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# STATE-OF-THE-ART FOR ASSESSING EARTHQUAKE HAZARDS IN THE UNITED STATES

## Report 28

# RECOMMENDED ACCELEROGRAMS FOR EARTHQUAKE GROUND MOTIONS

by

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A catalogue of recommended accelerograms and response spectra is provided to accompany all representative values for Richter magnitudes at distance-determined peak horizontal accelerations-velocities-durations, hard and soft sites, shallow and deep earthquakes. Accelerograms are also recommended for corresponding Modified Mercalli intensities. The accelerograms are related to the Krinitzsky-Chang-Nuttli curves for magnitude and distance, and the Krinitzsky-Chang curves for MM intensity.

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CONTENTS

# PREFACE

This report is part of ongoing studies in Civil Works, Research and Development Investigation: "Earthquake Hazard Evaluations for Engineering Sites," sponsored by the Department of the Army. This study was conducted by David J. Leeds, consultant. The figures and appendices were prepared at the Waterways Experiment Station with Mr. Leeds' direction.

The preparation of this report was under the supervision of Dr. E. L. Krinitzsky, Geotechnical Laboratory (GL), Waterways Experiment Station (WES), and the general supervision of Dr. W. F. Marcuson III, Chief, GL.

At the time of publication of this report, Director of WES was Dr. Robert W. Whalin. Commander and Deputy Director was COL Leonard G. Hassell, EN.

# STATE-OF-THE-ART FOR ASSESSING EARTHQUAKE HAZARDS IN THE UNITED STATES

## RECOMMENDED ACCELEROGRAMS FOR EARTHQUAKE GROUND MOTIONS

## PART I: INTRODUCTION

### Background

1. This report presents accelerograms and response spectra in support of the Krinitzsky-Chang (KC) intensity-related and the Krinitzsky-Chang-Nuttli (KCN) parameters for specifying magnitude-related earthquake ground motions.

2. The KC parameters for intensity-related earthquake ground motions are published in this present series:

> Report 25: "PARAMETERS FOR SPECIFYING INTENSITY-RELATED EARTHQUAKE GROUND MOTIONS," by E. L. Krinitzsky and Frank K. Chang, September 1987; and as "Intensity-Related Earthquake Ground Motions," *Bulletin of the Association of Engineering Geologists*, Volume XXV, Number 4, 1988, pages 425-435.

3. The KCN parameters for magnitude-related earthquake ground motions are published in this present series:

> Report 26: "PARAMETERS FOR SPECIFYING MAGNITUDE-RELATED EARTHQUAKE GROUND MOTIONS," by E. L. Krinitzsky, Frank K. Chang, and Otto W. Nuttli, September 1987; and as "Magnitude-Related Earthquake Ground Motions," *Bulletin of the Association of Engineering Geologists*, Volume XXV, Number 4, 1988, pp 399-423.

4. As stated in these two previous reports, the motions shown are useful "where dynamic analyses are contemplated and time histories [and response spectra] are required that approximate the effects of earthquakes as they would be felt in the free field at an engineering site."

## PART II: THE DATA

### General

5. The accelerograms and response spectra presented are derived from the worldwide inventory of published (and unpublished) strong motion records. Unfortunately, there is no single source databank of records available, and even the principal agencies involved in data collection are months and sometimes years in arrears in their data processing. An additional constraint impacting our selection of pertinent records was the variation in format of both original and processed data, particularly with regard to response spectra. Thus, many otherwise potentially valuable records had to be eliminated because of their inherent uncertainty, unreliability, or non-uniformity.

6. In our utilization of the available inventory, we have emphasized records with amplitudes of approximately 200 gals and greater, unless the record is from a region of sparse instrumentation or it is of exceptional interest. In doing so we have taken advantage of the tendency by the various collecting agencies to process larger records more promptly than smaller ones. Another point in support of this emphasis on larger records is that in scaling it seems more appropriate to scale down rather than up.

7. The primary sources of data for this report are the following:

   a. The worldwide compilation by Crouse et al. (1980, 1981) covering the period 1933-1978. [See "References" for complete documentation.]

   b. The Krinitzsky and Chang (1987) listing in Report 25 of this present series, with some events listed through April 1984.

   c. The CalTech "Blue Books" (1975), which present the entire suite of significant strong motion records from inception of the Coast and Geodetic Survey's Strong Motion Program in 1932 through the 1971 San Fernando Earthquake. Printouts show digitized uncorrected and corrected accelerograph traces and their response spectra--all at a standardized base.

   d. Guerrero Earthquake and other Mexican data recently (1989) published by John Anderson of the University of Nevada, Reno.

   e. Loma Prieta, California data from the 18 October 1989 (GMT) earthquake processed by the US Geological Survey and by the California Division of Mines and Geology Office of Strong Motion Studies.

   f. Continuing publications of the US Geological Survey and the State of California's Office of Strong Motion Studies, Division of Mines and Geology.

8. Since completion of the Blue Books, the profession has operated with a crisis-triggered response for publication of strong motion earthquake data. Events have conspired to bring about this condition--including the proliferation of accelerograph stations, their excellent seismic/geographic placement with respect to strong but infrequent earthquakes, and budgetary limitations. The result is that the "best," i.e., biggest, records are ultimately processed and distributed to the profession while many other useful records are bypassed and field information is neglected.

9. As may be expected, secondary sources of data, in the sense that they lack the quantity of data available at a single source, appropriately processed, are widely distributed both geographically and by sponsor. Consequently, there is no standardized format or uniformity.

10. For each accelerogram with its response spectra, the following data are provided in this report when available, with some explanation in paragraphs following:

a. Identification number (for data handling in this report only).

b. Date and time of earthquake--year, month, and day in 6-digit number; time as GMT.

c. Earthquake name or general location.

d. Location or name of accelerograph station.

e. Site characteristics--whether hard or soft.

f. Magnitude.

g. Focal depth in kilometers.

h. Epicentral distance in kilometers.

i. Orientation of horizontal component in degrees.

j. Hypocentral (focal) distance in kilometers.

k. Maximum horizontal acceleration for each horizontal trace in centimeters per second per second.

l. Maximum horizontal velocity for each horizontal trace in centimeters per second.

m. Maximum horizontal displacement in centimeters.

n. Bracketed duration in seconds at 5 percent and 10 percent g.

o. Epicentral intensity and site intensity, MMI.

p. Station number, with owner identification.

q. Latitude and longitude of epicenter and of station.

r. Copy availability.

s. References.

## Earthquake Magnitude

11. The magnitude, as in the previous studies (Reports 25 and 26), is designated as Richter magnitude. The values used have been taken as much as possible from Report 25 and are "equivalent to moment magnitudes for M up to 8.3, to local magnitudes for M below 5.9, and to surface-wave magnitudes for M at 5.9 to about 8.0.

12. A few magnitudes have been changed from values used in Report 25 to conform with more recent investigations or to adjust within the framework of related events. As is well known, there can be as many published magnitudes as there are reporting stations. Therefore, an effort has been made to use the most reliable value consistent with the locale and reporting networks within the framework of the definition above.

13. Differences in reported magnitudes, as well as overlap and lack of equivalency in the several magnitude scales, if resulting in reinterpretations, may justify some changes in the application of the data.

## Focal Depth

14. The focal depth of earthquakes that generated the accelerograms used in this report vary from shallow events that created surface fault ruptures to very deep subduction zone events. However, there is a natural division of data that is followed in the guidelines of Reports 25 and 26. Shallow events usually have their focus at 19 km or less, and deep focus earthquakes usually have their focus at 20 km or more. A few shallow Italian events have been adjusted arbitrarily from a reported 21 or 22 km depth to a more appropriate 19 km. Certain computer-generated "trial" depths of 33 km in normally shallow focus areas have also been corrected to a more appropriate 19 km.

## Site Classification

15. Sites are classified in accordance with Reports 25 and 26, wherein rock and stiff soils are considered "hard" sites. "Rock" sites are indicated with an asterisk (*) where their properties have been confirmed unquestionably. Sites with more than 16 m of cohesionless soil or soft-to-medium stiff clay are considered "soft" sites.

16. In certain cases where on-site inspection was not feasible and published descriptions could not be found, reliance was placed on geologic and topographic maps for assignment of site classification.

## Distance from Source

17. Epicentral distance is given for all events. In addition, hypocentral distance (station to focus) is given for all shallow events. This is consistent with the tabulations in Reports 25 and 26 and is generally appropriate, especially for deep subduction zone earthquakes and for distant deep, imprecisely located sources. The principal problem is shallow fault earthquakes with surface rupture where accelerograph station sites are located close to the breaking fault. A case in point is the 1979 Imperial Valley Array, which crosses the fault but is distant from the epicenter and "focus". This has not been resolved except to presume that errors will be lost in the statistical smoothing.

## Peak Motions

18. Peak motions are as measured and published on the digitized corrected accelerogram and on the plotted printout of velocity and displacement. Peak displacements are tabulated in the master list of accelerograms but are not actually used in this report.

19. It may be noted that until the 1+ g accelerogram recorded at Pacoima Dam in the 1971 San Fernando Earthquake, accelerations greater than about 40 percent g were unheard of, or at best attributed to site or instrumental aberrations. An attachment to this report lists more than 100 accelerograph traces worldwide that exceed 400 gals and a small number of traces that exceed 1000 gals Clearly, these high accelerations are not the norm, but they do occur and are well documented. Research is still needed into the precise geologic/seismic/soils conditions at the locations of these mostly anomalous records. Instrumental and processing vagaries might also contribute to some of these large amplitudes.

## Effects of Structures

20. Data are primarily from free-field locations wherever possible. In addition, ground or basement sites of small buildings are usually acceptable. A few cases of recordings in basements of massive structures are used; and while a structure has some modest influence on the record, it is not considered statistically significant. In no case are recordings used from upper floors of structures or from crests of dams. Toes and abutments of dams are generally satisfactory locations and are used whenever available.

## Effects of Recording Instruments

21. Values have been used as published without regard to instrumental characteristics inherent in the record. The bulk of the data is from instrumentation that conforms to contemporary US standards in which instrumental corrections have been taken into account in the processing. The master lists of accelerograms (see Appendix A) indicate the type of instrument on which the accelerogram was written, if known. Although there is a wide variety of instrumentation in use, the bulk of processed data currently available is from triaxial photographic recording instruments. Late model instruments have radio time as an added channel--useful for identification and for seismologic studies.

22. Japanese records are an exception since most are written on waxed paper. However, instrumental characteristics in the range of periods of interest are sufficiently similar.

23. Currently, few records are digital--a prelude to the next generation of strong motion data. While processing is convenient and the data readily manipulated, little of the data has been processed into the conventional response spectra format generally in use by the engineering profession. The recent Mexican Guerrero data is a welcome exception to this generalization.

## Calculations

24. Few calculations were required for this study except for source (or hypocenter) distances and scale factors. If not published, distances were either scaled from maps or computed geodetically.

## Copy Availability

25. The master list printouts (Appendix A) employ several abbreviations to indicate the availability of hard copy of accelerogram time-histories and their resulting response spectra used in this report, as follows:

yes - Hard copy of time-history and response spectra

TH - Time-history only, usually uncorrected

VS - Time-history and velocity spectra only

no - No satisfactory copy available

26. Accelerograms are not available from the Waterways Experiment Station or from the author. The following organizations can usually supply listings, paper copies, floppy disks or magnetic tapes of accelerogram time histories and their resulting spectra. The National Geophysical Data Center (NGDC) is considered the national archive for United States and worldwide data. Lamont-Doherty Geological Observatory (LDGO) is currently developing software to make the inventory more readily computer-accessible. The California Division of Mines and Geology (CDMG) is a more direct source for their data.

National Geophysical Data Center, NOAA Code E/GC1
325 Broadway, Boulder, Colorado 80303 (303) 497-6764
Over 13,000 worldwide digitized and processed records on tape or diskette.

Lamont-Doherty Geological Observatory
Attention: Paul Friberg, Seismology Dept., Route 9W,
Palisades, New York 10964 (914) 359-2900
On-line parametric and time-series data over a computer network.

California Division of Mines & Geology
Strong Motion Instrumentation Program
Anthony F. Shakal, Program Manager
630 Bercut Drive, Sacramento, California 95814
(916) 322-3105

Processed data for CDMG strong motion stations on paper, tape, or diskettes.

## References

27. The abbreviated references given in the master printouts refer to the source of hard copy time-history and response spectra available to, and utilized in, this report. More complete documentation of publications used appears in a later section of the report entitled "References".

## PART III: ARRANGEMENT OF REPORT

28. The two basic documents that this report supports by providing time-histories and response spectra have essentially given criteria for seismic design based (a) on source characteristics of the earthquake, (b) on accelerograph site characteristics, and (c) when intensity is the principal criterion, on hypocentral distance, i.e, whether near field or far field. The parallel second criterion is consideration of magnitude.

29. Earthquake sources are either shallow (plate boundary with focal depth of 19 km or less) or deep (subduction zone with focal depths of 20 km or more). Most earthquakes can be readily categorized into these two classes. In a few cases we have reinterpreted published data into one class or the other. This is so only where there have been preliminary computer trial solutions using a depth of 33 km, which we have reduced to 19 km if the seismogenic environment permitted. Published depths of 20 or 21 km we have routinely reclassified as shallow or 19 km.

30. Accelerograph locations are classified as either hard or soft sites. However, many accelerograph locations do not readily fit into these two categories, and there is not universal agreement on their definition. We have followed the criteria of Reports 25 and 26, and have further indicated the few hard sites as rock where their characteristics are well known and there is unlikely to be a question. Hard sites would normally include stiff soil as well as a thin overlay of soft material. Our rock sites require that the accelerograph be mounted on exposed crystalline rock with only a bare minimum (2 m) of soil or weathered material above the crystalline rock.

31. The concept of near field and far field was developed by Krinitzsky and Chang in 1987 (Report 25) in order to improve the predictability of intensity-based ground motion. This concept provides a key for the specification of criteria and is a major division of accelerogram groupings where intensity is the primary factor. Analogous accelerograms have been selected from the inventory that relate directly to the criteria developed and presented graphically herein on the curves of Report 25.

32. The limits of near-field data utilized in the present report are as follows:

| Magnitude M | MM Max Int. Io, Epicenter | Max Source Distance, km |
|---|---|---|
| 5.0 (to 5.4) | VI | 5 |
| 5.5 (5.0 to 5.9) | VII | 15 |
| 6.0 (5.5 to 6.4) | VIII | 25 |
| 6.5 (6.0 to 6.9) | IX | 35 |
| 7.0 (6.5 to 7.4) | X | 40 |
| 7.5 (7.0 and up) | XI | 45 |

33. The limits of far-field data utilized in the present report are as follows:

| Magnitude M | MM Max Int. Io, Epicenter | Min Source Distance, km |
|---|---|---|
| 5.5 (5.0 to 5.9) | VI | 20 |
| 6.0 (5.5 to 6.4) | VII | 25 |
| 6.5 (6.0 to 6.9) | VIII | 35 |
| 7.0 (6.5 and up) | IX | 40 |

34. Accordingly, the accelerogram suites are presented in several major groupings with Table and Figure numbers as described on the following pages.

TABLE AND FIGURE NUMBERS FOR ACCELEROGRAMS FOR GROUND MOTION

(a) SHALLOW EVENTS -- INTENSITY RELATED

| Horizontal Peak Motions | Near Field | | Far Field | |
|---|---|---|---|---|
| | Hard Site Part V | Soft Site Part VI | Hard Site Part VII | Soft Site Part VIII |
| Acceleration, Tables | 1a - 1e | 4a - 4e | 7a - 7e | 10a - 10e |
| Figures | 1 | 4 | 7 | 10 |
| Velocity, Tables | 2a - 2e | 5a - 5e | 8a - 8e | 11a - 11e |
| Figures | 2 | 5 | 8 | 11 |
| Duration, Tables | 3a - 3e | 6a - 6e | 9a - 9e | 12a - 12e |
| Figures | 3 | 6 | 9 | 12 |

(b) DEEP EVENTS -- INTENSITY RELATED

| Horizontal Peak Motions | Far Field | |
|---|---|---|
| | Hard Site Part IX | Soft Site Part X |
| Acceleration, Tables and Figures | 13 | 16 |
| Velocity, Tables and Figures | 14 | 17 |
| Duration, Tables and Figures | 15a - 15c | 18a - 18c |

(c) SHALLOW EVENTS -- MAGNITUDE RELATED

| Horizontal Peak Motions | Hard Site Part XI | Soft Site Part XII |
|---|---|---|
| Acceleration, Tables and Figures | 19a - 19e | 22a - 22e |
| Velocity, Tables and Figures | 20a - 20e | 23a - 23e |
| Duration, Tables and Figures | 21a - 21e | 24a - 24e |

Note that each magnitude-related segment has a separate table and plot for five magnitude ranges, with a suffix "a", "b", "c", "d", or "e", and is described in a following paragraph.

(d) DEEP EVENTS -- MAGNITUDE RELATED

| Horizontal Peak Motions | Hard Site Part XIII | Soft Site Part XIV |
|---|---|---|
| Acceleration, Tables and Figures | 25a - 25e | 28a - 28e |
| Velocity, Tables and Figures | 26a - 26e | 29a - 29e |
| Duration, Tables and Figures | 27a - 27e | 30a - 30e |

Selected accelerograms recommended have been plotted on the corresponding charts from Reports 25 and 26. In the original reports where the spread of the data between hard and soft sites did not exceed 1 sigma the data were lumped into "all sites." The present report uses the KC and KCN differentiation as a standard but distinguishes between hard and soft sites in assignment of actual accelerograms to their respective suites.

## PART IV: SELECTION OF ACCELEROGRAMS

35. The master lists, i.e., inventory of accelerograms (Appendix A) were developed from the variety of sources outlined in Part II. The arrangement is alphabetical and chronological by state for the United States (Appendix A1) and by country for the balance of the world (Appendix A2). For convenience and ease of computer handling, the two listings have been kept separate.

36. After the master lists were completed, the data was sorted into a number of categories to determine which accelerograms could be considered as "generic". The first separation isolated shallow from deep sources in the US listing (Appendix A1). Since so few accelerograms have been obtained from deep United States earthquakes (only for Hawaii and Washington events), they were arbitrarily assigned to the World list to be included with worldwide deep events (Appendix A2). The US list was then ordered into hard or soft site categories, and each category was further ranked according to magnitude. In addition, in the hard site category rock sites were flagged.

37. In this manner, homogeneous suites of data were developed that satisfied all of the requirements for generic accelerograms. Each suite of data was applicable to be "plugged in" to the KC or KCN charts. Each was consistent in having available time histories and spectra; each was either shallow or deep; and each was either from a hard or a soft site. In addition, each suite was ordered by magnitude.

38. Final selection of candidate accelerograms with their response spectra for each of the categories (by magnitude) followed.

### Selection Process

39. The suites of data isolated above were further split into magnitude ranges consistent with the KCN graphs of Report 26:

| | |
|---|---|
| Magnitude 5.5 | Range 5.0 to 5.9 |
| Magnitude 6.0 | Range 5.5 to 6.4 |
| Magnitude 6.5 | Range 6.0 to 6.9 |
| Magnitude 7.0 | Range 6.5 to 7.4 |
| Magnitude 7.5 | Range 7.0 to 7.9 |

Data from each of these subsites was then plotted on one of the Report 26 graphs for acceleration, velocity, duration, and intensity A separate graph

sheet was used for each parameter and for each magnitude range. All of the available accelerograms were initially spotted onto the graphs, but only those reasonably close to the mean line were utilized and are shown.

40. The selection process contains additional winnowing, in that an effort was made to limit the number of candidate accelerograms from a given earthquake and to restrict all selections to candidates that would require no or low scaling. The low scaling requirement eliminated many of the extreme amplitude records. These harsh but required limitations imposed a severe handicap on the number of accelerograms available but satisfied the requirements for similitude and coherence.

## Generic Accelerograms

41. Suitable generic accelerogram records (traces) have been selected for each magnitude range. The selected records are identified on each of the sheets, and copies of the time histories and their spectra are included in Appendix B and tabulated in Appendix A.

## PART V: TABLES AND FIGURES FOR INTENSITY-RELATED PEAK GROUND MOTION FOR NEAR-FIELD SHALLOW EVENTS ON HARD SITES

42. Generic accelerograms for near-field ground motion with Modified Mercalli intensity as the parameter follow. Rock sites are indicated by an asterisk after the I.D. number.

Column headings:

"Int" is Modified Mercalli Intensity at accelerograph station.
"Mag" is Richter Magnitude as defined in this report.
"Hypo km" is hypocentral distance.
"Acc gal" is maximum recorded acceleration from accelerogram.
"Mean gal" is mean acceleration from KC or KCN graphs.
"Scale x" is multiplier to convert record value to mean KC or KCN value.
"Plus Sigma" is mean plus 1 sigma value from KC or KCN graphs.
"Scale X" is multiplier to convert record value to mean plus 1 sigma KC or KCN value.
"I.D.No." is assigned identification of accelerograms (see Appendices).
"Vel" is maximum record velocity from accelerogram in cm/sec.
"Mean Vel" is mean velocity from KC or KCN graphs.
"Dur" is bracketed duration in seconds at 5% g.
"Mean Dur" is mean duration from KC or KCN graphs.
"Scale +,-" is added value to convert record value to KC or KCN value.
Second "Scale +,-" is added value to convert record value to mean plus 1 sigma KC or KCN value.

Table 1a

Shallow-Int-Near-Hard-Accel-Mag 5.5

Mag max 5.9; Int max VII; Hypo max 15 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 2.7 | 2 | 220 | 179 | 0.81 | 345 | 1.57 | SC 2 |
| VI | 4.8 | 9 | 231 | 179 | 0.77 | 345 | 1.49 | CAN 2 |
| VI | 5.1 | 14 | 193 | 179 | 0.93 | 345 | 1.79 | CAL 214 |
| VI | 5.4 | 15 | 194 | 179 | 0.92 | 345 | 1.78 | CAL 21 |
| VII | 5.9 | 10 | 245 | 280 | 1.14 | 550 | 2.24 | CAL 99 |
| VII | 5.4 | 10 | 214 | 280 | 1.31 | 550 | 2.57 | SAL 12 |
| VII | 4.8 | 10 | 340 | 280 | 0.82 | 550 | 1.62 | CAN 1 |
| VII | 5.1 | 14 | 260 | 280 | 1.08 | 550 | 2.71 | CAL 203 |
| VII | 5.0 | 15 | 257 | 280 | 1.09 | 550 | 2.14 | ROC 8 |

Table 1b

Shallow-Int-Near-Hard-Accel-Mag 6.0

Mag max 6.4; Int max VIII; Hypo max 25 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 4.8 | 8 | 564 | 450 | 0.80 | 815 | 1.45 | CAN 3 |
| VIII | 4.8 | 8 | 417 | 450 | 1.08 | 815 | 1.95 | CAN 5 |
| VIII | 4.8 | 12 | 451 | 450 | 1.00 | 815 | 1.81 | CAN 8 |
| VIII | 6.3 | 24 | 360 | 450 | 1.25 | 815 | 2.27 | ROC 1 |
| VIII | 6.2 | 26 | 640 | 450 | 0.70 | 815 | 1.27 | CAL 229 |

Table 1c

Shallow-Int-Near-Hard-Accel-Mag 6.5

Mag max 6.9; Int max IX; Hypo max 35 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| IX | 5.4 | 8 | 850 | 680 | 0.80 | 1300 | 1.52 | MEX 71* |
| IX | 5.4 | 8 | 1125 | 680 | 0.60 | 1300 | 1.16 | MEX 72* |
| IX | 6.9 | 10 | 1080 | 680 | 0.63 | 1300 | 1.20 | CAN 9 |
| IX | 6.9 | 10 | 1319 | 0 | 0 | 1300 | 0.99 | CAN 10 |
| IX | 6.5 | 17 | 1055 | 680 | 0.64 | 1300 | 1.23 | CAL 23* |
| IX | 6.5 | 17 | 1148 | 680 | 0.59 | 1300 | 1.13 | CAL 22* |

Table 1d, 1e

Shallow-Int-Near-Hard-Accel-Mag 7.0+

Large Mag; Int max X; Hypo max 40 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| X | 5.4 | 8 | 850 | 1100 | 1.29 | 1500 | 1.76 | MEX 71* |
| X | 5.4 | 8 | 1125 | 1100 | 0.98 | 1500 | 1.33 | MEX 72* |
| X | 6.9 | 10 | 1080 | 1100 | 1.02 | 1500 | 1.39 | CAN 9 |
| X | 6.9 | 10 | 1319 | 1100 | 0.83 | 1500 | 1.14 | CAN 10 |
| X | 6.5 | 17 | 1055 | 1100 | 1.04 | 1500 | 1.42 | CAL 23* |
| X | 6.5 | 17 | 1148 | 1100 | 0.96 | 1500 | 1.31 | CAL 22* |

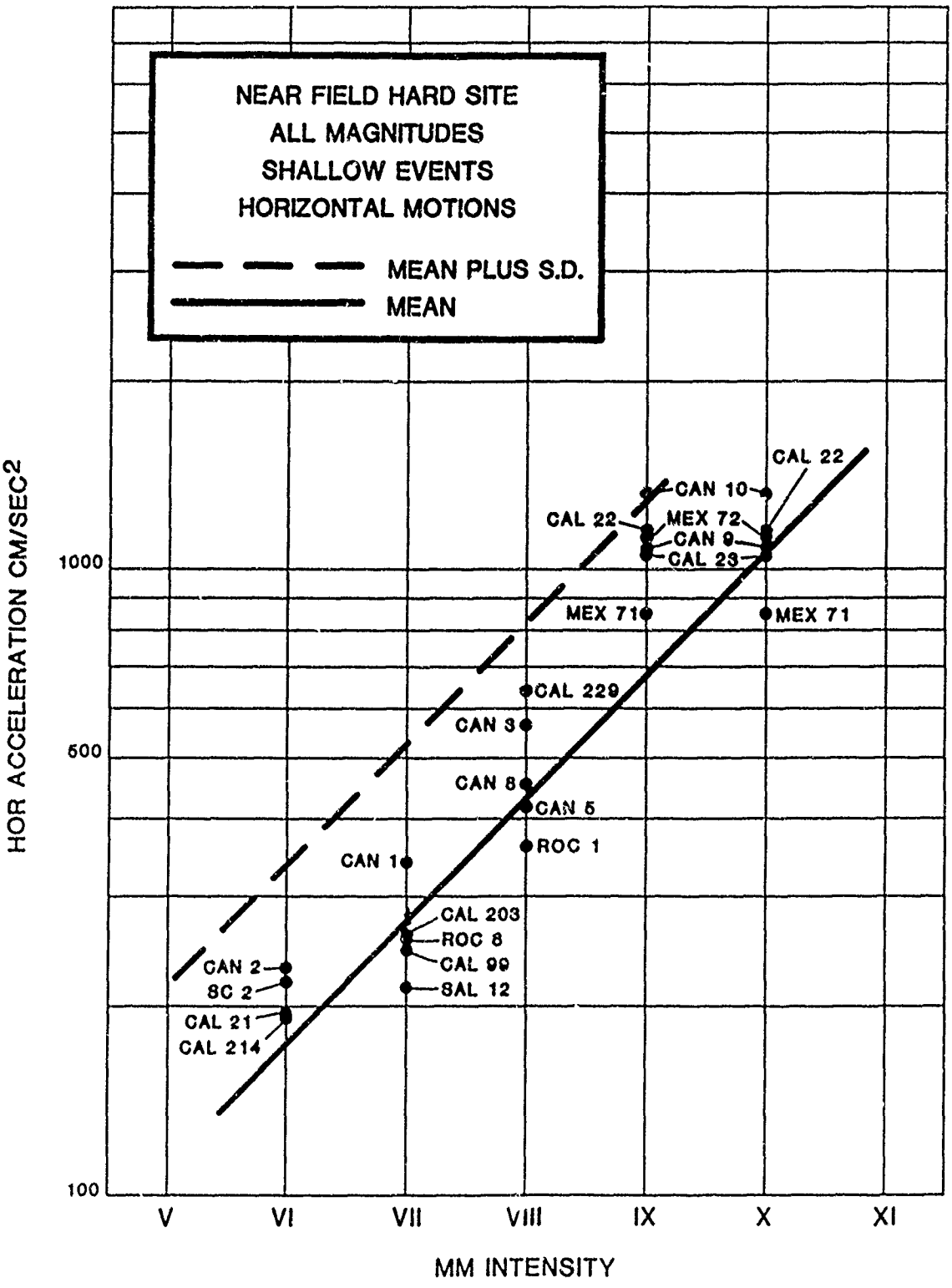


Figure 1. Accelerograms for acceleration and intensity for shallow earthquakes at near-field hard sites. (See Tables 1a-e.)

43. Generic accelerograms for near-field ground motion with intensity and velocity as the parameters follow. An asterisk after the I.D. number indicates a rock site.

Table 2a

Shallow-Int-Near-Hard-Vel-Mag 5.5

Mag max 5.9; Int max VII; Hypo max 15 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 5.4 | 15 | 9.6 | 7.1 | 0.73 | 11.0 | 1.15 | CAL 21 |
| VI | 5.1 | 14 | 12.4 | 7.1 | 0.57 | 11.0 | 0.89 | CAL 214 |
| VII | 5.1 | 14 | 9.5 | 11.0 | 1.16 | 20.5 | 2.16 | CAL 203 |
| VII | 5.4 | 10 | 17.7 | 11.0 | 0.62 | 20.5 | 1.16 | SAL 12 |
| VII | 5.9 | 10 | 20.5 | 11.0 | 0.54 | 20.5 | 1.00 | CAL 99 |
| VII | 5.9 | 14 | 25.1 | 11.0 | 0.44 | 20.5 | 0.82 | CAL 101 |

Table 2b

Shallow-Int-Near-Hard-Vel-Mag 6.0

Mag max 6.4; Int max VIII; Hypo max 25 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 6.3 | 24 | 11.6 | 23.5 | 2.03 | 35.0 | 3.02 | ROC 2 |
| VIII | 6.3 | 24 | 13.8 | 23.5 | 1.70 | 35.0 | 2.54 | ROC 1 |
| VIII | 6.2 | 26 | 51.9 | 23.5 | 0.45 | 35.0 | 0.67 | CAL 229 |

Table 2c

Shallow-Int-Near-Hard-Vel-Mag 6.5

Mag max 6.9; Int max IX; Hypo max 35 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| IX | 5.4 | 8 | 54.2 | 43.0 | 0.79 | 68.0 | 1.25 | MEX 71* |
| IX | 5.4 | 8 | 46.3 | 43.0 | 0.93 | 68.0 | 1.47 | MEX 72* |
| IX | 6.9 | 10 | 46.2 | 43.0 | 0.93 | 68.0 | 1.48 | CAN 9 |
| IX | 6.5 | 17 | 113.2 | 43.0 | 0.38 | 68.0 | 0.60 | CAL 23* |
| IX | 6.5 | 17 | 57.7 | 43.0 | 0.75 | 68.0 | 1.18 | CAL 22* |

Table 2d, 2e

Shallow-Int-Near-Hard-Vel-Mag 7.0

Large mag; Int max X; Hypo max 40 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| [NO DATA] | | | | | | | | |

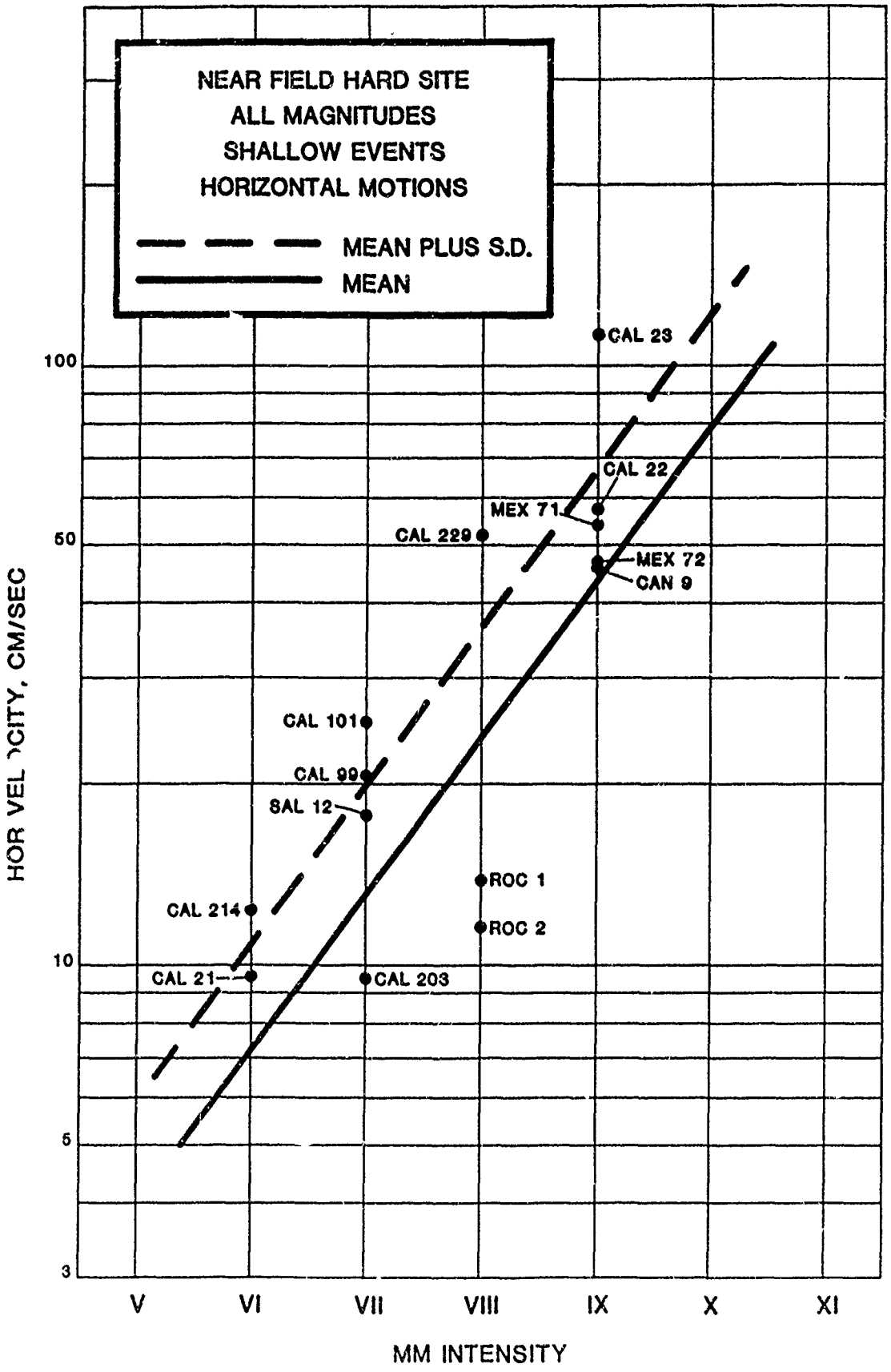


Figure 2. Accelerograms for velocity and intensity for shallow earthquakes at near-field hard sites. (See Tables 2a-e.)

44. Generic accelerograms for near-field ground motion with intensity and duration as the parameters follow. An asterisk after an I.D. number indicates a rock site.

Table 3a

Shallow-Int-Near-Hard-Dur-Mag 5.5

Mag max 5.9; Int max VII; Hypo max 15 km

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 4.8 | 9 | 1.4 | 2.6 | +1.2 | 4.4 | +3.0 | CAN 2 |
| VI | 5.4 | 15 | 2.3 | 2.6 | +0.3 | 4.4 | +2.1 | CAL 21 |
| VII | 5.0 | 15 | 1.7 | 4.5 | +2.8 | 7.3 | +5.6 | ROC 8 |
| VII | 5.9 | 10 | 5.6 | 4.5 | -1.1 | 7.3 | +1.7 | CAL 99 |
| VII | 5.4 | 10 | 5.7 | 4.5 | -1.2 | 7.3 | +1.6 | SAL 12 |
| VII | 5.9 | 10 | 7.0 | 4.5 | -2.5 | 7.3 | +0.3 | CAL 101 |

Table 3b

Shallow-Int-Near-Hard-Dur-Mag 6.0

Mag max 6.4; Int max VIII; Hypo max 25

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 6.2 | 26 | 8.8 | 7.2 | -1.6 | 12.4 | +3.6 | CAL 229 |

Table 3c

Shallow-Int-Near-Hard-Dur-Mag 6.5

Mag max 6.9; Int max IX; Hypo max 35

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| IX | 5.4 | 8 | 7.6 | 12.7 | +5.1 | 21.0 | +13.4 | MEX 72* |
| IX | 5.4 | 8 | 9.0 | 12.7 | +3.7 | 21.0 | +12.0 | MEX 71 |
| IX | 6.9 | 10 | 11.7 | 12.7 | +1.0 | 21.0 | +9.3 | CAN 9 |
| IX | 6.5 | 17 | 12.0 | 12.7 | +0.7 | 21.0 | +9.0 | CAL 22* |
| IX | 6.5 | 17 | 12.5 | 12.7 | +0.2 | 21.0 | +8.5 | CAL 23* |
| IX | 6.9 | 10 | 13.9 | 12.7 | -1.2 | 21.0 | +7.1 | CAN 10 |

Table 3d, 3e

Shallow-Int-Near-Hard-Dur-Mag 7.0

Large mag; Int max X; Hypo max 40

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| [NO DATA] | | | | | | | | |

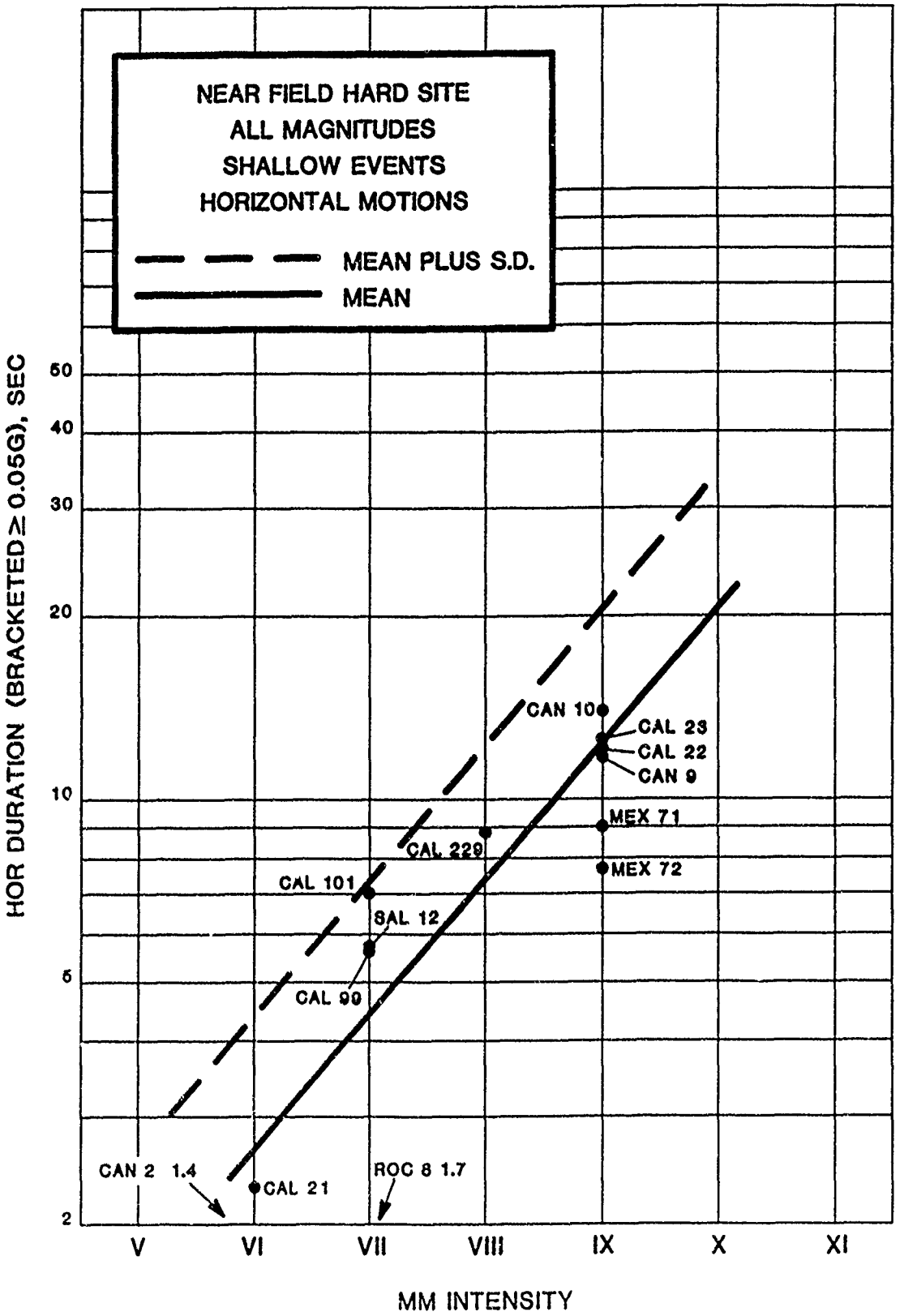


Figure 3. Accelerograms for duration and intensity for shallow earthquakes at near-field hard sites. (See Tables 3a-e.)

## PART VI: TABLES AND FIGURES FOR INTENSITY-RELATED PEAK GROUND MOTION FOR NEAR-FIELD SHALLOW EVENTS ON SOFT SITES

45. Generic accelerograms for near-field ground motion with intensity and acceleration as the parameters follow.

Table 4a

Shallow-Int-Near-Soft-Accel-Mag 5.5

Mag max 5.9; Int max VII; Hypo max 15 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 5.6 | 11 | 159 | 142 | 0.83 | 200 | 1.26 | CAL 173 |
| VI | 4.4 | 13 | 180 | 142 | 0.79 | 200 | 1.11 | CAL 67 |
| VII | 4.2 | 10 | 207 | 192 | 0.93 | 275 | 1.33 | NIC 1 |
| VII | 5.9 | 12 | 184 | 192 | 1.04 | 275 | 1.49 | CAL 247 |
| VII | 5.0 | 13 | 206 | 192 | 0.93 | 275 | 1.33 | CAL 211 |
| VII | 5.1 | 13 | 230 | 192 | 0.83 | 275 | 1.20 | CAL 91 |
| VII | 5.9 | 16 | 252 | 192 | 0.76 | 275 | 1.09 | CAL 104 |

Table 4b

Shallow-Int-Near-Soft-Accel-Mag 6.0

Mag max 6.4; Int max VIII; Hypo max 25 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 5.4 | 8 | 318 | 260 | 0.82 | 380 | 1.19 | NIC 3 |
| VIII | 6.2 | 10 | 306 | 260 | 0.85 | 380 | 1.24 | CAL 227 |
| VIII | 5.6 | 11 | 377 | 260 | 0.69 | 380 | 1.01 | CAL 175 |
| VIII | 5.9 | 11 | 286 | 260 | 0.91 | 380 | 1.33 | CAL 253 |
| VIII | 5.9 | 24 | 384 | 260 | 0.68 | 380 | 0.99 | CAL 272 |

Table 4c

Shallow-Int-Near-Soft-Accel-Mag 6.5

Mag max 6.9; Int max IX; Hypo max 35 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| IX | 5.4 | 9 | 409 | 370 | 0.90 | 520 | 1.27 | SAL 9 |
| IX | 6.2 | 12 | 268 | 370 | 1.38 | 520 | 1.94 | GRE 9 |
| IX | 5.1 | 13 | 453 | 370 | 0.82 | 520 | 1.15 | CAL 213 |
| IX | 7.1 | 17 | 342 | 370 | 1.08 | 520 | 1.52 | CAL 3 |

Table 4d, 4e

Shallow-Int-Near-Soft-Accel-Mag 7.0

Large Mag; Int max X; Hypo max 40 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| X | 5.4 | 9 | 409 | 505 | 1.23 | 715 | 1.75 | SAL 9 |
| X | 6.2 | 12 | 268 | 505 | 1.88 | 715 | 2.67 | GRE 9 |
| X | 5.1 | 13 | 453 | 505 | 1.11 | 715 | 1.58 | CAL 213 |
| X | 7.1 | 17 | 342 | 505 | 1.48 | 715 | 2.09 | CAL 3 |

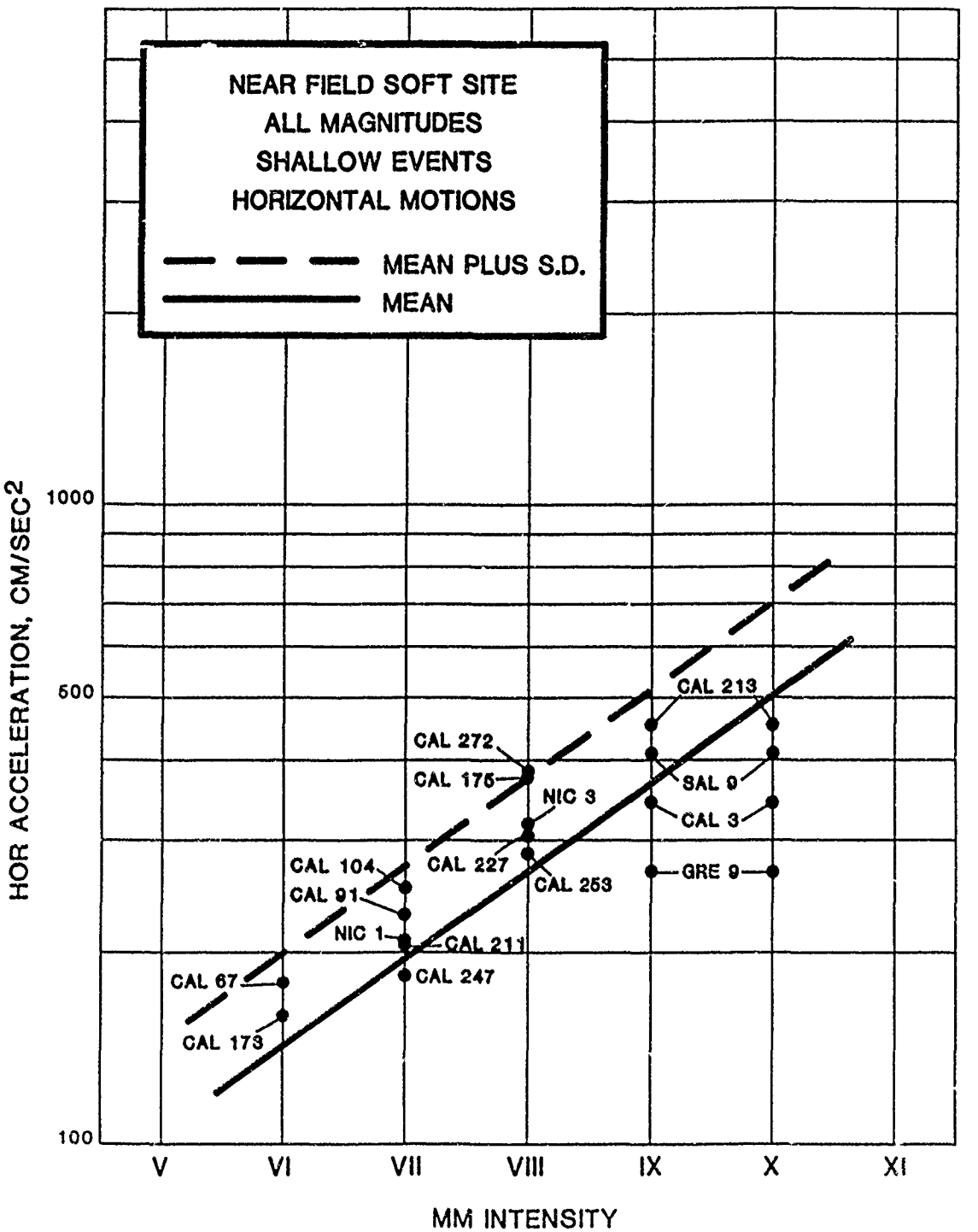


Figure 4. Accelerograms for acceleration and intensity for shallow earthquakes at near-field soft sites. (See Tables 4a-e.)

46. Generic accelerograms for near-field ground motion with intensity and velocity as the parameters follow.

Table 5a

Shallow-Int-Near-Soft-Vel-Mag 5.5

Mag max 5.9; Int max VII; Hypo max 15 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 4.4 | 13 | 5.9 | 9.1 | 1.54 | 15.0 | 2.54 | CAL 67 |
| VI | 5.6 | 11 | 7.2 | 9.1 | 1.26 | 15.0 | 2.08 | CAL 173 |
| VII | 5.0 | 13 | 9.9 | 14.2 | 1.43 | 24.0 | 2.42 | CAL 211 |
| VII | 5.9 | 12 | 12.9 | 14.2 | 1.10 | 24.0 | 1.86 | CAL 247 |
| VII | 4.3 | 10 | 14.0 | 14.2 | 1.01 | 24.0 | 1.71 | NIC 1 |
| VII | 5.1 | 13 | 19.9 | 14.2 | 0.71 | 24.0 | 1.21 | CAL 91 |
| VII | 5.9 | 16 | 25.2 | 14.2 | 0.56 | 24.0 | 0.95 | CAL 103 |
| VII | 6.0 | 14 | 23.6 | 14.2 | 0.60 | 24.0 | 1.02 | CAL 163 |

Table 5b

Shallow-Int-Near-Soft-Vel-Mag 6.0

Mag max 6.4; Int max VIII; Hypo max 25 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 5.4 | 8 | 12.8 | 23.0 | 1.80 | 36.5 | 2.85 | GRE 14 |
| VIII | 6.0 | 14 | 17.7 | 23.0 | 1.30 | 36.5 | 2.06 | CAL 210 |
| VIII | 5.9 | 24 | 18.6 | 23.0 | 1.24 | 36.5 | 1.96 | CAL 272 |
| VIII | 5.9 | 11 | 21.7 | 23.0 | 1.06 | 36.5 | 1.68 | CAL 253 |
| VIII | 6.7 | 23 | 24.6 | 23.0 | 0.93 | 36.5 | 1.48 | GRE 7 |
| VIII | 5.6 | 8 | 30.3 | 23.0 | 0.76 | 36.5 | 1.20 | NIC 3 |
| VIII | 5.6 | 11 | 35.8 | 23.0 | 0.64 | 36.5 | 1.02 | CAL 175 |
| VIII | 6.7 | 14 | 39.2 | 23.0 | 0.59 | 36.5 | 0.93 | CAL 183 |
| VIII | 6.2 | 10 | 39.6 | 23.0 | 0.58 | 36.5 | 0.92 | CAL 227 |

Table 5c

Shallow-Int-Near-Soft-Vel-Mag 6.5

Mag max 6.9; Int max IX; Hypo max 35 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| IX | 5.1 | 13 | 14.3 | 35.0 | 2.45 | 60.0 | 4.20 | CAL 213 |
| IX | 6.2 | 12 | 23.7 | 35.0 | 1.48 | 60.0 | 2.53 | GRE 9 |
| IX | 7.1 | 17 | 33.4 | 35.0 | 1.05 | 60.0 | 1.80 | CAL 3 |
| IX | 5.4 | 9 | 48.8 | 35.0 | 0.72 | 60.0 | 1.23 | SAL 9 |

Table 5d, 5e

Shallow-Int-Near-Soft-Vel-Mag 7.0

Large Mag; Int X; Hypo max 40 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| [NO DATA] | | | | | | | | |

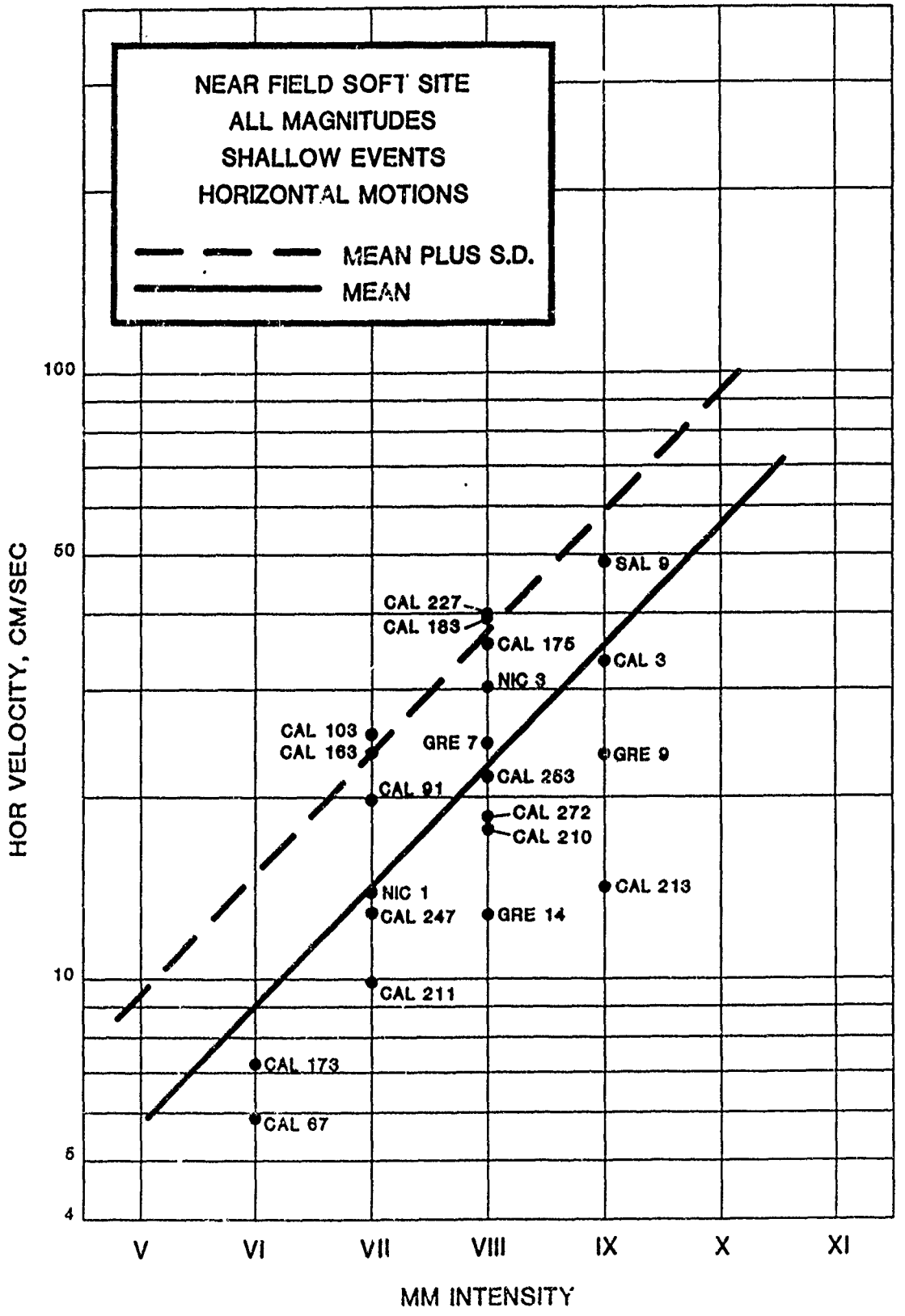


Figure 5. Accelerograms for velocity and intensity for shallow earthquakes at near-field soft sites. (See Tables 5a-e.)

47. Generic accelerograms for near-field ground motion with intensity and duration as the parameters follow.

Table 6a

Shallow-Int Near-Soft-Dur-Mag 5.5

Mag max 5.9; Int max VII; Hypo max 15 km

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 4.4 | 13 | 1.0 | 6.2 | +5.2 | 9.9 | +8.9 | CAL 67 |
| VI | 5.6 | 11 | 9.0 | 6.2 | -2.8 | 9.9 | +0.9 | CAL 173 |
| VII | 5.0 | 13 | 1.0 | 10.0 | +9.0 | 15.5 | +14.5 | CAL 211 |
| VII | 5.9 | 12 | 5.5 | 10.0 | +4.5 | 15.5 | +10.0 | CAL 47 |
| VII | 5.1 | 13 | 5.9 | 10.0 | +4.1 | 15.5 | +9.6 | CAL 91 |
| VII | 4.3 | 10 | 6.0 | 10.0 | +4.0 | 15.5 | +9.5 | NIC 1 |
| VII | 5.9 | 16 | 6.5 | 10.0 | +3.5 | 15.5 | +9.0 | CAL 163 |
| VII | 6.0 | 14 | 8.8 | 10.0 | +1.2 | 15.5 | +6.7 | CAL 103 |

Table 6b

Shallow-Int-Near-Soft-Dur-Mag 6.0

Mag max 6.4; Int max VIII; Hypo max 25 km

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 5.9 | 24 | 3.5 | 16.0 | +12.5 | 25.0 | +21.5 | CAL 272 |
| VIII | 6.0 | 14 | 6.1 | 16.0 | +9.9 | 25.0 | +18.9 | CAL 210 |
| VIII | 5.9 | 11 | 6.8 | 16.0 | +9.2 | 25.0 | +18.2 | CAL 253 |
| VIII | 5.6 | 11 | 8.3 | 16.0 | +7.7 | 25.0 | +16.7 | CAL 175 |
| VIII | 6.2 | 10 | 11.6 | 16.0 | +4.4 | 25.0 | +13.4 | CAL 227 |
| VIII | 5.6 | 8 | 13.0 | 16.0 | +3.0 | 25.0 | +12.0 | NIC 3 |
| VIII | 6.7 | 23 | 16.1 | 16.0 | -0.1 | 25.0 | +8.9 | GRE 7 |
| VIII | 6.7 | 14 | 17.5 | 16.0 | -1.5 | 25.0 | +7.5 | CAL 184 |
| VIII | 6.7 | 14 | 17.9 | 16.0 | -1.9 | 25.0 | +7.1 | CAL 183 |

Table 6c

Shallow-Int-Near-Soft-Dur-Mag 6.5

Mag max 6.9; Int max IX; Hypo max 35 km

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| IX | 5.1 | 13 | 4.5 | 25.5 | +21.0 | 40.0 | +35.5 | CAL 213 |
| IX | 5.1 | 13 | 5.6 | 25.5 | +19.9 | 40.0 | +34.4 | CAL 212 |
| IX | 5.4 | 9 | 6.2 | 25.5 | +19.3 | 40.0 | +38.8 | SAL 9 |
| IX | 6.2 | 12 | 7.9 | 25.5 | +17.6 | 40.0 | +32.1 | GRE 9 |
| IX | 7.1 | 17 | 29.0 | 25.0 | -3.5 | 40.0 | +11.0 | CAL 3 |

Table 6d, 6e

Shallow-Int-Near-Soft-Dur-Mag 7.0

Large Mag; Int X; Hypo max 40 km

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|

[NO DATA]

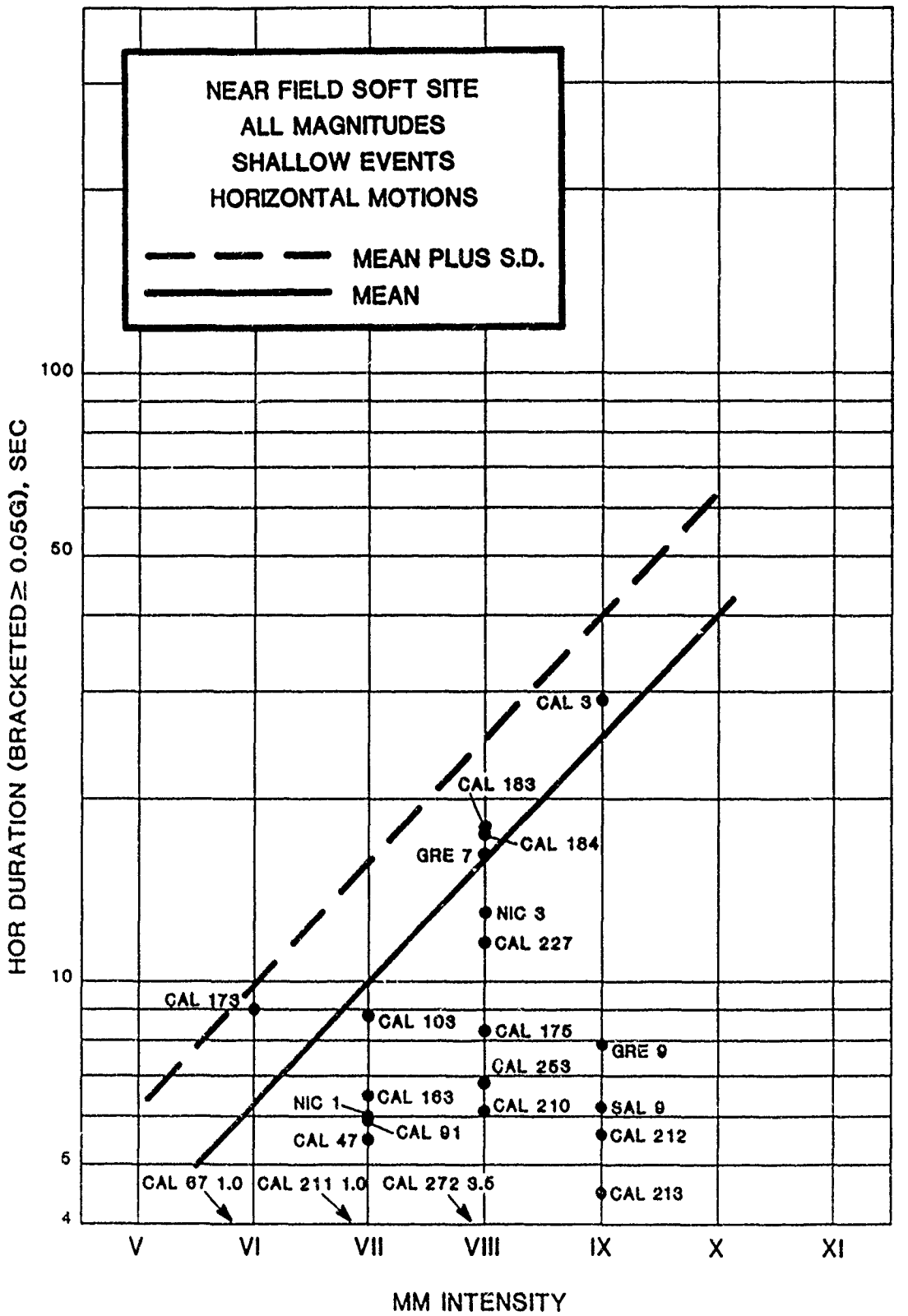


Figure 6. Accelerograms for duration and intensity for shallow earthquakes at near-field soft sites. (See Tables 6a-e.)

## PART VII: TABLES AND FIGURES FOR INTENSITY-RELATED PEAK GROUND MOTION FOR FAR-FIELD SHALLOW EVENTS ON HARD SITES

48. Generic accelerograms for far-field ground motion with intensity and acceleration as the parameters follow. An asterisk after an I.D. number indicates a rock site.

Table 7a

Shallow-Int-Far-Hard-Accel-Mag 5.5

Mag max 5.9; Int max VI; Hypo min 20 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 4.7 | 22 | 156 | 78 | 0.50 | 121 | 0.78 | CAL 64* |
| VI | 6.5 | 22 | 209 | 78 | 0.37 | 121 | 0.58 | CAL 63* |
| VI | 5.3 | 29 | 199 | 78 | 0.39 | 121 | 0.61 | CAL 70 |
| VI | 5.6 | 35 | 233 | 78 | 0.33 | 121 | 0.52 | CAL 17 |
| VI | 6.7 | 39 | 173 | 78 | 0.45 | 121 | 0.70 | CAL 192 |
| VI | 6.5 | 45 | 166 | 78 | 0.47 | 121 | 0.73 | CAL 51* |

Table 7b

Shallow-Int-Far-Hard-Accel-Mag 6.0

Mag max 6.4; Int max VII; Hypo min 25 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 5.6 | 32 | 264 | 121 | 0.46 | 182 | 0.70 | CAL 19 |
| VII | 6.5 | 37 | 189 | 121 | 0.64 | 182 | 0.96 | CAL 38* |
| VII | 6.5 | 39 | 156 | 121 | 0.78 | 182 | 1.17 | CAL 49 |
| VII | 6.5 | 39 | 167 | 121 | 0.72 | 182 | 1.09 | CAL 47* |
| VII | 6.2 | 40 | 183 | 121 | 0.66 | 182 | 0.99 | CAL 216 |
| VII | 6.6 | 58 | 189 | 121 | 0.64 | 182 | 0.96 | CAL 139* |

Table 7c

Shallow-Int-Far-Hard-Accel-Mag 6.5

Mag max 6.9; Int max VIII; Hypo min 35 mi

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 6.5 | 41 | 222 | 190 | 0.86 | 290 | 1.31 | ITA 20 |
| VIII | 6.5 | 41 | 321 | 190 | 0.59 | 290 | 0.90 | ITA 21 |
| VIII | 5.9 | 45 | 527 | 190 | 0.36 | 290 | 0.55 | CAL 270 |
| VIII | 5.9 | 45 | 398 | 190 | 0.48 | 290 | 0.73 | CAL 271 |

Table 7d, 7e

Shallow-Int-Far-Hard-Accel-Mag 7.0

Large Mag; Int IX; Hypo min 40 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|

[NO DATA]

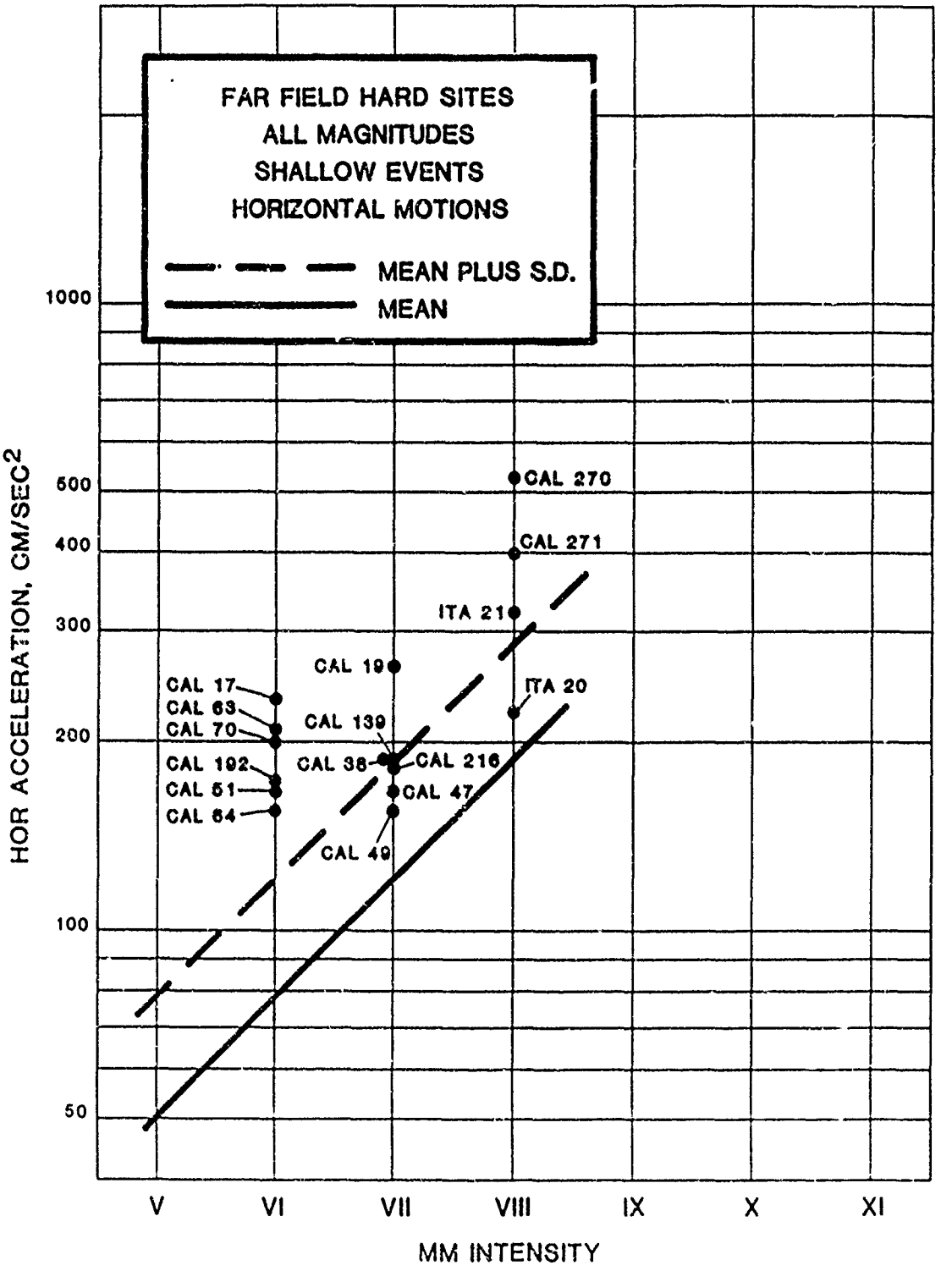


Figure 7. Accelerograms for acceleration and intensity for shallow earthquakes at far-field hard sites. (See Tables 7a-e.)

49. Generic accelerograms for far-field ground motion with intensity and velocity as the parameters follow. An asterisk after an I.D. number indicates a rock site.

Table 8a

Shallow-Int-Far-Hard-Vel-Mag 5.5

Mag max 5.9; Int max VI; Hypo min 20 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 4.7 | 22 | 5.8 | 4.6 | 0.79 | 7.2 | 1.24 | CAL 64* |
| VI | 5.3 | 29 | 5.9 | 4.6 | 0.78 | 7.2 | 1.22 | CAL 70 |
| VI | 6.5 | 45 | 6.6 | 4.6 | 0.70 | 7.2 | 1.09 | CAL 51* |
| VI | 4.7 | 22 | 7.4 | 4.6 | 0.62 | 7.2 | 0.97 | CAL 63* |
| VI | 5.6 | 35 | 10.8 | 4.6 | 0.43 | 7.2 | 0.67 | CAL 17 |
| VI | 5.6 | 35 | 11.8 | 4.6 | 0.40 | 7.2 | 0.61 | CAL 16 |

Table 8b

Shallow-Int-Far-Hard-Vel-Mag 6.0

Mag max 6.4; Int max VII; Hypo min 25 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 6.2 | 40 | 6.6 | 8.3 | 1.26 | 13.2 | 2.00 | CAL 216 |
| VII | 6.6 | 58 | 9.0 | 8.3 | 0.92 | 13.2 | 1.47 | CAL 139* |
| VII | 6.5 | 37 | 11.6 | 8.3 | 0.72 | 13.2 | 1.14 | CAL 38* |
| VII | 5.6 | 32 | 14.5 | 8.3 | 0.57 | 13.2 | 0.91 | CAL 19 |
| VII | 6.5 | 39 | 14.6 | 8.3 | 0.57 | 13.2 | 0.90 | CAL 47* |
| VII | 6.5 | 39 | 16.2 | 8.3 | 0.51 | 13.2 | 0.81 | CAL 49 |

Table 8c

Shallow-Int-Far-Hard-Vel-Mag 6.5

Mag max 6.9; Int max VIII; Hypo min 35 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 5.9 | 45 | 19.2 | 15.0 | 0.78 | 24.0 | 1.25 | CAL 271 |
| VIII | 5.9 | 45 | 24.2 | 15.0 | 0.62 | 24.0 | 0.99 | CAL 270 |
| VIII | 6.5 | 41 | 42.4 | 15.0 | 0.35 | 24.0 | 0.57 | ITA 20 |

Table 8d, 8e

Shallow-Int-Far-Hard-Vel-Mag 7.0

Large Mag; Int IX; Hypo min 40 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| [NO DATA] | | | | | | | | |

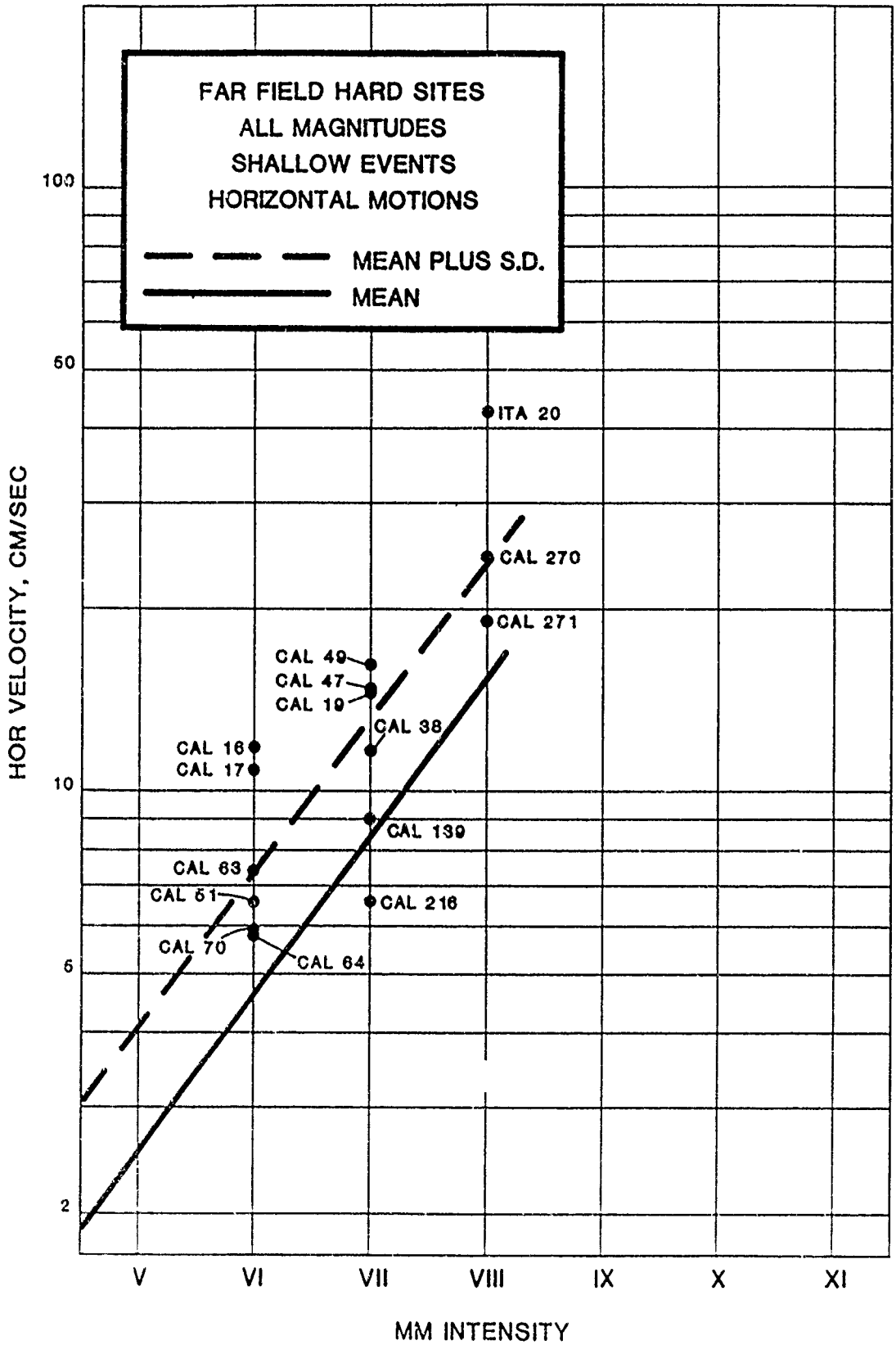


Figure 8. Accelerograms for velocity and intensity for shallow earthquakes at far-field hard sites. (See Tables 8a-e.)

50. Generic accelerograms for far-field ground motion with intensity and duration as the parameters follow. An asterisk after an I.D. number indicates a rock site.

Table 9a

Shallow-Int-Far-Hard-Dur-Mag 5.5

Mag max 5.9; Int max VI; Hypo min 20 km

| Int | Mag | Hypo km | Dur | Mean Dur | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 5.3 | 29 | 2.6 | 3.0 | +0.4 | 6.3 | +3.7 | CAL 70 |
| VI | 4.7 | 22 | 3.0 | 3.0 | +0.0 | 6.3 | +3.3 | CAL 64* |
| VI | 4.7 | 22 | 4.2 | 3.0 | -1.2 | 6.3 | +2.1 | CAL 63* |
| VI | 5.6 | 35 | 8.0 | 3.0 | -5.0 | 6.3 | -1.7 | CAL 17 |
| VI | 5.6 | 35 | 8.5 | 3.0 | -5.5 | 6.3 | -2.2 | CAL 16 |
| VI | 6.5 | 45 | 8.5 | 3.0 | -5.5 | 6.3 | -2.2 | CAL 51* |
| VI | 6.7 | 39 | 8.6 | 3.0 | -5.6 | 6.3 | -2.3 | CAL 192 |

Table 9b

Shallow-Int-Far-Hard-Dur-Mag 6.0

Mag max 6.4; Int max VII; Hypo min 25 km

| Int | Mag | Hypo km | Dur | Mean Dur | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 5.6 | 32 | 3.2 | 5.1 | +1.9 | 10.9 | +6.7 | CAL 19 |
| VII | 6.6 | 58 | 4.9 | 5.1 | +0.2 | 10.9 | +6.0 | CAL 139* |
| VII | 6.5 | 39 | 6.0 | 5.1 | -0.9 | 10.9 | +4.9 | CAL 49 |
| VII | 6.5 | 37 | 6.6 | 5.1 | -1.5 | 10.9 | +4.3 | CAL 38* |
| VII | 6.2 | 40 | 9.9 | 5.1 | -4.8 | 10.9 | +1.0 | CAL 216 |
| VII | 6.5 | 39 | 10.8 | 5.1 | -5.7 | 10.9 | +0.1 | CAL 47* |

Table 9c

Shallow-Int-Far-Hard-Dur-Mag 6.5

Mag max 6.9; Int max VIII; Hypo min 35 km

| Int | Mag | Hypo km | Dur | Mean Dur | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 6.2 | 26 | 8.6 | 8.8 | +0.2 | 18.0 | +9.4 | CAL 228 |
| VIII | 6.2 | 26 | 8.8 | 8.8 | +0.0 | 18.0 | +9.2 | CAL 229 |
| VIII | 5.9 | 45 | 9.5 | 8.8 | -0.7 | 18.0 | +8.5 | CAL 271 |
| VIII | 5.9 | 45 | 12.0 | 8.8 | -3.2 | 18.0 | +6.0 | CAL 270 |

Table 9d, 9e

Shallow-Int-Far-Hard-Dur-Mag 7.0

Large Mag; Int max IX; Hypo min 40 km

| Int | Mag | Hypo km | Dur | Mean Dur | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|

[NO DATA]

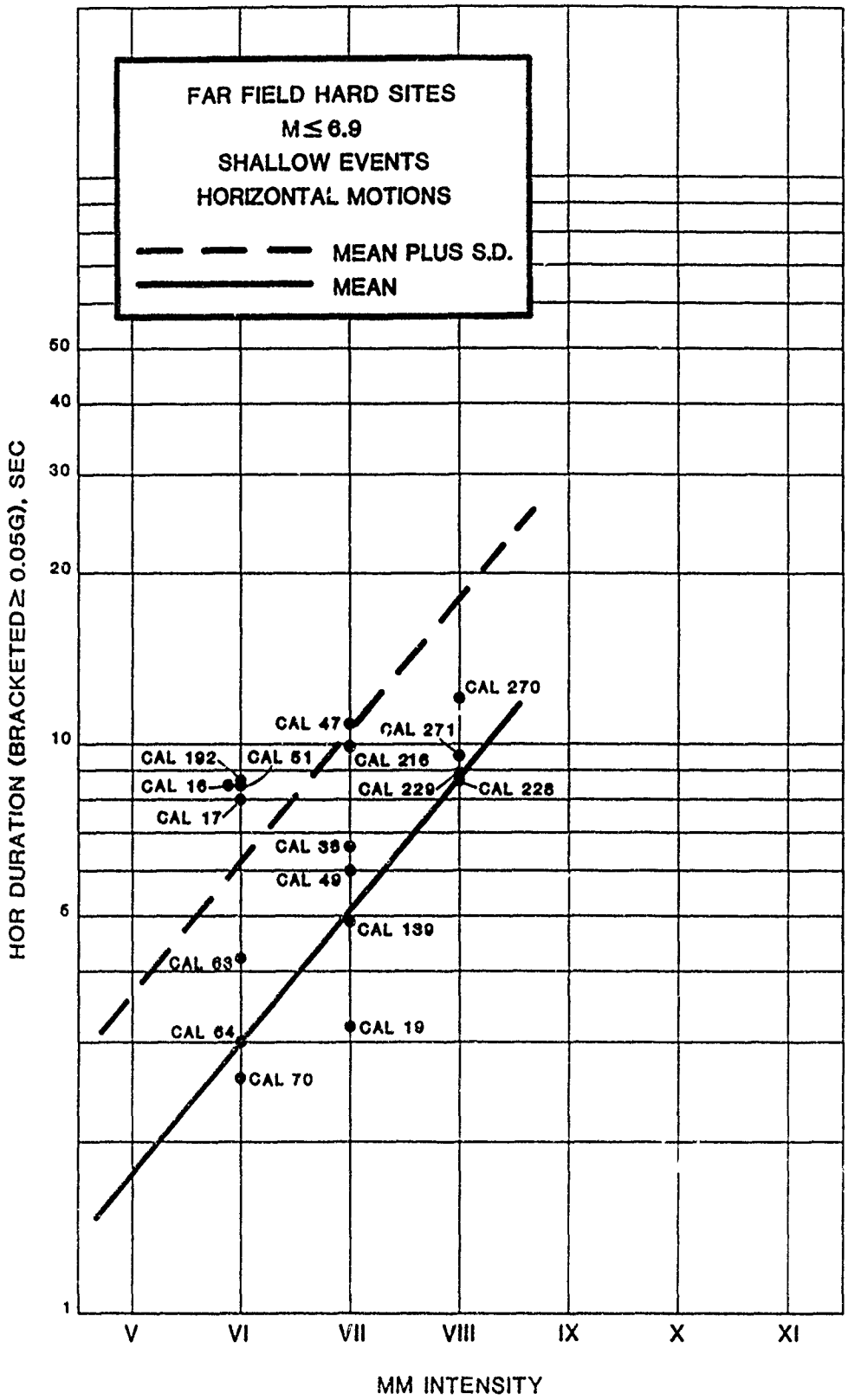


Figure 9. Accelerograms for duration and intensity for shallow earthquakes at far-field hard sites. (See Tables 9a-e.)

## PART VIII: TABLES AND FIGURES FOR INTENSITY-RELATED PEAK GROUND MOTION FOR FAR-FIELD SHALLOW EVENTS ON SOFT SITES

51. Generic accelerograms for far-field ground motion for soft sites with intensity and acceleration as the parameters follow.

Table 10a

Shallow-Int-Far-Soft-Accel-Mag 5.5

Mag max 5.9; Int max VI; Hypo min 20 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 5.6 | 33 | 426 | 79 | 0.19 | 121 | 0.28 | CAL 14 |
| VI | 5.6 | 33 | 348 | 79 | 0.23 | 121 | 0.35 | CAL 15 |
| VI | 5.6 | 35 | 232 | 79 | 0.34 | 121 | 0.52 | CAL 20 |

Table 10b

Shallow-Int-Far-Soft-Accel-Mag 6.0

Mag max 6.4; Int max VII; Hypo min 25 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 6.2 | 38 | 329 | 121 | 0.35 | 189 | 0.57 | CAL 219 |
| VII | 5.9 | 27 | 246 | 121 | 0.49 | 189 | 0.77 | CAL 275 |
| VII | 6.2 | 39 | 210 | 121 | 0.58 | 189 | 0.90 | CAL 223 |
| VII | 5.6 | 28 | 169 | 121 | 0.72 | 189 | 1.12 | CAL 12 |
| VII | 6.2 | 39 | 154 | 121 | 0.79 | 189 | 1.23 | CAL 224 |

Table 10c

Shallow-Int-Far-Soft-Accel-Mag 6.5

Mag max 6.9; Int max VIII; Hypo min 35 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 6.2 | 39 | 329 | 189 | 0.57 | 285 | 0.87 | CAL 219 |
| VIII | 6.7 | 35 | 234 | 189 | 0.81 | 285 | 1.22 | GRE 8 |
| VIII | 5.9 | 41 | 234 | 189 | 0.81 | 285 | 1.22 | CAL 5 |
| VII | 6.6 | 44 | 217 | 189 | 0.87 | 285 | 1.31 | CAL 124 |
| VIII | 6.5 | 92 | 207 | 189 | 0.91 | 285 | 1.38 | PER 3 |
| VII | 6.5 | 40 | 207 | 189 | 0.91 | 285 | 1.38 | CAL 27 |
| VII | 6.5 | 43 | 197 | 189 | 0.96 | 285 | 1.45 | CAL 10 |
| VIII | 6.6 | 92 | 192 | 189 | 0.98 | 285 | 1.48 | PER 4 |

Table 10d

Shallow-Int-Far-Soft-Accel-Mag 7.0

Mag max 7.4; Int max IX; Hypo min 40 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 5.9 | 41 | 234 | 285 | 1.22 | 350 | 1.50 | CAL 5 |
| VIII | 6.5 | -92 | 207 | 285 | 1.38 | 350 | 1.69 | PER 3 |
| VIII | 6.6 | 92 | 192 | 285 | 1.48 | 350 | 1.82 | PER 4 |

Table 10e

Shallow-Int-Far-Soft-Accel-Mag 7.5

Large Mag; Int max X; Hypo min 40 km

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|

[NO DATA]

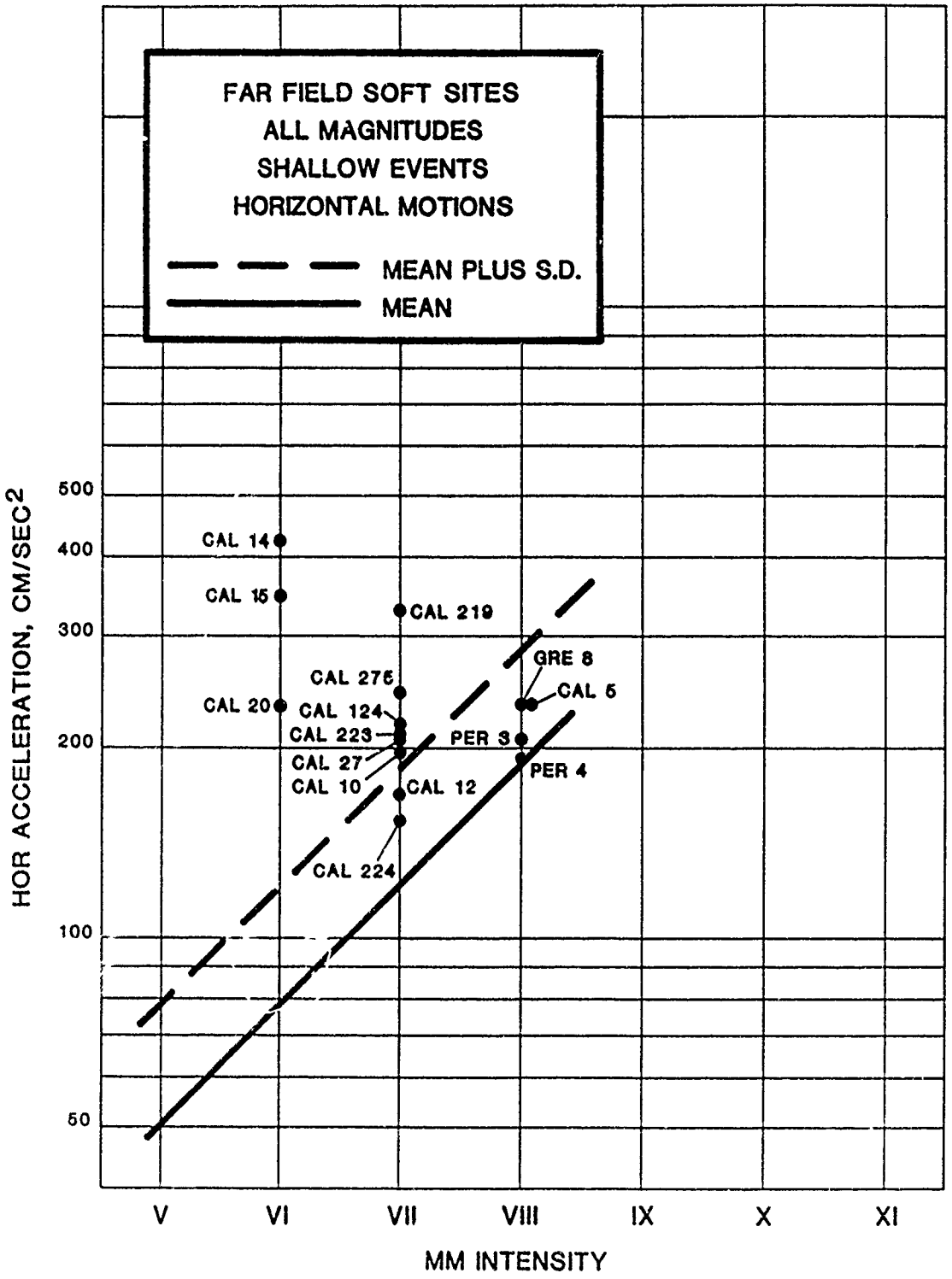


Figure 10. Accelerograms for acceleration and MM intensity for shallow earthquakes at far-field soft sites. (See Tables 10a-e.)

52. Generic accelerograms for soft site, far-field ground motion with intensity and velocity as the parameters follow.

Table 11a

Shallow-Int-Far-Soft-Vel-Mag 5.5

Mag max 5.9; Int max VI; Hypo min 20 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 5.6 | 33 | 25.4 | 7.0 | 0.28 | 11.0 | 0.43 | CAL 14 |
| VI | 5.6 | 33 | 22.5 | 7.0 | 0.31 | 11.0 | 0.49 | CAL 15 |
| VI | 5.6 | 35 | 11.9 | 7.0 | 0.59 | 11.0 | 0.92 | CAL 20 |

Table 11b

Shallow-Int-Far-Soft-Vel-Mag 6.0

Mag max 6.4; Int max VII; Hypo min 25 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 6.2 | 38 | 16.7 | 13.0 | 0.78 | 20.0 | 1.20 | CAL 219 |
| VII | 6.2 | 39 | 12.5 | 13.0 | 1.04 | 20.0 | 1.60 | CAL 223 |
| VII | 5.6 | 28 | 10.8 | 13.0 | 1.20 | 20.0 | 1.85 | CAL 12 |
| VII | 5.9 | 27 | 8.7 | 13.0 | 1.49 | 20.0 | 2.30 | CAL 275 |
| VII | 6.2 | 39 | 5.0 | 13.0 | 2.60 | 20.0 | 4.00 | CAL 224 |

Table 11c

Shallow-Int-Far-Soft-Vel-Mag 6.5

Mag max 6.9; Int max VIII; Hypo min 35 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 6.6 | 44 | 37.1 | 24.0 | 0.65 | 37.0 | 1.00 | CAL 124 |
| VII | 6.5 | 43 | 26.0 | 24.0 | 0.92 | 37.0 | 1.42 | CAL 10 |
| VIII | 6.7 | 35 | 22.5 | 24.0 | 1.07 | 37.0 | 1.64 | GRE 8 |
| VII | 6.5 | 40 | 21.1 | 24.0 | 1.14 | 37.0 | 1.75 | CAL 27 |
| VIII | 5.9 | 41 | 21.1 | 24.0 | 1.14 | 37.0 | 1.75 | CAL 5 |
| VIII | 6.6 | 92 | 20.5 | 24.0 | 1.17 | 37.0 | 1.80 | PER 4 |
| VIII | 6.5 | 92 | 16.9 | 24.0 | 1.42 | 37.0 | 2.19 | PER 3 |
| VII | 6.2 | 39 | 16.7 | 24.0 | 1.44 | 37.0 | 2.22 | CAL 219 |

Table 11d

Shallow-Int-Far-Soft-Vel-Mag 7.0

Mag max 7.4; Int max IX; Hypo min 40 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 5.9 | 41 | 21.1 | 35.0 | 1.66 | 50.0 | 2.37 | CAL 5 |
| VIII | 6.6 | 92 | 20.5 | 35.0 | 1.71 | 50.0 | 2.44 | PER 4 |
| VIII | 6.5 | 92 | 16.9 | 35.0 | 2.07 | 50.0 | 2.96 | PER 3 |

Table 11e

Shallow-Int-Far-Soft-Vel-Mag 7.5

Large Mag; Int max X; Hypo min 40 km

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| [NO DATA] | | | | | | | | |

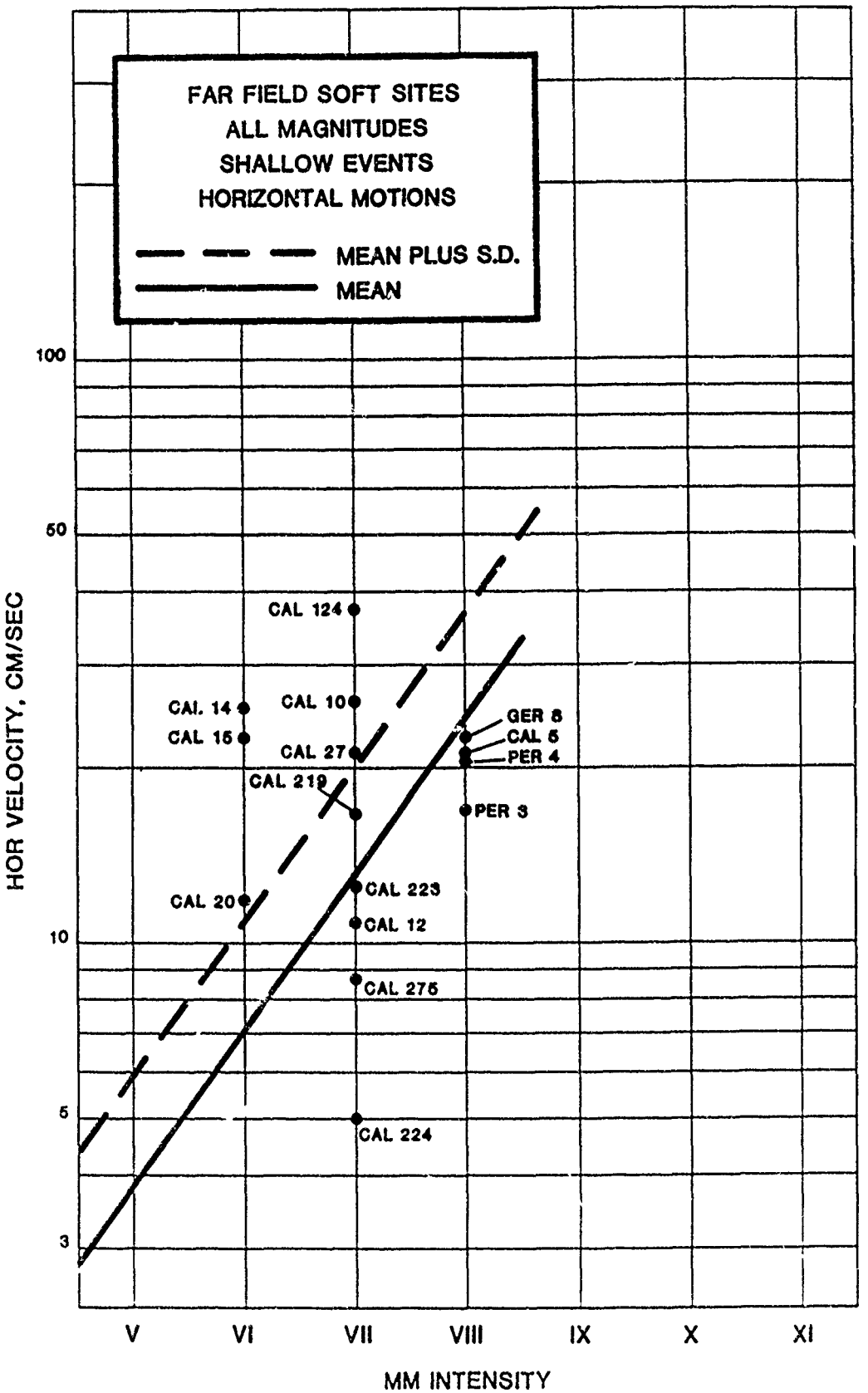


Figure 11. Accelerograms for velocity and intensity for shallow earthquakes at far-field soft sites. (See Tables 11a-e.)

53. Generic accelerograms for far-field ground motion for soft sites with intensity and duration as the parameters follow.

Table 12a

Shallow-Int-Far-Soft-Dur-Mag 5.5

Mag max 5.9; Int max VI; Hypo min 20 km

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VI | 5.6 | 33 | 8.0 | 3.0 | -5.0 | 6.2 | -1.8 | CAL 14 |
| VI | 5.6 | 33 | 7.4 | 3.0 | -4.4 | 6.2 | -1.2 | CAL 15 |
| VI | 5.6 | 35 | 2.0 | 3.0 | +1.0 | 6.2 | +4.2 | CAL 20 |

Table 12b

Shallow-Int-Far-Soft-Dur-Mag 6.0

Mag max 6.4; Int Max VII; Hypo min 25 km

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 6.2 | 38 | 12.7 | 5.1 | -7.6 | 10.9 | -1.8 | CAL 219 |
| VII | 5.6 | 32 | 10.9 | 5.1 | -5.8 | 10.9 | 0.0 | CAL 13 |
| VII | 6.2 | 39 | 8.1 | 5.1 | -3.0 | 10.9 | +2.0 | CAL 224 |
| VII | 5.6 | 28 | 8.0 | 5.1 | -2.9 | 10.9 | +2.9 | CAL 12 |
| VII | 6.2 | 39 | 7.4 | 5.1 | -2.3 | 10.9 | +3.5 | CAL 223 |
| VII | 5.9 | 27 | 5.6 | 5.1 | -0.5 | 10.9 | +5.4 | CAL 275 |

Table 12c

Shallow-Int-Far-Soft-Dur-Mag 6.5

Mag max 6.9; Int max VIII; Hypo min 35 km

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 6.5 | 43 | 18.0 | 8.8 | -9.2 | 18.2 | +0.2 | CAL 10 |
| VIII | 6.7 | 35 | 17.2 | 8.8 | -8.4 | 18.2 | +1.0 | GRE 8 |
| VII | 6.2 | 39 | 12.7 | 8.8 | -3.9 | 18.2 | +5.5 | CAL 219 |
| VII | 6.6 | 44 | 11.3 | 8.8 | -2.5 | 18.2 | +6.9 | CAL 124 |
| VII | 6.5 | 40 | 9.5 | 8.8 | -0.7 | 18.2 | +8.7 | CAL 27 |
| VIII | 6.5 | 92 | 5.3 | 8.8 | +3.5 | 18.2 | +12.9 | PER 3 |
| VIII | 6.6 | 92 | 5.2 | 8.8 | +3.6 | 18.2 | +13.0 | PER 4 |
| VIII | 5.9 | 41 | 4.0 | 8.8 | +4.4 | 18.2 | +14.2 | CAL 5 |

Table 12d

Shallow-Int-Far-Soft-Dur-Mag 7.0

Mag max 7.4; Int max IX; Hypo min 40 km

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 6.5 | 92 | 5.3 | 14.0 | +8.7 | 24.0 | -- | PER 3 |
| VIII | 6.6 | 92 | 5.2 | 14.0 | +8.8 | 24.0 | -- | PER 4 |
| VIII | 5.9 | 41 | 4.0 | 14.0 | +10.0 | 24.0 | -- | CAL 5 |

Table 12e

Shallow-Int-Far-Soft-Dur-Mag 7.5

Large Mag; Int max X: Hypo min 40 km

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|

[NO DATA]

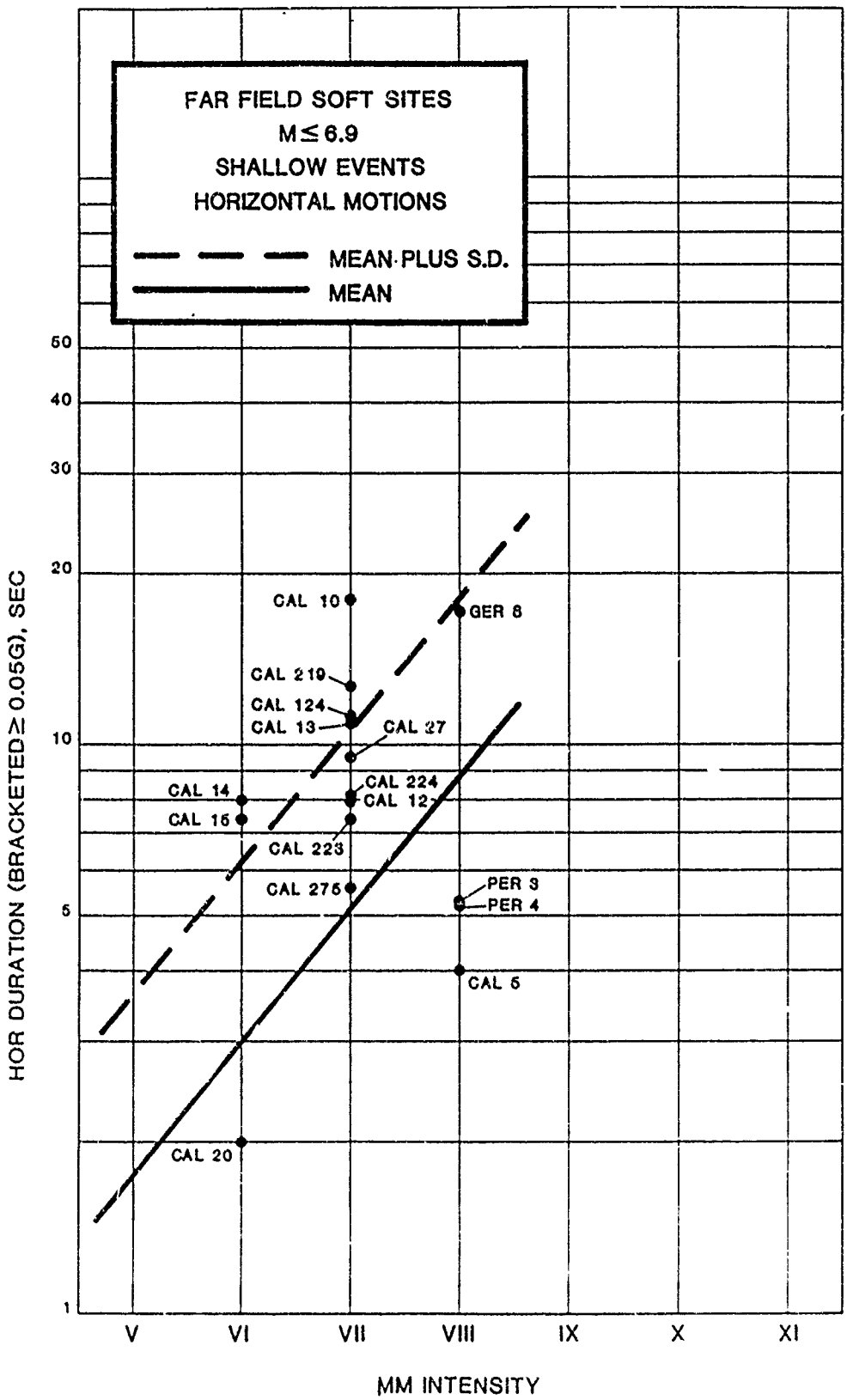


Figure 12. Accelerograms for duration and intensity for shallow earthquakes, M ≤ 6.9 at far-field soft sites. (See Tables 12a-e).

## PART IX: TABLES AND FIGURES FOR INTENSITY-RELATED PEAK GROUND MOTION FOR FAR-FIELD DEEP EVENTS ON HARD SITES

54. Generic accelerograms for deep event, far-field ground motion at hard sites with intensity and acceleration as the parameters follow:

Table 13

Deep-Int-Hard-Accel

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| IV | 7.1 | 82 | 182 | 42 | 0.23 | 79 | 0.43 | AKA 1 |
| VIII | 7.8 | 71 | 656 | 190 | 0.29 | 285 | 0.43 | CHL 11 |
| VIII | 7.8 | 71 | 418 | 190 | 0.45 | 285 | 0.68 | CHL 12 |
| VIII | 7.8 | 54 | 350 | 190 | 0.54 | 285 | 0.81 | CHL 35 |
| VIII | 7.9 | 285 | 284 | 190 | 0.67 | 285 | 1.00 | SOL 1 |
| VIII | 7.9 | 285 | 270 | 190 | 0.70 | 285 | 1.06 | SOL 2 |
| VIII | 7.8 | 54 | 224 | 190 | 0.85 | 285 | 1.27 | CHL 36 |
| VIII | 7.8 | 58 | 176 | 190 | 1.08 | 285 | 1.62 | CHL 31 |
| VIII | 7.8 | 68 | 161 | 190 | 1.18 | 285 | 1.78 | CHL 32 |

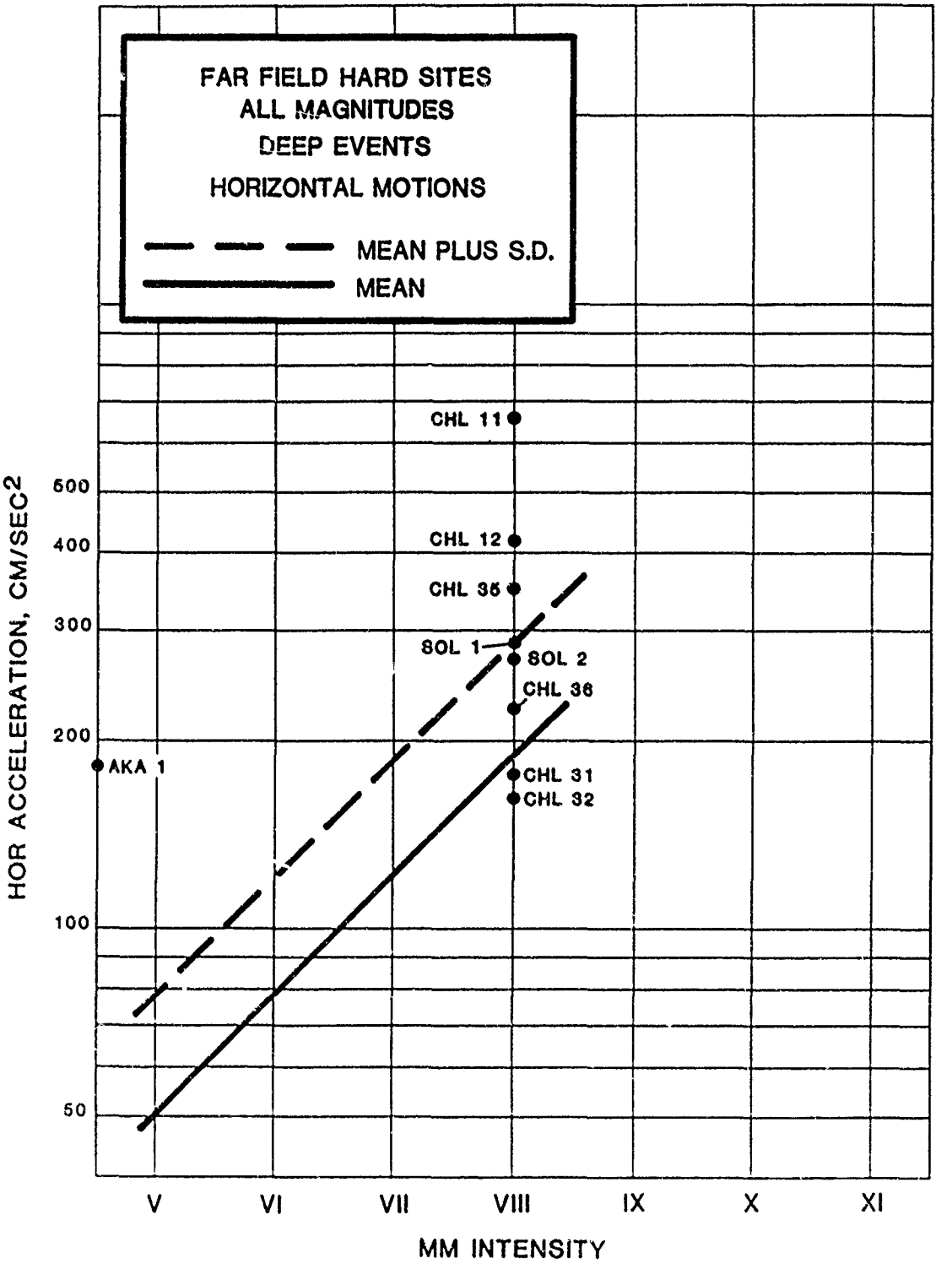


Figure 13. Accelerograms for acceleration and intensity for deep earthquakes at far-field hard sites. (See Table 13.)

55. Generic accelerograms for deep event, far-field ground motion at hard sites with intensity and velocity as the parameters follow.

Table 14

Deep-Int-Hard-Vel

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| IV | 7.1 | 82 | 8.0 | 2.0 | 0.25 | 3.0 | 0.38 | AKA 1 |
| VIII | 7.9 | 285 | 28.6 | 15.8 | 0.55 | 25.0 | 0.87 | SOL 1 |
| VIII | 7.9 | 285 | 17.9 | 15.8 | 0.88 | 25.0 | 1.40 | SOL 2 |

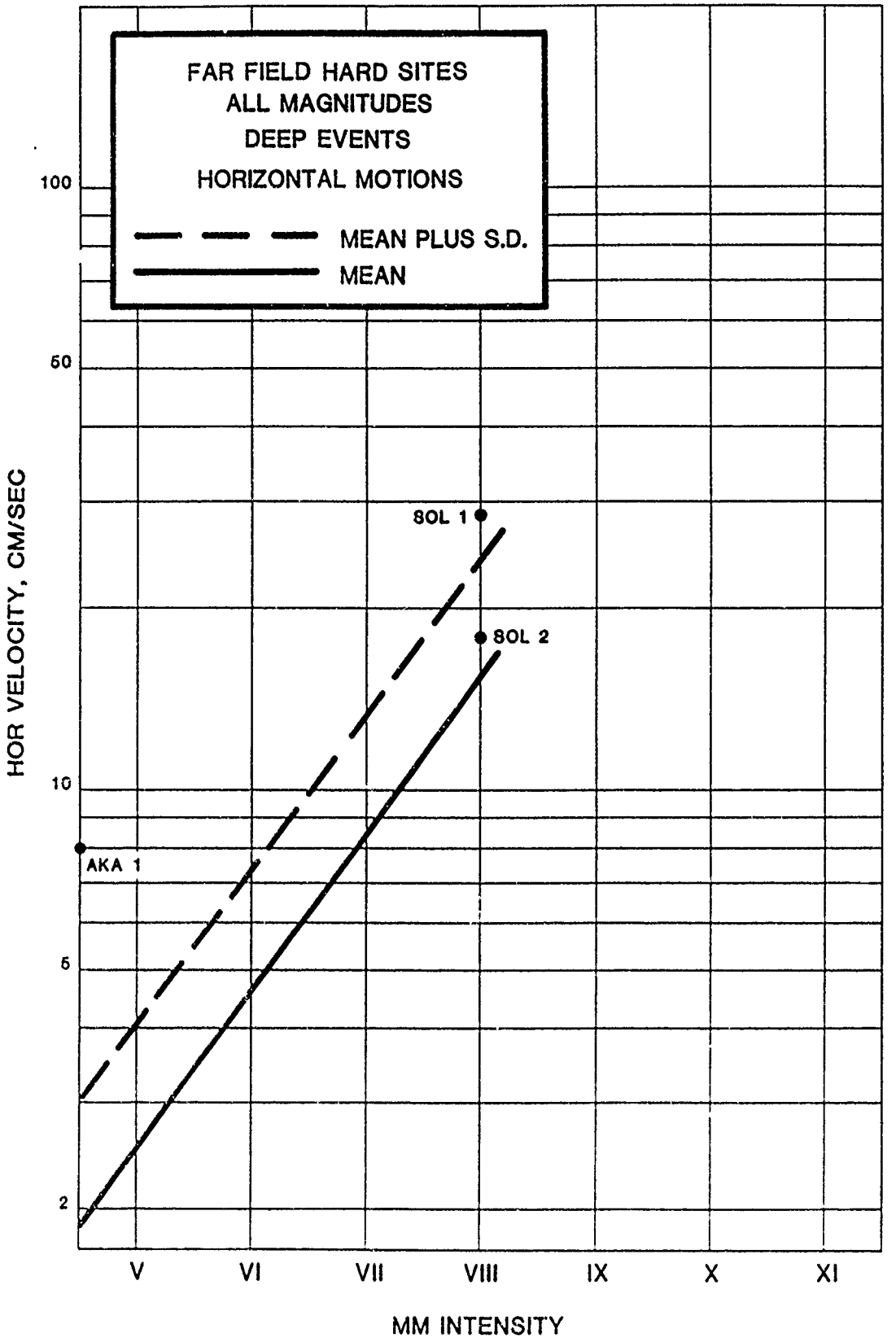


Figure 14. Accelerograms for velocity and intensity at far-field, hard sites for deep earthquakes. (See Table 14.)

56. Generic accelerograms for deep event, far-field ground motion at hard sites with intensity and duration as the parameters follow.

Table 15a

Deep-Int-Hard-Dur-Mag max 6.9

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| [NO DATA] | | | | | | | | |

Table 15b

Deep-Int-Hard-Dur-Mag max 7.5

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| IV | 7.1 | 82 | 8.1 | 5.0 | -3.1 | 10.0 | +1.9 | AKA 1 |

Table 15c

Deep-Int-Hard-Dur-Mag min 7.6

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 7.8 | 71 | 74.7 | 55.0 | -19.7 | 116.0 | +41.3 | CHL 11 |
| VIII | 7.8 | 71 | 67.6 | 55.0 | -12.6 | 116.0 | +48.4 | CHL 12 |
| VIII | 7.8 | 54 | 61.4 | 55.0 | -6.4 | 116.0 | +54.6 | CHL 36 |
| VIII | 7.8 | 54 | 58.7 | 55.0 | -3.7 | 116.0 | +57.3 | CHL 35 |
| VIII | 7.9 | 285 | 45.9 | 55.0 | +9.1 | 116.0 | +70.1 | SOL 1 |
| VIII | 7.9 | 285 | 39.8 | 55.0 | +15.2 | 116.0 | +76.2 | SOL 2 |
| VIII | 7.8 | 68 | 36.5 | 55.0 | +18.5 | 116.0 | +79.5 | CHL 32 |
| VIII | 7.8 | 68 | 36.1 | 55.0 | +18.9 | 116.0 | +79.9 | CHL 31 |

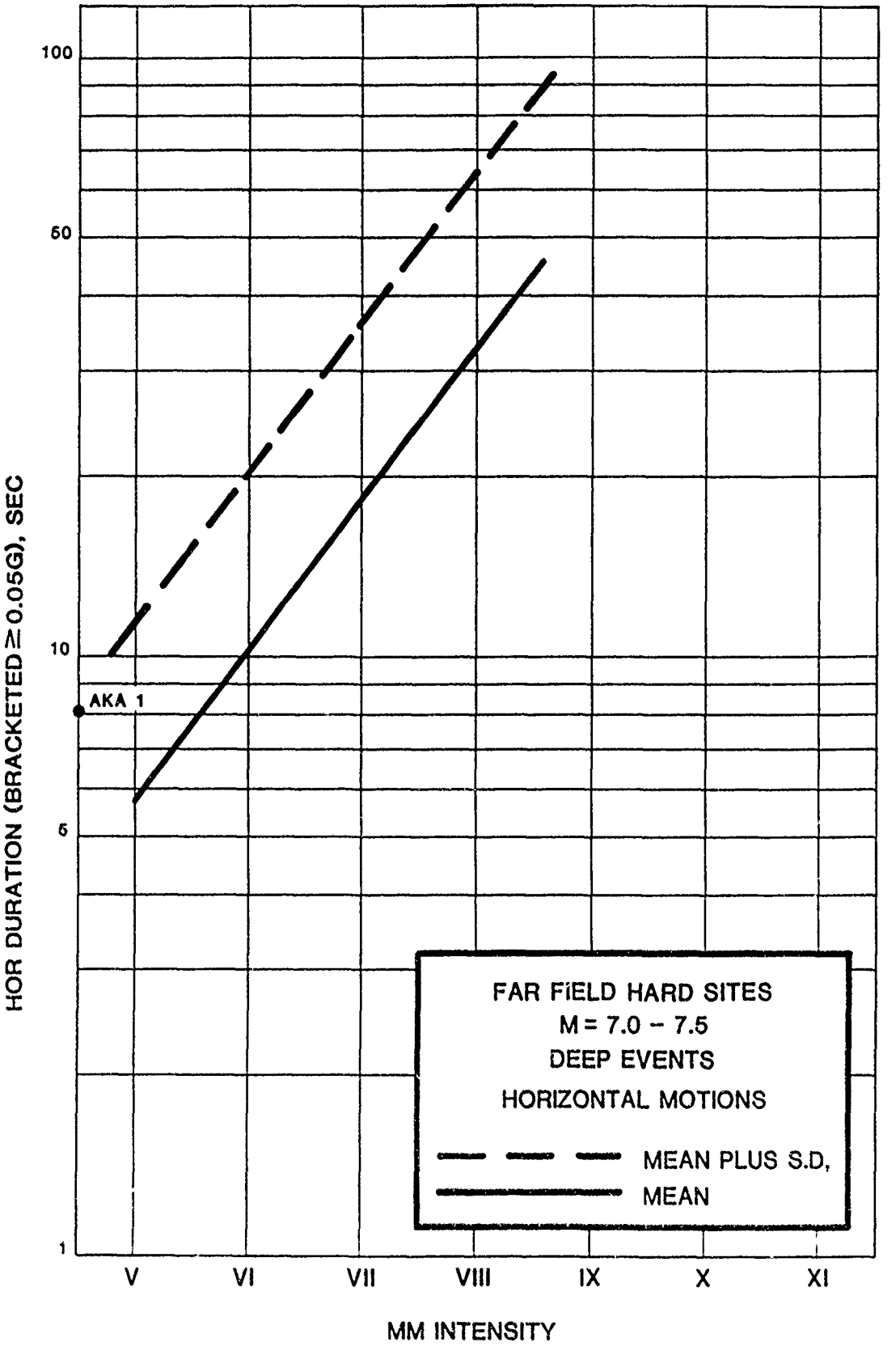


Figure 15a-b. Accelerograms for duration and intensity at far-field, hard sites for deep earthquakes, M = 7.0-7.5. (See Tables 15a-b.)

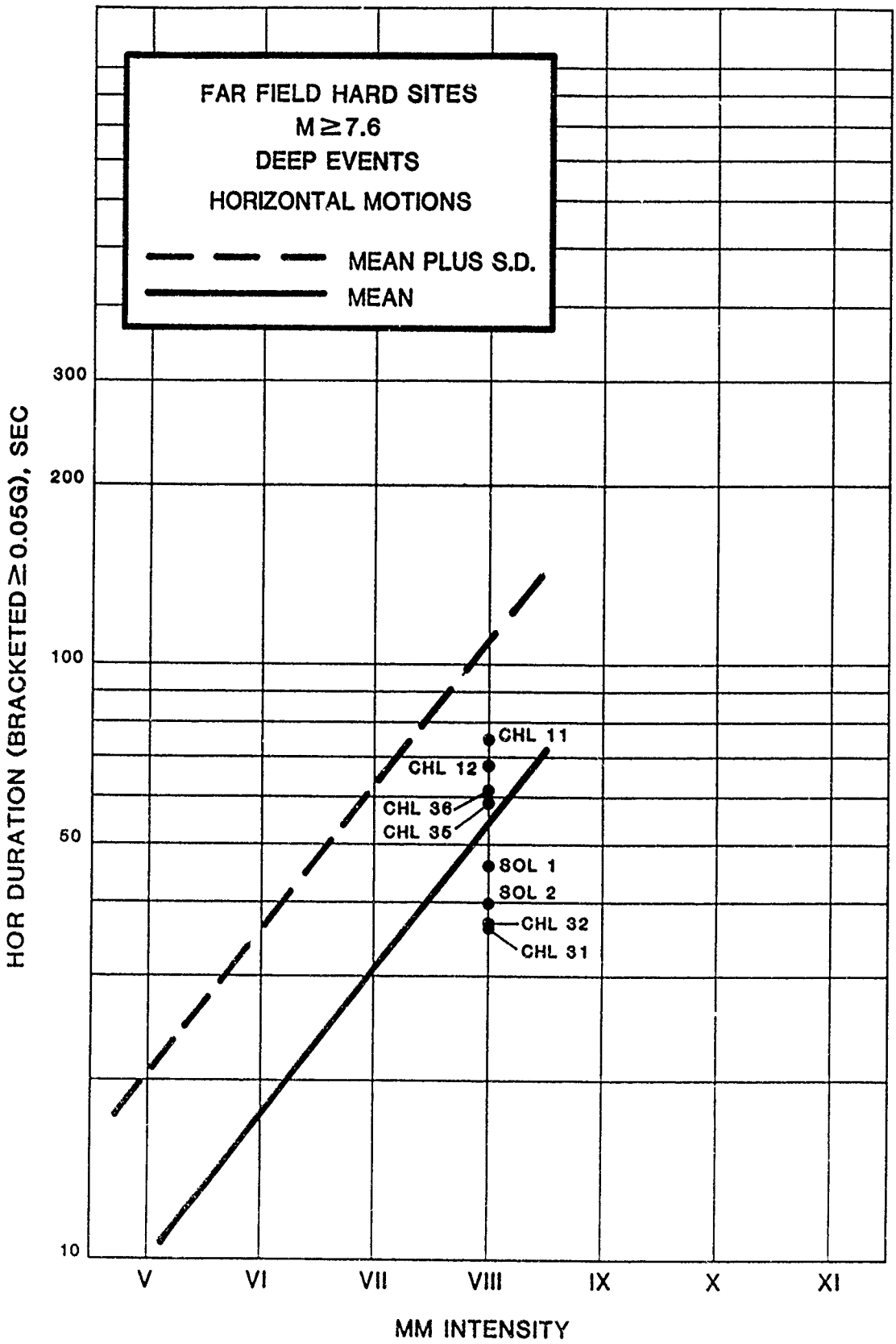


Figure 15c. Accelerograms for duration and intensity at far-field, hard sites for deep earthquakes, M ≥ 7.6. (See Table 15c.)

## PART X: TABLES AND FIGURES FOR INTENSITY-RELATED PEAK GROUND MOTION FOR FAR-FIELD DEEP EVENTS ON SOFT SITES

57. Generic accelerograms for deep event, far-field ground motion at soft sites with intensity and acceleration as the parameters follow.

Table 16

Deep-Int-Soft-Accel

| Int | Mag | Hypo km | Acc gal | Mean gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 6.3 | 239 | 269 | 122 | 0.45 | 188 | 0.70 | PER 1 |
| VII | 7.2 | 199 | 202 | 122 | 0.60 | 188 | 0.93 | ROM 1 |
| VII | 6.5 | 77 | 194 | 122 | 0.63 | 188 | 0.97 | WAS 5 |
| VII | 6.3 | 239 | 180 | 122 | 0.68 | 188 | 1.04 | PER 2 |
| VII | 7.2 | 199 | 175 | 122 | 0.70 | 188 | 1.07 | ROM 2 |
| VII | 6.5 | 142 | 156 | 122 | 0.78 | 188 | 1.21 | CHL 1 |
| VII | 6.5 | 77 | 134 | 122 | 0.91 | 188 | 1.40 | WAS 6 |
| VIII | 7.8 | 68 | 288 | 190 | 0.66 | 288 | 1.00 | CHL 2 |
| VIII | 7.9 | 72 | 275 | 190 | 0.69 | 288 | 1.05 | WAS 1 |
| VIII | 7.9 | 72 | 162 | 190 | 1.17 | 288 | 1.78 | WAS 2 |
| VIII | 7.8 | 68 | 160 | 190 | 1.19 | 288 | 1.80 | CHL 3 |
| VIII | 7.9 | 94 | 67 | 190 | 2.84 | 288 | 4.30 | WAS 3 |
| VIII | 7.9 | 94 | 66 | 190 | 2.88 | 288 | 4.36 | WAS 4 |

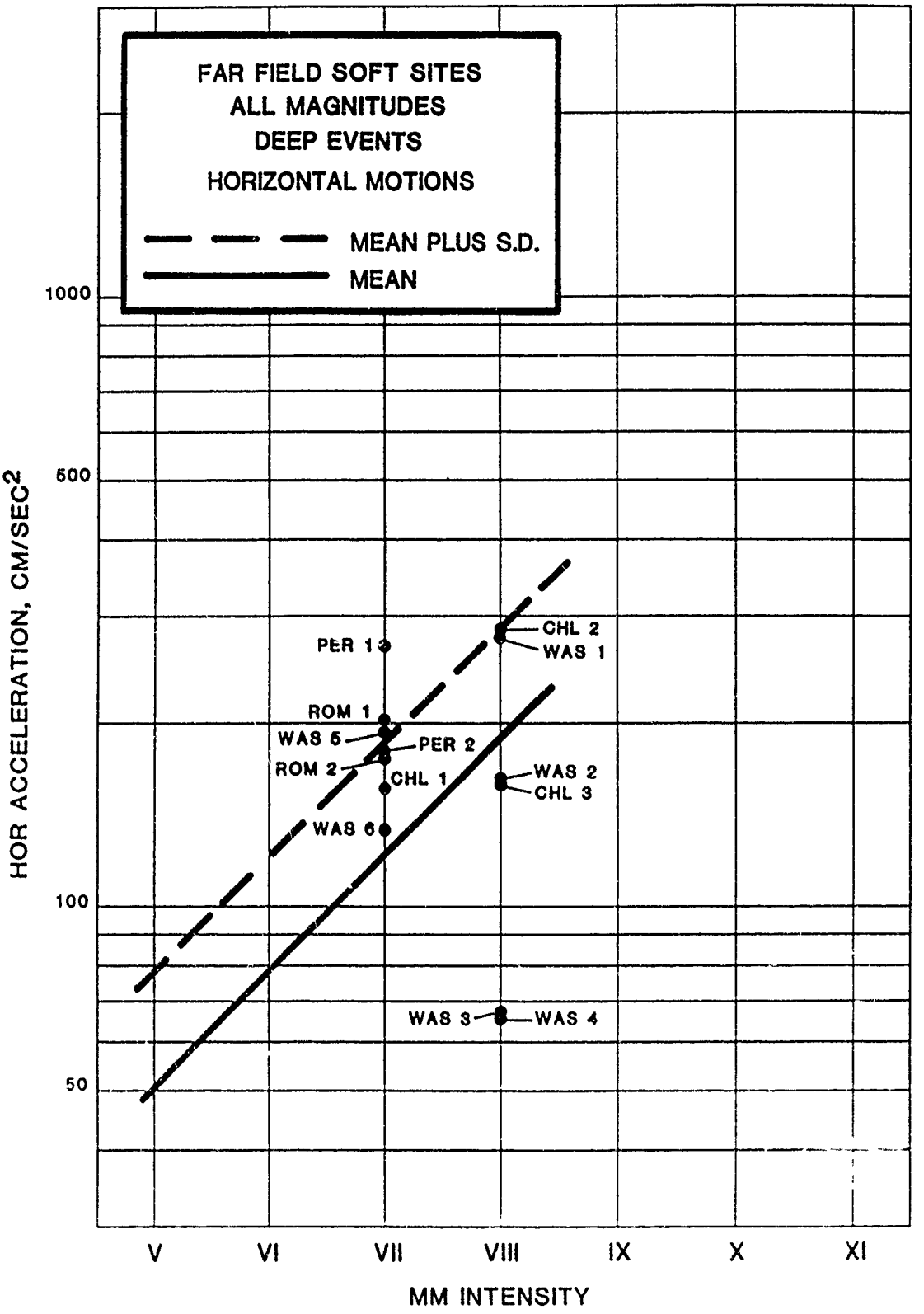


Figure 16. Accelerograms for acceleration and intensity at far-field, soft sites for deep earthquakes. (See Table 16.)

58. Generic accelerograms for deep event, far-field ground motion at soft sites with intensity and velocity as the parameters follow.

Table 17

Deep-Int-Soft-Vel

| Int | Mag | Hypo km | Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 7.2 | 199 | 75.1 | 13.0 | 0.17 | 20.2 | 0.27 | ROM 1 |
| VII | 7.2 | 199 | 32.6 | 13.0 | 0.40 | 20.2 | 0.62 | ROM 2 |
| VII | 6.5 | 142 | 23.2 | 13.0 | 0.56 | 20.2 | 0.87 | CHL 1 |
| VII | 6.3 | 239 | 21.6 | 13.0 | 0.60 | 20.2 | 0.94 | PER 1 |
| VII | 6.3 | 239 | 13.2 | 13.0 | 0.98 | 20.2 | 1.53 | PER 2 |
| VII | 6.5 | 77 | 12.7 | 13.0 | 1.02 | 20.2 | 1.59 | WAS 5 |
| VII | 6.5 | 77 | 8.0 | 13.0 | 1.62 | 20.2 | 2.52 | WAS 6 |
| VIII | 7.9 | 72 | 21.4 | 25.0 | 1.17 | 38.0 | 1.78 | WAS 2 |
| VIII | 7.9 | 72 | 17.0 | 25.0 | 1.47 | 38.0 | 2.24 | WAS 1 |
| VIII | 7.9 | 94 | 8.2 | 25.0 | 3.05 | 38.0 | 4.63 | WAS 3 |
| VIII | 7.9 | 94 | 7.9 | 25.0 | 3.16 | 38.0 | 4.81 | WAS 4 |

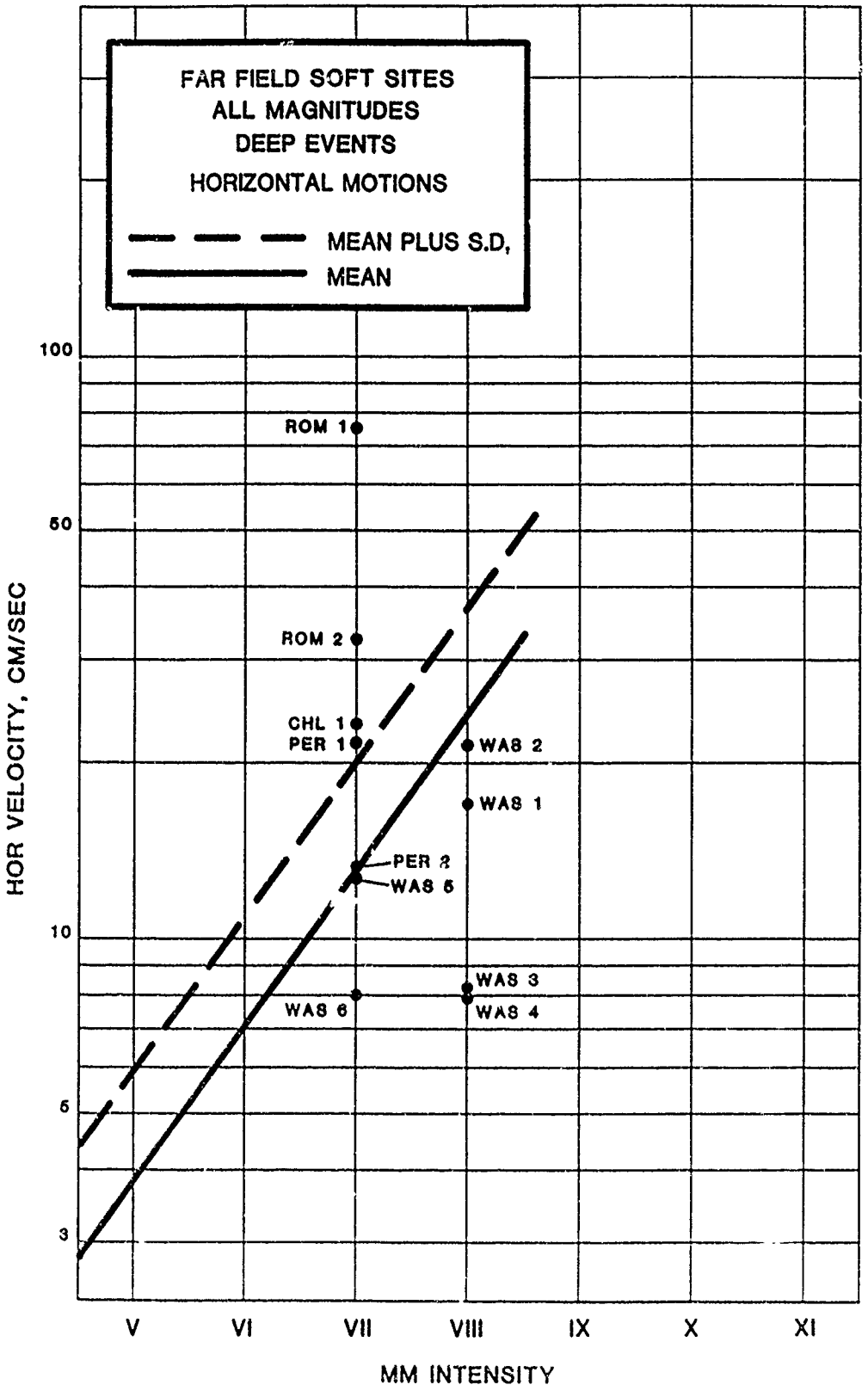


Figure 17. Accelerograms for velocity and intensity at far-field, soft sites for deep earthquakes. (See Table 17.)

59. Generic accelerograms for deep event, far-field ground motion at soft sites with intensity and duration as the parameters follow.

Table 18a

Deep-Int-Soft-Dur-Mag max 6.9

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 6.5 | 142 | 21.3 | 5.1 | -16.2 | 11.0 | -10.1 | CHL 1 |
| VII | 6.3 | 239 | 16.0 | 5.1 | -10.9 | 11.0 | -5.0 | PER 1 |
| VII | 6.5 | 77 | 14.0 | 5.1 | -8.9 | 11.0 | -3.0 | WAS 5 |
| VII | 6.5 | 77 | 12.4 | 5.1 | -7.3 | 11.0 | -1.4 | WAS 6 |
| VII | 6.3 | 236 | 12.0 | 5.1 | -6.9 | 11.0 | -1.0 | PER 2 |

Table 18b

Deep-Int-Soft-Dur-Mag max 7.5

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VII | 7.2 | 199 | 11.9 | 18.0 | +6.1 | 37.0 | +25.1 | ROM 2 |
| VII | 7.2 | 199 | 9.3 | 18.0 | +8.7 | 37.0 | +27.7 | ROM 1 |

Table 18c

Deep-Int-Soft-Dur-Mag min 7.6

| Int | Mag | Hypo km | Dur sec | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|---|---|
| VIII | 7.8 | 68 | 58.2 | 54.0 | -4.2 | 112.0 | +53.8 | CHL 2 |
| VIII | 7.8 | 68 | 58.2 | 54.0 | -4.2 | 112.0 | +53.8 | CHL 3 |
| VIII | 7.9 | 72 | 22.0 | 54.0 | +32.0 | 112.0 | +90.0 | WAS 2 |
| VIII | 7.9 | 72 | 21.5 | 54.0 | +32.5 | 112.0 | +90.5 | WAS 1 |
| VIII | 7.9 | 94 | 16.0 | 54.0 | +38.0 | 112.0 | +96.0 | WAS 3 |
| VIII | 7.9 | 94 | 13.0 | 54.0 | +41.0 | 112.0 | +99.0 | WAS 4 |

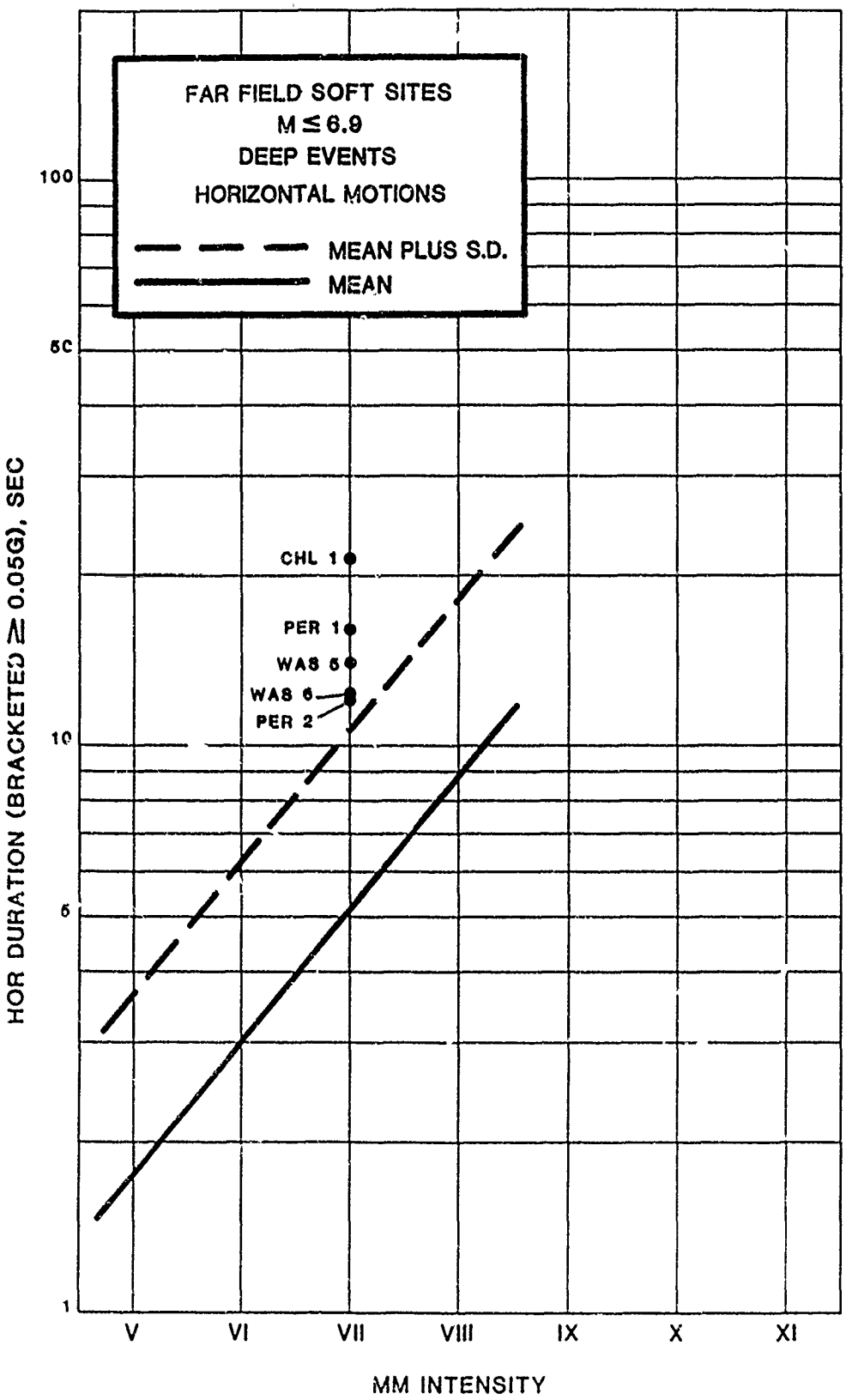


Figure 18a. Accelerograms for duration and intensity at far-field, soft sites for deep earthquakes, M ≤ 6.9. (See Table 18a.)

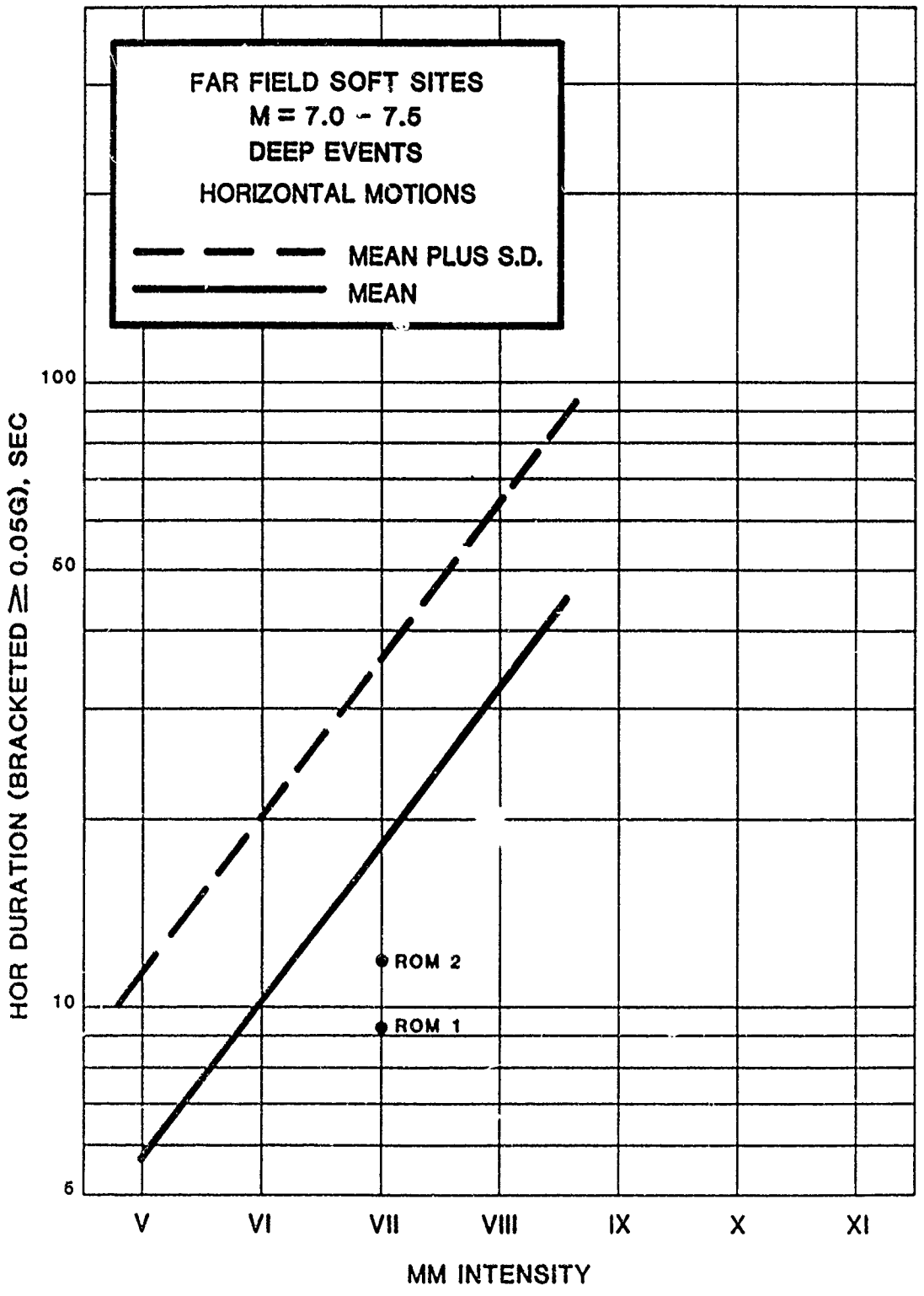


Figure 18b. Accelerograms for duration and intensity at far-field, soft sites for deep earthquakes, M = 7.0-7.5. (See Table 18b.)

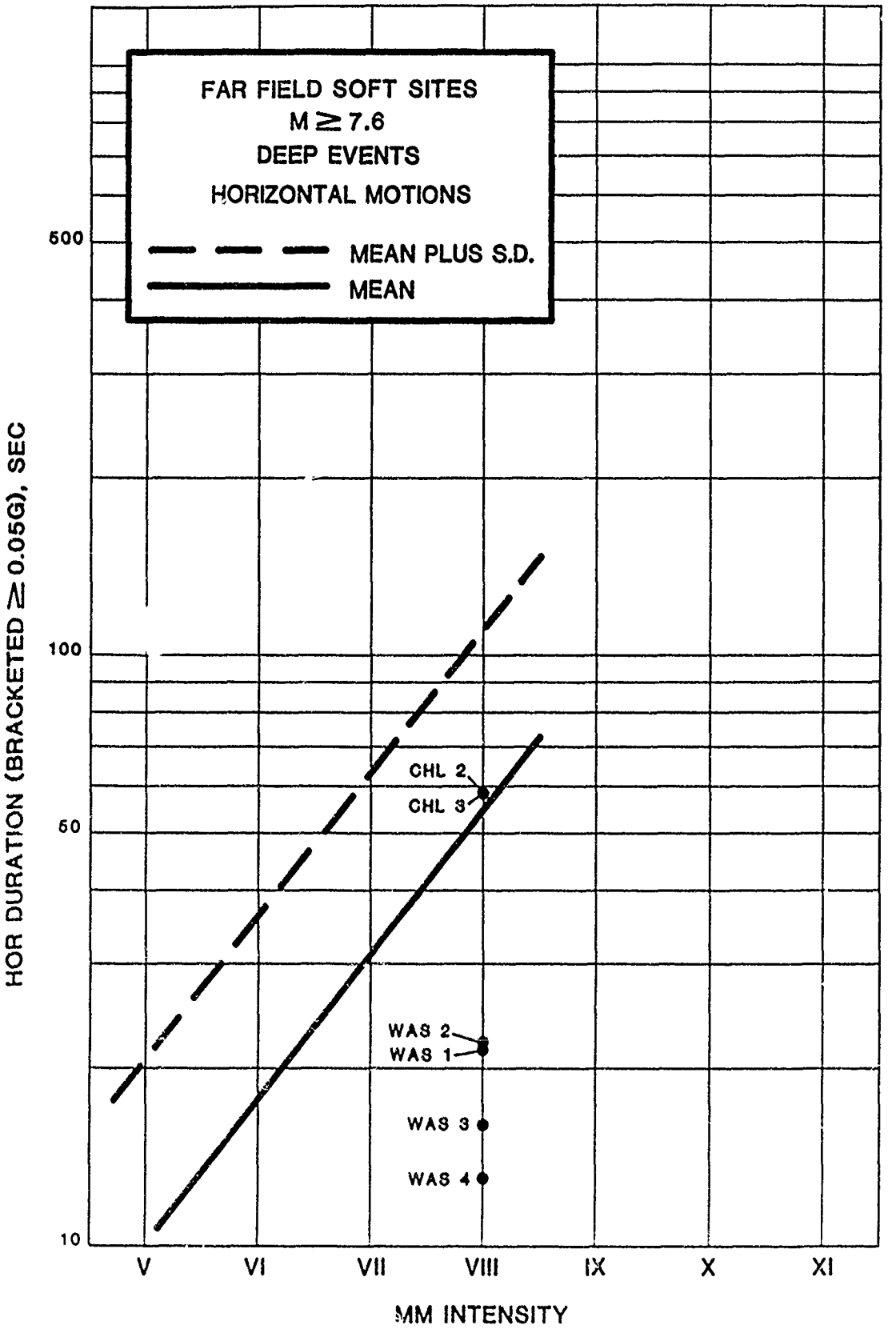


Figure 18c. Accelerograms for duration and intensity at far-field, soft sites for deep earthquakes, M ≥ 7.6. (See Table 18c.)

## PART XI: TABLES AND FIGURES FOR MAGNITUDE-RELATED PEAK GROUND MOTION FOR SHALLOW EVENTS ON HARD SITES

60. Generic accelerogram selections with peak acceleration in gals as the parameter follow. An asterisk after an I.D. number indicates a rock site.

Table 19a

Shallow-Hard-Accel-Mag 5.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 9 | 231 | 180 | 0.78 | 320 | 1.39 | CAN 2 |
| 10 | 245 | 170 | 0.69 | 315 | 1.29 | CAL 99 |
| 10 | 214 | 170 | 0.79 | 315 | 1.47 | SAL 12 |
| 14 | 193 | 150 | 0.78 | 260 | 1.35 | CAL 214 |
| 15 | 194 | 135 | 0.70 | 250 | 1.29 | CAL 21 |
| 15 | 257 | 135 | 0.53 | 250 | 0.97 | ROC 8 |
| 21 | 171 | 94 | 0.55 | 180 | 1.05 | CAL 279 |
| 22 | 156 | 90 | 0.58 | 175 | 1.12 | CAL 64* |

Table 19b

Shallow-Hard-Accel-Mag 6.0

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 10 | 245 | 270 | 1.10 | 505 | 2.06 | CAL 99 |
| 10 | 214 | 270 | 1.26 | 505 | 2.36 | SAL 12 |
| 13 | 224 | 225 | 1.00 | 400 | 1.79 | CAN 15 |
| 14 | 315 | 205 | 0.65 | 390 | 1.24 | CAL 101 |
| 17 | 177 | 180 | 1.00 | 325 | 1.84 | CAL 165 |
| 21 | 171 | 130 | 0.76 | 270 | 1.58 | CAL 279 |
| 32 | 173 | 86 | 0.49 | 165 | 0.95 | ITA 27 |
| 39 | 167 | 72 | 0.43 | 135 | 0.81 | CAL 47* |
| 47 | 104 | 58 | 0.5 | 105 | 1.0 | CAN 17* |
| 95 | 122 | 23 | 0.2 | 41 | 0.3 | CAN 23* |

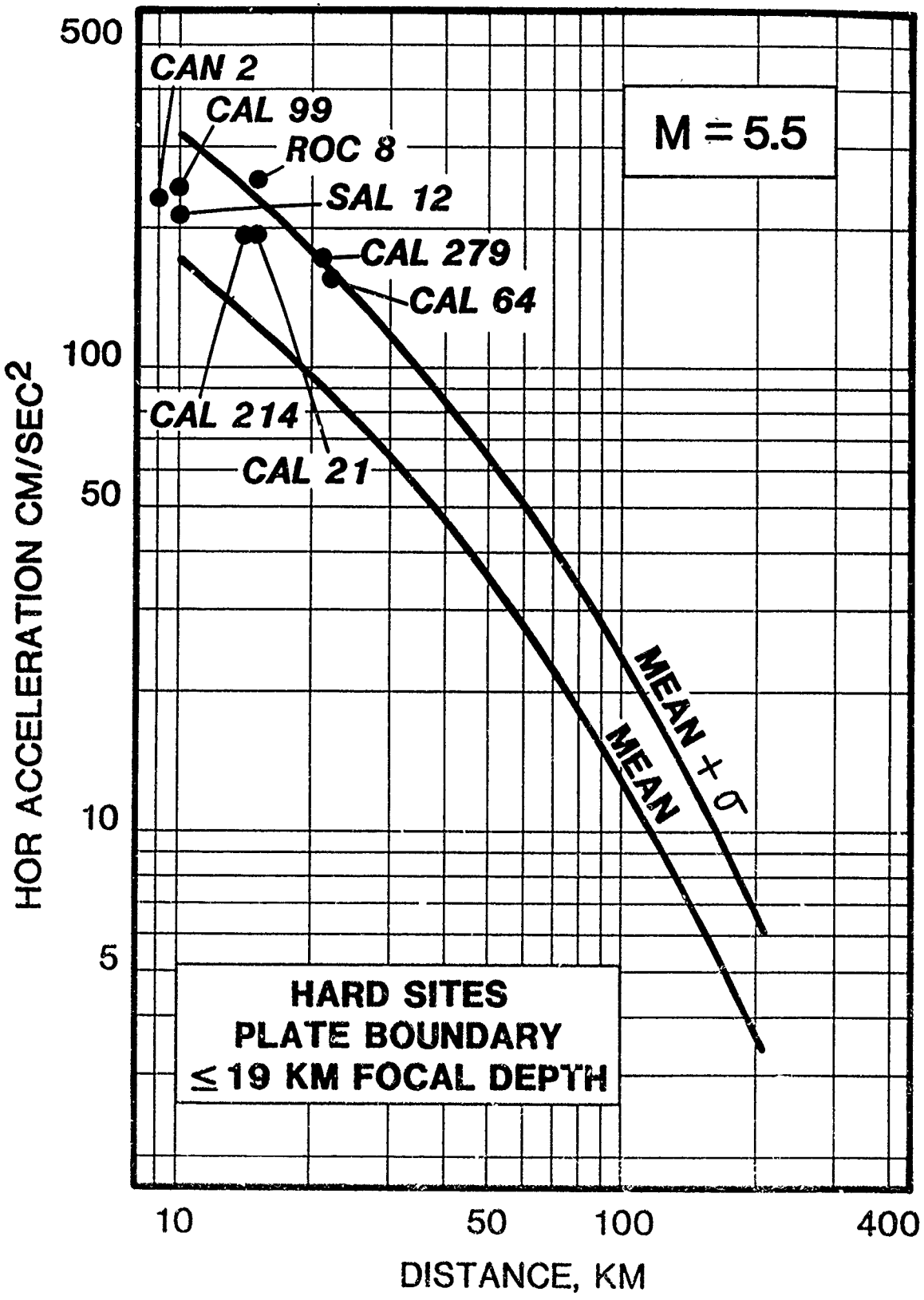


Figure 19a. Accelerograms for acceleration, M = 5.5, and distance from source for shallow earthquakes at hard sites. (See Table 19a.)

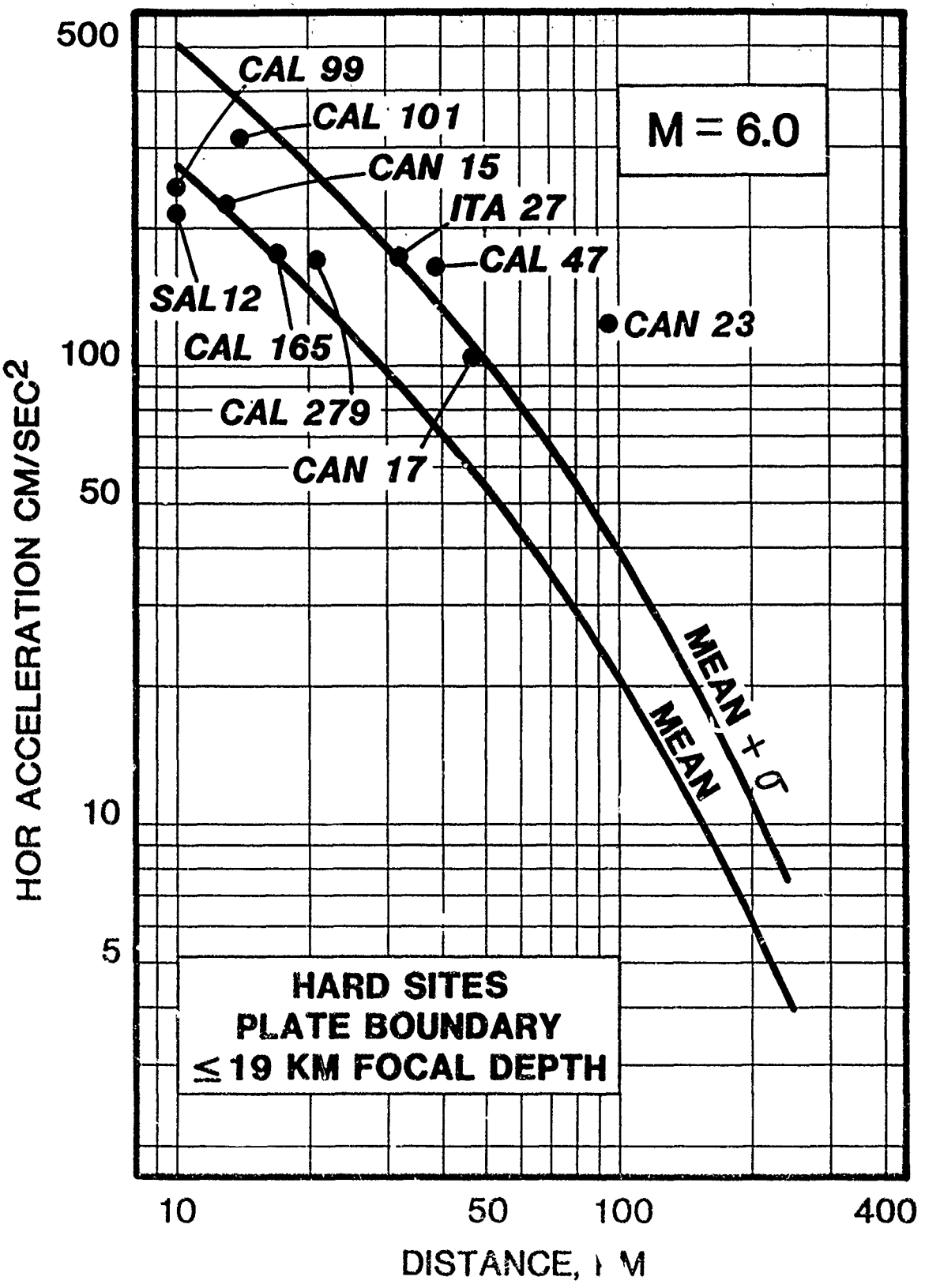


Figure 19b. Accelerograms for acceleration, M = 6.0, and distance from source for shallow earthquakes at hard sites. (See Table 19b.)

Table 19c

Shallow-Hard-Accel-Mag 6.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 9 | 392 | 415 | 1.06 | 800 | 2.04 | CAL 157 |
| 9 | 330 | 415 | 1.26 | 800 | 2.42 | CAN 11 |
| 17 | 223 | 260 | 1.17 | 500 | 2.24 | CAL 168 |
| 18 | 283 | 240 | 0.85 | 460 | 1.63 | CAL 225 |
| 24 | 299 | 345 | 1.15 | 350 | 1.17 | ROC 2 |
| 33 | 168 | 136 | 0.81 | 240 | 1.43 | CAL 43* |
| 33 | 130 | 136 | 1.02 | 240 | 1.85 | ITA 22 |
| 39 | 173 | 110 | 0.64 | 205 | 1.18 | CAL 192 |
| 39 | 167 | 108 | 0.65 | 205 | 1.23 | CAL 47* |
| 47 | 104 | 89 | 0.85 | 150 | 1.4 | CAN 17* |
| 67 | 153 | 52 | 0.35 | 100 | 2.0 | CAN 18* |
| 95 | 122 | 31 | 0.25 | 59 | 1.9 | CAN 23* |
| 116 | 119 | 26 | 0.2 | 48 | 0.4 | CAN 24* |

Table 19d

Shallow-Hard-Accel-Mag 7.0

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 9 | 392 | 650 | 1.66 | 1250 | 3.19 | CAL 157 |
| 9 | 534 | 650 | 1.22 | 1250 | 2.34 | CAN 12 |
| 17 | 223 | 405 | 1.82 | 710 | 1.78 | CAL 168 |
| 18 | 402 | 390 | 0.97 | 710 | 1.77 | CAL 396* |
| 20 | 282 | 335 | 1.19 | 650 | 2.30 | CAL 334 |
| 23 | 433 | 310 | 0.72 | 565 | 1.30 | CAL 354* |
| 24 | 342 | 300 | 0.88 | 560 | 1.64 | CAL 330 |
| 24 | 299 | 300 | 1.00 | 515 | 1.72 | ROC 2 |
| 30 | 206 | 230 | 1.12 | 425 | 2.06 | CAL 381 |
| 32 | 309 | 210 | 0.68 | 400 | 1.29 | CAL 25* |
| 33 | 168 | 205 | 1.22 | 375 | 2.23 | CAL 43* |
| 33 | 187 | 205 | 1.10 | 375 | 2.01 | ITA 23 |
| 34 | 189 | 200 | 1.06 | 365 | 1.93 | CAL 38* |
| 39 | 173 | 165 | 0.95 | 315 | 1.82 | CAL 192 |
| 45 | 166 | 140 | 0.84 | 255 | 1.54 | CAL 51* |
| 61 | 110 | 98 | 0.89 | 190 | 1.73 | CAL 362* |
| 66 | 98 | 86 | 0.88 | 170 | 1.73 | CAL 365* |
| 69 | 124 | 82 | 0.66 | 160 | 1.29 | CAL 348* |

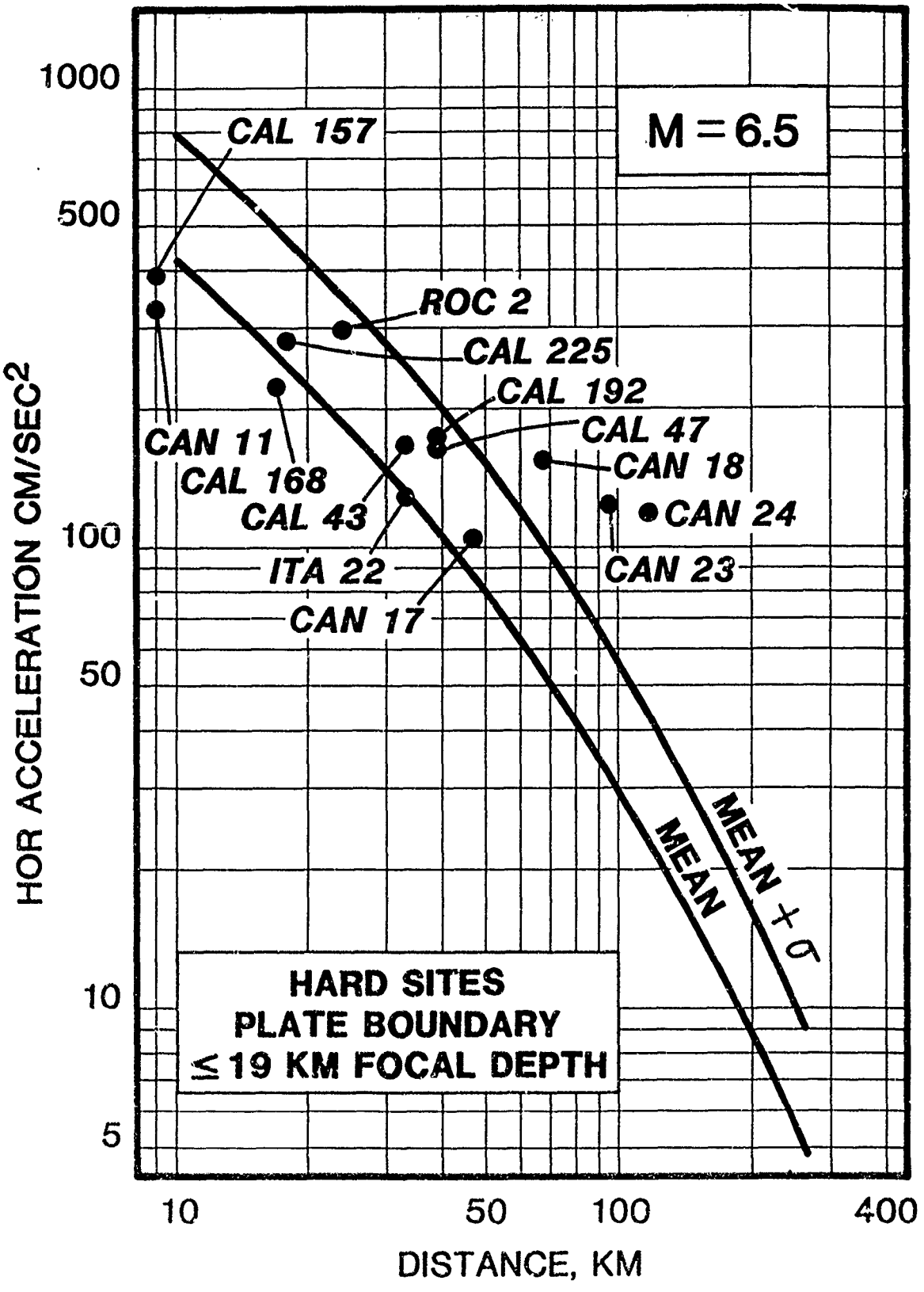


Figure 19c. Accelerograms for acceleration, M = 6.5, and distance from source for shallow earthquakes at hard sites. (See Table 19c.)

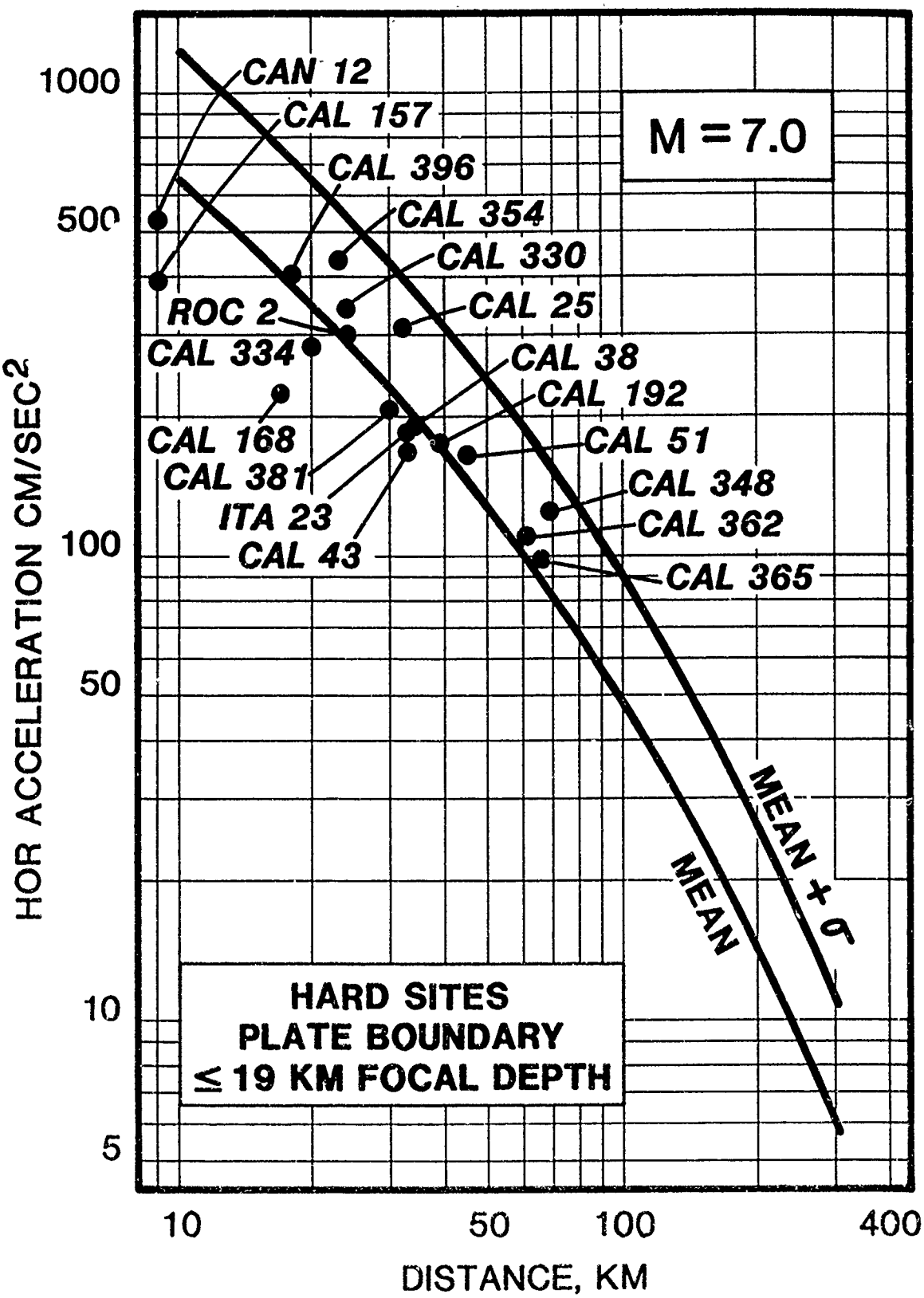


Figure 19d. Accelerograms for acceleration, M = 7.0, and distance from source for shallow earthquakes at hard sites. (See Table 19d.)

Table 19e

Shallow-Hard-Accel-Mag 7.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 9 | 392 | 1000 | 2.5 | 1500 | 3.82 | CAL 157 |
| 10 | 1080 | 1000 | 0.93 | 1500 | 1.39 | CAN 9 |
| 18 | 434 | 620 | 1.43 | 1300 | 3.00 | CAL 395* |
| 20 | 434 | 585 | 1.35 | 1100 | 2.53 | CAL 372* |
| 23 | 433 | 490 | 1.13 | 920 | 2.12 | CAL 354 |
| 30 | 314 | 370 | 1.18 | 700 | 2.23 | CAL 382 |
| 32 | 309 | 350 | 1.13 | 610 | 1.97 | CAL 25* |
| 33 | 187 | 350 | 1.87 | 600 | 3.21 | ITA 23 |
| 39 | 177 | 285 | 1.61 | 505 | 2.85 | CAL 46* |
| 41 | 222 | 250 | 1.13 | 490 | 2.21 | ITA 20 |
| 42 | 256 | 250 | 0.98 | 485 | 1.89 | CAL 190 |
| 58 | 189 | 160 | 0.85 | 305 | 1.61 | CAL 139* |
| 61 | 110 | 150 | 1.36 | 290 | 2.64 | CAL 362* |
| 66 | 98 | 140 | 1.43 | 275 | 2.31 | CAL 365* |
| 69 | 124 | 130 | 1.05 | 265 | 2.14 | CAL 348* |

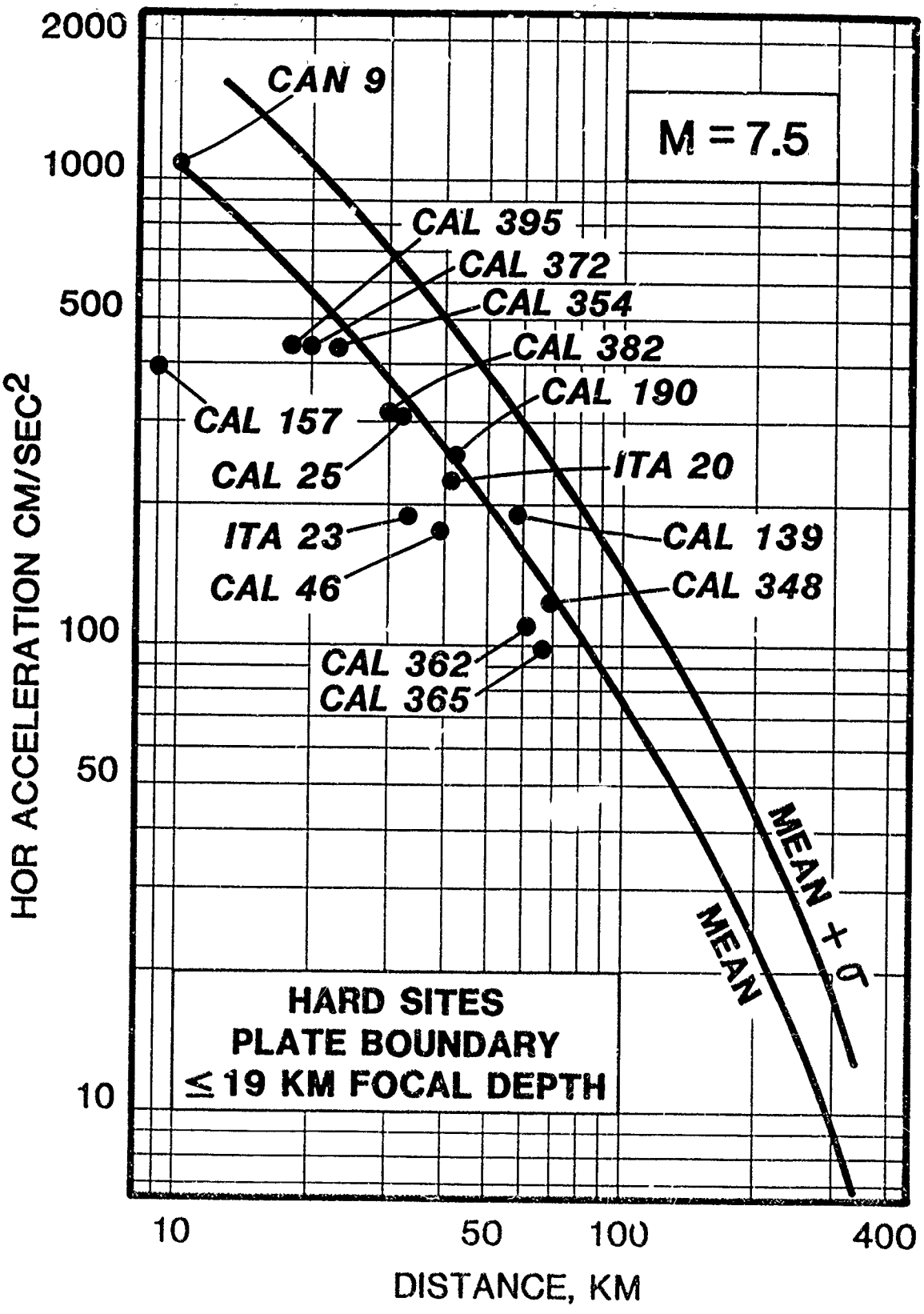


Figure 19e. Accelerograms for acceleration, M = 7.5, and distance from source for shallow earthquakes at hard sites. (See Table 19e.)

61. Generic accelerograms with peak velocity in cm/sec as the parameter follow. An asterisk after an I.D. number indicates a rock site.

Table 20a

Shallow-Hard-Vel-Mag 5.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 10 | 17.7 | 9.7 | 0.55 | 16.2 | 0.92 | SAL 12 |
| 14 | 9.5 | 7.8 | 0.82 | 12.5 | 1.32 | CAL 203 |
| 15 | 9.6 | 6.2 | 0.65 | 11.0 | 1.15 | CAL 21 |
| 15 | 5.5 | 6.0 | 1.09 | 11.0 | 2.00 | ROC 8 |
| 21 | 4.1 | 4.4 | 1.07 | 7.1 | 1.73 | CAL 279 |
| 22 | 5.8 | 3.9 | 0.67 | 6.9 | 1.19 | CAL 64* |

Table 20b

Shallow-Hard-Vel-Mag 6.0

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 10 | 20.5 | 17.0 | 0.83 | 29.0 | 1.41 | CAL 99 |
| 10 | 17.7 | 17.0 | 0.96 | 29.0 | 1.64 | SAL 12 |
| 13 | 6.8 | 14.2 | 2.09 | 23.0 | 3.38 | CAN 15 |
| 14 | 25.1 | 14.0 | 0.56 | 22.0 | 0.88 | CAL 101 |
| 17 | 13.6 | 10.0 | 0.74 | 16.0 | 1.18 | CAL 165 |
| 21 | 4.1 | 8.0 | 1.95 | 13.6 | 3.31 | CAL 279 |
| 40 | 6.6 | 3.6 | 0.55 | 6.1 | 0.92 | CAL 216 |
| 47 | 1.5 | 1.6 | 0.0 | 5.0 | 3.3 | CAN 17* |
| 67 | 1.8 | 1.0 | 0.6 | 3.2 | 1.8 | CAN 18* |
| 95 | 4.6 | 1.0 | 0.22 | 1.8 | 0.4 | CAN 23* |
| 116 | 2.7 | 0.7 | 0.25 | 7.3 | 0.5 | CAN 24* |

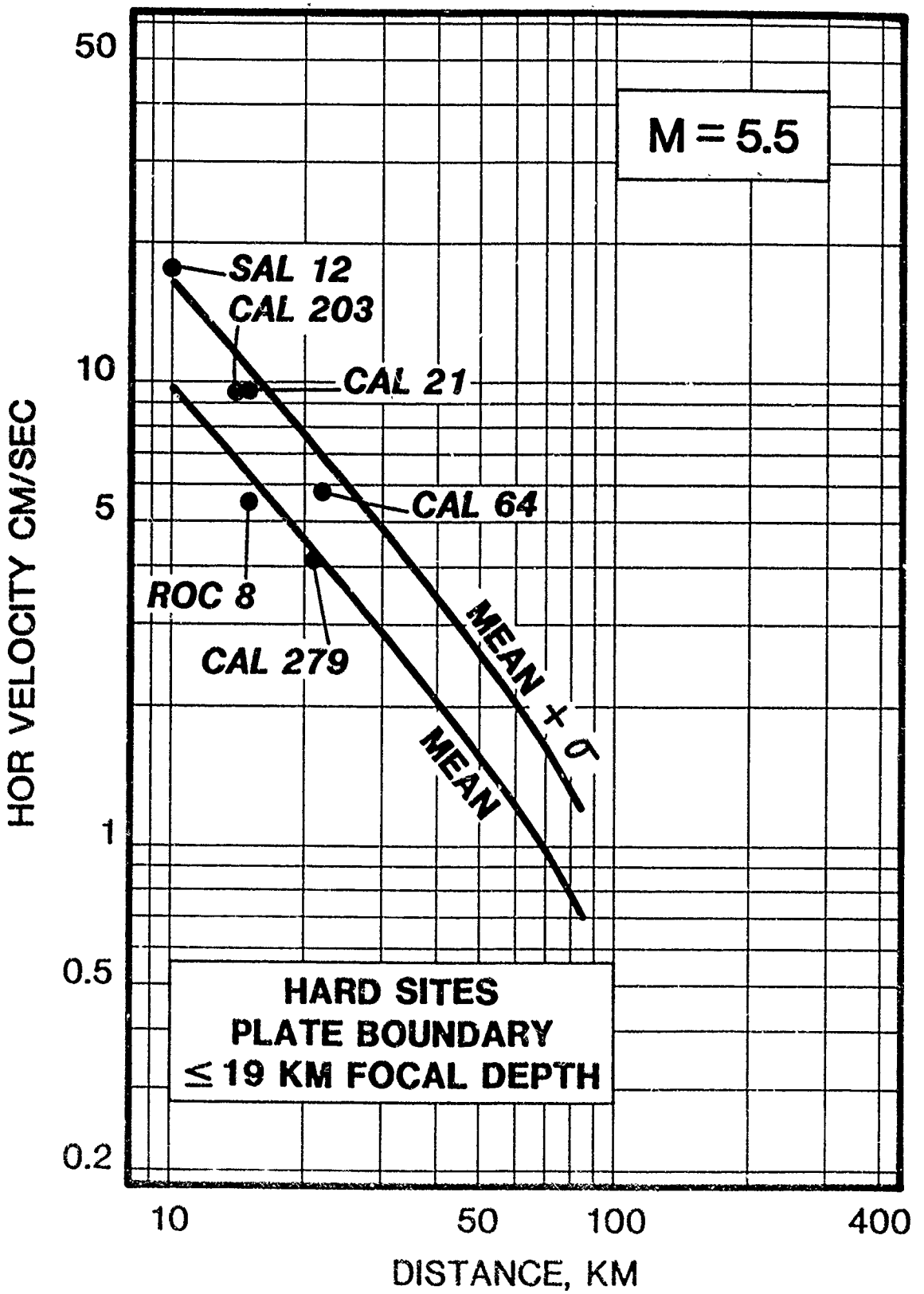


Figure 20a. Accelerograms for velocity, M = 5.5, and distance from source for shallow earthquakes at hard sites. (See Table 20a.)

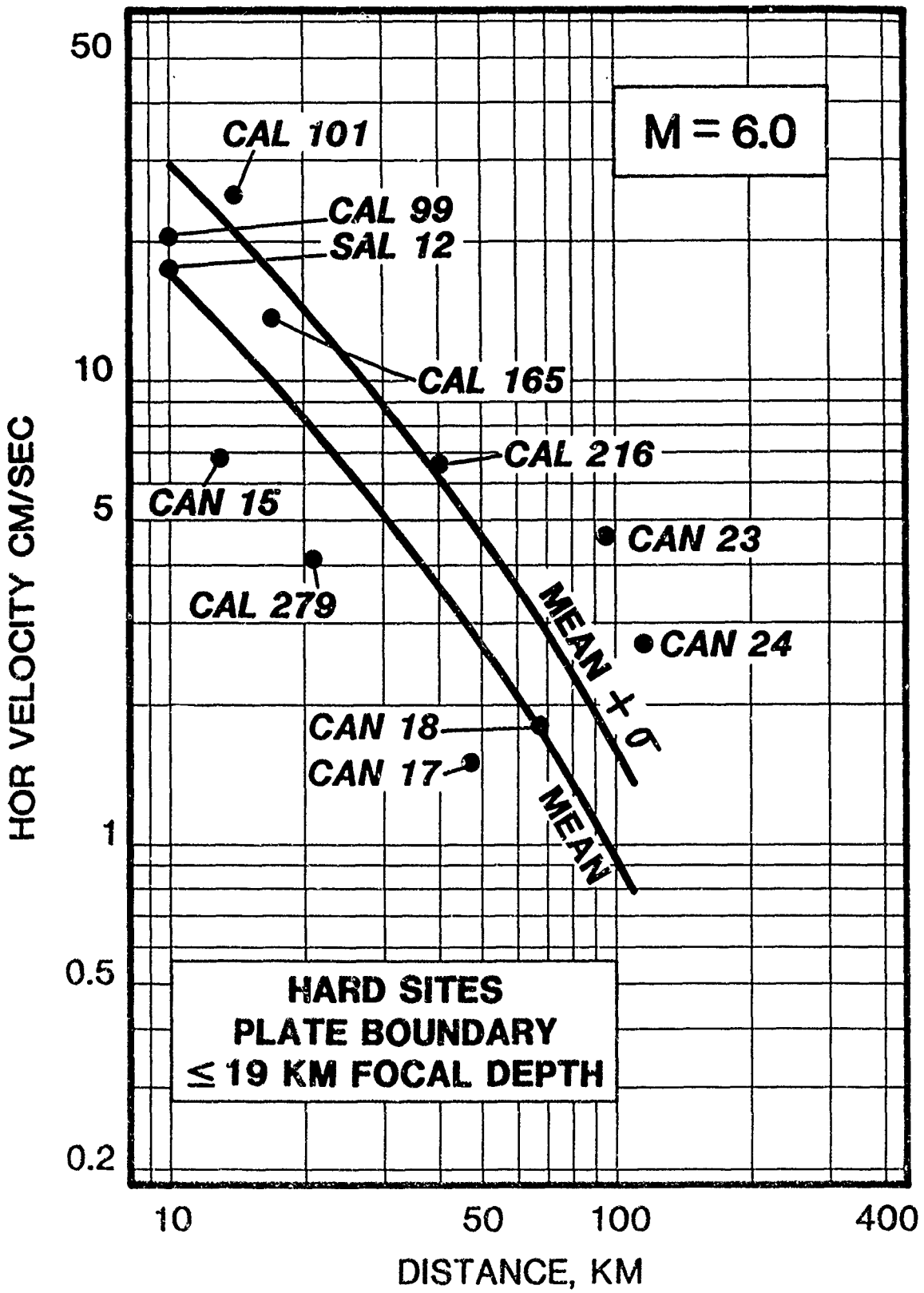


Figure 20b. Accelerograms for velocity, M = 6.0, and distance from source for shallow earthquakes at hard sites. (See Table 20b.)

Table 20c

Shallow-Hard-Vel-Mag 6.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 9 | 22 4 | 31.0 | 1.38 | 51.5 | 2.30 | CAL 158 |
| 9 | 32.6 | 31.0 | 0.95 | 51.5 | 1.58 | CAN 11 |
| 17 | 18.2 | 18.0 | 0.99 | 27.5 | 1.51 | CAL 168 |
| 21 | 17.7 | 14.0 | 0.79 | 22.0 | 1.24 | CAL 171 |
| 24 | 11.5 | 12.5 | 1.09 | 20.0 | 1.74 | ROC [illegible] |
| 33 | 5.3 | 8.2 | 1.55 | 13.2 | 2.49 | CAL 43* |
| 40 | 6.6 | 6.4 | 0.97 | 10.9 | 1.65 | CAL 216 |
| 67 | 1.8 | 3.3 | 1.8 | 5.5 | 3.1 | CAN 18* |
| 95 | 4.6 | 1.8 | 0.39 | 3.3 | 0.7 | CAN 23* |
| 115 | 2.7 | 1.7 | 0.63 | 2.7 | 0.0 | CAN 24* |

Table 20d

Shallow-Hard-Vel-Mag 7.0

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 9 | 23.1 | 51.0 | 2.21 | 91.0 | 3.94 | CAL 157 |
| 9 | 30.3 | 51.0 | 1.68 | 91.0 | 3.00 | CAN 12 |
| 17 | 18.2 | 30.0 | 1.65 | 50.0 | 2 75 | CAL 168 |
| 18 | 84.4 | 28.0 | 0.33 | 48.0 | 0.57 | CAL 395* |
| 20 | 28.4 | 26.0 | 0.92 | 41.5 | 1.4[illegible] | CA[illegible] 334 |
| 23 | 21.2 | 21.5 | 1.01 | 33.5 | 1 58 | CAL 354 |
| 30 | 16.3 | 16.3 | 1.00 | 26.0 | 1.60 | CAL 382 |
| 32 | 16.5 | 14.5 | 0.88 | 24.0 | 1.52 | CAL 25* |
| 37 | 11.8 | 12.4 | 1.05 | 21.0 | 1.78 | CAL 38* |
| 57 | 9.0 | 6.8 | 0.76 | 12.0 | 1.33 | CAL 139* |
| 61 | 14.3 | 6.7 | 0.47 | 12.5 | 0.87 | CAL 362* |

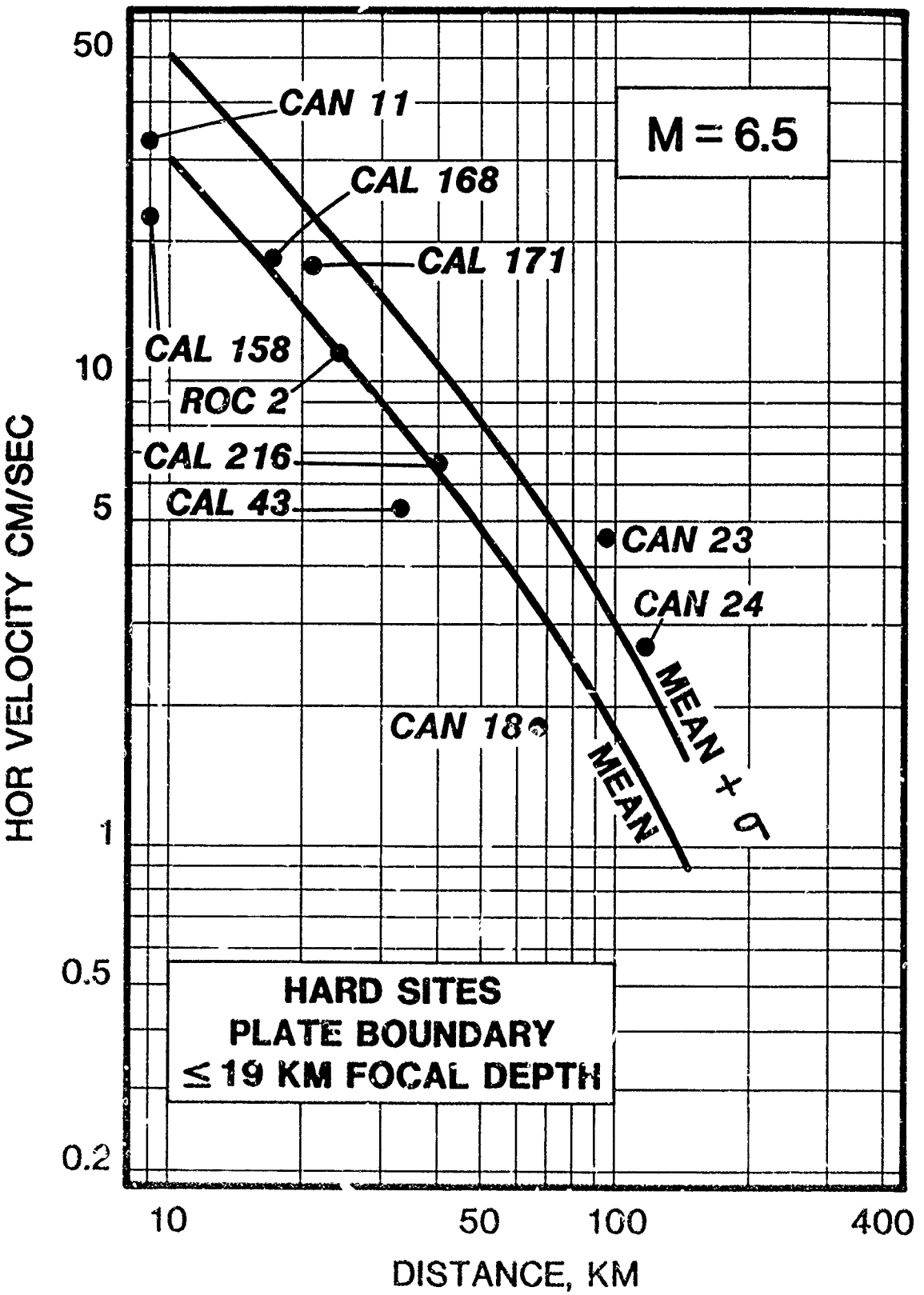


Figure 20c. Accelerograms for velocity, M = 6.5, and distance from source for shallow earthquakes at hard sites. (See Table 20c.)

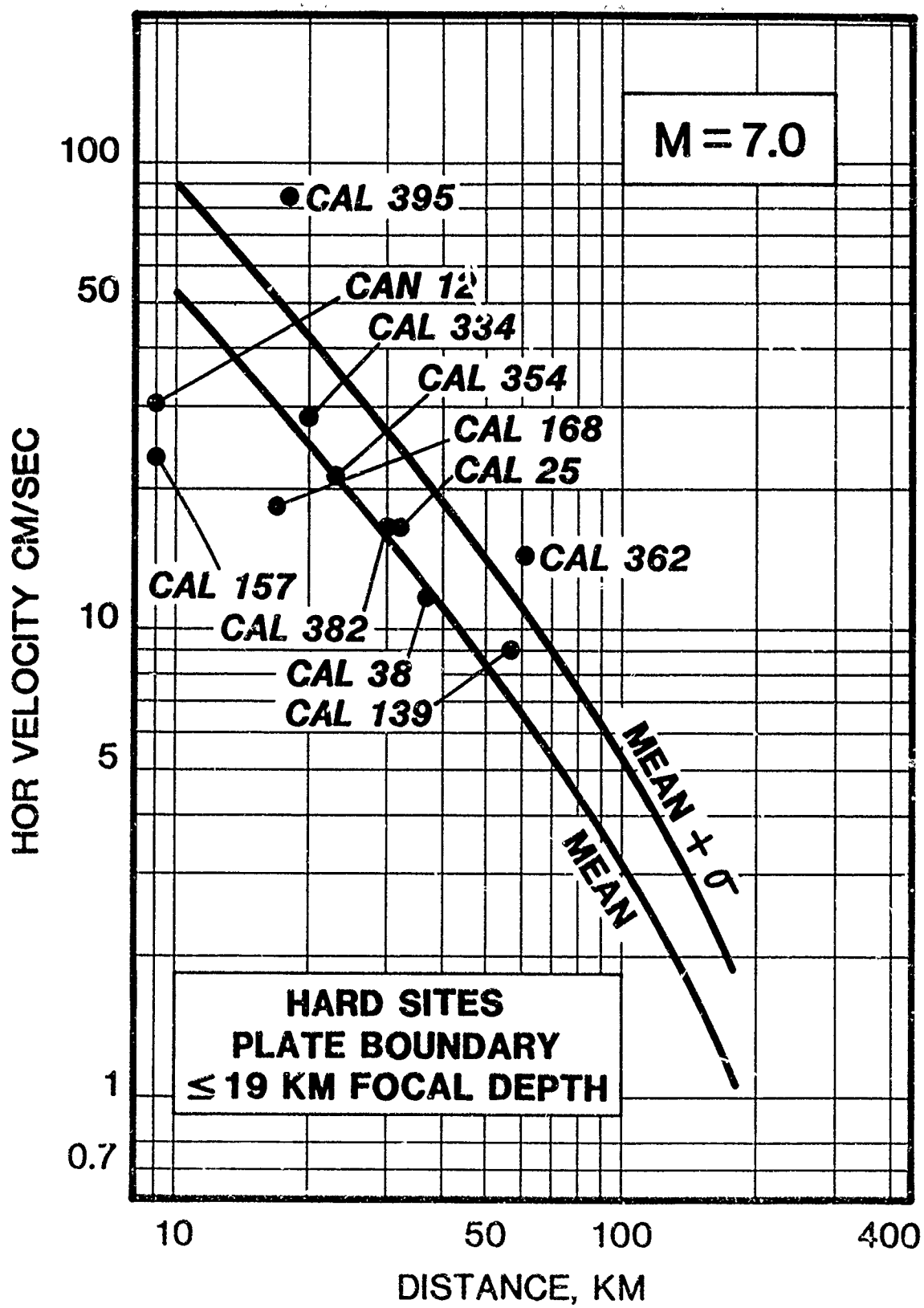


Figure 20d. Accelerograms for velocity, M = 7.0, and distance from source for shallow earthquakes at hard sites. (See Table 20d.)

Table 20e

Shallow-Hard-Vel-Mag 7.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 10 | 46.2 | 92.0 | 1.99 | 150.0 | 3.25 | CAN 9 |
| 17 | 18.2 | 60.0 | 3.30 | 85.0 | 4.67 | CAL 168 |
| 18 | 84.4 | 49.0 | 0.58 | 85.0 | 1.00 | CAL 395* |
| 20 | 33.8 | 44.0 | 1.30 | 73.0 | 2.16 | CAL 372* |
| 32 | 27.2 | 27.0 | 0.99 | 46.0 | 1.69 | CAL 26* |
| 33 | 23.4 | 25.5 | 1.09 | 40.0 | 1.71 | ITA 22 |
| 39 | 18.3 | 20.0 | 1.09 | 35.0 | 1.91 | CAL 192 |
| 41 | 28.3 | 18.5 | 0.65 | 31.0 | 1.10 | CAL 189 |
| 41 | 42.4 | 18.5 | 0.44 | 31.0 | 0.73 | ITA 20 |
| 58 | 9.0 | 12.5 | 1.39 | 21.0 | 2.33 | CAL 139* |
| 61 | 14.3 | 14.0 | 1.02 | 19.0 | 1.33 | CAL 362* |

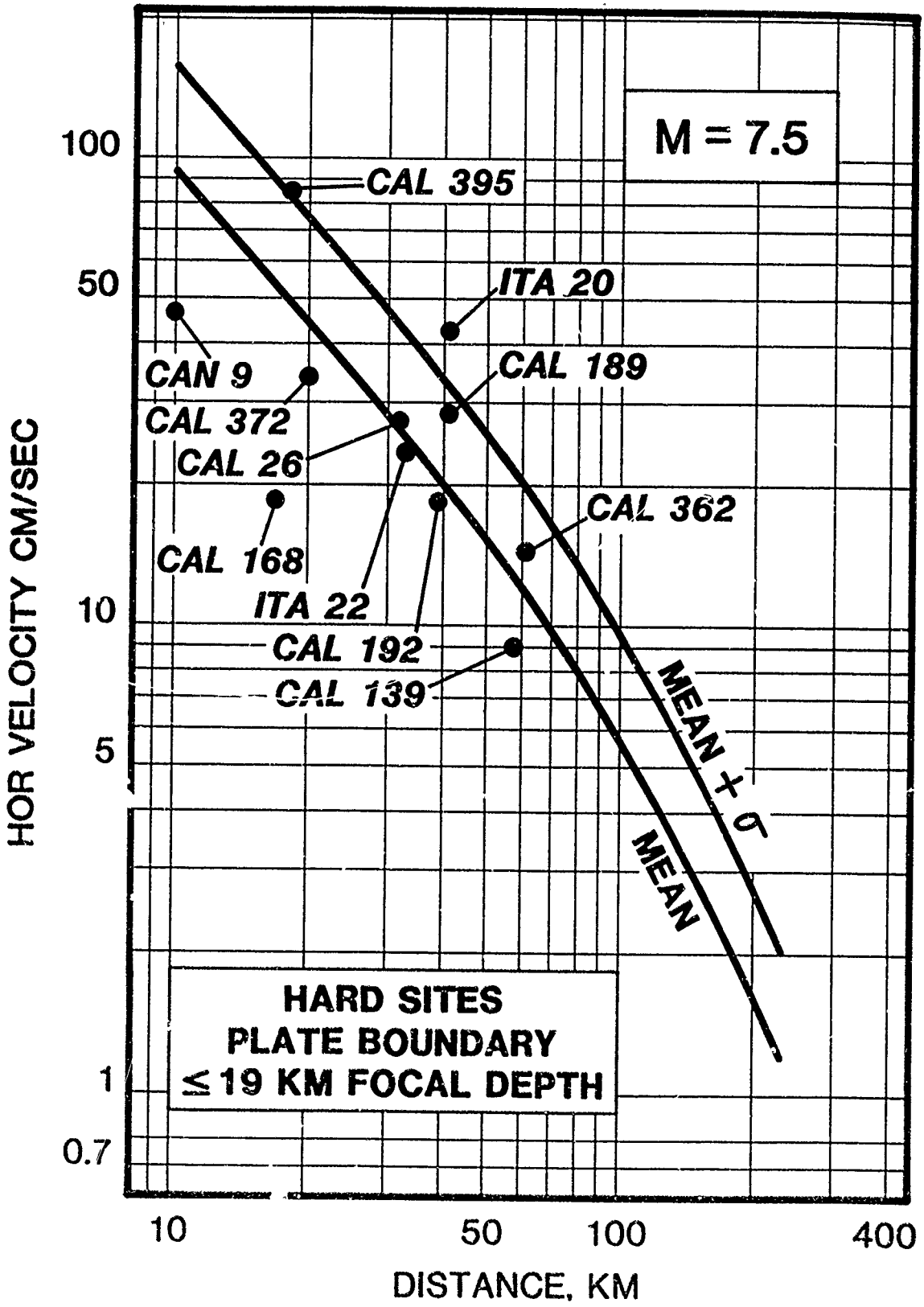


Figure 20e. Accelerograms for velocity, M = 7.5, and distance from source for shallow earthquakes at hard sites. (See Table 20e.)

62. Generic accelerograms with duration (bracketed 0.05 g or more) in seconds as the parameter follow. An asterisk after an I.D.number indicates a rock site.

Table 21a

Shallow-Hard-Dur-Mag 5.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 9 | 1.4 | 1.0 | -0.4 | 1.5 | +0.1 | CAN 2 |
| 10 | 1.7 | 1.0 | -0.7 | 1.6 | +0.1 | MON 1* |
| 14 | 1.1 | 1.1 | 0.0 | 1.7 | +0.6 | CAL 203 |
| 15 | 2.3 | 1.2 | -1.1 | 1.8 | -0.5 | CAL 21 |
| 15 | 1.7 | 1.2 | -0.5 | 1.8 | +0.1 | ROC 8 |
| 22 | 3.0 | 1.3 | -1.7 | 1.9 | -1.1 | CAL 64* |
| 32 | 3.2 | 1.4 | -1.8 | 2.1 | -1.1 | CAL 19 |

Table 21b

Shallow-Hard-Dur-Mag 6.0

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 10 | 1.7 | 1.6 | -0.1 | 2.5 | +0.8 | MON 1* |
| 13 | 4.6 | 1.7 | -2.9 | 2.6 | -2.0 | CAN 15 |
| 14 | 1.1 | 1.8 | +0.7 | 2.7 | +1.6 | CAL 203 |
| 15 | 2.3 | 1.9 | -0.4 | 2.8 | +0.5 | CAL 21 |
| 22 | 3.0 | 2.2 | -0.8 | 3.1 | +0.1 | CAL 64* |
| 32 | 3.2 | 2.4 | -0.8 | 3.5 | +0.3 | CAL 19 |
| 67 | 7.0 | 3.0 | -4.0 | 5.0 | -2.0 | CAN 18* |
| 95 | 6.1 | 3.2 | -2.9 | 5.3 | +0.8 | CAN 23* |
| 116 | 3.4 | 3.4 | 0.0 | 6.0 | +2.6 | CAN 24* |

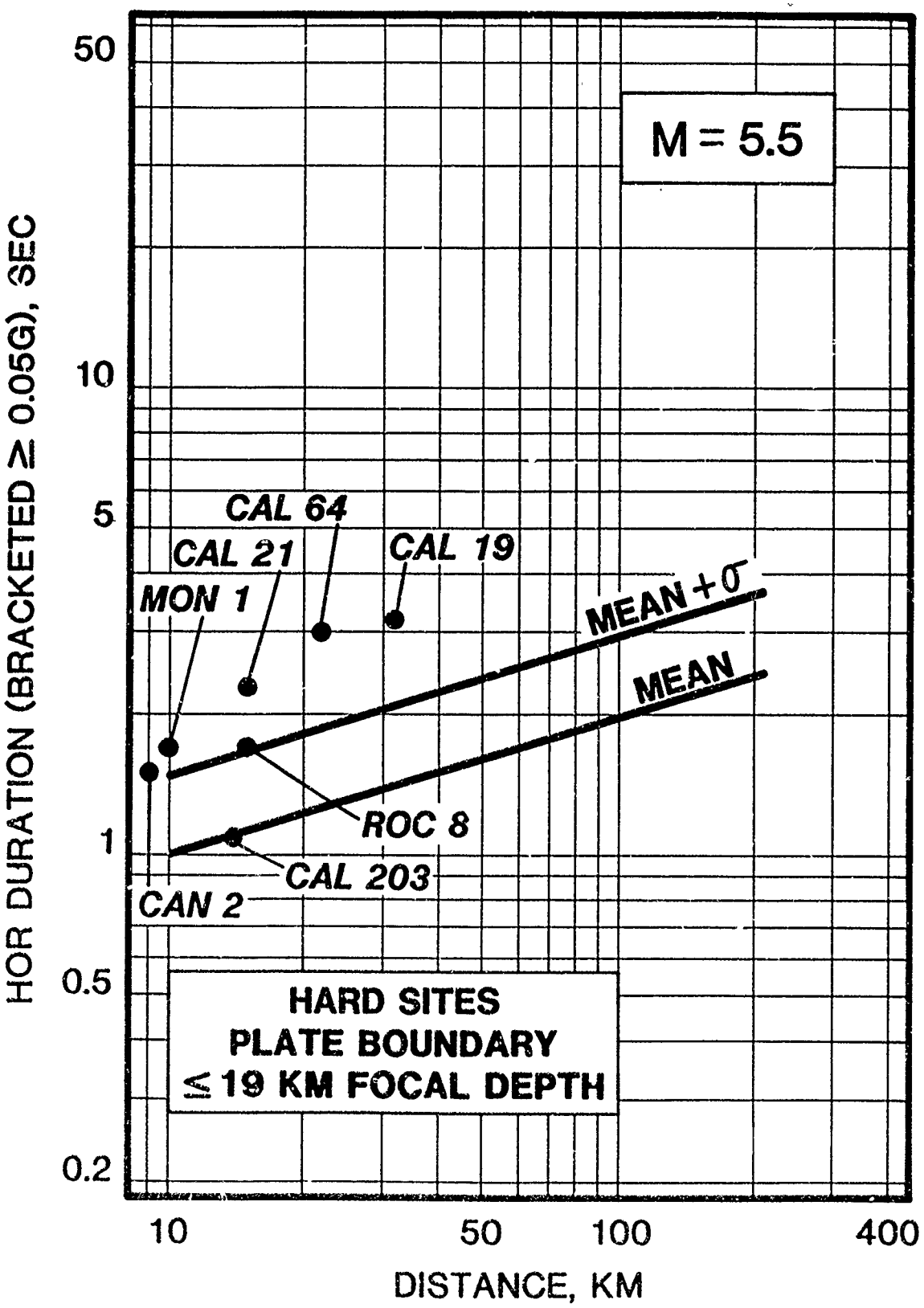


Figure 21a. Accelerograms for duration, M = 5.5, and distance from source for shallow earthquakes at hard sites. (See Table 21a.)

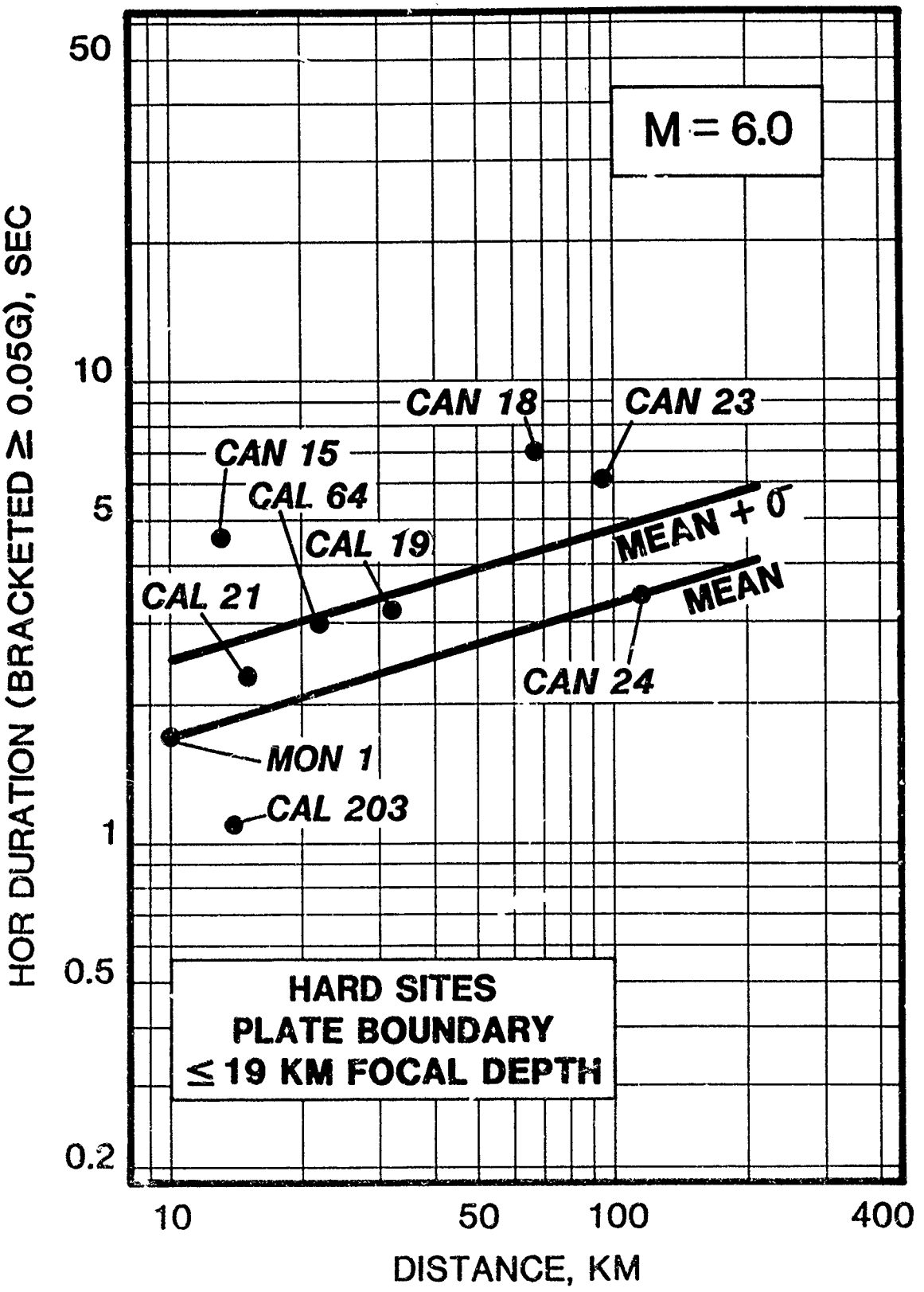


Figure 21b. Accelerograms for duration, M = 6.0, and distance for shallow earthquakes at hard sites. (See Table 21b.)

Table 21c

Shallow-Hard-Dur-Mag 6.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 10 | 1.7 | 2.7 | +1.0 | 4.0 | +2.3 | MON 1* |
| 15 | 2.3 | 3.0 | +0.7 | 4.5 | +2.2 | CAL 21 |
| 17 | 4.2 | 3.2 | -1.0 | 4.6 | -0.4 | CAL 166 |
| 21 | 5.0 | 3.4 | -1.6 | 5.0 | 0.0 | CAL 171 |
| 22 | 3.0 | 3.5 | +0.5 | 5.1 | +2.1 | CAL 64* |
| 33 | 6.5 | 4.0 | -2.5 | 5.8 | -0.7 | CAL 43* |
| 39 | 6.0 | 4.1 | -1.9 | 6.0 | 0.0 | CAL 49 |
| 58 | 4.9 | 4.8 | -0.1 | 7.0 | +2.1 | CAL 139* |
| 67 | 7.0 | 4.9 | -2.1 | 7.1 | +0.1 | CAN 18* |
| 95 | 6.1 | 5.3 | -0.8 | 8.0 | +1.9 | CAN 23* |
| 116 | 3.4 | 5.8 | +2.4 | 8.6 | +5.2 | CAN 24* |

Table 21d

Shallow-Hard-Dur-Mag 7.0

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 17 | 5.8 | 5.2 | -0.6 | 6.8 | +1.0 | CAL 168 |
| 18 | 7.2 | 5.4 | -1.8 | 7.9 | +0.7 | CAL 395* |
| 20 | 9.5 | 5.6 | -3.9 | 8.1 | -1.4 | CAL 372* |
| 33 | 6.5 | 6.6 | +0.1 | 9.6 | +3.1 | CAL 43* |
| 33 | 10.5 | 6.6 | -3.9 | 9.6 | -0.9 | ITA 23 |
| 37 | 6.5 | 6.7 | +0.2 | 9.9 | +3.4 | CAL 38* |
| 42 | 12.2 | 7.0 | -5.2 | 10.0 | -2.2 | CAL 190 |
| 58 | 4.9 | 7.7 | +2.8 | 11.5 | +6.6 | CAL 139* |
| 61 | 6.0 | 7.9 | +1.9 | 12.0 | +6.0 | CAL 362* |

Table 21e

Shallow-Hard-Dur-Mag 7.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 10 | 11.7 | 7.8 | -3.9 | 11.0 | -0.7 | CAN 9 |
| 17 | 6.2 | 8.9 | +2.7 | 13.0 | +6.8 | CAL 167 |
| 18 | 7.2 | 9.0 | +1.8 | 14.0 | +6.8 | CAL 395* |
| 20 | 9.5 | 9.3 | -0.2 | 15.0 | +5.5 | CAL 372* |
| 24 | 15.9 | 10.0 | -5.9 | 15.5 | -0.4 | CAL 330 |
| 30 | 13.0 | 11.0 | -2.0 | 16.0 | +3.0 | CAL 381 |
| 33 | 6.5 | 11.0 | +4.5 | 16.0 | +9.5 | CAL 43* |
| 33 | 10.5 | 11.0 | +0.5 | 16.0 | +5.5 | ITA 23 |
| 42 | 15.8 | 12.0 | -3.8 | 17.5 | +1.7 | CAL 189 |

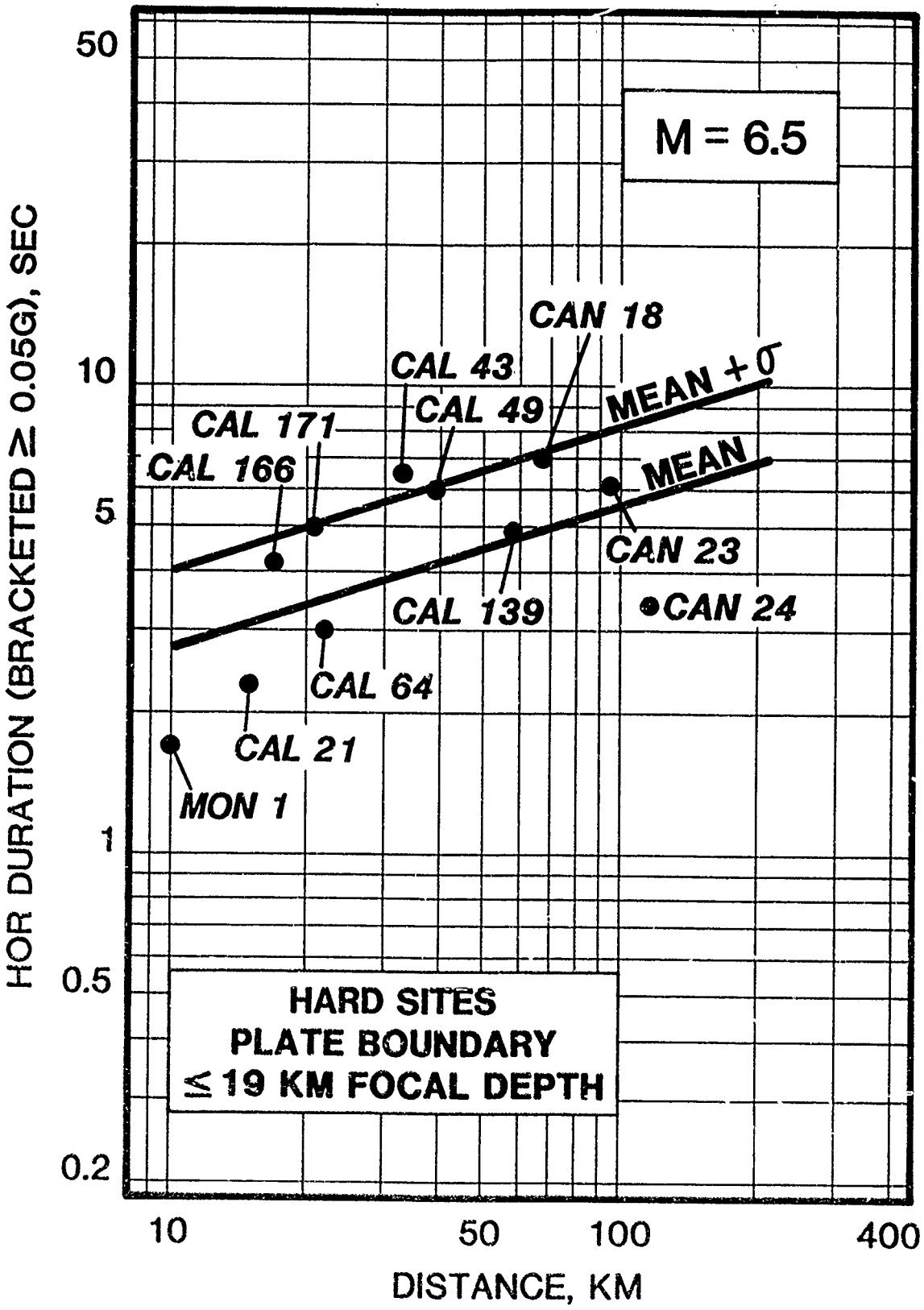


Figure 21c. Accelerograms for duration, M = 6.5, and distance from source for shallow earthquakes at hard sites (See Table 21c.)

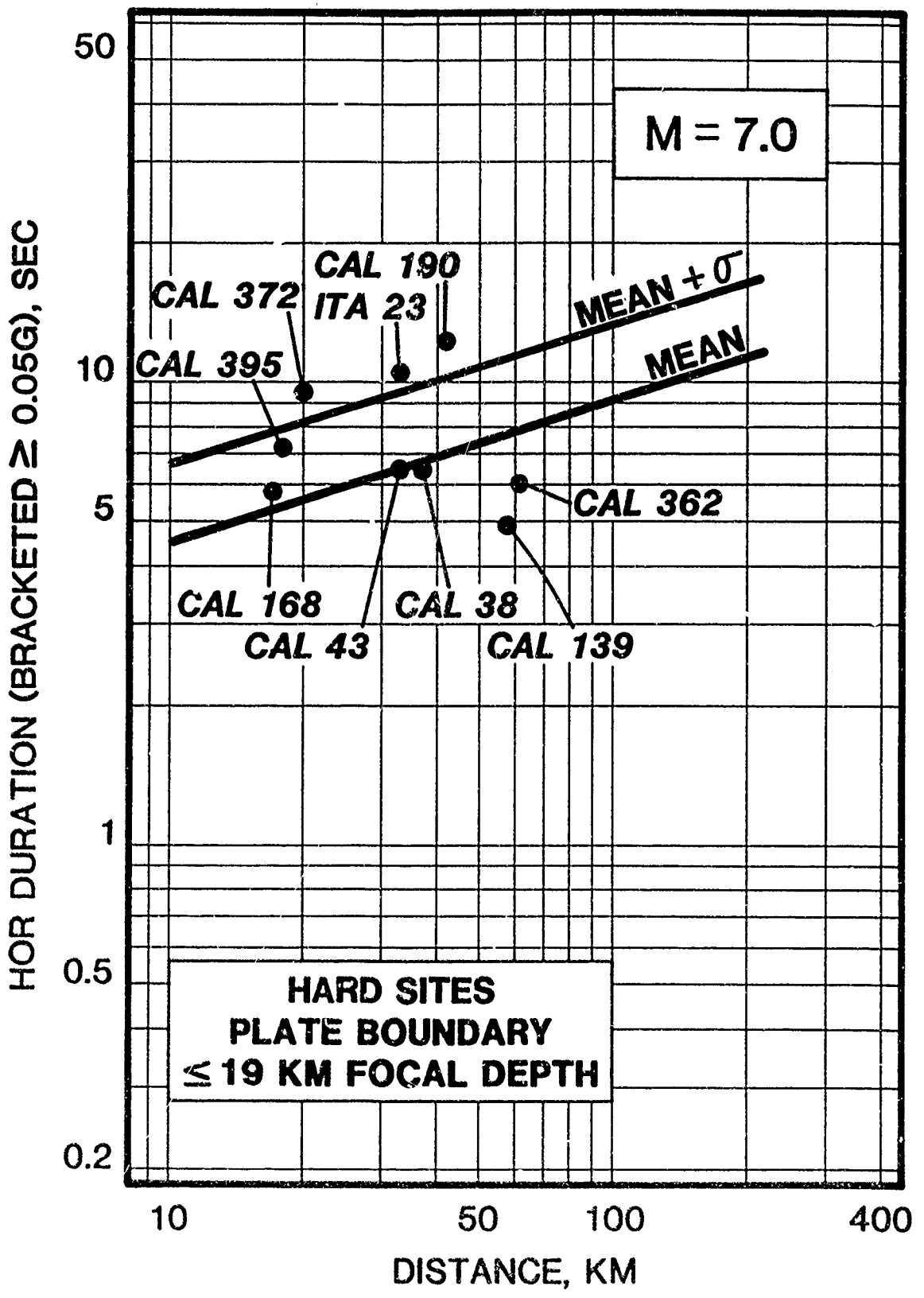


Figure 21d. Accelerograms for duration, M = 7.0, and distance from source for shallow earthquakes at hard sites. (See Table 21d.)

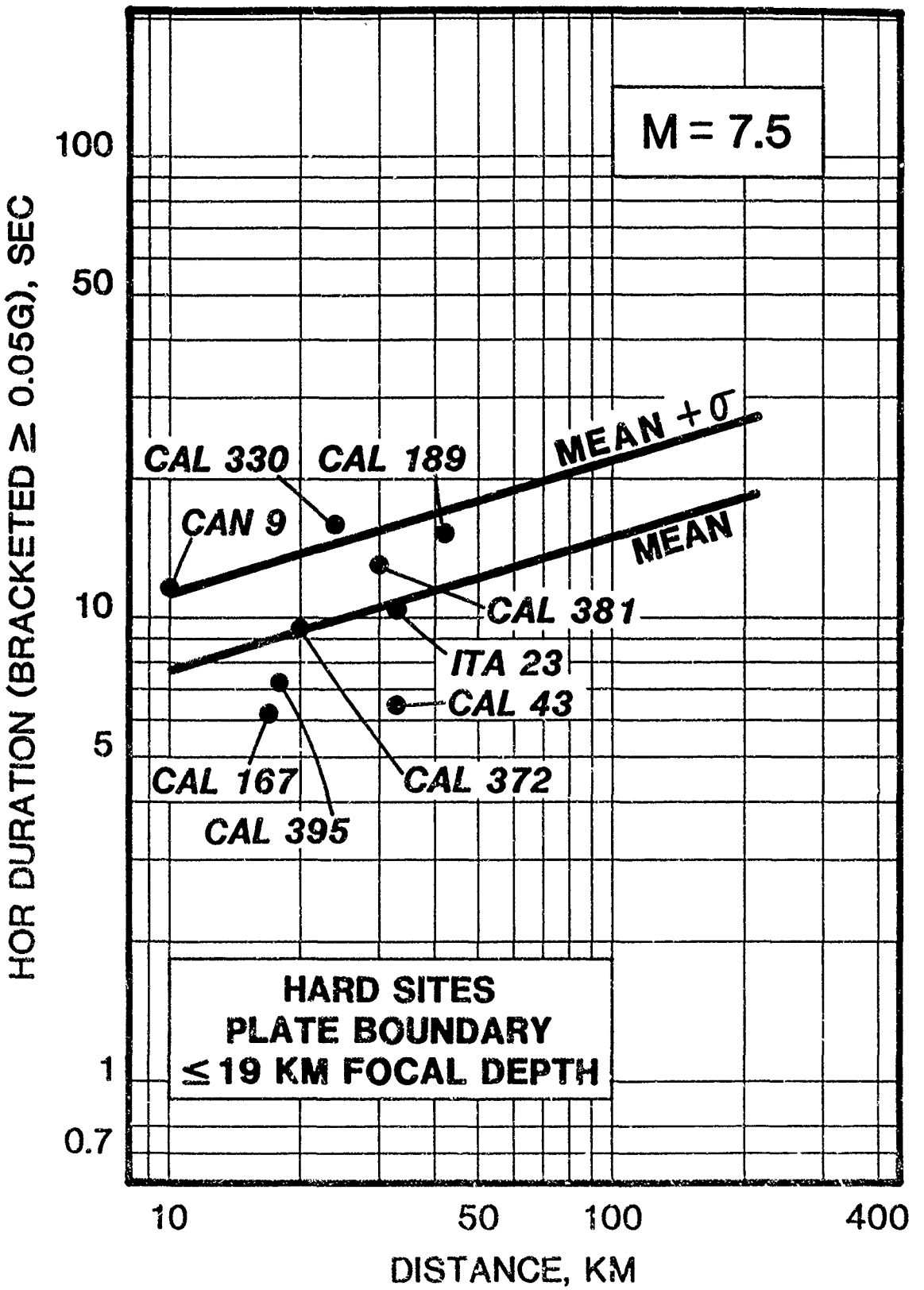


Figure 21e. Accelerograms for duration, M = 7.5, and distance from source for shallow earthquakes at hard sites. (See Table 21e.)

## PART XII: TABLES AND FIGURES FOR MAGNITUDE-RELATED PEAK GROUND MOTION FOR SHALLOW EVENTS ON SOFT SITES

63. Generic accelerograms with peak acceleration in gals as the parameter follow.

Table 22a

Shallow-Soft-Accel-Mag 5.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 8 | 234 | 175 | 0.75 | 335 | 1.43 | GRE 8 |
| 10 | 207 | 170 | 0.82 | 310 | 1.50 | NIC 1 |
| 11 | 159 | 165 | 1.03 | 300 | 1.89 | CAL 173 |
| 12 | 184 | 155 | 0.84 | 285 | 1.55 | CAL 247 |
| 17 | 187 | 122 | 0.65 | 200 | 1.07 | CAL 107 |
| 28 | 169 | 69 | 0.41 | 90 | 0.53 | CAL 12 |

Table 22b

Shallow-Soft-Accel-Mag 6.0

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 8 | 318 | 280 | 0.88 | 515 | 1.62 | NIC 3 |
| 10 | 306 | 265 | 0.87 | 500 | 1.63 | CAL 227 |
| 11 | 377 | 260 | 0.70 | 490 | 1.30 | CAL 175 |
| 11 | 286 | 260 | 0.91 | 490 | 1.71 | CAL 253 |
| 12 | 350 | 245 | 0.70 | 470 | 1.34 | GRE 9 |
| 12 | 720 | 245 | 0.29 | 470 | 0.65 | CAL 244 |
| 16 | 228 | 224 | 0.98 | 370 | 1.62 | CAL 103 |
| 20 | 175 | 145 | 0.83 | 275 | 1.57 | CAL 69 |
| 20 | 352 | 145 | 0.42 | 275 | 0.78 | ROC 4 |
| 24 | 168 | 130 | 0.77 | 250 | 1.49 | CAL 236 |
| 28 | 169 | 100 | 0.59 | 200 | 1.18 | CAL 12 |
| 39 | 154 | 72 | 0.47 | 135 | 0.88 | CAL 224 |
| 93 | 123 | 23 | 0.19 | 41 | 0.33 | CAN 22 |

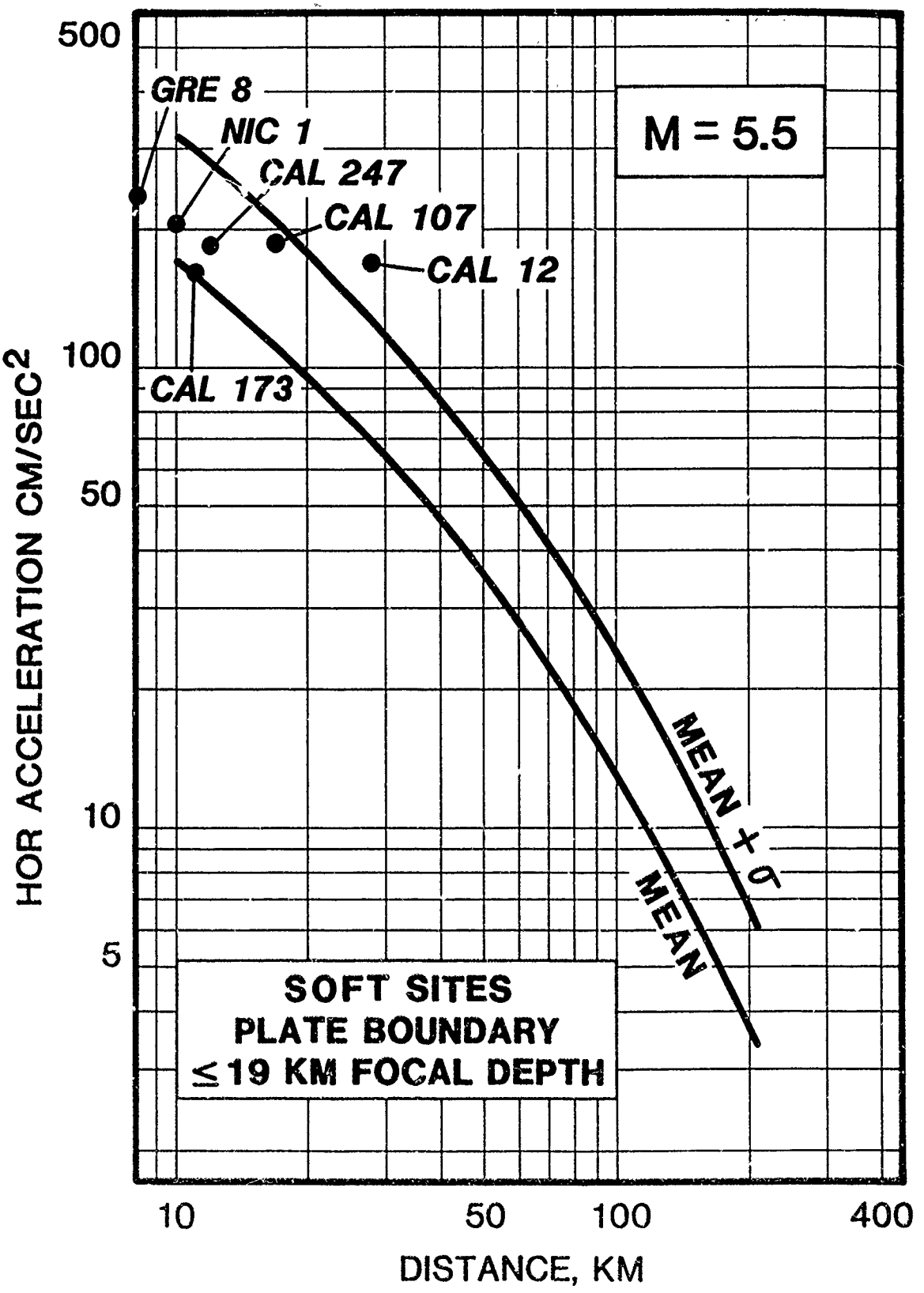


Figure 22a. Accelerograms for acceleration, M = 5.5, and distance from source for shallow earthquakes at soft sites. (See Table 22a.)

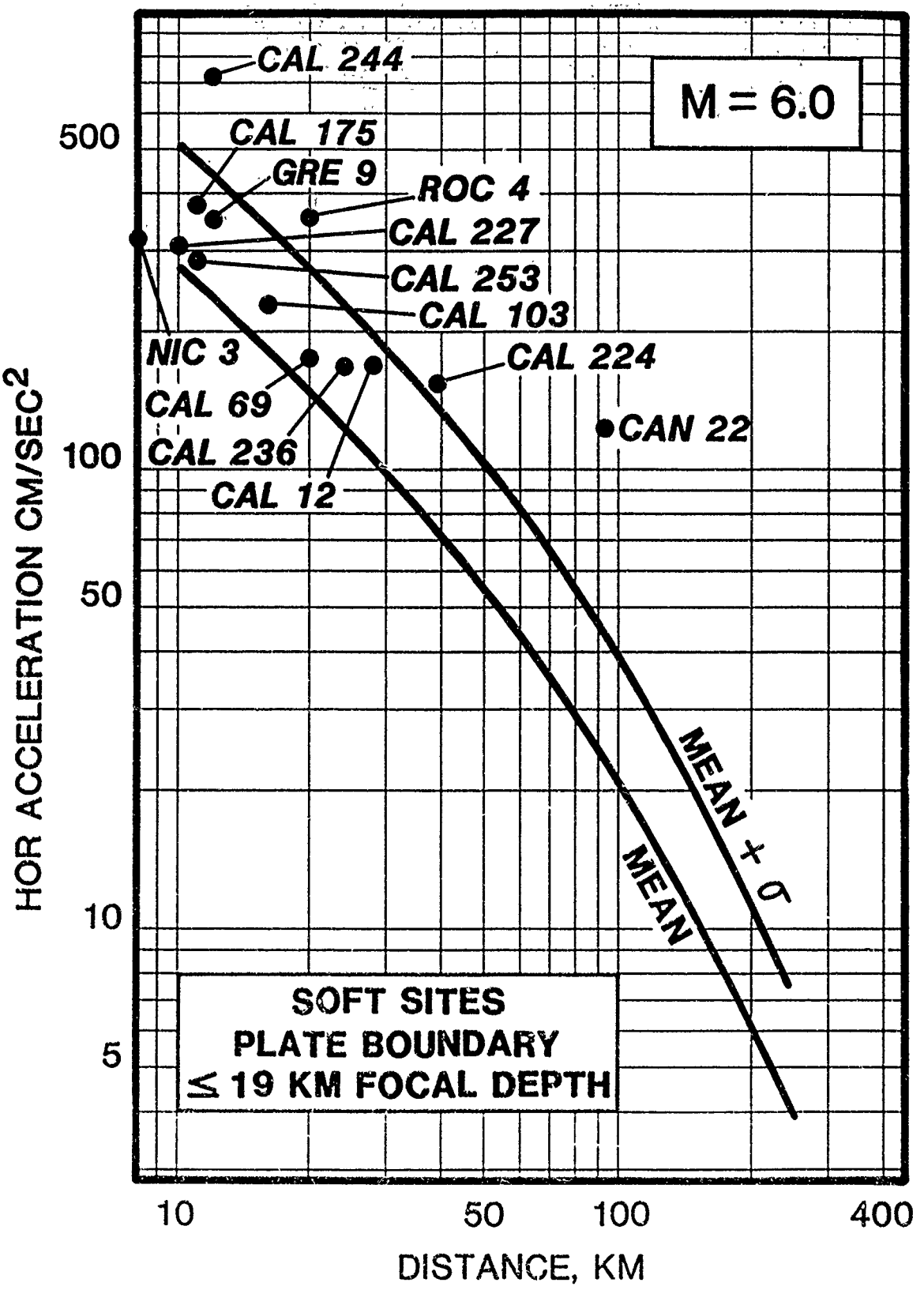


Figure 22b. Accelerograms for acceleration, M = 6.0, and distance from source for shallow earthquakes at soft sites. (See Table 22b.)

Table 22c

Shallow-Soft-Accel-Mag 6.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 10 | 306 | 410 | 1.33 | 790 | 2.58 | CAL 227 |
| 12 | 350 | 370 | 1.06 | 700 | 2.00 | GRE 9 |
| 12 | 970 | 370 | 0.38 | 700 | 0.72 | CAL 243 |
| 14 | 383 | 330 | 0.86 | 600 | 1.72 | CAL 163 |
| 19 | 197 | 230 | 1.17 | 420 | 2.13 | CAL 131 |
| 22 | 246 | 205 | 0.83 | 385 | 1.57 | CAL 126 |
| 23 | 281 | 200 | 0.71 | 380 | 1.35 | GRE 7 |
| 24 | 168 | 190 | 1.13 | 370 | 2.20 | CAL 236 |
| 28 | 165 | 155 | 0.94 | 300 | 1.82 | CAL 9 |
| 32 | 197 | 135 | 0.68 | 260 | 1.32 | CAL 53 |
| 32 | 175 | 135 | 0.77 | 260 | 1.49 | ROC 7 |
| 34 | 221 | 130 | 0.59 | 250 | 1.13 | CAL 40 |
| 36 | 238 | 120 | 0.50 | 245 | 1.03 | CAL 232 |
| 39 | 210 | 110 | 0.52 | 200 | 0.95 | CAL 223 |
| 42 | 154 | 100 | 0.65 | 185 | 1.20 | CAL 62 |
| 42 | 218 | 100 | 0.46 | 185 | 0.85 | ITA 24 |
| 93 | 123 | 33 | 0.27 | 59 | 0.48 | CAN 22 |

Table 22d

Shallow-Soft-Accel-Mag 7.0

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 13 | 576 | 570 | 0.99 | 1000 | 1.74 | CAL 115 |
| 14 | 441 | 500 | 1.13 | 970 | 2.20 | CAL 184 |
| 17 | 342 | 400 | 1.17 | 760 | 2.22 | CAL 3 |
| 18 | 495 | 390 | 0.79 | 615 | 1.24 | CAL 385 |
| 20 | 362 | 350 | 0.97 | 660 | 1.82 | CAL 356 |
| 22 | 246 | 310 | 0.90 | 610 | 2.48 | CAL 126 |
| 23 | 281 | 305 | 1.09 | 595 | 2.12 | GRE 7 |
| 23 | 362 | 300 | 0.83 | 585 | 1.62 | CAL 376 |
| 26 | 239 | 270 | 1.13 | 505 | 2.11 | CAL 323 |
| 26 | 250 | 260 | 1.04 | 530 | 2.12 | CAL 24 |
| 28 | 253 | 240 | 0.95 | 470 | 1.86 | CAL 8 |
| 30 | 262 | 230 | 0.88 | 425 | 1.62 | CAL 134 |
| 37 | 209 | 180 | 0.86 | 255 | 1.22 | CAL 33 |
| 38 | 253 | 175 | 0.69 | 320 | 1.26 | CAL 389 |
| 42 | 158 | 155 | 0.98 | 190 | 1.20 | CAL 31 |
| 45 | 192 | 145 | 0.76 | 170 | 0.89 | CAL 35 |
| 48 | 231 | 130 | 0.56 | 250 | 1.08 | CAL 391 |
| 67 | 156 | 88 | 0.56 | 160 | 1.03 | CAL 359 |
| 71 | 190 | 80 | 0.42 | 150 | 0.79 | ARG 1 |

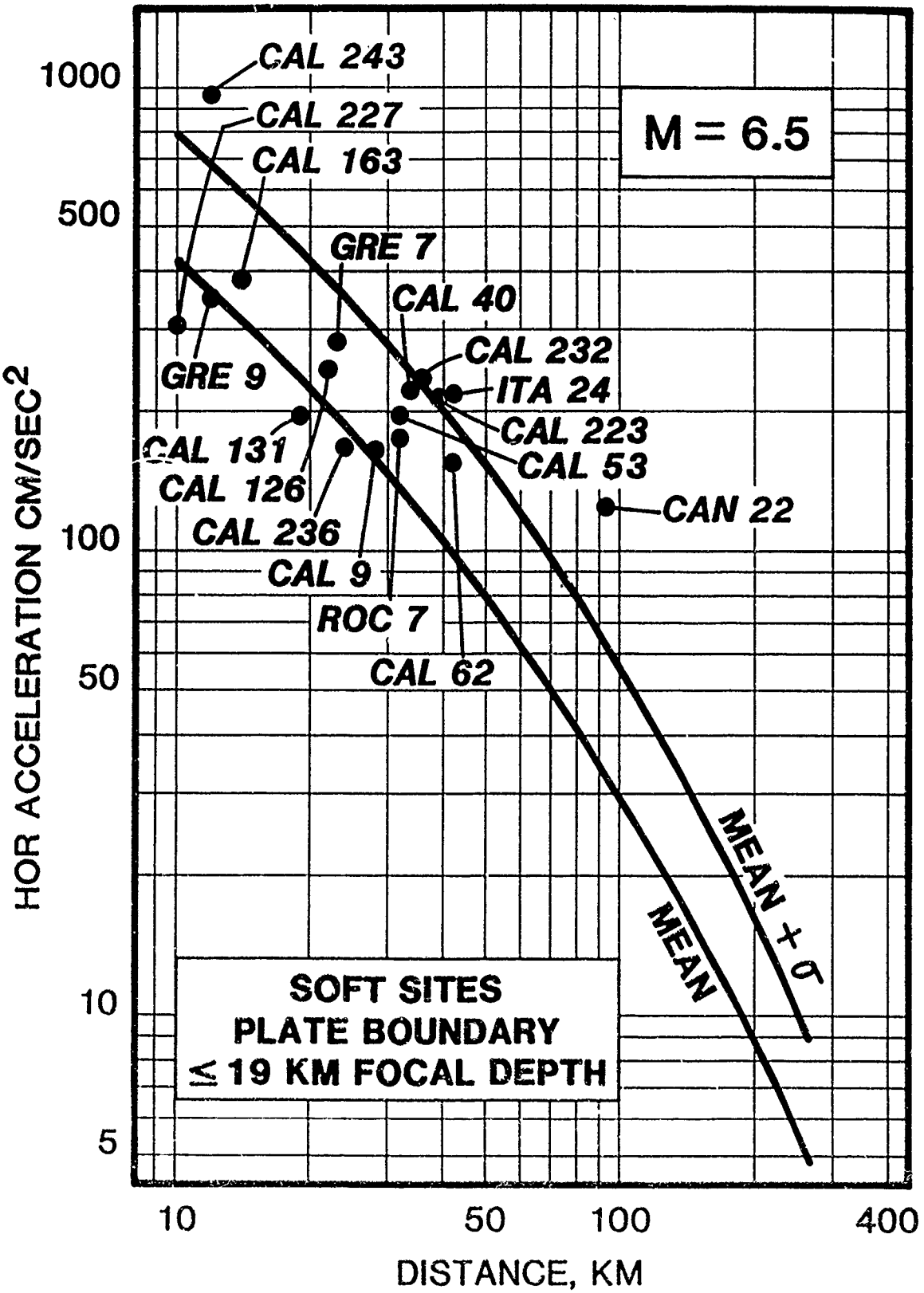


Figure 22c. Accelerograms for acceleration, M = 6.5, and distance from source for shallow earthquakes at soft sites. (See Table 22c.)

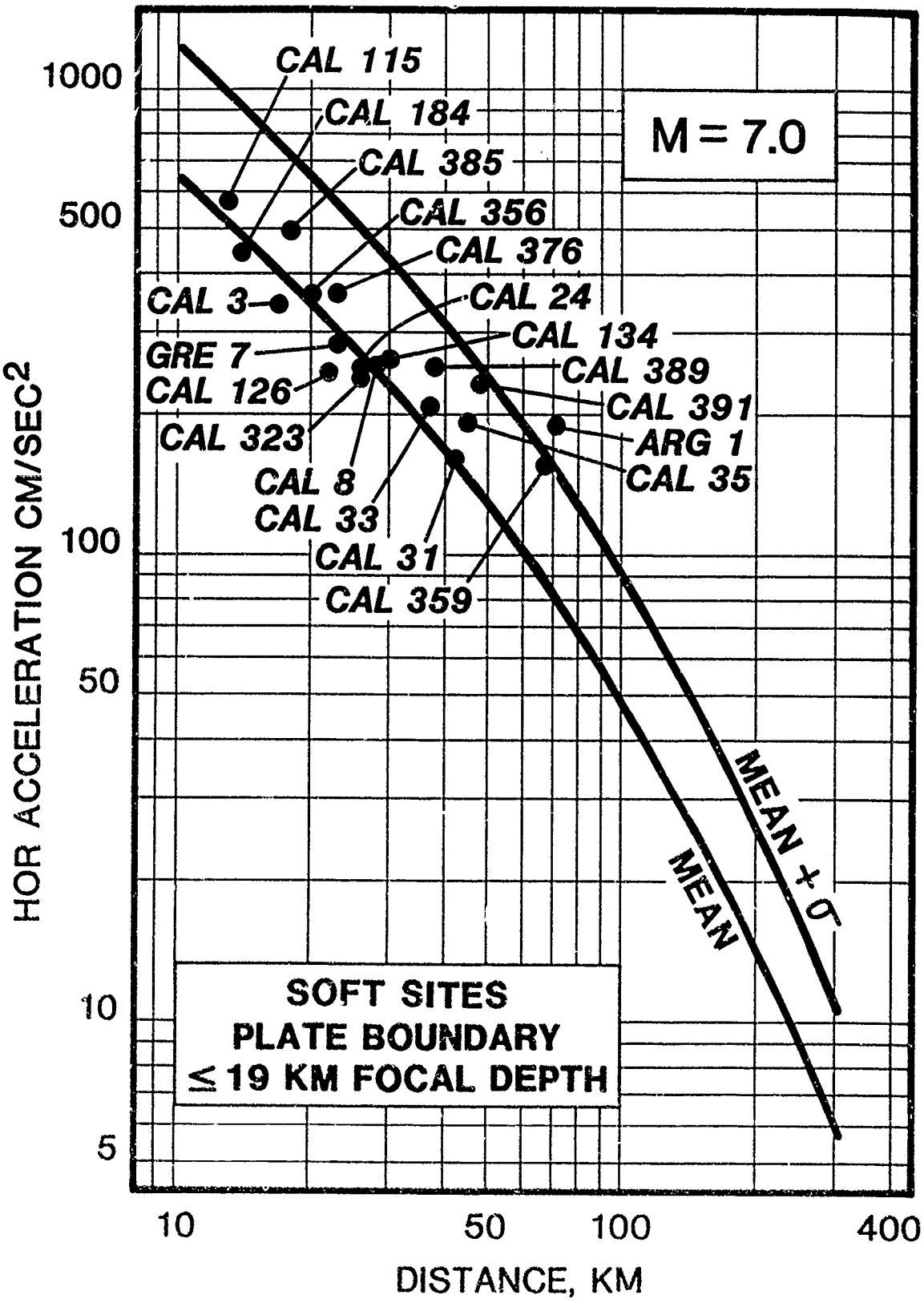


Figure 22d. Accelerograms for acceleration, M = 7.0, and distance from source for shallow earthquakes at soft sites. (See Table 22d.)

Table 22e

Shallow-Soft-Accel-Mag 7.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 14 | 514 | 900 | 1.75 | 1500 | 2.92 | CAL 183 |
| 17 | 342 | 700 | 2.05 | 1300 | 3.80 | CAL 3 |
| 18 | 495 | 660 | 1.33 | 1250 | 2.52 | CAL 385 |
| 20 | 362 | 580 | 1.60 | 1150 | 3.18 | CAL 356 |
| 23 | 463 | 485 | 1.05 | 920 | 1.99 | CAL 353 |
| 25 | 408 | 440 | 1.08 | 880 | 2.16 | CAL 377 |
| 29 | 477 | 400 | 0.84 | 700 | 1.47 | CAL 120 |
| 31 | 292 | 355 | 1.22 | 600 | 2.05 | CAL 187 |
| 38 | 253 | 285 | 1.13 | 530 | 2.09 | CAL 389 |
| 40 | 207 | 260 | 1.26 | 500 | 1.71 | CAL 27 |
| 44 | 221 | 230 | 1.04 | 430 | 1.95 | CAL 61 |
| 46 | 153 | 220 | 1.44 | 415 | 2.71 | CAL 7 |
| 49 | 200 | 210 | 1.05 | 390 | 1.95 | CAL 136 |
| 51 | 231 | 190 | 0.82 | 375 | 1.62 | CAL 391 |
| 62 | 179 | 160 | 0.89 | 175 | 0.98 | CAL 2 |
| 67 | 156 | 140 | 0.90 | 265 | 1.70 | CAL 359 |
| 71 | 190 | 130 | 0.68 | 90 | 0.47 | ARG 1 |

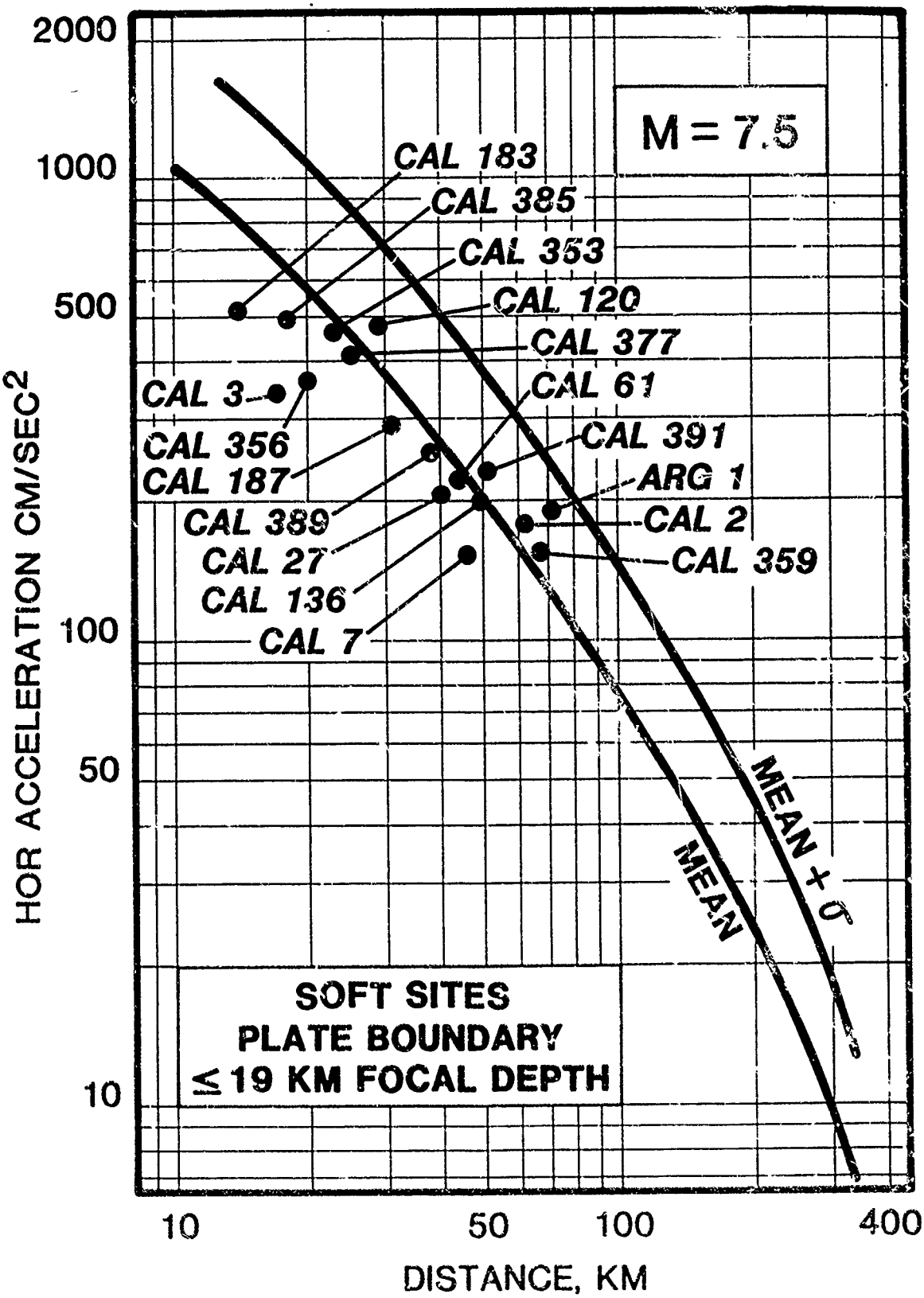


Figure 22e. Accelerograms for acceleration, M = 7.5, and distance from source for shallow earthquakes at soft sites. (See Table 22e.)

64. Generic accelerograms with velocity in cm/sec as the parameter follow.

Table 23a

Shallow-Soft-Vel-Mag 5.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 8 | 12.8 | 22.0 | 1.73 | 40.0 | 3.12 | GRE 14 |
| 10 | 14.0 | 21.0 | 1.51 | 38.0 | 2.71 | NIC 1 |
| 11 | 21.7 | 20.0 | 0.92 | 37.0 | 1.71 | CAL 253 |
| 12 | 12.9 | 16.5 | 1.28 | 32.0 | 2.48 | CAL 247 |
| 16 | 16.9 | 14.0 | 0.83 | 25.0 | 1.48 | CAL 104 |
| 17 | 10.2 | 12.5 | 1.23 | 24.0 | 2.35 | CAL 107 |
| 27 | 8.7 | 7.2 | 0.83 | 14.0 | 1.61 | CAL 275 |
| 28 | 10.8 | 6.9 | 0.64 | 12.0 | 1.11 | CAL 12 |

Table 23b

Shallow-Soft-Vel-Mag 6.0

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 8 | 30.3 | 41.0 | 1.35 | 70.0 | 2.31 | NIC 3 |
| 10 | 39.6 | 39.0 | 0.98 | 65.0 | 1.64 | CAL 227 |
| 11 | 43.5 | 36.0 | 0.83 | 62.0 | 1.43 | CAL 175 |
| 11 | 21.7 | 36.0 | 1.66 | 62.0 | 2.86 | CAL 253 |
| 12 | 23.7 | 34.0 | 1.44 | 59.0 | 2.49 | GRE 9 |
| 12 | 33.0 | 34.0 | 1.03 | 59.0 | 1.79 | CAL 244 |
| 16 | 25.2 | 24.0 | 0.92 | 42.0 | 1.66 | CAL 103 |
| 20 | 11.3 | 16.0 | 1.42 | 33.0 | 2.92 | ROC 4 |
| 24 | 18.6 | 15.0 | 0.81 | 26.0 | 1.40 | CAL 272 |
| 28 | 10.8 | 12.5 | 1.16 | 25.0 | 2.04 | CAL 12 |
| 33 | 22.5 | 10.5 | 0.47 | 18.0 | 1.25 | CAL 15 |
| 38 | 16.7 | 8.7 | 0.52 | 16.0 | 0.96 | CAL 219 |
| 93 | 3.8 | 2.6 | 0.70 | 4.8 | 1.2 | CAN 22 |
| 93 | 5.3 | 2.6 | 0.49 | 4.8 | 0.9 | CAN 21 |

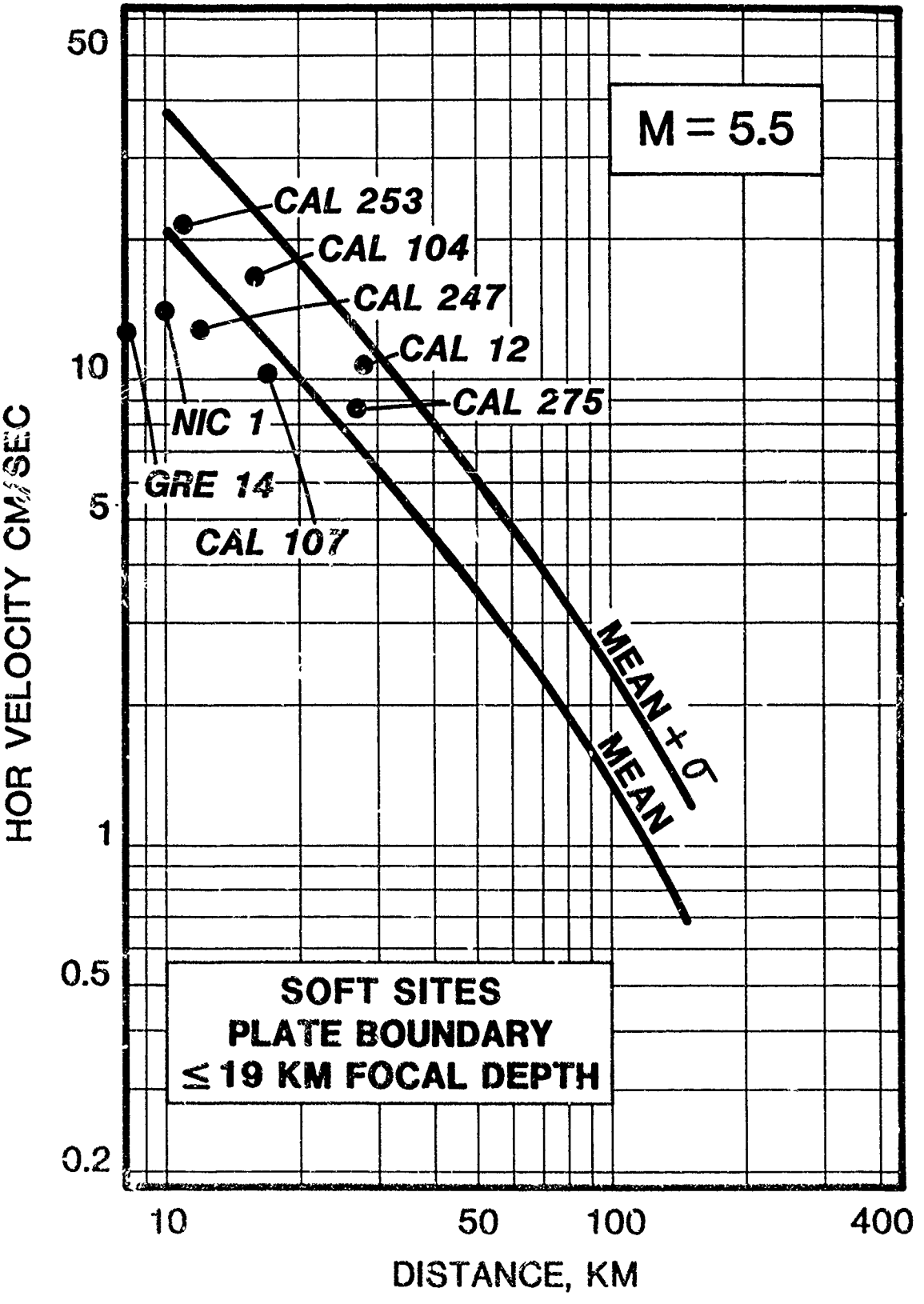


Figure 23a. Accelerograms for velocity, M = 5 5, and distance from source for shallow earthquakes at soft sites. (See Table 23a.)

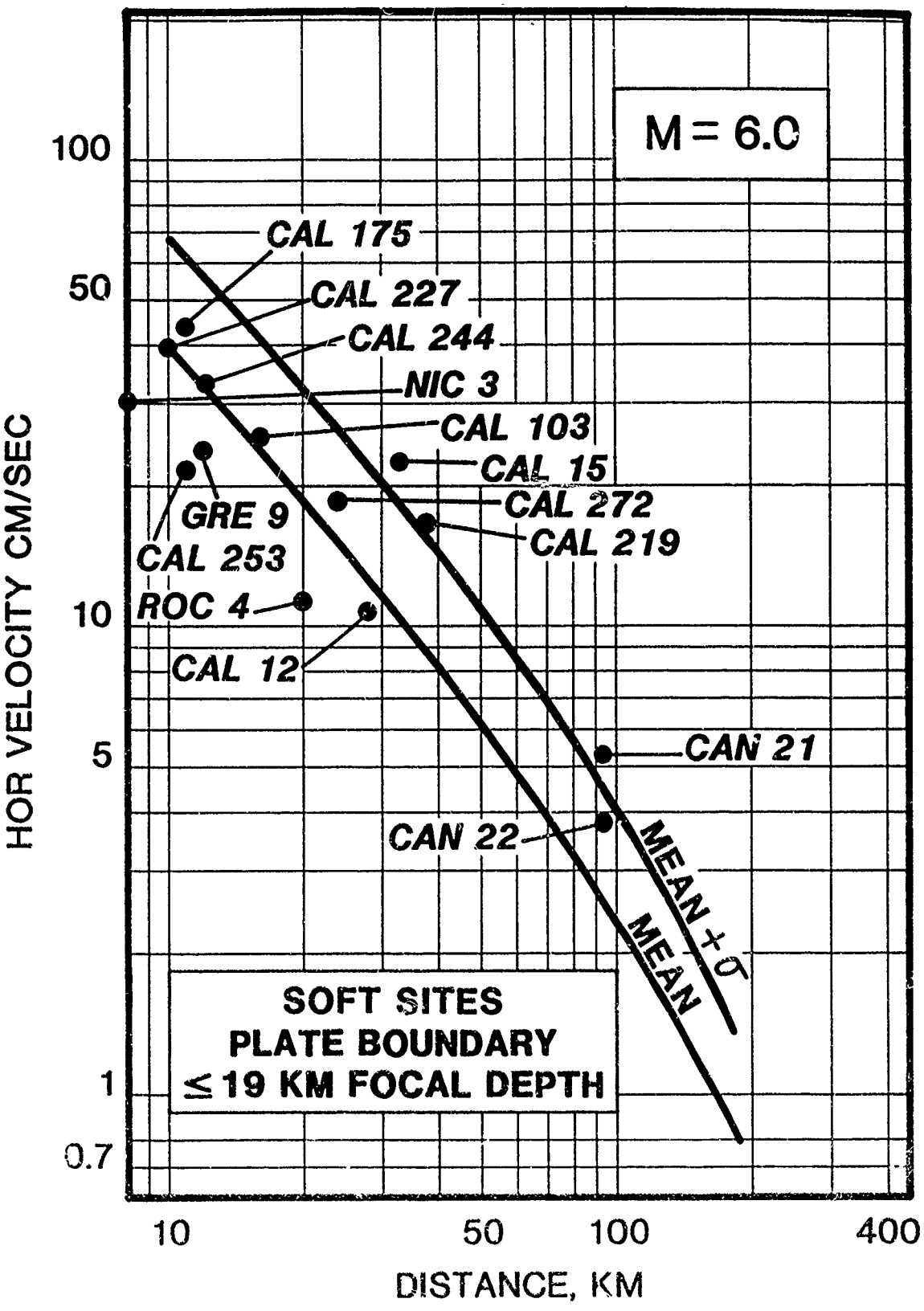


Figure 23b. Accelerograms for velocity, M = 6.0, and distance from source for shallow earthquakes at soft sites (See Table 23b.)

Table 23c

Shallow-Soft-Vel-Mag 6.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 10 | 39.6 | 68.0 | 1.72 | 120.0 | 0.30 | CAL 227 |
| 12 | 23.7 | 58.0 | 2.45 | 100.0 | 4.22 | GRE 9 |
| 12 | 86.0 | 58.0 | 0.67 | 100.0 | 1.16 | CAL 243 |
| 14 | 23.6 | 50.0 | 0.47 | 86.0 | 3.65 | CAL 163 |
| 14 | 50.0 | 50.0 | 1.00 | 86.0 | 1.72 | CAL 184 |
| 22 | 44.7 | 27.5 | 0.62 | 48.0 | 1.07 | CAL 126 |
| 23 | 24.6 | 26.5 | 1.08 | 45.0 | 1.83 | GRE 7 |
| 28 | 31.6 | 20.5 | 0.65 | 38.0 | 1.20 | CAL 9 |
| 32 | 17.6 | 17.0 | 0.97 | 38.0 | 2.16 | CAL 53 |
| 32 | 15.1 | 17.0 | 1.13 | 30.0 | 1.99 | ROC 7 |
| 38 | 16.7 | 14.6 | 0.87 | 27.0 | 1.62 | CAL 219 |
| 42 | 16.3 | 13 0 | 0.80 | 25.0 | 1.53 | CAL 37 |
| 42 | 15.1 | 17.0 | 1.13 | 25.0 | 1.66 | ITA 24 |
| 49 | 14.6 | 11.5 | 0.79 | 18.0 | 1.23 | CAL 136 |
| 62 | 11.5 | 8.0 | 0.70 | 14.0 | 1.22 | CAL 2 |
| 93 | 3.8 | 4.8 | 1.2 | 7.9 | 2.0 | CAN 22 |
| 93 | 5.3 | 4.8 | 0.9 | 7.9 | 0.7 | CAN 21 |

Table 23d

Shallow-Soft-Vel-Mag 7.0

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 13 | 43.6 | 100.0 | 2.15 | 160.0 | 3.67 | CAL 115 |
| 14 | 50.0 | 95.0 | 1.90 | 150.0 | 3.00 | CAL 184 |
| 18 | 55.2 | 61.0 | 1.11 | 115.0 | 2.08 | CAL 351 |
| 21 | 33.3 | 52.0 | 1.56 | 93.0 | 2.79 | CAL 374 |
| 22 | 44.7 | 50.0 | 1.12 | 88.0 | 1.97 | CAL 126 |
| 23 | 43.8 | 45.0 | 1.03 | 82.0 | 1.87 | CAL 376 |
| 25 | 44.4 | 42.0 | 0.95 | 73.0 | 1.64 | CAL 329 |
| 29 | 31.6 | 35.5 | 1.12 | 61.0 | 1.93 | CAL 9 |
| 30 | 39.2 | 29.5 | 0.75 | 60.0 | 1.53 | CAL 132 |
| 33 | 31.2 | 28.0 | 0.90 | 56.0 | 1.79 | CAL 138 |
| 38 | 31.8 | 26.0 | 0.82 | 42.0 | 1.32 | CAL 389 |
| 40 | 21.1 | 24.0 | 1.14 | 42.5 | 2.01 | CAL 27 |
| 44 | 19.3 | 21.5 | 1.11 | 37.0 | 1.92 | CAL 60 |
| 49 | 14.6 | 19.0 | 1.30 | 32.0 | 2.19 | CAL 136 |
| 51 | 26.5 | 18.0 | 0.68 | 31.0 | 1.17 | CAL 391 |
| 62 | 11.5 | 14.6 | 1.30 | 24.0 | 2.09 | CAL 2 |
| 71 | 20.6 | 11 6 | 0.56 | 20.0 | 0.97 | ARG 1 |

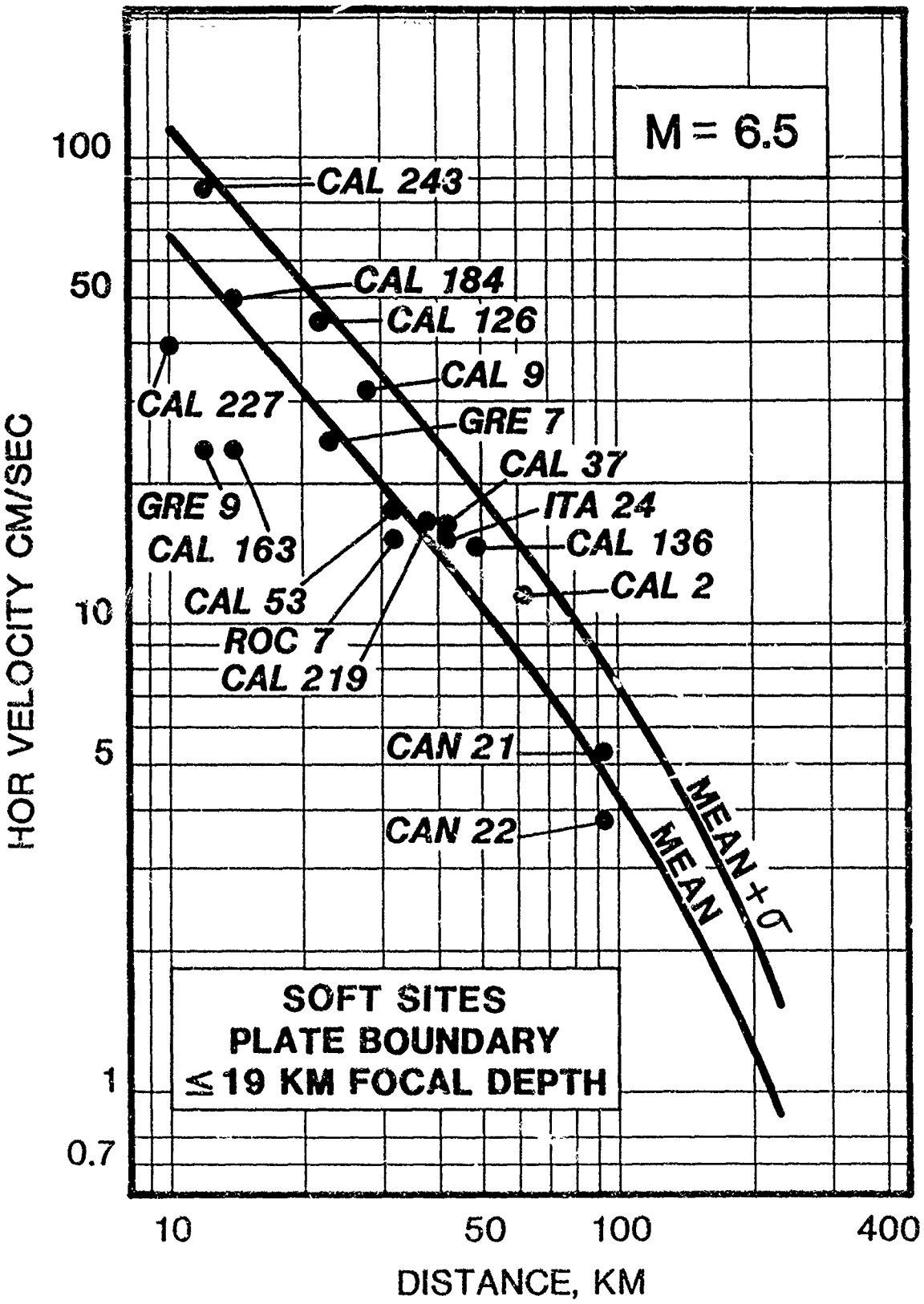


Figure 23c. Accelerograms for velocity, M = 6.5, and distance from source for shallow earthquakes at soft sites. (See Table 23c.)

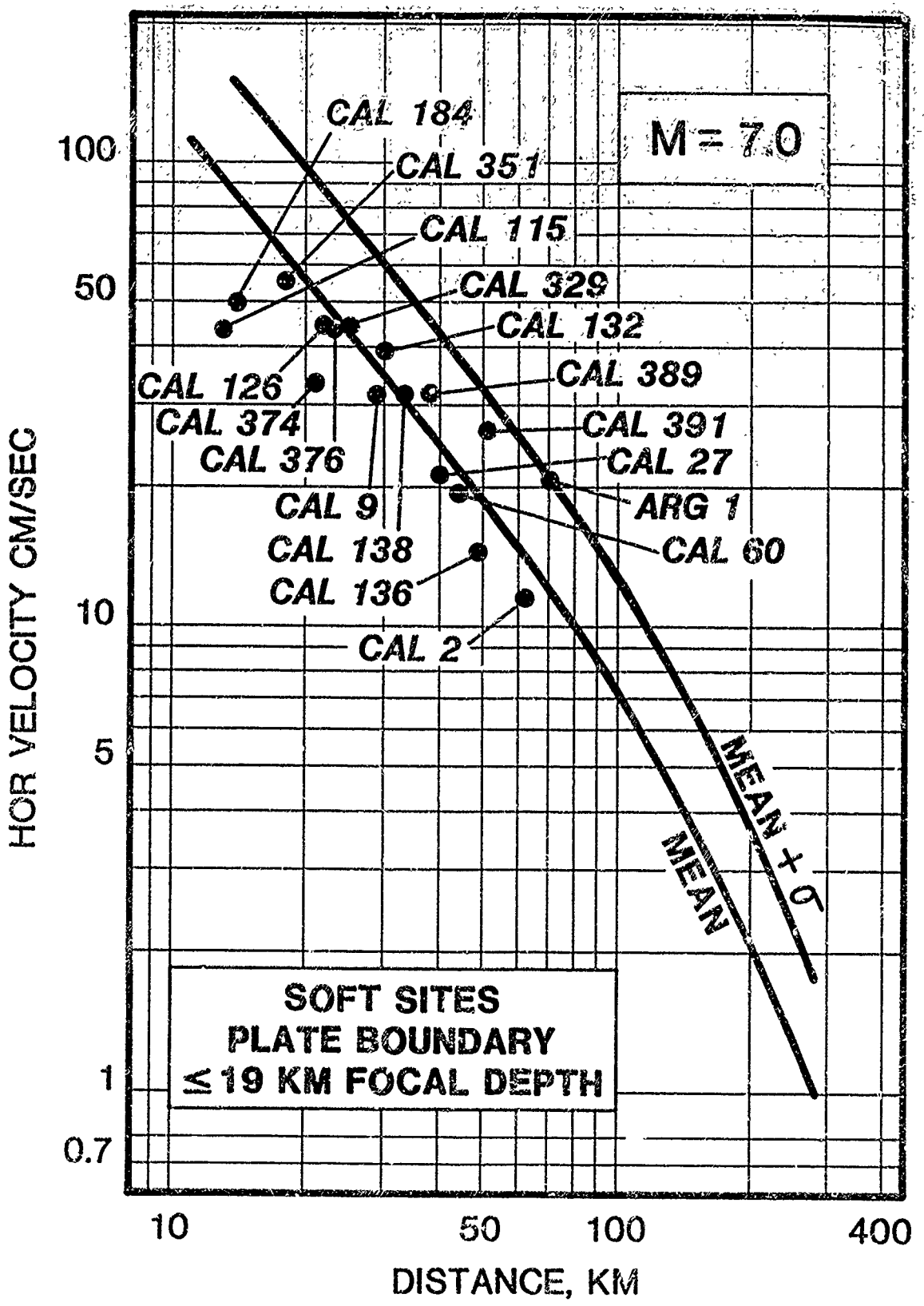


Figure 23d. Accelerograms for velocity, M = 7.0, and distance from source for shallow earthquakes at soft sites. (See Table 23d.)

Table 23e

Shallow-Soft-Vel-Mag 7.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 14 | 50.0 | 150.0 | 3.00 | 180.0 | 3.60 | CAL 184 |
| 18 | 55.2 | 120.0 | 2.17 | 200.0 | 3.62 | CAL 351 |
| 20 | 62.8 | 100.0 | 1.59 | 175.0 | 2.79 | CAL 356 |
| 22 | 48.4 | 90.0 | 1.86 | 170.0 | 3.51 | CAL 127 |
| 30 | 63.1 | 61.0 | 0.97 | 120.0 | 1.90 | CAL 111 |
| 30 | 44.3 | 61.0 | 1.38 | 120.0 | 2.71 | CAL 129 |
| 38 | 31.8 | 48.0 | 1.51 | 82.0 | 2.58 | CAL 389 |
| 42 | 17.7 | 40.0 | 2.26 | 72.0 | 4.07 | CAL 6 |
| 44 | 37.1 | 36.0 | 0.97 | 68.0 | 1.83 | CAL 124 |
| 51 | 26.5 | 33.0 | 1.25 | 58.0 | 2.19 | CAL 391 |
| 67 | 33.4 | 23.0 | 0.69 | 41.0 | 1.23 | CAL 359 |
| 71 | 20.6 | 20.0 | 0.97 | 36.0 | 1.75 | ARG 1 |

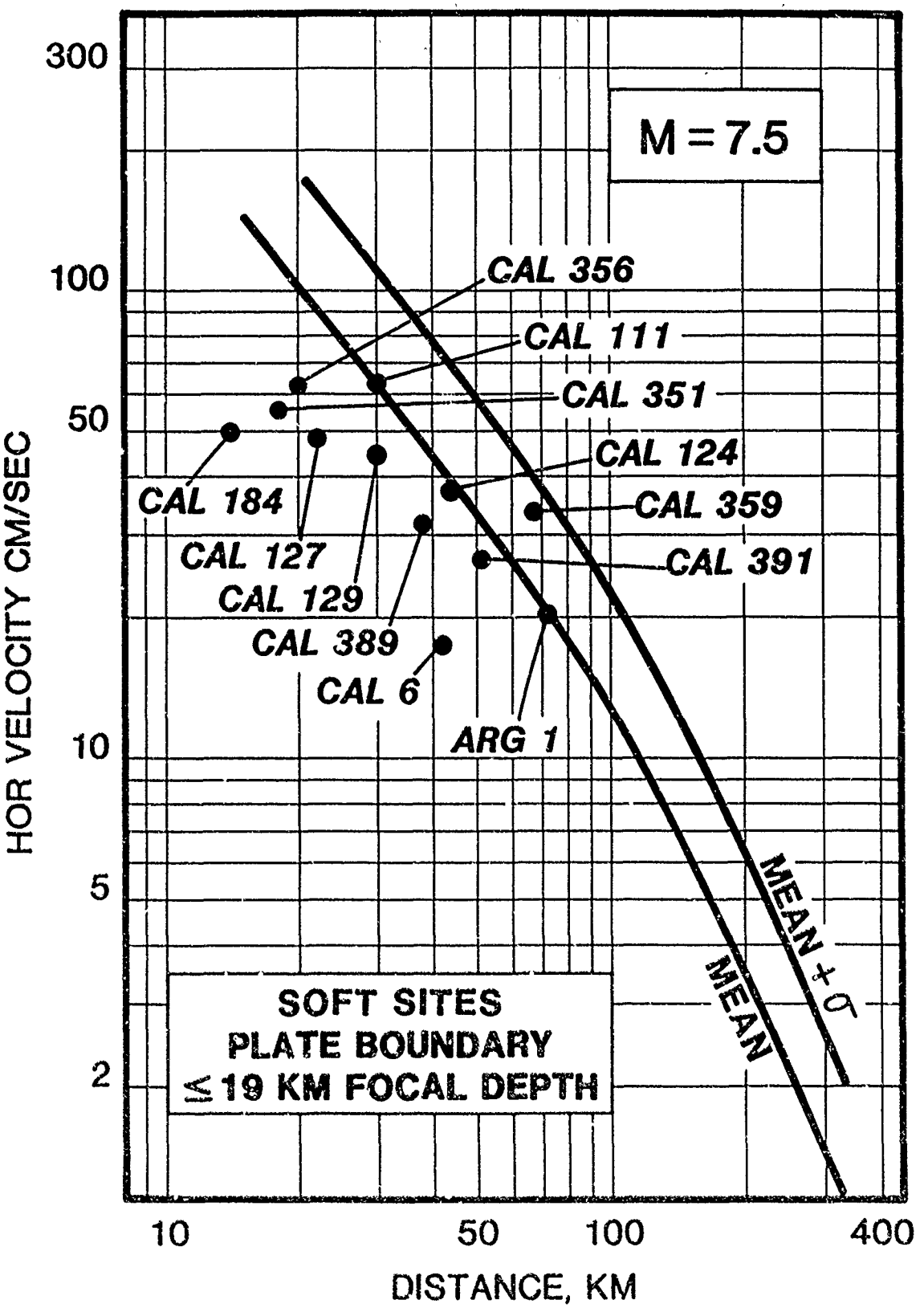


Figure 23e. Accelerograms for velocity, M = 7.5, and distance from source for shallow earthquakes at soft sites. (See Table 23e.)

65. Generic accelerograms with horizontal duration (bracketed 0.05 g or more) in seconds as the parameter follow.

Table 24a

Shallow-Soft-Dur-Mag 5.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 8 | 2.7 | 1.9 | -0.8 | 2.5 | -0.2 | GRE 14 |
| 12 | 5.6 | 2.1 | -3.5 | 3.1 | -2.5 | CAL 247 |
| 17 | 5.6 | 2.7 | -2.9 | 4.0 | -1.6 | CAL 275 |
| 28 | 8.0 | 3.7 | -4.3 | 5.3 | -2.7 | CAL 12 |
| 35 | 7.4 | 4.2 | -3.2 | 6.2 | -1.2 | CAL 15 |

Table 24b

Shallow-Soft-Dur-Mag 6.0

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 11 | 6.8 | 3.6 | -3.2 | 5.0 | -1.8 | CAL 253 |
| 12 | 7.9 | 3.8 | -4.1 | 5.3 | -2.6 | GRE 9 |
| 16 | 8.8 | 4.7 | -4.1 | 6.6 | -2.2 | CAL 103 |
| 20 | 5.6 | 5.1 | -0.5 | 7.3 | +1.7 | CAL 69 |
| 24 | 3.5 | 5.8 | +2.3 | 8.0 | +4.5 | CAL 272 |
| 28 | 8.0 | 6.4 | -1.6 | 8.9 | +0.9 | CAL 12 |
| 33 | 7.4 | 7.0 | -0.4 | 10.0 | +2.6 | CAL 15 |
| 39 | 8.1 | 7.9 | -0.2 | 11.0 | +2.9 | CAL 224 |
| 93 | 10.6 | 13.0 | +2.4 | 17.0 | +6.4 | CAN 22 |
| 93 | 9.9 | 13.0 | +3.1 | 17.0 | +4.0 | CAN 21 |

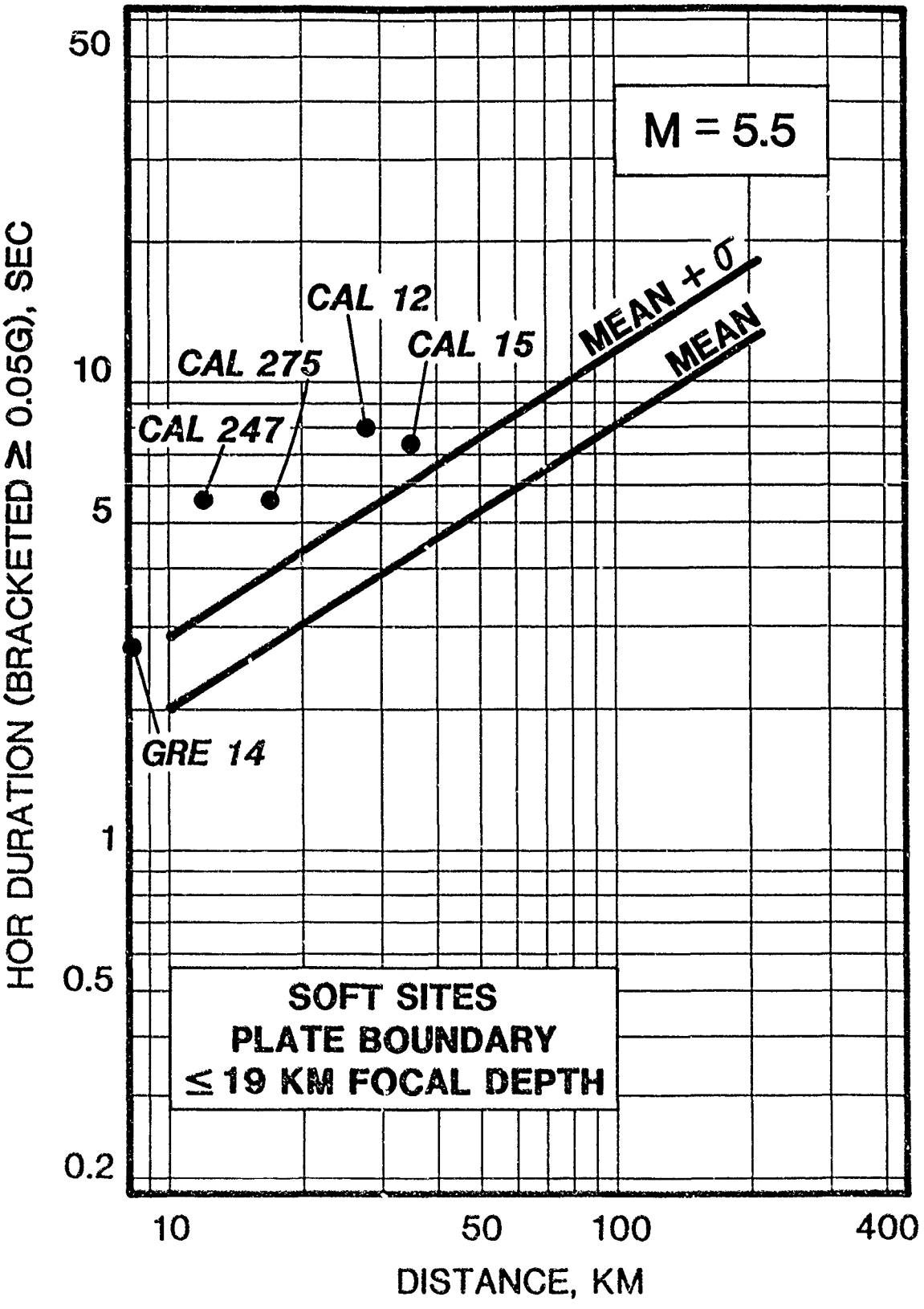


Figure 24a. Accelerograms for duration, M = 5.5, and distance from source for shallow earthquakes at soft sites. (See Table 24a.)

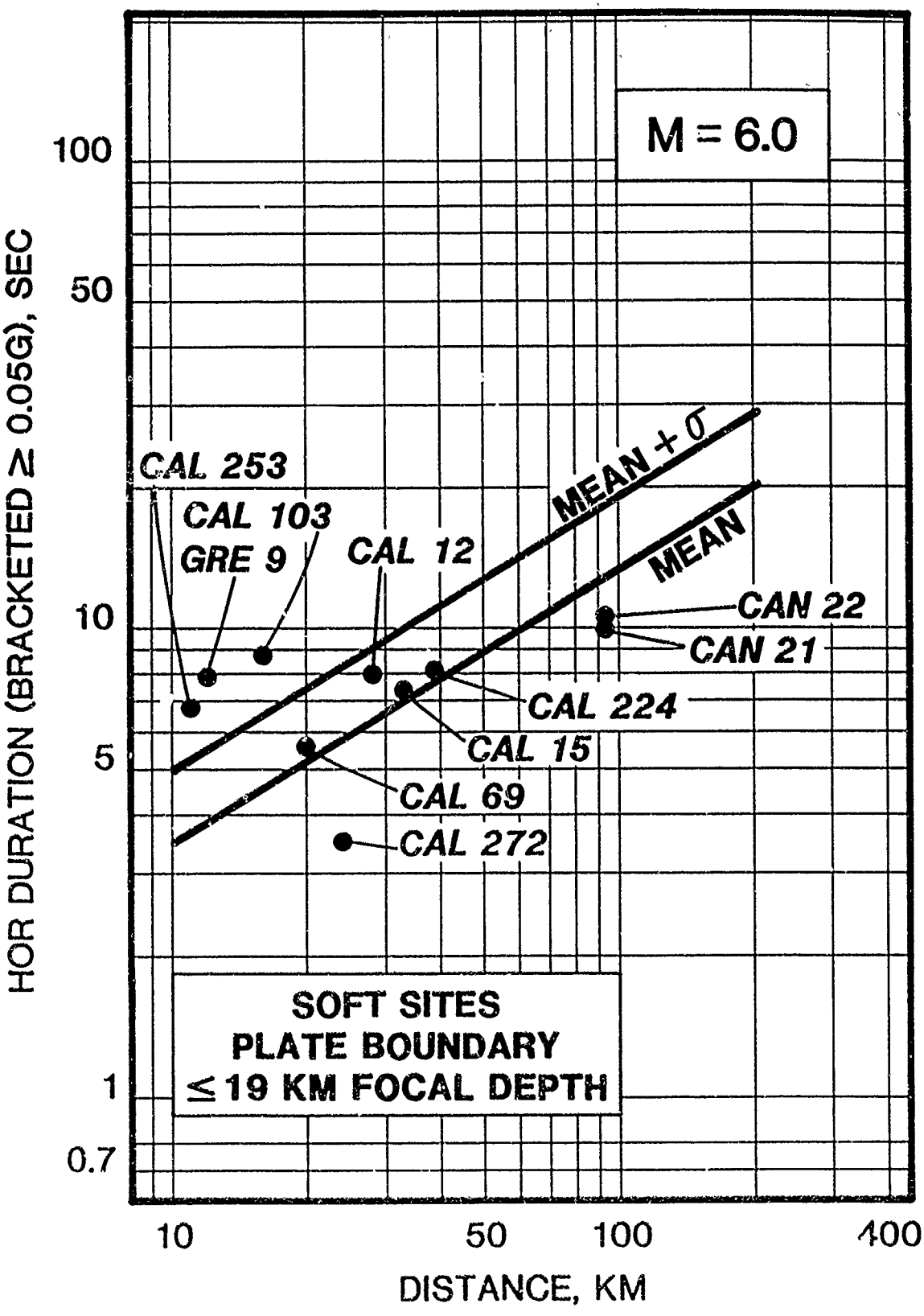


Figure 24b. Accelerograms for duration, M = 6.0, and distance from source for shallow earthquakes at soft sites. (See Table 24b.)

Table 24c

Shallow-Soft-Dur-Mag 6.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 10 | 11.6 | 5.5 | -6.1 | 7.9 | -3.7 | CAL 227 |
| 12 | 7.9 | 6.0 | -1.9 | 8.6 | +0.7 | GRE 9 |
| 14 | 6.5 | 6.7 | +0.2 | 9.2 | +2.7 | CAL 163 |
| 19 | 19.1 | 8.0 | 11.1 | 12.5 | -6.6 | CAL 131 |
| 23 | 16.1 | 9.0 | -7.1 | 13.0 | -3.1 | GRE 7 |
| 24 | 15.5 | 9.1 | -6.4 | 13.1 | -2.4 | CAL 236 |
| 32 | 15.1 | 11.0 | -4.1 | 15.2 | +0.1 | ROC 7 |
| 34 | 16.8 | 11.5 | -5.3 | 16.5 | -0.3 | CAL 40 |
| 38 | 12.7 | 11.8 | -0.9 | 17.0 | +4.3 | CAL 219 |
| 42 | 11.5 | 12.5 | +1.0 | 18.0 | +6.5 | CAL 37 |
| 42 | 10.2 | 12.5 | +2.3 | 18.0 | +7.8 | ITA 24 |
| 49 | 10.0 | 13.8 | +3.8 | 20.0 | +10.0 | CAL 136 |
| 62 | 18.2 | 16.5 | -1.7 | 24.0 | +5.8 | CAL 2 |
| 93 | 10.6 | 21.0 | +10.4 | 30.0 | +19.4 | CAN 22 |
| 93 | 9.9 | 21.0 | +11.1 | 30.0 | +20.1 | CAN 21 |

Table 24d

Shallow-Soft-Dur-Mag 7.0

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 14 | 17.5 | 11.1 | -6.4 | 14.6 | -2.9 | CAL 184 |
| 18 | 15.4 | 13.0 | -2.4 | 18.0 | +2.6 | CAL 385 |
| 21 | 12.8 | 14.0 | +1.2 | 20.0 | +7.2 | CAL 374 |
| 22 | 17.6 | 14.6 | -3.0 | 21.0 | +3.4 | CAL 126 |
| 23 | 16.1 | 14.5 | -1.6 | 22.0 | +5.9 | GRE 7 |
| 25 | 16.7 | 15.5 | -1.2 | 22.0 | +5.3 | CAL 329 |
| 26 | 18.0 | 16.5 | -1.5 | 23 0 | +5.0 | CAL 24 |
| 30 | 11.7 | 18.0 | +6.3 | 26.5 | +14.8 | CAL 132 |
| 33 | 14.3 | 19.0 | +4.7 | 26.5 | +12.2 | CAL 138 |
| 38 | 26.4 | 20.0 | -6.4 | 28.0 | +1.6 | CAL 389 |
| 42 | 12.7 | 21.0 | +8.3 | 30.5 | +17.8 | CAL 31 |
| 62 | 18.2 | 27.0 | +8.8 | 39.0 | +20.8 | CAL 2 |
| 71 | 49.6 | 29.0 | -20.6 | 41.0 | -8.6 | ARG 1 |

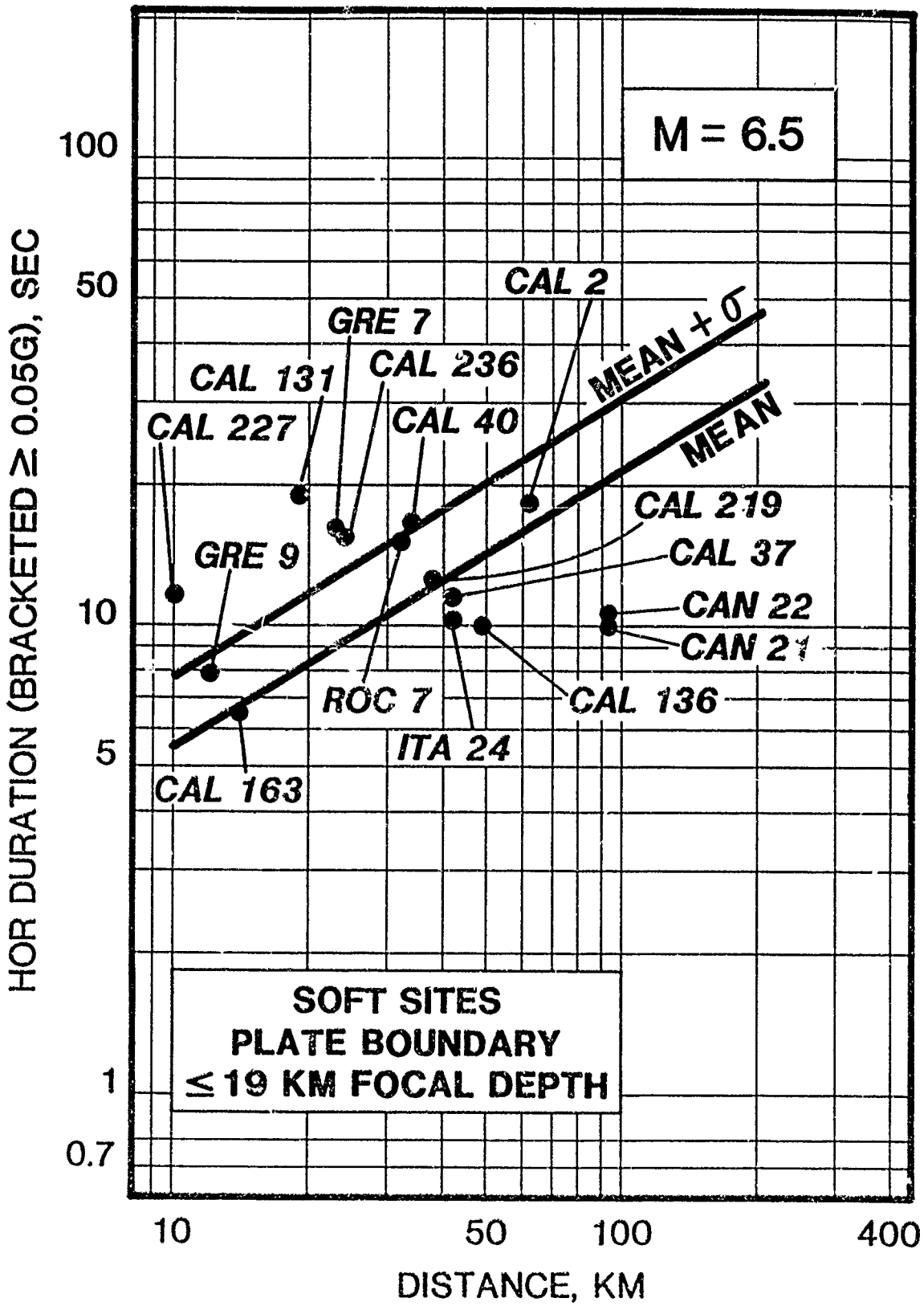


Figure 24c. Accelerograms for duration, M = 6.5, and distance from source for shallow earthquakes at soft sites. (See Table 24c.)

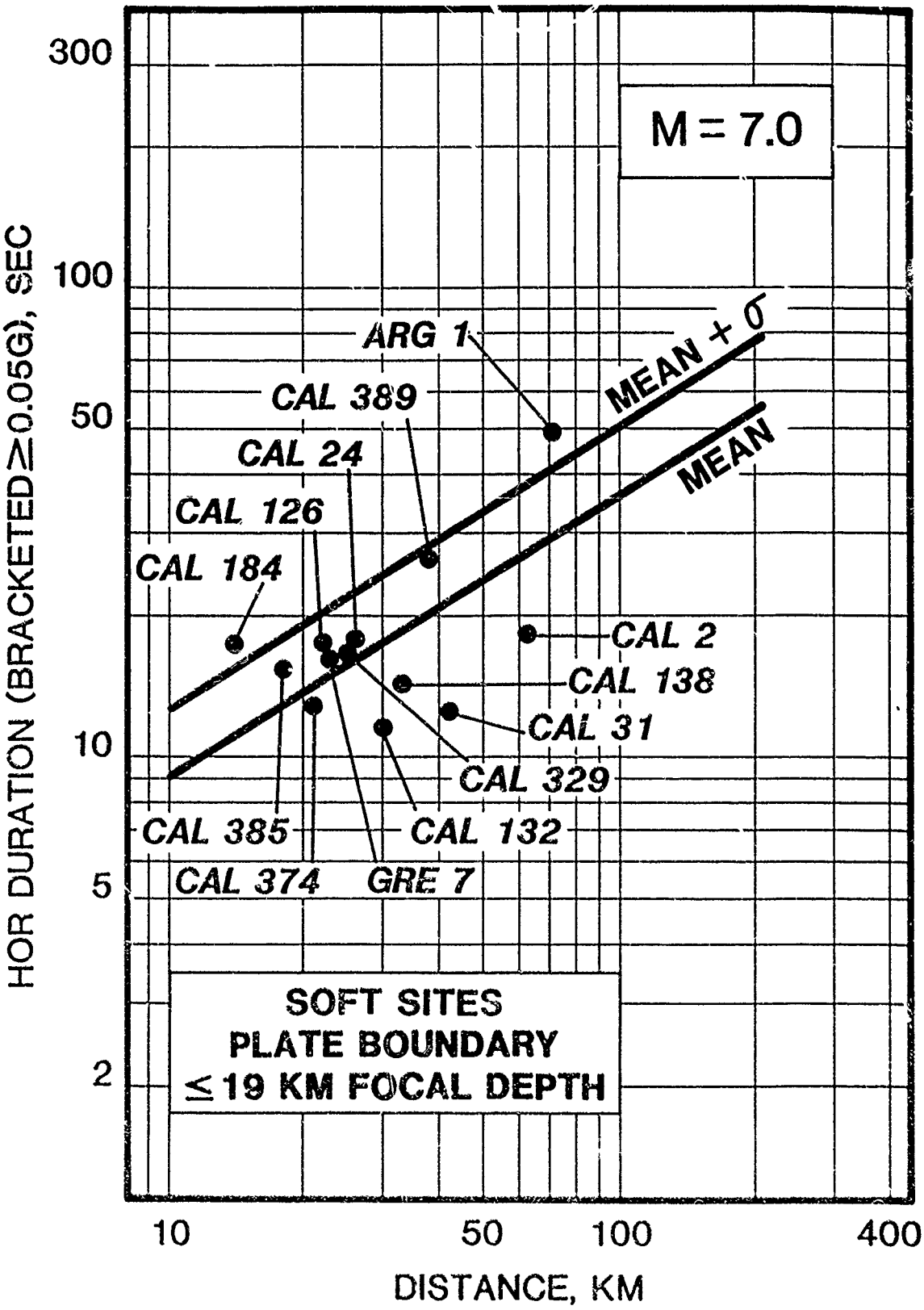


Figure 24d. Accelerograms for duration, M = 7.0, and distance from source for shallow earthquakes at soft sites. (See Table 24d.)

Table 24e

Shallow-Soft-Dur-Mag 7.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 14 | 17.5 | 18.0 | -0.5 | 25.0 | +7.5 | CAL 184 |
| 17 | 29.0 | 21.0 | -8.0 | 28.0 | -1.0 | CAL [illegible] |
| 18 | 15.5 | 21.5 | +6.0 | 30.5 | +9.0 | CAL 351 |
| 20 | 23.8 | 23.0 | -0.8 | 32.5 | +8.5 | CAL 356 |
| 22 | 16.0 | 24.5 | +8.5 | 35.0 | +19.0 | CAL 127 |
| 23 | 25.0 | 25.0 | 0.0 | 37.0 | +12.0 | CAL 353 |
| 30 | 12.4 | 28.5 | +16.1 | 41.5 | +29.1 | CAL 129 |
| 38 | 26.4 | 32.0 | +5.6 | 48.5 | +16.5 | CAL 389 |
| 42 | 20.0 | 36.0 | +16.0 | 51.0 | +31.0 | CAL 6 |
| 46 | 20.0 | 38.0 | +18.0 | 52.5 | +32.5 | CAL 7 |
| 62 | 18.2 | 42.5 | +24.3 | 63.0 | +44.8 | CAL 2 |
| 71 | 49.6 | 49.0 | -0.6 | 69.0 | +19.4 | ARG 1 |

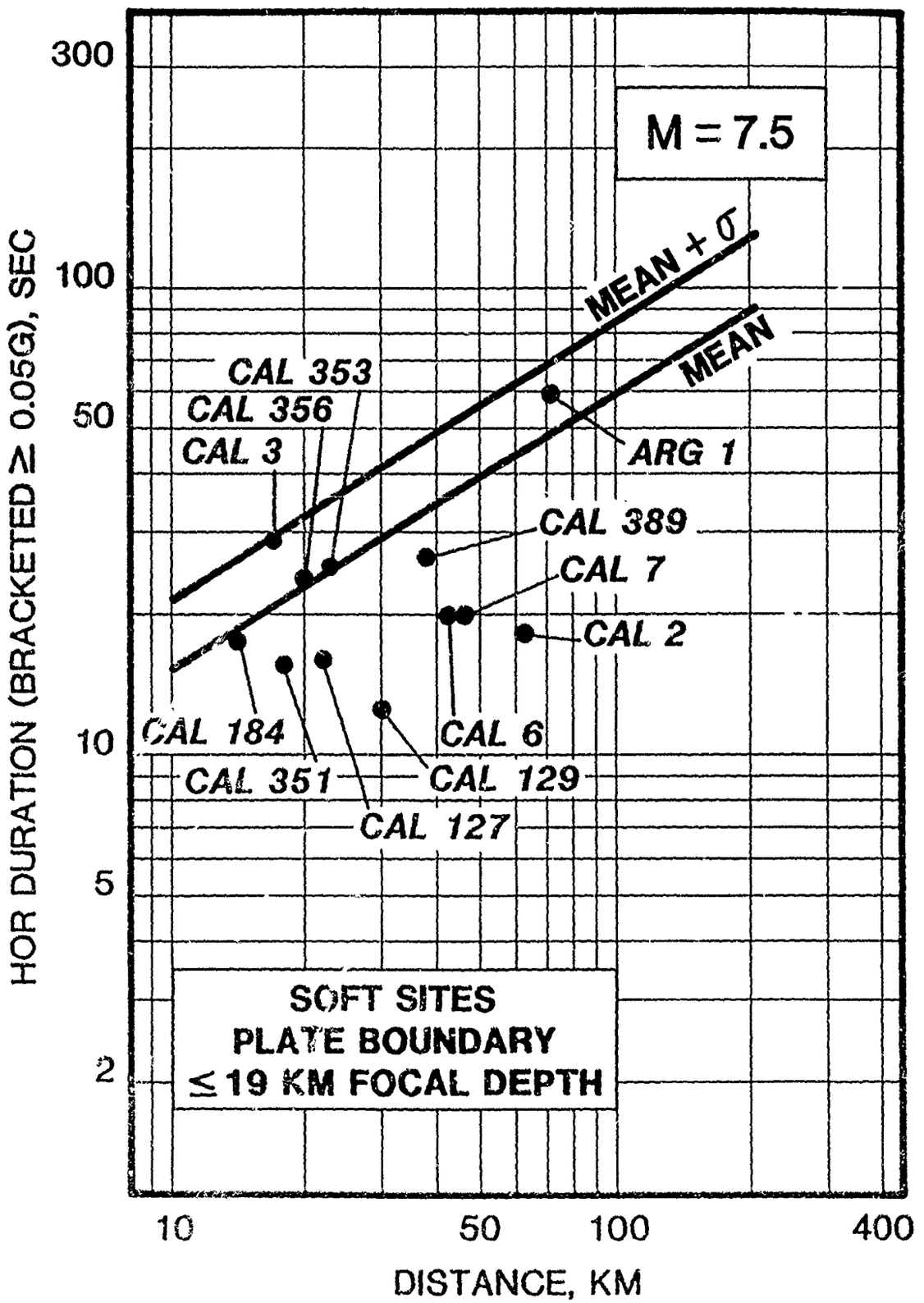


Figure 24.. Accelerograms for duration, M = 7.5, and distance from source for shallow earthquakes at soft sites. (See Table 24e.)

## PART XIII: TABLES AND FIGURES FOR MAGNITUDE-RELATED PEAK GROUND MOTION FOR DEEP EVENTS ON HARD SITES

66. Generic accelerograms for deep event ground motion at hard sites with magnitude and acceleration as the parameters follow.

Table 25a

Deep-Hard-Accel-Mag 5.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 25 | 101 | 92 | 0.91 | 125 | 1.24 | MEX 87* |
| 31 | 147 | 90 | 0.61 | 120 | 0.82 | MEX 76* |
| 47 | 221 | 75 | 0.34 | 100 | 0.45 | MEX 80* |
| 47 | 187 | 75 | 0.40 | 100 | 0.53 | CHL 39* |
| 47 | 182 | 75 | 0.41 | 100 | 0.55 | CHL 40* |
| 67 | 102 | 64 | 0.63 | 88 | 0.86 | MEX 81* |
| 82 | 109 | 58 | 0.53 | 72 | 0.65 | MEX 44* |
| 104 | 211 | 34 | 0.16 | 50 | 0.24 | MEX 83* |

Table 25b

Deep-Hard-Accel-Mag 6.0

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 31 | 147 | 130 | 0.88 | 165 | 1.12 | MEX 76* |
| 45 | 293 | 115 | 0.39 | 145 | 0.50 | MEX 21* |
| 47 | 221 | 110 | 0.50 | 160 | 1.38 | MEX 80* |
| 67 | 102 | 91 | 0.89 | 120 | 1.18 | MEX 81* |
| 104 | 211 | 58 | 0.27 | 78 | 0.40 | MEX 83* |

Table 25c

Deep-Hard-Accel-Mag 6.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 50 | 134 | 165 | 1.23 | 220 | 1.64 | MEX 66* |
| 86 | 122 | 120 | 0.98 | 150 | 1.23 | MEX 48* |
| 169 | 154 | 51 | 0.33 | 67 | 0.42 | MEX 51* |
| 219 | 110 | 26 | 0.24 | 30 | 0.27 | MEX 53* |

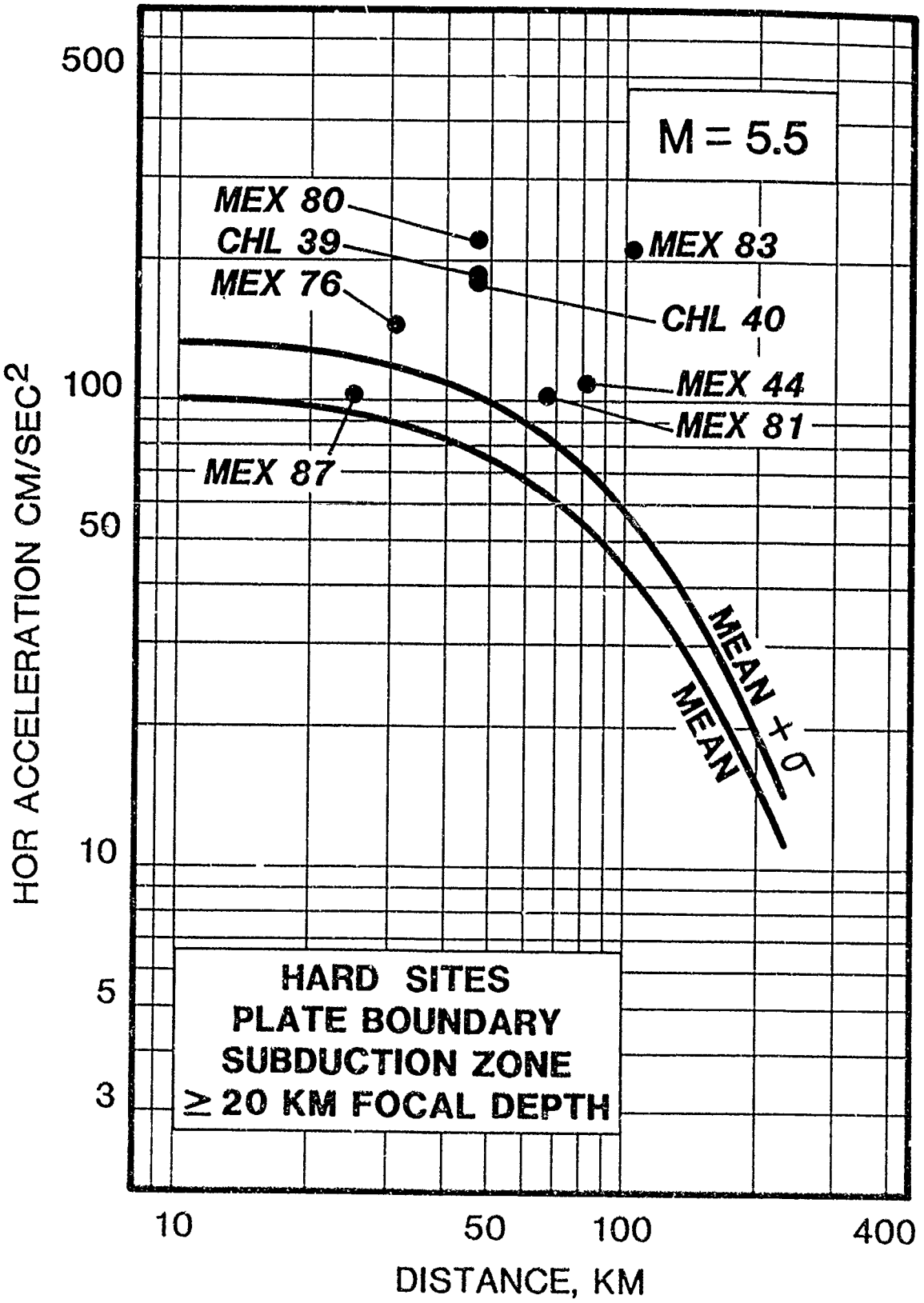


Figure 25a. Accelerograms for acceleration, M = 5.5, and distance from source for deep earthquakes at hard sites. (See Table 25a.)

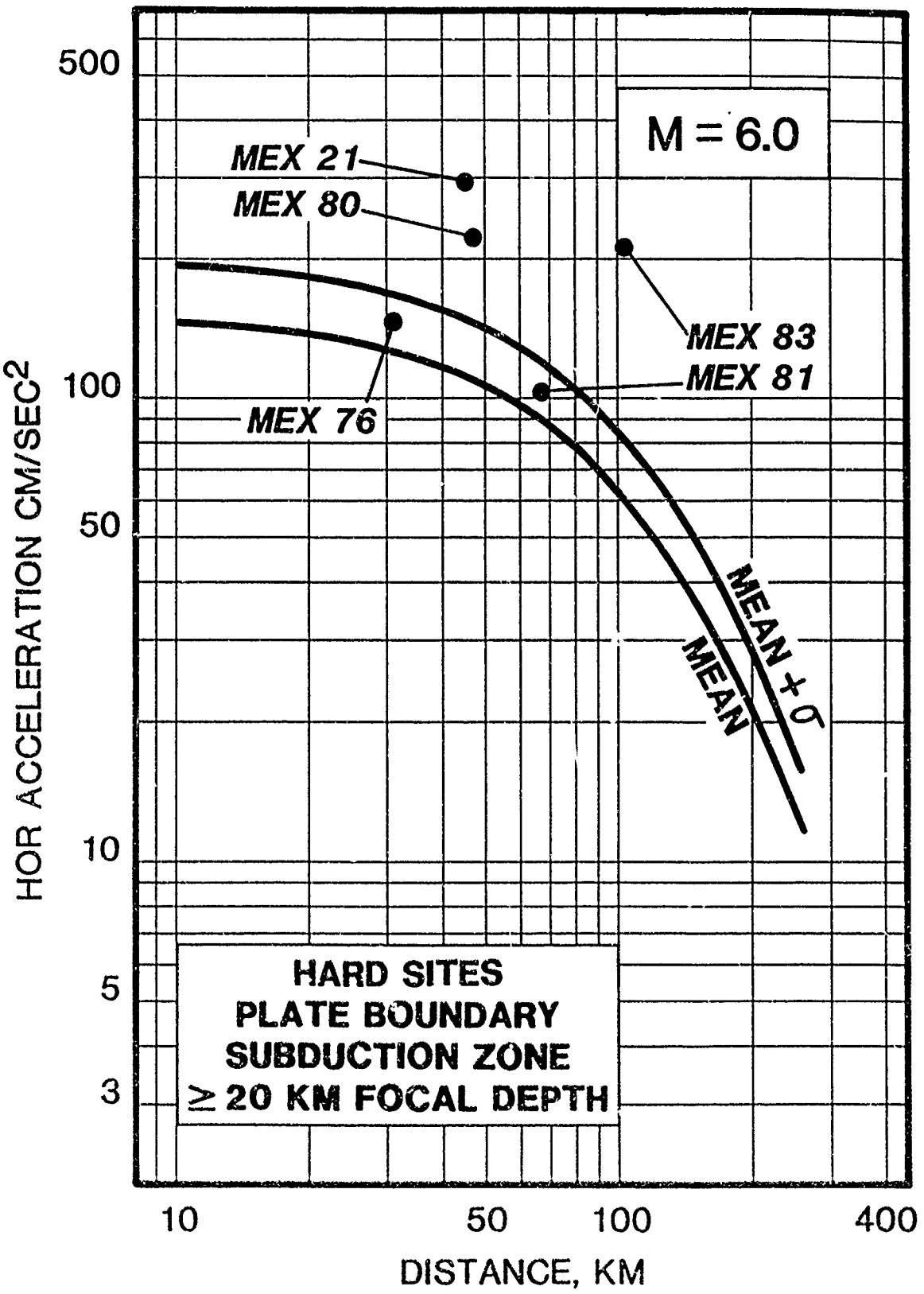


Figure 25b. Accelerograms for acceleration, M = 6.0, and distance from source for deep earthquakes at hard sites. (See Table 25b.)

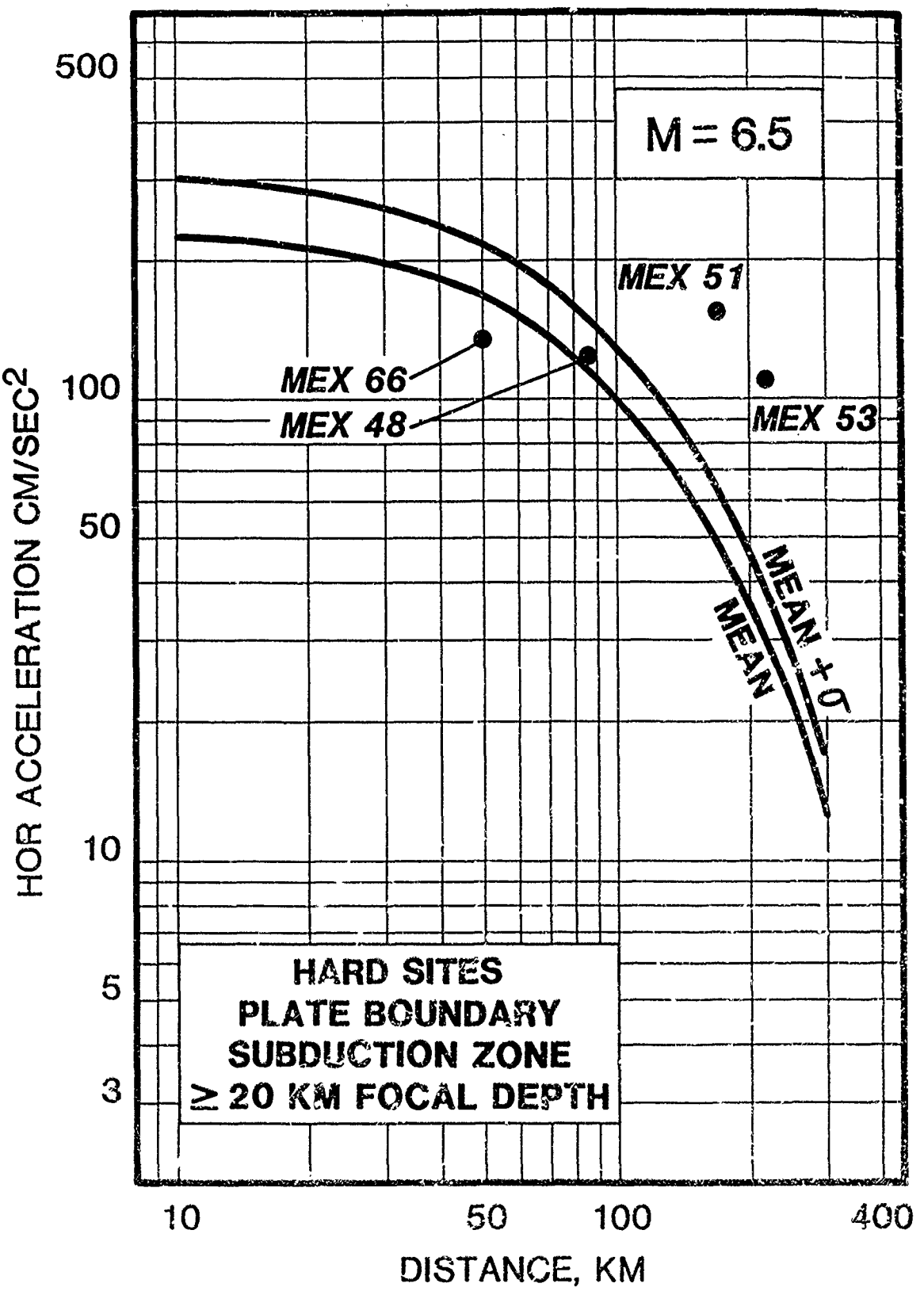


Figure 25c. Accelerograms for acceleration, M = 6.5, and distance from source for deep earthquakes at hard sites. (See Table 25c.)

Table 25d

Deep-Hard-Accel-Mag 7.0

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 82 | 182 | 165 | 0.91 | 200 | 1.10 | AKA 1 |
| 86 | 122 | 170 | 1.39 | 215 | 1.76 | MEX 48* |
| 169 | 154 | 60 | 0.39 | 90 | 0.58 | MEX 51* |
| 219 | 110 | 40 | 0.36 | 50 | 0.45 | MEX 53* |
| 301 | 120 | 20 | 0.17 | 27 | 0.23 | MEX 54* |

Table 25e

Deep-Hard-Accel-Mag 7.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 54 | 350 | 340 | 0.97 | 450 | 1.29 | CHL 35 |
| 54 | 224 | 340 | 1.52 | 450 | 2.01 | CHL 36 |
| 68 | 161 | 290 | 1.80 | 385 | 2.39 | CHL 32* |
| 68 | 176 | 290 | 1.65 | 385 | 2.19 | CHL 31* |
| 71 | 656 | 285 | 0.43 | 380 | 0.58 | CHL 11* |
| 71 | 418 | 285 | 0.68 | 380 | 0.91 | CHL 12* |
| 82 | 182 | 250 | 1.37 | 380 | 2.09 | AKA 1 |
| 130 | 226 | 160 | 0.71 | 205 | 0.91 | CHL 16* |

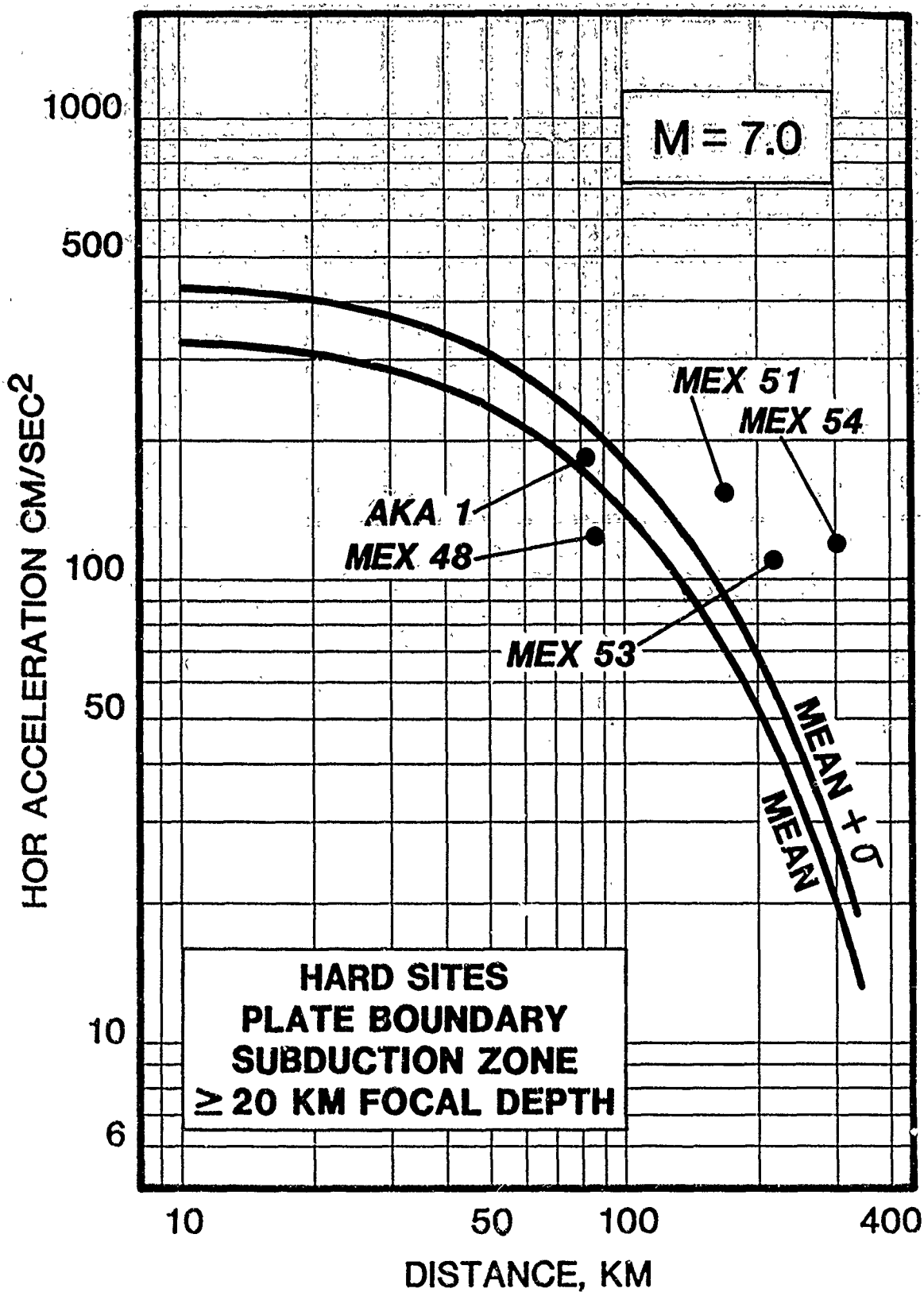


Figure 25d. Accelerograms for acceleration, M = 7.0, and distance from source for deep earthquakes at hard sites. (See Table 25d.)

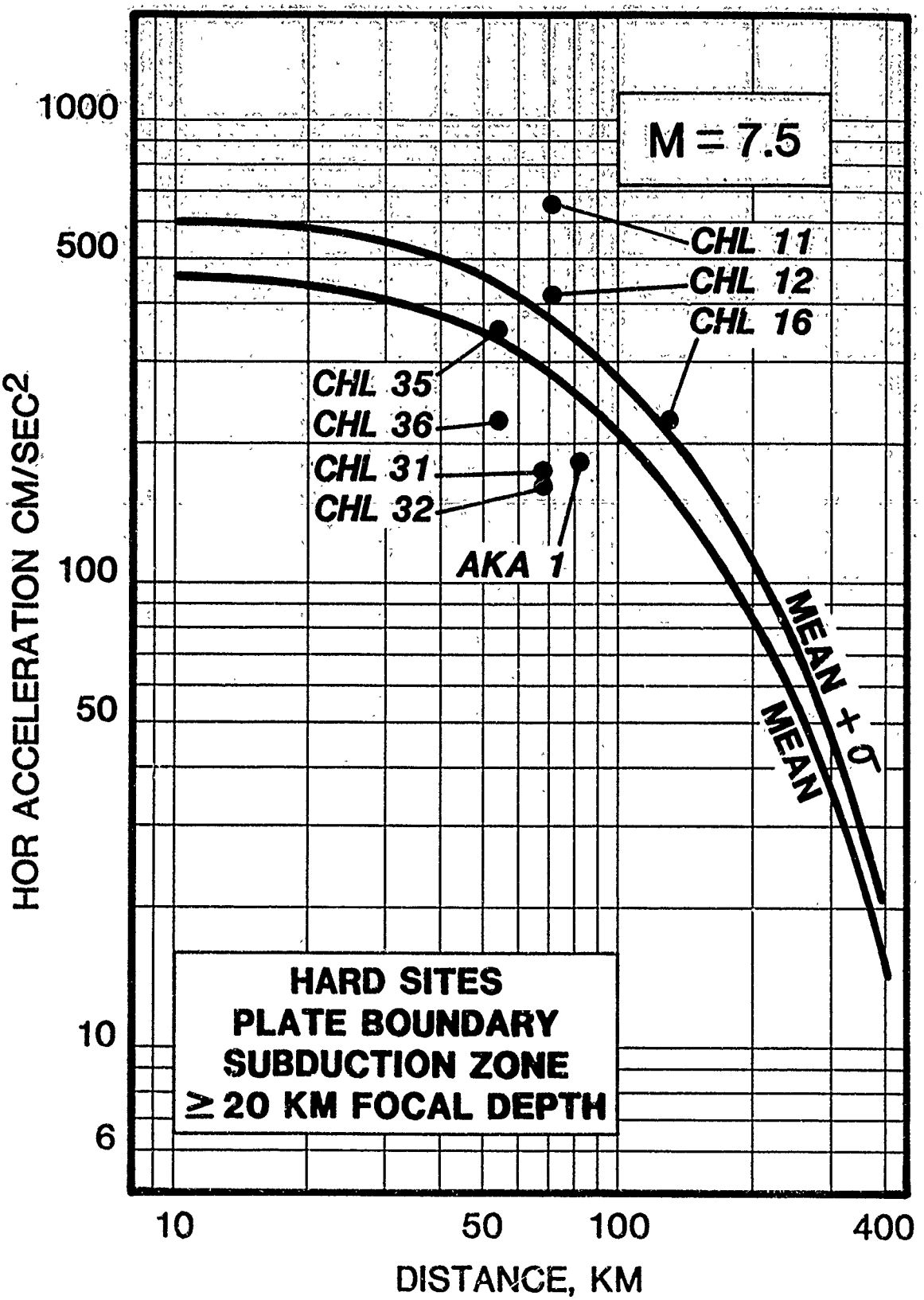


Figure 25e. Accelerograms for acceleration, M = 7.5, and distance from source for deep earthquakes at hard sites. (See Table 25e.)

67. Generic accelerograms for deep event ground motion at hard sites with magnitude and velocity as the parameters follow.

Table 26a

Deep-Hard-Vel-Mag 5.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 31 | 3.6 | 4.2 | 1.17 | 6.6 | 1.83 | MEX 76* |
| 45 | 6.64 | 3.8 | 0.57 | 5.7 | 0.87 | MEX 21* |
| 47 | 10.88 | 3.7 | 0.34 | 5.2 | 0.48 | CHL 40* |
| 47 | 6.7 | 3.9 | 0.58 | 5.9 | 0.88 | MEX 80* |
| 67 | 2.9 | 3.0 | 0.97 | 4.2 | 1.45 | MEX 81* |
| 82 | 3.99 | 2.5 | 0.62 | 3.7 | 0.92 | MEX 44* |
| 104 | 4.4 | 2.0 | 0.45 | 3.0 | 0.68 | MEX 82* |
| 104 | 4.1 | 2.0 | 0.49 | 3.0 | 0.73 | MEX 83* |

Table 26b

Deep-Hard-Vel-Mag 6.0

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 31 | 3.6 | 6.7 | 1.86 | 10.0 | 2.78 | MEX 76* |
| 44 | 11.46 | 5.8 | 0.50 | 8.7 | 0.76 | MEX 18 |
| 44 | 10.63 | 5.8 | 0.55 | 8.7 | 0.81 | MEX 19 |
| 45 | 6.44 | 5.8 | 0.90 | 8.7 | 1.35 | MEX 21* |
| 47 | 6.7 | 5.7 | 0.85 | 8.3 | 1.24 | MEX 80* |
| 67 | 2.9 | 4.4 | 1.52 | 6.5 | 2.24 | MEX 81* |
| 104 | 4.4 | 2.9 | 0.66 | 4.0 | 0.91 | MEX 82* |
| 104 | 4.1 | 2.9 | 0.71 | 4.0 | 0.98 | MEX 83* |

Table 26c

Deep-Hard-Vel-Mag 6.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 50 | 11.9 | 8.8 | 0.74 | 13.0 | 1.09 | MEX 66* |
| 86 | 11.0 | 6.0 | 0.55 | 8.8 | 0.80 | MEX 48* |
| 219 | 6.0 | 1.4 | 0.23 | 2.0 | 0.33 | MEX 53* |

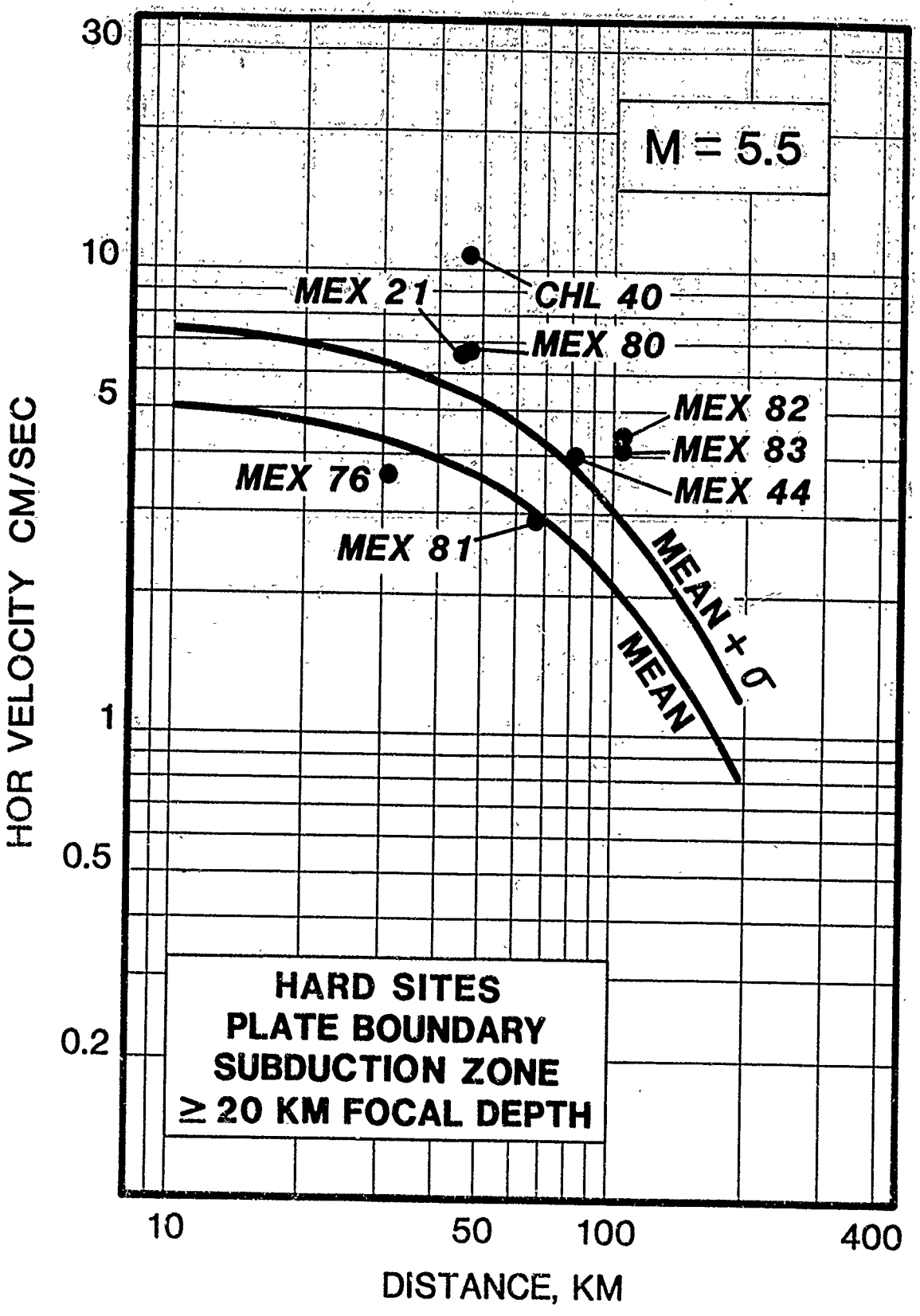


Figure 26a. Accelerograms for velocity, M = 5.5, and distance from source for deep earthquakes at hard sites. (See Table 26a.)

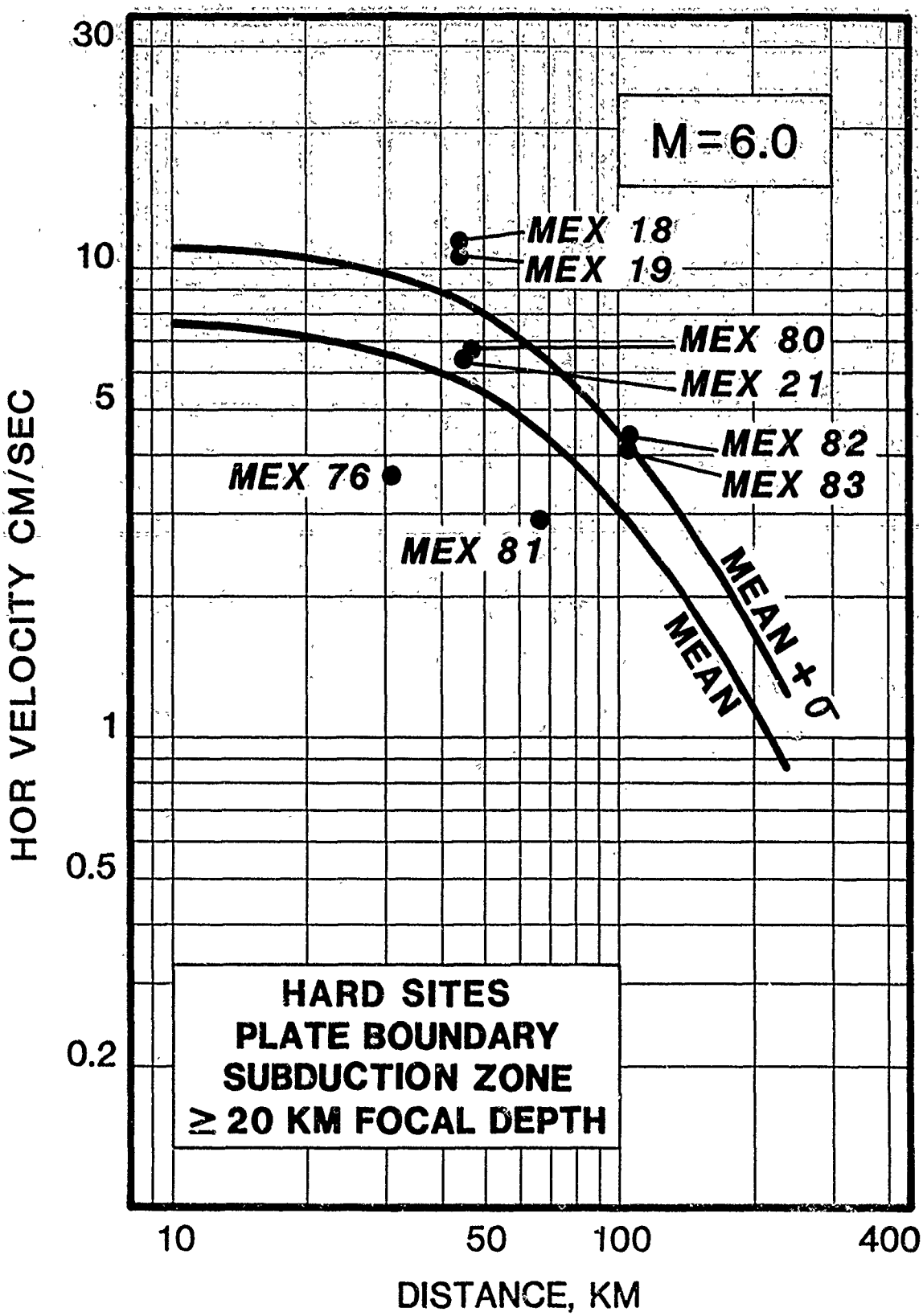


Figure 26b. Accelerograms for velocity, M = 6.0, and distance from source for deep earthquakes at hard sites. (See Table 26b.)

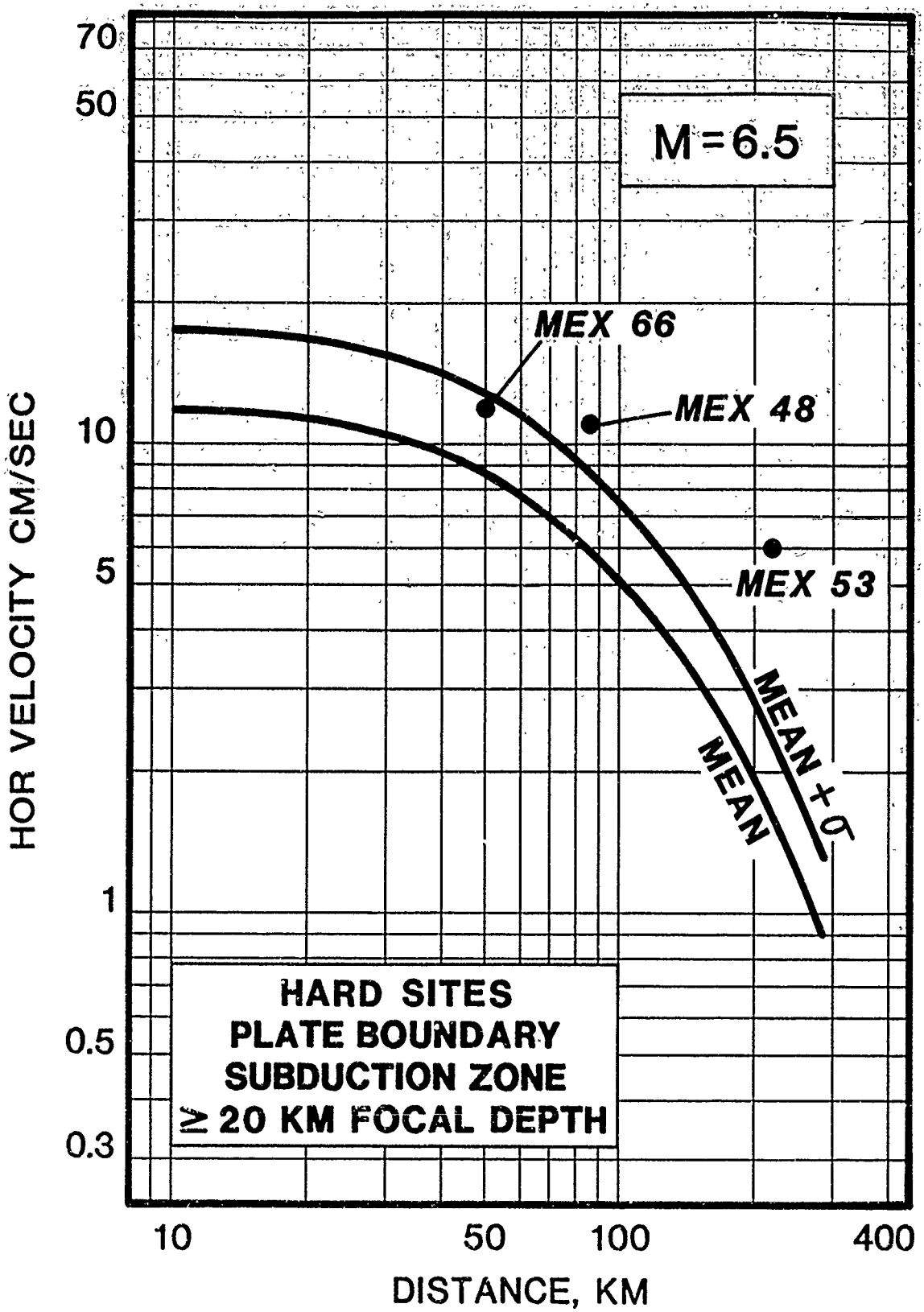


Figure 26c. Accelerograms for velocity, M = 6.5, and distance from source for deep earthquakes at hard sites. (See Table 26c.)

Table 26d

Deep-Hard-Vel-Mag 7.0

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 82 | 8.0 | 9.7 | 1.21 | 14.0 | 1.75 | AKA 1 |
| 86 | 11.0 | 9.6 | 1.15 | 13.5 | 1.23 | MEX 48* |
| 219 | 6.0 | 2.1 | 0.35 | 3.0 | 0.50 | MEX 53* |

Table 26e

Deep-Hard-Vel-Mag 7.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 82 | 8.0 | 14.0 | 1.75 | 21.0 | 2.62 | AKA 1 |
| 130 | 12.41 | 10.0 | 0.81 | 14.0 | 1.13 | CHL 16* |

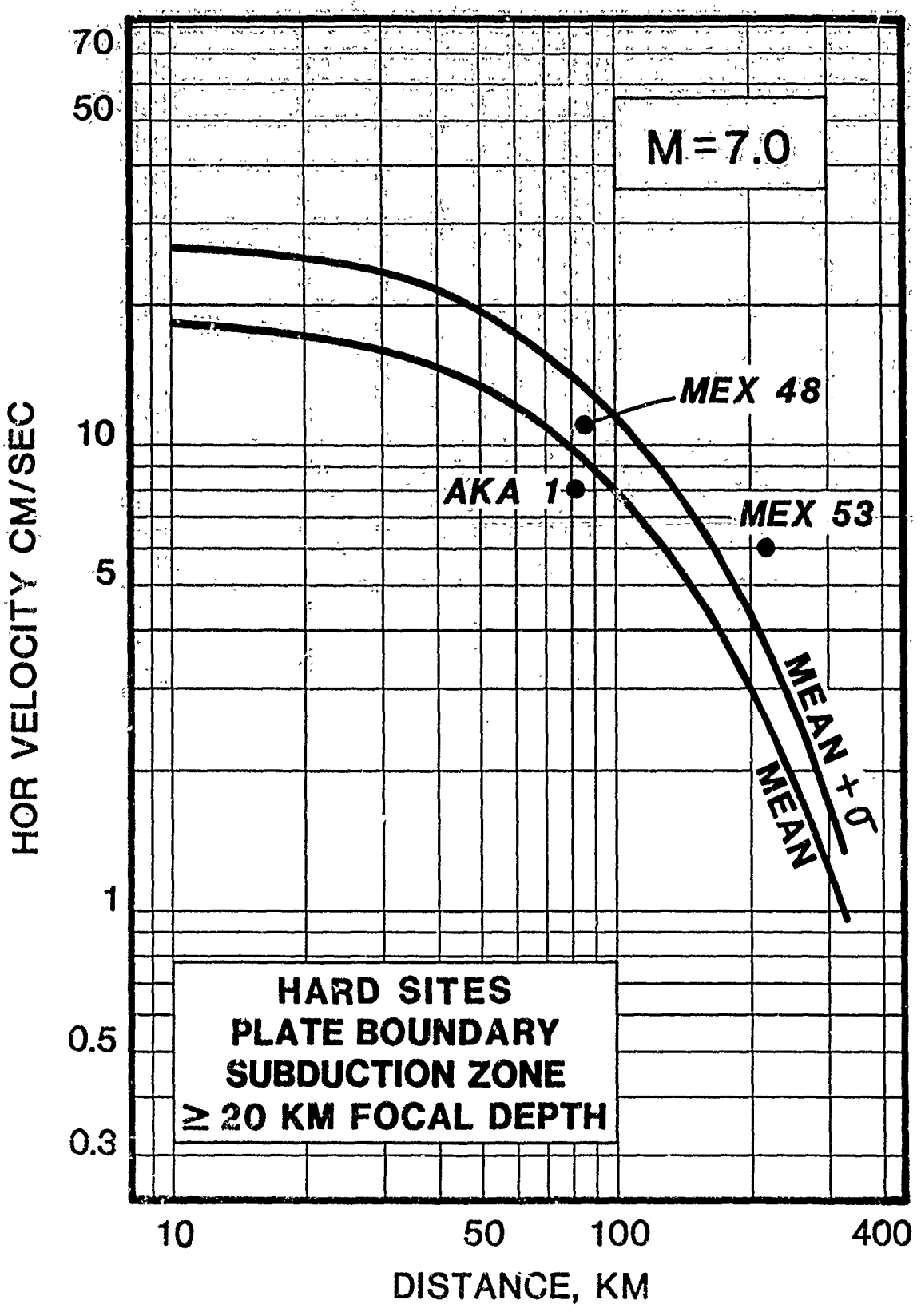


Figure 26d. Accelerograms for velocity, M = 7.0, and distance from source for deep earthquakes at hard sites. (See Table 26d.)

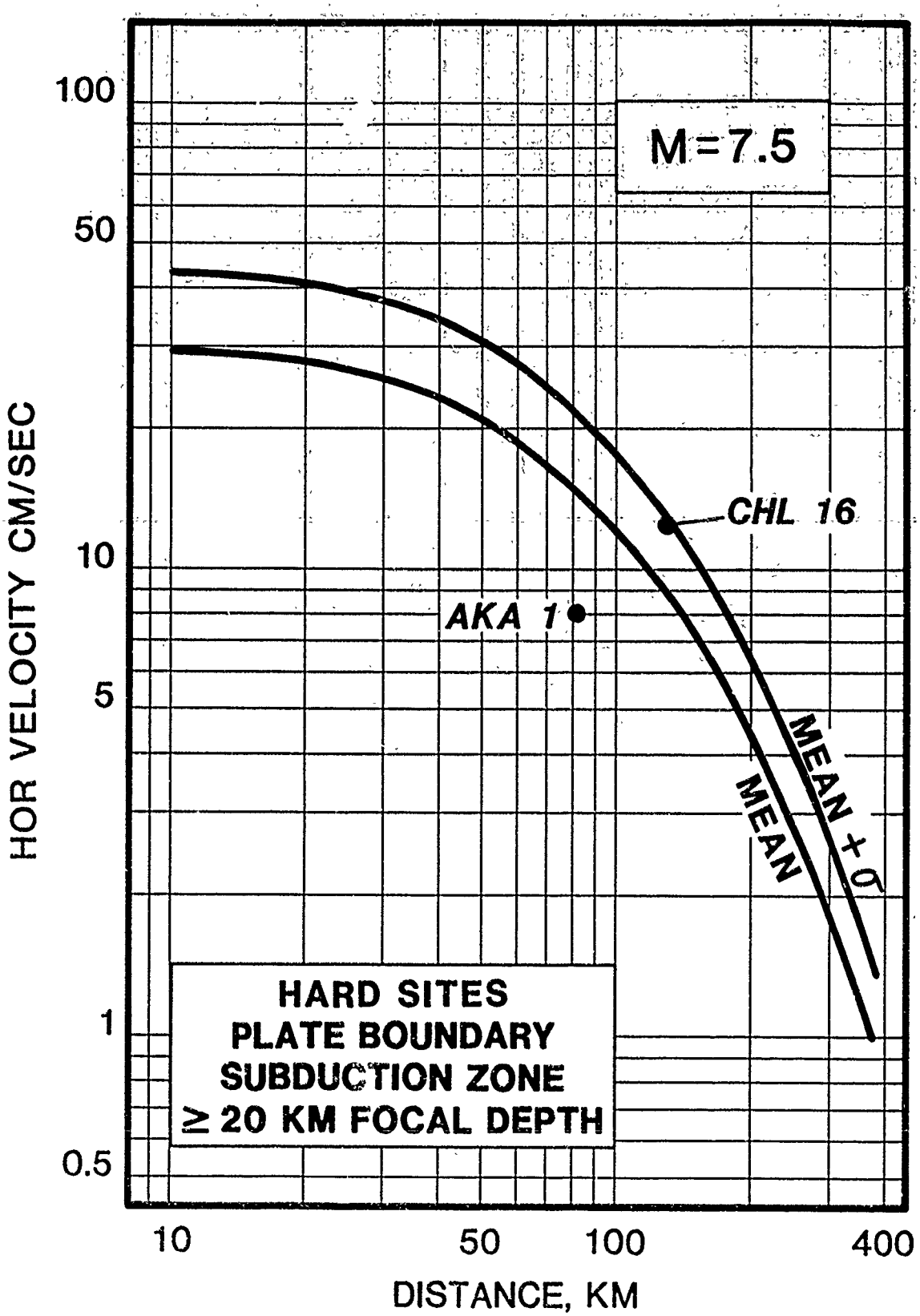


Figure 26e. Accelerograms for velocity, M = 7.5, and distance from source for deep earthquakes at hard sites. (See Table 26e.)

68. Generic accelerograms for deep event ground motion at hard sites with magnitude and duration as the parameters follow.

Table 27a

Deep-Hard-Dur-Mag 5.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 25 | 1.2 | 1.3 | +0.1 | 2.3 | +1.1 | MEX 87* |
| 31 | 6.1 | 1.4 | -4.7 | 2.4 | -3.7 | MEX 76* |
| 45 | 6.8 | 1.6 | -5.2 | 2.8 | -4.0 | MEX 20* |
| 45 | 6.7 | 1.6 | -5.1 | 2.8 | -3.9 | MEX 21* |
| 47 | 4.2 | 1.6 | -2.6 | 2.8 | -1.4 | MEX 80* |
| 67 | 2.8 | 1.8 | -1.0 | 3.1 | +0.3 | MEX 81* |
| 82 | 0.9 | 1.9 | +1.0 | 3.3 | +2.4 | MEX 44* |
| 104 | 6.0 | 2.1 | -3.9 | 3.7 | -2.3 | MEX 82* |
| 104 | 5.6 | 2.1 | -3.5 | 3.7 | -1.9 | MEX 83* |

Table 27b

Deep-Hard-Dur-Mag 6.0

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 31 | 6.1 | 2.3 | -3.8 | 3.8 | -2.3 | MEX 76* |
| 45 | 6.8 | 2.6 | -4.2 | 4.7 | -2.1 | MEX 20* |
| 45 | 6.7 | 2.6 | -4.1 | 4.7 | +2.0 | MEX 21* |
| 47 | 4.2 | 2.7 | -1.5 | 4.3 | +0.1 | MEX 80* |
| 67 | 2.8 | 2.9 | +0.1 | 5.2 | +2.4 | MEX 81* |
| 104 | 6.0 | 3.3 | -2.7 | 6.0 | 0.0 | MEX 82* |
| 104 | 5.6 | 3.3 | -2.3 | 6.0 | +0.4 | MEX 83* |

Table 27c

Deep-Hard-Dur-Mag 6.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 50 | 11.5 | 4.3 | -7.2 | 7.8 | -3.7 | MEX 66* |
| 169 | 20.0 | 6.2 | -13.8 | 11.5 | -8.5 | MEX 51* |
| 219 | 9.5 | 7.0 | -2.5 | 12.0 | +2.5 | MEX 53* |
| 301 | 13.0 | 7.8 | -5.2 | 13.0 | 0.0 | MEX 54* |

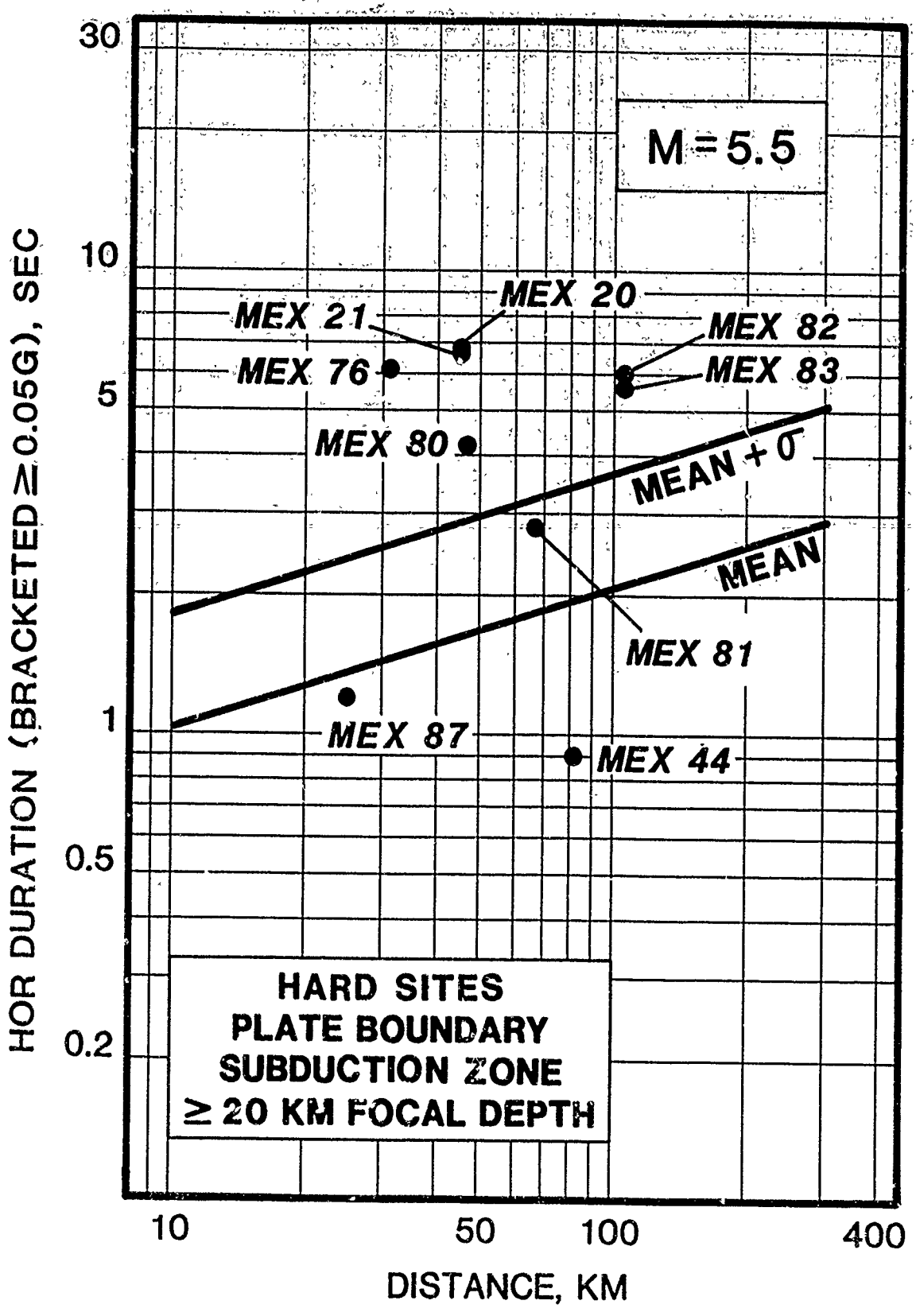


Figure 27a. Accelerograms for duration, M = 5.5, and distance from source for deep earthquakes at hard sites. (See Table 27a.)

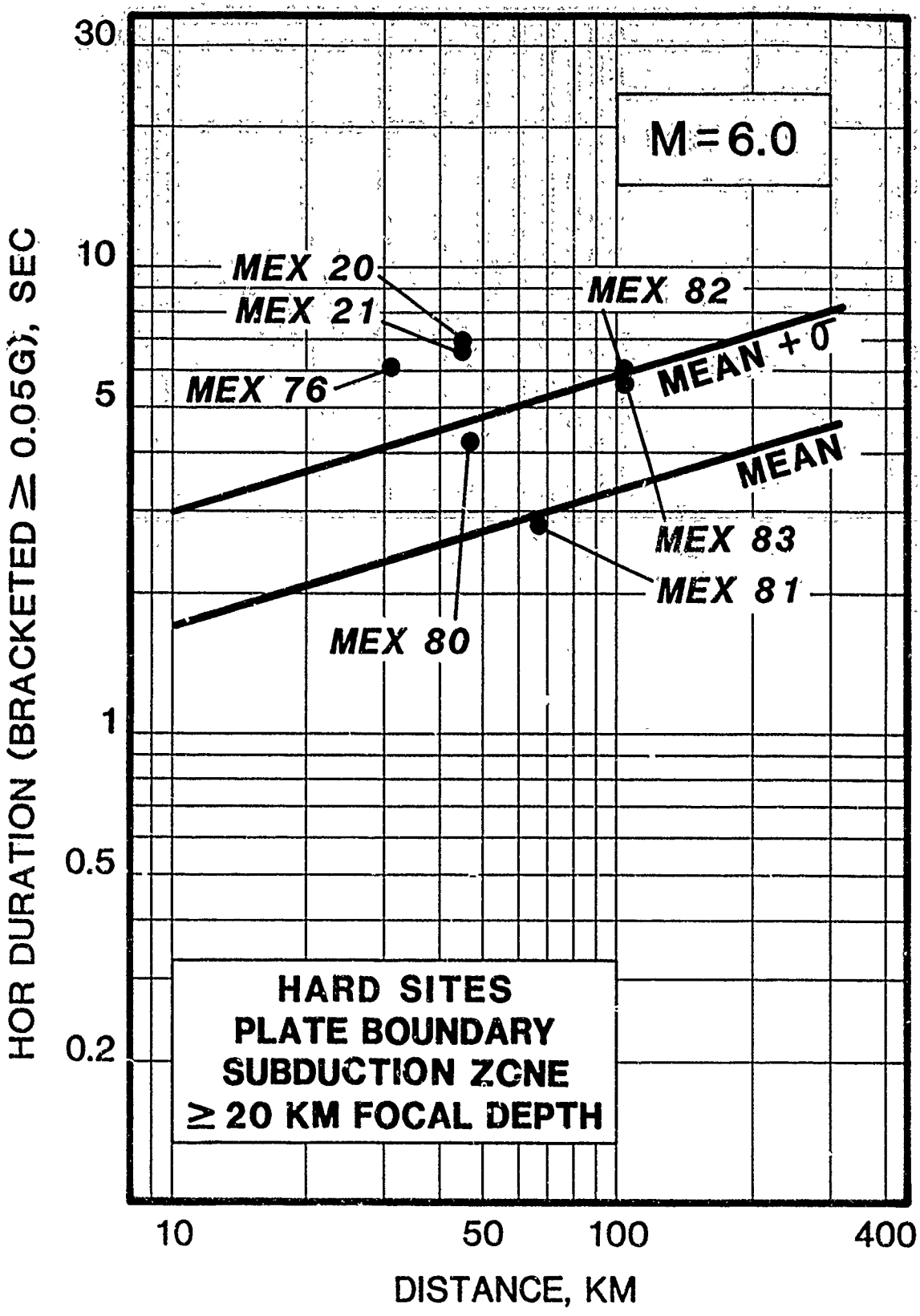


Figure 27b. Accelerograms for duration, M = 6.0, and distance from source for deep earthquakes at hard sites. (See Table 27b.)

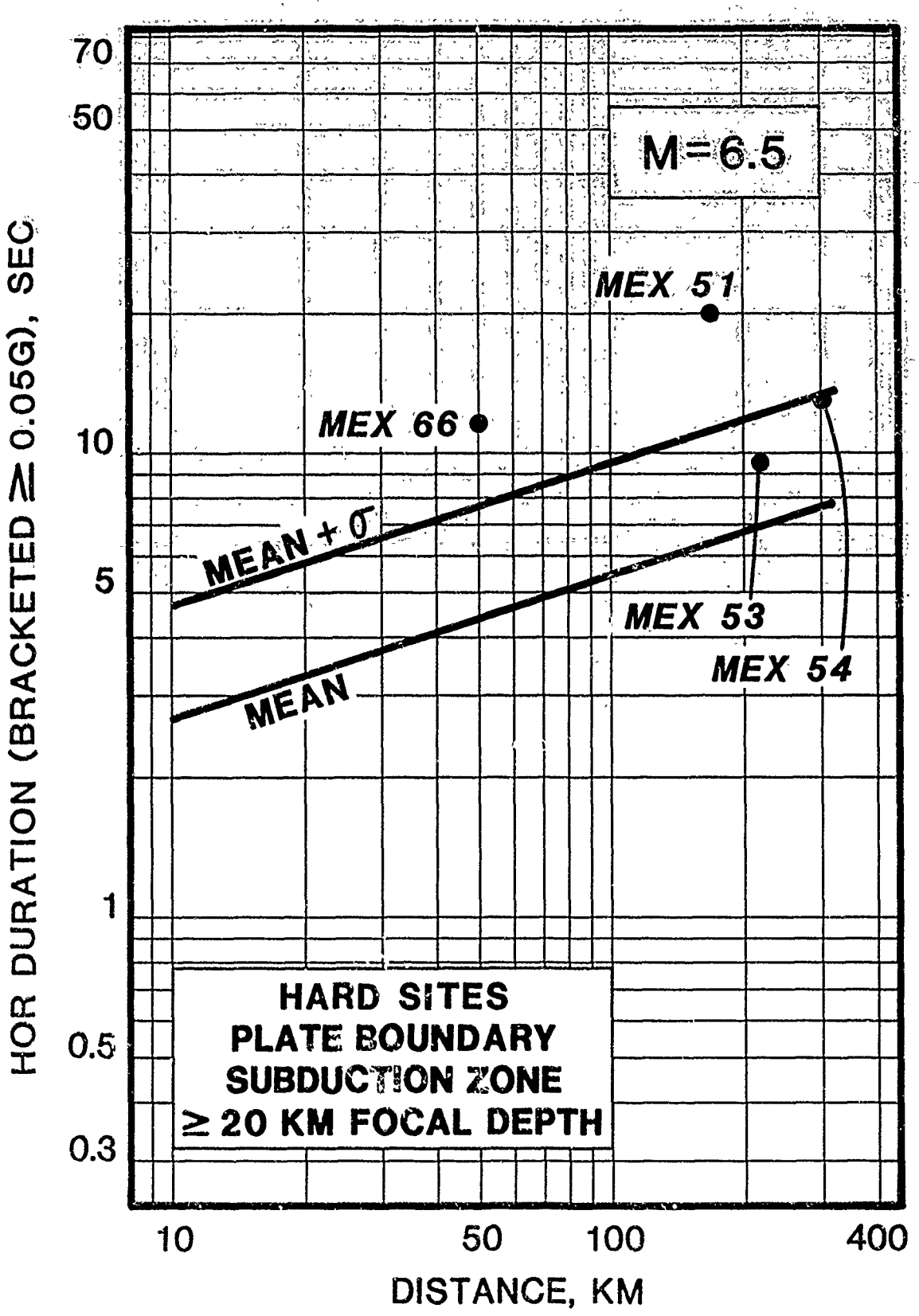


Figure 27c. Accelerograms for duration, M = 6.5, and distance from source for deep earthquakes at hard sites. (See Table 27c.)

Table 27d

Deep-Hard-Dur-Mag 7.0

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 82 | 8.1 | 7.5 | -0.6 | 15.1 | +7.0 | AKA 1 |
| 169 | 20.0 | 10.5 | -9.5 | 18.0 | -2.0 | MEX 51* |
| 219 | 9.5 | 12.0 | +2.5 | 20.5 | +11.0 | MEX 53* |
| 301 | 13.0 | 14.0 | +1.0 | 22.0 | +9.0 | MEX 54* |

Table 27e

Deep-Hard-Dur-Mag 7.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 82 | 8.1 | 14.0 | +5.9 | 25.0 | +16.9 | AKA 1 |

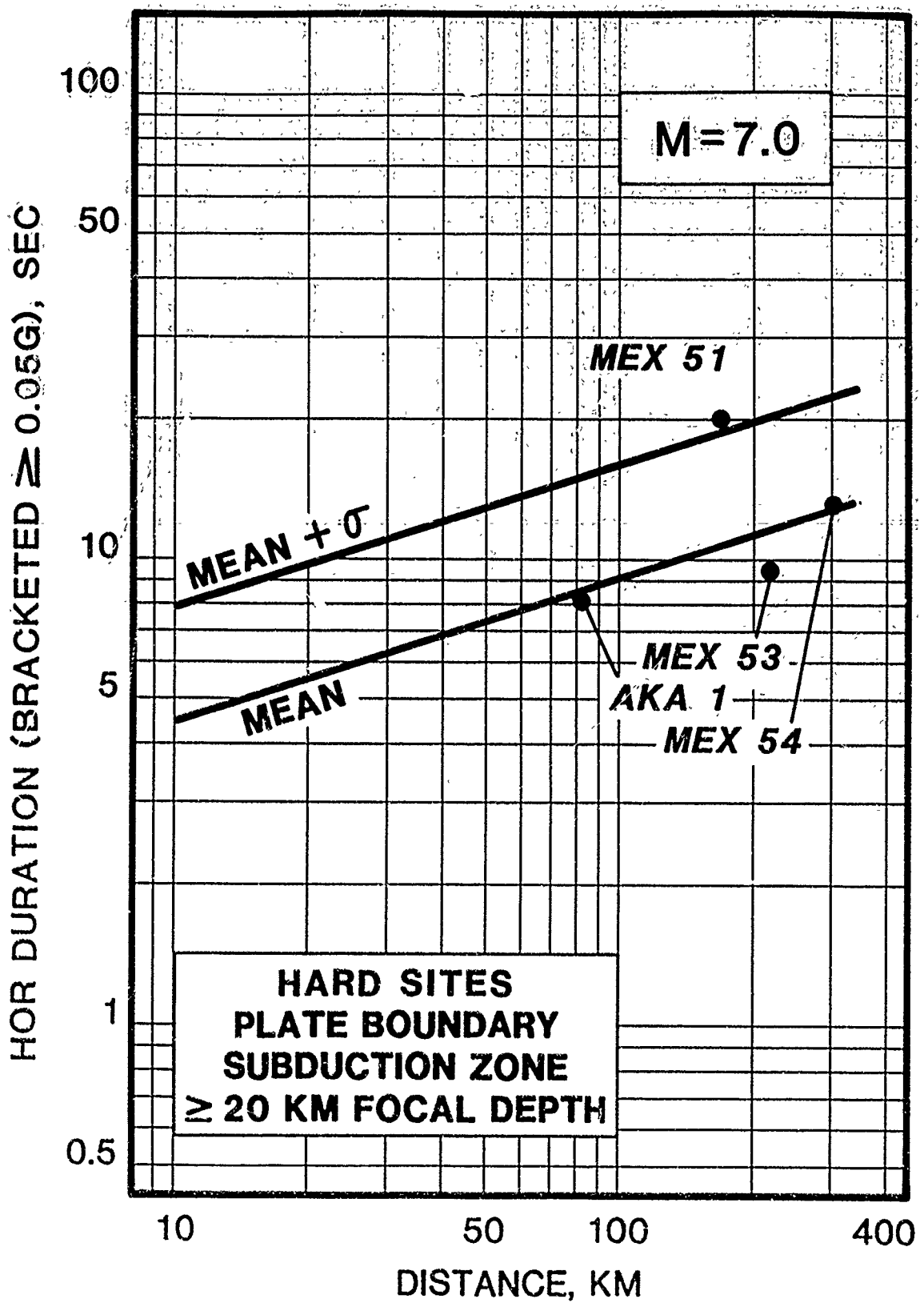


Figure 27d. Accelerograms for duration, M = 7.0, and distance from source for deep earthquakes at hard sites. (See Table 27d.)

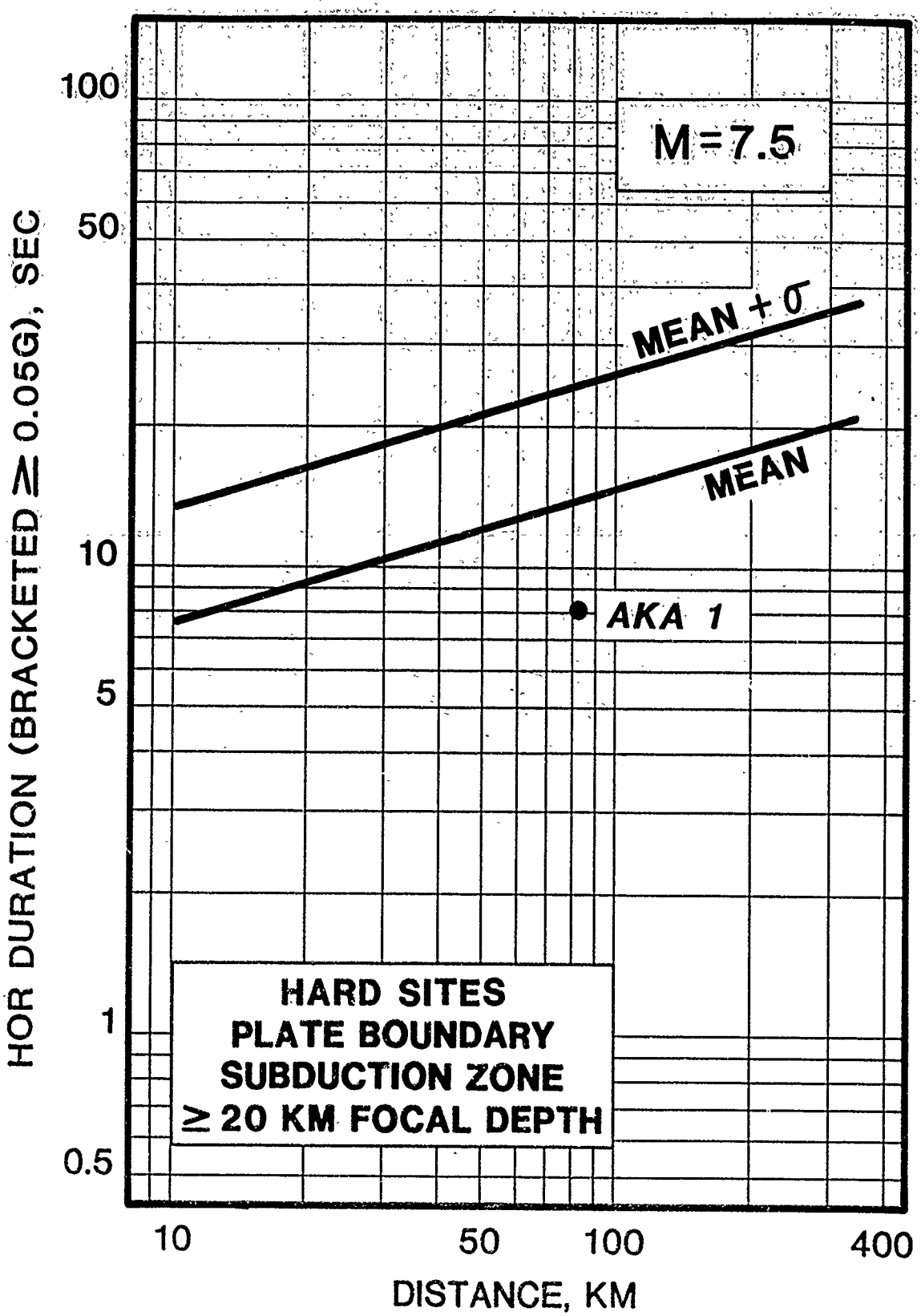


Figure 27e. Accelerograms for duration, M = 7.5, and distance from source for deep earthquakes at hard sites. (See Table 27e.)

## PART XIV: TABLES AND FIGURES FOR MAGNITUDE-RELATED PEAK GROUND MOTION FOR DEEP EVENTS ON SOFT SITES

69. Generic accelerograms for deep event ground motion at soft sites with magnitude and acceleration as the parameters follow.

Table 28a

Deep-Soft-Accel-Mag 5.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| [NO DATA] | | | | | | |

Table 28b

Deep-Soft-Accel-Mag 6.0

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 239 | 269 | 12 | -- | 20 | -- | PER 1 |
| 239 | 180 | 12 | -- | 20 | -- | PER 2 |

Table 28c

Deep-Soft-Accel-Mag 6.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 77 | 194 | 130 | 0.67 | 165 | 0.85 | WAS 5 |
| 77 | 134 | 130 | 0.97 | 165 | 1.23 | WAS 6 |
| 142 | 156 | 68 | 0.44 | 90 | 0.58 | CHL 1 |
| 239 | 269 | 25 | - | 40 | -- | PER 1 |
| 239 | 180 | 25 | -- | 40 | -- | PER 2 |

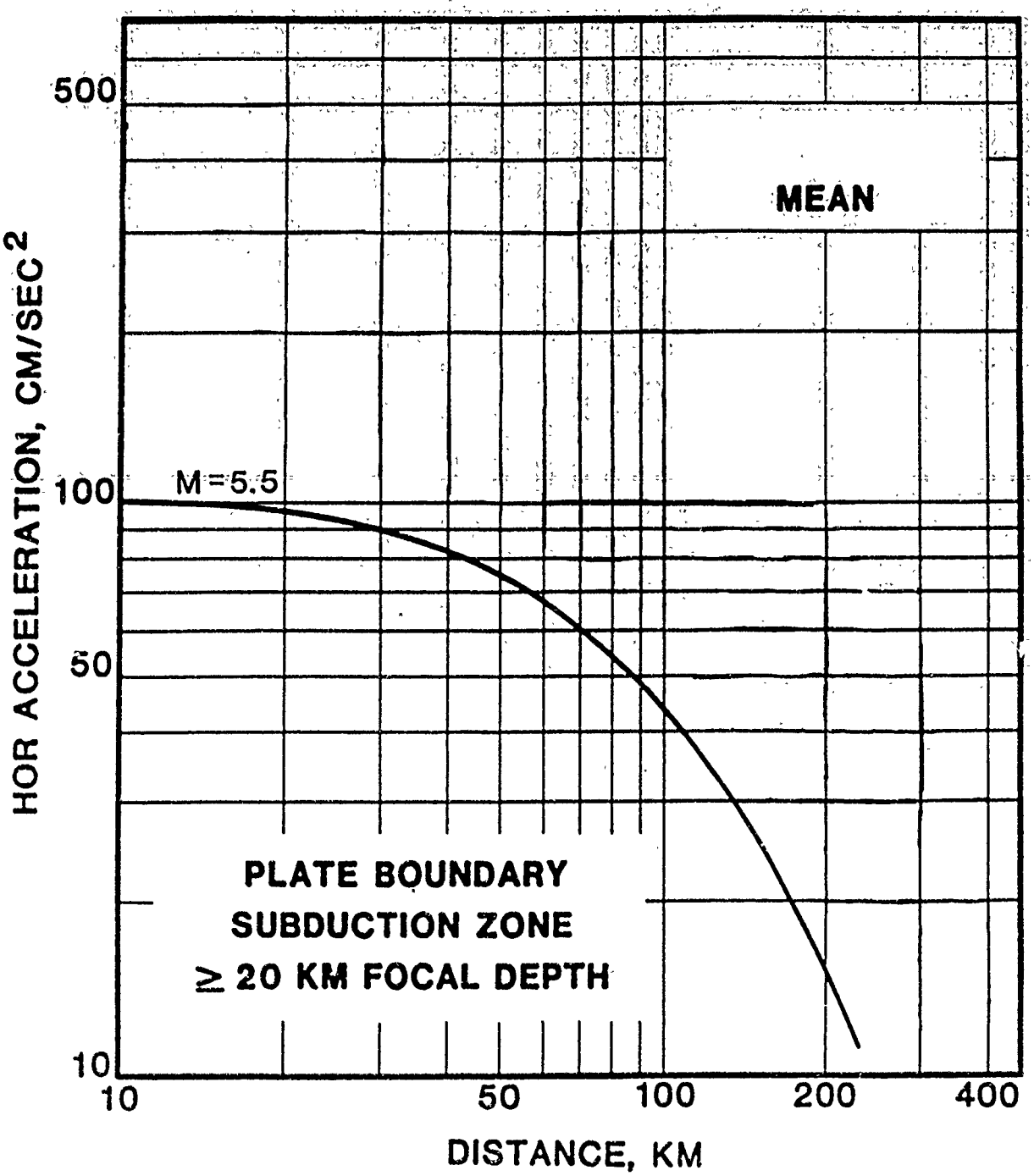


Figure 28a. Accelerograms for acceleration, M = 5.5, and distance from source for deep earthquakes at soft sites. (See Table 28a.)

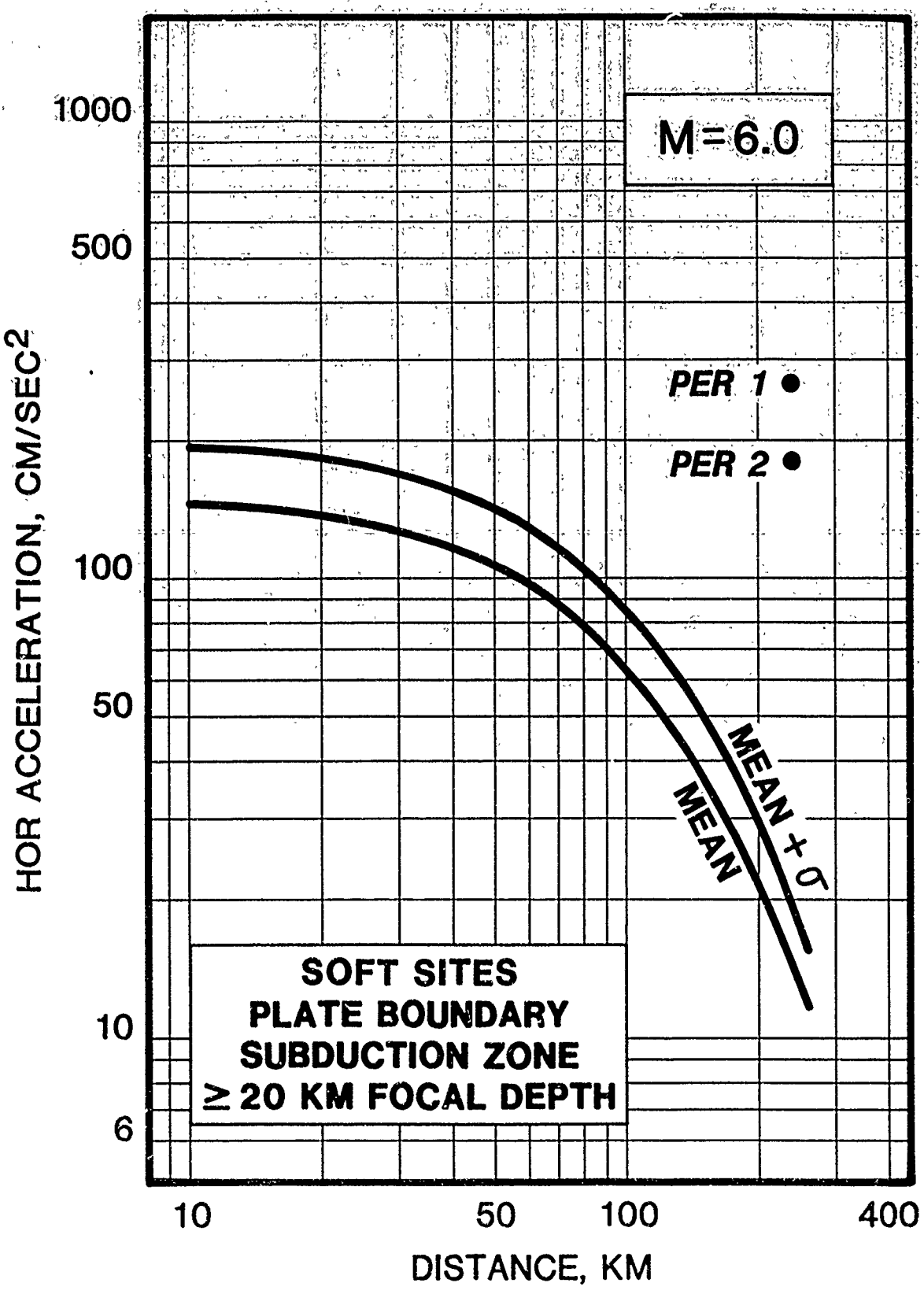


Figure 28b. Accelerograms for acceleration, M = 6.0, and distance from source for deep earthquakes at soft sites. (See Table 28b.)

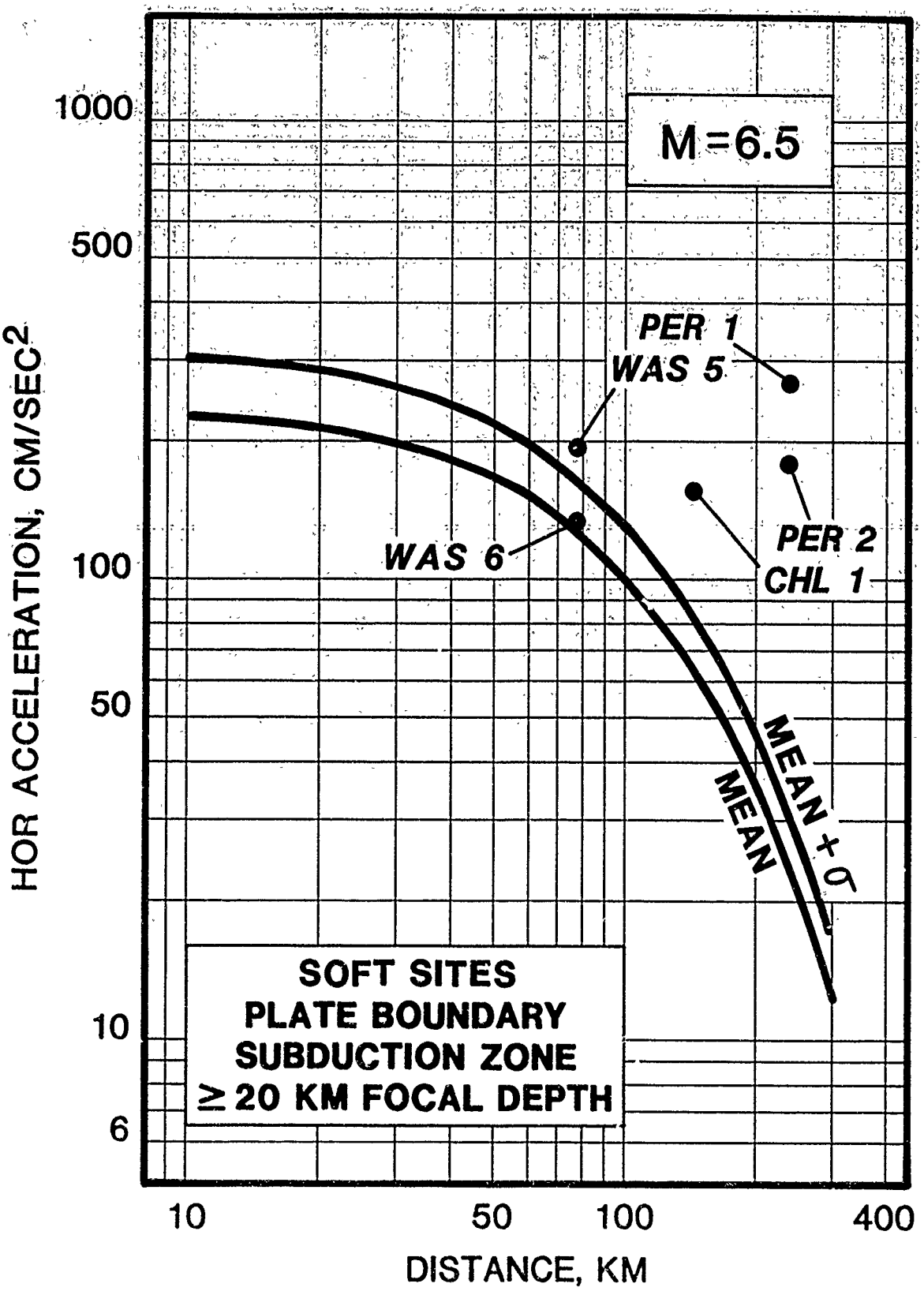


Figure 28c. Accelerograms for acceleration, M = 6.5, and distance from source for deep earthquakes at soft sites. (See Table 28c.)

Table 28d

Deep-Soft-Accel-Mag 7.0

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 77 | 194 | 172 | 0.89 | 222 | 2.36 | WAS 5 |
| 77 | 134 | 172 | 1.28 | 222 | 1.66 | WAS 6 |
| 142 | 156 | 86 | 0.55 | 100 | 0.64 | CHL 1 |
| 199 | 202 | 53 | 0.26 | 63 | 0.31 | ROM 1 |
| 199 | 175 | 53 | 0.30 | 63 | 0.36 | ROM 2 |

Table 28e

Deep-Soft-Accel-Mag 7.5

| Hypo km | Record Gal | Mean Gal | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 68 | 288 | 290 | 1.00 | 385 | 1.34 | CHL 2 |
| 68 | 160 | 290 | 1.81 | 385 | 2.41 | CHL 3 |
| 72 | 275 | 285 | 1.04 | 365 | 1.33 | WAS 1 |
| 72 | 162 | 285 | 1.76 | 365 | 2.25 | WAS 2 |
| 94 | 67 | 230 | 3.43 | 280 | 4.18 | WAS 3 |
| 94 | 66 | 230 | 3.48 | 280 | 4.24 | WAS 4 |
| 144 | 174 | 120 | 0.69 | 155 | 0.89 | CHL 8 |
| 189 | 168 | 88 | 0.52 | 112 | 0.67 | CHL 29 |
| 189 | 164 | 88 | 0.53 | 112 | 0.68 | CHL 30 |
| 199 | 202 | 88 | 0.44 | 110 | 0.54 | ROM 1 |
| 199 | 175 | 88 | 0.50 | 110 | 0.63 | ROM 2 |

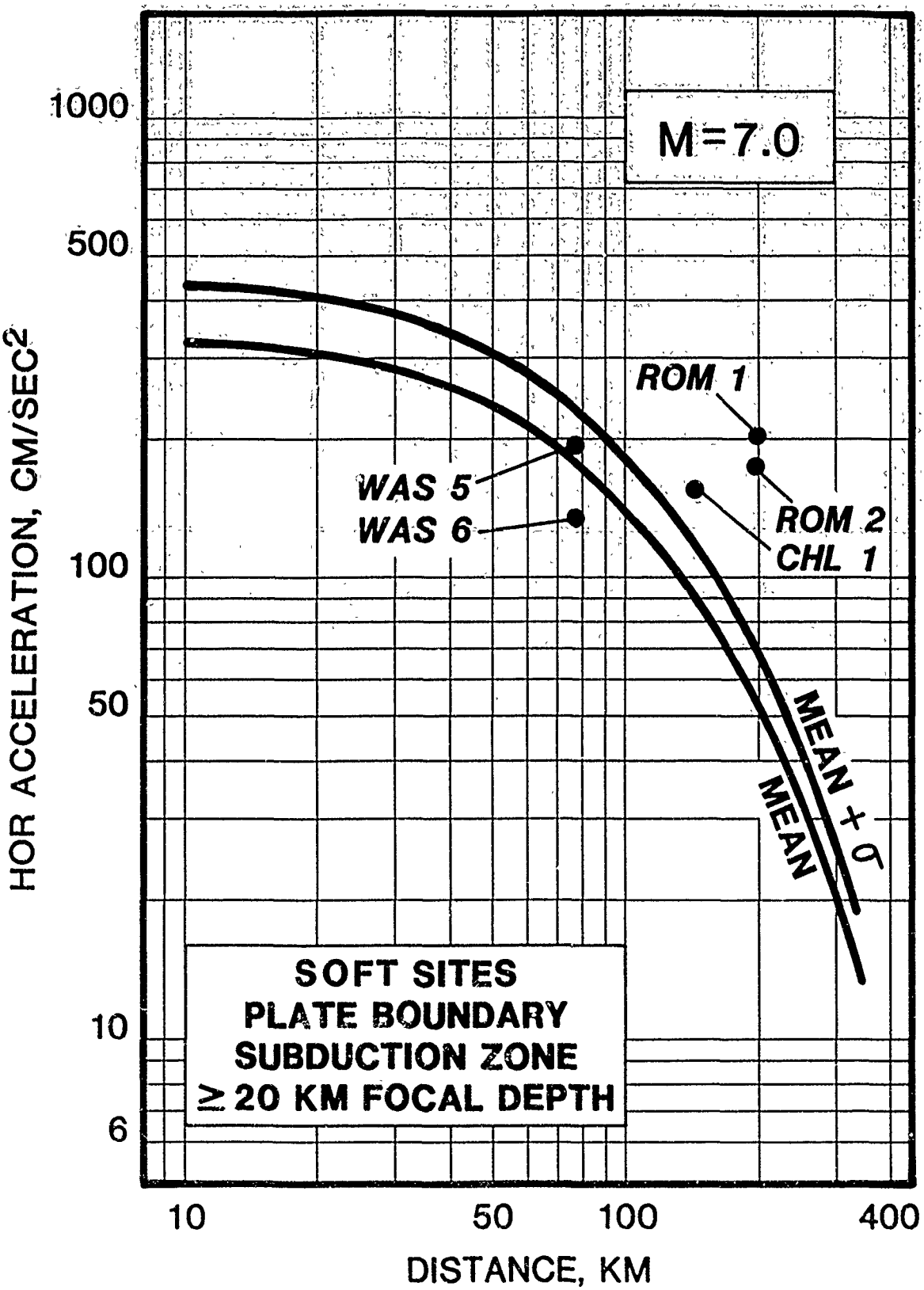


Figure 28d. Accelerograms for acceleration, M = 7.0, and distance from source for deep earthquakes at soft sites. (See Table 28d.)

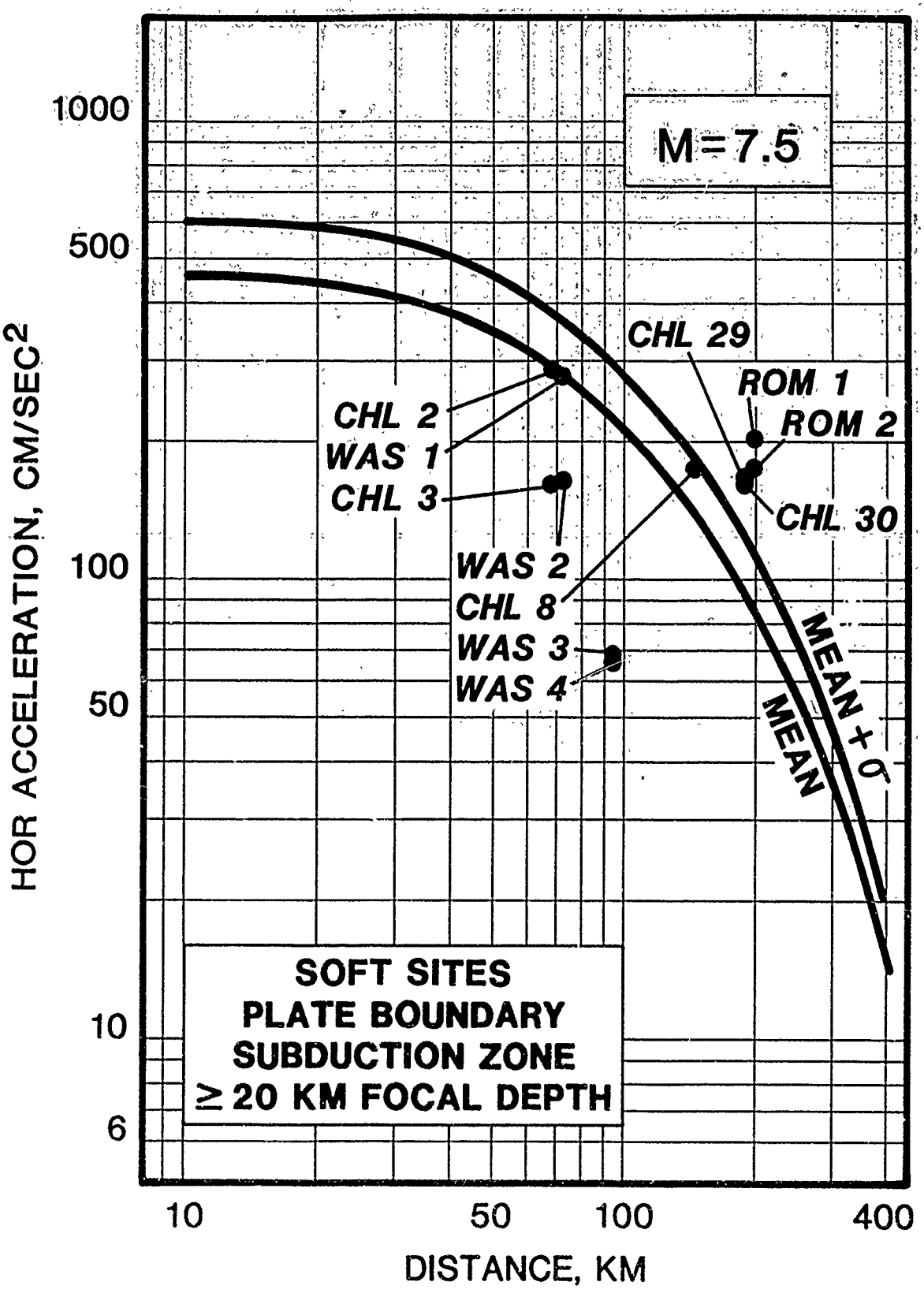


Figure 28e. Accelerograms for acceleration, M = 7.5, and distance from source for deep earthquakes at soft sites. (See Table 28e.)

70. Generic accelerograms for deep event ground motion at soft sites with magnitude and velocity as the parameters follow.

Table 29a

Deep-Soft-Vel-Mag 5.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| [NO DATA] | | | | | | |

Table 29b

Deep-Soft-Vel-Mag 6.0

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 239 | 21.6 | 1.5 | -- | 2.6 | -- | PER 1 |
| 239 | 13.2 | 1.5 | -- | 2.6 | -- | PER 2 |

Table 29c

Deep-Soft-Vel-Mag 6.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 77 | 12.7 | 11.1 | 0.87 | 18.0 | 1.42 | WAS 5 |
| 77 | 8.0 | 11.1 | 1.39 | 18.0 | 2.25 | WAS 6 |
| 142 | 23.2 | 5.8 | 0.25 | 9.2 | 0.40 | CHL 1 |
| 199 | 32.6 | 3.6 | -- | 5.9 | -- | ROM 2 |
| 239 | 21.5 | 2.5 | -- | 3.5 | -- | PER 1 |
| 239 | 13.2 | 2.5 | 0.19 | 3.5 | 0.26 | PER 2 |

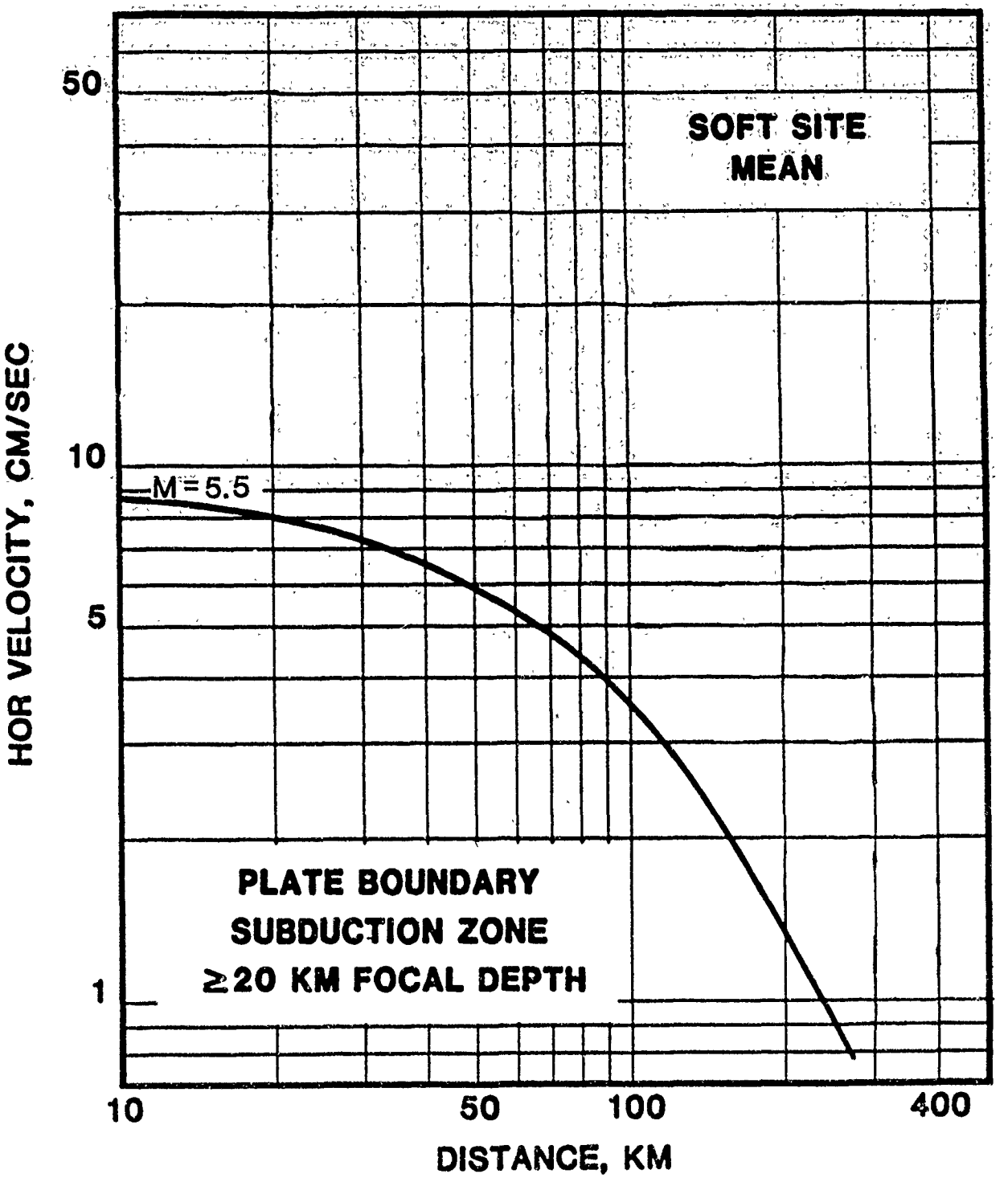


Figure 29a. Accelerograms for velocity, M = 5.5, and distance from source for deep earthquakes at soft sites. (See Table 29a.)

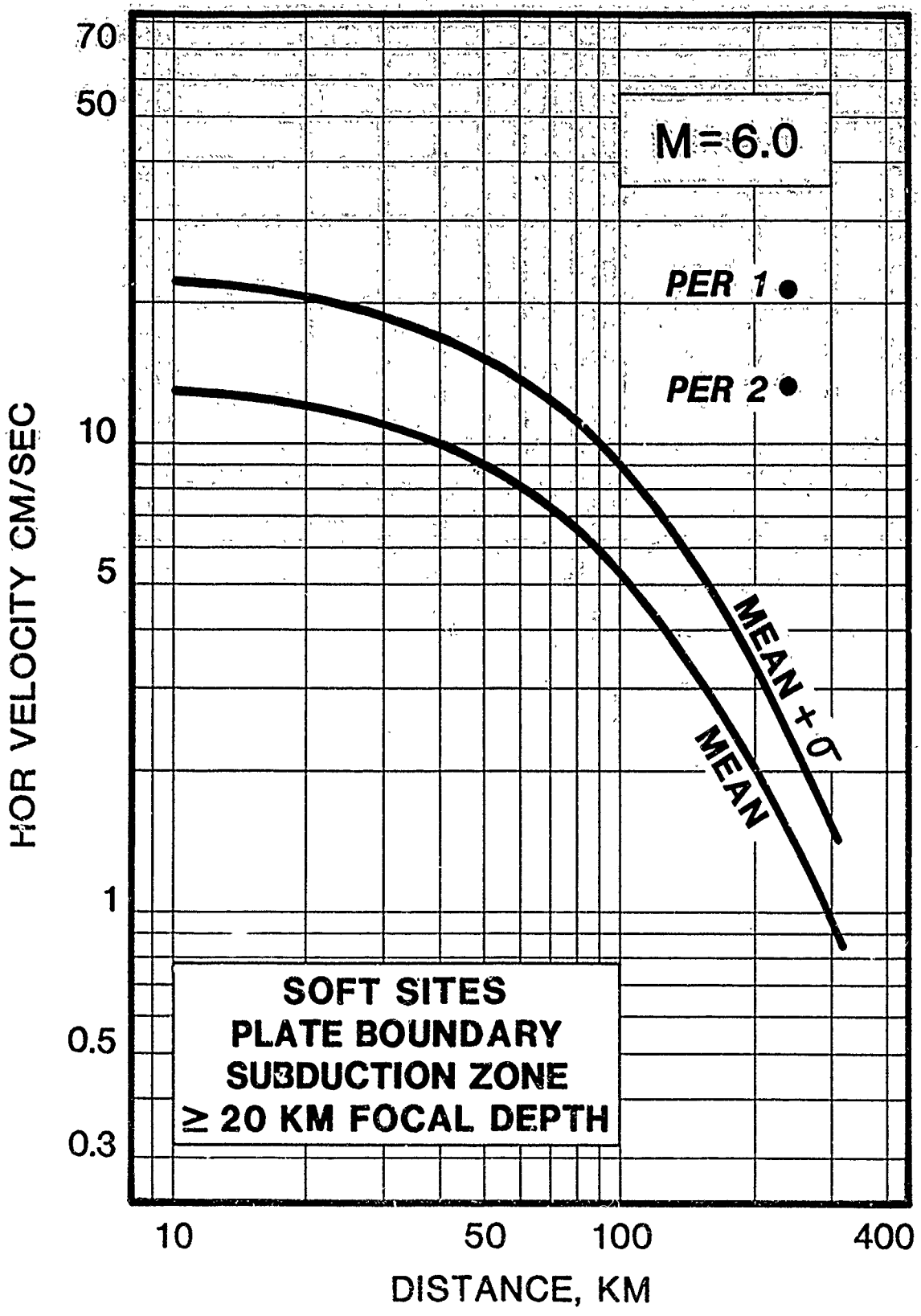


Figure 29b. Accelerograms for velocity, M = 6.0, and distance from source for deep earthquakes at soft sites. (See Table 29b.)

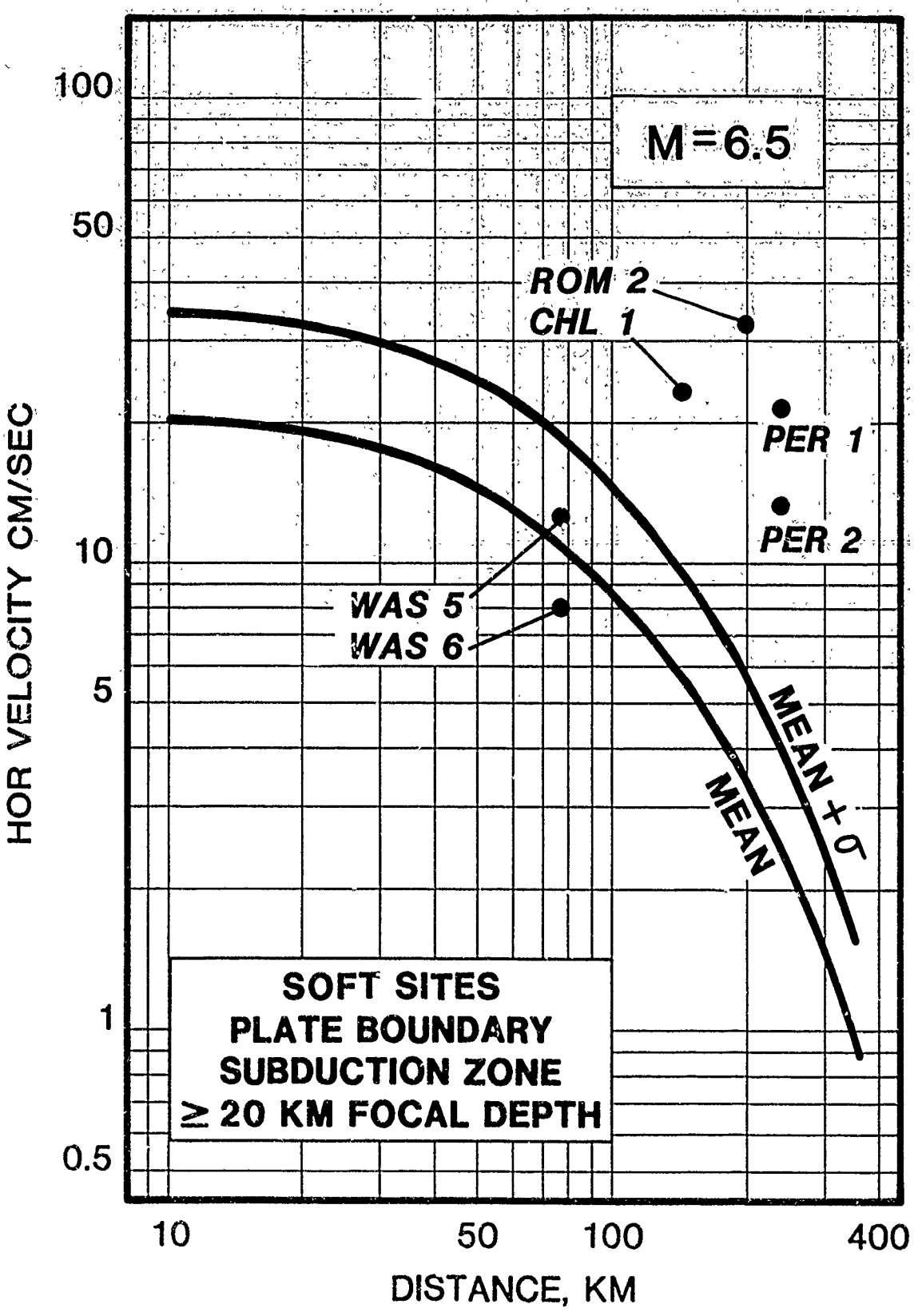


Figure 29c. Accelerograms for velocity, M = 6.5, and distance from source for deep earthquakes at soft sites. (See Table 29c.)

Table 29d

Deep-Soft-Vel-Mag 7.0

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 77 | 12.7 | 17.0 | 1.34 | 29.0 | 2.28 | WAS 5 |
| 77 | 8.0 | 17.0 | 2.12 | 29.0 | 3.62 | WAS 6 |
| 142 | 23.2 | 8.6 | 0.37 | 14.0 | 0.60 | CHL 1 |
| 199 | 32.6 | 5.0 | -- | 7.7 | 0.24 | ROM 2 |

Table 29e

Deep-Soft-Vel-Mag 7.5

| Hypo km | Record Vel | Mean Vel | Scale x | Plus Sigma | Scale X | I.D. No. |
|---|---|---|---|---|---|---|
| 72 | 21.4 | 27.0 | 1.26 | 44.0 | 2.06 | WAS 2 |
| 72 | 17.0 | 27.0 | 1.59 | 44.0 | 2.59 | WAS 1 |
| 94 | 7.9 | 22.0 | 2.78 | 34.0 | 4.30 | WAS 4 |
| 94 | 8.2 | 22.0 | 2.68 | 34.0 | 4.15 | WAS 3 |
| 147 | 17.8 | 12.0 | 0.67 | 20.0 | 1.12 | CHL 23 |
| 147 | 16.2 | 12.0 | 0.74 | 20.0 | 1.23 | CHL 24 |
| 189 | 11.9 | 8.0 | 0.67 | 12.5 | 0.95 | CHL 30 |
| 189 | 8.9 | 8.0 | 0.90 | 12.5 | 1.40 | CHL 29 |
| 199 | 32.6 | 8.0 | 0.25 | 13.5 | 0.41 | ROM 2 |

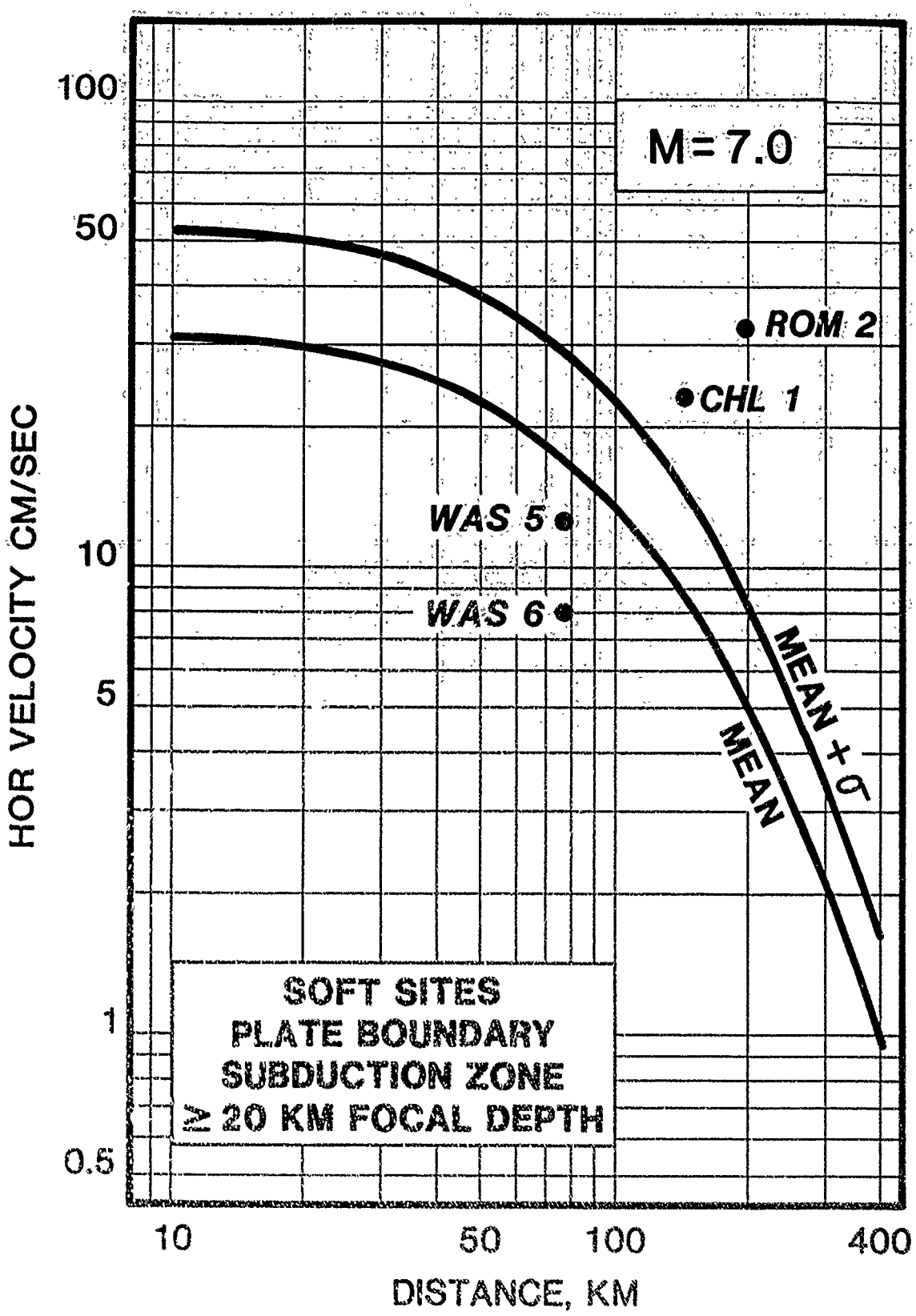


Figure 29d. Accelerograms for velocity, M = 7.0, and distance from source for deep earthquakes at soft sites. (See Table 29d.)

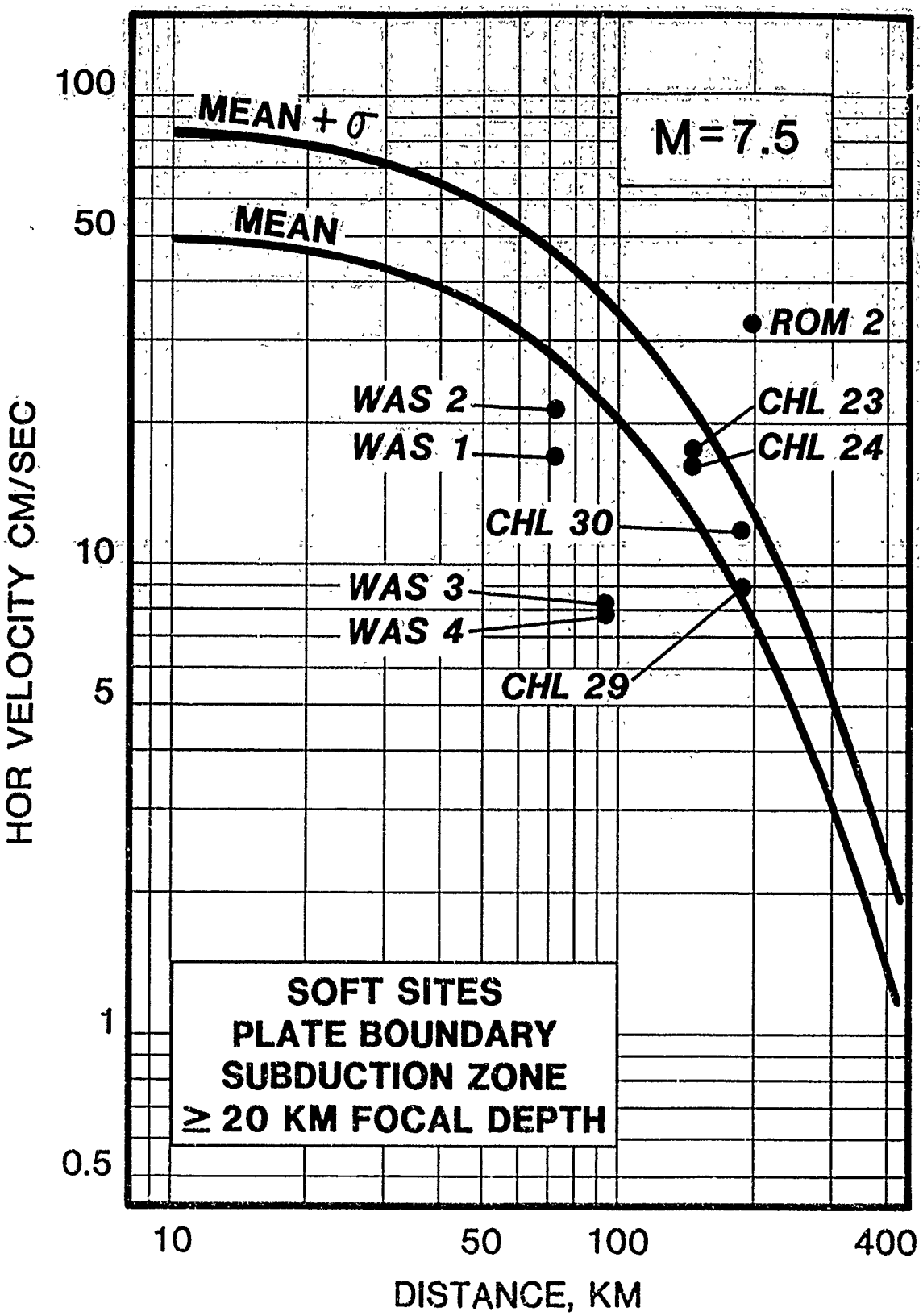


Figure 29e. Accelerograms for velocity, M = 7.5, and distance from source for deep earthquakes at soft sites. (See Table 29e.)

71. Generic accelerograms for deep event ground motion at soft sites with magnitude and duration as the parameters follow.

Table 30a

Deep-Soft-Dur-Mag 5.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| [NO DATA] | | | | | | |

Table 30b

Deep-Soft-Dur-Mag 6.0

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 239 | 16.0 | 4.2 | -11.8 | 7.3 | -8.7 | PER 1 |
| 239 | 12.0 | 4.2 | -7.8 | 7.3 | -4.7 | PER 2 |

Table 30c

Deep-Soft-Dur-Mag 6.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 77 | 14.0 | 5.0 | -9.0 | 8.9 | -5.1 | WAS 5 |
| 77 | 12.4 | 5.0 | -7.4 | 8.9 | -3.5 | WAS 6 |
| 142 | 21.3 | 6.0 | -15.3 | 10.1 | -11.2 | CHL 1 |
| 239 | 16.0 | 7.0 | -9.0 | 12.1 | -3.9 | PER 1 |
| 239 | 12.0 | 7.0 | -5.0 | 12.1 | +0.1 | PER 2 |

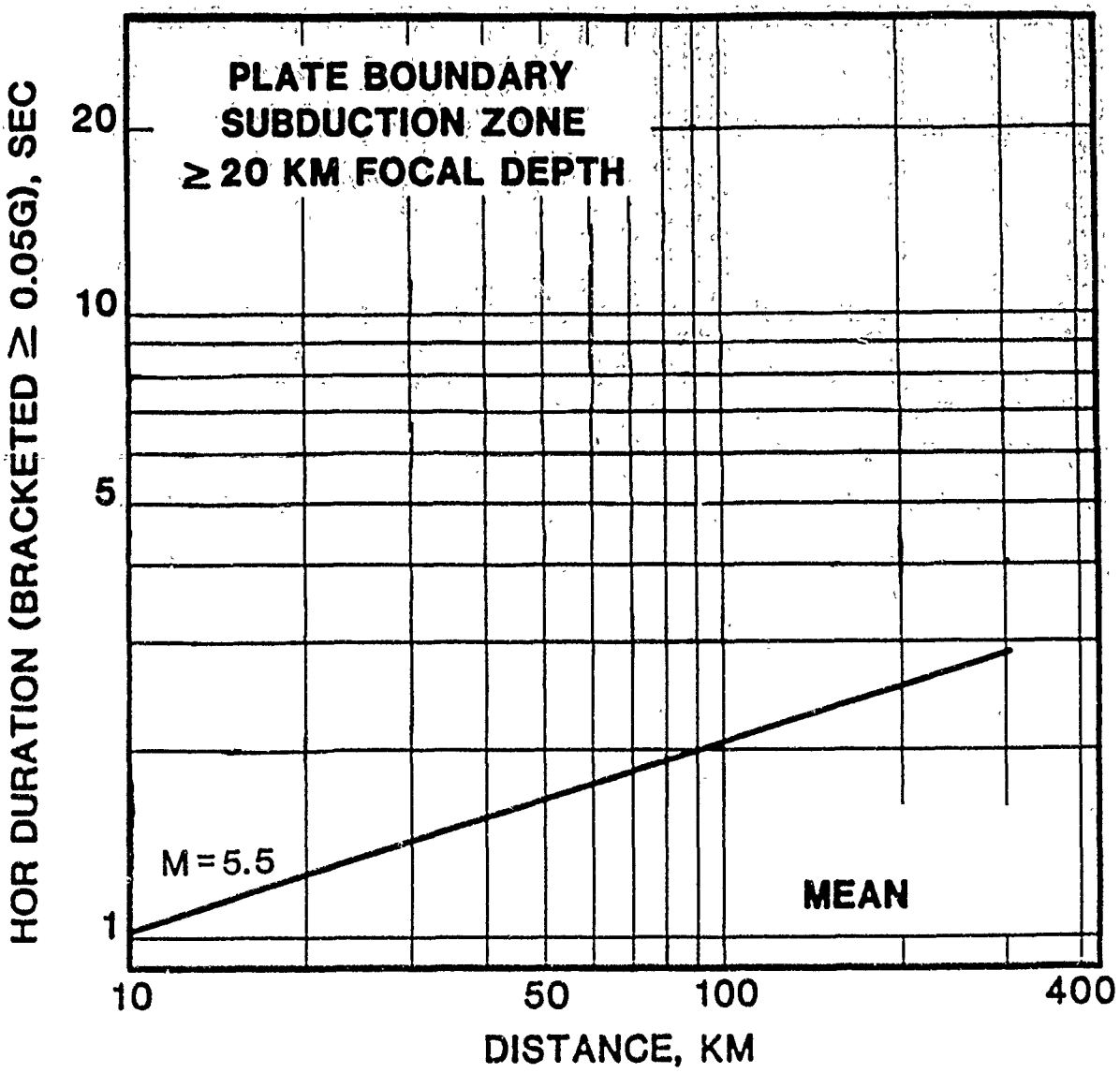


Figure 30a. Accelerograms for duration, M = 5.5, and distance from source for deep earthquakes at soft sites. (See Table 30a.)

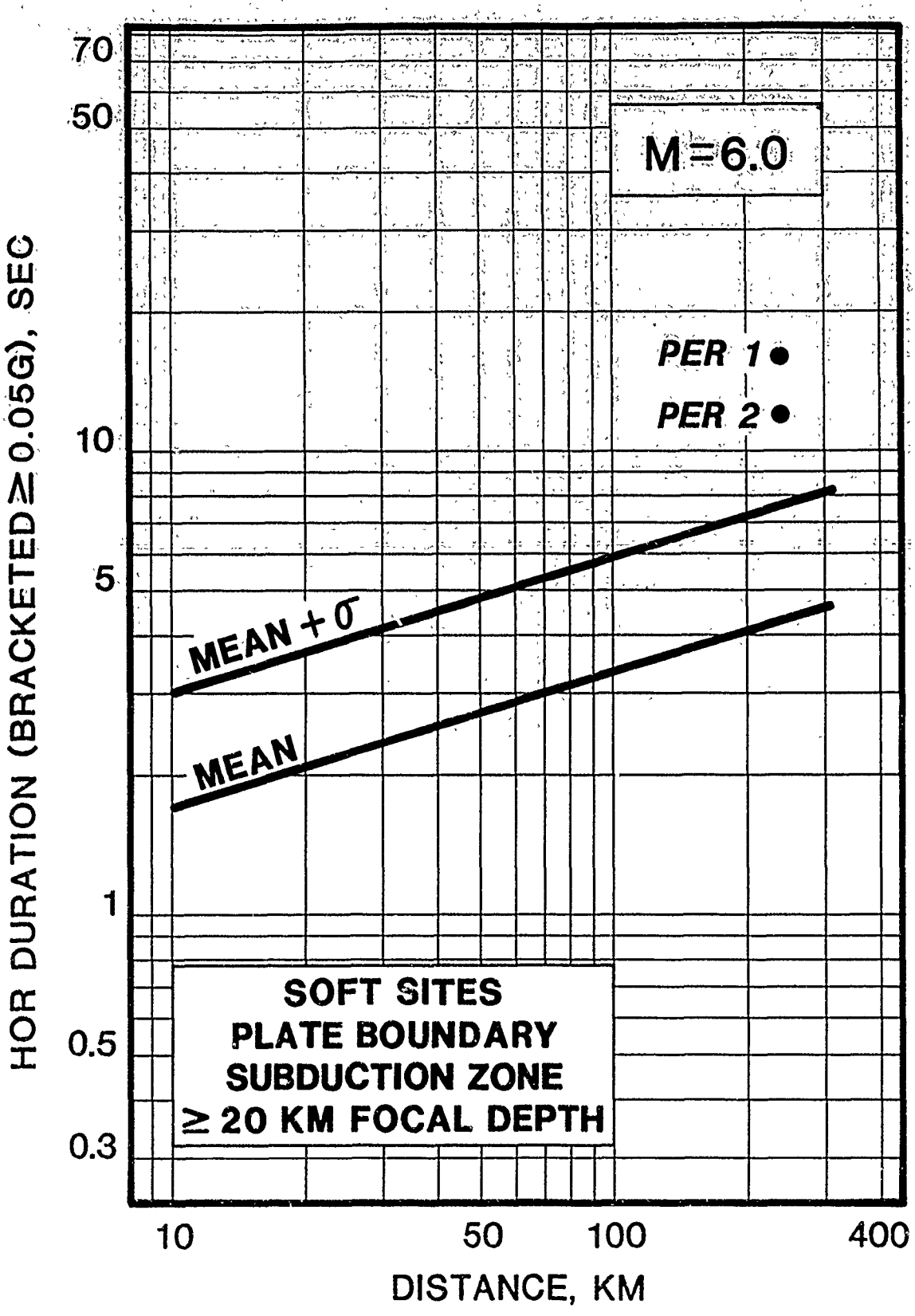


Figure 30b. Accelerograms for duration, M = 6.0, and distance from source for deep earthquakes at soft sites. (See Table 30b.)

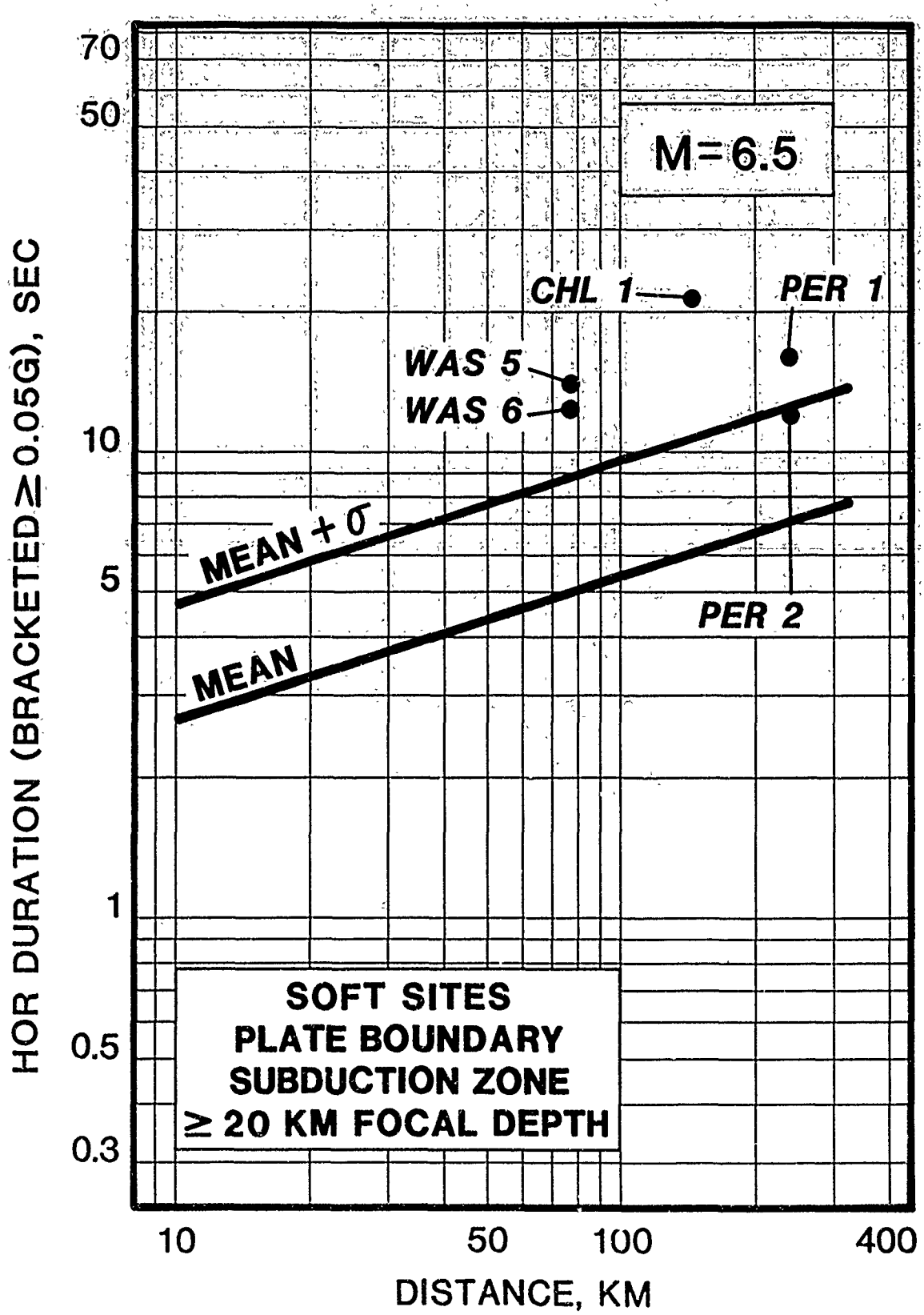


Figure 30c. Accelerograms for duration, M = 6.5, and distance from source for deep earthquakes at soft sites. (See Table 30c.)

Table 30d

Deep-Soft-Dur-Mag 7.0

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 77 | 14.0 | 8.2 | -5.8 | 15.0 | +1.0 | WAS 5 |
| 77 | 12.4 | 8.2 | -4.2 | 15.0 | +2.6 | WAS 6 |
| 142 | 21.3 | 10.0 | -11.3 | 18.2 | -3.1 | CHL 1 |
| 199 | 11.9 | 11.4 | -0.5 | 20.0 | +8.1 | ROM 2 |
| 199 | 9.3 | 11.4 | +2.1 | 20.0 | +10.7 | ROM 1 |

Table 30e

Deep-Soft-Dur-Mag 7.5

| Hypo km | Record Dur | Mean Dur | Scale +, - | Plus Sigma | Scale +, - | I.D. No. |
|---|---|---|---|---|---|---|
| 72 | 22.0 | 13.0 | -9.0 | 24.0 | +2.0 | WAS 2 |
| 72 | 21.5 | 13.0 | -8.5 | 24.0 | +2.5 | WAS 1 |
| 94 | 16.0 | 14.6 | -1.4 | 26.0 | +10.0 | WAS 3 |
| 94 | 13.0 | 14.6 | +1.6 | 26.0 | +13.0 | WAS 4 |
| 189 | 24.5 | 17.0 | -7.5 | 31.0 | +6.5 | CHL 30 |
| 199 | 11.9 | 18.0 | +6.1 | 31.0 | +19.1 | ROM 2 |
| 199 | 9.3 | 18.0 | +8.7 | 31.0 | +21.7 | ROM 1 |

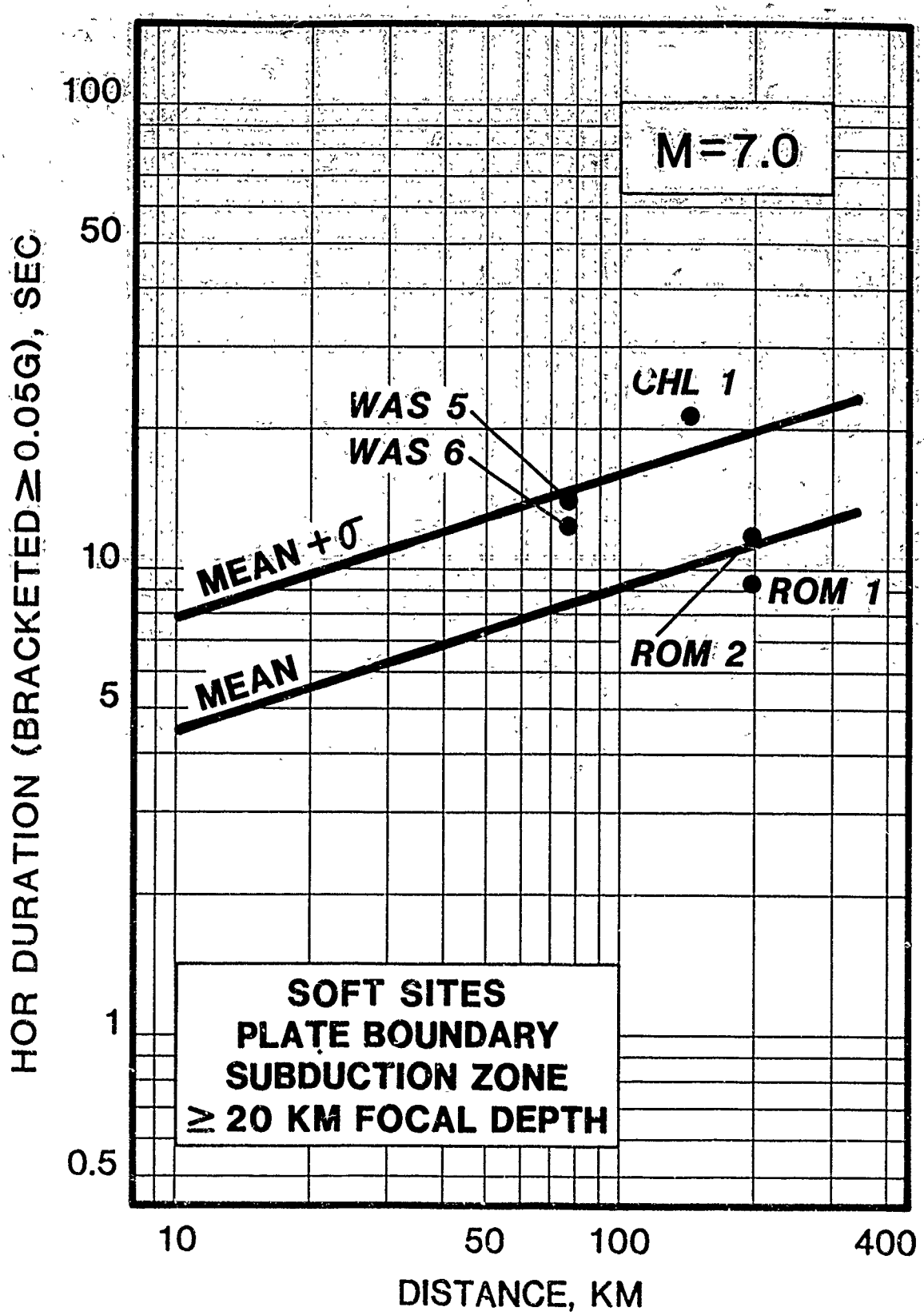


Figure 30d. Accelerograms for duration, M = 7.0, and distance from source for deep earthquakes at soft sites. (See Table 30d.)

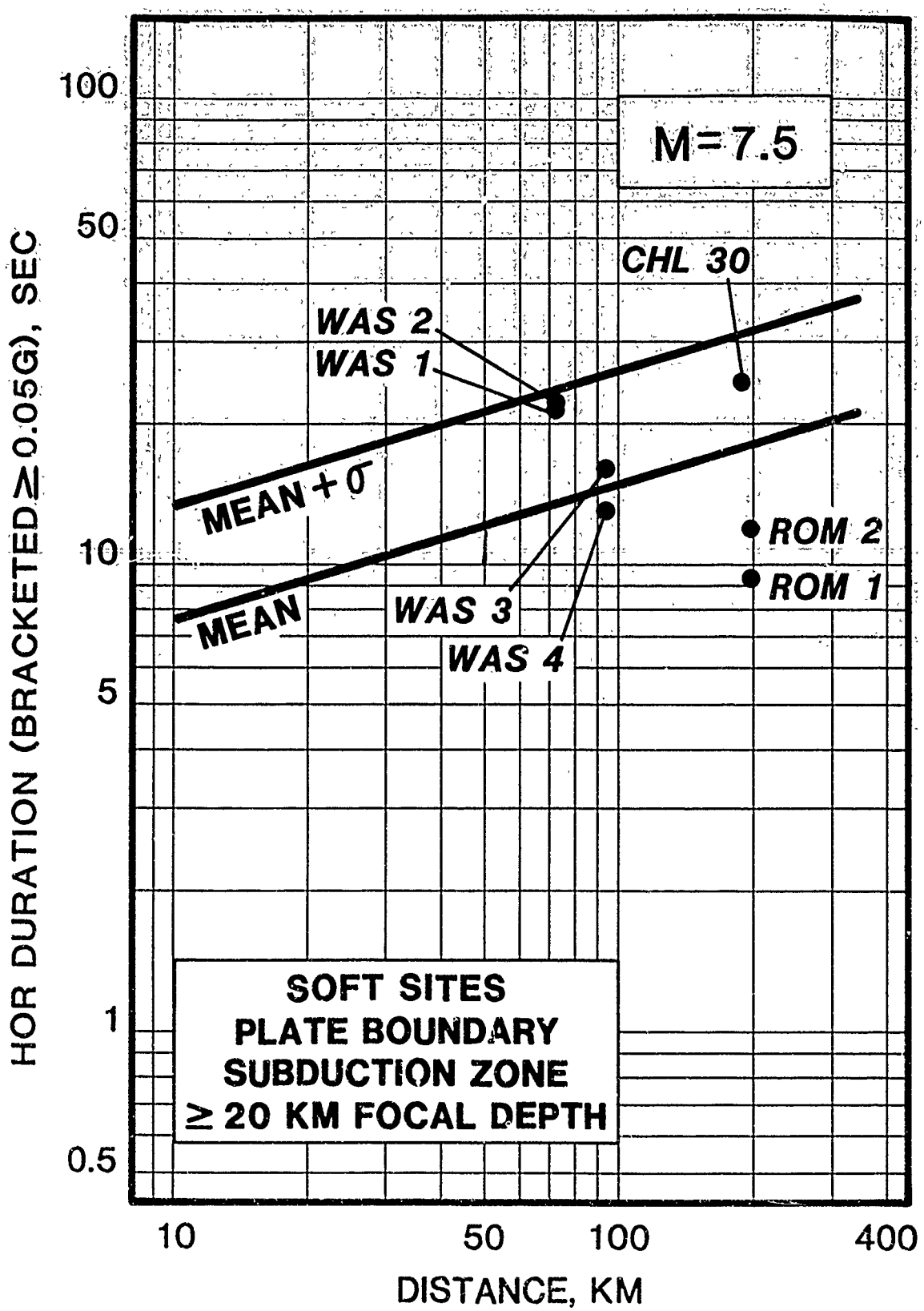


Figure 30e. Accelerograms for duration, M = 7.5, and distance from source for deep earthquakes at soft sites. (See Table 30e.)

## PART XV: CONCLUSIONS AND RECOMMENDATIONS

72. When the original strong motion program was initiated by the US Coast and Geodetic Survey in 1932, its charter--promulgated by the civil engineering profession--was to collect ground motion accelerograms at sites of structures liable to earthquake damage. However, structures are found principally in cities. And cities are mostly built on flatlands. Flatlands generally consist of soft soils. Although a modest record was captured on rock at Helena, Montana in 1935, it was not until 1972 that additional accelerograms of significant amplitude were written on rock. Hence, there is a scarcity of records from rock sites.

73. Since each research center wishes to make its own contribution to earthquake engineering, few laboratories have been willing to follow the excellent models available since 1972 of the standardized format developed by the Earthquake Engineering Research Laboratory at the California Institute of Technology. Fortunately, that format is now in use with only minor modification by the major United States strong motion organizations and a few foreign agencies.

74. Nature itself has also conspired to produce mostly shallow seismic events in the majority of our states, thereby limiting the amount of processed data available from deep focus earthquakes.

75. The obvious conclusion derived from the available United States and worldwide inventory, and application of the data, is that we have almost enough information to provide a credible presentation of generic strong motion accelerograms for shallow focus events recorded on soft sites, and a somewhat weaker presentation for hard sites. For deep focus events the existing database is absolutely inadequate, with our presentation furnishing only a framework upon which to collect additional data.

76. Several agencies are working on such basic requirements as a worldwide list of accelerograph stations. Others are cataloging records. However, it is doubtful that these efforts will result in a working file of United States and other accelerograms, together with their response spectra and such other details necessary for utilization of the records. Our recommendation would be that these efforts be coordinated to improve the standardization and utility of the end product.

77. Clearly, the present report should be used only with caution and confirmation of both the data and our analysis.

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# APPENDIX A: CATALOGUE OF STRONG-MOTION DATA FOR RECOMMENDED ACCELEROGRAMS

A-1. United States Accelerograms, Approximately 200 Gal or Greater or of Exceptional Interest

A-2. World Accelerograms, Approximately 200 Gal or Greater, or of Exceptional Interest

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| AKA | 1 | 710502 | 624 | Andreanof Is. | Adak Navy Bs Seic-Vlt | Hard | 7.1 | 43 | 70 |
| AKA | 2 | 790228 | 2127 | South Alaska | Icy Bay | | 7.7 | 13 | |
| CAL | 1 | 330311 | 154 | Long Beach | Long Beach Util Bldg | Soft | 6.2 | 16 | 27 |
| CAL | 2 | 341230 | 1352 | Laguna Salada,BC | ElCentro ImpVlyIrrDist | Soft | 6.5 | 15 | 60 |
| CAL | 3 | 400519 | 436 | Imperial Valley | ElCentro ImpVlyIrrDist | Soft | 7.1 | 15 | 9 |
| CAL | 4 | 400519 | 436 | Imperial Valley | ElCentro ImpVlyIrrDist | Soft | 7.1 | 15 | — 9 |
| CAL | 5 | 410701 | 750 | Santa Barbara | Santa Barbara Ct House | Soft | 5.9 | 19 | 36 |
| CAL | 6 | 520721 | 1152 | Kern County | Taft Lincoln Sch Tunnl | Soft | 7.7 | 16 | 43 |
| CAL | 7 | 520721 | 1152 | Kern County | Taft Lincoln Sch Tunnl | Soft | 7.7 | 16 | 43 |
| CAL | 8 | 541221 | 1956 | Eureka | Eureka Fedl Bldg | Soft | 6.5 | 16 | 24 |
| CAL | 9 | 541221 | 1956 | Eureka | Eureka Fedl Bldg | Soft | 6.5 | 16 | 24 |
| CAL | 10 | 541221 | 1956 | Eureka | Ferndale City Hall | Soft | 6.5 | 16 | 40 |
| CAL | 11 | 570318 | 1856 | Oxnard | Pt Hueneme Navy Lab | Soft | 4.7 | 14 | 6 |
| CAL | 12 | 610409 | 725 | Hollister | Hollister Pub Library | Soft | 5.6 | 19 | 20 |
| CAL | 13 | 660628 | 426 | Parkfield | Cholame-Shandon 2 | Soft | 5.6 | 9 | 31 |
| CAL | 14 | 660628 | 426 | Parkfield | Cholame-Shandon 5 | Soft | 5.6 | 9 | 32 |
| CAL | 15 | 660628 | 426 | Parkfield | Cholame-Shandon 5 | Soft | 5.6 | 9 | 32 |
| CAL | 16 | 660628 | 426 | Parkfield | Cholame-Shandon 8 | Hard | 5.6 | 9 | 34 |
| CAL | 17 | 660628 | 426 | Parkfield | Cholame-Shandon 8 | Hard | 5 6 | 9 | 34 |
| CAL | 18 | 660628 | 426 | Parkfield | Cholame-Shandon Temb II | Hard | 5.6 | 9 | 31 |
| CAL | 19 | 660628 | 426 | Parkfield | Cholame-Shandon Temb II | Hard | 5.6 | 9 | 31 |
| CAL | 20 | 671210 | 1206 | Off Cp Mendocino | Ferndale City Hall | Soft | 5.6 | 19 | 29 |
| CAL | 21 | 700912 | 1430 | Lytle Creek | Wrightwood | Hard | 5.4 | 8 | 13 |
| CAL | 22* | 710209 | 1401 | San Fernando | Pacoima Dam | Rock | 6 5 | 14 | 9 |
| CAL | 23* | 710209 | 1401 | San Fernando | Pacoima Dam | Rock | 6 5 | 14 | 9 |
| CAL | 24 | 710209 | 1401 | San Fernando | Holiday Inn | Soft | 6 5 | 14 | 22 |

00 gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR. deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Navy Bs Seis-Vlt | Hard | 7.1 | 43 | 70 | | 270 | 183 | 8.0 | 5.3 | 8.1 | 3.7 | IV | IV | 51.40 | 177.20 |
| ıy | | 7.7 | 13 | | | | 157 | | | | 16.5 | VI | VI | 60.62 | 141.51 |
| Beach Util Bldg | Soft | 6.2 | 16 | 27 | 31 | 180 | 193 | 29.3 | 22.7 | 10.0 | 6.2 | IX | VIII | 33.60 | 118.00 |
| tro ImpVlyIrrDist | Soft | 6.5 | 15 | 60 | 62 | 90 | 179 | 11.5 | 3.7 | 18.2 | 12.2 | X | VI | 32.25 | 115.50 |
| tro ImpVlyIrrDist | Soft | 7.1 | 15 | 9 | 17 | 180 | 342 | 33.4 | 10.9 | 29.0 | 24.0 | X | IX | 32.78 | 115.49 |
| tro Imp rDist | Soft | 7.1 | 15 | 9 | 17 | 270 | 210 | 36.9 | 19.8 | 29.0 | 25.0 | X | IX | 32.78 | 115.49 |
| Barbara Ct House | Soft | 5.9 | 19 | 36 | 41 | 45 | 234 | 21.1 | 3.7 | 4.0 | 2.0 | VIII | VIII | 34.30 | 119.60 |
| ıncoln Sch Tunnl | Soft | 7.7 | 16 | 43 | 46 | 111 | 176 | 17.7 | 9.2 | 20.0 | 10.0 | XI | VII | 35.00 | 119.00 |
| ıncoln Sch Tunnl | Soft | 7.7 | 16 | 43 | 46 | 21 | 153 | 15.7 | 6.7 | 20.0 | 11.0 | XI | VII | 35.00 | 119.00 |
| a Fedl Bldg | Soft | 6.5 | 16 | 24 | 29 | 79 | 253 | 29.4 | 14.1 | 6 02 | 4.0 | VII | VII | 40.82 | 124.08 |
| a Fedl Bldg | Soft | 6.5 | 16 | 24 | 29 | 349 | 165 | 31.6 | 12.4 | 3 8 | 3.0 | VII | VII | 40.82 | 124.08 |
| ale City Hall | Soft | 6.5 | 16 | 40 | 43 | 314 | 197 | 26 0 | 9.6 | 18 0 | 1.4 | VII | VII | 40.82 | 124.08 |
| eneme Navy Lab | Soft | 4.7 | 14 | 6 | 15 | 180 | 164 | 17.9 | 4 0 | 0 52 | 0 7 | SEA | VI | 34.12 | 119.22 |
| er Pub Library | Soft | 5.6 | 19 | 20 | 28 | 271 | 169 | 10 8 | 3.0 | 8 0 | 0 1 | VII | VII | 36.59 | 121.71 |
| ne-Shandon 2 | Soft | 5.6 | 9 | 31 | 32 | 65 | 480 | 77 9 | 26 3 | 10.9 | 7 4 | VII | VII | 35.88 | 120.42 |
| me-Shandon 5 | Soft | 5.6 | 9 | 32 | 33 | 85 | 426 | 25.4 | 7.1 | 8.0 | 3.5 | VII | VI | 35.88 | 120.42 |
| me-Shandon 5 | Soft | 5.6 | 9 | 32 | 33 | 355 | 348 | 22 5 | 5 2 | 7 4 | 2 5 | VII | VI | 35.88 | 120 42 |
| ne-Shandon 8 | Hard | 5 6 | 9 | 34 | 35 | 320 | 270 | 11 8 | 3.9 | 8 5 | 2.0 | VII | VI | 35.88 | 120.42 |
| ne-Shandon 8 | Hard | 5.6 | 9 | 34 | 35 | 50 | 233 | 10 8 | 4 4 | 8 0 | 2 6 | VII | VI | 35.88 | 120.42 |
| ne-Shandon Temb II | Hard | 5 6 | 9 | 31 | 32 | 335 | 341 | 22 5 | 5 5 | 3 5 | 1 1 | VII | VII | 35.88 | 120.42 |
| me-Shandon Temb II | Hard | 5 6 | 9 | 31 | 32 | 295 | 264 | 14 5 | 4 7 | 3 2 | 1 6 | VII | VII | 35.88 | 120.42 |
| ale City Hall | Soft | 5 6 | 19 | 29 | 35 | 224 | 232 | 11 9 | 1 6 | 2.0 | 0 2 | VI | VI | 40.58 | 124.53 |
| twood | Hard | 5 4 | 8 | 13 | 15 | 205 | 194 | 9 6 | 1 0 | 2 3 | 1 9 | VI | VI | 34.21 | 117 55 |
| na Dam | Rock | 6 5 | 14 | 9 | 17 | 194 | 1148 | 113 2 | 37 7 | 12 0 | 9 0 | XI | IX | 34.40 | 118.43 |
| na Dam | Rock | 6 5 | 14 | 9 | 17 | 284 | 1055 | 57 7 | 10 8 | 12 5 | 10 4 | XI | IX | 34 40 | 118.43 |
| y Inn | Soft | 6 5 | 14 | 22 | 26 | 360 | 250 | 30 0 | 14 9 | 18 0 | 11 5 | XI | VII | 34.40 | 118.43 |

eds
-14

Sep 11, 1990

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 8.1 | 3.7 | IV | IV | 51.40 | 177.20 | USGS 2701 | | AR240 | 51.88 | 176.58 | yes | USGS OF 76-609 |
| | 16.5 | VI | VI | 60.62 | 141.51 | USGS 2734 | | | 59.97 | 141.64 | no | Gulf Timber Co. |
| 10.0 | 6.2 | IX | VIII | 33.60 | 118.00 | CGS 131 | CIT V315 | CGS | 33.77 | 118.19 | yes | CIT EERL |
| 18.2 | 12.2 | X | VI | 32.25 | 115.50 | CGS 117 | CIT B024 | CGS | 32.79 | 115.55 | yes | CIT EERL |
| 29.0 | 24.0 | X | IX | 32.78 | 115.49 | CGS 117 | CIT A001 | CGS | 32.79 | 115.55 | yes | CIT EERL |
| 29.0 | 25.0 | X | IX | 32.78 | 115.49 | CGS 117 | CIT A001 | CGS | 32.79 | 115.55 | yes | CIT EERL |
| 4.0 | 2.0 | VIII | VIII | 34.30 | 119.60 | CGS 283 | CIT U299 | CGS | 34.42 | 119.70 | yes | CIT EERL |
| 20.0 | 10.0 | XI | VII | 35.00 | 119.00 | CGS 1094 | CIT A004 | CGS | 35.15 | 119.46 | yes | CIT EERL |
| 20.0 | 11.0 | XI | VII | 35.00 | 119.00 | CGS 1094 | CIT A004 | CGS | 35.15 | 119.46 | yes | CIT EERL |
| 6.02 | 4.0 | VII | VII | 40.82 | 124.08 | CGS 1022 | CIT A008 | CGS | 40 80 | 124.16 | yes | CIT EERL |
| 3.8 | 3.0 | VII | VII | 40.82 | 124.08 | CGS 1022 | CIT A008 | CGS | 40.80 | 124.16 | yes | CIT EERL |
| 18.0 | 1.4 | VII | VII | 40.82 | 124.08 | CGS 1023 | CIT A009 | CGS | 40.58 | 124.26 | yes | CIT EERL |
| 0.52 | 0 7 | SEA | VI | 34.12 | 119.22 | CGS 272 | CIT V329 | CGS | 34.10 | 119.20 | yes | CIT EERL |
| 8.0 | 0 1 | VII | VII | 36.59 | 121.71 | CGS 1028 | CIT U309 | CGS | 36.85 | 121.40 | yes | CIT EERL |
| 0.9 | 7 4 | VII | VII | 35.88 | 120.42 | USGS 1013 | CIT B033 | AR240 | 35.73 | 120.29 | yes | CIT EERL |
| 8.0 | 3.5 | VII | VI | 35.88 | 120.42 | USGS 1014 | CIT B034 | AR240 | 35.70 | 120.33 | yes | CIT EERL |
| 7 4 | 2 5 | VII | VI | 35.88 | 120.42 | USGS 1014 | CIT B034 | AR240 | 35 70 | 120.33 | yes | CIT EERL |
| 8 5 | 2.0 | VII | VI | 35.88 | 120.42 | USGS 1015 | CIT B035 | AR240 | 35.67 | 120.36 | yes | CIT EERL |
| 8.0 | 2.6 | VII | VI | 35.88 | 120.42 | USGS 1015 | CIT B035 | AR240 | 35.67 | 120 36 | yes | CIT EERL |
| 3 5 | 1 1 | VII | VII | 35.88 | 120 42 | USGS 1097 | CIT B037 | AR240 | 35.71 | 120.17 | yes | CIT EERL |
| 3 2 | 1 6 | VII | VII | 35.88 | 120 42 | USGS 1097 | CIT B037 | AR240 | 35 71 | 120.17 | yes | CIT EERL |
| 2 0 | 0.2 | VI | VI | 40 58 | 124.53 | USGS 1023 | CIT U312 | CGS | 40.58 | 124.26 | yes | CIT EERL |
| 2 3 | 1 9 | VI | VI | 34.21 | 117.55 | USGS 290 | CIT W334 | RFT250 | 34 36 | 117 63 | yes | CIT EERL |
| 2 0 | 9.0 | XI | IX | 34 40 | 118 43 | USGS 279 | CIT C041 | AR240 | 34 34 | 119 79 | yes | CIT EERL |
| 2 5 | 10 4 | XI | IX | 34.40 | 118.43 | USGS 279 | CIT C041 | AR240 | 34 34 | 119.79 | yes | CIT EERL |
| 8 0 | 11 5 | XI | VII | 34 40 | 118 43 | USGS 241 | CIT C048 | AR240 | 34 22 | 118 47 | yes | CIT EERL |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| CAL | 25* | 710209 | 1401 | San Fernando | Castaic Old Ridge Rte | Rock | 6.5 | 14 | 29 |
| CAL | 26* | 710209 | 1401 | San Fernando | Castaic Old Ridge Rte | Rock | 6.5 | 14 | 29 |
| CAL | 27 | 710209 | 1401 | San Fernando | Hlywd Stor Bldg Pkg Lot | Soft | 6.5 | 14 | 37 |
| CAL | 28* | 710209 | 1401 | San Fernando | Santa Felicia Dam | Rock | 6.5 | 14 | 32 |
| CAL | 29* | 710209 | 1401 | San Fernando | Santa Felicia Dam | Rock | 6.5 | 14 | 32 |
| CAL | 30 | 710209 | 1401 | San Fernando | LA 3407 W 6th St | Soft | 6.5 | 14 | 40 |
| CAL | 31 | 710209 | 1401 | San Fernando | LA 3407 W 6th St | Soft | 6.5 | 14 | 40 |
| CAL | 32 | 710209 | 1401 | San Fernando | Glendale 633 E Bdwy | Soft | 6.5 | 14 | 34 |
| CAL | 33 | 710209 | 1401 | San Fernando | Glendale 633 E Bdwy | Soft | 6.5 | 14 | 34 |
| CAL | 34 | 710209 | 1401 | San Fernando | LA 646 S Olive Ave | Soft | 6.5 | 14 | 43 |
| CAL | 35 | 710209 | 1401 | San Fernando | LA 646 S Olive Ave | Soft | 6.5 | 14 | 43 |
| CAL | 36 | 710209 | 1401 | San Fernando | CIT Millikan Library | Soft | 6.5 | 14 | 40 |
| CAL | 37 | 710209 | 1401 | San Fernando | CIT Millikan Library | Soft | 6.5 | 14 | 40 |
| CAL | 38* | 710209 | 1401 | San Fernando | CIT Seismo Lab | Rock | 6.5 | 14 | 34 |
| CAL | 39 | 710209 | 1401 | San Fernando | Pasadena JPL | Soft | 6.5 | 14 | 31 |
| CAL | 40 | 710209 | 1401 | San Fernando | LA 15250 Ventura Blvd | Soft | 6.5 | 14 | 29 |
| CAL | 41 | 710209 | 1401 | San Fernando | Bev Hls 450 N Roxbury | Soft | 6.5 | 14 | 37 |
| CAL | 42 | 710209 | 1401 | San Fernando | Lake Hughes Array 1 | Soft | 6.5 | 14 | 32 |
| CAL | 43* | 710209 | 1401 | San Fernando | Lake Hughes Array 4 | Rock | 6.5 | 14 | 30 |
| CAL | 44* | 710209 | 1401 | San Fernando | Lake Hughes Array 12 | Rock | 6.5 | 14 | 27 |
| CAL | 45* | 710209 | 1401 | San Fernando | Lake Hughes Array 12 | Rock | 6.5 | 14 | 27 |
| CAL | 46* | 710209 | 1401 | San Fernando | LA Griffith Pk Obs | Rock | 6.5 | 14 | 36 |
| CAL | 47* | 710209 | 1401 | San Fernando | LA Griffith Pk Obs | Rock | 6.5 | 14 | 36 |
| CAL | 48 | 710209 | 1401 | San Fernando | LA 1625 Olympic Blvd | Soft | 6.5 | 14 | 42 |
| CAL | 49 | 710209 | 1401 | San Fernando | LA 4867 Sunset Blvd | Hard | 6.5 | 14 | 36 |
| CAL | 50 | 710209 | 1401 | San Fernando | LA 4867 Sunset Blvd | Hard | 6.5 | 14 | 36 |

gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR. deg | HOR gal | VEL cm/s | DISP cm | DURATION | | INTENSITY | | EPICENTER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | g5% | g10% | EPI | STA | LAT | LONG |
| Old Ridge Rte | Rock | 6.5 | 14 | 29 | 32 | 21 | 309 | 16.5 | 4.2 | 13.8 | 3.9 | XI | VI | 34.40 | 118.43 |
| Old Ridge Rte | Rock | 6.5 | 14 | 29 | 32 | 291 | 265 | 27.2 | 9.3 | 18.5 | 14.0 | XI | VI | 34.40 | 118.43 |
| tor Bldg Pkg Lot | Soft | 6.5 | 14 | 37 | 40 | 90 | 207 | 21.1 | 14.7 | 9.5 | 5.5 | XI | VII | 34.40 | 118.43 |
| licia Dam | Rock | 6.5 | 14 | 32 | 35 | 172 | 213 | 9.9 | 7.0 | 11.5 | 7.0 | XI | VI | 34.40 | 118.43 |
| licia Dam | Rock | 6.5 | 14 | 32 | 35 | 262 | 198 | 6.2 | 4.6 | 6.5 | 2.0 | XI | VI | 34.40 | 118.43 |
| W 6th St | Soft | 6.5 | 14 | 40 | 42 | 90 | 162 | 16.5 | 10.3 | 11.3 | 4.7 | XI | VII | 34.40 | 118.43 |
| W 6th St | Soft | 6.5 | 14 | 40 | 42 | 180 | 158 | 18.3 | 9.0 | 12.7 | 10.0 | XI | VII | 34.40 | 118.43 |
| 633 E Bdwy | Soft | 6.5 | 14 | 34 | 37 | 110 | 266 | 30.7 | 11.1 | 16.0 | 6.0 | XI | VII | 34.40 | 118.43 |
| 633 E Bdwy | Soft | 6.5 | 14 | 34 | 37 | 200 | 209 | 23.5 | 5.3 | 10.2 | 8.0 | XI | VII | 34.40 | 118.43 |
| S Olive Ave | Soft | 6.5 | 14 | 43 | 46 | 127 | 236 | 21.8 | 13.2 | 7.0 | 6.0 | XI | VII | 34.40 | 118.43 |
| S Olive Ave | Soft | 6.5 | 14 | 43 | 45 | 217 | 192 | 18.5 | 13.4 | 7.2 | 4.5 | XI | VII | 34.40 | 118.43 |
| an Library | Soft | 6.5 | 14 | 40 | 42 | 360 | 198 | 9.8 | 2.7 | 10.8 | 5.8 | XI | VII | 34.40 | 118.43 |
| an Library | Soft | 6.5 | 14 | 40 | 42 | 90 | 182 | 16.3 | 6.9 | 11.5 | 2.5 | XI | VII | 34.40 | 118.43 |
| no Lab | Rock | 6.5 | 14 | 34 | 37 | 270 | 189 | 11.6 | 5.0 | 6.6 | 3.2 | XI | VI | 34.40 | 118.43 |
| JPL | Soft | 6.5 | 14 | 31 | 34 | 98 | 208 | 13.4 | 5.0 | 7.6 | 3.0 | XI | VII | 34.40 | 118.43 |
| 0 Ventura Blvd | Soft | 6.5 | 14 | 29 | 34 | 11 | 221 | 28.2 | 13.4 | 16.8 | 11.5 | XI | VII | 34.40 | 118.43 |
| 150 N Roxbury | Soft | 6.5 | 14 | 37 | 40 | 50 | 184 | 17.2 | 9.2 | 8.25 | 5.5 | XI | VI | 34.40 | 118.43 |
| hes Array 1 | Soft | 6.5 | 14 | 32 | 35 | 21 | 146 | 18.0 | 3.4 | 13.5 | 2.0 | XI | VI | 34.40 | 118.43 |
| hes Array 4 | Rock | 6.5 | 14 | 30 | 33 | 111 | 168 | 5.3 | 1.2 | 6.5 | 2.6 | XI | VI | 34.40 | 118.43 |
| hes Array 12 | Rock | 6.5 | 14 | 27 | 30 | 21 | 346 | 14.7 | 1.8 | 13.0 | 4.3 | XI | VI | 34.40 | 118.43 |
| hes Array 12 | Rock | 6.5 | 14 | 27 | 30 | 291 | 278 | 12.4 | 8.9 | 14.00 | 5.0 | XI | VI | 34.40 | 118.43 |
| h Pk Obs | Rock | 6.5 | 14 | 36 | 39 | 180 | 177 | 20.2 | 7.3 | 9.50 | 6.5 | XI | VII | 34.40 | 118.43 |
| h Pk Obs | Rock | 6.5 | 14 | 36 | 39 | 270 | 167 | 14.6 | 5.4 | 10.8 | 6.0 | XI | VII | 34.40 | 118.43 |
| Olympic Blvd | Soft | 6.5 | 14 | 42 | 44 | 298 | 239 | 21.2 | 10.3 | 8.0 | 6.0 | XI | VII | 34.40 | 118.43 |
| Sunset Blvd | Hard | 6.5 | 14 | 36 | 39 | 179 | 156 | 16.2 | 7.9 | 6.0 | 5.5 | XI | VII | 34.40 | 118.43 |
| Sunset Blvd | Hard | 6.5 | 14 | 36 | 39 | 269 | 154 | 23.3 | 8.0 | 10.0 | 7.5 | XI | VII | 34.40 | 118.43 |

eds
1-14

Sep 11, 1990

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 13.8 | 3.9 | XI | VI | 34.40 | 118.43 | USGS 5130 | CIT D056 | AR240 | 34.56 | 118.66 | yes | CIT EERL |
| 18.5 | 14.0 | XI | VI | 34.40 | 118.43 | USGS 5130 | CIT D056 | AR240 | 34.56 | 118.66 | yes | CIT EERL |
| 9.5 | 5.5 | XI | VII | 34.40 | 118.43 | USGS 133 | CIT D058 | CGS | 34.09 | 118.34 | yes | CIT EERL |
| 11.5 | 7.0 | XI | VI | 34.40 | 118.43 | USGS 285 | CIT E081 | AR240 | 34.46 | 118.75 | yes | CIT EERL |
| 6.5 | 2.0 | XI | VI | 34.40 | 118.43 | USGS 285 | CIT E081 | AR240 | 34.46 | 118.75 | yes | CIT EERL |
| 11.3 | 4.7 | XI | VII | 34.40 | 118.43 | USGS 199 | CIT E083 | AR240 | 34.03 | 118.30 | yes | CIT EERL |
| 12.7 | 10.0 | XI | VII | 34.40 | 118.43 | USGS 199 | CIT E083 | AR240 | 34.06 | 118.30 | yes | CIT EERL |
| 15.0 | 6.0 | XI | VII | 34.40 | 118.43 | USGS 122 | CIT F088 | AR240 | 34.15 | 118.25 | yes | CIT EERL |
| 10.2 | 8.0 | XI | VII | 34.40 | 118.43 | USGS 122 | CIT F088 | AR240 | 34.15 | 118.25 | yes | CIT EERL |
| 7.0 | 6.0 | XI | VII | 34.40 | 118.43 | USGS 166 | CIT F088 | AR240 | 34.05 | 118.25 | yes | CIT EERL |
| 7.2 | 4.5 | XI | VII | 34.40 | 118.43 | USGS 166 | CIT F088 | AR240 | 34.05 | 118.25 | yes | CIT EERL |
| 10.8 | 5.8 | XI | VII | 34.40 | 118.43 | USGS 264 | CIT G108 | RFT250 | 34.14 | 118.13 | yes | CIT EERL |
| 11.5 | 2.5 | XI | VII | 34.40 | 118.43 | USGS 264 | CIT G108 | RFT250 | 34.14 | 118.13 | yes | CIT EERL |
| 6.6 | 3.2 | XI | VII | 34.40 | 118.43 | USGS 5178 | CIT G106 | RFT250 | 34.14 | 118.17 | yes | CIT EERL |
| 7.6 | 3.0 | XI | VII | 34.40 | 118.43 | USGS 267 | CIT G110 | RFT250 | 34.20 | 118.17 | yes | CIT EERL |
| 16.8 | 11.5 | XI | VII | 34.40 | 118.43 | USGS 466 | CIT H115 | SMA-1 | 34.25 | 118.46 | yes | CIT EERL |
| 6.25 | 5.5 | XI | VI | 34.40 | 118.43 | USGS 455 | CIT I131 | SMA-1 | 34.08 | 118.39 | yes | CIT EERL |
| 13.5 | 2.0 | XI | VI | 34.40 | 118.43 | USGS 125 | CIT J141 | AR240 | 34.68 | 118.44 | yes | CIT EERL |
| 6.5 | 2.6 | XI | VI | 34.40 | 118.43 | USGS 126 | CIT J142 | RFT250 | 34.64 | 118.48 | yes | CIT EERL |
| 13.0 | 4.3 | XI | VI | 34.40 | 118.43 | USGS 128 | CIT J144 | AR240 | 34.57 | 118.56 | yes | CIT EERL |
| 14.00 | 5.0 | XI | VI | 34.40 | 118.43 | USGS 128 | CIT J144 | AR240 | 34.57 | 118.56 | yes | CIT EERL |
| 9.50 | 6.5 | XI | VII | 34.40 | 118.43 | USGS 141 | CIT O198 | RFT250 | 34.12 | 118.30 | yes | CIT EERL |
| 10.8 | 6.0 | XI | VII | 34.40 | 118.43 | USGS 141 | CIT O198 | RFT250 | 34.12 | 118.30 | yes | CIT EERL |
| 8.0 | 6.0 | XI | VII | 34.40 | 118.43 | USGS 469 | CIT O199 | SMA1 | 34.05 | 118.27 | yes | CIT EERL |
| 6.0 | 5.5 | XI | VII | 34.40 | 118.43 | USGS 226 | CIT P214 | AR240 | 34.10 | 118.29 | yes | CIT EERL |
| 10.0 | 7.5 | XI | VII | 34.40 | 118.43 | USGS 226 | CIT P214 | AR240 | 34.10 | 118.29 | yes | CIT EERL |

(3)

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| CAL | 51* | 710209 | 1401 | San Fernando | Arcadia Sta Anita Res | Rock | 6.5 | 14 | 43 |
| CAL | 52 | 710209 | 1401 | San Fernando | LA 14724 Ventura Blvd | Soft | 6.5 | 14 | 29 |
| CAL | 53 | 710209 | 1401 | San Fernando | LA 14724 Ventura Blvd | Soft | 6.5 | 14 | 29 |
| CAL | 54 | 710209 | 1401 | San Fernando | Hlwd 1760 N Orchid | Soft | 6.5 | 14 | 35 |
| CAL | 55 | 710209 | 1401 | San Fernando | Bev Hls 9100 Wilshire | Soft | 6.5 | 14 | 38 |
| CAL | 56 | 710209 | 1401 | San Fernando | LA 6430 Sunset Blvd | Soft | 6.5 | 14 | 35 |
| CAL | 57 | 710209 | 1401 | San Fernando | LA 6430 Sunset Blvd | Soft | 6.5 | 14 | 35 |
| CAL | 58 | 710209 | 1401 | San Fernando | LA 234 S Figueroa St | Hard | 6.5 | 14 | 41 |
| CAL | 59 | 710209 | 1401 | San Fernando | LA 234 S Figueroa St | Hard | 6.5 | 14 | 41 |
| CAL | 60 | 710209 | 1401 | San Fernando | LA 535 S Fremont | Soft | 6.5 | 14 | 42 |
| CAL | 61 | 710209 | 1401 | San Fernando | LA 535 S Fremont | Soft | 6.5 | 14 | 42 |
| CAL | 62 | 710209 | 1401 | San Fernando | LA 3550 Wilshire Blvd | Soft | 6.5 | 14 | 40 |
| CAL | 63* | 720904 | 1804 | Bear Valley | Stone Canyon Observatory | Rock | 4.7 | 8 | 20 |
| CAL | 64* | 720904 | 1804 | Bear Valley | Stone Canyon Observatory | Rock | 4.7 | 8 | 20 |
| CAL | 65 | 720904 | 1804 | Bear Valley | Melendy Ranch | Hard | 4.7 | 8 | 17 |
| CAL | 66 | 720904 | 1804 | Bear Valley | Melendy Ranch | Hard | 4.7 | 8 | 17 |
| CAL | 67 | 750112 | 137 | No. Calif. Coast | Petrolia Gen. Store | Soft | 4.4 | 5 | 12 |
| CAL | 68 | 750607 | 846 | Cape Mendocino | Ferndale City Hall | Soft | 5.3 | 19 | 5 |
| CAL | 69 | 750607 | 846 | Cape Mendocino | Ferndale City Hall | Soft | 5.3 | 19 | 5 |
| CAL | 70 | 750607 | 846 | Cape Mendocino | Cape Mendocino/Petrolia | Hard | 5.3 | 19 | 22 |
| CAL | 71 | 750803 | 103 | Oroville | Oroville Dept Wtr Resvr | Hard | 4.6 | 9 | 16 |
| CAL | 72 | 750806 | 350 | Oroville | Oroville Johnson Ranch | Hard | 4.7 | 9 | 17 |
| CAL | 73 | 750806 | 350 | Oroville | Oroville Johnson Ranch | Hard | 4.7 | 9 | 17 |
| CAL | 74 | 750806 | 350 | Oroville | Oroville Medical Ctr | Soft | 4.7 | 9 | 15 |
| CAL | 75 | 750913 | 2120 | Central Calif. | Vineyard Canyon | Soft | 4.9 | 13 | 9 |
| CAL | 76 | 750913 | 2120 | Central Calif. | Vineyard Canyon | Soft | 4.9 | 13 | 9 |

gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sta Anita Res | Rock | 6.5 | 14 | 43 | 45 | 273 | 166 | 6.6 | 5.9 | 8.5 | 4.0 | XI | VI | 34.40 | 118.43 |
| 24 Ventura Blvd | Soft | 6.5 | 14 | 29 | 32 | 348 | 243 | 31.6 | 18.3 | 17.50 | 10.0 | XI | VII | 34.40 | 118.43 |
| 24 Ventura Blvd | Soft | 6.5 | 14 | 29 | 32 | 282 | 197 | 17.6 | 9.5 | 23.0 | 8.0 | XI | VII | 34.40 | 118.43 |
| 760 N Orchid | Soft | 6.5 | 14 | 35 | 38 | 90 | 167 | 13.5 | 6.1 | 9.2 | 4.0 | XI | VII | 34.40 | 118.43 |
| 9100 Wilshire | Soft | 6.5 | 14 | 38 | 40 | 90 | 162 | 19.0 | 11.6 | 12.9 | 5.8 | XI | VII | 34.40 | 118.43 |
| ) Sunset Blvd | Soft | 6.5 | 14 | 35 | 38 | 180 | 184 | 19.7 | 7.7 | 9.6 | 5.0 | XI | VII | 34.40 | 118.43 |
| ) Sunset Blvd | Soft | 6.5 | 14 | 35 | 38 | 90 | 174 | 18.2 | 10.2 | 10.5 | 4.6 | XI | VII | 34.40 | 118.43 |
| S Figueroa St | Hard | 6.5 | 14 | 41 | 43 | 37 | 196 | 16.8 | 8.3 | 9.3 | 5.8 | XI | VII | 34.40 | 118.43 |
| S Figueroa St | Hard | 6.5 | 14 | 41 | 43 | 127 | 188 | 18.8 | 9.5 | 10.8 | 3.0 | XI | VII | 34.40 | 118.43 |
| S Fremont | Soft | 6.5 | 14 | 42 | 44 | 330 | 242 | 19.3 | 11.5 | 8.0 | 6.8 | XI | VII | 34.40 | 118.43 |
| S Fremont | Soft | 6.5 | 14 | 42 | 44 | 240 | 221 | 18.0 | 12.5 | 11.8 | 5.5 | XI | VII | 34.40 | 118.43 |
| ) Wilshire Blvd | Soft | 6.5 | 14 | 40 | 42 | 360 | 154 | 17.3 | 8.0 | 14.5 | 5.0 | XI | VII | 34.06 | 118.30 |
| anyon Observatory | Rock | 4.7 | 8 | 20 | 22 | 177 | 209 | 7.44 | 1.10 | 4.2 | 1.2 | VI | VI | 36.54 | 121.41 |
| anyon Observatory | Rock | 4.7 | 8 | 20 | 22 | 87 | 156 | 5.81 | 1.05 | 3.0 | 2.0 | VI | VI | 36.54 | 121.41 |
| Ranch | Hard | 4.7 | 8 | 17 | 19 | 331 | 506 | 13 72 | 2.68 | 4.4 | 2.4 | VI | VI | 36.54 | 121.41 |
| Ranch | Hard | 4.7 | 8 | 17 | 19 | 61 | 471 | 17.33 | 0.86 | 5.5 | 1.3 | VI | VI | 36.54 | 121.41 |
| Gen. Store | Soft | 4.4 | 5 | 12 | 13 | 75 | 180 | 5.9 | 0.24 | 1.0 | 0.1 | VI | VI | 40.22 | 124.26 |
| City Hall | Soft | 5.3 | 19 | 5 | 20 | 314 | 199 | 11.5 | 1.19 | 3.3 | 1.4 | VII | VII | 40.59 | 124.18 |
| City Hall | Soft | 5.3 | 19 | 5 | 20 | 224 | 175 | 11.2 | 3.18 | 5 8 | 1 8 | VII | VII | 40.59 | 124.18 |
| ndocino/Petrolia | Hard | 5.3 | 19 | 22 | 29 | 120 | 199 | 5.91 | 0.56 | 2.6 | 1.0 | VII | VI | 40.59 | 124.18 |
| Dept Wtr Resvr | Hard | 4.6 | 9 | 16 | 18 | | 191 | | | | | VI | VI | 39 45 | 121.66 |
| Johnson Ranch | Hard | 4 7 | 9 | 17 | 19 | | 680 | | | | | V | V | 39 46 | 121.70 |
| Johnson Ranch | Hard | 4.7 | 9 | 17 | 19 | | 332 | | | | | V | V | 39.46 | 121.70 |
| Medical Ctr | Soft | 4.7 | 9 | 15 | 17 | | 314 | | | | | V | V | 39.46 | 121.70 |
| 1 Canyon | Soft | 4.9 | 13 | 9 | 16 | | 284 | | | | 1 7 | VI | V | 36.00 | 120.56 |
| 1 Canyon | Soft | 4.9 | 13 | 9 | 16 | | 206 | | | | 1.2 | VI | V | 36.00 | 120.56 |

eds
1-14

Sep 11, 1990

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 8.5 | 4.0 | XI | VI | 34.40 | 118.43 | USGS 104 | CIT P221 | AR240 | 34.19 | 118.02 | yes | CIT EERL |
| 17.50 | 10.0 | XI | VII | 34.40 | 118.43 | USGS 253 | CIT Q233 | MO2 | 34.15 | 118.46 | yes | CIT EERL |
| 23.0 | 8.0 | XI | VII | 34.40 | 118.43 | USGS 253 | CIT Q233 | MO2 | 34.15 | 118.46 | yes | CIT EERL |
| 9.2 | 4.0 | XI | VII | 34.40 | 118.43 | USGS 446 | CIT Q236 | MO2 | 34.10 | 118.34 | yes | CIT EERL |
| 12.9 | 5.8 | XI | VII | 34.40 | 118.43 | USGS 416 | CIT Q239 | MO2 | 34.07 | 118.39 | yes | CIT EERL |
| 9.6 | 5.0 | XI | VII | 34.40 | 118.43 | USGS 232 | CIT R248 | MO2 | 34.10 | 118.33 | yes | CIT EERL |
| 10.5 | 4.6 | XI | VII | 34.40 | 118.43 | USGS 232 | CIT R248 | MO2 | 34.10 | 118.33 | yes | CIT EERL |
| 9.3 | 5.8 | XI | VII | 34.40 | 118.43 | USGS 148 | CIT R251 | MO2 | 34.06 | 118.25 | yes | CIT EERL |
| 10.8 | 3.0 | XI | VII | 34.40 | 118.43 | USGS 148 | CIT R251 | MO2 | 34.06 | 118.25 | yes | CIT EERL |
| 8.0 | 6.8 | XI | VII | 34.40 | 118.43 | USGS 160 | CIT R253 | MO2 | 34.05 | 118.26 | yes | CIT EERL |
| 11.8 | 5.5 | XI | VII | 34.40 | 118.43 | USGS 160 | CIT R253 | MO2 | 34.05 | 118.26 | yes | CIT EERL |
| 14.5 | 5.0 | XI | VII | 34.06 | 118.30 | USGS 211 | CIT S266 | MO2 | 34.06 | 118.30 | yes | CIT EERL |
| 4.2 | 1.2 | VI | VI | 36.54 | 121.41 | USGS 1202 | | SMA-1 | 36.64 | 121.24 | yes | USGS OF 78-941 |
| 3.0 | 2.0 | VI | VI | 36.54 | 121.41 | USGS 1202 | | SMA-1 | 36.64 | 121.24 | yes | USGS OF 78-941 |
| 4.4 | 2.4 | VI | VI | 36.54 | 121.41 | USGS 1211 | | RFT250 | 36.59 | 121.19 | yes | USGS OF 78-941 |
| 5.5 | 1.3 | VI | VI | 36.54 | 121.41 | USGS 1211 | | RFT250 | 36.59 | 121.19 | yes | USGS OF 78-941 |
| 1.0 | 0.1 | VI | VI | 40.22 | 124.26 | USGS 1398 | | | 40.32 | 124.29 | yes | USGS OF 79-929 |
| 3.3 | 1.4 | VII | VII | 40.59 | 124.18 | USGS 1023 | 8 | CGS | 40.58 | 124.16 | yes | USGS OF 79-929 |
| 5.8 | 1.8 | VII | VII | 40.59 | 124.18 | USGS 1023 | 8 | CGS | 40.58 | 124.16 | yes | USGS OF 79-929 |
| 2.6 | 1.0 | VII | VI | 40.59 | 124.18 | USGS 1249 | 9 | SMA-1 | 40.35 | 124.16 | yes | USGS OF 79-929 |
| | | VI | VI | 39.45 | 121.66 | USGS 1543 | A12 | SMA-2 | 39.51 | 121.50 | no | |
| | | V | V | 39.46 | 121.70 | USGS 1493 | F05 | | 39.42 | 131.52 | no | |
| | | V | V | 39.46 | 121.70 | USGS 1493 | F05 | | 39.42 | 131.52 | no | |
| | | V | V | 39.46 | 121.70 | USGS 1544 | F10 | SMA-2 | 39.51 | 131.54 | no | |
| | 1.7 | VI | V | 36.00 | 120.56 | USGS 1405 | | | 35 92 | 120 53 | no | USGS Circ 749-C |
| | 1.2 | VI | V | 36.00 | 120.56 | USGS 1405 | | | 35.92 | 120.53 | no | USGS Circ 749-C |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| CAL | 77 | 750927 | 2234 | Oroville | Oroville Johnson Ranch | Hard | 4.6 | 12 | 17 |
| CAL | 78 | 750927 | 2234 | Oroville | Oroville Johnson Ranch | Hard | 4.6 | 12 | 17 |
| CAL | 79 | 771114 | 11 | Imp. Vly Swarm | ElCentro Array #6 | Soft | 3.9 | 5 | |
| CAL | 80 | 771114 | 11 | Imp. Vly Swarm | ElCentro Array #6 | Soft | 3.9 | 5 | |
| CAL | 81 | 771114 | 205 | Imp. Vly Swarm | ElCentro Array #6 | Soft | 5.0 | 5 | |
| CAL | 82 | 771114 | 205 | Imp. Vly Swarm | ElCentro Array #6 | Soft | 5.0 | 5 | — |
| CAL | 83 | 771114 | 530 | Imp. Vly Swarm | ElCentro Array #6 | Soft | 3.3 | 7 | |
| CAL | 84 | 771114 | 530 | Imp. Vly Swarm | ElCentro Array #6 | Soft | 3.3 | 7 | |
| CAL | 85 | 771114 | 536 | Imp. Vly Swarm | ElCentro Array #8 | Soft | 4.1 | 5 | |
| CAL | 86 | 780326 | 27 | No. Calif. | Coyote Dam, toe | Hard | 4.9 | 9 | |
| CAL | 87 | 780326 | 27 | No. Calif. | Coyote Dam, toe | Hard | 4.9 | 9 | |
| CAL | 88 | 780326 | 27 | No. Calif. | Coyote Dam, abutment | Hard | 4.9 | 9 | |
| CAL | 89 | 780813 | 2254 | Santa Barbara | Goleta UCSB North Hall | Hard | 5.1 | 12 | 13 |
| CAL | 90 | 780813 | 2254 | Santa Barbara | Goleta UCSB North Hall | Hard | 5.1 | 12 | 13 |
| CAL | 91 | 780813 | 2254 | Santa Barbara | Sta Barb Frenas Bldg | Soft | 5.1 | 12 | 6 |
| CAL | 92 | 780813 | 2254 | Santa Barbara | Goleta UCSB Freefield | Hard | 5.1 | 12 | 14 |
| CAL | 93 | 780813 | 2254 | Santa Barbara | Goleta UCSB Freefield | Hard | 5.1 | 12 | 14 |
| CAL | 94 | 780813 | 2254 | Santa Barbara | Goleta SCE Substation | Hard | 5.1 | 12 | 18 |
| CAL | 95 | 780813 | 2254 | Santa Barbara | Goleta SCE Substation | Hard | 5.1 | 12 | 18 |
| CAL | 96 | 780813 | 2254 | Santa Barbara | Santa Barbara Ct House | Soft | 5.1 | 12 | 6 |
| CAL | 97 | 781004 | 1642 | Bishop | Long Vly Dam, lt abut | Hard | 5 7 | 9 | 8 |
| CAL | 98 | 781004 | 1642 | Bishop | Long Vly Dam, lt abut | Hard | 5.7 | 9 | 8 |
| CAL | 99 | 790806 | 1705 | Coyote Lake | San Martin/Coyote Crk | Hard | 5.9 | 10 | 2 |
| CAL | 100 | 790806 | 1705 | Coyote Lake | Gilroy Array 6 | Hard | 5 9 | 10 | 10 |
| CAL | 101 | 790806 | 1705 | Coyote Lake | Gilroy Array 6 | Hard | 5.9 | 10 | 10 |
| CAL | 102 | 790806 | 1705 | Coyote Lake | Gilroy Array 4 | Soft | 5.9 | 10 | 12 |

(2)

0 gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR. deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| e Johnson Ranch | Hard | 4.6 | 12 | 17 | 21 | | 497 | | | | | V | V | 39.52 | 12 .67 |
| e Johnson Ranch | Hard | 4.6 | 12 | 17 | 21 | | 221 | | | | | V | V | 39.52 | 121.67 |
| ro Array #6 | Soft | 3.9 | 5 | | | | 490 | | | | | III | III | 32.83 | 115.47 |
| ro Array #6 | Soft | 3.9 | 5 | | | | 441 | | | | | III | III | 32.83 | 115.47 |
| ro Array #6 | Soft | 5.0 | 5 | | | | 372 | | | | 1.3 | VI | VI | 32.82 | 115.47 |
| ro Array #6 | Soft | 5.0 | 5 | | | | 402 | | | | 1.2 | VI | VI | 32.82 | 115.47 |
| ro Array #6 | Soft | 3.3 | 7 | | | | 245 | | | | 0.1 | III | III | 32.83 | 115.47 |
| ro Array #6 | Soft | 3.3 | 7 | | | | 225 | | | | 0.1 | III | III | 32.83 | 115.47 |
| ro Array #8 | Soft | 4.1 | 5 | | | | 225 | | | | 0.10 | IV | IV | 32.83 | 115.47 |
| Dam, toe | Hard | 4.9 | 9 | | | | 333 | | | | 1.1 | VI | | 39.21 | 123.17 |
| Dam, toe | Hard | 4.9 | 9 | | | | 216 | | | | 1.2 | VI | | 39.21 | 123.17 |
| Dam, abutment | Hard | 4.9 | 9 | | | | 196 | | | | 0.8 | VI | | 39.21 | 123.17 |
| UCSB North Hall | Hard | 5.1 | 12 | 13 | 18 | 1 | 396 | 34.4 | 5.59 | 10.7 | 5.3 | VII | VII | 34.37 | 119 72 |
| UCSB Nort.1 Hall | Hard | 5.1 | 12 | 13 | 18 | 3 | 269 | 21.3 | 2.59 | 9.3 | 2.8 | VII | VII | 34.37 | 119.72 |
| b Freitas Bldg | Soft | 5 1 | 12 | 6 | 13 | 3 | 230 | 19.9 | 2.58 | 5 9 | 4.2 | VII | VII | 34.37 | 119.72 |
| UCSB Freefield | Hard | 5.1 | 12 | 14 | 18 | 180 | 340 | 39.64 | 7.34 | 11.7 | 5.1 | VII | VII | 34.37 | 119.72 |
| UCSB Freefield | Hard | 5.1 | 12 | 14 | 18 | 90 | 18[illegible] | 26.1 | 4 25 | 10.2 | 6.6 | VII | VII | 34.37 | 119.72 |
| SCE Substation | Hard | 5.1 | 12 | 18 | 22 | 360 | 280 | 20.9 | 2.2 | 4.9 | 1.8 | VII | VII | 34.37 | 119.72 |
| SCE Substation | Hard | 5.1 | 12 | 18 | 22 | 90 | 234 | 8.2 | 0.7 | 3.6 | 2.2 | VII | VII | 34.37 | 119.72 |
| Barbara Ct House | Soft | 5.1 | 12 | 6 | 13 | | 200 | 15.7 | 2.43 | 6.6 | 1.3 | VII | VII | 34.37 | 119.72 |
| ly Dam, lt abut | Hard | 5.7 | 9 | 8 | 12 | | 255 | | | | | VI | VI | 34.37 | 118.70 |
| ly Dam, lt abut | Hard | 5.7 | 9 | 8 | 12 | | 170 | | | | | VI | VI | 34 37 | 118.70 |
| rtin/Coyote Crk | Hard | 5.9 | 10 | 2 | 10 | 250 | 245 | 20.5 | 2 38 | 5.6 | 1.5 | VII | VII | 37.11 | 121.53 |
| Array 6 | Hard | 5.9 | 10 | 10 | 14 | 230 | 409 | 43.84 | 9.34 | 8.9 | 3.2 | VII | VII | 37.11 | 121 53 |
| Array 6 | Hard | 5.9 | 10 | 10 | 14 | 320 | 315 | 25.1 | 3 62 | 7 0 | 1 8 | VII | VII | 37.11 | 121.53 |
| Array 4 | Soft | 5.9 | 10 | 12 | 16 | 360 | 246 | 32.2 | 5.20 | 12.6 | 3.8 | VII | VII | 37.11 | 121 53 |

(3)

seds
21-14

Sep 11, 1990

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | V | V | 39.52 | 121.67 | USGS 1493 | U09 | | 39.42 | 121.52 | no | |
| | | V | V | 39.52 | 121.67 | USGS 1493 | U09 | | 39.42 | 121.52 | no | |
| | | III | III | 32.83 | 115.47 | CDMG | | SMA-1 | 32.84 | 115.49 | no | US EQs 1977 |
| | | III | III | 32.83 | 115.47 | CDMG | | SMA-1 | 32.84 | 115.49 | no | US EQs 1977 |
| | 1.3 | VI | VI | 32.82 | 115.47 | CDMG | | SMA-1 | 32.84 | 115.49 | no | US EQs 1977 |
| | 1.2 | VI | VI | 32.82 | 115.47 | CDMG | | SMA-1 | 32.84 | 115.49 | no | US EQs 1977 |
| | 0.1 | III | III | 32.83 | 115.47 | CDMG | | SMA-1 | 32.84 | 115.49 | no | US EQs 1977 |
| | 0.1 | III | III | 32.83 | 115.47 | CDMG | | SMA-1 | 32.84 | 115.49 | no | US EQs 1977 |
| | 0.10 | IV | IV | 32.83 | 115.47 | CDMG | | SMA-1 | 32.81 | 115.53 | no | US EQs 1977 |
| | 1.1 | VI | | 39.21 | 123.17 | ACOE | | | 39.20 | 123.18 | no | |
| | 1.2 | VI | | 39.21 | 123.17 | ACOE | | | 39.20 | 123.18 | no | |
| | 0.8 | VI | | 39.21 | 123.17 | ACOE | | | 39.19 | 123.18 | no | USGS Circ. 785-A |
| 10.7 | 5.3 | VII | VII | 34.37 | 119.72 | CDMG 213 | | CRA-1 | 34.41 | 119.85 | yes | CDMG SR-144 |
| 9.3 | 2.8 | VII | VII | 34.37 | 119.72 | CDMG 213 | | CRA-1 | 34.41 | 119.85 | yes | CDMG SR-144 |
| 5.9 | 4.2 | VII | VII | 34.37 | 119.72 | CDMG 302 | | CRA-1 | 34.42 | 229.70 | yes | CDMG SR-144 |
| 11.7 | 5.1 | VII | VII | 34.37 | 119.72 | CDMG 91 | CDMG | RFT250 | 34.42 | 119.85 | yes | CDMG SR-144 |
| 10.2 | 6.6 | VII | VII | 34.37 | 119.72 | CDMG 91 | CDMG | RFT250 | 34.42 | 119.85 | yes | CDMG SR-144 |
| 4.9 | 1.8 | VII | VII | 34.37 | 119.72 | SCE | | SMA-2 | 34.46 | 119.88 | yes | Kinemetrics DataRpt |
| 3.6 | 2.2 | VII | VII | 34.37 | 119.72 | SCE | | SMA-2 | 34.46 | 119.88 | yes | Kinemetrics DataRpt |
| 6.6 | 1.3 | VII | VII | 34.37 | 119.72 | USGS 283 | | RFT250 | 34.42 | 119.70 | TH | EERI Rpt Dec '78 |
| | | VI | VI | 34.37 | 118.70 | CDMG 214 | | SMA-1T | 37.59 | 118.71 | TH | CDMG OSMS 78-7.1 |
| | | VI | VI | 34.37 | 118.70 | CDMG 214 | | SMA-1T | 37 59 | 118.71 | TH | CDMG OSMS 78-7.1 |
| 5.6 | 1.5 | VII | VII | 37.11 | 121.53 | CDMG 1445 | | SMA-1 | 37.12 | 121.55 | yes | USGS OF 81-42 |
| 8.9 | 3.2 | VII | VII | 37.11 | 121.53 | CDMG 1413 | | SMA-1T | 37.03 | 121.48 | yes | USGS OF 81-42 |
| 7 0 | 1.8 | VII | VII | 37.11 | 121.53 | CDMG 1413 | | SMA-1T | 37.03 | 121.48 | yes | USGS OF 81-42 |
| 12.6 | 3.8 | VII | VII | 37 11 | 121.53 | CDMG 1411 | | SMA-1T | 37 00 | 121.52 | yes | USGS OF 81-42 |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| CAL | 103 | 790806 | 1705 | Coyote Lake | Gilroy Array 4 | Soft | 5.9 | 10 | 12 |
| CAL | 104 | 790806 | 1705 | Coyote Lake | Gilroy Array 3 | Soft | 5.9 | 10 | 13 |
| CAL | 105 | 790806 | 1705 | Coyote Lake | Gilroy Array 3 | Soft | 5.9 | 10 | 13 |
| CAL | 106 | 790806 | 1705 | Coyote Lake | Gilroy Array 2 | Soft | 5.9 | 10 | 14 |
| CAL | 107 | 790806 | 1705 | Coyote Lake | Gilroy Array 2 | Soft | 5.9 | 10 | 14 |
| CAL | 108 | 791015 | 2316 | Imperial Valley | ElCentro Sta 7 | Soft | 6.6 | 12 | 26 |
| CAL | 109 | 791015 | 2316 | Imperial Valley | ElCentro Sta 7 | Soft | 6.6 | 12 | 26 |
| CAL | 110 | 791015 | 2316 | Imperial Valley | ElCentro Sta 6 | Soft | 6.6 | 12 | 27 |
| CAL | 111 | 791015 | 2316 | Imperial Valley | ElCentro Sta 6 | Soft | 6.6 | 12 | 27 |
| CAL | 112 | 791015 | 2316 | Imperial Valley | ElCentro Sta 9 | Soft | 6.6 | 12 | 26 |
| CAL | 113 | 791015 | 2316 | Imperial Valley | ElCentro Sta 9 | Soft | 6.6 | 12 | 26 |
| CAL | 114 | 791015 | 2316 | Imperial Valley | Bonds Cnr, Hwy 98-115 | Soft | 6.6 | 12 | 6 |
| CAL | 115 | 791015 | 2316 | Imperial Valley | Bonds Cnr, Hwy 98-115 | Soft | 6.6 | 12 | 6 |
| CAL | 116 | 791015 | 2316 | Imperial Valley | ElCentro Sta 8 | Soft | 6.6 | 12 | 27 |
| CAL | 117 | 791015 | 2316 | Imperial Valley | ElCentro Sta 8 | Soft | 6.6 | 12 | 27 |
| CAL | 118 | 791015 | 2316 | Imperial Valley | ElCentro Sta 5 | Soft | 6.6 | 12 | 28 |
| CAL | 119 | 791015 | 2316 | Imperial Valley | ElCentro Sta 5 | Soft | 6.6 | 12 | 28 |
| CAL | 120 | 791015 | 2316 | Imperial Valley | ElCentro Diff Array | Soft | 6.6 | 12 | 26 |
| CAL | 121 | 791015 | 2316 | Imperial Valley | ElCentro Diff Array | Soft | 6.6 | 12 | 26 |
| CAL | 122 | 791015 | 2316 | Imperial Valley | ElCentro Sta 4 | Soft | 6.6 | 12 | 26 |
| CAL | 123 | 791015 | 2316 | Imperial Valley | ElCentro Sta 4 | Soft | 6.6 | 12 | 26 |
| CAL | 124 | 791015 | 2316 | Imperial Valley | Brawley Airport | Soft | 6.6 | 12 | 42 |
| CAL | 125 | 791015 | 2316 | Imperial Valley | Brawley Airport | Soft | 6.6 | 12 | 42 |
| CAL | 126 | 791015 | 2316 | Imperial Valley | Holtville Post Office | Soft | 6.6 | 12 | 19 |
| CAL | 127 | 791015 | 2316 | Imperial Valley | Holtville Post Office | Soft | 6.6 | 12 | 19 |
| CAL | 128 | 791015 | 2316 | Imperial Valley | ElCentro Sta 10 | Soft | 6.6 | 12 | 27 |

) gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR. deg | HOR gal | VEL cm/s | DISP cm | DURATION | | INTENSITY | | EPICENTER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | g5% | g10% | EPI | STA | LAT | LONG |
| Array 4 | Soft | 5.9 | 10 | 12 | 16 | 270 | 228 | 25.24 | 2.95 | 8.8 | 6.1 | VII | VII | 37.11 | 121.53 |
| Array 3 | Soft | 5.9 | 10 | 13 | 16 | 50 | 252 | 16.9 | 3.68 | 9.6 | 2.5 | VII | VII | 37.11 | 121.53 |
| Array 3 | Soft | 5.9 | 10 | 13 | 16 | 140 | 246 | 29.43 | 5.66 | 10.2 | 3.0 | VII | VII | 37.11 | 121.53 |
| Array 2 | Soft | 5.9 | 10 | 14 | 17 | 140 | 249 | 31.9 | 5.34 | 6.0 | 1.4 | VII | VII | 37.11 | 1.53 |
| Array 2 | Soft | 5.9 | 10 | 14 | 17 | 50 | 187 | 10.20 | 2.24 | 7.1 | 1.7 | VII | VII | 37.11 | 121.53 |
| o Sta 7 | Soft | 6.6 | 12 | 26 | 29 | 230 | 454 | 107.8 | 41.36 | 10.2 | 4.9 | VII | VII | 32.63 | 115.33 |
| o Sta 7 | Soft | 6.6 | 12 | 26 | 29 | 140 | 327 | 45.0 | 19.52 | 7.7 | 3.8 | VII | VII | 32.63 | 115.33 |
| o Sta 6 | Soft | 6.6 | 12 | 27 | 30 | 230 | 428 | 108.7 | 55.16 | 11.2 | 7.9 | VII | VII | 32.63 | 115.33 |
| o Sta 6 | Soft | 6.6 | 12 | 27 | 30 | 140 | 369 | 63.1 | 26.94 | 11.9 | 10.0 | VII | VII | 32.63 | 115.33 |
| o Sta 9 | Soft | 6.6 | 12 | 26 | 29 | | 350 | | | 14.0 | 7.4 | VII | VII | 32.63 | 115.33 |
| o Sta 9 | Soft | 6.6 | 12 | 26 | 29 | | 265 | | | 13.0 | 7.0 | VII | VII | 32.63 | 115.33 |
| Cnr, Hwy 98-115 | Soft | 6.6 | 12 | 6 | 13 | 230 | 770 | 44.1 | 14.64 | 17.5 | 13.2 | VII | VII | 32.63 | 115.33 |
| Cnr, Hwy 98-115 | Soft | 6.6 | 12 | 6 | 13 | 140 | 576 | 43.63 | 12.19 | 19.1 | 13.3 | VII | VII | 32.63 | 115.33 |
| o Sta 8 | Soft | 6.6 | 12 | 27 | 30 | 140 | 598 | 53.43 | 22.25 | 11.4 | 6.9 | VII | VII | 32.63 | 115.33 |
| o Sta 8 | Soft | 6.6 | 12 | 27 | 30 | 230 | 457 | 47.71 | 29.34 | 10.2 | 6.1 | VII | VII | 32.63 | 115.33 |
| o Sta 5 | Soft | 6.6 | 12 | 28 | 30 | 140 | 517 | 44.0 | 21.84 | 10.2 | 6.3 | VII | VII | 32.63 | 115.33 |
| o Sta 5 | Soft | 6.6 | 12 | 28 | 30 | 230 | 367 | 86.6 | 51 85 | 14 4 | 10.2 | VII | VII | 32.63 | 115.33 |
| o Diff Array | Soft | 6.6 | 12 | 26 | 29 | 360 | 477 | 42.51 | 13.69 | 11.7 | 6.1 | VII | VII | 32.63 | 115.33 |
| o Diff Array | Soft | 6.6 | 12 | 26 | 29 | 270 | 345 | 67.8 | 33.75 | 15.3 | 7.1 | VII | VII | 32.63 | 115.33 |
| o Sta 4 | Soft | 6.6 | 12 | 26 | 29 | 140 | 484 | 37.1 | 11.91 | 12.8 | 7 4 | VII | VII | 32.63 | 115.33 |
| o Sta 4 | Soft | 6.6 | 12 | 26 | 29 | 230 | 350 | 77.7 | 48 02 | 12.3 | 6 4 | VII | VII | 32.63 | 115 33 |
| Airport | Soft | 6.6 | 12 | 42 | 44 | 315 | 217 | 37 12 | 10.64 | 11.3 | 2.2 | VII | VII | 32.63 | 115.33 |
| Airport | Soft | 6.6 | 12 | 42 | 44 | 225 | 162 | 35.3 | 18.66 | 10.6 | 1.7 | VII | VII | 32.63 | 115.33 |
| Post Office | Soft | 6.6 | 12 | 19 | 22 | 225 | 246 | 44 7 | 25.27 | 17.6 | 6.5 | VII | VII | 32.63 | 115.33 |
| Post Office | Soft | 6.6 | 12 | 19 | 22 | 315 | 213 | 48.4 | 22.35 | 16 0 | 7.5 | VII | VII | 32.63 | 115.33 |
| o Sta 10 | Soft | 6.6 | 12 | 27 | 30 | 320 | 222 | 42.2 | 16.69 | 10.3 | 5.2 | VII | VII | 32.63 | 115 33 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 8.8 | 6.1 | VII | VII | 37.11 | 121.53 | CDMG 1411 | | SMA-1T | 37.00 | 121.52 | yes | USGS OF 81-42 |
| 9.6 | 2.5 | VII | VII | 37.11 | 121.53 | CDMG 1410 | | SMA-1T | 36.99 | 121.54 | yes | USGS OF 81-42 |
| 10.2 | 3.0 | VII | VII | 37.11 | 121.53 | CDMG 1410 | | SMA-1T | 36.99 | 121.54 | yes | USGS OF 81-42 |
| 6.0 | 1.4 | VII | VII | 37.11 | 121.53 | CDMG 1409 | | SMA-1T | 36.98 | 121.56 | yes | USGS OF 81-42 |
| 7.1 | 1.7 | VII | VII | 37.11 | 121.53 | CDMG 1409 | | SMA-1T | 36.98 | 121.56 | yes | USGS OF 81-42 |
| 10.2 | 4.9 | VII | VII | 32.63 | 115.33 | USGS 5028 | | SMA-1T | 32.83 | 115.50 | yes | USGS OF 80-703 |
| 7.7 | 3.8 | VII | VII | 32.63 | 115.33 | USGS 5028 | | SMA-1T | 32.83 | 115.50 | yes | USGS OF 80-703 |
| 11.2 | 7.9 | VII | VII | 32.63 | 115.33 | USGS 942 | | SMA-1T | 32.84 | 115.49 | yes | USGS OF 80-703 |
| 11.9 | 10.0 | VII | VII | 32.63 | 115.33 | USGS 942 | | SMA-1T | 32.84 | 115.49 | yes | USGS OF 80-703 |
| 14.0 | 7.4 | VII | VII | 32.63 | 115.33 | USGS 117 | | S-M32 | 32.79 | 115.55 | TH | USGS PP 1254 |
| 13.0 | 7.0 | VII | VII | 32.63 | 115.33 | USGS 117 | | S-M32 | 32.79 | 115.55 | TH | USGS PP 1254 |
| 17.5 | 13.2 | VII | VII | 32.63 | 115.33 | USGS 5054 | | SMA-1T | 32.69 | 115.34 | yes | USGS OF 80-703 |
| 19.1 | 13.3 | VII | VII | 32.63 | 115.33 | USGS 5054 | | SMA-1T | 32.69 | 115.34 | yes | USGS OF 80-703 |
| 11.4 | 6.9 | VII | VII | 32.63 | 115.33 | USGS 958 | | SMA-1T | 23.81 | 115.53 | yes | USGS OF 80-703 |
| 10.2 | 6.1 | VII | VII | 32.63 | 115.33 | USGS 958 | | SMA-1T | 23.81 | 115.53 | yes | USGS OF 80-703 |
| 10.2 | 6.3 | VII | VII | 32.63 | 115.33 | USGS 952 | | SMA-1T | 32.86 | 115.47 | yes | USGS OF 80-703 |
| 14.4 | 10.2 | VII | VII | 32.63 | 115.33 | USGS 952 | | SMA-1T | 32.86 | 115.47 | yes | USGS OF 80-703 |
| 11 7 | 6.1 | VII | VII | 32.63 | 115.33 | USGS 5165 | | SMA-1T | 32.80 | 115.54 | yes | USGS OF 80-703 |
| 15.3 | 7.1 | VII | VII | 32.63 | 115.33 | USGS 5165 | | SMA-1T | 32.80 | 115.54 | yes | USGS OF 80-703 |
| 12.8 | 7 4 | VII | VII | 32.63 | 115.33 | USGS 955 | | SMA-1T | 32.86 | 115.43 | yes | USGS OF 80-703 |
| 12.3 | 6 4 | VII | VII | 32.63 | 115.33 | USGS 955 | | SMA-1T | 32 86 | 115.43 | yes | USGS OF 80-703 |
| 11.3 | 2.2 | VII | VII | 32.63 | 115.33 | USGS 5060 | | SMA-1T | 32.99 | 115.51 | yes | USGS OF 80-703 |
| 10.6 | 1.7 | VII | VII | 32.63 | 115.33 | USGS 5060 | | SMA-1T | 32.99 | 115.51 | yes | USGS OF 80-703 |
| 7 6 | 6.5 | VII | VII | 32.63 | 115.33 | USGS 5055 | | SMA-1T | 32.81 | 115.38 | yes | USGS OF 80-703 |
| 16.0 | 7 5 | VII | VII | 32.63 | 115 33 | USGS 5055 | | SMA-1T | 32.81 | 115.38 | yes | USGS OF 80-703 |
| 10.3 | 5.2 | VII | VII | 32.63 | 115.33 | USGS 412 | | RFT250 | 32.78 | 115.57 | yes | USGS OF 80-703 |

(3)

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| CAL | 129 | 791015 | 2316 | Imperial Valley | ElCentro Sta 10 | Soft | 6.6 | 12 | 27 |
| CAL | 130 | 791015 | 2316 | Imperial Valley | Calexico Fire Station | Soft | 6.6 | 12 | 15 |
| CAL | 131 | 791015 | 2316 | Imperial Valley | Calexico Fire Station | Soft | 6.6 | 12 | 15 |
| CAL | 132 | 791015 | 2316 | Imperial Valley | ElCentro Sta 11 | Soft | 6.6 | 12 | 27 |
| CAL | 133 | 791015 | 2316 | Imperial Valley | ElCentro Sta 11 | Soft | 6.6 | 12 | 27 |
| CAL | 134 | 791015 | 2316 | Imperial Valley | ElCentro Sta 3 | Soft | 6.6 | 12 | 28 |
| CAL | 135 | 791015 | 2316 | Imperial Valley | ElCentro Sta 3 | Soft | 6.6 | 12 | 28 |
| CAL | 136 | 791015 | 2316 | Imperial Valley | Parachute Test Site | Soft | 6.6 | 12 | 47 |
| CAL | 137 | 791015 | 2316 | Imperial Valley | ElCentro Sta 2 | Soft | 6.6 | 12 | 31 |
| CAL | 138 | 791015 | 2316 | Imperial Valley | ElCentro Sta 2 | Soft | 6.6 | 12 | 31 |
| CAL | 139* | 791015 | 2316 | Imperial Valley | Superstition Mtn/USAF | Rock | 6.6 | 12 | 57 |
| CAL | 140 | 791015 | 2316 | Imperial Valley | ElCentro Co Service Bldg | Soft | 6.6 | 12 | 28 |
| CAL | 141 | 791015 | 2316 | Imperial Valley | ElCentro Co Service Bldg | Soft | 6.6 | 12 | 28 |
| CAL | 142 | 791015 | 2319 | Imp. Vly Aftshk | ElCentro Sta 5 | Soft | 5.0 | 12 | |
| CAL | 143 | 791015 | 2319 | Imp. Vly Aftshk | ElCentro Sta 5 | Soft | 5.0 | 12 | |
| CAL | 144 | 791015 | 2319 | Imp. Vly Aftshk | ElCentro Sta 6 | Soft | 5.0 | 12 | |
| CAL | 145 | 791015 | 2319 | Imp. Vly Aftshk | ElCentro Sta 7 | Soft | 5.0 | 12 | |
| CAL | 146 | 791015 | 2319 | Imp. Vly Aftshk | Holtville Post Office | Soft | 5.0 | 12 | |
| CAL | 147 | 791016 | 425 | Imp. Vly Aftshk | ElCentro Sta 5 | Soft | | 12 | |
| CAL | 148 | 791016 | 425 | Imp. Vly Aftshk | ElCentro Sta 5 | Soft | | 12 | |
| CAL | 149 | 791016 | 425 | Imp. Vly Aftshk | Brawley Airport | Soft | | 12 | |
| CAL | 150 | 791016 | 425 | Imp. Vly Aftshk | Brawley Airport | Soft | | 12 | |
| CAL | 151 | 800124 | 1900 | Greenville | Del Valle Dam, toe | Hard | 5.3 | 8 | 25 |
| CAL | 152 | 800126 | 233 | Greenville | Livermore/Morgan Terr Pk | Hard | 5.2 | 7 | 11 |
| CAL | 153 | 800126 | 233 | Greenville | Livermore/Morgan Terr Pk | Hard | 5.2 | 7 | 11 |
| CAL | 154 | 800126 | 233 | Greenville | Livermore/Fagundes Ranch | Soft | 5.2 | 7 | 11 |

gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR, deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| › Sta 10 | Soft | 6.6 | 12 | 27 | 30 | 50 | 168 | 44.3 | 27.13 | 12.4 | 4.8 | VII | VII | 32.63 | 115.33 |
| › Fire Station | Soft | 6.6 | 12 | 15 | 19 | 225 | 270 | 19.43 | 5.71 | 13.2 | 10.8 | VII | VII | 32.63 | 115.33 |
| › Fire Station | Soft | 6.6 | 12 | 15 | 19 | 315 | 197 | 16.1 | 7.05 | 19.1 | 9.4 | VII | VII | 32.63 | 115.33 |
| › Sta 11 | Soft | 6.6 | 12 | 27 | 30 | 230 | 375 | 39.21 | 13.38 | 11.7 | 6.5 | VII | VII | 32.63 | 115.33 |
| › Sta 11 | Soft | 6.6 | 12 | 27 | 30 | 140 | 355 | 35.01 | 14.15 | 11.7 | 7.0 | VII | VII | 32.63 | 115.33 |
| › Sta 3 | Soft | 6.6 | 12 | 28 | 30 | 140 | 262 | 46.32 | 15.35 | 14.6 | 6.0 | VII | VII | 32.63 | 115.33 |
| Sta 3 | Soft | 6.6 | 12 | 28 | 30 | 230 | 218 | 36.80 | 17.91 | 14.8 | 6.2 | VII | VII | 32.63 | 115.33 |
| te Test Site | Soft | 6.6 | 12 | 47 | 49 | 315 | 200 | 14.62 | 7.87 | 10.0 | 1.5 | VII | VII | 32.63 | 115.33 |
| Sta 2 | Soft | 6.6 | 12 | 31 | 33 | 230 | 406 | 26.51 | 12.99 | 12.9 | 5.8 | VII | VII | 32.63 | 115.33 |
| Sta 2 | Soft | 6.6 | 12 | 31 | 33 | 140 | 309 | 31.21 | 9.93 | 14.3 | 6.7 | VII | VII | 32.63 | 115.33 |
| tion Mtn/USAF | Rock | 6.6 | 12 | 57 | 58 | 135 | 189 | 9.02 | 1.72 | 4.9 | 1.0 | VII | VII | 32.63 | 115.33 |
| Co Service Bldg | Soft | 6.6 | 12 | 28 | 30 | 92 | 231 | 64.4 | 28.24 | 11.3 | 8.8 | VII | VII | 32.63 | 115.33 |
| Co Service Bldg | Soft | 6.6 | 12 | 28 | 30 | 2 | 209 | 36.20 | 16.43 | 15.0 | 4.6 | VII | VII | 32.63 | 115.33 |
| Sta 5 | Soft | 5.0 | 12 | | | | 280 | | | | 0.2 | | VI | | |
| Sta 5 | Soft | 5.0 | 12 | | | | 230 | | | | 0.3 | | VI | | |
| Sta 6 | Soft | 5.0 | 12 | | | | 250 | | | | 1.3 | | VI | | |
| Sta 7 | Soft | 5.0 | 12 | | | | 225 | | | | 0.4 | | V | | |
| Post Office | Soft | 5.0 | 12 | | | | 258 | | | | 0.3 | | VI | | |
| Sta 5 | Soft | | 12 | | | | 192 | | | | 0.3 | | V | | |
| Sta 5 | Soft | | 12 | | | | 198 | | | | 0.2 | | V | | |
| Airport | Soft | | 12 | | | | 267 | | | | 0.9 | | VI | | |
| Airport | Soft | | 12 | | | | 260 | | | | 1.2 | | VI | | |
| Dam, toe | Hard | 5.3 | 8 | 25 | 26 | | 235 | | | | 2.8 | VII | VI | 37.85 | 121.82 |
| s/Morgan Terr Pk | Hard | 5.2 | 7 | 11 | 13 | | 265 | | | | 1.5 | VII | VI | 37.76 | 121.70 |
| s/Morgan Terr Pk | Hard | 5.2 | 7 | 11 | 13 | | 190 | | | | 1.5 | VII | VI | 37.76 | 121.70 |
| s/Fagundes Ranch | Soft | 5.2 | 7 | 11 | 13 | | 245 | | | | 1.0 | VII | VI | 37.76 | 121.70 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 12.4 | 4.8 | VII | VII | 32.63 | 115.33 | USGS 412 | | RFT250 | 32.78 | 115.57 | yes | USGS OF 80-703 |
| 13.2 | 10.8 | VII | VII | 32.63 | 115.33 | USGS 5053 | | SMA-1T | 32.67 | 115.49 | yes | USGS OF 80-703 |
| 19.1 | 9.4 | VII | VII | 32.63 | 115.33 | USGS 5053 | | SMA-1T | 32.67 | 115.49 | yes | USGS OF 80-703 |
| 11.7 | 6.5 | VII | VII | 32.63 | 115.33 | USGS 5058 | | SMA-1T | 32.75 | 115.59 | yes | USGS OF 80-703 |
| 11.7 | 7.0 | VII | VII | 32.63 | 115.33 | USGS 5058 | | SMA-1T | 32.75 | 115.59 | yes | USGS OF 80-703 |
| 14.6 | 6.0 | VII | VII | 32.63 | 115.33 | USGS 5057 | | SMA-1T | 32.89 | 115.38 | yes | USGS OF 80-703 |
| 14.8 | 6.2 | VII | VII | 32.63 | 115.33 | USGS 5057 | | SMA-1T | 32.89 | 115.38 | yes | USGS OF 80-703 |
| 10.0 | 1.5 | VII | VII | 32.63 | 115.33 | USGS 5051 | | SMA-1T | 32.93 | 115.70 | yes | USGS OF 80-703 |
| 12.9 | 5.8 | VII | VII | 32.63 | 115.33 | USGS 5115 | | SMA-1T | 32.92 | 115.37 | yes | USGS OF 80-703 |
| 14.3 | 6.7 | VII | VII | 32.63 | 115.33 | USGS 5115 | | SMA-1T | 32.92 | 115.37 | yes | USGS OF 80-703 |
| 4.9 | 1.0 | VII | VII | 32.63 | 115.33 | USGS 286 | | SMA-1T | 32.95 | 115.82 | yes | USGS OF 80-703 |
| 11.3 | 8.8 | VII | VII | 32.63 | 115.33 | CDMG 5154 | Freefld | SMA-1T | 32.79 | 115.56 | yes | CDMG SP65 |
| 15.0 | 4.6 | VII | VII | 32.63 | 115.33 | CDMG 5154 | Freefld | SMA-1T | 32.79 | 115.56 | yes | CDMG SP65 |
| | 0.2 | | VI | | | USGS 952 | | SMA-1T | 32.86 | 115 47 | no | USGS PP 1254 |
| | 0 3 | | VI | | | USGS 952 | | SMA-1T | 32.86 | 115.47 | no | USGS PP 1254 |
| | 1.3 | | VI | | | USGS 942 | | SMA-1T | 32.84 | 115.49 | no | USGS PP 1254 |
| | 0.4 | | V | | | USGS 5028 | | SMA-1T | 32.83 | 115.50 | no | USGS PP 1254 |
| | 0 3 | | VI | | | USGS 5055 | | SMA-1T | 32.81 | 115.38 | no | USGS PP 1254 |
| | 0.3 | | V | | | USGS 952 | | SMA-1T | 32.86 | 115 47 | no | USGS PP 1254 |
| | 0.2 | | V | | | USGS 952 | | SMA-1T | 32.86 | 115.47 | no | USGS PP 1254 |
| | 0 9 | | VI | | | USGS 5060 | | SMA-1T | 32.99 | 115.51 | no | USGS PP 1254 |
| | 1 2 | | VI | | | USGS 5060 | | SMA-1T | 32.99 | 115.51 | no | USGS PP 1254 |
| | 2.8 | VII | VI | 37.85 | 121.82 | USGS 1265 | | | 37 62 | 121 75 | TH | Cal Dept Wtr Res |
| | 1 5 | VII | VI | 37.76 | 121.70 | CDMG Temp | | SMA-1T | 37.82 | 121 45 | TH | CDMG PR28 |
| | 1 5 | VII | VI | 37.76 | 121.70 | CDMG Temp | | SMA-1T | 38.82 | 121 45 | TH | CDMG PR28 |
| | 1.0 | VII | VI | 37 76 | 121 70 | CDMG Temp | | SMA-1T | 37 75 | 121 77 | TH | CDMG PR28 |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km |
|---|---|---|---|---|---|---|---|---|
| CAL | 155 | 800126 | 233 | Greenville | Livermore/Fagundes Ranch | Soft | 5.2 | 7 |
| CAL | 156 | 800225 | 1047 | Anza Valley | Puerta La Cruz | Hard | 5.1 | 6 |
| CAL | 157 | 800525 | 1734 | Mammoth Lakes | Convict Creek | Hard | 6.5 | 9 |
| CAL | 158 | 800525 | 1734 | Mammoth Lakes | Convict Creek | Hard | 6.5 | 9 |
| CAL | 159 | 800525 | 1734 | Mammoth Lakes | Mammoth Lakes HS Gym | Soft | 6.5 | 9 |
| CAL | 160 | 800525 | 1734 | Mammoth Lakes | Mammoth Lakes HS Gym | Soft | 6.5 | 9 |
| CAL | 161 | 800525 | 1734 | Mammoth Lakes | Mammoth Lakes HS Gym | Soft | 6.5 | 9 |
| CAL | 162 | 800525 | 1749 | Mamm Lk AftShk 1 | Mammoth Lakes HS Gym | Soft | 6.0 | 14 |
| CAL | 163 | 800525 | 1749 | Mamm Lk AftShk 1 | Mammoth Lakes HS Gym | Soft | 6.0 | 14 |
| CAL | 164 | 800525 | 1749 | Mamm Lk AftShk 1 | Mammoth Lakes HS Gym | Soft | 6.0 | 14 |
| CAL | 165 | 800525 | 1749 | Mamm Lk AftShk 1 | Convict Creek | Hard | 6.0 | 14 |
| CAL | 166 | 800525 | 1749 | Mamm Lk AftShk 1 | Convict Creek | Hard | 6.0 | 14 |
| CAL | 167 | 800525 | 2045 | Mamm Lk AftShk 2 | Convict Creek | Hard | 6.7 | 16 |
| CAL | 168 | 800525 | 2045 | Mamm Lk AftShk 2 | Convict Creek | Hard | 6.7 | 16 |
| CAL | 169 | 800527 | 1551 | Mamm Lk AftShk 3 | Convict Creek | Hard | 6.3 | 14 |
| CAL | 170 | 800527 | 1551 | Mamm Lk AftShk 3 | Convict Creek | Hard | 6.3 | 14 |
| CAL | 171 | 800527 | 1551 | Mamm Lk AftShk 3 | Long Vly Dam, dwnstrm | Hard | 6.3 | 14 |
| CAL | 172 | 800527 | 1551 | Mamm Lk AftShk 3 | Long Vly Dam, dwnstrm | Hard | 6.3 | 14 |
| CAL | 173 | 810426 | 1209 | Westmorland | Niland Fire Station | Soft | 5.6 | 8 |
| CAL | 174 | 810426 | 1209 | Westmorland | Westmorland Fire Sta | Soft | 5.6 | 8 |
| CAL | 175 | 810426 | 1209 | Westmorland | Westmorland Fire Sta | Soft | 5.6 | 8 |
| CAL | 176 | 810426 | 1209 | Westmorland | Parachute Test, ElCentro | Soft | 5.6 | 8 |
| CAL | 177 | 810426 | 1209 | Westmorland | Salton Sea | Soft | 5.6 | 8 |
| CAL | 178 | 810426 | 1209 | Westmorland | Salton Sea | Soft | 5.6 | 8 |
| CAL | 179 | 810930 | 1253 | LaurelCk(Mammoth) | Convict Creek | Soft | 5.8 | 14 |
| CAL | 180 | 810930 | 1253 | LaurelCk(Mammoth) | Convict Creek | Soft | 5.8 | 14 |

) gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYF km | TR deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ore/Fagundes Ranch | Soft | 5.2 | 7 | 11 | 13 | | 216 | | | | 1.0 | VII | VI | 37.76 | 121. |
| La Cruz | Hard | 5.1 | 6 | 22 | 23 | | 235 | | | | | VI | VI | 33.52 | 116. |
| t Creek | Hard | 6.5 | 9 | 2 | 9 | 180 | 392 | 23.1 | 5.37 | 13.8 | 10.4 | VII | VII | 37.61 | 118. |
| t Creek | Hard | 6.5 | 9 | 2 | 9 | 90 | 402 | 22.4 | 5.12 | 13.8 | 11.0 | VII | VII | 37.61 | 118. |
| oth Lakes HS Gym | Soft | 6.5 | 9 | 11 | 14 | 270 | 304 | 15.8 | 2.44 | 13.3 | 6.6 | VII | VII | 37.61 | 118. |
| oth Lakes HS Gym | Soft | 6.5 | 9 | 11 | 14 | 360 | 238 | 15.3 | 2.17 | 11.7 | 8.8 | VII | VII | 37.61 | 118. |
| oth Lakes HS Gym | Soft | 6.5 | 9 | 11 | 14 | 360 | 246 | 15.8 | 2.05 | 11.9 | 8.8 | VII | VII | 37.61 | 118. |
| oth Lakes HS Gym | Soft | 6.0 | 14 | 11 | 14 | 270 | 372 | 23.2 | 1.88 | 6.5 | 2.3 | VII | VII | 37.63 | 118. |
| oth Lakes HS Gym | Soft | 6.0 | 14 | 11 | 14 | 360 | 383 | 23.6 | 2.82 | 6.5 | 3.5 | VII | VII | 37.63 | 118. |
| oth Lakes HS Gym | Soft | 6.0 | 14 | 11 | 14 | 360 | 413 | 26.8 | 3.18 | 6.5 | 4.3 | VII | VII | 37.63 | 118. |
| t Creek | Hard | 6.0 | 14 | 9 | 17 | 180 | 177 | 13.6 | 2.61 | 5.2 | 2.3 | VII | VI | 37.63 | 118. |
| t Creek | Hard | 6.0 | 14 | 9 | 17 | 90 | 158 | 11.8 | 1.85 | 4.2 | 2.7 | VII | VI | 37.63 | 118. |
| t Creek | Hard | 6.7 | 16 | 6 | 17 | 180 | 180 | 15.8 | 2.49 | 6.2 | 3.2 | VI | VI | 37.56 | 118. |
| t Creek | Hard | 6.7 | 16 | 6 | 17 | 90 | 223 | 18.2 | 4.22 | 5.8 | 3.3 | VI | VII | 37.56 | 118. |
| t Creek | Hard | 6.3 | 14 | 12 | 18 | 180 | 288 | 15.6 | 2.84 | 6.0 | 4.7 | VI | VI | 37.51 | 118. |
| t Creek | Hard | 6.3 | 14 | 12 | 18 | 90 | 248 | 18.6 | 1.48 | 6.7 | 3.2 | VI | VI | 37.51 | 118. |
| ly Dam, dwnstrm | Hard | 6.3 | 14 | 15 | 21 | 90 | 176 | 17.7 | 2.86 | 5.0 | 0.6 | VI | VI | 37.51 | 118. |
| ly Dam, dwnstrm | Hard | 6.3 | 14 | 15 | 21 | 360 | 207 | 8.01 | 2.86 | 6.7 | 0.7 | VI | VI | 37.51 | 118. |
| Fire Station | Soft | 5.6 | 8 | 8 | 11 | 90 | 159 | 7.2 | 0.71 | 5.5 | 2.6 | VIII | VI | 33.13 | 115. |
| orland Fire Sta | Soft | 5 6 | 8 | 8 | 11 | 180 | 466 | 35.8 | 11.3 | 9.0 | 5.3 | VIII | VIII | 33.13 | 115. |
| orla nd Fire Sta | Soft | 5 6 | 8 | 8 | 11 | 90 | 377 | 43.5 | 13.3 | 8.3 | 7.4 | VIII | VIII | 33.13 | 115. |
| ite Test, ElCentro | Soft | 5 6 | 8 | 8 | 11 | | 225 | | | | 2.4 | VIII | VII | 33 13 | 115. |
| Sea | Soft | 5 6 | 8 | 9 | 12 | | 186 | | | | 6.1 | VIII | VII | 33.13 | 115 |
| Sea | Soft | 5.6 | 8 | 9 | 12 | | 196 | | | | 6.1 | VIII | VII | 33.13 | 115. |
| t Creek | Soft | 5.8 | 14 | 6 | 15 | | 255 | | | | | VI | VI | 37.59 | 118. |
| t Creek | Soft | 5 8 | 14 | 6 | 15 | | 206 | | | | | VI | VI | 37.59 | 118. |

s
14

Sep 11, 1990

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | 1.0 | VII | VI | 37.76 | 121.70 | CDMG Temp | | SMA-1T | 37.75 | 121.77 | TH | CDMG PR28 |
| | | VI | VI | 33.52 | 116.53 | CDMG 168 | GS 933 | SMA-1T | 33.32 | 116.68 | TH | CDMG Prelim Data |
| 3.8 | 10.4 | VII | VII | 37.61 | 118.85 | CDMG 99 | | SMA-1T | 37.82 | 118.48 | yes | CDMG Tape Printout |
| 3.8 | 11.0 | VII | VII | 37.61 | 118.85 | CDMG 99 | | SMA-1T | 37.82 | 118.48 | yes | CDMG Tape Printout |
| 3.3 | 6.6 | VII | VII | 37.61 | 118.85 | CDMG 301 | GS 1490 | CR1 | 37.64 | 118.96 | yes | CDMG Tape Printout |
| ..7 | 8.8 | VII | VII | 37.61 | 118.85 | CDMG 301 | GS 1490 | CR1 | 37.64 | 118.96 | yes | CDMG Tape Printout |
| .9 | 8.8 | VII | VII | 37.61 | 118.85 | CDMG 301 | GS 1490 | CR1 | 37.64 | 118.96 | yes | CDMG Tape Printout |
| 3.5 | 2.3 | VII | VII | 37.63 | 118.97 | CDMG 301 | GS 1490 | CR1 | 37.64 | 118.96 | yes | CDMG Tape Printout |
| 3.5 | 3.5 | VII | VII | 37.63 | 118.97 | CDMG 301 | GS 1490 | CR1 | 37.64 | 118.96 | yes | CDMG Tape Printout |
| 3.5 | 4.3 | VII | VII | 37.63 | 118.97 | CDMG 301 | GS 1490 | CR1 | 37.64 | 118.96 | yes | CDMG Tape Printout |
| ..2 | 2 3 | VII | VI | 37.63 | 118.97 | CDMG 99 | GS 1324 | SMA-1T | 37.82 | 118.48 | yes | CDMG Tape Printout |
| 2 | 2.7 | VII | VI | 37.63 | 118.97 | CDMG 99 | GS 1324 | SMA-1T | 37.82 | 118.48 | yes | CDMG Tape Printout |
| .2 | 3.2 | VI | VI | 37.56 | 118.84 | CDMG 99 | GS 1324 | SMA-1T | 37 82 | 118.48 | yes | CDMG Tape Printout |
| 8 | 3.3 | VI | VII | 37.56 | 118.84 | CDMG 99 | GS 1324 | SMA-1T | 37 82 | 118.48 | yes | CDMG Tape Printout |
| 0 | 4.7 | VI | VI | 37.51 | 118.83 | CDMG 99 | GS 1324 | SMA-1T | 37 82 | 118 48 | yes | CDMG Tape Printout |
| 7 | 3.2 | VI | VI | 37.51 | 118.83 | CDMG 99 | GS 1324 | SMA-1T | 37.82 | 118.48 | yes | CDMG Tape Printout |
| 0 | 0.6 | VI | VI | 37.51 | 118.83 | CDMG 214 | GS 1444 | CR1 | 37 59 | 118 71 | yes | CDMG Tape Printout |
| 7 | 0.7 | VI | VI | 37.51 | 118.83 | CDMG 214 | GS 1444 | CR1 | 37.59 | 118.71 | yes | CDMG Tape Printout |
| 5 | 2 6 | VIII | VI | 33.13 | 115 65 | CDMG 023 | | SMA-1T | 33 24 | 115 51 | yes | CDMG OSMS 81-5 1 |
| 0 | 5.3 | VIII | VIII | 33.13 | 115.65 | CDMG 369 | | SMA-1T | 33.04 | 115.62 | yes | CDMG OSMS 81-5 1 |
| 3 | 7 4 | VIII | VIII | 33 13 | 115.65 | CDMG 369 | | SMA-1T | 33 04 | 115 62 | yes | CDMG OSMS 81-5 1 |
| | 2.4 | VIII | VII | 33 13 | 115.65 | USGS 5051 | | | 32 93 | 115 70 | TH | USGS Circ 914 |
| | 6 1 | VIII | VII | 33.13 | 115 65 | USGS 5062 | | | 33 18 | 115 62 | TH | USGS Circ 914 |
| | 6.1 | VIII | VII | 33.13 | 115.65 | USGS 5062 | | | 33 18 | 115 62 | TH | USGS Circ 914 |
| | | VI | VI | 37 59 | 118 89 | CDMG 2593 | | SMA-1T | 37 61 | 118 83 | TH | CDMG OSMS 81-10 1 |
| | | VI | VI | 37 59 | 118.89 | CDMG 2593 | | SMA-1T | 37 61 | 118 83 | TH | CDMG OSMS 81-10 1 |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km |
|---|---|---|---|---|---|---|---|---|
| CAL | 181 | 830107 | 138 | Mammoth Lakes | Mammoth Lakes HS Gym | Soft | 5.2 | 14 |
| CAL | 182 | 830107 | 138 | Mammoth Lakes | Mammoth Lakes HS Gym | Soft | 5.2 | 14 |
| CAL | 183 | 830502 | 2342 | Coalinga | PlstVly PumpPlt Switchyd | Soft | 6.7 | 11 |
| CAL | 184 | 830502 | 2342 | Coalinga | PlstVly PumpPlt Switchyd | Soft | 6.7 | 11 |
| CAL | 185 | 830502 | 2342 | Coalinga | PlstVly PumpPlt Bsmt | Soft | 6.7 | 11 |
| CAL | 186 | 830502 | 2342 | Coalinga | PlstVly PumpPlt Bsmt | Soft | 6.7 | 11 |
| CAL | 187 | 830502 | 2342 | Coalinga | Cantua Creek School | Soft | 6.7 | 11 |
| CAL | 188 | 830502 | 2342 | Coalinga | Cantua Creek School | Soft | 6.7 | 11 |
| CAL | 189 | 830502 | 2342 | Coalinga | Parkfield Array FZ 14 | Hard | 6.7 | 11 |
| CAL | 190 | 830502 | 2342 | Coalinga | Parkfield Array FZ 14 | Hard | 6.7 | 11 |
| CAL | 191 | 830502 | 2342 | Coalinga | Pkfld Vineyard Cyn 1E | Hard | 6.7 | 11 |
| CAL | 192 | 830502 | 2342 | Coalinga | Pkfld Vineyard Cyn 1E | Hard | 6.7 | 11 |
| CAL | 193 | 830509 | 249 | Coalinga AftShk 1 | Coalga Anticl.Ridge, FF | | 5.1 | 13 |
| CAL | 194 | 830509 | 249 | Coalinga AftShk 1 | Coalga Anticl.Ridge, FF | | 5.1 | 13 |
| CAL | 195 | 830509 | 249 | Coalinga AftShk 1 | Coalga Anticl.Ridge, pad | | 5.1 | 13 |
| CAL | 196 | 830509 | 249 | Coalinga AftShk 1 | Coalga Anticl.Ridge, pad | | 5.1 | 13 |
| CAL | 197 | 830509 | 249 | Coalinga AftShk 1 | Coalinga Big Tank | | 5.1 | 13 |
| CAL | 198 | 830509 | 249 | Coalinga AftShk 1 | Coalinga Oil City | | 5.1 | 13 |
| CAL | 199 | 830509 | 249 | Coalinga AftShk 1 | Coalinga Oil City | | 5.1 | 13 |
| CAL | 200 | 830509 | 249 | Coalinga AftShk 1 | Coalga Oilflds FSta, FF | | 5.1 | 13 |
| CAL | 201 | 830509 | 249 | Coalinga AftShk 1 | Coalga Oilflds FSta, pad | | 5.1 | 13 |
| CAL | 202 | 830509 | 249 | Coalinga AftEvt 2 | Oilfields-Skunk Hollow | Hard | 5.1 | 13 |
| CAL | 203 | 830509 | 249 | Coalinga AftEvt 2 | Oilfields-Skunk Hollow | Hard | 5 1 | 13 |
| CAL | 204 | 830509 | 249 | Coalinga AftEvt 2 | Anticline Ridge-Palmer Av | Hard | 5 1 | 13 |
| CAL | 205 | 830509 | 249 | Coalinga AftEvt 2 | Anticline Ridge-Palmer Av | Hard | 5.1 | 13 |
| CAL | 206 | 830509 | 249 | Coalinga AftShk 1 | PlstVly PumpPlt Switchyd | Soft | 5 1 | 13 |

)0 gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR. deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LON |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| noth Lakes HS Gym | Soft | 5.2 | 14 | 4 | 15 | | 255 | | | | | VI | VI | 37.63 | 118.9 |
| noth Lakes HS Gym | Soft | 5.2 | 14 | 4 | 15 | | 196 | | | | | VI | VI | 37.63 | 118.9 |
| y PumpPlt Switchyd | Soft | 6.7 | 11 | 9 | 14 | 135 | 514 | 39.2 | 5.05 | 17.9 | 14.2 | VIII | VIII | 36.23 | 120.2 |
| y PumpPlt Switchyd | Soft | 6.7 | 11 | 9 | 14 | 45 | 441 | 50.0 | 15.46 | 17.5 | 11.4 | VIII | VIII | 36.23 | 120.2 |
| y PumpPlt Bsmt | Soft | 6.7 | 11 | 9 | 14 | 135 | 267 | 21.71 | 3.86 | 12.3 | 6.5 | VIII | VIII | 36.23 | 120.2 |
| y PumpPlt Bsmt | Soft | 6.7 | 11 | 9 | 14 | 45 | 307 | 36.7 | 10.54 | 12.0 | 9.6 | VIII | VIII | 36.23 | 120.2 |
| a Creek School | Soft | 6.7 | 11 | 29 | 31 | 360 | 292 | 26.4 | 9.74 | 12.2 | 7.9 | VIII | VI | 36.23 | 120.2 |
| a Creek School | Soft | 6.7 | 11 | 29 | 31 | 270 | 219 | 25.8 | 9.36 | 12.9 | 8.0 | VIII | VI | 36.23 | 120.2 |
| ld Array FZ 14 | Hard | 6.7 | 11 | 41 | 42 | 90 | 268 | 28.3 | 5.45 | 15.8 | 6.9 | VIII | VI | 36.23 | 120.2 |
| ld Array FZ 14 | Hard | 6.7 | 11 | 41 | 42 | 360 | 256 | 34.3 | 8.91 | 12.2 | 6.1 | VIII | VI | 36.23 | 120.2 |
| Vineyard Cyn 1E | Hard | 6.7 | 11 | 37 | 39 | 90 | 224 | 27.9 | 6.17 | 8.3 | 4.2 | VIII | VI | 36.23 | 120.2 |
| Vineyard Cyn 1E | Hard | 6.7 | 11 | 37 | 39 | 360 | 173 | 18.3 | 5.14 | 8.6 | 3.5 | VIII | VI | 36.23 | 120.2 |
| Anticl.Ridge, FF | | 5.1 | 13 | | | | 549 | | | | 1.4 | | | 36.23 | 120.3 |
| Anticl.Ridge, FF | | 5.1 | 13 | | | | 549 | | | | 1.4 | | | 36.23 | 120.3 |
| Anticl.Ridge, pad | | 5.1 | 13 | | | | 470 | | | | 0.8 | | | 36.23 | 120.3 |
| Anticl.Ridge, pad | | 5.1 | 13 | | | | 461 | | | | 1.3 | | | 36.23 | 120.3 |
| ga Big Tank | | 5.1 | 13 | 3 | 13 | | 294 | | | | | | | 36.23 | 120.3 |
| ga Oil City | | 5.1 | 13 | | | | 234 | | | | 0.9 | | | 36.23 | 120.3 |
| ga Oil City | | 5.1 | 13 | | | | 235 | | | | 0.5 | | | 36.23 | 120.3 |
| Oilflds FSta, FF | | 5.1 | 13 | | | | 245 | | | | 0.4 | | | 36.23 | 120.3 |
| Oilflds FSta, pad | | 5.1 | 13 | | | | 216 | | | | | | | 36.23 | 120.3 |
| s-Skunk Hollow | Hard | 5.1 | 13 | 6 | 14 | 90 | 329 | 9.4 | 0.57 | 1.2 | 0.7 | | VII | 36.23 | 120.3 |
| s-Skunk Hollow | Hard | 5.1 | 13 | 6 | 14 | 360 | 260 | 9.5 | 0.53 | 1.1 | 0.5 | | VII | 36.23 | 120.3 |
| ne Ridge-Palmer Av | Hard | 5.1 | 13 | 3 | 13 | 90 | 191 | 8.2 | 0.70 | 0.8 | 0.5 | | VI | 36.23 | 120.3 |
| ne Ridge-Palmer Av | Hard | 5.1 | 13 | 3 | 13 | 360 | 267 | 12.1 | 1.07 | 1.0 | 0.6 | | VII | 36.23 | 120.3 |
| / PumpPlt Switchyd | Soft | 5.1 | 13 | 16 | 21 | | 216 | | | | | | VI | 36.23 | 120.3 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | VI | VI | 37.63 | 118.93 | CDMG54301 | | | 37.64 | 118.96 | TH | |
| | | VI | VI | 37.63 | 118.93 | CDMG54301 | | | 37.64 | 118.96 | TH | |
| 17.9 | 14.2 | VIII | VIII | 36.23 | 120.29 | USGS | | | 36.31 | 120.25 | yes | USGS/EERI |
| 17.5 | 11.4 | VIII | VIII | 36.23 | 120.29 | USGS | | | 36.31 | 120.25 | yes | USGS/EERI |
| 12.3 | 6.5 | VIII | VIII | 36.23 | 120.29 | USGS | | | 36.31 | 120.25 | yes | USGS/EERI |
| 12.0 | 9.6 | VIII | VIII | 36.23 | 120.29 | USGS | | | 36.31 | 120.25 | yes | USGS/EERI |
| 12.2 | 7.0 | VIII | VI | 36 23 | 120.29 | CDMG46314 | | | 36.50 | 120.32 | yes | CDMG Printout |
| 12 9 | 8.0 | VIII | VI | 36.23 | 120.29 | CDMG46314 | | | 36.50 | 120.32 | yes | CDMG Printout |
| 15.8 | 6.9 | VIII | VI | 36.23 | 120.29 | CDMG36456 | | | 35.91 | 120.46 | yes | CDMG Printout |
| 12.2 | 6.1 | VIII | VI | 36.23 | 120.29 | CDMG36456 | | | 35.91 | 120.46 | yes | CDMG Printout |
| 8.3 | 4.2 | VIII | VI | 36.23 | 120.29 | CDMG36455 | | | 35.96 | 120.48 | yes | CDMG Printout |
| 8 6 | 3.5 | VIII | VI | 36.23 | 120.29 | CDMG36455 | | | 35.96 | 120.48 | yes | CDMG Printout |
| | 1.4 | | | 36.23 | 120.31 | USGS Temp | | SMA-1 | 36.23 | 120.33 | no | USGS Cir. 971 |
| | 1.4 | | | 36.23 | 120.31 | USGS Temp | | SMA-1 | 36.23 | 120.33 | no | USGS Cir 971 |
| | 0.8 | | | 36.23 | 120.31 | USGS Temp | | SMA-1 | 36.23 | 120.33 | no | USGS Cir. 971 |
| | 1.3 | | | 36.23 | 120.31 | USGS Temp | | SMA-1 | 36.23 | 120.33 | no | USGS Cir. 971 |
| | | | | 36.23 | 120.31 | CIT Temp | | SMAT | | | no | |
| | 0.9 | | | 36.23 | 120.31 | USGS Temp | | SMA 1 | 36.23 | 120.36 | no | USGS Cir. 971 |
| | 0.5 | | | 36.23 | 120.31 | USGS Temp | | SMA-1 | 36.23 | 120.36 | no | USGS Cir. 971 |
| | 0 4 | | | 36.23 | 120.31 | USGS Temp | | SMA-1 | 36.25 | 120.31 | no | USGS Cir. 971 |
| | | | | 36.23 | 120.31 | USGS Temp | | SMA-1 | 36 31 | 120.25 | no | USGS Cir. 971 |
| 1 2 | 0.7 | | VII | 36 23 | 120.31 | CDMG | | | 36 28 | 120 31 | yes | CDMG Printout |
| 1 1 | 0.5 | | VII | 36.23 | 120.31 | CDMG | | | 36.28 | 120.31 | yes | CDMG Printout |
| 0.8 | 0 5 | | VI | 36.23 | 120.31 | CDMG | | | 36.21 | 120.31 | yes | CDMG Printout |
| 1.0 | 0.6 | | VII | 36.23 | 120.31 | CDMG | | | 36 21 | 120 31 | yes | CDMG Printout |
| | | | VI | 36.23 | 120.31 | CDMG | | SMA-1 | 36.31 | 120 25 | no | USGS Cir 971 |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| CAL | 207 | 830509 | 249 | Coalinga AftShk 1 | Coalinga Twin Tanks | | 5.1 | 13 | 4 |
| CAL | 208 | 830509 | 249 | Coalinga AftShk 1 | Coalinga Palmer Ave | | 5.1 | 13 | 3 |
| CAL | 209 | 830722 | 240 | Coalinga AftEvt 5 | Coalinga CHP | Soft | 6.0 | 10 | 10 |
| CAL | 210 | 830722 | 240 | Coalinga AftEvt 5 | Coalinga CHP | Soft | 6.0 | 10 | 10 |
| CAL | 211 | 830722 | 343 | Coalinga AftEvt 6 | Coalinga CHP | Soft | 5.0 | 10 | 9 |
| CAL | 212 | 830725 | 2231 | Coalinga AftEvt 7 | Coalinga CHP | Soft | 5.1 | 10 | 9 |
| CAL | 213 | 830725 | 223 | Coalinga AftEvt 7 | Coalinga CHP | Soft | 5.1 | 10 | 9 |
| CAL | 214 | 830725 | 2231 | Coalinga AftEvt 7 | Coalinga Sulphur Baths | Hard | 5.1 | 10 | 10 |
| CAL | 215 | 830911 | 1148 | Coalinga AftEvt 9 | Coalinga CHP | Soft | 4.3 | 10 | 9 |
| CAL | 216 | 840424 | 2115 | Morgan Hill | Gilroy 7, Mantelli Ranch | Hard | 6.2 | 9 | 39 |
| CAL | 217 | 840424 | 2115 | Morgan Hill | Gilroy 6, San Ysidro | Hard | 6.2 | 9 | 38 |
| CAL | 218 | 840424 | 2115 | Morgan Hill | Gilroy 6, San Ysidro | Hard | 6.2 | 9 | 38 |
| CAL | 219 | 840424 | 2115 | Morgan Hill | Gilroy 4, San Ysidro Sch | Soft | 6.2 | 9 | 37 |
| CAL | 220 | 840424 | 2115 | Morgan Hill | Gilroy 4, San Ysidro Sch | Soft | 6.2 | 9 | 37 |
| CAL | 221 | 840424 | 2115 | Morgan Hill | Gilroy 3, Sewage Plant | Soft | 6.2 | 9 | 38 |
| CAL | 222 | 840424 | 2115 | Morgan Hill | Gilroy 3, Sewage Plant | Soft | 6.2 | 9 | 38 |
| CAL | 223 | 840424 | 2115 | Morgan Hill | Gilroy 2, Hwy 101 Motel | Soft | 6.2 | 9 | 38 |
| CAL | 224 | 840424 | 2115 | Morgan Hill | Gilroy 2, Hwy 101 Motel | Soft | 6.2 | 9 | 38 |
| CAL | 225 | 840424 | 2115 | Morgan Hill | MH Anderson Dam, dwnstrm | Hard | 6.2 | 9 | 16 |
| CAL | 226 | 840424 | 2115 | Morgan Hill | MH Anderson Dam, dwnstrm | Hard | 6.2 | 9 | 16 |
| CAL | 227 | 840424 | 2115 | Morgan Hill | Halls Vly, Grant Ranch | Soft | 6.2 | 9 | 4 |
| CAL | 228 | 840424 | 2115 | Morgan Hill | Coyote Lk Dam, SW abut. | Hard | 6.2 | 9 | 24 |
| CAL | 229 | 840424 | 2115 | Morgan Hill | Coyote Lk Dam, SW abut. | Hard | 6.2 | 9 | 24 |
| CAL | 230 | 841123 | 1800 | Bishop | Bishop Paradise Lodge | Hard | 6.1 | 13 | 3 |
| CAL | 231 | 841123 | 1800 | Bishop | Bishop Paradise Lodge | Hard | 6.1 | 13 | 3 |

gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR. deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Twin Tanks | | 5.1 | 13 | 4 | 14 | | 216 | | | | | | | 36.23 | 120.31 |
| Palmer Ave | | 5.1 | 13 | 3 | 13 | | 255 | | | | 0.8 | | | 36.23 | 120.31 |
| CHP | Soft | 6.0 | 10 | 10 | 14 | 90 | 507 | 28.1 | 2.66 | 6.2 | 2.8 | | XI | 36.23 | 120.42 |
| CHP | Soft | 6.0 | 10 | 10 | 14 | 360 | 352 | 17.7 | 2.14 | 6.1 | 3.1 | | VIII | 36.23 | 120.42 |
| CHP | Soft | 5.0 | 10 | 9 | 13 | 90 | 206 | 9.9 | 0.90 | 1.0 | 0.3 | | VII | 36.21 | 120.41 |
| CHP | Soft | 5.1 | 10 | 9 | 13 | 90 | 654 | 35.3 | 3 68 | 5.6 | 1.0 | | IX | 36.22 | 120.41 |
| CHP | Soft | 5.1 | 10 | 9 | 13 | 360 | 453 | 14.3 | 1.09 | 4.5 | 0.8 | | IX | 36.22 | 120.41 |
| Sulphur Baths | Hard | 5.1 | 10 | 10 | 14 | 90 | 193 | 12.4 | 1.29 | 0.5 | 0.3 | | VI | 36.22 | 120.41 |
| CHP | Soft | 4.3 | 10 | 9 | 13 | 90 | 425 | 15.8 | 1.02 | 1.0 | 0.7 | | IX | 36.23 | 120.39 |
| Mantelli Ranch | Hard | 6.2 | 9 | 39 | 40 | 360 | 183 | 6.6 | 0.6 | 9.9 | 4.8 | VIII | VII | 37.32 | 121.68 |
| San Ysidro | Hard | 6.2 | 9 | 38 | 39 | 90 | 280 | 36.6 | 5.24 | 10.0 | 5.8 | VIII | VII | 37.32 | 121.68 |
| San Ysidro | Hard | 6.2 | 9 | 38 | 39 | 360 | 215 | 11.3 | 1.81 | 7.6 | 1.2 | VIII | VII | 37.32 | 121.68 |
| San Ysidro Sch | Soft | 6.2 | 9 | 37 | 38 | 360 | 329 | 16.7 | 3 02 | 12.7 | 9.3 | VIII | VII | 37.32 | 121.68 |
| San Ysidro Sch | Soft | 6.2 | 9 | 37 | 38 | 270 | 217 | 19.2 | 2.99 | 13.7 | 7.4 | VIII | VII | 37.32 | 121.68 |
| Sewage Plant | Soft | 6.2 | 9 | 38 | 39 | 90 | 190 | 11.9 | 2.58 | 12.8 | 2.2 4. | VIII | VII | 37.32 | 121.68 |
| Sewage Plant | Soft | 6.2 | 9 | 38 | 39 | 360 | 177 | 11.0 | 2.47 | 7.3 | 4 5 | VIII | VII | 37.32 | 121.68 |
| Hwy 101 Motel | Soft | 6.2 | 9 | 38 | 39 | 90 | 210 | 12.5 | 1.98 | 7.4 | 1.0 | VIII | VII | 37.32 | 121.68 |
| Hwy 101 Motel | Soft | 6.2 | 9 | 38 | 39 | 360 | 154 | 5.0 | 1.12 | 8.1 | 0.1 | VIII | VII | 37.32 | 121.68 |
| ərson Dam, dwnstrm | Hard | 6.2 | 9 | 16 | 18 | 340 | 283 | 27.6 | 5.75 | 9.0 | 4.0 | VIII | VII | 37.32 | 121.68 |
| ərson Dam, dwnstrm | Hard | 6.2 | 9 | 16 | 18 | 250 | 416 | 24 7 | 4.47 | 9.7 | 4.4 | VIII | VII | 37.32 | 121.68 |
| , Grant Ranch | Soft | 6.2 | 9 | 4 | 10 | 240 | 306 | 39.6 | 6.56 | 11.6 | 10.4 | VIII | VIII | 37.32 | 121.68 |
| k Dam, SW abut. | Hard | 6.2 | 9 | 24 | 26 | 285 | 1138 | 79.7 | 10.5 | 8.6 | 6.4 | vIII | VIII | 37.32 | 121.68 |
| k Dam, SW abut. | Hard | 6 2 | 9 | 24 | 26 | 195 | 640 | 51.9 | 10.3 | 8.8 | 4.6 | VIII | VIII | 37.32 | 121.68 |
| aradise Lodge | Hard | 6 1 | 13 | 3 | 13 | | 235 | | | | | V | V | 37.46 | 118.59 |
| aradise Lodge | Hard | 6.1 | 13 | 3 | 13 | | 196 | | | | | V | V | V | 118.59 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | | | 36.23 | 120.31 | CIT Temp | | SMAT | | | no | |
| | 0.8 | | | 36.25 | 120.31 | USGS Temp | | SMA-1 | 36.21 | 120.29 | TH | CDMG SP 66 |
| 6.2 | 2.8 | | XI | 36.23 | 120.42 | CDMG | | | 36.15 | 120.35 | yes | CDMG Printout |
| 6.1 | 3.1 | | VIII | 36.23 | 120.42 | CDMG | | | 36.15 | 120.35 | yes | CDMG Printout |
| 1.0 | 0.3 | | VII | 36.21 | 120.41 | CDMG | | | 36.15 | 120.35 | yes | CDMG Printout |
| 5.6 | 1.0 | | IX | 36.22 | 120.41 | CDMG | | | 36.15 | 120.35 | yes | CDMG Printout |
| 4.5 | 0 8 | | IX | 36.22 | 120.41 | CDMG | | | 36.15 | 120.35 | yes | CDMG Printout |
| 0.5 | 0.3 | | VI | 36.22 | 120.41 | CDMG | | | 36.12 | 120.40 | yes | CDMG Printout |
| 1.0 | 0.7 | | IX | 36.23 | 120.39 | CDMG | | | 36.15 | 120.35 | yes | CDMG Printout |
| 9.9 | 4 8 | VIII | VII | 37.32 | 121.68 | CDMG57425 | | SMA | 37.03 | 121.43 | yes | CDMG OSMS 85-04 |
| 10.0 | 5.8 | VIII | VII | 37.32 | 121.68 | CDMG57383 | | | 37.03 | 121.48 | yes | CDMG OSMS 85-04 |
| 7.6 | 1.2 | VIII | VII | 37.32 | 121.68 | CDMG57383 | | | 37.03 | 121.48 | yes | CDMG OSMS 85-04 |
| 2.7 | 9.3 | VIII | VII | 37.32 | 121.68 | CDMG57382 | | SMA | 37.01 | 121.52 | yes | CDMG OSMS 85-04 |
| 3.7 | 7.4 | VIII | VII | 37.32 | 121.68 | CDMG57382 | | SMA | 37.01 | 121.52 | yes | CDMG OSMS 85-04 |
| 2 8 | 2.2<br>4 | VIII | VII | 37.32 | 121.68 | CDMG47381 | | SMA | 37.01 | 121.52 | yes | CDMG OSMS 85-04 |
| 7.3 | 4.5 | VIII | VII | 37.32 | 121.68 | CDMG47381 | | SMA | 37.01 | 121.52 | yes | CDMG OSMS 85-04 |
| 7 4 | 1.0 | VIII | VII | 37.32 | 121.68 | CDMG47380 | | SMA | 36.98 | 121.56 | yes | CDMG OSMS 85-04 |
| 8.1 | 0.1 | VIII | VII | 37.32 | 121.68 | CDMG47380 | | SMA | 36.98 | 121.56 | yes | CDMG OSMS 85-04 |
| 9.0 | 4.0 | VIII | VII | 37.32 | 121.68 | USGS | | | 37.17 | 121.63 | yes | USGS OF 84-498 |
| 9 7 | 4.4 | VIII | VII | 37.32 | 121.68 | USGS | | | 37.17 | 121.63 | yes | USGS OF 84-498 |
| 1 6 | 10 4 | VIII | VIII | 37.32 | 121.68 | CDMG57191 | | SMA | 37.34 | 121.71 | yes | CDMG OSMS 85-04 |
| 3 6 | 6 4 | VIII | VIII | 37.32 | 121.68 | CDMG57217 | | SMA | 37.32 | 121.55 | yes | CDMG OSMS 85-04 |
| 3.8 | 4 6 | VIII | VIII | 37.32 | 121.68 | CDMG57217 | | SMA | 37.32 | 121.55 | yes | CDMG OSMS 85-04 |
| | | V | V | 37.46 | 118.59 | CDMG54424 | | | 37.48 | 118.60 | TH | |
| | | V | V | V | 118.59 | CDMG54424 | | | 37.48 | 118 60 | TH | |

| A1. | UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | E k |
| CAL | 232 | 860708 | 920 | No. Palm Springs | San Jacinto/Soboba | Soft | 6.0 | 12 | |
| CAL | 233 | 860708 | 920 | No. Palm Springs | San Jacinto/Soboba | Soft | 6.0 | 12 | |
| CAL | 234 | 860708 | 920 | No. Palm Springs | North Palm Springs | | 6.0 | 12 | |
| CAL | 235 | 860708 | 920 | No. Palm Springs | North Palm Springs | | 6.0 | 12 | |
| CAL | 236 | 860708 | 920 | No. Palm Springs | Palm Springs Airport | Soft | 6.0 | 12 | |
| CAL | 237 | 860708 | 920 | No. Palm Springs | Desert Hot Springs | Soft | 6.0 | 12 | |
| CAL | 238 | 860708 | 920 | No. Palm Springs | Desert Hot Springs | Soft | 6.0 | 12 | |
| CAL | 239 | 860708 | 920 | No. Palm Springs | White Water Trout Farm | | 6.0 | 12 | |
| CAL | 240 | 860708 | 920 | No. Palm Springs | White Water Trout Farm | | 6.0 | 12 | |
| CAL | 241 | 860708 | 920 | No. Palm Springs | Morongo Valley | | 6.0 | 12 | |
| CAL | 242 | 860708 | 920 | No. Palm Springs | Morongo Valley | | 6.0 | 12 | |
| CAL | 243 | 860708 | 920 | No. Palm Springs | Devers Substation | Soft | 6.0 | 12 | |
| CAL | 244 | 860708 | 920 | No. Palm Springs | Devers Substation | Soft | 6.0 | 12 | |
| CAL | 245 | 871001 | 1442 | Whittier Narrows | Whittier Narrows Dam | Soft | 5.9 | 9 | |
| CAL | 246 | 871001 | 1442 | Whittier Narrows | Whittier Narrows Dam | Soft | 5.9 | 9 | |
| CAL | 247 | 871001 | 1442 | Whittier Narrows | San Marino SW Academy | Soft | 5.9 | 9 | |
| CAL | 248 | 871001 | 1442 | Whittier Narrows | Whittier 7215 Bright | Soft | 5.9 | 9 | |
| CAL | 249 | 871001 | 1442 | Whittier Narrows | Whittier 7215 Bright | Soft | 5.9 | 9 | |
| CAL | 250 | 871001 | 1442 | Whittier Narrows | Garvey Reservoir, abut. | Hard | 5.9 | 9 | |
| CAL | 251 | 871001 | 1442 | Whittier Narrows | Garvey Reservoir, abut. | Hard | 5.9 | 9 | |
| CAL | 252 | 871001 | 1442 | Whittier Narrows | Alhambra Fremont Sch | Soft | 5.9 | 9 | |
| CAL | 253 | 871001 | 1442 | Whittier Narrows | Alhambra Fremont Sch | Soft | 5.9 | 9 | |
| CAL | 254 | 871001 | 1442 | Whittier Narrows | CSULA Admin Bldg | Hard | 5.9 | 9 | |
| CAL | 255 | 871001 | 1442 | Whittier Narrows | CSULA Admin Bldg | Hard | 5.9 | 9 | |
| CAL | 256 | 871001 | 1442 | Whittier Narrows | Alhambra 900 S Fremont | | 5.9 | 9 | |
| CAL | 257 | 871001 | 1442 | Whittier Narrows | Alhambra 900 S Fremont | | 5.9 | 9 | |

O gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | L TE CHAR | MAG | DEP km | EPI km | HYP km | TR. deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LON |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ıcinto/Soboba | Soft | 6.0 | 12 | 34 | 36 | 90 | 238 | 9.3 | 1.06 | 6.6 | 1.7 | VII | VI | 34.00 | 116.6 |
| ıcinto/Soboba | Soft | 6.0 | 12 | 34 | 36 | 360 | 238 | 9.5 | 1.10 | 5.3 | 1.5 | VII | VI | 34.00 | 116.6 |
| Palm Springs | | 6.0 | 12 | 8 | 14 | | 680 | | | | | VII | VII | 34.00 | 116.6 |
| Palm Springs | | 6.0 | 12 | 8 | 14 | | 460 | | | | | VII | VII | 34.00 | 116.6 |
| Springs Airport | Soft | 6.0 | 12 | 21 | 24 | 90 | 168 | 11.5 | 2.43 | 15.5 | 2.8 | VII | VI | 34.00 | 116.6 |
| Hot Springs | Soft | 6.0 | 12 | 10 | 16 | 90 | 264 | 18.5 | 4.34 | 10.0 | 6.5 | VII | VI | 34.00 | 116.6 |
| Hot Springs | Soft | 6.0 | 12 | 10 | 13 | 360 | 294 | 33.9 | 7.21 | 11.8 | 7.3 | VII | VI | 34.00 | 116.6 |
| Water Trout Farm | | 6.0 | 12 | 6 | 13 | | 598 | | | | | VII | VII | 34.00 | 116.6 |
| Water Trout Farm | | 6.0 | 12 | 6 | 13 | | 490 | | | | | VII | VII | 34.00 | 116.6 |
| go Valley | | 6.0 | 12 | 10 | 16 | | 220 | | | | | VII | VI | 34.00 | 116.6 |
| go Valley | | 6.0 | 12 | 10 | 16 | | 220 | | | | | VII | VI | 34.00 | 116.6 |
| Substation | Soft | 6.0 | 12 | 2 | 12 | 360 | 970 | 86.0 | 11.61 | 15.0 | 14.5 | VII | VII | 34.00 | 116.6 |
| Substation | Soft | 6.0 | 12 | 2 | 12 | 270 | 720 | 33.0 | 3.00 | 14.5 | 6.4 | VII | VII | 34.00 | 116.6 |
| ır Narrows Dam | Soft | 5.9 | 9 | 4 | 10 | | 310 | | | | 5.0 | VIII | VIII | 34.06 | 118.0 |
| ır Narrows Dam | Soft | 5.9 | 9 | 4 | 10 | | 240 | | | | 5.0 | VIII | VIII | 34.06 | 118.0 |
| anno SW Academy | Soft | 5.9 | 9 | 8 | 12 | 360 | 184 | 12.9 | 2.11 | 5.5 | 2.6 | VIII | VII | 34.06 | 118.0 |
| ır 7215 Bright | Soft | 5.9 | 9 | 10 | 13 | | 630 | | | | 3.0 | VIII | VIII | 34.06 | 118.0 |
| ır 7215 Bright | Soft | 5.9 | 9 | 10 | 13 | | 400 | | | | 2.4 | VIII | VIII | 34.06 | 118.0 |
| Reservoir, abut. | Hard | 5.9 | 9 | 3 | 9 | | 470 | | | | 3.1 | VIII | VIII | 34.06 | 118.0 |
| Reservoir, abut. | Hard | 5.9 | 9 | 3 | 9 | | 330 | | | | 2.8 | VIII | VIII | 34.06 | 118.0 |
| ora Fremont Sch | Soft | 5.9 | 9 | 7 | 11 | 270 | 374 | 16.9 | 1.62 | 6.4 | 3.7 | VIII | VIII | 34.06 | 118.0 |
| ora Fremont Sch | Soft | 5.9 | 9 | 7 | 11 | 180 | 286 | 21.7 | 2.44 | 6.8 | 3.3 | VIII | VIII | 34.06 | 118.0 |
| Admin Bldg | Hard | 5.9 | 9 | 9 | 12 | | 390 | | | | 6.0 | VIII | VII | 34.06 | 118.0 |
| Admin Bldg | Hard | 5.9 | 9 | 9 | 12 | | 300 | | | | 2.2 | VIII | VII | 34.06 | 118.0 |
| ora 900 S Fremont | | 5.9 | 9 | 8 | 12 | | 300 | | | | | VIII | VII | 34.06 | 118.0 |
| ora 900 S Fremont | | 5.9 | 9 | 8 | 12 | | 260 | | | | | VIII | VII | 34.06 | 118.0 |

eds
1-14

Sep 11, 1990

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 6.6 | 1.7 | VII | VI | 34.00 | 116.61 | CDMG12204 | | SMA-1 | 33.80 | 116.81 | yes | CDMG OSMS 87-01 |
| 5.3 | 1.5 | VII | VI | 34.00 | 116.61 | CDMG12204 | | SMA-1 | 33.80 | 116.81 | yes | CDMG OSMS 87-01 |
| | | VII | VII | 34.00 | 116.61 | USGS 5070 | | | 33.92 | 116.54 | TH | USGS Quick Look |
| | | VII | VII | 34.00 | 116.61 | USGS 5070 | | | 33.92 | 116.54 | TH | USGS Quick Look |
| 15.5 | 2.8 | VII | VI | 34.00 | 116.61 | CDMG12015 | | | 33.83 | 116.50 | yes | CDMG OSMS 87-01 |
| 10.0 | 6.5 | VII | VI | 34.00 | 116.61 | CDMG12149 | | SMA-1 | 33.96 | 116.51 | yes | CDMG OSMS 87-01 |
| 11.8 | 7.3 | VII | VI | 34.00 | 116.61 | CDMG12149 | | SMA-1 | 33.96 | 116.51 | yes | CDMG OSMS 87-01 |
| | | VII | VII | 34.00 | 116.61 | USGS 5072 | | | 33.99 | 116.66 | TH | USGS Quick Look |
| | | VII | VII | 34.00 | 116.61 | USGS 5072 | | | 33.99 | 116.66 | TH | USGS Quick Look |
| | | VII | VI | 34.00 | 116.61 | USGS 5071 | | | 34.00 | 116.60 | TH | USGS Quick Look |
| | | VII | VI | 34.00 | 116.61 | USGS 5071 | | | 34.00 | 116.60 | TH | USGS Quick Look |
| 15.0 | 14.5 | VII | VII | 34.00 | 116.61 | SCE 15 | | SMA-2 | 33.93 | 116.58 | yes | So Cal Edison Co |
| 14.5 | 6.4 | VII | VII | 34.00 | 116.61 | SCE 15 | | SMA-2 | 33.93 | 116.58 | yes | So Cal Edison Co |
| | 5.0 | VIII | VIII | 34.06 | 118.08 | USGS 289 | | | 34.03 | 118.05 | TH | USG OF 87-616 |
| | 5.0 | VIII | VIII | 34.06 | 118.08 | USGS 289 | | | 34.03 | 118.05 | TH | USG OF 87-616 |
| 5.5 | 2.6 | VIII | VII | 34.06 | 118.08 | CDMG24401 | | | 34.12 | 118.13 | yes | CDMG Tape Printout |
| | 3.0 | VIII | VIII | 34 06 | 118.08 | USGS 804 | | | 33.98 | 118.04 | TH | USGS OF 87-616 |
| | 2.4 | VIII | VIII | 34.06 | 118.08 | USGS 804 | | | 33.98 | 118.04 | TH | USGS OF 87-616 |
| | 3.1 | VIII | VIII | 34.06 | 118.08 | USGS 709 | MWD | | 34.05 | 118.11 | TH | USGS OF 87-616 |
| | 2.8 | VIII | VIII | 34.06 | 118.08 | USGS 709 | MWD | | 34.05 | 118.11 | TH | USGS OF 87-616 |
| 6.4 | 3.7 | VIII | VIII | 34.06 | 118.08 | CDMG24461 | | | 34 07 | 118.15 | yes | CDMG Tape Printout |
| 6.8 | 3.3 | VIII | VIII | 34.06 | 118.08 | CDMG24431 | | | 34 07 | 118.15 | yes | CDMG Tape Printout |
| | 6.0 | VIII | VII | 34.06 | 118.08 | CDMG24468 | | | 34 07 | 118.69 | TH | CDMG OSMS 87-05 |
| | 2.2 | VIII | VII | 34.06 | 118.08 | CDMG24468 | | | 34 07 | 118.69 | TH | CDMG OSMS 87-05 |
| | | VIII | VII | 34.06 | 118.08 | USGS 482 | | | 34.09 | 118 15 | TH | USGS OF 87-616 |
| | | VIII | VII | 34 06 | 118.08 | USGS 482 | | | 34.09 | 118 15 | TH | USGS OF 87-616 |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID. | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km |
|---|---|---|---|---|---|---|---|---|
| CAL | 258 | 871001 | 1442 | Whittier Narrows | Norwalk 12400 Impl Hwy | Soft | 5.9 | 9 |
| CAL | 259 | 871001 | 1442 | Whittier Narrows | LA Obregon Park | Soft | 5.9 | 9 |
| CAL | 260 | 871001 | 1442 | Whittier Narrows | LA Obregon Park | Soft | 5.9 | 9 |
| CAL | 261 | 871001 | 1442 | Whittier Narrows | Altadena Eaton Cyn Pk | Soft | 5.9 | 9 |
| CAL | 262 | 871001 | 1442 | Whittier Narrows | LA 4407 Jasper St | | 5.9 | 9 |
| CAL | 263 | 871001 | 1442 | Whittier Narrows | LA 4407 Jasper St | | 5.9 | 9 |
| CAL | 264 | 871001 | 1442 | Whittier Narrows | LA Bulk Mail Center | | 5.9 | 9 |
| CAL | 265 | 871001 | 1442 | Whittier Narrows | LA Bulk Mail Center | | 5.9 | 9 |
| CAL | 266 | 871001 | 1442 | Whittier Narrows | Brea Dam, downstream | | 5.9 | 9 |
| CAL | 267 | 871001 | 1442 | Whittier Narrows | Brea Dam, downstream | | 5.9 | 9 |
| CAL | 268 | 871001 | 1442 | Whittier Narrows | Vernon 4814 Loma Vista | Soft | 5.9 | 9 |
| CAL | 269 | 871001 | 1442 | Whittier Narrows | Vernon 4814 Loma Vista | Soft | 5.9 | 9 |
| CAL | 270 | 871001 | 1442 | Whittier Narrows | Tarzana Cedar Hl Nursery | Hard | 5.9 | 9 |
| CAL | 271 | 871001 | 1442 | Whittier Narrows | Tarzana Cedar Hl Nursery | Hard | 5.9 | 9 |
| CAL | 272 | 871001 | 1442 | Whittier Narrows | LA 116th St School | Soft | 5.9 | 9 |
| CAL | 273 | 871001 | 1442 | Whittier Narrows | LA 116th St School | Soft | 5.9 | 9 |
| CAL | 274 | 871001 | 1442 | Whittier Narrows | Inglwd Union Oil yard | Soft | 5.9 | 9 |
| CAL | 275 | 871001 | 1442 | Whittier Narrows | Inglwd Union Oil yard | Soft | 5.9 | 9 |
| CAL | 276 | 871001 | 1442 | Whittier Narrows | LongBch Rcho LosCemtos | Soft | 5.9 | 9 |
| CAL | 277 | 871001 | 1442 | Whittier Narrows | LA Hwd Storage BB, FF | Soft | 5.9 | 9 |
| CAL | 278 | 871001 | 1442 | Whittier Narrows | Downey Co Maint. Bldg | Soft | 5.9 | 9 |
| CAL | 279 | 871001 | 1442 | Whittier Narrows | Mt Wilson CIT Seis Sta | Hard | 5.9 | 9 |
| CAL | 280 | 871004 | 1059 | Whittier AftShk | Whittier 7215 Bnght | Soft | 5.3 | 9 |
| CAL | 281 | 871004 | 1059 | Whittier AftShk | Whittier 7215 Bright | Soft | 5.3 | 9 |
| CAL | 282 | 871004 | 1059 | Whittier AftShk | LA Bulk Mail Center | | 5.3 | 9 |
| CAL | 283 | 871004 | 1059 | Whittier AftShk | LA Bulk Mail Center | | 5.3 | 9 |

) gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LON |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| < 12400 Impl Hwy | Soft | 5.9 | 9 | 15 | 17 | | 290 | | | | | VIII | VII | 34.06 | 118.0 |
| ;gon Park | Soft | 5.9 | 9 | 10 | 13 | 270 | 399 | 12.9 | 2.35 | 9.6 | 5.7 | VIII | VIII | 34.06 | 118.0 |
| ;gon Park | Soft | 5.9 | 9 | 10 | 13 | 360 | 420 | 21.8 | 2.82 | 11.2 | 6.3 | VIII | VIII | 34.06 | 118.0 |
| :a Eaton Cyn Pk | Soft | 5.9 | 9 | 13 | 16 | 360 | 299 | 10.2 | 1.21 | 4.7 | 2.6 | VIII | VIII | 34.06 | 118.0 |
| 7 Jasper St | | 5.9 | 9 | 11 | 14 | | 330 | | | | | VIII | | 34.06 | 118.0 |
| 7 Jasper St | | 5.9 | 9 | 11 | 14 | | 230 | | | | | VIII | | 34.06 | 118.0 |
| Mail Center | | 5.9 | 9 | 11 | 14 | | 460 | | | | | VIII | | 34.06 | 118.0 |
| Mail Center | | 5.9 | 9 | 11 | 14 | | 340 | | | | | VIII | | 34.06 | 118.0 |
| ım, downstream | | 5.9 | 9 | 23 | 25 | | 320 | | | | | VIII | | 34.06 | 118.0 |
| ım, downstream | | 5.9 | 9 | 23 | 25 | | 180 | | | | | VIII | | 34.06 | 118.0 |
| 4814 Loma Vista | Soft | 5.9 | 9 | 13 | 16 | | 290 | | | | | VIII | VII | 34.06 | 118.0 |
| 4814 Loma Vista | Soft | 5.9 | 9 | 13 | 16 | | 220 | | | | | VIII | VII | 34.06 | 118.0 |
| Cedar HI Nursery | Hard | 5.9 | 9 | 44 | 45 | 90 | 527 | 24.2 | 1.35 | 12.0 | 5.6 | VIII | VIII | 34.06 | 118.0 |
| Cedar HI Nursery | Hard | 5.9 | 9 | 44 | 45 | 360 | 398 | 19.2 | 1.35 | 9.5 | 5.6 | VIII | VIII | 34.06 | 118.0 |
| :h St School | Soft | 5.9 | 9 | 22 | 24 | 360 | 384 | 18.6 | 2.07 | 3.5 | 2.9 | VIII | VIII | 34.06 | 118.0 |
| th St School | Soft | 5.9 | 9 | 22 | 24 | 270 | 253 | 17.5 | 1.69 | 6.6 | 2.23 | VIII | VIII | 34.06 | 118.0 |
| Jnion Oil yard | Soft | 5.9 | 9 | 25 | 27 | 90 | 219 | 16.4 | 2.00 | 8.7 | 1.8 | VIII | VII | 34.06 | 118.0 |
| Jnion Oil yard | Soft | 5.9 | 9 | 25 | 27 | 360 | 246 | 8.7 | 0.70 | 5.6 | 2.6 | VIII | VII | 34.06 | 118.0 |
| ı Rcho LosCerritos | Soft | 5.9 | 9 | 27 | 28 | 90 | 233 | 18.4 | 2.10 | 7.6 | 1.8 | VIII | VII | 34.06 | 118.0 |
| Storage BB, FF | Soft | 5.9 | 9 | 25 | 27 | 360 | 201 | 9.1 | 1 30 | 5.1 | 2.4 | VIII | VII | 34.06 | 118.0 |
| ı Co Maint. Bldg | Soft | 5.9 | 9 | 17 | 19 | 180 | 193 | 28.9 | 3 69 | 7.6 | 1.5 | VIII | VII | 34.06 | 118.0 |
| on CIT Seis Sta | Hard | 5.9 | 9 | 19 | 21 | 90 | 171 | 4 1 | 0.32 | 6.1 | 3 0 | VIII | VI | 34.06 | 118.0 |
| 7215 Bnght | Soft | 5.3 | 9 | 12 | 15 | | 330 | | | | | | VIII | 34.07 | 118.1 |
| 7215 Bright | Soft | 5.3 | 9 | 12 | 15 | | 300 | | | | | | VIII | 34.07 | 118.1 |
| Mail Center | | 5.3 | 9 | 11 | 14 | | 250 | | | | | | | 34.07 | 118.1 |
| Mail Center | | 5.3 | 9 | 11 | 14 | | 240 | | | | | | | 34.07 | 118.1 |



(2)

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | VIII | VII | 34.06 | 118.08 | USGS 8634 | | | 33.92 | 118.07 | TH | USGS OF 87-616 |
| 9.6 | 5.7 | VIII | VIII | 34.06 | 118.08 | CDMG24400 | | | 34.04 | 118.18 | yes | CDMG Tape Printout |
| 11.2 | 6.3 | VIII | VIII | 34.06 | 118.08 | CDMG24400 | | | 34.04 | 118.18 | yes | CDMG Tape Printout |
| 4.7 | 2.6 | VIII | VIII | 34.06 | 118.08 | CDMG24402 | | | 34.18 | 118.10 | yes | CDMG Tape Printout |
| | | VIII | | 34.06 | 118.08 | USGS 5244 | | | 34.08 | 118.19 | TH | USGS OF 87-616 |
| | | VIII | | 34.06 | 118.08 | USGS 5244 | | | 34.08 | 118.19 | TH | USGS OF 87-616 |
| | | VIII | | 34.06 | 118.08 | USGS 5129 | | | 33.99 | 118.16 | TH | USGS OF 87-616 |
| | | VIII | | 34.06 | 118.08 | USGS 5129 | | | 33.99 | 118.16 | TH | USGS OF 87-616 |
| | | VIII | | 34.06 | 118.08 | ACOE 951 | | | 33.89 | 117.93 | TH | USGS OF 87-616 |
| | | VIII | | 34.06 | 118.08 | ACOE 951 | | | 33.89 | 117.93 | TH | USGS OF 87-616 |
| | | VIII | VII | 34.06 | 118.08 | USGS 288 | | | 34.00 | 118.20 | TH | USGS OF 87-616 |
| | | VIII | VII | 34.06 | 118.08 | USGS 288 | | | 34.00 | 118.20 | TH | USGS OF 87-616 |
| 12.0 | 5.6 | VIII | VIII | 34.06 | 118.08 | CDMG24436 | | | 34.16 | 118.53 | yes | CDMG Tape Printout |
| 9.5 | 5.6 | VIII | VIII | 34 06 | 118 08 | CDMG24436 | | | 34.16 | 118.53 | yes | CDMG Tape Printout |
| 3.5 | 2.9 | VIII | VIII | 34.06 | 118.08 | CDMG14403 | | | 33.93 | 118.26 | yes | CDMG Tape Printout |
| 6.6 | 2.23 | VIII | VIII | 34.06 | 118 08 | CDMG14403 | | | 33.93 | 118.26 | yes | CDMG Tape Printout |
| 8 7 | 1.8 | VIII | VII | 34.06 | 118.08 | CDMG14196 | | | 33.91 | 118.28 | yes | CDMG Tape Printout |
| 5.6 | 2.6 | VIII | VII | 34.06 | 118.08 | CDMG14196 | | | 33.91 | 118.28 | yes | CDMG Tape Printout |
| 7.6 | 1.8 | VIII | VII | 34 06 | 118 08 | CDMG14241 | | | 33.78 | 118.13 | yes | CDMG Tape Printout |
| 5.1 | 2.4 | VIII | VII | 34.06 | 118.08 | CDMG24303 | | | 34.09 | 118.34 | yes | CDMG Tape Printout |
| 7.6 | 1 5 | VIII | VII | 34.06 | 118.08 | CDMG14368 | | | 33 92 | 118.17 | yes | CDMG Tape Printout |
| 6 1 | 3 0 | VIII | VI | 34.06 | 118.08 | CDMC.24399 | | | 34.22 | 118 06 | yes | CDMG Tape Printout |
| | | | VIII | 34.07 | 118.10 | USGS 804 | | | 33.98 | 118.04 | TH | USGS OF 88-38 |
| | | | VIII | 34.07 | 118.10 | USGS 804 | | | 33.98 | 118 04 | TH | USGS OF 88-38 |
| | | | | 34.07 | 118.10 | USGS 5129 | | | 33 99 | 118.16 | TH | USGS OF 88-38 |
| | | | | 34 07 | 118.10 | USGS 5129 | | | 33.99 | 118 16 | TH | USGS OF 88-38 |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | E k |
|---|---|---|---|---|---|---|---|---|---|
| CAL | 284 | 871004 | 1059 | Whittier AftShk | Vernon 4814 Loma Vista | Soft | 5.3 | 9 | |
| CAL | 285 | 871004 | 1059 | Whittier AftShk | Vernon 4814 Loma Vista | Soft | 5.3 | 9 | |
| CAL | 286 | 871004 | 1059 | Whittier AftShk | Garvey Reservoir, abut. | Hard | 5.3 | 9 | |
| CAL | 287 | 871004 | 1059 | Whittier AftShk | Garvey Reservoir, abut. | Hard | 5.3 | 9 | |
| CAL | 288 | 871124 | 154 | Superstition Hls | Calipatria Fire Station | Soft | 6.2 | 12 | |
| CAL | 289 | 871124 | 154 | Superstition Hls | Calipatria Fire Station | Soft | 6.2 | 12 | |
| CAL | 290 | 871124 | 1315 | Superstition Hls | Superstition Mtn #8 | Hard | 6.6 | 12 | |
| CAL | 291 | 871124 | 1315 | Superstition Hls | Superstition Mtn #8 | Hard | 6.6 | 12 | |
| CAL | 292 | 871124 | 1315 | Superstition Hls | Parachute Test Site | Soft | 6.6 | 12 | |
| CAL | 293 | 871124 | 1315 | Superstition Hls | Parachute Test Site | Soft | 6.6 | 12 | |
| CAL | 294 | 871124 | 1315 | Superstition Hls | POE Temp | | 6.6 | 12 | |
| CAL | 295 | 871124 | 1315 | Superstition Hls | POE Temp | | 6.6 | 12 | |
| CAL | 296 | 871124 | 1315 | Superstition Hls | ElCentro Array 8 | Soft | 6.6 | 12 | |
| CAL | 297 | 871124 | 1315 | Superstition Hls | ElCentro Array 8 | Soft | 6.6 | 12 | |
| CAL | 298 | 871124 | 1315 | Superstition Hls | Calipatria Fire Station | Soft | 6 6 | 12 | |
| CAL | 299 | 871124 | 1315 | Superstition Hls | Calipatria Fire Station | Soft | 6.6 | 12 | |
| CAL | 300 | 871124 | 1315 | Superstition Hls | ElCentro Array 11 | Soft | 6.6 | 12 | |
| CAL | 301 | 871124 | 1315 | Superstition Hls | ElCentro Array 11 | Soft | 6.6 | 12 | |
| CAL | 302 | 871124 | 1315 | Superstition Hls | ElCentro Array 9 | Soft | 6.6 | 12 | |
| CAL | 303 | 871124 | 1315 | Superstition Hls | ElCentro Array 9 | Soft | 6 6 | 12 | |
| CAL | 304 | 871124 | 1315 | Superstition Hls | ElCentro Diff Array | Soft | 6.6 | 12 | |
| CAL | 305 | 871124 | 1315 | Superstition Hls | ElCentro Diff Array | Soft | 6.6 | 12 | |
| CAL | 306 | 871124 | 1315 | Superstition Hls | Bonds Cnr, Hwy 98/115 | Soft | 6.6 | 12 | |
| CAL | 307 | 871124 | 1315 | Superstition Hls | Bonds Cnr, Hwy 98/115 | Soft | 6 6 | 12 | |
| CAL | 308 | 871124 | 1315 | Superstition Hls | Bonds Cnr, Hwy 98/115 | Soft | 6 6 | 12 | |
| CAL | 309 | 871124 | 1315 | Superstition Hls | Bonds Cnr, Hwy 98/115 | Soft | 6 6 | 12 | |

00 gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR. deg | HOR gal | VEL cm/s | DISP cm | DURATION | | INTENSITY | | EPICENTE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | g5% | g10% | EPI | STA | LAT | L |
| on 4814 Loma Vista | Soft | 5.3 | 9 | 12 | 15 | | 270 | | | | | | VII | 34.07 | 11 |
| on 4814 Loma Vista | Soft | 5.3 | 9 | 12 | 15 | | 150 | | | | | | VII | 34.07 | 11 |
| oy Reservoir, abut. | Hard | 5.3 | 9 | 2 | 9 | | 210 | | | | | | VI | 34.07 | 11 |
| oy Reservoir, abut. | Hard | 5.3 | 9 | 2 | 9 | | 190 | | | | | | VI | 34.07 | 11 |
| atria Fire Station | Soft | 6.2 | 12 | 26 | 29 | | 220 | | | | 0.7 | | VII | 33.01 | 11 |
| atna Fire Station | Soft | 6.2 | 12 | 26 | 29 | | 150 | | | | 0.7 | | VII | 33.01 | 11 |
| astition Mtn #8 | Hard | 6.6 | 12 | 7 | 14 | | 910 | | | | 16.5 | | IX | 33.01 | 11 |
| astition Mtn #8 | Hard | 6.6 | 12 | 7 | 14 | | 730 | | | | 16.5 | | IX | 33.01 | 11 |
| hute Test Site | Soft | 6.6 | 12 | 17 | 21 | | 530 | | | | 13.7 | | IX | 33.01 | 11 |
| hute Test Site | Soft | 6.6 | 12 | 17 | 21 | | 490 | | | | 13.7 | | IX | 33.01 | 11 |
| Temp | | 6.6 | 12 | 14 | 18 | | 540 | | | | 18.1 | | | 33 01 | 11 |
| Temp | | 6.6 | 12 | 14 | 18 | | 330 | | | | 18.1 | | | 33.01 | 11 |
| tro Array 8 | Soft | 6.6 | 12 | 38 | 40 | | 350 | | | | 10.1 | | VIII | 33.01 | 11 |
| tro Array 8 | Soft | 6.6 | 12 | 38 | 40 | | 330 | | | | 10.1 | | VIII | 33.01 | 11 |
| atria Fire Station | Soft | 6.6 | 12 | 34 | 36 | | 320 | | | | 10.8 | | VIII | 33.01 | 11 |
| atna Fire Station | Soft | 6.6 | 12 | 34 | 36 | | 240 | | | | 10.8 | | VIII | 33.01 | 11 |
| tro Array 11 | Soft | 6.6 | 12 | 38 | 40 | | 320 | | | | 15 7 | | VIII | 33.01 | 11 |
| tro Array 11 | Soft | 6.6 | 12 | 38 | 40 | | 210 | | | | 15 7 | | VIII | 33.01 | 11 |
| tro Array 9 | Soft | 6.6 | 12 | 38 | 40 | | 300 | | | | 3 6 | | VIII | 33.01 | 11 |
| tro Array 9 | Soft | 6.6 | 12 | 38 | 40 | | 200 | | | | 3.6 | | VIII | 33.01 | 11 |
| tro Diff Array | Soft | 6.6 | 12 | 39 | 41 | | 290 | | | | 13 4 | | VIII | 33.01 | 11 |
| tro Diff Array | Soft | 6.6 | 12 | 39 | 41 | | 230 | | | | 13 4 | | VIII | 33.01 | 11 |
| Cmr, Hwy 98/115 | Soft | 6.6 | 12 | 60 | 61 | | 290 | | | | 9.8 | | VIII | 33.01 | 11 |
| Cmr, Hwy 98/115 | Soft | 6 6 | 12 | 60 | 61 | | 270 | | | | 9 8 | | VIII | 33.01 | 11 |
| Cmr, Hwy 98/115 | Soft | 6.6 | 12 | 60 | 61 | | 280 | | | | | | VIII | 33 01 | 11 |
| Cmr, Hwy 98/115 | Soft | 6 6 | 12 | 60 | 61 | | 280 | | | | | | VIII | 33.01 | 11 |

s
14

Sep 11, 1990

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | | VII | 34.07 | 118.10 | USGS 288 | | | 34.00 | 118.10 | TH | USGS OF 88-38 |
| | | | VII | 34.07 | 118.10 | USGS 288 | | | 34.00 | 118.10 | TH | USGS OF 88-38 |
| | | | VI | 34.07 | 118.10 | USGS 709 | | | 34.05 | 118.11 | TH | USGS OF 88-38 |
| | | | VI | 34.07 | 118.10 | USGS 709 | | | 34.05 | 118.11 | TH | USGS OF 88-38 |
| | 0.7 | | VII | 33.01 | 115.86 | USGS 5061 | | | 33.13 | 115.52 | TH | |
| | 0.7 | | VII | 33.01 | 115.86 | USGS 5061 | | | 33.13 | 115.52 | TH | — |
| | 16.5 | | IX | 33.01 | 115.86 | USGS 286 | | RFT250 | 32.96 | 115.82 | TH | |
| | 16.5 | | IX | 33.01 | 115.86 | USGS 286 | | RFT250 | 32.96 | 115.82 | TH | |
| | 13.7 | | IX | 33.01 | 115.86 | | | | 32.93 | 115.70 | TH | |
| | 13.7 | | IX | 33.01 | 115.86 | | | | 32.93 | 115.70 | TH | |
| | 18.1 | | | 33.01 | 115.86 | | | | 33.10 | 115.75 | TH | |
| | 18.1 | | | 33.01 | 115.86 | | | | 33.10 | 115.75 | TH | |
| | 10.1 | | VIII | 33.01 | 115.86 | USGS 958 | | | 32.81 | 115.53 | no | |
| | 10.1 | | VIII | 33.01 | 115.86 | USGS 958 | | | 32.81 | 115.53 | no | |
| | 10.8 | | VIII | 33.01 | 115.86 | USGS 5061 | | | 33.13 | 115.52 | no | |
| | 10.8 | | VIII | 33.01 | 115.86 | USGS 5061 | | | 33.13 | 115.52 | no | |
| | 15 7 | | VIII | 33.01 | 115.86 | USGS 5058 | | | 32.75 | 115.59 | TH | |
| | 15 7 | | VIII | 33.01 | 115.86 | USGS 5058 | | | 32.75 | 115.59 | TH | |
| | 3 6 | | VIII | 33.01 | 115.86 | USGS 117 | | | 32.79 | 115.55 | TH | |
| | 3 6 | | VIII | 33.01 | 115.86 | USGS 117 | | | 32.79 | 115.55 | TH | |
| | 13 4 | | VIII | 33.01 | 115.86 | USGS 5165 | | | 32.80 | 115 54 | TH | |
| | 13 4 | | VIII | 33.01 | 115.86 | USGS 5165 | | | 32.80 | 115 54 | TH | |
| | 9 8 | | VIII | 33.01 | 115.86 | USGS 5054 | | RFT | 32 69 | 115.34 | no | |
| | 9 8 | | VIII | 33.01 | 115.86 | USGS 5054 | | RFT | 32.69 | 115.34 | no | |
| | | | VIII | 33.01 | 115.86 | USGS 5054 | | SMA | 32 69 | 115 34 | no | |
| | | | VIII | 33.01 | 115 86 | USGS 5054 | | SMA | 32.69 | 115 34 | no | |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km |
|---|---|---|---|---|---|---|---|---|
| CAL | 310 | 871124 | 1315 | Superstition Hls | ElCentro Mdws Un'n Sch | Soft | 6.6 | 12 |
| CAL | 311 | 871124 | 1315 | Superstition Hls | ElCentro Mdws Un'n Sch | Soft | 6.6 | 12 |
| CAL | 312 | 871124 | 1315 | Superstition Hls | ElCentro Array 10 | Soft | 6.6 | 12 |
| CAL | 313 | 871124 | 1315 | Superstition Hls | ElCentro Array 10 | Soft | 6.6 | 12 |
| CAL | 314 | 871124 | 1315 | Superstition Hls | ElCentro Array 7 | Soft | 6.6 | 12 |
| CAL | 315 | 871124 | 1315 | Superstition Hls | ElCentro Array 7 | Soft | 6.6 | 12 |
| CAL | 316 | 871124 | 1315 | Superstition Hls | Calexico Fire Station | Soft | 6.6 | 12 |
| CAL | 317 | 871124 | 1315 | Superstition Hls | Calexico Fire Station | Soft | 6.6 | 12 |
| CAL | 318 | 871124 | 1315 | Superstition Hls | Impl Wildlife Liq Array | Soft | 6.6 | 12 |
| CAL | 319 | 871124 | 1315 | Superstition Hls | Impl Wildlife Liq Array | Soft | 6.6 | 12 |
| CAL | 320 | 871124 | 1315 | Superstition Hls | ElCentro Array 5 | Soft | 6.6 | 12 |
| CAL | 321 | 871124 | 1315 | Superstition Hls | ElCentro Array 5 | Soft | 6.6 | 12 |
| CAL | 322 | 891018 | 4 | Loma Prieta | Anderson Dam, Downstream | Soft | 7.1 | 18 |
| CAL | 323 | 891018 | 4 | Loma Prieta | Anderson Dam, Downstream | Soft | 7.1 | 18 |
| CAL | 324 | 891018 | 4 | Loma Prieta | Anderson Dam, Left Abutmt | Rock | 7.1 | 18 |
| CAL | 325 | 891018 | 4 | Loma Prieta | Anderson Dam, Left Abutmt | Rock | 7.1 | 18 |
| CAL | 326 | 891018 | 4 | Loma Prieta | Sunnyvale, Colton Avenue | Soft | 7.1 | 18 |
| CAL | 327 | 891018 | 4 | Loma Prieta | Sunnyvale, Colton Avenue | Soft | 7.1 | 18 |
| CAL | 328 | 891018 | 4 | Loma Prieta | Hollister Airport | Soft | 7.1 | 18 |
| CAL | 329 | 891018 | 4 | Loma Prieta | Hollister Airport | Soft | 7.1 | 18 |
| CAL | 330 | 891018 | 4 | Loma Prieta | Palo Alto VA Hosp , Bsmt | Hard | 7.1 | 18 |
| CAL | 331 | 891018 | 4 | Loma Prieta | Palo Alto VA Hosp., Bsmt | Hard | 7.1 | 18 |
| CAL | 332 | 891018 | 4 | Loma Prieta | Hollister City Hall Annex | Soft | 7.1 | 18 |
| CAL | 333 | 891018 | 4 | Loma Prieta | Hollister City Hall Annex | Soft | 7.1 | 18 |
| CAL | 334 | 891018 | 4 | Loma Prieta | Stanford SLAC Test Lab | Hard | 7.1 | 18 |
| CAL | 335 | 891018 | 4 | Loma Prieta | Stanford SLAC Test Lab | Hard | 7 1 | 18 |

0 gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LON |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ro Mdws Un'n Sch | Soft | 6.6 | 12 | 43 | 45 | | 270 | | | | | | VIII | 33.01 | 116.8 |
| ro Mdws Un'n Sch | Soft | 6.6 | 12 | 43 | 45 | | 260 | | | | | | VIII | 33.01 | 116.8 |
| ro Array 10 | Soft | 6.6 | 12 | 37 | 39 | | 270 | | | | | | VIII | 33.01 | 116.8 |
| ro Array 10 | Soft | 6.6 | 12 | 37 | 39 | | 220 | | | | | | VIII | 33.01 | 116.8 |
| ro Array 7 | Soft | 6.6 | 12 | 39 | 41 | | 260 | | | | 3.6 | | VIII | 33.01 | 116.8 |
| o Array 7 | Soft | 6.6 | 12 | 39 | 41 | | 200 | | | | 3.6 | | VIII | 33.01 | 116.8 |
| o Fire Station | Soft | 6.6 | 12 | 51 | 52 | | 210 | | | | 11.7 | | VII | 33.01 | 116.8 |
| o Fire Station | Soft | 6.6 | 12 | 51 | 52 | | 210 | | | | 11.7 | | VII | 33.01 | 116.8 |
| ildlife Liq Array | Soft | 6.6 | 12 | 32 | 34 | | 210 | | | | 13.2 | | VII | 33.01 | 116.8 |
| ildlife Liq Array | Soft | 6.6 | 12 | 32 | 34 | | 190 | | | | 13.2 | | VII | 33.01 | 116.8 |
| o Array 5 | Soft | 6.6 | 12 | 41 | 43 | | 200 | | | | 3.9 | | VII | 33.01 | 116.8 |
| o Array 5 | Soft | 6.6 | 12 | 41 | 43 | | 190 | | | | 3.9 | | VII | 33.01 | 116.8 |
| on Dam, Downstream | Soft | 7.1 | 18 | 19 | 26 | 340 | 239 | 19.2 | 2.89 | 14.0 | 10.7 | VIII | VII | 37.04 | 121.8 |
| on Dam, Downstream | Soft | 7.1 | 18 | 19 | 26 | 250 | 239 | 18.0 | 3.76 | 11.5 | 7.7 | VIII | VII | 37.04 | 121.8 |
| on Dam, Left Abutmt | Rock | 7.1 | 18 | 19 | 26 | 340 | 79 | 9.1 | 2.45 | 4.9 | 0.0 | VIII | VI | 37.04 | 121.8 |
| on Dam, Left Abutmt | Rock | 7.1 | 18 | 19 | 26 | 250 | 60 | 12.1 | 3.77 | 3.8 | 0.0 | VIII | VI | 37.04 | 121.8 |
| ale, Colton Avenue | Soft | 7.1 | 18 | 18 | 25 | 360 | 215 | 33.4 | 13.84 | 30.0 | 3.2 | VIII | VII | 37.04 | 121.8 |
| ale, Colton Avenue | Soft | 7.1 | 18 | 18 | 25 | 270 | 210 | 34.1 | 12.64 | 16.4 | 11.3 | VIII | VII | 37.04 | 121.8 |
| r Airport | Soft | 7.1 | 18 | 18 | 25 | 255 | 281 | 36.6 | 8.42 | 12.7 | 8.0 | VIII | VII | 37.04 | 121.8 |
| r Airport | Soft | 7.1 | 18 | 18 | 25 | 165 | 277 | 44.4 | 10.23 | 16.7 | 4.6 | VIII | VII | 37.04 | 121.8 |
| to VA Hosp., Bsmt | Hard | 7.1 | 18 | 16 | 24 | 302 | 342 | 23.0 | 8.64 | 15.9 | 4.4 | VIII | VII | 37.04 | 121.8 |
| to VA Hosp., Bsmt | Hard | 7.1 | 18 | 16 | 24 | 212 | 378 | 40.5 | 10.04 | 12.0 | 5.3 | VIII | VII | 37.04 | 121.8 |
| r City Hall Annex | Soft | 7.1 | 18 | 19 | 26 | 180 | 217 | 44.0 | 12.16 | 13.0 | 7.4 | VIII | VII | 37.04 | 121.8 |
| r City Hall Annex | Soft | 7.1 | 18 | 19 | 26 | 90 | 252 | 38.7 | 8.53 | 18.2 | 6.4 | VIII | VII | 37.04 | 121.8 |
| d SLAC Test Lab | Hard | 7.1 | 18 | 9 | 20 | 360 | 282 | 28.4 | 7.06 | 19.3 | 5.5 | VIII | VII | 37.04 | 121.8 |
| d SLAC Test Lab | Hard | 7.1 | 18 | 9 | 20 | 270 | 198 | 36.7 | 8.51 | 13.4 | 2.6 | VIII | VII | 37.04 | 121.8 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | | VIII | 33.01 | 116.86 | USGS 464 | | | 32.80 | 115.47 | no | |
| | | | VIII | 33.01 | 116.86 | USGS 464 | | | 32.80 | 115.47 | no | |
| | | | VIII | 33.01 | 116.86 | USGS 412 | | | 32.78 | 115.57 | TH | |
| | | | VIII | 33.01 | 116.86 | USGS 412 | | | 32.78 | 115.57 | TH | |
| | 3.6 | | VIII | 33.01 | 116.86 | USGS 5028 | | | 32.83 | 115.50 | no | |
| | 3.6 | | VIII | 33.01 | 116.86 | USGS 5028 | | | 32.83 | 115.50 | no | |
| | 11.7 | | VII | 33.01 | 116.86 | USGS 5053 | | | 32.67 | 115.49 | no | |
| | 11.7 | | VII | 33.01 | 116.86 | USGS 5053 | | | 32.67 | 115.49 | no | |
| | 13.2 | | VII | 33.01 | 116.86 | USGS 5210 | | | 33.10 | 115.53 | TH | |
| | 13.2 | | VII | 33.01 | 116.86 | USGS 5210 | | | 33.10 | 115.53 | TH | |
| | 3.9 | | VII | 33.01 | 116.86 | USGS 952 | | | 32.86 | 115.47 | no | |
| | 3.9 | | VII | 33.01 | 116.86 | USGS 952 | | | 32.86 | 115.47 | no | |
| 14.0 | 10.7 | VIII | VII | 37.04 | 121.88 | USGS 1652 | | | 37.166 | 121 63 | yes | USGS OF 90-247 |
| 11.5 | 7.7 | VIII | VII | 37.04 | 121.88 | USGS 1652 | | | 37.166 | 121 63 | yes | USGS OF 90-247 |
| 4 9 | 0.0 | VIII | VI | 37.04 | 121.88 | USGS 1652 | | | 37.160 | 121 63 | yes | USGS OF 90-247 |
| 3.8 | 0.0 | VIII | VI | 37.04 | 121.88 | USGS 1652 | | | 37 166 | 121.63 | yes | USGS OF 90-247 |
| 30.0 | 3 2 | VIII | VII | 37.04 | 121.88 | USGS 1695 | | | 37 402 | 122 02 | yes | USGS OF 90-247 |
| 16.4 | 11 3 | VIII | VII | 37.04 | 121.88 | USGS 1695 | | | 37 402 | 122 02 | yes | USGS OF 90-247 |
| 12.7 | 8 0 | VIII | VII | 37.04 | 121.88 | USGS 1656 | | | 36 888 | 121 413 | yes | USGS OF 90-247 |
| 6.7 | 4.6 | VIII | VII | 37.04 | 121.88 | USGS 1656 | | | 36 888 | 121 413 | yes | USGS OF 90-247 |
| 5 9 | 4 4 | VIII | VII | 37 04 | 121.88 | USGS 1227 | | | 37 40 | 122 14 | yes | USGS OF 90-247 |
| 12 0 | 5 3 | VIII | VII | 37.04 | 121.88 | USGS 1227 | | | 37 40 | 122 14 | yes | USGS OF 90-247 |
| 3.0 | 7 4 | VIII | VII | 37.04 | 121.88 | USGS 1575 | | | 36 851 | 121 40 | yes | USGS OF 90-247 |
| 8.2 | 6.4 | VIII | VII | 37.04 | 121.88 | USGS 1575 | | | 36 851 | 121 40 | yes | USGS OF 90-247 |
| 9 3 | 5 5 | VIII | VII | 37.04 | 121.88 | USGS 1601 | | | 37 419 | 122 21 | yes | USGS OF 90-247 |
| 3 | [illegible] | VIII | VII | 37.04 | 121.88 | USGS 1601 | | | 37 419 | 122 21 | yes | USGS OF 90-247 |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km |
|---|---|---|---|---|---|---|---|---|---|---|
| CAL | 336 | 891018 | 4 | Loma Prieta | Stanford Parking Garage | Soft | 7.1 | 18 | 9 | 20 |
| CAL | 337 | 891018 | 4 | Loma Prieta | Stanford Parking Garage | Soft | 7.1 | 18 | 9 | 20 |
| CAL | 338 | 891018 | 4 | Loma Prieta | Menlo Pk VA Hosp Bldg 137 | Soft | 7.1 | 18 | 21 | 28 |
| CAL | 339 | 891018 | 4 | Loma Prieta | Menlo Pk VA Hosp Bldg 137 | Soft | 7.1 | 18 | 21 | 28 |
| CAL | 340 | 891018 | 4 | Loma Prieta | Calaveras Array-Fremont | Soft | 7.1 | 18 | 34 | 38 |
| CAL | 341 | 891018 | 4 | Loma Prieta | Calaveras Array-Fremont | Soft | 7.1 | 18 | 34 | 38 |
| CAL | 342 | 891018 | 4 | Loma Prieta | Apeel Array 2, Redwood Cy | Soft | 7.1 | 18 | 31 | 36 |
| CAL | 343 | 891018 | 4 | Loma Prieta | Apeel Array 2, Redwood Cy | Soft | 7.1 | 18 | 31 | 36 |
| CAL | 344 | 891018 | 4 | Loma Prieta | SFO Transamerica Bldg | Hard | 7.1 | 18 | 61 | 69 |
| CAL | 345 | 891018 | 4 | Loma Prieta | SFO Transamerica Bldg | Hard | 7.1 | 18 | 61 | 69 |
| CAL | 346 | 891018 | 4 | Loma Prieta | Emeryville-6363 Christie S | Soft | 7.1 | 18 | 62 | 66 |
| CAL | 347 | 891018 | 4 | Loma Prieta | Emeryville-6363 Christie S | Soft | 7.1 | 18 | 62 | 66 |
| CAL | 348 | 891018 | 4 | Loma Prieta | Golden Gate Bridge, Abut | Rock | 7.1 | 18 | 67 | 69 |
| CAL | 349 | 891018 | 4 | Loma Prieta | Golden Gate Bridge, Abut | Rock | 7.1 | 18 | 67 | 69 |
| CAL | 350 | 891018 | 4 | Loma Prieta | Corralitos-Eureka Cyn Rd | Soft | 7.1 | 18 | 2 | 18 |
| CAL | 351 | 891018 | 4 | Loma Prieta | Corralitos-Eureka Cyn Rd | Soft | 7.1 | 18 | 2 | 18 |
| CAL | 352 | 891018 | 4 | Loma Prieta | Capitola Fire Station | Soft | 7.1 | 18 | 15 | 23 |
| CAL | 353 | 891018 | 4 | Loma Prieta | Capitola Fire Station | Soft | 7.1 | 18 | 15 | 23 |
| CAL | 354 | 891018 | 4 | Loma Prieta | UC Santa Cruz Lick Lab | Rock | 7.1 | 18 | 15 | 23 |
| CAL | 355 | 891018 | 4 | Loma Prieta | UC Santa Cruz Lick Lab | Rock | 7.1 | 18 | 15 | 23 |
| CAL | 356 | 891018 | 4 | Loma Prieta | Hollister-So.St/Pine Dr | Soft | 7.1 | 18 | 8 | 20 |
| CAL | 357 | 891018 | 4 | Loma Prieta | Hollister-So.St/Pine Dr | Soft | 7.1 | 18 | 8 | 20 |
| CAL | 358 | 891018 | 4 | Loma Prieta | Treasure Island | Soft | 7.1 | 18 | 65 | 67 |
| CAL | 359 | 891018 | 4 | Loma Prieta | Treasure Island | Soft | 7 1 | 18 | 65 | 67 |
| CAL | 360 | 891018 | 4 | Loma Prieta | Yerba Buena Island | Rock | 7.1 | 18 | 63 | 65 |
| CAL | 361 | 891018 | 4 | Loma Prieta | SFO Diamond Heights | Rock | 7 1 | 18 | 58 | 61 |

gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Garage | Soft | 7.1 | 18 | 9 | 20 | 360 | 255 | 33.2 | 9.51 | 10.5 | 7.9 | VIII | VII | 37.04 | 121.88 |
| Parking Garage | Soft | 7.1 | 18 | 9 | 20 | 90 | 216 | 21.3 | 5.60 | 9.6 | 2.1 | VIII | VII | 37.04 | 121.88 |
| . VA Hosp Bldg 137 | Soft | 7.1 | 18 | 21 | 28 | 20 | 288 | 24.4 | 6.53 | 7.0 | 1.3 | VIII | VII | 37.04 | 121.88 |
| : VA Hosp Bldg 137 | Soft | 7.1 | 18 | 21 | 28 | 110 | 117 | 15.8 | 5.31 | 11.9 | 2.0 | VIII | VII | 37.04 | 121.88 |
| s Array-Fremont | Soft | 7.1 | 18 | 34 | 38 | 180 | 143 | 10.3 | 2.27 | 11.1 | 4.9 | VIII | VI | 37.04 | 121.88 |
| s Array-Fremont | Soft | 7.1 | 18 | 34 | 38 | 90 | 191 | 10.8 | 2.49 | 10.5 | 3.9 | VIII | VI | 37.04 | 121.88 |
| ray 2, Redwood Cy | Soft | 7.1 | 18 | 31 | 36 | 43 | 272 | 53.1 | 10.36 | 11.2 | 4.2 | VIII | VII | 37.04 | 121.88 |
| ray 2, Redwood Cy | Soft | 7.1 | 18 | 31 | 36 | 133 | 223 | 35.9 | 5.68 | 13.4 | 4.8 | VIII | VII | 37.04 | 121.88 |
| isamerica Bldg | Hard | 7.1 | 18 | 61 | 69 | 171 | 104 | 8.8 | 1.91 | 10.5 | 0.3 | VIII | VI | 37.04 | 121.88 |
| isamerica Bldg | Hard | 7.1 | 18 | 61 | 69 | 261 | 120 | 19.3 | 5.22 | 4.0 | 0.9 | VIII | VI | 37.04 | 121.88 |
| e-6363 Christie S | Soft | 7.1 | 18 | 62 | 66 | 350 | 210 | 21.5 | 3.75 | 16.0 | 1.0 | VIII | VII | 37.04 | 121.88 |
| e-6363 Christie S | Soft | 7.1 | 18 | 62 | 66 | 260 | 255 | 41.1 | 8.21 | 12.1 | 5.3 | VIII | VII | 37.04 | 121.88 |
| ate Bridge, Abut | Rock | 7.1 | 18 | 67 | 69 | 360 | 124 | 18.0 | 3 86 | 5.8 | 3 0 | VIII | VI | 37.04 | 121.88 |
| ate Bridge, Abut | Rock | 7.1 | 18 | 67 | 69 | 270 | 239 | 35.5 | 7 42 | 6.0 | 2.8 | VIII | VI | 37.04 | 121.88 |
| -Eureka Cyn Rd | Soft | 7.1 | 18 | 2 | 18 | 90 | 469 | 47.5 | 11 50 | 15.3 | 8 6 | VIII | VIII | 37 04 | 121.88 |
| -Eureka Cyn Rd | Soft | 7 1 | 18 | 2 | 18 | 0 | 618 | 55.2 | 9.54 | 15.5 | 5.9 | VIII | VIII | 37.04 | 121.88 |
| Fire Station | Soft | 7 1 | 18 | 15 | 23 | 90 | 391 | 30 7 | 7 29 | 20.1 | 14.3 | VIII | VIII | 37 04 | 121 88 |
| Fire Station | Soft | 7.1 | 18 | 15 | 23 | 0 | 483 | 36.1 | 11.00 | 25.0 | 16.6 | VIII | VIII | 37.04 | 121 88 |
| Cruz Lick Lab | Rock | 7.1 | 18 | 15 | 23 | 0 | 433 | 21.2 | 6.61 | 17.4 | 12 3 | VIII | VIII | 37 04 | 121.88 |
| Cruz Lick Lab | Rock | 7.1 | 18 | 15 | 23 | 90 | 402 | 21.2 | 6.81 | 16.8 | 10.7 | VIII | VIII | 37.04 | 121 88 |
| So.St/Pine Dr | Soft | 7.1 | 18 | 8 | 20 | 0 | 362 | 62 8 | 30 20 | 23 8 | 9 0 | VIII | VII | 37 04 | 121 88 |
| So St/Pine Dr | Soft | 7 1 | 18 | 8 | 20 | 90 | 175 | 30 9 | 20.40 | 25 7 | 12 4 | VIII | VII | 37 04 | 121 88 |
| Island | Soft | 7.1 | 18 | 65 | 67 | 0 | 98 | 15.6 | 4 48 | 4 0 | 0 0 | VIII | VII | 37 04 | 121 88 |
| Island | Soft | 7 1 | 18 | 65 | 67 | 90 | 156 | 33.4 | 12.20 | 2.8 | 2 5 | VIII | VII | 37.04 | 121.88 |
| ona Island | Rock | 7 1 | 18 | 63 | 65 | 90 | 66 | 14 7 | 4 12 | 0 3 | 0 0 | VIII | V | 37 04 | 121.88 |
| ond Heights | Rock | 7 1 | 18 | 58 | 61 | 0 | 96 | 10.5 | 2 83 | 2 9 | 0.0 | VIII | VI | 37.04 | 121.88 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 10.5 | 7.9 | VIII | VII | 37.04 | 121.88 | USGS 1601 | | | 37. | 122. | yes | USGS OF 90-247 |
| 9.6 | 2.1 | VIII | VII | 37.04 | 121.88 | USGS 1601 | | | 37. | 122. | yes | USGS OF 90-247 |
| 7.0 | 1.3 | VIII | VII | 37.04 | 121.88 | USGS 1230 | | | 37.468 | 122.16 | yes | USGS OF 90-247 |
| 11.9 | 2.0 | VIII | VII | 37.04 | 121.88 | USGS 1230 | | | 37.468 | 122.16 | yes | USGS OF 90-247 |
| 11.1 | 4.9 | VIII | VI | 37.04 | 121.88 | USGS 1686 | | | 37.535 | 121.93 | yes | USGS OF 90-247 |
| 10.5 | 3.9 | VIII | VI | 37.04 | 121.88 | USGS 1686 | | | 37.535 | 121.93 | yes | USGS OF 90-247 |
| 11.2 | 4.2 | VIII | VII | 37.04 | 121.88 | USGS 1002 | | | 37.52 | 122.25 | yes | USGS OF 90-247 |
| 13.4 | 4.8 | VIII | VII | 37.04 | 121.88 | USGS 1002 | | | 37.52 | 122.25 | yes | USGS OF 90-247 |
| 10.5 | 0.3 | VIII | VI | 37.04 | 121.88 | USGS 1239 | | | 37.80 | 122.40 | yes | USGS OF 90-247 |
| 4.0 | 0.9 | VIII | VI | 37.04 | 121.88 | USGS 1239 | | | 37.80 | 122.40 | yes | USGS OF 90-247 |
| 16.0 | 1.0 | VIII | VII | 37.04 | 121.88 | USGS 1662 | | | 37.844 | 122.30 | yes | USGS OF 90-247 |
| 12.1 | 5.3 | VIII | VII | 37.04 | 121.88 | USGS 1662 | | | 37.844 | 122.30 | yes | USGS OF 90-247 |
| 5.8 | 3.0 | VIII | VI | 37.04 | 121.88 | USGS 1678 | | | 37.806 | 122.47 | yes | USGS OF 90-247 |
| 6.0 | 2 8 | VIII | VI | 37.04 | 121.88 | USGS 1678 | | | 37 806 | 122.47 | yes | USGS OF 90-247 |
| 15.3 | 8.6 | VIII | VIII | 37.04 | 121.88 | CDMG 57007 | | | 37 046 | 121 803 | yes | CDMG Plots12/13/89 |
| 15.5 | 5.9 | VIII | VIII | 37.04 | 121.88 | CDMG 57007 | | | 37 046 | 121 803 | yes | CDMG Plots12/13/89 |
| 20.1 | 14.3 | VIII | VIII | 37.04 | 121.88 | CDMG 47125 | | | 36.974 | 121 95 | yes | CDMG Plots12/13/89 |
| 25.0 | 16.5 | VIII | VIII | 37.04 | 121.88 | CDMG 47125 | | | 36 974 | 121 95 | yes | CDMG Plots12/13/89 |
| 17 4 | 12 3 | VIII | VIII | 37.04 | 121.88 | CDMG 58135 | | | 37 001 | 122 060 | yes | CDMG Plots12/13/89 |
| 16.8 | 10.7 | VIII | VIII | 37.04 | 121.88 | CDMG 58135 | | | 37 001 | 122 060 | yes | CDMG Plots12/13/89 |
| 23.8 | 9.0 | VIII | VII | 37.04 | 121.88 | CDMG 47524 | | | 38 848 | 121 40 | yes | CDMG Plots12/13/89 |
| 25.7 | 12.4 | VIII | VII | 37.04 | 121.88 | CDMG 47524 | | | 38 848 | 121 40 | yes | CDMG Plots12/13/89 |
| 4.0 | 0 0 | VIII | VII | 37.04 | 121.88 | CDMG 58117 | | | 37 825 | 122 373 | yes | CDMG Plots12/13/89 |
| 2.8 | 2 5 | VIII | VII | 37.04 | 121 88 | CDMG 58117 | | | 37 825 | 122 373 | yes | CDMG Plots12/13/89 |
| 0 3 | 0 0 | VIII | V | 37.04 | 121.88 | CDMG 58163 | | | 37 81 | 122 36 | yes | CDMG Plots12/13/89 |
| 2.9 | 0 0 | VIII | VI | 37.04 | 121.88 | CDMG 58130 | | | 37 74 | 122 43 | yes | CDMG Plots12/13/89 |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | EI k |
|---|---|---|---|---|---|---|---|---|---|
| CAL | 362 | 891018 | 4 | Loma Prieta | SFO Diamond Heights | Rock | 7.1 | 18 | 58 |
| CAL | 363 | 891018 | 4 | Loma Prieta | SFO Rincon Hill | Rock | 7.1 | 18 | 6 |
| CAL | 364 | 891018 | 4 | Loma Prieta | SFO Telegraph Hill | Rock | 7.1 | 18 | 6 |
| CAL | 365 | 891018 | 4 | Loma Prieta | SFO Presidio | Rock | 7.1 | 18 | 6 |
| CAL | 366 | 891018 | 4 | Loma Prieta | SFO Presidio | Rock | 7.1 | 18 | 6 |
| CAL | 367 | 891018 | 4 | Loma Prieta | SFO Cliff House | Rock | 7.1 | 18 | 6 |
| CAL | 368 | 891018 | 4 | Loma Prieta | SFO Cliff House | Rock | 7.1 | 18 | 6 |
| CAL | 369 | 891018 | 4 | Loma Prieta | Oakland 2-Story Office | Soft | 7.1 | 18 | 6 |
| CAL | 370 | 891018 | 4 | Loma Prieta | Oakland 2-Story Office | Soft | 7.1 | 18 | 6 |
| CAL | 371 | 891018 | 4 | Loma Prieta | Gilroy#1-Gavilan Col. Tk | Rock | 7.1 | 18 | |
| CAL | 372 | 891018 | 4 | Loma Prieta | Gilroy#1-Gavilan Col. Tk | Rock | 7.1 | 18 | |
| CAL | 373 | 891018 | 4 | Loma Prieta | Gilroy#2-Hwy 101/Bolsa Rd | Soft | 7.1 | 18 | 1 |
| CAL | 374 | 891018 | 4 | Loma Prieta | Gilroy#2-Hwy 101/Bolsa Rd | Soft | 7.1 | 18 | 1 |
| CAL | 375 | 891018 | 4 | Loma Prieta | Gilroy#3-Sewage Plant | Soft | 7.1 | 18 | 1 |
| CAL | 376 | 891018 | 4 | Loma Prieta | Gilroy#3-Sewage Plant | Soft | 7.1 | 18 | 1 |
| CAL | 377 | 891018 | 4 | Loma Prieta | Gilroy#4-SanYsidro School | Soft | 7.1 | 18 | 1 |
| CAL | 378 | 891018 | 4 | Loma Prieta | Gilroy#4-SanYsidro School | Soft | 7.1 | 18 | 1 |
| CAL | 379 | 891018 | 4 | Loma Prieta | Gilroy#6-San Ysidro | Rock | 7.1 | 18 | 2 |
| CAL | 380 | 891018 | 4 | Loma Prieta | Gilroy#6-San Ysidro | Rock | 7.1 | 18 | 2 |
| CAL | 381 | 891018 | 4 | Loma Prieta | Gilroy#7-Mantelli Ranch | Hard | 7.1 | 18 | 2 |
| CAL | 382 | 891018 | 4 | Loma Prieta | Gilroy#7-Mantelli Ranch | Hard | 7.1 | 18 | 2 |
| CAL | 383 | 891018 | 4 | Loma Prieta | Gilroy-GavilanPhys.Sci.Bg | Soft | 7.1 | 18 | |
| CAL | 384 | 891018 | 4 | Loma Prieta | Gilroy-GavilanPhys.Sci.Bg | Soft | 7.1 | 18 | |
| CAL | 385 | 891018 | 4 | Loma Prieta | Saratoga-Aloha Ave | Soft | 7.1 | 18 | |
| CAL | 386 | 891018 | 4 | Loma Prieta | Saratoga-Aloha Ave | Soft | 7.1 | 18 | |
| CAL | 387 | 891018 | 4 | Loma Prieta | Agnews State Hospital | Soft | 7.1 | 18 | 1 |

200 gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR deg | HOR gal | VEL cm/s | DISP cm | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPI LAT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diamond Heights | Rock | 7.1 | 18 | 58 | 61 | 90 | 111 | 14.3 | 4.31 | 6.0 | 0.1 | VIII | VI | 37.04 |
| Rincon Hill | Rock | 7.1 | 18 | 60 | 63 | 90 | 89 | 11.6 | 4.88 | 2.0 | 0.0 | VIII | VII | 37.04 |
| Telegraph Hill | Rock | 7.1 | 18 | 64 | 66 | 90 | 91 | 9.6 | 2.76 | 1.2 | 0.0 | VIII | VI | 37.04 |
| Presidio | Rock | 7.1 | 18 | 64 | 66 | 0 | 98 | 13.3 | 4.13 | 3.3 | 0.0 | VIII | VI | 37.04 |
| Presidio | Rock | 7.1 | 18 | 64 | 66 | 90 | 195 | 33.5 | 6.35 | 6.0 | 0.2 | VIII | VI | 37.04 |
| Cliff House | Rock | 7.1 | 18 | 65 | 67 | 0 | 73 | 11.2 | 3.70 | 3.5 | 0.0 | VIII | VI | 37.04 |
| Cliff House | Rock | 7.1 | 18 | 65 | 67 | 90 | 106 | 21.0 | 6.49 | 3.0 | 0.1 | VIII | VI | 37.04 |
| land 2-Story Office | Soft | 7.1 | 18 | 60 | 63 | 290 | 238 | 37.9 | 8.05 | 13.7 | 3.2 | VIII | VII | 37.04 |
| land 2-Story Office | Soft | 7.1 | 18 | 60 | 63 | 200 | 187 | 20.0 | 3.92 | 11.3 | 2.6 | VIII | VII | 37.04 |
| y#1-Gavilan Col. Tk | Rock | 7.1 | 18 | 8 | 20 | 0 | 427 | 31.9 | 6.49 | 13.2 | 5.7 | VIII | VII | 37.04 |
| y#1-Gavilan Col. Tk | Rock | 7.1 | 18 | 8 | 20 | 90 | 434 | 33.8 | 6.32 | 9.5 | 5.2 | VIII | VII | 37.04 |
| y#2-Hwy 101/Bolsa Rd | Soft | 7.1 | 18 | 11 | 21 | 90 | 316 | 39.2 | 10.9 | 15.3 | 4.8 | VIII | VII | 37.04 |
| y#2-Hwy 101/Bolsa Rd | Soft | 7.1 | 18 | 11 | 21 | 0 | 344 | 33.3 | 6.71 | 12.8 | 7.0 | VIII | VII | 37.04 |
| y#3-Sewage Plant | Soft | 7.1 | 18 | 14 | 23 | 0 | 532 | 34.5 | 7.37 | 17.8 | 6.0 | VIII | VII | 37.04 |
| y#3-Sewage Plant | Soft | 7.1 | 18 | 14 | 23 | 90 | 362 | 43.8 | 14.3 | 16.0 | 6.4 | VIII | VII | 37.04 |
| y#4-SanYsidro School | Soft | 7.1 | 18 | 18 | 25 | 0 | 408 | 39.1 | 7.54 | 14.9 | 6.7 | VIII | VII | 37.04 |
| y#4-SanYsidro School | Soft | 7.1 | 18 | 19 | 25 | 90 | 210 | 38.2 | 8.45 | 22.8 | 5.7 | VIII | VII | 37.04 |
| y#6-San Ysidro | Rock | 7.1 | 18 | 22 | 28 | 0 | 112 | 13.1 | 4.95 | 7.6 | 2.0 | VIII | VI | 37.04 |
| y#6-San Ysidro | Rock | 7.1 | 18 | 22 | 28 | 90 | 167 | 13.9 | 3.35 | 13.0 | 1 8 | VIII | VI | 37.04 |
| y#7-Mantelli Ranch | Hard | 7.1 | 18 | 24 | 30 | 0 | 206 | 16.6 | 2 61 | 13.0 | 5.6 | VIII | VII | 37.04 |
| y#7-Mantelli Ranch | Hard | 7.1 | 18 | 24 | 30 | 90 | 314 | 16 3 | 3 37 | 14 0 | 4 8 | VIII | VII | 37.04 |
| y-GavilanPhys.Sci.Bg | Soft | 7.1 | 18 | 8 | 20 | 67 | 349 | 28.9 | 5.81 | 7.4 | 3 0 | VIII | VII | 37.04 |
| y-GavilanPhys.Sci.Bg | Soft | 7.1 | 18 | 8 | 20 | 337 | 310 | 23 0 | 4 78 | 6.3 | 4 8 | VIII | VII | 37.04 |
| toga-Aloha Ave | Soft | 7.1 | 18 | 4 | 18 | 0 | 495 | 41.3 | 15.9 | 15.4 | 6.1 | VIII | VIII | 37.04 |
| toga-Aloha Ave | Soft | 7.1 | 18 | 4 | 18 | 90 | 316 | 43 6 | 28 0 | 11 6 | 6 9 | VIII | VIII | 37 04 |
| owe State Hospital | Soft | 7 1 | 18 | 18 | 25 | 0 | 163 | 30 9 | 18.1 | 14.4 | 5 6 | VIII | VII | 37.04 |

ds
-14

Sep 11, 1

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 6.0 | 0.1 | VIII | VI | 37.04 | 121.88 | CDMG 58130 | | | 37.74 | 122.43 | yes | CDMG Plots12/13/8 |
| 2.0 | 0.0 | VIII | VII | 37.04 | 121.88 | CDMG 58151 | | | 37.79 | 122.39 | yes | CDMG Plots12/13/8 |
| 1.2 | 0.0 | VIII | VI | 37.04 | 121.88 | CDMG 58133 | | | 37.80 | 122.41 | yes | CDMG Plots12/13/8 |
| 3.3 | 0.0 | VIII | VI | 37.04 | 121.88 | CDMG 58222 | | | 37.792 | 122.46 | yes | CDMG Plots12/13/8 |
| 6.0 | 0.2 | VIII | VI | 37.04 | 121.88 | CDMG 58222 | | | 37.792 | 122.46 | yes | CDMG Plots12/13/8 |
| 3.5 | 0.0 | VIII | VI | 37.04 | 121.88 | CDMG 58132 | | | 37.78 | 122.51 | yes | CDMG Plots12/13/8 |
| 3.0 | 0.1 | VIII | VI | 37.04 | 121.88 | CDMG 58132 | | | 37.78 | 122.51 | yes | CDMG Plots12/13/8 |
| 13.7 | 3.2 | VIII | VII | 37.04 | 121.88 | CDMG 58224 | | | 37.806 | 122.27 | yes | CDMG Plots12/13/8 |
| 11.3 | 2.6 | VIII | VII | 37.04 | 121.88 | CDMG 58224 | | | 37.806 | 122.27 | yes | CDMG Plots12/13/8 |
| 13.2 | 5.7 | VIII | VII | 37.04 | 121.88 | CDMG 47379 | | | 36.393 | 121.57 | yes | CDMG OSMS 90-01 |
| 9.5 | 5.2 | VIII | VII | 37.04 | 121.88 | CDMG 47379 | | | 36.393 | 121.57 | yes | CDMG OSMS 90-01 |
| 15.3 | 4.8 | VIII | VII | 37.04 | 121.88 | CDMG 47380 | | | 36.982 | 121.56 | yes | CDMG OSMS 90-01 |
| 12.8 | 7.0 | VIII | VII | 37.04 | 121.88 | CDMG 47380 | | | 36.982 | 121.56 | yes | CDMG OSMS 90-01 |
| 17.8 | 6.0 | VIII | VII | 37.04 | 121.88 | CDMG 47381 | | | 36.987 | 121.54 | yes | CDMG OSMS 90-01 |
| 16.0 | 6.4 | VIII | VII | 37.04 | 121.88 | CDMG 47381 | | | 36.987 | 121.54 | yes | CDMG OSMS 90-01 |
| 14.9 | 6.7 | VIII | VII | 37.04 | 121.88 | CDMG 57382 | | | 37.005 | 121.52 | yes | CDMG OSMS 90-01 |
| 22.8 | 5.7 | VIII | VII | 37.04 | 121.88 | CDMG 57382 | | | 37.005 | 121.52 | yes | CDMG OSMS 90-01 |
| 7.6 | 2.0 | VIII | VI | 37.04 | 121.88 | CDMG 57383 | | | 37.026 | 121.48 | yes | CDMG OSMS 90-01 |
| 13.0 | 1.8 | VIII | VI | 37.04 | 121.88 | CDMG 57383 | | | 37.026 | 121.48 | yes | CDMG OSMS 90-01 |
| 13.0 | 5.6 | VIII | VII | 37.04 | 121.88 | CDMG 57425 | | | 37.033 | 121.43 | yes | CDMG OSMS 90-01 |
| 14.0 | 4.8 | VIII | VII | 37.04 | 121.88 | CDMG 57425 | | | 37.033 | 121.43 | yes | CDMG OSMS 90-01 |
| 7.4 | 3.0 | VIII | VII | 37.04 | 121.88 | CDMG 47006 | | | 36.973 | 121.57 | yes | CDMG OSMS 90-01 |
| 6 3 | 4.8 | VIII | VII | 37.04 | 121.88 | CDMG 47C06 | | | 36.973 | 121.57 | yes | CDMG OSMS 90-01 |
| 15.4 | 6 1 | VIII | VIII | 37.04 | 121.88 | CDMG 58065 | | | 37.255 | 122.03 | yes | CDMG OSMS 90-01 |
| 11 6 | 6 9 | VIII | VIII | 37.04 | 121.88 | CDMG 58065 | | | 37 255 | 122 03 | yes | CDMG OSMS 90-01 |
| 14 4 | 5 6 | VIII | VII | 37 04 | 121 88 | CDMG 57066 | | | 37.239 | 121.95 | yes | CDMG OSMS 90-01 |

A1. UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | EPI km | |
|---|---|---|---|---|---|---|---|---|---|---|
| CAL | 388 | 891018 | 4 | Loma Prieta | Agnews State Hospital | Soft | 7.1 | 18 | 18 | |
| CAL | 389 | 891018 | 4 | Loma Prieta | Foster Cy-Redwood Shores | Soft | 7.1 | 18 | 33 | |
| CAL | 390 | 891018 | 4 | Loma Prieta | Foster Cy-Redwood Shores | Soft | 7.1 | 18 | 33 | |
| CAL | 391 | 891018 | 4 | Loma Prieta | SFO International Airport | Soft | 7.1 | 18 | 48 | |
| CAL | 392 | 891018 | 4 | Loma Prieta | SFO International Airport | Soft | 7.1 | 18 | 48 | |
| CAL | 393 | 891018 | 4 | Loma Prieta | Gilroy 2-st.Hist.Com.Bldg | Soft | 7.1 | 18 | 10 | |
| CAL | 394 | 891018 | 4 | Loma Prieta | Gilroy 2-st.Hist.Com.Bldg | Soft | 7.1 | 18 | 10 | |
| CAL | 395 | 891018 | 4 | Loma Prieta | Lexington Dam, Left Abut | Rock | 7.1 | 18 | 3 | |
| CAL | 396 | 891018 | 4 | Loma Prieta | Lexington Dam, Left Abut | Rock | 7.1 | 18 | 3 | |
| CAL | 397 | 891018 | 4 | Loma Prieta | Wilsonville 4-st.Com.Bldg | Soft | 7.1 | 18 | 6 | |
| CAL | 398 | 891018 | 4 | Loma Prieta | Wilsonville 4-st.Com.Bldg | Soft | 7.1 | 18 | 6 | |
| HAW | 1 | 730426 | 2026 | Hawaii | Kilauea Namakani Paio | Hard | 6.1 | 50 | | |
| HAW | 2 | 51129 | 1447 | Hawaii | Hilo UH Old Physics Lab | Hard | 7.2 | 5 | 42 | |
| HAW | 3 | 751129 | 1447 | Hawaii | Honokaa Count Shop | Hard | 7.2 | 5 | 95 | |
| HAW | 4 | 790922 | 759 | South Hawaii | Hilo Fish & Wildlife | Hard | 5.5 | 11 | | |
| MON | 1* | 351031 | 1838 | Helena Aftshk | Carroll College | Rock | 6.0 | 6 | 8 | |
| MON | 2* | 351031 | 1838 | Helena Aftshk | Carroll College | Rock | 7.6 | 6 | 8 | |
| NH | 1 | 820119 | 14 | New Hampshire | Franklin Falls Dam, abut | Hard | 4.5 | 6 | 10 | |
| NH | 2 | 820119 | 14 | New Hampshire | Franklin Falls Dam, abut | Hard | 4.5 | 6 | 10 | |
| NH | 3 | 820119 | 14 | New Hampshire | Franklin Falls Dam, dnstm | Soft | 4.5 | 6 | 10 | |
| SC | 1 | 780827 | 1023 | Jenkinsville | Monticello Dam | Hard | 2.7 | 2 | 1 | |
| SC | 2 | 780827 | 1023 | Jenkinsville | Monticello Dam | Hard | 2.7 | 2 | 1 | |
| SC | 3 | 780901 | 1 | Jenk AftShk 1 | Monticello Dam | Hard | 2.5 | 2 | 1 | |
| SC | 4 | 780901 | 1 | Jenk AftShk 1 | Monticello Dam | Hard | 2.5 | 2 | 1 | |
| SC | 5 | 780902 | 2 | Jenk AftShk 2 | Monticello Dam | Hard | 2.6 | 2 | 1 | |
| WAS | 1 | 490413 | 1955 | Western Wash. | Olympia Hwy Test Lab | Soft | 7.9 | 70 | 17 | |

gal or greater or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km | TR deg | HOR gal | VEL cm/s | DISP cm | DURATION | | INTENSITY | | EPICENTER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | g5% | g10% | EPI | STA | LAT | LONG |
| State Hospital | Soft | 7.1 | 18 | 18 | 25 | 90 | 158 | 18.2 | 12.8 | 12.7 | 4.4 | VIII | VII | 37.04 | 121.8 |
| y-Redwood Shores | Soft | 7.1 | 18 | 33 | 38 | 0 | 253 | 31.8 | 6.28 | 26.4 | 10.6 | VIII | VII | 37.04 | 121.8 |
| y-Redwood Shores | Soft | 7.1 | 18 | 33 | 38 | 90 | 278 | 45.4 | 14.7 | 19.0 | 6.4 | VIII | VII | 37.04 | 121.8 |
| rnational Airport | Soft | 7.1 | 18 | 48 | 51 | 0 | 231 | 26.5 | 5.05 | 13.0 | 7.0 | VIII | VII | 37.04 | 121.8 |
| rnational Airport | Soft | 7.1 | 18 | 48 | 51 | 90 | 326 | 29.3 | 5.92 | 13.0 | 5.3 | VIII | VII | 37.04 | 121.8 |
| st.Hist.Com.Bldg | Soft | 7.1 | 18 | 10 | 21 | 180 | 239 | 24.4 | 3.57 | 13.7 | 2.7 | VIII | VII | 37.04 | 121.8 |
| st.Hist.Com.Bldg | Soft | 7.1 | 18 | 10 | 21 | 90 | 280 | 43.5 | 9.72 | 9.3 | 3.8 | VIII | VII | 37.04 | 121.8 |
| n Dam, Left Abut | Rock | 7.1 | 18 | 3 | 18 | 0 | 434 | 84.4 | 14.7 | 7.2 | 4.5 | VIII | VIII | 37.04 | 121.8 |
| n Dam, Left Abut | Rock | 7.1 | 18 | 3 | 18 | 90 | 402 | 95.0 | 25.8 | 7.2 | 4.7 | VIII | VIII | 37.04 | 121.8 |
| lle 4-st.Com.Bldg | Soft | 7.1 | 18 | 6 | 19 | 0 | 267 | 33.3 | 8.95 | 11.6 | 6.3 | VIII | VIII | 37.04 | 121.8 |
| lle 4-st.Com.Bldg | Soft | 7.1 | 18 | 6 | 19 | 90 | 352 | 54.9 | 18.2 | 11.1 | 5.2 | VIII | VIII | 37.04 | 121.8 |
| Namakani Palo | Hard | 6.1 | 50 | | | | 156 | | | | | VIII | VI | 19.93 | 115.1 |
| Old Physics Lab | Hard | 7.2 | 5 | 42 | | | 169 | | | 13.7 | 2.1 | | VI | 19.93 | 115.0 |
| Count Shop | Hard | 7.2 | 5 | 95 | | | 97 | | | | | | V | 19.93 | 115.0 |
| & Wildlife | Hard | 5.5 | 11 | | | | 431 | | | 8.5 | 3.4 | | VIII | 19.35 | 155.0 |
| ollege | Rock | 6.0 | 6 | 8 | 10 | 360 | 144 | 7.3 | 1.4 | 1.7 | 1.4 | VIII | VIII | 46.62 | 111.9 |
| ollege | Rock | 7.6 | 6 | 8 | 10 | 90 | 143 | 13.3 | 3.7 | 1.7 | 1.5 | VIII | VIII | 46.62 | 111.9 |
| Falls Dam, abut | Hard | 4.5 | 6 | 10 | 11 | | 288 | 2.7 | 0.3 | 0.61 | 0.25 | VI | VI | 42.50 | 71.60 |
| Falls Dam, abut | Hard | 4.5 | 6 | 10 | 11 | | 540 | 5.6 | 0.4 | 1.14 | 0.44 | VI | VI | 42.50 | 71.60 |
| Falls Dam, dnstm | Soft | 4 5 | 6 | 10 | 11 | | 378 | 2.9 | 0.17 | 1.07 | 0.29 | VI | VI | 42.50 | 71.60 |
| lo Dam | Hard | 2.7 | 2 | 1 | 2 | 180 | 261 | 2.3 | 0.04 | 0.4 | 0 1 | | VI | 34.31 | 81.33 |
| lo Dam | Hard | 2.7 | 2 | 1 | 2 | 90 | 220 | 1 7 | 0.04 | 0.3 | 0.2 | | VI | 34.31 | 81.33 |
| lo Dam | Hard | 2.5 | 2 | 1 | 2 | 180 | 256 | 1.9 | 0.02 | 0.2 | 0 1 | | VI | 34.31 | 81.33 |
| lo Dam | Hard | 2 5 | 2 | 1 | 2 | 90 | 179 | 1.5 | 0.02 | 0.2 | 0.1 | | VI | 34.31 | 81.33 |
| lo Dam | Hard | 2.6 | 2 | 1 | 2 | 90 | 269 | 3.3 | 0.09 | 0.5 | 0 3 | | VI | 34.31 | 81.33 |
| Hwy Test Lab | Soft | 7.9 | 70 | 17 | | 266 | 275 | 17.0 | 10.4 | 21.5 | 18.0 | VIII | VIII | 47.17 | 122.6 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 12.7 | 4.4 | VIII | VII | 37.04 | 121.88 | CDMG 57066 | | | 37.239 | 121.95 | yes | CDMG OSMS 90-01 |
| 26.4 | 10.6 | VIII | VII | 37.04 | 121.88 | CDMG 58375 | | | 37.55 | 122.23 | yes | CDMG OSMS 90-01 |
| 19.0 | 6.4 | VIII | VII | 37.04 | 121.88 | CDMG 58375 | | | 37.55 | 122.23 | yes | CDMG OSMS 90-01 |
| 13.0 | 7.0 | VIII | VII | 37.04 | 121.88 | CDMG 58223 | | | 37.622 | 122.40 | yes | CDMG OSMS 90-01 |
| 13.0 | 5.3 | VIII | VII | 37.04 | 121.88 | CDMG 58223 | | | 37.622 | 122.40 | yes | CDMG OSMS 90-01 |
| 13.7 | 2.7 | VIII | VII | 37.04 | 121.88 | CDMG 57476 | | | 37.009 | 121.57 | yes | CDMG OSMS 90-01 |
| 9.3 | 3.8 | VIII | VII | 37.04 | 121.88 | CDMG 57476 | | | 37.009 | 121.57 | yes | CDMG OSMS 90-01 |
| 7.2 | 4.5 | VIII | VIII | 37.04 | 121.88 | CDMG 57180 | | | 37.202 | 121.95 | yes | CDMG OSMS 90-01 |
| 7.2 | 4.7 | VIII | VIII | 37.04 | 121.88 | CDMG 57180 | | | 37.202 | 121.95 | yes | CDMG OSMS 90-01 |
| 11.6 | 6.3 | VIII | VIII | 37.04 | 121.88 | CDMG 47459 | | | 36.909 | 121.76 | yes | CDMG OSMS 90-01 |
| 11.1 | 5.2 | VIII | VIII | 37.04 | 121.88 | CDMG 47459 | | | 36.909 | 121.76 | yes | CDMG OSMS 90-01 |
| | | VIII | VI | 19.93 | 115.10 | | | | 19.43 | 155.30 | no | USGS OF (unpubl.) |
| 13.7 | 2.1 | | VI | 19.93 | 115.02 | | | | 19.70 | 155.08 | no | USGS OF (unpubl.) |
| | | | V | 19.93 | 115.02 | | | | 20.07 | 155.06 | no | USGS OF (unpubl.) |
| 8.5 | 3.4 | | VIII | 19.35 | 155.07 | USGS | | | 19.73 | 155.10 | TH | |
| 1.7 | 1.4 | VIII | VIII | 46.62 | 111.97 | USGS 2202 | CIT B025 | CGS | 46.58 | 112.03 | yes | Mont BMG Mem 51 |
| 1.7 | 1.5 | VIII | VIII | 46.62 | 111.97 | USGS 2202 | CIT B025 | CGS | 46.58 | 112.03 | yes | Mont BMG Mem 51 |
| 0.61 | 0.25 | VI | VI | 42.50 | 71.60 | | | TT350 | 43.45 | 71.66 | TH | |
| 1.14 | 0.44 | VI | VI | 42.50 | 71.60 | | | TT350 | 43.45 | 71.66 | TH | |
| 1.07 | 0.29 | VI | VI | 42.50 | 71.60 | | | SMA-1 | 43.45 | 71.66 | TH | |
| 0.4 | 0.1 | | VI | 34.31 | 81.33 | USGS Temp. | | SMA-1 | 34 30 | 81.22 | yes | USGS OF 81-0448 |
| 0 3 | 0.2 | | VI | 34.31 | 81.33 | USGS Temp. | | SMA-1 | 34 30 | 81.22 | yes | USGS OF 81-0448 |
| 0.2 | 0.1 | | VI | 34.31 | 81.33 | USGS Temp. | | SMA-1 | 34 30 | 81.22 | yes | USGS OF 81-0448 |
| 0 2 | 0.1 | | VI | 34.31 | 81.33 | USGS Temp. | | SMA-1 | 34 30 | 81 22 | yes | USGS OF 81-0448 |
| 0.5 | 0.3 | | VI | 34.31 | 81.33 | USGS Temp. | | SMA-1 | 34 30 | 81 22 | yes | USGS OF 81-0448 |
| 21.5 | 18.0 | VIII | VIII | 47.17 | 122.62 | 2101 | CIT B029 | CGS | 47 03 | 122.90 | yes | CIT EERL |

A1.

UNITED STATES ACCELEROGRAMS (approximately 200 gal or greater or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG | DEP km | EPI km | HYP km |
|---|---|---|---|---|---|---|---|---|---|---|
| WAS | 2 | 490413 | 1955 | Western Wash. | Olympia Hwy Test Lab | Soft | 7.9 | 70 | 17 | |
| WAS | 3 | 490413 | 1955 | Western Wash. | Seattle Army Base | Soft | 7.9 | 70 | 62 | |
| WAS | 4 | 490413 | 1955 | Western Wash. | Seattle Army Base | Soft | 7.9 | 70 | 62 | |
| WAS | 5 | 650429 | 1528 | Puget Sound | Olympia Hwy Test Lab | Soft | 6.5 | 59 | 50 | |
| WAS | 6 | 650429 | 1528 | Puget Sound | Olympia Hwy Test Lab | Soft | 6.5 | 59 | 50 | |

David J. Leeds
DJLA 90-21-14

| EPI km | HYP km | TR deg | HOR gal | VEL cm/s | DISP cm | DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | g5% | g10% | EPI | STA | LAT | LONG | | | | LAT |
| 17 | | 176 | 162 | 21.4 | 8.5 | 22.0 | 18.0 | VIII | VIII | 47.17 | 122.62 | 2101 | CIT B029 | CGS | 47.03 |
| 62 | | 182 | 67 | 8.2 | 2.4 | 16.0 | 0.0 | VIII | VIII | 47.17 | 122.62 | 2106 | CIT B028 | CGS | 47.55 |
| 62 | | 272 | 66 | 7.9 | 2.7 | 13.0 | 0.0 | VIII | VIII | 47.17 | 122.62 | 2106 | CIT B028 | CGS | 47.55 |
| 60 | | 266 | 194 | 12.7 | 3.8 | 14.0 | 4.8 | VIII | VII | 47.41 | 122.29 | 2101 | CIT B032 | CGS | 47.03 |
| 60 | | 176 | 134 | 8.0 | 3.8 | 12.4 | 3.6 | VIII | VII | 47.41 | 122.29 | 2101 | CIT B032 | CGS | 47.03 |

Sep 11, 1990

| STA NO. | RECORD NO. | INSTR | STATION LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|
| | | | LAT | LONG | | |
| 2101 | CIT B029 | CGS | 47.03 | 122.90 | yes | CIT EERL |
| 2106 | CIT B028 | CGS | 47.55 | 122.34 | yes | CIT EERL |
| 2106 | CIT B028 | CGS | 47.55 | 122.34 | yes | CIT EERL |
| 2101 | CIT B032 | CGS | 47.03 | 122.90 | yes | USGS OF 75-375 |
| 2101 | CIT B032 | CGS | 47.03 | 122.90 | yes | USGS OF 75-375 |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | EPI km | H k |
|---|---|---|---|---|---|---|---|---|---|---|
| AKA | 1 | 710502 | 624 | Andreanof Is. | Adak Navy Base Sels-Vlt | Hard | 7.1 | 43 | 70 | |
| ALG | 1 | 801108 | 854 | El-Asnam AftShk | Sogedia Food Proc Fcty | Soft | 5.6 | 10 | 17 | |
| ARG | 1 | 771123 | 927 | San Juan, W. Arg. | INPRES, San Juan | Soft | 7.4 | 12 | 70 | |
| ARG | 2 | 771123 | 927 | San Juan, W. Arg. | INPRES, San Juan | Soft | 7.4 | 12 | 70 | |
| CAN | 1 | 820331 | 2102 | Miramichi AftShk | Holmes Lake, Site 1 | Hard | 4.8 | 7 | 7 | |
| CAN | 2 | 820331 | 2102 | Miramichi AftShk | Mitchell Lk Rd, Site 2 | Hard | 4.8 | 7 | 5 | |
| CAN | 3 | 820331 | 2102 | Miramichi AftShk | Loggie Lodge, Site 3 | Hard | 4.8 | 7 | 4 | |
| CAN | 4 | 820331 | 2102 | Miramichi AftShk | Loggie Lodge, Site 3 | Hard | 4.8 | 7 | 4 | |
| CAN | 5 | 820331 | 2102 | Miramichi AftShk | Indian Brook, Site 4 | Hard | 4.8 | 7 | | |
| CAN | 6 | 820331 | 2102 | Miramichi AftShk | Indian Brook, Site 4 | Hard | 4.8 | 7 | 3 | |
| CAN | 7 | 851109 | 446 | Nahanni, NWT | Slide Mt, Site 2 | Hard | 4.8 | 10 | 6 | |
| CAN | 8 | 851109 | 446 | Nahanni, NWT | Slide Mt, Site 2 | Hard | 4.8 | 10 | 3 | |
| CAN | 9 | 851223 | 516 | Nahanni, NWT | Iverson, Site 1 | Hard | 6.9 | 6 | 8 | |
| CAN | 10 | 851223 | 516 | Nahanni, NWT | Iverson, Site 1 | Hard | 6.9 | 6 | 8 | |
| CAN | 11 | 851223 | 516 | Nahanni, NWT | Slide Mt, Site 2 | Hard | 6.9 | 6 | 7 | |
| CAN | 12 | 851223 | 516 | Nahanni, NWT | Slide Mt, Site 2 | Hard | 6.9 | 6 | 7 | |
| CAN | 13 | 851223 | 516 | Nahanni, NWT | Battlement Crk, Site 3 | Hard | 6.9 | 6 | 23 | |
| CAN | 14 | 851223 | 516 | Nahanni, NWT | Battlement Crk, Site 3 | Hard | 6.9 | 6 | 23 | |
| CAN | 15 | 851223 | 548 | Nahanni, NWT | Iverson, Site 1 | Hard | 6.4 | 10 | 8 | |
| CAN | 16* | 881125 | 2346 | Saguenay, QUE | Chicoutimi-Nord | Rock | 6.0 | 20 | 43 | |
| CAN | 17* | 881125 | 2346 | Saguenay, QUE | Chicoutimi-Nord | Rock | 6.0 | 20 | 43 | |
| CAN | 18* | 881125 | 2346 | Saguenay, QUE | St-André-du-Lac | Rock | 6.0 | 20 | 64 | |
| CAN | 19* | 881125 | 2346 | Saguenay, QUE | Les Eboulements | Rock | 6.0 | 20 | 90 | |
| CAN | 20* | 881125 | 2346 | Saguenay, QUE | Les Eboulements | Rock | 6.0 | 20 | 90 | |
| CAN | 21 | 881125 | 2346 | Saguenay, QUE | Baie-St-Paul | Soft | 6.0 | 20 | 91 | |
| CAN | 22 | 881125 | 2346 | Saguenay, QUE | Baie-St-Paul | Soft | 6.0 | 20 | 91 | |

of exceptional interest)

David J. Leeds
DJLA 90-21-14

| ION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR deg | HR ga | HOR VEL | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Seis-Vlt | Hard | 7.1 | 43 | 70 | 82 | 270 | 183 | 8.0 | 5.3 | 8.1 | 3.7 | IV | IV | 51.40 | 177.20 |
| oc Fcty | Soft | 5.6 | 10 | 17 | 20 | | 211 | | | 5.4 | 2.5 | | VII | | |
| an | Soft | 7.4 | 12 | 70 | 71 | 90 | 190 | 20.59 | 5.90 | 49.6 | 23.0 | IX | VII | 31.13 | 67.98 |
| an | Soft | 7.4 | 12 | 70 | 71 | 180 | 187 | 15.57 | 4.19 | 49.0 | 20.5 | IX | VII | 31.13 | 67.98 |
| te 1 | Hard | 4.8 | 7 | 7 | 10 | 288 | 340 | 1.37 | 0.1 | 1.3 | 1.1 | VIII | VII | | |
| Site 2 | Hard | 4.8 | 7 | 5 | 9 | 28 | 231 | 1.91 | 0.05 | 1.4 | 0.9 | VIII | VI | | – |
| te 3 | Hard | 4.8 | 7 | 4 | 8 | 99 | 564 | 4.11 | 0.18 | 1.6 | 0.9 | VIII | VIII | | |
| te 3 | Hard | 4.8 | 7 | 4 | 8 | 189 | 292 | 1.80 | 0.06 | 1.7 | 0.6 | VIII | VIII | | |
| te 4 | Hard | 4.8 | 7 | | 8 | 321 | 417 | 2.72 | 0.06 | 1.0 | 0.4 | VIII | VIII | | |
| te 4 | Hard | 4.8 | 7 | 3 | 8 | 231 | 405 | 3.11 | 0.12 | 1.3 | 0.4 | VIII | VIII | | |
| | Hard | 4.8 | 10 | 6 | 12 | 330 | 374 | 4 74 | 0.14 | 1 1 | 0.4 | VIII | VIII | 62.21 | 124.27 |
| | Hard | 4.8 | 10 | 6 | 12 | 240 | 451 | 5.86 | 0.19 | 0.5 | 0.4 | VIII | VIII | 62.21 | 124.27 |
| | Hard | 6.9 | 6 | 8 | 10 | 10 | 1080 | 46.17 | 10.41 | 11.7 | 8.9 | IX | IX | 62.19 | 124.24 |
| | Hard | 6.9 | 6 | 8 | 10 | 280 | 1319 | 45.06 | 15.25 | 13.9 | 10.8 | IX | IX | 62.19 | 124.24 |
| | Hard | 6.9 | 6 | 7 | 9 | 330 | 382 | 32 60 | 5.02 | 14 5 | 9.5 | IX | VIII | 62.19 | 124.24 |
| | Hard | 6.9 | 6 | 7 | 9 | 240 | 534 | 30.27 | 6.60 | 14.1 | 12.7 | IX | VIII | 62.19 | 124.24 |
| Site 3 | Hard | 6.9 | 6 | 23 | 24 | 360 | 190 | 3.43 | 0.80 | 15.4 | 10 5 | IX | VI | 62.19 | 124.24 |
| Site 3 | Hard | 6 9 | 6 | 23 | 24 | 270 | 182 | 6.29 | 2.38 | 15.9 | 7.8 | IX | VI | 62.19 | 124.24 |
| | Hard | 6.4 | 10 | 8 | 13 | 10 | 224 | 6.78 | 0.41 | 4.6 | 0.4 | VIII | VI | 62.19 | 124.24 |
| | Rock | 6.0 | 20 | 43 | 47 | 124 | 129 | 2.52 | 0 20 | 13.7 | 5.9 | | | 48.12 | 71.18 |
| | Rock | 6 0 | 20 | 43 | 47 | 214 | 104 | 1 51 | 0 08 | 12 1 | 0 1 | | | 48.12 | 71 18 |
| | Rock | 6.0 | 20 | 64 | 67 | 360 | 153 | 1 83 | 0.07 | 7 0 | 3.1 | | | 48 12 | 71 18 |
| s | Rock | 6.0 | 20 | 90 | 92 | 360 | 123 | 4.40 | 0.32 | 5 0 | 1 2 | | | 48.12 | 71.18 |
| s | Rock | 6.0 | 20 | 90 | 92 | 270 | 100 | 2.65 | 0 18 | 27 3 | 0.1 | | | 48.12 | 71 18 |
| | Soft | 6.0 | 20 | 91 | 93 | 85 | 171 | 5 34 | 0 87 | 9.9 | 2.7 | | | 48.12 | 71 18 |
| | Soft | 6 0 | 20 | 91 | 93 | 175 | 123 | 3 76 | 0 56 | 10.6 | 0 6 | | | 48.12 | 71 18 |

Sep'90

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| .1 | 3.7 | IV | IV | 51.40 | 177.20 | USGS 2701 | | AR240 | 51.88 | 176.58 | yes | USGS OF 76-609 |
| .4 | 2.5 | | VII | | | | | | | | T.H. | |
| 6 | 23.0 | IX | VII | 31.13 | 67.98 | | | AR240 | | | yes | Rojahn et al(unpub) |
| 0 | 20.5 | IX | VII | 31.13 | 67.98 | | | AR240 | | | yes | Rojahn et al(unpub) |
| 3 | 1.1 | VIII | VII | | | | | SMA-1 | 46.95 | 66.59 | yes | Can EPB OF 82-31 |
| 4 | 0.9 | VIII | VI | | | | | SMA-1 | 47.02 | 66.37 | yes | Can EPB OF 82-31 |
| 6 | 0.9 | VIII | VIII | | | | | SMA-1 | 46.58 | 66.32 | yes | Can EPB OF 82-31 |
| 7 | 0.6 | VIII | VIII | | | | | SMA-1 | 46.58 | 66.32 | yes | Can EPB OF 82-31 |
| 0 | 0.4 | VIII | VIII | | | | | SMA-1 | 46.58 | 66.34 | yes | Can EPB OF 82-31 |
| 3 | 0.4 | VIII | VIII | | | | | SMA-1 | 46.58 | 66.34 | yes | Can EPB OF 82-31 |
| 1 | 0.4 | VIII | VIII | 62.21 | 124.27 | | | SMA-1 | 62.23 | 124.17 | yes | GS Can OFR86-1-PGC |
| 5 | 0.4 | VIII | VIII | 62.21 | 124.27 | | | SMA-1 | 62.23 | 124.17 | yes | GS Can OFR86-1-PGC |
| 7 | 8.9 | IX | IX | 62.19 | 124.24 | | | SMA-1 | 62.20 | 124.37 | yes | GS Can OFR86-1-PGC |
| 9 | 10.8 | IX | IX | 62.19 | 124.24 | | | SMA-1 | 62.20 | 124.37 | yes | GS Can OFR86-1-PGC |
| 5 | 9.5 | IX | VIII | 62.19 | 124.24 | | | SMA-1 | 62.23 | 124.17 | yes | GS Can OFR86-1-PGC |
| 1 | 12.7 | IX | VIII | 62.19 | 124.24 | | | SMA-1 | 62.23 | 124.17 | yes | GS Can OFR86-1-PGC |
| 4 | 10.5 | IX | VI | 62.19 | 124.24 | | | SMA-1 | | | yes | GS Can OFR86-1-PGC |
| 9 | 7.8 | IX | VI | 62.19 | 124.24 | | | SMA-1 | | | yes | GS Can OFR86-1-PGC |
| 6 | 0.4 | VIII | VI | 62.19 | 124.24 | | | SMA-1 | 62.20 | 124.37 | yes | GS Can OFR86-1-PGC |
| 7 | 5.9 | | | 48.12 | 71.18 | 16 | | SMA-1 | 48.49 | 71.01 | yes | GS Can OFR-1996 |
| 1 | 0 1 | | | 48.12 | 71.18 | 16 | | SMA-1 | 48.49 | 71.01 | yes | GS Can OFR-1996 |
| 0 | 3.1 | | | 48.12 | 71.18 | 17 | | SMA-1 | 48.32 | 71.99 | yes | GS Can OFR-1996 |
| 0 | 1.2 | | | 48.12 | 71.18 | 20 | | SMA-1 | 47.55 | 70 33 | yes | GS Can OFR-1996 |
| 3 | 0 1 | | | 48.12 | 71 18 | 20 | | SMA-1 | 47 55 | 70.33 | yes | GS Can OFR-1996 |
| 9 | 2.7 | | | 48.12 | 71.18 | 7 | | SMA-1 | 47 44 | 70 51 | yes | GS Can OFR-1996 |
| 6 | 0 6 | | | 48 12 | 71.18 | 7 | | SMA-1 | 47 44 | 70 51 | yes | GS Can OFR-1996 |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km |
|---|---|---|---|---|---|---|---|---|---|---|
| CAN | 23* | 881125 | 2346 | Saguenay, QUE | La Malbaie | Rock | 6.0 | 20 | 93 | 95 |
| CAN | 24* | 881125 | 2346 | Saguenay, QUE | St-Fereol | Rock | 6.0 | 20 | 114 | 116 |
| CHL | 1 | 710709 | 303 | Central Chile | UC Santiago, Phys.Lab | Soft | 6.5 | 40 | 136 | 142 |
| CHL | 2 | 850303 | 2247 | Offshr Valparaiso | El Amendral/Valp'o | Soft | 7.8 | 33 | 67 | 75 |
| CHL | 3 | 850303 | 2247 | Offshr Valparaiso | El Amendral/Valp'o | Soft | 7.8 | 33 | 67 | 75 |
| CHL | 4 | 850303 | 2247 | Offshr Valparaiso | Hualane' | Soft | 7.8 | 33 | 137 | 141 |
| CHL | 5 | 850303 | 2247 | Offshr Valparaiso | Hualane' | Soft | 7.8 | 33 | 137 | 141 |
| CHL | 6 | 850303 | 2247 | Offshr Valparaiso | Iloca | Hard | 7.8 | 33 | 134 | 138 |
| CHL | 7 | 850303 | 2247 | Offshr Valparaiso | Iloca | Hard | 7.8 | 33 | 134 | 138 |
| CHL | 8 | 850303 | 2247 | Offshr Valparaiso | La Ligua | Soft | 7.8 | 33 | 140 | 144 |
| CHL | 9 | 850303 | 2247 | Offshr Valparaiso | Llay-Llay | Soft | 7.8 | 33 | 123 | 127 |
| CHL | 10 | 850303 | 2247 | Offshr Valparaiso | Llay-Llay | Soft | 7.8 | 33 | 123 | 127 |
| CHL | 11* | 850303 | 2247 | Offshr Valparaiso | Llolleo | Rock | 7.8 | 33 | 34 | 47 |
| CHL | 12* | 850303 | 2247 | Offshr Valparaiso | Llolleo | Rock | 7.8 | 33 | 34 | 47 |
| CHL | 13 | 850303 | 2247 | Offshr Valparaiso | Los Vilos/Vina del Mar | Hard | 7.8 | 33 | 74 | 81 |
| CHL | 14 | 850303 | 2247 | Offshr Valparaiso | Melipilla | Hard | 7.8 | 33 | 68 | 76 |
| CHL | 15 | 850303 | 2247 | Offshr Valparaiso | Melipilla | Hard | 7.8 | 33 | 68 | 76 |
| CHL | 16* | 850303 | 2247 | Offshr Valparaiso | Papudo | Rock | 7.8 | 33 | 126 | 130 |
| CHL | 17 | 850303 | 2247 | Offshr Valparaiso | Peldehue | Hard | 7.8 | 33 | 126 | 130 |
| CHL | 18 | 850303 | 2247 | Offshr Valparaiso | Pichilemu | Hard | 7.8 | 33 | 77 | 84 |
| CHL | 19 | 850303 | 2247 | Offshr Valparaiso | Pichilemu | Hard | 7.8 | 33 | 77 | 84 |
| CHL | 20 | 850303 | 2247 | Offshr Valparaiso | Quintay | | 7.8 | 33 | 51 | 61 |
| CHL | 21 | 850303 | 2247 | Offshr Valparaiso | Quintay | | 7.8 | 33 | 51 | 61 |
| CHL | 22 | 850303 | 2247 | Offshr Valparaiso | Rapel | Hard | 7.8 | 33 | 37 | 50 |
| CHL | 23 | 850303 | 2247 | Offshr Valparaiso | San Felipe | Soft | 7.8 | 33 | 143 | 147 |
| CHL | 24 | 850303 | 2247 | Offshr Valparaiso | San Felipe | Soft | 7.8 | 33 | 143 | 147 |

or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| ATION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR deg | HR ga | HOR VEL | HOR DIS? | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Rock | 6.0 | 20 | 93 | 95 | 63 | 122 | 4.65 | 0.41 | 6.1 | 0.1 | | | 48.12 | 71.18 |
| | Rock | 6.0 | 20 | 114 | 116 | 360 | 119 | 2.71 | 0.11 | 3.4 | 0.1 | | | 48.12 | 71.18 |
| Phys.Lab | Soft | 6.5 | 40 | 136 | 142 | 350 | 156 | 23.2 | 10.3 | 21.3 | 2.7 | | VII | 32.51 | 71.21 |
| 'alp'o | Soft | 7.8 | 33 | 67 | 75 | 50 | 288 | | | 58.2 | 45.9 | VIII | VIII | 33.16 | 71.98 |
| 'alp'o | Soft | 7.8 | 33 | 67 | 75 | 50 | 160 | | | 58.2 | 43.9 | VIII | VIII | 33.16 | 71.98 |
| | Soft | 7.8 | 33 | 137 | 141 | | 167 | | | | | VIII | VI | 33.16 | 71.98 |
| | Soft | 7.8 | 33 | 137 | 141 | | 137 | | | | | VIII | VI | 33.16 | 71.98 |
| | Hard | 7.8 | 33 | 134 | 138 | | 274 | | | | | VIII | VII | 33.16 | 71.98 |
| | Hard | 7.8 | 33 | 134 | 138 | | 216 | | | | | VIII | VII | 33.16 | 71.98 |
| | Soft | 7.8 | 33 | 140 | 144 | 290 | 173 | 7.47 | 1.15 | 80.0 | 60.0 | VIII | VII | 33.16 | 71.98 |
| | Soft | 7.8 | 33 | 12. | 127 | 280 | 465 | 36.66 | 6.40 | 80.0 | 60.0 | VIII | VII | 33.16 | 71.98 |
| | Soft | 7.8 | 33 | 123 | 127 | 190 | 345 | 41.79 | 8.40 | 80.0 | 60.0 | VIII | VII | 33.16 | 71.98 |
| | Rock | 7.8 | 33 | 34 | 47 | 10 | 656 | | | 74.7 | 55.3 | VIII | VIII | 33.16 | 71.98 |
| | Rock | 7.8 | 33 | 34 | 47 | 100 | 418 | | | 67.6 | 51.2 | VIII | VIII | 33.16 | 71.98 |
| del Mar | Hard | 7.8 | 33 | 74 | 81 | | 235 | | | | | VIII | VII | 33.16 | 71.98 |
| | Hard | 7.8 | 33 | 68 | 76 | | 658 | | | 56.0 | 46.9 | VIII | VIII | 33.16 | 71.98 |
| | Hard | 7.8 | 33 | 68 | 76 | | 587 | | | 57.6 | 45.6 | VIII | VIII | 33.16 | 71.98 |
| | Rock | 7 8 | 33 | 126 | 130 | 140 | 226 | 12.41 | 1.59 | 58.8 | 46.3 | VIII | VI | 33.16 | 71.98 |
| | Hard | 7.8 | 33 | 126 | 130 | | 627 | | | | | VIII | VII | 33.16 | 71.98 |
| | Hard | 7.8 | 33 | 77 | 84 | | 261 | | | | | VIII | VII | 33.16 | 71.98 |
| | Hard | 7.8 | 33 | 77 | 84 | | 176 | | | | | VIII | VII | 33.16 | 71.98 |
| | | 7.8 | 33 | 51 | 61 | | 196 | | | | | VIII | VI | 33.16 | 71 98 |
| | | 7.8 | 33 | 51 | 61 | | 176 | | | | | VIII | VI | 33.16 | 71.98 |
| | Hard | 7.8 | 33 | 37 | 50 | | 304 | | | | | VIII | VII | 33.16 | 71.98 |
| | Soft | 7 8 | 33 | 143 | 147 | 80 | 425 | 17.77 | 3 50 | 49.9 | 43.0 | VIII | VII | 33.16 | 71 98 |
| | Soft | 7 8 | 33 | 143 | 147 | 170 | 303 | 16 17 | 3.58 | 48.9 | 43.2 | VIII | VII | 33.16 | 71 98 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 5.1 | 0.1 | | | 48.12 | 71.18 | 8 | | SMA-1 | 47.66 | 70.15 | yes | GS Can OFR-1996 |
| 5.4 | 0.1 | | | 48.12 | 71.18 | 1 | | SMA-1 | 47.13 | 70.83 | yes | GS Can OFR-1996 |
| 1.3 | 2.7 | | VII | 32.51 | 71.21 | | WWC | | 33.47 | 70.67 | yes | USGS OF 76-609 |
| 1.2 | 45.9 | VIII | VIII | 33.16 | 71.98 | | | SMA-1 | 33.01 | 71.38 | yes | USGS OF 87-195 |
| 1.2 | 43.9 | VIII | VIII | 33.16 | 71.98 | | | SMA-1 | 33.01 | 71.38 | yes | USGS OF 87-195 |
| | | VIII | VI | 33.16 | 71.98 | | | SMA-1 | 34.97 | 71.82 | VS | UILU-ENG-87-2002 |
| | | VIII | VI | 33.16 | 71.98 | | | SMA-1 | 34.97 | 71.82 | VS | UILU-ENG-87-2002 |
| | | VIII | VII | 33.16 | 71.98 | | | | 34.92 | 72.22 | VS | UILU-ENG-87-2002 |
| | | VIII | VII | 33.16 | 71.98 | | | | 34.92 | 72.22 | VS | UILU-ENG-87-2002 |
| 0 | 60.0 | VIII | VII | 33.16 | 71.98 | | | SMA-1 | 32.50 | 71.10 | VS | UILU-ENG-87-2002 |
| 0 | 60.0 | VIII | VII | 33.16 | 71.98 | | | SMA-1 | 32.83 | 70.97 | yes | USGS OF 87-195 |
| 0 | 60.0 | VIII | VII | 33.16 | 71.98 | | | SMA-1 | 32.83 | 70.97 | yes | USGS OF 87-195 |
| 7 | 55.3 | VIII | VIII | 33.16 | 71.98 | | | SMA-1 | 33.41 | 71.36 | yes | USGS OF 87-195 |
| 6 | 51.2 | VIII | VIII | 33.16 | 71.98 | | | SMA-1 | 33.41 | 71.36 | yes | USGS OF 87-195 |
| | | VIII | VII | 33.16 | 71.98 | | | SMA-1 | 31.92 | 71.50 | VS | UILU-ENG-87-2002 |
| 0 | 46.9 | VIII | VIII | 33.16 | 71.98 | | | SMA-1 | 33.41 | 71 13 | VS | UILU-ENG-87-2002 |
| 6 | 45.6 | VIII | VIII | 33.16 | 71.98 | | | SMA-1 | 33 41 | 71 13 | VS | UILU-ENG-87-2002 |
| 8 | 46 3 | VIII | VI | 33.16 | 71.98 | | | SMA-1 | 32.51 | 71 45 | yes | USGS OF 87-195 |
| | | VIII | VII | 33.16 | 71.98 | | | DG-2 | 33 13 | 70.68 | VS | UILU-ENG-87-2002 |
| | | VIII | VII | 33.16 | 71.98 | | | | 34.38 | 72 02 | VS | UILU-ENG-87-2002 |
| | | VIII | VII | 33.16 | 71.98 | | | | 34 38 | 72 02 | VS | UILU-ENG-87-2002 |
| | | VIII | VI | 33.16 | 71.98 | | | | 33.27 | 71 32 | VS | UILU-ENG-87-2002 |
| | | VIII | VI | 33.16 | 71.98 | | | | 33.27 | 71 32 | VS | UILU-ENG-87-2002 |
| | | VIII | VII | 33.16 | 71.98 | | | RFT-250 | 34 02 | 71 67 | VS | UILU-ENG-87-2002 |
| 9 | 43 0 | VIII | VII | 33.16 | 71.98 | | | SMA-1 | 32 75 | 70 73 | yes | USGS OF 87-195 |
| 9 | 43.2 | VIII | VII | 33.16 | 71 98 | | | SMA-1 | 32 75 | 70 73 | VS | UILU-ENG-87-2002 |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km |
|---|---|---|---|---|---|---|---|---|---|---|
| CHL | 25 | 850303 | 2247 | Offshr Valparaiso | San Fernando | Soft | 7.8 | 33 | 129 | 13 |
| CHL | 26 | 850303 | 2247 | Offshr Valparaiso | San Fernando | Soft | 7.8 | 33 | 129 | 13 |
| CHL | 27 | 850303 | 2247 | Offshr Valparaiso | San Pedro | | 7.8 | 33 | 74 | 8 |
| CHL | 28 | 850303 | 2247 | Offshr Valparaiso | San Pedro | | 7.8 | 33 | 74 | 8 |
| CHL | 29 | 850303 | 2247 | Offshr Valparaiso | Talca | Soft | 7.8 | 33 | 186 | 18 |
| CHL | 30 | 850303 | 2247 | Offshr Valparaiso | Talca | Soft | 7.8 | 33 | 186 | 18 |
| CHL | 31 | 850303 | 2247 | Offshr Valparaiso | Valparaiso | Hard | 7.8 | 33 | 67 | 7 |
| CHL | 32 | 850303 | 2247 | Offshr Valparaiso | Valparaiso | Hard | 7.8 | 33 | 67 | 7 |
| CHL | 33 | 850303 | 2247 | Offshr Valparaiso | Ventanas | Soft | 7.8 | 33 | 100 | 10 |
| CHL | 34 | 850303 | 2247 | Offshr Valparaiso | Ventanas | Soft | 7.8 | 33 | 100 | 10 |
| CHL | 35 | 850303 | 2247 | Offshr Valparaiso | Vina del Mar | Hard | 7.8 | 33 | 74 | 8 |
| CHL | 36 | 850303 | 2247 | Offshr Valparaiso | Vina del Mar | Hard | 7.8 | 33 | 74 | 8 |
| CHL | 37 | 850303 | 2247 | Offshr Valparaiso | Zapallar | Hard | 7.8 | 33 | 117 | 12 |
| CHL | 38 | 850303 | 2247 | Offshr Valparaiso | Zapallar | Hard | 7.8 | 33 | 117 | 12 |
| CHL | 39* | 850303 | 2347 | Valparaiso Aftshk | Llolleo | Rock | 5.5 | 33 | 34 | 4 |
| CHL | 40* | 850303 | 2347 | Valparaiso Aftshk | Llolleo | Rock | 5.5 | 33 | 34 | 4 |
| CHI | | | | | | | | | | |
| GRE | 1 | 720917 | 1407 | Cephalonia Is. | Cephalonia | Hard | 6.2 | 19 | 18 | 2 |
| GRE | 2 | 721030 | 1432 | Cephalonia Is. | Cephalonia | Hard | 5.5 | 13 | 22 | 2 |
| GRE | 3 | 731104 | 1552 | Leukas Island | Leukas Island | Soft | 6.0 | 13 | 20 | 2 |
| GRE | 4 | 731104 | 1552 | Leukas Island | Leukas Island | Soft | 6.0 | 13 | 20 | 2 |
| GRE | 5 | 780620 | 2004 | Thessaloniki | Thess City Hotel Bsmt | Soft | 6.4 | 19 | 21 | 3 |
| GRE | 6 | 780620 | 2004 | Thessaloniki | Thess City Hotel Bsmt | Soft | 6.4 | 19 | 21 | 28 |
| GRE | 7 | 810224 | 1057 | Gulf of Corinth | Connth | Soft | 6.7 | 11 | 20 | |
| GRE | 8 | 810224 | 1057 | Gulf of Corinth | Corinth | Soft | 6.7 | 11 | 20 | |
| GRE | 9 | 860913 | 1724 | Kalamata | Kalamata-1 | Soft | 6.2 | 8 | 9 | |

ptional interest)

David J. Leeds
DJLA 90-21-14

| | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR deg | HR ge | HOR VEL | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Soft | 7.8 | 33 | 129 | 133 | | 333 | | | | | VIII | VII | 33.16 | 71.98 | |
| | Soft | 7.8 | 33 | 129 | 133 | | 225 | | | | | VIII | VII | 33.16 | 71.98 | |
| | | 7.8 | 33 | 74 | 81 | | 588 | | | | | VIII | VI | 33.16 | 71.98 | |
| | | 7.8 | 33 | 74 | 81 | | 559 | | | | | VIII | VI | 33.16 | 71.98 | |
| | Soft | 7.8 | 33 | 186 | 189 | 10 | 168 | 8.89 | 1.36 | 31.6 | 11.8 | VIII | VII | 33.16 | 71.98 | |
| | Soft | 7.8 | 33 | 186 | 189 | 280 | 164 | 11.86 | 3.47 | 24.5 | 15.2 | VIII | VII | 33.16 | 71.98 | |
| | Hard | 7.8 | 33 | 67 | 75 | 160 | 176 | | | 36.1 | 11.4 | VIII | VIII | 33.16 | 71.98 | U |
| | Hard | 7.8 | 33 | 67 | 75 | 70 | 161 | | | 36.5 | 22.1 | VIII | VIII | 33.16 | 71.98 | U |
| | Soft | 7.8 | 33 | 100 | 105 | | 176 | | | | | VIII | VI | 33.16 | 71.98 | II |
| | Soft | 7.8 | 33 | 100 | 105 | | 176 | | | | | VIII | VI | 33.16 | 71.98 | II |
| | Hard | 7.8 | 33 | 74 | 81 | 200 | 350 | | | 58.7 | 46.7 | VIII | VIII | 33.16 | 71.98 | |
| | Hard | 7.8 | 33 | 74 | 81 | 290 | 224 | | | 61.4 | 45.2 | VIII | VIII | 33.16 | 71.98 | |
| | Hard | 7.8 | 33 | 117 | 122 | | 323 | | | | | VIII | VI | 33.16 | 71.98 | |
| | Hard | 7.8 | 33 | 117 | 122 | | 314 | | | | | VIII | VI | 33.16 | 71.98 | |
| | Rock | 5 5 | 33 | 34 | 47 | 10 | 102 | 10.88 | 1.59 | 16.8 | 6.2 | | | 33.16 | 71.98 | |
| | Rock | 5.5 | 33 | 34 | 47 | 100 | 187 | 13.4 | 1.96 | 21.1 | 7.6 | | | 33.16 | 71.98 | |
| | | | | | | | | | | | | | | | | |
| | Hard | 6.2 | 19 | 18 | 26 | | 170 | 8.0 | 1.8 | 3.6 | 2.1 | VII | VII | 38.2 | 20.4 | |
| | Hard | 5.5 | 13 | 22 | 26 | | 165 | 8.2 | 4.3 | 1.8 | 0.1 | V | V | 38.3 | 20.4 | |
| | Soft | 6.0 | 13 | 20 | 24 | | 530 | 65.0 | 26.8 | 9.8 | 1.7 | VIII | VII | 38.87 | 20.54 | |
| | Soft | 6 0 | 13 | 20 | 24 | | 257 | 30.0 | 12.0 | 14.4 | 8.4 | VIII | VII | 38.87 | 20.54 | |
| | Soft | 6 4 | 19 | 21 | 33 | | 157 | | | 7 6 | 4.5 | IX | VIII | 41.09 | 22.30 | |
| | Soft | 6 4 | 19 | 21 | 28 | | 145 | | | 8.0 | 1.0 | IX | VIII | 41.09 | 22.30 | |
| | Soft | 6.7 | 11 | 20 | 23 | 305 | 281 | 24.6 | 6.4 | 16.1 | 6.7 | IX | VIII | 38.06 | 53.20 | |
| | Soft | 6 7 | 11 | 20 | 23 | 35 | 234 | 22 5 | 6.7 | 17 2 | 6 1 | IX | VIII | 38 06 | 53.20 | |
| | Soft | 6.2 | 8 | 9 | 12 | 350 | 268 | 23.66 | 5.34 | 7 9 | 3 5 | IX | IX | | | |

Sep'90

| URATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | VIII | VII | 33.16 | 71.98 | | | SMA-1 | 34.60 | 71.00 | VS | UILU-ENG-87-2002 |
| | | VIII | VII | 33.16 | 71.98 | | | SMA-1 | 34.60 | 71.00 | VS | UILU-ENG-87-2002 |
| | | VIII | VI | 33.16 | 71.98 | | | | 32.60 | 71.00 | VS | UILU-ENG-87-2002 |
| | | VIII | VI | 33.16 | 71.98 | | | | 32.60 | 71.00 | VS | UILU-ENG-87-2002 |
| | 11.8 | VIII | VII | 33.16 | 71.98 | | | | 35.43 | 70.67 | VS | UILU-ENG-87-2002 |
| | 15.2 | VIII | VII | 33.16 | 71.98 | | | | 35.43 | 70.67 | VS | UILU-ENG-87-2002 |
| | 11.4 | VIII | VIII | 33.16 | 71.98 | UFSM | | SMA-1 | 33.01 | 71.38 | yes | USGS OF 87-195 |
| | 22.1 | VIII | VIII | 33.16 | 71.98 | UFSM | | SMA-1 | 33.01 | 71.38 | yes | USGS OF 87-195 |
| | | VIII | VI | 33.16 | 71.98 | II | | | 32.67 | 71.62 | VS | UILU-ENG-87-2002 |
| | | VIII | VI | 33.16 | 71.98 | II | | | 32.67 | 71.62 | VS | UILU-ENG-87-2002 |
| | 46.7 | VIII | VIII | 33.16 | 71.98 | | | SMA-1 | 33.03 | 71.58 | yes | USGS OF 87-195 |
| | 45.2 | VIII | VIII | 33.16 | 71.98 | | | SMA-1 | 33.03 | 71.58 | yes | USGS OF 87-195 |
| | | VIII | VI | 33.16 | 71.98 | | | SMA-1 | 32.57 | 71.47 | VS | UILU-ENG-87-2002 |
| | | VIII | VI | 33.16 | 71.98 | | | SMA-1 | 32.57 | 71.47 | VS | UILU-ENG-87-2002 |
| | 6.2 | | | 33.16 | 71.98 | | | SMA-1 | 33.41 | 71.36 | yes | USGS OF 87-195 |
| | 7.6 | | | 33.16 | 71.98 | | | SMA-1 | 33.41 | 71.36 | yes | USGS OF 87-195 |
| | | | | | | | | | | | | |
| | 2.1 | VII | VII | 38.2 | 20.4 | | | SMAC-B | | | VS | USGS OF 78-1022 |
| | 0.1 | V | V | 38.3 | 20.4 | | | SMAC-B | | | VS | USGS OF 78-1022 |
| | 1.7 | VIII | VII | 38.87 | 20.54 | | 73-11 | | | | VS | USGS OF 78-1022 |
| | 8.4 | VIII | VII | 38.87 | 20.54 | | 73-11 | | | | VS | USGS OF 78-1022 |
| | 4.5 | IX | VIII | 41.09 | 22.30 | | | SMA-1 | | | VS | USGS Cir. 785-B |
| | 1 0 | IX | VIII | 41.09 | 22.30 | | | SMA-1 | | | VS | USGS Cir. 785-B |
| | 6.7 | IX | VIII | 38.06 | 53.20 | | | SMA-1 | | | yes | EERI Recon Rpt |
| | 6 1 | IX | VIII | 38.06 | 53.20 | | | SMA-1 | | | yes | EERI Recon Rpt |
| | 3.5 | IX | IX | | | | KAL-1 | SMA-1 | | | yes | EQe Spectra 3·2 |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR. | MAG Mb | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| GRE | 10 | 860913 | 1724 | Kalamata | Kalamata-1 | Soft | 6.2 | 8 | 9 |
| GRE | 11 | 860915 | 1141 | Kalamata AftShk | Kalamata-1 | Soft | 5.4 | 8 | 1 |
| GRE | 12 | 860915 | 1141 | Kalamata AftShk | Kalamata-1 | Soft | 5.4 | 8 | 1 |
| GRE | 13 | 860915 | 1141 | Kalamata AftShk | Kalamata-2 | Soft | 5.4 | 8 | 1 |
| GRE | 14 | 860915 | 1141 | Kalamata AftShk | Kalamata-2 | Soft | 5.4 | 8 | 1 |
| IND | 1 | 671211 | 2251 | Koyna | Koyna Dam | Hard | 6.5 | 8 | 9 |
| IND | 2 | 671211 | 2251 | Koyna | Koyna Dam | Hard | 6.5 | 8 | 9 |
| IRN | 1 | 780916 | 1536 | Tabas | Tabas | Soft | 7.4 | 10 | 3 |
| IRN | 2 | 780916 | 1536 | Tabas | Tabas | Soft | 7.4 | 10 | 3 |
| IRN | 3 | 780916 | 1536 | Tabas | Dayhook | Soft | 7.4 | 10 | 17 |
| IRN | 4 | 780916 | 1536 | Tabas | Dayhook | Soft | 7.4 | 10 | 17 |
| ITA | 1 | 720614 | 1855 | | Rocca-R | Soft | 5.2 | 6 | |
| ITA | 2 | 720614 | 1885 | | Rocca-R | Soft | 5.2 | 6 | |
| ITA | 3 | 720614 | 2100 | Friuli | Ancona-Rocca | Soft | 4.7 | 21 | |
| ITA | 4 | 720614 | 2100 | Friuli | Ancona-Rocca | Soft | 4.7 | 21 | |
| ITA | 5 | 720621 | 1506 | Friuli | Palombina | Soft | 4.4 | 4 | |
| ITA | 6 | 720621 | 1506 | Fnuli | Palombina | Soft | 4.4 | 4 | |
| ITA | 7 | 760506 | 2000 | Fnuli | Tolmezzo | | | 26 | |
| ITA | 8 | 760511 | 2244 | Friuli | Forgaria/Cornino | Soft | 5.2 | 19 | |
| ITA | 9 | 760511 | 2244 | Fri | Forgaria/Cornino | Soft | 5.2 | 19 | |
| ITA | 10 | 760911 | 1631 | Fnuli | Tarcento | Soft | 5 2 | 17 | |
| ITA | 11 | 760911 | 1635 | Fnuli | Forgaria/Cornino | Soft | 5.3 | 24 | |
| ITA | 12 | 760911 | 1635 | Fnuli | Buia | Soft | 5.4 | 24 | |
| ITA | 13 | 760915 | 315 | Fnuli | Forgaria/Cornino | Soft | 5.7 | 16 | |
| ITA | 14 | 760915 | 315 | Friuli | Forgaria/Cornino | Soft | 5 7 | 16 | |
| ITA | 15 | 760915 | 921 | Fnuli | Forgaria/Cornino | Soft | 5.4 | 17 | |

r, or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| CATION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR deg | HR ga | HOR VEL | HOR DISP | DURATION | | INTENSITY | | EPICENTER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | g5% | g10% | EPI | STA | LAT | LON |
| | Soft | 6.2 | 8 | 9 | 12 | 80 | 235 | 32.33 | 7.18 | 5.6 | 2.3 | IX | IX | | |
| | Soft | 5.4 | 8 | 1 | 8 | 80 | 233 | 21.72 | 1.61 | 3.7 | 1.0 | VIII | VIII | | |
| | Soft | 5.4 | 8 | 1 | 8 | 350 | 136 | 7.93 | 0.77 | 1.6 | 0.7 | VIII | VIII | | |
| | Soft | 5.4 | 8 | 1 | 8 | 284 | 258 | 24.42 | 3.66 | 1.5 | 1.1 | VIII | VIII | | |
| | Soft | 5.4 | 8 | 1 | 8 | 14 | 158 | 12.75 | 1.34 | 2.7 | 0.3 | VIII | VIII | | |
| | Hard | 6.5 | 8 | 9 | 12 | | 620 | 13.6 | | 10.2 | 6.8 | VIII | VIII | 17.30 | 73. |
| | Hard | 6.5 | 8 | 9 | 12 | | 498 | 12.3 | | 10.4 | 6.2 | VIII | VII | 17.30 | 73. |
| | Soft | 7.4 | 10 | 3 | 11 | | 925 | 111.2 | 79.6 | 20.0 | 17.0 | X | X | 33.34 | 57. |
| | Soft | 7.4 | 10 | 3 | 11 | | 860 | 97.3 | 39.6 | 20.0 | 16.0 | X | X | 33.34 | 57. |
| | Soft | 7.4 | 10 | 17 | 20 | | 383 | 27.5 | 10.5 | 39.0 | 37.0 | X | IX | 33.34 | 57. |
| | Soft | 7.4 | 10 | 17 | 20 | | 372 | 36.7 | | 36.0 | 35.0 | X | IX | 33.34 | 57. |
| | Soft | 5.2 | 6 | | | | 402 | | | | | | | | |
| | Soft | 5.2 | 6 | | | | 381 | | | | | | | | |
| ca | Soft | 4.7 | 21 | | | | 314 | | | | | | | | |
| ca | Soft | 4.7 | 21 | | | | 199 | | | | | | | | |
| | Soft | 4.4 | 4 | | | | 393 | | | | | | | | |
| | Soft | 4.4 | 4 | | | | 201 | | | | | | | | |
| | | | 26 | | | | 370 | | | | | | | | |
| ino | Soft | 5.2 | 19 | | | | 310 | | | | | | | | |
| ino | Soft | 5.2 | 19 | | | | 190 | | | | | | | | |
| | Soft | 5.2 | 17 | | | | 208 | | | | | | | | |
| ino | Soft | 5.3 | 24 | | | | 230 | | | | | | | | |
| | Soft | 5.4 | 24 | | | | 297 | | | | | | | | |
| ino | Soft | 5.7 | 16 | | | | 331 | | | | | | | | |
| ino | Soft | 5.7 | 16 | | | | 294 | | | | | | | | |
| ino | Soft | 5 4 | 17 | | | | 464 | | | | | | | | |

s
4

Sep'90

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| .6 | 2.3 | IX | IX | | | | KAL-1 | SMA-1 | | | yes | EQe Spectra 3:2 |
| .7 | 1.0 | VIII | VIII | | | | KAL-1 | SMA-1 | | | yes | EQe Spectra 3:2 |
| .6 | 0.7 | VIII | VIII | | | | KAL-1 | SMA-1 | | | yes | EQe Spectra 3:2 |
| .5 | 1.1 | VIII | VIII | | | | KAL-2 | SMA-1 | | | yes | EQe Spectra 3:2 |
| .7 | 0.3 | VIII | VIII | | | | KAL-2 | SMA-1 | | | yes | EQe Spectra 3:2 |
| .2 | 6.8 | VIII | VIII | 17.30 | 73.44 | | | | 17.24 | 73.45 | VS | Comm.Experts Rpt |
| .4 | 6.2 | VIII | VIII | 17.30 | 73.44 | | | | 17.24 | 73.45 | VS | Comm.Experts Rpt |
| 0 | 17.0 | X | X | 33.34 | 57.40 | | | SMA-1 | 33.28 | 56.92 | T.H. | Niazi, 1986 |
| . | 16.0 | X | X | 33.34 | 57.40 | | | SMA-1 | 33.28 | 56.92 | T.H. | Niazi, 1986 |
| 0 | 37 0 | X | IX | 33.34 | 57.40 | | | SMA-1 | 33.28 | 57.52 | T.H. | Niazi, 1986 |
| .0 | 35.0 | X | IX | 33.34 | 57.40 | | | SMA-1 | 33.28 | 57.52 | T.H. | Niazi, 1986 |
| | | | | | | | | | | | VS | CNEN-ENEL |
| | | | | | | | | | | | VS | CNEN-ENEL |
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| | | | | | | | | | | | VS | |
| | | | | | | | | | | | VS | |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | E k |
|---|---|---|---|---|---|---|---|---|---|
| ITA | 16 | 760915 | 921 | Friuli | Forgaria/Cornino | Soft | 5.4 | 17 | |
| ITA | 17 | 760915 | 921 | Friuli | San Rocco | Hard | 5.4 | 22 | |
| ITA | 18 | 760915 | 921 | Friuli | Tarcento | Soft | 5.4 | 22 | |
| ITA | 19 | 760915 | | Friuli | Buia | Soft | | | |
| ITA | 20 | 801123 | 1934 | Campania-Lucania | Sturno | Hard | 6.5 | 18 | |
| ITA | 21 | 801123 | 1934 | Campania-Lucania | Sturno | Hard | 6.5 | 18 | |
| ITA | 22 | 801123 | 1934 | Campania-Lucania | Bagnoli Irpino | Hard | 6.5 | 18 | |
| ITA | 23 | 801123 | 1934 | Campania-Lucania | Bagnoli Irpino | Hard | 6.5 | 18 | |
| ITA | 24 | 801123 | 1934 | Campania-Lucania | Brienza | Soft | 6.5 | 18 | |
| ITA | 25 | 801123 | 1934 | Campania-Lucania | Brienza | Soft | 6.5 | 18 | |
| ITA | 26 | 801123 | 1934 | Campania-Lucania | Calitri | Hard | 6.5 | 18 | |
| ITA | 27 | 801123 | 1934 | Campania-Lucanic | Calitri | Hard | 6.5 | 18 | |
| JPN | 1 | 640205 | 2030 | | Genken Kisho-Shitsu | | | 60 | |
| JPN | 2 | 640205 | 2030 | | Genken Kisho-Shitsu | | | 60 | |
| JPN | 3 | 641114 | 1456 | | Genken Kisho-Shitsu | Soft | 4.9 | 40 | |
| JPN | 4 | 641114 | 1456 | | Genken Kisho-Shitsu | Soft | 4.9 | 40 | |
| JPN | 5 | 650420 | 842 | | Genken Kisho-Shitsu | Soft | 5.6 | 20 | |
| JPN | 6 | 660401 | | | Ochiai Bridge-B | Soft | | | |
| JPN | 7 | 660405 | 1751 | Matsushiro M-53 | Ochiai Bridge-B | Soft | 5.1 | 4 | |
| JPN | 8 | 660405 | 1751 | Matsushiro M-53 | Ochiai Bridge-B | Soft | 5.1 | 4 | |
| JPN | 9 | 660405 | 1751 | Matsushiro M-53 | Ochiai Bridge-C | Soft | 5.1 | 4 | |
| JPN | 10 | 660405 | 1751 | Matsushiro M-53 | Hoshina-A Elem Sch | Soft | 5.1 | 4 | |
| JPN | 11 | 660405 | 1751 | Matsushiro M-53 | Hoshina-A Elem Sch | Soft | 5.1 | 4 | |
| JPN | 12 | 660405 | 1751 | Matsushiro M-53 | Wakaho Town Office | Soft | 5.1 | 4 | |
| JPN | 13 | 660405 | 1751 | Matsushiro M-53 | Wakaho Town Office | Soft | 5.1 | 4 | |
| JPN | 14 | 660417 | 1021 | Matsushiro M-74 | Hoshina-A Elem Sch | Soft | 4.1 | 4 | |

· exceptional interest)

David J. Leeds
DJLA 90-21-14

| N | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR deg | HR ga | HOR VEL | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Soft | 5.4 | 17 | | | | 379 | | | | | | | | |
| | Hard | 5.4 | 22 | | | | 240 | | | | | | | | |
| | Soft | 5.4 | 22 | | | | 140 | | | | | | | | |
| | Soft | | | | | | | | | | | | | | |
| | Hard | 6.5 | 18 | 37 | 41 | 360 | 222 | 42.37 | | 44.5 | 9.3 | IX | VIII | 40.75 | 15.23 |
| | Hard | 6.5 | 18 | 37 | 41 | 90 | 321 | 70.23 | 31.37 | 43.5 | 9.1 | IX | VIII | 40.75 | 15.23 |
| | Hard | 6.5 | 18 | 28 | 33 | 360 | 130 | 23.40 | | 17.0 | 5.0 | IX | VII | 40.75 | 15.23 |
| | Hard | 6.5 | 18 | 28 | 33 | 90 | 187 | 35.33 | | 10.6 | 5.2 | IX | VII | 40.75 | 15.23 |
| | Soft | 6.5 | 18 | 38 | 42 | 360 | 218 | 13.74 | | 10.2 | 3.4 | IX | VII | 40.75 | 15.23 |
| | Soft | 6.5 | 18 | 38 | 42 | 90 | 165 | 12.16 | | 9.2 | 7.1 | IX | VII | 40.75 | 15.23 |
| | Hard | 6.5 | 18 | 26 | 32 | 360 | 156 | 26.02 | | 48.1 | 38.8 | IX | VIII | 40.75 | 15.23 |
| | Hard | 6.5 | 18 | 26 | 32 | 90 | 173 | 29.01 | | 53.4 | 41.7 | IX | VIII | 40.75 | 15.23 |
| su | | | 60 | | | | 175 | 14.01 | 19.41 | 13.6 | 1.5 | VI | IV | 140.9 | 36.3 |
| su | | | 60 | | | | 105 | | | | | | | | |
| su | Soft | 4.9 | 40 | | | | 261 | | | | | | | | |
| su | Soft | 4 9 | 40 | | | | 233 | | | | | | | | |
| su | Soft | 5.6 | 20 | | | | 110 | | | | | | | | |
| | Soft | | | | | | 230 | | | | | | | | |
| | Soft | 5.1 | 4 | | | | 210 | | | | | | | | |
| | Soft | 5.1 | 4 | | | | 190 | | | | | | | | |
| | Soft | 5.1 | 4 | | | | 230 | | | | | | | | |
| ch | Soft | 5.1 | 4 | 4 | | | 602 | 24.9 | 3.7 | 3.6 | 2.6 | VI | VI | 36.58 | 138.32 |
| ch | Soft | 5.1 | 4 | 4 | | | 331 | 12.0 | 0.9 | 3.0 | 2.2 | VI | VI | 36.58 | 138.32 |
| ice | Soft | 5.1 | 4 | 3 | | | 278 | 17 3 | 2.0 | 3.6 | 2.1 | VI | VI | 36.58 | 138.32 |
| ice | Soft | 5 1 | 4 | 3 | | | 264 | 20.5 | 3.7 | 3.9 | 2.8 | VI | VI | 36 58 | 138.32 |
| ch | Soft | 4.1 | 4 | | | | 331 | 9.2 | 0.5 | 0.9 | 0.4 | VI | VI | 36.53 | 138.23 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | | | | | | | | | | VS | |
| | | | | | | | | | | | VS | |
| | | | | | | | | | | | VS | |
| | | | | | | | | | | | VS | |
| 5 | 9.3 | IX | VIII | 40.75 | 15.23 | ENEA-ENEL | | SMA-1 | 41.02 | 15.11 | yes | Berardi et al,1981 |
| 5 | 9.1 | IX | VIII | 40.75 | 15.23 | ENEA-ENEL | | SMA-1 | 41.02 | 15.11 | yes | Berardi et al,1981 |
| 0 | 5.0 | IX | VII | 40.75 | 15.23 | ENEA-ENEL | | SMA-1 | 40.67 | 15.07 | yes | Berardi et al,1981 |
| 6 | 5.2 | IX | VII | 40.75 | 15.23 | ENEA-ENEL | | SMA-1 | 40.67 | 15.07 | yes | Berardi et al,1981 |
| 2 | 3.4 | IX | VII | 40.75 | 15.23 | ENEA-ENEL | | SMA-1 | 40.47 | 15.63 | yes | Berardi et al,1981 |
| 2 | 7.1 | IX | VII | 40.75 | 15.23 | ENEA-ENEL | | SMA-1 | 40.47 | 15.63 | yes | Berardi et al,1981 |
| 1 | 38.8 | IX | VIII | 40.75 | 15.23 | ENEA-ENEL | | SMA-1 | 40.92 | 15.44 | yes | Berardi et al,1981 |
| 4 | 41.7 | IX | VIII | 40.75 | 15.23 | ENEA-ENEL | | SMA-1 | 40.92 | 15.44 | yes | Berardi et al,1981 |
| 5 | 1 5 | VI | IV | 140.9 | 36.3 | KT001 | | SMAC | | | TH | DIG SM JPN, 1972 |
| | | | | | | | | | | | TH | |
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |
| 3 | 2.6 | VI | VI | 36.58 | 138.32 | | | DC3C | 36 61 | 138 27 | TH | SEMOC Mat. No 1 |
| ) | 2.2 | VI | VI | 36.58 | 138.32 | | | DC3C | 36.61 | 138.27 | TH | SEMOC Mat. No.1 |
| 3 | 2.1 | VI | VI | 36.58 | 138.32 | | | DC3C | 36 65 | 138 26 | TH | SEMOC Mat. No.1 |
| ) | 2 8 | VI | VI | 36.58 | 138.32 | | | DC3C | 36 65 | 138 26 | TH | SEMOC Mat. No.1 |
| ) | 0 4 | VI | VI | 36 53 | 138.23 | | | DC3C | 36 61 | 138 27 | TH | SEMOC Mat. No 1 |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km |
|---|---|---|---|---|---|---|---|---|---|---|
| JPN | 15 | 660502 | 45 | Matsushiro M-95 | Hoshina-A Elem Sch | Soft | 4.5 | 4 | | |
| JPN | 16 | 660520 | | | Ochiai Bridge-B | Soft | | | | |
| JPN | 17 | 660520 | 930 | Matsushiro M-123 | Matsushiro-C Town Off | Soft | 4.1 | 6 | 4 | |
| JPN | 18 | 660520 | 930 | Matsushiro M-123 | Matsushiro-C Town Off | Soft | 4.1 | 6 | 4 | |
| JPN | 19 | 660520 | 930 | Matsushiro M-123 | Hoshina-A Elem Sch | Soft | 4.1 | 6 | 3 | |
| JPN | 20 | 660520 | 930 | Matsushiro M-123 | Hoshina-A Elem Sch | Soft | 4.1 | 6 | 3 | |
| JPN | 21 | 660528 | 1421 | Matsushiro M-147 | Matsushiro-C Town Off | Soft | 4.5 | 3 | 2 | |
| JPN | 22 | 660528 | 1421 | Matsushiro M-147 | Matsushiro-C Town Off | Soft | 4.5 | 3 | 2 | |
| JPN | 23 | 660612 | 943 | Matsushiro M-169 | Hoshina-B | Soft | 4.6 | 7 | 7 | |
| JPN | 24 | 660612 | 943 | Matsushiro M-169 | Hoshina-B | Soft | 4.6 | 7 | 7 | |
| JPN | 25 | 660619 | 455 | Matsushiro M-186 | Hoshina-B | Soft | 4.2 | 5 | 6 | |
| JPN | 26 | 660626 | 1634 | Matsushiro M-192 | Wakaho Town Office | Soft | 4.5 | 5 | 5 | |
| JPN | 27 | 660626 | 1634 | Matsushiro M-192 | Wakaho Town Office | Soft | 4.5 | 5 | 5 | |
| JPN | 28 | 660710 | 1544 | Matsushiro M-219 | Hoshina-B | Soft | 4.4 | 5 | 2 | |
| JPN | 29 | 660710 | 1544 | Matsushiro M-219 | Hoshina-B | Soft | 4.4 | 5 | 2 | |
| JPN | 30 | 660803 | 348 | Matsushiro M-262 | Matsushiro-C Town Off | Soft | 5.0 | 3 | 7 | |
| JPN | 31 | 660803 | 348 | Matsushiro M-262 | Matsushiro-C Town Off | Soft | 5.0 | 3 | 7 | |
| JPN | 32 | 660808 | 937 | Matsushiro M-270 | Hoshina-B | Soft | 4.7 | 6 | 2 | |
| JPN | 33 | 660808 | 937 | Matsushiro M-270 | Hoshina-B | Soft | 4.7 | 6 | 2 | |
| JPN | 34 | 660829 | 1037 | Matsushiro M-329 | Hoshina-B | Soft | 4.4 | 3 | 5 | |
| JPN | 35 | 660829 | 1037 | Matsushiro M-329 | Hoshina-B | Soft | 4.4 | 3 | 5 | |
| JPN | 36 | 660914 | 626 | Matsushiro M-425 | Hoshina-B | Soft | 4.5 | 2 | 3 | |
| JPN | 37 | 660914 | 626 | Matsushiro M-425 | Hoshina-B | Soft | 4.5 | 2 | 3 | |
| JPN | 38 | 671119 | 2107 | | Genken Kisho-Shitsu | Soft | 5.7 | 50 | | |
| JPN | 39 | 671119 | 2107 | | Genken Kisho-Shitsu | Soft | 5.7 | 50 | | |
| JPN | 40 | 680330 | 404 | | Wakayama-JI-S | Soft | 4.7 | 12 | 5 | |

· of exceptional interest)

David J. Leeds
DJLA 90-21-14

| ION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR deg | HR gs | HOR VEL | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ı Sch | Soft | 4.5 | 4 | | | | 387 | 10.0 | 0.6 | 0.8 | 0.3 | VI | VI | 36.55 | 138.32 |
| | Soft | | | | | | 300 | | | | | | | | |
| own Off | Soft | 4.1 | 6 | 4 | | | 245 | 18.8 | 1.8 | 4.8 | 2.5 | VI | VI | 36.57 | 138.27 |
| own Off | Soft | 4.1 | 6 | 4 | | | 243 | 15.9 | 1.7 | 5.0 | 0.7 | VI | VI | 36.57 | 138.27 |
| ı Sch | Soft | 4.1 | 6 | 3 | | | 323 | 7.3 | 0.6 | 1.4 | 1.0 | VI | VI | 36.57 | 138.27 |
| ı Sch | Soft | 4.1 | 6 | 3 | | | 302 | 5.7 | 0.6 | 1.5 | 0.4 | VI | VI | 36.57 | 138.27 |
| own Off | Soft | 4.5 | 3 | 2 | | | 380 | 34.0 | 7.6 | 6.8 | 5.5 | VII | VII | 36.55 | 138.22 |
| own Off | Soft | 4.5 | 3 | 2 | | | 273 | 28.6 | 2.9 | 9.2 | 3.9 | VII | VII | 36.55 | 138.22 |
| | Soft | 4.6 | 7 | 7 | | | 262 | 8.5 | 0.4 | 1.6 | 1.2 | VI | VI | 36.53 | 138.30 |
| | Soft | 4.6 | 7 | 7 | | | 204 | 6.6 | 0.4 | 1.8 | 1.4 | VI | VI | 36.53 | 138.30 |
| | Soft | 4.2 | 5 | 6 | | | 301 | 7.3 | 0.3 | 1.2 | 0.7 | IV | IV | | |
| Office | Soft | 4.5 | 5 | 5 | | | 276 | 16.7 | 2.1 | 3.0 | 0.9 | V | V | 36.55 | 138.25 |
| Office | Soft | 4.5 | 5 | 5 | | | 265 | 17.6 | 22.4 | 3.0 | 0.9 | V | V | 36.55 | 138.25 |
| | Soft | 4.4 | 5 | 2 | | | 224 | 8.4 | 0.5 | 1.4 | 0.7 | VI | VI | | |
| | Soft | 4.4 | 5 | 2 | | | 202 | 9 4 | 0.6 | 1.7 | 0.6 | VI | VI | | |
| own Off | Soft | 5.0 | 3 | 7 | | | 223 | 22.3 | 4.2 | 5.2 | 2.2 | VII | VII | | |
| own Off | Soft | 5.0 | 3 | 7 | | | 190 | 22.1 | 4.2 | 6.0 | 4.2 | VII | VII | | |
| | Soft | 4.7 | 6 | 2 | | | 448 | 21.8 | 1.5 | 1.6 | 0.9 | V | V | | |
| | Soft | 4 7 | 6 | 2 | | | 284 | 10.5 | 0.6 | 1 9 | 1.0 | V | V | | |
| | Soft | 4.4 | 3 | 5 | | | 432 | 17.4 | 1.3 | 2.2 | 0.8 | V | V | | |
| | Soft | 4.4 | 3 | 5 | | | 208 | 10.5 | 0.7 | 2.2 | 1.3 | V | V | | |
| | Soft | 4.5 | 2 | 3 | | | 251 | 8.0 | 0.6 | 1.5 | 0.7 | V | V | | |
| | Soft | 4.5 | 2 | 3 | | | 245 | 11.1 | 1.1 | 1.3 | 1.2 | V | V | | |
| hitsu | Soft | 5.7 | 50 | | | | 469 | | | | | | | | |
| hitsu | Soft | 5.7 | 50 | | | | 340 | | | | | | | | |
| | Soft | 4.7 | 12 | 5 | 5 | | 442 | | | | | | VI | 34.2 | 135.1 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 8 | 0.3 | VI | VI | 36.55 | 138.32 | | | DC3C | 36.61 | 138.27 | TH | SEMOC Mat. No.1 |
| | | | | | | | | | | | | |
| 9 | 2.5 | VI | VI | 36.57 | 138.27 | | | DC3C | 36.58 | 138.19 | TH | SEMOC Mat. No.1 |
| 0 | 0.7 | VI | VI | 36.57 | 138.27 | | | DC3C | 36.58 | 138.19 | TH | SEMOC Mat. No.1 |
| 4 | 1.0 | VI | VI | 36.57 | 138.27 | | | DC3C | 36.61 | 138.27 | TH | SEMOC Mat. No.1 |
| 5 | 0.4 | VI | VI | 36.57 | 138.27 | | | DC3C | 36.61 | 138.27 | TH | SEMOC Mat. No.1 |
| 3 | 5.5 | VII | VII | 36.55 | 138.22 | | | DC3C | 36.58 | 138.19 | TH | SEMOC Mat. No.1 |
| 2 | 3.9 | VII | VII | 36.55 | 138.22 | | | DC3C | 36.58 | 138.19 | TH | SEMOC Mat. No.1 |
| 6 | 1.2 | VI | VI | 36.53 | 138.30 | | | DC3C | 36.61 | 138.30 | TH | SEMOC Mat. No.1 |
| 8 | 1.4 | VI | VI | 36.53 | 138.30 | | | DC3C | 36.61 | 138.30 | TH | SEMOC Mat. No.1 |
| 2 | 0.7 | IV | IV | | | | | DC3C | 36.61 | 138.30 | TH | SEMOC Mat. No.1 |
| 0 | 0.9 | V | V | 36.55 | 138.25 | | | DC3C | 36.65 | 138.26 | TH | SEMOC Mat. No.1 |
| 0 | 0.9 | V | V | 36.55 | 138.25 | | | DC3C | 36.65 | 138.26 | TH | SEMOC Mat. No.1 |
| 1 | 0.7 | VI | VI | | | | | DC3C | 36.61 | 138.30 | TH | SEMOC Mat. No.1 |
| 7 | 0.6 | VI | VI | | | | | DC3C | 36.61 | 138.30 | TH | SEMOC Mat. No.1 |
| 2 | 2.2 | VII | VII | | | | | DC3C | 36.58 | 138.19 | TH | SEMOC Mat. No.1 |
| 0 | 4.2 | VII | VII | | | | | DC3C | 36.58 | 138.19 | TH | SEMOC Mat. No.1 |
| 5 | 0.9 | V | V | | | | | DC3C | 36.61 | 138 30 | TH | SEMOC Mat. No.1 |
| 0 | 1.0 | V | V | | | | | DC3C | 36.61 | 138.30 | TH | SEMOC Mat. No.1 |
| 2 | 0.8 | V | V | | | | | DC3C | 36.61 | 138 30 | TH | SEMOC Mat. No.1 |
| 2 | 1 3 | V | V | | | | | DC3C | 36.61 | 138 30 | TH | SEMOC Mat. No 1 |
| 5 | 0.7 | V | V | | | | | DC3C | 36.61 | 138 30 | TH | SEMOC Mat. No.1 |
| 0 | 1 2 | V | V | | | | | DC3C | 36.61 | 138.30 | TH | SEMOC Mat No.1 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | VI | 34.2 | 135.1 | | | | | | | |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| JPN | 41 | 680330 | 404 | | Wakayama-JI-S | Soft | 4.7 | 12 | 5 |
| JPN | 42 | 680401 | 942 | | Hososhima-S | Soft | 6.2 | 35 | |
| JPN | 43 | 680401 | 942 | | Hososhima-S | Soft | 6.2 | 35 | |
| JPN | 44 | 680401 | 942 | | Itajima Bridge | Soft | 6.2 | 35 | |
| JPN | 45 | 680401 | 942 | | Itajima Bridge | Soft | 6.2 | 35 | |
| JPN | 46 | 680516 | 949 | Tokachi-Ok. | Aomori-S | Soft | 8.0 | 19 | — |
| JPN | 47 | 680516 | 949 | Tokachi-Ok. | Aomori-S | Soft | 8.0 | 19 | |
| JPN | 48 | 680516 | 949 | Tokachi-Ok. | Hachinohe-S | Soft | 8.0 | 19 | |
| JPN | 49 | 680516 | 949 | Tokachi-Ok. | Hachinohe-S | Soft | 8.0 | 19 | |
| JPN | 50 | 680516 | 949 | Tokachi-Ok. | Hachinohe Harbor | Soft | 8.0 | 19 | |
| JPN | 51 | 680516 | 949 | Tokachi-Ok. | Hachinohe Harbor | Soft | 8.0 | 19 | |
| JPN | 52 | 680516 | 949 | Tokachi-Ok. | Muroran-S | Hard | 8.0 | 19 | |
| JPN | 53 | 680516 | 949 | Tokachi-Ok. | Muroran-S | Hard | 8.0 | 19 | |
| JPN | 54 | 680516 | 949 | Tokachi-Ok. | Miyako-S | Hard | 8.0 | 19 | |
| JPN | 55 | 680516 | 1939 | | Shinishikari Bridge | Soft | 6.1 | 19 | |
| JPN | 56 | 680516 | 1939 | | Muroran-S | Soft | 6.4 | 19 | |
| JPN | 57 | 680806 | 117 | | Itajima Bridge | Soft | 6.3 | 48 | |
| JPN | 58 | 680806 | 117 | | Itajima Bridge | Soft | 6.3 | 48 | |
| JPN | 59 | 700121 | 233 | | Horoman Bridge | Hard | 6.3 | 50 | |
| JPN | 60 | 710613 | 1306 | | Genken Kisho-Shitsu | Soft | 5.5 | 55 | |
| JPN | 61 | 730617 | 1255 | | Kushiro-S | Soft | 7.4 | 40 | 132 |
| JPN | 62 | 780612 | 1714 | | Shiogama-Kogyo-S | Soft | 7.5 | 30 | |
| JPN | 63 | 780612 | 1714 | | Shiogama-Kogyo-S | Soft | 7.5 | 30 | |
| JPN | 64 | 780612 | 1714 | | Ofunato-Bochi-S | Hard | 7.5 | 30 | 124 |
| JPN | 65 | 780612 | 1714 | | Ofunato-Bochi-S | Hard | 7.5 | 30 | 124 |
| JPN | 66 | 780612 | 1714 | | Sendai Office, RTRI | | 7.4 | 30 | |

', or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| CATION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR. deg | HR ga | HOR VEL | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JI-S | Soft | 4.7 | 12 | 5 | 5 | | 293 | | | | | | VI | 34.2 | 135.1 |
| ; | Soft | 6.2 | 35 | | | | 352 | | | | | | | | |
| ; | Soft | 6.2 | 35 | | | | 306 | | | | | | | | |
| ə | Soft | 6.2 | 35 | | | | 223 | | | | | | | | |
| ə | Soft | 6.2 | 35 | | | | 193 | | | | | | | | |
| | Soft | 8.0 | 19 | | 243 | | 253 | | | | | VIII | VIII | | --- |
| | Soft | 8.0 | 19 | | 243 | | 197 | | | | | VIII | VIII | | |
| | Soft | 8.0 | 19 | | 188 | | 312 | | | | | VIII | VIII | | |
| | Soft | 8.0 | 19 | | 188 | | 206 | | | | | VIII | VIII | | |
| arbor | Soft | 8.0 | 19 | | | | 225 | 40.33 | 182.38 | 33.2 | 25.7 | VIII | VII | 40.73 | 143.5 |
| arbor | Soft | 8.0 | 19 | | | | 183 | 43.06 | 105.38 | 26.3 | 6.6 | VIII | VII | 40.73 | 143.5 |
| | Hard | 8.0 | 19 | | 218 | | 460 | | | | | | | | |
| | Hard | 8.0 | 19 | | | | 423 | | | | | | | | |
| | Hard | 8.0 | 19 | | | | 219 | | | | | | | | |
| ridge | Soft | 6.1 | 19 | | | | 193 | | | | | | | | |
| | Soft | 6.4 | 19 | | | | 182 | | | | | | VII | | |
| ; | Soft | 6.3 | 48 | | | | 823 | | | | | | | | |
| ; | Soft | 6.3 | 48 | | | | 752 | | | | | | | | |
| ige | Hard | 6.3 | 50 | | | | 241 | | | | | | | | |
| ɔ-Shitsu | Soft | 5.5 | 55 | | | | 248 | | | | | | | | |
| | Soft | 7 4 | 40 | 132 | | | 219 | 27.7 | 7.9 | 42.6 | | | VIII | 42.9 | 146.0 |
| gyo-S | Soft | 7.5 | 30 | | | | 314 | | | | | VIII | | | |
| gyo-S | Soft | 7 5 | 30 | | | | 287 | | | | | VIII | | | |
| ni-S | Hard | 7.5 | 30 | 124 | | | 221 | | | | | VIII | VIII | 38.15 | 142.4 |
| ni-S | Hard | 7.5 | 30 | 124 | | | 206 | | | | | VIII | VIII | 38.15 | 142.4 |
| ), RTRI | | 7.4 | 30 | | | | 306 | | | | | VIII | | | |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | | VI | 34.2 | 135.1 | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | VIII | VIII | | | | | | | | | |
| | | VIII | VIII | | | | | | | | | |
| | | VIII | VIII | | | | | | | | | |
| | | VIII | VIII | | | | | | | | | |
| 2 | 25.7 | VIII | VII | 40.73 | 143.58 | | | SMAC | | | VS | DIG SM JPN, 1972 |
| 3 | 6.6 | VIII | VII | 40.73 | 143.58 | | | SMAC | | | VS | DIG SM JPN, 1972 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | VII | | | | | | | | | |
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| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 6 | | | VII | 42.9 | 146 0 | | | | | | | |
| | | VIII | | | | | | | | | | |
| | | VIII | | | | | | | | | | |
| | | VIII | VIII | 38.15 | 142.4 | | | | | | | |
| | | VIII | VIII | 38.15 | 142.4 | | | | | | | |
| | | VIII | | | | | | | | | | |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| JPN | 67 | 780612 | 1714 | | Sendai Office, RTRI | | 7.4 | 30 | |
| JPN | 68 | 780612 | 1714 | | Kaihoku Bridge | | 7.4 | 30 | |
| JPN | 69 | 780612 | 1714 | | Kaihoku Bridge | | 7.4 | 30 | |
| JPN | 70 | 780612 | 1714 | | Shiogama Office | | 7.4 | 30 | |
| JPN | 71 | 780612 | 1714 | | Shiogama Office | | 7.4 | 30 | |
| JPN | 72 | 780612 | 1714 | | Sendai Sumitomo Bldg | | 7.4 | 30 | |
| JPN | 73 | 780612 | 1714 | | Sendai Sumitomo Bldg | | 7.4 | 30 | |
| JPN | 74 | 780612 | 1714 | | Tohoku Univ. BRI | Soft | 7.4 | 30 | 118 |
| JPN | 75 | 780612 | 1714 | | Tohoku Univ. BRI | Soft | 7.4 | 30 | 118 |
| MEX | 1* | 651209 | 607 | | Acapulco Pellandini | Rock | 6.0 | 35 | 50 |
| MEX | 2* | 651209 | 607 | | Acapulco Pellandini | Rock | 6.0 | 35 | 50 |
| MEX | 3 | 710905 | 913 | | Acapulco SOP | Hard | 5.2 | 50 | |
| MEX | 4 | 710905 | 913 | | Acapulco SOP | Hard | 5.2 | 50 | |
| MEX | 5 | 730828 | 950 | | Oaxaca Fac Med | Soft | 7.3 | 84 | |
| MEX | 6 | 730828 | 950 | | Oaxaca Fac Med | Soft | 7.3 | 84 | |
| MEX | 7 | 741006 | 1709 | | Acapulco SOP | Hard | 5.0 | 20 | 12 |
| MEX | 8 | 741006 | 1709 | | Acapulco SOP | Hard | 5.0 | 20 | 12 |
| MEX | 9 | 741117 | 2257 | | Acapulco SOP | Hard | 4.7 | 33 | |
| MEX | 10 | 751105 | 1704 | | Tuxtla/Gutierrez | Soft | 5.0 | | |
| MEX | 11 | 751105 | 1704 | | Tuxtla/Gutierrez | Soft | 5.0 | | |
| MEX | 12 | 780311 | | Mexicali Valley | Victoria, Baja Calif | Soft | 4.9 | | |
| MEX | 13 | 780311 | | Mexicali Valley | Victoria, Baja Calif | Soft | 4 9 | | |
| MEX | 14 | 780312 | | Mexicali Valley | Victoria, Baja Calif | Soft | | | |
| MEX | 15 | 780312 | | Mexicali Valley | Victoria, Baja Calif | Soft | | | |
| MEX | 16 | 780312 | | Mexicali Valley | Victoria, Baja Calif | Soft | | | |
| MEX | 17 | 780312 | | Mexicali Valley | Victoria, Baja Calif | Soft | | | |

r of exceptional interest)

David J. Leeds
DJLA 90-21-14

| TION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR. deg | HR gs | HOR VEL. | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RTRI | | 7.4 | 30 | | | | 238 | | | | | VIII | | | |
| | | 7.4 | 30 | | | | 200 | | | | | VIII | | | |
| | | 7.4 | 30 | | | | 294 | | | | | VIII | | | |
| e | | 7.4 | 30 | | | | 266 | | | | | VIII | | | |
| e | | 7.4 | 30 | | | | 288 | | | | | VIII | | | |
| no Bldg | | 7.4 | 30 | | | | 253 | | | | | VIII | | | |
| no Bldg | | 7.4 | 30 | | | | 227 | | | | | VIII | | | |
| RI | Soft | 7.4 | 30 | 118 | | | 240 | | | | | VIII | | | |
| RI | Soft | 7.4 | 30 | 118 | | | 190 | | | | | VIII | | | |
| ndini | Rock | 6.0 | 35 | 50 | 61 | 360 | 230 | 20.4 | | | | VI | VI | 16.56 | 100.15 |
| dini | Rock | 6.0 | 35 | 50 | 61 | 90 | 130 | 4.40 | | | | VI | VI | 16.56 | 100.15 |
| | Hard | 5.2 | 50 | | 57 | 270 | 230 | 5.06 | | | | | | 17.09 | 99.81 |
| | Hard | 5.2 | 50 | | 57 | 360 | 167 | 2.99 | | | | | | 17.09 | 99.81 |
| d | Soft | 7.3 | 84 | | 156 | 360 | 199 | 9.67 | | | | | | 18.27 | 96.60 |
| d | Soft | 7.3 | 84 | | 156 | 270 | 163 | 7.25 | | | | | | 18.27 | 96.60 |
| | Hard | 5.0 | 20 | 12 | 21 | 270 | 529 | 13.94 | 0.45 | 3.1 | 1.4 | | | 16.80 | 99.80 |
| | Hard | 5.0 | 20 | 12 | 21 | 360 | 308 | 9.96 | 0.39 | 2.4 | 1.2 | | | 16.80 | 99.80 |
| | Hard | 4.7 | 33 | | | | 127 | | | | | | | 17.00 | 100.10 |
| | Soft | 5 0 | | | 40 | 360 | 246 | 5.25 | | | | | | 16.90 | 92.82 |
| | Soft | 5.0 | | | 40 | 270 | 172 | 5.26 | | | | | | 16.90 | 92.82 |
| slif | Soft | 4 9 | | | | | 381 | | | | | | | | |
| slif | Soft | 4 9 | | | | | 376 | | | | | | | | |
| slif | Soft | | | | | | 369 | | | | | | | | |
| slif | Soft | | | | | | 368 | | | | | | | | |
| slif | Soft | | | | | | 509 | | | | | | | | |
| slif | Soft | | | | | | 314 | | | | | | | | |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | VIII | | | | | | | | | | |
| | | VIII | | | | | | | | | | |
| | | VIII | | | | | | | | | | |
| | | VIII | | | | | | | | | | |
| | | VIII | | | | | | | | | | |
| | | VIII | | | | | | | | | | |
| | | VIII | | | | | | | | | | |
| | | VIII | | | | | | | | | | |
| | | VIII | | | | | | | | | | |
| | | VI | VI | 16.56 | 100.15 | ACAP | | AR240 | 16.84 | 99.91 | VS | Bufaliza, 1984 |
| | | VI | VI | 16.56 | 100.15 | ACAP | | AR240 | 16.84 | 99.91 | VS | Bufaliza, 1984 |
| | | | | 17.09 | 99.81 | ACAS | | | 16.86 | 99.89 | | Bufaliza, 1984 |
| | | | | 17.09 | 99.81 | ACAS | | | 16.86 | 99.89 | | Bufaliza, 1984 |
| | | | | 18.27 | 96.60 | OAXM | | | 17.08 | 96.72 | | Bufaliza, 1984 |
| | | | | 18.27 | 96.60 | OAXM | | | 17.08 | 96.72 | | Bufaliza, 1984 |
| 3.1 | 1.4 | | | 16.80 | 99.80 | ACAS | | | 16.86 | 99.89 | Yes | Anderson/Vetter,'89 |
| 2.4 | 1.2 | | | 16.80 | 99.80 | ACAS | | | 16.86 | 99.89 | Yes | Anderson/Vetter,'89 |
| | | | | 17.00 | 100.10 | ACAS | | | 16.86 | 99.89 | | |
| | | | | 16 90 | 92.82 | TUXT | | | 16.75 | 93.13 | | Bufaliza, 1984 |
| | | | | 16.90 | 92.82 | TUXT | | | 16.75 | 93.13 | | Bufaliza, 1984 |
| | | | | | | VCTR | | | 32 29 | 115 10 | | Anderson/Vetter,'89 |
| | | | | | | VCTR | | | 32 29 | 115 10 | | Anderson/Vetter,'89 |
| | | | | | | VCTR | | | 32.29 | 115 10 | | Anderson/Vetter,'89 |
| | | | | | | VCTR | | | 32 29 | 115 10 | | Anderson/Vetter,'89 |
| | | | | | | VCTR | | | 32 29 | 115 10 | | Anderson/Vetter,'89 |
| | | | | | | VCTR | | | 32 29 | 115 10 | | Anderson/Vetter,'89 |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| MEX | 18 | 780319 | 139 | | Acapulco SOP | Hard | 5.8 | 36 | 24 |
| MEX | 19 | 780319 | 139 | | Acapulco SOP | Hard | 5.8 | 36 | 24 |
| MEX | 20* | 780319 | 139 | | Acapulco Pellandini | Rock | 5.8 | 36 | 27 |
| MEX | 21* | 780319 | 139 | | Acapulco Pellandini | Rock | 5.8 | 36 | 27 |
| MEX | 22 | 781129 | 1952 | Oaxaca | Oaxaca Fac Med | Soft | 6.4 | 20 | |
| MEX | 23 | 790314 | 1107 | | Sicartsa Caseta Maestro | Soft | 6.5 | 20 | |
| MEX | 24 | 790314 | 1107 | | Sicartsa Caseta Maestro | Soft | 6.5 | 20 | |
| MEX | 25 | 790314 | 1107 | | Sicartsa Caseta Testigo | Soft | 6.5 | 20 | 100 |
| MEX | 26 | 790314 | 1107 | | Sicartsa Caseta Testigo | Soft | 6.5 | 20 | 100 |
| MEX | 27 | 790314 | 1107 | | Sicartsa Acerac | Soft | 6.5 | 20 | |
| MEX | 28* | 790314 | 1107 | | Infiernillo Casa Maq | Rock | 6.5 | 20 | 84 |
| MEX | 29* | 790314 | 1107 | | Infiernillo Casa Maq | Rock | 6.5 | 20 | 84 |
| MEX | 30 | 790314 | 1107 | | Ciudad Altamirano | Soft | 6.5 | 20 | |
| MEX | 31* | 800609 | | Cerro Prieto | CPRI | Rock | 5.6 | 8 | 40 |
| MEX | 32* | 800609 | | Cerro Prieto | CPRI | Rock | 5.6 | 8 | 40 |
| MEX | 33 | 801024 | 1453 | | Oaxaca Fac Med | Soft | 6.4 | 72 | |
| MEX | 34 | 810917 | 954 | | San Marcos/Guerrero | Soft | 5.4 | 20 | 4 |
| MEX | 35 | 810917 | 954 | | San Marcos/Guerrero | Soft | 5.4 | 20 | 4 |
| MEX | 36 | 810917 | 954 | | Acapulco SOP | Hard | 5.4 | 20 | |
| MEX | 37 | 811025 | 322 | | Sicartsa Caseta Maestro | Soft | 6.2 | 20 | |
| MEX | 38 | 811025 | 322 | | Sicartsa Caseta Maestro | Soft | 6.2 | 20 | |
| MEX | 39 | 811025 | 322 | | Sicartsa Caseta Testigo | Soft | 6.2 | 20 | |
| MEX | 40 | 811025 | 322 | | Sicartsa Caseta Testigo | Soft | 6.2 | 20 | |
| MEX | 41 | 811025 | 322 | | Sicartsa Acerac | Soft | 6.2 | 20 | |
| MEX | 42 | 811025 | 322 | | Infiernillo Potabiliz | Hard | 6.2 | 20 | |
| MEX | 43 | 811025 | 322 | | Siderurgia Laz Card | | 6 | 20 | |

r of exceptional interest)

David J. Leeds
DJLA 90-21-14

| TION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR deg | HR ga | HOR VEL | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hard | 5.8 | 36 | 24 | 44 | 270 | 744 | 11.46 | 0.71 | 15.8 | 7.0 | | | 17.03 | 99.75 |
| | Hard | 5.8 | 36 | 24 | 44 | 360 | 383 | 10.63 | 0.61 | 11.6 | 6.4 | | | 17.03 | 99.75 |
| ıdini | Rock | 5.8 | 36 | 27 | 45 | 270 | 315 | 13.22 | 0.35 | 6.8 | 5.7 | | | 17.03 | 99.75 |
| ıdini | Rock | 5.8 | 36 | 27 | 45 | 360 | 293 | 6.64 | 1.25 | 6.7 | 5.0 | | | 17.03 | 99.75 |
| d | Soft | 6.4 | 20 | | | 360 | 220 | | | | | | | 16.00 | 96.69 |
| ı Maestro | Soft | 6.5 | 20 | | | | 293 | | | | | | | 17.46 | 101.46 |
| ı Maestro | Soft | 6.5 | 20 | | | | 255 | | | | | | | 17.46 | 101.46 |
| ı Testigo | Soft | 6.5 | 20 | 100 | 102 | 270 | 307 | 23.05 | 2.82 | 14.5 | 9.7 | | | 17.81 | 101.28 |
| ı Testigo | Soft | 6.5 | 20 | 100 | 102 | 360 | 264 | 22.90 | 2.65 | 13.7 | 6.4 | | | 17.81 | 101.28 |
| | Soft | 6.5 | 20 | | | | 153 | | | | | | | 17.46 | 101.46 |
| Maq | Rock | 6.5 | 20 | 84 | 84 | LONG | 120 | 11.97 | 1.76 | 4.4 | 0.5 | | | 17.46 | 101.46 |
| Maq | Rock | 6.5 | 20 | 84 | 84 | TRAN | 105 | 8.77 | 1.40 | 2.3 | 0.8 | | | 17.46 | 101.46 |
| ıno | Soft | 6.5 | 20 | | | | 158 | | | | | | | 17.46 | 101.46 |
| | Rock | 5.6 | 8 | 40 | 41 | 45 | 529 | 31.72 | 8.11 | 15.6 | 7 7 | | | 32.20 | 114.99 |
| | Rock | 5.6 | 8 | 40 | 41 | 315 | 375 | 18.51 | 2.91 | 12.3 | 6.3 | | | 32.20 | 114.99 |
| d | Soft | 6.4 | 72 | | | | 162 | | | | | | | 18.21 | 98.24 |
| errero | Soft | 5.4 | 20 | 4 | 17 | 360 | 305 | 9 54 | 0.64 | 8.7 | 3 2 | | | 16.80 | 99.43 |
| errero | Soft | 5.4 | 20 | 4 | 17 | 270 | 233 | 6.15 | 0.43 | 4.2 | 1.0 | | | 16.80 | 99.43 |
| | Hard | 5.4 | 20 | | | | 206 | | | | | | | 16.16 | 99.83 |
| Maestro | Soft | 6.2 | 20 | | | | 249 | | | | | | | 17.75 | 102.25 |
| Maestro | Soft | 6.2 | 20 | | | | 233 | | | | | | | 17.75 | 102.25 |
| Testigo | Soft | 6.2 | 20 | | | | 244 | | | | | | | 17.75 | 102.25 |
| Testigo | Soft | 6.2 | 20 | | | | 208 | | | | | | | 17.75 | 102.25 |
| | Soft | 6.2 | 20 | | | | 139 | | | | | | | 17.75 | 102.25 |
| ılız | Hard | 6.2 | 20 | | | | 130 | | | | | | | 17 75 | 102 25 |
| Card | | 6 2 | 20 | | | | | | | | | | | 17.75 | 102 25 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 15.8 | 7.0 | | | 17.03 | 99.75 | ACAS | | | 16.86 | 99.89 | Yes | Anderson/Vetter,'89 |
| 11.6 | 6.4 | | | 17.03 | 99.75 | ACAS | | | 16.86 | 99.89 | Yes | Anderson/Vetter,'89 |
| 6.8 | 5.7 | | | 17.03 | 99.75 | ACAP | | | 16.84 | 99.91 | Yes | Anderson/Vetter,'89 |
| 6.7 | 5.0 | | | 17.03 | 99.75 | ACAP | | | 16.84 | 99.91 | Yes | Anderson/Vetter,'89 |
| | | | | 16.00 | 96.69 | OAXM | | | 17.09 | 96.72 | TH | Espinosa et al,'78 |
| | | | | 17.46 | 101.46 | SICM | | | 17.93 | 102.20 | | |
| | | | | 17.46 | 101.46 | SICM | | | 17.93 | 102.20 | | |
| 14.5 | 9.7 | | | 17.81 | 101.28 | SICC | | | 17.93 | 102.20 | Yes | Anderson/Vetter,'89 |
| 13.7 | 6.4 | | | 17.81 | 101.28 | SICC | | | 17.93 | 102.20 | Yes | Anderson/Vetter,'89 |
| | | | | 17.46 | 101.46 | SICS | | | 17.93 | 102.20 | | |
| 4.4 | 0.5 | | | 17.46 | 101.46 | INCM | | | 18.27 | 101.90 | Yes | Anderson/Vetter,'89 |
| 2.3 | 0.8 | | | 17.46 | 101.46 | INCM | | | 18.27 | 101.90 | Yes | Anderson/Vetter,'89 |
| | | | | 17.46 | 101.46 | | | | 18.36 | 100.66 | | |
| 15.6 | 7.7 | | | 32.20 | 114.99 | UNAM | | | 32.42 | 115 31 | Yes | Anderson/Vetter,'89 |
| 12 3 | 6.3 | | | 32.20 | 114.99 | UNAM | | | 32.42 | 115 31 | Yes | Anderson/Vetter,'89 |
| | | | | 18.21 | 98.24 | OAXM | | | 17.08 | 96.72 | | |
| 8.7 | 3.2 | | | 16.80 | 99.43 | SMAR | | | 16.80 | 99 40 | Yes | Anderson/Vetter,'89 |
| 4.2 | 1 0 | | | 16.80 | 99.43 | SMAR | | | 16.80 | 99.40 | Yes | Anderson/Vetter,'89 |
| | | | | 16 16 | 99.83 | ACAS | | | 16.86 | 99.89 | | |
| | | | | 17.75 | 102.25 | SICM | | | 17.93 | 102.20 | | |
| | | | | 17 75 | 102.25 | SICM | | | 17.93 | 102.20 | | |
| | | | | 17.75 | 102.25 | SICC | | | 17.93 | 102.20 | | |
| | | | | 17.75 | 102.25 | SICC | | | 17.93 | 102.20 | | |
| | | | | 17.75 | 102.25 | SICS | | | 17.93 | 102.20 | | |
| | | | | 17.75 | 102.25 | INPT | | | 18.27 | 101.90 | | |
| | | | | 17.75 | 102.25 | | | | | | | |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| MEX | 44* | 840714 | | | Acapulco Pellandini | Rock | 5.2 | 35 | 74 |
| MEX | 45* | 850919 | 1317 | Guerrero | Caleta de Campos | Rock | 6.8 | 20 | 28 |
| MEX | 46* | 850919 | 1317 | Guerrero | Caleta de Campos | Rock | 6.8 | 20 | 28 |
| MEX | 47* | 850919 | 1317 | Guerrero | La Villita | Rock | 6.8 | 20 | 84 |
| MEX | 48* | 850919 | 1317 | Guerrero | La Villita | Rock | 6.8 | 20 | 84 |
| MEX | 49* | 850919 | 1317 | Guerrero | La Union | Rock | 6.8 | 20 | 123 |
| MEX | 50* | 850919 | 1317 | Guerrero | La Union | Rock | 6.8 | 20 | 123 |
| MEX | 51* | 850919 | 1317 | Guerrero | Zihuatanejo | Rock | 6.8 | 20 | 168 |
| MEX | 52* | 850919 | 1317 | Guerrero | Papanoa | Rock | 6.8 | 20 | 218 |
| MEX | 53* | 850919 | 1317 | Guerrero | Papanoa | Rock | 6.8 | 20 | 218 |
| MEX | 54 | 850919 | 1317 | Guerrero | El Paraiso | Rock | 6.8 | 20 | 300 |
| MEX | 55 | 850919 | 1317 | Guerrero | Zacatula | Soft | 6.8 | 20 | |
| MEX | 56 | 850919 | 1317 | Guerrero | Zacatula | Soft | 6.8 | 20 | |
| MEX | 57 | 850919 | 1317 | Guerrero | Mexico City TLHD | Soft | 6.8 | 20 | 410 |
| MEX | 58 | 850919 | 1317 | Guerrero | Mexico City TLHB | Soft | 6.8 | 20 | 410 |
| MEX | 59 | 850919 | 1317 | Guerrero | Mexico City TLHB | Soft | 6.8 | 20 | 410 |
| MEX | 60 | 850919 | 1317 | Guerrero | Mexico City SCT1 | Soft | 6.8 | 20 | 400 |
| MEX | 61* | 850921 | 137 | Guerrero #2 | Papanoa | Rock | 6.3 | 20 | 90 |
| MEX | 62* | 850921 | 137 | Guerrero #2 | Papanoa | Rock | 6.3 | 20 | 90 |
| MEX | 63* | 850921 | 137 | Guerrero #2 | El Paraiso | Rock | 6.3 | 20 | 154 |
| MEX | 64* | 850921 | 137 | Guerrero #2 | El Paraiso | Rock | 6.3 | 20 | 154 |
| MEX | 65* | 850921 | 137 | Guerrero #2 | Zihuatanejo | Rock | 6 3 | 20 | 46 |
| MEX | 66* | 850921 | 137 | Guerrero #2 | Zihuatanejo | Rock | 6.3 | 20 | 46 |
| MEX | 67* | 851003 | 629 | Guerrero #3 | Papanoa | Rock | 4.3 | 20 | 13 |
| MEX | 68* | 860430 | 707 | Guerrero #4 | Caleta de Campos | Rock | 6.2 | 20 | 32 |
| MEX | 69* | 860616 | 551 | Guerrero #5 | Xaltianguis | Rock | 4.5 | 20 | 11 |

r, or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| CATION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR. deg | HR gs | HOR VEL | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LON |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ıllandini | Rock | 5.2 | 35 | 74 | 82 | 270 | 109 | 3.99 | 0.33 | 0.9 | 0.1 | | | 17.44 | 99.( |
| ampos | Rock | 6.8 | 20 | 28 | 38 | 90 | 141 | 14.3 | 4.6 | 28.8 | 10.0 | | | 13.08 | 102.9 |
| ampos | Rock | 6.8 | 20 | 28 | 38 | 180 | 140 | 19.1 | 8.0 | 30.8 | 10.0 | | | 18.08 | 102.9 |
| | Rock | 6.8 | 20 | 84 | 86 | 180 | 125 | 16.1 | 7.8 | 37.5 | 3.4 | | | 18.08 | 102.9 |
| | Rock | 6.8 | 20 | 84 | 86 | 90 | 122 | 11.0 | 4.4 | 36.0 | 0.2 | | | 18.08 | 102.9 |
| | Rock | 6.8 | 20 | 123 | 125 | 180 | 166 | 21.2 | 7.5 | 32.0 | 22.0 | | | 18.08 | -102.9 |
| | Rock | 6.8 | 20 | 123 | 125 | 90 | 148 | 11.9 | 3.8 | 32.0 | 21.4 | | | 18.08 | 102.9 |
| | Rock | 6.8 | 20 | 168 | 169 | 270 | 154 | 18.1 | 3.7 | 20.0 | 2.2 | | | 18.08 | 102.9 |
| | Rock | 6.8 | 20 | 218 | 219 | 180 | 153 | 9.3 | 3.2 | 12.9 | 3.3 | | | 18.08 | 102.9 |
| | Rock | 6.8 | 20 | 218 | 219 | 270 | 110 | 6.0 | 1.8 | 9.5 | 4.5 | | | 18.08 | 102.9 |
| | Rock | 6.8 | 20 | 300 | 301 | 180 | 120 | 8.7 | 3.3 | 13.0 | 2.8 | | | 18.08 | 102.9 |
| | Soft | 6.8 | 20 | | | | 271 | | | | | | | 18.08 | 102.9 |
| | Soft | 6.8 | 20 | | | | 181 | | | | | | | 18.08 | 102.9 |
| TLHD | Soft | 6.8 | 20 | 410 | 410 | 360 | 118 | 34.9 | 20.7 | 28.0 | 4.5 | | VI | 18.08 | 102.9 |
| TLHB | Soft | 6.8 | 20 | 410 | 410 | 360 | 136 | 64.1 | 36.6 | 31.0 | 12.0 | | VI | 18.08 | 102.9 |
| TLHB | Soft | 6.8 | 20 | 410 | 410 | 270 | 107 | 44.5 | 39.3 | 36.0 | 1.0 | | VI | 18.08 | 102.9 |
| SCT1 | Soft | 6.8 | 20 | 400 | 400 | 270 | 168 | 60.5 | 21.9 | 35.0 | 22.0 | | VII | 18.08 | 102.9 |
| | Rock | 6.3 | 20 | 90 | 92 | 180 | 243 | 9.1 | 2.9 | 11.9 | 6.1 | | | 17.16 | 101.1 |
| | Rock | 6.3 | 20 | 90 | 92 | 270 | 219 | 6.7 | 1.2 | 9.7 | 3.1 | | | 17.16 | 101.1 |
| | Rock | 6.3 | 20 | 154 | 155 | 180 | 625 | 10.0 | 0.9 | 12.3 | 5.7 | | | 17.16 | 101.1 |
| | Rock | 6.3 | 20 | 154 | 155 | 90 | 474 | 9.3 | 0.5 | 9 6 | 3 5 | | | 17.16 | 101.1 |
| | Rock | 6 3 | 20 | 46 | 50 | 180 | 153 | 13.5 | 2.6 | 10.6 | 2 6 | | | 17.16 | 101.1 |
| | Rock | 6.3 | 20 | 46 | 50 | 270 | 134 | 11.9 | 2.0 | 11.5 | 4.1 | | | 17.16 | 101.1 |
| | Rock | 4.3 | 20 | 13 | 26 | 270 | 135 | 2.1 | 0.1 | 0.5 | 0.0 | | | 17.28 | 101.1 |
| ımpos | Rock | 6.2 | 20 | 32 | 38 | 90 | 98 | 5 9 | 0.8 | 1 8 | 0 0 | | | 18 02 | 103.0 |
| | Rock | 4 5 | 20 | 11 | 36 | 180 | 166 | 1.6 | 0 0 | 0.4 | 0.1 | | | 17 08 | 99.6 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 0.9 | 0.1 | | | 17.44 | 99.60 | ACAP | | | 16.84 | 99.91 | Yes | Anderson et al,'89 |
| 8.8 | 10.0 | | | 18.08 | 102.94 | CALE | A5050 | DSA1 | 18.07 | 102.76 | Yes | Anderson et al,'89 |
| 0.8 | 10.0 | | | 18.08 | 102.94 | CALE | A5050 | DSA1 | 18.07 | 102.76 | Yes | Anderson et al,'89 |
| 7.5 | 3.4 | | | 18.08 | 102.94 | | A5053 | DSA1 | 18.05 | 102.18 | Yes | Anderson et al,'89 |
| 6.0 | 0.2 | | | 18.08 | 102.94 | | A5053 | DSA1 | 18.05 | 102.18 | Yes | Anderson et al,'89 |
| 2.0 | 22.0 | | | 18.08 | 102.94 | | A5054 | DSA1 | 17.98 | 101.81 | Yes | Anderson et al,'89 |
| 2.0 | 21.4 | | | 18.08 | 102.94 | | A5054 | DSA1 | 17.98 | 101.81 | Yes | Anderson et al,'89 |
| 0.0 | 2.2 | | | 18.08 | 102.94 | | A5016 | DCA333 | 17.60 | 101.46 | Yes | Anderson et al,'89 |
| 2.9 | 3.3 | | | 18.08 | 102.94 | PAPN | A5017 | DCA333 | 17.33 | 101.04 | Yes | Anderson et al,'89 |
| 9.5 | 4.5 | | | 18.08 | 102.94 | PAPN | A5017 | DCA333 | 17.33 | 101.04 | Yes | Anderson et al,'89 |
| 3.0 | 2.8 | | | 18.08 | 102.94 | | A5056 | DSA1 | 17.34 | 100.21 | Yes | Anderson et al,'89 |
| | | | | 18.08 | 102.94 | ZACA | | | | | | |
| | | | | 18.08 | 102.94 | ZACA | | | | | | |
| 3.0 | 4.5 | | VI | 18.08 | 102.94 | | 4591 | SMA-1 | 19.29 | 99.04 | Yes | Mena et al,UNAM497 |
| 1.0 | 12.0 | | VI | 18.08 | 102.94 | | 4590 | SMA-1 | 19.28 | 99.01 | Yes | Mena et al,UNAM497 |
| 5.0 | 1 0 | | VI | 18.08 | 102.94 | | 4590 | SMA-1 | 19.28 | 99.01 | Yes | Mena et al,UNAM497 |
| 5.0 | 22.0 | | VII | 18.08 | 102.94 | | 144 | DCA333 | 19.39 | 99.15 | Yes | Mena et al,UNAM497 |
| 1 9 | 6.1 | | | 17.16 | 101.14 | PAPN | A5024 | DCA333 | 17.33 | 101.04 | Yes | Anderson et al,'89 |
| 1 7 | 3.1 | | | 17.16 | 101.14 | PAPN | A5024 | DCA333 | 17.33 | 101.04 | Yes | Anderson et al,'89 |
| 2.3 | 5.7 | | | 17.16 | 101.14 | PARS | A5062 | DSA1 | 17.34 | 100.21 | Yes | Anderson et al,'89 |
| 1.6 | 3.5 | | | 17.16 | 101.14 | PARS | A5062 | DSA1 | 17.34 | 100.21 | Yes | Anderson et al,'89 |
| 1 6 | 2.6 | | | 17.16 | 101.14 | | A5023 | DCA333 | 17.60 | 101.46 | Yes | Anderson et al,'89 |
| 5 | 4.1 | | | 17.16 | 101.14 | | A5023 | DCA333 | 17.60 | 101.46 | Yes | Anderson et al,'89 |
| 1 5 | 0.0 | | | 17.28 | 101.13 | PARS | A5038 | DCA333 | 17.33 | 101.04 | Yes | Anderson et al,'89 |
| 8 | 0 0 | | | 18.02 | 103.06 | CALE | A6031 | DSA1 | 18.07 | 102.76 | Yes | Anderson et al,'89 |
| 1 4 | 0.1 | | | 17.08 | 99.62 | | A6049 | PDR1 | 17.10 | 99.72 | Yes | Anderson et al,'89 |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | EPI km | |
|---|---|---|---|---|---|---|---|---|---|---|
| MEX | 70* | 861214 | 728 | Guerrero #6 | La Llave | Rock | 4.3 | 20 | 4 | |
| MEX | 71* | 870207 | 345 | Cerro Prieto,BC | Cerro Prieto | Rock | 5.4 | 6 | 6 | |
| MEX | 72* | 870207 | 345 | Cerro Prieto,BC | Cerro Prieto | Rock | 5.4 | 6 | 6 | |
| MEX | 73* | 870402 | 1601 | Guerrero #7 | Cerro de Piedra | Rock | 4.8 | 20 | 10 | |
| MEX | 74* | 871025 | 431 | Guerrero #8 | Papanoa | Rock | 4.4 | 20 | 11 | |
| MEX | 75* | 880208 | 1351 | Guerrero #9 | Petatlan | Rock | 5.5 | 20 | 24 | |
| MEX | 76* | 880208 | 1351 | Guerrero #9 | Petatlan | Rock | 5.5 | 20 | 24 | |
| MEX | 77* | 880208 | 1351 | Guerrero #9 | Papanoa | Rock | 5.5 | 20 | 29 | |
| MEX | 78* | 880208 | 1351 | Guerrero #9 | Papanoa | Rock | 5.5 | 20 | 29 | |
| MEX | 79* | 880208 | 1351 | Guerrero #9 | La Llave | Rock | 5.5 | 20 | 42 | |
| MEX | 80* | 880208 | 1351 | Guerrero #9 | La Llave | Rock | 5.5 | 20 | 42 | |
| MEX | 81* | 880208 | 1351 | Guerrero #9 | Los Magueyes | Rock | 5.5 | 20 | 64 | |
| MEX | 82* | 880208 | 1351 | Guerrero #9 | El Paraiso | Rock | 5.5 | 20 | 102 | |
| MEX | 83* | 880208 | 1351 | Guerrero #9 | El Paraiso | Rock | 5.5 | 20 | 102 | |
| MEX | 84* | 880816 | 420 | Guerrero #10 | Cerro de Piedra | Rock | 4.2 | 20 | 15 | |
| MEX | 85* | 880816 | 420 | Guerrero #10 | Xaltianguis | Rock | 4.2 | 20 | 31 | |
| MEX | 86* | 880816 | 420 | Guerrero #10 | Xaltianguis | Rock | 4.2 | 20 | 31 | |
| MEX | 87* | 880926 | 2012 | Guerrero #11 | Papanoa | Rock | 5.0 | 20 | 15 | |
| MEX | 88* | 880926 | 2104 | Guerrero #12 | Papanoa | Rock | 4.2 | 20 | 15 | |
| NGU | 1 | 721028 | 227 | New Guinea | LAE PA'I | | 5.9 | ? | | |
| NGU | 2 | 740920 | 2120 | New Guinea | Yonki/Upper Ramu | Soft | 5.8 | 111 | 14 | |
| NZE | 1 | 730105 | 1354 | New Zealand | Atene Valley | Soft | 6.4 | 173 | | |
| NZE | 2 | 870302 | 142 | New Zealand | Matahina Dam-D | | 6.1 | 12 | | |
| NIC | 1 | 720105 | 1155 | Managua | Esso Refinery | Soft | 4.3 | 5 | | |
| NIC | 2 | 721223 | 629 | Managua | Esso Refinery | Soft | 5.6 | 6 | 5 | |
| NIC | 3 | 721223 | 629 | Managua | Esso Refinery | Soft | 5.6 | 5 | 5 | |

or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| ATION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR. deg | HR ge | HOR VEL | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Rock | 4.3 | 20 | 4 | 21 | 90 | 105 | 1.9 | 0.1 | 0.4 | 0.1 | | | 17.37 | 100.81 |
| | Rock | 5.4 | 6 | 6 | 8 | 251 | 851 | 54.2 | 9.3 | 9.0 | 5.3 | IX | IX | 32.37 | 115.30 |
| | Rock | 5.4 | 6 | 6 | 8 | 161 | 1125 | 46.3 | 13.1 | 7.6 | 4.3 | IX | IX | 32.37 | 115.30 |
| ra | Rock | 4.8 | 20 | 10 | 22 | 90 | 103 | 2.2 | 0.1 | 0.3 | 0.0 | | | | |
| | Rock | 4.4 | 20 | 11 | 22 | 360 | 161 | 2.5 | 0.1 | 0.5 | 0.2 | | | | |
| | Rock | 5.5 | 20 | 24 | 31 | 90 | 238 | 3.8 | 0.2 | 5.3 | 1.5 | | | | |
| | Rock | 5.5 | 20 | 24 | 31 | 180 | 147 | 3.6 | 0.4 | 6.1 | 4.6 | | | | |
| | Rock | 5.5 | 20 | 29 | 36 | 360 | 435 | 9.2 | 0.6 | 8.7 | 4.4 | | | | |
| | Rock | 5.5 | 20 | 29 | 36 | 90 | 337 | 7.7 | 0.6 | 7.1 | 4.1 | | | | |
| | Rock | 5.5 | 20 | 42 | 47 | 180 | 298 | 10.0 | 0.5 | 3.3 | 2.5 | | | | |
| | Rock | 5.5 | 20 | 42 | 47 | 90 | 221 | 6.7 | 0.3 | 4.2 | 2.0 | | | | |
| | Rock | 5.5 | 20 | 64 | 67 | 180 | 102 | 2.9 | 0.2 | 2.8 | 0.1 | | | | |
| | Rock | 5.5 | 20 | 102 | 104 | 90 | 247 | 4.4 | 0.1 | 6.0 | 1.7 | | | | |
| | Rock | 5.5 | 20 | 102 | 104 | 180 | 211 | 4.1 | 0.2 | 5.6 | 3.3 | | | | |
| a | Rock | 4.2 | 20 | 15 | 31 | 90 | 116 | 2.7 | 0.1 | 1.2 | 0.1 | | | | |
| | Rock | 4.2 | 20 | 31 | 41 | 90 | 210 | 1.9 | 0.1 | 0.6 | 0.5 | | | | |
| | Rock | 4.2 | 20 | 31 | 41 | 360 | 145 | 1.3 | 0.0 | 0.3 | 0.2 | | | | |
| | Rock | 5.0 | 20 | 15 | 25 | 360 | 101 | 2.1 | 0.1 | 1.2 | 0.0 | | | | |
| | Rock | 4.2 | 20 | 15 | 25 | 90 | 133 | 2.1 | 0.0 | 0.4 | 0.1 | | | | |
| | | 5.9 | 2 | | | | 295 | | | | | | | 7.33 | 146.83 |
| amu | Soft | 5.8 | 111 | 14 | | | 225 | | | | | | VI | 6.20 | 146.10 |
| | Soft | 6.4 | 173 | | | | 153 | | | | | | | | |
| D | | 6.1 | 12 | | | | 236 | | | | | | | | |
| | Soft | 4.3 | 5 | | 10 | 90 | 207 | 13.95 | 1.37 | 6.0 | 2.6 | | VII | | |
| | Soft | 5.6 | 6 | 5 | 8 | 90 | 351 | 35.08 | 13 81 | 13.0 | 8 5 | | VIII | 12.16 | 86.25 |
| | Soft | 5.6 | 5 | 5 | 8 | 180 | 318 | 30 31 | 6.33 | 13.0 | 7.0 | | VIII | 12.16 | 86.25 |

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| .4 | 0.1 | | | 17.37 | 100.81 | | A6073 | DSA1 | 17.37 | 100.81 | Yes | Anderson nt al,'89 |
| .0 | 5.3 | IX | IX | 32.37 | 115.30 | CPRI | | SMA-1 | 32.42 | 115.30 | Yes | CDMG OSMS 87-04 |
| .6 | 4.3 | IX | IX | 32.37 | 115.30 | CPRI | | SMA-1 | 32.42 | 115.30 | Yes | CDMG OSMS 87-04 |
| .3 | 0.0 | | | | | CPDR | | DCA333 | 16.77 | 99.63 | Yes | Anderson et al,'89 |
| .5 | 0.2 | | | | | PARS | | DCA333 | 17.33 | 101.04 | Yes | Anderson et al,'89 |
| .3 | 1.5 | | | | | PETA | | DSA1 | 17.54 | 101.26 | Yes | Anderson et al,'89 |
| .1 | 4.6 | | | | | PETA | | DSA1 | 17.54 | 101.26 | Yes | Anderson et al,'89 |
| .7 | 4.4 | | | | | PAPN | | DCA333 | 17.33 | 101.04 | Yes | Anderson et al,'89 |
| 1 | 4.1 | | | | | PAPN | | DCA333 | 17.33 | 101.04 | Yes | Anderson et al,'89 |
| 3 | 2.5 | | | | | LLAV | | DSA1 | 17.37 | 100.81 | Yes | Anderson et al,'89 |
| .2 | 2.0 | | | | | LLAV | | DSA1 | 17.37 | 100.81 | Yes | Anderson et al,'89 |
| .8 | 0.1 | | | | | MAGY | | DSA1 | 17.38 | 100.58 | Yes | Anderson et al,'89 |
| .0 | 1.7 | | | | | PARS | | DSA1 | 17.34 | 100.21 | Yes | Anderson et al,'89 |
| 6 | 3.3 | | | | | PARS | | DSA1 | 17.34 | 100.21 | Yes | Anderson et al,'89 |
| 2 | 0.1 | | | | | CPDR | | DCA333 | 16.77 | 99 63 | Yes | Anderson et al,'89 |
| 6 | 0.5 | | | | | XALT | | PDR1 | 17.10 | 99.72 | Yes | Anderson et al,'89 |
| 3 | 0.2 | | | | | XALT | | PDR1 | 17.10 | 99.72 | Yes | Anderson et al,'89 |
| 2 | 0.0 | | | | | PAPN | | DCA333 | 17.33 | 101 04 | Yes | Anderson et al,'89 |
| 4 | 0 1 | | | | | PAPN | | DCA333 | 17 33 | 101.04 | Yes | Anderson et al,'89 |
| | | | | 7.33 | 146.83 | | | | | | | Crouse et al |
| | | | VI | 6.20 | 146.10 | | | MO-2 | 6 25 | 145.98 | | Crouse et al |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 0 | 2 6 | | VII | | | ESSO | | AR240 | 12 14 | 86 31 | yes | USGS OF 78-941 |
| 0 | 8 5 | | VIII | 12.16 | 86.25 | ESSO | | AR240 | 12 14 | 86 31 | yes | USGS OF 78-941 |
| 0 | 7.0 | | VIII | 12.16 | 86.25 | ESSO | | AR240 | 12 14 | 86 31 | yes | USGS OF 78-941 |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Ms | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| NIC | 4 | 721223 | 719 | Managua AftShk 1 | Esso Refinery | Soft | 5.2 | 11 | 5 |
| NIC | 5 | 721223 | 719 | Managua AftShk 1 | Esso Refinery | Soft | 5.2 | 11 | 5 |
| NIC | 6 | 730331 | 2013 | Managua AftShk 2 | Natl Univ Managua | Soft | 4- | 5 | 3 |
| NIC | 7 | 730331 | 2013 | Managua AftShk 2 | Natl Univ Managua | Soft | 4- | 5 | 3 |
| PER | 1 | 661017 | 2141 | Offshr, Cent.Peru | Geophys Inst, Lima | Soft | 6.3 | 38 | 236 |
| PER | 2 | 661017 | 2141 | Offshr, Cent.Peru | Geophys Inst, Lima | Soft | 6.3 | 38 | 236 |
| PER | 3 | 741003 | 1421 | Coast, Near Lima | Casa Huaco, Lima | Soft | 6.6 | 13 | 91 |
| PER | 4 | 741003 | 1421 | Coast, Near Lima | Casa Huaco, Lima | Soft | 6.6 | 13 | 91 |
| PER | 5 | 741109 | 1259 | Peru Coast | La Molina, Lima | | 7.2 | 6 | 103 |
| ROC | 1 | 760414 | 140 | | Wanchiu | Hard | 6.3 | 8 | 23 |
| ROC | 2 | 760414 | 1400 | | Wanchiu | Hard | 6.3 | 8 | 23 |
| ROC | 3 | 780809 | 1825 | | Juisui | Soft | 5.9 | 13 | 15 |
| ROC | 4 | 780809 | 1825 | | Juisui | Soft | 5.9 | 13 | 15 |
| ROC | 5 | 810129 | 451 | | SMART Event #5 | Soft | 6.5 | 11 | 30 |
| ROC | 6 | 810129 | 451 | | Lotung | Soft | 6.5 | 11 | 30 |
| ROC | 7 | 810129 | 451 | | Lotung | Soft | 6.5 | 11 | 30 |
| ROC | 8 | 811211 | 707 | | Tapan | Hard | 5.0 | 5 | 14 |
| ROC | 9 | 811211 | 797 | | Tapan | Hard | 5.0 | 5 | 14 |
| ROC | 10 | 850612 | 1722 | | SMART Event #33 | Soft | 5.2 | 3 | |
| ROC | 11 | 850920 | 1601 | | SMART Event #36 | Soft | 5.3 | 6 | |
| ROC | 12 | 860116 | 1304 | | SMART Event #39 | Soft | 5.5 | 10 | |
| ROC | 13 | 860116 | 1304 | | SMART Event #39 | Soft | 5.5 | 10 | |
| ROC | 14 | 860520 | | | SMART Event #40 | Soft | 6.1 | 16 | |
| ROC | 15 | 860520 | | | SMART Event #40 | Soft | 6.1 | 16 | |
| ROC | 16 | 860717 | 3 | | SMART Event #42 | Soft | 5.0 | 2 | |
| ROC | 17 | 860730 | 1131 | | SMART Event #43 | Soft | 5.6 | 2 | |

or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| TION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR deg | HR ga | HOR VEL | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Soft | 5.2 | 11 | 5 | 12 | 180 | 320 | 21.06 | 5.93 | 7.0 | 2.9 | | VIII | 12.16 | 86.2 |
| | Soft | 5.2 | 11 | 5 | 12 | 90 | 277 | 26.89 | 9.37 | 7.9 | 4.6 | | VIII | 12.16 | 86.2 |
| sgua | Soft | 4- | 5 | 3 | 6 | 90 | 538 | 30.60 | 2.25 | 5.5 | 3.0 | | VIII | 12.10 | 86.3 |
| sgua | Soft | 4- | 5 | 3 | 6 | 360 | 238 | 12.05 | 0.65 | 2.6 | 1.7 | | VIII | 12.10 | 86.3 |
| Lima | Soft | 6.3 | 38 | 236 | 239 | 8 | 269 | 21.6 | 16.6 | 16.0 | 6.0 | XI | VII | 10.74 | 78.6 |
| Lima | Soft | 6.3 | 38 | 236 | 239 | 278 | 181 | 13.23 | 7.4 | 12.0 | 6.0 | XI | VII | 10.74 | 78.6 |
| ima | Soft | 6.6 | 13 | 91 | 92 | 90 | 207 | 16.94 | 8.03 | 5.3 | 4.0 | IX | VIII | 12.24 | 77.5 |
| ima | Soft | 6.6 | 13 | 91 | 92 | 360 | 192 | 20.48 | 7.93 | 5.2 | 3.8 | IX | VIII | 12.24 | 77.5 |
| a | | 7.2 | 6 | 103 | 103 | | 117 | 7.89 | 2.43 | 7.5 | 2.0 | | VII | 12.5 | 77.8 |
| | Hard | 6.3 | 8 | 23 | 24 | 270 | 360 | 13.8 | 2.1 | 1.4 | 0.7 | | VIII | 23.35 | 120.6 |
| | Hard | 6.3 | 8 | 23 | 24 | 360 | 299 | 11 6 | 1.7 | 1.7 | 1.0 | | VIII | 23.35 | 120.6 |
| | Soft | 5.9 | 13 | 15 | 20 | 82 | 223 | 13.2 | 2.6 | 0.1 | 1.1 | | VII | 23.50 | 121.5 |
| | Soft | 5.9 | 13 | 15 | 20 | 352 | 165 | 11.3 | 2.0 | 1 7 | 0.7 | | VII | 23.50 | 121.5 |
| 5 | Soft | 6.5 | 11 | 30 | 32 | | 244 | | | | | | VII | 24.42 | 121.8 |
| | Soft | 6.5 | 11 | 30 | 32 | 290 | 186 | 9.8 | 1.4 | 5.1 | 0.8 | | VII | 24.43 | 121.9 |
| | Soft | 6.5 | 11 | 30 | 32 | 20 | 175 | 15.1 | 2.5 | 8.2 | 1.5 | | VII | 24.43 | 121.9 |
| | Hard | 5.0 | 5 | 14 | 15 | 270 | 257 | 5.5 | 1.0 | 1 7 | 0.5 | | VII | 24.26 | 121.1 |
| | Hard | 5.0 | 5 | 14 | 15 | 360 | 220 | 4.4 | 1 7 | 1 0 | 0.5 | | VII | 24.26 | 121.1 |
| 33 | Soft | 5.2 | 3 | | | | 158 | | | | | | | | |
| 36 | Soft | 5.3 | 6 | | | | 121 | | | | | | | | |
| 39 | Soft | 5 5 | 10 | | | | 327 | | | | | | | | |
| 39 | Soft | 5.5 | 10 | | | | 258 | | | | | | | | |
| 40 | Soft | 6.1 | 16 | | | | 266 | | | | | | | | |
| 40 | Soft | 6.1 | 16 | | | | 224 | | | | | | | | |
| 42 | Soft | 5.0 | 2 | | | | 151 | | | | | | | | |
| 43 | Soft | 5.6 | 2 | | | | 301 | | | | | | | | |

ds
-14

Sep'90

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| 7.0 | 2.9 | | VIII | 12.16 | 86.25 | ESSO | | AR240 | 12.14 | 86.31 | yes | USGS OF 78-941 |
| 7.9 | 4.6 | | VIII | 12.16 | 86.25 | ESSO | | AR240 | 12.14 | 86.31 | yes | USGS OF 78-941 |
| 5.5 | 3.0 | | VIII | 12.10 | 86.30 | 3502 | 6 | AR240 | 12.10 | 86.27 | yes | USGS OF (unpubl.) |
| 2.6 | 1.7 | | VIII | 12.10 | 86.30 | 3502 | 6 | AR240 | 12.10 | 86.27 | yes | USGS OF (unpubl.) |
| 6.0 | 6.0 | XI | VII | 10.74 | 78.63 | 4302 | 2 | CGS | 12.07 | 77.04 | yes | USGS OF 77-587 |
| 2.0 | 6.0 | XI | VII | 10.74 | 78.63 | 4302 | 2 | CGS | 12.07 | 77.04 | yes | USGS OF 77-587 |
| 5.3 | 4.0 | IX | VIII | 12.24 | 77.58 | 4304 | 8 | SMA-1 | 12.13 | 76.98 | yes | USGS OF 77-587 |
| 5.2 | 3.8 | IX | VIII | 12.24 | 77.58 | 4304 | 8 | SMA-1 | 12.13 | 76.98 | yes | USGS OF 77-587 |
| 7.5 | 2.0 | | VII | 12.5 | 77.8 | 4305 | | SMA | 12.08 | 76.95 | yes | USGS OF 77-587 |
| 1.4 | 0.7 | | VIII | 23.35 | 120.67 | | | | 23.19 | 120.52 | yes | ROC Vol. 1 |
| 1.7 | 1.0 | | VIII | 23.35 | 120.67 | | | | 23.19 | 120.52 | yes | ROC Vol. 1 |
| 0.1 | 1.1 | | VII | 23.50 | 121.50 | | | | 23.52 | 121.36 | yes | ROC Vol. 1 |
| 1.7 | 0.7 | | VII | 23.50 | 121.50 | | | | 23.52 | 121.36 | yes | ROC Vol. 1 |
| | | | VII | 24 42 | 121.88 | 002 | | | | | T.H. | |
| 3.1 | 0.8 | | VII | 24.43 | 121.90 | | | | 24.68 | 121.76 | yes | ROC Vol. 2 |
| 3.2 | 1.5 | | VII | 24.43 | 121.90 | | | | 24.68 | 121.76 | yes | ROC Vol. 2 |
| 1 7 | 0.5 | | VII | 24.26 | 121.18 | | | | 24.15 | 121.11 | yes | ROC Vol. 3 |
| 1.0 | 0.5 | | VII | 24.26 | 121.18 | | | | 24.15 | 121.11 | yes | ROC Vol. 3 |
| | | | | | | | | | | | T.H | |
| | | | | | | | | | | | T H. | |
| | | | | | | | | | | | T H. | |
| | | | | | | | | | | | T.H. | |
| | | | | | | | | | | | T.H. | |
| | | | | | | | | | | | T H. | |
| | | | | | | | | | | | T H. | |
| | | | | | | | | | | | T H | |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | EP km |
|---|---|---|---|---|---|---|---|---|---|
| ROC | 18 | 860730 | 1131 | | SMART Event #43 | Soft | 5.6 | 2 | |
| ROC | 19 | 861114 | 2120 | | SMART Event #45 | Soft | 6.2 | 7 | |
| ROC | 20 | 861114 | 2120 | | SMART Event #45 | Soft | 6.2 | 7 | |
| ROM | 1 | 770304 | 1921 | Vrancea, E. Rom. | BRI Bucharest | Soft | 7.2 | 110 | 16 |
| ROM | 2 | 770304 | 1921 | Vrancea, E. Rom. | BRI Bucharest | Soft | 7.2 | 110 | 16 |
| RUS | 1 | 760517 | 259 | Uzbek/Gazli | Kysylkum Pt/K Desert | Hard | 7.3 | 14 | 3 |
| RUS | 2 | 760517 | 259 | Uzbek/Gazli | Kysylkum Pt/K Desert | Hard | 7.3 | 14 | 3 |
| SAL | 1 | 861010 | 1749 | | Natl Geog Inst | Soft | 5.4 | 8 | |
| SAL | 2 | 861010 | 1749 | | Natl Geog Inst | Soft | 5.4 | 8 | |
| SAL | 3 | 861010 | 1749 | | Geotech Inv Ctr | Soft | 5.4 | 8 | |
| SAL | 4 | 861010 | 1749 | | Geotech Inv Ctr | Soft | 5.4 | 8 | |
| SAL | 5 | 861010 | 1749 | | Inst Urban Constr | Soft | 5.4 | 8 | |
| SAL | 6 | 861010 | 1749 | | Inst Urban Constr | Soft | 5.4 | 8 | |
| SAL | 7 | 861010 | 1749 | | Hotel Camino Real bsmt | Soft | 5.4 | 8 | |
| SAL | 8 | 861010 | 1749 | | Hotel Camino Real bsmt | Soft | 5.4 | 8 | |
| SAL | 9 | 861010 | 1749 | | Centro Amer Univ | Soft | 5.4 | 8 | |
| SAL | 10 | 861010 | 1749 | | Centro Amer Univ | Soft | 5.4 | 8 | |
| SAL | 11 | 861010 | 1749 | | Hotel Sheraton | Hard | 5.4 | 8 | |
| SAL | 12 | 861010 | 1749 | | Hotel Sheraton | Hard | 5.4 | 8 | |
| SOL | 1 | 830318 | 905 | Bougainville | BVE 80,Panguna, Sol.Is | Hard | 7.9 | 89 | 27 |
| SOL | 2 | 830318 | 905 | Bougainville | BVE 80,Panguna, Sol.Is | Hard | 7.9 | 89 | 27 |
| TKY | 1 | 760819 | 105 | Denizli | Denizli | Soft | 5.0 | 10 | 1 |
| TKY | 2 | 760819 | 105 | Denizli | Denizli | Soft | 5.0 | 10 | 1 |
| TKY | 3 | 771216 | | Izmir | Izmir | Soft | 5.3 | 10 | |
| TKY | 4 | 790718 | 1013 | Dursunbey | Dursunbey | | 5.2 | 10 | 1 |
| TKY | 5 | 790718 | 1013 | Dursunbey | Dursunbey | | 5.2 | 10 | 1 |

ar, or of exceptional interest)

David J. Leeds
DJLA 90-21-14

| )CATION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR deg | HR ga | HOR VEL | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LOI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ent #43 | Soft | 5.6 | 2 | | | | 244 | | | | | | | | |
| ent #45 | Soft | 6.2 | 7 | | | | 251 | | | | | | | | |
| ent #45 | Soft | 6.2 | 7 | | | | 178 | | | | | | | | |
| est | Soft | 7.2 | 110 | 166 | 199 | 180 | 202 | 75.11 | 20.06 | 9.3 | 2.4 | IX | VII | 45.83 | 26. |
| est | Soft | 7.2 | 110 | 166 | 199 | 90 | 175 | 32.62 | 10.60 | 11.9 | 5.0 | IX | VII | 45.83 | 26. |
| t/K Desert | Hard | 7.3 | 14 | 32 | 35 | | 717 | 57.74 | 50.8 | 14.0 | 13.0 | | IX | 40.35 | 63. |
| t/K Desert | Hard | 7.3 | 14 | 32 | 35 | | 609 | 67.22 | 27.9 | 14.5 | 13.5 | | IX | 40.35 | 63. |
| nst | Soft | 5.4 | 8 | 6 | 10 | 270 | 525 | 72.7 | 10.6 | 8.8 | 4.8 | IX | IX | 13.67 | 89. |
| nst | Soft | 5.4 | 8 | 6 | 10 | 180 | 392 | 56.1 | 17.8 | 8.2 | 4.2 | IX | IX | 13.67 | 89. |
| Ctr | Soft | 5.4 | 8 | 4 | 9 | 90 | 681 | 80.0 | 11.9 | 8.0 | 6.0 | IX | IX | 13.67 | 89. |
| Ctr | Soft | 5.4 | 8 | 4 | 9 | 180 | 412 | 61.8 | 14.8 | 6.6 | 3.9 | IX | IX | 13.67 | 89. |
| Constr | Soft | 5.4 | 8 | 5 | 9 | 180 | 668 | 55.6 | 7.1 | 5.8 | 4.0 | IX | IX | 13.67 | 89. |
| Constr | Soft | 5.4 | 8 | 5 | 9 | 90 | 380 | 39.2 | 9.8 | 4.3 | 3.2 | IX | IX | 13.67 | 89. |
| o Real bsmt | Soft | 5.4 | 8 | 5 | 9 | 360 | 421 | 45.5 | 13 4 | 4.7 | 3.8 | IX | IX | 13.67 | 89. |
| o Real bsmt | Soft | 5.4 | 8 | 5 | 9 | 90 | 339 | 32.3 | 4.2 | 4.7 | 1 8 | IX | IX | 13.67 | 89.2 |
| Univ | Soft | 5.4 | 8 | 4 | 9 | 90 | 409 | 48.8 | 11.6 | 6.2 | 4.7 | IX | IX | 13.67 | 89.2 |
| Univ | Soft | 5 4 | 8 | 4 | 9 | 180 | 374 | 32.9 | 6 2 | 6.8 | 4.2 | IX | IX | 13.67 | 89.2 |
| on | Hard | 5.4 | 8 | 6 | 10 | 270 | 296 | 26.3 | 4.4 | 6.5 | 3.0 | IX | VII | 13.67 | 89.2 |
| on | Hard | 5.4 | 8 | 6 | 10 | 360 | 214 | 17.7 | 4.6 | 5.7 | 1.9 | IX | VII | 13.67 | 89.2 |
| una, Sol.ls | Hard | 7.9 | 89 | 271 | 285 | 360 | 284 | 28.6 | 3.6 | 45.9 | 24.8 | | VIII | 4.83 | 153.5 |
| una, Sol.ls | Hard | 7 9 | 89 | 271 | 285 | 90 | 270 | 17.9 | 2.6 | 39.8 | 21.7 | | VIII | 4.83 | 153.5 |
| | Soft | 5.0 | 10 | 10 | 14 | 90 | 262 | 14.88 | 2.26 | | | VI | VI | 37.71 | 29.0 |
| | Soft | 5 0 | 10 | 10 | 14 | 360 | 335 | 21.35 | 2.67 | 6.6 | 4 3 | VI | VI | 37 71 | 29.0 |
| | Soft | 5.3 | 10 | 7 | 12 | | 217 | 10.17 | 5.08 | 0.9 | 0.4 | | VII | | |
| | | 5.2 | 10 | 10 | 14 | | 200 | 32.13 | 33.19 | 3.6 | 2.2 | | | | |
| | | 5 2 | 10 | 10 | 14 | | 271 | 33 07 | 32 18 | 2 7 | 1.1 | | | | |

eads
21-14

Sep'9

| DURATION | | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g5% | g10% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | | | | | | | | | | T.H. | |
| | | | | | | | | | | | T.H. | |
| | | | | | | | | | | | T.H. | |
| 9.3 | 2.4 | IX | VII | 45.83 | 26.72 | 1 | | SMAC-B | | | yes | USGS OF 78-1022 |
| 11.9 | 5.0 | IX | VII | 45.83 | 26.72 | 1 | | SMAC-B | | | yes | USGS OF 78-1022 |
| 14.0 | 13.0 | | IX | 40.35 | 63.45 | | | | | | VS | Niazi, 1986 |
| 14.5 | 13.5 | | IX | 40.35 | 63.45 | | | | | | VS | Niazi, 1986 |
| 8.8 | 4.8 | IX | IX | 13.67 | 89.20 | IGN-5 | | SMA-1 | 13.71 | 89.17 | | CDMG OSMS 86-07 |
| 8.2 | 4.2 | IX | IX | 13.67 | 89.20 | IGN-5 | | SMA-1 | 13.71 | 89.17 | | CDMG OSMS 86-07 |
| 8.0 | 6.0 | IX | IX | 13.67 | 89.20 | CIG-6 | | SMA-1 | 13.70 | 89.18 | yes | CDMG OSMS 86-07 |
| 6.6 | 3.9 | IX | IX | 13.67 | 89.20 | CIG-6 | | SMA-1 | 13.70 | 89.18 | yes | CDMG OSMS 86-07 |
| 5.8 | 4.0 | IX | IX | 13.67 | 89.20 | IVU-13 | | AR240 | 13.72 | 89.21 | yes | CDMG OSMS 86-07 |
| 4.3 | 3.2 | IX | IX | 13.67 | 89.20 | IVU-13 | | AR240 | 13.72 | 89.21 | yes | CDMG OSMS 86-07 |
| 4 7 | 3 8 | IX | IX | 13.67 | 89.20 | HCR-14 | | SMA-1 | 13.71 | 89.22 | yes | CDMG OSMS 86-07 |
| 4.7 | 1 8 | IX | IX | 13.67 | 89.20 | HCR-14 | | SMA-1 | 13 71 | 89.22 | yes | CDMG OSMS 86-07 |
| 6.2 | 4.7 | IX | IX | 13.67 | 89.20 | UCA-16 | | SMA-1 | 16.68 | 89.24 | yes | CDMG OSMS 86-07 |
| 6.8 | 4.2 | IX | IX | 13.67 | 89.20 | UCA-16 | | SMA-1 | 16.68 | 89.24 | yes | CDMG OSMS 86-07 |
| 6.5 | 3.0 | IX | VII | 13.67 | 89.20 | HSH-18 | | SMA-1 | 13.71 | 89.24 | yes | CDMG OSMS 86-07 |
| 5.7 | 1.9 | IX | VII | 13.67 | 89.20 | HSH-18 | | SMA-1 | 13 71 | 89.24 | yes | CDMG OSMS 86-07 |
| 45.9 | 24.8 | | VIII | 4.83 | 153.58 | | | SMA-1 | | | yes | USGS OF 85-261 |
| 39.8 | 21 7 | | VIII | 4.83 | 153.58 | | | SMA-1 | | | yes | USGS OF 85-261 |
| | | VI | VI | 37.71 | 29.0 | | | SMA-1 | 37 76 | 29 21 | no | BSSA 72:1635 |
| 6.6 | 4 3 | VI | VI | 37.71 | 29.0 | | | SMA-1 | 37 76 | 29 21 | yes | BSSA 72:1635 |
| 0.9 | 0 4 | | VII | | | | | SMA-1 | | | VS | Ergunay et al 1985 |
| 3 6 | 2 2 | | | | | | | SMA-1 | | | VS | Ergunay et al 1985 |
| 2 7 | 1 1 | | | | | | | SMA-1 | | | VS | Ergunay et al 1985 |

A2. WORLD ACCELEROGRAMS (Approximately 200 gal or greater, or of exceptional interest)

| ID | NO. | DATE | TIME | EARTHQUAKE | LOCATION | SITE CHAR | MAG Mb | DEP km | EPI km |
|---|---|---|---|---|---|---|---|---|---|
| TKY | 6 | 810000 | 1 | Antakya | | | 6.5 | | 65 |
| TKY | 7 | 831030 | 713 | Eruzurm-Kars | Horasan | Soft | 6.5 | 10 | 20 |
| TKY | 8 | 831030 | 713 | Eruzurm-Kars | Horasan | Soft | 6.5 | 10 | 20 |
| TKY | 9 | 840329 | 306 | | Balikesir | | 4.4 | 10 | 10 |
| TKY | 10 | 840329 | 306 | | Balikesir | | 4.4 | 10 | 10 |
| WAS | 1 | 490413 | 1955 | Western Wash. | Olympia Hwy Test Lab | Soft | 7.9 | 70 | 17— |
| WAS | 2 | 490413 | 1955 | Western Wash. | Olympia Hwy Test Lab | Soft | 7.9 | 70 | 17 |
| WAS | 3 | 490413 | 1955 | Western Wash. | Seattle Army Base | Soft | 7.9 | 70 | 62 |
| WAS | 4 | 490413 | 1955 | Western Wash. | Seattle Army Base | Soft | 7.9 | 70 | 62 |
| WAS | 5 | 650429 | 1528 | Puget Sound | Olympia Hwy Test Lab | Soft | 6.5 | 59 | 50 |
| WAS | 6 | 650429 | 1528 | Puget Sound | Olympia Hwy Test Lab | Soft | 6.5 | 59 | 50 |
| YUG | 1 | 760911 | 1631 | | Breginj Needle Fcty | Soft | 5.2 | 17 | |
| YUG | 2 | 760915 | 315 | | Breginj Needle Fcty | Soft | 6.1 | 16 | |
| YUG | 3 | 760915 | 315 | | Breginj Needle Fcty | Soft | 6.1 | 16 | |
| YUG | 4 | 760915 | 921 | | Breginj Needle Fcty | Soft | 5.4 | | |
| YUG | 5 | 790415 | 722 | | Town Assy Bldg Bar | Soft | 7.2 | 30 | |
| YUG | 6 | 790415 | 722 | | Town Assy Bldg Bar | Soft | 7.2 | 30 | |
| YUG | 7 | 790415 | 722 | | Olimpic Hotl Ulcinj | Soft | 7.2 | 30 | |
| YUG | 8 | 790415 | 722 | | Olimpic Hotl Ulcinj | Soft | 7.2 | 30 | |
| YUG | 9 | 790415 | 722 | | Ulcini-2 | Hard | 7.2 | 30 | |
| YUG | 10 | 790415 | 722 | | Olive Hotel Petrovac | Soft | 7 2 | 30 | |
| YUG | 11 | 790405 | 722 | | Olive Hotel Petrovac | Soft | 7.2 | 30 | |
| YUG | 12 | 790415 | 722 | | Hercegnovi | Hard | 7 2 | 30 | |
| YUG | 13 | 790415 | 722 | | Hercegnovi | Hard | 7 2 | 30 | |

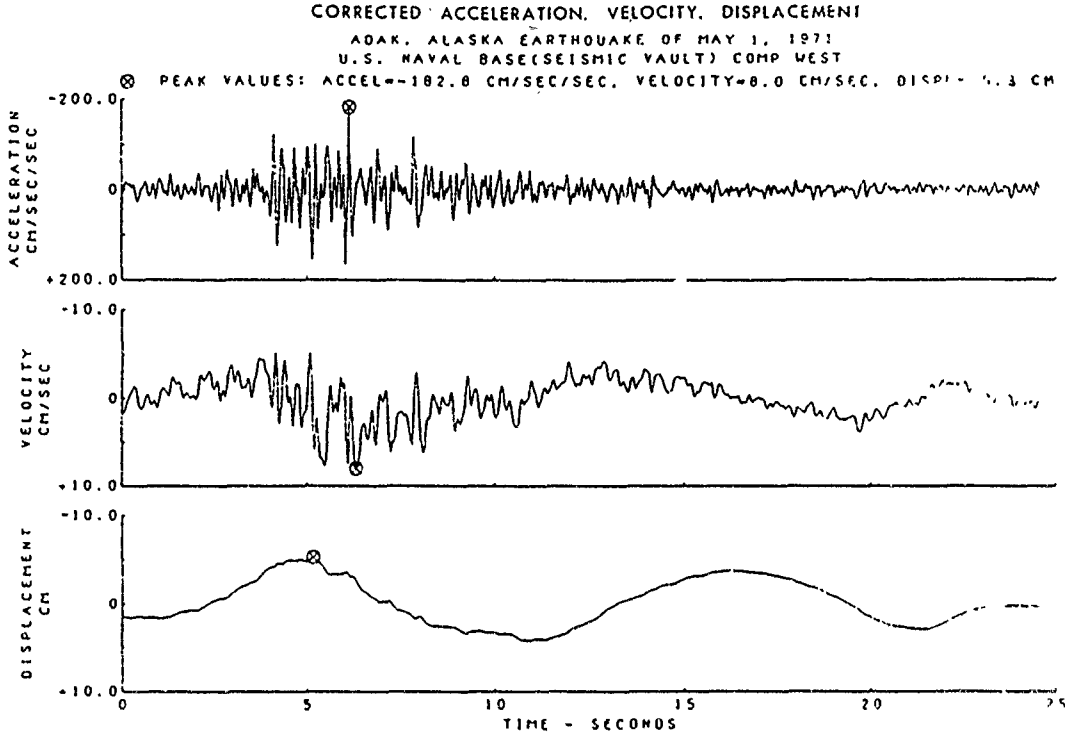
, or of exceptional interest)

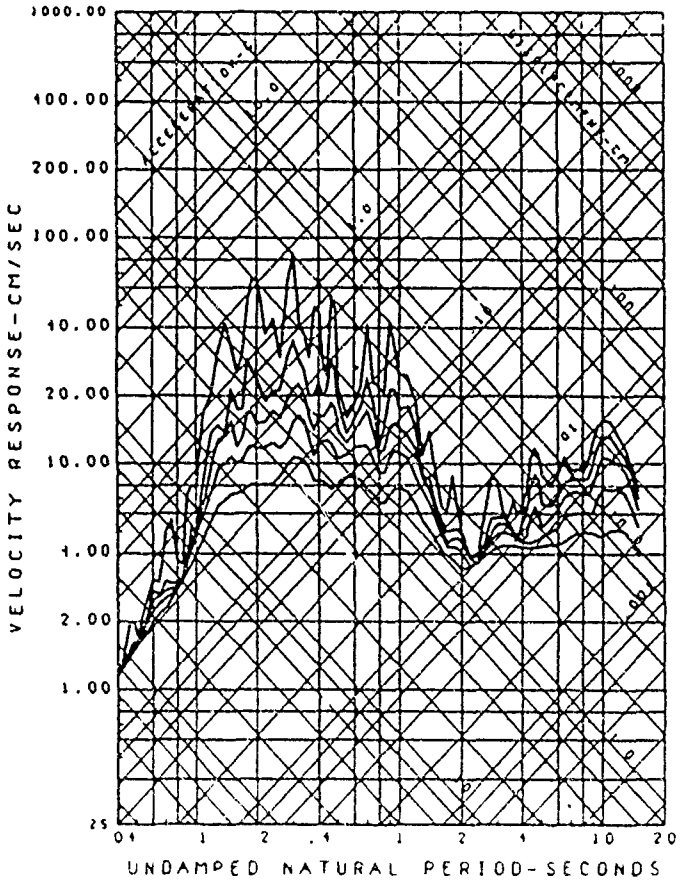
David J. Leeds
DJLA 90-21-14

| ATION | SITE CHAR | MAG Mb | DEP km | EPI km | HYP km | TR deg | HR ge | HOR VEL | HOR DISP | DURATION g5% | DURATION g10% | INTENSITY EPI | INTENSITY STA | EPICENTER LAT | EPICENTER LONG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 6.5 | | 65 | 66 | | 176 | | | | | | | | |
| | Soft | 6.5 | 10 | 20 | 22 | | 148 | 22.66 | 15.46 | 15.8 | 5.7 | | VI | | |
| | Soft | 6.5 | 10 | 20 | 22 | | 135 | 36.63 | 24.69 | 12.7 | 5.4 | | VI | | |
| | | 4.4 | 10 | 10 | 14 | | 219 | 8.9 | 1.36 | 0.9 | 0.6 | | VI | | |
| | | 4.4 | 10 | 10 | 14 | | 136 | | | 1.4 | 0.1 | | VI | | |
| / Test Lab | Soft | 7.9 | 70 | 17 | 72 | 266 | 275 | 17.0 | 10.4 | 21.5 | 18.0 | VIII | VIII | 47.17 | 122.6 |
| / Test Lab | Soft | 7.9 | 70 | 17 | 72 | 176 | 162 | 21.4 | 8.5 | 22.0 | 18.0 | VIII | VIII | 47.17 | 122.6 |
| / Base | Soft | 7.9 | 70 | 62 | 94 | 182 | 67 | 8.2 | 2.4 | 16.0 | 0.0 | VIII | VIII | 47.17 | 122.6 |
| Base | Soft | 7.9 | 70 | 62 | 94 | 272 | 66 | 7.9 | 2.7 | 13.0 | 0.0 | VIII | VIII | 47.17 | 122.6 |
| / Test Lab | Soft | 6.5 | 59 | 50 | 77 | 266 | 194 | 12.7 | 3.8 | 14.0 | 4.8 | VIII | VII | 47.41 | 122.2 |
| / Test Lab | Soft | 6.5 | 59 | 50 | 77 | 176 | 134 | 8.0 | 3.8 | 12.4 | 3.6 | VIII | VII | 47.41 | 122.2 |
| e Fcty | Soft | 5.2 | 17 | | | | 170 | | | | | | VI | | |
| e Fcty | Soft | 6.1 | 16 | | | | 520 | | | | | | X | | |
| e Fcty | Soft | 6 1 | 16 | | | | 490 | | | | | | X | | |
| e Fcty | Soft | 5.4 | | | | | 420 | | | | | | IX | | |
| ildg Bar | Soft | 7.2 | 30 | | | | 356 | | | | | | IX | | |
| ildg Bar | Soft | 7.2 | 30 | | | | 353 | | | | | | IX | | |
| Ulcinj | Soft | 7.2 | 30 | | | | 279 | | | | | | VIII | | |
| Ulcinj | Soft | 7.2 | 30 | | | | 235 | | | | | | VIII | | |
| | Hard | 7.2 | 30 | | | | 218 | | | | | | VI | | |
| etrovac | Soft | 7.2 | 30 | | | | 441 | | | | | | IX | | |
| etrovac | Soft | 7.2 | 30 | | | | 298 | | | | | | IX | | |
| | Hard | 7.2 | 30 | | | | 226 | | | | | | VI | | |
| | Hard | 7.2 | 30 | | | | 209 | | | | | | VI | | |

| N | INTENSITY | | EPICENTER | | STA NO. | RECORD NO. | INSTR | STA LOCATION | | COPY | REFERENCES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0% | EPI | STA | LAT | LONG | | | | LAT | LONG | | |
| | | | | | | | | | | | IS-IISSEE 20, 1984 |
| 5.7 | | VI | | | | | SMA-1 | | | VS | IS-IISSEE 20, 1984 |
| 5.4 | | VI | | | | | SMA-1 | | | VS | IS-IISSEE 20, 1984 |
| 0.6 | | VI | | | | | SMA-1 | | | VS | Ergunay et al 1985 |
| 0.1 | | VI | | | | | SMA-1 | | | VS | Ergunay et al 1985 |
| 3.0 | VIII | VIII | 47.17 | 122.62 | 2101 | CIT B029 | CGS | 47.03 | 122.90 | yes | CIT EERL |
| 3.0 | VIII | VIII | 47.17 | 122.62 | 2101 | CIT B029 | CGS | 47.03 | 122.90 | yes | CIT EERL |
| 0.0 | VIII | VIII | 47.17 | 122.62 | 2106 | CIT B028 | CGS | 47.55 | 122.34 | yes | CIT EERL |
| 0.0 | VIII | VIII | 47.17 | 122.62 | 2106 | CIT B028 | CGS | 47.55 | 122.34 | yes | CIT EERL |
| 1.8 | VIII | VII | 47.41 | 122.29 | 2101 | CIT B032 | CGS | 47.03 | 122.90 | yes | USGS OF 75-375 |
| 1.6 | VIII | VII | 47.41 | 122.29 | 2101 | CIT B032 | CGS | 47.03 | 122.90 | yes | USGS OF 75-375 |
| | | VI | | | | | | | | | |
| | | X | | | | | | | | | |
| | | X | | | | | | | | | |
| | | IX | | | | | | | | | |
| | | IX | | | | | | | | | |
| | | IX | | | | | | | | | |
| | | VIII | | | | | | | | | |
| | | VIII | | | | | | | | | |
| | | VI | | | | | | | | | |
| | | IX | | | | | | | | | |
| | | IX | | | | | | | | | |
| | | VI | | | | | | | | | |
| | | VI | | | | | | | | | |

# APPENDIX B: CATALOGUE OF RECOMMENDED ACCELEROGRAM RECORDS WITH RESPONSE SPECTRA



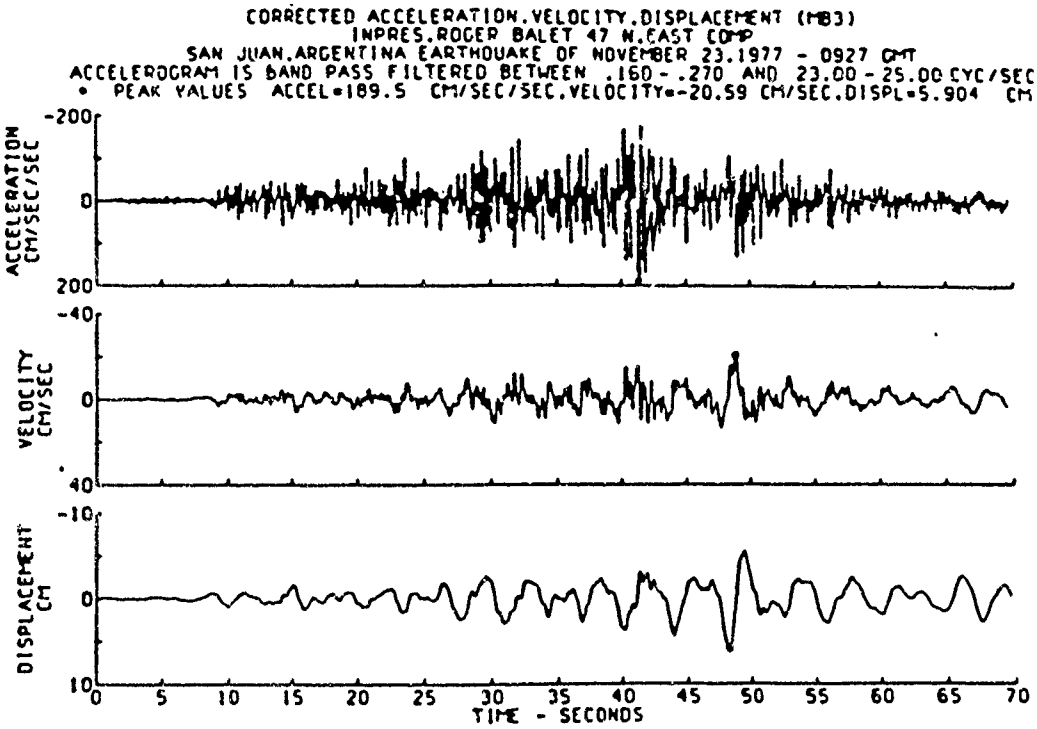



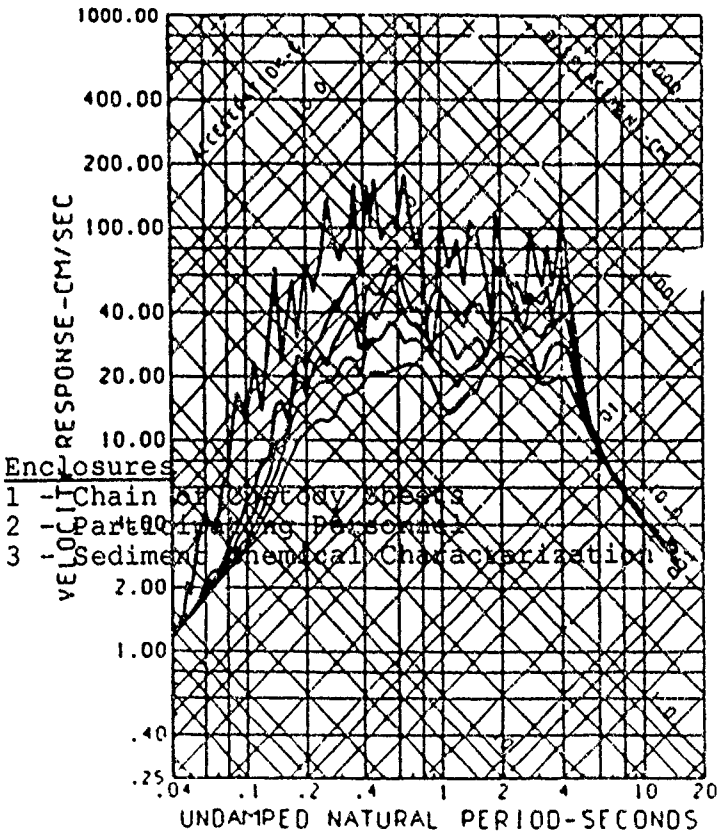

USGS OF 76-609

SEISMIC ENGINEERING
BRANCH/USGS
ADAK, ALASKA
US NAVAL BASE
CRITICAL DAMPING
0, 2, 5, 10, 20 PERCENT

5/1/71, WEST

***AKA 1***



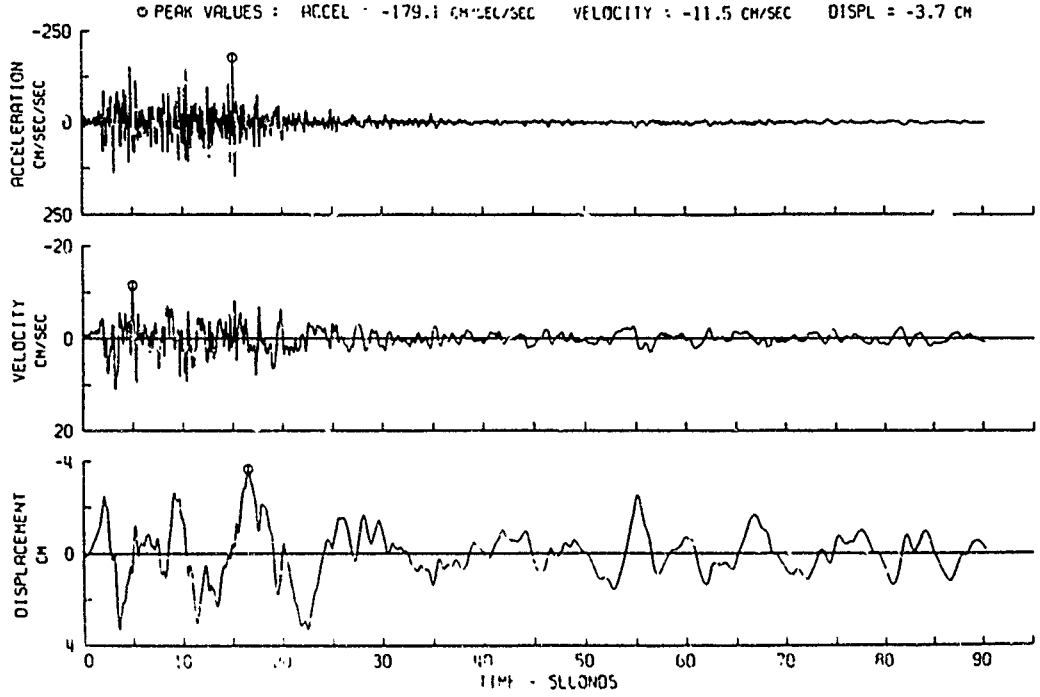

Enclosures
1 - Chain of Custody Sheets
2 - Particle Sizing Report
3 - Sediment Chemical Characterization

ROJAHN ET AL 1980

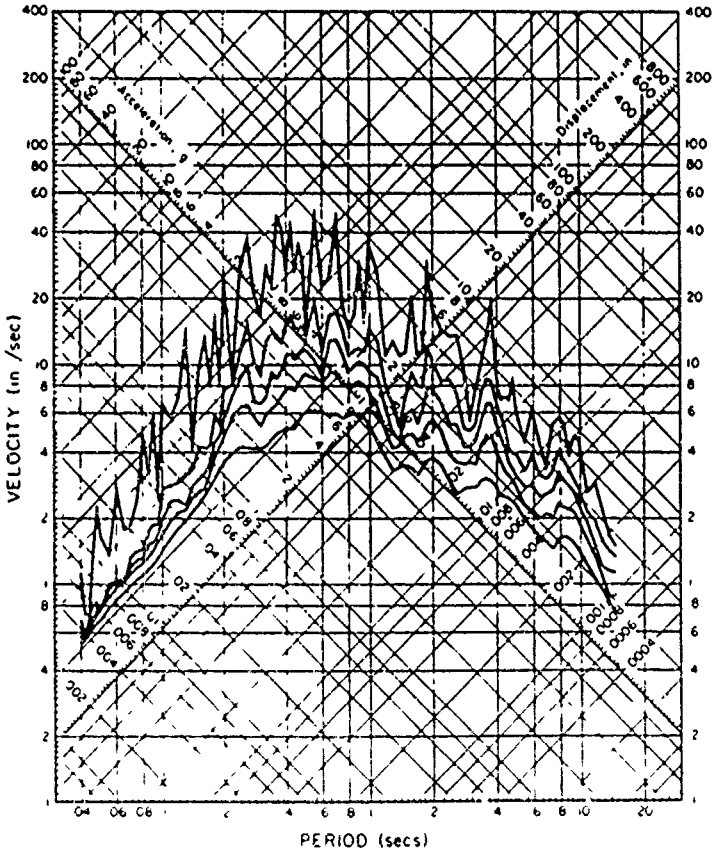
SEISMIC ENGINEERING
BRANCH/USGS
BAND PASSED FROM
.160 - .270 TO 23.00 -25.00 HZ
CRITICAL DAMPING
0.2.5.10.20 PERCENT

SAN JUAN.ARGENTINA.INPRES.
11/23/77.EAST

***ARG 1***




CIT EERL 72-50




CIT EERL 73-80

IIIB024 34.002.0 EL CENTRO IMPERIAL VALLEY

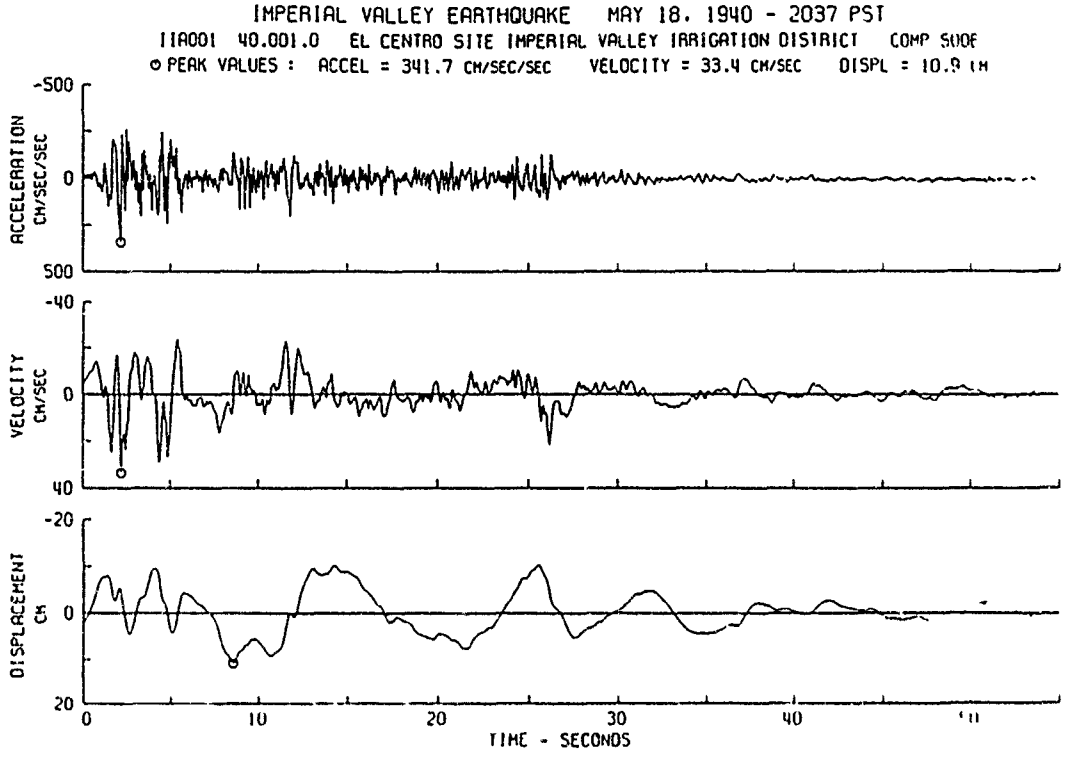
COMP N90E

DAMPING VALUES ARE

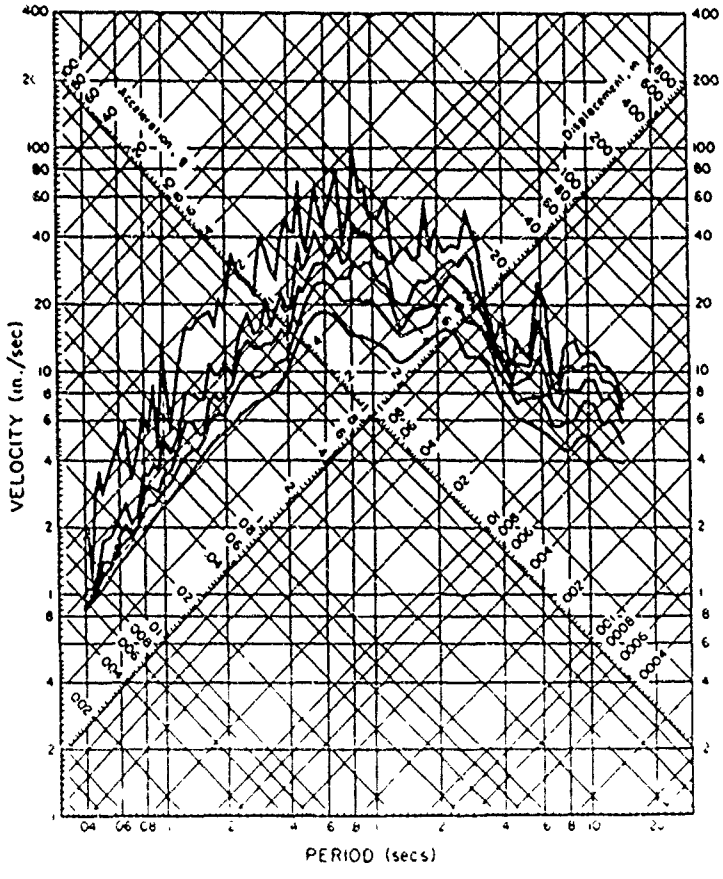
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

LOWER CALIFORNIA EARTHQUAKE
DEC 30, 1934 - 0552 PST

*CAL 2*




CIT EERL 71-50

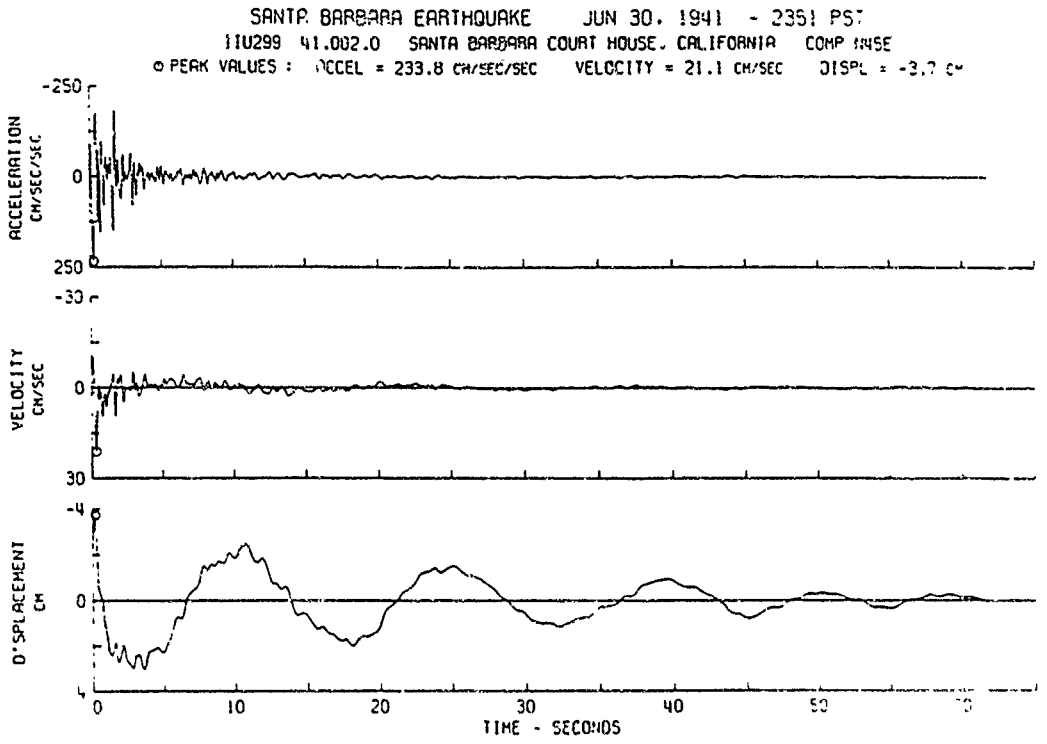



CIT EERL 72-80

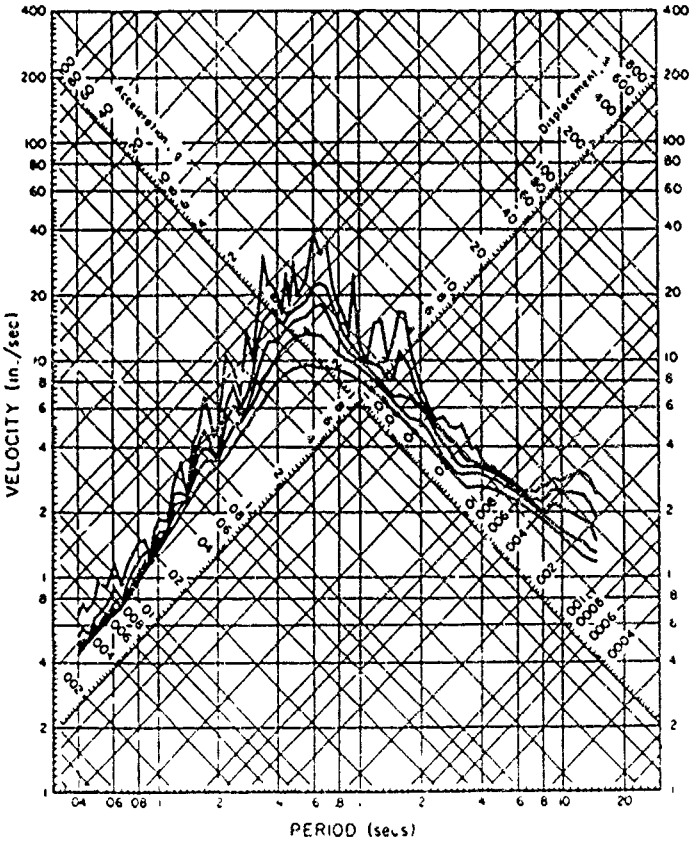
IIIA001 40.001.0 EL CENTRO SITE
IMPERIAL VALLEY IRRIGATION DISTRICT
COMP S00E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

IMPERIAL VALLEY EARTHQUAKE
MAY 18, 1940 - 2037 PST

*CAL 3*




CIT EERL 75-51

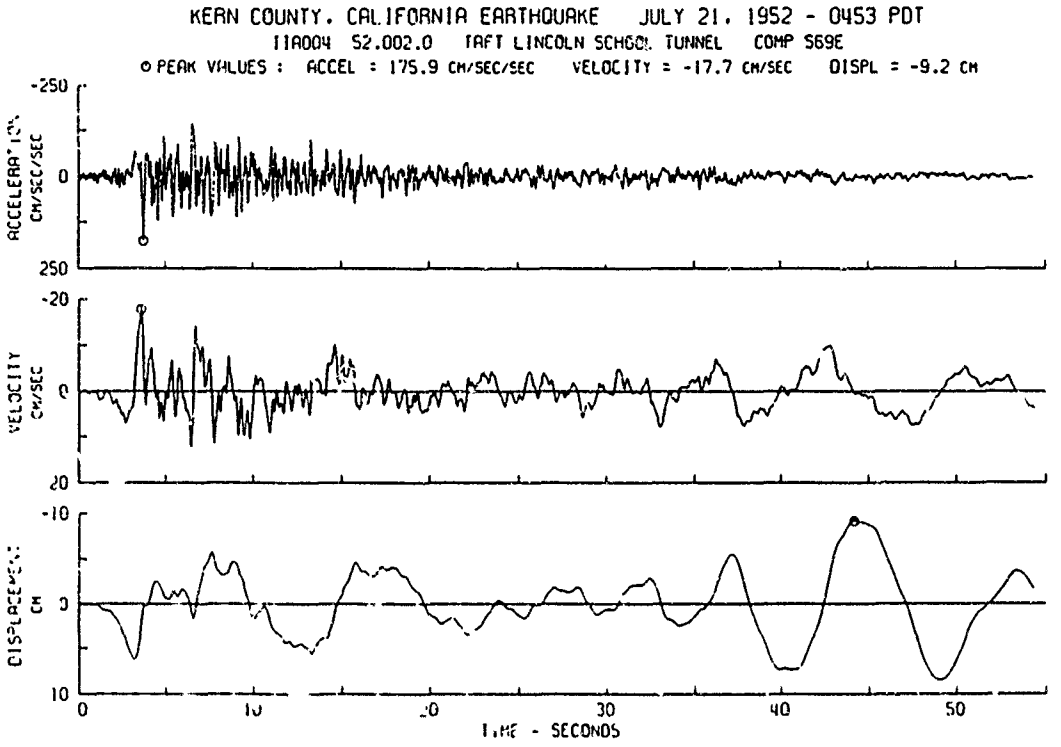



CIT EERL 75-81

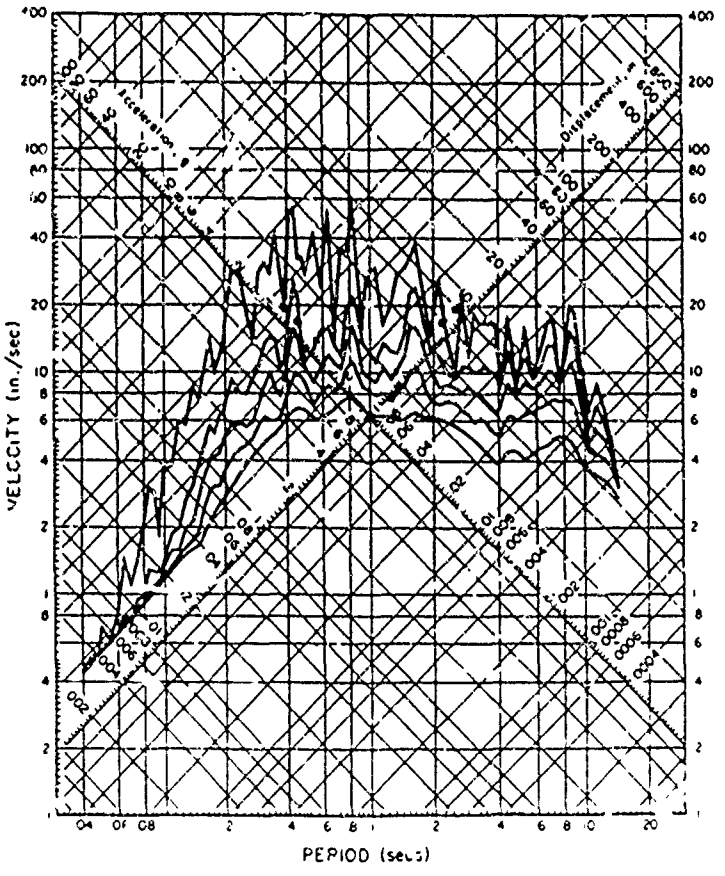
SANTA BARBARA COURT HOUSE, CALIFORNIA
IIIU299 41.002.0 COMP S45E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SANTA BARBARA EARTHQUAKE
JUN 30, 1941 - 2351 PST

CAL 5




CIT EERL 71-50

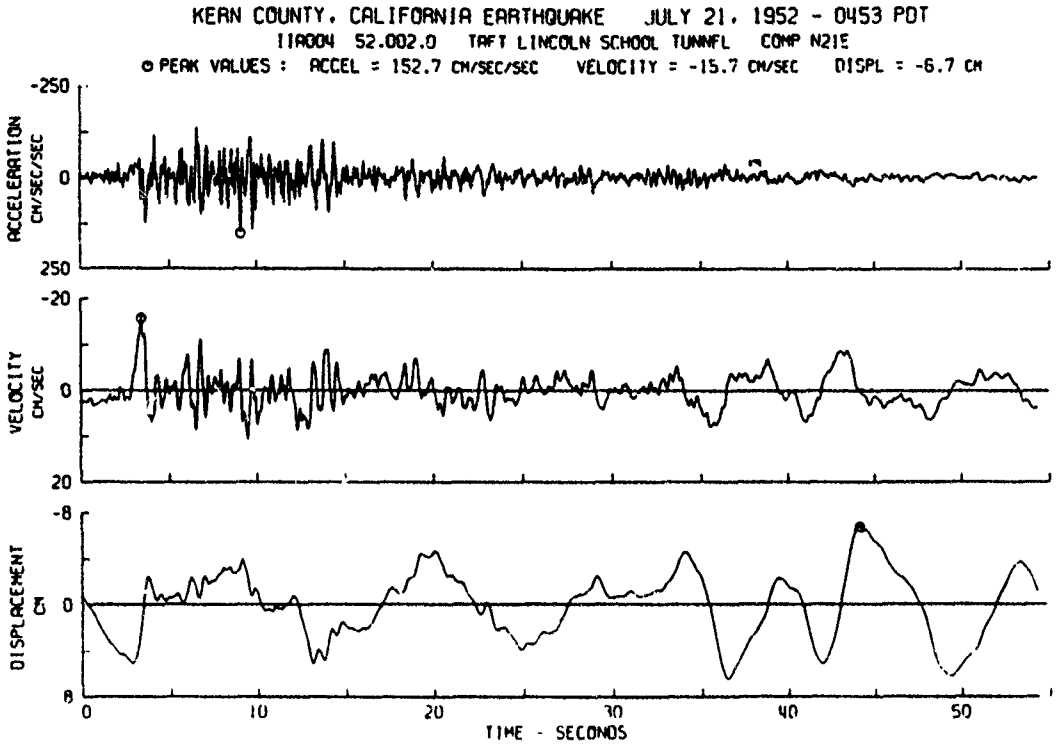



CIT EERL 72-80

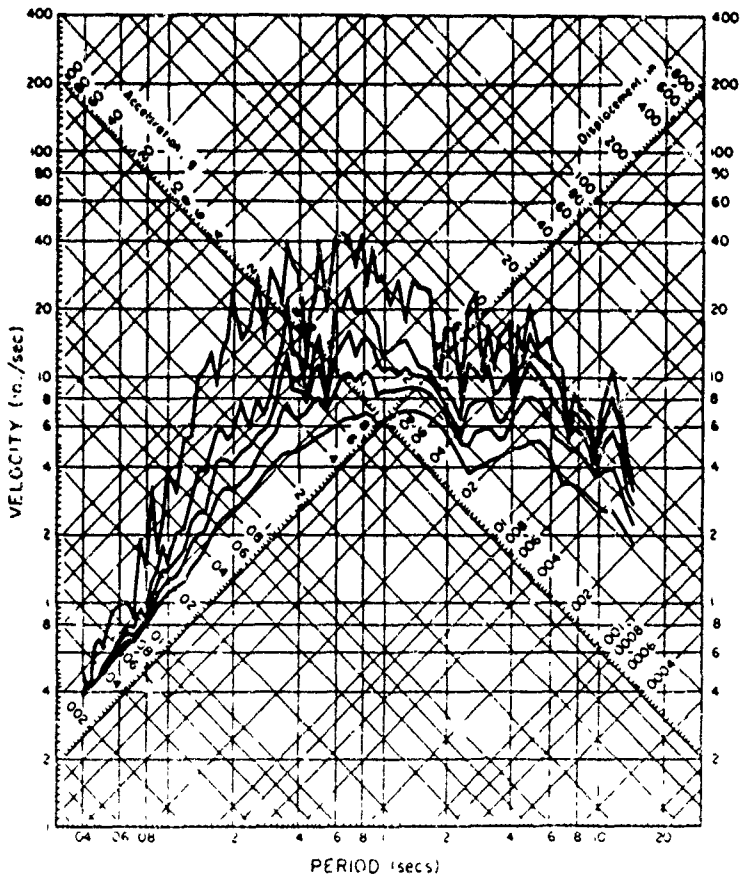
TAFT LINCOLN SCHOOL TUNNEL
1111004 52.002.0 COMP S69E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

KERN COUNTY, CALIFORNIA EARTHQUAKE
JULY 21, 1952 - 0453 PDT

CAL 6




CIT EERL 71-50

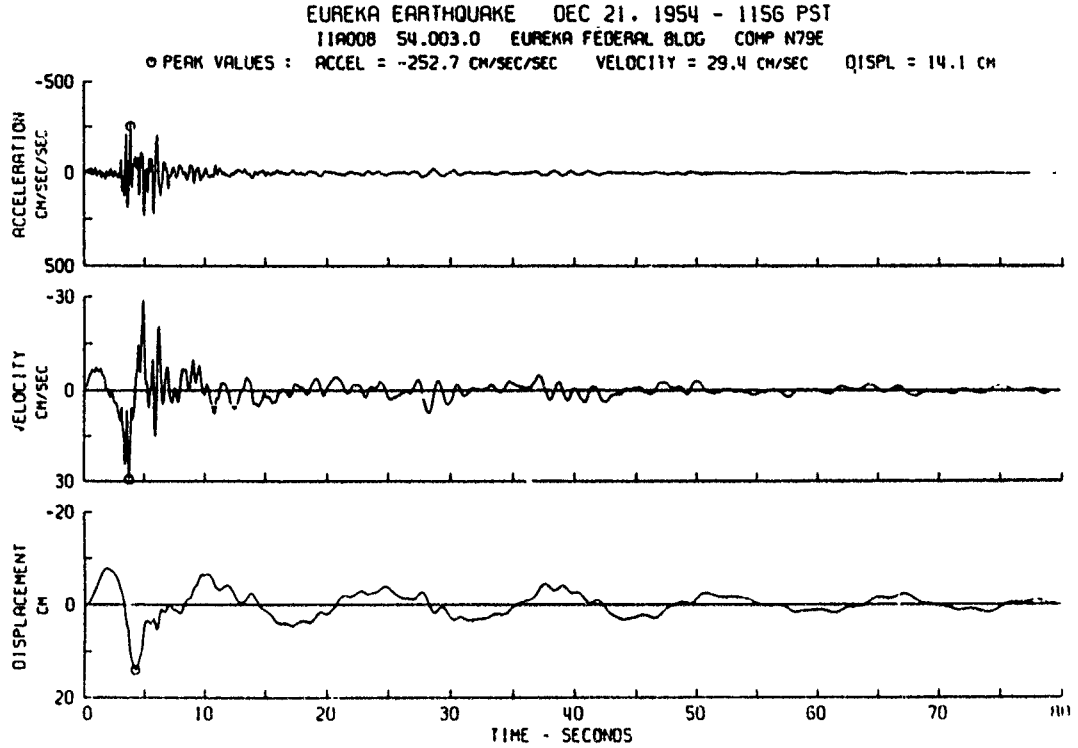



CIT EERL 72-80

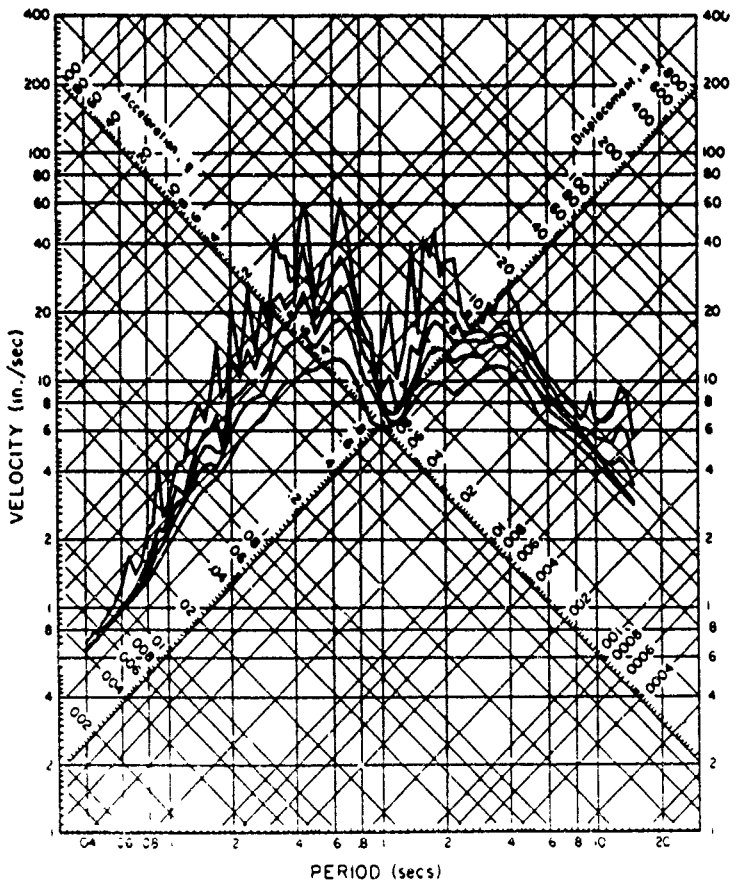
TAFT LINCOLN SCHOOL TUNNEL
1111A004 52.002.0 COMP N21E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

KERN COUNTY, CALIFORNIA EARTHQUAKE
JULY 21, 1952 - 0453 PDT

***CAL 7***




CIT EERL 71-50

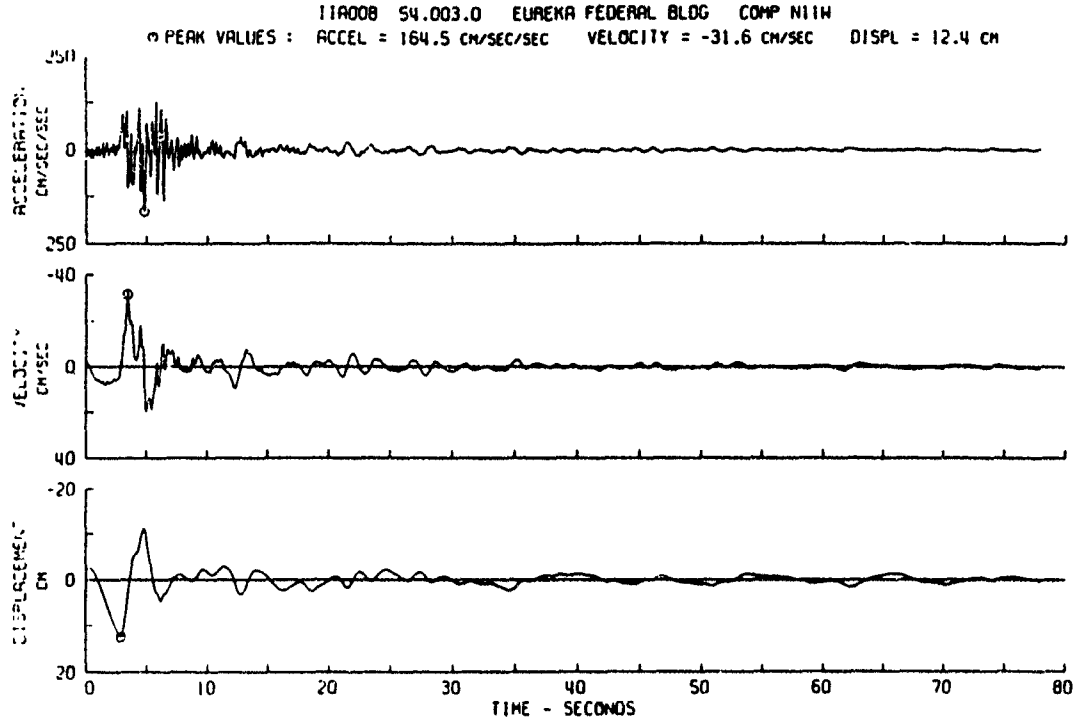



CIT EERL 72-80

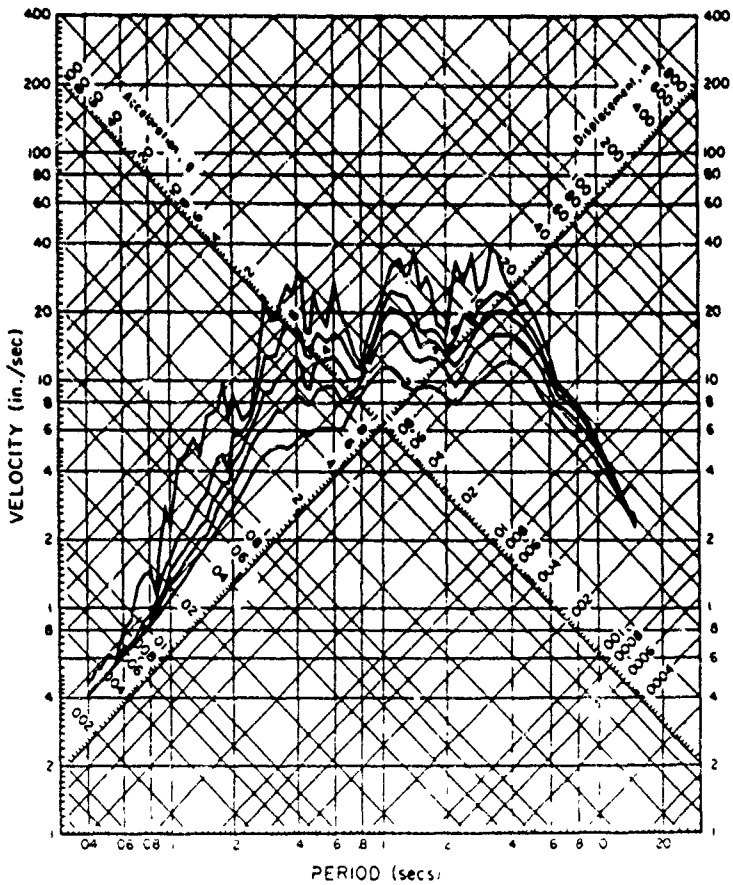
EUREKA FEDERAL BLDG
IIIA008 54.003.0 COMP N79E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

EUREKA EARTHQUAKE
DEC 21, 1954 - 1156 PST

***CAL 8***




CIT EERL 71-50

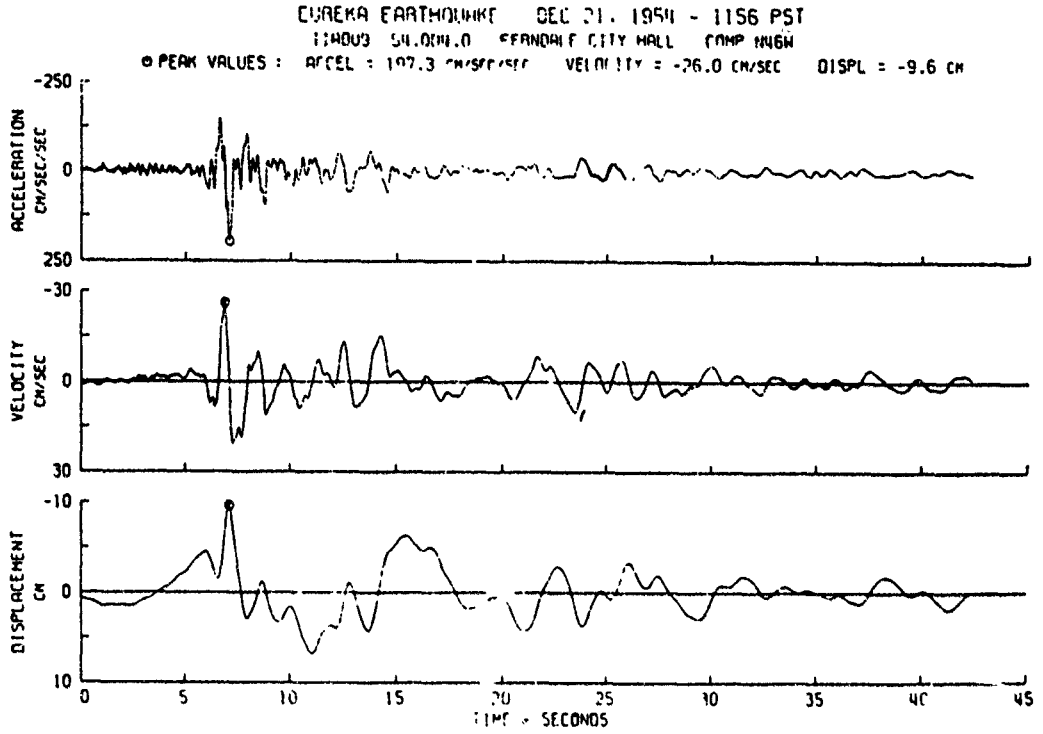



CIT EERL 72-80

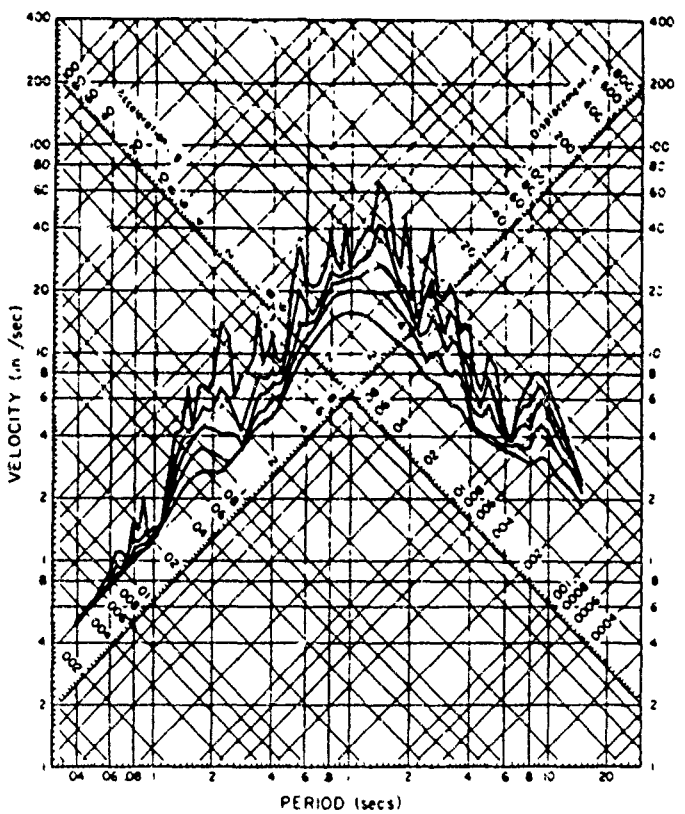
EUREKA FEDERAL BLDG
1118008 54.003.0 COMP N11W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

EUREKA EARTHQUAKE
DEC 21, 1954 - 1156 PST

***CAL 9***




CIT EERL 71-50

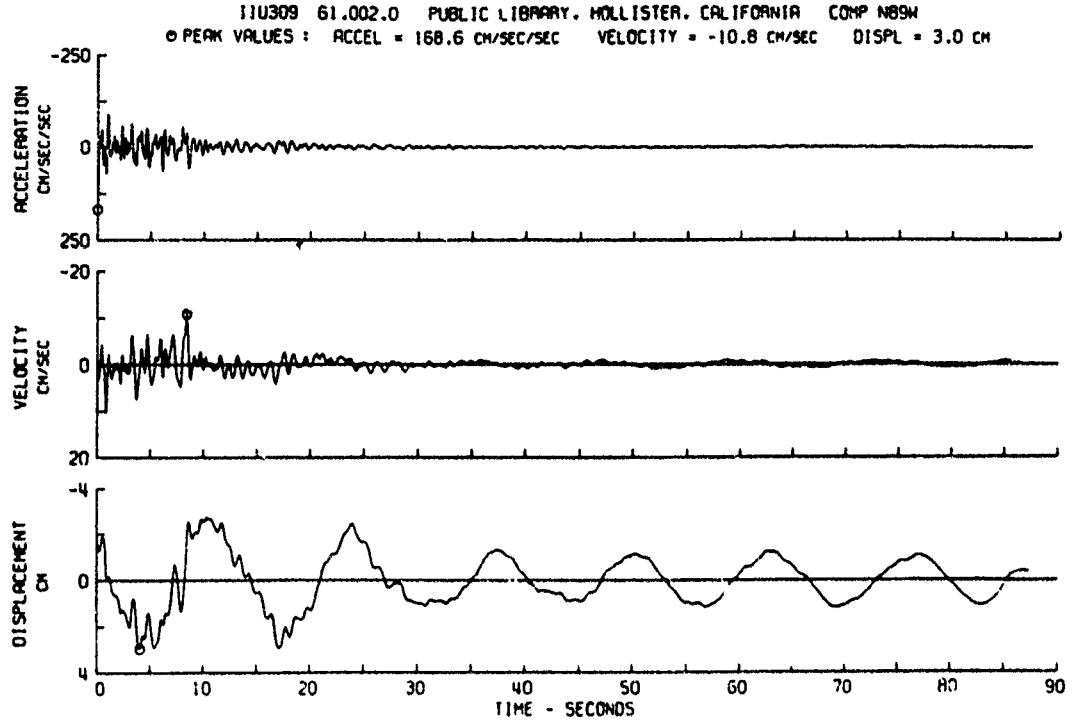



CIT EERL 72-80

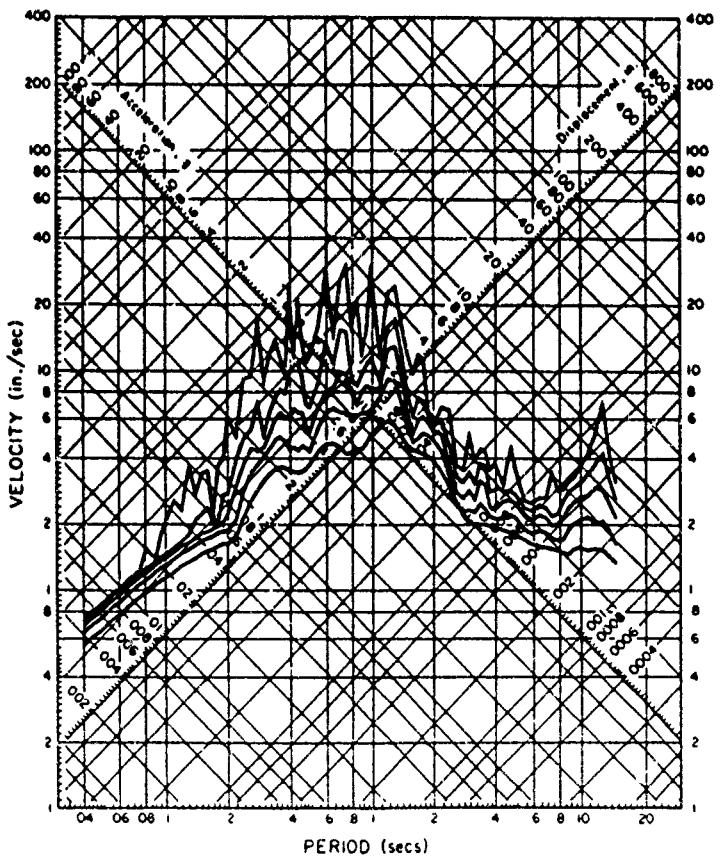
FERNDALE CITY HALL
111A009 54.004.0
COMP N46W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

EUREKA EARTHQUAKE
DEC 21, 1954 - 1156 PST

***CAL 10***




CIT EERL 75-51

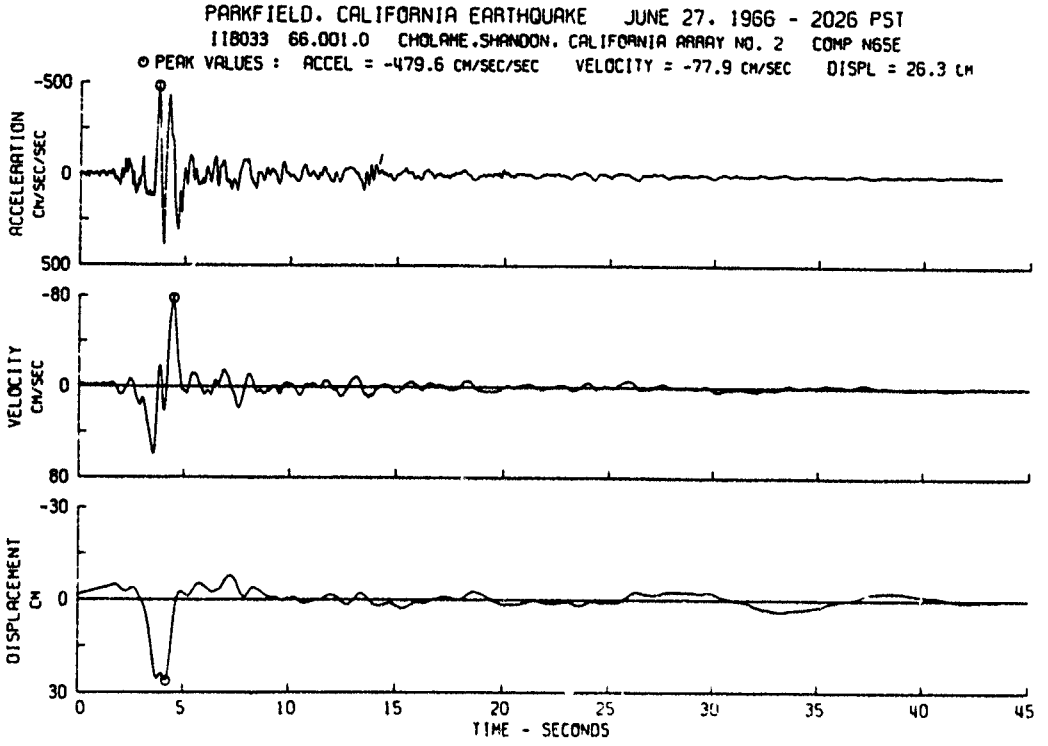



CIT EERL 75-81

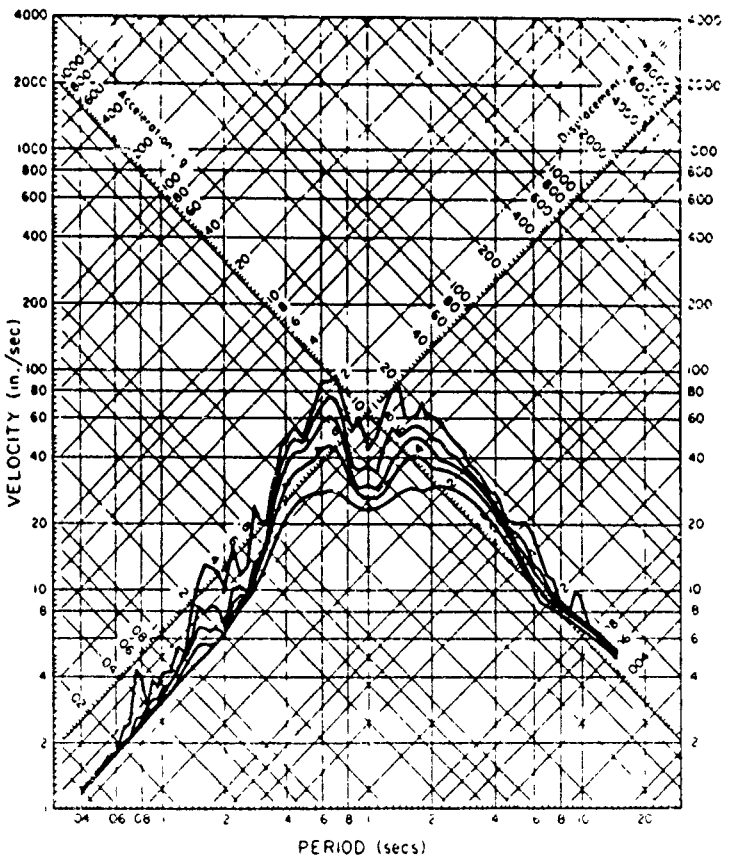
PUBLIC LIBRARY. HOLLISTER. CALIFORNIA
IIIU309 61.002.0 COMP N89W
DAMPING VALUES ARE
0. 2. 5. 10 AND 20 PERCENT OF CRITICAL

CENTRAL CALIFORNIA EQ. AFTERSHOCK
APR 8. 1961 - 2325 PST

***CAL 12***




CIT EERL 72-50

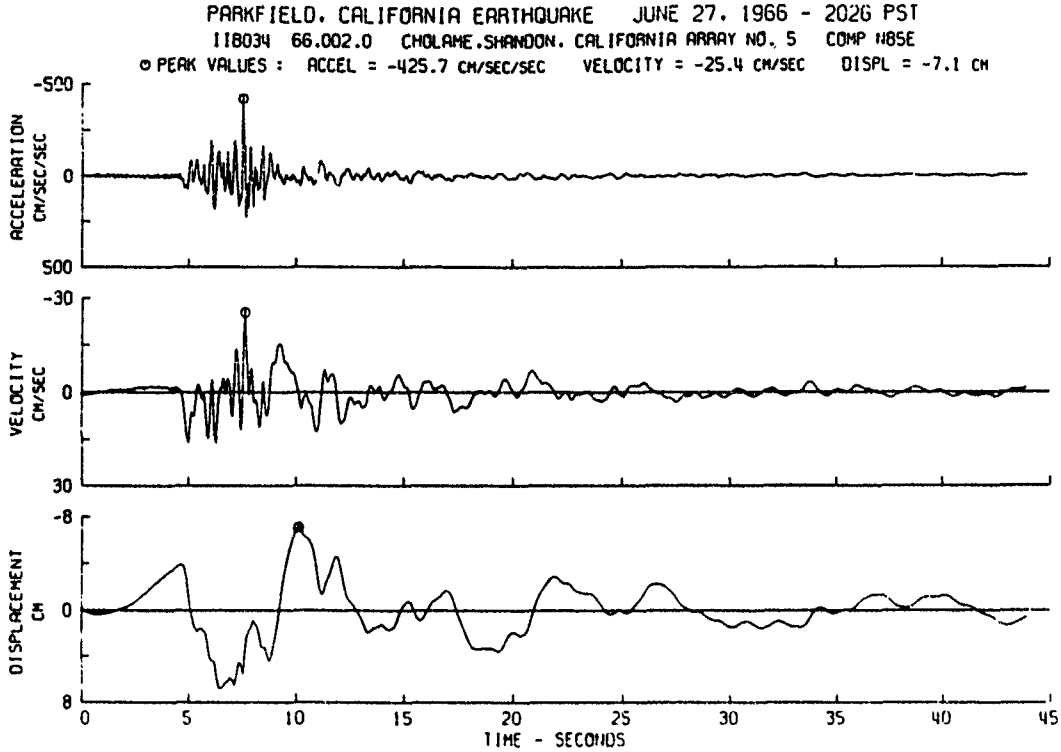



CIT EERL 73-80

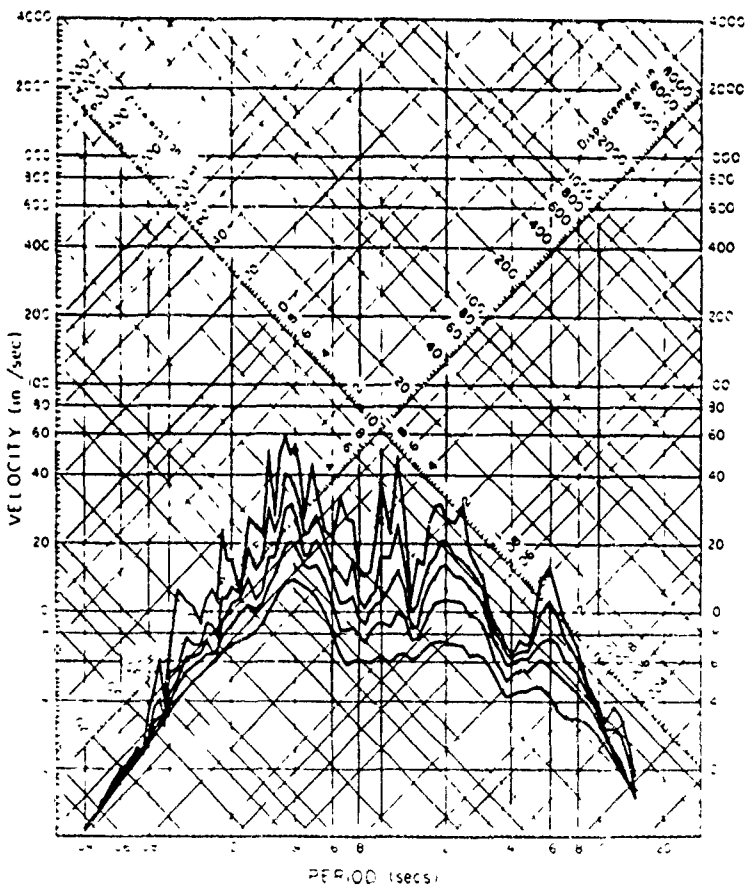
CHOLAME.SHANDON. CALIFORNIA ARRAY NO. 2
IIIB033 66.001.0 COMP N65E
DAMPING VALUES ARE
0. 2. 5. 10 AND 20 PERCENT OF CRITICAL

PARKFIELD. CALIFORNIA EARTHQUAKE
JUNE 27. 1966 - 2026 PST

***CAL 13***




CIT EERL 72-50

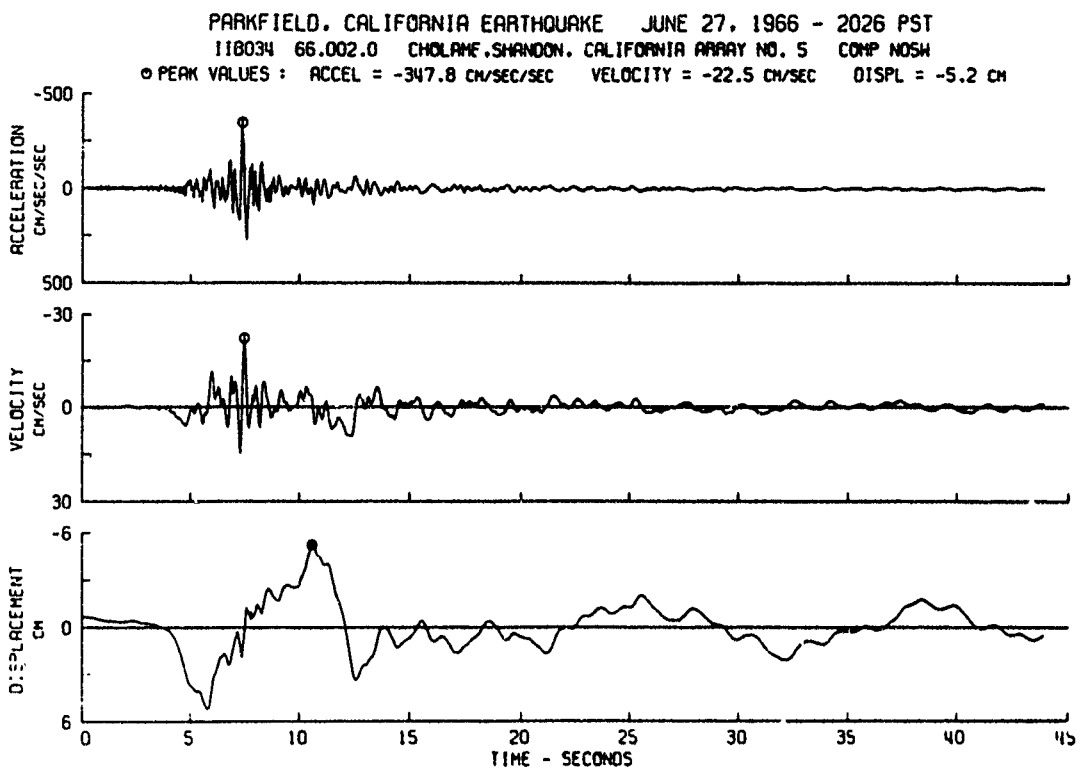



CIT EERL 73-80

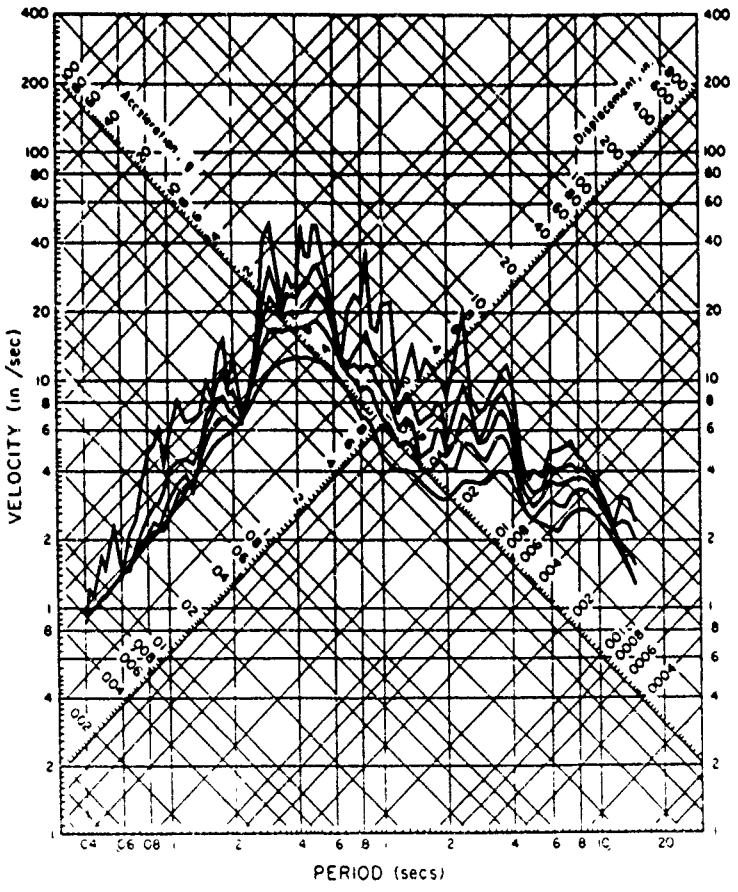
CHOLAME.SHANDON
CALIFORNIA ARRAY NO. 5
1118034 66.002.0 COMP N85E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

PARKFIELD, CALIFORNIA EARTHQUAKE
JUNE 27, 1966 - 2026 PST

***CAL 14***




CIT EERL 72-50

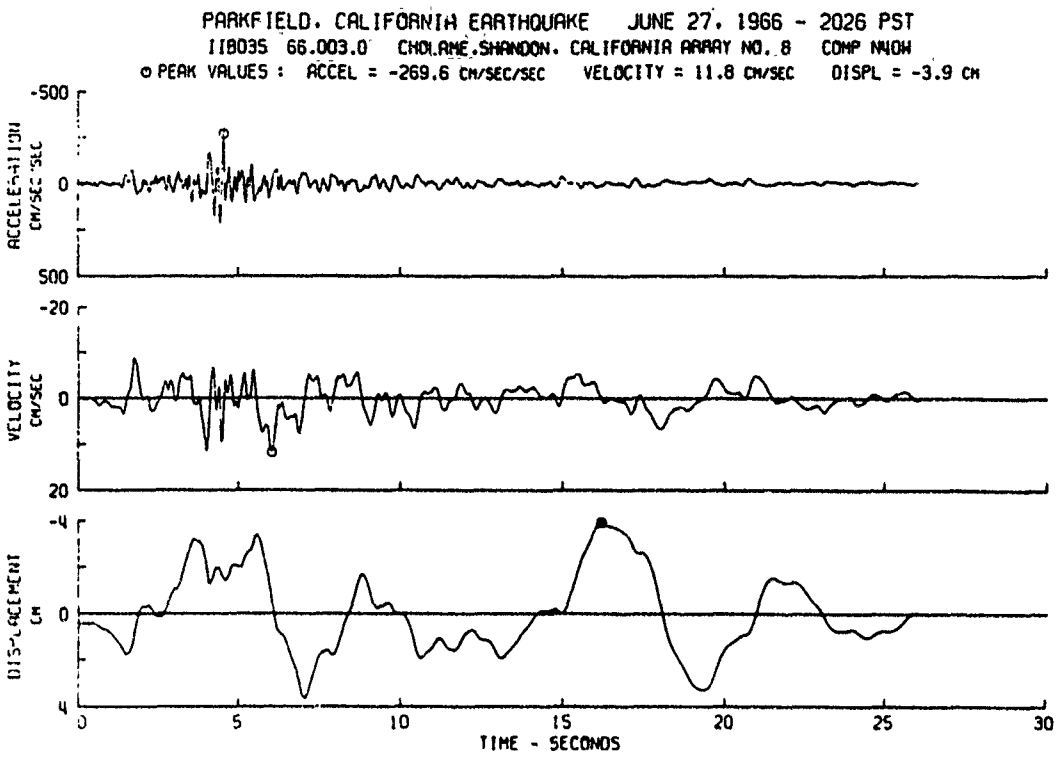



CIT EERL 73-80

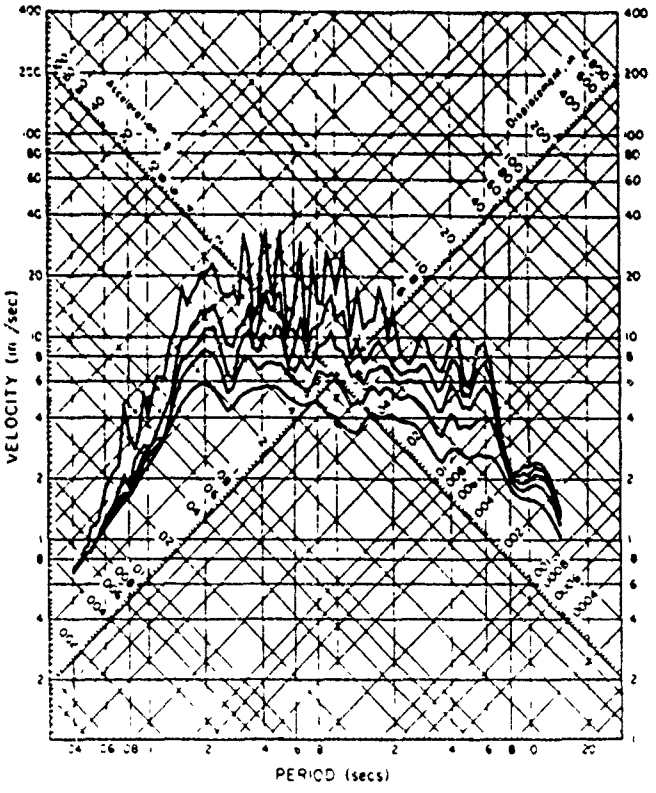
CHOLAME.SHANDON
CALIFORNIA ARRAY NO. 5
1118034 66.002.0 COMP N05W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

PARKFIELD, CALIFORNIA EARTHQUAKE
JUNE 27, 1966 - 2026 PST

***CAL 15***




CIT EERL 72-50

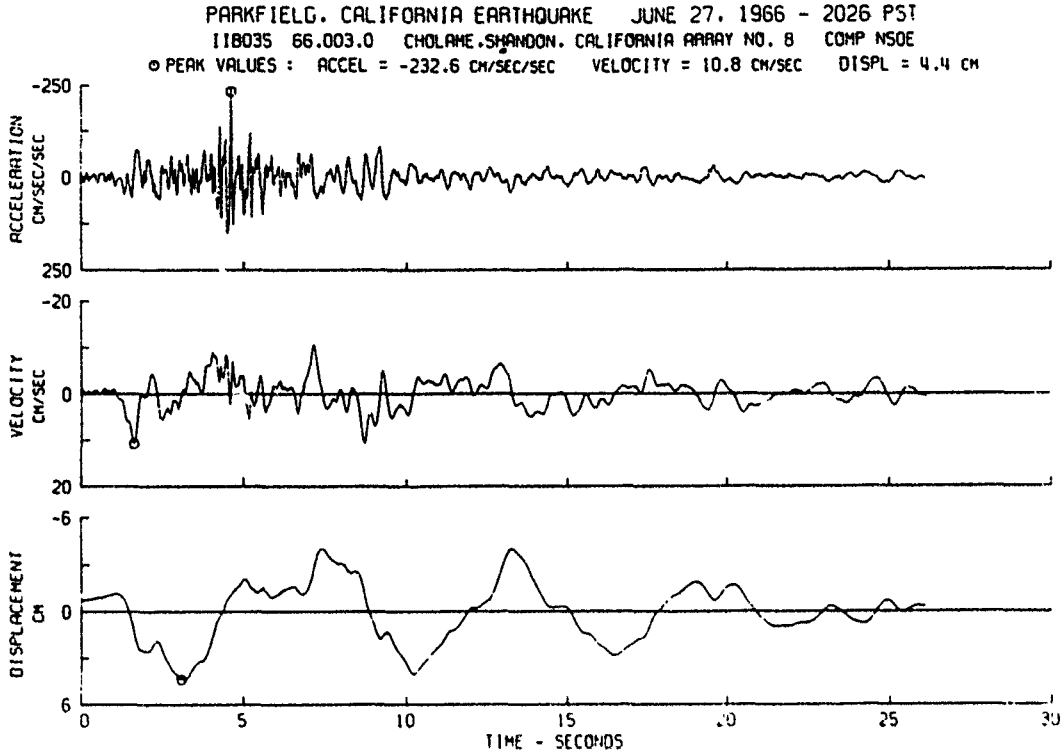



CIT EERL 73-80

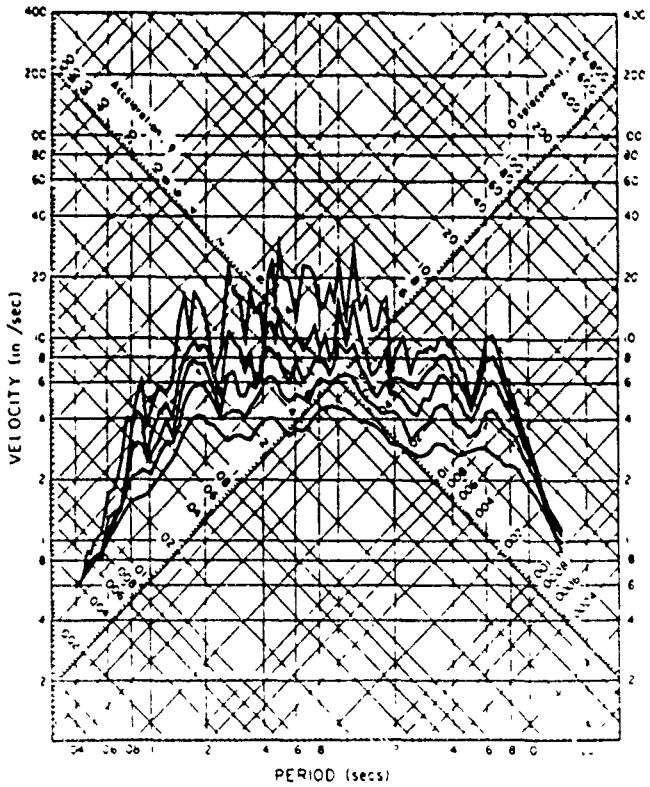
CHOLAME.SHANDON
CALIFORNIA ARRAY NO. 8
1IB035 66.003.0 COMP N40W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

PARKFIELD, CALIFORNIA EARTHQUAKE
JUNE 27, 1966 - 2026 PST

***CAL 16***




CIT EERL 72-50



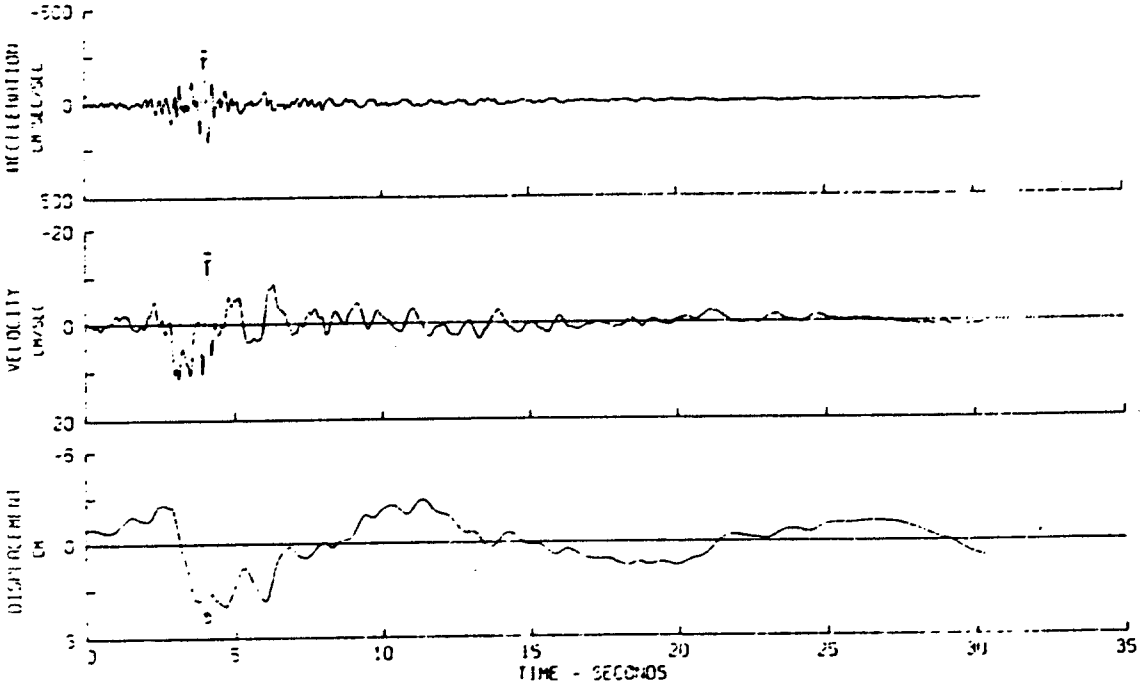

CIT EERL 73-80

CHOLAME.SHANDON
CALIFORNIA ARRAY NO. 8
IIIB035 66.003.0 COMP N50E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

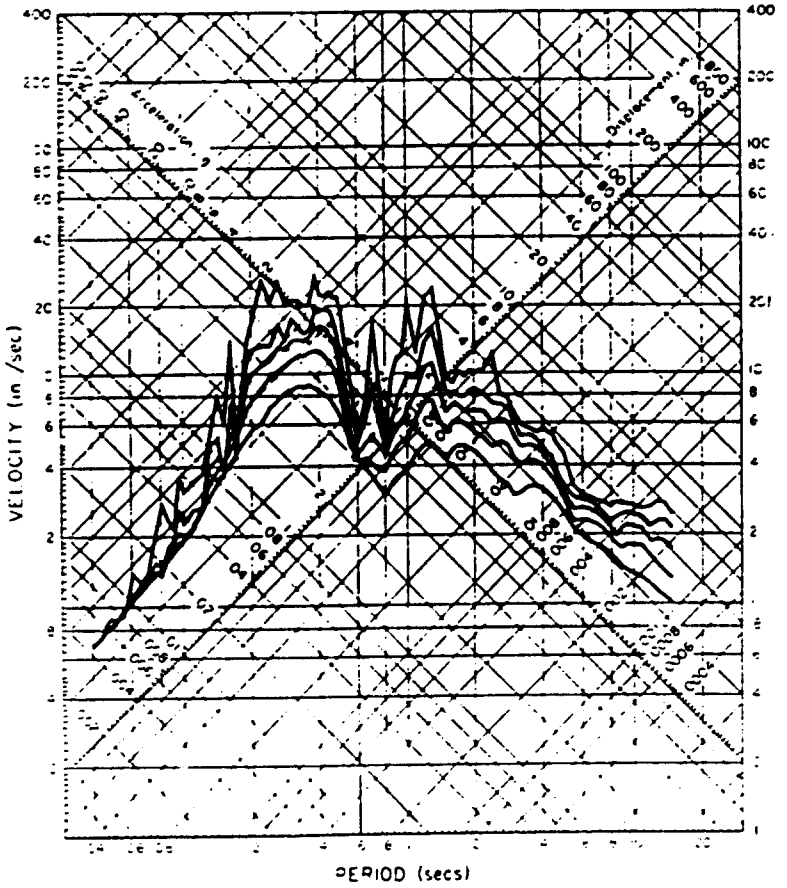
PARKFIELD, CALIFORNIA EARTHQUAKE
JUNE 27, 1966 - 2026 PST

***CAL 17***

PARKFIELD, CALIFORNIA EARTHQUAKE JUNE 27, 1966 - 2026 PST
1118037 66.005.0 TEMBLOR, CALIFORNIA NO. 2 COMP N65W
PEAK VALUES : ACCEL = -264.3 CM/SEC/SEC VELOCITY = -14.5 CM/SEC DISPL = 4.7 CM




CIT EERL 72-50




CIT EERL 73-80

1118037 66.005.0 TEMBLOR, CALIFORNIA NO. 2

COMP N65W

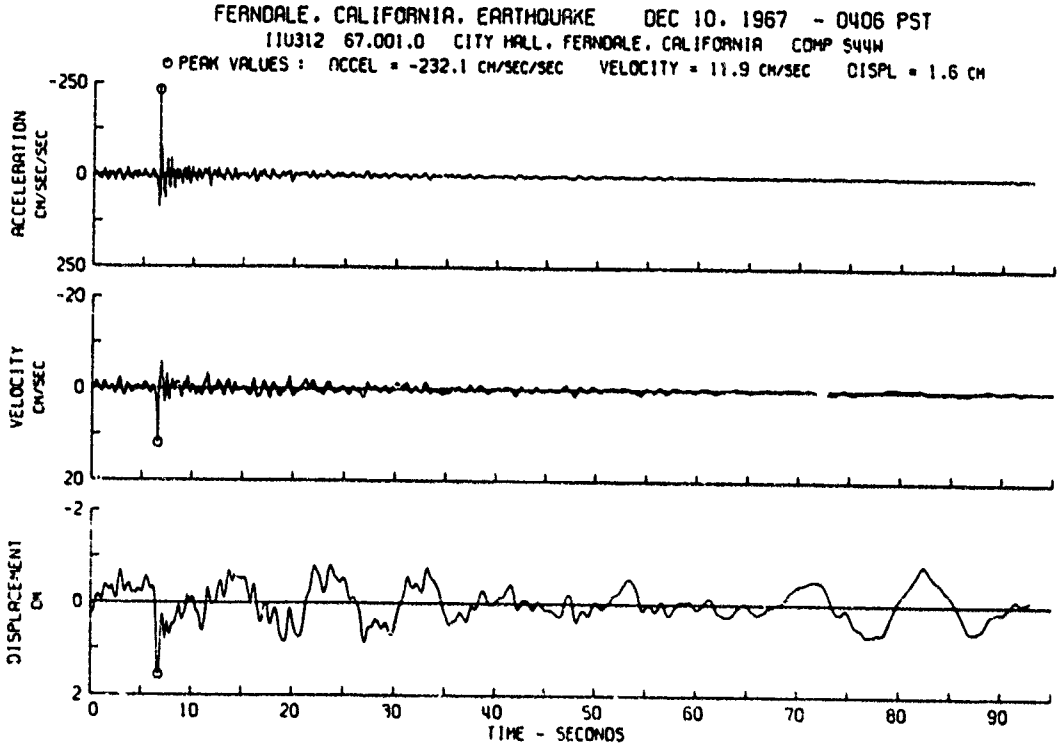
DAMPING VALUES ARE

0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

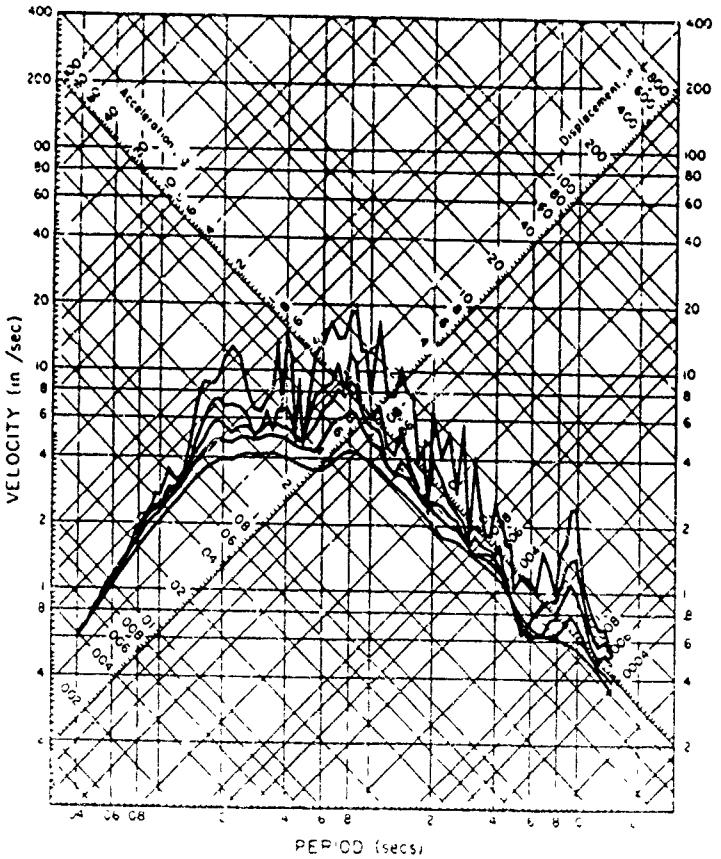
PARKFIELD, CALIFORNIA EARTHQUAKE

JUNE 27, 1966 - 2026 PST

**CAL 19**




CIT EERL 75-51

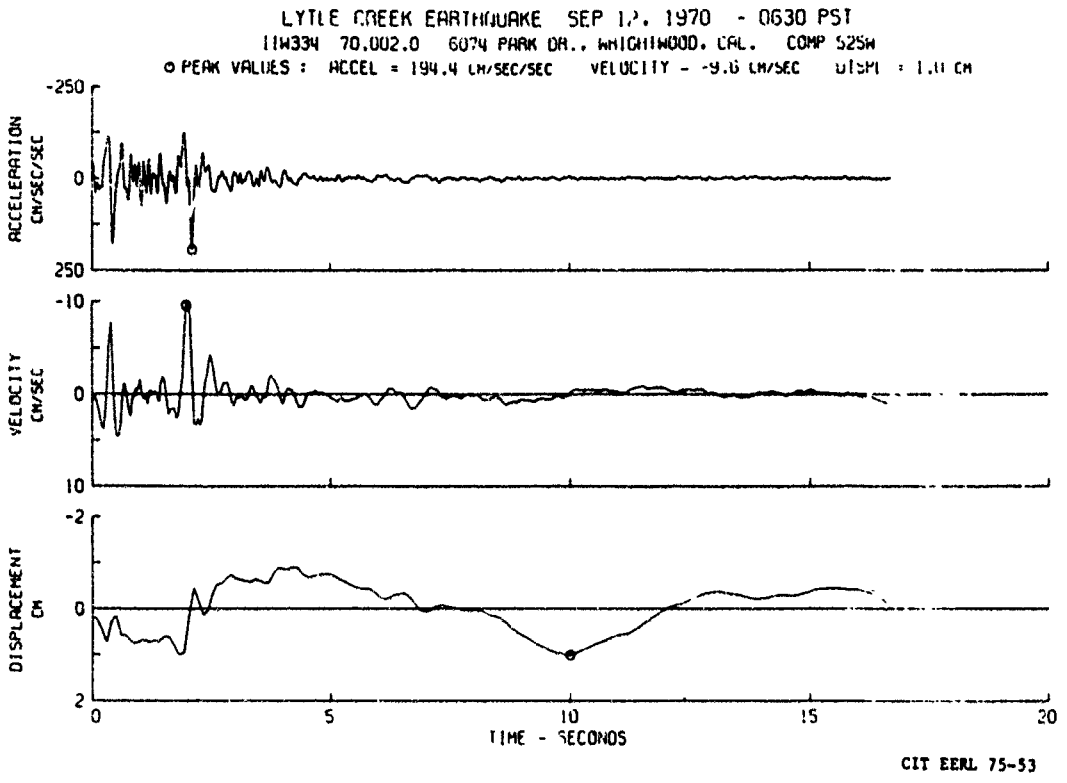



CIT EERL 75-81

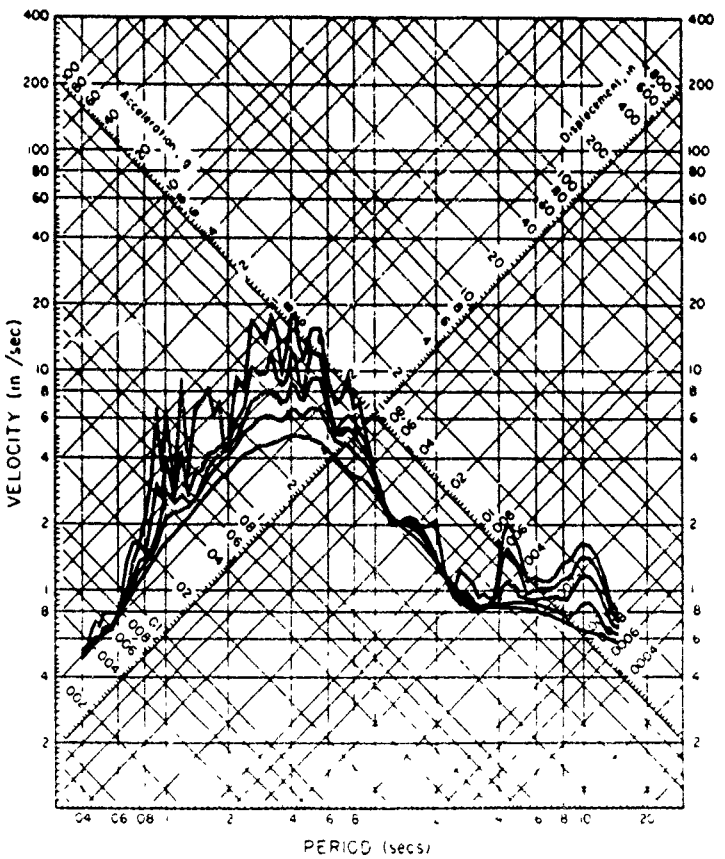
CITY HALL, FERNDALE, CALIFORNIA
I1U312 67.001.0 COMP S44W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

FERNDALE, CALIFORNIA, EARTHQUAKE
DEC 10, 1967 - 0406 PST

***CAL 20***




CIT EERL 75-53




CIT EERL 75-83

IIW334 70.002.0 6074 PARK DR., WRIGHTWOOD, CAL.

COMP S25W

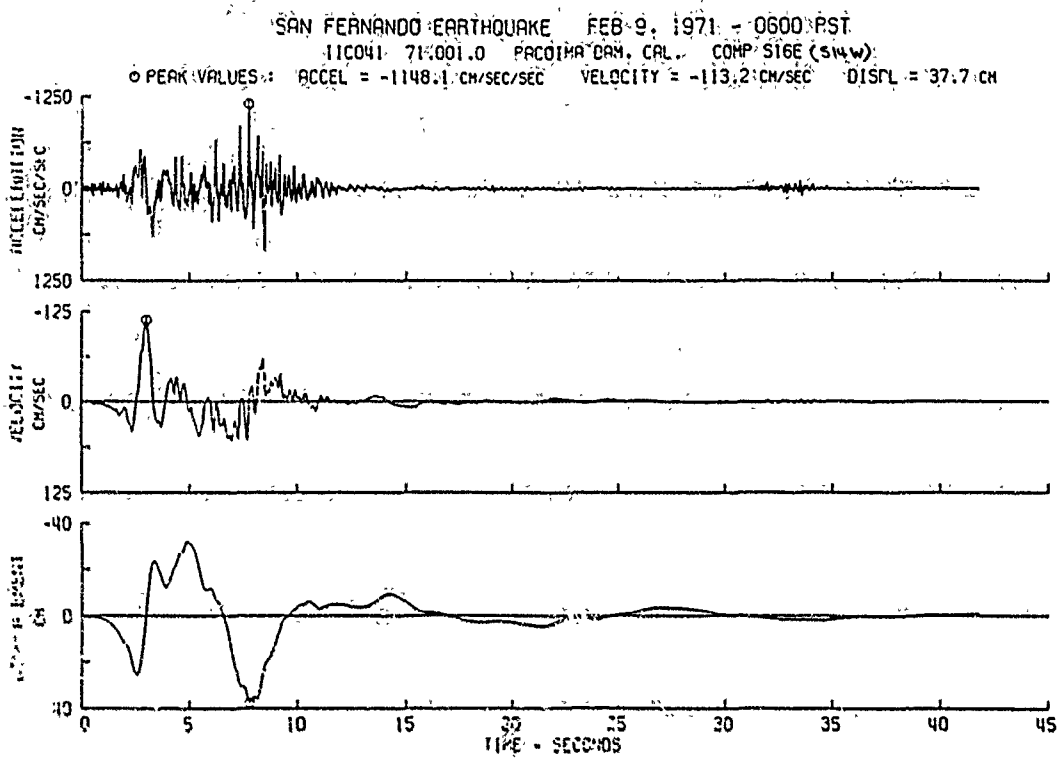
DAMPING VALUES ARE

0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

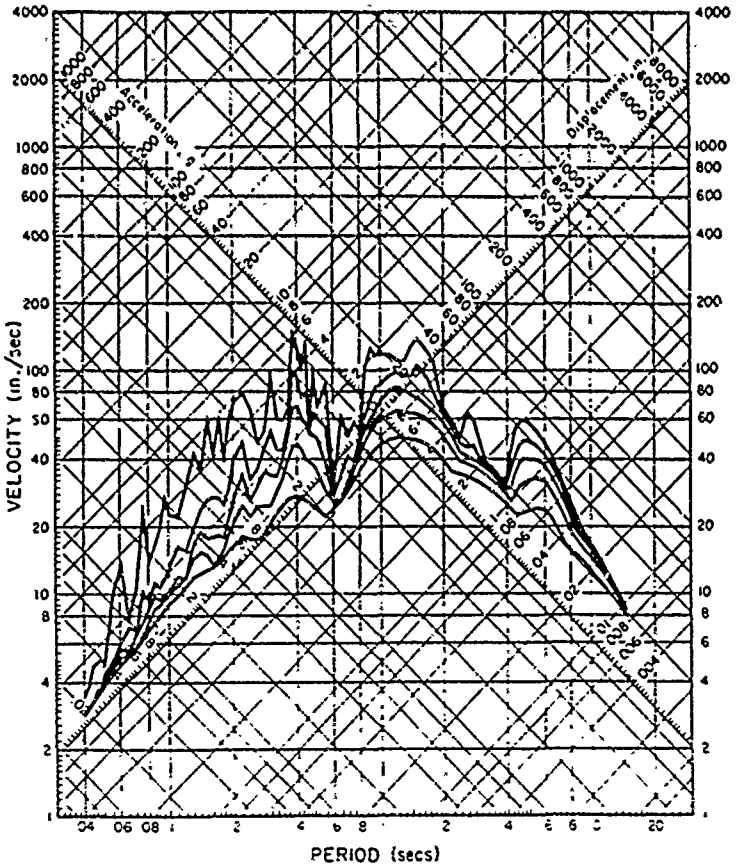
LYTLE CREEK EARTHQUAKE

SEP 12, 1970 - 0630 PST

**CAL 21**




CIT EERL 72-51




CIT EERL 73-81

IIICO41 71.001.0 PACOIMA DAM, CAL.

COMP S14W

DAMPING VALUES ARE

0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE

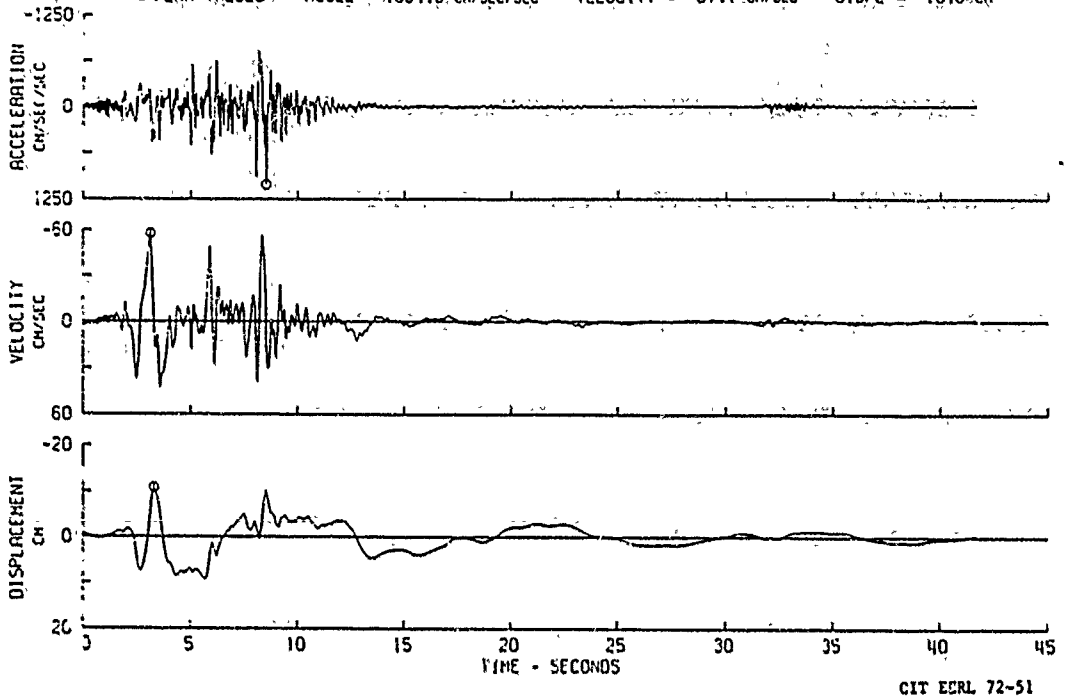
FEB 9, 1971 - 0600 PST

**CAL 22**

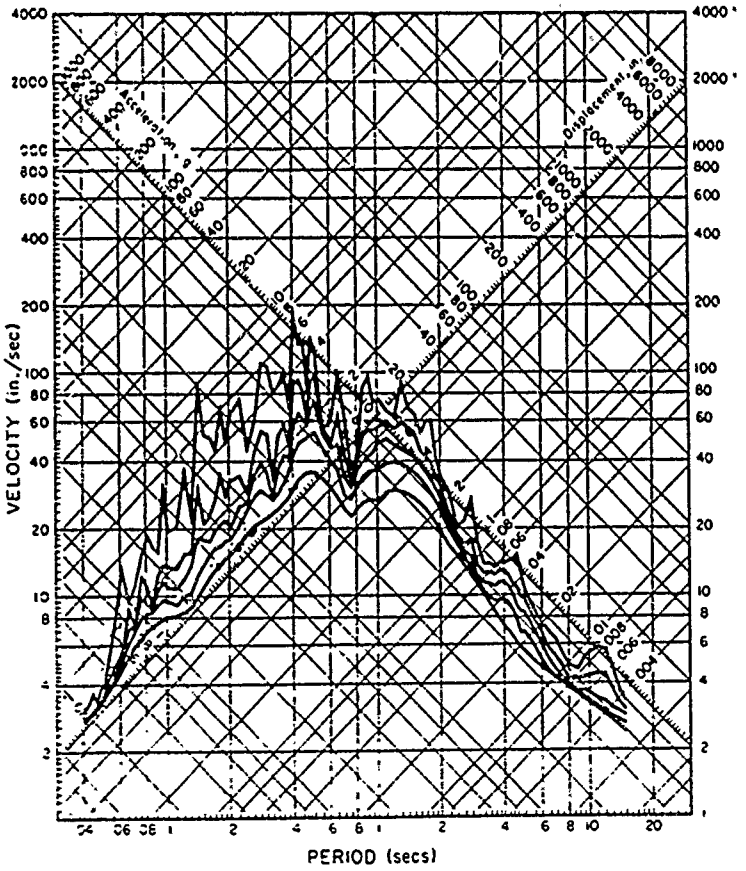
SAN FERNANDO EARTHQUAKE FEB 9, 1971 - 0600 PST

IIICOR1 71.001.0 PACOIMA DAM, CAL. COMP S74W (N76W)

PEAK VALUES : ACCEL = 1054.9 CM/SEC/SEC VELOCITY = -57.7 CM/SEC DISPL = -10.8 CM




CIT EERL 72-51




CIT EERL 73-81

IIICOR1 71.001.0 PACOIMA DAM, CAL.

COMP N76W

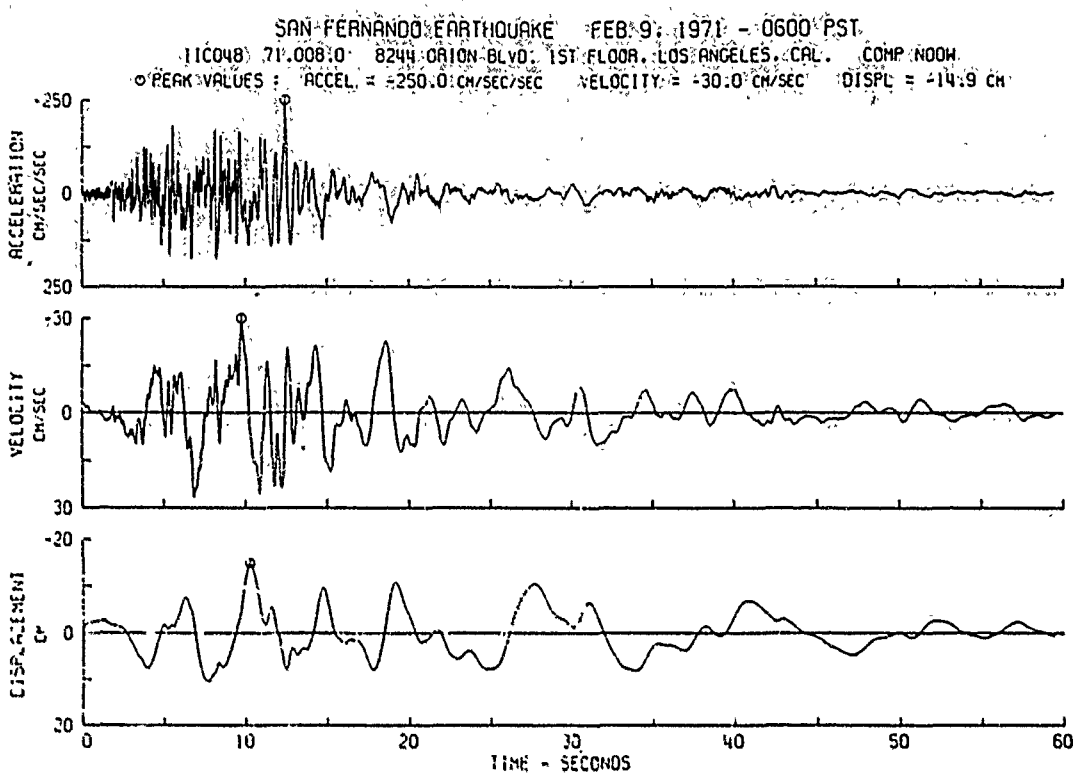
DAMPING VALUES ARE

0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

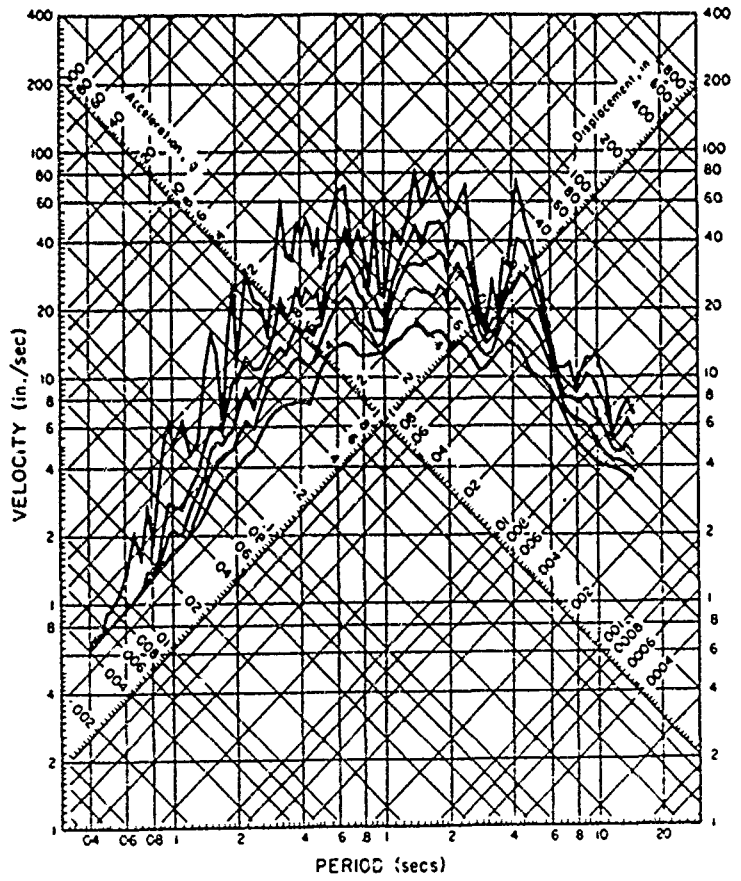
SAN FERNANDO EARTHQUAKE

FEB 9, 1971 - 0600 PST

***CAL 23***




CIT EERL 72-81

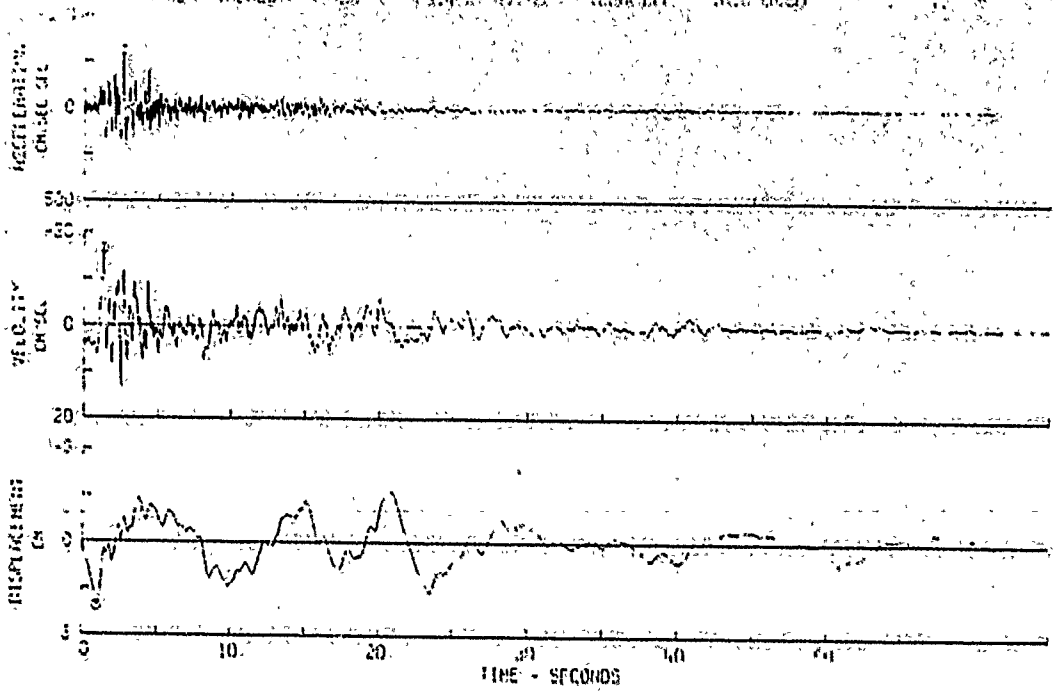



CIT EERL 73-81

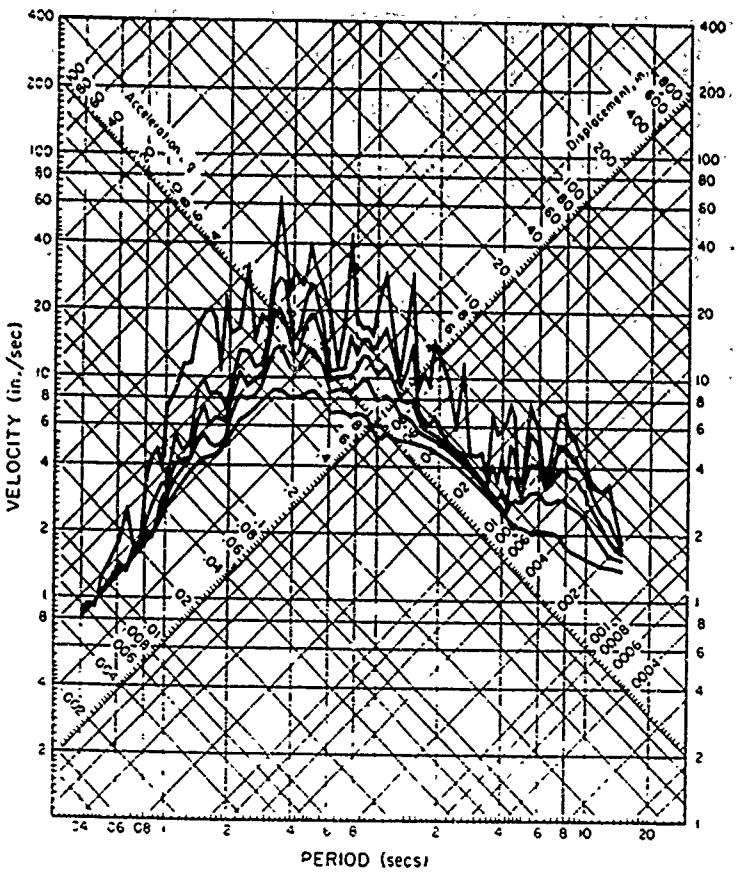
8244 ORION BLVD. 1ST FLOOR
LOS ANGELES, CAL.
IIIC048 71.008.0 COMP NOOW
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 24***




CIT EERL 72-52




CIT EERL 73-82

III0058 71.007.0 CASTAIC OLD RIDGE ROUTE, CAL.

COMP N21E.

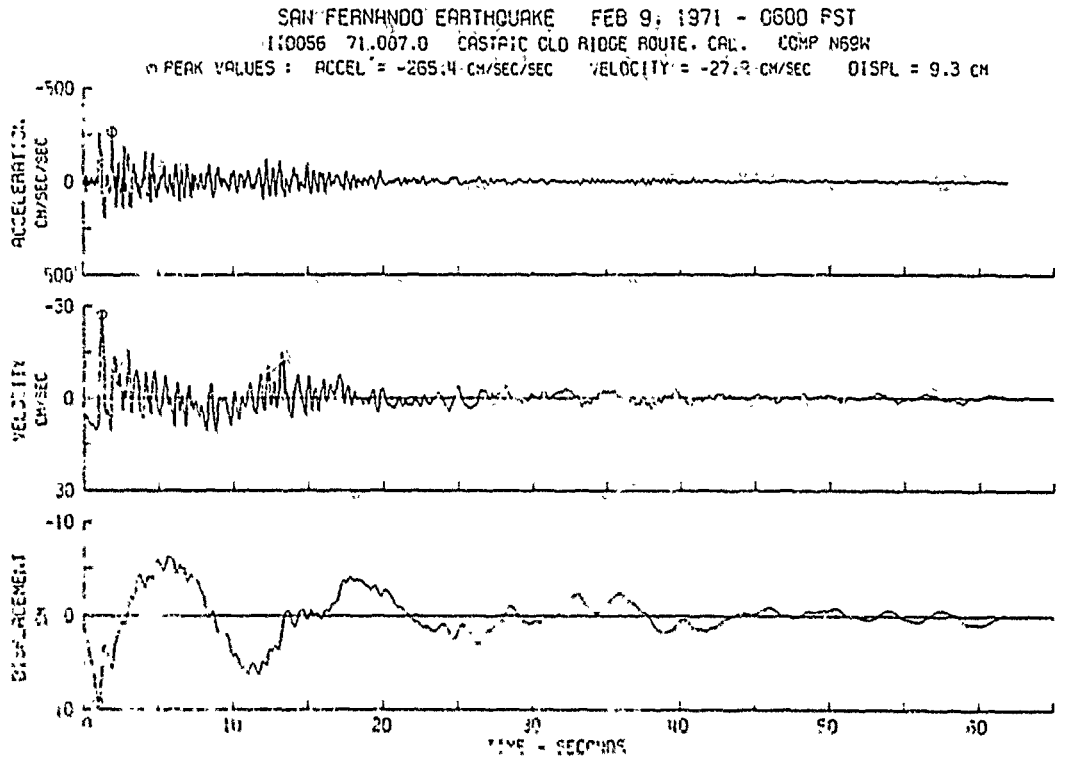
DAMPING VALUES ARE

0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

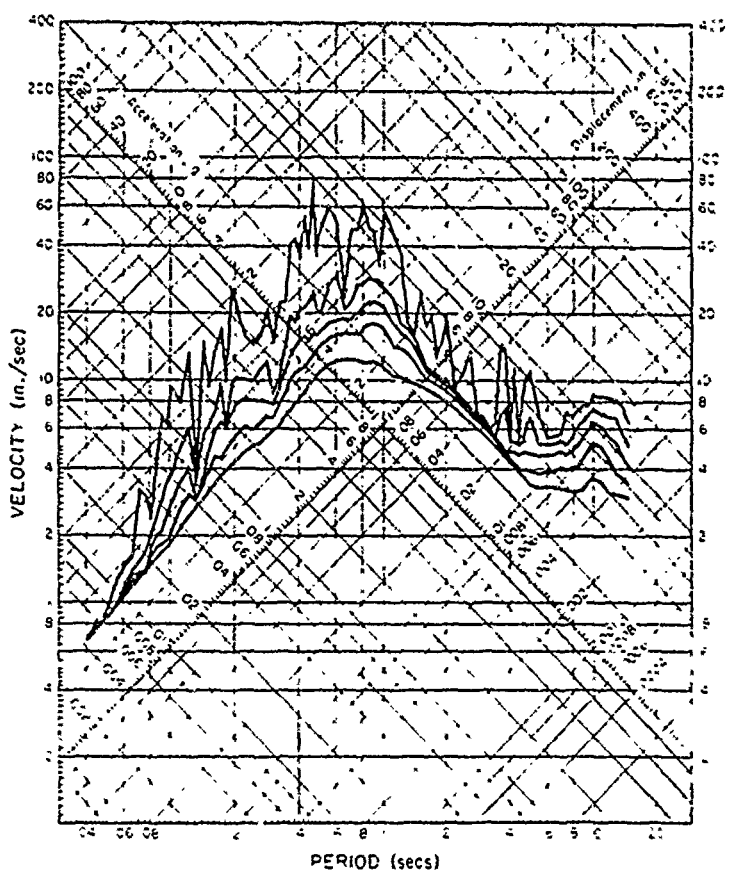
SAN FERNANDO EARTHQUAKE

FEB 9, 1971 - 0600 PST

**CAL 25**




CIT EERL 72-52




CIT EERL 73-82

1110056 71.007.0 CASTAIC OLD RIDGE ROUTE, CAL.

COMP N69W.

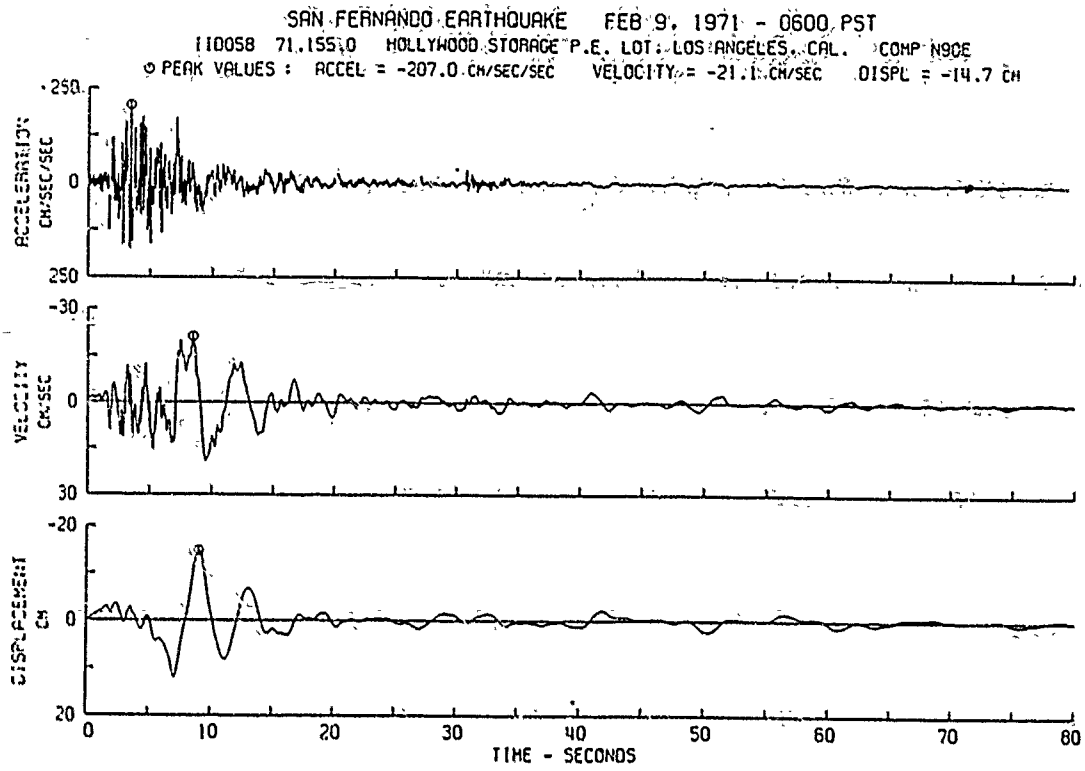
DAMPING VALUES ARE

0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

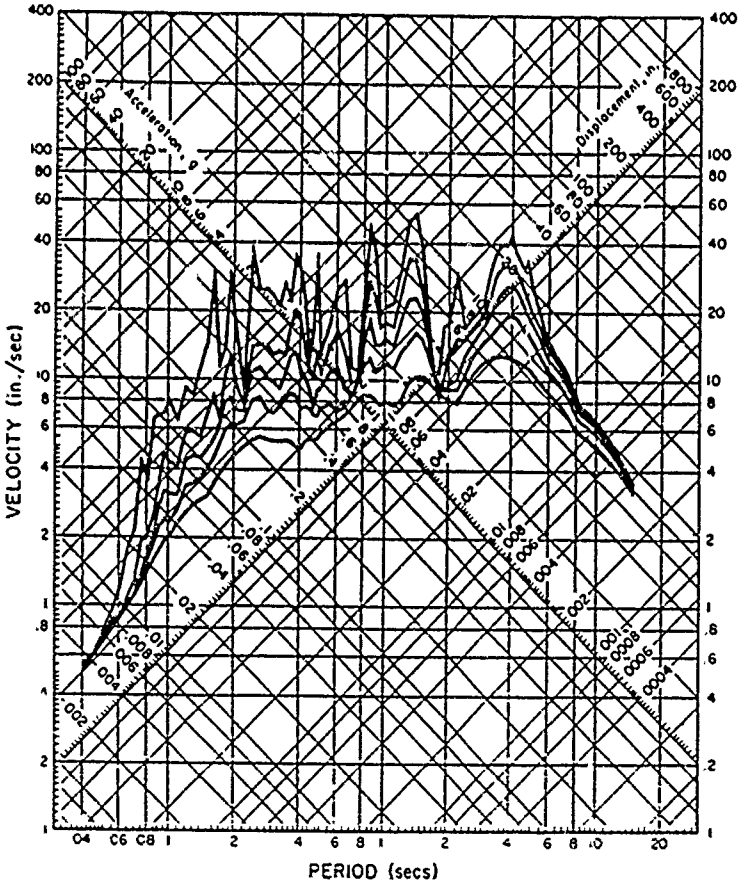
SAN FERNANDO EARTHQUAKE

FEB 9, 1971 - 0600 PST

**CAL 26**




CIT EERL 72-52

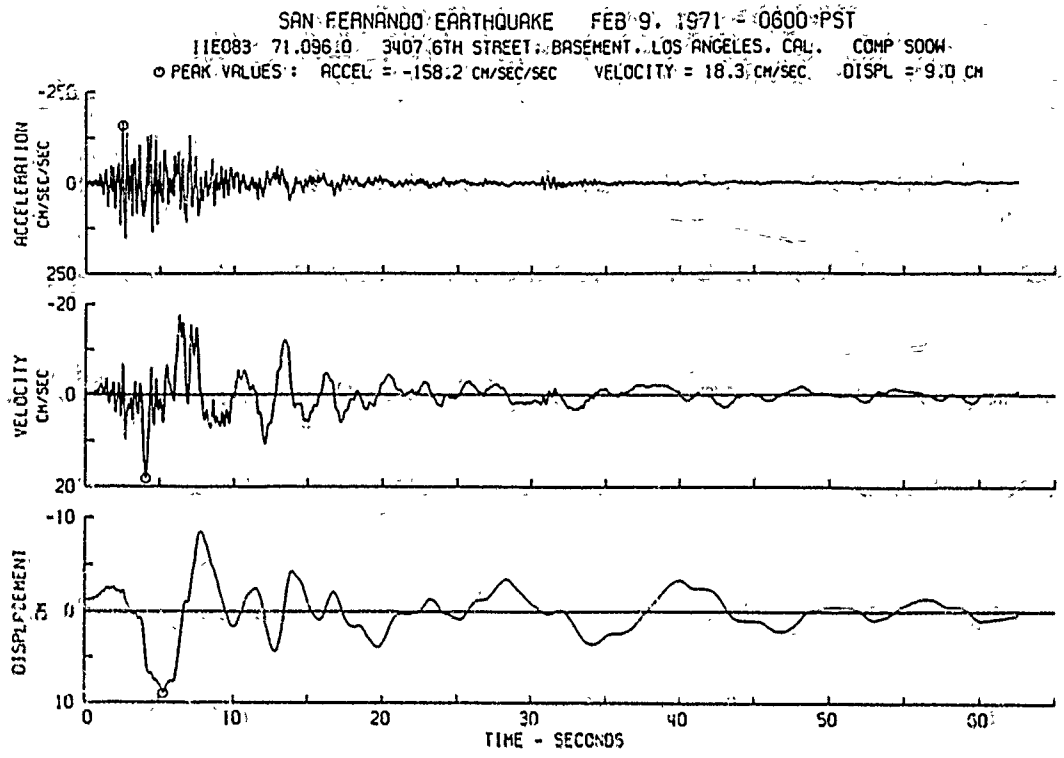



CIT EERL 73-82

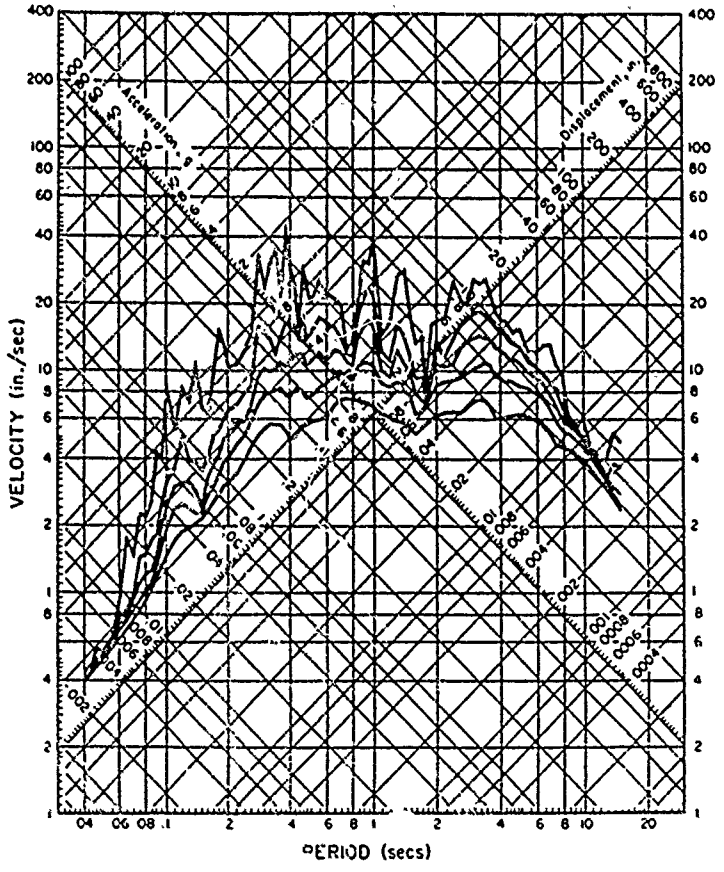
HOLLYWOOD STORAGE P.E. LOT
LOS ANGELES, CAL.
III058 71.155.0 COMP N90E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 27***




CIT EERL 73-50

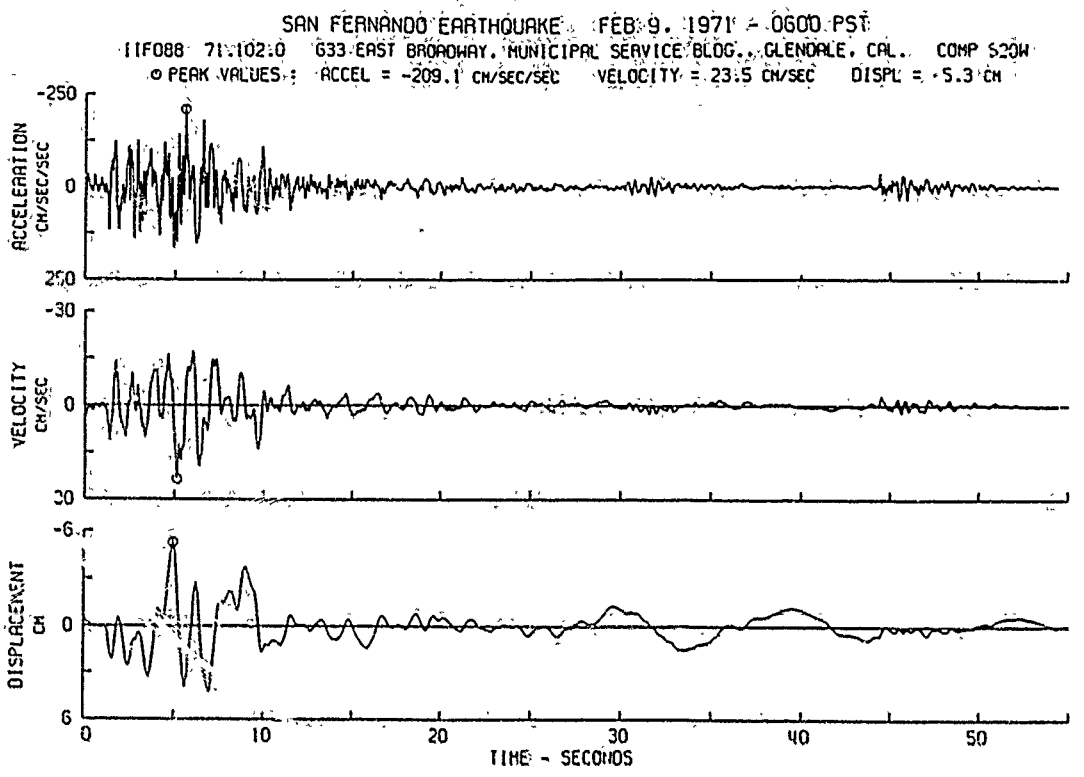



CIT EERL 73-83

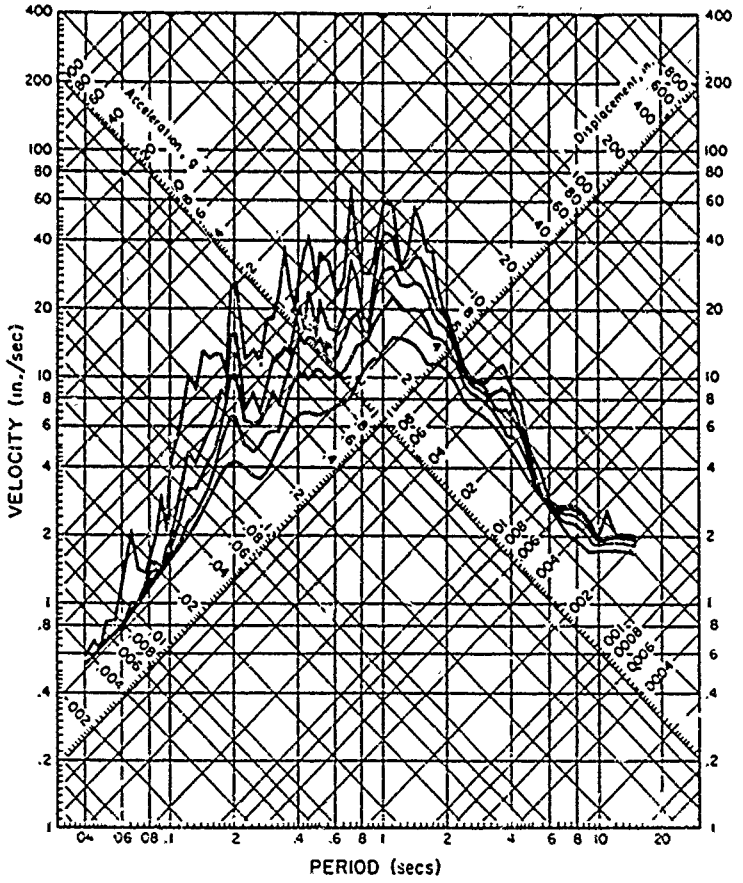
3407 6TH STREET, BASEMENT
LOS ANGELES, CAL.
IIIE083 71.096.0 COMP S00W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 31***




CIT EERL 73-51

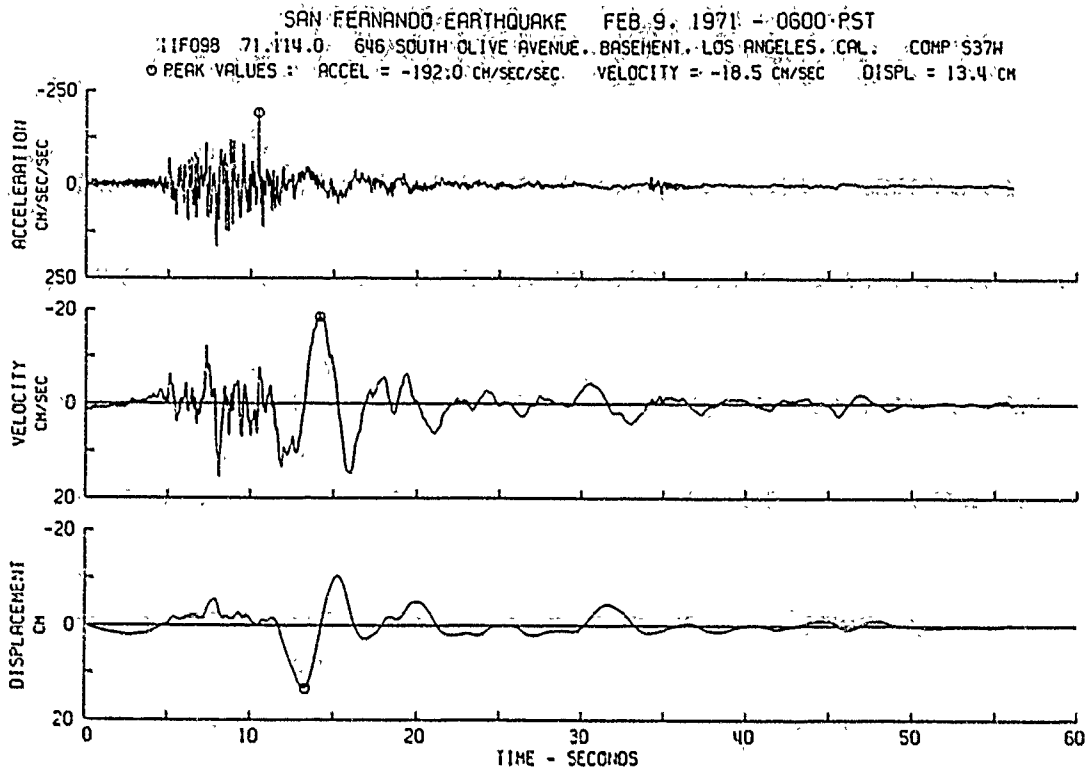



CIT EERL 73-84

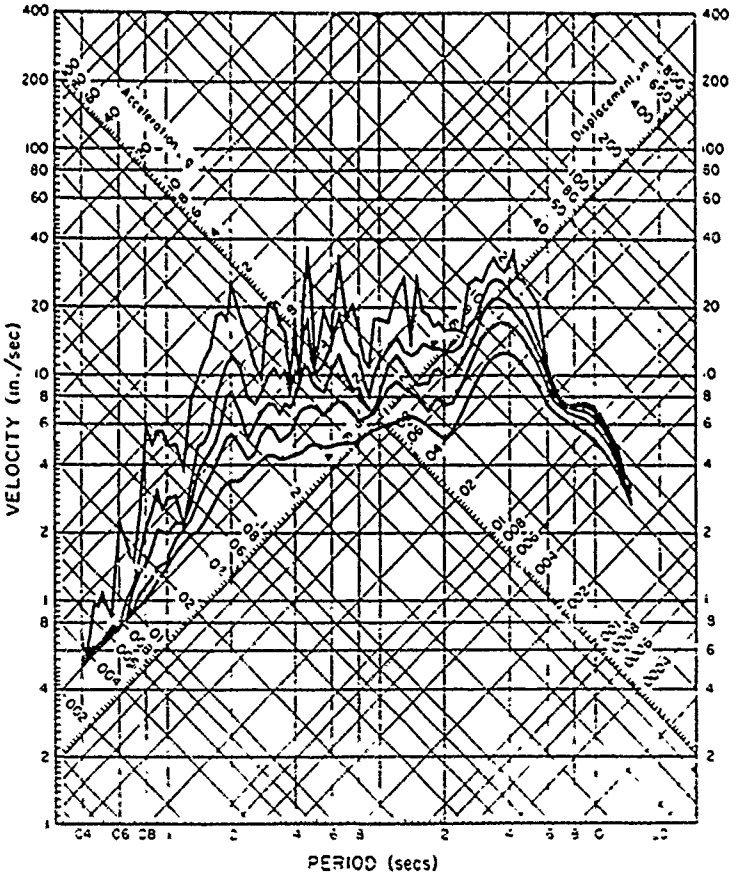
633 EAST BROADWAY
MUNICIPAL SERVICE BLDG., GLENDALE, CAL.
IIIF088 71.102.0 COMP S20W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 33***




CIT EERL 73-51

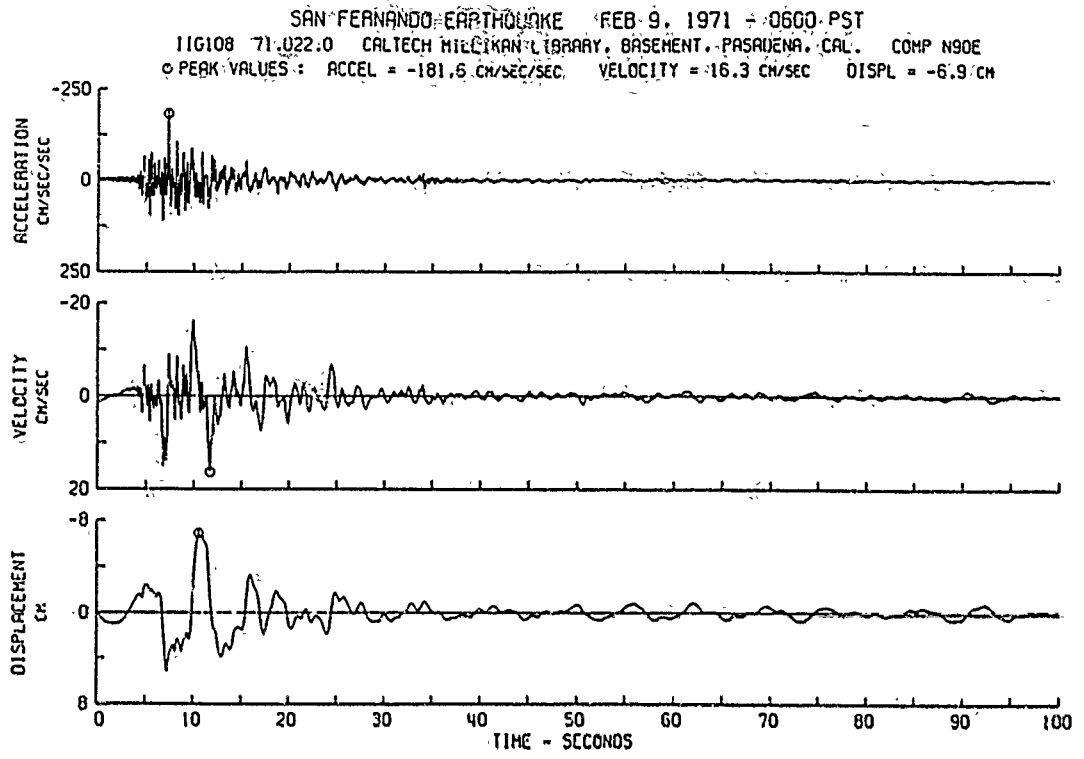



CIT EERL 73-84

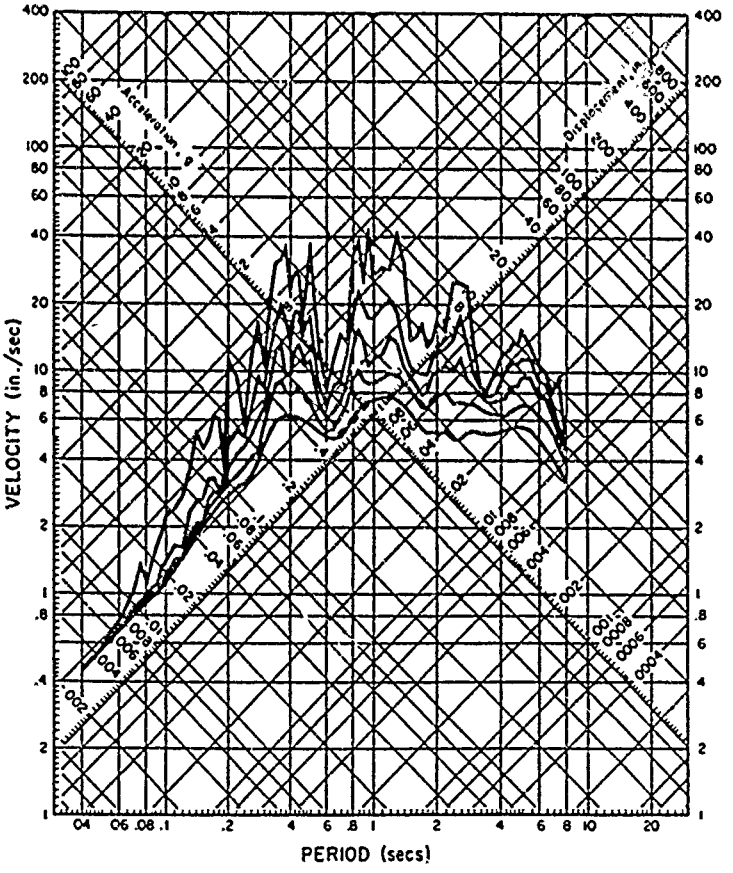
646 SOUTH OLIVE AVENUE, BASEMENT
LOS ANGELES, CAL.
IIIF098 71.114.0 COMP S37W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 35***




CIT EERL 73-52

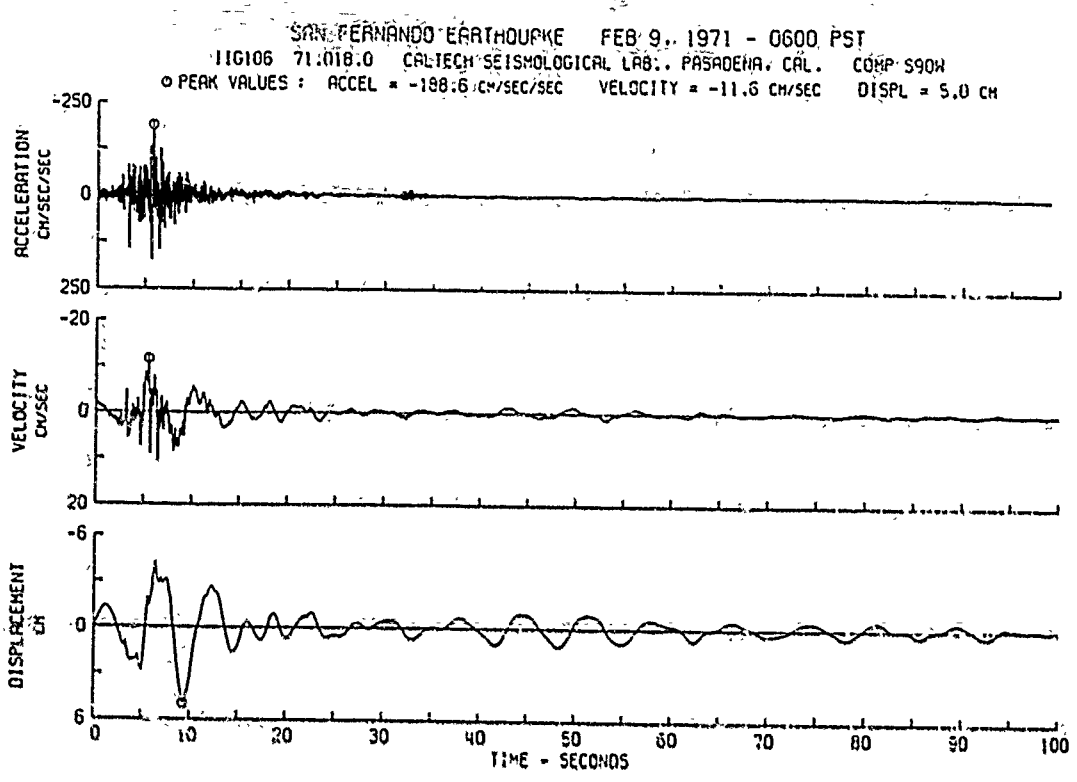



CIT EERL 73-85

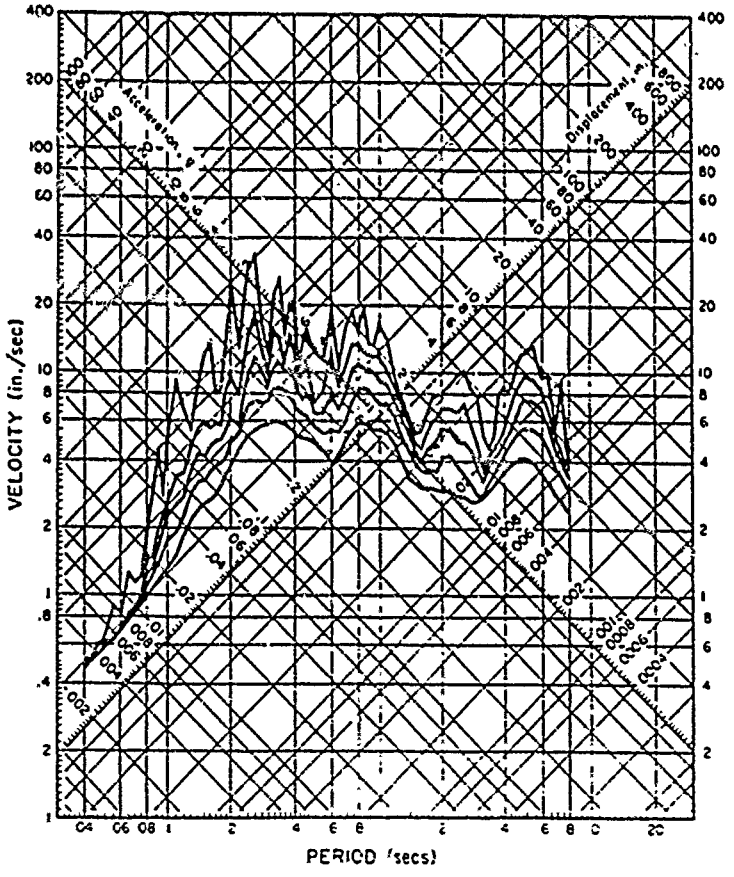
CALTECH MILLIKAN LIBRARY, BASEMENT
PASADENA, CAL.
IIIG108 71.022.0 COMP N90E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 37***




CIT EERL 73-52

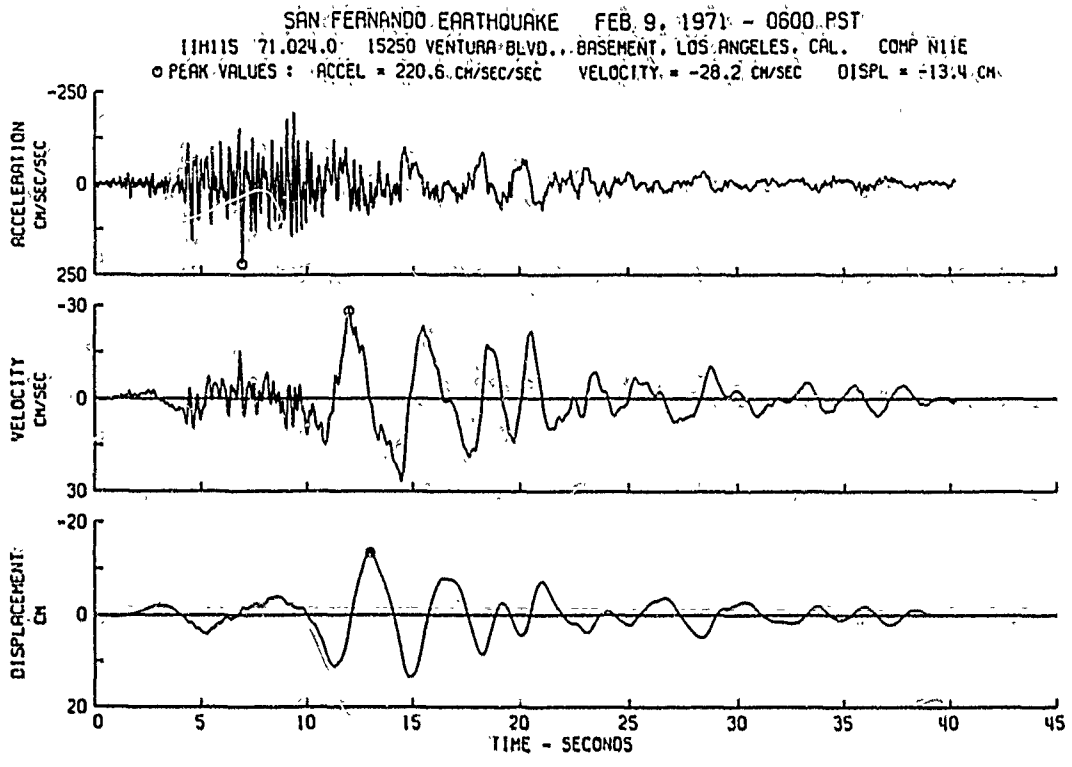



CIT EERL 73-85

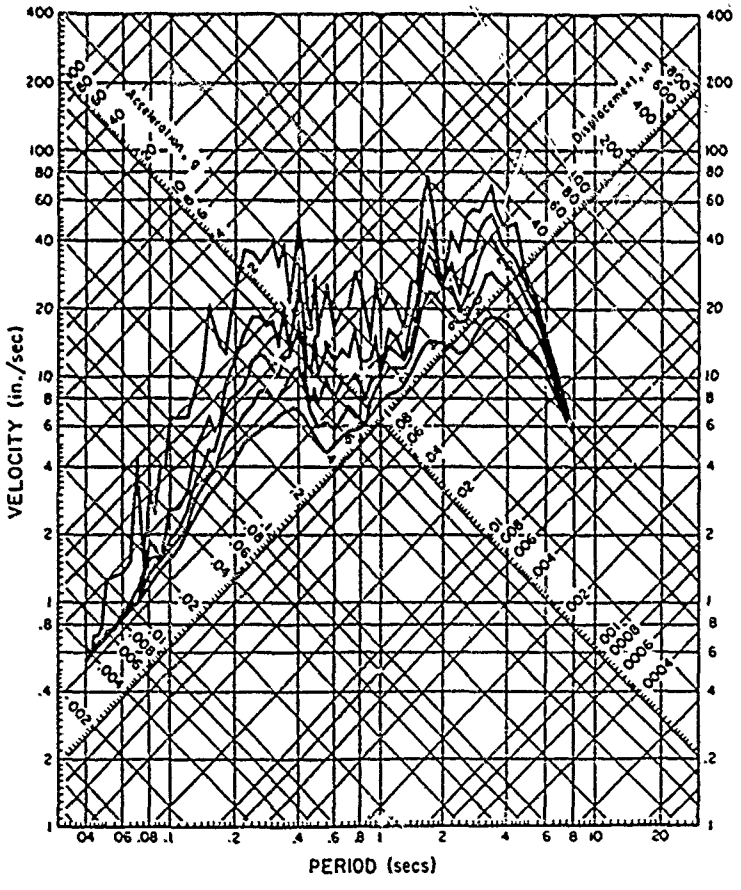
1IG106 71.018.0 CALTECH SEISMOLOGICAL LAB.,
PASADENA, CAL. COMP S90W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

**CAL 38**




CIT EERL 74-50

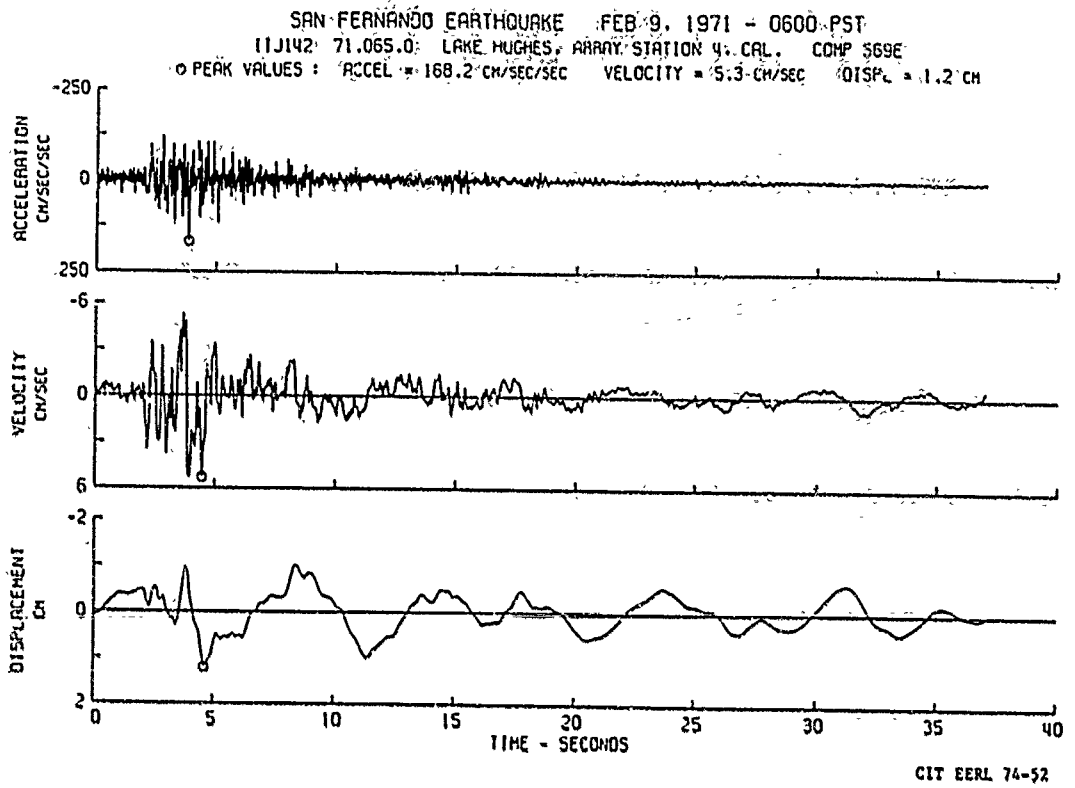



CIT EERL 74-80

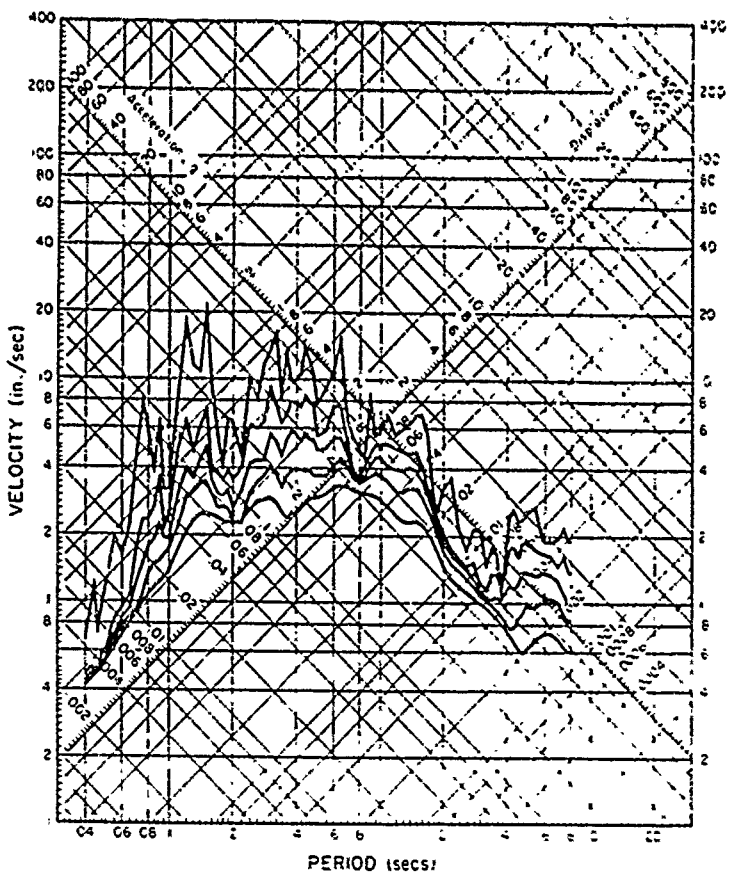
15250 VENTURA BLVD., BASEMENT
LOS ANGELES, CAL.
IIIH115 71.024.0 COMP N11E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 40***




CIT EERL 74-52




CIT EERL 74-82

111J142 71.065.0 LAKE HUGHES, ARRAY STATION 4, CAL.

COMP S69E

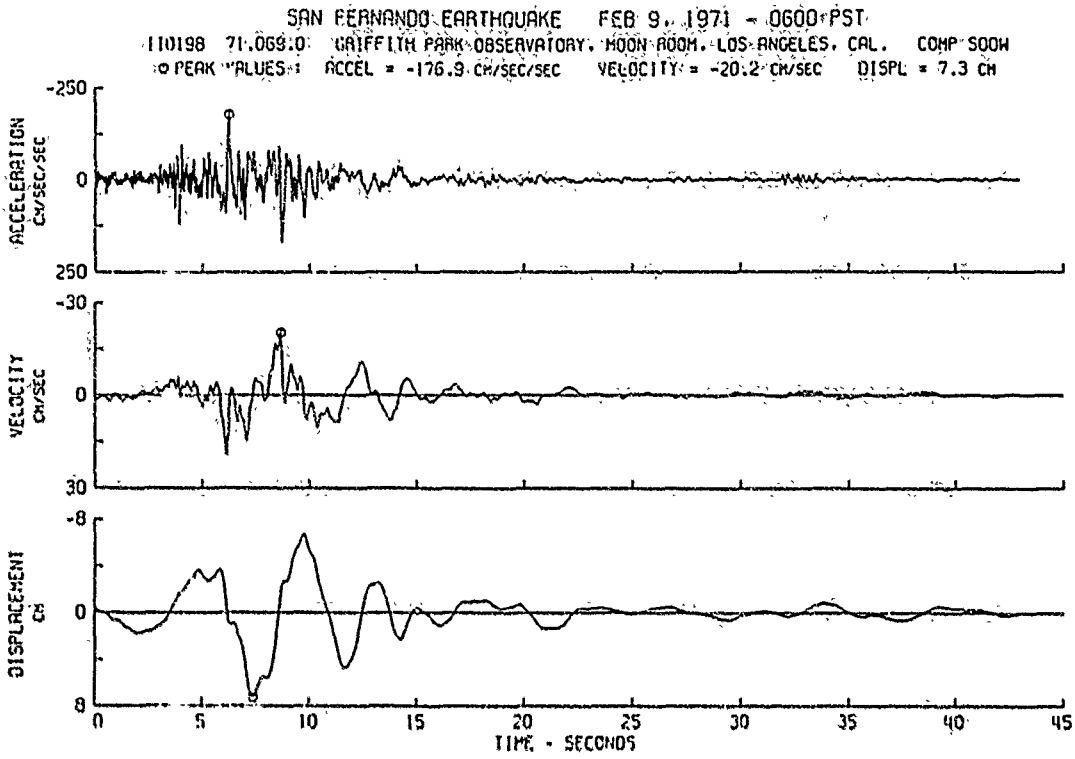
DAMPING VALUES ARE

0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

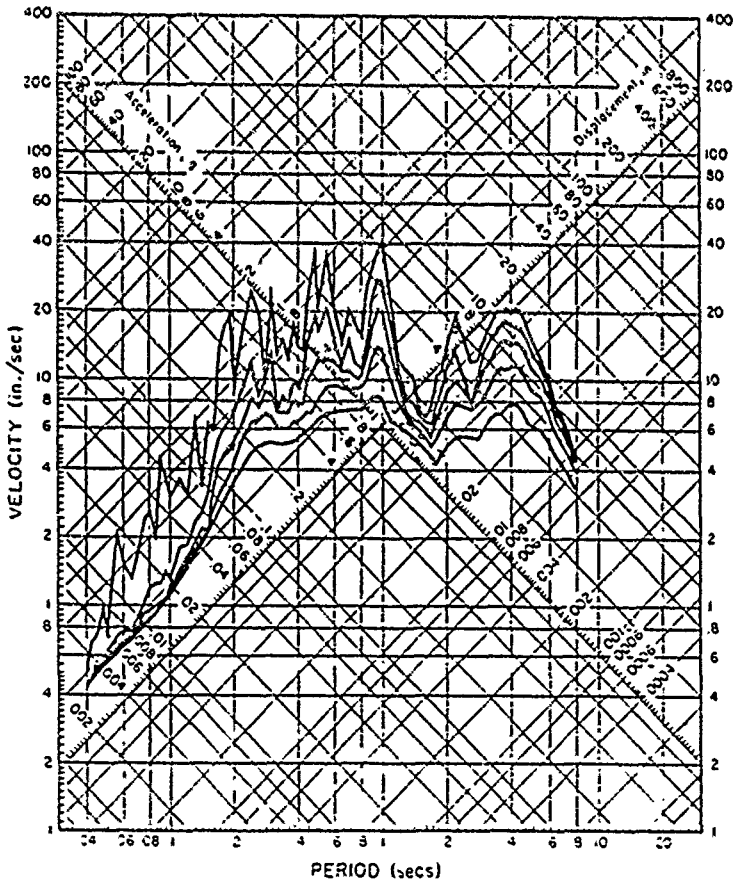
SAN FERNANDO EARTHQUAKE

FEB 9, 1971 - 0600 PST

**CAL 43**




CIT EERL 74-55

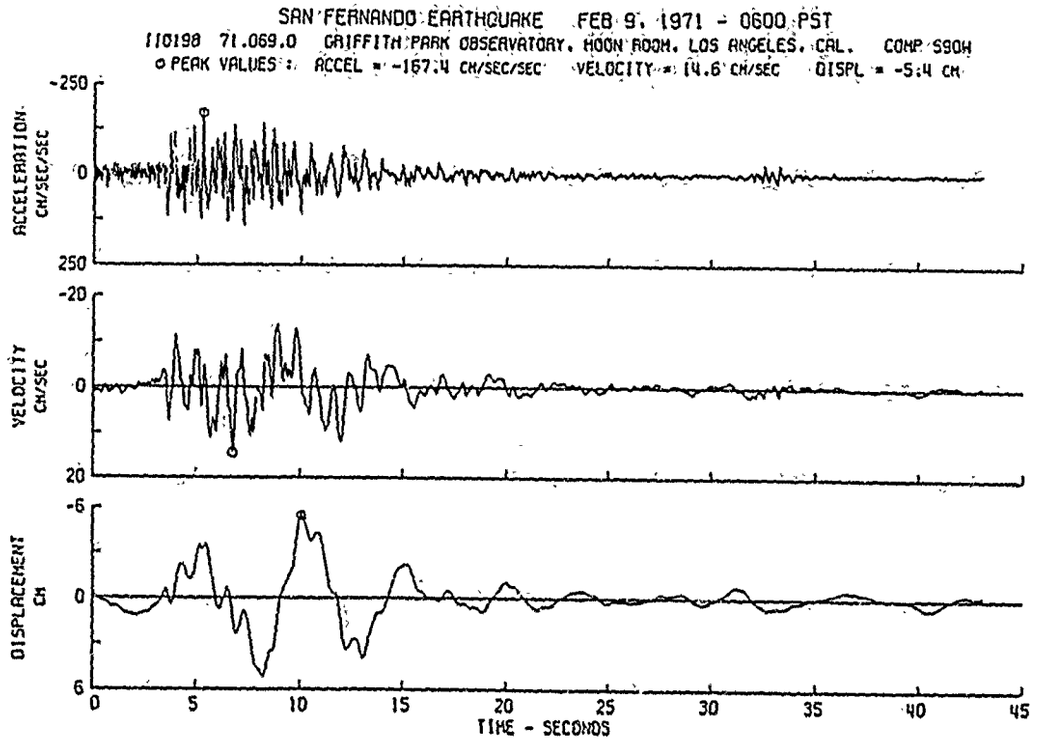



CIT EERL 74-84

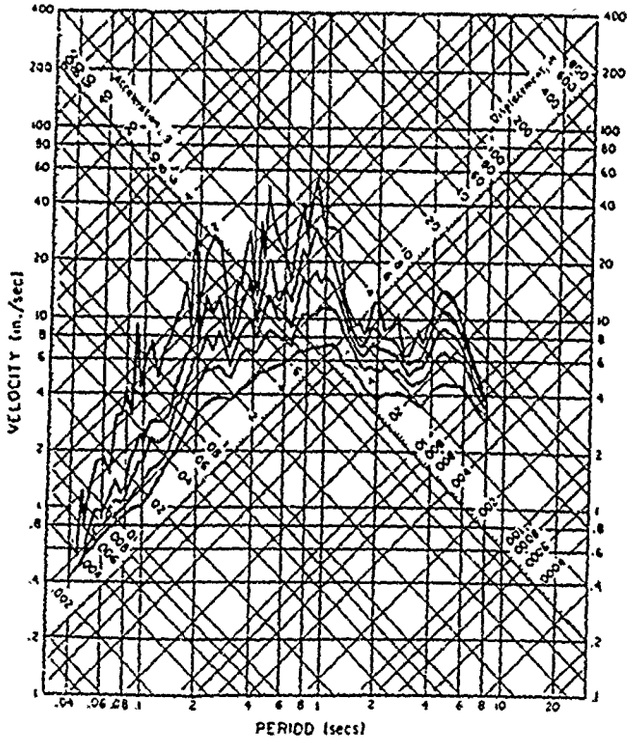
III198 71.069.0 GRIFFITH PARK OBSERVATORY.
MOON ROOM, LOS ANGELES, CAL. COMP S00W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 46***




CIT EERL 74-55

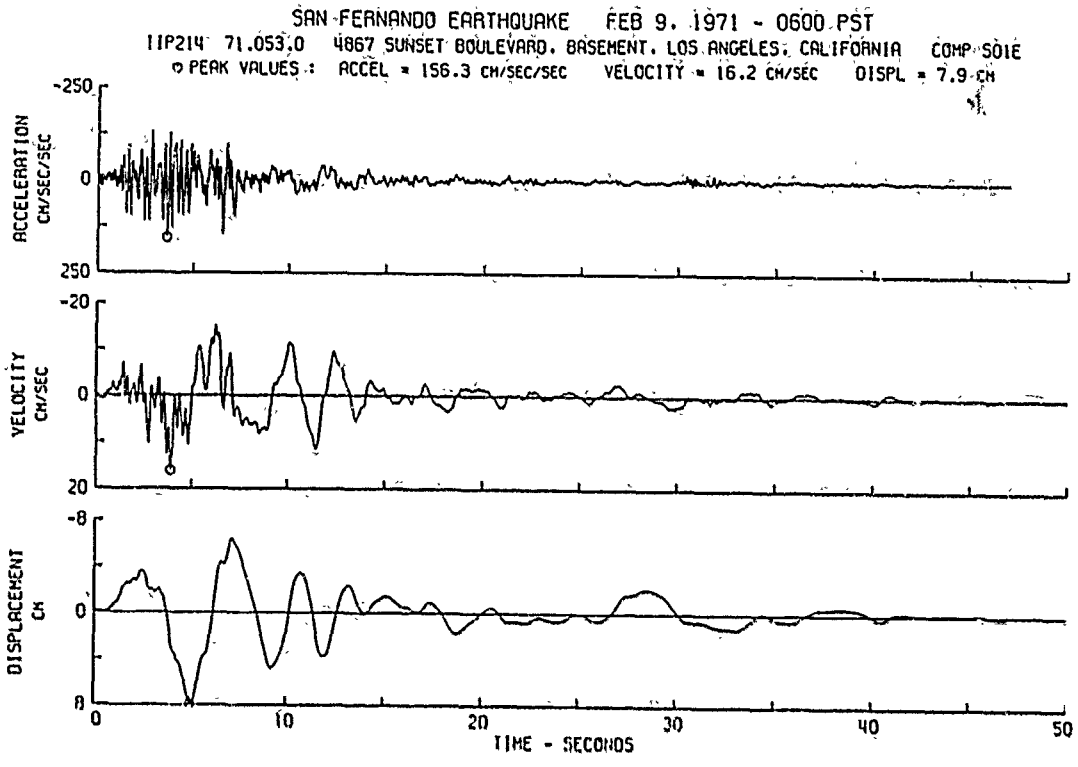



CIT EERL 74-84

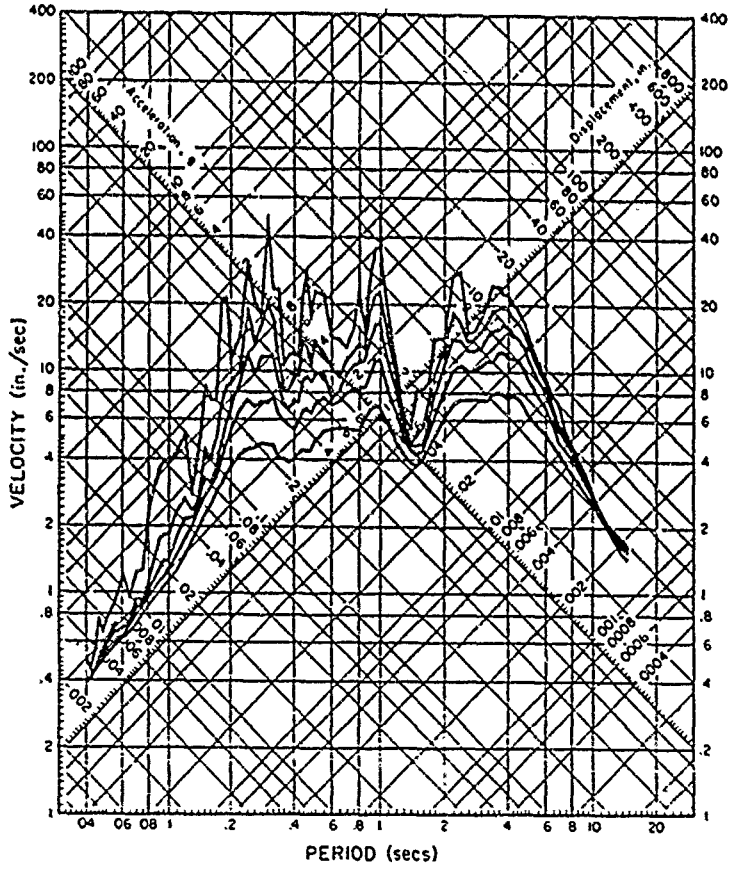
1110198 71.069.0 GRIFFITH PARK OBSERVATORY
HOON ROOM, LOS ANGELES, CAL., COMP S90W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 47***




CIT EERL 74-55

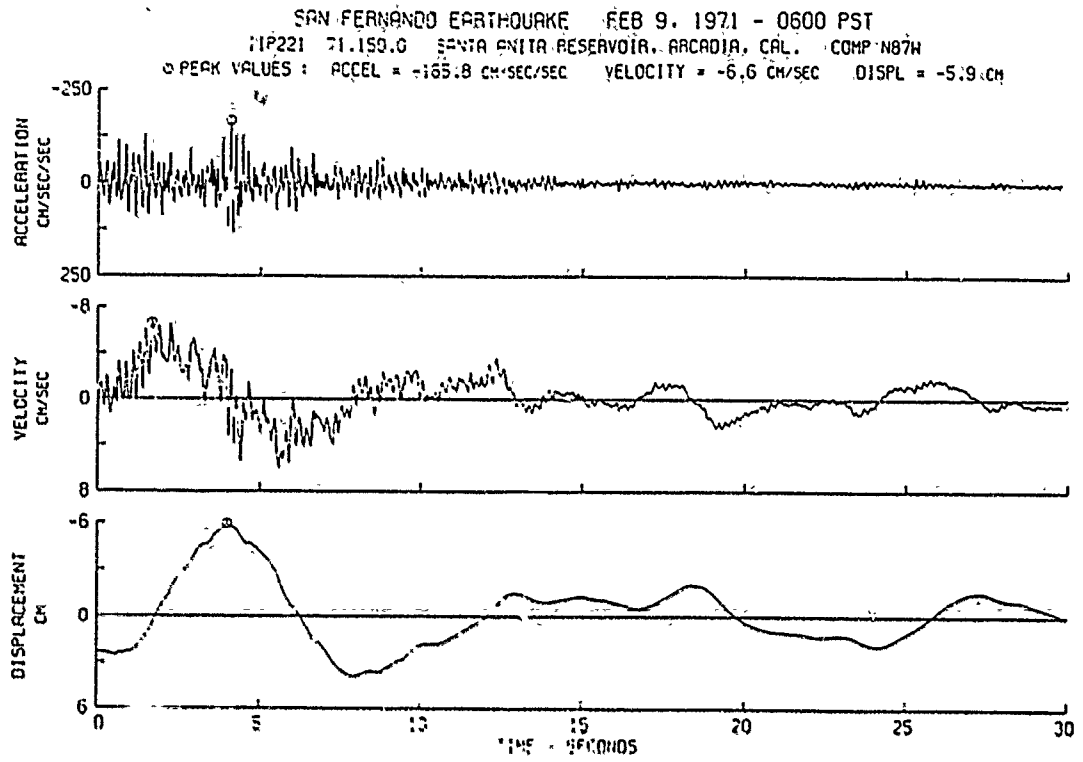



CIT EERL 74-84

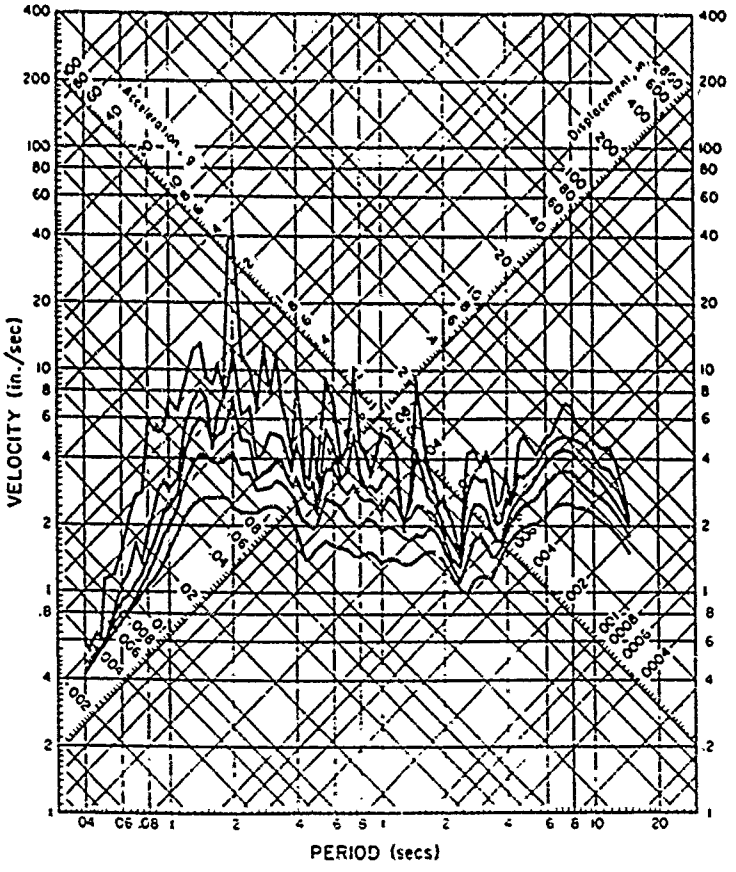
IIP214 71.053.0 4867 SUNSET BOULEVARD, BASEMENT,
LOS ANGELES, CALIFORNIA COMP S01E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

**CAL 49**




CIT EERL 74-55




CIT EERL 74-84

111P221 71.150.0 SANTA ANITA RESERVOIR, ARCADIA, CAL.

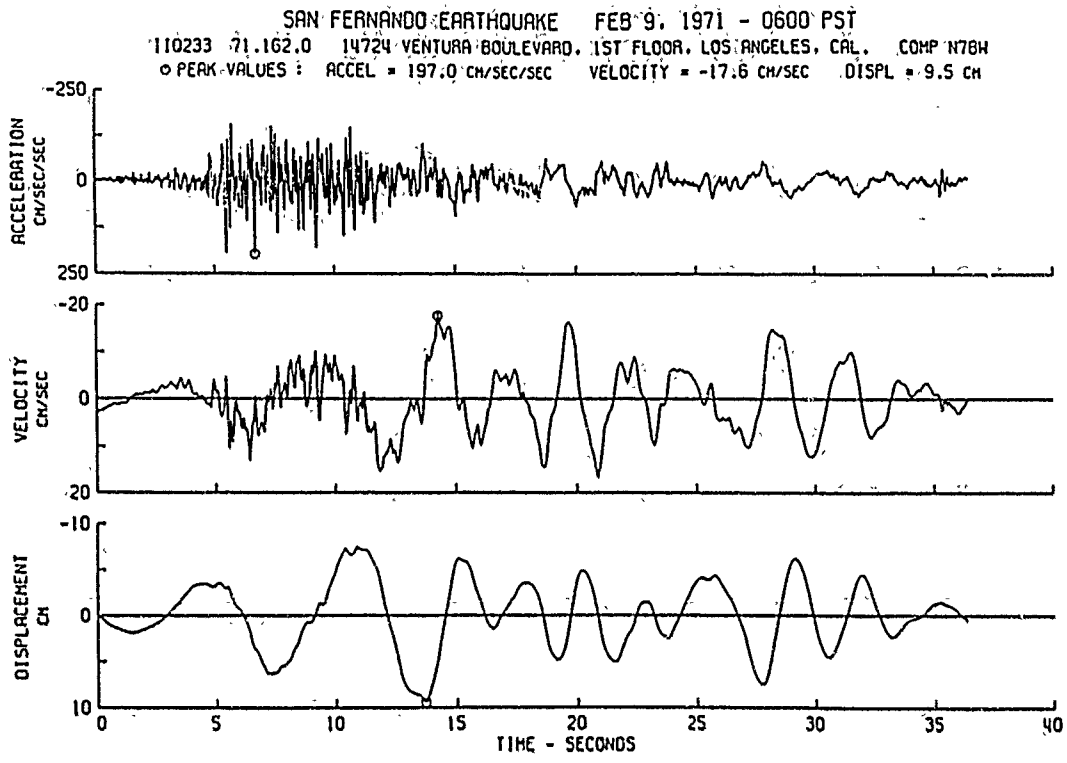
COMP N87W

DAMPING VALUES ARE

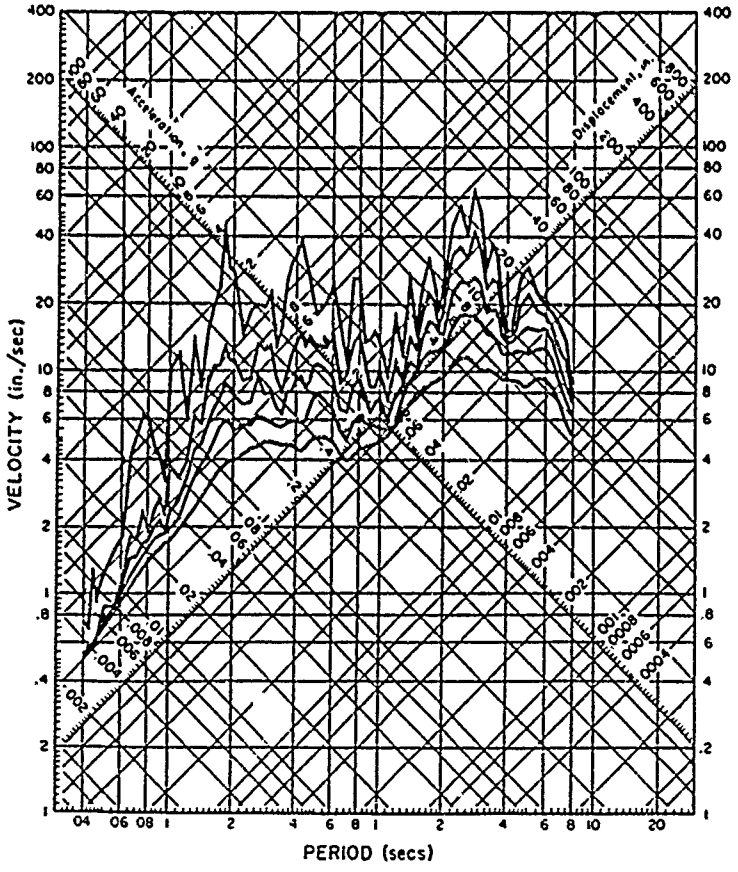
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 51***




CIT EERL 74-56

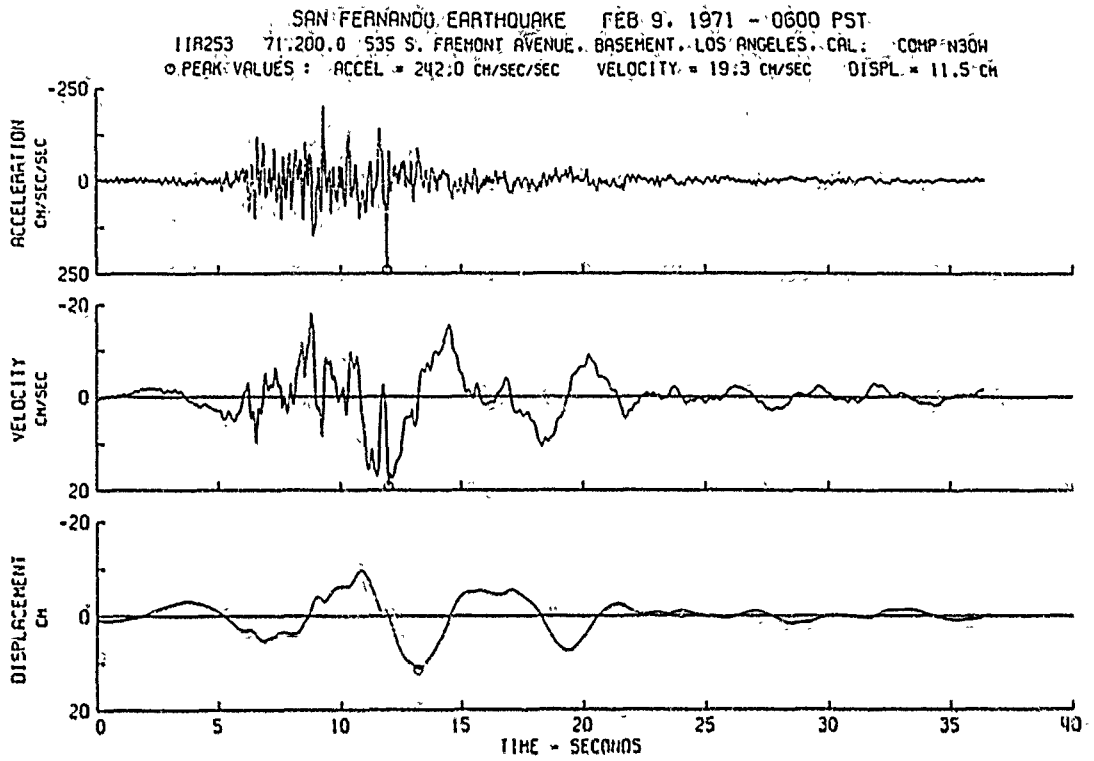



CIT EERL 74-85

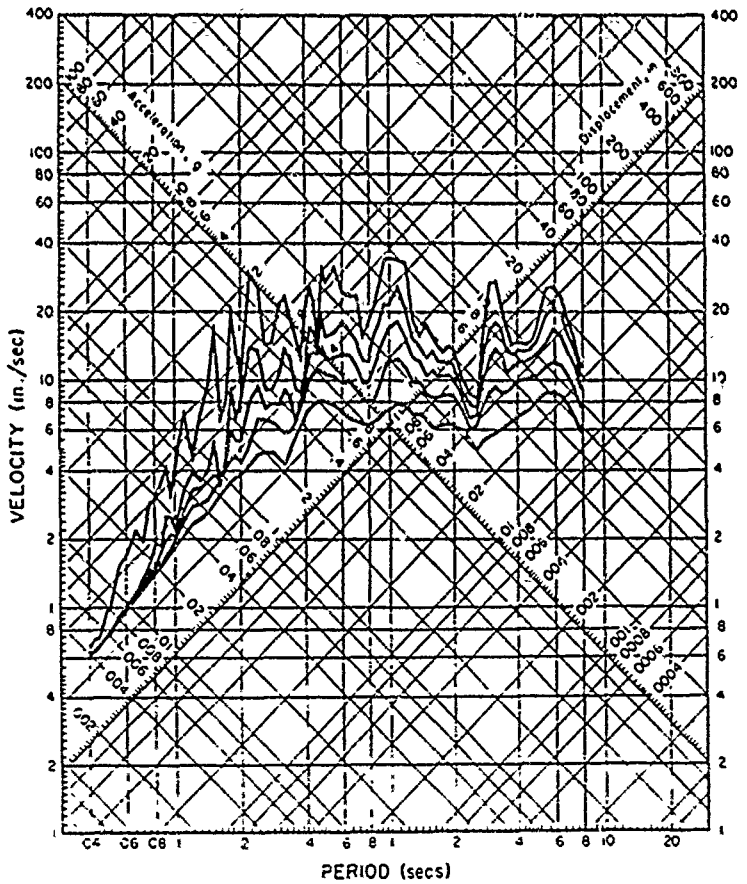
1110233 71.162.0 14724 VENTURA BOULEVARD
1ST FLOOR, LOS ANGELES, CAL. COMP N78W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 53***




CIT EERL 74-56

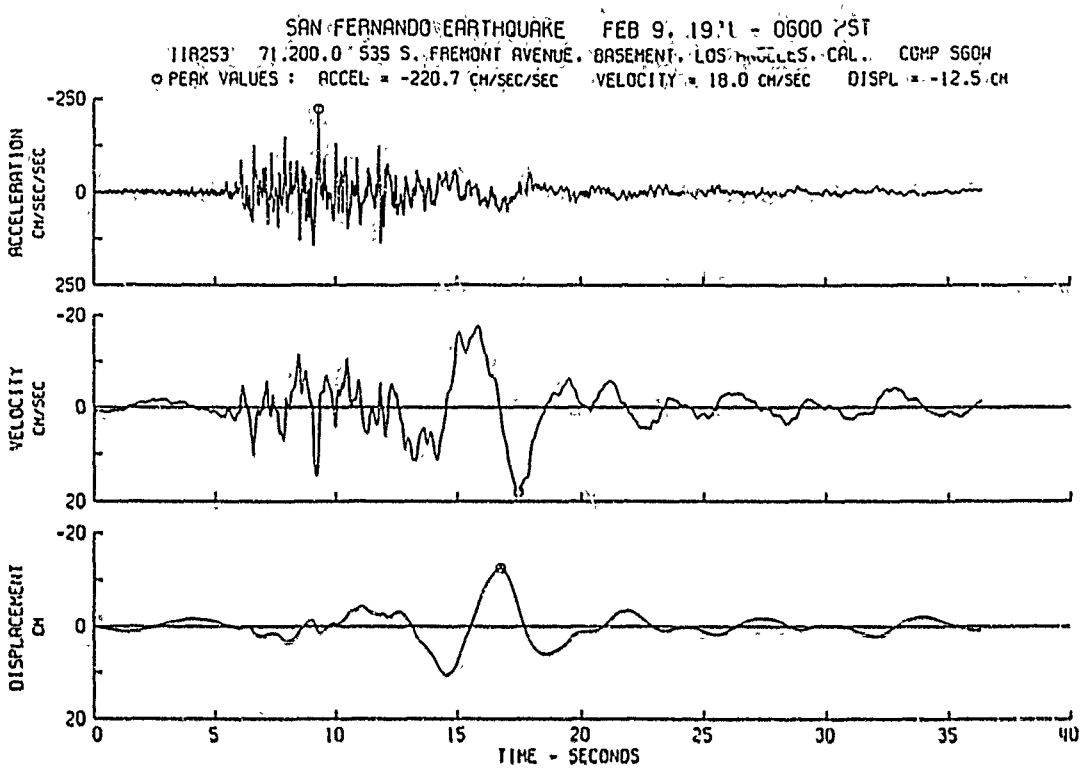



CIT EERL 74-85

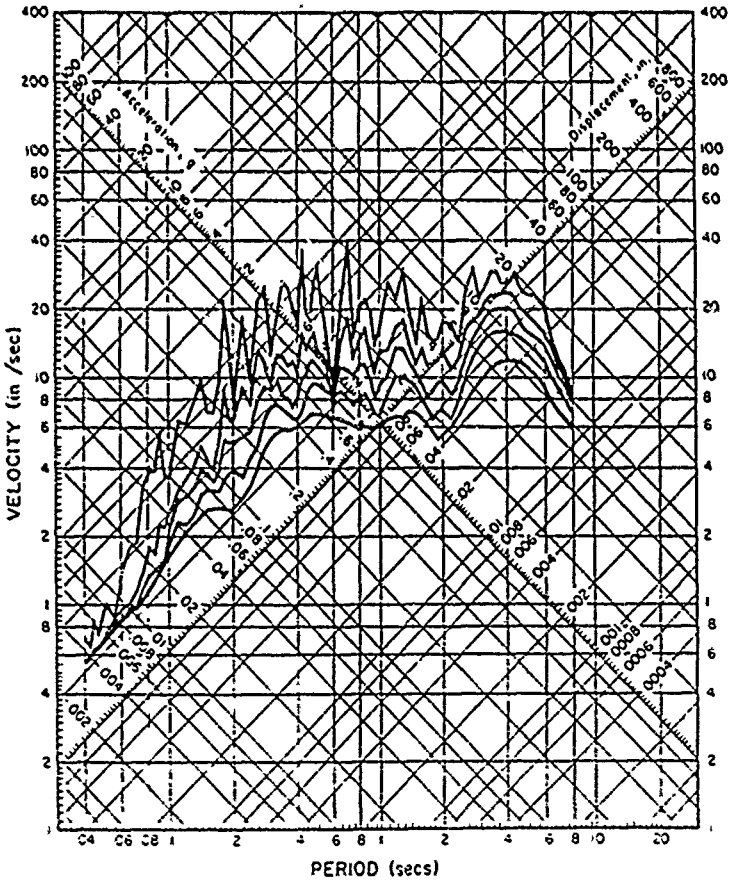
535 S. FREMONT AVENUE, BASEMENT
LOS ANGELES, CAL.
IIIR253 71.200.0 COMP N30W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 60***




CIT EERL 74-56

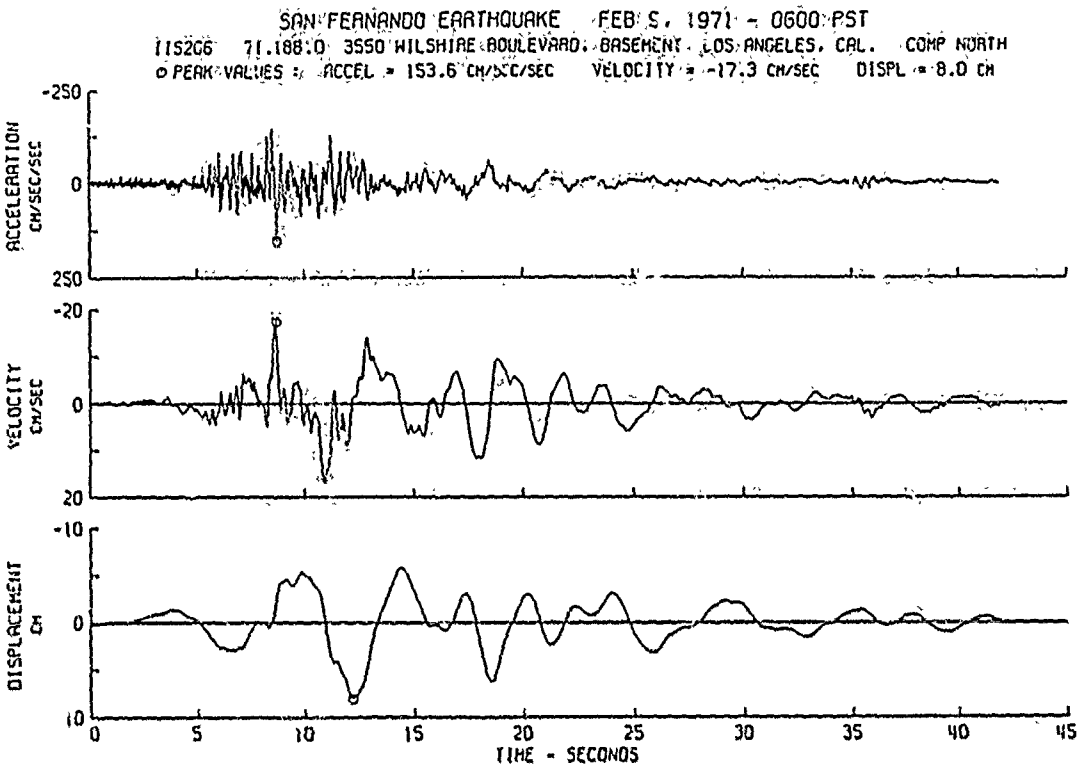



CIT EERL 74-85

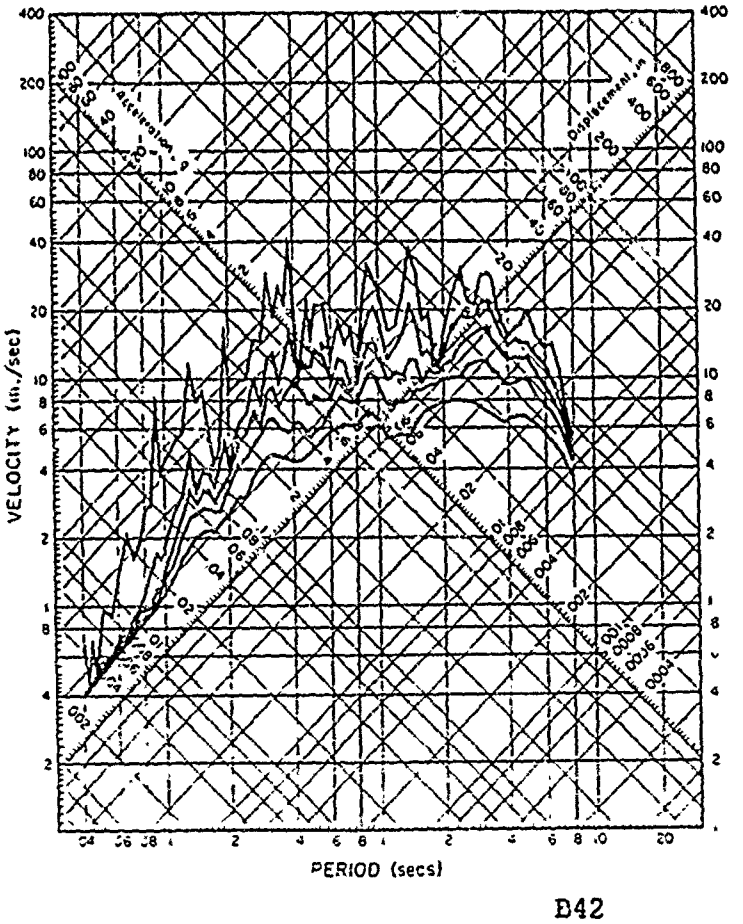
535 S. FREMONT AVENUE. BASEMENT
LOS ANGELES. CAL.
1118253 71.200.0 COMP S60W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 61***




CIT EERL 74-57

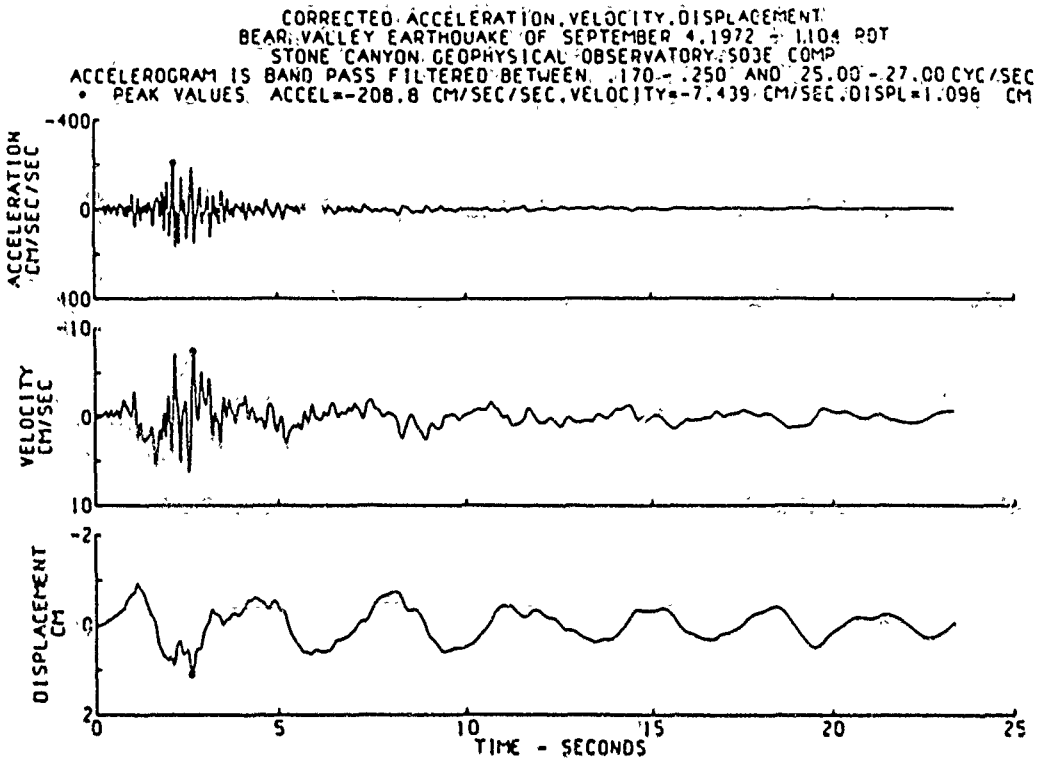


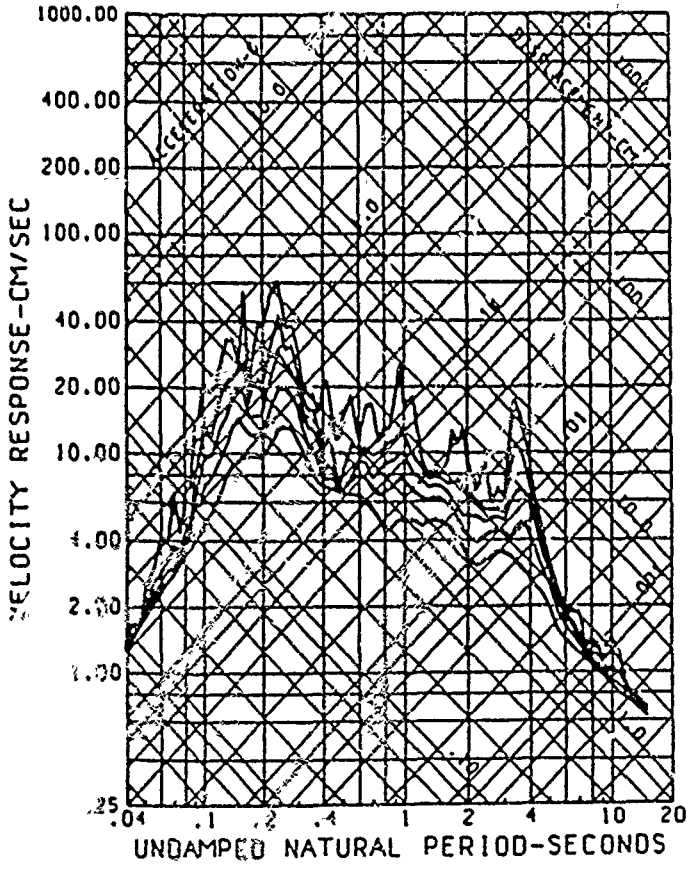

CIT EERL 74-86

3550 WILSHIRE BOULEVARD, BASEMENT
LOS ANGELES, CAL.
IIIS266 71.188.0 COMP NORTH
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

SAN FERNANDO EARTHQUAKE
FEB 9, 1971 - 0600 PST

***CAL 62***



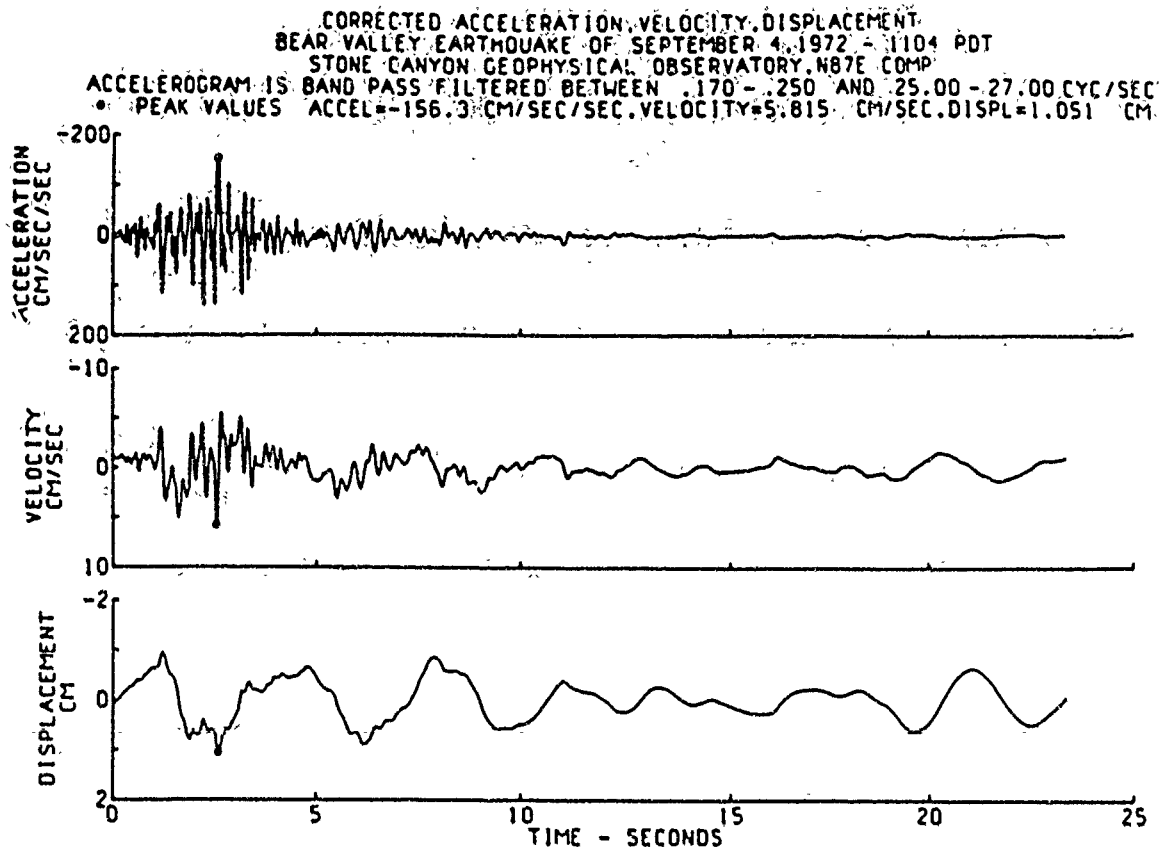



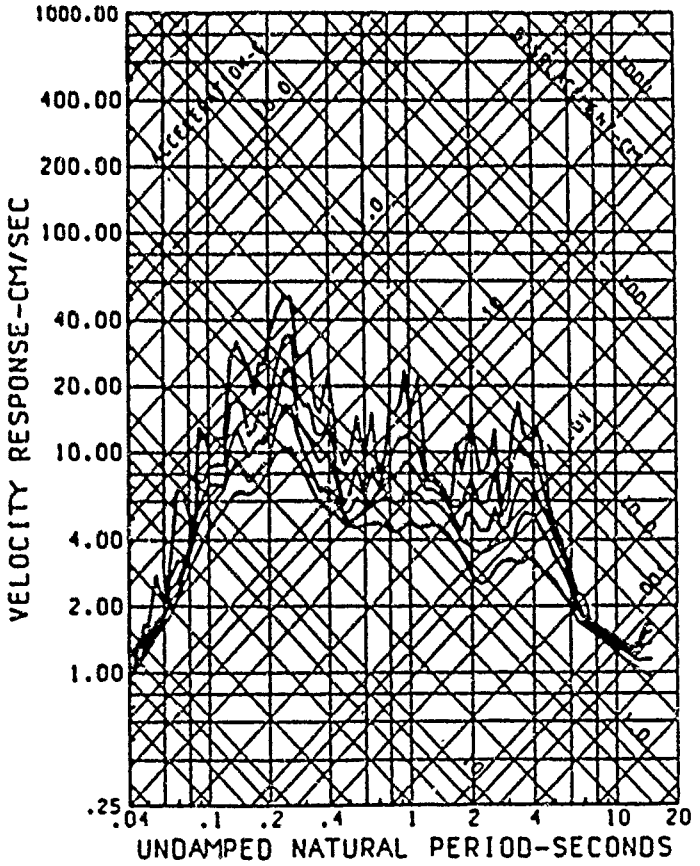

USGS OF 78-941

SEISMIC ENGINEERING
BRANCH/USGS
STONE CANYON GEOPH. OBSERV.
CRITICAL DAMPING
0.2.5.10.20 PERCENT

9/4/72.S03E

CAL 63



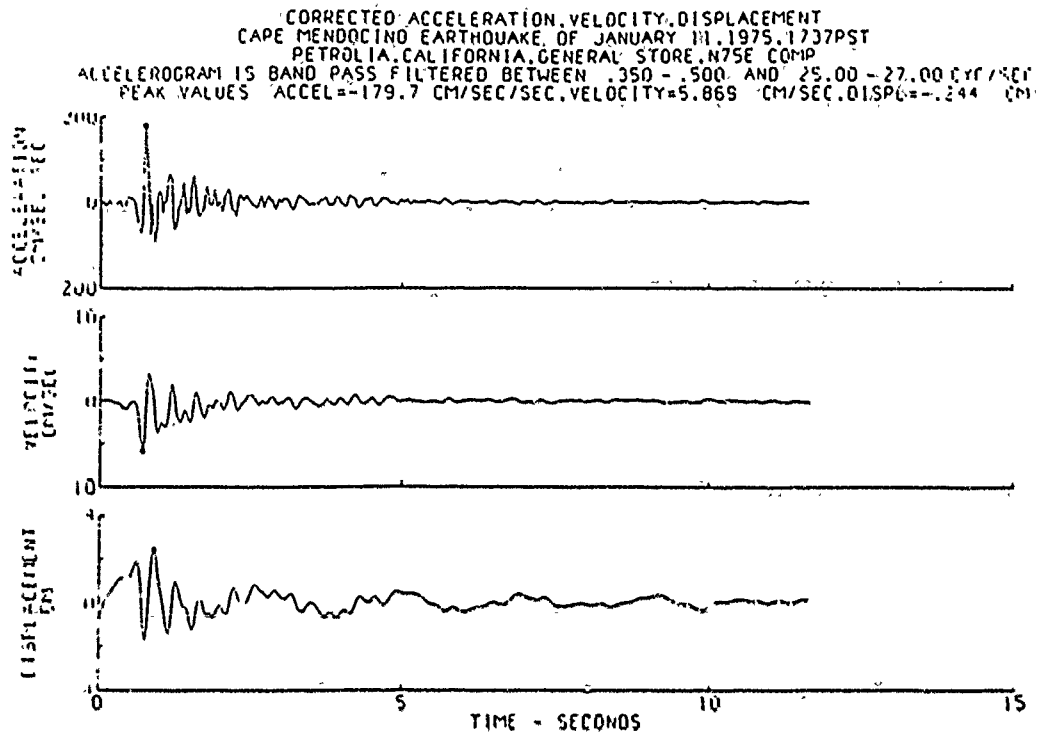



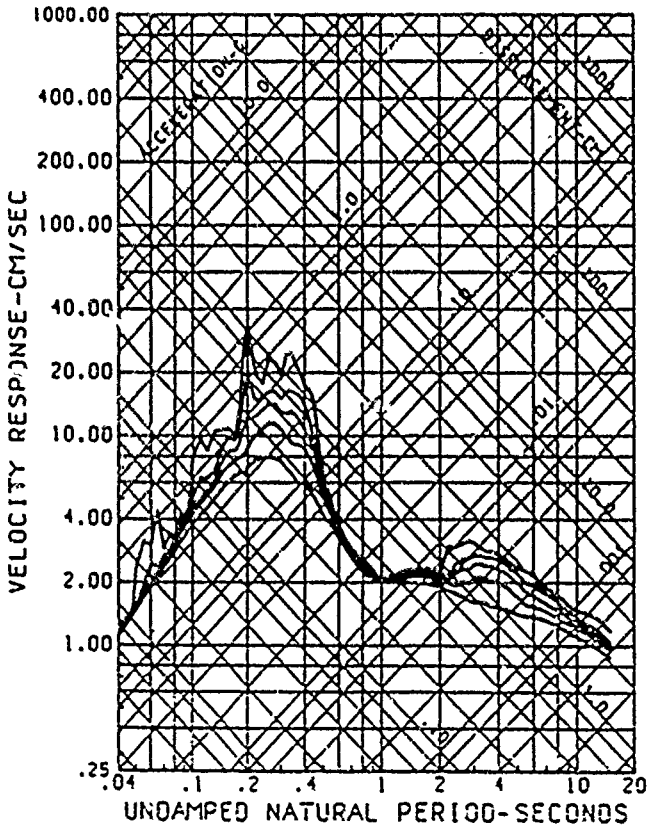

USGS OF 78-941

SEISMIC ENGINEERING
BRANCH/USGS
STONE CANYON GEOPH. OBSERV.
CRITICAL DAMPING
0.2.5.10.20 PERCENT

9/4/72.N87E

***CAL 64***



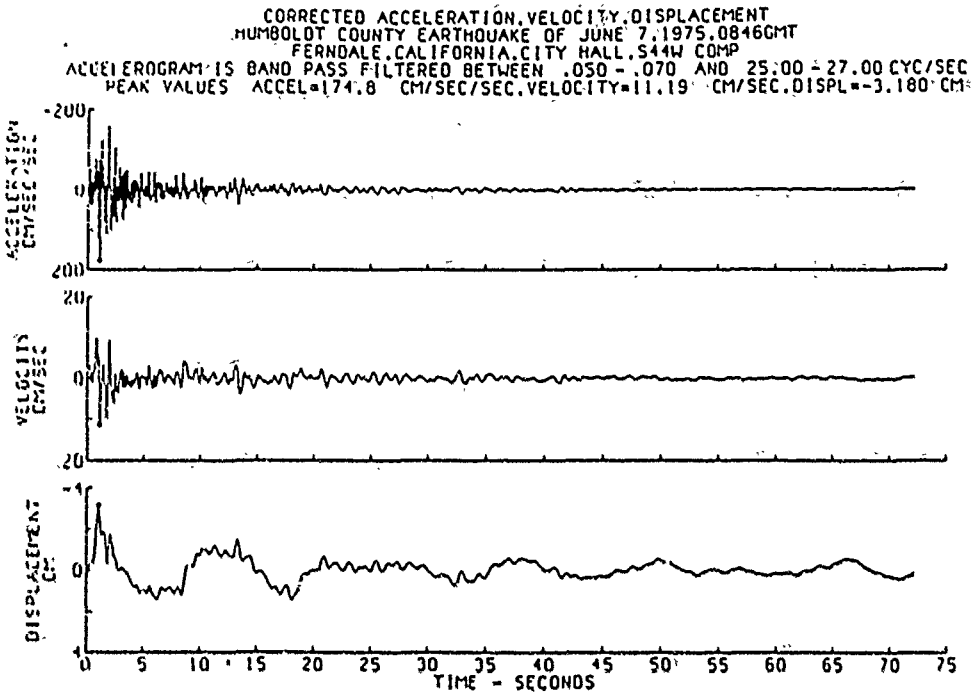



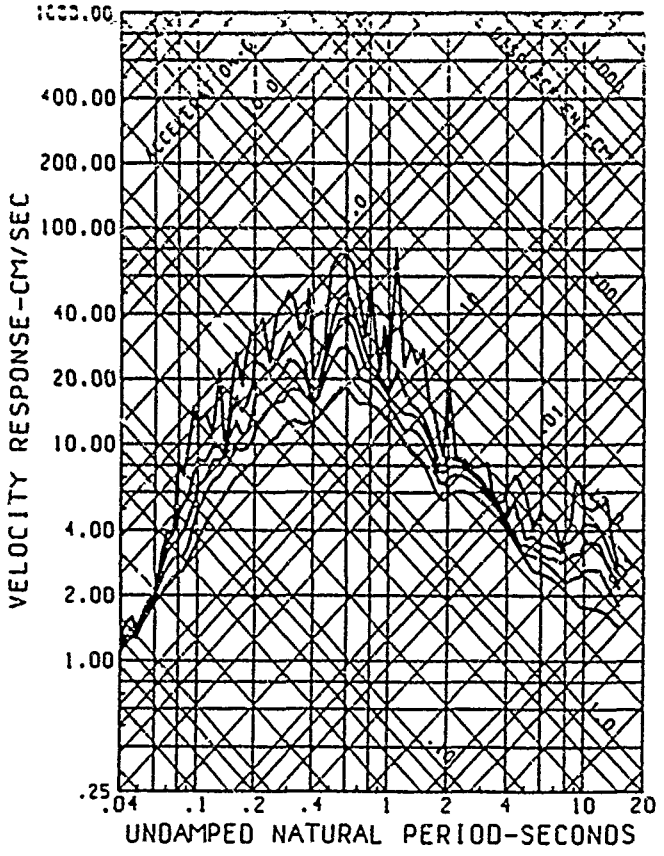

USGS OF 79-929

SEISMIC ENGINEERING
BRANCH/USGS
PETROLIA,CALIF,GEN. STORE
CRITICAL DAMPING
0,2,5,10,20 PERCENT

01/11/75,N75E

***CAL 67***



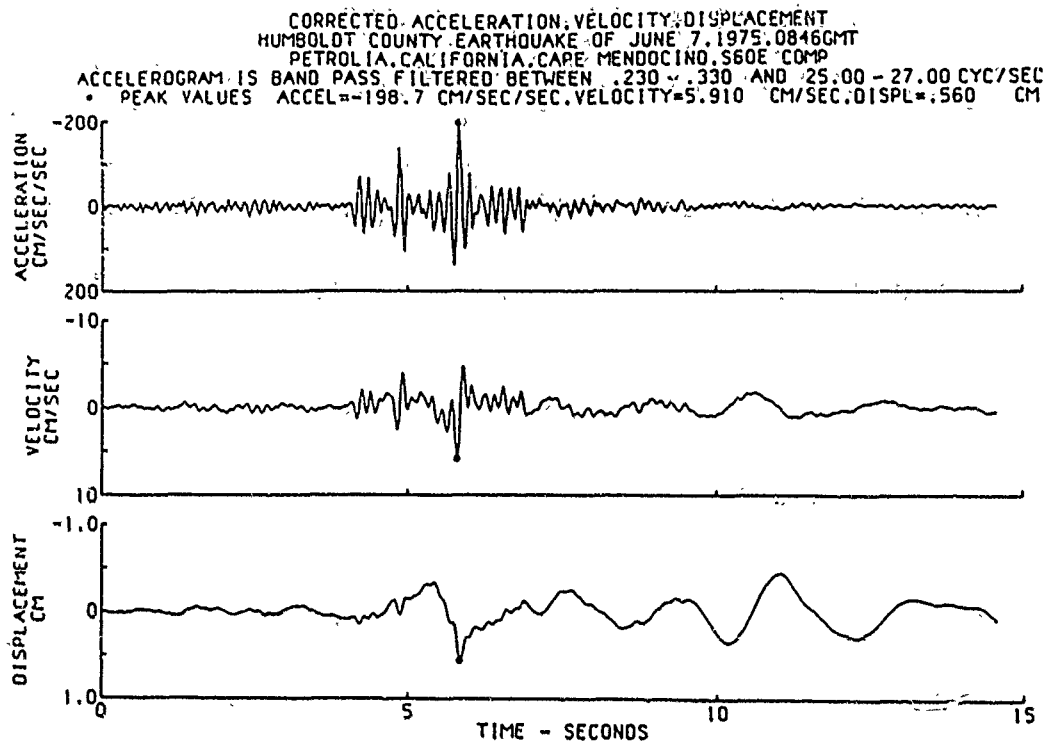



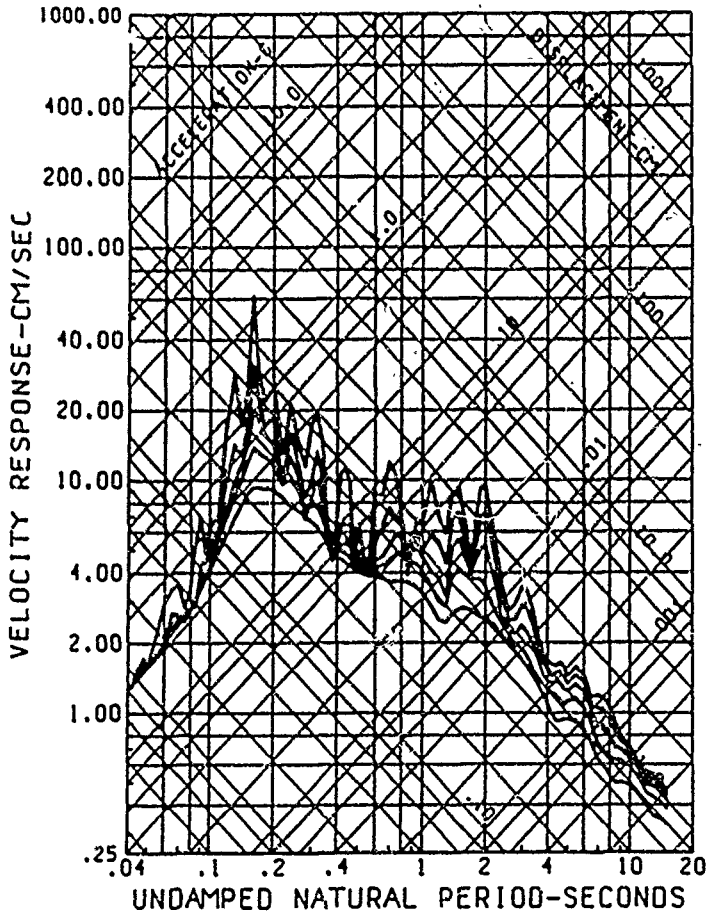

USGS OF 79-929

SEISMIC ENGINEERING
BRANCH/USGS
0846GMT,S44W
CRITICAL DAMPING
0,2,5,10,20 PERCENT

FERNDALE,CITY HALL,6/7/75

***CAL 69***



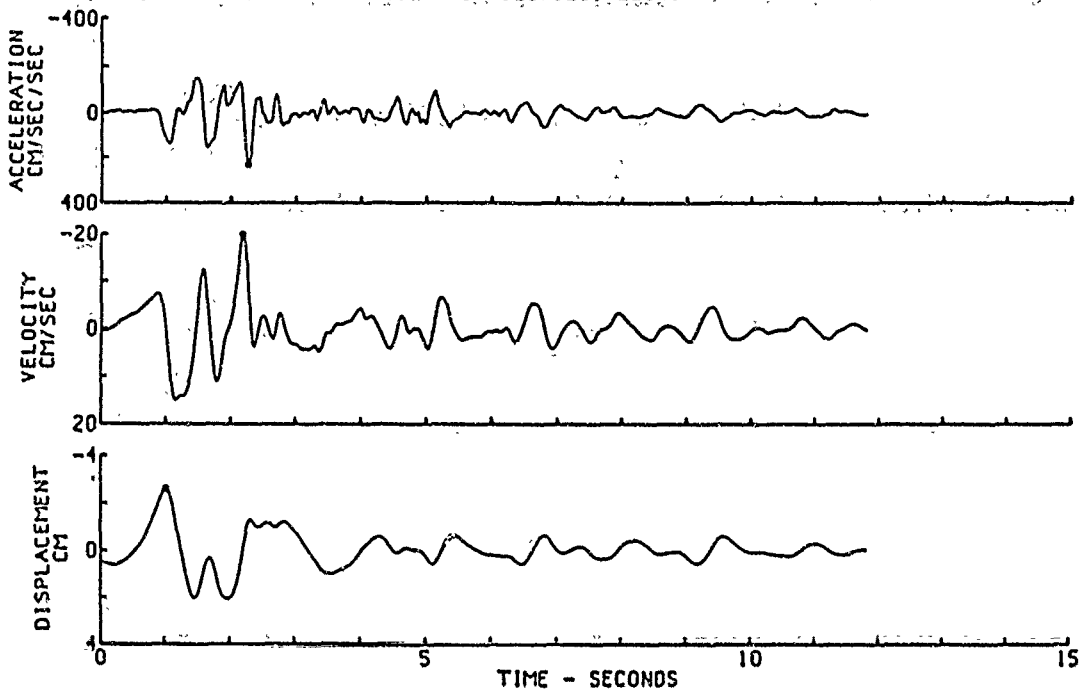



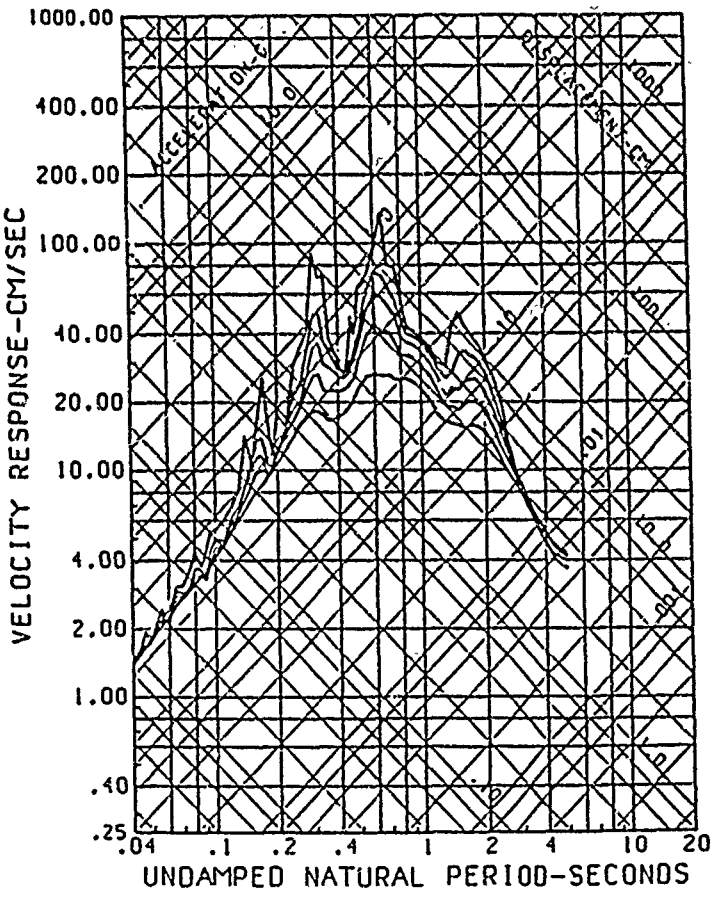

USGS OF 79-929

SEISMIC ENGINEERING
BRANCH/USGS
PETROLIA, CAL, CAPE MENDOCINO
CRITICAL DAMPING
0, 2, 5, 10, 20 PERCENT

6/7/75, S60E

***CAL 70***



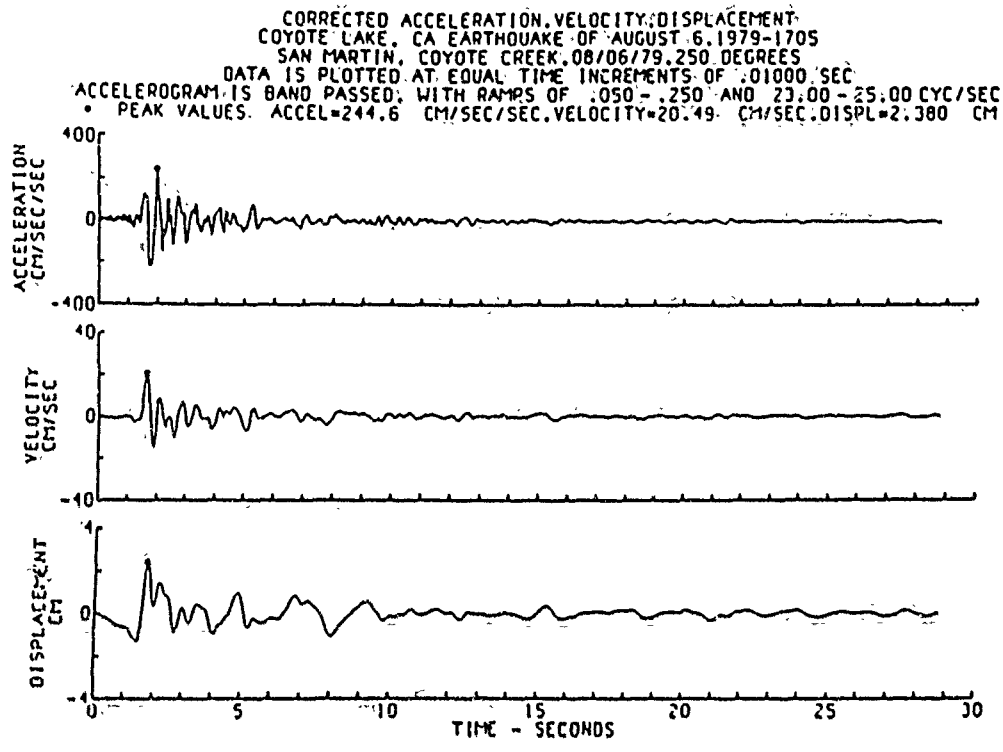



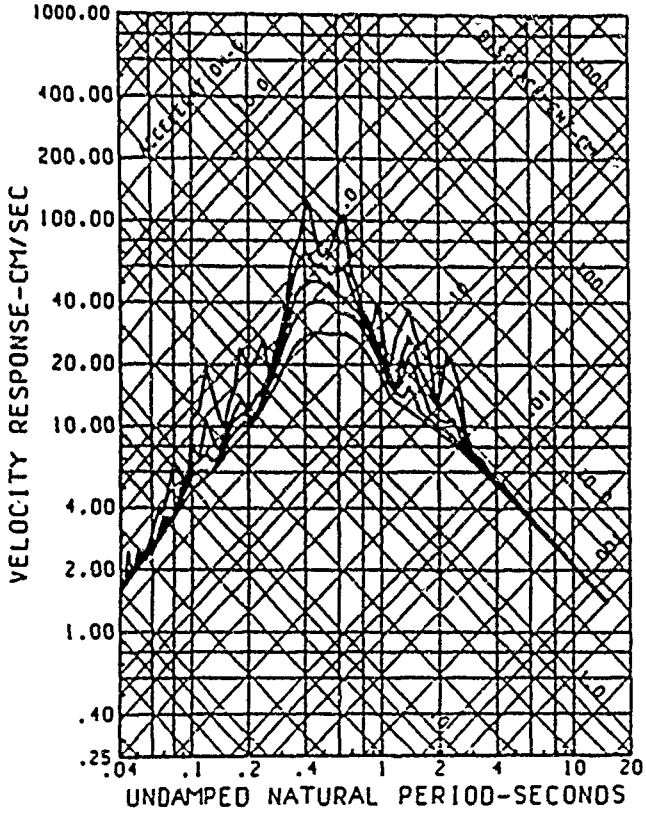

CDMG SR 144-2

THEOREM PROCEDURE
CONVOLUTION
BAND PASSED FROM
.200- .500 TO 23.00-25.00 HZ
CRITICAL DAMPING
0.2.5.10.20 PERCENT

GMT FREITAS BLDG TR 3
13 AUG 1978 2254

*CAL 91*




CDMG PR 24 USGS OF 81-42

SEISMIC ENGINEERING BRANCH/USGS

BAND PASSED FROM

.050- .250 TO 23.00-25.00 HZ

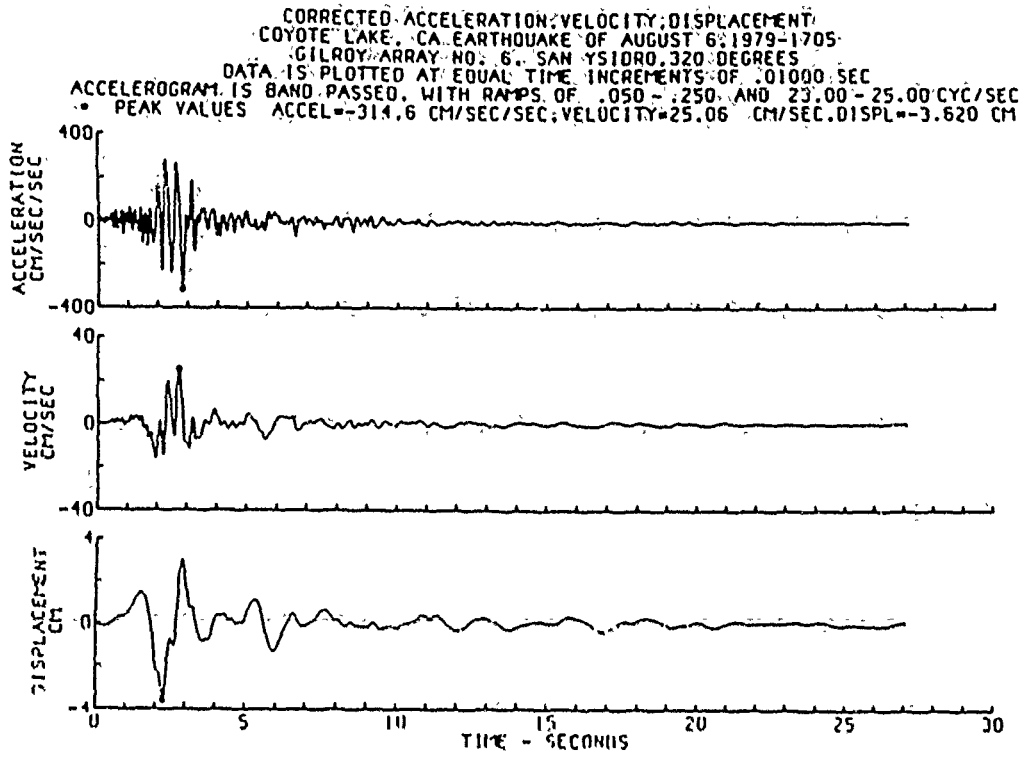
.250 DEGREES

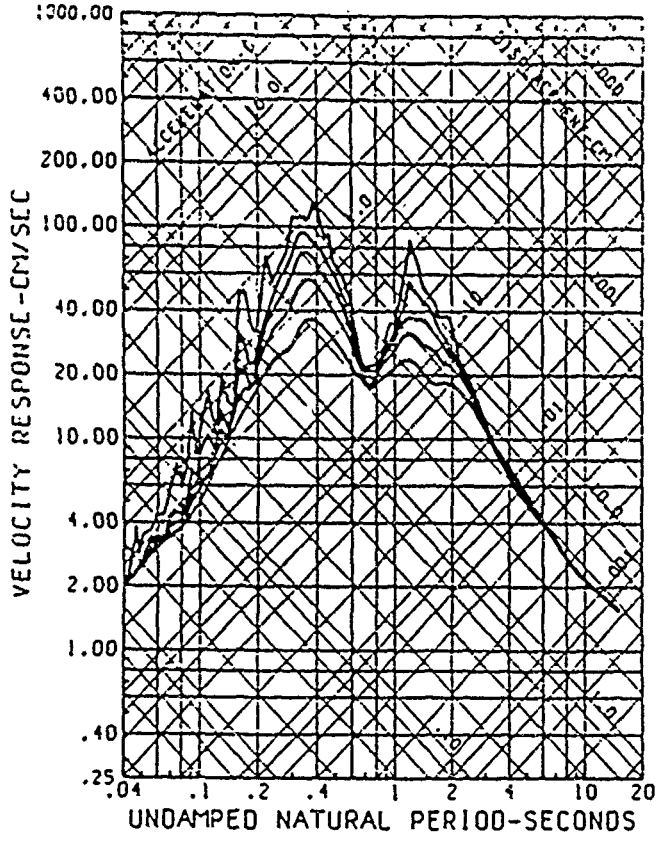
CRITICAL DAMPING

0,2,5,10,20 PERCENT

SAN MARTIN,08/06/79

***CAL 99***




CDMG PR 24 USGS OF 81-42

SEISMIC ENGINEERING BRANCH/USGS

BAND PASSED FROM

.050- .250 TO 23.00-25.00 HZ

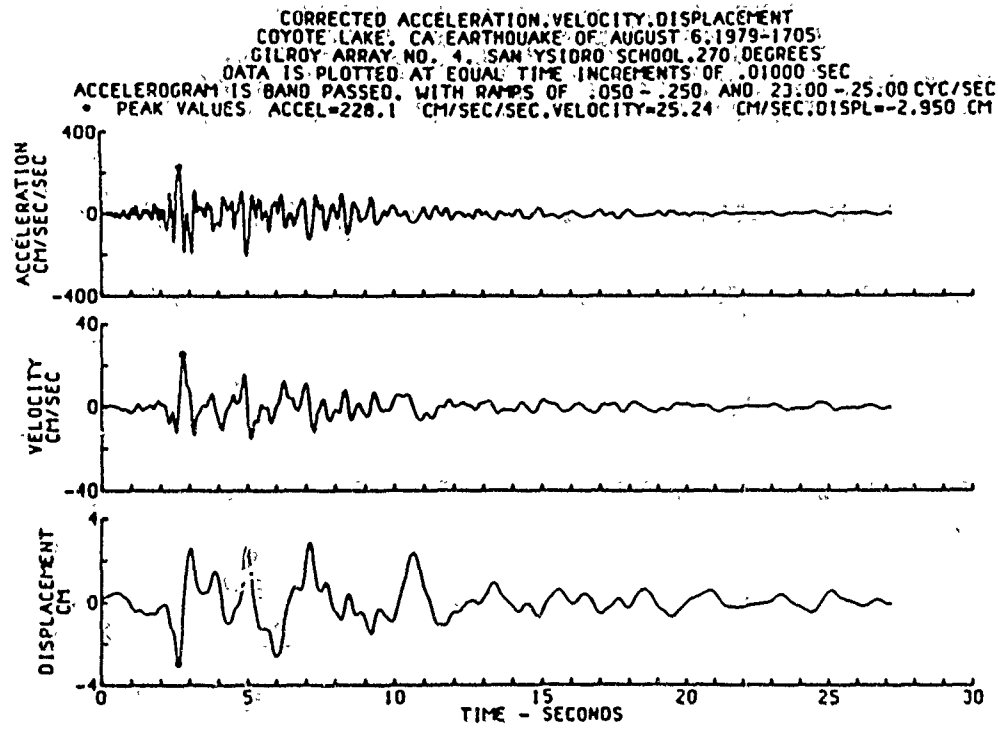
320 DEGREES

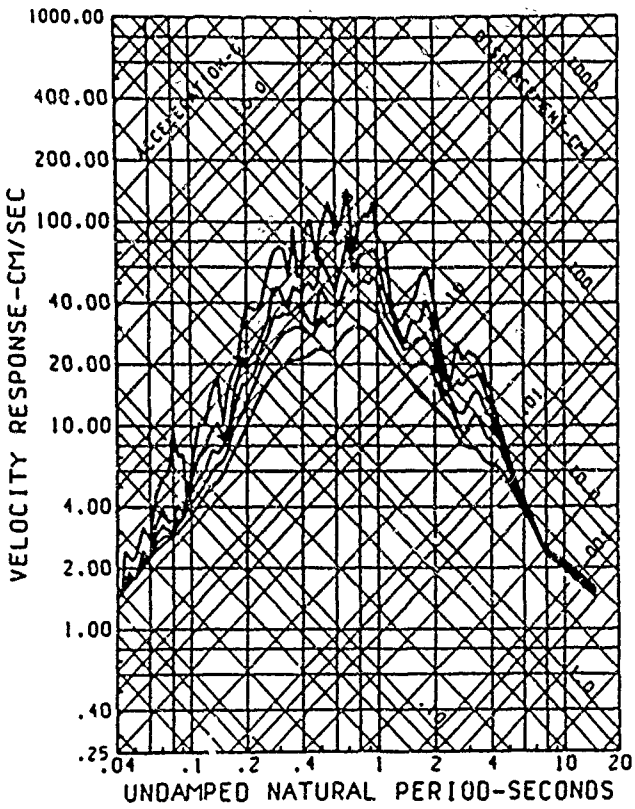
CRITICAL DAMPING

0,2,5,10,20 PERCENT

GILROY ARRAY NO. 6,08/06/79

***CAL 101***



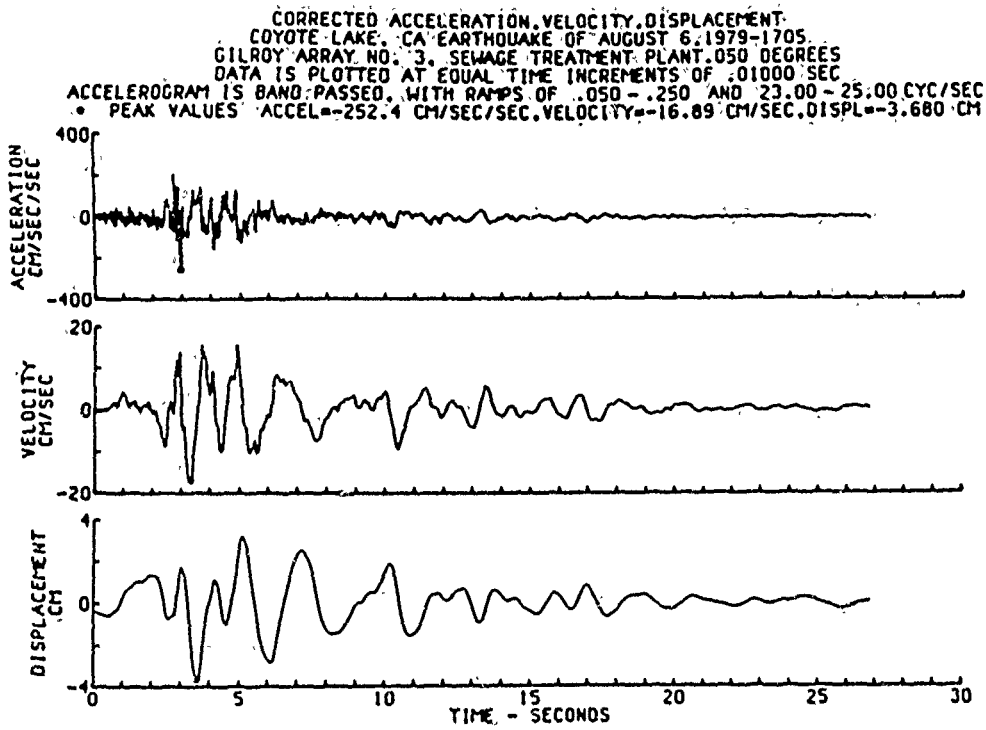



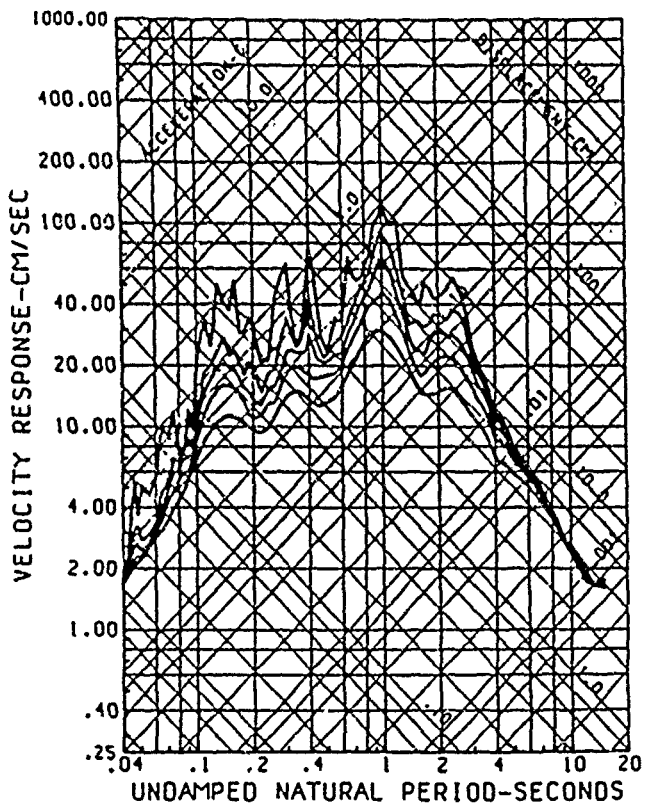

CDMG PR 24 USGS OF 81-42

SEISMIC ENGINEERING
BRANCH/USGS
BAND PASSED FROM
.050- .250 TO 23.00-25.00 HZ
270 DEGREES
CRITICAL DAMPING
0,2,5,10,20 PERCENT

GILROY ARRAY NO. 4,08/06/79

***CAL 103***




CDMG PR 24 USGS OF 81-42

SEISMIC ENGINEERING BRANCH/USGS

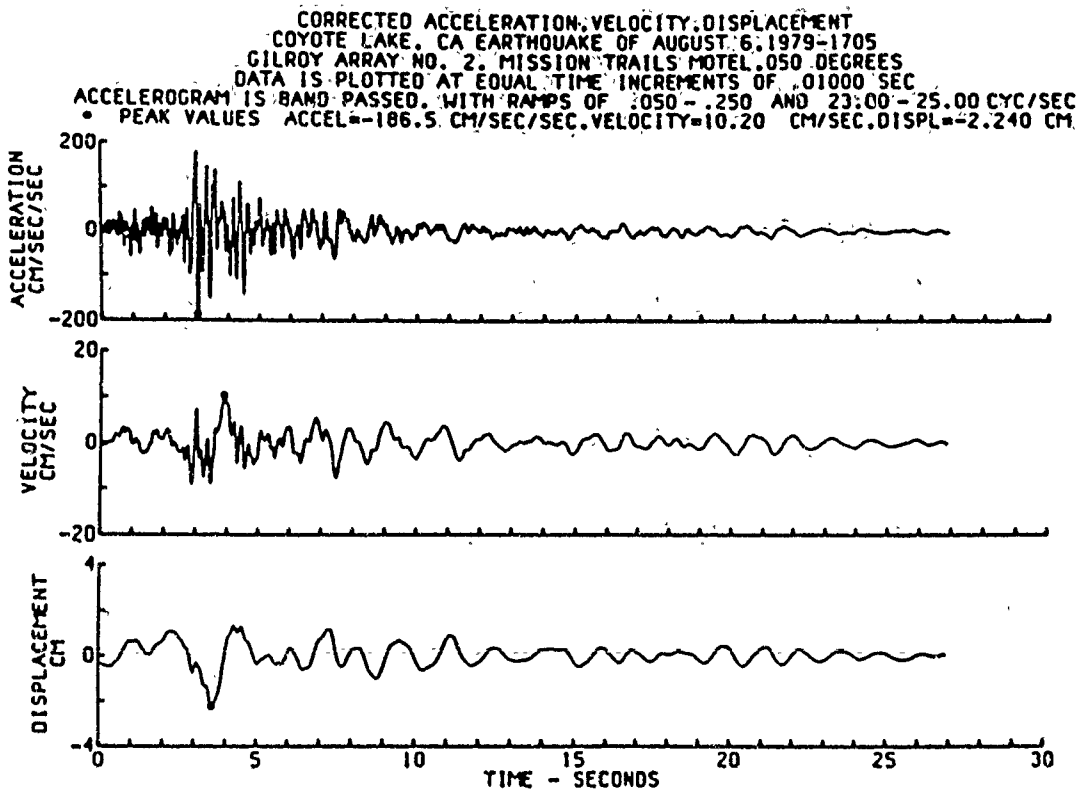
BAND PASSED FROM .050- .250 TO 23.00-25.00 HZ

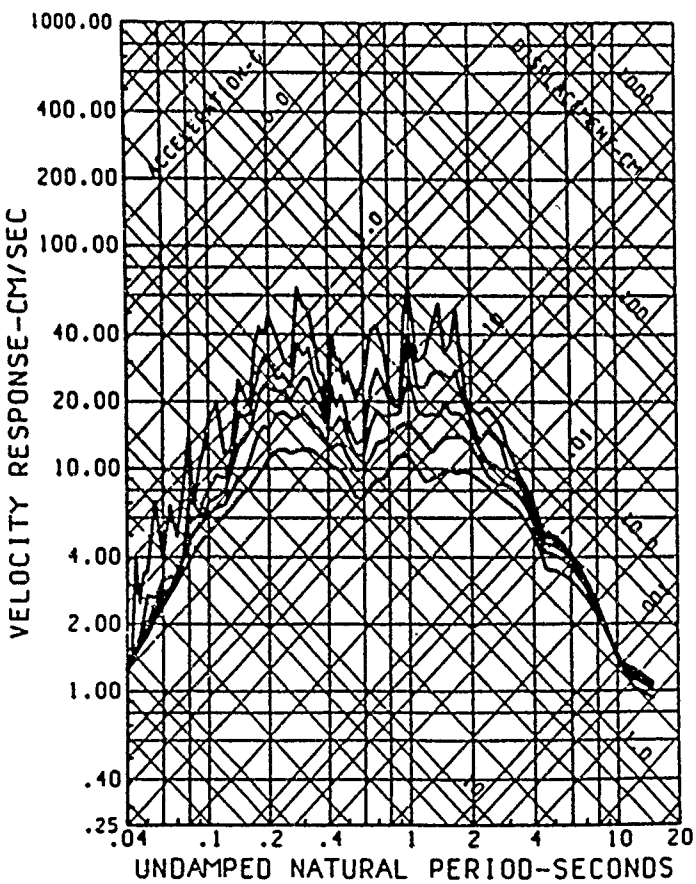
050 DEGREES

CRITICAL DAMPING 0.2.5.10.20 PERCENT

GILROY ARRAY NO. 3,08/06/79

*CAL 104*



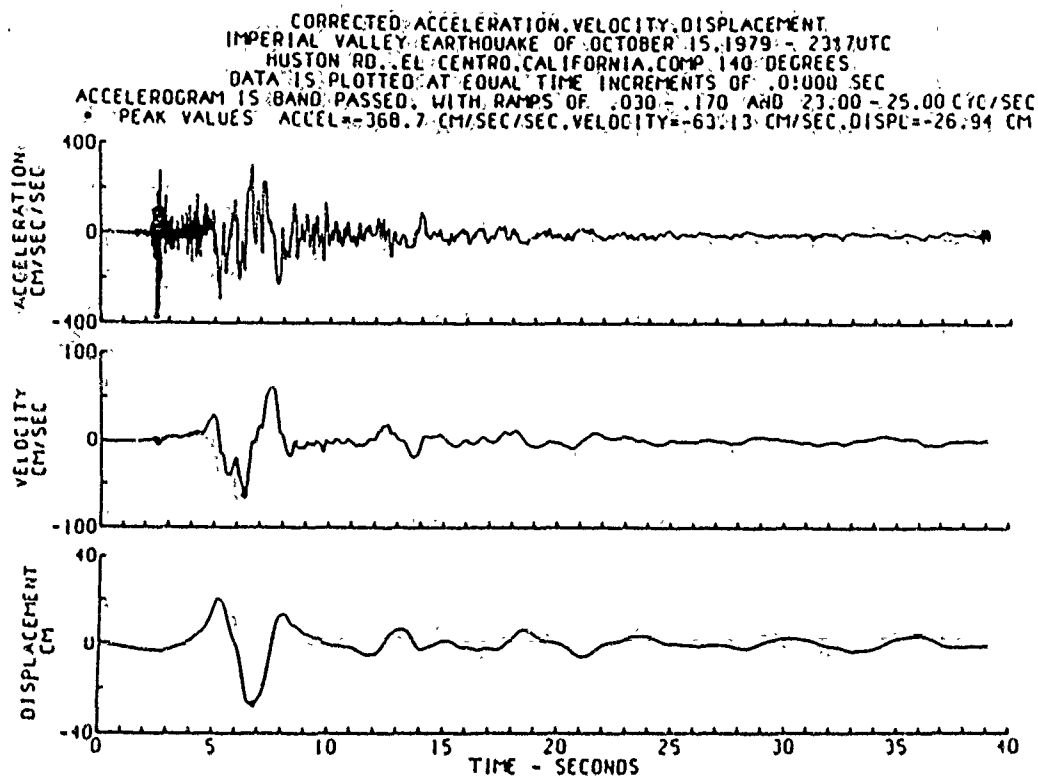



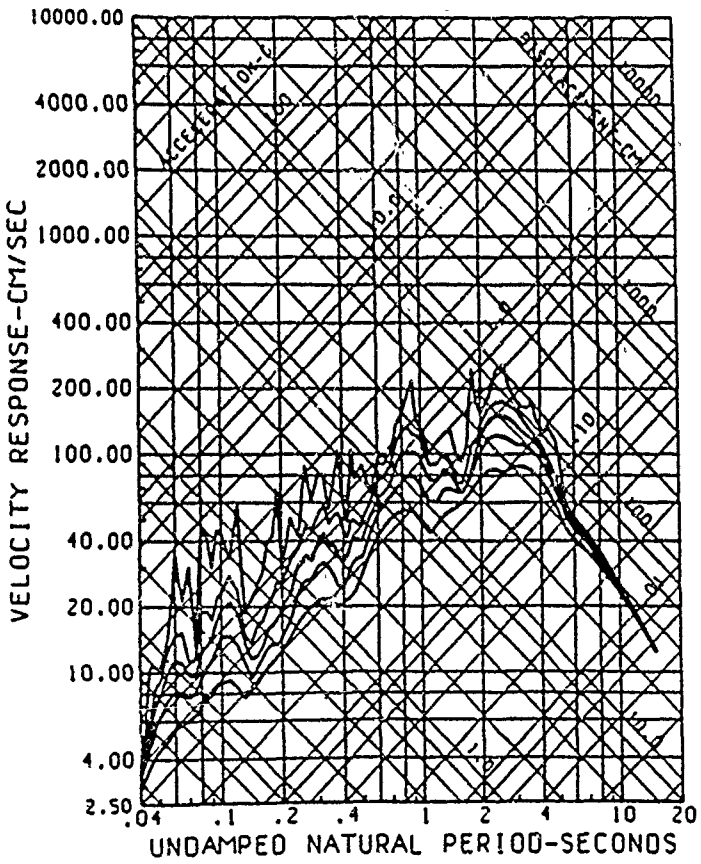

CDMG PR 24 USGS OF 81-42

SEISMIC ENGINEERING
BRANCH/USGS
BAND PASSED FROM
.050- .250 TO 23.00-25.00 HZ
050 DEGREES
CRITICAL DAMPING
0,2,5,10,20 PERCENT

GILROY ARRAY NO. 2,08/06/79

CAL 107



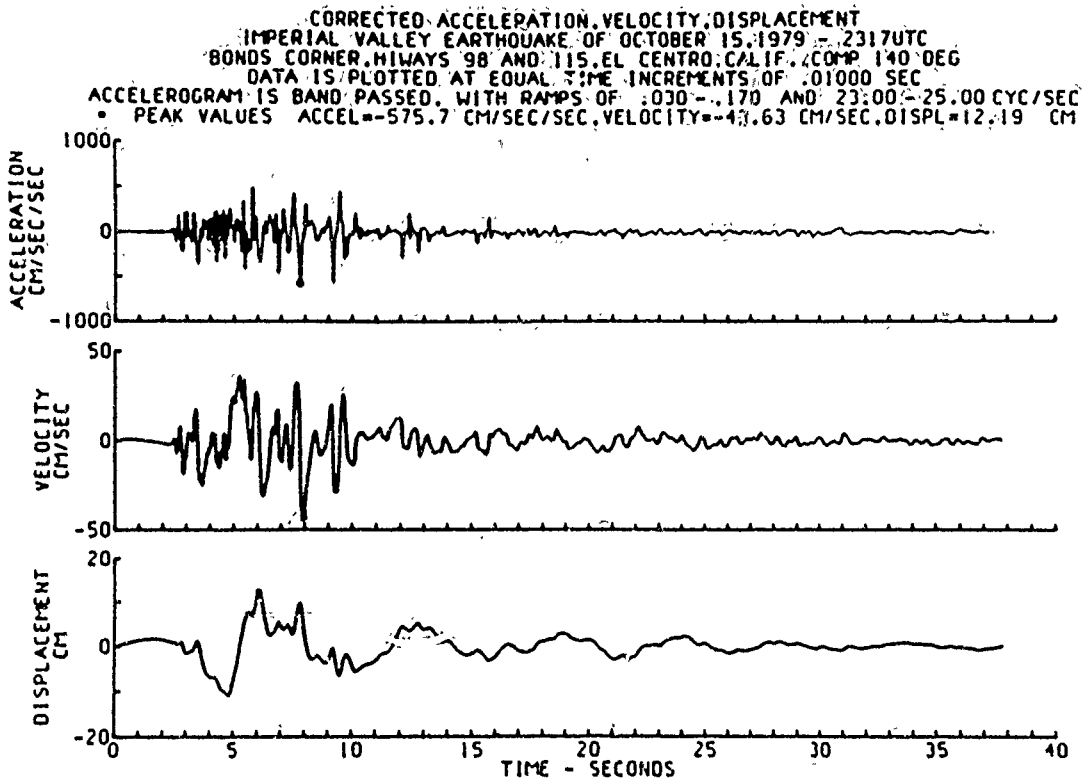




USGS OF 80-703

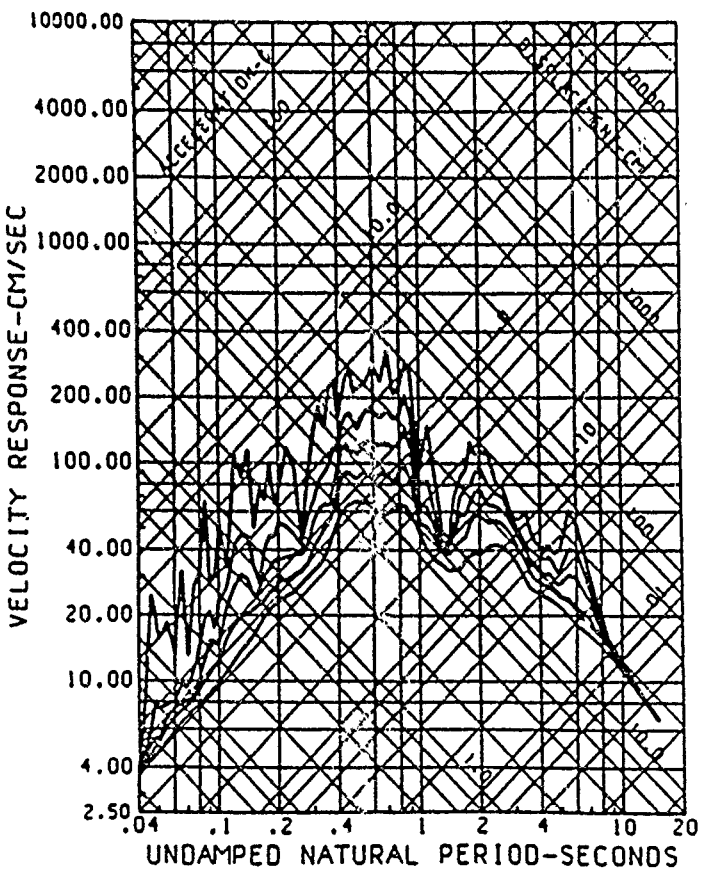
SEISMIC ENGINEERING
BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
140DEG
CRITICAL DAMPING
0,2,5,10,20 PERCENT

EL CENTRO,ARRAY 6
10/15/79,2317

*CAL 111*



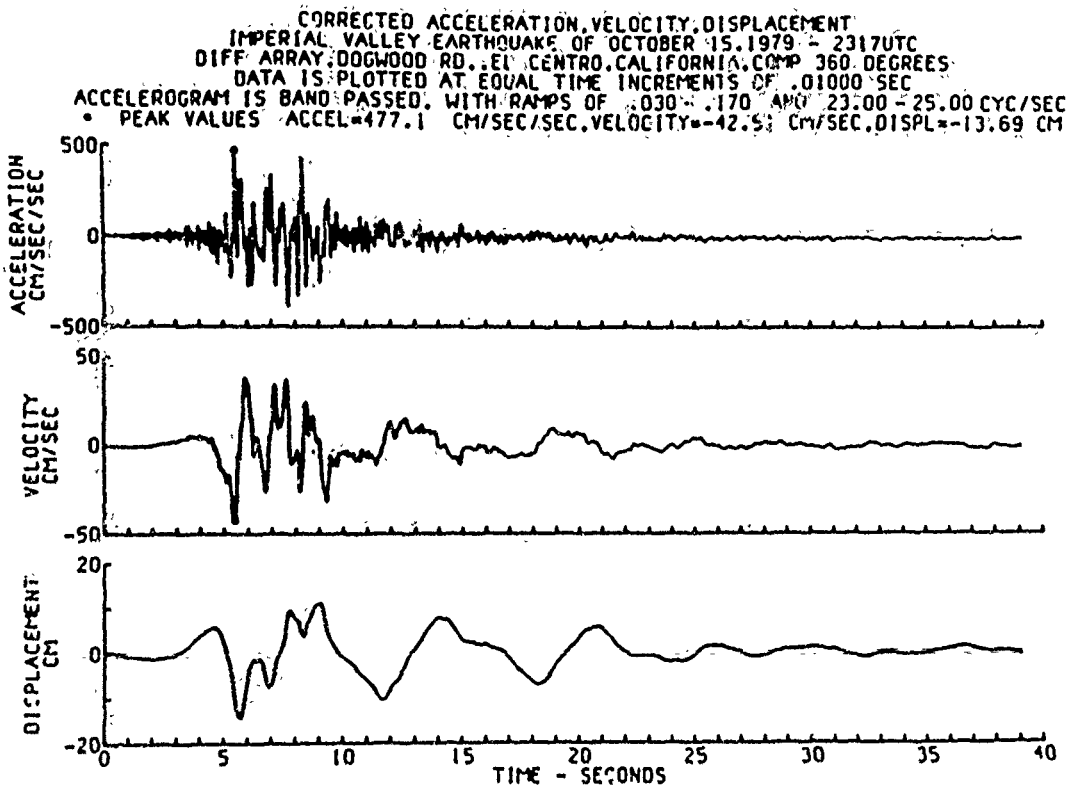

USGS OF 80-703

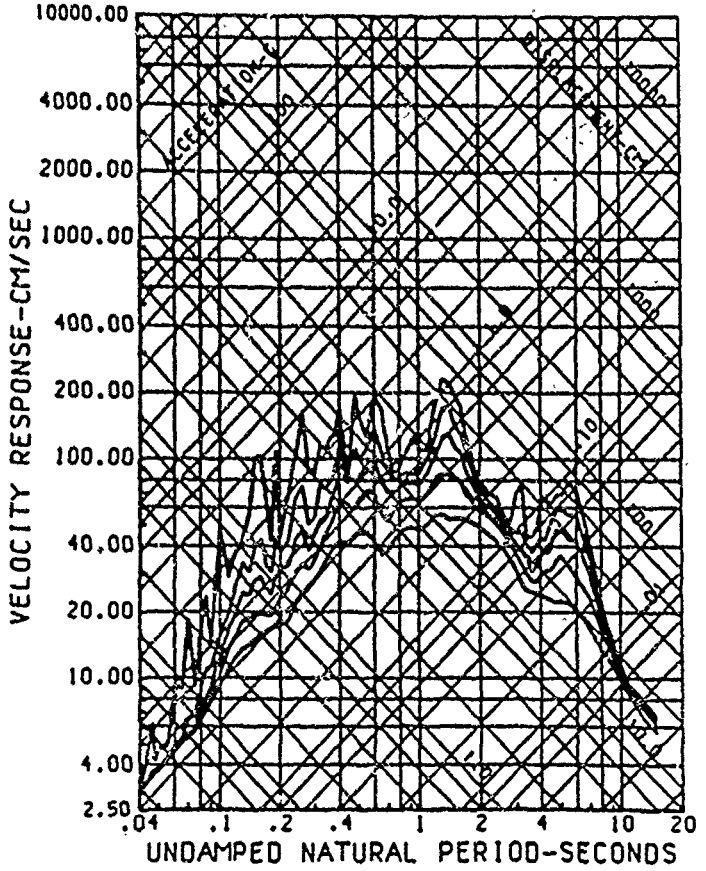



SEISMIC ENGINEERING BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
140 DEG
CRITICAL DAMPING
0,2,5,10,20 PERCENT

EL CENTRO,BONDS CORNER
10/15/79

***CAL 115***



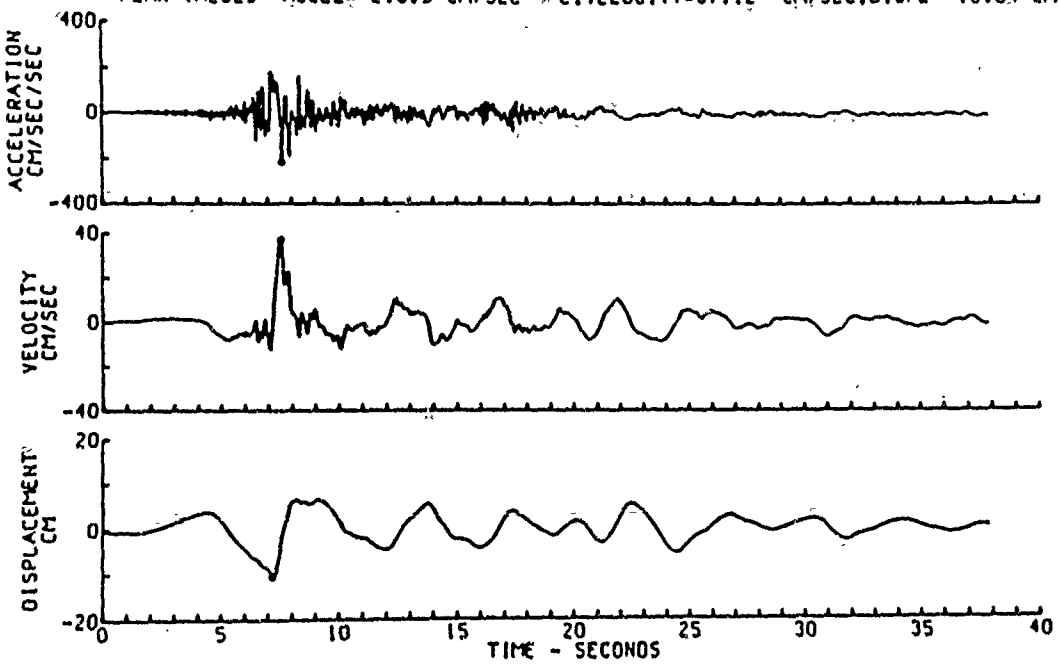

USGS OF 80-703

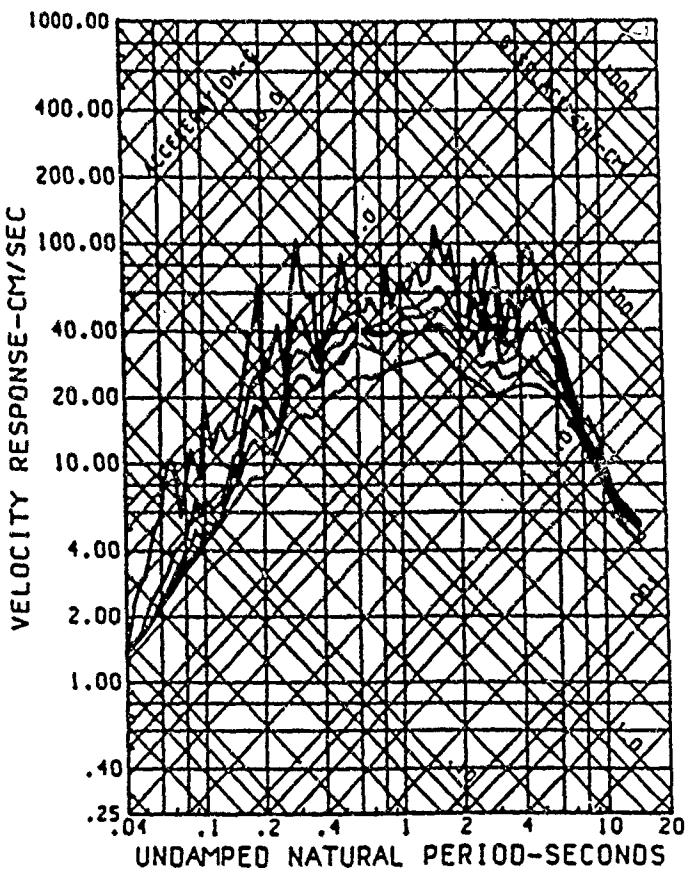
SEISMIC ENGINEERING BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
360DEG
CRITICAL DAMPING
0.2.5.10.20 PERCENT

EL CENTRO,DIFF ARR.
10/15/79,2317

*CAL 120*

CORRECTED ACCELERATION,VELOCITY,DISPLACEMENT
IMPERIAL VALLEY EARTHQUAKE OF OCTOBER 15,1979 - 2317UTC
BRAWLEY MUNICIPAL AIRPORT,BRAWLEY,CALIFORNIA,COMP 315 DEG
DATA IS PLOTTED AT EQUAL TIME INCREMENTS OF .01000 SEC
ACCELEROGRAM IS BAND PASSED, WITH RAMPS OF .030-.170 AND 23.00-25.00 CYC/SEC
• PEAK VALUES ACCEL=-216.5 CM/SEC/SEC, C.VELOCITY=37.12 CM/SEC,DISPL=-10.64 CM



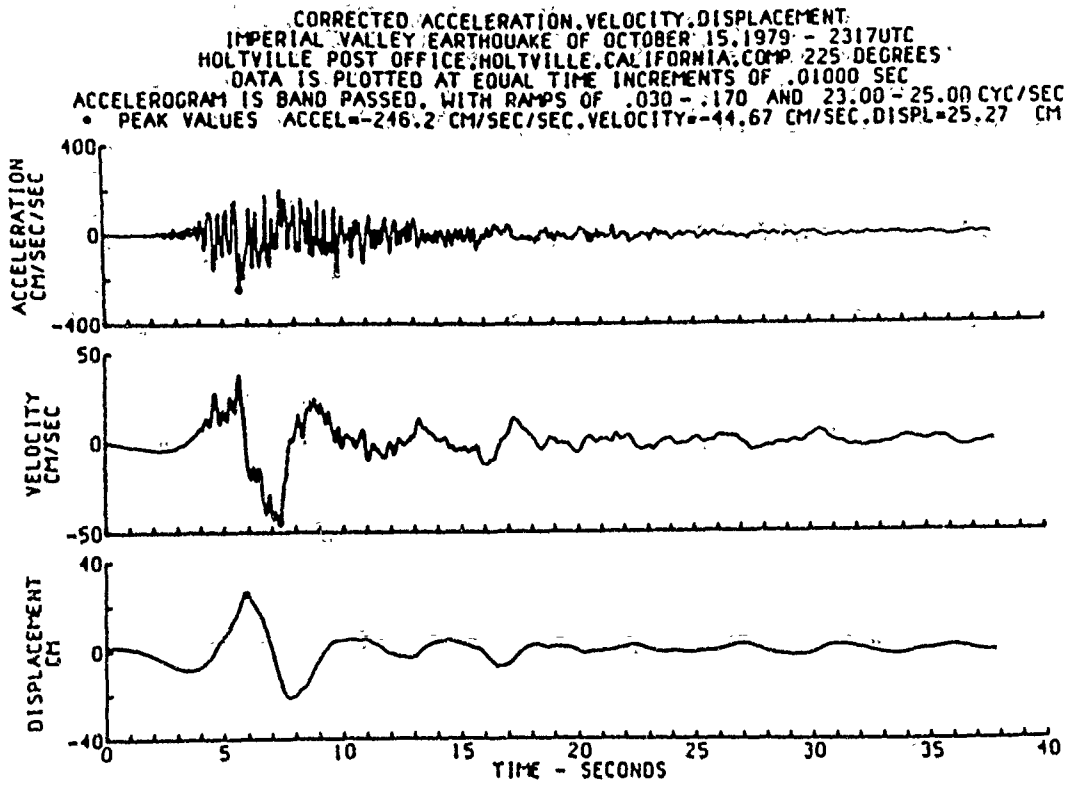



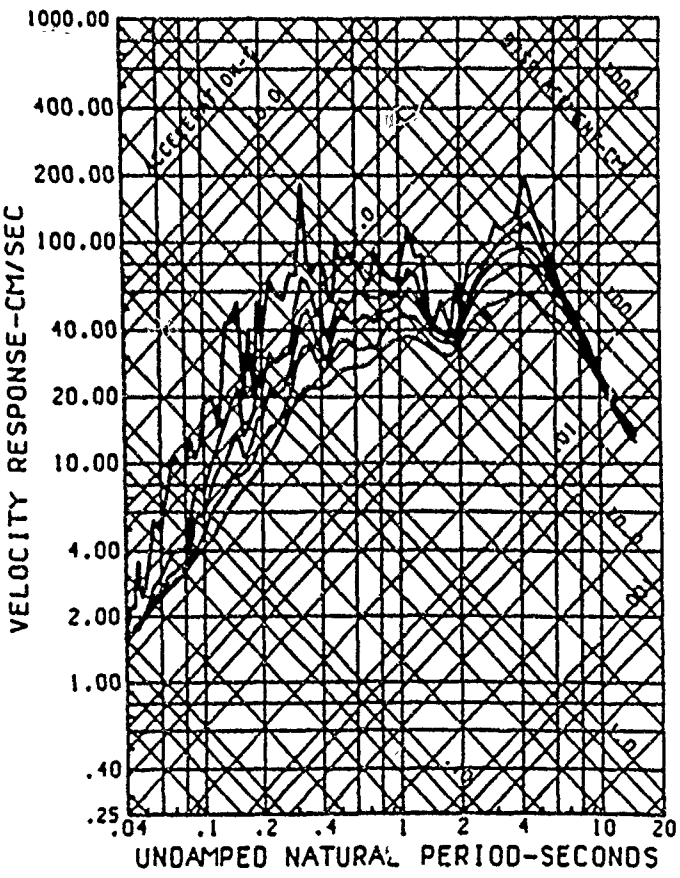

USGS OF 80-703

SEISMIC ENGINEERING
BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
315 DEG
CRITICAL DAMPING
0,2,5,10,20 PERCENT

BRAWLEY,BRAWLEY AIRPORT
10/15/79

*CAL 124*



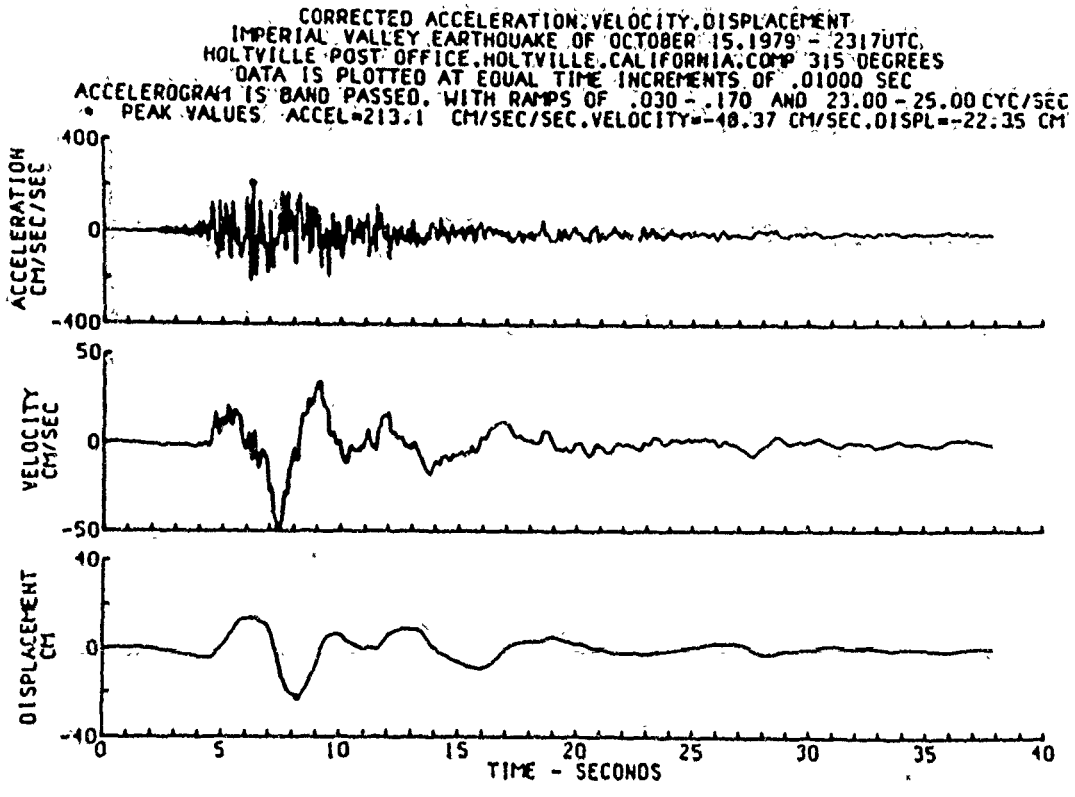



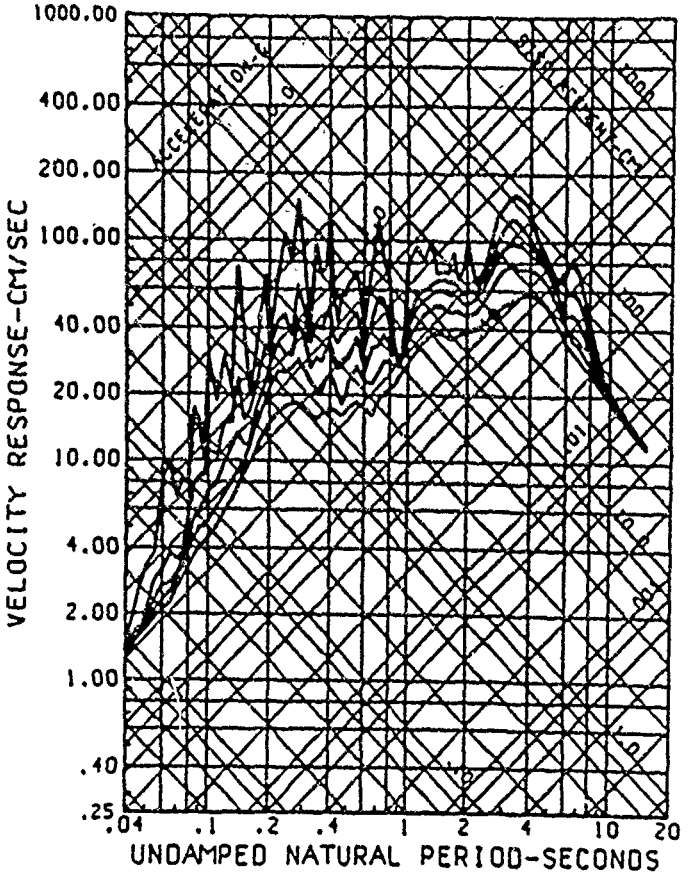

USGS OF 80-703

SEISMIC ENGINEERING
BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
225 DEG
CRITICAL DAMPING
0.2.5.10.20 PERCENT

HOLTVILLE POST OFFICE
10/15/79

*CAL 126*



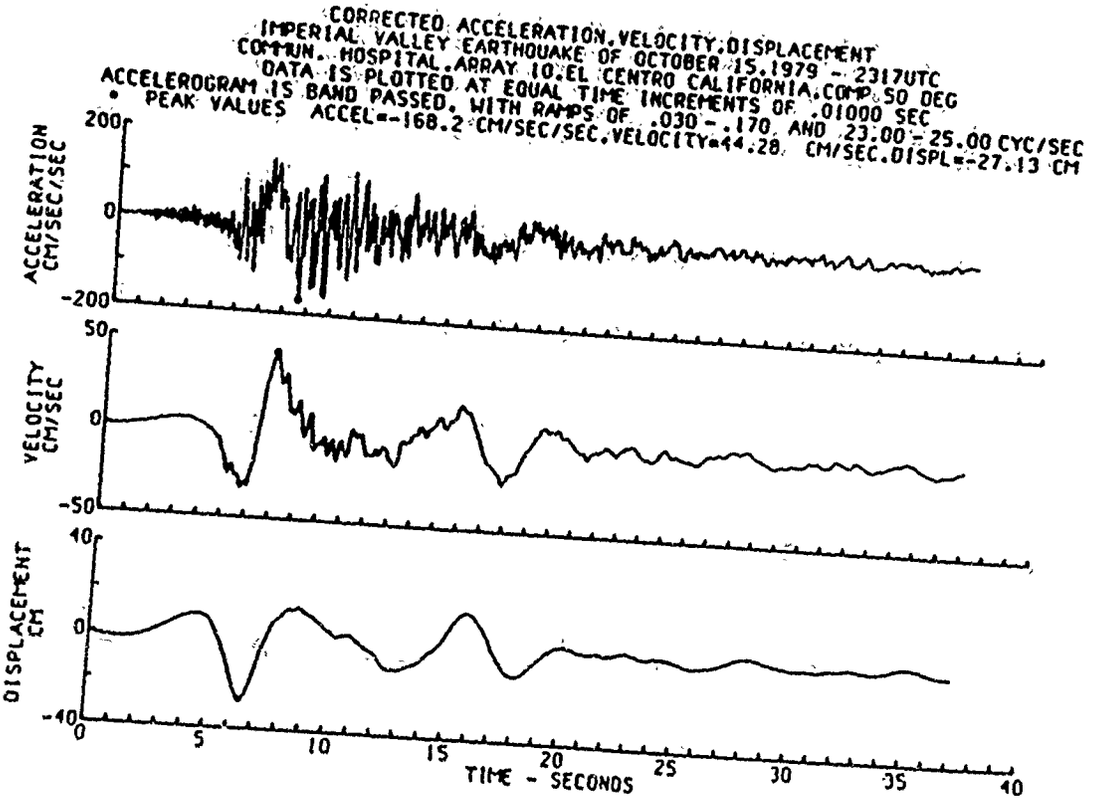



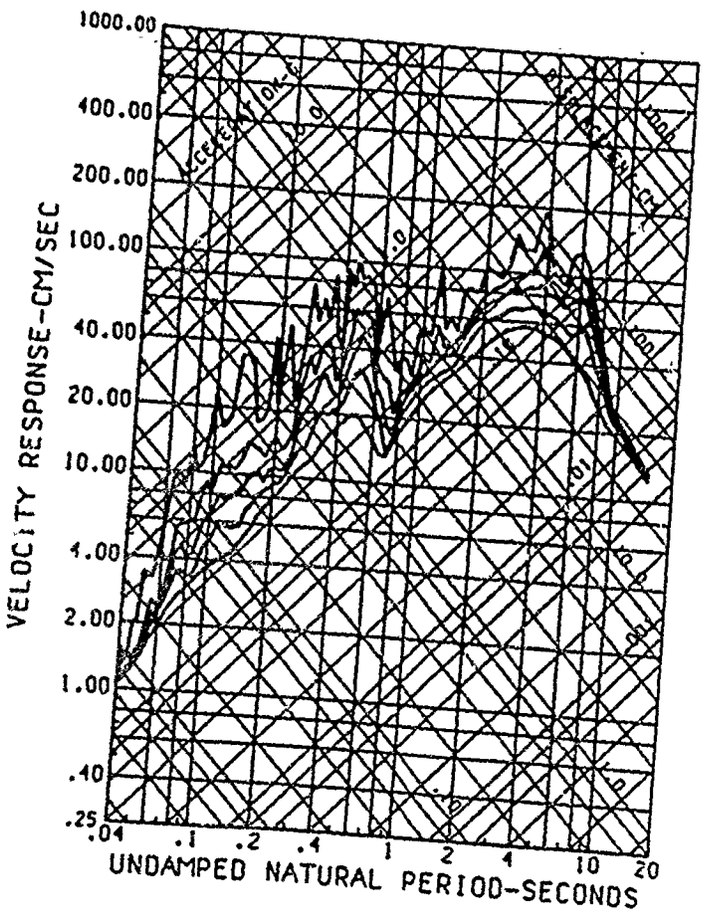

USGS OF 80-703

SEISMIC ENGINEERING BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
315 DEG
CRITICAL DAMPING
0.2.5.10.20 PERCENT

HOLTVILLE POST OFFICE,10/15/79

*CAL 127*



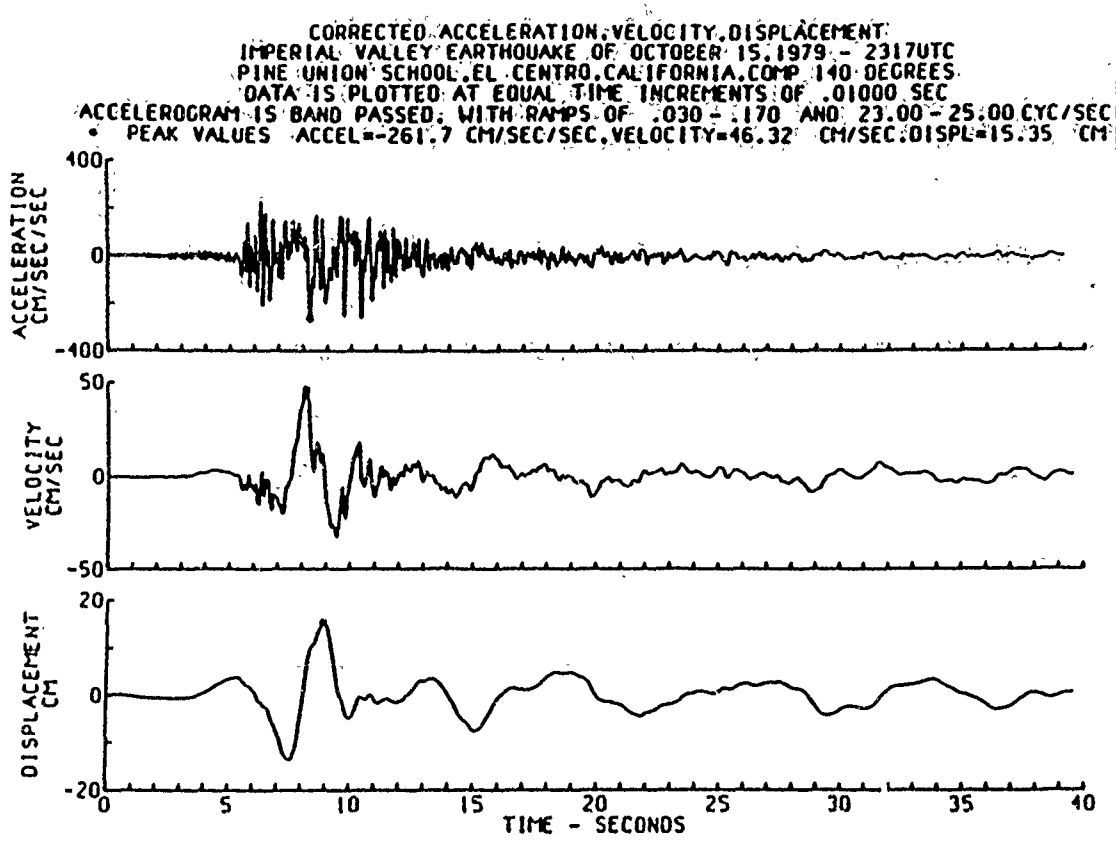



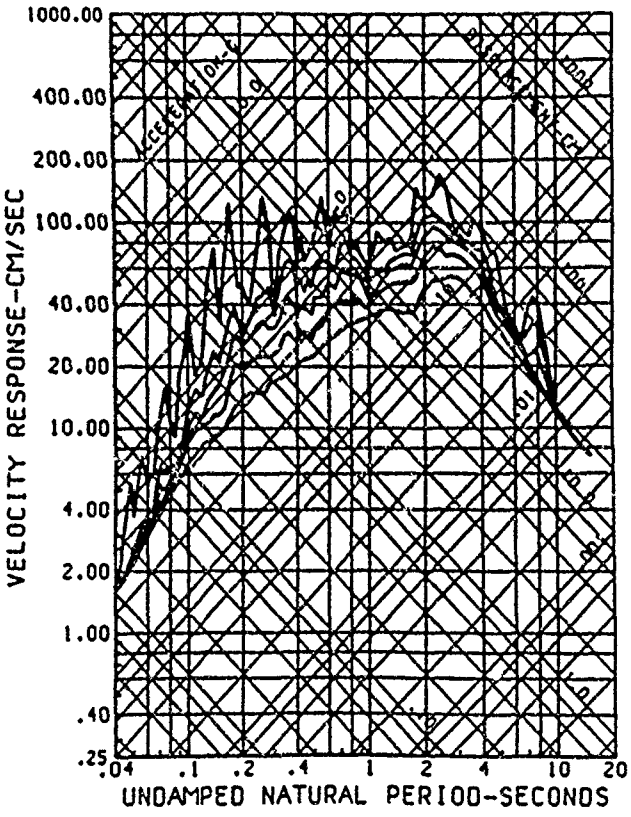

USGS OF 80-703

SEISMIC ENGINEERING BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
2317.50 DEG
CRITICAL DAMPING
0.2.5.10.20 PERCENT

EL CENTRO,ARRAY 10,10/15/79

CAL 129



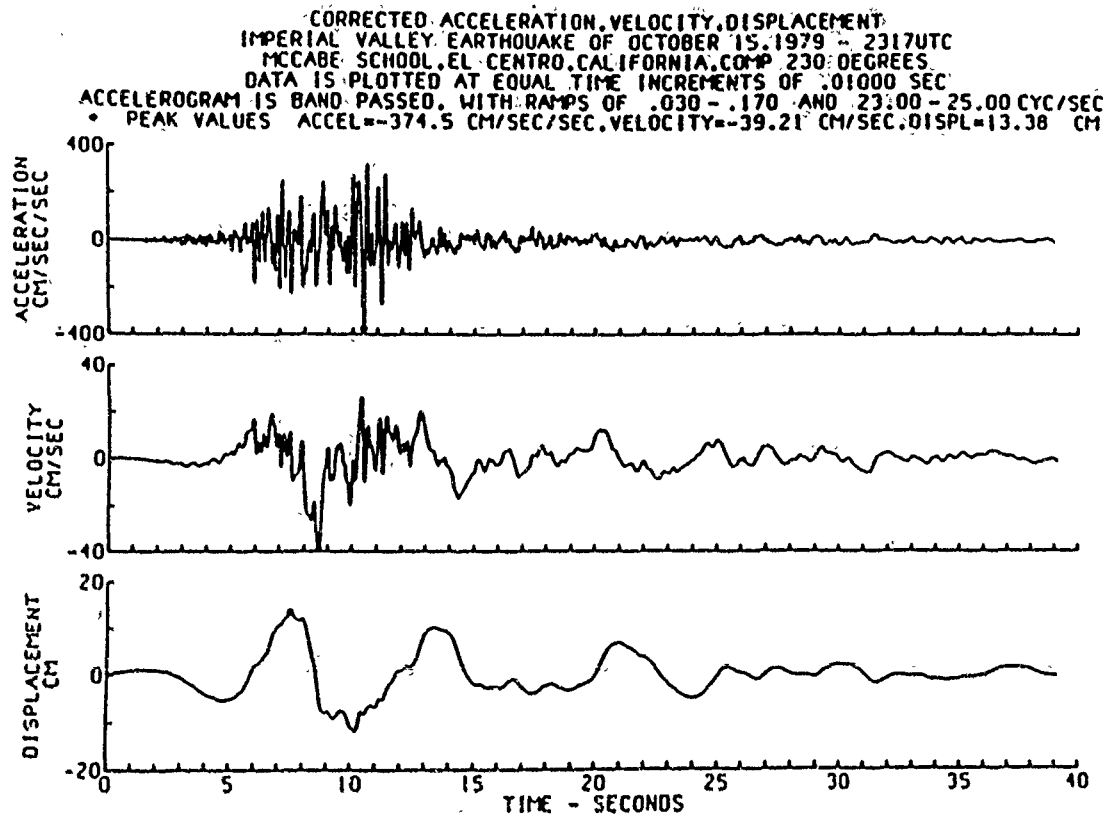



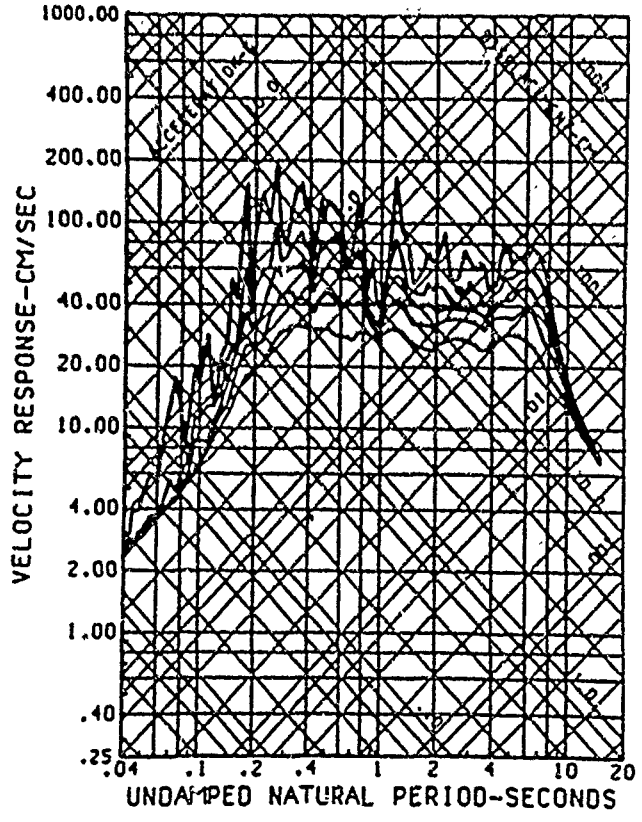

USGS OF 80-703

SEISMIC ENGINEERING BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
140DEG
CRITICAL DAMPING
0.2.5.10.20 PERCENT

EL CENTRO,ARRAY 3
10/15/79,2317

*CAL 134*



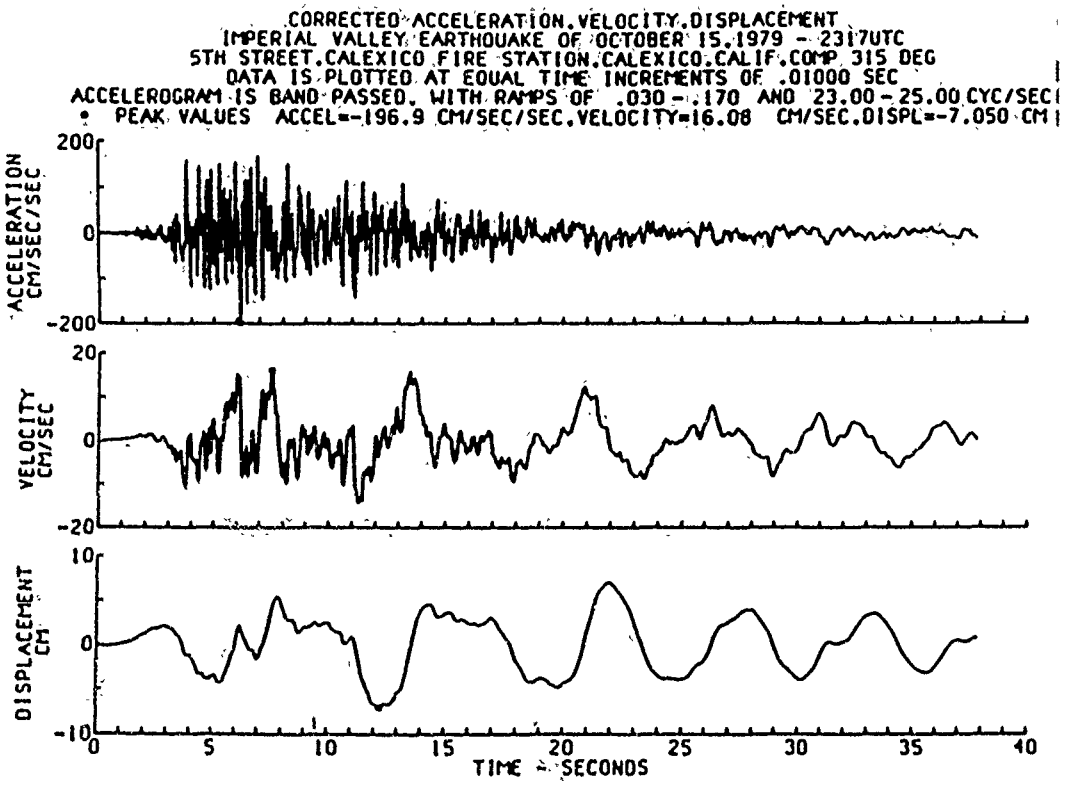



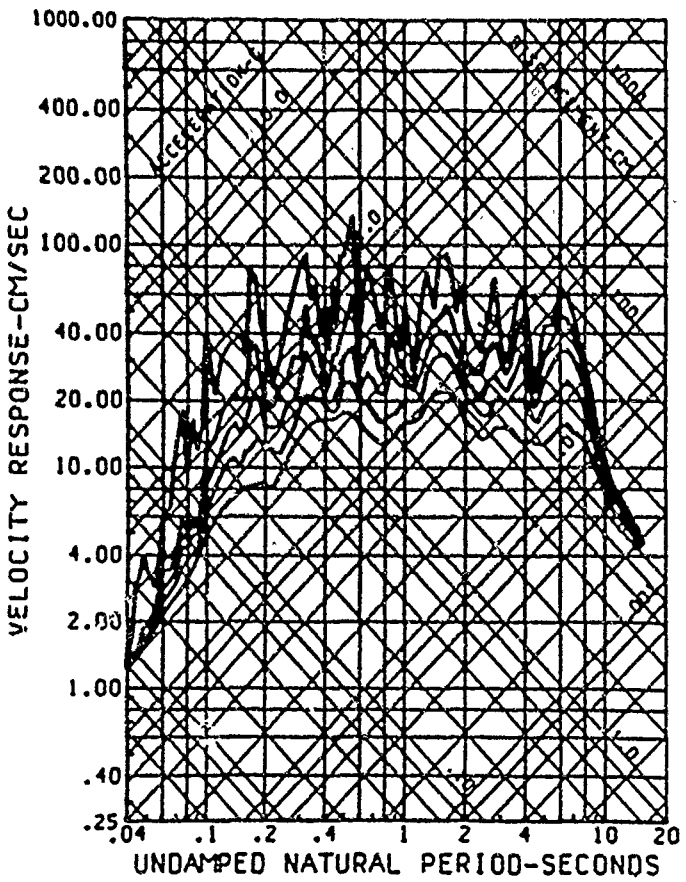

USGS OF 80-703

SEISMIC ENGINEERING BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
230DEG
CRITICAL DAMPING
0.2.5.10.20 PERCENT

EL CENTRO.ARRAY 11
10/15/79.2317

*CAL 132*



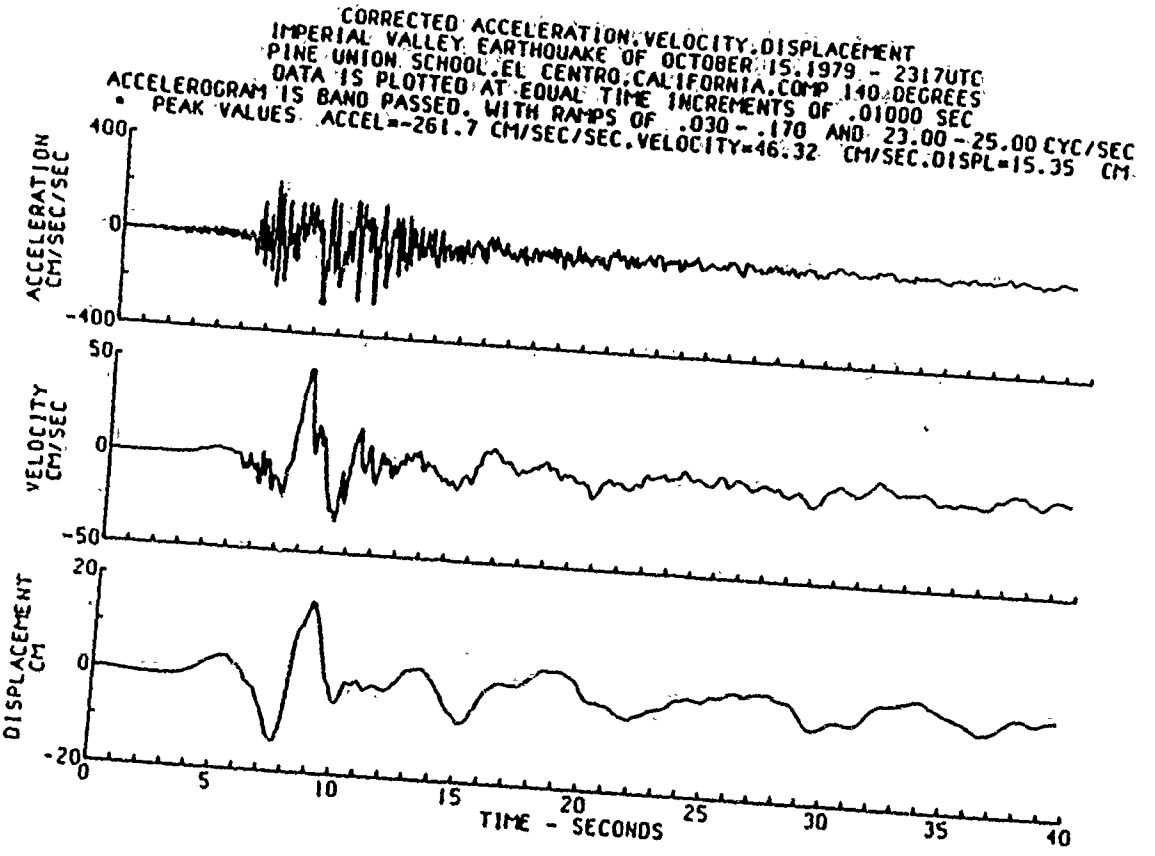



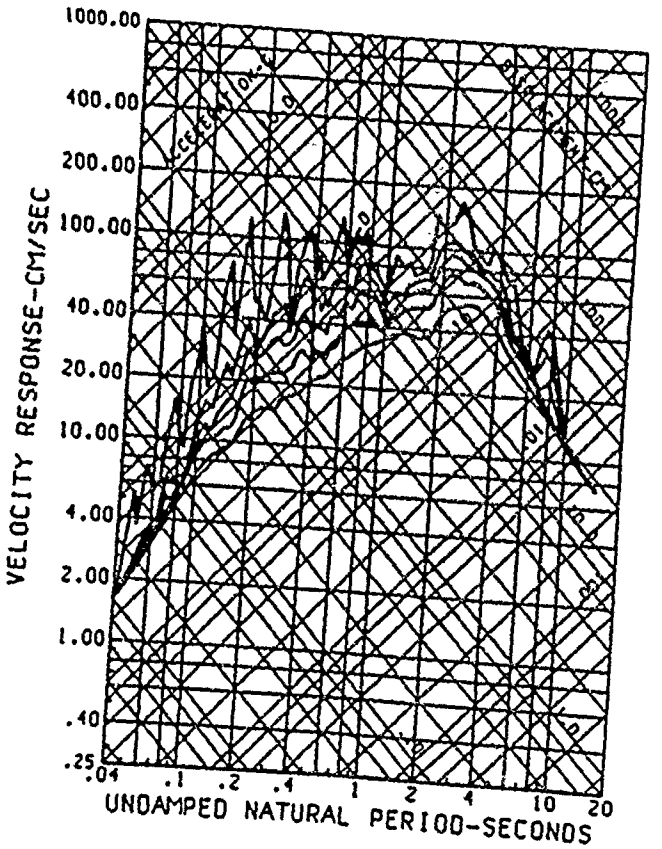

USGS OF 80-703

SEISMIC ENGINEERING BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
315 DEG
CRITICAL DAMPING
0.2.5.10.20 PERCENT

CALEXICO FIRE STATION
10/15/79

*CAL 131*



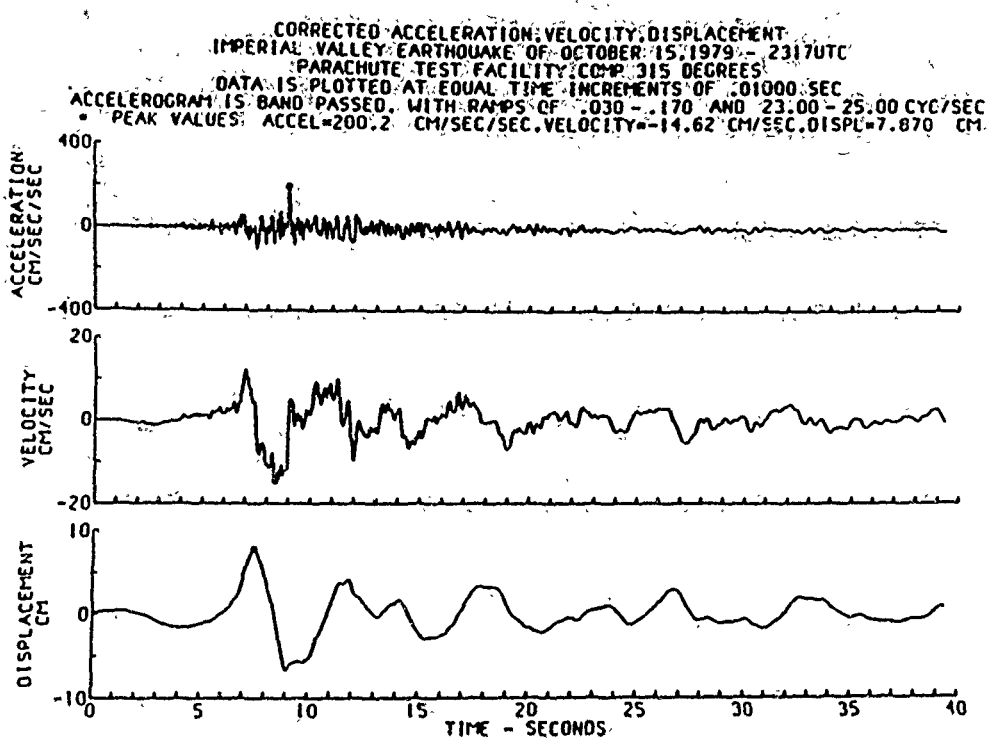



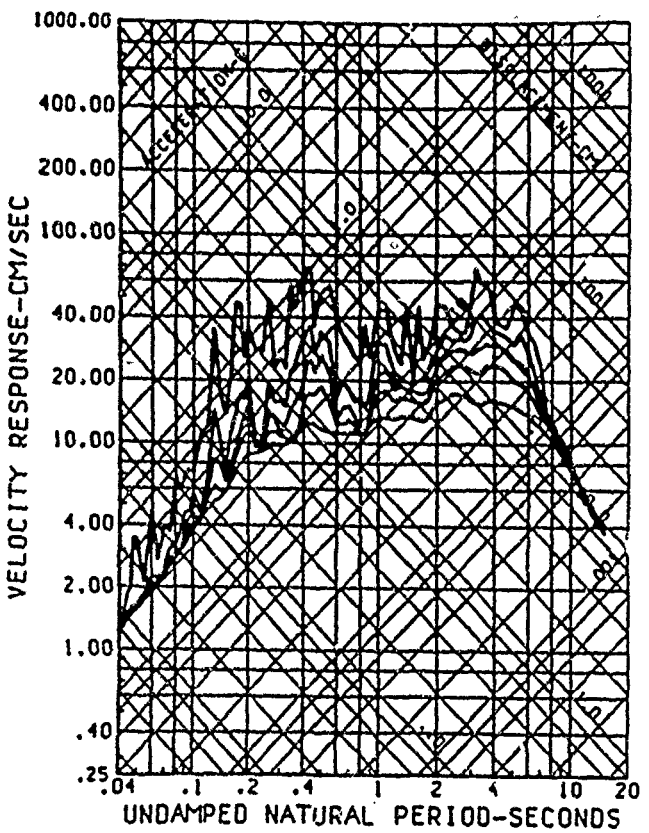

USGS OF 80-703

SEISMIC ENGINEERING BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
140DEG
CRITICAL DAMPING
0,2,5,10,20 PERCENT

EL CENTRO,ARRAY 3
10/15/79,2317

CAL 134



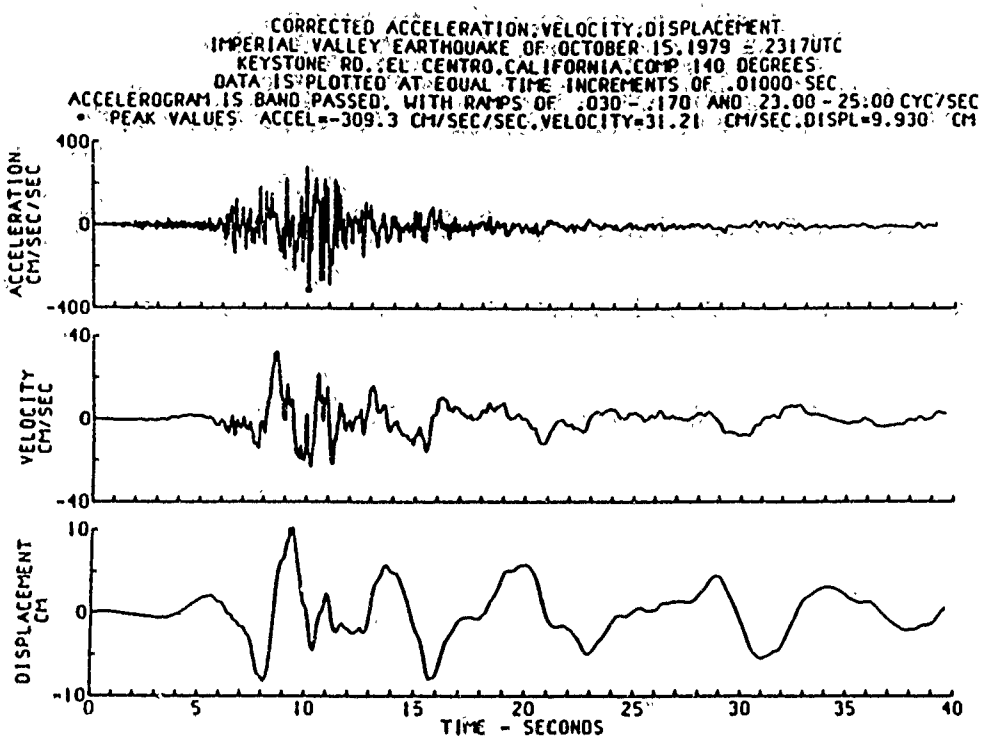



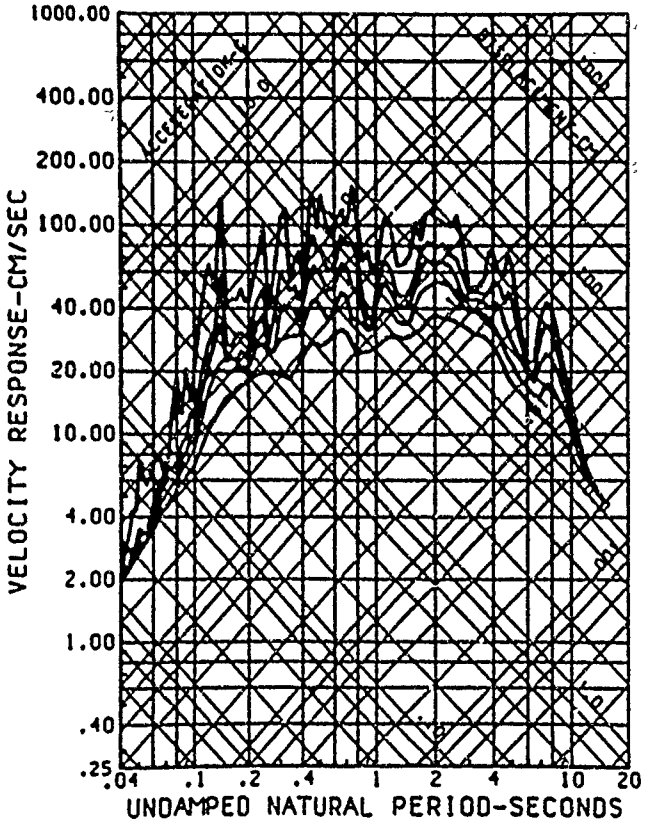

USGS OF 80-703

SEISMIC ENGINEERING
BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT
315DEG

PARACHUTE TST FACL.
10/15/79,2317

*CAL 136*



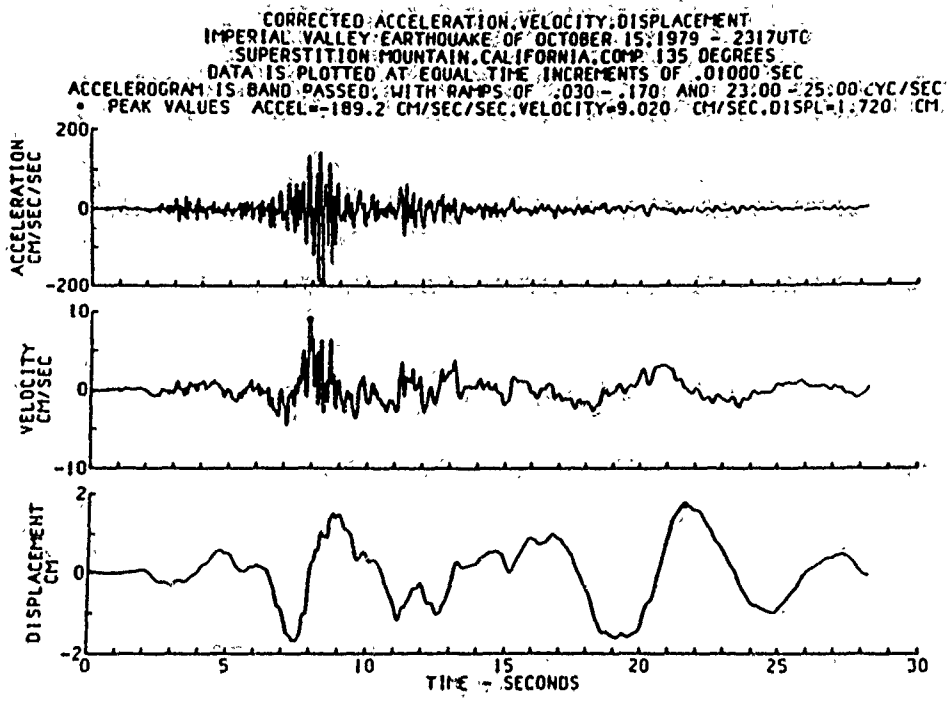



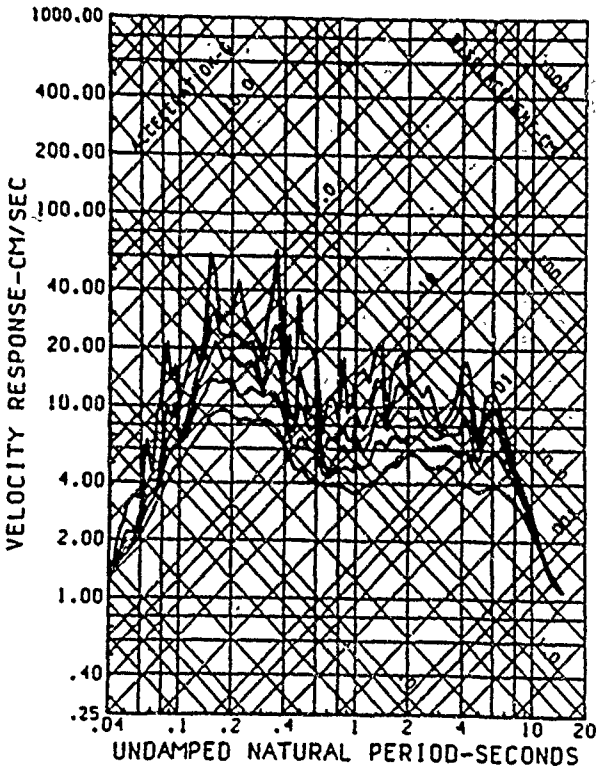

USGS OF 80-703

SEISMIC ENGINEERING
BRANCH/USGS
BAND PASSED FROM
.030- .170 TO 23.00-25.00 HZ
140DEG
CRITICAL DAMPING
0,2,5,10,20 PERCENT

EL CENTRO,ARRAY
2,10/15/79,2317

*CAL 138*




USGS OF 80-703

SEISMIC ENGINEERING BRANCH/USGS

BAND PASSED FROM

.030- .170 TO 23.00-25.00 HZ

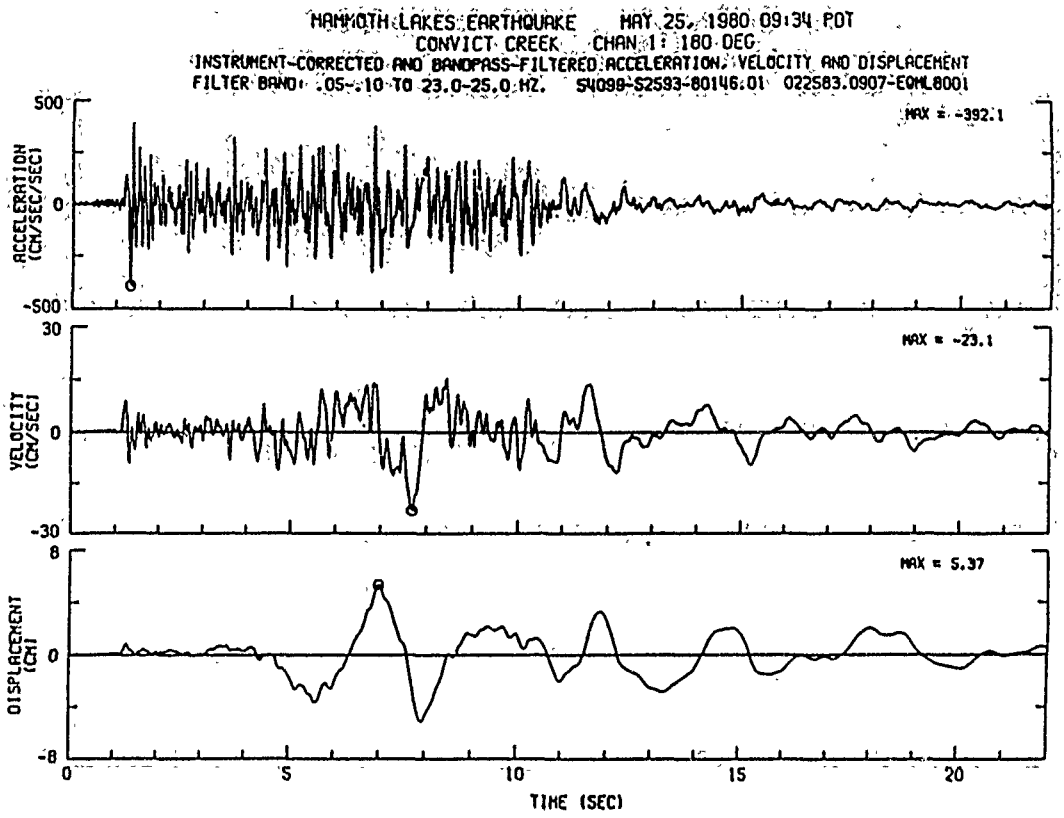
2317.135DEG

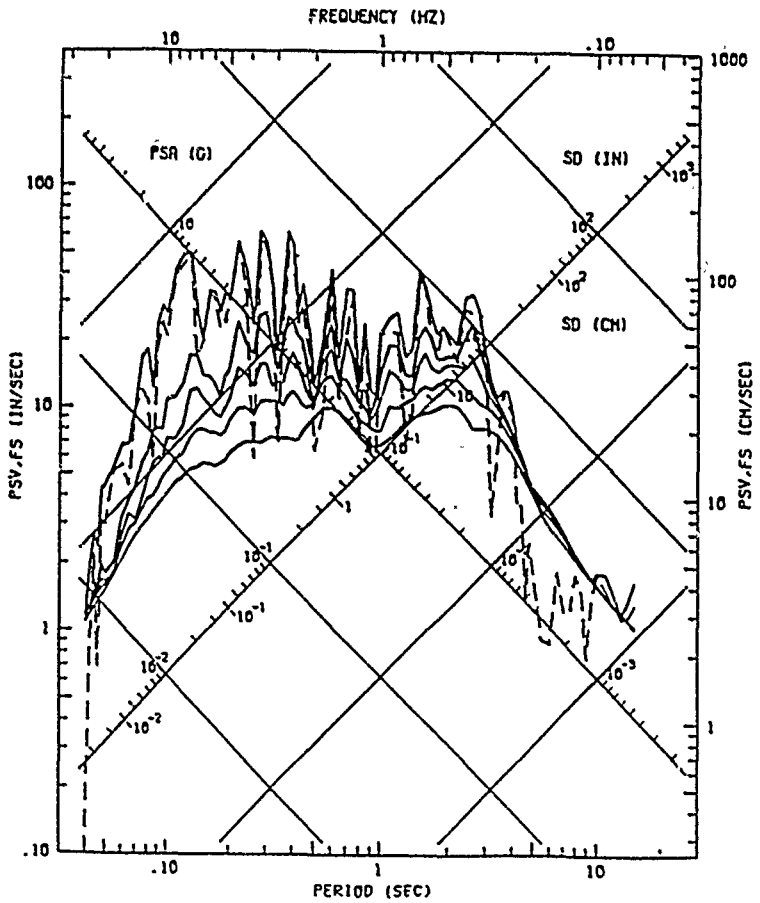
CRITICAL DAMPING

0.2.5.10.20 PERCENT

SUPERSTITION MT.CAL.10/15/79.

***CAL 139***



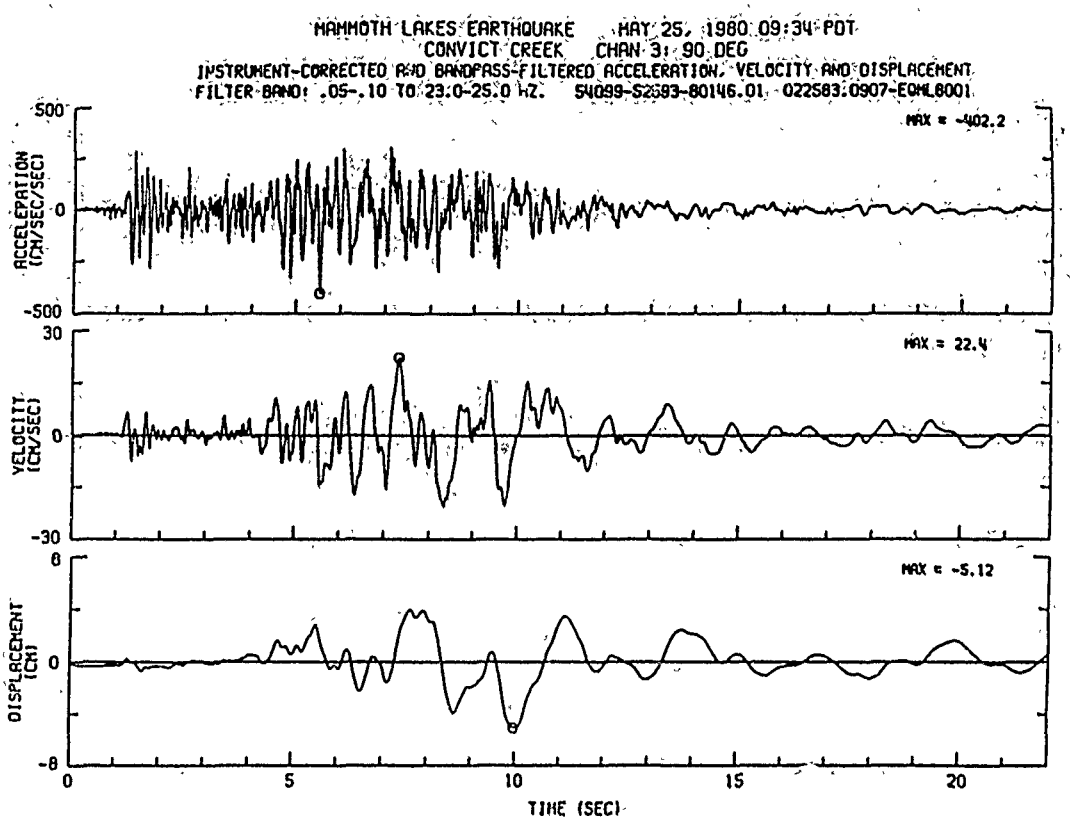

CDMG PRINTOUT

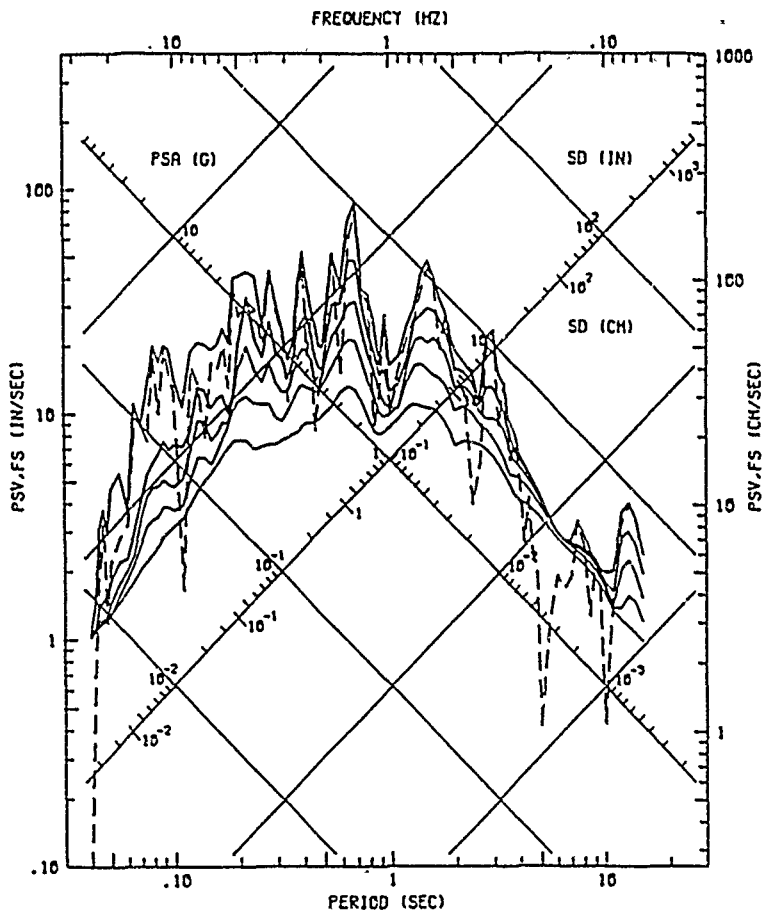
CONVICT CREEK
CHAN 1: 180 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
S4099-S2593-80146.01
022483.1610-EQML8001

—— RESPONSE SPECTRA: PSV,PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

MAMMOTH LAKES EARTHQUAKE
MAY 25, 1980 09:34 PDT

***CAL 157***



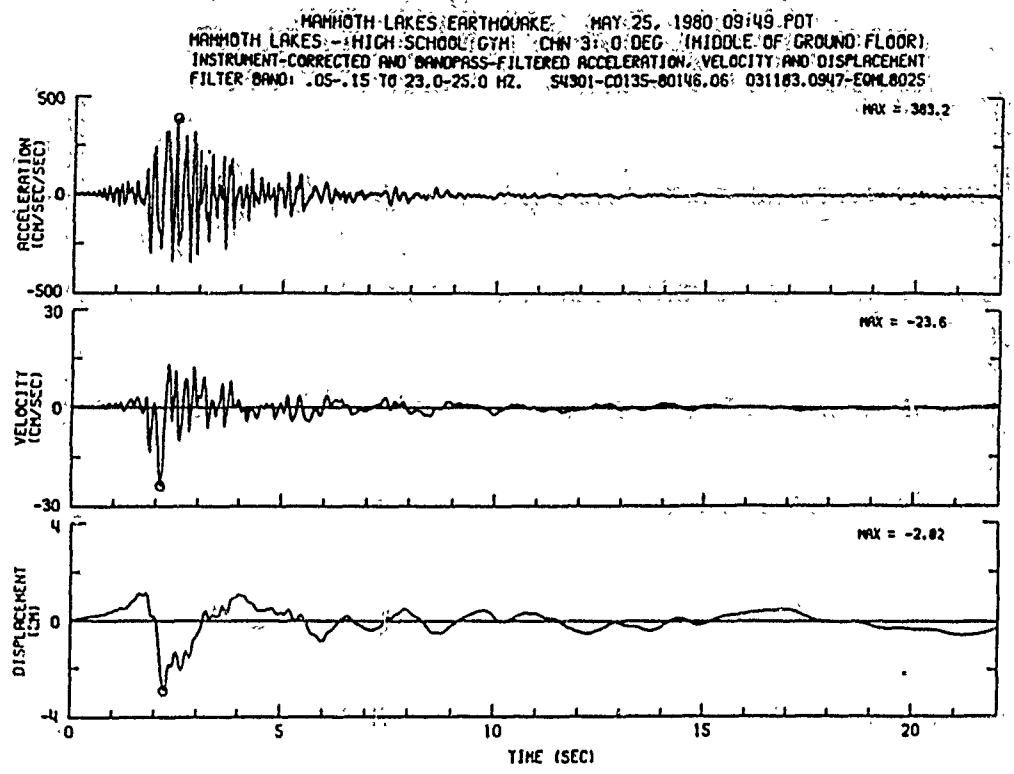



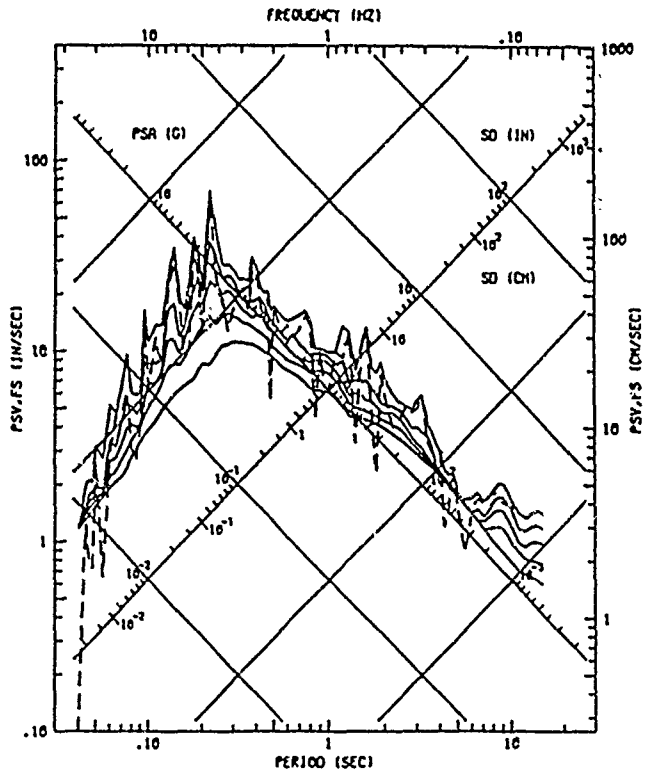

CDMG PRINTOUT

CONVICT CREEK
CHAN 3: 90 DEG
ACCELEROGRAH BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
54099-S2593-80146.01
022493.1610-ECML8001
—— RESPONSE SPECTRA: PSV,PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

MAMMOTH LAKES EARTHQUAKE
MAY 25, 1980 09:34 PDT

***CAL 158***



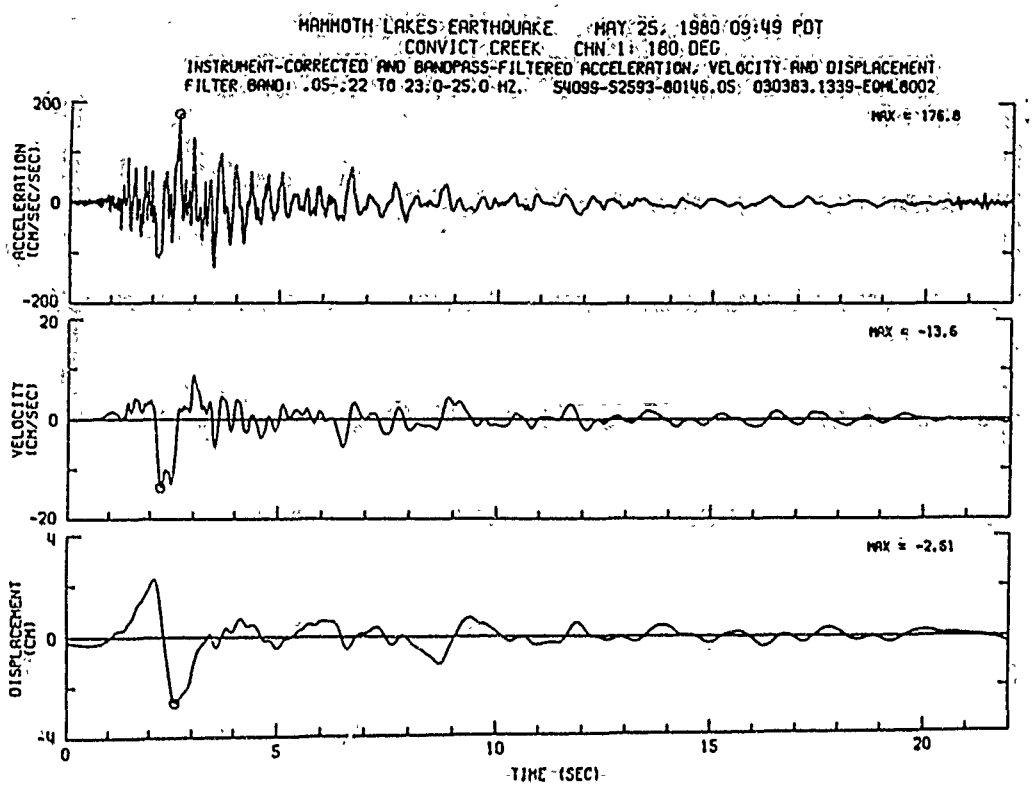



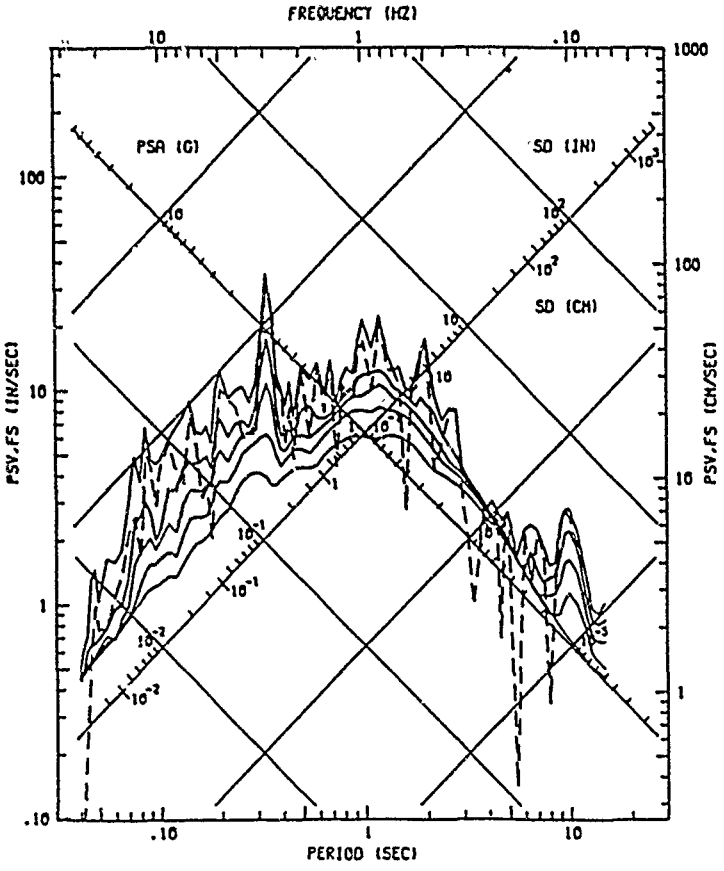

CDMG PRINTOUT

MAMMOTH LAKES - HIGH SCHOOL GYM
CHN 3: 0 DEG (MIDDLE OF GROUND FLOOR)
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
54301-C0135-80146.06
031083.1628-EQML8025
—— RESPONSE SPECTRA: PSV,PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

MAMMOTH LAKES EARTHQUAKE
MAY 25, 1980 09:49 PDT

***CAL 163***



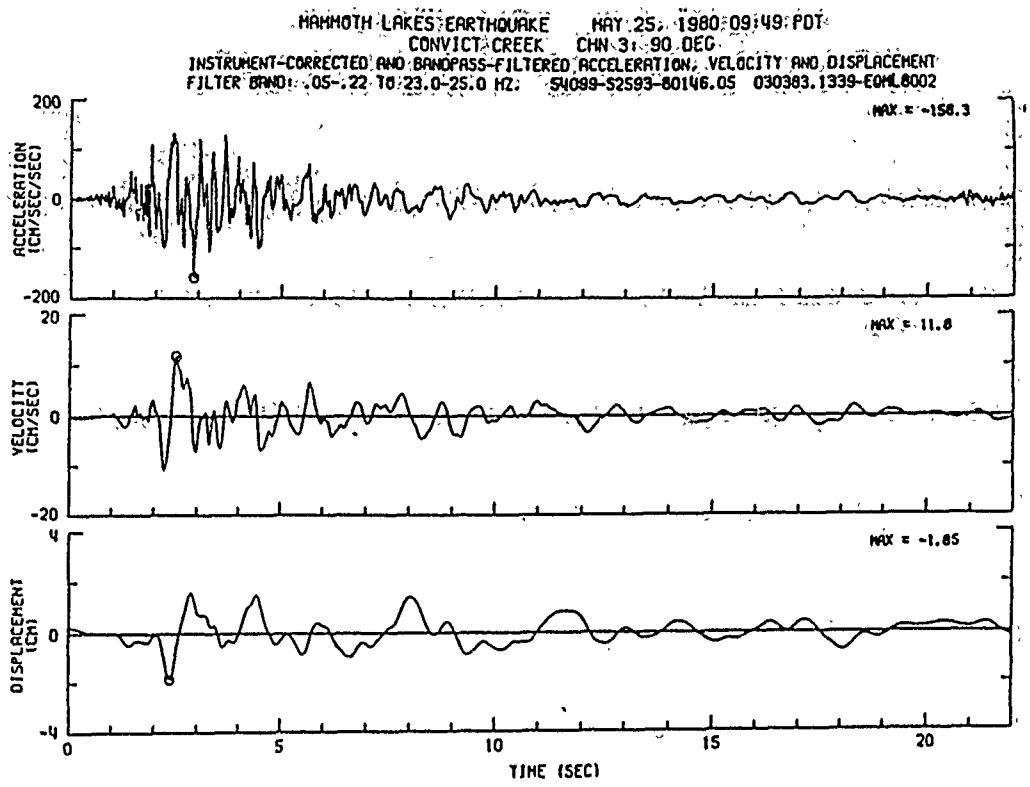



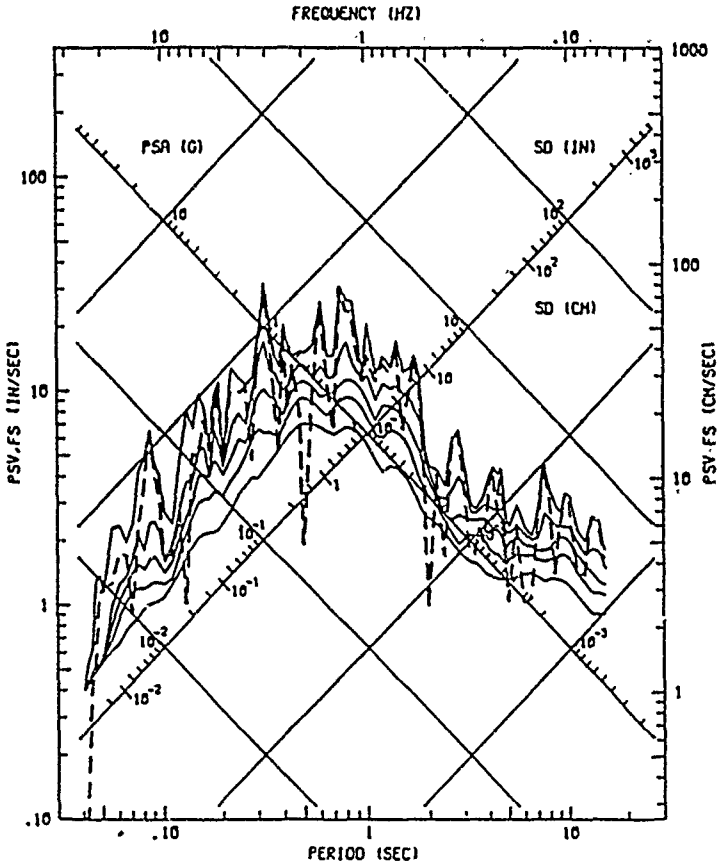

CDMG PRINTOUT

CONVICT CREEK
CHAN 1: 180 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
S4099-S2593-80146.05 030183.1159-EQML8002
—— RESPONSE SPECTRA: PSV,PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

MAMMOTH LAKES EARTHQUAKE
MAY 25, 1980 09:49 PDT

***CAL 165***



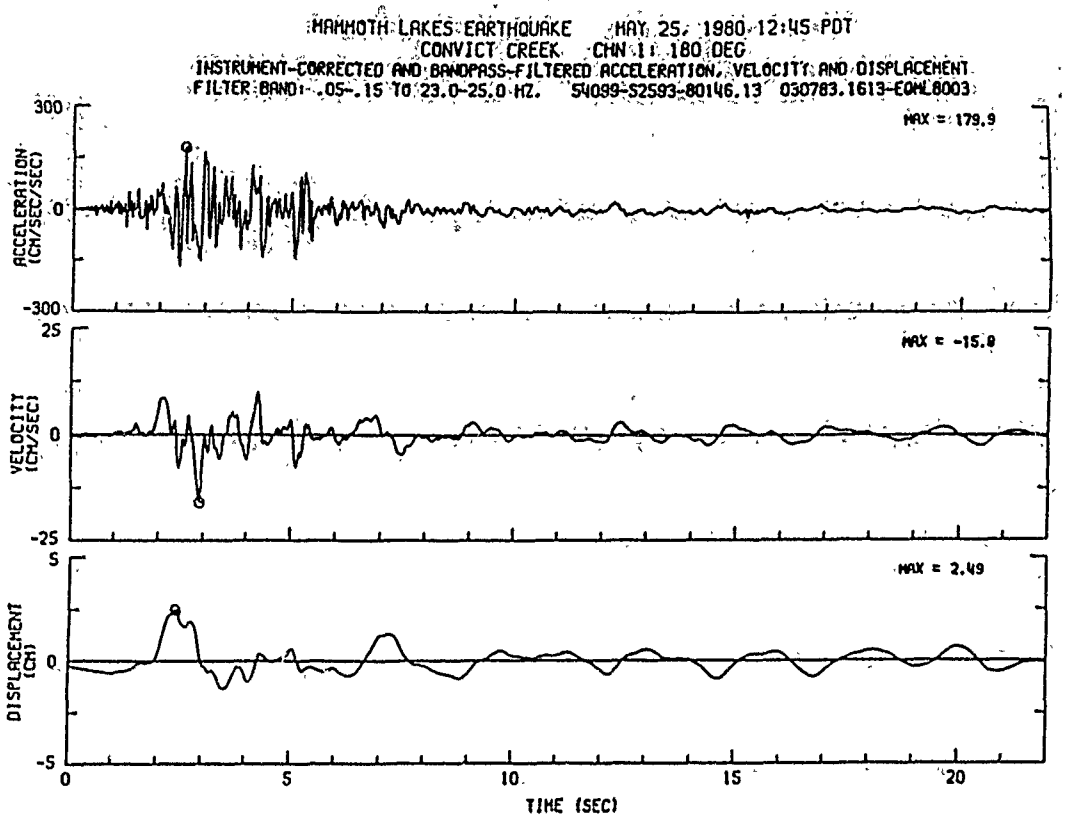



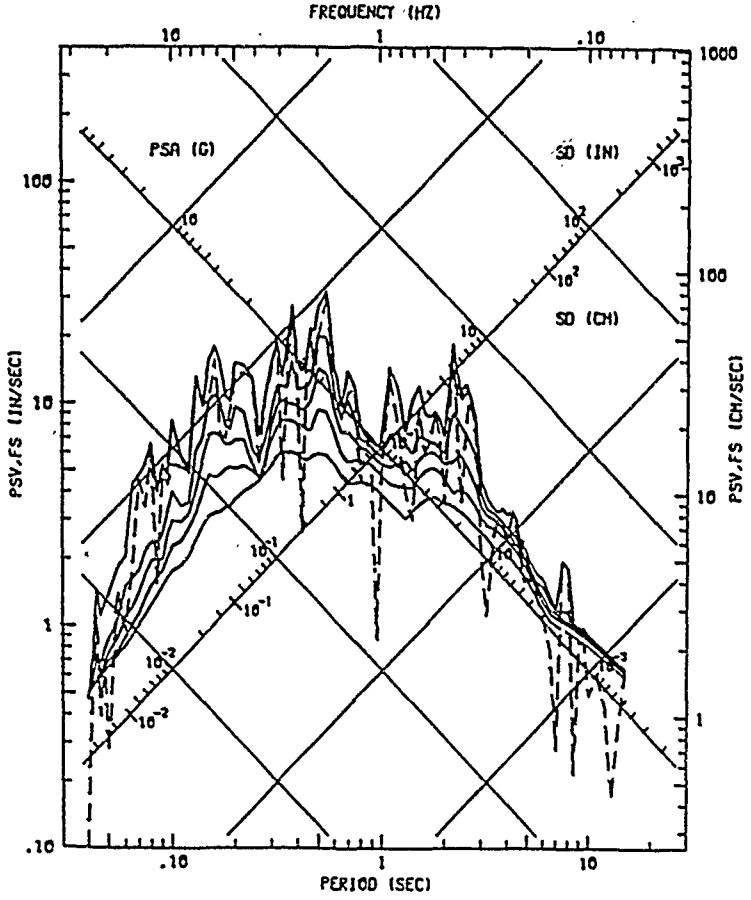

CDMG PRINTOUT

CONVICT CREEK
CHAN 3: 90 DEG
ACCELEROGRAH BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
54099-S2593-80146.05 030183.1159-EOML8002
—— RESPONSE SPECTRA: PSV,PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

MAMMOTH LAKES EARTHQUAKE
MAY 25, 1980 09:49 PDT

***CAL 166***



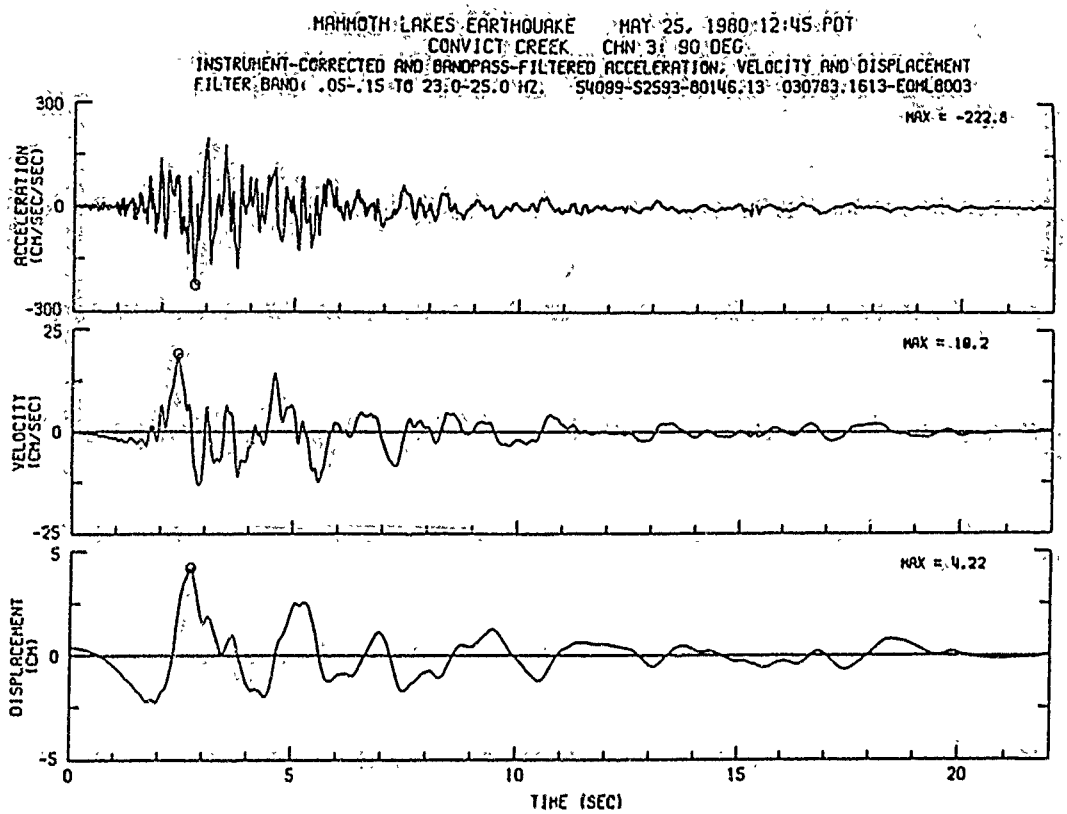



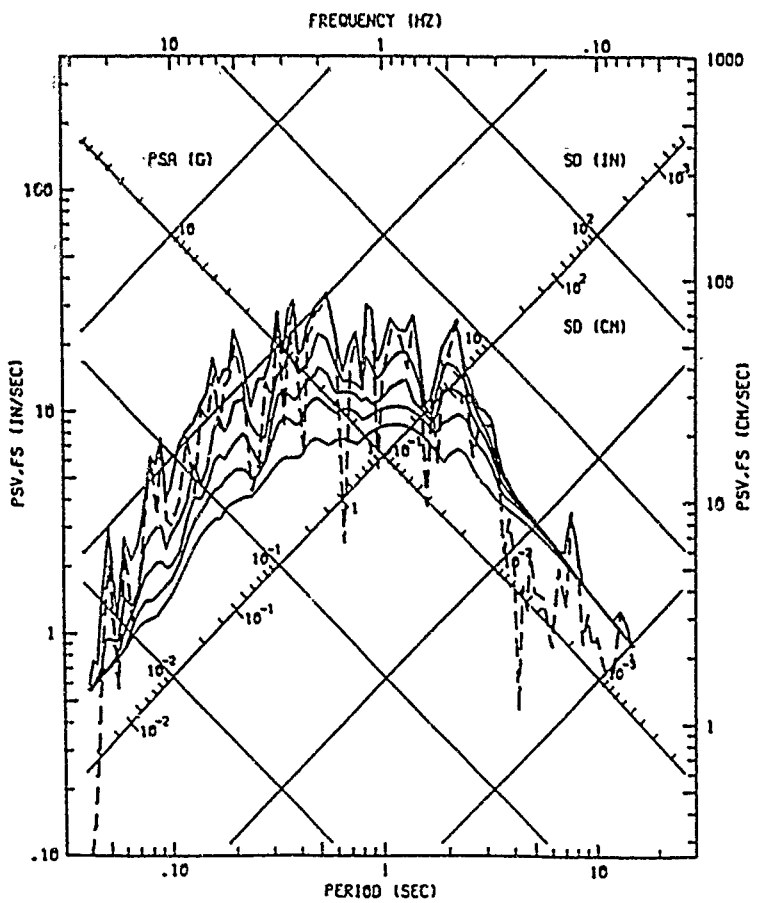

CDMG PRINTOUT

CONVICT CREEK
CHN 1: 180 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
54099-S2593-80146.13 030783.1117-EOML800
—— RESPONSE SPECTRA: PSV,PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

MAMMOTH LAKES EARTHQUAKE
MAY 25, 1980 12:45 PDT

***CAL 167***



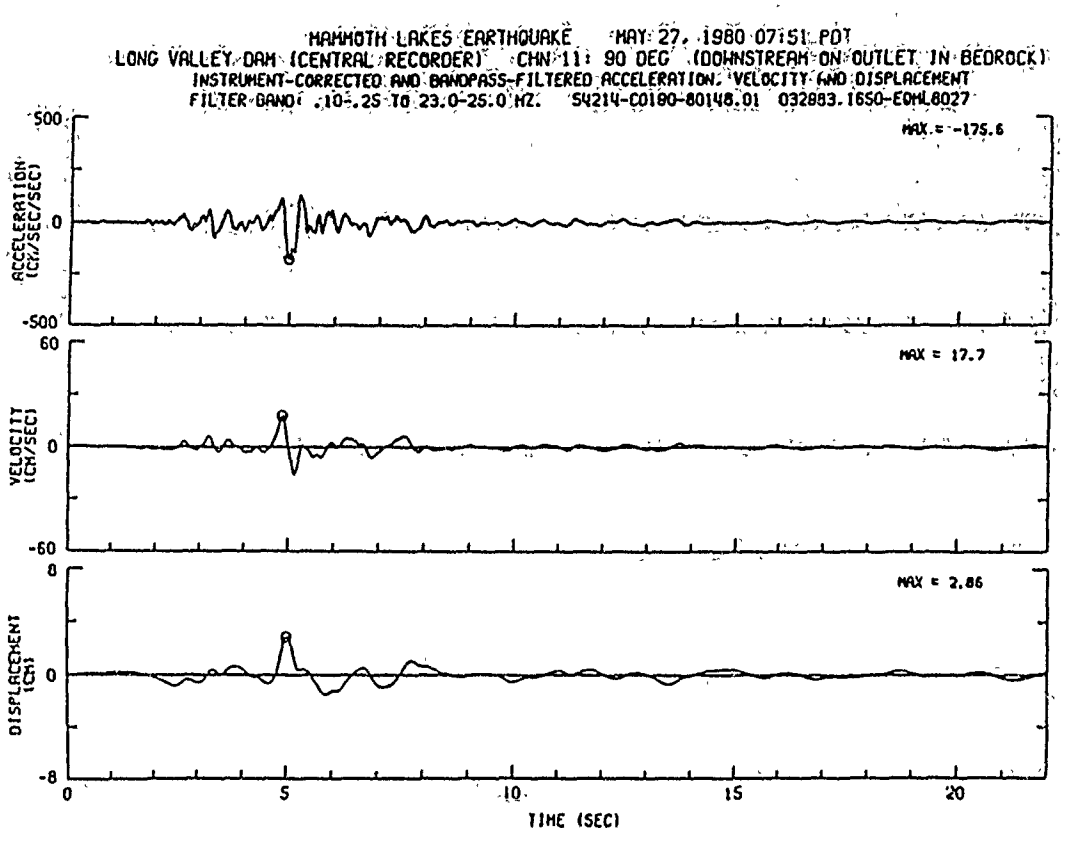



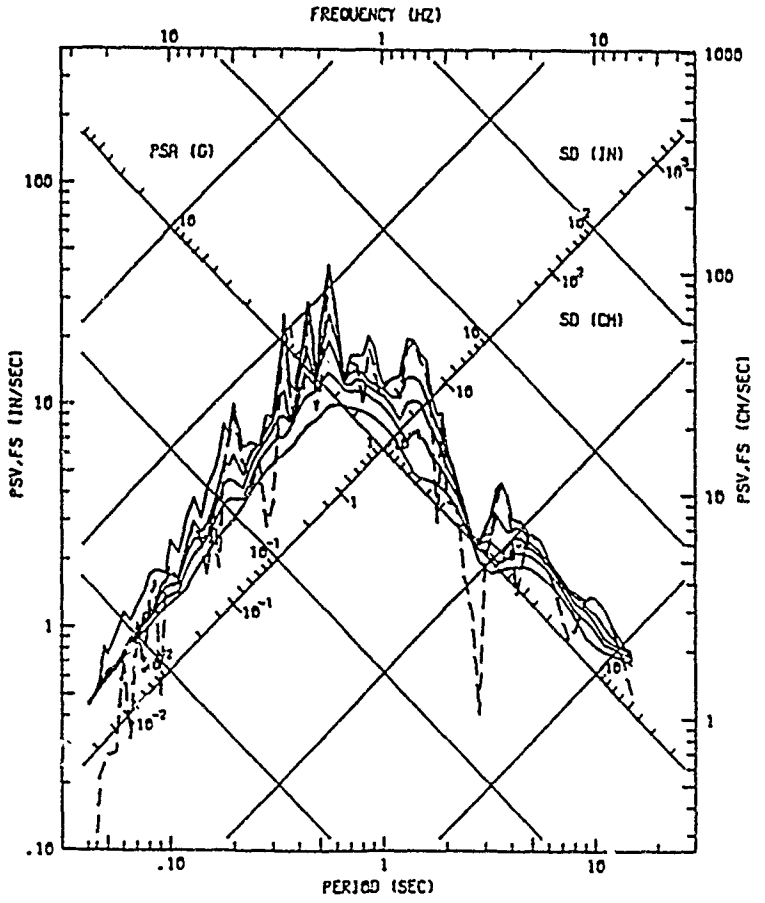

CDMG PRINTOUT

CONVICT CREEK
CHN 3: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
54099-S2593-80146.13 030783.1117-EQHL800
—— RESPONSE SPECTRA: PSV,PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

MAMMOTH LAKES EARTHQUAKE
MAY 25, 1980 12:45 PDT

***CAL 168***



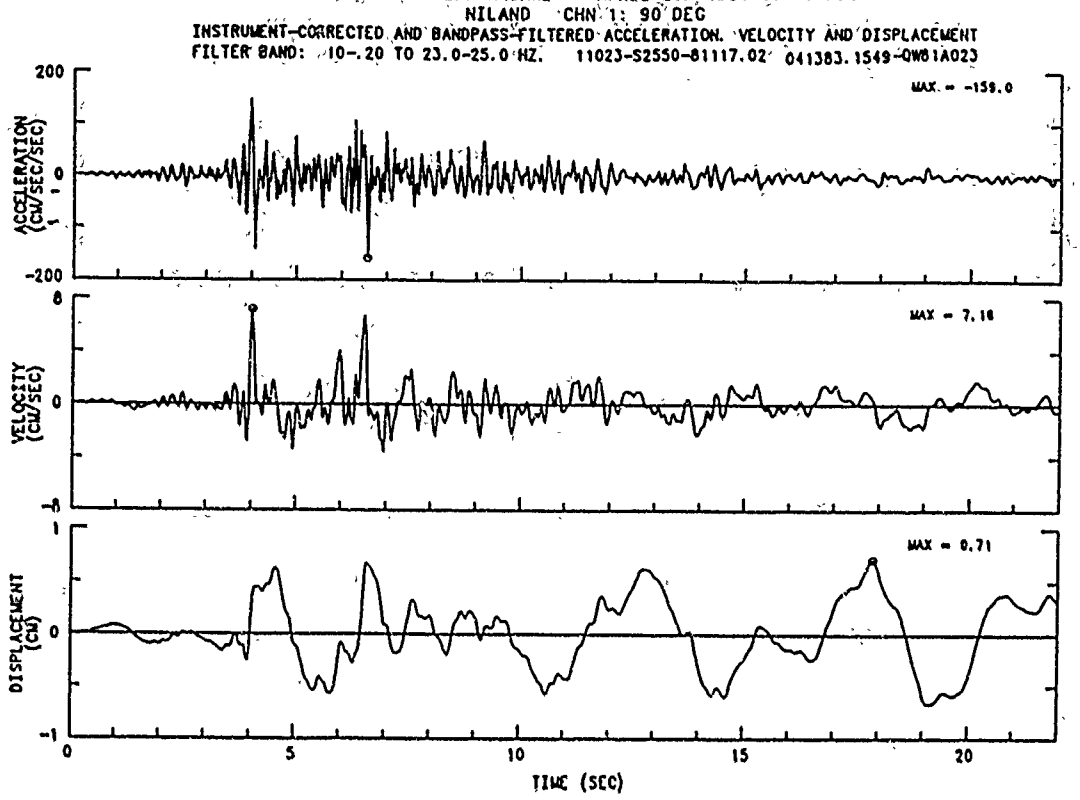



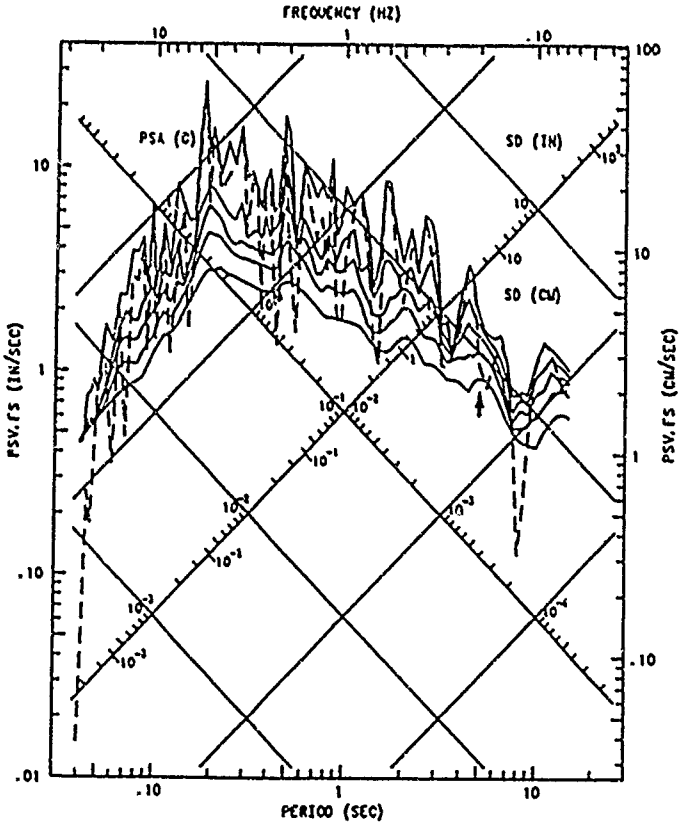

CDMG PRINTOUT

MAMMOTH LAKES EARTHQUAKE
LONG VALLEY DAM (CENTRAL RECORDER)
CHN 11: 90 DEG
(DOWNSTREAM ON OUTLET IN BEDROCK)
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
SV214-C0190-80148.01
032983.1248-EQML8027
—— RESPONSE SPECTRA: PSV,PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

MAY 27, 1980 07:51 PDT

*CAL 171*



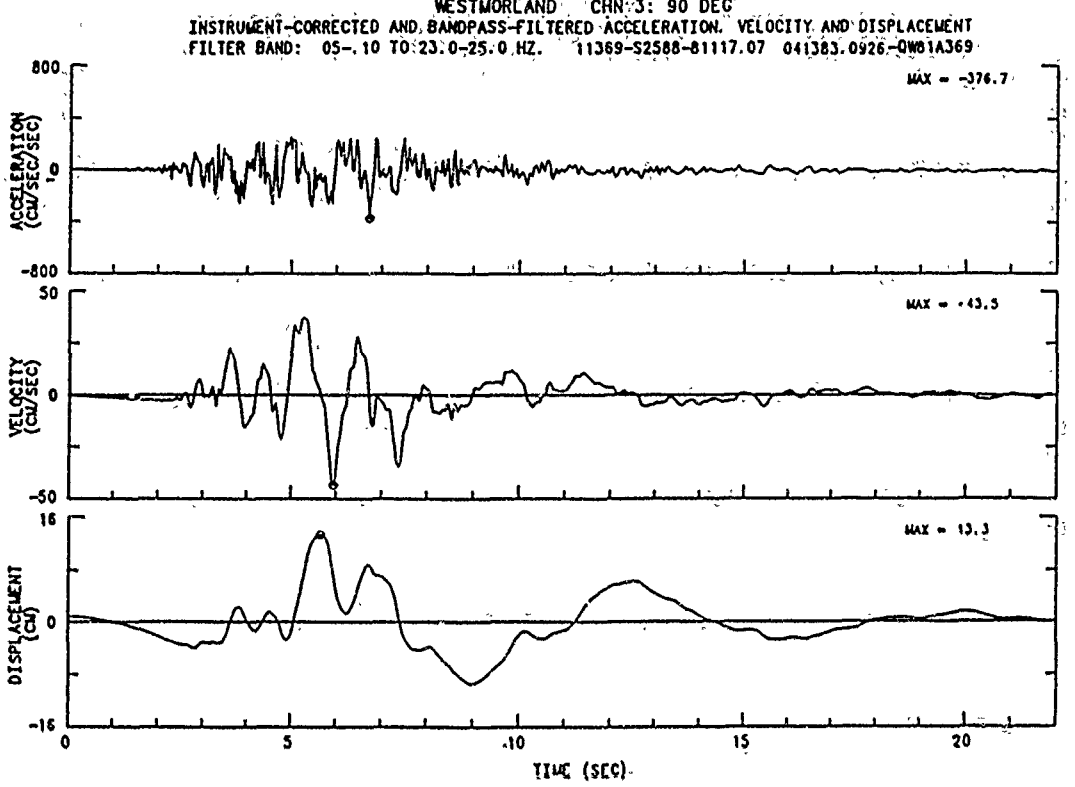



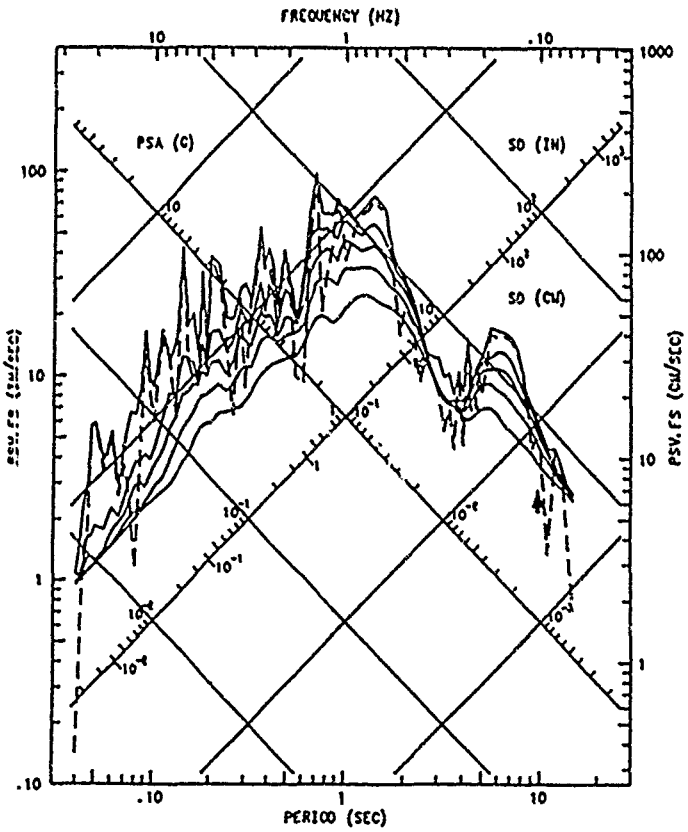

CDMG OSMS 81-5.1

NILAND
CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
11023-S2550-81117.02
041383.1033-QW81A023
—— RESPONSE SPECTRA: PSV, PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

WESTMORLAND EARTHQUAKE
APRIL 26, 1981 05:09 PDT

***CAL 173***



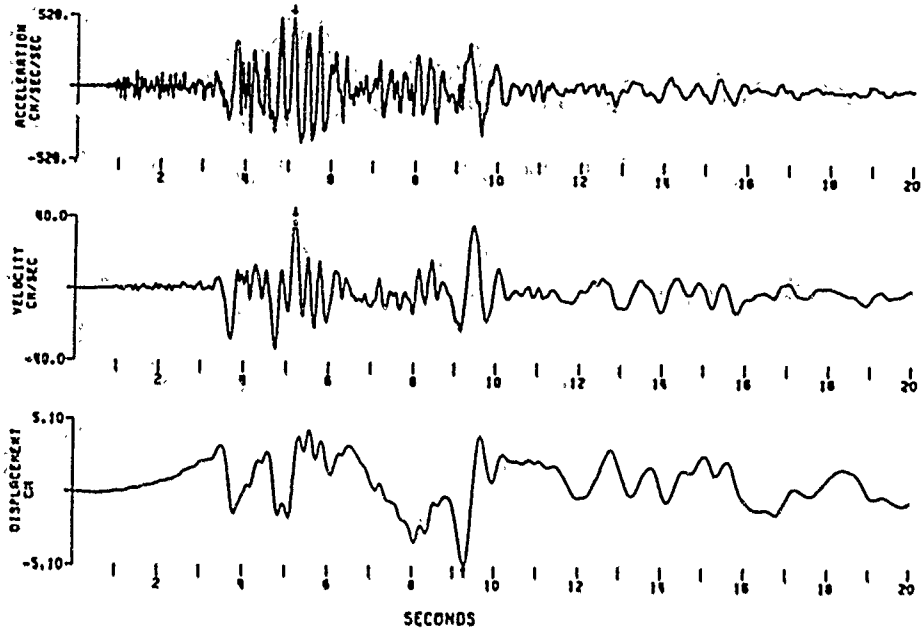

CDMG OSMS 81-5.1

WESTMORLAND
CHN 3: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
11369-S2588-81117.07
041383.0731-QW81A369
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

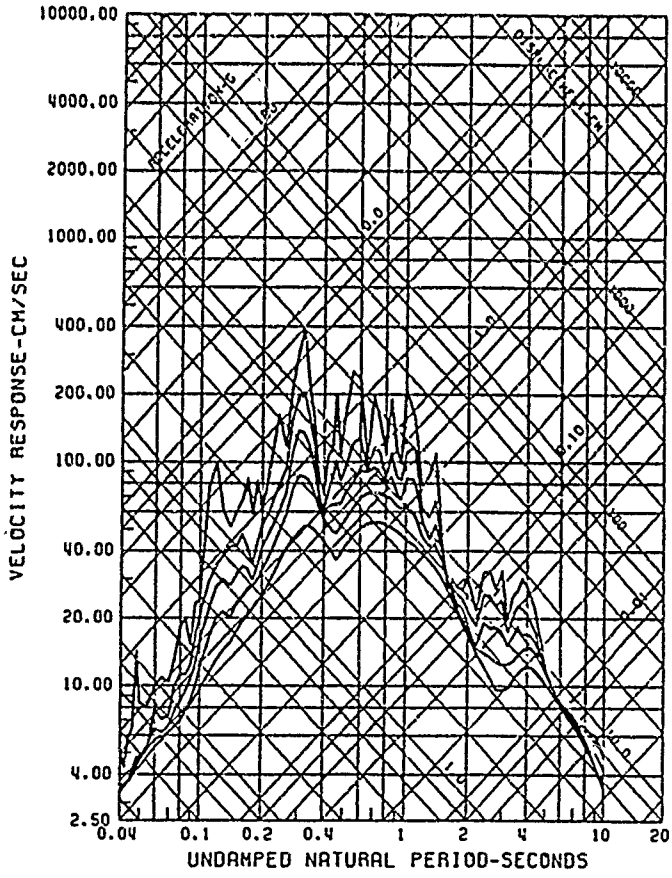
WESTMORLAND EARTHQUAKE
APRIL 26, 1981 05:09 PDT

*CAL 175*

Corrected acceleration, velocity, and displacement time histories (200 samples/sec) as recorded on 135° horizontal component at Pleasant Valley pumping plant (switchyard). Peak values: acceleration, 514.43 cm/sec$^2$; velocity, 39.22 cm/sec; displacement, 5.05 cm (bandpass filtered 0.1-50 Hz, Butterworth order 8 lowcut, cosine taper 50-Hz highcut).




USGS/EERL 84-03

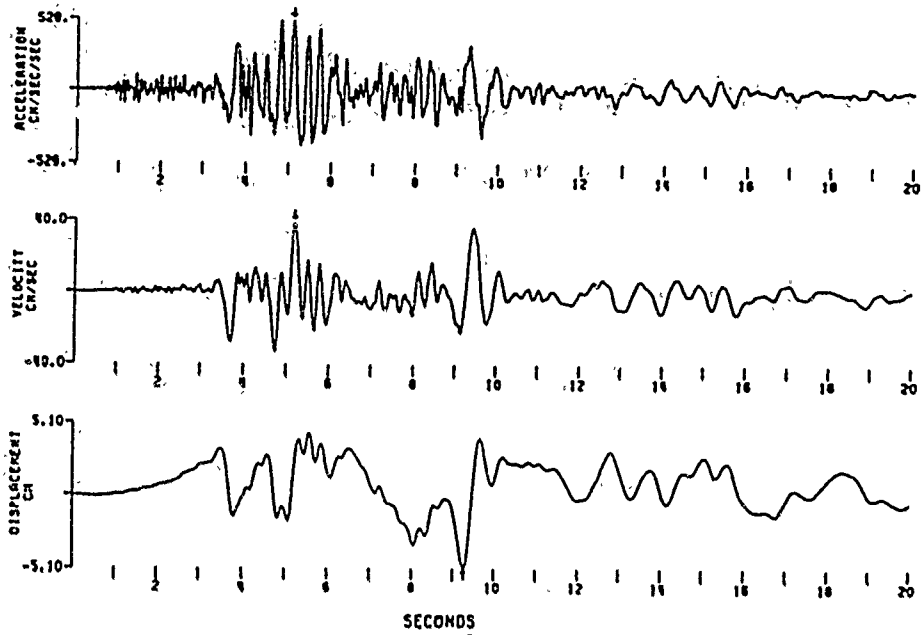



U.S. National Strong-Motion Data Center
Band pass filtered 0.1 to 50 Hz
135° horizontal component
critical damping
0, 2, 5, 10, 20 percent

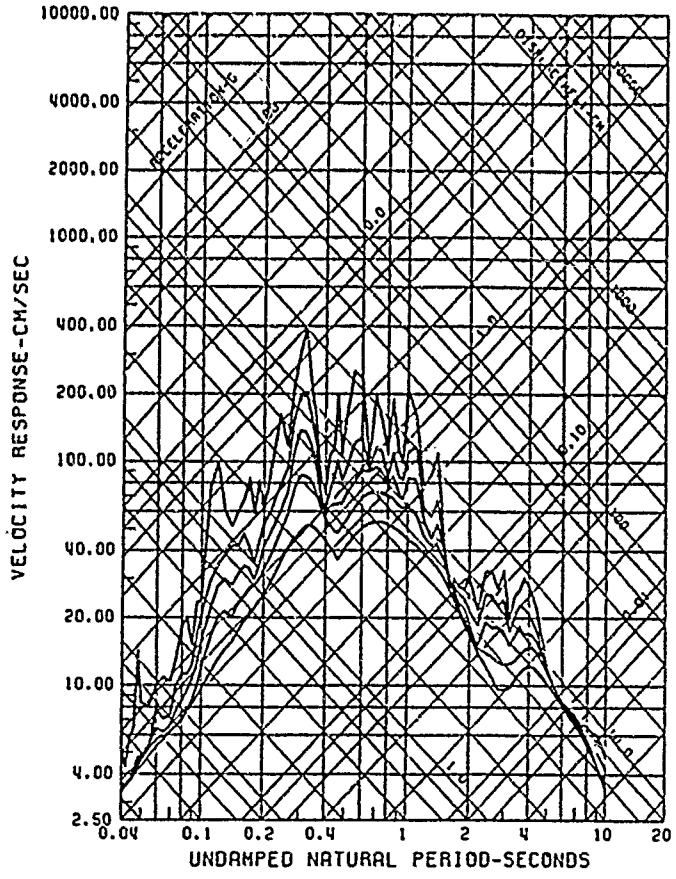
Pleasant Valley pumping plant (switchyard)
2 May 1983 (2342 UTC)

***CAL 183***

Corrected acceleration, velocity, and displacement time histories (200 samples/sec) as recorded on 135° horizontal component at Pleasant Valley pumping plant (switchyard). Peak values: acceleration, 514.43 cm/sec$^2$; velocity, 39.22 cm/sec; displacement, 5.05 cm (bandpass filtered 0.1-50 Hz, Butterworth order 8 lowcut, cosine taper 50-Hz highcut).




USGS/EERL 84-03

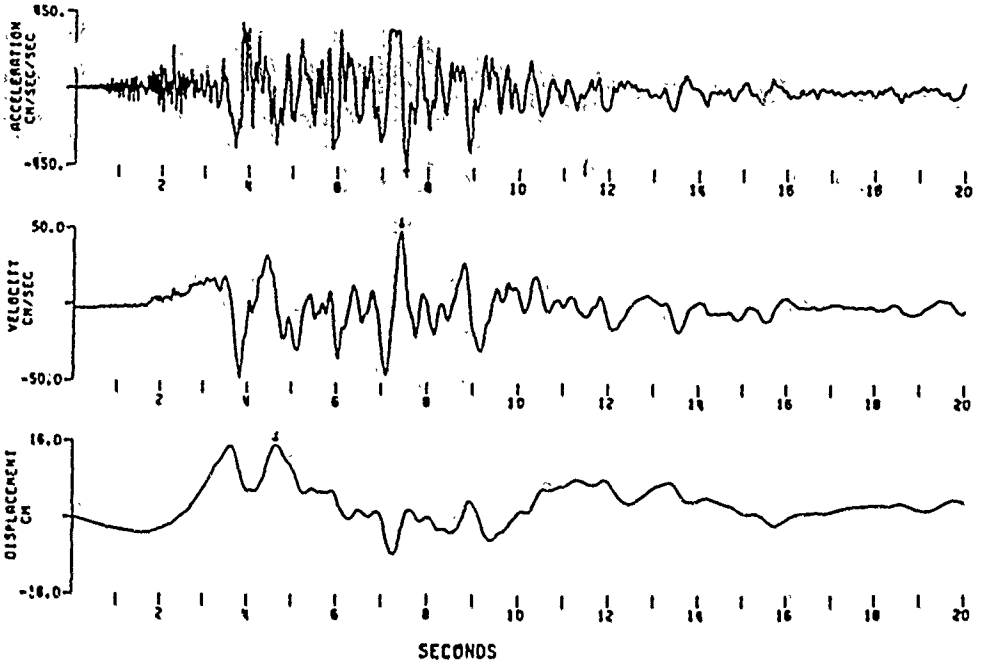


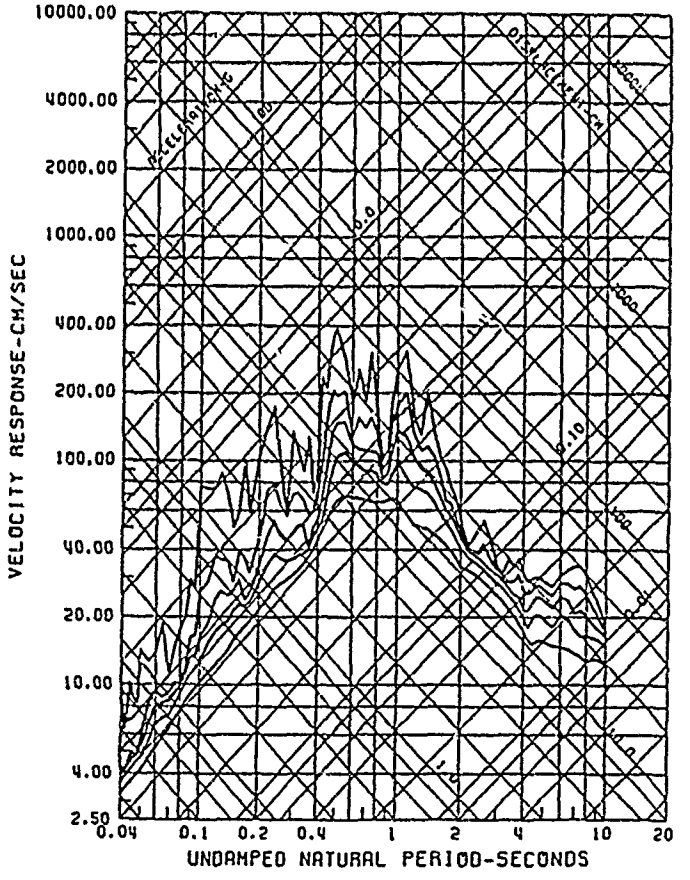

U.S. National Strong-Motion Data Center
Band pass filtered 0.1 to 50 Hz
135° horizontal component
critical damping
0, 2, 5, 10, 20 percent

Pleasant Valley pumping plant (switchyard)
2 May 1983 (2342 UTC)

***CAL 183***

(c) 45° horizontal component. Peak values: acceleration, -440.56 cm/sec$^2$; velocity, 49.96 cm/sec; displacement, 15.46 cm (bandpass filtered 0.1-50 Hz, Butterworth order 8 lowcut, cosine taper 50-Hz highcut).



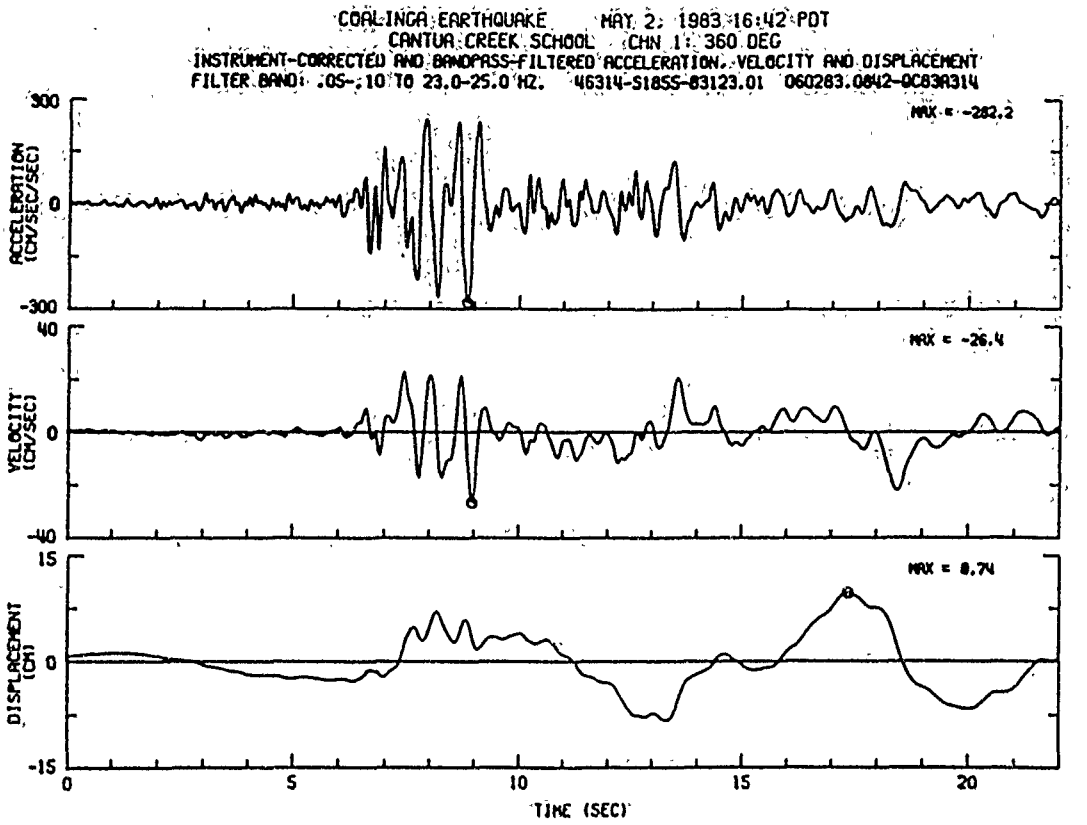




USGS/EERL 84-03

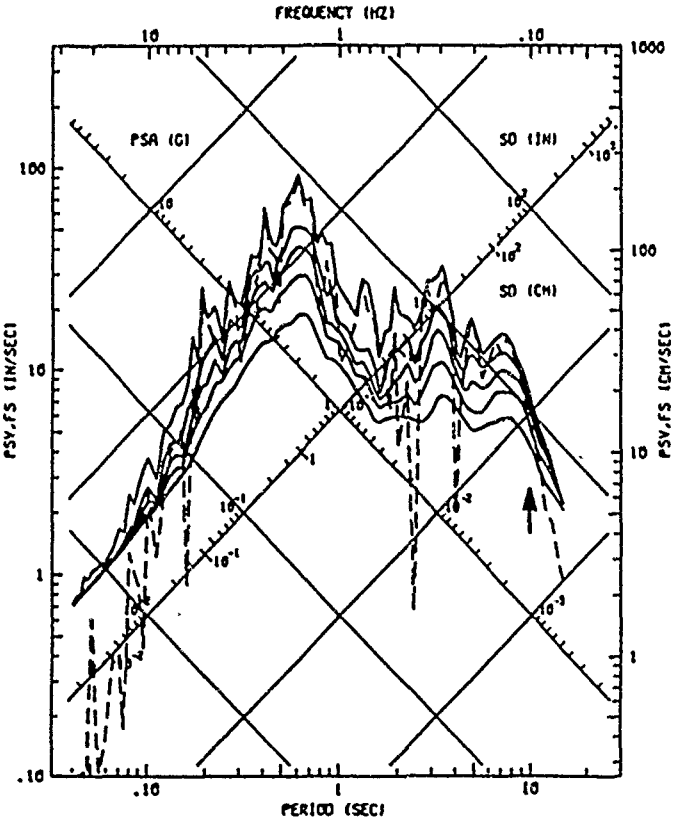
U.S. National Strong-Motion Data Center
Band pass filtered 0.1 to 50 Hz
045$^0$ horizontal component
critical damping
0, 2, 5, 10, 20 percent

Pleasant Valley pumping plant (switchyard)
2 May 1983 (2342 UTC)

***CAL 184***



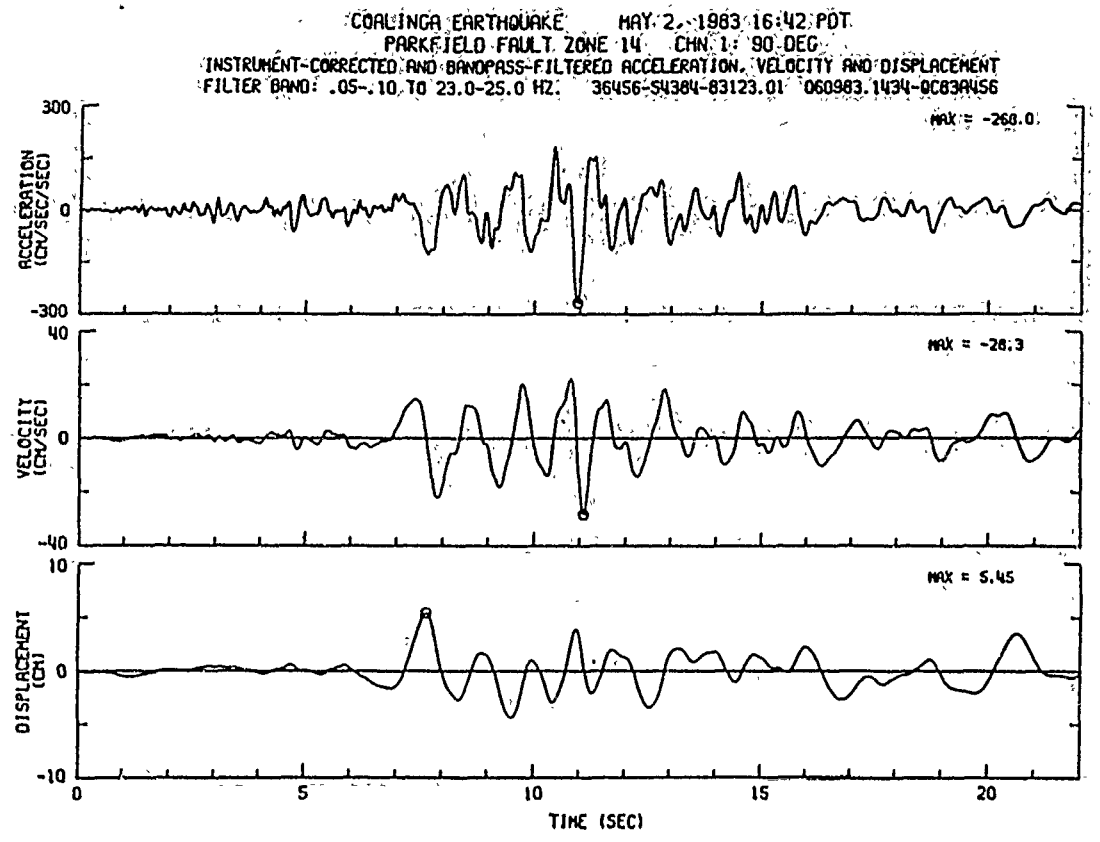

CDMG PRINTOUT



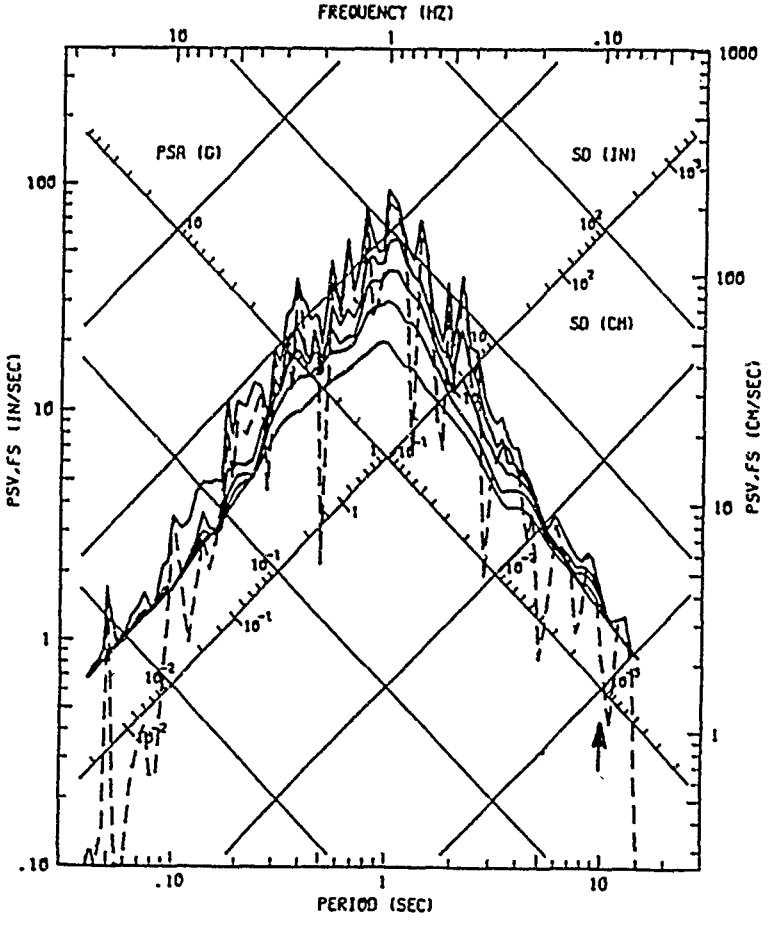

CANTUA CREEK SCHOOL
CHN 1: 360 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
46314-S1855-83123.01
060183.1117-0C83A314
—— RESPONSE SPECTRA: PSV,PSA & S
— — FOURIER AMPLITUDE SPECTRUM: F
DAMPING VALUES: 0,2,5,10,20%

COALINGA EARTHQUAKE
MAY 2, 1983 16:42 PDT

***CAL 187***



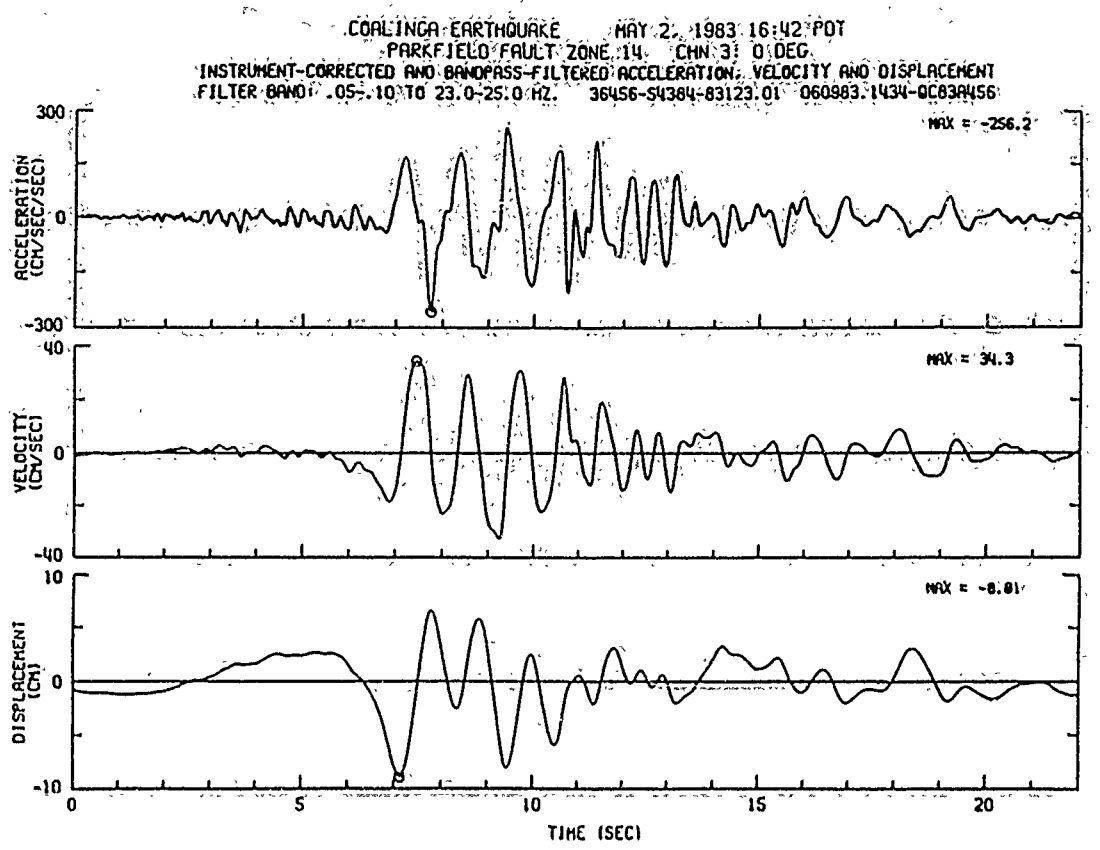

CDMG PRINTOUT



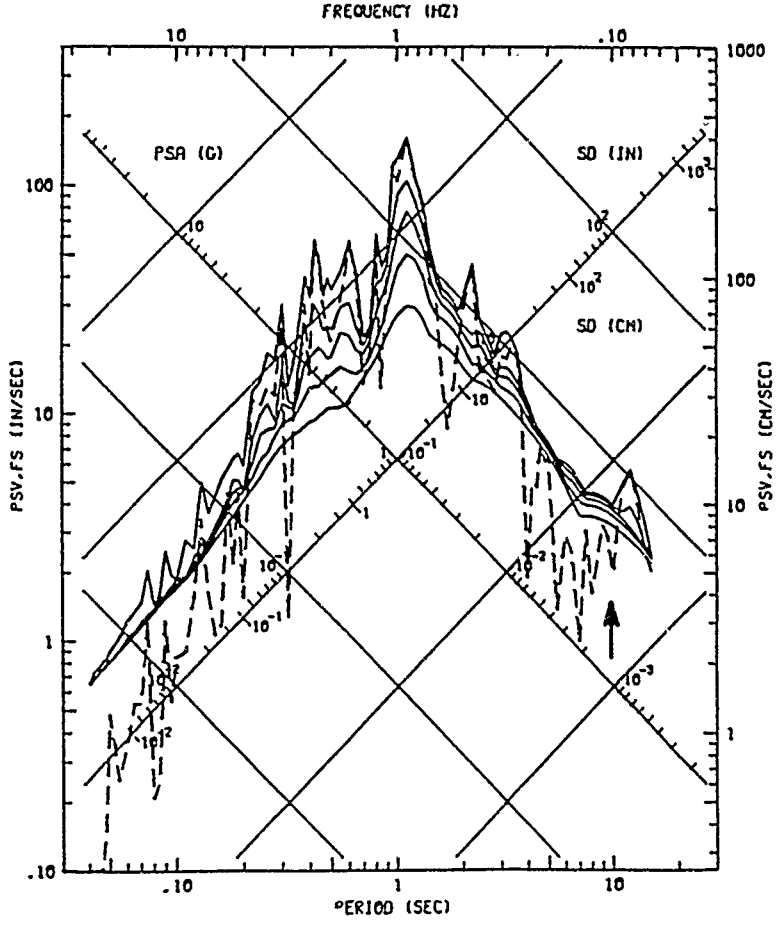

COALINGA EARTHQUAKE
PARKFIELD FAULT ZONE 14
CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
36456-S4384-83123.01 060683.1317-0C83A456
—— RESPONSE SPECTRA: PSV,PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0.2.5.10.20%

MAY 2, 1983 16:42 PDT

***CAL 189***



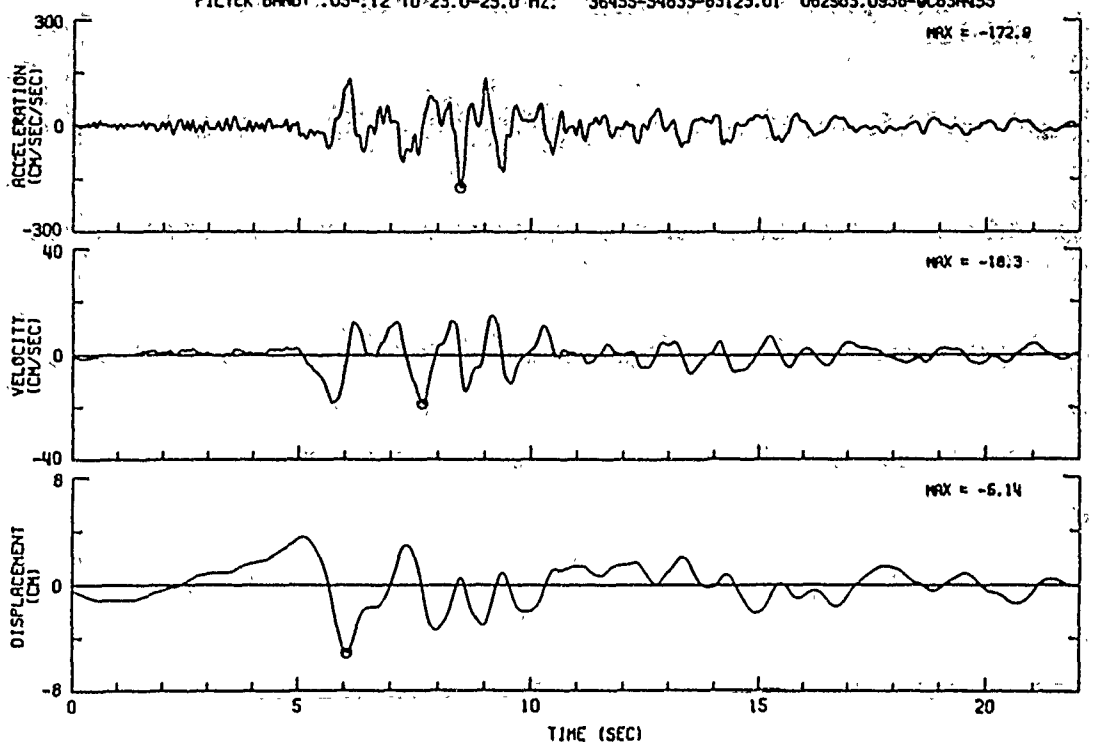

CDMG PRINTOUT



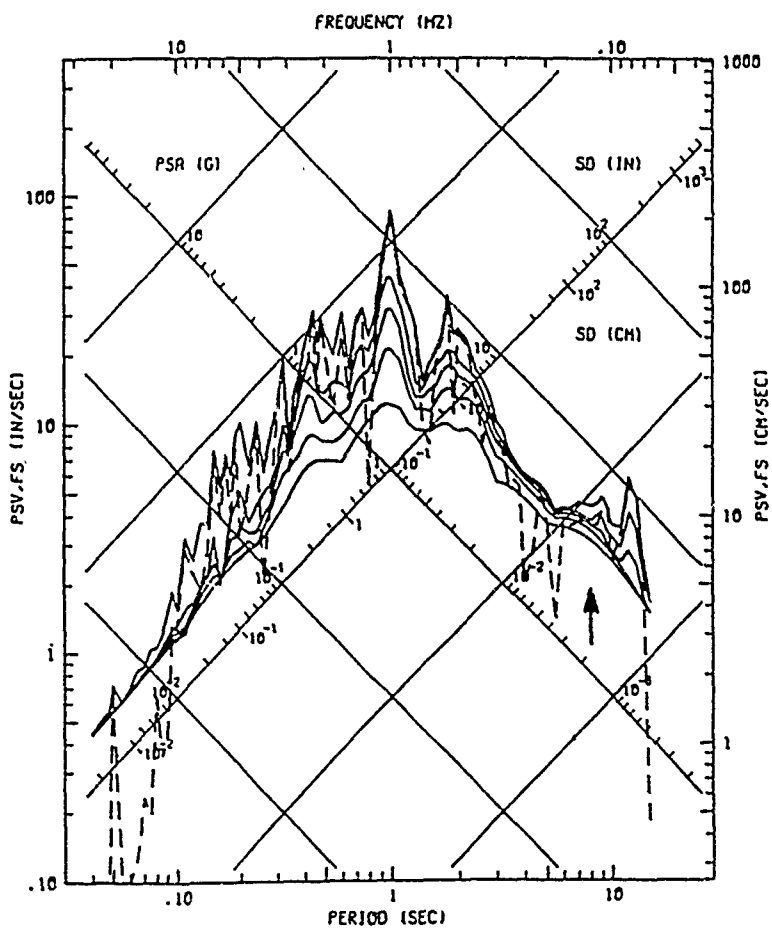

COALINGA EARTHQUAKE
PARKFIELD FAULT ZONE 14
CHN 3: 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
36456-S4384-83123.01 060683.1317-0C83AN56
—— RESPONSE SPECTRA: PSV,PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

MAY 2, 1983 16:42 PDT

***CAL 190***




CDMG PRINTOUT




COALINGA EARTHQUAKE

PARKFIELD VINEYARD CANYON 1 E
CHN 3: 0 DEG

ACCELEROGRAM BANDPASS-FILTERED WITH RAMPS

.05-.07 TO 23.0-25.0 HZ.

36455-54833-83123.01 062883.1344-0C83A455

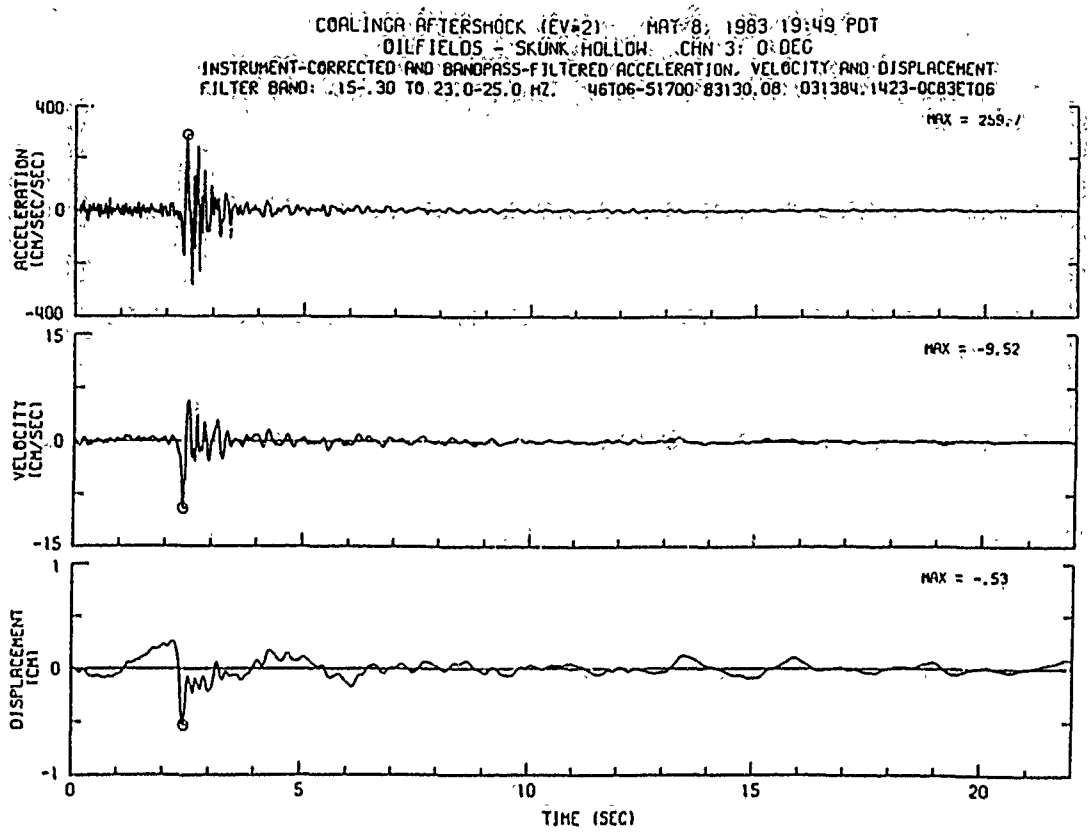
—— RESPONSE SPECTRA: PSV,PSA & SD

– – FOURIER AMPLITUDE SPECTRUM: FS

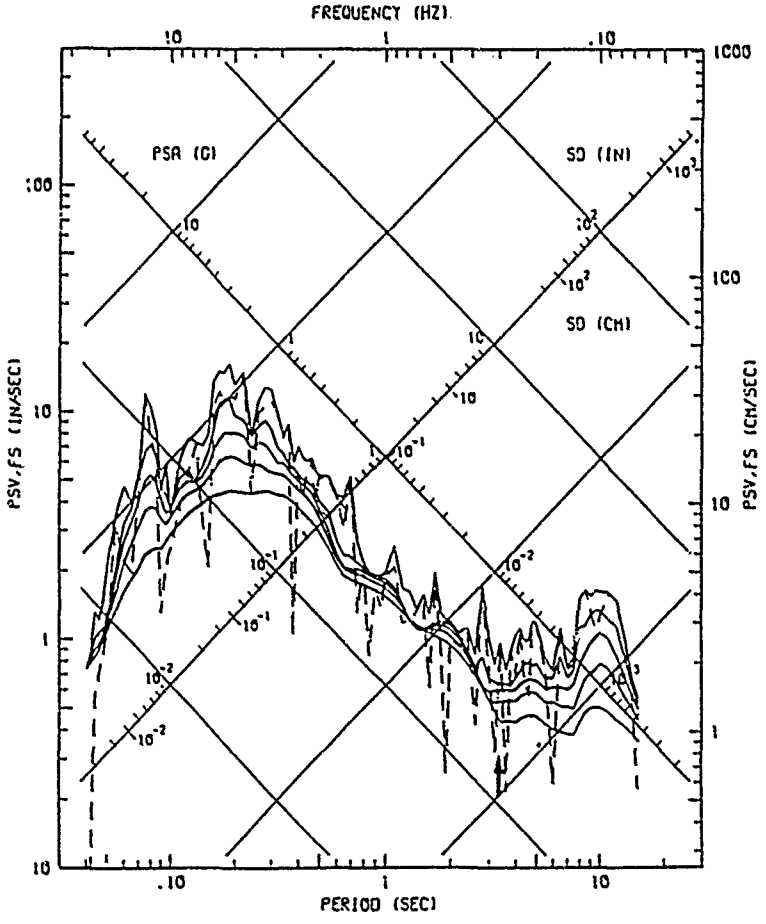
DAMPING VALUES: 0,2,5,10,20%

MAY 2, 1983 16:42 PDT

***CAL 192***




CDMG PRINTOUT




COALINGA AFTERSHOCK (EV=2)
OILFIELDS - SKUNK HOLLOW
CHN 3. 0 DEG

46T06-S1700-83130.08 020784.1529-0C83ET06

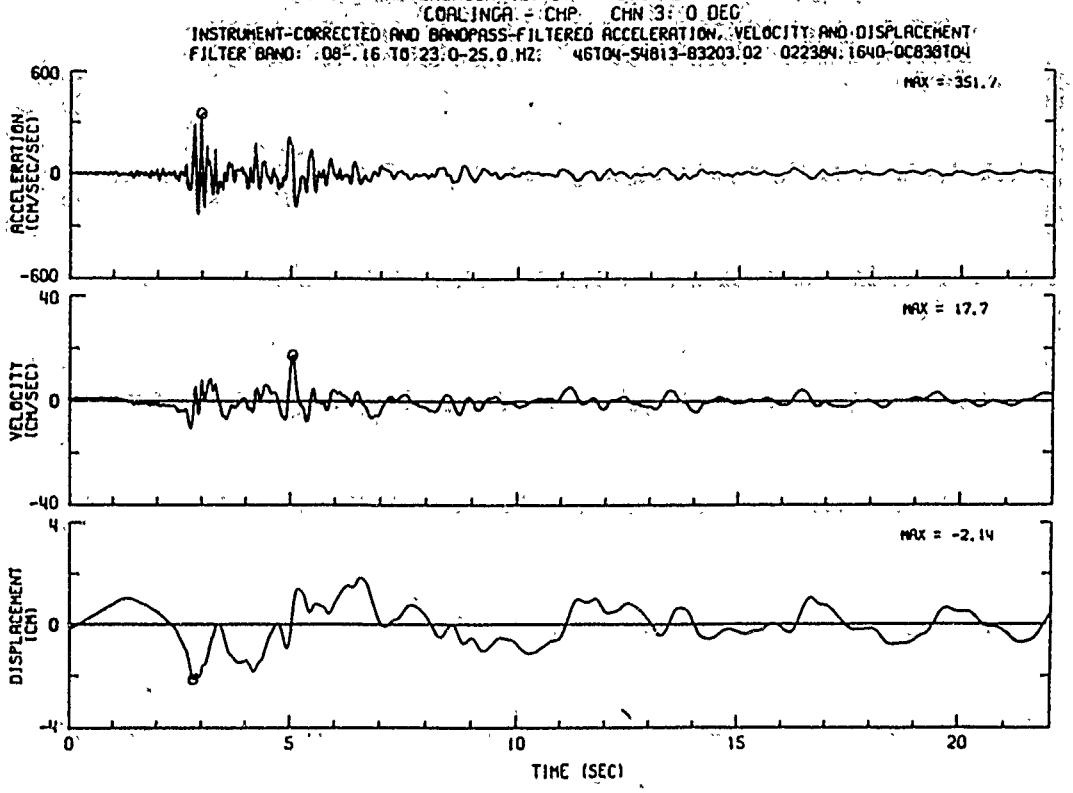
—— RESPONSE SPECTRA: PSV,PSA & SD

– – FOURIER AMPLITUDE SPECTRUM: FS

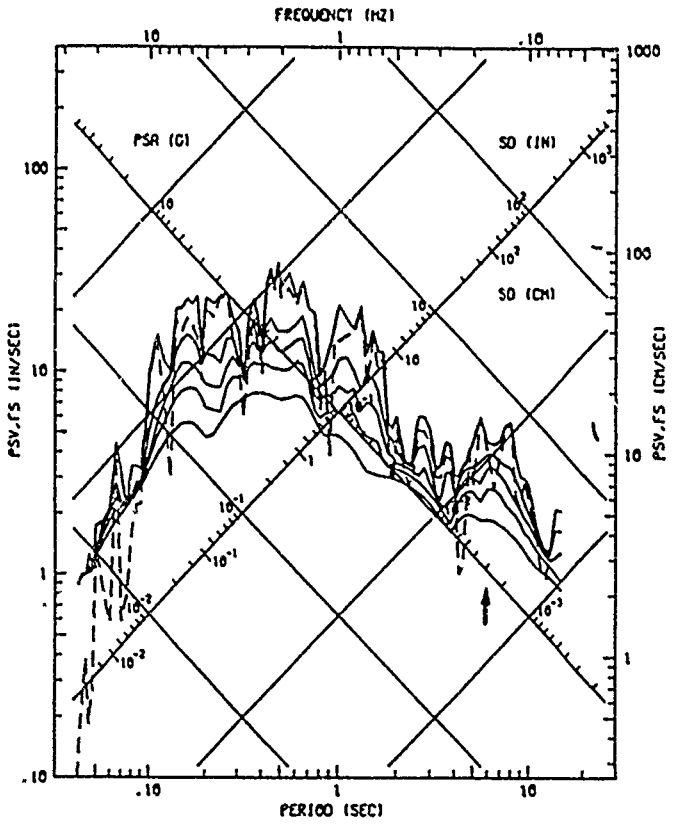
DAMPING VALUES: 0,2,5,10,20%

MAY 8, 1983 19:49 PDT

***CAL 203***



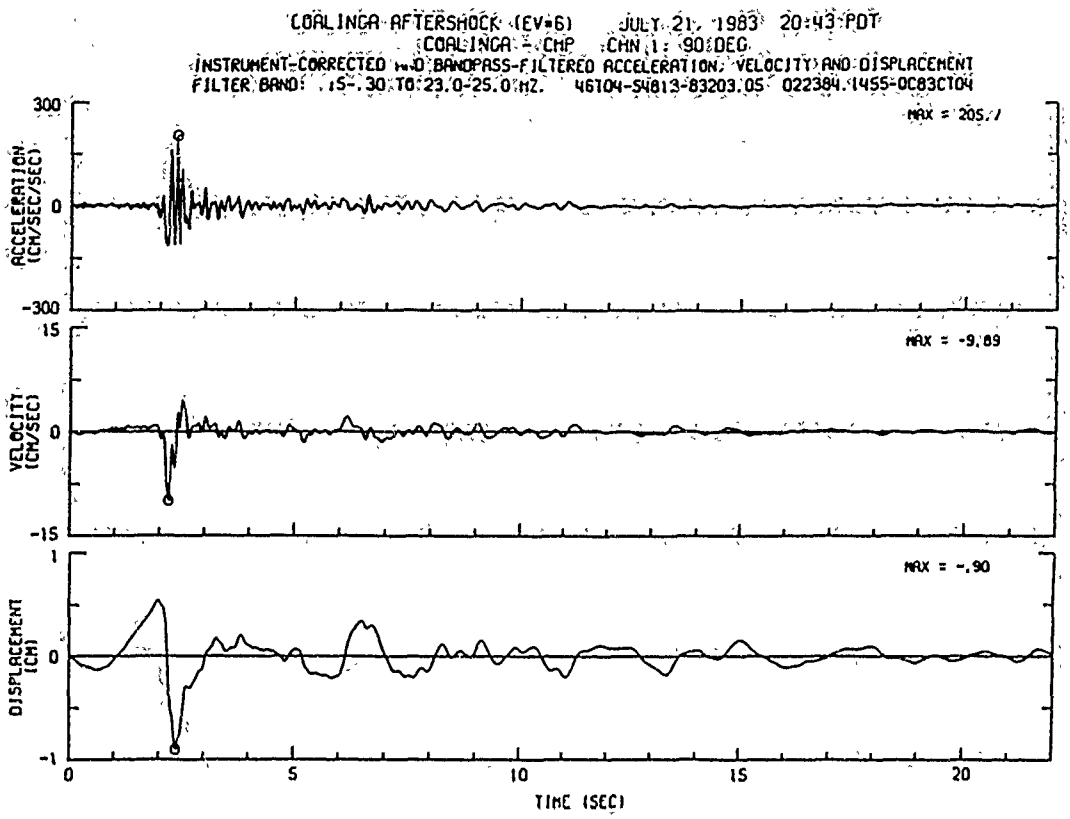

CDMG PRINTOUT



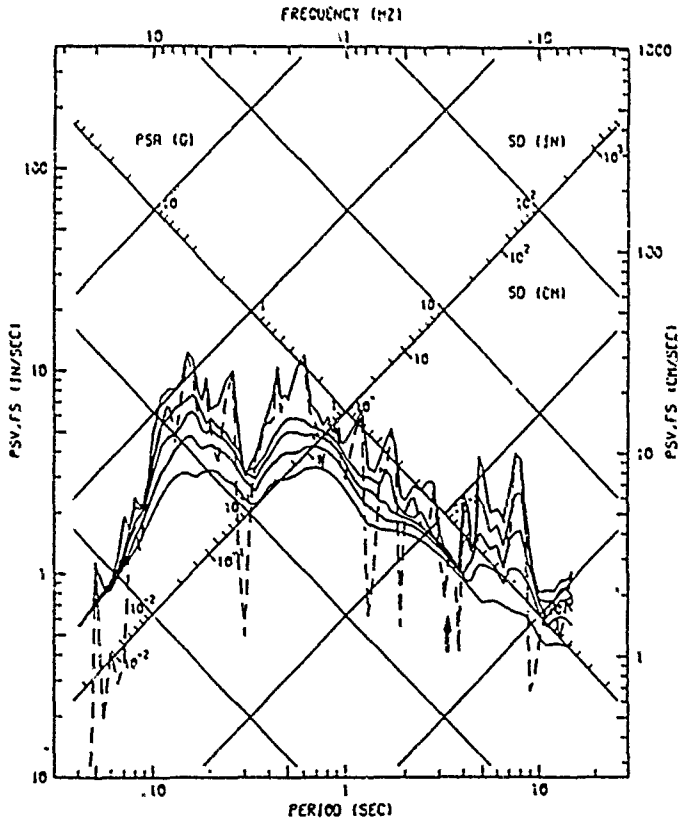

COALINGA AFTERSHOCK (EV#5)
COALINGA - CHP
CHN 3: 0 DEG
46T04-S4813-83203.02
022084.1335-0C838T04
—— RESPONSE SPECTRA: PSV,PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

JULY 21, 1983 19:40 PDT

***CAL 210***



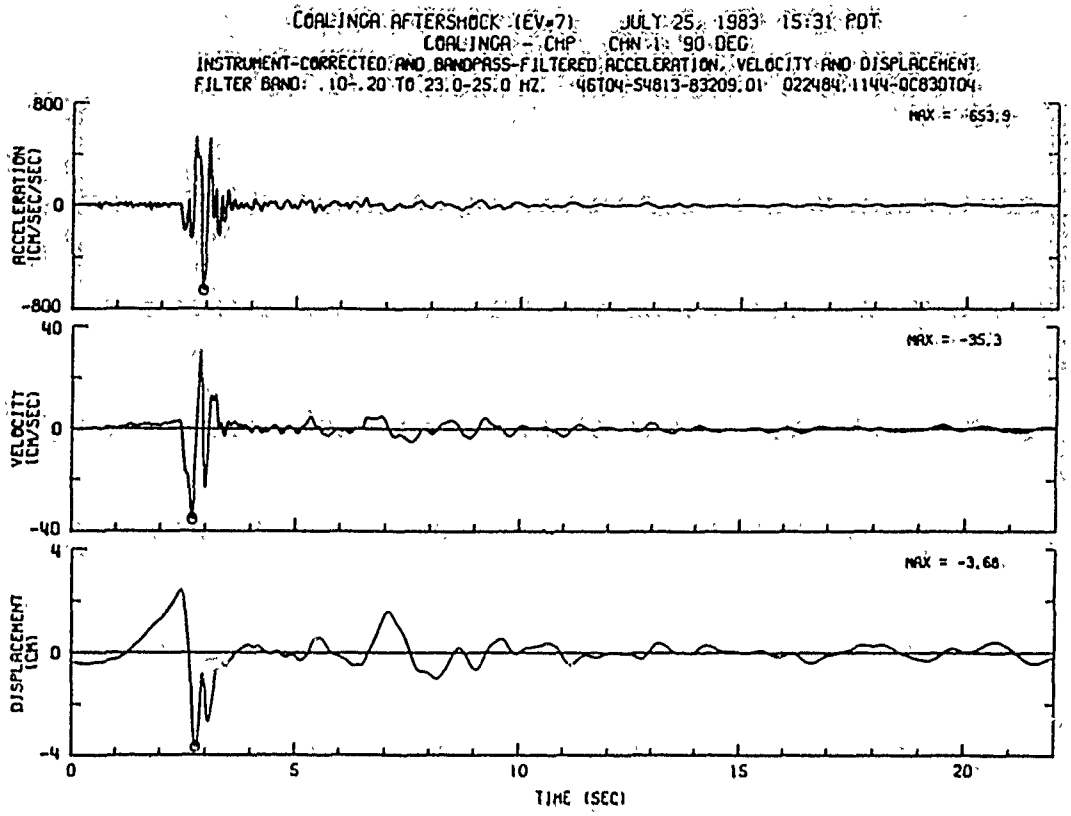

CDMG PRINTOUT

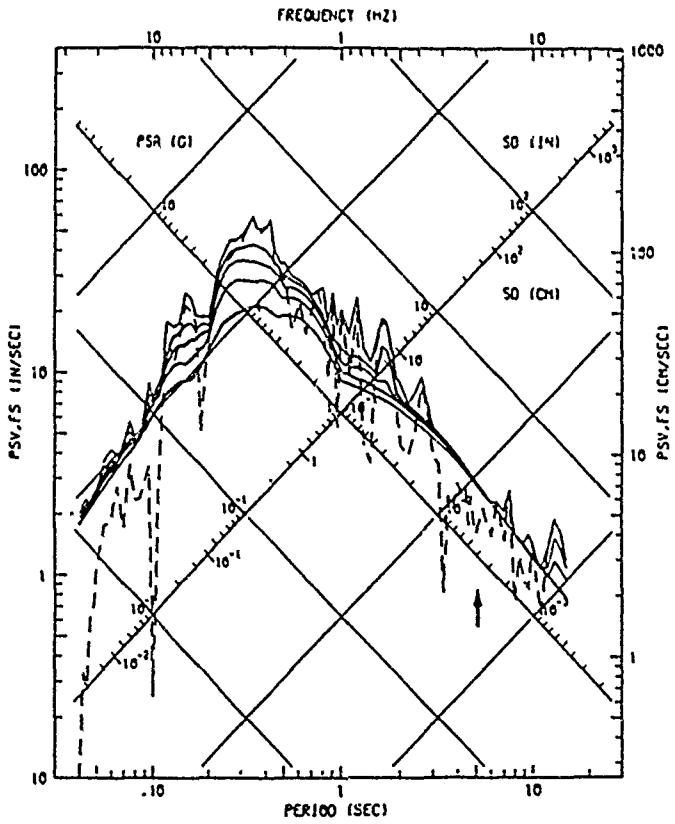



COALINGA AFTERSHOCK (EV=6)
COALINGA - CHP
CHN 1 90 DEG
46T04-S4813-83203.05
022084.1640-QC83CT04
—— RESPONSE SPECTRA: PSV,PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

JULY 21, 1983 20 43 PDT

***CAL 211***



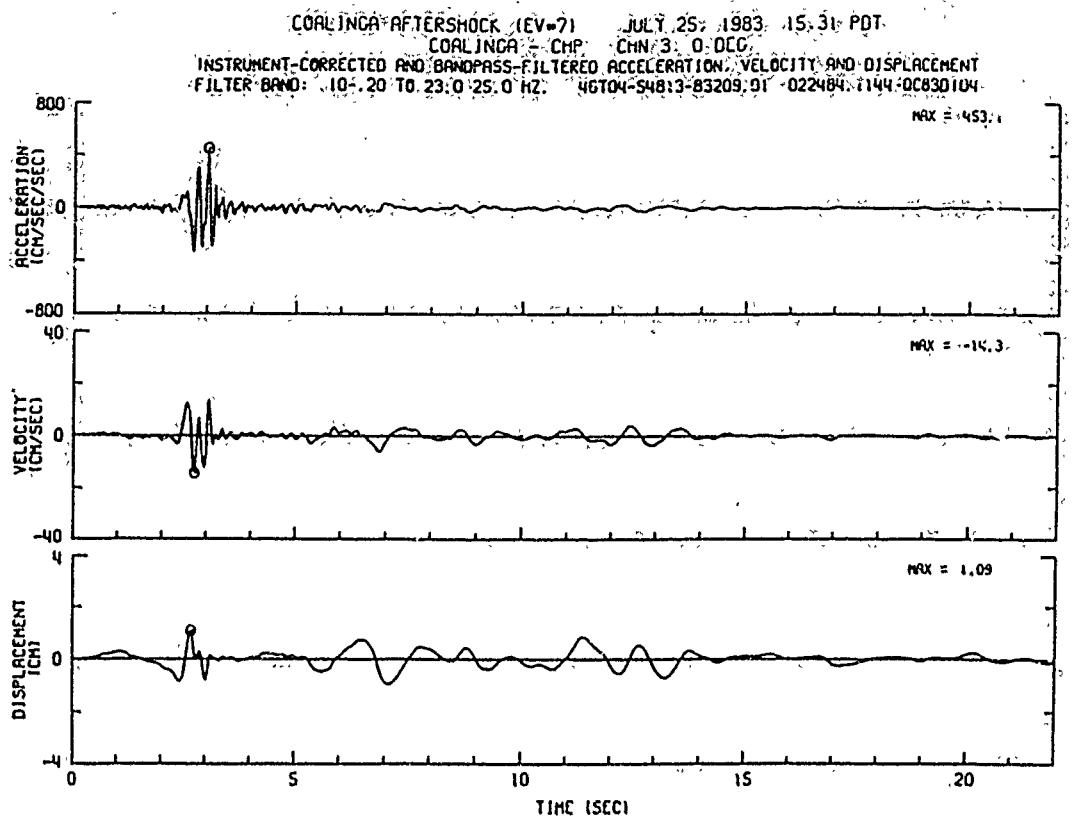

CDMG PRINTOUT

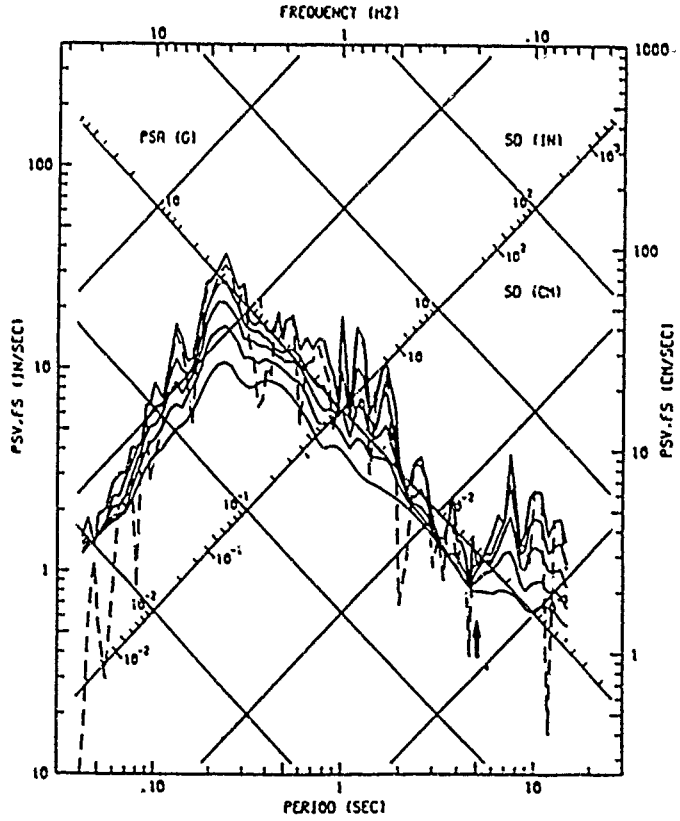
COALINGA AFTERSHOCK (EV=7)
COALINGA - CHP
CHN 1. 90 DEG
46T04-S4813-83209.01
022 '84.1855-0C830T04

—— RESPONSE SPECTRA: PSV,PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

JULY 25, 1983 15.31 PDT

***CAL 212***



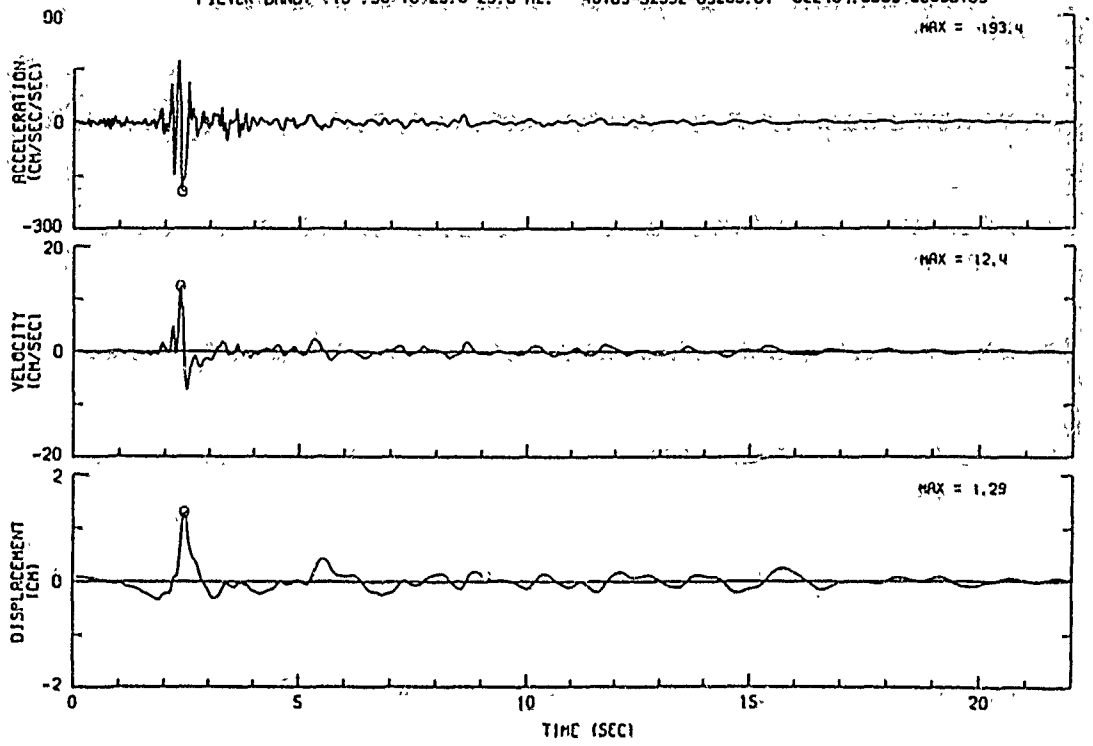



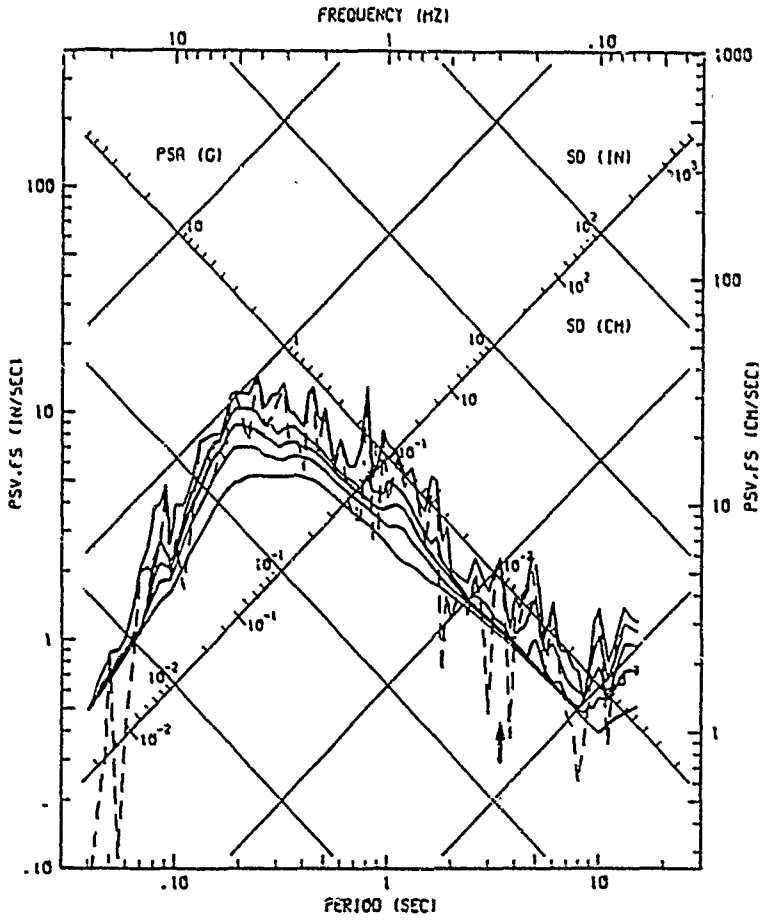

CDMG PRINTOUT

COALINGA AFTERSHOCK (EV#7)
COALINGA - CHP
CHN 3: 0 DEG
46T04-S4813-83209.01
022084.1855-0C83DT04
—— RESPONSE SPECTRA: PSV,PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0,2,5,10,20%

JULY 25, 1983 15:31 PDT

***CAL 213***



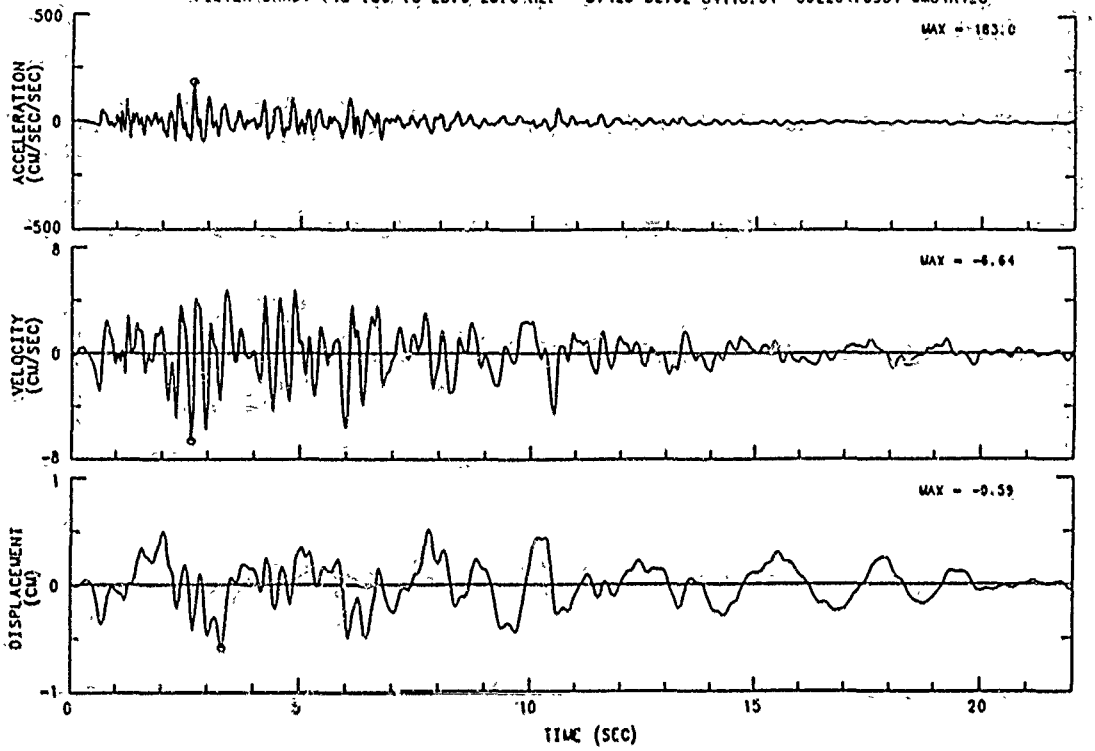

CDMG PRINTOUT

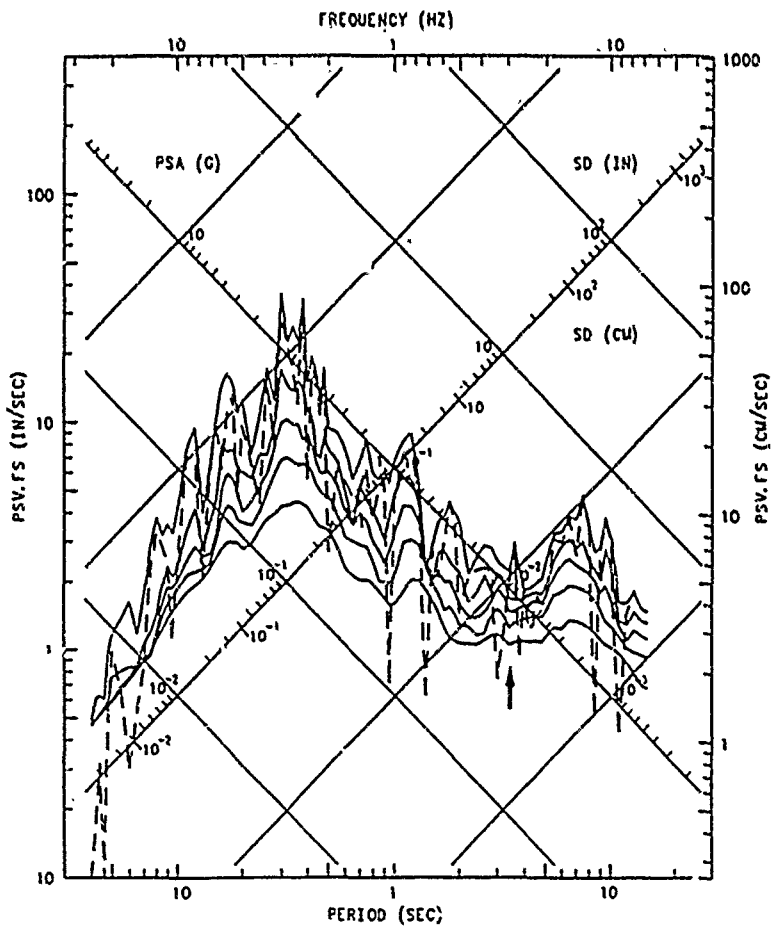
COALINGA AFTERSHOCK (EV#7)
COALINGA - SULPHUR BATHS
CHN 1. 90 DEG
46T03-S2S92-83209.01 022184.0710-0C830T03
—— RESPONSE SPECTRA: PSV,PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0.2.5.10.20%

JULY 25. 1983 15 31 PDT

***CAL 214***

MORGAN HILL EARTHQUAKE APRIL 24, 1984 13:15 PST
GILROY #7 - MANTELLI RANCH CHN 3: 0 DEG
INSTRUMENT-CORRECTED AND BANDPASS-FILTERED ACCELERATION, VELOCITY AND DISPLACEMENT
FILTER BAND: .15-.30 TO 23.0-25.0 HZ. 57425-S2762-84118.01 062284.0931-CM84A425




CDMG OSMS 85-04

MORGAN HILL EARTHQUAKE

GILROY #7 - MANTELLI RANCH
CHN 3 0 DEG

ACCELEROGRAM BANDPASS-FILTERED WITH RAMPS AT
05-.07 TO 23.0-25.0 HZ

57425-S2762-84118.01 061384 1147-CM84A425

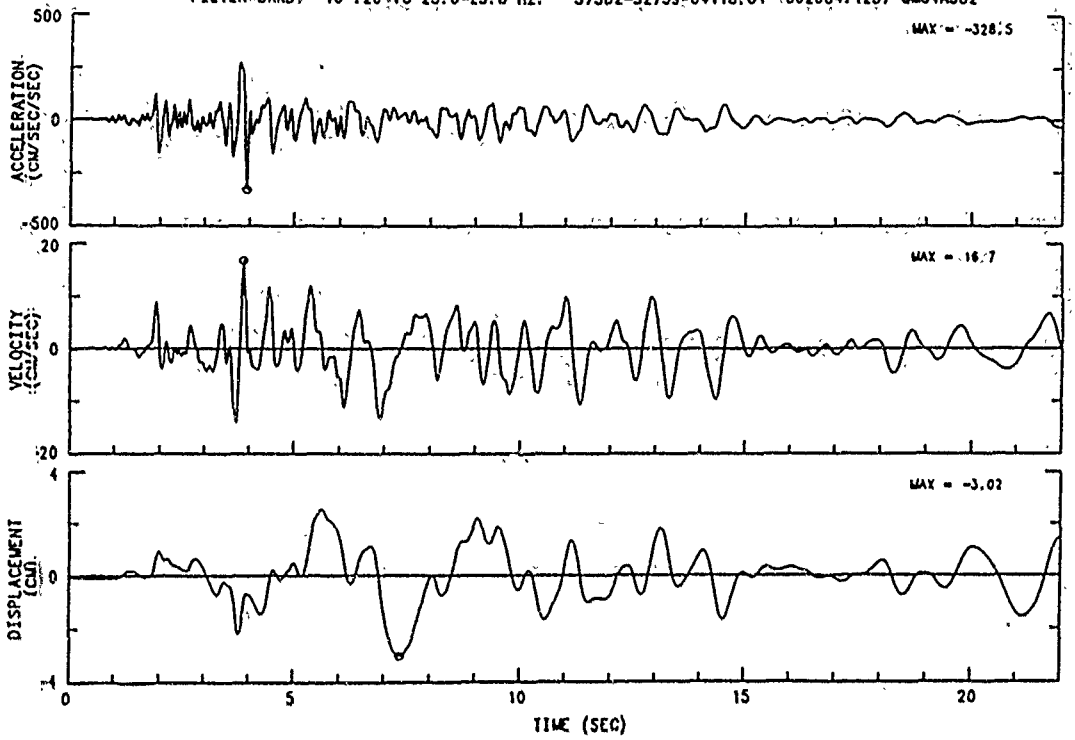
—— RESPONSE SPECTRA PSV, PSA & SD

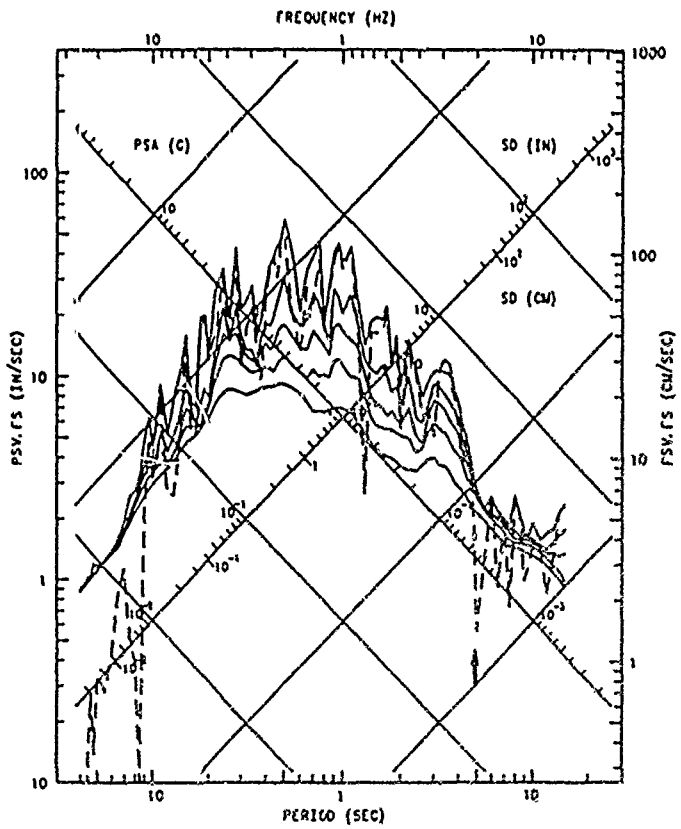
– – FOURIER AMPLITUDE SPECTRUM FS

DAMPING VALUES 0, 2, 5, 10, 20%

APRIL 24, 1984 13:15 PST

**CAL 216**



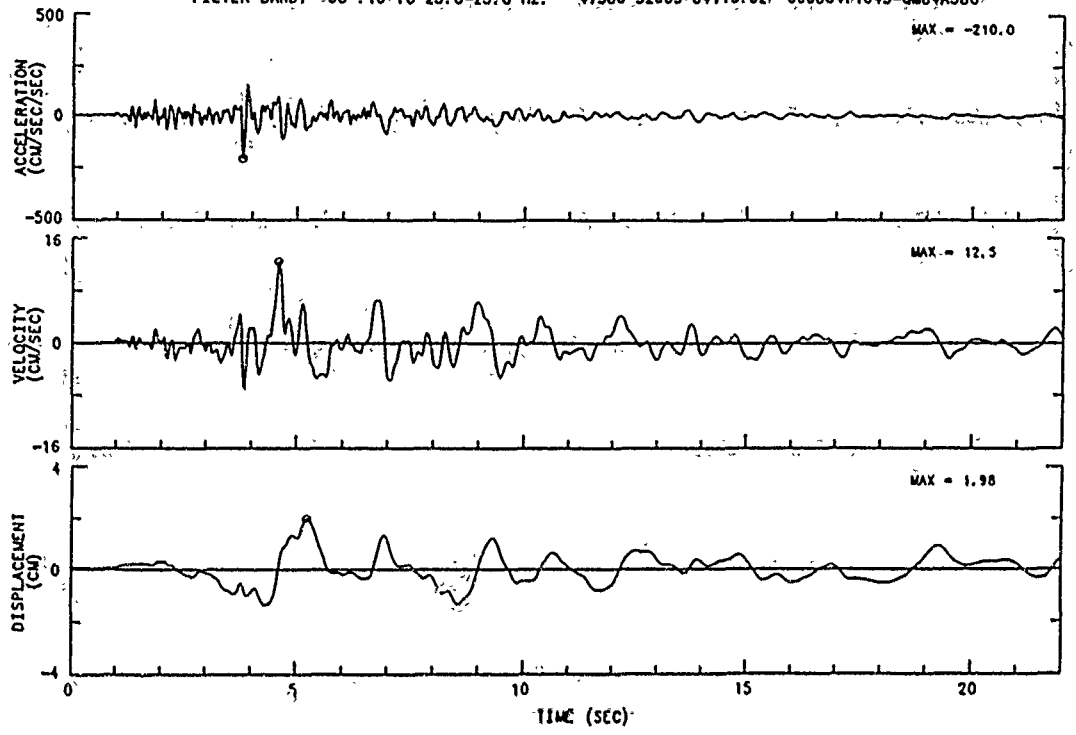



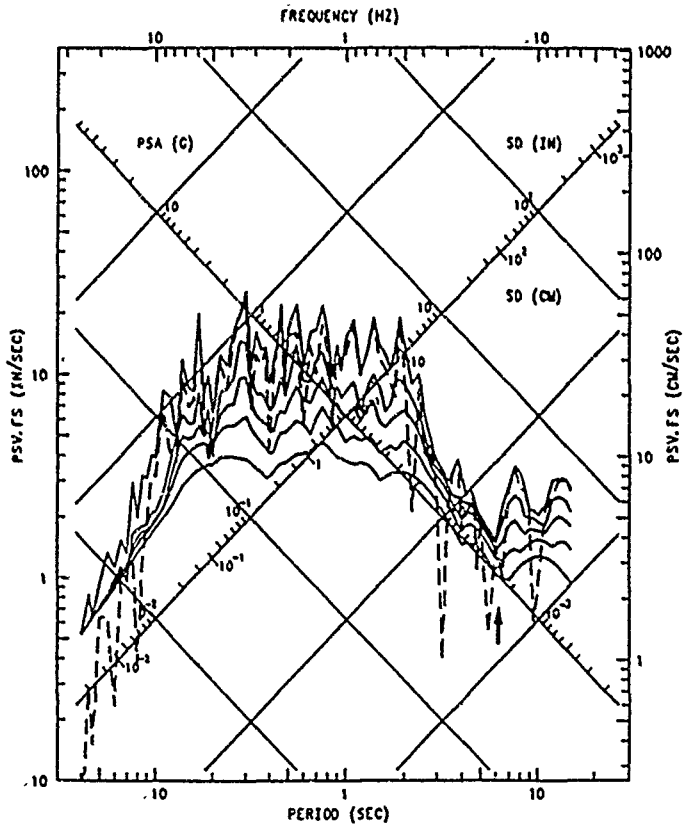

CDMG OSMS 85-04

GILROY #4 CHN 1: 360 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
57382-S2759-84118.01
060684.1728-QM84A382
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

MORGAN HILL EARTHQUAKE
APRIL 24, 1984 13 15 PST

*CAL 219*



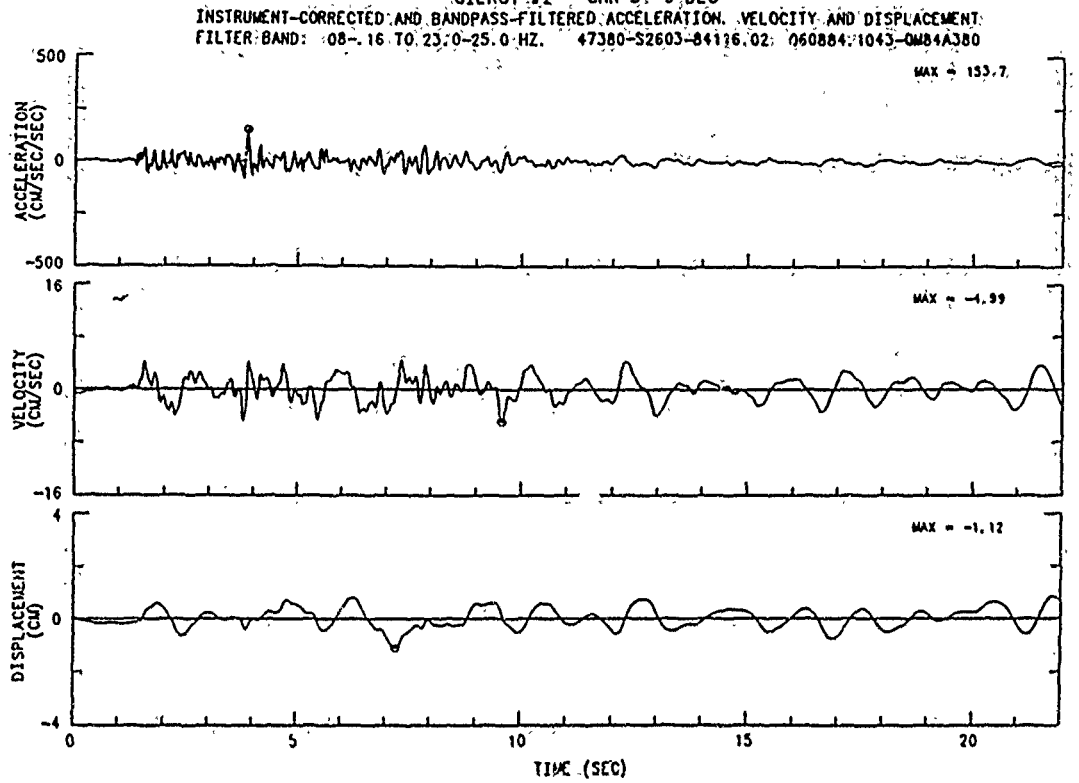



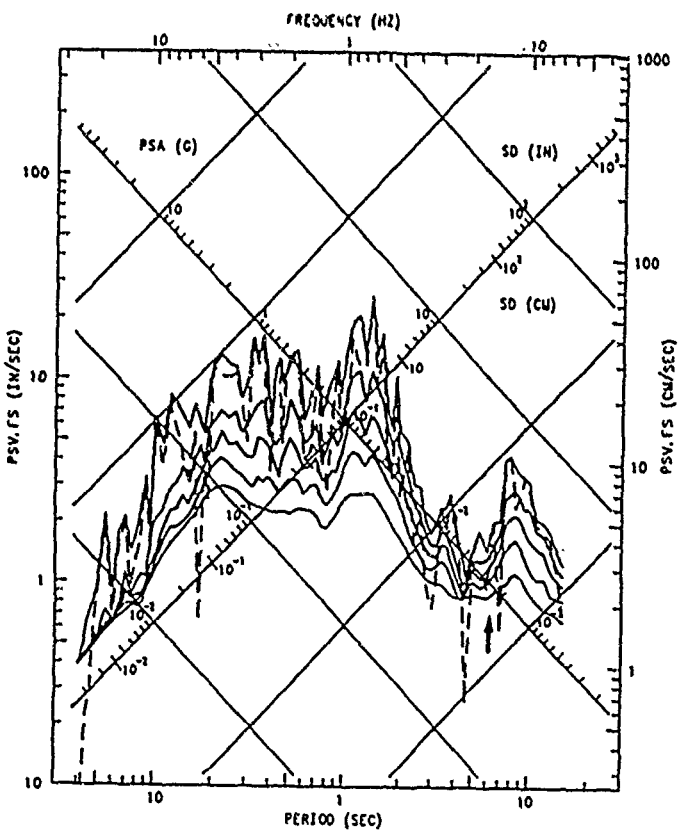

CDMG OSMS 85-04

CHN 1: 90 DEG GILROY #2
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
47380-S2603-84116.02
061086.1110-QM84A380
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

MORGAN HILL EARTHQUAKE
APRIL 24, 1984 13:15 PST

***CAL 223***



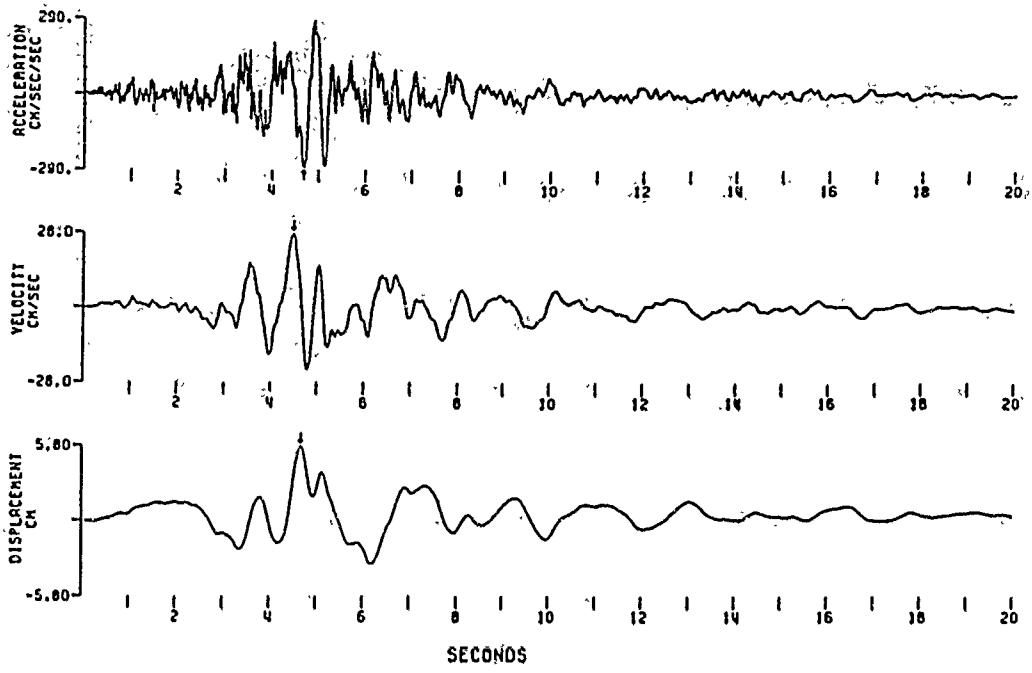

CDMG OSMS 85-04

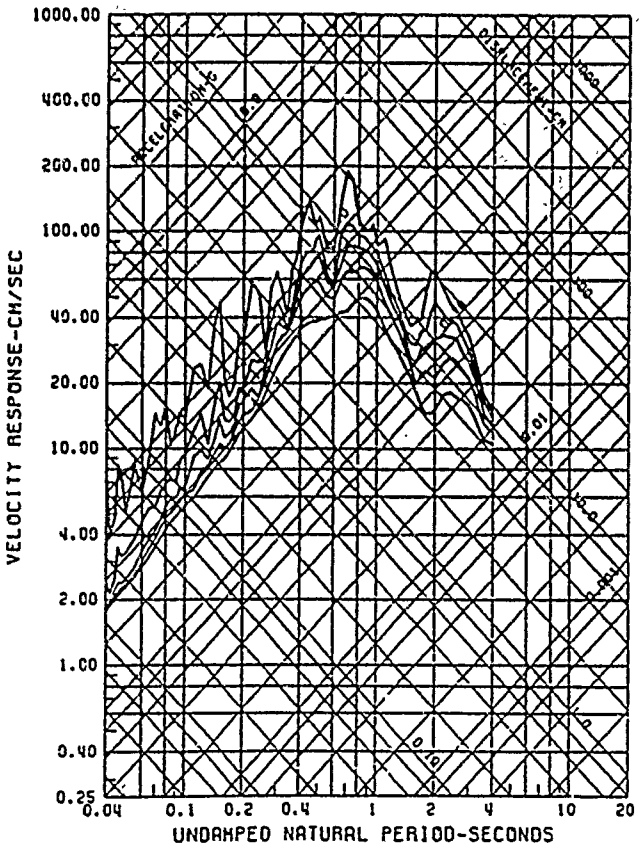
GILROY #2 CHN 3· 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
47380-S2603-84116.02
061086.1110-QM84A380
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM· FS
DAMPING VALUES: 0, 2, 5, 10, 20%

MORGAN HILL EARTHQUAKE
APRIL 24, 1984 13·15 PST

*CAL 224*

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
ANDERSON DAM - DOWNSTREAM
340 DEGREES
MT. HAMILTON EARTHQUAKE OF APRIL 24, 1984 2115 UTC
BUTTERWORTH FILTER AT 0.25 HZ, ORDER 8
PEAK VALUES: ACCEL=-283.43 CM/SEC/SEC, VELOCITY=27.59 CM/SEC, DISPL=5.75 CM



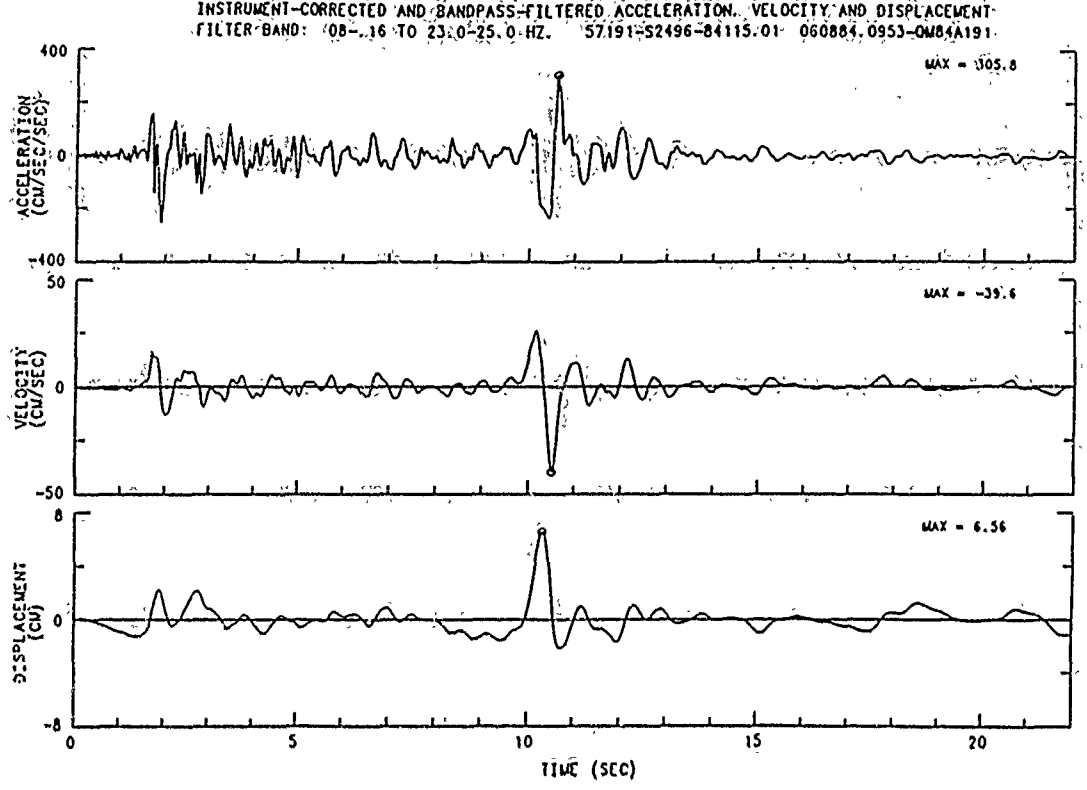



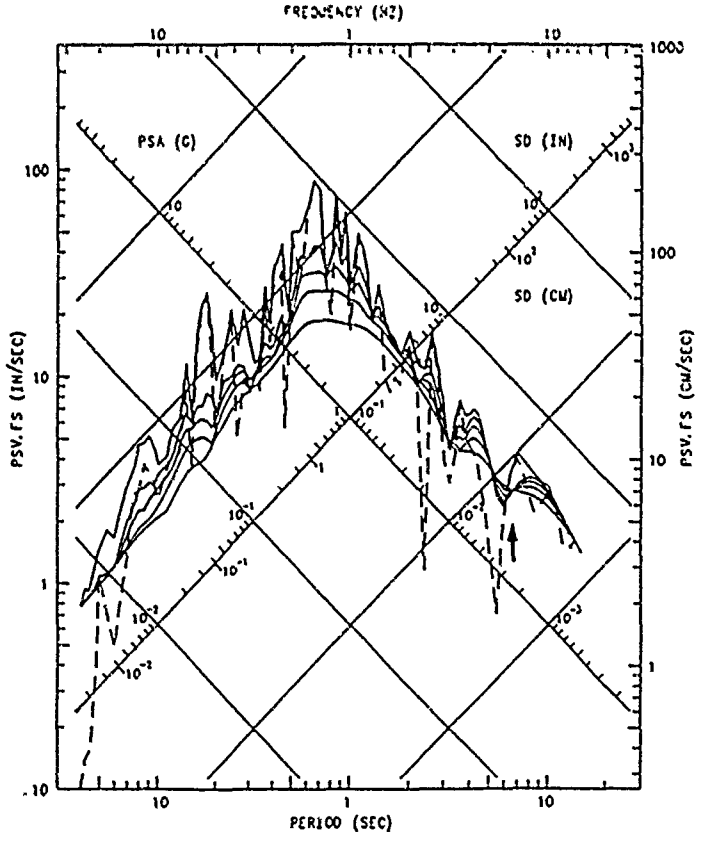

USGS OF 84-498

SEISMIC ENGINEERING BRANCH/USGS
FILTERS: BUTTERWORTH, ORDER 8
0.250 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

ANDERSON DAM - DOWNSTREAM
4/24/84, 2115UTC 340

***CAL 225***



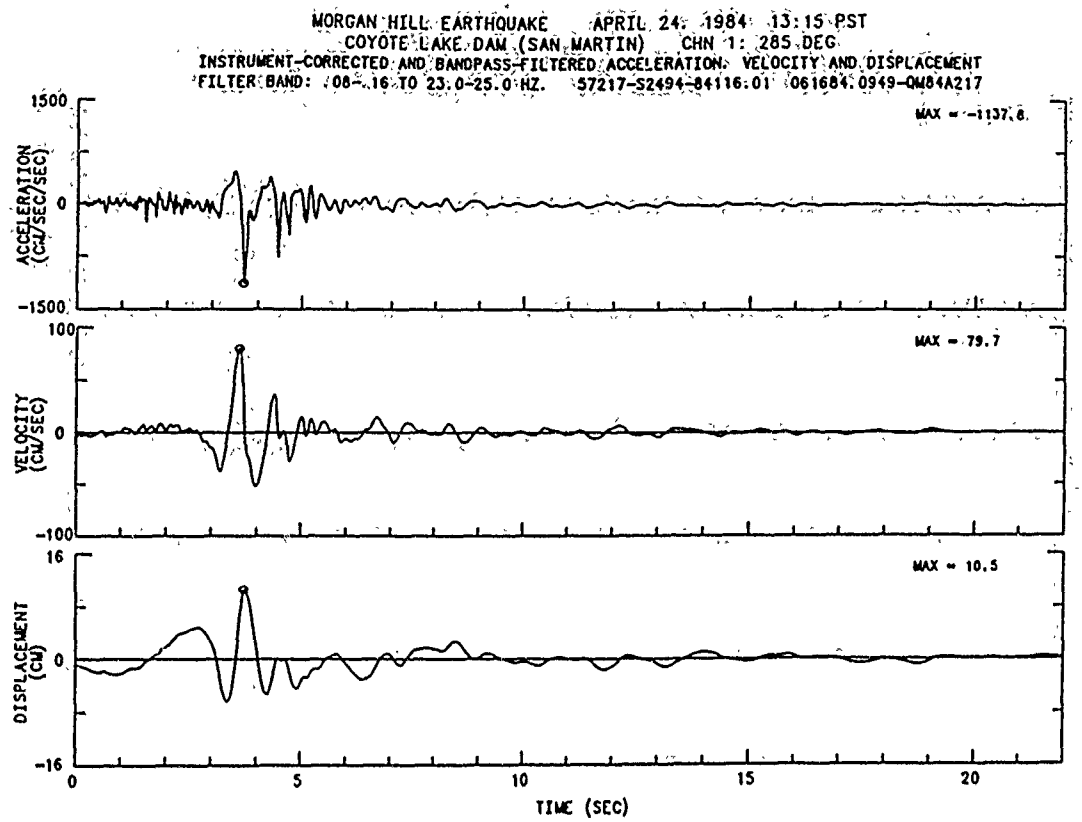



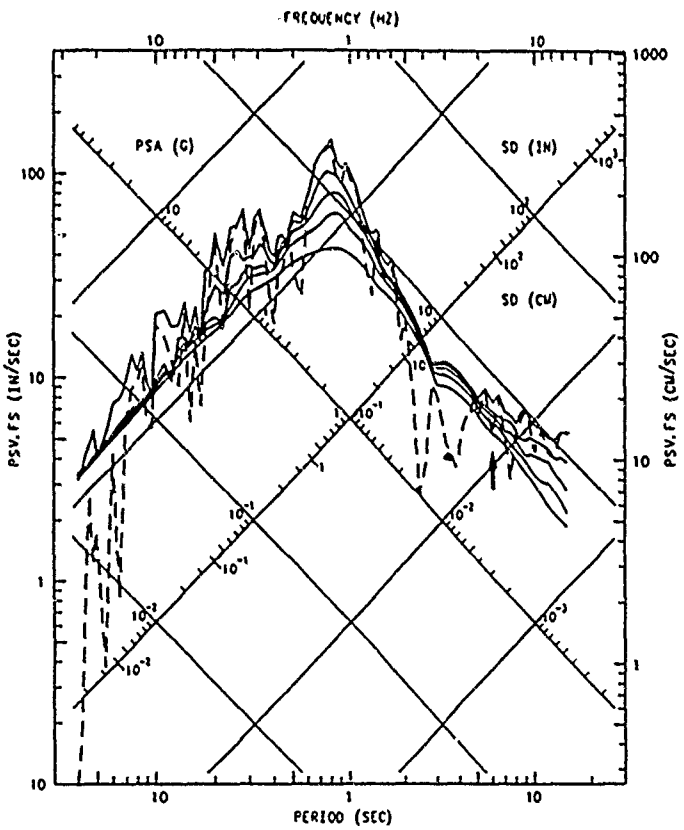

CDMG OSMS 85-04

HALLS VALLEY
CHN 1. 240 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT 05-.07 TO 23.0-25.0 HZ.
57191-S2496-84115.01
060684, 1457-OM84A191
—— RESPONSE SPECTRA PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM FS
DAMPING VALUES 0, 2, 5, 10, 20%

MORGAN HILL EARTHQUAKE
APRIL 24, 1984 13:15 PST

***CAL 227***



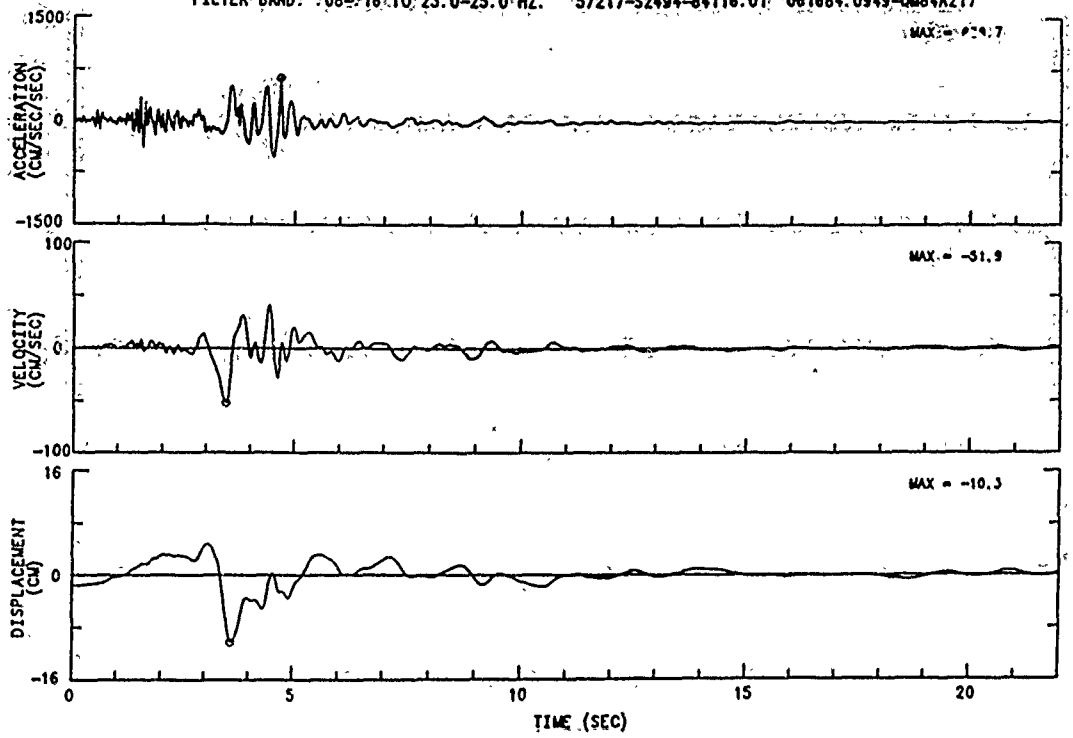



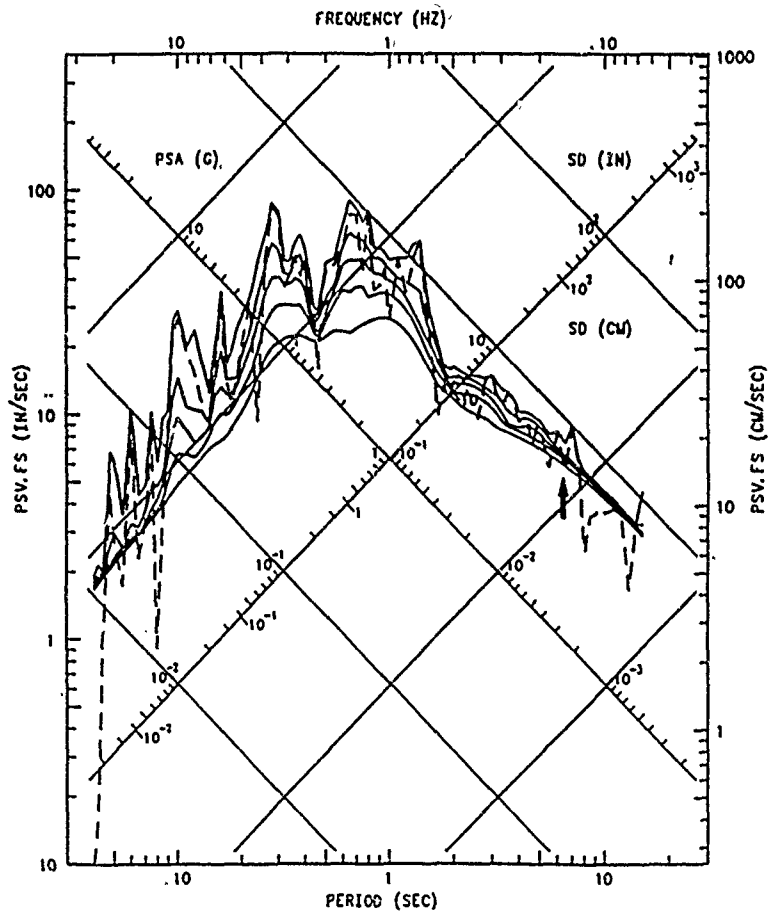

CDMG OSMS 85-04

COYOTE LAKE DAM (SAN MARTIN)
CHN 1: 285 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
57217-S2494-84116.01
061484.1641-QM84A217
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

MORGAN HILL EARTHQUAKE
APRIL 24, 1984 13:15 PST

***CAL 228***



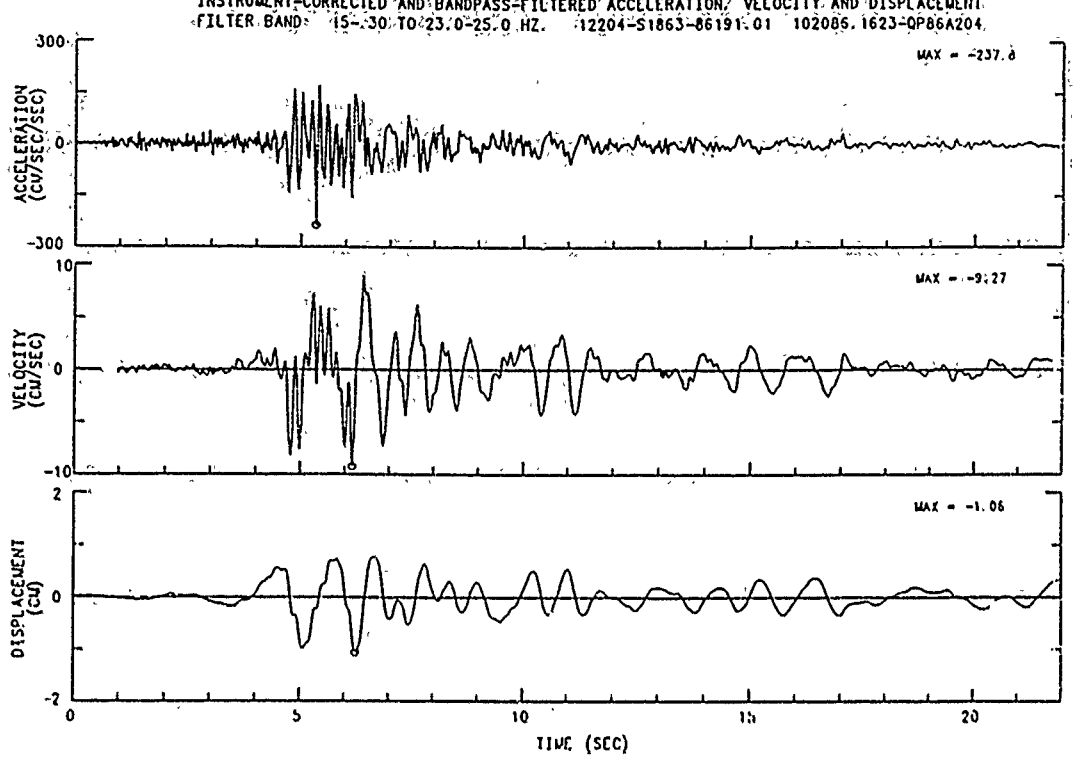



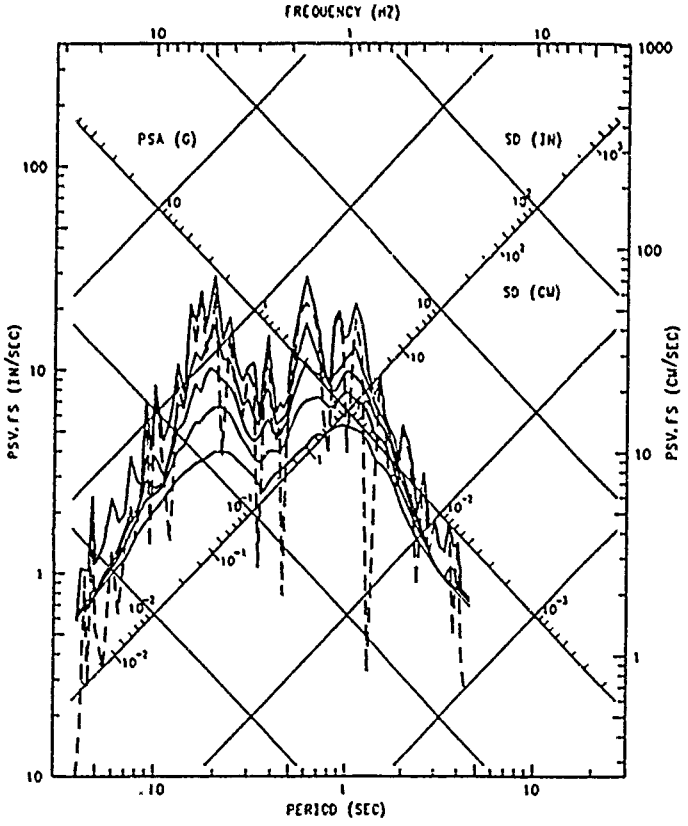

CDMG OSMS 85-04

COYOTE LAKE DAM (SAN MARTIN)
CHN 3 195 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.07 TO 23.0-25.0 HZ.
57217-S2494-84116.01
061484.1641-QM84A217
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

MORGAN HILL EARTHQUAKE
APRIL 24, 1984 13:15 PST

***CAL 229***



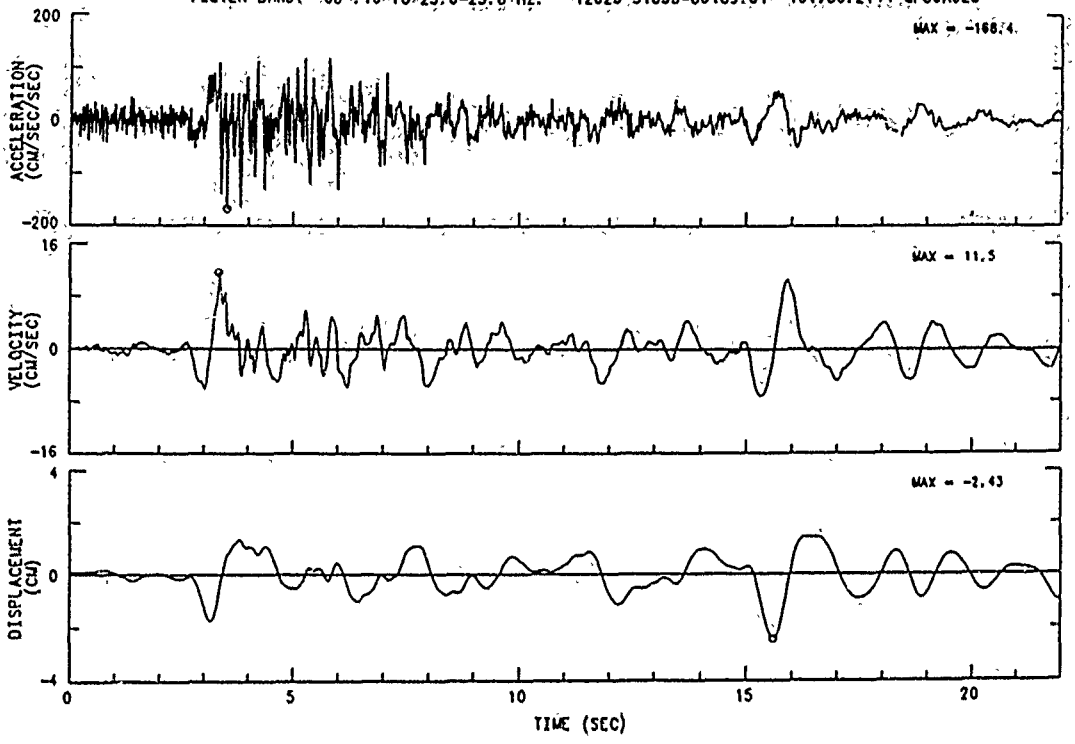



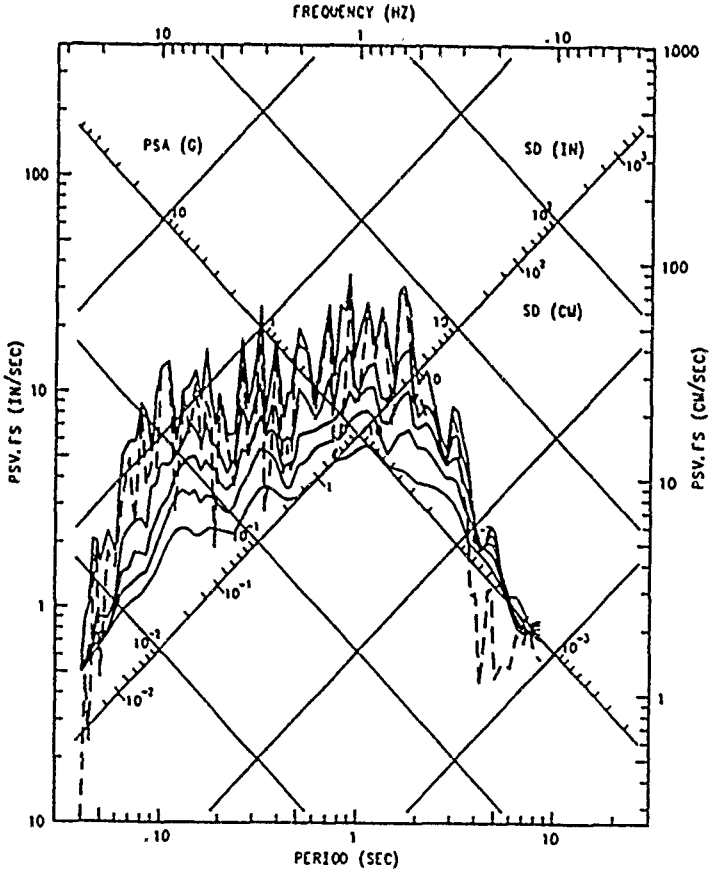

CDMG OSMS 87-01

SAN JACINTO - SOBOBA
CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .15-.30 TO 23.0-25.0 HZ.
110386.1604-QP86A204
12204-S1863-86191.01
—— RESPONSE SPECTRA: PSV, PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

PALM SPRINGS EARTHQUAKE
JULY 8, 1986 02:20 PDT

***CAL 232***




CDMG OSMS 87-01

PALM SPRINGS - AIRPORT
CHN 1: 90 DEG

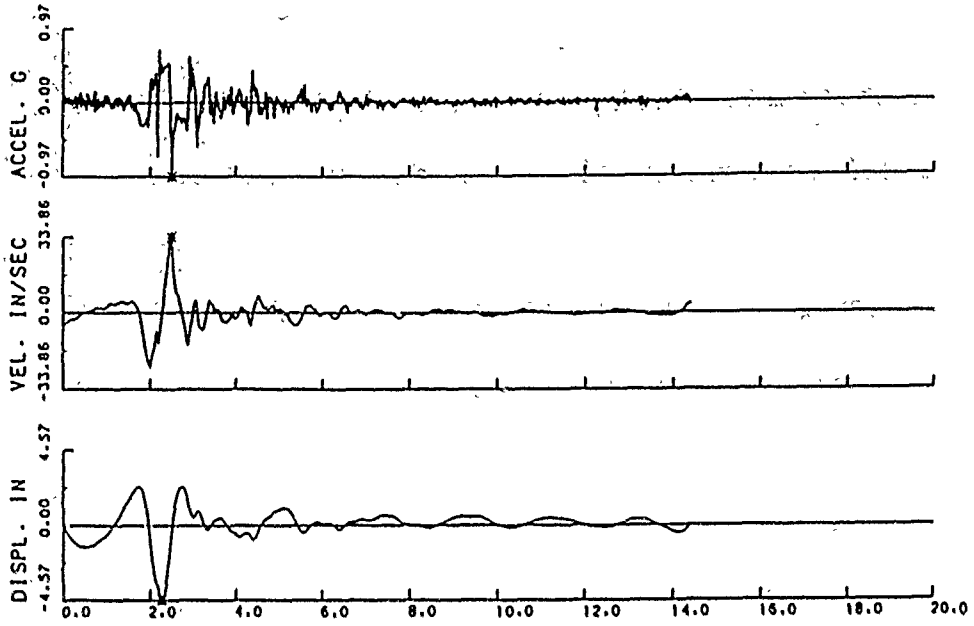
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
12025-S1833-86189.01
101786.2208-QP86A025

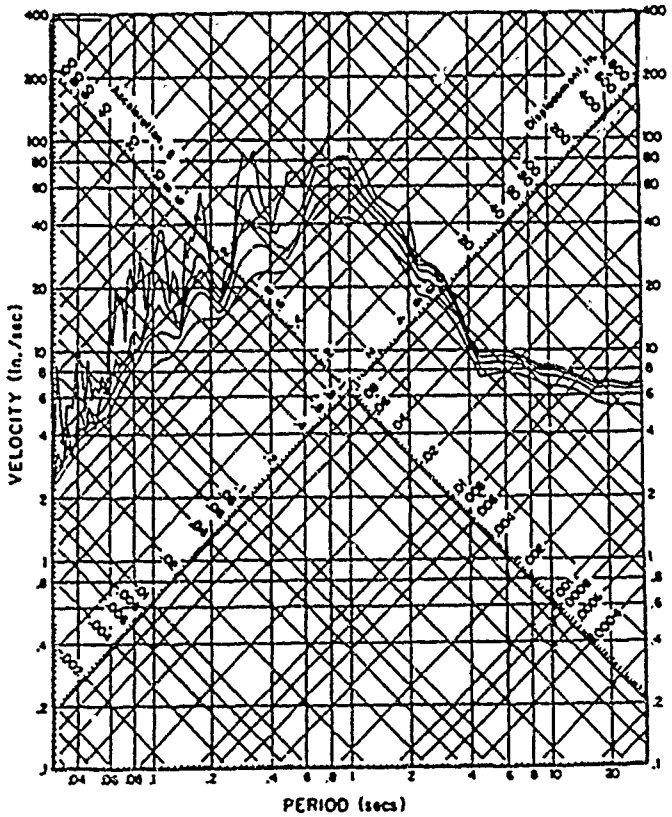
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

PALM SPRINGS EARTHQUAKE
JULY 8, 1986 02:20 PDT

***CAL 236***

TIME HISTORY ANALYSIS OF DEVERS RECORD, JULY 8,86 EARTHQUAKE. 7/23/86
SCE15 - DEVERS SUBSTATION
COORDINATES LAT 33.93 LONG 116.58
INSTRUMENT ORIENTATION LATERAL N TRANSVERSE W
COMPONENT OF MOTION LONGITUDINAL
PEAK VALUES, ACCEL = -0.97 G VEL =33.86 IN/SEC DISPL = -4.57 IN



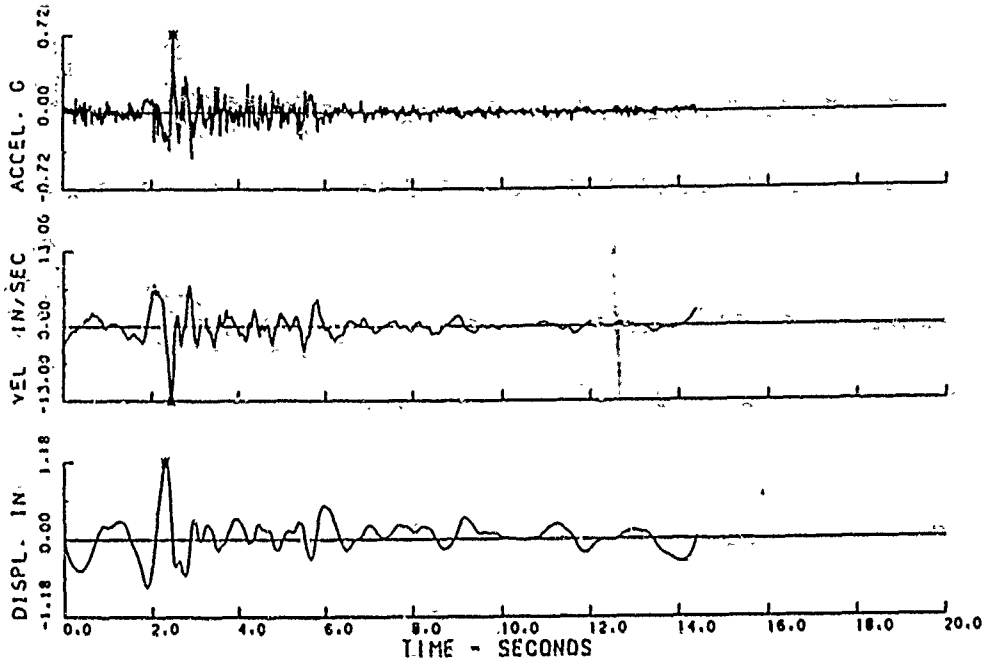



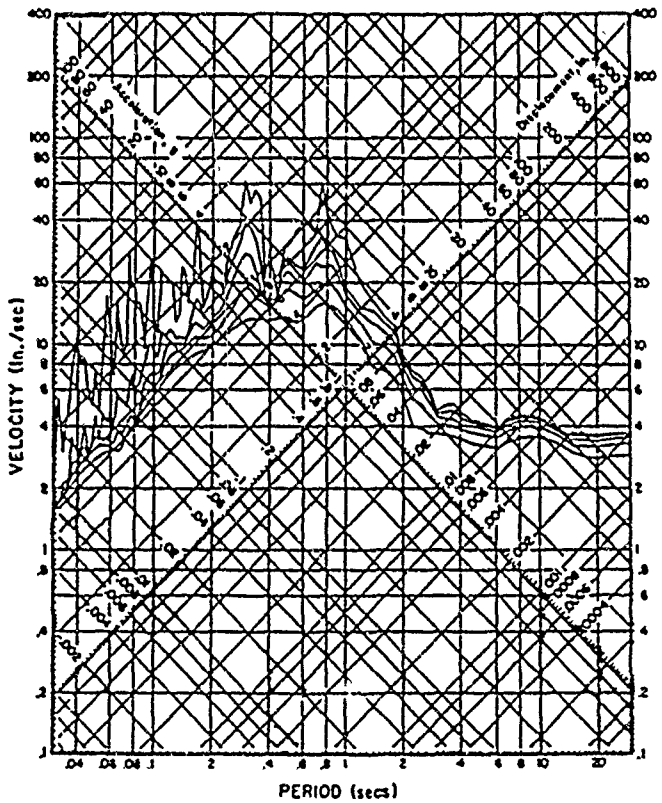

SO CAL EDISON CO

TIME HISTORY ANALYSIS
OF DEVERS RECORD, JULY
SCE15 - DEVERS SUBSTATIOI
LAT 33.93 LONG 116.58
INSTRUMENT ORIENTATION
LATERAL N TRANSVER
COMPONENT OF MOTION
LONGITUDINAL

***CAL 243***

TIME HISTORY ANALYSIS OF DEVERS RECORD, JULY 8.86 EARTHQUAKE 7/23/86 00
SCE15 = DEVERS SUBSTATION
COORDINATES LAT 33.93 LONG 116.58
INSTRUMENT ORIENTATION LATERAL N TRANSVERSE W
COMPONENT OF MOTION TRANSVERSE
PEAK VALUES. ACCEL = 0.72 G VEL =-13.00 IN/SEC DISPL = 1.18 IN

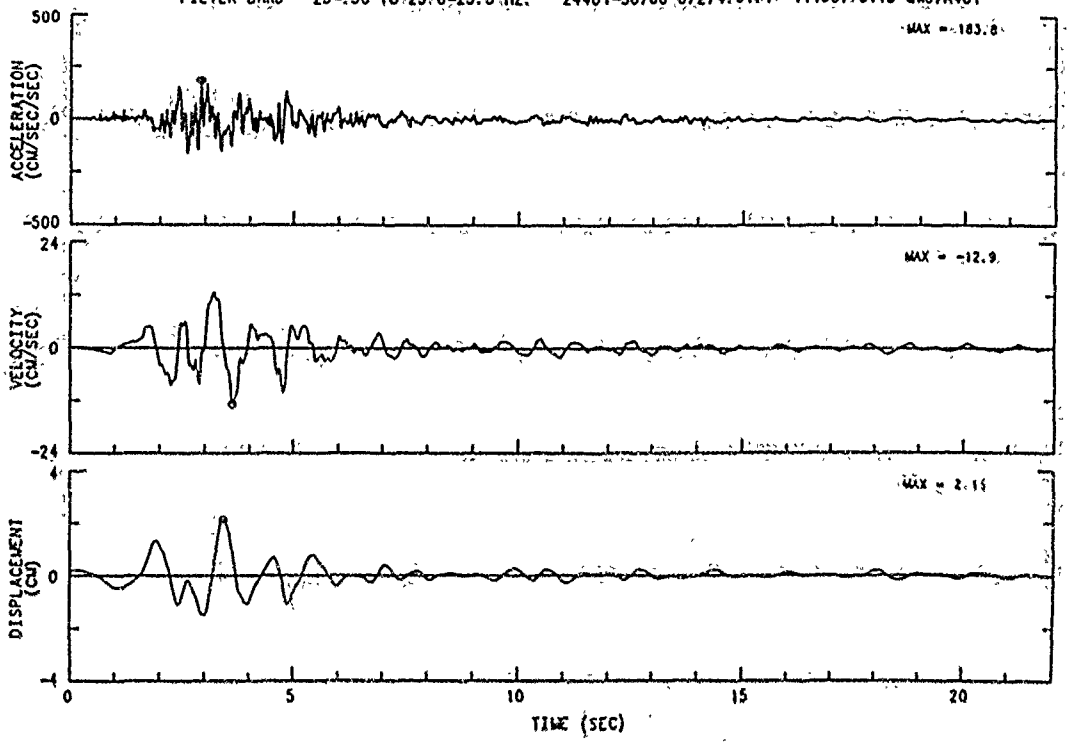


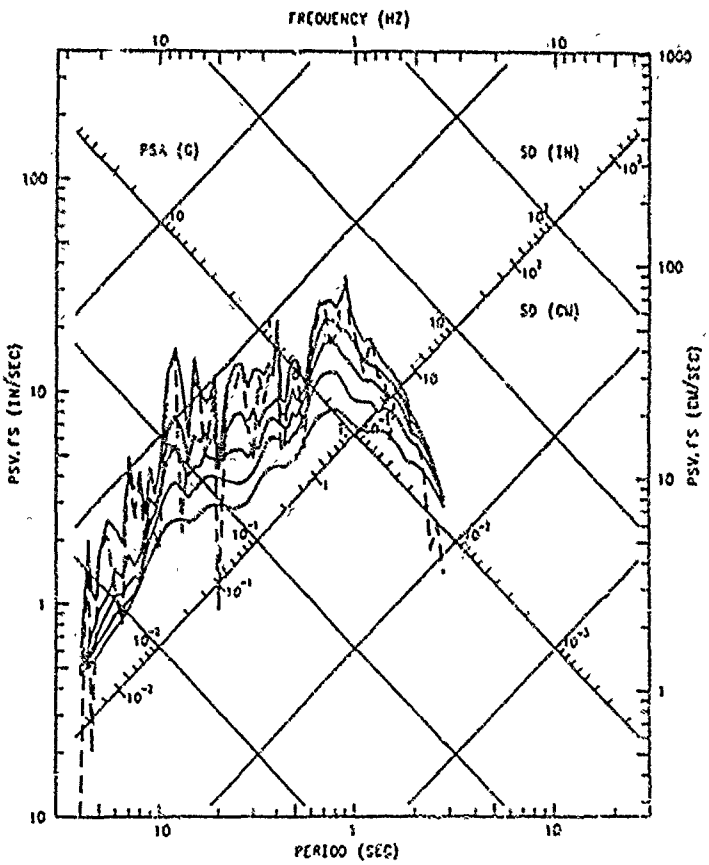




SO CAL EDISON CO

TIME HISTORY ANALYSIS
OF DEVERS RECORD, JULY 8.8
SCE15 - DEVERS SUBSTATION
LAT 33.93 LONG 116.58
INSTRUMENT ORIENTATION
LATERAL N TRANSVERSE
COMPONENT OF MOTION
TRANSVERSE

*CAL 244*



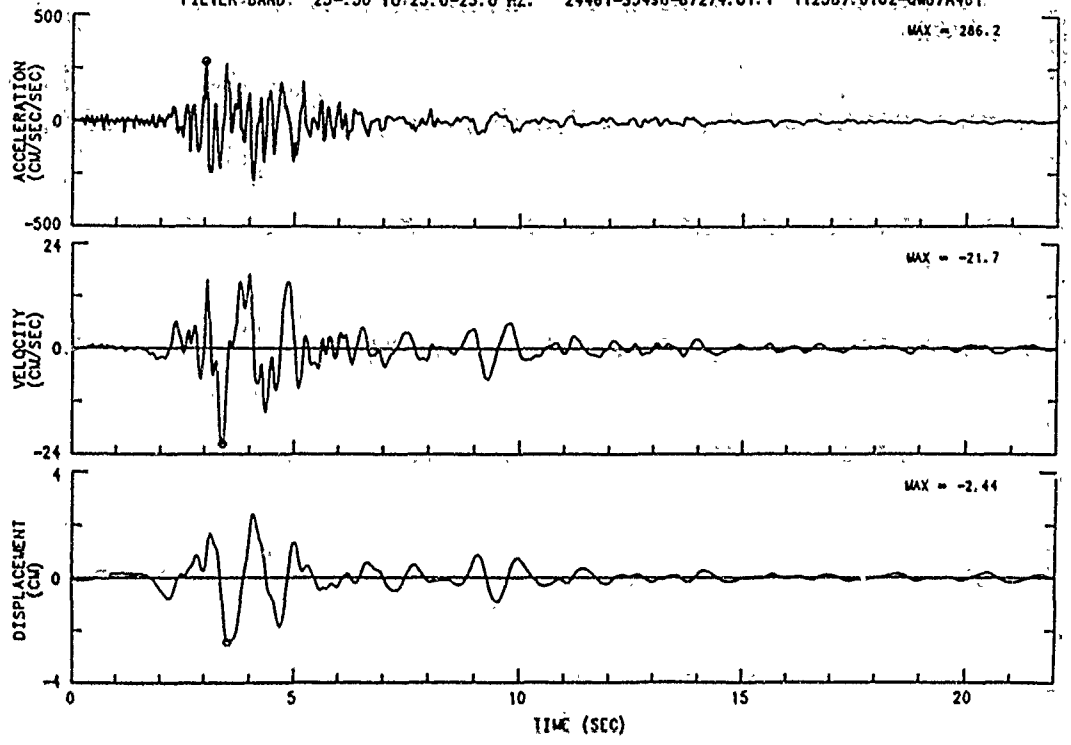



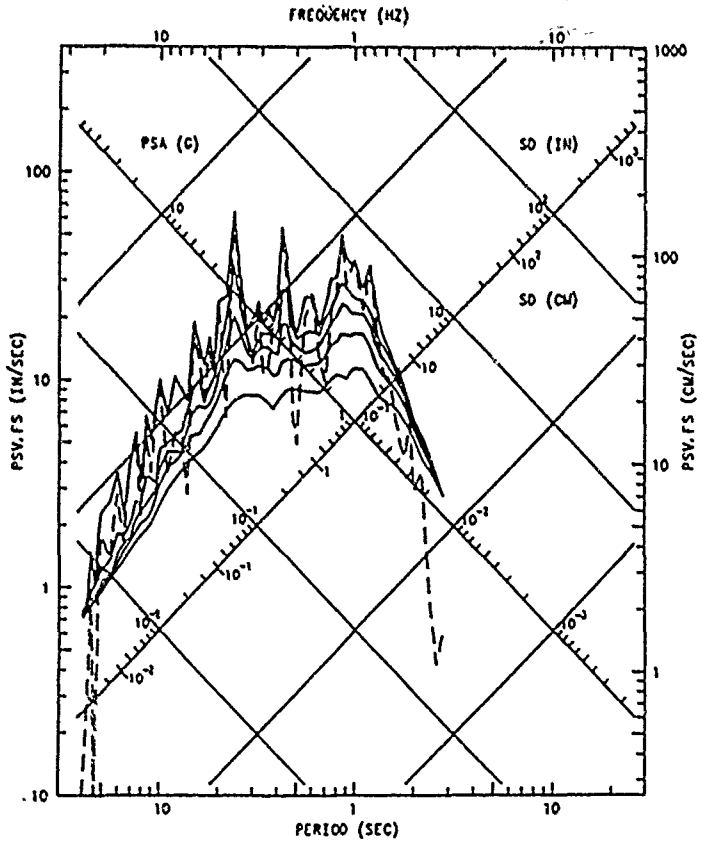

CDMG PRINTOUT

SAN MARINO - SOUTHWESTERN ACADEMY
CHN 1, 360 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .25-.50 TO 23.0-25.0 HZ.
112387 1513-CW87A401
24401-S0760-87274.01.1
—— RESPONSE SPECTRA PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM FS
DAMPING VALUES: 0, 2, 5, 10, 20%

WHITTIER EARTHQUAKE
OCTOBER 1, 1987 07 42 PDT

*CAL 247*



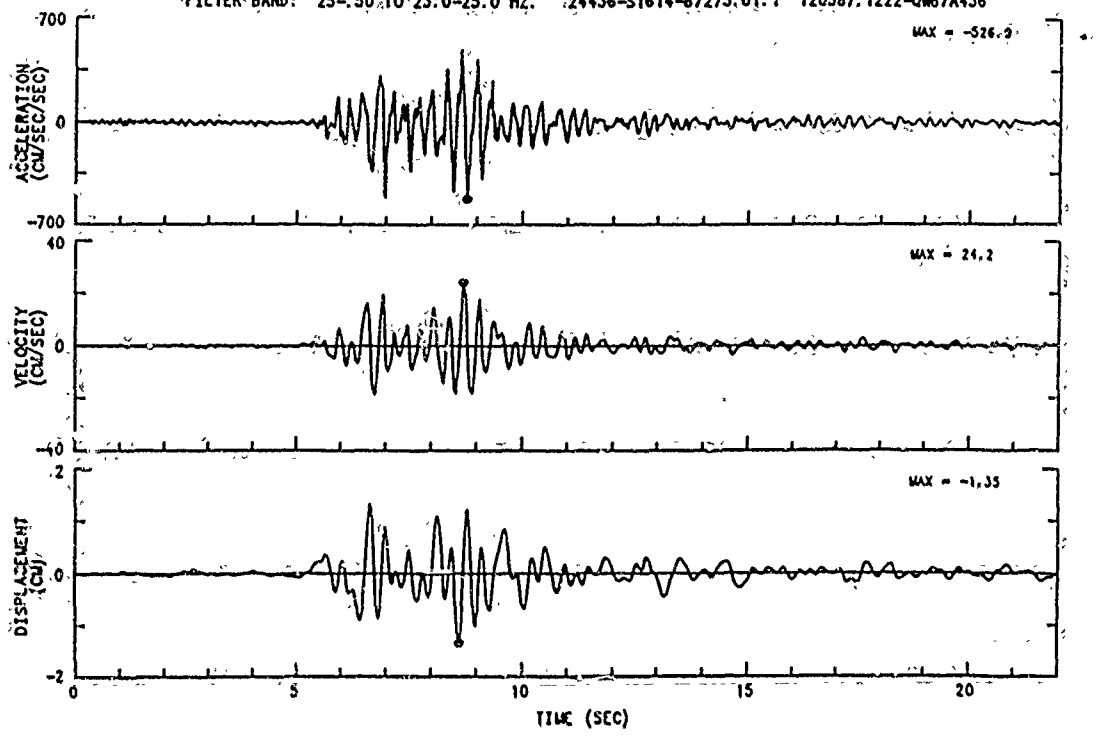



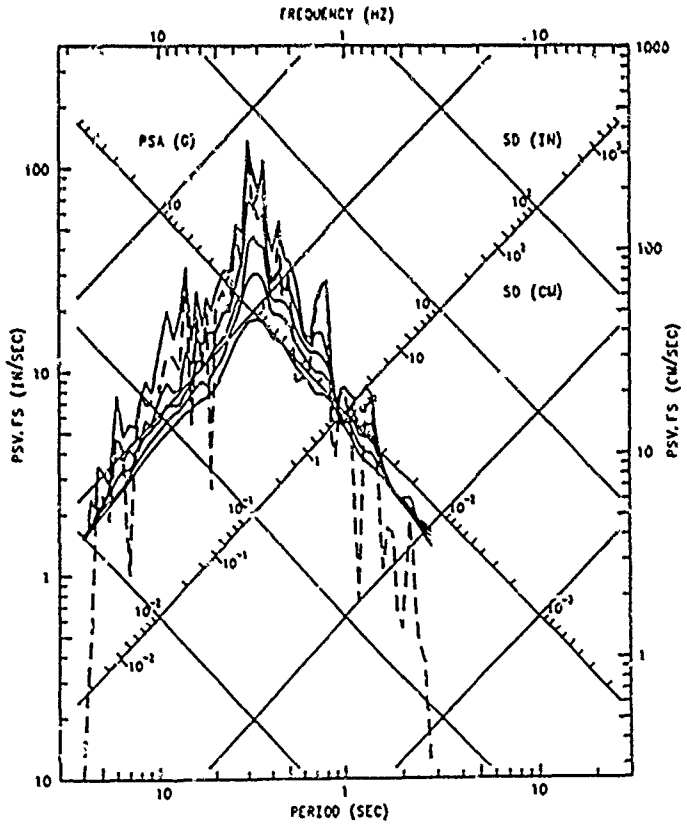

CDMG PRINTOUT

ALHAMBRA - FREMONT SCHOOL
CHN 3: 180 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .25-.50 TO 23.0-25.0 HZ.
24461-S3498-87274.01.1
120387.1426-QW87A461
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

WHITTIER EARTHQUAKE
OCTOBER 1, 1987 07 42 PDT

***CAL 253***



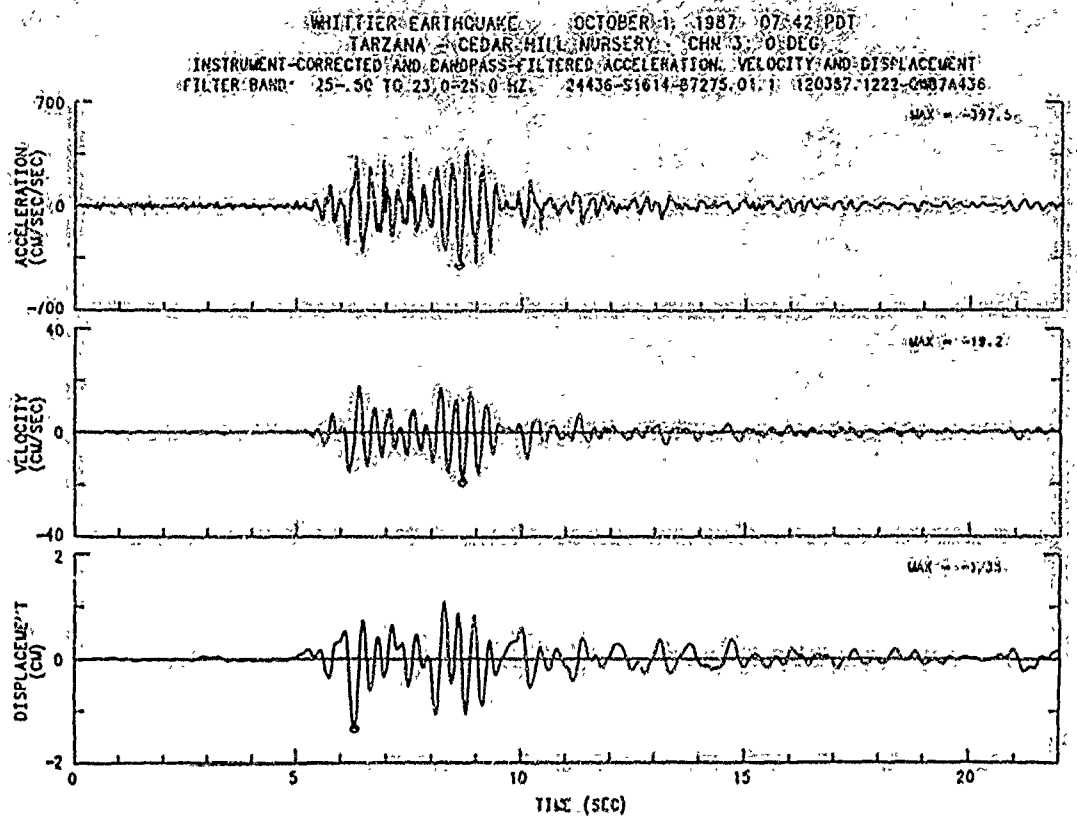



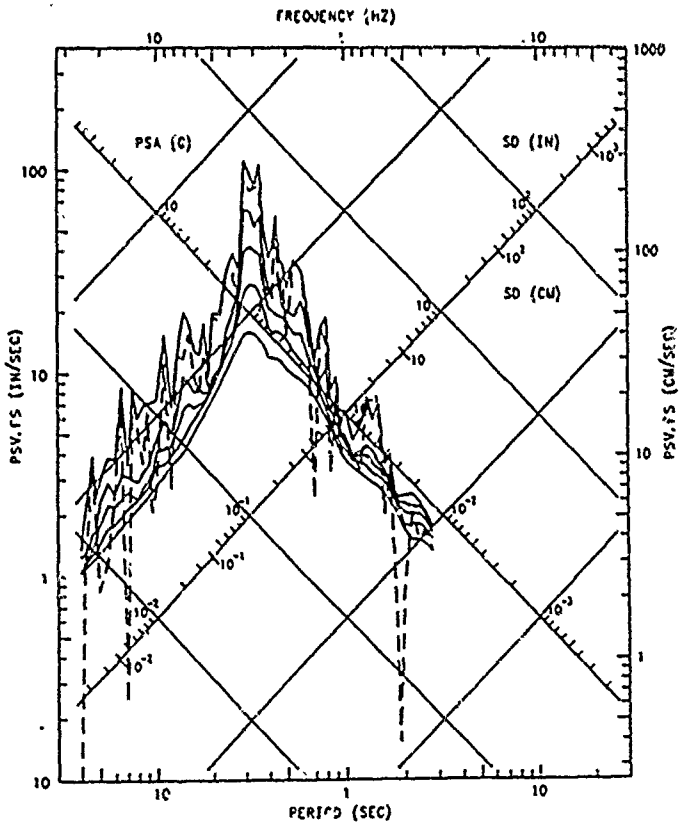

CDMG [illegible]NTOUT

TARZANA - CEDAR HILL NURSERY
CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .25-.50 TO 23.0-25.0 HZ.
24436-S1614-87275.01.1
120387.1235-QW87A436
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

WHITTIER EARTHQUAKE
OCTOBER 1, 1987 07 42 PDT

***CAL 270***



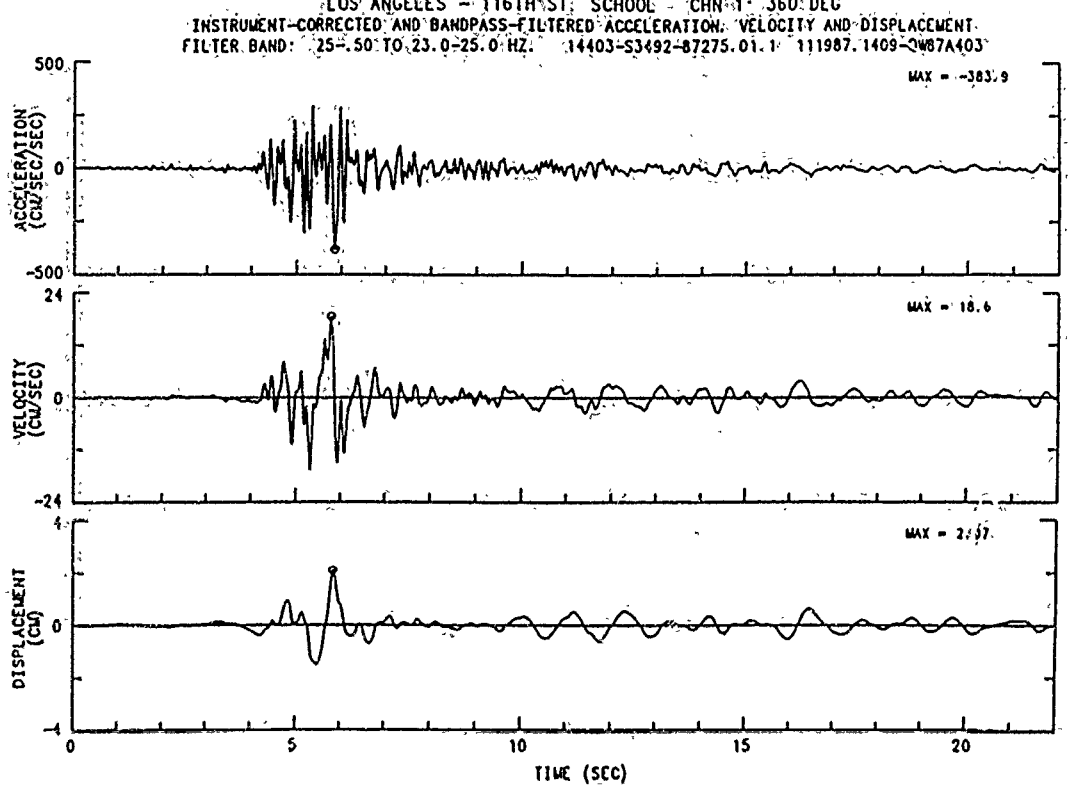



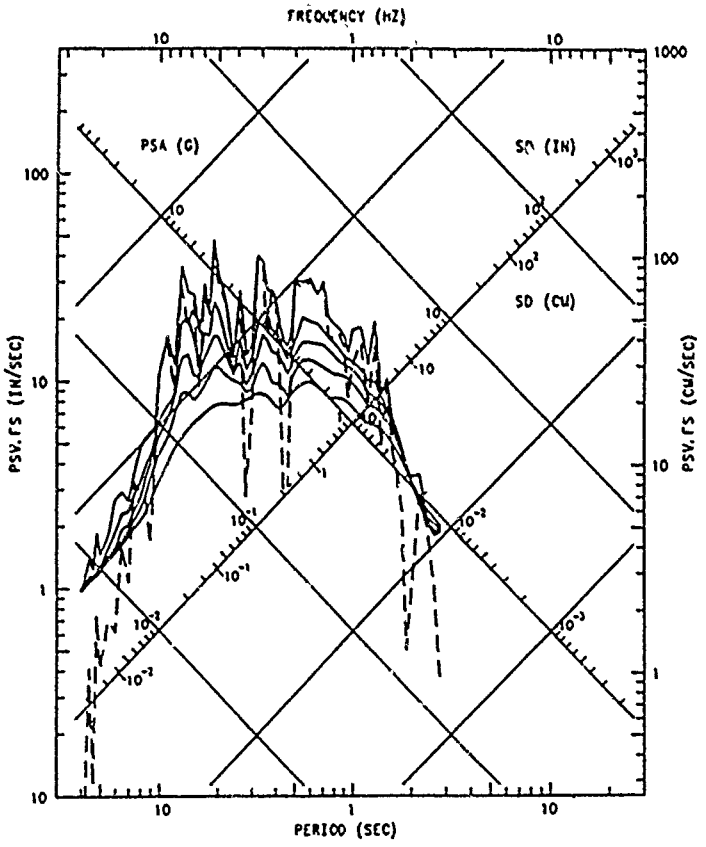

CDMG PRINTOUT

TARZANA - CEDAR HILL NURSERY
CHN 3: 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .25-.50 TO 23.0-25.0 HZ.
24436-S1614-87275.01.1
120387.1235-QW87A436
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

WHITTIER EARTHQUAKE
OCTOBER 1, 1987 07:42 PDT

***CAL 271***



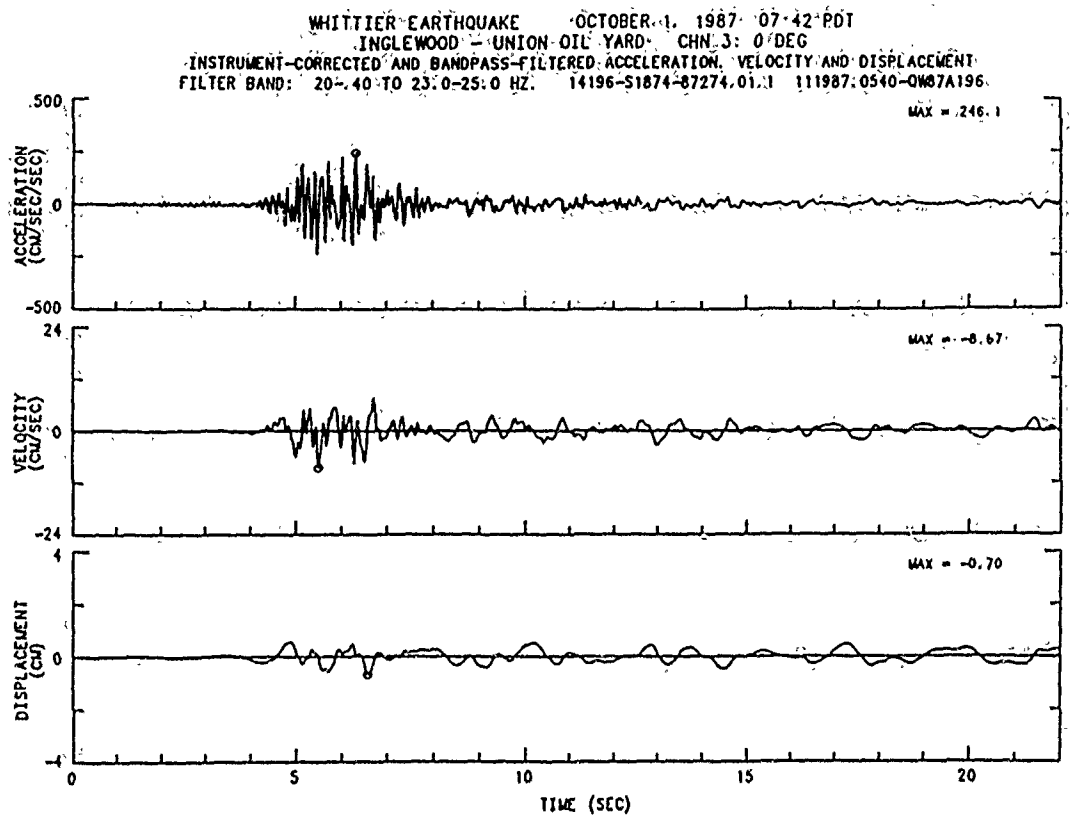



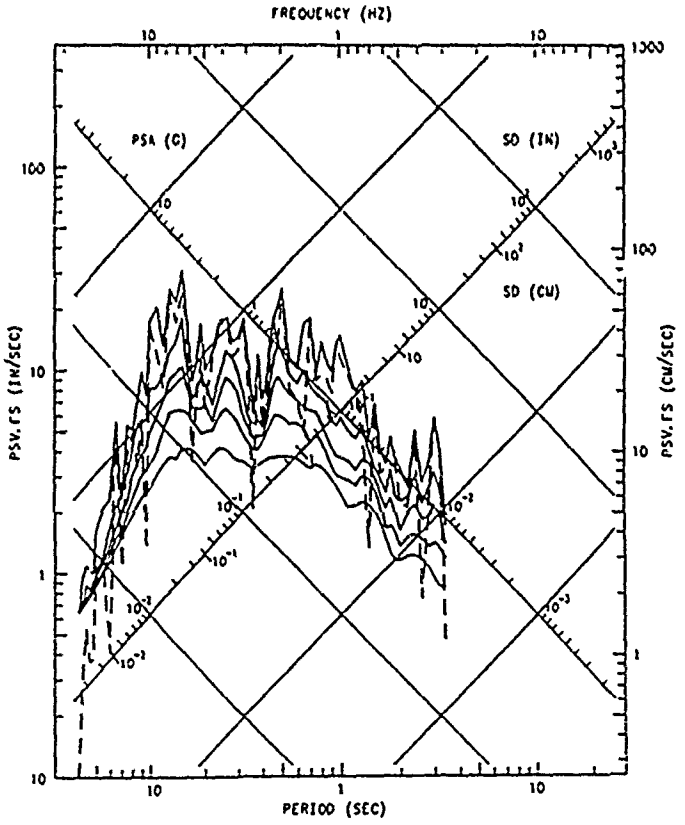

CDMG PRINTOUT

LOS ANGELES - 116TH ST. SCHOOL
CHN 1: 360 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .25-.50 TO 23.0-25.0 HZ.
14403-S3492-87275.01.1
121587.1654-QW87A403
—— RESPONSE SPECTRA: PSV, PSA & S
— — FOURIER AMPLITUDE SPECTRUM: F
DAMPING VALUES: 0, 2, 5, 10, 20%

WHITTIER EARTHQUAKE
OCTOBER 1, 1987 07:42 PDT

***CAL 272***



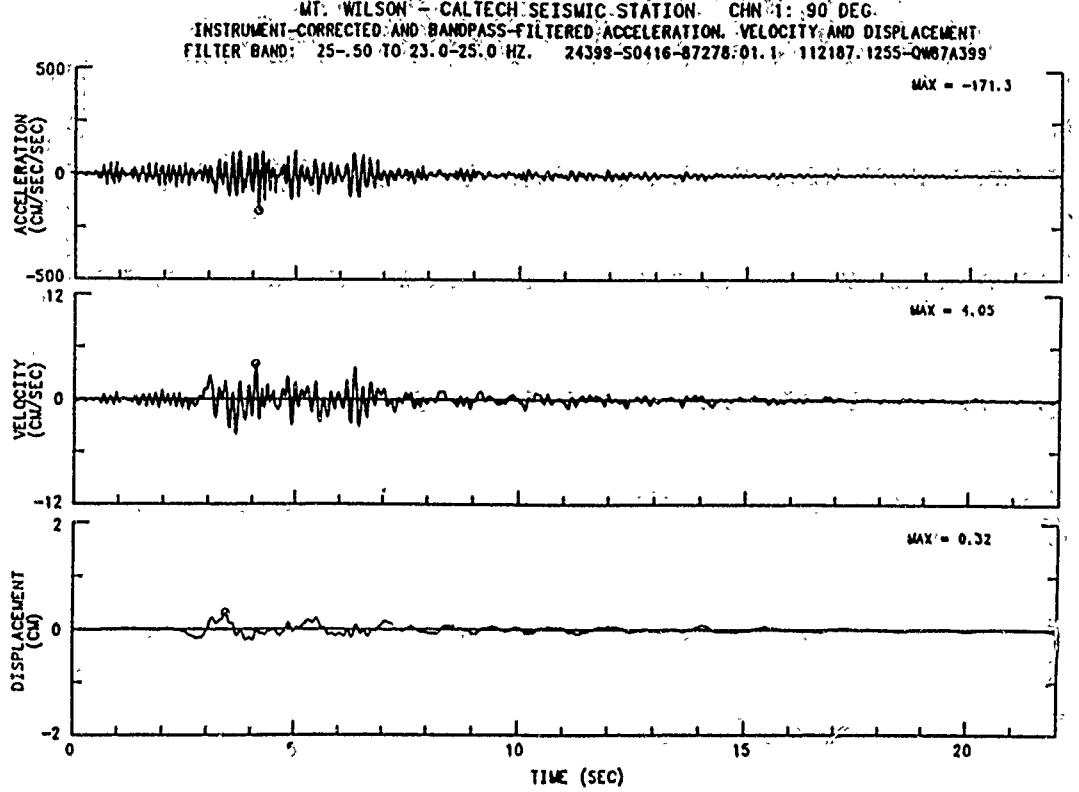



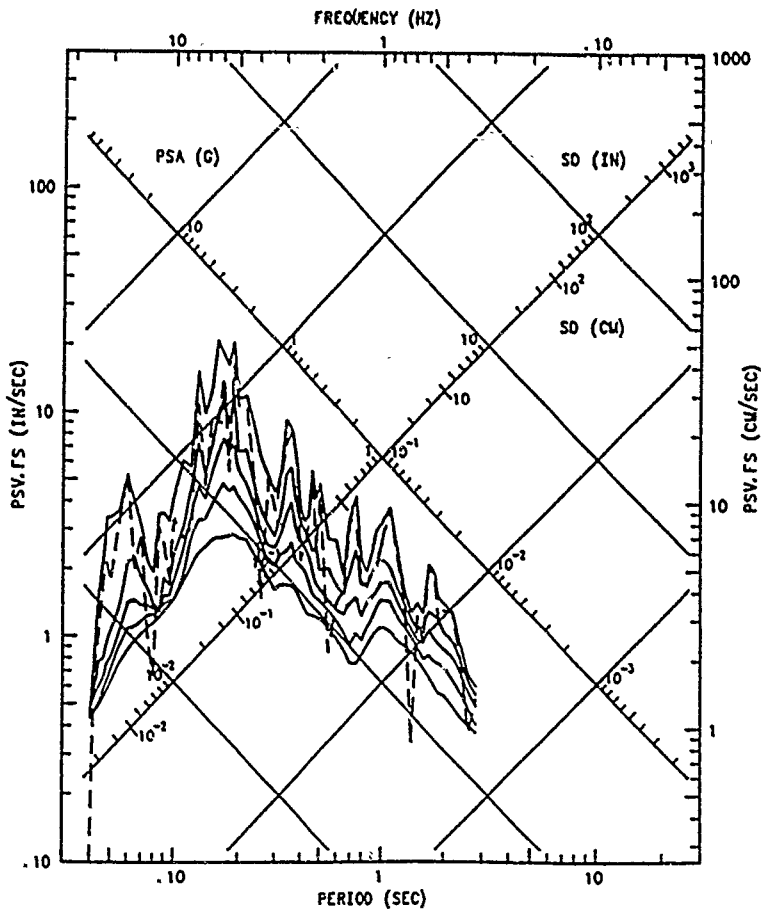

CDMG PRINTOUT

INGLEWOOD - UNION OIL YARD
CHN 3· 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH RAMPS AT .20-.40 TO 23.0-25.0 HZ.
14196-S1874-87274.01.1
112387.1631-QW87A196
—— RESPONSE SPECTRA· PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM· FS
DAMPING VALUES· 0, 2, 5, 10, 20%

WHITTIER EARTHQUAKE
OCTOBER 1, 1987 07·42 PDT

***CAL 275***




CDMG PRINTOUT

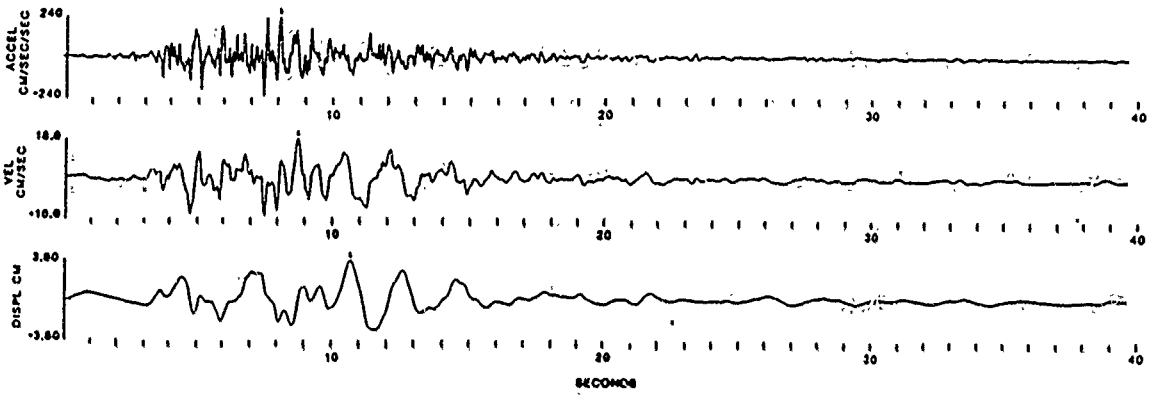
MT. WILSON
CALTECH SEISMIC STATION
CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .25-.50 TO 23.0-25.0 HZ.
24399-S0416-87278.01.1
121587.1855-QW87A399

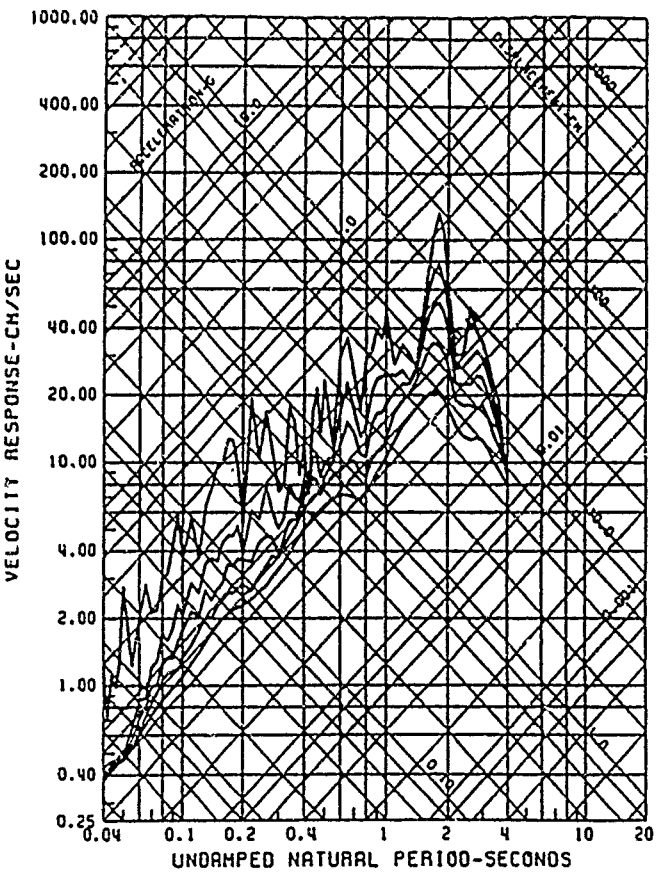
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

WHITTIER EARTHQUAKE
OCTOBER 1, 1987 07:42 PDT

***CAL 279***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT AT 200. SPS
ANDERSON DAM - DOWNSTREAM
250 DEGREES
EARTHQUAKE OF OCTOBER 18, 1989 - 0004 GMT
BUTTERWORTH AT .25 HZ, ORDER 4
PEAK VALUES: ACCEL= 238.84 CM/SEC/SEC, VELOCITY= 17.95 CM/SEC, DISPL= 3.76 CM



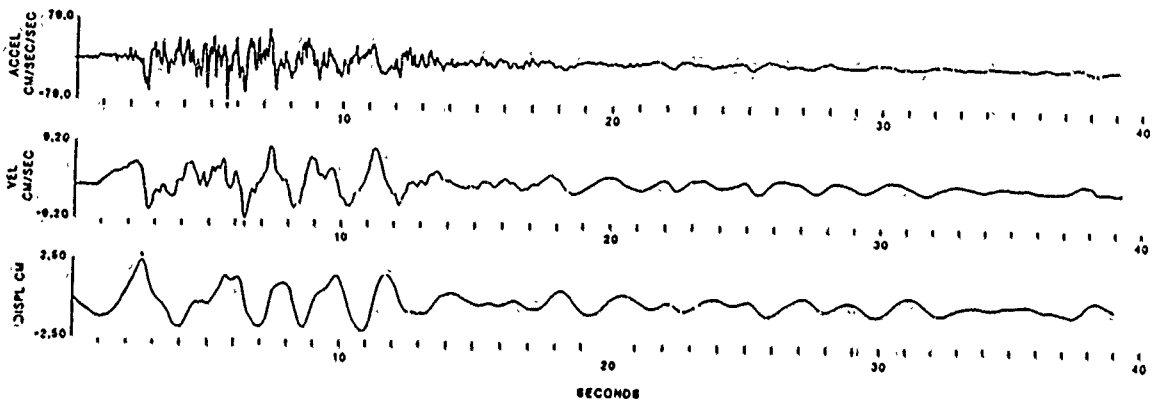

USGS OF 90-247

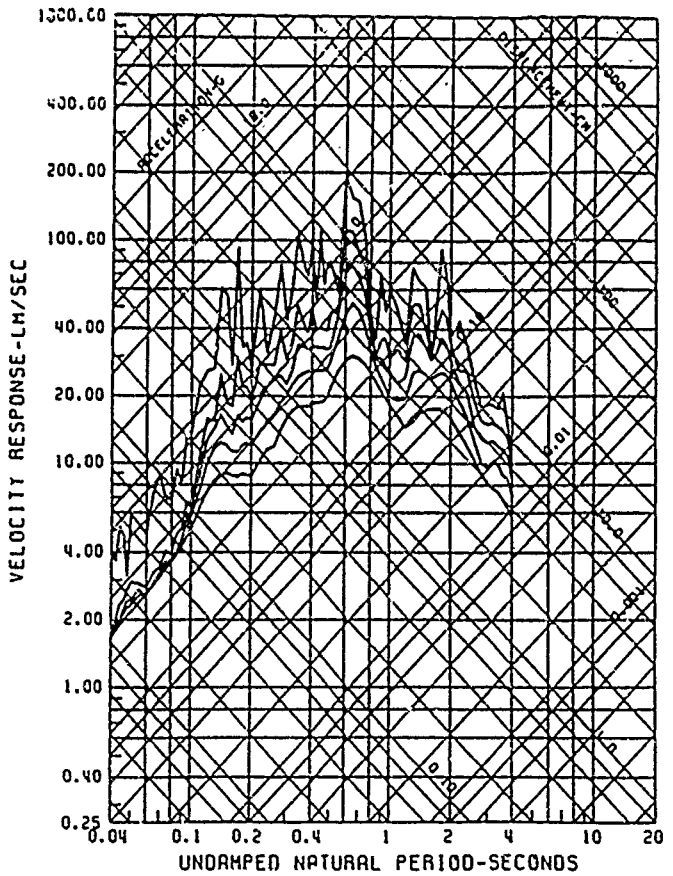
NATIONAL STRONG MOTION
DATA CENTER
0004GMT 250
BAND PASSED FROM
0.250 HZ. N=4, TO 25.00 HZ. N=5
CRITICAL DAMPING
0,2,5,10,20 PERCENT

ANDERSON DAM - LEFT ABUTMENT
10/18/89

***CAL 323***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT AT 200. SPS
ANDERSON DAM - LEFT ABUTMENT
340 DEGREES
EARTHQUAKE OF OCTOBER 18, 1989 - 0004 GMT
HI-PASS BUTTERWORTH AT .25 HZ, ORDER 4, LO-PAS FFT AT 25-30 HZ
PEAK VALUES: ACCEL= -78.88 CM/SEC/SEC, VELOCITY= -9.14 CM/SEC, DISPL= 2.45 CM



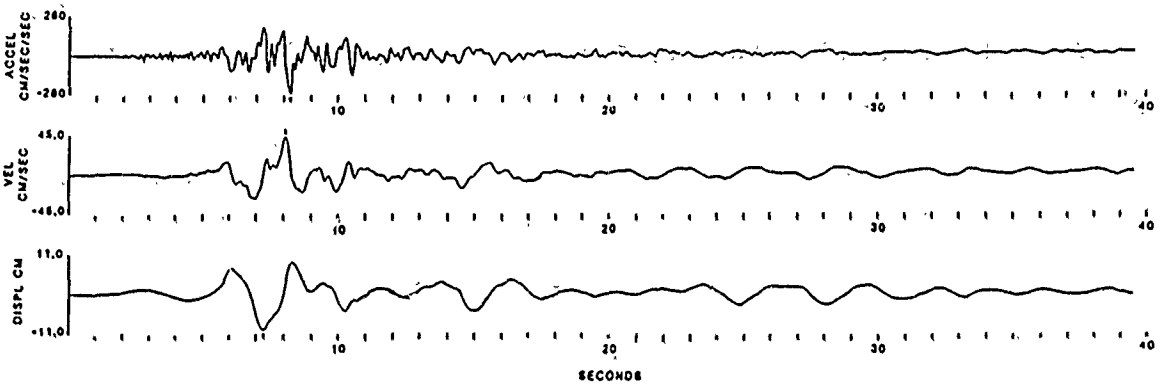

USGS OF 90-247

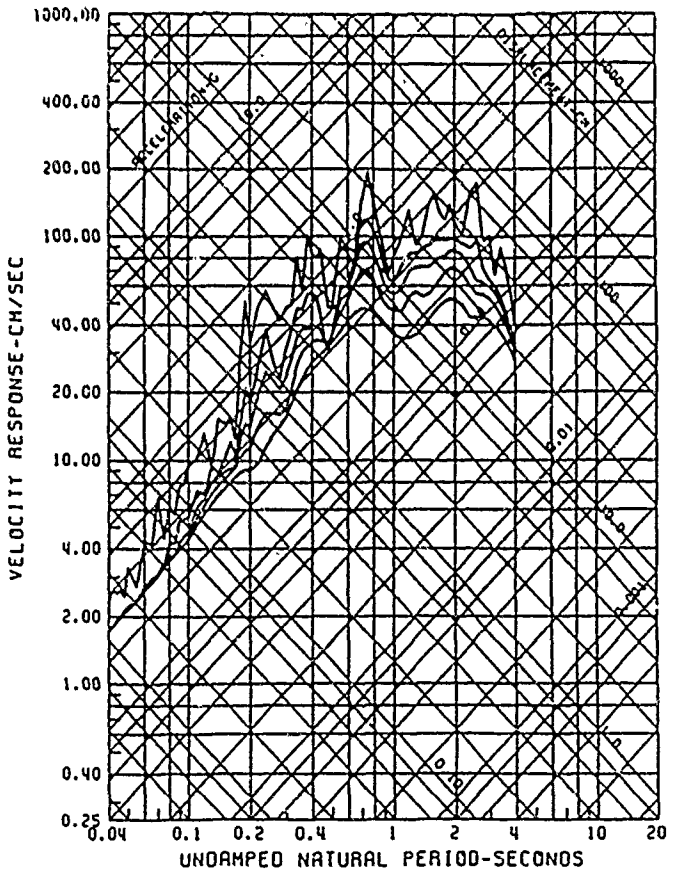
NATIONAL STRONG MOTION
DATA CENTER
0004GMT 340
FILTERS: BUTTERWORTH, ORDER 4
0.250 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

ANDERSON DAM - DOWNSTREAM
10/18/89

***CAL 324***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT AT 200. SPS
HOLLISTER AIRPORT (DIFFERENTIAL ARRAY)
165 DEGREES
EARTHQUAKE OF OCTOBER 18, 1989 - 0004 GMT
BUTTERWORTH AT 0.25 HZ, ORDER 4
PEAK VALUES: ACCEL= -276.98 CM/SEC/SEC, VELOCITY= 44.39 CM/SEC, DISPL= -10.23 CM



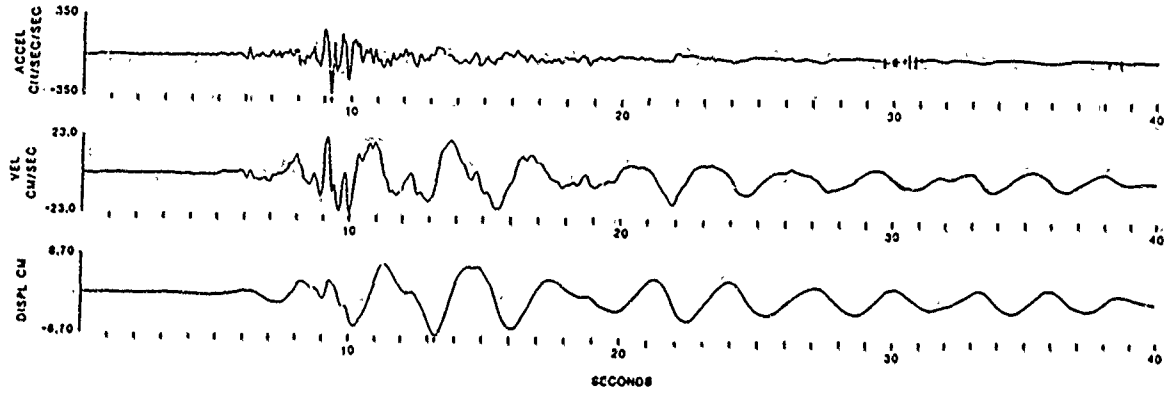

USGS OF 90-247

NATIONAL STRONG MOTION
DATA CENTER
0004GMT 165
FILTERS: BUTTERWORTH, ORDER 4
0.250 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0, 2, 5, 10, 20 PERCENT

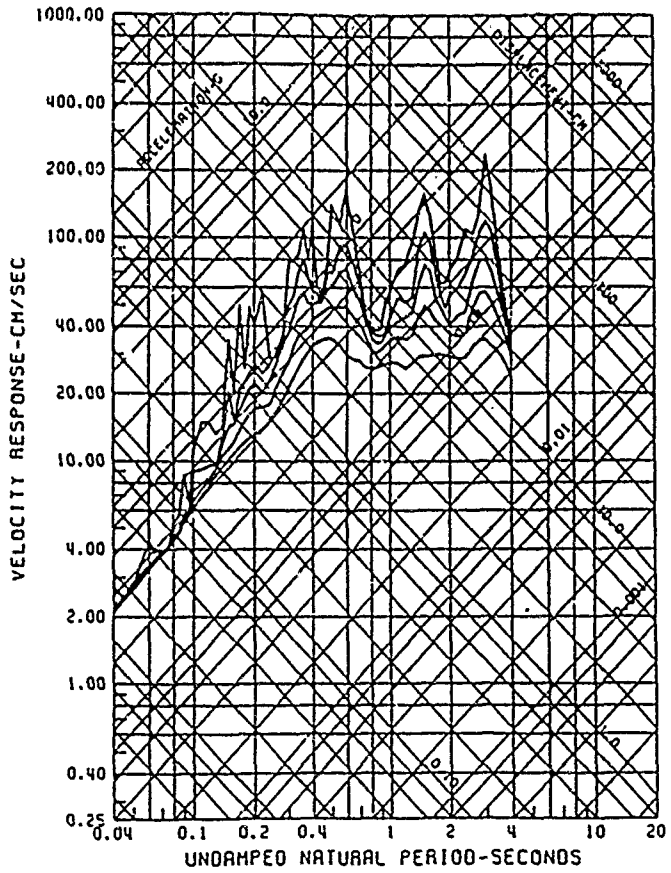
HOLLISTER AIRPORT
(DIFFERENTIAL ARRAY)
10/18/89

*CAL 329*

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT AT 200. SPS
PALO ALTO VA HOSPITAL – BLDG 1, BASEMENT
302 DEGREES
EARTHQUAKE OF OCTOBER 18, 1989 – 0004 GMT
BUTTERWORTH AT .25 HZ, ORDER 4
PEAK VALUES: ACCEL= -341.53 CM/SEC/SEC, VELOCITY= -22.96 CM/SEC, DISPL= -8.64 CM




USGS OF 90-247



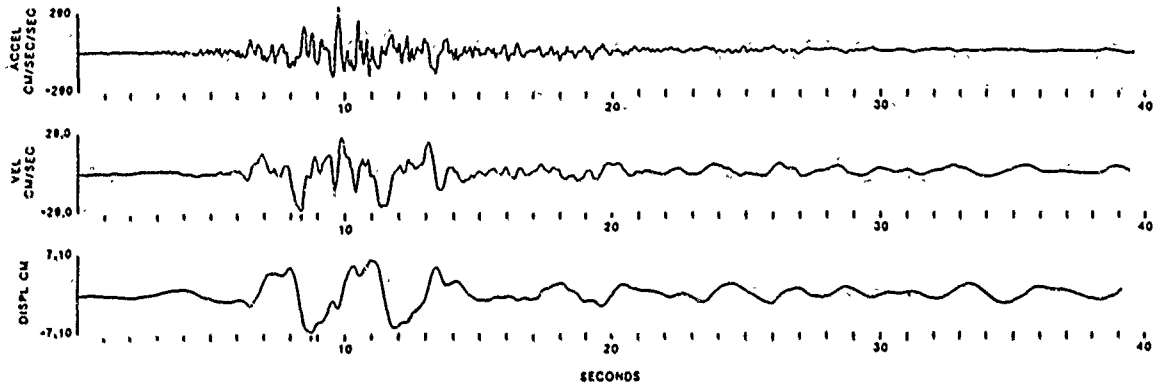

USGS OF 90-330

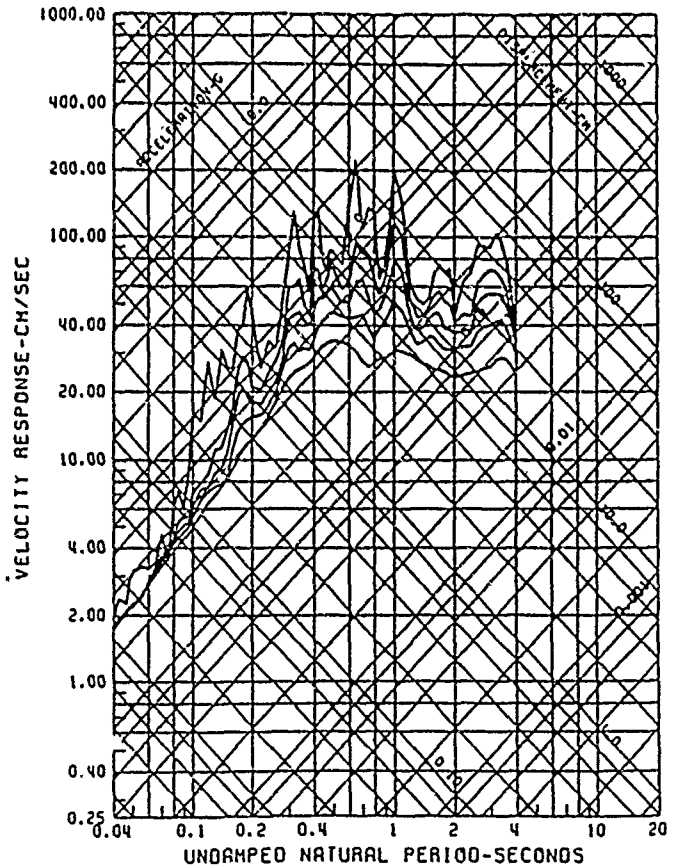
NATIONAL STRONG MOTION
DATA CENTER
0004GMT 302
FILTERS: BUTTERWORTH, ORDER 4
0.250 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

PALO ALTO VA HOSPITAL
BLDG 1, BASEMENT, 10/18/89

***CAL 330***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT AT 200. SPS
STANFORD UNIVERSITY - SLAC TEST LAB
360 DEGREES
EARTHQUAKE OF OCTOBER 18, 1989 - 0004 GMT
BUTTERWORTH AT .25 HZ, ORDER 4
PEAK VALUES: ACCEL= 282.08 CM/SEC/SEC, VELOCITY= -28.37 CM/SEC, DISPL= -7.06 CM



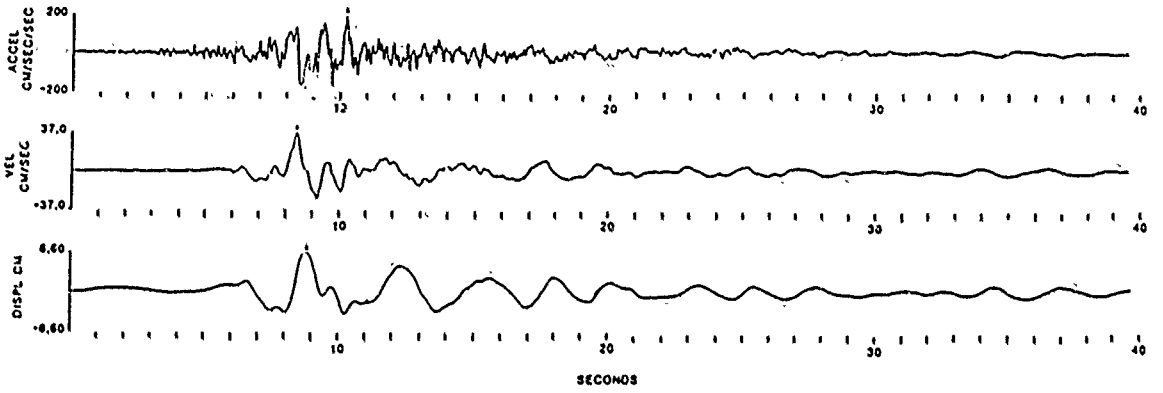

USGS OF 90-247

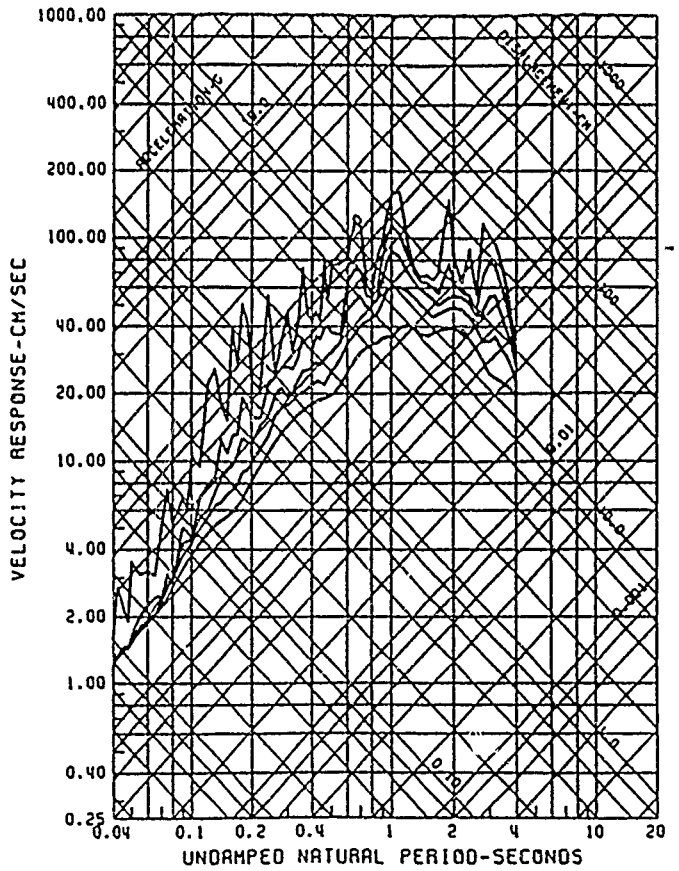
NATIONAL STRONG MOTION
DATA CENTER
0004GMT 360
FILTERS: BUTTERWORTH, ORDER 4
0.250 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

STANFORD UNIVERSITY
SLAC TEST LAB, 10/18/89

***CAL 334***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT AT 200. SPS
STANFORD UNIVERSITY - SLAC TEST LAB
270 DEGREES
EARTHQUAKE OF OCTOBER 18, 1989 - 0004 GMT
BUTTERWORTH AT .25 HZ, ORDER 4
PEAK VALUES: ACCEL= 197.88 CM/SEC/SEC, VELOCITY= 36.73 CM/SEC, DISPL= 8.51 CM



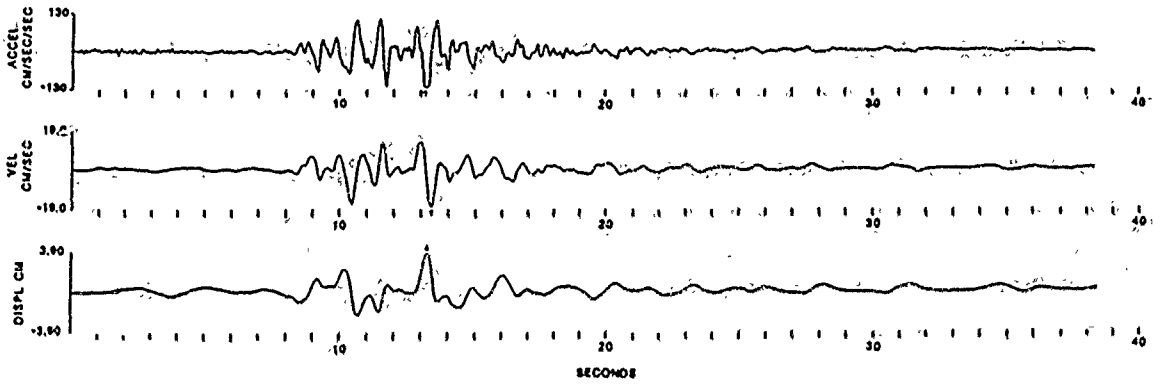

USGS OF 90-247

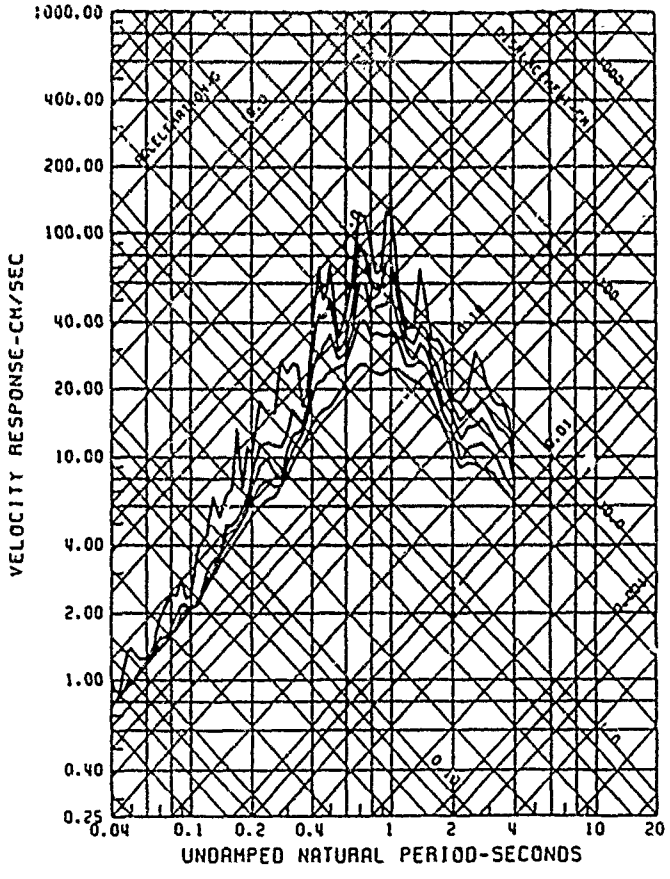
NATIONAL STRONG MOTION
DATA CENTER
0004GMT 270
FILTERS: BUTTERWORTH, ORDER 4
0.250 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

STANFORD UNIVERSITY
SLAC TEST LAB, 10/18/89

***CAL 335***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT AT 200. SPS
SAN FRANCISCO – GOLDEN GATE BRIDGE, ABUTMENT BLDG
360 DEGREES
EARTHQUAKE OF OCTOBER 18, 1989 – 0004 GMT
BUTTERWORTH AT .25 HZ; ORDER 4
PEAK VALUES: ACCEL= -124.17 CM/SEC/SEC, VELOCITY= -18.02 CM/SEC, DISPL= 3.86 CM



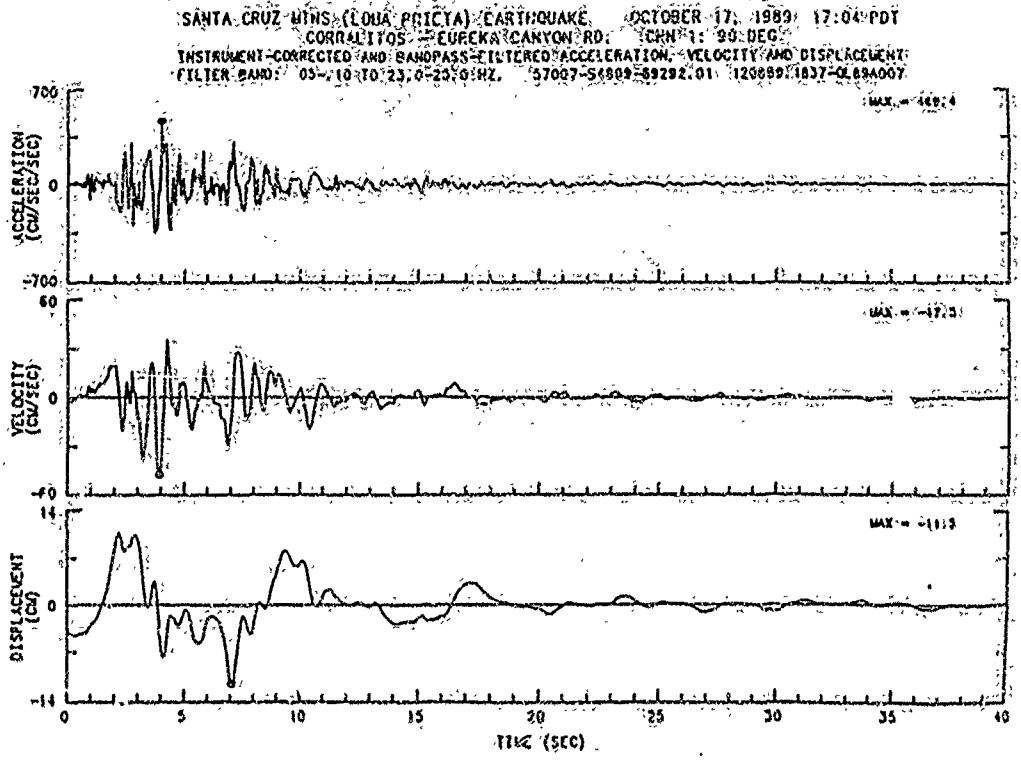



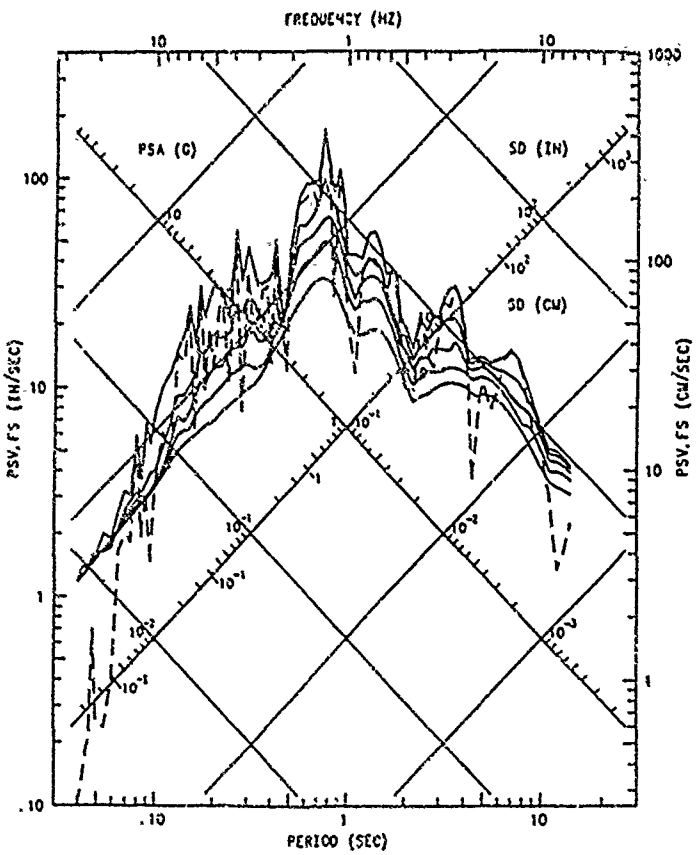

USGS OF 90-247

NATIONAL STRONG MOTION
DATA CENTER
0004GMT 360
FILTERS: BUTTERWORTH, ORDER 4
0.250 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

SAN FRANCISCO
GOLDEN GATE BRIDGE
ABUTMENT BLD, 10/18/89

*CAL 348*



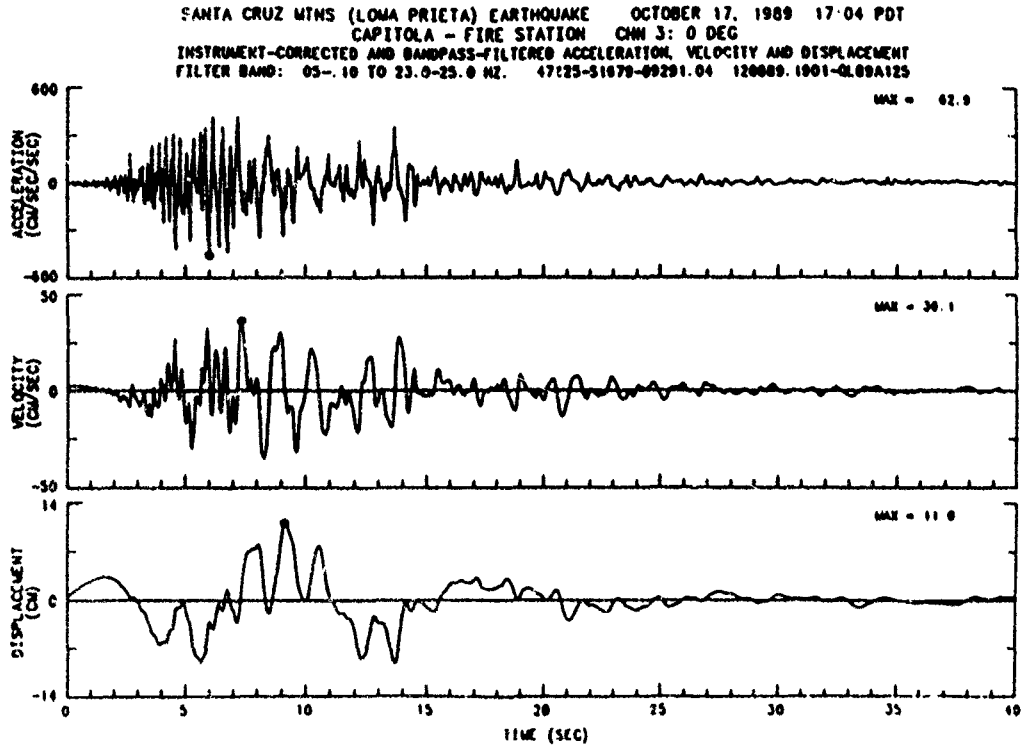



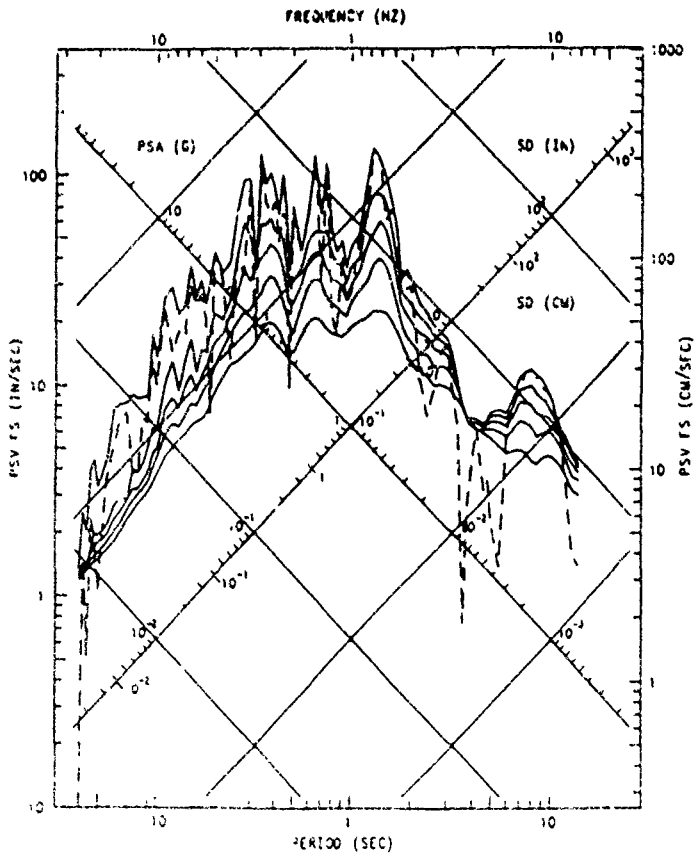

CDMG PLOTS 12/13/89

CORRALITOS - EUREKA CANYON RD.
CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.10 TO 23.0-25.0 HZ.
57007-S4809-89292.01
120889.1959-QL89A007
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17 04 PDT

***CAL 351***



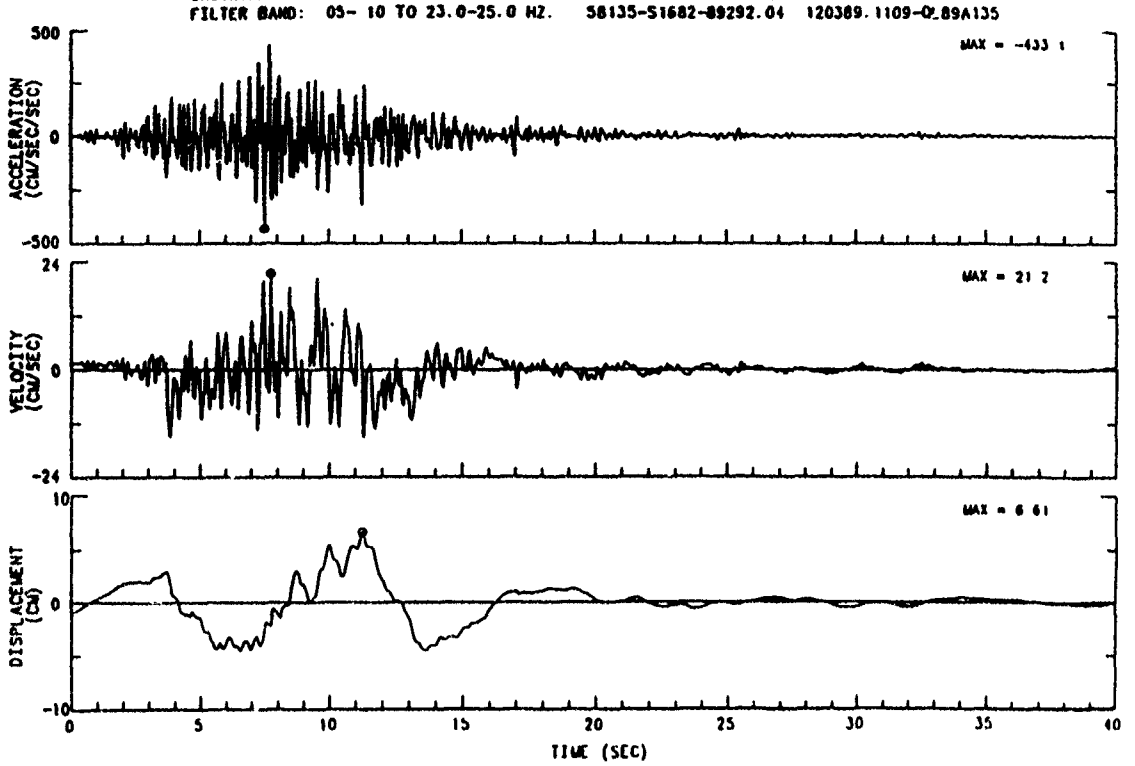



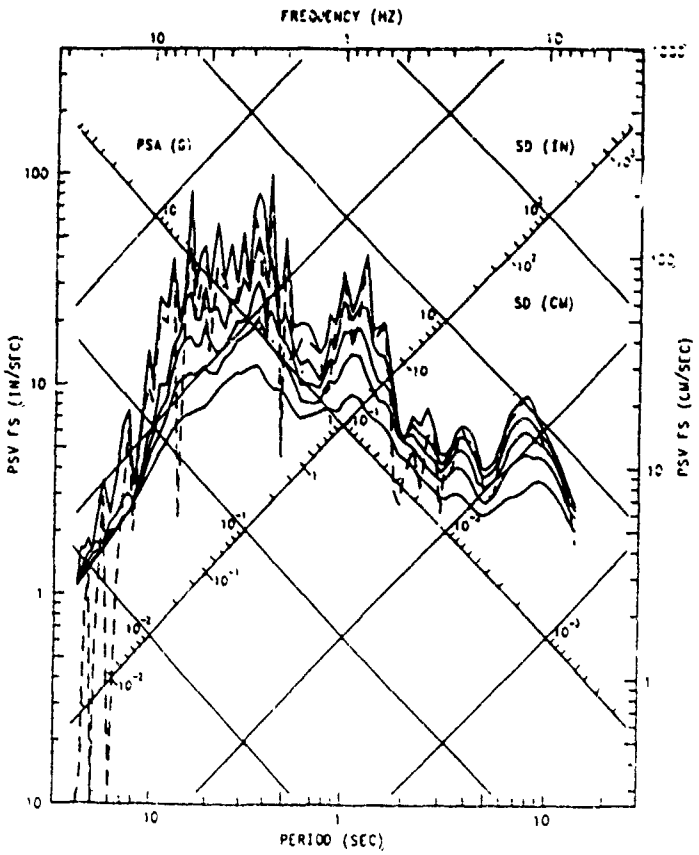

CDMG PLOTS 12/13/89

CAPITOLA - FIRE STATION
CHN 3 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT 05- 10 TO 23 0-25 0 HZ
47125-S1679-89291 04
120889.1925-QL89A125
—— RESPONSE SPECTRA PSV, PSA & SD
– – FOURIER AMPLITUDE SPECTRUM FS
DAMPING VALUES 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17 1989 17 04 PDT

***CAL 353***



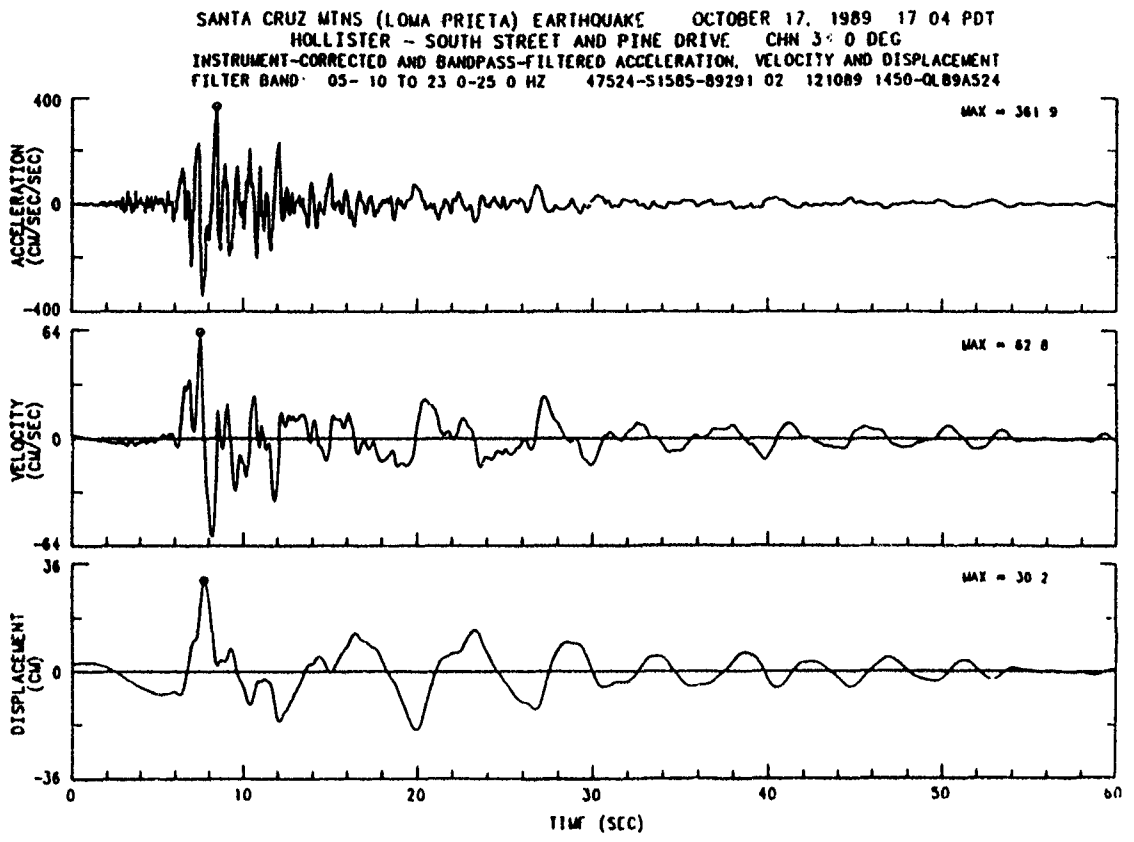



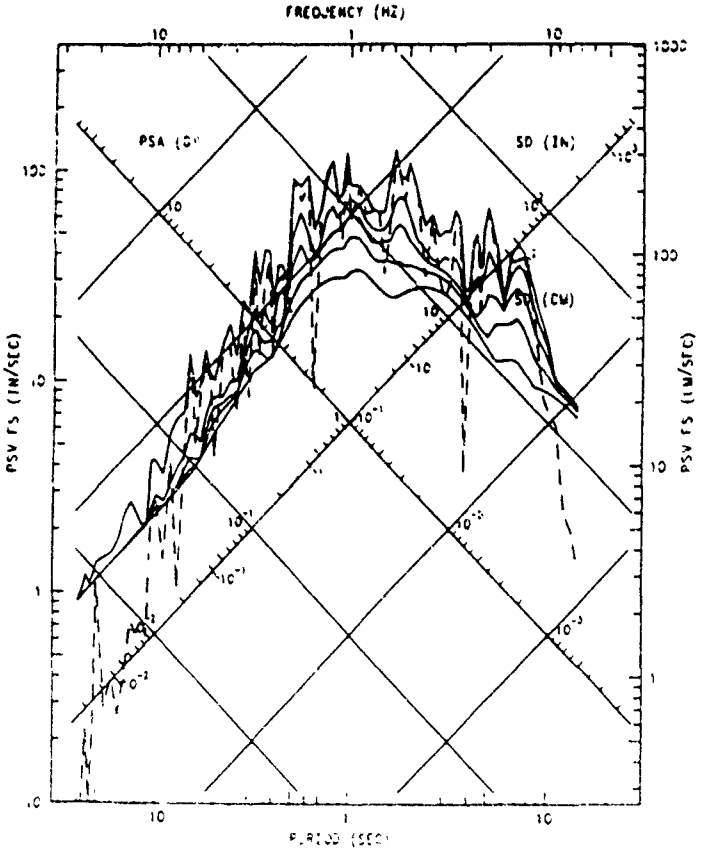

CDMG PLOTS 12/13/89

SANTA CRUZ - UCSC/LICK LAB
CHN 3 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT 05- 10 TO 23 0-25.0 HZ
58135-S1682-89292.04
121489.1933-QL89A135
—— RESPONSE SPECTRA PSV, PSA & SD
– – FOURIER AMPLITUDE SPECTRUM FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17 04 PDT

***CAL 354***



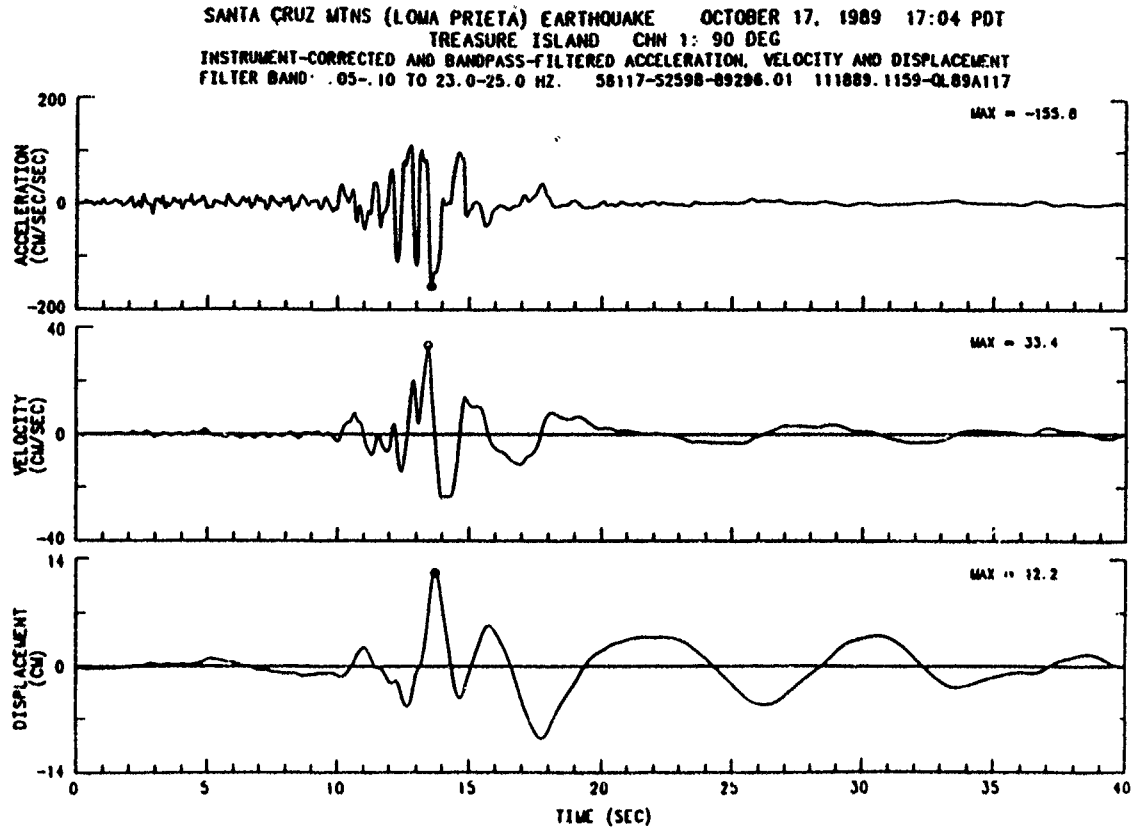



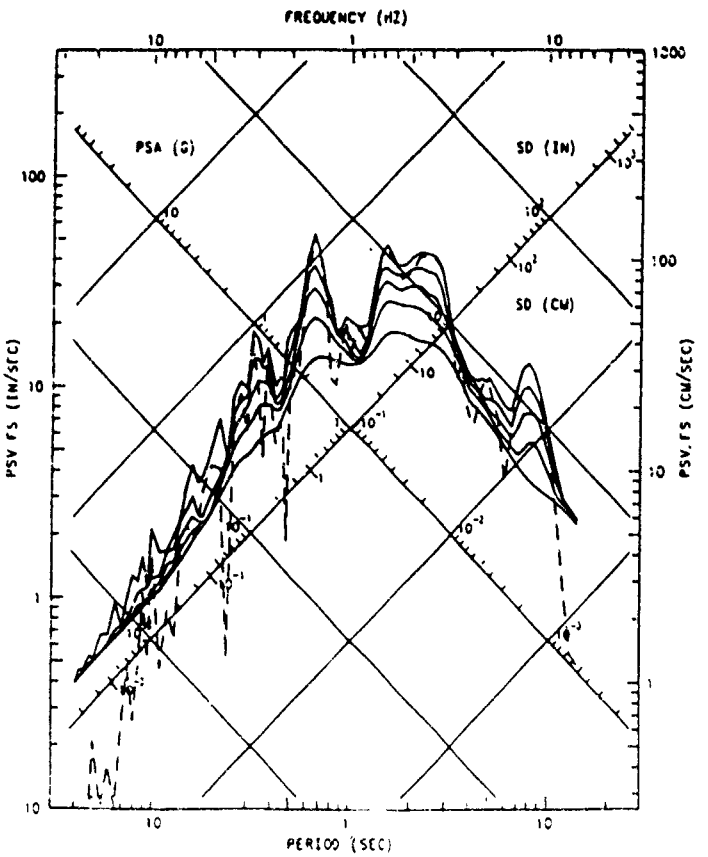

CDMG PLOTS 12/13/89

SOUTH STREET AND PINE DRIVE
HOLLISTER - CHN 3 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT 05- 10 TO 23 0-25 0 HZ
47524-S1585-89291.02
121389 1842-QL89A524
—— RESPONSE SPECTRA PSV, PSA & SD
– – FOURIER AMPLITUDE SPECTRUM FS
DAMPING VALUES 0, 2, 5 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17 04 PDT

***CAL 356***



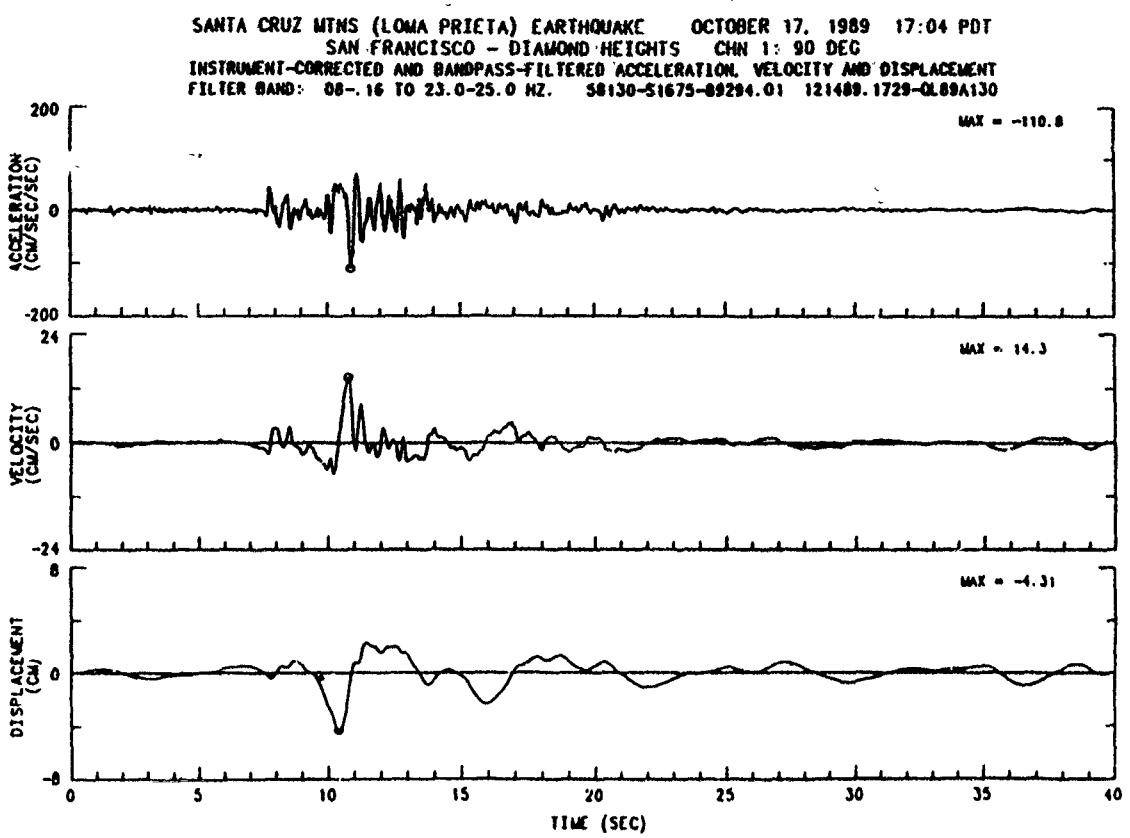



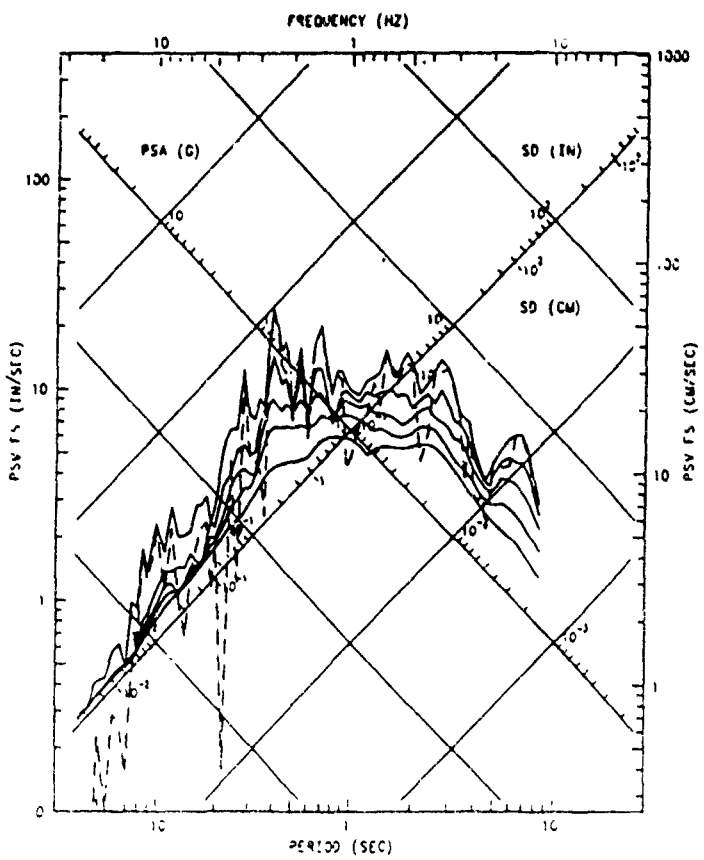

CDMG PLOTS 12/13/89

TREASURE ISLAND CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.10 TO 23.0-25.0 HZ
58117-S2598-89296.01
120889.1706-QL89A117
—— RESPONSE SPECTRA PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM FS
DAMPING VALUES 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 359***



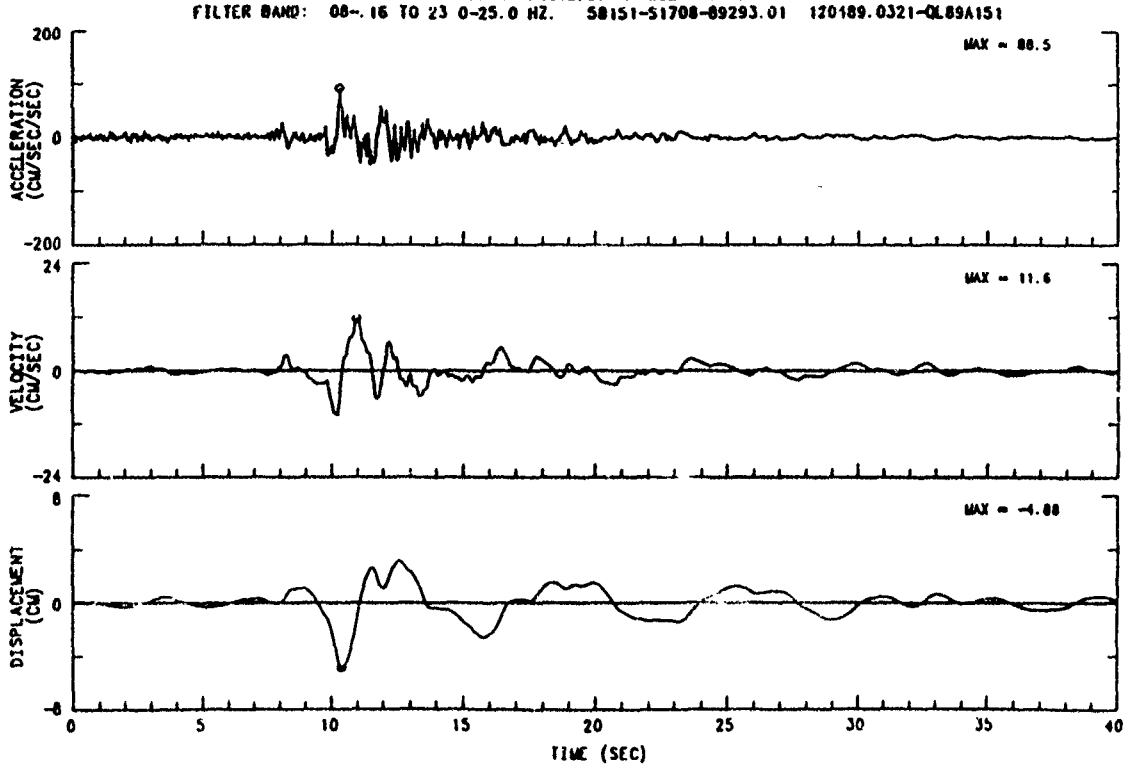



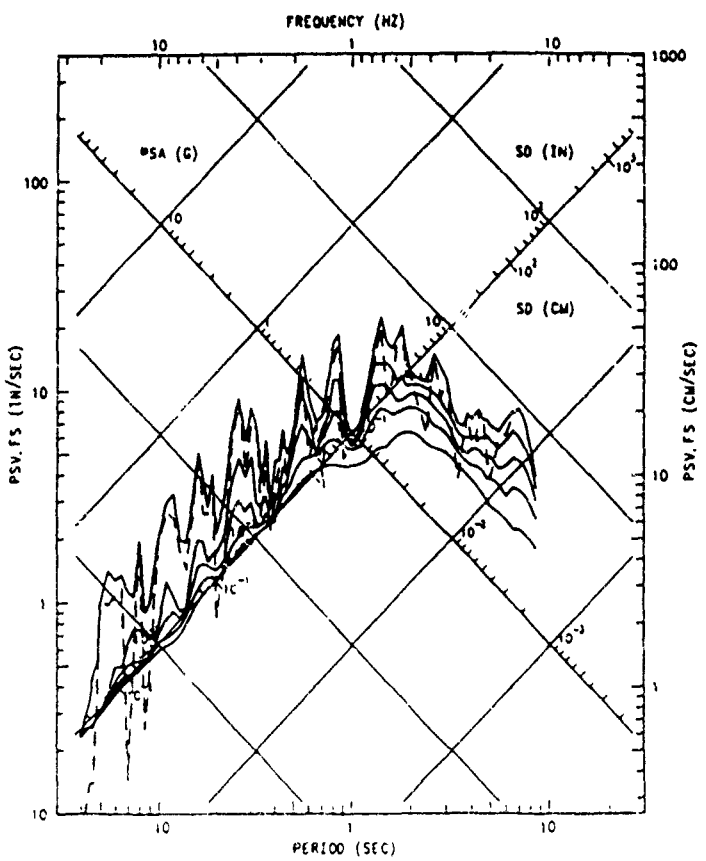

CDMG PLOTS 12/13/89

SAN FRANCISCO - DIAMOND HEIGHTS
CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ
58130-S1675-89294.01
121489.1743-QL89A130
—— RESPONSE SPECTRA: PSV, PSA & SD
– – FOURIER AMPLITUDE SPECTRUM FS
DAMPING VALUES 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17 04 PDT

***CAL 362***



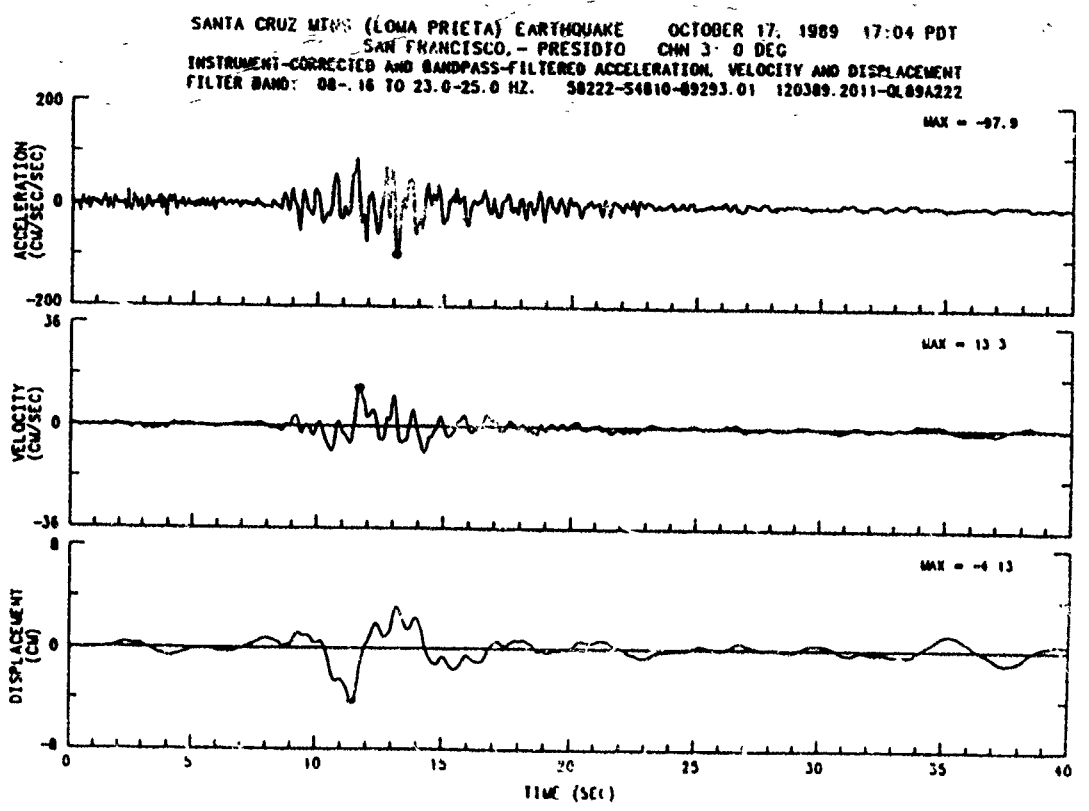



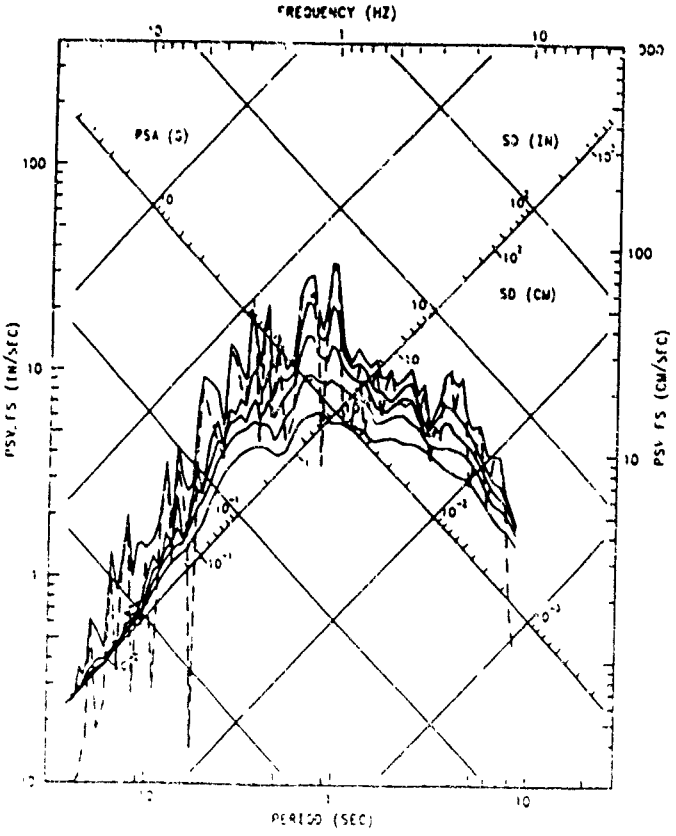

CDMG PLOTS 12/13/89

SAN FRANCISCO - RINCON HILL
CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ
58151-51708-89293.01
121389.1704-QL89A151
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17 04 PDT

***CAL 363***



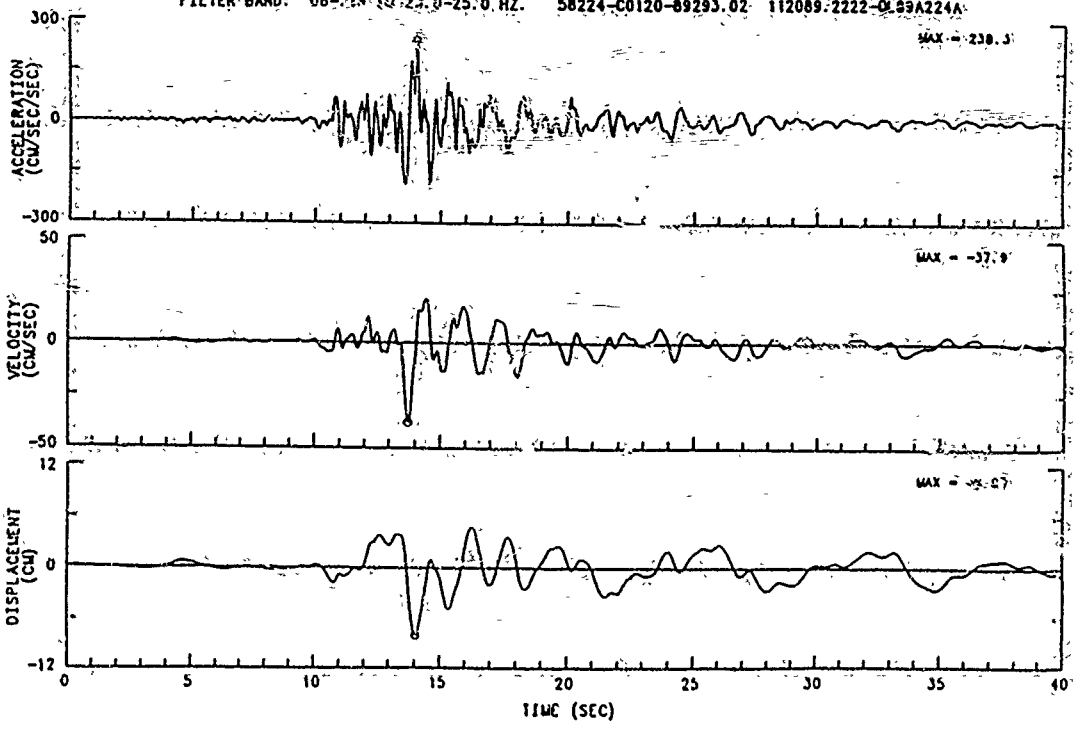



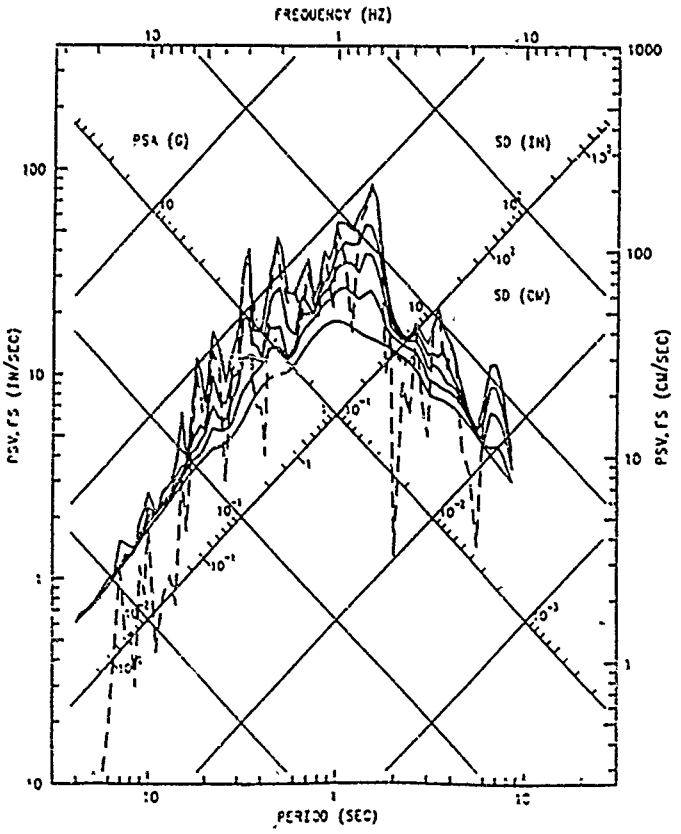

CDMG PLOTS 12/13/89

SAN FRANCISCO - PRESIDIO
CHN 3: 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
58222-S4810-89293.01
121389 1742-QL89A222
—— RESPONSE SPECTRA: PSV, PSA & SD
– – – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17 04 PDT

***CAL 365***



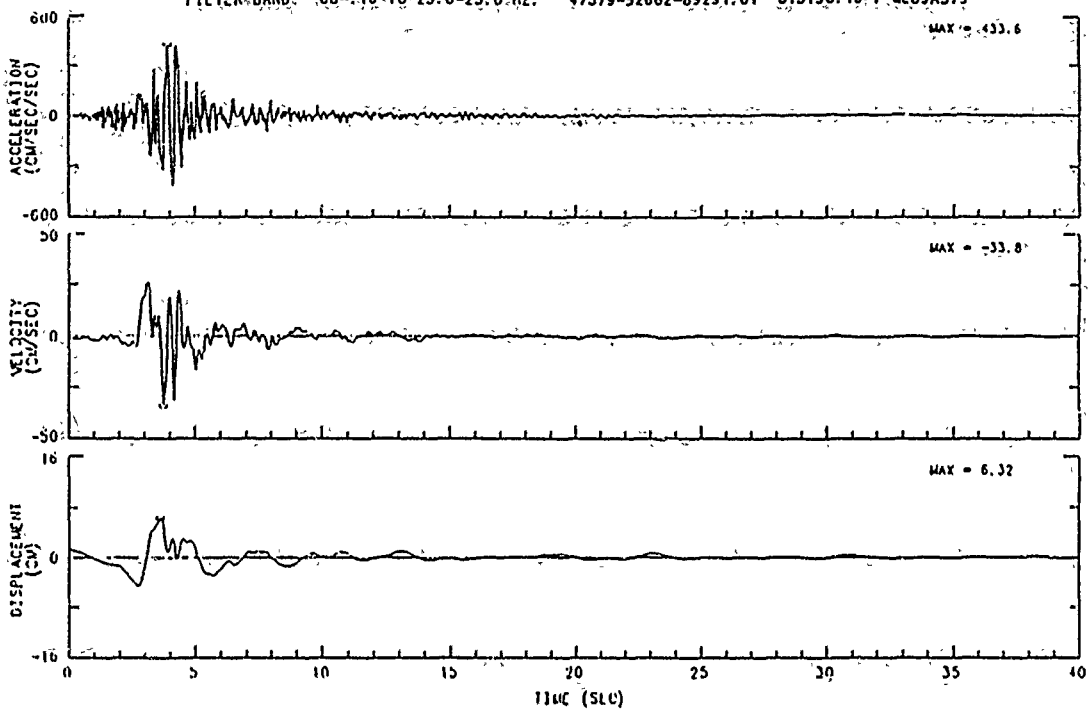



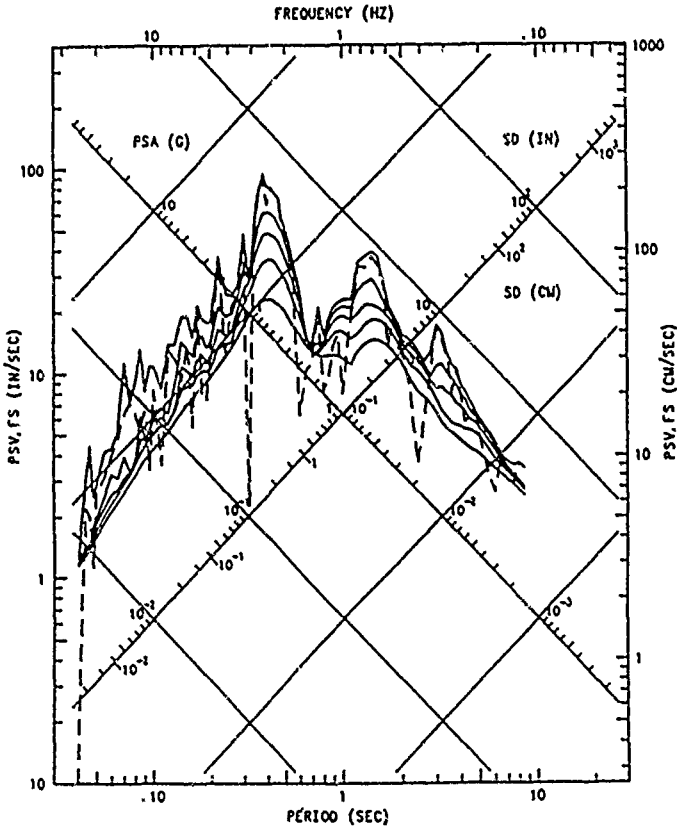

CDMG PLOTS 12/13/89

OAKLAND - 2-STORY OFFICE BLDG.
(GROUND FLOOR, AT NE CORNER)
CHN 2: 290 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
58224-C0120-89293.02
121489.1157-QL89A224A
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 369***



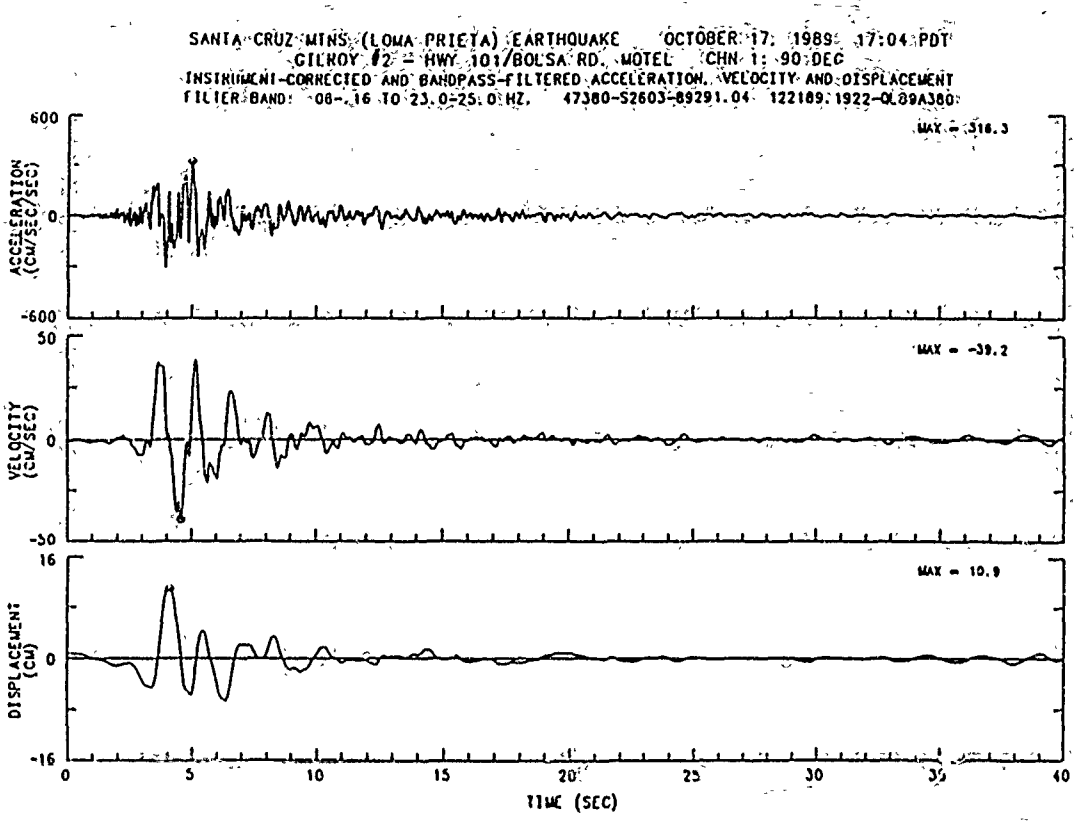



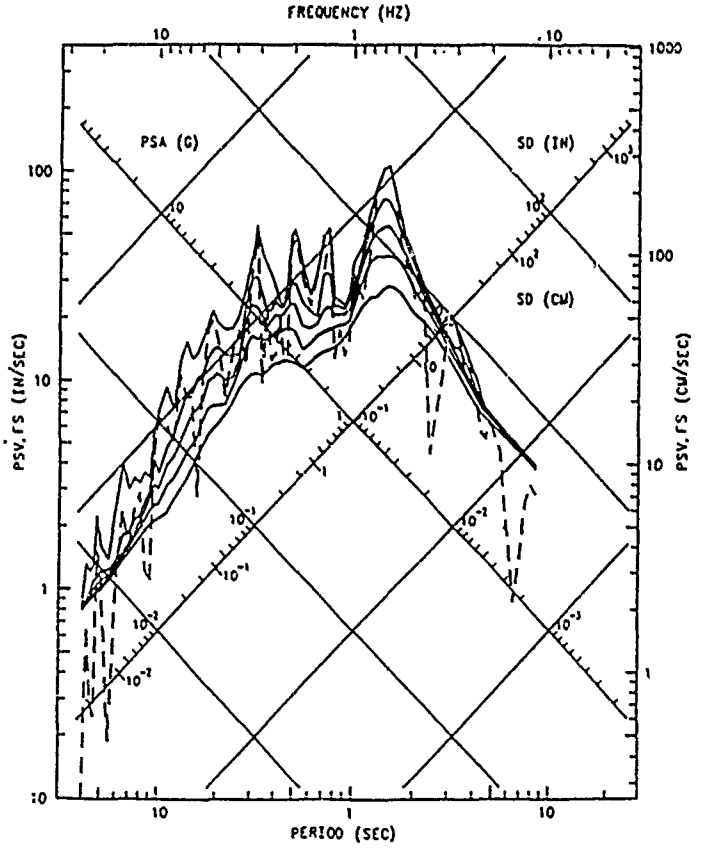

CDMG OSMS 90-01

GILROY #1 – GAVILAN COLLEGE
WATER TANK CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
47379-S2602-89291.01
013190.1724-QL89A379
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 372***



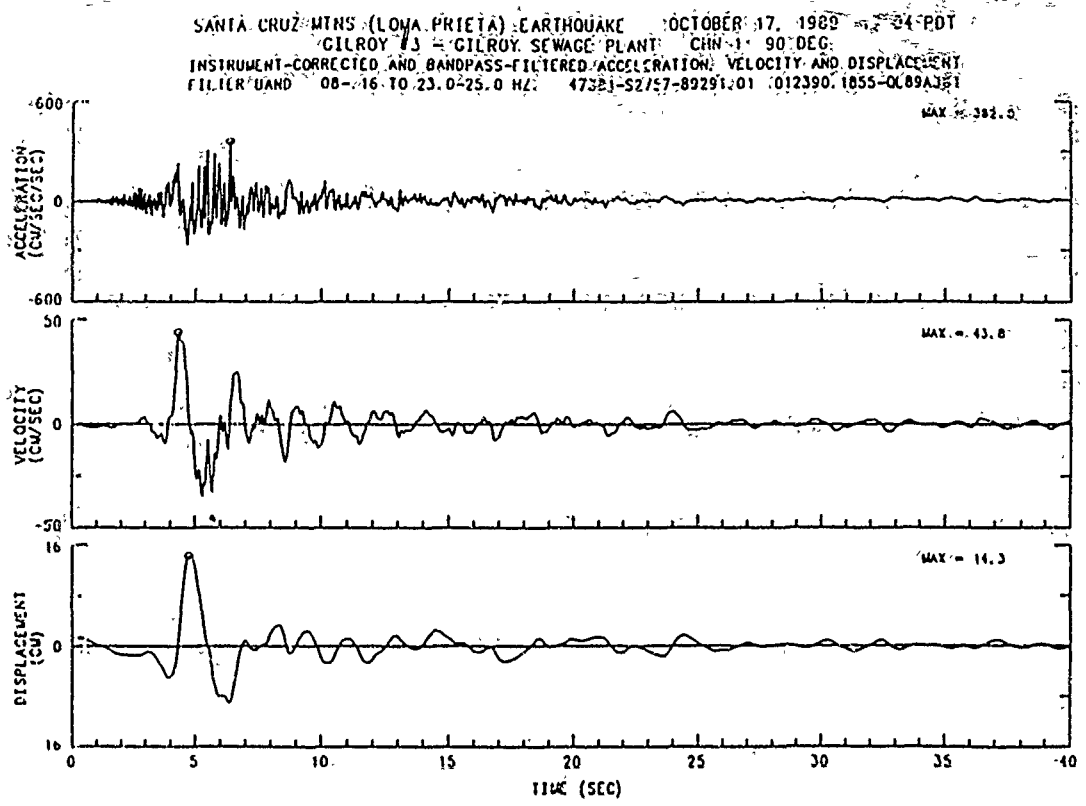



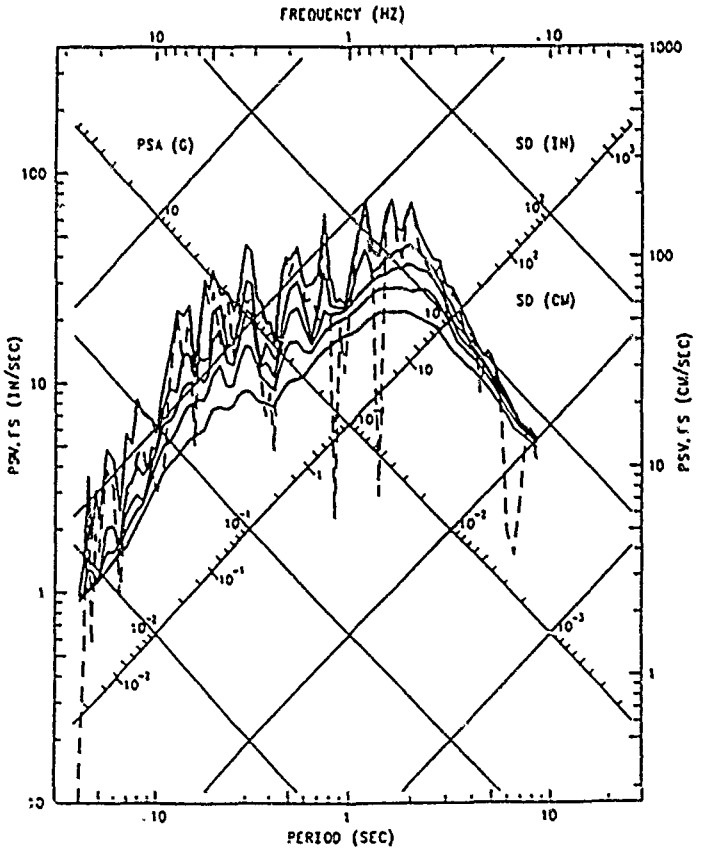

CDMG OSMS 90-01

GILROY #2 – HWY 101
BOLSA RD. MOTEL CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
47380-S2603-89291.04
020190.1628-QL89A380
—— RESPONSE SPECTRA: PSV, PSA & SI
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PD

***CAL 374***



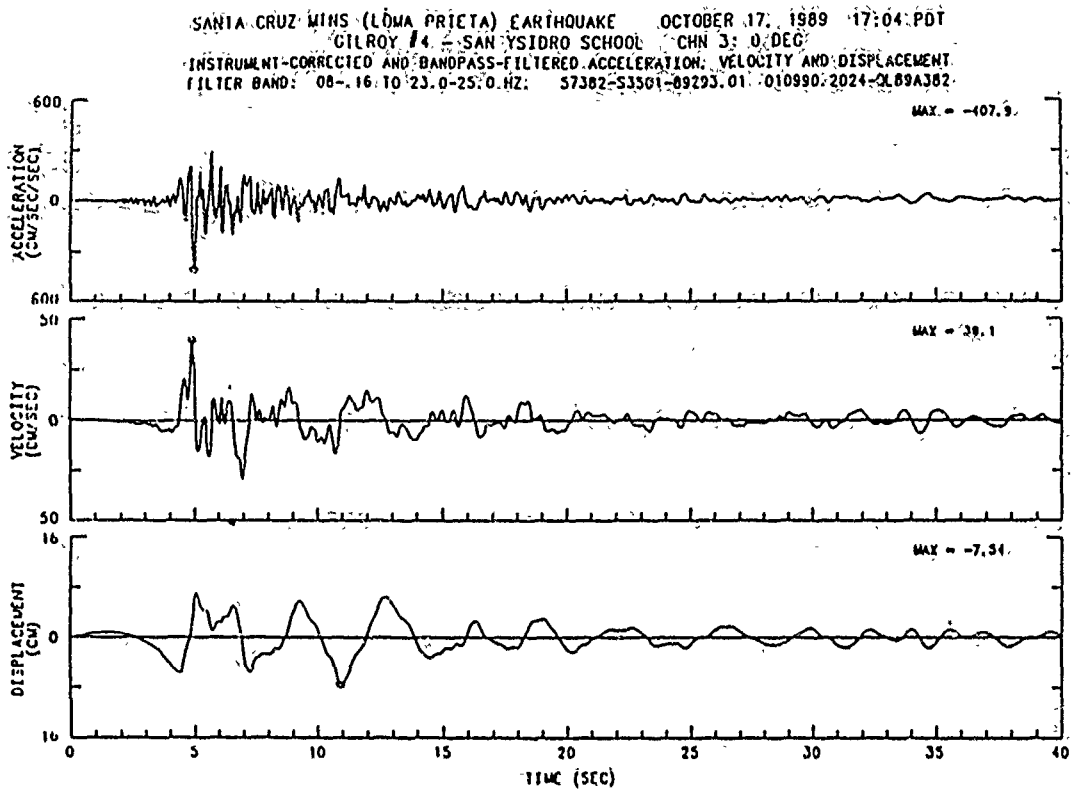



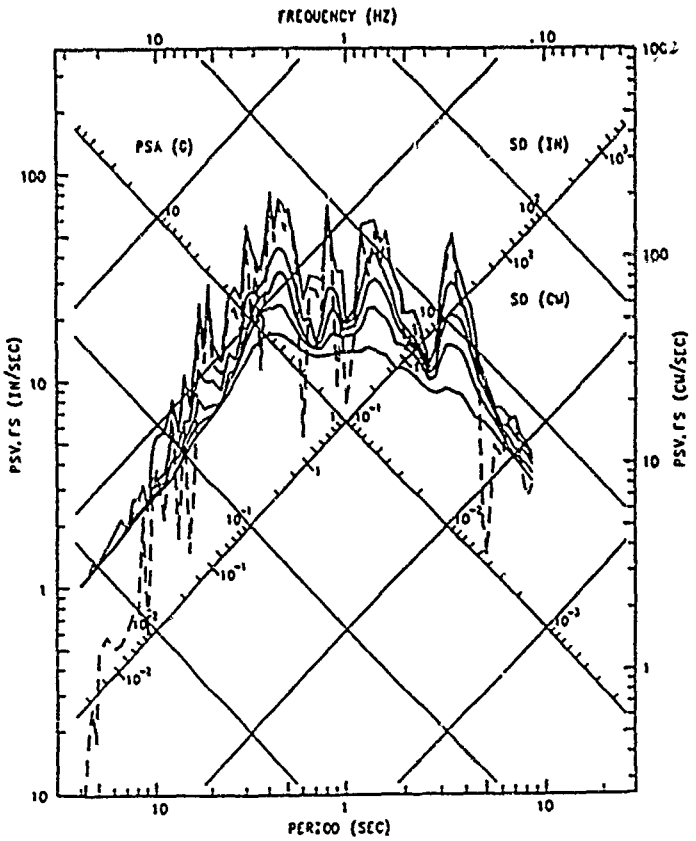

CDMG OSMS 90-01

GILROY #3 - GILROY SEWAGE PLANT
CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
47381-S2757-89291.01
020190.1618-QL89A381
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 376***



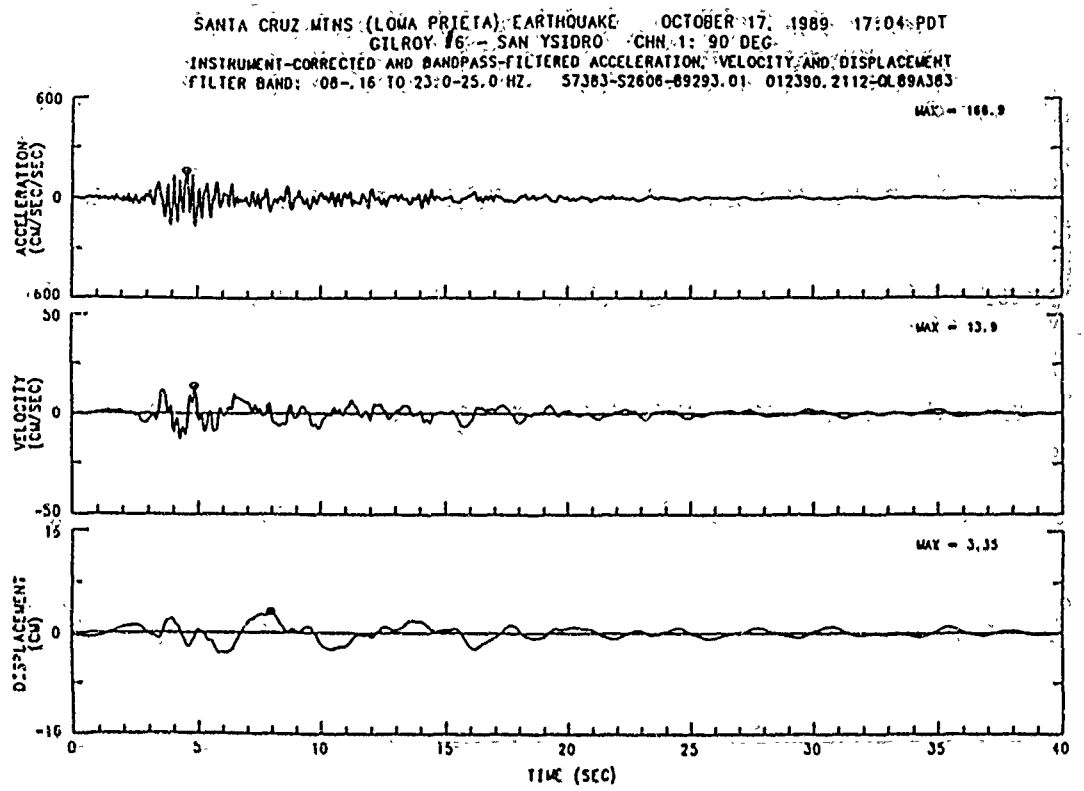



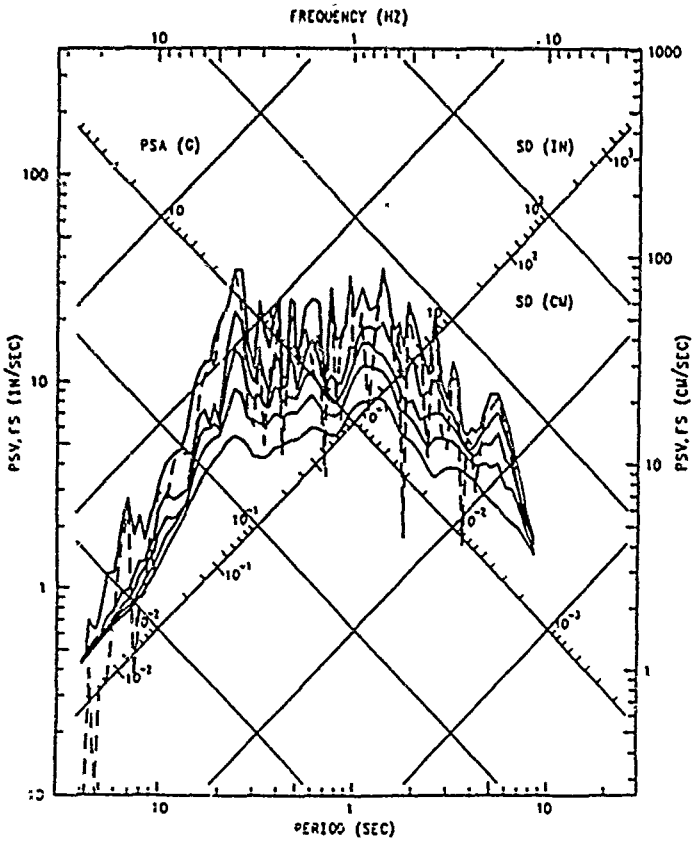

CDMG OSMS 90-01

GILROY #4 - SAN YSIDRO SCHOOL
CHN 3: 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
57382-S3501-89293.01
020190.1606-QL89A382
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 377***



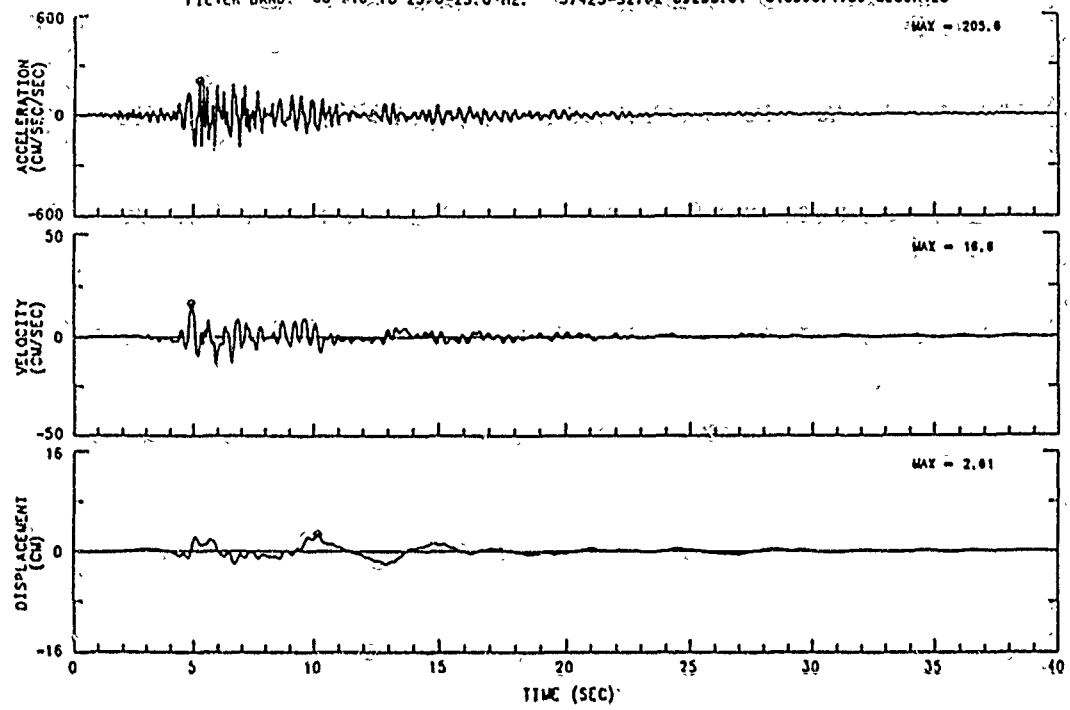



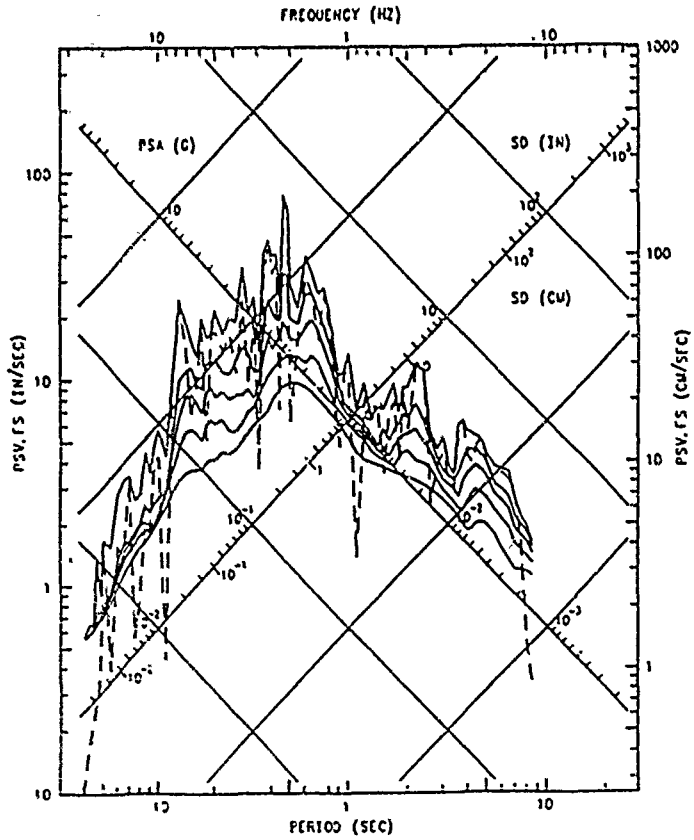

CDMG OSMS 90-01

GILROY #6 - SAN YSIDRO
CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
57383-S2606-89293.01
020190.1702-QL89A383
—— RESPONSE SPECTRA: PSV, PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

CAL 580



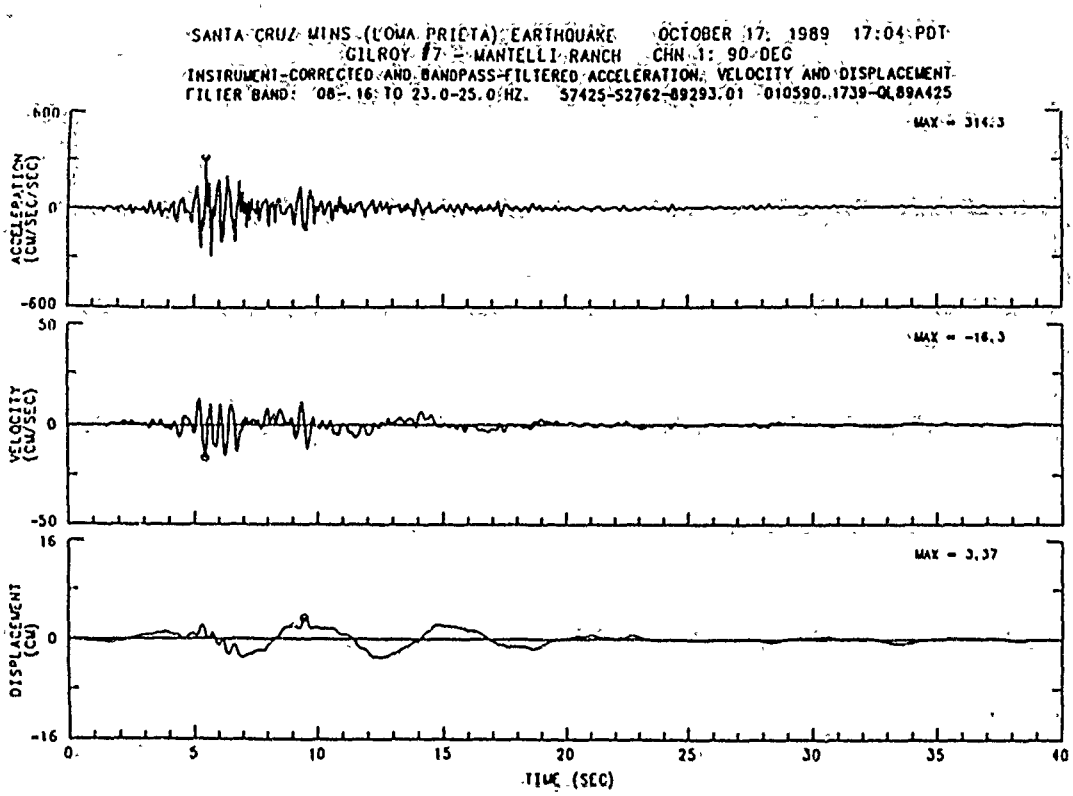



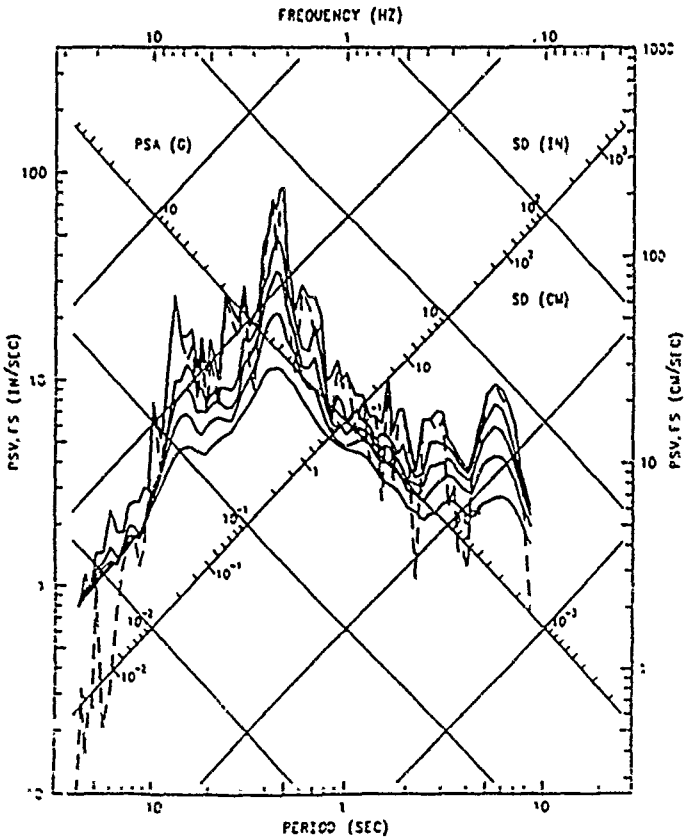

CDMG OSMS 90-01

GILROY #7 - MANTELLI RANCH
CHN 3: 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
57425-S2762-89293.01
020190.1540-0L89A425
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 381***



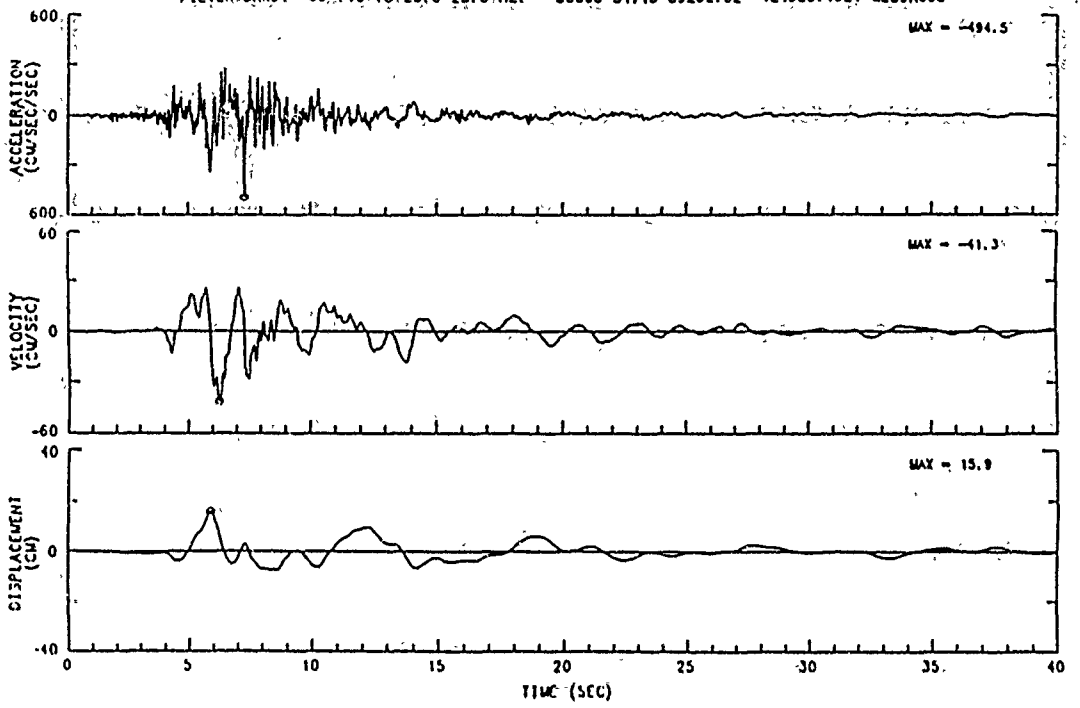



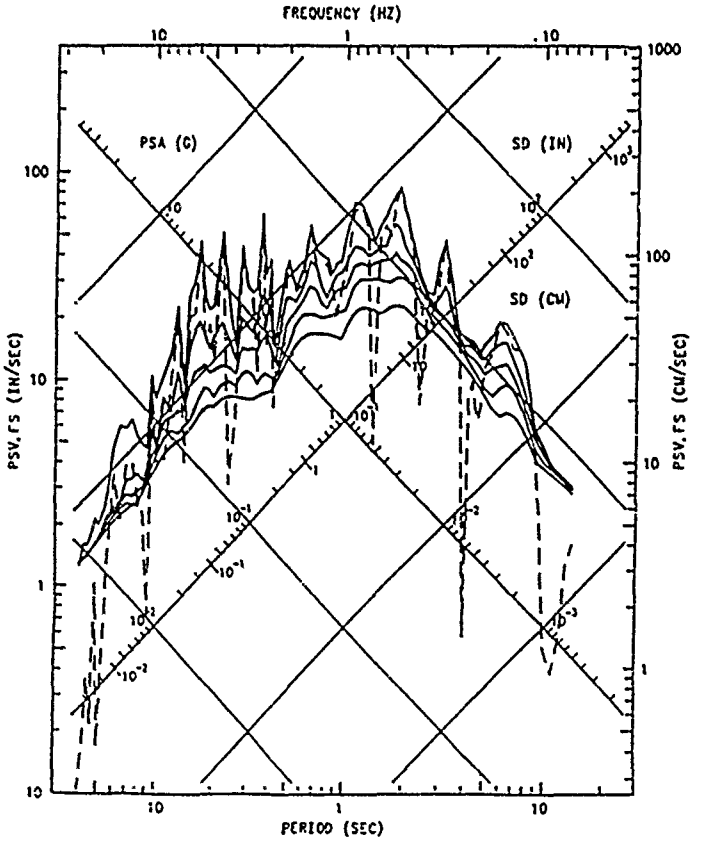

CDMG OSMS 90-01

GILROY #7 - MANTELLI RANCH
CHN 1: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
57425-S2762-89293.01
020190.1540-QL89A425
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 382***




CDMG OSMS 90-01

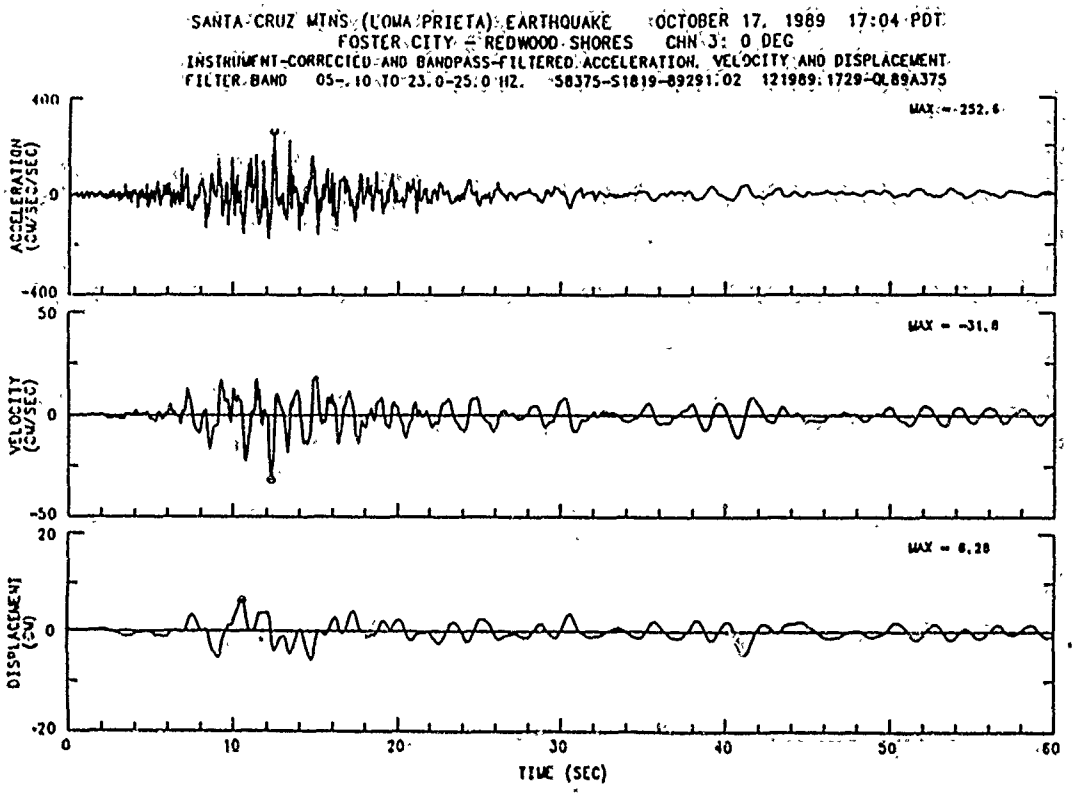
SARATOGA - ALOHA AVE.
CHN 3: 0 DEG

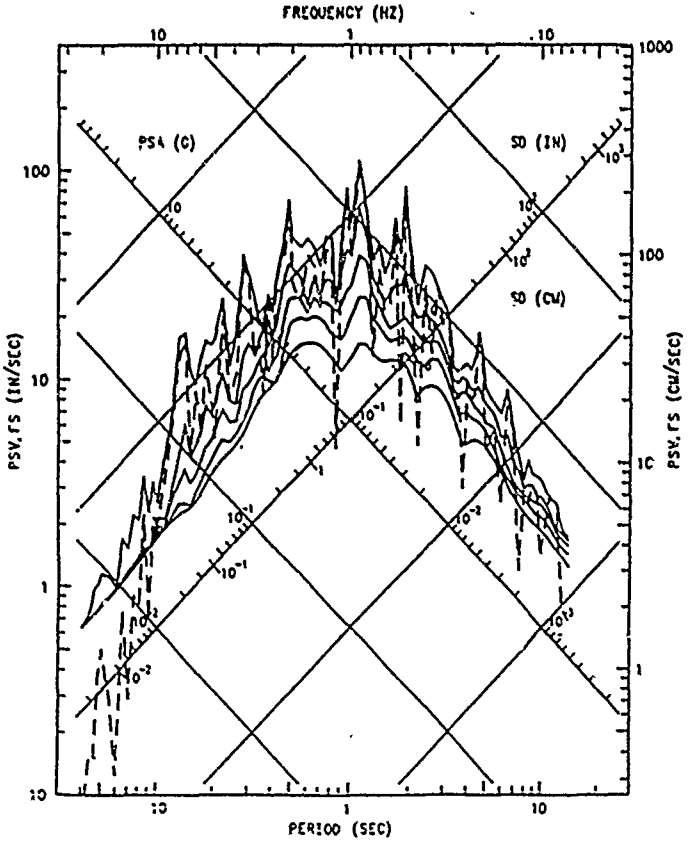
ACCELEROGRAM BANDPASS-FILTERED WITH RAMPS AT .05-.10 TO 23.0-25.0 HZ.
58065-S1715-89292.02
010290.1649-QL89A065

—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 385***



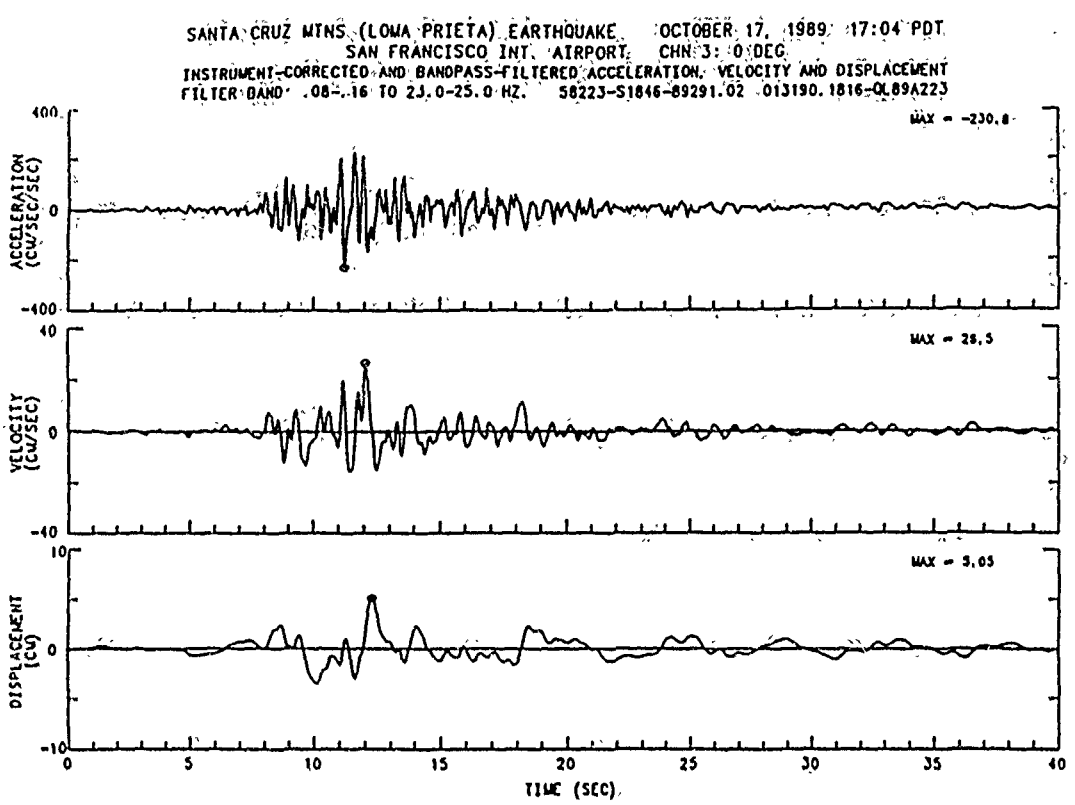



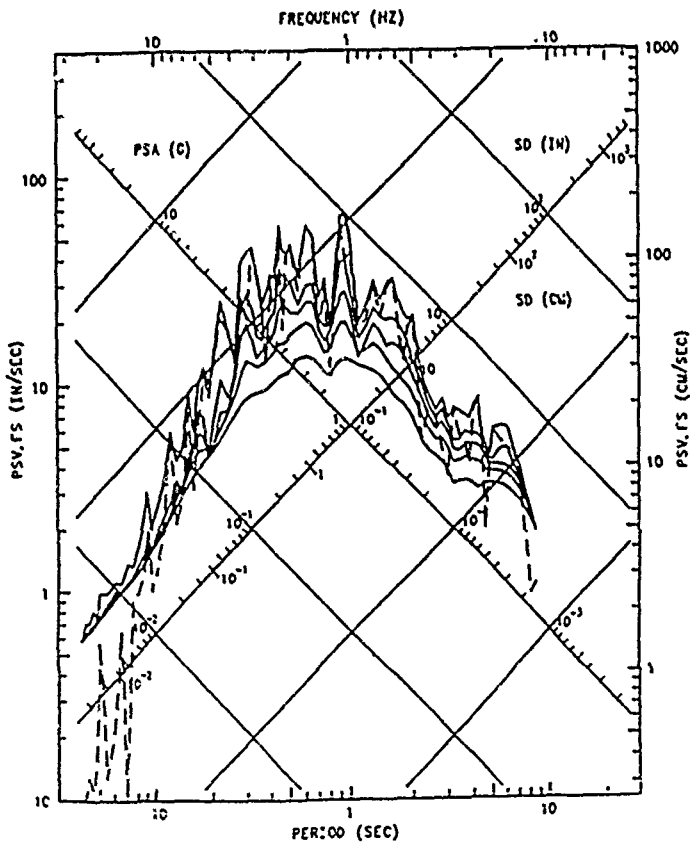

CDMG OSMS 90-01

FOSTER CITY - REDWOOD SHORES
CHN 3: 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.10 TO 23.0-25.0 HZ.
58375-S1819-89291.02
011190.1542-QL89A375
—— RESPONSE SPECTRA: PSV, PSA & S
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 389***



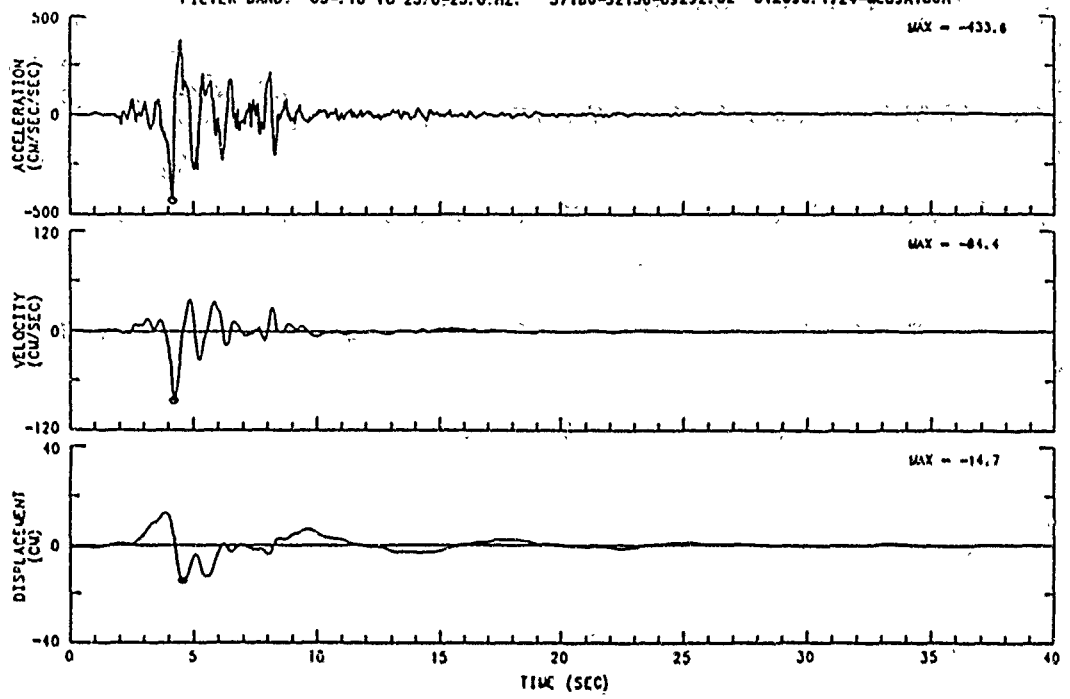



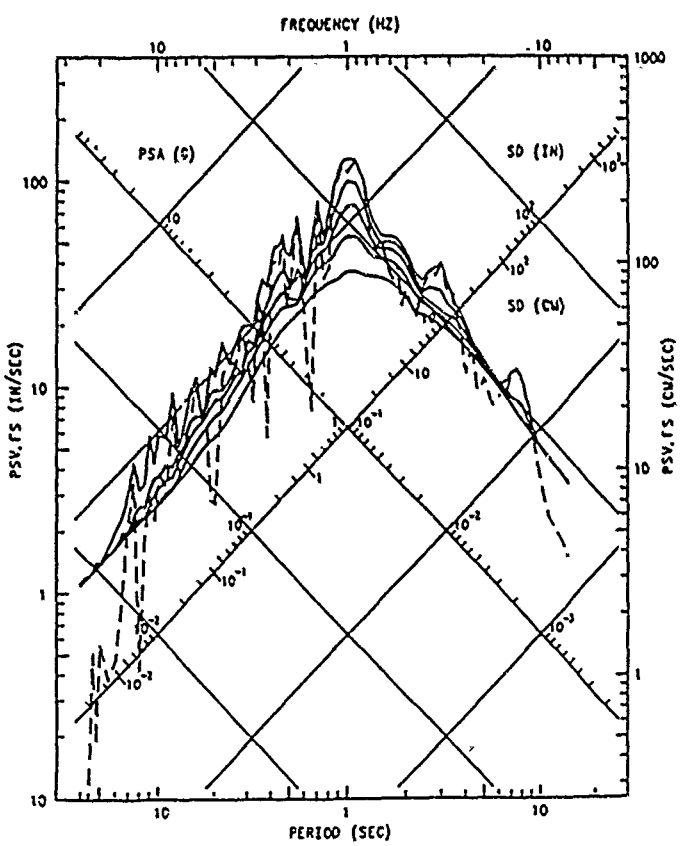

CDMG OSMS 90-01

SAN FRANCISCO INT. AIRPORT
CHN 3: 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
58223-S1846-89291.02
013190.1830-QL89A223
—— RESPONSE SPECTRA: PSV, PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 391***



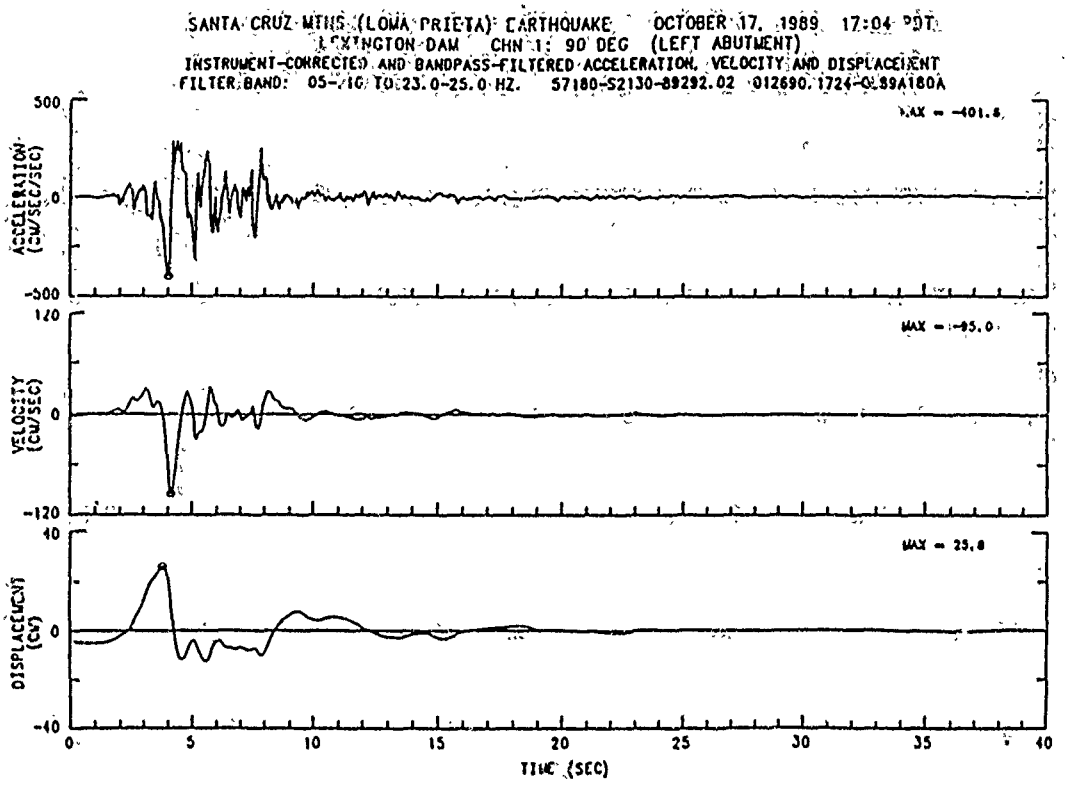



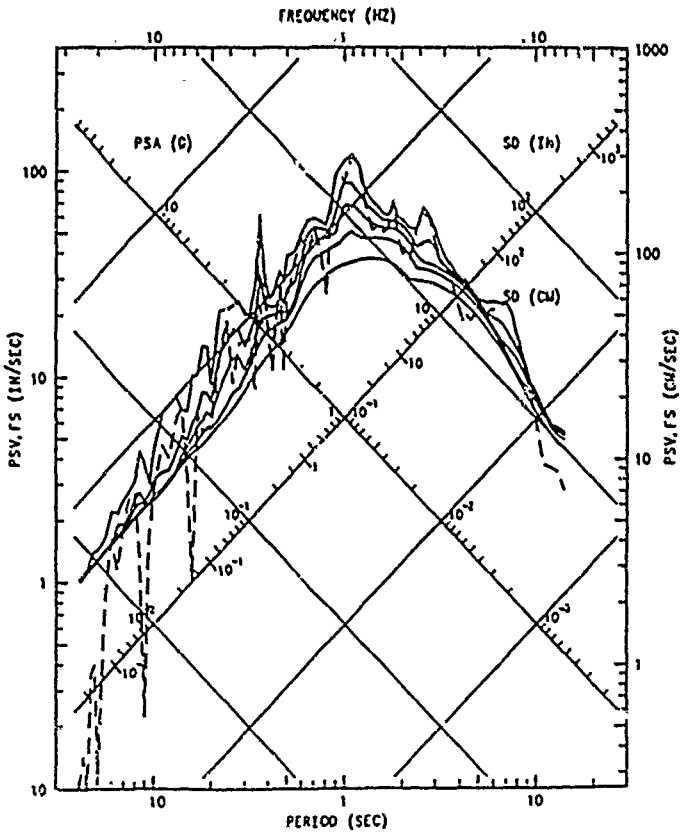

CDMG OSMS 90-01

LEXINGTON DAM
CHN 3: 0 DEG (LEFT ABUTMENT)
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.10 TO 23.0-25.0 HZ.
57180-S2130-89292.02
012990.1235-QL89A180A
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 395***



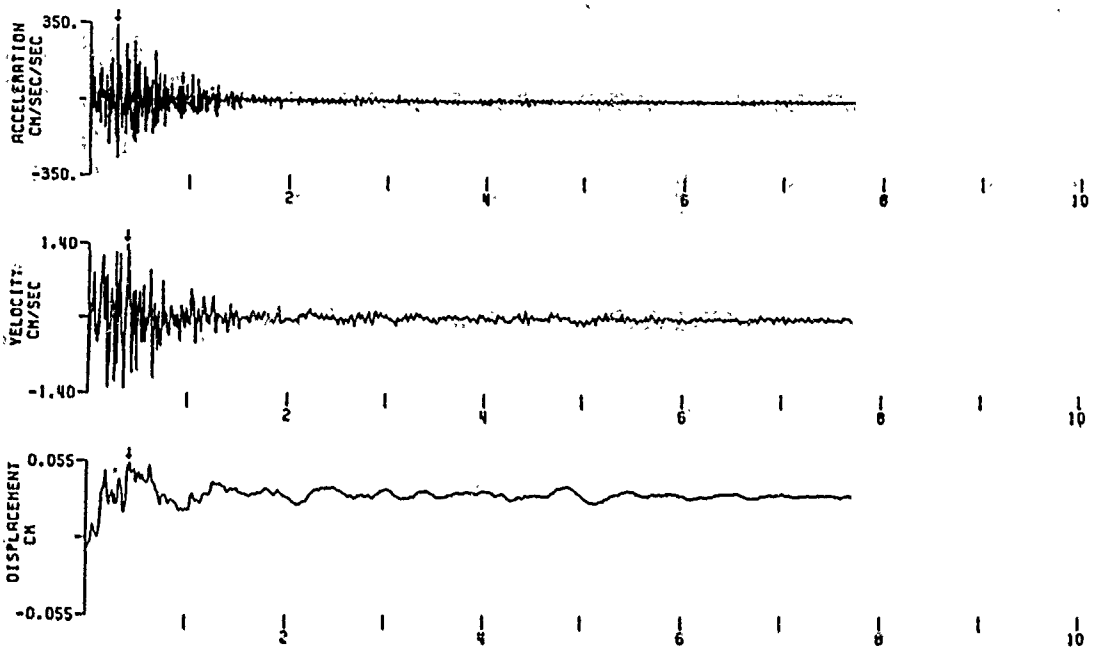

CDMG OSMS 90-01

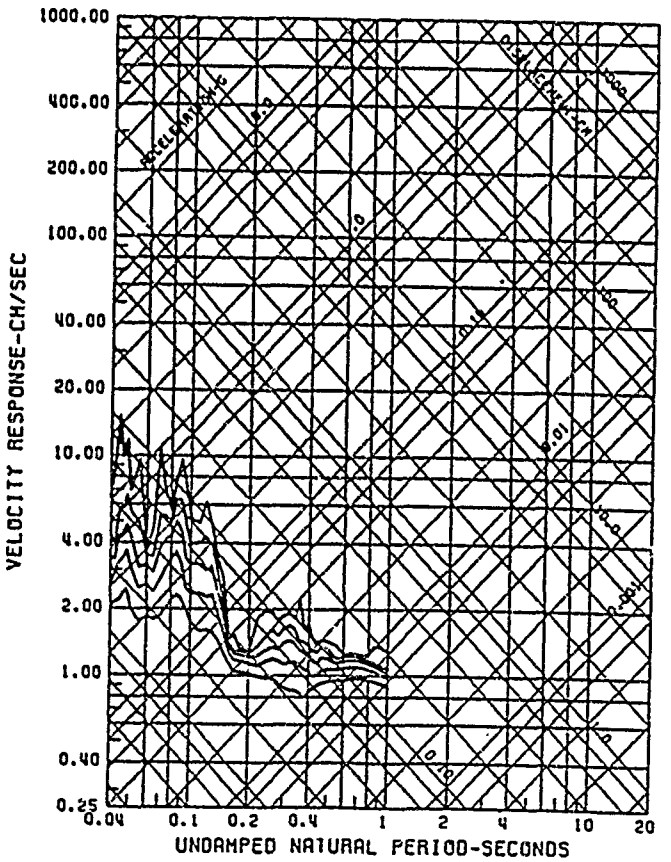
LEXINGTON DAM
CHN 1: 90 DEG (LEFT ABUTMENT)
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .05-.10 TO 23.0-25.0 HZ.
57180-S2130-89292.02
012990.1235-QL89A180A
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SANTA CRUZ MTNS
(LOMA PRIETA) EARTHQUAKE
OCTOBER 17, 1989 17:04 PDT

***CAL 396***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT, 200 PPS
SITE 1: HOLMES LAKE
288 DEGREES
EARTHQUAKE OF MARCH 31, 1982 - 2102:20UTC
BUTTERWORTH AT 1.0 HZ, ORDER = 4
PEAK VALUES: ACCEL=340.21 CM/SEC/SEC, VELOCITY=1.37 CM/SEC, DISPL=0.05 CM



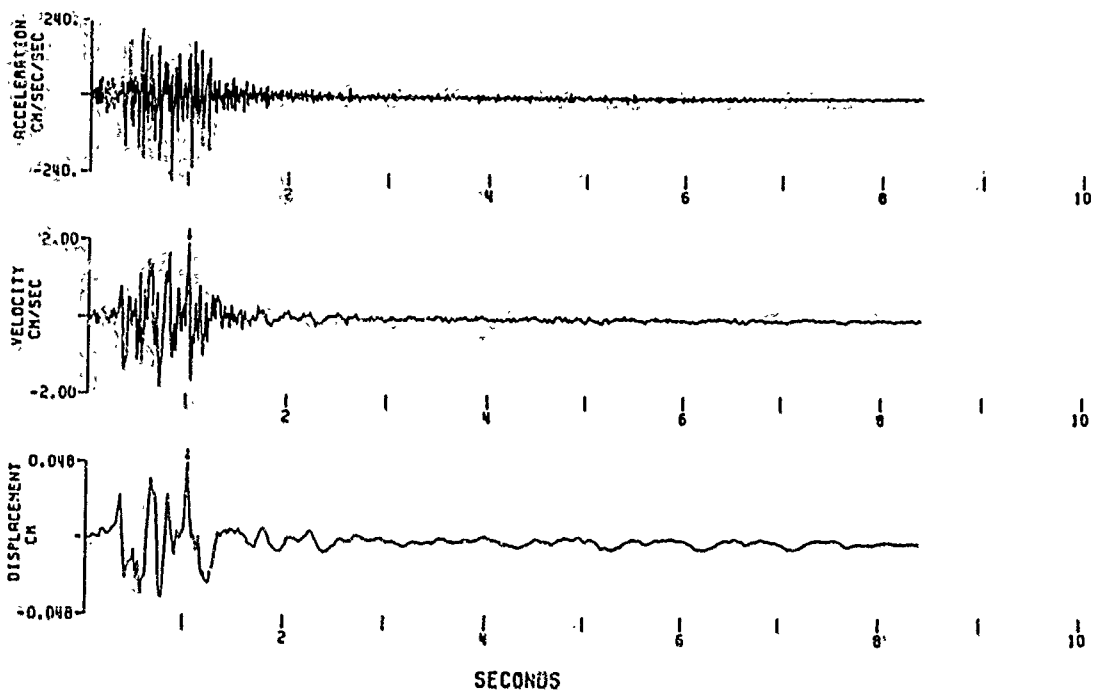

EPB OF 82-31

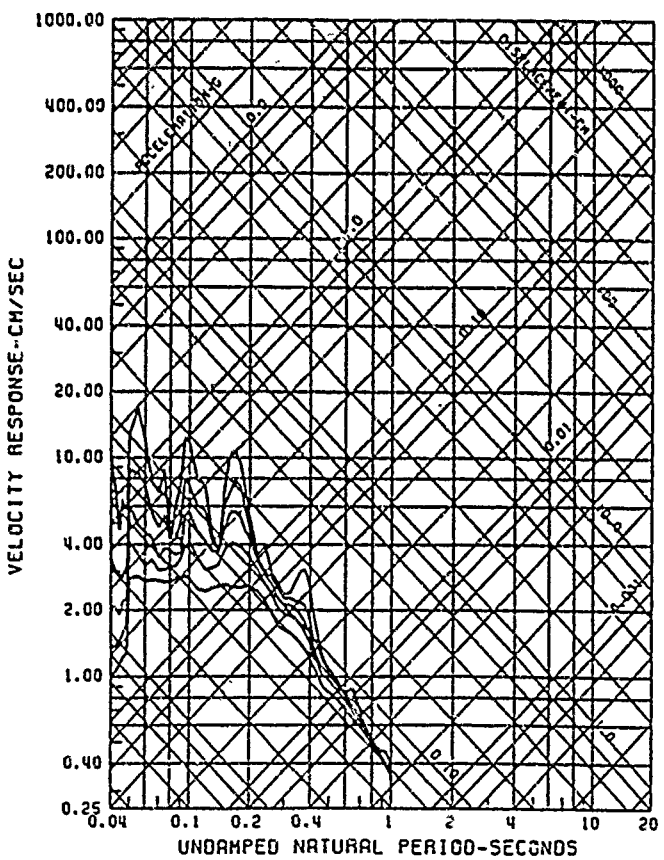
SEISMIC ENGINEERING BRANCH/USGS
FILTERS: BUTTERWORTH, ORDER 4,
1.000 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

SITE 1: HOLMES LAKE
3/31/82, 21 2:20UTC 288

***CAN 1***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT, 200 PPS
SITE 2, MITCHELL LAKE ROAD
28 DEGREES
EARTHQUAKE OF MARCH 31, 1982 - 2102:20UTC
BUTTERWORTH AT 1.0 HZ, ORDER = 4
PEAK VALUES: ACCEL=-231.46 CM/SEC/SEC, VELOCITY=1.91 CM/SEC, DISPL=0.05 CM



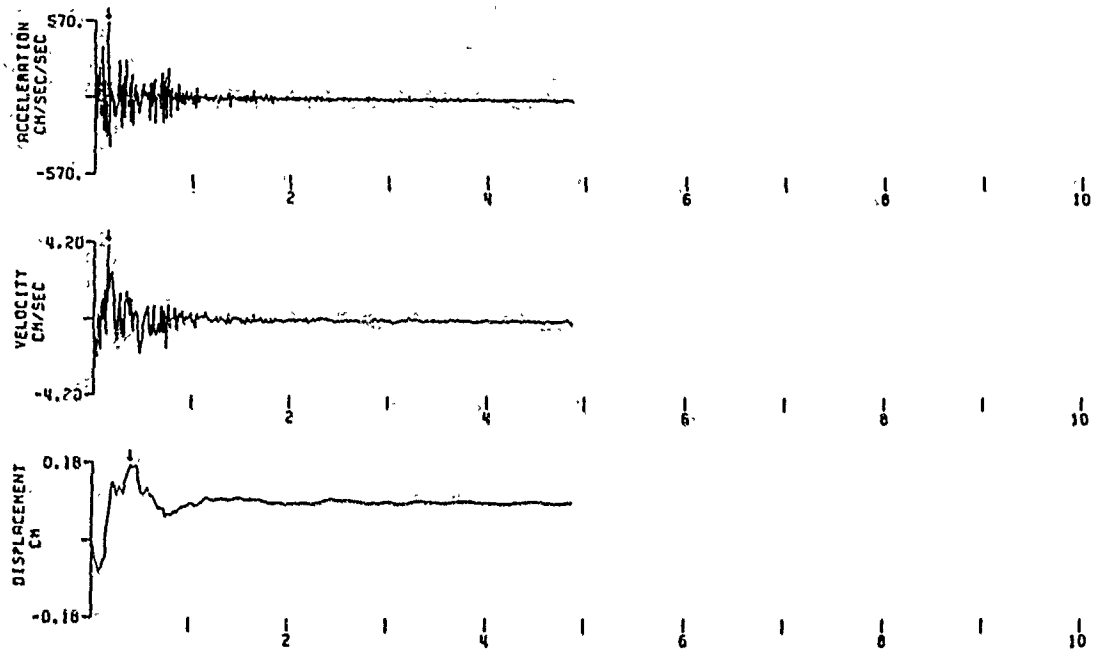

EPB OF 82-31

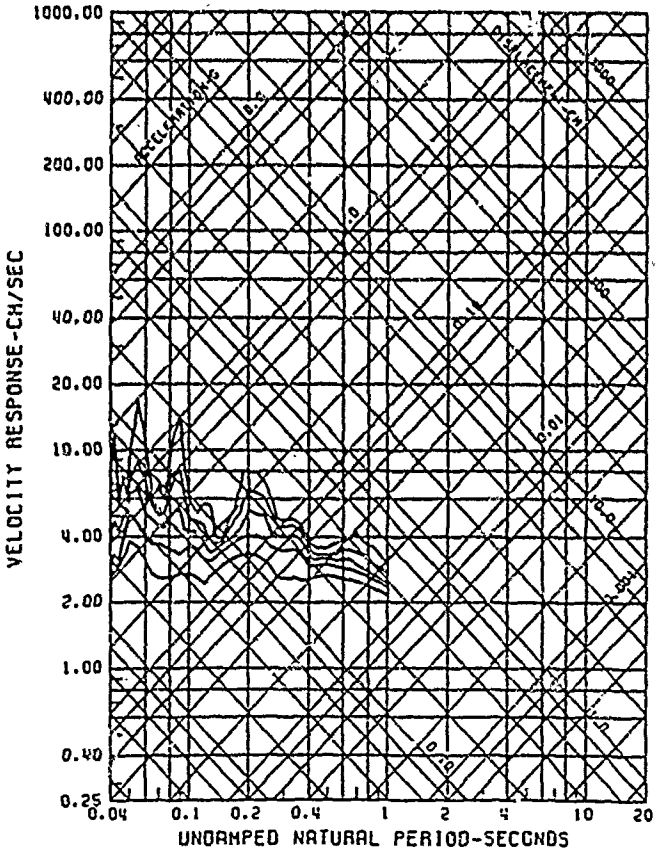
SEISMIC ENGINEERING BRANCH/USC
FILTERS: BUTTERWORTH, ORDER 4,
1.000 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

SITE 2: MITCHELL LAKE ROAD
3/31/82, 21 2:20UTC 28

***CAN 2***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT, 200 PPS
SITE 3: LOGGIE LODGE
99 DEGREES
EARTHQUAKE OF MARCH 31, 1982 - 2102:20UTC
BUTTERWORTH AT 1.0 HZ, ORDER = 4
PEAK VALUES: ACCEL=564.22 CM/SEC/SEC, VELOCITY=4.11 CM/SEC, DISPL=0.18 CM.



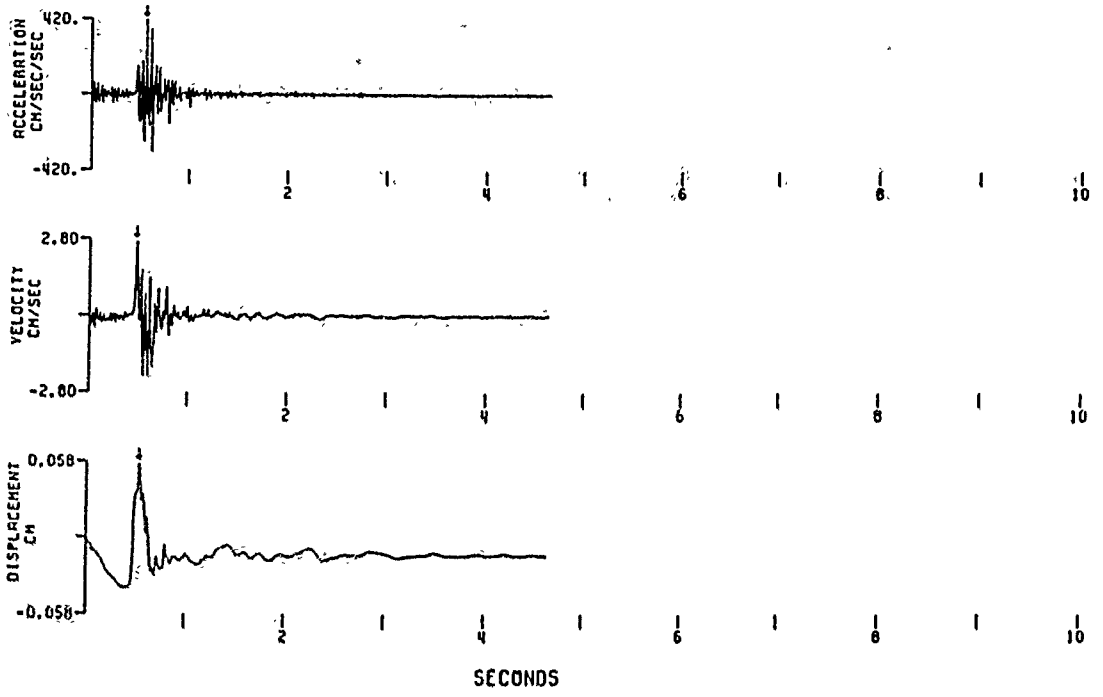

EPB OF 82-31

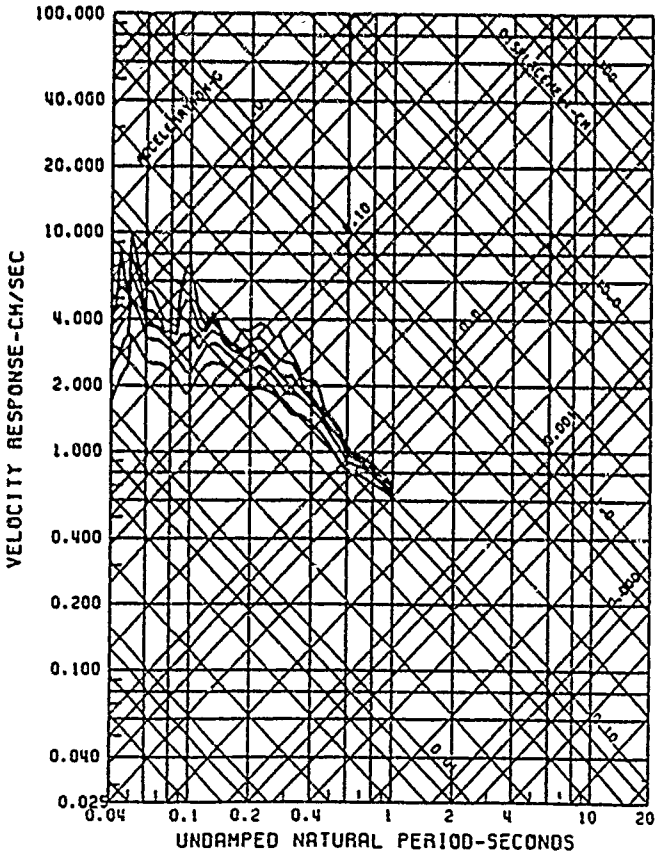
SEISMIC ENGINEERING BRANCH/USGS
FILTERS: BUTTERWORTH, ORDER 4,
1.000 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

SITE 3: LOGGIE LODGE
3/31/82, 21 2:20UTC 99

***CAN 3***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT, 200 PPS
SITE 4: INDIAN BROOK
321 DEGREES
EARTHQUAKE OF MARCH 31, 1982 - 2102:20UTC
BUTTERWORTH AT 1.0 HZ, ORDER = 4
PEAK VALUES: ACCEL=416.75 CM/SEC/SEC, VELOCITY=2.72 CM/SEC, DISPL=0.06 CM



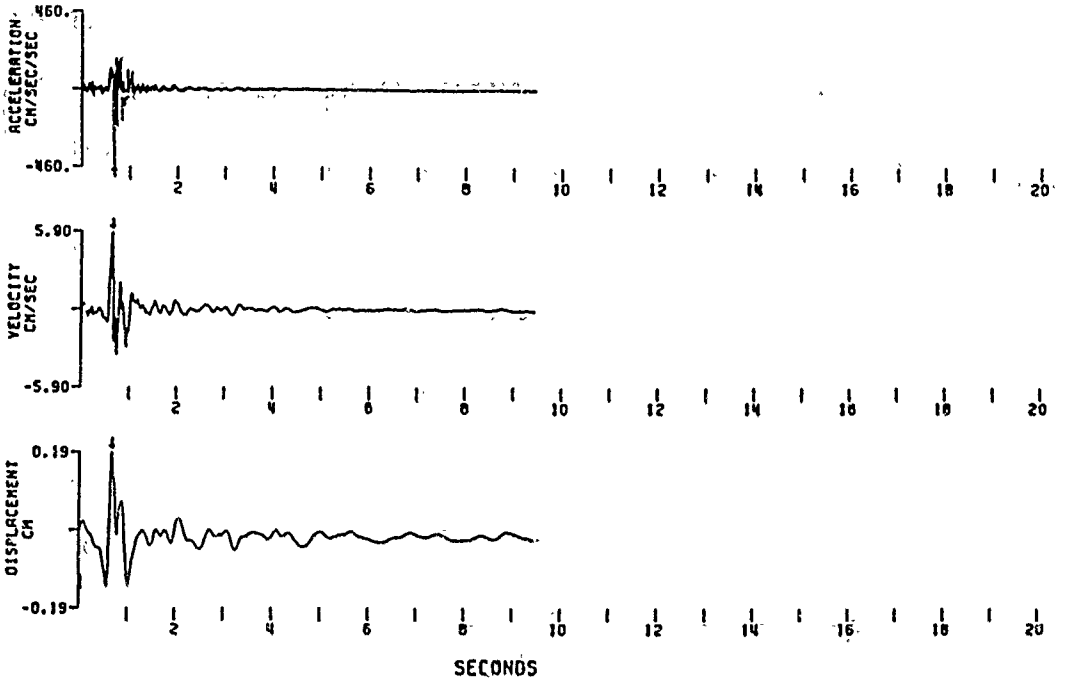

EPB OF 82-31

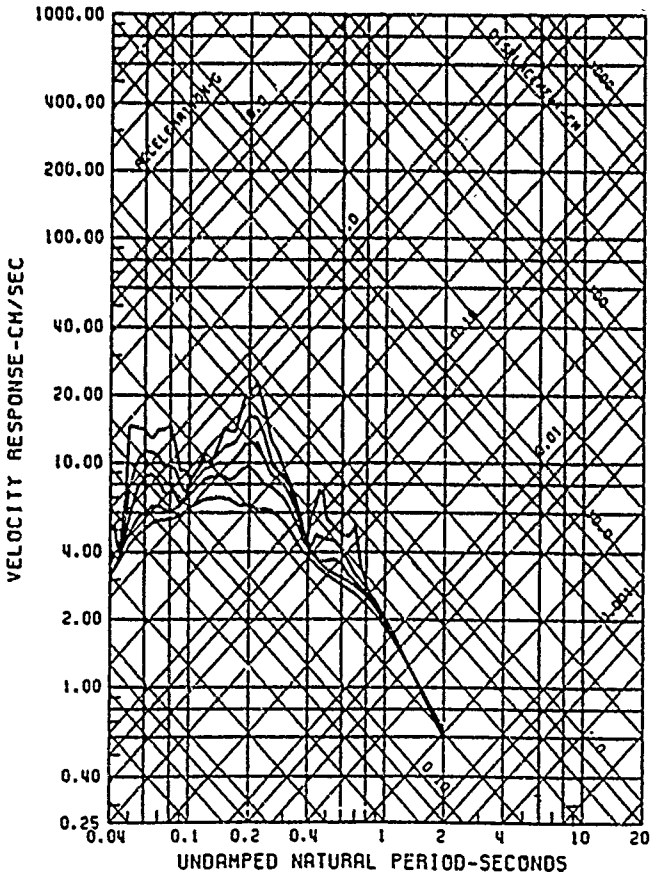
SEISMIC ENGINEERING BRANCH/USGS
FILTERS: BUTTERWORTH, ORDER 4.
1.000 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

SITE 4: INDIAN BROOK
3/31/82, 21 2:20UTC 321

***CAN 5***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
SITE 2, NAHANNI, NWT.
240 DEGREES
EARTHQUAKE OF NOVEMBER 9, 1985 - 0446 GMT
BUTTERWORTH HP .50 HZ, ORDER 4
PEAK VALUES: ACCEL=-450.96 CM/SEC/SEC, VELOCITY=5.86 CM/SEC, DISPL=0.19 CM



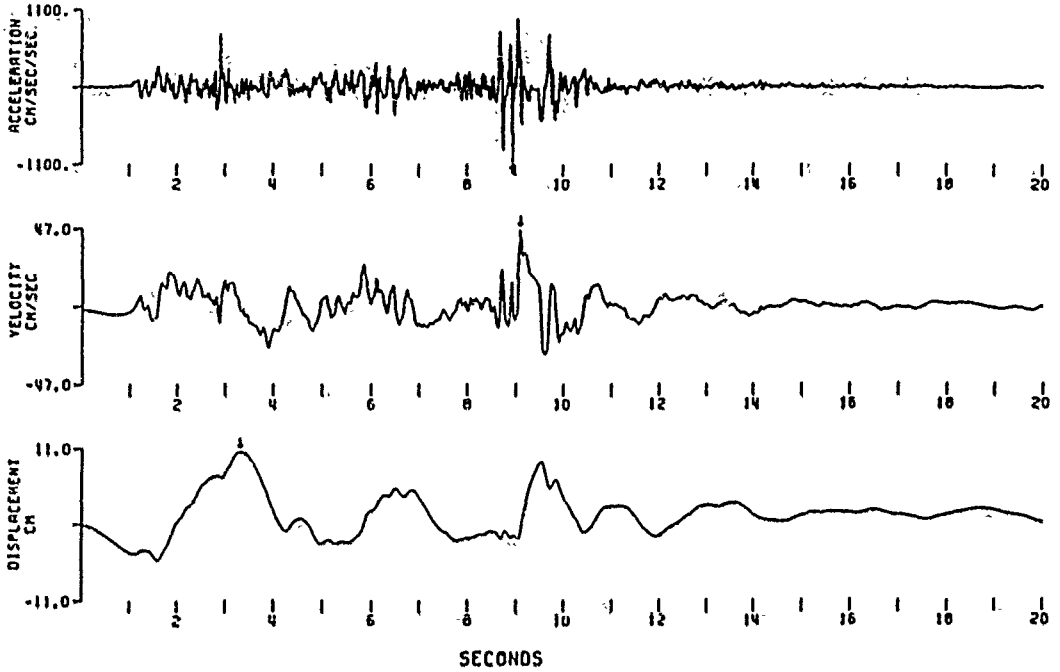

OFR-86-1-PGC

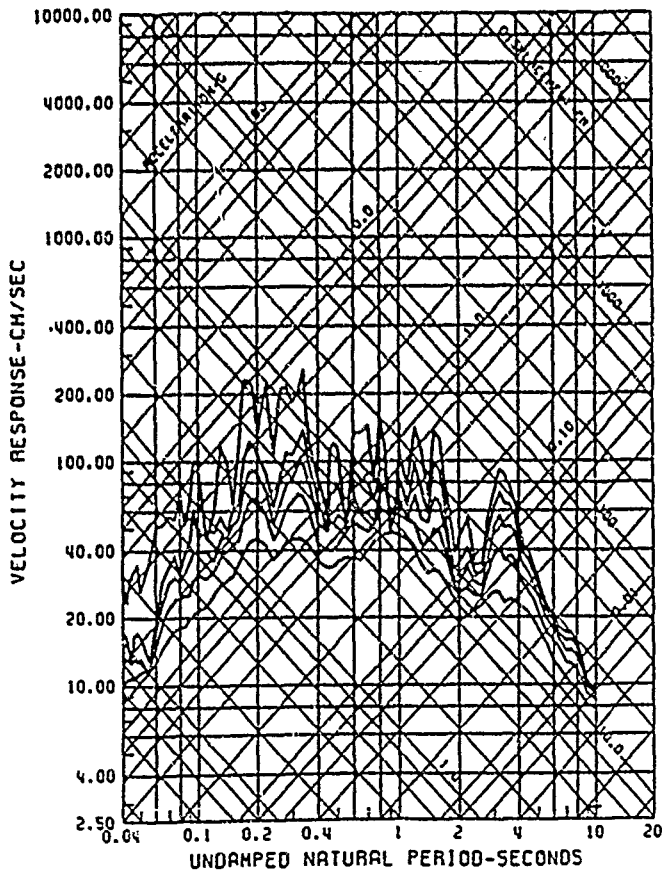
NATIONAL STRONG MOTION
DATA CENTER
0446UTC 240 DEGREES
FILTERS: BUTTERWORTH, ORDER 4
0.500 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

SITE 2, NAHANNI, NWT, 11/09/85

***CAN 8***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
SITE1, NAHANNI, NWT
10 DEGREES
EARTHQUAKE OF DECEMBER 23, 1985 - 0516 GMT
BUTTERWORTH AT .10 HZ, ORDER 4
PEAK VALUES: ACCEL=-1080.46 CM/SEC/SEC, VELOCITY=46.17 CM/SEC, DISPL=10.41 CM



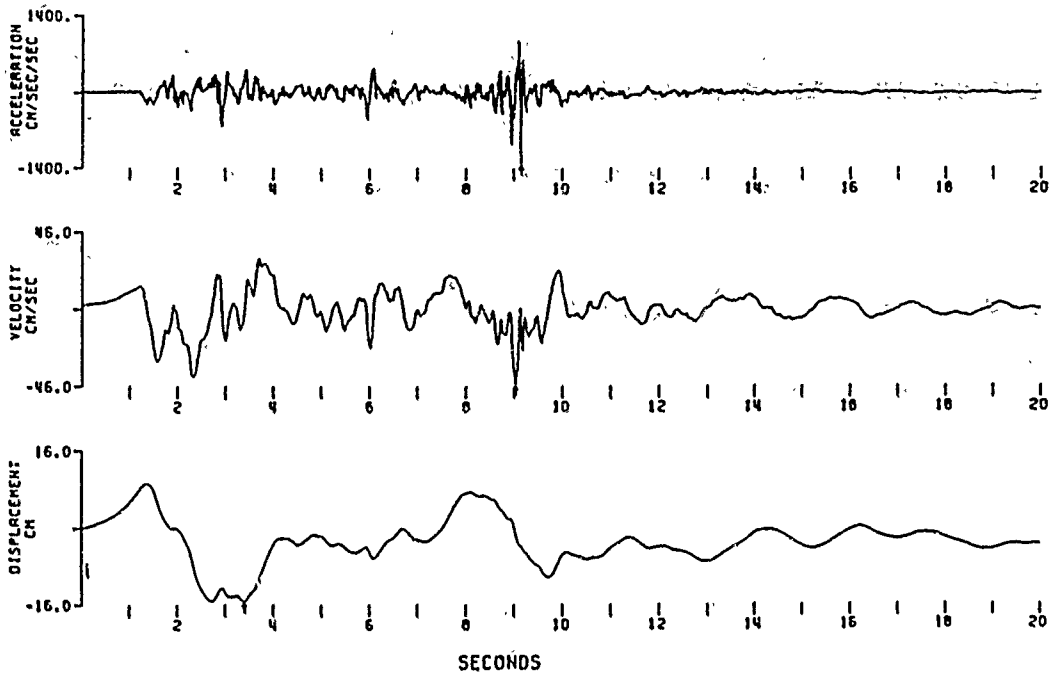

OFR-86-1-PGC

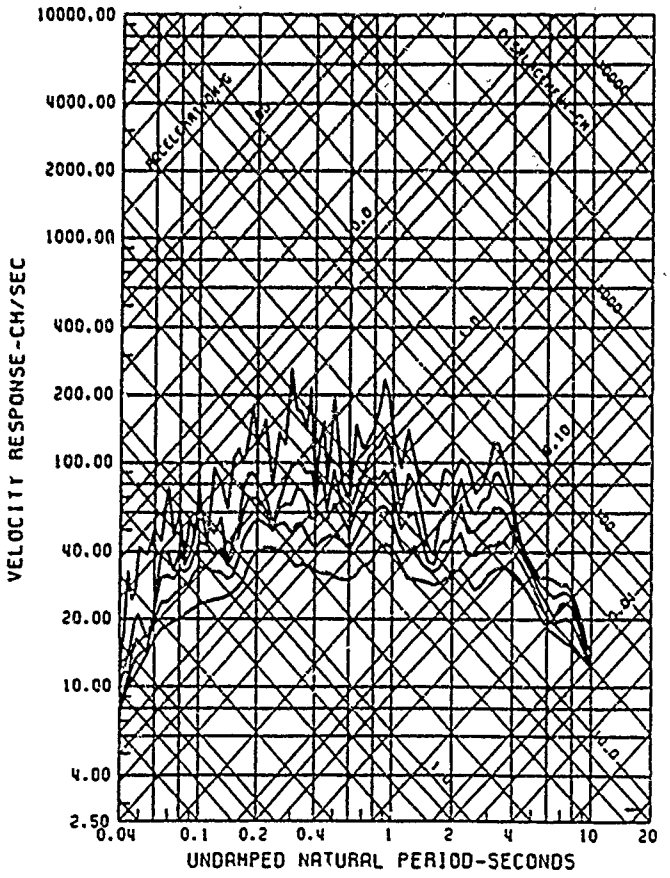
NATIONAL STRONG MOTION
DATA CENTER
0515UTC 10 DEGREES
FILTERS: BUTTERWORTH, ORDER 4
0.100 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0.2.5.10.20 PERCENT

SITE 1, NAHANNI, NWT
12/23/85

***CAN 9***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
SITE1. NAHANNI, NWT
280 DEGREES
EARTHQUAKE OF DECEMBER 23, 1985 - 0516 GMT
BUTTERWORTH AT .10 HZ, ORDER 4
PEAK VALUES: ACCEL=-1319.08 CM/SEC/SEC, VELOCITY=-45.06 CM/SEC, DISPL=-15.25 CM



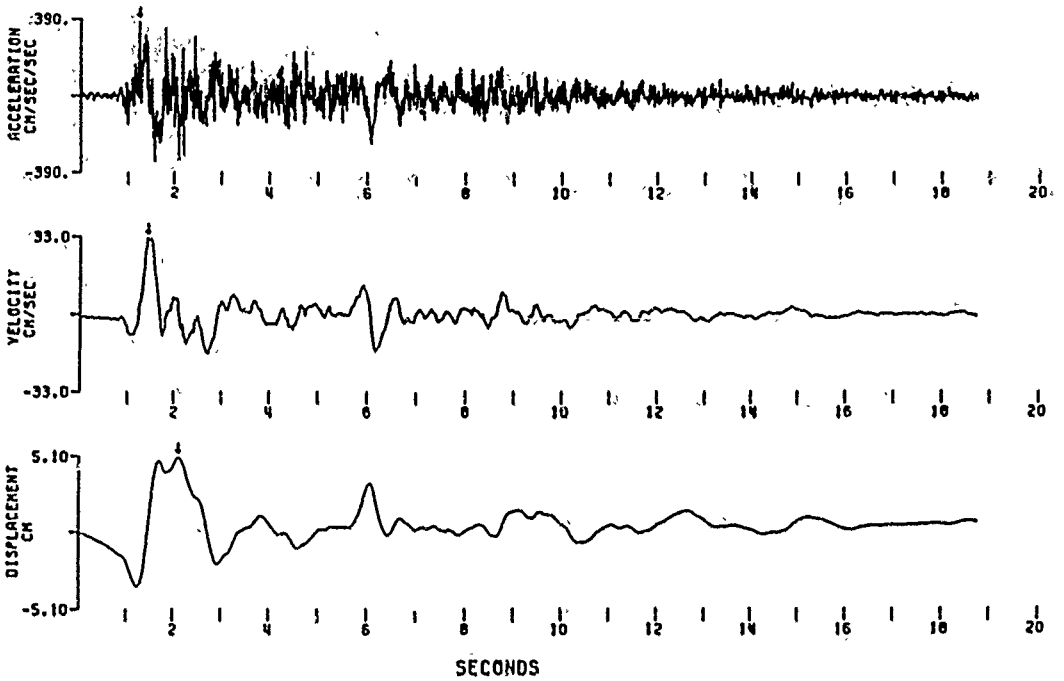

OFR-86-1-PGC

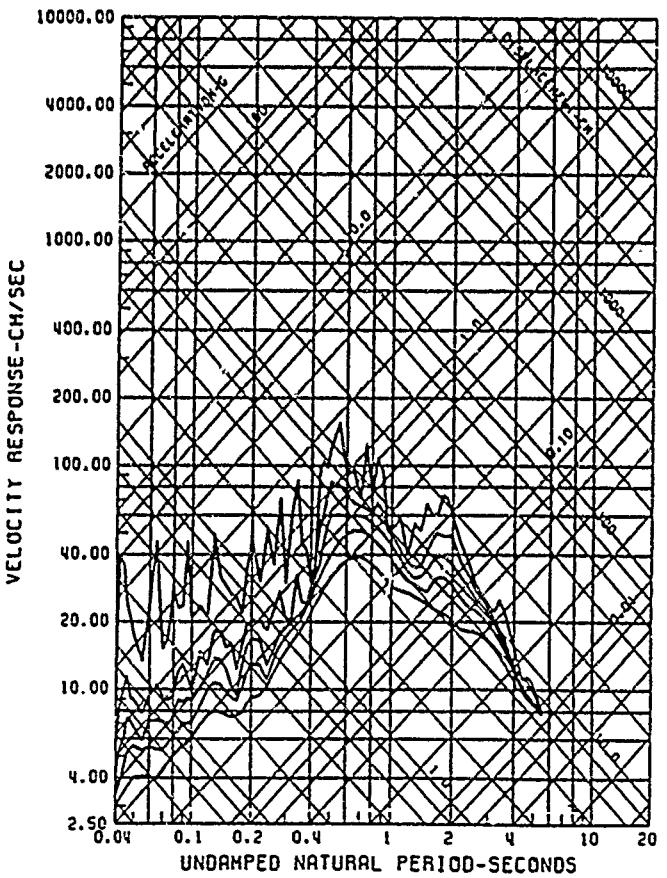
NATIONAL STRONG MOTION
DATA CENTER
0515UTC 280 DEGREES
FILTERS: BUTTERWORTH, ORDER 4
0.100 HZ; ANTIALIRS 50 - 100 HZ
CRITICAL DAMPING
0.2.5.10.20 PERCENT

SITE 1, NAHANNI, NWT, 12/23/85

***CAN 10***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
SITE 2, NAHANNI, NWT
330 DEGREES
EARTHQUAKE OF DECEMBER 23, 1985 0515 UTC
BUTTERWORTH AT .167 HZ, ORDER 4
PEAK VALUES: ACCEL=382.37 CM/SEC/SEC, VELOCITY=32.60 CM/SEC, DISPL=5.02 CM



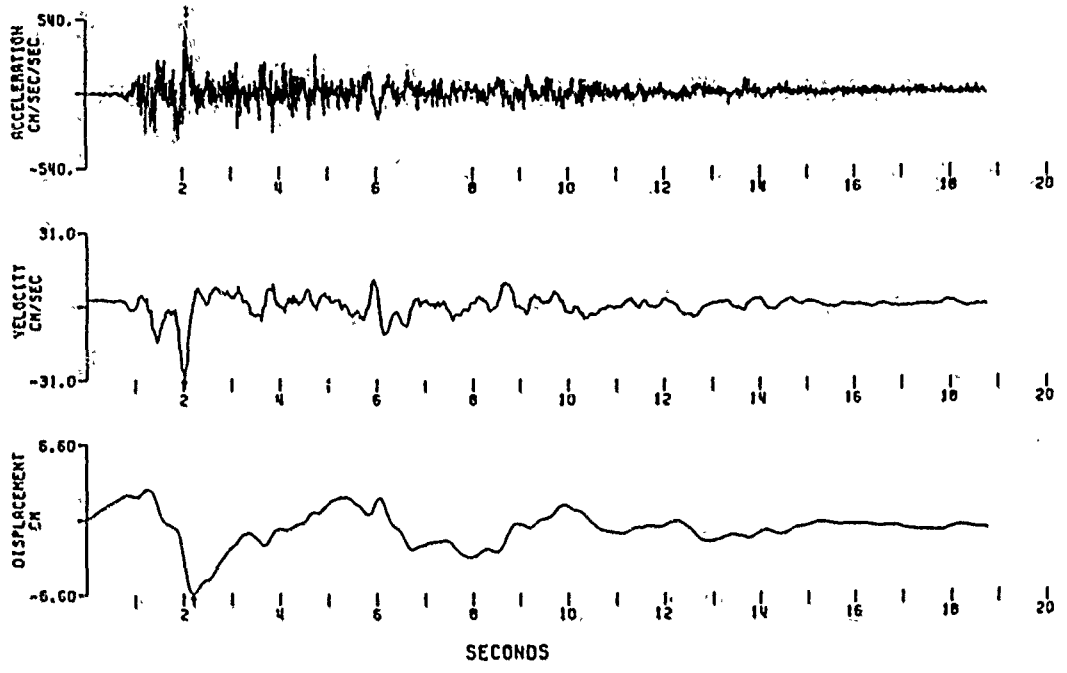

OFR-86-1-PGC

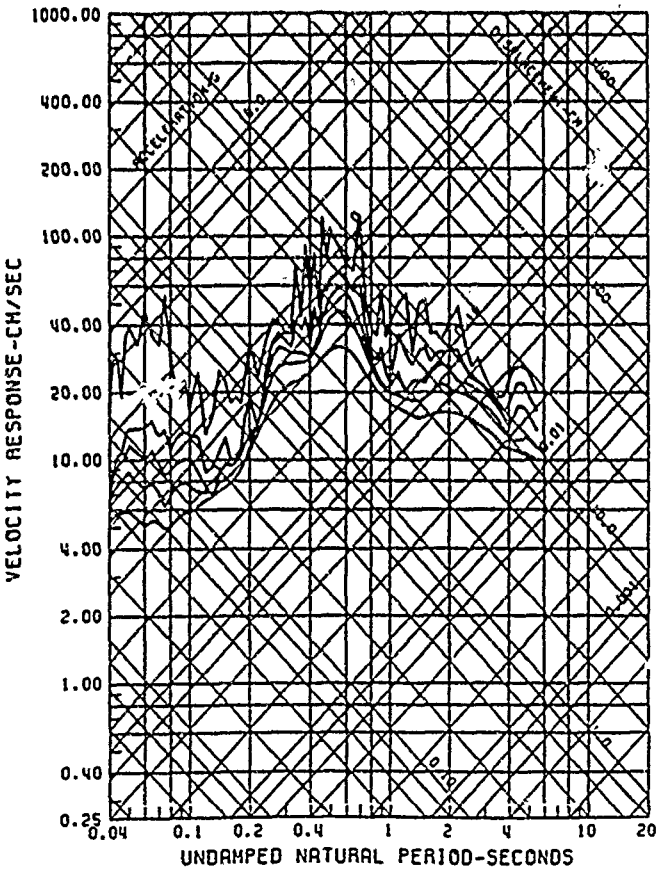
NATIONAL STRONG MOTION
DATA CENTER
0515UTC 330 DEGREES
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

SITE 2, NAHANNI, NWT, 12/23/85

***CAN 11***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
SITE 2, NAHANNI, NWT
240 DEGREES
EARTHQUAKE OF DECEMBER 23, 1985 0515 UTC
BUTTERWORTH AT .167 HZ, ORDER 4
PEAK VALUES: ACCEL=534.44 CM/SEC/SEC, VELOCITY=-30.27 CM/SEC, DISPL=-6.60 CM



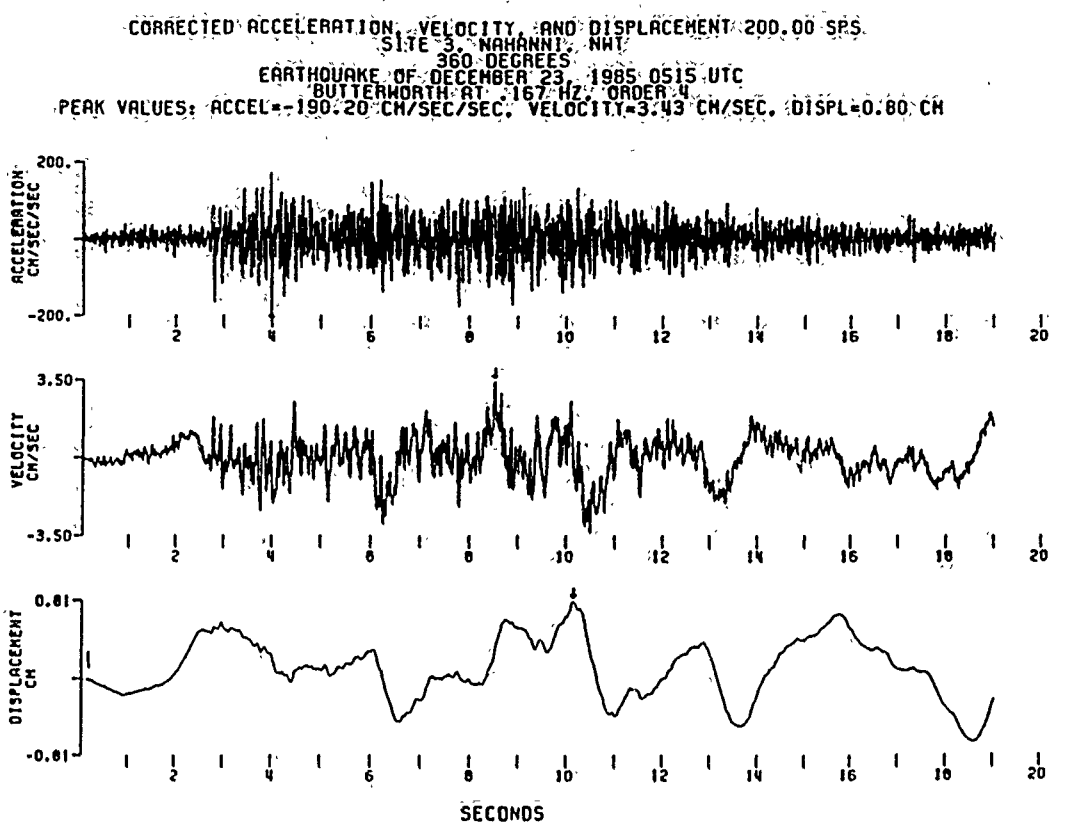



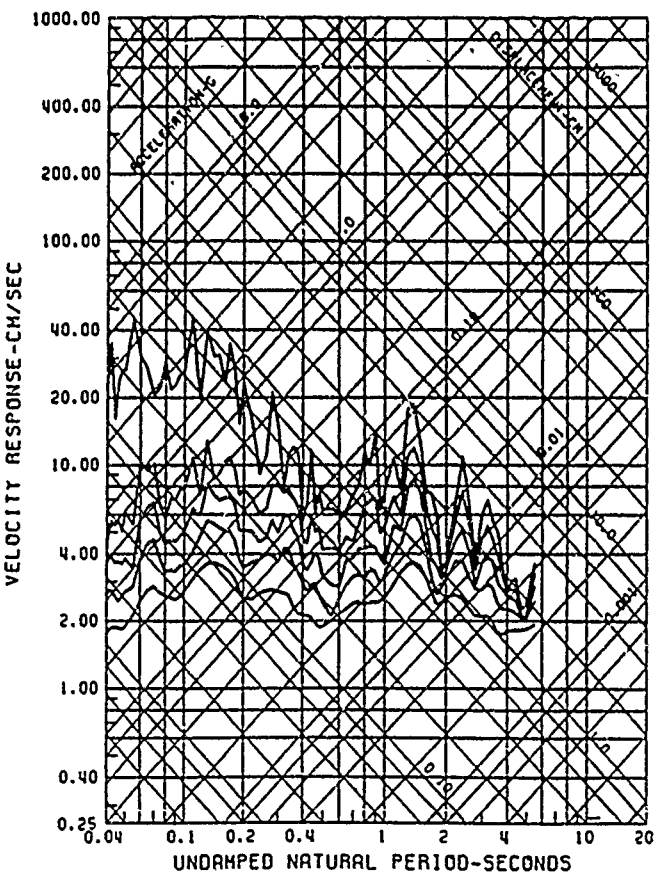

OFR-86-1-PGC

NATIONAL STRONG MOTION
DATA CENTER
0515UTC 240 DEGREES
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

SITE 2, NAHANNI, NWT, 12/23/85

***CAN 12***




OFR-86-1-PGC

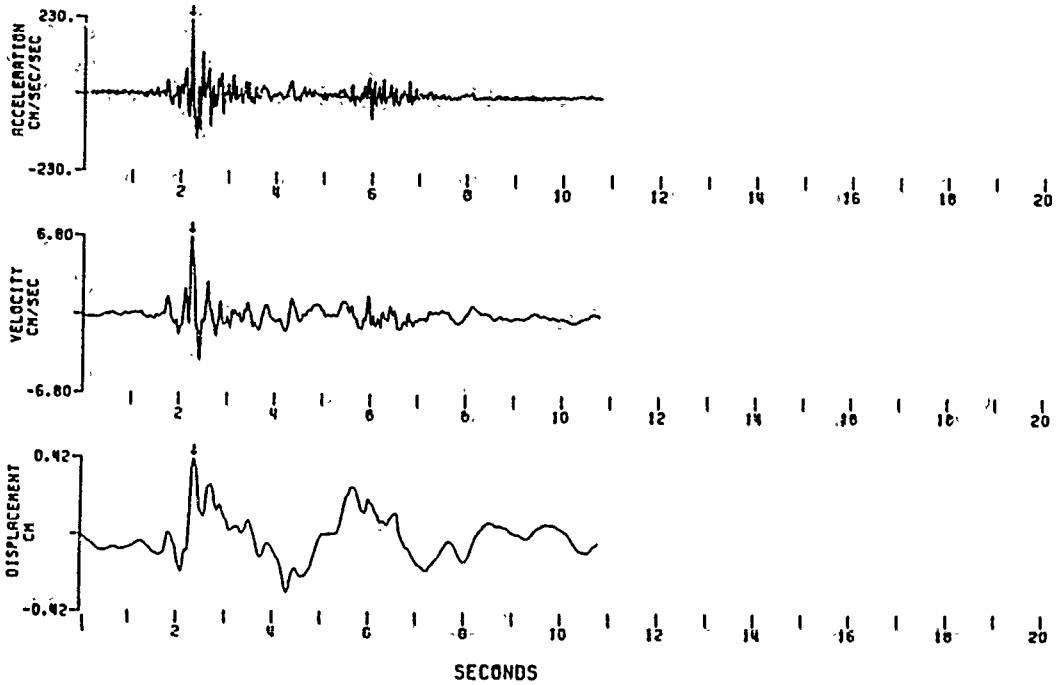
NATIONAL STRONG MOTION DATA CENTER

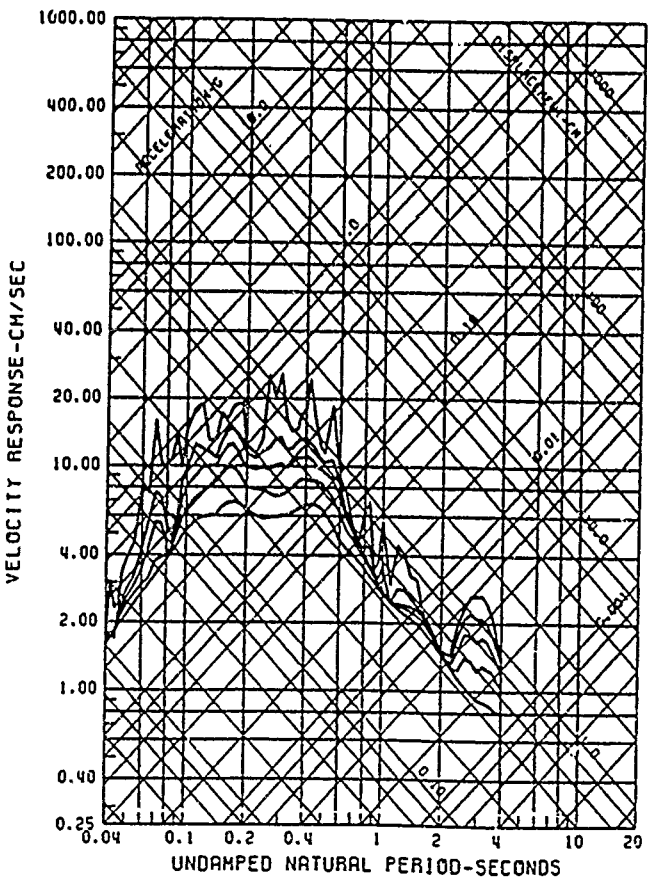
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

SITE 3, NAHANNI, NWT
12/23/85, 0515UTC 360

***CAN 13***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
SITE1, NAHANNI, NWT
10 DEGREES
EARTHQUAKE OF DECEMBER 23, 1985 - 0548 GMT
BUTTERWORTH AT .25 HZ, ORDER 4
PEAK VALUES: ACCEL=224.13 CM/SEC/SEC, VELOCITY=6.78 CM/SEC, DISPL=0.41 CM



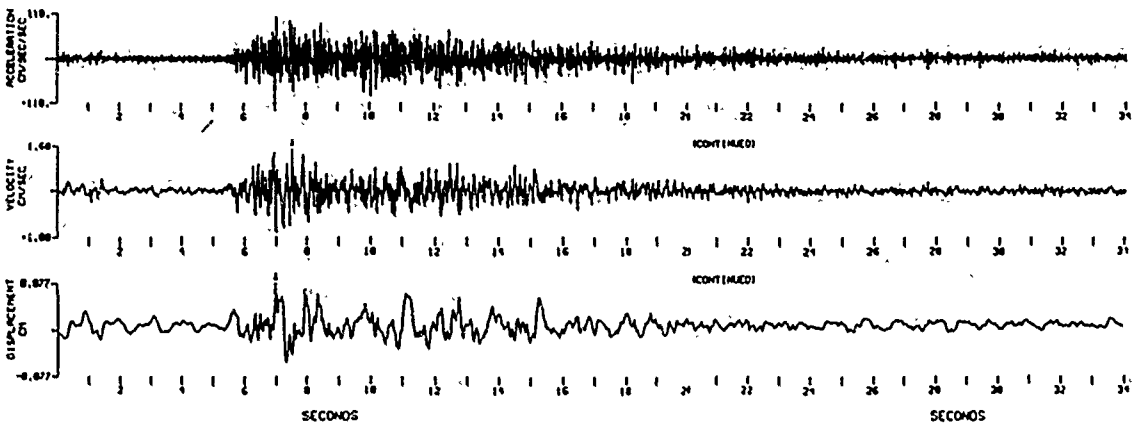

CAN OFR-86-1-PGC

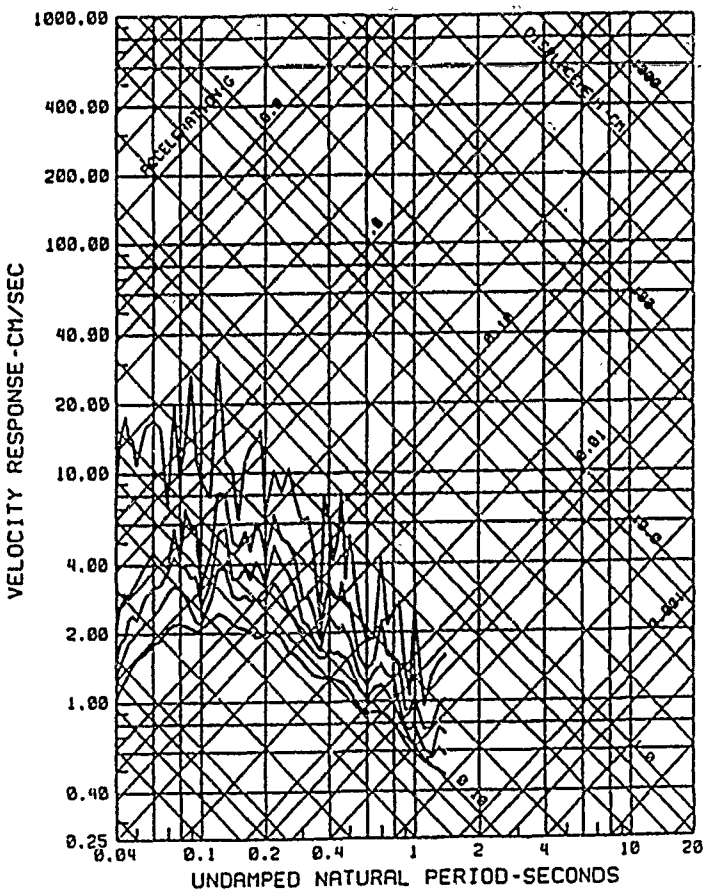
NATIONAL STRONG MOTION
DATA CENTER
0548UTC 10 DEGREES
FILTERS: BUTTERWORTH, ORDER 4
0.250 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

SITE1, NAHANNI, NWT, 12/23/85.

***CAN 15***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
GEOLOGICAL SURVEY OF CANADA
SAGUENAY EARTHQUAKE OF 1988 11 25 2346 UT
SITE 16: CHICOUTIMI-NORD, QUEBEC
AL = 214 DEGREES: AZ.= 18 DEG.: DIST.= 43 KM
4TH-ORDER BUTTERWORTH AT 0.667 HZ
PEAK VALUES: ACCEL=-104.48 CM/SEC/SEC, VELOCITY=1.51 CM/SEC, DISPL=0.08 CM



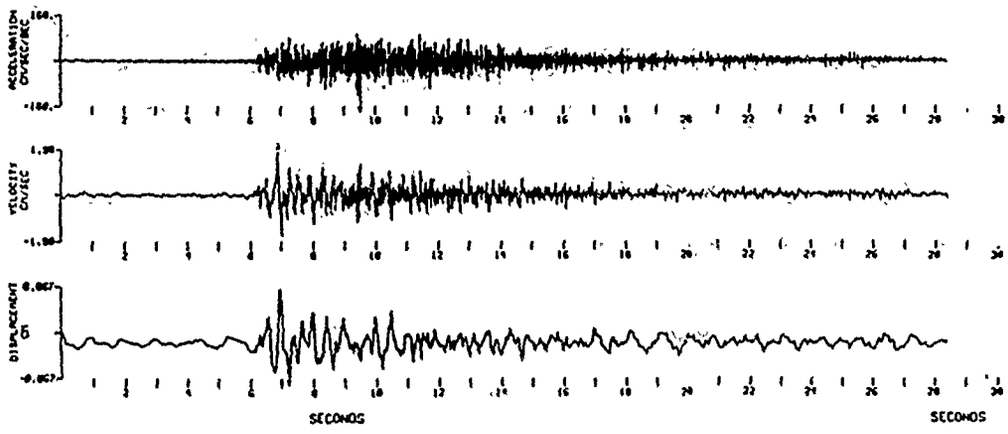

CAN OFR-1966

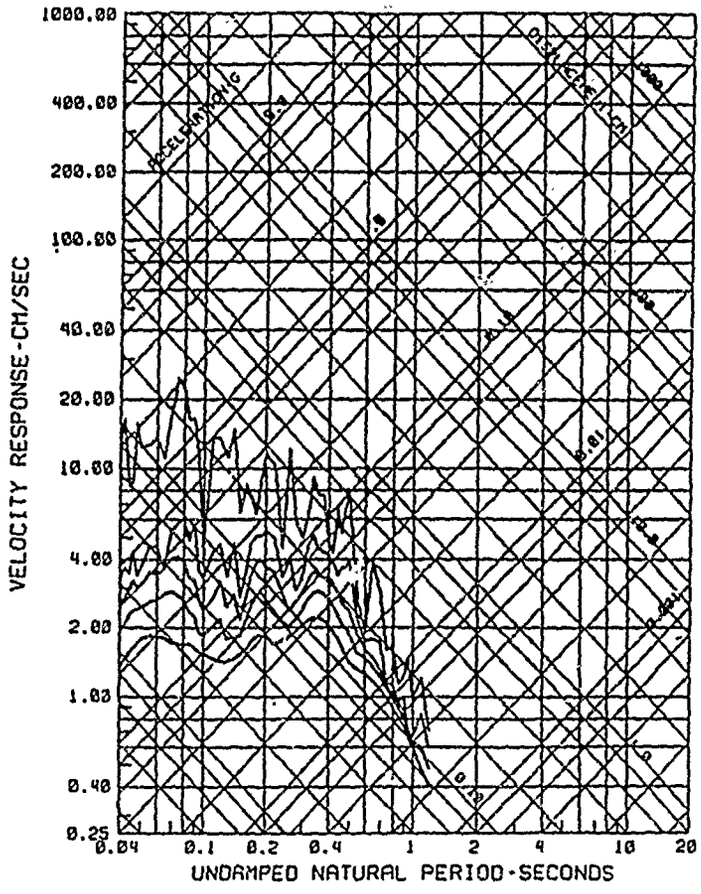
LONGITUDINAL
FILTERS: BUTTERWORTH, ORDER 4
0.667 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0.2.5.10.20 PERCENT

SITE 16: CHICOUTIMI-NORD
1988 11 25 2346 UT:

***CAN 17***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
GEOLOGICAL SURVEY OF CANADA
SAGUENAY EARTHQUAKE OF 1988 11 25 2346 UT
SITE 17: ST-ANDRE, QUEBEC
+L = 0 DEGREES: AZ.= 291 DEG.; DIST.=64 KM
4TH-ORDER BUTTERWORTH AT 0.800 HZ
PEAK VALUES: ACCEL=-152.92 CM/SEC/SEC. VELOCITY=1.83 CM/SEC. DISPL=-0.07 CM



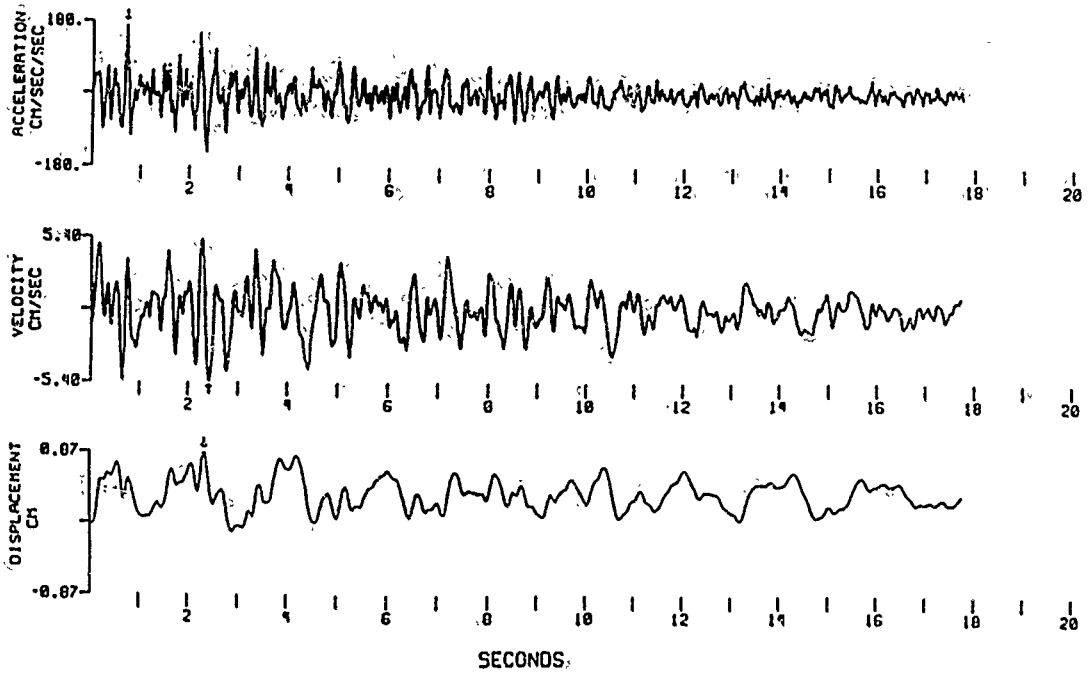

CAN OFR-1966

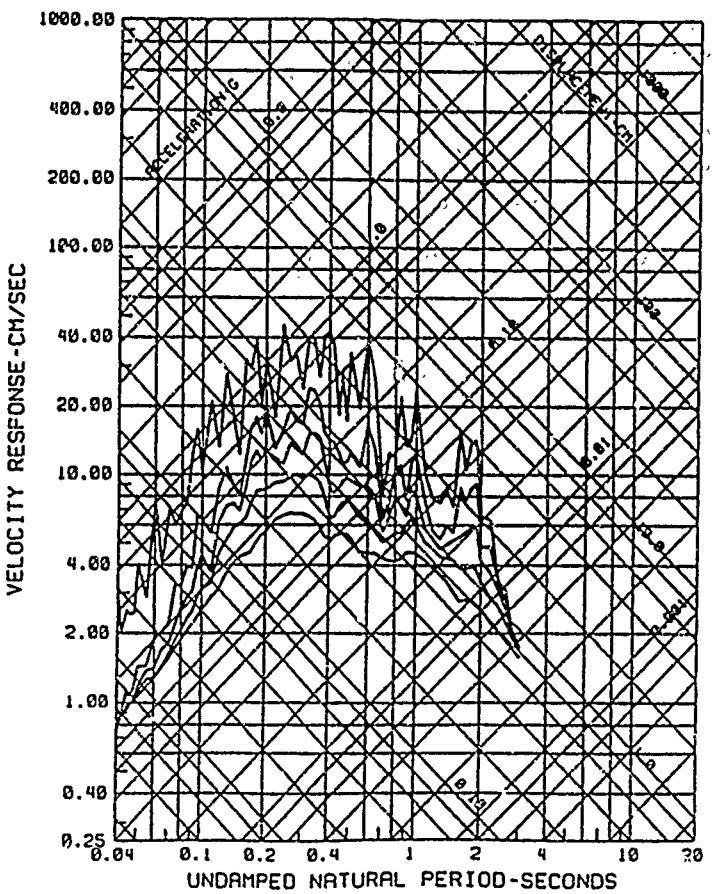
LONGITUDINAL
FILTERS: BUTTERWORTH, ORDER 4
0.800 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0.2.5.10.20 PERCENT

SITE 17: ST-ANDRE
1988 11 25 2346 UT

***CAN 18***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
GEOLOGICAL SURVEY OF CANADA
SAGUENAY EARTHQUAKE OF 1988 11 25 2346 UT
SITE 7: BAIE-ST-PAUL, QUEBEC
T. = 85 DEGREES: AZ. = 146 DEG.: DIST.= 91 KM
4TH-ORDER BUTTERWORTH AT 0.333 HZ
PEAK VALUES: ACCEL=170.62 CM/SEC/SEC. VELOCITY=-5.34 CM/SEC. DISPL=0.87 CM



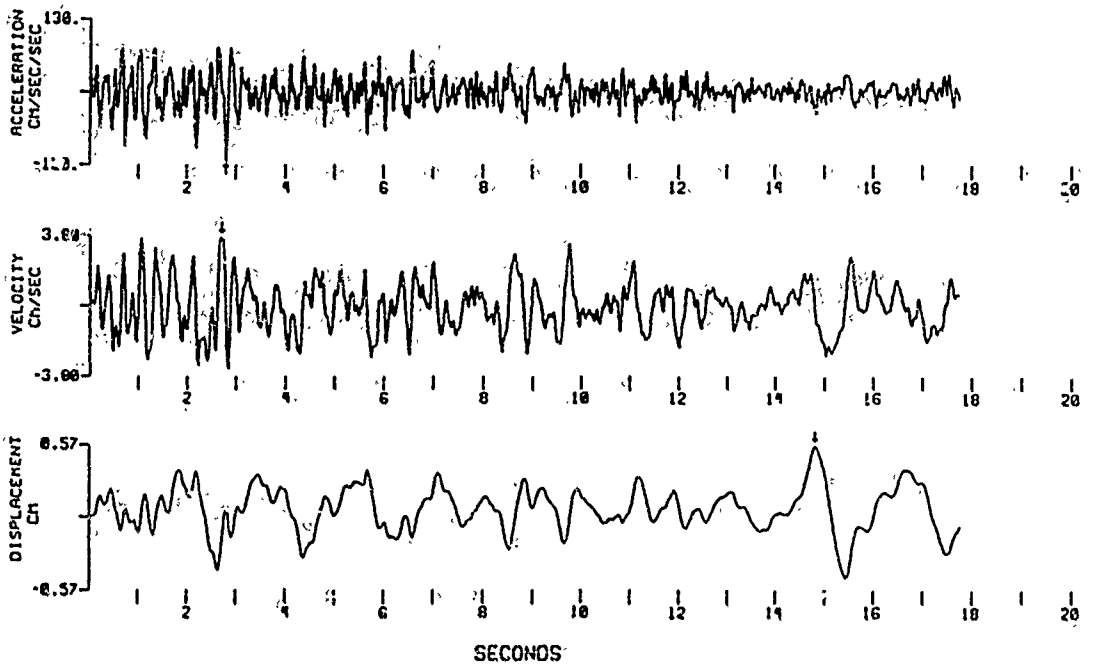

CAN OFR-1966

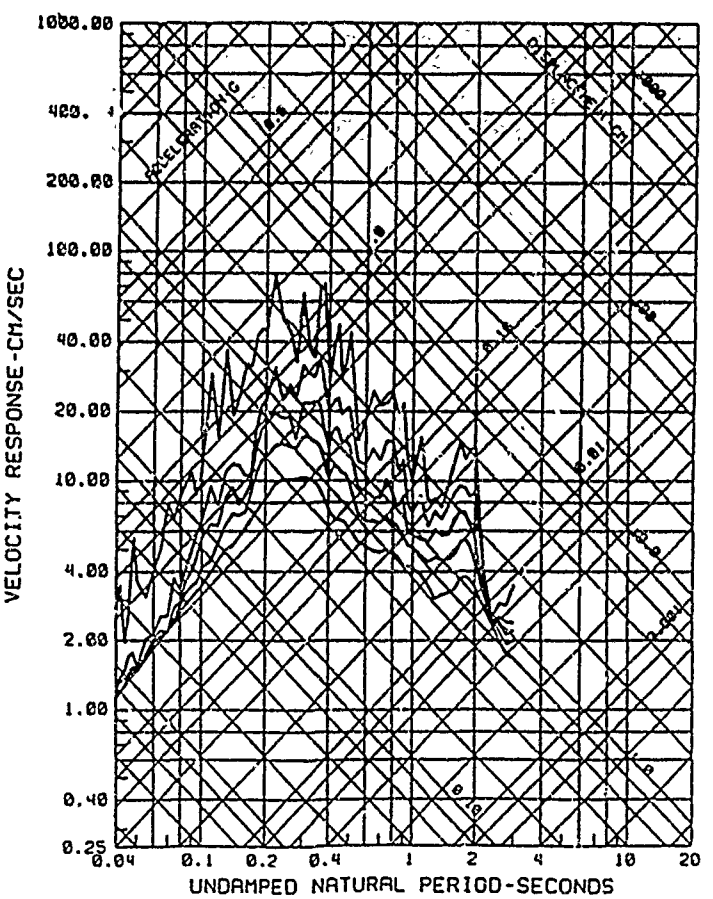
LONGITUDINAL
FILTERS: BUTTERWORTH, ORDER 4
0.333 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0.2.5.10.20 PERCENT

SITE 7: BAIE-ST-PAUL
1988 11 25 2346 UT

***CAN 21***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
GEOLOGICAL SURVEY OF CANADA
SAGUENAY EARTHQUAKE OF 1988 11 25 2346 UT
SITE 7: BAIE-ST-PAUL, QUEBEC
+L - 175 DEGREES: AZ = 146 DEG.: DIST = 91 KM
4TH-ORDER BUTTERWORTH AT 0.333 HZ
PEAK VALUES: ACCEL=-122.84 CM/SEC/SEC, VELOCITY=3.76 CM/SEC, DISPL=0.56 CM



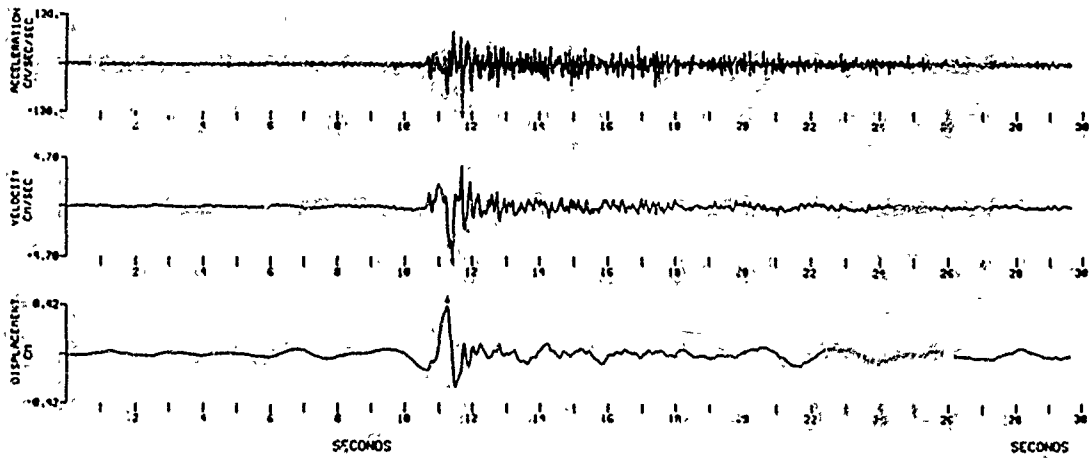

CAN OFR-1966

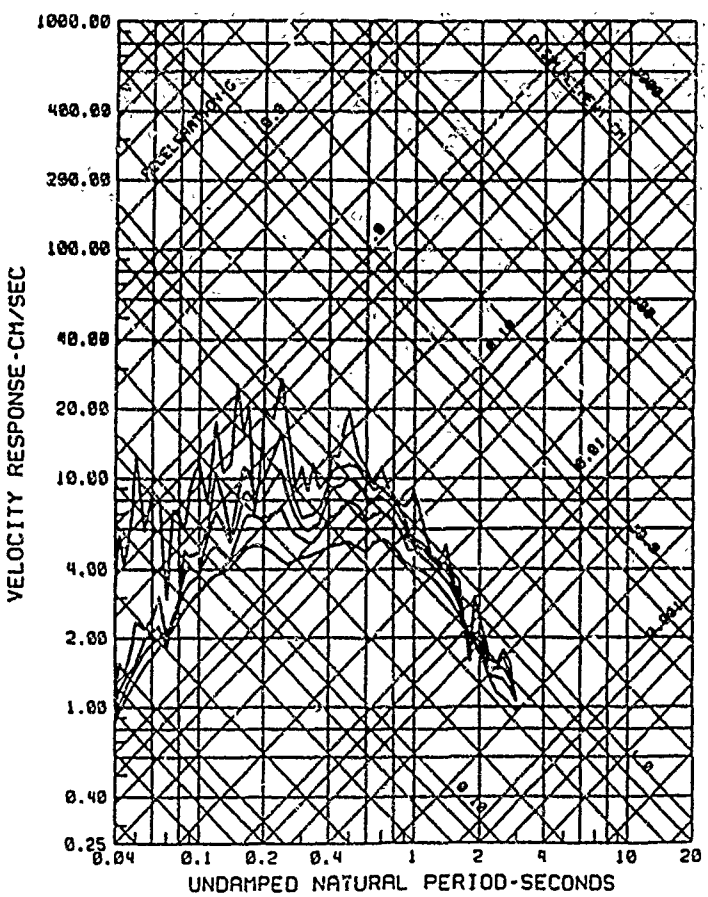
TRANSVERSE
FILTERS: BUTTERWORTH, ORDER 4
0.333 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0.2.5.10.20 PERCENT

SITE 7: BAIE-ST-PAUL
1988 11 25 2346 UT

***CAN 22***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
GEOLOGICAL SURVEY OF CANADA
SAGUENAY EARTHQUAKE OF 1988 11 25 2346 UT
SITE 8: LA MALBAIE, QUEBEC
AL = 63 DEGREES: AZ = 123 DEG.: DIST. = 93 KM
4TH-ORDER BUTTERWORTH AT 0.333 HZ
PEAK VALUES: ACCEL=-121.82 CM/SEC/SEC. VELOCITY=-4.65 CM/SEC. DISPL=0.41 CM



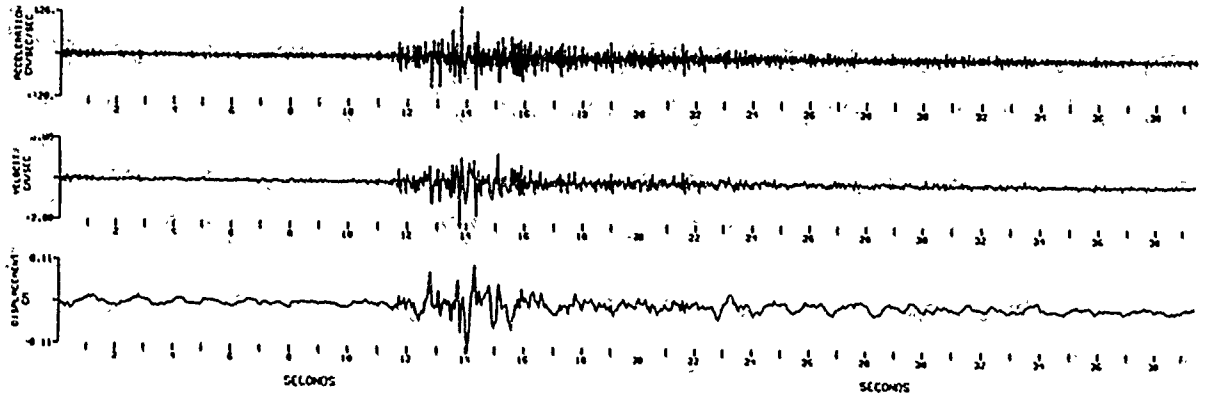

CAN OBR-1966

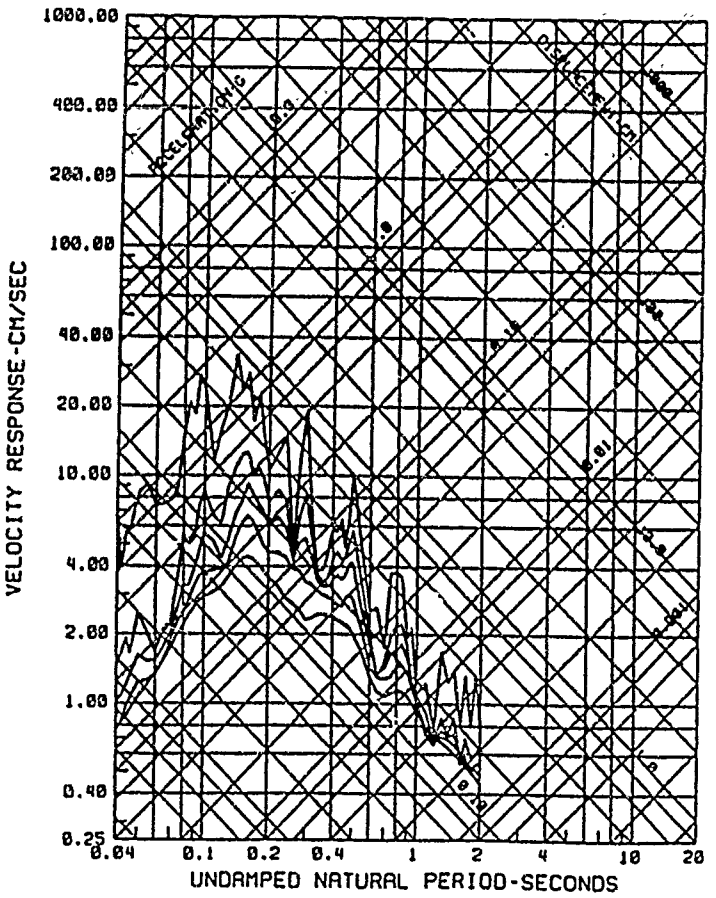
LONGITUDINAL
FILTERS: BUTTERWORTH, ORDER 4
0.333 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0.2.5.10.20 PERCENT

SITE 8: LA MALBAIE
1988 11 25 2346 UT

***CAN 23***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS.
GEOLOGICAL SURVEY OF CANADA
SAGUENAY EARTHQUAKE OF 1988 11 25 2346 UT
SITE 1: ST-FERREOL, QUEBEC
L = 0 DEGREES: AZ. = 166 DEG.; DIST.= 114 KM
4TH-ORDER BUTTERWORTH AT 0.500 HZ
PEAK VALUES: ACCEL=118.79 CM/SEC/SEC, VELOCITY=-2.71 CM/SEC, DISPL=-0.11 CM



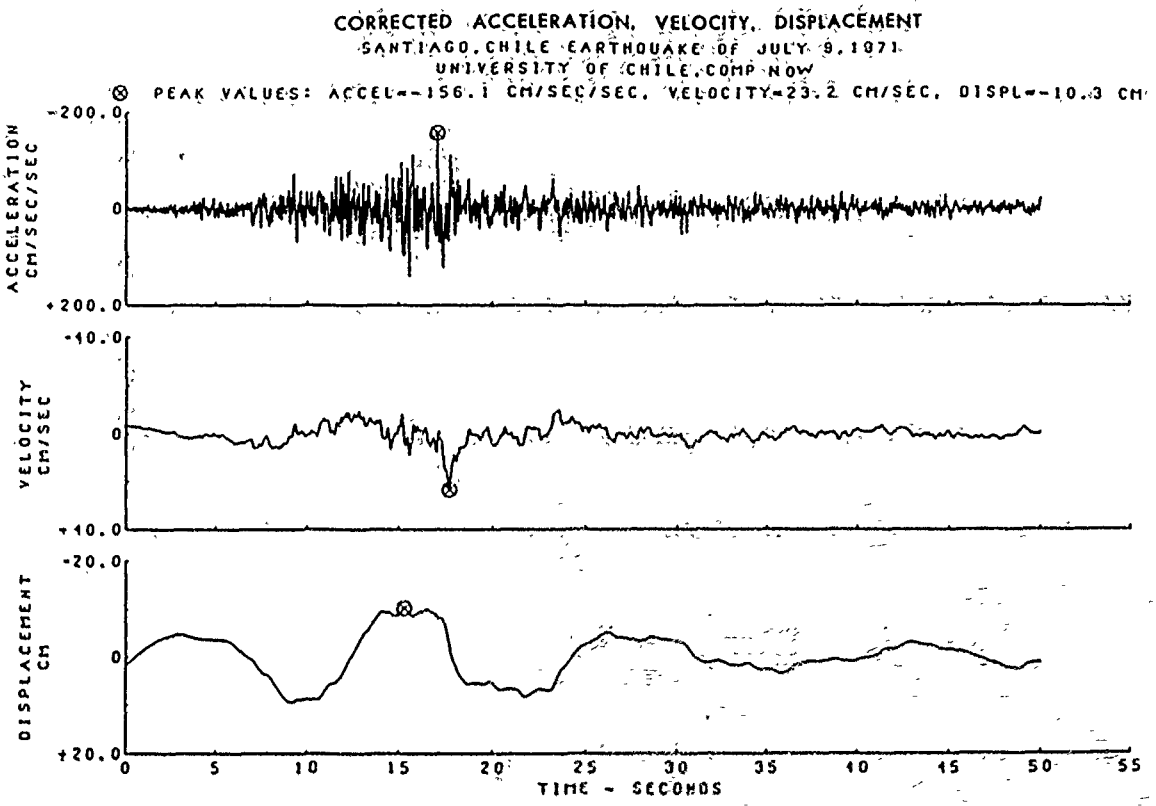



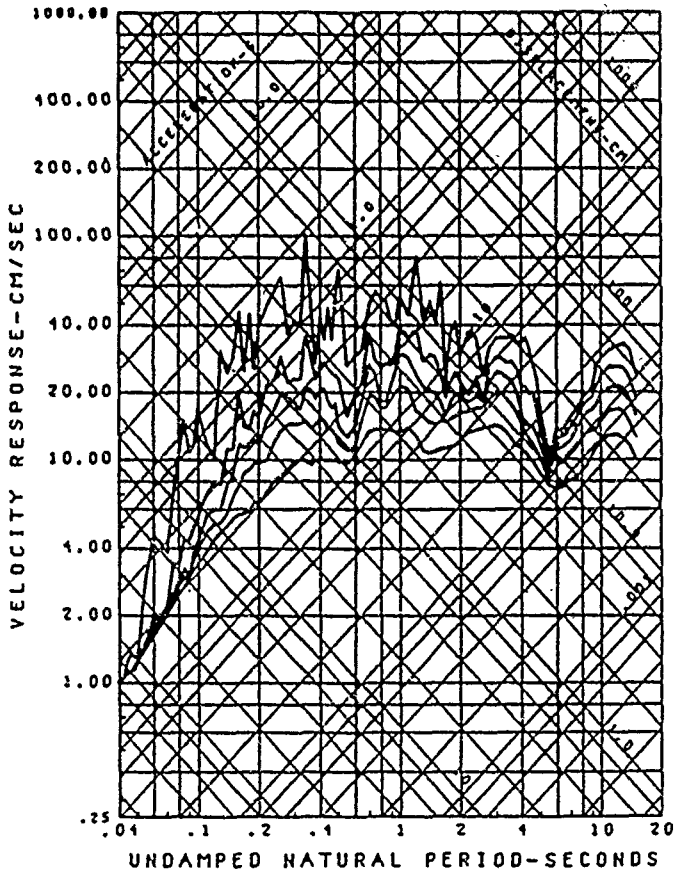

CAN OFR-1966

LONGITUDINAL
FILTERS: BUTTERWORTH, ORDER 4
0.500 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0.2.5.10.20 PERCENT

SITE 1: ST-FERREOL
1988 11 25 2346 UT

***CAN 24***



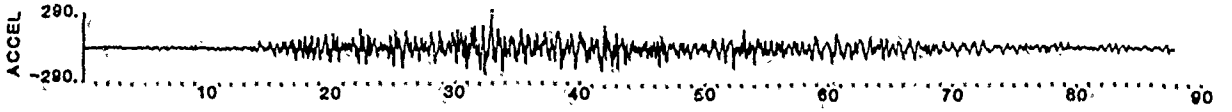

USGS OF 76-609

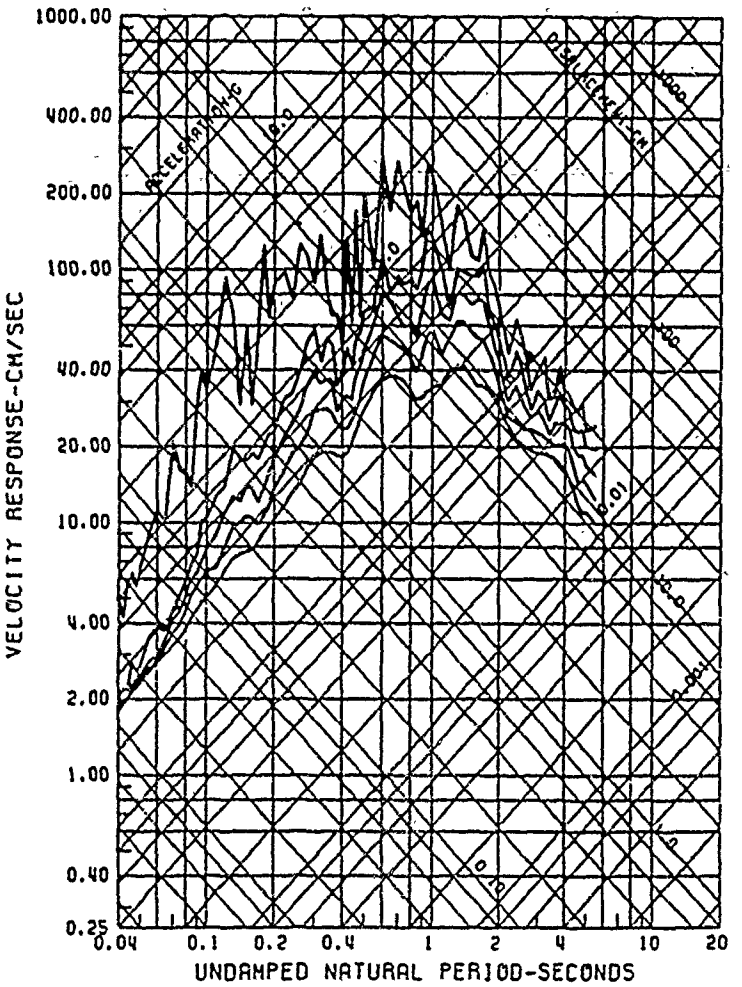
SEISMIC ENGINEERING
BRANCH/USGS
UNIV OF CHILE, N10W
CRITICAL DAMPING
0, 2, 5, 10, 20 PERCENT

SANTIAGO, CHILE
7/9/71

***CHL 1***

UNCORRECTED ACCELEROGRAM
VALPARAISO EL ALMENDRAL, D.I.C
050 DEGREES
EARTHQUAKE OF MARCH 3, 1985
PEAK VALUES (CM/SEC/SEC): 287.73



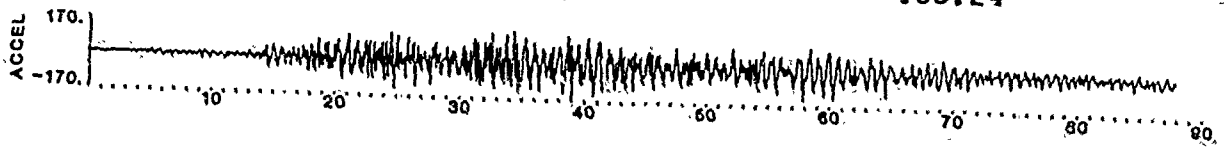

USGS OF 87-195

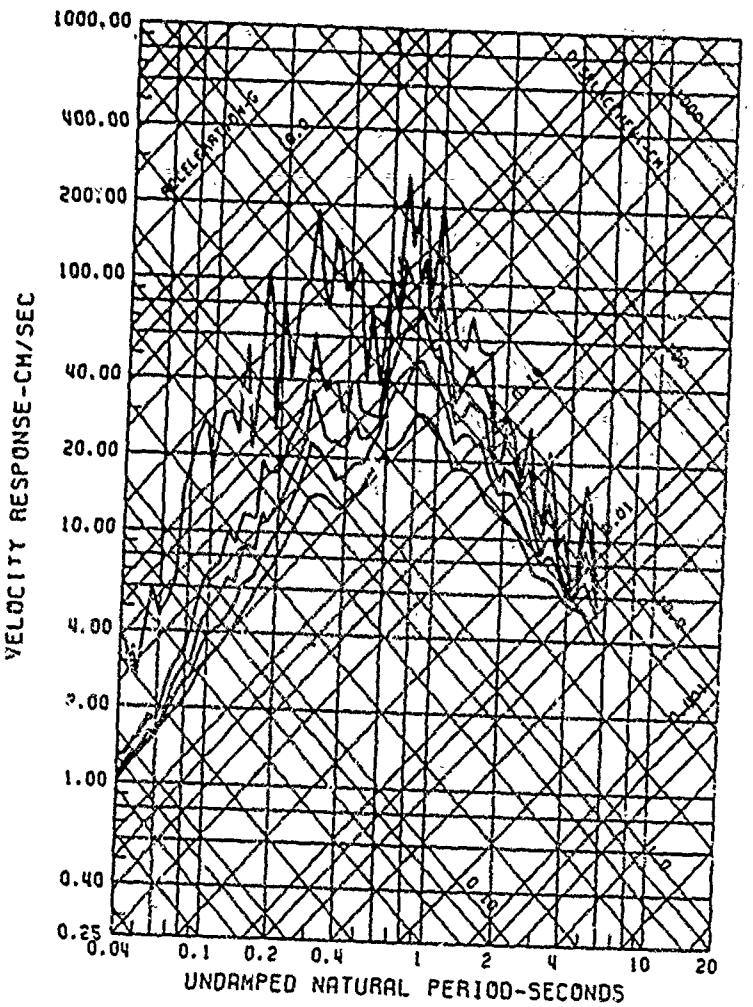
NATIONAL STRONG MOTION
DATA CENTER
07UTC 050 DEG
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ; ANTIALIAS 0 - 0 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

VALPARAISO EL ALMENDRAL
D.I.C. 3/03/85, 2247

*CHL 2*

UNCORRECTED ACCELEROGRAM
VALPARAISO EL ALMENDRAL, D.I.C
140 DEGREES
EARTHQUAKE OF MARCH 3, 1985
PEAK VALUES (CM/SEC/SEC): -160.24



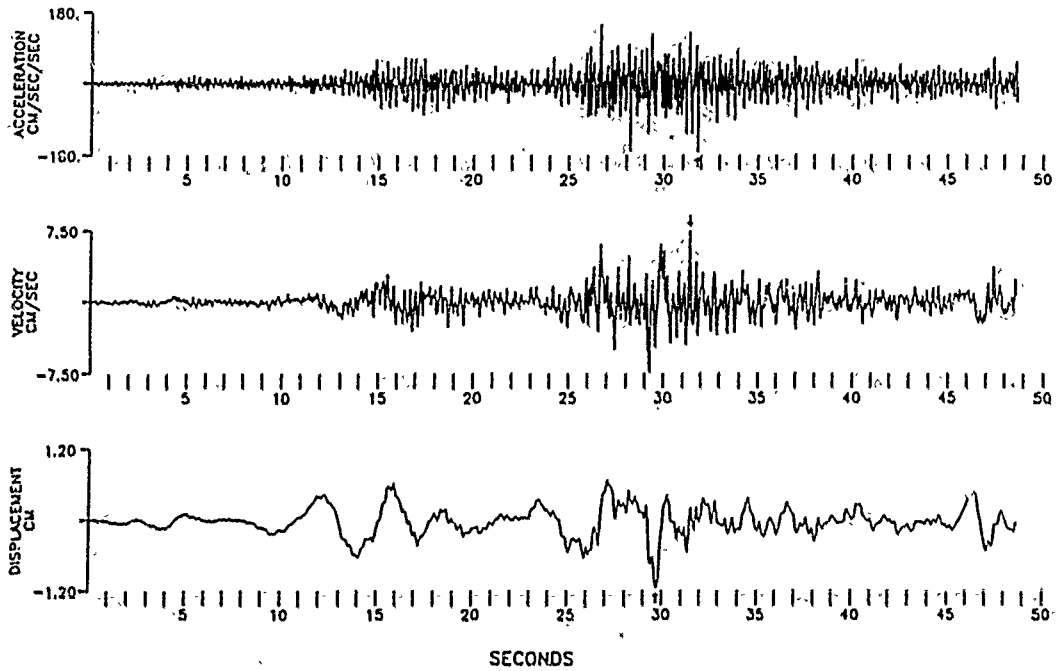

USGS OF 87-195

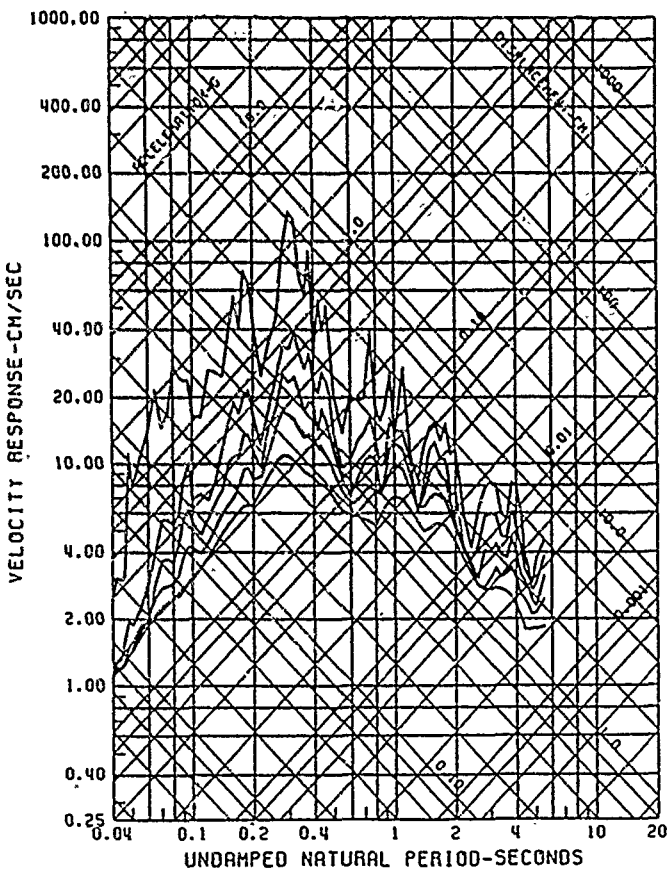
NATIONAL STRONG MOTION
DATA CENTER
07UTC 140
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ: ANTIALIAS 0 - 0 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

VALPARAISO EL ALMENDRAL
D.I.C, 3/03/85, 2247

*CHL 3*

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT AT 200. SPS
LALIGUA
290 DEGREES
EARTHQUAKE OF MARCH 3, 1985
BUTTERWORTH FILTER AT .167 HZ, ORDER 4
PEAK VALUES: ACCEL= -173.64 CM/SEC/SEC, VELOCITY= 7.47 CM/SEC, DISPL= -1.15 CM



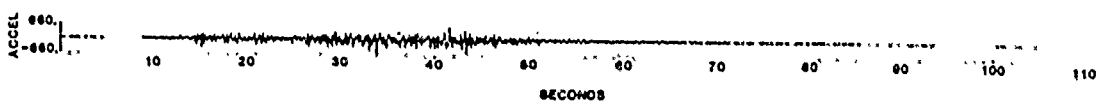

USGS OF 87-195

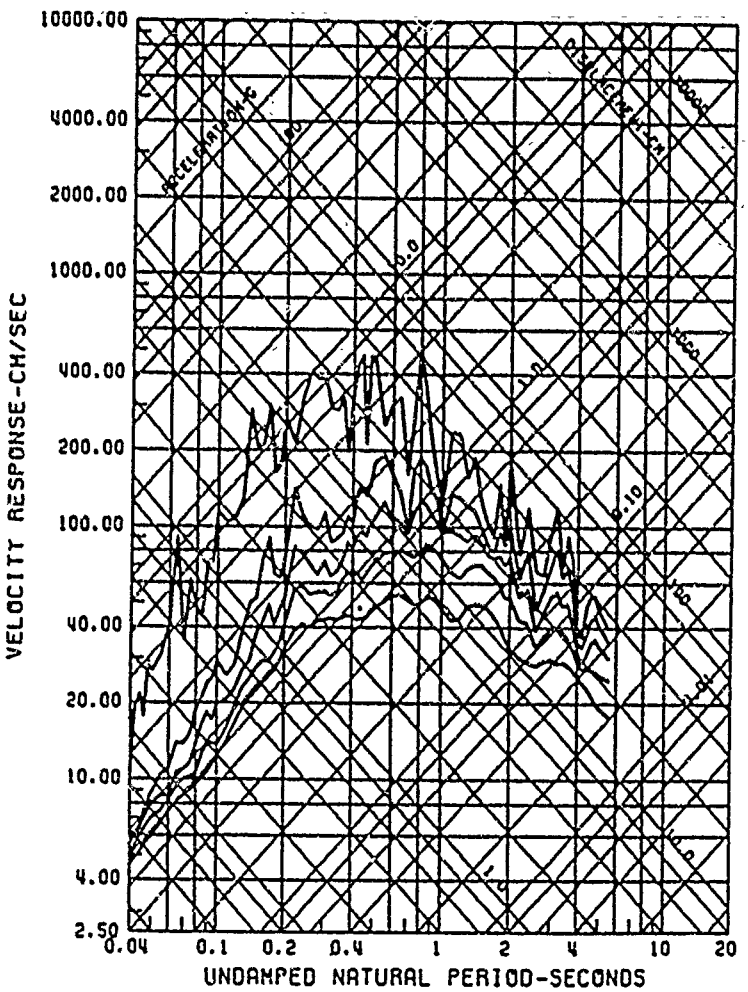
NATIONAL STRONG MOTION
DATA CENTER
290 DEGREES
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

LALIGUA, EARTHQUAKE
MARCH 3, 1985

***CHL 8***

UNCORRECTED ACCELEROGRAM
LLOLLEO, D.I.C
010 DEGREES
EARTHQUAKE OF MARCH 3, 1985
PEAK VALUES (CM/SEC/SEC): -655.77



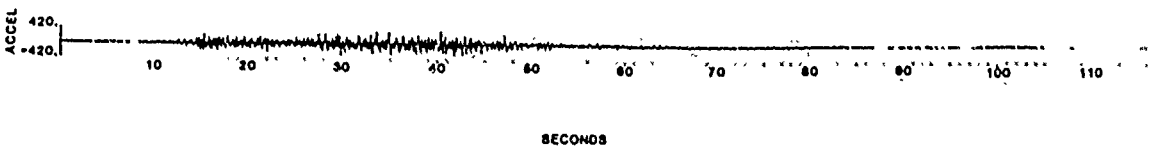

USGS OF 87-195

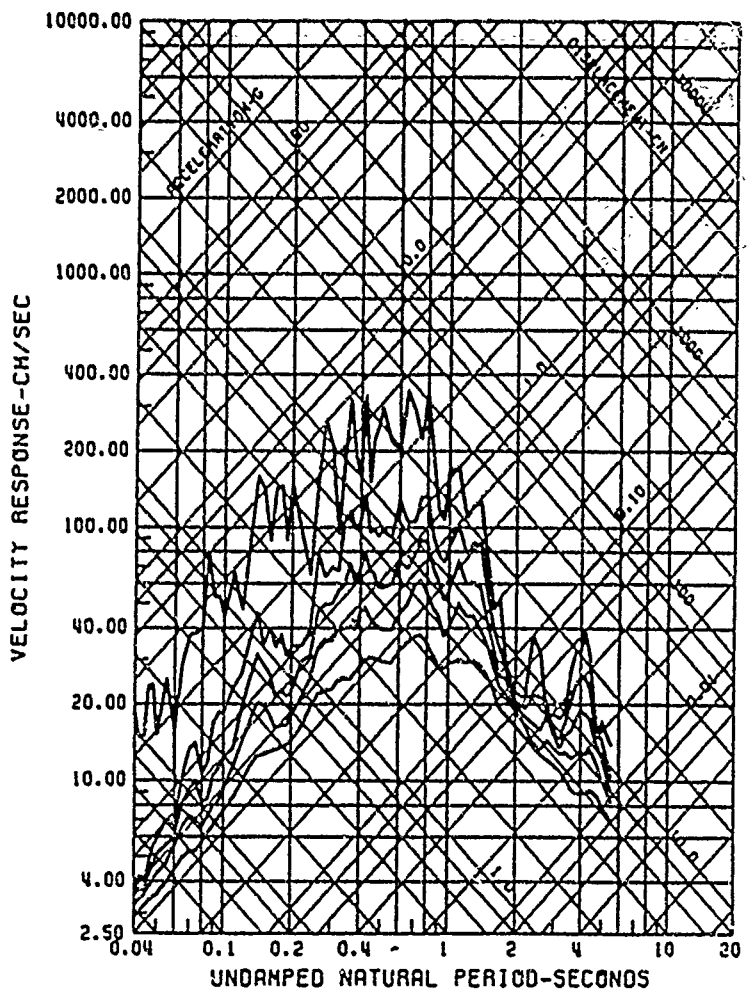
NATIONAL STRONG MOTION
DATA CENTER
07UTC 10
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ: ANTIALIAS 0 - 0 H
CRITICAL DAMPING
0,2,5,10,20 PERCENT

LLOLLEO, D.I.C.
3/03/85, 2247

*CHL 11*

UNCORRECTED ACCELEROGRAM
LLOLLEO, D.I.C
100 DEGREES, UP
EARTHQUAKE OF MARCH 3, 1985
PEAK VALUES (CM/SEC/SEC): 417.86



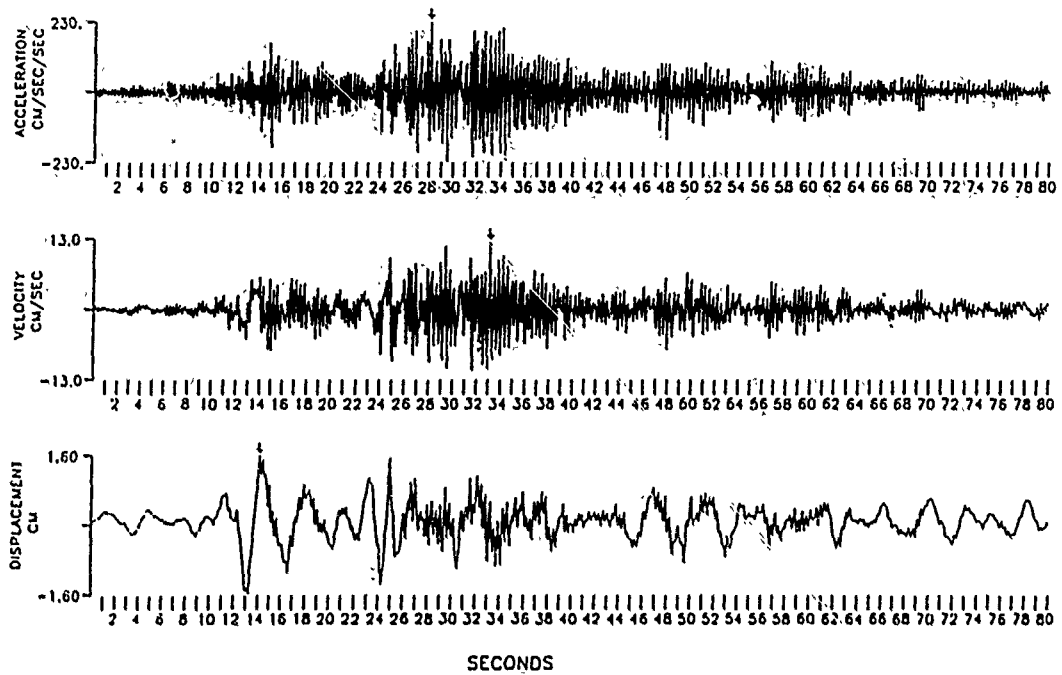

USGS OF 87-195

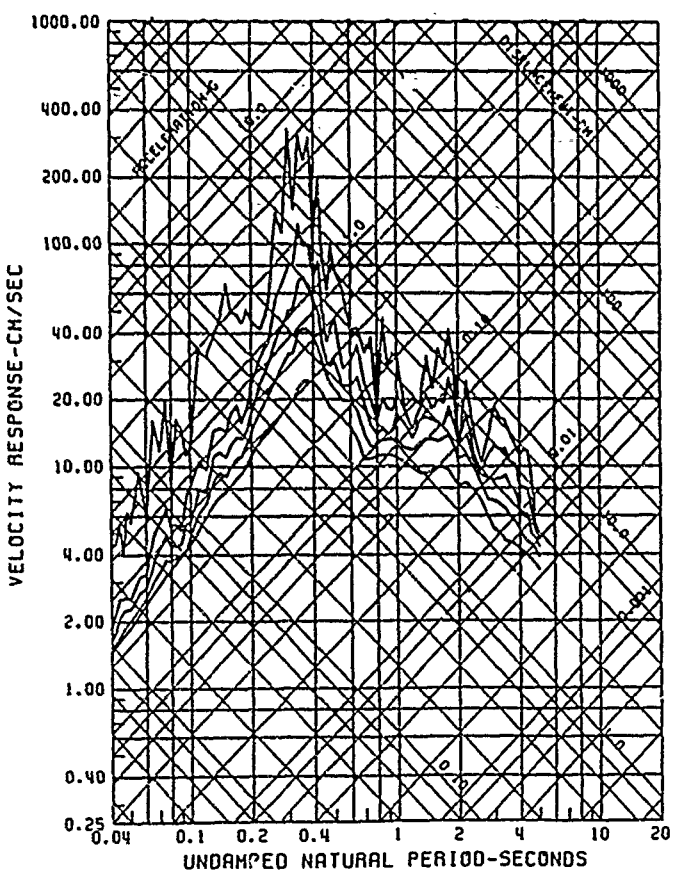
NATIONAL STRONG MOTION
DATA CENTER
07UTC 100
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ: ANTIALIAS 0 - 0 HZ
CRITICAL DAMPING
0.2,5,10,20 PERCENT

LLOLLEO, D.I.C,
3/03/85, 2247

*CHL 12*

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
PAPUDO
140 DEGREES
EARTHQUAKE OF MARCH 3, 1985
BUTTERWORTH FILTER AT 0.2 HZ, ORDER 4
PEAK VALUES: ACCEL=226.43 CM/SEC/SEC, VELOCITY=12.41 CM/SEC, DISPL=1.59 CM



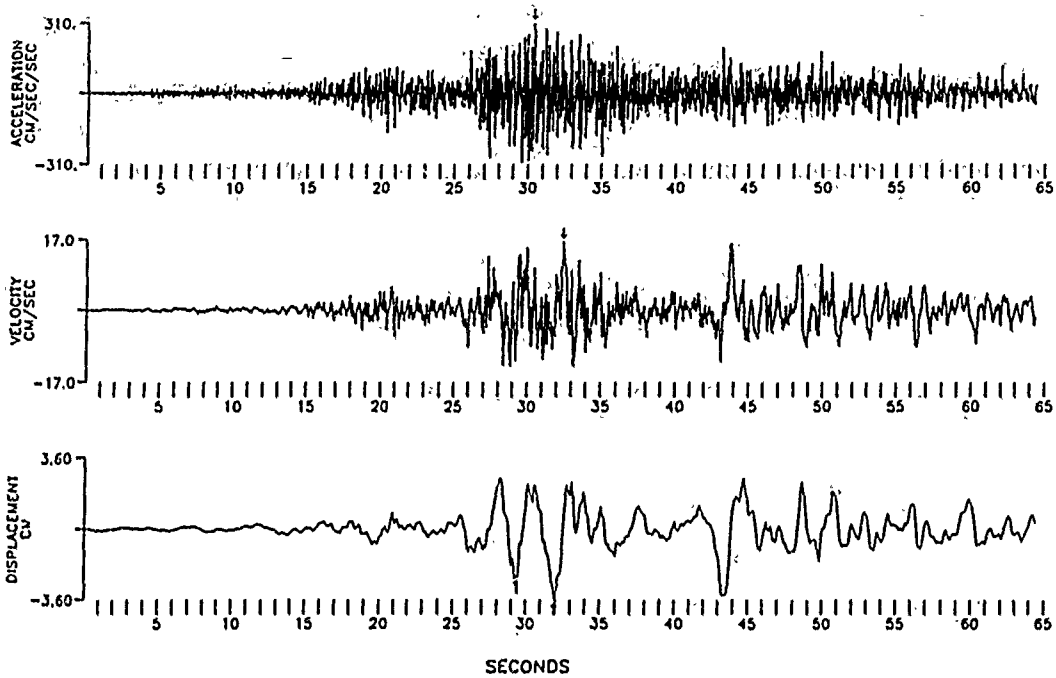

USGS OF 87-195

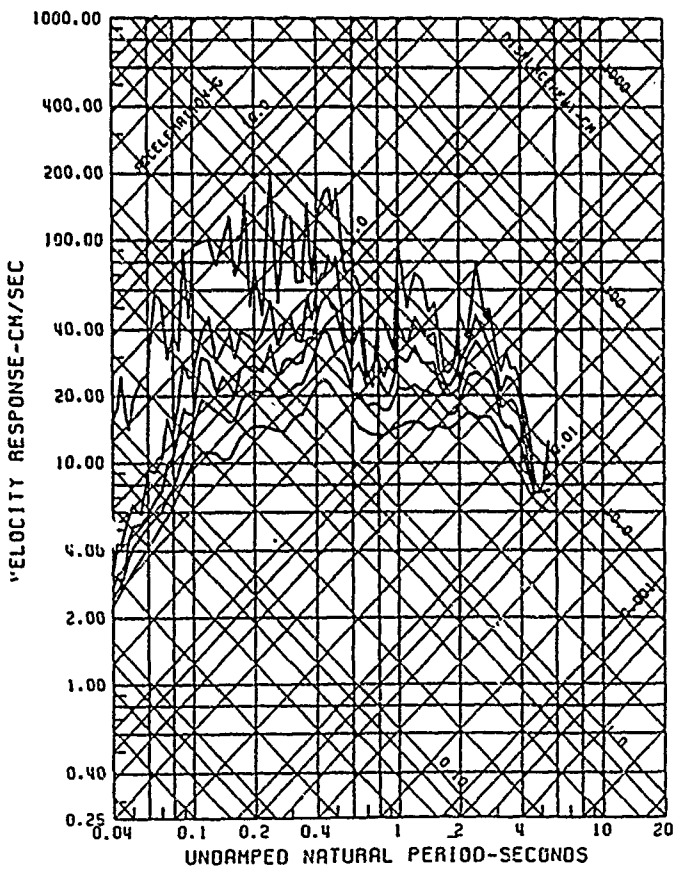
NATIONAL STRONG MOTION
DATA CENTER
140 DEGREES
FILTERS: BUTTERWORTH. ORDER 4
0.200 HZ: ANTIALIAS 50 - 100 H
CRITICAL DAMPING
0, 2, 5, 10, 20 PERCENT

PAPUDO, EARTHQUAKE
MARCH 3, 1985

***CHL 16***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT AT 200. SPS
SAN FELIPE
170 DEGREES
EARTHQUAKE OF MARCH 3, 1985
BUTTERWORTH FILTER AT .167 HZ, ORDER 4
PEAK VALUES: ACCEL= 303.47 CM/SEC/SEC, VELOCITY= 16.17 CM/SEC, DISPL= -3.58 CM



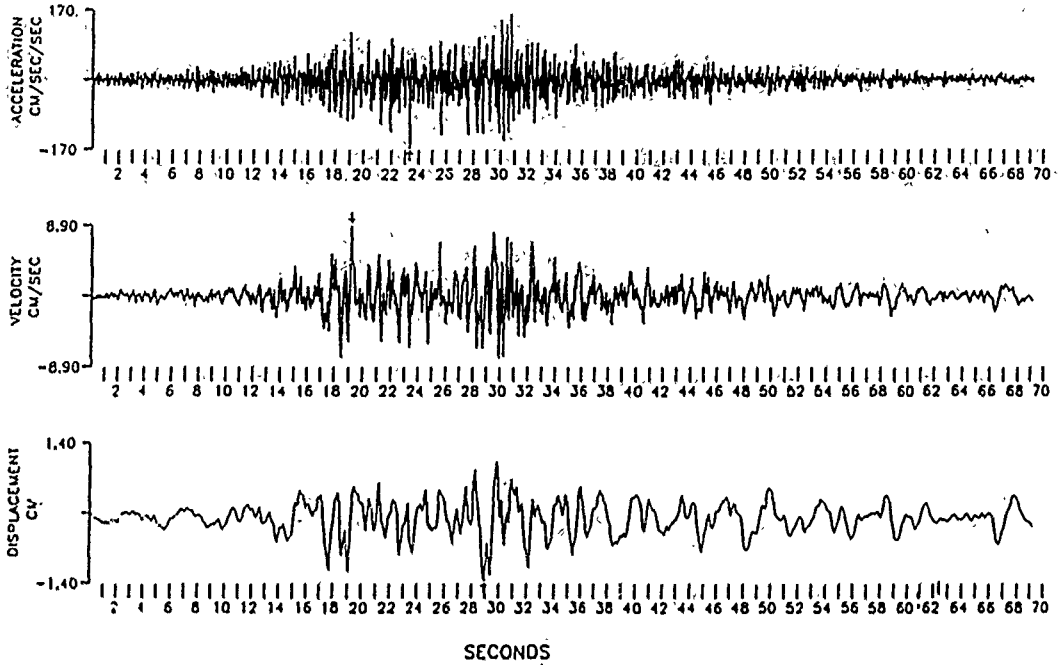

USGS OF 87-195

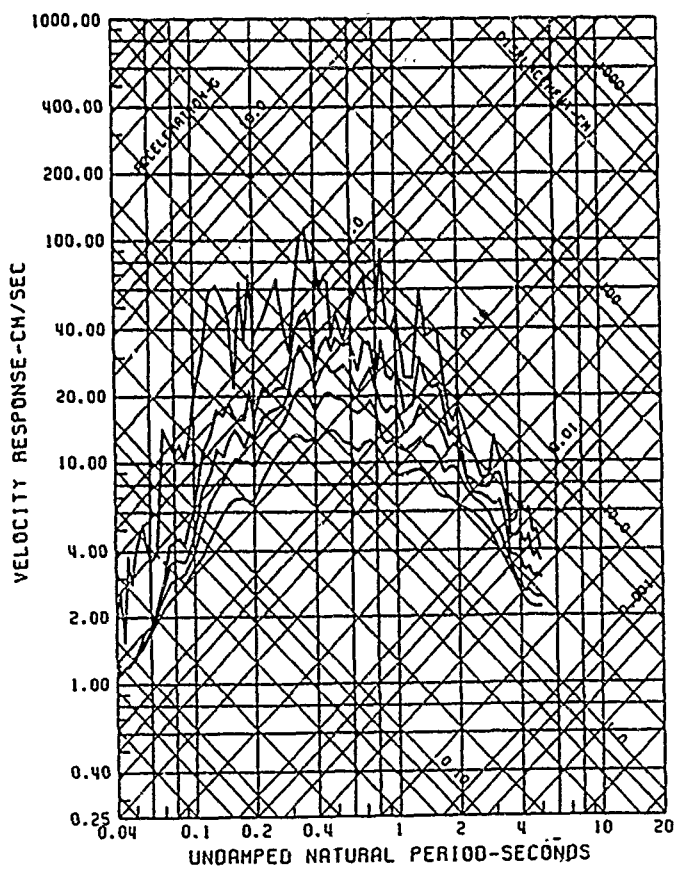
NATIONAL STRONG MOTION
DATA CENTER
170 DEGREES
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

SAN FELIPE, EARTHQUAKE
MARCH 3, 1985

***CHL 24***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
TALCA
010 DEGREES
EARTHQUAKE OF MARCH 3, 1985
BUTTERWORTH FILTER AT 0.2 HZ, ORDER 4
PEAK VALUES: ACCEL=-167.90 CM/SEC/SEC, VELOCITY=8.89 CM/SEC, DISPL=-1.36 CM



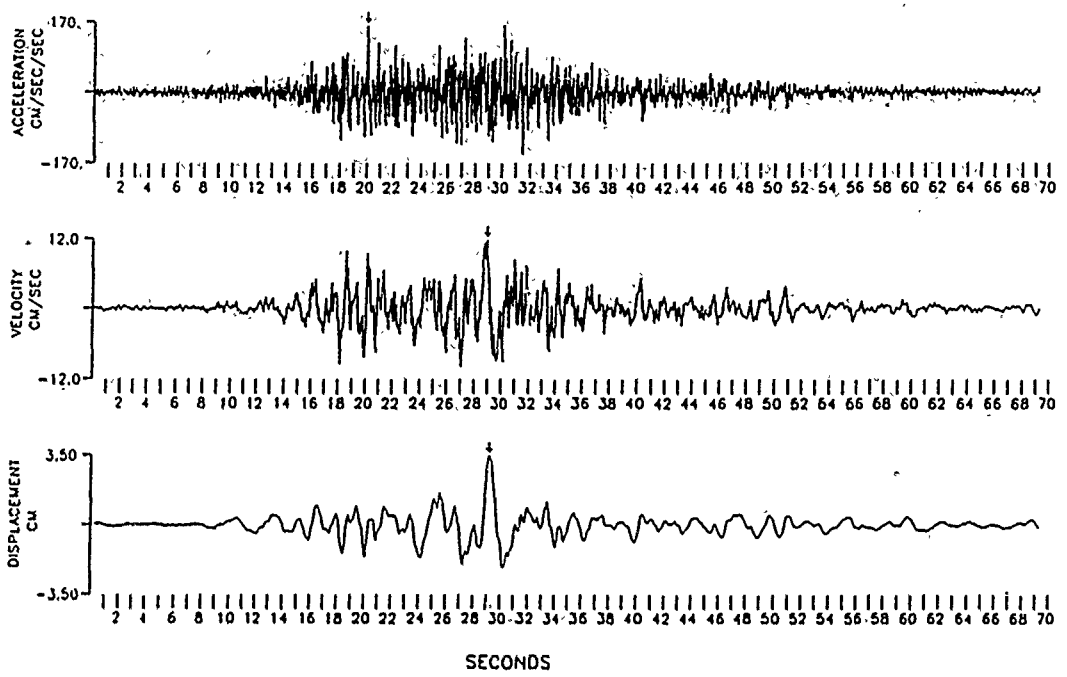

USGS OF 87-195

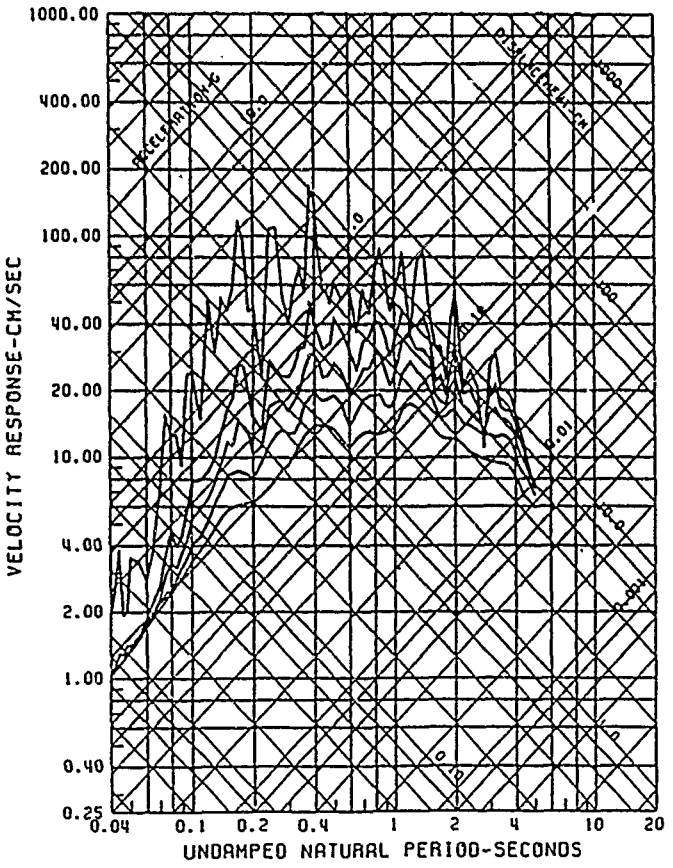
NATIONAL STRONG MOTION
DATA CENTER
010 DEG
FILTERS: BUTTERWORTH, ORDER 4
0.200 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

TALCA, EARTHQUAKE
MARCH 3, 1985

***CHL 29***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
TALCA
280 DEGREES
EARTHQUAKE OF MARCH 3, 1985
BUTTERWORTH FILTER AT 0.2 HZ, ORDER 4
PEAK VALUES: ACCEL=163.95 CM/SEC/SEC, VELOCITY=11.86 CM/SEC, DISPL=3.47 CM



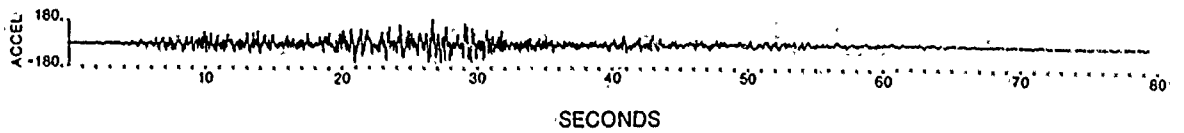

USGS OF 87-195

NATIONAL STRONG MOTION
DATA CENTER
280 DEG
FILTERS: BUTTERWORTH, ORDER 4
0.200 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

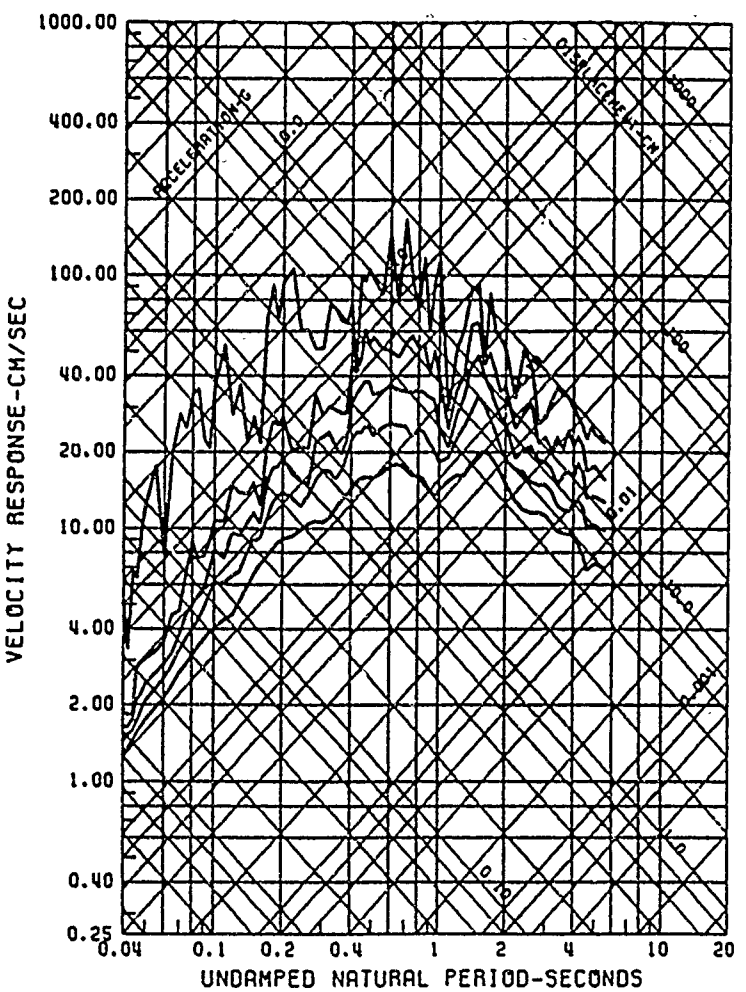
TALCA, EARTHQUAKE
MARCH 3, 1985

***CHL 30***

UNCORRECTED ACCELEROGRAM
VALPARAISO, U.F.S.M, D.I.C
070 DEGREES
EARTHQUAKE OF MARCH 3, 1985
PEAK VALUES (CM/SEC/SEC): 175.54




SECONDS



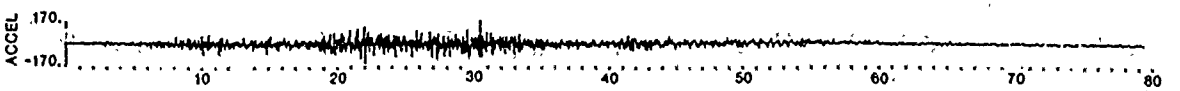

USGS OF 87-195

NATIONAL STRONG MOTION
DATA CENTER
2247:07UTC 70
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ: ANTIALIAS 0 - 0 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

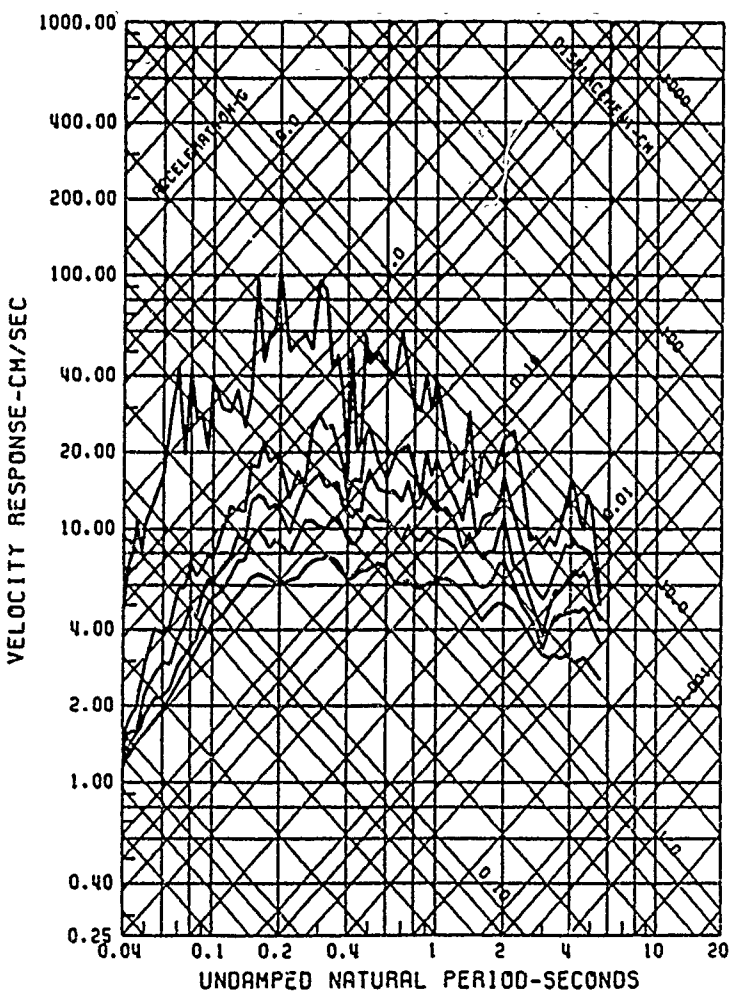
VALPARAISO, U.F.S.M,
D.I.C, 3/03/85

*CHL 31*

UNCORRECTED ACCELEROGRAM
VALPARAISO, U.F.S.M, D.I.C
160 DEGREES, UP
EARTHQUAKE OF MARCH 3, 1985
PEAK VALUES (CM/SEC/SEC): 161.22




SECONDS



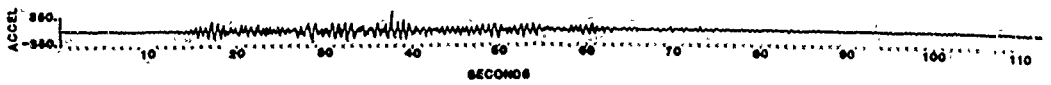

USGS OF 87-195

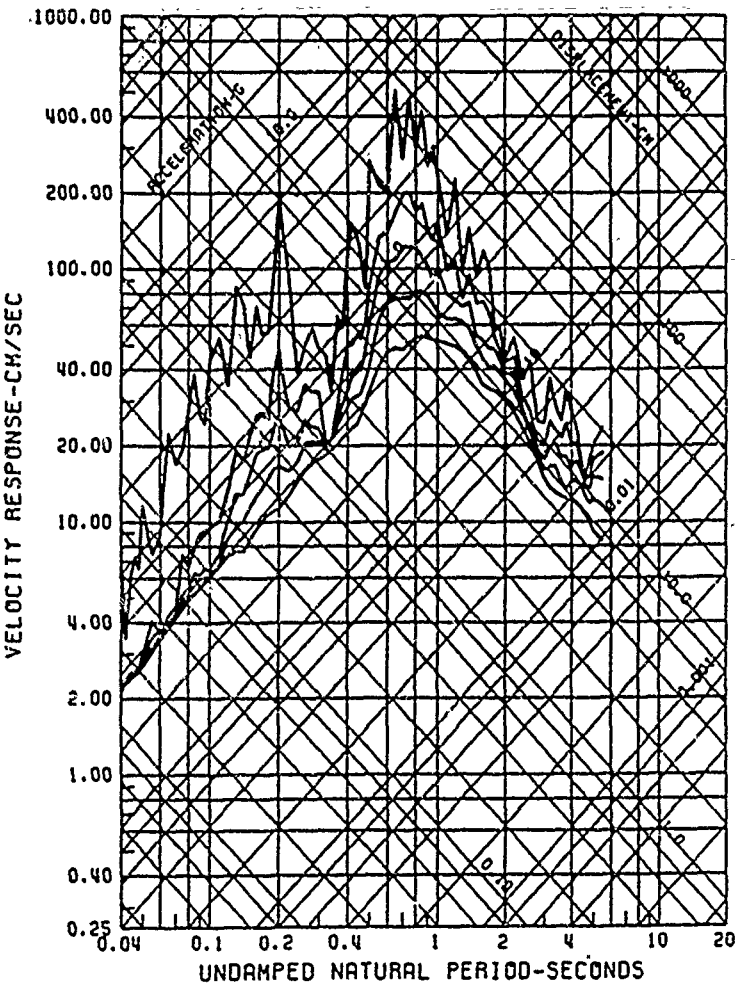
NATIONAL STRONG MOTION
DATA CENTER
2247:07UTC 70
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ; ANTIALIAS 0 - 0 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

VALPARAISO, U.F.S.M,
D.I.C, 3/03/85

*CHL 32*

UNCORRECTED ACCELEROGRAM
VINA DEL MAR, D.I.C
200 DEGREES
EARTHQUAKE OF MARCH 3, 1985
PEAK VALUES (CM/SEC/SEC): 349.51



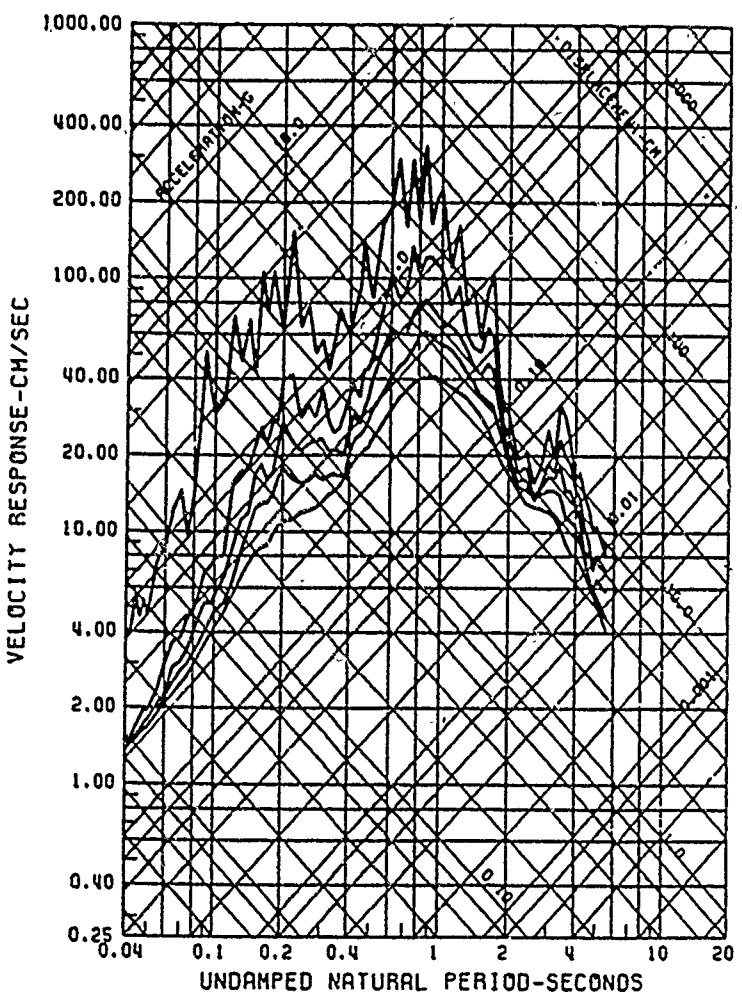

USGS OF 87-195

NATIONAL STRONG MOTION
DATA CENTER
07UTC 200
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ; ANTIALIAS 0 - 0 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

VINA DEL MAR, D.I.C.
3/03/85, 2247

*CHL 35*

UNCORRECTED ACCELEROGRAM
VINA DEL MAR, D.I.C
290 DEGREES,
EARTHQUAKE OF MARCH 3, 1985
PEAK VALUES (CM/SEC/SEC): -223.69

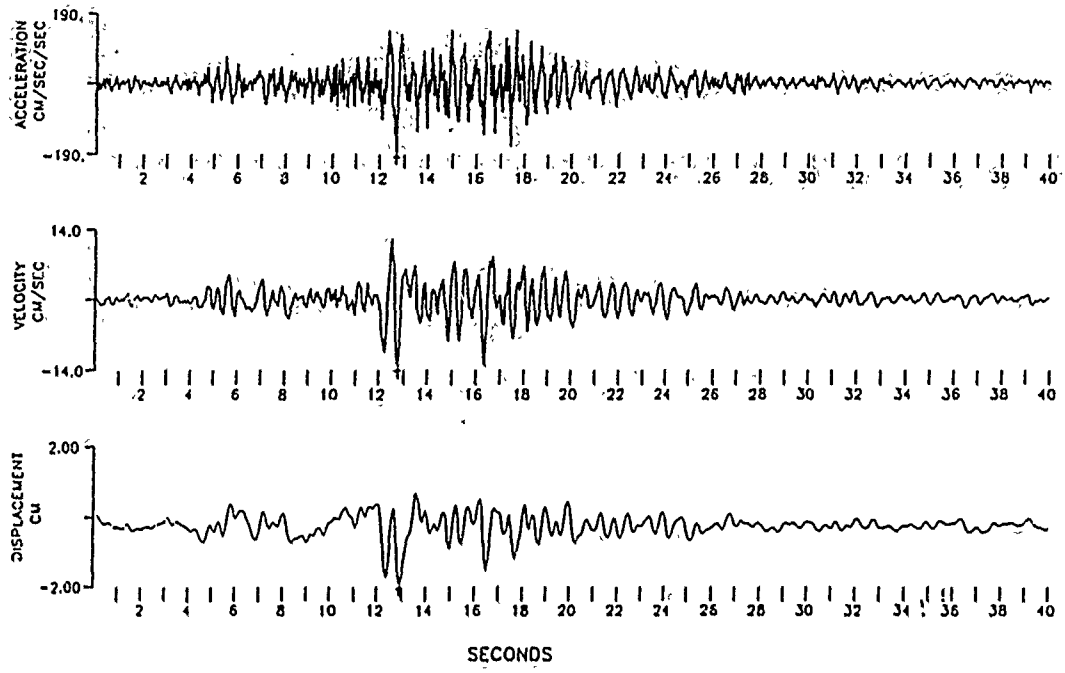

USGS OF 87-195

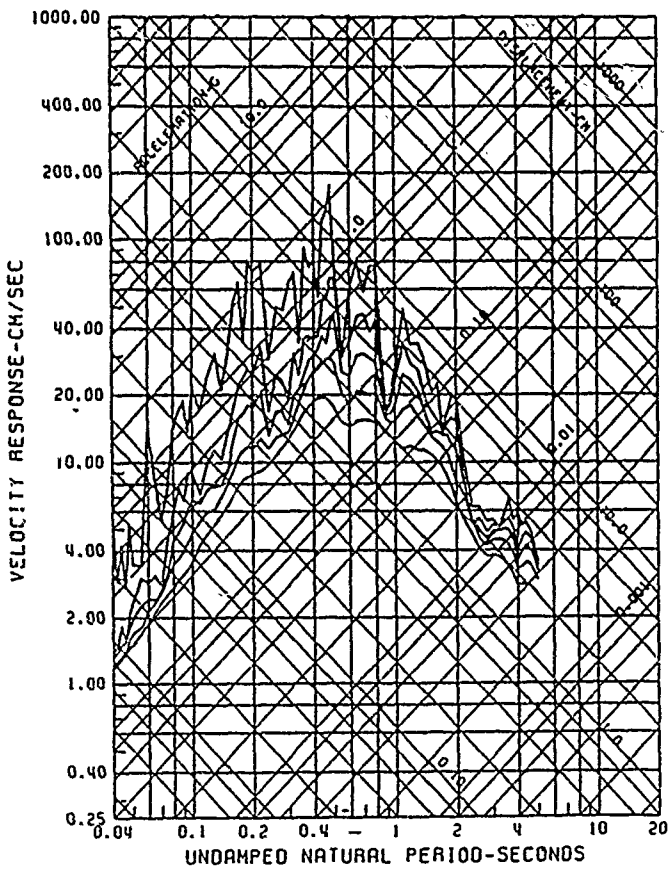
NATIONAL STRONG MOTION
DATA CENTER
07UTC 290
FILTERS: BUTTERWORTH, ORDER 4
0.167 HZ; ANTIALIAS 0 - 0 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

VINA DEL MAR, D.I.C.
3/03/85, 2247

*CHL 36*

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
LLOLLEO
100 DEGREES
EARTHQUAKE OF MARCH 3, 1985, FIRST AFTERSHOCK (1 HOUR)
BUTTERWORTH FILTER AT 0.20 HZ, ORDER 4
PEAK VALUES: ACCEL=-186.90 CM/SEC/SEC, VELOCITY=-13.39 CM/SEC, DISPL=-1.96 CM



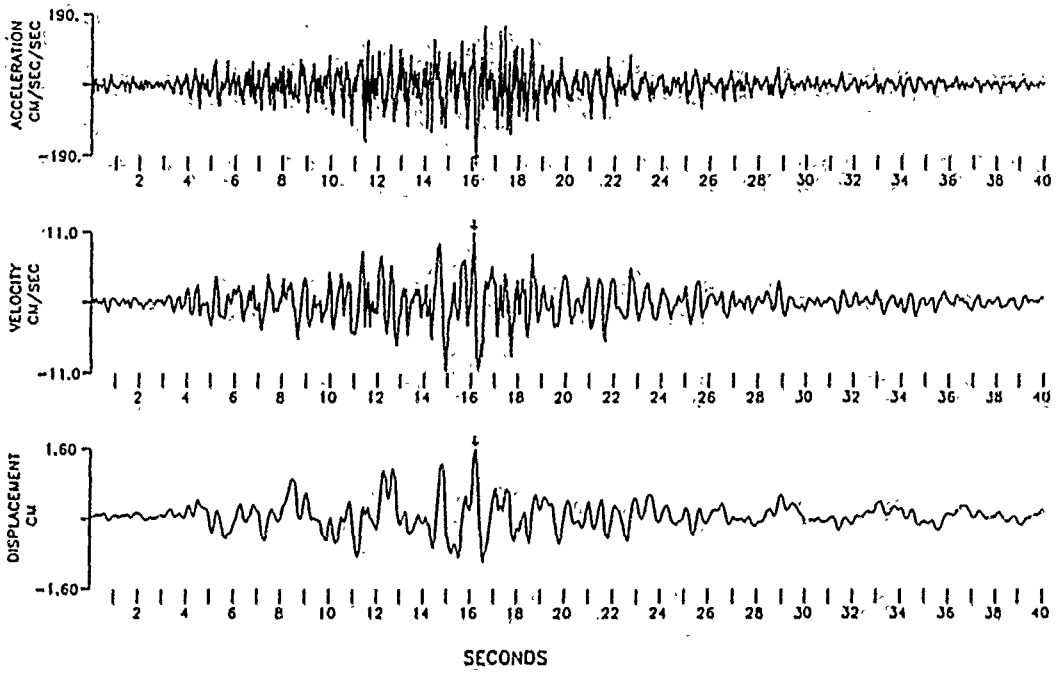

USGS OF 87-195

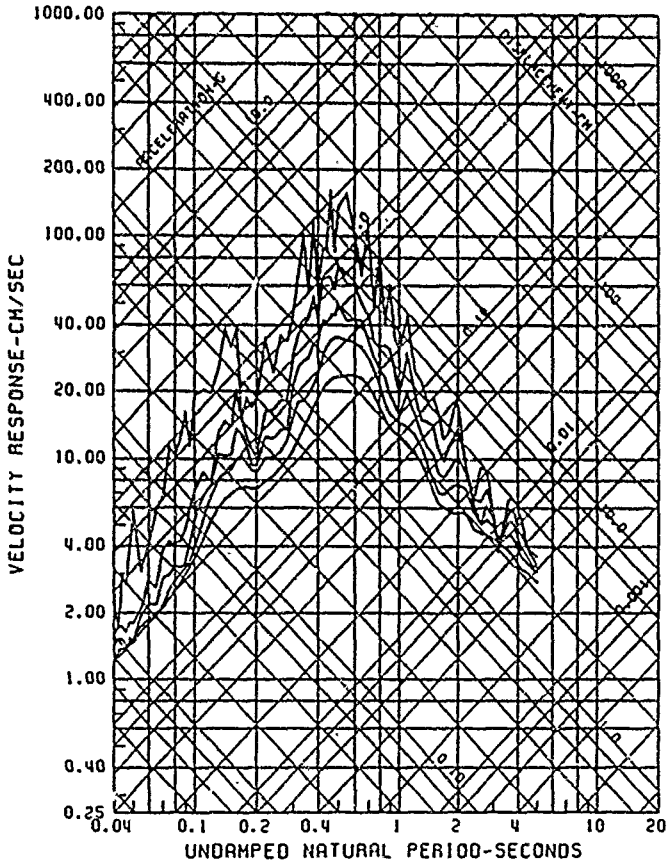
NATIONAL STRONG MOTION
DATA CENTER
FIRST AFTERSHOCK (1 HOUR), 010
FILTERS: BUTTERWORTH, ORDER 4
0.200 HZ: ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

LLOLLEO, EARTHQUAKE
MARCH 3, 1985

***CHL 39***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
LLOLLEO
10 DEGREES
EARTHQUAKE OF MARCH 3, 1985, FIRST AFTERSHOCK (1 HOUR)
BUTTERWORTH FILTER AT 0.20 HZ, ORDER 4
PEAK VALUES: ACCEL=-182.38 CM/SEC/SEC, VELOCITY=10.88 CM/SEC, DISPL=1.59 CM



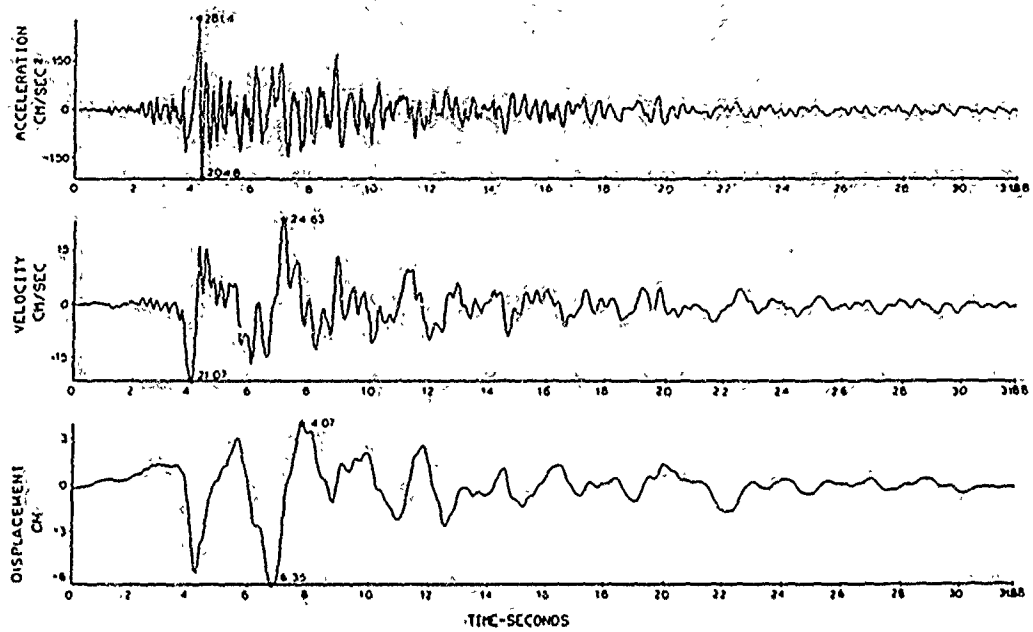




USGS OF 87-195

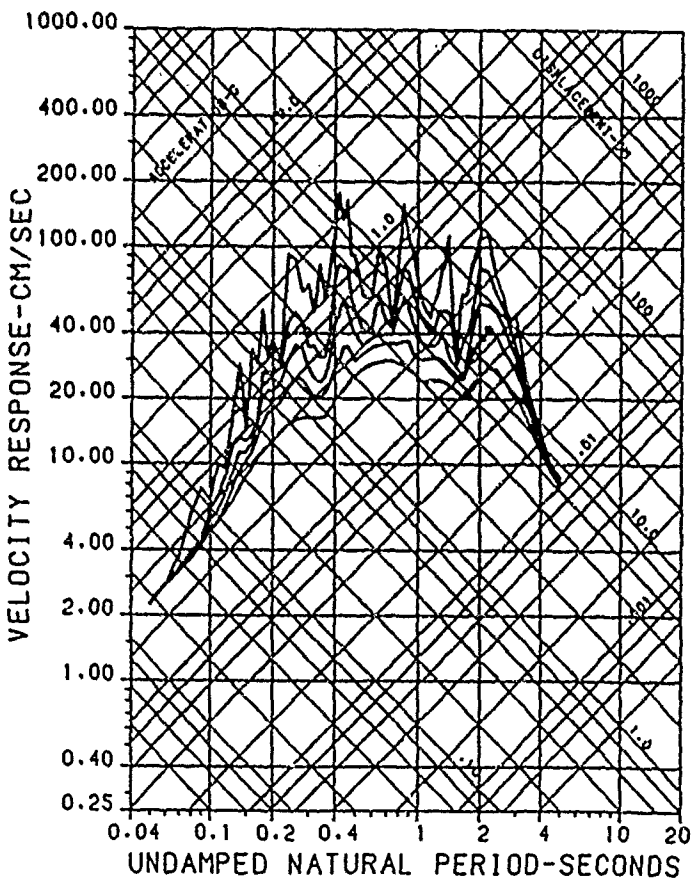
NATIONAL STRONG MOTION
DATA CENTER
FIRST AFTERSHOCK (1 HOUR), 10(
FILTERS: BUTTERWORTH, ORDER 4
0.200 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0, 2, 5, 10, 20 PERCENT

LLOLLEO, EARTHQUAKE
MARCH 3, 1985

***CHL 40***




N 65 W



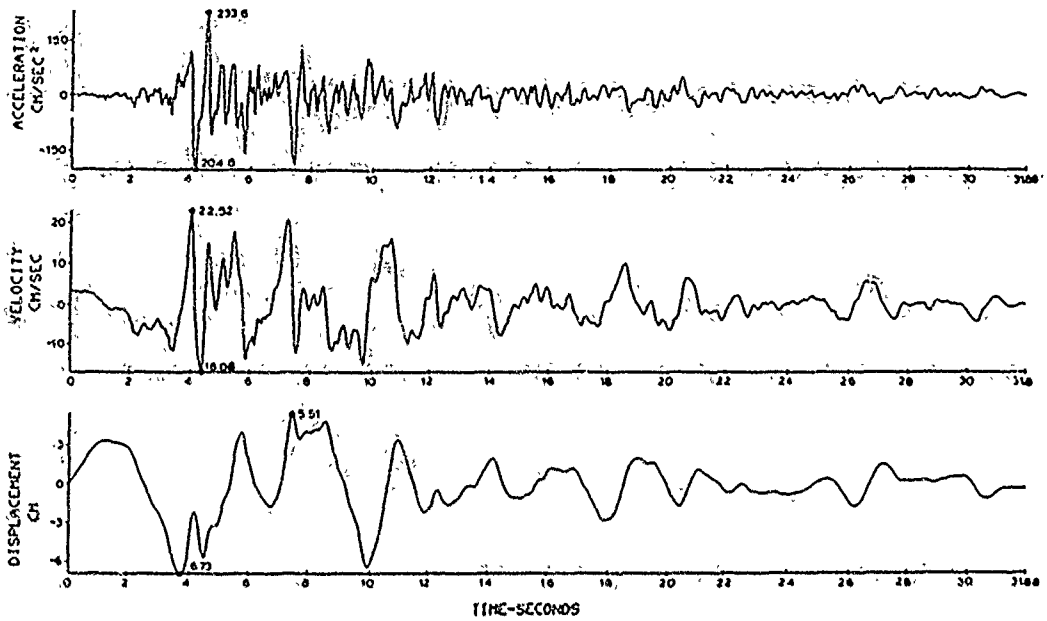

EERI Recon Rpt

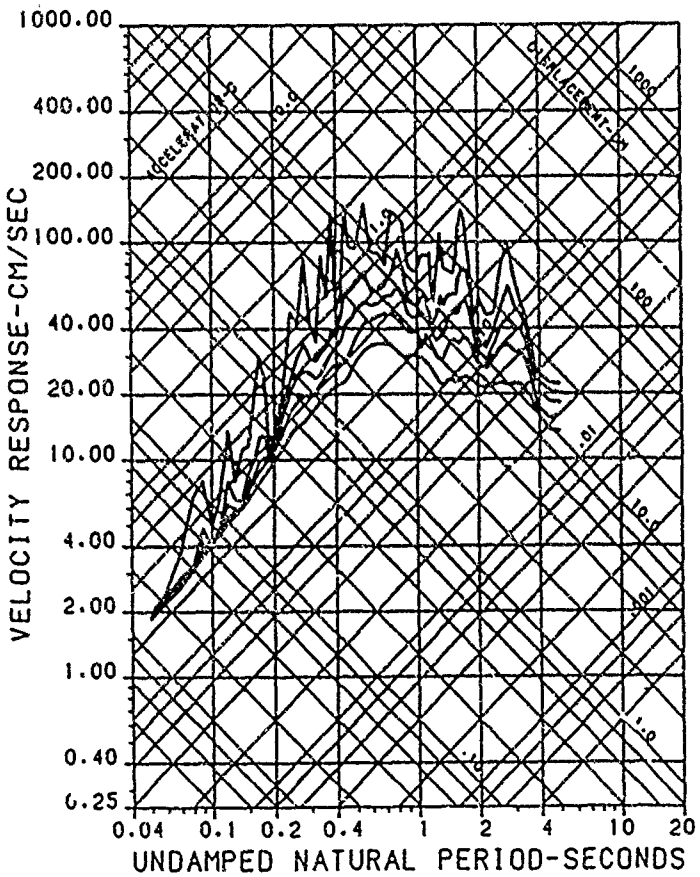
N 65 W

Corinth.
February 24, 1981

***GRE 7***

EERI REcon Rpt "Central Greece of Feb-Mar 1981 N35E



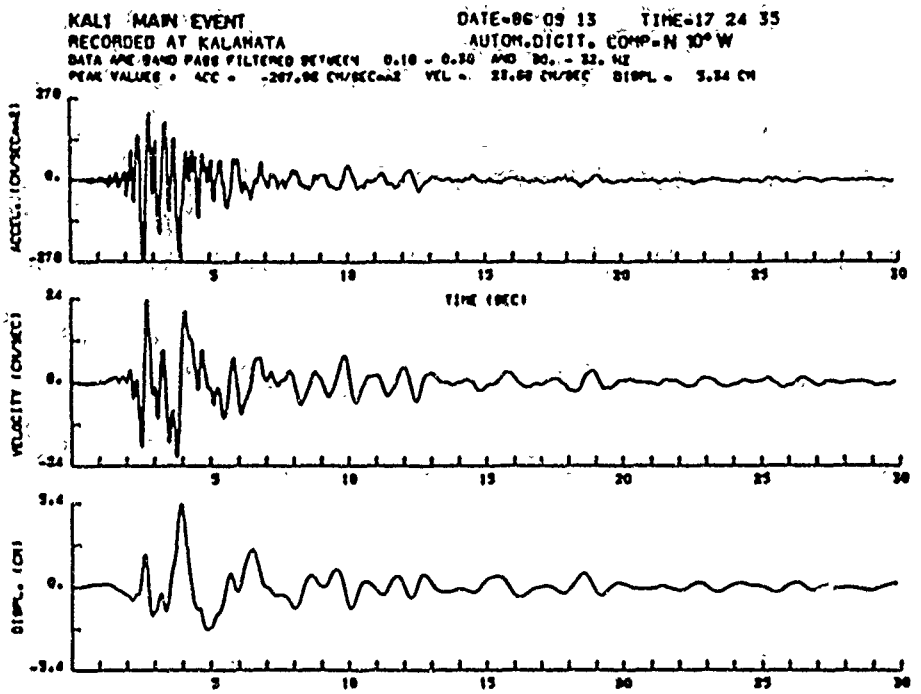



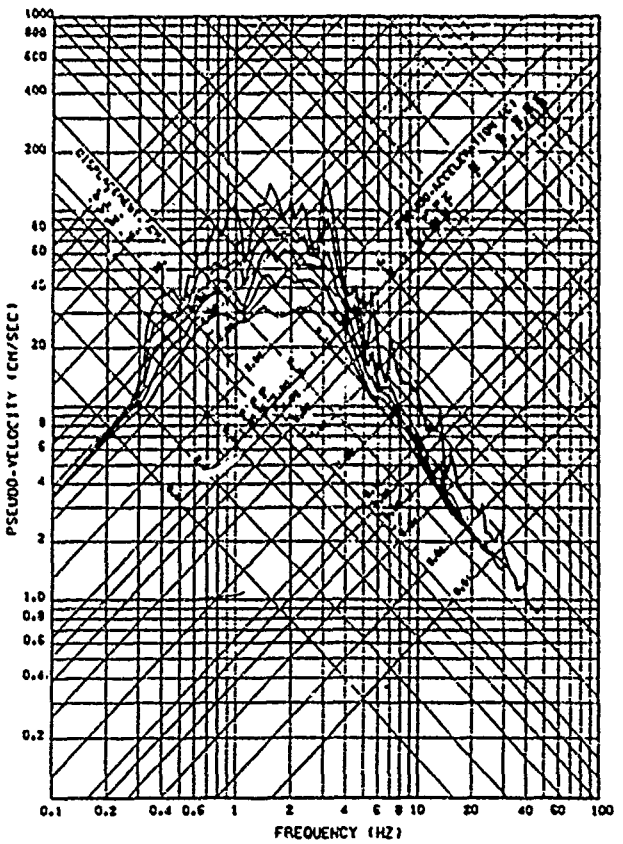

EERL RECON RPT

CENTRAL GREECE DOES
N35E
OF FEB-MAR 1981

February 24, 1981, Corinth

***GRE 8***




EERL EQK SPECTRA 3:2

KALI MAIN EVENT

AUTOM.DIGIT. COMP=N 10° W

CORRECTED PEAK ACCELERATION · -0.273 G

BAND PASS FILTERED BETWEEN

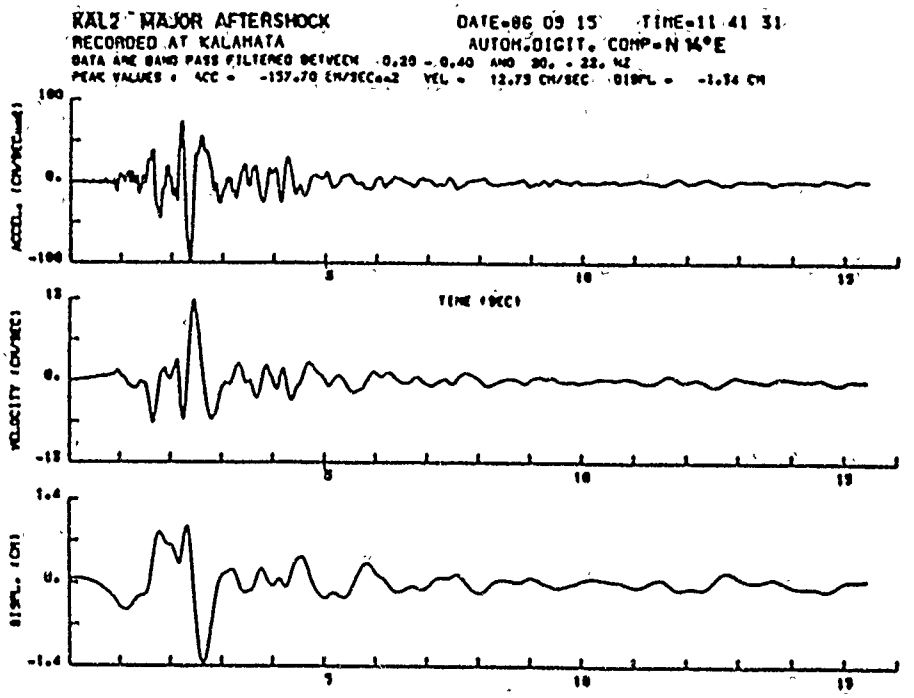
0.10 0.30 AND 30. - 32. HZ

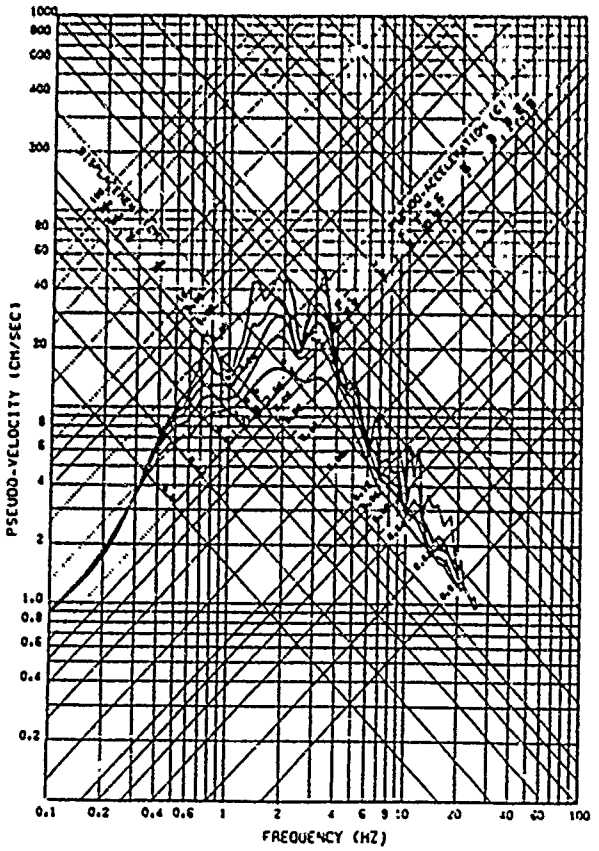
0% 2% 5% 10% 20% DAMPING

RECORDED AT KALAMATA

DATE=86 09 13 TIME=17 24 35

*GRE 9*



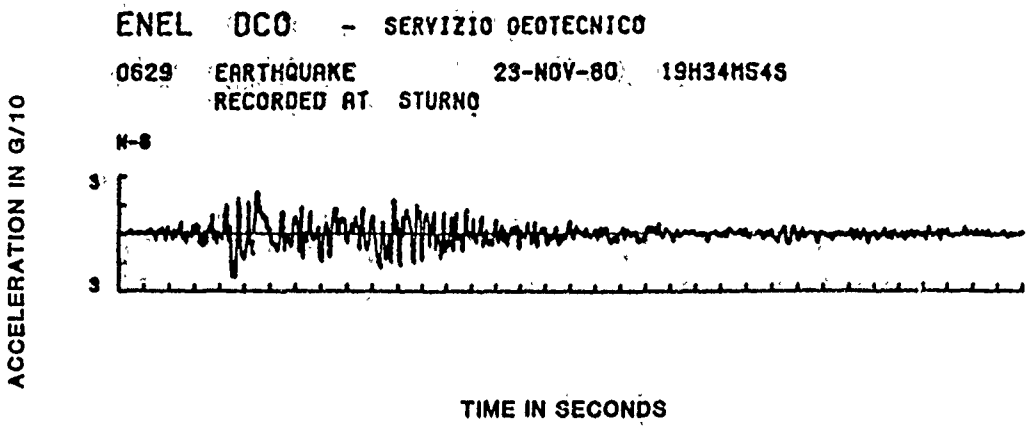



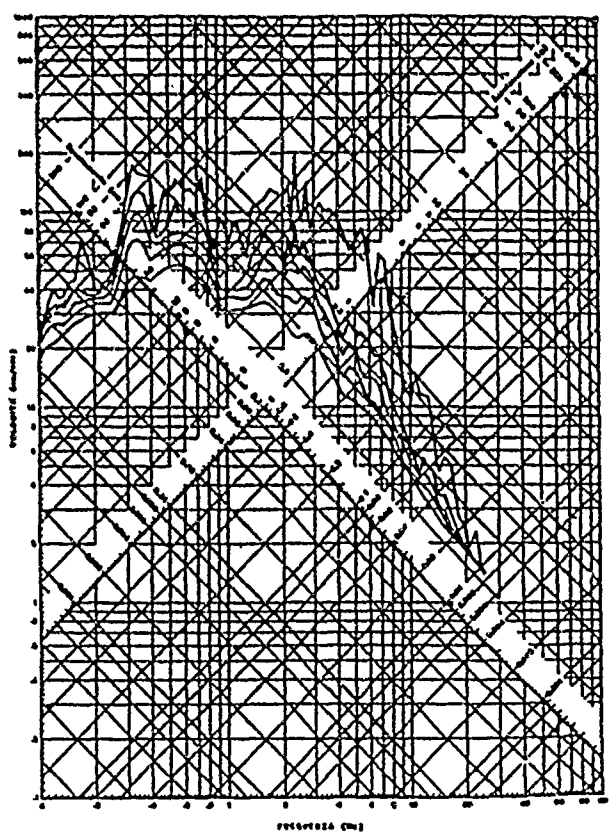

EERL EQK SPECTRA 3:2

KAL2 MAJOR AFTERSHOCK
AUTOM.DIGIT. COMP=N 14°E
CORRECTED PEAK ACCELERATION = -0.161 G
BAND PASS FILTERED BETWEEN
0.20 0.40 AND 20. - 22. HZ
0% 2% 5% 10% 20% DAMPING

RECORDED AT KALAMATA
DATE=86 09 15 TIME=11 41 31

***GRE 14***



BERARDI ET AL 1981

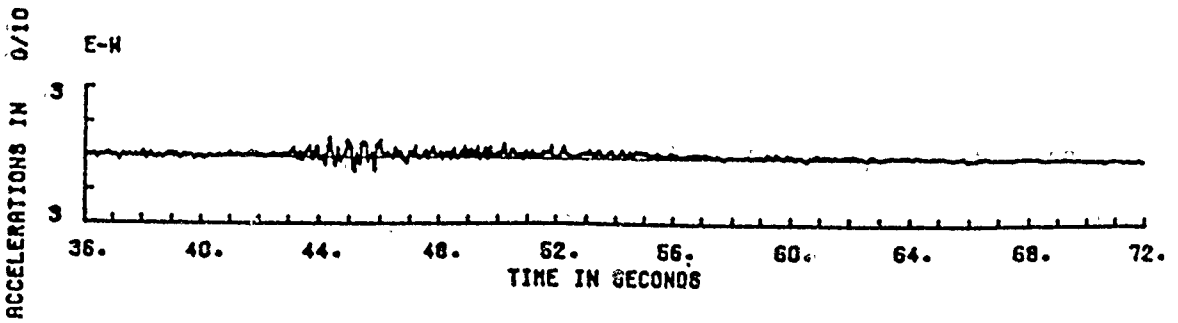
ENEL DCO-SERVIZIO GEOTECNICO
DAMPING VALUES
19H34M54S
COMP. NS
0629 EARTHQUAKE

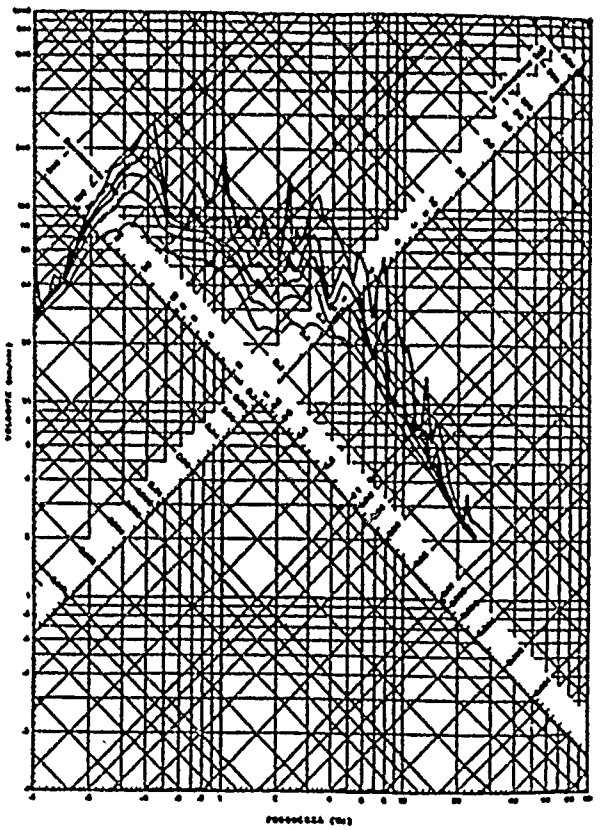
RECORDED AT STURNO
23-NOV-80

*ITA 20*

ENEL DCO - SERVIZIO GEOTECNICO

0629 EARTHQUAKE 23-NOV-80 19H34M54S
RECORDED AT STURNO



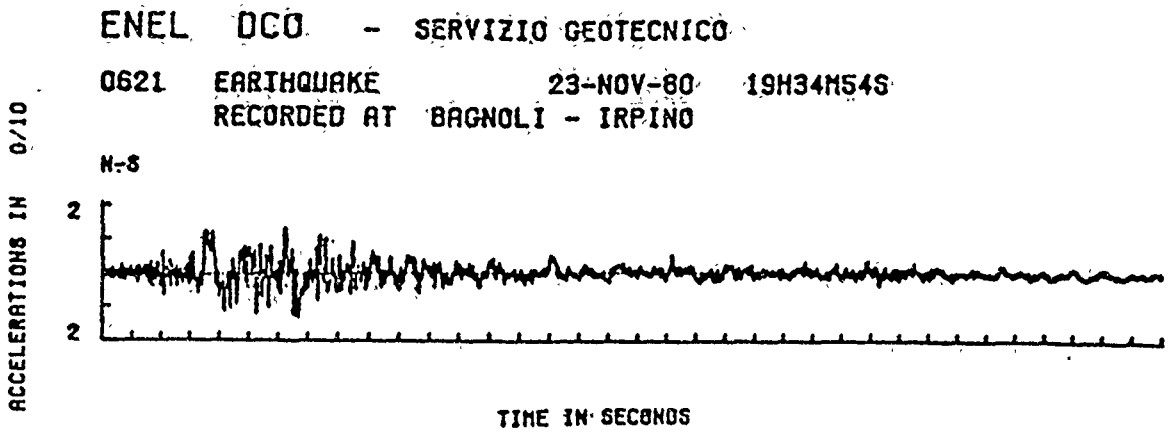



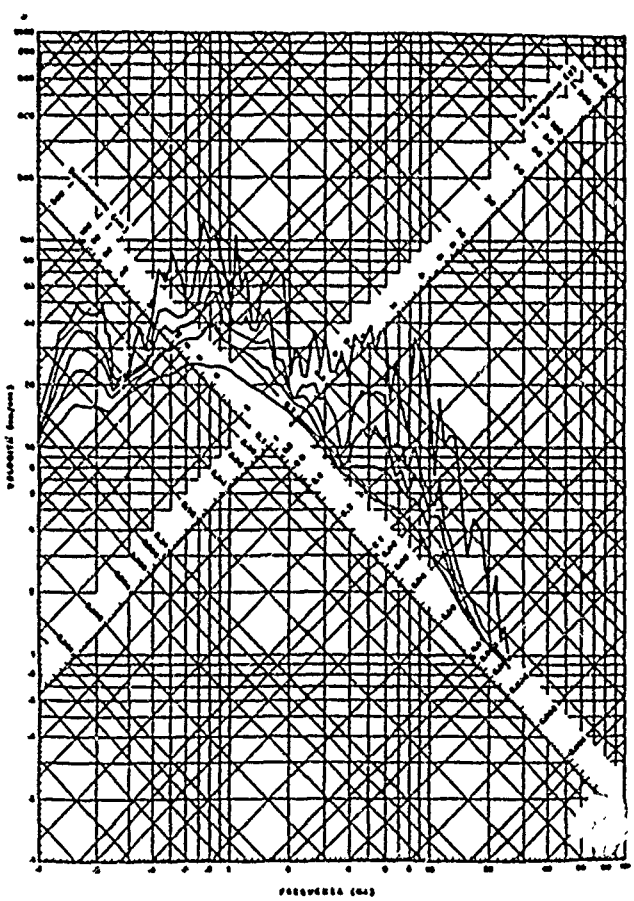
BERARDI ET AL 1981

ENEL DCO-SERVIZIO GEOTECNICO
DAMPING VALUES 0 PERCENT
19H34M54S 2 PERCENT
COMP. EW 5 PERCENT
10 PERCENT
20 PERCENT
0629 EARTHQUAKE

RECORDED AT STURNO
23-NOV-80

ITA 21



BERARDI ET AL 1981

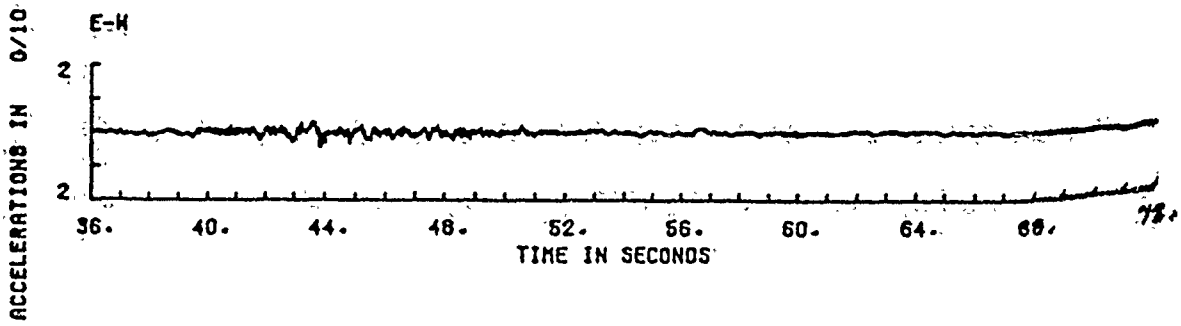
ENEL DCO-SERVIZIO GEOTECNICO
DAMPING VALUES 0 PERCENT
2 PERCENT
5 PERCENT
19H34M54S 10 PERCENT
COMP. NS 20 PERCENT
0621 EARTHQUAKE

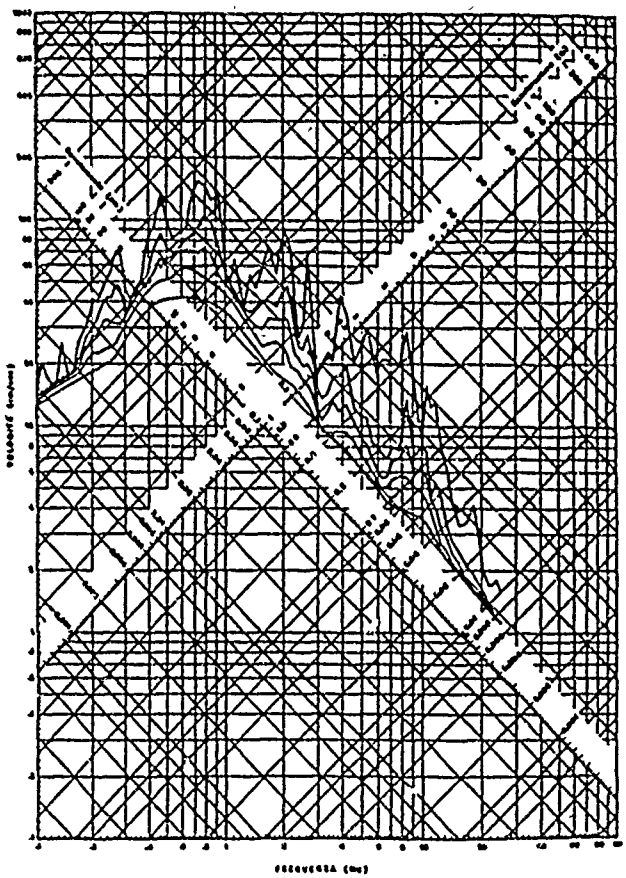
RECORDED AT BAGNOLI - IRPINO
23-NOV-80

*ITA 22*

ENEL DCO - SERVIZIO GEOTECNICO

0621 EARTHQUAKE 23-NOV-80 19H34M54S
RECORDED AT BAGNOLI - IRPINO



BERARDI ET AL 1981

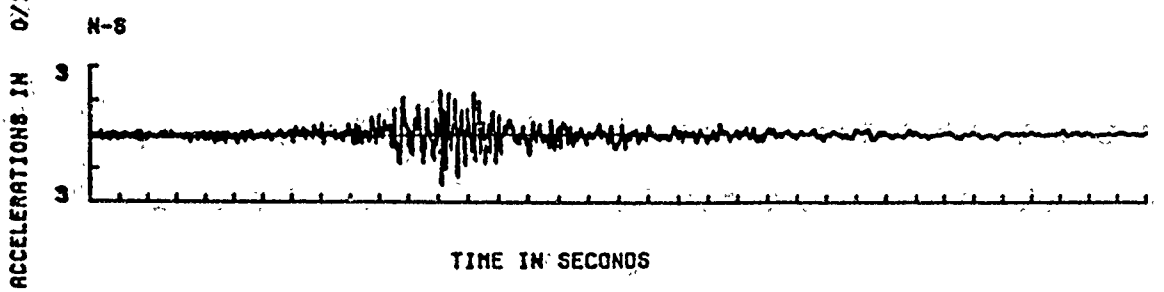
ENEL DCO-SERVIZIO GEOTECNICO
DAMPING VALUES 0 PERCENT
2 PERCENT
5 PERCENT
10 PERCENT
20 PERCENT
19H34M54S
COMP. E-W.
0621 EARTHQUAKE

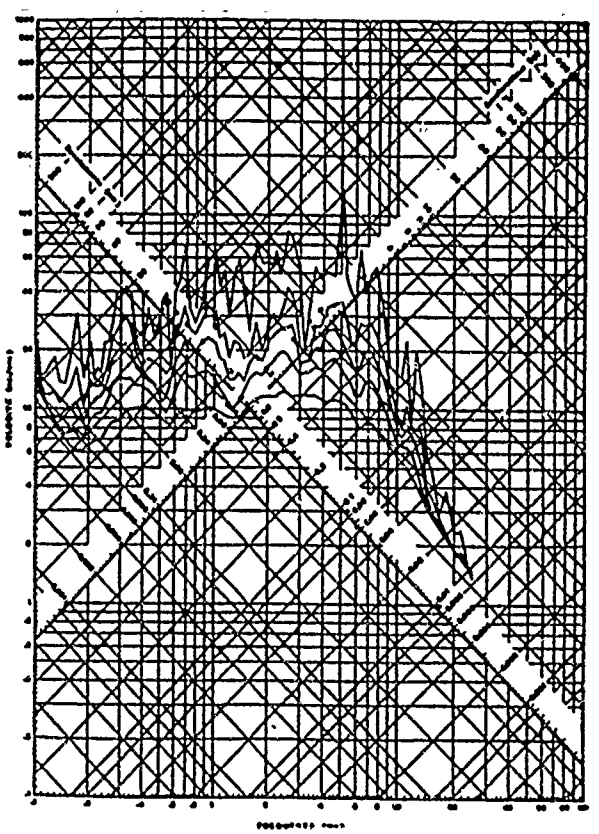
RECORDED AT BAGNOLI - IRPINO
23-NOV-80

*ITA 23*

ENEL DCO - SERVIZIO GEOTECNICO

0624 EARTHQUAKE 23-NOV-80 19H34M54S
RECORDED AT BRIENZA



BERARDI ET AL 1981

ENEL DCO-SERVIZIO GEOTECNICO

DAMPING VALUES 0 PERCENT
2 PERCENT
5 PERCENT
10 PERCENT
20 PERCENT
19H34M54S
COMP. NS

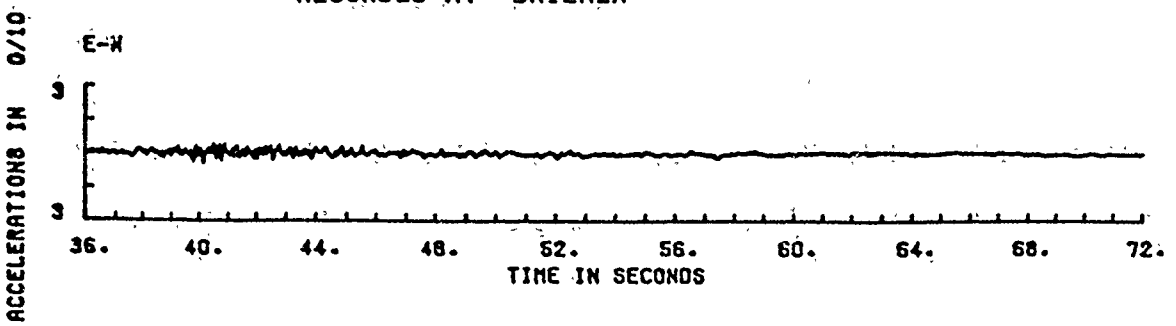
0624 EARTHQUAKE

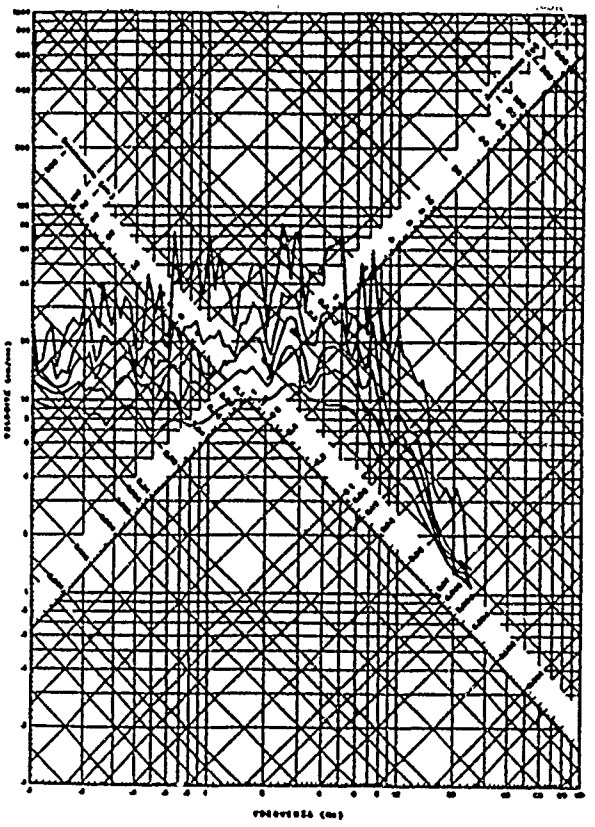
RECORDED AT BRIENZA
23-NOV-80

*ITA 24*

ENEL DCO - SERVIZIO GEOTECNICO

0624 EARTHQUAKE 23-NOV-80 19H34M54S
RECORDED AT BRIENZA



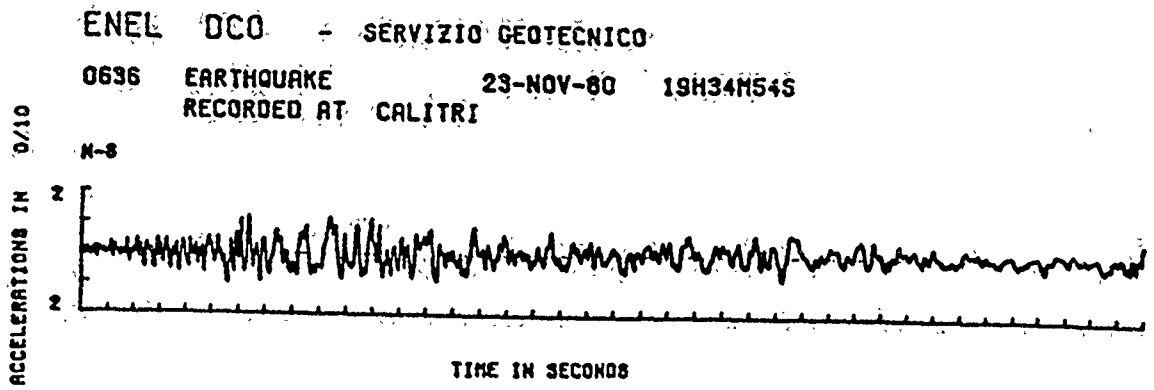
BERARDI ET AL 1984

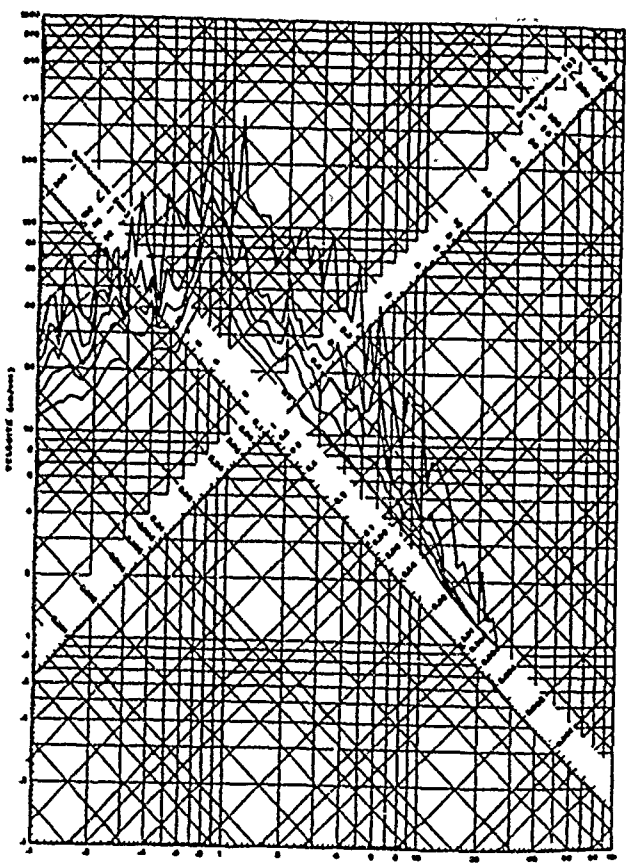
ENEL - DCO - SERVIZIO GEOTECNICO

DAMPING VALUES 0 PERCENT
2 PERCENT
5 PERCENT
10 PERCENT
20 PERCENT
19H34M54S
COMP. EW
0624 EARTHQUAKE

RECORDED AT BRIENZA
23-NOV-80

*ITA 25*



BERARDI ET AL 1981

ENEL DCO-SERVIZIO GEOTECNICO
DAMPING VALUES
19H34M54S
COMP. NS
0636 EARTHQUAKE

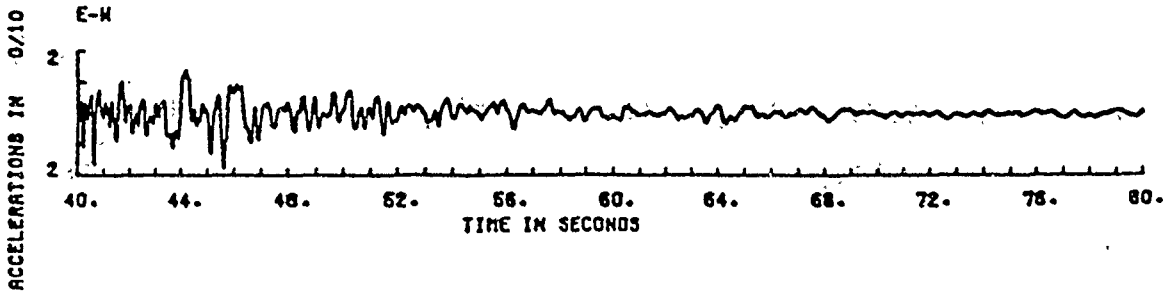
0 PERCENT
2 PERCENT
5 PERCENT
10 PERCENT
20 PERCENT

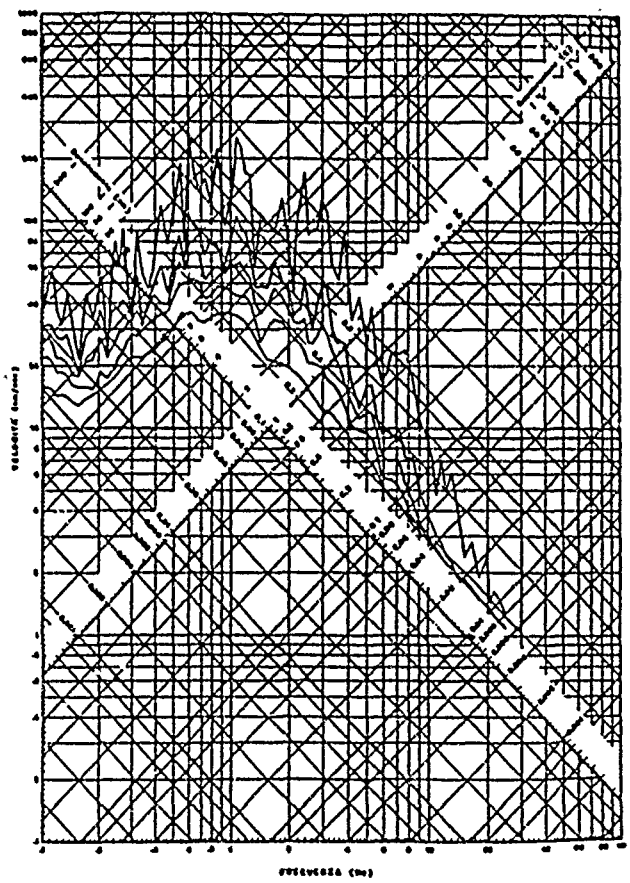
RECORDED AT CALITRI
23-NOV-80

*ITA 26*

ENEL DCO - SERVIZIO GEOTECNICO

0636 EARTHQUAKE 23-NOV-80 19H34M54S
RECORDED AT CALITRI



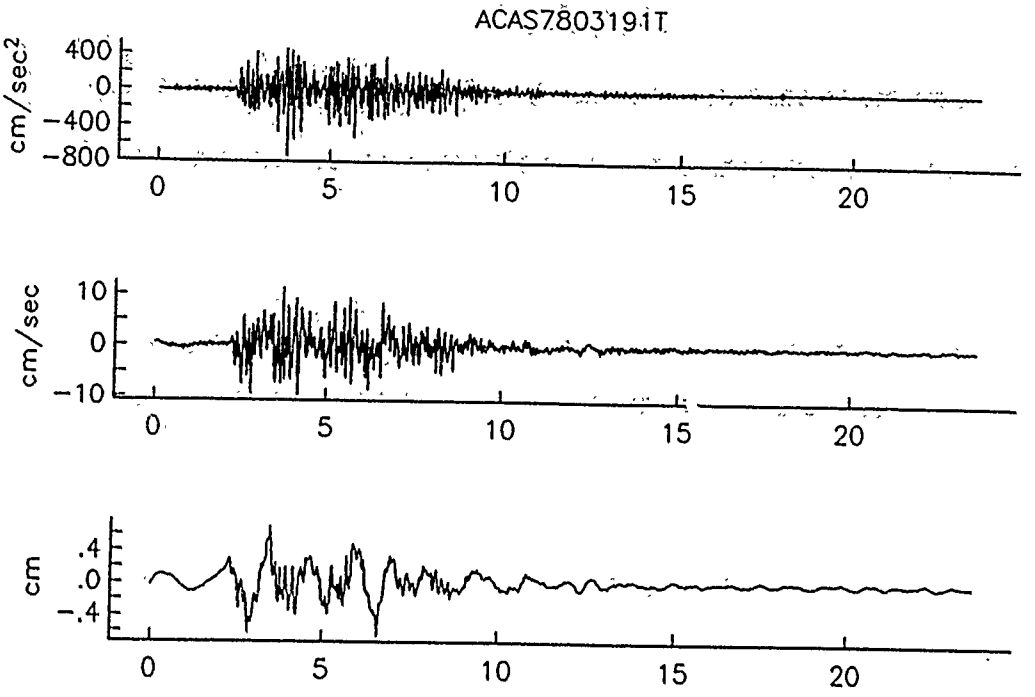



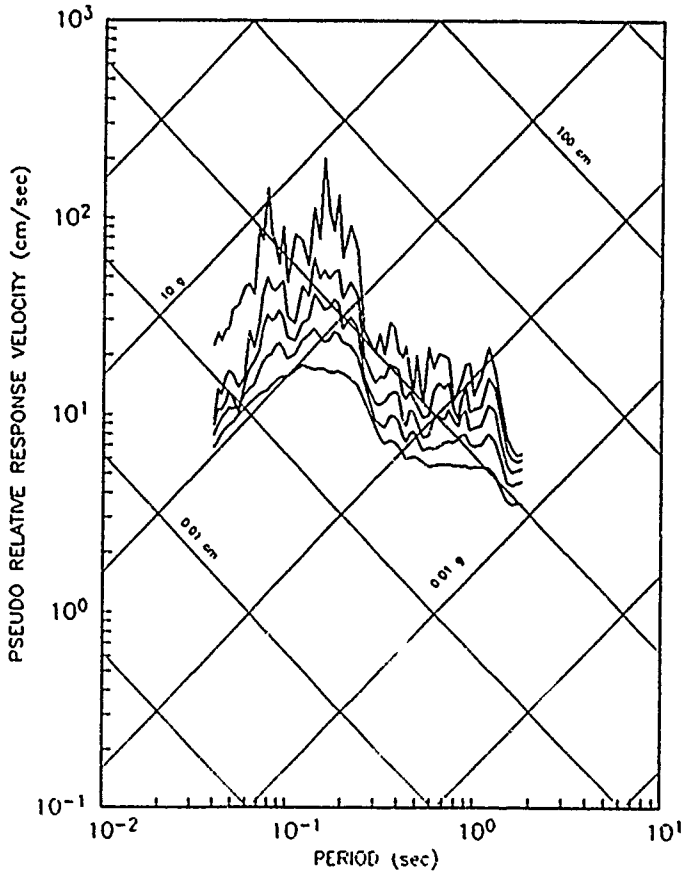
BERARDI ET AL 1981

ENEL DCO-SERVIZIO GEOTECNICO
DAMPING VALUES 0 PERCENT
2 PERCENT
5 PERCENT
10 PERCENT
20 PERCENT
19H34M54S
COMP. EW
0636 EARTHQUAKE

RECORDED AT CALITRI
23-NOV-80

*ITA 27*



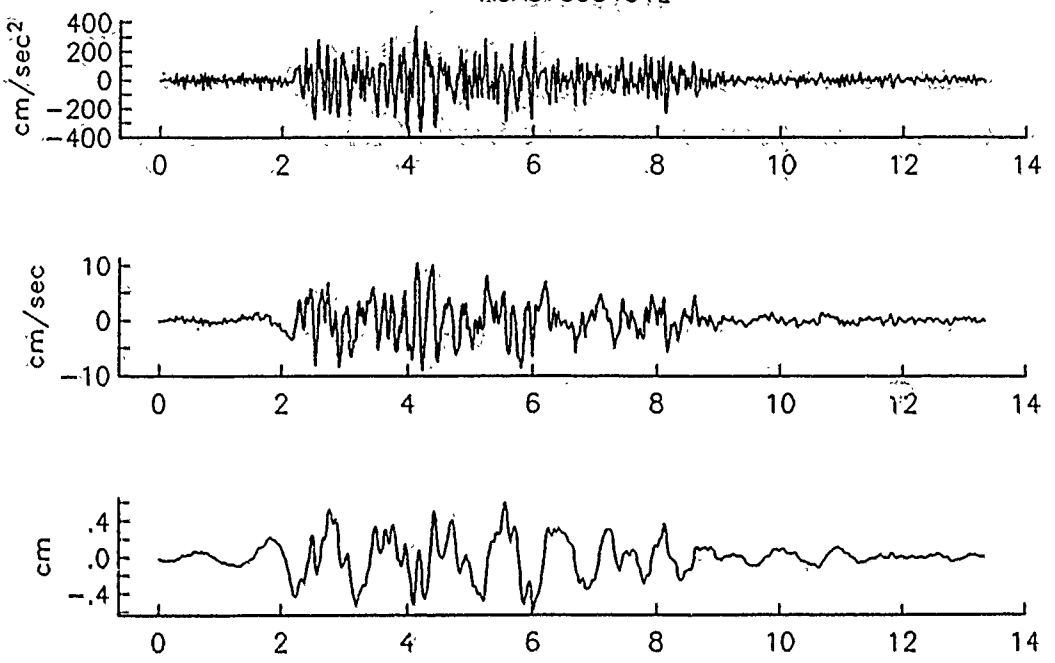

ANDERSON/VETTER '89

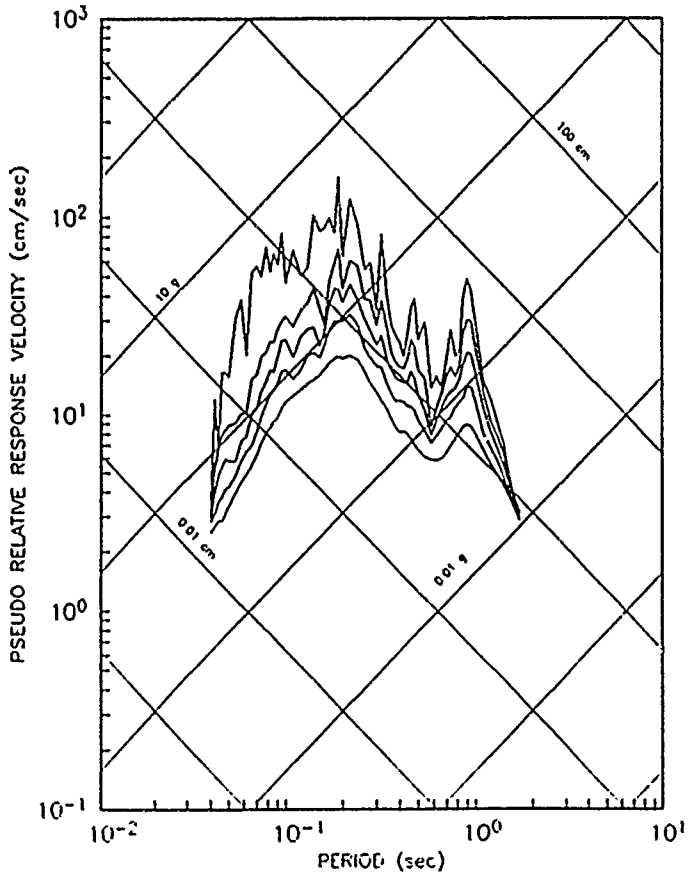
ACAS7803191T

***MEX 18***

Acapulco SCP Acc: 383; Vel 10.63; Disp 0.61 Dur 5% 11.6 Hard Site

ACAS7803191L



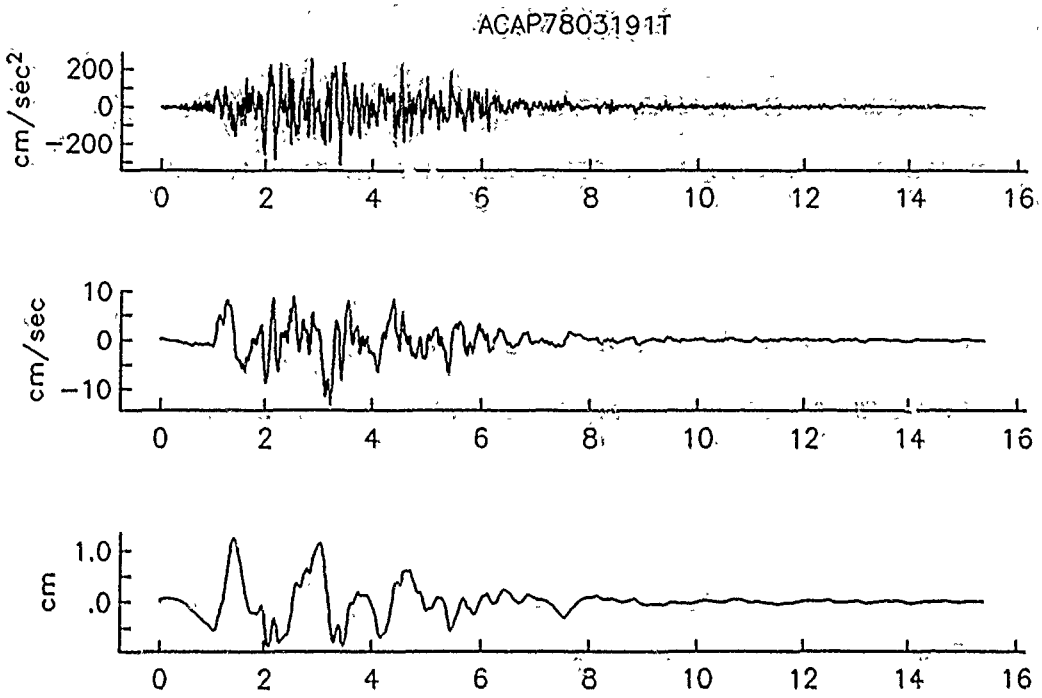



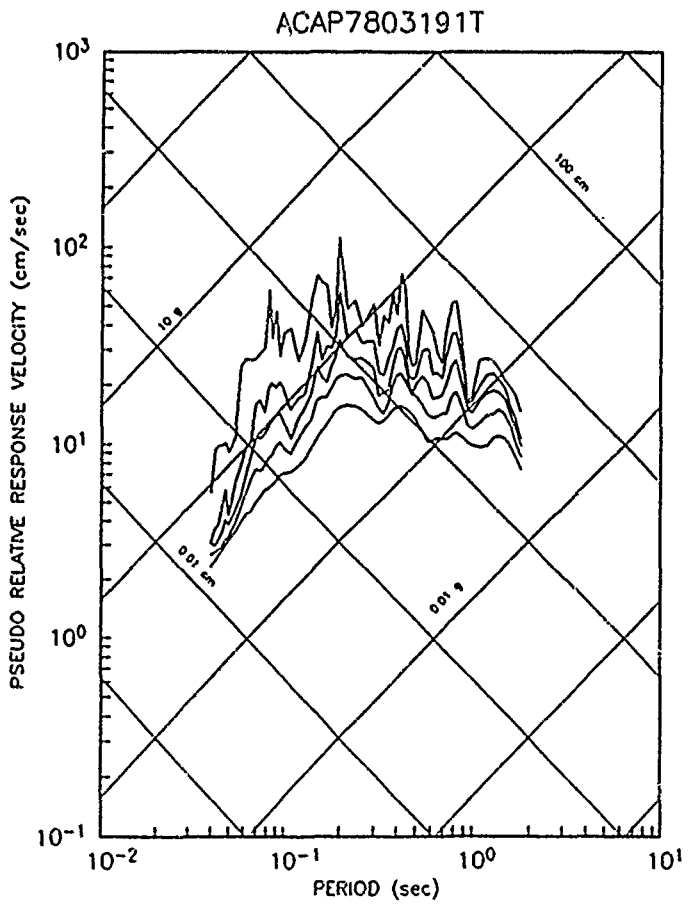

ANDERSON/VETTER '89

ACAS7803191L

***MEX 19***

MEX 20 Acapulco Pellandini 780319 Acc 315; Vel 13.22; Disp0.35; Dur 5% 6.8 Rock



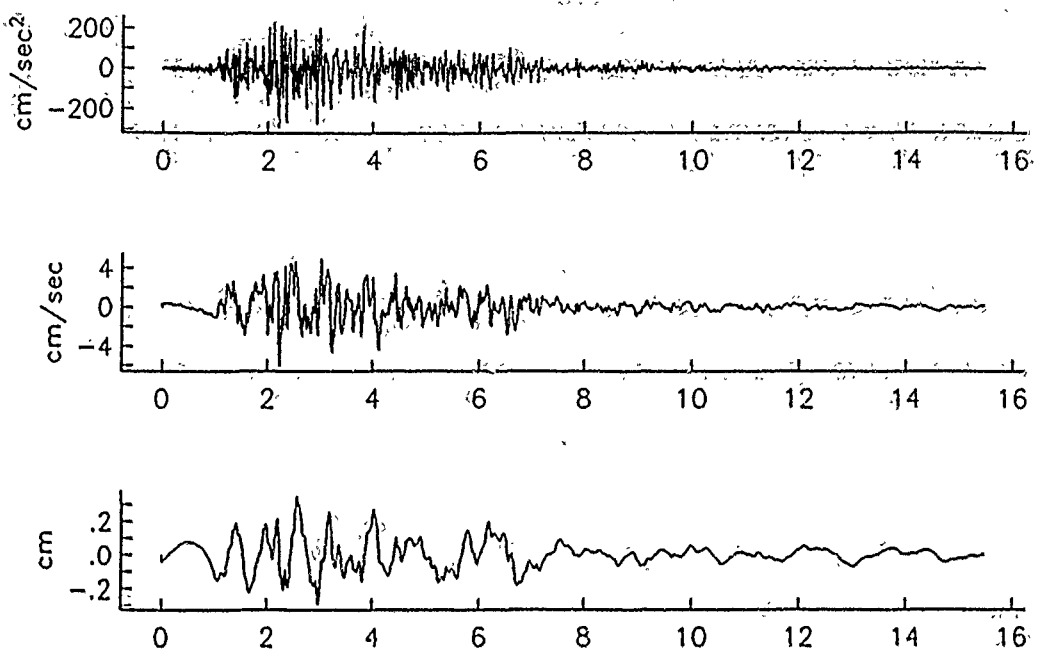

ANDERSON/VETTER '89

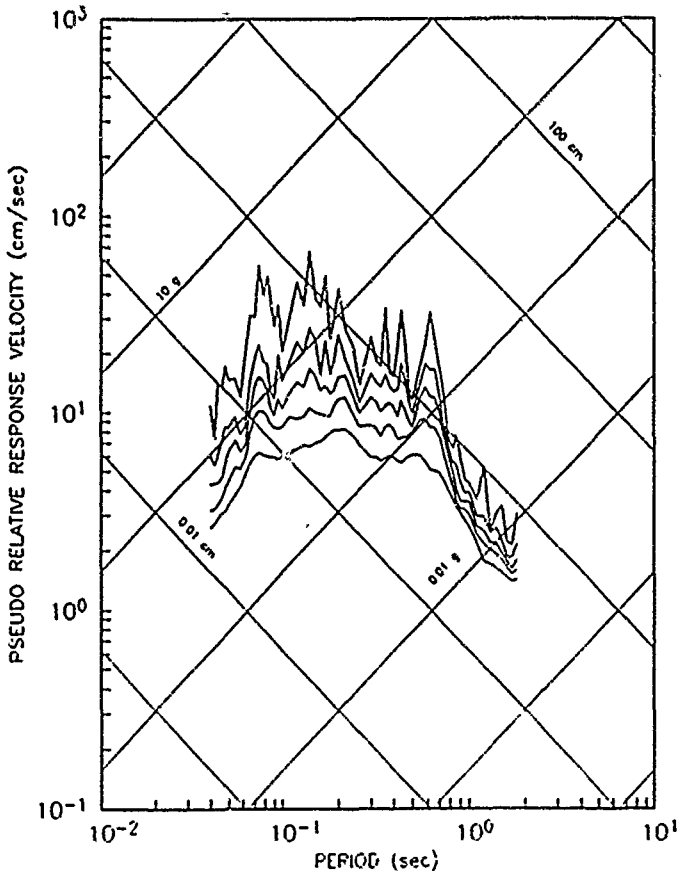
ACAP7803191T

***MEX 20***

MEX 21 780319 Acapulco Pellandini ACC 393; Vel 6.64; Disp 1.25; Dur 5% 6.7 Rock

ACAP7803191L



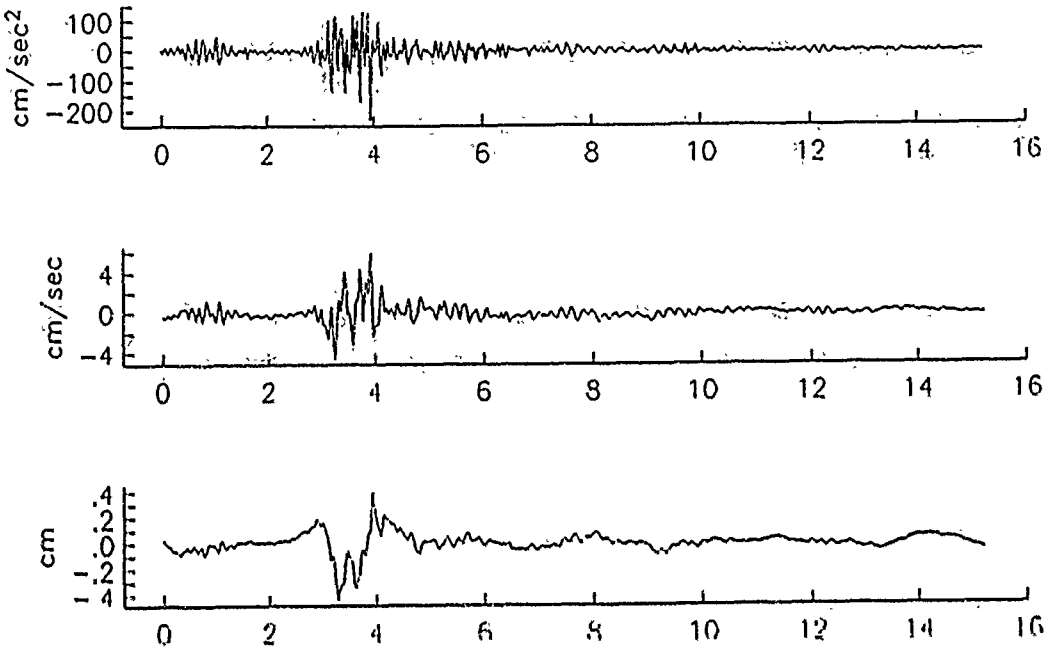



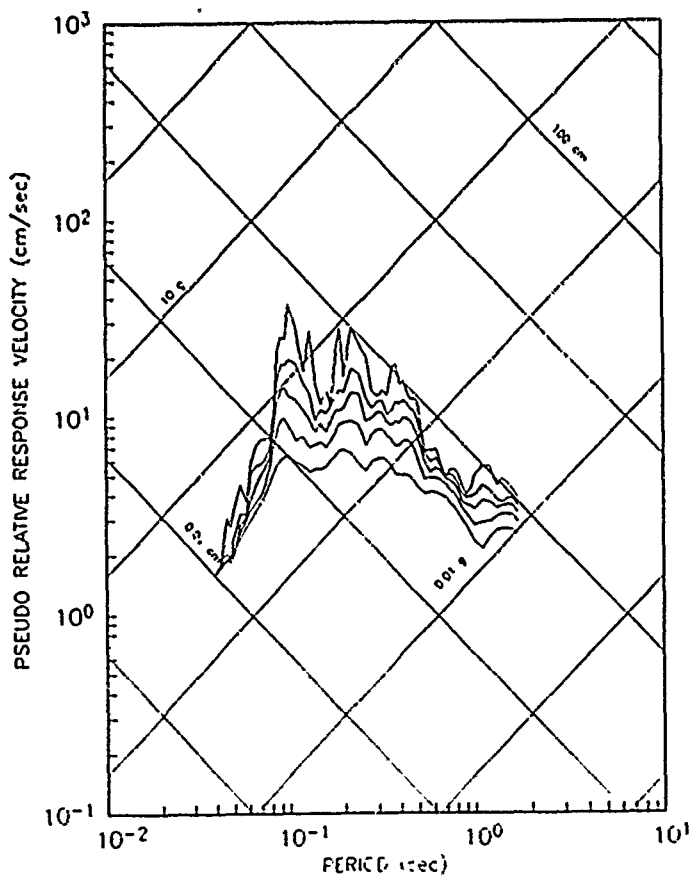

ANDERSON/VETTER '89

ACAP7803191L

***MEX 21***

MEX 35 810917 San Marcos/Guerrero
Acc 233; Vel 6.15; Disp 0.43; Dur 5% 4.2 Soft Site
SMAR8109171T



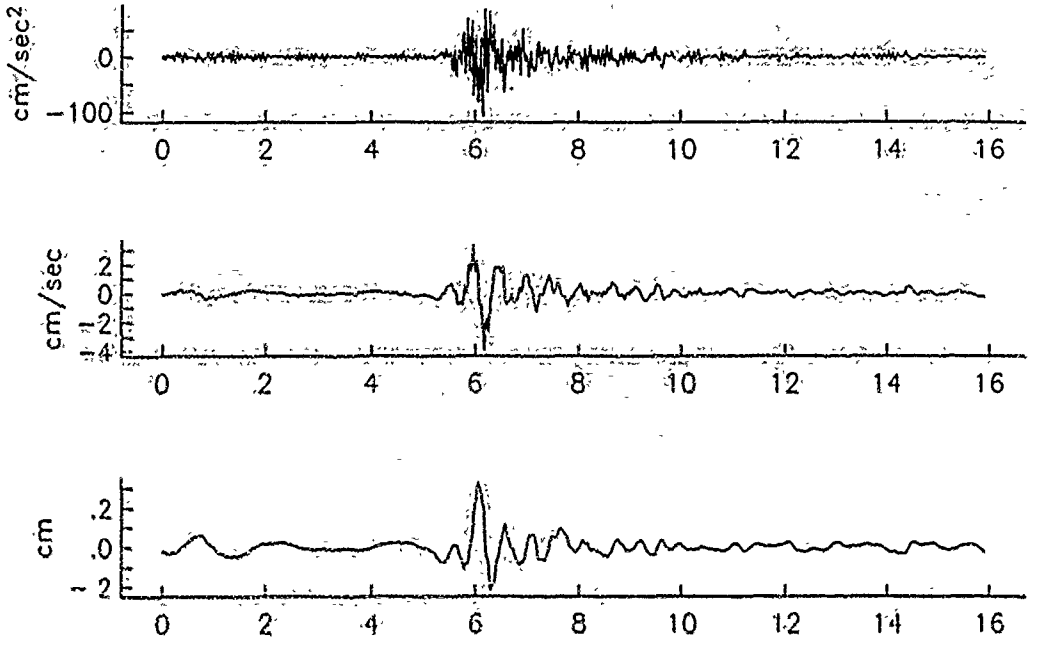

ANDERSON/VETTER '89

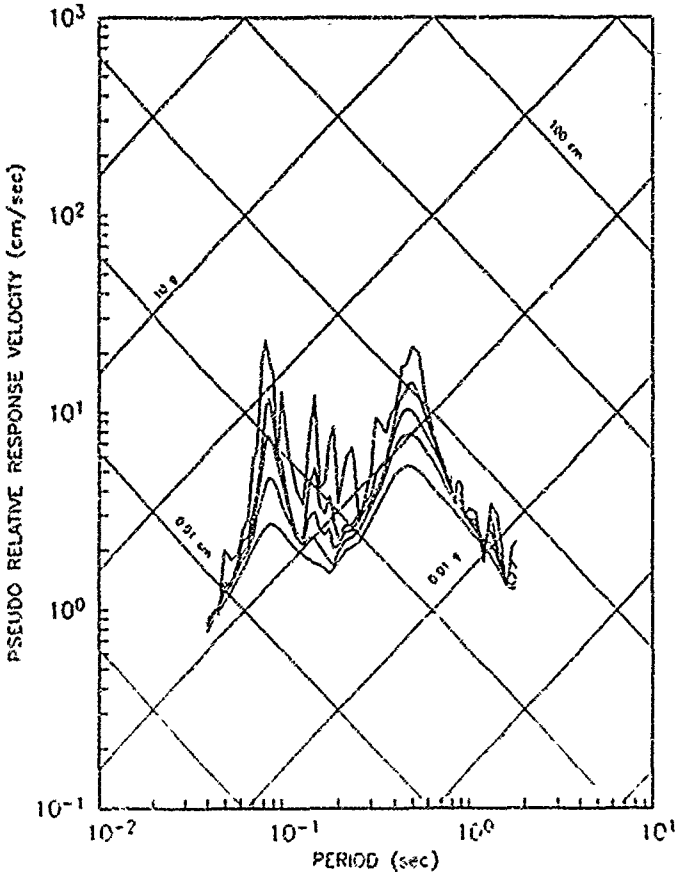
SMAR8109171T

***MEX 35***

Acapulco Pellandini Acc 109; Vel 3.99; Disp 0.33; Dur 5% 0.9 Rock

ACAP8407141T



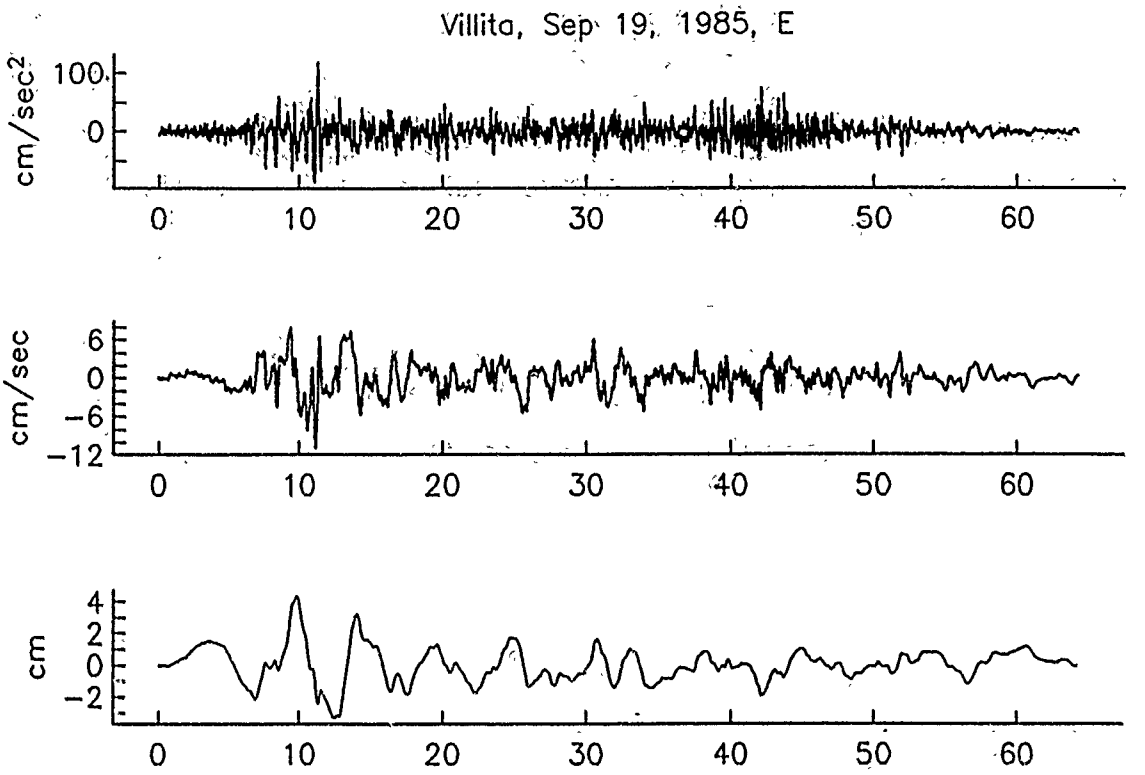



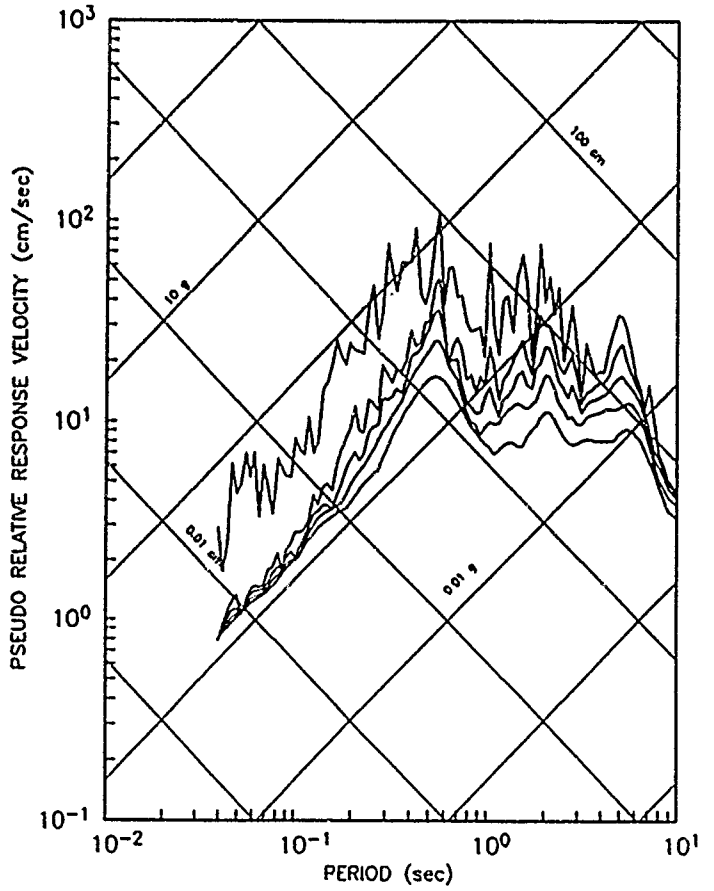

ANDERSON ET AL '89

ACAP8407141T

MEX 44

MEX 47 850919 La Villita Acc 125; Vel 16.1; Disp 7.8; Dur 37.5 Rock

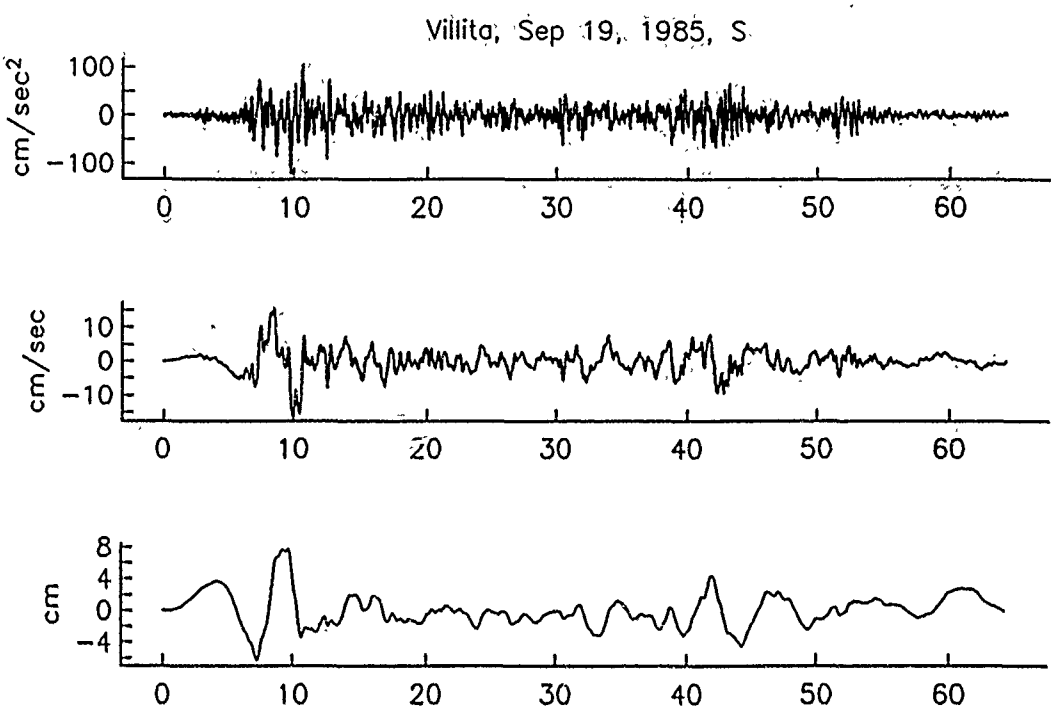


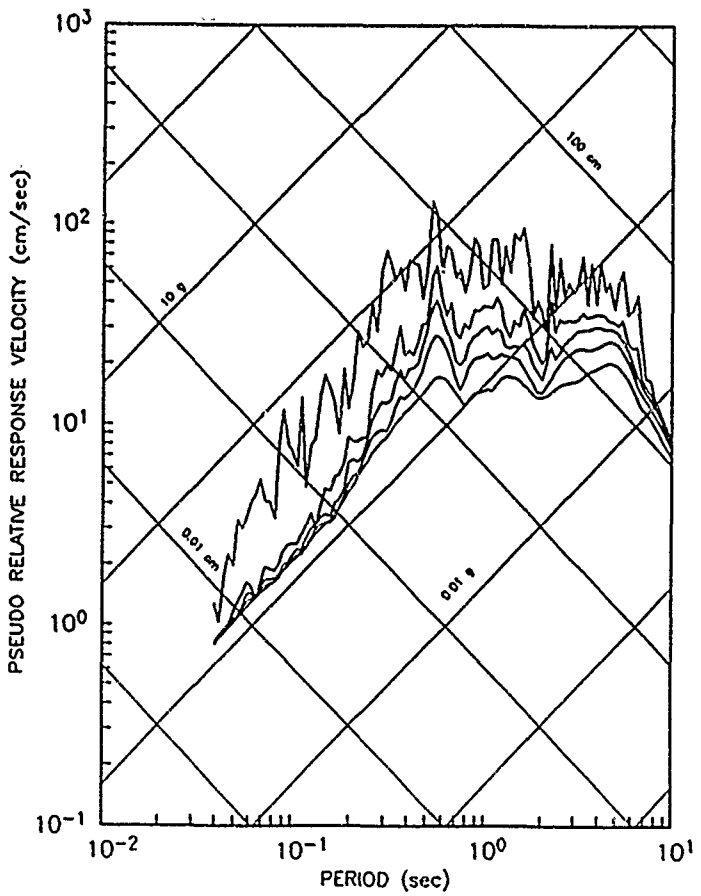




ANDERSON ET AL '89

Villita
Sep 19, 1985, E

***MEX 47***



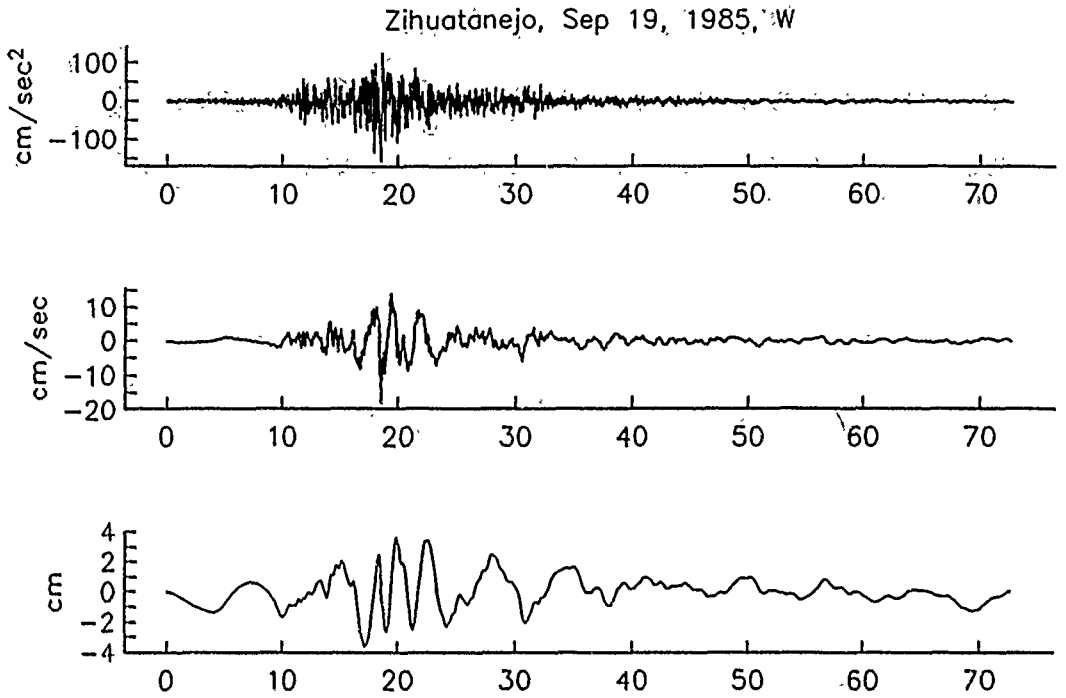



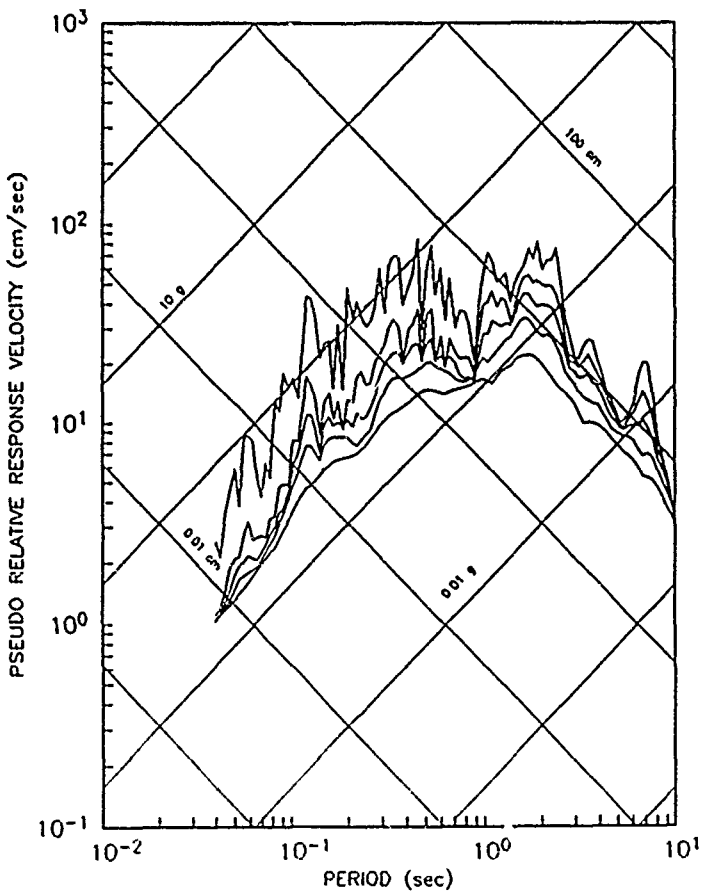

ANDERSON ET AL '89

Villita
Sep 19, 1985, S

***MEX 48***

MEX 51 850919 Zihuatanejo Accel 154; Vel 18.1; Disp 3.8; Dur 5% 20.0 Rock



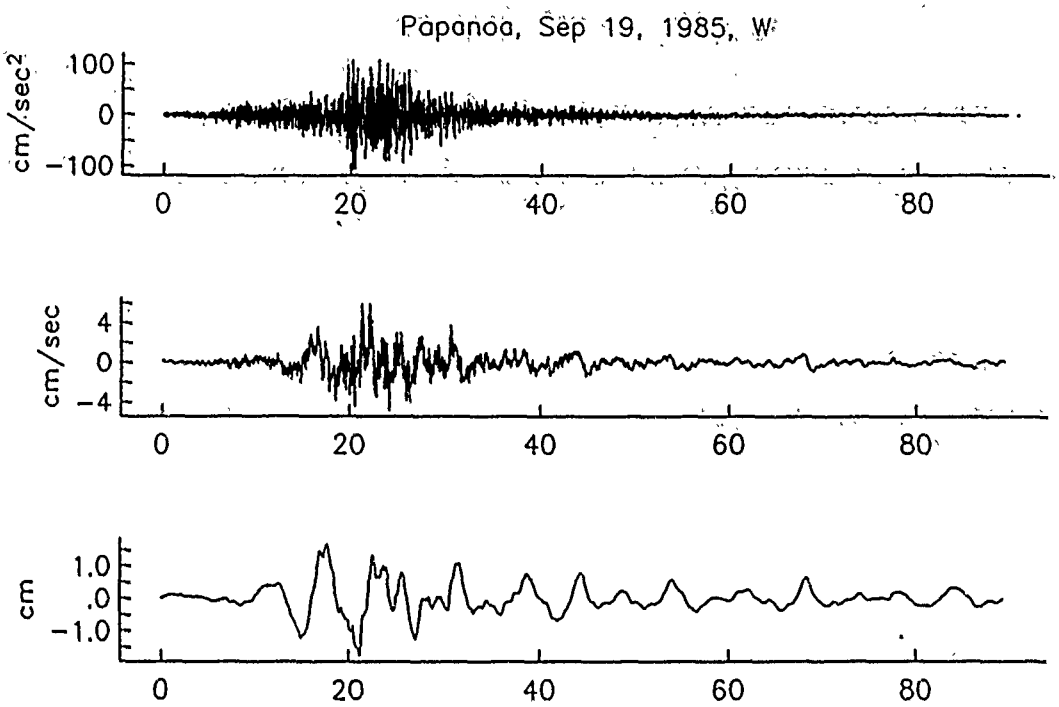



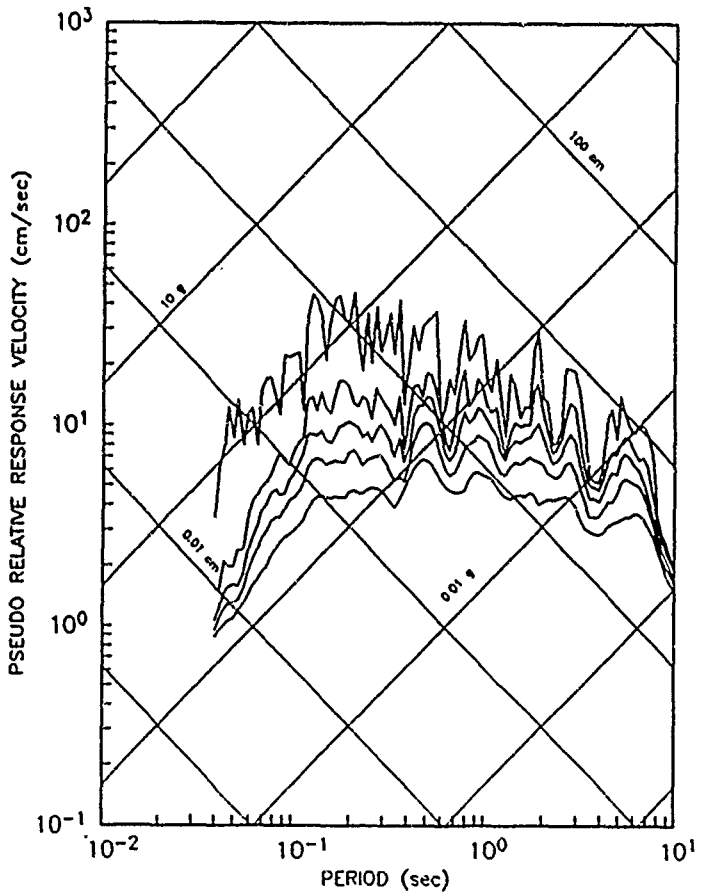

ANDERSON ET AL '89

Zihuatanejo
Sep 19, 1985, W

***MEX 51***

MEX 53 850919 Papanoa Accel 110; Vel 6.0; Disp 1.8; Dur 5% 9.5. Rock



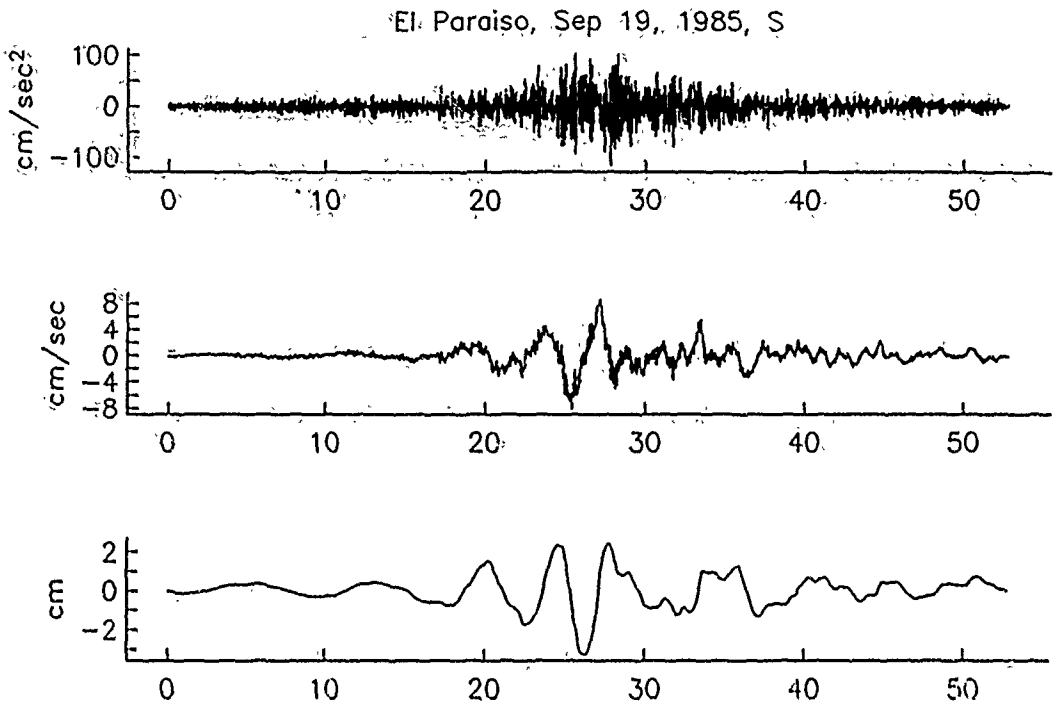



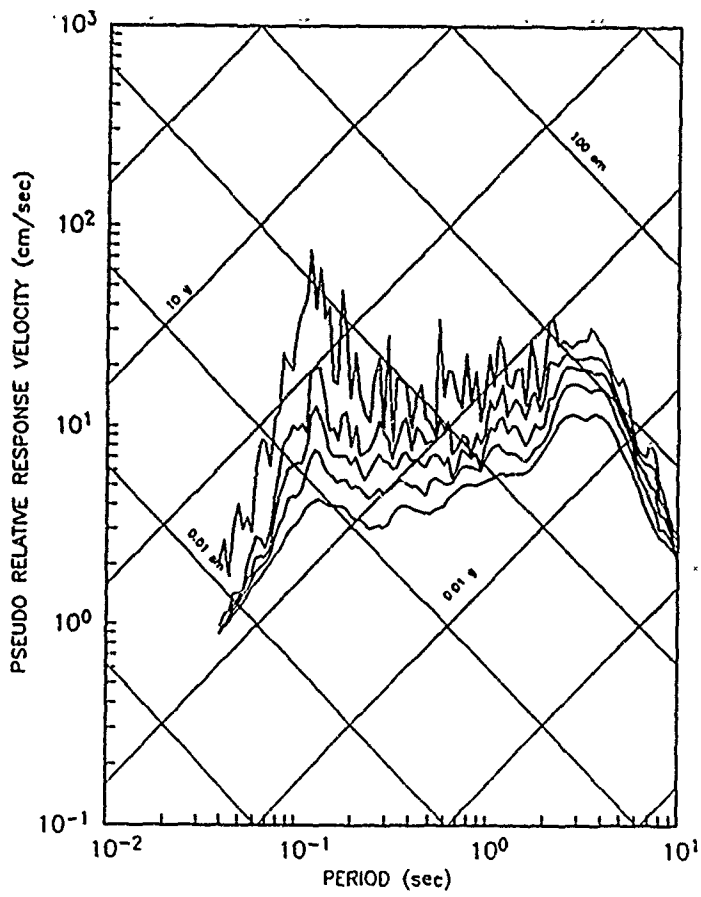

ANDERSON ET AL '89

Papanoa
Sep 19, 1985, W

***MEX 53***

MEX 54 El Paraiso 850919 Accel 120; Vel 8.7; Disp 3.3; Dur 5% 13.0 Rock

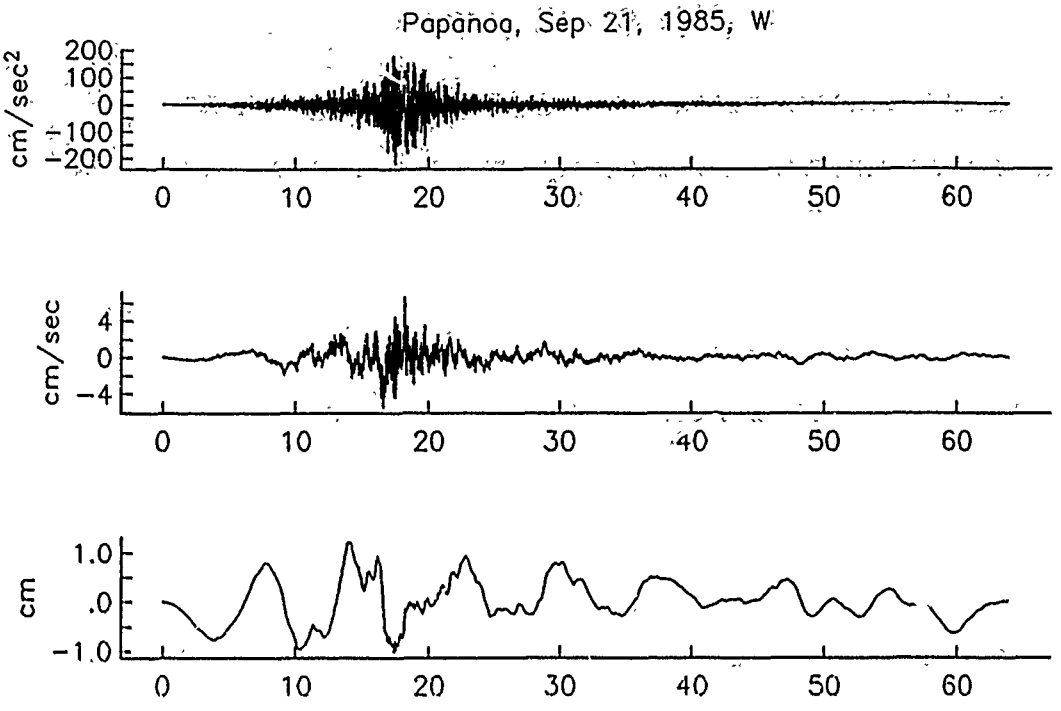


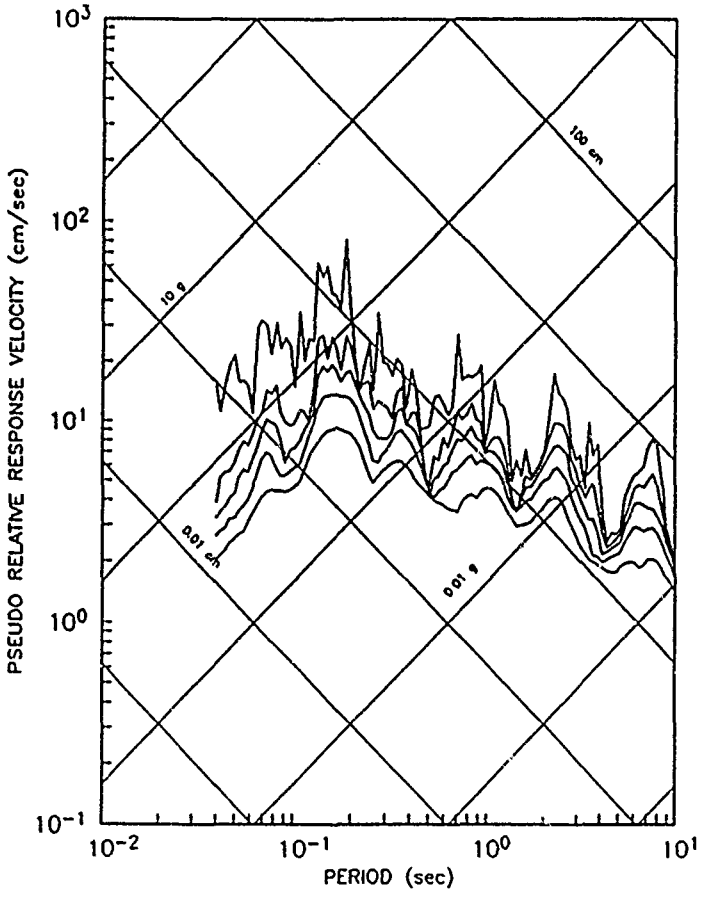




ANDERSON ET AL '89

El Paraiso
Sep 19, 1985, S

***MEX 54***



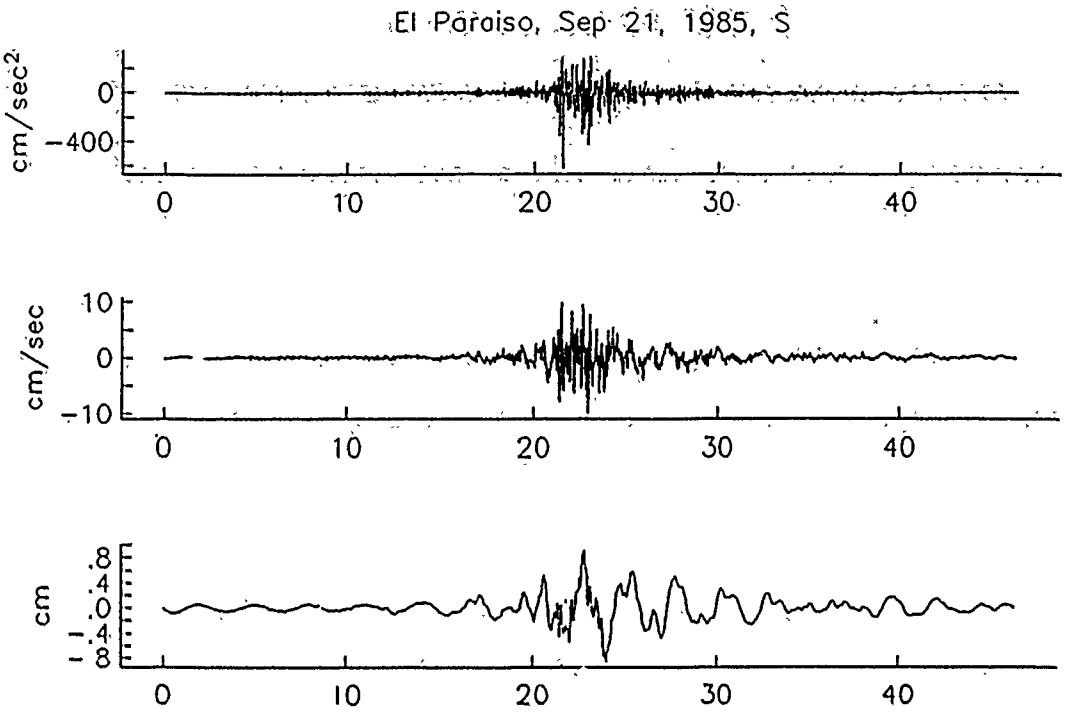



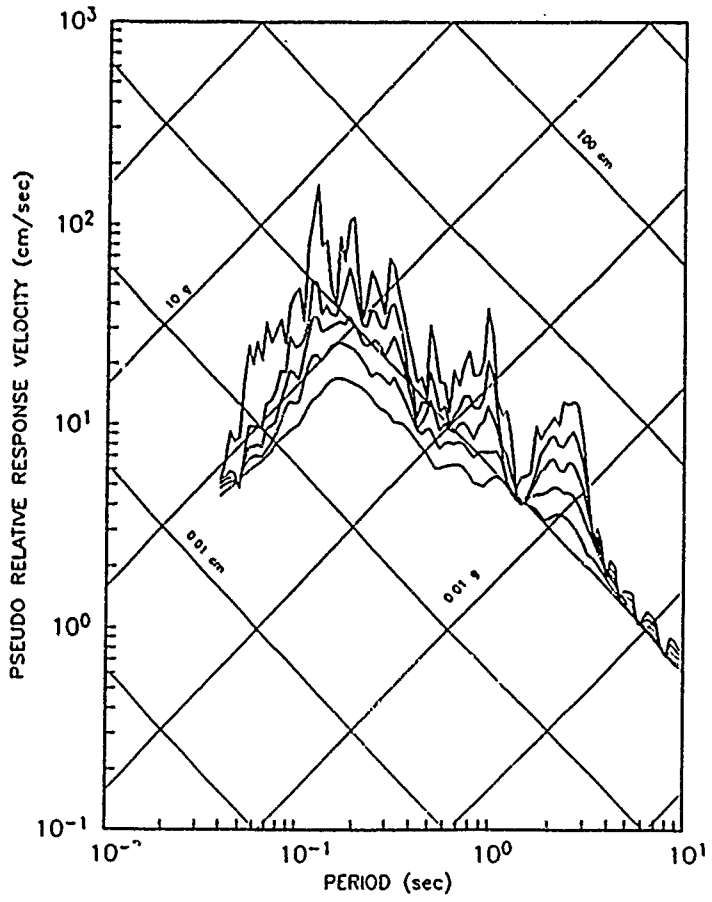

ANDERSON ET AL '89

Papanoa
Sep 21, 1985, W

***MEX 62***

MEX 63 850921 El Paraiso Accel 625 cm/sec$^2$; Vel 10.0 cm/sec; Disp 0.9 cm; Dur 5%g 12.3 sec



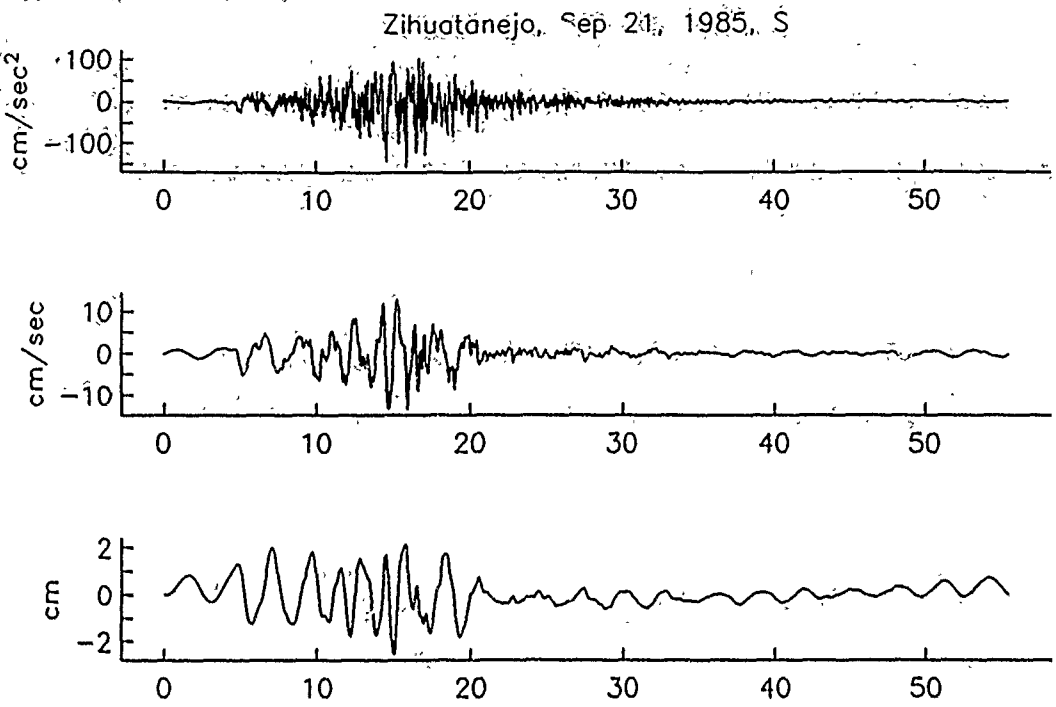



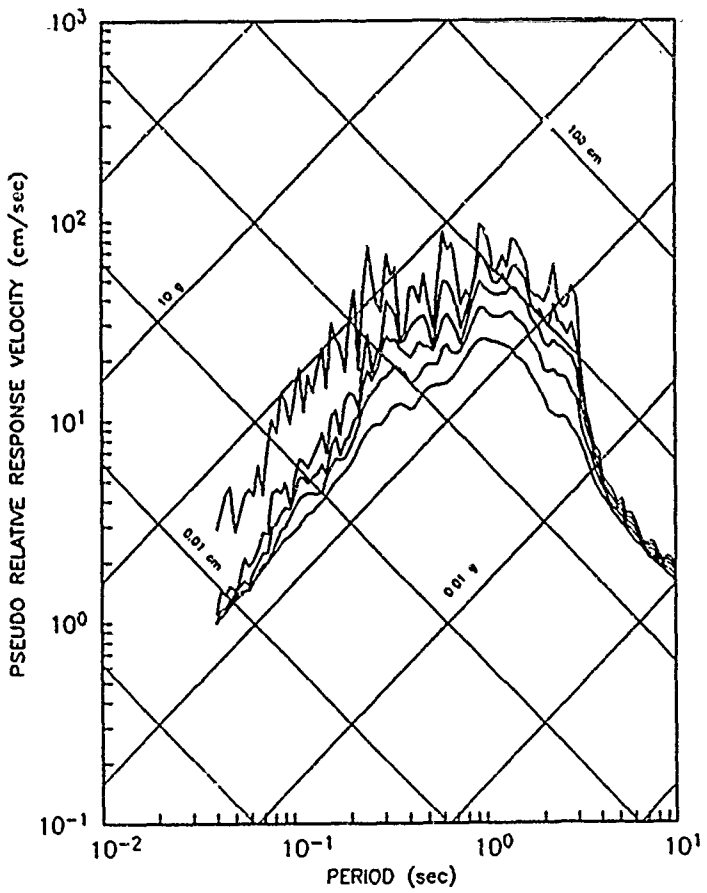

ANDERSON ET AL '89

El Paraiso
Sep 21, 1985, S

***MEX 63***

MEX 65 850921 Zihuatanejo Accel 153; Vel 13.5; Disp 2.6; Dur 5% 10.6 Rock



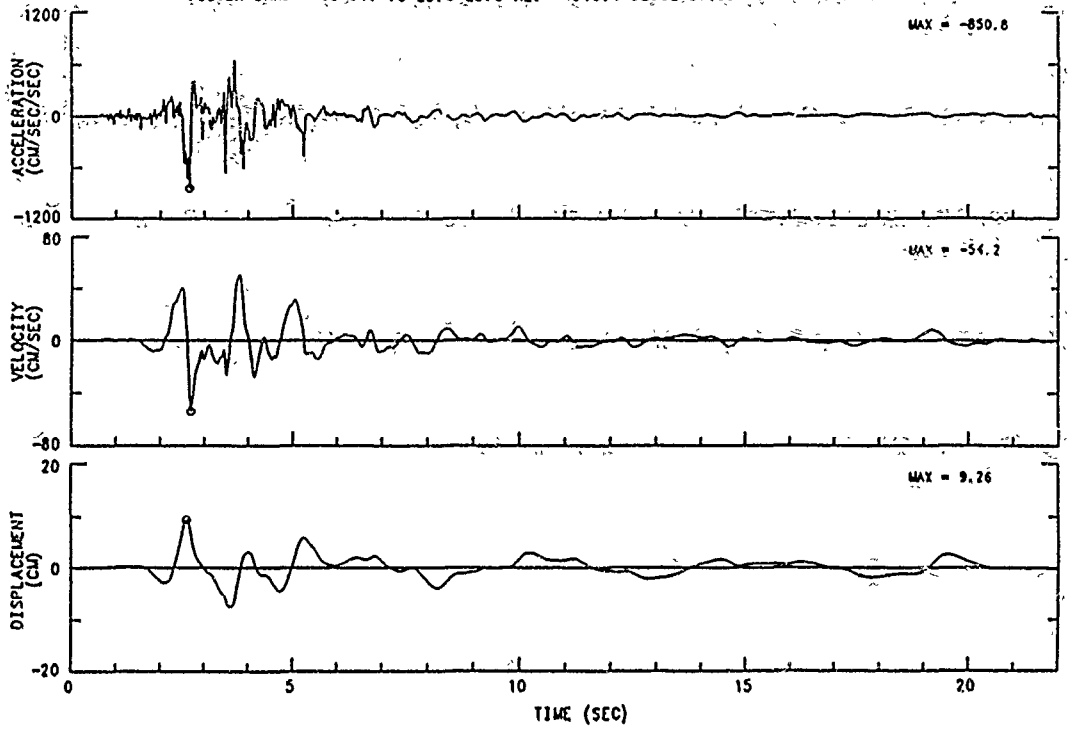




ANDERSON ET AL '89

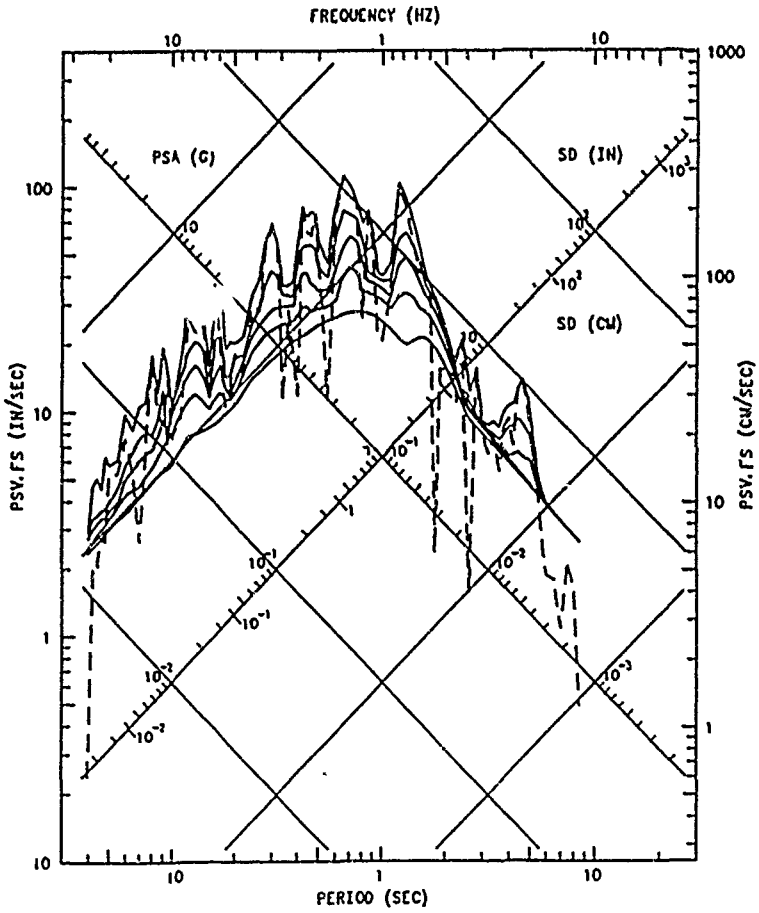
Zihuatanejo
Sep 21, 1985, S

***MEX 65***

CERRO PRIETO, BAJA CALIFORNIA EARTHQUAKE FEBRUARY 6, 1987 19:45 PST
CERRO PRIETO, BAJA CALIFORNIA CHN 1: 251 DEG
INSTRUMENT-CORRECTED AND BANDPASS-FILTERED ACCELERATION, VELOCITY AND DISPLACEMENT
FILTER BAND: .08-.16 TO 23.0-25.0 HZ. 91004-S2582-87039.03 041488.1456-0C87A004



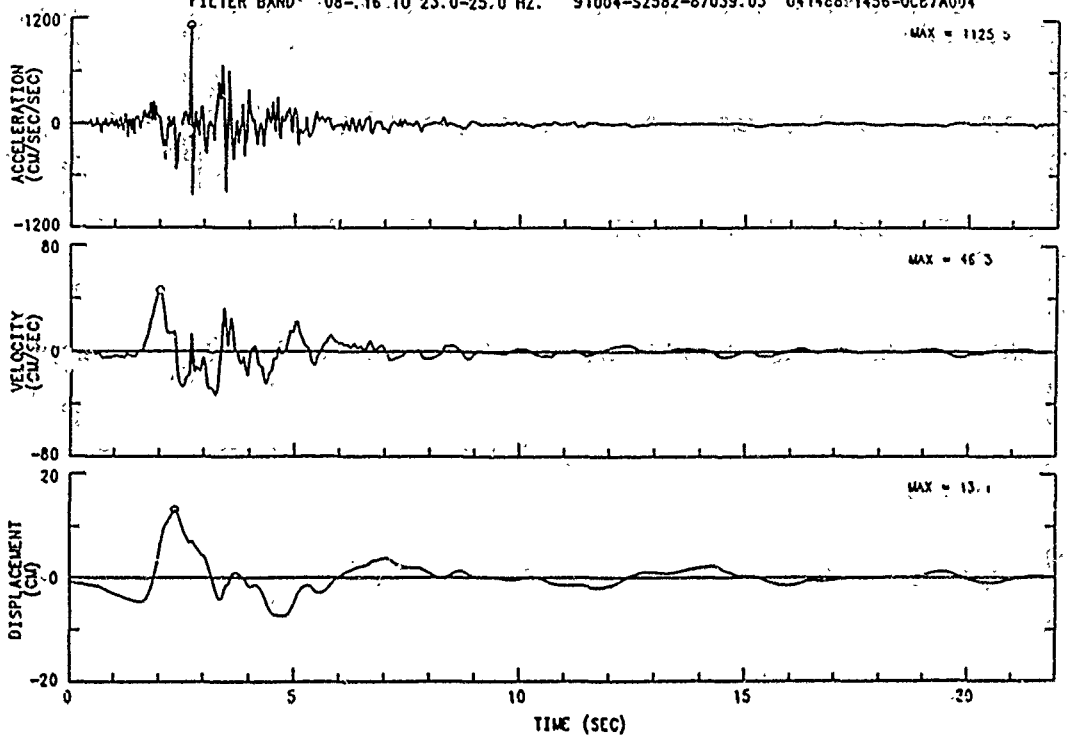

CDMG OSMS 87-04



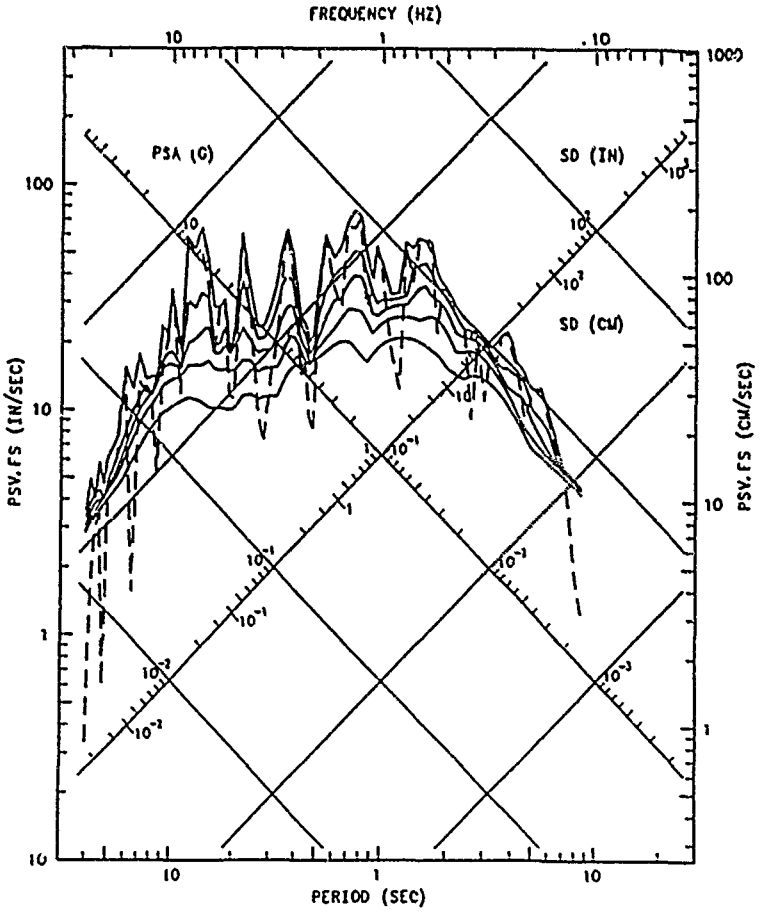

CERRO PRIETO, BAJA CALIFORNIA
CHN 1: 251 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
91004-S2582-87039.03 041588.1512-0C87A004
—— RESPONSE SPECTRA: PSV, PSA & SD
– – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

CERRO PRIETO, BAJA CALIFORNIA EARTHQUAKE
FEBRUARY 6, 1987 19:45 PST

***MEX 71***




CDMG OSMS 87-04

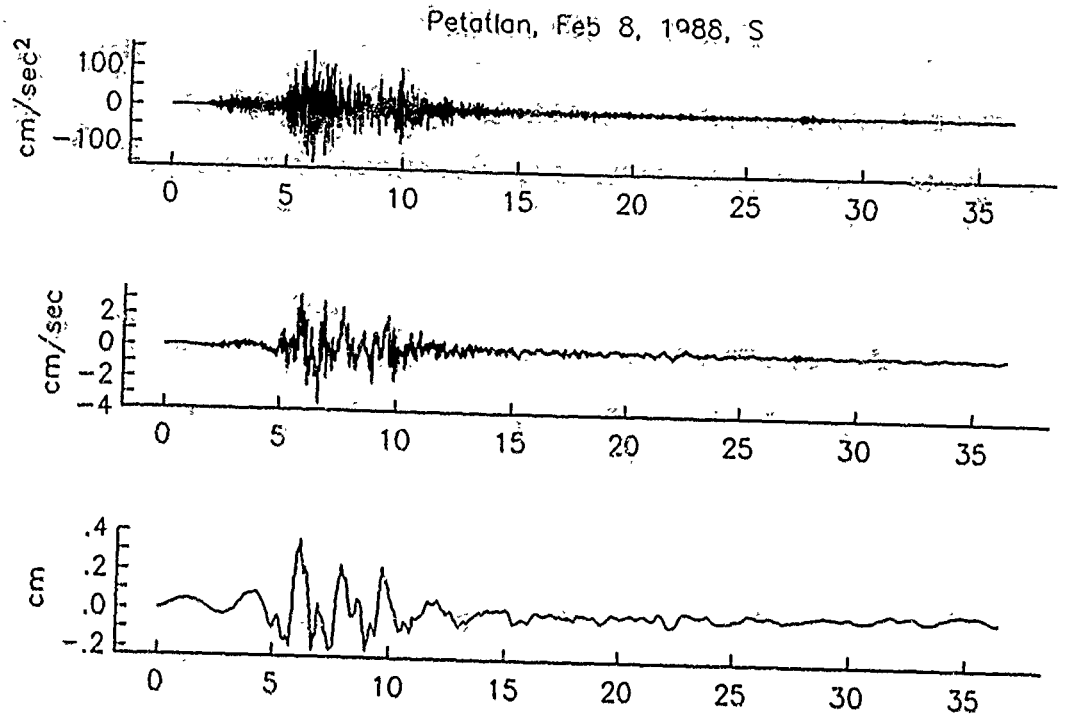


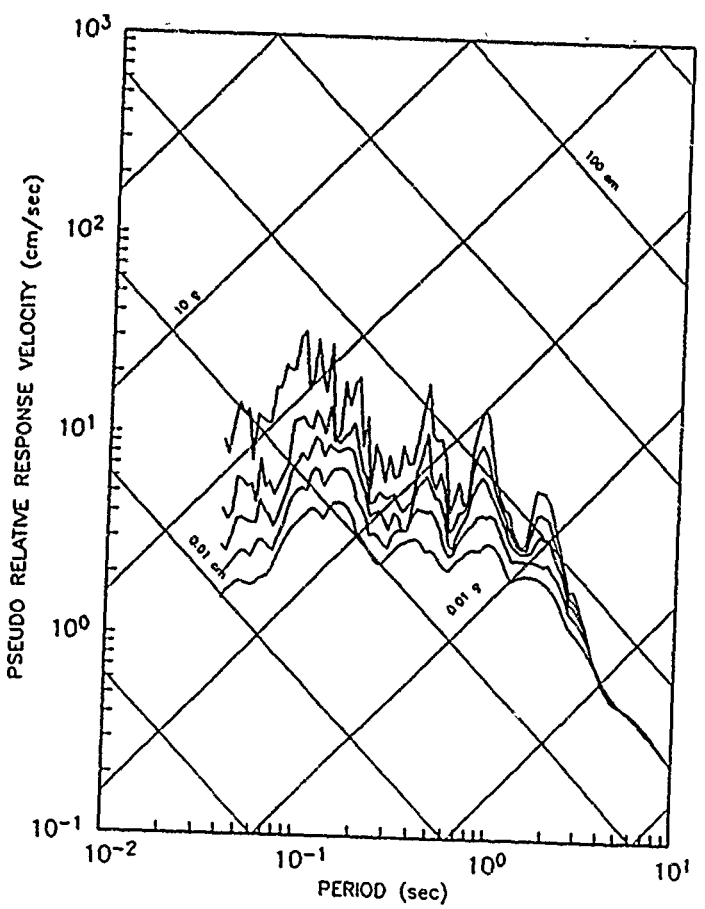

CERRO PRIETO, BAJA CALIFORNIA
CHN 3 161 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ
91004-S2582-87039.03 041588 1512-QC87A01
—— RESPONSE SPECTRA: PSV, PSA & SD
– – – FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

CERRO PRIETO BAJA CALIFORNIA EARTHQUAKE
FEBRUARY 6, 1987 19 45 PST

***MEX 72***

MEX 76 880208 Petatlan Accel 147; Vel 3.6; Disp 0.4; Dur 5% 6.1; Rock

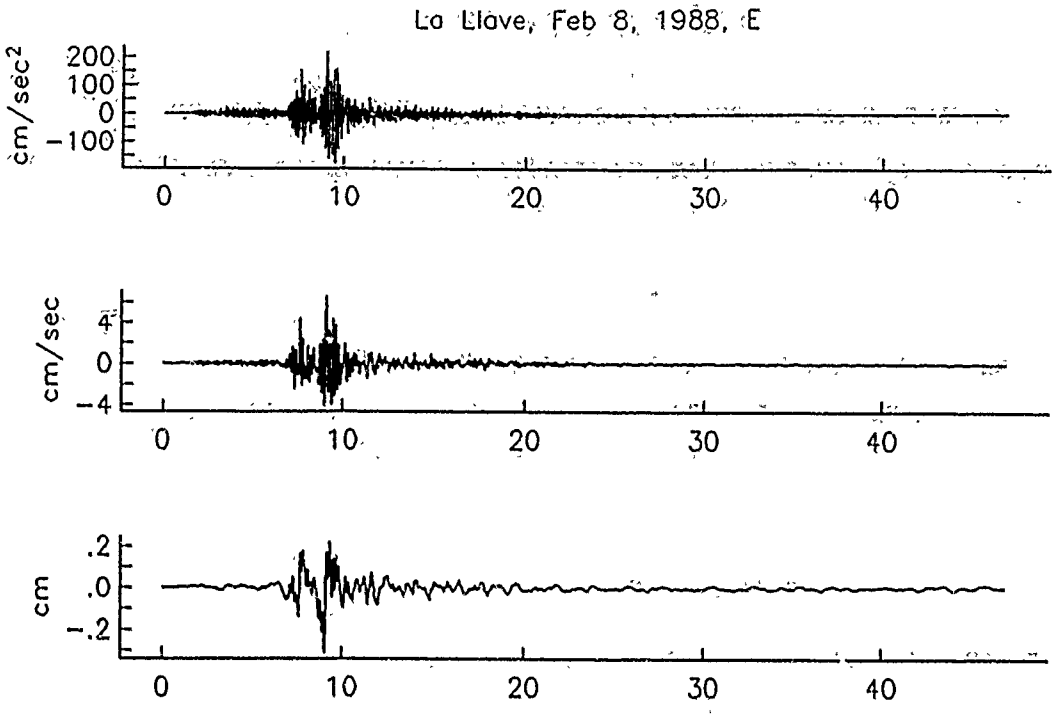


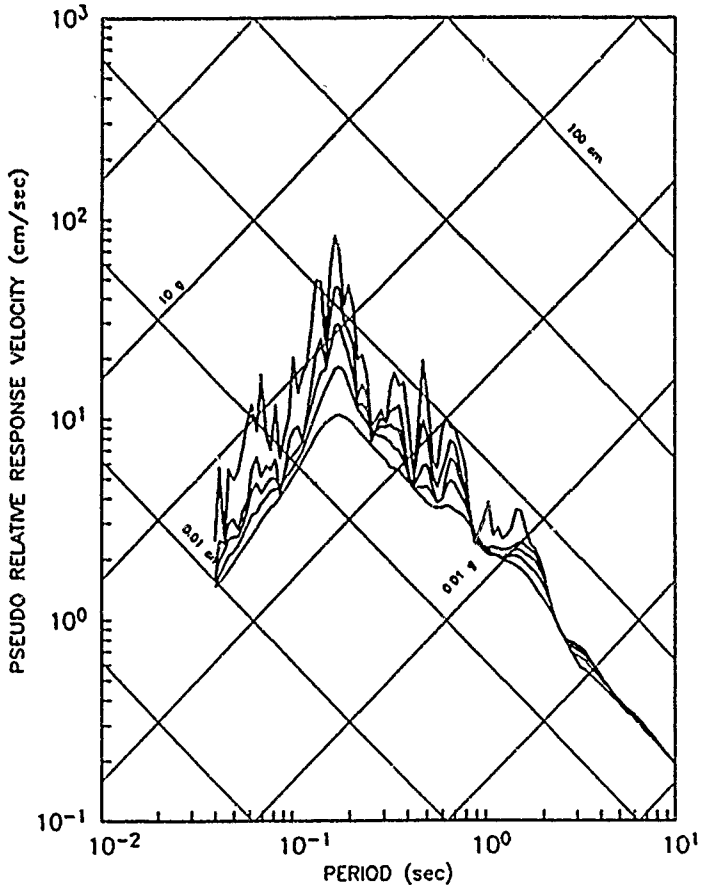




ANDERSON ET AL '89

Petatlan
Feb 8, 1988, S

***MEX 76***



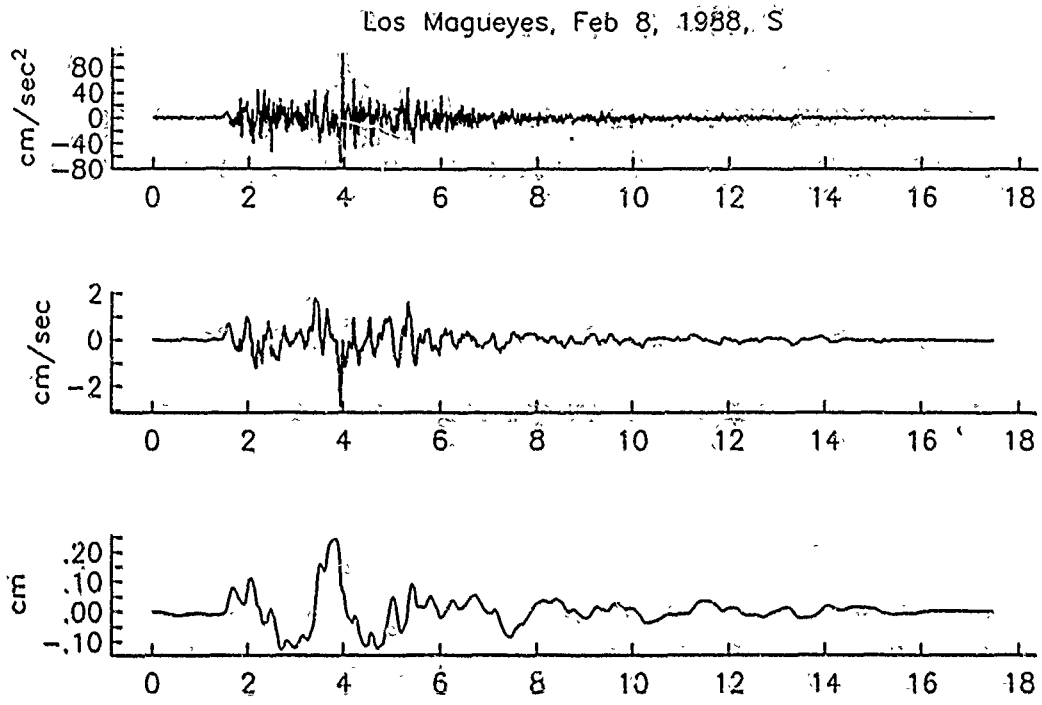



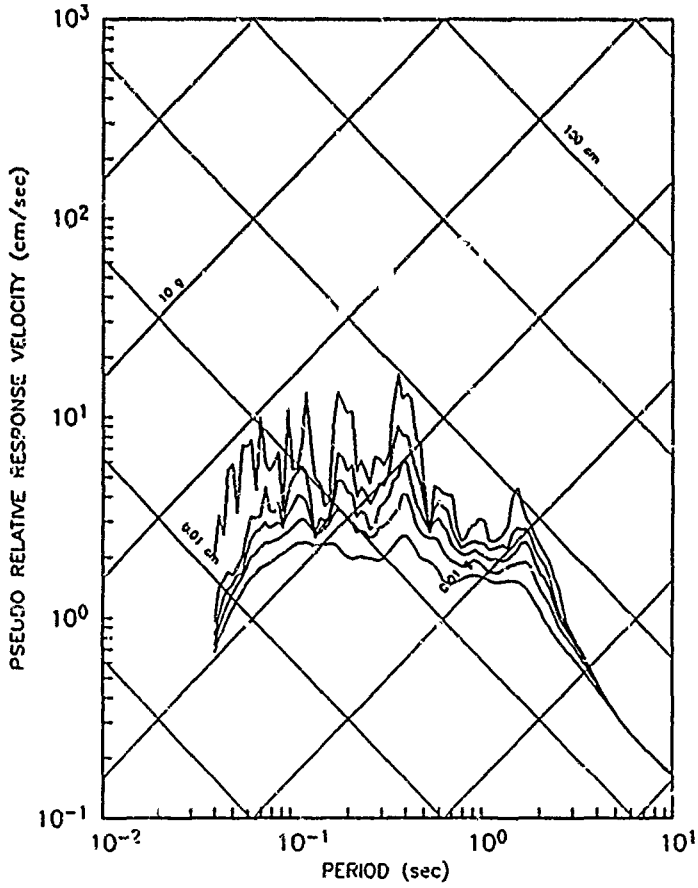

ANDERSON ET AL '89

La Llave
Feb 8, 1988, E

***MEX 80***

MEX 81 Los Magueyes 860208 Accel 102; Vel2.9; Disp 0.2; Dur 54.2.8 Rock



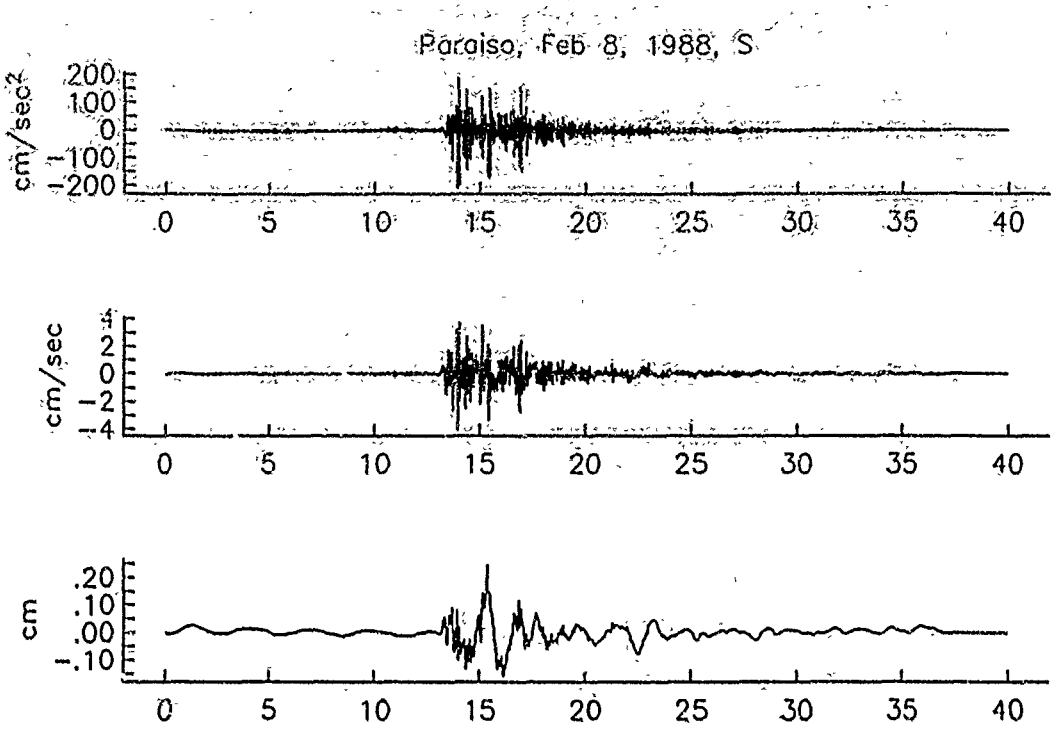



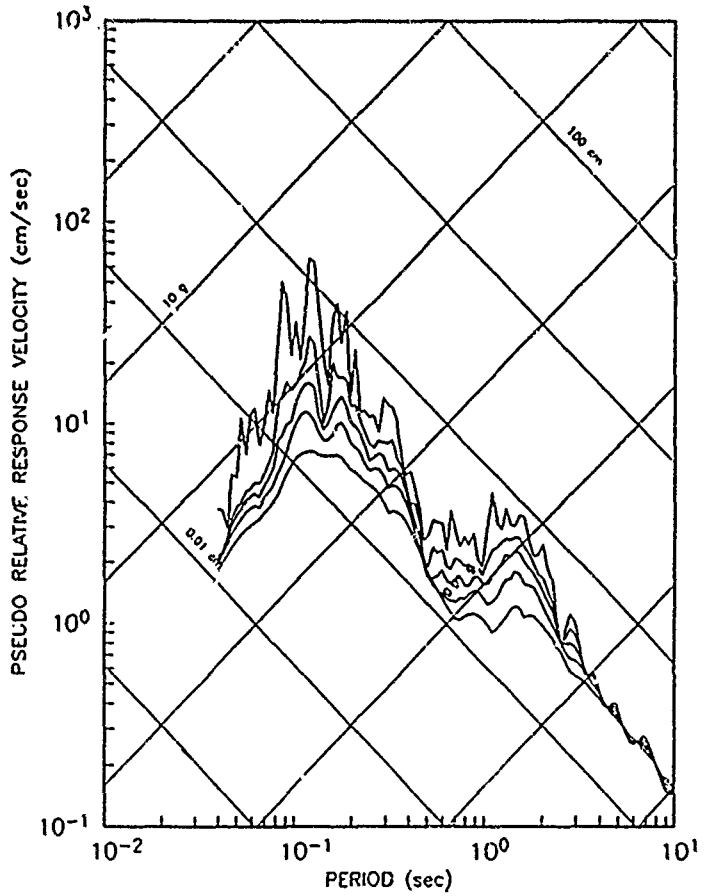

ANDERSON ET AL '89

Los Magueyes
Feb 8, 1988, S

***MEX 81***

MEX 83 880208 El Paraiso Accel 211; Vel 4.1; Disp0.2; Dur 54.6 Rock



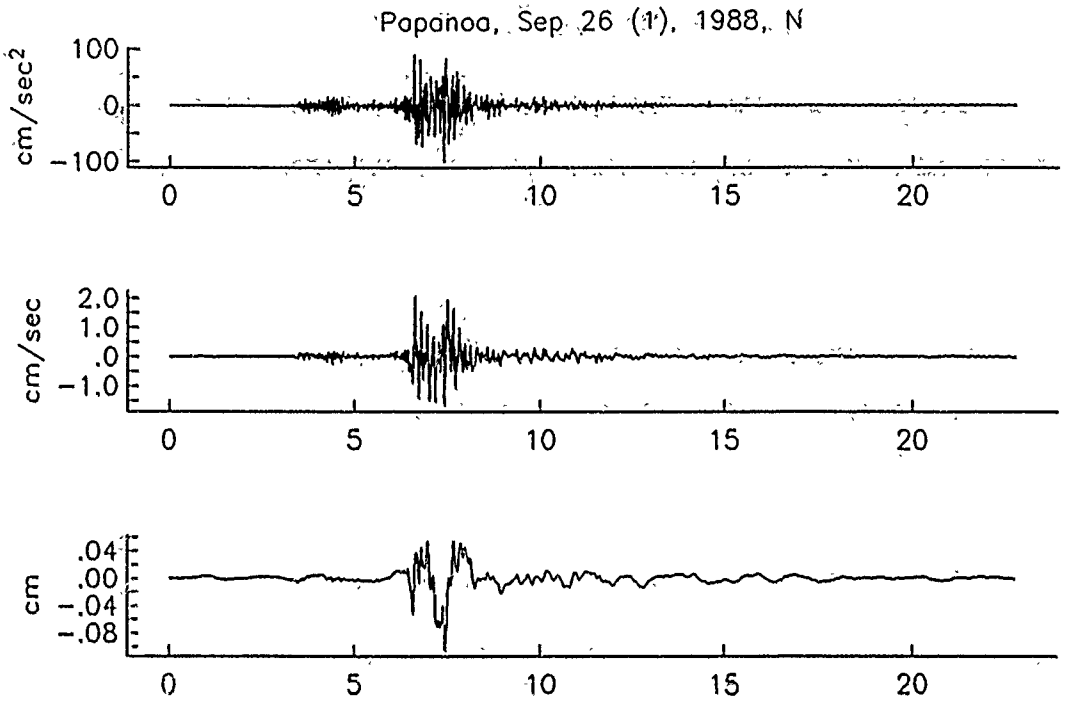



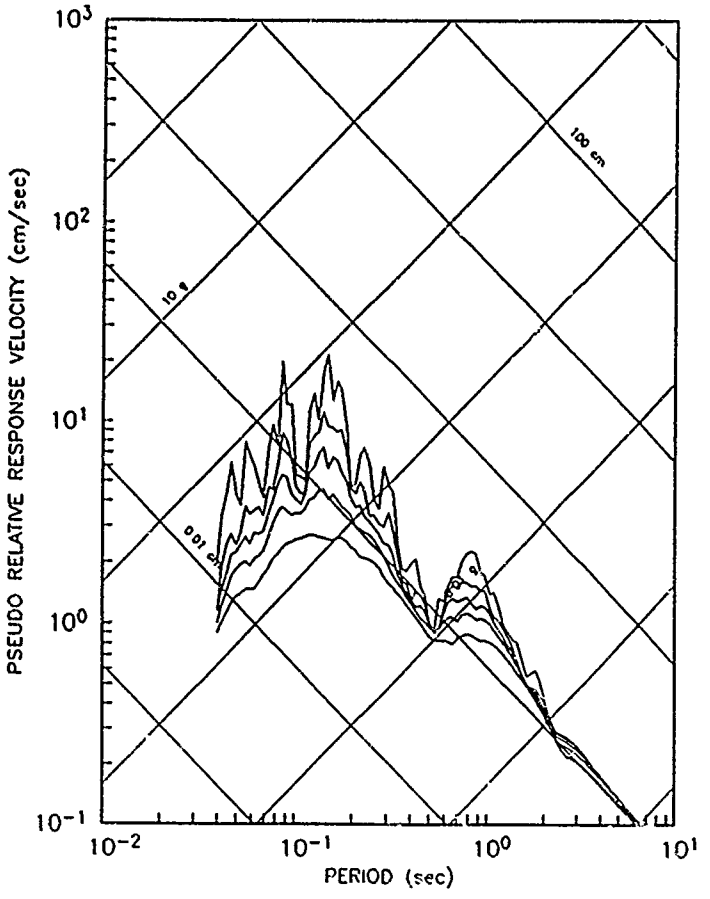

ANDERSON ET AL '89

Paraiso
Feb 8, 1988, S

***MEX 83***

MEX 87 880926 Papanoa Accel 101; Vel 2.1; Disp 0.1; Dur 5% 1.2 Rock



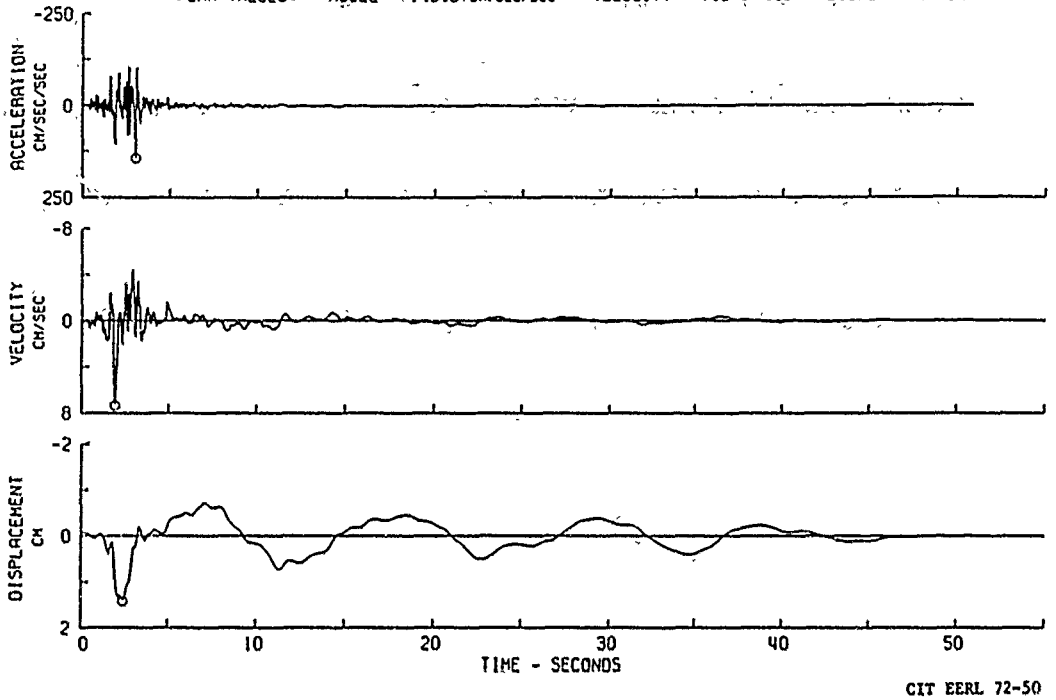

ANDERSON ET AL '89

Papanoa

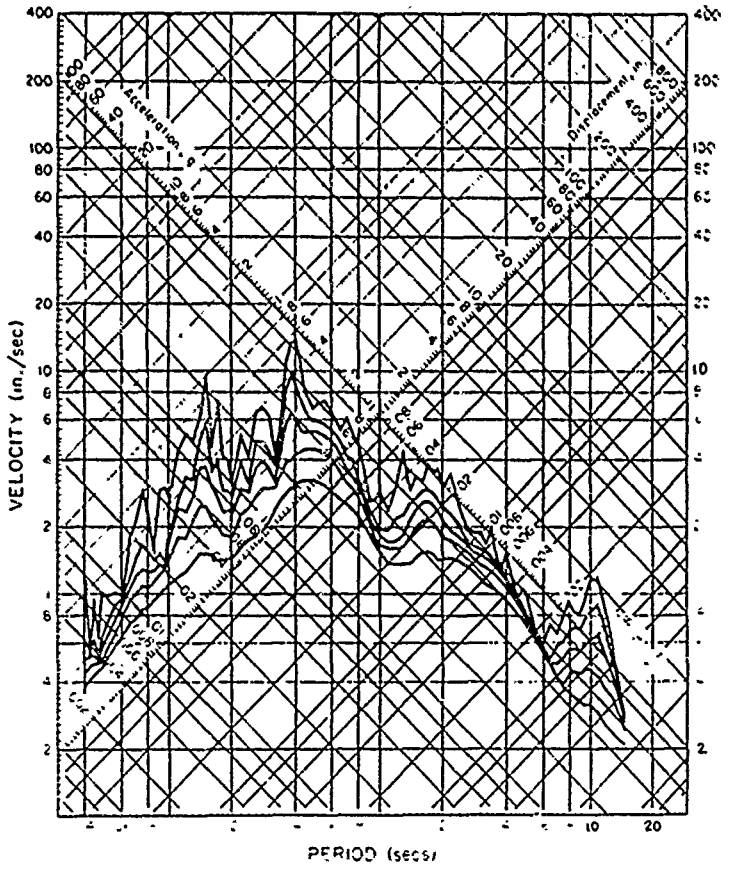
Sep 26 (1), 1988, N

***MEX 87***

HELENA, MONTANA EARTHQUAKE OCT 31, 1935 - 1138 MST
1118025 35.001.0 HELENA, MONTANA CARROLL COLLEGE COMP N00E
⊙ PEAK VALUES: ACCEL = 143.5 CM/SEC/SEC VELOCITY = 7.3 CM/SEC DISPL = 1.4 CM




CIT EERL 72-50




CIT. EERL 73-80

1118025 35.001.0 HELENA, MONTANA CARROLL COLLEGE

COMP N00E

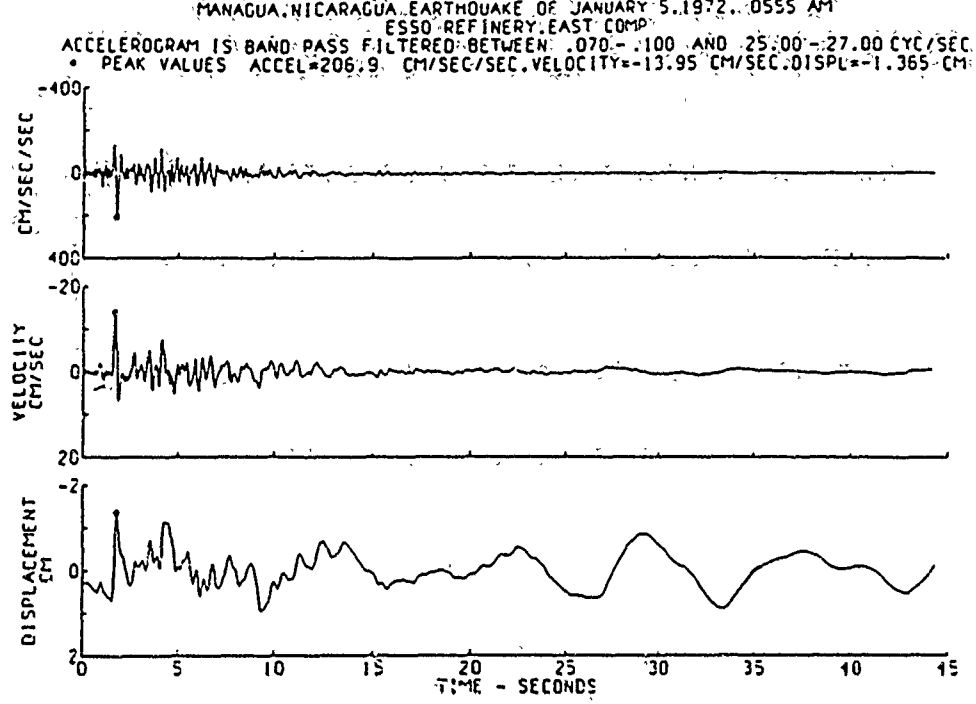
DAMPING VALUES ARE

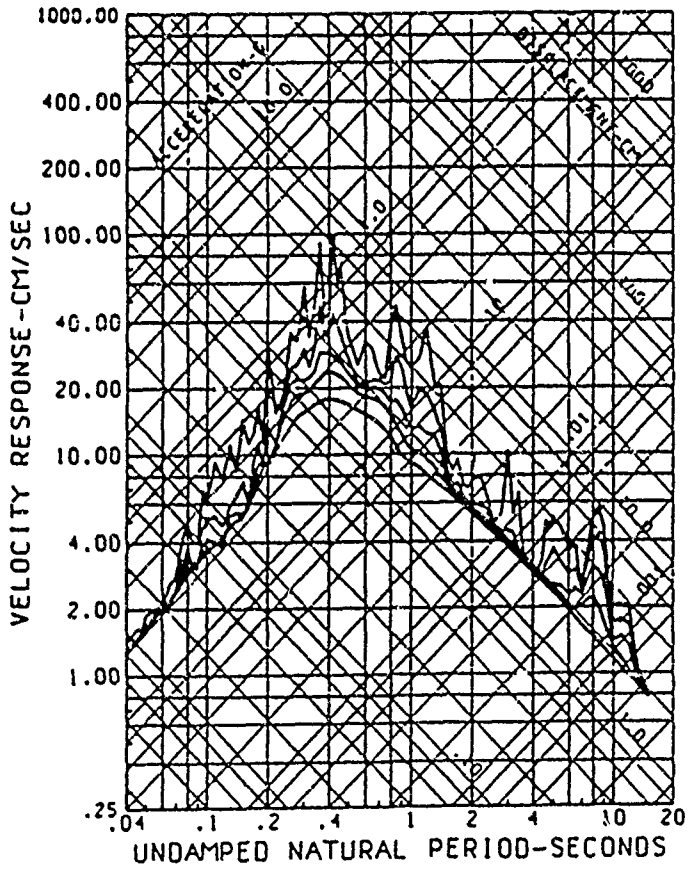
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

HELENA, MONTANA EARTHQUAKE

OCT 31, 1935 - 1138 MST

***MON 1***




USGS OF 78-941

SEISMIC ENGINEERING BRANCH/USGS

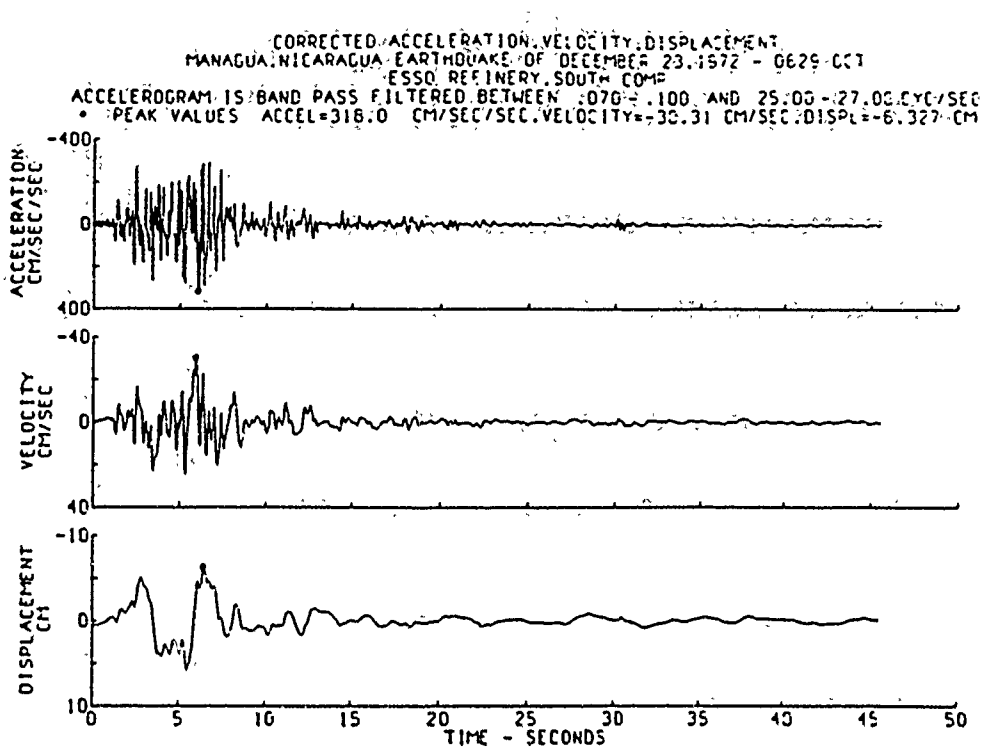
MANAGUA, ESSO. EAST

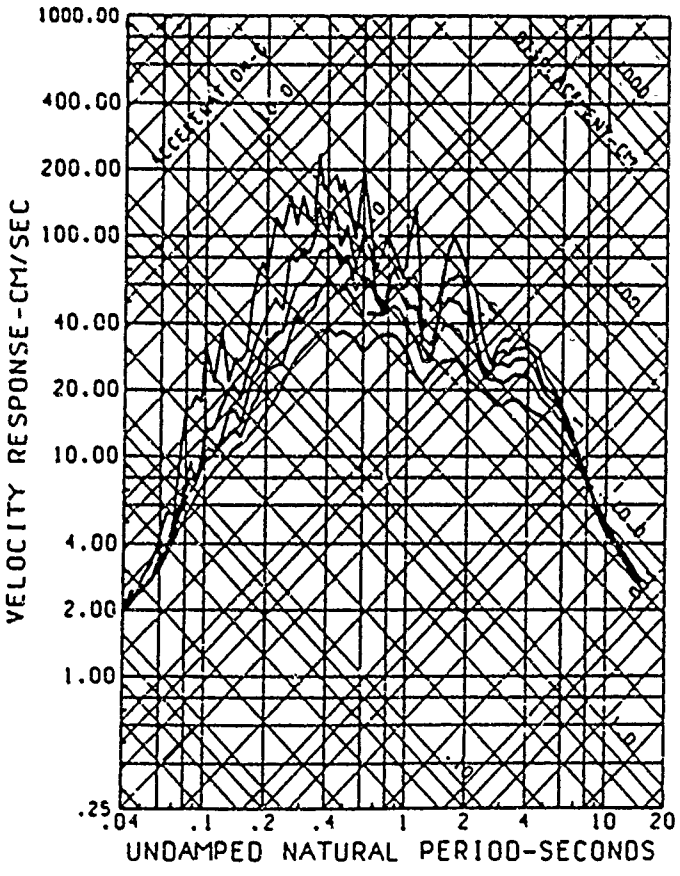
CRITICAL DAMPING

0.2.5.10.20 PERCENT

1/5/72, 0555AM

***NIC 1***



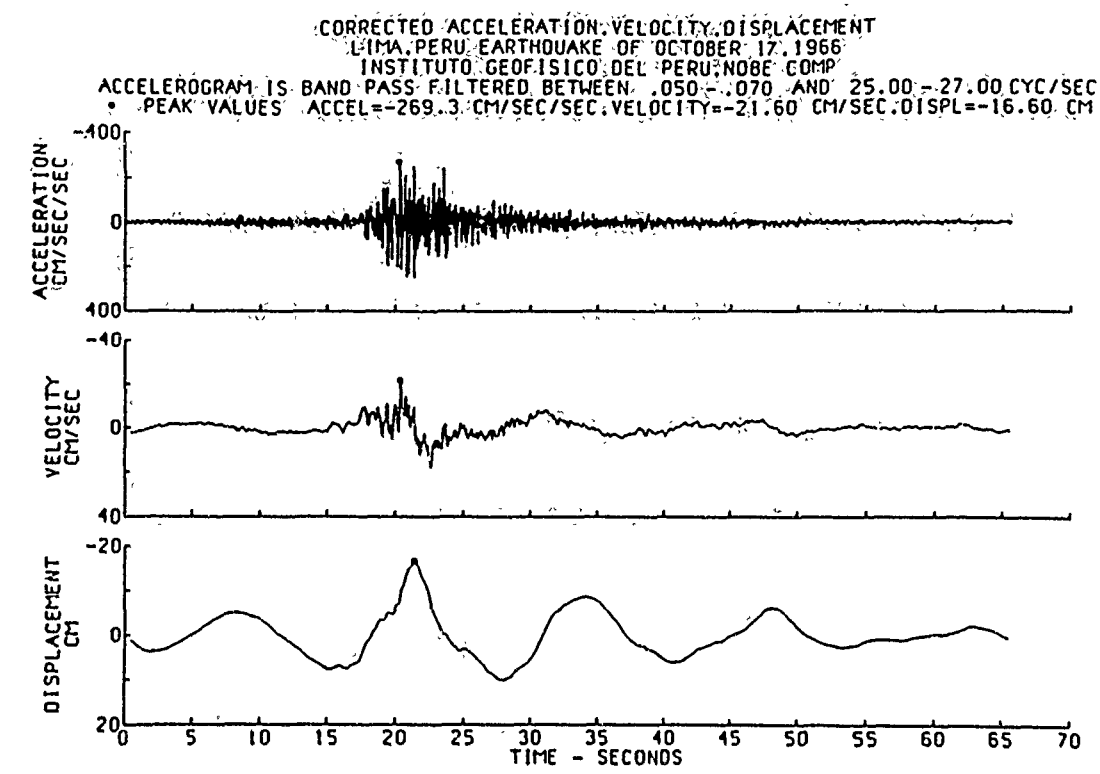



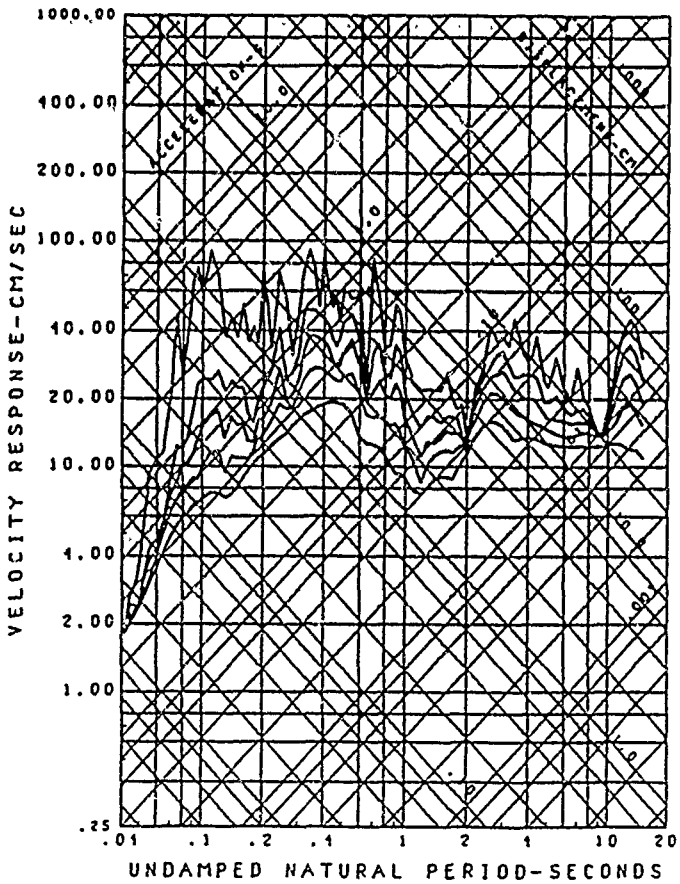

USGS OF 78-941

SEISMIC ENGINEERING
BRANCH/USGS
MANAGUA,ESSO SOUTH
CRITICAL DAMPING
0.2.5.10.20 PERCENT

12/23/72.0629GCT

***NIC 3***



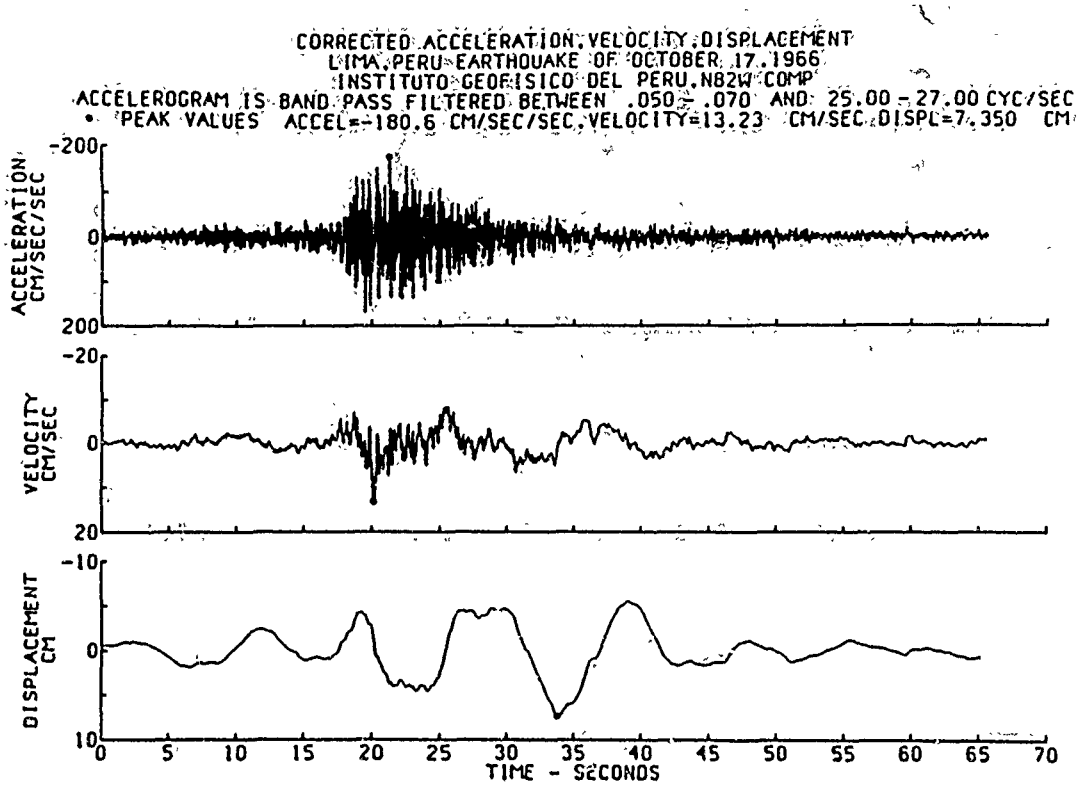



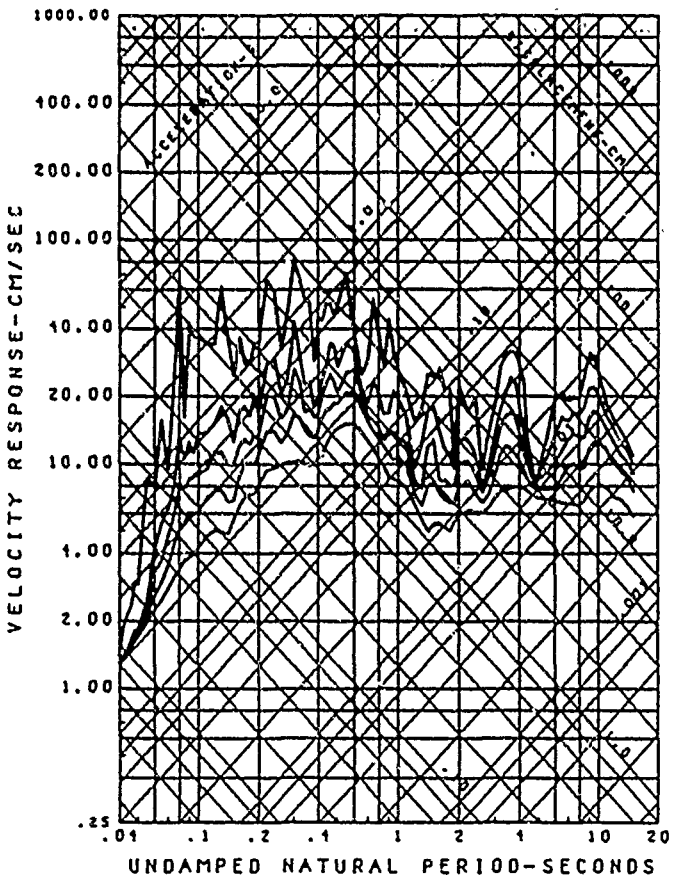

USGS OF 77-587

SEISMIC ENGINEERING
BRANCH/USGS
N08E COMP
CRITICAL DAMPING
0, 2, 5, 10, 20 PERCENT

LIMA, PERU, INST GEOF.
10/17/66

***PER 1***



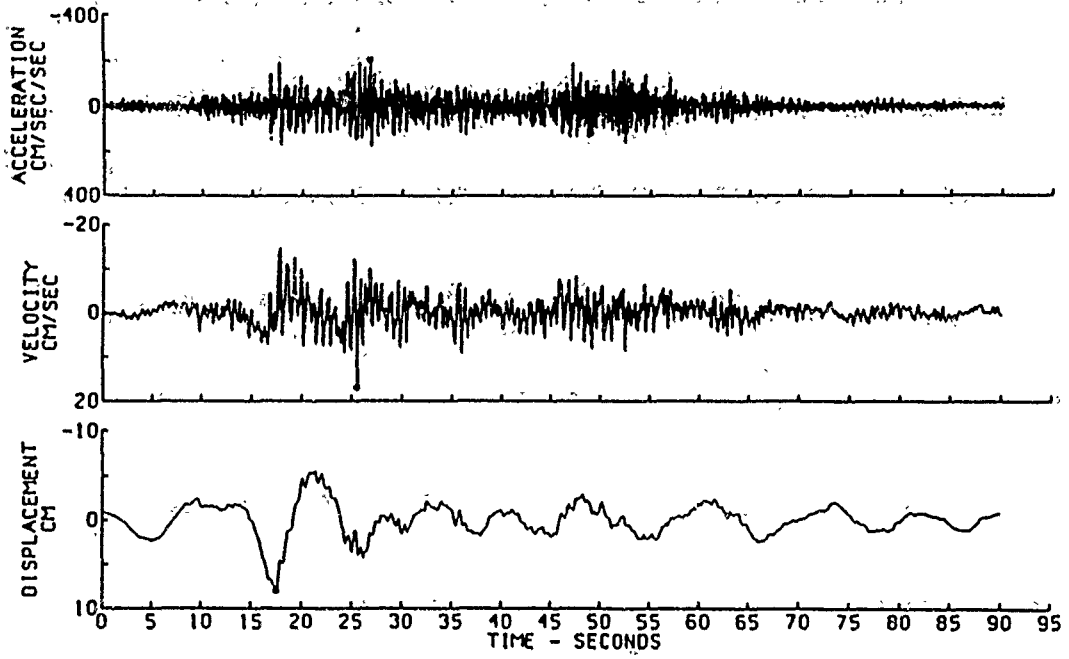

USGS OF 77-587

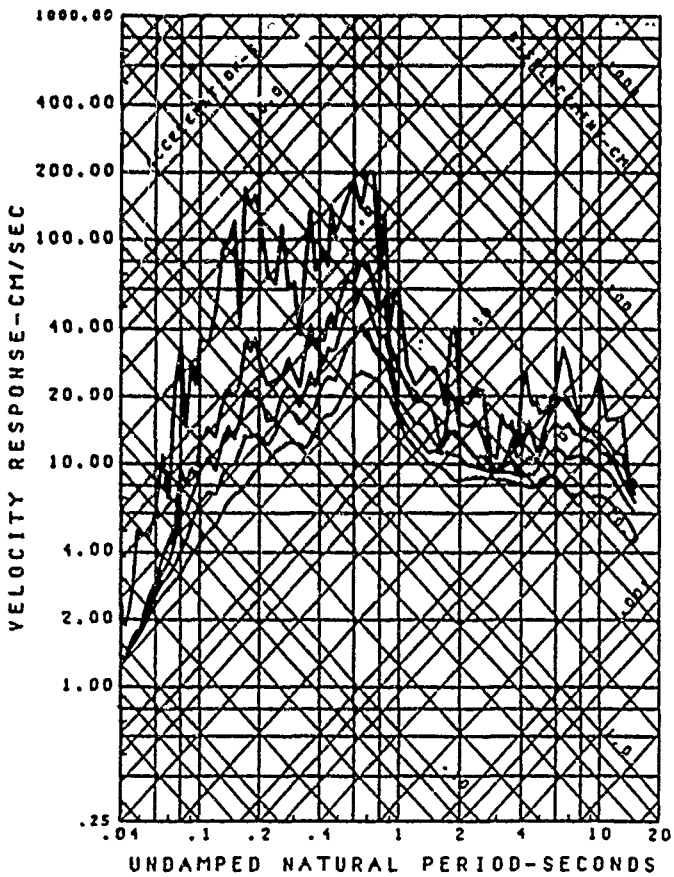
SEISMIC ENGINEERING
BRANCH/USGS
N82W COMP
CRITICAL DAMPING
0,2,5,10,20 PERCENT

LIMA,PERU,INST GEOF.
10/17/66

***PER 2***

CORRECTED ACCELERATION,VELOCITY,DISPLACEMENT
LIMA,PERU EARTHQUAKE OF OCTOBER 3,1974 - 1421 GCT
CASA DR. HUACO,T COMP
ACCELEROGRAM IS BAND PASS FILTERED BETWEEN .050 - .070 AND 25.00 - 27.00 CYC/SEC
PEAK VALUES ACCEL=-207.1 CM/SEC/SEC,VELOCITY=16.94 CM/SEC,DISPL=8.030 CM



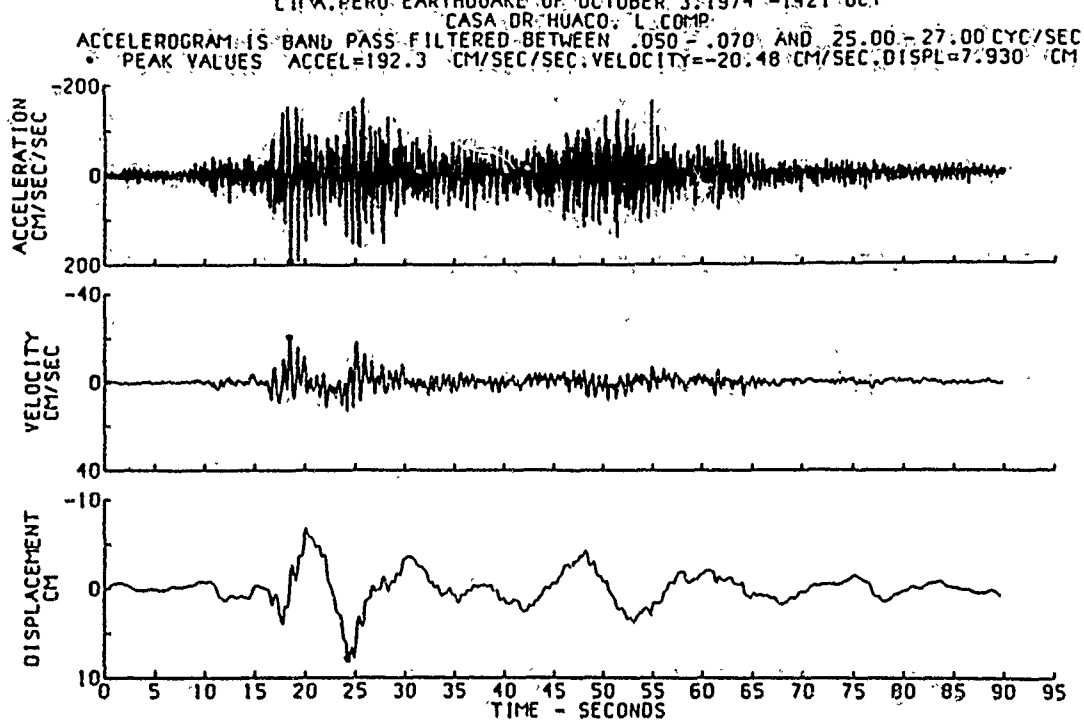



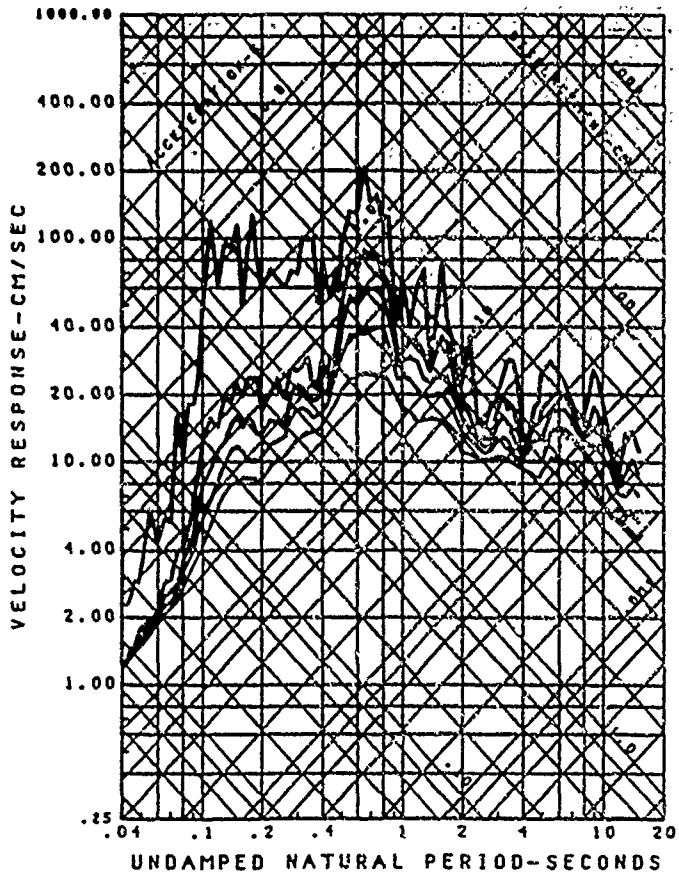

USGS OF 77-587

SEISMIC ENGINEERING
BRANCH/USGS
1421GCT,T COMP
CRITICAL DAMPING
0,2,5,10,20 PERCENT

LIMA,PERU,CASA DR HUACO
10/3/74

***PER 3***



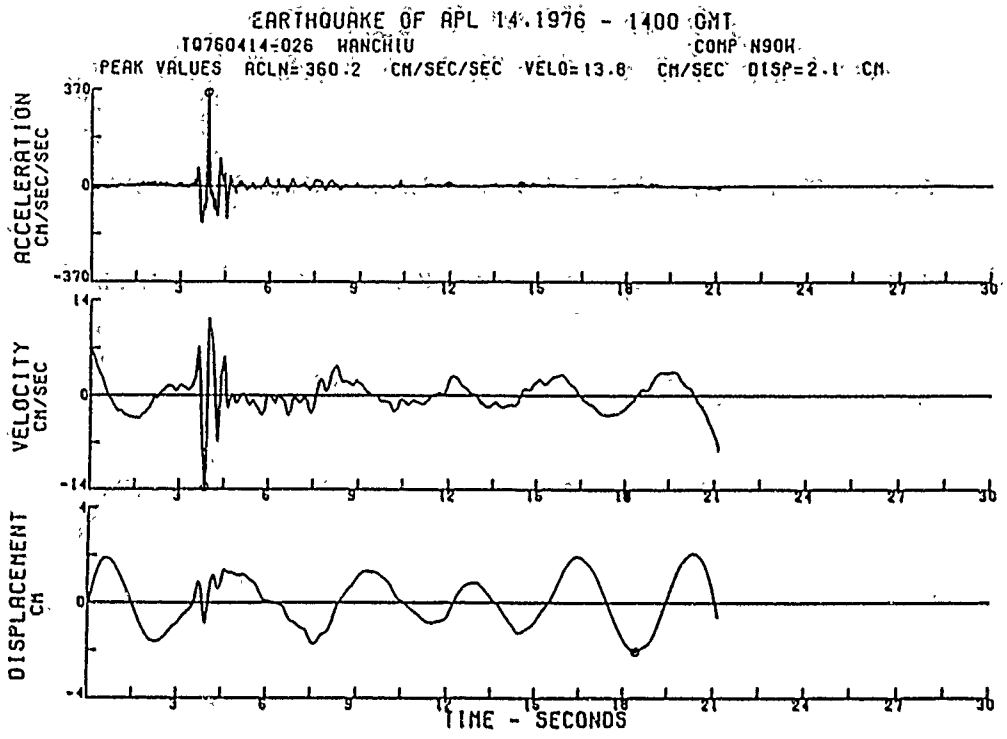




USGS OF 77-587

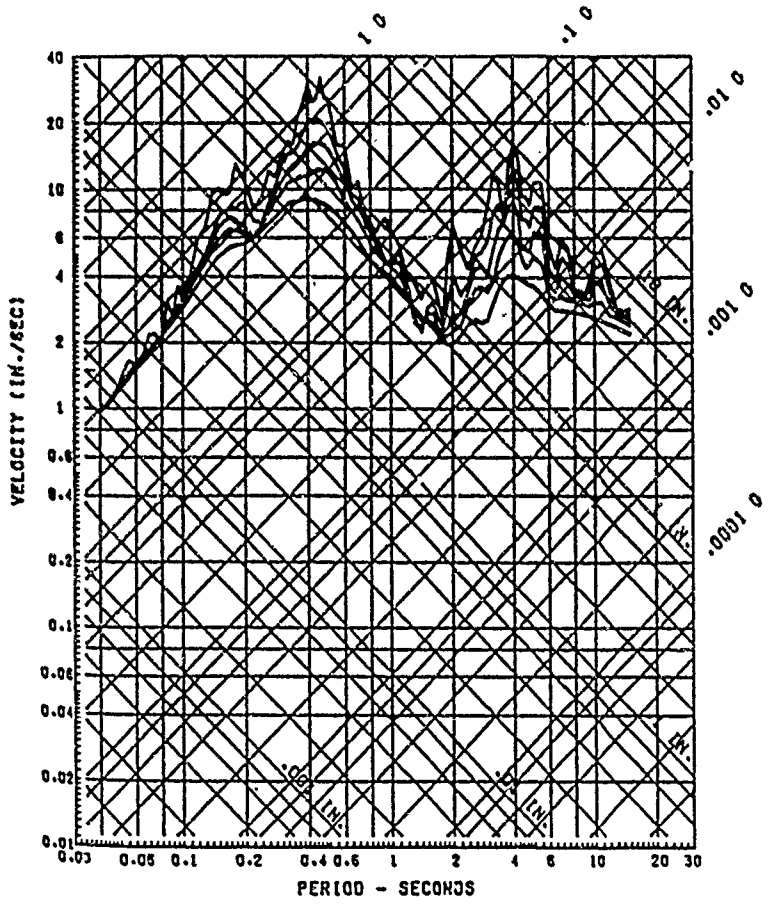
SEISMIC ENGINEERING
BRANCH/USGS
1421GCT, L COMP
CRITICAL DAMPING
0, 2, 5, 10, 20 PERCENT

LIMA, PERU, CASA DR HUACO
10/3/74

***PER 4***




ROC VOL I, PT B

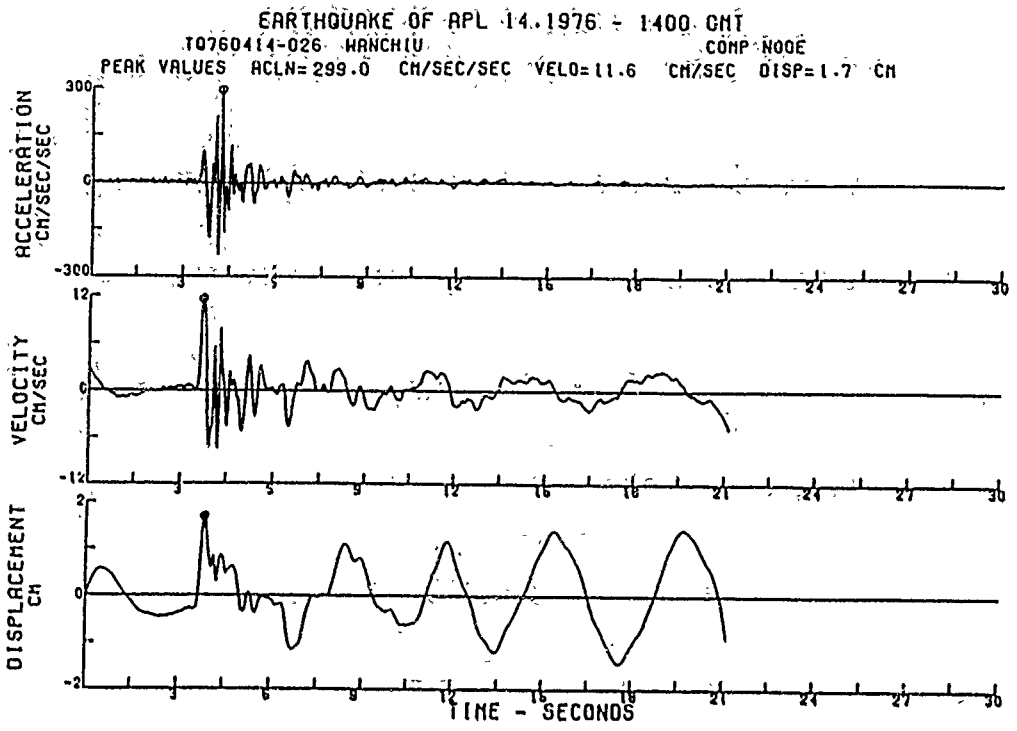



ROC VOL I, PT D

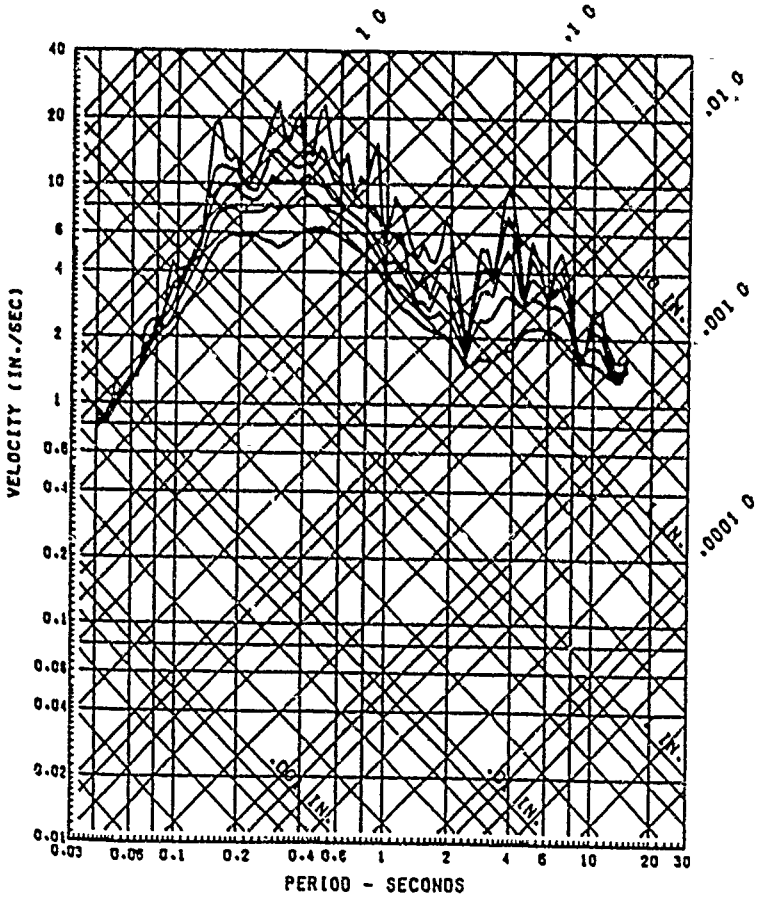
TQ7604I4-026 HANCHIU
COMP N90W
1400 GMT 8
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

EARTHQUAKE OF APL 14,1976

*ROC 1*




ROC VOL I, PT B




ROC VOL I, PT D

TQ760414-026 HANCHIU

COMP NOOE

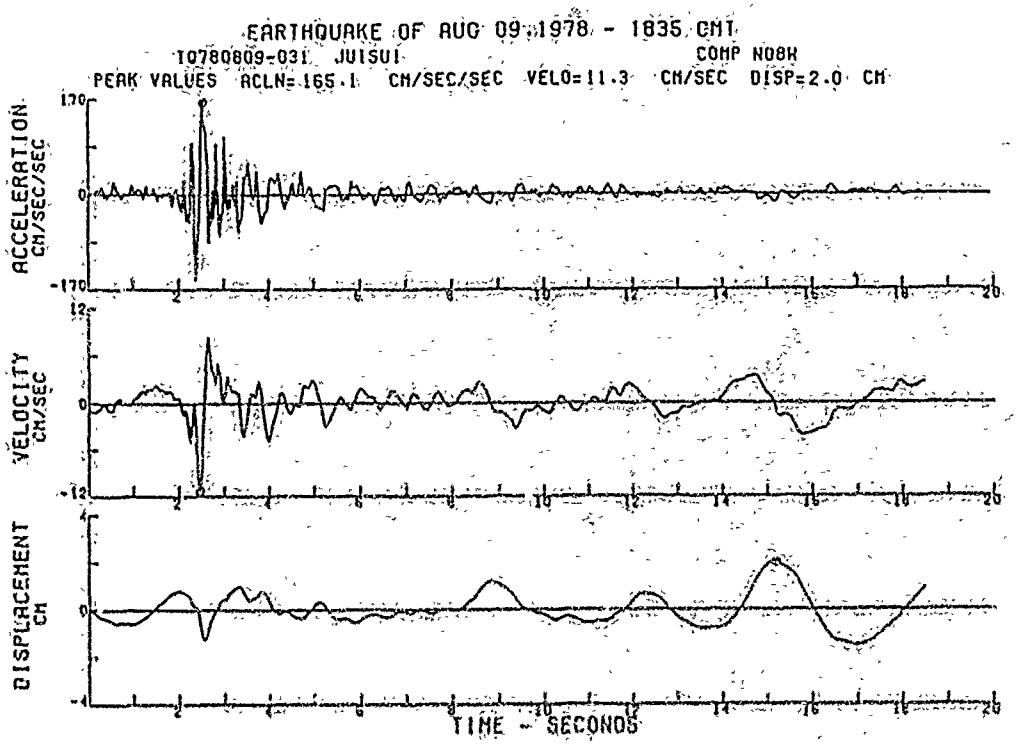
1400 GMT 6

DAMPING VALUES ARE

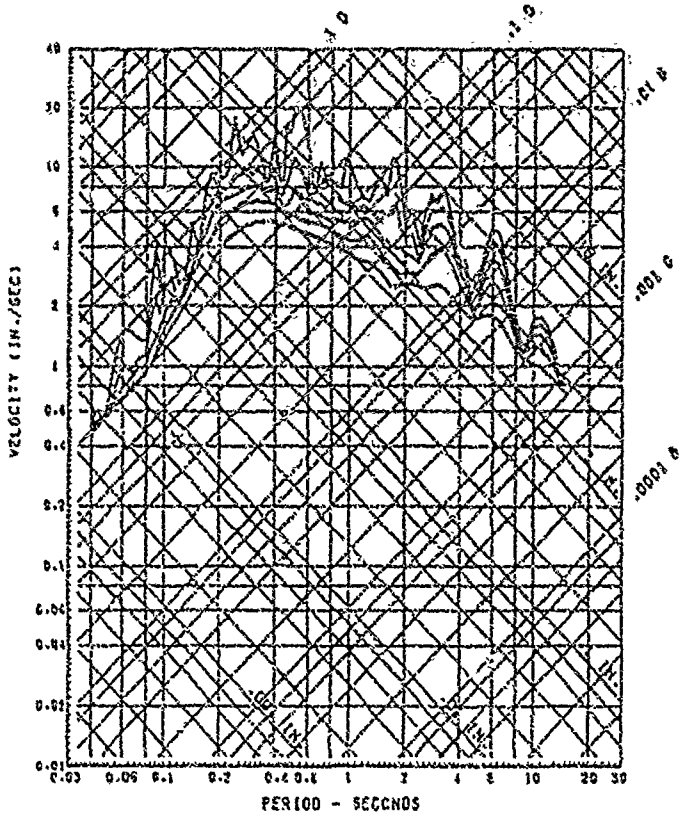
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

EARTHQUAKE OF APL 14,1976

**ROC 2**




ROC VOL 1 PT B

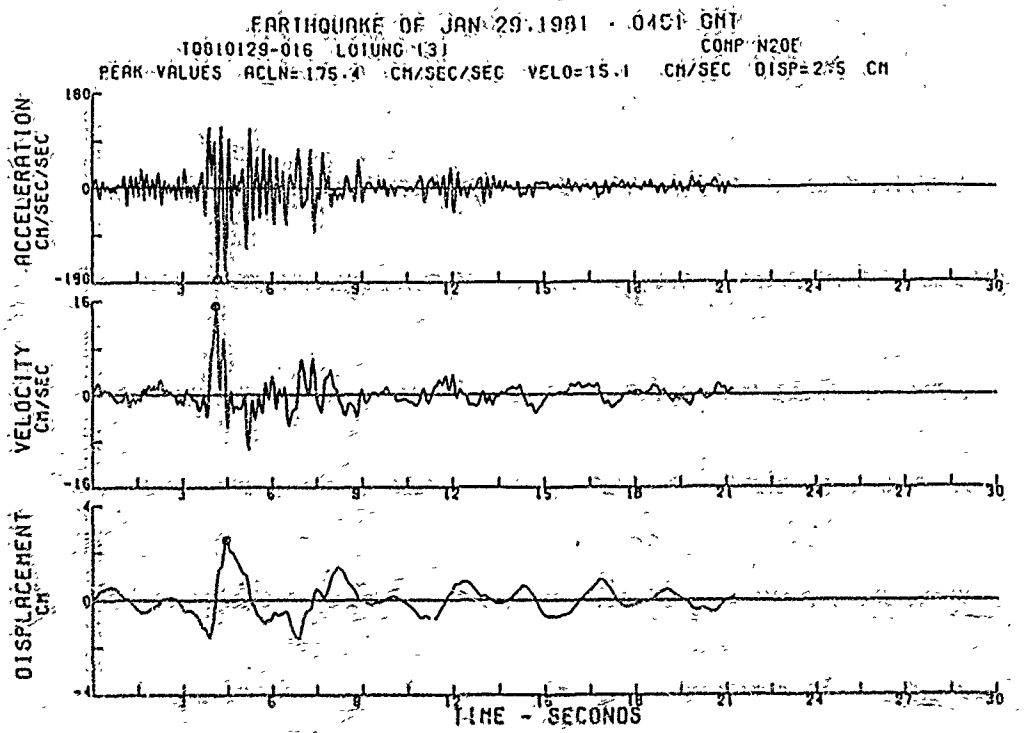



ROC VOL 1 PT D

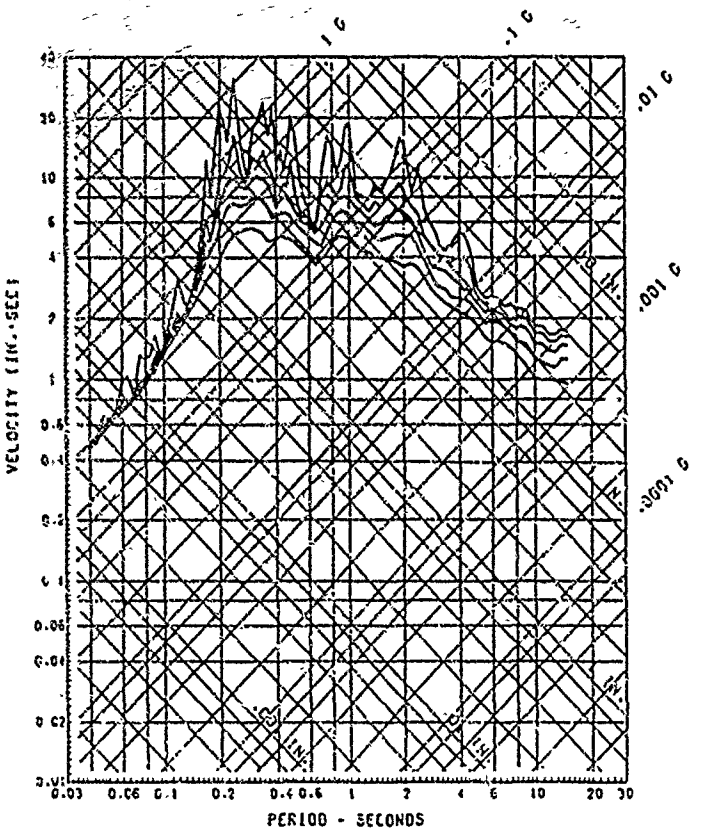
10780809-031 JUISUI
COMP N08W
1835 GMT
DAMPING VALUES ARE
0, 2, 5, 10 AND 20
PERCENT OF CRITICAL

EARTHQUAKE OF AUG 09,1978

ROC 4




ROC VOL 2 PT B

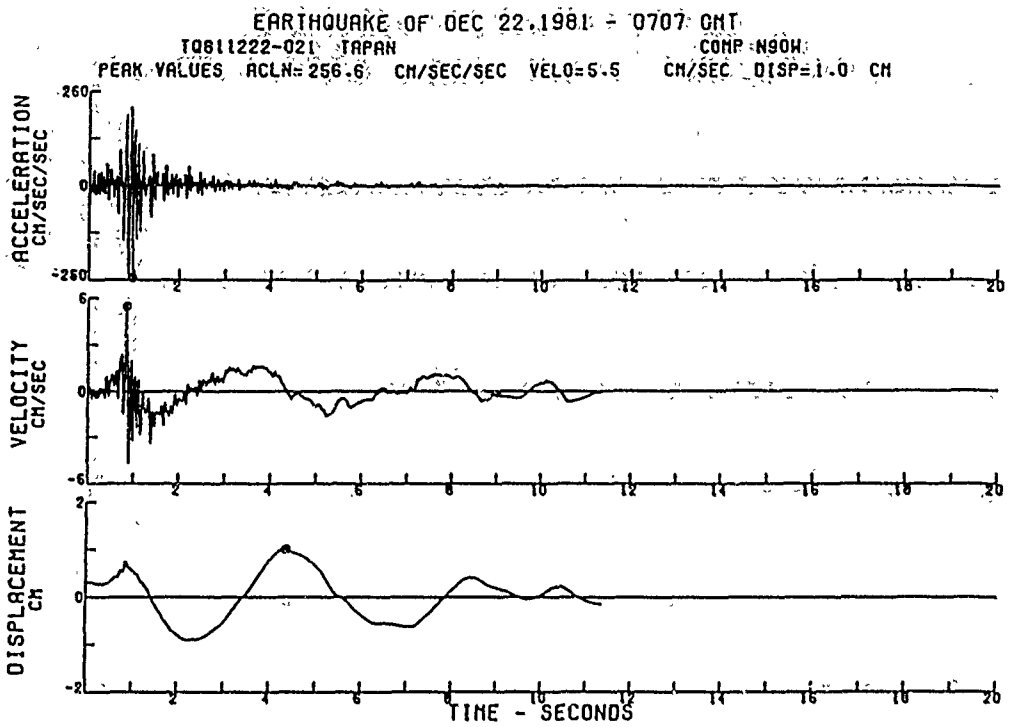



ROC VOL 2 PT D

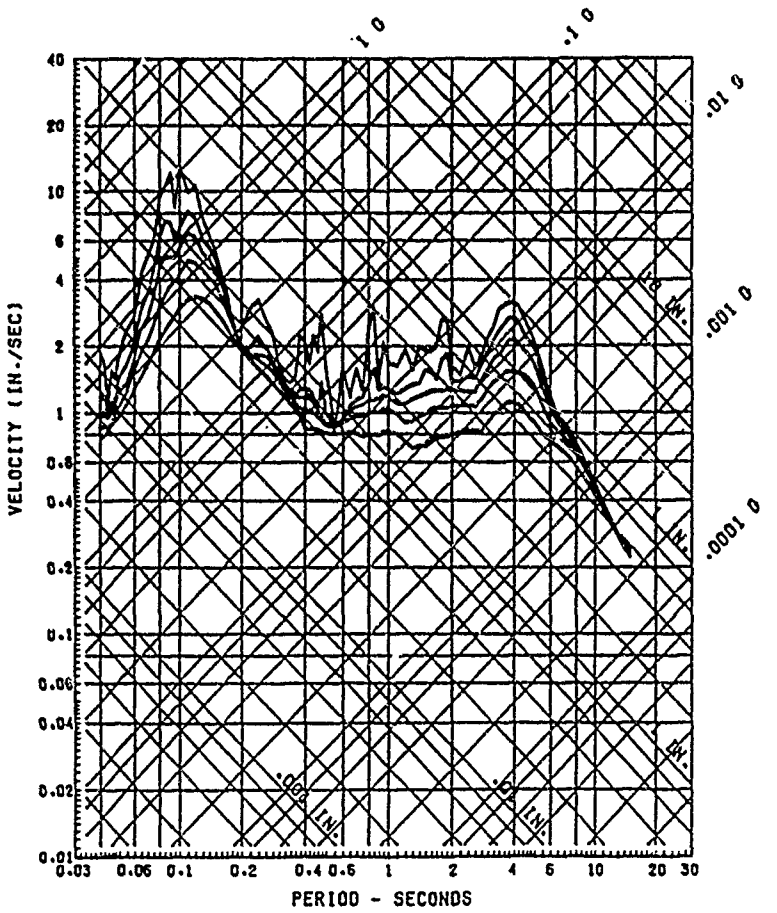
TU810129-016 LOTUNG (3)
COMP N20E
0451 GMT
DAMPING VALUES ARE
0, 2, 5, 10 AND 20
PERCENT OF CRITICAL

EARTHQUAKE OF JAN 29,1981

***ROC 7***




ROC VOL 3, PT B




ROC VOL 3, PT D

TG811222-021 TAPAN

COMP N90W

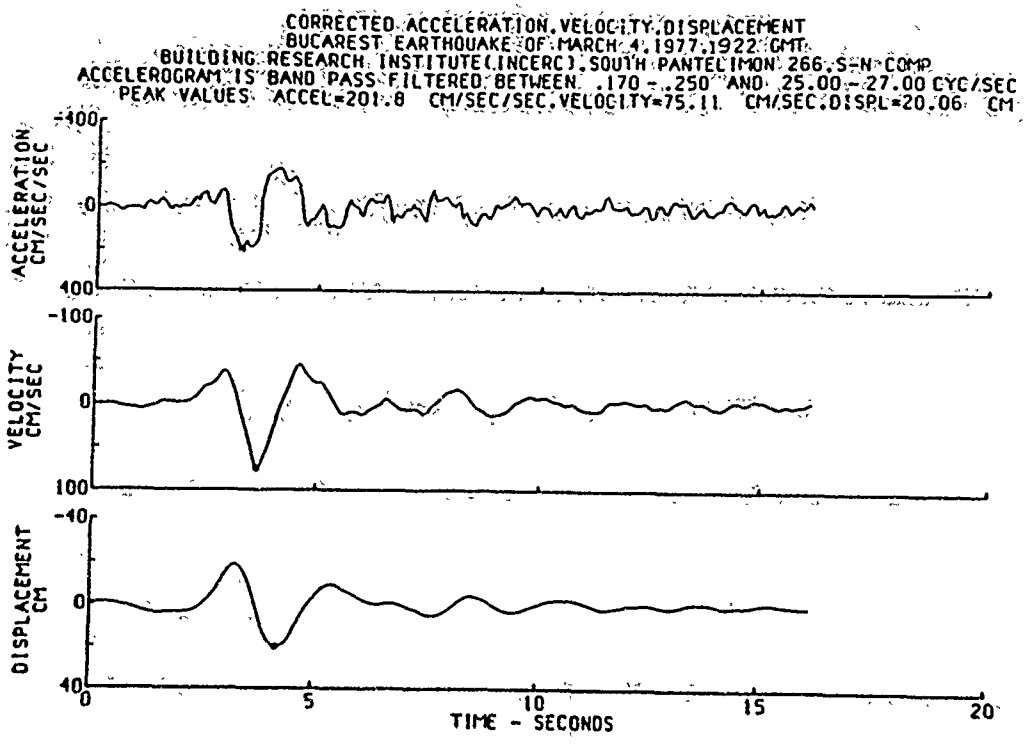
0707 GMT

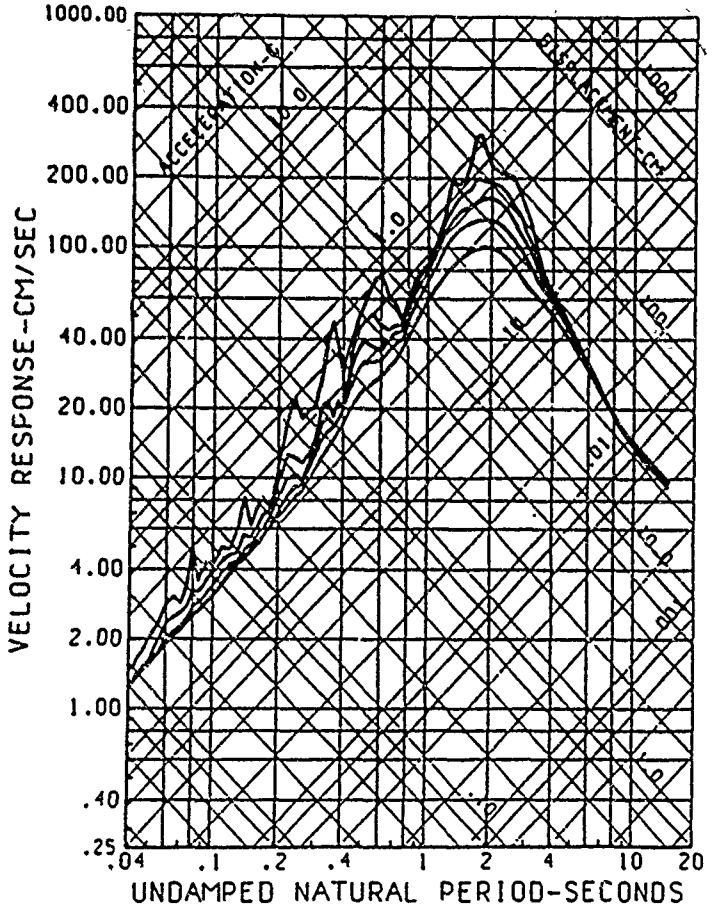
DAMPING VALUES ARE

0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

EARTHQUAKE OF DEC 22,1981

***ROC 8***



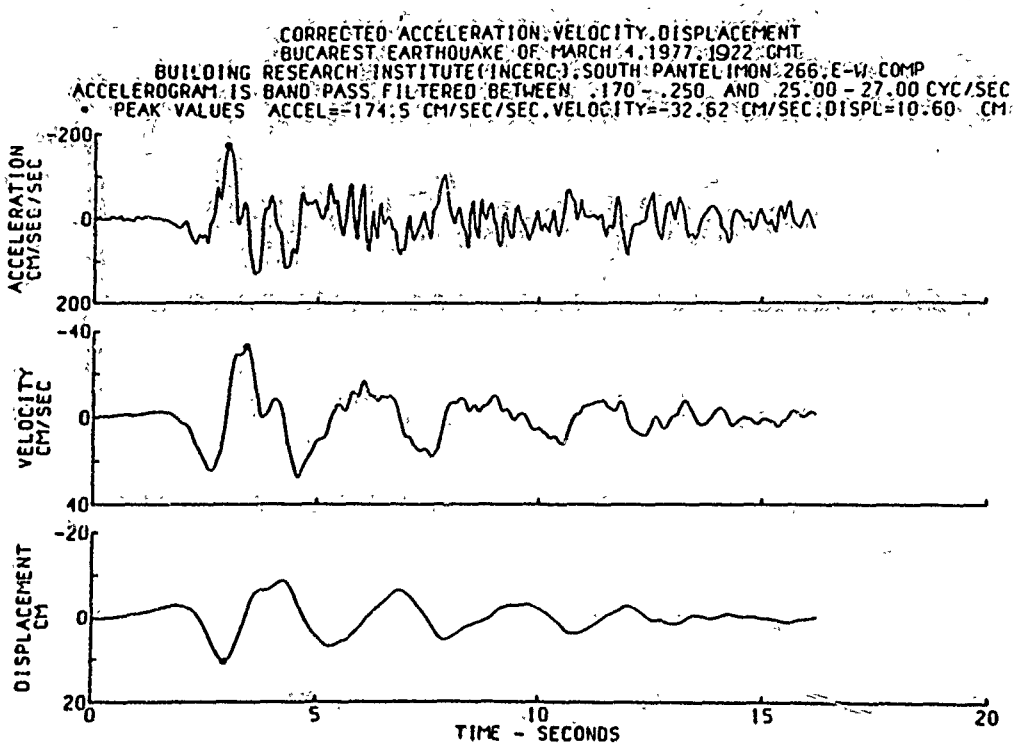



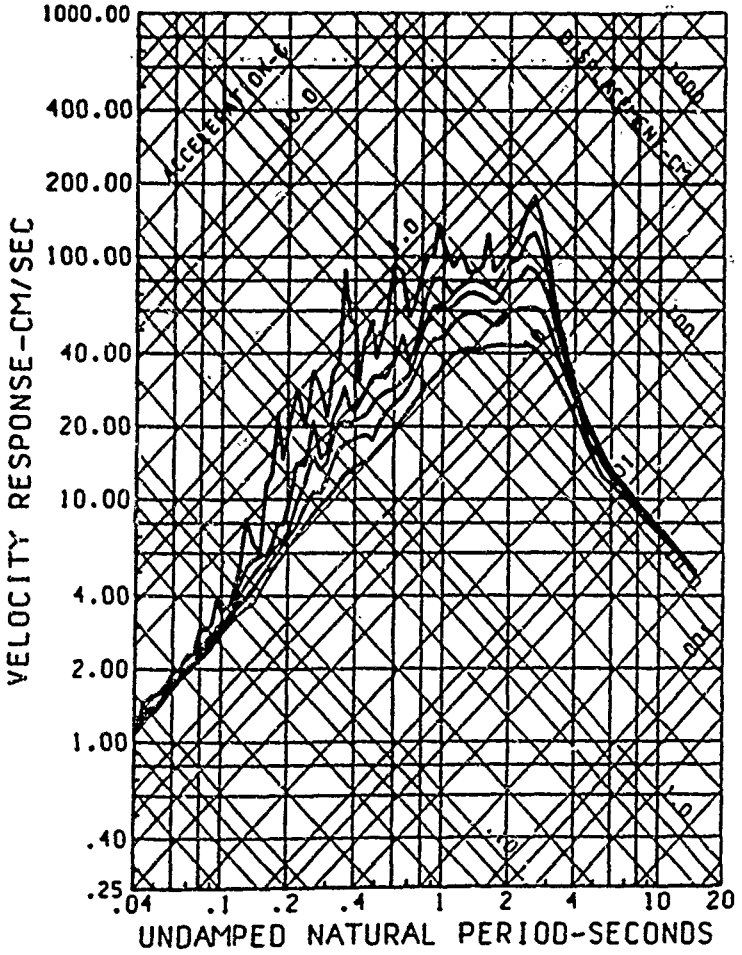

USGS OF 78-1022

SEISMIC ENGINEERING
BRANCH/USGS
1922GMT, S-N
CRITICAL DAMPING
0.2.5.10.20 PERCENT

BUCAREST, (INCERC)
3/4/77

***ROM 1***



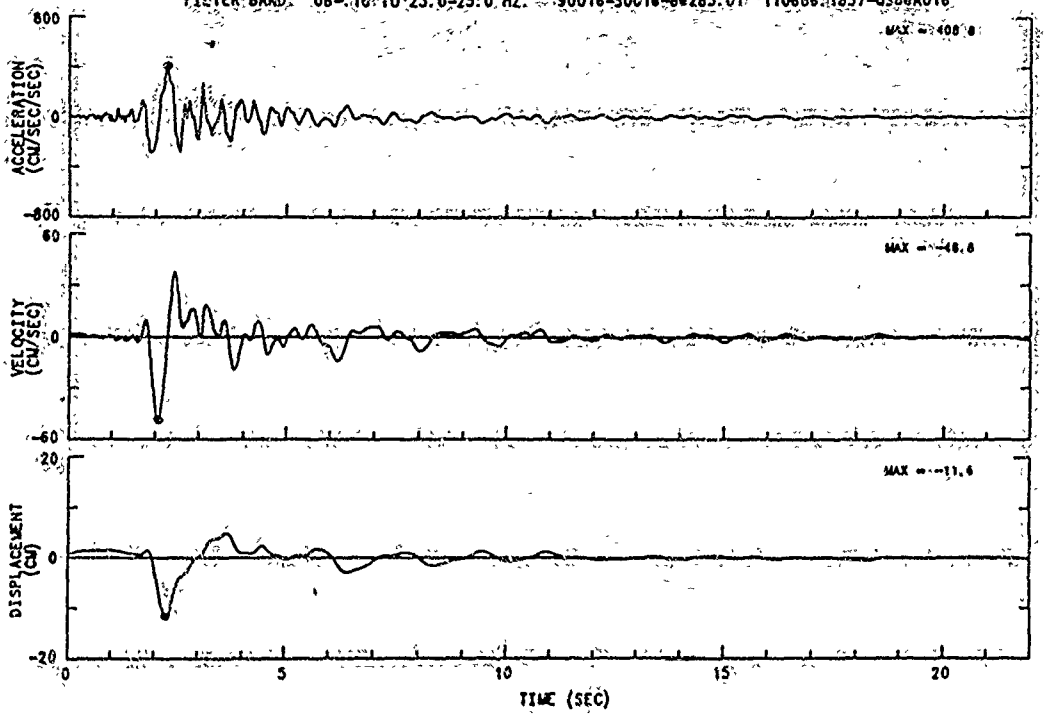



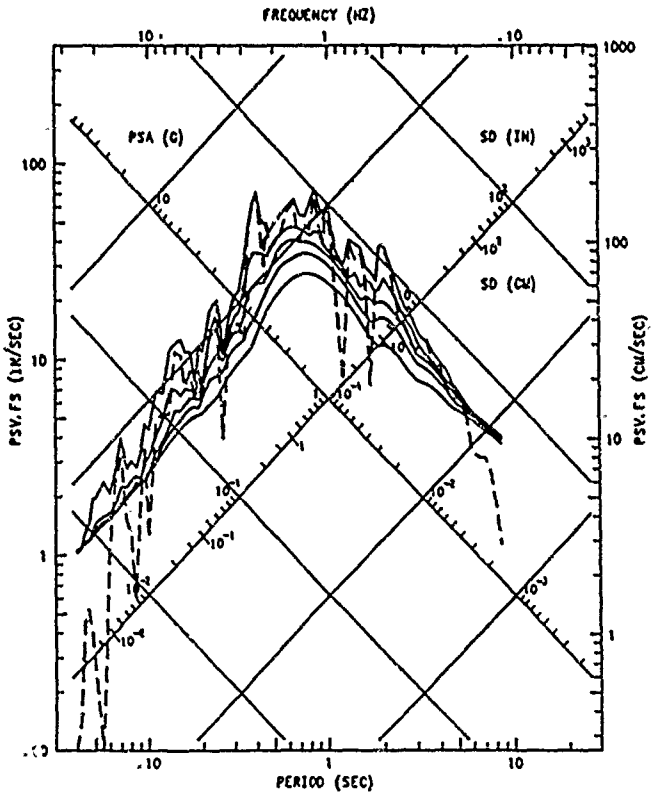

USGS OF 78-1022

SEISMIC ENGINEERING
BRANCH/USGS
1922GMT,E-W
CRITICAL DAMPING
0.2.5.10.20 PERCENT

BUCAREST,(INCERC)
3/4/77

***ROM 2***



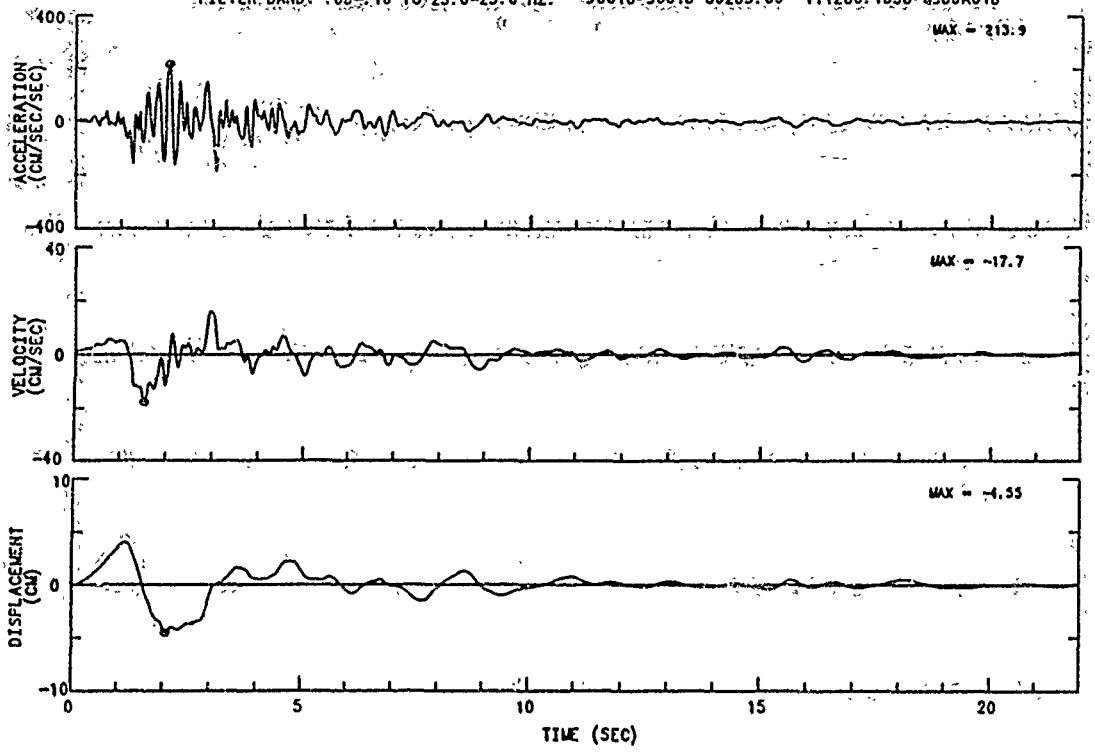

CDMG OSMS 86-07

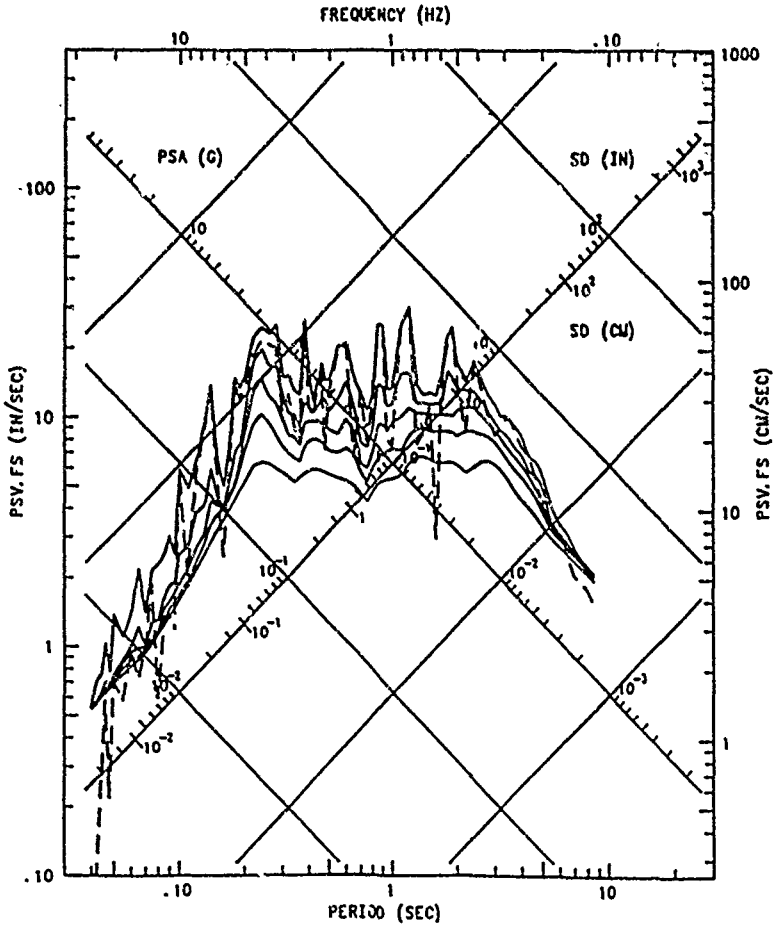
CENTRO AMERICANA UNIV. -(NIVEL/FLOOR: 1)
CHN 3: 90 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
90016-S0016-86283.01
110686.1907-QS86A016
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SAN SALVADOR EARTHQUAKE
OCTOBER 10, 1986 17:49 GMT

***SAL 9***

SAN SALVADOR EARTHQUAKE OCTOBER 10, 1986, 17:49 GMT
HOTEL SHERATON - (NIVEL/FLOOR: 1) CHN 1: 0 DEG
INSTRUMENT-CORRECTED AND BANDPASS-FILTERED ACCELERATION, VELOCITY AND DISPLACEMENT
FILTER BAND: .08-.16 TO 23.0-25.0 HZ. 90018-S0018-86283.06 111286.1838-QS86A018



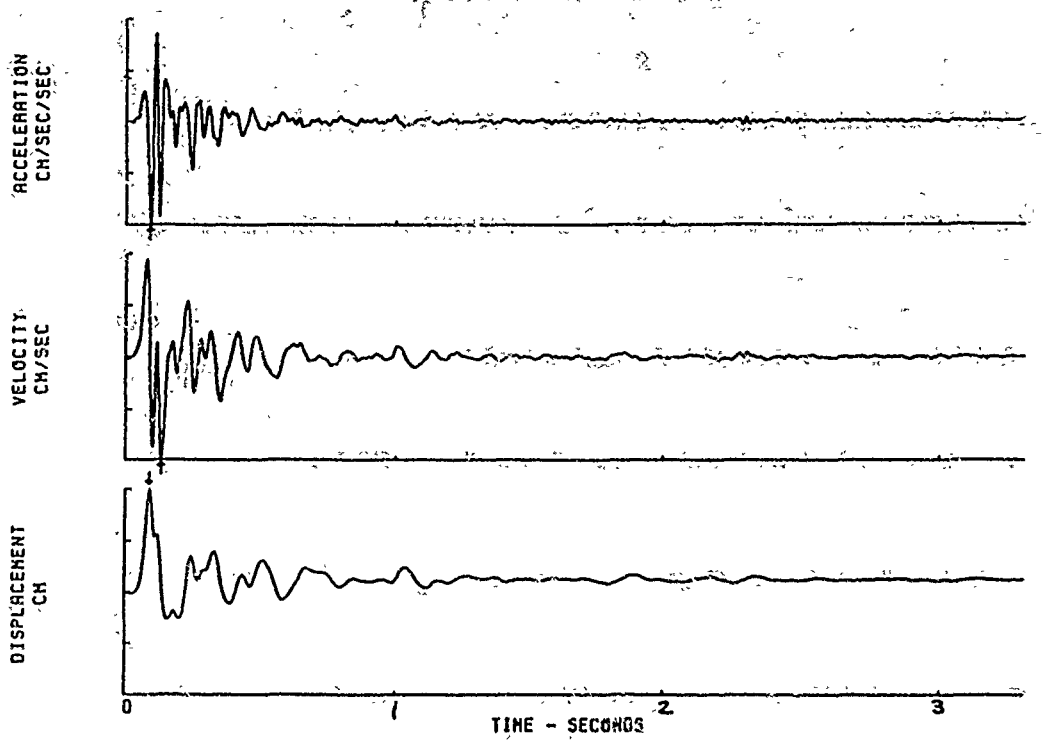



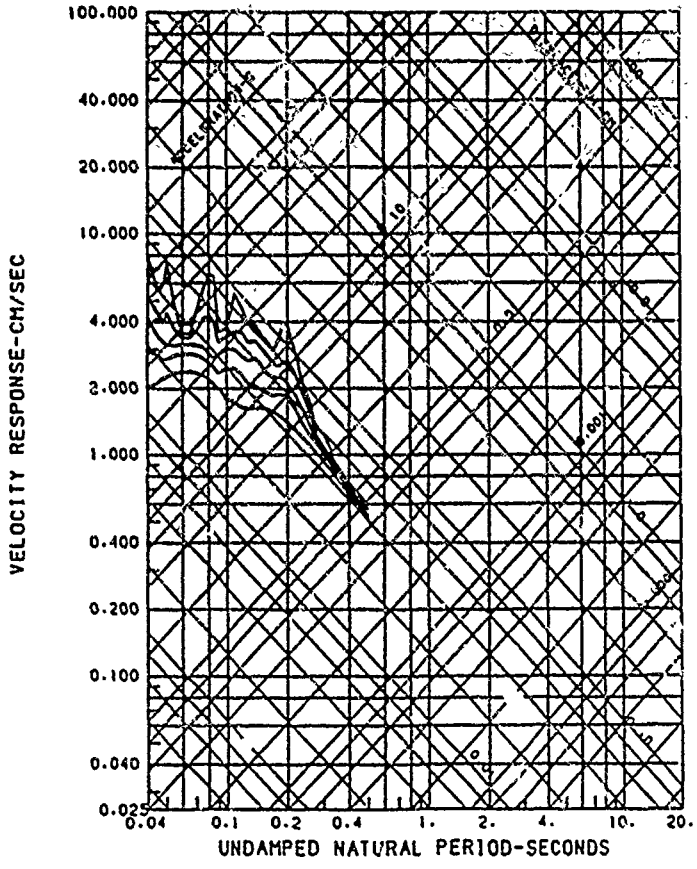

CDMG OSMS 86-07

HOTEL SHERATON - (NIVEL/FLOOR: 1)
CHN 1: 0 DEG
ACCELEROGRAM BANDPASS-FILTERED WITH
RAMPS AT .08-.16 TO 23.0-25.0 HZ.
90018-S0018-86283.06
111286.1848-QS86A018
—— RESPONSE SPECTRA: PSV, PSA & SD
— — FOURIER AMPLITUDE SPECTRUM: FS
DAMPING VALUES: 0, 2, 5, 10, 20%

SAN SALVADOR EARTHQUAKE
OCTOBER 10, 1986 17:49 GMT

**SAL 12**




USGS OF 81-448

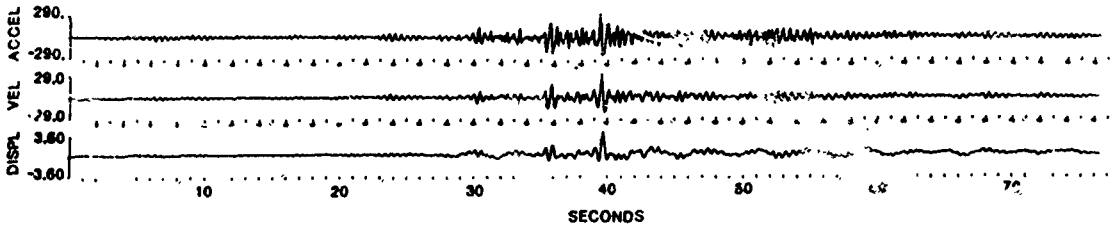
SEISMIC ENGINEERING BRANCH/USGS

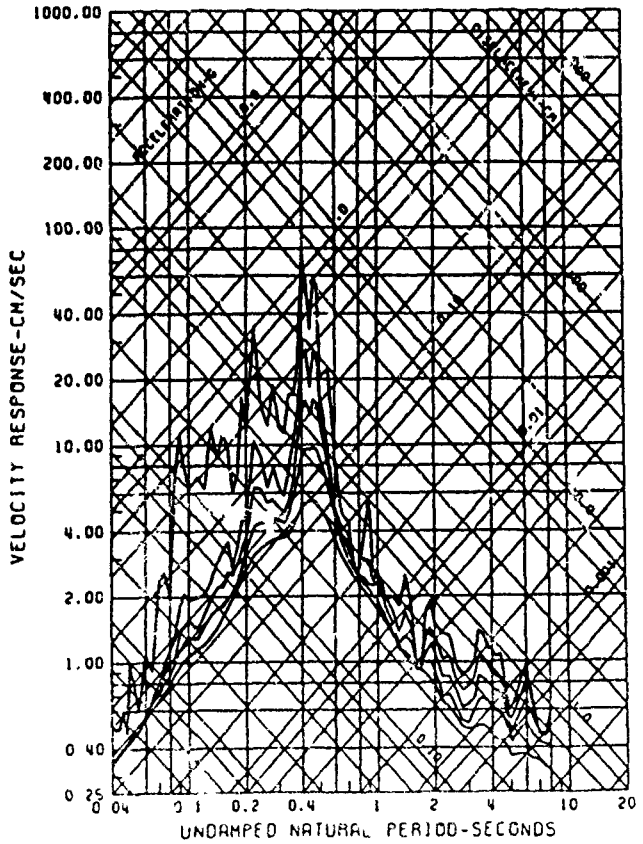
BAND PASSED FROM
N=1. 2.000 HZ TO N=2. 50.00 HZ
1023 UTC,90 DEG
CRITICAL DAMPING
0.2.5.10.20 PERCENT

MONTICELLO ABUT CEN CREST, 8/27/78

***SC 2***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
BVE 80, PAPUA NEW GUINEA
LONG. (360°)
EARTHQUAKE OF MARCH 18, 1983 0905 UTC
BUTTERWORTH FILTER AT 0.20 HZ, ORDER 4
PEAK VALUES: ACCEL=283.51 CM/SEC/SEC, VELOCITY=28.64 CM/SEC, DISPL=3.56 CM



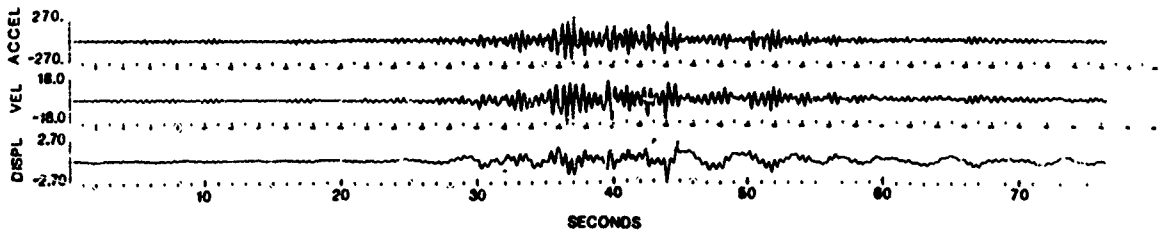

USGS OF 85-261

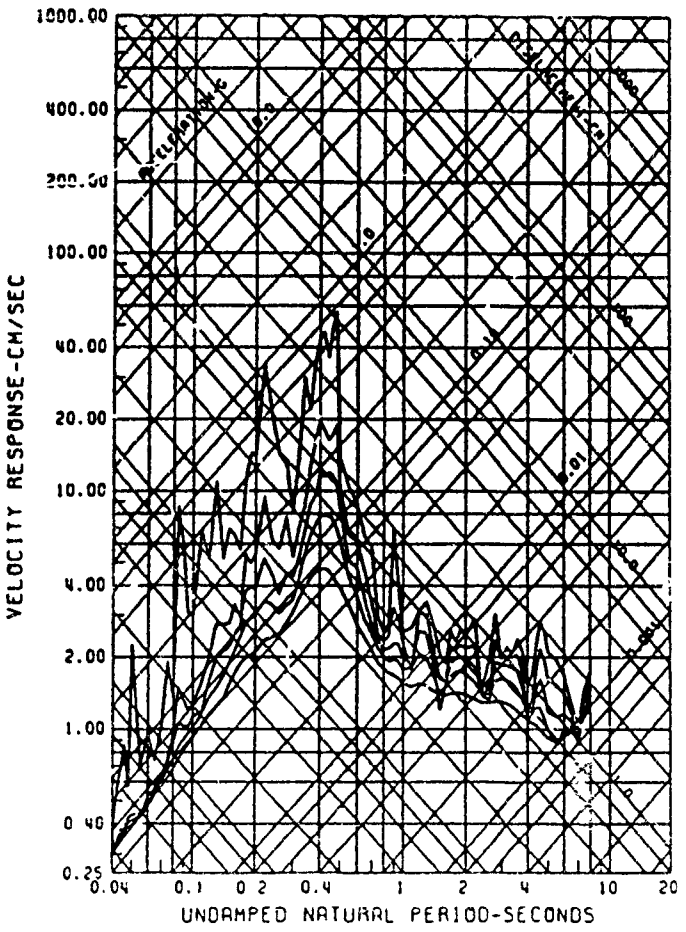
NATIONAL STRONG MOTION
DATA CENTER
0905UTC LONG.
FILTERS: BUTTERWORTH, ORDER 4
0.125 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

BVE 80, PAPUA NEW GUINEA
3/18/83

***SOL 1***

CORRECTED ACCELERATION, VELOCITY, AND DISPLACEMENT 200.00 SPS
BVE 80, PAPUA NEW GUINEA
TRAN. (90°)
EARTHQUAKE OF MARCH 18, 1983 0905 UTC
BUTTERWORTH FILTER AT 0.20 HZ, ORDER 4
PEAK VALUES: ACCEL=269.65 CM/SEC/SEC, VELOCITY=-17.91 CM/SEC, DISPL=-2.61 CM



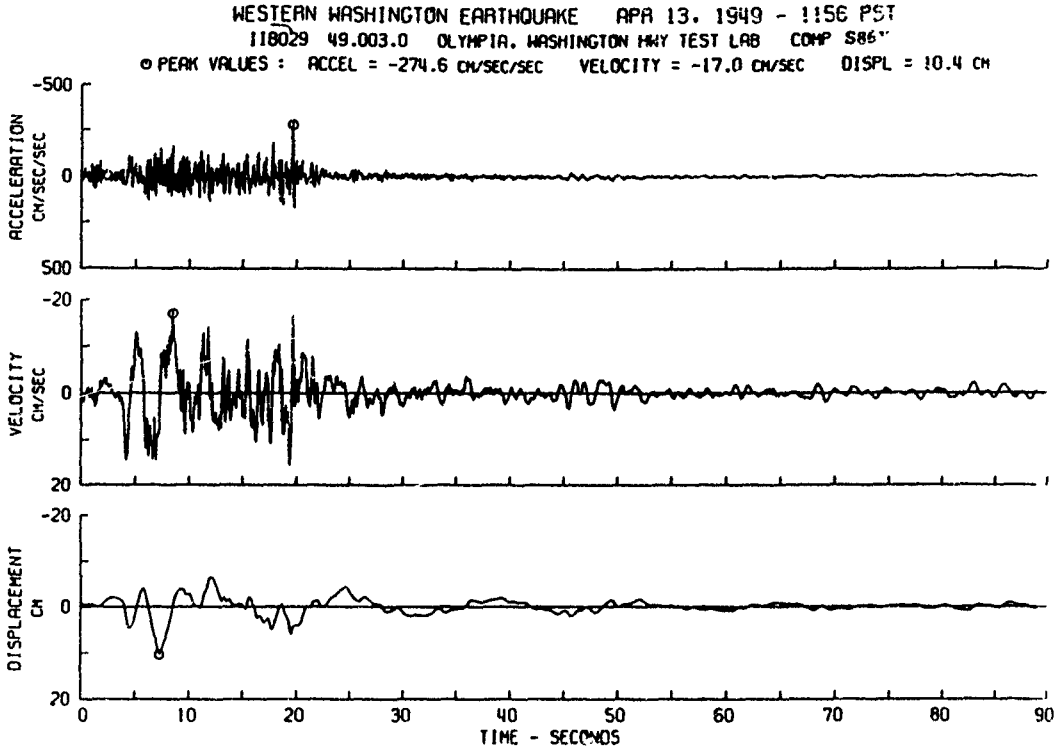




USGS OF 85-261

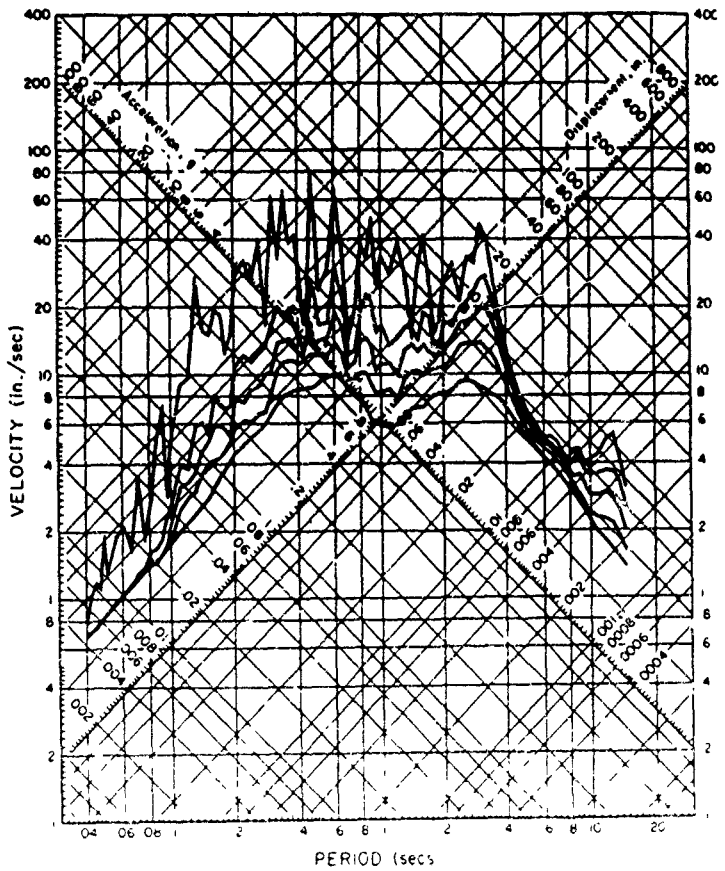
NATIONAL STRONG MOTION
DATA CENTER
0905 UTC TRAN.
FILTERS: BUTTERWORTH, ORDER 4
0.125 HZ; ANTIALIAS 50 - 100 HZ
CRITICAL DAMPING
0,2,5,10,20 PERCENT

BVE 80, PAPUA NEW GUINEA
3/18/83

*SOL 2*




CIT EERL 72-50

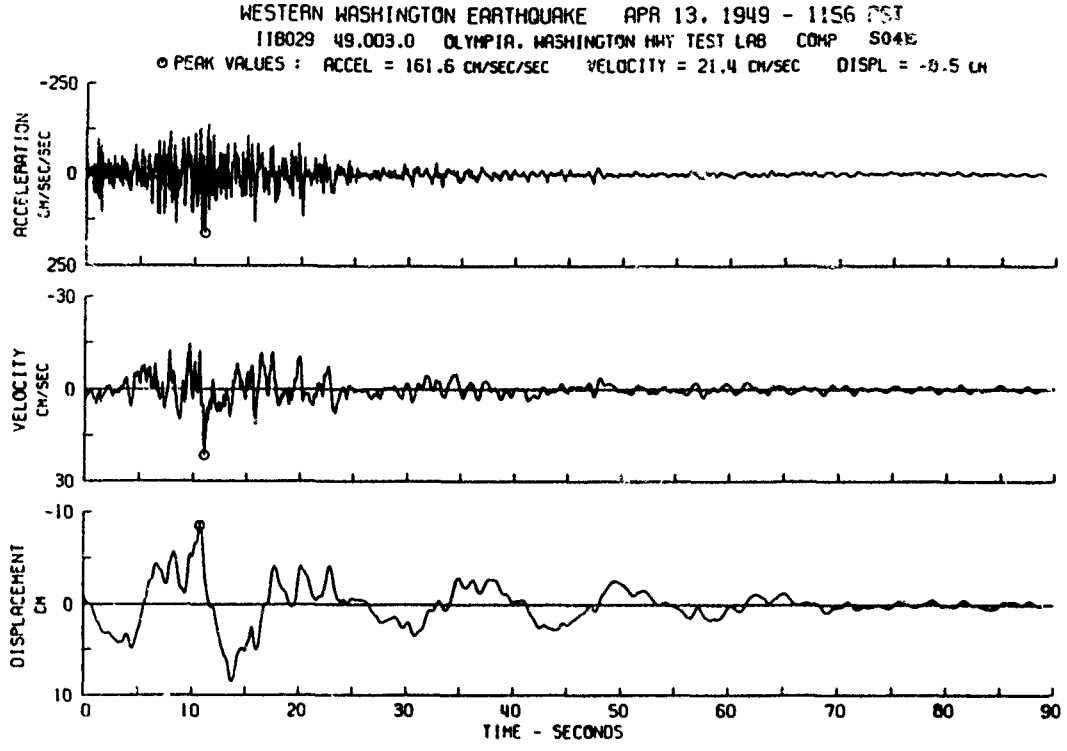



CIT EERL 73-80

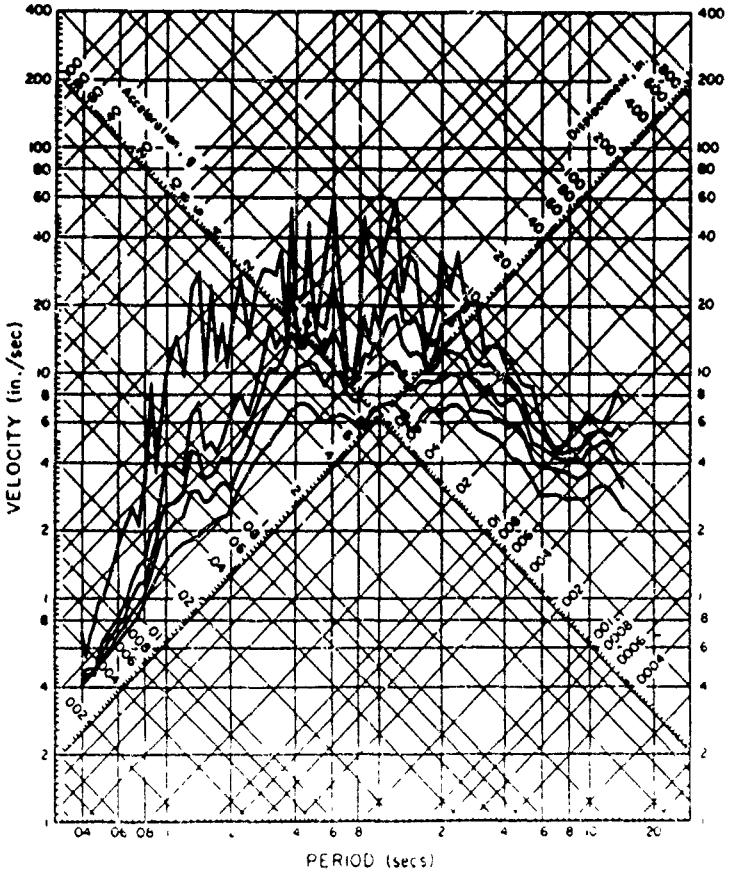
II8029 49.003.0 OLYMPIA, WASHINGTON
HWY TEST LAB COMP S86W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

WESTERN WASHINGTON EARTHQUAKE
APR 13, 1949 - 1156 PST

***WAS 1***




CIT EERL 72-50

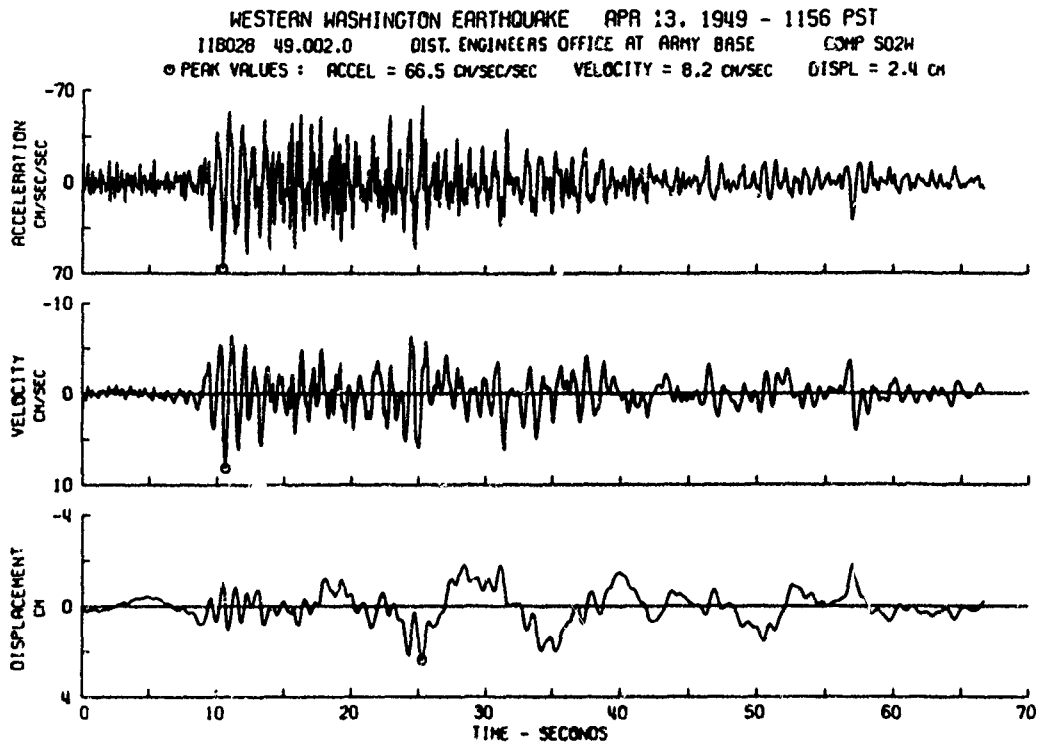



CIT EERL 73-80

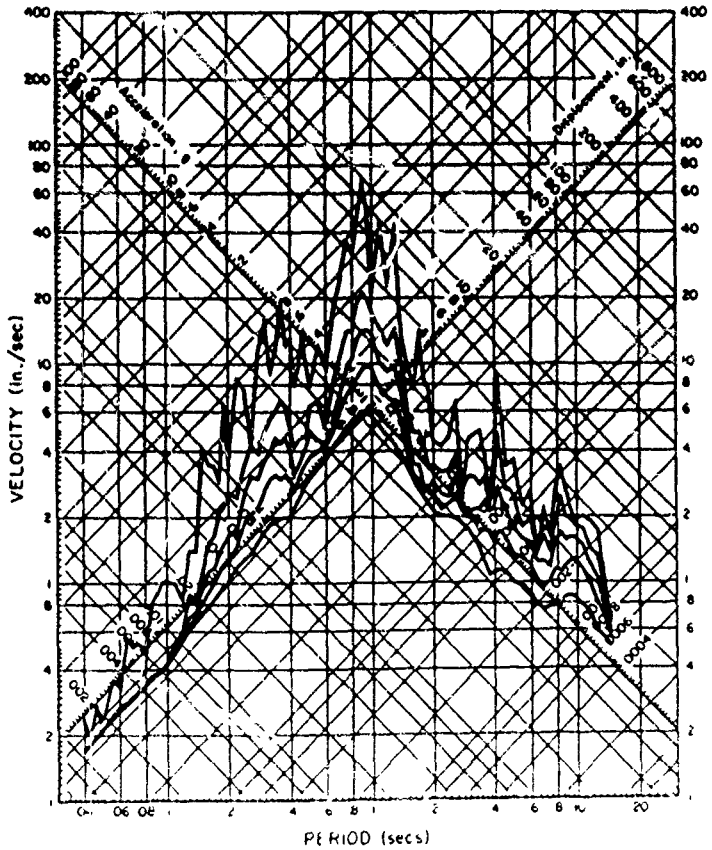
IIB029 49.003.0 OLYMPIA, WASHINGTON
HWY TEST LAB COMP S04E
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

WESTERN WASHINGTON EARTHQUAKE
APR 13, 1949 - 1156 PST

***WAS 2***




CIT EERL 72-50

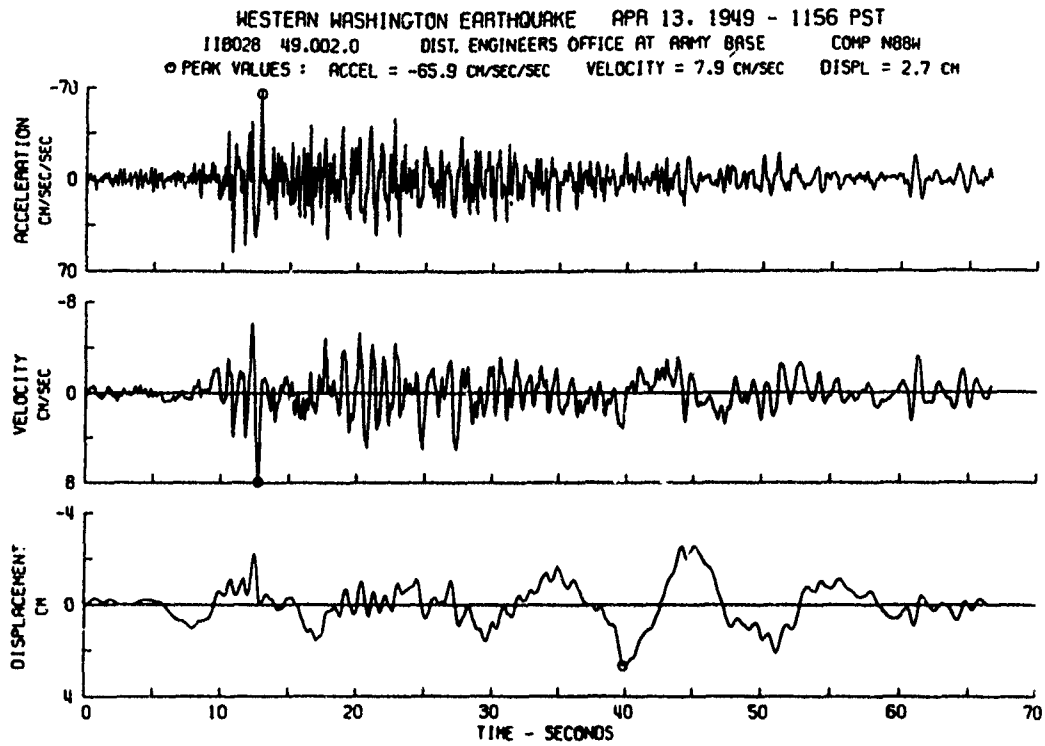



CIT EERL 73-80

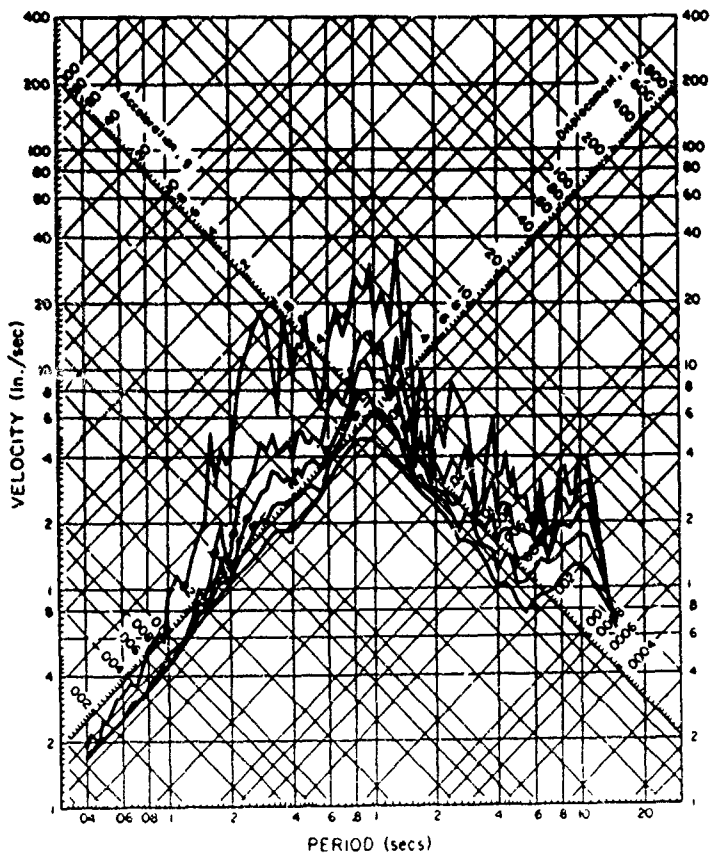
1118028 49.002.0 SEATTLE, WASH.
DIST ENGRS OFFC AT ARMY BASE COMP S02W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

WESTERN WASHINGTON EARTHQUAKE
APR 13, 1949 - 1156 PST

***WAS 3***




CIT EERL 73-80

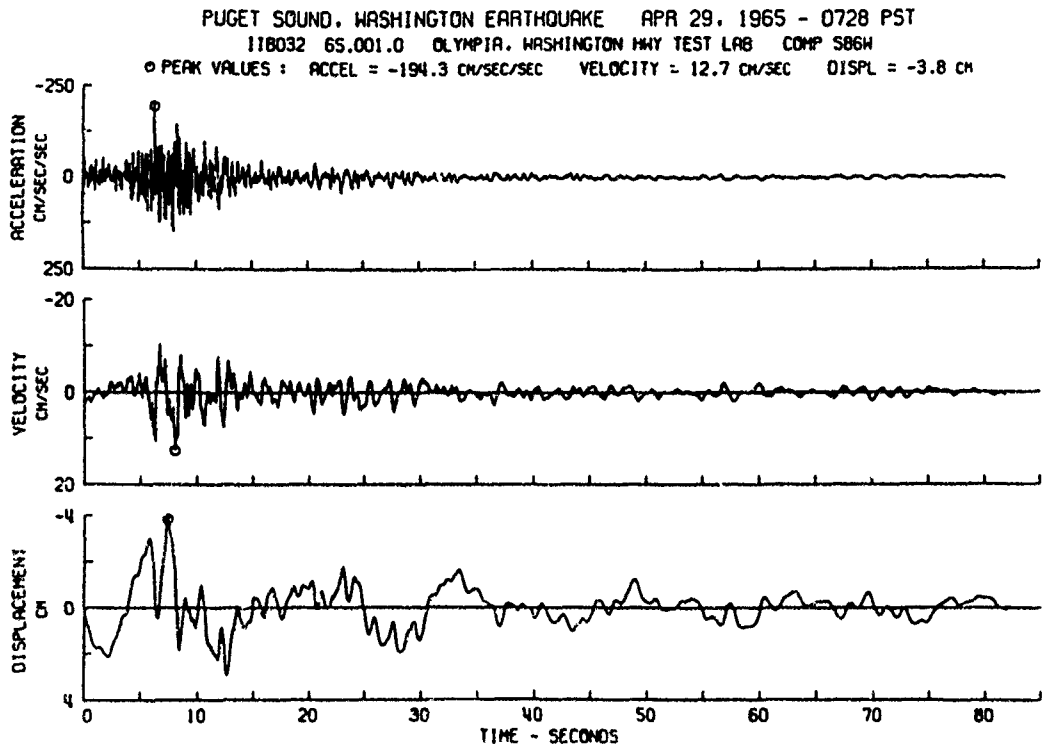



CIT EERL 72-50

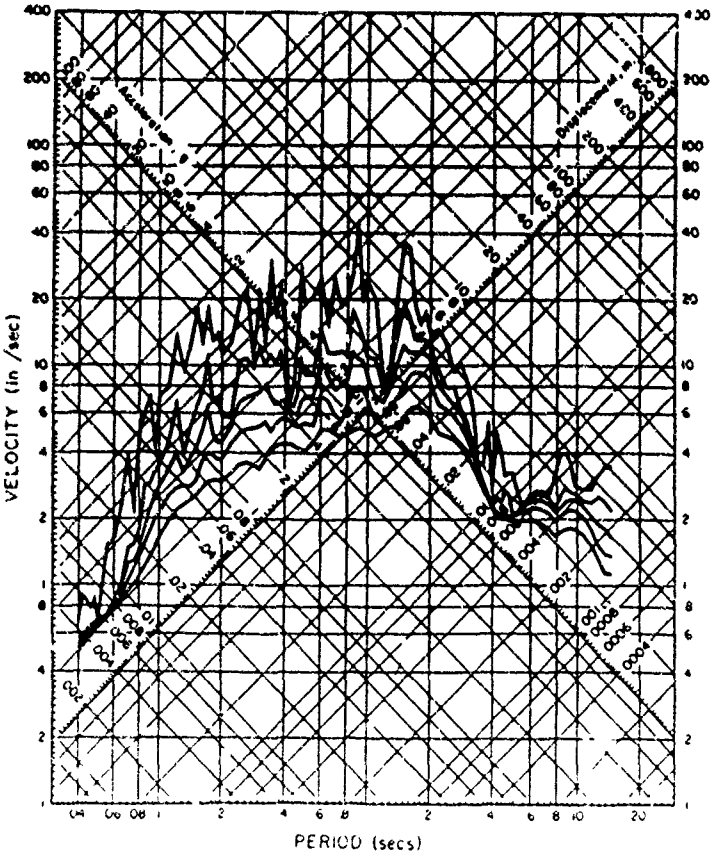
1118028 49.002.0 SEATTLE, WASH.
DIST ENGRS OFFC AT ARMY BASE COMP N88W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

WESTERN WASHINGTON EARTHQUAKE
APR 13, 1949 - 1156 PST

***WAS 4***




CIT EERL 72-50

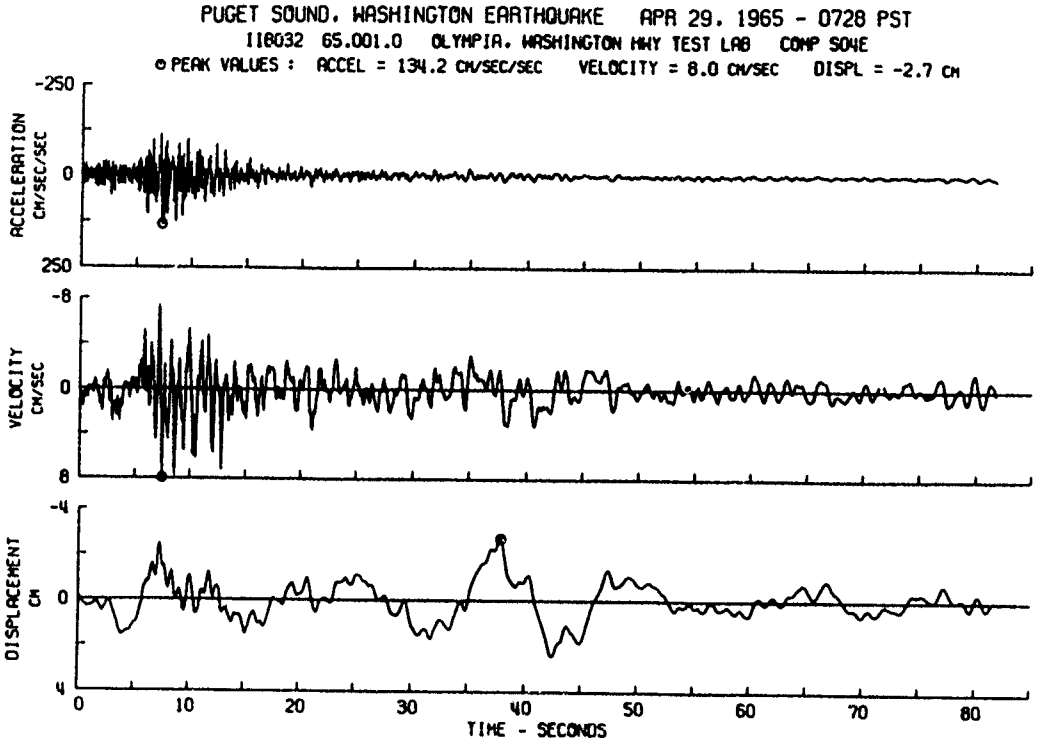



CIT EERL 73-80

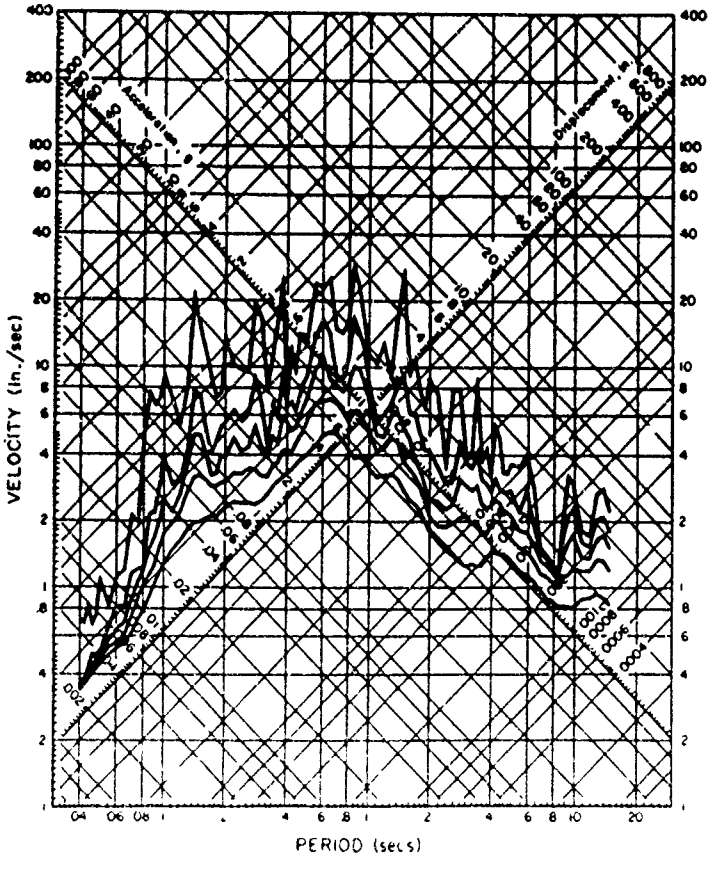
1118032 65.001.0 OLYMPIA, WASHINGTON
MAY TEST LAB COMP S86W
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

PUGET SOUND
WASHINGTON EARTHQUAKE
APR 29, 1965 - 0728 PST

***WAS 5***




CIT EERL 72-50




CIT EERL 73-80

III8032 65.001.0 OLYMPIA, WASHINGTON
HWY TEST LAB COMP SOUE
DAMPING VALUES ARE
0, 2, 5, 10 AND 20 PERCENT OF CRITICAL

PUGET SOUND
WASHINGTON EARTHQUAKE
APR 29, 1965 - 0728 PST

***WAS 6***

**Waterways Experiment Station Cataloging-In-Publication Data**

Leeds, David J.

State-of-art for assessing earthquake hazards in the United States. Report 28, Recommended accelerograms for earthquake ground motions / by David J. Leeds ; prepared for Department of the Army, U.S. Army Corps of Engineers ; monitored by Geotechnical Laboratory, US Army Engineer Waterways Experiment Station.

433 p. : ill. ; 28 cm. -- (Miscellaneous paper ; S-73-1 rept. 28)

Includes bibliographic references.

1. Accelerograms. 2. Earthquake intensity. 3. Earthquake hazard analysis -- United States. I. United States. Army. Corps of Engineers. II. U.S. Army Engineer Waterways Experiment Station. III. Title. IV. Title: Recommended accelerograms for earthquake ground motions. V. Series: Miscellaneous paper (U.S. Army Engineer Waterways Experiment Station) ; S-73-1 rept. 28.

TA7 W34m no.S-73-1 rept.28