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PROCESSED SEISMIC MOTION RECORDS FROM
DESERT HOT SPRINGS, CALIFORNIA
EARTHQUAKE OF APRIL 22, 1992

RECORDED AT SEISMIC STATIONS
IN SOUTHERN NEVADA

April 1993

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U.S. Department of Energy
Nevada Operations Office
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MASTER

DESERT HOT SPRINGS, CALIFORNIA EARTHQUAKE OF APRIL 22, 1992

Background

As part of the contract with the U.S. Department of Energy, Nevada Operations Office (DOE/NV), URS/John A. Blume & Associates, Engineers (URS/Blume) maintained a network of seismographs in southern Nevada to monitor the ground motion generated by the underground nuclear explosions (UNEs) at the Nevada Test Site (NTS). The seismographs were located in the communities surrounding the NTS and the Las Vegas valley. When these seismographs were not used for monitoring the UNE generated motions, a limited number of them were maintained for monitoring motion generated by other than UNEs (e.g., motion generated by earthquakes, wind, blast). During the subject earthquake of April 22, 1992, the systems located at 19 ground locations recorded the earthquake motions. Due to the potential benefit of these data for the scientific community, DOE/NV authorized the release of these records.

Earthquake Parameters

The earthquake parameters obtained from various sources were:

Epicenter:	33.96°N, 116.32°W
Depth:	12 Km
Magnitude:	6.1 M_L
Origin Date/time:	23 April 1992 Day 114 Hr 04 Min 50 Sec 22 (GMT)
Local Date/time:	22 April 1992 9:50 p.m. (PDT)

The earthquake was reported to have occurred under the Little San Bernardino Mountains about 17 km east of Desert Hot Springs and 22 km northeast of Palm Springs. The earthquake magnitude was estimated to be 6.1 M_L . The earthquake was felt throughout the communities in Las Vegas and other southern Nevada areas.

Description of Equipment

Three types of seismographs were used in the monitoring program. They were L-7 velocity meter manufactured by the Precision Instrument Company (L-7B system) and by Develco, Inc. (L-7D system); PDR-1 by Kinometrics; and PDAS-100 by Teledyne Geotech. The FBA-11 accelerometers manufactured by Kinometrics were utilized as sensors for both the PDR-1 and PDAS-100 systems. The FBA-11 has a flat response from DC to 50 Hz.

L-7 Velocity Meter: It is a continuously recording velocity seismograph which records the motion on an analog magnetic tape. The system has a flat velocity response over a frequency spectrum from 0.1 Hz to 34 Hz (Reference 1). It has a recording capability of 5 continuous days.

PDR-1: The acceleration signal from the sensors is converted to a digital form and recorded on a digital cassette tape. The selectable sampling rate was set at 200 samples per second per

offs would partially filter-out this long period motion. In order to examine the characteristics of the long-period motion, the lower cut-off frequency was extended to 0.05 Hz and the PSRV was extended to a period of 30.11 seconds. Of course, the PSRV values for periods greater than the cut-off frequency or the beyond the recording system response are not the optimum values.

- In the final phase, the records were arranged for the long-term preservation and for report preparation. The final product contains data plots in chronological order of data processing; original recording, uncorrected and corrected Fourier amplitude spectra, corrected acceleration, velocity, displacement and PSRVs.

Results

Table 2 tabulates the uncorrected peak acceleration or velocity, corrected peak acceleration, velocity and displacement values and any data processing comments. Some of the problems encountered were late trigger (the system was not triggered by the initial arrival, but by larger amplitude motion which arrived later), noisy record (some of which could not be removed because the noise was inside the frequency band), short record, and dead channel. The data are written in a format which are compatible with the standard format for the California Strong-Motion Instrumentation Program (CSMIP) tapes [Reference 3]. Table 3 summaries the standard data format.

The data were written on a 8MM tape using ASCII format (record length=80, blocksize=2000). Table 4 gives examples of VAX/VMS commands on how the data tape was created and how the data files can be retrieved.

Acknowledgment

The network of seismographs in southern Nevada to monitor the ground motion generated by the UNEs at the NTS was maintained by the staff of electronic technicians consisting of Ray Bradley, Don Morgan, Robert Stewart, Lori Forrester and Jim Graham. The seismic records conversion and processing staff included Vickie Ross, Stephanie Miller, Rosemarie Musso, Ben Gacula and Cory Lieber.

References

1. Navarro, R., and G.M. Wuollet, "The L-7 Velocity Seismograph Shaking-Table Results", NOAA Technical Report ERL 254-ESL 26, Boulder, Colorado, July 1972.
2. Lum, P. K., "Overview of Seismic Signal Conversion and Processing Operations", URS/John A. Blume & Associates, Engineers, San Francisco, JAB-10733-TM3, March 1991.
3. Shakal, A. F. and M. J. Huang, "Standard Tape Format for CSMIP Strong-Motion Data Tapes", California Department of Conservation, Division of Mines and Geology, Office of Strong Motion Studies, Report OSMS 85-03, December 1985.

0 Kilometers 10

○ See Table #1 for station information

URS/BLUME

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**FIGURE 2: STATIONS RECORDING THE DESERT HOT SPRINGS,
CALIFORNIA EARTHQUAKE OF 4/22/92
IN LAS VEGAS VALLEY**

TABLE 1: LOCATIONS OF THE RECORDING STATIONS
(Desert Hot Springs, California Earthquake of April 22, 1992)

<u>Station No.</u>	<u>Recording System(s)</u>	<u>Location</u>	<u>Coordinates</u>	<u>Distance from Epicenter (Km)</u>
1	PDAS-100	Laughlin	114.58W 35.15N	209
2	PDR-1	Pahrump Site 1	115.98W 36.21N	254
3	PDAS-100	Pahrump Site 2	116.07W 36.23N	255
4	PDR-1	Las Vegas	115.41W 36.15N	259
5	PDR-1	Las Vegas	115.07W 36.06N	262
6A	L-7	Las Vegas	115.14W 36.11N	264
6B	PDR-1			
7	PDR-1	Las Vegas	115.05W 36.11N	268
8A	PDR-1	Las Vegas	115.19W 36.17N	269
8B	PDAS-100			
9	PDR-1	Las Vegas	115.14W 36.17N	270
10	PDR-1	Las Vegas	115.14W 36.17N	271
11	PDR-1	Las Vegas	115.22W 36.22N	273
12	PDR-1	Las Vegas	115.31W 36.26N	274
13	PDR-1	Las Vegas	115.02W 36.18N	276
14	PDAS-100	Lathrop Wells	116.40W 36.64N	300
15	PDR-1	Beatty	116.76W 36.91N	332
16	PDR-1	Nevada Test Site	116.06W 36.93N	333
17A	PDR-1	Death Valley	117.34W 37.03N	355
17B	PDAS-100			
18A	PDR-1	Alamo	115.12W 37.27N	385
18B	PDAS-100			
19	PDAS-100	Goldfield	117.23W 37.71N	426

TABLE 2: PEAK AMPLITUDES
(Desert Hot Springs, California Earthquake of April 22, 1992)

Station No.	Comp	<- Uncorrected ->		<----- Corrected ----->			Comments
		Accel. (cm/sec ²)	Velocity (cm/sec)	Accel. (cm/sec ²)	Velocity (cm/sec)	Disp (cm)	
1	DOWN	4.907	0.000	4.829	0.211	0.154	
1	NORTH	9.799	0.000	9.838	0.381	-0.225	
1	WEST	-9.750	0.000	-9.811	-0.499	-0.252	
2	DOWN	2.079	0.000	2.077	0.238	-0.093	DEAD CHANNEL
2	NORTH	-0.015	0.000	--	--	--	
2	WEST	3.830	0.000	3.820	0.940	0.783	
3	DOWN	3.700	0.000	3.697	0.516	0.105	
3	NORTH	7.558	0.000	7.554	-1.451	-0.432	
3	WEST	8.145	0.000	8.139	1.959	0.904	
4	DOWN	1.795	0.000	1.791	-0.224	-0.099	
4	NORTH	-1.911	0.000	-1.911	-0.349	-0.159	
4	WEST	2.593	0.000	2.581	-0.482	-0.341	
5	DOWN	2.767	0.000	2.763	0.501	0.167	
5	NORTH	-3.104	0.000	-3.128	0.479	0.202	
5	WEST	3.079	0.000	3.067	-0.717	-0.430	
6 A	DOWN	0.000	0.345	2.909	0.347	0.105	NOISY RECORDS
6 A	NORTH	0.000	-0.646	-3.606	-0.635	0.234	
6 A	WEST	0.000	-0.671	-4.105	-0.662	0.372	
6 B	DOWN	2.055	0.000	2.035	0.352	-0.120	
6 B	NORTH	-3.522	0.000	-3.520	0.732	-0.335	
6 B	WEST	-3.495	0.000	-3.446	1.094	-0.388	
7	DOWN	-1.835	0.000	-1.825	-0.399	-0.125	
7	NORTH	-2.714	0.000	-2.707	-0.521	0.209	
7	WEST	3.709	0.000	3.709	-0.725	-0.389	
8 A	DOWN	2.321	0.000	2.296	-0.445	-0.114	DEAD CHANNEL
8 A	NORTH	0.210	0.000	--	--	--	
8 A	WEST	-7.024	0.000	-7.034	-1.380	0.657	
8 B	DOWN	2.311	0.000	2.313	-0.442	0.110	
8 B	NORTH	-5.975	0.000	-5.968	1.329	0.533	
8 B	WEST	-7.116	0.000	-7.114	-1.378	0.679	
9	DOWN	4.180	0.000	4.144	0.884	-0.205	
9	NORTH	4.936	0.000	4.940	1.153	-0.342	
9	WEST	-6.859	0.000	-6.841	1.847	0.807	
10	DOWN	-2.409	0.000	-2.402	0.565	0.194	
10	NORTH	5.708	0.000	5.706	1.384	-0.452	
10	WEST	-6.513	0.000	-6.525	1.634	0.843	
11	DOWN	1.873	0.000	1.846	0.262	0.139	
11	NORTH	-4.412	0.000	-4.415	-0.639	-0.263	
11	WEST	-4.003	0.000	-3.996	0.742	-0.454	
12	DOWN	1.556	0.000	1.552	0.279	-0.127	
12	NORTH	2.022	0.000	2.021	0.505	-0.244	
12	WEST	1.947	0.000	1.938	0.594	-0.457	

TABLE 2: PEAK AMPLITUDES (CONT'D)

Station No.	Comp	<- Uncorrected ->		<----- Corrected ----->			Comments
		Accel. (cm/sec ²)	Velocity (cm/sec)	Accel. (cm/sec ²)	Velocity (cm/sec)	Disp (cm)	
13	DOWN	-0.769	0.000	-0.759	-0.115	0.090	
13	NORTH	1.002	0.000	0.966	0.227	0.145	
13	WEST	1.542	0.000	1.519	0.249	0.198	
14	DOWN	-1.383	0.000	-1.374	-0.313	-0.151	
14	NORTH	-4.011	0.000	-4.003	0.623	-0.234	
14	WEST	-3.347	0.000	-3.350	-0.837	0.806	
15	DOWN	1.855	0.000	1.838	0.179	-0.089	
15	NORTH	-2.335	0.000	-2.330	0.361	-0.147	
15	WEST	4.233	0.000	4.225	-0.403	0.353	
16	DOWN	-1.021	0.000	-1.010	-0.203	-0.105	LATE TRIGGERED
16	NORTH	1.161	0.000	1.158	0.303	0.164	SHORT RECORDS
16	WEST	1.924	0.000	1.923	-0.350	0.362	
17 A	DOWN	-0.697	0.000	-0.691	-0.106	-0.086	LATE TRIGGERED
17 A	NORTH	-1.500	0.000	-1.496	-0.229	0.171	SHORT RECORDS
17 A	WEST	1.492	0.000	1.489	0.356	-0.408	
17 B	DOWN	-0.685	0.000	-0.669	-0.106	-0.080	
17 B	NORTH	-1.498	0.000	-1.497	-0.228	0.169	
17 B	WEST	1.465	0.000	1.463	0.360	-0.406	
18 A	DOWN	1.847	0.000	1.187	0.262	0.093	LATE TRIGGERED
18 A	NORTH	-3.167	0.000	-2.403	0.465	-0.229	NOISY RECORDS
18 A	WEST	-2.805	0.000	-2.591	0.595	-0.386	
18 B	DOWN	0.120	0.000	0.098	-0.036	0.015	LATE TRIGGERED
18 B	NORTH	0.143	0.000	0.132	0.065	-0.035	
18 B	WEST	0.231	0.000	0.155	0.058	-0.028	
19	DOWN	-0.368	0.000	-0.362	0.102	-0.089	
19	NORTH	-1.003	0.000	-1.000	-0.339	-0.373	
19	WEST	0.865	0.000	0.859	-0.219	-0.138	

TABLE 3: DATA FORMAT

Each station contains 3 data channels and contains the following 4 files:

	Units
Vol 1 Uncorrected acceleration	1000/g
Vol 2 Corrected acceleration	cm*100/sec ²
Corrected velocity	cm*100/sec
Corrected displacement	cm*100
Vol 3 Pseudo Response Velocity	cm/sec
Vol 4 Fourier Amplitude Spectra	cm/sec

A typical station contains the following data:

<u>Vol Ch.</u>	<u>Line No.</u>	<u>No. of Lines</u>	<u>Format</u>	<u>Description</u>		
1	1	1-13	13	a80	Header of alphanumeric data.	
		14-20	7	16i5	Header of 100 integer parameters.	
		21-27	7	8f10.3	Header of 50 real-value parameters.	
		28-..	many	8f10.0	.. points of t(i),a(i) pairs of acc. data.	
	...	1	a80	/& --- End of data for Channel 1.		
	2	(Repeat header, data and end-of-file mark for Channel 2)				
	3	(Repeat header, data and end-of-file mark for Channel 3)				
	2	1	1-25	25	a80	Header of alphanumeric data.
			26-32	7	16i5	Header of 100 integer parameters.
			33-45	13	8f10.3	Header of 100 real-value parameters.
			46	1	a80	Acceleration header information.
			47-..	many	8f10.0	... points of a(i) of dt=0.005 second.
			..	1	a80	Velocity header information.
			..	many	8f10.0	... points of v(i) of dt=0.005 second.
			..	1	a80	Displacement header information.
			..	many	8f10.0	... points of d(i) of dt=0.005 second.
..		1	a80	/& --- End of data for Channel 1		
2		(Repeat header, data and end-of-file mark for Channel 2)				
3		(Repeat header, data and end-of-file mark for Channel 3)				
3		1	1-30	30	a80	Header of alphanumeric data.
			31-37	7	16i5	Header of 100 integer parameters.
			38-50	13	8f10.3	Header of 100 real-value parameters.
			51	1	f10.3	Damping values (0.05 pct of critical).
	52-64		13	8f10.3	49 periods at which PSRV are computed (65 period used for the earthquake records.)	
	65		1	a80	PSRV header information	
	66-72		7	8e10.3	49 points of PSRV or	
	66-74		9	8e10.3	65 points of PSRV for the subject earthquake.	
	..		1	a80	/& --- End of data for Channel 1	
	2		(Repeat header, data and end-of-file mark for Channel 2)			
	3	(Repeat header, data and end-of-file mark for Channel 3)				
	4	1	1-30	30	a80	Header of alphanumeric data.
			31-37	7	16i5	Header of 100 integer parameters.
			38-50	13	8f10.3	Header of 100 real-value parameters.
			51	1	a80	Fourier amplitude header information.
			52-..	7	8e10.3	.. points of Fourier amplitude data.
..			1	a80	/& --- End of data for Channel 1	
2			(Repeat header, data and end-of-file mark for Channel 2)			
3			(Repeat header, data and end-of-file mark for Channel 3)			

TABLE 4: READ / WRITE DATA ON 8MM ASCII FORMATTED TAPE

WRITE DATA ON ASCII FORMATTED 8MM TAPE

Below is an example to save files on 8MM ASCII formatted tape with record length=80, block size = 2000 using the VAX/VMS operating system utilities TWRITE:

```
$ INIT MUB0: 0705B
$ MOUNT/NOASSIST/FOR/RECORD=80/BLOCK=2000 MUB0:
$ TWRITE/ASCII/RECORD=80/BLOCK=2000/OUTPUT=MUB0:  STATN1.V1
$ TWRITE/ASCII/RECORD=80/BLOCK=2000/OUTPUT=MUB0:  STATN1.V2
$ TWRITE/ASCII/RECORD=80/BLOCK=2000/OUTPUT=MUB0:  STATN1.V3
$ TWRITE/ASCII/RECORD=80/BLOCK=2000/OUTPUT=MUB0:  STATN1.V4
$ TWRITE/ASCII/RECORD=80/BLOCK=2000/OUTPUT=MUB0:  STATN2.V1
$ TWRITE/ASCII/RECORD=80/BLOCK=2000/OUTPUT=MUB0:  STATN2.V2
$ TWRITE/ASCII/RECORD=80/BLOCK=2000/OUTPUT=MUB0:  STATN2.V3
$ TWRITE/ASCII/RECORD=80/BLOCK=2000/OUTPUT=MUB0:  STATN2.V4

... etc.. (for all stations, each with v1,v2,v3 and v4 data)

$ EXIT
```

READ/RETRIEVE DATA FROM ASCII FORMATTED 8MM TAPE

Below is an example to read/retrieve files from an 8MM ASCII formatted tape with record length=80, block size = 2000 using the VAX/VMS operating system utilities TREAD:

```
$ MOUNT/NOASSIST/FOR/RECORD=80/BLOCK=2000 MUB0:
$ TREAD/ASCII/RECORD=80/BLOCK=2000/INPUT=MUB0:  STATN1.V1
$ TREAD/ASCII/RECORD=80/BLOCK=2000/INPUT=MUB0:  STATN1.V2
$ TREAD/ASCII/RECORD=80/BLOCK=2000/INPUT=MUB0:  STATN1.V3
$ TREAD/ASCII/RECORD=80/BLOCK=2000/INPUT=MUB0:  STATN1.V4
$ TREAD/ASCII/RECORD=80/BLOCK=2000/INPUT=MUB0:  STATN2.V1
$ TREAD/ASCII/RECORD=80/BLOCK=2000/INPUT=MUB0:  STATN2.V2
$ TREAD/ASCII/RECORD=80/BLOCK=2000/INPUT=MUB0:  STATN2.V3
$ TREAD/ASCII/RECORD=80/BLOCK=2000/INPUT=MUB0:  STATN2.V4

... etc.. (for all stations, each with v1,v2,v3 and v4 data)

$ EXIT
```


STATION NO. 1

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92

STATION NO. 1

UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 1

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 1 CH 1 DOWN
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 1 CH 2 NORTH
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF E0 4/22/92

STATION NO. 1 CH 3 WEST

CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 1 DAMPING: 5% OF CRITICAL

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 2

URS/Blume

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 2

UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 2

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 2

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 2 CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF E0 4/22/92
 STATION NO. 2 CH 2 NORTH
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92

STATION NO. 2 CH 3 WEST

CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 2 DAMPING: 5% OF CRITICAL

BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 1 DOWN

CH 2 NORTH

CH 3 WEST

STATION NO. 3

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 3

UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 3

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 3

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 3 CH 1 DOWN
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 3 CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 3 CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 3 DAMPING: 5% OF CRITICAL

BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 4

URS/Blume

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 4

UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 4

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FOURIER AMPLITUDE (CM/SEC)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 4

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 4 CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CALIF. CH2:2

602 30-MAR-1993 12:03
DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 4 CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

802 30-MAR-1993 12:03

CALBF.CH5:2

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 4 CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 4 DAMPING: 5% OF CRITICAL

BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 1 DOWN

CH 2 NORTH

CH 3 WEST

STATION NO. 5

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 5

UNCORRECTED ACCELERATION TIME HISTORIES

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 5

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 5

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92

STATION NO. 5 CH 1 DOWN

CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 5 CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 5 CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 5 DAMPING: 5% OF CRITICAL

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 6 SYSTEM A

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92

STATION NO. 6 SYSTEM A

UNCORRECTED VELOCITY TIME HISTORIES

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM A

UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

DESERT HOT SPRINGS, CALIF EQ 4/22/92

STATION NO. 6 SYSTEM A

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM A
CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM A CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

2050 30-MAR-1993 15:06

SE68.CH2:2

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM A CH 2 NORTH

CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER-4, 0.05-33HZ)

TIME (SEC)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM A CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM A DAMPING: 5% OF CRITICAL

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 1 DOWN

CH 2 NORTH

CH 3 WEST

STATION NO. 6 SYSTEM B

URS/Blume

1030 24-APR-1992 19:39

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM B
UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM B
UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

SECF.AMP;1

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM B
CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 6 SYSTEM B CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM B CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM B CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 6 SYSTEM B DAMPING: 5% OF CRITICAL

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 7

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 7

UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 7

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 7

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF E0 4/22/92
 STATION NO. 7 CH 1 DOWN
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF E0 4/22/92
 STATION NO. 7 CH 2 NORTH
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 7 CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 7 DAMPING: 5% OF CRITICAL

BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 1 DOWN

CH 2 NORTH

CH 3 WEST

STATION NO. 8 SYSTEM A

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM A
UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM A
UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

LVWLF.AMP:1

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM A
CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERNORTH, ORDER=4, C.05-33HZ)

FREQUENCY (HZ)

1006 30-MAR-1993 12:36

LWNIF.CH1:2

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM A CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM A CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 8 SYSTEM A CH 3 WEST
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM A DAMPING: 5% OF CRITICAL

BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 8 SYSTEM B

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM B
UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM B
UNCORRELATED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 8 SYSTEM B
 CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FOURIER AMPLITUDE (CM/SEC)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM B CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

LVW1P.CH1:2

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM B CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM B CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 8 SYSTEM B DAMPING: 5% OF CRITICAL

BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 9

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 9

UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

1030 24-SEP-1992 21:26

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 9

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 9CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

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2 of 3

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 9 CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 9 CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92

STATION NO. 9 CH 3 WEST

CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 9 DAMPING: 5% OF CRITICAL

BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 1 DOWN

CH 2 NORTH

CH 3 WEST

STATION NO. 10

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 10

UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 10

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92

STATION NO. 10

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 10 CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 10 CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF E0 4/22/92
 STATION NO. 10 CH 3 WEST
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 10 DAMPING: 5% OF CRITICAL

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 1 DOWN

CH 2 NORTH

CH 3 WEST

STATION NO. 11

URS/Blume

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 11

UNCORRECTED ACCELERATION TIME HISTORIES

UPS/Blume

1030 24-APR-1992 19:09

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 11

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

URS/Blume

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 11

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 11 CH 1 DOWN
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 11 CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 11 CH 3 WEST
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 11 DAMPING: 5% OF CRITICAL

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 1 DOWN

CH 2 NORTH

CH 3 WEST

STATION NO. 12

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 12

UNCORRECTED ACCELERATION TIME HISTORIES

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 12
UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 12

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF E0 4/22/92

STATION NO. 12 CH 1 DOWN

CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 12 CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
3PF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 12 CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 12 DAMPING: 5% OF CRITICAL

BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 1 DOWN

CH 2 NORTH

CH 3 WEST

STATION NO. 13

URS/Blume

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 13

UNCORRECTED ACCELERATION TIME HISTORIES

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 13

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 13

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 13 CH 1 DOWN
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF E0 4/22/92
 STATION NO. 13 CH 2 NORTH
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 13 CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 13 DAMPING: 5% OF CRITICAL

BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 14

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 14

UNCORRECTED ACCELERATION TIME HISTORIES

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 14

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 14
CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92

STATION NO. 14 CH 1 DOWN

CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 14 CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 14 CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

LATHP.CH3:2

TIME (SEC)

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 14 DAMPING: 5% OF CRITICAL

BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 1 DOWN

CH 2 NORTH

CH 3 WEST

STATION NO. 15

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 15

UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 15
UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 15

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 15 CH 1 DOWN
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

450 30-MAR-1993 10:45

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 15 CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 15 CH 3 WEST
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 15 DAMPING: 5% OF CRITICAL

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 16

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92

STATION NO. 16

UNCORRECTED ACCELERATION TIME HISTORIES

SHORT RECORD

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 16
UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 16

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 16 CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

SHORT RECORD

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 16 CH 2 NORTH
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

SHORT RECORD

TIME (SEC)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 16 CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

SHORT RECORD

TIME (SEC)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 16 DAMPING: 5% OF CRITICAL

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 17 SYSTEM A

URS/Blume

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 17 SYSTEM A
UNCORRECTED ACCELERATION TIME HISTORIES

SHORT RECORD

TIME (SEC)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 17 SYSTEM A
UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

SCT2F.AMP:1

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 17 SYSTEM A
CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 17 SYSTEM A CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

SHORT RECORD

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 17 SYSTEM A CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER-4, 0.05-33HZ)

SHORT RECORD

TIME (SEC)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 17 SYSTEM A CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER-4, 0.05-33HZ)

SHORT RECORD

TIME (SEC)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 17 SYSTEM A DAMPING: 5% OF CRITICAL

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 17 SYSTEM B

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 17 SYSTEM B
UNCORRECTED ACCELERATION TIME HISTORIES

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 17 SYSTEM B
UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 17 SYSTEM B
 CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 17 SYSTEM B CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 17 SYSTEM B CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 17 SYSTEM B CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

URS/Blume

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 17 SYSTEM B DAMPING: 5% OF CRITICAL

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 18 SYSTEM A

DESERT HOT SPRINGS, CALIF EO 4/22/92

STATION NO. 18 SYSTEM A

UNCORRECTED ACCELERATION TIME HISTORIES

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 18 SYSTEM A

UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 18 SYSTEM A
CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

ALHAF.AM3.3

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 18 SYSTEM A CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EQ 4/22/92
STATION NO. 18 SYSTEM A CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 18 SYSTEM A CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 18 SYSTEM A DAMPING: 5% OF CRITICAL

BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 18 SYSTEM B

URS/Blume

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 18 SYSTEM B
UNCORRECTED ACCELERATION TIME HISTORIES

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 18 SYSTEM B
UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 18 SYSTEM B
CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 18 SYSTEM B CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 18 SYSTEM B CH 2 NORTH
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 18 SYSTEM B CH 3 WEST
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 18 SYSTEM B DAMPING: 5% OF CRITICAL

BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

CH 3 WEST

CH 2 NORTH

CH 1 DOWN

STATION NO. 19

URS/Blume

DESERT HOT SPRINGS, CALIF E0 4/22/92
STATION NO. 19

UNCORRECTED ACCELERATION TIME HISTORIES

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 19
UNCORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION

FREQUENCY (HZ)

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Inches

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3 of 3

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 19

CORRECTED FOURIER AMPLITUDE SPECTRA OF ACCELERATION
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

FREQUENCY (HZ)

DESERT HOT SPRINGS, CALIF EO 4/22/92
STATION NO. 19 CH 1 DOWN
CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EO 4/22/92
 STATION NO. 19 CH 2 NORTH
 CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
 BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

TIME (SEC)

DESERT HOT SPRINGS, CALIF EQ 4/22/92

STATION NO. 19 CH 3 WEST

CORRECTED ACCELERATION, VELOCITY & DISPLACEMENT
BPF (BUTTERWORTH, ORDER=4, 0.05-33HZ)

AMPLITUDE

TIME (SEC)

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BPF(BUTTERWORTH, ORDER=4, 0.05-33HZ)
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