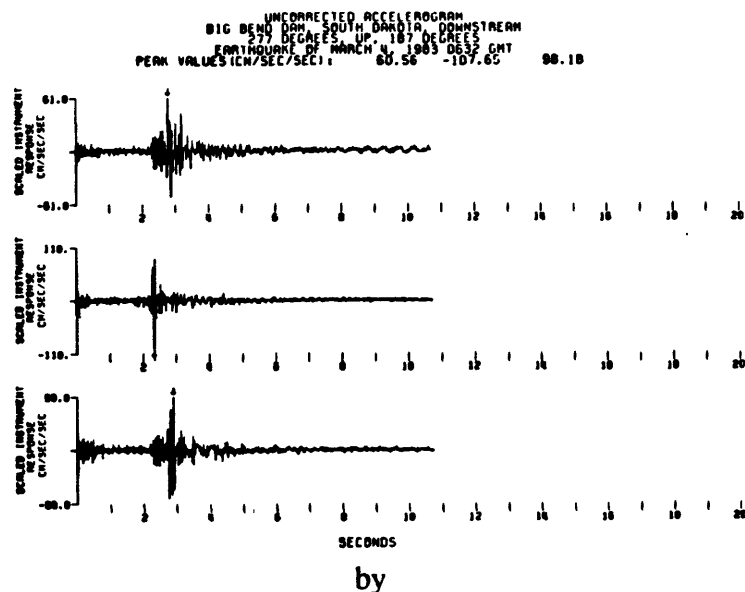


U. S. DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

DIGITIZED STRONG-MOTION ACCELEROGRAMS  
OF NORTH AMERICA THROUGH 1986



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OPEN-FILE REPORT 89-83

This report is preliminary and has not been reviewed for conformity with  
U.S. Geological Survey editorial standards and stratigraphic nomenclature.

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## INTRODUCTION

As part of the National Earthquake Hazards Reduction Program (NEHRP), the U.S. Geological Survey (USGS) has responsibilities to maintain a cooperative network of approximately 1000 strong-motion accelerographs located in 42 states, to process the network data, and to distribute these data to interested parties in the engineering and seismological communities. For some time now, there have been many federal, state, university, and private organizations who have operated strong-motion accelerographs for one purpose or another, and the availability of inexpensive but very sophisticated desk-top computers has allowed for almost as many processing centers. This combination of circumstances has greatly expanded the strong-motion data base in the past decade. This has come at the price, however, of some confusion as to who has what data and/or processing procedures.

In part because of these responsibilities, in part because of the great demand for a uniformly processed strong-motion data base, and in part because of the recently developed mass-storage capabilities of read-only memory compact discs (CD-ROM's), the USGS has undertaken the task of inscribing the entire set of Strong Motion Accelerograms of North America on CD-ROM's. This work is proceeding under the direction of D.A. Foutch, Department of Civil Engineering, University of Illinois; T.C. Hanks, U.S. Geological Survey; and K. Jacob, Lamont-Doherty Geological Observatory, Columbia University.

This task has all the appearances of a straightforward, albeit tedious, bookkeeping exercise in locating, collecting, and systematically ordering a body of data that already exists. In fact, a host of issues are involved in selecting, formatting, and presenting these data, most of which we hope we have identified in a letter soliciting opinions on these matters from approximately 60 of our colleagues around the country. We reproduce this letter in Appendix I to emphasize that further commentary on this project is still welcome, especially at a time when we can still act upon it.

The body of this report is a chronological listing of 1512 strong-motion accelerograms written by 501 North American earthquakes. The list is preliminary. The primary purpose of this report is to solicit the help of our readers in identifying strong-motion accelerograms that should be part of the final data base (but are overlooked here).

We have taken "North America" to mean the continent, from the Canal Zone through U.S. holdings in the Aleutian Islands. The time frame for this data set is 1933 through 1986, 1933 being the year of the world's first strong-motion accelerograms (for the Long Beach earthquake of March 11, 1933;  $M=6.2$ ). We have decided to terminate the data set at the end of 1986 to avoid any possible concern about research priorities for more recently obtained data (principally the Whittier Narrows earthquakes of October 1987, and the Superstition Hills earthquakes of November 1987).

In most cases as used here, a strong-motion accelerogram refers to an analog recording of three components of acceleration written on photographic film. The bulk of the records listed here originated in this form. Most conventional strong-motion accelerographs trigger when ground motion exceeds a threshold of  $\approx 1\%$ g. Many such records have never been digitized because the overall motion wasn't strong enough to be of seismological or engineering interest. We have, in general, ignored the subset of undigitized film records and are not contemplating an extensive effort to digitize (or redigitize) existing records.

Strong-motion accelerograms may measure the motion of the ground at or near the Earth's surface, the response of a structure to earthquake shaking, or a combination of both. We have in mind two basic data sets, one for "ground" motion and one for structural response. The ground motion data set is the one presented here. "Ground-level" is a more appropriate descriptor, since this data set includes basement or first-floor records from major structures and other records that do not qualify as free-field. The structural response data set will include all basement records, of course, and any accelerograms that might help to define soil-structure interaction effects, such as those obtained at the Hollywood Storage site over the years, for example. The two data sets will overlap, then, to this extent. We are, as yet, unsure whether both sets can be inscribed on a single CD-ROM.

Digital-recording strong-motion accelerographs have been in use for about a decade, and are generating more and more data. The principal value of such instruments is that data from them are immediately available in digital form, thereby greatly expanding the digital data set for small-magnitude earthquakes. As such, records from digital strong-motion accelerographs have had a significant impact on our listing here, as described in the following paragraph.

One can agonize almost endlessly as to what constitutes strong motion and, by consequence, what records to include in a data set such as this one. We use the following criteria for including a record in our data set. First, the accelerograms must exist in digital format. While we can imagine digitizing (or redigitizing) some accelerograms, this will be measured in units of dozens, not hundreds, of records. Second, we have decided to include all digital records obtained from "permanent" stations, temporary stations being deployed almost entirely for aftershock sequences. The idea here is to have a wide range of amplitude for at least some stations, to provide data for strong-vs.-weak motion studies and site-response studies. Digital-recording instruments provide the great bulk of the small-motion records, which would never have been digitized had they been recorded in analog form. Third, we have set a magnitude threshold of  $M \geq 5$  for records obtained from temporary installations. We have also included about 100 of the best records from the Oroville aftershock sequence of August-September, 1975, for which an unusually complete data set was obtained for events as small as  $M = 3\frac{1}{2}$ . Finally, we intend to make a special effort to collect close-in digital data for the largely aseismic regions of the continent east of the Rocky Mountains Cordillera, including records other than strong-motion accelerograms.

To reiterate, our primary purpose in this report is to make this data set as complete as possible, within the perimeter described above. We invite our readers to inspect closely the following list of records for those that have been overlooked or omitted. Beyond these tasks of listing, obtaining, and ordering these records, we have to decide important issues concerning the presentation and format of the records on the CD-ROM, as the letter in the Appendix indicates. Commentary on these matters is welcome as well.

## PRIMARY DATA SOURCES

Most of the early data (1933-1971) is included in the Caltech Blue Book Series (Caltech 1969-74). These data were collected by the predecessors of the National Strong-Motion Instrumentation Network, USGS, and processed by the Earthquake Engineering Research Laboratory at the California Institute of Technology. The Instituto Ingenieria of the Universidad Nacional Autonoma de Mexico (UNAM) has a sizable (>400) catalog of digital records from various locations in Mexico (Anderson and Mena, 1987). Dr. J. Anderson at the Seismology Lab, Mackay School of Mines, University of Nevada at Reno (formerly at UC San Diego) has provided a list of records collected from the Guerrero digital array in Mexico, which UNAM/UCSD has been operating since 1985 (Anderson and others, 1985; Anderson, 1987). Following the 1971 San Fernando earthquake, records from the national network operated by the USGS have been processed by the USGS, described in a series of USGS Open-File Reports, and disseminated by the National Geophysical Data Center, NOAA, in Colorado. The California Division of Mines and Geology collect, process and distribute accelerograms from California and from the 1986 San Salvador earthquake (Huang, and others, 1986). Lamont-Doherty Geological Observatory of Columbia University monitors the Alaskan subduction zone (Beavan and Jacob, 1989). The U.S. Army Corps of Engineers has collected records from dams in Idaho and New Hampshire (Chang, 1985; 1987). Saint Louis University (SLU) provided a data list from the New Madrid area (Herrmann, 1977). Canadian records are from the Geological Survey of Canada (Weichert and others, 1982; 1986). Southern California Edison monitors instruments at several sites in southern California and the Sierra (Ostrom, 1988). Data from the larger aftershocks of the 1985 Michoacan earthquake are provided by the Centro de Investigacion Cientifica y de Educacion Superior de Ensenada and University of California, Santa Cruz (Munguia, and others, 1986). Accelerograms from the 1984 Morgan Hill earthquake, apart from those of the USGS and CDMG, were written at facilities owned by IBM and processed by Kinematics (Kinematics, 1984a; 1984b). The record from the 1986 Painesville, Ohio, mainshock was written at the Perry Nuclear Power Plant, owned by the Cleveland Electric Company (Hayner, 1987).

## Secondary Sources

Much of our information about earthquakes and accelerograms is from previous catalogs. The following were especially useful: Coffman and Godeaux (1985) provide a catalog of digital accelerograms distributed by the National Geophysical Data Center, covering 1933-1984. Their primary sources for our area of concern are the U.S. Geological Survey, the U.S. Coast and Geodetic Survey (prior to 1973), the Caltech Blue Book Series, The Universidad Nacional Autonoma de Mexico, the University of California at San Diego (UCSD), the California Division of Mines and Geology, and Saint Louis University. Fugro (1980) compiled a catalog from the Caltech Blue Book Series, the USGS, CDMG, SLU, UCSD, Caltech and the University of Southern California (USC). Jack Benjamin and Associates provided us with their catalog drawn from various sources (Khemici, 1987).

Conversations and correspondence with the following individuals were helpful in ascertaining the existence of various records and/or catalogs or in obtaining permission to use them: J. Anderson, K. Campbell, D. Parker, D. Ostrom, W. Savage, O. Khemici, J. Reed, R. Herrmann, K. Jacob, J. Chu, M. Hayner, G. Segal, J. Beaven, C.B. Crouse, J. Beck, A. Shakal, D. Weichert, F. Chang, A. Kiremidjian, M. Trifunac, K. McNally, G. Simila, E. Mena, J. Prince, W. Joyner, D. Boore, P. Mork, and R. Borchardt.

## The Catalog

The catalog on the CD-ROM will consist of an index file and a series of acceleration time history files. In the interest of portability, the files will be in ASCII format. Space considerations that have required blocked binary formats on tape in the past are not expected to be a problem with CD-ROM. The index file will contain basic information about the earthquakes, such as location and magnitude, and about the recording stations, such as location, epicentral distance and peak acceleration. This file can be used as input into the user's data base management system. It can be searched for records that meet the criteria the user chooses. The files containing those records can then be retrieved from the CD-ROM. The time history files will have a

header containing detailed information about the earthquake and the recording station (location, instrument characteristics, *etc.*). The header will be followed by uncorrected evenly sampled (200 points per second) acceleration values, with one file for each component of each record. For those who wish to compute instrument-corrected and filtered acceleration, velocity, displacement or response spectra from the time histories, the USGS is planning to make available a PC-compatible version of the AGRAM accelerogram processing package (Converse, 1985).

### Reader Input

Our goal is to make this catalog as complete as possible. With this in mind, we are asking for the help of our colleagues with interests in this field, especially those who maintain strong-motion instruments or process records. We request that anyone knowing of obscure or unpublished records, or records collected by agencies other than those listed in our sources, look for those records in our list and contact us if they are missing. As stated previously, we are looking for any digital strong motion acceleration records from North American continent or Hawaiian earthquakes written in 1986 or earlier at permanent, ground-level recording stations, or for temporary stations that have recorded earthquakes in areas of low seismicity, or earthquakes anywhere with  $M \geq 5.0$ . If there are any records that you think should be included, please let us know. The authors can be contacted at the U.S. Geological Survey, 345 Middlefield Road, Mail Stop 977, Menlo Park, CA 94025, or call Linda Seekins at (415) 329-5661, FTS: 459-5661.

### Acknowledgments

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List of Digitized Accelerograms

Date		Earthquake	Recording Station
10-mar-1933 17:54	pst	Long Beach, CA	Vernon, CMD Terminal Bldg
10-mar-1933 17:54	pst	Long Beach, CA	Long Beach, Public Util Bldg
10-mar-1933 17:54	pst	Long Beach, CA	Los Angeles, Subway Term Bldg
02-oct-1933 01:10	pst	Southern California	L.A., Hollywood Strg Bldg
06-jul-1934 14:49	pst	Eureka, CA	Ferndale, Old City Hall
30-dec-1934 05:52	pst	Lower California	El Centro, Imper Val Irr Dist
31-oct-1935 11:37	ast	Helena, MT	Helena, Federal Building
31-oct-1935 11:37	ast	Helena, MT	Helena, Carroll College
31-oct-1935 12:18	ast	Helena, MT as	Helena, Federal Building
21-nov-1935 20:58	ast	Helena, MT as	Helena, Federal Building
28-nov-1935 07:42	ast	Helena, MT as	Helena, Federal Building
06-feb-1937 20:42	pst	Humboldt Bay, CA	Ferndale, Old City Hall
12-apr-1938 08:25	pst	Imperial Valley, CA	El Centro, Imper Val Irr Dist
05-jun-1938 18:42	pst	Imperial Valley, CA	El Centro, Imper Val Irr Dist
06-jun-1938 04:35	pst	Imperial Valley, CA	El Centro, Imper Val Irr Dist
11-sep-1938 22:10	pst	Northwest Calif #1	Ferndale, Old City Hall
18-may-1940 20:37	pst	El Centro, CA	El Centro, Imper Val Irr Dist
18-may-1940 20:37	pst	El Centro as (+45.5 - ms loc)	El Centro, Imper Val Irr Dist
18-may-1940 20:37	pst	El Centro as (+84.0 - ms loc)	El Centro, Imper Val Irr Dist
18-may-1940 20:37	pst	El Centro as (+101.5 - ms loc)	El Centro, Imper Val Irr Dist
18-may-1940 20:37	pst	El Centro as (+125.0 - ms loc)	El Centro, Imper Val Irr Dist
18-may-1940 20:37	pst	El Centro as (+154.0 - ms loc)	El Centro, Imper Val Irr Dist
18-may-1940 20:37	pst	El Centro as (+203.0 - ms loc)	El Centro, Imper Val Irr Dist
18-may-1940 20:37	pst	El Centro as (+242.0 - ms loc)	El Centro, Imper Val Irr Dist
18-may-1940 20:37	pst	El Centro as (+282.0 - ms loc)	El Centro, Imper Val Irr Dist
18-may-1940 20:37	pst	El Centro as (+313.0 - ms loc)	El Centro, Imper Val Irr Dist
09-feb-1941 01:44	pst	Northwest Calif #2	Ferndale, Old City Hall
30-jun-1941 23:51	pst	Santa Barbara, CA	Santa Barbara, Courthouse
03-oct-1941 08:13	pst	Northern Calif	Ferndale, Old City Hall
14-nov-1941 00:42	pst	Torrance-Gardena, CA	L.A., Chamber of Comm Bldg
14-nov-1941 00:42	pst	Torrance-Gardena, CA	Long Beach, Public Util Bldg
21-oct-1942 09:22	pst	Borrego Valley, CA	El Centro, Imper Val Irr Dist
09-mar-1949 04:28	pst	Northern Calif	Hollister, Public Library
13-apr-1949 11:55	pst	Western Washington	Seattle, Army Base
13-apr-1949 11:55	pst	Western Washington	Olympia, Highway Test Lab
23-jan-1951 23:17	pst	Imperial Valley, CA	El Centro, Imper Val Irr Dist
07-oct-1951 20:11	pst	Northwest Calif	Ferndale, Old City Hall
21-jul-1952 11:52	uto	Kern County, CA	Pasadena, Athenaeum, CIT
21-jul-1952 11:52	uto	Kern County, CA	Santa Barbara, Courthouse
21-jul-1952 11:52	uto	Kern County, CA	L.A., Hollywood Strg Bldg
21-jul-1952 11:52	uto	Kern County, CA	Taft, Lincoln School
21-jul-1952 11:52	uto	Kern County, CA	L.A., Hollywood Strg P & E Lot
23-jul-1952		Kern County as (loc,t uncert)	Fire House Tehachapi
23-jul-1952		Kern County as (loc,t uncert)	Fire House Tehachapi
23-jul-1952		Kern County as (loc,t uncert)	Fire House Tehachapi
22-sep-1952 04:41	pst	Northern Calif	Ferndale, Old City Hall

Date		Earthquake	Recording Station
21-nov-1952 11:56	pst	Southern Calif	San Luis Obispo, City Rec Bldg
13-jun-1953 20:17	pst	Imperial Valley, CA	El Centro, Imper Val Irr Dist
12-jan-1954 15:34	pst	Wheeler Ridge, CA	Taft, Lincoln School
25-apr-1954 12:34	pst	Central Calif	Hollister, Public Library
12-nov-1954 04:27	pst	Lower Calif	El Centro, Imper Val Irr Dist
21-dec-1954 11:56	pst	Eureka, CA	Ferndale, Old City Hall
21-dec-1954 11:56	pst	Eureka, CA	Eureka, Federal Building
16-dec-1955 21:17	pst	Imperial County, CA fs	El Centro, Imper Val Irr Dist
16-dec-1955 21:42	pst	Imperial County, CA fs	El Centro, Imper Val Irr Dist
16-dec-1955 22:07	pst	Imperial County, CA	El Centro, Imper Val Irr Dist
09-feb-1956 06:33	pst	El Alamo Baja	El Centro, Imper Val Irr Dist
09-feb-1956 07:25	pst	El Alamo Baja as	El Centro, Imper Val Irr Dist
18-mar-1957 10:56	pst	Southern Calif	Port Huancabamba, Naval Lab
22-mar-1957 10:48	pst	SF or Daly City, CA fs	S.F., Southern Pacific Bldg
22-mar-1957 11:44	pst	SF or Daly City, CA	S.F., Alexander Bldg
22-mar-1957 11:44	pst	SF or Daly City, CA	Oakland, City Hall
22-mar-1957 11:44	pst	SF or Daly City, CA	S.F., Golden Gate Park
22-mar-1957 11:44	pst	SF or Daly City, CA	S.F., Southern Pacific Bldg
22-mar-1957 11:44	pst	SF or Daly City, CA	S.F., State Bldg
22-mar-1957 15:15	pst	SF or Daly City, CA as	S.F., Alexander Bldg
22-mar-1957 15:15	pst	SF or Daly City, CA as	Oakland, City Hall
22-mar-1957 15:15	pst	SF or Daly City, CA as	S.F., Southern Pacific Bldg
22-mar-1957 16:27	pst	SF or Daly City, CA as	S.F., Southern Pacific Bldg
18-aug-1959 06:37		Hoboken Lake Mt	Boxeman, Engr Bldg, MSU
19-jan-1960 19:26	pst	Central Calif	Hollister, Public Library
05-jun-1960 17:18	pst	Northern Calif	Ferndale, Old City Hall
08-apr-1961 23:23	pst	Hollister or Cent Calif	Hollister, City Hall
08-apr-1961 23:23	pst	Hollister or Cent Calif	Hollister, Public Library
08-apr-1961 23:25	pst	Hollister or C CA as	Hollister, Public Library
11-may-1962 14:11		near Acapulco	Alameda Park
19-may-1962 14:58		near Acapulco	Alameda Park
04-sep-1962 09:17	pst	Northern Calif	Eureka, Federal Building
05-jun-1964 09:50	utc	Alaska	Cordova, Mt Eccles School
05-jun-1964 22:06	utc	Alaska	Kodiak, USN Station
06-jul-1964 07:22		Mexico	CU01
29-apr-1965 15:28	pst	Puget Sound WA	Seattle, Federal Bldg
29-apr-1965 15:28	pst	Puget Sound WA	Olympia, Highway Test Lab
29-apr-1965 15:28	pst	Puget Sound WA	Tacoma, City-County Bldg
29-apr-1965 15:28	pst	Puget Sound WA	Portland, State Office Bldg
15-jul-1965 23:46	pst	Southern Calif	Castaic, Old Ridge Route
23-aug-1965 19:46		Mexico (loc uncertain)	CU01
04-sep-1965 14:32	utc	Alaska	Kodiak, USN Station

Date		Earthquake	Recording Station
26-sep-1965 00:36		Mexico (loc uncertain)	IN18
22-dec-1965 19:41	utc	Alaska	Kodiak, USN Station
11-apr-1966 17:17		Mexico	IN08
11-apr-1966 17:17		Mexico	IN12
11-apr-1966 17:17		Mexico	IN18
11-apr-1966 17:17		Mexico	INPT
27-jun-1966 20:26	pst	Parkfield, CA	Taft, Lincoln School
27-jun-1966 20:26	pst	Parkfield, CA	San Luis Obispo, City Rec Bldg
27-jun-1966 20:26	pst	Parkfield, CA	Cholame-Shandon: Station 12
27-jun-1966 20:26	pst	Parkfield, CA	Cholame-Shandon: Station 2
27-jun-1966 20:26	pst	Parkfield, CA	Cholame-Shandon: Station 5
27-jun-1966 20:26	pst	Parkfield, CA	Cholame-Shandon: Station 8
27-jun-1966 20:26	pst	Parkfield, CA	Cholame-Shandon: Tumbler
07-aug-1966 09:36	pst	Gulf of California	El Centro, Imper Val Irr Dist
12-sep-1966 08:41	pst	Northern Calif	Sacramento, New FT&T Bldg
25-sep-1966 06:32		Mexico	IN08
25-sep-1966 06:32		Mexico	IN12
25-sep-1966 06:32		Mexico	IN18
25-sep-1966 06:32		Mexico	INPT
18-nov-1967 22:43	utc	San Salvador	San Salvador, Seism Obser
18-nov-1967 22:52	utc	San Salvador	San Salvador, Seism Obser
10-dec-1967 04:07	pst	Ferndale or NW CA #2	Ferndale, Old City Hall
10-dec-1967 04:07	pst	Ferndale or NW CA #2	Eureka, Federal Building
18-dec-1967 09:25	pst	Northern Calif	S.F., Bethlehem Pac Bldg
18-dec-1967 09:25	pst	Northern Calif	Hollister, Public Library
04-jan-1968 10:03	utc	Managua, Nicaragua	Nicaragua, Managua
03-feb-1968		Mexico (loc undet)	CU01
08-apr-1968 18:30	pst	Borrego Mountain, CA	San Diego, Light & Power Bldg
08-apr-1968 18:30	pst	Borrego Mountain, CA	601 W 5th St L.A.
08-apr-1968 18:30	pst	Borrego Mountain, CA	Pasadena, Athenaeum, CIT
08-apr-1968 18:30	pst	Borrego Mountain, CA	Vernon, CMD Terminal Bldg
08-apr-1968 18:30	pst	Borrego Mountain, CA	Santa Ana, County Engr Bldg
08-apr-1968 18:30	pst	Borrego Mountain, CA	L.A., Hollywood Strg Bldg
08-apr-1968 18:30	pst	Borrego Mountain, CA	El Centro, Imper Val Irr Dist
08-apr-1968 18:30	pst	Borrego Mountain, CA	Pasadena, JPL
08-apr-1968 18:30	pst	Borrego Mountain, CA	Pasadena, Millikan Lib, CIT
08-apr-1968 18:30	pst	Borrego Mountain, CA	Colton, SCE Substn
08-apr-1968 18:30	pst	Borrego Mountain, CA	San Onofre, Power Plant
08-apr-1968 18:30	pst	Borrego Mountain, CA	Los Angeles, Subway Term Bldg
08-apr-1968 18:30	pst	Borrego Mountain, CA	Long Beach, Terminal Island
02-aug-1968		Mexico (loc undet)	CU01
17-dec-1968 12:02	utc	Alaska	Seward, Wesleyan Hospital
17-dec-1968 12:02	utc	Alaska	Seldovia School, Gym
11-mar-1970 22:38	utc	Alaska	Kodiak, USCG Central Supply
29-apr-1970		Mexico (loc undet)	MALC
29-apr-1970		Mexico (loc undet)	PAJA
21-jul-1970 18:34		Mexico (loc uncertain)	IN18
12-sep-1970 06:31	pst	Lytle Creek, CA	L.A., 120 N Robertson
12-sep-1970 06:31	pst	Lytle Creek, CA	L.A., 1640 S. Marengo
12-sep-1970 06:31	pst	Lytle Creek, CA	Wrightwood, 6074 Park Dr
12-sep-1970 06:31	pst	Lytle Creek, CA	L.A., 646 S Olive
12-sep-1970 06:31	pst	Lytle Creek, CA	L.A., 808 S Olive
12-sep-1970 06:31	pst	Lytle Creek, CA	L.A., 945 Tiverton
12-sep-1970 06:31	pst	Lytle Creek, CA	Cedar Springs, Allen Ranch
12-sep-1970 06:31	pst	Lytle Creek, CA	Lake Hughes Sta 1

Date	Earthquake	Recording Station
12-sep-1970 06:31	pst Lytle Creek, CA	Cedar Springs, Pump House
12-sep-1970 06:31	pst Lytle Creek, CA	Devil Canyon
12-sep-1970 06:31	pst Lytle Creek, CA	San Bernardino, Hall of Recs
12-sep-1970 06:31	pst Lytle Creek, CA	L.A., Hollywood Strg Bldg
12-sep-1970 06:31	pst Lytle Creek, CA	Pasadena, JPL
12-sep-1970 06:31	pst Lytle Creek, CA	Pasadena, Millikan Lib, CIT
12-sep-1970 06:31	pst Lytle Creek, CA	Castaic, Old Ridge Route
12-sep-1970 06:31	pst Lytle Creek, CA	Puddingstone Reservoir
12-sep-1970 06:31	pst Lytle Creek, CA	Santa Anita Dam
12-sep-1970 06:31	pst Lytle Creek, CA	Colton, SCE Substn
12-sep-1970 06:31	pst Lytle Creek, CA	L.A., Water & Power Bldg
12-sep-1970 06:31	pst Lytle Creek, CA	L.A., Hollywood Strg P & Lot
09-feb-1971 06:01	pst San Fernando, CA	L.A., 1150 S Hill
09-feb-1971 06:01	pst San Fernando, CA	L.A., 1177 S Beverly Dr
09-feb-1971 06:01	pst San Fernando, CA	L.A., 120 N Robertson
09-feb-1971 06:01	pst San Fernando, CA	L.A., 14724 Ventura
09-feb-1971 06:01	pst San Fernando, CA	L.A., 15107 Vanowen
09-feb-1971 06:01	pst San Fernando, CA	L.A., 15250 Ventura
09-feb-1971 06:01	pst San Fernando, CA	L.A., 15910 Ventura
09-feb-1971 06:01	pst San Fernando, CA	L.A., 1625 W Olympic
09-feb-1971 06:01	pst San Fernando, CA	L.A., 1640 S. Marengo
09-feb-1971 06:01	pst San Fernando, CA	L.A., 1760 W Orchid
09-feb-1971 06:01	pst San Fernando, CA	L.A., 1800 Century Park E
09-feb-1971 06:01	pst San Fernando, CA	L.A., 1900 Ave of the Stars
09-feb-1971 06:01	pst San Fernando, CA	L.A., 1901 Ave of the Stars
09-feb-1971 06:01	pst San Fernando, CA	Long Beach, Pub Util Bldg
09-feb-1971 06:01	pst San Fernando, CA	L.A., 2011 Zonal
09-feb-1971 06:01	pst San Fernando, CA	L.A., 222 Figueroa
09-feb-1971 06:01	pst San Fernando, CA	L.A., 234 Figueroa
09-feb-1971 06:01	pst San Fernando, CA	L.A., 250 E 1st St
09-feb-1971 06:01	pst San Fernando, CA	L.A., 2500 Wilshire
09-feb-1971 06:01	pst San Fernando, CA	Palos Verdes, 2516 Via Tejon
09-feb-1971 06:01	pst San Fernando, CA	Fullerton, 2600 Nutwood
09-feb-1971 06:01	pst San Fernando, CA	L.A., 3345 Wilshire
09-feb-1971 06:01	pst San Fernando, CA	L.A., 3407 W Sixth St
09-feb-1971 06:01	pst San Fernando, CA	L.A., 3411 Wilshire
09-feb-1971 06:01	pst San Fernando, CA	L.A., 3440 University
09-feb-1971 06:01	pst San Fernando, CA	L.A., 3470 Wilshire
09-feb-1971 06:01	pst San Fernando, CA	L.A., 3550 Wilshire
09-feb-1971 06:01	pst San Fernando, CA	L.A., 3710 Wilshire
09-feb-1971 06:01	pst San Fernando, CA	L.A., 3838 Lankershim
09-feb-1971 06:01	pst San Fernando, CA	Orange, 4000 W Chapman
09-feb-1971 06:01	pst San Fernando, CA	L.A., 420 S Grand
09-feb-1971 06:01	pst San Fernando, CA	Beverly Hills, 435 N Oakhurst
09-feb-1971 06:01	pst San Fernando, CA	L.A., 445 Figueroa
09-feb-1971 06:01	pst San Fernando, CA	Beverly Hills, 450 N Roxbury
09-feb-1971 06:01	pst San Fernando, CA	L.A., 4680 Wilshire
09-feb-1971 06:01	pst San Fernando, CA	L.A., 4867 Sunset
09-feb-1971 06:01	pst San Fernando, CA	L.A., 5260 Century
09-feb-1971 06:01	pst San Fernando, CA	L.A., 535 S Fremont Ave
09-feb-1971 06:01	pst San Fernando, CA	L.A., 5900 Wilshire
09-feb-1971 06:01	pst San Fernando, CA	Wrightwood, 6074 Park Dr
09-feb-1971 06:01	pst San Fernando, CA	L.A., 611 W Sixth St
09-feb-1971 06:01	pst San Fernando, CA	L.A., 616 S Normandie
09-feb-1971 06:01	pst San Fernando, CA	L.A., 6200 Wilshire
09-feb-1971 06:01	pst San Fernando, CA	Glendale, 633 E Broadway
09-feb-1971 06:01	pst San Fernando, CA	L.A., 6430 Sunset Blvd
09-feb-1971 06:01	pst San Fernando, CA	L.A., 646 S Olive
09-feb-1971 06:01	pst San Fernando, CA	L.A., 6464 Sunset
09-feb-1971 06:01	pst San Fernando, CA	Costa Mesa, 666 W 19th
09-feb-1971 06:01	pst San Fernando, CA	L.A., 7080 Hollywood
09-feb-1971 06:01	pst San Fernando, CA	L.A., 750 Garland
09-feb-1971 06:01	pst San Fernando, CA	L.A., 800 W 1st St
09-feb-1971 06:01	pst San Fernando, CA	L.A., 808 S Olive
09-feb-1971 06:01	pst San Fernando, CA	L.A., 8244 Orion
09-feb-1971 06:01	pst San Fernando, CA	Alhambra, 900 S Fremont
09-feb-1971 06:01	pst San Fernando, CA	Beverly Hills, 9100 Wilshire
09-feb-1971 06:01	pst San Fernando, CA	L.A., 9841 Airport Blvd
09-feb-1971 06:01	pst San Fernando, CA	Cedar Springs, Allen Ranch
09-feb-1971 06:01	pst San Fernando, CA	Anza, Post Office
09-feb-1971 06:01	pst San Fernando, CA	Lake Hughes Sta 1
09-feb-1971 06:01	pst San Fernando, CA	Maricopa Array Sta 1
09-feb-1971 06:01	pst San Fernando, CA	Lake Hughes Sta 12

Date	Earthquake	Recording Station
09-feb-1971 06:01	pst San Fernando, CA	Maricopa Array Sta 2
09-feb-1971 06:01	pst San Fernando, CA	Maricopa Array Sta 3
09-feb-1971 06:01	pst San Fernando, CA	Lake Hughes Sta 4
09-feb-1971 06:01	pst San Fernando, CA	Maricopa Array Sta 4
09-feb-1971 06:01	pst San Fernando, CA	Lake Hughes Sta 9
09-feb-1971 06:01	pst San Fernando, CA	El Centro Array Sta 10
09-feb-1971 06:01	pst San Fernando, CA	Pasadena, Athenaeum, CIT
09-feb-1971 06:01	pst San Fernando, CA	Pasadena, Old Seism Lab, CIT
09-feb-1971 06:01	pst San Fernando, CA	Carbon Canyon Dam
09-feb-1971 06:01	pst San Fernando, CA	Vernon, CMD Terminal Bldg
09-feb-1971 06:01	pst San Fernando, CA	Santa Ana, County Engr Bldg
09-feb-1971 06:01	pst San Fernando, CA	Fairmont Reservoir
09-feb-1971 06:01	pst San Fernando, CA	San Diego, Light & Power Bldg
09-feb-1971 06:01	pst San Fernando, CA	L.A., 1980 Century Park E.
09-feb-1971 06:01	pst San Fernando, CA	L.A., 8639 Lincoln Ave
09-feb-1971 06:01	pst San Fernando, CA	Borrego Springs Fire Station
09-feb-1971 06:01	pst San Fernando, CA	Hemet Fire Station
09-feb-1971 06:01	pst San Fernando, CA	Palmdale Fire Station
09-feb-1971 06:01	pst San Fernando, CA	Fort Tejon
09-feb-1971 06:01	pst San Fernando, CA	L.A., Griffith Park Observ
09-feb-1971 06:01	pst San Fernando, CA	San Bernardino, Hall of Recs
09-feb-1971 06:01	pst San Fernando, CA	Bakersfield, Harvey Auditorium
09-feb-1971 06:01	pst San Fernando, CA	L.A., Hollywood Strg Bldg
09-feb-1971 06:01	pst San Fernando, CA	Isabella Dam, Main Dam
09-feb-1971 06:01	pst San Fernando, CA	Pasadena, JPL
09-feb-1971 06:01	pst San Fernando, CA	Taft, Lincoln School
09-feb-1971 06:01	pst San Fernando, CA	Long Beach, CSULB
09-feb-1971 06:01	pst San Fernando, CA	Pasadena, Millikan Lib, CIT
09-feb-1971 06:01	pst San Fernando, CA	Port Hueneme, Naval Lab
09-feb-1971 06:01	pst San Fernando, CA	Castaic, Old Ridge Route
09-feb-1971 06:01	pst San Fernando, CA	Oso Pumping Plant
09-feb-1971 06:01	pst San Fernando, CA	Pacoima Dam
09-feb-1971 06:01	pst San Fernando, CA	Puddingstone Reservoir
09-feb-1971 06:01	pst San Fernando, CA	Pearblossom Pumping Plant
09-feb-1971 06:01	pst San Fernando, CA	Cedar Springs, Pump House
09-feb-1971 06:01	pst San Fernando, CA	San Antonio Dam, Upland
09-feb-1971 06:01	pst San Fernando, CA	San Juan Capistrano, City Hall
09-feb-1971 06:01	pst San Fernando, CA	Santa Anita Dam
09-feb-1971 06:01	pst San Fernando, CA	Santa Felicia Dam
09-feb-1971 06:01	pst San Fernando, CA	Cholame-Shandon: Station 2
09-feb-1971 06:01	pst San Fernando, CA	Cholame-Shandon: Station 8
09-feb-1971 06:01	pst San Fernando, CA	Colton, SCE Substn
09-feb-1971 06:01	pst San Fernando, CA	San Onofre, Power Plant
09-feb-1971 06:01	pst San Fernando, CA	Buena Vista Pumping Plant
09-feb-1971 06:01	pst San Fernando, CA	Grapevine Pumping Plant
09-feb-1971 06:01	pst San Fernando, CA	Long Beach, Terminal Island
09-feb-1971 06:01	pst San Fernando, CA	UCLA Reactor Lab
09-feb-1971 06:01	pst San Fernando, CA	Santa Barbara, UCSB Fl Mech Lb
09-feb-1971 06:01	pst San Fernando, CA	L.A., Water & Power Bldg
09-feb-1971 06:01	pst San Fernando, CA	Wheeler Ridge, Pumping Plant
09-feb-1971 06:01	pst San Fernando, CA	Whittier Marrows Dam
09-feb-1971 06:01	pst San Fernando, CA	Orange, 1 City Blvd
09-feb-1971 06:01	pst San Fernando, CA	L.A., Hollywood Strg P E Lot
09-feb-1971 06:01	pst San Fernando, CA	Wrightwood, 6074 Park Dr - RFT
09-feb-1971 06:01	pst San Fern as (+52.6 - ms loc)	Pacoima Dam
09-feb-1971 06:01	pst San Fern as (+69.6 - ms loc)	Pacoima Dam
09-feb-1971 06:01	pst San Fern as (+104.6 - ms loc)	Pacoima Dam
09-feb-1971 06:01	pst San Fern as (+162.0 - ms loc)	Pacoima Dam
09-feb-1971 06:01	pst San Fern as (+230.1 - ms loc)	Pacoima Dam
09-feb-1971 06:01	pst San Fern as (+309.1 - ms loc)	Pacoima Dam
05-mar-1971 10:19	Mexico (loc uncertain)	IN18
08-mar-1971 23:08	gmt Isabella, CA	Isabella Dam, Main Dam
27-apr-1971	Mexico (loc undet)	OAXM
30-apr-1971	Mexico (loc undet)	MINA
30-apr-1971	Mexico (loc undet)	PAJA
02-may-1971 06:08	gmt Aleutian Is Alaska	Seismic Vault Naval Base
02-jul-1971	Mexico (loc undet)	PAJA

Date		Earthquake	Recording Station
10-jul-1971		Mexico (loc undet)	IN18
10-jul-1971		Mexico (loc undet)	OAXM
21-aug-1971		Mexico (loc undet)	IN18
05-sep-1971 09:13		Mexico	ACAS
12-sep-1971 19:32	gmt	Northern Calif	Ferndale, Old City Hall
10-oct-1971 13:21		Mexico (loc uncertain)	ACAS
31-oct-1971		Mexico (loc undet)	MINA
02-jan-1972		Mexico (loc undet)	VILB
03-jan-1972 04:31	utc	Managua, Nicaragua	Nicaragua, ESSO Refinery
05-jan-1972 11:52	utc	Managua, Nicaragua	Nicaragua, ESSO Refinery
05-jan-1972 11:52	utc	Managua, Nicaragua	Nicaragua, National University
27-feb-1972 22:13		Central California	Stone Canyon
21-jul-1972 05:10		Mexico (loc uncertain)	IN18
30-jul-1972 21:45	utc	Sitka Alaska	Sitka, Magnetic Observatory
04-sep-1972 18:04	utc	Salinas area, CA	Bear Valley Fire Station
04-sep-1972 18:04	utc	Salinas area, CA	Geophysics Ob Stone Canyon
04-sep-1972 18:04	utc	Salinas area, CA	Melendy Ranch
23-dec-1972 06:29	utc	Managua, Nicaragua	Nicaragua, ESSO Refinery
23-dec-1972 07:17	gmt	Managua, Nicaragua	Nicaragua, ESSO Refinery
23-dec-1972 07:19	utc	Managua, Nicaragua	Nicaragua, ESSO Refinery
30-jan-1973 21:01	utc	Michoacan	Mexico, Infiernillo Dam
30-jan-1973 21:01	utc	Michoacan	Mexico, Villita dam
21-feb-1973 14:45	gmt	Point Mugu, CA	Port Euaname, Naval Lab
21-feb-1973 14:45	gmt	Point Mugu, CA	Santa Clara Substation
17-mar-1973		Mexico (loc undet)	MALE
31-mar-1973 20:13	utc	Managua, Nicaragua	Nicaragua, National University
11-apr-1973 12:51		Mexico (loc uncertain)	ACAP
26-apr-1973 20:26	gmt	Hawaii	Honolulu, Alawai Golf Club
26-apr-1973 20:26	gmt	Hawaii	Hawaii Natl Pk, Wamakani Paio
07-jun-1973 18:32		near Tapachula	Malpaso Corona
22-jun-1973 01:29	gmt	Central Calif	Bear Valley Sta 4
22-jun-1973 01:29	gmt	Central Calif	Bear Valley Sta 5
22-jun-1973 01:29	gmt	Central Calif	Bear Valley Sta 6
22-jun-1973 01:29	gmt	Central Calif	Bear Valley Sta 7
22-jun-1973 01:29	gmt	Central Calif	Bear Valley Sta 11
22-jun-1973 01:29	gmt	Central Calif	Bear Valley Sta 14
03-jul-1973 03:59		Mexico (loc uncertain)	IN18
28-aug-1973 09:50		near Tierra Blanca	Palacio Deportes
28-aug-1973 09:50		near Tierra Blanca	Malpaso Corona
28-aug-1973 09:50		near Tierra Blanca	Oaxaca
28-aug-1973 09:50		near Tierra Blanca	Pajaritos
28-aug-1973 09:50		near Tierra Blanca	Minatitlan
28-aug-1973 09:50		near Tierra Blanca	MINA
28-aug-1973 09:50		near Tierra Blanca	OAXM
28-aug-1973 09:50		near Tierra Blanca	PAJA
18-oct-1973 10:49		Mexico (loc uncertain)	IN18

Date		Earthquake	Recording Station
06-apr-1974 01:53	utc	Alaska	Sand Point
06-apr-1974 03:55	utc	Alaska	Sand Point
12-jul-1974		Mexico (loc undet)	CU01
13-aug-1974 03:46	utc	Alaska	Adak, US Naval Base
06-oct-1974 17:09		Mexico	ACAS
25-oct-1974		Mexico (loc undet)	TUXT
11-nov-1974 05:17	utc	Alaska	Adak, US Naval Base
28-nov-1974 23:01	gmt	Central Calif	San Juan Bautista, 24 Polk
28-nov-1974 23:01	gmt	Central Calif	Hollister, City Hall
28-nov-1974 23:01	gmt	Central Calif	Gilroy array Sta 1
06-dec-1974 12:13		Imperial Valley, CA	El Centro, Meadows Union Schoo
01-jan-1975 03:55	gmt	Southern Alaska	Talkeetna, FAA VOR Bldg
01-jan-1975 03:55	gmt	Southern Alaska	Anchorage, Westward Hotel
01-jan-1975 03:55	gmt	Southern Alaska	Anchorage, Gould Hall, APU
01-jan-1975 03:55	gmt	Southern Alaska	Anchorage, AK Native Med Cntr
12-jan-1975 01:37	gmt	Cape Mendocino, CA	Petrolia, General Store
12-jan-1975 01:37	gmt	Cape Mendocino, CA	Cape Mendocino, Petrolia
13-jan-1975 00:32		Alaska	Anchorage, Westward Hotel
23-jan-1975 17:02		Imperial Valley, CA	El Centro Array Sta 7
23-jan-1975 17:02		Imperial Valley, CA	El Centro Array Sta 9
23-jan-1975 17:02		Imperial Valley, CA	El Centro, Meadows Union Schoo
14-mar-1975 06:04		Mexico	AMGI
07-may-1975 02:35	gmt	Cape Mendocino, CA	Shelter Cove: Sta A
07-may-1975 02:35	gmt	Cape Mendocino, CA	Shelter Cove: Sta B
18-may-1975 15:43		Alaska	Talkeetna, FAA VOR Bldg
07-jun-1975 08:46	gmt	Cape Mendocino, CA	Petrolia, General Store
07-jun-1975 08:46	gmt	Cape Mendocino, CA	Ferndale, Old City Hall
07-jun-1975 08:46	gmt	Cape Mendocino, CA	Cape Mendocino, Petrolia
07-jun-1975 08:46	gmt	Cape Mendocino, CA	Shelter Cove: Sta A
07-jun-1975 08:46	gmt	Cape Mendocino, CA	Shelter Cove: Sta B
07-jun-1975 11:01	utc	Ferndale, CA	Ferndale, Old City Hall
13-jun-1975 22:40	gmt	New Madrid, MO	New Madrid, Moranda Alum Plant
20-jun-1975 05:48		Imperial Valley, CA	El Centro, Meadows Union Schoo
20-jun-1975 05:48		Imperial Valley, CA	El Centro Array Sta 6
25-jul-1975 10:41	utc	Alaska	Sand Point
01-aug-1975 20:20	utc	Oroville, CA	Oroville Dam
01-aug-1975 20:20	utc	Oroville, CA	Seismograph station
02-aug-1975 00:14	gmt	Palm Springs, CA	Anza, Post Office
02-aug-1975 00:14	gmt	Palm Springs, CA	Terwilliger Valley
02-aug-1975 00:14	gmt	Palm Springs, CA	Rancho de Anza
02-aug-1975 00:14	gmt	Palm Springs, CA	Murkey Creek Park
02-aug-1975 00:14	gmt	Palm Springs, CA	Pinyon Flat Observ
02-aug-1975 00:14	gmt	Palm Springs, CA	Clark Lake Observatory
02-aug-1975 00:14	gmt	Palm Springs, CA	Cranston Forst Sta
02-aug-1975 20:22	utc	Oroville, CA	Oroville, Airport (temp)
02-aug-1975 20:22	utc	Oroville, CA	Oroville, CDMG Sta 1 (temp)
02-aug-1975 20:59	gmt	Oroville, CA	Oroville, Airport (temp)
02-aug-1975 20:59	gmt	Oroville, CA	Oroville, CDMG Sta 1 (temp)
02-aug-1975 20:59	gmt	Oroville, CA	Oroville, Medical Cntr (temp)



Date		Earthquake	Recording Station
03-aug-1975 01:03	gmt	Oroville, CA	Oroville, Airport (temp)
03-aug-1975 01:03	gmt	Oroville, CA	Oroville, CDMG Sta 1 (temp)
03-aug-1975 01:03	gmt	Oroville, CA	Oroville, CDMG Sta 3 (temp)
03-aug-1975 01:03	gmt	Oroville, CA	Oroville, CDMG Sta 4 (temp)
03-aug-1975 01:03	gmt	Oroville, CA	Oroville, CDMG Sta 5 (temp)
03-aug-1975 01:03	gmt	Oroville, CA	Oroville, DWR Garage (temp)
03-aug-1975 01:03	gmt	Oroville, CA	Oroville, Broadbeck Res (temp)
03-aug-1975 01:03	gmt	Oroville, CA	Oroville, Medical Cntr (temp)
03-aug-1975 02:47	utc	Oroville, CA	Oroville, Airport (temp)
03-aug-1975 02:47	utc	Oroville, CA	Oroville, CDMG Sta 1 (temp)
03-aug-1975 02:47	utc	Oroville, CA	Oroville, CDMG Sta 3 (temp)
03-aug-1975 02:47	utc	Oroville, CA	Oroville, CDMG Sta 4 (temp)
03-aug-1975 02:47	utc	Oroville, CA	Oroville, CDMG Sta 5 (temp)
03-aug-1975 02:47	utc	Oroville, CA	Oroville, DWR Garage (temp)
03-aug-1975 02:47	utc	Oroville, CA	Oroville, Broadbeck Res (temp)
03-aug-1975 02:47	utc	Oroville, CA	Oroville, Medical Cntr (temp)
05-aug-1975 02:28	utc	Oroville, CA	Oroville, Johnson Ranch (temp)
06-aug-1975 03:50	gmt	Oroville, CA	Oroville, Airport (temp)
06-aug-1975 03:50	gmt	Oroville, CA	Oroville, CDMG Sta 1 (temp)
06-aug-1975 03:50	gmt	Oroville, CA	Oroville, CDMG Sta 2 (temp)
06-aug-1975 03:50	gmt	Oroville, CA	Oroville, CDMG Sta 3 (temp)
06-aug-1975 03:50	gmt	Oroville, CA	Oroville, CDMG Sta 4 (temp)
06-aug-1975 03:50	gmt	Oroville, CA	Oroville, CDMG Sta 5 (temp)
06-aug-1975 03:50	gmt	Oroville, CA	Oroville, DWR Garage (temp)
06-aug-1975 03:50	gmt	Oroville, CA	Oroville, Johnson Ranch (temp)
06-aug-1975 03:50	gmt	Oroville, CA	Oroville, Broadbeck Res (temp)
06-aug-1975 03:50	gmt	Oroville, CA	Oroville, Medical Cntr (temp)
06-aug-1975 16:41	utc	Oroville, CA	Oroville, Airport (temp)
06-aug-1975 16:41	utc	Oroville, CA	Oroville, CDMG Sta 2 (temp)
06-aug-1975 16:41	utc	Oroville, CA	Oroville, CDMG Sta 3 (temp)
06-aug-1975 16:41	utc	Oroville, CA	Oroville, CDMG Sta 4 (temp)
06-aug-1975 16:41	utc	Oroville, CA	Oroville, DWR Garage (temp)
06-aug-1975 16:41	utc	Oroville, CA	Oroville, Johnson Ranch (temp)
06-aug-1975 16:41	utc	Oroville, CA	Oroville, Broadbeck Res (temp)
08-aug-1975 07:00	gmt	Oroville, CA	Oroville, Airport (temp)
08-aug-1975 07:00	gmt	Oroville, CA	Oroville, CDMG Sta 1 (temp)
08-aug-1975 07:00	gmt	Oroville, CA	Oroville, CDMG Sta 4 (temp)
08-aug-1975 07:00	gmt	Oroville, CA	Oroville, CDMG Sta 5 (temp)
08-aug-1975 07:00	gmt	Oroville, CA	Oroville, CDMG Sta 6 (temp)
08-aug-1975 07:00	gmt	Oroville, CA	Oroville, CDMG Sta 7 (temp)
08-aug-1975 07:00	gmt	Oroville, CA	Oroville, DWR Garage (temp)
08-aug-1975 07:00	gmt	Oroville, CA	Oroville, Johnson Ranch (temp)
08-aug-1975 07:00	gmt	Oroville, CA	Oroville, Broadbeck Res (temp)
11-aug-1975 06:11	utc	Oroville, CA	Oroville, CDMG Sta 1 (temp)
11-aug-1975 06:11	utc	Oroville, CA	Oroville, CDMG Sta 4 (temp)
11-aug-1975 06:11	utc	Oroville, CA	Oroville, CDMG Sta 5 (temp)
11-aug-1975 06:11	utc	Oroville, CA	Oroville, CDMG Sta 6 (temp)
11-aug-1975 06:11	utc	Oroville, CA	Oroville, CDMG Sta 7 (temp)
11-aug-1975 06:11	utc	Oroville, CA	Oroville, DWR Garage (temp)
11-aug-1975 06:11	utc	Oroville, CA	Oroville, Johnson Ranch (temp)
11-aug-1975 06:11	utc	Oroville, CA	Oroville, Broadbeck Res (temp)
11-aug-1975 06:11	utc	Oroville, CA	Oroville, Medical Cntr (temp)
11-aug-1975 15:59	utc	Oroville, CA	Oroville, Airport (temp)
11-aug-1975 15:59	utc	Oroville, CA	Oroville, CDMG Sta 1 (temp)
11-aug-1975 15:59	utc	Oroville, CA	Oroville, CDMG Sta 4 (temp)
11-aug-1975 15:59	utc	Oroville, CA	Oroville, CDMG Sta 5 (temp)
11-aug-1975 15:59	utc	Oroville, CA	Oroville, CDMG Sta 6 (temp)
11-aug-1975 15:59	utc	Oroville, CA	Oroville, CDMG Sta 7 (temp)
11-aug-1975 15:59	utc	Oroville, CA	Oroville, Johnson Ranch (temp)
11-aug-1975 15:59	utc	Oroville, CA	Oroville, Broadbeck Res (temp)
11-aug-1975 15:59	utc	Oroville, CA	Oroville, Medical Cntr (temp)
16-aug-1975 05:48	utc	Oroville, CA	Oroville, Airport (temp)
16-aug-1975 05:48	utc	Oroville, CA	Oroville, CDMG Sta 1 (temp)
16-aug-1975 05:48	utc	Oroville, CA	Oroville, CDMG Sta 4 (temp)
16-aug-1975 05:48	utc	Oroville, CA	Oroville, CDMG Sta 5 (temp)
16-aug-1975 05:48	utc	Oroville, CA	Oroville, CDMG Sta 6 (temp)

Date		Earthquake	Recording Station
16-aug-1975 05:48	utc	Oroville, CA	Oroville, CDMG Sta 7 (temp)
16-aug-1975 05:48	utc	Oroville, CA	Oroville, CDMG Sta 8 (temp)
16-aug-1975 05:48	utc	Oroville, CA	Oroville, DWR Garage (temp)
16-aug-1975 05:48	utc	Oroville, CA	Oroville, Johnson Ranch (temp)
16-aug-1975 05:48	utc	Oroville, CA	Oroville, Broadbeck Res (temp)
16-aug-1975 05:48	utc	Oroville, CA	Oroville, Medical Cntr (temp)
16-aug-1975 12:23	utc	Oroville, CA	Oroville, Airport (temp)
16-aug-1975 12:23	utc	Oroville, CA	Oroville, CDMG Sta 4 (temp)
16-aug-1975 12:23	utc	Oroville, CA	Oroville, CDMG Sta 6 (temp)
16-aug-1975 12:23	utc	Oroville, CA	Oroville, CDMG Sta 8 (temp)
16-aug-1975 12:23	utc	Oroville, CA	Oroville, DWR Garage (temp)
16-aug-1975 12:23	utc	Oroville, CA	Oroville, Johnson Ranch (temp)
16-aug-1975 12:23	utc	Oroville, CA	Oroville, Broadbeck Res (temp)
26-sep-1975 02:31	utc	Oroville, CA	Oroville, Airport (temp)
26-sep-1975 02:31	utc	Oroville, CA	Oroville, CDMG Sta 1 (temp)
26-sep-1975 02:31	utc	Oroville, CA	Oroville, CDMG Sta 4 (temp)
26-sep-1975 02:31	utc	Oroville, CA	Oroville, CDMG Sta 5 (temp)
26-sep-1975 02:31	utc	Oroville, CA	Oroville, CDMG Sta 6 (temp)
26-sep-1975 02:31	utc	Oroville, CA	Oroville, CDMG Sta 8 (temp)
26-sep-1975 02:31	utc	Oroville, CA	Oroville, CDMG Sta 9 (temp)
26-sep-1975 02:31	utc	Oroville, CA	Oroville, Johnson Ranch (temp)
26-sep-1975 02:31	utc	Oroville, CA	Oroville, Broadbeck Res (temp)
26-sep-1975 02:31	utc	Oroville, CA	Oroville, Medical Cntr (temp)
27-sep-1975 22:34	gmt	Oroville, CA	Oroville, Airport (temp)
27-sep-1975 22:34	gmt	Oroville, CA	Oroville, CDMG Sta 1 (temp)
27-sep-1975 22:34	gmt	Oroville, CA	Oroville, CDMG Sta 4 (temp)
27-sep-1975 22:34	gmt	Oroville, CA	Oroville, CDMG Sta 5 (temp)
27-sep-1975 22:34	gmt	Oroville, CA	Oroville, CDMG Sta 8 (temp)
27-sep-1975 22:34	gmt	Oroville, CA	Oroville, CDMG Sta 9 (temp)
27-sep-1975 22:34	gmt	Oroville, CA	Oroville, DWR Garage (temp)
27-sep-1975 22:34	gmt	Oroville, CA	Oroville, Johnson Ranch (temp)
27-sep-1975 22:34	gmt	Oroville, CA	Oroville, Broadbeck Res (temp)
27-sep-1975 22:34	gmt	Oroville, CA	Oroville, Medical Cntr (temp)
11-oct-1975 14:41		Mexico	INMD
11-oct-1975 14:41		Mexico	VILB
11-oct-1975 14:41		Mexico	VILC
11-oct-1975 14:41		Mexico	VILD
15-nov-1975 15:28		Mexico (loc uncertain)	IN18
15-nov-1975 15:28		Mexico (loc uncertain)	INMD
15-nov-1975 15:28		Mexico (loc uncertain)	INMI
15-nov-1975 15:28		Mexico (loc uncertain)	VILB
15-nov-1975 15:28		Mexico (loc uncertain)	VILC
15-nov-1975 15:28		Mexico (loc uncertain)	VILD
29-nov-1975 13:35	gmt	Hawaii	Honokaa Hawaii
29-nov-1975 14:47	gmt	Hawaii as	Punaluu, Hawaii
29-nov-1975 14:47	gmt	Hawaii as	Hilo, Univ of Hawaii
29-nov-1975 14:47	gmt	Hawaii as	Honoka Hawaii
01-jan-1976 17:20	gmt	Whittier, CA	Carbon Canyon Dam
01-jan-1976 17:20	gmt	Whittier, CA	Orange Couty Rsrvr, Brea
01-jan-1976 17:20	gmt	Whittier, CA	Diemer Filter Plant
01-jan-1976 17:20	gmt	Whittier, CA	Whittier, 7215 Bright Ave
01-jan-1976 17:20	gmt	Whittier, CA	Brea Dam
01-jan-1976 17:20	gmt	Whittier, CA	Olinda
01-feb-1976 11:14		Mexico (loc uncertain)	CU01
22-feb-1976 07:21	utc	Alaska	Adak, US Naval Base
25-mar-1976 00:41	gmt	Arkansas	Arkabutla Dam
25-mar-1976 00:41	gmt	Arkansas	New Madrid, Moranda Alum Plant
25-mar-1976 00:41	gmt	Arkansas	Tiptonville, Reelfoot Lake
25-mar-1976 00:41	gmt	Arkansas	Wappapello Dam
25-mar-1976 01:00	gmt	Arkansas as	Arkabutla dam
07-jun-1976 14:26		Mexico (loc uncertain)	CU01

Date	Earthquake	Recording Station
04-nov-1976 05:48	Imperial Valley, CA	Calipatria Fire Station
07-dec-1976 12:59	Mexico	DLTA
07-dec-1976 12:59	Mexico as	DLTA
07-dec-1976 12:59	Mexico	RITO
07-dec-1976 12:59	Mexico as	RITO
11-jul-1977 09:39	Alaska	Adak
17-sep-1977 21:25	Alaska	Fairbanks
20-oct-1977 10:29	Imperial Valley, CA	E1 Centro Array Sta 5
21-oct-1977 13:24	Imperial Valley, CA	E1 Centro Array Sta 5
30-oct-1977 05:30	Imperial Valley, CA	E1 Centro Array Sta 5
30-oct-1977 05:30	Imperial Valley, CA	E1 Centro Array Sta 8
14-nov-1977 00:11:37	Imperial Valley, CA	E1 Centro Array Sta 6
14-nov-1977 02:05	Imperial Valley, CA	E1 Centro Array Sta 8
14-nov-1977 02:05	Imperial Valley, CA	E1 Centro Array Sta 6
14-nov-1977 02:05	Imperial Valley, CA	E1 Centro Array Sta 5
14-nov-1977 05:36	Imperial Valley, CA	E1 Centro Array Sta 4
14-nov-1977 05:36	Imperial Valley, CA	E1 Centro Array Sta 5
14-nov-1977 05:36	Imperial Valley, CA	E1 Centro Array Sta 8
14-nov-1977 12:20	Imperial Valley, CA	E1 Centro Array Sta 4
14-nov-1977 12:20	Imperial Valley, CA	E1 Centro Array Sta 8
14-nov-1977 12:20	Imperial Valley, CA	E1 Centro Array Sta 5
03-mar-1978	Mexico (loc undet) a	DLTA
03-mar-1978	Mexico (loc undet) b	DLTA
03-mar-1978	Mexico (loc undet) c	DLTA
11-mar-1978	Mexico (loc undet) a	VCTR
11-mar-1978	Mexico (loc undet) b	VCTR
11-mar-1978	Mexico (loc undet) c	VCTR
11-mar-1978	Mexico (loc undet) d	VCTR
11-mar-1978 23:57	uto Mexicali Valley	Mexico, Delta
11-mar-1978 23:57	uto Mexicali Valley	Mexico, Victoria
12-mar-1978	Mexico (loc undet) a	VCTR
12-mar-1978	Mexico (loc undet) b	VCTR
12-mar-1978	Mexico (loc undet) c	VCTR
12-mar-1978	Mexico (loc undet) d	VCTR
12-mar-1978	Mexico (loc undet) e	VCTR
12-mar-1978	Mexico (loc undet) f	VCTR
12-mar-1978 00:30	uto Mexicali Valley	Mexico, Victoria
12-mar-1978 18:42	uto Mexicali Valley	Mexico, Victoria
13-mar-1978	Mexico (loc undet)	VCTR
16-mar-1978	Mexico (loc undet)	VILB
16-mar-1978 01:51	Mexico	VCTR
19-mar-1978 01:39	Mexico (loc uncertain)	ACAP
19-mar-1978 01:39	Mexico (loc uncertain)	ACAS
19-mar-1978 01:39	Mexico (loc uncertain)	CU01
26-mar-1978 00:27	gmt Coyote Dam, CA	Coyote Dam toe
26-mar-1978 00:27	gmt Coyote Dam, CA	Coyote Dam abutment
05-may-1978 05:33	Alaska	Talkeetna, FAA VOR Bldg
12-may-1978 12:16	Alaska	Talkeetna, FAA VOR Bldg
13-aug-1978 22:54	gmt Santa Barbara, CA	Santa Barbara, Courthouse

Date		Earthquake	Recording Station
13-aug-1978 22:54	gmt	Santa Barbara, CA	Santa Barbara, Freitas Bldg
13-aug-1978 22:54	gmt	Santa Barbara, CA	Santa Barbara, UCSB North Hall
13-aug-1978 22:54	gmt	Santa Barbara, CA	UCSB Goleta Free Field
13-aug-1978 22:54	gmt	Santa Barbara, CA	Cachuma Dam valve house
13-aug-1978 22:54	gmt	Santa Barbara, CA	Ventura, Holiday Inn
13-aug-1978 22:54	gmt	Santa Barbara, CA	Substation Sca Goleta
13-aug-1978 22:54	gmt	Santa Barbara, CA	Goleta Substation
27-aug-1978 10:23	gmt	Monticello Dam SC	Monticello Dam, SC
04-oct-1978		Calif(loc undat)	Bishop
29-nov-1978 19:52		Mexico (loc uncertain)	CU01
29-nov-1978 19:52		Mexico (loc uncertain)	MINA
29-nov-1978 19:52		Mexico (loc uncertain)	NONP
29-nov-1978 19:52		Mexico (loc uncertain)	OAXM
29-nov-1978 19:52		Mexico (loc uncertain)	PAJA
29-nov-1978 19:52		Mexico (loc uncertain)	SXCU
29-nov-1978 19:52		Mexico (loc uncertain)	SXHO
29-nov-1978 19:52		Mexico (loc uncertain)	SXPU
29-nov-1978 20:04		Mexico (loc uncertain)	OAXM
29-nov-1978 20:04		Mexico (loc uncertain)	SXCU
29-nov-1978 20:04		Mexico (loc uncertain)	SXPU
29-nov-1978 20:49		Mexico (loc uncertain)	OAXM
29-nov-1978 20:49		Mexico (loc uncertain)	SXCU
29-nov-1978 20:49		Mexico (loc uncertain)	SXPU
27-jan-1979 18:57	utc	Alaska	Sand Point
13-feb-1979 05:34	utc	Alaska	Sand Point
28-feb-1979 21:27	utc	southern Alaska	Yakutat, FAA VOR Bldg
28-feb-1979 21:27	utc	southern Alaska	Icy Bay, Gulf Timber Co
28-feb-1979 21:27	utc	southern Alaska	Munday Creek
14-mar-1979 11:07		Mexico (loc uncertain)	ACAP
14-mar-1979 11:07		Mexico (loc uncertain)	ACAS
14-mar-1979 11:07		Mexico (loc uncertain)	ALOL
14-mar-1979 11:07		Mexico (loc uncertain)	APAT
14-mar-1979 11:07		Mexico (loc uncertain)	CALT
14-mar-1979 11:07		Mexico (loc uncertain)	CU01
14-mar-1979 11:07		Mexico (loc uncertain)	IN18
14-mar-1979 11:07		Mexico (loc uncertain)	INCM
14-mar-1979 11:07		Mexico (loc uncertain)	LOTA
14-mar-1979 11:07		Mexico (loc uncertain)	MONS
14-mar-1979 11:07		Mexico (loc uncertain)	SICC
14-mar-1979 11:07		Mexico (loc uncertain)	SICM
14-mar-1979 11:07		Mexico (loc uncertain)	SICS
14-mar-1979 11:07		Mexico (loc uncertain)	SXCU
14-mar-1979 11:07		Mexico (loc uncertain)	SXHO
14-mar-1979 11:07		Mexico (loc uncertain)	SXPU
14-mar-1979 11:07		Mexico (loc uncertain)	SXSO
14-mar-1979 11:07		Mexico (loc uncertain)	TXCH
14-mar-1979 11:07		Mexico (loc uncertain)	TXCL
14-mar-1979 11:07		Mexico (loc uncertain)	TXSO
14-mar-1979 11:07		Mexico (loc uncertain)	VILC
14-mar-1979 11:07		Mexico (loc uncertain)	VILD
15-mar-1979		Calif (loc undat)	Lucerne Valley
04-aug-1979 20:12		Alaska	Talkeetna, FAA VOR Bldg
06-aug-1979 17:05	gmt	Coyote Lake, CA	Gilroy array Sta 1
06-aug-1979 17:05	gmt	Coyote Lake, CA	Gilroy Array Sta 2
06-aug-1979 17:05	gmt	Coyote Lake, CA	Gilroy Array Sta 3
06-aug-1979 17:05	gmt	Coyote Lake, CA	Gilroy Array Sta 4
06-aug-1979 17:05	gmt	Coyote Lake, CA	Gilroy Array Sta 6
06-aug-1979 17:05	gmt	Coyote Lake, CA	San Juan Batista Fire Station
06-aug-1979 17:05	gmt	Coyote Lake, CA	Halls Valley, Grant Ranch
06-aug-1979 17:05	gmt	Coyote Lake, CA	San Juan Batista, 101/156
06-aug-1979 17:05	gmt	Coyote Lake, CA	San Martin, Coyote Creek
06-aug-1979 17:05	gmt	Coyote Lake, CA	San Martin, Coyote Creek

Date		Earthquake	Recording Station
06-aug-1979 17:05	gmt	Coyote Lake, CA	Bear Valley Sta 12
10-oct-1979 19:48	utc	Maxicali Valley	Mexico, Cerro Prieto
10-oct-1979 19:48	utc	Maxicali Valley	Mexico, Delta
15-oct-1979 23:17	gmt	Imperial Valley, CA	Mexico, Aeropuerto Maxicali
15-oct-1979 23:17	gmt	Imperial Valley, CA	Mexico, Agrarias
15-oct-1979 23:17	gmt	Imperial Valley, CA	Mexico, Cerro Prieto
15-oct-1979 23:17	gmt	Imperial Valley, CA	Mexico, Chihuahua
15-oct-1979 23:17	gmt	Imperial Valley, CA	Mexico, Compuertas
15-oct-1979 23:17	gmt	Imperial Valley, CA	Mexico, Cucapah
15-oct-1979 23:17	gmt	Imperial Valley, CA	Mexico, Delta
15-oct-1979 23:17	gmt	Imperial Valley, CA	Mexico, Maxicali Casa Flores
15-oct-1979 23:17	gmt	Imperial Valley, CA	Mexico, Victoria
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 10
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 11
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 12
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 13
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 1
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 2
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 3
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 4
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 5
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 6
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 7
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Array Sta 8
15-oct-1979 23:17	gmt	Imperial Valley, CA	Bonds Corner, Hwy 115 & 98
15-oct-1979 23:17	gmt	Imperial Valley, CA	Coachella Canal Sta 4
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro Highway 8 overpass
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro, Imper Val Irr Dist
15-oct-1979 23:17	gmt	Imperial Valley, CA	Callexico, Fire Station
15-oct-1979 23:17	gmt	Imperial Valley, CA	Calipatria Fire Station
15-oct-1979 23:17	gmt	Imperial Valley, CA	Brawley Airport
15-oct-1979 23:17	gmt	Imperial Valley, CA	Niland
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro, Parachute Test Site
15-oct-1979 23:17	gmt	Imperial Valley, CA	Moltville Post Office
15-oct-1979 23:17	gmt	Imperial Valley, CA	Plaster City
15-oct-1979 23:17	gmt	Imperial Valley, CA	Superstition Mtn, USAF Camera
15-oct-1979 23:17	gmt	Imperial Valley, CA	Westmoreland
15-oct-1979 23:17	gmt	Imperial Valley, CA	El Centro, Differential Array
15-oct-1979 23:17		Imp Val as (ns loc)	Bonds Corner, Hwy 115 & 98
15-oct-1979 23:17		Imp Val as (ns loc)	Brawley Airport
15-oct-1979 23:17		Imp Val as (ns loc)	Callexico, Fire Station
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Array Sta 1
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Array Sta 2
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Array Sta 3
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Array Sta 4
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Array Sta 5
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Array Sta 6
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Array Sta 7
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Array Sta 8
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Array Sta 9
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Array Sta 10
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Array Sta 11
15-oct-1979 23:17		Imp Val as (ns loc)	El Centro Differential Array
15-oct-1979 23:17		Imp Val as (ns loc)	Moltville Post Office
16-oct-1979 07:06		Jenkinsville SC	Monticello Dam, SC
05-nov-1979 17:04		Mexico	TUXT
21-dec-1979 20:40	utc	Maxicali Valley	Mexico, Chihuahua
21-dec-1979 20:40	utc	Maxicali Valley	Mexico, Compuertas
21-dec-1979 20:40	utc	Maxicali Valley	Mexico, Cucapah
27-dec-1979		Calif (loc undet)	Vermillion Valley Dam
24-jan-1980 19:00	utc	Livermore, CA	Del Valle Dam (toe)
24-jan-1980 19:00	utc	Livermore, CA	Del Valle Dam
24-jan-1980 19:00	utc	Livermore, CA	Livermore
27-jan-1980 02:33	utc	Livermore, CA	Del Valle Dam (toe)
27-jan-1980 02:33	utc	Livermore, CA	Del Valle Dam
27-jan-1980 02:33	utc	Livermore, CA	Livermore

Date		Earthquake	Recording Station
25-feb-1980 10:47	utc	Anza, CA	Terwilliger Valley
25-feb-1980 10:47	utc	Anza, CA	Borrego Air Ranch
25-feb-1980 10:47	utc	Anza, CA	Pinyon Flat Observ
25-feb-1980 10:47	utc	Anza, CA	Rancho de Anza
25-feb-1980 10:47	utc	Anza, CA	Anza Fire Station
13-apr-1980 06:16		Central California	Hollister
13-apr-1980 06:16		Central California	Gilroy Array Sta 2
13-apr-1980 06:16		Central California	Gilroy Array Sta 3
25-may-1980 12:36	utc	Convict Creek, CA	Convict Creek, SHARL Station
25-may-1980 16:33	utc	Mammoth Lakes, CA	Convict Creek, SHARL Station
25-may-1980 16:33	utc	Mammoth Lakes, CA	Long Valley Dam
25-may-1980 16:33	utc	Mammoth Lakes, CA	Mammoth Lakes High School
25-may-1980 16:33	utc	Mammoth Lakes, CA	Vermillion Valley Dam
25-may-1980 16:36		Mammoth Lakes, CA	Mammoth Lakes High School Gym
25-may-1980 16:49	utc	Mammoth Lakes, CA	Convict Creek, SHARL Station
25-may-1980 16:49	utc	Mammoth Lakes, CA	Long Valley Dam
25-may-1980 16:49	utc	Mammoth Lakes, CA	Mammoth Lakes High School
25-may-1980 19:44	utc	Mammoth Lakes, CA	Convict Creek, SHARL Station
25-may-1980 19:44	utc	Mammoth Lakes, CA	Long Valley Dam
25-may-1980 20:35	utc	Mammoth Lakes, CA	Convict Creek, SHARL Station
25-may-1980 20:35	utc	Mammoth Lakes, CA	Long Valley Dam
26-may-1980 18:57	utc	Convict Creek, CA	Convict Creek, SHARL Station
26-may-1980 18:57	utc	Convict Creek, CA	Long Valley Dam
27-may-1980 07:51	utc	Benton Calif	Benton, CDOT Maint Yard
27-may-1980 07:51	utc	Benton Calif	Bishop, Paradise Lodge
27-may-1980 07:51	utc	Benton Calif	Long Valley Dam
27-may-1980 07:51	utc	Benton Calif	Convict Creek, SHARL Station
27-may-1980 14:50	utc	Mammoth Lakes, CA	Convict Creek, SHARL Station
27-may-1980 14:50	utc	Mammoth Lakes, CA	Long Valley Dam
27-may-1980 14:50	utc	Mammoth Lakes, CA	FIS
27-may-1980 14:50	utc	Mammoth Lakes, CA	PSI
27-may-1980 14:50	utc	Mammoth Lakes, CA	Green Church (temp)
27-may-1980 14:50	utc	Mammoth Lakes, CA	Long Valley Fire Dept (temp)
27-may-1980 14:50	utc	Mammoth Lakes, CA	Mammoth Elem School (temp)
27-may-1980 14:50	utc	Mammoth Lakes, CA	Convict Lake (temp)
27-may-1980 14:50	utc	Mammoth Lakes, CA	McGee Creek Inn (temp)
27-may-1980 14:50	utc	Mammoth Lakes, CA	Cash Baugh Ranch (temp)
27-may-1980 19:01		Mammoth Lakes, CA	Green Church (temp)
27-may-1980 19:01		Mammoth Lakes, CA	Long Valley Fire Dept (temp)
27-may-1980 19:01		Mammoth Lakes, CA	Mammoth Elem School (temp)
27-may-1980 19:01		Mammoth Lakes, CA	McGee Creek Inn (temp)
27-may-1980 19:01		Mammoth Lakes, CA	Cash Baugh Ranch (temp)
30-may-1980		Calif (loc undet)	Vermillion Valley Dam
31-may-1980 15:16		Mammoth Lakes, CA	Green Church (temp)
31-may-1980 15:16		Mammoth Lakes, CA	Long Valley Fire Dept (temp)
31-may-1980 15:16		Mammoth Lakes, CA	Mammoth Elem School (temp)
31-may-1980 15:16		Mammoth Lakes, CA	Convict Lake (temp)
31-may-1980 15:16		Mammoth Lakes, CA	McGee Creek Inn (temp)
09-jun-1980 03:28	utc	Mexicali Valley	Mexico, Cerro Prieto
09-jun-1980 03:28	utc	Mexicali Valley	Mexico, Chihuahua
09-jun-1980 03:28	utc	Mexicali Valley	Mexico, Cuernavaca
09-jun-1980 03:28	utc	Mexicali Valley	Hospital Victoria
09-jun-1980 03:28	utc	Mexicali Valley	Mexico, Victoria Hospital
09-jun-1980 03:28	utc	Mexicali Valley	Mexico, Victoria
09-jun-1980 03:28	utc	Mexicali Valley	CPRI
09-jun-1980 03:28	utc	Mexicali Valley	MHO2
09-jun-1980 03:28	utc	Mexicali Valley	MHOA
09-jun-1980 03:28	utc	Mexicali Valley	MHOS
09-jun-1980 03:28	utc	Mexicali Valley	MXCS

Date	Earthquake	Recording Station
09-jun-1980 03:30	utc Mexicali Valley	Mexico, Victoria
09-jun-1980 03:30	utc Mexicali Valley	CPRI
09-jun-1980 10:00	utc Mexicali Valley	Mexico, Cerro Prieto
09-jun-1980 10:00	utc Mexicali Valley	CPRI
09-jun-1980 22:33	utc Mexicali Valley	Mexico, Cerro Prieto
09-jun-1980 22:33	utc Mexicali Valley	Mexico, Delta
11-jun-1980 04:41	Mammoth Lakes, CA	Green Church (temp)
11-jun-1980 04:41	Mammoth Lakes, CA	Long Valley Fire Dept (temp)
11-jun-1980 04:41	Mammoth Lakes, CA	Mammoth Elem School (temp)
11-jun-1980 04:41	Mammoth Lakes, CA	Convict Lake (temp)
11-jun-1980 04:41	Mammoth Lakes, CA	McGee Creek (temp)
05-sep-1980 06:00	Mexico	ACAS
05-sep-1980 20:01	Mexico	ACAS
24-oct-1980 14:53	Mexico (loc uncertain)	ACAS
24-oct-1980 14:53	Mexico (loc uncertain)	LOTS
24-oct-1980 14:53	Mexico (loc uncertain)	MINA
24-oct-1980 14:53	Mexico (loc uncertain)	WONS
24-oct-1980 14:53	Mexico (loc uncertain)	OAXM
24-oct-1980 14:53	Mexico (loc uncertain)	PAJA
24-oct-1980 14:53	Mexico (loc uncertain)	SXCU
24-oct-1980 14:53	Mexico (loc uncertain)	SXPU
24-oct-1980 14:53	Mexico (loc uncertain)	SXSO
24-oct-1980 14:53	Mexico (loc uncertain)	SXVI
24-oct-1980 14:53	Mexico (loc uncertain)	TEMD
24-oct-1980 14:53	Mexico (loc uncertain)	TXCH
24-oct-1980 14:53	Mexico (loc uncertain)	TXCL
24-oct-1980 14:53	Mexico (loc uncertain)	TXCO
24-oct-1980 14:53	Mexico (loc uncertain)	TXSO
31-oct-1980 12:55	Mexico (loc uncertain)	ME02
31-oct-1980 12:55	Mexico (loc uncertain)	ME0A
31-oct-1980 12:55	Mexico (loc uncertain)	MXCS
05-nov-1980	Mexico (loc undet)	ME0S
08-nov-1980 10:27	utc Trinidad, CA offshore	Rio Dell, Painter St Overpass
19-dec-1980	Mexico (loc undet)	ACAS
14-feb-1981	Mexico (loc undet)	CEIC
11-mar-1981 05:11	Mexico (loc uncertain)	ACAS
13-apr-1981 06:51	Mexico (loc uncertain)	ACAS
26-apr-1981 12:09	utc Imperial Valley, CA	Brawley Airport
26-apr-1981 12:09	utc Imperial Valley, CA	Niland
26-apr-1981 12:09	utc Imperial Valley, CA	El Centro, Parachute Test Site
26-apr-1981 12:09	utc Imperial Valley, CA	Superstition Mtn, USAF Camera
26-apr-1981 12:09	utc Imperial Valley, CA	Westmorland
26-apr-1981 12:09	utc Imperial Valley, CA	Salton Sea, Wildlife Refuge
21-jul-1981	Mexico (loc undet)	OAXM
21-jul-1981	Mexico (loc undet)	SICM
21-jul-1981	Mexico (loc undet)	SICS
26-jul-1981 05:14	Mexico	VILC
05-sep-1981	Calif (loc undet)	San Onofre, Power Plant
11-sep-1981 05:03	Alaska	Bancas Point
17-sep-1981	Mexico (loc undet) a	ACAS
17-sep-1981	Mexico (loc undet) b	ACAS
17-sep-1981	Mexico (loc undet) c	ACAS
17-sep-1981	Mexico (loc undet) a	SGAR
17-sep-1981	Mexico (loc undet) b	SGAR

Date	Earthquake	Recording Station
17-sep-1981 00:19	Alaska	Bencas Point
17-sep-1981 09:50	Mexico	ACAS
17-sep-1981 09:50	Mexico	SMAR
01-oct-1981	Calif (loc undet)	Gem Lake Dam
02-oct-1981 23:01	Mexico (loc uncertain)	SMAR
25-oct-1981	Mexico (loc undet) a	SICC
25-oct-1981	Mexico (loc undet) a	SICM
25-oct-1981	Mexico (loc undet) b	SICM
25-oct-1981	Mexico (loc undet) c	SICM
25-oct-1981	Mexico (loc undet) a	VILB
25-oct-1981	Mexico (loc undet) b	VILB
25-oct-1981	Mexico (loc undet) c	VILB
25-oct-1981	Mexico (loc undet) b	VILC
25-oct-1981	Mexico (loc undet) c	VILC
25-oct-1981 03:22	Mexico (loc uncertain)	APAT
25-oct-1981 03:22	Mexico (loc uncertain)	CALT
25-oct-1981 03:22	Mexico (loc uncertain)	CHIL
25-oct-1981 03:22	Mexico (loc uncertain)	MADC
25-oct-1981 03:22	Mexico (loc uncertain)	SICC
25-oct-1981 03:22	Mexico (loc uncertain)	SICS
25-oct-1981 03:22	Mexico (loc uncertain)	SXCU
25-oct-1981 03:22	Mexico (loc uncertain)	SXEO
25-oct-1981 03:22	Mexico (loc uncertain)	SXPU
25-oct-1981 03:22	Mexico (loc uncertain)	SXVI
25-oct-1981 03:22	Mexico (loc uncertain)	TXCL
25-oct-1981 03:22	Mexico (loc uncertain)	TXSO
25-oct-1981 03:22	Mexico (loc uncertain)	VILC
30-oct-1981	Mexico (loc undet)	VILC
01-nov-1981 23:18	Mexico	VILC
11-nov-1981	Mexico (loc undet)	VILB
11-nov-1981	Mexico (loc undet)	VILC
12-nov-1981	Mexico (loc undat)	SICM
25-nov-1981	Mexico (loc undat)	CPRI
12-dec-1981 01:33	Mexico	IN18
12-dec-1981 01:33	Mexico	INMD
12-dec-1981 01:33	Mexico	SICM
22-dec-1981	Mexico (loc undat)	SICM
28-dec-1981 10:28	utc Alaska	Sand Point
29-dec-1981	Mexico (loc undat)	VILC
30-dec-1981	Mexico (loc undat)	INMI
30-dec-1981	Mexico (loc undat)	VILC
14-jan-1982	Mexico (loc undat)	ACAS
14-jan-1982	Mexico (loc undat)	IN18
14-jan-1982	Mexico (loc undat)	INMI
14-jan-1982	Mexico (loc undat)	SICM
14-jan-1982	Mexico (loc undat)	VILB
18-jan-1982 19:14	est New Hampshire	Franklin Falls Dam
18-jan-1982 19:14	est New Hampshire	Union Village Dam
18-jan-1982 19:14	est New Hampshire	North Hartland Dam
18-jan-1982 19:14	est New Hampshire	North Springfield Dam
18-jan-1982 19:14	est New Hampshire	Ball Mountain Dam
18-jan-1982 19:14	est New Hampshire	White River Junction, VA Hosp
31-mar-1982 21:02	New Brunswic as	Holmes Lake
31-mar-1982 21:02	New Brunswic as	Mitchell Lake Rd
31-mar-1982 21:02	New Brunswic as	Loggie Lodge



Date		Earthquake	Recording Station
31-mar-1982 21:02		New Brunswick as	Indian Brook
04-apr-1982 11:37		Mexico (loc uncertain)	MALC
03-may-1982 10:14		Alaska	Guyot Hills
05-may-1982 19:49	uto	Alaska	Anchorage, Gould Hall, APU
05-may-1982 19:49	uto	Alaska	Anchorage, Westward Hotel
05-may-1982 19:49	uto	Alaska	Anchorage, New Federal Bldg
05-may-1982 19:49	uto	Alaska	Anchorage, Alaska Hospital
05-may-1982 19:49	uto	Alaska	AGS
06-may-1982 16:28		New Brunswick as	Loggie Lodge
24-may-1982		Mexico (loc undet)	PAJA
07-jun-1982 06:52		Mexico (loc uncertain)	CHIL
07-jun-1982 06:52		Mexico (loc uncertain)	CU01
07-jun-1982 06:52		Mexico (loc uncertain)	MADC
07-jun-1982 06:52		Mexico (loc uncertain)	MADM
07-jun-1982 06:52		Mexico (loc uncertain)	MINA
07-jun-1982 06:52		Mexico (loc uncertain)	WONS
07-jun-1982 06:52		Mexico (loc uncertain)	QAXM
07-jun-1982 06:52		Mexico (loc uncertain)	SMAR
07-jun-1982 06:52		Mexico (loc uncertain)	TXCE
07-jun-1982 06:52		Mexico (loc uncertain)	TXSO
07-jun-1982 06:52		Mexico (loc uncertain)	YOSO
07-jun-1982 10:59		Mexico (loc uncertain)	CHIL
07-jun-1982 10:59		Mexico (loc uncertain)	CU01
07-jun-1982 10:59		Mexico (loc uncertain)	LOTA
07-jun-1982 10:59		Mexico (loc uncertain)	LOTS
07-jun-1982 10:59		Mexico (loc uncertain)	MADC
07-jun-1982 10:59		Mexico (loc uncertain)	MADM
07-jun-1982 10:59		Mexico (loc uncertain)	MINA
07-jun-1982 10:59		Mexico (loc uncertain)	WONS
07-jun-1982 10:59		Mexico (loc uncertain)	SMAR
07-jun-1982 10:59		Mexico (loc uncertain)	TXCE
15-jun-1982		Mexico (loc undet)	IN18
15-jun-1982		Mexico (loc undet)	MINA
15-jun-1982		Mexico (loc undet)	SICC
15-jun-1982		Mexico (loc undet)	SICM
15-jun-1982 23:49	uto	Anza, CA	Anza Fire Station
15-jun-1982 23:49	uto	Anza, CA	Murkey Creek Park
15-jun-1982 23:49	uto	Anza, CA	Terwilliger Valley
16-jun-1982 13:57		Mexico (loc uncertain)	IN18
16-jun-1982 13:57		Mexico (loc uncertain)	SICM
19-jun-1982 06:24		Mexico (loc uncertain)	IN18
05-jul-1982		Enola Arkansas	Enola Arkansas
07-aug-1982 08:37		Alaska	Bancas Point
25-aug-1982 15:05		Alaska	Bancas Point
01-oct-1982 08:59		Mexico (loc uncertain)	ACAS
01-oct-1982 08:59		Mexico (loc uncertain)	PESC
01-oct-1982 08:59		Mexico (loc uncertain)	SMAR
02-oct-1982 15:42		Mexico	SMAR
16-dec-1982 06:53	uto	Rio Dell, CA	Rio Dell, Painter St Overpass
07-jan-1983 01:38	uto	Mammoth Lakes, CA	Convict Creek, SMARL Station
07-jan-1983 03:24	uto	Mammoth Lakes, CA	Convict Creek, SMARL Station
17-jan-1983		Mexico (loc undet)	AMGC
17-jan-1983		Mexico (loc undet)	CHIC
17-jan-1983		Mexico (loc undet)	PORC

Date	Earthquake	Recording Station
24-jan-1983 08:17	Mexico (loc uncertain)	AMGC
14-feb-1983 03:20	uto Alaska	Sand Point
14-feb-1983 03:20	uto Alaska	Simeonof Island
14-feb-1983 03:20	uto Alaska	Chernabura
14-feb-1983 03:20	uto Alaska	Pirate Shake
14-feb-1983 08:10	uto Alaska	Sand Point
14-feb-1983 08:10	uto Alaska	Simeonof Island
14-feb-1983 08:10	uto Alaska	Chernabura
14-feb-1983 08:10	uto Alaska	Pirate Shake
04-mar-1983	N Dakota	Big Bend Dam
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Cholame 12w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Cholame 1a
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Cholame 2a
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Cholame 2wa
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Cholame 3a
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Cholame 3w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Cholame 4a w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Cholame 4w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Cholame 5w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Cholame 6w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Cholame 6w
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 1
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 10
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 11
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 12
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 14
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 15
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 16
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 2
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 3
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 6
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 7
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 8
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 9
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Gold Hill 1w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Gold Hill 2a
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Gold Hill 2w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Gold Hill 3a
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Gold Hill 3w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Gold Hill 4w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Gold Hill 5w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Gold Hill 6w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Stone Corral 1a
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Stone Corral 2a
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Stone Corral 3a
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Stone Corral 4a
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Vineyard Canyon 1a
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Vineyard Canyon 1w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Vineyard Canyon 2a
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Vineyard Canyon 2w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Vineyard Canyon 3w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Vineyard Canyon 4w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Vineyard Canyon 5w
02-may-1983 23:42	uto Coalinga, CA	Parkfield -Vineyard Canyon 6w
02-may-1983 23:42	uto Coalinga, CA	Pleasant Valley PP - Switchyrd
02-may-1983 23:42	uto Coalinga, CA	Cantua Creek School
02-may-1983 23:42	uto Coalinga, CA	Slack Canyon
02-may-1983 23:42	uto Coalinga, CA	Parkfield - fault zone 4
02-may-1983 23:42	uto Coalinga, CA	Pleasant Valley PP - Basement
09-may-1983 02:49	uto Coalinga, CA as	Burnett Construction (temp)
09-may-1983 02:49	uto Coalinga, CA as	Oil City (temp)
09-may-1983 02:49	uto Coalinga, CA as	Oil Fields Fire Sta F.F. (temp)
09-may-1983 02:49	uto Coalinga, CA as	Palmer Ave (temp)
09-may-1983 02:49	uto Coalinga, CA as	Pleasant Valley PP - Switchyrd
09-may-1983 02:49	uto Coalinga, CA as	SUB (GEOS)
09-may-1983 02:49	uto Coalinga, CA as	SKH (GEOS)
09-may-1983 02:49	uto Coalinga, CA as	LLN (GEOS)
09-may-1983 02:49	uto Coalinga, CA as	MIT (GEOS)

Date		Earthquake	Recording Station
09-may-1983 02:49	utc	Coalinga, CA as	VEW (GEOS)
09-may-1983 02:49	utc	Coalinga, CA as	JUN (GEOS)
09-may-1983 02:49	utc	Coalinga, CA as	ALP (GEOS)
09-may-1983 02:49	utc	Coalinga, CA as	YUB (GEOS)
09-may-1983 02:49	utc	Coalinga, CA as	TRA (GEOS)
09-may-1983 02:49	utc	Coalinga, CA as	SGT (GEOS)
09-may-1983 02:49	utc	Coalinga, CA as	Coalinga, Sulphur Baths (temp)
09-may-1983 02:49	utc	Coalinga, CA as	Coalinga, CHP (temp)
09-may-1983 02:49	utc	Coalinga, CA as	Skunk Hollow (temp)
09-may-1983 02:49	utc	Coalinga, CA as	Harris Ranch (temp)
09-may-1983 02:49	utc	Coalinga, CA as	Anticline Ridge, FF (temp)
09-may-1983 02:49	utc	Coalinga, CA as	Anticline Ridge, Pad (temp)
09-may-1983 02:49	utc	Coalinga, CA as	Pleasant Valley PP - Basement
11-jun-1983 03:09	utc	Coalinga, CA as	Coalinga, Sulphur Baths (temp)
11-jun-1983 03:09	utc	Coalinga, CA as	Coalinga, CHP (temp)
11-jun-1983 03:09	utc	Coalinga, CA as	Burnett Construction (temp)
28-jun-1983 03:25	utc	Alaska	Guyot Hills
09-jul-1983 07:40	gmt	Coalinga, CA as	Burnett Construction (temp)
09-jul-1983 07:40	gmt	Coalinga, CA as	Oil City (temp)
09-jul-1983 07:40	gmt	Coalinga, CA as	Oil Fields Fire Sta F.F. (temp)
09-jul-1983 07:40	gmt	Coalinga, CA as	Palmer Ave (temp)
09-jul-1983 07:40	gmt	Coalinga, CA as	Coalinga, Sulphur Baths (temp)
09-jul-1983 07:40	gmt	Coalinga, CA as	Coalinga, CHP (temp)
09-jul-1983 07:40	gmt	Coalinga, CA as	Oil Fields Fire Sta pad (temp)
09-jul-1983 07:40	gmt	Coalinga, CA as	Skunk Hollow (temp)
09-jul-1983 07:40	gmt	Coalinga, CA as	Transmitter Hill
09-jul-1983 07:40	gmt	Coalinga, CA as	Anticline Ridge, FF (temp)
09-jul-1983 07:40	gmt	Coalinga, CA as	Anticline Ridge, Pad (temp)
12-jul-1983 15:10	utc	Alaska	Valdez High School
12-jul-1983 15:10	utc	Alaska	VDE Valdez
12-jul-1983 15:10	utc	Alaska	Anchorage, Alaska Hospital
22-jul-1983 02:39	gmt	Coalinga, CA as	Burnett Construction (temp)
22-jul-1983 02:39	gmt	Coalinga, CA as	Oil City (temp)
22-jul-1983 02:39	gmt	Coalinga, CA as	Oil Fields Fire Sta (temp)
22-jul-1983 02:39	gmt	Coalinga, CA as	Pleasant Valley Pump Plant
22-jul-1983 02:39	gmt	Coalinga, CA as	Palmer Ave (temp)
22-jul-1983 02:39	gmt	Coalinga, CA as	Coalinga, Sulphur Baths (temp)
22-jul-1983 02:39	gmt	Coalinga, CA as	Coalinga, CHP (temp)
22-jul-1983 03:43	utc	Coalinga, CA as	Coalinga, Sulphur Baths (temp)
22-jul-1983 03:43	utc	Coalinga, CA as	Coalinga, CHP (temp)
23-jul-1983 05:07		Mexico	ACAS
25-jul-1983 22:31	utc	Coalinga, CA as	Coalinga, Sulphur Baths (temp)
25-jul-1983 22:31	utc	Coalinga, CA as	Coalinga, CHP (temp)
14-aug-1983		Mexico (loc undat)	TUXT
17-aug-1983		Mexico (loc undat)	CHI
19-aug-1983		Mexico (loc undat)	ANGC
24-aug-1983 13:36	utc	Cape Mendocino, CA	Rio Dell, Painter St Overpass
07-sep-1983 19:22	utc	Alaska	Anchorage, Alaska Hospital
07-sep-1983 19:22	utc	Alaska	(WDB) Whittier
07-sep-1983 19:22	utc	Alaska	VDE Valdez
07-sep-1983 19:22	utc	Alaska	Valdez High School
07-sep-1983 19:22	utc	Alaska	Valdez Dock Co
09-sep-1983 09:16	utc	Coalinga, CA as	Coalinga, Sulphur Baths (temp)
09-sep-1983 09:16	utc	Coalinga, CA as	Coalinga, CHP (temp)
15-sep-1983 10:39		Mexico	ANGB
15-sep-1983 10:39		Mexico	ANGC
15-sep-1983 10:39		Mexico	ANGD
15-sep-1983 10:39		Mexico	ANGE
15-sep-1983 10:39		Mexico	ANGI

Date		Earthquake	Recording Station
15-sep-1983 10:39		Mexico	ANGM
15-sep-1983 10:39		Mexico	CHIB
15-sep-1983 10:39		Mexico	CHIC
15-sep-1983 10:39		Mexico	CHID
15-sep-1983 10:39		Mexico	CHII
15-sep-1983 10:39		Mexico	CHIM
15-sep-1983 10:39		Mexico	PORC
15-sep-1983 10:39		Mexico	PORD
15-sep-1983 10:39		Mexico	TUXT
18-sep-1983 10:46		Mexico	ANGB
18-sep-1983 10:46		Mexico	ANGC
18-sep-1983 10:46		Mexico	ANGM
18-sep-1983 10:46		Mexico	CHIB
18-sep-1983 10:46		Mexico	CHIC
18-sep-1983 10:46		Mexico	CHIM
18-sep-1983 10:46		Mexico	TUXT
28-oct-1983 14:06	utc	Borah Peak, ID	Dworshak Dam
28-oct-1983 14:06	utc	Borah Peak, ID	Lucky Peak Dam
28-oct-1983 14:06	utc	Borah Peak, ID	Ririe Dam abutment
28-oct-1983 14:06	utc	Borah Peak, ID	Ririe Dam downstream
16-nov-1983		Hawaii	Hawaii Natl Pk, Wahaula Ctr
16-nov-1983		Hawaii	Hawaii Natl Pk, Volcano Obsv
16-nov-1983		Hawaii	Hilo, Sewage Plant
16-nov-1983		Hawaii	Hilo, Univ of Hawaii
16-nov-1983		Hawaii	Kailua-Kona Fire Station
16-nov-1983		Hawaii	Kealahakua, Kona Hosp
16-nov-1983		Hawaii	Mauna Kea State Park
16-nov-1983		Hawaii	Kapa'au, Kohala Police Sta
16-nov-1983		Hawaii	Pahoa Fire Station
16-nov-1983		Hawaii	Waimea Fire Station
16-nov-1983		Hawaii	Hilo, USFW
16-nov-1983		Hawaii	Honokaa Fire Station
16-nov-1983		Hawaii	Mauna Loa Obsv
16-nov-1983		Hawaii	Pahala, Kau Hospita
16-nov-1983		Hawaii	Waiohinu, Kau Baseyard
02-dec-1983		Mexico (loc undat)	ANGB
02-dec-1983		Mexico (loc undat)	ANGC
02-dec-1983		Mexico (loc undat)	ANGD
02-dec-1983		Mexico (loc undat)	ANGE
02-dec-1983		Mexico (loc undat)	ANGI
08-dec-1983 10:21		Mexico	ALMR
08-dec-1983 10:21		Mexico	CYCP
08-dec-1983 10:21		Mexico	GUAC
08-dec-1983 10:21		Mexico	IN12
08-dec-1983 10:21		Mexico	IN18
08-dec-1983 10:21		Mexico	IN80
08-dec-1983 10:21		Mexico	INMI
08-dec-1983 10:21		Mexico	IPLM
08-dec-1983 10:21		Mexico	VILC
27-dec-1983 23:06		Alaska	Cold Bay Airport
27-dec-1983 23:06		Alaska	Sanak
27-dec-1983 23:06		Alaska	Deer
07-jan-1984		Mexico (loc undat)	PORC
28-jan-1984		Mexico (loc undat)	CARD
28-jan-1984		Mexico (loc undat) a	CARD
28-jan-1984		Mexico (loc undat)	IN18
28-jan-1984 19:23		Mexico (loc uncertain)	CARI
28-jan-1984 19:23		Mexico (loc uncertain)	IN18
24-apr-1984 21:15	gmt	Morgan Hill, CA	Anderson Dam Downstream
24-apr-1984 21:15	gmt	Morgan Hill, CA	Hollister, City Hall
24-apr-1984 21:15	gmt	Morgan Hill, CA	San Justo Damsite
24-apr-1984 21:15	gmt	Morgan Hill, CA	Agnews State Hospital
24-apr-1984 21:15	gmt	Morgan Hill, CA	Capitolas
24-apr-1984 21:15	gmt	Morgan Hill, CA	Corralitos

Date	Earthquake	Recording Station
24-apr-1984 21:15	gmt Morgan Hill, CA	San Martin, Coyote Creek
24-apr-1984 21:15	gmt Morgan Hill, CA	Fremont, Mission San Jose
24-apr-1984 21:15	gmt Morgan Hill, CA	Gilroy array Sta 1
24-apr-1984 21:15	gmt Morgan Hill, CA	Gilroy Array Sta 2
24-apr-1984 21:15	gmt Morgan Hill, CA	Gilroy Array Sta 3
24-apr-1984 21:15	gmt Morgan Hill, CA	Gilroy Array Sta 4
24-apr-1984 21:15	gmt Morgan Hill, CA	Gilroy Array Sta 6
24-apr-1984 21:15	gmt Morgan Hill, CA	Gilroy Array Sta 7
24-apr-1984 21:15	gmt Morgan Hill, CA	Gilroy array Sta 1
24-apr-1984 21:15	gmt Morgan Hill, CA	Halls Valley, Grant Ranch
24-apr-1984 21:15	gmt Morgan Hill, CA	APEEL Array Sta 1E
24-apr-1984 21:15	gmt Morgan Hill, CA	Los Banos
24-apr-1984 21:15	gmt Morgan Hill, CA	APEEL Array Sta 1
24-apr-1984 21:15	gmt Morgan Hill, CA	San Francisco Intrntl Airport
24-apr-1984 21:15	gmt Morgan Hill, CA	San Juan Bautista Fire Station
24-apr-1984 21:15	gmt Morgan Hill, CA	Santa Cruz, Lick Observatory
24-apr-1984 21:15	gmt Morgan Hill, CA	San Jose, IBM (approx loc)
24-apr-1984 21:15	gmt Morgan Hill, CA	Santa Teresa, IBM (approx loc)
24-apr-1984 21:15	gmt Morgan Hill, CA	Almaden, IBM (approx loc)
24-apr-1984 21:15	gmt Morgan Hill, CA	Hollister Diff Array #1
24-apr-1984 21:15	gmt Morgan Hill, CA	Hollister Diff Array #3
24-apr-1984 21:15	gmt Morgan Hill, CA	Hollister Diff Array #4
24-apr-1984 21:15	gmt Morgan Hill, CA	Hollister Diff Array #5
24-apr-1984 21:15	gmt Morgan Hill, CA	S.J. Fwy Overpass - Free Field
24-apr-1984 21:15	gmt Morgan Hill, CA	S.J. Fwy Overpass - Abutment
24-apr-1984 21:15	gmt Morgan Hill, CA	S.J. Fwy Overpass - Col Base
04-jun-1984 04:34	Mexico	YOSO
02-jul-1984 04:50	Mexico (loc uncertain)	SXPU
14-jul-1984 21:03	Mexico	ACAP
14-jul-1984 21:03	Mexico	ACAS
14-jul-1984 21:03	Mexico	CARI
23-jul-1984 21:07	Alaska	Deer
03-aug-1984	Mexico (loc undet)	CHID
14-aug-1984 01:02	Alaska	Anchorage (8013)
31-aug-1984 19:46	Mexico	ANGC
31-aug-1984 19:46	Mexico	ANGD
31-aug-1984 19:46	Mexico	CHIC
31-aug-1984 19:46	Mexico	CHID
31-aug-1984 19:46	Mexico	CHII
31-aug-1984 19:46	Mexico	CHIM
31-aug-1984 19:46	Mexico	PORC
31-aug-1984 19:46	Mexico	PORD
31-aug-1984 19:46	Mexico	PORI
05-oct-1984 15:46	Alaska	Adak
19-nov-1984 12:07	Alaska	Adak
23-nov-1984 10:38	Alaska	Deer
23-nov-1984 18:08	utc Round Valley, CA	McGee Creek, 546' downhole
23-nov-1984 18:08	utc Round Valley, CA	McGee Creek, 115' downhole
23-nov-1984 18:08	utc Round Valley, CA	McGee Creek, surface
23-nov-1984 19:09	Round Valley, CA as	McGee Creek, 546' downhole
23-nov-1984 19:09	Round Valley, CA as	McGee Creek, 115' downhole
23-nov-1984 19:09	Round Valley, CA as	McGee Creek, surface
25-nov-1984	Calif (loc undet)	Shaver Dam
26-nov-1984	Calif (loc undet)	Vermillion Valley Dam
10-feb-1985	Mexico (loc undet)	GUAC
10-feb-1985	Mexico (loc undet)	IN12
11-feb-1985	Mexico (loc undet)	SXPU

Date	Earthquake	Recording Station
12-feb-1985	Mexico (loc undet)	CORI
20-feb-1985	Mexico (loc undet)	PORC
22-feb-1985 20:39	Alaska	Deer
23-feb-1985 01:11	Mexico (loc undet)	Cerro de Piedra
23-mar-1985 19:33	Mexico	El Ocotillo
23-mar-1985 19:33	Mexico	El Ocotito
27-mar-1985 00:40	Mexico	Las Vigas
27-mar-1985 00:40	Mexico	Cerro de Piedra
06-apr-1985 11:57	Mexico	El Ocotito
28-apr-1985 19:27	Mexico	IN12
28-apr-1985 19:27	Mexico	INMD
28-apr-1985 19:27	Mexico	VILC
01-may-1985 00:59	Alaska	Deer
06-may-1985 01:13	Mexico	Las Vigas
06-may-1985 01:13	Mexico	El Ocotito
21-may-1985 01:13	Alaska	Nagai
02-jun-1985	Mexico (loc undet)	IN12
02-jun-1985	Mexico (loc undet)	VILC
02-jun-1985	Mexico (loc undet)	VILI
19-jun-1985 03:09	Mexico	IN12
19-jun-1985 03:09	Mexico	VILC
19-jun-1985 03:09	Mexico	VILD
02-jul-1985 01:25	Mexico	Las Vigas
04-jul-1985 08:51	Mexico (loc uncertain)	Las Vigas
04-jul-1985 08:51	Mexico (loc uncertain)	El Ocotito
07-jul-1985 06:06	Mexico	Las Vigas
07-jul-1985 06:17	Mexico	Las Vigas
07-jul-1985 18:27	Mexico	Coyuca
19-jul-1985 22:25	Mexico	Las Vigas
26-jul-1985	Mexico (loc undet)	IN12
26-jul-1985	Mexico (loc undet)	VILI
26-jul-1985	Mexico (loc undet)	EACA
01-aug-1985	Mexico (loc undet)	IN12
21-aug-1985 05:14	Mexico	Papanoa
22-aug-1985 19:50	Mexico	Papanoa
04-sep-1985 13:27	Mexico	Papanoa
15-sep-1985 07:57	Mexico (loc uncertain)	El Ocotito
19-sep-1985	Mexico (loc undet) a	IN12
19-sep-1985	Mexico (loc undet) b	IN12
19-sep-1985	Mexico (loc undet) c	IN12
19-sep-1985	Mexico (loc undet) d	IN12
19-sep-1985	Mexico (loc undet) e	IN12
19-sep-1985	Mexico (loc undet) f	IN12
19-sep-1985	Mexico (loc undet) a	EACA
19-sep-1985	Mexico (loc undet) d	EACA
19-sep-1985	Mexico (loc undet) c	EACA
19-sep-1985 13:17	Mexico (loc uncertain)	Caleta de Campos
19-sep-1985 13:17	Mexico (loc uncertain)	Mexico, Villita dam

Date	Earthquake	Recording Station
19-sep-1985 13:17	Mexico (loc uncertain)	La Union
19-sep-1985 13:17	Mexico (loc uncertain)	Zihuatanejo
19-sep-1985 13:17	Mexico (loc uncertain)	Papanoa
19-sep-1985 13:17	Mexico (loc uncertain)	El Suchil
19-sep-1985 13:17	Mexico (loc uncertain)	Atoyac
19-sep-1985 13:17	Mexico (loc uncertain)	El Paraiso
19-sep-1985 13:17	Mexico (loc uncertain)	El Cayaco
19-sep-1985 13:17	Mexico (loc uncertain)	Coyuca
19-sep-1985 13:17	Mexico (loc uncertain)	La Venta
19-sep-1985 13:17	Mexico (loc uncertain)	Xaltianguis
19-sep-1985 13:17	Mexico (loc uncertain)	Teacalco
19-sep-1985 13:17	Mexico (loc uncertain)	El Ocotito
19-sep-1985 13:17	Mexico (loc uncertain)	Cerro de Piedra
19-sep-1985 13:17	Mexico (loc uncertain)	Las Mesas
19-sep-1985 13:17	Mexico (loc uncertain)	CUIP
19-sep-1985 13:17	Mexico (loc uncertain)	COMV
19-sep-1985 13:17	Mexico (loc uncertain)	SXPU
19-sep-1985 13:17	Mexico (loc uncertain)	TACY
19-sep-1985 13:17	Mexico (loc uncertain)	SXVI
19-sep-1985 13:17	Mexico (loc uncertain)	SCT1
19-sep-1985 13:17	Mexico (loc uncertain)	FLBB
19-sep-1985 13:17	Mexico (loc uncertain)	FLBD
19-sep-1985 13:17	Mexico (loc uncertain)	ACAS
19-sep-1985 13:17	Mexico (loc uncertain)	APAT
19-sep-1985 13:17	Mexico (loc uncertain)	ATYC
19-sep-1985 13:17	Mexico (loc uncertain)	AZIH
19-sep-1985 13:17	Mexico (loc uncertain)	CALE
19-sep-1985 13:17	Mexico (loc uncertain)	CARI
19-sep-1985 13:17	Mexico (loc uncertain)	CAYA
19-sep-1985 13:17	Mexico (loc uncertain)	CDAF
19-sep-1985 13:17	Mexico (loc uncertain)	CDAO
19-sep-1985 13:17	Mexico (loc uncertain)	CHIL
19-sep-1985 13:17	Mexico (loc uncertain)	COYC
19-sep-1985 13:17	Mexico (loc uncertain)	CPDR
19-sep-1985 13:17	Mexico (loc uncertain)	CU01
19-sep-1985 13:17	Mexico (loc uncertain)	FICA
19-sep-1985 13:17	Mexico (loc uncertain)	IN12
19-sep-1985 13:17	Mexico (loc uncertain)	INMD
19-sep-1985 13:17	Mexico (loc uncertain)	MADI
19-sep-1985 13:17	Mexico (loc uncertain)	MSAS
19-sep-1985 13:17	Mexico (loc uncertain)	OCTT
19-sep-1985 13:17	Mexico (loc uncertain)	PAPN
19-sep-1985 13:17	Mexico (loc uncertain)	SCTI
19-sep-1985 13:17	Mexico (loc uncertain)	SUCH
19-sep-1985 13:17	Mexico (loc uncertain)	TEAC
19-sep-1985 13:17	Mexico (loc uncertain)	TXSO
19-sep-1985 13:17	Mexico (loc uncertain)	UNIO
19-sep-1985 13:17	Mexico (loc uncertain)	VILC
19-sep-1985 13:17	Mexico (loc uncertain)	VILE
19-sep-1985 13:17	Mexico (loc uncertain)	VNTA
19-sep-1985 13:17	Mexico (loc uncertain)	ZACA
19-sep-1985 13:33	Mexico	Zihuatanejo
19-sep-1985 13:33	Mexico	CALE
19-sep-1985 13:33	Mexico	IN12
19-sep-1985 13:33	Mexico	INMD
19-sep-1985 13:33	Mexico	SXVI
19-sep-1985 13:33	Mexico	FLBD
19-sep-1985 13:33	Mexico	ZACA
20-sep-1985 19:30	Mexico	ZACA
21-sep-1985 01:37	Mexico (loc uncertain)	La Union
21-sep-1985 01:37	Mexico (loc uncertain)	Zihuatanejo
21-sep-1985 01:37	Mexico (loc uncertain)	Mexico, Villita dam
21-sep-1985 01:37	Mexico (loc uncertain)	Papanoa
21-sep-1985 01:37	Mexico (loc uncertain)	El Suchil
21-sep-1985 01:37	Mexico (loc uncertain)	Atoyac
21-sep-1985 01:37	Mexico (loc uncertain)	El Paraiso
21-sep-1985 01:37	Mexico (loc uncertain)	El Cayaco
21-sep-1985 01:37	Mexico (loc uncertain)	Coyuca
21-sep-1985 01:37	Mexico (loc uncertain)	Xaltianguis
21-sep-1985 01:37	Mexico (loc uncertain)	La Venta
21-sep-1985 01:37	Mexico (loc uncertain)	Teacalco

Date	Earthquake	Recording Station
21-sep-1985 01:37	Mexico (loc uncertain)	Cerro de Piedra
21-sep-1985 01:37	Mexico (loc uncertain)	ACAS
21-sep-1985 01:37	Mexico (loc uncertain)	APAT
21-sep-1985 01:37	Mexico (loc uncertain)	ATYC
21-sep-1985 01:37	Mexico (loc uncertain)	AEIH
21-sep-1985 01:37	Mexico (loc uncertain)	CARD
21-sep-1985 01:37	Mexico (loc uncertain)	CAYA
21-sep-1985 01:37	Mexico (loc uncertain)	CDAF
21-sep-1985 01:37	Mexico (loc uncertain)	CDAO
21-sep-1985 01:37	Mexico (loc uncertain)	COYC
21-sep-1985 01:37	Mexico (loc uncertain)	CPDR
21-sep-1985 01:37	Mexico (loc uncertain)	CULP
21-sep-1985 01:37	Mexico (loc uncertain)	CUMV
21-sep-1985 01:37	Mexico (loc uncertain)	INMO
21-sep-1985 01:37	Mexico (loc uncertain)	PAPN
21-sep-1985 01:37	Mexico (loc uncertain)	SUCH
21-sep-1985 01:37	Mexico (loc uncertain)	SEPU
21-sep-1985 01:37	Mexico (loc uncertain)	SKVI
21-sep-1985 01:37	Mexico (loc uncertain)	TACY
21-sep-1985 01:37	Mexico (loc uncertain)	TEAC
21-sep-1985 01:37	Mexico (loc uncertain)	TLED
21-sep-1985 01:37	Mexico (loc uncertain)	UNIO
21-sep-1985 01:37	Mexico (loc uncertain)	VILE
21-sep-1985 01:37	Mexico (loc uncertain)	VNTA
21-sep-1985 01:37	Mexico (loc uncertain)	EACA
21-sep-1985 01:40	Mexico (loc undet)	Eihuatanejo
21-sep-1985 01:40	Mexico (loc undet)	VILC
21-sep-1985 01:41	Mexico (loc undet)	Eihuatanejo
21-sep-1985 01:41	Mexico (loc undet)	VILC
21-sep-1985 01:56	Mexico as 1	Eihuatanejo
21-sep-1985 01:56	Mexico as 2	Eihuatanejo
21-sep-1985 01:56	Mexico as 1	VILC
21-sep-1985 01:56	Mexico as 2	VILC
21-sep-1985 01:56	Mexico as 1	VILI
21-sep-1985 02:10	Mexico	Papanoa
21-sep-1985 02:10	Mexico	VILC
21-sep-1985 09:07	Mexico	Papanoa
22-sep-1985	Mexico (loc undet) a	VILC
22-sep-1985	Mexico (loc undet) b	VILC
22-sep-1985	Mexico (loc undet) c	VILC
22-sep-1985	Mexico (loc undet) d	VILC
24-sep-1985	Mexico (loc undet) a	VILC
24-sep-1985	Mexico (loc undet) a	VILD
24-sep-1985	Mexico (loc undet) b	VILD
24-sep-1985	Mexico (loc undet) a	VILI
24-sep-1985	Mexico (loc undet) b	VILI
24-sep-1985	Mexico (loc undet) a	EACA
24-sep-1985	Mexico (loc undet) b	EACA
24-sep-1985 00:25	Mexico	Papanoa
24-sep-1985 00:25	Mexico	IN12
24-sep-1985 00:25	Mexico	IN18
24-sep-1985 00:25	Mexico	VILC
24-sep-1985 00:25	Mexico	VILD
24-sep-1985 00:25	Mexico	VILI
24-sep-1985 00:25	Mexico	EACA
25-sep-1985 07:43	Mexico	DAM
25-sep-1985 16:29	Alaska	Chernabura
25-sep-1985 16:29	Alaska	Sand Point
28-sep-1985 03:52	Mexico	Papanoa
28-sep-1985 03:52	Mexico	Eihuatanejo
28-sep-1985 03:52	Mexico	VILI
28-sep-1985 03:52	Mexico	IXT



Date		Earthquake	Recording Station
30-sep-1985 09:08		Mexico	Papanao
02-oct-1985 23:44	utc	Redlands	Rancho Cucamonga
03-oct-1985 06:29		Mexico	Papanao
09-oct-1985 09:34		Alaska	Big Koniuji
09-oct-1985 09:34		Alaska	Chernabura
09-oct-1985 09:34		Alaska	Dolgoi
09-oct-1985 09:34		Alaska	Deer
09-oct-1985 09:34		Alaska	Ivanof
09-oct-1985 14:16		Alaska	Chernabura
09-oct-1985 17:08		Mexico	Papanao
10-oct-1985 22:53		Alaska	Chernabura
19-oct-1985		Mexico (loc undet)	CUMV
20-oct-1985		Mexico (loc undet)	DFRO
26-oct-1985 16:00		Alaska	Chernabura
29-oct-1985 07:50		Mexico	Cerro de Piedra
29-oct-1985 08:30		Mexico	Xaltianguis
29-oct-1985 15:02		Mexico	Caleta de Campos
30-oct-1985		Mexico (loc undet)	TACY
03-nov-1985 07:52		Mexico	Papanao
09-nov-1985 04:46	gmt	Wahanni NWT Canada	Wahanni site 2
14-nov-1985 22:18		Alaska	Big Koniuji
14-nov-1985 22:18		Alaska	Chernabura
22-nov-1985 04:02		Mexico	Papanao
02-dec-1985		Mexico (loc undet)	SCTI
02-dec-1985		Mexico (loc undet)	SXVI
05-dec-1985 15:42		Mexico	Eihuatanejo
05-dec-1985 15:42		Mexico	Papanao
21-dec-1985 16:42		Mexico	Papanao
21-dec-1985 17:02		Mexico	Papanao
22-dec-1985		Mexico (loc undet)	TACY
22-dec-1985 18:43		Mexico	Papanao
23-dec-1985 05:16	gmt	Wahanni NWT Canada	Wahanni site 1
23-dec-1985 05:16	gmt	Wahanni NWT Canada	Wahanni site 2
23-dec-1985 05:16	gmt	Wahanni NWT Canada	Wahanni sta 3
23-dec-1985 05:48	gmt	Wahanni NWT Canada	Wahanni sta 1
24-dec-1985 19:28		Mexico	Papanao
25-dec-1985 15:43	gmt	Wahanni NWT Canada	Wahanni sta 3
28-dec-1985 04:39		Alaska	Adak
30-dec-1985 12:41		Alaska	Anchorage, Gould Hall, APU
30-dec-1985 12:41		Alaska	Anchorage, New Federal Bldg
30-dec-1985 12:41		Alaska	Anchorage, Alaska Hospital
30-dec-1985 12:41		Alaska	Anchorage (8001)
30-dec-1985 12:41		Alaska	Anchorage (8002)
30-dec-1985 12:41		Alaska	Anchorage (8004)
30-dec-1985 12:41		Alaska	Anchorage (8007)

Date	Earthquake	Recording Station
30-dec-1985 12:41	Alaska	Anchorage (8011)
03-jan-1986 00:17	Mexico	Papanao
04-jan-1986	Mexico (loc undet)	SCTI
05-jan-1986	Mexico (loc undet) b	DFRO
05-jan-1986	Mexico (loc undet) b	SCTI
05-jan-1986	Mexico (loc undet) a	SKVI
05-jan-1986	Mexico (loc undet) b	SKVI
05-jan-1986	Mexico (loc undet) b	TACY
12-jan-1986 16:51	Mexico	La Union
13-jan-1986 05:36	Mexico (loc undet)	Xaltianguis
15-jan-1986 06:45	Mexico	La Llave
15-jan-1986 06:45	Mexico	Papanao
18-jan-1986 20:27	Mexico	Papanao
19-jan-1986 08:19	Alaska	Deer
24-jan-1986 09:26	Mexico	Xaltianguis
24-jan-1986 09:26	Mexico	El Ocotito
24-jan-1986 18:03	Mexico	Papanao
24-jan-1986 18:03	Mexico	La Llave
26-jan-1986 00:55	Mexico	Papanao
26-jan-1986 03:03	Mexico	Papanao
26-jan-1986 19:20	gmt Hollister, CA	SAGO south B, Surface
26-jan-1986 19:20	gmt Hollister, CA	SAGO south A, Tunnel
26-jan-1986 19:20	gmt Hollister, CA	Hollister, Glorietta Warehouse
26-jan-1986 19:20	gmt Hollister, CA	Hollister Diff Array #3
26-jan-1986 19:20	gmt Hollister, CA	Hollister Diff Array #4
26-jan-1986 19:50	Mexico (loc undet)	Xaltianguis
28-jan-1986 00:48	Mexico	Xaltianguis
29-jan-1986 20:01	Mexico	Sihuatanajo
29-jan-1986 20:01	Mexico	Papanao
29-jan-1986 20:01	Mexico	La Llave
31-jan-1986 16:46	Painesville OH	Perry Power Plant
01-feb-1986 03:31	Mexico	El Ocotillo
01-feb-1986 03:31	Mexico	Xaltianguis
01-feb-1986 03:31	Mexico	El Ocotito
07-feb-1986 21:26	Mexico	Sihuatanajo
07-feb-1986 21:26	Mexico	Papanao
18-feb-1986 13:59	Mexico	Las Mesas
18-feb-1986 13:59	Mexico	Las Vigas
18-feb-1986 13:59	Mexico	El Ocotito
18-feb-1986 13:59	Mexico	Xaltianguis
02-mar-1986 20:42	Alaska	Adak
06-mar-1986 19:21	Mexico	Xaltianguis
12-mar-1986 14:50	Mexico	Xaltianguis
18-mar-1986 11:14	Mexico	Sihuatanajo
24-mar-1986 23:39	Mexico	Papanao
31-mar-1986 11:55	utc Mt Lewis	Halls Valley, Grant Ranch
31-mar-1986 11:55	utc Mt Lewis	San Jose, Great Western Bldg
31-mar-1986 11:55	utc Mt Lewis	San Jose, Santa Clara Co Bldg

Date		Earthquake	Recording Station
31-mar-1986 11:55	uto	Mt Lewis	San Jose, Town Park Towers
21-apr-1986 09:15		Mexico	Xaltianguis
30-apr-1986		Mexico (loc undet)	CU01
30-apr-1986 07:07		Mexico (loc uncertain)	Calata de Campos
30-apr-1986 07:07		Mexico (loc uncertain)	Arteaga
30-apr-1986 07:07		Mexico (loc uncertain)	Filo de Caballo
30-apr-1986 07:07		Mexico (loc uncertain)	Xaltianguis
30-apr-1986 07:07		Mexico (loc uncertain)	CDAO
30-apr-1986 07:07		Mexico (loc uncertain)	SKVI
03-may-1986 16:29		Mexico	Xaltianguis
05-may-1986 05:46		Mexico	Calata de Campos
07-may-1986 22:47		Alaska	Adak
16-may-1986 22:07		Mexico	Cerro de Piedra
29-may-1986 20:31		Mexico	Las Vigas
29-may-1986 20:31		Mexico	Las Mesas
29-may-1986 20:31		Mexico	Cerro de Piedra
29-may-1986 20:31		Mexico	El Ocotito
29-may-1986 20:31		Mexico	Xaltianguis
29-may-1986 21:42		Mexico	Las Vigas
11-jun-1986 21:39		Mexico	La Comunidad
11-jun-1986 21:39		Mexico	El Paraiso
11-jun-1986 21:39		Mexico	La Llave
16-jun-1986 05:51		Mexico	Xaltianguis
16-jun-1986 05:51		Mexico	Las Mesas
16-jun-1986 05:51		Mexico	Cerro de Piedra
16-jun-1986 05:51		Mexico	Coyuca
16-jun-1986 05:51		Mexico	Las Vigas
16-jun-1986 05:51		Mexico	El Paraiso
19-jun-1986 04:39		Mexico	La Union
19-jun-1986 04:39		Mexico	Sihuatanejo
19-jun-1986 04:39		Mexico	Arteaga
19-jun-1986 22:29		Alaska	Deer
22-jun-1986 12:45		Mexico	Xaltianguis
27-jun-1986 05:17		Mexico	Las Vigas
03-jul-1986 15:05		Mexico	Tonalapa
08-jul-1986 09:20	gmt	North Palm Springs, CA	Morongo Valley Fire Sta
08-jul-1986 09:20	gmt	North Palm Springs, CA	North Palm Springs Post Office
08-jul-1986 09:20	gmt	North Palm Springs, CA	Cabazon Post Office
08-jul-1986 09:20	gmt	North Palm Springs, CA	Indio
08-jul-1986 09:20	gmt	North Palm Springs, CA	White Water Cyn, Trout Farm
08-jul-1986 09:20	gmt	North Palm Springs, CA	Tula Canyon
08-jul-1986 09:20	gmt	North Palm Springs, CA	Lake Mathews Dam
08-jul-1986 09:20	gmt	North Palm Springs, CA	Red Mountain
08-jul-1986 09:20	gmt	North Palm Springs, CA	Burkey Creek Park
08-jul-1986 09:20	gmt	North Palm Springs, CA	Cranston Forest Sta
08-jul-1986 09:20	gmt	North Palm Springs, CA	Anza Fire Sta
08-jul-1986 09:20	gmt	North Palm Springs, CA	Sunnymead
08-jul-1986 09:20	gmt	North Palm Springs, CA	Fun Valley Reservoir 361
08-jul-1986 09:20	gmt	North Palm Springs, CA	Colton, I-10/15 Interchange
08-jul-1986 09:20	gmt	North Palm Springs, CA	Santa Rosa Mountain
08-jul-1986 09:20	gmt	North Palm Springs, CA	Devers Substation
09-jul-1986 23:57		Mexico	Xaltianguis
18-jul-1986 03:26		Mexico	Tonalapa
21-jul-1986 14:42		Chalfant Valley, CA	Mogee Creek, 546' downhole

Date		Earthquake	Recording Station
21-jul-1986 14:42		Chalfant Valley, CA	McGee Creek, 115' downhole
21-jul-1986 14:42		Chalfant Valley, CA	McGee Creek, surface
21-jul-1986 14:42		Chalfant Valley, CA	McGee Creek, 3' down
06-aug-1986 02:54		Mexico	Xaltianguis
19-aug-1986 04:34		Mexico	Xaltianguis
19-aug-1986 04:54		Mexico	Xaltianguis
22-aug-1986 09:31		Mexico (loc undet)	Tonalapa
06-sep-1986 06:20		Mexico	Xaltianguis
21-sep-1986 07:43		Mexico	Xaltianguis
22-sep-1986 21:06		Mexico	Xaltianguis
10-oct-1986 17:49	gmt	San Salvador	Centro Americana University
10-oct-1986 17:49	gmt	San Salvador	Geotechnical Investigation Cnt
10-oct-1986 17:49	gmt	San Salvador	Hotel Camino Real
10-oct-1986 17:49	gmt	San Salvador	Hotel Sheraton
10-oct-1986 17:49	gmt	San Salvador	Institute Urban Construction
10-oct-1986 17:49	gmt	San Salvador	National Geographical Inst
14-oct-1986 20:47		Mexico	Xaltianguis
31-oct-1986 12:41		Mexico	Xaltianguis
04-nov-1986 01:58		Mexico	La Union
04-nov-1986 01:58		Mexico	Sihtatanejo
26-nov-1986 20:57		Mexico	Papanea
14-dec-1986 07:28		Mexico	La Llave
14-dec-1986 07:28		Mexico	Papanea
16-dec-1986 18:56		Mexico	El Ocotito
16-dec-1986 18:56		Mexico	Xaltianguis
16-dec-1986 18:56		Mexico	El Paraiso
16-dec-1986 18:56		Mexico	Tonalapa



# United States Department of the Interior

## GEOLOGICAL SURVEY

OFFICE OF EARTHQUAKES, VOLCANOES, AND ENGINEERING

BRANCH OF ENGINEERING SEISMOLOGY AND GEOLOGY

345 Middlefield Road, MS 977

Menlo Park, California 94025

January 22, 1988

Dear :

As most of you know, the proliferation of strong-motion arrays and cheap computational power have led to evermore dispersed strong-motion data, despite the recommendations of a dozen or more panel reports to do something systematic in making uniformly processed data available, preferably from one location that will ensure consistency. This has led to a variety of problems in data availability, data base management, consistency of processed data, and statistical analyses of large but incomplete data sets. In fact, there are at least a few interesting accelerograms, one of which decorates this letter, that most people don't even know exist. Nowadays, compact-disc technology offers solutions to several of these problems. Because a thousand or so accelerograms can be inscribed on a single disc, it is now possible to set up any interested party with his or her own strong-motion data management/processing center at the cost of a high-performance p.c. (~\$5K), CD playback equipment, (~\$1K and falling), and one or more of the data discs (@ \$0.02 K).

The real issues involve what records to place on these discs, in what format, and with what complementary alphanumeric data. We are inclined toward a truly archival set of records the significance of which are well-established or otherwise certain. We are currently thinking in terms of two principal data sets, the first a collection of "free-field" records, the second a collection of significant records of structural motion. Basement records, when accompanied by other records of the same event in the the same building, could be common to both data sets. For either case, our field of view includes all of North America, from the Canal Zone through the Aluetian Islands, plus Hawaii.

Our division of labor in this enterprise is roughly along the following three lines; the collection of significant "free-field" accelerograms will be principally the responsibility of Hanks and the significant structural accelerograms will be principally the responsibility of Foutch. Using the collection of ENA strong-motion accelerograms as a starting point, Jacob will be collecting other intraplate earthquake accelerograms and supplementing these with appropriate regional and global seismograms.

Most of you can see yourselves serving one or more of these purposes, and we hope you will. For starters, we'd like to have your thoughts on any or all of the more specific matters listed below.

## I. What records to include?

What is a significant record? Magnitude ( $M \geq 5$ ), distance ( $R \leq 100$  km), and/or peak acceleration ( $a \geq 10\%g$ ) thresholds? The basis for accepting exceptions to these rules-of-thumb (e.g., Oroville, Mexico City records)? What relative value do the larger, more complete sets have, even at "small motions"? The relative value of a single record of one event, even if at quite large motions? What records can/will you contribute? How to extract records from recalcitrant parties? What types of structures to include? Only buildings, or buildings, bridges, dams,...?

## II. What should be the data format?

On this issue, there seems to be a strong but not universal consensus for minimally processed data, that is "Volume I" type material. This means that AGRAM or equivalent programs will need to be available on a floppy disc. Should there be a greater hue and cry for processed data (velocity, displacement, response spectra...), it can always be supplied on later discs, but as most of you are aware, one can get into trouble if one pushes the long-period limits too hard. Assuming the first disc(s) contain only acceleration time series, should we provide raw digital data or equally spaced data? All ~600 points/sec from the laser scanner, or a uniform 200 samples per second regardless of the digitizer? Should we include instrument correction, or not?

## III. Supplementary Alphanumeric Data

What additional information should be compiled and included either in record header or as tabular information at the end of the disc? Magnitudes, distances, peak accelerations, site conditions, floor plans, references...? This task can go on almost forever; we need to identify the essentials and just do without the cumbersome and the subjective. For the structural response data, should we supply extensive information in the header related to building size, weight, type, etc.; or should we provide a small document with, perhaps, one page per structure that will supply the pertinent information?

Linda Seekins of the Branch of Engineering Seismology and Geology is presently compiling a list of significant strong-motion accelerograms, both "free-field" and structural, and several of you have communicated with her. We hope to get these preliminary listings out to you in the next month or so. We'll have a better product, though, if you can get back to us on the above matters within several weeks.

Hanks will collect your thoughts at the letterhead address and will return all responses to any of you who express an interest. We very much appreciate your help.

Sincerely,



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