73.79	3.5 ML	013.0	
03	11	1964	21	19	17.41	73.76	3.4 ML	011.0	
04	11	1964	01	09	17.40	73.74	3.4 ML	003.0	
20	05	1965	00	37	-	-	3.1 ML	-	
20	05	1965	09	41	-	-	3.0 ML	-	
09	08	1965	09	14	17.40	73.74	3.1 ML	003.0	
06	11	1965	11	34	17.39	73.77	3.8 ML	005.0	
07	11	1965	23	21	17.40	73.76	3.0 ML	003.0	
08	11	1965	01	16	17.39	73.77	3.0 ML	005.0	
08	11	1965	01	37	17.39	73.77	3.1 ML	005.0	
08	11	1965	14	11	17.39	73.75	3.0 ML	003.0	
08	11	1965	15	19	17.39	73.75	3.1 ML	003.0	
08	11	1965	17	25	17.39	73.75	3.0 ML	003.0	
08	11	1965	17	55	17.41	73.77	3.0 ML	004.0	
08	11	1965	22	01	17.41	73.77	3.2 ML	004.0	
08	11	1965	22	03	17.41	73.80	3.6 ML	004.0	
09	11	1965	04	49	17.41	73.76	3.1 ML	001.5	
09	11	1965	19	49	17.46	73.78	3.8 ML	006.0	
20	12	1965	14	13	-	-	3.0 ML	-	
04	01	1966	16	45	17.34	73.73	3.6 ML	004.0	
14	01	1966	06	04	17.34	73.73	3.1 ML	004.0	
17	02	1966	10	35	17.44	73.75	3.0 ML	-	
29	05	1966	04	54	17.40	73.75	3.0 ML	001.0	
14	06	1966	09	51	17.33	73.75	3.9 ML	008.0	
06	08	1966	12	05	-	-	3.1 ML	-	
30	08	1966	11	48	-	-	3.3 ML	-	
24	09	1966	18	27	17.36	73.73	3.0 ML	001.0	
24	09	1966	20	12	17.35	73.73	3.1 ML	004.0	
30	09	1966	22	43	17.41	73.78	3.2 ML	002.0	
30	09	1966	22	52	17.38	73.76	3.3 ML	009.0	
02	10	1966	12	54	-	-	3.2 ML	-	
05	10	1966	21	52	17.37	73.75	3.1 ML	009.5	
08	12	1966	08	30	-	-	3.0 ML	-	
13	12	1966	19	04	-	-	3.7 ML	-	
14	01	1967	09	18	17.41	73.74	3.1 ML	001.5	
14	01	1967	09	19	17.41	73.77	3.2 ML	002.5	
17	01	1967	09	51	17.41	73.77	3.0 ML	002.5	

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
17	01	1967	10	40		17.41	73.77	3.0 ML	002.5
18	01	1967	19	54		17.41	73.72	3.2 ML	001.5
18	01	1967	20	00		17.41	73.72	3.2 ML	001.5
23	01	1967	21	50		17.39	73.71	3.1 ML	004.0
09	03	1967	05	03		17.36	73.77	3.1 ML	007.0
13	03	1967	10	28		17.37	73.77	3.1 ML	008.0
23	03	1967	11	36		17.37	73.77	3.2 ML	008.0
29	04	1967	05	31		17.37	73.77	3.2 ML	008.0
30	04	1967	07	43		17.34	73.70	3.0 ML	004.0
30	06	1967	06	15		17.43	73.72	3.3 ML	003.0
30	06	1967	13	10		17.43	73.72	3.1 ML	003.0
02	07	1967	19	10		17.43	73.72	3.0 ML	003.0
02	07	1967	21	10		17.43	73.72	3.1 ML	003.0
30	07	1967	04	38	04	17.43	73.72	3.0 ML	003.0
12	09	1967	07	25		17.43	73.72	3.1 ML	003.0
12	09	1967	08	22		17.43	73.72	3.3 ML	003.0
12	09	1967	08	25		17.43	73.71	3.4 ML	003.0
12	09	1967	08	37		17.43	73.72	3.8 ML	003.0
12	09	1967	08	42		17.43	73.72	3.9 ML	003.0
12	09	1967	13	01		17.38	73.75	3.0 ML	005.0
12	09	1967	16	10		17.39	73.77	3.2 ML	003.0
12	09	1967	21	52		17.39	73.77	3.2 ML	003.0
13	09	1967	06	09		17.39	73.77	3.4 ML	003.0
13	09	1967	06	23		17.39	73.77	5.8 ML	003.0
13	09	1967	06	47		17.39	73.77	4.5 ML	003.0
13	09	1967	06	51		17.39	73.77	4.0 ML	003.0
13	09	1967	07	01		17.39	73.77	4.0 ML	003.0
13	09	1967	07	08		17.39	73.77	3.2 ML	003.0
13	09	1967	07	37		17.36	73.76	3.1 ML	006.5
13	09	1967	08	21		17.36	73.76	3.2 ML	006.5
13	09	1967	08	43		17.36	73.76	4.0 ML	006.5
13	09	1967	08	44		17.36	73.76	3.2 ML	006.5
13	09	1967	11	32		17.36	73.76	4.0 ML	006.5
13	09	1967	12	51		17.39	73.75	3.2 ML	005.0
13	09	1967	14	54		17.41	73.79	3.2 ML	001.5
13	09	1967	18	01		17.48	73.75	3.2 ML	005.0
14	09	1967	17	40		17.42	73.73	3.1 ML	005.0
15	09	1967	07	33		17.42	73.72	3.1 ML	001.5
15	09	1967	09	15		17.41	73.71	3.0 ML	001.5
20	09	1967	13	25		17.41	73.72	3.2 ML	006.0
22	09	1967	13	49		17.39	73.77	3.5 ML	003.0
24	09	1967	08	16		17.39	73.77	3.0 ML	003.0
29	10	1967	18	30		17.35	73.65	3.1 ML	005.0
04	11	1967	17	16	45	17.34	73.77	3.3 ML	001.0
08	11	1967	02	58	13	17.39	73.78	3.5 ML	003.0
08	11	1967	22	02	05	17.43	73.73	3.2 ML	001.5
09	11	1967	15	39	45	17.43	73.73	3.2 ML	001.5
09	11	1967	22	37	03	17.44	73.74	3.0 ML	001.5
12	11	1967	05	23	50	17.43	73.73	3.2 ML	001.5
13	11	1967	20	41	32	17.44	73.74	3.1 ML	001.5



DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
16	11	1967	20	16	58	17.44	73.85	3.5 ML	004.5
16	11	1967	23	43	28	17.44	73.85	3.0 ML	004.5
21	11	1967	16	45	26	17.41	73.75	3.2 ML	004.5
01	12	1967	08	42	21	17.41	73.75	3.2 ML	004.5
01	12	1967	09	49	39	17.38	73.78	3.5 ML	006.5
01	12	1967	16	06	34	17.36	73.76	3.1 ML	003.0
01	12	1967	16	55	34	17.37	73.75	3.1 ML	004.0
01	12	1967	18	48	55	17.42	73.78	3.0 ML	003.0
02	12	1967	06	23	33	17.42	73.76	3.2 ML	002.5
02	12	1967	16	00	12	17.37	73.76	3.1 ML	003.0
02	12	1967	16	04	46	17.36	73.75	3.1 ML	003.0
08	12	1967	00	07	17	17.37	73.76	3.1 ML	002.5
09	12	1967	18	28	27	17.38	73.71	3.2 ML	005.0
09	12	1967	22	56	13	17.33	73.75	3.0 ML	014.5
10	12	1967	17	55	32	17.40	73.75	3.8 ML	014.5
10	12	1967	18	15	39	17.03	73.77	3.2 ML	022.5
10	12	1967	20	34	42	17.36	73.77	3.6 ML	017.5
10	12	1967	22	51	20	17.50	73.73	7.0 ML\6.0 Mb	012.0
11	12	1967	01	11	32	17.50	73.73	3.2 ML	012.0
11	12	1967	02	00	59	17.50	73.73	3.3 ML	012.0
11	12	1967	02	48	45	17.50	73.73	3.0 ML	012.0
11	12	1967	04	43	20	17.50	73.73	3.0 ML	012.0
11	12	1967	04	57	58	17.50	73.71	3.1 ML	012.0
11	12	1967	05	04	22	17.50	73.73	3.0 ML	012.0
11	12	1967	05	18	17	17.50	73.73	3.0 ML	012.0
11	12	1967	06	53	21	17.50	73.73	3.0 ML	012.0
11	12	1967	07	37	26	17.50	73.73	3.1 ML	012.0
11	12	1967	08	50	06	17.50	73.73	3.0 ML	012.0
11	12	1967	09	12	33	17.50	73.73	3.4 ML	012.0
11	12	1967	09	58	38	17.50	73.73	3.1 ML	012.0
11	12	1967	10	05	28	17.50	73.73	3.2 ML	012.0
11	12	1967	10	32	54	17.50	73.73	3.0 ML	012.0
11	12	1967	11	19	56	17.50	73.73	3.2 ML	012.0
11	12	1967	13	50	11	17.50	73.73	3.1 ML	012.0
11	12	1967	14	00	13	17.50	73.73	3.3 ML	012.0
11	12	1967	14	11	01	17.50	73.73	3.5 ML	012.0
11	12	1967	14	17	57	17.50	73.73	3.1 ML	012.0
11	12	1967	14	32	53	17.50	73.73	3.5 ML	012.0
11	12	1967	15	36	21	17.50	73.73	3.2 ML	012.0
11	12	1967	15	47	23	17.50	73.73	3.2 ML	012.0
11	12	1967	16	22	56	17.50	73.73	3.2 ML	012.0
11	12	1967	16	36	45	17.50	73.73	3.1 ML	012.0
11	12	1967	17	29	50	17.50	73.73	3.4 ML	012.0
11	12	1967	17	35	35	17.50	73.73	3.3 ML	012.0
11	12	1967	17	47	45	17.50	73.73	3.0 ML	012.0
11	12	1967	19	06	56	17.50	73.73	3.0 ML	012.0
11	12	1967	19	15	43	17.46	73.71	3.4 ML	035.0
11	12	1967	19	23	18	17.46	73.71	3.2 ML	035.0
11	12	1967	19	43	39	17.52	73.67	3.7 ML	032.0
11	12	1967	19	47	03	17.51	73.66	3.7 ML	032.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
11	12	1967	20	17	05	17.44	73.69	3.1 ML	006.5
11	12	1967	20	35	18	17.44	73.69	3.7 ML	006.5
11	12	1967	20	49		17.44	73.69	5.0 Mb\3.8 ML	006.5
11	12	1967	22	54	42	17.39	73.68	3.5 ML	032.0
11	12	1967	23	06	44	17.39	73.68	3.0 ML	032.0
11	12	1967	23	30	01	17.39	73.68	3.0 ML	032.0
11	12	1967	23	43	39	17.38	73.66	3.2 ML	032.0
12	12	1967	00	04	28	17.33	73.75	3.7 ML	006.5
12	12	1967	00	05	18	17.33	73.75	3.1 ML	006.5
12	12	1967	00	35	23	17.31	73.74	3.7 ML	016.0
12	12	1967	01	11	59	17.31	73.74	3.0 ML	016.0
12	12	1967	02	25	20	17.31	73.74	3.0 ML	016.0
12	12	1967	03	04	23	17.56	73.75	3.2 ML	006.0
12	12	1967	04	11	58	17.36	73.77	3.4 ML	010.0
12	12	1967	05	14	47	17.45	73.79	3.6 ML	006.5
12	12	1967	06	18	40	17.45	73.79	5.0 Mb\3.6 ML	006.5
12	12	1967	06	40	45	17.45	73.79	3.7 ML	006.5
12	12	1967	07	05	47	17.45	73.79	3.6 ML	006.5
12	12	1967	07	24	43	17.45	73.79	3.1 ML	006.5
12	12	1967	08	17	32	17.45	73.79	3.7 ML	006.5
12	12	1967	10	48	17	17.45	73.79	3.6 ML	006.5
12	12	1967	12	18	20	17.45	73.79	3.1 ML	006.5
12	12	1967	13	10	09	17.30	73.75	3.4 ML	013.0
12	12	1967	14	02	04	17.28	73.71	3.1 ML	008.0
12	12	1967	14	25	00	17.42	73.77	3.4 ML	008.0
12	12	1967	14	46	00	17.31	73.75	3.6 ML	014.5
12	12	1967	14	57	00	17.38	73.75	3.6 ML	021.0
12	12	1967	15	28	38	17.40	73.76	3.4 ML	003.0
12	12	1967	15	48	58	17.40	73.76	5.4 Mb\3.6 ML	003.0
12	12	1967	16	09	51	17.31	73.77	3.1 ML	014.0
12	12	1967	18	02	42	17.41	73.71	3.5 ML	013.0
12	12	1967	18	20	03	17.41	73.71	4.7 ML	013.0
12	12	1967	18	42	21	17.30	73.76	3.4 ML	011.0
12	12	1967	20	16	29	17.46	73.63	3.7 ML	022.5
12	12	1967	21	18	46	17.30	73.76	3.9 ML	011.0
12	12	1967	21	20	08	17.30	73.76	3.6 ML	011.0
12	12	1967	23	17	48	17.30	73.76	3.1 ML	011.0
13	12	1967	00	56	41	17.37	73.74	3.7 ML	019.0
13	12	1967	01	52	47	17.32	73.73	3.6 ML	014.5
13	12	1967	03	30	00	17.32	73.73	3.4 ML	014.5
13	12	1967	05	09	50	17.31	73.71	4.6 ML	014.5
13	12	1967	06	13	56	17.32	73.73	3.3 ML	014.5
13	12	1967	07	16	04	17.32	73.73	3.1 ML	014.5
13	12	1967	07	19	14	17.32	73.73	3.1 ML	014.5
13	12	1967	07	42	24	17.32	73.73	3.2 ML	014.5
13	12	1967	07	45	16	17.32	73.73	3.1 ML	014.5
13	12	1967	11	58	57	17.35	73.73	3.6 ML	013.0
13	12	1967	12	26	43	17.50	73.70	3.2 ML	026.0
13	12	1967	15	52	34	17.42	73.76	3.1 ML	027.0
13	12	1967	16	05	37	17.29	73.69	3.1 ML	003.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
13	12	1967	16	19	54	17.29	73.69	3.1 ML	003.0
13	12	1967	16	24	54	17.45	73.77	3.0 ML	009.5
13	12	1967	17	45	23	17.46	73.79	3.2 ML	005.0
13	12	1967	18	41	11	17.32	73.71	3.6 ML	008.0
13	12	1967	19	19	51	17.32	73.71	4.6 ML	008.0
13	12	1967	19	36	16	17.48	73.77	3.8 ML	022.5
13	12	1967	21	05	32	17.38	73.73	3.6 ML	014.5
13	12	1967	22	05	10	17.30	73.71	3.4 ML	004.0
14	12	1967	00	01	01	17.36	73.76	3.3 ML	005.0
14	12	1967	06	16	05	17.37	73.77	3.1 ML	004.5
14	12	1967	06	19	32	17.39	73.73	3.3 ML	002.5
14	12	1967	09	16	51	17.30	73.78	4.1 ML	012.5
14	12	1967	09	54	01	17.30	73.78	3.1 ML	012.5
14	12	1967	10	34	46	17.34	73.67	3.4 ML	003.0
14	12	1967	10	57	45	17.34	73.67	3.2 ML	003.0
14	12	1967	15	06	25	17.37	73.75	4.1 ML	004.5
14	12	1967	15	48	51	17.30	73.70	3.1 ML	008.0
14	12	1967	16	42	23	17.30	73.70	3.1 ML	007.0
14	12	1967	17	24	39	17.31	73.73	3.2 ML	006.0
14	12	1967	23	14	20	17.46	73.79	3.2 ML	003.0
14	12	1967	23	40	05	17.29	73.75	4.0 ML	015.0
14	12	1967	23	58	17	17.23	73.73	3.3 ML	013.0
15	12	1967	03	31	26	17.30	73.64	3.0 ML	006.0
15	12	1967	05	30	07	17.30	73.64	3.0 ML	006.0
15	12	1967	06	21	17	17.34	73.70	3.4 ML	013.0
15	12	1967	11	02	48	17.34	73.70	3.2 ML	013.0
15	12	1967	17	44	54	17.37	73.78	3.3 ML	003.5
15	12	1967	21	49	42	17.29	73.70	3.2 ML	005.0
15	12	1967	22	05	19	17.31	73.73	3.0 ML	008.0
16	12	1967	02	08	25	17.33	73.79	3.5 ML	007.0
16	12	1967	02	23	24	17.39	73.84	3.3 ML	004.5
16	12	1967	05	57	52	17.37	73.65	3.3 ML	003.0
17	12	1967	08	40	40	17.31	73.69	3.1 ML	011.0
17	12	1967	16	48	10	17.35	73.81	3.2 ML	009.5
17	12	1967	16	54	26	17.39	73.77	3.2 ML	006.5
17	12	1967	22	53	19	17.29	73.75	3.7 ML	003.0
18	12	1967	01	46	37	17.38	73.77	3.7 ML	006.5
18	12	1967	18	11	30	17.30	73.74	3.3 ML	002.5
18	12	1967	18	43	44	17.27	73.76	3.0 ML	005.0
19	12	1967	05	19	44	17.31	73.62	3.1 ML	003.0
19	12	1967	11	18	19	17.27	73.81	3.4 ML	006.5
19	12	1967	16	36	40	17.29	73.69	3.5 ML	005.0
19	12	1967	18	52	18	17.30	73.69	3.0 ML	013.0
19	12	1967	23	51	20	17.36	73.69	3.8 ML	005.0
20	12	1967	03	55	56	17.29	73.78	3.4 ML	005.5
20	12	1967	04	48	04	17.30	73.78	3.0 ML	005.5
20	12	1967	07	02	41	17.38	73.71	3.1 ML	006.5
20	12	1967	08	34	39	17.33	73.78	3.3 ML	003.0
20	12	1967	09	43	25	17.33	73.79	3.1 ML	004.0
20	12	1967	11	19	58	17.40	73.75	3.3 ML	005.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
21	12	1967	22	17	21	17.40	73.76	3.3 ML	001.0
22	12	1967	01	06	15	17.35	73.73	3.5 ML	011.0
22	12	1967	14	48	23	17.28	73.76	4.8 ML	009.5
22	12	1967	16	22	38	17.31	73.69	3.5 ML	013.0
22	12	1967	21	00	34	17.46	73.73	3.1 ML	013.0
23	12	1967	06	04	24	17.50	73.73	3.2 ML	017.5
24	12	1967	03	41	56	17.31	73.76	4.0 ML	005.0
24	12	1967	04	23	13	17.36	73.74	4.0 ML	019.0
24	12	1967	23	24	10	17.48	73.71	3.9 ML	017.5
24	12	1967	23	49	55	17.48	73.71	4.8 Mb\5.0 ML	017.5
25	12	1967	00	05	12	17.34	73.74	3.6 ML	021.0
25	12	1967	00	15	50	17.26	73.74	4.2 ML	009.5
25	12	1967	00	26	38	17.42	73.84	3.4 ML	005.0
25	12	1967	00	47	41	17.31	73.72	4.2 ML	021.0
25	12	1967	04	10	14	17.68	73.75	3.5 ML	002.0
25	12	1967	04	14	03	17.66	73.70	3.9 ML	003.0
25	12	1967	06	54	18	17.31	73.66	3.1 ML	021.0
25	12	1967	08	48	44	17.31	73.71	3.3 ML	004.5
25	12	1967	13	39	57	17.42	73.75	3.1 ML	002.0
25	12	1967	14	18	59	17.29	73.76	3.2 ML	002.0
25	12	1967	15	42	13	17.31	73.76	3.1 ML	003.0
25	12	1967	17	37	41	17.33	73.70	4.7 Mb\4.6 ML	014.5
25	12	1967	17	59	43	17.28	73.78	4.1 ML	005.0
25	12	1967	18	51	22	17.29	73.68	3.6 ML	008.0
25	12	1967	19	41	45	17.30	73.77	3.2 ML	011.0
26	12	1967	06	26	43	17.41	73.76	3.6 ML	003.0
26	12	1967	13	50	32	17.34	73.78	3.1 ML	011.0
26	12	1967	18	07	45	17.30	73.73	3.1 ML	011.5
27	12	1967	03	26	04	17.38	73.67	3.0 ML	013.0
27	12	1967	05	52	50	17.26	73.68	3.5 ML	004.5
27	12	1967	15	38	20	17.31	73.71	3.4 ML	002.0
28	12	1967	00	19		17.26	73.71	3.6 ML	003.0
28	12	1967	00	41		17.30	73.68	3.8 ML	009.5
28	12	1967	06	29	41	17.36	73.76	3.2 ML	005.0
28	12	1967	13	08	05	17.37	73.63	3.2 ML	013.0
29	12	1967	00	01	16	17.32	73.73	3.4 ML	011.0
29	12	1967	18	34	04	17.42	73.76	3.0 ML	001.0
29	12	1967	18	56	58	17.25	73.76	3.5 ML	008.0
29	12	1967	23	26	43	17.30	73.70	3.2 ML	001.0
30	12	1967	10	31	48	17.32	73.67	3.0 ML	016.0
30	12	1967	12	43	44	17.39	73.78	3.5 ML	009.5
31	12	1967	18	00	35	17.39	73.78	3.4 ML	008.5
31	12	1967	18	45	53	17.40	73.72	3.1 ML	010.5
31	12	1967	20	28	35	17.38	73.75	3.5 ML	009.0
03	01	1968	04	35		17.36	73.70	4.0 ML	005.0
03	01	1968	08	37		17.36	73.70	3.0 ML	005.0
03	01	1968	09	59		17.36	73.70	3.0 ML	005.0
03	01	1968	11	57		17.30	73.70	3.8 ML	014.5
04	01	1968	06	18	40	17.42	73.73	3.3 ML	008.0
04	01	1968	07	23		17.41	73.73	3.5 ML	008.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
04	01	1968	10	23		17.31	73.70	3.0 ML	008.0
04	01	1968	15	08		17.49	73.74	3.3 ML	029.0
05	01	1968	02	34	42	17.33	73.64	3.0 ML	014.5
05	01	1968	03	44	09	17.30	73.75	3.0 ML	010.5
05	01	1968	06	54	06	17.32	73.71	3.8 ML	003.5
05	01	1968	09	40	56	17.25	73.73	3.2 ML	009.5
05	01	1968	09	51	59	17.25	73.73	3.8 ML	009.5
05	01	1968	23	11	45	17.48	73.77	3.0 ML	001.5
07	01	1968	02	23	50	17.43	73.79	3.8 ML	013.0
08	01	1968	09	29	48	17.30	73.79	3.0 ML	014.5
08	01	1968	16	54	33	17.39	73.73	3.0 ML	006.5
09	01	1968	20	10	27	17.31	73.75	3.3 ML	003.0
12	01	1968	04	37	28	17.38	73.75	4.1 ML	004.0
12	01	1968	19	47	20	17.38	73.75	3.0 ML	004.0
13	01	1968	09	41	47	17.38	73.75	3.0 ML	004.0
13	01	1968	23	14	04	17.55	73.42	3.1 ML	013.0
14	01	1968	07	17	15	17.34	73.78	3.2 ML	005.0
14	01	1968	15	48	42	17.39	73.74	3.1 ML	003.5
15	01	1968	04	21	39	17.42	73.78	3.2 ML	005.0
15	01	1968	21	37	30	17.36	73.70	3.3 ML	001.5
16	01	1968	03	33	24	17.41	73.75	4.0 ML	009.0
16	01	1968	06	12	22	17.34	73.71	3.3 ML	011.0
16	01	1968	06	17	03	17.25	73.71	3.9 ML	009.5
16	01	1968	06	40	25	17.35	73.75	3.5 ML	013.0
16	01	1968	20	32	22	17.32	73.73	3.5 ML	005.5
17	01	1968	21	09	00	17.38	73.69	3.5 ML	008.0
18	01	1968	09	01	53	17.42	73.76	3.1 ML	001.0
18	01	1968	19	18	27	17.42	73.77	3.0 ML	001.0
19	01	1968	07	16	05	17.32	73.68	3.2 ML	010.0
19	01	1968	23	46	58	17.45	73.77	3.0 ML	001.5
20	01	1968	02	54	56	17.45	73.77	3.2 ML	001.5
20	01	1968	21	37	00	17.40	73.64	3.2 ML	032.0
21	01	1968	03	24	15	17.40	73.64	3.1 ML	032.0
22	01	1968	13	49	58	17.34	73.73	3.0 ML	004.0
22	01	1968	18	21	44	17.37	73.81	3.2 ML	005.0
23	01	1968	14	46	16	17.36	73.79	3.5 ML	006.0
25	01	1968	20	15	18	17.28	73.73	3.5 ML	008.0
26	01	1968	00	46	38	17.36	73.88	3.0 ML	011.0
27	01	1968	10	39	21	17.36	73.71	3.5 ML	015.0
27	01	1968	16	52	09	17.37	73.79	3.2 ML	007.0
27	01	1968	23	43	49	17.35	73.71	3.5 ML	003.0
30	01	1968	12	09	13	17.30	73.75	3.4 ML	018.0
06	02	1968	16	53	23	17.38	73.89	3.4 ML	003.0
07	02	1968	08	09	16	17.41	73.70	4.3 ML	005.0
08	02	1968	19	37	38	17.41	73.65	3.6 ML	009.0
09	02	1968	03	36	13	17.46	73.79	3.0 ML	010.5
09	02	1968	08	24	23	17.46	73.68	3.0 ML	019.0
09	02	1968	16	21	09	17.33	73.70	3.1 ML	017.5
09	02	1968	22	52	07	17.35	73.74	4.2 ML	020.0
10	02	1968	04	46	24	17.31	73.70	3.0 ML	014.5

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
11	02	1968	07	47	27	17.36	73.73	3.3 ML	003.0
11	02	1968	17	29	20	17.34	73.67	3.1 ML	004.0
12	02	1968	09	13	28	17.34	73.68	4.5 ML	009.5
13	02	1968	21	42	09	17.30	73.68	3.4 ML	010.5
14	02	1968	03	10	26	17.30	73.68	3.3 ML	010.5
14	02	1968	09	16	41	17.33	73.70	3.6 ML	016.0
14	02	1968	20	33	22	17.21	73.68	3.8 ML	003.0
20	02	1968	01	57	59	17.36	73.71	3.1 ML	002.5
20	02	1968	17	49	07	17.46	73.73	3.7 ML	002.5
20	02	1968	20	38	39	17.21	73.72	3.5 ML	011.5
21	02	1968	11	26	15	17.36	73.79	3.1 ML	016.0
22	02	1968	08	17	26	17.38	73.76	3.0 ML	004.5
25	02	1968	21	43	19	17.25	73.67	3.4 ML	003.5
29	02	1968	18	21	30	17.27	73.76	3.1 ML	003.0
03	03	1968	21	46	11	17.46	73.75	3.2 ML	001.5
04	03	1968	21	36	37	17.36	73.76	4.2 ML	010.0
04	03	1968	23	31	35	17.32	73.73	3.2 ML	011.0
07	03	1968	22	09		17.36	73.70	3.0 ML	003.0
09	03	1968	07	47	41	17.27	73.70	3.3 ML	003.0
09	03	1968	10	34	36	17.36	73.64	3.2 ML	005.5
10	03	1968	08	20	17	17.34	73.76	3.2 ML	008.0
19	03	1968	17	21	44	17.40	73.75	3.0 ML	006.5
20	03	1968	04	03	50	17.30	73.78	3.3 ML	014.5
23	03	1968	16	17	10	17.40	73.76	3.1 ML	008.0
28	03	1968	09	58	12	17.34	73.59	3.5 ML	005.5
30	03	1968	17	22	10	17.37	73.68	3.2 ML	005.0
06	04	1968	04	08	46	17.30	73.79	3.3 ML	005.0
06	04	1968	07	03	55	17.33	73.73	3.6 ML	007.0
08	04	1968	05	41	41	17.27	73.71	3.4 ML	014.5
09	04	1968	23	23		17.41	73.77	3.0 ML	021.0
30	04	1968	03	27	09	17.35	73.77	3.3 ML	005.0
01	05	1968	07	46	22	17.28	73.79	3.5 ML	013.5
01	05	1968	15	44	49	17.43	73.79	3.3 ML	004.0
06	05	1968	10	40	48	17.33	73.79	3.3 ML	011.0
09	05	1968	13	03	12	17.21	73.74	3.0 ML	008.0
16	05	1968	02	53	52	17.24	73.71	3.5 ML	006.5
16	05	1968	07	05	18	17.33	73.73	3.1 ML	003.5
22	05	1968	15	22	42	17.40	73.75	3.2 ML	001.0
24	05	1968	20	44	56	17.28	73.75	3.2 ML	014.5
24	05	1968	20	55	03	17.27	73.76	3.2 ML	016.0
28	05	1968	16	10	03	17.35	73.77	3.2 ML	005.0
09	06	1968	12	51	00	17.50	73.40	3.1 ML	017.5
09	06	1968	14	04	41	17.45	73.73	3.0 ML	006.5
10	06	1968	14	30	53	17.57	73.27	3.5 ML	008.0
10	06	1968	20	32	48	17.53	73.45	3.3 ML	013.5
14	06	1968	00	09		17.55	73.25	3.0 ML	024.0
21	06	1968	04	17	18	17.35	73.78	3.3 ML	003.0
21	06	1968	06	51	13	17.34	73.82	3.3 ML	008.0
29	06	1968	18	03	08	17.35	73.77	3.3 ML	004.0
29	06	1968	21	32	55	17.28	73.74	3.5 ML	009.5

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
05	07	1968	19	36	07	17.40	73.78	3.2 ML	006.5
17	07	1968	09	23		17.26	73.75	3.6 ML	008.0
26	07	1968	08	05	37	17.41	73.79	3.5 ML	003.0
28	07	1968	04	11	13	17.37	73.77	3.5 ML	001.5
30	07	1968	08	38	31	17.44	73.78	3.2 ML	011.0
30	07	1968	12	04	07	17.41	73.79	3.3 ML	011.0
30	07	1968	21	45	55	17.35	73.74	3.2 ML	013.0
02	08	1968	04	49	39	17.34	73.78	3.0 ML	003.0
10	08	1968	03	42	07	17.40	73.80	3.1 ML	005.0
24	08	1968	00	24	21	17.37	73.66	3.5 ML	008.5
26	08	1968	11	54		17.26	73.77	3.5 ML	011.0
26	08	1968	20	11	29	17.26	73.77	3.7 ML	011.0
29	08	1968	02	41	50	17.26	73.77	3.1 ML	011.0
31	08	1968	02	53	39	17.35	73.71	4.1 ML	004.0
02	09	1968	02	55	30	17.28	73.73	3.4 ML	006.5
03	09	1968	23	45	34	17.26	73.76	3.1 ML	011.0
04	09	1968	13	17	39	17.25	73.71	3.6 ML	004.0
07	09	1968	09	28	16	17.42	73.69	3.2 ML	021.0
13	09	1968	14	09	10	17.21	73.70	3.4 ML	013.5
19	09	1968	21	05		17.44	73.70	3.0 ML	022.5
20	09	1968	02	56	21	17.35	73.56	3.5 ML	009.5
20	09	1968	10	11	32	17.35	73.56	4.2 ML	009.5
22	09	1968	13	00	41	17.41	73.73	3.1 ML	003.0
23	09	1968	06	19	24	17.39	73.72	3.2 ML	019.0
01	10	1968	03	19	44	17.24	73.72	3.0 ML	016.0
01	10	1968	22	16	07	17.28	73.73	3.1 ML	011.0
07	10	1968	00	02	43	17.30	73.75	3.1 ML	006.5
07	10	1968	18	25	10	17.20	73.75	3.0 ML	011.0
08	10	1968	18	50	04	17.33	73.57	3.1 ML	001.5
17	10	1968	14	27	33	17.31	73.71	3.0 ML	005.0
29	10	1968	10	00	04	17.35	73.72	4.7 Mb\5.2 ML	006.5
30	10	1968	11	29	57	17.38	73.76	3.3 ML	006.5
07	11	1968	16	24	12	17.25	73.84	3.0 ML	006.5
08	11	1968	12	42	05	17.25	73.74	3.0 ML	008.0
08	11	1968	12	53	35	17.25	73.74	3.1 ML	008.0
09	11	1968	15	33	16	17.18	73.67	3.3 ML	008.0
10	11	1968	02	59	12	17.39	73.79	3.1 ML	002.5
10	11	1968	04	57	00	17.44	73.80	3.5 ML	009.5
12	11	1968	12	31	25	17.42	73.82	3.1 ML	003.0
12	11	1968	18	49	13	17.25	73.61	3.2 ML	006.5
23	11	1968	11	11	41	17.39	73.66	3.5 ML	008.0
25	11	1968	23	54	35	17.39	73.63	3.2 ML	008.5
03	12	1968	18	19	33	17.37	73.63	3.0 ML	005.0
04	12	1968	08	03	50	17.32	73.80	3.0 ML	008.0
05	12	1968	22	52	32	17.51	73.60	4.3 ML	005.5
05	12	1968	23	07	39	17.36	73.83	3.1 ML	008.0
10	12	1968	07	28	36	17.41	73.78	3.0 ML	002.0
10	12	1968	19	09	02	17.34	73.75	3.0 ML	009.5
11	12	1968	00	57	53	17.36	73.75	3.1 ML	008.0
14	12	1968	10	22	12	17.32	73.87	3.2 ML	014.5

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
22	12	1968	22	17	12	17.33	73.74	3.9 ML	014.5
24	12	1968	14	00	13	17.31	73.72	3.1 ML	008.0
25	12	1968	02	59	09	17.22	73.66	3.3 ML	016.0
25	12	1968	06	41	46	17.32	73.69	3.2 ML	016.0
25	12	1968	17	07	30	17.37	73.72	3.1 ML	007.0
26	12	1968	11	00	35	17.27	73.76	3.1 ML	011.0
26	12	1968	14	10	18	17.34	73.53	3.0 ML	006.5
19	01	1969	03	34	38	17.41	73.73	3.2 ML	007.0
21	01	1969	22	32	12	17.40	73.75	3.6 ML	003.0
27	01	1969	10	39	21	17.35	73.71	3.5 ML	015.0
03	02	1969	19	18	20	17.33	73.70	3.0 ML	007.0
06	02	1969	07	17	36	17.20	73.62	3.3 ML	017.5
10	02	1969	19	18	15	17.33	73.61	3.0 ML	017.5
13	02	1969	18	21	45	17.38	73.73	3.6 ML	009.0
13	02	1969	18	26	03	17.41	73.63	4.3 ML	005.0
13	02	1969	18	52	53	17.36	73.68	3.1 ML	008.0
13	02	1969	21	26	44	17.35	73.71	3.5 ML	007.0
28	02	1969	18	07	30	17.41	73.44	3.1 ML	001.0
03	03	1969	21	37	37	17.33	73.63	3.8 ML	008.5
07	03	1969	14	28	34	17.16	73.67	4.7 ML	011.0
07	03	1969	18	07	52	17.42	73.72	3.1 ML	001.0
09	03	1969	23	33	26	17.39	73.77	3.0 ML	007.5
12	03	1969	14	31	35	17.27	73.71	3.2 ML	009.0
18	03	1969	04	04	14	17.40	73.77	3.4 ML	006.5
26	03	1969	09	47	24	17.38	73.77	3.4 ML	002.5
29	03	1969	17	32	09	17.38	73.83	3.1 ML	013.0
31	03	1969	10	18		17.24	73.59	3.1 ML	014.5
01	04	1969	21	33	26	17.27	73.67	3.4 ML	011.0
03	04	1969	16	18	25	17.29	73.75	3.2 ML	021.5
03	04	1969	17	16	46	17.24	73.79	3.2 ML	014.5
10	04	1969	17	39	44	17.40	73.74	3.5 ML	011.0
10	04	1969	20	08	01	17.33	73.71	3.8 ML	005.0
15	04	1969	01	26	20	17.43	73.74	3.0 ML	001.0
03	05	1969	06	42	53	17.32	73.72	3.1 ML	003.0
15	05	1969	16	37	29	17.36	73.79	3.2 ML	010.5
29	05	1969	22	05	52	17.40	73.74	3.1 ML	006.5
03	06	1969	23	26	25	17.34	73.78	3.5 ML	003.0
15	06	1969	06	58	48	17.41	73.72	3.0 ML	018.5
16	06	1969	09	36		17.54	73.51	3.1 ML	017.5
16	06	1969	14	53		17.67	73.30	3.3 ML	032.0
27	06	1969	20	05	10	17.40	73.73	4.7 ML	003.0
11	07	1969	09	49	57	17.35	73.72	3.0 ML	016.0
18	07	1969	01	30	08	17.32	73.72	3.3 ML	005.0
22	07	1969	21	49	26	17.36	73.73	3.7 ML	007.0
13	08	1969	01	04		17.32	73.75	3.2 ML	017.5
17	08	1969	19	43	08	17.39	73.75	3.2 ML	005.0
17	08	1969	19	47	28	17.39	73.76	3.3 ML	001.5
17	08	1969	20	15	26	17.41	73.75	3.3 ML	006.5
19	08	1969	00	35	30	17.34	73.71	3.2 ML	009.5
10	09	1969	23	55	19	17.26	73.72	3.4 ML	009.5



DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
11	09	1969	16	13	19	17.35	73.73	3.0 ML	005.0
14	09	1969	23	32	57	17.39	73.77	3.0 ML	008.0
16	09	1969	18	19	42	17.42	73.77	3.3 ML	001.0
16	09	1969	21	43	28	17.43	73.76	3.2 ML	003.0
23	09	1969	21	12	59	17.41	73.75	3.2 ML	005.0
29	09	1969	00	05	02	17.28	73.68	3.0 ML	010.5
01	10	1969	06	12	28	17.41	73.74	3.1 ML	011.0
04	10	1969	16	13	37	17.31	73.76	3.0 ML	008.0
04	10	1969	18	02	39	17.38	73.77	3.1 ML	007.0
05	10	1969	10	45	10	17.33	73.75	3.2 ML	015.0
06	10	1969	01	32	00	17.40	73.75	3.0 ML	005.5
20	10	1969	17	22	42	17.42	73.77	3.2 ML	003.0
27	10	1969	10	21	00	17.31	73.71	3.4 ML	013.0
03	11	1969	20	06	38	17.33	73.74	3.2 ML	000.5
03	11	1969	23	22	11	17.33	73.74	4.5 ML	000.5
04	11	1969	01	13	33	17.42	73.80	3.1 ML	000.5
04	11	1969	04	59	49	17.42	73.80	3.1 ML	000.5
04	11	1969	05	11	47	17.41	73.79	3.7 ML	000.5
05	11	1969	01	00	10	17.45	73.80	3.0 ML	008.0
01	01	1970	22	30	53	17.32	73.71	4.3 ML	011.0
29	01	1970	06	15	54	17.36	73.79	3.0 ML	009.5
20	02	1970	12	55	00	17.27	73.75	3.2 ML	016.0
24	02	1970	06	08	08	17.43	73.79	3.0 ML	001.5
05	03	1970	01	47	29	17.40	73.81	3.4 ML	004.0
07	03	1970	00	14		17.33	73.76	3.2 ML	007.0
16	04	1970	14	46	55	17.40	73.76	3.6 ML	008.0
02	05	1970	14	13	20	17.40	73.81	3.1 ML	002.5
02	05	1970	14	17	16	17.41	73.79	3.2 ML	008.0
04	05	1970	01	13	20	17.41	73.75	3.3 ML	006.5
08	05	1970	09	37	41	17.36	73.72	3.5 ML	005.0
18	05	1970	02	20	22	17.27	73.77	3.2 ML	005.5
23	05	1970	11	46	02	17.35	73.69	3.1 ML	005.0
27	05	1970	12	45	40	17.34	73.81	4.4 ML	003.0
29	05	1970	05	40	55	17.34	73.83	3.9 ML	003.0
08	06	1970	05	30	15	17.35	73.79	3.8 ML	002.5
08	06	1970	09	14	34	17.37	73.75	3.0 ML	004.0
08	06	1970	20	19		17.43	73.81	3.4 ML	009.5
17	06	1970	06	48	56	17.32	73.71	3.6 ML	001.0
20	06	1970	09	21	59	17.39	73.77	3.2 ML	006.5
30	06	1970	18	07	33	17.45	73.76	3.3 ML	005.0
27	07	1970	08	58	32	17.33	73.68	3.2 ML	002.5
06	08	1970	16	41	16	17.93	73.70	3.5 ML	048.0
08	08	1970	21	13	30	16.93	73.69	3.5 ML	048.0
13	08	1970	04	31	27	17.18	73.58	3.0 ML	003.0
30	08	1970	17	56		17.27	73.67	3.2 ML	001.0
09	09	1970	22	57	15	17.37	73.77	3.3 ML	006.5
21	09	1970	03	02	19	17.41	73.76	3.7 ML	006.5
21	09	1970	08	50	52	17.44	73.79	3.4 ML	006.5
25	09	1970	03	12	28	17.42	73.66	3.0 ML	004.0
25	09	1970	04	12	59	17.38	73.79	4.2 ML	001.5

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
26	09	1970	16	36	42	17.36	73.65	4.4 ML	013.0
29	09	1970	15	02	00	17.28	73.69	3.1 ML	005.0
08	11	1970	07	29	31	17.29	73.72	3.1 ML	005.0
25	11	1970	08	53	14	17.38	73.71	3.1 ML	001.5
01	01	1971	04	54	47	17.31	73.77	3.7 ML	003.0
23	01	1971	04	33	13	17.41	73.90	3.5 ML	001.5
23	01	1971	04	39	16	17.28	73.69	3.7 ML	005.0
06	02	1971	23	27	35	17.40	73.79	3.2 ML	006.5
07	02	1971	17	32	55	17.32	73.84	3.7 ML	003.0
14	02	1971	01	30	52	17.36	73.82	4.2 ML	003.0
16	02	1971	13	39	37	17.30	73.79	3.5 ML	006.5
16	02	1971	14	08	54	17.29	73.81	3.3 ML	006.5
17	02	1971	14	12	34	17.34	73.82	3.1 ML	003.0
28	02	1971	20	43	41	17.31	73.70	3.4 ML	009.5
19	03	1971	03	31	35	17.30	73.68	3.2 ML	006.5
02	04	1971	19	24	22	17.47	73.80	3.3 ML	003.0
14	04	1971	16	37	45	17.38	73.78	3.3 ML	013.0
28	04	1971	02	19	54	17.27	73.60	3.2 ML	003.0
09	05	1971	02	28	48	17.29	73.70	3.0 ML	011.0
11	05	1971	09	42	34	17.34	73.72	3.8 ML	001.0
13	05	1971	19	08	40	17.34	73.72	3.7 ML	001.0
14	05	1971	01	14	02	17.42	73.77	3.3 ML	005.0
15	05	1971	15	07	08	17.28	73.64	3.4 ML	008.5
16	05	1971	04	25	51	17.24	73.69	3.2 ML	001.0
18	05	1971	06	11	59	17.24	73.69	3.1 ML	006.5
29	05	1971	00	27	20	17.34	73.71	4.1 ML	016.0
06	06	1971	04	16	59	17.42	73.75	3.1 ML	013.0
10	06	1971	18	49	15	17.40	73.70	3.2 ML	014.5
15	06	1971	16	36	58	17.45	73.62	3.5 ML	022.5
15	06	1971	20	10	39	17.14	73.68	3.0 ML	008.0
15	06	1971	20	47	37	17.21	73.71	3.0 ML	005.0
17	06	1971	06	37	51	17.31	73.75	3.5 ML	001.5
22	06	1971	15	14	23	17.36	73.77	3.0 ML	005.5
24	07	1971	05	42	36	17.32	73.83	3.3 ML	006.0
28	07	1971	00	10	13	17.25	73.68	3.1 ML	011.0
30	07	1971	00	04	42	17.31	73.80	3.1 ML	001.0
06	08	1971	03	43	40	17.34	73.80	3.5 ML	004.0
07	08	1971	00	48	22	17.40	73.75	3.0 ML	008.0
10	08	1971	04	28	25	17.32	73.68	3.1 ML	005.5
10	08	1971	04	30	05	17.36	73.79	3.4 ML	009.5
10	08	1971	06	15	23	17.28	73.72	4.2 ML	011.0
11	08	1971	17	59	52	17.34	73.62	3.2 ML	014.5
11	08	1971	18	03	33	17.30	73.74	3.1 ML	014.5
11	08	1971	19	21	47	17.30	73.74	3.3 ML	014.5
16	08	1971	20	59	09	17.31	73.65	3.1 ML	001.0
23	08	1971	08	40	33	17.30	73.75	3.0 ML	001.0
25	08	1971	01	33	59	17.44	73.78	3.0 ML	003.0
11	09	1971	06	05	35	17.17	73.72	3.0 ML	001.0
17	09	1971	14	03	41	17.24	73.80	3.0 ML	014.5
18	09	1971	08	13	10	17.40	73.79	3.0 ML	005.5

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
22	09	1971	10	28	05	17.38	73.75	3.0 ML	012.5
27	09	1971	22	49	59	17.41	73.78	3.0 ML	005.0
10	10	1971	05	05	05	17.33	73.75	3.2 ML	009.0
15	10	1971	21	03	03	17.33	73.75	3.2 ML	011.0
16	10	1971	07	44	42	17.33	73.75	3.2 ML	011.0
18	10	1971	06	01	06	17.15	73.72	3.2 ML	005.0
19	10	1971	19	29	24	17.21	73.69	3.0 ML	026.5
22	10	1971	23	40	53	17.36	73.78	3.3 ML	010.5
23	10	1971	00	31	17	17.29	73.77	3.3 ML	008.0
23	10	1971	02	11	34	17.29	73.77	3.2 ML	008.0
26	10	1971	01	33	12	17.45	73.76	3.0 ML	003.0
22	11	1971	10	39	06	17.39	73.75	4.2 ML	012.0
25	11	1971	12	59	42	17.36	73.76	3.3 ML	002.5
17	12	1971	19	13	02	17.33	73.73	3.0 ML	009.0
01	01	1972	17	44	51	17.25	73.68	3.1 ML	008.0
11	01	1972	07	33	20	17.33	73.76	3.0 ML	008.0
21	01	1972	00	13	35	17.39	73.77	3.3 ML	007.0
10	02	1972	17	32		17.15	73.60	3.2 ML	007.0
27	02	1972	21	35	54	17.37	73.73	3.4 ML	019.0
02	03	1972	16	21	16	17.56	73.56	3.2 ML	016.5
08	03	1972	02	00	24	17.54	73.62	3.0 ML	011.0
24	03	1972	17	43	12	17.33	73.69	3.0 ML	021.0
02	04	1972	02	22	20	17.34	73.79	3.2 ML	006.5
03	04	1972	09	43	57	17.39	73.71	3.0 ML	007.5
06	04	1972	00	00	36	17.48	73.53	3.0 ML	005.0
30	04	1972	23	27	01	17.38	73.72	3.5 ML	002.5
01	05	1972	21	11	43	17.43	73.83	3.6 ML	003.0
04	05	1972	18	12	35	17.38	73.79	3.0 ML	006.0
11	05	1972	11	49	34	17.26	73.73	3.9 ML	008.0
12	05	1972	14	32	59	17.29	73.71	3.1 ML	011.0
21	05	1972	16	52	05	17.48	73.51	3.3 ML	003.0
30	05	1972	03	41	50	17.43	73.77	3.6 ML	009.5
04	06	1972	07	53	19	17.38	73.73	3.7 ML	008.5
06	06	1972	08	45		17.52	73.56	3.1 ML	004.5
13	06	1972	05	48	39	17.40	73.80	3.2 ML	005.0
13	06	1972	06	47	33	17.42	73.79	3.0 ML	006.5
30	06	1972	08	01	39	17.30	73.73	3.2 ML	006.5
05	07	1972	23	17	30	17.20	73.74	3.2 ML	013.5
06	07	1972	01	56	00	17.21	73.79	3.0 ML	017.0
14	08	1972	01	55	46	17.34	73.75	3.3 ML	005.0
15	08	1972	15	14	06	17.24	73.71	3.1 ML	006.0
16	08	1972	07	44	11	17.37	73.77	3.2 ML	018.0
25	08	1972	19	51	09	17.41	73.78	3.3 ML	001.0
26	08	1972	19	09	21	17.29	73.78	3.2 ML	025.0
28	08	1972	14	16	01	17.23	73.75	3.4 ML	020.0
16	09	1972	11	54	54	17.41	73.77	3.3 ML	006.5
17	09	1972	21	21	38	17.28	73.72	3.3 ML	008.0
19	09	1972	02	47	55	17.28	73.70	3.3 ML	005.0
19	09	1972	03	03	40	17.49	73.58	3.3 ML	011.5
20	09	1972	21	23	57	17.26	73.78	3.0 ML	005.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
23	09	1972	08	58	07	17.36	73.73	3.5 ML	009.5
27	09	1972	17	31	45	17.30	73.66	3.4 ML	022.0
04	10	1972	14	25	32	17.27	73.69	3.4 ML	012.0
11	10	1972	05	26	32	17.24	73.75	3.0 ML	012.5
13	10	1972	02	04	33	17.43	73.76	3.0 ML	005.0
10	11	1972	07	57	21	17.29	73.86	3.0 ML	005.0
11	11	1972	04	01	54	17.28	73.56	3.1 ML	024.0
18	12	1972	04	08	02	17.29	73.74	3.1 ML	011.0
20	12	1972	22	48	18	17.25	73.66	3.3 ML	014.5
26	12	1972	17	11	33	17.28	73.71	3.0 ML	006.0
20	01	1973	17	13	24	17.20	73.71	3.3 ML	018.0
28	01	1973	18	53	30	17.33	73.77	3.2 ML	006.5
13	02	1973	22	49		17.59	73.74	3.0 ML	013.0
06	03	1973	07	13	23	17.34	73.67	3.5 ML	004.0
01	04	1973	13	30		17.51	73.53	3.1 ML	004.0
01	04	1973	16	07		17.51	73.57	3.0 ML	003.0
02	04	1973	20	21		17.36	73.75	3.7 ML	011.0
02	04	1973	20	45	03	17.38	73.75	3.3 ML	009.0
04	04	1973	13	48		17.51	73.67	3.0 ML	005.0
19	04	1973	08	45		17.37	73.72	3.8 ML	005.0
19	04	1973	19	00	30	17.42	73.65	3.1 ML	006.5
24	04	1973	15	35	20	17.28	73.69	3.1 ML	011.0
05	06	1973	10	27	25	17.41	73.75	3.6 ML	006.5
12	06	1973	20	36	23	17.26	73.69	3.4 ML	003.5
02	07	1973	20	08	11	17.39	73.76	3.0 ML	006.0
10	07	1973	05	02	35	17.38	73.79	3.4 ML	018.0
24	07	1973	02	00	29	17.15	73.71	3.1 ML	017.5
06	09	1973	00	03	07	17.25	73.68	3.3 ML	009.5
14	09	1973	06	00	40	17.33	73.58	3.6 ML	017.5
18	09	1973	09	14	08	17.48	73.81	3.7 ML	005.0
24	09	1973	17	00	42	17.33	73.76	3.0 ML	010.0
03	10	1973	14	37	33	17.30	73.75	3.8 ML	004.5
06	10	1973	09	21	04	17.41	73.79	3.0 ML	002.0
13	10	1973	07	45	25	17.25	73.72	3.3 ML	022.5
17	10	1973	08	03		17.54	73.75	3.2 ML	012.0
17	10	1973	14	40	18	17.41	73.72	3.2 ML	006.5
17	10	1973	15	24	50	17.41	73.72	5.2 ML	009.0
24	10	1973	05	01	40	17.31	73.73	3.0 ML	010.0
24	10	1973	18	05	46	17.33	73.71	3.6 ML	014.5
21	11	1973	09	05		17.33	73.75	3.2 ML	004.5
08	12	1973	01	28	51	17.20	73.65	3.3 ML	020.5
15	02	1974	22	35	11	17.28	73.79	3.2 ML	011.5
17	02	1974	14	06	13	17.25	73.75	4.7 ML	019.0
25	03	1974	11	30	11	17.29	73.74	3.1 ML	015.0
08	04	1974	19	58	50	17.30	73.75	3.4 ML	006.5
17	04	1974	15	21	56	17.46	73.51	3.9 ML	003.0
19	04	1974	19	00	52	17.35	73.66	3.6 ML	008.0
20	04	1974	00	51	07	17.39	73.70	3.2 ML	010.5
20	04	1974	00	54	15	17.38	73.70	3.6 ML	010.5
23	04	1974	13	06	29	17.50	73.54	3.1 ML	006.5

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
23	04	1974	22	16	15	17.50	73.54	3.0 ML	006.5
24	04	1974	09	17		17.45	73.55	3.3 ML	004.0
24	04	1974	12	01		17.50	73.52	3.4 ML	005.0
25	04	1974	13	13		17.50	73.52	3.9 ML	003.0
27	04	1974	17	23	23	17.38	73.67	3.1 ML	006.5
28	04	1974	03	48		17.35	73.68	3.1 ML	013.0
28	04	1974	09	30	29	17.35	73.69	3.8 ML	013.0
29	04	1974	02	40	01	17.52	73.58	3.2 ML	006.5
01	05	1974	18	31		17.41	73.42	3.3 ML	025.5
29	05	1974	18	26	20	17.49	73.47	3.5 ML	011.0
01	06	1974	05	38	15	17.25	73.70	3.6 ML	021.0
02	06	1974	20	15	55	17.25	73.67	3.0 ML	005.0
05	06	1974	01	02	57	17.26	73.76	3.1 ML	009.5
05	06	1974	03	59	52	17.28	73.76	3.2 ML	009.5
05	06	1974	15	33	11	17.28	73.68	3.2 ML	005.0
25	06	1974	09	40	09	17.30	73.71	3.6 ML	011.0
28	06	1974	16	33	15	17.30	73.75	3.0 ML	021.0
22	07	1974	17	41	18	17.37	73.71	3.1 ML	011.0
22	07	1974	18	37	22	17.34	73.71	3.5 ML	011.0
28	07	1974	12	02	55	17.39	73.74	3.5 ML	008.0
28	07	1974	12	23	19	17.43	73.75	3.4 ML	019.0
28	07	1974	12	52	11	17.42	73.75	3.0 ML	017.5
29	07	1974	23	17	31	17.12	73.74	4.6 Mb\4.3 ML	024.0
30	07	1974	19	04	08	17.35	73.69	3.1 ML	013.0
30	07	1974	19	48	29	17.35	73.69	3.4 ML	013.0
30	07	1974	21	36	38	17.35	73.66	3.9 ML	008.0
31	07	1974	11	48	31	17.38	73.71	3.1 ML	013.0
07	08	1974	03	27	13	17.53	73.75	3.0 ML	014.5
07	08	1974	04	23	23	17.25	73.78	3.5 ML	019.0
08	08	1974	06	12	52	17.42	73.73	3.0 ML	014.5
10	08	1974	18	59		17.52	73.53	3.0 ML	012.0
10	08	1974	19	08		17.52	73.51	3.1 ML	007.0
12	08	1974	16	11		17.51	73.55	3.0 ML	003.0
19	08	1974	00	12	53	17.11	73.74	3.1 ML	013.0
28	08	1974	20	20	53	17.29	73.79	3.8 ML	016.0
18	09	1974	10	08	16	17.38	73.66	3.5 ML	004.0
22	10	1974	15	16	48	17.29	73.75	3.1 ML	010.0
23	10	1974	19	22	09	17.34	73.71	3.0 ML	008.0
23	10	1974	19	51	23	17.33	73.71	3.3 ML	006.0
11	11	1974	15	11	16	17.28	73.77	3.8 ML	023.0
30	11	1974	16	44	14	17.11	73.73	3.4 ML	013.0
02	12	1974	03	40	26	17.20	73.70	3.2 ML	015.0
10	12	1974	07	02	08	17.25	73.70	3.1 ML	011.0
14	12	1974	02	39	52	17.28	73.69	3.3 ML	011.0
20	12	1974	14	11	28	17.41	73.74	3.0 ML	008.0
20	12	1974	14	16	17	17.41	73.74	3.8 ML	008.0
25	12	1974	12	13	29	17.33	73.79	3.2 ML	014.0
07	01	1975	13	23	07	17.33	73.72	3.0 ML	008.0
11	01	1975	06	26	49	17.23	73.69	3.1 ML	005.0
10	02	1975	18	35	02	17.32	73.72	3.6 ML	005.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
23	02	1975	06	47	25	17.23	73.68	3.3 ML	011.0
27	02	1975	00	25	04	17.36	73.74	3.4 ML	008.0
03	03	1975	01	40	40	17.22	73.69	3.1 ML	018.0
06	03	1975	06	29	10	17.21	73.69	3.0 ML	014.0
19	03	1975	14	21	20	17.33	73.73	3.1 ML	008.0
23	03	1975	02	49	59	17.33	73.72	3.5 ML	006.0
23	03	1975	02	53	21	17.32	73.72	3.0 ML	008.0
28	03	1975	11	17	40	17.23	73.68	3.3 ML	018.0
02	04	1975	20	09	21	17.21	73.68	3.0 ML	013.0
04	04	1975	13	10	50	17.21	73.70	3.4 ML	014.0
16	04	1975	11	50	00	17.37	73.76	3.0 ML	008.0
17	04	1975	07	24	01	17.33	73.71	3.5 ML	008.0
23	04	1975	20	18	31	17.31	73.71	3.3 ML	006.0
24	04	1975	17	07	05	17.26	73.69	3.4 ML	004.0
20	05	1975	01	36	22	17.22	73.65	3.4 ML	006.5
01	06	1975	22	58	52	17.20	73.75	3.0 ML	010.0
02	06	1975	03	39	50	17.21	73.64	3.1 ML	016.0
02	06	1975	05	51	20	17.17	73.73	3.8 ML	008.0
02	06	1975	19	56	38	17.21	73.64	3.0 ML	014.5
03	06	1975	09	17	01	17.15	73.71	3.4 ML	014.5
03	06	1975	10	04	43	17.15	73.71	3.1 ML	014.5
03	06	1975	14	10	53	17.13	73.70	3.8 ML	017.5
03	06	1975	23	48	01	17.21	73.66	3.8 ML	023.5
04	06	1975	13	06	03	17.22	73.62	3.3 ML	024.0
08	06	1975	01	01	39	17.26	73.69	3.5 ML	019.0
10	06	1975	18	15	19	17.19	73.68	3.6 ML	013.0
12	06	1975	20	36	23	17.27	73.71	3.4 ML	003.5
09	07	1975	03	07	48	17.20	73.61	3.1 ML	009.5
25	07	1975	19	43	24	-	-	3.0 ML	-
02	09	1975	23	17	18	17.36	73.69	4.0 ML	007.0
16	10	1975	09	02		17.25	73.64	3.8 ML	013.0
16	10	1975	09	58	05	17.33	73.79	3.4 ML	008.0
21	11	1975	05	34	46	17.27	73.72	3.5 ML	008.0
26	11	1975	23	08	10	17.18	73.70	3.5 ML	018.0
02	12	1975	07	40	01	17.34	73.61	3.8 ML	008.0
24	12	1975	10	08	59	17.28	73.72	3.2 ML	017.0
24	12	1975	13	25	16	17.18	73.71	3.6 ML	010.0
24	12	1975	13	35	13	17.21	73.67	3.2 ML	011.0
24	12	1975	14	34	31	17.23	73.68	3.0 ML	013.5
24	12	1975	14	46	44	17.22	73.69	3.1 ML	012.0
24	12	1975	15	23	15	17.22	73.68	3.4 ML	011.0
24	12	1975	16	58	38	17.22	73.66	3.2 ML	015.0
29	12	1975	06	44	33	17.35	73.72	3.3 ML	006.5
29	12	1975	18	21	17	17.19	73.69	3.2 ML	014.5
22	01	1976	10	51		17.19	73.70	3.2 ML	008.0
14	03	1976	05	16	48	17.23	73.72	3.9 ML	005.0
14	03	1976	05	19	09	-	-	3.3 ML	-
14	03	1976	07	26	42	17.25	73.67	3.2 ML	008.5
19	03	1976	08	52	37	17.25	73.69	3.1 ML	011.0
19	03	1976	10	28	47	17.33	73.76	3.3 ML	016.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
21	03	1976	19	19	34	17.41	73.75	3.1 ML	005.0
05	04	1976	14	14	12	17.26	73.69	3.3 ML	013.0
07	04	1976	08	58	56	17.13	73.70	3.0 ML	014.5
08	04	1976	23	01	55	17.35	73.74	3.5 ML	016.0
09	04	1976	15	30	14	17.29	73.77	3.0 ML	013.0
10	04	1976	21	00	48	17.30	73.71	3.0 ML	013.5
22	04	1976	10	46	42	17.34	73.67	3.7 ML	010.0
30	04	1976	04	56	42	17.34	73.75	3.2 ML	009.5
14	06	1976	11	15	59	17.34	73.75	3.2 ML	016.0
14	06	1976	22	05	31	17.34	73.71	3.1 ML	006.5
25	07	1976	18	58	52	17.39	73.75	3.0 ML	027.0
02	08	1976	14	09	02	17.34	73.75	3.4 ML	006.5
09	08	1976	13	02	54	17.39	73.73	3.1 ML	002.0
20	08	1976	09	07	32	17.29	73.78	3.5 ML	011.5
08	09	1976	01	43	32	17.37	73.75	3.1 ML	008.0
08	09	1976	05	32	15	17.35	73.75	3.0 ML	006.0
16	09	1976	14	04	01	17.27	73.64	3.4 ML	014.0
18	09	1976	15	25	25	17.26	73.64	3.2 ML	013.5
18	09	1976	22	10	53	17.24	73.67	3.0 ML	012.0
26	09	1976	06	48	29	17.29	73.69	3.6 ML	010.0
06	10	1976	22	44	30	17.24	73.69	3.3 ML	006.0
17	10	1976	11	03	00	17.29	73.69	3.0 ML	009.5
21	10	1976	16	12	38	17.19	73.70	3.3 ML	013.0
05	11	1976	03	26	59	17.52	73.57	3.5 ML	010.0
09	11	1976	12	20		17.50	73.53	3.1 ML	005.0
12	11	1976	06	38	24	17.51	73.53	3.1 ML	003.5
12	11	1976	15	49	39	17.51	73.62	3.3 ML	002.0
12	11	1976	19	27	22	17.52	73.53	3.3 ML	006.5
30	11	1976	09	20	55	17.27	73.71	3.1 ML	009.5
12	12	1976	00	52	23	17.37	73.73	3.9 ML	013.0
14	12	1976	00	17	15	17.30	73.73	3.1 ML	006.0
17	12	1976	05	21	37	17.30	73.76	3.2 ML	012.0
26	03	1977	05	20	39	17.32	73.76	3.4 ML	007.0
30	04	1977	04	13	13	-	-	3.3 ML	-
16	06	1977	17	11	06	17.25	73.70	3.4 ML	011.0
10	07	1977	03	47	06	17.28	73.72	3.0 ML	010.0
10	07	1977	03	54	13	17.26	73.73	3.0 ML	011.0
13	07	1977	07	44	53	17.41	73.75	3.1 ML	007.0
16	07	1977	20	38	19	17.16	73.68	3.2 ML	017.0
26	08	1977	05	33	43	17.35	73.72	3.3 ML	010.0
19	09	1977	00	03	54	17.27	73.75	4.0 ML\4.5 Mb	019.0
19	09	1977	00	15	40	17.31	73.73	3.1 ML	012.0
19	09	1977	01	42	08	17.30	73.74	3.0 ML	015.0
19	09	1977	02	32	10	17.30	73.74	3.2 ML	017.0
19	09	1977	06	20	16	17.30	73.75	3.1 ML	015.0
19	09	1977	19	31	57	17.31	73.78	3.2 ML	009.0
14	10	1977	15	47	03	17.31	73.68	3.3 ML	007.0
17	10	1977	01	08		17.19	73.75	3.8 ML	012.5
04	11	1977	18	57		17.29	73.76	3.5 ML	014.0
04	11	1977	20	35	48	17.28	73.78	3.6 ML	010.5

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
04	11	1977	20	54		17.31	73.78	3.5 ML	015.0
30	11	1977	05	33	21	17.13	73.75	3.2 ML	010.5
09	12	1977	18	57	57	17.28	73.71	3.0 ML	009.5
09	12	1977	18	59		17.28	73.73	3.7 ML	008.0
09	12	1977	20	48	32	17.35	73.83	3.1 ML	012.0
15	12	1977	17	31	45	17.19	73.74	3.0 ML	012.5
15	12	1977	17	32	17	17.18	73.79	3.3 ML	010.0
11	02	1978	06	32	44	17.27	73.75	3.4 ML	022.5
14	02	1978	23	46	46	17.17	73.72	3.0 ML	008.5
13	03	1978	16	05	02	17.60	73.26	3.2 ML	032.0
18	03	1978	23	46	02	17.27	73.72	3.1 ML	013.0
20	03	1978	10	11	02	17.22	73.74	3.1 ML	017.0
20	03	1978	11	04	24	17.18	73.98	3.3 ML	009.5
21	03	1978	07	18		17.19	73.71	3.1 ML	012.5
02	04	1978	18	51	54	17.33	73.66	3.4 ML	015.0
14	05	1978	13	50	20	17.32	73.80	3.5 ML	010.5
16	06	1978	12	12	09	17.23	73.67	3.0 ML	015.0
17	06	1978	12	51	39	17.21	73.69	3.0 ML	024.0
24	06	1978	12	49	06	17.38	73.76	3.3 ML	005.0
01	07	1978	05	55	40	17.40	73.76	3.1 ML	004.0
01	07	1978	05	58	45	17.39	73.73	3.3 ML	004.0
19	09	1978	19	49	09	17.33	73.70	3.0 ML	007.0
19	10	1978	19	12	22	17.34	73.71	3.1 ML	007.0
14	11	1978	09	56	56	17.39	73.74	3.2 ML	010.5
14	11	1978	20	19	33	17.37	73.77	3.6 ML	007.0
18	11	1978	07	00	28	17.32	73.75	3.0 ML	012.0
22	11	1978	19	53		17.47	73.54	3.5 ML	014.0
29	11	1978	05	30	23	17.24	73.66	3.2 ML	012.0
08	12	1978	23	32	50	17.23	73.74	3.1 ML	013.0
12	12	1978	15	02		17.25	73.74	4.0 ML	014.0
12	12	1978	17	08		17.30	73.74	3.6 ML	018.0
19	12	1978	01	02	31	17.24	73.72	3.1 ML	012.0
08	01	1979	10	35		17.34	73.47	3.6 ML	007.5
12	01	1979	09	12	40	17.29	73.70	3.4 ML	016.0
12	01	1979	09	32	49	17.28	73.64	3.0 ML	014.5
12	01	1979	10	48	25	17.23	73.69	3.2 ML	017.5
13	01	1979	01	42	29	17.29	73.72	3.0 ML	017.0
25	01	1979	01	40	25	17.31	73.71	3.2 ML	013.0
26	01	1979	19	12	45	17.23	73.78	3.4 ML	012.0
12	02	1979	23	51	07	17.27	73.68	3.0 ML	014.0
28	02	1979	17	00	57	17.37	73.72	3.2 ML	007.5
08	03	1979	20	23	26	17.34	73.74	3.4 ML	006.0
22	03	1979	00	05	51	17.20	73.72	3.3 ML	014.0
22	03	1979	02	09		17.19	73.72	3.8 ML	013.5
22	03	1979	07	14		17.15	73.74	3.5 ML	008.5
22	03	1979	07	40	47	17.27	73.79	3.0 ML	018.0
23	03	1979	00	20	56	17.21	73.69	3.1 ML	016.0
18	05	1979	20	01	39	17.29	73.81	3.0 ML	017.0
11	07	1979	18	15	40	17.37	73.76	3.0 ML	008.0
16	09	1979	20	22	33	17.14	73.70	3.1 ML	019.0



DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
26	09	1979	20	02		17.10	73.44	3.6 ML	015.0
27	09	1979	04	15	40	17.21	73.76	3.1 ML	013.0
01	10	1979	22	46	24	17.24	73.70	3.1 ML	017.0
10	10	1979	13	13	34	17.35	73.65	3.1 ML	010.0
13	10	1979	04	12	15	17.27	73.57	3.2 ML	010.0
27	10	1979	21	02	34	17.10	73.71	3.0 ML	012.0
20	11	1979	06	29	53	17.32	73.71	3.1 ML	002.0
02	01	1980	16	43	53	17.17	73.76	3.2 ML	015.5
19	01	1980	14	34	05	17.18	73.77	3.0 ML	013.0
27	01	1980	18	17	34	17.20	73.79	3.2 ML	014.0
06	02	1980	22	13	11	17.19	73.78	4.4 Mb\4.4 ML	012.5
10	02	1980	18	08	18	17.33	73.75	3.0 ML	005.0
12	02	1980	16	29	50	17.29	73.57	3.2 ML	017.5
13	02	1980	04	13	52	17.26	73.64	3.0 ML	019.0
13	02	1980	08	29	25	17.23	73.70	3.7 ML	011.0
23	02	1980	18	41	39	17.33	73.86	3.0 ML	006.0
10	03	1980	19	58	59	17.30	73.70	3.2 ML	010.0
12	04	1980	07	28	39	17.31	73.74	3.3 ML	006.5
01	05	1980	21	38	26	17.15	73.69	3.2 ML	008.5
02	06	1980	08	35	28	17.29	73.72	3.4 ML	014.5
21	06	1980	13	35	41	17.35	73.75	3.1 ML	006.0
26	06	1980	01	43	24	-	-	3.2 ML	-
11	07	1980	15	33	52	17.27	73.70	3.1 ML	019.0
12	08	1980	01	50	50	17.26	73.64	3.0 ML	030.0
13	08	1980	23	59	09	17.46	73.70	3.1 ML	022.0
19	08	1980	06	06	24	17.26	73.69	3.1 ML	012.0
19	08	1980	22	32	08	17.28	73.79	3.6 ML	017.0
20	08	1980	01	50	51	17.15	73.70	3.5 ML	017.0
02	09	1980	16	39	15	17.23	73.76	4.3 ML	006.0
02	09	1980	16	47	52	17.30	73.68	4.7 Mb\5.4 Ms\3.8 ML	008.0
02	09	1980	20	01	13	17.22	73.71	3.6 ML	008.0
02	09	1980	21	21	21	17.27	73.77	3.0 ML	008.0
02	09	1980	21	23	01	17.25	73.77	3.0 ML	005.0
03	09	1980	00	35	56	17.30	73.72	3.1 ML	006.5
04	09	1980	05	01	30	17.22	73.76	3.0 ML	010.0
05	09	1980	04	54	09	17.22	73.77	3.2 ML	008.0
06	09	1980	10	59	27	17.26	73.45	3.0 ML	012.0
07	09	1980	02	45	52	17.24	73.67	3.0 ML	012.5
20	09	1980	07	28	58	17.20	73.76	4.8 Mb\4.3 Ms\4.7 ML	008.0
20	09	1980	08	11	24	17.23	73.77	3.0 ML	010.5
20	09	1980	08	33	14	17.23	73.72	3.3 ML	011.5
20	09	1980	09	27	10	17.22	73.73	3.0 ML	009.0
20	09	1980	10	27	11	17.28	73.73	3.1 ML	009.5
20	09	1980	10	45	31	17.25	73.70	5.2 Mb\4.2 Ms\4.9 ML	008.0
20	09	1980	10	51	02	17.23	73.75	3.6 ML	011.0
20	09	1980	10	54	24	17.27	73.75	3.3 ML	015.0
20	09	1980	11	04	22	17.23	73.72	3.1 ML	008.0
20	09	1980	11	22	49	17.25	73.75	3.5 ML	012.0
20	09	1980	11	34	48	17.26	73.77	3.1 ML	011.0
20	09	1980	13	02	19	17.25	73.77	3.0 ML	010.5

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
20	09	1980	13	24	51	17.20	73.73	3.0 ML	009.0
20	09	1980	14	27	20	17.21	73.74	3.6 ML	007.0
20	09	1980	14	41	17	17.22	73.73	3.0 ML	009.0
20	09	1980	16	33	12	17.26	73.75	3.1 ML	007.0
20	09	1980	18	56	58	17.26	73.73	3.3 ML	018.5
20	09	1980	20	14	39	17.23	73.71	3.0 ML	012.0
20	09	1980	23	33	02	17.25	73.73	3.1 ML	014.0
20	09	1980	23	44	19	17.24	73.73	3.6 ML	014.0
20	09	1980	23	59	28	17.29	73.75	3.0 ML	011.0
21	09	1980	00	00	25	17.23	73.71	3.2 ML	010.0
21	09	1980	00	25	23	17.25	73.71	3.2 ML	013.0
21	09	1980	01	49	10	17.28	73.73	3.2 ML	011.5
21	09	1980	03	42	41	17.28	73.73	3.1 ML	015.0
21	09	1980	03	52	41	17.28	73.66	3.4 ML	007.0
21	09	1980	08	18	23	17.26	73.75	3.5 ML	011.5
21	09	1980	12	30	49	17.28	73.73	3.2 ML	013.0
21	09	1980	12	35	57	17.26	73.75	3.1 ML	008.0
21	09	1980	12	44	21	17.28	73.73	3.0 ML	014.0
21	09	1980	14	14	22	17.25	73.73	3.0 ML	009.5
21	09	1980	16	50	10	17.28	73.73	3.0 ML	012.0
21	09	1980	18	19	23	17.29	73.69	3.7 ML	014.0
21	09	1980	23	11	20	17.27	73.78	3.3 ML	013.0
21	09	1980	23	20	50	17.22	73.73	3.1 ML	011.0
22	09	1980	01	02	12	17.24	73.73	3.0 ML	012.0
22	09	1980	01	37	17	17.24	73.74	3.4 ML	011.0
22	09	1980	02	16	17	17.25	73.74	3.1 ML	013.0
22	09	1980	11	59	39	17.25	73.74	3.6 ML	014.0
22	09	1980	13	03	08	17.23	73.74	3.1 ML	012.0
22	09	1980	13	39	18	17.16	73.74	3.3 ML	013.0
22	09	1980	13	52	51	17.25	73.81	3.0 ML	010.0
22	09	1980	17	28	03	17.24	73.77	3.4 ML	010.0
22	09	1980	23	01	13	17.25	73.72	3.1 ML	015.0
23	09	1980	02	42	09	17.24	73.72	3.0 ML	009.0
23	09	1980	06	46	52	17.24	73.72	3.2 ML	009.0
23	09	1980	14	01	45	17.22	73.73	3.1 ML	009.0
23	09	1980	17	21	26	17.23	73.74	3.1 ML	008.5
23	09	1980	22	31	52	17.26	73.74	3.4 ML	004.5
23	09	1980	22	42	02	17.21	73.74	3.0 ML	011.0
24	09	1980	01	18	05	17.21	73.74	3.2 ML	007.0
24	09	1980	07	36	02	17.25	73.70	3.2 ML	014.0
24	09	1980	08	33	54	17.15	73.72	3.0 ML	007.0
24	09	1980	10	09	30	17.23	73.76	3.1 ML	013.0
25	09	1980	00	17	38	17.25	73.75	3.2 ML	015.0
25	09	1980	03	17	48	17.24	73.68	3.3 ML	014.0
25	09	1980	13	38	30	17.25	73.75	3.6 ML	008.0
26	09	1980	02	32	52	17.20	73.73	3.1 ML	007.5
26	09	1980	18	06	22	17.24	73.73	3.3 ML	014.0
27	09	1980	08	54	54	17.23	73.71	3.5 ML	008.0
28	09	1980	17	27	29	17.21	73.72	3.3 ML	008.0
29	09	1980	11	29	39	17.23	73.70	3.2 ML	006.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
30	09	1980	13	37	47	17.21	73.73	3.6 ML	007.5
02	10	1980	12	56	58	17.28	73.68	3.6 ML	017.0
02	10	1980	14	29	57	17.24	73.73	3.3 ML	009.0
03	10	1980	07	42	38	17.23	73.71	3.4 ML	013.0
03	10	1980	15	20	38	17.24	73.70	3.9 ML	011.0
04	10	1980	08	34	40	17.22	73.73	3.0 ML	015.0
04	10	1980	16	37	12	17.28	73.70	4.8 Mb\4.1 ML	009.0
04	10	1980	17	09	05	17.21	73.71	3.0 ML	015.0
04	10	1980	17	39	55	17.23	73.76	3.2 ML	013.0
04	10	1980	19	10	28	17.23	73.76	3.6 ML	008.0
05	10	1980	02	13	39	17.23	73.68	3.2 ML	016.0
05	10	1980	06	20	02	17.28	73.70	3.3 ML	012.0
05	10	1980	08	21	57	17.24	73.71	3.1 ML	010.0
05	10	1980	16	09	48	17.27	73.70	3.2 ML	008.0
06	10	1980	15	32	45	17.21	73.69	3.1 ML	013.0
11	10	1980	18	44	07	17.23	73.73	3.4 ML	008.0
12	10	1980	02	50	03	17.30	73.73	3.3 ML	013.0
12	10	1980	20	02	57	-	-	3.0 ML	-
16	10	1980	11	30		-	-	3.3 ML	-
17	10	1980	21	47	02	17.27	73.73	3.8 ML	006.0
21	10	1980	04	54	13	17.25	73.70	3.0 ML	013.0
21	10	1980	04	54	42	17.26	73.69	3.2 ML	011.0
21	10	1980	05	02	11	17.23	73.71	3.3 ML	012.5
21	10	1980	05	32	46	17.23	73.70	3.1 ML	014.0
25	10	1980	18	36	58	17.26	73.72	3.4 ML	011.0
26	10	1980	01	32	30	17.25	73.73	3.7 ML	013.0
26	10	1980	01	33	43	17.23	73.69	3.6 ML	008.0
05	11	1980	04	59	29	17.24	73.75	3.2 ML	007.5
05	11	1980	07	37	23	17.25	73.75	3.3 ML	006.0
06	11	1980	21	50	49	17.21	73.72	3.3 ML	012.0
08	11	1980	04	17	28	17.24	73.77	3.0 ML	011.0
09	11	1980	17	13	01	17.22	73.71	3.3 ML	012.0
14	11	1980	09	41	34	17.29	73.75	3.0 ML	012.0
18	11	1980	15	31	14	17.24	73.73	3.1 ML	015.0
19	11	1980	18	07	13	17.29	73.71	3.1 ML	009.0
20	11	1980	11	52	30	17.25	73.69	3.1 ML	007.0
21	11	1980	17	47	53	17.23	73.77	3.2 ML	008.0
26	11	1980	21	25	58	17.26	73.73	3.5 ML	009.0
04	12	1980	10	43	42	17.26	73.74	3.0 ML	004.0
05	12	1980	16	46	22	17.25	73.69	3.3 ML	006.0
07	12	1980	05	28	52	17.32	73.70	3.1 ML	008.0
08	12	1980	13	26	34	17.31	73.70	3.1 ML	006.0
30	12	1980	23	53	34	17.23	73.70	3.1 ML	008.5
31	12	1980	17	51	53	17.23	73.70	3.6 ML	010.5
31	12	1980	23	45	42	17.23	73.70	3.1 ML	007.0
04	01	1981	11	54	06	17.23	73.75	3.2 ML	007.5
06	01	1981	10	04	54	17.23	73.72	3.0 ML	012.0
12	01	1981	00	40	37	17.25	73.72	3.1 ML	016.0
13	01	1981	11	42	22	17.31	73.72	3.1 ML	013.0
14	01	1981	21	26	44	17.25	73.72	3.4 ML	010.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
20	01	1981	23	19	04	17.30	73.76	3.3 ML	010.0
25	01	1981	20	30	41	17.30	73.72	3.7 ML	007.0
03	02	1981	22	16	32	17.23	73.69	3.1 ML	015.0
03	02	1981	23	05	11	17.23	73.69	3.1 ML	015.0
20	02	1981	02	06	56	17.15	73.75	3.0 ML	007.0
22	02	1981	05	23	42	17.33	73.76	3.1 ML	010.0
22	02	1981	06	52	11	17.31	73.76	3.0 ML	009.5
22	02	1981	13	58	25	17.34	73.76	3.1 ML	010.0
11	03	1981	23	09	49	17.25	73.70	3.2 ML	011.0
18	03	1981	11	43	11	17.26	73.77	3.3 ML	011.0
19	04	1981	15	01	57	17.36	73.74	3.2 ML	019.0
23	04	1981	15	36	06	17.30	73.75	3.0 ML	007.0
27	04	1981	09	28	01	17.30	73.71	3.6 ML	013.0
27	04	1981	09	30	32	17.30	73.72	3.1 ML	011.0
28	04	1981	19	01	51	17.91	73.72	3.0 ML	011.0
02	05	1981	12	46	26	17.46	73.79	3.6 ML	008.5
13	05	1981	09	26	40	17.28	73.81	3.0 ML	014.0
17	05	1981	21	33	33	17.31	73.75	3.0 ML	013.0
18	05	1981	16	19	25	17.30	73.72	3.0 ML	010.5
21	05	1981	10	05	03	17.28	73.71	3.1 ML	008.5
18	06	1981	21	30	34	17.25	73.70	3.0 ML	004.0
08	07	1981	07	40	16	-	-	3.5 ML	-
20	07	1981	02	43	01	17.29	73.65	3.0 ML	008.0
17	09	1981	08	10	24	17.23	73.69	3.1 ML	008.5
17	09	1981	08	32	16	17.23	73.69	3.4 ML	010.0
26	09	1981	11	26	24	17.27	73.75	3.0 ML	010.0
06	10	1981	07	40	48	17.26	73.69	3.2 ML	010.0
09	10	1981	17	53	00	-	-	3.0 ML	-
18	10	1981	08	18	16	17.19	73.73	3.2 ML	009.0
18	10	1981	08	27	13	17.23	73.73	3.3 ML	009.0
18	10	1981	13	17	00	17.22	73.71	3.1 ML	010.0
23	10	1981	21	49	30	17.26	73.74	3.0 ML	007.0
06	11	1981	20	48	46	17.25	73.66	3.0 ML	010.5
06	11	1981	21	51	44	17.33	73.71	3.1 ML	012.0
10	11	1981	07	58	38	17.30	73.72	3.1 ML	015.0
06	12	1981	12	01	23	17.24	73.68	3.0 ML	009.0
25	12	1981	19	42	23	17.24	73.73	3.0 ML	006.0
30	12	1981	16	01	20	17.24	73.74	3.4 ML	007.0
10	01	1982	14	55		17.49	73.64	3.1 ML	038.5
29	03	1982	09	01		17.28	73.75	3.3 ML	010.0
25	04	1982	23	04		17.24	73.70	4.0 Mb\4.3 ML	013.5
25	04	1982	23	18		17.23	73.70	3.0 ML	012.9
25	04	1982	23	19		17.23	73.68	3.0 ML	010.0
26	04	1982	19	14		17.25	73.68	3.2 ML	018.0
27	04	1982	05	21		17.25	73.74	3.3 ML	009.0
02	05	1982	20	25		17.25	73.71	3.4 ML	013.0
05	05	1982	07	32		17.23	73.67	4.0 ML	016.0
10	05	1982	18	28		17.26	73.71	3.4 ML	010.0
20	05	1982	16	04		17.19	73.70	3.0 ML	012.0
06	06	1982	22	52		17.31	73.69	3.1 ML	007.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
08	08	1982	14	36		17.26	73.70	3.6 ML	005.0
11	08	1982	08	40		17.28	73.74	3.3 ML	007.0
27	08	1982	00	14		17.21	73.75	3.2 ML	008.0
27	08	1982	05	41		17.21	73.74	3.0 ML	012.0
11	09	1982	02	41		17.25	73.66	3.9 ML	015.0
14	09	1982	07	15		17.29	73.75	3.1 ML	007.5
14	09	1982	16	30		17.27	73.73	3.4 ML	008.0
10	10	1982	08	15		17.22	73.67	3.3 ML	008.0
25	12	1982	16	51		17.31	73.76	3.0 ML	009.0
03	01	1983	10	42		17.28	73.78	3.1 ML	007.0
04	01	1983	07	37		17.14	73.72	3.6 ML	009.0
10	01	1983	11	21		17.20	73.81	3.6 ML	021.0
10	01	1983	11	31		17.11	73.76	3.0 ML	012.0
11	01	1983	07	49		17.13	73.69	3.1 ML	009.5
05	02	1983	22	53		17.27	73.76	3.9 Mb\4.4 ML	011.0
13	02	1983	04	51		17.27	73.74	3.0 ML	012.0
20	02	1983	22	29		17.34	73.74	3.0 ML	007.0
21	03	1983	15	02		17.22	73.72	3.8 ML	012.0
09	04	1983	02	58		17.26	73.77	3.2 ML	019.0
24	04	1983	02	58		17.26	73.77	3.2 ML	019.0
24	04	1983	20	58		17.26	73.73	3.0 ML	015.0
26	04	1983	14	31		17.29	73.73	3.2 ML	006.5
03	05	1983	05	14		17.34	73.71	3.0 ML	006.5
08	05	1983	20	33		17.34	73.68	3.2 ML	006.0
13	05	1983	05	53		17.22	73.73	3.5 ML	008.0
15	05	1983	05	58		17.25	73.87	3.1 ML	008.0
15	05	1983	05	59		-	-	3.0 ML	-
25	05	1983	09	09		17.30	73.81	3.0 ML	006.0
28	05	1983	18	08		17.25	73.76	3.8 ML	015.0
10	06	1983	02	55		17.29	73.68	3.0 ML	005.0
14	06	1983	09	46		17.27	73.81	3.4 ML	004.0
20	06	1983	05	47		17.42	73.80	3.4 ML	006.5
15	07	1983	17	25		-	-	3.1 ML	-
20	09	1983	08	43		17.26	73.74	3.3 ML	021.0
25	09	1983	01	24		17.44	73.58	3.1 ML	012.0
25	09	1983	18	55		17.22	73.74	4.6 ML	020.0
26	09	1983	05	01		17.05	73.72	3.2 ML	006.5
26	09	1983	05	51		17.23	73.76	3.3 ML	004.0
27	09	1983	10	13		17.27	73.70	3.0 ML	011.0
27	09	1983	12	08		17.23	73.72	3.1 ML	005.0
01	10	1983	08	55		17.21	73.75	3.9 ML	012.0
01	10	1983	09	02		17.24	73.76	3.2 ML	014.5
24	10	1983	02	24		17.28	73.67	3.2 ML	022.0
01	11	1983	20	43		17.30	73.63	3.1 ML	022.0
18	11	1983	21	06		17.26	73.73	3.1 ML	008.6
12	02	1984	07	28		17.30	73.74	3.0 ML	007.0
30	04	1984	16	35		17.32	73.73	3.5 ML	012.0
10	09	1984	16	50		17.28	73.70	3.1 ML	006.0
25	09	1984	07	46		17.29	73.74	4.2 Mb\3.8 ML	006.5
14	11	1984	11	58		17.27	73.78	4.5 Mb\4.4 ML	016.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
14	11	1984	15	48		17.16	73.75	3.2 ML	008.0
14	11	1984	23	57		17.21	73.79	3.2 ML	012.5
15	11	1984	10	40		17.35	73.63	3.2 ML	010.0
18	11	1984	21	27		17.20	73.74	3.1 ML	011.0
24	11	1984	16	05		17.18	73.72	3.2 ML	009.0
30	11	1984	14	02		17.25	73.73	3.1 ML	008.5
07	12	1984	12	24		17.25	73.79	3.0 ML	017.0
20	12	1984	14	46		17.23	73.83	3.1 ML	008.0
21	12	1984	17	26		17.23	73.75	4.0 ML	010.0
18	01	1985	02	06		17.20	73.74	3.0 ML	010.0
19	04	1985	11	37		17.22	73.66	3.0 ML	014.0
19	04	1985	11	40		17.21	73.75	3.4 ML	010.0
11	05	1985	01	10		17.27	73.78	3.1 ML	009.5
11	05	1985	11	35		17.28	73.74	3.1 ML	005.0
24	05	1985	20	30		17.28	73.68	3.1 ML	008.5
27	05	1985	04	14		17.20	73.71	3.1 ML	007.0
27	05	1985	06	57		17.25	73.73	3.7 ML	010.5
27	05	1985	07	04		17.22	73.68	3.3 ML	005.0
27	05	1985	07	19		17.23	73.71	3.2 ML	005.0
29	05	1985	04	46		17.26	73.71	3.1 ML	017.0
28	07	1985	21	07		17.23	73.70	3.1 ML	012.0
31	08	1985	02	05		17.29	73.68	3.2 ML	008.5
30	09	1985	20	22		17.32	73.77	3.5 ML	006.0
29	10	1985	08	28		17.21	73.72	3.0 ML	012.0
29	10	1985	08	31		17.23	73.73	3.0 ML	008.0
29	10	1985	08	31		17.26	73.76	3.5 ML	010.0
29	10	1985	13	58		17.22	73.68	3.6 ML	012.0
30	10	1985	19	20		17.23	73.67	3.0 ML	011.5
30	10	1985	21	40		17.20	73.68	3.6 ML	009.5
30	10	1985	21	42		17.18	73.71	3.4 ML	008.0
15	11	1985	07	02		17.22	73.68	3.8 ML	013.0
15	11	1985	09	13		17.21	73.68	3.3 ML	017.0
21	11	1985	09	28		17.25	73.72	3.8 ML	009.5
21	11	1985	11	37		17.20	73.72	3.6 ML	013.0
21	11	1985	14	30		17.26	73.77	3.3 ML	009.0
21	11	1985	15	43		17.23	73.71	3.0 ML	008.0
11	12	1985	09	07		17.33	73.64	3.1 ML	007.0
15	12	1985	13	10		17.26	73.69	3.9 ML	008.0
15	12	1985	13	14		17.30	73.72	3.2 ML	011.0
28	12	1985	14	52		17.34	73.77	3.8 ML	009.0
15	02	1986	15	15		17.33	73.73	3.0 ML	006.0
20	02	1986	00	50		17.19	73.77	3.2 ML	012.0
16	03	1986	02	14		17.18	73.72	3.2 ML	008.0
06	04	1986	05	28		17.17	73.78	3.4 ML	011.0
30	06	1986	18	21		17.26	73.73	3.4 ML	004.0
23	08	1986	17	51		17.31	73.74	3.0 ML	012.0
20	09	1986	04	14		17.31	73.71	3.1 ML	011.5
02	10	1986	08	15		17.35	73.77	3.2 ML	006.5
29	10	1986	14	49		17.15	73.76	3.2 ML	011.0
14	11	1986	09	08		17.28	73.70	3.1 ML	007.0

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km
15	12	1986	14	44		17.30	73.72	3.1 ML	007.5
27	01	1987	08	42		17.23	73.69	3.0 ML	009.0
02	02	1987	09	18		17.14	73.65	3.1 ML	007.0
02	02	1987	09	54		17.15	73.66	3.0 ML	005.0
16	02	1987	13	20		17.29	73.72	3.2 ML	005.0
21	04	1987	08	29		17.60	73.80	3.1 ML	028.0
26	04	1987	07	57		17.32	73.75	3.6 ML	010.0
27	05	1987	18	10		17.29	73.73	3.1 ML	008.0
21	07	1987	10	26		17.30	73.77	3.3 ML	013.0
23	07	1987	01	08		17.30	73.76	3.0 ML	004.0
30	09	1987	01	44		17.27	73.69	3.3 ML	007.0
07	11	1987	17	43		17.25	73.65	3.2 ML	012.5
29	12	1987	11	31		17.31	73.72	3.3 ML	009.0
11	01	1988	08	43		17.22	73.69	3.2 ML	009.0
17	05	1988	10	32		17.38	73.69	3.4 ML	005.0
11	07	1988	15	36		17.22	73.70	3.0 ML	012.0
11	07	1988	16	26		17.20	73.75	3.0 ML	011.0
11	07	1988	16	51		17.23	73.73	3.0 ML	012.0
24	07	1988	05	33		17.23	73.75	3.6 ML	015.0
24	07	1988	05	33		17.24	73.74	4.1 ML	005.0
24	07	1988	05	38		17.23	73.77	3.7 ML	017.0
24	07	1988	07	35		17.20	73.77	3.4 ML	008.0
31	07	1988	08	03		17.38	73.78	3.0 ML	006.0
15	08	1988	22	16		17.29	73.76	3.4 ML	009.0
15	08	1988	23	26		17.35	73.80	3.0 ML	008.0
15	08	1988	23	26		17.33	73.68	3.4 ML	006.0
11	09	1988	20	39		17.18	73.70	4.3 Mb\2.9 Ms\3.8 ML	007.0
30	10	1988	02	00		17.17	73.63	3.1 ML	008.0
05	01	1989	09	24		17.24	73.65	3.0 ML	004.0
20	03	1989	05	26		17.15	73.69	3.1 ML	007.0
04	06	1989	03	25		17.22	73.69	3.4 ML	008.0
07	08	1989	09	56		17.23	73.72	3.3 ML	014.0
06	09	1989	01	42		17.19	73.74	3.0 ML	009.0
29	10	1989	06	47		17.31	73.77	3.3 ML	004.5
29	10	1989	07	30		17.33	73.77	4.0 ML	007.0
29	10	1989	20	25		17.33	73.76	3.2 ML	005.0
02	11	1989	04	45		17.32	73.73	3.1 ML	009.0
10	11	1989	15	38		17.36	73.73	3.2 ML	007.0
18	01	1990	21	22		17.27	73.71	3.3 ML	007.0
12	03	1990	00	51		17.30	73.71	3.3 ML	007.0
06	01	1991	22	13	22	17.26	73.89	4.4 Mb	080.0

ADDITIONAL EARTHQUAKES IN THE KOYNA AREA

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE	DEPTH Km	SOURCE
02	06	1976	11	00	34	17.2	74.0	-	-	-IMD-
19	08	1977	00	03	52	17.3	73.6	-	-	-IMD-

APPENDIX - II A  
 LIST OF EARTHQUAKES ( $\Rightarrow$  M 3.0) (1968 - 1975) REPORTED BY  
 GAURIBIDANUR SEISMIC ARRAY, BHABHA ATOMIC RESEARCH CENTRE (BARC)

DY	MO	YEAR	HR	MN	SEC	PLACE	AZIMUTH DEG	P-S SEC	EPICENTRAL DISTANCE Km	MAGNITUDE
10	01	1968	01	54	54	W HASSAN	250	21.7	178.0	4.2 Mb
16	01	1968	17	31	45	AMBUR	126	18.6	155.0	3.6 Mb
25	01	1968	21	34	51	BIRUR	266	18.4	150.0	3.1 Mb
04	02	1968	16	02	45	HASSAN	241	19.2	160.0	-
04	02	1968	16	04	05	HASSAN	241	19.2	160.0	-
10	02	1968	02	11	15	SALEM	163	28.0	240.0	-
27	02	1968	08	43	12	TIRUVANNAMALAI	139	31.0	270.0	-
12	03	1968	18	36	55	DHARAMPURI	135	22.4	185.0	-
13	03	1968	09	06	14	PONDY COAST	122	37.0	330.0	-
15	03	1968	01	05	25	OFF THE COAST OF COCHIN	212	56.0	517.0	-
18	03	1968	14	57	40	BHADRACHALAM	038	56.6	520.0	-
18	03	1968	17	23	30	HASSAN	215	23.7	198.0	-
27	03	1968	07	33	02	PONDY COAST	122	37.2	333.0	-
27	03	1968	20	42	00	VELLORE	136	17.2	145.0	-
28	03	1968	07	03	00	PONDY COAST	122	39.4	355.0	-
29	03	1968	00	18	41	OFF THE COAST OF MADRAS	083	34.7	311.0	-
13	04	1968	15	27	52	CUDDAPAH CONTACT	073	20.5	166.0	4.0 Mb
14	04	1968	12	08	35	CIDDALUR	042	31.5	277.0	3.3 Mb
16	04	1968	06	32	22	PONNANI-KERALA	206	41.1	370.0	3.5 Mb
25	04	1968	20	08	31	COAST OF NELLORE	067	35.5	322.0	-
25	04	1968	20	10	02	COAST OF NELLORE	067	35.5	322.0	4.3 Mb
03	05	1968	07	54	17	OFF PONDY COAST	122	39.3	355.0	3.5 Mb
04	05	1968	05	33	33	OFF PONDY COAST	122	37.6	355.0	3.5 Mb
04	05	1968	07	25	19	OFF PONDY COAST	122	39.9	355.0	3.5 Mb
10	05	1968	17	17	36	KRISHNAGIRI REGION	163	17.5	144.0	3.3 Mb
12	05	1968	18	19	49	E CUDDAPAH BASIN	052	26.0	222.0	3.9 Mb
15	05	1968	02	12	01	POLUR-VELLORE	138	25.0	211.0	3.0 Mb
21	05	1968	06	28	18	PONDY COAST	122	34.8	310.0	3.1 Mb
23	05	1968	04	27	37	OFF PONDY COAST	122	35.7	322.0	3.5 Mb
25	05	1968	05	22	01	OFF PONDY COAST	120	35.6	320.0	3.5 Mb
27	05	1968	06	52	30	DANDOLI	296	37.2	330.0	3.8 Mb
28	05	1968	06	18	23	OFF PONDY COAST	124	37.2	333.0	3.8 Mb
28	05	1968	06	59	40	RAYADURG	329	13.0	110.0	-
08	06	1968	03	54	33	DHARAMPURI	149	20.5	165.0	3.3 Mb
13	06	1968	03	35	46	MADAKASIRA	296	06.4	055.0	-
20	06	1968	09	28	32	BHADRACHALAM	041	53.4	500.0	4.8 Mb
16	07	1968	13	14	56	KRISHNAGIRI	142	19.0	155.0	3.1 Mb
02	08	1968	04	50	22	KRISHNAGIRI	157	17.5	144.0	4.4 Mb
13	08	1968	14	44	36	POLUR-VELLORE	128	24.0	200.0	4.4 Mb
20	08	1968	19	54	18	KRISHNAGIRI	163	19.6	160.0	3.7 Mb
03	09	1968	08	02	52	CHICKAMAGALUR	250	29.6	255.0	4.5 Mb
07	09	1968	23	31	43	CHICKAMAGALUR	256	29.5	255.0	4.4 Mb
28	09	1968	14	50	37	CHICKAMAGALUR	251	27.5	235.0	3.8 Mb
04	11	1968	08	19	21	GOA	299	48.0	433.0	5.0 Mb
28	11	1968	11	49	20	MANDYA	200	15.0	125.0	3.8 Mb
09	12	1968	06	02	19	EASTERN CUDDAPAH BASIN	067	26.0	220.0	3.9 Mb
28	12	1968	05	30	54	KRISHNA-RAJAPET	224	17.8	150.0	4.1 Mb
03	01	1969	13	31	28	KODAIKANAL	184	38.0	333.0	4.0 Mb
16	01	1969	20	56	20	RAYACHOTI	077	18.2	150.0	4.7 Mb
05	02	1969	09	09	30	PAVAGADA	343	07.3	060.0	4.0 Mb



DY	MO	YEAR	HR	MN	SEC	PLACE	AZIMUTH DEG	P-S SEC	EPICENTRAL DISTANCE Km	MAGNITUDE
12	03	1969	15	49	44	N MADRAS	083	35.0	310.0	4.4 Mb
16	03	1969	07	48	58	CHITALDROOG	316	17.0	140.0	3.7 Mb
31	03	1969	01	06	43	MADANAPALLA	100	17.5	144.0	3.4 Mb
06	05	1969	20	18	58	KRISHNAGIRI	161	13.4	114.0	3.6 Mb
19	05	1969	00	03	32	DINDIGUL	162	41.7	374.0	4.2 Mb
04	06	1969	16	26	03	DHARMAPURI	163	21.5	175.0	4.7 Mb
13	06	1969	04	45	10	CHITTOR	111	18.5	155.0	3.4 Mb
13	06	1969	05	17	59	CHITTOR	111	18.5	155.0	3.4 Mb
24	06	1969	13	40	52	HUNSUR	220	23.8	200.0	4.1 Mb
01	07	1969	13	23	32	RAYACHOTI	068	18.2	150.0	4.5 Mb
04	07	1969	22	27	37	CUDDAPAH BASIN	046	18.2	150.0	4.2 Mb
12	07	1969	11	42	51	CHICKAMAGALUR	258	27.0	225.0	3.8 Mb
14	08	1969	20	01	43	CUDDAPAH	060	22.2	182.0	4.0 Mb
15	08	1969	06	50	45	MANDYA	182	17.4	144.0	3.3 Mb
18	08	1969	21	46	23	YELANDUR	198	39.9	356.0	3.7 Mb
08	09	1969	08	28	19	E MARGIN OF CUDDAPAH	077	25.5	216.0	3.8 Mb
21	09	1969	22	04	32	BANGALORE	163	14.7	122.0	4.0 Mb
27	09	1969	17	54	43	KODAIKANAL	194	41.0	367.0	4.8 Mb
29	09	1969	18	47	02	BANGALORE	162	14.8	122.0	3.8 Mb
05	10	1969	05	46	45	KANAKAPURA	192	15.3	126.0	-
10	11	1969	06	47	10	W THIRUPATHI	088	18.4	151.0	4.0 Mb
12	11	1969	05	30	59	ARAKALGUD	341	22.0	181.0	5.5 Mb
26	11	1969	05	37	43	RAMGIRI	355	13.7	116.0	3.7 Mb
03	01	1970	17	46	56	BAGEPALLI	072	07.0	061.0	-
09	01	1970	18	25	14	HASSAN/ARAIKORE	261	17.5	145.0	3.7 Mb
12	01	1970	15	33	03	KAVALI/ONGOLE	050	31.8	277.0	4.4 Mb
16	01	1970	03	06	20	KAVALI/ONGOLE	056	33.8	300.0	5.0 Mb
19	01	1970	02	23	46	MADDUR/MANDYA	195	13.9	117.0	5.3 Mb
12	02	1970	17	10	21	HASSAN REGION	237	20.5	166.0	5.2 Mb
12	02	1970	17	58	18	KRISHNAGIRI	148	12.0	110.0	3.4 Mb
20	02	1970	03	39	39	RAYADURG	342	13.1	110.0	3.8 Mb
16	03	1970	17	57	19	KAVALI/ONGOLE	052	33.2	294.0	3.8 Mb
29	03	1970	00	44	31	W CUDDAPAH	054	15.3	128.0	3.8 Mb
03	04	1970	02	27	11	SW CUDDAPAH	033	17.0	144.0	4.3 Mb
08	05	1970	02	33	30	BAGEPALLI	095	06.9	060.0	-
12	05	1970	06	59	39	SHIMOGA	279	23.5	200.0	3.7 Mb
13	05	1970	14	20	43	W THIRUPATHI	088	20.8	170.0	4.2 Mb
02	06	1970	18	26	13	CUDDAPAH BASIN	077	25.0	211.0	3.7 Mb
11	06	1970	03	25	17	ONGOLE	048	37.2	333.0	4.1 Mb
06	07	1970	16	11	31	BAGEPALLI	067	07.0	061.0	-
25	07	1970	12	48	39	RAYADURG	346	08.1	070.0	4.1 Mb
28	07	1970	04	00	14	S BANGALORE	164	14.5	122.0	3.9 Mb
11	08	1970	01	13	57	HASSAN	254	19.5	161.0	3.6 Mb
11	08	1970	09	22	23	VELLORE	140	19.5	161.0	3.5 Mb
02	09	1970	22	12	01	MANDYA/MALAVALLI	189	14.8	120.0	3.7 Mb
10	09	1970	15	33	18	KURNOOL	012	32.5	290.0	3.4 Mb
30	09	1970	05	43	38	BAGEPALLI	007	07.6	060.0	-
19	11	1970	03	04	22	KAVALI/ONGOLE	063	33.4	300.0	3.7 Mb
28	11	1970	13	27	22	BANGALORE	163	13.8	110.0	-
02	12	1970	16	26	57	ONGOLE	052	37.4	333.0	4.2 Mb

DY	MO	YEAR	HR	MN	SEC	PLACE	AZIMUTH DEG	P-S SEC	EPICENTRAL DISTANCE Km	MAGNITUDE
06	12	1970	17	18	31	KADIRI/THIRUPATHI	076	16.2	133.0	4.5 Mb
29	12	1970	11	08	28	OFF PONDY COAST	113	42.0	377.0	3.9 Mb
17	01	1971	14	00	14	MANDYA/MALAVALLI	193	15.3	125.0	4.0 Mb
27	01	1971	04	00	30	ARKONAM	107	28.0	244.0	3.5 Mb
17	02	1971	06	14	48	OFF CUDDALORE	122	44.0	400.0	3.5 Mb
24	02	1971	21	22	38	CHITALDROOG	303	15.0	122.0	-
06	03	1971	16	24	51	MANDYA/MALAVALLI	197	16.6	135.0	4.0 Mb
15	03	1971	20	30	15	KANAKAPURA	176	11.2	100.0	-
19	03	1971	07	09	32	KALYANDURG	342	12.9	110.0	-
19	03	1971	07	28	53	KALYANDURG	342	12.9	110.0	-
26	03	1971	16	32	47	KALYANDURG	343	13.4	110.0	-
27	03	1971	14	48	45	MANDYA/MALAVALLI	196	16.5	135.0	4.1 Mb
16	04	1971	06	37	38	THIRUVANNAMALAI	136	22.0	182.0	3.6 Mb
16	04	1971	06	51	54	THIRUVANNAMALAI	134	22.0	182.0	3.6 Mb
19	04	1971	06	11	58	RAYADURG	324	12.6	105.0	-
30	04	1971	09	05	19	KALYANDURG	342	13.1	110.0	-
13	05	1971	17	17	48	ONGOLE	045	39.3	355.0	3.4 Mb
15	05	1971	01	51	18	OFF COAST OF MADRAS	108	42.0	377.0	-
22	05	1971	14	23	28	KADIRI	066	13.3	110.0	4.1 Mb
23	05	1971	15	51	23	KANAKAPURA	174	15.0	123.0	4.1 Mb
27	05	1971	21	41	02	SANGAREDDIPET	003	46.0	422.0	-
30	05	1971	02	50	10	BANGALORE	159	08.5	077.0	3.8 Mb
31	05	1971	04	48	19	OFF MADRAS COAST	113	37.0	333.0	4.1 Mb
03	06	1971	08	29	13	KHAMMAM	041	49.8	490.0	4.2 Mb
05	06	1971	03	55	17	W THIRUPATHI	085	21.7	177.0	-
09	07	1971	18	40	46	ONGOLE	052	39.3	355.0	4.4 Mb
10	07	1971	21	38	47	KANAKAPURA	181	15.6	128.0	-
28	07	1971	00	07	49	ONGOLE	054	39.3	355.0	4.9 Mb
03	08	1971	11	12	45	NW VELLORE	069	26.0	220.0	3.0 Mb
04	08	1971	10	23	07	OFF PCNDICHERY	122	39.2	355.0	4.0 Mb
05	09	1971	18	34	57	METTUR DAM	179	23.0	188.0	3.5 Mb
14	09	1971	21	43	38	LOCAL	078	05.6	035.0	-
02	10	1971	12	41	33	HASSAN	249	24.9	210.0	3.6 Mb
14	10	1971	18	43	16	KADIRI	073	13.0	110.0	-
11	11	1971	19	16	37	GUDIBANDA	096	02.7	025.0	-
12	11	1971	20	31	12	KRISHNAGIRI	134	20.2	165.0	4.0 Mb
16	12	1971	12	33	29	YELANDUR	185	23.1	188.0	3.2 Mb
31	12	1971	01	23	36	ONGOLE	048	36.5	322.0	4.3 Mb
01	01	1972	11	26	25	MALVAN/WEST COAST	302	55.0	310.0	3.8 Mb
05	01	1972	19	40	33	S KURNOOL	019	29.5	233.0	3.5 Mb
13	01	1972	21	00	24	W ERNAKULAM	194	43.0	388.0	3.6 Mb
07	02	1972	19	29	46	S KGP	138	14.0	118.0	3.6 Mb
15	02	1972	13	34	34	KANAKAPURA	181	14.0	120.0	3.3 Mb
11	03	1972	16	02	26	ONGOLE	054	37.5	333.0	3.8 Mb
12	03	1972	05	25	40	OFF CANNANORE	238	37.5	333.0	3.8 Mb
16	03	1972	22	35	58	VELLORE	112	17.0	144.0	3.7 Mb
23	03	1972	13	16	36	N MADRAS	084	33.0	290.0	4.0 Mb
23	03	1972	14	15	23	MANDYA/MALAVALLI	180	14.0	115.0	3.4 Mb
16	05	1972	16	37	06	MANDYA/MALAVALLI	197	16.9	140.0	4.1 Mb
17	05	1972	10	00	17	MANDYA/MALAVALLI	196	16.9	140.0	4.5 Mb

DY	MO	YEAR	HR	MN	SEC	PLACE	AZIMUTH DEG	P-S SEC	EPICENTRAL DISTANCE Km	MAGNITUDE
10	07	1972	12	33	29	W MADRAS	104	32.5	288.0	3.9 Mb
30	07	1972	20	08	21	BHADRACHALAM	034	57.0	333.0	3.8 Mb
11	08	1972	15	56	20	RAYADURG	341	13.0	111.0	-
11	08	1972	18	47	50	RAYADURG	342	13.0	111.0	-
25	08	1972	20	29	31	HASSAN	248	20.5	072.0	3.9 Mb
03	09	1972	13	04	54	KAKINADA COAST	051	65.0	120.0	4.5 Mb
06	09	1972	11	12	59	KRISHNAGIRI	144	16.4	120.0	3.6 Mb
10	09	1972	16	59	52	ARAKALGD/HASSAN	235	23.5	200.0	4.9 Mb
14	09	1972	06	45	07	ONGOLE	049	38.4	345.0	4.1 Mb
19	09	1972	06	52	32	MANDYA	200	15.4	130.0	4.8 Mb
19	09	1972	13	12	28	SANGAREDDIPET/HYDERABAD	009	47.2	433.0	4.4 Mb
30	09	1972	08	02	35	ONGOLE	053	30.3	355.0	3.7 Mb
04	10	1972	12	58	55	CHANNARAYAPATNA/HASSAN	228	16.3	133.0	3.6 Mb
22	10	1972	21	44	24	ONGOLE	052	42.0	382.0	4.7 Mb
10	11	1972	06	21	44	W THIRUPATHI	080	20.5	166.0	3.3 Mb
11	11	1972	21	53	18	METTUR DAM	172	23.0	200.0	3.5 Mb
13	11	1972	06	36	28	METTUR DAM	172	23.0	200.0	4.0 Mb
13	11	1972	09	55	31	METTUR DAM	169	23.0	120.0	3.6 Mb
14	11	1972	20	41	05	KANAKAPURA	172	17.5	145.0	3.6 Mb
16	11	1972	03	12	36	KANAKAPURA	172	17.5	145.0	3.1 Mb
20	11	1972	03	18	21	KANAKAPURA	169	14.9	125.0	3.7 Mb
20	11	1972	03	20	04	KRISHNAGIRI	144	14.0	119.0	3.6 Mb
27	11	1972	03	38	22	KANAKAPURA	172	15.5	130.0	3.7 Mb
13	12	1972	08	34	01	BAGEPALLI	073	07.2	061.0	-
16	12	1972	01	23	27	BAGEPALLI	070	07.8	068.0	-
17	12	1972	12	19	21	ANEKAL/BANGALORE	157	14.8	125.0	3.7 Mb
19	12	1972	02	37	04	ANEKAL/BANGALORE	164	14.5	122.0	3.6 Mb
19	12	1972	14	38	51	ANEKAL/BANGALORE	158	12.4	115.0	3.1 Mb
19	12	1972	16	36	01	ANEKAL/BANGALORE	159	12.2	100.0	3.1 Mb
20	12	1972	04	39	28	ANEKAL/BANGALORE	158	12.5	104.0	3.4 Mb
27	12	1972	03	20	28	KRISHNAGIRI	144	17.4	144.0	3.6 Mb
01	01	1973	15	03	38	DHARMAPURI	168	23.0	190.0	3.4 Mb
02	01	1973	20	20	13	KALAHASTI	082	30.8	360.0	3.5 Mb
10	01	1973	19	11	39	MORCARA	239	29.3	255.0	4.4 Mb
25	01	1973	18	56	09	E DHARMAVARAM	032	15.1	122.0	3.7 Mb
31	01	1973	20	25	47	KANAKAPURA	182	15.0	122.0	3.4 Mb
25	02	1973	04	34	26	KANAKAPURA	181	13.2	110.0	3.1 Mb
28	02	1973	10	18	32	CUDDAPAH BASIN	061	25.5	211.0	3.3 Mb
28	02	1973	13	33	19	CUDDAPAH BASIN	061	25.5	211.0	3.5 Mb
16	03	1973	05	05	14	JAMMALAMADUGU	032	19.8	161.0	3.6 Mb
24	03	1973	09	51	48	UDAIGIRI	058	28.8	244.0	3.9 Mb
21	04	1973	06	02	26	VANIAMBADI	128	19.5	160.0	3.2 Mb
21	04	1973	16	43	05	VELLORE	119	19.0	155.0	-
24	04	1973	23	57	45	BHADRACHALAM	032	53.8	500.0	4.4 Mb
27	04	1973	02	52	26	VELLORE	119	19.0	155.0	3.7 Mb
01	05	1973	04	40	54	KANAKAPURA	182	15.5	130.0	4.7 Mb
04	05	1973	16	56	55	THIRUPATHI	091	23.7	200.0	3.8 Mb
29	08	1973	09	12	46	MANDYA/MALAVALLI	200	17.0	144.0	4.1 Mb
22	09	1973	20	00	33	CHICKAMAGALUR	267	28.0	244.0	4.4 Mb
22	09	1973	23	28	09	VANIAMBADI	133	20.3	166.0	3.4 Mb

DY	MO	YEAR	HR	MN	SEC	PLACE	AZIMUTH DEG	P-S SEC	EPICENTRAL DISTANCE Km	MAGNITUDE
20	10	1973	00	42	05	BANGALORE	190	10.2	088.0	3.9 Mb
21	12	1973	10	48	10	KRISHNAGIRI	148	17.5	144.0	4.0 Mb
31	12	1973	03	52	27	MADANAPALLI	094	15.7	129.0	3.1 Mb
15	01	1974	01	06	20	KRISHNAGIRI	156	15.4	128.0	3.1 Mb
15	01	1974	02	01	40	KRISHNAGIRI	151	15.4	128.0	3.4 Mb
23	01	1974	15	43	22	CUDDAPAH BASIN	053	22.0	183.0	3.2 Mb
24	01	1974	06	41	50	MADANAPALLI	098	17.9	145.0	3.3 Mb
24	01	1974	16	05	18	MADANAPALLI	099	19.3	158.0	3.4 Mb
24	01	1974	16	44	17	CUDDAPAH BASIN	050	21.0	170.0	3.2 Mb
25	01	1974	05	43	16	YELANDUR	197	21.6	178.0	4.2 Mb
25	01	1974	15	42	40	CUDDAPAH BASIN	056	21.3	175.0	3.2 Mb
25	01	1974	16	37	33	MADANAPALLI/CHITTOOR	095	18.7	155.0	3.2 Mb
27	01	1974	10	03	39	CUDDAPAH BASIN	059	21.3	175.0	3.2 Mb
28	01	1974	15	59	14	CUDDAPAH BASIN	057	20.5	170.0	-
03	02	1974	13	46	40	CUDDAPAH BASIN	051	22.0	179.0	-
07	03	1974	14	40	58	KRISHNAGIRI	138	16.3	133.0	4.2 Mb
11	03	1974	03	06	41	BANGALORE	170	09.0	075.0	-
13	05	1974	16	08	10	MADANAPALLI	100	16.9	138.0	3.5 Mb
02	10	1974	03	55	38	BANGALORE	180	16.2	089.0	-
03	10	1974	11	54	53	THIRUPATHI	081	22.3	182.0	3.5 Mb
24	10	1974	23	26	20	HASSAN	234	17.8	145.0	4.1 Mb
07	11	1974	03	16	32	RAYADURG	348	10.6	090.0	-
09	11	1974	13	47	23	RAYADURG	345	10.2	086.0	-
09	12	1974	18	17	39	KALYANDURG	341	12.2	102.5	3.5 Mb
11	12	1974	16	36	03	KALYANDURG	337	12.2	102.5	3.5 Mb
17	12	1974	18	47	26	KALYANDURG	341	12.4	105.0	-
17	12	1974	19	35	05	HOLALKORE	287	19.2	157.0	-
19	12	1974	10	07	41	KOLLEGAL	183	18.2	149.0	3.5 Mb
20	12	1974	03	39	07	KRISHNAGIRI	154	13.8	116.0	3.7 Mb
22	12	1974	17	22	18	RAYADURG	341	13.2	111.0	-
07	01	1975	18	25	07	MALAVALLI	187	13.7	115.0	3.1 Mb
26	01	1975	08	29	02	CHICKAMAGALUR	237	25.0	211.0	3.3 Mb
27	01	1975	20	12	08	CHITALDROOG	317	12.0	102.0	4.0 Mb
29	01	1975	09	23	06	CHICKAMAGALUR	274	23.6	197.0	3.7 Mb
30	01	1975	20	58	32	CHICKAMAGALUR	274	23.8	200.0	3.8 Mb
30	01	1975	22	33	35	BHADRACHALAM	047	57.0	530.0	4.0 Mb
28	02	1975	17	22	20	MERCARA	252	27.2	253.0	3.8 Mb
28	02	1975	17	27	47	CHICKAMAGALUR	268	23.5	198.0	3.2 Mb
01	03	1975	17	55	14	SHIMOGA-CHICKAMAGALUR	283	23.9	200.0	3.9 Mb
04	03	1975	15	59	31	KRISHNAGIRI	147	16.3	134.0	3.6 Mb
23	03	1975	23	27	02	KRISHNAGIRI	133	16.5	135.0	3.7 Mb
28	03	1975	14	28	05	NELLORE	072	29.0	250.0	3.5 Mb
12	05	1975	15	10	07	SHIMOGA	298	29.4	255.0	4.7 Mb
23	11	1975	02	03	21	CUDDAPAH BASIN	032	21.0	172.0	3.4 Mb
03	12	1975	06	07	53	CHICKAMAGALUR	250	35.0	210.0	3.5 Mb
06	12	1975	00	14	40	KRISHNAGIRI	147	14.8	121.0	3.4 Mb
06	12	1975	02	46	13	KANAKAPURA/BANGALORE	175	13.5	116.0	3.9 Mb
11	12	1975	16	06	06	BAGEPALLI	073	05.6	045.0	-
15	12	1975	05	48	19	VELLORE	122	22.0	178.0	-
15	12	1975	11	48	36	CHITTOOR	099	20.0	166.0	3.8 Mb

DY	MO	YEAR	HR	MN	SEC	PLACE	AZIMUTH DEG	P-S SEC	EPICENTRAL DISTANCE Km	MAGNITUDE
17	12	1975	02	41	54	CHICKAMAGALUR	254	28.1	237.0	3.6 Mb
21	12	1975	19	52	16	KRISHNAGIRI	144	17.0	135.0	3.6 Mb
23	12	1975	17	01	26	BAGEPALLI	068	06.4	050.0	-
23	12	1975	18	41	14	CUDDAPAH CONTACT	060	20.5	161.0	4.0 Mb
23	12	1975	18	45	10	CUDDAPAH CONTACT	066	20.8	160.0	3.5 Mb
23	12	1975	22	40	40	PAVAGADA	355	08.6	072.0	-
25	12	1975	21	06	10	BAGEPALLI	064	08.0	068.0	-
25	12	1975	21	06	40	BAGEPALLI	064	08.0	068.0	-
28	12	1975	15	06	58	BANGALORE	161	10.5	090.0	-

**APPENDIX - II B**  
**LIST OF EARTHQUAKES (=> M 3.0) (1977 - 1988) REPORTED BY**  
**GAURIBIDANUR SEISMIC ARRAY, BHABHA ATOMIC RESEARCH CENTRE (BARC)**

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE (MDS)
30	09	1977	11	59	47	18.08	81.52	3.3 Ms
12	10	1977	08	59	51	09.70	82.89	3.3 Ms
04	11	1977	18	57	21	17.45	74.07	3.9 Ms
04	11	1977	20	35	49	17.45	74.08	3.6 Ms
04	11	1977	20	54	47	17.41	74.12	4.0 Ms
01	12	1977	11	02	15	15.03	75.98	3.9 Ms
07	12	1977	08	17	00	13.08	78.23	3.3 Ms
08	12	1977	10	27	03	13.06	78.22	3.0 Ms
07	02	1978	03	10	53	13.55	78.37	3.0 Ms
01	03	1978	07	49	09	10.98	75.37	3.0 Ms
01	05	1978	07	40	03	17.45	80.64	3.1 Ms
04	05	1978	13	50	23	17.34	73.94	3.8 Ms
04	06	1978	12	49	12	17.45	74.15	3.9 Ms
06	07	1978	02	13	16	13.06	78.22	3.0 Ms
08	08	1978	12	17	28	13.44	77.82	3.9 Ms
03	09	1978	08	26	49	13.10	78.24	3.4 Ms
03	09	1978	09	16	49	13.08	78.23	3.3 Ms
27	09	1978	03	54	26	13.06	78.22	3.0 Ms
24	10	1978	21	25	40	07.44	80.16	3.2 Ms
09	06	1979	06	52	13	12.40	77.94	3.2 Ms
29	08	1979	07	41	07	18.24	81.32	3.0 Ms
10	10	1979	13	04	50	16.97	79.48	3.5 Ms
22	10	1979	19	39	58	16.85	79.28	3.0 Ms
30	03	1980	13	31	55	12.57	83.16	4.4 Ms
12	04	1980	07	28	47	17.53	74.48	3.4 Ms
01	05	1980	00	39	38	20.21	77.06	4.2 Ms
03	05	1980	06	53	05	12.74	77.33	4.0 Ms
03	05	1980	19	53	51	12.87	77.36	3.1 Ms
02	06	1980	08	35	29	17.80	74.55	3.2 Ms
19	08	1980	22	32	13	17.14	74.13	3.9 Ms
03	09	1980	05	02	15	14.47	76.62	3.2 Ms
20	09	1980	07	29	01	17.65	74.49	4.6 Ms
20	09	1980	10	45	54	17.47	74.06	4.6 Ms
21	09	1980	08	18	43	17.55	74.06	3.9 Ms
21	09	1980	18	19	27	17.53	74.48	3.9 Ms
27	09	1980	08	54	56	17.49	74.12	3.8 Ms
21	10	1980	05	32	50	17.39	74.13	3.2 Ms
26	10	1980	01	32	29	17.67	74.37	3.6 Ms
05	11	1980	07	37	26	17.67	74.37	3.6 Ms
26	11	1980	21	26	00	17.49	74.12	3.8 Ms
07	12	1980	05	28	53	17.49	74.12	3.6 Ms
31	12	1980	17	51	56	17.98	75.05	3.6 Ms
04	01	1981	11	54	03	17.42	74.03	3.6 Ms
11	01	1981	04	16	41	09.92	76.61	3.0 Ms
12	01	1981	00	15	19	17.67	74.37	3.4 Ms
12	01	1981	00	40	40	17.67	74.37	3.8 Ms
13	01	1981	11	42	25	17.60	74.42	3.6 Ms
14	01	1981	21	26	46	17.35	74.09	3.8 Ms
25	01	1981	20	30	45	17.52	74.16	4.2 Ms
03	02	1981	22	16	33	17.49	74.12	3.6 Ms

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE (MDS)
03	02	1981	23	05	12	17.49	74.12	3.6 Ms
17	02	1981	11	39	35	09.95	76.80	3.3 Ms
24	02	1981	12	10	53	10.56	74.06	4.4 Ms
19	04	1981	15	02	29	17.58	73.96	3.7 Ms
27	04	1981	09	28	04	17.48	73.97	4.2 Ms
08	07	1981	07	40	18	17.62	74.14	3.4 Ms
22	07	1981	16	10	38	14.49	79.90	3.2 Ms
17	09	1981	08	10	32	17.38	74.59	3.6 Ms
17	09	1981	08	32	18	17.65	74.49	3.9 Ms
09	10	1981	14	31	36	16.68	83.56	4.2 Ms
26	10	1981	02	48	09	10.80	82.96	3.4 Ms
02	11	1981	23	15	50	15.85	80.07	3.7 Ms
04	12	1981	08	22	18	18.16	81.42	3.0 Ms
08	12	1981	11	24	11	16.15	80.75	3.1 Ms
16	12	1981	02	46	22	18.57	80.72	3.3 Ms
13	01	1982	00	27	29	11.75	83.37	3.8 Ms
27	01	1982	11	51	14	13.06	78.22	3.3 Ms
07	02	1982	12	34	29	13.07	78.21	3.0 Ms
13	03	1982	18	42	17	13.06	78.22	4.0 Ms
10	05	1982	18	28	38	18.07	75.03	3.8 Ms
08	08	1982	14	36	37	17.46	73.94	4.1 Ms
08	09	1982	08	29	47	13.10	78.20	3.0 Ms
11	09	1982	02	41	34	18.12	75.13	4.3 Ms
06	10	1982	03	52	20	11.15	83.62	3.7 Ms
10	10	1982	08	15	52	17.83	74.61	3.6 Ms
03	11	1982	07	43	05	13.06	78.21	3.0 Ms
04	01	1983	07	37	16	17.80	74.73	3.9 Ms
10	01	1983	11	21	11	17.69	74.72	3.9 Ms
05	02	1983	15	43	39	13.08	78.25	3.4 Ms
05	02	1983	22	53	38	17.39	74.13	4.3 Ms
21	03	1983	15	02	09	17.27	73.82	4.2 Ms
24	03	1983	14	05	10	15.52	80.21	3.4 Ms
27	03	1983	11	17	25	13.05	78.20	3.0 Ms
29	03	1983	12	51	02	15.55	80.44	3.0 Ms
08	04	1983	11	20	05	18.17	81.29	3.0 Ms
11	04	1983	08	15	48	15.25	84.07	3.2 Ms
22	04	1983	04	47	44	12.63	77.18	3.0 Ms
24	04	1983	10	04	02	15.59	80.31	3.7 Ms
24	04	1983	14	30	10	15.66	80.23	3.4 Ms
13	05	1983	05	53	42	17.50	74.03	4.2 Ms
18	05	1983	21	32	41	15.44	79.88	3.0 Ms
20	05	1983	04	00	50	15.52	80.21	3.9 Ms
28	05	1983	18	08	49	17.22	73.86	4.2 Ms
09	06	1983	05	47	41	15.70	80.33	3.0 Ms
14	06	1983	09	46	49	17.53	74.48	3.9 Ms
20	06	1983	05	47	13	17.42	73.80	3.5 Ms
30	06	1983	06	59	29	17.50	78.76	4.2 Ms
05	07	1983	22	57	59	12.20	79.84	3.2 Ms
14	08	1983	10	09	08	15.58	80.27	3.2 Ms
17	08	1983	09	37	01	18.95	73.96	4.1 Ms

DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE (MDS)
14	09	1983	21	53	51	19.23	74.73	4.8 Ms
15	09	1983	12	00	26	15.75	80.55	3.8 Ms
25	09	1983	18	55	29	17.80	74.56	4.6 Ms
27	09	1983	10	13	48	17.39	74.13	3.6 Ms
27	09	1983	12	08	35	17.57	74.37	3.6 Ms
28	09	1983	11	43	24	17.83	75.16	3.2 Ms
01	10	1983	08	55	37	17.44	74.09	4.5 Ms
01	10	1983	11	41	29	13.06	78.22	3.3 Ms
07	10	1983	15	02	35	10.98	73.82	4.3 Ms
01	11	1983	20	43	07	17.32	74.05	3.4 Ms
12	02	1984	07	28	04	17.45	74.07	3.1 Ms
15	03	1984	12	18	22	17.09	73.94	3.5 Ms
20	03	1984	10	45	22	12.55	77.77	4.4 Ms
28	03	1984	02	53	48	17.27	83.27	4.2 Ms
28	03	1984	19	13	37	20.20	76.37	3.7 Ms
14	04	1984	19	42	11	14.40	83.93	4.4 Ms
24	04	1984	17	35	27	18.27	78.82	3.4 Ms
27	04	1984	02	00	19	18.16	79.42	3.4 Ms
30	04	1984	16	36	01	17.49	74.12	3.8 Ms
20	06	1984	18	22	35	20.04	78.52	3.7 Ms
27	06	1984	15	56	43	16.43	80.46	3.4 Ms
03	07	1984	08	32	31	13.10	78.21	3.4 Ms
12	07	1984	09	46	30	13.10	78.21	3.0 Ms
31	07	1984	21	58	17	16.48	80.68	3.0 Ms
23	08	1984	06	25	51	17.16	82.55	3.4 Ms
04	09	1984	02	28	27	18.31	72.44	3.7 Ms
12	09	1984	03	34	07	13.06	78.22	3.4 Ms
24	09	1984	07	47	18	19.68	74.43	4.3 Ms
25	09	1984	07	46	37	17.49	73.90	4.5 Ms
28	09	1984	14	25	14	10.67	83.55	3.5 Ms
14	11	1984	11	58	22	17.31	73.87	4.5 Ms
27	11	1984	17	19	43	12.53	78.69	4.1 Ms
28	11	1984	02	29	49	12.52	78.74	3.3 Ms
03	12	1984	17	02	58	12.57	78.73	4.3 Ms
03	12	1984	17	34	12	12.56	78.74	3.3 Ms
03	12	1984	19	17	19	12.56	78.74	3.5 Ms
20	12	1984	14	47	00	17.21	74.36	3.4 Ms
21	12	1984	17	26	59	17.05	74.03	4.2 Ms
06	01	1985	12	51	00	20.22	78.43	4.2 Ms
07	05	1985	08	11	50	13.56	77.41	3.1 Ms
27	05	1985	06	57	14	17.72	74.44	3.7 Ms
19	07	1985	16	54	39	13.09	78.22	3.1 Ms
22	08	1985	12	54	24	13.05	78.24	3.2 Ms
23	08	1985	11	39	51	13.11	78.20	3.4 Ms
07	09	1985	12	38	51	17.82	81.70	3.2 Ms
22	09	1985	07	20	52	11.67	79.06	3.3 Ms
27	09	1985	09	06	47	19.39	78.91	3.0 Ms
30	09	1985	20	22	36	17.43	74.09	3.6 Ms
29	10	1985	08	32	00	17.66	74.46	4.0 Ms
29	10	1985	13	58	51	17.52	74.16	4.2 Ms



DY	MO	YEAR	HR	MN	SEC	LAT DEG N	LONG DEG E	MAGNITUDE (MDS)
08	11	1985	21	34	36	07.66	74.27	3.3 Ms
15	11	1985	07	02	53	17.55	74.35	4.1 Ms
21	11	1985	09	28	24	17.81	74.52	4.1 Ms
21	11	1985	11	37	57	17.55	74.20	3.7 Ms
21	11	1985	14	30	39	17.49	73.98	3.8 Ms
15	12	1985	13	10	55	17.79	74.54	4.2 Ms
28	12	1985	14	52	15	17.45	73.93	3.8 Ms
10	01	1986	05	56	15	17.26	81.01	3.2 Ms
13	01	1986	00	32	47	14.51	84.29	3.5 Ms
23	01	1986	02	29	00	09.94	76.36	3.0 Ms
15	02	1986	15	15	59	17.38	73.99	3.1 Ms
20	02	1986	00	50	48	17.60	74.26	3.2 Ms
25	02	1986	21	18	34	18.80	73.17	4.2 Ms
27	02	1986	02	53	14	16.39	80.61	3.2 Ms
27	02	1986	05	04	24	16.39	80.61	3.1 Ms
31	03	1986	18	13	23	16.18	80.23	3.6 Ms
03	04	1986	09	48	31	18.09	72.83	3.8 Ms
06	04	1986	05	28	25	17.49	74.12	4.0 Ms
09	04	1986	08	58	36	18.34	82.04	3.1 Ms
26	04	1986	23	30	54	19.46	74.12	4.5 Ms
29	04	1986	07	25	23	12.83	80.84	3.2 Ms
22	05	1986	18	08	13	20.32	77.56	4.1 Ms
24	05	1986	13	52	52	17.45	74.07	3.6 Ms
02	06	1986	07	27	48	17.96	81.84	3.0 Ms
30	06	1986	18	21	14	17.64	74.32	3.6 Ms
01	07	1986	16	57	22	19.36	73.82	4.3 Ms
04	07	1986	17	28	16	07.71	78.96	3.0 Ms
31	07	1986	22	42	21	18.36	72.55	4.0 Ms
26	08	1986	14	37	34	19.25	73.66	4.1 Ms
26	08	1986	14	48	07	19.65	74.38	4.2 Ms
22	09	1986	21	09	38	13.08	78.23	3.2 Ms
02	10	1986	08	15	24	17.49	74.12	3.9 Ms
14	10	1986	16	36	30	13.03	78.21	3.1 Ms
29	10	1986	14	49	21	17.30	74.03	3.8 Ms
14	11	1986	09	08	46	17.78	74.37	3.5 Ms
03	12	1986	15	51	43	13.10	78.21	3.3 Ms
20	12	1986	18	14	47	13.07	78.24	3.1 Ms
02	02	1987	09	18	42	17.61	74.31	3.3 Ms
16	02	1987	08	11	49	17.48	83.08	3.1 Ms
16	02	1987	13	20	55	17.52	74.02	3.8 Ms
17	03	1987	10	48	21	13.10	78.20	3.2 Ms
21	04	1987	08	30	01	17.16	73.56	3.4 Ms
26	04	1987	07	57	34	17.53	73.94	3.8 Ms
24	05	1987	08	52	03	16.27	83.02	3.1 Ms
21	07	1987	10	26	25	17.88	74.68	3.5 Ms
03	08	1987	04	13	49	14.00	80.49	3.0 Ms
24	08	1987	10	39	08	14.50	78.56	3.0 Ms
30	09	1987	01	44	41	17.37	73.94	4.0 Ms
26	10	1987	00	57	34	19.31	73.82	4.0 Ms
16	11	1987	08	36	16	16.85	82.52	3.1 Ms

DY MO YEAR	HR MN SEC	LAT DEG N	LONG DEG E	MAGNITUDE (MDS)
03 12 1987	18 15 47	15.52	80.33	4.2 Ms
18 12 1987	11 09 33	10.21	82.44	4.4 Ms
22 01 1988	08 00 43	16.19	78.78	3.3 Ms
22 01 1988	08 02 10	15.40	78.36	3.3 Ms
27 01 1988	07 36 28	17.84	72.90	3.7 Ms
04 02 1988	14 14 37	15.18	79.94	3.2 Ms
09 03 1988	15 41 39	15.23	80.03	3.1 Ms
16 03 1988	04 13 59	14.95	79.16	3.0 Ms
21 03 1988	21 22 54	14.42	80.51	4.1 Ms
01 05 1988	15 45 56	07.80	76.38	4.4 Ms
19 05 1988	14 58 27	12.16	79.40	3.8 Ms
07 06 1988	03 05 48	08.58	77.13	4.5 Ms
07 06 1988	15 24 48	08.58	77.13	4.3 Ms
08 06 1988	03 03 34	08.75	77.53	3.5 Ms
24 07 1988	05 33 09	17.17	74.26	4.7 Ms
24 07 1988	05 33 20	17.41	74.11	4.7 Ms
26 07 1988	15 21 43	12.76	75.85	3.0 Ms
15 08 1988	22 16 27	17.56	74.13	3.9 Ms
15 08 1988	23 26 26	17.55	74.06	3.9 Ms
26 08 1988	08 05 29	08.94	77.68	3.2 Ms