

HUMBOLDT BAY POWER PLANT  
CALCULATION COVER SHEET

File No. : \_\_\_\_\_  
Calculation No.: GEO.HBIP.02.06

Preliminary

Final

Department/Group: HBPP/Geosciences

Unit(s) 0 Structure, System or Component: ISFSI Geotechnical

Type or Purpose of Calculation: Site Amplification Factors for HBIP

No. of Sheets: 196

	<u>Signature</u>	<u>Discipline/Dept</u>	<u>Date</u>
Prepared by:	<u>By Geosciences</u>	_____	<u>11/6/2002</u>
Checked by:	<u>By Geosciences</u>	_____	<u>11/7/2002</u>
Approved by (Supv):	<u>WZP</u>	<u>HBPP</u>	<u>12/26/2002</u>

Registered Engineer Approval: (Complete section A for Civil calcs. Complete A or B for others)

<p>A. Insert Engineer Stamp or Seal Below</p> <p><i>By Geosciences</i></p> <p>Expiration Date: _____</p>	<p>B.</p> <p>Engineer's full name: _____</p> <p>Registration Number: _____</p> <p>Expiration Date: _____</p>
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RECORDS OF REVISIONS

Revision Number	Date	Reasons for Revision	Prepared By	Checked By	Approval	
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0	12/26/02	Initial Issue	Geosci.	Geosci.	Geosci.	WZP

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PREPARED BY: *Norm Abrahamson* DATE 11/6/02

Norm Abrahamson  
Printed Name

Geosciences  
Organization

VERIFIED BY: *Joseph Sun* DATE 11/7/02

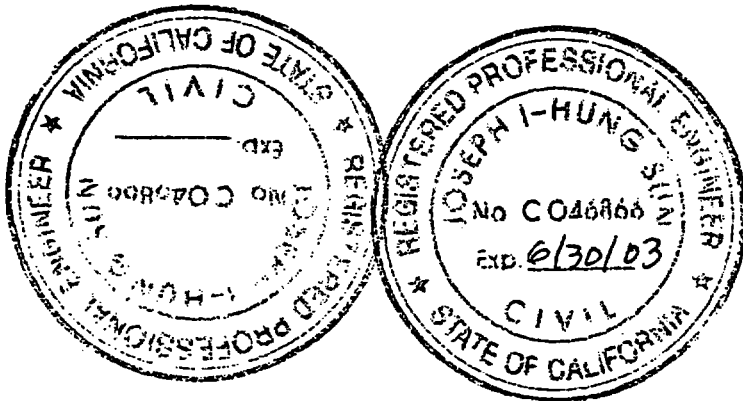
Joseph Sun  
Printed Name

Geosciences  
Organization

APPROVED BY: *Lloyd Cluff* DATE 11/7/02

Lloyd Cluff  
Printed Name

Geosciences  
Organization



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## 2. PURPOSE

The purpose of this calculation is to quantify frequency dependent ground motion amplification induced by dynamic site response at the HBPP ISFSI site as part of Geosciences Work Plan GEO HBPP 2002-02. The soil amplification factors will be used to estimate site-specific surface ground motions for HBIP.

## 3. ASSUMPTIONS

### 3.1 Spectral Accelerations for Very Short Spectral Periods

The spectral acceleration at spectral periods less than 0.02 seconds period is assumed to be equivalent to peak ground acceleration. The basis for the assumption is that there is no significant energy above 50 Hz in soil site time histories (Abrahamson and Silva, 1997).

### 3.2 Empirical Constraints on the Spectral Content

The equivalent linear site response method used in the SHAKE program tends to overdamp the high frequencies for large input motions such as those used for HBPP. Large amplitude ground motions recorded during the Jan. 15, 1994 Northridge, CA earthquake on seven soil sites listed below are assumed to have similar high frequency spectral shapes to the site response at HBIP for large amplitude ground motions.

Table 3.1 Time histories used for constraining the high frequency spectral shape

<u>Stations</u>	<u>PGA</u>
Rinaldi Receiving Station	0.84g
Sepulveda VA	0.94g
Sylmar Converter Station	0.90g
Sylmar Converter Station east	0.83g
Sylmar Olive View Free-Field	0.84g
Newhall Fire Station	0.59g
Jensen Filtration Plant	0.59g

The basis for this assumption is that the seven selected recordings are from soil sites with similar velocity profiles to the velocity profile at HBPP (Idriss, 2002) and the recorded peak accelerations at these stations are large. Given the high levels of ground motion and the similar velocity profile range, the high frequency spectral content is expected to be representative of the high frequency spectral shape at HBPP for large ground motions.



### 3.3 Earthquake Time Histories for Site Response Analysis Using SHAKE

Since the site response is only used to get amplification factors (expressed as spectral ratios between the computed surface motion with respect to the input motion), the results are not very sensitive to selection of the input time histories, so the choice of time histories is not critical as long as they have the appropriate spectral content.

The three acceleration time histories listed below are assumed to be representative of the input motion for large magnitude earthquakes at short distances. Sets 2 and 3 are composite time histories that were developed for the evaluation of the new San Francisco-Oakland Bay Bridge (Fugro, 1998). In these composite time histories, the long duration of large magnitude earthquakes was modeled by combining two time histories (one after the other). The long duration is appropriate to represent the Cascadia subduction zone event.

Table 3.2 Time histories used for the site response analysis

Set	Earthquake	Date	EQ Mag	Distance (km)	Station	Component
1	Tabas	9/16/78	7.4	3.0	Tabas	Fault Parallel
2	El Centro & Imperial Valley Composite	5/19/40 10/15/79	7.0 6.5	8.3 1.1	El Centro #9 El Centro #6	Fault Parallel
3	Landers Composite	6/28/92	7.3	1.1 11.6	Lucerne Joshua Tree	Fault Parallel

The basis for this assumption is that the design earthquake is dominated by a magnitude 7.7 rupture of the Little Salmon fault with increased duration from the synchronous rupture with the Cascadia subduction zone (GEO.HBIP.02.04, rev 0). These time histories have a broad spectral content (Figure 3-1). The basis for selecting the fault parallel component is that there is a concern that the soil column will be overdriven by the high ground motion levels and the use of the fault normal component, with its increased long period (and therefore increased soil strains) will increase the potential for overdriving the soil column that could result in lower computed amplification factors.

### 3.4 Reasonableness of Site Response Analysis Under High Ground Acceleration

The reasonableness of the ground response analysis results using equivalent linear procedure by SHAKE was judged based on the evaluation of maximum shear strains developed in the profiles and the smooth trend in the computed surface responses with increasing input acceleration. For each profile and each time history, the three motions were scaled from 0.1 g to 1.0g in 0.1g increment, and from 1.2g, to 1.6g in 0.2g increment to evaluate the reasonableness in the computed surface response trend with increasing acceleration levels. The basis for this assumption is that non-linear soil properties (Seed and Idriss, 1970) used by SHAKE is defined to 10% strain. Effective

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strains (typically taken as 2/3 of the maximum strains) in the range of 1% to 3% is generally consider within the reasonable strain range for the equivalent linear procedure. This, in conjunction with a reasonable trend in the computed response with increasing levels of shaking provide a good basis for the evaluating the reasonableness of ground response analysis under high accelerations.

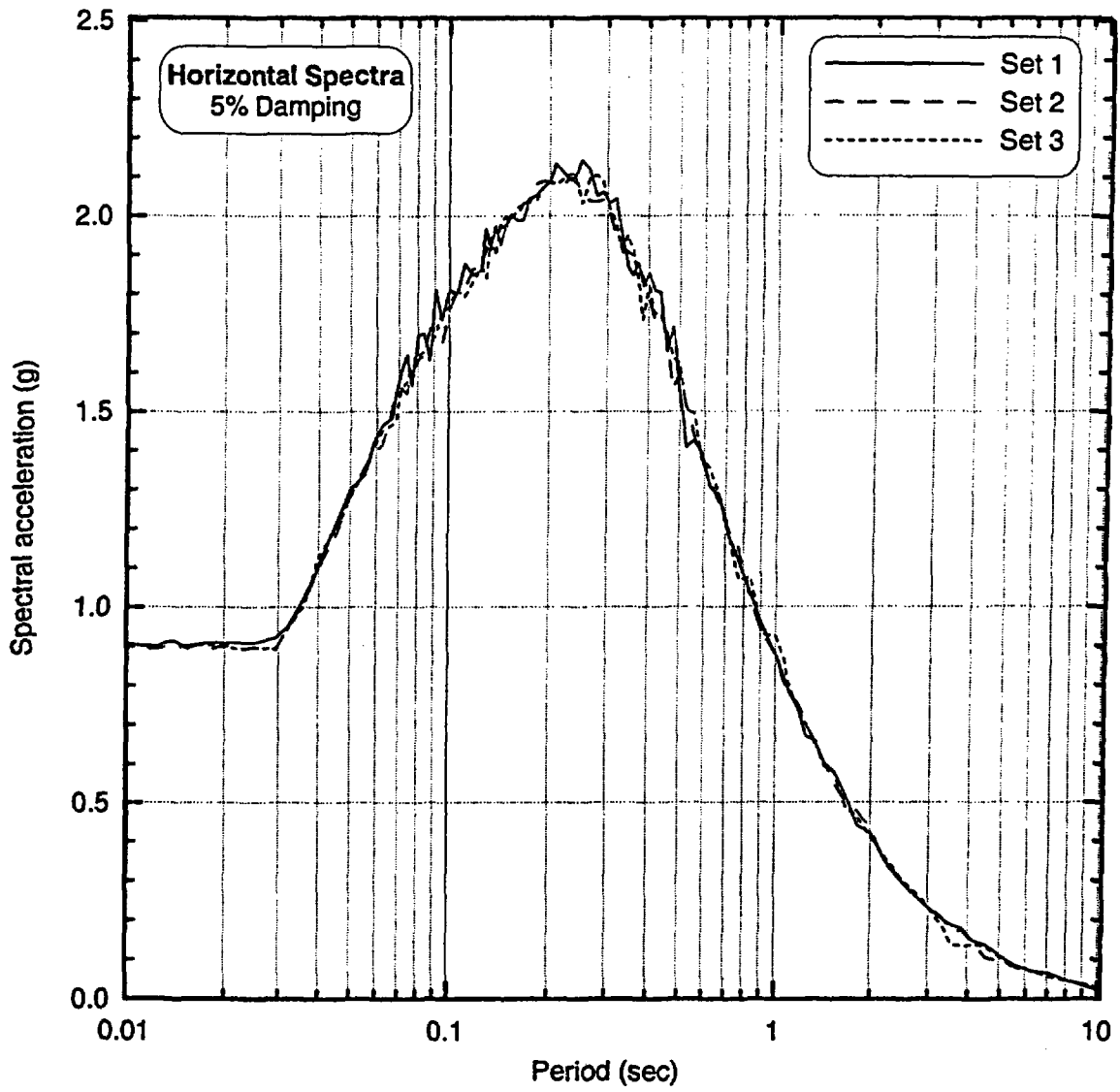


Figure 3-1 Response Spectra for Ground Motions Used in Ground Response Analysis

#### **4. INPUTS**

##### **4.1 Median Site Profile for HBIP**

The shear-wave velocity for the median soil profile at HBIP is listed in Table 4-1 (White, 2002). The non-linear properties (modulus and damping curves) for an equivalent linear analysis in the ground response analysis is also listed in Table 4-1 (White, 2002).

Table 4-1. HBIP Median Site Soil Profile

Layer Number	Top of Layer (ft)	Layer Thickness (ft)	Density (pcf)	Material Description	Shear Wave Velocity (ft/sec)
1	0.0	3.	125.	Clay (PI 15)	750.
2	3.0	3.	125.		750.
3	6.0	4.	125.		750.
4	10.	5.	125.		750.
5	15.	5.	125.		750.
6	20.	5.	125.	Clay (PI 15)	1000.
7	25.	5.	130.	Sand (20-50')	1000.
8	30.	5.	130.	Sand (20-50')	1150.
9	35.	5.	130.		1150.
10	40.	5.	130.		1150.
11	45.	5.	130.		1150.
12	50.	5.	130.	Clay (PI 15)	1500.
13	55.	5.	130.		1500.
14	60.	7.5	130.	Sand (50-120')	1500.
15	67.5	7.5	130.		1500.
16	75.	7.5	130.		1500.
17	82.5	7.5	130.		1500.
18	90.	10.	130.	Sand (50-120')	1750.
19	100.	11.	130.		1750.
20	111.	12.	130.		1750.
21	123.	12.	130.		1750.
22	135.	15.	130.	Sand (120-250')	2000.
23	150.	13.	130.	Clay (PI 15)	1550.
24	163.	13.	130.		1550.
25	176.	13.	130.		1550.
26	189.	13.	130.		1550.
27	202.	13.	130.		1550.
28	215.	15.	130.	Sand (120-250')	1650.
29	230.	15.	130.		1650.
30	245.	15.	130.		1650.
31	260.	20.	130.	Sand (250-500')	2000.
32	280.	20.	130.		2000.
33	300.	20.	130.		2000.
34	320.	20.	130.	Sand (250-500')	1800.
35	340.	20.	130.		1800.
36	360.	20.	130.		1800.
37	380.	20.	130.		1800.
38	400.	25.	130.	Sand (250-500')	1900.
39	425.	25.	130.		1900.
40	450.	25.	130.		2000.
41	475.	25.	130.		2000.
42	500.	25.	130.	Sand (> 500')	2100.
43	525.	25.	130.		2100.
44	550.	25.	130.		2100.
45	575.	25.	130.		2100.
46	600.			Bedrock	5000.

#### 4.2 Scale Factors for Upper and Lower Bound Soil Profiles

The upper bound and lower bound profile is given by multiplying and dividing the shear modulus by a factor of 1.5, respectively (ASCE-4, 1986, page 26). This corresponds to scaling the shear-wave velocity by factors of 1.22 (square root of 1.5).

#### 4.3 Acceleration Time Histories from Northridge Earthquake

The 14 Northridge acceleration time histories from 7 strong motion stations listed in Assumption 3.2 were downloaded from PEER strong motion data base at <http://peer.berkeley.edu/smcat/>.

## **5. METHOD AND EQUATION SUMMARY**

### **5.1 Methods**

#### **5.1.1 Site-Specific Amplification Factors**

The amplification factors are developed using the following steps:

##### **1. Develop Soil Profiles**

Develop upper bound, and lower bound soil models using the median soil profile provided in Input 4.1 and the scaling factors from Input 4.2.

##### **2. Select Input Time Histories**

Select three time histories for input into SHAKE96 based on Assumption 3.3.

##### **3. Compute Site Response**

Compute site response for each of the three soil profiles using each of the three input time histories using program SHAKE96. Perform multiple runs using each input time history by scaling the input peak ground acceleration (PGA) to a range of values in accordance with Assumption 3.4.

##### **4. Evaluate Site Response Results for Over-Softening of the Soil Profile in accordance with Assumption 3.4**

Evaluate the results from the SHAKE runs (maximum strains and spectral shape) to determine if there is a consistent trend in site response from low input peak ground acceleration (PGA) to high input PGA. If there is not a consistent trend, then develop a method for extrapolating the SHAKE analysis results from moderate to high peak ACCs to very high peak accelerations.

##### **5. Compute Site Amplification Factors**

Compute amplification factors as response spectral ratio of surface ground motion to the input time histories for each PGA level. Surface ground motion spectra are computed within SHAKE96; spectra of input time histories are computed with SPCTLR.

##### **6. Average the Amplification Factors**

Average the amplification factors (from step 4) for the three time histories for each PGA level and for each profile.

#### **5.1.2 Empirical Constraints to the Spectral Shape**

Soil site recordings from the 1994 Northridge earthquake are used to develop empirical constraints on the spectral shape for large amplitude ground motions on soil sites. The spectral shape constraints are developed using the following steps.

##### **1. Select Time Histories**

The representative time histories from the 1994 Northridge earthquake are selected in accordance with Assumption 3.2 and Input 4.3.

**2. Compute Response Spectra**

The response spectrum at 5% damping is computed for each time history.

**3. Compute Average Spectral Shape**

The spectral shape is computed for each time history by dividing the response spectra with the corresponding PGA's (approximated with the spectral acceleration at 0.01 second in accordance with Assumption 3.1) and the average of the spectral shapes is computed.



## 5.2 Equations

5.2.1 Amplification factors are computed as the ratio of surface response spectral acceleration to input motion spectral acceleration.

$$\text{AmpFac}(t) = \frac{S_{a\text{-surface}}(t)}{S_{a\text{-rock}}(t)} \quad (5-1)$$

where  $S_a(t)$  is pseudo-absolute acceleration (spectral acceleration) at various periods ( $t$ ).

5.2.2 The calculations use a statistic that we will call the "normalized standard error". We define this statistic as the standard error of the mean normalized by the mean.

The mean,  $\mu$ , of  $N$  values,  $x_i$ , is defined as (Bevington, 1969)

$$\mu = \frac{\sum_{i=1}^N x_i}{N} \quad (5-2)$$

The standard deviation,  $\sigma$ , of  $N$  values,  $x_i$ , is defined as (Bevington, 1969)

$$\sigma = \sqrt{\frac{\sum_{i=1}^N (x_i - \mu)^2}{(N-1)}} \quad (5-3)$$

The standard error of the mean,  $SE[\mu]$ , is defined as (Bevington, 1969)

$$SE[\mu] = \frac{\sigma}{\sqrt{N}} \quad (5-4)$$

We define the normalized SE as

$$\text{Normalized } SE = \frac{SE[\mu]}{\mu} \quad (5-5)$$

## 6. SOFTWARE

Two computer programs were used to develop the amplification functions: SHAKE96 and SPCTLR. SHAKE96 is compatible with verified software program SHAKE96S (White, 2002); SHAKE96 was used to compute site response including dynamic soil properties, surface ground motion time histories, and response spectra of the surface ground motions. SPCTLR (GEO.DCPP.01.32) is a verified software program used to compute ground motion response spectra of the input acceleration time histories.

### 6.1 Program SPCTLR

The response spectrum calculation program SPCTLR.EXE is used to compute the response spectra of time histories. SPCTLR.EXE was verified in calculation GEO.DCPP.01.32 in accordance with Section 4.2.1 of GEO.001 Rev. 6.

### 6.2 Program SHAKE96

The program used to compute site response is SHAKE96.EXE (termed SHAKE96 throughout this calculation).

**Program Name/Number:** SHAKE96

**Program Function:** The program computes the site response of a horizontally layered soil system subjected to one-dimensional vertically propagating body waves. Input includes a soil model, dynamic soil properties (shear modulus, damping) as a function of soil strain, and acceleration time history. Output includes the soil response (uniform strains, shear moduli, and damping values for all model layers), acceleration time histories, peak shear strains, and response spectra.

**Computer Platform:** The program was developed for a DOS operating system running on a pc platform and was executed in DOS on a pc platform.

**Capacity and Limitations:** Maximum number of ACC data points is 16,384.

**Users Manual Reference:** The SHAKE96 users manual is the same as SHAKE91 (Idriss and Sun, 1992)

**Program Certification:** SHAKE96 was certified for the above uses under GEO.001 Rev 6 Method 3. A test case was run to compare the results from SHAKE96 and a previously certified and accepted SHAKE96S (White, 2002). Output files from both programs are included on the calculation CD-ROM (under subdirectory "SHAKE96 Test Run") and several output parameters are compared on an Excel spreadsheet. A typical comparison, between spectral accelerations, is shown in Table 6-1. Because the differences between results of SHAKE96 and SHAKE96S are only nominal, SHAKE96 may be used for this calculation according to GEO.001 Rev 6, Section 4.2.2, Method 3.

Table 6-1. Comparison of spectral accelerations computed using verified program SHAKE96S and SHAKE96.EXE

Period (sec)	SHAKE96S	SHAKE96.EXE	Percent Difference
0.01	0.19201	0.19201	0.0000
0.03	0.19169	0.19169	0.0000
0.04	0.1917	0.1917	0.0000
0.05	0.19367	0.19367	0.0000
0.06	0.1957	0.1957	0.0000
0.07	0.19552	0.19552	0.0000
0.08	0.21533	0.21533	0.0000
0.09	0.21904	0.21904	0.0000
0.1	0.23911	0.23911	0.0000
0.11	0.26758	0.26758	0.0000
0.12	0.27821	0.27821	0.0000
0.13	0.26241	0.26241	0.0000
0.14	0.27509	0.27509	0.0000
0.15	0.27009	0.27009	0.0000
0.16	0.25978	0.25978	0.0000
0.17	0.27639	0.27639	0.0000
0.18	0.25895	0.25895	0.0000
0.19	0.26791	0.26791	0.0000
0.2	0.27254	0.27254	0.0000
0.21	0.27491	0.27491	0.0000
0.22	0.27313	0.27313	0.0000
0.23	0.29866	0.29866	0.0000
0.24	0.32505	0.32505	0.0000
0.25	0.37716	0.37716	0.0000
0.26	0.42656	0.42656	0.0000
0.27	0.44557	0.44557	0.0000
0.28	0.43921	0.43921	0.0000
0.29	0.45779	0.45779	0.0000
0.3	0.46268	0.46268	0.0000
0.31	0.44963	0.44963	0.0000
0.32	0.47659	0.47659	0.0000
0.33	0.54595	0.54595	0.0000
0.34	0.60503	0.60503	0.0000
0.35	0.65076	0.65076	0.0000
0.36	0.69821	0.69821	0.0000
0.37	0.76461	0.76461	0.0000
0.38	0.79666	0.79666	0.0000
0.39	0.80748	0.80748	0.0000
0.4	0.81635	0.81635	0.0000
0.41	0.83892	0.83892	0.0000
0.42	0.8269	0.8269	0.0000
0.43	0.80722	0.80722	0.0000
0.44	0.78926	0.78926	0.0000
0.45	0.77888	0.77888	0.0000
0.46	0.7614	0.7614	0.0000
0.47	0.74117	0.74117	0.0000
0.48	0.7033	0.7033	0.0000

Table 6-1. (cont) Comparison of spectral accelerations computed using verified program SHAKE96S and SHAKE96.EXE

0.49	0.6501	0.6501	0.0000
0.5	0.60276	0.60276	0.0000
0.51	0.57675	0.57675	0.0000
0.52	0.57802	0.57802	0.0000
0.53	0.5937	0.5937	0.0000
0.54	0.61083	0.61083	0.0000
0.55	0.6035	0.6035	0.0000
0.56	0.58431	0.58431	0.0000
0.57	0.54511	0.54511	0.0000
0.58	0.51138	0.51138	0.0000
0.6	0.45241	0.45241	0.0000
0.62	0.43985	0.43985	0.0000
0.64	0.46379	0.46379	0.0000
0.66	0.47641	0.47641	0.0000
0.68	0.45701	0.45701	0.0000
0.7	0.41483	0.41483	0.0000
0.72	0.37998	0.37998	0.0000
0.74	0.3347	0.3347	0.0000
0.76	0.28821	0.28821	0.0000
0.78	0.25317	0.25317	0.0000
0.8	0.23135	0.23135	0.0000
0.82	0.21926	0.21926	0.0000
0.84	0.21067	0.21067	0.0000
0.86	0.20206	0.20206	0.0000
0.88	0.19994	0.19994	0.0000
0.9	0.20349	0.20349	0.0000
0.92	0.20483	0.20483	0.0000
0.94	0.20296	0.20296	0.0000
0.96	0.19864	0.19864	0.0000
0.98	0.19387	0.19387	0.0000
1	0.1882	0.1882	0.0000
1.05	0.17271	0.17271	0.0000
1.1	0.16299	0.16299	0.0000
1.15	0.15839	0.15839	0.0000
1.2	0.15122	0.15122	0.0000
1.25	0.13815	0.13815	0.0000
1.3	0.12284	0.12284	0.0000
1.35	0.10606	0.10606	0.0000
1.4	0.08937	0.08937	0.0000
1.45	0.0894	0.0894	0.0000
1.5	0.08476	0.08476	0.0000
1.55	0.07987	0.07987	0.0000
1.6	0.07656	0.07656	0.0000
1.65	0.07291	0.07291	0.0000
1.7	0.06984	0.06984	0.0000
1.75	0.06764	0.06764	0.0000
1.8	0.06612	0.06612	0.0000
1.85	0.06495	0.06495	0.0000
1.9	0.06393	0.06393	0.0000

Table 6-1. (cont) Comparison of spectral accelerations computed using verified program SHAKE96S and SHAKE96.EXE

1.95	0.06256	0.06256	0.0000
2	0.0608	0.0608	0.0000
2.05	0.05887	0.05887	0.0000
2.1	0.0567	0.0567	0.0000
2.15	0.05462	0.05462	0.0000
2.2	0.05241	0.05241	0.0000
2.25	0.05184	0.05184	0.0000
2.3	0.05234	0.05234	0.0000
2.35	0.05245	0.05245	0.0000
2.4	0.05201	0.05201	0.0000
2.5	0.04945	0.04945	0.0000
2.6	0.04548	0.04548	0.0000
2.7	0.04171	0.04171	0.0000
2.8	0.03766	0.03766	0.0000
2.9	0.0354	0.0354	0.0000
3	0.03277	0.03277	0.0000
3.1	0.02891	0.02891	0.0000
3.2	0.02633	0.02633	0.0000
3.3	0.02567	0.02567	0.0000
3.4	0.02466	0.02466	0.0000
3.5	0.02324	0.02324	0.0000
3.6	0.02141	0.02141	0.0000
3.7	0.01935	0.01935	0.0000
3.8	0.01834	0.01834	0.0000
3.9	0.01722	0.01722	0.0000
4	0.01606	0.01606	0.0000
4.1	0.0149	0.0149	0.0000
4.2	0.0138	0.0138	0.0000
4.3	0.01278	0.01278	0.0000
4.4	0.01186	0.01186	0.0000
4.5	0.0111	0.0111	0.0000
4.6	0.01065	0.01065	0.0000
4.7	0.01025	0.01025	0.0000
4.8	0.00991	0.00991	0.0000
4.9	0.00961	0.00961	0.0000
5	0.00961	0.00961	0.0000
5.1	0.00982	0.00982	0.0000
5.2	0.0099	0.0099	0.0000
5.4	0.00988	0.00988	0.0000
5.6	0.00976	0.00976	0.0000
5.8	0.00928	0.00928	0.0000
6	0.00877	0.00877	0.0000
6.2	0.00862	0.00862	0.0000
6.4	0.00809	0.00809	0.0000
6.6	0.00754	0.00754	0.0000
6.8	0.00697	0.00697	0.0000
7	0.00656	0.00656	0.0000

Table 6-1. (cont) Comparison of spectral accelerations computed using verified program  
SHAKE96S and SHAKE96.EXE

7.2	0.00619	0.00619	0.0000
7.4	0.00569	0.00569	0.0000
7.6	0.00532	0.00532	0.0000
7.8	0.00483	0.00483	0.0000
8	0.00447	0.00447	0.0000
8.5	0.0037	0.0037	0.0000
9	0.00295	0.00295	0.0000
9.5	0.00231	0.00231	0.0000
10	0.002	0.002	0.0000

## **7. BODY OF CALCULATIONS**

### **7.1 Site-Specific Amplification Factors**

#### **7.1.1 Step 1: Develop Soil Profiles**

The soil profile for the median case is given in Table 4-1. Using Input 4.2, the shear-wave velocity for the upper bound and lower bound profiles are developed by scaling the median-shear-wave velocity by a factor of  $\sqrt{1.5}$  and  $1/\sqrt{1.5}$ , respectively. The resulting upper bound and lower bound velocity profiles are listed in Table 7-1.

#### **7.1.2 Step 2: Select Input Time Histories**

The input time histories for the site response are selected using Assumption 3.3. The digital values of the time histories are given on the enclosed CD under subdirectory "input\_th" (Enclosure 1).

#### **7.1.3 Step 3: Compute Site Response**

The three soil profiles and the three input time histories are used as input to SHAKE96 site response analyses.

Each time history is scaled to 13 different levels of input PGA (0.1g, 0.2g, 0.3g, 0.4g, 0.5g, 0.6g, 0.7g, 0.8g, 0.9g, 1.0g, 1.2g, 1.4g, and 1.6g). Table 7-2 summarizes the run permutations. All input and output files used in the calculations are included on the calculation CD-ROM under subdirectories with names ending with "\_runs" (Enclosure 1).

Table 7-1. SHAKE dynamic model

Layer Number	Top of Layer (ft)	Layer Thickness (ft)	Density (pcf)	Material Description	Shear Wave Velocity (ft/sec)		
					Median Profile	Lower Bound	Upper Bound
1	0.0	3.	125.	Clay (PI 15)	750.	615.	915.
2	3.0	3.	125.		750.	615.	915.
3	6.0	4.	125.		750.	615.	915.
4	10.	5.	125.		750.	615.	915.
5	15.	5.	125.		750.	615.	915.
6	20.	5.	125.	Clay (PI 15)	1000.	820.	1220.
7	25.	5.	130.	Sand (20-50')	1000.	820.	1220.
8	30.	5.	130.	Sand (20-50')	1150.	943.	1403.
9	35.	5.	130.		1150.	943.	1403.
10	40.	5.	130.		1150.	943.	1403.
11	45.	5.	130.		1150.	943.	1403.
12	50.	5.	130.	Clay (PI 15)	1500.	1230.	1830.
13	55.	5.	130.		1500.	1230.	1830.
14	60.	7.5	130.	Sand (50-120')	1500.	1230.	1830.
15	67.5	7.5	130.		1500.	1230.	1830.
16	75.	7.5	130.		1500.	1230.	1830.
17	82.5	7.5	130.		1500.	1230.	1830.
18	90.	10.	130.		1750.	1434.	2135.
19	100.	11.	130.	Sand (50-120')	1750.	1434.	2135.
20	111.	12.	130.		1750.	1434.	2135.
21	123.	12.	130.		1750.	1434.	2135.
22	135.	15.	130.	Sand (120-250')	2000.	1639.	2440.
23	150.	13.	130.	Clay (PI 15)	1550.	1270.	1891.
24	163.	13.	130.		1550.	1270.	1891.
25	176.	13.	130.		1550.	1270.	1891.
26	189.	13.	130.		1550.	1270.	1891.
27	202.	13.	130.		1550.	1270.	1891.
28	215.	15.	130.	Sand (120-250')	1650.	1352.	2013.
29	230.	15.	130.		1650.	1352.	2013.
30	245.	15.	130.		1650.	1352.	2013.
31	260.	20.	130.	Sand (250-500')	2000.	1639.	2440.
32	280.	20.	130.		2000.	1639.	2440.
33	300.	20.	130.		2000.	1639.	2440.
34	320.	20.	130.	Sand (250-500')	1800.	1475.	2196.
35	340.	20.	130.		1800.	1475.	2196.
36	360.	20.	130.		1800.	1475.	2196.
37	380.	20.	130.		1800.	1475.	2196.
38	400.	25.	130.	Sand (250-500')	1900.	1557.	2318.
39	425.	25.	130.		1900.	1557.	2318.
40	450.	25.	130.		2000.	1639.	2440.
41	475.	25.	130.		2000.	1639.	2440.
42	500.	25.	130.	Sand (> 500')	2100.	1721.	2562.
43	525.	25.	130.		2100.	1721.	2562.
44	550.	25.	130.		2100.	1721.	2562.
45	575.	25.	130.		2100.	1721.	2562.
46	600.	.050			Bedrock	5000.	4098.



Table 7-2. Matrix of input parameters for SHAKE96 computations

Profile	Input Time History	Input pga (g)
Median	Magnitude 7.8 (Sets 1, 2, and 3)	0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.2, 1.4, 1.6
Lower Bound	Magnitude 7.8 (Sets 1, 2, and 3)	0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.2, 1.4, 1.6
Upper Bound	Magnitude 7.8 (Sets 1, 2, and 3)	0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.2, 1.4, 1.6

#### 7.1.4 Step 4: Evaluation of SHAKE Runs at High Ground Motion Levels

The SHAKE runs at high input ground motion levels are evaluated in two ways. First, the maximum strains are checked. Second, the evolution of the spectral shape as a function of the input ground motion level is checked.

Maximum shear strains for the three time histories used to compute the amplification factors are listed in Table 7-3. These values are plotted in Figures 7-1 through 7-9 for input excitations of 0.6g through 1.6 g with 0.2g increment and the peak maximum strains (largest of the maximum strains) averaged over the three earthquakes are shown in Fig. 7-10 for input accelerations varying from 0.1g to 1.6g. For all earthquakes, the maximum shear strains developed within each profile change in a regular manner. The peak maximum shear strains gradually increase with increasing acceleration levels without abnormal or abrupt trends. This is evidence that SHAKE96 computations are not breaking down with increasingly large levels of ground motion for this case. The effective shear strain is typically taken as 2/3 of the maximum shear strain and with maximum shear strain of 2.5% or effective strain of 1.6%, the equivalent linear approach is expected to perform well as in this strain range. This is also evident from the smooth change in peak surface accelerations with increasing input motions for all three profiles.

The response spectra shapes were computed by normalizing the spectra computed in SHAKE96 by the surface motion PGA (PGA values are listed in Table 7-4). The spectral shapes for each case are given in Appendix A. The average shapes for each profile are listed in Table 7-5 through 7-7 and plotted in Figures 7-11 through 7-13 for input accelerations above 0.6g. These plots shows that the spectral shapes evolve regularly to longer period with increasing levels of input pga with no dramatic changes in frequency content. This is further evidence that the equivalent linear method is still appropriate at these levels of input motion.

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Table 7-3. Maximum shear strains (%) for three M7.8 earthquakes

Input pga (g)	Earthquake 1			Earthquake 2			Earthquake 3		
	Median Profile	Lower Bound	Upper Bound	Median Profile	Lower Bound	Upper Bound	Median Profile	Lower Bound	Upper Bound
0.1g	0.022	0.032	0.016	0.021	0.033	0.022	0.028	0.040	0.020
0.2g	0.050	0.073	0.038	0.053	0.077	0.045	0.070	0.081	0.047
0.3g	0.081	0.116	0.066	0.101	0.124	0.069	0.133	0.130	0.082
0.4g	0.118	0.157	0.098	0.164	0.189	0.090	0.189	0.182	0.125
0.5g	0.173	0.204	0.130	0.232	0.271	0.115	0.242	0.248	0.180
0.6g	0.229	0.301	0.163	0.306	0.381	0.152	0.308	0.352	0.249
0.7g	0.289	0.474	0.199	0.385	0.481	0.214	0.414	0.503	0.339
0.8g	0.350	0.602	0.243	0.452	0.513	0.301	0.491	0.612	0.450
0.9g	0.417	0.756	0.299	0.488	0.650	0.440	0.533	0.734	0.507
1.0g	0.470	0.954	0.379	0.541	0.803	0.536	0.608	0.884	0.571
1.2g	0.599	1.634	0.532	0.680	1.238	0.716	0.775	1.492	0.710
1.4g	0.863	2.034	0.643	0.833	1.738	0.896	1.157	1.897	0.901
1.6g	1.510	2.560	0.746	0.955	1.977	1.033	1.726	2.242	1.111

Figure 7-1. Depth dependence of maximum strains (%), median profile, Ground Motion Set 1

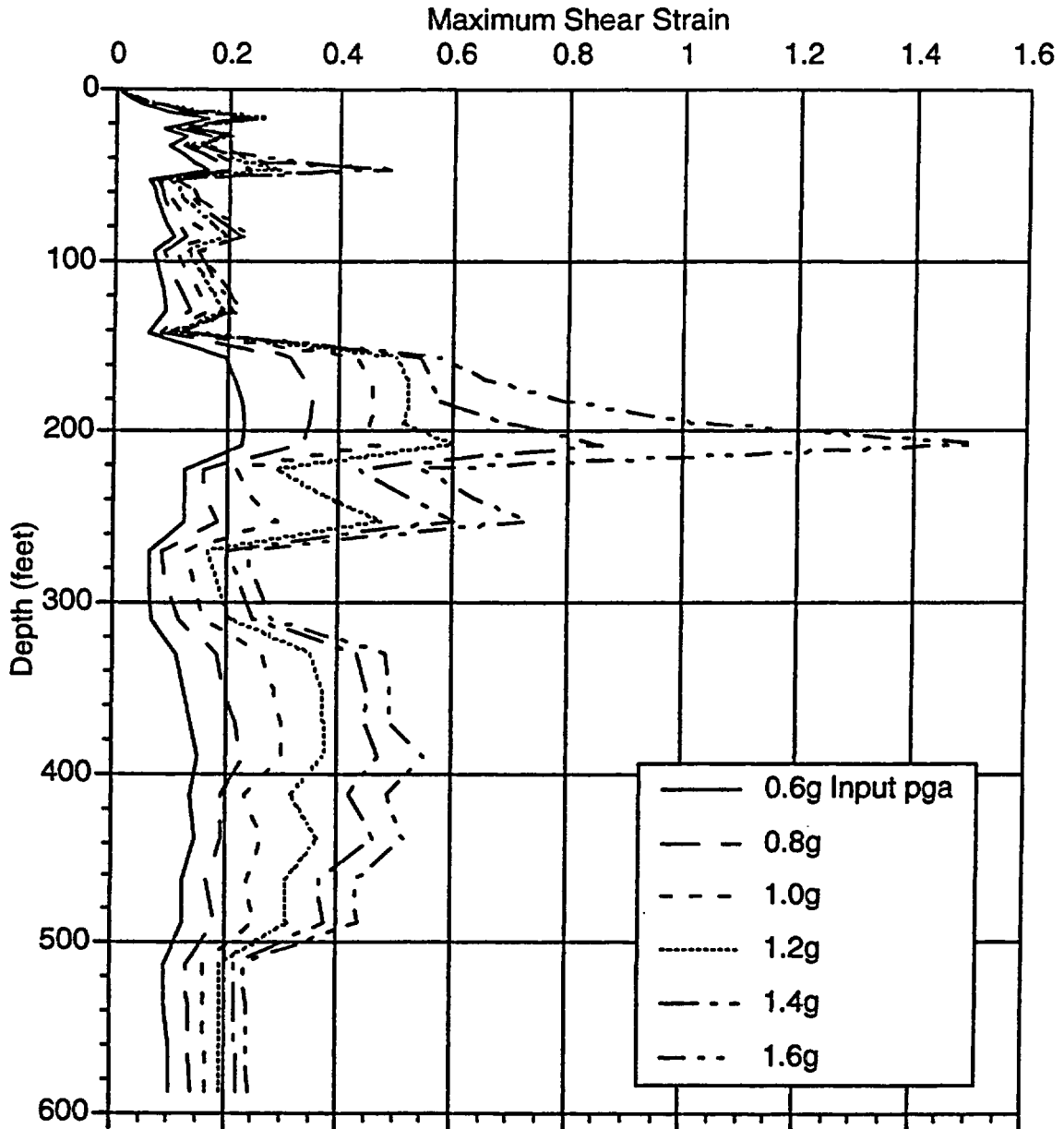


Figure 7-2. Depth dependence of maximum strains, median profile, ground motion set 2

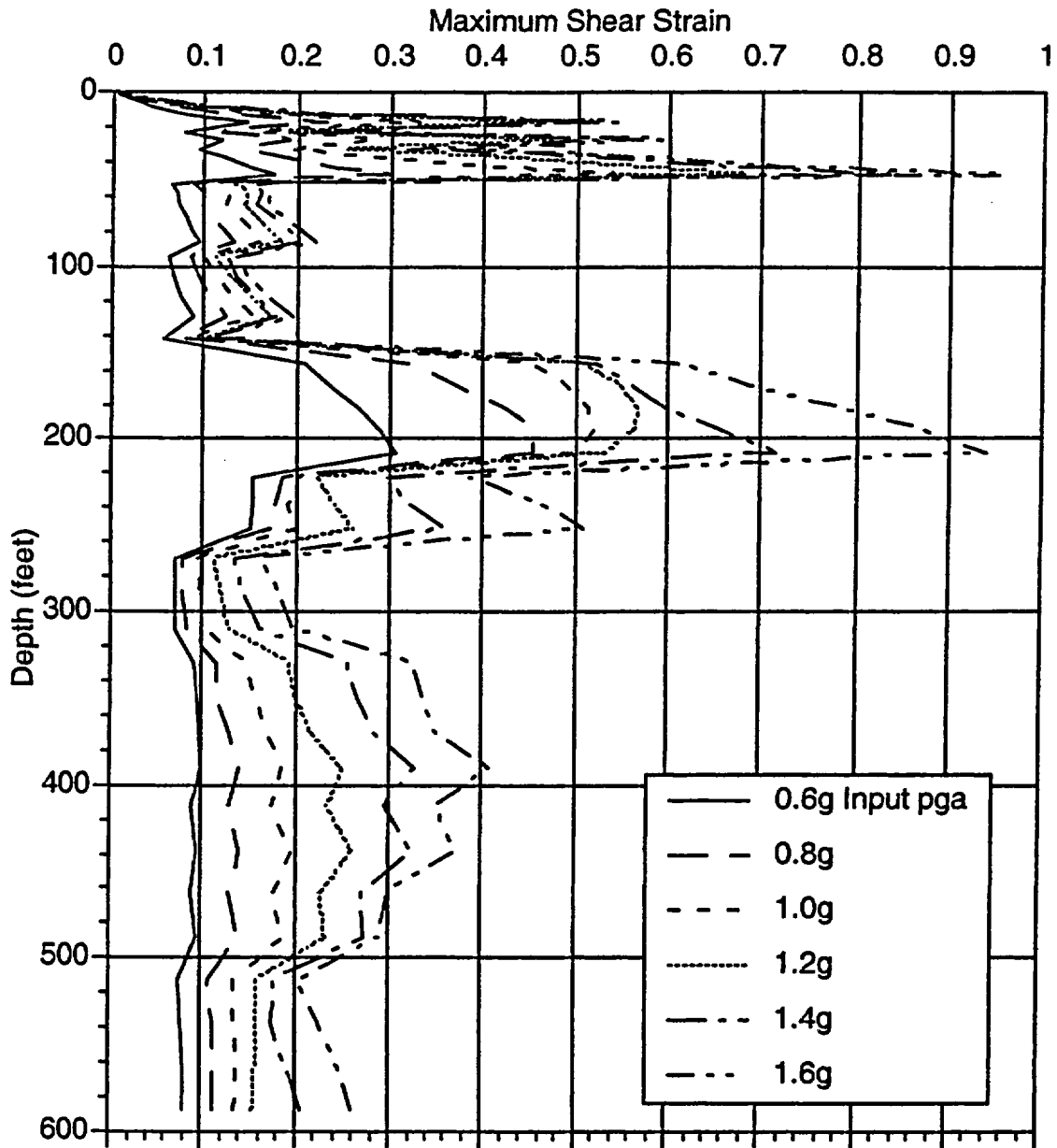


Figure 7-3. Depth dependence of maximum strains (%), median profile, ground motion set 3

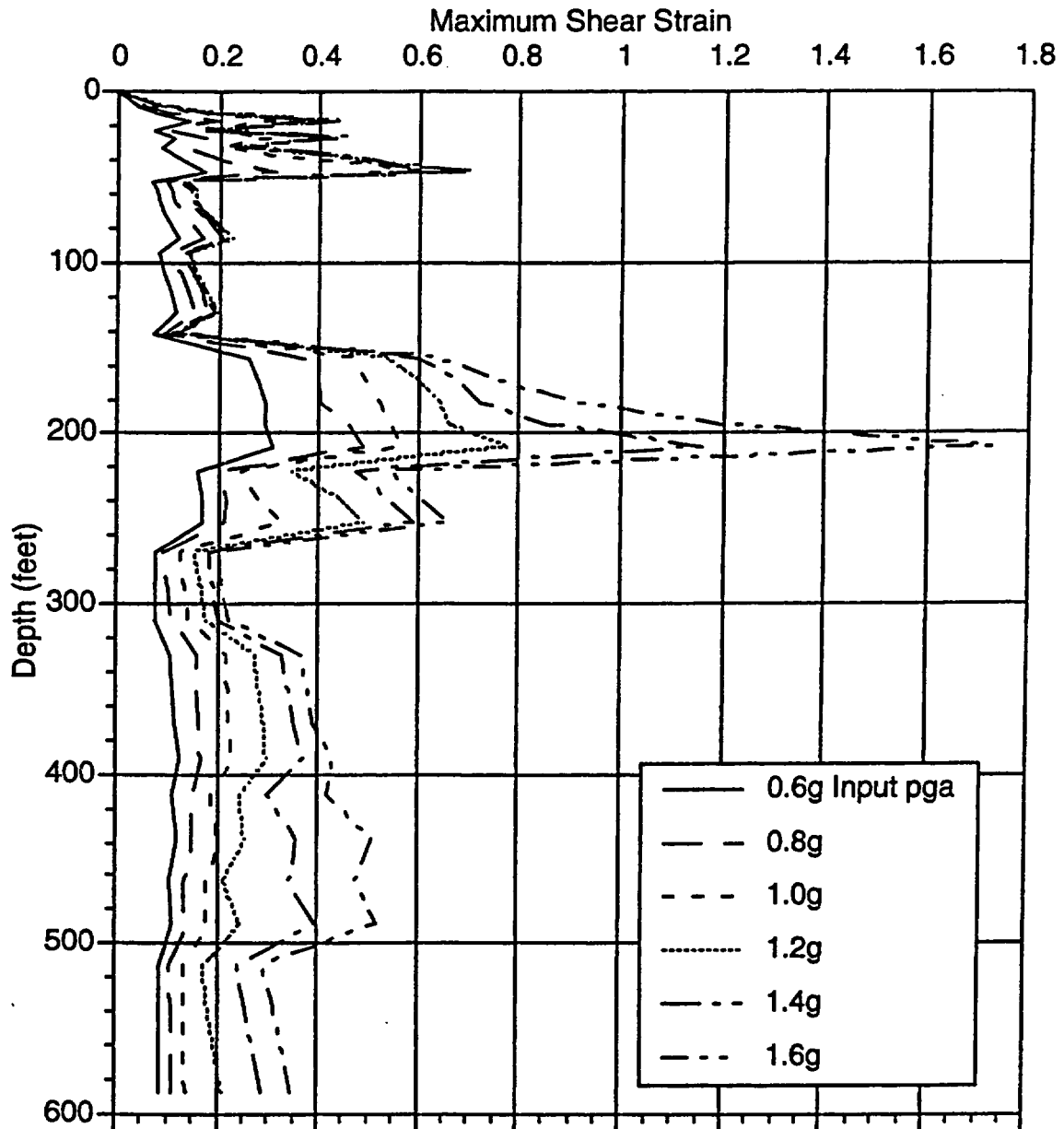


Figure 7-4. Depth dependence of maximum strains (%), lower bound profile, ground motion set 1

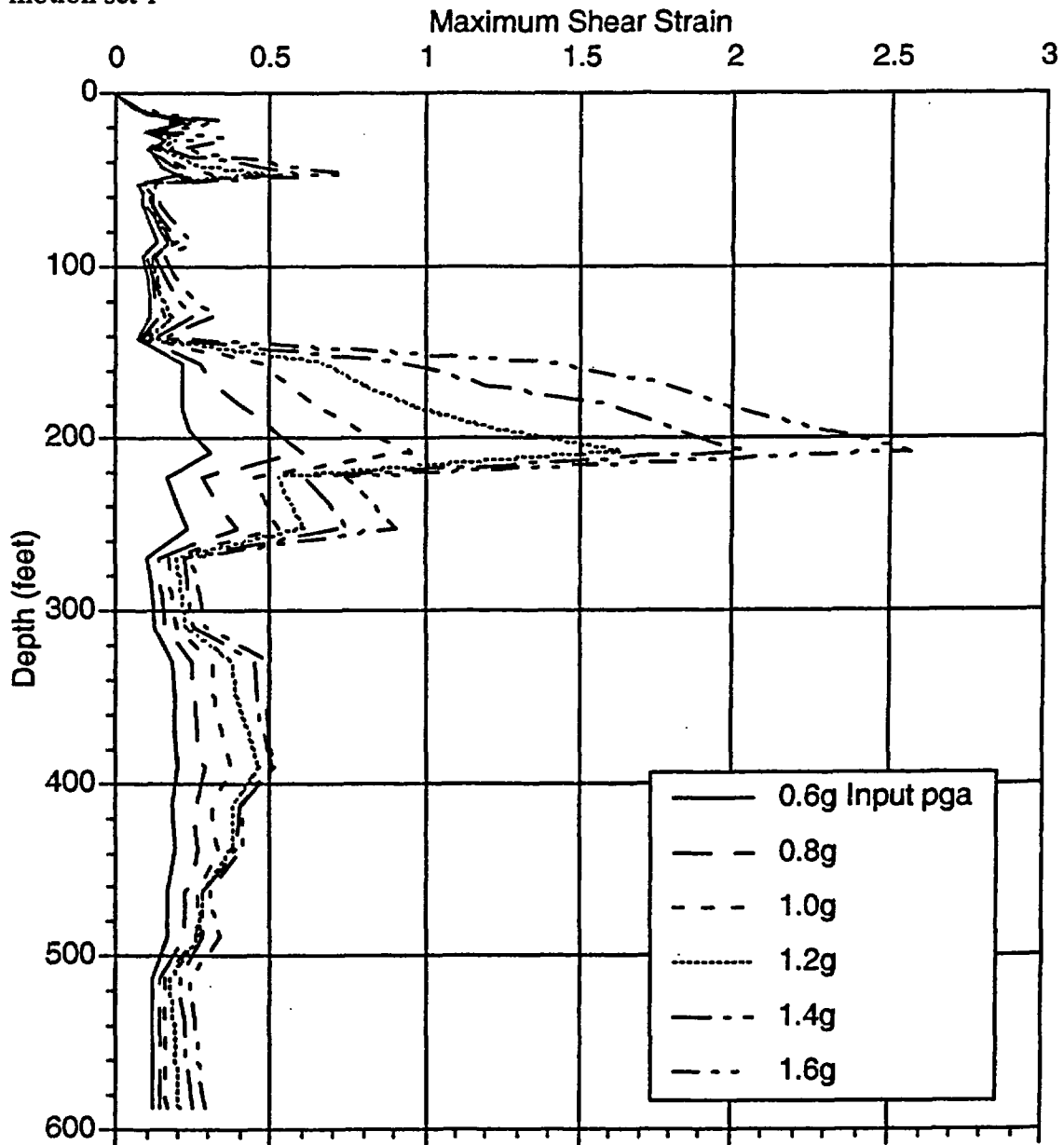


Figure 7-5. Depth dependence of maximum strains, lower bound profile, ground motion set 2

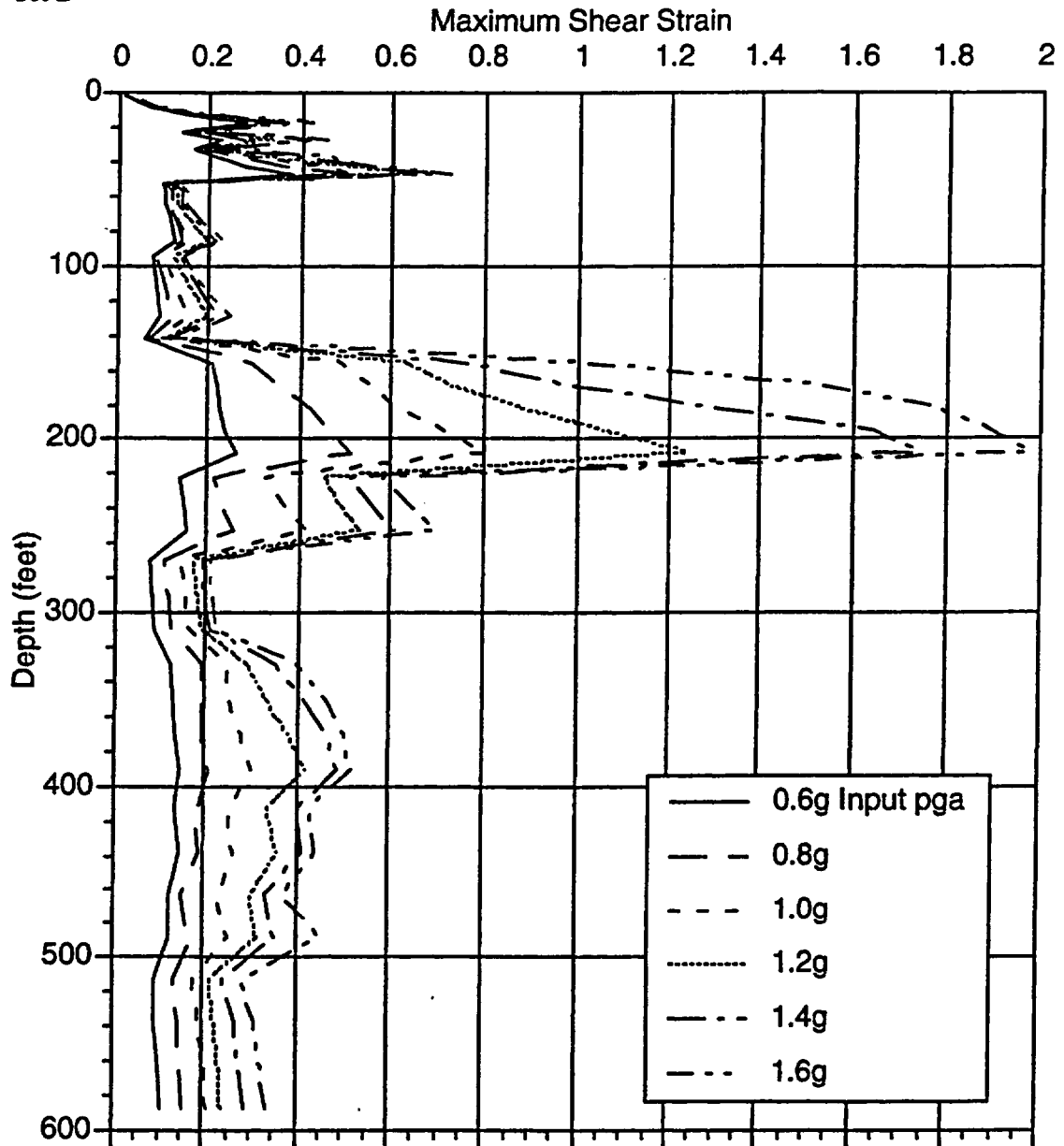


Figure 7-6. Depth dependence of maximum strains (%), lower bound profile, ground motion set 3

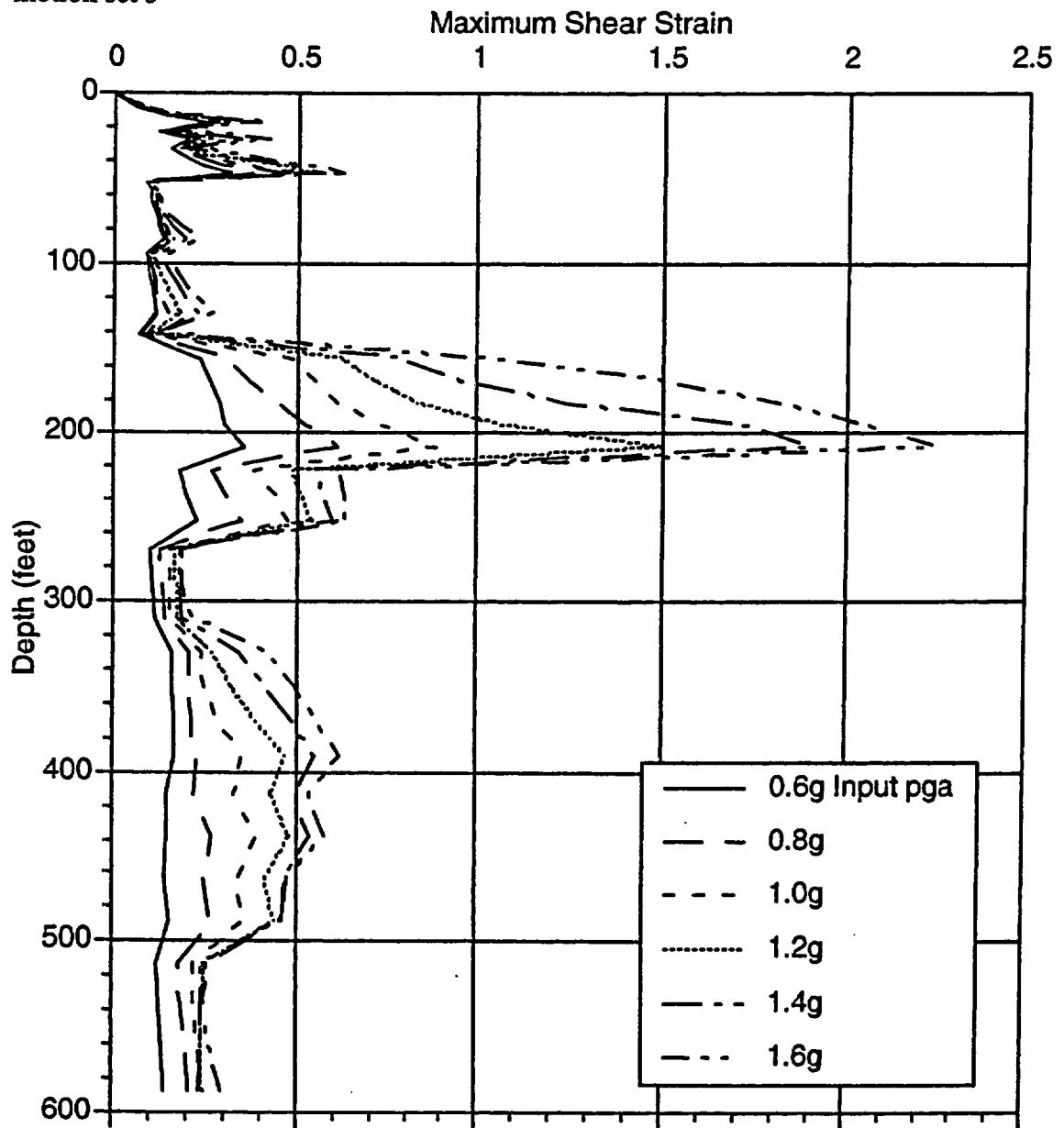




Figure 7-7. Depth dependence of maximum strains (%), upper bound profile, ground motion set 1

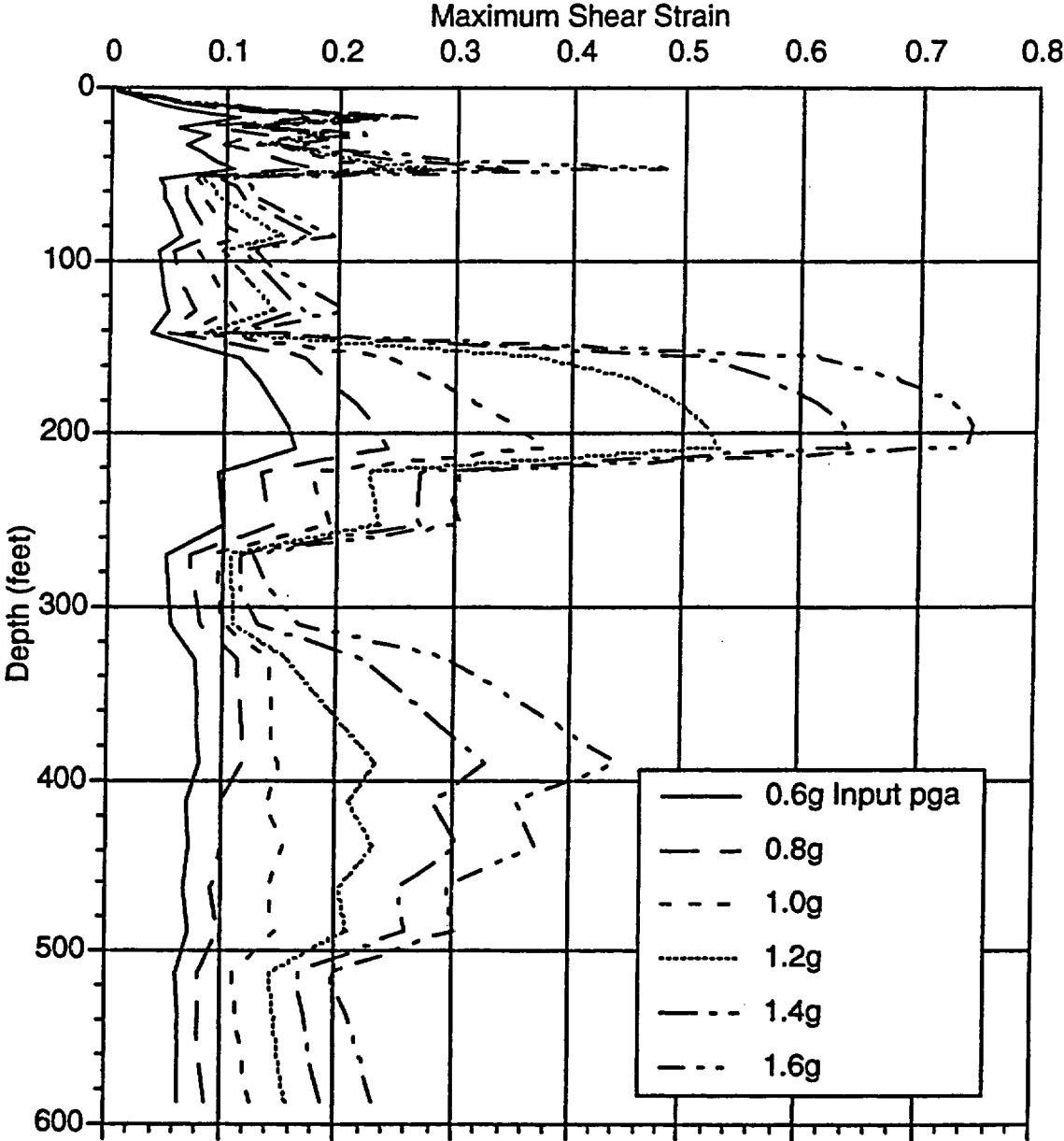


Figure 7-8. Depth dependence of maximum strains, upper bound profile, ground motion set 2

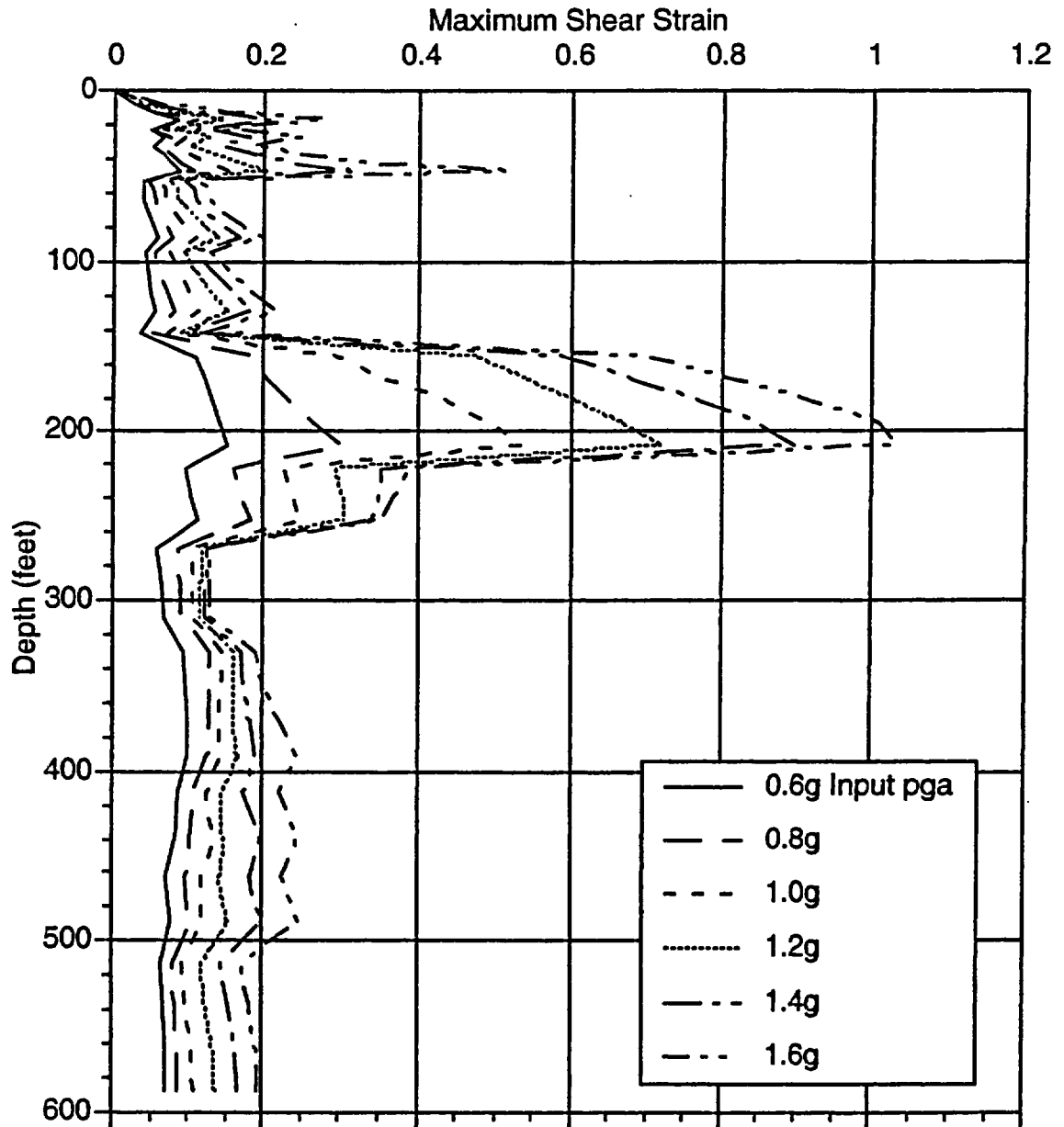


Figure 7-9. Depth dependence of maximum strains (%), upper bound profile, ground motion set 3

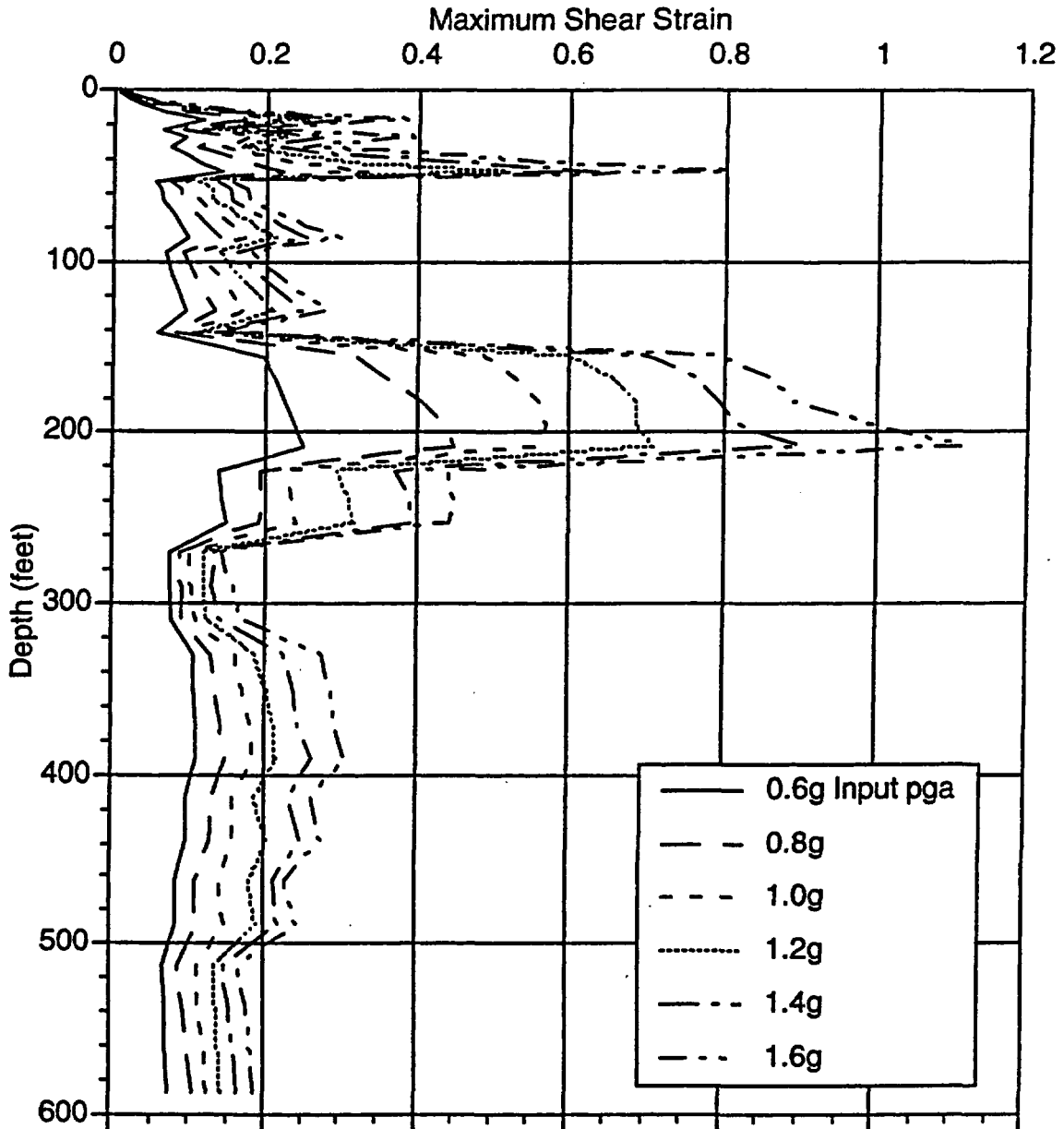


Figure 7-10. Dependence of peak maximum strains (%), averaged over three input earthquakes, on input pga

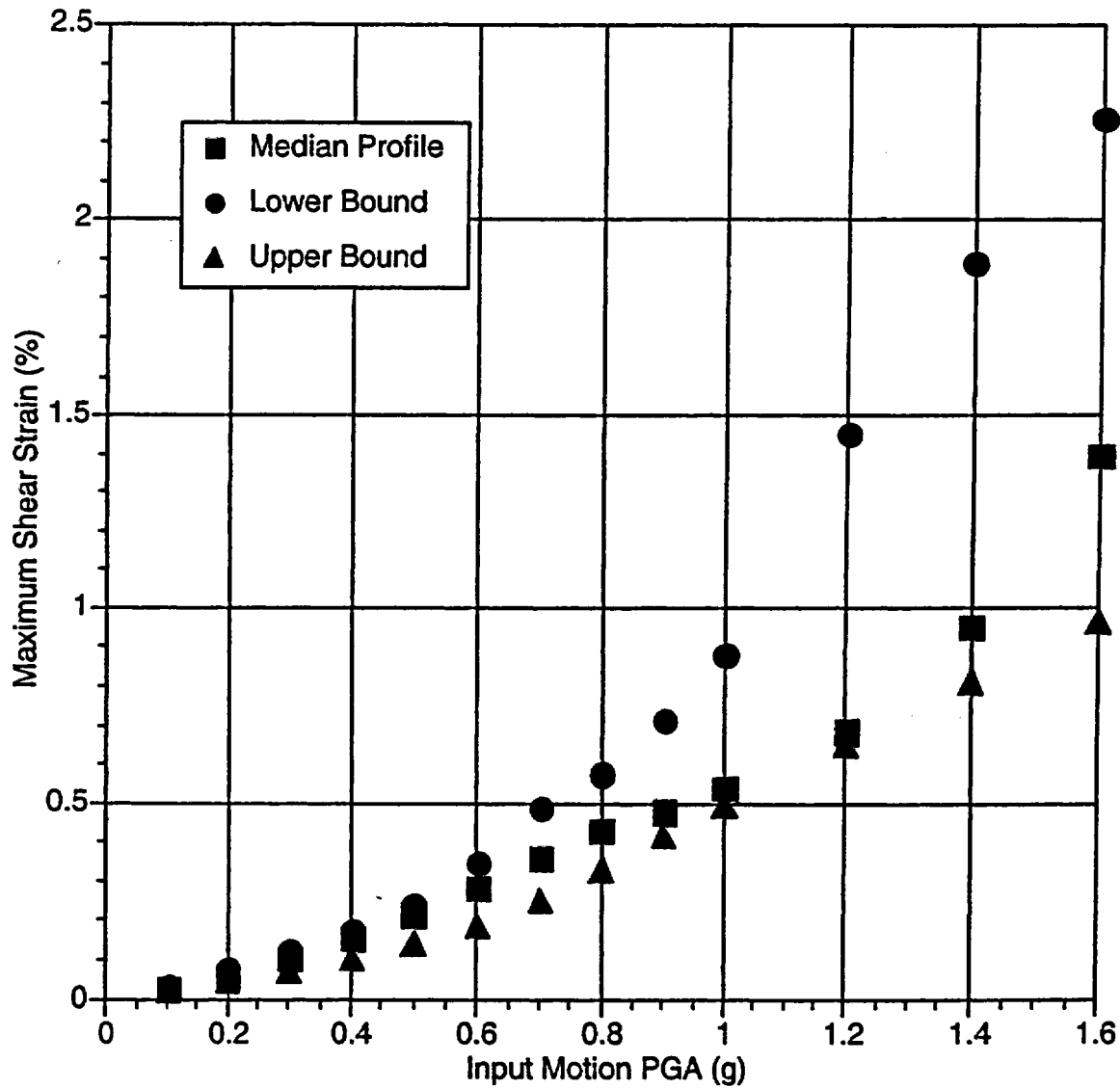


Table 7-4. Surface motion peak ground accelerations (approximated by spectral acceleration at 0.01 sec period; see assumption 3.1; in g)

Earthquake	Input PGA (g)	Median Profile	Lower Bound	Upper Bound
1	0.6	0.675	0.513	0.805
1	0.8	0.800	0.495	0.985
1	1.0	0.855	0.494	1.088
1	1.2	0.890	0.483	1.114
1	1.4	0.880	0.493	1.226
1	1.6	0.872	0.538	1.304
2	0.6	0.592	0.574	0.616
2	0.8	0.762	0.610	0.663
2	1.0	0.894	0.626	0.790
2	1.2	0.991	0.613	0.943
2	1.4	1.056	0.609	1.095
2	1.6	1.088	0.642	1.251
3	0.6	0.571	0.532	0.758
3	0.8	0.683	0.563	0.938
3	1.0	0.877	0.583	1.059
3	1.2	0.957	0.595	1.141
3	1.4	0.976	0.619	1.231
3	1.6	0.959	0.659	1.347

Table 7-5. Average normalized spectral accelerations for median profile (average of time histories: Set 1, Set 2, and Set 3)

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.005	1.004	1.003	1.003	1.003	1.003
0.04	1.010	1.007	1.006	1.006	1.005	1.005
0.05	1.017	1.012	1.010	1.009	1.008	1.008
0.06	1.028	1.019	1.015	1.014	1.012	1.011
0.07	1.033	1.024	1.019	1.018	1.017	1.015
0.08	1.049	1.022	1.020	1.021	1.021	1.020
0.09	1.122	1.073	1.047	1.038	1.032	1.028
0.10	1.213	1.130	1.073	1.058	1.047	1.040
0.11	1.234	1.142	1.054	1.052	1.048	1.044
0.12	1.335	1.182	1.077	1.053	1.047	1.045
0.13	1.356	1.211	1.083	1.059	1.051	1.049
0.14	1.446	1.231	1.084	1.053	1.048	1.054
0.15	1.577	1.320	1.106	1.066	1.060	1.059
0.16	1.737	1.423	1.211	1.144	1.122	1.108
0.17	1.855	1.536	1.331	1.228	1.183	1.164
0.18	1.877	1.654	1.442	1.318	1.255	1.180
0.19	2.048	1.772	1.498	1.390	1.321	1.269
0.20	2.236	1.953	1.697	1.560	1.472	1.420
0.21	2.314	2.085	1.808	1.670	1.572	1.510
0.22	2.436	2.174	1.909	1.774	1.673	1.590
0.23	2.484	2.208	1.944	1.827	1.738	1.644
0.24	2.547	2.282	2.065	1.943	1.857	1.783
0.25	2.656	2.385	2.108	1.993	1.914	1.844
0.26	2.719	2.384	2.136	2.025	1.932	1.850
0.27	2.773	2.466	2.125	1.995	1.909	1.849
0.28	2.946	2.559	2.190	2.074	1.981	1.907
0.29	3.022	2.599	2.248	2.139	2.047	1.972
0.30	3.084	2.702	2.318	2.200	2.116	2.046
0.31	3.167	2.765	2.415	2.294	2.213	2.153
0.32	3.052	2.722	2.392	2.286	2.221	2.173
0.33	2.961	2.640	2.333	2.235	2.165	2.122
0.34	3.058	2.769	2.402	2.310	2.257	2.217
0.35	3.087	2.792	2.491	2.408	2.345	2.311
0.36	2.862	2.794	2.540	2.465	2.418	2.384
0.37	2.826	2.848	2.590	2.547	2.510	2.486
0.38	2.815	2.874	2.714	2.664	2.629	2.609
0.39	2.794	2.923	2.750	2.719	2.712	2.736
0.40	2.706	2.875	2.821	2.824	2.845	2.871
0.41	2.587	2.854	2.884	2.944	2.968	2.985
0.42	2.479	2.761	2.916	2.997	3.034	3.051
0.43	2.349	2.647	2.845	2.943	2.994	3.023
0.44	2.208	2.454	2.681	2.838	2.929	2.967
0.45	2.053	2.263	2.508	2.697	2.823	2.884
0.46	2.067	2.144	2.418	2.651	2.779	2.835
0.47	2.041	2.110	2.253	2.513	2.692	2.786
0.48	2.073	2.070	2.195	2.410	2.587	2.676
0.49	2.121	2.039	2.171	2.354	2.529	2.647
0.50	2.098	2.030	2.136	2.318	2.465	2.521

Table 7-5 (cont)

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.51	2.086	1.979	2.076	2.251	2.389	2.440
0.52	2.070	1.913	1.991	2.153	2.284	2.336
0.53	2.135	1.954	1.963	2.071	2.205	2.265
0.54	2.185	2.008	2.026	2.136	2.232	2.270
0.55	2.225	2.048	2.052	2.160	2.233	2.271
0.56	2.265	2.111	2.054	2.163	2.227	2.225
0.57	2.247	2.129	2.071	2.151	2.212	2.176
0.58	2.289	2.108	2.059	2.132	2.202	2.201
0.60	2.344	2.178	2.054	2.089	2.177	2.199
0.62	2.377	2.236	2.084	2.099	2.125	2.072
0.64	2.444	2.338	2.206	2.206	2.188	2.110
0.66	2.406	2.368	2.293	2.336	2.337	2.229
0.68	2.244	2.244	2.222	2.281	2.303	2.216
0.70	2.090	2.180	2.199	2.246	2.240	2.143
0.72	2.081	2.192	2.221	2.271	2.276	2.177
0.74	2.028	2.142	2.173	2.228	2.244	2.184
0.76	1.977	2.062	2.107	2.184	2.235	2.204
0.78	1.900	1.984	2.027	2.145	2.255	2.231
0.80	1.844	1.944	2.033	2.181	2.298	2.282
0.82	1.797	1.910	2.011	2.165	2.287	2.279
0.84	1.690	1.812	1.925	2.083	2.216	2.256
0.86	1.663	1.783	1.916	2.081	2.222	2.270
0.88	1.600	1.705	1.838	2.002	2.143	2.196
0.90	1.529	1.594	1.722	1.878	2.017	2.076
0.92	1.486	1.537	1.647	1.799	1.941	2.013
0.94	1.521	1.569	1.646	1.778	1.945	2.079
0.96	1.546	1.601	1.677	1.812	1.979	2.115
0.98	1.531	1.589	1.660	1.791	1.955	2.090
1.00	1.504	1.561	1.624	1.750	1.909	2.042
1.05	1.451	1.492	1.543	1.659	1.810	1.946
1.10	1.461	1.438	1.467	1.554	1.675	1.805
1.15	1.516	1.503	1.504	1.573	1.676	1.808
1.20	1.574	1.576	1.561	1.602	1.665	1.740
1.25	1.559	1.578	1.575	1.627	1.691	1.756
1.30	1.564	1.592	1.603	1.668	1.749	1.824
1.35	1.619	1.603	1.604	1.655	1.725	1.785
1.40	1.636	1.605	1.576	1.615	1.680	1.734
1.45	1.630	1.651	1.606	1.610	1.655	1.692
1.50	1.559	1.592	1.575	1.613	1.662	1.693
1.55	1.503	1.582	1.594	1.647	1.705	1.743
1.60	1.502	1.587	1.585	1.631	1.693	1.733
1.65	1.516	1.619	1.618	1.631	1.666	1.708
1.70	1.454	1.566	1.573	1.580	1.633	1.691
1.75	1.355	1.475	1.503	1.547	1.612	1.668
1.80	1.296	1.440	1.497	1.567	1.632	1.698
1.85	1.271	1.419	1.485	1.576	1.668	1.741
1.90	1.218	1.371	1.450	1.542	1.632	1.730
1.95	1.148	1.292	1.368	1.467	1.596	1.708
2.00	1.066	1.211	1.297	1.435	1.593	1.727
2.05	1.011	1.175	1.286	1.422	1.571	1.699
2.10	0.943	1.097	1.206	1.344	1.484	1.591
2.15	0.884	1.017	1.114	1.242	1.391	1.549

Table 7-5 (cont)

Period (sec)	Input PGA					
	0.6 g	(sec)	0.6 g	(sec)	0.6 g	(sec)
2.20	0.839	0.962	1.054	1.186	1.355	1.526
2.25	0.799	0.919	1.010	1.147	1.323	1.491
2.30	0.757	0.874	0.965	1.109	1.279	1.448
2.35	0.712	0.828	0.922	1.061	1.225	1.386
2.40	0.667	0.780	0.873	1.005	1.163	1.325
2.50	0.600	0.704	0.789	0.909	1.062	1.223
2.60	0.572	0.670	0.749	0.864	1.012	1.176
2.70	0.513	0.604	0.681	0.790	0.932	1.091
2.80	0.464	0.539	0.606	0.705	0.835	0.983
2.90	0.424	0.484	0.538	0.622	0.737	0.867
3.00	0.405	0.460	0.511	0.591	0.697	0.816
3.10	0.393	0.441	0.484	0.559	0.661	0.776
3.20	0.371	0.419	0.459	0.527	0.623	0.748
3.30	0.342	0.388	0.430	0.495	0.586	0.696
3.40	0.338	0.385	0.425	0.487	0.571	0.672
3.50	0.325	0.372	0.411	0.473	0.558	0.655
3.60	0.295	0.337	0.374	0.433	0.513	0.607
3.70	0.272	0.310	0.344	0.396	0.466	0.553
3.80	0.261	0.298	0.331	0.380	0.445	0.520
3.90	0.254	0.291	0.324	0.373	0.439	0.516
4.00	0.239	0.276	0.308	0.357	0.423	0.500
4.10	0.223	0.252	0.279	0.324	0.387	0.461
4.20	0.197	0.223	0.249	0.293	0.350	0.415
4.30	0.187	0.212	0.236	0.276	0.329	0.389
4.40	0.179	0.200	0.222	0.260	0.311	0.369
4.50	0.175	0.192	0.211	0.245	0.292	0.348
4.60	0.171	0.191	0.208	0.235	0.277	0.331
4.70	0.171	0.191	0.208	0.235	0.272	0.320
4.80	0.165	0.184	0.199	0.224	0.261	0.308
4.90	0.162	0.180	0.195	0.220	0.252	0.298
5.00	0.154	0.173	0.188	0.212	0.243	0.284
5.10	0.145	0.163	0.178	0.201	0.232	0.268
5.20	0.137	0.155	0.169	0.193	0.225	0.263
5.40	0.127	0.144	0.158	0.182	0.213	0.250
5.60	0.109	0.120	0.132	0.151	0.179	0.212
5.80	0.107	0.117	0.127	0.142	0.164	0.189
6.00	0.104	0.115	0.124	0.140	0.162	0.187
6.20	0.097	0.106	0.115	0.130	0.151	0.176
6.40	0.093	0.103	0.110	0.124	0.143	0.165
6.60	0.087	0.096	0.104	0.118	0.137	0.159
6.80	0.082	0.091	0.098	0.111	0.129	0.151
7.00	0.079	0.088	0.095	0.108	0.124	0.144
7.20	0.076	0.085	0.092	0.103	0.119	0.138
7.40	0.073	0.079	0.085	0.096	0.112	0.130
7.60	0.069	0.076	0.081	0.090	0.104	0.120
7.80	0.064	0.070	0.075	0.084	0.097	0.112
8.00	0.057	0.063	0.068	0.077	0.089	0.103
8.50	0.049	0.054	0.058	0.065	0.074	0.084
9.00	0.046	0.051	0.054	0.061	0.070	0.080
9.50	0.042	0.046	0.049	0.055	0.063	0.072
10.00	0.036	0.040	0.043	0.048	0.055	0.063



Table 7-6. Average normalized spectral accelerations for lower bound profile (average of time histories Set 1, Set 2, and Set 3)

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.004	1.004	1.003	1.002	1.002	1.002
0.04	1.007	1.007	1.005	1.004	1.003	1.003
0.05	1.012	1.011	1.008	1.006	1.005	1.005
0.06	1.019	1.016	1.012	1.009	1.007	1.007
0.07	1.025	1.023	1.016	1.013	1.010	1.010
0.08	1.032	1.031	1.020	1.016	1.013	1.013
0.09	1.058	1.046	1.028	1.023	1.016	1.016
0.10	1.078	1.058	1.041	1.028	1.019	1.019
0.11	1.103	1.079	1.048	1.038	1.023	1.024
0.12	1.121	1.085	1.046	1.040	1.026	1.027
0.13	1.116	1.078	1.057	1.049	1.036	1.030
0.14	1.133	1.099	1.078	1.068	1.043	1.037
0.15	1.182	1.141	1.114	1.096	1.050	1.043
0.16	1.224	1.170	1.148	1.123	1.066	1.047
0.17	1.358	1.251	1.183	1.167	1.129	1.090
0.18	1.491	1.366	1.238	1.222	1.186	1.111
0.19	1.582	1.441	1.333	1.261	1.194	1.148
0.20	1.789	1.665	1.536	1.415	1.272	1.150
0.21	1.947	1.792	1.643	1.514	1.360	1.200
0.22	2.068	1.914	1.726	1.561	1.407	1.302
0.23	2.150	1.999	1.810	1.638	1.526	1.399
0.24	2.211	2.091	1.922	1.791	1.658	1.505
0.25	2.280	2.178	2.012	1.869	1.708	1.540
0.26	2.324	2.241	2.086	1.952	1.779	1.573
0.27	2.303	2.197	2.081	1.985	1.858	1.652
0.28	2.372	2.296	2.184	2.099	1.969	1.766
0.29	2.427	2.359	2.252	2.169	2.040	1.837
0.30	2.415	2.358	2.261	2.185	2.063	1.868
0.31	2.463	2.447	2.349	2.200	2.057	1.871
0.32	2.480	2.484	2.407	2.275	2.106	1.865
0.33	2.505	2.464	2.409	2.304	2.140	1.912
0.34	2.593	2.514	2.451	2.348	2.189	1.961
0.35	2.678	2.605	2.546	2.418	2.252	2.010
0.36	2.765	2.696	2.644	2.517	2.348	2.098
0.37	2.835	2.748	2.694	2.579	2.409	2.201
0.38	2.939	2.855	2.789	2.665	2.487	2.240
0.39	3.015	3.006	2.934	2.723	2.514	2.261
0.40	3.227	3.184	3.102	2.878	2.600	2.319
0.41	3.362	3.355	3.260	3.004	2.689	2.391
0.42	3.436	3.453	3.372	3.102	2.766	2.468
0.43	3.391	3.429	3.368	3.117	2.775	2.490
0.44	3.313	3.373	3.317	3.090	2.787	2.542
0.45	3.214	3.360	3.366	3.225	3.007	2.755
0.46	3.176	3.372	3.444	3.349	3.164	2.880
0.47	3.072	3.325	3.437	3.432	3.273	2.984
0.48	2.969	3.269	3.430	3.497	3.386	3.097
0.49	2.900	3.221	3.389	3.461	3.369	3.131
0.50	2.706	3.056	3.246	3.350	3.292	3.089

Period (sec)	Input PGA					
	0.6 g	(sec)	0.6 g	(sec)	0.6 g	(sec)
0.51	2.602	2.917	3.103	3.220	3.202	3.033
0.52	2.481	2.794	2.982	3.109	3.101	2.955
0.53	2.390	2.700	2.897	3.043	3.068	2.978
0.54	2.333	2.621	2.853	3.067	3.147	3.082
0.55	2.334	2.627	2.866	3.089	3.178	3.116
0.56	2.284	2.577	2.820	3.050	3.147	3.104
0.57	2.219	2.482	2.726	2.960	3.103	3.126
0.58	2.172	2.358	2.626	2.917	3.082	3.120
0.60	2.134	2.359	2.559	2.831	3.064	3.169
0.62	2.047	2.166	2.334	2.572	2.798	2.909
0.64	2.122	2.188	2.298	2.498	2.678	2.811
0.66	2.213	2.206	2.250	2.430	2.634	2.773
0.68	2.174	2.181	2.197	2.308	2.457	2.561
0.70	2.171	2.156	2.156	2.232	2.353	2.470
0.72	2.207	2.184	2.191	2.255	2.294	2.377
0.74	2.180	2.192	2.195	2.265	2.287	2.288
0.76	2.124	2.205	2.169	2.234	2.266	2.247
0.78	2.134	2.231	2.228	2.249	2.242	2.183
0.80	2.165	2.273	2.267	2.295	2.291	2.226
0.82	2.146	2.265	2.276	2.314	2.312	2.248
0.84	2.057	2.279	2.313	2.344	2.342	2.275
0.86	2.037	2.280	2.319	2.360	2.353	2.288
0.88	1.952	2.192	2.243	2.315	2.297	2.240
0.90	1.822	2.062	2.144	2.242	2.229	2.163
0.92	1.735	1.993	2.137	2.228	2.219	2.132
0.94	1.703	2.055	2.232	2.303	2.248	2.155
0.96	1.712	2.090	2.271	2.343	2.281	2.157
0.98	1.687	2.061	2.248	2.329	2.267	2.139
1.00	1.641	2.018	2.247	2.328	2.257	2.121
1.05	1.536	1.897	2.145	2.316	2.308	2.196
1.10	1.412	1.724	1.987	2.225	2.329	2.265
1.15	1.389	1.713	1.996	2.266	2.387	2.342
1.20	1.365	1.610	1.869	2.138	2.287	2.315
1.25	1.376	1.571	1.749	1.996	2.193	2.285
1.30	1.428	1.646	1.829	2.060	2.272	2.379
1.35	1.405	1.599	1.756	1.978	2.166	2.258
1.40	1.362	1.547	1.700	1.893	2.046	2.097
1.45	1.344	1.497	1.639	1.822	1.965	2.012
1.50	1.348	1.503	1.641	1.804	1.938	1.992
1.55	1.386	1.536	1.650	1.823	1.944	1.979
1.60	1.368	1.521	1.627	1.789	1.904	1.924
1.65	1.337	1.492	1.599	1.759	1.876	1.897
1.70	1.329	1.488	1.597	1.741	1.844	1.858
1.75	1.312	1.464	1.579	1.717	1.817	1.830
1.80	1.327	1.489	1.603	1.737	1.835	1.847
1.85	1.343	1.522	1.641	1.765	1.851	1.865
1.90	1.311	1.525	1.660	1.798	1.886	1.888
1.95	1.283	1.532	1.670	1.811	1.901	1.908
2.00	1.289	1.547	1.682	1.836	1.950	1.967
2.05	1.272	1.515	1.662	1.816	1.934	1.956
2.10	1.196	1.426	1.613	1.770	1.853	1.874
2.15	1.108	1.401	1.596	1.747	1.843	1.852

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Period (sec)	Input PGA					
	0.6 g	(sec)	0.6 g	(sec)	0.6 g	(sec)
2.20	1.080	1.383	1.579	1.737	1.835	1.848
2.25	1.054	1.361	1.579	1.746	1.834	1.843
2.30	1.019	1.321	1.533	1.701	1.805	1.829
2.35	0.975	1.254	1.464	1.661	1.786	1.814
2.40	0.923	1.205	1.426	1.624	1.761	1.792
2.50	0.842	1.115	1.336	1.545	1.685	1.721
2.60	0.802	1.075	1.309	1.525	1.659	1.680
2.70	0.736	0.998	1.225	1.448	1.608	1.650
2.80	0.658	0.900	1.122	1.356	1.524	1.581
2.90	0.580	0.794	1.018	1.291	1.515	1.604
3.00	0.547	0.742	0.961	1.237	1.458	1.554
3.10	0.516	0.707	0.925	1.189	1.422	1.548
3.20	0.486	0.683	0.892	1.136	1.356	1.478
3.30	0.457	0.637	0.834	1.057	1.261	1.374
3.40	0.447	0.612	0.776	0.992	1.189	1.314
3.50	0.435	0.594	0.754	0.946	1.130	1.247
3.60	0.400	0.553	0.704	0.886	1.050	1.160
3.70	0.364	0.503	0.644	0.812	0.968	1.069
3.80	0.345	0.468	0.602	0.763	0.922	1.020
3.90	0.340	0.465	0.590	0.740	0.901	1.003
4.00	0.327	0.452	0.578	0.725	0.874	0.976
4.10	0.299	0.418	0.539	0.679	0.821	0.911
4.20	0.271	0.377	0.487	0.619	0.751	0.835
4.30	0.254	0.351	0.448	0.569	0.693	0.777
4.40	0.240	0.334	0.426	0.539	0.656	0.737
4.50	0.225	0.313	0.405	0.514	0.625	0.700
4.60	0.213	0.297	0.386	0.491	0.588	0.659
4.70	0.210	0.285	0.368	0.469	0.563	0.624
4.80	0.201	0.276	0.351	0.442	0.532	0.590
4.90	0.196	0.267	0.341	0.428	0.506	0.557
5.00	0.189	0.255	0.328	0.413	0.490	0.536
5.10	0.180	0.240	0.309	0.391	0.464	0.510
5.20	0.174	0.236	0.300	0.376	0.446	0.489
5.40	0.165	0.224	0.286	0.360	0.428	0.472
5.60	0.138	0.191	0.247	0.313	0.376	0.417
5.80	0.127	0.168	0.211	0.264	0.312	0.347
6.00	0.125	0.166	0.208	0.258	0.304	0.332
6.20	0.117	0.157	0.197	0.246	0.289	0.316
6.40	0.110	0.146	0.183	0.227	0.266	0.288
6.60	0.105	0.141	0.177	0.219	0.256	0.279
6.80	0.099	0.134	0.169	0.209	0.246	0.269
7.00	0.096	0.128	0.162	0.202	0.239	0.261
7.20	0.092	0.122	0.153	0.192	0.228	0.251
7.40	0.086	0.115	0.144	0.177	0.208	0.227
7.60	0.080	0.106	0.132	0.164	0.193	0.210
7.80	0.074	0.099	0.124	0.154	0.182	0.198
8.00	0.068	0.091	0.115	0.143	0.169	0.184
8.50	0.057	0.075	0.092	0.112	0.133	0.145
9.00	0.054	0.071	0.088	0.107	0.124	0.133
9.50	0.049	0.064	0.079	0.095	0.110	0.119
10.00	0.043	0.056	0.070	0.085	0.098	0.106

Table 7-7. Average normalized spectral accelerations for upper bound profile (average of time histories Set 1, Set 2, and Set 3)

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.012	1.010	1.007	1.005	1.003	1.003
0.04	1.026	1.023	1.013	1.010	1.006	1.006
0.05	1.042	1.036	1.021	1.017	1.009	1.009
0.06	1.053	1.058	1.027	1.024	1.016	1.012
0.07	1.137	1.127	1.054	1.037	1.020	1.018
0.08	1.199	1.166	1.102	1.052	1.033	1.024
0.09	1.342	1.252	1.171	1.122	1.061	1.051
0.10	1.470	1.364	1.263	1.192	1.113	1.065
0.11	1.499	1.436	1.333	1.245	1.144	1.056
0.12	1.614	1.541	1.423	1.318	1.199	1.095
0.13	1.750	1.663	1.446	1.289	1.198	1.122
0.14	1.844	1.739	1.531	1.348	1.212	1.142
0.15	1.957	1.913	1.712	1.493	1.295	1.176
0.16	2.074	2.034	1.822	1.624	1.418	1.264
0.17	2.249	2.169	1.915	1.691	1.481	1.351
0.18	2.233	2.183	1.966	1.770	1.588	1.423
0.19	2.409	2.243	2.069	1.959	1.760	1.564
0.20	2.564	2.362	2.237	2.131	1.929	1.706
0.21	2.758	2.527	2.334	2.198	2.007	1.801
0.22	2.970	2.683	2.477	2.317	2.108	1.901
0.23	3.077	2.859	2.514	2.370	2.166	1.970
0.24	3.210	3.053	2.701	2.481	2.270	2.067
0.25	3.357	3.288	2.910	2.622	2.376	2.146
0.26	3.394	3.357	3.047	2.752	2.416	2.183
0.27	3.293	3.361	3.113	2.768	2.453	2.179
0.28	3.253	3.422	3.247	2.940	2.636	2.357
0.29	3.100	3.206	3.145	2.999	2.754	2.471
0.30	2.940	3.096	3.012	2.891	2.711	2.504
0.31	2.778	2.906	2.896	2.896	2.756	2.542
0.32	2.635	2.788	2.791	2.806	2.680	2.502
0.33	2.577	2.707	2.682	2.635	2.526	2.362
0.34	2.534	2.629	2.593	2.581	2.489	2.397
0.35	2.502	2.609	2.587	2.583	2.496	2.373
0.36	2.400	2.519	2.502	2.498	2.469	2.389
0.37	2.380	2.447	2.453	2.501	2.508	2.479
0.38	2.363	2.481	2.445	2.490	2.508	2.493
0.39	2.315	2.420	2.409	2.456	2.487	2.476
0.40	2.344	2.313	2.307	2.361	2.407	2.454
0.41	2.425	2.252	2.212	2.278	2.374	2.452
0.42	2.481	2.300	2.114	2.206	2.304	2.415
0.43	2.523	2.335	2.121	2.112	2.212	2.328
0.44	2.444	2.292	2.087	2.007	2.074	2.172
0.45	2.537	2.404	2.133	1.987	1.930	1.988
0.46	2.632	2.525	2.259	2.095	2.000	2.030
0.47	2.610	2.521	2.289	2.144	2.035	2.008
0.48	2.535	2.467	2.275	2.147	2.050	2.004
0.49	2.525	2.480	2.297	2.174	2.082	2.039
0.50	2.387	2.457	2.304	2.171	2.074	2.036

Period	Input PGA					
	(sec)	0.6 g	(sec)	0.6 g	(sec)	0.6 g
0.51	2.311	2.415	2.300	2.168	2.051	1.991
0.52	2.228	2.368	2.284	2.171	2.034	1.953
0.53	2.150	2.346	2.305	2.213	2.088	1.990
0.54	2.157	2.409	2.374	2.282	2.162	2.071
0.55	2.164	2.413	2.395	2.323	2.205	2.103
0.56	2.118	2.398	2.420	2.359	2.248	2.165
0.57	2.052	2.353	2.388	2.364	2.278	2.184
0.58	2.002	2.264	2.372	2.426	2.337	2.238
0.60	1.999	2.267	2.431	2.482	2.390	2.294
0.62	1.880	2.139	2.280	2.382	2.370	2.317
0.64	1.737	2.023	2.222	2.411	2.436	2.407
0.66	1.707	1.974	2.194	2.389	2.434	2.433
0.68	1.706	1.926	2.082	2.259	2.305	2.320
0.70	1.771	1.958	2.056	2.167	2.223	2.259
0.72	1.788	1.980	2.084	2.186	2.239	2.271
0.74	1.786	1.985	2.093	2.183	2.197	2.225
0.76	1.751	1.956	2.071	2.164	2.180	2.188
0.78	1.679	1.883	2.000	2.093	2.108	2.116
0.80	1.637	1.823	1.943	2.036	2.053	2.063
0.82	1.662	1.768	1.868	1.969	1.997	2.021
0.84	1.712	1.807	1.851	1.896	1.907	1.927
0.86	1.745	1.844	1.877	1.912	1.896	1.918
0.88	1.717	1.816	1.844	1.875	1.850	1.848
0.90	1.663	1.757	1.781	1.806	1.779	1.765
0.92	1.653	1.745	1.762	1.778	1.744	1.724
0.94	1.699	1.801	1.822	1.838	1.803	1.780
0.96	1.731	1.829	1.851	1.872	1.839	1.816
0.98	1.729	1.811	1.831	1.853	1.824	1.802
1.00	1.729	1.800	1.809	1.822	1.794	1.772
1.05	1.794	1.852	1.825	1.799	1.736	1.706
1.10	1.838	1.934	1.893	1.844	1.762	1.690
1.15	1.851	1.950	1.942	1.917	1.840	1.770
1.20	1.744	1.920	1.964	1.959	1.901	1.849
1.25	1.694	1.880	1.910	1.900	1.866	1.836
1.30	1.593	1.818	1.906	1.939	1.881	1.850
1.35	1.500	1.774	1.910	1.991	1.952	1.890
1.40	1.439	1.713	1.883	1.987	1.967	1.915
1.45	1.366	1.651	1.830	1.949	1.952	1.935
1.50	1.265	1.535	1.709	1.834	1.862	1.858
1.55	1.172	1.415	1.594	1.743	1.788	1.813
1.60	1.109	1.332	1.516	1.696	1.774	1.813
1.65	1.076	1.307	1.509	1.692	1.787	1.843
1.70	1.007	1.232	1.427	1.610	1.715	1.777
1.75	0.921	1.125	1.308	1.486	1.593	1.661
1.80	0.867	1.068	1.239	1.406	1.506	1.587
1.85	0.861	1.043	1.202	1.370	1.476	1.559
1.90	0.826	1.007	1.165	1.325	1.424	1.503
1.95	0.766	0.936	1.089	1.244	1.341	1.419
2.00	0.710	0.864	1.001	1.149	1.246	1.326
2.05	0.669	0.812	0.941	1.078	1.176	1.262
2.10	0.638	0.772	0.886	1.008	1.095	1.180
2.15	0.602	0.732	0.841	0.957	1.036	1.108

Period (sec)	Input PGA					
	0.6 g	(sec)	0.6 g	(sec)	0.6 g	(sec)
2.20	0.564	0.688	0.796	0.908	0.983	1.051
2.25	0.534	0.649	0.751	0.860	0.934	1.001
2.30	0.502	0.612	0.706	0.812	0.884	0.950
2.35	0.474	0.578	0.668	0.763	0.832	0.897
2.40	0.451	0.545	0.627	0.718	0.781	0.842
2.50	0.415	0.497	0.567	0.647	0.703	0.760
2.60	0.400	0.478	0.544	0.613	0.669	0.723
2.70	0.359	0.431	0.493	0.559	0.605	0.651
2.80	0.328	0.390	0.444	0.504	0.546	0.586
2.90	0.318	0.377	0.423	0.470	0.502	0.533
3.00	0.298	0.355	0.401	0.448	0.479	0.509
3.10	0.292	0.346	0.391	0.437	0.465	0.491
3.20	0.270	0.322	0.365	0.410	0.439	0.465
3.30	0.255	0.299	0.337	0.378	0.405	0.430
3.40	0.248	0.291	0.329	0.371	0.399	0.425
3.50	0.236	0.278	0.313	0.354	0.383	0.409
3.60	0.214	0.254	0.287	0.324	0.348	0.372
3.70	0.192	0.231	0.265	0.300	0.323	0.345
3.80	0.184	0.222	0.254	0.289	0.311	0.332
3.90	0.183	0.217	0.247	0.281	0.303	0.324
4.00	0.179	0.211	0.238	0.267	0.286	0.306
4.10	0.167	0.196	0.221	0.248	0.266	0.282
4.20	0.149	0.174	0.195	0.219	0.235	0.250
4.30	0.149	0.172	0.190	0.210	0.224	0.238
4.40	0.146	0.169	0.185	0.202	0.214	0.225
4.50	0.143	0.165	0.181	0.198	0.208	0.218
4.60	0.137	0.159	0.175	0.192	0.204	0.215
4.70	0.135	0.157	0.174	0.192	0.204	0.214
4.80	0.129	0.152	0.169	0.186	0.197	0.207
4.90	0.125	0.148	0.165	0.182	0.193	0.202
5.00	0.118	0.139	0.156	0.172	0.183	0.193
5.10	0.110	0.130	0.145	0.162	0.172	0.182
5.20	0.105	0.122	0.137	0.152	0.163	0.173
5.40	0.099	0.114	0.126	0.140	0.151	0.160
5.60	0.092	0.106	0.116	0.125	0.131	0.136
5.80	0.086	0.101	0.112	0.122	0.128	0.134
6.00	0.082	0.097	0.108	0.118	0.125	0.131
6.20	0.077	0.090	0.100	0.109	0.115	0.120
6.40	0.075	0.087	0.096	0.105	0.111	0.116
6.60	0.070	0.082	0.090	0.099	0.104	0.109
6.80	0.068	0.077	0.084	0.093	0.098	0.103
7.00	0.065	0.075	0.082	0.090	0.095	0.100
7.20	0.062	0.071	0.079	0.086	0.091	0.096
7.40	0.060	0.069	0.076	0.083	0.087	0.091
7.60	0.056	0.065	0.072	0.079	0.083	0.086
7.80	0.052	0.060	0.066	0.073	0.077	0.080
8.00	0.047	0.055	0.060	0.066	0.069	0.072
8.50	0.042	0.048	0.052	0.056	0.059	0.061
9.00	0.038	0.044	0.048	0.052	0.055	0.057
9.50	0.034	0.040	0.044	0.048	0.050	0.052
10.00	0.029	0.034	0.037	0.040	0.042	0.045

Figure 7-11. Spectral shape of median profile, average of time histories Set 1, Set 2, and Set 3

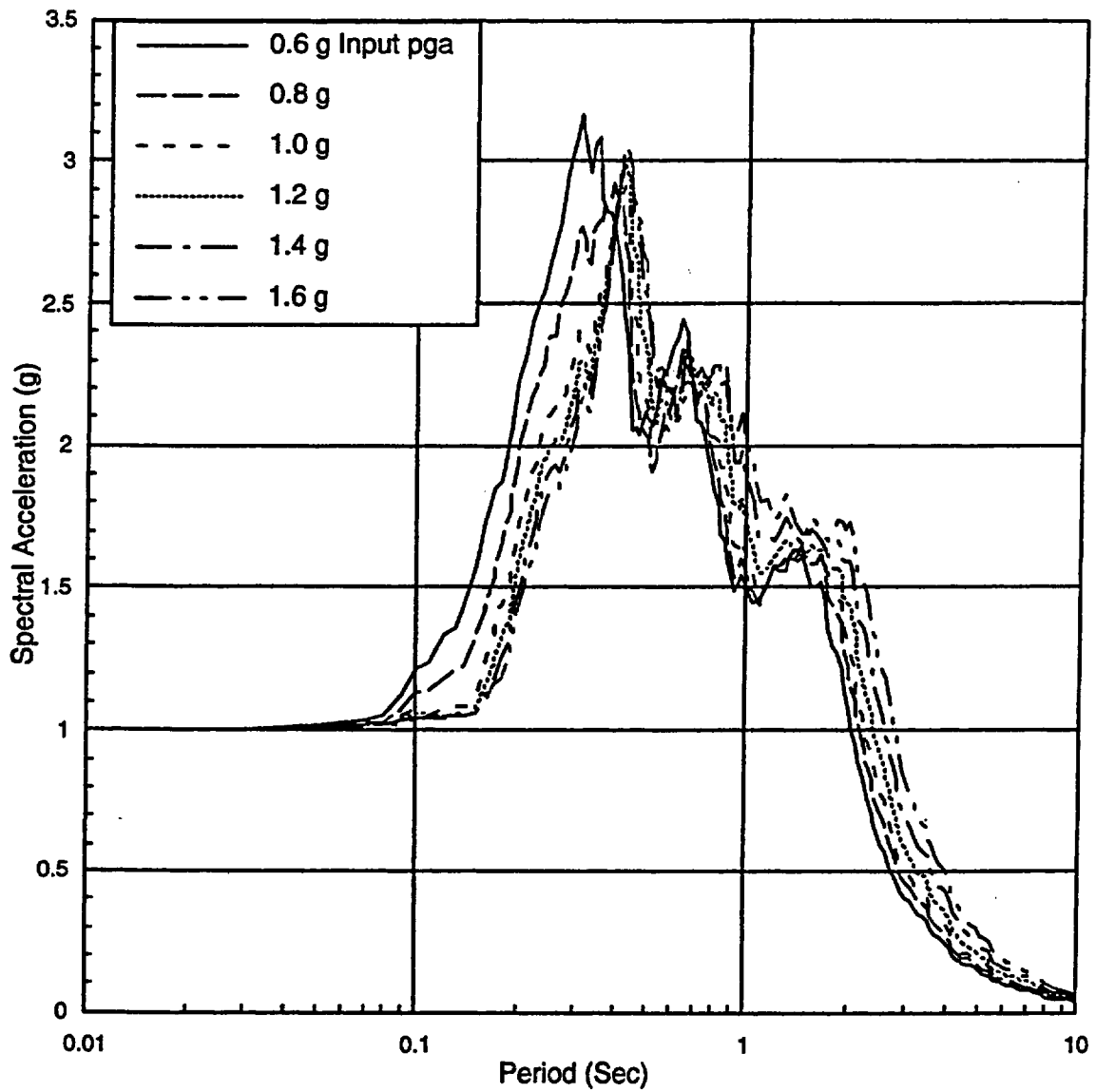


Figure 7-12. Spectral shape of lower bound profile, average of time histories Set 1, Set 2, and Set 3

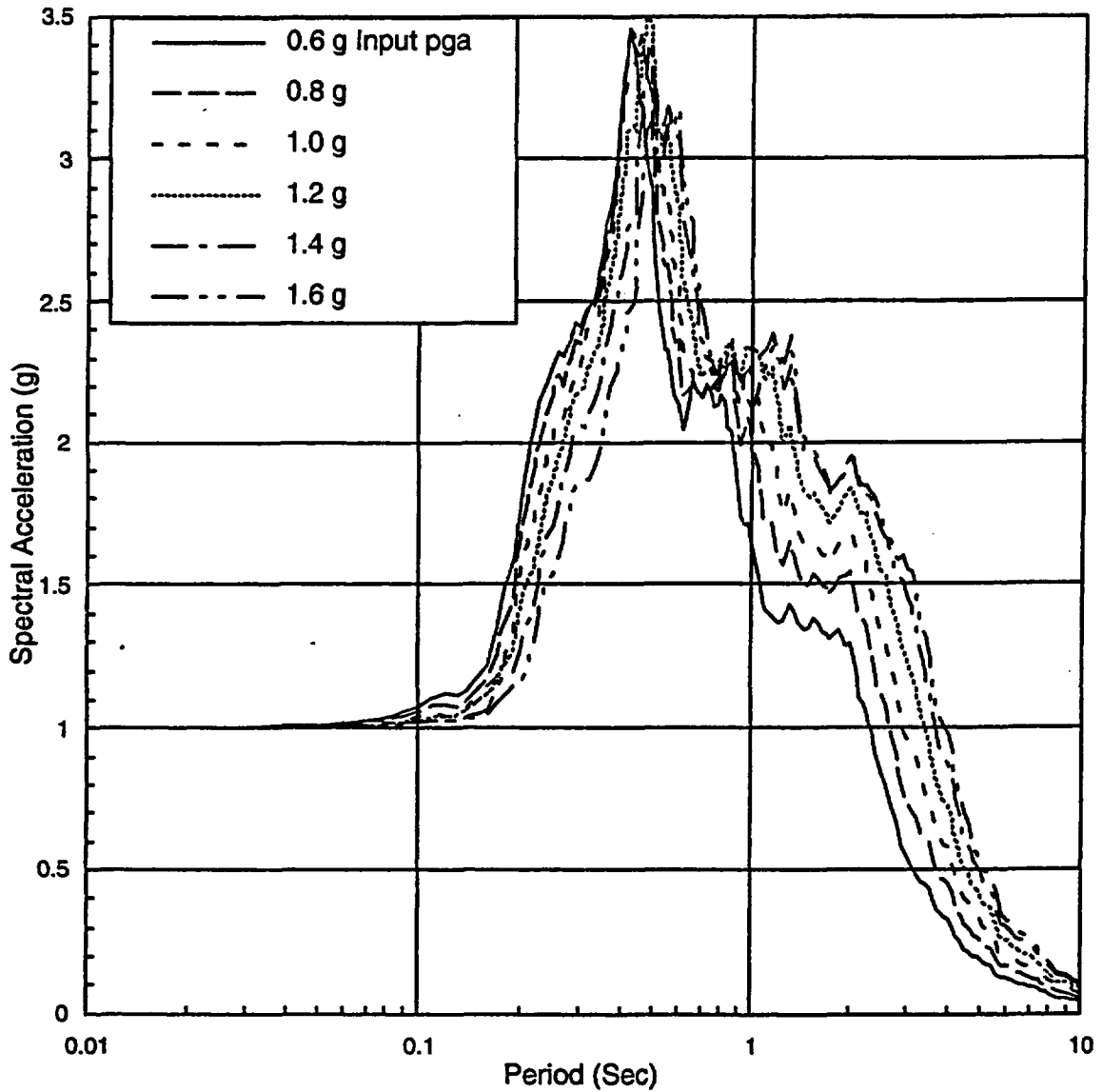
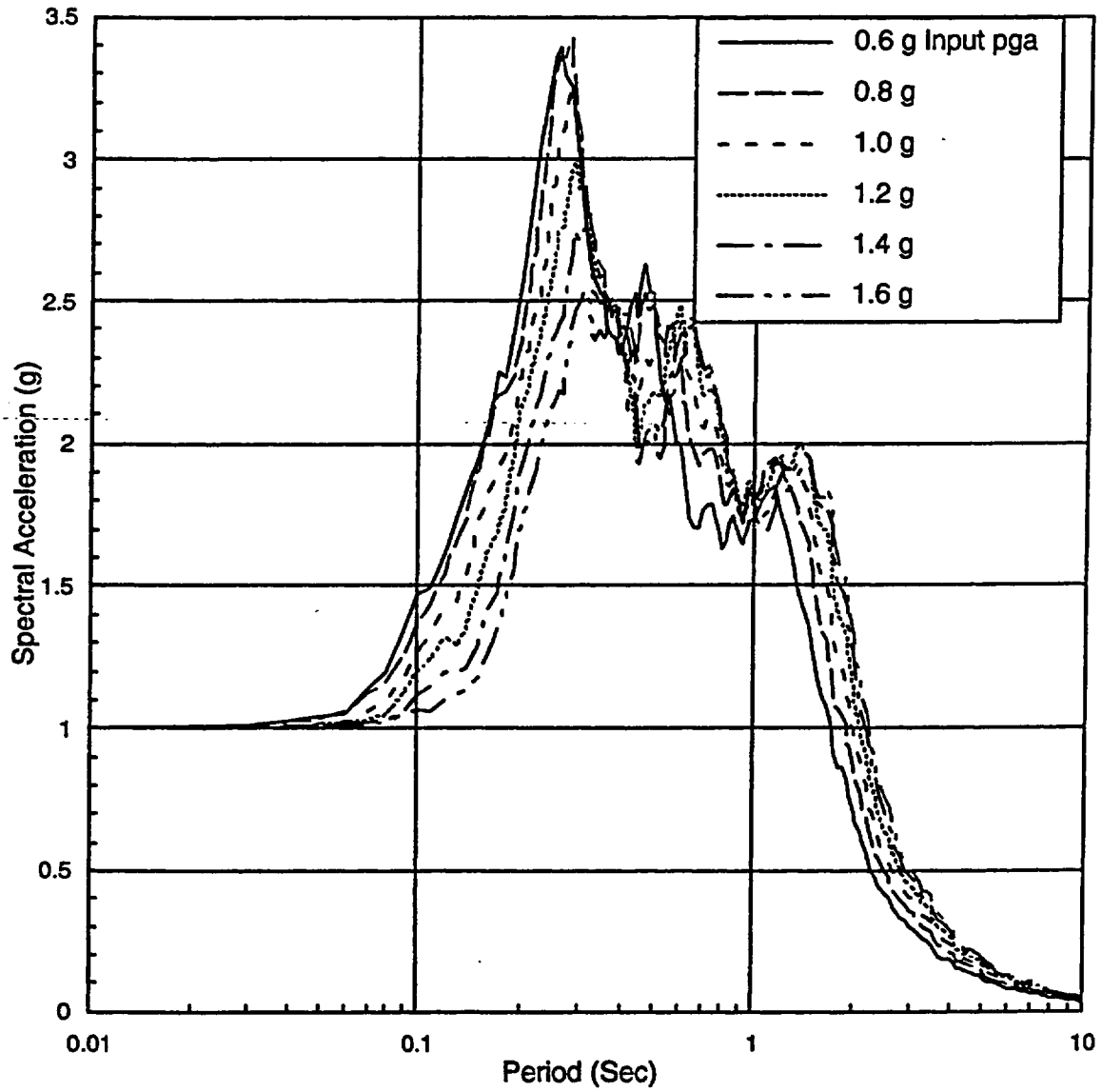




Figure 7-13. Spectral shape of upper bound profile, average of time histories Set 1, Set 2, and Set 3



### 7.1.5 Step 5: Compute Amplification Factors

Amplification factors are computed for input PGA levels of 1.2g, 1.4g, and 1.6g which is the expected acceleration range at HBIP. The amplification factor is computed using eq. 5-1 where the surface response spectra can be obtained by multiplying the normalized spectral shape included in Appendix A by the corresponding PGA listed in Table 7-4 and the corresponding input response spectra can be obtained by scaling the spectral shape listed in 7-8 by the PGA of 1.2g, 1.4g or 1.6g.

The resulting amplification factors at 1.2 g, 1.4 g, and 1.6g for each input motion are listed in Tables 7-9 through 7-11 for the median, lower bound, and upper bound profiles, respectively. The average amplification of three input motions for the three profiles are listed in Table 7-21.

The normalized standard error was computed (eq. 5-5) on the amplification factors for each profile at 1.2 g, 1.4g, and 1.6g input PGA in order to quantify limitations on the use of the average factors due to their development from three input time histories. The amplification factors for each earthquake, their average, and the normalized standard error of each average value are all listed in Tables 7-13 through 7-21. In general the normalized SE values are about 5%.

For the development of smooth design spectra, a subsets of 30 spectral periods were chosen to represent the 153 spectral periods for each profile. The subsets are plotted in Figures 7-14, 7-15, and 7-16. Most applications in which these factors will be used include 0.075 and 0.75 sec periods; therefore the 0.07 and 0.08 sec values have been interpolated to 0.075 sec, and the 0.74 and 0.76 sec values have been interpolated to 0.75 sec (log-log interpolations).

Table 7-8. Spectral shape (sa/pgs) of the input time histories

Period (sec)	Time History 1	Time History 2	Time History 3
0.01	1.000	1.000	1.000
0.03	1.007	1.005	0.964
0.04	1.217	1.226	1.207
0.05	1.433	1.433	1.371
0.06	1.557	1.561	1.531
0.07	1.734	1.749	1.623
0.08	1.870	1.821	1.761
0.09	1.982	1.902	1.836
0.10	1.995	1.958	1.897
0.11	2.052	2.046	1.924
0.12	2.051	2.073	2.003
0.13	2.182	2.143	1.940
0.14	2.149	2.184	2.104
0.15	2.196	2.225	2.167
0.16	2.192	2.234	2.168
0.17	2.277	2.272	2.209
0.18	2.273	2.320	2.211
0.19	2.283	2.321	2.221
0.20	2.300	2.328	2.243
0.21	2.341	2.314	2.239
0.22	2.359	2.320	2.218
0.23	2.289	2.335	2.231
0.24	2.327	2.327	2.263
0.25	2.361	2.306	2.181
0.26	2.345	2.281	2.247
0.27	2.290	2.269	2.222
0.28	2.262	2.274	2.268
0.29	2.273	2.278	2.238
0.30	2.202	2.260	2.125
0.31	2.287	2.216	2.185
0.32	2.218	2.174	2.125
0.33	2.164	2.146	2.050
0.34	2.091	2.133	2.066
0.35	2.033	2.125	2.074
0.36	2.043	2.112	2.063
0.37	2.071	2.092	1.979
0.38	2.029	2.065	2.001
0.39	2.048	2.035	1.988
0.40	2.042	2.002	1.950
0.41	2.052	1.967	1.917
0.42	1.977	1.950	1.899
0.43	2.002	1.945	1.913
0.44	1.958	1.857	1.798
0.45	1.858	1.892	1.794
0.46	1.849	1.872	1.796
0.47	1.883	1.800	1.773
0.48	1.883	1.777	1.730
0.49	1.821	1.788	1.753
0.50	1.709	1.781	1.740
0.51	1.605	1.745	1.680

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Period (sec)	Time History 1	Time History 2	Time History 3
0.52	1.556	1.707	1.650
0.53	1.553	1.681	1.586
0.54	1.560	1.667	1.581
0.55	1.565	1.639	1.618
0.56	1.575	1.601	1.575
0.57	1.578	1.614	1.525
0.58	1.541	1.522	1.517
0.60	1.462	1.574	1.423
0.62	1.429	1.478	1.447
0.64	1.482	1.457	1.430
0.66	1.466	1.412	1.413
0.68	1.333	1.385	1.318
0.70	1.296	1.383	1.261
0.72	1.304	1.314	1.287
0.74	1.273	1.342	1.238
0.76	1.248	1.327	1.182
0.78	1.222	1.258	1.173
0.80	1.191	1.244	1.198
0.82	1.159	1.204	1.180
0.84	1.132	1.163	1.139
0.86	1.109	1.202	1.103
0.88	1.086	1.153	1.080
0.90	1.064	1.063	1.025
0.92	1.044	1.048	0.968
0.94	1.025	1.092	0.930
0.96	1.005	1.091	0.954
0.98	0.986	1.023	0.983
1.00	0.966	0.985	0.993
1.05	0.917	0.911	0.942
1.10	0.860	0.870	0.875
1.15	0.834	0.850	0.814
1.20	0.806	0.778	0.784
1.25	0.738	0.794	0.752
1.30	0.754	0.757	0.727
1.35	0.693	0.707	0.694
1.40	0.674	0.683	0.654
1.45	0.654	0.663	0.630
1.50	0.644	0.625	0.625
1.55	0.632	0.620	0.612
1.60	0.609	0.599	0.578
1.65	0.583	0.574	0.535
1.70	0.551	0.552	0.511
1.75	0.521	0.525	0.507
1.80	0.495	0.526	0.499
1.85	0.479	0.533	0.496
1.90	0.478	0.486	0.480
1.95	0.472	0.467	0.447
2.00	0.463	0.482	0.441
2.05	0.448	0.466	0.431
2.10	0.429	0.419	0.414
2.15	0.407	0.408	0.394
2.20	0.389	0.392	0.385
2.25	0.377	0.394	0.378

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Period (sec)	Time History 1	Time History 2	Time History 3
2.30	0.366	0.386	0.367
2.35	0.356	0.367	0.353
2.40	0.347	0.357	0.334
2.50	0.329	0.333	0.327
2.60	0.312	0.314	0.304
2.70	0.295	0.300	0.290
2.80	0.280	0.280	0.279
2.90	0.267	0.276	0.272
3.00	0.255	0.269	0.262
3.10	0.245	0.259	0.245
3.20	0.235	0.247	0.225
3.30	0.224	0.233	0.212
3.40	0.216	0.218	0.211
3.50	0.210	0.206	0.199
3.60	0.203	0.204	0.188
3.70	0.202	0.182	0.178
3.80	0.199	0.190	0.170
3.90	0.191	0.198	0.172
4.00	0.181	0.194	0.169
4.10	0.169	0.176	0.149
4.20	0.160	0.158	0.151
4.30	0.148	0.161	0.154
4.40	0.152	0.153	0.152
4.50	0.154	0.146	0.146
4.60	0.150	0.136	0.137
4.70	0.139	0.138	0.125
4.80	0.124	0.145	0.119
4.90	0.123	0.142	0.117
5.00	0.121	0.133	0.114
5.10	0.118	0.122	0.107
5.20	0.113	0.114	0.103
5.40	0.101	0.109	0.103
5.60	0.094	0.106	0.089
5.80	0.088	0.094	0.083
6.00	0.083	0.093	0.081
6.20	0.078	0.085	0.078
6.40	0.075	0.079	0.075
6.60	0.078	0.074	0.073
6.80	0.077	0.072	0.068
7.00	0.075	0.074	0.063
7.20	0.070	0.072	0.062
7.40	0.068	0.068	0.057
7.60	0.065	0.064	0.051
7.80	0.061	0.059	0.048
8.00	0.057	0.053	0.048
8.50	0.044	0.047	0.046
9.00	0.037	0.046	0.041
9.50	0.030	0.042	0.037
10.00	0.024	0.034	0.034

Table 7-9. Amplification factors for the median profile

Period (sec)	Time History 1			Time History 2			Time History 3		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
0.01	0.742	0.628	0.545	0.826	0.754	0.680	0.798	0.697	0.600
0.03	0.740	0.626	0.543	0.824	0.752	0.678	0.828	0.724	0.623
0.04	0.615	0.520	0.451	0.677	0.618	0.557	0.663	0.579	0.499
0.05	0.525	0.444	0.384	0.581	0.530	0.478	0.585	0.511	0.440
0.06	0.486	0.411	0.356	0.536	0.489	0.440	0.525	0.459	0.395
0.07	0.439	0.371	0.321	0.480	0.438	0.394	0.497	0.434	0.374
0.08	0.411	0.347	0.300	0.461	0.421	0.380	0.458	0.401	0.346
0.09	0.395	0.331	0.285	0.451	0.409	0.367	0.444	0.387	0.333
0.10	0.408	0.340	0.290	0.448	0.404	0.362	0.426	0.373	0.321
0.11	0.387	0.327	0.282	0.432	0.389	0.349	0.422	0.369	0.318
0.12	0.398	0.334	0.287	0.424	0.383	0.344	0.396	0.347	0.301
0.13	0.374	0.314	0.271	0.396	0.361	0.327	0.432	0.372	0.319
0.14	0.383	0.319	0.277	0.373	0.345	0.316	0.403	0.350	0.301
0.15	0.402	0.332	0.280	0.367	0.340	0.311	0.374	0.327	0.285
0.16	0.459	0.376	0.314	0.365	0.335	0.307	0.400	0.342	0.291
0.17	0.451	0.377	0.316	0.390	0.334	0.304	0.443	0.373	0.315
0.18	0.448	0.367	0.296	0.430	0.366	0.300	0.495	0.412	0.347
0.19	0.441	0.361	0.305	0.509	0.430	0.357	0.497	0.416	0.354
0.20	0.534	0.427	0.357	0.579	0.489	0.405	0.496	0.418	0.366
0.21	0.575	0.455	0.375	0.617	0.524	0.436	0.522	0.441	0.384
0.22	0.624	0.496	0.398	0.653	0.555	0.463	0.541	0.456	0.397
0.23	0.639	0.513	0.413	0.687	0.586	0.491	0.560	0.478	0.407
0.24	0.666	0.542	0.454	0.723	0.619	0.520	0.599	0.510	0.433
0.25	0.664	0.547	0.461	0.760	0.653	0.550	0.637	0.540	0.459
0.26	0.685	0.553	0.457	0.794	0.685	0.579	0.609	0.515	0.438
0.27	0.712	0.579	0.479	0.823	0.712	0.604	0.547	0.463	0.410
0.28	0.744	0.609	0.506	0.842	0.731	0.622	0.575	0.475	0.408
0.29	0.767	0.632	0.525	0.855	0.745	0.637	0.608	0.501	0.427
0.30	0.852	0.703	0.593	0.868	0.759	0.651	0.636	0.527	0.445
0.31	0.874	0.726	0.616	0.886	0.778	0.670	0.660	0.547	0.465
0.32	0.879	0.739	0.632	0.906	0.797	0.688	0.693	0.576	0.493
0.33	0.853	0.719	0.606	0.926	0.817	0.707	0.704	0.577	0.506
0.34	0.873	0.742	0.626	0.946	0.836	0.725	0.782	0.655	0.574
0.35	0.932	0.781	0.662	0.965	0.853	0.742	0.840	0.707	0.620
0.36	0.942	0.802	0.679	0.984	0.872	0.759	0.882	0.745	0.654
0.37	0.967	0.830	0.702	1.004	0.891	0.778	0.966	0.818	0.727
0.38	1.058	0.902	0.762	1.024	0.910	0.796	1.011	0.865	0.772
0.39	1.125	0.978	0.860	1.042	0.929	0.815	0.995	0.856	0.767
0.40	1.214	1.089	0.957	1.060	0.945	0.831	1.048	0.889	0.794
0.41	1.272	1.144	1.009	1.094	0.960	0.846	1.126	0.969	0.848
0.42	1.297	1.173	1.040	1.116	0.985	0.856	1.216	1.051	0.925
0.43	1.207	1.103	0.984	1.106	0.979	0.853	1.236	1.072	0.946
0.44	1.156	1.069	0.961	1.210	1.110	0.973	1.216	1.056	0.932
0.45	1.142	1.071	0.971	1.265	1.168	1.030	1.037	0.922	0.829
0.46	1.064	1.013	0.928	1.266	1.178	1.045	1.080	0.945	0.829
0.47	0.946	0.916	0.848	1.245	1.187	1.068	1.091	0.983	0.880
0.48	0.892	0.858	0.786	1.178	1.131	1.024	1.120	1.017	0.915
0.49	0.892	0.859	0.786	1.165	1.125	1.048	1.068	0.968	0.876
0.50	0.892	0.856	0.782	1.155	1.130	1.049	1.105	0.961	0.815
0.51	0.886	0.847	0.772	1.164	1.134	1.051	1.128	0.987	0.840
0.52	0.877	0.834	0.757	1.173	1.140	1.056	1.061	0.932	0.799
0.53	0.865	0.821	0.744	1.180	1.146	1.061	1.004	0.892	0.776
0.54	0.876	0.809	0.732	1.178	1.145	1.061	1.103	0.951	0.802
0.55	0.900	0.800	0.722	1.173	1.140	1.058	1.110	0.961	0.812
0.56	0.931	0.826	0.713	1.184	1.135	1.041	1.123	0.974	0.825
0.57	0.972	0.867	0.734	1.133	1.085	0.977	1.134	0.976	0.820

Period (sec)	Time History 1			Time History 2			Time History 3		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
0.58	1.026	0.922	0.784	1.139	1.093	1.022	1.139	0.983	0.830
0.60	1.021	0.933	0.804	1.150	1.109	1.044	1.155	1.000	0.853
0.62	1.074	0.921	0.768	1.266	1.183	1.060	1.081	0.945	0.788
0.64	1.094	0.933	0.773	1.280	1.192	1.066	1.211	1.004	0.816
0.66	1.158	0.999	0.837	1.429	1.327	1.161	1.283	1.083	0.860
0.68	1.253	1.091	0.919	1.459	1.351	1.183	1.298	1.118	0.906
0.70	1.273	1.112	0.937	1.373	1.279	1.135	1.400	1.149	0.901
0.72	1.283	1.117	0.935	1.390	1.321	1.181	1.454	1.195	0.937
0.74	1.215	1.066	0.937	1.433	1.362	1.218	1.462	1.209	0.949
0.76	1.188	1.083	0.954	1.461	1.399	1.253	1.487	1.232	1.007
0.78	1.212	1.110	0.966	1.494	1.437	1.297	1.469	1.315	1.089
0.80	1.241	1.141	1.002	1.530	1.477	1.337	1.494	1.336	1.107
0.82	1.269	1.171	1.037	1.553	1.500	1.359	1.521	1.363	1.132
0.84	1.289	1.194	1.066	1.471	1.440	1.373	1.549	1.394	1.163
0.86	1.302	1.211	1.088	1.485	1.454	1.384	1.543	1.397	1.170
0.88	1.312	1.226	1.109	1.492	1.458	1.380	1.478	1.345	1.133
0.90	1.318	1.236	1.126	1.489	1.449	1.369	1.420	1.302	1.106
0.92	1.320	1.242	1.138	1.478	1.437	1.364	1.372	1.269	1.091
0.94	1.321	1.247	1.148	1.475	1.437	1.373	1.337	1.291	1.210
0.96	1.322	1.251	1.158	1.483	1.448	1.386	1.407	1.345	1.249
0.98	1.323	1.255	1.168	1.496	1.460	1.398	1.429	1.358	1.254
1.00	1.324	1.260	1.178	1.449	1.411	1.349	1.444	1.368	1.260
1.05	1.317	1.260	1.191	1.511	1.468	1.409	1.423	1.345	1.241
1.10	1.299	1.248	1.192	1.432	1.394	1.363	1.502	1.362	1.228
1.15	1.243	1.169	1.129	1.523	1.465	1.425	1.715	1.563	1.411
1.20	1.272	1.178	1.116	1.761	1.586	1.427	1.795	1.642	1.483
1.25	1.415	1.304	1.220	1.817	1.646	1.471	1.829	1.677	1.515
1.30	1.570	1.466	1.381	1.873	1.704	1.523	1.857	1.705	1.542
1.35	1.787	1.626	1.494	1.928	1.760	1.572	1.887	1.738	1.574
1.40	1.758	1.619	1.499	2.010	1.799	1.580	1.933	1.784	1.618
1.45	1.824	1.623	1.467	2.059	1.843	1.613	1.984	1.830	1.660
1.50	1.895	1.697	1.518	2.126	1.902	1.658	2.019	1.862	1.691
1.55	1.978	1.778	1.595	2.245	2.027	1.779	2.044	1.889	1.721
1.60	2.070	1.869	1.682	2.327	2.101	1.840	2.076	1.928	1.765
1.65	2.130	1.932	1.745	2.452	2.208	1.928	2.255	1.983	1.824
1.70	2.187	1.994	1.808	2.407	2.254	2.034	2.347	2.045	1.872
1.75	2.249	2.059	1.873	2.421	2.282	2.066	2.391	2.116	1.917
1.80	2.337	2.128	1.940	2.505	2.370	2.144	2.467	2.188	2.012
1.85	2.375	2.169	2.016	2.625	2.472	2.219	2.412	2.254	2.069
1.90	2.323	2.142	2.047	2.771	2.591	2.366	2.487	2.320	2.131
1.95	2.277	2.169	2.078	2.648	2.560	2.398	2.589	2.447	2.248
2.00	2.269	2.193	2.102	2.512	2.517	2.441	2.571	2.453	2.265
2.05	2.286	2.212	2.124	2.629	2.623	2.522	2.594	2.452	2.258
2.10	2.306	2.235	2.149	2.614	2.585	2.456	2.648	2.511	2.278
2.15	2.332	2.265	2.184	2.454	2.483	2.478	2.494	2.413	2.328
2.20	2.327	2.266	2.191	2.512	2.543	2.542	2.369	2.423	2.411
2.25	2.293	2.239	2.172	2.421	2.454	2.455	2.359	2.470	2.453
2.30	2.261	2.215	2.154	2.371	2.406	2.433	2.393	2.495	2.475
2.35	2.229	2.191	2.136	2.364	2.403	2.413	2.407	2.502	2.489
2.40	2.197	2.164	2.114	2.268	2.312	2.346	2.403	2.501	2.510
2.50	2.126	2.103	2.061	2.269	2.346	2.413	2.117	2.238	2.283
2.60	2.044	2.029	1.994	2.238	2.317	2.391	2.311	2.437	2.531
2.70	1.952	1.945	1.919	2.131	2.213	2.294	2.253	2.408	2.529
2.80	1.853	1.856	1.843	2.026	2.113	2.202	2.079	2.230	2.359
2.90	1.758	1.765	1.772	1.836	1.907	1.978	1.819	1.957	2.055
3.00	1.766	1.748	1.727	1.765	1.834	1.906	1.799	1.936	2.029
3.10	1.780	1.766	1.749	1.703	1.772	1.845	1.806	1.947	2.055

Period (sec)	Time History 1			Time History 2			Time History 3		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
3.20	1.801	1.792	1.874	1.651	1.720	1.800	1.834	1.978	2.094
3.30	1.829	1.825	1.841	1.610	1.688	1.782	1.789	1.917	2.031
3.40	1.841	1.841	1.838	1.642	1.694	1.791	1.855	1.951	2.026
3.50	1.816	1.822	1.825	1.670	1.729	1.798	1.957	2.066	2.154
3.60	1.799	1.811	1.820	1.510	1.585	1.677	1.832	1.943	2.036
3.70	1.716	1.734	1.751	1.577	1.656	1.751	1.672	1.734	1.823
3.80	1.643	1.670	1.697	1.538	1.573	1.609	1.625	1.690	1.742
3.90	1.599	1.638	1.675	1.529	1.570	1.617	1.573	1.643	1.702
4.00	1.580	1.629	1.670	1.546	1.596	1.655	1.525	1.609	1.684
4.10	1.570	1.623	1.667	1.560	1.621	1.692	1.505	1.615	1.716
4.20	1.540	1.596	1.641	1.506	1.573	1.650	1.368	1.455	1.512
4.30	1.525	1.584	1.631	1.365	1.406	1.456	1.331	1.418	1.478
4.40	1.355	1.410	1.454	1.358	1.405	1.463	1.315	1.403	1.466
4.50	1.280	1.318	1.360	1.293	1.341	1.403	1.315	1.406	1.473
4.60	1.280	1.316	1.356	1.297	1.317	1.381	1.363	1.423	1.502
4.70	1.280	1.316	1.354	1.394	1.403	1.411	1.475	1.493	1.574
4.80	1.280	1.316	1.354	1.397	1.416	1.436	1.414	1.462	1.560
4.90	1.267	1.295	1.326	1.401	1.430	1.461	1.419	1.389	1.485
5.00	1.261	1.290	1.322	1.405	1.443	1.485	1.411	1.384	1.398
5.10	1.262	1.291	1.324	1.401	1.446	1.497	1.439	1.416	1.387
5.20	1.270	1.298	1.329	1.385	1.434	1.490	1.503	1.523	1.539
5.40	1.303	1.332	1.362	1.303	1.356	1.417	1.507	1.544	1.574
5.60	1.252	1.283	1.313	1.176	1.235	1.304	1.295	1.348	1.393
5.80	1.222	1.251	1.282	1.290	1.315	1.337	1.290	1.277	1.255
6.00	1.221	1.248	1.279	1.358	1.388	1.420	1.293	1.293	1.281
6.20	1.218	1.242	1.271	1.301	1.339	1.381	1.293	1.307	1.314
6.40	1.201	1.224	1.251	1.338	1.320	1.310	1.311	1.347	1.366
6.60	1.157	1.177	1.197	1.255	1.257	1.283	1.310	1.355	1.382
6.80	1.150	1.170	1.190	1.177	1.184	1.211	1.270	1.321	1.358
7.00	1.142	1.161	1.181	1.136	1.154	1.171	1.349	1.358	1.363
7.20	1.132	1.150	1.169	1.109	1.114	1.120	1.365	1.389	1.407
7.40	1.135	1.150	1.166	1.151	1.161	1.173	1.253	1.293	1.324
7.60	1.135	1.149	1.166	1.126	1.120	1.108	1.284	1.331	1.370
7.80	1.133	1.147	1.163	1.171	1.166	1.157	1.244	1.265	1.306
8.00	1.130	1.145	1.161	1.216	1.214	1.207	1.126	1.169	1.210
8.50	1.131	1.128	1.139	1.080	1.093	1.104	1.145	1.133	1.113
9.00	1.161	1.163	1.164	1.136	1.160	1.188	1.191	1.196	1.194
9.50	1.151	1.159	1.164	1.234	1.243	1.254	1.182	1.180	1.187
10.00	1.180	1.189	1.201	1.325	1.340	1.360	1.215	1.215	1.213



Table 7-10. Amplification factors for the lower bound profile

Period (sec)	Time History 1			Time History 2			Time History 3		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
0.01	0.402	0.352	0.336	0.511	0.435	0.402	0.496	0.442	0.412
0.03	0.400	0.350	0.334	0.509	0.433	0.400	0.515	0.459	0.428
0.04	0.332	0.290	0.277	0.418	0.356	0.328	0.412	0.368	0.342
0.05	0.283	0.247	0.235	0.359	0.305	0.281	0.364	0.324	0.302
0.06	0.261	0.228	0.217	0.331	0.281	0.259	0.327	0.291	0.271
0.07	0.235	0.205	0.195	0.296	0.251	0.232	0.309	0.276	0.257
0.08	0.219	0.191	0.182	0.285	0.242	0.223	0.286	0.255	0.237
0.09	0.209	0.180	0.172	0.275	0.232	0.214	0.275	0.245	0.228
0.10	0.209	0.180	0.171	0.270	0.227	0.209	0.266	0.238	0.222
0.11	0.207	0.175	0.167	0.260	0.218	0.201	0.264	0.235	0.220
0.12	0.210	0.176	0.168	0.256	0.217	0.200	0.251	0.226	0.211
0.13	0.200	0.167	0.157	0.244	0.211	0.194	0.265	0.236	0.220
0.14	0.211	0.172	0.161	0.239	0.204	0.189	0.249	0.222	0.206
0.15	0.226	0.173	0.160	0.235	0.202	0.187	0.237	0.212	0.199
0.16	0.236	0.181	0.163	0.234	0.197	0.184	0.244	0.216	0.200
0.17	0.228	0.179	0.161	0.238	0.211	0.191	0.260	0.226	0.205
0.18	0.232	0.187	0.156	0.240	0.213	0.193	0.283	0.243	0.218
0.19	0.232	0.180	0.162	0.260	0.221	0.199	0.287	0.246	0.221
0.20	0.283	0.212	0.166	0.293	0.233	0.200	0.286	0.233	0.213
0.21	0.299	0.225	0.173	0.317	0.252	0.214	0.303	0.245	0.214
0.22	0.296	0.219	0.188	0.339	0.268	0.227	0.316	0.264	0.236
0.23	0.307	0.248	0.211	0.359	0.284	0.239	0.339	0.286	0.252
0.24	0.343	0.275	0.232	0.382	0.301	0.253	0.361	0.302	0.262
0.25	0.356	0.278	0.231	0.406	0.320	0.268	0.384	0.318	0.275
0.26	0.391	0.304	0.241	0.429	0.338	0.283	0.367	0.303	0.261
0.27	0.411	0.325	0.261	0.449	0.353	0.296	0.362	0.322	0.278
0.28	0.419	0.333	0.274	0.465	0.366	0.306	0.410	0.362	0.312
0.29	0.437	0.348	0.287	0.477	0.376	0.315	0.424	0.377	0.328
0.30	0.460	0.368	0.306	0.491	0.386	0.324	0.437	0.391	0.344
0.31	0.457	0.368	0.306	0.506	0.398	0.334	0.410	0.355	0.317
0.32	0.488	0.394	0.330	0.521	0.411	0.345	0.447	0.371	0.300
0.33	0.510	0.413	0.348	0.537	0.423	0.356	0.464	0.387	0.320
0.34	0.531	0.433	0.367	0.552	0.435	0.365	0.476	0.399	0.331
0.35	0.553	0.453	0.386	0.566	0.447	0.375	0.503	0.417	0.340
0.36	0.572	0.469	0.399	0.582	0.459	0.386	0.539	0.448	0.367
0.37	0.588	0.483	0.411	0.599	0.472	0.396	0.566	0.473	0.418
0.38	0.611	0.502	0.429	0.616	0.485	0.408	0.602	0.500	0.419
0.39	0.632	0.506	0.434	0.633	0.499	0.419	0.607	0.504	0.418
0.40	0.712	0.534	0.441	0.650	0.512	0.429	0.631	0.532	0.451
0.41	0.764	0.573	0.472	0.665	0.523	0.439	0.663	0.545	0.459
0.42	0.809	0.608	0.506	0.670	0.527	0.442	0.725	0.586	0.494
0.43	0.790	0.598	0.505	0.674	0.524	0.439	0.741	0.597	0.503
0.44	0.798	0.619	0.525	0.753	0.576	0.492	0.732	0.606	0.525
0.45	0.834	0.672	0.573	0.829	0.654	0.559	0.762	0.648	0.566
0.46	0.827	0.699	0.597	0.902	0.716	0.613	0.813	0.676	0.572
0.47	0.832	0.704	0.603	0.931	0.758	0.669	0.875	0.729	0.598
0.48	0.836	0.707	0.609	0.967	0.821	0.725	0.923	0.773	0.636
0.49	0.835	0.708	0.614	0.978	0.832	0.735	0.902	0.764	0.656
0.50	0.827	0.706	0.619	0.967	0.825	0.732	0.903	0.780	0.680
0.51	0.816	0.705	0.627	0.960	0.823	0.733	0.923	0.813	0.715

Period (sec)	Time History 1			Time History 2			Time History 3		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
0.52	0.811	0.712	0.642	0.960	0.827	0.738	0.897	0.781	0.687
0.53	0.814	0.724	0.660	0.965	0.834	0.747	0.880	0.776	0.716
0.54	0.819	0.737	0.675	0.967	0.838	0.750	0.900	0.830	0.780
0.55	0.826	0.750	0.692	0.966	0.838	0.751	0.906	0.832	0.778
0.56	0.835	0.766	0.712	0.951	0.824	0.749	0.914	0.837	0.781
0.57	0.849	0.787	0.735	0.883	0.785	0.734	0.899	0.832	0.803
0.58	0.867	0.810	0.778	0.915	0.812	0.742	0.885	0.834	0.808
0.60	0.797	0.791	0.805	0.974	0.874	0.804	0.904	0.852	0.825
0.62	0.722	0.730	0.746	0.976	0.883	0.815	0.798	0.743	0.727
0.64	0.711	0.688	0.707	0.893	0.817	0.771	0.807	0.742	0.725
0.66	0.711	0.703	0.725	0.896	0.828	0.788	0.781	0.715	0.694
0.68	0.764	0.741	0.761	0.885	0.792	0.739	0.752	0.686	0.661
0.70	0.790	0.736	0.750	0.816	0.728	0.684	0.765	0.715	0.705
0.72	0.793	0.727	0.739	0.836	0.721	0.650	0.789	0.691	0.684
0.74	0.816	0.728	0.708	0.838	0.722	0.652	0.806	0.714	0.666
0.76	0.829	0.741	0.697	0.842	0.729	0.662	0.816	0.729	0.684
0.78	0.839	0.749	0.705	0.923	0.775	0.674	0.816	0.710	0.658
0.80	0.848	0.758	0.714	0.968	0.818	0.715	0.836	0.727	0.665
0.82	0.858	0.767	0.723	1.022	0.866	0.759	0.868	0.755	0.689
0.84	0.863	0.772	0.727	1.106	0.937	0.823	0.910	0.791	0.722
0.86	0.874	0.774	0.728	1.098	0.934	0.824	0.939	0.818	0.744
0.88	0.902	0.775	0.729	1.098	0.945	0.839	0.936	0.818	0.745
0.90	0.927	0.789	0.729	1.122	0.975	0.869	0.941	0.828	0.754
0.92	0.949	0.811	0.731	1.152	0.999	0.889	0.954	0.844	0.769
0.94	0.971	0.832	0.748	1.160	0.999	0.886	1.046	0.864	0.786
0.96	0.992	0.854	0.766	1.156	0.995	0.884	1.084	0.885	0.768
0.98	1.026	0.879	0.785	1.156	1.003	0.896	1.091	0.892	0.767
1.00	1.060	0.915	0.810	1.166	0.993	0.887	1.097	0.897	0.771
1.05	1.121	0.989	0.883	1.253	1.080	0.970	1.137	0.980	0.864
1.10	1.207	1.109	1.011	1.254	1.134	1.009	1.110	1.016	0.951
1.15	1.208	1.131	1.047	1.343	1.204	1.079	1.255	1.157	1.083
1.20	1.143	1.114	1.062	1.348	1.216	1.162	1.312	1.205	1.128
1.25	1.135	1.115	1.129	1.219	1.188	1.156	1.329	1.220	1.144
1.30	1.277	1.249	1.240	1.228	1.203	1.179	1.345	1.247	1.208
1.35	1.337	1.296	1.274	1.243	1.216	1.193	1.366	1.257	1.213
1.40	1.288	1.208	1.159	1.261	1.228	1.205	1.394	1.282	1.207
1.45	1.256	1.176	1.123	1.249	1.213	1.191	1.418	1.305	1.230
1.50	1.255	1.171	1.110	1.302	1.252	1.251	1.437	1.325	1.252
1.55	1.302	1.211	1.143	1.337	1.254	1.220	1.460	1.351	1.279
1.60	1.381	1.283	1.208	1.309	1.217	1.164	1.497	1.390	1.317
1.65	1.454	1.352	1.271	1.338	1.249	1.201	1.544	1.435	1.360
1.70	1.534	1.428	1.342	1.386	1.265	1.200	1.576	1.463	1.386
1.75	1.618	1.508	1.417	1.384	1.259	1.194	1.599	1.484	1.406
1.80	1.709	1.593	1.497	1.392	1.258	1.190	1.666	1.547	1.467
1.85	1.784	1.663	1.564	1.406	1.232	1.165	1.706	1.588	1.510
1.90	1.811	1.688	1.590	1.623	1.414	1.299	1.758	1.645	1.571
1.95	1.838	1.716	1.619	1.747	1.517	1.397	1.862	1.751	1.678
2.00	1.861	1.739	1.644	1.824	1.646	1.534	1.851	1.743	1.674
2.05	1.884	1.764	1.669	1.907	1.736	1.629	1.856	1.741	1.672
2.10	1.913	1.794	1.700	2.021	1.774	1.680	1.938	1.779	1.691
2.15	1.954	1.834	1.739	2.067	1.848	1.735	2.033	1.882	1.762

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Period (sec)	Time History 1			Time History 2			Time History 3		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
2.20	1.973	1.854	1.758	2.157	1.968	1.851	2.124	1.930	1.819
2.25	1.969	1.851	1.756	2.251	2.024	1.878	2.172	1.968	1.867
2.30	1.965	1.849	1.754	2.218	2.037	1.923	2.215	2.027	1.936
2.35	1.959	1.845	1.751	2.281	2.145	2.027	2.269	2.111	2.027
2.40	1.949	1.839	1.746	2.322	2.187	2.070	2.329	2.215	2.133
2.50	1.919	1.817	1.730	2.413	2.282	2.167	2.264	2.177	2.103
2.60	1.881	1.793	1.715	2.424	2.301	2.192	2.653	2.509	2.343
2.70	1.844	1.777	1.714	2.415	2.368	2.292	2.692	2.594	2.460
2.80	1.892	1.896	1.842	2.308	2.237	2.227	2.646	2.571	2.442
2.90	1.962	2.038	2.034	2.353	2.412	2.393	2.372	2.391	2.349
3.00	2.054	2.149	2.172	2.282	2.349	2.351	2.287	2.306	2.265
3.10	2.165	2.327	2.419	2.251	2.372	2.434	2.243	2.228	2.203
3.20	2.307	2.468	2.564	2.114	2.223	2.272	2.297	2.282	2.283
3.30	2.270	2.428	2.529	2.079	2.097	2.090	2.235	2.312	2.364
3.40	2.065	2.217	2.317	2.102	2.141	2.211	2.282	2.376	2.443
3.50	1.959	2.060	2.125	2.087	2.195	2.283	2.422	2.486	2.563
3.60	1.965	2.078	2.154	1.975	1.999	2.089	2.311	2.380	2.439
3.70	1.896	2.016	2.100	2.066	2.093	2.168	2.094	2.169	2.229
3.80	1.831	1.960	2.055	1.931	2.017	2.074	1.948	2.030	2.094
3.90	1.796	1.938	2.044	1.823	1.941	2.023	1.900	1.966	2.025
4.00	1.801	1.941	2.053	1.873	1.929	2.013	1.923	2.004	2.073
4.10	1.806	1.946	2.063	1.954	2.021	2.069	2.007	2.098	2.174
4.20	1.786	1.923	2.041	1.931	2.002	2.050	1.817	1.919	1.991
4.30	1.783	1.914	2.035	1.636	1.719	1.802	1.728	1.832	1.909
4.40	1.598	1.705	1.817	1.678	1.761	1.843	1.666	1.775	1.859
4.50	1.548	1.641	1.730	1.646	1.729	1.808	1.631	1.746	1.836
4.60	1.540	1.632	1.721	1.614	1.688	1.768	1.699	1.745	1.841
4.70	1.530	1.615	1.703	1.576	1.663	1.720	1.793	1.846	1.892
4.80	1.531	1.615	1.694	1.493	1.591	1.659	1.790	1.847	1.891
4.90	1.482	1.553	1.606	1.538	1.551	1.601	1.719	1.778	1.824
5.00	1.479	1.552	1.611	1.602	1.623	1.641	1.634	1.694	1.743
5.10	1.481	1.559	1.622	1.644	1.671	1.693	1.589	1.653	1.706
5.20	1.485	1.565	1.633	1.657	1.688	1.712	1.641	1.685	1.728
5.40	1.517	1.599	1.674	1.609	1.649	1.678	1.708	1.764	1.820
5.60	1.465	1.546	1.622	1.542	1.602	1.645	1.551	1.616	1.682
5.80	1.408	1.449	1.526	1.431	1.470	1.534	1.306	1.351	1.391
6.00	1.407	1.455	1.484	1.543	1.588	1.623	1.261	1.271	1.295
6.20	1.399	1.451	1.486	1.538	1.595	1.640	1.316	1.316	1.327
6.40	1.377	1.432	1.471	1.387	1.413	1.439	1.392	1.395	1.406
6.60	1.284	1.325	1.362	1.379	1.419	1.449	1.431	1.441	1.455
6.80	1.276	1.318	1.358	1.309	1.350	1.382	1.433	1.451	1.472
7.00	1.265	1.309	1.349	1.340	1.392	1.427	1.412	1.432	1.454
7.20	1.249	1.292	1.334	1.238	1.302	1.348	1.484	1.514	1.546
7.40	1.230	1.255	1.281	1.204	1.238	1.261	1.414	1.454	1.496
7.60	1.234	1.261	1.287	1.154	1.205	1.234	1.450	1.466	1.485
7.80	1.235	1.263	1.290	1.168	1.211	1.255	1.443	1.483	1.508
8.00	1.235	1.265	1.292	1.219	1.259	1.302	1.350	1.393	1.423
8.50	1.216	1.250	1.281	1.175	1.202	1.224	1.050	1.102	1.142
9.00	1.203	1.241	1.282	1.270	1.279	1.289	1.157	1.130	1.110
9.50	1.197	1.232	1.277	1.279	1.278	1.280	1.207	1.188	1.182
10.00	1.264	1.269	1.264	1.421	1.432	1.444	1.248	1.262	1.281

Table 7-11. Amplification factors for the upper bound profile

Period (sec)	Earthquake 1			Earthquake 2			Earthquake 3		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
0.01	0.928	0.876	0.815	0.786	0.782	0.782	0.950	0.879	0.842
0.03	0.928	0.874	0.813	0.785	0.779	0.780	0.990	0.915	0.875
0.04	0.773	0.727	0.676	0.645	0.639	0.640	0.794	0.733	0.700
0.05	0.664	0.621	0.577	0.555	0.548	0.549	0.702	0.647	0.618
0.06	0.618	0.576	0.535	0.510	0.505	0.504	0.634	0.583	0.555
0.07	0.568	0.522	0.484	0.458	0.449	0.451	0.604	0.553	0.526
0.08	0.553	0.491	0.453	0.434	0.441	0.437	0.559	0.511	0.484
0.09	0.531	0.486	0.443	0.482	0.427	0.430	0.551	0.500	0.472
0.10	0.554	0.502	0.456	0.510	0.448	0.416	0.558	0.497	0.461
0.11	0.581	0.498	0.433	0.510	0.450	0.394	0.555	0.497	0.458
0.12	0.611	0.522	0.452	0.541	0.478	0.417	0.557	0.486	0.439
0.13	0.526	0.457	0.404	0.561	0.498	0.436	0.540	0.494	0.472
0.14	0.609	0.519	0.448	0.574	0.470	0.424	0.470	0.439	0.425
0.15	0.671	0.562	0.487	0.609	0.484	0.408	0.512	0.446	0.409
0.16	0.700	0.625	0.548	0.650	0.520	0.416	0.600	0.489	0.438
0.17	0.685	0.588	0.527	0.689	0.557	0.447	0.603	0.516	0.488
0.18	0.691	0.597	0.507	0.724	0.589	0.477	0.636	0.584	0.547
0.19	0.797	0.666	0.536	0.811	0.703	0.591	0.650	0.578	0.544
0.20	0.863	0.733	0.600	0.903	0.789	0.672	0.669	0.593	0.534
0.21	0.863	0.743	0.630	0.939	0.828	0.713	0.703	0.622	0.558
0.22	0.931	0.804	0.686	0.971	0.863	0.749	0.737	0.633	0.568
0.23	0.951	0.820	0.702	1.000	0.895	0.782	0.765	0.663	0.605
0.24	0.956	0.822	0.706	1.026	0.925	0.814	0.844	0.728	0.656
0.25	1.015	0.858	0.726	1.053	0.957	0.848	0.956	0.805	0.708
0.26	1.115	0.867	0.745	1.076	0.983	0.877	0.980	0.807	0.692
0.27	1.179	0.926	0.768	1.090	1.003	0.900	0.961	0.803	0.670
0.28	1.192	0.996	0.840	1.125	1.009	0.910	1.115	0.931	0.776
0.29	1.282	1.114	0.932	1.098	1.007	0.913	1.135	0.958	0.809
0.30	1.266	1.142	1.021	1.073	0.998	0.911	1.155	0.983	0.840
0.31	1.243	1.155	1.033	1.060	0.992	0.912	1.146	0.983	0.825
0.32	1.244	1.152	1.027	1.047	0.986	0.915	1.139	0.987	0.858
0.33	1.138	1.050	0.935	1.038	0.983	0.921	1.121	0.981	0.852
0.34	1.112	0.996	0.896	1.032	0.989	0.964	1.121	1.019	0.921
0.35	1.109	0.995	0.902	1.029	0.987	0.956	1.162	1.058	0.921
0.36	1.101	0.995	0.913	1.029	0.991	0.948	1.061	1.027	0.945
0.37	1.108	1.012	0.939	1.029	0.996	0.958	1.101	1.097	1.058
0.38	1.129	1.038	0.970	1.027	0.999	0.966	1.095	1.091	1.057
0.39	1.107	1.024	0.964	1.022	0.999	0.972	1.089	1.091	1.049
0.40	1.098	1.025	0.993	1.014	0.996	0.974	1.016	1.029	1.026
0.41	1.046	1.028	1.022	1.000	0.988	0.973	1.001	1.022	1.025
0.42	1.016	1.014	1.023	0.970	0.963	0.955	1.024	1.029	1.055
0.43	0.919	0.910	0.932	0.924	0.924	0.923	1.028	1.038	1.056
0.44	0.914	0.857	0.870	0.907	0.912	0.919	1.032	1.047	1.051
0.45	1.001	0.893	0.857	0.889	0.831	0.845	0.963	0.925	0.922
0.46	1.047	0.902	0.862	0.955	0.878	0.864	1.019	0.977	0.969
0.47	1.059	0.917	0.845	1.022	0.923	0.866	1.041	0.997	0.987
0.48	1.071	0.933	0.841	1.043	0.956	0.897	1.049	1.002	0.989
0.49	1.084	0.951	0.859	1.082	0.996	0.940	1.049	1.001	0.984
0.50	1.102	0.972	0.879	1.094	1.009	0.958	1.095	1.025	1.007
0.51	1.125	0.996	0.901	1.112	1.023	0.974	1.181	1.070	1.014

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Period (sec)	Time History 1			Time History 2			Time History 3		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
0.52	1.152	1.020	0.921	1.173	1.046	0.989	1.171	1.070	0.991
0.53	1.173	1.039	0.936	1.222	1.097	1.006	1.235	1.144	1.074
0.54	1.191	1.054	0.948	1.254	1.133	1.043	1.312	1.220	1.157
0.55	1.210	1.071	0.963	1.275	1.159	1.073	1.331	1.235	1.151
0.56	1.233	1.089	1.000	1.274	1.164	1.085	1.441	1.341	1.251
0.57	1.303	1.176	1.049	1.201	1.106	1.038	1.502	1.402	1.313
0.58	1.458	1.326	1.191	1.285	1.175	1.085	1.483	1.387	1.303
0.60	1.597	1.472	1.349	1.360	1.230	1.121	1.473	1.382	1.304
0.62	1.622	1.549	1.445	1.362	1.308	1.247	1.371	1.282	1.199
0.64	1.579	1.522	1.434	1.371	1.319	1.259	1.442	1.400	1.334
0.66	1.540	1.495	1.418	1.448	1.413	1.375	1.434	1.399	1.349
0.68	1.525	1.491	1.438	1.490	1.456	1.417	1.414	1.380	1.340
0.70	1.493	1.467	1.424	1.404	1.363	1.328	1.467	1.455	1.444
0.72	1.468	1.454	1.421	1.427	1.368	1.319	1.558	1.540	1.521
0.74	1.481	1.390	1.353	1.436	1.381	1.338	1.585	1.562	1.538
0.76	1.501	1.412	1.333	1.461	1.410	1.369	1.613	1.590	1.566
0.78	1.514	1.424	1.346	1.488	1.435	1.392	1.542	1.523	1.500
0.80	1.526	1.437	1.358	1.502	1.453	1.413	1.406	1.391	1.373
0.82	1.538	1.449	1.371	1.501	1.458	1.423	1.360	1.364	1.373
0.84	1.542	1.453	1.375	1.471	1.391	1.344	1.361	1.370	1.385
0.86	1.540	1.452	1.377	1.487	1.409	1.362	1.398	1.343	1.363
0.88	1.537	1.452	1.388	1.513	1.436	1.386	1.412	1.331	1.288
0.90	1.552	1.463	1.395	1.550	1.468	1.411	1.430	1.341	1.276
0.92	1.568	1.472	1.400	1.574	1.486	1.425	1.446	1.350	1.278
0.94	1.585	1.482	1.406	1.578	1.491	1.430	1.607	1.506	1.427
0.96	1.605	1.494	1.412	1.584	1.501	1.441	1.672	1.574	1.497
0.98	1.627	1.509	1.421	1.603	1.522	1.462	1.687	1.595	1.519
1.00	1.650	1.525	1.432	1.574	1.493	1.432	1.701	1.612	1.539
1.05	1.759	1.570	1.453	1.712	1.603	1.532	1.688	1.584	1.518
1.10	1.891	1.668	1.501	1.802	1.660	1.553	1.937	1.810	1.692
1.15	1.982	1.752	1.574	1.989	1.831	1.706	2.123	2.009	1.905
1.20	2.113	1.869	1.677	2.378	2.236	2.106	2.045	1.974	1.926
1.25	2.161	1.946	1.794	2.343	2.221	2.110	2.040	1.991	1.948
1.30	2.251	2.081	1.930	2.387	2.257	2.133	2.208	2.017	1.971
1.35	2.536	2.378	2.217	2.537	2.423	2.300	2.460	2.257	2.068
1.40	2.706	2.564	2.390	2.586	2.488	2.375	2.541	2.362	2.179
1.45	2.688	2.585	2.440	2.597	2.513	2.410	2.655	2.503	2.408
1.50	2.656	2.585	2.465	2.640	2.565	2.470	2.372	2.300	2.221
1.55	2.672	2.620	2.514	2.497	2.444	2.407	2.232	2.206	2.173
1.60	2.699	2.662	2.570	2.489	2.517	2.509	2.335	2.348	2.328
1.65	2.669	2.694	2.663	2.634	2.667	2.662	2.617	2.640	2.623
1.70	2.635	2.724	2.719	2.607	2.640	2.633	2.663	2.696	2.690
1.75	2.575	2.685	2.703	2.429	2.463	2.462	2.602	2.649	2.659
1.80	2.514	2.585	2.616	2.283	2.332	2.386	2.572	2.621	2.642
1.85	2.470	2.537	2.577	2.325	2.421	2.492	2.410	2.463	2.486
1.90	2.378	2.438	2.460	2.459	2.566	2.645	2.434	2.468	2.494
1.95	2.286	2.354	2.382	2.319	2.423	2.501	2.529	2.570	2.600
2.00	2.177	2.252	2.288	2.021	2.132	2.228	2.416	2.459	2.491
2.05	2.110	2.173	2.215	1.967	2.101	2.224	2.314	2.373	2.426
2.10	2.115	2.182	2.227	2.023	2.109	2.227	2.224	2.310	2.392
2.15	2.123	2.194	2.244	2.052	2.115	2.177	2.112	2.198	2.278

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Period (sec)	Time History 1			Time History 2			Time History 3		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
2.20	2.099	2.174	2.227	2.088	2.157	2.224	1.978	2.059	2.130
2.25	2.045	2.124	2.180	1.995	2.067	2.135	1.882	1.968	2.045
2.30	1.991	2.072	2.132	1.934	2.009	2.080	1.810	1.902	1.985
2.35	1.935	2.019	2.082	1.904	1.985	2.061	1.771	1.857	1.947
2.40	1.877	1.964	2.031	1.801	1.884	1.962	1.802	1.854	1.931
2.50	1.756	1.851	1.927	1.807	1.876	1.947	1.607	1.656	1.730
2.60	1.656	1.741	1.825	1.773	1.843	1.915	1.794	1.864	1.938
2.70	1.654	1.683	1.722	1.672	1.742	1.814	1.677	1.756	1.842
2.80	1.652	1.681	1.700	1.568	1.639	1.711	1.545	1.619	1.696
2.90	1.649	1.680	1.700	1.489	1.534	1.589	1.438	1.459	1.494
3.00	1.647	1.679	1.702	1.430	1.478	1.531	1.458	1.477	1.505
3.10	1.647	1.683	1.707	1.477	1.510	1.541	1.506	1.525	1.547
3.20	1.653	1.691	1.718	1.417	1.460	1.500	1.556	1.576	1.599
3.30	1.663	1.704	1.734	1.324	1.360	1.402	1.521	1.543	1.566
3.40	1.656	1.700	1.734	1.383	1.432	1.477	1.554	1.582	1.616
3.50	1.615	1.662	1.698	1.355	1.413	1.468	1.629	1.662	1.701
3.60	1.581	1.630	1.670	1.260	1.290	1.326	1.503	1.540	1.581
3.70	1.488	1.538	1.579	1.399	1.427	1.450	1.352	1.401	1.451
3.80	1.405	1.456	1.499	1.372	1.404	1.431	1.307	1.355	1.405
3.90	1.344	1.397	1.442	1.337	1.375	1.407	1.258	1.305	1.354
4.00	1.324	1.351	1.400	1.317	1.362	1.401	1.218	1.247	1.296
4.10	1.335	1.367	1.383	1.297	1.348	1.393	1.339	1.357	1.376
4.20	1.322	1.360	1.381	1.227	1.280	1.328	1.149	1.167	1.186
4.30	1.311	1.355	1.382	1.207	1.230	1.254	1.076	1.082	1.112
4.40	1.159	1.203	1.234	1.201	1.223	1.246	1.142	1.124	1.111
4.50	1.155	1.170	1.186	1.173	1.190	1.206	1.206	1.191	1.180
4.60	1.157	1.173	1.189	1.202	1.220	1.235	1.265	1.277	1.295
4.70	1.157	1.174	1.190	1.281	1.305	1.326	1.340	1.361	1.383
4.80	1.163	1.173	1.190	1.254	1.283	1.309	1.368	1.381	1.392
4.90	1.184	1.188	1.196	1.225	1.259	1.291	1.359	1.374	1.387
5.00	1.172	1.181	1.190	1.200	1.239	1.275	1.340	1.356	1.371
5.10	1.170	1.183	1.194	1.177	1.217	1.257	1.354	1.373	1.391
5.20	1.169	1.185	1.199	1.151	1.192	1.233	1.361	1.382	1.405
5.40	1.183	1.203	1.220	1.075	1.111	1.150	1.321	1.349	1.378
5.60	1.184	1.190	1.193	1.063	1.050	1.039	1.210	1.205	1.222
5.80	1.172	1.182	1.189	1.228	1.228	1.230	1.234	1.246	1.255
6.00	1.158	1.173	1.185	1.272	1.280	1.288	1.200	1.219	1.235
6.20	1.141	1.161	1.177	1.244	1.243	1.237	1.176	1.198	1.218
6.40	1.115	1.137	1.156	1.339	1.346	1.349	1.156	1.179	1.204
6.60	1.088	1.099	1.110	1.217	1.231	1.242	1.201	1.201	1.200
6.80	1.083	1.093	1.104	1.093	1.109	1.119	1.222	1.228	1.232
7.00	1.080	1.088	1.098	1.066	1.075	1.086	1.245	1.261	1.278
7.20	1.086	1.096	1.104	1.063	1.071	1.079	1.225	1.247	1.269
7.40	1.080	1.092	1.102	1.085	1.097	1.108	1.263	1.251	1.236
7.60	1.074	1.085	1.097	1.103	1.109	1.113	1.327	1.325	1.320
7.80	1.069	1.079	1.090	1.132	1.141	1.148	1.239	1.250	1.257
8.00	1.069	1.076	1.086	1.162	1.174	1.184	1.078	1.082	1.084
8.50	1.104	1.113	1.120	1.037	1.030	1.031	1.139	1.139	1.139
9.00	1.099	1.113	1.126	1.077	1.082	1.088	1.150	1.157	1.163
9.50	1.062	1.078	1.095	1.173	1.184	1.195	1.163	1.170	1.174
10.00	1.038	1.056	1.083	1.230	1.248	1.264	1.143	1.159	1.173

Table 7-12. Average amplification factors for the median, lower bound, and upper bound profiles analyzed

Period (sec)	Median Profile			Lower Bound Profile			Upper Bound Profile		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
0.01	0.788	0.693	0.608	0.470	0.410	0.383	0.888	0.846	0.813
0.03	0.797	0.701	0.615	0.475	0.414	0.387	0.901	0.856	0.822
0.04	0.652	0.573	0.502	0.388	0.338	0.316	0.738	0.700	0.672
0.05	0.563	0.495	0.434	0.335	0.292	0.273	0.641	0.605	0.581
0.06	0.516	0.453	0.397	0.306	0.267	0.249	0.588	0.555	0.531
0.07	0.472	0.414	0.363	0.280	0.244	0.228	0.543	0.508	0.487
0.08	0.443	0.390	0.342	0.263	0.229	0.214	0.515	0.481	0.458
0.09	0.430	0.376	0.329	0.253	0.219	0.205	0.521	0.471	0.448
0.10	0.427	0.372	0.324	0.248	0.215	0.201	0.541	0.483	0.444
0.11	0.413	0.362	0.316	0.243	0.209	0.196	0.549	0.482	0.428
0.12	0.406	0.355	0.311	0.239	0.206	0.193	0.570	0.495	0.436
0.13	0.401	0.349	0.306	0.237	0.205	0.190	0.542	0.483	0.438
0.14	0.386	0.338	0.298	0.233	0.199	0.185	0.551	0.476	0.432
0.15	0.381	0.333	0.292	0.232	0.196	0.182	0.597	0.497	0.435
0.16	0.408	0.351	0.304	0.238	0.198	0.182	0.650	0.545	0.468
0.17	0.428	0.361	0.312	0.242	0.205	0.186	0.659	0.554	0.487
0.18	0.458	0.382	0.315	0.252	0.214	0.189	0.684	0.590	0.511
0.19	0.482	0.403	0.339	0.260	0.216	0.194	0.753	0.649	0.557
0.20	0.536	0.445	0.376	0.287	0.226	0.193	0.812	0.705	0.602
0.21	0.571	0.473	0.399	0.306	0.241	0.200	0.835	0.731	0.634
0.22	0.606	0.502	0.419	0.317	0.250	0.217	0.880	0.767	0.668
0.23	0.628	0.526	0.437	0.335	0.273	0.234	0.905	0.793	0.696
0.24	0.663	0.557	0.469	0.362	0.293	0.249	0.942	0.825	0.725
0.25	0.687	0.580	0.490	0.382	0.305	0.258	1.008	0.873	0.760
0.26	0.696	0.584	0.491	0.396	0.315	0.262	1.057	0.886	0.771
0.27	0.694	0.585	0.498	0.407	0.333	0.279	1.077	0.910	0.779
0.28	0.720	0.605	0.512	0.431	0.354	0.297	1.144	0.979	0.842
0.29	0.743	0.626	0.530	0.446	0.367	0.310	1.172	1.026	0.885
0.30	0.785	0.663	0.563	0.462	0.382	0.325	1.165	1.041	0.924
0.31	0.807	0.683	0.583	0.458	0.374	0.319	1.150	1.043	0.924
0.32	0.826	0.704	0.605	0.486	0.392	0.325	1.144	1.041	0.933
0.33	0.828	0.704	0.606	0.504	0.408	0.341	1.099	1.005	0.903
0.34	0.867	0.744	0.642	0.520	0.422	0.354	1.089	1.001	0.927
0.35	0.912	0.780	0.675	0.541	0.439	0.367	1.100	1.013	0.926
0.36	0.936	0.806	0.697	0.564	0.459	0.384	1.064	1.004	0.936
0.37	0.979	0.846	0.736	0.584	0.476	0.408	1.079	1.035	0.985
0.38	1.031	0.892	0.777	0.609	0.496	0.418	1.083	1.043	0.998
0.39	1.054	0.921	0.814	0.624	0.503	0.423	1.073	1.038	0.995
0.40	1.107	0.975	0.861	0.664	0.526	0.440	1.043	1.017	0.998
0.41	1.164	1.024	0.901	0.697	0.547	0.457	1.016	1.013	1.007
0.42	1.210	1.070	0.940	0.735	0.574	0.481	1.004	1.002	1.011
0.43	1.183	1.051	0.928	0.735	0.573	0.482	0.957	0.957	0.970
0.44	1.194	1.078	0.955	0.761	0.600	0.514	0.951	0.939	0.947
0.45	1.148	1.054	0.943	0.808	0.658	0.566	0.951	0.883	0.875
0.46	1.137	1.045	0.934	0.847	0.697	0.594	1.007	0.919	0.898
0.47	1.094	1.028	0.932	0.879	0.730	0.623	1.041	0.946	0.899
0.48	1.064	1.002	0.908	0.908	0.767	0.656	1.054	0.964	0.909
0.49	1.042	0.984	0.903	0.905	0.768	0.668	1.072	0.982	0.928
0.50	1.050	0.982	0.882	0.899	0.770	0.677	1.097	1.002	0.948

Period (sec)	Median Profile			Lower Bound Profile			Upper Bound Profile		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
0.51	1.059	0.990	0.888	0.900	0.780	0.692	1.139	1.030	0.963
0.52	1.037	0.969	0.871	0.889	0.773	0.689	1.165	1.045	0.967
0.53	1.017	0.953	0.861	0.886	0.778	0.707	1.210	1.093	1.005
0.54	1.052	0.968	0.865	0.895	0.801	0.735	1.252	1.136	1.049
0.55	1.061	0.967	0.864	0.899	0.806	0.740	1.272	1.155	1.062
0.56	1.079	0.978	0.859	0.900	0.809	0.747	1.316	1.198	1.112
0.57	1.080	0.976	0.844	0.877	0.801	0.758	1.335	1.228	1.133
0.58	1.101	0.999	0.879	0.889	0.819	0.776	1.409	1.296	1.193
0.60	1.109	1.014	0.900	0.892	0.839	0.811	1.476	1.361	1.258
0.62	1.140	1.016	0.872	0.832	0.785	0.763	1.452	1.380	1.297
0.64	1.195	1.043	0.885	0.804	0.749	0.734	1.464	1.414	1.342
0.66	1.290	1.136	0.952	0.796	0.749	0.736	1.474	1.436	1.381
0.68	1.337	1.187	1.003	0.800	0.740	0.720	1.476	1.442	1.398
0.70	1.349	1.180	0.991	0.790	0.726	0.713	1.455	1.428	1.399
0.72	1.375	1.211	1.018	0.806	0.713	0.691	1.485	1.454	1.420
0.74	1.370	1.213	1.035	0.820	0.722	0.675	1.501	1.445	1.410
0.76	1.379	1.238	1.071	0.829	0.733	0.681	1.525	1.470	1.422
0.78	1.392	1.287	1.117	0.859	0.745	0.679	1.515	1.460	1.413
0.80	1.422	1.318	1.149	0.884	0.768	0.698	1.478	1.427	1.382
0.82	1.447	1.345	1.176	0.916	0.796	0.724	1.466	1.424	1.389
0.84	1.436	1.343	1.201	0.960	0.834	0.757	1.458	1.405	1.368
0.86	1.443	1.354	1.214	0.970	0.842	0.766	1.475	1.401	1.368
0.88	1.427	1.343	1.207	0.978	0.846	0.771	1.488	1.406	1.354
0.90	1.409	1.329	1.200	0.996	0.864	0.784	1.511	1.424	1.361
0.92	1.390	1.316	1.198	1.018	0.885	0.796	1.529	1.436	1.368
0.94	1.378	1.325	1.244	1.059	0.898	0.807	1.590	1.493	1.421
0.96	1.404	1.348	1.265	1.077	0.911	0.806	1.620	1.523	1.450
0.98	1.416	1.358	1.273	1.091	0.925	0.816	1.639	1.542	1.468
1.00	1.406	1.346	1.262	1.108	0.935	0.823	1.642	1.543	1.468
1.05	1.417	1.358	1.280	1.170	1.016	0.906	1.720	1.586	1.501
1.10	1.411	1.334	1.261	1.190	1.086	0.990	1.877	1.713	1.582
1.15	1.494	1.399	1.322	1.269	1.164	1.070	2.031	1.864	1.729
1.20	1.610	1.469	1.342	1.267	1.178	1.117	2.179	2.026	1.903
1.25	1.687	1.542	1.402	1.228	1.174	1.143	2.181	2.052	1.951
1.30	1.767	1.625	1.482	1.283	1.233	1.209	2.282	2.118	2.011
1.35	1.867	1.708	1.547	1.315	1.256	1.227	2.511	2.353	2.195
1.40	1.900	1.734	1.566	1.314	1.240	1.190	2.611	2.471	2.315
1.45	1.955	1.765	1.580	1.308	1.232	1.181	2.647	2.533	2.419
1.50	2.013	1.820	1.622	1.331	1.249	1.205	2.556	2.483	2.386
1.55	2.089	1.898	1.698	1.366	1.272	1.214	2.467	2.423	2.365
1.60	2.158	1.966	1.762	1.396	1.297	1.230	2.508	2.509	2.469
1.65	2.279	2.041	1.832	1.446	1.346	1.277	2.640	2.667	2.649
1.70	2.314	2.098	1.904	1.499	1.385	1.309	2.635	2.687	2.681
1.75	2.354	2.152	1.952	1.534	1.417	1.339	2.535	2.599	2.608
1.80	2.436	2.229	2.032	1.589	1.466	1.385	2.456	2.513	2.548
1.85	2.471	2.298	2.102	1.632	1.494	1.413	2.402	2.474	2.518
1.90	2.527	2.351	2.181	1.731	1.583	1.487	2.424	2.491	2.533
1.95	2.504	2.392	2.242	1.816	1.661	1.565	2.378	2.449	2.494
2.00	2.450	2.388	2.269	1.845	1.710	1.617	2.205	2.281	2.336
2.05	2.503	2.429	2.301	1.882	1.747	1.657	2.130	2.216	2.288
2.10	2.523	2.444	2.294	1.957	1.782	1.690	2.121	2.200	2.282



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Period (sec)	Median Profile			Lower Bound Profile			Upper Bound Profile		
	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g	1.2 g	1.4 g	1.6 g
2.15	2.427	2.387	2.330	2.018	1.855	1.745	2.096	2.169	2.233
2.20	2.403	2.411	2.381	2.085	1.918	1.809	2.055	2.130	2.194
2.25	2.358	2.388	2.360	2.131	1.948	1.833	1.974	2.053	2.120
2.30	2.341	2.372	2.354	2.133	1.971	1.871	1.911	1.995	2.065
2.35	2.333	2.365	2.346	2.170	2.034	1.935	1.870	1.954	2.030
2.40	2.289	2.326	2.323	2.200	2.080	1.983	1.827	1.901	1.974
2.50	2.171	2.229	2.252	2.199	2.092	2.000	1.723	1.794	1.868
2.60	2.197	2.261	2.305	2.319	2.201	2.083	1.741	1.816	1.893
2.70	2.112	2.189	2.248	2.317	2.246	2.155	1.668	1.727	1.793
2.80	1.986	2.066	2.134	2.282	2.235	2.170	1.588	1.646	1.702
2.90	1.804	1.876	1.935	2.229	2.280	2.259	1.525	1.558	1.594
3.00	1.777	1.839	1.887	2.207	2.268	2.262	1.512	1.545	1.579
3.10	1.763	1.828	1.883	2.220	2.309	2.352	1.544	1.573	1.598
3.20	1.762	1.830	1.922	2.240	2.324	2.373	1.542	1.576	1.605
3.30	1.743	1.810	1.884	2.195	2.279	2.327	1.503	1.536	1.567
3.40	1.779	1.829	1.885	2.149	2.245	2.324	1.531	1.571	1.609
3.50	1.814	1.872	1.926	2.156	2.247	2.324	1.533	1.579	1.622
3.60	1.714	1.780	1.844	2.084	2.152	2.227	1.448	1.487	1.525
3.70	1.655	1.708	1.775	2.018	2.092	2.166	1.413	1.455	1.494
3.80	1.602	1.644	1.683	1.903	2.002	2.074	1.361	1.405	1.445
3.90	1.567	1.617	1.665	1.840	1.948	2.030	1.313	1.359	1.401
4.00	1.550	1.612	1.670	1.866	1.958	2.046	1.286	1.320	1.366
4.10	1.545	1.620	1.692	1.922	2.022	2.102	1.324	1.357	1.384
4.20	1.471	1.541	1.601	1.845	1.948	2.027	1.233	1.269	1.298
4.30	1.407	1.469	1.521	1.716	1.821	1.915	1.198	1.222	1.250
4.40	1.343	1.406	1.461	1.647	1.747	1.840	1.167	1.183	1.197
4.50	1.296	1.355	1.412	1.608	1.705	1.792	1.178	1.184	1.191
4.60	1.313	1.352	1.413	1.618	1.688	1.776	1.208	1.223	1.240
4.70	1.383	1.404	1.446	1.633	1.708	1.771	1.259	1.280	1.300
4.80	1.364	1.398	1.450	1.605	1.684	1.748	1.262	1.279	1.297
4.90	1.362	1.371	1.424	1.580	1.627	1.677	1.256	1.274	1.292
5.00	1.359	1.372	1.402	1.571	1.623	1.665	1.237	1.259	1.279
5.10	1.367	1.384	1.403	1.572	1.628	1.674	1.234	1.258	1.280
5.20	1.386	1.418	1.453	1.594	1.646	1.691	1.227	1.253	1.279
5.40	1.371	1.411	1.451	1.611	1.671	1.724	1.193	1.221	1.250
5.60	1.241	1.289	1.337	1.520	1.588	1.650	1.152	1.149	1.151
5.80	1.267	1.281	1.292	1.382	1.423	1.484	1.211	1.219	1.225
6.00	1.291	1.310	1.327	1.404	1.438	1.467	1.210	1.224	1.236
6.20	1.271	1.296	1.322	1.418	1.454	1.484	1.187	1.201	1.211
6.40	1.283	1.297	1.309	1.385	1.414	1.439	1.203	1.221	1.236
6.60	1.241	1.263	1.287	1.365	1.395	1.422	1.169	1.177	1.184
6.80	1.199	1.225	1.253	1.339	1.373	1.404	1.133	1.143	1.152
7.00	1.209	1.224	1.238	1.339	1.377	1.410	1.131	1.142	1.154
7.20	1.202	1.218	1.232	1.324	1.370	1.409	1.125	1.138	1.151
7.40	1.180	1.201	1.221	1.282	1.316	1.346	1.143	1.147	1.149
7.60	1.182	1.200	1.214	1.279	1.310	1.335	1.168	1.173	1.177
7.80	1.182	1.193	1.209	1.282	1.319	1.351	1.147	1.157	1.165
8.00	1.158	1.176	1.193	1.268	1.306	1.339	1.103	1.111	1.118
8.50	1.119	1.118	1.119	1.147	1.185	1.215	1.093	1.094	1.096
9.00	1.163	1.173	1.182	1.210	1.217	1.227	1.109	1.117	1.125
9.50	1.189	1.194	1.201	1.228	1.233	1.246	1.133	1.144	1.155
10.00	1.240	1.248	1.258	1.311	1.321	1.330	1.137	1.154	1.174

Table 7-13. Average and normalized standard error (S.E.) of the median profile amplification factors, input pga 1.2 g.

Period (sec)	Profile Amplification Factors			Average Amplification Factor	Normalized S. E. (%)
	Time History 1	Time History 2	Time History 3		
0.01	0.742	0.826	0.798	0.788	3.14
0.03	0.740	0.824	0.828	0.797	3.61
0.05	0.525	0.581	0.585	0.563	3.45
0.075	0.425	0.470	0.477	0.457	3.59
0.10	0.408	0.448	0.426	0.427	2.65
0.15	0.402	0.367	0.374	0.381	2.79
0.19	0.441	0.509	0.497	0.482	4.34
0.20	0.534	0.579	0.496	0.536	4.44
0.30	0.852	0.868	0.636	0.785	9.54
0.42	1.297	1.116	1.216	1.210	4.32
0.50	0.892	1.155	1.105	1.050	7.68
0.60	1.021	1.150	1.155	1.109	3.94
0.75	1.201	1.447	1.474	1.374	6.32
0.86	1.302	1.485	1.543	1.443	5.05
1.00	1.324	1.449	1.444	1.406	2.90
1.40	1.758	2.010	1.933	1.900	3.93
1.50	1.895	2.126	2.019	2.013	3.32
1.70	2.187	2.407	2.347	2.314	2.84
1.80	2.337	2.505	2.467	2.436	2.10
2.00	2.269	2.512	2.571	2.450	3.77
2.10	2.306	2.614	2.648	2.523	4.32
2.50	2.126	2.269	2.117	2.171	2.28
2.60	2.044	2.238	2.311	2.197	3.63
3.00	1.766	1.765	1.799	1.777	0.64
3.20	1.801	1.651	1.834	1.762	3.21
3.50	1.816	1.670	1.957	1.814	4.57
4.00	1.580	1.546	1.525	1.550	1.03
5.00	1.261	1.405	1.411	1.359	3.60
7.00	1.142	1.136	1.349	1.209	5.77
10.00	1.180	1.325	1.215	1.240	3.52

Table 7-14. Average and normalized standard error (S. E.) of the median profile amplification factors, input pga 1.4 g.

Period (sec)	Profile Amplification Factors			Average Amplification Factor	Normalized S. E. (%)
	Time History 1	Time History 2	Time History 3		
0.01	0.628	0.754	0.697	0.693	5.24
0.03	0.626	0.752	0.724	0.701	5.44
0.05	0.444	0.530	0.511	0.495	5.30
0.075	0.359	0.429	0.417	0.402	5.43
0.10	0.340	0.404	0.373	0.372	5.01
0.15	0.332	0.340	0.327	0.333	1.10
0.19	0.361	0.430	0.416	0.403	5.22
0.20	0.427	0.489	0.418	0.445	5.04
0.30	0.703	0.759	0.527	0.663	10.53
0.42	1.173	0.985	1.051	1.070	5.16
0.50	0.856	1.130	0.961	0.982	8.12
0.60	0.933	1.109	1.000	1.014	5.06
0.75	1.075	1.381	1.221	1.225	7.21
0.86	1.211	1.454	1.397	1.354	5.41
1.00	1.260	1.411	1.368	1.346	3.35
1.40	1.619	1.799	1.784	1.734	3.34
1.50	1.697	1.902	1.862	1.820	3.45
1.70	1.994	2.254	2.045	2.098	3.80
1.80	2.128	2.370	2.188	2.229	3.27
2.00	2.193	2.517	2.453	2.388	4.16
2.10	2.235	2.585	2.511	2.444	4.36
2.50	2.103	2.346	2.238	2.229	3.15
2.60	2.029	2.317	2.437	2.261	5.36
3.00	1.748	1.834	1.936	1.839	2.94
3.20	1.792	1.720	1.978	1.830	4.19
3.50	1.822	1.729	2.066	1.872	5.37
4.00	1.629	1.596	1.609	1.612	0.59
5.00	1.290	1.443	1.384	1.372	3.24
7.00	1.161	1.154	1.358	1.224	5.47
10.00	1.189	1.340	1.215	1.248	3.74

Table 7-15. Average and normalized standard error (S. E.) of the median profile amplification factors, input pga 1.6 g.

Period (sec)	Profile Amplification Factors			Average Amplification Factor	Normalized S. E. (%)
	Time History 1	Time History 2	Time History 3		
0.01	0.545	0.680	0.600	0.608	6.45
0.03	0.543	0.678	0.623	0.615	6.38
0.05	0.384	0.478	0.440	0.434	6.26
0.075	0.306	0.386	0.356	0.352	6.71
0.10	0.290	0.362	0.321	0.324	6.39
0.15	0.280	0.311	0.285	0.292	3.25
0.19	0.305	0.357	0.354	0.339	4.94
0.20	0.357	0.405	0.366	0.376	3.90
0.30	0.593	0.651	0.445	0.563	10.91
0.42	1.040	0.856	0.925	0.940	5.71
0.50	0.782	1.049	0.815	0.882	9.52
0.60	0.804	1.044	0.853	0.900	8.14
0.75	0.945	1.236	0.978	1.053	8.75
0.86	1.088	1.384	1.170	1.214	7.26
1.00	1.178	1.349	1.260	1.262	3.92
1.40	1.499	1.580	1.618	1.566	2.25
1.50	1.518	1.658	1.691	1.622	3.27
1.70	1.808	2.034	1.872	1.904	3.53
1.80	1.940	2.144	2.012	2.032	2.94
2.00	2.102	2.441	2.265	2.269	4.31
2.10	2.149	2.456	2.278	2.294	3.87
2.50	2.061	2.413	2.283	2.252	4.57
2.60	1.994	2.391	2.531	2.305	6.97
3.00	1.727	1.906	2.029	1.887	4.64
3.20	1.874	1.800	2.094	1.922	4.59
3.50	1.825	1.798	2.154	1.926	5.95
4.00	1.670	1.655	1.684	1.670	0.49
5.00	1.322	1.485	1.398	1.402	3.36
7.00	1.181	1.171	1.363	1.238	5.05
10.00	1.201	1.360	1.213	1.258	4.06

Table 7-16. Average and normalized standard error (S. E.) of the lower bound profile amplification factors, input pga 1.2 g.

Period (sec)	Profile Amplification Factors			Average Amplification Factor	Normalized S. E. (%)
	Time History 1	Time History 2	Time History 3		
0.01	0.402	0.511	0.496	0.470	7.23
0.03	0.400	0.509	0.515	0.475	7.86
0.05	0.283	0.359	0.364	0.335	7.84
0.075	0.227	0.291	0.297	0.272	8.26
0.10	0.209	0.270	0.266	0.248	7.98
0.15	0.226	0.235	0.237	0.232	1.46
0.19	0.232	0.260	0.287	0.260	6.11
0.20	0.283	0.293	0.286	0.287	0.99
0.30	0.460	0.491	0.437	0.462	3.35
0.42	0.809	0.670	0.725	0.735	5.46
0.50	0.827	0.967	0.903	0.899	4.49
0.60	0.797	0.974	0.904	0.892	5.77
0.75	0.823	0.840	0.811	0.825	1.01
0.86	0.874	1.098	0.939	0.970	6.84
1.00	1.060	1.166	1.097	1.108	2.82
1.40	1.288	1.261	1.394	1.314	3.09
1.50	1.255	1.302	1.437	1.331	4.08
1.70	1.534	1.386	1.576	1.499	3.84
1.80	1.709	1.392	1.666	1.589	6.25
2.00	1.861	1.824	1.851	1.845	0.59
2.10	1.913	2.021	1.938	1.957	1.66
2.50	1.919	2.413	2.264	2.199	6.65
2.60	1.881	2.424	2.653	2.319	9.87
3.00	2.054	2.282	2.287	2.207	3.48
3.20	2.307	2.114	2.297	2.240	2.80
3.50	1.959	2.087	2.422	2.156	6.40
4.00	1.801	1.873	1.923	1.866	1.90
5.00	1.479	1.602	1.634	1.571	3.01
7.00	1.265	1.340	1.412	1.339	3.16
10.00	1.264	1.421	1.248	1.311	4.22

Table 7-17. Average and normalized standard error (S. E.) of the lower bound profile amplification factors, input pga 1.4g.

Period (sec)	Profile Amplification Factors			Average Amplification Factor	Normalized S. E. (%)
	Time History 1	Time History 2	Time History 3		
0.01	0.352	0.435	0.442	0.410	7.03
0.03	0.350	0.433	0.459	0.414	7.93
0.05	0.247	0.305	0.324	0.292	7.95
0.075	0.198	0.246	0.265	0.236	8.48
0.10	0.180	0.227	0.238	0.215	8.29
0.15	0.173	0.202	0.212	0.196	6.01
0.19	0.180	0.221	0.246	0.216	8.94
0.20	0.212	0.233	0.233	0.226	3.15
0.30	0.368	0.386	0.391	0.382	1.81
0.42	0.608	0.527	0.586	0.574	4.21
0.50	0.706	0.825	0.780	0.770	4.51
0.60	0.791	0.874	0.852	0.839	2.94
0.75	0.734	0.726	0.722	0.727	0.52
0.86	0.774	0.934	0.818	0.842	5.70
1.00	0.915	0.993	0.897	0.935	3.13
1.40	1.208	1.228	1.282	1.240	1.78
1.50	1.171	1.252	1.325	1.249	3.58
1.70	1.428	1.265	1.463	1.385	4.42
1.80	1.593	1.258	1.547	1.466	7.15
2.00	1.739	1.646	1.743	1.710	1.86
2.10	1.794	1.774	1.779	1.782	0.33
2.50	1.817	2.282	2.177	2.092	6.72
2.60	1.793	2.301	2.509	2.201	9.66
3.00	2.149	2.349	2.306	2.268	2.67
3.20	2.468	2.223	2.282	2.324	3.18
3.50	2.060	2.195	2.486	2.247	5.59
4.00	1.941	1.929	2.004	1.958	1.18
5.00	1.552	1.623	1.694	1.623	2.52
7.00	1.309	1.392	1.432	1.377	2.63
10.00	1.269	1.432	1.262	1.321	4.21

Table 7-18. Average and normalized standard error (S. E.) of the lower bound profile amplification factors, input pga 1.6g.

Period (sec)	Profile Amplification Factors			Average Amplification Factor	Normalized S. E. (%)
	Time History 1	Time History 2	Time History 3		
0.01	0.336	0.402	0.412	0.383	6.21
0.03	0.334	0.400	0.428	0.387	7.18
0.05	0.235	0.281	0.302	0.273	7.21
0.075	0.179	0.223	0.239	0.221	8.40
0.10	0.171	0.209	0.222	0.201	7.53
0.15	0.160	0.187	0.199	0.182	6.29
0.19	0.162	0.199	0.221	0.194	8.80
0.20	0.166	0.200	0.213	0.193	7.32
0.30	0.306	0.324	0.344	0.325	3.40
0.42	0.506	0.442	0.494	0.481	4.09
0.50	0.619	0.732	0.680	0.678	4.83
0.60	0.805	0.804	0.825	0.811	0.84
0.75	0.705	0.655	0.672	0.677	2.14
0.86	0.728	0.824	0.744	0.766	3.86
1.00	0.810	0.887	0.771	0.823	4.16
1.40	1.159	1.205	1.207	1.190	1.31
1.50	1.110	1.251	1.252	1.205	3.90
1.70	1.342	1.200	1.386	1.309	4.28
1.80	1.497	1.190	1.467	1.385	7.05
2.00	1.644	1.534	1.674	1.617	2.63
2.10	1.700	1.680	1.691	1.690	0.34
2.50	1.730	2.167	2.103	2.000	6.81
2.60	1.715	2.192	2.343	2.083	9.09
3.00	2.172	2.351	2.265	2.262	2.29
3.20	2.564	2.272	2.283	2.373	4.04
3.50	2.125	2.283	2.563	2.324	5.52
4.00	2.053	2.013	2.073	2.046	0.86
5.00	1.611	1.641	1.743	1.665	2.40
7.00	1.349	1.427	1.454	1.410	2.23
10.00	1.264	1.444	1.281	1.330	4.31

Table 7-19. Average and normalized standard error (S. E.) of the upper bound profile amplification factors, input pga 1.2 g.

Period (sec)	Profile Amplification Factors			Average Amplification Factor	Normalized S. E. (%)
	Time History 1	Time History 2	Time History 3		
0.01	0.928	0.786	0.950	0.888	5.82
0.03	0.928	0.785	0.990	0.901	6.75
0.05	0.664	0.555	0.702	0.641	6.90
0.075	0.560	0.446	0.581	0.529	7.95
0.10	0.554	0.510	0.558	0.541	2.85
0.15	0.671	0.609	0.512	0.597	7.72
0.19	0.797	0.811	0.650	0.753	6.85
0.20	0.863	0.903	0.669	0.812	8.93
0.30	1.266	1.073	1.155	1.165	4.79
0.42	1.016	0.970	1.024	1.004	1.67
0.50	1.102	1.094	1.095	1.097	0.21
0.60	1.597	1.360	1.473	1.476	4.63
0.75	1.491	1.449	1.599	1.513	2.95
0.86	1.540	1.487	1.398	1.475	2.81
1.00	1.650	1.574	1.701	1.642	2.25
1.40	2.706	2.586	2.541	2.611	1.89
1.50	2.656	2.640	2.372	2.556	3.59
1.70	2.635	2.607	2.663	2.635	0.61
1.80	2.514	2.283	2.572	2.456	3.59
2.00	2.177	2.021	2.416	2.205	5.21
2.10	2.115	2.023	2.224	2.121	2.74
2.50	1.756	1.807	1.607	1.723	3.48
2.60	1.656	1.773	1.794	1.741	2.47
3.00	1.647	1.430	1.458	1.512	4.50
3.20	1.653	1.417	1.556	1.542	4.45
3.50	1.615	1.355	1.629	1.533	5.82
4.00	1.324	1.317	1.218	1.286	2.68
5.00	1.172	1.200	1.340	1.237	4.18
7.00	1.080	1.066	1.245	1.131	5.09
10.00	1.038	1.230	1.143	1.137	4.88



Table 7-20. Average and normalized standard error (S. E.) of the upper bound profile amplification factors, input pga 1.4g.

Period (sec)	Profile Amplification Factors			Average Amplification Factor	Normalized S. E. (%)
	Time History 1	Time History 2	Time History 3		
0.01	0.876	0.782	0.879	0.846	3.76
0.03	0.874	0.779	0.915	0.856	4.69
0.05	0.621	0.548	0.647	0.605	4.92
0.075	0.506	0.445	0.532	0.494	5.20
0.10	0.502	0.448	0.497	0.483	3.55
0.15	0.562	0.484	0.446	0.497	6.83
0.19	0.666	0.703	0.578	0.649	5.69
0.20	0.733	0.789	0.593	0.705	8.26
0.30	1.142	0.998	0.983	1.041	4.85
0.42	1.014	0.963	1.029	1.002	1.98
0.50	0.972	1.009	1.025	1.002	1.58
0.60	1.472	1.230	1.382	1.361	5.19
0.75	1.401	1.395	1.576	1.457	4.07
0.86	1.452	1.409	1.343	1.401	2.26
1.00	1.525	1.493	1.612	1.543	2.31
1.40	2.564	2.488	2.362	2.471	2.39
1.50	2.585	2.565	2.300	2.483	3.70
1.70	2.724	2.640	2.696	2.687	0.92
1.80	2.585	2.332	2.621	2.513	3.61
2.00	2.252	2.132	2.459	2.281	4.18
2.10	2.182	2.109	2.310	2.200	2.67
2.50	1.851	1.876	1.656	1.794	3.86
2.60	1.741	1.843	1.864	1.816	2.09
3.00	1.679	1.478	1.477	1.545	4.36
3.20	1.691	1.460	1.576	1.576	4.23
3.50	1.662	1.413	1.662	1.579	5.26
4.00	1.351	1.362	1.247	1.320	2.78
5.00	1.181	1.239	1.356	1.259	4.10
7.00	1.088	1.075	1.261	1.142	5.24
10.00	1.056	1.248	1.159	1.154	4.81

Table 7-21. Average and normalized standard error (S. E.) of the upper bound profile amplification factors, input pga 1.6g.

Period (sec)	Profile Amplification Factors			Average Amplification Factor	Normalized S. E. (%)
	Time History 1	Time History 2	Time History 3		
0.01	0.815	0.782	0.842	0.813	2.12
0.03	0.813	0.780	0.875	0.822	3.38
0.05	0.577	0.549	0.618	0.581	3.43
0.075	0.469	0.444	0.507	0.474	3.86
0.10	0.456	0.416	0.461	0.444	3.23
0.15	0.487	0.408	0.409	0.435	6.03
0.19	0.536	0.591	0.544	0.557	3.11
0.20	0.600	0.672	0.534	0.602	6.58
0.30	1.021	0.911	0.840	0.924	5.71
0.42	1.023	0.955	1.055	1.011	2.91
0.50	0.879	0.958	1.007	0.948	3.92
0.60	1.349	1.121	1.304	1.258	5.56
0.75	1.350	1.343	1.542	1.412	4.62
0.86	1.377	1.362	1.363	1.368	0.35
1.00	1.432	1.432	1.539	1.468	2.44
1.40	2.390	2.375	2.179	2.315	2.94
1.50	2.465	2.470	2.221	2.386	3.44
1.70	2.719	2.633	2.690	2.681	0.94
1.80	2.616	2.386	2.642	2.548	3.20
2.00	2.288	2.228	2.491	2.336	3.41
2.10	2.227	2.227	2.392	2.282	2.40
2.50	1.927	1.947	1.730	1.868	3.70
2.60	1.825	1.915	1.938	1.893	1.81
3.00	1.702	1.531	1.505	1.579	3.90
3.20	1.718	1.500	1.599	1.605	3.93
3.50	1.698	1.468	1.701	1.622	4.76
4.00	1.400	1.401	1.296	1.366	2.54
5.00	1.190	1.275	1.371	1.279	4.10
7.00	1.098	1.086	1.278	1.154	5.38
10.00	1.083	1.264	1.173	1.174	4.45

Figure 7-14. Average amplification factors, 1.2 g input pga

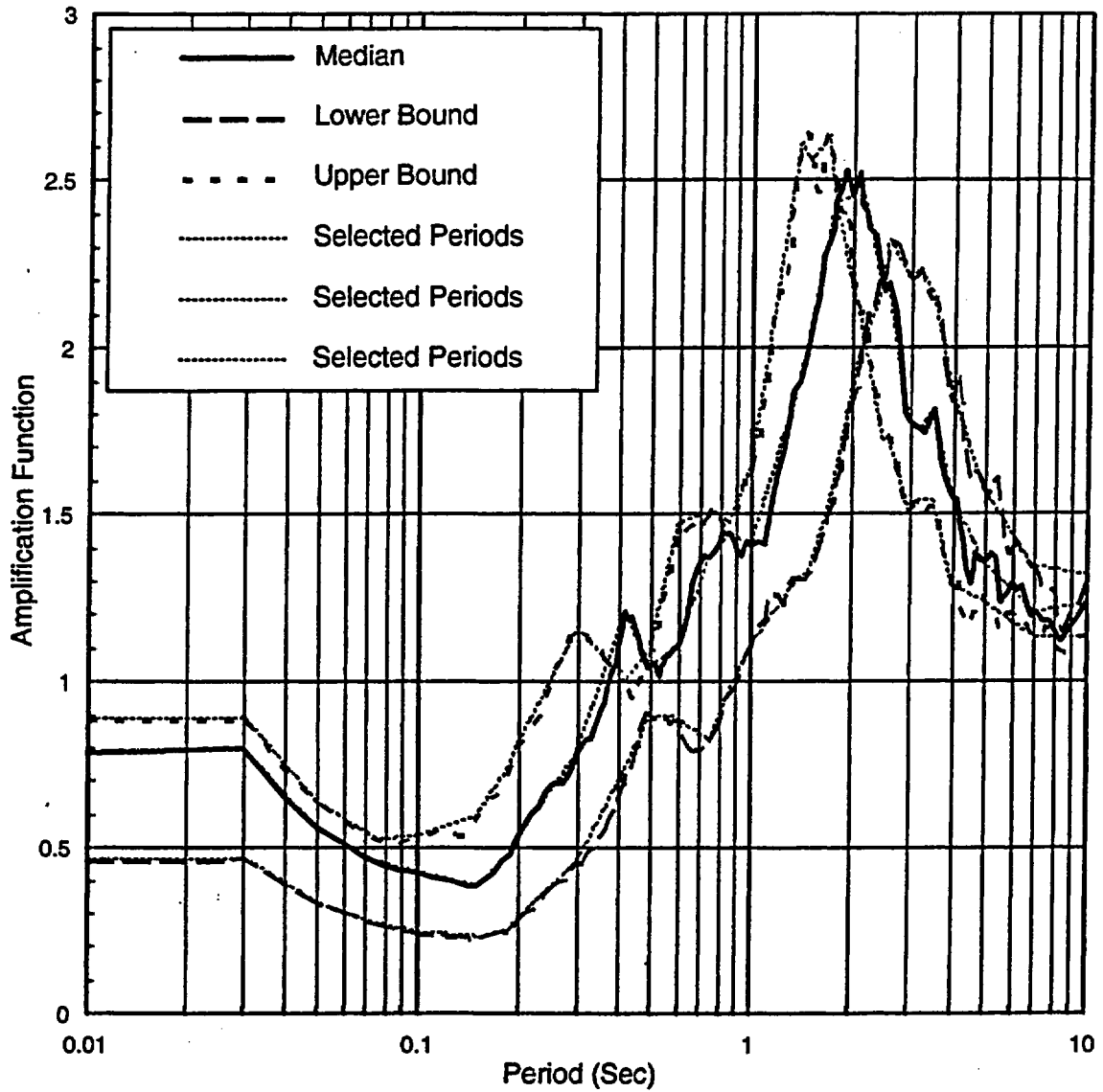


Figure 7-15. Average amplification factors, 1.4 g input pga

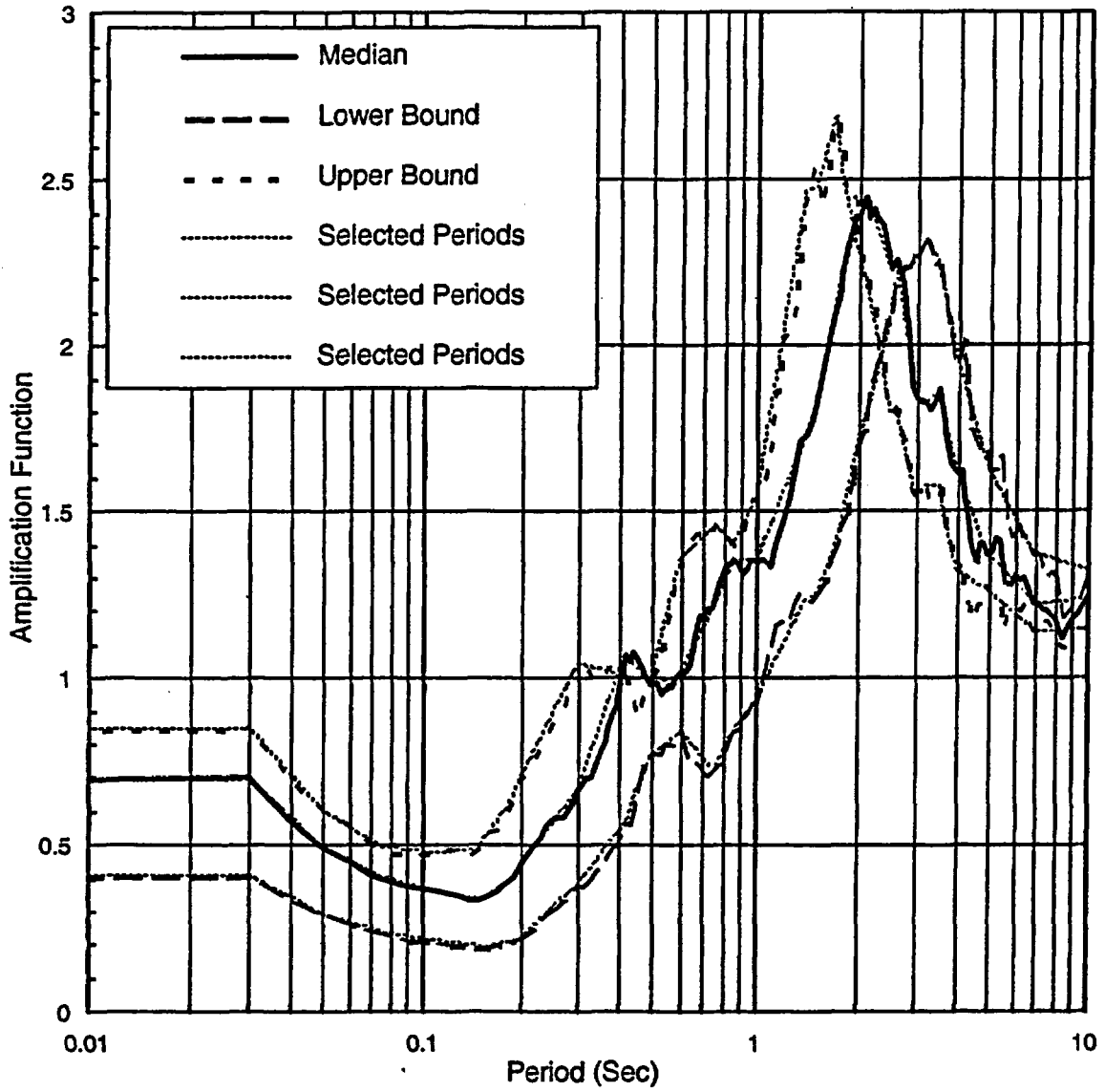
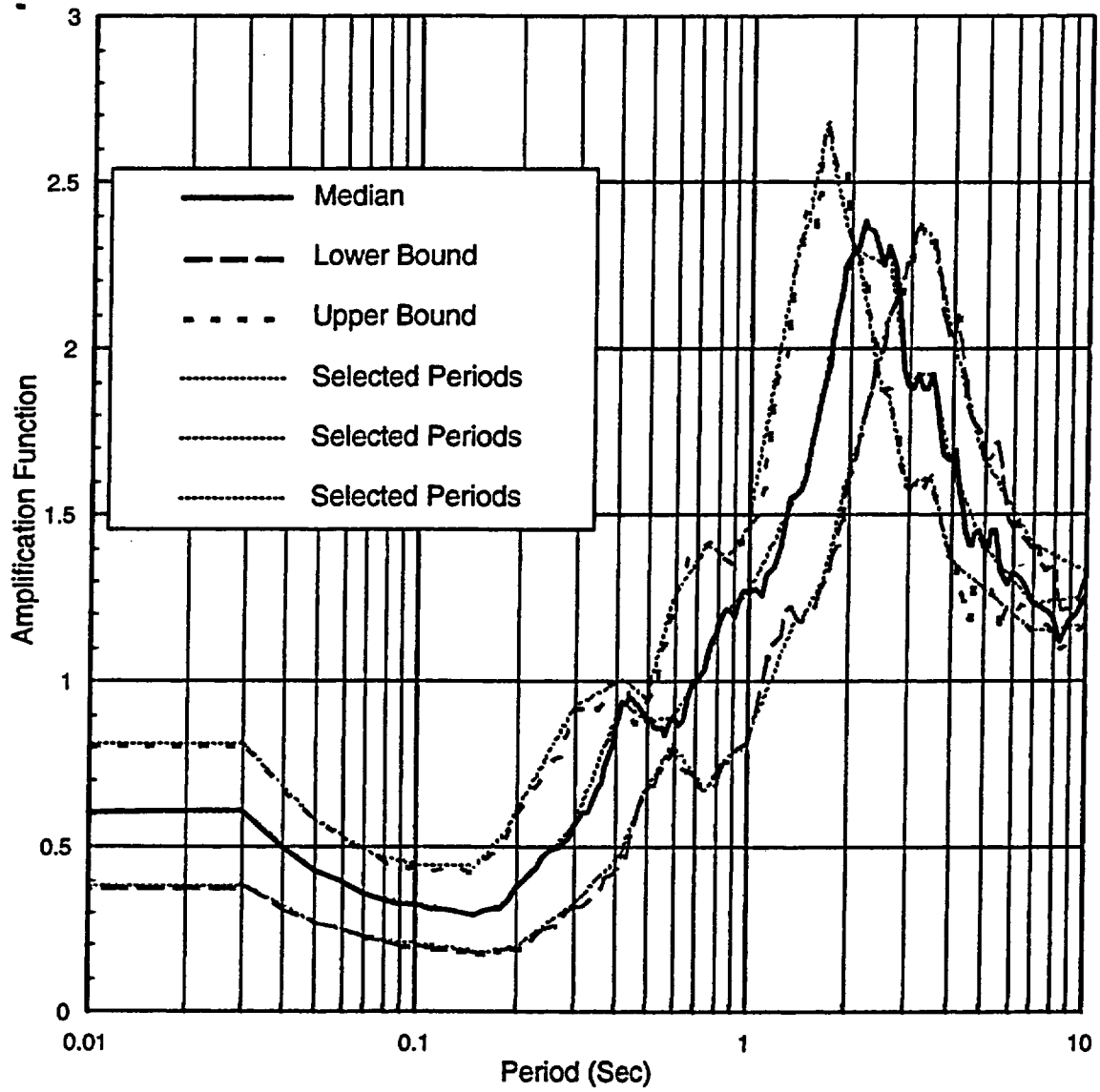


Figure 7-16. Average amplification factors, 1.6 g input pga



**7.2 Empirical Constraint on Spectral Shape**

An empirical constraint was developed to account for the potential over-damping of high frequency spectral content by SHAKE.

**7.2.1 Select Time histories**

Based on Assumption 3.2, 14 time histories ( 2 horizontal components from 7 stations) from soil sites that recorded the 1994 Northridge earthquake with peak ground accelerations greater than 0.4g and having shear wave velocity profiles (<http://geoinfo.usc.edu/rosrine/>) similar to the HBIP shear wave velocity range were used for empirical constraints on the high frequency spectral shape (Idriss, 2002). The selected time histories are listed in Table 7-22.

**Table 7-22. Ground motion recordings used to develop average horizontal rock shape.**

Station Name	Symbol	Rupture Distance (km)	Orientation (deg)	PGA (g)	PGV (cm/s)	PGD (cm)
Rinaldi Receiving Station	RRS228	27.6	228	0.838	166.1	28.78
	RRS318	-	318	0.472	73.0	19.76
Sylmar Converter Station East	SCE018	6.1	018	0.828	117.5	34.22
	SCE288	-	288	0.493	74.6	28.69
Sylmar Converter Station	SCS052	6.2	052	0.612	117.4	53.47
	SCS142	-	142	0.897	102.8	46.99
Sepulveda VA	SPV270	8.9	270	0.753	84.8	18.68
	SCS360	-	360	0.939	76.6	14.95
Sylmar, Olive View Medical	SYL090	6.4	090	0.604	78.2	16.05
	SYL360	-	360	0.843	129.6	32.68
Newhall - Fire Station	NWH090	7.1	090	0.583	75.5	17.57
	NWH360	-	360	0.590	97.2	38.05
Jensen Filter Plant	JEN022	6.2	022	0.424	106.2	43.06
	JEN292	-	292	0.593	99.3	24.00

**7.2.2 Compute Response Spectra**

Response spectral accelerations at sixteen spectral periods and 5% damping for each of the fourteen time histories were computed using the program SPCTLR.EXE. The results are shown in pseudo-acceleration in Table 7-32 below.

Table 7-23. 5% damped response spectral accelerations for fourteen ground motion recordings in Table 7-22.

Period (sec)	Pseudo Spectral accelerations (g)													
	RRS 228	RRS 318	SCE 018	SCE 288	SCS 052	SCS 142	SPV 270	SPV 360	SYL 090	SYL 360	JEN 022	JEN 292	NWH 090	NWH 360
0.01	0.838	0.473	0.828	0.493	0.615	0.900	0.756	0.944	0.609	0.853	0.426	0.593	0.585	0.597
0.02	0.840	0.475	0.831	0.497	0.621	0.909	0.761	0.951	0.613	0.862	0.427	0.595	0.586	0.604
0.03	0.844	0.478	0.839	0.504	0.636	0.933	0.757	0.974	0.604	0.908	0.425	0.596	0.581	0.600
0.05	0.904	0.795	0.895	0.516	0.655	0.998	0.768	0.947	0.605	0.956	0.431	0.613	0.614	0.618
0.08	0.946	0.912	1.087	0.646	0.851	0.983	0.800	0.950	0.655	1.090	0.456	0.629	0.703	0.746
0.10	1.035	0.918	1.151	0.751	0.776	1.108	0.872	1.191	1.014	1.255	0.453	0.649	0.971	0.846
0.15	1.195	1.229	1.358	1.519	0.711	1.263	1.003	1.461	0.821	1.304	0.506	0.878	1.404	0.922
0.20	1.483	1.288	1.509	1.372	1.070	1.374	1.341	2.204	0.920	1.225	0.558	0.945	1.227	1.396
0.30	1.754	1.754	1.631	0.794	1.007	1.304	1.120	2.784	1.062	2.616	0.904	1.128	2.423	1.956
0.50	1.770	1.014	1.282	0.696	1.125	1.468	1.484	1.651	1.341	1.991	0.648	1.467	1.204	1.640
0.75	2.039	0.911	1.418	0.920	1.765	1.553	1.649	1.425	0.855	1.204	1.117	1.575	0.710	1.881
1.00	1.825	0.812	0.768	0.978	1.356	1.396	1.128	0.633	0.616	0.867	1.102	1.770	0.739	1.172
1.50	1.001	0.518	0.601	0.566	0.649	1.271	0.432	0.256	0.443	0.850	0.644	0.960	0.520	0.772
2.00	0.571	0.477	0.418	0.512	0.630	0.703	0.271	0.203	0.450	0.616	0.498	0.763	0.260	0.439
3.00	0.261	0.245	0.356	0.260	0.567	0.184	0.083	0.248	0.263	0.343	0.509	0.250	0.156	0.187
4.00	0.148	0.083	0.174	0.100	0.237	0.100	0.049	0.096	0.092	0.126	0.257	0.096	0.097	0.153

**7.2.3 Compute Average Spectral Shape**

The spectral shapes for each of the fourteen records were obtained by normalizing the response spectral values to their respective peak ground accelerations. The results of the normalization are presented in Table 7-24.

**Table 7-24. Spectral shapes for the fourteen ground motion recordings in Table 7-22.**

Period (sec)	Spectral Shape													
	RRS 228	RRS 318	SCE 018	SCE 288	SCS 052	SCS 142	SPV 270	SPV 360	SYL 090	SYL 360	JEN 022	JEN 292	NWH 090	NWH 360
0.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
0.020	1.003	1.005	1.004	1.007	1.010	1.010	1.007	1.007	1.006	1.011	1.003	1.003	1.002	1.011
0.030	1.008	1.011	1.013	1.023	1.034	1.036	1.002	1.032	0.991	1.065	1.000	1.004	0.994	1.005
0.050	1.079	1.682	1.080	1.047	1.065	1.109	1.018	1.003	0.992	1.121	1.012	1.032	1.049	1.038
0.075	1.130	1.929	1.312	1.310	1.383	1.091	1.058	1.006	1.074	1.278	1.072	1.060	1.202	1.250
0.100	1.236	1.942	1.389	1.523	1.261	1.230	1.154	1.261	1.664	1.471	1.066	1.094	1.661	1.417
0.150	1.426	2.601	1.639	3.079	1.155	1.403	1.327	1.547	1.347	1.529	1.189	1.479	2.400	1.543
0.200	1.770	2.726	1.822	2.782	1.740	1.527	1.774	2.334	1.510	1.436	1.311	1.592	2.098	2.338
0.300	2.094	3.712	1.969	1.611	1.637	1.449	1.483	2.949	1.742	3.067	2.125	1.900	4.143	3.275
0.500	2.113	2.146	1.547	1.412	1.829	1.630	1.964	1.749	2.200	2.335	1.524	2.472	2.058	2.747
0.750	2.435	1.927	1.711	1.865	2.869	1.725	2.182	1.509	1.402	1.412	2.625	2.654	1.214	3.150
1.000	2.179	1.718	0.927	1.983	2.204	1.551	1.493	0.670	1.011	1.016	2.590	2.983	1.263	1.963
1.500	1.195	1.096	0.726	1.148	1.055	1.411	0.572	0.271	0.726	0.996	1.512	1.617	0.888	1.293
2.000	0.682	1.010	0.505	1.038	1.024	0.781	0.359	0.215	0.738	0.723	1.170	1.286	0.445	0.734
3.000	0.312	0.518	0.430	0.527	0.921	0.204	0.110	0.263	0.431	0.402	1.196	0.421	0.266	0.313
4.000	0.177	0.176	0.210	0.203	0.384	0.111	0.065	0.101	0.151	0.148	0.604	0.162	0.166	0.256

The final average horizontal spectral shape is determined by taking the linear average of the fourteen spectral shapes in Table 7-24. This final spectral shape is presented in Table 7-25 below.



Table 7-25 Average horizontal rock spectral shape based on 14 Northridge strong motion recordings.

Period (sec)	Average Spectral Shape
0.010	1.0000
0.020	1.0063
0.030	1.0155
0.050	1.0945
0.075	1.2255
0.100	1.3835
0.150	1.6904
0.200	1.9114
0.300	2.3682
0.500	1.9805
0.750	2.0486
1.000	1.6823
1.500	1.0362
2.000	0.7649
3.000	0.4510
4.000	0.2081

## 8. RESULTS

The average site-specific soil amplification factors for input rock pga levels of 1.4 g and 1.6 g are listed in Table 8-1. These amplification factors are applicable to rock spectra developed for "generic" soft-rock sites, consistent with the definition of rock used in the developing the empirical attenuation relations used in California.

The empirical spectral shape for large ground motions (PGA>0.6g) for soil sites with shear-wave velocity profiles similar to the profile at HBIP is listed in Table 8-2.

**Table 8-1. Average amplification factors**

Period (sec)	Median		Lower Bound		Upper Bound	
	1.4 g	1.6 g	1.4 g	1.6 g	1.4 g	1.6 g
0.010	0.693	0.608	0.410	0.383	0.846	0.813
0.030	0.701	0.615	0.414	0.387	0.856	0.822
0.050	0.495	0.434	0.292	0.273	0.605	0.581
0.075	0.402	0.352	0.236	0.221	0.494	0.473
0.100	0.372	0.324	0.215	0.201	0.483	0.444
0.150	0.333	0.292	0.196	0.182	0.497	0.435
0.200	0.445	0.376	0.226	0.193	0.705	0.602
0.300	0.663	0.563	0.382	0.325	1.041	0.924
0.420	1.070	0.940	0.574	0.481	1.002	1.011
0.500	0.982	0.882	0.770	0.677	1.002	0.948
0.600	1.014	0.900	0.839	0.811	1.361	1.258
0.640	1.043	0.885	0.749	0.734	1.414	1.342
0.750	1.225	1.053	0.727	0.678	1.457	1.416
0.860	1.354	1.214	0.842	0.766	1.401	1.368
1.000	1.346	1.262	0.935	0.823	1.543	1.468
1.200	1.469	1.342	1.178	1.117	2.026	1.903
1.450	1.765	1.580	1.232	1.181	2.533	2.419
1.700	2.098	1.904	1.385	1.309	2.687	2.681
2.200	2.411	2.381	1.918	1.809	2.130	2.194
2.600	2.261	2.305	2.201	2.083	1.816	1.893
3.200	1.830	1.922	2.324	2.373	1.576	1.605
3.500	1.872	1.926	2.247	2.324	1.579	1.622
4.100	1.620	1.692	2.022	2.102	1.357	1.384
4.300	1.469	1.521	1.821	1.915	1.222	1.250
5.400	1.411	1.451	1.671	1.724	1.221	1.250
6.200	1.296	1.322	1.454	1.484	1.201	1.211
7.800	1.193	1.209	1.319	1.351	1.157	1.165
10.000	1.248	1.258	1.321	1.330	1.154	1.174

Note: Values for amplification factors for 0.075 and 0.75 seconds are from Tables 7-22 through 30. All other periods are from Tables 7-18 through 7-21.

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**Table 8-2. Average Horizontal Rock Spectral Shape Based on Northridge Strong Motion Recordings.**

<b>Period (sec)</b>	<b>Average Spectral Shape (Sa/pgs)</b>
0.010	1.000
0.020	1.000
0.030	1.016
0.050	1.095
0.075	1.225
0.100	1.384
0.150	1.690
0.200	1.911
0.300	2.368
0.500	1.980
0.750	2.049
1.000	1.682
1.500	1.036
2.000	0.765
3.000	0.451
4.000	0.208

## 9. CONCLUSIONS

The amplification factors (Table 8-1) represent the site amplification of earthquake ground motion at the HBIP site at input pga motion levels of 1.4 g and 1.6g. The amplified surface soil spectrum should be checked against Table 8-2 to ensure that the final spectrum has sufficient spectral contents, especially in the high frequency range.

### Limitations:

1. The calculations were performed for a M7.8 earthquake. They may be applied to earthquakes with magnitudes from 7.5 to 7.8, with some conservatism at long periods for  $M < 7.8$ .
2. Due to use of three time histories in the site response analyses, the uncertainty in the average amplification factors is in the range of 0.5% to 10%. Therefore, the median value of the amplification factors are accurate to 10% due to the limited number of time histories used.

## 10. REFERENCES

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White, R.K., (2002) Review and Acceptance of ICEC SHAKE verification documentation, Letter to Chris Hartz, UFSP, DCPPm Amy 30, 2002.

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## 11. ENCLOSURES AND ATTACHMENTS

Enclosed CD-ROM contains the input and output files for ground response analysis using SHAKE96. Detailed description of the CD contents are listed below. A copy of the CD is filed under calculation package GEO.HBIP.02.06 available with PG&E Geosciences Department.

Appendix A contains the spectral shapes of the various ground response analysis

Appendix B contains the printout of the 3 acceleration time histories used in the analysis

Appendix C contains the key input of the ground response analysis

Appendix D contains the key output of the ground response analysis

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### README.TXT – DESCRIPTION OF CONTENTS ON CD

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The files and directories on this cd were used for the HBPP SHAKE analyses performed in June, 2002 for calculation package GEO.HBIP.02.06 Rev. 0.

All files other than those identified below are ASCII files (text files) that can be viewed by any text editor such as MS NotePad or WordPad programs or be imported into any word processor such as MS WORD for viewing.

The four binary files under subdirectory SHAKE96 and one binary file under Northridge that cannot be read as text files are:

SHAKE96.EXE	Executable file for SHAKE used in the analyses
SHAKE96S.EXE	Verified SHAKE program used to verify SHAKE96.
RUN386.EXE	Lahey DOS Extender File needed for SHAKE96S.EXE
F77L3.EER	Lahey Error Messages File needed for SHAKE96S.EXE
SPCTLR.EXE	Executable file for SPCTLR

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### DESCRIPTION OF FILE STRUCTURE ON CD

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The input time histories are in directory "input\_th"; the program is the executable SHAKE96.exe.

The remaining directories contain all input and output files. The directory naming scheme includes the profile designation. The profile analyzed is called profile "m1". Profile "m2" is the lower bound and "m3" is the upper bound on "m1". The earthquake used appears next in the directory name: eqs 7 through 9 correspond to time histories sent by Norm Abrahamson (directory "input\_th") according to:

Eq 7 = M7.8 Set 1

Eq 8 = M7.8 Set 2

Eq 9 = M7.8 Set 3

In the "input" subdirectories under each "mxy\_runs" are the SHAKE input files. The naming convention includes the profile designation and the input pga used, with the letter "p" standing in for a decimal. For example, file m2\_1p0g.inp in directory "m28\_runs" models the lower bound profile, M7.8 Set 2 input time history, with pga scaled to 1.0g.

The output file suffixes correspond to:

\*.out = SHAKE output file

\*.ath = ACC time history file (at ground surface)

\*.rsp = response spectrum of surface motion

SHAKE96 Test Run directory contains the executable file of SHAKE96 used for this project. Test.inp is the test run input file. Test.out is the test run output file. Diam.acc is the input ACC time history used by Test.inp. Test.out is checked against the SHAKE96S.out under the subdirectory "Verified SHAKE96S" which was run the verified SHAKE96S using the same Test.inp and the Diam.acc.

Northridge subdirectory contains the 14 records used to establish the high frequency constraints on the surface response spectrum.

\*.at2 = recorded time histories

\*.050 = 5% damped spectrum computed by SPCTLR

\*.inp = input files for SPCTLR

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#### LIST OF FILES

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##### Directory of CD FOR GEO.HBIP.02.06 REV.0

```

10/29/2002 01:52p <DIR> .
10/29/2002 01:52p <DIR> ..
10/29/2002 01:50p <DIR> input_th THREE INPUT TIME HISTORIES USED IN THE ANALYSES
10/29/2002 01:17p <DIR> m17_runs ANALYSIS FOR THE MEDIAN PROFILE WITH EQ SET 1
10/29/2002 01:16p <DIR> m18_runs ANALYSIS FOR THE MEDIAN PROFILE WITH EQ SET 2
10/29/2002 01:16p <DIR> m19_runs ANALYSIS FOR THE MEDIAN PROFILE WITH EQ SET 3
10/29/2002 01:15p <DIR> m27_runs ANALYSIS FOR THE LOWER BOUND PROFILE WITH EQ SET 1
10/29/2002 01:14p <DIR> m28_runs ANALYSIS FOR THE LOWER BOUND PROFILE WITH EQ SET 2
10/29/2002 01:14p <DIR> m29_runs ANALYSIS FOR THE LOWER BOUND PROFILE WITH EQ SET 3
10/29/2002 01:14p <DIR> m37_runs ANALYSIS FOR THE UPPER BOUND PROFILE WITH EQ SET 1
10/29/2002 01:13p <DIR> m38_runs ANALYSIS FOR THE LOWER BOUND PROFILE WITH EQ SET 2
10/29/2002 01:13p <DIR> m39_runs ANALYSIS FOR THE LOWER BOUND PROFILE WITH EQ SET 3
06/27/2002 08:17a 1,446 readme.txt
10/29/2002 01:48p <DIR> SHAKE96 Test Run
2 File(s) 1,446 bytes

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##### Directory of CD FOR GEO.HBIP.02.06 REV.0\input\_th THREE INPUT TIME HISTORIES USED IN THE ANALYSES

```

10/29/2002 01:50p <DIR> .
10/29/2002 01:50p <DIR> ..
05/29/2002 03:17a 67,422 m78set1.acc GROUND MOTION SET 1
05/29/2002 03:17a 123,100 m78set2.acc GROUND MOTION SET 2
05/29/2002 03:17a 121,050 m78set3.acc GROUND MOTION SET 3
3 File(s) 311,572 bytes

```

##### Directory of CD FOR GEO.HBIP.02.06 REV.0\m17\_runs ANALYSIS FOR THE MEDIAN PROFILE WITH EQ SET 1

```

10/29/2002 01:17p <DIR> .
10/29/2002 01:17p <DIR> ..
10/29/2002 01:22p <DIR> input
06/04/2002 09:41a 66,574 m1_1p0g.ath COMPUTED SURFACE MOTION WITH 1.0G INPUT ACC
06/04/2002 09:41a 105,311 m1_1p0g.out OUTPUT OF ANALYSIS WITH 1.0G INPUT ACC
06/04/2002 09:41a 29,901 m1_1p0g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.0G INPUT
06/04/2002 09:41a 66,574 m1_1p2g.ath COMPUTED SURFACE MOTION WITH 1.2G INPUT ACC
06/04/2002 09:41a 105,311 m1_1p2g.out OUTPUT OF ANALYSIS WITH 1.2G INPUT ACC
06/04/2002 09:41a 29,901 m1_1p2g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.2G INPUT
06/04/2002 09:42a 66,574 m1_1p4g.ath COMPUTED SURFACE MOTION WITH 1.4G INPUT ACC
06/04/2002 09:42a 105,311 m1_1p4g.out OUTPUT OF ANALYSIS WITH 1.4G INPUT ACC
06/04/2002 09:42a 29,901 m1_1p4g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.4G INPUT
10/22/2002 01:36a 66,574 m1_1p6g.ath COMPUTED SURFACE MOTION WITH 1.6G INPUT ACC
10/22/2002 01:36a 105,311 m1_1p6g.out OUTPUT OF ANALYSIS WITH 1.6G INPUT ACC
10/22/2002 01:36a 29,901 m1_1p6g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.6G INPUT
06/04/2002 09:40a 66,574 m1_p1g.ath COMPUTED SURFACE MOTION WITH 0.1G INPUT ACC
06/04/2002 09:40a 105,311 m1_p1g.out OUTPUT OF ANALYSIS WITH 0.1G INPUT ACC

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06/04/2002 09:40a	29,901 m1_p1g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.1G INPUT
06/04/2002 09:40a	66,574 m1_p2g.ath	COMPUTED SURFACE MOTION WITH 0.2G INPUT ACC
06/04/2002 09:40a	105,311 m1_p2g.out	OUTPUT OF ANALYSIS WITH 0.2G INPUT ACC
06/04/2002 09:40a	29,901 m1_p2g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.2G INPUT
06/04/2002 09:40a	66,574 m1_p3g.ath	COMPUTED SURFACE MOTION WITH 0.3G INPUT ACC
06/04/2002 09:40a	105,311 m1_p3g.out	OUTPUT OF ANALYSIS WITH 0.3G INPUT ACC
06/04/2002 09:40a	29,901 m1_p3g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.3G INPUT
06/04/2002 09:41a	66,574 m1_p4g.ath	COMPUTED SURFACE MOTION WITH 0.4G INPUT ACC
06/04/2002 09:41a	105,311 m1_p4g.out	OUTPUT OF ANALYSIS WITH 0.4G INPUT ACC
06/04/2002 09:41a	29,901 m1_p4g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.4G INPUT
06/04/2002 09:41a	66,574 m1_p5g.ath	COMPUTED SURFACE MOTION WITH 0.5G INPUT ACC
06/04/2002 09:41a	105,311 m1_p5g.out	OUTPUT OF ANALYSIS WITH 0.5G INPUT ACC
06/04/2002 09:41a	29,901 m1_p5g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.5G INPUT
06/04/2002 09:41a	66,574 m1_p6g.ath	COMPUTED SURFACE MOTION WITH 0.6G INPUT ACC
06/04/2002 09:41a	105,311 m1_p6g.out	OUTPUT OF ANALYSIS WITH 0.6G INPUT ACC
06/04/2002 09:41a	29,901 m1_p6g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.6G INPUT
06/04/2002 09:41a	66,574 m1_p7g.ath	COMPUTED SURFACE MOTION WITH 0.7G INPUT ACC
06/04/2002 09:41a	105,311 m1_p7g.out	OUTPUT OF ANALYSIS WITH 0.7G INPUT ACC
06/04/2002 09:41a	29,901 m1_p7g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.7G INPUT
06/04/2002 09:41a	66,574 m1_p8g.ath	COMPUTED SURFACE MOTION WITH 0.8G INPUT ACC
06/04/2002 09:41a	105,311 m1_p8g.out	OUTPUT OF ANALYSIS WITH 0.8G INPUT ACC
06/04/2002 09:41a	29,901 m1_p8g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.8G INPUT
06/04/2002 09:41a	66,574 m1_p9g.ath	COMPUTED SURFACE MOTION WITH 0.9G INPUT ACC
06/04/2002 09:41a	105,311 m1_p9g.out	OUTPUT OF ANALYSIS WITH 0.9G INPUT ACC
06/04/2002 09:41a	29,901 m1_p9g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.9G INPUT
39 File(s) 2,623,218 bytes		

## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m17\_runs\input

10/29/2002 01:22p	<DIR>	.
10/29/2002 01:22p	<DIR>	..
06/04/2002 07:57a	11,221 m1_1p0g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.0G
06/04/2002 07:57a	11,221 m1_1p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.2G
06/04/2002 07:57a	11,221 m1_1p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.4G
10/22/2002 12:40a	11,221 m1_1p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.6G
06/04/2002 07:56a	11,221 m1_p1g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 07:56a	11,221 m1_p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 07:56a	11,221 m1_p3g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.3G
06/04/2002 07:56a	11,221 m1_p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.4G
06/04/2002 07:56a	11,221 m1_p5g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.5G
06/04/2002 07:56a	11,221 m1_p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.6G
06/04/2002 07:56a	11,221 m1_p7g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.7G
06/04/2002 07:56a	11,221 m1_p8g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.8G
06/04/2002 07:56a	11,221 m1_p9g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.9G
13 File(s) 145,873 bytes		

## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m18\_runs ANALYSIS FOR THE MEDIAN PROFILE WITH EQ SET 2

10/29/2002 01:16p	<DIR>	.
10/29/2002 01:16p	<DIR>	..
10/29/2002 01:22p	<DIR>	input
06/04/2002 09:47a	121,573 m1_1p0g.ath	COMPUTED SURFACE MOTION WITH 1.0G INPUT ACC
06/04/2002 09:47a	105,311 m1_1p0g.out	OUTPUT OF ANALYSIS WITH 1.0G INPUT ACC
06/04/2002 09:47a	29,901 m1_1p0g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.0G INPUT
06/04/2002 09:47a	121,573 m1_1p2g.ath	COMPUTED SURFACE MOTION WITH 1.2G INPUT ACC
06/04/2002 09:47a	105,311 m1_1p2g.out	OUTPUT OF ANALYSIS WITH 1.2G INPUT ACC
06/04/2002 09:47a	29,901 m1_1p2g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.2G INPUT
06/04/2002 09:48a	121,573 m1_1p4g.ath	COMPUTED SURFACE MOTION WITH 1.4G INPUT ACC
06/04/2002 09:48a	105,311 m1_1p4g.out	OUTPUT OF ANALYSIS WITH 1.4G INPUT ACC
06/04/2002 09:48a	29,901 m1_1p4g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.4G INPUT
10/22/2002 01:36a	121,573 m1_1p6g.ath	COMPUTED SURFACE MOTION WITH 1.6G INPUT ACC
10/22/2002 01:36a	105,311 m1_1p6g.out	OUTPUT OF ANALYSIS WITH 1.6G INPUT ACC
10/22/2002 01:36a	29,901 m1_1p6g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.6G INPUT
06/04/2002 09:45a	121,573 m1_p1g.ath	COMPUTED SURFACE MOTION WITH 0.1G INPUT ACC
06/04/2002 09:45a	105,311 m1_p1g.out	OUTPUT OF ANALYSIS WITH 0.1G INPUT ACC
06/04/2002 09:45a	29,901 m1_p1g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.1G INPUT
06/04/2002 09:45a	121,573 m1_p2g.ath	COMPUTED SURFACE MOTION WITH 0.2G INPUT ACC



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06/04/2002 09:45a	105,311 m1_p2g.out	OUTPUT OF ANALYSIS WITH 0.2G INPUT ACC
06/04/2002 09:45a	29,901 m1_p2g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.2G INPUT
06/04/2002 09:45a	121,573 m1_p3g.ath	COMPUTED SURFACE MOTION WITH 0.3G INPUT ACC
06/04/2002 09:45a	105,311 m1_p3g.out	OUTPUT OF ANALYSIS WITH 0.3G INPUT ACC
06/04/2002 09:45a	29,901 m1_p3g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.3G INPUT
06/04/2002 09:46a	121,573 m1_p4g.ath	COMPUTED SURFACE MOTION WITH 0.4G INPUT ACC
06/04/2002 09:46a	105,311 m1_p4g.out	OUTPUT OF ANALYSIS WITH 0.4G INPUT ACC
06/04/2002 09:46a	29,901 m1_p4g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.4G INPUT
06/04/2002 09:46a	121,573 m1_p5g.ath	COMPUTED SURFACE MOTION WITH 0.5G INPUT ACC
06/04/2002 09:46a	105,311 m1_p5g.out	OUTPUT OF ANALYSIS WITH 0.5G INPUT ACC
06/04/2002 09:46a	29,901 m1_p5g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.5G INPUT
06/04/2002 09:46a	121,573 m1_p6g.ath	COMPUTED SURFACE MOTION WITH 0.6G INPUT ACC
06/04/2002 09:46a	105,311 m1_p6g.out	OUTPUT OF ANALYSIS WITH 0.6G INPUT ACC
06/04/2002 09:46a	29,901 m1_p6g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.6G INPUT
06/04/2002 09:46a	121,573 m1_p7g.ath	COMPUTED SURFACE MOTION WITH 0.7G INPUT ACC
06/04/2002 09:46a	105,311 m1_p7g.out	OUTPUT OF ANALYSIS WITH 0.7G INPUT ACC
06/04/2002 09:46a	29,901 m1_p7g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.7G INPUT
06/04/2002 09:47a	121,573 m1_p8g.ath	COMPUTED SURFACE MOTION WITH 0.8G INPUT ACC
06/04/2002 09:47a	105,311 m1_p8g.out	OUTPUT OF ANALYSIS WITH 0.8G INPUT ACC
06/04/2002 09:47a	29,901 m1_p8g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.8G INPUT
06/04/2002 09:47a	121,573 m1_p9g.ath	COMPUTED SURFACE MOTION WITH 0.9G INPUT ACC
06/04/2002 09:47a	105,311 m1_p9g.out	OUTPUT OF ANALYSIS WITH 0.9G INPUT ACC
06/04/2002 09:47a	29,901 m1_p9g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.9G INPUT

39 File(s) 3,338,205 bytes

Directory of CD FOR GEO.HBIP.02.06 REV.0 \m18\_runs\input

10/29/2002 01:22p	<DIR>	.
10/29/2002 01:22p	<DIR>	..
06/04/2002 07:59a	11,221 m1_1p0g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.0G
06/04/2002 07:59a	11,221 m1_1p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.2G
06/04/2002 07:59a	11,221 m1_1p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.4G
10/22/2002 12:40a	11,221 m1_1p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.6G
06/04/2002 07:58a	11,221 m1_1p1g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 07:59a	11,221 m1_p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 07:59a	11,221 m1_p3g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.3G
06/04/2002 07:59a	11,221 m1_p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.4G
06/04/2002 07:59a	11,221 m1_p5g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.5G
06/04/2002 07:59a	11,221 m1_p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.6G
06/04/2002 07:59a	11,221 m1_p7g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.7G
06/04/2002 07:59a	11,221 m1_p8g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.8G
06/04/2002 07:59a	11,221 m1_p9g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.9G

13 File(s) 145,873 bytes

Directory of CD FOR GEO.HBIP.02.06 REV.0 \m19\_runs ANALYSIS FOR THE MEDIAN PROFILE WITH EQ SET 3

10/29/2002 01:16p	<DIR>	.
10/29/2002 01:16p	<DIR>	..
10/29/2002 01:22p	<DIR>	input
06/04/2002 09:56a	119,548 m1_1p0g.ath	COMPUTED SURFACE MOTION WITH 1.0G INPUT ACC
06/04/2002 09:56a	105,311 m1_1p0g.out	OUTPUT OF ANALYSIS WITH 1.0G INPUT ACC
06/04/2002 09:56a	29,901 m1_1p0g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.0G INPUT
06/04/2002 09:57a	119,548 m1_1p2g.ath	COMPUTED SURFACE MOTION WITH 1.2G INPUT ACC
06/04/2002 09:57a	105,311 m1_1p2g.out	OUTPUT OF ANALYSIS WITH 1.2G INPUT ACC
06/04/2002 09:57a	29,901 m1_1p2g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.2G INPUT
06/04/2002 09:57a	119,548 m1_1p4g.ath	COMPUTED SURFACE MOTION WITH 1.4G INPUT ACC
06/04/2002 09:57a	105,311 m1_1p4g.out	OUTPUT OF ANALYSIS WITH 1.4G INPUT ACC
06/04/2002 09:57a	29,901 m1_1p4g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.4G INPUT
10/22/2002 01:37a	119,548 m1_1p6g.ath	COMPUTED SURFACE MOTION WITH 1.6G INPUT ACC
10/22/2002 01:37a	105,311 m1_1p6g.out	OUTPUT OF ANALYSIS WITH 1.6G INPUT ACC
10/22/2002 01:37a	29,901 m1_1p6g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.6G INPUT
06/04/2002 09:54a	119,548 m1_p1g.ath	COMPUTED SURFACE MOTION WITH 0.1G INPUT ACC
06/04/2002 09:54a	105,311 m1_p1g.out	OUTPUT OF ANALYSIS WITH 0.1G INPUT ACC
06/04/2002 09:54a	29,901 m1_p1g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.1G INPUT
06/04/2002 09:54a	119,548 m1_p2g.ath	COMPUTED SURFACE MOTION WITH 0.2G INPUT ACC
06/04/2002 09:54a	105,311 m1_p2g.out	OUTPUT OF ANALYSIS WITH 0.2G INPUT ACC
06/04/2002 09:54a	29,901 m1_p2g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.2G INPUT

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06/04/2002 09:55a      119,548 m1_p3g.ath  COMPUTED SURFACE MOTION WITH 0.3G INPUT ACC
06/04/2002 09:55a      105,311 m1_p3g.out  OUTPUT OF ANALYSIS WITH 0.3G INPUT ACC
06/04/2002 09:55a      29,901 m1_p3g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.3G INPUT
06/04/2002 09:55a      119,548 m1_p4g.ath  COMPUTED SURFACE MOTION WITH 0.4G INPUT ACC
06/04/2002 09:55a      105,311 m1_p4g.out  OUTPUT OF ANALYSIS WITH 0.4G INPUT ACC
06/04/2002 09:55a      29,901 m1_p4g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.4G INPUT
06/04/2002 09:55a      119,548 m1_p5g.ath  COMPUTED SURFACE MOTION WITH 0.5G INPUT ACC
06/04/2002 09:55a      105,311 m1_p5g.out  OUTPUT OF ANALYSIS WITH 0.5G INPUT ACC
06/04/2002 09:55a      29,901 m1_p5g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.5G INPUT
06/04/2002 09:55a      119,548 m1_p6g.ath  COMPUTED SURFACE MOTION WITH 0.6G INPUT ACC
06/04/2002 09:55a      105,311 m1_p6g.out  OUTPUT OF ANALYSIS WITH 0.6G INPUT ACC
06/04/2002 09:55a      29,901 m1_p6g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.6G INPUT
06/04/2002 09:56a      119,548 m1_p7g.ath  COMPUTED SURFACE MOTION WITH 0.7G INPUT ACC
06/04/2002 09:56a      105,311 m1_p7g.out  OUTPUT OF ANALYSIS WITH 0.7G INPUT ACC
06/04/2002 09:56a      29,901 m1_p7g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.7G INPUT
06/04/2002 09:56a      119,548 m1_p8g.ath  COMPUTED SURFACE MOTION WITH 0.8G INPUT ACC
06/04/2002 09:56a      105,311 m1_p8g.out  OUTPUT OF ANALYSIS WITH 0.8G INPUT ACC
06/04/2002 09:56a      29,901 m1_p8g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.8G INPUT
06/04/2002 09:56a      119,548 m1_p9g.ath  COMPUTED SURFACE MOTION WITH 0.9G INPUT ACC
06/04/2002 09:56a      105,311 m1_p9g.out  OUTPUT OF ANALYSIS WITH 0.9G INPUT ACC
06/04/2002 09:56a      29,901 m1_p9g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.9G INPUT
39 File(s)          3,311,880 bytes

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## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m19\_runs\input

```

10/29/2002 01:22p      <DIR>      .
10/29/2002 01:22p      <DIR>      ..
06/04/2002 12:27a      11,221 m1_1p0g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 1.0G
06/04/2002 12:27a      11,221 m1_1p2g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 1.2G
06/04/2002 12:27a      11,221 m1_1p4g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 1.4G
10/22/2002 12:41a      11,221 m1_1p6g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 1.6G
06/04/2002 12:25a      11,221 m1_1p1g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 12:25a      11,221 m1_1p2g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 12:25a      11,221 m1_1p3g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 0.3G
06/04/2002 12:25a      11,221 m1_1p4g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 0.4G
06/04/2002 12:26a      11,221 m1_1p5g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 0.5G
06/04/2002 12:26a      11,221 m1_1p6g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 0.6G
06/04/2002 12:26a      11,221 m1_1p7g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 0.7G
06/04/2002 12:26a      11,221 m1_1p8g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 0.8G
06/04/2002 12:26a      11,221 m1_1p9g.inp  INPUT FILE FOR GROUND MOTION SCALED TO 0.9G
13 File(s)          145,873 bytes

```

## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m27\_runs ANALYSIS FOR THE LOWER BOUND PROFILE WITH EQ SET 1

```

10/29/2002 01:15p      <DIR>      .
10/29/2002 01:15p      <DIR>      ..
10/29/2002 01:23p      <DIR>      input
06/04/2002 09:43a      66,574 m2_1p0g.ath  COMPUTED SURFACE MOTION WITH 1.0G INPUT ACC
06/04/2002 09:43a      105,311 m2_1p0g.out  OUTPUT OF ANALYSIS WITH 1.0G INPUT ACC
06/04/2002 09:43a      29,901 m2_1p0g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.0G INPUT
06/04/2002 09:43a      66,574 m2_1p2g.ath  COMPUTED SURFACE MOTION WITH 1.2G INPUT ACC
06/04/2002 09:43a      105,311 m2_1p2g.out  OUTPUT OF ANALYSIS WITH 1.2G INPUT ACC
06/04/2002 09:43a      29,901 m2_1p2g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.2G INPUT
06/04/2002 09:43a      66,574 m2_1p4g.ath  COMPUTED SURFACE MOTION WITH 1.4G INPUT ACC
06/04/2002 09:43a      105,311 m2_1p4g.out  OUTPUT OF ANALYSIS WITH 1.4G INPUT ACC
06/04/2002 09:43a      29,901 m2_1p4g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.4G INPUT
10/22/2002 01:36a      66,574 m2_1p6g.ath  COMPUTED SURFACE MOTION WITH 1.6G INPUT ACC
10/22/2002 01:36a      105,311 m2_1p6g.out  OUTPUT OF ANALYSIS WITH 1.6G INPUT ACC
10/22/2002 01:36a      29,901 m2_1p6g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.6G INPUT
06/04/2002 09:42a      66,574 m2_1p1g.ath  COMPUTED SURFACE MOTION WITH 0.1G INPUT ACC
06/04/2002 09:42a      105,311 m2_1p1g.out  OUTPUT OF ANALYSIS WITH 0.1G INPUT ACC
06/04/2002 09:42a      29,901 m2_1p1g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.1G INPUT
06/04/2002 09:42a      66,574 m2_1p2g.ath  COMPUTED SURFACE MOTION WITH 0.2G INPUT ACC
06/04/2002 09:42a      105,311 m2_1p2g.out  OUTPUT OF ANALYSIS WITH 0.2G INPUT ACC
06/04/2002 09:42a      29,901 m2_1p2g.rsp   RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.2G INPUT
06/04/2002 09:42a      66,574 m2_1p3g.ath  COMPUTED SURFACE MOTION WITH 0.3G INPUT ACC

```

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06/04/2002 09:42a 105,311 m2_p3g.out OUTPUT OF ANALYSIS WITH 0.3G INPUT ACC
06/04/2002 09:42a 29,901 m2_p3g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.3G INPUT
06/04/2002 09:42a 66,574 m2_p4g.ath COMPUTED SURFACE MOTION WITH 0.4G INPUT ACC
06/04/2002 09:42a 105,311 m2_p4g.out OUTPUT OF ANALYSIS WITH 0.4G INPUT ACC
06/04/2002 09:42a 29,901 m2_p4g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.4G INPUT
06/04/2002 09:42a 66,574 m2_p5g.ath COMPUTED SURFACE MOTION WITH 0.5G INPUT ACC
06/04/2002 09:42a 105,311 m2_p5g.out OUTPUT OF ANALYSIS WITH 0.5G INPUT ACC
06/04/2002 09:42a 29,901 m2_p5g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.5G INPUT
06/04/2002 09:42a 66,574 m2_p6g.ath COMPUTED SURFACE MOTION WITH 0.6G INPUT ACC
06/04/2002 09:42a 105,311 m2_p6g.out OUTPUT OF ANALYSIS WITH 0.6G INPUT ACC
06/04/2002 09:42a 29,901 m2_p6g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.6G INPUT
06/04/2002 09:42a 66,574 m2_p7g.ath COMPUTED SURFACE MOTION WITH 0.7G INPUT ACC
06/04/2002 09:42a 105,311 m2_p7g.out OUTPUT OF ANALYSIS WITH 0.7G INPUT ACC
06/04/2002 09:42a 29,901 m2_p7g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.7G INPUT
06/04/2002 09:43a 66,574 m2_p8g.ath COMPUTED SURFACE MOTION WITH 0.8G INPUT ACC
06/04/2002 09:43a 105,311 m2_p8g.out OUTPUT OF ANALYSIS WITH 0.8G INPUT ACC
06/04/2002 09:43a 29,901 m2_p8g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.8G INPUT
06/04/2002 09:43a 66,574 m2_p9g.ath COMPUTED SURFACE MOTION WITH 0.9G INPUT ACC
06/04/2002 09:43a 105,311 m2_p9g.out OUTPUT OF ANALYSIS WITH 0.9G INPUT ACC
06/04/2002 09:43a 29,901 m2_p9g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.9G INPUT
39 File(s) 2,623,218 bytes

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## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m27\_runs\input

```

10/29/2002 01:23p <DIR> .
10/29/2002 01:23p <DIR> ..
06/04/2002 08:20a 11,217 m2_1p0g.inp INPUT FILE FOR GROUND MOTION SCALED TO 1.0G
06/04/2002 08:20a 11,217 m2_1p2g.inp INPUT FILE FOR GROUND MOTION SCALED TO 1.2G
06/04/2002 08:20a 11,217 m2_1p4g.inp INPUT FILE FOR GROUND MOTION SCALED TO 1.4G
10/22/2002 12:47a 11,217 m2_1p6g.inp INPUT FILE FOR GROUND MOTION SCALED TO 1.6G
06/04/2002 08:19a 11,217 m2_p1g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 08:19a 11,217 m2_p2g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 08:19a 11,217 m2_p3g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.3G
06/04/2002 08:19a 11,217 m2_p4g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.4G
06/04/2002 08:20a 11,217 m2_p5g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.5G
06/04/2002 08:20a 11,217 m2_p6g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.6G
06/04/2002 08:20a 11,217 m2_p7g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.7G
06/04/2002 08:20a 11,217 m2_p8g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.8G
06/04/2002 08:20a 11,217 m2_p9g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.9G
13 File(s) 145,821 bytes

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## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m28\_runs ANALYSIS FOR THE LOWER BOUND PROFILE WITH EQ SET 2

```

10/29/2002 01:14p <DIR> .
10/29/2002 01:14p <DIR> ..
10/29/2002 01:23p <DIR> input
06/04/2002 09:50a 121,573 m2_1p0g.ath COMPUTED SURFACE MOTION WITH 1.0G INPUT ACC
06/04/2002 09:50a 105,311 m2_1p0g.out OUTPUT OF ANALYSIS WITH 1.0G INPUT ACC
06/04/2002 09:50a 29,901 m2_1p0g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.0G INPUT
06/04/2002 09:50a 121,573 m2_1p2g.ath COMPUTED SURFACE MOTION WITH 1.2G INPUT ACC
06/04/2002 09:50a 105,311 m2_1p2g.out OUTPUT OF ANALYSIS WITH 1.2G INPUT ACC
06/04/2002 09:50a 29,901 m2_1p2g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.2G INPUT
06/04/2002 09:51a 121,573 m2_1p4g.ath COMPUTED SURFACE MOTION WITH 1.4G INPUT ACC
06/04/2002 09:51a 105,311 m2_1p4g.out OUTPUT OF ANALYSIS WITH 1.4G INPUT ACC
06/04/2002 09:51a 29,901 m2_1p4g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.4G INPUT
10/22/2002 01:37a 121,573 m2_1p6g.ath COMPUTED SURFACE MOTION WITH 1.6G INPUT ACC
10/22/2002 01:37a 105,311 m2_1p6g.out OUTPUT OF ANALYSIS WITH 1.6G INPUT ACC
10/22/2002 01:37a 29,901 m2_1p6g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.6G INPUT
06/04/2002 09:48a 121,573 m2_p1g.ath COMPUTED SURFACE MOTION WITH 0.1G INPUT ACC
06/04/2002 09:48a 105,311 m2_p1g.out OUTPUT OF ANALYSIS WITH 0.1G INPUT ACC
06/04/2002 09:48a 29,901 m2_p1g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.1G INPUT
06/04/2002 09:48a 121,573 m2_p2g.ath COMPUTED SURFACE MOTION WITH 0.2G INPUT ACC
06/04/2002 09:48a 105,311 m2_p2g.out OUTPUT OF ANALYSIS WITH 0.2G INPUT ACC
06/04/2002 09:48a 29,901 m2_p2g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.2G INPUT
06/04/2002 09:48a 121,573 m2_p3g.ath COMPUTED SURFACE MOTION WITH 0.3G INPUT ACC
06/04/2002 09:48a 105,311 m2_p3g.out OUTPUT OF ANALYSIS WITH 0.3G INPUT ACC

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06/04/2002 09:48a	29,901 m2_p3g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.3G INPUT
06/04/2002 09:49a	121,573 m2_p4g.ath	COMPUTED SURFACE MOTION WITH 0.4G INPUT ACC
06/04/2002 09:49a	105,311 m2_p4g.out	OUTPUT OF ANALYSIS WITH 0.4G INPUT ACC
06/04/2002 09:49a	29,901 m2_p4g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.4G INPUT
06/04/2002 09:49a	121,573 m2_p5g.ath	COMPUTED SURFACE MOTION WITH 0.5G INPUT ACC
06/04/2002 09:49a	105,311 m2_p5g.out	OUTPUT OF ANALYSIS WITH 0.5G INPUT ACC
06/04/2002 09:49a	29,901 m2_p5g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.5G INPUT
06/04/2002 09:49a	121,573 m2_p6g.ath	COMPUTED SURFACE MOTION WITH 0.6G INPUT ACC
06/04/2002 09:49a	105,311 m2_p6g.out	OUTPUT OF ANALYSIS WITH 0.6G INPUT ACC
06/04/2002 09:49a	29,901 m2_p6g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.6G INPUT
06/04/2002 09:49a	121,573 m2_p7g.ath	COMPUTED SURFACE MOTION WITH 0.7G INPUT ACC
06/04/2002 09:49a	105,311 m2_p7g.out	OUTPUT OF ANALYSIS WITH 0.7G INPUT ACC
06/04/2002 09:49a	29,901 m2_p7g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.7G INPUT
06/04/2002 09:50a	121,573 m2_p8g.ath	COMPUTED SURFACE MOTION WITH 0.8G INPUT ACC
06/04/2002 09:50a	105,311 m2_p8g.out	OUTPUT OF ANALYSIS WITH 0.8G INPUT ACC
06/04/2002 09:50a	29,901 m2_p8g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.8G INPUT
06/04/2002 09:50a	121,573 m2_p9g.ath	COMPUTED SURFACE MOTION WITH 0.9G INPUT ACC
06/04/2002 09:50a	105,311 m2_p9g.out	OUTPUT OF ANALYSIS WITH 0.9G INPUT ACC
06/04/2002 09:50a	29,901 m2_p9g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.9G INPUT
39 File(s)		3,338,205 bytes

## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m28\_runs\input

10/29/2002 01:23p	<DIR>	.
10/29/2002 01:23p	<DIR>	..
06/04/2002 08:22a	11,217 m2_1p0g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.0G
06/04/2002 08:22a	11,217 m2_1p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.2G
06/04/2002 08:22a	11,217 m2_1p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.4G
10/22/2002 12:47a	11,217 m2_1p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.6G
06/04/2002 08:21a	11,217 m2_p1g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 08:21a	11,217 m2_p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 08:21a	11,217 m2_p3g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.3G
06/04/2002 08:22a	11,217 m2_p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.4G
06/04/2002 08:22a	11,217 m2_p5g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.5G
06/04/2002 08:22a	11,217 m2_p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.6G
06/04/2002 08:22a	11,217 m2_p7g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.7G
06/04/2002 08:22a	11,217 m2_p8g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.8G
06/04/2002 08:22a	11,217 m2_p9g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.9G
13 File(s)		145,821 bytes

## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m29\_runs ANALYSIS FOR THE LOWER BOUND PROFILE WITH EQ SET 3

10/29/2002 01:14p	<DIR>	.
10/29/2002 01:14p	<DIR>	..
10/29/2002 01:23p	<DIR>	input
06/04/2002 09:59a	119,548 m2_1p0g.ath	COMPUTED SURFACE MOTION WITH 1.0G INPUT ACC
06/04/2002 09:59a	105,311 m2_1p0g.out	OUTPUT OF ANALYSIS WITH 1.0G INPUT ACC
06/04/2002 09:59a	29,901 m2_1p0g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.0G INPUT
06/04/2002 10:00a	119,548 m2_1p2g.ath	COMPUTED SURFACE MOTION WITH 1.2G INPUT ACC
06/04/2002 10:00a	105,311 m2_1p2g.out	OUTPUT OF ANALYSIS WITH 1.2G INPUT ACC
06/04/2002 10:00a	29,901 m2_1p2g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.2G INPUT
06/04/2002 10:00a	119,548 m2_1p4g.ath	COMPUTED SURFACE MOTION WITH 1.4G INPUT ACC
06/04/2002 10:00a	105,311 m2_1p4g.out	OUTPUT OF ANALYSIS WITH 1.4G INPUT ACC
06/04/2002 10:00a	29,901 m2_1p4g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.4G INPUT
10/22/2002 01:37a	119,548 m2_1p6g.ath	COMPUTED SURFACE MOTION WITH 1.6G INPUT ACC
10/22/2002 01:37a	105,311 m2_1p6g.out	OUTPUT OF ANALYSIS WITH 1.6G INPUT ACC
10/22/2002 01:37a	29,901 m2_1p6g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.6G INPUT
06/04/2002 09:57a	119,548 m2_p1g.ath	COMPUTED SURFACE MOTION WITH 0.1G INPUT ACC
06/04/2002 09:57a	105,311 m2_p1g.out	OUTPUT OF ANALYSIS WITH 0.1G INPUT ACC
06/04/2002 09:57a	29,901 m2_p1g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.1G INPUT
06/04/2002 09:57a	119,548 m2_p2g.ath	COMPUTED SURFACE MOTION WITH 0.2G INPUT ACC
06/04/2002 09:57a	105,311 m2_p2g.out	OUTPUT OF ANALYSIS WITH 0.2G INPUT ACC
06/04/2002 09:57a	29,901 m2_p2g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.2G INPUT
06/04/2002 09:58a	119,548 m2_p3g.ath	COMPUTED SURFACE MOTION WITH 0.3G INPUT ACC
06/04/2002 09:58a	105,311 m2_p3g.out	OUTPUT OF ANALYSIS WITH 0.3G INPUT ACC
06/04/2002 09:58a	29,901 m2_p3g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.3G INPUT

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06/04/2002 09:58a	119,548 m2_p4g.ath	COMPUTED SURFACE MOTION WITH 0.4G INPUT ACC
06/04/2002 09:58a	105,311 m2_p4g.out	OUTPUT OF ANALYSIS WITH 0.4G INPUT ACC
06/04/2002 09:58a	29,901 m2_p4g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.4G INPUT
06/04/2002 09:58a	119,548 m2_p5g.ath	COMPUTED SURFACE MOTION WITH 0.5G INPUT ACC
06/04/2002 09:58a	105,311 m2_p5g.out	OUTPUT OF ANALYSIS WITH 0.5G INPUT ACC
06/04/2002 09:58a	29,901 m2_p5g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.5G INPUT
06/04/2002 09:58a	119,548 m2_p6g.ath	COMPUTED SURFACE MOTION WITH 0.6G INPUT ACC
06/04/2002 09:58a	105,311 m2_p6g.out	OUTPUT OF ANALYSIS WITH 0.6G INPUT ACC
06/04/2002 09:58a	29,901 m2_p6g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.6G INPUT
06/04/2002 09:59a	119,548 m2_p7g.ath	COMPUTED SURFACE MOTION WITH 0.7G INPUT ACC
06/04/2002 09:59a	105,311 m2_p7g.out	OUTPUT OF ANALYSIS WITH 0.7G INPUT ACC
06/04/2002 09:59a	29,901 m2_p7g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.7G INPUT
06/04/2002 09:59a	119,548 m2_p8g.ath	COMPUTED SURFACE MOTION WITH 0.8G INPUT ACC
06/04/2002 09:59a	105,311 m2_p8g.out	OUTPUT OF ANALYSIS WITH 0.8G INPUT ACC
06/04/2002 09:59a	29,901 m2_p8g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.8G INPUT
06/04/2002 09:59a	119,548 m2_p9g.ath	COMPUTED SURFACE MOTION WITH 0.9G INPUT ACC
06/04/2002 09:59a	105,311 m2_p9g.out	OUTPUT OF ANALYSIS WITH 0.9G INPUT ACC
06/04/2002 09:59a	29,901 m2_p9g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.9G INPUT
39 File(s)		3,311,880 bytes

Directory of CD FOR GEO.HBIP.02.06 REV.0 \m29\_runs\input

10/29/2002 01:23p	<DIR>	.
10/29/2002 01:23p	<DIR>	..
06/04/2002 12:32a	11,217 m2_1p0g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.0G
06/04/2002 12:33a	11,217 m2_1p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.2G
06/04/2002 12:33a	11,217 m2_1p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.4G
10/22/2002 12:47a	11,217 m2_1p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.6G
06/04/2002 12:33a	11,217 m2_p1g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 12:33a	11,217 m2_p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 12:33a	11,217 m2_p3g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.3G
06/04/2002 12:34a	11,217 m2_p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.4G
06/04/2002 12:34a	11,217 m2_p5g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.5G
06/04/2002 12:34a	11,217 m2_p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.6G
06/04/2002 12:35a	11,217 m2_p7g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.7G
06/04/2002 12:35a	11,217 m2_p8g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.8G
06/04/2002 12:35a	11,217 m2_p9g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.9G
13 File(s)		145,821 bytes

Directory of CD FOR GEO.HBIP.02.06 REV.0 \m37\_runs ANALYSIS FOR THE UPPER BOUND PROFILE WITH EQ SET 1

10/29/2002 01:14p	<DIR>	.
10/29/2002 01:14p	<DIR>	..
10/29/2002 01:24p	<DIR>	input
06/04/2002 09:44a	66,574 m3_1p0g.ath	COMPUTED SURFACE MOTION WITH 1.0G INPUT ACC
06/04/2002 09:44a	105,311 m3_1p0g.out	OUTPUT OF ANALYSIS WITH 1.0G INPUT ACC
06/04/2002 09:44a	29,901 m3_1p0g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.0G INPUT
06/04/2002 09:44a	66,574 m3_1p2g.ath	COMPUTED SURFACE MOTION WITH 1.2G INPUT ACC
06/04/2002 09:44a	105,311 m3_1p2g.out	OUTPUT OF ANALYSIS WITH 1.2G INPUT ACC
06/04/2002 09:44a	29,901 m3_1p2g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.2G INPUT
06/04/2002 09:45a	66,574 m3_1p4g.ath	COMPUTED SURFACE MOTION WITH 1.4G INPUT ACC
06/04/2002 09:45a	105,311 m3_1p4g.out	OUTPUT OF ANALYSIS WITH 1.4G INPUT ACC
06/04/2002 09:45a	29,901 m3_1p4g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.4G INPUT
10/22/2002 01:36a	66,574 m3_1p6g.ath	COMPUTED SURFACE MOTION WITH 1.6G INPUT ACC
10/22/2002 01:36a	105,311 m3_1p6g.out	OUTPUT OF ANALYSIS WITH 1.6G INPUT ACC
10/22/2002 01:36a	29,901 m3_1p6g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.6G INPUT
06/04/2002 09:43a	66,574 m3_p1g.ath	COMPUTED SURFACE MOTION WITH 0.1G INPUT ACC
06/04/2002 09:43a	105,311 m3_p1g.out	OUTPUT OF ANALYSIS WITH 0.1G INPUT ACC
06/04/2002 09:43a	29,901 m3_p1g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.1G INPUT
06/04/2002 09:43a	66,574 m3_p2g.ath	COMPUTED SURFACE MOTION WITH 0.2G INPUT ACC
06/04/2002 09:43a	105,311 m3_p2g.out	OUTPUT OF ANALYSIS WITH 0.2G INPUT ACC
06/04/2002 09:43a	29,901 m3_p2g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.2G INPUT
06/04/2002 09:43a	66,574 m3_p3g.ath	COMPUTED SURFACE MOTION WITH 0.3G INPUT ACC
06/04/2002 09:43a	105,311 m3_p3g.out	OUTPUT OF ANALYSIS WITH 0.3G INPUT ACC
06/04/2002 09:43a	29,901 m3_p3g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.3G INPUT
06/04/2002 09:44a	66,574 m3_p4g.ath	COMPUTED SURFACE MOTION WITH 0.4G INPUT ACC

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06/04/2002 09:44a 105,311 m3_p4g.out OUTPUT OF ANALYSIS WITH 0.4G INPUT ACC
06/04/2002 09:44a 29,901 m3_p4g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.4G INPUT
06/04/2002 09:44a 66,574 m3_p5g.ath COMPUTED SURFACE MOTION WITH 0.5G INPUT ACC
06/04/2002 09:44a 105,311 m3_p5g.out OUTPUT OF ANALYSIS WITH 0.5G INPUT ACC
06/04/2002 09:44a 29,901 m3_p5g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.5G INPUT
06/04/2002 09:44a 66,574 m3_p6g.ath COMPUTED SURFACE MOTION WITH 0.6G INPUT ACC
06/04/2002 09:44a 105,311 m3_p6g.out OUTPUT OF ANALYSIS WITH 0.6G INPUT ACC
06/04/2002 09:44a 29,901 m3_p6g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.6G INPUT
06/04/2002 09:44a 66,574 m3_p7g.ath COMPUTED SURFACE MOTION WITH 0.7G INPUT ACC
06/04/2002 09:44a 105,311 m3_p7g.out OUTPUT OF ANALYSIS WITH 0.7G INPUT ACC
06/04/2002 09:44a 29,901 m3_p7g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.7G INPUT
06/04/2002 09:44a 66,574 m3_p8g.ath COMPUTED SURFACE MOTION WITH 0.8G INPUT ACC
06/04/2002 09:44a 105,311 m3_p8g.out OUTPUT OF ANALYSIS WITH 0.8G INPUT ACC
06/04/2002 09:44a 29,901 m3_p8g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.8G INPUT
06/04/2002 09:44a 66,574 m3_p9g.ath COMPUTED SURFACE MOTION WITH 0.9G INPUT ACC
06/04/2002 09:44a 105,311 m3_p9g.out OUTPUT OF ANALYSIS WITH 0.9G INPUT ACC
06/04/2002 09:44a 29,901 m3_p9g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.9G INPUT
39 File(s) 2,623,218 bytes

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## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m37\_runs\input

```

10/29/2002 01:24p <DIR> .
10/29/2002 01:24p <DIR> ..
06/04/2002 08:36a 11,223 m3_1p0g.inp INPUT FILE FOR GROUND MOTION SCALED TO 1.0G
06/04/2002 08:36a 11,223 m3_1p2g.inp INPUT FILE FOR GROUND MOTION SCALED TO 1.2G
06/04/2002 08:36a 11,223 m3_1p4g.inp INPUT FILE FOR GROUND MOTION SCALED TO 1.4G
10/22/2002 12:50a 11,223 m3_1p6g.inp INPUT FILE FOR GROUND MOTION SCALED TO 1.6G
06/04/2002 08:35a 11,223 m3_p1g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 08:35a 11,223 m3_p2g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 08:35a 11,223 m3_p3g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.3G
06/04/2002 08:35a 11,223 m3_p4g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.4G
06/04/2002 08:35a 11,223 m3_p5g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.5G
06/04/2002 08:36a 11,223 m3_p6g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.6G
06/04/2002 08:36a 11,223 m3_p7g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.7G
06/04/2002 08:36a 11,223 m3_p8g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.8G
06/04/2002 08:36a 11,223 m3_p9g.inp INPUT FILE FOR GROUND MOTION SCALED TO 0.9G
13 File(s) 145,899 bytes

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## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m38\_runs ANALYSIS FOR THE UPPER BOUND PROFILE WITH EQ SET 2

```

10/29/2002 01:13p <DIR> .
10/29/2002 01:13p <DIR> ..
10/29/2002 01:24p <DIR> input
06/04/2002 09:53a 121,573 m3_1p0g.ath COMPUTED SURFACE MOTION WITH 1.0G INPUT ACC
06/04/2002 09:53a 105,311 m3_1p0g.out OUTPUT OF ANALYSIS WITH 1.0G INPUT ACC
06/04/2002 09:53a 29,901 m3_1p0g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.0G INPUT
06/04/2002 09:53a 121,573 m3_1p2g.ath COMPUTED SURFACE MOTION WITH 1.2G INPUT ACC
06/04/2002 09:53a 105,311 m3_1p2g.out OUTPUT OF ANALYSIS WITH 1.2G INPUT ACC
06/04/2002 09:53a 29,901 m3_1p2g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.2G INPUT
06/04/2002 09:54a 121,573 m3_1p4g.ath COMPUTED SURFACE MOTION WITH 1.4G INPUT ACC
06/04/2002 09:54a 105,311 m3_1p4g.out OUTPUT OF ANALYSIS WITH 1.4G INPUT ACC
06/04/2002 09:54a 29,901 m3_1p4g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.4G INPUT
10/22/2002 01:37a 121,573 m3_1p6g.ath COMPUTED SURFACE MOTION WITH 1.6G INPUT ACC
10/22/2002 01:37a 105,311 m3_1p6g.out OUTPUT OF ANALYSIS WITH 1.6G INPUT ACC
10/22/2002 01:37a 29,901 m3_1p6g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.6G INPUT
06/04/2002 09:51a 121,573 m3_p1g.ath COMPUTED SURFACE MOTION WITH 0.1G INPUT ACC
06/04/2002 09:51a 105,311 m3_p1g.out OUTPUT OF ANALYSIS WITH 0.1G INPUT ACC
06/04/2002 09:51a 29,901 m3_p1g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.1G INPUT
06/04/2002 09:51a 121,573 m3_p2g.ath COMPUTED SURFACE MOTION WITH 0.2G INPUT ACC
06/04/2002 09:51a 105,311 m3_p2g.out OUTPUT OF ANALYSIS WITH 0.2G INPUT ACC
06/04/2002 09:51a 29,901 m3_p2g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.2G INPUT
06/04/2002 09:51a 121,573 m3_p3g.ath COMPUTED SURFACE MOTION WITH 0.3G INPUT ACC
06/04/2002 09:51a 105,311 m3_p3g.out OUTPUT OF ANALYSIS WITH 0.3G INPUT ACC
06/04/2002 09:51a 29,901 m3_p3g.rsp RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.3G INPUT
06/04/2002 09:52a 121,573 m3_p4g.ath COMPUTED SURFACE MOTION WITH 0.4G INPUT ACC
06/04/2002 09:52a 105,311 m3_p4g.out OUTPUT OF ANALYSIS WITH 0.4G INPUT ACC

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06/04/2002 09:52a	29,901 m3_p4g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.4G INPUT
06/04/2002 09:52a	121,573 m3_p5g.ath	COMPUTED SURFACE MOTION WITH 0.5G INPUT ACC
06/04/2002 09:52a	105,311 m3_p5g.out	OUTPUT OF ANALYSIS WITH 0.5G INPUT ACC
06/04/2002 09:52a	29,901 m3_p5g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.5G INPUT
06/04/2002 09:52a	121,573 m3_p6g.ath	COMPUTED SURFACE MOTION WITH 0.6G INPUT ACC
06/04/2002 09:52a	105,311 m3_p6g.out	OUTPUT OF ANALYSIS WITH 0.6G INPUT ACC
06/04/2002 09:52a	29,901 m3_p6g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.6G INPUT
06/04/2002 09:52a	121,573 m3_p7g.ath	COMPUTED SURFACE MOTION WITH 0.7G INPUT ACC
06/04/2002 09:52a	105,311 m3_p7g.out	OUTPUT OF ANALYSIS WITH 0.7G INPUT ACC
06/04/2002 09:52a	29,901 m3_p7g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.7G INPUT
06/04/2002 09:52a	121,573 m3_p8g.ath	COMPUTED SURFACE MOTION WITH 0.8G INPUT ACC
06/04/2002 09:53a	105,311 m3_p8g.out	OUTPUT OF ANALYSIS WITH 0.8G INPUT ACC
06/04/2002 09:53a	29,901 m3_p8g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.8G INPUT
06/04/2002 09:53a	121,573 m3_p9g.ath	COMPUTED SURFACE MOTION WITH 0.9G INPUT ACC
06/04/2002 09:53a	105,311 m3_p9g.out	OUTPUT OF ANALYSIS WITH 0.9G INPUT ACC
06/04/2002 09:53a	29,901 m3_p9g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.9G INPUT
39 File(s)		3,338,205 bytes

## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m38\_runs\input

10/29/2002 01:24p	<DIR>	.
10/29/2002 01:24p	<DIR>	..
06/04/2002 08:38a	11,223 m3_1p0g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.0G
06/04/2002 08:38a	11,223 m3_1p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.2G
06/04/2002 08:38a	11,223 m3_1p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.4G
10/22/2002 12:51a	11,223 m3_1p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.6G
06/04/2002 08:37a	11,223 m3_p1g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 08:38a	11,223 m3_p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 08:38a	11,223 m3_p3g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.3G
06/04/2002 08:38a	11,223 m3_p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.4G
06/04/2002 08:38a	11,223 m3_p5g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.5G
06/04/2002 08:38a	11,223 m3_p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.6G
06/04/2002 08:38a	11,223 m3_p7g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.7G
06/04/2002 08:38a	11,223 m3_p8g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.8G
06/04/2002 08:38a	11,223 m3_p9g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.9G
13 File(s)		145,899 bytes

## Directory of CD FOR GEO.HBIP.02.06 REV.0 \m39\_runs ANALYSIS FOR THE UPPER BOUND PROFILE WITH EQ SET 3

10/29/2002 01:13p	<DIR>	.
10/29/2002 01:13p	<DIR>	..
10/29/2002 01:24p	<DIR>	input
06/04/2002 10:02a	119,548 m3_1p0g.ath	COMPUTED SURFACE MOTION WITH 1.0G INPUT ACC
06/04/2002 10:02a	105,311 m3_1p0g.out	OUTPUT OF ANALYSIS WITH 1.0G INPUT ACC
06/04/2002 10:02a	29,901 m3_1p0g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.0G INPUT
06/04/2002 10:03a	119,548 m3_1p2g.ath	COMPUTED SURFACE MOTION WITH 1.2G INPUT ACC
06/04/2002 10:03a	105,311 m3_1p2g.out	OUTPUT OF ANALYSIS WITH 1.2G INPUT ACC
06/04/2002 10:03a	29,901 m3_1p2g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.2G INPUT
06/04/2002 10:03a	119,548 m3_1p4g.ath	COMPUTED SURFACE MOTION WITH 1.4G INPUT ACC
06/04/2002 10:03a	105,311 m3_1p4g.out	OUTPUT OF ANALYSIS WITH 1.4G INPUT ACC
06/04/2002 10:03a	29,901 m3_1p4g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.4G INPUT
10/22/2002 01:38a	119,548 m3_1p6g.ath	COMPUTED SURFACE MOTION WITH 1.6G INPUT ACC
10/22/2002 01:38a	105,311 m3_1p6g.out	OUTPUT OF ANALYSIS WITH 1.6G INPUT ACC
10/22/2002 01:38a	29,901 m3_1p6g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 1.6G INPUT
06/04/2002 10:00a	119,548 m3_p1g.ath	COMPUTED SURFACE MOTION WITH 0.1G INPUT ACC
06/04/2002 10:00a	105,311 m3_p1g.out	OUTPUT OF ANALYSIS WITH 0.1G INPUT ACC
06/04/2002 10:00a	29,901 m3_p1g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.1G INPUT
06/04/2002 10:00a	119,548 m3_p2g.ath	COMPUTED SURFACE MOTION WITH 0.2G INPUT ACC
06/04/2002 10:00a	105,311 m3_p2g.out	OUTPUT OF ANALYSIS WITH 0.2G INPUT ACC
06/04/2002 10:00a	29,901 m3_p2g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.2G INPUT
06/04/2002 10:01a	119,548 m3_p3g.ath	COMPUTED SURFACE MOTION WITH 0.3G INPUT ACC
06/04/2002 10:01a	105,311 m3_p3g.out	OUTPUT OF ANALYSIS WITH 0.3G INPUT ACC
06/04/2002 10:01a	29,901 m3_p3g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.3G INPUT
06/04/2002 10:01a	119,548 m3_p4g.ath	COMPUTED SURFACE MOTION WITH 0.4G INPUT ACC
06/04/2002 10:01a	105,311 m3_p4g.out	OUTPUT OF ANALYSIS WITH 0.4G INPUT ACC
06/04/2002 10:01a	29,901 m3_p4g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.4G INPUT

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06/04/2002 10:01a	119,548 m3_p5g.ath	COMPUTED SURFACE MOTION WITH 0.5G INPUT ACC
06/04/2002 10:01a	105,311 m3_p5g.out	OUTPUT OF ANALYSIS WITH 0.5G INPUT ACC
06/04/2002 10:01a	29,901 m3_p5g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.5G INPUT
06/04/2002 10:01a	119,548 m3_p6g.ath	COMPUTED SURFACE MOTION WITH 0.6G INPUT ACC
06/04/2002 10:01a	105,311 m3_p6g.out	OUTPUT OF ANALYSIS WITH 0.6G INPUT ACC
06/04/2002 10:01a	29,901 m3_p6g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.6G INPUT
06/04/2002 10:02a	119,548 m3_p7g.ath	COMPUTED SURFACE MOTION WITH 0.7G INPUT ACC
06/04/2002 10:02a	105,311 m3_p7g.out	OUTPUT OF ANALYSIS WITH 0.7G INPUT ACC
06/04/2002 10:02a	29,901 m3_p7g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.7G INPUT
06/04/2002 10:02a	119,548 m3_p8g.ath	COMPUTED SURFACE MOTION WITH 0.8G INPUT ACC
06/04/2002 10:02a	105,311 m3_p8g.out	OUTPUT OF ANALYSIS WITH 0.8G INPUT ACC
06/04/2002 10:02a	29,901 m3_p8g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.8G INPUT
06/04/2002 10:02a	119,548 m3_p9g.ath	COMPUTED SURFACE MOTION WITH 0.9G INPUT ACC
06/04/2002 10:02a	105,311 m3_p9g.out	OUTPUT OF ANALYSIS WITH 0.9G INPUT ACC
06/04/2002 10:02a	29,901 m3_p9g.rsp	RESPONSE SPECTRUM OF SURFACE MOTION WITH 0.9G INPUT
39 File(s)	3,311,880 bytes	

Directory of CD FOR GEO.HBIP.02.06 REV.0 \m39\_runs\input

10/29/2002 01:24p	<DIR>	.
10/29/2002 01:24p	<DIR>	..
06/04/2002 12:31a	11,223 m3_1p0g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.0G
06/04/2002 12:32a	11,223 m3_1p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.2G
06/04/2002 12:32a	11,223 m3_1p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.4G
10/22/2002 12:51a	11,223 m3_1p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 1.6G
06/04/2002 12:30a	11,223 m3_p1g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.1G
06/04/2002 12:31a	11,223 m3_p2g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.2G
06/04/2002 12:31a	11,223 m3_p3g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.3G
06/04/2002 12:31a	11,223 m3_p4g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.4G
06/04/2002 12:31a	11,223 m3_p5g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.5G
06/04/2002 12:31a	11,223 m3_p6g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.6G
06/04/2002 12:31a	11,223 m3_p7g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.7G
06/04/2002 12:31a	11,223 m3_p8g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.8G
06/04/2002 12:31a	11,223 m3_p9g.inp	INPUT FILE FOR GROUND MOTION SCALED TO 0.9G
13 File(s)	145,899 bytes	

Directory of CD FOR GEO.HBIP.02.06 REV.0 \SHAKE96 Test Run

10/29/2002 01:48p	<DIR>	.
10/29/2002 01:48p	<DIR>	..
12/16/1989 02:18p	20,764 DIAM.ACC	INPUT ACC TIME HISTORY FOR TEST RUN
09/06/1998 05:10a	307,712 SHAKE96.EXE	SHAKE EXECUTABLE FILE USED FOR THIS PROJECT
11/28/1995 01:57p	4,143 Test.inp	INPUT FILE FOR TEST RUN
10/29/2002 01:44p	58,200 test.out	OUTPUT FILE OF TEST RUN
5 File(s)	451,241 bytes	

Directory of CD FOR GEO.HBIP.02.06 REV.0 \SHAKE96 Test Run\SHAKE96S CERTIFIED SHAKE96S RUN RESULTS

10/29/2002 01:47p	<DIR>	.
10/29/2002 01:47p	<DIR>	..
12/16/1989 02:18p	20,764 DIAM.ACC	INPUT ACC TIME HISTORY FOR TEST RUN
07/08/1992 01:24p	40,584 F77L3.EER	Lahey Error Messages File
05/03/2002 09:43a	403 README.TXT	README FILE DESCRIBING THE CERTIFIED SHAKE96S PROGRAM
04/06/1992 12:59p	183,076 RUN386.EXE	Lahey DOS Extender File
05/03/1996 05:43p	205,746 SHAKE96S.EXE	SHAKE96s Version 1.1 Executable File
10/29/2002 01:40p	58,200 SHAKE96S.OUT	OUTPUT FILE OF TEST RUN USING SHAKE96S
11/28/1995 01:57p	4,143 Test.inp	INPUT FILE FOR TEST RUN
7 File(s)	512,916 bytes	

Directory of C:\HBPP\GEO.HBIP.02.06\CD 02.06 Rev 0\Northridge

11/05/2002 04:23p	<DIR>	.
11/05/2002 04:23p	<DIR>	..
10/29/2002 03:58p	1,394 JEN022.050	5% damped Sa for JEN022
10/29/2002 03:29p	19,062 JEN022.AT2	Acc time history for JEN022



10/29/2002 03:40p	360 JEN022.IN	Input file for SPCTLR for JEN022
10/29/2002 03:59p	1,394 JEN292.050	5% damped Sa for JEN292
10/29/2002 03:29p	19,061 JEN292.AT2	Acc time history for JEN292
10/29/2002 03:38p	360 JEN292.IN	Input file for SPCTLR for JEN292
10/29/2002 03:58p	1,394 NWH090.050	5% damped Sa for NEW090
10/29/2002 03:57p	31,118 NWH090.AT2	Acc time history for NEW090
10/29/2002 03:58p	363 NWH090.IN	Input file for SPCTLR for NEW090
10/29/2002 03:58p	1,394 NWH360.050	5% damped Sa for NWH270
10/29/2002 03:58p	31,066 NWH360.AT2	Acc time history for NWH270
10/29/2002 03:43p	363 NWH360.IN	Input file for SPCTLR for NWH270
10/21/2002 10:43a	1,394 RRS228.050	5% damped Sa for RRS228
07/13/2002 11:32a	46,920 RRS228.AT2	Acc time history for RRS228
10/29/2002 03:41p	363 RRS228.IN	Input file for SPCTLR for RRS228
10/21/2002 10:43a	1,394 RRS318.050	5% damped Sa for RRS318
07/13/2002 11:32a	46,920 RRS318.AT2	Acc time history for RRS318
10/21/2002 10:17a	363 RRS318.IN	Input file for SPCTLR for RRS318
10/21/2002 10:43a	1,394 SCE018.050	5% damped Sa for SCE018
07/13/2002 11:32a	125,076 SCE018.AT2	Acc time history for SCE018
10/21/2002 10:17a	363 SCE018.IN	Input file for SPCTLR for SCE018
10/21/2002 10:43a	1,394 SCE288.050	5% damped Sa for SCE288
07/13/2002 11:32a	125,076 SCE288.AT2	Acc time history for SCE288
10/21/2002 10:18a	363 SCE288.IN	Input file for SPCTLR for SCE288
10/21/2002 10:43a	1,394 SCS052.050	5% damped Sa for SCS052
07/13/2002 11:33a	125,076 SCS052.AT2	Acc time history for SCS052
10/21/2002 10:43a	363 SCS052.IN	Input file for SPCTLR for SCS052
10/21/2002 10:43a	1,394 SCS142.050	5% damped Sa for SCS142
07/13/2002 11:33a	125,076 SCS142.AT2	Acc time history for SCS142
10/21/2002 10:43a	363 SCS142.IN	Input file for SPCTLR for SCS142
08/10/1989 10:08a	46,009 SPCTLR.EXE	SPCTLR EXECUTABLE FILE
10/21/2002 10:43a	1,394 SPV270.050	5% damped Sa for SPV270
07/13/2002 11:33a	19,308 SPV270.AT2	Acc time history for SPV270
10/21/2002 10:21a	363 SPV270.IN	Input file for SPCTLR for SPV270
10/21/2002 10:43a	1,394 SPV360.050	5% damped Sa for SPC360
07/13/2002 11:33a	19,308 SPV360.AT2	Acc time history for SPC360
10/21/2002 10:21a	363 SPV360.IN	Input file for SPCTLR for SPC360
10/21/2002 10:43a	1,394 SYL090.050	5% damped Sa for SYL090
07/13/2002 11:34a	31,476 SYL090.AT2	Acc time history for SYL090
10/21/2002 10:20a	363 SYL090.IN	Input file for SPCTLR for SYL090
10/21/2002 10:20a	363 SYL260.IN	5% damped Sa for SYL360
10/21/2002 10:43a	1,394 SYL360.050	Acc time history for SYL360
07/13/2002 11:34a	31,476 SYL360.AT2	Input file for SPCTLR for SYL360

44 File(s) 866,620 bytes  
2 Dir(s) 9,455,915,008 bytes free

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## Appendix A. Spectral Shapes from Site Response Calculations

The normalized spectral shapes from the SHAKE runs are listed in this appendix for each ground motion level, each profile, and each time history. Each table is for one velocity profile – time history pair.

Table A-1. Normalized spectral ACCs for median profile, earthquake 1

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.006	1.006	1.005	1.004	1.004	1.003
0.04	1.011	1.010	1.010	1.009	1.007	1.006
0.05	1.015	1.016	1.016	1.014	1.012	1.010
0.06	1.026	1.024	1.023	1.020	1.018	1.015
0.07	1.038	1.032	1.030	1.027	1.024	1.021
0.08	1.077	1.043	1.039	1.036	1.032	1.028
0.09	1.144	1.098	1.073	1.055	1.043	1.036
0.10	1.220	1.157	1.123	1.099	1.078	1.062
0.11	1.254	1.112	1.061	1.070	1.069	1.063
0.12	1.335	1.167	1.104	1.100	1.091	1.081
0.13	1.244	1.094	1.101	1.099	1.091	1.085
0.14	1.317	1.175	1.130	1.109	1.091	1.092
0.15	1.524	1.328	1.248	1.190	1.159	1.129
0.16	1.663	1.518	1.427	1.357	1.311	1.261
0.17	1.696	1.534	1.456	1.384	1.364	1.319
0.18	1.719	1.523	1.453	1.374	1.328	1.236
0.19	1.886	1.528	1.405	1.357	1.313	1.279
0.20	2.109	1.767	1.744	1.655	1.561	1.508
0.21	2.164	1.997	1.911	1.815	1.694	1.613
0.22	2.334	2.158	2.078	1.985	1.861	1.722
0.23	2.270	2.105	2.051	1.974	1.868	1.734
0.24	2.286	2.155	2.174	2.091	2.006	1.937
0.25	2.478	2.252	2.184	2.116	2.055	1.997
0.26	2.507	2.304	2.231	2.165	2.063	1.964
0.27	2.508	2.320	2.249	2.199	2.110	2.014
0.28	2.564	2.374	2.310	2.270	2.193	2.099
0.29	2.810	2.428	2.373	2.351	2.284	2.190
0.30	2.966	2.740	2.592	2.531	2.464	2.397
0.31	3.092	2.871	2.744	2.696	2.641	2.582
0.32	2.936	2.739	2.647	2.629	2.608	2.574
0.33	2.602	2.475	2.464	2.489	2.474	2.405
0.34	2.510	2.410	2.415	2.462	2.468	2.401
0.35	2.510	2.466	2.525	2.556	2.528	2.470
0.36	2.517	2.488	2.560	2.597	2.607	2.545
0.37	2.567	2.556	2.610	2.700	2.736	2.668
0.38	2.583	2.574	2.809	2.896	2.913	2.836
0.39	2.566	2.699	3.001	3.108	3.187	3.229
0.40	2.566	2.756	3.071	3.343	3.539	3.586
0.41	2.516	2.877	3.227	3.520	3.735	3.797
0.42	2.393	2.782	3.152	3.459	3.692	3.773
0.43	2.164	2.566	2.942	3.259	3.514	3.613
0.44	2.002	2.337	2.720	3.052	3.331	3.453
0.45	1.963	2.117	2.512	2.861	3.166	3.311
0.46	1.948	1.988	2.289	2.652	2.979	3.146
0.47	1.987	1.983	2.054	2.401	2.744	2.930
0.48	2.018	1.956	2.042	2.266	2.571	2.716
0.49	1.990	1.877	1.975	2.191	2.488	2.625
0.50	1.911	1.785	1.857	2.055	2.328	2.453
0.51	1.839	1.704	1.745	1.919	2.164	2.272

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0.52	1.823	1.672	1.700	1.840	2.065	2.162
0.53	1.849	1.681	1.718	1.812	2.029	2.119
0.54	1.882	1.714	1.761	1.843	2.010	2.096
0.55	1.915	1.773	1.814	1.899	1.992	2.074
0.56	1.957	1.851	1.887	1.977	2.070	2.060
0.57	1.986	1.931	1.967	2.070	2.178	2.125
0.58	2.137	1.968	2.012	2.131	2.259	2.217
0.60	2.272	2.136	2.016	2.014	2.172	2.156
0.62	2.370	2.273	2.114	2.070	2.095	2.013
0.64	2.439	2.383	2.233	2.186	2.199	2.103
0.66	2.404	2.366	2.259	2.291	2.331	2.250
0.68	2.119	2.158	2.195	2.252	2.315	2.248
0.70	1.968	2.086	2.156	2.226	2.295	2.228
0.72	1.955	2.110	2.189	2.257	2.319	2.238
0.74	1.810	1.973	2.034	2.086	2.161	2.188
0.76	1.715	1.785	1.888	2.000	2.151	2.183
0.78	1.688	1.760	1.864	1.996	2.157	2.165
0.80	1.654	1.727	1.855	1.993	2.162	2.189
0.82	1.617	1.691	1.840	1.983	2.160	2.204
0.84	1.578	1.653	1.821	1.967	2.152	2.213
0.86	1.538	1.618	1.796	1.947	2.138	2.215
0.88	1.496	1.586	1.768	1.921	2.118	2.209
0.90	1.455	1.552	1.736	1.891	2.092	2.197
0.92	1.415	1.519	1.703	1.859	2.063	2.179
0.94	1.377	1.487	1.670	1.825	2.032	2.158
0.96	1.343	1.456	1.636	1.792	2.000	2.136
0.98	1.321	1.428	1.604	1.758	1.968	2.112
1.00	1.303	1.399	1.572	1.724	1.936	2.086
1.05	1.264	1.325	1.482	1.629	1.838	2.003
1.10	1.253	1.237	1.372	1.507	1.708	1.880
1.15	1.271	1.247	1.315	1.399	1.552	1.729
1.20	1.309	1.279	1.325	1.383	1.512	1.651
1.25	1.286	1.282	1.339	1.408	1.532	1.652
1.30	1.400	1.417	1.500	1.597	1.759	1.911
1.35	1.484	1.513	1.596	1.670	1.794	1.899
1.40	1.539	1.545	1.557	1.598	1.736	1.853
1.45	1.503	1.542	1.585	1.609	1.689	1.760
1.50	1.491	1.549	1.607	1.646	1.739	1.794
1.55	1.495	1.563	1.630	1.687	1.790	1.851
1.60	1.471	1.551	1.625	1.701	1.812	1.880
1.65	1.445	1.561	1.635	1.675	1.793	1.867
1.70	1.388	1.523	1.614	1.626	1.749	1.829
1.75	1.296	1.440	1.541	1.579	1.706	1.789
1.80	1.184	1.331	1.476	1.559	1.676	1.761
1.85	1.128	1.286	1.443	1.535	1.654	1.773
1.90	1.070	1.233	1.396	1.496	1.627	1.793
1.95	1.022	1.168	1.333	1.450	1.630	1.800
2.00	0.960	1.102	1.264	1.416	1.615	1.785
2.05	0.894	1.036	1.220	1.382	1.578	1.747
2.10	0.859	0.997	1.176	1.334	1.526	1.692
2.15	0.819	0.952	1.125	1.279	1.466	1.629
2.20	0.778	0.906	1.073	1.222	1.404	1.565
2.25	0.737	0.861	1.022	1.167	1.345	1.504
2.30	0.699	0.819	0.974	1.117	1.291	1.448
2.35	0.663	0.779	0.931	1.070	1.241	1.395
2.40	0.629	0.742	0.891	1.027	1.194	1.345

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2.50	0.565	0.674	0.814	0.944	1.102	1.245
2.60	0.505	0.609	0.739	0.860	1.008	1.142
2.70	0.456	0.546	0.666	0.778	0.914	1.040
2.80	0.432	0.493	0.597	0.700	0.827	0.947
2.90	0.410	0.469	0.551	0.632	0.749	0.867
3.00	0.393	0.450	0.529	0.608	0.710	0.809
3.10	0.377	0.433	0.511	0.588	0.688	0.786
3.20	0.363	0.418	0.494	0.570	0.669	0.807
3.30	0.350	0.404	0.478	0.553	0.651	0.758
3.40	0.335	0.388	0.462	0.535	0.632	0.727
3.50	0.320	0.372	0.443	0.515	0.610	0.704
3.60	0.303	0.353	0.422	0.493	0.585	0.678
3.70	0.284	0.333	0.400	0.468	0.558	0.649
3.80	0.265	0.311	0.375	0.441	0.528	0.619
3.90	0.244	0.288	0.349	0.412	0.498	0.587
4.00	0.223	0.265	0.323	0.385	0.469	0.554
4.10	0.209	0.241	0.298	0.358	0.437	0.518
4.20	0.196	0.224	0.274	0.331	0.405	0.481
4.30	0.181	0.209	0.251	0.304	0.373	0.443
4.40	0.165	0.192	0.229	0.278	0.341	0.406
4.50	0.162	0.187	0.225	0.266	0.324	0.385
4.60	0.157	0.181	0.218	0.258	0.313	0.372
4.70	0.146	0.168	0.203	0.240	0.291	0.346
4.80	0.130	0.150	0.181	0.214	0.260	0.309
4.90	0.130	0.149	0.178	0.209	0.253	0.298
5.00	0.128	0.146	0.175	0.207	0.249	0.295
5.10	0.125	0.143	0.170	0.201	0.242	0.287
5.20	0.120	0.138	0.165	0.194	0.234	0.277
5.40	0.110	0.126	0.151	0.178	0.215	0.254
5.60	0.100	0.112	0.134	0.159	0.192	0.227
5.80	0.093	0.105	0.124	0.145	0.176	0.208
6.00	0.087	0.099	0.117	0.137	0.165	0.194
6.20	0.082	0.093	0.110	0.129	0.155	0.183
6.40	0.076	0.088	0.104	0.121	0.146	0.172
6.60	0.076	0.087	0.103	0.121	0.145	0.170
6.80	0.076	0.086	0.103	0.120	0.144	0.169
7.00	0.072	0.083	0.098	0.115	0.138	0.162
7.20	0.068	0.078	0.092	0.107	0.128	0.150
7.40	0.067	0.076	0.090	0.105	0.125	0.146
7.60	0.063	0.072	0.086	0.100	0.120	0.140
7.80	0.059	0.068	0.080	0.094	0.112	0.131
8.00	0.054	0.062	0.074	0.086	0.103	0.120
8.50	0.043	0.049	0.058	0.067	0.078	0.091
9.00	0.037	0.042	0.050	0.058	0.068	0.079
9.50	0.029	0.034	0.040	0.047	0.056	0.065
10.00	0.023	0.028	0.033	0.039	0.046	0.054

Table A-2. Normalized spectral ACCs for median profile, earthquake 2

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.005	1.003	1.003	1.003	1.002	1.002
0.04	1.008	1.006	1.006	1.005	1.005	1.004
0.05	1.016	1.011	1.010	1.009	1.008	1.007
0.06	1.028	1.018	1.016	1.014	1.012	1.010
0.07	1.017	1.018	1.020	1.017	1.015	1.014
0.08	1.013	1.002	1.013	1.016	1.017	1.017
0.09	1.130	1.072	1.048	1.038	1.032	1.027
0.10	1.192	1.112	1.080	1.061	1.049	1.042
0.11	1.222	1.120	1.088	1.070	1.057	1.049
0.12	1.315	1.102	1.080	1.066	1.054	1.049
0.13	1.425	1.195	1.027	1.027	1.027	1.031
0.14	1.482	1.161	1.032	0.988	0.999	1.014
0.15	1.612	1.208	1.007	0.989	1.003	1.017
0.16	1.730	1.320	1.029	0.986	0.992	1.009
0.17	1.968	1.453	1.185	1.073	1.005	1.015
0.18	2.029	1.607	1.347	1.208	1.127	1.024
0.19	2.219	1.855	1.576	1.431	1.324	1.218
0.20	2.508	2.106	1.798	1.631	1.509	1.385
0.21	2.595	2.199	1.896	1.730	1.607	1.483
0.22	2.694	2.297	2.000	1.834	1.707	1.579
0.23	2.794	2.404	2.107	1.942	1.816	1.685
0.24	2.872	2.485	2.197	2.037	1.909	1.778
0.25	2.927	2.553	2.278	2.122	1.996	1.866
0.26	2.969	2.609	2.343	2.194	2.072	1.943
0.27	3.004	2.652	2.403	2.262	2.142	2.016
0.28	3.024	2.688	2.453	2.318	2.204	2.081
0.29	3.013	2.694	2.480	2.360	2.249	2.132
0.30	2.961	2.669	2.484	2.376	2.275	2.164
0.31	2.994	2.626	2.471	2.379	2.285	2.182
0.32	2.983	2.596	2.464	2.384	2.298	2.200
0.33	3.083	2.592	2.479	2.405	2.324	2.231
0.34	3.321	2.781	2.512	2.443	2.363	2.273
0.35	3.247	2.739	2.549	2.483	2.404	2.317
0.36	2.881	2.658	2.579	2.518	2.442	2.358
0.37	2.792	2.775	2.597	2.544	2.472	2.392
0.38	2.770	2.660	2.608	2.561	2.492	2.417
0.39	2.735	2.645	2.608	2.568	2.506	2.437
0.40	2.687	2.619	2.599	2.569	2.510	2.447
0.41	2.627	2.580	2.620	2.607	2.504	2.447
0.42	2.545	2.525	2.622	2.637	2.546	2.454
0.43	2.442	2.446	2.570	2.606	2.526	2.440
0.44	2.310	2.341	2.532	2.721	2.732	2.656
0.45	2.149	2.302	2.656	2.899	2.930	2.864
0.46	2.145	2.191	2.592	2.870	2.924	2.876
0.47	2.074	2.085	2.331	2.713	2.832	2.827
0.48	2.184	2.071	2.251	2.535	2.666	2.674
0.49	2.299	2.053	2.250	2.523	2.667	2.756
0.50	2.323	2.095	2.223	2.490	2.668	2.747
0.51	2.302	2.090	2.209	2.460	2.623	2.696
0.52	2.274	2.076	2.189	2.425	2.581	2.649
0.53	2.337	2.065	2.174	2.404	2.555	2.623

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0.54	2.380	2.075	2.153	2.379	2.530	2.600
0.55	2.379	2.094	2.126	2.329	2.477	2.550
0.56	2.318	2.065	2.101	2.297	2.410	2.450
0.57	2.201	1.988	2.030	2.214	2.321	2.318
0.58	2.211	1.914	1.953	2.100	2.206	2.287
0.60	2.400	2.107	2.051	2.192	2.316	2.417
0.62	2.451	2.217	2.176	2.266	2.317	2.303
0.64	2.417	2.204	2.171	2.260	2.303	2.283
0.66	2.395	2.307	2.327	2.445	2.485	2.410
0.68	2.405	2.321	2.338	2.447	2.481	2.409
0.70	2.224	2.156	2.190	2.299	2.345	2.307
0.72	2.064	2.019	2.094	2.212	2.302	2.282
0.74	2.110	2.091	2.193	2.329	2.425	2.404
0.76	2.118	2.109	2.213	2.349	2.462	2.445
0.78	2.026	2.015	2.117	2.277	2.397	2.398
0.80	2.009	2.016	2.130	2.306	2.436	2.446
0.82	1.937	1.961	2.080	2.263	2.394	2.406
0.84	1.731	1.764	1.887	2.071	2.220	2.347
0.86	1.798	1.811	1.968	2.161	2.317	2.445
0.88	1.756	1.760	1.901	2.084	2.229	2.340
0.90	1.650	1.641	1.758	1.917	2.043	2.141
0.92	1.638	1.619	1.725	1.875	1.996	2.100
0.94	1.706	1.687	1.794	1.950	2.081	2.203
0.96	1.713	1.698	1.805	1.961	2.095	2.224
0.98	1.624	1.611	1.709	1.853	1.980	2.102
1.00	1.529	1.512	1.598	1.728	1.842	1.953
1.05	1.502	1.478	1.552	1.668	1.774	1.888
1.10	1.447	1.372	1.417	1.509	1.608	1.745
1.15	1.572	1.472	1.495	1.567	1.651	1.780
1.20	1.763	1.670	1.653	1.660	1.637	1.633
1.25	1.794	1.724	1.726	1.747	1.733	1.717
1.30	1.734	1.670	1.686	1.716	1.710	1.694
1.35	1.751	1.664	1.642	1.651	1.649	1.633
1.40	1.746	1.674	1.658	1.663	1.630	1.587
1.45	1.718	1.658	1.647	1.654	1.621	1.573
1.50	1.655	1.607	1.602	1.609	1.576	1.523
1.55	1.574	1.611	1.652	1.685	1.666	1.621
1.60	1.575	1.611	1.653	1.688	1.668	1.620
1.65	1.590	1.631	1.673	1.705	1.682	1.628
1.70	1.503	1.544	1.581	1.609	1.650	1.650
1.75	1.333	1.378	1.455	1.540	1.589	1.595
1.80	1.296	1.399	1.500	1.597	1.654	1.659
1.85	1.368	1.485	1.595	1.695	1.748	1.739
1.90	1.324	1.440	1.543	1.632	1.671	1.691
1.95	1.202	1.309	1.403	1.499	1.587	1.648
2.00	1.087	1.213	1.335	1.467	1.610	1.731
2.05	1.045	1.192	1.338	1.484	1.621	1.729
2.10	0.942	1.072	1.200	1.326	1.435	1.512
2.15	0.904	0.990	1.095	1.214	1.344	1.488
2.20	0.885	0.970	1.074	1.191	1.321	1.463
2.25	0.854	0.940	1.041	1.156	1.283	1.423
2.30	0.813	0.899	0.997	1.108	1.231	1.380
2.35	0.764	0.848	0.943	1.049	1.168	1.300
2.40	0.707	0.789	0.880	0.981	1.095	1.232
2.50	0.652	0.726	0.814	0.915	1.035	1.181
2.60	0.603	0.674	0.756	0.851	0.965	1.104

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2.70	0.542	0.609	0.685	0.773	0.879	1.011
2.80	0.477	0.537	0.607	0.688	0.785	0.907
2.90	0.440	0.487	0.545	0.614	0.699	0.803
3.00	0.412	0.456	0.510	0.575	0.654	0.753
3.10	0.403	0.433	0.474	0.534	0.608	0.703
3.20	0.373	0.405	0.445	0.494	0.563	0.653
3.30	0.327	0.359	0.403	0.455	0.522	0.611
3.40	0.323	0.354	0.390	0.434	0.490	0.574
3.50	0.303	0.335	0.373	0.417	0.473	0.546
3.60	0.274	0.297	0.331	0.373	0.429	0.503
3.70	0.266	0.284	0.309	0.347	0.399	0.468
3.80	0.273	0.293	0.319	0.353	0.395	0.448
3.90	0.280	0.302	0.331	0.367	0.413	0.471
4.00	0.272	0.296	0.326	0.363	0.411	0.472
4.10	0.245	0.268	0.297	0.333	0.379	0.438
4.20	0.209	0.230	0.255	0.287	0.329	0.382
4.30	0.203	0.218	0.240	0.267	0.301	0.345
4.40	0.192	0.206	0.226	0.252	0.286	0.330
4.50	0.177	0.188	0.204	0.228	0.259	0.300
4.60	0.170	0.180	0.195	0.214	0.238	0.277
4.70	0.185	0.197	0.213	0.233	0.257	0.287
4.80	0.190	0.204	0.222	0.245	0.271	0.305
4.90	0.184	0.199	0.218	0.241	0.270	0.305
5.00	0.170	0.185	0.204	0.226	0.255	0.291
5.10	0.153	0.168	0.186	0.207	0.234	0.269
5.20	0.140	0.154	0.171	0.191	0.216	0.249
5.40	0.125	0.137	0.153	0.172	0.196	0.227
5.60	0.112	0.119	0.133	0.150	0.173	0.202
5.80	0.118	0.123	0.134	0.147	0.164	0.185
6.00	0.121	0.127	0.138	0.152	0.170	0.193
6.20	0.109	0.112	0.121	0.135	0.152	0.173
6.40	0.108	0.113	0.119	0.127	0.138	0.151
6.60	0.093	0.098	0.104	0.112	0.123	0.139
6.80	0.082	0.087	0.094	0.103	0.113	0.128
7.00	0.080	0.085	0.092	0.101	0.113	0.127
7.20	0.079	0.083	0.089	0.097	0.107	0.119
7.40	0.076	0.080	0.086	0.094	0.104	0.116
7.60	0.072	0.075	0.080	0.087	0.095	0.104
7.80	0.068	0.072	0.077	0.083	0.091	0.100
8.00	0.063	0.067	0.071	0.078	0.085	0.094
8.50	0.049	0.052	0.056	0.061	0.068	0.076
9.00	0.050	0.053	0.057	0.063	0.071	0.080
9.50	0.051	0.054	0.058	0.063	0.069	0.078
10.00	0.053	0.046	0.049	0.054	0.060	0.068



Table A-3. Normalized spectral ACCs for median profile, earthquake 3

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.006	1.002	1.001	1.002	1.002	1.002
0.04	1.012	1.004	1.003	1.003	1.003	1.004
0.05	1.019	1.009	1.004	1.005	1.006	1.006
0.06	1.031	1.015	1.006	1.008	1.008	1.008
0.07	1.044	1.021	1.009	1.011	1.011	1.011
0.08	1.058	1.021	1.006	1.012	1.014	1.014
0.09	1.091	1.049	1.020	1.021	1.021	1.020
0.10	1.226	1.121	1.015	1.013	1.014	1.015
0.11	1.224	1.193	1.012	1.017	1.019	1.020
0.12	1.354	1.276	1.046	0.994	0.998	1.004
0.13	1.400	1.346	1.121	1.051	1.034	1.032
0.14	1.539	1.356	1.091	1.063	1.055	1.055
0.15	1.594	1.425	1.064	1.018	1.018	1.031
0.16	1.816	1.430	1.178	1.088	1.063	1.053
0.17	1.903	1.620	1.352	1.227	1.181	1.160
0.18	1.882	1.831	1.527	1.372	1.308	1.280
0.19	2.038	1.933	1.513	1.383	1.326	1.311
0.20	2.091	1.985	1.550	1.395	1.345	1.366
0.21	2.184	2.058	1.617	1.466	1.415	1.434
0.22	2.279	2.066	1.649	1.504	1.452	1.469
0.23	2.388	2.113	1.673	1.565	1.531	1.513
0.24	2.483	2.207	1.823	1.700	1.655	1.633
0.25	2.562	2.349	1.862	1.741	1.691	1.669
0.26	2.681	2.241	1.833	1.716	1.661	1.641
0.27	2.808	2.425	1.724	1.524	1.477	1.517
0.28	3.249	2.616	1.808	1.634	1.546	1.542
0.29	3.244	2.674	1.893	1.705	1.608	1.595
0.30	3.324	2.698	1.877	1.694	1.608	1.576
0.31	3.416	2.796	2.031	1.808	1.714	1.694
0.32	3.238	2.831	2.066	1.847	1.757	1.745
0.33	3.196	2.851	2.056	1.809	1.696	1.729
0.34	3.341	3.116	2.280	2.025	1.941	1.976
0.35	3.506	3.170	2.401	2.184	2.103	2.144
0.36	3.189	3.235	2.482	2.282	2.205	2.250
0.37	3.118	3.213	2.562	2.397	2.322	2.397
0.38	3.092	3.387	2.726	2.536	2.482	2.574
0.39	3.080	3.426	2.642	2.481	2.442	2.542
0.40	2.865	3.250	2.795	2.562	2.487	2.580
0.41	2.619	3.107	2.804	2.707	2.664	2.711
0.42	2.499	2.976	2.975	2.896	2.864	2.927
0.43	2.440	2.930	3.024	2.964	2.942	3.016
0.44	2.312	2.682	2.790	2.742	2.725	2.793
0.45	2.047	2.371	2.355	2.332	2.373	2.477
0.46	2.107	2.254	2.374	2.431	2.433	2.482
0.47	2.062	2.260	2.373	2.426	2.500	2.601
0.48	2.017	2.185	2.291	2.430	2.524	2.638
0.49	2.073	2.187	2.289	2.347	2.433	2.558
0.50	2.059	2.210	2.328	2.410	2.398	2.364
0.51	2.117	2.142	2.274	2.376	2.379	2.353
0.52	2.113	1.990	2.086	2.193	2.205	2.197
0.53	2.219	2.116	1.996	1.997	2.030	2.053

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0.54	2.294	2.235	2.165	2.186	2.157	2.113
0.55	2.380	2.276	2.216	2.251	2.230	2.190
0.56	2.522	2.416	2.173	2.217	2.200	2.165
0.57	2.555	2.467	2.215	2.168	2.136	2.085
0.58	2.519	2.441	2.211	2.167	2.139	2.100
0.60	2.359	2.293	2.096	2.062	2.042	2.024
0.62	2.308	2.217	1.962	1.962	1.962	1.901
0.64	2.476	2.426	2.214	2.172	2.061	1.944
0.66	2.417	2.432	2.294	2.273	2.196	2.026
0.68	2.207	2.254	2.132	2.145	2.113	1.991
0.70	2.079	2.296	2.251	2.214	2.079	1.894
0.72	2.223	2.446	2.380	2.345	2.207	2.010
0.74	2.164	2.362	2.291	2.269	2.147	1.959
0.76	2.097	2.291	2.219	2.204	2.090	1.985
0.78	1.987	2.176	2.102	2.161	2.213	2.130
0.80	1.867	2.090	2.114	2.245	2.297	2.211
0.82	1.837	2.078	2.113	2.250	2.307	2.227
0.84	1.762	2.018	2.067	2.211	2.278	2.207
0.86	1.652	1.919	1.983	2.134	2.210	2.150
0.88	1.547	1.768	1.845	2.000	2.083	2.038
0.90	1.481	1.588	1.672	1.826	1.916	1.891
0.92	1.406	1.472	1.514	1.665	1.763	1.760
0.94	1.481	1.532	1.473	1.560	1.723	1.876
0.96	1.583	1.650	1.591	1.683	1.841	1.986
0.98	1.649	1.728	1.666	1.762	1.916	2.056
1.00	1.681	1.771	1.703	1.798	1.949	2.086
1.05	1.585	1.672	1.596	1.681	1.818	1.948
1.10	1.683	1.706	1.611	1.647	1.709	1.791
1.15	1.705	1.790	1.703	1.752	1.826	1.915
1.20	1.650	1.780	1.704	1.764	1.846	1.936
1.25	1.596	1.727	1.660	1.725	1.809	1.898
1.30	1.558	1.689	1.624	1.692	1.778	1.867
1.35	1.621	1.633	1.573	1.643	1.731	1.822
1.40	1.624	1.596	1.512	1.584	1.673	1.763
1.45	1.669	1.752	1.585	1.568	1.655	1.744
1.50	1.530	1.619	1.515	1.583	1.671	1.762
1.55	1.439	1.572	1.502	1.569	1.660	1.756
1.60	1.460	1.600	1.478	1.503	1.598	1.700
1.65	1.514	1.664	1.545	1.514	1.523	1.628
1.70	1.472	1.630	1.525	1.505	1.501	1.596
1.75	1.436	1.607	1.513	1.521	1.540	1.621
1.80	1.409	1.590	1.514	1.543	1.566	1.673
1.85	1.316	1.486	1.416	1.499	1.603	1.710
1.90	1.260	1.441	1.409	1.497	1.598	1.705
1.95	1.221	1.399	1.368	1.452	1.570	1.676
2.00	1.151	1.319	1.293	1.423	1.554	1.666
2.05	1.094	1.297	1.301	1.401	1.515	1.621
2.10	1.027	1.221	1.242	1.373	1.490	1.570
2.15	0.929	1.108	1.123	1.232	1.364	1.529
2.20	0.855	1.010	1.014	1.144	1.339	1.548
2.25	0.805	0.956	0.966	1.118	1.340	1.546
2.30	0.757	0.905	0.922	1.102	1.315	1.516
2.35	0.710	0.856	0.892	1.064	1.266	1.464
2.40	0.664	0.808	0.847	1.008	1.200	1.399
2.50	0.582	0.712	0.739	0.868	1.050	1.245
2.60	0.608	0.727	0.753	0.881	1.063	1.283

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2.70	0.540	0.657	0.691	0.820	1.002	1.223
2.80	0.485	0.586	0.613	0.727	0.892	1.096
2.90	0.420	0.496	0.517	0.620	0.763	0.931
3.00	0.409	0.474	0.494	0.590	0.727	0.885
3.10	0.398	0.457	0.467	0.556	0.686	0.840
3.20	0.377	0.433	0.439	0.517	0.638	0.785
3.30	0.349	0.401	0.409	0.476	0.584	0.719
3.40	0.356	0.413	0.422	0.492	0.592	0.714
3.50	0.352	0.409	0.418	0.488	0.590	0.714
3.60	0.308	0.360	0.370	0.433	0.525	0.640
3.70	0.265	0.314	0.323	0.373	0.442	0.540
3.80	0.245	0.291	0.299	0.346	0.412	0.493
3.90	0.238	0.284	0.292	0.339	0.406	0.488
4.00	0.223	0.266	0.276	0.323	0.390	0.475
4.10	0.215	0.245	0.243	0.281	0.345	0.426
4.20	0.187	0.215	0.218	0.259	0.316	0.381
4.30	0.176	0.208	0.216	0.256	0.312	0.378
4.40	0.181	0.203	0.211	0.250	0.305	0.371
4.50	0.184	0.203	0.203	0.241	0.294	0.358
4.60	0.185	0.212	0.210	0.234	0.279	0.343
4.70	0.180	0.207	0.207	0.231	0.268	0.328
4.80	0.175	0.198	0.195	0.212	0.250	0.310
4.90	0.170	0.193	0.190	0.208	0.233	0.289
5.00	0.164	0.186	0.184	0.202	0.227	0.266
5.10	0.156	0.178	0.176	0.194	0.218	0.248
5.20	0.150	0.173	0.173	0.194	0.224	0.264
5.40	0.146	0.170	0.171	0.194	0.227	0.270
5.60	0.114	0.131	0.127	0.145	0.173	0.207
5.80	0.110	0.124	0.122	0.135	0.153	0.174
6.00	0.105	0.119	0.118	0.131	0.150	0.173
6.20	0.099	0.113	0.113	0.127	0.146	0.171
6.40	0.094	0.108	0.108	0.123	0.145	0.171
6.60	0.092	0.104	0.105	0.119	0.141	0.168
6.80	0.088	0.099	0.097	0.109	0.130	0.155
7.00	0.084	0.096	0.096	0.107	0.123	0.143
7.20	0.081	0.094	0.094	0.106	0.123	0.145
7.40	0.075	0.082	0.079	0.090	0.106	0.126
7.60	0.071	0.079	0.076	0.082	0.097	0.116
7.80	0.064	0.072	0.069	0.075	0.087	0.105
8.00	0.055	0.061	0.059	0.067	0.080	0.096
8.50	0.055	0.061	0.060	0.066	0.075	0.085
9.00	0.050	0.057	0.056	0.062	0.071	0.082
9.50	0.046	0.051	0.050	0.055	0.063	0.073
10.00	0.041	0.047	0.046	0.051	0.058	0.068

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Table A-4. Normalized spectral ACCs for lower bound profile, earthquake 1

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.006	1.006	1.003	1.002	1.001	1.001
0.04	1.011	1.011	1.006	1.004	1.003	1.003
0.05	1.018	1.018	1.010	1.006	1.004	1.004
0.06	1.027	1.026	1.015	1.009	1.007	1.006
0.07	1.039	1.037	1.021	1.013	1.009	1.009
0.08	1.073	1.059	1.028	1.017	1.012	1.011
0.09	1.084	1.073	1.035	1.027	1.015	1.015
0.10	1.102	1.092	1.065	1.034	1.017	1.018
0.11	1.168	1.141	1.070	1.053	1.018	1.020
0.12	1.222	1.185	1.086	1.068	1.022	1.023
0.13	1.178	1.160	1.104	1.086	1.035	1.019
0.14	1.285	1.245	1.165	1.126	1.050	1.029
0.15	1.366	1.377	1.310	1.231	1.078	1.047
0.16	1.386	1.428	1.366	1.283	1.126	1.064
0.17	1.510	1.446	1.354	1.290	1.160	1.091
0.18	1.550	1.499	1.333	1.312	1.207	1.052
0.19	1.496	1.454	1.388	1.318	1.165	1.103
0.20	1.816	1.848	1.756	1.619	1.384	1.133
0.21	2.083	2.032	1.886	1.739	1.498	1.204
0.22	2.285	2.231	1.977	1.734	1.466	1.323
0.23	2.262	2.227	1.986	1.747	1.611	1.439
0.24	2.320	2.295	2.121	1.983	1.818	1.605
0.25	2.367	2.399	2.248	2.088	1.861	1.623
0.26	2.432	2.513	2.397	2.275	2.025	1.685
0.27	2.450	2.511	2.419	2.338	2.111	1.781
0.28	2.519	2.593	2.486	2.355	2.136	1.842
0.29	2.606	2.691	2.591	2.467	2.245	1.943
0.30	2.618	2.709	2.627	2.515	2.303	2.007
0.31	2.724	2.914	2.797	2.599	2.386	2.086
0.32	2.729	2.942	2.845	2.692	2.479	2.177
0.33	2.738	2.879	2.833	2.741	2.538	2.241
0.34	2.721	2.873	2.841	2.758	2.569	2.283
0.35	2.737	2.898	2.871	2.795	2.616	2.335
0.36	2.844	3.005	2.980	2.905	2.721	2.429
0.37	2.956	3.118	3.103	3.027	2.837	2.532
0.38	3.068	3.203	3.147	3.079	2.892	2.590
0.39	3.349	3.644	3.546	3.217	2.941	2.644
0.40	3.715	4.052	3.967	3.612	3.094	2.681
0.41	3.917	4.298	4.242	3.894	3.334	2.886
0.42	3.869	4.287	4.278	3.972	3.414	2.981
0.43	3.687	4.134	4.173	3.928	3.398	3.006
0.44	3.515	3.989	4.069	3.880	3.440	3.061
0.45	3.367	3.870	3.989	3.850	3.547	3.169
0.46	3.198	3.728	3.876	3.800	3.667	3.287
0.47	2.974	3.519	3.732	3.893	3.761	3.382
0.48	2.900	3.469	3.741	3.909	3.779	3.412
0.49	2.807	3.351	3.614	3.776	3.659	3.326
0.50	2.619	3.114	3.356	3.513	3.425	3.148
0.51	2.419	2.860	3.090	3.255	3.212	2.998
0.52	2.295	2.705	2.942	3.134	3.144	2.975
0.53	2.245	2.651	2.910	3.140	3.192	3.049

0.54	2.222	2.631	2.913	3.177	3.263	3.137
0.55	2.202	2.612	2.915	3.213	3.331	3.226
0.56	2.191	2.606	2.934	3.269	3.425	3.340
0.57	2.216	2.594	2.952	3.330	3.525	3.455
0.58	2.311	2.524	2.905	3.319	3.544	3.570
0.60	2.240	2.463	2.598	2.898	3.285	3.504
0.62	2.059	2.180	2.294	2.565	2.961	3.173
0.64	2.156	2.266	2.372	2.619	2.896	3.120
0.66	2.161	2.235	2.338	2.590	2.927	3.165
0.68	2.172	2.242	2.367	2.530	2.805	3.021
0.70	2.177	2.277	2.404	2.543	2.706	2.894
0.72	2.236	2.300	2.431	2.572	2.692	2.868
0.74	2.135	2.305	2.439	2.582	2.632	2.685
0.76	2.026	2.290	2.427	2.572	2.624	2.588
0.78	2.018	2.259	2.400	2.546	2.599	2.565
0.80	2.001	2.258	2.364	2.511	2.564	2.531
0.82	1.979	2.261	2.330	2.471	2.524	2.492
0.84	1.953	2.259	2.348	2.428	2.481	2.450
0.86	1.923	2.253	2.363	2.410	2.436	2.405
0.88	1.890	2.240	2.371	2.432	2.388	2.357
0.90	1.854	2.222	2.372	2.449	2.383	2.309
0.92	1.816	2.200	2.369	2.462	2.402	2.270
0.94	1.778	2.176	2.362	2.471	2.420	2.280
0.96	1.741	2.150	2.353	2.478	2.436	2.292
0.98	1.705	2.124	2.358	2.513	2.459	2.304
1.00	1.668	2.096	2.366	2.542	2.508	2.329
1.05	1.565	2.006	2.330	2.553	2.573	2.409
1.10	1.435	1.874	2.210	2.581	2.709	2.588
1.15	1.281	1.703	2.100	2.505	2.678	2.600
1.20	1.227	1.566	1.891	2.289	2.549	2.548
1.25	1.215	1.497	1.734	2.081	2.336	2.480
1.30	1.417	1.779	2.064	2.394	2.674	2.783
1.35	1.443	1.745	1.979	2.302	2.549	2.629
1.40	1.390	1.698	1.923	2.157	2.312	2.326
1.45	1.364	1.596	1.816	2.041	2.183	2.186
1.50	1.410	1.625	1.788	2.010	2.141	2.130
1.55	1.452	1.682	1.822	2.046	2.174	2.152
1.60	1.468	1.710	1.859	2.090	2.219	2.190
1.65	1.446	1.695	1.870	2.107	2.239	2.207
1.70	1.403	1.656	1.861	2.101	2.235	2.202
1.75	1.361	1.616	1.852	2.094	2.228	2.196
1.80	1.332	1.604	1.858	2.102	2.237	2.205
1.85	1.311	1.622	1.879	2.125	2.262	2.231
1.90	1.287	1.641	1.900	2.149	2.289	2.260
1.95	1.272	1.646	1.907	2.157	2.300	2.275
2.00	1.258	1.630	1.889	2.140	2.285	2.264
2.05	1.227	1.591	1.849	2.099	2.244	2.228
2.10	1.182	1.538	1.793	2.040	2.185	2.171
2.15	1.131	1.478	1.731	1.975	2.117	2.105
2.20	1.080	1.419	1.669	1.909	2.049	2.037
2.25	1.032	1.364	1.611	1.847	1.984	1.973
2.30	0.990	1.315	1.557	1.788	1.923	1.912
2.35	0.951	1.269	1.506	1.733	1.865	1.856
2.40	0.915	1.225	1.457	1.680	1.810	1.802
2.50	0.845	1.137	1.357	1.571	1.699	1.696
2.60	0.773	1.044	1.252	1.459	1.588	1.593

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2.70	0.701	0.951	1.149	1.354	1.491	1.508
2.80	0.632	0.864	1.059	1.317	1.507	1.536
2.90	0.569	0.789	0.996	1.300	1.543	1.614
3.00	0.540	0.734	0.978	1.302	1.557	1.649
3.10	0.522	0.717	0.980	1.317	1.617	1.763
3.20	0.507	0.741	1.008	1.346	1.645	1.792
3.30	0.492	0.696	0.949	1.265	1.546	1.688
3.40	0.476	0.659	0.829	1.106	1.357	1.487
3.50	0.459	0.637	0.798	1.024	1.230	1.331
3.60	0.439	0.613	0.772	0.992	1.198	1.303
3.70	0.417	0.587	0.745	0.952	1.157	1.264
3.80	0.394	0.560	0.716	0.905	1.106	1.216
3.90	0.369	0.532	0.684	0.854	1.052	1.163
4.00	0.346	0.503	0.647	0.809	0.996	1.105
4.10	0.324	0.471	0.607	0.760	0.936	1.040
4.20	0.300	0.438	0.565	0.708	0.871	0.970
4.30	0.276	0.404	0.523	0.656	0.804	0.896
4.40	0.253	0.371	0.480	0.604	0.736	0.822
4.50	0.237	0.346	0.456	0.594	0.719	0.795
4.60	0.229	0.334	0.440	0.573	0.693	0.767
4.70	0.213	0.310	0.408	0.529	0.638	0.705
4.80	0.190	0.277	0.364	0.472	0.569	0.626
4.90	0.185	0.267	0.350	0.452	0.540	0.586
5.00	0.183	0.264	0.346	0.446	0.535	0.583
5.10	0.177	0.257	0.336	0.434	0.522	0.570
5.20	0.171	0.247	0.324	0.419	0.504	0.551
5.40	0.158	0.227	0.296	0.383	0.461	0.506
5.60	0.141	0.203	0.265	0.342	0.413	0.454
5.80	0.128	0.186	0.242	0.309	0.363	0.401
6.00	0.120	0.173	0.226	0.290	0.342	0.366
6.20	0.113	0.163	0.212	0.272	0.323	0.347
6.40	0.107	0.153	0.199	0.256	0.304	0.327
6.60	0.106	0.151	0.195	0.247	0.291	0.314
6.80	0.106	0.150	0.194	0.246	0.290	0.313
7.00	0.101	0.144	0.185	0.235	0.277	0.300
7.20	0.094	0.133	0.171	0.217	0.256	0.277
7.40	0.092	0.130	0.166	0.209	0.243	0.260
7.60	0.088	0.124	0.159	0.200	0.234	0.250
7.80	0.082	0.116	0.149	0.188	0.220	0.236
8.00	0.076	0.107	0.138	0.174	0.203	0.218
8.50	0.058	0.081	0.104	0.132	0.155	0.166
9.00	0.050	0.070	0.088	0.110	0.130	0.141
9.50	0.041	0.058	0.073	0.090	0.106	0.116
10.00	0.034	0.048	0.061	0.077	0.088	0.092

Table A-5. Normalized spectral ACCs for lower bound profile, earthquake 2

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.003	1.003	1.002	1.002	1.002	1.001
0.04	1.006	1.005	1.004	1.004	1.003	1.003
0.05	1.010	1.008	1.007	1.006	1.005	1.004
0.06	1.017	1.013	1.011	1.009	1.007	1.006
0.07	1.018	1.017	1.015	1.013	1.009	1.009
0.08	1.010	1.017	1.017	1.017	1.012	1.012
0.09	1.052	1.036	1.028	1.024	1.015	1.015
0.10	1.090	1.060	1.043	1.033	1.022	1.020
0.11	1.101	1.068	1.051	1.039	1.027	1.025
0.12	1.096	1.066	1.050	1.039	1.034	1.032
0.13	1.050	1.038	1.031	1.025	1.038	1.037
0.14	1.016	0.994	1.009	1.019	1.024	1.029
0.15	1.005	0.991	1.009	1.022	1.032	1.036
0.16	1.056	0.991	1.002	1.021	1.013	1.024
0.17	1.232	1.060	0.998	1.056	1.101	1.078
0.18	1.397	1.186	1.048	1.091	1.137	1.113
0.19	1.601	1.415	1.255	1.179	1.181	1.149
0.20	1.823	1.616	1.433	1.334	1.249	1.158
0.21	1.924	1.722	1.540	1.435	1.340	1.235
0.22	2.038	1.837	1.652	1.537	1.430	1.311
0.23	2.156	1.955	1.766	1.642	1.523	1.392
0.24	2.256	2.060	1.872	1.741	1.612	1.468
0.25	2.344	2.153	1.966	1.832	1.694	1.542
0.26	2.417	2.236	2.055	1.917	1.772	1.609
0.27	2.486	2.313	2.134	1.995	1.845	1.675
0.28	2.546	2.381	2.210	2.070	1.912	1.736
0.29	2.585	2.435	2.269	2.128	1.969	1.787
0.30	2.601	2.462	2.306	2.169	2.006	1.822
0.31	2.597	2.473	2.326	2.193	2.031	1.845
0.32	2.598	2.482	2.348	2.218	2.055	1.869
0.33	2.616	2.507	2.382	2.255	2.088	1.900
0.34	2.650	2.547	2.428	2.303	2.134	1.941
0.35	2.688	2.593	2.481	2.356	2.184	1.985
0.36	2.723	2.634	2.532	2.407	2.230	2.028
0.37	2.749	2.670	2.574	2.452	2.272	2.064
0.38	2.765	2.696	2.612	2.489	2.306	2.097
0.39	2.777	2.719	2.641	2.520	2.335	2.122
0.40	2.854	2.731	2.664	2.545	2.356	2.140
0.41	2.969	2.796	2.676	2.558	2.368	2.150
0.42	3.019	2.863	2.736	2.558	2.365	2.147
0.43	2.991	2.855	2.737	2.566	2.344	2.127
0.44	3.208	3.083	2.943	2.734	2.458	2.275
0.45	3.452	3.354	3.216	3.069	2.843	2.632
0.46	3.448	3.390	3.393	3.303	3.080	2.858
0.47	3.225	3.298	3.335	3.278	3.136	2.997
0.48	2.959	3.114	3.220	3.361	3.355	3.208
0.49	2.954	3.164	3.278	3.421	3.420	3.276
0.50	2.769	3.064	3.224	3.369	3.379	3.246
0.51	2.700	2.976	3.129	3.279	3.303	3.184
0.52	2.635	2.900	3.050	3.209	3.247	3.139
0.53	2.591	2.854	3.008	3.176	3.226	3.126

0.54	2.552	2.818	2.979	3.155	3.211	3.115
0.55	2.488	2.760	2.923	3.100	3.159	3.065
0.56	2.377	2.648	2.809	2.981	3.036	2.986
0.57	2.255	2.483	2.634	2.789	2.915	2.951
0.58	2.125	2.317	2.501	2.726	2.841	2.812
0.60	2.159	2.474	2.715	3.002	3.164	3.152
0.62	2.152	2.248	2.514	2.822	2.999	2.998
0.64	2.132	2.210	2.315	2.547	2.738	2.797
0.66	2.265	2.254	2.294	2.475	2.689	2.770
0.68	2.234	2.198	2.250	2.398	2.523	2.550
0.70	2.198	2.202	2.142	2.208	2.314	2.356
0.72	2.145	2.143	2.085	2.149	2.179	2.128
0.74	2.254	2.230	2.146	2.202	2.230	2.180
0.76	2.273	2.247	2.126	2.186	2.226	2.188
0.78	2.200	2.208	2.189	2.273	2.243	2.111
0.80	2.233	2.255	2.257	2.357	2.339	2.215
0.82	2.198	2.219	2.300	2.408	2.398	2.276
0.84	1.996	2.292	2.410	2.516	2.506	2.382
0.86	2.046	2.371	2.470	2.582	2.583	2.466
0.88	1.962	2.248	2.344	2.478	2.506	2.410
0.90	1.786	2.042	2.170	2.334	2.384	2.303
0.92	1.728	2.006	2.182	2.362	2.408	2.319
0.94	1.789	2.112	2.308	2.478	2.509	2.409
0.96	1.795	2.133	2.317	2.469	2.497	2.402
0.98	1.691	2.009	2.169	2.313	2.358	2.282
1.00	1.567	1.889	2.132	2.247	2.248	2.176
1.05	1.487	1.787	2.004	2.235	2.265	2.202
1.10	1.322	1.662	1.914	2.136	2.270	2.188
1.15	1.310	1.678	1.969	2.233	2.353	2.284
1.20	1.279	1.485	1.779	2.053	2.177	2.252
1.25	1.364	1.479	1.623	1.894	2.170	2.286
1.30	1.350	1.456	1.575	1.818	2.093	2.221
1.35	1.303	1.399	1.493	1.719	1.976	2.100
1.40	1.283	1.349	1.451	1.686	1.930	2.050
1.45	1.274	1.328	1.407	1.622	1.851	1.967
1.50	1.234	1.309	1.434	1.592	1.800	1.947
1.55	1.321	1.366	1.439	1.622	1.788	1.884
1.60	1.308	1.351	1.391	1.534	1.677	1.737
1.65	1.305	1.347	1.369	1.504	1.650	1.718
1.70	1.326	1.406	1.410	1.497	1.605	1.650
1.75	1.279	1.358	1.350	1.422	1.520	1.562
1.80	1.330	1.405	1.377	1.434	1.523	1.561
1.85	1.399	1.458	1.443	1.467	1.511	1.547
1.90	1.331	1.457	1.487	1.544	1.582	1.573
1.95	1.269	1.476	1.544	1.598	1.630	1.627
2.00	1.319	1.548	1.605	1.722	1.826	1.842
2.05	1.326	1.531	1.602	1.740	1.861	1.891
2.10	1.165	1.367	1.531	1.656	1.708	1.752
2.15	1.088	1.360	1.527	1.652	1.736	1.765
2.20	1.069	1.338	1.506	1.653	1.773	1.806
2.25	1.039	1.334	1.566	1.736	1.835	1.843
2.30	0.999	1.296	1.511	1.675	1.808	1.848
2.35	0.948	1.193	1.398	1.636	1.808	1.851
2.40	0.889	1.152	1.385	1.623	1.797	1.842
2.50	0.844	1.106	1.336	1.572	1.747	1.796
2.60	0.786	1.038	1.261	1.490	1.663	1.715



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2.70	0.715	0.953	1.166	1.416	1.632	1.710
2.80	0.638	0.858	1.058	1.265	1.442	1.554
2.90	0.565	0.758	0.980	1.272	1.533	1.646
3.00	0.527	0.705	0.926	1.201	1.453	1.575
3.10	0.489	0.657	0.860	1.141	1.413	1.570
3.20	0.452	0.613	0.792	1.022	1.263	1.398
3.30	0.421	0.579	0.750	0.949	1.126	1.215
3.40	0.397	0.545	0.708	0.897	1.074	1.201
3.50	0.381	0.512	0.665	0.843	1.042	1.173
3.60	0.349	0.479	0.622	0.789	0.938	1.062
3.70	0.325	0.446	0.579	0.735	0.875	0.982
3.80	0.315	0.413	0.548	0.716	0.879	0.979
3.90	0.331	0.435	0.549	0.707	0.885	0.999
4.00	0.330	0.438	0.559	0.711	0.860	0.972
4.10	0.305	0.410	0.526	0.674	0.819	0.908
4.20	0.265	0.359	0.463	0.595	0.726	0.805
4.30	0.240	0.319	0.405	0.517	0.638	0.724
4.40	0.228	0.306	0.393	0.504	0.622	0.704
4.50	0.207	0.280	0.364	0.469	0.579	0.656
4.60	0.191	0.259	0.335	0.430	0.529	0.600
4.70	0.205	0.259	0.326	0.426	0.528	0.592
4.80	0.216	0.278	0.339	0.422	0.529	0.597
4.90	0.215	0.280	0.347	0.428	0.507	0.567
5.00	0.203	0.268	0.335	0.417	0.497	0.544
5.10	0.188	0.249	0.314	0.393	0.470	0.515
5.20	0.173	0.231	0.294	0.369	0.442	0.485
5.40	0.157	0.212	0.271	0.344	0.414	0.456
5.60	0.139	0.190	0.247	0.319	0.389	0.433
5.80	0.132	0.169	0.210	0.264	0.319	0.360
6.00	0.136	0.177	0.221	0.279	0.338	0.374
6.20	0.121	0.160	0.202	0.257	0.313	0.349
6.40	0.109	0.137	0.170	0.213	0.256	0.282
6.60	0.098	0.128	0.159	0.199	0.241	0.267
6.80	0.091	0.118	0.147	0.185	0.224	0.248
7.00	0.090	0.116	0.149	0.193	0.236	0.262
7.20	0.085	0.108	0.134	0.175	0.216	0.242
7.40	0.083	0.106	0.130	0.159	0.192	0.212
7.60	0.075	0.092	0.113	0.144	0.176	0.196
7.80	0.072	0.089	0.107	0.134	0.163	0.183
8.00	0.067	0.084	0.101	0.126	0.153	0.171
8.50	0.055	0.070	0.086	0.108	0.130	0.143
9.00	0.056	0.073	0.092	0.114	0.135	0.147
9.50	0.055	0.070	0.086	0.105	0.124	0.134
10.00	0.048	0.062	0.076	0.094	0.111	0.121

Table A-6. Normalized spectral ACCs for lower bound profile, earthquake 3

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.003	1.002	1.002	1.002	1.002	1.002
0.04	1.005	1.004	1.004	1.004	1.004	1.003
0.05	1.008	1.007	1.006	1.006	1.006	1.006
0.06	1.012	1.010	1.009	1.008	1.008	1.008
0.07	1.017	1.014	1.012	1.012	1.011	1.011
0.08	1.014	1.016	1.016	1.015	1.015	1.015
0.09	1.039	1.029	1.022	1.020	1.018	1.018
0.10	1.043	1.022	1.014	1.017	1.019	1.021
0.11	1.041	1.028	1.022	1.023	1.024	1.026
0.12	1.045	1.005	1.001	1.014	1.022	1.026
0.13	1.121	1.035	1.037	1.036	1.036	1.035
0.14	1.098	1.057	1.061	1.058	1.055	1.052
0.15	1.175	1.055	1.022	1.034	1.041	1.046
0.16	1.229	1.091	1.076	1.065	1.059	1.054
0.17	1.332	1.246	1.198	1.156	1.128	1.102
0.18	1.525	1.413	1.333	1.263	1.214	1.168
0.19	1.648	1.455	1.357	1.286	1.235	1.191
0.20	1.727	1.530	1.419	1.292	1.183	1.159
0.21	1.833	1.623	1.504	1.367	1.243	1.162
0.22	1.881	1.674	1.549	1.413	1.325	1.272
0.23	2.031	1.814	1.678	1.526	1.445	1.366
0.24	2.056	1.917	1.773	1.648	1.544	1.441
0.25	2.130	1.982	1.823	1.687	1.570	1.456
0.26	2.121	1.975	1.805	1.663	1.541	1.424
0.27	1.972	1.767	1.688	1.622	1.619	1.500
0.28	2.050	1.914	1.855	1.873	1.859	1.720
0.29	2.089	1.952	1.896	1.912	1.906	1.780
0.30	2.027	1.904	1.849	1.872	1.879	1.775
0.31	2.070	1.953	1.925	1.806	1.754	1.683
0.32	2.114	2.029	2.029	1.915	1.783	1.549
0.33	2.161	2.006	2.013	1.917	1.795	1.593
0.34	2.407	2.122	2.083	1.982	1.863	1.659
0.35	2.608	2.324	2.286	2.103	1.957	1.711
0.36	2.727	2.448	2.419	2.240	2.092	1.836
0.37	2.798	2.456	2.406	2.257	2.117	2.006
0.38	2.984	2.665	2.607	2.426	2.263	2.033
0.39	2.919	2.655	2.614	2.432	2.265	2.017
0.40	3.113	2.768	2.675	2.479	2.348	2.135
0.41	3.199	2.970	2.861	2.560	2.364	2.137
0.42	3.421	3.208	3.101	2.776	2.518	2.276
0.43	3.495	3.300	3.192	2.858	2.584	2.337
0.44	3.216	3.047	2.938	2.654	2.463	2.291
0.45	2.824	2.856	2.891	2.756	2.630	2.465
0.46	2.883	2.997	3.063	2.942	2.745	2.495
0.47	3.016	3.158	3.245	3.126	2.923	2.573
0.48	3.047	3.223	3.328	3.220	3.023	2.670
0.49	2.940	3.148	3.275	3.186	3.026	2.790
0.50	2.729	2.990	3.158	3.168	3.071	2.874
0.51	2.687	2.916	3.089	3.125	3.090	2.917
0.52	2.513	2.778	2.954	2.984	2.912	2.750
0.53	2.332	2.596	2.775	2.814	2.784	2.758

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0.54	2.225	2.413	2.667	2.868	2.967	2.993
0.55	2.312	2.510	2.761	2.954	3.044	3.056
0.56	2.284	2.478	2.717	2.900	2.979	2.985
0.57	2.185	2.369	2.592	2.762	2.870	2.973
0.58	2.080	2.235	2.473	2.706	2.862	2.977
0.60	2.005	2.141	2.363	2.593	2.744	2.850
0.62	1.929	2.070	2.194	2.328	2.433	2.555
0.64	2.079	2.087	2.209	2.327	2.400	2.515
0.66	2.213	2.129	2.116	2.226	2.287	2.382
0.68	2.116	2.104	1.973	1.997	2.044	2.113
0.70	2.137	1.990	1.923	1.945	2.040	2.160
0.72	2.240	2.109	2.057	2.046	2.012	2.136
0.74	2.151	2.041	2.001	2.011	2.000	2.000
0.76	2.072	2.079	1.952	1.945	1.949	1.963
0.78	2.184	2.226	2.094	1.929	1.885	1.874
0.80	2.262	2.305	2.178	2.018	1.970	1.934
0.82	2.262	2.315	2.198	2.064	2.014	1.974
0.84	2.221	2.286	2.180	2.088	2.038	1.994
0.86	2.142	2.216	2.123	2.088	2.040	1.993
0.88	2.004	2.088	2.012	2.036	1.998	1.952
0.90	1.826	1.922	1.891	1.944	1.919	1.877
0.92	1.662	1.775	1.860	1.861	1.848	1.808
0.94	1.543	1.878	2.025	1.961	1.817	1.775
0.96	1.600	1.987	2.143	2.083	1.910	1.778
0.98	1.666	2.051	2.215	2.162	1.985	1.832
1.00	1.689	2.070	2.242	2.196	2.015	1.858
1.05	1.557	1.899	2.101	2.159	2.087	1.976
1.10	1.478	1.636	1.838	1.957	2.010	2.020
1.15	1.576	1.757	1.919	2.061	2.131	2.141
1.20	1.588	1.778	1.937	2.071	2.135	2.146
1.25	1.549	1.738	1.889	2.014	2.075	2.088
1.30	1.516	1.703	1.848	1.970	2.049	2.131
1.35	1.469	1.654	1.795	1.912	1.974	2.044
1.40	1.413	1.593	1.726	1.837	1.895	1.915
1.45	1.393	1.568	1.695	1.802	1.861	1.882
1.50	1.401	1.575	1.702	1.811	1.875	1.901
1.55	1.384	1.561	1.689	1.802	1.871	1.901
1.60	1.327	1.503	1.631	1.743	1.815	1.847
1.65	1.260	1.434	1.559	1.667	1.738	1.768
1.70	1.258	1.401	1.521	1.624	1.693	1.721
1.75	1.297	1.418	1.535	1.636	1.703	1.732
1.80	1.319	1.459	1.575	1.675	1.746	1.776
1.85	1.320	1.486	1.601	1.704	1.780	1.816
1.90	1.314	1.476	1.593	1.702	1.786	1.831
1.95	1.307	1.473	1.561	1.679	1.771	1.822
2.00	1.291	1.464	1.552	1.647	1.740	1.793
2.05	1.262	1.421	1.534	1.611	1.696	1.748
2.10	1.241	1.372	1.515	1.616	1.664	1.698
2.15	1.106	1.364	1.532	1.614	1.677	1.685
2.20	1.092	1.391	1.564	1.649	1.682	1.701
2.25	1.091	1.386	1.561	1.655	1.683	1.714
2.30	1.069	1.354	1.531	1.641	1.684	1.726
2.35	1.025	1.301	1.487	1.613	1.684	1.735
2.40	0.965	1.238	1.435	1.570	1.676	1.731
2.50	0.835	1.101	1.315	1.492	1.610	1.670
2.60	0.846	1.144	1.415	1.627	1.726	1.730

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2.70	0.791	1.091	1.361	1.574	1.702	1.733
2.80	0.705	0.979	1.249	1.487	1.621	1.653
2.90	0.605	0.835	1.077	1.300	1.471	1.551
3.00	0.573	0.787	0.978	1.206	1.365	1.439
3.10	0.537	0.746	0.936	1.110	1.236	1.312
3.20	0.499	0.696	0.876	1.041	1.161	1.246
3.30	0.458	0.637	0.803	0.957	1.111	1.218
3.40	0.468	0.631	0.792	0.972	1.136	1.254
3.50	0.465	0.632	0.798	0.971	1.118	1.237
3.60	0.413	0.566	0.718	0.878	1.014	1.116
3.70	0.350	0.477	0.609	0.750	0.872	0.962
3.80	0.325	0.432	0.541	0.667	0.780	0.864
3.90	0.319	0.427	0.538	0.659	0.765	0.846
4.00	0.306	0.415	0.530	0.656	0.766	0.851
4.10	0.268	0.374	0.484	0.603	0.707	0.786
4.20	0.247	0.333	0.432	0.554	0.656	0.730
4.30	0.244	0.331	0.417	0.535	0.636	0.712
4.40	0.239	0.325	0.406	0.510	0.609	0.685
4.50	0.230	0.314	0.394	0.480	0.576	0.650
4.60	0.218	0.299	0.383	0.469	0.540	0.612
4.70	0.213	0.287	0.368	0.452	0.523	0.575
4.80	0.196	0.272	0.350	0.431	0.499	0.548
4.90	0.187	0.254	0.328	0.405	0.470	0.518
5.00	0.182	0.234	0.303	0.376	0.437	0.483
5.10	0.175	0.215	0.277	0.344	0.402	0.445
5.20	0.178	0.229	0.282	0.340	0.392	0.431
5.40	0.179	0.234	0.291	0.354	0.410	0.454
5.60	0.135	0.180	0.227	0.279	0.326	0.365
5.80	0.121	0.149	0.180	0.219	0.255	0.281
6.00	0.119	0.148	0.176	0.206	0.233	0.255
6.20	0.115	0.147	0.177	0.207	0.232	0.251
6.40	0.114	0.148	0.179	0.211	0.237	0.256
6.60	0.111	0.145	0.177	0.210	0.237	0.257
6.80	0.102	0.134	0.166	0.198	0.224	0.244
7.00	0.098	0.124	0.151	0.180	0.204	0.223
7.20	0.097	0.125	0.154	0.185	0.212	0.232
7.40	0.083	0.110	0.135	0.163	0.188	0.208
7.60	0.076	0.101	0.125	0.149	0.169	0.184
7.80	0.068	0.091	0.114	0.140	0.162	0.176
8.00	0.063	0.083	0.106	0.130	0.151	0.165
8.50	0.059	0.073	0.085	0.097	0.114	0.127
9.00	0.056	0.071	0.084	0.096	0.105	0.111
9.50	0.050	0.063	0.077	0.090	0.100	0.106
10.00	0.047	0.059	0.071	0.084	0.096	0.104

Table A-7. Normalized spectral ACCs for upper bound profile, earthquake 1

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.016	1.012	1.009	1.006	1.005	1.005
0.04	1.039	1.025	1.018	1.014	1.010	1.009
0.05	1.056	1.043	1.032	1.025	1.016	1.015
0.06	1.069	1.054	1.042	1.036	1.024	1.022
0.07	1.150	1.104	1.076	1.060	1.034	1.030
0.08	1.287	1.203	1.149	1.114	1.048	1.040
0.09	1.312	1.113	1.100	1.133	1.101	1.078
0.10	1.398	1.219	1.188	1.191	1.144	1.117
0.11	1.524	1.425	1.354	1.285	1.168	1.090
0.12	1.609	1.519	1.436	1.351	1.223	1.137
0.13	1.579	1.495	1.325	1.235	1.140	1.083
0.14	1.707	1.537	1.462	1.409	1.273	1.180
0.15	1.795	1.778	1.693	1.586	1.408	1.313
0.16	1.910	1.771	1.666	1.653	1.564	1.475
0.17	2.228	2.038	1.767	1.680	1.530	1.472
0.18	2.118	1.899	1.747	1.692	1.549	1.415
0.19	2.219	1.930	1.944	1.960	1.736	1.503
0.20	2.419	2.014	2.078	2.138	1.925	1.694
0.21	2.827	2.351	2.214	2.176	1.987	1.811
0.22	2.886	2.556	2.415	2.367	2.166	1.986
0.23	2.748	2.508	2.393	2.345	2.144	1.973
0.24	3.089	2.758	2.556	2.395	2.184	2.015
0.25	3.251	3.149	2.837	2.581	2.313	2.104
0.26	3.425	3.397	3.139	2.815	2.322	2.145
0.27	3.311	3.364	3.178	2.908	2.422	2.160
0.28	3.103	3.227	3.115	2.903	2.573	2.332
0.29	2.784	2.969	3.059	3.139	2.890	2.600
0.30	2.587	2.860	2.995	3.002	2.873	2.760
0.31	2.520	2.612	2.798	3.062	3.017	2.900
0.32	2.500	2.618	2.741	2.973	2.918	2.797
0.33	2.442	2.578	2.617	2.652	2.594	2.485
0.34	2.355	2.495	2.536	2.505	2.378	2.301
0.35	2.286	2.419	2.458	2.428	2.311	2.252
0.36	2.275	2.404	2.448	2.423	2.322	2.291
0.37	2.275	2.415	2.478	2.472	2.392	2.388
0.38	2.225	2.375	2.455	2.467	2.405	2.416
0.39	2.207	2.324	2.416	2.443	2.396	2.423
0.40	2.278	2.259	2.369	2.416	2.391	2.490
0.41	2.317	2.192	2.239	2.312	2.409	2.575
0.42	2.245	2.165	2.043	2.164	2.289	2.483
0.43	2.268	2.169	2.075	1.981	2.081	2.291
0.44	2.219	2.187	2.116	1.927	1.916	2.090
0.45	2.182	2.242	2.184	2.003	1.896	1.955
0.46	2.233	2.305	2.256	2.084	1.905	1.956
0.47	2.272	2.348	2.309	2.149	1.973	1.954
0.48	2.264	2.342	2.313	2.171	2.006	1.944
0.49	2.173	2.245	2.237	2.126	1.977	1.919
0.50	2.006	2.079	2.100	2.028	1.897	1.845
0.51	1.843	1.926	1.983	1.944	1.827	1.776
0.52	1.755	1.859	1.950	1.930	1.813	1.759
0.53	1.736	1.863	1.976	1.963	1.842	1.784

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0.54	1.736	1.879	2.009	2.001	1.877	1.816
0.55	1.738	1.895	2.041	2.040	1.914	1.849
0.56	1.750	1.922	2.087	2.092	1.960	1.933
0.57	1.775	1.948	2.130	2.215	2.121	2.033
0.58	1.802	1.953	2.176	2.420	2.333	2.253
0.60	1.677	1.851	2.245	2.515	2.459	2.422
0.62	1.586	1.775	2.109	2.497	2.529	2.534
0.64	1.544	1.777	2.126	2.520	2.576	2.609
0.66	1.566	1.701	2.044	2.433	2.504	2.553
0.68	1.588	1.685	1.830	2.190	2.270	2.353
0.70	1.607	1.705	1.850	2.084	2.172	2.266
0.72	1.619	1.718	1.865	2.062	2.166	2.275
0.74	1.618	1.717	1.866	2.031	2.022	2.115
0.76	1.605	1.703	1.851	2.018	2.012	2.042
0.78	1.582	1.678	1.825	1.992	1.987	2.018
0.80	1.554	1.647	1.792	1.958	1.954	1.986
0.82	1.551	1.614	1.756	1.920	1.918	1.950
0.84	1.560	1.580	1.718	1.881	1.879	1.911
0.86	1.567	1.583	1.680	1.840	1.839	1.875
0.88	1.573	1.586	1.657	1.798	1.800	1.849
0.90	1.576	1.589	1.652	1.778	1.777	1.822
0.92	1.577	1.591	1.649	1.763	1.755	1.794
0.94	1.580	1.592	1.646	1.749	1.734	1.768
0.96	1.614	1.605	1.643	1.738	1.715	1.743
0.98	1.640	1.637	1.651	1.727	1.698	1.720
1.00	1.659	1.660	1.680	1.716	1.682	1.697
1.05	1.681	1.679	1.710	1.737	1.643	1.635
1.10	1.748	1.757	1.761	1.752	1.638	1.585
1.15	1.722	1.752	1.775	1.781	1.669	1.612
1.20	1.721	1.768	1.817	1.834	1.721	1.659
1.25	1.559	1.642	1.700	1.718	1.641	1.625
1.30	1.316	1.500	1.681	1.829	1.793	1.786
1.35	1.218	1.426	1.659	1.893	1.883	1.886
1.40	1.244	1.457	1.714	1.964	1.974	1.977
1.45	1.175	1.372	1.624	1.893	1.930	1.959
1.50	1.117	1.303	1.555	1.843	1.902	1.949
1.55	1.081	1.265	1.520	1.820	1.893	1.952
1.60	1.038	1.219	1.472	1.771	1.852	1.922
1.65	0.970	1.142	1.384	1.676	1.794	1.906
1.70	0.885	1.044	1.272	1.565	1.716	1.840
1.75	0.809	0.948	1.162	1.444	1.597	1.728
1.80	0.762	0.892	1.082	1.340	1.461	1.589
1.85	0.722	0.846	1.029	1.275	1.389	1.516
1.90	0.684	0.803	0.981	1.223	1.330	1.442
1.95	0.641	0.755	0.927	1.162	1.270	1.381
2.00	0.603	0.703	0.861	1.085	1.190	1.299
2.05	0.584	0.679	0.822	1.019	1.112	1.219
2.10	0.559	0.650	0.787	0.978	1.069	1.173
2.15	0.529	0.616	0.747	0.930	1.019	1.120
2.20	0.497	0.580	0.705	0.880	0.967	1.064
2.25	0.465	0.544	0.664	0.832	0.915	1.010
2.30	0.435	0.511	0.625	0.785	0.867	0.958
2.35	0.407	0.479	0.588	0.742	0.821	0.910
2.40	0.381	0.449	0.553	0.701	0.778	0.864
2.50	0.360	0.409	0.487	0.623	0.696	0.779
2.60	0.340	0.387	0.458	0.557	0.621	0.699

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2.70	0.321	0.366	0.433	0.526	0.568	0.625
2.80	0.304	0.346	0.409	0.498	0.538	0.584
2.90	0.288	0.328	0.389	0.474	0.512	0.557
3.00	0.275	0.313	0.371	0.453	0.489	0.533
3.10	0.263	0.300	0.356	0.434	0.470	0.513
3.20	0.253	0.288	0.342	0.418	0.453	0.495
3.30	0.242	0.276	0.328	0.402	0.436	0.477
3.40	0.230	0.264	0.314	0.385	0.419	0.459
3.50	0.218	0.250	0.298	0.366	0.399	0.439
3.60	0.205	0.235	0.281	0.346	0.378	0.416
3.70	0.191	0.219	0.262	0.324	0.355	0.392
3.80	0.175	0.202	0.243	0.301	0.331	0.366
3.90	0.167	0.188	0.222	0.277	0.305	0.338
4.00	0.159	0.179	0.212	0.258	0.279	0.311
4.10	0.150	0.168	0.199	0.244	0.264	0.287
4.20	0.139	0.156	0.184	0.227	0.248	0.271
4.30	0.127	0.143	0.169	0.209	0.229	0.251
4.40	0.125	0.138	0.158	0.190	0.209	0.230
4.50	0.127	0.141	0.161	0.192	0.206	0.225
4.60	0.124	0.136	0.157	0.187	0.200	0.218
4.70	0.115	0.126	0.145	0.173	0.186	0.203
4.80	0.105	0.116	0.132	0.155	0.166	0.181
4.90	0.104	0.116	0.132	0.156	0.166	0.180
5.00	0.101	0.112	0.129	0.153	0.164	0.177
5.10	0.097	0.108	0.124	0.149	0.159	0.173
5.20	0.093	0.103	0.119	0.143	0.154	0.167
5.40	0.087	0.096	0.109	0.129	0.139	0.152
5.60	0.081	0.089	0.101	0.120	0.128	0.138
5.80	0.074	0.082	0.094	0.111	0.119	0.129
6.00	0.067	0.075	0.086	0.103	0.111	0.121
6.20	0.062	0.069	0.080	0.096	0.104	0.113
6.40	0.059	0.065	0.075	0.090	0.097	0.106
6.60	0.061	0.067	0.077	0.091	0.097	0.106
6.80	0.061	0.067	0.076	0.090	0.097	0.105
7.00	0.059	0.065	0.074	0.087	0.093	0.101
7.20	0.055	0.060	0.069	0.082	0.087	0.095
7.40	0.054	0.059	0.067	0.079	0.085	0.092
7.60	0.051	0.056	0.064	0.076	0.081	0.088
7.80	0.048	0.053	0.060	0.071	0.076	0.082
8.00	0.045	0.049	0.055	0.065	0.070	0.075
8.50	0.035	0.038	0.044	0.052	0.055	0.060
9.00	0.029	0.032	0.037	0.044	0.047	0.051
9.50	0.023	0.025	0.029	0.035	0.037	0.041
10.00	0.019	0.021	0.023	0.027	0.029	0.032

Table A-8. Normalized spectral ACCs for upper bound profile, earthquake 2

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.012	1.013	1.006	1.004	1.001	1.002
0.04	1.024	1.030	1.012	1.007	1.002	1.004
0.05	1.047	1.045	1.012	1.013	1.003	1.006
0.06	1.046	1.086	1.011	1.014	1.008	1.006
0.07	1.197	1.227	1.046	1.020	1.005	1.010
0.08	1.269	1.249	1.111	1.006	1.026	1.018
0.09	1.564	1.527	1.323	1.167	1.038	1.046
0.10	1.648	1.629	1.430	1.272	1.122	1.041
0.11	1.701	1.687	1.491	1.327	1.177	1.031
0.12	1.810	1.813	1.602	1.429	1.266	1.105
0.13	2.224	2.300	1.865	1.531	1.365	1.196
0.14	2.342	2.454	2.024	1.595	1.312	1.185
0.15	2.447	2.577	2.163	1.725	1.377	1.162
0.16	2.507	2.700	2.297	1.850	1.486	1.189
0.17	2.630	2.827	2.454	1.991	1.616	1.298
0.18	2.641	2.953	2.620	2.137	1.746	1.415
0.19	3.030	3.080	2.689	2.397	2.085	1.755
0.20	3.189	3.323	2.994	2.676	2.349	1.999
0.21	3.231	3.396	3.073	2.764	2.450	2.109
0.22	3.485	3.504	3.175	2.866	2.560	2.222
0.23	3.794	3.935	3.268	2.972	2.673	2.334
0.24	3.619	3.892	3.326	3.040	2.752	2.423
0.25	3.672	3.958	3.438	3.092	2.820	2.499
0.26	3.449	3.740	3.377	3.123	2.865	2.557
0.27	3.440	3.923	3.641	3.149	2.908	2.611
0.28	3.438	3.995	3.756	3.256	2.934	2.647
0.29	3.397	3.642	3.514	3.184	2.933	2.661
0.30	3.335	3.567	3.295	3.087	2.884	2.633
0.31	3.245	3.464	3.191	2.991	2.809	2.586
0.32	3.161	3.359	3.087	2.898	2.738	2.543
0.33	3.101	3.283	3.011	2.835	2.696	2.526
0.34	3.067	3.240	2.966	2.802	2.697	2.630
0.35	3.051	3.214	2.936	2.785	2.681	2.598
0.36	3.034	3.187	2.908	2.768	2.677	2.562
0.37	3.008	3.149	2.872	2.740	2.662	2.561
0.38	2.974	3.104	2.823	2.699	2.638	2.551
0.39	2.932	3.046	2.761	2.647	2.600	2.528
0.40	2.884	2.980	2.690	2.584	2.548	2.494
0.41	3.044	2.899	2.602	2.504	2.485	2.447
0.42	3.159	3.003	2.496	2.408	2.402	2.381
0.43	3.161	3.024	2.459	2.288	2.297	2.295
0.44	3.053	2.924	2.401	2.143	2.165	2.181
0.45	3.333	3.164	2.447	2.140	2.010	2.043
0.46	3.515	3.399	2.668	2.276	2.100	2.066
0.47	3.377	3.345	2.695	2.341	2.123	1.993
0.48	3.093	3.151	2.685	2.360	2.172	2.037
0.49	3.075	3.216	2.787	2.462	2.276	2.150
0.50	2.802	3.185	2.793	2.480	2.298	2.181
0.51	2.705	3.168	2.834	2.470	2.282	2.172
0.52	2.675	3.196	2.897	2.549	2.283	2.158
0.53	2.683	3.221	2.950	2.616	2.357	2.163



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0.54	2.679	3.235	2.985	2.661	2.414	2.223
0.55	2.635	3.199	2.969	2.661	2.428	2.248
0.56	2.529	3.087	2.883	2.596	2.384	2.222
0.57	2.366	2.901	2.725	2.467	2.282	2.142
0.58	2.211	2.671	2.671	2.491	2.287	2.112
0.60	2.385	2.914	2.940	2.726	2.476	2.256
0.62	2.213	2.700	2.713	2.562	2.470	2.356
0.64	1.945	2.465	2.582	2.543	2.458	2.347
0.66	1.990	2.536	2.643	2.603	2.551	2.482
0.68	2.083	2.487	2.647	2.627	2.578	2.509
0.70	2.131	2.558	2.561	2.472	2.409	2.348
0.72	2.058	2.472	2.478	2.387	2.298	2.215
0.74	2.098	2.520	2.539	2.454	2.370	2.297
0.76	2.073	2.499	2.541	2.469	2.391	2.323
0.78	1.987	2.398	2.448	2.382	2.307	2.239
0.80	1.963	2.371	2.434	2.378	2.310	2.248
0.82	1.967	2.261	2.337	2.300	2.244	2.190
0.84	2.054	2.365	2.308	2.176	2.066	1.997
0.86	2.110	2.441	2.399	2.274	2.165	2.093
0.88	2.030	2.361	2.334	2.222	2.117	2.044
0.90	1.913	2.230	2.206	2.099	1.996	1.919
0.92	1.933	2.244	2.212	2.099	1.991	1.908
0.94	2.028	2.346	2.309	2.193	2.081	1.995
0.96	2.021	2.340	2.309	2.200	2.094	2.011
0.98	1.947	2.204	2.184	2.087	1.990	1.912
1.00	1.917	2.132	2.064	1.973	1.879	1.802
1.05	2.091	2.304	2.161	1.986	1.868	1.785
1.10	2.171	2.418	2.216	1.996	1.847	1.728
1.15	2.200	2.449	2.325	2.151	1.989	1.854
1.20	2.017	2.467	2.475	2.356	2.224	2.096
1.25	2.027	2.464	2.466	2.368	2.254	2.142
1.30	1.879	2.330	2.380	2.299	2.183	2.064
1.35	1.750	2.247	2.335	2.283	2.190	2.079
1.40	1.671	2.153	2.280	2.249	2.173	2.075
1.45	1.592	2.068	2.209	2.193	2.131	2.044
1.50	1.497	1.958	2.105	2.100	2.049	1.974
1.55	1.383	1.817	1.965	1.970	1.937	1.907
1.60	1.277	1.660	1.830	1.898	1.927	1.921
1.65	1.287	1.675	1.854	1.926	1.958	1.954
1.70	1.211	1.584	1.761	1.832	1.863	1.858
1.75	1.064	1.398	1.559	1.624	1.654	1.653
1.80	0.982	1.301	1.460	1.530	1.570	1.606
1.85	1.002	1.321	1.487	1.578	1.650	1.699
1.90	0.952	1.264	1.430	1.522	1.595	1.644
1.95	0.851	1.139	1.294	1.380	1.448	1.494
2.00	0.777	1.030	1.157	1.241	1.314	1.374
2.05	0.735	0.967	1.088	1.167	1.252	1.325
2.10	0.730	0.946	1.038	1.078	1.129	1.192
2.15	0.713	0.928	1.024	1.067	1.104	1.137
2.20	0.686	0.897	0.995	1.041	1.080	1.113
2.25	0.650	0.855	0.953	1.001	1.042	1.076
2.30	0.608	0.803	0.901	0.950	0.991	1.026
2.35	0.561	0.745	0.839	0.888	0.930	0.966
2.40	0.540	0.696	0.770	0.819	0.861	0.896
2.50	0.516	0.664	0.731	0.766	0.798	0.829
2.60	0.477	0.613	0.676	0.709	0.740	0.769

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2.70	0.425	0.550	0.607	0.638	0.667	0.695
2.80	0.379	0.483	0.531	0.559	0.587	0.613
2.90	0.375	0.479	0.514	0.524	0.542	0.561
3.00	0.337	0.435	0.476	0.490	0.508	0.527
3.10	0.340	0.434	0.472	0.487	0.500	0.510
3.20	0.302	0.390	0.428	0.445	0.461	0.474
3.30	0.284	0.357	0.382	0.393	0.406	0.418
3.40	0.269	0.338	0.367	0.384	0.399	0.412
3.50	0.252	0.318	0.340	0.356	0.373	0.387
3.60	0.235	0.297	0.318	0.327	0.337	0.346
3.70	0.218	0.284	0.313	0.324	0.332	0.337
3.80	0.221	0.288	0.319	0.331	0.340	0.347
3.90	0.226	0.292	0.323	0.337	0.349	0.357
4.00	0.220	0.281	0.310	0.325	0.338	0.347
4.10	0.198	0.253	0.277	0.291	0.304	0.314
4.20	0.176	0.222	0.238	0.246	0.258	0.268
4.30	0.179	0.226	0.242	0.248	0.254	0.259
4.40	0.170	0.214	0.229	0.235	0.240	0.245
4.50	0.159	0.200	0.213	0.218	0.222	0.225
4.60	0.150	0.189	0.203	0.208	0.212	0.215
4.70	0.159	0.203	0.219	0.225	0.231	0.234
4.80	0.161	0.206	0.223	0.231	0.237	0.242
4.90	0.153	0.196	0.214	0.222	0.229	0.235
5.00	0.141	0.179	0.195	0.203	0.211	0.217
5.10	0.129	0.162	0.176	0.183	0.190	0.196
5.20	0.119	0.149	0.160	0.167	0.173	0.179
5.40	0.110	0.136	0.145	0.149	0.155	0.160
5.60	0.111	0.138	0.143	0.143	0.142	0.140
5.80	0.108	0.137	0.146	0.147	0.148	0.148
6.00	0.107	0.137	0.147	0.150	0.151	0.152
6.20	0.101	0.127	0.134	0.135	0.136	0.135
6.40	0.098	0.124	0.132	0.134	0.135	0.136
6.60	0.081	0.104	0.112	0.114	0.116	0.117
6.80	0.078	0.095	0.098	0.100	0.102	0.103
7.00	0.076	0.094	0.099	0.100	0.101	0.102
7.20	0.073	0.091	0.096	0.098	0.099	0.100
7.40	0.069	0.086	0.092	0.093	0.095	0.096
7.60	0.066	0.082	0.088	0.089	0.090	0.091
7.80	0.062	0.077	0.083	0.084	0.085	0.086
8.00	0.057	0.071	0.076	0.078	0.079	0.080
8.50	0.049	0.060	0.062	0.062	0.062	0.062
9.00	0.047	0.059	0.062	0.063	0.063	0.064
9.50	0.047	0.058	0.062	0.063	0.064	0.064
10.00	0.039	0.048	0.052	0.053	0.054	0.055

Table A-9. Normalized spectral ACCs for upper bound profile, earthquake 3

Period (sec)	Input PGA					
	0.6 g	0.8 g	1.0 g	1.2 g	1.4 g	1.6 g
0.01	1.000	1.000	1.000	1.000	1.000	1.000
0.03	1.008	1.007	1.006	1.004	1.003	1.002
0.04	1.016	1.013	1.011	1.008	1.006	1.004
0.05	1.025	1.021	1.018	1.013	1.009	1.006
0.06	1.045	1.035	1.029	1.022	1.015	1.009
0.07	1.063	1.051	1.041	1.031	1.021	1.013
0.08	1.040	1.045	1.045	1.036	1.024	1.013
0.09	1.149	1.114	1.089	1.065	1.045	1.029
0.10	1.363	1.243	1.172	1.114	1.073	1.038
0.11	1.272	1.195	1.153	1.123	1.087	1.047
0.12	1.423	1.291	1.231	1.174	1.107	1.043
0.13	1.447	1.195	1.147	1.102	1.089	1.087
0.14	1.484	1.225	1.107	1.041	1.051	1.062
0.15	1.629	1.384	1.278	1.168	1.099	1.052
0.16	1.804	1.630	1.503	1.369	1.204	1.129
0.17	1.887	1.643	1.523	1.401	1.297	1.281
0.18	1.940	1.698	1.530	1.480	1.468	1.438
0.19	1.979	1.721	1.573	1.519	1.460	1.434
0.20	2.082	1.748	1.638	1.578	1.513	1.424
0.21	2.216	1.834	1.715	1.655	1.584	1.484
0.22	2.538	1.989	1.842	1.719	1.597	1.495
0.23	2.689	2.133	1.881	1.794	1.682	1.603
0.24	2.922	2.510	2.220	2.009	1.874	1.762
0.25	3.148	2.756	2.456	2.193	1.996	1.834
0.26	3.308	2.935	2.626	2.317	2.062	1.848
0.27	3.127	2.796	2.520	2.246	2.028	1.768
0.28	3.218	3.045	2.870	2.660	2.401	2.091
0.29	3.118	3.007	2.862	2.673	2.438	2.152
0.30	2.898	2.861	2.747	2.582	2.376	2.119
0.31	2.570	2.642	2.700	2.635	2.442	2.142
0.32	2.245	2.385	2.546	2.547	2.383	2.165
0.33	2.189	2.262	2.417	2.418	2.287	2.074
0.34	2.178	2.153	2.277	2.437	2.393	2.260
0.35	2.167	2.195	2.367	2.536	2.496	2.269
0.36	1.892	1.967	2.151	2.302	2.409	2.316
0.37	1.858	1.777	2.008	2.292	2.470	2.487
0.38	1.891	1.965	2.058	2.304	2.483	2.513
0.39	1.805	1.891	2.049	2.277	2.467	2.477
0.40	1.870	1.702	1.863	2.084	2.282	2.377
0.41	1.913	1.666	1.794	2.019	2.227	2.334
0.42	2.039	1.731	1.803	2.046	2.223	2.380
0.43	2.140	1.811	1.829	2.068	2.258	2.399
0.44	2.062	1.766	1.744	1.951	2.140	2.245
0.45	2.097	1.804	1.768	1.817	1.886	1.964
0.46	2.148	1.872	1.854	1.924	1.994	2.067
0.47	2.180	1.871	1.862	1.941	2.010	2.079
0.48	2.248	1.908	1.827	1.909	1.972	2.032
0.49	2.329	1.980	1.867	1.934	1.994	2.048
0.50	2.354	2.106	2.020	2.004	2.028	2.081
0.51	2.387	2.151	2.082	2.088	2.044	2.024
0.52	2.254	2.050	2.006	2.033	2.006	1.941
0.53	2.032	1.955	1.990	2.061	2.063	2.023

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0.54	2.057	2.112	2.128	2.183	2.195	2.173
0.55	2.120	2.146	2.174	2.267	2.272	2.212
0.56	2.076	2.184	2.290	2.388	2.402	2.341
0.57	2.013	2.209	2.311	2.410	2.430	2.378
0.58	1.994	2.169	2.267	2.367	2.392	2.348
0.60	1.934	2.037	2.106	2.205	2.237	2.205
0.62	1.841	1.944	2.018	2.088	2.110	2.062
0.64	1.722	1.828	1.958	2.169	2.276	2.266
0.66	1.565	1.685	1.896	2.133	2.249	2.265
0.68	1.447	1.608	1.770	1.960	2.068	2.097
0.70	1.574	1.609	1.756	1.946	2.087	2.163
0.72	1.686	1.749	1.909	2.109	2.254	2.324
0.74	1.640	1.718	1.874	2.064	2.199	2.262
0.76	1.574	1.667	1.822	2.006	2.137	2.199
0.78	1.467	1.573	1.726	1.903	2.031	2.091
0.80	1.394	1.451	1.603	1.772	1.895	1.954
0.82	1.468	1.429	1.510	1.688	1.830	1.924
0.84	1.523	1.478	1.525	1.630	1.774	1.873
0.86	1.558	1.509	1.553	1.623	1.684	1.786
0.88	1.549	1.501	1.540	1.604	1.634	1.652
0.90	1.500	1.453	1.486	1.542	1.563	1.555
0.92	1.448	1.400	1.426	1.473	1.486	1.469
0.94	1.490	1.465	1.510	1.573	1.593	1.577
0.96	1.559	1.543	1.601	1.677	1.707	1.695
0.98	1.599	1.591	1.659	1.746	1.783	1.775
1.00	1.610	1.609	1.684	1.777	1.820	1.815
1.05	1.609	1.573	1.602	1.672	1.696	1.698
1.10	1.596	1.628	1.703	1.783	1.801	1.758
1.15	1.632	1.648	1.724	1.819	1.860	1.843
1.20	1.495	1.524	1.601	1.686	1.759	1.793
1.25	1.498	1.536	1.566	1.613	1.702	1.740
1.30	1.585	1.624	1.657	1.688	1.667	1.701
1.35	1.531	1.650	1.736	1.797	1.782	1.706
1.40	1.403	1.529	1.655	1.747	1.755	1.692
1.45	1.333	1.512	1.656	1.761	1.794	1.803
1.50	1.182	1.343	1.466	1.561	1.636	1.650
1.55	1.053	1.162	1.296	1.438	1.536	1.580
1.60	1.012	1.116	1.245	1.419	1.542	1.597
1.65	0.972	1.105	1.289	1.474	1.607	1.668
1.70	0.927	1.068	1.249	1.433	1.568	1.634
1.75	0.891	1.030	1.204	1.389	1.528	1.602
1.80	0.858	1.011	1.175	1.350	1.487	1.566
1.85	0.859	0.964	1.091	1.257	1.388	1.464
1.90	0.843	0.952	1.084	1.229	1.347	1.422
1.95	0.805	0.915	1.046	1.190	1.307	1.382
2.00	0.751	0.858	0.984	1.122	1.234	1.306
2.05	0.689	0.790	0.912	1.049	1.162	1.241
2.10	0.625	0.719	0.834	0.968	1.086	1.175
2.15	0.563	0.650	0.752	0.875	0.985	1.066
2.20	0.509	0.588	0.687	0.802	0.902	0.975
2.25	0.486	0.547	0.637	0.749	0.846	0.918
2.30	0.464	0.522	0.594	0.700	0.795	0.866
2.35	0.455	0.510	0.578	0.657	0.745	0.816
2.40	0.433	0.490	0.556	0.634	0.705	0.767
2.50	0.368	0.419	0.482	0.553	0.616	0.672
2.60	0.383	0.432	0.497	0.574	0.645	0.700

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2.70	0.330	0.378	0.439	0.512	0.579	0.635
2.80	0.302	0.341	0.392	0.453	0.513	0.562
2.90	0.291	0.324	0.365	0.412	0.451	0.483
3.00	0.282	0.315	0.356	0.402	0.440	0.468
3.10	0.272	0.304	0.344	0.389	0.425	0.451
3.20	0.256	0.287	0.325	0.368	0.403	0.427
3.30	0.240	0.264	0.300	0.340	0.373	0.395
3.40	0.245	0.272	0.306	0.346	0.380	0.406
3.50	0.237	0.265	0.300	0.341	0.376	0.402
3.60	0.202	0.229	0.261	0.298	0.330	0.354
3.70	0.168	0.190	0.219	0.253	0.283	0.306
3.80	0.156	0.175	0.202	0.234	0.262	0.284
3.90	0.156	0.171	0.197	0.228	0.255	0.277
4.00	0.160	0.173	0.193	0.217	0.240	0.260
4.10	0.152	0.166	0.186	0.210	0.230	0.244
4.20	0.133	0.144	0.162	0.183	0.201	0.213
4.30	0.140	0.148	0.160	0.174	0.189	0.203
4.40	0.144	0.153	0.167	0.182	0.194	0.200
4.50	0.144	0.154	0.168	0.185	0.198	0.205
4.60	0.139	0.150	0.165	0.182	0.199	0.211
4.70	0.131	0.142	0.157	0.176	0.194	0.206
4.80	0.122	0.135	0.153	0.172	0.188	0.197
4.90	0.118	0.131	0.148	0.167	0.183	0.193
5.00	0.112	0.126	0.142	0.161	0.176	0.186
5.10	0.106	0.119	0.135	0.153	0.168	0.177
5.20	0.105	0.116	0.130	0.147	0.162	0.172
5.40	0.099	0.111	0.126	0.143	0.157	0.168
5.60	0.084	0.092	0.102	0.114	0.122	0.130
5.80	0.076	0.085	0.096	0.108	0.118	0.124
6.00	0.071	0.079	0.090	0.102	0.112	0.119
6.20	0.068	0.074	0.085	0.097	0.106	0.113
6.40	0.067	0.072	0.081	0.091	0.101	0.107
6.60	0.069	0.074	0.082	0.092	0.099	0.104
6.80	0.064	0.070	0.079	0.088	0.095	0.100
7.00	0.059	0.065	0.073	0.083	0.090	0.096
7.20	0.058	0.063	0.070	0.080	0.088	0.093
7.40	0.057	0.062	0.069	0.076	0.081	0.084
7.60	0.052	0.057	0.064	0.071	0.077	0.080
7.80	0.045	0.050	0.056	0.063	0.068	0.072
8.00	0.040	0.044	0.048	0.054	0.059	0.061
8.50	0.041	0.044	0.049	0.055	0.059	0.062
9.00	0.036	0.040	0.045	0.050	0.054	0.057
9.50	0.033	0.036	0.040	0.045	0.049	0.052
10.00	0.030	0.032	0.036	0.040	0.044	0.047

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## Appendix B

### Input Time Histories Used in SHAKE Analysis

(m78set1.acc)

(m78Set2.acc)

(m78Set3.acc)

## M78Set1.ACC

Time history matched to spectrum:::SetTarget:M78\_D005\_RV\_HW.target  
6565 0.0050

0.00730	0.00722	0.00715	0.00708	0.00702	0.00696	0.00690	0.00685	1
0.00679	0.00672	0.00666	0.00659	0.00652	0.00646	0.00639	0.00633	2
0.00626	0.00620	0.00614	0.00608	0.00602	0.00596	0.00591	0.00585	3
0.00579	0.00573	0.00567	0.00561	0.00555	0.00549	0.00542	0.00534	4
0.00526	0.00518	0.00508	0.00498	0.00486	0.00473	0.00458	0.00442	5
0.00423	0.00402	0.00378	0.00353	0.00326	0.00290	0.00245	0.00189	6
0.00119	0.00036	-0.00061	-0.00190	-0.00334	-0.00438	-0.00518	-0.00586	7
-0.00633	-0.00690	-0.00743	-0.00754	-0.00759	-0.00811	-0.00863	-0.00902	8
-0.00915	-0.00842	-0.00741	-0.00656	-0.00560	-0.00453	-0.00348	-0.00232	9
-0.00136	-0.00119	-0.00130	-0.00113	-0.00125	-0.00223	-0.00346	-0.00450	10
-0.00566	-0.00698	-0.00821	-0.00969	-0.01076	-0.01021	-0.00909	-0.00856	11
-0.00744	-0.00458	-0.00139	0.00175	0.00465	0.00607	0.00692	0.00841	12
0.00922	0.00792	0.00608	0.00458	0.00294	0.00141	0.00000	-0.00165	13
-0.00296	-0.00313	-0.00297	-0.00304	-0.00297	-0.00273	-0.00240	-0.00217	14
-0.00183	-0.00108	-0.00027	0.00055	0.00129	0.00164	0.00176	0.00219	15
0.00225	0.00099	-0.00045	-0.00200	-0.00315	-0.00236	-0.00105	-0.00010	16
0.00100	0.00204	0.00273	0.00410	0.00451	0.00129	-0.00262	-0.00644	17
-0.00974	-0.00990	-0.00901	-0.00912	-0.00836	-0.00540	-0.00232	0.00132	18
0.00376	0.00096	-0.00314	-0.00648	-0.00997	-0.01226	-0.01385	-0.01649	19
-0.01779	-0.01442	-0.00991	-0.00603	-0.00204	0.00089	0.00340	0.00643	20
0.00887	0.00957	0.00972	0.01033	0.01055	0.00979	0.00879	0.00792	21
0.00703	0.00633	0.00584	0.00500	0.00463	0.00598	0.00777	0.00929	22
0.01089	0.01217	0.01326	0.01464	0.01564	0.01530	0.01459	0.01416	23
0.01353	0.01252	0.01141	0.01037	0.00925	0.00790	0.00633	0.00511	24
0.00341	-0.00005	-0.00400	-0.00761	-0.01137	-0.01520	-0.01860	-0.02290	25
-0.02585	-0.02372	-0.02015	-0.01768	-0.01450	-0.01032	-0.00627	-0.00154	26
0.00202	0.00094	-0.00131	-0.00287	-0.00459	-0.00542	-0.00562	-0.00681	27
-0.00671	-0.00216	0.00346	0.00857	0.01358	0.01683	0.01900	0.02275	28
0.02447	0.01916	0.01213	0.00603	-0.00017	-0.00456	-0.00783	-0.01274	29
-0.01560	-0.01138	-0.00560	-0.00042	0.00437	0.00539	0.00498	0.00618	30
0.00568	0.00007	-0.00658	-0.01302	-0.01884	-0.02069	-0.02114	-0.02304	31
-0.02351	-0.01996	-0.01554	-0.01140	-0.00756	-0.00605	-0.00541	-0.00386	32
-0.00319	-0.00510	-0.00739	-0.00984	-0.01161	-0.01000	-0.00746	-0.00561	33
-0.00337	-0.00080	0.00150	0.00449	0.00643	0.00428	0.00128	-0.00145	34
-0.00386	-0.00367	-0.00275	-0.00245	-0.00168	-0.00005	0.00174	0.00355	35
0.00519	0.00593	0.00649	0.00712	0.00776	0.00874	0.00953	0.01080	36
0.01129	0.00861	0.00505	0.00217	-0.00116	-0.00521	-0.00921	-0.01360	37
-0.01726	-0.01795	-0.01763	-0.01828	-0.01802	-0.01524	-0.01187	-0.00877	38
-0.00570	-0.00353	-0.00164	0.00051	0.00244	0.00383	0.00507	0.00642	39
0.00768	0.00876	0.00961	0.01087	0.01156	0.01008	0.00805	0.00636	40
0.00457	0.00306	0.00191	0.00014	-0.00079	0.00132	0.00408	0.00663	41
0.00894	0.00933	0.00898	0.00948	0.00908	0.00593	0.00235	-0.00135	42
-0.00438	-0.00402	-0.00272	-0.00212	-0.00109	0.00042	0.00188	0.00366	43
0.00491	0.00398	0.00268	0.00138	0.00044	0.00156	0.00304	0.00452	44
0.00560	0.00447	0.00249	0.00145	-0.00054	-0.00546	-0.01052	-0.01636	45
-0.02051	-0.01733	-0.01215	-0.00842	-0.00386	0.00140	0.00626	0.01225	46
0.01646	0.01379	0.00938	0.00606	0.00232	-0.00073	-0.00347	-0.00668	47
-0.00930	-0.01009	-0.01023	-0.01101	-0.01114	-0.00940	-0.00703	-0.00526	48
-0.00295	0.00085	0.00475	0.00898	0.01244	0.01252	0.01163	0.01151	49
0.01083	0.00919	0.00740	0.00552	0.00392	0.00366	0.00374	0.00360	50
0.00353	0.00328	0.00292	0.00273	0.00233	0.00122	0.00013	-0.00126	51
-0.00209	-0.00053	0.00181	0.00340	0.00563	0.00950	0.01337	0.01783	52
0.02109	0.01925	0.01590	0.01378	0.01073	0.00587	0.00090	-0.00455	53
-0.00899	-0.00903	-0.00782	-0.00760	-0.00670	-0.00470	-0.00248	-0.00027	54
0.00176	0.00276	0.00351	0.00441	0.00524	0.00624	0.00716	0.00826	55
0.00906	0.00858	0.00789	0.00718	0.00670	0.00750	0.00854	0.00953	56
0.01034	0.00996	0.00902	0.00881	0.00772	0.00366	-0.00107	-0.00551	57
-0.00985	-0.01282	-0.01513	-0.01836	-0.02044	-0.01865	-0.01561	-0.01370	58
-0.01082	-0.00548	0.00019	0.00609	0.01120	0.01249	0.01256	0.01377	59
0.01395	0.01149	0.00837	0.00561	0.00278	0.00047	-0.00165	-0.00396	60
-0.00608	-0.00774	-0.00921	-0.01088	-0.01234	-0.01312	-0.01380	-0.01444	61
-0.01522	-0.01675	-0.01821	-0.02007	-0.02117	-0.01920	-0.01630	-0.01413	62
-0.01147	-0.00795	-0.00474	-0.00056	0.00206	-0.00152	-0.00666	-0.01082	63
-0.01532	-0.01907	-0.02238	-0.02636	-0.02949	-0.02976	-0.02946	-0.02929	64
-0.02937	-0.03138	-0.03365	-0.03606	-0.03784	-0.03647	-0.03382	-0.03268	65

-0.02981	-0.02149	-0.01186	-0.00283	0.00605	0.01265	0.01771	0.02514	66
0.02944	0.02266	0.01272	0.00517	-0.00385	-0.01500	-0.02555	-0.03814	67
-0.04728	-0.04279	-0.03441	-0.02903	-0.02158	-0.01084	0.00038	0.01200	68
0.02245	0.02759	0.03091	0.03606	0.03938	0.03756	0.03387	0.03208	69
0.02838	0.01891	0.00823	-0.00210	-0.01186	-0.01769	-0.02161	-0.02802	70
-0.03140	-0.02461	-0.01506	-0.00741	0.00122	0.01042	0.01894	0.02910	71
0.03675	0.03476	0.03026	0.02742	0.02380	0.02031	0.01708	0.01329	72
0.01022	0.00972	0.00946	0.00963	0.00871	0.00278	-0.00431	-0.01085	73
-0.01726	-0.02146	-0.02441	-0.02919	-0.03166	-0.02609	-0.01848	-0.01213	74
-0.00535	0.00049	0.00576	0.01187	0.01690	0.01827	0.01876	0.01967	75
0.02057	0.02266	0.02506	0.02721	0.02944	0.03147	0.03320	0.03547	76
0.03690	0.03527	0.03249	0.03088	0.02807	0.02170	0.01488	0.00763	77
0.00165	0.00159	0.00355	0.00351	0.00529	0.01206	0.01952	0.02737	78
0.03373	0.03286	0.02985	0.02860	0.02598	0.02061	0.01465	0.00881	79
0.00321	-0.00065	-0.00408	-0.00781	-0.01141	-0.01517	-0.01874	-0.02275	80
-0.02608	-0.02662	-0.02623	-0.02680	-0.02644	-0.02336	-0.01969	-0.01629	81
-0.01292	-0.01050	-0.00805	-0.00597	-0.00318	0.00261	0.00913	0.01529	82
0.02130	0.02581	0.02870	0.03433	0.03616	0.02403	0.00854	-0.00519	83
-0.01894	-0.02830	-0.03517	-0.04561	-0.05156	-0.04202	-0.02877	-0.01744	84
-0.00598	0.00086	0.00606	0.01313	0.01827	0.01784	0.01589	0.01502	85
0.01352	0.01131	0.00879	0.00669	0.00406	-0.00058	-0.00585	-0.01052	86
-0.01568	-0.02213	-0.02865	-0.03548	-0.04154	-0.04433	-0.04584	-0.04875	87
-0.05009	-0.04643	-0.04145	-0.03732	-0.03271	-0.02794	-0.02300	-0.01823	88
-0.01323	-0.00736	-0.00169	0.00475	0.00987	0.00964	0.00741	0.00739	89
0.00506	-0.00439	-0.01556	-0.02582	-0.03606	-0.04411	-0.05067	-0.05946	90
-0.06527	-0.06055	-0.05297	-0.04735	-0.04063	-0.03309	-0.02571	-0.01762	91
-0.01062	-0.00801	-0.00635	-0.00426	-0.00208	0.00188	0.00573	0.01043	92
0.01351	0.00969	0.00373	-0.00033	-0.00592	-0.01510	-0.02449	-0.03482	93
-0.04303	-0.04219	-0.03839	-0.03733	-0.03381	-0.02394	-0.01283	-0.00186	94
0.00818	0.01275	0.01520	0.02005	0.02231	0.01655	0.00886	0.00215	95
-0.00460	-0.00906	-0.01257	-0.01724	-0.02063	-0.01996	-0.01828	-0.01720	96
-0.01590	-0.01507	-0.01402	-0.01356	-0.01214	-0.00679	-0.00054	0.00528	97
0.01093	0.01466	0.01700	0.02147	0.02310	0.01457	0.00363	-0.00610	98
-0.01580	-0.02207	-0.02660	-0.03355	-0.03755	-0.03160	-0.02324	-0.01619	99
-0.00897	-0.00427	-0.00054	0.00432	0.00796	0.00799	0.00716	0.00674	100
0.00631	0.00700	0.00795	0.00872	0.00954	0.01007	0.01069	0.01103	101
0.01180	0.01435	0.01726	0.02004	0.02266	0.02418	0.02516	0.02684	102
0.02767	0.02561	0.02313	0.02045	0.01854	0.02052	0.02337	0.02580	103
0.02812	0.02868	0.02841	0.02923	0.02875	0.02390	0.01811	0.01268	104
0.00744	0.00435	0.00166	-0.00112	-0.00415	-0.00890	-0.01414	-0.01900	105
-0.02404	-0.02916	-0.03360	-0.03948	-0.04315	-0.03834	-0.03096	-0.02577	106
-0.01884	-0.00804	0.00323	0.01501	0.02536	0.02920	0.03113	0.03462	107
0.03696	0.03715	0.03697	0.03672	0.03692	0.03943	0.04261	0.04523	108
0.04828	0.05219	0.05658	0.06030	0.06490	0.07270	0.08148	0.08941	109
0.09804	0.10826	0.11882	0.12935	0.13956	0.14809	0.15545	0.16463	110
0.17133	0.16921	0.16438	0.16184	0.15748	0.14894	0.14008	0.13036	111
0.12258	0.12345	0.12668	0.12817	0.13068	0.13417	0.13752	0.14157	112
0.14441	0.14248	0.13946	0.13690	0.13448	0.13421	0.13449	0.13434	113
0.13441	0.13451	0.13439	0.13471	0.13437	0.13137	0.12794	0.12445	114
0.12146	0.12137	0.12197	0.12211	0.12237	0.12205	0.12146	0.12126	115
0.12055	0.11811	0.11525	0.11265	0.10988	0.10694	0.10358	0.10101	116
0.09723	0.08874	0.07879	0.07016	0.06035	0.04749	0.03374	0.02073	117
0.00710	-0.00805	-0.02373	-0.03888	-0.05453	-0.07176	-0.08924	-0.10674	118
-0.12390	-0.13937	-0.15432	-0.16965	-0.18471	-0.19929	-0.21380	-0.22822	119
-0.24281	-0.25814	-0.27352	-0.28905	-0.30418	-0.31740	-0.32998	-0.34320	120
-0.35568	-0.36584	-0.37487	-0.38538	-0.39391	-0.39552	-0.39455	-0.39626	121
-0.39504	-0.38481	-0.37199	-0.36108	-0.34879	-0.33420	-0.31936	-0.30400	122
-0.28977	-0.28059	-0.27340	-0.26382	-0.25682	-0.25805	-0.26171	-0.26328	123
-0.26633	-0.27252	-0.27872	-0.28601	-0.29093	-0.28615	-0.27795	-0.27313	124
-0.26487	-0.24672	-0.22612	-0.20682	-0.18720	-0.16957	-0.15259	-0.13485	125
-0.11787	-0.10305	-0.08932	-0.07409	-0.06076	-0.05411	-0.04959	-0.04307	126
-0.03840	-0.03861	-0.04030	-0.04080	-0.04211	-0.04490	-0.04732	-0.05116	127
-0.05232	-0.04269	-0.02825	-0.01980	-0.00402	0.03560	0.08294	0.12365	128
0.16951	0.22755	0.28345	0.34826	0.39741	0.38382	0.35126	0.33440	129
0.30595	0.25323	0.20192	0.13878	0.09699	0.14390	0.21231	0.26845	130
0.32673	0.36371	0.39102	0.43092	0.45601	0.43344	0.40039	0.37101	131
0.34402	0.34249	0.34764	0.34786	0.35093	0.35496	0.35906	0.36367	132
0.36716	0.36669	0.36492	0.36420	0.36244	0.35814	0.35252	0.34858	133
0.34239	0.32827	0.31162	0.29720	0.28071	0.25892	0.23581	0.21330	134
0.19074	0.16962	0.14929	0.12765	0.10769	0.09360	0.08155	0.06734	135
0.05518	0.04911	0.04451	0.03896	0.03361	0.02735	0.02054	0.01437	136
0.00727	-0.00275	-0.01362	-0.02400	-0.03465	-0.04532	-0.05543	-0.06677	137
-0.07632	-0.07883	-0.07935	-0.08147	-0.08231	-0.08054	-0.07735	-0.07599	138



-0.07221	-0.06018	-0.04570	-0.03294	-0.01923	-0.00428	0.00829	0.02618	139
0.03626	0.01589	-0.01112	-0.03533	-0.05810	-0.06578	-0.06784	-0.07586	140
-0.07797	-0.06280	-0.04610	-0.02622	-0.01382	-0.03563	-0.06534	-0.09103	141
-0.11631	-0.12829	-0.13407	-0.14708	-0.15152	-0.12803	-0.09846	-0.07053	142
-0.04497	-0.03740	-0.03558	-0.02771	-0.02521	-0.03730	-0.05309	-0.06651	143
-0.08074	-0.09350	-0.10542	-0.11955	-0.13308	-0.14090	-0.14639	-0.15463	144
-0.16003	-0.15610	-0.14922	-0.14546	-0.13948	-0.12662	-0.11237	-0.09941	145
-0.08688	-0.07726	-0.06978	-0.05928	-0.05296	-0.06126	-0.07329	-0.08321	146
-0.09377	-0.10213	-0.10912	-0.11837	-0.12489	-0.12150	-0.11500	-0.10864	147
-0.10282	-0.10222	-0.10320	-0.10279	-0.10360	-0.10722	-0.11166	-0.11547	148
-0.11992	-0.12569	-0.13261	-0.13782	-0.14523	-0.16059	-0.17684	-0.19424	149
-0.20828	-0.20674	-0.19917	-0.19839	-0.19021	-0.15907	-0.12228	-0.08851	150
-0.05442	-0.02638	-0.00170	0.02785	0.05108	0.05275	0.04758	0.04840	151
0.04414	0.02733	0.00847	-0.01087	-0.02725	-0.02879	-0.02523	-0.02668	152
-0.02329	-0.00673	0.01271	0.03137	0.04893	0.05817	0.06393	0.07409	153
0.07936	0.06881	0.05392	0.04233	0.02891	0.01321	-0.00222	-0.01881	154
-0.03299	-0.03797	-0.04013	-0.04387	-0.04616	-0.04646	-0.04618	-0.04596	155
-0.04561	-0.04553	-0.04517	-0.04517	-0.04428	-0.04008	-0.03520	-0.03033	156
-0.02586	-0.02408	-0.02303	-0.02125	-0.01980	-0.01885	-0.01729	-0.01705	157
-0.01459	-0.00373	0.00949	0.02108	0.03374	0.04741	0.06091	0.07562	158
0.08878	0.09506	0.09880	0.10565	0.10971	0.10456	0.09646	0.09110	159
0.08345	0.06970	0.05516	0.03964	0.02728	0.02754	0.03261	0.03190	160
0.03732	0.06205	0.09149	0.11778	0.14507	0.16991	0.19221	0.21781	161
0.23797	0.23930	0.23451	0.23516	0.23083	0.21363	0.19396	0.17445	162
0.15669	0.14938	0.14522	0.13826	0.13328	0.13231	0.13096	0.13170	163
0.12843	0.10904	0.08536	0.06426	0.04197	0.02089	0.00149	-0.02150	164
-0.03986	-0.04074	-0.03723	-0.03691	-0.03545	-0.03475	-0.03490	-0.03405	165
-0.03487	-0.04092	-0.04755	-0.05536	-0.06078	-0.05500	-0.04585	-0.03980	166
-0.03136	-0.01751	-0.00299	0.01224	0.02534	0.02883	0.02879	0.03257	167
0.03252	0.02100	0.00703	-0.00606	-0.01823	-0.02338	-0.02559	-0.03131	168
-0.03305	-0.02213	-0.00782	0.00406	0.01706	0.03047	0.04324	0.05722	169
0.06878	0.07178	0.07120	0.07426	0.07290	0.05790	0.03929	0.02264	170
0.00510	-0.01127	-0.02661	-0.04389	-0.05859	-0.06407	-0.06672	-0.07158	171
-0.07452	-0.07331	-0.07109	-0.06890	-0.06673	-0.06633	-0.06587	-0.06547	172
-0.06390	-0.05795	-0.05025	-0.04382	-0.03584	-0.02390	-0.01228	0.00182	173
0.01185	0.00478	-0.00701	-0.01520	-0.02558	-0.03867	-0.05142	-0.06608	174
-0.07756	-0.07625	-0.07153	-0.06929	-0.06580	-0.06176	-0.05803	-0.05342	175
-0.05035	-0.05288	-0.05741	-0.06001	-0.06446	-0.07422	-0.08483	-0.09555	176
-0.10504	-0.10846	-0.10975	-0.11287	-0.11403	-0.10999	-0.10511	-0.09948	177
-0.09510	-0.09784	-0.10167	-0.10488	-0.10682	-0.10233	-0.09588	-0.09017	178
-0.08363	-0.07692	-0.07093	-0.06258	-0.05692	-0.06228	-0.06964	-0.07644	179
-0.08178	-0.07814	-0.07187	-0.06791	-0.06232	-0.05340	-0.04418	-0.03481	180
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-0.00233	-0.00860	-0.01822	-0.02480	-0.03455	-0.05310	-0.07312	-0.09332	182
-0.11148	-0.11939	-0.12377	-0.13111	-0.13515	-0.13079	-0.12428	-0.11816	183
-0.11183	-0.10810	-0.10428	-0.10074	-0.09549	-0.08340	-0.06911	-0.05645	184
-0.04263	-0.02658	-0.01201	0.00604	0.01808	0.00700	-0.01034	-0.02401	185
-0.03980	-0.05536	-0.06968	-0.08749	-0.10121	-0.09890	-0.09337	-0.08945	186
-0.08659	-0.09241	-0.10020	-0.10745	-0.11418	-0.11527	-0.11381	-0.11579	187
-0.11366	-0.09760	-0.07815	-0.06052	-0.04228	-0.02647	-0.01044	0.00458	188
0.02176	0.04812	0.07704	0.10403	0.13204	0.16096	0.18850	0.21905	189
0.24459	0.25095	0.25129	0.25679	0.25762	0.24705	0.23327	0.22130	190
0.20815	0.19405	0.17992	0.16526	0.15137	0.14064	0.13153	0.12003	191
0.11138	0.11276	0.11720	0.11877	0.12253	0.13176	0.14162	0.15207	192
0.16042	0.15949	0.15521	0.15431	0.15015	0.13641	0.12129	0.10563	193
0.09244	0.09156	0.09344	0.09415	0.09429	0.08810	0.07902	0.07358	194
0.06396	0.04062	0.01513	-0.01100	-0.03385	-0.03950	-0.04034	-0.04511	195
-0.04711	-0.04442	-0.04033	-0.03737	-0.03367	-0.02811	-0.02209	-0.01661	196
-0.01104	-0.00528	-0.00041	0.00593	0.00953	0.00308	-0.00666	-0.01374	197
-0.02332	-0.03877	-0.05490	-0.07192	-0.08638	-0.08966	-0.08858	-0.09166	198
-0.08984	-0.07403	-0.05527	-0.03610	-0.01882	-0.01427	-0.01410	-0.00830	199
-0.00733	-0.02133	-0.03804	-0.05417	-0.06786	-0.06794	-0.06286	-0.06367	200
-0.05848	-0.03477	-0.00684	0.01847	0.04345	0.06230	0.07816	0.09697	201
0.11134	0.11242	0.10922	0.10902	0.10608	0.09754	0.08835	0.07847	202
0.07109	0.07400	0.08127	0.08482	0.09336	0.11563	0.14044	0.16720	203
0.19022	0.19280	0.18737	0.19257	0.18695	0.14595	0.09684	0.05161	204
0.00728	-0.02237	-0.04488	-0.07780	-0.09873	-0.07832	-0.04668	-0.02436	205
0.00309	0.03834	0.07390	0.11094	0.14355	0.15833	0.16694	0.18209	206
0.19132	0.18277	0.16980	0.16125	0.15099	0.13726	0.12275	0.11069	207
0.09709	0.07648	0.05298	0.03380	0.00994	-0.02984	-0.07407	-0.11540	208
-0.15815	-0.20108	-0.24092	-0.28757	-0.32420	-0.32258	-0.30972	-0.30627	209
-0.29616	-0.27211	-0.24709	-0.22031	-0.19975	-0.20496	-0.21621	-0.22702	210
-0.23634	-0.22833	-0.21502	-0.20916	-0.19772	-0.16904	-0.13736	-0.10637	211

-0.07806	-0.06528	-0.05693	-0.04410	-0.03433	-0.03175	-0.03171	-0.02764	212
-0.02641	-0.03617	-0.04715	-0.05732	-0.06480	-0.06078	-0.05362	-0.04654	213
-0.03943	-0.03782	-0.03862	-0.03524	-0.03557	-0.04950	-0.06338	-0.08284	214
-0.09332	-0.06292	-0.02505	0.00858	0.03745	0.03841	0.02899	0.02710	215
0.01596	-0.01795	-0.05423	-0.09492	-0.12555	-0.11085	-0.08501	-0.06328	216
-0.04068	-0.03333	-0.03058	-0.02036	-0.01545	-0.02738	-0.04144	-0.05708	217
-0.06771	-0.05266	-0.03131	-0.01700	-0.00027	0.02060	0.04159	0.05960	218
0.07682	0.09439	0.11037	0.12656	0.13954	0.14251	0.14107	0.14482	219
0.14318	0.12287	0.09947	0.07828	0.05950	0.05320	0.05031	0.04694	220
0.04371	0.03525	0.02503	0.01596	0.00518	-0.00862	-0.02230	-0.03910	221
-0.05189	-0.04722	-0.03732	-0.02969	-0.01827	-0.00253	0.01698	0.03789	222
0.06329	0.09715	0.13359	0.17428	0.21255	0.23385	0.24846	0.27059	223
0.28325	0.26780	0.24423	0.22212	0.19788	0.17935	0.16289	0.13961	224
0.12127	0.12314	0.13006	0.13262	0.13551	0.13640	0.13510	0.13361	225
0.12879	0.11662	0.10224	0.08625	0.07097	0.06369	0.05955	0.05503	226
0.05427	0.05870	0.06646	0.07902	0.09264	0.09956	0.10426	0.11810	227
0.12530	0.10505	0.07862	0.05402	0.02974	0.01835	0.01139	-0.00442	228
-0.01356	0.00176	0.02122	0.04184	0.05860	0.04942	0.03484	0.02901	229
0.02194	0.01225	0.00500	-0.00485	-0.00848	0.01157	0.03684	0.05277	230
0.06918	0.09027	0.10737	0.12004	0.12452	0.11026	0.08817	0.06645	231
0.04109	0.01240	-0.01548	-0.04173	-0.06288	-0.07297	-0.07624	-0.07503	232
-0.06827	-0.05822	-0.04495	-0.02739	-0.00961	0.00333	0.01405	0.02477	233
0.03222	0.03445	0.03441	0.02848	0.02347	0.03203	0.04133	0.04806	234
0.05132	0.04025	0.02410	0.01181	-0.00514	-0.03350	-0.06524	-0.09732	235
-0.12992	-0.15720	-0.18212	-0.21541	-0.24219	-0.24099	-0.23120	-0.23192	236
-0.22359	-0.18927	-0.14830	-0.10064	-0.05586	-0.04306	-0.03610	-0.01012	237
0.00915	-0.00088	-0.01897	-0.02423	-0.03993	-0.08647	-0.14212	-0.20686	238
-0.27090	-0.30117	-0.32127	-0.37166	-0.40078	-0.34526	-0.26791	-0.20150	239
-0.12639	-0.05761	0.01039	0.10193	0.18244	0.20122	0.20270	0.23001	240
0.23705	0.18457	0.11372	0.04201	-0.03605	-0.09928	-0.15677	-0.23801	241
-0.29973	-0.28329	-0.24444	-0.21994	-0.18288	-0.13043	-0.07501	-0.01385	242
0.03970	0.05950	0.06767	0.08005	0.08370	0.07572	0.06411	0.05134	243
0.04355	0.05201	0.07111	0.09930	0.13670	0.17546	0.21772	0.27684	244
0.32903	0.33983	0.33606	0.33941	0.32623	0.28204	0.22468	0.15069	245
0.07693	0.04293	0.01940	-0.01700	-0.03968	-0.03241	-0.01235	0.01059	246
0.03987	0.06950	0.10094	0.13475	0.16862	0.20046	0.22635	0.26657	247
0.28865	0.23887	0.16874	0.12374	0.06765	-0.02345	-0.11385	-0.20878	248
-0.28680	-0.28840	-0.27187	-0.30253	-0.31830	-0.25488	-0.18178	-0.14570	249
-0.10701	-0.05144	0.00324	0.06024	0.11572	0.14974	0.18896	0.27166	250
0.34869	0.35701	0.35349	0.38615	0.40439	0.36926	0.31658	0.26011	251
0.19953	0.15815	0.11729	0.05669	-0.01091	-0.07425	-0.14376	-0.21277	252
-0.27468	-0.33920	-0.39336	-0.43862	-0.47327	-0.47863	-0.46712	-0.46499	253
-0.43739	-0.34553	-0.24652	-0.17209	-0.09805	-0.02374	0.03698	0.08082	254
0.10641	0.10909	0.10217	0.09853	0.09428	0.08671	0.09320	0.13565	255
0.19299	0.22792	0.25853	0.31259	0.35827	0.36072	0.34915	0.33956	256
0.30232	0.22828	0.12254	-0.01009	-0.14475	-0.25476	-0.34767	-0.45529	257
-0.56035	-0.60753	-0.60212	-0.60018	-0.60204	-0.56724	-0.51719	-0.48632	258
-0.44418	-0.38204	-0.33645	-0.30296	-0.27196	-0.26230	-0.28169	-0.28622	259
-0.28354	-0.28358	-0.25645	-0.19709	-0.12713	-0.06692	-0.01898	-0.00295	260
0.00960	-0.02496	-0.07936	-0.09850	-0.11549	-0.08130	-0.01369	0.05600	261
0.11975	0.18482	0.23512	0.29622	0.40074	0.50591	0.64754	0.74075	262
0.82565	0.87216	0.89095	0.87802	0.89226	0.63052	0.43232	0.61241	263
0.59804	0.59080	0.65004	0.61130	0.50074	0.48453	0.53070	0.52737	264
0.50643	0.47515	0.49856	0.42624	0.26832	0.21194	0.18030	0.04834	265
-0.10773	-0.16406	-0.19766	-0.27775	-0.36904	-0.43969	-0.47242	-0.44336	266
-0.39742	-0.39132	-0.39281	-0.41602	-0.44518	-0.41476	-0.37038	-0.33571	267
-0.27486	-0.24134	-0.25243	-0.25193	-0.23884	-0.24014	-0.23372	-0.22910	268
-0.26759	-0.33470	-0.38291	-0.39340	-0.37089	-0.30706	-0.20155	-0.05458	269
0.10634	0.21090	0.23604	0.22675	0.17222	0.02213	-0.17069	-0.34526	270
-0.47183	-0.52388	-0.53350	-0.53899	-0.52279	-0.47818	-0.47722	-0.56220	271
-0.65253	-0.67374	-0.66980	-0.68664	-0.65931	-0.52682	-0.35022	-0.14995	272
0.03105	0.10973	0.15516	0.20601	0.20408	0.13926	0.06490	-0.02508	273
-0.10600	-0.10252	-0.07366	-0.06159	-0.05474	-0.06908	-0.09824	-0.11611	274
-0.13697	-0.18619	-0.21508	-0.18888	-0.13454	-0.07418	-0.00301	0.06709	275
0.13495	0.21658	0.28613	0.32746	0.36989	0.43110	0.48655	0.54384	276
0.58913	0.57731	0.54390	0.51343	0.46455	0.39394	0.31234	0.20495	277
0.10703	0.08040	0.07753	0.07024	0.07890	0.09560	0.11546	0.14407	278
0.14891	0.08850	-0.00502	-0.10149	-0.21599	-0.34849	-0.46890	-0.56459	279
-0.62059	-0.61254	-0.56415	-0.52630	-0.46775	-0.34044	-0.21984	-0.15281	280
-0.10923	-0.08094	-0.06986	-0.04461	-0.02514	-0.06321	-0.09630	-0.07084	281
-0.04606	-0.07232	-0.11252	-0.14900	-0.20221	-0.26544	-0.33204	-0.41513	282
-0.48253	-0.48639	-0.46008	-0.43002	-0.38517	-0.32931	-0.27273	-0.22190	283
-0.18062	-0.14930	-0.12119	-0.10222	-0.07969	-0.03298	0.01016	0.04075	284

0.05485	0.03231	-0.00695	-0.04945	-0.09258	-0.12240	-0.13502	-0.14103	285
-0.11998	-0.04509	0.04599	0.13707	0.21795	0.25565	0.26783	0.27432	286
0.25543	0.19807	0.12872	0.05651	-0.00956	-0.04555	-0.06830	-0.08685	287
-0.09371	-0.09239	-0.08176	-0.05484	-0.02195	-0.00105	0.02280	0.07178	288
0.11362	0.11020	0.09028	0.07741	0.04403	-0.02848	-0.11644	-0.21746	289
-0.31716	-0.37855	-0.42636	-0.47667	-0.50949	-0.51748	-0.50747	-0.48638	290
-0.45179	-0.40336	-0.34869	-0.30388	-0.25863	-0.19364	-0.13558	-0.09472	291
-0.06780	-0.06403	-0.07019	-0.08397	-0.09561	-0.08271	-0.05719	-0.04884	292
-0.02104	0.07473	0.18380	0.28713	0.38388	0.43630	0.47473	0.53393	293
0.57775	0.57223	0.55889	0.56227	0.57052	0.58403	0.60229	0.64032	294
0.67117	0.65103	0.61671	0.59786	0.56420	0.49654	0.41565	0.32258	295
0.22354	0.14639	0.07331	-0.02528	-0.10810	-0.12631	-0.12561	-0.12518	296
-0.11346	-0.10591	-0.08993	-0.06781	-0.03483	0.02942	0.10513	0.15702	297
0.21775	0.33248	0.44344	0.53347	0.59823	0.59477	0.56722	0.54497	298
0.51555	0.48446	0.45767	0.45325	0.45163	0.41874	0.38410	0.38078	299
0.36821	0.30363	0.23004	0.15397	0.08401	0.06593	0.05774	0.02825	300
0.00361	-0.00462	-0.01117	-0.01692	-0.02424	-0.04867	-0.07326	-0.08483	301
-0.09280	-0.10195	-0.10820	-0.10934	-0.11037	-0.11451	-0.12145	-0.13424	302
-0.15080	-0.16472	-0.18112	-0.20985	-0.23632	-0.24082	-0.23875	-0.24160	303
-0.23548	-0.21186	-0.17802	-0.13522	-0.08434	-0.03363	0.02164	0.08839	304
0.15417	0.20406	0.24677	0.29381	0.32794	0.33111	0.31942	0.30562	305
0.27969	0.23802	0.19129	0.13613	0.08712	0.07210	0.06994	0.05783	306
0.06007	0.09849	0.14706	0.19461	0.24135	0.27256	0.29757	0.32696	307
0.34999	0.35705	0.35882	0.36168	0.36123	0.35777	0.35201	0.35315	308
0.34950	0.32136	0.28986	0.26816	0.24772	0.22805	0.21238	0.19603	309
0.18519	0.19141	0.19845	0.20806	0.20793	0.16796	0.11426	0.06493	310
0.00600	-0.06452	-0.13902	-0.22118	-0.29868	-0.34646	-0.38196	-0.43027	311
-0.46281	-0.44509	-0.40777	-0.39416	-0.35692	-0.24149	-0.10852	0.01440	312
0.13698	0.23411	0.31880	0.42128	0.50189	0.50798	0.49220	0.49560	313
0.48500	0.44345	0.39529	0.35586	0.31462	0.26814	0.22196	0.17257	314
0.12615	0.09623	0.06888	0.03683	0.00450	-0.03059	-0.06733	-0.10829	315
-0.14982	-0.18269	-0.21202	-0.25408	-0.28656	-0.27733	-0.25727	-0.24900	316
-0.23469	-0.20729	-0.17927	-0.15119	-0.12881	-0.12835	-0.13453	-0.13424	317
-0.13771	-0.15159	-0.16699	-0.17645	-0.18507	-0.19794	-0.21127	-0.21533	318
-0.22268	-0.25106	-0.28329	-0.30636	-0.33145	-0.36350	-0.39468	-0.42388	319
-0.44791	-0.46034	-0.46544	-0.47078	-0.46875	-0.44930	-0.42314	-0.40521	320
-0.37936	-0.32632	-0.26664	-0.20647	-0.14726	-0.10630	-0.07361	-0.03224	321
-0.00542	-0.01948	-0.04625	-0.07195	-0.09862	-0.11093	-0.11442	-0.12538	322
-0.12148	-0.07399	-0.01363	0.03575	0.09049	0.15770	0.22379	0.28830	323
0.34619	0.38123	0.40994	0.44623	0.47856	0.49876	0.51494	0.53200	324
0.54164	0.53816	0.52545	0.51565	0.49742	0.45293	0.40489	0.37014	325
0.33420	0.28610	0.23223	0.17474	0.10839	0.03477	-0.04365	-0.12395	326
-0.19984	-0.26526	-0.32154	-0.37852	-0.43003	-0.46378	-0.49700	-0.54722	327
-0.59236	-0.60667	-0.60734	-0.61195	-0.59837	-0.54850	-0.48788	-0.43748	328
-0.38539	-0.32279	-0.25865	-0.19476	-0.12607	-0.05648	0.01330	0.09711	329
0.16631	0.17857	0.17065	0.18418	0.18461	0.13867	0.08967	0.05161	330
0.01613	0.00018	-0.01630	-0.05306	-0.08393	-0.08043	-0.06008	-0.02838	331
0.01107	0.03256	0.03750	0.02465	-0.01667	-0.08140	-0.15289	-0.22357	332
-0.26439	-0.24278	-0.19283	-0.14112	-0.10452	-0.11265	-0.15794	-0.23786	333
-0.31686	-0.33477	-0.29843	-0.24035	-0.12320	0.08246	0.28575	0.45972	334
0.56629	0.52938	0.45238	0.43755	0.42627	0.35576	0.29046	0.24203	335
0.18343	0.14130	0.08641	-0.00458	-0.08216	-0.09955	-0.08436	-0.06256	336
-0.02528	0.02032	0.05353	0.06720	0.06193	0.03852	0.01356	-0.00713	337
-0.01532	0.00155	0.02498	0.03280	0.03971	0.06581	0.09399	0.12815	338
0.16588	0.18081	0.19300	0.22070	0.23295	0.20243	0.15413	0.11268	339
0.06768	0.01424	-0.03047	-0.05693	-0.07841	-0.10679	-0.14091	-0.19140	340
-0.24497	-0.27037	-0.28615	-0.30856	-0.31306	-0.28286	-0.23960	-0.20641	341
-0.17238	-0.12575	-0.08301	-0.05697	-0.02821	0.02155	0.07963	0.14675	342
0.21590	0.26239	0.30085	0.34789	0.38277	0.38756	0.38386	0.38786	343
0.39210	0.39481	0.40115	0.41362	0.42869	0.44331	0.45783	0.46895	344
0.47848	0.49071	0.49848	0.50662	0.50473	0.47094	0.42417	0.38876	345
0.33896	0.24787	0.14783	0.04124	-0.05813	-0.10547	-0.13525	-0.18806	346
-0.21816	-0.17992	-0.12314	-0.07207	-0.01801	0.01922	0.04960	0.09267	347
0.12390	0.11326	0.09029	0.08433	0.06773	0.01600	-0.04274	-0.09554	348
-0.14753	-0.18865	-0.22426	-0.26639	-0.29990	-0.30553	-0.30667	-0.31468	349
-0.32371	-0.33940	-0.35701	-0.38096	-0.39809	-0.38407	-0.35799	-0.34710	350
-0.32175	-0.24846	-0.16682	-0.08698	-0.01395	0.01760	0.03518	0.07386	351
0.09620	0.06221	0.01683	-0.02165	-0.05700	-0.06520	-0.06291	-0.06768	352
-0.06174	-0.03160	0.00359	0.04064	0.07128	0.07116	0.05970	0.05526	353
0.04136	0.00655	-0.03266	-0.07350	-0.11122	-0.12792	-0.13874	-0.16155	354
-0.17803	-0.16981	-0.15743	-0.14741	-0.13977	-0.14933	-0.16524	-0.17246	355
-0.18824	-0.23116	-0.28024	-0.32493	-0.36817	-0.40093	-0.42698	-0.45593	356
-0.47510	-0.46792	-0.45117	-0.44046	-0.42189	-0.38357	-0.33915	-0.29804	357

-0.25322	-0.20177	-0.14771	-0.09745	-0.04450	0.01980	0.08587	0.14873	358
0.21046	0.26761	0.32014	0.37763	0.42510	0.43845	0.44010	0.44990	359
0.44988	0.42601	0.39361	0.36933	0.33700	0.28013	0.21714	0.15864	360
0.09892	0.04105	-0.01250	-0.07298	-0.12172	-0.12839	-0.12250	-0.12462	361
-0.11993	-0.10475	-0.08729	-0.07014	-0.05434	-0.04566	-0.03946	-0.03160	362
-0.02593	-0.02495	-0.02694	-0.02574	-0.02959	-0.05008	-0.07442	-0.09859	363
-0.12162	-0.13375	-0.14202	-0.15467	-0.16299	-0.15888	-0.15265	-0.14505	364
-0.14052	-0.15256	-0.16922	-0.18098	-0.19526	-0.21471	-0.23265	-0.25409	365
-0.26727	-0.24938	-0.22030	-0.20135	-0.17164	-0.11215	-0.04614	0.01779	366
0.07929	0.12241	0.15782	0.20217	0.23535	0.23351	0.21939	0.21643	367
0.20202	0.15590	0.10271	0.05121	0.00231	-0.02681	-0.04625	-0.07864	368
-0.09567	-0.06102	-0.01409	0.02660	0.06730	0.09181	0.10902	0.13579	369
0.15172	0.13239	0.10538	0.08122	0.05906	0.05557	0.05789	0.05458	370
0.05539	0.06558	0.07519	0.08870	0.09382	0.06496	0.02696	-0.00553	371
-0.04104	-0.07579	-0.10870	-0.14626	-0.17787	-0.18701	-0.19030	-0.19760	372
-0.20310	-0.20901	-0.21565	-0.22041	-0.22726	-0.24174	-0.25731	-0.27290	373
-0.28607	-0.28841	-0.28579	-0.28838	-0.28429	-0.25910	-0.22942	-0.20060	374
-0.17366	-0.16072	-0.15226	-0.13962	-0.13035	-0.12869	-0.12653	-0.12863	375
-0.12327	-0.08682	-0.04127	-0.00375	0.03937	0.09388	0.14912	0.20676	376
0.25777	0.28093	0.29309	0.31732	0.32810	0.29661	0.25390	0.21890	377
0.17983	0.13812	0.09639	0.05397	0.01342	-0.02016	-0.05118	-0.08450	378
-0.11438	-0.13440	-0.14718	-0.17045	-0.17923	-0.13571	-0.07885	-0.03025	379
0.02151	0.06854	0.11150	0.16131	0.20179	0.20917	0.20802	0.21198	380
0.21359	0.21739	0.22101	0.22506	0.22725	0.22120	0.21173	0.20595	381
0.19562	0.17093	0.14284	0.11605	0.08973	0.07002	0.05374	0.03262	382
0.01753	0.02302	0.03426	0.04136	0.05110	0.06409	0.07705	0.09171	383
0.10342	0.10296	0.09812	0.09820	0.09331	0.07317	0.04858	0.02783	384
0.00436	-0.02512	-0.05536	-0.08599	-0.11468	-0.13439	-0.15092	-0.17063	385
-0.18675	-0.19239	-0.19365	-0.19984	-0.20034	-0.18238	-0.15959	-0.13987	386
-0.11889	-0.09859	-0.08042	-0.05820	-0.04163	-0.04606	-0.05471	-0.06229	387
-0.06766	-0.05769	-0.04262	-0.03262	-0.01790	0.00944	0.03922	0.06867	388
0.09638	0.11350	0.12770	0.14417	0.15896	0.17116	0.18183	0.19450	389
0.20447	0.20463	0.20171	0.20156	0.19884	0.18921	0.17774	0.16754	390
0.15639	0.14352	0.12915	0.11719	0.10175	0.07343	0.04142	0.01231	391
-0.01884	-0.05329	-0.08768	-0.12373	-0.15642	-0.17525	-0.18790	-0.20833	392
-0.21930	-0.19879	-0.16808	-0.14665	-0.11712	-0.06662	-0.01311	0.04210	393
0.09069	0.10805	0.11345	0.13205	0.13654	0.09791	0.04895	0.00521	394
-0.03840	-0.06840	-0.09115	-0.12388	-0.14422	-0.12267	-0.09043	-0.06467	395
-0.03665	-0.01324	0.00702	0.03235	0.05136	0.04860	0.04131	0.03547	396
0.03162	0.04222	0.05756	0.06850	0.08341	0.10798	0.13370	0.16090	397
0.18417	0.18947	0.18929	0.19387	0.19454	0.18620	0.17609	0.16614	398
0.15728	0.15500	0.15424	0.15262	0.15063	0.14504	0.13698	0.13248	399
0.12301	0.09599	0.06440	0.03570	0.00553	-0.02445	-0.05432	-0.08458	400
-0.11440	-0.14278	-0.17071	-0.19907	-0.22672	-0.25227	-0.27540	-0.30252	401
-0.32386	-0.32343	-0.31743	-0.31506	-0.31071	-0.30584	-0.29961	-0.29573	402
-0.28815	-0.26637	-0.23952	-0.21774	-0.19131	-0.15143	-0.11155	-0.06701	403
-0.03192	-0.03691	-0.05276	-0.06097	-0.07338	-0.08839	-0.10155	-0.11998	404
-0.13057	-0.11091	-0.08388	-0.06109	-0.03749	-0.02083	-0.00697	0.01037	405
0.02387	0.02558	0.02457	0.02501	0.02545	0.02932	0.03364	0.03845	406
0.04182	0.03824	0.03158	0.02880	0.02172	0.00040	-0.02308	-0.04729	407
-0.06773	-0.06948	-0.06499	-0.06656	-0.06274	-0.04421	-0.02423	-0.00214	408
0.01433	0.00486	-0.00980	-0.02315	-0.03390	-0.02613	-0.01256	-0.00427	409
0.00793	0.02877	0.04745	0.07363	0.08717	0.04975	-0.00014	-0.04276	410
-0.08682	-0.11946	-0.14587	-0.18123	-0.20516	-0.19016	-0.16475	-0.14640	411
-0.12422	-0.10023	-0.07557	-0.05117	-0.02682	-0.00212	0.02053	0.04730	412
0.06770	0.06393	0.05259	0.04786	0.03773	0.01447	-0.00968	-0.03671	413
-0.05736	-0.04971	-0.03536	-0.02467	-0.01363	-0.01079	-0.01086	-0.00773	414
-0.00766	-0.01608	-0.02510	-0.03600	-0.04254	-0.02954	-0.01151	0.00312	415
0.01951	0.03588	0.05269	0.06887	0.08608	0.10743	0.13007	0.15166	416
0.17384	0.19694	0.21806	0.24362	0.26222	0.25387	0.23749	0.22790	417
0.21300	0.18648	0.15792	0.12927	0.10277	0.08752	0.07546	0.06101	418
0.04809	0.03694	0.02579	0.01546	0.00366	-0.01418	-0.03364	-0.05191	419
-0.07078	-0.08972	-0.10836	-0.12778	-0.14579	-0.15859	-0.16872	-0.18242	420
-0.19159	-0.18507	-0.17368	-0.16658	-0.15594	-0.13661	-0.11607	-0.09487	421
-0.07623	-0.06980	-0.06712	-0.06116	-0.05792	-0.06086	-0.06515	-0.06902	422
-0.07242	-0.07247	-0.07148	-0.07130	-0.07059	-0.06918	-0.06837	-0.06596	423
-0.06606	-0.07589	-0.08853	-0.09896	-0.11074	-0.12462	-0.13769	-0.15316	424
-0.16464	-0.16045	-0.15214	-0.14662	-0.13979	-0.13306	-0.12736	-0.11954	425
-0.11475	-0.12117	-0.12966	-0.13802	-0.14455	-0.14039	-0.13294	-0.12852	426
-0.12153	-0.10863	-0.09456	-0.08063	-0.06759	-0.05968	-0.05377	-0.04559	427
-0.03986	-0.04168	-0.04543	-0.04799	-0.05093	-0.05317	-0.05474	-0.05736	428
-0.05864	-0.05497	-0.05072	-0.04602	-0.04267	-0.04623	-0.05019	-0.05571	429
-0.05767	-0.04359	-0.02510	-0.00998	0.00713	0.02673	0.04570	0.06677	430

0.08435	0.08803	0.08906	0.09051	0.09369	0.10812	0.12546	0.14074	431
0.15684	0.17199	0.18549	0.20213	0.21411	0.20860	0.19805	0.19158	432
0.18202	0.16645	0.14908	0.13303	0.11621	0.09796	0.08061	0.06093	433
0.04517	0.04446	0.04900	0.04835	0.05262	0.07086	0.09092	0.11231	434
0.12919	0.12457	0.11363	0.10795	0.09824	0.08051	0.06117	0.04199	435
0.02398	0.01274	0.00371	-0.00753	-0.01654	-0.01945	-0.01944	-0.02315	436
-0.02236	-0.00613	0.01427	0.03165	0.05068	0.07123	0.09093	0.11295	437
0.13115	0.13475	0.13399	0.13678	0.13692	0.13148	0.12543	0.11865	438
0.11375	0.11741	0.12217	0.12780	0.13048	0.11888	0.10255	0.09086	439
0.07489	0.04742	0.01782	-0.01166	-0.03915	-0.05552	-0.06791	-0.08452	440
-0.09668	-0.09599	-0.09114	-0.08994	-0.08577	-0.07388	-0.06195	-0.04746	441
-0.03810	-0.05022	-0.06785	-0.08211	-0.09716	-0.10819	-0.11472	-0.12905	442
-0.13253	-0.09639	-0.05026	-0.01021	0.03153	0.06696	0.09745	0.13596	443
0.16362	0.15278	0.13179	0.11753	0.10024	0.08378	0.06969	0.05085	444
0.03887	0.05183	0.07135	0.08656	0.10363	0.11943	0.13359	0.15094	445
0.16357	0.15929	0.14920	0.14478	0.13487	0.10956	0.08059	0.05341	446
0.02640	0.00427	-0.01520	-0.03821	-0.05698	-0.06143	-0.06340	-0.06526	447
-0.06979	-0.08891	-0.11210	-0.13223	-0.15392	-0.17643	-0.19661	-0.22197	448
-0.23926	-0.22566	-0.20297	-0.18781	-0.16686	-0.13408	-0.09877	-0.06408	449
-0.03075	-0.00571	0.01525	0.04154	0.06119	0.05864	0.04929	0.04570	450
0.03758	0.01914	-0.00027	-0.02151	-0.03805	-0.03397	-0.02298	-0.01862	451
-0.00819	0.01844	0.04783	0.07757	0.10372	0.11140	0.11239	0.12039	452
0.12131	0.10149	0.07719	0.05452	0.03309	0.02280	0.01589	0.00593	453
-0.00140	-0.00295	-0.00242	-0.00388	-0.00332	0.00310	0.01131	0.01810	454
0.02578	0.03541	0.04366	0.05528	0.06167	0.04753	0.02898	0.01212	455
-0.00341	-0.00731	-0.00656	-0.01118	-0.01000	0.00911	0.03157	0.05373	456
0.07307	0.07596	0.07358	0.07623	0.07431	0.06080	0.04430	0.02959	457
0.01433	0.00020	-0.01290	-0.02764	-0.04016	-0.04502	-0.04795	-0.05195	458
-0.05580	-0.06157	-0.06876	-0.07367	-0.08159	-0.10002	-0.12111	-0.14060	459
-0.16026	-0.17710	-0.19126	-0.20998	-0.22219	-0.21075	-0.19199	-0.17957	460
-0.16199	-0.13199	-0.10027	-0.06758	-0.03841	-0.02626	-0.01820	-0.00782	461
0.00210	0.01610	0.03123	0.04536	0.06001	0.07501	0.08857	0.10519	462
0.11718	0.11126	0.10108	0.09323	0.08515	0.08210	0.08120	0.07752	463
0.07712	0.08723	0.10025	0.11125	0.12335	0.13635	0.14907	0.16271	464
0.17475	0.18063	0.18447	0.19020	0.19416	0.19340	0.19145	0.19018	465
0.18869	0.18774	0.18717	0.18601	0.18555	0.18733	0.18963	0.19172	466
0.19358	0.19387	0.19270	0.19386	0.19179	0.17797	0.16139	0.14624	467
0.13117	0.11998	0.11090	0.09892	0.09050	0.09408	0.10000	0.10555	468
0.10943	0.10314	0.09330	0.08714	0.07742	0.05773	0.03641	0.01473	469
-0.00444	-0.01117	-0.01337	-0.02036	-0.02244	-0.01001	0.00569	0.02000	470
0.03379	0.04130	0.04681	0.05418	0.05997	0.06216	0.06404	0.06518	471
0.06801	0.07837	0.09054	0.10168	0.11290	0.12182	0.12962	0.13896	472
0.14632	0.14690	0.14537	0.14574	0.14439	0.13864	0.13139	0.12555	473
0.11841	0.10756	0.09610	0.08456	0.07385	0.06737	0.06240	0.05589	474
0.05089	0.05021	0.05011	0.05037	0.04937	0.04211	0.03338	0.02547	475
0.01746	0.01107	0.00511	-0.00112	-0.00738	-0.01434	-0.02257	-0.02846	476
-0.03764	-0.05919	-0.08336	-0.10659	-0.12883	-0.14339	-0.15454	-0.16993	477
-0.18035	-0.17451	-0.16474	-0.15713	-0.14919	-0.14489	-0.14186	-0.13755	478
-0.13434	-0.13394	-0.13336	-0.13409	-0.13250	-0.12120	-0.10829	-0.09524	479
-0.08428	-0.08430	-0.08814	-0.08817	-0.09172	-0.10497	-0.11875	-0.13497	480
-0.14574	-0.13292	-0.11325	-0.09909	-0.08124	-0.05712	-0.03367	-0.00649	481
0.01390	0.00706	-0.00750	-0.01616	-0.02857	-0.04623	-0.06333	-0.08366	482
-0.09815	-0.08926	-0.07340	-0.06336	-0.04890	-0.02543	-0.00050	0.02489	483
0.04775	0.05875	0.06474	0.07657	0.08180	0.06603	0.04506	0.02700	484
0.00856	-0.00495	-0.01485	-0.03036	-0.03846	-0.02050	0.00373	0.02462	485
0.04557	0.05849	0.06692	0.08173	0.08848	0.06791	0.04061	0.01703	486
-0.00688	-0.02355	-0.03546	-0.05451	-0.06430	-0.04180	-0.01166	0.01455	487
0.04063	0.05611	0.06664	0.08354	0.09300	0.07828	0.05858	0.04023	488
0.02431	0.02516	0.03171	0.03255	0.03871	0.05907	0.08163	0.10498	489
0.12438	0.12455	0.11799	0.11827	0.11185	0.08644	0.05705	0.02889	490
0.00233	-0.01257	-0.02374	-0.03833	-0.04995	-0.05451	-0.05787	-0.06104	491
-0.06561	-0.07743	-0.09061	-0.10365	-0.11532	-0.11926	-0.11949	-0.12459	492
-0.12377	-0.10312	-0.07759	-0.05480	-0.03174	-0.01371	0.00061	0.02068	493
0.03308	0.01837	-0.00308	-0.02061	-0.03889	-0.05159	-0.06042	-0.07515	494
-0.08225	-0.06278	-0.03761	-0.01445	0.00674	0.01208	0.01133	0.01740	495
0.01635	-0.00612	-0.03234	-0.05868	-0.08089	-0.08068	-0.07349	-0.07266	496
-0.06637	-0.04706	-0.02489	-0.00370	0.01660	0.02971	0.04064	0.05350	497
0.06464	0.07198	0.07748	0.08524	0.09016	0.08534	0.07721	0.07234	498
0.06438	0.04747	0.02897	0.01059	-0.00638	-0.01533	-0.02221	-0.03043	499
-0.03806	-0.04609	-0.05447	-0.06229	-0.07055	-0.08032	-0.08858	-0.10040	500
-0.10655	-0.09052	-0.06858	-0.05082	-0.03095	-0.01003	0.00937	0.03223	501
0.04984	0.04760	0.04104	0.03618	0.03239	0.03903	0.04927	0.05585	502
0.06571	0.08428	0.10297	0.12459	0.14019	0.13029	0.11338	0.10169	503

0.08697	0.06902	0.05225	0.03184	0.01750	0.02675	0.04217	0.05349	504
0.06660	0.07875	0.08951	0.10291	0.11254	0.10865	0.10117	0.09615	505
0.08985	0.08310	0.07610	0.06933	0.06235	0.05433	0.04665	0.03803	506
0.03101	0.03000	0.03059	0.03031	0.02991	0.02716	0.02104	0.02104	507
0.01235	-0.02837	-0.07768	-0.12095	-0.16692	-0.21289	-0.25469	-0.30508	508
-0.34229	-0.33000	-0.30336	-0.28825	-0.26480	-0.22540	-0.18373	-0.14086	509
-0.10253	-0.08557	-0.07419	-0.05908	-0.04583	-0.03231	-0.01903	-0.00535	510
0.00741	0.01613	0.02232	0.03216	0.03735	0.02595	0.01146	-0.00258	511
-0.01423	-0.01161	-0.00421	-0.00144	0.00553	0.02337	0.04218	0.06295	512
0.07867	0.07215	0.05905	0.05129	0.03955	0.02012	0.00016	-0.02155	513
-0.03923	-0.03973	-0.03552	-0.03471	-0.03198	-0.02765	-0.02398	-0.01832	514
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-0.05008	-0.04491	-0.04033	-0.03365	-0.03063	-0.04188	-0.05651	-0.06926	516
-0.08218	-0.09116	-0.09862	-0.10794	-0.11526	-0.11648	-0.11643	-0.11676	517
-0.11752	-0.12161	-0.12615	-0.13101	-0.13451	-0.13159	-0.12537	-0.12359	518
-0.11636	-0.09055	-0.06042	-0.03241	-0.00491	0.01492	0.03017	0.05202	519
0.06533	0.04894	0.02502	0.00573	-0.01516	-0.03266	-0.04779	-0.06662	520
-0.08055	-0.07752	-0.07027	-0.06553	-0.05996	-0.05671	-0.05357	-0.05090	521
-0.04704	-0.03749	-0.02629	-0.01649	-0.00575	0.00672	0.01860	0.03234	522
0.04285	0.04061	0.03439	0.03176	0.02603	0.01279	-0.00213	-0.01645	523
-0.03012	-0.03927	-0.04567	-0.05601	-0.06119	-0.04851	-0.03085	-0.01683	524
-0.00083	0.01716	0.03341	0.05395	0.06762	0.05499	0.03484	0.02059	525
0.00246	-0.02201	-0.04611	-0.07326	-0.09468	-0.09283	-0.08488	-0.08106	526
-0.07524	-0.06947	-0.06432	-0.05780	-0.05317	-0.05514	-0.05796	-0.06146	527
-0.06272	-0.05303	-0.04052	-0.03003	-0.01848	-0.00670	0.00526	0.01706	528
0.02891	0.04111	0.05263	0.06563	0.07614	0.07724	0.07466	0.07612	529
0.07336	0.05738	0.03949	0.02087	0.00573	0.00788	0.01492	0.01809	530
0.02385	0.03371	0.04369	0.05497	0.06364	0.06145	0.05698	0.05327	531
0.05043	0.05467	0.06125	0.06544	0.07186	0.08407	0.09735	0.11065	532
0.12269	0.12819	0.13081	0.13700	0.13895	0.12691	0.11100	0.09806	533
0.08317	0.06515	0.04636	0.02806	0.00964	-0.00850	-0.02626	-0.04466	534
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-0.02282	-0.01946	-0.01452	-0.01112	-0.00645	0.00122	0.00874	0.01771	537
0.02383	0.01839	0.00919	0.00345	-0.00522	-0.02142	-0.03822	-0.05647	538
-0.07112	-0.06996	-0.06433	-0.06217	-0.05775	-0.04993	-0.04232	-0.03300	539
-0.02679	-0.03314	-0.04242	-0.05023	-0.05789	-0.06075	-0.06173	-0.06500	540
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0.02067	0.03856	0.05736	0.07579	0.09381	0.10890	0.12246	0.13810	542
0.15094	0.15419	0.15395	0.15736	0.15694	0.14485	0.12963	0.11662	543
0.10249	0.08740	0.07307	0.05696	0.04369	0.04112	0.04119	0.03981	544
0.03857	0.03464	0.02872	0.02581	0.01921	-0.00038	-0.02121	-0.04413	545
-0.06129	-0.05250	-0.03507	-0.02603	-0.00944	0.02754	0.06695	0.10860	546
0.14312	0.14448	0.13674	0.13583	0.13071	0.12073	0.11065	0.09885	547
0.09034	0.09515	0.10261	0.10948	0.11475	0.10924	0.10040	0.09477	548
0.08625	0.07071	0.05324	0.03706	0.02041	0.00392	-0.01141	-0.02898	549
-0.04306	-0.04416	-0.04108	-0.04185	-0.03920	-0.02752	-0.01414	-0.00108	550
0.01087	0.01605	0.01961	0.02405	0.02837	0.03481	0.04181	0.04828	551
0.05506	0.06228	0.06924	0.07682	0.08337	0.08576	0.08746	0.08916	552
0.09145	0.09742	0.10346	0.11060	0.11527	0.10930	0.09979	0.09371	553
0.08450	0.06678	0.04794	0.02840	0.01149	0.00717	0.00635	0.00283	554
0.00114	0.00216	0.00388	0.00522	0.00674	0.00828	0.01027	0.01138	555
0.01373	0.02095	0.02883	0.03704	0.04380	0.04346	0.04085	0.04037	556
0.03804	0.03101	0.02348	0.01529	0.00895	0.01099	0.01528	0.01796	557
0.02147	0.02532	0.02862	0.03322	0.03582	0.03094	0.02422	0.01857	558
0.01272	0.00859	0.00530	0.00086	-0.00214	-0.00040	0.00268	0.00476	559
0.00746	0.01093	0.01445	0.01817	0.02141	0.02274	0.02328	0.02473	560
0.02513	0.02213	0.01804	0.01497	0.01098	0.00452	-0.00261	-0.00923	561
-0.01614	-0.02342	-0.03076	-0.03812	-0.04527	-0.05160	-0.05715	-0.06395	562
-0.06896	-0.06751	-0.06427	-0.06231	-0.05969	-0.05647	-0.05392	-0.04985	563
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-0.07729	-0.06192	-0.04418	-0.02666	-0.01134	-0.00824	-0.00976	-0.00622	565
-0.00798	-0.02574	-0.04678	-0.06685	-0.08538	-0.09315	-0.09731	-0.10504	566
-0.10934	-0.10441	-0.09722	-0.09127	-0.08510	-0.08085	-0.07700	-0.07303	567
-0.06891	-0.06329	-0.05761	-0.05165	-0.04638	-0.04417	-0.04271	-0.04084	568
-0.03899	-0.03627	-0.03274	-0.03055	-0.02660	-0.01626	-0.00465	0.00659	569
0.01714	0.02305	0.02730	0.03327	0.03750	0.03670	0.03498	0.03331	570
0.03242	0.03600	0.04063	0.04467	0.04870	0.05107	0.05253	0.05529	571
0.05639	0.05177	0.04578	0.04056	0.03523	0.03133	0.02786	0.02398	572
0.02051	0.01784	0.01563	0.01288	0.01074	0.01058	0.01049	0.01099	573
0.01017	0.00383	-0.00469	-0.01075	-0.01935	-0.03579	-0.05344	-0.07139	574
-0.08727	-0.09290	-0.09481	-0.10071	-0.10238	-0.09143	-0.07697	-0.06512	575
-0.05175	-0.03623	-0.02107	-0.00447	0.00948	0.01303	0.01343	0.01650	576

0.01740	0.01340	0.00830	0.00368	-0.00084	-0.00362	-0.00616	-0.00860	577
-0.01145	-0.01662	-0.02198	-0.02771	-0.03241	-0.03242	-0.03108	-0.03086	578
-0.02980	-0.02707	-0.02406	-0.02101	-0.01832	-0.01747	-0.01712	-0.01637	579
-0.01595	-0.01603	-0.01670	-0.01641	-0.01743	-0.02330	-0.03015	-0.03672	580
-0.04273	-0.04513	-0.04586	-0.04871	-0.04903	-0.04096	-0.03082	-0.02193	581
-0.01275	-0.00511	0.00177	0.00967	0.01623	0.01851	0.01932	0.02150	582
0.02239	0.01974	0.01624	0.01318	0.01011	0.00799	0.00637	0.00408	583
0.00261	0.00384	0.00569	0.00724	0.00877	0.00938	0.00989	0.01026	584
0.01104	0.01378	0.01719	0.01990	0.02325	0.02845	0.03378	0.03948	585
0.04420	0.04463	0.04337	0.04402	0.04257	0.03455	0.02480	0.01625	586
0.00717	-0.00197	-0.01067	-0.02023	-0.02844	-0.03176	-0.03373	-0.03664	587
-0.03900	-0.04084	-0.04284	-0.04425	-0.04660	-0.05250	-0.05936	-0.06551	588
-0.07198	-0.07850	-0.08457	-0.09159	-0.09706	-0.09670	-0.09425	-0.09397	589
-0.09149	-0.08245	-0.07173	-0.06214	-0.05213	-0.04244	-0.03329	-0.02320	590
-0.01456	-0.01118	-0.00956	-0.00624	-0.00460	-0.00771	-0.01225	-0.01557	591
-0.01986	-0.02648	-0.03343	-0.04048	-0.04693	-0.05051	-0.05329	-0.05663	592
-0.05961	-0.06214	-0.06455	-0.06704	-0.06931	-0.07102	-0.07204	-0.07425	593
-0.07476	-0.06890	-0.06141	-0.05504	-0.04818	-0.04143	-0.03495	-0.02800	594
-0.02175	-0.01801	-0.01477	-0.01143	-0.00785	-0.00248	0.00323	0.00882	595
0.01415	0.01792	0.02075	0.02490	0.02734	0.02386	0.01893	0.01483	596
0.01064	0.00789	0.00617	0.00288	0.00166	0.00780	0.01556	0.02260	597
0.02933	0.03258	0.03460	0.03790	0.03992	0.03832	0.03600	0.03384	598
0.03208	0.03292	0.03430	0.03550	0.03645	0.03551	0.03389	0.03303	599
0.03140	0.02755	0.02334	0.01908	0.01536	0.01436	0.01442	0.01333	600
0.01352	0.01758	0.02234	0.02707	0.03110	0.03133	0.03014	0.03052	601
0.02926	0.02307	0.01589	0.00894	0.00263	0.00025	-0.00061	-0.00318	602
-0.00389	0.00103	0.00720	0.01286	0.01816	0.02046	0.02123	0.02403	603
0.02437	0.01650	0.00681	-0.00208	-0.01055	-0.01493	-0.01741	-0.02229	604
-0.02432	-0.01707	-0.00771	0.00067	0.00875	0.01286	0.01536	0.01984	605
0.02207	0.01735	0.01095	0.00545	-0.00008	-0.00351	-0.00601	-0.00968	606
-0.01197	-0.00983	-0.00658	-0.00401	-0.00124	0.00091	0.00270	0.00502	607
0.00664	0.00598	0.00471	0.00386	0.00279	0.00157	0.00037	-0.00092	608
-0.00206	-0.00268	-0.00324	-0.00371	-0.00441	-0.00612	-0.00817	-0.00988	609
-0.01188	-0.01461	-0.01739	-0.02033	-0.02286	-0.02368	-0.02387	-0.02473	610
-0.02490	-0.02301	-0.02077	-0.01849	-0.01663	-0.01697	-0.01813	-0.01839	611
-0.01954	-0.02338	-0.02768	-0.03197	-0.03577	-0.03694	-0.03738	-0.03837	612
-0.03901	-0.03926	-0.03967	-0.03958	-0.04031	-0.04421	-0.04896	-0.05308	613
-0.05751	-0.06202	-0.06632	-0.07110	-0.07505	-0.07595	-0.07576	-0.07669	614
-0.07646	-0.07290	-0.06835	-0.06463	-0.06031	-0.05472	-0.04911	-0.04312	615
-0.03802	-0.03658	-0.03655	-0.03500	-0.03505	-0.04009	-0.04611	-0.05185	616
-0.05708	-0.05891	-0.05962	-0.06139	-0.06222	-0.06059	-0.05878	-0.05646	617
-0.05531	-0.05934	-0.06459	-0.06915	-0.07372	-0.07661	-0.07854	-0.08189	618
-0.08334	-0.07817	-0.07110	-0.06559	-0.05895	-0.05003	-0.04056	-0.03143	619
-0.02233	-0.01388	-0.00613	0.00275	0.00992	0.01088	0.00983	0.01063	620
0.00979	0.00465	-0.00122	-0.00710	-0.01216	-0.01287	-0.01226	-0.01279	621
-0.01239	-0.00989	-0.00688	-0.00417	-0.00137	0.00120	0.00373	0.00625	622
0.00879	0.01157	0.01425	0.01717	0.01965	0.02035	0.02043	0.02116	623
0.02121	0.01921	0.01652	0.01452	0.01188	0.00747	0.00271	-0.00193	624
-0.00638	-0.00962	-0.01229	-0.01565	-0.01817	-0.01794	-0.01707	-0.01652	625
-0.01596	-0.01620	-0.01661	-0.01695	-0.01721	-0.01683	-0.01602	-0.01589	626
-0.01484	-0.01050	-0.00525	-0.00073	0.00423	0.00987	0.01541	0.02137	627
0.02648	0.02828	0.02889	0.03071	0.03131	0.02835	0.02457	0.02119	628
0.01789	0.01595	0.01456	0.01255	0.01123	0.01197	0.01327	0.01416	629
0.01530	0.01681	0.01838	0.01996	0.02144	0.02253	0.02343	0.02453	630
0.02542	0.02562	0.02574	0.02577	0.02607	0.02761	0.02951	0.03112	631
0.03290	0.03492	0.03680	0.03903	0.04067	0.04002	0.03869	0.03795	632
0.03674	0.03450	0.03209	0.02966	0.02746	0.02637	0.02556	0.02459	633
0.02367	0.02259	0.02135	0.02041	0.01906	0.01628	0.01310	0.01022	634
0.00721	0.00421	0.00144	-0.00180	-0.00428	-0.00392	-0.00255	-0.00224	635
-0.00086	0.00366	0.00887	0.01378	0.01851	0.02167	0.02426	0.02745	636
0.02998	0.03058	0.03058	0.03111	0.03115	0.02997	0.02827	0.02718	637
0.02543	0.02149	0.01725	0.01285	0.00915	0.00872	0.00939	0.00897	638
0.00958	0.01305	0.01700	0.02098	0.02436	0.02467	0.02402	0.02424	639
0.02372	0.02148	0.01902	0.01639	0.01433	0.01489	0.01621	0.01691	640
0.01804	0.01997	0.02190	0.02409	0.02575	0.02520	0.02418	0.02334	641
0.02264	0.02325	0.02432	0.02490	0.02596	0.02843	0.03115	0.03384	642
0.03629	0.03741	0.03803	0.03918	0.03975	0.03860	0.03690	0.03568	643
0.03409	0.03161	0.02910	0.02635	0.02417	0.02438	0.02546	0.02561	644
0.02670	0.03053	0.03488	0.03913	0.04297	0.04447	0.04507	0.04669	645
0.04716	0.04402	0.03982	0.03652	0.03254	0.02700	0.02100	0.01543	646
0.00956	0.00291	-0.00381	-0.01059	-0.01704	-0.02211	-0.02654	-0.03174	647
-0.03592	-0.03673	-0.03639	-0.03716	-0.03685	-0.03342	-0.02915	-0.02555	648
-0.02152	-0.01675	-0.01182	-0.00699	-0.00222	0.00218	0.00633	0.01081	649

0.01477	0.01699	0.01850	0.02080	0.02218	0.02061	0.01822	0.01646	650
0.01431	0.01155	0.00882	0.00585	0.00336	0.00284	0.00284	0.00248	651
0.00231	0.00228	0.00225	0.00228	0.00223	0.00189	0.00159	0.00107	652
0.00096	0.00251	0.00452	0.00616	0.00802	0.01019	0.01237	0.01463	653
0.01667	0.01783	0.01863	0.01983	0.02056	0.01976	0.01845	0.01764	654
0.01636	0.01372	0.01075	0.00802	0.00521	0.00245	-0.00023	-0.00300	655
-0.00562	-0.00777	-0.00980	-0.01189	-0.01391	-0.01580	-0.01745	-0.01953	656
-0.02094	-0.01987	-0.01797	-0.01688	-0.01504	-0.01111	-0.00676	-0.00255	657
0.00144	0.00405	0.00631	0.00878	0.01113	0.01358	0.01600	0.01846	658
0.02080	0.02266	0.02432	0.02620	0.02782	0.02860	0.02926	0.02984	659
0.03068	0.03277	0.03518	0.03733	0.03960	0.04193	0.04420	0.04657	660
0.04874	0.05013	0.05125	0.05261	0.05372	0.05416	0.05435	0.05480	661
0.05495	0.05423	0.05318	0.05248	0.05142	0.04924	0.04671	0.04454	662
0.04204	0.03855	0.03476	0.03127	0.02758	0.02341	0.01931	0.01493	663
0.01115	0.00974	0.00923	0.00774	0.00731	0.01024	0.01389	0.01719	664
0.02037	0.02215	0.02355	0.02521	0.02673	0.02827	0.02996	0.03132	665
0.03312	0.03662	0.04028	0.04417	0.04735	0.04735	0.04636	0.04629	666
0.04541	0.04250	0.03918	0.03601	0.03300	0.03117	0.02966	0.02791	667
0.02632	0.02483	0.02332	0.02193	0.02035	0.01801	0.01541	0.01307	668
0.01055	0.00751	0.00456	0.00128	-0.00134	-0.00138	-0.00055	-0.00056	669
0.00020	0.00311	0.00637	0.00964	0.01249	0.01313	0.01322	0.01365	670
0.01398	0.01471	0.01576	0.01628	0.01749	0.02117	0.02538	0.02933	671
0.03315	0.03574	0.03780	0.04048	0.04242	0.04205	0.04108	0.04051	672
0.03976	0.03905	0.03835	0.03764	0.03694	0.03625	0.03557	0.03488	673
0.03421	0.03364	0.03308	0.03254	0.03195	0.03118	0.03026	0.02957	674
0.02859	0.02659	0.02440	0.02224	0.02025	0.01917	0.01838	0.01735	675
0.01651	0.01614	0.01579	0.01557	0.01508	0.01348	0.01159	0.00992	676
0.00816	0.00641	0.00477	0.00292	0.00142	0.00118	0.00135	0.00112	677
0.00127	0.00240	0.00377	0.00499	0.00624	0.00740	0.00850	0.00967	678
0.01073	0.01149	0.01226	0.01288	0.01377	0.01582	0.01818	0.02031	679
0.02251	0.02468	0.02658	0.02899	0.03060	0.02929	0.02709	0.02566	680
0.02364	0.02032	0.01678	0.01328	0.00999	0.00783	0.00608	0.00393	681
0.00222	0.00180	0.00181	0.00142	0.00141	0.00241	0.00368	0.00476	682
0.00593	0.00721	0.00848	0.00977	0.01100	0.01200	0.01292	0.01388	683
0.01481	0.01574	0.01663	0.01755	0.01840	0.01897	0.01942	0.02001	684
0.02041	0.02013	0.01962	0.01934	0.01883	0.01761	0.01618	0.01497	685
0.01355	0.01152	0.00929	0.00730	0.00508	0.00218	-0.00087	-0.00382	686
-0.00674	-0.00934	-0.01171	-0.01440	-0.01662	-0.01715	-0.01714	-0.01764	687
-0.01766	-0.01642	-0.01488	-0.01352	-0.01212	-0.01088	-0.00974	-0.00847	688
-0.00737	-0.00685	-0.00641	-0.00604	-0.00547	-0.00397	-0.00218	-0.00068	689
0.00104	0.00333	0.00561	0.00809	0.01011	0.01019	0.00961	0.00971	690
0.00912	0.00653	0.00341	0.00069	-0.00222	-0.00528	-0.00822	-0.01142	691
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-0.00915	-0.00663	-0.00401	-0.00143	0.00105	0.00309	0.00492	0.00698	693
0.00872	0.00944	0.00979	0.01052	0.01082	0.00986	0.00851	0.00751	694
0.00623	0.00431	0.00228	0.00025	-0.00163	-0.00277	-0.00370	-0.00479	695
-0.00575	-0.00647	-0.00710	-0.00782	-0.00842	-0.00861	-0.00862	-0.00885	696
-0.00882	-0.00790	-0.00681	-0.00577	-0.00484	-0.00452	-0.00446	-0.00409	697
-0.00408	-0.00527	-0.00670	-0.00804	-0.00928	-0.00977	-0.00998	-0.01051	698
-0.01071	-0.00991	-0.00896	-0.00798	-0.00725	-0.00772	-0.00858	-0.00906	699
-0.00988	-0.01162	-0.01351	-0.01540	-0.01708	-0.01773	-0.01805	-0.01866	700
-0.01901	-0.01871	-0.01828	-0.01790	-0.01754	-0.01742	-0.01727	-0.01726	701
-0.01700	-0.01567	-0.01410	-0.01268	-0.01126	-0.01009	-0.00916	-0.00785	702
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-0.01638	-0.01623	-0.01584	-0.01561	-0.01531	-0.01503	-0.01470	-0.01448	704
-0.01409	-0.01298	-0.01172	-0.01056	-0.00940	-0.00846	-0.00768	-0.00667	705
-0.00599	-0.00648	-0.00727	-0.00784	-0.00853	-0.00926	-0.00999	-0.01074	706
-0.01144	-0.01196	-0.01242	-0.01293	-0.01338	-0.01368	-0.01394	-0.01421	707
-0.01449	-0.01483	-0.01518	-0.01551	-0.01584	-0.01610	-0.01625	-0.01659	708
-0.01666	-0.01570	-0.01451	-0.01344	-0.01241	-0.01180	-0.01141	-0.01072	709
-0.01041	-0.01135	-0.01258	-0.01366	-0.01471	-0.01527	-0.01568	-0.01622	710
-0.01663	-0.01669	-0.01665	-0.01668	-0.01665	-0.01648	-0.01623	-0.01611	711
-0.01581	-0.01477	-0.01355	-0.01248	-0.01133	-0.01013	-0.00900	-0.00770	712
-0.00671	-0.00682	-0.00733	-0.00741	-0.00794	-0.00978	-0.01197	-0.01388	713
-0.01593	-0.01818	-0.02039	-0.02269	-0.02475	-0.02594	-0.02680	-0.02801	714
-0.02881	-0.02838	-0.02761	-0.02709	-0.02642	-0.02551	-0.02458	-0.02362	715
-0.02276	-0.02227	-0.02186	-0.02142	-0.02097	-0.02032	-0.01965	-0.01897	716
-0.01836	-0.01805	-0.01786	-0.01754	-0.01737	-0.01767	-0.01806	-0.01843	717
-0.01873	-0.01861	-0.01838	-0.01821	-0.01804	-0.01795	-0.01795	-0.01780	718
-0.01786	-0.01868	-0.01972	-0.02055	-0.02152	-0.02281	-0.02412	-0.02547	719
-0.02666	-0.02715	-0.02738	-0.02786	-0.02810	-0.02764	-0.02705	-0.02649	720
-0.02601	-0.02604	-0.02620	-0.02627	-0.02637	-0.02640	-0.02641	-0.02645	721
-0.02645	-0.02632	-0.02618	-0.02601	-0.02590	-0.02605	-0.02621	-0.02644	722



-0.02649	-0.02575	-0.02478	-0.02402	-0.02310	-0.02179	-0.02044	-0.01906	723
-0.01782	-0.01716	-0.01668	-0.01604	-0.01556	-0.01551	-0.01561	-0.01555	724
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-0.02226	-0.02272	-0.02301	-0.02348	-0.02374	-0.02340	-0.02289	-0.02250	726
-0.02204	-0.02142	-0.02076	-0.02014	-0.01949	-0.01869	-0.01786	-0.01706	727
-0.01626	-0.01546	-0.01474	-0.01389	-0.01324	-0.01330	-0.01363	-0.01366	728
-0.01401	-0.01533	-0.01690	-0.01829	-0.01972	-0.02096	-0.02208	-0.02337	729
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-0.02178	-0.02154	-0.02145	-0.02118	-0.02111	-0.02167	-0.02236	-0.02301	731
-0.02358	-0.02371	-0.02367	-0.02381	-0.02376	-0.02319	-0.02252	-0.02187	732
-0.02129	-0.02109	-0.02098	-0.02082	-0.02066	-0.02031	-0.01990	-0.01956	733
-0.01915	-0.01849	-0.01778	-0.01711	-0.01643	-0.01571	-0.01500	-0.01429	734
-0.01361	-0.01300	-0.01247	-0.01184	-0.01135	-0.01132	-0.01141	-0.01142	735
-0.01146	-0.01149	-0.01152	-0.01156	-0.01158	-0.01157	-0.01159	-0.01154	736
-0.01160	-0.01207	-0.01266	-0.01315	-0.01368	-0.01424	-0.01476	-0.01535	737
-0.01582	-0.01583	-0.01568	-0.01568	-0.01553	-0.01496	-0.01426	-0.01367	738
-0.01300	-0.01218	-0.01131	-0.01050	-0.00966	-0.00871	-0.00776	-0.00680	739
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-0.00583	-0.00643	-0.00698	-0.00763	-0.00811	-0.00791	-0.00756	-0.00729	741
-0.00703	-0.00701	-0.00708	-0.00703	-0.00712	-0.00763	-0.00822	-0.00879	742
-0.00928	-0.00936	-0.00925	-0.00937	-0.00922	-0.00820	-0.00699	-0.00587	743
-0.00481	-0.00420	-0.00377	-0.00314	-0.00273	-0.00300	-0.00338	-0.00376	744
-0.00401	-0.00357	-0.00293	-0.00249	-0.00190	-0.00100	-0.00009	0.00089	745
0.00167	0.00165	0.00138	0.00134	0.00110	0.00034	-0.00051	-0.00133	746
-0.00207	-0.00238	-0.00253	-0.00282	-0.00298	-0.00279	-0.00253	-0.00229	747
-0.00208	-0.00205	-0.00207	-0.00204	-0.00205	-0.00213	-0.00221	-0.00232	748
-0.00237	-0.00219	-0.00196	-0.00177	-0.00156	-0.00130	-0.00105	-0.00077	749
-0.00055	-0.00052	-0.00055	-0.00054	-0.00054	-0.00047	-0.00036	-0.00032	750
-0.00019	0.00023	0.00071	0.00114	0.00159	0.00201	0.00241	0.00284	751
0.00323	0.00352	0.00378	0.00405	0.00432	0.00471	0.00508	0.00549	752
0.00582	0.00587	0.00583	0.00587	0.00584	0.00560	0.00533	0.00506	753
0.00484	0.00487	0.00495	0.00501	0.00506	0.00501	0.00492	0.00487	754
0.00479	0.00464	0.00448	0.00431	0.00418	0.00422	0.00431	0.00438	755
0.00444	0.00442	0.00438	0.00436	0.00433	0.00430	0.00430	0.00425	756
0.00427	0.00458	0.00496	0.00529	0.00564	0.00597	0.00627	0.00662	757
0.00689	0.00684	0.00669	0.00663	0.00651	0.00630	0.00606	0.00584	758
0.00563	0.00545	0.00528	0.00512	0.00494	0.00471	0.00448	0.00425	759
0.00404	0.00396	0.00395	0.00386	0.00386	0.00418	0.00458	0.00491	760
0.00529	0.00580	0.00633	0.00684	0.00734	0.00775	0.00812	0.00853	761
0.00888	0.00903	0.00913	0.00928	0.00938	0.00937	0.00934	0.00932	762
0.00929	0.00925	0.00920	0.00915	0.00911	0.00912	0.00913	0.00914	763
0.00915	0.00917	0.00917	0.00919	0.00919	0.00911	0.00901	0.00893	764
0.00884	0.00877	0.00872	0.00864	0.00860	0.00869	0.00880	0.00889	765
0.00900	0.00914	0.00928	0.00944	0.00956	0.00955	0.00949	0.00947	766
0.00943	0.00940	0.00939	0.00933	0.00934	0.00959	0.00989	0.01014	767
0.01041	0.01069	0.01095	0.01124	0.01147	0.01149	0.01144	0.01145	768
0.01141	0.01132	0.01121	0.01111	0.01102	0.01103	0.01106	0.01108	769
0.01110	0.01118	0.01126	0.01135	0.01141	0.01136	0.01127	0.01121	770
0.01114	0.01107	0.01101	0.01093	0.01089	0.01095	0.01104	0.01111	771
0.01119	0.01123	0.01125	0.01130	0.01131	0.01124	0.01115	0.01108	772
0.01100	0.01094	0.01089	0.01083	0.01079	0.01085	0.01092	0.01098	773
0.01104	0.01114	0.01123	0.01133	0.01141	0.01144	0.01144	0.01147	774
0.01146	0.01137	0.01126	0.01116	0.01106	0.01098	0.01092	0.01085	775
0.01079	0.01083	0.01088	0.01092	0.01096	0.01096	0.01096	0.01096	776
0.01095	0.01094	0.01094	0.01092	0.01092	0.01099	0.01107	0.01115	777
0.01121	0.01125	0.01128	0.01132	0.01134	0.01130	0.01124	0.01120	778
0.01114	0.01109	0.01104	0.01098	0.01093	0.01086	0.01079	0.01072	779
0.01065	0.01053	0.01041	0.01027	0.01019	0.01975	0.01972	0.01961	780
0.01956	0.01955	0.01957	0.01957	0.01958	0.01963	0.01968	0.01973	781
0.01976	0.01975	0.01970	0.01968	0.01963	0.01954	0.01943	0.01933	782
0.01922	0.01916	0.01911	0.01904	0.01898	0.01892	0.01887	0.01881	783
0.01874	0.01865	0.01854	0.01844	0.01834	0.01824	0.01814	0.01804	784
0.01793	0.01782	0.01770	0.01759	0.01747	0.01734	0.01721	0.01707	785
0.01694	0.01682	0.01669	0.01657	0.01644	0.01633	0.01623	0.01612	786
0.01601	0.01591	0.01581	0.01571	0.01559	0.01547	0.01533	0.01520	787
0.01506	0.01493	0.01478	0.01464	0.01449	0.01436	0.01421	0.01407	788
0.01392	0.01376	0.01359	0.01343	0.01326	0.01308	0.01290	0.01272	789
0.01254	0.01236	0.01218	0.01200	0.01181	0.01163	0.01144	0.01125	790
0.01106	0.01087	0.01067	0.01047	0.01027	0.01006	0.00985	0.00963	791
0.00942	0.00921	0.00899	0.00878	0.00856	0.00835	0.00814	0.00793	792
0.00772	0.00750	0.00729	0.00707	0.00685	0.00662	0.00639	0.00617	793
0.00594	0.00570	0.00546	0.00523	0.00500	0.00477	0.00455	0.00432	794
0.00410	0.00388	0.00367	0.00345	0.00324	0.00302	0.00280	0.00258	795

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0.00236	0.00214	0.00192	0.00170	0.00148	0.00127	0.00106	0.00085	796
0.00064	0.00043	0.00023	0.00003	-0.00017	-0.00036	-0.00056	-0.00075	797
-0.00095	-0.00114	-0.00134	-0.00153	-0.00172	-0.00191	-0.00209	-0.00228	798
-0.00246	-0.00264	-0.00281	-0.00299	-0.00316	-0.00333	-0.00351	-0.00367	799
-0.00384	-0.00401	-0.00417	-0.00433	-0.00449	-0.00465	-0.00480	-0.00495	800
-0.00510	-0.00524	-0.00539	-0.00553	-0.00567	-0.00580	-0.00594	-0.00607	801
-0.00620	-0.00633	-0.00646	-0.00658	-0.00670	-0.00682	-0.00693	-0.00705	802
-0.00716	-0.00726	-0.00737	-0.00747	-0.00757	-0.00767	-0.00776	-0.00785	803
-0.00794	-0.00803	-0.00811	-0.00819	-0.00827	-0.00835	-0.00842	-0.00849	804
-0.00856	-0.00863	-0.00869	-0.00875	-0.00882	-0.00888	-0.00894	-0.00899	805
-0.00905	-0.00910	-0.00916	-0.00921	-0.00926	-0.00930	-0.00935	-0.00939	806
-0.00943	-0.00946	-0.00949	-0.00952	-0.00955	-0.00957	-0.00959	-0.00960	807
-0.00961	-0.00962	-0.00963	-0.00963	-0.00962	-0.00962	-0.00961	-0.00959	808
-0.00958	-0.00956	-0.00953	-0.00950	-0.00947	-0.00944	-0.00940	-0.00936	809
-0.00932	-0.00927	-0.00922	-0.00917	-0.00911	-0.00906	-0.00900	-0.00894	810
-0.00887	-0.00881	-0.00874	-0.00867	-0.00860	-0.00853	-0.00846	-0.00838	811
-0.00831	-0.00823	-0.00816	-0.00808	-0.00800	-0.00792	-0.00784	-0.00777	812
-0.00769	-0.00761	-0.00753	-0.00745	-0.00737	-0.00730	-0.00722	-0.00714	813
-0.00706	-0.00699	-0.00691	-0.00683	-0.00676	-0.00668	-0.00661	-0.00654	814
-0.00646	-0.00639	-0.00632	-0.00625	-0.00618	-0.00610	-0.00603	-0.00597	815
-0.00590	-0.00583	-0.00576	-0.00569	-0.00562	-0.00555	-0.00549	-0.00542	816
-0.00535	-0.00529	-0.00522	-0.00515	-0.00509	-0.00502	-0.00495	-0.00489	817
-0.00482	-0.00475	-0.00469	-0.00462	-0.00455	-0.00448	-0.00442	-0.00435	818
-0.00428	-0.00421	-0.00414	-0.00407	-0.00400	-0.00393	-0.00386	-0.00379	819
-0.00372	-0.00365	-0.00358	-0.00351	-0.00343	-0.00336	-0.00329	-0.00321	820
-0.00314	-0.00307	-0.00299	-0.00292	-0.00284	-0.00170	-0.00206	-0.00243	821



-0.35874	-0.36916	-0.27139	-0.11183	-0.01045	-0.00013	-0.07803	-0.14915	67
-0.19445	-0.23286	-0.31326	-0.36560	-0.38359	-0.39739	-0.43066	-0.38666	68
-0.28400	-0.19439	-0.08581	0.01922	0.10605	0.19857	0.27623	0.30821	69
0.31917	0.30952	0.27589	0.24396	0.22851	0.21238	0.18220	0.14797	70
0.11889	0.09382	0.07726	0.06805	0.05729	0.04173	0.01496	-0.02928	71
-0.08939	-0.16379	-0.24343	-0.31391	-0.36381	-0.39023	-0.39758	-0.38675	72
-0.35766	-0.31352	-0.24941	-0.16352	-0.06333	0.04089	0.13296	0.20451	73
0.24947	0.25793	0.22757	0.15896	0.06798	-0.02870	-0.11564	-0.18351	74
-0.22785	-0.24173	-0.22970	-0.19270	-0.13942	-0.07925	-0.01675	0.03456	75
0.06888	0.07907	0.07055	0.05399	0.03193	0.01282	-0.01268	-0.05133	76
-0.10345	-0.17347	-0.25349	-0.34071	-0.42040	-0.48231	-0.51790	-0.51673	77
-0.48880	-0.43713	-0.37421	-0.31238	-0.25624	-0.21364	-0.17830	-0.14849	78
-0.12027	-0.08920	-0.05624	-0.01926	0.01521	0.04522	0.06449	0.06490	79
0.05299	0.02703	-0.00079	-0.01900	-0.02678	-0.01466	0.00872	0.03920	80
0.07065	0.09141	0.10381	0.10344	0.09543	0.08676	0.07673	0.06929	81
0.06440	0.06088	0.06321	0.07440	0.09681	0.13479	0.18541	0.24472	82
0.31108	0.38192	0.45240	0.51792	0.57100	0.60588	0.61978	0.60568	83
0.57247	0.52441	0.46550	0.40748	0.33949	0.26128	0.16575	0.04033	84
-0.09863	-0.24753	-0.38814	-0.49844	-0.58183	-0.63105	-0.64788	-0.64157	85
-0.60565	-0.54122	-0.45534	-0.34531	-0.23423	-0.13743	-0.05873	-0.01519	86
0.01596	0.04556	0.08475	0.15412	0.23575	0.32840	0.40733	0.44790	87
0.44716	0.38988	0.29930	0.18892	0.08310	0.00886	-0.02819	-0.01114	88
0.04070	0.11645	0.19458	0.24711	0.27326	0.25839	0.21562	0.15588	89
0.08494	0.01889	-0.04424	-0.10064	-0.14817	-0.18775	-0.21484	-0.22932	90
-0.22807	-0.20942	-0.17704	-0.13185	-0.08421	-0.04077	-0.01091	-0.00414	91
-0.01890	-0.05966	-0.11230	-0.16824	-0.21587	-0.24048	-0.24554	-0.22620	92
-0.19571	-0.16350	-0.13780	-0.13103	-0.13872	-0.16273	-0.19244	-0.21894	93
-0.23596	-0.23477	-0.21711	-0.18101	-0.13458	-0.08511	-0.03710	0.00173	94
0.03182	0.05165	0.06212	0.06622	0.06242	0.05171	0.03456	0.01040	95
-0.01652	-0.04410	-0.06806	-0.08406	-0.09102	-0.08584	-0.07057	-0.04654	96
-0.01479	0.02105	0.06159	0.10478	0.14836	0.19178	0.22758	0.25221	97
0.26065	0.24801	0.21891	0.17518	0.12596	0.07923	0.04079	0.01710	98
0.00723	0.01193	0.02509	0.04167	0.05840	0.07126	0.08306	0.09361	99
0.11034	0.13817	0.17782	0.23028	0.28714	0.34364	0.38453	0.39894	100
0.37976	0.32019	0.22848	0.10874	-0.01986	-0.14285	-0.24614	-0.31532	101
-0.35295	-0.35680	-0.33976	-0.31202	-0.28161	-0.25798	-0.24052	-0.23050	102
-0.22438	-0.21949	-0.21300	-0.20516	-0.19130	-0.17032	-0.14070	-0.09559	103
-0.04462	0.01277	0.06765	0.10988	0.14521	0.16579	0.18468	0.20942	104
0.23622	0.27206	0.30101	0.31627	0.31261	0.28092	0.23236	0.17217	105
0.11117	0.06011	0.02444	0.00859	0.01579	0.04812	0.09942	0.17025	106
0.24442	0.30932	0.36142	0.38667	0.39879	0.40423	0.40735	0.42534	107
0.44609	0.46663	0.48713	0.49471	0.50218	0.51276	0.51939	0.52843	108
0.51878	0.47820	0.41285	0.31561	0.21803	0.14202	0.09700	0.10387	109
0.13630	0.17985	0.20800	0.18936	0.12900	0.02012	-0.10569	-0.22198	110
-0.30051	-0.30843	-0.25161	-0.12463	0.03390	0.19138	0.31858	0.37671	111
0.37803	0.32079	0.23817	0.16404	0.10979	0.10019	0.11530	0.14170	112
0.15768	0.13566	0.07667	-0.02406	-0.14511	-0.26456	-0.36134	-0.41285	113
-0.41917	-0.38077	-0.31768	-0.24933	-0.19250	-0.16190	-0.15585	-0.17180	114
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-0.09112	-0.08058	-0.07694	-0.07653	-0.07866	-0.08419	-0.09060	-0.10054	116
-0.10991	-0.11628	-0.11741	-0.10784	-0.08848	-0.05860	-0.02226	0.01511	117
0.04417	0.05541	0.04052	-0.00717	-0.08470	-0.18946	-0.30219	-0.41092	118
-0.49827	-0.54867	-0.56017	-0.53127	-0.47229	-0.39507	-0.31064	-0.23003	119
-0.15827	-0.09703	-0.04602	-0.00166	0.03849	0.07415	0.11036	0.14456	120
0.18087	0.22146	0.26308	0.31060	0.35622	0.39907	0.43928	0.47129	121
0.50495	0.54043	0.57833	0.62224	0.65354	0.66537	0.64212	0.56912	122
0.46034	0.31697	0.17187	0.05124	-0.03093	-0.05057	-0.02579	0.03657	123
0.11139	0.17069	0.20805	0.20619	0.17737	0.12858	0.07453	0.03323	124
0.00850	0.01094	0.03044	0.06212	0.09151	0.10261	0.09277	0.05108	125
-0.01088	-0.08609	-0.16396	-0.22791	-0.27718	-0.30345	-0.30819	-0.29550	126
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-0.14099	-0.11487	-0.10246	-0.10824	-0.13786	-0.19040	-0.26479	-0.35750	129
-0.45442	-0.54577	-0.61659	-0.65963	-0.67255	-0.64688	-0.59320	-0.52018	130
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-0.11796	-0.10745	-0.09904	-0.09073	-0.09017	-0.10620	-0.12563	-0.15021	132
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-0.17216	-0.32130	-0.46167	-0.55147	-0.59141	-0.56344	-0.48797	-0.38565	134
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0.07241	0.09687	0.13352	0.18332	0.24344	0.30567	0.36968	0.42696	136
0.47732	0.51946	0.54670	0.56116	0.55310	0.52017	0.46435	0.38501	137
0.29627	0.20613	0.12616	0.06662	0.02617	0.00479	-0.00528	-0.01292	138
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0.19049	0.19147	0.17783	0.15544	0.12912	0.10353	0.08559	0.07714	141
0.08294	0.10275	0.13439	0.17519	0.21675	0.25438	0.27972	0.28867	142
0.27907	0.25083	0.20901	0.15717	0.10441	0.05624	0.01898	-0.00437	143
-0.01281	-0.00625	0.01036	0.03469	0.05998	0.08330	0.10127	0.11207	144
0.11834	0.12071	0.12445	0.13167	0.14387	0.16133	0.17965	0.19497	145
0.20214	0.19710	0.17898	0.14813	0.10953	0.06905	0.03363	0.01051	146
0.00307	0.01386	0.04017	0.07794	0.11989	0.15737	0.18476	0.19578	147
0.18975	0.16703	0.13187	0.09042	0.04858	0.01358	-0.01103	-0.02195	148
-0.01972	-0.00658	0.01422	0.03750	0.06015	0.07847	0.09145	0.09929	149
0.10335	0.10661	0.11222	0.12360	0.14290	0.17154	0.20819	0.25065	150
0.29350	0.33103	0.35795	0.36857	0.36161	0.33554	0.29370	0.24044	151
0.18025	0.11969	0.06194	0.01091	-0.03105	-0.06341	-0.08434	-0.09451	152
-0.09400	-0.08338	-0.06591	-0.04324	-0.01959	0.00178	0.01901	0.03005	153
0.03467	0.03289	0.02493	0.01138	-0.00623	-0.02748	-0.04835	-0.06679	154
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0.04989	0.05563	0.05582	0.05156	0.04607	0.04218	0.04084	0.04425	156
0.04908	0.05438	0.05500	0.04679	0.02842	-0.00308	-0.04332	-0.09000	157
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-0.13874	-0.11142	-0.08777	-0.07048	-0.05789	-0.04891	-0.04249	-0.03610	159
-0.03101	-0.02712	-0.02512	-0.02640	-0.02954	-0.03474	-0.03968	-0.04232	160
-0.04245	-0.03860	-0.03264	-0.02524	-0.01865	-0.01520	-0.01496	-0.01950	161
-0.02649	-0.03474	-0.04252	-0.04772	-0.05088	-0.05112	-0.05117	-0.05314	162
-0.05829	-0.06883	-0.08419	-0.10406	-0.12756	-0.15326	-0.17927	-0.20437	163
-0.22503	-0.23932	-0.24522	-0.24040	-0.22802	-0.20884	-0.18843	-0.17167	164
-0.16052	-0.15891	-0.16410	-0.17511	-0.18823	-0.19935	-0.20751	-0.20968	165
-0.20778	-0.20257	-0.19509	-0.18786	-0.17864	-0.16809	-0.15346	-0.13213	166
-0.10715	-0.07769	-0.05132	-0.03311	-0.02576	-0.03537	-0.05482	-0.08171	167
-0.10798	-0.12484	-0.13200	-0.12459	-0.10917	-0.09011	-0.07256	-0.06390	168
-0.06400	-0.07550	-0.09490	-0.11924	-0.14485	-0.16687	-0.18372	-0.19252	169
-0.19374	-0.18772	-0.17551	-0.15897	-0.13922	-0.11766	-0.09584	-0.07507	170
-0.05567	-0.03876	-0.02253	-0.00606	0.01150	0.03212	0.05407	0.07729	171
0.10045	0.12170	0.14295	0.16357	0.18694	0.21511	0.24751	0.28533	172
0.32205	0.35428	0.37421	0.37508	0.35543	0.31141	0.25099	0.17875	173
0.10610	0.04418	-0.00190	-0.02371	-0.02533	-0.00800	0.02080	0.05219	174
0.08287	0.10602	0.12210	0.13024	0.13153	0.12851	0.12069	0.10982	175
0.09475	0.07491	0.05110	0.02271	-0.00728	-0.03706	-0.06470	-0.08723	176
-0.10513	-0.11753	-0.12458	-0.12726	-0.12477	-0.11754	-0.10494	-0.08643	177
-0.06340	-0.03611	-0.00647	0.02363	0.05332	0.08104	0.10709	0.13150	178
0.15454	0.17648	0.19735	0.21735	0.23682	0.25563	0.27336	0.28984	179
0.30288	0.31120	0.31263	0.30535	0.28966	0.26499	0.23441	0.20019	180
0.16620	0.13632	0.11265	0.09774	0.09120	0.09284	0.10001	0.11028	181
0.12018	0.12628	0.12689	0.11971	0.10638	0.08755	0.06686	0.04765	182
0.03226	0.02391	0.02199	0.02685	0.03607	0.04731	0.05840	0.06658	183
0.07125	0.07119	0.06759	0.06135	0.05431	0.04834	0.04472	0.04491	184
0.04855	0.05564	0.06429	0.07283	0.07920	0.08140	0.07835	0.06864	185
0.05361	0.03405	0.01246	-0.00874	-0.02740	-0.04087	-0.04859	-0.04962	186
-0.04429	-0.03337	-0.01741	0.00221	0.02442	0.04780	0.07015	0.08984	187
0.10372	0.10987	0.10600	0.08982	0.06325	0.02681	-0.01483	-0.05782	188
-0.09851	-0.13228	-0.15946	-0.17858	-0.19236	-0.20332	-0.21245	-0.22257	189
-0.23199	-0.24041	-0.24616	-0.24674	-0.24275	-0.23347	-0.21962	-0.20229	190
-0.18125	-0.15744	-0.13059	-0.10045	-0.06864	-0.03565	-0.00355	0.02584	191
0.05239	0.07480	0.09492	0.11357	0.13204	0.15226	0.17271	0.19333	192
0.21166	0.22538	0.23365	0.23459	0.22961	0.21939	0.20580	0.19157	193
0.17755	0.16547	0.15719	0.15302	0.15619	0.16796	0.18803	0.21750	194
0.24962	0.28116	0.30451	0.31226	0.30513	0.27955	0.24430	0.20494	195
0.16833	0.14364	0.12822	0.12466	0.12465	0.12135	0.11131	0.08703	196
0.05341	0.01121	-0.03297	-0.07171	-0.10428	-0.12589	-0.14077	-0.15148	197
-0.16082	-0.17378	-0.18938	-0.20877	-0.23001	-0.25086	-0.27017	-0.28589	198
-0.29755	-0.30437	-0.30676	-0.30521	-0.30126	-0.29591	-0.29094	-0.28772	199
-0.28523	-0.28385	-0.27950	-0.27001	-0.25161	-0.22103	-0.18018	-0.12870	200
-0.07490	-0.02450	0.01473	0.03453	0.03471	0.01212	-0.02628	-0.07507	201
-0.12672	-0.17212	-0.20825	-0.23009	-0.23853	-0.23424	-0.22052	-0.20137	202
-0.18016	-0.16102	-0.14560	-0.13604	-0.13147	-0.13153	-0.13359	-0.13528	203
-0.13479	-0.12954	-0.12062	-0.10786	-0.09374	-0.08060	-0.06958	-0.06308	204
-0.05986	-0.05964	-0.06101	-0.06225	-0.06287	-0.06171	-0.05924	-0.05575	205
-0.05204	-0.04879	-0.04708	-0.04766	-0.05046	-0.05589	-0.06134	-0.06546	206
-0.06487	-0.05678	-0.04050	-0.01428	0.01826	0.05521	0.09155	0.12243	207
0.14629	0.15989	0.16630	0.16682	0.16614	0.16890	0.17662	0.19266	208
0.21414	0.23953	0.26492	0.28627	0.30159	0.30768	0.30631	0.29793	209
0.28601	0.27394	0.26382	0.25881	0.25839	0.26290	0.27064	0.27984	210
0.28912	0.29618	0.30074	0.30211	0.30028	0.29535	0.28806	0.27901	211
0.26939	0.26065	0.25270	0.24620	0.24029	0.23396	0.22702	0.21853	212

0.20870	0.19767	0.18562	0.17269	0.15960	0.14610	0.13212	0.11780	213
0.09905	0.07428	0.03819	-0.01340	-0.07924	-0.16075	-0.24925	-0.33867	214
-0.42121	-0.48761	-0.53767	-0.56845	-0.58375	-0.58794	-0.58359	-0.57531	215
-0.56508	-0.55300	-0.54168	-0.53414	-0.53124	-0.53329	-0.53229	-0.52354	216
-0.50352	-0.46622	-0.41567	-0.35229	-0.28368	-0.21741	-0.15677	-0.10878	217
-0.07009	-0.04008	-0.01377	0.01491	0.04705	0.08706	0.13033	0.17466	218
0.21450	0.24313	0.26156	0.26625	0.26515	0.26367	0.26581	0.27995	219
0.29815	0.31882	0.33214	0.32668	0.30580	0.26458	0.21648	0.17249	220
0.13791	0.12516	0.12621	0.13831	0.15293	0.15731	0.15268	0.13403	221
0.10658	0.07684	0.04561	0.01906	-0.00514	-0.02840	-0.05042	-0.07455	222
-0.09682	-0.11550	-0.12664	-0.12553	-0.11025	-0.07748	-0.03203	0.02339	223
0.07856	0.12461	0.15623	0.16543	0.16155	0.14754	0.13944	0.15088	224
0.18259	0.24229	0.30760	0.36588	0.39222	0.36245	0.27810	0.13074	225
-0.04939	-0.24118	-0.41372	-0.53418	-0.59843	-0.59219	-0.53741	-0.44901	226
-0.35046	-0.26850	-0.20742	-0.18109	-0.17746	-0.18986	-0.20822	-0.21839	227
-0.22205	-0.21330	-0.19732	-0.17706	-0.15045	-0.12035	-0.08180	-0.03406	228
0.01987	0.07801	0.12943	0.16687	0.18407	0.17623	0.14793	0.10245	229
0.05098	0.00121	-0.03975	-0.06609	-0.08054	-0.08224	-0.07934	-0.07440	230
-0.06972	-0.06842	-0.06230	-0.05227	-0.02912	0.00999	0.06044	0.12404	231
0.18105	0.22518	0.24067	0.21425	0.15326	0.05137	-0.06601	-0.18588	232
-0.29042	-0.35571	-0.38713	-0.37357	-0.33205	-0.27522	-0.21191	-0.16352	233
-0.12786	-0.11308	-0.11593	-0.12933	-0.15072	-0.16917	-0.18000	-0.17735	234
-0.15998	-0.12980	-0.09409	-0.06141	-0.03834	-0.03176	-0.03788	-0.05290	235
-0.07106	-0.08404	-0.09371	-0.10088	-0.10588	-0.11421	-0.11716	-0.10966	236
-0.08912	-0.04570	0.00473	0.05454	0.09069	0.09310	0.07551	0.03831	237
0.00296	-0.00558	0.00659	0.04993	0.09950	0.13247	0.14712	0.12470	238
0.09180	0.06619	0.06002	0.09850	0.15537	0.21808	0.25519	0.23053	239
0.14853	0.00184	-0.17487	-0.34927	-0.49479	-0.58127	-0.61572	-0.60070	240
-0.55645	-0.49897	-0.43999	-0.39080	-0.34668	-0.31178	-0.27559	-0.23559	241
-0.19210	-0.13871	-0.08660	-0.03506	0.01321	0.05181	0.09244	0.13387	242
0.18014	0.23702	0.28874	0.33371	0.35883	0.35251	0.32582	0.27599	243
0.22174	0.17634	0.14123	0.12841	0.12794	0.13792	0.15642	0.17583	244
0.20041	0.22647	0.25094	0.27129	0.28034	0.27576	0.25750	0.22812	245
0.19280	0.15628	0.12057	0.08515	0.05066	0.01451	-0.01808	-0.04165	246
-0.05094	-0.03638	-0.00099	0.05407	0.11841	0.17802	0.22361	0.24300	247
0.23440	0.19842	0.14162	0.07292	0.00301	-0.05962	-0.10950	-0.14305	248
-0.16497	-0.17744	-0.18778	-0.20084	-0.21669	-0.23749	-0.25824	-0.27703	249
-0.29432	-0.30950	-0.32908	-0.35675	-0.39373	-0.44146	-0.49093	-0.53566	250
-0.56524	-0.57025	-0.55085	-0.50513	-0.44344	-0.37400	-0.30529	-0.24682	251
-0.19640	-0.15539	-0.11614	-0.07251	-0.02416	0.03235	0.08729	0.13487	252
0.16733	0.17635	0.16699	0.14032	0.10838	0.08153	0.06514	0.06687	253
0.08149	0.10633	0.13398	0.15687	0.17403	0.18241	0.18620	0.18808	254
0.19029	0.19541	0.20044	0.20397	0.20245	0.19309	0.17780	0.15751	255
0.13775	0.12293	0.11507	0.11671	0.12362	0.13297	0.14051	0.14194	256
0.13941	0.13345	0.12995	0.13379	0.14747	0.17379	0.20704	0.24409	257
0.27860	0.30455	0.32250	0.33037	0.33511	0.34095	0.35136	0.37097	258
0.39342	0.41653	0.43039	0.42680	0.40437	0.35854	0.29792	0.22748	259
0.15621	0.09394	0.04116	0.00265	-0.02614	-0.04813	-0.06360	-0.07670	260
-0.08177	-0.07779	-0.06293	-0.03427	-0.00130	0.03251	0.05339	0.05078	261
0.02232	-0.03853	-0.11780	-0.20802	-0.29161	-0.35178	-0.38379	-0.37688	262
-0.34180	-0.28408	-0.21669	-0.15463	-0.10150	-0.06696	-0.04636	-0.03778	263
-0.03697	-0.03655	-0.03687	-0.03439	-0.02978	-0.02410	-0.01565	-0.00536	264
0.00759	0.02344	0.03925	0.05390	0.06315	0.06376	0.05566	0.03739	265
0.01351	-0.01318	-0.03774	-0.05534	-0.06508	-0.06433	-0.05668	-0.04414	266
-0.03037	-0.01963	-0.01200	-0.00982	-0.01013	-0.01121	-0.01151	-0.00826	267
-0.00306	0.00428	0.01111	0.01515	0.01527	0.00925	-0.00176	-0.01762	268
-0.03664	-0.05690	-0.07756	-0.09663	-0.11412	-0.12947	-0.14175	-0.15087	269
-0.15493	-0.15303	-0.14404	-0.12675	-0.10223	-0.07076	-0.03449	0.00462	270
0.04518	0.08507	0.12405	0.16113	0.19619	0.22905	0.25864	0.28475	271
0.30519	0.31907	0.32492	0.32134	0.31056	0.29278	0.27339	0.25589	272
0.24339	0.24017	0.24282	0.25129	0.25866	0.25929	0.25092	0.22843	273
0.19753	0.16029	0.12475	0.09876	0.08486	0.08871	0.10549	0.13294	274
0.16433	0.19215	0.21367	0.22338	0.22355	0.21478	0.20067	0.18558	275
0.17101	0.16014	0.15173	0.14539	0.13848	0.12817	0.11235	0.08818	276
0.05563	0.01399	-0.03496	-0.08940	-0.14707	-0.20497	-0.26137	-0.31394	277
-0.36098	-0.40136	-0.43284	-0.45421	-0.46468	-0.46333	-0.45220	-0.43250	278
-0.40738	-0.38008	-0.35211	-0.32592	-0.30136	-0.27841	-0.25672	-0.23544	279
-0.21363	-0.19072	-0.16545	-0.13733	-0.10685	-0.07381	-0.04111	-0.01083	280
0.01091	0.01987	0.01435	-0.00926	-0.04622	-0.09339	-0.14370	-0.19064	281
-0.23004	-0.25669	-0.27240	-0.27561	-0.27035	-0.26158	-0.25069	-0.24181	282
-0.23353	-0.22556	-0.21718	-0.20624	-0.19376	-0.17953	-0.16396	-0.14820	283
-0.13149	-0.11384	-0.09547	-0.07602	-0.05661	-0.03804	-0.02045	-0.00480	284
0.00972	0.02335	0.03590	0.04786	0.05754	0.06424	0.06642	0.06270	285

0.05359	0.03853	0.02058	0.00128	-0.01643	-0.02927	-0.03876	-0.04367	286
-0.04881	-0.05751	-0.07098	-0.09288	-0.11803	-0.14451	-0.16641	-0.17737	287
-0.17752	-0.16374	-0.14095	-0.11285	-0.08322	-0.05772	-0.03668	-0.02228	288
-0.01309	-0.00772	-0.00482	-0.00205	0.00093	0.00535	0.01069	0.01640	289
0.02240	0.02784	0.03299	0.03781	0.04202	0.04595	0.04894	0.05049	290
0.05129	0.05121	0.05168	0.05384	0.05780	0.06438	0.07250	0.08140	291
0.09051	0.09852	0.10579	0.11224	0.11766	0.12230	0.12565	0.12740	292
0.12754	0.12591	0.12273	0.11825	0.11285	0.10676	0.10081	0.09535	293
0.09102	0.08845	0.08676	0.08583	0.08386	0.07931	0.07161	0.05969	294
0.04435	0.02621	0.00669	-0.01259	-0.02975	-0.04329	-0.05117	-0.05187	295
-0.04530	-0.03063	-0.01064	0.01326	0.03833	0.06154	0.08402	0.10451	296
0.12728	0.15443	0.18809	0.23108	0.27844	0.32889	0.37208	0.40043	297
0.40803	0.38686	0.34260	0.27586	0.19915	0.12352	0.05545	0.00629	298
-0.02838	-0.04808	-0.05920	-0.06975	-0.07884	-0.09126	-0.10080	-0.10384	299
-0.09783	-0.07751	-0.04728	-0.00812	0.03291	0.06917	0.09673	0.10969	300
0.10946	0.09566	0.07294	0.04598	0.01856	-0.00408	-0.02095	-0.03003	301
-0.03232	-0.02914	-0.02203	-0.01314	-0.00416	0.00312	0.00808	0.00963	302
0.00926	0.00759	0.00639	0.00762	0.01069	0.01643	0.02240	0.02665	303
0.02827	0.02525	0.01867	0.00882	-0.00302	-0.01515	-0.02703	-0.03757	304
-0.04656	-0.05384	-0.05948	-0.06380	-0.06736	-0.07087	-0.07507	-0.08075	305
-0.08883	-0.09984	-0.11472	-0.13417	-0.15773	-0.18541	-0.21544	-0.24626	306
-0.27635	-0.30349	-0.32708	-0.34639	-0.36002	-0.36810	-0.36909	-0.36244	307
-0.34984	-0.33158	-0.31306	-0.29763	-0.28988	-0.29449	-0.31016	-0.33797	308
-0.37097	-0.40448	-0.43156	-0.44500	-0.44466	-0.42700	-0.39976	-0.36761	309
-0.33790	-0.31949	-0.31108	-0.31602	-0.32627	-0.33571	-0.33897	-0.32784	310
-0.30430	-0.26709	-0.22166	-0.17362	-0.12690	-0.08748	-0.05643	-0.03589	311
-0.02474	-0.02176	-0.02455	-0.03023	-0.03703	-0.04224	-0.04598	-0.04741	312
-0.04718	-0.04612	-0.04325	-0.03894	-0.03052	-0.01682	0.00424	0.03449	313
0.07216	0.11726	0.16373	0.20777	0.24421	0.26739	0.27915	0.27793	314
0.27135	0.26489	0.26370	0.27487	0.29557	0.32672	0.36078	0.39124	315
0.41396	0.42215	0.41825	0.40176	0.37843	0.35295	0.32811	0.30964	316
0.29623	0.28929	0.28610	0.28311	0.27900	0.27012	0.25928	0.24727	317
0.23639	0.23127	0.23102	0.23629	0.24479	0.25439	0.26564	0.27679	318
0.28653	0.29498	0.29985	0.29897	0.29078	0.27403	0.24915	0.21608	319
0.17783	0.13739	0.09681	0.05874	0.02450	-0.00438	-0.02654	-0.04164	320
-0.04908	-0.04848	-0.04075	-0.02632	-0.00762	0.01348	0.03512	0.05457	321
0.07342	0.09174	0.10988	0.12873	0.14660	0.16355	0.17652	0.18295	322
0.18212	0.17205	0.15462	0.13108	0.10345	0.07497	0.04758	0.02275	323
0.00168	-0.01496	-0.02615	-0.03122	-0.03227	-0.03002	-0.02869	-0.03125	324
-0.03958	-0.05679	-0.07913	-0.10519	-0.12899	-0.14513	-0.15182	-0.14519	325
-0.12856	-0.10307	-0.07343	-0.04492	-0.01850	0.00206	0.01939	0.03454	326
0.04910	0.06637	0.08400	0.10234	0.11789	0.12751	0.13171	0.12830	327
0.12185	0.11504	0.11056	0.11284	0.11966	0.13170	0.14520	0.15609	328
0.16485	0.16849	0.17035	0.17224	0.17388	0.17797	0.17883	0.17435	329
0.16064	0.13269	0.09474	0.04672	-0.00259	-0.04596	-0.07953	-0.09627	330
-0.10040	-0.09284	-0.07985	-0.06857	-0.06073	-0.06134	-0.06808	-0.07965	331
-0.09403	-0.10748	-0.11922	-0.12747	-0.13129	-0.13073	-0.12516	-0.11473	332
-0.10148	-0.08605	-0.07287	-0.06449	-0.06278	-0.07057	-0.08288	-0.09857	333
-0.10901	-0.10791	-0.09296	-0.05883	-0.01512	0.03431	0.07579	0.09715	334
0.09505	0.06107	0.00670	-0.06231	-0.13025	-0.18106	-0.20926	-0.20380	335
-0.17189	-0.11682	-0.04953	0.01722	0.07849	0.12426	0.15684	0.17560	336
0.18361	0.18590	0.18081	0.17101	0.15152	0.11968	0.07364	0.01021	337
-0.06558	-0.15132	-0.23702	-0.31459	-0.37508	-0.40954	-0.41638	-0.39207	338
-0.34468	-0.27954	-0.20837	-0.14302	-0.08870	-0.05457	-0.03657	-0.03366	339
-0.03995	-0.04759	-0.05578	-0.05971	-0.06185	-0.06382	-0.06661	-0.07325	340
-0.08236	-0.09410	-0.10681	-0.11870	-0.12869	-0.13527	-0.13813	-0.13681	341
-0.13218	-0.12495	-0.11670	-0.10888	-0.10260	-0.09894	-0.09747	-0.09842	342
-0.09994	-0.10101	-0.09921	-0.09233	-0.08075	-0.06338	-0.04392	-0.02426	343
-0.00754	0.00230	0.00777	0.00812	0.00902	0.01487	0.02738	0.05115	344
0.08117	0.11607	0.15038	0.17815	0.20103	0.21598	0.23133	0.25129	345
0.28097	0.32733	0.38309	0.44731	0.50511	0.54466	0.55822	0.53370	346
0.47838	0.39352	0.29257	0.18955	0.09074	0.00844	-0.05926	-0.11150	347
-0.15000	-0.17999	-0.19969	-0.21117	-0.21369	-0.20604	-0.19123	-0.16996	348
-0.14602	-0.12285	-0.10159	-0.08478	-0.07108	-0.05994	-0.04989	-0.03876	349
-0.02639	-0.01165	0.00503	0.02298	0.04236	0.06227	0.08262	0.10360	350
0.12307	0.14068	0.15459	0.16271	0.16796	0.16960	0.17323	0.18246	351
0.19608	0.21703	0.23439	0.24293	0.23342	0.19567	0.13499	0.04947	352
-0.04445	-0.13449	-0.21003	-0.25591	-0.27724	-0.27176	-0.25272	-0.23212	353
-0.21559	-0.21567	-0.22573	-0.24492	-0.26468	-0.27431	-0.27398	-0.25716	354
-0.22961	-0.19551	-0.15647	-0.11892	-0.07847	-0.03480	0.01370	0.07096	355
0.13129	0.19342	0.25064	0.29649	0.33086	0.34986	0.35966	0.36378	356
0.36720	0.37657	0.39027	0.41029	0.43085	0.44706	0.45568	0.45079	357
0.43435	0.40581	0.36813	0.32544	0.27798	0.22857	0.17702	0.12319	358

0.06945	0.01638	-0.03328	-0.07691	-0.11421	-0.14361	-0.16581	-0.18194	359
-0.19111	-0.19411	-0.19090	-0.18111	-0.16770	-0.15184	-0.13686	-0.12594	360
-0.11866	-0.11678	-0.11663	-0.11622	-0.11368	-0.10604	-0.09669	-0.08615	361
-0.08085	-0.08563	-0.10337	-0.13875	-0.18680	-0.24577	-0.30701	-0.36173	362
-0.40540	-0.43079	-0.43890	-0.42907	-0.40460	-0.37036	-0.32804	-0.28182	363
-0.23370	-0.18589	-0.14128	-0.10128	-0.06765	-0.04113	-0.02221	-0.01145	364
-0.00771	-0.01033	-0.01671	-0.02508	-0.03276	-0.03706	-0.03839	-0.03580	365
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-0.15552	-0.18721	-0.21563	-0.23838	-0.25123	-0.25070	-0.23660	-0.20744	367
-0.16775	-0.12061	-0.07124	-0.02524	0.01552	0.04766	0.07307	0.09254	368
0.10961	0.12785	0.14907	0.17619	0.20753	0.24281	0.27812	0.31008	369
0.33606	0.35270	0.36122	0.36125	0.35729	0.35242	0.35061	0.35592	370
0.36721	0.38538	0.40343	0.41675	0.41785	0.39962	0.36103	0.29894	371
0.22105	0.13257	0.04483	-0.03149	-0.08913	-0.11923	-0.12359	-0.10154	372
-0.06180	-0.01210	0.03900	0.08139	0.11319	0.12937	0.13501	0.13328	373
0.12979	0.13163	0.13912	0.15567	0.17585	0.19587	0.21127	0.21581	374
0.20912	0.18877	0.15718	0.11686	0.07037	0.02185	-0.02671	-0.07252	375
-0.11293	-0.14636	-0.16989	-0.18198	-0.18189	-0.16863	-0.14560	-0.11448	376
-0.08045	-0.04811	-0.01913	0.00272	0.02088	0.03645	0.05303	0.07488	377
0.10059	0.13150	0.16221	0.18871	0.20683	0.21116	0.20193	0.17748	378
0.14129	0.09650	0.04705	-0.00224	-0.04935	-0.09110	-0.12756	-0.15846	379
-0.18446	-0.20686	-0.22567	-0.24170	-0.25455	-0.26416	-0.26993	-0.27147	380
-0.26857	-0.26080	-0.24942	-0.23480	-0.21917	-0.20429	-0.19053	-0.17979	381
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-0.32699	-0.34722	-0.35963	-0.36352	-0.35841	-0.34341	-0.32106	-0.29237	384
-0.26144	-0.23216	-0.20557	-0.18429	-0.16522	-0.14754	-0.12890	-0.10602	385
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0.09197	0.11234	0.12656	0.13657	0.14413	0.15274	0.16129	0.17055	388
0.17832	0.18257	0.18280	0.17720	0.16754	0.15457	0.14075	0.12873	389
0.12001	0.11682	0.11927	0.12767	0.14151	0.15978	0.18166	0.20563	390
0.23070	0.25538	0.27794	0.29703	0.30973	0.31450	0.30841	0.28934	391
0.25811	0.21404	0.16265	0.10744	0.05367	0.00743	-0.03157	-0.06063	392
-0.08369	-0.10364	-0.12191	-0.14233	-0.16148	-0.17878	-0.19003	-0.19113	393
-0.18207	-0.16054	-0.13120	-0.09670	-0.06216	-0.03319	-0.01035	0.00294	394
0.01089	0.01578	0.02051	0.02968	0.04075	0.05422	0.06530	0.06953	395
0.06541	0.04930	0.02359	-0.01032	-0.04929	-0.08934	-0.12760	-0.16062	396
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0.06532	0.08574	0.10462	0.11930	0.12728	0.12523	0.11473	0.09559	399
0.07208	0.04765	0.02555	0.00977	-0.00016	-0.00304	-0.00270	-0.00172	400
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0.09960	0.11211	0.12286	0.13317	0.14320	0.15309	0.16321	0.17335	403
0.18321	0.19260	0.20002	0.20468	0.20492	0.19909	0.18758	0.16941	404
0.14688	0.12123	0.09294	0.06414	0.03133	-0.00610	-0.05097	-0.10622	405
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0.16902	0.18722	0.18899	0.17083	0.14002	0.10039	0.06205	0.03468	409
0.02152	0.02935	0.05193	0.08625	0.12381	0.15503	0.17718	0.18391	410
0.17864	0.16311	0.14209	0.12165	0.10398	0.09330	0.08905	0.09123	411
0.09811	0.10717	0.11665	0.12399	0.12780	0.12668	0.12002	0.10738	412
0.08955	0.06702	0.04180	0.01552	-0.01053	-0.03432	-0.05682	-0.07758	413
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-0.09444	-0.12165	-0.14376	-0.15588	-0.16056	-0.15776	-0.15150	-0.14620	417
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0.02575	0.03215	0.03304	0.02634	0.01328	-0.00609	-0.02775	-0.04871	421
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0.08076	0.10735	0.13237	0.15653	0.18101	0.20758	0.23548	0.26503	423
0.29378	0.32002	0.34154	0.35577	0.36293	0.36205	0.35555	0.34497	424
0.33223	0.31997	0.30735	0.29508	0.28081	0.26270	0.24008	0.21110	425
0.17794	0.14134	0.10424	0.06970	0.03842	0.01259	-0.00937	-0.02804	426
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0.00133	0.01516	0.03147	0.05022	0.06850	0.08390	0.09407	0.09594	434
0.08987	0.07520	0.05386	0.02796	-0.00088	-0.03015	-0.05864	-0.08497	435
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0.20664	0.26293	0.31005	0.34325	0.36496	0.37664	0.38074	0.38123	443
0.37952	0.37776	0.37724	0.37840	0.38119	0.38566	0.38843	0.38775	444
0.37983	0.36115	0.33256	0.29284	0.24741	0.20011	0.15576	0.12015	445
0.09350	0.07820	0.07096	0.06922	0.07032	0.07009	0.06895	0.06537	446
0.06135	0.05873	0.05788	0.06068	0.06563	0.07219	0.07916	0.08475	447
0.08912	0.09177	0.09323	0.09400	0.09436	0.09488	0.09605	0.09812	448
0.10141	0.10611	0.11142	0.11693	0.12095	0.12210	0.11943	0.11170	449
0.09934	0.08254	0.06261	0.04090	0.01927	-0.00054	-0.01669	-0.02759	450
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0.04228	0.04622	0.04772	0.04715	0.04484	0.04098	0.03667	0.03258	460
0.02940	0.02805	0.02802	0.02930	0.03119	0.03280	0.03445	0.03571	461
0.03744	0.04037	0.04459	0.05071	0.05823	0.06685	0.07629	0.08598	462
0.09591	0.10583	0.11578	0.12568	0.13550	0.14535	0.15488	0.16393	463
0.17225	0.17946	0.18581	0.19099	0.19545	0.19961	0.20257	0.20433	464
0.20323	0.19809	0.18880	0.17432	0.15667	0.13689	0.11667	0.09819	465
0.08085	0.06532	0.04996	0.03351	0.01546	-0.00529	-0.02734	-0.05019	466
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0.06538	0.05730	0.05624	0.06117	0.06833	0.07326	0.07461	0.06908	473
0.05771	0.04092	0.01948	-0.00448	-0.03116	-0.05930	-0.08843	-0.11829	474
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0.00335	-0.00089	-0.00171	0.00159	0.00872	0.01873	0.03113	0.04492	477
0.05918	0.07305	0.08578	0.09657	0.10560	0.11262	0.11831	0.12325	478
0.12729	0.13069	0.13240	0.13175	0.12751	0.11862	0.10466	0.08515	479
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0.13079	0.13650	0.13565	0.12727	0.11327	0.09465	0.07398	0.05385	485
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0.14612	0.17137	0.19407	0.21096	0.21956	0.21642	0.20288	0.17889	490
0.14842	0.11493	0.08213	0.05427	0.03244	0.01876	0.01139	0.00905	491
0.00921	0.00868	0.00661	0.00104	-0.00735	-0.01819	-0.03044	-0.04273	492
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0.10871	0.13782	0.16757	0.19489	0.21994	0.24101	0.26000	0.27834	501
0.29615	0.31497	0.33302	0.34959	0.36316	0.37187	0.37602	0.37486	502
0.37003	0.36265	0.35407	0.34606	0.33841	0.33184	0.32482	0.31622	503
0.30509	0.28978	0.27119	0.24919	0.22535	0.20119	0.17718	0.15445	504

0.13258	0.11146	0.09045	0.06888	0.04629	0.02216	-0.00301	-0.02925	505
-0.05474	-0.07825	-0.09850	-0.11377	-0.12487	-0.13162	-0.13581	-0.13925	506
-0.14223	-0.14615	-0.14994	-0.15315	-0.15514	-0.15465	-0.15228	-0.14785	507
-0.14219	-0.13600	-0.12967	-0.12376	-0.11767	-0.11137	-0.10327	-0.09234	508
-0.07764	-0.05788	-0.03438	-0.00735	0.02054	0.04702	0.07085	0.08976	509
0.10491	0.11626	0.12547	0.13431	0.14261	0.15139	0.15855	0.16295	510
0.16284	0.15606	0.14349	0.12455	0.10234	0.07909	0.05688	0.03879	511
0.02396	0.01281	0.00364	-0.00563	-0.01541	-0.02720	-0.04083	-0.05593	512
-0.07285	-0.09094	-0.10965	-0.12867	-0.14514	-0.15751	-0.16284	-0.15842	513
-0.14459	-0.12051	-0.08947	-0.05400	-0.01714	0.01736	0.04881	0.07540	514
0.09839	0.11855	0.13758	0.15751	0.17882	0.20266	0.22779	0.25346	515
0.27773	0.29844	0.31452	0.32429	0.32771	0.32466	0.31574	0.30178	516
0.28385	0.26317	0.24104	0.21867	0.19694	0.17678	0.15813	0.14099	517
0.12472	0.10868	0.09213	0.07437	0.05492	0.03332	0.01005	-0.01494	518
-0.03997	-0.06400	-0.08593	-0.10433	-0.12025	-0.13360	-0.14659	-0.16090	519
-0.17701	-0.19642	-0.21676	-0.23702	-0.25401	-0.26469	-0.26839	-0.26308	520
-0.25129	-0.23433	-0.21493	-0.19650	-0.17893	-0.16396	-0.14944	-0.13379	521
-0.11635	-0.09486	-0.07110	-0.04545	-0.01917	0.00552	0.02993	0.05348	522
0.07751	0.10341	0.12948	0.15589	0.17892	0.19598	0.20518	0.20379	523
0.19405	0.17652	0.15581	0.13596	0.11992	0.11175	0.11071	0.11738	524
0.12892	0.14229	0.15563	0.16561	0.17181	0.17321	0.16934	0.16067	525
0.14648	0.12710	0.10316	0.07501	0.04550	0.01645	-0.00881	-0.02737	526
-0.03787	-0.03841	-0.03061	-0.01521	0.00451	0.02544	0.04545	0.06154	527
0.07424	0.08294	0.08974	0.09665	0.10451	0.11541	0.12814	0.14240	528
0.15702	0.17016	0.18214	0.19203	0.20043	0.20783	0.21332	0.21710	529
0.21725	0.21259	0.20237	0.18530	0.16327	0.13698	0.10950	0.08349	530
0.06039	0.04259	0.02875	0.01865	0.01004	0.00048	-0.01059	-0.02493	531
-0.04126	-0.05904	-0.07680	-0.09266	-0.10640	-0.11702	-0.12511	-0.13118	532
-0.13576	-0.13983	-0.14374	-0.14806	-0.15305	-0.15883	-0.16541	-0.17268	533
-0.18012	-0.18745	-0.19352	-0.19761	-0.19896	-0.19680	-0.19162	-0.18339	534
-0.17373	-0.16392	-0.15492	-0.14825	-0.14328	-0.14011	-0.13770	-0.13493	535
-0.13171	-0.12718	-0.12221	-0.11735	-0.11309	-0.11026	-0.10854	-0.10809	536
-0.10793	-0.10734	-0.10556	-0.10174	-0.09593	-0.08783	-0.07835	-0.06809	537
-0.05798	-0.04913	-0.04140	-0.03534	-0.02995	-0.02466	-0.01902	-0.01224	538
-0.00533	0.00143	0.00635	0.00795	0.00558	-0.00196	-0.01368	-0.02924	539
-0.04688	-0.06498	-0.08244	-0.09770	-0.11119	-0.12267	-0.13348	-0.14473	540
-0.15701	-0.17150	-0.18698	-0.20311	-0.21785	-0.22940	-0.23687	-0.23871	541
-0.23579	-0.22848	-0.21822	-0.20675	-0.19503	-0.18458	-0.17581	-0.16927	542
-0.16524	-0.16368	-0.16475	-0.16829	-0.17402	-0.18180	-0.19082	-0.20060	543
-0.21034	-0.21929	-0.22744	-0.23426	-0.24060	-0.24693	-0.25338	-0.26070	544
-0.26758	-0.27357	-0.27742	-0.27752	-0.27451	-0.26779	-0.25864	-0.24813	545
-0.23564	-0.22211	-0.20495	-0.18290	-0.15499	-0.11940	-0.07920	-0.03538	546
0.00739	0.04496	0.07602	0.09739	0.11216	0.12159	0.12942	0.13978	547
0.15293	0.17118	0.19142	0.21170	0.22920	0.24029	0.24499	0.24181	548
0.23316	0.22092	0.20749	0.19581	0.18689	0.18245	0.18169	0.18429	549
0.18872	0.19327	0.19719	0.19882	0.19915	0.19806	0.19659	0.19592	550
0.19491	0.19392	0.18996	0.18113	0.16606	0.14242	0.11258	0.07718	551
0.03996	0.00468	-0.02740	-0.05319	-0.07408	-0.09037	-0.10288	-0.11375	552
-0.12133	-0.12583	-0.12562	-0.11899	-0.10698	-0.08908	-0.06817	-0.04636	553
-0.02542	-0.00803	0.00660	0.01811	0.02824	0.03866	0.05036	0.06483	554
0.08174	0.10106	0.12122	0.14080	0.15763	0.16967	0.17552	0.17361	555
0.16463	0.14879	0.12842	0.10558	0.08268	0.06220	0.04533	0.03357	556
0.02616	0.02281	0.02161	0.02084	0.01921	0.01491	0.00884	0.00085	557
-0.00666	-0.01177	-0.01321	-0.00892	-0.00024	0.01262	0.02714	0.04090	558
0.05262	0.06012	0.06415	0.06459	0.06307	0.06119	0.05966	0.05995	559
0.06117	0.06324	0.06464	0.06390	0.06069	0.05390	0.04488	0.03423	560
0.02373	0.01512	0.00911	0.00693	0.00769	0.01105	0.01531	0.01890	561
0.02092	0.02002	0.01703	0.01199	0.00711	0.00401	0.00415	0.00936	562
0.01869	0.03210	0.04685	0.06067	0.07134	0.07607	0.07495	0.06709	563
0.05420	0.03776	0.01923	0.00081	-0.01731	-0.03432	-0.05037	-0.06614	564
-0.08122	-0.09612	-0.11107	-0.12576	-0.14214	-0.16044	-0.18198	-0.20791	565
-0.23504	-0.26265	-0.28390	-0.29415	-0.28986	-0.26600	-0.22725	-0.17479	566
-0.11725	-0.06248	-0.01456	0.01937	0.04275	0.05598	0.06487	0.07572	567
0.09049	0.11395	0.14346	0.17793	0.21372	0.24622	0.27367	0.29275	568
0.30361	0.30610	0.30116	0.29042	0.27536	0.25778	0.23966	0.22263	569
0.20816	0.19760	0.19059	0.18729	0.18607	0.18548	0.18445	0.18136	570
0.17663	0.16996	0.16239	0.15491	0.14772	0.14172	0.13597	0.13012	571
0.12311	0.11370	0.10207	0.08754	0.07117	0.05371	0.03548	0.01766	572
-0.00064	-0.01947	-0.03902	-0.06001	-0.08076	-0.10078	-0.11801	-0.13055	573
-0.13830	-0.14024	-0.13822	-0.13343	-0.12785	-0.12374	-0.12143	-0.12215	574
-0.12465	-0.12825	-0.13160	-0.13307	-0.13279	-0.13001	-0.12625	-0.12256	575
-0.12004	-0.12040	-0.12309	-0.12843	-0.13519	-0.14211	-0.14861	-0.15342	576
-0.15674	-0.15838	-0.15845	-0.15742	-0.15497	-0.15129	-0.14626	-0.13975	577

-0.13222	-0.12380	-0.11515	-0.10679	-0.09885	-0.09174	-0.08473	-0.07771	578
-0.06956	-0.05950	-0.04756	-0.03336	-0.01873	-0.00466	0.00646	0.01253	579
0.01293	0.00639	-0.00508	-0.02038	-0.03638	-0.05007	-0.05986	-0.06328	580
-0.06125	-0.05384	-0.04297	-0.03084	-0.01827	-0.00715	0.00308	0.01231	581
0.02115	0.03063	0.04036	0.05061	0.06076	0.07011	0.07849	0.08520	582
0.09024	0.09348	0.09440	0.09285	0.08811	0.07965	0.06733	0.05079	583
0.03074	0.00748	-0.01790	-0.04431	-0.07150	-0.09853	-0.12599	-0.15393	584
-0.18221	-0.21117	-0.23895	-0.26467	-0.28599	-0.30084	-0.30871	-0.30828	585
-0.30122	-0.28860	-0.27245	-0.25507	-0.23738	-0.22094	-0.20520	-0.19001	586
-0.17431	-0.15706	-0.13751	-0.11470	-0.08916	-0.06110	-0.03217	-0.00377	587
0.02209	0.04344	0.05933	0.06849	0.07156	0.06875	0.06184	0.05239	588
0.04172	0.03158	0.02169	0.01250	0.00275	-0.00876	-0.02239	-0.03929	589
-0.05860	-0.07992	-0.10227	-0.12416	-0.14499	-0.16358	-0.17881	-0.18998	590
-0.19514	-0.19325	-0.18289	-0.16291	-0.13409	-0.09670	-0.05351	-0.00699	591
0.03968	0.08319	0.12128	0.15144	0.17322	0.18592	0.19084	0.18902	592
0.18255	0.17361	0.16297	0.15239	0.14095	0.12851	0.11449	0.09776	593
0.07983	0.06084	0.04345	0.02981	0.02076	0.01815	0.02033	0.02654	594
0.03483	0.04284	0.05021	0.05552	0.05974	0.06356	0.06773	0.07360	595
0.08143	0.09164	0.10466	0.12024	0.13848	0.15902	0.18008	0.20077	596
0.21745	0.22761	0.22908	0.21912	0.19951	0.17035	0.13560	0.09878	597
0.06173	0.02809	-0.00388	-0.03401	-0.06411	-0.09657	-0.12948	-0.16349	598
-0.19413	-0.21827	-0.23393	-0.23747	-0.23173	-0.21719	-0.19800	-0.17849	599
-0.15899	-0.14259	-0.12598	-0.10769	-0.08567	-0.05660	-0.02320	0.01449	600
0.05143	0.08333	0.10794	0.12113	0.12531	0.12073	0.11134	0.10109	601
0.09095	0.08400	0.07744	0.07016	0.05939	0.04156	0.01741	-0.01453	602
-0.05099	-0.08956	-0.12815	-0.16321	-0.19581	-0.22489	-0.25230	-0.27963	603
-0.30560	-0.33101	-0.35119	-0.36341	-0.36379	-0.34809	-0.31741	-0.27073	604
-0.21328	-0.14921	-0.08297	-0.02035	0.03815	0.09011	0.13751	0.18217	605
0.22530	0.26950	0.31426	0.35989	0.40554	0.44962	0.49139	0.52919	606
0.56119	0.58613	0.60108	0.60421	0.59329	0.56646	0.52505	0.46926	607
0.40397	0.33298	0.26087	0.19287	0.13018	0.07537	0.02690	-0.01663	608
-0.05683	-0.09627	-0.13579	-0.17663	-0.21893	-0.26232	-0.30599	-0.34861	609
-0.38629	-0.41680	-0.43567	-0.43894	-0.42658	-0.39693	-0.35441	-0.30246	610
-0.24668	-0.19309	-0.14311	-0.10031	-0.06287	-0.02983	0.00093	0.03227	611
0.06399	0.09729	0.12954	0.15908	0.18293	0.19801	0.20369	0.19825	612
0.18421	0.16318	0.13847	0.11393	0.09091	0.07220	0.05746	0.04676	613
0.04037	0.03736	0.03908	0.04569	0.05778	0.07621	0.09945	0.12697	614
0.15642	0.18554	0.21328	0.23758	0.25881	0.27667	0.29125	0.30338	615
0.31172	0.31611	0.31556	0.30904	0.29763	0.28137	0.26287	0.24414	616
0.22691	0.21350	0.20344	0.19723	0.19323	0.19004	0.18690	0.18235	617
0.17732	0.17195	0.16776	0.16613	0.16776	0.17362	0.18278	0.19485	618
0.20756	0.21902	0.22739	0.23056	0.22844	0.22030	0.20778	0.19217	619
0.17529	0.15925	0.14457	0.13233	0.12158	0.11162	0.10111	0.08848	620
0.07288	0.05313	0.02917	0.00084	-0.03107	-0.06586	-0.10222	-0.13897	621
-0.17509	-0.20936	-0.24191	-0.27243	-0.30158	-0.32980	-0.35736	-0.38481	622
-0.41116	-0.43602	-0.45741	-0.47397	-0.48420	-0.48652	-0.48169	-0.46950	623
-0.45264	-0.43301	-0.41272	-0.39439	-0.37726	-0.36203	-0.34589	-0.32685	624
-0.30314	-0.27232	-0.23576	-0.19353	-0.14914	-0.10563	-0.06576	-0.03314	625
-0.00805	0.00821	0.01699	0.01955	0.01703	0.01138	0.00270	-0.00818	626
-0.02156	-0.03771	-0.05648	-0.07818	-0.10185	-0.12691	-0.15204	-0.17578	627
-0.19704	-0.21442	-0.22683	-0.23333	-0.23252	-0.22360	-0.20552	-0.17762	628
-0.14039	-0.09421	-0.04117	0.01661	0.07643	0.13531	0.19048	0.23941	629
0.27952	0.30882	0.32654	0.33178	0.32666	0.31256	0.29276	0.27064	630
0.24780	0.22692	0.20752	0.18967	0.17293	0.15589	0.13922	0.12239	631
0.10572	0.08964	0.07289	0.05525	0.03484	0.01033	-0.01859	-0.05275	632
-0.09007	-0.12940	-0.16750	-0.20144	-0.22936	-0.24876	-0.26038	-0.26433	633
-0.26274	-0.25798	-0.25177	-0.24655	-0.24325	-0.24279	-0.24565	-0.25158	634
-0.25969	-0.26916	-0.27687	-0.28078	-0.27727	-0.26331	-0.23832	-0.20081	635
-0.15427	-0.10113	-0.04603	0.00619	0.05283	0.09025	0.11870	0.13781	636
0.14973	0.15657	0.16093	0.16564	0.17157	0.18034	0.19031	0.20059	637
0.20873	0.21221	0.21019	0.20100	0.18612	0.16646	0.14441	0.12252	638
0.10291	0.08793	0.07847	0.07565	0.07851	0.08638	0.09745	0.10973	639
0.12234	0.13367	0.14412	0.15356	0.16273	0.17123	0.18068	0.19575	640
0.21228	0.22729	0.24146	0.25114	0.25764	0.26393	0.27029	0.27716	641
0.28350	0.28901	0.29249	0.29238	0.28962	0.28332	0.27540	0.26743	642
0.25780	0.24729	0.23177	0.20843	0.17607	0.13172	0.07885	0.01875	643
-0.04429	-0.10581	-0.16495	-0.21831	-0.26905	-0.31775	-0.36655	-0.41867	644
-0.46911	-0.51738	-0.55432	-0.57273	-0.56916	-0.53717	-0.48533	-0.41757	645
-0.34255	-0.27059	-0.20414	-0.14909	-0.10296	-0.06459	-0.02969	0.00610	646
0.04538	0.09242	0.14362	0.19857	0.25053	0.29285	0.32417	0.33983	647
0.34400	0.33936	0.32847	0.31586	0.30344	0.29308	0.28544	0.28139	648
0.27787	0.27355	0.26489	0.24795	0.22396	0.19235	0.15768	0.12330	649
0.09351	0.07294	0.06308	0.06651	0.07905	0.09876	0.11971	0.13584	650

0.14604	0.14488	0.13466	0.11936	0.10378	0.09265	0.08749	0.09173	651
0.10497	0.12573	0.14808	0.16693	0.18187	0.18985	0.19305	0.19317	652
0.19139	0.19041	0.19025	0.19165	0.19493	0.19985	0.20648	0.21445	653
0.22306	0.23188	0.23976	0.24586	0.24975	0.25069	0.24966	0.24677	654
0.24344	0.24092	0.23869	0.23737	0.23436	0.22801	0.21657	0.19772	655
0.17264	0.14100	0.10580	0.06947	0.03366	0.00114	-0.02938	-0.05747	656
-0.08548	-0.11538	-0.14690	-0.18155	-0.21513	-0.24562	-0.26889	-0.28057	657
-0.28120	-0.26905	-0.24882	-0.22397	-0.19850	-0.17767	-0.16161	-0.15219	658
-0.14683	-0.14388	-0.14132	-0.13591	-0.12768	-0.11564	-0.10176	-0.08770	659
-0.07563	-0.06825	-0.06647	-0.07178	-0.08388	-0.10241	-0.12633	-0.15429	660
-0.18455	-0.21551	-0.24525	-0.27206	-0.29522	-0.31368	-0.32836	-0.33980	661
-0.34924	-0.35808	-0.36681	-0.37641	-0.38615	-0.39580	-0.40415	-0.40993	662
-0.41241	-0.41053	-0.40451	-0.39432	-0.38135	-0.36674	-0.35072	-0.33421	663
-0.31689	-0.29901	-0.28028	-0.26032	-0.23996	-0.21943	-0.20033	-0.18387	664
-0.17139	-0.16426	-0.16210	-0.16503	-0.17152	-0.18032	-0.18962	-0.19751	665
-0.20314	-0.20536	-0.20449	-0.20066	-0.19485	-0.18804	-0.18102	-0.17473	666
-0.16899	-0.16391	-0.15819	-0.15096	-0.14069	-0.12592	-0.10614	-0.08052	667
-0.05015	-0.01570	0.02103	0.05819	0.09470	0.12902	0.16123	0.19102	668
0.21915	0.24629	0.27318	0.30064	0.32852	0.35696	0.38452	0.41018	669
0.43219	0.44890	0.46017	0.46479	0.46322	0.45735	0.45032	0.44213	670
0.42969	0.41252	0.39126	0.36743	0.34295	0.31913	0.29712	0.27652	671
0.25667	0.23707	0.21792	0.19995	0.18313	0.16775	0.15340	0.13884	672
0.12384	0.10798	0.09147	0.07433	0.05688	0.04032	0.02376	0.00686	673
-0.01091	-0.03037	-0.04993	-0.06910	-0.08521	-0.09618	-0.10075	-0.09706	674
-0.08663	-0.06997	-0.05001	-0.02950	-0.01028	0.00492	0.01657	0.02414	675
0.02907	0.03298	0.03623	0.04019	0.04419	0.04788	0.05102	0.05262	676
0.05299	0.05199	0.04924	0.04493	0.03806	0.02815	0.01520	-0.00124	677
-0.01965	-0.03912	-0.05809	-0.07484	-0.08902	-0.09962	-0.10736	-0.11269	678
-0.11609	-0.11853	-0.11959	-0.11949	-0.11762	-0.11342	-0.10707	-0.09830	679
-0.08794	-0.07661	-0.06518	-0.05472	-0.04562	-0.03856	-0.03359	-0.03073	680
-0.03003	-0.03131	-0.03449	-0.03949	-0.04580	-0.05319	-0.06101	-0.06873	681
-0.07626	-0.08324	-0.09014	-0.09716	-0.10455	-0.11267	-0.12107	-0.12963	682
-0.13714	-0.14283	-0.14549	-0.14412	-0.13867	-0.12870	-0.11551	-0.10003	683
-0.08423	-0.07027	-0.05915	-0.05231	-0.04956	-0.05088	-0.05554	-0.06256	684
-0.07094	-0.07960	-0.08752	-0.09382	-0.09799	-0.09973	-0.09953	-0.09774	685
-0.09567	-0.09431	-0.09502	-0.09899	-0.10627	-0.11732	-0.13042	-0.14449	686
-0.15730	-0.16671	-0.17182	-0.17116	-0.16568	-0.15590	-0.14325	-0.12945	687
-0.11527	-0.10195	-0.08950	-0.07811	-0.06739	-0.05702	-0.04643	-0.03518	688
-0.02330	-0.01055	0.00182	0.01321	0.02191	0.02647	0.02660	0.02112	689
0.01240	0.00199	-0.00838	-0.01645	-0.02210	-0.02436	-0.02504	-0.02561	690
-0.02692	-0.03054	-0.03587	-0.04306	-0.05110	-0.05896	-0.06636	-0.07238	691
-0.07781	-0.08298	-0.08846	-0.09505	-0.10275	-0.11210	-0.12252	-0.13333	692
-0.14389	-0.15342	-0.16161	-0.16812	-0.17237	-0.17418	-0.17328	-0.16944	693
-0.16335	-0.15526	-0.14636	-0.13770	-0.12967	-0.12313	-0.11746	-0.11233	694
-0.10723	-0.10136	-0.09472	-0.08702	-0.07836	-0.06896	-0.05867	-0.04766	695
-0.03586	-0.02331	-0.01022	0.00327	0.01670	0.02976	0.04196	0.05282	696
0.06228	0.07001	0.07647	0.08186	0.08643	0.09068	0.09406	0.09645	697
0.09720	0.09560	0.09162	0.08488	0.07567	0.06433	0.05086	0.03571	698
0.01892	0.00054	-0.01846	-0.03770	-0.05597	-0.07231	-0.08636	-0.09746	699
-0.10649	-0.11378	-0.12054	-0.12793	-0.13608	-0.14566	-0.15529	-0.16427	700
-0.17087	-0.17340	-0.17154	-0.16429	-0.15308	-0.13981	-0.12324	-0.10836	701
-0.09472	-0.08358	-0.07449	-0.06717	-0.06115	-0.05552	-0.05011	-0.04448	702
-0.03828	-0.03134	-0.02337	-0.01418	-0.00396	0.00723	0.01894	0.03073	703
0.04229	0.05310	0.06320	0.07235	0.08066	0.08822	0.09470	0.10017	704
0.10380	0.10509	0.10371	0.09908	0.09195	0.08252	0.07209	0.06177	705
0.05199	0.04366	0.03595	0.02862	0.02062	0.01092	-0.00035	-0.01363	706
-0.02741	-0.04075	-0.05178	-0.05874	-0.06094	-0.05723	-0.04876	-0.03612	707
-0.02135	-0.00645	0.00738	0.01848	0.02722	0.03352	0.03886	0.04453	708
0.05201	0.06275	0.07714	0.09574	0.11713	0.14042	0.16286	0.18215	709
0.19642	0.20338	0.20381	0.19762	0.18748	0.17558	0.16431	0.15656	710
0.15248	0.15312	0.15688	0.16242	0.16808	0.17168	0.17277	0.17019	711
0.16481	0.15708	0.14824	0.13973	0.13196	0.12596	0.12113	0.11715	712
0.11360	0.10956	0.10539	0.10085	0.09634	0.09232	0.08844	0.08484	713
0.08089	0.07614	0.07053	0.06375	0.05650	0.04910	0.04269	0.03825	714
0.03652	0.03825	0.04290	0.05044	0.05973	0.06955	0.07948	0.08840	715
0.09650	0.10353	0.10909	0.11350	0.11559	0.11478	0.11075	0.10278	716
0.09211	0.07929	0.06603	0.05409	0.04367	0.03571	0.02912	0.02341	717
0.01765	0.01061	0.00304	-0.00531	-0.01233	-0.01662	-0.01676	-0.01090	718
-0.00004	0.01587	0.03451	0.05372	0.07225	0.08791	0.10130	0.11223	719
0.12188	0.13151	0.14143	0.15263	0.16459	0.17709	0.18967	0.20148	720
0.21241	0.22189	0.23002	0.23678	0.24205	0.24600	0.24834	0.24901	721
0.24780	0.24443	0.23956	0.23325	0.22666	0.22061	0.21541	0.21183	722
0.20865	0.20534	0.20071	0.19336	0.18371	0.17129	0.15755	0.14356	723

0.13045	0.11962	0.11107	0.10526	0.10113	0.09789	0.09459	0.08994	724
0.08391	0.07589	0.06661	0.05668	0.04638	0.03658	0.02691	0.01738	725
0.00799	-0.00160	-0.01077	-0.01937	-0.02699	-0.03307	-0.03800	-0.04187	726
-0.04519	-0.04850	-0.05204	-0.05623	-0.06095	-0.06631	-0.07194	-0.07760	727
-0.08311	-0.08813	-0.09315	-0.09823	-0.10405	-0.11128	-0.11968	-0.12954	728
-0.13980	-0.14968	-0.15865	-0.16576	-0.17142	-0.17564	-0.17902	-0.18219	729
-0.18529	-0.18883	-0.19217	-0.19515	-0.19680	-0.19629	-0.19343	-0.18739	730
-0.17937	-0.16975	-0.15954	-0.15015	-0.14057	-0.13118	-0.12003	-0.10559	731
-0.08796	-0.06598	-0.04214	-0.01791	0.00473	0.02316	0.03781	0.04787	732
0.05498	0.06057	0.06539	0.07101	0.07677	0.08278	0.08789	0.09093	733
0.09167	0.08915	0.08443	0.07799	0.07098	0.06484	0.05972	0.05640	734
0.05450	0.05363	0.05392	0.05492	0.05694	0.06020	0.06431	0.06925	735
0.07454	0.07957	0.08433	0.08852	0.09180	0.09421	0.09476	0.09288	736
0.08835	0.08059	0.07045	0.05831	0.04512	0.03195	0.01908	0.00727	737
-0.00399	-0.01497	-0.02526	-0.03505	-0.04353	-0.05050	-0.05524	-0.05684	738
-0.05524	-0.05013	-0.04255	-0.03308	-0.02297	-0.01385	-0.00543	0.00169	739
0.00819	0.01471	0.02100	0.02761	0.03312	0.03673	0.03783	0.03534	740
0.02992	0.02161	0.01161	0.00112	-0.00934	-0.01880	-0.02751	-0.03544	741
-0.04306	-0.05093	-0.05914	-0.06819	-0.07750	-0.08682	-0.09560	-0.10316	742
-0.10953	-0.11435	-0.11804	-0.12100	-0.12323	-0.12515	-0.12647	-0.12714	743
-0.12719	-0.12646	-0.12552	-0.12464	-0.12428	-0.12496	-0.12646	-0.12885	744
-0.13127	-0.13315	-0.13347	-0.13138	-0.12643	-0.11801	-0.10684	-0.09326	745
-0.07870	-0.06448	-0.05143	-0.04082	-0.03234	-0.02606	-0.02113	-0.01670	746
-0.01208	-0.00641	0.00047	0.00887	0.01826	0.02825	0.03788	0.04630	747
0.05287	0.05670	0.05828	0.05758	0.05562	0.05336	0.05119	0.05000	748
0.04939	0.04925	0.04935	0.04915	0.04889	0.04848	0.04830	0.04860	749
0.04962	0.05164	0.05446	0.05809	0.06179	0.06509	0.06732	0.06774	750
0.06652	0.06339	0.05918	0.05455	0.05000	0.04631	0.04341	0.04142	751
0.04005	0.03890	0.03763	0.03586	0.03313	0.02907	0.02360	0.01651	752
0.00837	-0.00045	-0.00925	-0.01730	-0.02437	-0.03015	-0.03475	-0.03834	753
-0.04144	-0.04450	-0.04845	-0.05396	-0.06150	-0.07172	-0.08409	-0.09844	754
-0.11381	-0.12937	-0.14445	-0.15806	-0.17037	-0.18123	-0.19102	-0.20018	755
-0.20853	-0.21632	-0.22266	-0.22712	-0.22887	-0.22703	-0.22192	-0.21325	756
-0.20229	-0.18998	-0.17704	-0.16472	-0.15240	-0.14020	-0.12720	-0.11246	757
-0.09598	-0.07722	-0.05705	-0.03610	-0.01526	0.00437	0.02230	0.03785	758
0.05090	0.06135	0.06955	0.07582	0.08086	0.08529	0.08963	0.09442	759
0.09971	0.10564	0.11202	0.11860	0.12518	0.13140	0.13721	0.14248	760
0.14733	0.15166	0.15593	0.16033	0.16494	0.16999	0.17471	0.17875	761
0.18113	0.18090	0.17795	0.17168	0.16280	0.15184	0.13946	0.12657	762
0.11349	0.10069	0.08819	0.07604	0.06393	0.05158	0.03866	0.02478	763
0.01000	-0.00584	-0.02210	-0.03838	-0.05391	-0.06797	-0.08027	-0.09036	764
-0.09865	-0.10529	-0.11116	-0.11701	-0.12323	-0.13057	-0.13829	-0.14622	765
-0.15315	-0.15795	-0.16046	-0.15988	-0.15718	-0.15297	-0.14796	-0.14337	766
-0.13899	-0.13524	-0.13177	-0.12820	-0.12458	-0.12065	-0.11672	-0.11287	767
-0.10948	-0.10685	-0.10502	-0.10425	-0.10386	-0.10348	-0.10230	-0.09950	768
-0.09496	-0.08839	-0.08059	-0.07209	-0.06323	-0.05475	-0.04653	-0.03878	769
-0.03142	-0.02422	-0.01739	-0.01088	-0.00492	0.00003	0.00428	0.00800	770
0.01122	0.01384	0.01623	0.01873	0.02140	0.02453	0.02819	0.03230	771
0.03693	0.04200	0.04793	0.05485	0.06246	0.07076	0.07920	0.08748	772
0.09499	0.10106	0.10590	0.10927	0.11197	0.11452	0.11750	0.12159	773
0.12657	0.13250	0.13831	0.14329	0.14647	0.14684	0.14463	0.13938	774
0.13247	0.12489	0.11773	0.11247	0.10881	0.10717	0.10655	0.10600	775
0.10519	0.10313	0.10071	0.09815	0.09624	0.09604	0.09727	0.10035	776
0.10448	0.10889	0.11347	0.11744	0.12117	0.12465	0.12778	0.13080	777
0.13277	0.13323	0.13133	0.12615	0.11774	0.10567	0.09095	0.07428	778
0.05657	0.03901	0.02164	0.00497	-0.01138	-0.02787	-0.04444	-0.06155	779
-0.07896	-0.09645	-0.11426	-0.13215	-0.15031	-0.16879	-0.18660	-0.20347	780
-0.21753	-0.22749	-0.23265	-0.23179	-0.22620	-0.21642	-0.20441	-0.19208	781
-0.18021	-0.17040	-0.16182	-0.15445	-0.14716	-0.13874	-0.12935	-0.11829	782
-0.10717	-0.09693	-0.08885	-0.08458	-0.08363	-0.08637	-0.09123	-0.09682	783
-0.10213	-0.10565	-0.10731	-0.10673	-0.10437	-0.10074	-0.09637	-0.09196	784
-0.08775	-0.08421	-0.08112	-0.07849	-0.07584	-0.07267	-0.06894	-0.06430	785
-0.05899	-0.05320	-0.04697	-0.04061	-0.03390	-0.02678	-0.01921	-0.01104	786
-0.00239	0.00663	0.01597	0.02546	0.03505	0.04467	0.05417	0.06339	787
0.07236	0.08100	0.08943	0.09770	0.10582	0.11393	0.12186	0.12942	788
0.13665	0.14337	0.14966	0.15557	0.16084	0.16535	0.16863	0.17026	789
0.17020	0.16818	0.16450	0.15931	0.15272	0.14499	0.13598	0.12572	790
0.11416	0.10124	0.08708	0.07179	0.05576	0.03925	0.02307	0.00772	791
-0.00597	-0.01734	-0.02635	-0.03272	-0.03741	-0.04110	-0.04476	-0.04956	792
-0.05561	-0.06345	-0.07259	-0.08261	-0.09302	-0.10318	-0.11281	-0.12152	793
-0.12939	-0.13632	-0.14279	-0.14903	-0.15524	-0.16186	-0.16782	-0.17286	794
-0.17530	-0.17384	-0.16820	-0.15739	-0.14318	-0.12653	-0.10958	-0.09470	795
-0.08231	-0.07386	-0.06827	-0.06489	-0.06277	-0.06049	-0.05788	-0.05432	796

-0.05014	-0.04551	-0.04108	-0.03733	-0.03453	-0.03318	-0.03208	-0.03103	797
-0.02783	-0.02099	-0.01007	0.00617	0.02498	0.04510	0.06293	0.07492	798
0.08042	0.07719	0.06780	0.05373	0.03760	0.02289	0.00991	0.00040	799
-0.00643	-0.01140	-0.01458	-0.01710	-0.01854	-0.01901	-0.01868	-0.01731	800
-0.01573	-0.01440	-0.01372	-0.01431	-0.01582	-0.01827	-0.02088	-0.02307	801
-0.02421	-0.02359	-0.02127	-0.01705	-0.01161	-0.00551	0.00052	0.00557	802
0.00931	0.01120	0.01125	0.00958	0.00627	0.00152	-0.00407	-0.01020	803
-0.01604	-0.02094	-0.02478	-0.02713	-0.02876	-0.03019	-0.03200	-0.03511	804
-0.03926	-0.04458	-0.05070	-0.05705	-0.06358	-0.06987	-0.07574	-0.08110	805
-0.08534	-0.08821	-0.08908	-0.08755	-0.08349	-0.07674	-0.06786	-0.05727	806
-0.04599	-0.03493	-0.02510	-0.01758	-0.01272	-0.01104	-0.01228	-0.01607	807
-0.02193	-0.02911	-0.03674	-0.04413	-0.04989	-0.05314	-0.05305	-0.04867	808
-0.04094	-0.03004	-0.01772	-0.00574	0.00549	0.01447	0.02213	0.02880	809
0.03469	0.04081	0.04590	0.04978	0.05136	0.04944	0.04484	0.03732	810
0.02899	0.02134	0.01570	0.01376	0.01481	0.01906	0.02431	0.02879	811
0.03111	0.02919	0.02388	0.01496	0.00442	-0.00583	-0.01483	-0.02071	812
-0.02401	-0.02464	-0.02329	-0.02102	-0.01768	-0.01395	-0.00925	-0.00340	813
0.00352	0.01172	0.01996	0.02771	0.03314	0.03486	0.03228	0.02420	814
0.01236	-0.00251	-0.01801	-0.03161	-0.04271	-0.04955	-0.05298	-0.05349	815
-0.05123	-0.04734	-0.04091	-0.03191	-0.01997	-0.00450	0.01346	0.03353	816
0.05390	0.07307	0.08969	0.10216	0.11041	0.11392	0.11373	0.11063	817
0.10573	0.10048	0.09503	0.09011	0.08558	0.08117	0.07729	0.07374	818
0.07114	0.06986	0.06999	0.07185	0.07503	0.07928	0.08428	0.08956	819
0.09504	0.10039	0.10583	0.11133	0.11699	0.12300	0.12888	0.13454	820
0.13907	0.14172	0.14226	0.13997	0.13561	0.12950	0.12220	0.11468	821
0.10658	0.09820	0.08927	0.07939	0.06951	0.05970	0.05162	0.04642	822
0.04460	0.04711	0.05259	0.06046	0.06853	0.07474	0.07808	0.07681	823
0.07183	0.06330	0.05278	0.04200	0.03159	0.02298	0.01581	0.01005	824
0.00553	0.00151	-0.00147	-0.00352	-0.00440	-0.00373	-0.00221	0.00002	825
0.00187	0.00237	0.00116	-0.00248	-0.00816	-0.01571	-0.02444	-0.03358	826
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-0.07086	-0.07388	-0.07803	-0.08291	-0.08824	-0.09374	-0.09899	-0.10374	831
-0.10756	-0.11012	-0.11139	-0.11116	-0.10980	-0.10761	-0.10482	-0.10183	832
-0.09849	-0.09494	-0.09079	-0.08575	-0.07963	-0.07210	-0.06331	-0.05332	833
-0.04228	-0.03059	-0.01825	-0.00556	0.00731	0.02016	0.03226	0.04330	834
0.05218	0.05810	0.06097	0.06029	0.05736	0.05295	0.04852	0.04561	835
0.04450	0.04603	0.04934	0.05377	0.05850	0.06232	0.06499	0.06593	836
0.06516	0.06281	0.05898	0.05400	0.04825	0.04208	0.03616	0.03094	837
0.02702	0.02485	0.02448	0.02599	0.02879	0.03243	0.03599	0.03862	838
0.03983	0.03896	0.03635	0.03210	0.02706	0.02202	0.01780	0.01523	839
0.01462	0.01633	0.01991	0.02503	0.03062	0.03580	0.03967	0.04120	840
0.04059	0.03758	0.03320	0.02826	0.02351	0.02010	0.01778	0.01680	841
0.01668	0.01687	0.01743	0.01798	0.01911	0.02108	0.02435	0.02946	842
0.03611	0.04437	0.05316	0.06174	0.06920	0.07443	0.07768	0.07857	843
0.07814	0.07723	0.07620	0.07601	0.07610	0.07632	0.07631	0.07540	844
0.07388	0.07164	0.06911	0.06672	0.06458	0.06297	0.06182	0.06111	845
0.06051	0.05977	0.05868	0.05681	0.05417	0.05044	0.04579	0.04042	846
0.03413	0.02711	0.01903	0.00962	-0.00067	-0.01190	-0.02298	-0.03315	847
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-0.06518	-0.06503	-0.06275	-0.05741	-0.04983	-0.03999	-0.02974	-0.02060	849
-0.01335	-0.00951	-0.00809	-0.00889	-0.01054	-0.01150	-0.01168	-0.01007	850
-0.00769	-0.00521	-0.00318	-0.00262	-0.00284	-0.00390	-0.00469	-0.00428	851
-0.00227	0.00217	0.00832	0.01596	0.02395	0.03116	0.03723	0.04124	852
0.04380	0.04512	0.04582	0.04665	0.04729	0.04808	0.04830	0.04733	853
0.04516	0.04129	0.03634	0.03073	0.02511	0.02024	0.01639	0.01395	854
0.01295	0.01340	0.01502	0.01753	0.02038	0.02303	0.02534	0.02694	855
0.02812	0.02901	0.02989	0.03112	0.03267	0.03453	0.03661	0.03874	856
0.04058	0.04187	0.04201	0.04051	0.03704	0.03126	0.02371	0.01465	857
0.00507	-0.00413	-0.01231	-0.01868	-0.02321	-0.02578	-0.02682	-0.02673	858
-0.02621	-0.02593	-0.02635	-0.02806	-0.03089	-0.03484	-0.03935	-0.04390	859
-0.04797	-0.05096	-0.05262	-0.05274	-0.05135	-0.04853	-0.04486	-0.04079	860
-0.03715	-0.03464	-0.03378	-0.03521	-0.03864	-0.04403	-0.05063	-0.05779	861
-0.06472	-0.07057	-0.07507	-0.07765	-0.07875	-0.07851	-0.07731	-0.07577	862
-0.07332	-0.07015	-0.06521	-0.05779	-0.04795	-0.03521	-0.02112	-0.00663	863
0.00654	0.01653	0.02296	0.02476	0.02296	0.01819	0.01174	0.00515	864
-0.00098	-0.00557	-0.00866	-0.01015	-0.01019	-0.00929	-0.00723	-0.00427	865
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0.03523	0.03534	0.03467	0.03377	0.03226	0.03023	0.02736	0.02327	867
0.01851	0.01306	0.00811	0.00446	0.00270	0.00371	0.00680	0.01180	868
0.01744	0.02251	0.02627	0.02760	0.02668	0.02337	0.01833	0.01228	869

0.00579	-0.00033	-0.00574	-0.01007	-0.01312	-0.01494	-0.01547	-0.01488	870
-0.01357	-0.01175	-0.01037	-0.01006	-0.01137	-0.01503	-0.02031	-0.02712	871
-0.03404	-0.03993	-0.04417	-0.04568	-0.04522	-0.04301	-0.04014	-0.03783	872
-0.03643	-0.03683	-0.03860	-0.04161	-0.04521	-0.04861	-0.05149	-0.05328	873
-0.05401	-0.05362	-0.05230	-0.05041	-0.04804	-0.04553	-0.04301	-0.04055	874
-0.03849	-0.03701	-0.03616	-0.03603	-0.03634	-0.03686	-0.03710	-0.03664	875
-0.03488	-0.03147	-0.02594	-0.01796	-0.00788	0.00419	0.01710	0.02998	876
0.04187	0.05163	0.05938	0.06472	0.06852	0.07146	0.07409	0.07728	877
0.08071	0.08450	0.08792	0.09031	0.09136	0.09041	0.08794	0.08406	878
0.07960	0.07533	0.07179	0.06976	0.06917	0.07013	0.07245	0.07575	879
0.07995	0.08477	0.08995	0.09526	0.10041	0.10507	0.10931	0.11297	880
0.11636	0.11975	0.12308	0.12652	0.12972	0.13236	0.13424	0.13493	881
0.13449	0.13276	0.12974	0.12551	0.11965	0.11206	0.10222	0.08977	882
0.07479	0.05720	0.03789	0.01744	-0.00279	-0.02160	-0.03800	-0.05086	883
-0.06016	-0.06563	-0.06797	-0.06796	-0.06622	-0.06375	-0.06087	-0.05806	884
-0.05558	-0.05347	-0.05196	-0.05106	-0.05038	-0.04980	-0.04825	-0.04509	885
-0.03961	-0.03108	-0.01994	-0.00634	0.00836	0.02296	0.03607	0.04621	886
0.05273	0.05478	0.05279	0.04700	0.03869	0.02903	0.01925	0.01080	887
0.00401	-0.00046	-0.00296	-0.00380	-0.00346	-0.00267	-0.00162	-0.00077	888
0.00000	0.00064	0.00143	0.00265	0.00426	0.00644	0.00888	0.01134	889
0.01379	0.01589	0.01804	0.02032	0.02290	0.02610	0.02944	0.03274	890
0.03557	0.03736	0.03831	0.03823	0.03766	0.03701	0.03654	0.03666	891
0.03726	0.03836	0.03961	0.04073	0.04141	0.04127	0.04046	0.03889	892
0.03712	0.03562	0.03473	0.03496	0.03645	0.03935	0.04378	0.04967	893
0.05701	0.06570	0.07540	0.08584	0.09639	0.10649	0.11569	0.12349	894
0.12977	0.13438	0.13763	0.13967	0.14114	0.14254	0.14417	0.14652	895
0.14916	0.15189	0.15400	0.15472	0.15383	0.15074	0.14571	0.13891	896
0.13054	0.12102	0.11050	0.09928	0.08771	0.07606	0.06498	0.05488	897
0.04642	0.04009	0.03610	0.03471	0.03544	0.03795	0.04143	0.04505	898
0.04831	0.05047	0.05167	0.05185	0.05130	0.05045	0.04936	0.04830	899
0.04719	0.04601	0.04470	0.04303	0.04119	0.03920	0.03716	0.03521	900
0.03336	0.03164	0.03017	0.02898	0.02823	0.02799	0.02836	0.02943	901
0.03099	0.03292	0.03491	0.03664	0.03800	0.03874	0.03890	0.03848	902
0.03761	0.03649	0.03524	0.03402	0.03309	0.03264	0.03303	0.03446	903
0.03720	0.04145	0.04714	0.05425	0.06229	0.07089	0.07947	0.08740	904
0.09438	0.09995	0.10402	0.10655	0.10745	0.10677	0.10460	0.10095	905
0.09622	0.09059	0.08438	0.07799	0.07114	0.06390	0.05578	0.04643	906
0.03590	0.02400	0.01156	-0.00090	-0.01236	-0.02187	-0.02895	-0.03294	907
-0.03410	-0.03254	-0.02896	-0.02410	-0.01855	-0.01321	-0.00815	-0.00374	908
0.00009	0.00345	0.00610	0.00807	0.00904	0.00872	0.00717	0.00422	909
0.00022	-0.00461	-0.01010	-0.01594	-0.02235	-0.02933	-0.03711	-0.04593	910
-0.05561	-0.06618	-0.07706	-0.08786	-0.09791	-0.10656	-0.11356	-0.11844	911
-0.12145	-0.12274	-0.12263	-0.12159	-0.11969	-0.11728	-0.11415	-0.11031	912
-0.10572	-0.10029	-0.09439	-0.08822	-0.08239	-0.07739	-0.07370	-0.07194	913
-0.07201	-0.07406	-0.07771	-0.08264	-0.08852	-0.09487	-0.10166	-0.10867	914
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-0.15568	-0.15698	-0.15747	-0.15730	-0.15632	-0.15436	-0.15186	-0.14891	916
-0.14615	-0.14407	-0.14266	-0.14241	-0.14314	-0.14474	-0.14684	-0.14898	917
-0.15113	-0.15314	-0.15509	-0.15707	-0.15930	-0.16197	-0.16512	-0.16889	918
-0.17295	-0.17722	-0.18108	-0.18399	-0.18583	-0.18632	-0.18577	-0.18441	919
-0.18264	-0.18097	-0.17954	-0.17861	-0.17818	-0.17824	-0.17861	-0.17914	920
-0.17924	-0.17850	-0.17644	-0.17255	-0.16666	-0.15864	-0.14874	-0.13725	921
-0.12471	-0.11168	-0.09893	-0.08714	-0.07679	-0.06847	-0.06194	-0.05723	922
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0.04547	0.04629	0.04633	0.04575	0.04468	0.04320	0.04143	0.03943	931
0.03724	0.03489	0.03235	0.02965	0.02678	0.02370	0.02075	0.01799	932
0.01597	0.01508	0.01536	0.01707	0.01962	0.02268	0.02563	0.02780	933
0.02913	0.02927	0.02865	0.02751	0.02622	0.02525	0.02456	0.02439	934
0.02424	0.02383	0.02279	0.02058	0.01756	0.01365	0.00963	0.00613	935
0.00347	0.00229	0.00218	0.00305	0.00441	0.00558	0.00656	0.00701	936
0.00719	0.00730	0.00751	0.00816	0.00926	0.01085	0.01297	0.01557	937
0.01852	0.02168	0.02489	0.02794	0.03073	0.03308	0.03501	0.03646	938
0.03753	0.03822	0.03860	0.03875	0.03851	0.03788	0.03658	0.03442	939
0.03138	0.02732	0.02267	0.01763	0.01267	0.00832	0.00464	0.00189	940
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0.03325	0.03695	0.04029	0.04348	0.04681	0.05061	0.05470	0.05906	947
0.06323	0.06676	0.06933	0.07045	0.07016	0.06835	0.06524	0.06110	948
0.05607	0.05045	0.04444	0.03816	0.03223	0.02687	0.02285	0.02074	949
0.02066	0.02292	0.02695	0.03237	0.03844	0.04432	0.04970	0.05408	950
0.05746	0.05979	0.06132	0.06231	0.06304	0.06380	0.06465	0.06570	951
0.06667	0.06735	0.06746	0.06660	0.06481	0.06196	0.05822	0.05380	952
0.04873	0.04316	0.03710	0.03053	0.02359	0.01634	0.00889	0.00139	953
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0.01495	0.02104	0.02787	0.03522	0.04260	0.04976	0.05612	0.06121	965
0.06474	0.06624	0.06620	0.06481	0.06285	0.06115	0.05989	0.05952	966
0.05966	0.06004	0.06027	0.05990	0.05890	0.05697	0.05446	0.05166	967
0.04913	0.04734	0.04667	0.04751	0.04986	0.05380	0.05884	0.06452	968
0.07018	0.07514	0.07910	0.08156	0.08283	0.08302	0.08246	0.08155	969
0.08048	0.07964	0.07890	0.07818	0.07722	0.07577	0.07385	0.07126	970
0.06824	0.06488	0.06143	0.05813	0.05499	0.05213	0.04935	0.04649	971
0.04345	0.04001	0.03629	0.03227	0.02813	0.02410	0.02028	0.01681	972
0.01378	0.01122	0.00920	0.00771	0.00676	0.00633	0.00636	0.00681	973
0.00758	0.00857	0.00971	0.01088	0.01212	0.01339	0.01485	0.01659	974
0.01875	0.02149	0.02458	0.02796	0.03110	0.03360	0.03508	0.03501	975
0.03369	0.03108	0.02781	0.02438	0.02115	0.01871	0.01686	0.01565	976
0.01487	0.01412	0.01370	0.01347	0.01377	0.01491	0.01663	0.01903	977
0.02156	0.02379	0.02554	0.02636	0.02662	0.02643	0.02615	0.02619	978
0.02648	0.02720	0.02794	0.02838	0.02825	0.02710	0.02508	0.02214	979
0.01863	0.01483	0.01109	0.00785	0.00505	0.00286	0.00094	-0.00092	980
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0.00908	0.00830	0.00689	0.00514	0.00328	0.00157	-0.00006	-0.00157	993
-0.00320	-0.00521	-0.00754	-0.01031	-0.01321	-0.01606	-0.01857	-0.02046	994
-0.02171	-0.02215	-0.02203	-0.02153	-0.02087	-0.02037	-0.02004	-0.02007	995
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-0.03363	-0.03761	-0.04164	-0.04530	-0.04859	-0.05141	-0.05369	-0.05553	997
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-0.04115	-0.03662	-0.03170	-0.02673	-0.02195	-0.01764	-0.01384	-0.01067	1006
-0.00793	-0.00550	-0.00321	-0.00083	0.00152	0.00384	0.00590	0.00743	1007
0.00847	0.00878	0.00874	0.00857	0.00843	0.00866	0.00914	0.00985	1008
0.01087	0.01210	0.01383	0.01620	0.01929	0.02325	0.02787	0.03302	1009
0.03848	0.04391	0.04929	0.05446	0.05940	0.06403	0.06835	0.07234	1010
0.07589	0.07895	0.08135	0.08293	0.08372	0.08360	0.08284	0.08160	1011
0.08003	0.07839	0.07660	0.07467	0.07263	0.07032	0.06802	0.06582	1012
0.06387	0.06237	0.06118	0.06024	0.05946	0.05857	0.05777	0.05701	1013
0.05643	0.05614	0.05605	0.05616	0.05623	0.05613	0.05561	0.05442	1014
0.05260	0.05000	0.04700	0.04383	0.04075	0.03813	0.03588	0.03404	1015



0.03245	0.03087	0.02937	0.02778	0.02634	0.02518	0.02438	0.02412	1016
0.02422	0.02461	0.02518	0.02573	0.02632	0.02689	0.02757	0.02842	1017
0.02954	0.03103	0.03276	0.03465	0.03646	0.03800	0.03906	0.03934	1018
0.03908	0.03828	0.03733	0.03654	0.03600	0.03599	0.03609	0.03615	1019
0.03566	0.03413	0.03163	0.02790	0.02357	0.01903	0.01478	0.01142	1020
0.00886	0.00729	0.00616	0.00501	0.00356	0.00125	-0.00159	-0.00494	1021
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0.00639	0.00659	0.00707	0.00797	0.00924	0.01083	0.01260	0.01437	1026
0.01609	0.01763	0.01907	0.02043	0.02181	0.02330	0.02495	0.02676	1027
0.02868	0.03063	0.03236	0.03368	0.03426	0.03380	0.03228	0.02951	1028
0.02596	0.02195	0.01792	0.01442	0.01157	0.00963	0.00855	0.00823	1029
0.00861	0.00943	0.01070	0.01227	0.01399	0.01576	0.01732	0.01845	1030
0.01910	0.01910	0.01855	0.01746	0.01598	0.01431	0.01245	0.01047	1031
0.00836	0.00610	0.00377	0.00136	-0.00103	-0.00335	-0.00558	-0.00761	1032
-0.00965	-0.01178	-0.01409	-0.01675	-0.01947	-0.02217	-0.02452	-0.02621	1033
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0.01446	0.01744	0.01974	0.02112	0.02193	0.02230	0.02251	0.02297	1050
0.02349	0.02420	0.02476	0.02484	0.02460	0.02382	0.02303	0.02255	1051
0.02250	0.02324	0.02433	0.02560	0.02669	0.02709	0.02693	0.02602	1052
0.02469	0.02317	0.02158	0.02021	0.01883	0.01740	0.01568	0.01338	1053
0.01068	0.00746	0.00423	0.00138	-0.00078	-0.00180	-0.00179	-0.00067	1054
0.00126	0.00362	0.00631	0.00901	0.01166	0.01413	0.01639	0.01844	1055
0.02020	0.02159	0.02266	0.02338	0.02391	0.02432	0.02482	0.02553	1056
0.02659	0.02809	0.02994	0.03210	0.03439	0.03661	0.03871	0.04051	1057
0.04208	0.04345	0.04466	0.04579	0.04689	0.04799	0.04916	0.05043	1058
0.05187	0.05348	0.05527	0.05721	0.05917	0.06104	0.06268	0.06393	1059
0.06473	0.06501	0.06477	0.06403	0.06285	0.06130	0.05945	0.05736	1060
0.05520	0.05304	0.05113	0.04957	0.04857	0.04826	0.04858	0.04954	1061
0.05072	0.05186	0.05255	0.05235	0.05138	0.04948	0.04719	0.04491	1062
0.04291	0.04167	0.04100	0.04091	0.04115	0.04135	0.04148	0.04128	1063
0.04082	0.04010	0.03914	0.03802	0.03665	0.03507	0.03316	0.03082	1064
0.02822	0.02530	0.02251	0.02011	0.01834	0.01757	0.01744	0.01792	1065
0.01844	0.01840	0.01776	0.01611	0.01385	0.01119	0.00836	0.00578	1066
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0.03631	0.03912	0.04130	0.04281	0.04404	0.04531	0.04685	0.04897	1071
0.05154	0.05454	0.05772	0.06076	0.06361	0.06594	0.06803	0.06993	1072
0.07174	0.07369	0.07549	0.07707	0.07819	0.07853	0.07830	0.07741	1073
0.07632	0.07540	0.07474	0.07464	0.07475	0.07491	0.07479	0.07389	1074
0.07247	0.07040	0.06822	0.06636	0.06497	0.06449	0.06457	0.06505	1075
0.06566	0.06593	0.06597	0.06557	0.06501	0.06452	0.06409	0.06392	1076
0.06373	0.06335	0.06269	0.06146	0.05990	0.05805	0.05612	0.05435	1077
0.05271	0.05129	0.04995	0.04851	0.04692	0.04498	0.04280	0.04038	1078
0.03789	0.03548	0.03325	0.03134	0.02981	0.02863	0.02785	0.02741	1079
0.02720	0.02715	0.02695	0.02641	0.02531	0.02341	0.02089	0.01771	1080
0.01433	0.01113	0.00828	0.00617	0.00459	0.00343	0.00265	0.00200	1081
0.00153	0.00119	0.00092	0.00070	0.00045	0.00009	-0.00037	-0.00098	1082
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0.00566	0.00853	0.01147	0.01426	0.01685	0.01902	0.02103	0.02298	1084
0.02501	0.02736	0.02981	0.03235	0.03458	0.03614	0.03688	0.03653	1085
0.03520	0.03289	0.03001	0.02686	0.02387	0.02145	0.01974	0.01899	1086
0.01888	0.01926	0.01965	0.01955	0.01885	0.01725	0.01498	0.01212	1087
0.00897	0.00588	0.00283	-0.00003	-0.00285	-0.00577	-0.00876	-0.01195	1088

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0.00324	0.00063	-0.00230	-0.00500	-0.00743	-0.00930	-0.01078	-0.01200	1095
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0.02157	0.02094	0.02009	0.01917	0.01831	0.01760	0.01726	0.01740	1138
0.01811	0.01947	0.02128	0.02345	0.02557	0.02728	0.02845	0.02875	1139
0.02842	0.02756	0.02647	0.02552	0.02475	0.02439	0.02428	0.02432	1140
0.02446	0.02447	0.02451	0.02456	0.02470	0.02501	0.02536	0.02569	1141
0.02574	0.02525	0.02414	0.02219	0.01959	0.01641	0.01295	0.00946	1142
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0.00420	0.00442	0.00493	0.00591	0.00718	0.00880	0.01034	0.01142	1149
0.01203	0.01191	0.01147	0.01092	0.01060	0.01094	0.01180	0.01333	1150
0.01513	0.01683	0.01841	0.01952	0.02045	0.02128	0.02218	0.02340	1151
0.02468	0.02604	0.02699	0.02709	0.02638	0.02455	0.02215	0.01948	1152
0.01691	0.01500	0.01364	0.01300	0.01284	0.01291	0.01327	0.01368	1153
0.01445	0.01570	0.01748	0.01998	0.02283	0.02589	0.02869	0.03069	1154
0.03195	0.03221	0.03182	0.03106	0.03007	0.02917	0.02823	0.02726	1155
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0.01242	0.01262	0.01317	0.01433	0.01616	0.01884	0.02205	0.02556	1174
0.02915	0.03235	0.03534	0.03807	0.04057	0.04305	0.04520	0.04697	1175
0.04811	0.04834	0.04778	0.04639	0.04451	0.04239	0.04033	0.03862	1176
0.03735	0.03667	0.03639	0.03646	0.03658	0.03641	0.03602	0.03520	1177
0.03426	0.03341	0.03275	0.03252	0.03256	0.03280	0.03311	0.03323	1178
0.03328	0.03323	0.03316	0.03316	0.03319	0.03329	0.03340	0.03346	1179
0.03347	0.03343	0.03327	0.03296	0.03253	0.03194	0.03135	0.03084	1180
0.03050	0.03046	0.03062	0.03091	0.03123	0.03138	0.03134	0.03100	1181
0.03036	0.02937	0.02815	0.02671	0.02527	0.02399	0.02287	0.02205	1182
0.02126	0.02034	0.01915	0.01745	0.01540	0.01304	0.01057	0.00821	1183
0.00604	0.00418	0.00266	0.00147	0.00065	0.00023	0.00011	0.00023	1184
0.00057	0.00100	0.00178	0.00293	0.00469	0.00731	0.01052	0.01426	1185
0.01805	0.02147	0.02429	0.02610	0.02712	0.02733	0.02713	0.02690	1186
0.02677	0.02704	0.02759	0.02842	0.02935	0.03011	0.03083	0.03137	1187
0.03206	0.03308	0.03451	0.03658	0.03894	0.04139	0.04367	0.04539	1188
0.04655	0.04698	0.04688	0.04640	0.04566	0.04487	0.04395	0.04295	1189
0.04170	0.04003	0.03801	0.03553	0.03293	0.03033	0.02807	0.02645	1190
0.02541	0.02506	0.02504	0.02503	0.02484	0.02412	0.02292	0.02118	1191
0.01907	0.01677	0.01441	0.01212	0.00999	0.00812	0.00642	0.00484	1192
0.00330	0.00167	0.00009	-0.00149	-0.00279	-0.00366	-0.00402	-0.00372	1193
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0.00704	0.00913	0.01162	0.01449	0.01763	0.02088	0.02413	0.02723	1195
0.03016	0.03283	0.03524	0.03741	0.03932	0.04094	0.04230	0.04340	1196
0.04428	0.04492	0.04536	0.04564	0.04572	0.04560	0.04530	0.04479	1197
0.04419	0.04355	0.04296	0.04253	0.04220	0.04197	0.04177	0.04145	1198
0.04116	0.04081	0.04062	0.04072	0.04100	0.04151	0.04187	0.04184	1199
0.04121	0.03966	0.03749	0.03479	0.03198	0.02949	0.02746	0.02621	1200
0.02549	0.02514	0.02497	0.02468	0.02423	0.02349	0.02252	0.02135	1201
0.02001	0.01863	0.01710	0.01541	0.01360	0.01161	0.00968	0.00787	1202
0.00641	0.00547	0.00494	0.00484	0.00485	0.00468	0.00421	0.00315	1203
0.00167	-0.00020	-0.00221	-0.00410	-0.00586	-0.00732	-0.00863	-0.00992	1204
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-0.02422	-0.02281	-0.02137	-0.02007	-0.01901	-0.01840	-0.01811	-0.01810	1212
-0.01826	-0.01844	-0.01857	-0.01857	-0.01842	-0.01816	-0.01776	-0.01731	1213
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-0.02955	-0.02984	-0.02996	-0.02998	-0.02997	-0.03006	-0.03027	-0.03064	1217
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0.00477	0.00653	0.00868	0.01128	0.01393	0.01628	0.01822	0.01941	1239
0.02014	0.02049	0.02076	0.02133	0.02211	0.02321	0.02439	0.02536	1240
0.02614	0.02652	0.02662	0.02650	0.02618	0.02576	0.02521	0.02454	1241
0.02372	0.02267	0.02149	0.02016	0.01884	0.01758	0.01644	0.01555	1242
0.01469	0.01380	0.01272	0.01127	0.00962	0.00774	0.00601	0.00477	1243
0.00404	0.00407	0.00453	0.00522	0.00592	0.00624	0.00632	0.00612	1244
0.00586	0.00576	0.00590	0.00643	0.00728	0.00844	0.00969	0.01087	1245
0.01176	0.01212	0.01192	0.01107	0.00972	0.00797	0.00605	0.00421	1246
0.00260	0.00141	0.00062	0.00024	0.00014	0.00022	0.00036	0.00035	1247
0.00037	0.00040	0.00064	0.00128	0.00224	0.00364	0.00513	0.00646	1248
0.00751	0.00790	0.00797	0.00782	0.00768	0.00792	0.00839	0.00916	1249
0.00999	0.01061	0.01109	0.01123	0.01133	0.01153	0.01201	0.01300	1250
0.01438	0.01616	0.01809	0.01992	0.02149	0.02252	0.02308	0.02307	1251
0.02270	0.02213	0.02145	0.02083	0.02022	0.01957	0.01897	0.01836	1252
0.01792	0.01772	0.01786	0.01848	0.01944	0.02067	0.02206	0.02338	1253
0.02469	0.02592	0.02699	0.02793	0.02858	0.02888	0.02882	0.02831	1254
0.02761	0.02685	0.02627	0.02606	0.02627	0.02696	0.02792	0.02899	1255
0.02988	0.03031	0.03022	0.02939	0.02817	0.02667	0.02527	0.02437	1256
0.02393	0.02415	0.02474	0.02545	0.02628	0.02695	0.02774	0.02874	1257
0.03002	0.03181	0.03379	0.03584	0.03771	0.03907	0.04003	0.04051	1258
0.04078	0.04103	0.04150	0.04242	0.04379	0.04568	0.04777	0.04984	1259
0.05161	0.05265	0.05309	0.05282	0.05209	0.05115	0.05009	0.04916	1260
0.04827	0.04738	0.04658	0.04578	0.04514	0.04474	0.04461	0.04481	1261
0.04525	0.04581	0.04641	0.04693	0.04722	0.04713	0.04661	0.04556	1262
0.04410	0.04224	0.04021	0.03817	0.03623	0.03454	0.03308	0.03180	1263
0.03073	0.02983	0.02905	0.02833	0.02759	0.02676	0.02585	0.02475	1264
0.02369	0.02273	0.02202	0.02172	0.02169	0.02193	0.02214	0.02209	1265
0.02172	0.02082	0.01966	0.01831	0.01708	0.01630	0.01595	0.01613	1266
0.01667	0.01743	0.01825	0.01884	0.01929	0.01954	0.01977	0.02012	1267
0.02074	0.02182	0.02334	0.02533	0.02760	0.02993	0.03210	0.03384	1268
0.03505	0.03556	0.03549	0.03487	0.03389	0.03273	0.03148	0.03027	1269
0.02903	0.02777	0.02632	0.02451	0.02238	0.01981	0.01704	0.01422	1270
0.01149	0.00906	0.00687	0.00491	0.00310	0.00129	-0.00051	-0.00239	1271
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0.00542	0.00762	0.00947	0.01078	0.01177	0.01262	0.01328	0.01384	1299
0.01419	0.01422	0.01400	0.01344	0.01270	0.01188	0.01091	0.00986	1300
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0.00953	0.01112	0.01281	0.01474	0.01665	0.01848	0.01996	0.02079	1314
0.02103	0.02053	0.01963	0.01859	0.01757	0.01684	0.01633	0.01606	1315
0.01585	0.01547	0.01496	0.01416	0.01329	0.01246	0.01180	0.01148	1316
0.01150	0.01188	0.01254	0.01334	0.01426	0.01513	0.01602	0.01692	1317
0.01778	0.01862	0.01932	0.01981	0.02012	0.02016	0.02010	0.02001	1318
0.01999	0.02016	0.02048	0.02089	0.02139	0.02190	0.02242	0.02288	1319
0.02335	0.02389	0.02443	0.02496	0.02538	0.02560	0.02562	0.02534	1320
0.02487	0.02429	0.02364	0.02299	0.02234	0.02172	0.02108	0.02038	1321
0.01962	0.01874	0.01785	0.01697	0.01623	0.01571	0.01543	0.01544	1322
0.01556	0.01570	0.01566	0.01518	0.01429	0.01286	0.01109	0.00910	1323
0.00708	0.00520	0.00359	0.00238	0.00152	0.00098	0.00060	0.00024	1324
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0.01717	0.01711	0.01675	0.01622	0.01571	0.01550	0.01546	0.01559	1340
0.01581	0.01589	0.01590	0.01580	0.01558	0.01529	0.01488	0.01430	1341
0.01366	0.01298	0.01248	0.01228	0.01244	0.01309	0.01400	0.01499	1342
0.01593	0.01658	0.01696	0.01700	0.01675	0.01626	0.01567	0.01505	1343
0.01455	0.01431	0.01423	0.01434	0.01447	0.01440	0.01420	0.01372	1344
0.01316	0.01271	0.01229	0.01197	0.01163	0.01113	0.01059	0.00996	1345
0.00937	0.00890	0.00853	0.00831	0.00818	0.00797	0.00784	0.00778	1346
0.00789	0.00828	0.00888	0.00966	0.01054	0.01135	0.01212	0.01279	1347
0.01340	0.01389	0.01436	0.01486	0.01539	0.01597	0.01650	0.01694	1348
0.01715	0.01696	0.01653	0.01579	0.01502	0.01446	0.01399	0.01370	1349
0.01336	0.01274	0.01187	0.01061	0.00926	0.00783	0.00658	0.00625	1350
0.00601	0.00508	0.00404	0.00299	0.00199	0.00121	0.00075	0.00072	1351
0.00112	0.00198	0.00319	0.00464	0.00622	0.00776	0.00925	0.01052	1352
0.01176	0.01304	0.01441	0.01607	0.01773	0.01926	0.02053	0.02127	1353
0.02175	0.02200	0.02230	0.02301	0.02397	0.02522	0.02652	0.02757	1354
0.02835	0.02859	0.02854	0.02829	0.02796	0.02773	0.02763	0.02772	1355
0.02794	0.02823	0.02853	0.02871	0.02881	0.02877	0.02865	0.02851	1356
0.02831	0.02812	0.02778	0.02718	0.02637	0.02520	0.02394	0.02275	1357
0.02166	0.02080	0.02005	0.01936	0.01862	0.01765	0.01655	0.01527	1358
0.01398	0.01279	0.01177	0.01105	0.01054	0.01019	0.00992	0.00958	1359
0.00922	0.00876	0.00838	0.00815	0.00816	0.00847	0.00906	0.00990	1360
0.01087	0.01186	0.01277	0.01346	0.01397	0.01422	0.01441	0.01467	1361
0.01502	0.01561	0.01622	0.01668	0.01693	0.01669	0.01622	0.01553	1362
0.01485	0.01447	0.01422	0.01410	0.01395	0.01358	0.01304	0.01227	1363
0.01140	0.01053	0.00975	0.00917	0.00884	0.00881	0.00899	0.00933	1364
0.00974	0.01005	0.01039	0.01071	0.01126	0.01222	0.01352	0.01526	1365
0.01714	0.01887	0.02046	0.02166	0.02269	0.02367	0.02461	0.02563	1366
0.02663	0.02748	0.02821	0.02876	0.02913	0.02932	0.02931	0.02904	1367
0.02863	0.02807	0.02750	0.02705	0.02669	0.02648	0.02632	0.02605	1368
0.02574	0.02532	0.02489	0.02449	0.02408	0.02374	0.02333	0.02274	1369
0.02201	0.02110	0.02009	0.01904	0.01798	0.01690	0.01598	0.01525	1370
0.01477	0.01462	0.01461	0.01468	0.01463	0.01424	0.01360	0.01259	1371
0.01148	0.01044	0.00953	0.00889	0.00845	0.00814	0.00799	0.00790	1372
0.00791	0.00802	0.00815	0.00825	0.00825	0.00801	0.00764	0.00712	1373
0.00655	0.00605	0.00562	0.00528	0.00506	0.00493	0.00490	0.00495	1374
0.00503	0.00507	0.00507	0.00490	0.00472	0.00457	0.00452	0.00469	1375
0.00496	0.00529	0.00564	0.00585	0.00607	0.00633	0.00668	0.00722	1376
0.00776	0.00816	0.00835	0.00817	0.00775	0.00712	0.00640	0.00578	1377
0.00526	0.00481	0.00453	0.00443	0.00451	0.00483	0.00522	0.00557	1378
0.00590	0.00607	0.00627	0.00663	0.00705	0.00760	0.00810	0.00836	1379
0.00842	0.00808	0.00760	0.00715	0.00676	0.00656	0.00645	0.00633	1380

0.00623	0.00607	0.00590	0.00575	0.00557	0.00537	0.00514	0.00480	1381
0.00449	0.00430	0.00421	0.00426	0.00433	0.00429	0.00419	0.00389	1382
0.00358	0.00336	0.00316	0.00301	0.00277	0.00227	0.00159	0.00065	1383
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-0.01156	-0.01157	-0.01149	-0.01131	-0.01108	-0.01078	-0.01058	-0.01061	1389
-0.01089	-0.01158	-0.01245	-0.01342	-0.01433	-0.01497	-0.01536	-0.01546	1390
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-0.01449	-0.01501	-0.01563	-0.01629	-0.01689	-0.01733	-0.01759	-0.01765	1394
-0.01750	-0.01717	-0.01669	-0.01611	-0.01548	-0.01484	-0.01422	-0.01369	1395
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-0.01305	-0.01333	-0.01359	-0.01377	-0.01389	-0.01402	-0.01412	-0.01429	1398
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-0.00959	-0.00971	-0.00983	-0.00989	-0.00987	-0.00971	-0.00946	-0.00916	1404
-0.00884	-0.00859	-0.00836	-0.00819	-0.00804	-0.00790	-0.00777	-0.00767	1405
-0.00762	-0.00765	-0.00775	-0.00792	-0.00815	-0.00841	-0.00870	-0.00907	1406
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-0.01169	-0.01203	-0.01241	-0.01280	-0.01321	-0.01364	-0.01408	-0.01458	1408
-0.01502	-0.01539	-0.01561	-0.01561	-0.01545	-0.01518	-0.01483	-0.01448	1409
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-0.01071	-0.01034	-0.01002	-0.00976	-0.00955	-0.00942	-0.00932	-0.00927	1411
-0.00924	-0.00918	-0.00915	-0.00923	-0.00937	-0.00968	-0.01000	-0.01024	1412
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0.00026	0.00047	0.00068	0.00095	0.00125	0.00154	0.00184	0.00213	1421
0.00240	0.00255	0.00273	0.00304	0.00340	0.00369	0.00395	0.00423	1422
0.00445	0.00447	0.00447	0.00457	0.00472	0.00485	0.00502	0.00525	1423
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0.00577	0.00600	0.00661	0.00636	0.00728	0.00555	-0.00468	-0.00859	1425
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0.00164	0.00179	0.00195	0.00214	0.00235	0.00256	0.00277	0.00294	1433
0.00310	0.00326	0.00342	0.00358	0.00375	0.00390	0.00405	0.00417	1434
0.00429	0.00441	0.00453	0.00463	0.00474	0.00482	0.00490	0.00496	1435
0.00502	0.00509	0.00517	0.00524	0.00532	0.00537	0.00543	0.00548	1436
0.00554	0.00559	0.00565	0.00571	0.00577	0.00582	0.00588	0.00593	1437
0.00600	0.00606	0.00613	0.00619	0.00624	0.00629	0.00634	0.00638	1438
0.00643	0.00647	0.00652	0.00656	0.00661	0.00664	0.00669	0.00673	1439
0.00678	0.00682	0.00688	0.00691	0.00696	0.00699	0.00703	0.00705	1440
0.00709	0.00711	0.00713	0.00715	0.00717	0.00719	0.00722	0.00724	1441
0.00726	0.00728	0.00730	0.00731	0.00733	0.00733	0.00735	0.00736	1442
0.00737	0.00737	0.00738	0.00738	0.00738	0.00738	0.00738	0.00738	1443
0.00739	0.00738	0.00738	0.00737	0.00736	0.00735	0.00735	0.00733	1444
0.00732	0.00730	0.00729	0.00726	0.00724	0.00722	0.00720	0.00717	1445
0.00714	0.00711	0.00708	0.00704	0.00702	0.00698	0.00695	0.00691	1446
0.00687	0.00683	0.00679	0.00675	0.00671	0.00667	0.00663	0.00658	1447
0.00654	0.00650	0.00645	0.00641	0.00636	0.00631	0.00627	0.00622	1448
0.00617	0.00612	0.00607	0.00601	0.00596	0.00591	0.00586	0.00580	1449
0.00575	0.00569	0.00564	0.00558	0.00553	0.00547	0.00541	0.00535	1450
0.00530	0.00524	0.00518	0.00512	0.00507	0.00501	0.00495	0.00489	1451
0.00484	0.00477	0.00472	0.00466	0.00460	0.00454	0.00449	0.00443	1452
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0.00391	0.00385	0.00380	0.00374	0.00369	0.00363	0.00357	0.00351	1454
0.00346	0.00340	0.00335	0.00329	0.00324	0.00318	0.00313	0.00307	1455
0.00302	0.00297	0.00292	0.00286	0.00281	0.00276	0.00271	0.00265	1456
0.00260	0.00255	0.00250	0.00245	0.00240	0.00235	0.00231	0.00226	1457
0.00221	0.00216	0.00212	0.00207	0.00202	0.00198	0.00193	0.00189	1458
0.00184	0.00180	0.00176	0.00171	0.00167	0.00163	0.00159	0.00154	1459
0.00151	0.00146	0.00143	0.00138	0.00135	0.00131	0.00127	0.00123	1460
0.00120	0.00116	0.00112	0.00109	0.00105	0.00102	0.00098	0.00095	1461
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0.00067	0.00064	0.00061	0.00058	0.00056	0.00053	0.00050	0.00048	1463
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## M78Set3.ACC

Time history matched to spectrum:::SetTarget:M78\_D005\_RV\_HW.target2  
11795 0.0050

0.00004	0.00005	0.00004	0.00005	0.00004	0.00004	0.00004	0.00004	0.00004	1
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0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00002	0.00002	0.00002	3
0.00002	0.00002	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	4
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-0.00006	-0.00006	-0.00007	-0.00008	-0.00009	-0.00010	-0.00011	-0.00012	-0.00012	6
-0.00013	-0.00014	-0.00016	-0.00017	-0.00019	-0.00020	-0.00022	-0.00023	-0.00023	7
-0.00025	-0.00027	-0.00029	-0.00031	-0.00034	-0.00036	-0.00039	-0.00041	-0.00041	8
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0.05933	0.06497	0.06928	0.07178	0.07277	0.07233	0.07101	0.06957	0.06957	15
0.06796	0.06657	0.06523	0.06397	0.06275	0.06152	0.06030	0.05912	0.05912	16
0.05795	0.05685	0.05573	0.05461	0.05343	0.05219	0.05084	0.04938	0.04938	17
0.04775	0.04595	0.04395	0.04175	0.03936	0.03683	0.03417	0.03147	0.03147	18
0.02872	0.02602	0.02332	0.02070	0.01813	0.01566	0.01330	0.01111	0.01111	19
0.00909	0.00732	0.00575	0.00444	0.00334	0.00246	0.00178	0.00131	0.00131	20
0.00103	0.00099	0.00115	0.00157	0.00219	0.00304	0.00406	0.00525	0.00525	21
0.00655	0.00798	0.00946	0.01102	0.01256	0.01409	0.01552	0.01682	0.01682	22
0.01792	0.01879	0.01941	0.01977	0.01985	0.01970	0.01927	0.01864	0.01864	23
0.01777	0.01672	0.01547	0.01408	0.01254	0.01093	0.00922	0.00748	0.00748	24
0.00567	0.00383	0.00194	0.00004	-0.00187	-0.00374	-0.00557	-0.00727	-0.00727	25
-0.00887	-0.01030	-0.01161	-0.01277	-0.01383	-0.01480	-0.01572	-0.01660	-0.01660	26
-0.01747	-0.01832	-0.01917	-0.01998	-0.02077	-0.02147	-0.02211	-0.02261	-0.02261	27
-0.02302	-0.02328	-0.02346	-0.02353	-0.02358	-0.02359	-0.02364	-0.02371	-0.02371	28
-0.02385	-0.02403	-0.02429	-0.02458	-0.02490	-0.02520	-0.02547	-0.02563	-0.02563	29
-0.02569	-0.02556	-0.02531	-0.02487	-0.02433	-0.02370	-0.02303	-0.02236	-0.02236	30
-0.02169	-0.02103	-0.02037	-0.01967	-0.01897	-0.01821	-0.01748	-0.01675	-0.01675	31
-0.01608	-0.01546	-0.01489	-0.01435	-0.01381	-0.01320	-0.01253	-0.01172	-0.01172	32
-0.01081	-0.00974	-0.00858	-0.00728	-0.00592	-0.00448	-0.00308	-0.00172	-0.00172	33
-0.00053	0.00046	0.00114	0.00149	0.00147	0.00110	0.00039	-0.00059	-0.00059	34
-0.00179	-0.00309	-0.00446	-0.00575	-0.00695	-0.00790	-0.00867	-0.00916	-0.00916	35
-0.00948	-0.00963	-0.00975	-0.00991	-0.01020	-0.01071	-0.01149	-0.01258	-0.01258	36
-0.01404	-0.01587	-0.01806	-0.02060	-0.02343	-0.02646	-0.02960	-0.03268	-0.03268	37
-0.03565	-0.03834	-0.04074	-0.04273	-0.04431	-0.04540	-0.04599	-0.04600	-0.04600	38
-0.04546	-0.04428	-0.04260	-0.04038	-0.03778	-0.03486	-0.03176	-0.02856	-0.02856	39
-0.02537	-0.02225	-0.01934	-0.01667	-0.01436	-0.01249	-0.01109	-0.01020	-0.01020	40
-0.00978	-0.00976	-0.01008	-0.01060	-0.01127	-0.01193	-0.01258	-0.01309	-0.01309	41
-0.01346	-0.01359	-0.01348	-0.01307	-0.01238	-0.01137	-0.01009	-0.00853	-0.00853	42
-0.00677	-0.00480	-0.00273	-0.00056	0.00154	0.00355	0.00530	0.00670	0.00670	43
0.00766	0.00810	0.00801	0.00740	0.00630	0.00482	0.00301	0.00099	0.00099	44
-0.00114	-0.00325	-0.00524	-0.00692	-0.00823	-0.00898	-0.00924	-0.00885	-0.00885	45
-0.00800	-0.00666	-0.00504	-0.00324	-0.00146	0.00019	0.00150	0.00235	0.00235	46
0.00256	0.00202	0.00063	-0.00171	-0.00496	-0.00913	-0.01409	-0.01973	-0.01973	47
-0.02584	-0.03220	-0.03856	-0.04462	-0.05015	-0.05480	-0.05851	-0.06098	-0.06098	48
-0.06236	-0.06252	-0.06166	-0.05986	-0.05722	-0.05384	-0.04985	-0.04527	-0.04527	49
-0.04037	-0.03521	-0.03008	-0.02521	-0.02068	-0.01674	-0.01325	-0.01023	-0.01023	50
-0.00757	-0.00507	-0.00284	-0.00071	0.00107	0.00248	0.00339	0.00368	0.00368	51
0.00343	0.00262	0.00143	0.00002	-0.00149	-0.00287	-0.00401	-0.00472	-0.00472	52
-0.00495	-0.00450	-0.00345	-0.00166	0.00067	0.00356	0.00673	0.01008	0.01008	53
0.01341	0.01655	0.01943	0.02194	0.02409	0.02588	0.02734	0.02855	0.02855	54
0.02951	0.03032	0.03089	0.03129	0.03131	0.03093	0.02987	0.02801	0.02801	55
0.02518	0.02120	0.01620	0.01010	0.00335	-0.00385	-0.01090	-0.01730	-0.01730	56
-0.02259	-0.02614	-0.02794	-0.02748	-0.02531	-0.02132	-0.01642	-0.01104	-0.01104	57
-0.00604	-0.00220	0.00009	0.00009	-0.00193	-0.00625	-0.01209	-0.01911	-0.01911	58
-0.02641	-0.03314	-0.03874	-0.04223	-0.04361	-0.04221	-0.03859	-0.03264	-0.03264	59
-0.02524	-0.01684	-0.00828	-0.00036	0.00649	0.01152	0.01476	0.01585	0.01585	60
0.01523	0.01300	0.00973	0.00592	0.00194	-0.00154	-0.00452	-0.00651	-0.00651	61
-0.00784	-0.00838	-0.00858	-0.00869	-0.00897	-0.00979	-0.01102	-0.01286	-0.01286	62
-0.01488	-0.01690	-0.01847	-0.01911	-0.01865	-0.01656	-0.01310	-0.00798	-0.00798	63
-0.00181	0.00529	0.01257	0.01954	0.02561	0.03011	0.03285	0.03333	0.03333	64
0.03180	0.02816	0.02294	0.01650	0.00937	0.00217	-0.00476	-0.01079	-0.01079	65
-0.01585	-0.01949	-0.02187	-0.02283	-0.02263	-0.02138	-0.01929	-0.01658	-0.01658	66



-0.01328	-0.00955	-0.00526	-0.00038	0.00514	0.01151	0.01852	0.02627	67
0.03432	0.04251	0.05031	0.05731	0.06308	0.06713	0.06920	0.06891	68
0.06623	0.06095	0.05329	0.04328	0.03129	0.01761	0.00264	-0.01316	69
-0.02943	-0.04567	-0.06155	-0.07664	-0.09055	-0.10291	-0.11330	-0.12130	70
-0.12666	-0.12890	-0.12807	-0.12384	-0.11669	-0.10659	-0.09442	-0.08058	71
-0.06608	-0.05171	-0.03828	-0.02671	-0.01740	-0.01107	-0.00762	-0.00734	72
-0.00975	-0.01464	-0.02139	-0.02942	-0.03819	-0.04698	-0.05550	-0.06314	73
-0.06989	-0.07540	-0.07982	-0.08309	-0.08534	-0.08669	-0.08707	-0.08655	74
-0.08494	-0.08213	-0.07803	-0.07238	-0.06539	-0.05692	-0.04748	-0.03720	75
-0.02671	-0.01643	-0.00677	0.00174	0.00902	0.01474	0.01909	0.02206	76
0.02397	0.02512	0.02573	0.02621	0.02659	0.02718	0.02777	0.02844	77
0.02888	0.02892	0.02837	0.02698	0.02480	0.02170	0.01790	0.01351	78
0.00872	0.00384	-0.00109	-0.00579	-0.01032	-0.01453	-0.01857	-0.02242	79
-0.02622	-0.03003	-0.03387	-0.03781	-0.04166	-0.04534	-0.04853	-0.05096	80
-0.05233	-0.05224	-0.05065	-0.04719	-0.04215	-0.03540	-0.02748	-0.01857	81
-0.00929	-0.00008	0.00854	0.01604	0.02219	0.02655	0.02925	0.03015	82
0.02963	0.02791	0.02538	0.02251	0.01950	0.01683	0.01445	0.01266	83
0.01124	0.01024	0.00946	0.00875	0.00803	0.00717	0.00629	0.00539	84
0.00478	0.00469	0.00540	0.00731	0.01042	0.01510	0.02095	0.02803	85
0.03564	0.04345	0.05073	0.05685	0.06132	0.06349	0.06328	0.06026	86
0.05480	0.04691	0.03724	0.02625	0.01464	0.00317	-0.00771	-0.01723	87
-0.02535	-0.03156	-0.03617	-0.03909	-0.04077	-0.04146	-0.04150	-0.04130	88
-0.04097	-0.04082	-0.04075	-0.04084	-0.04090	-0.04077	-0.04035	-0.03935	89
-0.03791	-0.03583	-0.03344	-0.03076	-0.02815	-0.02585	-0.02403	-0.02295	90
-0.02252	-0.02283	-0.02356	-0.02452	-0.02532	-0.02555	-0.02500	-0.02317	91
-0.02020	-0.01575	-0.01028	-0.00381	0.00307	0.00998	0.01644	0.02191	92
0.02613	0.02866	0.02953	0.02855	0.02600	0.02197	0.01689	0.01111	93
0.00499	-0.00096	-0.00662	-0.01153	-0.01579	-0.01915	-0.02179	-0.02369	94
-0.02496	-0.02567	-0.02584	-0.02549	-0.02460	-0.02312	-0.02105	-0.01827	95
-0.01482	-0.01060	-0.00567	0.00003	0.00635	0.01329	0.02067	0.02841	96
0.03635	0.04438	0.05237	0.06024	0.06777	0.07491	0.08133	0.08690	97
0.09132	0.09436	0.09589	0.09571	0.09388	0.09038	0.08541	0.07913	98
0.07181	0.06373	0.05513	0.04633	0.03753	0.02903	0.02097	0.01362	99
0.00705	0.00148	-0.00311	-0.00659	-0.00904	-0.01042	-0.01088	-0.01043	100
-0.00927	-0.00743	-0.00515	-0.00249	0.00031	0.00314	0.00582	0.00821	101
0.01024	0.01183	0.01297	0.01370	0.01405	0.01413	0.01397	0.01372	102
0.01343	0.01324	0.01323	0.01354	0.01417	0.01526	0.01667	0.01846	103
0.02041	0.02243	0.02434	0.02600	0.02734	0.02826	0.02884	0.02910	104
0.02919	0.02925	0.02943	0.02997	0.03086	0.03236	0.03428	0.03676	105
0.03950	0.04244	0.04533	0.04798	0.05032	0.05219	0.05368	0.05480	106
0.05567	0.05645	0.05721	0.05815	0.05918	0.06044	0.06166	0.06285	107
0.06358	0.06369	0.06276	0.06048	0.05668	0.05105	0.04376	0.03472	108
0.02433	0.01282	0.00064	-0.01173	-0.02391	-0.03534	-0.04577	-0.05471	109
-0.06213	-0.06769	-0.07156	-0.07364	-0.07422	-0.07342	-0.07147	-0.06861	110
-0.06499	-0.06080	-0.05612	-0.05106	-0.04569	-0.04003	-0.03418	-0.02814	111
-0.02211	-0.01610	-0.01037	-0.00503	-0.00030	0.00363	0.00667	0.00869	112
0.00978	0.00995	0.00944	0.00846	0.00730	0.00629	0.00570	0.00591	113
0.00705	0.00945	0.01300	0.01792	0.02385	0.03076	0.03824	0.04600	114
0.05381	0.06127	0.06832	0.07473	0.08057	0.08582	0.09053	0.09483	115
0.09866	0.10216	0.10514	0.10766	0.10938	0.11022	0.10983	0.10796	116
0.10440	0.09886	0.09144	0.08197	0.07090	0.05838	0.04502	0.03131	117
0.01777	0.00505	-0.00664	-0.01673	-0.02541	-0.03243	-0.03829	-0.04312	118
-0.04754	-0.05199	-0.05688	-0.06274	-0.06957	-0.07770	-0.08668	-0.09643	119
-0.10626	-0.11562	-0.12384	-0.13016	-0.13419	-0.13518	-0.13325	-0.12795	120
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-0.01816	-0.00957	-0.00270	0.00243	0.00606	0.00845	0.00978	0.01041	122
0.01037	0.00998	0.00915	0.00801	0.00649	0.00457	0.00234	-0.00021	123
-0.00282	-0.00536	-0.00753	-0.00903	-0.00970	-0.00921	-0.00756	-0.00454	124
-0.00027	0.00534	0.01206	0.01986	0.02847	0.03774	0.04738	0.05717	125
0.06684	0.07616	0.08488	0.09281	0.09968	0.10532	0.10951	0.11209	126
0.11303	0.11222	0.10985	0.10601	0.10100	0.09511	0.08863	0.08195	127
0.07532	0.06911	0.06347	0.05873	0.05491	0.05223	0.05055	0.04995	128
0.05017	0.05112	0.05258	0.05435	0.05622	0.05803	0.05956	0.06065	129
0.06109	0.06073	0.05936	0.05686	0.05312	0.04803	0.04162	0.03386	130
0.02491	0.01484	0.00396	-0.00753	-0.01925	-0.03085	-0.04205	-0.05241	131
-0.06183	-0.06996	-0.07685	-0.08233	-0.08656	-0.08952	-0.09148	-0.09253	132
-0.09307	-0.09330	-0.09358	-0.09420	-0.09535	-0.09730	-0.09995	-0.10340	133
-0.10733	-0.11156	-0.11562	-0.11911	-0.12166	-0.12270	-0.12219	-0.11967	134
-0.11533	-0.10905	-0.10108	-0.09150	-0.08066	-0.06869	-0.05602	-0.04294	135
-0.02964	-0.01656	-0.00333	0.00989	0.02355	0.03819	0.05327	0.06942	136
0.08490	0.09924	0.11102	0.11855	0.12231	0.12097	0.11654	0.10965	137
0.10173	0.09482	0.08871	0.08481	0.08238	0.08128	0.08153	0.08253	138
0.08484	0.08856	0.09373	0.10087	0.10923	0.11879	0.12876	0.13845	139

0.14750	0.15524	0.16156	0.16618	0.16890	0.16962	0.16804	0.16399	140
0.15733	0.14786	0.13571	0.12084	0.10362	0.08425	0.06333	0.04131	141
0.01891	-0.00318	-0.02422	-0.04338	-0.06015	-0.07371	-0.08396	-0.09033	142
-0.09321	-0.09246	-0.08887	-0.08276	-0.07510	-0.06662	-0.05816	-0.05061	143
-0.04450	-0.04059	-0.03899	-0.04014	-0.04371	-0.04972	-0.05759	-0.06689	144
-0.07705	-0.08736	-0.09742	-0.10651	-0.11445	-0.12070	-0.12517	-0.12756	145
-0.12769	-0.12538	-0.12036	-0.11245	-0.10154	-0.08736	-0.07017	-0.04982	146
-0.02706	-0.00208	0.02402	0.05058	0.07643	0.10057	0.12210	0.13995	147
0.15382	0.16295	0.16760	0.16758	0.16361	0.15605	0.14575	0.13354	148
0.12007	0.10626	0.09239	0.07922	0.06669	0.05513	0.04437	0.03439	149
0.02519	0.01665	0.00903	0.00239	-0.00290	-0.00651	-0.00818	-0.00745	150
-0.00432	0.00158	0.00997	0.02097	0.03403	0.04899	0.06515	0.08206	151
0.09913	0.11573	0.13167	0.14642	0.16016	0.17271	0.18441	0.19546	152
0.20597	0.21631	0.22621	0.23584	0.24459	0.25227	0.25810	0.26153	153
0.26186	0.25840	0.25082	0.23851	0.22173	0.20026	0.17483	0.14577	154
0.11398	0.08028	0.04542	0.01040	-0.02436	-0.05799	-0.09038	-0.12101	155
-0.14993	-0.17697	-0.20217	-0.22556	-0.24696	-0.26637	-0.28346	-0.29800	156
-0.30971	-0.31813	-0.32324	-0.32461	-0.32252	-0.31682	-0.30795	-0.29606	157
-0.28164	-0.26501	-0.24664	-0.22692	-0.20628	-0.18508	-0.16381	-0.14282	158
-0.12249	-0.10321	-0.08512	-0.06853	-0.05336	-0.03970	-0.02735	-0.01615	159
-0.00596	0.00351	0.01225	0.02050	0.02813	0.03523	0.04167	0.04738	160
0.05232	0.05640	0.05967	0.06214	0.06390	0.06508	0.06572	0.06603	161
0.06595	0.06561	0.06494	0.06395	0.06264	0.06099	0.05910	0.05701	162
0.05493	0.05301	0.05151	0.05068	0.05081	0.05222	0.05514	0.05993	163
0.06661	0.07548	0.08627	0.09905	0.11331	0.12881	0.14495	0.16126	164
0.17723	0.19230	0.20612	0.21822	0.22835	0.23623	0.24171	0.24463	165
0.24483	0.24223	0.23661	0.22791	0.21593	0.20054	0.18181	0.15963	166
0.13453	0.10666	0.07696	0.04603	0.01497	-0.01521	-0.04355	-0.06886	167
-0.09055	-0.10758	-0.11990	-0.12682	-0.12887	-0.12592	-0.11885	-0.10812	168
-0.09466	-0.07930	-0.06283	-0.04612	-0.02982	-0.01464	-0.00124	0.00982	169
0.01794	0.02255	0.02334	0.01984	0.01218	0.00017	-0.01567	-0.03510	170
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-0.26287	-0.28251	-0.29937	-0.31310	-0.32352	-0.33044	-0.33365	-0.33287	172
-0.32807	-0.31896	-0.30586	-0.28861	-0.26799	-0.24427	-0.21842	-0.19108	173
-0.16326	-0.13584	-0.10952	-0.08522	-0.06323	-0.04417	-0.02792	-0.01470	174
-0.00399	0.00445	0.01129	0.01713	0.02261	0.02850	0.03523	0.04352	175
0.05350	0.06568	0.07985	0.09620	0.11426	0.13388	0.15445	0.17553	176
0.19654	0.21690	0.23613	0.25371	0.26929	0.28249	0.29313	0.30097	177
0.30586	0.30770	0.30639	0.30189	0.29425	0.28345	0.26976	0.25335	178
0.23464	0.21399	0.19192	0.16893	0.14553	0.12233	0.09973	0.07833	179
0.05834	0.04023	0.02386	0.00946	-0.00345	-0.01496	-0.02576	-0.03624	180
-0.04706	-0.05879	-0.07187	-0.08683	-0.10373	-0.12291	-0.14389	-0.16660	181
-0.19013	-0.21387	-0.23678	-0.25784	-0.27620	-0.29075	-0.30109	-0.30634	182
-0.30667	-0.30164	-0.29193	-0.27767	-0.26007	-0.23975	-0.21838	-0.19718	183
-0.17770	-0.16177	-0.15002	-0.14448	-0.14758	-0.15787	-0.17188	-0.19063	184
-0.21425	-0.24206	-0.27215	-0.30319	-0.33312	-0.35992	-0.38219	-0.39777	185
-0.40616	-0.40592	-0.39711	-0.37917	-0.35245	-0.31696	-0.27344	-0.22210	186
-0.16456	-0.10151	-0.03512	0.03302	0.10108	0.16694	0.22960	0.28734	187
0.33958	0.38543	0.42418	0.45534	0.47828	0.49233	0.49761	0.49363	188
0.48137	0.46119	0.43437	0.40103	0.36264	0.32137	0.27891	0.23716	189
0.19641	0.15671	0.11864	0.08304	0.05008	0.02035	-0.00627	-0.02953	190
-0.04969	-0.06674	-0.08098	-0.09255	-0.10170	-0.10859	-0.11332	-0.11609	191
-0.11670	-0.11517	-0.11131	-0.10492	-0.09612	-0.08465	-0.07148	-0.05670	192
-0.04192	-0.02805	-0.01656	-0.00897	-0.00589	-0.00868	-0.01701	-0.03136	193
-0.05085	-0.07504	-0.10278	-0.13307	-0.16463	-0.19617	-0.22647	-0.25403	194
-0.27812	-0.29733	-0.31122	-0.31892	-0.32085	-0.31673	-0.30679	-0.29108	195
-0.26997	-0.24358	-0.21258	-0.17722	-0.13849	-0.09692	-0.05363	-0.00946	196
0.03464	0.07773	0.11907	0.15788	0.19368	0.22583	0.25431	0.27875	197
0.29957	0.31685	0.33110	0.34284	0.35228	0.36002	0.36595	0.37025	198
0.37297	0.37382	0.37332	0.37185	0.36920	0.36538	0.36015	0.35399	199
0.34636	0.33663	0.32423	0.30825	0.28868	0.26544	0.23861	0.20819	200
0.17471	0.13826	0.10004	0.06065	0.02128	-0.01658	-0.05298	-0.08651	201
-0.11825	-0.14825	-0.17676	-0.20483	-0.23097	-0.25521	-0.27592	-0.29140	202
-0.30177	-0.30540	-0.30360	-0.29645	-0.28482	-0.26979	-0.25145	-0.23042	203
-0.20699	-0.18123	-0.15400	-0.12558	-0.09683	-0.06850	-0.04091	-0.01475	204
0.00995	0.03294	0.05408	0.07337	0.09050	0.10541	0.11785	0.12764	205
0.13475	0.13901	0.14067	0.13975	0.13674	0.13196	0.12581	0.11889	206
0.11128	0.10349	0.09530	0.08682	0.07777	0.06791	0.05721	0.04544	207
0.03274	0.01912	0.00470	-0.01029	-0.02588	-0.04175	-0.05813	-0.07481	208
-0.09196	-0.10970	-0.12758	-0.14572	-0.16301	-0.17895	-0.19247	-0.20238	209
-0.20869	-0.21032	-0.20843	-0.20299	-0.19541	-0.18670	-0.17778	-0.16989	210
-0.16318	-0.15846	-0.15530	-0.15377	-0.15324	-0.15312	-0.15291	-0.15182	211
-0.14955	-0.14544	-0.13944	-0.13120	-0.12080	-0.10815	-0.09337	-0.07650	212

-0.05785	-0.03745	-0.01595	0.00641	0.02887	0.05081	0.07187	0.09132	213
0.10932	0.12561	0.14027	0.15357	0.16514	0.17510	0.18298	0.18843	214
0.19142	0.19155	0.18916	0.18437	0.17727	0.16830	0.15722	0.14409	215
0.12909	0.11198	0.09374	0.07466	0.05575	0.03810	0.02196	0.00840	216
-0.00303	-0.01201	-0.01908	-0.02452	-0.02870	-0.03199	-0.03468	-0.03708	217
-0.03927	-0.04146	-0.04326	-0.04461	-0.04470	-0.04299	-0.03872	-0.03098	218
-0.01946	-0.00329	0.01720	0.04247	0.07148	0.10402	0.13853	0.17402	219
0.20898	0.24184	0.27152	0.29657	0.31634	0.32979	0.33655	0.33599	220
0.32835	0.31328	0.29197	0.26474	0.23340	0.19926	0.16388	0.12923	221
0.09600	0.06591	0.03887	0.01577	-0.00388	-0.01999	-0.03316	-0.04380	222
-0.05252	-0.05998	-0.06668	-0.07332	-0.08026	-0.08804	-0.09705	-0.10760	223
-0.12017	-0.13501	-0.15234	-0.17238	-0.19462	-0.21889	-0.24402	-0.26911	224
-0.29291	-0.31396	-0.33145	-0.34396	-0.35125	-0.35249	-0.34798	-0.33760	225
-0.32207	-0.30190	-0.27806	-0.25142	-0.22312	-0.19411	-0.16587	-0.13933	226
-0.11635	-0.09813	-0.08617	-0.08208	-0.08574	-0.09842	-0.11777	-0.14347	227
-0.17199	-0.20093	-0.22747	-0.24805	-0.26179	-0.26574	-0.26092	-0.24613	228
-0.22344	-0.19375	-0.15908	-0.12150	-0.08274	-0.04494	-0.00971	0.02117	229
0.04620	0.06378	0.07322	0.07314	0.06442	0.04660	0.02206	-0.00793	230
-0.04065	-0.07327	-0.10386	-0.12934	-0.14891	-0.16060	-0.16415	-0.15899	231
-0.14507	-0.12230	-0.09146	-0.05237	-0.00762	0.04219	0.09319	0.14294	232
0.18872	0.22685	0.25772	0.27878	0.29267	0.29990	0.30240	0.30276	233
0.30051	0.29730	0.29142	0.28225	0.26927	0.25132	0.22977	0.20497	234
0.17819	0.15126	0.12410	0.09841	0.07380	0.05053	0.02910	0.00908	235
-0.00858	-0.02374	-0.03626	-0.04588	-0.05353	-0.06010	-0.06611	-0.07236	236
-0.07848	-0.08371	-0.08901	-0.09310	-0.09911	-0.10738	-0.12012	-0.13977	237
-0.16477	-0.19722	-0.23244	-0.26876	-0.30276	-0.33019	-0.35220	-0.36639	238
-0.37654	-0.38377	-0.38987	-0.39773	-0.40553	-0.41528	-0.42279	-0.42653	239
-0.42321	-0.40772	-0.38298	-0.34461	-0.30189	-0.25605	-0.21536	-0.18873	240
-0.17516	-0.18438	-0.20452	-0.23477	-0.26262	-0.27532	-0.27209	-0.24015	241
-0.19075	-0.12312	-0.04838	0.02239	0.08699	0.13422	0.16917	0.19067	242
0.20289	0.21171	0.21393	0.21195	0.20266	0.18351	0.15909	0.12768	243
0.09720	0.07214	0.05203	0.04636	0.04634	0.05279	0.05602	0.04266	244
0.01743	-0.02663	-0.06994	-0.10232	-0.11765	-0.10271	-0.07108	-0.01628	245
0.05021	0.12038	0.19138	0.24501	0.28950	0.32563	0.35924	0.40552	246
0.44922	0.49301	0.51755	0.50144	0.46431	0.39768	0.33778	0.30344	247
0.28699	0.31807	0.35794	0.40630	0.43895	0.41332	0.35820	0.25047	248
0.13767	0.05412	-0.00467	0.00102	0.03495	0.10305	0.16522	0.17925	249
0.16947	0.10396	0.00631	-0.11032	-0.23180	-0.32451	-0.40592	-0.44965	250
-0.46652	-0.47381	-0.45562	-0.41573	-0.34535	-0.25903	-0.15342	-0.02514	251
0.08193	0.18542	0.28334	0.37422	0.43391	0.49165	0.52833	0.53278	252
0.54528	0.54030	0.52662	0.49597	0.45307	0.42836	0.37657	0.42298	253
0.46145	0.55514	0.67330	0.73343	0.88802	0.74973	0.80762	0.53742	254
0.37012	0.22542	-0.00968	0.00674	-0.06479	-0.14720	-0.19234	-0.18688	255
-0.13139	-0.02930	0.08339	0.16676	0.22306	0.27843	0.31436	0.32030	256
0.30735	0.24476	0.15964	0.06345	-0.01358	-0.05167	-0.07931	-0.06896	257
-0.06806	-0.10543	-0.16425	-0.25436	-0.35230	-0.44787	-0.51867	-0.54203	258
-0.52375	-0.44545	-0.33130	-0.19916	-0.06866	0.05040	0.15815	0.23307	259
0.28844	0.33665	0.37459	0.40705	0.42566	0.42682	0.41331	0.37946	260
0.34087	0.30622	0.28361	0.28983	0.31061	0.34323	0.37197	0.39009	261
0.39849	0.39040	0.36725	0.32000	0.25636	0.17539	0.09151	0.01614	262
-0.04593	-0.08073	-0.09929	-0.09330	-0.07273	-0.03902	0.00232	0.03496	263
0.05743	0.05915	0.04652	0.01802	-0.01727	-0.05451	-0.09519	-0.12733	264
-0.15175	-0.16146	-0.15644	-0.13442	-0.09908	-0.05608	-0.00172	0.05646	265
0.11029	0.16224	0.20592	0.23152	0.23923	0.23342	0.20601	0.15033	266
0.08993	0.01508	-0.07083	-0.14546	-0.21018	-0.26842	-0.32605	-0.35771	267
-0.40208	-0.45208	-0.46949	-0.49957	-0.50677	-0.49172	-0.46344	-0.42008	268
-0.37998	-0.33450	-0.30843	-0.27237	-0.27572	-0.27092	-0.26888	-0.31063	269
-0.32331	-0.39811	-0.43419	-0.50152	-0.57082	-0.63173	-0.69612	-0.67997	270
-0.82453	-0.77791	-0.73146	-0.79590	-0.69139	-0.63941	-0.55538	-0.48786	271
-0.39910	-0.30679	-0.25227	-0.17704	-0.15386	-0.12005	-0.11809	-0.13434	272
-0.13469	-0.14444	-0.13466	-0.11788	-0.07974	-0.02371	0.04354	0.10222	273
0.15907	0.22558	0.26756	0.33056	0.39432	0.41322	0.41779	0.39869	274
0.36049	0.31557	0.26819	0.21863	0.15617	0.09581	0.04047	-0.01973	275
-0.07220	-0.11349	-0.14923	-0.17058	-0.17552	-0.16517	-0.14031	-0.10598	276
-0.06225	-0.01480	0.03001	0.07803	0.12180	0.15925	0.19541	0.22021	277
0.22886	0.22258	0.19607	0.15295	0.10929	0.06832	0.04068	0.03166	278
0.03129	0.04323	0.06208	0.08359	0.11540	0.14999	0.18317	0.22162	279
0.24820	0.27067	0.28508	0.26923	0.24148	0.18345	0.11419	0.06612	280
0.02930	0.03032	0.05473	0.07310	0.10451	0.14907	0.19404	0.27974	281
0.33853	0.31860	0.24113	0.01817	-0.22988	-0.43391	-0.58110	-0.53132	282
-0.39054	-0.18248	0.04923	0.17478	0.24599	0.24345	0.20398	0.20369	283
0.22388	0.28397	0.36355	0.41436	0.44646	0.45486	0.44572	0.46377	284
0.49138	0.50840	0.50631	0.43948	0.33156	0.20473	0.07671	-0.01150	285

-0.07384	-0.12648	-0.18456	-0.26889	-0.37138	-0.46721	-0.53876	-0.57291	286
-0.57201	-0.56747	-0.57079	-0.57946	-0.59510	-0.59215	-0.57235	-0.54506	287
-0.51279	-0.50449	-0.51569	-0.53499	-0.55001	-0.52795	-0.46388	-0.35943	288
-0.23164	-0.10898	-0.01638	0.03249	0.03527	-0.00689	-0.06780	-0.14361	289
-0.21027	-0.24885	-0.26637	-0.23844	-0.19015	-0.12909	-0.06207	-0.02445	290
0.00046	-0.00102	-0.01879	-0.02763	-0.04123	-0.03737	-0.02905	-0.02679	291
-0.01955	-0.02648	-0.03290	-0.03930	-0.05025	-0.05004	-0.05503	-0.06033	292
-0.07300	-0.10836	-0.15755	-0.23206	-0.31624	-0.39578	-0.46110	-0.48826	293
-0.48483	-0.44958	-0.39938	-0.35561	-0.32119	-0.30984	-0.30721	-0.30526	294
-0.29686	-0.26981	-0.23472	-0.19144	-0.14777	-0.10768	-0.06551	-0.01905	295
0.03172	0.08555	0.12909	0.14930	0.14334	0.10302	0.04751	-0.00980	296
-0.05296	-0.06236	-0.04461	0.00102	0.06131	0.12285	0.18459	0.24125	297
0.29731	0.35900	0.42364	0.49474	0.56413	0.62348	0.66815	0.68890	298
0.68249	0.64168	0.57279	0.47459	0.36222	0.25056	0.15209	0.08784	299
0.05672	0.06663	0.10711	0.16730	0.23714	0.30231	0.35381	0.38549	300
0.38995	0.36338	0.31011	0.22563	0.12810	0.02239	-0.07810	-0.15954	301
-0.22535	-0.26937	-0.29875	-0.31657	-0.32622	-0.32668	-0.32645	-0.32576	302
-0.32929	-0.35033	-0.37253	-0.39762	-0.41178	-0.39448	-0.36630	-0.32318	303
-0.28086	-0.26550	-0.25601	-0.25774	-0.25538	-0.22176	-0.18047	-0.12567	304
-0.07454	-0.05337	-0.04292	-0.05077	-0.06495	-0.06469	-0.05949	-0.04499	305
-0.02728	-0.01816	-0.01205	-0.00855	-0.00890	-0.00875	-0.01126	-0.01958	306
-0.02766	-0.03438	-0.03754	-0.03043	-0.02118	-0.01279	-0.00783	-0.01565	307
-0.02897	-0.04697	-0.06645	-0.07897	-0.08813	-0.09157	-0.08891	-0.08326	308
-0.06892	-0.04464	-0.00931	0.04128	0.10006	0.16619	0.23302	0.29320	309
0.34737	0.39043	0.42598	0.45555	0.47879	0.49912	0.51402	0.52288	310
0.52210	0.50945	0.48190	0.43558	0.37156	0.28630	0.18703	0.07602	311
-0.03904	-0.14935	-0.25291	-0.34201	-0.41757	-0.47837	-0.52274	-0.55186	312
-0.56360	-0.55627	-0.53344	-0.49358	-0.44475	-0.39065	-0.33680	-0.29075	313
-0.25161	-0.22419	-0.20492	-0.19337	-0.18705	-0.18274	-0.18012	-0.17586	314
-0.17143	-0.16583	-0.15933	-0.15334	-0.14495	-0.13427	-0.11852	-0.09504	315
-0.06514	-0.02697	0.01563	0.06110	0.10675	0.14955	0.18852	0.22149	316
0.24829	0.26764	0.28027	0.28564	0.28612	0.28276	0.27748	0.27274	317
0.26980	0.27135	0.27484	0.27893	0.27987	0.27755	0.27231	0.26204	318
0.24756	0.22818	0.20489	0.17853	0.14938	0.11834	0.08613	0.05340	319
0.02171	-0.00810	-0.03417	-0.05470	-0.06889	-0.07477	-0.07296	-0.06262	320
-0.04525	-0.02150	0.00659	0.03745	0.06839	0.09715	0.12112	0.13742	321
0.14519	0.14191	0.12937	0.10702	0.07819	0.04495	0.01008	-0.02303	322
-0.05325	-0.07786	-0.09710	-0.10981	-0.11677	-0.11811	-0.11460	-0.10669	323
-0.09519	-0.08067	-0.06417	-0.04610	-0.02736	-0.00852	0.00959	0.02596	324
0.04009	0.05105	0.05884	0.06295	0.06408	0.06229	0.05871	0.05410	325
0.04934	0.04559	0.04298	0.04232	0.04313	0.04546	0.04857	0.05191	326
0.05510	0.05752	0.05948	0.06080	0.06234	0.06461	0.06819	0.07437	327
0.08356	0.09661	0.11338	0.13428	0.15860	0.18627	0.21601	0.24702	328
0.27789	0.30721	0.33394	0.35668	0.37472	0.38728	0.39366	0.39356	329
0.38801	0.37569	0.35837	0.33716	0.31376	0.28984	0.26656	0.24619	330
0.22806	0.21311	0.20033	0.18913	0.17929	0.16999	0.16140	0.15341	331
0.14571	0.13842	0.13097	0.12296	0.11434	0.10465	0.09423	0.08310	332
0.07130	0.05916	0.04620	0.03244	0.01726	0.00031	-0.01904	-0.04122	333
-0.06673	-0.09607	-0.12910	-0.16623	-0.20619	-0.24871	-0.29154	-0.33320	334
-0.37134	-0.40392	-0.42902	-0.44391	-0.44779	-0.43869	-0.41739	-0.38348	335
-0.33930	-0.28536	-0.22443	-0.15852	-0.09109	-0.02533	0.03668	0.09215	336
0.13972	0.17711	0.20444	0.22087	0.22726	0.22406	0.21268	0.19413	337
0.17071	0.14393	0.11662	0.09123	0.06955	0.05448	0.04574	0.04502	338
0.05086	0.06284	0.07982	0.10030	0.12366	0.14871	0.17442	0.20009	339
0.22381	0.24451	0.26019	0.26898	0.26982	0.26085	0.24244	0.21382	340
0.17601	0.12947	0.07547	0.01505	-0.04992	-0.11813	-0.18700	-0.25453	341
-0.31827	-0.37561	-0.42515	-0.46450	-0.49351	-0.51075	-0.51698	-0.51192	342
-0.49687	-0.47252	-0.44033	-0.40166	-0.35801	-0.31063	-0.26103	-0.21039	343
-0.16068	-0.11322	-0.07029	-0.03302	-0.00312	0.01683	0.02708	0.02659	344
0.01553	-0.00616	-0.03704	-0.07907	-0.12927	-0.18235	-0.23650	-0.28864	345
-0.33502	-0.37596	-0.41022	-0.43440	-0.44807	-0.45157	-0.44669	-0.43208	346
-0.40955	-0.38008	-0.34546	-0.30732	-0.26684	-0.22554	-0.18383	-0.14253	347
-0.10164	-0.06116	-0.02122	0.01845	0.05748	0.09580	0.13316	0.16911	348
0.20344	0.23575	0.26520	0.29144	0.31270	0.32792	0.33546	0.33340	349
0.32175	0.29883	0.26677	0.22555	0.17875	0.12861	0.07861	0.03253	350
-0.00753	-0.03783	-0.05794	-0.06542	-0.06131	-0.04483	-0.01860	0.01693	351
0.05914	0.10574	0.15502	0.20426	0.25311	0.29975	0.34387	0.38525	352
0.42341	0.45824	0.48908	0.51465	0.53467	0.54780	0.55670	0.56182	353
0.56382	0.56527	0.56317	0.55819	0.54628	0.52442	0.49224	0.44614	354
0.38936	0.32186	0.24718	0.16895	0.08863	0.00984	-0.06655	-0.13877	355
-0.20480	-0.26318	-0.31185	-0.34927	-0.37462	-0.38605	-0.38434	-0.36894	356
-0.34189	-0.30404	-0.25824	-0.20665	-0.15206	-0.09765	-0.04498	0.00330	357
0.04603	0.08248	0.11030	0.12890	0.13682	0.13159	0.11722	0.09218	358

0.06491	0.04016	0.02209	0.01995	0.02802	0.05040	0.07791	0.10432	359
0.12772	0.13887	0.14399	0.14134	0.13608	0.13384	0.13293	0.13763	360
0.14329	0.14812	0.15039	0.14604	0.13631	0.11970	0.09731	0.07010	361
0.03800	0.00205	-0.03773	-0.08081	-0.12642	-0.17384	-0.22192	-0.26946	362
-0.31519	-0.35762	-0.39555	-0.42738	-0.45229	-0.46891	-0.47688	-0.47546	363
-0.46448	-0.44372	-0.41347	-0.37372	-0.32588	-0.27047	-0.20974	-0.14533	364
-0.07936	-0.01406	0.04914	0.10832	0.16278	0.21110	0.25382	0.29012	365
0.32190	0.35000	0.37537	0.40077	0.42349	0.44506	0.46111	0.46884	366
0.46807	0.45435	0.43256	0.40306	0.37100	0.34194	0.31528	0.29538	367
0.27916	0.26547	0.25418	0.24230	0.23200	0.22333	0.21599	0.21165	368
0.20712	0.20142	0.19290	0.17840	0.15974	0.13582	0.10881	0.08076	369
0.05162	0.02342	-0.00475	-0.03275	-0.06047	-0.08811	-0.11547	-0.14182	370
-0.16864	-0.19552	-0.22317	-0.25479	-0.28931	-0.32407	-0.35462	-0.38159	371
-0.40356	-0.41752	-0.42399	-0.42130	-0.41097	-0.39351	-0.37026	-0.34264	372
-0.31222	-0.28017	-0.24894	-0.22041	-0.19633	-0.17885	-0.16791	-0.16537	373
-0.16890	-0.17872	-0.19150	-0.20386	-0.21437	-0.22050	-0.22337	-0.22068	374
-0.21418	-0.20464	-0.19381	-0.18353	-0.17489	-0.16960	-0.16776	-0.17060	375
-0.17706	-0.18714	-0.19926	-0.21213	-0.22390	-0.23278	-0.23737	-0.23573	376
-0.22753	-0.21127	-0.18790	-0.15693	-0.12025	-0.07878	-0.03449	0.01091	377
0.05556	0.09784	0.13597	0.16830	0.19424	0.21176	0.22323	0.22791	378
0.22967	0.23131	0.23333	0.24032	0.24832	0.25707	0.26413	0.26497	379
0.26138	0.25056	0.23602	0.22051	0.20198	0.18389	0.15979	0.12722	380
0.08389	0.02361	-0.04792	-0.13227	-0.22113	-0.30863	-0.39009	-0.45763	381
-0.51031	-0.54351	-0.55733	-0.55033	-0.52352	-0.47676	-0.41340	-0.33468	382
-0.24599	-0.15075	-0.05438	0.03809	0.12319	0.19583	0.25579	0.29963	383
0.33054	0.34843	0.35775	0.36199	0.36351	0.36704	0.37143	0.37914	384
0.38777	0.39612	0.40207	0.40332	0.39881	0.38659	0.36637	0.33648	385
0.29804	0.25089	0.19759	0.13971	0.07963	0.01972	-0.03708	-0.08845	386
-0.13060	-0.16067	-0.17592	-0.17237	-0.15163	-0.11087	-0.05627	0.01043	387
0.08261	0.15416	0.22176	0.27914	0.32609	0.35946	0.38006	0.38753	388
0.38302	0.36735	0.34229	0.30935	0.27036	0.22730	0.18135	0.13427	389
0.08667	0.03968	-0.00630	-0.05064	-0.09298	-0.13299	-0.17009	-0.20402	390
-0.23397	-0.25923	-0.27956	-0.29403	-0.30349	-0.30759	-0.30812	-0.30572	391
-0.30075	-0.29420	-0.28621	-0.27729	-0.26726	-0.25631	-0.24365	-0.22865	392
-0.21100	-0.18997	-0.16590	-0.13839	-0.10850	-0.07656	-0.04405	-0.01200	393
0.01803	0.04454	0.06646	0.08217	0.09176	0.09420	0.09069	0.08139	394
0.06809	0.05210	0.03511	0.01897	0.00488	-0.00543	-0.01141	-0.01175	395
-0.00693	0.00370	0.01853	0.03714	0.05745	0.07795	0.09690	0.11238	396
0.12348	0.12858	0.12777	0.12021	0.10707	0.08857	0.06661	0.04246	397
0.01819	-0.00419	-0.02297	-0.03604	-0.04244	-0.04047	-0.03022	-0.01069	398
0.01681	0.05225	0.09336	0.13884	0.18643	0.23385	0.27978	0.32202	399
0.36020	0.39317	0.42066	0.44255	0.45870	0.46882	0.47210	0.46835	400
0.45722	0.43848	0.41291	0.38008	0.34049	0.29467	0.24365	0.18830	401
0.13005	0.07003	0.01008	-0.04837	-0.10333	-0.15291	-0.19575	-0.22976	402
-0.25496	-0.26992	-0.27606	-0.27337	-0.26380	-0.24868	-0.22979	-0.20890	403
-0.18756	-0.16736	-0.14939	-0.13510	-0.12451	-0.11859	-0.11621	-0.11717	404
-0.12006	-0.12360	-0.12685	-0.12831	-0.12769	-0.12402	-0.11745	-0.10762	405
-0.09518	-0.08027	-0.06402	-0.04711	-0.03078	-0.01614	-0.00414	0.00410	406
0.00795	0.00662	-0.00023	-0.01309	-0.03174	-0.05658	-0.08698	-0.12240	407
-0.16065	-0.20059	-0.24005	-0.27699	-0.30968	-0.33589	-0.35464	-0.36410	408
-0.36415	-0.35375	-0.33365	-0.30369	-0.26546	-0.21961	-0.16849	-0.11356	409
-0.05729	-0.00186	0.05100	0.09902	0.14176	0.17771	0.20763	0.23132	410
0.25018	0.26512	0.27754	0.28886	0.30017	0.31290	0.32731	0.34467	411
0.36401	0.38538	0.40645	0.42607	0.44200	0.45195	0.45487	0.44855	412
0.43409	0.41021	0.37854	0.34013	0.29699	0.25056	0.20213	0.15373	413
0.10606	0.06054	0.01752	-0.02218	-0.05865	-0.09144	-0.12126	-0.14816	414
-0.17322	-0.19707	-0.22056	-0.24455	-0.26933	-0.29548	-0.32273	-0.35097	415
-0.37982	-0.40889	-0.43783	-0.46575	-0.49156	-0.51440	-0.53095	-0.53983	416
-0.54177	-0.53807	-0.52830	-0.50865	-0.47950	-0.44106	-0.39456	-0.34051	417
-0.28106	-0.21766	-0.15239	-0.08733	-0.02398	0.03560	0.09082	0.14024	418
0.18404	0.22171	0.25362	0.28004	0.30115	0.31740	0.32883	0.33598	419
0.33873	0.33686	0.33102	0.32138	0.30886	0.29409	0.27861	0.26306	420
0.24813	0.23553	0.22414	0.21413	0.20502	0.19661	0.18766	0.17737	421
0.16480	0.14872	0.12907	0.10501	0.07722	0.04577	0.01160	-0.02453	422
-0.06163	-0.09871	-0.13481	-0.16883	-0.20018	-0.22782	-0.25189	-0.27154	423
-0.28726	-0.29910	-0.30731	-0.31239	-0.31396	-0.31216	-0.30629	-0.29586	424
-0.28080	-0.26039	-0.23544	-0.20577	-0.17286	-0.13744	-0.10109	-0.06510	425
-0.03078	0.00042	0.02770	0.04982	0.06672	0.07766	0.08323	0.08343	426
0.07914	0.07105	0.05990	0.04664	0.03172	0.01596	-0.00043	-0.01692	427
-0.03340	-0.04958	-0.06538	-0.08068	-0.09520	-0.10882	-0.12094	-0.13125	428
-0.13900	-0.14348	-0.14419	-0.14031	-0.13184	-0.11817	-0.09985	-0.07679	429
-0.04987	-0.01950	0.01328	0.04770	0.08267	0.11724	0.15039	0.18113	430
0.20861	0.23193	0.25052	0.26366	0.27108	0.27234	0.26743	0.25619	431

0.23903	0.21607	0.18816	0.15583	0.12026	0.08241	0.04361	0.00513	432
-0.03184	-0.06594	-0.09633	-0.12179	-0.14198	-0.15604	-0.16429	-0.16636	433
-0.16332	-0.15546	-0.14438	-0.13108	-0.11714	-0.10408	-0.09298	-0.08531	434
-0.08150	-0.08251	-0.08819	-0.09880	-0.11378	-0.13279	-0.15491	-0.17940	435
-0.20504	-0.23074	-0.25540	-0.27769	-0.29692	-0.31191	-0.32253	-0.32802	436
-0.32862	-0.32417	-0.31495	-0.30117	-0.28319	-0.26132	-0.23622	-0.20826	437
-0.17852	-0.14759	-0.11692	-0.08748	-0.06070	-0.03791	-0.02002	-0.00834	438
-0.00280	-0.00419	-0.01135	-0.02408	-0.04056	-0.05955	-0.07913	-0.09742	439
-0.11291	-0.12365	-0.12879	-0.12678	-0.11773	-0.10073	-0.07694	-0.04640	440
-0.01101	0.02814	0.06913	0.11013	0.14989	0.18659	0.21983	0.24846	441
0.27261	0.29200	0.30685	0.31740	0.32386	0.32659	0.32579	0.32176	442
0.31470	0.30485	0.29236	0.27744	0.26027	0.24103	0.21992	0.19720	443
0.17314	0.14804	0.12222	0.09607	0.06992	0.04422	0.01926	-0.00447	444
-0.02684	-0.04742	-0.06624	-0.08309	-0.09802	-0.11100	-0.12207	-0.13121	445
-0.13861	-0.14426	-0.14850	-0.15153	-0.15354	-0.15484	-0.15525	-0.15482	446
-0.15340	-0.15069	-0.14682	-0.14165	-0.13512	-0.12739	-0.11806	-0.10683	447
-0.09399	-0.07886	-0.06289	-0.04646	-0.03045	-0.01667	-0.00382	0.00734	448
0.01817	0.03068	0.04277	0.05616	0.06724	0.07335	0.07625	0.07173	449
0.06802	0.06720	0.07414	0.09786	0.13068	0.17764	0.22410	0.26214	450
0.28538	0.27940	0.25215	0.19780	0.12915	0.05403	-0.02142	-0.08515	451
-0.13855	-0.17564	-0.19947	-0.21059	-0.21143	-0.20437	-0.19270	-0.17910	452
-0.16700	-0.16026	-0.15930	-0.16747	-0.18173	-0.20199	-0.22486	-0.24707	453
-0.26721	-0.28199	-0.29134	-0.29370	-0.28918	-0.27735	-0.25887	-0.23370	454
-0.20331	-0.16856	-0.13044	-0.09062	-0.04860	-0.00531	0.03988	0.08774	455
0.13658	0.18732	0.23585	0.28075	0.31850	0.34512	0.36117	0.36312	456
0.35577	0.33952	0.31988	0.30150	0.28635	0.27986	0.27923	0.28650	457
0.29679	0.30746	0.31511	0.31498	0.30662	0.28673	0.25684	0.21658	458
0.16824	0.11340	0.05492	-0.00477	-0.06233	-0.11473	-0.15924	-0.19241	459
-0.21381	-0.22070	-0.21546	-0.19772	-0.17139	-0.13882	-0.10348	-0.06924	460
-0.03775	-0.01254	0.00676	0.01843	0.02385	0.02352	0.01806	0.00930	461
-0.00396	-0.02062	-0.04236	-0.07018	-0.10315	-0.14304	-0.18508	-0.22840	462
-0.26734	-0.29702	-0.31560	-0.31735	-0.30529	-0.27769	-0.23854	-0.19109	463
-0.13634	-0.07832	-0.01639	0.04859	0.11415	0.18116	0.24276	0.29669	464
0.33658	0.35588	0.35478	0.32731	0.28079	0.21566	0.14134	0.06500	465
-0.00666	-0.06464	-0.10620	-0.12489	-0.12154	-0.09329	-0.04528	0.02195	466
0.09882	0.18032	0.25624	0.31701	0.35836	0.37016	0.35743	0.31613	467
0.25704	0.18529	0.11051	0.04347	-0.01202	-0.04636	-0.06168	-0.05393	468
-0.02903	0.01121	0.05945	0.10984	0.15653	0.19185	0.21465	0.21880	469
0.20858	0.18276	0.14778	0.10822	0.06764	0.03281	0.00244	-0.01955	470
-0.03710	-0.05107	-0.06429	-0.08033	-0.09905	-0.12332	-0.14987	-0.17905	471
-0.20538	-0.22613	-0.23618	-0.23020	-0.20764	-0.16302	-0.10318	-0.02719	472
0.05364	0.13272	0.20164	0.24922	0.27552	0.27232	0.24666	0.19877	473
0.13670	0.06752	-0.00373	-0.06906	-0.12599	-0.16945	-0.19822	-0.20964	474
-0.20466	-0.18202	-0.14628	-0.09854	-0.04578	0.00731	0.05532	0.09145	475
0.11473	0.12016	0.11063	0.08549	0.04919	0.00473	-0.04343	-0.09085	476
-0.13360	-0.16712	-0.18934	-0.19614	-0.18923	-0.16639	-0.13306	-0.09098	477
-0.04598	-0.00364	0.03409	0.06122	0.08070	0.09054	0.09506	0.09732	478
0.09860	0.10348	0.10936	0.11790	0.12583	0.13088	0.13265	0.12804	479
0.11974	0.10728	0.09366	0.08140	0.07142	0.06664	0.06586	0.07009	480
0.07775	0.08777	0.09950	0.11139	0.12362	0.13543	0.14688	0.15811	481
0.16833	0.17774	0.18470	0.18876	0.18824	0.18183	0.16922	0.14901	482
0.12307	0.09117	0.05694	0.02218	-0.00957	-0.03484	-0.05240	-0.05882	483
-0.05642	-0.04389	-0.02646	-0.00624	0.01133	0.02118	0.02116	0.00589	484
-0.02164	-0.06350	-0.11319	-0.16746	-0.22051	-0.26542	-0.30041	-0.31930	485
-0.32398	-0.31253	-0.28771	-0.25151	-0.20569	-0.15335	-0.09632	-0.03671	486
0.02149	0.07623	0.12178	0.15422	0.16955	0.16229	0.13394	0.08076	487
0.01008	-0.07633	-0.16937	-0.26136	-0.34672	-0.41581	-0.46902	-0.50066	488
-0.51509	-0.51111	-0.49246	-0.46450	-0.42797	-0.38760	-0.34183	-0.29214	489
-0.23839	-0.17934	-0.11886	-0.05662	0.00101	0.05071	0.08827	0.10796	490
0.11141	0.09493	0.06509	0.02393	-0.02186	-0.06540	-0.10409	-0.13098	491
-0.14764	-0.15148	-0.14482	-0.12955	-0.10613	-0.07747	-0.04298	-0.00369	492
0.03925	0.08617	0.13298	0.17867	0.21841	0.24861	0.26727	0.27024	493
0.25994	0.23492	0.20037	0.15907	0.11568	0.07555	0.04062	0.01561	494
-0.00024	-0.00506	-0.00091	0.01115	0.02918	0.05062	0.07429	0.09777	495
0.12037	0.14070	0.15793	0.17158	0.18031	0.18381	0.18082	0.17060	496
0.15297	0.12718	0.09479	0.05600	0.01355	-0.03085	-0.07467	-0.11527	497
-0.15142	-0.18087	-0.20373	-0.21908	-0.22774	-0.23003	-0.22710	-0.21988	498
-0.20966	-0.19752	-0.18484	-0.17264	-0.16196	-0.15367	-0.14808	-0.14569	499
-0.14584	-0.14850	-0.15212	-0.15596	-0.15829	-0.15763	-0.15316	-0.14325	500
-0.12890	-0.10949	-0.08735	-0.06376	-0.04061	-0.02049	-0.00347	0.00856	501
0.01663	0.02096	0.02190	0.02093	0.01726	0.01164	0.00388	-0.00654	502
-0.01766	-0.02948	-0.03915	-0.04462	-0.04530	-0.03836	-0.02667	-0.00980	503
0.00855	0.02529	0.03964	0.04768	0.05229	0.05253	0.05181	0.05302	504

0.05649	0.06584	0.07788	0.09340	0.10841	0.12028	0.12725	0.12570	505
0.11686	0.09906	0.07524	0.04643	0.01565	-0.01438	-0.04163	-0.06314	506
-0.07849	-0.08557	-0.08560	-0.07809	-0.06491	-0.04729	-0.02622	-0.00353	507
0.02108	0.04688	0.07411	0.10346	0.13367	0.16527	0.19606	0.22480	508
0.25051	0.27087	0.28682	0.29730	0.30296	0.30472	0.30074	0.29170	509
0.27427	0.24660	0.20793	0.15499	0.09198	0.01824	-0.05936	-0.13640	510
-0.20828	-0.26786	-0.31542	-0.34608	-0.36297	-0.36615	-0.35776	-0.34086	511
-0.31527	-0.28326	-0.24456	-0.19923	-0.14949	-0.09522	-0.04070	0.01192	512
0.05938	0.09764	0.12692	0.14423	0.15262	0.15251	0.14718	0.13984	513
0.13205	0.12729	0.12541	0.12824	0.13491	0.14551	0.15897	0.17444	514
0.19089	0.20701	0.22210	0.23481	0.24498	0.25181	0.25532	0.25544	515
0.25185	0.24473	0.23378	0.21874	0.20043	0.17864	0.15531	0.13152	516
0.10834	0.08812	0.06938	0.05352	0.03779	0.02079	0.00208	-0.02119	517
-0.04548	-0.07131	-0.09387	-0.10966	-0.11697	-0.11105	-0.09460	-0.06599	518
-0.02955	0.01209	0.05603	0.09816	0.13707	0.17009	0.19560	0.21226	519
0.21828	0.21208	0.19376	0.16169	0.11886	0.06558	0.00603	-0.05668	520
-0.11986	-0.17945	-0.23483	-0.28335	-0.32525	-0.35978	-0.38702	-0.40702	521
-0.42006	-0.42619	-0.42631	-0.42073	-0.41059	-0.39665	-0.37995	-0.36128	522
-0.34182	-0.32226	-0.30386	-0.28765	-0.27387	-0.26378	-0.25554	-0.24944	523
-0.24221	-0.23201	-0.21646	-0.19231	-0.15981	-0.11654	-0.06531	-0.00624	524
0.05695	0.12164	0.18495	0.24324	0.29532	0.33839	0.37286	0.39758	525
0.41385	0.42229	0.42433	0.42135	0.41484	0.40620	0.39710	0.38896	526
0.38297	0.38085	0.38188	0.38738	0.39448	0.40252	0.40862	0.40981	527
0.40590	0.39396	0.37650	0.35340	0.32666	0.29901	0.26924	0.23956	528
0.20679	0.16996	0.12790	0.07757	0.02224	-0.03921	-0.10090	-0.15968	529
-0.21117	-0.24964	-0.27489	-0.28247	-0.27527	-0.25490	-0.22421	-0.18713	530
-0.14770	-0.11071	-0.07786	-0.05310	-0.03551	-0.02672	-0.02378	-0.02575	531
-0.02901	-0.03058	-0.02776	-0.01694	0.00224	0.03251	0.07109	0.11849	532
0.16929	0.22091	0.26763	0.30413	0.32788	0.33314	0.32260	0.29364	533
0.25277	0.20273	0.14948	0.09970	0.05530	0.02239	-0.00098	-0.01284	534
-0.01611	-0.01271	-0.00451	0.00566	0.01654	0.02634	0.03352	0.03676	535
0.03548	0.02800	0.01677	0.00118	-0.01403	-0.02623	-0.03273	-0.02853	536
-0.01642	0.00645	0.03355	0.06217	0.08749	0.10308	0.10935	0.10153	537
0.08366	0.05604	0.02235	-0.01355	-0.05040	-0.08453	-0.11641	-0.14449	538
-0.16971	-0.19224	-0.21299	-0.23283	-0.25244	-0.27284	-0.29390	-0.31625	539
-0.33883	-0.36121	-0.38202	-0.39999	-0.41358	-0.42145	-0.42146	-0.41221	540
-0.39150	-0.35716	-0.30934	-0.24555	-0.17040	-0.08382	0.00710	0.09776	541
0.18369	0.25767	0.32086	0.36874	0.40529	0.43178	0.44951	0.46262	542
0.46801	0.46721	0.45682	0.43394	0.40002	0.35169	0.29538	0.23238	543
0.16935	0.11246	0.06366	0.02954	0.00668	-0.00277	-0.00411	-0.00042	544
0.00515	0.00744	0.00701	0.00061	-0.00880	-0.02080	-0.03258	-0.04117	545
-0.04579	-0.04347	-0.03570	-0.02143	-0.00353	0.01676	0.03646	0.05286	546
0.06411	0.06723	0.06246	0.04790	0.02590	-0.00326	-0.03648	-0.07127	547
-0.10574	-0.13662	-0.16404	-0.18597	-0.20372	-0.21729	-0.22782	-0.23651	548
-0.24365	-0.25035	-0.25629	-0.26183	-0.26632	-0.26945	-0.27065	-0.26912	549
-0.26486	-0.25704	-0.24655	-0.23319	-0.21826	-0.20251	-0.18672	-0.17210	550
-0.15860	-0.14689	-0.13664	-0.12770	-0.12011	-0.11349	-0.10812	-0.10404	551
-0.10123	-0.09994	-0.09998	-0.10124	-0.10420	-0.10853	-0.11569	-0.12604	552
-0.14086	-0.16151	-0.18737	-0.21958	-0.25520	-0.29350	-0.33082	-0.36413	553
-0.39120	-0.40833	-0.41536	-0.40996	-0.39324	-0.36492	-0.32631	-0.27846	554
-0.22255	-0.15999	-0.09201	-0.01984	0.05455	0.12998	0.20355	0.27348	555
0.33670	0.39038	0.43314	0.46190	0.47789	0.47979	0.47014	0.45023	556
0.42156	0.38689	0.34589	0.30012	0.24949	0.19370	0.13494	0.07318	557
0.01224	-0.04557	-0.09774	-0.14046	-0.17401	-0.19598	-0.20798	-0.21033	558
-0.20401	-0.19053	-0.17049	-0.14471	-0.11538	-0.08298	-0.05150	-0.02302	559
-0.00076	0.01145	0.01395	0.00370	-0.01550	-0.04316	-0.07491	-0.10684	560
-0.13663	-0.15976	-0.17607	-0.18310	-0.18109	-0.16978	-0.14875	-0.11822	561
-0.07817	-0.02819	0.02976	0.09569	0.16592	0.23843	0.31006	0.37708	562
0.43854	0.49136	0.53571	0.57086	0.59581	0.61091	0.61389	0.60388	563
0.57999	0.54006	0.48670	0.41916	0.34255	0.25957	0.17455	0.09262	564
0.01518	-0.05346	-0.11395	-0.16483	-0.20666	-0.24010	-0.26485	-0.28155	565
-0.29023	-0.29068	-0.28480	-0.27253	-0.25738	-0.24101	-0.22629	-0.21646	566
-0.21130	-0.21364	-0.21970	-0.22930	-0.23767	-0.24101	-0.23726	-0.22144	567
-0.19606	-0.15882	-0.11477	-0.06627	-0.01688	0.02837	0.06949	0.10287	568
0.13049	0.15237	0.16940	0.18361	0.19390	0.20126	0.20449	0.20266	569
0.19636	0.18455	0.16917	0.15088	0.13079	0.11083	0.09051	0.07088	570
0.05134	0.03141	0.01188	-0.00781	-0.02590	-0.04152	-0.05402	-0.06156	571
-0.06572	-0.06574	-0.06417	-0.06244	-0.06166	-0.06423	-0.06878	-0.07632	572
-0.08435	-0.09144	-0.09613	-0.09584	-0.09109	-0.08031	-0.06508	-0.04582	573
-0.02373	-0.00039	0.02372	0.04734	0.06973	0.09039	0.10737	0.12007	574
0.12588	0.12307	0.11051	0.08574	0.05094	0.00500	-0.04699	-0.10285	575
-0.15761	-0.20607	-0.24670	-0.27435	-0.29150	-0.29653	-0.29301	-0.28339	576
-0.26923	-0.25414	-0.23738	-0.22049	-0.20289	-0.18376	-0.16455	-0.14451	577

-0.12595	-0.11005	-0.09728	-0.08969	-0.08485	-0.08309	-0.08100	-0.07616	578
-0.06708	-0.05035	-0.02752	0.00302	0.03808	0.07625	0.11513	0.15157	579
0.18520	0.21358	0.23750	0.25659	0.27110	0.28196	0.28806	0.28980	580
0.28613	0.27615	0.26072	0.23889	0.21372	0.18614	0.15934	0.13637	581
0.11822	0.10902	0.10434	0.10817	0.11738	0.13061	0.14648	0.16289	582
0.17911	0.19379	0.20583	0.21451	0.21831	0.21625	0.20756	0.19085	583
0.16730	0.13627	0.10078	0.06206	0.02344	-0.01199	-0.04232	-0.06425	584
-0.07771	-0.08086	-0.07481	-0.05952	-0.03695	-0.00810	0.02388	0.05718	585
0.08794	0.11308	0.13010	0.13514	0.12912	0.10968	0.08065	0.04319	586
0.00130	-0.04096	-0.08145	-0.11609	-0.14411	-0.16331	-0.17292	-0.17213	587
-0.16035	-0.13679	-0.10281	-0.05789	-0.00623	0.05082	0.10769	0.16035	588
0.20475	0.23553	0.25229	0.25109	0.23506	0.20382	0.16182	0.11225	589
0.05837	0.00480	-0.04746	-0.09498	-0.13818	-0.17595	-0.20866	-0.23672	590
-0.25997	-0.27883	-0.29335	-0.30351	-0.31008	-0.31315	-0.31392	-0.31308	591
-0.31154	-0.31027	-0.30961	-0.31027	-0.31223	-0.31571	-0.32034	-0.32605	592
-0.33228	-0.33852	-0.34464	-0.34980	-0.35482	-0.35932	-0.36428	-0.37042	593
-0.37723	-0.38574	-0.39344	-0.39981	-0.40216	-0.39783	-0.38651	-0.36529	594
-0.33663	-0.30007	-0.25822	-0.21341	-0.16588	-0.11817	-0.06837	-0.01669	595
0.03829	0.09845	0.16257	0.23203	0.30341	0.37558	0.44496	0.50832	596
0.56337	0.60667	0.63744	0.65338	0.65506	0.64165	0.61511	0.57597	597
0.52721	0.47089	0.40973	0.34683	0.28338	0.22222	0.16296	0.10684	598
0.05320	0.00164	-0.04750	-0.09485	-0.13927	-0.18038	-0.21750	-0.24943	599
-0.27667	-0.29850	-0.31590	-0.32927	-0.33889	-0.34561	-0.34890	-0.34882	600
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-0.06354	-0.03199	0.00491	0.04618	0.08991	0.13486	0.17819	0.21813	605
0.25172	0.27619	0.29052	0.29181	0.28213	0.26059	0.23100	0.19561	606
0.15727	0.11987	0.08412	0.05292	0.02595	0.00398	-0.01289	-0.02488	607
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0.02531	0.02550	0.02058	0.00976	-0.00591	-0.02602	-0.04905	-0.07391	609
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-0.01840	0.00699	0.03561	0.06605	0.09755	0.12893	0.15945	0.18843	616
0.21487	0.23810	0.25751	0.27223	0.28278	0.28864	0.29143	0.29178	617
0.29116	0.29129	0.29247	0.29628	0.30220	0.31059	0.32123	0.33351	618
0.34808	0.36471	0.38362	0.40562	0.42881	0.45358	0.47682	0.49659	619
0.51203	0.51973	0.52295	0.52072	0.51692	0.51509	0.51405	0.51808	620
0.52052	0.52028	0.51215	0.48943	0.45483	0.40323	0.34313	0.27737	621
0.21210	0.15571	0.10769	0.07397	0.05068	0.03747	0.03192	0.03062	622
0.03303	0.03691	0.04128	0.04534	0.04737	0.04616	0.04109	0.03065	623
0.01598	-0.00314	-0.02529	-0.04915	-0.07425	-0.09920	-0.12396	-0.14799	624
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0.09826	0.08632	0.06551	0.03595	-0.00055	-0.04301	-0.08877	-0.13584	634
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0.13806	0.18361	0.22392	0.25694	0.28406	0.30544	0.32196	0.33510	645
0.34437	0.35086	0.35355	0.35217	0.34661	0.33596	0.32175	0.30373	646
0.28438	0.26538	0.24827	0.23536	0.22659	0.22369	0.22449	0.22867	647
0.23451	0.24026	0.24540	0.24830	0.24905	0.24703	0.24272	0.23638	648
0.22868	0.22025	0.21106	0.20169	0.19210	0.18276	0.17325	0.16343	649
0.15331	0.14268	0.13187	0.12069	0.10976	0.09983	0.09078	0.08307	650



0.07536	0.06741	0.05743	0.04434	0.02813	0.00734	-0.01648	-0.04340	651
-0.07153	-0.09939	-0.12622	-0.14986	-0.17078	-0.18801	-0.20262	-0.21513	652
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0.10497	0.12968	0.15220	0.17360	0.19332	0.21237	0.22896	0.24266	655
0.25211	0.25552	0.25348	0.24459	0.23086	0.21307	0.19230	0.17064	656
0.14718	0.12307	0.09727	0.06897	0.03934	0.00739	-0.02339	-0.05182	657
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-0.05674	-0.06079	-0.06499	-0.06895	-0.07113	-0.07006	-0.06507	-0.05455	662
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0.20867	0.23983	0.26852	0.29430	0.31667	0.33539	0.34995	0.35999	664
0.36540	0.36575	0.36143	0.35241	0.33924	0.32241	0.30213	0.27909	665
0.25334	0.22522	0.19525	0.16358	0.13146	0.09947	0.06910	0.04163	666
0.01798	-0.00035	-0.01350	-0.02053	-0.02259	-0.01972	-0.01366	-0.00543	667
0.00321	0.01062	0.01572	0.01679	0.01403	0.00642	-0.00471	-0.01904	668
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-0.17501	-0.18010	-0.18335	-0.18391	-0.18039	-0.17097	-0.15589	-0.13370	671
-0.10614	-0.07337	-0.03736	0.00033	0.03855	0.07550	0.11098	0.14386	672
0.17458	0.20284	0.22928	0.25431	0.27819	0.30171	0.32384	0.34503	673
0.36303	0.37693	0.38476	0.38427	0.37554	0.35658	0.32960	0.29479	674
0.25465	0.21146	0.16653	0.12239	0.07926	0.03850	0.00032	-0.03494	675
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-0.19798	-0.20560	-0.21254	-0.21900	-0.22491	-0.23000	-0.23445	-0.23812	677
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-0.21077	-0.19325	-0.17197	-0.14640	-0.11868	-0.08995	-0.06153	-0.03550	681
-0.01135	0.00965	0.02906	0.04743	0.06573	0.08558	0.10657	0.12972	682
0.15379	0.17847	0.20263	0.22516	0.24541	0.26238	0.27566	0.28468	683
0.28932	0.28921	0.28495	0.27647	0.26497	0.25115	0.23599	0.22080	684
0.20576	0.19195	0.17902	0.16720	0.15649	0.14659	0.13812	0.13111	685
0.12614	0.12388	0.12394	0.12693	0.13153	0.13745	0.14336	0.14803	686
0.15098	0.15095	0.14821	0.14234	0.13366	0.12254	0.10880	0.09289	687
0.07441	0.05329	0.02972	0.00342	-0.02453	-0.05385	-0.08310	-0.11113	688
-0.13700	-0.15921	-0.17765	-0.19132	-0.20051	-0.20498	-0.20507	-0.20095	689
-0.19300	-0.18150	-0.16684	-0.14937	-0.12937	-0.10715	-0.08296	-0.05691	690
-0.02971	-0.00144	0.02658	0.05372	0.07889	0.10076	0.11950	0.13403	691
0.14554	0.15429	0.16104	0.16706	0.17158	0.17540	0.17696	0.17554	692
0.17049	0.16034	0.14604	0.12708	0.10499	0.08079	0.05535	0.03023	693
0.00567	-0.01740	-0.03857	-0.05753	-0.07349	-0.08598	-0.09455	-0.09838	694
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-0.03130	-0.02884	-0.02835	-0.02942	-0.03150	-0.03394	-0.03614	-0.03748	696
-0.03743	-0.03528	-0.03122	-0.02455	-0.01664	-0.00758	0.00087	0.00736	697
0.01121	0.01069	0.00681	-0.00097	-0.01105	-0.02225	-0.03381	-0.04401	698
-0.05303	-0.06007	-0.06518	-0.06843	-0.06935	-0.06781	-0.06363	-0.05617	699
-0.04629	-0.03374	-0.01977	-0.00523	0.00969	0.02376	0.03806	0.05245	700
0.06777	0.08512	0.10356	0.12399	0.14376	0.16207	0.17638	0.18423	701
0.18500	0.17624	0.15973	0.13486	0.10462	0.07074	0.03558	0.00220	702
-0.02893	-0.05529	-0.07801	-0.09647	-0.11195	-0.12547	-0.13731	-0.14873	703
-0.15905	-0.16851	-0.17644	-0.18211	-0.18567	-0.18637	-0.18504	-0.18170	704
-0.17703	-0.17172	-0.16587	-0.16004	-0.15408	-0.14802	-0.14207	-0.13602	705
-0.13060	-0.12597	-0.12291	-0.12204	-0.12362	-0.12829	-0.13566	-0.14590	706
-0.15838	-0.17268	-0.18821	-0.20435	-0.22048	-0.23596	-0.25011	-0.26220	707
-0.27179	-0.27805	-0.28104	-0.28020	-0.27599	-0.26840	-0.25774	-0.24439	708
-0.22830	-0.20971	-0.18858	-0.16483	-0.13894	-0.11086	-0.08158	-0.05156	709
-0.02196	0.00629	0.03212	0.05448	0.07248	0.08516	0.09207	0.09244	710
0.08668	0.07447	0.05721	0.03545	0.01116	-0.01412	-0.03849	-0.05989	711
-0.07695	-0.08771	-0.09157	-0.08713	-0.07472	-0.05373	-0.02549	0.00968	712
0.04964	0.09307	0.13765	0.18132	0.22225	0.25818	0.28831	0.31092	713
0.32618	0.33339	0.33335	0.32641	0.31353	0.29566	0.27398	0.24955	714
0.22396	0.19837	0.17460	0.15424	0.13808	0.12800	0.12259	0.12271	715
0.12525	0.12885	0.13085	0.12819	0.12066	0.10571	0.08539	0.05960	716
0.03079	0.00108	-0.02809	-0.05419	-0.07671	-0.09406	-0.10598	-0.11178	717
-0.11121	-0.10400	-0.09021	-0.06972	-0.04333	-0.01125	0.02480	0.06406	718
0.10388	0.14271	0.17754	0.20591	0.22581	0.23438	0.23200	0.21678	719
0.19151	0.15664	0.11570	0.07155	0.02643	-0.01598	-0.05557	-0.08986	720
-0.12003	-0.14574	-0.16769	-0.18702	-0.20273	-0.21561	-0.22346	-0.22538	721
-0.21987	-0.20469	-0.18078	-0.14651	-0.10519	-0.05760	-0.00745	0.04208	722
0.08905	0.12987	0.16487	0.19214	0.21326	0.22851	0.23936	0.24735	723

0.25297	0.25781	0.26103	0.26341	0.26301	0.25914	0.25030	0.23462	724
0.21268	0.18289	0.14821	0.10925	0.06931	0.03141	-0.00300	-0.03052	725
-0.05182	-0.06537	-0.07239	-0.07350	-0.06913	-0.06048	-0.04750	-0.03061	726
-0.01048	0.01295	0.03792	0.06385	0.08886	0.11134	0.13064	0.14508	727
0.15548	0.16132	0.16397	0.16433	0.16320	0.16198	0.16073	0.16030	728
0.16031	0.16093	0.16147	0.16168	0.16038	0.15697	0.15001	0.13834	729
0.12121	0.09721	0.06723	0.03066	-0.01020	-0.05426	-0.09907	-0.14222	730
-0.18201	-0.21597	-0.24331	-0.26230	-0.27290	-0.27421	-0.26724	-0.25187	731
-0.23036	-0.20374	-0.17471	-0.14553	-0.11786	-0.09429	-0.07487	-0.06109	732
-0.05210	-0.04784	-0.04743	-0.04996	-0.05455	-0.06023	-0.06594	-0.07064	733
-0.07349	-0.07329	-0.07012	-0.06310	-0.05320	-0.04050	-0.02607	-0.01085	734
0.00459	0.01927	0.03301	0.04530	0.05594	0.06478	0.07153	0.07602	735
0.07818	0.07784	0.07523	0.07045	0.06383	0.05577	0.04654	0.03656	736
0.02625	0.01590	0.00641	-0.00182	-0.00765	-0.01017	-0.00894	-0.00278	737
0.00719	0.02150	0.03769	0.05474	0.07026	0.08190	0.08879	0.08866	738
0.08245	0.06941	0.05134	0.02926	0.00473	-0.02038	-0.04524	-0.06819	739
-0.08912	-0.10705	-0.12254	-0.13537	-0.14642	-0.15623	-0.16539	-0.17486	740
-0.18443	-0.19468	-0.20480	-0.21440	-0.22307	-0.22991	-0.23533	-0.23879	741
-0.24096	-0.24213	-0.24240	-0.24232	-0.24133	-0.23944	-0.23603	-0.23052	742
-0.22269	-0.21191	-0.19843	-0.18193	-0.16307	-0.14197	-0.11967	-0.09670	743
-0.07421	-0.05316	-0.03416	-0.01826	-0.00528	0.00431	0.01103	0.01520	744
0.01710	0.01724	0.01555	0.01242	0.00799	0.00225	-0.00449	-0.01205	745
-0.02036	-0.02905	-0.03851	-0.04862	-0.05968	-0.07200	-0.08507	-0.09910	746
-0.11280	-0.12556	-0.13621	-0.14340	-0.14684	-0.14528	-0.13937	-0.12872	747
-0.11449	-0.09729	-0.07817	-0.05819	-0.03822	-0.01926	-0.00212	0.01237	748
0.02360	0.03083	0.03396	0.03250	0.02699	0.01752	0.00508	-0.00961	749
-0.02537	-0.04112	-0.05548	-0.06727	-0.07502	-0.07732	-0.07343	-0.06179	750
-0.04347	-0.01760	0.01297	0.04724	0.08229	0.11528	0.14504	0.16867	751
0.18684	0.19847	0.20447	0.20565	0.20216	0.19504	0.18432	0.17027	752
0.15404	0.13575	0.11754	0.10059	0.08644	0.07718	0.07231	0.07335	753
0.07793	0.08564	0.09375	0.10002	0.10292	0.09976	0.09080	0.07446	754
0.05229	0.02460	-0.00693	-0.04059	-0.07542	-0.10955	-0.14266	-0.17368	755
-0.20213	-0.22762	-0.24908	-0.26596	-0.27716	-0.28156	-0.27915	-0.26883	756
-0.25199	-0.22857	-0.20060	-0.16941	-0.13666	-0.10429	-0.07316	-0.04489	757
-0.01975	0.00149	0.01862	0.03148	0.03979	0.04348	0.04256	0.03686	758
0.02717	0.01356	-0.00245	-0.02003	-0.03768	-0.05383	-0.06777	-0.07793	759
-0.08457	-0.08689	-0.08571	-0.08119	-0.07411	-0.06520	-0.05484	-0.04376	760
-0.03190	-0.01961	-0.00667	0.00703	0.02142	0.03683	0.05258	0.06870	761
0.08414	0.09830	0.11048	0.11967	0.12596	0.12866	0.12819	0.12470	762
0.11820	0.10919	0.09710	0.08210	0.06359	0.04118	0.01520	-0.01481	763
-0.04706	-0.08121	-0.11437	-0.14477	-0.16980	-0.18653	-0.19427	-0.19024	764
-0.17643	-0.15205	-0.12045	-0.08353	-0.04382	-0.00466	0.03354	0.06827	765
0.10040	0.12951	0.15618	0.18128	0.20435	0.22606	0.24542	0.26216	766
0.27540	0.28433	0.28840	0.28680	0.27944	0.26572	0.24624	0.22096	767
0.19115	0.15752	0.12158	0.08477	0.04810	0.01314	-0.01961	-0.04910	768
-0.07495	-0.09660	-0.11388	-0.12631	-0.13442	-0.13795	-0.13830	-0.13591	769
-0.13227	-0.12865	-0.12561	-0.12451	-0.12467	-0.12654	-0.12894	-0.13113	770
-0.13240	-0.13151	-0.12865	-0.12302	-0.11553	-0.10627	-0.09635	-0.08661	771
-0.07788	-0.07121	-0.06708	-0.06621	-0.06887	-0.07541	-0.08572	-0.09991	772
-0.11697	-0.13670	-0.15682	-0.17625	-0.19217	-0.20225	-0.20476	-0.19682	773
-0.17917	-0.15004	-0.11235	-0.06676	-0.01685	0.03455	0.08478	0.13037	774
0.17010	0.20137	0.22416	0.23729	0.24175	0.23762	0.22671	0.21020	775
0.19017	0.16858	0.14714	0.12803	0.11203	0.10088	0.09455	0.09385	776
0.09817	0.10754	0.12084	0.13746	0.15591	0.17503	0.19349	0.20975	777
0.22320	0.23256	0.23784	0.23857	0.23471	0.22650	0.21359	0.19612	778
0.17416	0.14748	0.11746	0.08427	0.05037	0.01721	-0.01312	-0.03813	779
-0.05748	-0.06911	-0.07437	-0.07290	-0.06671	-0.05703	-0.04570	-0.03458	780
-0.02494	-0.01853	-0.01569	-0.01769	-0.02345	-0.03329	-0.04502	-0.05747	781
-0.06875	-0.07652	-0.08063	-0.07906	-0.07346	-0.06357	-0.05149	-0.03874	782
-0.02654	-0.01688	-0.00981	-0.00650	-0.00632	-0.00932	-0.01464	-0.02161	783
-0.02932	-0.03679	-0.04330	-0.04780	-0.05010	-0.04940	-0.04615	-0.04012	784
-0.03210	-0.02248	-0.01199	-0.00134	0.00899	0.01833	0.02653	0.03313	785
0.03828	0.04188	0.04423	0.04557	0.04613	0.04632	0.04610	0.04581	786
0.04522	0.04439	0.04316	0.04140	0.03924	0.03657	0.03384	0.03120	787
0.02910	0.02802	0.02790	0.02926	0.03131	0.03407	0.03647	0.03778	788
0.03733	0.03410	0.02815	0.01887	0.00681	-0.00789	-0.02467	-0.04288	789
-0.06205	-0.08150	-0.10053	-0.11853	-0.13439	-0.14732	-0.15608	-0.15950	790
-0.15697	-0.14716	-0.13066	-0.10682	-0.07728	-0.04262	-0.00476	0.03466	791
0.07404	0.11151	0.14573	0.17525	0.19863	0.21466	0.22233	0.22026	792
0.20899	0.18759	0.15846	0.12226	0.08194	0.04005	-0.00158	-0.03991	793
-0.07457	-0.10373	-0.12743	-0.14527	-0.15704	-0.16270	-0.16241	-0.15591	794
-0.14439	-0.12803	-0.10850	-0.08698	-0.06448	-0.04254	-0.02127	-0.00149	795
0.01682	0.03367	0.04872	0.06203	0.07328	0.08224	0.08903	0.09348	796

0.09599	0.09676	0.09601	0.09410	0.09091	0.08669	0.08088	0.07352	797
0.06365	0.05089	0.03442	0.01334	-0.01203	-0.04251	-0.07629	-0.11293	798
-0.15021	-0.18612	-0.21945	-0.24785	-0.27113	-0.28803	-0.29817	-0.30138	799
-0.29666	-0.28359	-0.26189	-0.23055	-0.19131	-0.14389	-0.09175	-0.03661	800
0.01811	0.06914	0.11435	0.15056	0.17716	0.19215	0.19642	0.18938	801
0.17351	0.14976	0.12147	0.09131	0.06187	0.03666	0.01632	0.00350	802
-0.00281	-0.00200	0.00460	0.01598	0.03115	0.04882	0.06791	0.08750	803
0.10594	0.12229	0.13485	0.14217	0.14380	0.13821	0.12700	0.10978	804
0.08957	0.06797	0.04775	0.03198	0.02143	0.01898	0.02293	0.03416	805
0.04975	0.06808	0.08694	0.10343	0.11698	0.12540	0.12910	0.12755	806
0.12119	0.11053	0.09585	0.07770	0.05670	0.03327	0.00864	-0.01641	807
-0.04065	-0.06274	-0.08217	-0.09766	-0.10938	-0.11687	-0.12032	-0.11996	808
-0.11576	-0.10796	-0.09693	-0.08256	-0.06641	-0.04872	-0.03191	-0.01743	809
-0.00693	-0.00276	-0.00435	-0.01328	-0.02714	-0.04525	-0.06544	-0.08515	810
-0.10402	-0.11980	-0.13328	-0.14406	-0.15237	-0.15894	-0.16274	-0.16389	811
-0.16129	-0.15382	-0.14183	-0.12416	-0.10257	-0.07731	-0.05009	-0.02248	812
0.00475	0.03004	0.05328	0.07376	0.09130	0.10578	0.11684	0.12434	813
0.12810	0.12788	0.12402	0.11647	0.10582	0.09250	0.07706	0.06010	814
0.04215	0.02380	0.00560	-0.01185	-0.02817	-0.04269	-0.05542	-0.06586	815
-0.07436	-0.08083	-0.08554	-0.08877	-0.09038	-0.09054	-0.08889	-0.08518	816
-0.07934	-0.07091	-0.06027	-0.04729	-0.03243	-0.01601	0.00173	0.02041	817
0.03975	0.05962	0.07924	0.09840	0.11608	0.13149	0.14422	0.15325	818
0.15908	0.16137	0.16075	0.15789	0.15246	0.14517	0.13505	0.12186	819
0.10526	0.08439	0.06037	0.03300	0.00429	-0.02455	-0.05191	-0.07580	820
-0.09567	-0.10990	-0.11898	-0.12222	-0.12089	-0.11531	-0.10733	-0.09812	821
-0.08943	-0.08308	-0.07972	-0.08102	-0.08630	-0.09607	-0.10899	-0.12427	822
-0.14065	-0.15675	-0.17143	-0.18343	-0.19155	-0.19457	-0.19173	-0.18171	823
-0.16511	-0.14111	-0.11179	-0.07772	-0.04142	-0.00491	0.03014	0.06134	824
0.08820	0.10921	0.12451	0.13373	0.13711	0.13491	0.12764	0.11565	825
0.10011	0.08159	0.06188	0.04219	0.02435	0.01019	0.00076	-0.00205	826
0.00155	0.01266	0.03002	0.05345	0.08125	0.11216	0.14444	0.17640	827
0.20635	0.23257	0.25372	0.26814	0.27529	0.27393	0.26449	0.24657	828
0.22142	0.18967	0.15261	0.11157	0.06780	0.02274	-0.02248	-0.06648	829
-0.10841	-0.14699	-0.18177	-0.21172	-0.23663	-0.25600	-0.26932	-0.27635	830
-0.27641	-0.26895	-0.25423	-0.23141	-0.20257	-0.16788	-0.13044	-0.09225	831
-0.05543	-0.02306	0.00514	0.02716	0.04478	0.05836	0.06915	0.07902	832
0.08773	0.09665	0.10481	0.11216	0.11829	0.12239	0.12478	0.12513	833
0.12393	0.12149	0.11818	0.11447	0.11065	0.10712	0.10391	0.10147	834
0.09883	0.09624	0.09188	0.08495	0.07419	0.05788	0.03684	0.00986	835
-0.02020	-0.05243	-0.08401	-0.11201	-0.13575	-0.15236	-0.16339	-0.16806	836
-0.16856	-0.16624	-0.16254	-0.15947	-0.15744	-0.15787	-0.16059	-0.16615	837
-0.17401	-0.18401	-0.19522	-0.20692	-0.21836	-0.22836	-0.23693	-0.24316	838
-0.24742	-0.24967	-0.24965	-0.24770	-0.24282	-0.23465	-0.22258	-0.20551	839
-0.18433	-0.15837	-0.12977	-0.09935	-0.06895	-0.04059	-0.01469	0.00705	840
0.02527	0.03961	0.05072	0.05925	0.06533	0.06965	0.07214	0.07307	841
0.07261	0.07084	0.06822	0.06500	0.06167	0.05870	0.05634	0.05510	842
0.05491	0.05608	0.05819	0.06126	0.06451	0.06759	0.06968	0.07007	843
0.06836	0.06380	0.05670	0.04676	0.03492	0.02159	0.00789	-0.00512	844
-0.01668	-0.02561	-0.03174	-0.03423	-0.03342	-0.02907	-0.02186	-0.01208	845
-0.00059	0.01195	0.02464	0.03668	0.04717	0.05523	0.06021	0.06132	846
0.05842	0.05097	0.03949	0.02397	0.00546	-0.01540	-0.03740	-0.05935	847
-0.08030	-0.09891	-0.11450	-0.12604	-0.13296	-0.13455	-0.13048	-0.12024	848
-0.10397	-0.08139	-0.05353	-0.02059	0.01572	0.05440	0.09377	0.13223	849
0.16858	0.20132	0.22982	0.25304	0.27095	0.28299	0.29004	0.29204	850
0.29081	0.28723	0.28308	0.28034	0.27933	0.28203	0.28692	0.29445	851
0.30268	0.31001	0.31605	0.31874	0.31945	0.31767	0.31457	0.31154	852
0.30742	0.30343	0.29656	0.28589	0.26904	0.24326	0.20903	0.16427	853
0.11221	0.05346	-0.00781	-0.06837	-0.12490	-0.17323	-0.21185	-0.23734	854
-0.25034	-0.24916	-0.23650	-0.21289	-0.18214	-0.14693	-0.11033	-0.07617	855
-0.04547	-0.02123	-0.00268	0.00930	0.01594	0.01819	0.01680	0.01317	856
0.00781	0.00166	-0.00453	-0.01006	-0.01415	-0.01593	-0.01526	-0.01134	857
-0.00482	0.00439	0.01543	0.02766	0.04046	0.05310	0.06506	0.07588	858
0.08498	0.09192	0.09651	0.09820	0.09788	0.09541	0.09255	0.09031	859
0.09003	0.09356	0.10080	0.11310	0.12939	0.14954	0.17264	0.19761	860
0.22395	0.25082	0.27703	0.30217	0.32381	0.34082	0.35102	0.35203	861
0.34391	0.32454	0.29664	0.26035	0.21897	0.17530	0.13092	0.08922	862
0.04970	0.01408	-0.01863	-0.04876	-0.07635	-0.10232	-0.12585	-0.14702	863
-0.16522	-0.17974	-0.19081	-0.19781	-0.20170	-0.20259	-0.20163	-0.19956	864
-0.19723	-0.19566	-0.19502	-0.19613	-0.19845	-0.20211	-0.20636	-0.21056	865
-0.21455	-0.21745	-0.21994	-0.22176	-0.22380	-0.22671	-0.23044	-0.23586	866
-0.24179	-0.24811	-0.25365	-0.25712	-0.25846	-0.25642	-0.25190	-0.24475	867
-0.23594	-0.22632	-0.21632	-0.20681	-0.19800	-0.19028	-0.18410	-0.17966	868
-0.17740	-0.17770	-0.18059	-0.18640	-0.19464	-0.20516	-0.21701	-0.22965	869

-0.24157	-0.25175	-0.25844	-0.26010	-0.25541	-0.24247	-0.22163	-0.19152	870
-0.15438	-0.11051	-0.06272	-0.01317	0.03633	0.08307	0.12660	0.16511	871
0.19883	0.22726	0.25052	0.26886	0.28221	0.29090	0.29482	0.29419	872
0.28894	0.27913	0.26509	0.24677	0.22540	0.20136	0.17636	0.15166	873
0.12829	0.10804	0.09043	0.07652	0.06489	0.05507	0.04612	0.03669	874
0.02697	0.01609	0.00484	-0.00653	-0.01748	-0.02719	-0.03555	-0.04192	875
-0.04635	-0.04858	-0.04862	-0.04641	-0.04197	-0.03530	-0.02651	-0.01565	876
-0.00306	0.01119	0.02618	0.04167	0.05598	0.06831	0.07680	0.07986	877
0.07678	0.06576	0.04807	0.02307	-0.00670	-0.03986	-0.07428	-0.10725	878
-0.13811	-0.16451	-0.18664	-0.20367	-0.21526	-0.22151	-0.22122	-0.21407	879
-0.19929	-0.17567	-0.14477	-0.10576	-0.06247	-0.01631	0.02886	0.06939	880
0.10370	0.12809	0.14375	0.14921	0.14702	0.13845	0.12570	0.11136	881
0.09682	0.08438	0.07473	0.06941	0.06840	0.07249	0.08078	0.09323	882
0.10825	0.12482	0.14143	0.15649	0.16912	0.17789	0.18251	0.18227	883
0.17715	0.16693	0.15204	0.13254	0.10948	0.08336	0.05557	0.02729	884
-0.00047	-0.02625	-0.04967	-0.06969	-0.08625	-0.09895	-0.10774	-0.11248	885
-0.11347	-0.11052	-0.10469	-0.09614	-0.08642	-0.07650	-0.06752	-0.06098	886
-0.05692	-0.05637	-0.05856	-0.06337	-0.07009	-0.07777	-0.08621	-0.09459	887
-0.10259	-0.10993	-0.11552	-0.11904	-0.11915	-0.11473	-0.10580	-0.09092	888
-0.07219	-0.04952	-0.02577	-0.00291	0.01755	0.03287	0.04387	0.04919	889
0.05087	0.04983	0.04772	0.04661	0.04727	0.05140	0.05929	0.07180	890
0.08874	0.11052	0.13578	0.16439	0.19361	0.22207	0.24693	0.26551	891
0.27661	0.27744	0.26908	0.25045	0.22374	0.19010	0.15146	0.11016	892
0.06730	0.02495	-0.01606	-0.05445	-0.08925	-0.11953	-0.14439	-0.16288	893
-0.17479	-0.17925	-0.17711	-0.16815	-0.15394	-0.13525	-0.11387	-0.09124	894
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-0.02836	-0.04124	-0.05547	-0.06972	-0.08323	-0.09475	-0.10409	-0.11048	896
-0.11435	-0.11539	-0.11473	-0.11276	-0.11075	-0.10979	-0.11037	-0.11376	897
-0.11909	-0.12686	-0.13536	-0.14368	-0.15078	-0.15485	-0.15631	-0.15400	898
-0.14894	-0.14146	-0.13186	-0.12111	-0.10853	-0.09436	-0.07829	-0.05958	899
-0.03934	-0.01719	0.00499	0.02619	0.04541	0.06091	0.07331	0.08176	900
0.08753	0.09131	0.09373	0.09611	0.09823	0.10080	0.10355	0.10640	901
0.10955	0.11285	0.11658	0.12095	0.12585	0.13151	0.13738	0.14334	902
0.14870	0.15297	0.15548	0.15570	0.15288	0.14650	0.13614	0.12116	903
0.10225	0.07901	0.05366	0.02690	0.00146	-0.02043	-0.03733	-0.04648	904
-0.04879	-0.04279	-0.03114	-0.01470	0.00362	0.02127	0.03621	0.04565	905
0.04882	0.04377	0.03116	0.01026	-0.01677	-0.04916	-0.08388	-0.11859	906
-0.15085	-0.17744	-0.19760	-0.20881	-0.21180	-0.20574	-0.19199	-0.17131	907
-0.14526	-0.11513	-0.08320	-0.05107	-0.02149	0.00329	0.02143	0.03024	908
0.03018	0.01959	0.00088	-0.02528	-0.05624	-0.08941	-0.12310	-0.15455	909
-0.18273	-0.20591	-0.22299	-0.23291	-0.23492	-0.22794	-0.21235	-0.18745	910
-0.15500	-0.11551	-0.07133	-0.02423	0.02348	0.06957	0.11181	0.14807	911
0.17638	0.19464	0.20222	0.19728	0.18157	0.15459	0.11983	0.07928	912
0.03613	-0.00595	-0.04546	-0.07912	-0.10665	-0.12654	-0.13852	-0.14232	913
-0.13759	-0.12403	-0.10249	-0.07266	-0.03723	0.00291	0.04448	0.08480	914
0.12202	0.15296	0.17792	0.19513	0.20583	0.21038	0.20929	0.20380	915
0.19350	0.17898	0.15994	0.13611	0.10840	0.07662	0.04283	0.00794	916
-0.02589	-0.05667	-0.08328	-0.10356	-0.11789	-0.12505	-0.12664	-0.12293	917
-0.11586	-0.10697	-0.09760	-0.08960	-0.08349	-0.08047	-0.08063	-0.08429	918
-0.09142	-0.10193	-0.11518	-0.13100	-0.14748	-0.16388	-0.17750	-0.18630	919
-0.18857	-0.18150	-0.16590	-0.13987	-0.10655	-0.06654	-0.02328	0.02027	920
0.06239	0.09968	0.13258	0.15928	0.18119	0.19872	0.21251	0.22409	921
0.23257	0.23885	0.24133	0.23934	0.23217	0.21838	0.19903	0.17343	922
0.14387	0.11146	0.07823	0.04645	0.01706	-0.00786	-0.02819	-0.04290	923
-0.05205	-0.05540	-0.05312	-0.04521	-0.03227	-0.01448	0.00706	0.03174	924
0.05840	0.08602	0.11379	0.14064	0.16617	0.18962	0.21081	0.22933	925
0.24503	0.25780	0.26708	0.27290	0.27391	0.26976	0.25888	0.24005	926
0.21302	0.17624	0.13189	0.07976	0.02371	-0.03400	-0.09018	-0.14087	927
-0.18526	-0.22007	-0.24633	-0.26309	-0.27152	-0.27255	-0.26662	-0.25482	928
-0.23761	-0.21545	-0.18961	-0.16060	-0.13023	-0.09968	-0.07044	-0.04413	929
-0.02135	-0.00336	0.00976	0.01753	0.02004	0.01727	0.00959	-0.00278	930
-0.01895	-0.03838	-0.05973	-0.08197	-0.10356	-0.12315	-0.13916	-0.15004	931
-0.15463	-0.15132	-0.14009	-0.11968	-0.09190	-0.05669	-0.01721	0.02472	932
0.06629	0.10436	0.13781	0.16395	0.18318	0.19456	0.19911	0.19741	933
0.19045	0.17930	0.16529	0.14950	0.13374	0.11942	0.10807	0.10153	934
0.10007	0.10520	0.11574	0.13187	0.15179	0.17433	0.19761	0.21992	935
0.23971	0.25521	0.26559	0.26930	0.26664	0.25677	0.24088	0.21933	936
0.19323	0.16396	0.13173	0.09783	0.06209	0.02486	-0.01324	-0.05226	937
-0.09047	-0.12716	-0.16049	-0.18870	-0.21113	-0.22595	-0.23383	-0.23407	938
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-0.05528	-0.03134	-0.00889	0.01168	0.02989	0.04555	0.05784	0.06641	940
0.07054	0.06951	0.06353	0.05198	0.03626	0.01667	-0.00489	-0.02694	941
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-0.08733	-0.07827	-0.06827	-0.05805	-0.04835	-0.03998	-0.03313	-0.02850	943
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-0.02579	-0.02826	-0.03248	-0.03927	-0.04797	-0.05863	-0.07041	-0.08261	945
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-0.10530	-0.08358	-0.05636	-0.02321	0.01297	0.05072	0.08723	0.11975	951
0.14675	0.16557	0.17647	0.17793	0.17188	0.15863	0.14092	0.12078	952
0.10047	0.08302	0.06891	0.06065	0.05715	0.05900	0.06521	0.07467	953
0.08772	0.10336	0.12246	0.14536	0.17160	0.20204	0.23446	0.26834	954
0.30119	0.33084	0.35599	0.37433	0.38565	0.38881	0.38377	0.37034	955
0.34859	0.31848	0.28111	0.23670	0.18765	0.13522	0.08234	0.03152	956
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0.07990	0.10317	0.12667	0.15240	0.17877	0.20624	0.23289	0.25734	961
0.27883	0.29555	0.30788	0.31499	0.31760	0.31598	0.31073	0.30252	962
0.29191	0.27964	0.26610	0.25203	0.23765	0.22351	0.20964	0.19631	963
0.18370	0.17179	0.16124	0.15220	0.14521	0.14099	0.13903	0.13996	964
0.14235	0.14579	0.14916	0.15100	0.15195	0.15091	0.14963	0.14882	965
0.14894	0.15186	0.15540	0.16018	0.16290	0.16151	0.15464	0.13914	966
0.11682	0.08640	0.05132	0.01337	-0.02514	-0.06087	-0.09377	-0.12149	967
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-0.29381	-0.21351	-0.13081	-0.05077	0.02473	0.09143	0.14893	0.19550	971
0.23046	0.25354	0.26391	0.26105	0.24582	0.21759	0.17987	0.13368	972
0.08362	0.03324	-0.01429	-0.05439	-0.08651	-0.10750	-0.11859	-0.11921	973
-0.11093	-0.09496	-0.07265	-0.04559	-0.01516	0.01728	0.05017	0.08212	974
0.11189	0.13800	0.15998	0.17675	0.18846	0.19483	0.19591	0.19196	975
0.18271	0.16828	0.14861	0.12347	0.09371	0.05938	0.02187	-0.01791	976
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-0.22739	-0.22341	-0.21683	-0.20634	-0.19138	-0.17022	-0.14413	-0.11253	981
-0.07768	-0.04078	-0.00376	0.03124	0.06321	0.09026	0.11226	0.12822	982
0.13849	0.14300	0.14240	0.13722	0.12813	0.11595	0.10133	0.08509	983
0.06810	0.05112	0.03532	0.02164	0.01116	0.00509	0.00384	0.00856	984
0.01869	0.03470	0.05539	0.08020	0.10811	0.13785	0.16898	0.20042	985
0.23163	0.26227	0.29038	0.31566	0.33468	0.34569	0.34597	0.33218	986
0.30510	0.26206	0.20762	0.14264	0.07246	0.00175	-0.06660	-0.12720	987
-0.18000	-0.22212	-0.25431	-0.27645	-0.28889	-0.29226	-0.28736	-0.27448	988
-0.25589	-0.23244	-0.20688	-0.18155	-0.15754	-0.13748	-0.12039	-0.10715	989
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-0.05574	-0.05500	-0.05314	-0.04867	-0.04155	-0.03038	-0.01620	0.00105	991
0.02052	0.04126	0.06308	0.08521	0.10740	0.12953	0.15067	0.17062	992
0.18824	0.20267	0.21358	0.21998	0.22257	0.22119	0.21676	0.21015	993
0.20178	0.19259	0.18297	0.17332	0.16474	0.15759	0.15329	0.15298	994
0.15669	0.16593	0.17802	0.19304	0.20680	0.21672	0.21998	0.21252	995
0.19488	0.16434	0.12406	0.07467	0.01958	-0.03798	-0.09580	-0.15034	996
-0.20049	-0.24386	-0.27974	-0.30689	-0.32485	-0.33283	-0.33123	-0.31963	997
-0.29941	-0.27097	-0.23633	-0.19682	-0.15436	-0.11086	-0.06771	-0.02673	998
0.01144	0.04550	0.07539	0.10059	0.12122	0.13739	0.14909	0.15661	999
0.15998	0.15929	0.15522	0.14786	0.13863	0.12829	0.11819	0.10989	1000
0.10357	0.10064	0.10015	0.10226	0.10600	0.11037	0.11514	0.11941	1001
0.12312	0.12622	0.12783	0.12806	0.12556	0.11953	0.10989	0.09537	1002
0.07822	0.05845	0.03925	0.02296	0.01098	0.00652	0.00801	0.01688	1003
0.02995	0.04575	0.06173	0.07487	0.08421	0.08730	0.08436	0.07441	1004
0.05837	0.03642	0.01008	-0.01965	-0.05111	-0.08257	-0.11338	-0.14167	1005
-0.16829	-0.19251	-0.21558	-0.23838	-0.26107	-0.28494	-0.30893	-0.33310	1006
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-0.47401	-0.47794	-0.47629	-0.46699	-0.45080	-0.42604	-0.39531	-0.35929	1008
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0.03402	0.08926	0.14566	0.20222	0.25656	0.30650	0.35003	0.38490	1010
0.40947	0.42167	0.42111	0.40616	0.37849	0.33776	0.28736	0.22912	1011
0.16654	0.10316	0.04111	-0.01608	-0.06776	-0.11178	-0.14827	-0.17646	1012
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0.00709	-0.00062	-0.01554	-0.03773	-0.06399	-0.09215	-0.11959	-0.14306	1015

-0.16160	-0.17245	-0.17634	-0.17215	-0.16158	-0.14530	-0.12510	-0.10265	1016
-0.07917	-0.05640	-0.03491	-0.01580	0.00077	0.01429	0.02508	0.03300	1017
0.03891	0.04320	0.04656	0.05000	0.05304	0.05654	0.05888	0.05967	1018
0.05770	0.05138	0.04147	0.02680	0.00973	-0.00891	-0.02717	-0.04261	1019
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0.00873	0.03550	0.06302	0.08980	0.11458	0.13585	0.15295	0.16464	1022
0.17133	0.17226	0.16909	0.16232	0.15354	0.14466	0.13565	0.12844	1023
0.12156	0.11503	0.10842	0.10012	0.09238	0.08468	0.08016	0.08118	1024
0.08792	0.10366	0.12462	0.15120	0.17905	0.20436	0.22630	0.24068	1025
0.25039	0.25469	0.25673	0.25937	0.26306	0.27091	0.28099	0.29388	1026
0.30733	0.31963	0.32948	0.33479	0.33498	0.32874	0.31582	0.29560	1027
0.26844	0.23416	0.19421	0.14907	0.10113	0.05198	0.00398	-0.04040	1028
-0.07987	-0.11197	-0.13701	-0.15359	-0.16326	-0.16621	-0.16423	-0.15877	1029
-0.15078	-0.14206	-0.13227	-0.12237	-0.11162	-0.09965	-0.08652	-0.07130	1030
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-0.25685	-0.27136	-0.27929	-0.27942	-0.27037	-0.24976	-0.21926	-0.17744	1033
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0.17392	0.17437	0.16631	0.15083	0.12811	0.09853	0.06339	0.02302	1035
-0.02019	-0.06488	-0.10893	-0.15001	-0.18744	-0.21919	-0.24600	-0.26720	1036
-0.28393	-0.29684	-0.30684	-0.31500	-0.32209	-0.32893	-0.33641	-0.34516	1037
-0.35579	-0.36899	-0.38443	-0.40254	-0.42162	-0.44123	-0.45873	-0.47227	1038
-0.47973	-0.47835	-0.46774	-0.44562	-0.41352	-0.37096	-0.32015	-0.26256	1039
-0.19999	-0.13457	-0.06752	-0.00055	0.06517	0.12847	0.18814	0.24307	1040
0.29277	0.33612	0.37369	0.40511	0.43130	0.45291	0.47009	0.48383	1041
0.49333	0.49878	0.49944	0.49448	0.48428	0.46848	0.44862	0.42460	1042
0.39800	0.37040	0.34224	0.31519	0.28850	0.26268	0.23703	0.21088	1043
0.18459	0.15756	0.13088	0.10499	0.08090	0.05977	0.04214	0.02905	1044
0.02077	0.01796	0.02059	0.02909	0.04258	0.06111	0.08297	0.10732	1045
0.13225	0.15611	0.17775	0.19535	0.20888	0.21729	0.22119	0.22070	1046
0.21646	0.20925	0.19929	0.18744	0.17370	0.15843	0.14204	0.12452	1047
0.10707	0.09015	0.07490	0.06257	0.05304	0.04757	0.04448	0.04379	1048
0.04395	0.04332	0.04117	0.03570	0.02803	0.01783	0.00639	-0.00512	1049
-0.01680	-0.02743	-0.03779	-0.04772	-0.05744	-0.06754	-0.07721	-0.08644	1050
-0.09388	-0.09885	-0.10080	-0.09846	-0.09220	-0.08136	-0.06682	-0.04883	1051
-0.02829	-0.00596	0.01743	0.04105	0.06443	0.08690	0.10825	0.12805	1052
0.14614	0.16241	0.17647	0.18828	0.19733	0.20336	0.20617	0.20531	1053
0.20137	0.19415	0.18488	0.17419	0.16299	0.15262	0.14292	0.13493	1054
0.12761	0.12092	0.11411	0.10619	0.09753	0.08747	0.07707	0.06674	1055
0.05724	0.04968	0.04406	0.04124	0.04074	0.04269	0.04638	0.05153	1056
0.05742	0.06347	0.06920	0.07387	0.07775	0.08031	0.08242	0.08440	1057
0.08666	0.09019	0.09419	0.09917	0.10355	0.10660	0.10719	0.10386	1058
0.09659	0.08443	0.06805	0.04757	0.02398	-0.00198	-0.02881	-0.05548	1059
-0.07989	-0.10046	-0.11547	-0.12274	-0.12230	-0.11240	-0.09505	-0.07025	1060
-0.04081	-0.00868	0.02400	0.05451	0.08202	0.10444	0.12206	0.13407	1061
0.14140	0.14440	0.14413	0.14169	0.13766	0.13326	0.12816	0.12308	1062
0.11712	0.11003	0.10121	0.08980	0.07611	0.05959	0.04127	0.02148	1063
0.00131	-0.01816	-0.03635	-0.05212	-0.06546	-0.07572	-0.08325	-0.08798	1064
-0.09049	-0.09103	-0.09043	-0.08918	-0.08815	-0.08810	-0.08938	-0.09282	1065
-0.09776	-0.10447	-0.11147	-0.11798	-0.12266	-0.12393	-0.12153	-0.11408	1066
-0.10240	-0.08621	-0.06670	-0.04465	-0.02123	0.00247	0.02516	0.04578	1067
0.06309	0.07588	0.08378	0.08559	0.08239	0.07386	0.06196	0.04786	1068
0.03290	0.01912	0.00646	-0.00369	-0.01215	-0.01895	-0.02458	-0.02983	1069
-0.03460	-0.03934	-0.04399	-0.04843	-0.05311	-0.05792	-0.06345	-0.07006	1070
-0.07770	-0.08683	-0.09659	-0.10683	-0.11658	-0.12493	-0.13156	-0.13548	1071
-0.13710	-0.13604	-0.13304	-0.12855	-0.12312	-0.11726	-0.11167	-0.10683	1072
-0.10357	-0.10246	-0.10408	-0.10920	-0.11735	-0.12906	-0.14265	-0.15757	1073
-0.17193	-0.18396	-0.19280	-0.19649	-0.19555	-0.18909	-0.17837	-0.16382	1074
-0.14669	-0.12812	-0.10888	-0.09018	-0.07228	-0.05601	-0.04121	-0.02814	1075
-0.01677	-0.00679	0.00100	0.00684	0.00933	0.00776	0.00156	-0.01065	1076
-0.02763	-0.04989	-0.07534	-0.10261	-0.13077	-0.15761	-0.18389	-0.20858	1077
-0.23244	-0.25612	-0.27860	-0.30047	-0.31939	-0.33432	-0.34352	-0.34464	1078
-0.33804	-0.32196	-0.29856	-0.26797	-0.23288	-0.19521	-0.15682	-0.12029	1079
-0.08581	-0.05528	-0.02750	-0.00269	0.02053	0.04346	0.06635	0.09075	1080
0.11555	0.14113	0.16610	0.18941	0.21065	0.22847	0.24337	0.25497	1081
0.26361	0.26985	0.27327	0.27425	0.27217	0.26670	0.25800	0.24557	1082
0.23067	0.21355	0.19583	0.17882	0.16344	0.15130	0.14243	0.13784	1083
0.13698	0.14002	0.14613	0.15489	0.16528	0.17656	0.18768	0.19766	1084
0.20585	0.21124	0.21388	0.21319	0.20961	0.20327	0.19443	0.18360	1085
0.17074	0.15619	0.13988	0.12185	0.10226	0.08116	0.05879	0.03538	1086
0.01117	-0.01354	-0.03844	-0.06324	-0.08744	-0.11061	-0.13222	-0.15167	1087
-0.16862	-0.18253	-0.19332	-0.20068	-0.20466	-0.20512	-0.20243	-0.19651	1088

-0.18852	-0.17871	-0.16897	-0.16040	-0.15416	-0.15204	-0.15346	-0.15957	1089
-0.16840	-0.17931	-0.19059	-0.20010	-0.20788	-0.21211	-0.21412	-0.21384	1090
-0.21240	-0.21092	-0.20953	-0.20936	-0.20997	-0.21147	-0.21359	-0.21584	1091
-0.21854	-0.22135	-0.22465	-0.22859	-0.23292	-0.23796	-0.24264	-0.24664	1092
-0.24876	-0.24791	-0.24373	-0.23489	-0.22243	-0.20593	-0.18719	-0.16716	1093
-0.14718	-0.12899	-0.11264	-0.09937	-0.08831	-0.07947	-0.07180	-0.06436	1094
-0.05662	-0.04741	-0.03696	-0.02456	-0.01098	0.00368	0.01873	0.03342	1095
0.04777	0.06107	0.07388	0.08626	0.09832	0.11071	0.12240	0.13361	1096
0.14286	0.14916	0.15205	0.15013	0.14445	0.13464	0.12233	0.10867	1097
0.09467	0.08199	0.07086	0.06231	0.05639	0.05341	0.05342	0.05662	1098
0.06258	0.07143	0.08210	0.09416	0.10656	0.11820	0.12880	0.13744	1099
0.14439	0.14953	0.15290	0.15494	0.15507	0.15343	0.14950	0.14280	1100
0.13368	0.12177	0.10819	0.09338	0.07848	0.06466	0.05250	0.04317	1101
0.03659	0.03342	0.03316	0.03586	0.04070	0.04728	0.05467	0.06210	1102
0.06901	0.07452	0.07866	0.08097	0.08175	0.08118	0.07934	0.07663	1103
0.07298	0.06853	0.06345	0.05773	0.05180	0.04596	0.04026	0.03528	1104
0.03037	0.02563	0.02041	0.01406	0.00684	-0.00188	-0.01117	-0.02064	1105
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-0.19373	-0.19962	-0.20566	-0.21219	-0.21914	-0.22610	-0.23368	-0.24178	1108
-0.25057	-0.26065	-0.27072	-0.28086	-0.28898	-0.29369	-0.29390	-0.28743	1109
-0.27497	-0.25536	-0.23014	-0.19994	-0.16594	-0.12959	-0.09146	-0.05267	1110
-0.01386	0.02442	0.06102	0.09534	0.12617	0.15247	0.17368	0.18877	1111
0.19810	0.20123	0.19909	0.19216	0.18148	0.16803	0.15291	0.13727	1112
0.12205	0.10842	0.09696	0.08873	0.08368	0.08247	0.08459	0.09002	1113
0.09836	0.10912	0.12228	0.13746	0.15464	0.17388	0.19449	0.21651	1114
0.23849	0.25979	0.27907	0.29496	0.30706	0.31414	0.31670	0.31447	1115
0.30820	0.29855	0.28603	0.27159	0.25560	0.23888	0.22199	0.20315	1116
0.18336	0.16469	0.14847	0.13758	0.13100	0.12773	0.12736	0.12991	1117
0.13486	0.14194	0.15059	0.16030	0.17069	0.18121	0.19162	0.20159	1118
0.21076	0.21896	0.22543	0.22989	0.23144	0.22939	0.22326	0.21225	1119
0.19656	0.17582	0.15072	0.12156	0.08922	0.05443	0.01823	-0.01843	1120
-0.05436	-0.08841	-0.11956	-0.14647	-0.16880	-0.18543	-0.19673	-0.20230	1121
-0.20265	-0.19811	-0.18882	-0.17520	-0.15736	-0.13535	-0.10993	-0.08110	1122
-0.05054	-0.01893	0.01185	0.04025	0.06517	0.08486	0.09944	0.10793	1123
0.11124	0.10958	0.10390	0.09523	0.08423	0.07201	0.05896	0.04591	1124
0.03306	0.02093	0.00958	-0.00071	-0.00991	-0.01794	-0.02469	-0.03009	1125
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0.03869	0.04074	0.04216	0.04315	0.04415	0.04568	0.04786	0.05120	1128
0.05553	0.06101	0.06743	0.07470	0.08266	0.09119	0.09998	0.10896	1129
0.11755	0.12548	0.13223	0.13728	0.14054	0.14154	0.14063	0.13781	1130
0.13355	0.12827	0.12218	0.11585	0.10916	0.10241	0.09532	0.08785	1131
0.07973	0.07074	0.06082	0.04977	0.03771	0.02467	0.01066	-0.00412	1132
-0.01988	-0.03652	-0.05415	-0.07290	-0.09239	-0.11267	-0.13301	-0.15297	1133
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0.05798	0.06744	0.07597	0.08312	0.08838	0.09099	0.09131	0.08888	1141
0.08479	0.07941	0.07382	0.06916	0.06579	0.06489	0.06589	0.06922	1142
0.07387	0.07934	0.08491	0.08964	0.09336	0.09541	0.09593	0.09480	1143
0.09222	0.08838	0.08352	0.07792	0.07186	0.06569	0.05969	0.05427	1144
0.04942	0.04546	0.04210	0.03937	0.03714	0.03521	0.03364	0.03228	1145
0.03125	0.03065	0.03040	0.03069	0.03123	0.03204	0.03265	0.03285	1146
0.03220	0.03030	0.02702	0.02196	0.01547	0.00753	-0.00137	-0.01079	1147
-0.02036	-0.02953	-0.03795	-0.04514	-0.05063	-0.05396	-0.05477	-0.05250	1148
-0.04724	-0.03853	-0.02718	-0.01323	0.00223	0.01849	0.03477	0.05008	1149
0.06413	0.07624	0.08644	0.09451	0.10072	0.10517	0.10828	0.11043	1150
0.11205	0.11369	0.11563	0.11841	0.12206	0.12689	0.13264	0.13938	1151
0.14654	0.15392	0.16061	0.16613	0.16949	0.16979	0.16646	0.15868	1152
0.14677	0.13026	0.11025	0.08711	0.06206	0.03617	0.01053	-0.01344	1153
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-0.12222	-0.11863	-0.11479	-0.11139	-0.10901	-0.10883	-0.11031	-0.11385	1156
-0.11847	-0.12359	-0.12861	-0.13249	-0.13522	-0.13616	-0.13525	-0.13227	1157
-0.12709	-0.11961	-0.10991	-0.09779	-0.08389	-0.06823	-0.05175	-0.03503	1158
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0.05191	0.05289	0.05304	0.05269	0.05258	0.05352	0.05558	0.05959	1160
0.06489	0.07158	0.07897	0.08645	0.09395	0.10087	0.10752	0.11393	1161

0.12007	0.12631	0.13206	0.13734	0.14147	0.14397	0.14452	0.14255	1162
0.13817	0.13116	0.12183	0.11033	0.09706	0.08242	0.06681	0.05080	1163
0.03474	0.01916	0.00427	-0.00954	-0.02211	-0.03317	-0.04265	-0.05027	1164
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0.04216	0.05421	0.06531	0.07493	0.08316	0.08981	0.09498	0.09891	1173
0.10132	0.10242	0.10185	0.09942	0.09540	0.08948	0.08284	0.07575	1174
0.06967	0.06577	0.06463	0.06772	0.07416	0.08460	0.09721	0.11123	1175
0.12512	0.13712	0.14693	0.15308	0.15619	0.15599	0.15312	0.14829	1176
0.14155	0.13364	0.12434	0.11381	0.10229	0.08968	0.07676	0.06386	1177
0.05163	0.04090	0.03157	0.02434	0.01842	0.01380	0.00964	0.00527	1178
0.00029	-0.00607	-0.01363	-0.02275	-0.03283	-0.04365	-0.05450	-0.06469	1179
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0.03087	0.03573	0.03717	0.03471	0.02917	0.02093	0.01080	-0.00029	1182
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0.08655	0.10134	0.11351	0.12249	0.12840	0.13113	0.13101	0.12827	1185
0.12348	0.11707	0.10968	0.10196	0.09429	0.08740	0.08120	0.07616	1186
0.07181	0.06814	0.06466	0.06097	0.05686	0.05191	0.04626	0.03978	1187
0.03274	0.02537	0.01787	0.01062	0.00374	-0.00245	-0.00788	-0.01232	1188
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-0.06015	-0.06375	-0.06824	-0.07367	-0.07960	-0.08584	-0.09169	-0.09659	1193
-0.09988	-0.10077	-0.09905	-0.09398	-0.08600	-0.07478	-0.06139	-0.04614	1194
-0.03033	-0.01490	-0.00068	0.01113	0.02075	0.02742	0.03222	0.03545	1195
0.03812	0.04142	0.04549	0.05143	0.05857	0.06712	0.07632	0.08557	1196
0.09459	0.10271	0.10992	0.11602	0.12078	0.12427	0.12602	0.12586	1197
0.12369	0.11914	0.11272	0.10442	0.09502	0.08516	0.07526	0.06619	1198
0.05791	0.05094	0.04507	0.04035	0.03672	0.03407	0.03242	0.03179	1199
0.03199	0.03312	0.03475	0.03678	0.03886	0.04066	0.04216	0.04310	1200
0.04366	0.04390	0.04394	0.04403	0.04409	0.04429	0.04450	0.04471	1201
0.04490	0.04505	0.04518	0.04537	0.04554	0.04580	0.04602	0.04619	1202
0.04638	0.04654	0.04678	0.04727	0.04787	0.04881	0.04961	0.05021	1203
0.05018	0.04908	0.04702	0.04364	0.03943	0.03459	0.02933	0.02425	1204
0.01895	0.01372	0.00808	0.00170	-0.00528	-0.01326	-0.02151	-0.02980	1205
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0.05245	0.05008	0.04406	0.03489	0.02338	0.01014	-0.00377	-0.01742	1214
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0.01463	0.02177	0.02764	0.03193	0.03521	0.03793	0.04031	0.04297	1217
0.04599	0.04961	0.05428	0.06011	0.06776	0.07780	0.09020	0.10575	1218
0.12312	0.14236	0.16163	0.17969	0.19563	0.20769	0.21651	0.22127	1219
0.22331	0.22327	0.22208	0.22106	0.22036	0.22093	0.22235	0.22484	1220
0.22780	0.23096	0.23349	0.23489	0.23420	0.23060	0.22351	0.21199	1221
0.19644	0.17636	0.15304	0.12703	0.09969	0.07246	0.04595	0.02167	1222
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0.09806	0.11750	0.13310	0.14381	0.15000	0.15149	0.14887	0.14260	1225
0.13323	0.12146	0.10785	0.09304	0.07779	0.06268	0.04864	0.03644	1226
0.02661	0.02012	0.01649	0.01631	0.01825	0.02187	0.02597	0.02928	1227
0.03154	0.03164	0.03020	0.02707	0.02301	0.01871	0.01449	0.01116	1228
0.00877	0.00773	0.00812	0.01012	0.01377	0.01922	0.02618	0.03470	1229
0.04412	0.05417	0.06407	0.07326	0.08106	0.08681	0.09003	0.09016	1230
0.08713	0.08051	0.07095	0.05843	0.04425	0.02912	0.01425	0.00102	1231
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0.00431	0.00962	0.01425	0.01752	0.01972	0.02065	0.02069	0.02019	1234



0.01911	0.01791	0.01618	0.01401	0.01109	0.00715	0.00238	-0.00344	1235
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0.04354	0.04630	0.04741	0.04661	0.04422	0.04034	0.03534	0.02965	1249
0.02348	0.01731	0.01112	0.00518	-0.00041	-0.00556	-0.01004	-0.01365	1250
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0.03534	0.04124	0.04666	0.05147	0.05502	0.05688	0.05679	0.05416	1253
0.04940	0.04229	0.03368	0.02413	0.01408	0.00442	-0.00498	-0.01358	1254
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0.00360	0.01081	0.01757	0.02400	0.03007	0.03604	0.04165	0.04689	1258
0.05162	0.05570	0.05913	0.06190	0.06393	0.06529	0.06576	0.06535	1259
0.06386	0.06116	0.05732	0.05225	0.04615	0.03913	0.03145	0.02335	1260
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0.06815	0.06992	0.07050	0.07019	0.06909	0.06752	0.06524	0.06245	1264
0.05863	0.05363	0.04709	0.03853	0.02818	0.01570	0.00181	-0.01319	1265
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0.02135	0.02382	0.02520	0.02557	0.02468	0.02242	0.01896	0.01411	1272
0.00867	0.00289	-0.00231	-0.00604	-0.00802	-0.00727	-0.00433	0.00114	1273
0.00837	0.01689	0.02629	0.03590	0.04559	0.05503	0.06384	0.07197	1274
0.07866	0.08359	0.08625	0.08595	0.08298	0.07691	0.06860	0.05842	1275
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0.03529	0.03427	0.03205	0.02860	0.02386	0.01765	0.01041	0.00218	1286
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0.05261	0.05171	0.04870	0.04376	0.03747	0.03042	0.02302	0.01597	1292
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0.00635	0.00779	0.00980	0.01278	0.01647	0.02105	0.02610	0.03148	1295
0.03689	0.04200	0.04677	0.05094	0.05467	0.05794	0.06083	0.06354	1296
0.06587	0.06798	0.06940	0.07000	0.06936	0.06709	0.06318	0.05729	1297
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0.00573	0.00704	0.00790	0.00825	0.00806	0.00733	0.00607	0.00434	1305
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0.01298	0.02012	0.02673	0.03268	0.03782	0.04202	0.04529	0.04761	1320
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0.04430	0.04388	0.04382	0.04430	0.04504	0.04603	0.04700	0.04776	1322
0.04823	0.04826	0.04791	0.04722	0.04626	0.04519	0.04400	0.04282	1323
0.04165	0.04055	0.03954	0.03871	0.03795	0.03737	0.03676	0.03608	1324
0.03519	0.03394	0.03247	0.03072	0.02903	0.02765	0.02669	0.02659	1325
0.02701	0.02815	0.02946	0.03070	0.03155	0.03156	0.03078	0.02898	1326
0.02631	0.02290	0.01880	0.01422	0.00921	0.00389	-0.00156	-0.00700	1327
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0.03774	0.03790	0.03763	0.03684	0.03578	0.03456	0.03339	0.03259	1331
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0.03273	0.03090	0.02846	0.02546	0.02203	0.01831	0.01446	0.01071	1333
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0.00180	0.00361	0.00556	0.00749	0.00933	0.01097	0.01242	0.01369	1335
0.01478	0.01576	0.01661	0.01740	0.01810	0.01875	0.01941	0.02013	1336
0.02096	0.02206	0.02332	0.02491	0.02655	0.02823	0.02972	0.03083	1337
0.03157	0.03178	0.03163	0.03120	0.03053	0.02985	0.02901	0.02810	1338
0.02698	0.02555	0.02384	0.02177	0.01944	0.01695	0.01427	0.01155	1339
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0.00869	0.00903	0.00950	0.01017	0.01098	0.01195	0.01302	0.01417	1344
0.01538	0.01661	0.01786	0.01914	0.02039	0.02169	0.02288	0.02399	1345
0.02490	0.02555	0.02594	0.02601	0.02594	0.02582	0.02579	0.02610	1346
0.02672	0.02788	0.02936	0.03118	0.03312	0.03503	0.03681	0.03831	1347
0.03955	0.04052	0.04125	0.04184	0.04223	0.04253	0.04261	0.04251	1348
0.04206	0.04122	0.03981	0.03775	0.03492	0.03123	0.02674	0.02142	1349
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0.00401	0.00312	0.00160	-0.00038	-0.00266	-0.00496	-0.00724	-0.00925	1371
-0.01103	-0.01245	-0.01355	-0.01427	-0.01470	-0.01478	-0.01469	-0.01442	1372
-0.01416	-0.01398	-0.01395	-0.01416	-0.01459	-0.01520	-0.01599	-0.01683	1373
-0.01777	-0.01869	-0.01966	-0.02063	-0.02157	-0.02245	-0.02318	-0.02365	1374
-0.02380	-0.02348	-0.02276	-0.02153	-0.01997	-0.01810	-0.01610	-0.01409	1375
-0.01217	-0.01048	-0.00904	-0.00792	-0.00707	-0.00649	-0.00611	-0.00584	1376
-0.00568	-0.00548	-0.00531	-0.00509	-0.00491	-0.00476	-0.00474	-0.00486	1377
-0.00516	-0.00564	-0.00628	-0.00700	-0.00780	-0.00856	-0.00931	-0.00996	1378
-0.01052	-0.01094	-0.01123	-0.01133	-0.01127	-0.01098	-0.01056	-0.00996	1379
-0.00933	-0.00868	-0.00817	-0.00786	-0.00781	-0.00808	-0.00864	-0.00947	1380

-0.01049	-0.01161	-0.01278	-0.01386	-0.01485	-0.01565	-0.01625	-0.01659	1381
-0.01670	-0.01651	-0.01610	-0.01541	-0.01459	-0.01364	-0.01269	-0.01181	1382
-0.01107	-0.01054	-0.01023	-0.01012	-0.01022	-0.01043	-0.01078	-0.01116	1383
-0.01162	-0.01209	-0.01260	-0.01311	-0.01359	-0.01400	-0.01428	-0.01435	1384
-0.01423	-0.01380	-0.01320	-0.01237	-0.01147	-0.01055	-0.00968	-0.00894	1385
-0.00831	-0.00780	-0.00738	-0.00695	-0.00657	-0.00613	-0.00574	-0.00535	1386
-0.00504	-0.00483	-0.00471	-0.00468	-0.00471	-0.00475	-0.00483	-0.00487	1387
-0.00498	-0.00512	-0.00534	-0.00565	-0.00605	-0.00650	-0.00700	-0.00746	1388
-0.00792	-0.00831	-0.00867	-0.00896	-0.00922	-0.00941	-0.00954	-0.00955	1389
-0.00948	-0.00923	-0.00890	-0.00842	-0.00788	-0.00728	-0.00667	-0.00606	1390
-0.00546	-0.00486	-0.00428	-0.00365	-0.00302	-0.00234	-0.00169	-0.00104	1391
-0.00046	0.00004	0.00043	0.00071	0.00088	0.00098	0.00102	0.00110	1392
0.00119	0.00139	0.00165	0.00203	0.00246	0.00296	0.00348	0.00403	1393
0.00459	0.00519	0.00579	0.00646	0.00714	0.00788	0.00858	0.00927	1394
0.00987	0.01036	0.01069	0.01085	0.01081	0.01059	0.01019	0.00966	1395
0.00902	0.00833	0.00761	0.00696	0.00638	0.00597	0.00569	0.00565	1396
0.00577	0.00611	0.00658	0.00719	0.00787	0.00860	0.00933	0.01005	1397
0.01069	0.01126	0.01169	0.01198	0.01208	0.01200	0.01176	0.01138	1398
0.01091	0.01044	0.00996	0.00958	0.00925	0.00905	0.00897	0.00907	1399
0.00932	0.00982	0.01041	0.01114	0.01183	0.01235	0.01277	0.01302	1400
0.01323	0.01372	0.01406	0.01497	0.01510	0.01538	0.01824	0.01668	1401
0.01363	0.00997	0.00584	0.00236	-0.00063	-0.00219	-0.00298	-0.00287	1402
-0.00233	-0.00185	-0.00136	-0.00121	-0.00118	-0.00115	-0.00115	-0.00094	1403
-0.00069	-0.00033	0.00002	0.00031	0.00054	0.00071	0.00083	0.00100	1404
0.00118	0.00146	0.00180	0.00225	0.00276	0.00335	0.00399	0.00468	1405
0.00539	0.00612	0.00684	0.00757	0.00826	0.00897	0.00965	0.01034	1406
0.01098	0.01164	0.01226	0.01287	0.01346	0.01405	0.01461	0.01518	1407
0.01572	0.01628	0.01679	0.01731	0.01780	0.01829	0.01875	0.01922	1408
0.01967	0.02013	0.02058	0.02105	0.02150	0.02197	0.02243	0.02291	1409
0.02337	0.02386	0.02434	0.02484	0.02533	0.02584	0.02633	0.02684	1410
0.02733	0.02783	0.02831	0.02880	0.02926	0.02972	0.03013	0.03053	1411
0.03088	0.03121	0.03148	0.03173	0.03192	0.03209	0.03221	0.03233	1412
0.03239	0.03243	0.03243	0.03241	0.03234	0.03225	0.03211	0.03195	1413
0.03175	0.03155	0.03131	0.03108	0.03080	0.03053	0.03022	0.02991	1414
0.02956	0.02921	0.02883	0.02847	0.02808	0.02770	0.02730	0.02693	1415
0.02653	0.02614	0.02572	0.02531	0.02488	0.02445	0.02399	0.02353	1416
0.02305	0.02258	0.02208	0.02159	0.02108	0.02057	0.02004	0.01952	1417
0.01899	0.01846	0.01792	0.01739	0.01685	0.01632	0.01578	0.01526	1418
0.01472	0.01419	0.01365	0.01313	0.01260	0.01208	0.01154	0.01103	1419
0.01050	0.00999	0.00947	0.00896	0.00845	0.00796	0.00745	0.00697	1420
0.00648	0.00600	0.00553	0.00507	0.00460	0.00416	0.00372	0.00329	1421
0.00286	0.00245	0.00204	0.00164	0.00125	0.00087	0.00049	0.00014	1422
-0.00023	-0.00057	-0.00091	-0.00123	-0.00156	-0.00186	-0.00217	-0.00246	1423
-0.00275	-0.00302	-0.00329	-0.00354	-0.00380	-0.00403	-0.00427	-0.00449	1424
-0.00471	-0.00491	-0.00511	-0.00529	-0.00548	-0.00565	-0.00582	-0.00597	1425
-0.00613	-0.00627	-0.00641	-0.00653	-0.00666	-0.00677	-0.00689	-0.00698	1426
-0.00709	-0.00717	-0.00726	-0.00733	-0.00741	-0.00747	-0.00754	-0.00759	1427
-0.00764	-0.00768	-0.00773	-0.00776	-0.00780	-0.00782	-0.00785	-0.00786	1428
-0.00788	-0.00789	-0.00790	-0.00790	-0.00791	-0.00790	-0.00790	-0.00788	1429
-0.00788	-0.00786	-0.00784	-0.00782	-0.00780	-0.00777	-0.00775	-0.00772	1430
-0.00769	-0.00765	-0.00762	-0.00758	-0.00755	-0.00751	-0.00747	-0.00742	1431
-0.00739	-0.00734	-0.00730	-0.00724	-0.00720	-0.00715	-0.00710	-0.00705	1432
-0.00700	-0.00695	-0.00690	-0.00684	-0.00680	-0.00674	-0.00669	-0.00663	1433
-0.00658	-0.00652	-0.00647	-0.00641	-0.00636	-0.00630	-0.00625	-0.00619	1434
-0.00614	-0.00608	-0.00603	-0.00597	-0.00592	-0.00586	-0.00581	-0.00575	1435
-0.00570	-0.00564	-0.00559	-0.00553	-0.00548	-0.00542	-0.00537	-0.00531	1436
-0.00526	-0.00521	-0.00516	-0.00510	-0.00505	-0.00500	-0.00495	-0.00489	1437
-0.00485	-0.00479	-0.00475	-0.00469	-0.00465	-0.00459	-0.00455	-0.00450	1438
-0.00445	-0.00440	-0.00436	-0.00430	-0.00426	-0.00421	-0.00417	-0.00412	1439
-0.00408	-0.00403	-0.00398	-0.00394	-0.00390	-0.00385	-0.00381	-0.00376	1440
-0.00372	-0.00367	-0.00363	-0.00359	-0.00355	-0.00350	-0.00347	-0.00342	1441
-0.00338	-0.00334	-0.00330	-0.00326	-0.00322	-0.00318	-0.00315	-0.00310	1442
-0.00307	-0.00303	-0.00299	-0.00295	-0.00292	-0.00288	-0.00285	-0.00281	1443
-0.00277	-0.00273	-0.00270	-0.00266	-0.00263	-0.00260	-0.00256	-0.00253	1444
-0.00250	-0.00246	-0.00243	-0.00239	-0.00237	-0.00233	-0.00230	-0.00227	1445
-0.00224	-0.00220	-0.00217	-0.00214	-0.00211	-0.00207	-0.00204	-0.00201	1446
-0.00198	-0.00194	-0.00191	-0.00188	-0.00185	-0.00181	-0.00178	-0.00175	1447
-0.00172	-0.00169	-0.00166	-0.00162	-0.00160	-0.00156	-0.00154	-0.00151	1448
-0.00148	-0.00145	-0.00143	-0.00140	-0.00137	-0.00134	-0.00132	-0.00130	1449
-0.00127	-0.00125	-0.00123	-0.00121	-0.00119	-0.00116	-0.00115	-0.00112	1450
-0.00111	-0.00109	-0.00107	-0.00105	-0.00104	-0.00102	-0.00101	-0.00099	1451
-0.00098	-0.00097	-0.00096	-0.00094	-0.00093	-0.00092	-0.00091	-0.00090	1452
-0.00089	-0.00088	-0.00087	-0.00086	-0.00085	-0.00085	-0.00084	-0.00083	1453

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-0.00083	-0.00082	-0.00081	-0.00081	-0.00080	-0.00080	-0.00079	-0.00079	1454
-0.00078	-0.00078	-0.00077	-0.00077	-0.00077	-0.00076	-0.00076	-0.00076	1455
-0.00075	-0.00075	-0.00075	-0.00074	-0.00074	-0.00074	-0.00074	-0.00073	1456
-0.00073	-0.00073	-0.00073	-0.00072	-0.00072	-0.00072	-0.00072	-0.00071	1457
-0.00071	-0.00071	-0.00071	-0.00071	-0.00070	-0.00070	-0.00070	-0.00070	1458
-0.00070	-0.00069	-0.00069	-0.00069	-0.00069	-0.00069	-0.00068	-0.00068	1459
-0.00068	-0.00068	-0.00068	-0.00067	-0.00067	-0.00067	-0.00067	-0.00067	1460
-0.00067	-0.00066	-0.00066	-0.00066	-0.00066	-0.00065	-0.00065	-0.00065	1461
-0.00065	-0.00065	-0.00064	-0.00064	-0.00064	-0.00064	-0.00064	-0.00063	1462
-0.00063	-0.00063	-0.00063	-0.00062	-0.00062	-0.00062	-0.00062	-0.00062	1463
-0.00061	-0.00061	-0.00061	-0.00061	-0.00060	-0.00060	-0.00060	-0.00060	1464
-0.00060	-0.00059	-0.00059	-0.00059	-0.00059	-0.00058	-0.00058	-0.00058	1465
-0.00058	-0.00057	-0.00057	-0.00057	-0.00057	-0.00056	-0.00056	-0.00056	1466
-0.00056	-0.00055	-0.00055	-0.00055	-0.00055	-0.00054	-0.00054	-0.00054	1467
-0.00054	-0.00053	-0.00053	-0.00053	-0.00053	-0.00052	-0.00052	-0.00052	1468
-0.00052	-0.00051	-0.00051	-0.00051	-0.00051	-0.00050	-0.00050	-0.00050	1469
-0.00049	-0.00049	-0.00049	-0.00049	-0.00048	-0.00048	-0.00048	-0.00048	1470
-0.00047	-0.00047	-0.00047	-0.00046	-0.00046	-0.00046	-0.00046	-0.00045	1471
-0.00045	-0.00045	-0.00044	-0.00044	-0.00044	-0.00044	-0.00043	-0.00043	1472
-0.00043	-0.00042	-0.00042	-0.00042	-0.00041	-0.00041	-0.00041	-0.00041	1473
-0.00040	-0.00040	-0.00040	-0.00039	-0.00039	-0.00039	-0.00038	-0.00038	1474
-0.00038	-0.00038	-0.00037	-0.00042	-0.00042	-0.00042	-0.00042	-0.00042	1475

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## Appendix C

### Key Input File For Ground Response Analysis

Upper Bound Velocity Profile with 1.6g Excitation using Set 1 Ground Motion  
(..\m37\_runs\input\m3\_1p6g.inp)

option 1 - dynamic soil properties - (max is thirteen):

1							
13							
11	#1 Modulus for "generic" Clay (idriss 1990)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	1.000	0.98	0.94	0.85	0.66	0.44
0.25	0.11	0.04					
11	damping for both clay&sand (idriss 1990)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
0.24	0.42	0.8	1.4	2.8	5.1	9.8	15.5
21.	25.	28.					
11	#2 modulus for sand (upper Range sand from seed & idriss 1970)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	0.99	0.96	0.85	0.64	0.37	0.18
0.080	0.033	0.013					
11	damping for both clay&sand (idriss 1990)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
0.24	0.42	0.8	1.4	2.8	5.1	9.8	15.5
21.	25.	28.					
11	#3 modulus for Clay PI 15 (Vucetic and Dobry 1991)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	1.000	.95	.82	.65	.40	.21
.09	.04	.02					
11	damping for Clay PI 15 (Vucetic & Dobry 1991)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.7	1.7	1.7	2.5	4.5	7.5	11.7	15.8
20.2	22.9	22.9					
11	#4 modulus for Clay PI 30 (Vucetic & Dobry 1991)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	1.000	0.98	0.91	0.74	0.55	0.35
0.18	0.075	0.029					
11	damping for Clay PI 30 (Vucetic & Dobry 1991)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.0	1.0	1.3	2.1	3.9	6.0	8.7	12.3
16.9	20.5	22.3					
11	#5 modulus for Clay PI 50 (Vucetic & Dobry 1991)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	1.000	0.99	0.95	0.84	0.68	0.47
0.28	0.12	0.045					
11	damping for Clay PI 50 (Vucetic & Dobry 1991)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.0	1.0	1.3	1.9	3.0	4.3	6.2	9.3
13.4	17.0	19.8					
11	#6 modulus for Sand (0 to 20 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	0.980	0.914	0.750	0.509	0.270	0.116
0.040	0.017	0.006					
11	damping for Sand (0 to 20 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.4	1.5	1.8	2.8	5.0	9.3	15.3	21.9
27.0	29.0	30.0					
11	#7 modulus for Sand (20 to 50 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	0.990	0.946	0.820	0.608	0.360	0.165
0.060	0.025	0.010					
11	damping for Sand (20 to 50 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.2	1.2	1.4	2.1	3.6	7.0	12.4	19.1
24.9	27.2	28.9					

11	#8 modulus for Sand (50 to 120 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	1.000	0.970	0.870	0.680	0.430	0.220
0.090	0.037	0.014					
11	damping for Sand (50 to 120 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.0	1.0	1.2	1.64	2.8	5.49	10.2	16.5
22.9	25.5	27.0					
11	#9 modulus for Sand (120 to 250 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	1.000	0.980	0.900	0.740	0.500	0.270
0.120	0.050	0.019					
11	damping for Sand (120 to 250 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
0.8	0.9	1.0	1.3	2.2	4.4	8.6	14.6
21.2	23.8	25.5					
11	#10 modulus for Sand (250 to 500 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	1.000	0.990	0.930	0.810	0.570	0.330
0.150	0.080	0.05					
11	damping for Sand (250 to 500 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
0.7	0.8	0.8	1.1	1.8	3.5	7.1	12.8
19.3	22.4	24.0					
11	#11 modulus for Sand (> 500 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	1.000	0.990	0.950	0.852	0.65	0.41
0.2	0.083	0.032					
11	damping for Sand (> 500 ft) (EPRI 1993)						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
0.6	0.6	0.6	0.8	1.2	2.5	5.3	10.3
16.7	20.2	22.5					
11	#12 modulus for Weathered Rock						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
1.000	1.000	1.000	0.990	0.960	0.900	0.75	0.55
0.34	0.2	0.12					
11	damping for Weathered Rock						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.	3.	10.					
0.24	0.42	0.8	1.4	2.8	5.1	9.8	15.5
21.	25.	28.					
9	#13 modulus for Competent Rock						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.							
1.000	1.000	1.000	0.980	0.960	0.930	0.890	0.840
0.78							
9	damping for Competent Rock						
0.0001	0.0003	0.001	0.003	0.01	0.03	0.1	0.3
1.							
0.3	0.4	0.8	1.1	1.5	2.1	3.	4.
5.							

Option 2 -- Soil Profile

	7	3	7	8	9	10	11	12
1	46	Idriss interpretation						
1	3	3.			.050	.125	915.	
2	3	3.			.050	.125	915.	
3	3	4.			.050	.125	915.	
4	3	5.			.050	.125	915.	
5	3	5.			.050	.125	915.	
6	3	5.			.050	.125	1220.	
7	7	5.			.050	.130	1220.	
8	7	5.			.050	.130	1403.	
9	7	5.			.050	.130	1403.	

10	7	5.	.050	.130	1403.
11	7	5.	.050	.130	1403.
12	3	5.	.050	.130	1830.
13	3	5.	.050	.130	1830.
14	8	7.5	.050	.130	1830.
15	8	7.5	.050	.130	1830.
16	8	7.5	.050	.130	1830.
17	8	7.5	.050	.130	1830.
18	8	10.	.050	.130	2135.
19	8	11.	.050	.130	2135.
20	8	12.	.050	.130	2135.
21	8	12.	.050	.130	2135.
22	9	15.	.050	.130	2440.
23	3	13.	.050	.130	1891.
24	3	13.	.050	.130	1891.
25	3	13.	.050	.130	1891.
26	3	13.	.050	.130	1891.
27	3	13.	.050	.130	1891.
28	9	15.	.050	.130	2013.
29	9	15.	.050	.130	2013.
30	9	15.	.050	.130	2013.
31	10	20.	.050	.130	2440.
32	10	20.	.050	.130	2440.
33	10	20.	.050	.130	2440.
34	10	20.	.050	.130	2196.
35	10	20.	.050	.130	2196.
36	10	20.	.050	.130	2196.
37	10	20.	.050	.130	2196.
38	10	25.	.050	.130	2318.
39	10	25.	.050	.130	2318.
40	10	25.	.050	.130	2440.
41	10	25.	.050	.130	2440.
42	11	25.	.050	.130	2562.
43	11	25.	.050	.130	2562.
44	11	25.	.050	.130	2562.
45	11	25.	.050	.130	2562.
46	12		.050	.135	6100.

Option 3 -- input motion:  
3  
6565 8192 .005 m78set1.acc (8f9.6)  
1.6 50. 2 8

Option 4 -- sublayer for input motion (within (1) or outcropping (0):  
4  
46 0

Option 5 -- number of iterations & ratio of avg strain to max strain  
5  
0 12 0.68

option 9 -- compute & save response spectrum:  
9  
1 0  
1 0 981.0  
0.05

Option 6 -- sublayers for which accn time histories are computed & saved:  
6  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
0 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
1 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Option 6 -- sublayers for which accn time histories are computed & saved:  
6  
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30  
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Option 6 -- sublayers for which accn time histories are computed & saved:  
6  
31 32 33 34 35 36 37 38 39 40 41 42 43 44 45  
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Option 6 -- sublayers for which accn time histories are computed & saved:  
6  
46  
1  
0

execution will stop when program encounters 0



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## Appendix D

### Key Output File For Ground Response Analysis

Upper Bound Velocity Profile with 1.6g Excitation using Set 1 Ground Motion  
(..\m37\_runs\m3\_1p6g.out)

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```
*****
* SHAKE: A COMPUTER PROGRAM FOR EARTHQUAKE RESPONSE ANALYSIS OF HORIZONTALLY*
* LAYERED SITES by: Per B. Schnabel & John Lysmer -- 1970 *
* shake85: IBM-PC version of SHAKE by: S.S. (Willie) Lai, January 1985 *
* shake88: New modulus reduction curves for clays added using results from Sun*
* et al (1988) by: J. I. Sun & Ramin Golesorkhi February 26, 1988 *
* SHAKE90/91: Adjust last iteration; Input now is either Gmax or max Vs; up *
* to 13 material types can be specified by user; up to 50 Layers can be *
* specified; object motion can be read in from a separate file and can have *
* user specified format; Different periods for response spectral calcs; *
* options are renumbered; and general cleanup by: J. I. Sun, I. M. Idriss *
* & P. Dirrim June 1990 - February 1991 *
* SHAKE91: General cleanup and finalization of input/output format ... etc *
* by: I. M. Idriss December 1991 *
* ----- *
* SHAKE96S: Max. no. of values for FFT=16384; write time histories, soil *
* properties, and amplification spectra to separate files; improve response *
* spectrum calculation for high frequencies by: D.Hamasaki and W.S.Tseng *
* This is PC Single Precision Version by: CEC May 3, 1996 *
*****
MAX. NUMBER OF TERMS IN FOURIER TRANSFORM = 16384
NECESSARY LENGTH OF BLANK COMMON X = 102419
ACTUAL LENGTH OF BLANK COMMON X = 102420
```

1\*\*\*\*\* OPTION 1 \*\*\* READ RELATION BETWEEN SOIL PROPERTIES AND STRAIN

```
*****
MATERIAL TYPE NO. 3
*****
```

CURVE NO. 5: #3 modulus for Clay PI 15 (Vucetic and Dobry 1991)  
CURVE NO. 6: damping for Clay PI 15 (Vucetic & Dobry 1991)

CURVE NO. 5		CURVE NO. 6	
STRAIN	G/Gmax	STRAIN	DAMPING
.0001	1.000	.0001	1.70
.0003	1.000	.0003	1.70
.0010	1.000	.0010	1.70
.0030	.950	.0030	2.50
.0100	.820	.0100	4.50
.0300	.650	.0300	7.50
.1000	.400	.1000	11.70
.3000	.210	.3000	15.80
1.0000	.090	1.0000	20.20
3.0000	.040	3.0000	22.90
10.0000	.020	10.0000	22.90

\*\*\*\*\*  
MATERIAL TYPE NO. 7  
\*\*\*\*\*

CURVE NO. 13: #7 modulus for Sand (20 to 50 ft) (EPRI 1993)  
CURVE NO. 14: damping for Sand (20 to 50 ft) (EPRI 1993)

CURVE NO.13		CURVE NO.14	
STRAIN	G/Gmax	STRAIN	DAMPING
.0001	1.000	.0001	1.20
.0003	1.000	.0003	1.20
.0010	.990	.0010	1.40
.0030	.946	.0030	2.10
.0100	.820	.0100	3.60
.0300	.608	.0300	7.00
.1000	.360	.1000	12.40
.3000	.165	.3000	19.10
1.0000	.060	1.0000	24.90
3.0000	.025	3.0000	27.20
10.0000	.010	10.0000	28.90

\*\*\*\*\*  
MATERIAL TYPE NO. 8  
\*\*\*\*\*

CURVE NO. 15: #8 modulus for Sand (50 to 120 ft) (EPRI 1993)  
CURVE NO. 16: damping for Sand (50 to 120 ft) (EPRI 1993)

CURVE NO.15		CURVE NO.16	
STRAIN	G/Gmax	STRAIN	DAMPING
.0001	1.000	.0001	1.00
.0003	1.000	.0003	1.00
.0010	1.000	.0010	1.20
.0030	.970	.0030	1.64
.0100	.870	.0100	2.80
.0300	.680	.0300	5.49
.1000	.430	.1000	10.20
.3000	.220	.3000	16.50
1.0000	.090	1.0000	22.90
3.0000	.037	3.0000	25.50
10.0000	.014	10.0000	27.00

\*\*\*\*\*  
MATERIAL TYPE NO. 9  
\*\*\*\*\*

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\*\*\*\*\*

CURVE NO. 17: #9 modulus for Sand (120 to 250 ft) (EPRI 1993)  
CURVE NO. 18: damping for Sand (120 to 250 ft) (EPRI 1993)

CURVE NO.17		CURVE NO.18	
STRAIN	G/Gmax	STRAIN	DAMPING
.0001	1.000	.0001	.80
.0003	1.000	.0003	.90
.0010	1.000	.0010	1.00
.0030	.980	.0030	1.30
.0100	.900	.0100	2.20
.0300	.740	.0300	4.40
.1000	.500	.1000	8.60
.3000	.270	.3000	14.60
1.0000	.120	1.0000	21.20
3.0000	.050	3.0000	23.80
10.0000	.019	10.0000	25.50

\*\*\*\*\*  
MATERIAL TYPE NO.10  
\*\*\*\*\*

CURVE NO. 19: #10 modulus for Sand (250 to 500 ft) (EPRI 1993)  
CURVE NO. 20: damping for Sand (250 to 500 ft) (EPRI 1993)

CURVE NO.19		CURVE NO.20	
STRAIN	G/Gmax	STRAIN	DAMPING
.0001	1.000	.0001	.70
.0003	1.000	.0003	.80
.0010	1.000	.0010	.80
.0030	.990	.0030	1.10
.0100	.930	.0100	1.80
.0300	.810	.0300	3.50
.1000	.570	.1000	7.10
.3000	.330	.3000	12.80
1.0000	.150	1.0000	19.30
3.0000	.080	3.0000	22.40
10.0000	.050	10.0000	24.00

\*\*\*\*\*  
MATERIAL TYPE NO.11  
\*\*\*\*\*

CURVE NO. 21: #11 modulus for Sand (> 500 ft) (EPRI 1993)  
 CURVE NO. 22: damping for Sand (> 500 ft) (EPRI 1993)

CURVE NO.21		CURVE NO.22	
STRAIN	G/Gmax	STRAIN	DAMPING
.0001	1.000	.0001	.60
.0003	1.000	.0003	.60
.0010	1.000	.0010	.60
.0030	.990	.0030	.80
.0100	.950	.0100	1.20
.0300	.852	.0300	2.50
.1000	.650	.1000	5.30
.3000	.410	.3000	10.30
1.0000	.200	1.0000	16.70
3.0000	.083	3.0000	20.20
10.0000	.032	10.0000	22.50

\*\*\*\*\*  
 MATERIAL TYPE NO.12  
 \*\*\*\*\*

CURVE NO. 23: #12 modulus for Weathered Rock  
 CURVE NO. 24: damping for Weathered Rock

CURVE NO.23		CURVE NO.24	
STRAIN	G/Gmax	STRAIN	DAMPING
.0001	1.000	.0001	.24
.0003	1.000	.0003	.42
.0010	1.000	.0010	.80
.0030	.990	.0030	1.40
.0100	.960	.0100	2.80
.0300	.900	.0300	5.10
.1000	.750	.1000	9.80
.3000	.550	.3000	15.50
1.0000	.340	1.0000	21.00
3.0000	.200	3.0000	25.00
10.0000	.120	10.0000	28.00

1\*\*\*\*\* OPTION 2 \*\*\* READ SOIL PROFILE  
 NEW SOIL PROFILE NO. 1 IDENTIFICATION Idriss interpretation  
 NUMBER OF LAYERS 46 DEPTH TO BEDROCK 600.00

NO.	TYPE	THICKNESS (ft)	DEPTH (ft)	Tot. PRESS. (ksf)	MODULUS (ksf)	DAMPING	UNIT WT. (kcf)	SHEAR VEL (fps)
-----	------	----------------	------------	-------------------	---------------	---------	----------------	-----------------

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1	3	3.00	1.50	.19	3250.	.050	.125	915.0
2	3	3.00	4.50	.47	3250.	.050	.125	915.0
3	3	4.00	8.00	.69	3250.	.050	.125	915.0
4	3	5.00	12.50	.97	3250.	.050	.125	915.0
5	3	5.00	17.50	1.28	3250.	.050	.125	915.0
6	3	5.00	22.50	1.60	5778.	.050	.125	1220.0
7	7	5.00	27.50	1.92	6009.	.050	.130	1220.0
8	7	5.00	32.50	2.26	7947.	.050	.130	1403.0
9	7	5.00	37.50	2.60	7947.	.050	.130	1403.0
10	7	5.00	42.50	2.94	7947.	.050	.130	1403.0
11	7	5.00	47.50	3.27	7947.	.050	.130	1403.0
12	3	5.00	52.50	3.61	13520.	.050	.130	1830.0
13	3	5.00	57.50	3.95	13520.	.050	.130	1830.0
14	8	7.50	63.75	4.37	13520.	.050	.130	1830.0
15	8	7.50	71.25	4.88	13520.	.050	.130	1830.0
16	8	7.50	78.75	5.39	13520.	.050	.130	1830.0
17	8	7.50	86.25	5.89	13520.	.050	.130	1830.0
18	8	10.00	95.00	6.48	18403.	.050	.130	2135.0
19	8	11.00	105.50	7.19	18403.	.050	.130	2135.0
20	8	12.00	117.00	7.97	18403.	.050	.130	2135.0
21	8	12.00	129.00	8.78	18403.	.050	.130	2135.0
22	9	15.00	142.50	9.70	24036.	.050	.130	2440.0
23	3	13.00	156.50	10.64	14437.	.050	.130	1891.0
24	3	13.00	169.50	11.52	14437.	.050	.130	1891.0
25	3	13.00	182.50	12.40	14437.	.050	.130	1891.0
26	3	13.00	195.50	13.28	14437.	.050	.130	1891.0
27	3	13.00	208.50	14.16	14437.	.050	.130	1891.0
28	9	15.00	222.50	15.10	16360.	.050	.130	2013.0
29	9	15.00	237.50	16.12	16360.	.050	.130	2013.0
30	9	15.00	252.50	17.13	16360.	.050	.130	2013.0
31	10	20.00	270.00	18.31	24036.	.050	.130	2440.0
32	10	20.00	290.00	19.67	24036.	.050	.130	2440.0
33	10	20.00	310.00	21.02	24036.	.050	.130	2440.0
34	10	20.00	330.00	22.37	19469.	.050	.130	2196.0
35	10	20.00	350.00	23.72	19469.	.050	.130	2196.0
36	10	20.00	370.00	25.07	19469.	.050	.130	2196.0
37	10	20.00	390.00	26.43	19469.	.050	.130	2196.0
38	10	25.00	412.50	27.95	21693.	.050	.130	2318.0
39	10	25.00	437.50	29.64	21693.	.050	.130	2318.0
40	10	25.00	462.50	31.33	24036.	.050	.130	2440.0
41	10	25.00	487.50	33.02	24036.	.050	.130	2440.0
42	11	25.00	512.50	34.71	26500.	.050	.130	2562.0
43	11	25.00	537.50	36.40	26500.	.050	.130	2562.0
44	11	25.00	562.50	38.09	26500.	.050	.130	2562.0
45	11	25.00	587.50	39.78	26500.	.050	.130	2562.0
46	BASE				156005.	.050	.135	6100.0

PERIOD = 1.11 FROM AVERAGE SHEAR VELOCITY = 2157.

MAXIMUM AMPLIFICATION = 13.34

FOR FREQUENCY = .97 C/SEC.  
PERIOD = 1.03 SEC.

1\*\*\*\*\* OPTION 3 \*\*\* READ INPUT MOTION

FILE NAME FOR INPUT MOTION = m78set1.acc  
NO. OF INPUT ACC. POINTS = 6565  
NO. OF POINTS USED IN FFT = 8192  
NO. OF HEADING LINES = 2  
NO. OF POINTS PER LINE = 8  
TIME STEP FOR INPUT MOTION = .0050  
FORMAT FOR OF TIME HISTORY = (8f9.6)

\*\*\*\*\* H E A D E R

Time history matched to spectrum:::SetTarget:M78\_D005\_RV\_HW.target  
6565 0.0050

\*\* FIRST & LAST 5 LINES OF INPUT MOTION \*\*\*\*

1	.007300	.007220	.007150	.007080	.007020	.006960	.006900	.006850
2	.006790	.006720	.006660	.006590	.006520	.006460	.006390	.006330
3	.006260	.006200	.006140	.006080	.006020	.005960	.005910	.005850
4	.005790	.005730	.005670	.005610	.005550	.005490	.005420	.005340
5	.005260	.005180	.005080	.004980	.004860	.004730	.004580	.004420
..... INPUT MOTION READ NOT ECHOED.....								
817	-.005350	-.005290	-.005220	-.005150	-.005090	-.005020	-.004950	-.004890
818	-.004820	-.004750	-.004690	-.004620	-.004550	-.004480	-.004420	-.004350
819	-.004280	-.004210	-.004140	-.004070	-.004000	-.003930	-.003860	-.003790
820	-.003720	-.003650	-.003580	-.003510	-.003430	-.003360	-.003290	-.003210
821	-.003140	-.003070	-.002990	-.002920	-.002840	.000000	.000000	.000000

MAXIMUM ACCELERATION = .89226

AT TIME = 10.50 SEC

THE VALUES WILL BE MULTIPLIED BY A FACTOR = 1.793

TO GIVE NEW MAXIMUM ACCELERATION = 1.60000

MEAN SQUARE FREQUENCY = 4.00 C/SEC.

MAX ACCELERATION = 1.64242 FOR FREQUENCIES REMOVED ABOVE 50.00 C/SEC.

1\*\*\*\*\* OPTION 4 \*\*\* READ WHERE OBJECT MOTION IS GIVEN  
OBJECT MOTION IN LAYER NUMBER 46 OUTCROPPING

1\*\*\*\*\* OPTION 5 \*\*\* OBTAIN STRAIN COMPATIBLE SOIL PROPERTIES

MAXIMUM NUMBER OF ITERATIONS = 12

FACTOR FOR UNIFORM STRAIN IN TIME DOMAIN = .68

EARTHQUAKE - m78set1.acc  
SOIL PROFILE - Idriss interpretation

ITERATION NUMBER 1

VALUES IN TIME DOMAIN



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NO	TYPE	DEPTH (FT)	UNIFRM. STRAIN	DAMPING			SHEAR MODULUS			G/Go RATIO
				NEW	USED	ERROR	NEW	USED	ERROR	
1	3	1.5	.00816	.042	.050	-20.1	2736.3	3250.1	-18.8	1.000
2	3	4.5	.02440	.069	.050	27.9	2216.6	3250.1	-46.6	1.000
3	3	8.0	.04298	.088	.050	42.9	1869.9	3250.1	-73.8	1.000
4	3	12.5	.06589	.102	.050	51.2	1581.6	3250.1	-105.5	1.000
5	3	17.5	.08941	.113	.050	55.8	1375.6	3250.1	-136.3	1.000
6	3	22.5	.06249	.101	.050	50.3	2875.4	5778.0	-100.9	1.000
7	7	27.5	.07256	.110	.050	54.4	2560.3	6009.1	-134.7	1.000
8	7	32.5	.06406	.104	.050	51.9	3590.0	7947.0	-121.4	1.000
9	7	37.5	.07283	.110	.050	54.5	3380.0	7947.0	-135.1	1.000
10	7	42.5	.08112	.115	.050	56.4	3203.5	7947.0	-148.1	1.000
11	7	47.5	.08887	.119	.050	57.9	3054.1	7947.0	-160.2	1.000
12	3	52.5	.05646	.097	.050	48.5	7012.9	13520.4	-92.8	1.000
13	3	57.5	.06045	.099	.050	49.7	6821.4	13520.4	-98.2	1.000
14	8	63.8	.06510	.085	.050	41.3	7018.8	13520.4	-92.6	1.000
15	8	71.3	.07018	.088	.050	43.3	6807.7	13520.4	-98.6	1.000
16	8	78.8	.07541	.091	.050	45.0	6606.2	13520.4	-104.7	1.000
17	8	86.3	.08057	.094	.050	46.6	6420.2	13520.4	-110.6	1.000
18	8	95.0	.06326	.084	.050	40.5	9663.2	18402.8	-90.4	1.000
19	8	105.5	.06772	.087	.050	42.4	9402.5	18402.8	-95.7	1.000
20	8	117.0	.07219	.089	.050	44.0	9158.6	18402.8	-100.9	1.000
21	8	129.0	.07633	.091	.050	45.3	8945.5	18402.8	-105.7	1.000
22	9	142.5	.06169	.069	.050	27.7	14332.3	24036.3	-67.7	1.000
23	3	156.5	.10786	.120	.050	58.3	5585.7	14436.8	-158.5	1.000
24	3	169.5	.11155	.121	.050	58.7	5501.8	14436.8	-162.4	1.000
25	3	182.5	.11890	.123	.050	59.5	5342.5	14436.8	-170.2	1.000
26	3	195.5	.12580	.126	.050	60.2	5201.7	14436.8	-177.5	1.000
27	3	208.5	.13214	.127	.050	60.8	5078.9	14436.8	-184.2	1.000
28	9	222.5	.12204	.097	.050	48.4	7497.5	16359.7	-118.2	1.000
29	9	237.5	.12725	.099	.050	49.6	7354.5	16359.7	-122.4	1.000
30	9	252.5	.13188	.101	.050	50.5	7232.2	16359.7	-126.2	1.000
31	10	270.0	.09302	.069	.050	27.4	14047.2	24036.3	-71.1	1.000
32	10	290.0	.09637	.070	.050	28.5	13877.6	24036.3	-73.2	1.000
33	10	310.0	.09939	.071	.050	29.4	13730.0	24036.3	-75.1	1.000
34	10	330.0	.12597	.083	.050	39.7	10115.4	19469.4	-92.5	1.000
35	10	350.0	.12875	.084	.050	40.6	10022.8	19469.4	-94.3	1.000
36	10	370.0	.13102	.085	.050	41.2	9948.5	19469.4	-95.7	1.000
37	10	390.0	.13280	.086	.050	41.7	9891.0	19469.4	-96.8	1.000
38	10	412.5	.12050	.081	.050	38.0	11481.2	21692.7	-88.9	1.000
39	10	437.5	.12135	.081	.050	38.3	11448.0	21692.7	-89.5	1.000
40	10	462.5	.10985	.076	.050	34.1	13207.3	24036.3	-82.0	1.000
41	10	487.5	.11001	.076	.050	34.2	13199.9	24036.3	-82.1	1.000
42	11	512.5	.10103	.053	.050	6.5	17165.4	26500.0	-54.4	1.000
43	11	537.5	.10196	.054	.050	7.2	17112.8	26500.0	-54.9	1.000
44	11	562.5	.10229	.054	.050	7.5	17093.7	26500.0	-55.0	1.000
45	11	587.5	.10202	.054	.050	7.3	17109.0	26500.0	-54.9	1.000

EARTHQUAKE - m78set1.acc  
SOIL PROFILE - Idriss interpretation

... Skip results from iteration 2 through 11 .....

## ITERATION NUMBER 12

## VALUES IN TIME DOMAIN

NO	TYPE	DEPTH (FT)	UNIFRM. STRAIN	<---- DAMPING ---->			<---- SHEAR MODULUS ---->			G/Go RATIO
				NEW	USED	ERROR	NEW	USED	ERROR	
1	3	1.5	.00568	.036	.036	.0	2863.7	2863.3	.0	.881
2	3	4.5	.02081	.065	.065	-.1	2296.5	2295.8	.0	.706
3	3	8.0	.04539	.089	.090	-.1	1833.1	1831.7	.1	.564
4	3	12.5	.09448	.115	.115	-.1	1338.4	1335.6	.2	.411
5	3	17.5	.17902	.139	.139	-.2	972.7	968.2	.5	.298
6	3	22.5	.08833	.113	.113	-.1	2460.1	2455.8	.2	.425
7	7	27.5	.14948	.149	.149	-.4	1734.5	1725.3	.5	.287
8	7	32.5	.10973	.130	.130	-.1	2730.0	2725.6	.2	.343
9	7	37.5	.14660	.147	.148	-.2	2321.3	2314.5	.3	.291
10	7	42.5	.20481	.168	.168	-.3	1849.6	1839.0	.6	.231
11	7	47.5	.32746	.195	.195	.0	1250.5	1250.0	.0	.157
12	3	52.5	.07256	.106	.106	.0	6308.5	6305.2	.1	.466
13	3	57.5	.08284	.110	.110	.0	5936.8	5932.7	.1	.439
14	8	63.8	.08617	.096	.096	.0	6231.6	6228.5	.0	.461
15	8	71.3	.10127	.103	.103	.0	5781.1	5779.0	.0	.427
16	8	78.8	.11645	.111	.111	-.1	5420.1	5417.6	.0	.401
17	8	86.3	.13250	.118	.118	-.1	5086.4	5083.4	.1	.376
18	8	95.0	.08597	.096	.096	.0	8490.7	8488.4	.0	.461
19	8	105.5	.09846	.101	.101	-.1	7972.6	7962.3	.1	.433
20	8	117.0	.11771	.111	.111	-.1	7339.6	7332.2	.1	.398
21	8	129.0	.13921	.121	.121	-.1	6749.5	6743.2	.1	.366
22	9	142.5	.07880	.078	.078	.0	13159.9	13156.9	.0	.547
23	3	156.5	.42026	.170	.170	.0	2546.7	2546.8	.0	.176
24	3	169.5	.46504	.174	.174	.0	2401.0	2402.1	.0	.166
25	3	182.5	.49471	.176	.176	.0	2312.0	2313.6	-.1	.160
26	3	195.5	.50712	.177	.177	.0	2276.3	2277.8	-.1	.158
27	3	208.5	.50338	.177	.177	.0	2287.0	2287.9	.0	.158
28	9	222.5	.20699	.126	.126	-.1	5688.1	5683.4	.1	.347
29	9	237.5	.20299	.125	.125	-.1	5755.1	5748.5	.1	.351
30	9	252.5	.20897	.126	.126	-.1	5655.5	5649.8	.1	.345
31	10	270.0	.08525	.066	.066	.0	14465.1	14467.3	.0	.602
32	10	290.0	.09635	.070	.070	.0	13878.9	13875.7	.0	.577
33	10	310.0	.11388	.078	.078	.0	13018.2	13015.1	.0	.541
34	10	330.0	.20056	.107	.107	.0	8137.5	8136.7	.0	.418
35	10	350.0	.23420	.115	.115	.0	7478.0	7479.9	.0	.384
36	10	370.0	.26858	.122	.122	.1	6895.5	6902.0	-.1	.355
37	10	390.0	.29942	.128	.128	.1	6433.1	6444.7	-.2	.331
38	10	412.5	.24117	.117	.117	.0	8193.1	8194.5	.0	.378

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39	10	437.5	.25141	.119	.119	.0	7995.9	7994.9	.0	.369
40	10	462.5	.20088	.107	.107	.0	10038.0	10034.5	.0	.417
41	10	487.5	.20599	.108	.109	.0	9906.2	9904.7	.0	.412
42	11	512.5	.13283	.066	.066	.0	15581.5	15581.2	.0	.588
43	11	537.5	.14331	.069	.069	.0	15142.0	15141.4	.0	.571
44	11	562.5	.15165	.072	.072	.0	14814.5	14813.5	.0	.559
45	11	587.5	.15725	.074	.074	.0	14604.3	14602.9	.0	.551

VALUES IN TIME DOMAIN

LAYER	TYPE	THICKNESS FT	DEPTH FT	MAX STRAIN PRCNT	MAX STRESS PSF	TIME SEC
1	3	3.0	1.5	.00835	239.09	12.23
2	3	3.0	4.5	.03060	702.56	12.23
3	3	4.0	8.0	.06675	1222.67	12.23
4	3	5.0	12.5	.13894	1855.64	12.24
5	3	5.0	17.5	.26327	2548.97	11.00
6	3	5.0	22.5	.12990	3189.96	12.24
7	7	5.0	27.5	.21983	3792.69	11.00
8	7	5.0	32.5	.16137	4398.19	13.24
9	7	5.0	37.5	.21559	4989.76	13.24
10	7	5.0	42.5	.30120	5538.99	13.24
11	7	5.0	47.5	.48156	6019.78	13.24
12	3	5.0	52.5	.10671	6728.32	13.22
13	3	5.0	57.5	.12182	7227.19	13.22
14	8	7.5	63.8	.12672	7892.99	13.22
15	8	7.5	71.3	.14893	8606.56	13.22
16	8	7.5	78.8	.17126	9277.94	13.22
17	8	7.5	86.3	.19486	9905.48	13.22
18	8	10.0	95.0	.12643	10731.96	13.21
19	8	11.0	105.5	.14479	11528.51	12.32
20	8	12.0	117.0	.17311	12692.41	12.32
21	8	12.0	129.0	.20472	13804.84	12.32
22	9	15.0	142.5	.11588	15245.91	12.31
23	3	13.0	156.5	.61802	15739.54	12.33
24	3	13.0	169.5	.68389	16427.33	12.33
25	3	13.0	182.5	.72751	16831.56	12.34
26	3	13.0	195.5	.74577	16987.51	12.34
27	3	13.0	208.5	.74026	16936.03	12.33
28	9	15.0	222.5	.30440	17300.39	12.30
29	9	15.0	237.5	.29851	17159.77	12.29
30	9	15.0	252.5	.30732	17362.71	12.43
31	10	20.0	270.0	.12537	18137.94	13.34
32	10	20.0	290.0	.14169	19660.21	12.51
33	10	20.0	310.0	.16747	21796.34	12.51
34	10	20.0	330.0	.29495	23998.72	12.52
35	10	20.0	350.0	.34441	25761.71	12.52
36	10	20.0	370.0	.39497	27260.68	12.52
37	10	20.0	390.0	.44033	28378.13	12.52

38	10	25.0	412.5	.35466	29062.49	12.51
39	10	25.0	437.5	.36973	29559.29	12.49
40	10	25.0	462.5	.29541	29642.94	12.48
41	10	25.0	487.5	.30292	30003.52	12.62
42	11	25.0	512.5	.19534	30435.79	12.60
43	11	25.0	537.5	.21075	31909.94	12.60
44	11	25.0	562.5	.22301	33035.52	12.59
45	11	25.0	587.5	.23125	33769.91	12.59

PERIOD = 1.73 FROM AVERAGE SHEAR VELOCITY = 1390.

MAXIMUM AMPLIFICATION = 5.78  
 FOR FREQUENCY = .60 C/SEC.  
 PERIOD = 1.68 SEC.

1\*\*\*\*\* OPTION 9 \*\*\* COMPUTE RESPONSE SPECTRUM  
 RESPONSE SPECTRUM ANALYSIS FOR LAYER NUMBER 1  
 CALCULATED FOR DAMPING .050

TIMES AT WHICH MAX. SPECTRAL VALUES OCCUR  
 TD = TIME FOR MAX. RELATIVE DISP.  
 TV = TIME FOR MAX. RELATIVE VEL.  
 TA = TIME FOR MAX. ABSOLUTE ACC.

DAMPING RATIO = .05

PER = .01	TIMES FOR MAXIMA --	TD = 12.2280	TV = 11.0700	TA = 12.2280
PER = .03	TIMES FOR MAXIMA --	TD = 12.2275	TV = 11.0700	TA = 12.2275
PER = .04	TIMES FOR MAXIMA --	TD = 12.2275	TV = 11.0700	TA = 12.2275
PER = .05	TIMES FOR MAXIMA --	TD = 12.2300	TV = 11.0700	TA = 12.2300
PER = .06	TIMES FOR MAXIMA --	TD = 12.2300	TV = 11.0700	TA = 12.2300
PER = .07	TIMES FOR MAXIMA --	TD = 12.2300	TV = 11.0700	TA = 12.2250
PER = .08	TIMES FOR MAXIMA --	TD = 12.2250	TV = 11.0800	TA = 12.2250
PER = .09	TIMES FOR MAXIMA --	TD = 12.2300	TV = 11.0900	TA = 12.2250
PER = .10	TIMES FOR MAXIMA --	TD = 12.2350	TV = 12.1250	TA = 12.2350
PER = .11	TIMES FOR MAXIMA --	TD = 10.9850	TV = 11.4950	TA = 10.9850
PER = .12	TIMES FOR MAXIMA --	TD = 10.9950	TV = 11.0400	TA = 10.9900
PER = .13	TIMES FOR MAXIMA --	TD = 12.2300	TV = 11.0550	TA = 12.2250
PER = .14	TIMES FOR MAXIMA --	TD = 10.9950	TV = 11.6000	TA = 10.9950
PER = .15	TIMES FOR MAXIMA --	TD = 12.2100	TV = 11.0600	TA = 12.2100
PER = .16	TIMES FOR MAXIMA --	TD = 12.2300	TV = 11.0800	TA = 12.2250
PER = .17	TIMES FOR MAXIMA --	TD = 12.2500	TV = 11.1000	TA = 12.2500
PER = .18	TIMES FOR MAXIMA --	TD = 14.2500	TV = 10.8700	TA = 14.2450
PER = .19	TIMES FOR MAXIMA --	TD = 13.1550	TV = 10.8800	TA = 13.1500
PER = .20	TIMES FOR MAXIMA --	TD = 13.1700	TV = 10.8950	TA = 13.1650
PER = .21	TIMES FOR MAXIMA --	TD = 10.9750	TV = 13.6550	TA = 10.9700
PER = .22	TIMES FOR MAXIMA --	TD = 10.9900	TV = 10.9250	TA = 10.9850
PER = .23	TIMES FOR MAXIMA --	TD = 11.0000	TV = 11.0750	TA = 11.0000
PER = .24	TIMES FOR MAXIMA --	TD = 11.0100	TV = 11.0850	TA = 11.0100
PER = .25	TIMES FOR MAXIMA --	TD = 11.1700	TV = 11.1000	TA = 11.1650
PER = .26	TIMES FOR MAXIMA --	TD = 11.1800	TV = 11.1100	TA = 11.1750
PER = .27	TIMES FOR MAXIMA --	TD = 11.1900	TV = 11.6650	TA = 11.1850

PER = .28	TIMES FOR MAXIMA --	TD = 13.2350	TV = 11.6800	TA = 13.2300
PER = .29	TIMES FOR MAXIMA --	TD = 13.2550	TV = 14.9850	TA = 13.2500
PER = .30	TIMES FOR MAXIMA --	TD = 12.2650	TV = 13.6900	TA = 12.2600
PER = .31	TIMES FOR MAXIMA --	TD = 12.2850	TV = 13.7100	TA = 12.2800
PER = .32	TIMES FOR MAXIMA --	TD = 12.3000	TV = 12.3750	TA = 12.2950
PER = .33	TIMES FOR MAXIMA --	TD = 12.3150	TV = 11.1500	TA = 12.3100
PER = .34	TIMES FOR MAXIMA --	TD = 11.2400	TV = 13.7300	TA = 11.2350
PER = .35	TIMES FOR MAXIMA --	TD = 11.2450	TV = 13.7400	TA = 11.2350
PER = .36	TIMES FOR MAXIMA --	TD = 11.2450	TV = 13.7550	TA = 11.2400
PER = .37	TIMES FOR MAXIMA --	TD = 11.2550	TV = 13.7650	TA = 11.2500
PER = .38	TIMES FOR MAXIMA --	TD = 11.2600	TV = 13.6000	TA = 11.2550
PER = .39	TIMES FOR MAXIMA --	TD = 11.2700	TV = 13.6050	TA = 11.2650
PER = .40	TIMES FOR MAXIMA --	TD = 12.3300	TV = 13.6200	TA = 12.3250
PER = .41	TIMES FOR MAXIMA --	TD = 12.3500	TV = 11.1900	TA = 12.3400
PER = .42	TIMES FOR MAXIMA --	TD = 12.3650	TV = 12.2700	TA = 12.3600
PER = .43	TIMES FOR MAXIMA --	TD = 12.3850	TV = 12.2800	TA = 12.3750
PER = .44	TIMES FOR MAXIMA --	TD = 12.4000	TV = 12.9600	TA = 12.3950
PER = .45	TIMES FOR MAXIMA --	TD = 11.3200	TV = 11.2050	TA = 11.3100
PER = .46	TIMES FOR MAXIMA --	TD = 11.3250	TV = 11.2050	TA = 11.3150
PER = .47	TIMES FOR MAXIMA --	TD = 11.3300	TV = 11.9450	TA = 11.3250
PER = .48	TIMES FOR MAXIMA --	TD = 11.8450	TV = 11.7250	TA = 11.8350
PER = .49	TIMES FOR MAXIMA --	TD = 11.8600	TV = 11.7350	TA = 11.8500
PER = .50	TIMES FOR MAXIMA --	TD = 11.8700	TV = 11.7500	TA = 11.8600
PER = .51	TIMES FOR MAXIMA --	TD = 11.8800	TV = 11.7550	TA = 11.8700
PER = .52	TIMES FOR MAXIMA --	TD = 11.8850	TV = 11.7600	TA = 11.8750
PER = .53	TIMES FOR MAXIMA --	TD = 11.8950	TV = 11.7700	TA = 11.8850
PER = .54	TIMES FOR MAXIMA --	TD = 11.9050	TV = 11.7750	TA = 11.8950
PER = .55	TIMES FOR MAXIMA --	TD = 11.9150	TV = 11.7850	TA = 11.9050
PER = .56	TIMES FOR MAXIMA --	TD = 11.3750	TV = 11.7950	TA = 11.3650
PER = .57	TIMES FOR MAXIMA --	TD = 12.2950	TV = 11.8050	TA = 11.3750
PER = .58	TIMES FOR MAXIMA --	TD = 12.3150	TV = 11.5550	TA = 12.3050
PER = .60	TIMES FOR MAXIMA --	TD = 12.3500	TV = 13.4550	TA = 12.3400
PER = .62	TIMES FOR MAXIMA --	TD = 13.3300	TV = 13.4800	TA = 13.3250
PER = .64	TIMES FOR MAXIMA --	TD = 13.3600	TV = 13.5000	TA = 13.3500
PER = .66	TIMES FOR MAXIMA --	TD = 13.3900	TV = 13.5250	TA = 13.3800
PER = .68	TIMES FOR MAXIMA --	TD = 12.4550	TV = 12.6250	TA = 12.4450
PER = .70	TIMES FOR MAXIMA --	TD = 12.4750	TV = 12.6450	TA = 12.4650
PER = .72	TIMES FOR MAXIMA --	TD = 12.5000	TV = 12.6650	TA = 12.4900
PER = .74	TIMES FOR MAXIMA --	TD = 12.5350	TV = 6.0850	TA = 12.5250
PER = .76	TIMES FOR MAXIMA --	TD = 5.9100	TV = 6.1000	TA = 5.9000
PER = .78	TIMES FOR MAXIMA --	TD = 5.9250	TV = 6.1200	TA = 5.9100
PER = .80	TIMES FOR MAXIMA --	TD = 5.9350	TV = 6.1350	TA = 5.9200
PER = .82	TIMES FOR MAXIMA --	TD = 5.9450	TV = 6.1550	TA = 5.9350
PER = .84	TIMES FOR MAXIMA --	TD = 5.9600	TV = 6.1700	TA = 5.9450
PER = .86	TIMES FOR MAXIMA --	TD = 6.4100	TV = 6.1850	TA = 6.3950
PER = .88	TIMES FOR MAXIMA --	TD = 6.4300	TV = 6.2000	TA = 6.4150
PER = .90	TIMES FOR MAXIMA --	TD = 6.4500	TV = 6.2200	TA = 6.4350
PER = .92	TIMES FOR MAXIMA --	TD = 6.4700	TV = 6.2350	TA = 6.4550
PER = .94	TIMES FOR MAXIMA --	TD = 6.4900	TV = 6.2500	TA = 6.4750
PER = .96	TIMES FOR MAXIMA --	TD = 6.5050	TV = 6.2600	TA = 6.4900

PER = .98	TIMES FOR MAXIMA --	TD = 6.5250	TV = 6.2750	TA = 6.5100
PER = 1.00	TIMES FOR MAXIMA --	TD = 6.5450	TV = 6.2900	TA = 6.5300
PER = 1.05	TIMES FOR MAXIMA --	TD = 6.5950	TV = 6.3250	TA = 6.5800
PER = 1.10	TIMES FOR MAXIMA --	TD = 8.3600	TV = 6.9500	TA = 8.3400
PER = 1.15	TIMES FOR MAXIMA --	TD = 8.4450	TV = 8.1700	TA = 8.4300
PER = 1.20	TIMES FOR MAXIMA --	TD = 9.7700	TV = 10.0550	TA = 9.7500
PER = 1.25	TIMES FOR MAXIMA --	TD = 12.4900	TV = 9.5550	TA = 12.4700
PER = 1.30	TIMES FOR MAXIMA --	TD = 12.5850	TV = 12.9450	TA = 12.5650
PER = 1.35	TIMES FOR MAXIMA --	TD = 13.4250	TV = 14.5400	TA = 13.4050
PER = 1.40	TIMES FOR MAXIMA --	TD = 14.9850	TV = 14.6800	TA = 14.9600
PER = 1.45	TIMES FOR MAXIMA --	TD = 15.0650	TV = 14.7350	TA = 15.0400
PER = 1.50	TIMES FOR MAXIMA --	TD = 15.1200	TV = 14.7600	TA = 15.1000
PER = 1.55	TIMES FOR MAXIMA --	TD = 15.1750	TV = 14.7800	TA = 15.1500
PER = 1.60	TIMES FOR MAXIMA --	TD = 15.2250	TV = 14.8000	TA = 15.2000
PER = 1.65	TIMES FOR MAXIMA --	TD = 16.9650	TV = 15.7200	TA = 16.9400
PER = 1.70	TIMES FOR MAXIMA --	TD = 17.0400	TV = 16.6300	TA = 17.0150
PER = 1.75	TIMES FOR MAXIMA --	TD = 17.1150	TV = 16.6800	TA = 17.0850
PER = 1.80	TIMES FOR MAXIMA --	TD = 17.1850	TV = 15.8650	TA = 17.1550
PER = 1.85	TIMES FOR MAXIMA --	TD = 15.5100	TV = 15.0800	TA = 15.4850
PER = 1.90	TIMES FOR MAXIMA --	TD = 15.5550	TV = 14.2850	TA = 15.5250
PER = 1.95	TIMES FOR MAXIMA --	TD = 14.6900	TV = 14.2950	TA = 14.6600
PER = 2.00	TIMES FOR MAXIMA --	TD = 14.7250	TV = 14.3100	TA = 14.6900
PER = 2.05	TIMES FOR MAXIMA --	TD = 13.8800	TV = 14.3250	TA = 13.8450
PER = 2.10	TIMES FOR MAXIMA --	TD = 13.9100	TV = 14.3400	TA = 13.8750
PER = 2.15	TIMES FOR MAXIMA --	TD = 13.9400	TV = 14.3600	TA = 13.9100
PER = 2.20	TIMES FOR MAXIMA --	TD = 13.9700	TV = 14.3750	TA = 13.9350
PER = 2.25	TIMES FOR MAXIMA --	TD = 13.9950	TV = 14.3850	TA = 13.9600
PER = 2.30	TIMES FOR MAXIMA --	TD = 14.0150	TV = 14.3950	TA = 13.9800
PER = 2.35	TIMES FOR MAXIMA --	TD = 14.0350	TV = 13.6150	TA = 14.0000
PER = 2.40	TIMES FOR MAXIMA --	TD = 14.0600	TV = 13.6200	TA = 14.0200
PER = 2.50	TIMES FOR MAXIMA --	TD = 14.1000	TV = 13.6250	TA = 14.0600
PER = 2.60	TIMES FOR MAXIMA --	TD = 14.1450	TV = 13.6350	TA = 14.1050
PER = 2.70	TIMES FOR MAXIMA --	TD = 14.1750	TV = 13.6400	TA = 14.1350
PER = 2.80	TIMES FOR MAXIMA --	TD = 13.1550	TV = 13.6500	TA = 13.1100
PER = 2.90	TIMES FOR MAXIMA --	TD = 13.1650	TV = 13.6550	TA = 13.1250
PER = 3.00	TIMES FOR MAXIMA --	TD = 13.1750	TV = 13.6600	TA = 13.1300
PER = 3.10	TIMES FOR MAXIMA --	TD = 13.1900	TV = 13.6650	TA = 13.1400
PER = 3.20	TIMES FOR MAXIMA --	TD = 13.2000	TV = 13.6750	TA = 13.1500
PER = 3.30	TIMES FOR MAXIMA --	TD = 13.2100	TV = 13.6850	TA = 13.1650
PER = 3.40	TIMES FOR MAXIMA --	TD = 13.2250	TV = 13.8050	TA = 13.1750
PER = 3.50	TIMES FOR MAXIMA --	TD = 13.2400	TV = 12.8250	TA = 13.1850
PER = 3.60	TIMES FOR MAXIMA --	TD = 13.2550	TV = 12.8300	TA = 13.1950
PER = 3.70	TIMES FOR MAXIMA --	TD = 13.2650	TV = 12.8350	TA = 13.2100
PER = 3.80	TIMES FOR MAXIMA --	TD = 13.2850	TV = 12.8400	TA = 13.2200
PER = 3.90	TIMES FOR MAXIMA --	TD = 13.3000	TV = 12.8450	TA = 13.2300
PER = 4.00	TIMES FOR MAXIMA --	TD = 13.3150	TV = 12.8450	TA = 13.2400
PER = 4.10	TIMES FOR MAXIMA --	TD = 15.6700	TV = 12.8500	TA = 15.6050
PER = 4.20	TIMES FOR MAXIMA --	TD = 15.7150	TV = 12.8550	TA = 15.6500
PER = 4.30	TIMES FOR MAXIMA --	TD = 15.7550	TV = 12.8550	TA = 15.6850
PER = 4.40	TIMES FOR MAXIMA --	TD = 15.7900	TV = 12.8600	TA = 15.7150

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PER = 4.50	TIMES FOR MAXIMA --	TD = 32.2600	TV = 12.8600	TA = 32.1850
PER = 4.60	TIMES FOR MAXIMA --	TD = 30.1800	TV = 12.8650	TA = 30.1100
PER = 4.70	TIMES FOR MAXIMA --	TD = 30.3500	TV = 12.8650	TA = 30.2750
PER = 4.80	TIMES FOR MAXIMA --	TD = 30.5150	TV = 12.8650	TA = 30.4400
PER = 4.90	TIMES FOR MAXIMA --	TD = 21.7700	TV = 12.8650	TA = 21.6950
PER = 5.00	TIMES FOR MAXIMA --	TD = 21.8500	TV = 12.8650	TA = 21.7550
PER = 5.10	TIMES FOR MAXIMA --	TD = 21.9600	TV = 12.8650	TA = 21.8900
PER = 5.20	TIMES FOR MAXIMA --	TD = 22.0500	TV = 12.8650	TA = 21.9650
PER = 5.40	TIMES FOR MAXIMA --	TD = 22.1800	TV = 12.8700	TA = 22.1100
PER = 5.60	TIMES FOR MAXIMA --	TD = 19.8450	TV = 12.8700	TA = 19.7450
PER = 5.80	TIMES FOR MAXIMA --	TD = 19.9200	TV = 12.8650	TA = 19.8300
PER = 6.00	TIMES FOR MAXIMA --	TD = 20.0200	TV = 12.8650	TA = 19.9000
PER = 6.20	TIMES FOR MAXIMA --	TD = 20.1150	TV = 12.8650	TA = 20.0500
PER = 6.40	TIMES FOR MAXIMA --	TD = 20.1600	TV = 12.8650	TA = 20.0900
PER = 6.60	TIMES FOR MAXIMA --	TD = 30.7800	TV = 12.8650	TA = 30.6750
PER = 6.80	TIMES FOR MAXIMA --	TD = 30.9950	TV = 12.8650	TA = 30.8850
PER = 7.00	TIMES FOR MAXIMA --	TD = 31.2150	TV = 12.8650	TA = 31.1050
PER = 7.20	TIMES FOR MAXIMA --	TD = 28.2800	TV = 12.8650	TA = 28.1650
PER = 7.40	TIMES FOR MAXIMA --	TD = 28.4300	TV = 12.8650	TA = 28.3150
PER = 7.60	TIMES FOR MAXIMA --	TD = 28.5750	TV = 12.8650	TA = 28.4550
PER = 7.80	TIMES FOR MAXIMA --	TD = 28.7350	TV = 12.8650	TA = 28.6000
PER = 8.00	TIMES FOR MAXIMA --	TD = 28.8950	TV = 12.8650	TA = 28.7600
PER = 8.50	TIMES FOR MAXIMA --	TD = 25.8850	TV = 12.8650	TA = 25.7350
PER = 9.00	TIMES FOR MAXIMA --	TD = 26.0350	TV = 12.8650	TA = 25.9000
PER = 9.50	TIMES FOR MAXIMA --	TD = 26.1600	TV = 12.8650	TA = 25.9950
PER =10.00	TIMES FOR MAXIMA --	TD = 17.9700	TV = 12.8650	TA = 17.7350

SPECTRAL VALUES --

[Acceleration of gravity used = 981.00]

Time history matched to spe Idriss interpretation

DAMPING RATIO = .05

NO.	PERIOD	REL. DISP.	REL. VEL.	PSU.REL.VEL.	ABS. ACC.	PSU.ABS.ACC.	FREQ.
1	.0100	.00324	.04659	2.03517	1.30348	1.30350	100.0000
2	.0300	.02929	.42323	6.13519	1.30994	1.30984	33.3333
3	.0400	.05230	.75929	8.21602	1.31575	1.31557	25.0000
4	.0500	.08217	1.19333	10.32620	1.32241	1.32276	20.0000
5	.0600	.11916	1.75055	12.47812	1.33154	1.33201	16.6667
6	.0700	.16350	2.44990	14.67598	1.34322	1.34283	14.2857
7	.0800	.21567	3.39500	16.93872	1.35718	1.35613	12.5000
8	.0900	.28296	3.85041	19.75402	1.40738	1.40580	11.1111
9	.1000	.36189	5.31972	22.73844	1.45864	1.45637	10.0000
10	.1100	.42719	7.11518	24.40102	1.42069	1.42078	9.0909
11	.1200	.53023	9.42262	27.76295	1.48118	1.48182	8.3333
12	.1300	.59286	12.14857	28.65415	1.41284	1.41174	7.6923
13	.1400	.74944	15.71104	33.63474	1.53836	1.53876	7.1429
14	.1500	.95714	22.71461	40.09249	1.71239	1.71192	6.6667
15	.1600	1.22277	28.92574	48.01797	1.92701	1.92218	6.2500
16	.1700	1.37815	29.86922	50.93645	1.92126	1.91907	5.8824
17	.1800	1.48491	34.88205	51.83300	1.84782	1.84436	5.5556
18	.1900	1.75720	41.31991	58.10957	1.96498	1.95887	5.2632
19	.2000	2.19533	48.57540	68.96835	2.21413	2.20867	5.0000
20	.2100	2.58632	57.10815	77.38247	2.36919	2.36012	4.7619

21	.2200	3.11335	60.67159	88.91719	2.59523	2.58865	4.5455
22	.2300	3.38051	67.27795	92.34930	2.58089	2.57168	4.3478
23	.2400	3.75947	78.92089	98.42281	2.63454	2.62661	4.1667
24	.2500	4.25960	88.93032	107.05540	2.75187	2.74271	4.0000
25	.2600	4.69605	92.48391	113.48510	2.80478	2.79561	3.8462
26	.2700	5.09995	98.88936	118.68130	2.82722	2.81533	3.7037
27	.2800	5.92268	105.48130	132.90460	3.04974	3.04013	3.5714
28	.2900	7.08256	129.52820	153.45190	3.39989	3.38911	3.4483
29	.3000	8.04715	143.60400	168.53910	3.61016	3.59824	3.3333
30	.3100	9.02608	151.56310	182.94360	3.79420	3.77978	3.2258
31	.3200	9.27798	139.86720	182.17280	3.66088	3.64623	3.1250
32	.3300	8.76538	134.08110	166.89240	3.25218	3.23917	3.0303
33	.3400	8.61399	138.88570	159.18620	3.01081	2.99873	2.9412
34	.3500	8.93408	151.73010	160.38430	2.94704	2.93498	2.8571
35	.3600	9.61659	156.73820	167.84110	2.99995	2.98612	2.7778
36	.3700	10.58843	157.51910	179.80830	3.12482	3.11257	2.7027
37	.3800	11.30116	165.45840	186.86130	3.16454	3.14954	2.6316
38	.3900	11.93637	179.61290	192.30360	3.17142	3.15816	2.5641
39	.4000	12.90272	182.98040	202.67540	3.25995	3.24528	2.5000
40	.4100	14.01802	180.83850	214.82390	3.37015	3.35591	2.4390
41	.4200	14.18628	175.78710	212.22620	3.24964	3.23639	2.3810
42	.4300	13.72272	167.49180	200.51720	2.99790	2.98672	2.3256
43	.4400	13.10733	161.50390	187.17220	2.73397	2.72458	2.2727
44	.4500	12.82593	158.99890	179.08380	2.55988	2.54891	2.2222
45	.4600	13.40888	162.67210	183.15320	2.55983	2.55016	2.1739
46	.4700	13.97853	167.39250	186.87180	2.55681	2.54658	2.1277
47	.4800	14.50521	175.20890	189.87270	2.54520	2.53357	2.0833
48	.4900	14.92303	178.01870	191.35550	2.51442	2.50124	2.0408
49	.5000	14.94276	175.73670	187.77630	2.41679	2.40537	2.0000
50	.5100	14.96067	173.59370	184.31500	2.32670	2.31474	1.9608
51	.5200	15.40997	176.91300	186.19940	2.30397	2.29343	1.9231
52	.5300	16.23315	185.54520	192.44510	2.33738	2.32564	1.8868
53	.5400	17.15452	195.76640	199.60190	2.37949	2.36746	1.8519
54	.5500	18.12130	206.74220	207.01730	2.42261	2.41076	1.8182
55	.5600	19.63611	219.32080	220.31660	2.53044	2.51982	1.7857
56	.5700	21.39442	231.43700	235.83360	2.66075	2.64997	1.7544
57	.5800	24.55191	240.40780	265.97270	2.94888	2.93711	1.7241
58	.6000	28.24199	286.58040	295.74940	3.16993	3.15707	1.6667
59	.6200	31.55596	317.74660	319.79340	3.31802	3.30361	1.6129
60	.6400	34.61403	329.56680	339.82250	3.41711	3.40082	1.5625
61	.6600	36.01749	312.34340	342.88570	3.34489	3.32749	1.5152
62	.6800	35.24006	290.59330	325.61740	3.07928	3.06697	1.4706
63	.7000	35.97029	288.04930	322.86860	2.96662	2.95419	1.4286
64	.7200	38.19618	293.81020	333.32460	2.97841	2.96514	1.3889
65	.7400	37.51666	289.23540	318.54610	2.76996	2.75709	1.3514
66	.7600	38.20645	297.65770	315.86610	2.67433	2.66195	1.3158
67	.7800	39.77415	304.03510	320.39530	2.64371	2.63089	1.2821
68	.8000	41.17450	309.11010	323.38380	2.60118	2.58904	1.2500
69	.8200	42.46626	313.46290	325.39440	2.55408	2.54160	1.2195
70	.8400	43.68412	317.26520	326.75650	2.50422	2.49147	1.1905



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71	.8600	44.91529	320.47110	328.15240	2.45519	2.44393	1.1628
72	.8800	46.38626	323.11460	331.19710	2.42146	2.41054	1.1364
73	.9000	47.80081	325.42150	333.71260	2.38554	2.37488	1.1111
74	.9200	49.19193	327.54440	335.95870	2.34943	2.33889	1.0870
75	.9400	50.59373	329.70350	338.18060	2.31478	2.30426	1.0638
76	.9600	52.02686	332.02960	340.51500	2.28239	2.27183	1.0417
77	.9800	53.49854	334.52480	343.00130	2.25226	2.24172	1.0204
78	1.0000	54.97274	336.91190	345.40390	2.22266	2.21227	1.0000
79	1.0500	58.38807	340.72460	349.39340	2.14107	2.13126	.9524
80	1.1000	62.11906	347.84250	354.82330	2.07610	2.06600	.9091
81	1.1500	69.06382	380.37430	377.33980	2.11171	2.10158	.8696
82	1.2000	77.39297	414.09780	405.22870	2.17360	2.16287	.8333
83	1.2500	82.25122	403.02980	413.43970	2.12681	2.11842	.8000
84	1.3000	97.79282	402.36610	472.65420	2.34017	2.32869	.7692
85	1.3500	111.34890	459.59480	518.24150	2.47276	2.45872	.7407
86	1.4000	125.53840	528.09360	563.41490	2.58861	2.57757	.7143
87	1.4500	133.40600	577.95590	578.07920	2.56380	2.55347	.6897
88	1.5000	142.05640	610.86680	595.04440	2.55269	2.54079	.6667
89	1.5500	151.90200	638.34880	615.76030	2.55797	2.54443	.6452
90	1.6000	159.38910	646.71600	625.91940	2.51883	2.50559	.6250
91	1.6500	168.11860	634.75100	640.19420	2.49727	2.48507	.6061
92	1.7000	172.27960	644.20360	636.74380	2.41180	2.39898	.5882
93	1.7500	171.37720	633.29210	615.31130	2.26462	2.25200	.5714
94	1.8000	166.79820	610.51050	582.23550	2.08335	2.07175	.5556
95	1.8500	168.04660	590.96090	570.73940	1.98744	1.97595	.5405
96	1.9000	168.63110	610.34220	557.65300	1.89195	1.87984	.5263
97	1.9500	170.08080	627.62320	548.02520	1.81266	1.80002	.5128
98	2.0000	168.35460	633.75150	528.90170	1.70648	1.69378	.5000
99	2.0500	165.93540	627.13460	508.58680	1.59814	1.58899	.4878
100	2.1000	167.58340	609.59190	501.40840	1.53801	1.52927	.4762
101	2.1500	167.68280	584.81340	490.03830	1.46808	1.45983	.4651
102	2.2000	166.86510	556.22140	476.56560	1.39556	1.38743	.4545
103	2.2500	165.60350	526.21000	462.45210	1.32472	1.31642	.4444
104	2.3000	164.19690	495.94790	448.55630	1.25752	1.24911	.4348
105	2.3500	162.75310	466.36220	435.15230	1.19436	1.18600	.4255
106	2.4000	161.25040	465.75020	422.15260	1.13462	1.12660	.4167
107	2.5000	157.72590	461.77450	396.40830	1.02245	1.01558	.4000
108	2.6000	153.14970	453.61750	370.10310	.91820	.91172	.3846
109	2.7000	147.48190	442.06940	343.20600	.82114	.81415	.3704
110	2.8000	148.41260	429.19750	333.03710	.76940	.76181	.3571
111	2.9000	151.59370	416.46350	328.44530	.73311	.72540	.3448
112	3.0000	155.37330	404.14160	325.41320	.70257	.69474	.3333
113	3.1000	159.68120	391.62080	323.64720	.67663	.66868	.3226
114	3.2000	164.17640	377.96790	322.35960	.65326	.64521	.3125
115	3.3000	168.37420	362.36080	320.58370	.63039	.62221	.3030
116	3.4000	171.80870	347.86700	317.50170	.60640	.59811	.2941
117	3.5000	174.03610	342.34620	312.42900	.58011	.57173	.2857
118	3.6000	174.75380	351.99860	305.00300	.55102	.54264	.2778
119	3.7000	173.78030	359.94670	295.10650	.51911	.51084	.2703
120	3.8000	171.06990	365.72630	282.85890	.48479	.47676	.2632

121	3.9000	166.72280	369.07580	268.60260	.44875	.44112	.2564
122	4.0000	160.92660	369.94000	252.78290	.41182	.40476	.2500
123	4.1000	156.48810	368.40200	239.81560	.37786	.37463	.2439
124	4.2000	154.60190	364.64610	231.28380	.35612	.35270	.2381
125	4.3000	150.39620	359.04010	219.75980	.33081	.32733	.2326
126	4.4000	144.37750	351.94680	206.17070	.30329	.30011	.2273
127	4.5000	147.44120	343.75310	205.86680	.29450	.29301	.2222
128	4.6000	149.71550	334.82060	204.49800	.28620	.28474	.2174
129	4.7000	145.41010	325.55170	194.39120	.26634	.26490	.2128
130	4.8000	135.36530	316.20020	177.19280	.23774	.23644	.2083
131	4.9000	139.96570	307.01640	179.47560	.23666	.23460	.2041
132	5.0000	143.66060	298.20010	180.52930	.23311	.23125	.2000
133	5.1000	145.62800	289.89900	179.41330	.22648	.22532	.1961
134	5.2000	146.19050	282.20670	176.64270	.21886	.21757	.1923
135	5.4000	143.60700	268.83910	167.09440	.19989	.19819	.1852
136	5.6000	139.81530	258.15750	156.87240	.18079	.17942	.1786
137	5.8000	140.39800	249.92410	152.09430	.16922	.16796	.1724
138	6.0000	140.55660	243.74250	147.19050	.15820	.15712	.1667
139	6.2000	140.94020	239.17730	142.83120	.14836	.14755	.1613
140	6.4000	140.68240	235.82830	138.11470	.13950	.13822	.1563
141	6.6000	148.96680	233.35530	141.81600	.13844	.13762	.1515
142	6.8000	157.10400	231.48850	145.16380	.13754	.13673	.1471
143	7.0000	159.66520	230.02440	143.31510	.13189	.13113	.1429
144	7.2000	158.98670	228.81640	138.74210	.12424	.12342	.1389
145	7.4000	163.89800	227.76460	139.16240	.12129	.12045	.1351
146	7.6000	164.65210	226.79870	136.12370	.11554	.11472	.1316
147	7.8000	161.83370	225.88080	130.36300	.10776	.10705	.1282
148	8.0000	156.26420	224.98460	122.72960	.09888	.09826	.1250
149	8.5000	140.46410	222.77620	103.83080	.07917	.07824	.1176
150	9.0000	133.68110	220.61510	93.32703	.06732	.06642	.1111
151	9.5000	119.54790	218.55140	79.06756	.05409	.05331	.1053
152	10.0000	104.95790	216.63920	65.94698	.04397	.04224	.1000

VALUES IN PERIOD RANGE .1 TO 2.5 SEC.

AREA OF ACC. RESPONSE SPECTRUM = 5.317  
 AREA OF VEL. RESPONSE SPECTRUM = 986.626  
 MAX. ACCELERATION RESPONSE VALUE = 3.794  
 MAX. VELOCITY RESPONSE VALUE = 646.716

1\*\*\*\*\* OPTION 6 \*\*\* COMPUTE MOTION IN NEW SUBLAYERS

EARTHQUAKE -m78set1.acc

SOIL DEPOSIT - Idriss interpretation

LAYER	DEPTH FT	MAX. ACC. G	TIME SEC	MEAN SQ. FR. C/SEC	ACC. RATIO QUIET ZONE	TH SAVED ACC. RECORD
OUTCR.	.0	1.30238	12.23	1.57	.032	820
WITHIN	3.0	1.30042	12.23	1.57	.032	0
WITHIN	6.0	1.29307	12.23	1.56	.032	0
WITHIN	10.0	1.27178	12.22	1.53	.032	0
WITHIN	15.0	1.21633	12.22	1.45	.034	0
WITHIN	20.0	1.11340	12.22	1.33	.037	0

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WITHIN	25.0	1.06406	12.22	1.28	.038	0
WITHIN	30.0	1.03401	13.20	1.21	.039	0
WITHIN	35.0	1.01464	13.20	1.17	.040	0
WITHIN	40.0	.98905	13.19	1.13	.041	0
WITHIN	45.0	.95400	13.19	1.09	.042	0
WITHIN	50.0	.97016	12.32	1.09	.041	0
WITHIN	55.0	.97524	12.32	1.09	.041	0
WITHIN	60.0	.97691	12.32	1.09	.041	0
WITHIN	67.5	.97278	12.32	1.08	.041	0
WITHIN	75.0	.96068	12.31	1.07	.041	0
WITHIN	82.5	.93971	12.31	1.06	.042	0
WITHIN	90.0	.90967	12.31	1.05	.043	0
WITHIN	100.0	.87952	12.31	1.05	.044	0
WITHIN	111.0	.83811	12.31	1.05	.046	0
WITHIN	123.0	.78376	12.30	1.07	.049	0
WITHIN	135.0	.72617	12.29	1.10	.052	0
WITHIN	150.0	.68979	12.28	1.11	.054	0
WITHIN	163.0	.81477	13.39	1.36	.044	0
WITHIN	176.0	.95303	13.38	1.76	.036	0
WITHIN	189.0	1.05166	13.36	2.04	.031	0
WITHIN	202.0	1.08762	13.35	2.18	.028	0
WITHIN	215.0	1.08162	10.74	2.26	.026	0
WITHIN	230.0	1.07762	10.73	2.21	.025	0
WITHIN	245.0	1.01561	10.72	2.13	.026	0
WITHIN	260.0	.94807	10.71	2.10	.027	0
WITHIN	280.0	.89577	10.70	2.05	.028	0
WITHIN	300.0	.83075	10.72	1.96	.029	0
WITHIN	320.0	.77896	11.02	1.94	.030	0
WITHIN	340.0	.88032	11.00	2.19	.025	0
WITHIN	360.0	.95581	10.99	2.57	.022	0
WITHIN	380.0	1.01875	10.63	2.85	.019	0
WITHIN	400.0	1.13496	10.61	3.04	.016	0
WITHIN	425.0	1.20688	10.59	3.08	.014	0
WITHIN	450.0	1.29138	10.57	3.18	.012	0
WITHIN	475.0	1.26698	10.56	3.26	.011	0
WITHIN	500.0	1.22885	10.55	3.45	.010	0
WITHIN	525.0	1.15961	10.53	3.41	.010	0
WITHIN	550.0	1.12298	10.52	3.48	.010	0
WITHIN	575.0	1.14992	10.51	3.72	.009	0
WITHIN	600.0	1.22566	10.49	4.01	.008	0