STATE OF CALIFORNIA—THE RESOURCES AGENCY

PETE WILSON, *Governor*

DEPARTMENT OF CONSERVATION

DIVISION OF MINES AND GEOLOGY

OFFICE OF STRONG MOTION STUDIES

630 BERCUT DRIVE

SACRAMENTO, CA 95814-0189

(PHONE 916—322-3105)

Plots To Accompany Tape:
CHALFANT86 (Phase 1, 2 & 3 data)

Processed Strong-Motion Data from the Chalfant Valley Earthquakes of July 1986

Ground-Response and Lifeline Records

California Strong Motion Instrumentation Program (CSMIP)

Report No. OSMS 91-11

The attached plots for 19 stations (18 ground-response and 1 lifeline) that recorded the 1986 Chalfant Valley earthquakes. The plots for these stations are arranged as follows:

No.	Station Name	No. of Channels
20 July (14:29 GMT) FORESHOCK		
1.	Chalfant - Zack Brothers Ranch	3
2.	Bishop - LADWP South Street Garage	3
3.	Bishop - Paradise Lodge	3
4.	Lake Crowley - Shehorn Residence	3
5.	Benton	3
21 July (14:42 GMT) MAINSHOCK		
6.	Chalfant - Zack Brothers Ranch	3
7.	Bishop - LADWP South Street Garage	3
8.	Bishop - Paradise Lodge	3
9.	Lake Crowley - Shehorn Residence	3
10.	Convict Creek - U.C. Experimental Station	3
11.	Lake Crowley - Long Valley Dam	13
12.	Benton	3
13.	Mammoth Lakes - Sheriff Substation	3
14.	Tinemaha Reservoir - Free Field	3
21 July (14:51 GMT) AFTERSHOCK #1		
15.	Chalfant - Zack Brothers Ranch	3
16.	Bishop - LADWP South Street Garage	3
17.	Bishop - Paradise Lodge	3
31 July (07:22 GMT) AFTERSHOCK #2		
18.	Chalfant - Zack Brothers Ranch	3
19.	Bishop - LADWP South Street Garage	3

The set of plots for each station is identified by the above station number at the upper corner of each page. For each station, four sets of plots are presented in the following order:

1. Phase 1 (Vol. 1) data: uncorrected accelerations. For ground-response stations, the acceleration for the first 40 seconds are plotted with a common amplitude scaling factor for all channels. Three channels are plotted on one page. The full processed length is 40 seconds for most stations. For the lifeline station acceleration for the first 22 seconds are plotted with a common amplitude scaling factor for all channels. Eight channels are plotted on one page. The full processed length is 22 seconds.

2. Phase 2 (Vol. 2) data: instrument and baseline-corrected acceleration, velocity and displacement. The data for the first 40 seconds are plotted with equal scaling for all channels unless otherwise specified. Three channels are plotted on each page. The usable frequency bandwidth of the Phase 2 data, as determined during processing, is indicated on the plots.

3. Phase 3 (Vol. 3) data: response spectra. The pseudo-velocity spectra (PSV), the pseudo-acceleration spectra (PSA), the displacement spectra (SD) for 0%, 2%, 5%, 10%, and 20% dampings are presented on a tripartite logarithmic plot for each channel. The spectra are plotted for periods within the usable data bandwidth.

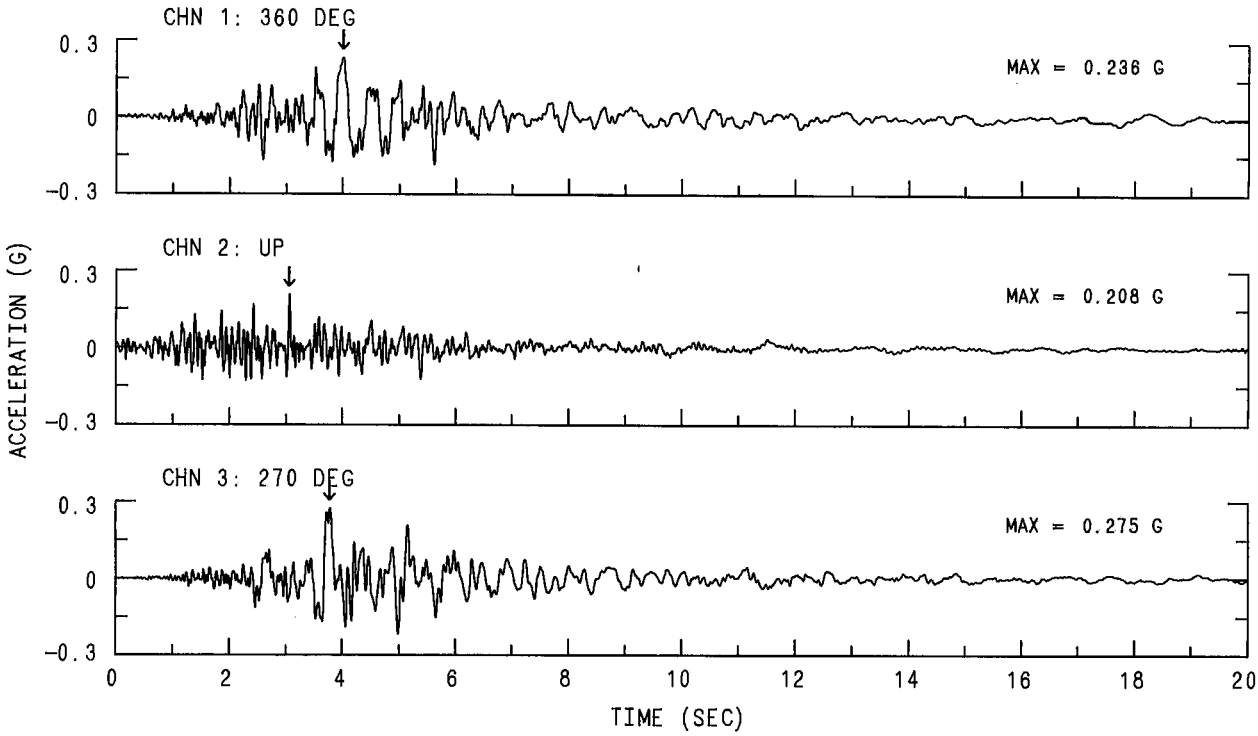
4. Phase 3 (Vol. 3) data: response spectra. The absolute acceleration spectra (SA) for 0%, 2%, 5%, 10% and 20% dampings are plotted against period with linear-linear scaling.

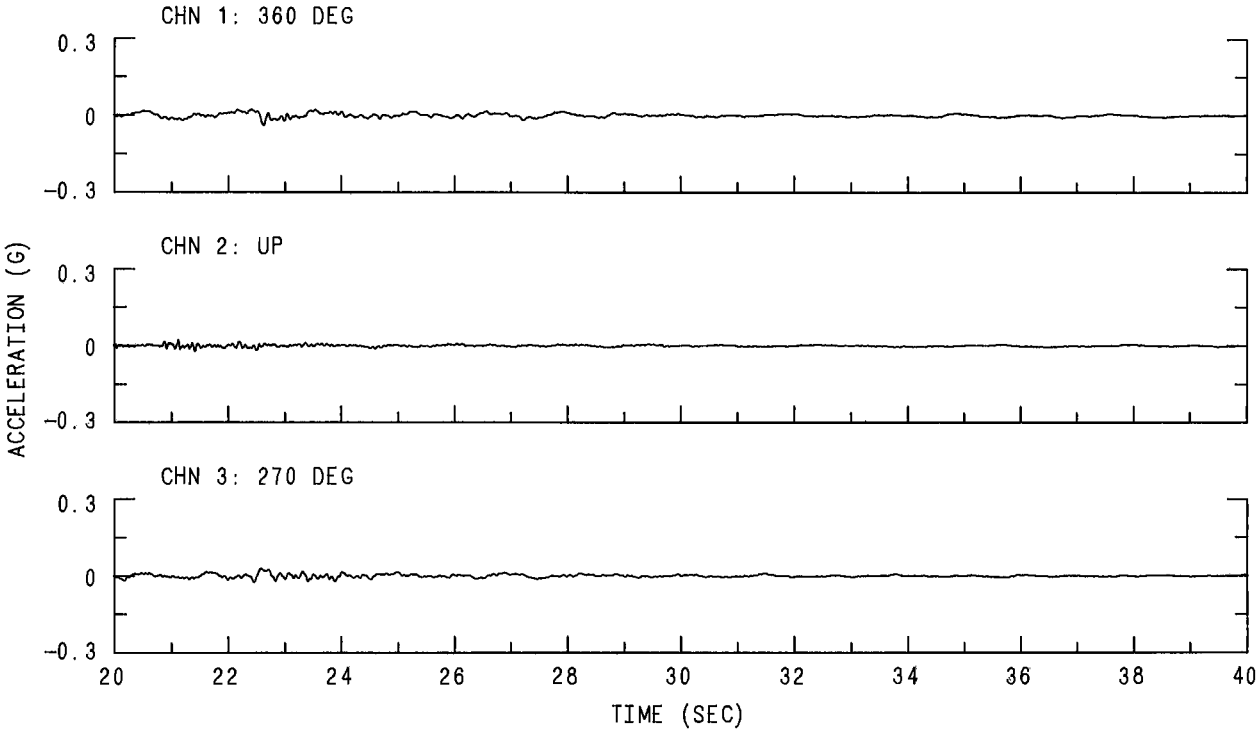
CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT

CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

PHASE 1 ACCELERATION

RECORD ID: 54428-S1702-86202.01.1

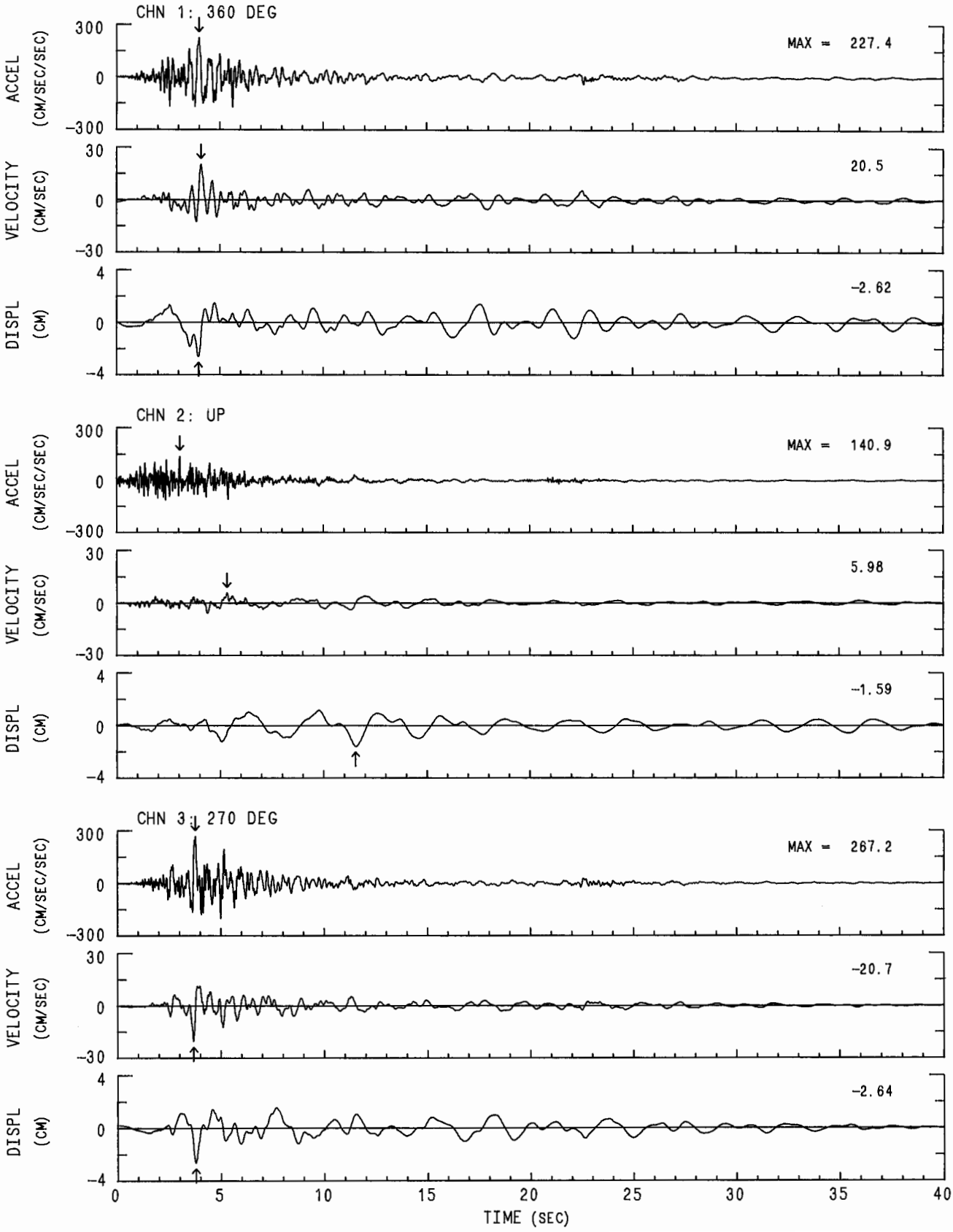




CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT
CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.25 TO 23.6 HZ (0.04 TO 3.92 SEC) RECORD ID: 54428-S1702-86202.01.1



CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

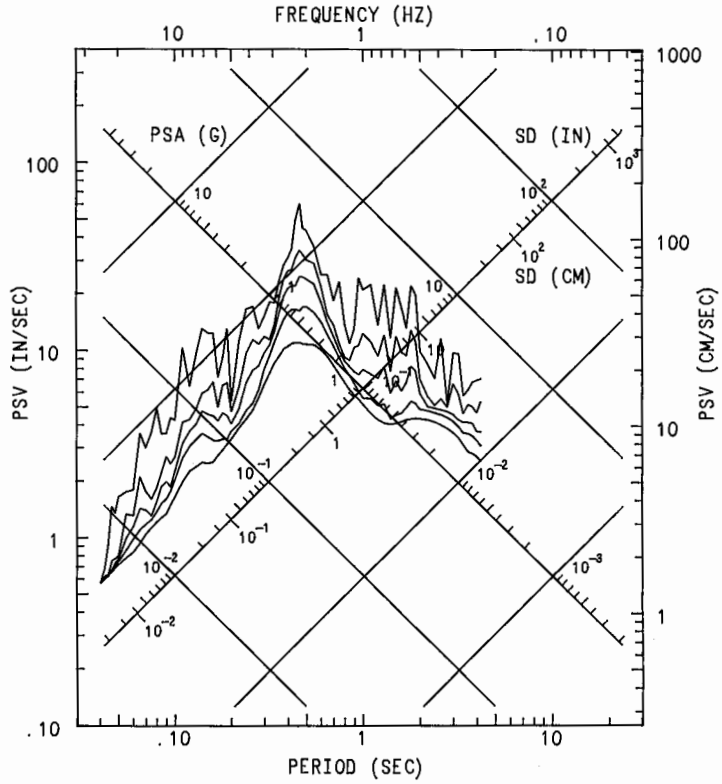
CHALFANT VALLEY FORESHOCK
JULY 20, 1986 07:29 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.25 TO 23.6 HZ
(0.04 TO 3.92 SEC)

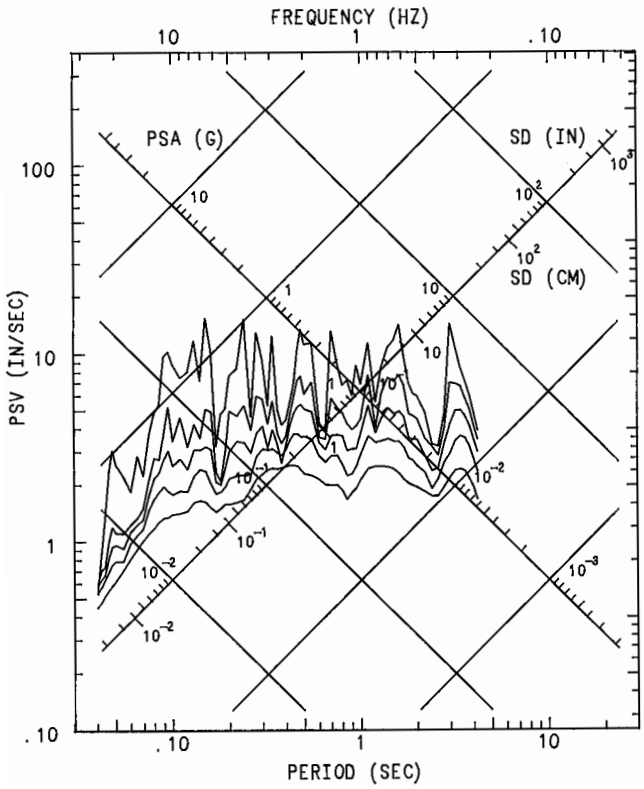
RECORD ID: 54428-S1702-86202.01.1

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

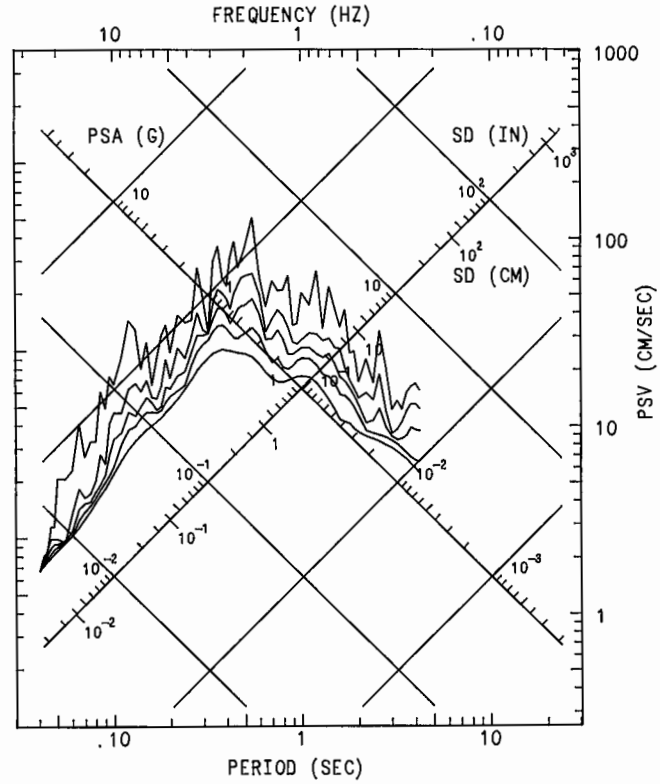
CHN 1: 360 DEG



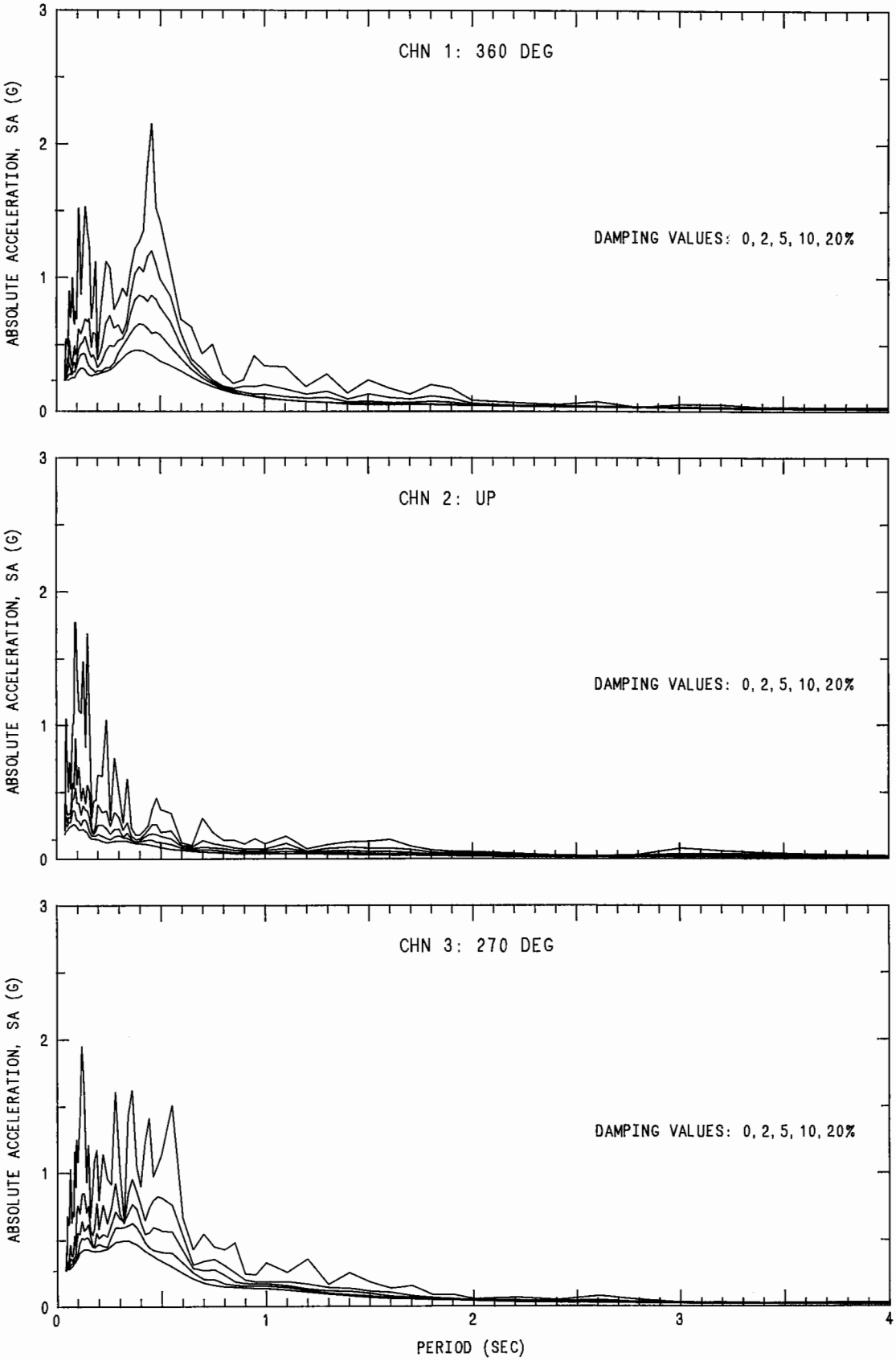
CHN 2: UP



CHN 3: 270 DEG



CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT
CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54428-S1702-86202.01.1
USABLE DATA BANDWIDTH: 0.25 TO 23.6 HZ (0.04 TO 3.92 SEC)

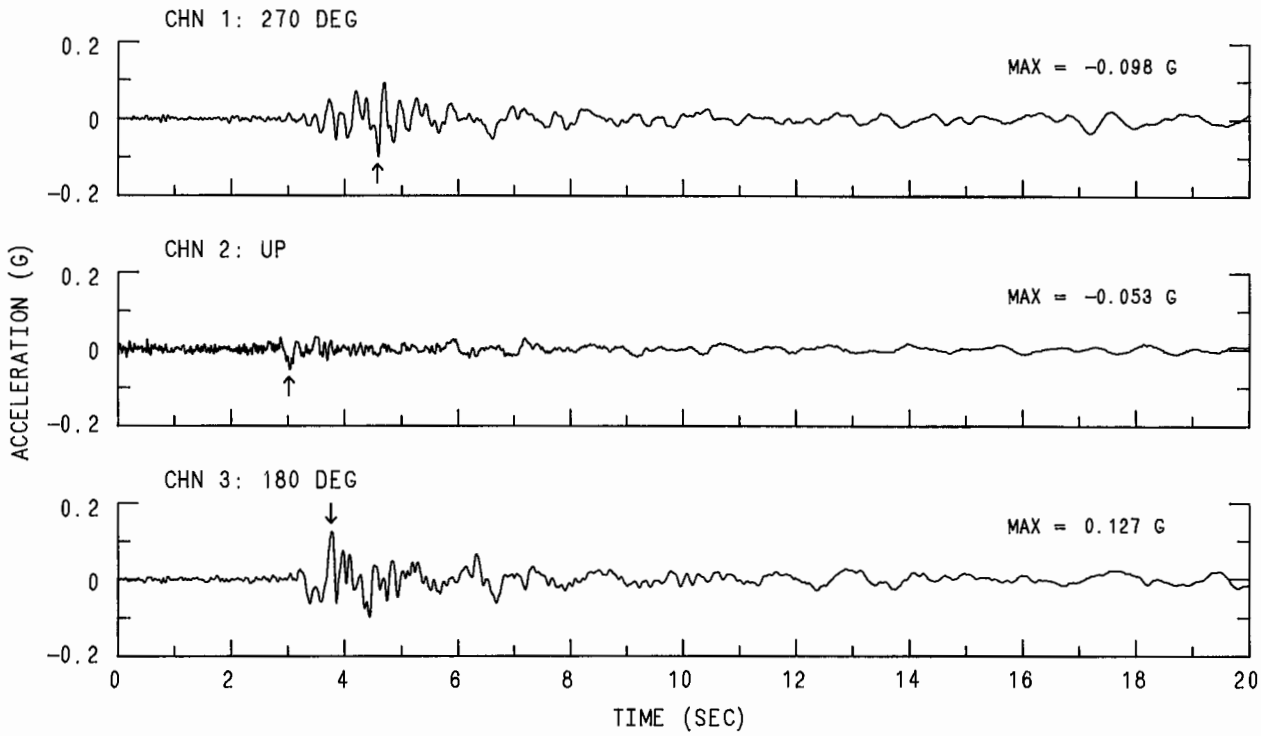


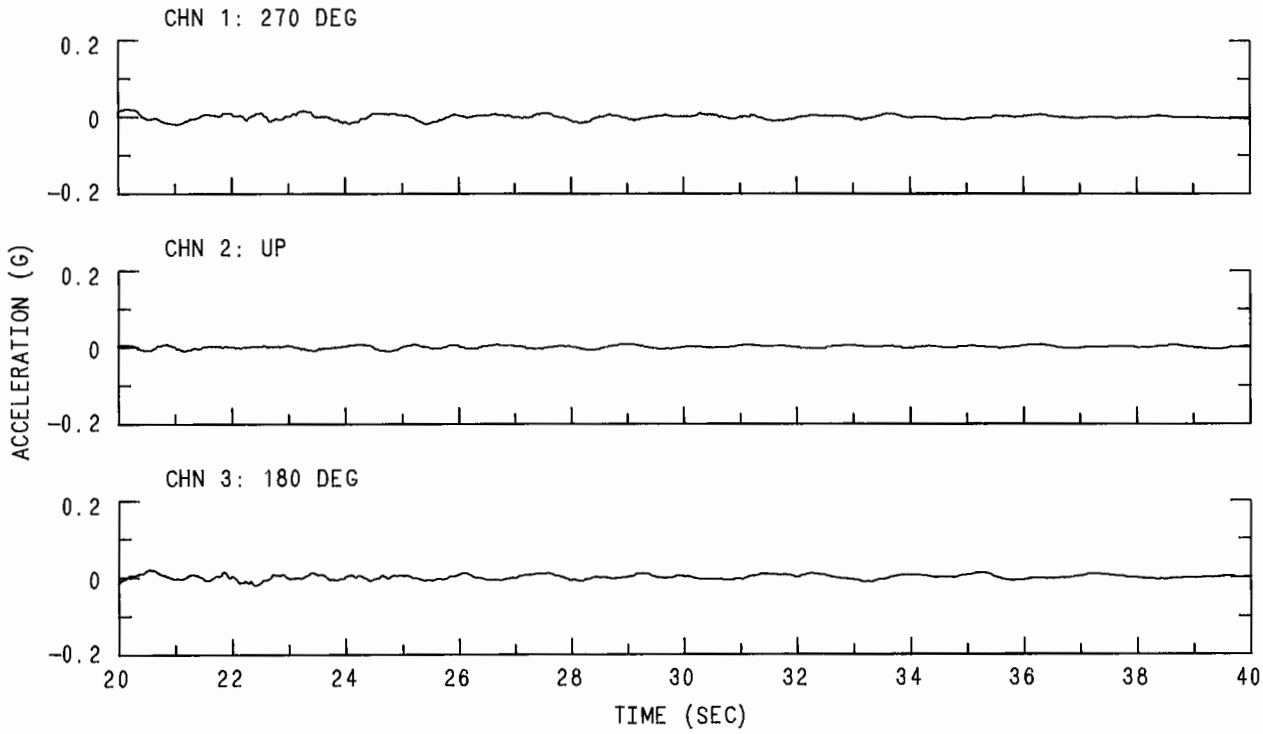
CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT

BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

PHASE 1 ACCELERATION

RECORD ID: 54171-S1718-86203.01.1

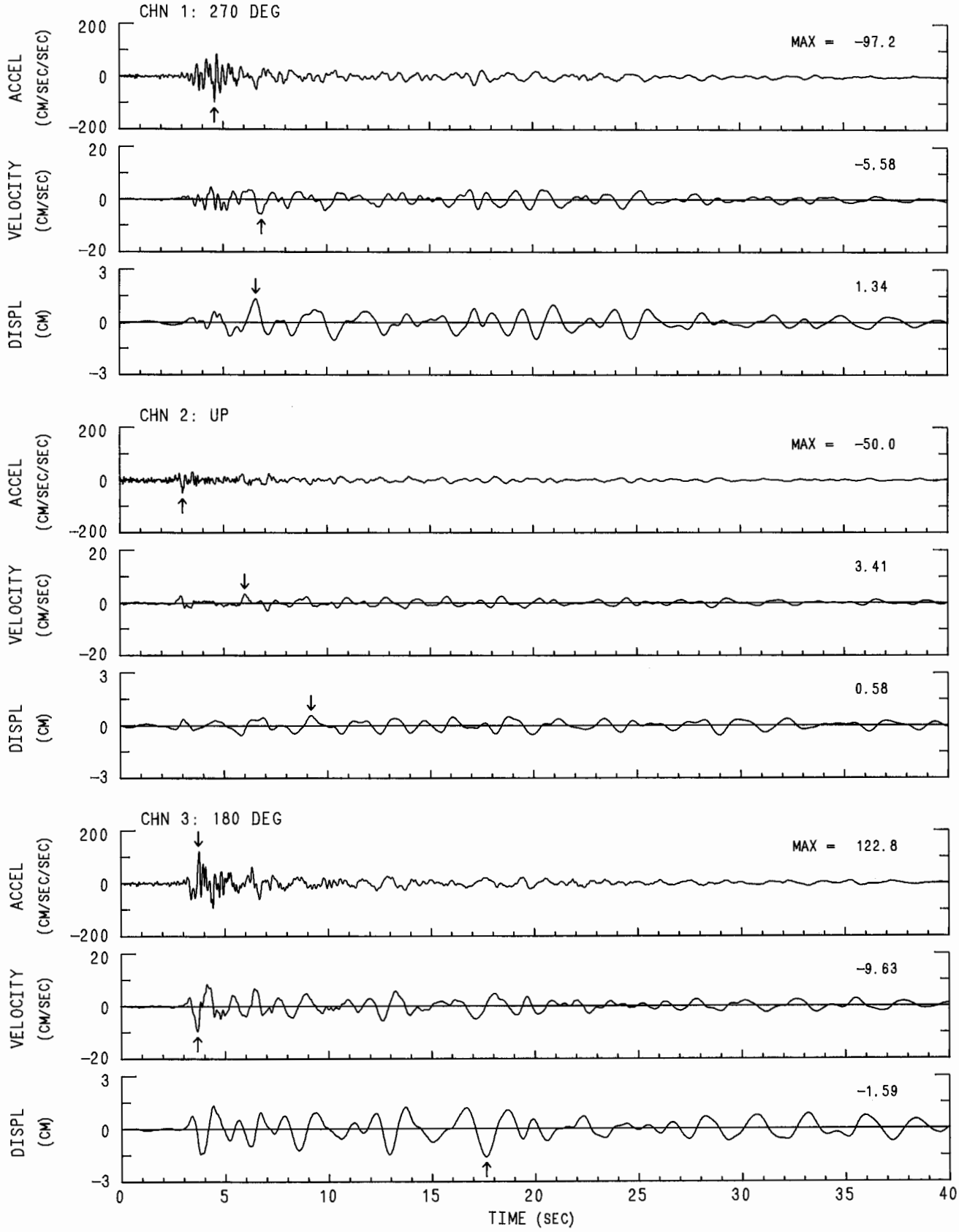




CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT
BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.34 TO 23.6 HZ (0.04 TO 2.94 SEC) RECORD ID: 54171-S1718-86203.01.1



BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

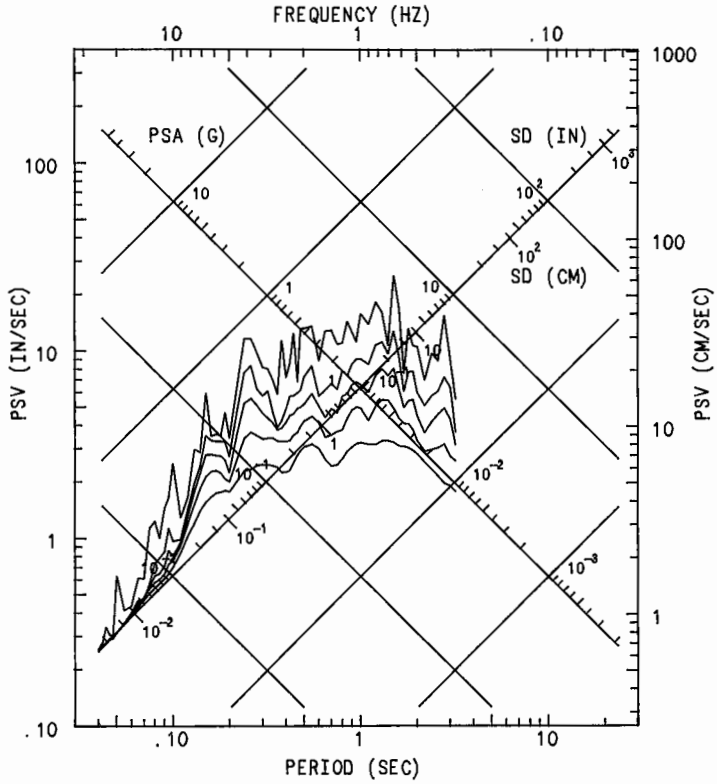
CHALFANT VALLEY FORESHOCK
JULY 20, 1986 07:29 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.34 TO 23.6 HZ
(0.04 TO 2.94 SEC)

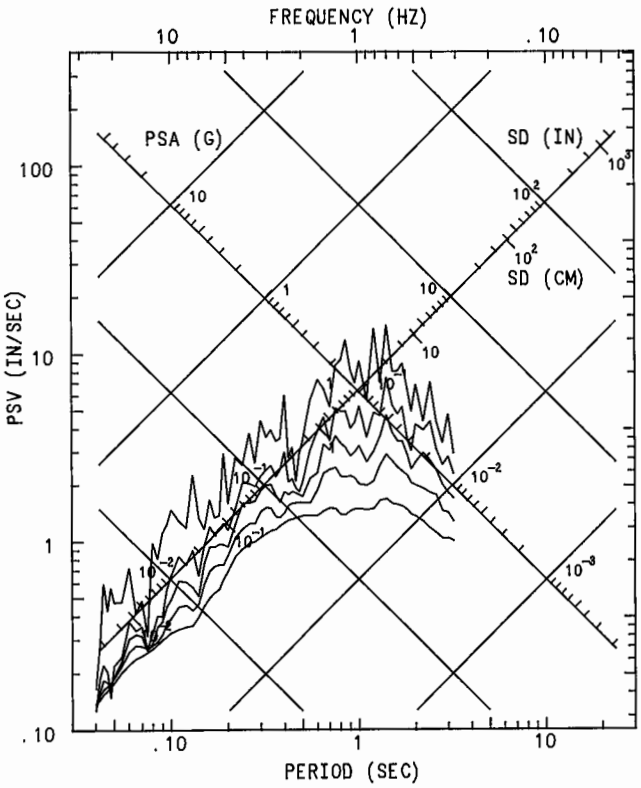
RECORD ID: 54171-S1718-86203.01.1

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

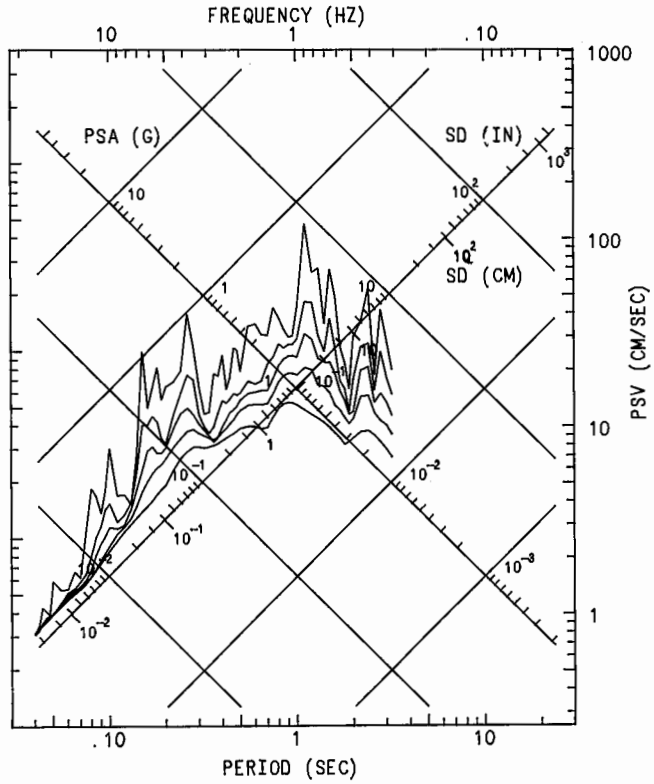
CHN 1: 270 DEG



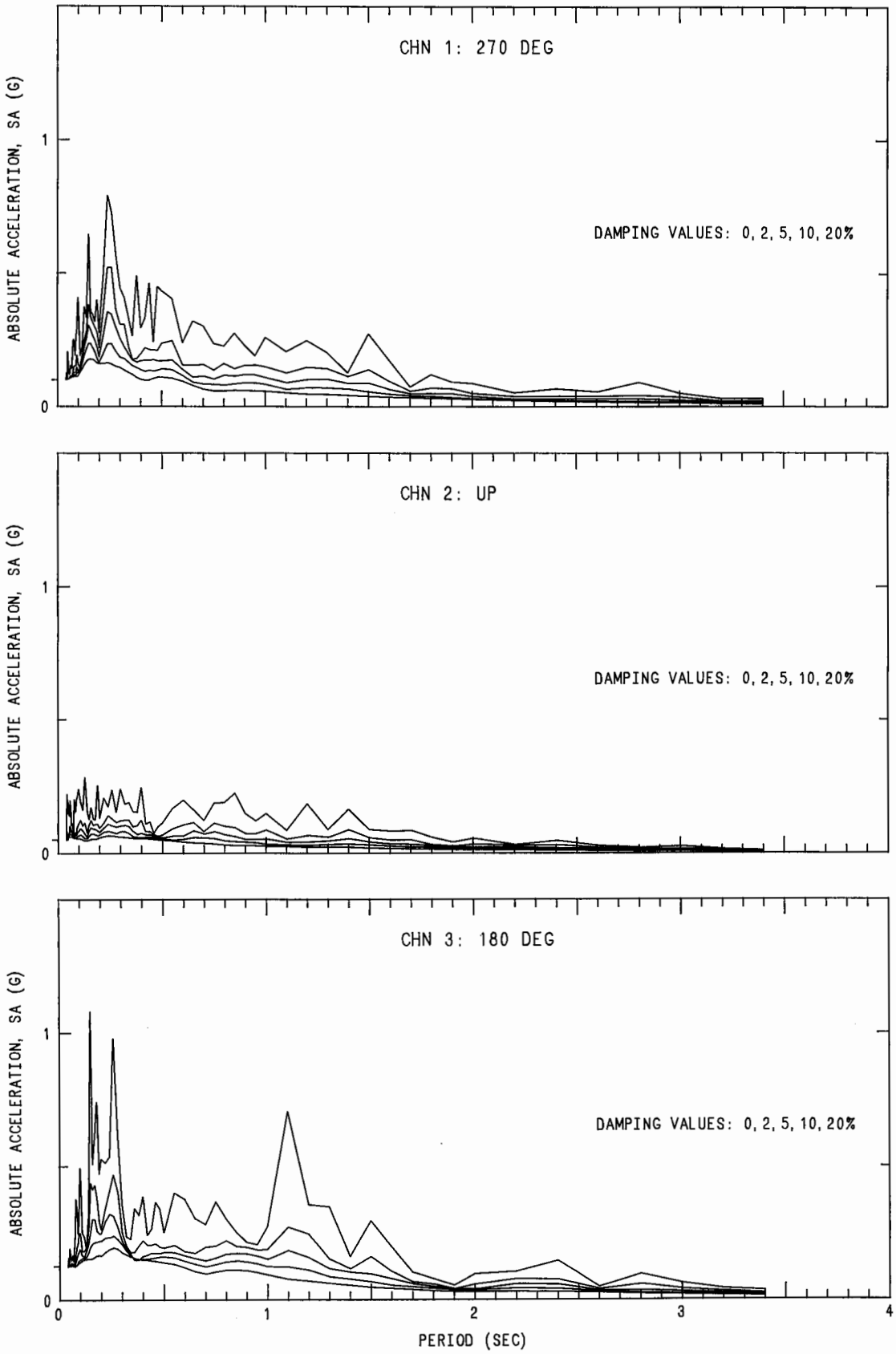
CHN 2: UP



CHN 3: 180 DEG



CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT
BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54171-S1718-86203.01.1
USABLE DATA BANDWIDTH: 0.34 TO 23.6 HZ (0.04 TO 2.94 SEC)

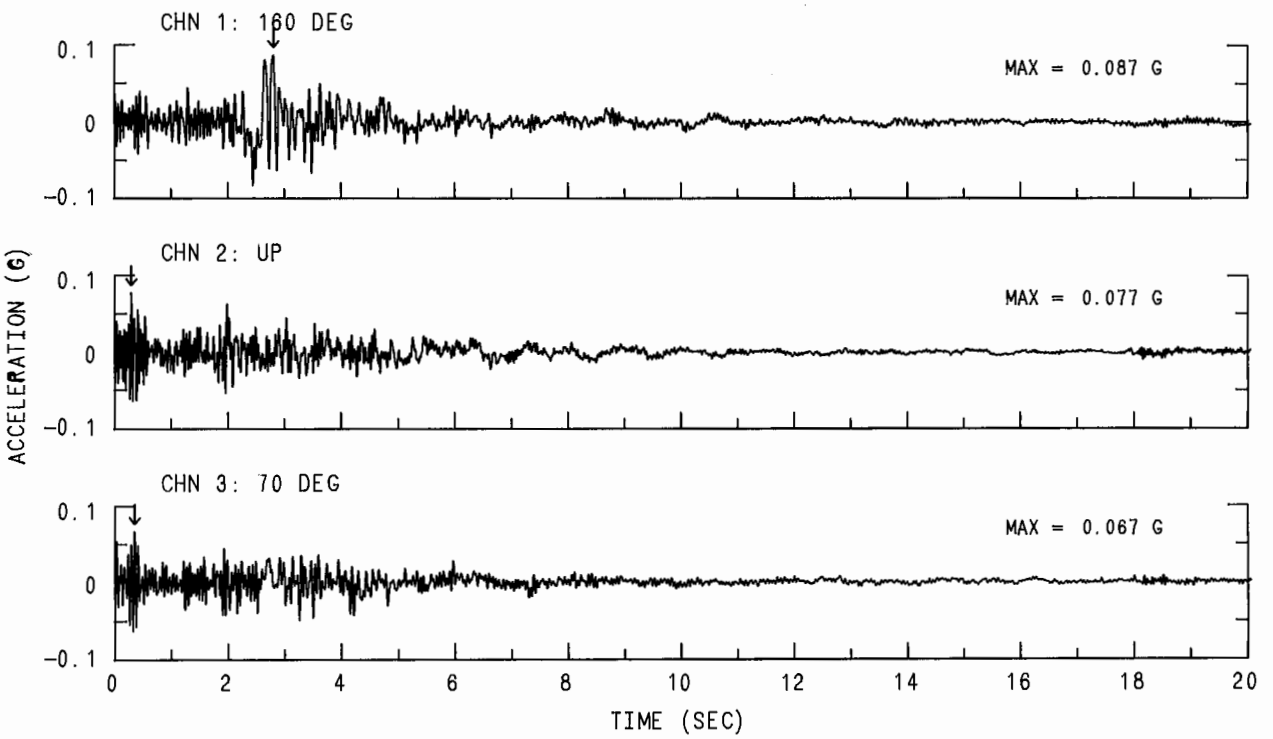


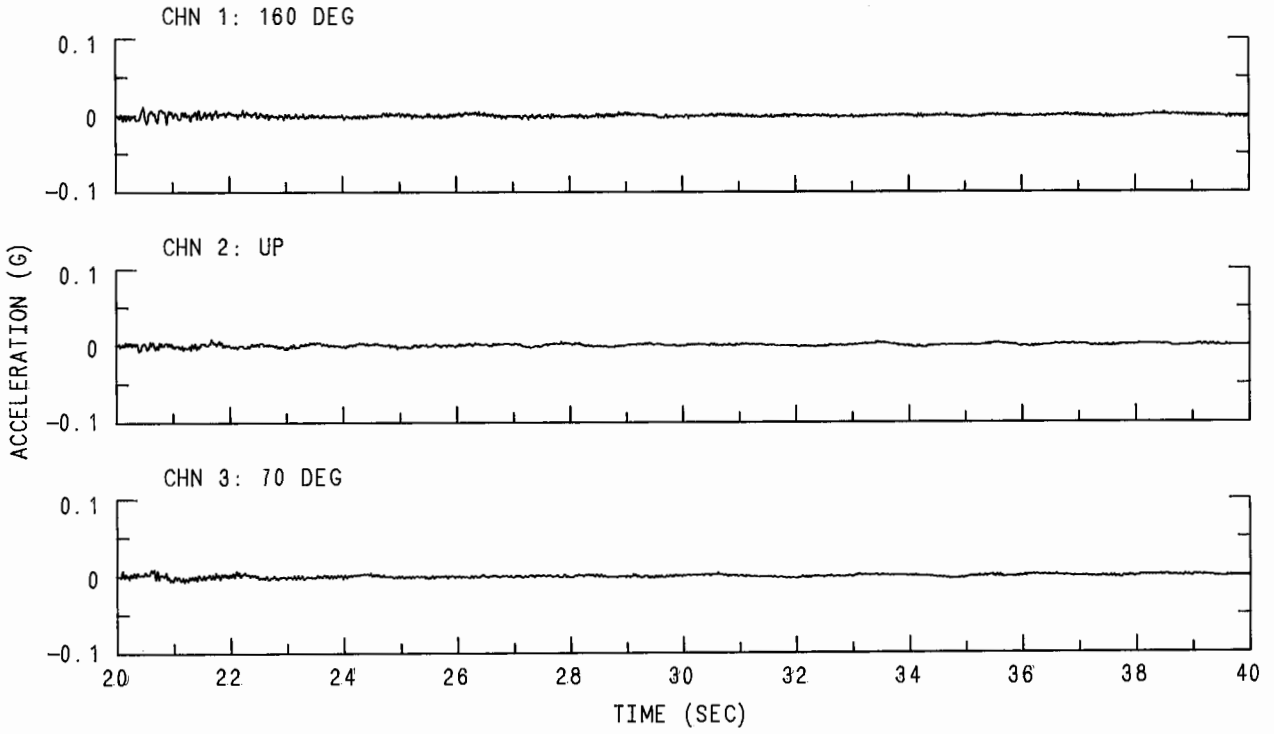
CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT

BISHOP - PARADISE LODGE: CSMIP S/N 424

PHASE 1 ACCELERATION

RECORD ID: 54424-S1827-86202.01.1

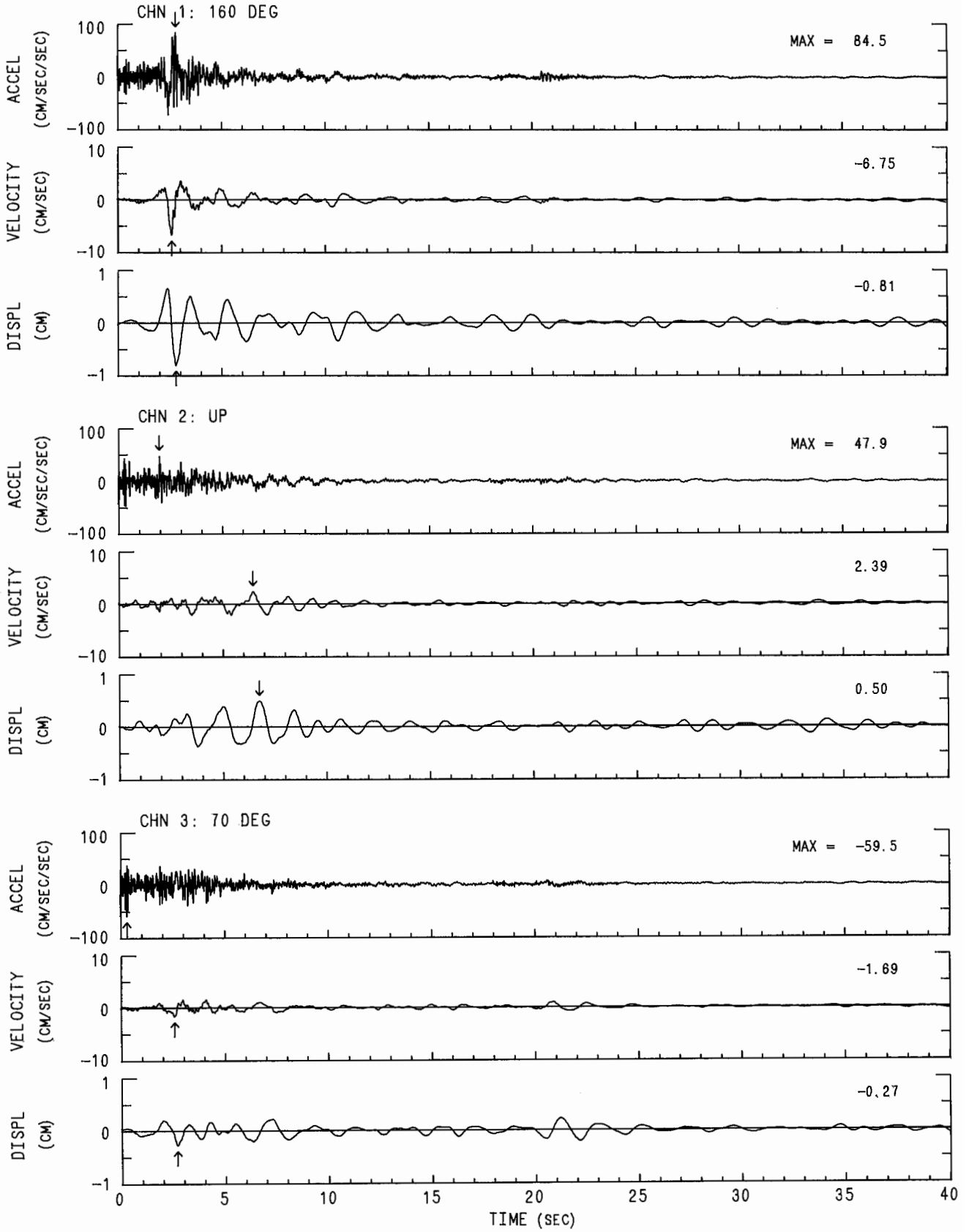




CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT
BISHOP - PARADISE LODGE: CSMIP S/N 424

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC) RECORD ID: 54424-S1827-86202.01.1



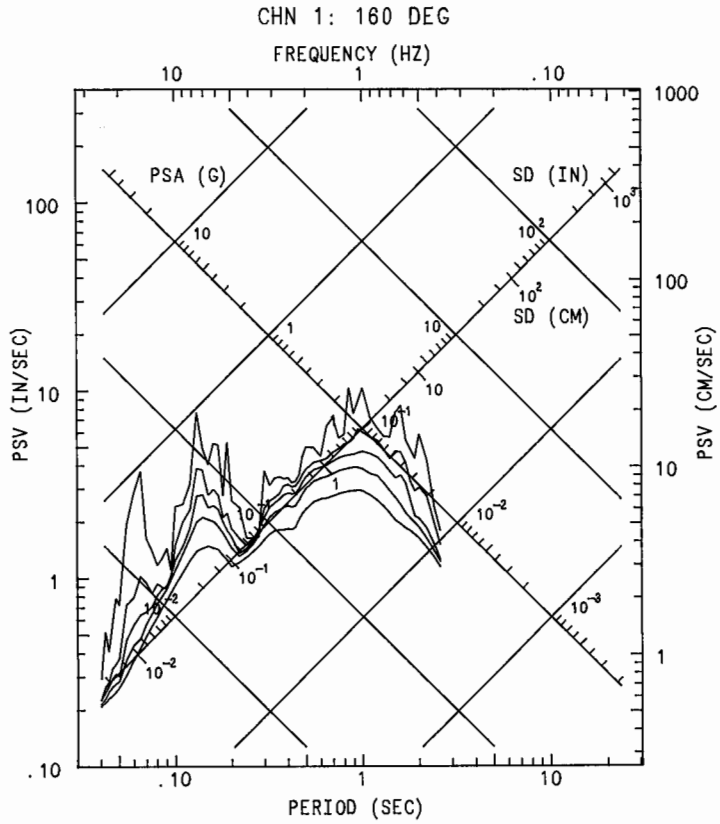
BISHOP - PARADISE LODGE: CSMIP S/N 424

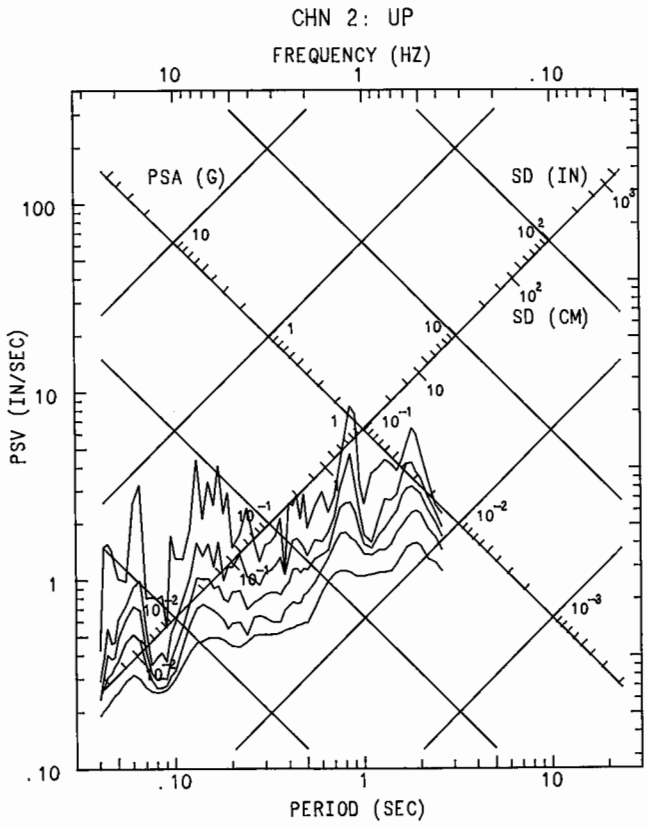
CHALFANT VALLEY FORESHOCK
JULY 20, 1986 07:29 PDT

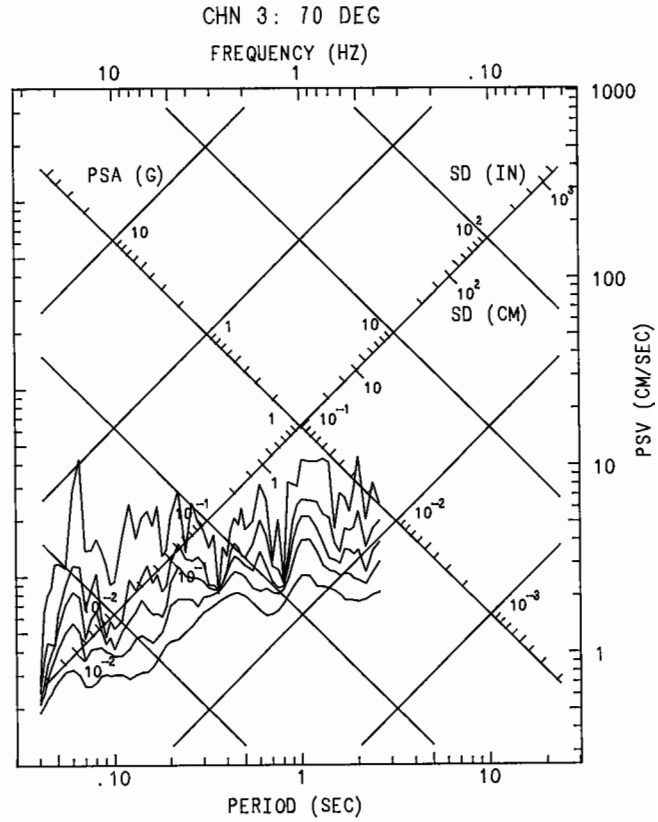
PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ
(0.04 TO 2.35 SEC)

RECORD ID: 54424-S1827-86202.01.1

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

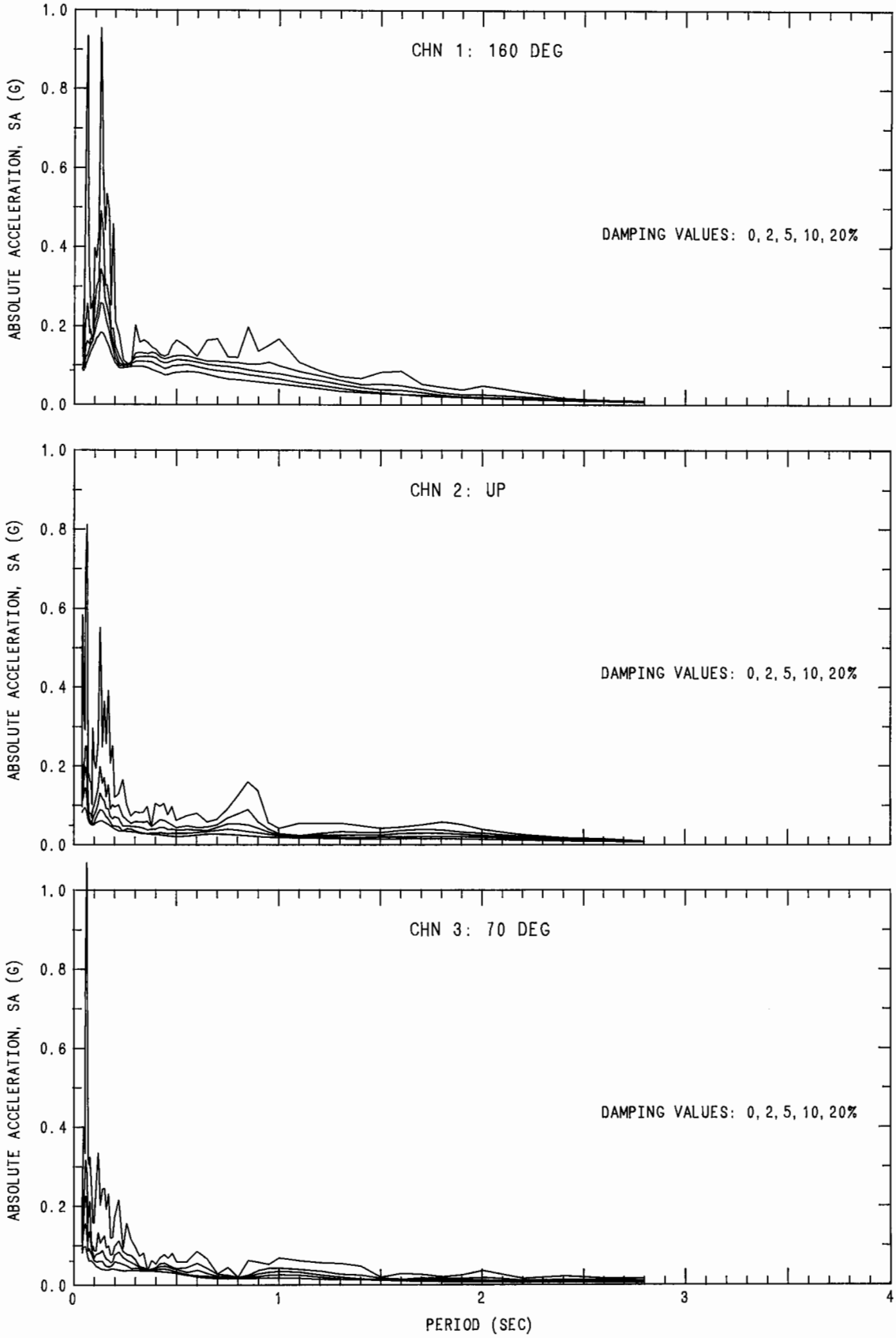






CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT
BISHOP - PARADISE LODGE: CSMIP S/N 424

PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54424-S1827-86202.01.1
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC)

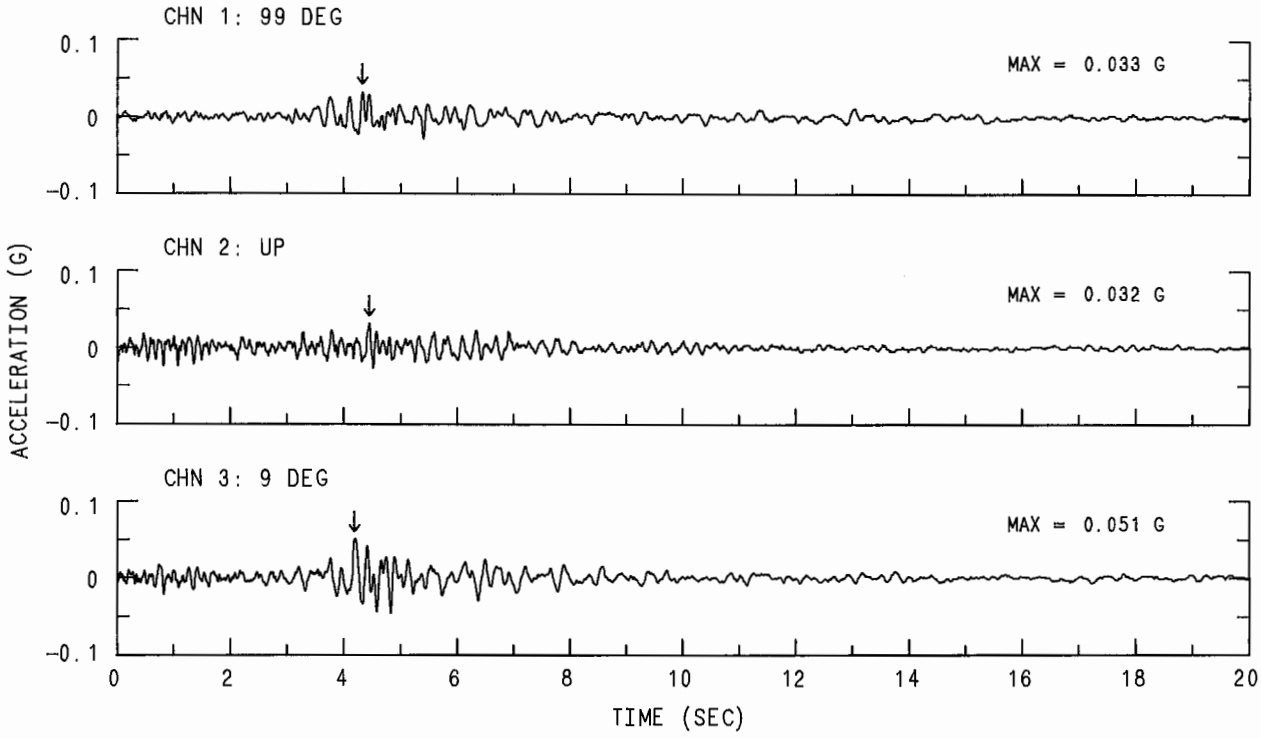


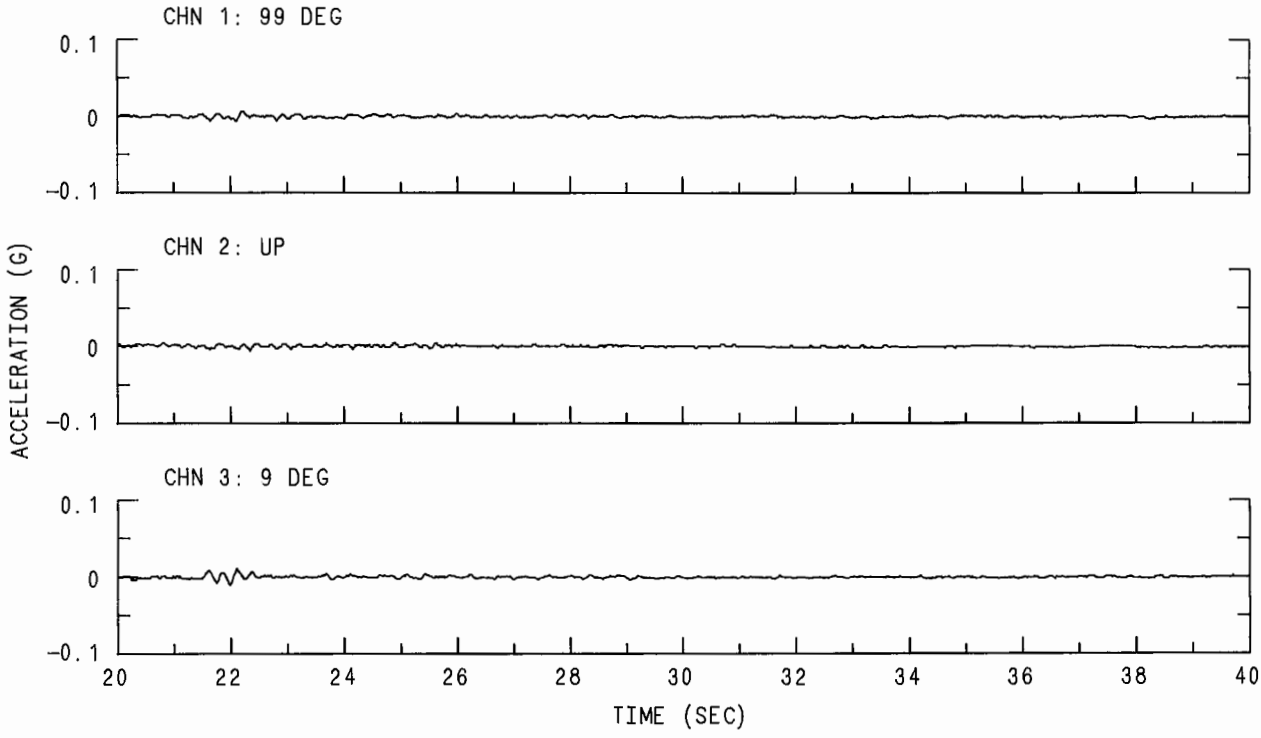
CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT

CROWLEY LAKE - SHEHORN RESIDENCE: CSMIP S/N T03

PHASE 1 ACCELERATION

RECORD ID: 54T03-S1811-86203.01.1

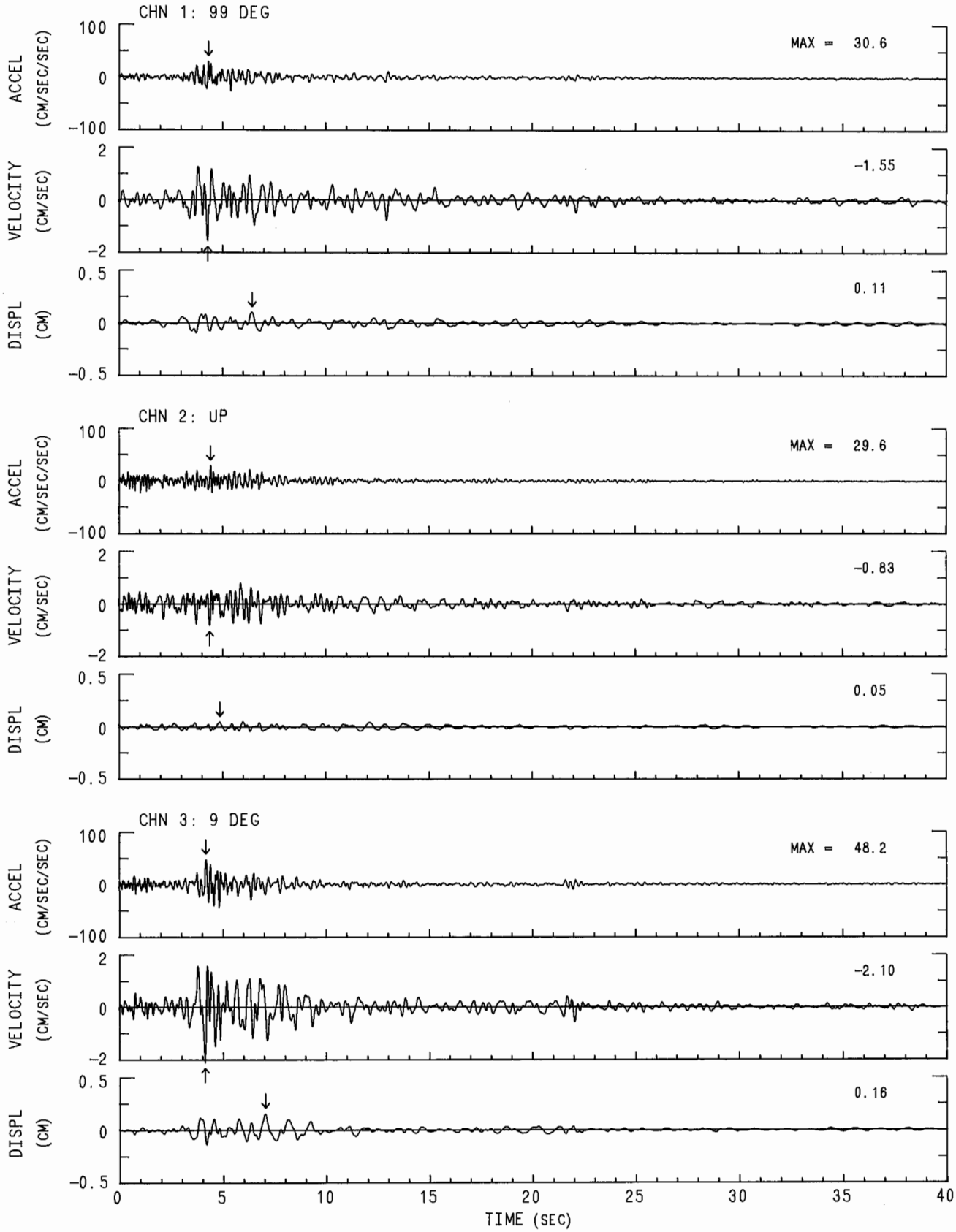




CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT
CROWLEY LAKE - SHEHORN RESIDENCE: CSMIP S/N T03

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.68 TO 23.6 HZ (0.04 TO 1.47 SEC) RECORD ID: 54T03-S1811-86203.01.1



CROWLEY LAKE - SHEHORN RESIDENCE: CSMIP S/N T03

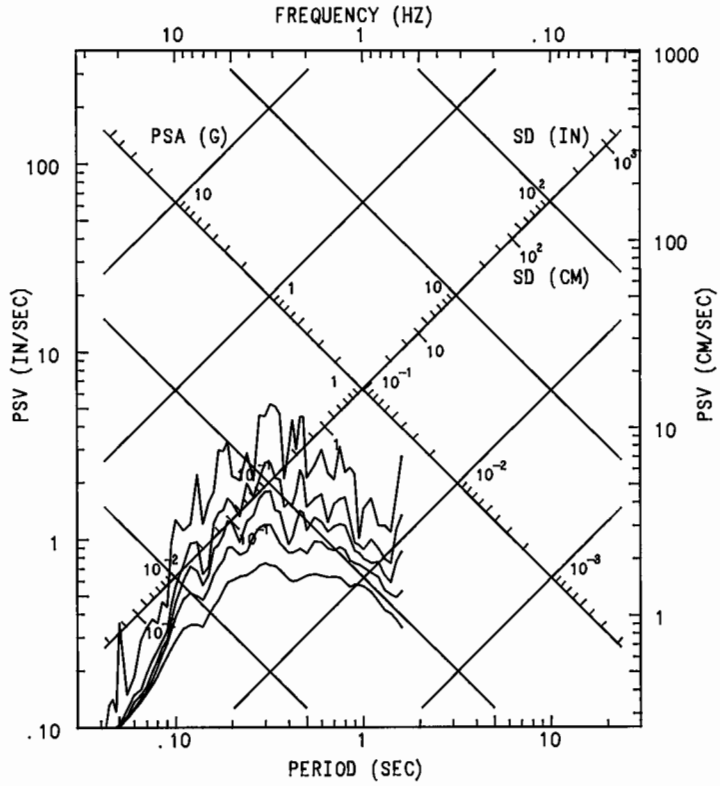
CHALFANT VALLEY FORESHOCK
JULY 20, 1986 07:29 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.68 TO 23.6 HZ
(0.04 TO 1.47 SEC)

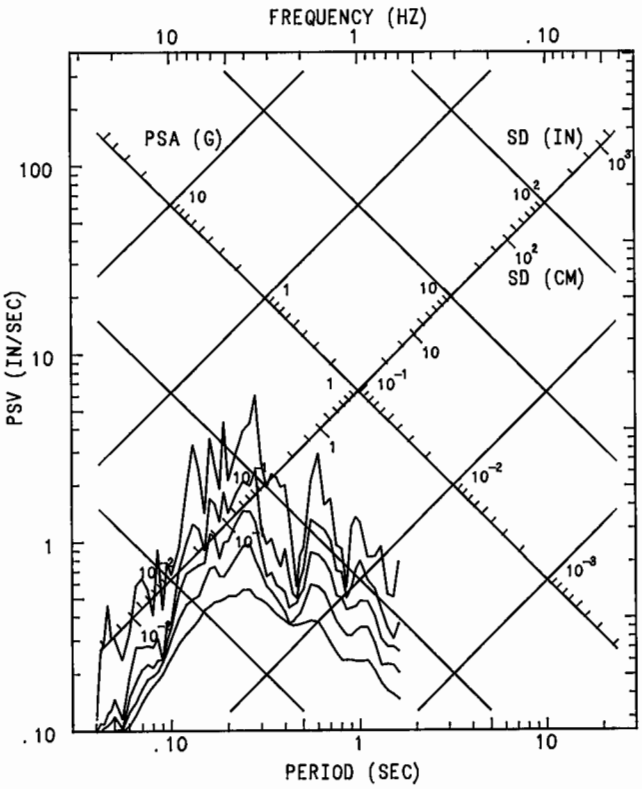
RECORD ID: 54T03-S1811-86203.01.1

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

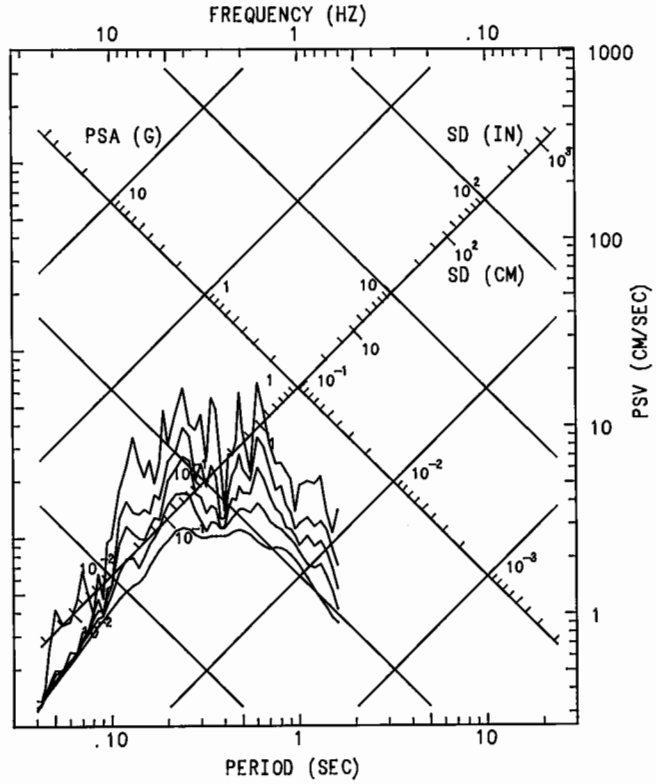
CHN 1: 99 DEG



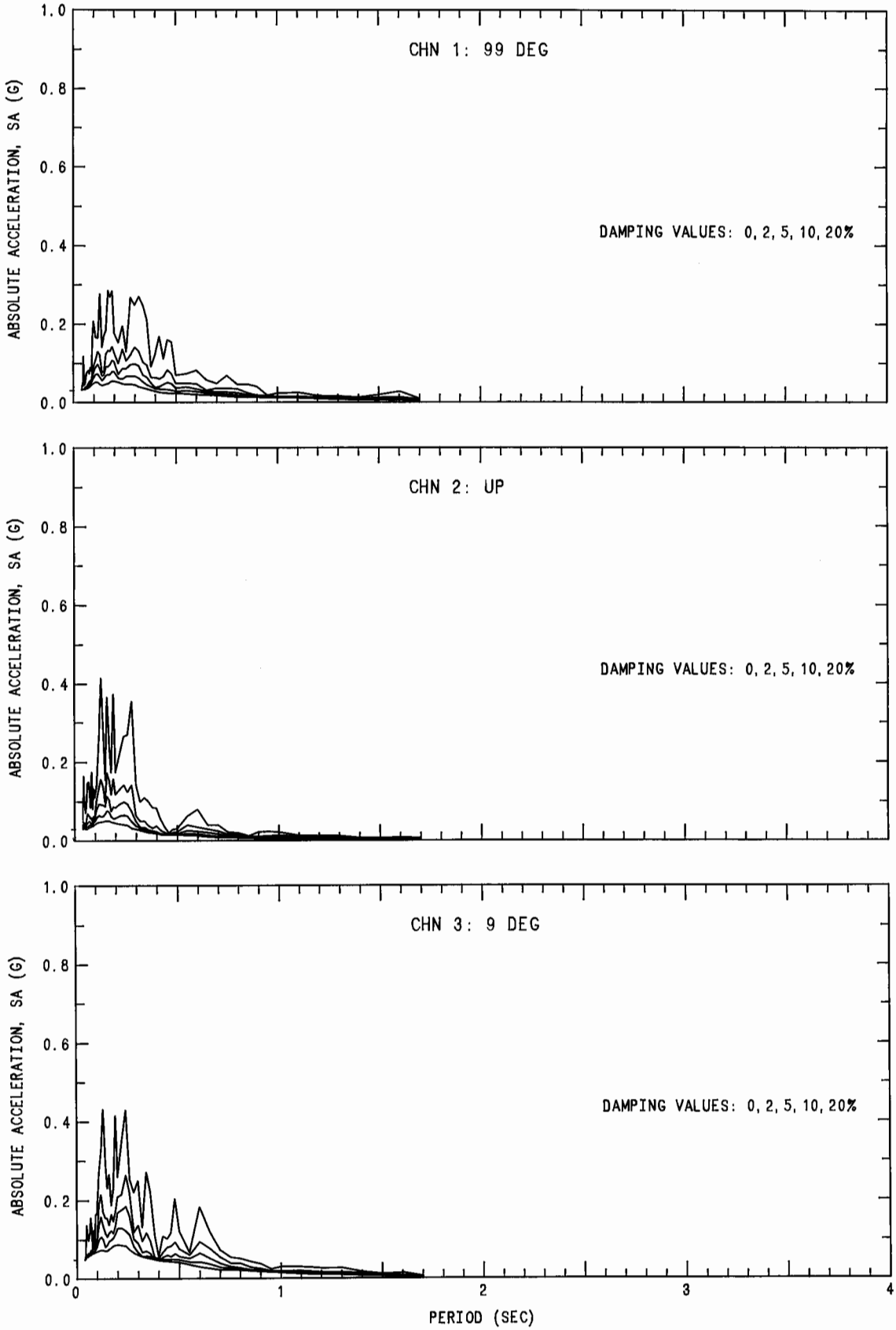
CHN 2: UP



CHN 3: 9 DEG



CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT
CROWLEY LAKE - SHEHORN RESIDENCE: CSMIP S/N T03
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54T03-S1811-86203.01.1
USABLE DATA BANDWIDTH: 0.68 TO 23.6 HZ (0.04 TO 1.47 SEC)

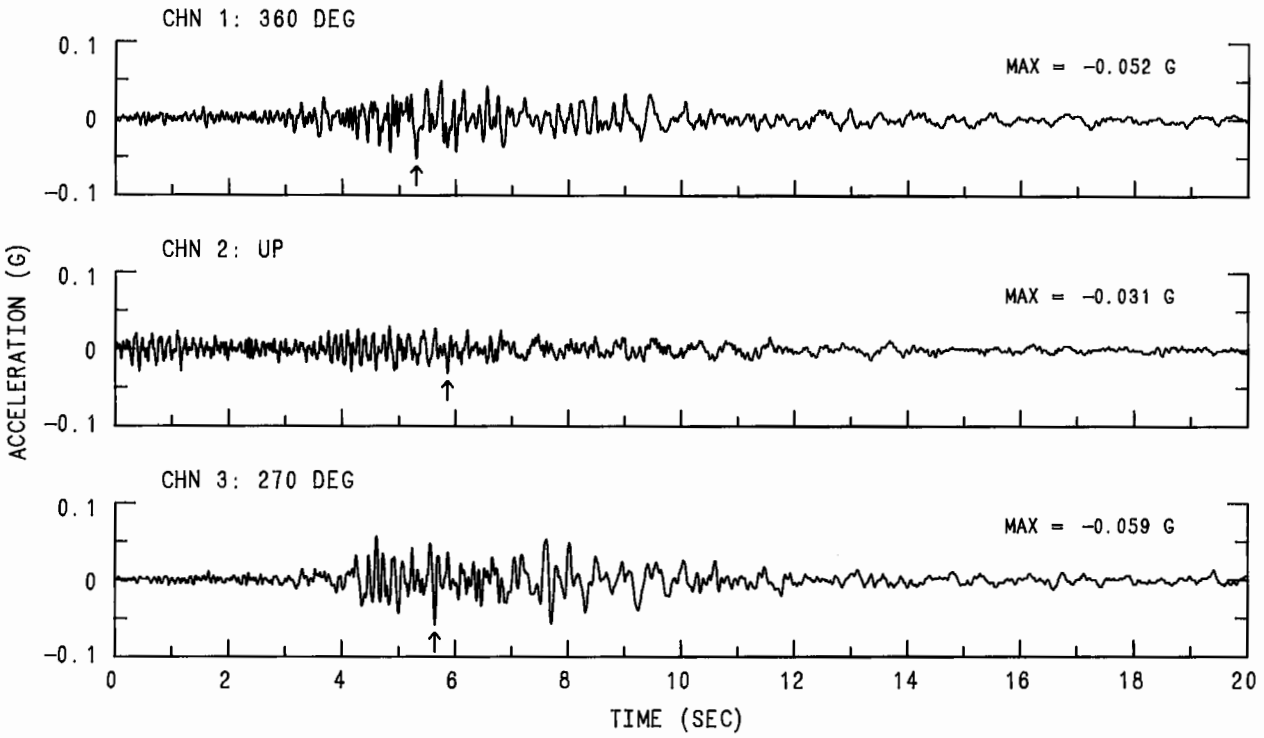


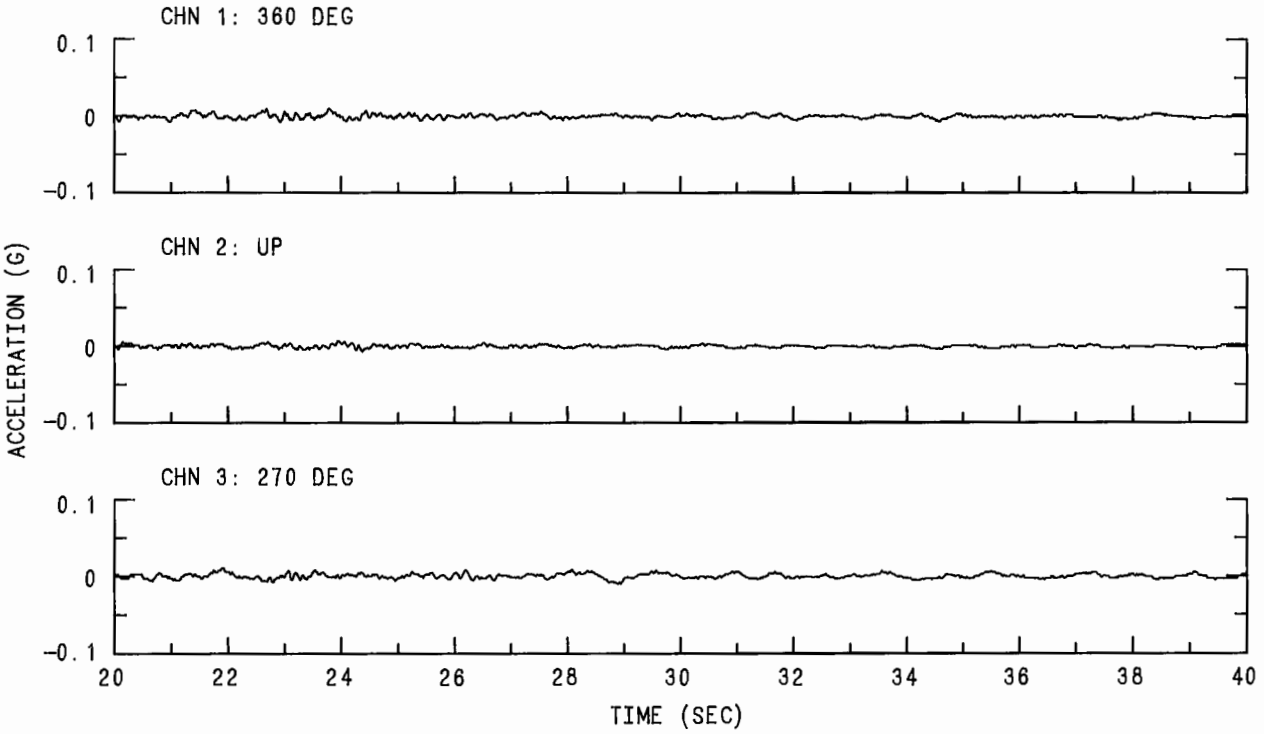
CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT

BENTON: CSMIP S/N 100

PHASE 1 ACCELERATION

RECORD ID: 54100-S2498-86202.01.1

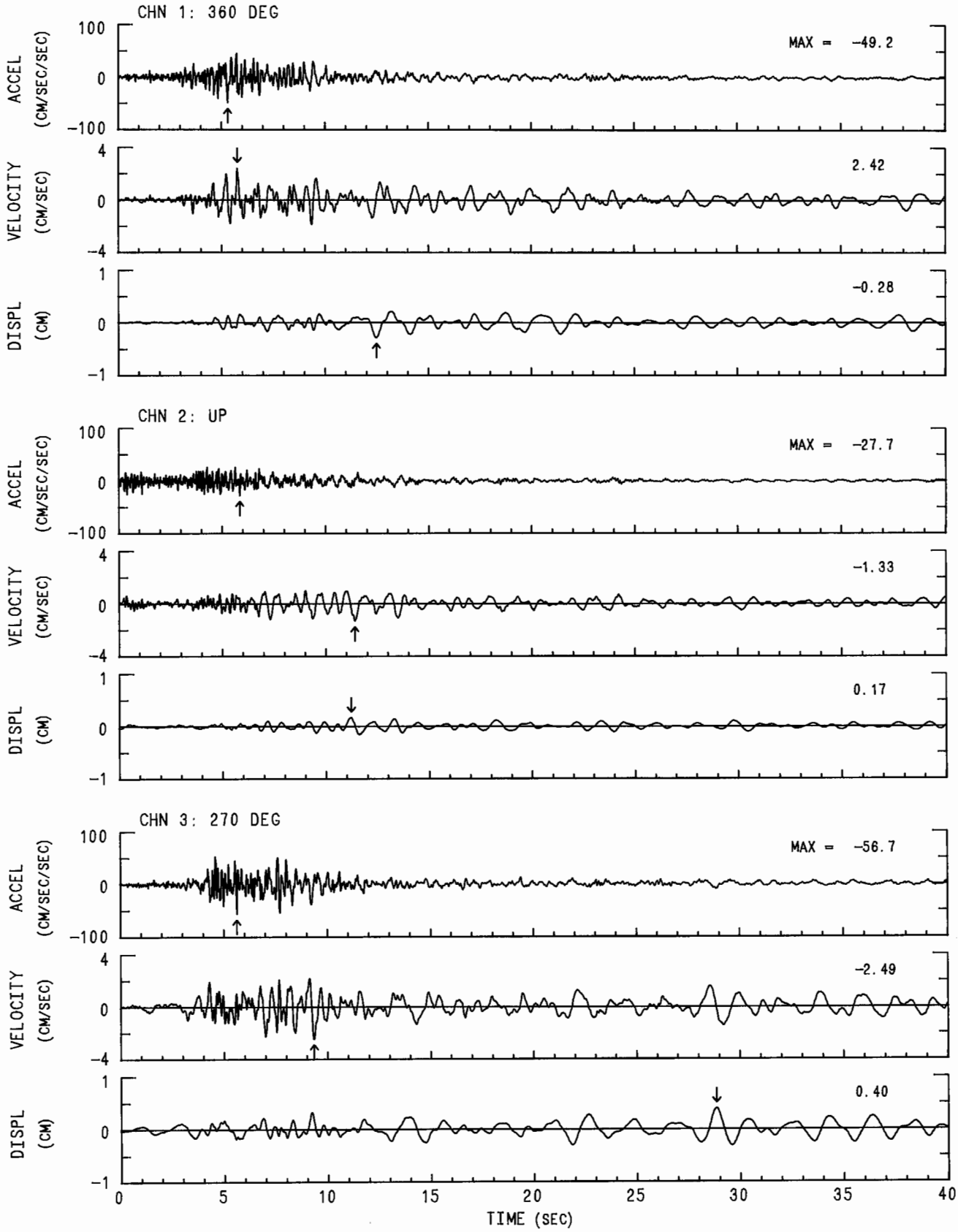




CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT
BENTON: CSMIP S/N 100

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC) RECORD ID: 54100-S2498-86202.01.1



BENTON: CSMIP S/N 100

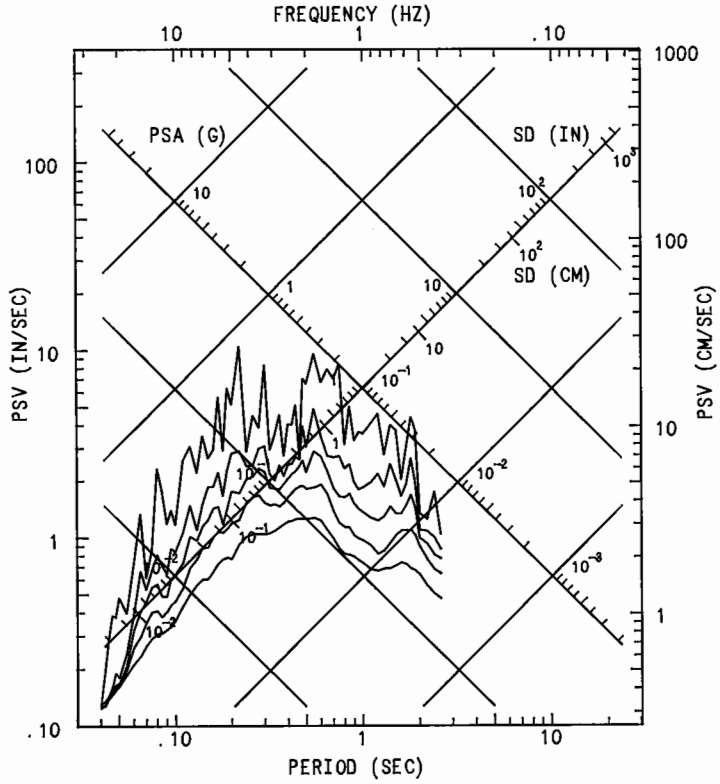
CHALFANT VALLEY FORESHOCK
JULY 20, 1986 07:29 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ
(0.04 TO 2.35 SEC)

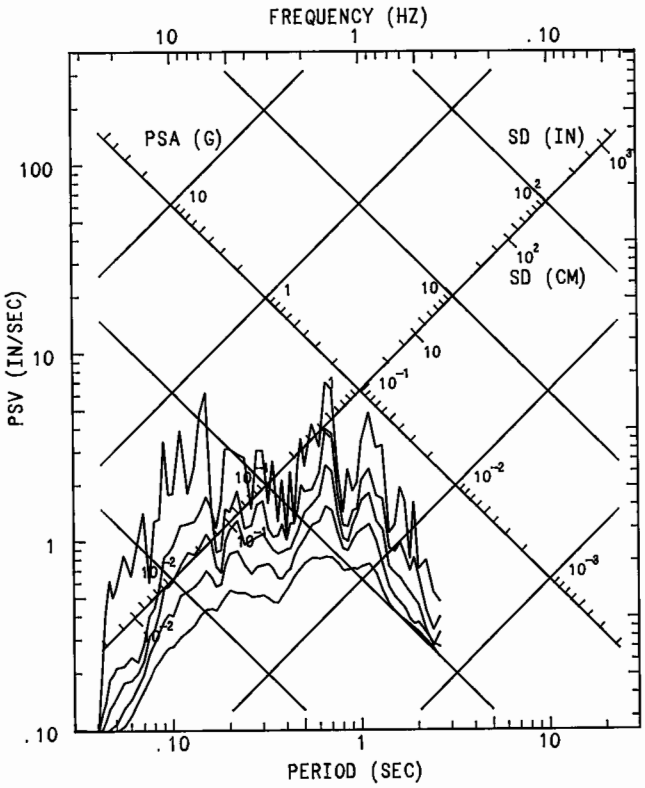
RECORD ID: 54100-S2498-86202.01.1

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

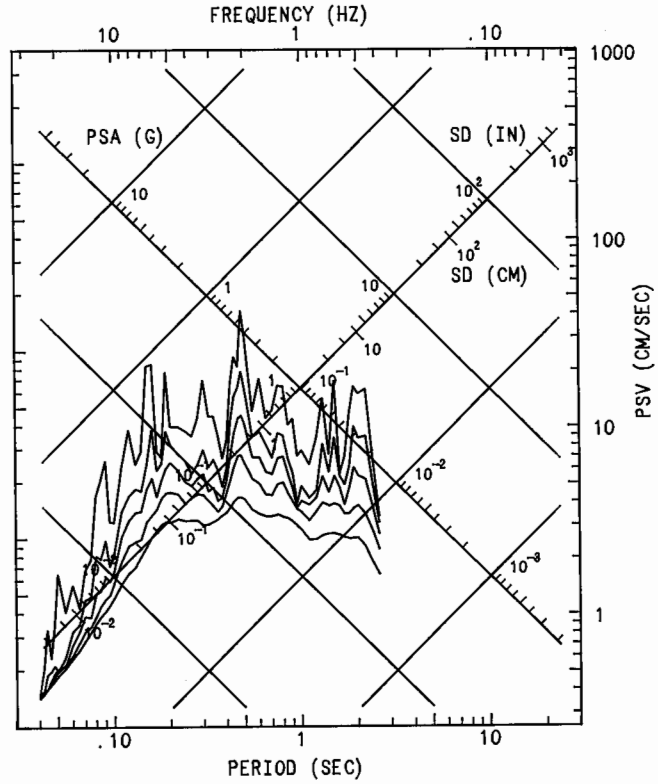
CHN 1: 360 DEG



CHN 2: UP

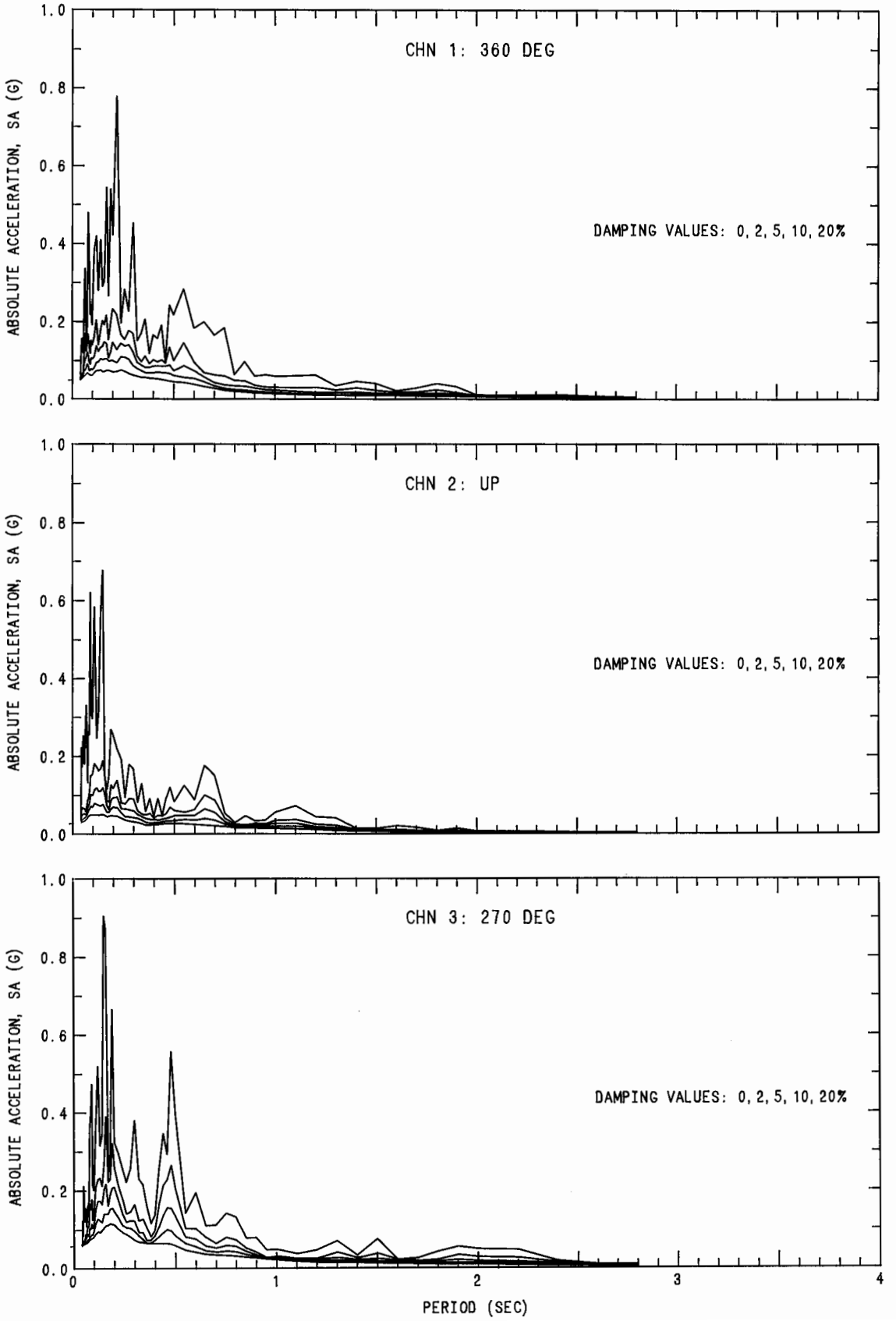


CHN 3: 270 DEG



CHALFANT VALLEY FORESHOCK JULY 20, 1986 07:29 PDT
BENTON: CSMIP S/N 100

PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54100-S2498-86202.01.1
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC)

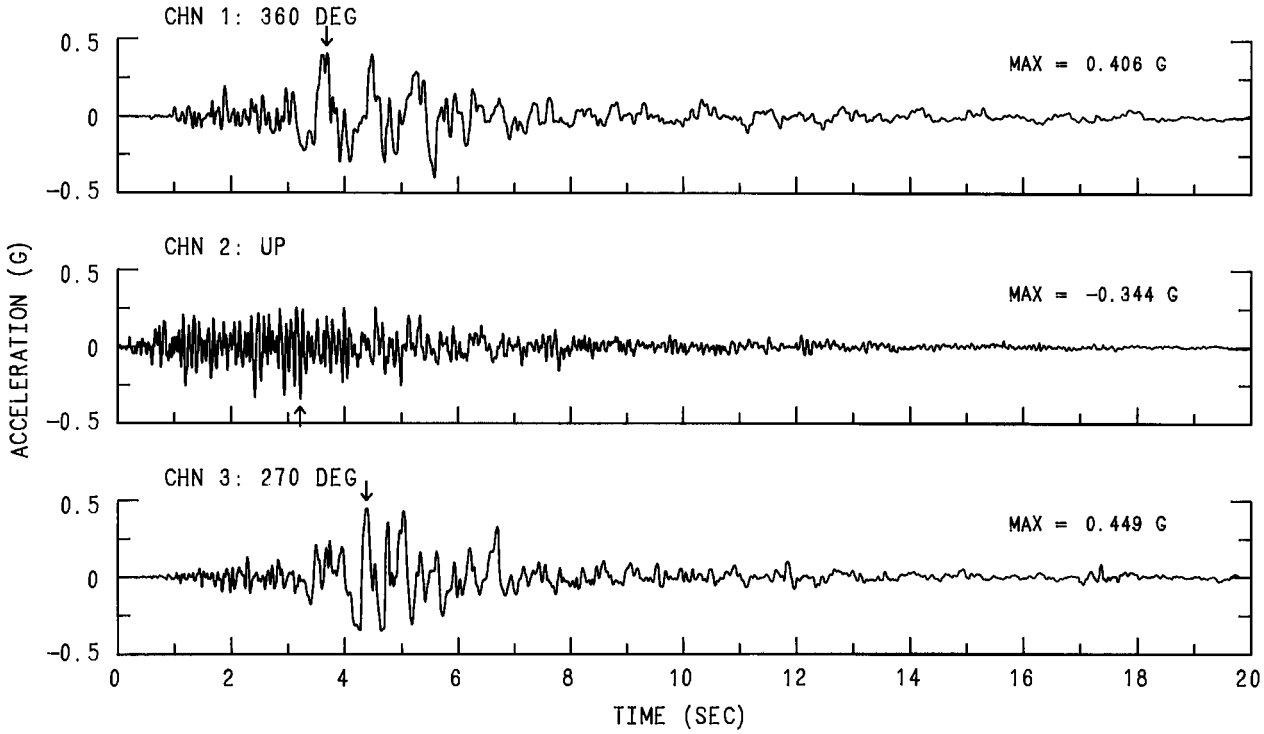


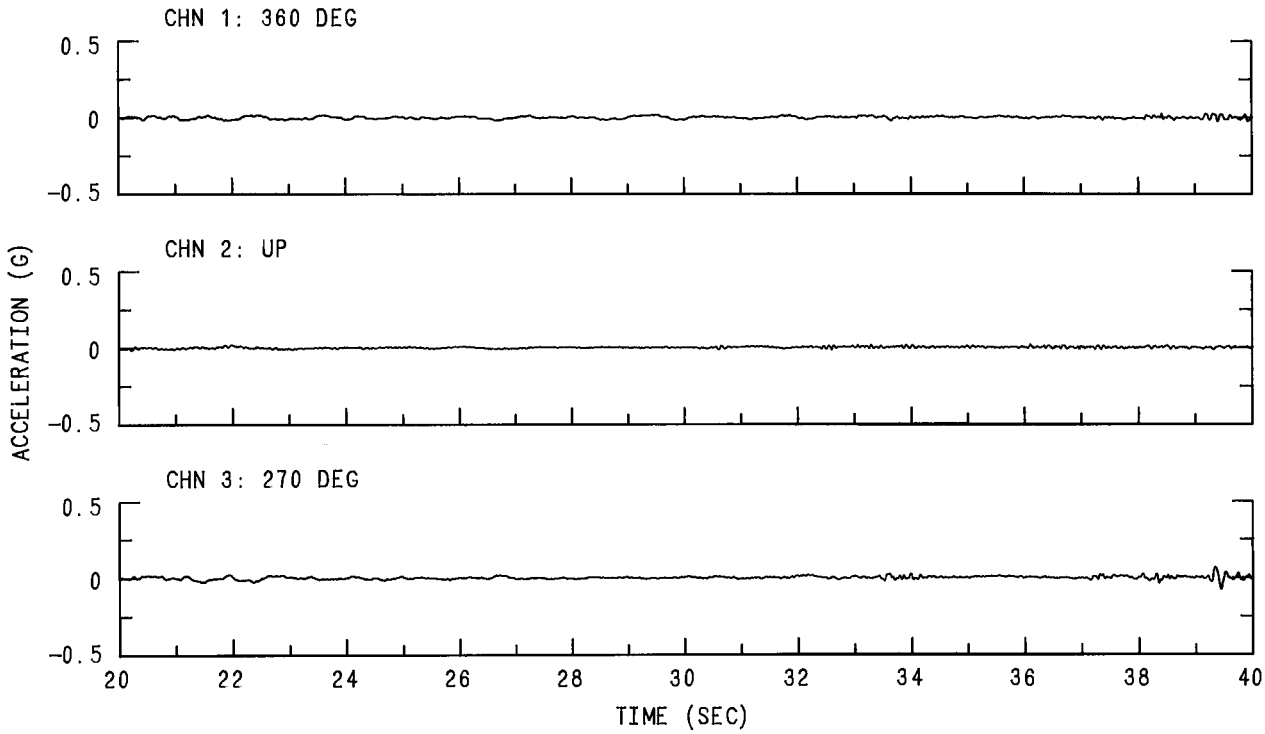
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT

CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

PHASE 1 ACCELERATION

RECORD ID: 54428-S1702-86202.07.1

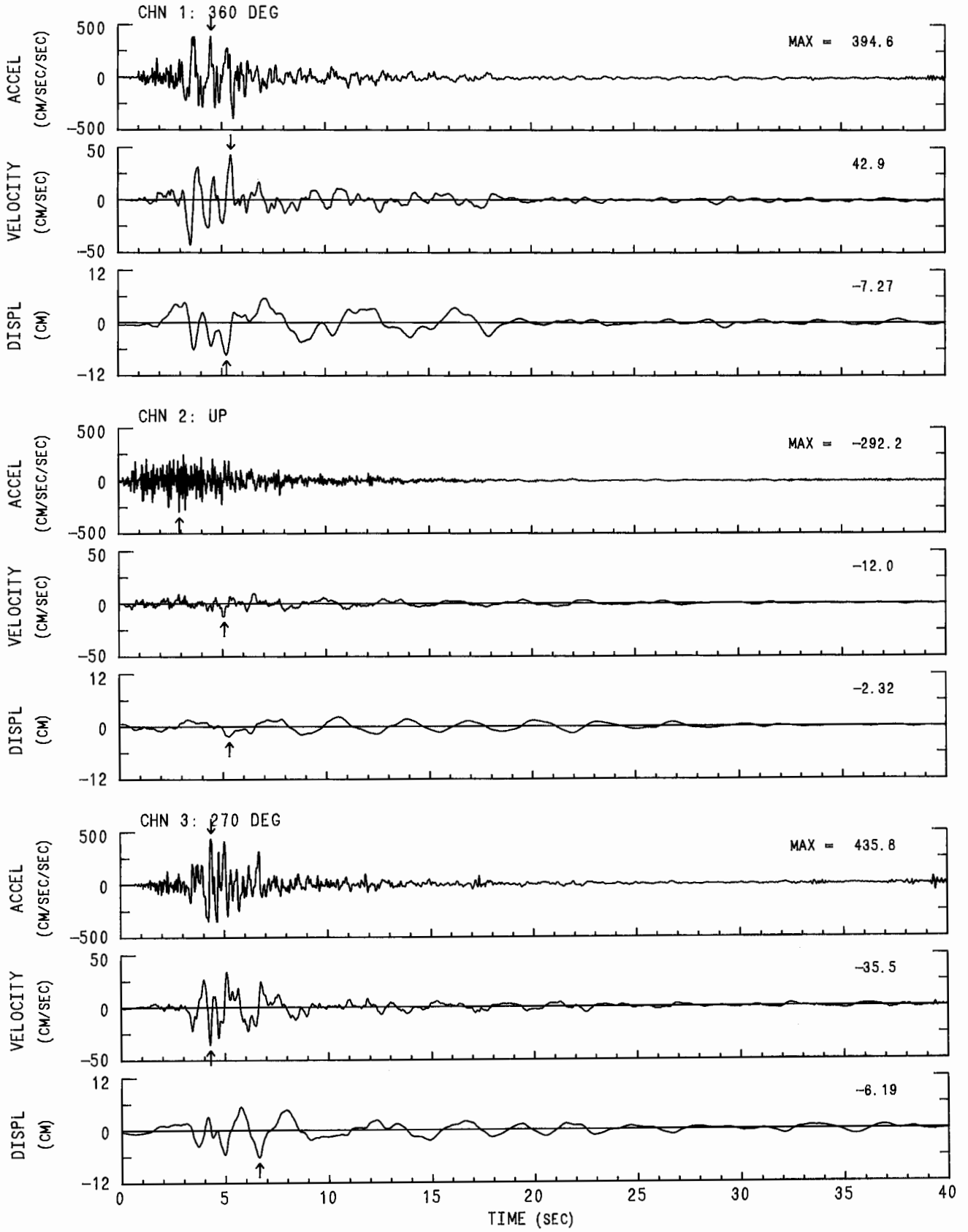




CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC) RECORD ID: 54428-S1702-86202.07.1



CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

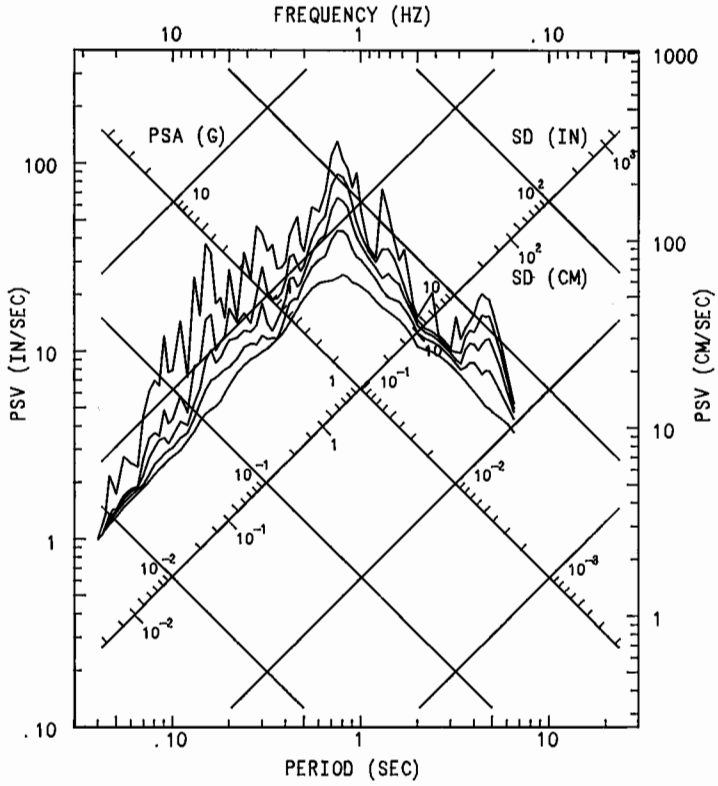
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ
(0.04 TO 5.88 SEC)

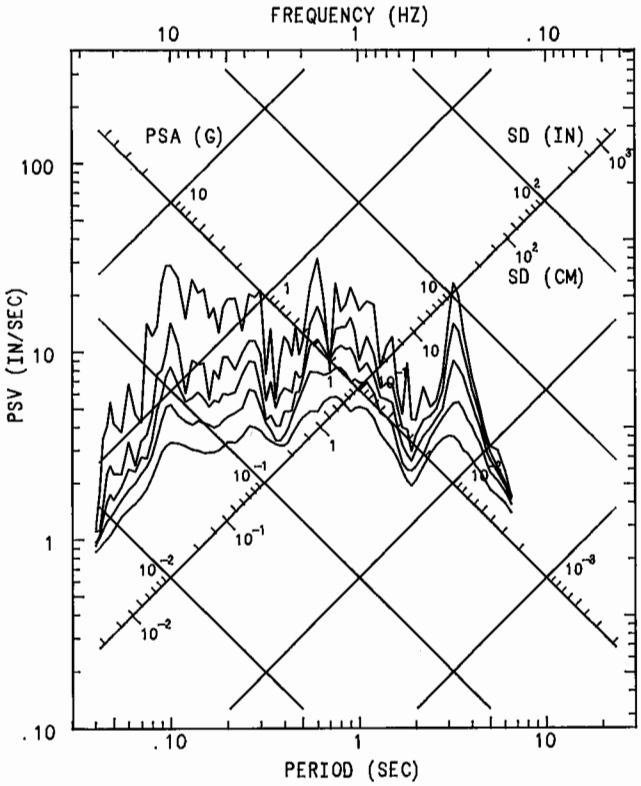
RECORD ID: 54428-S1702-86202.07.1

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

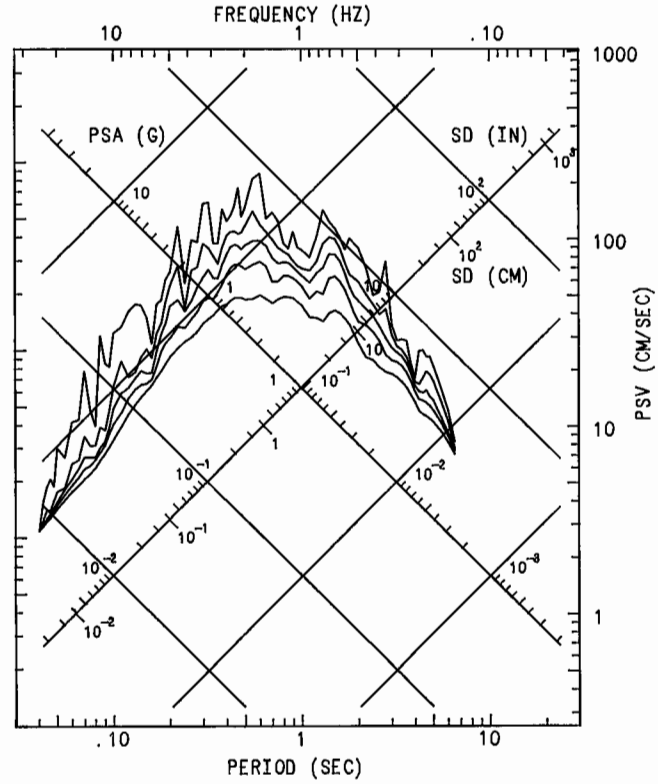
CHN 1: 360 DEG



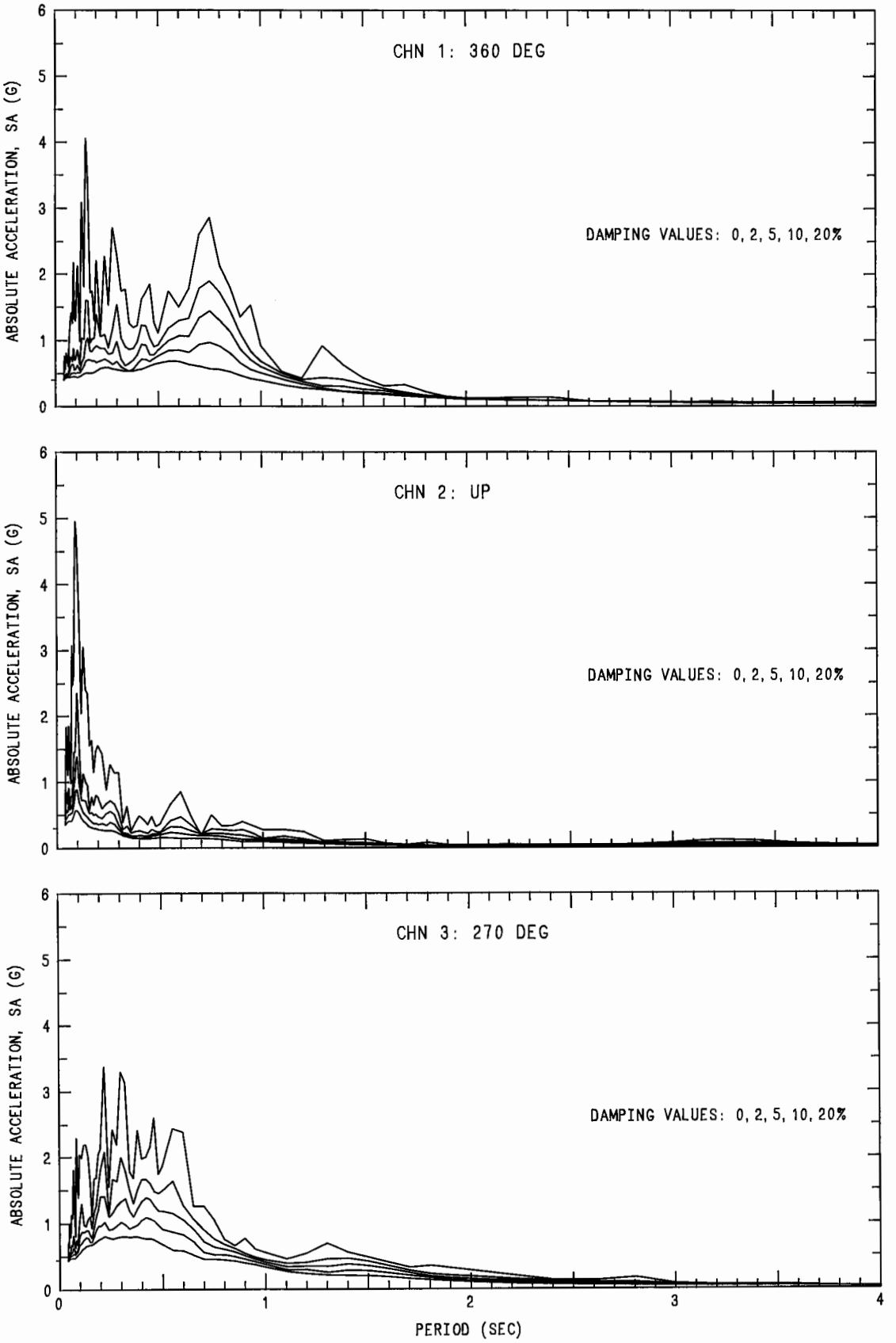
CHN 2: UP



CHN 3: 270 DEG



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54428-S1702-86202.07.1
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC)

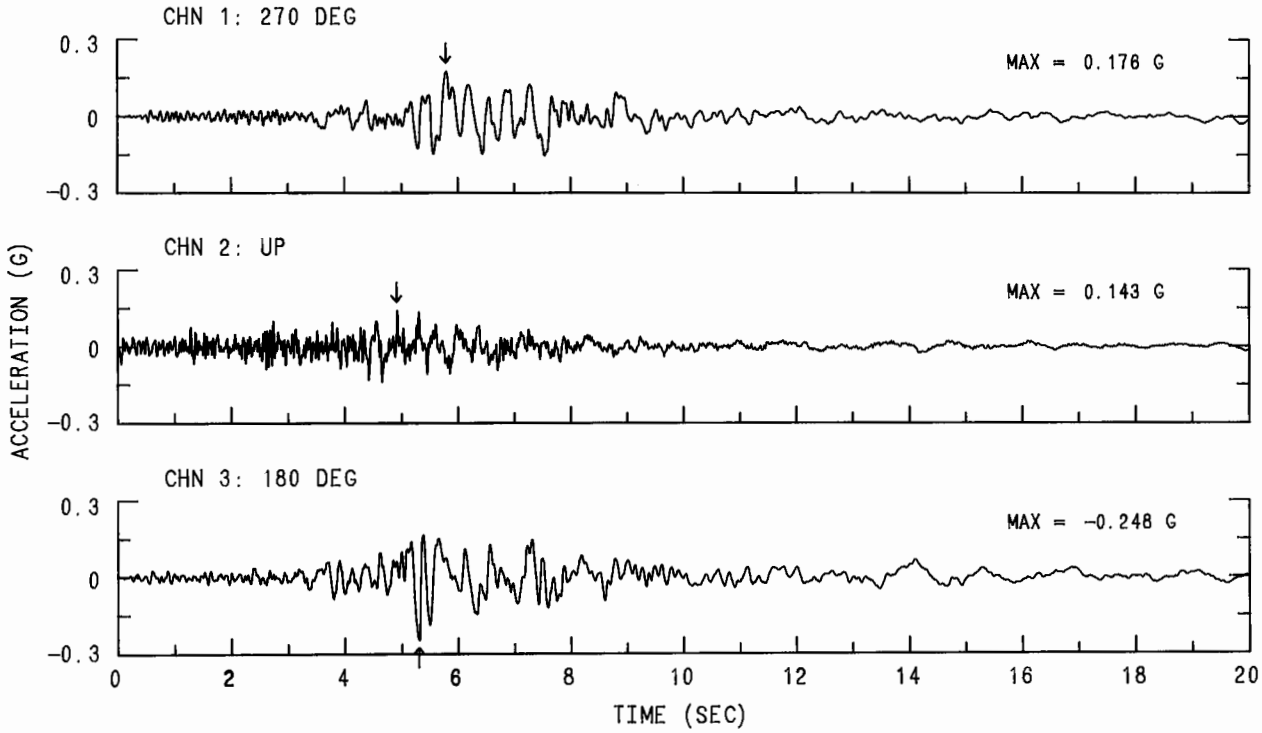


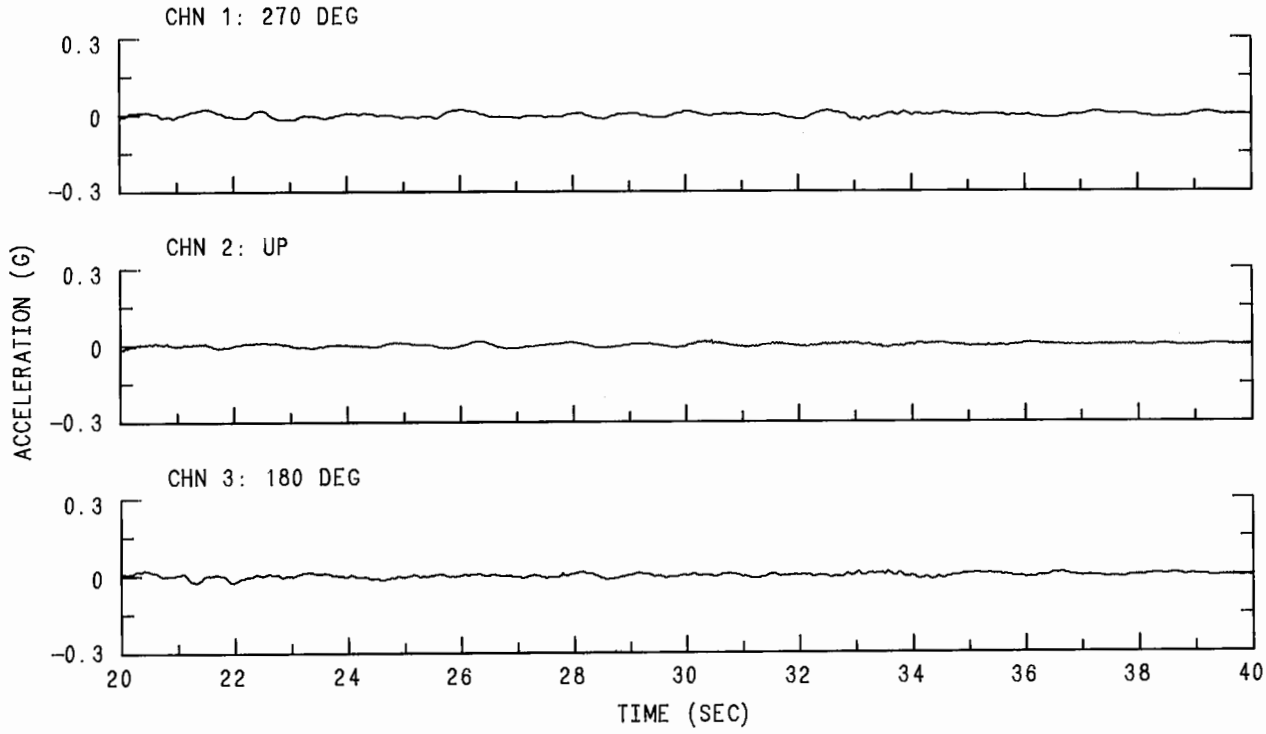
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT

BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

PHASE 1 ACCELERATION

RECORD ID: 54171-S1718-86203.03.1

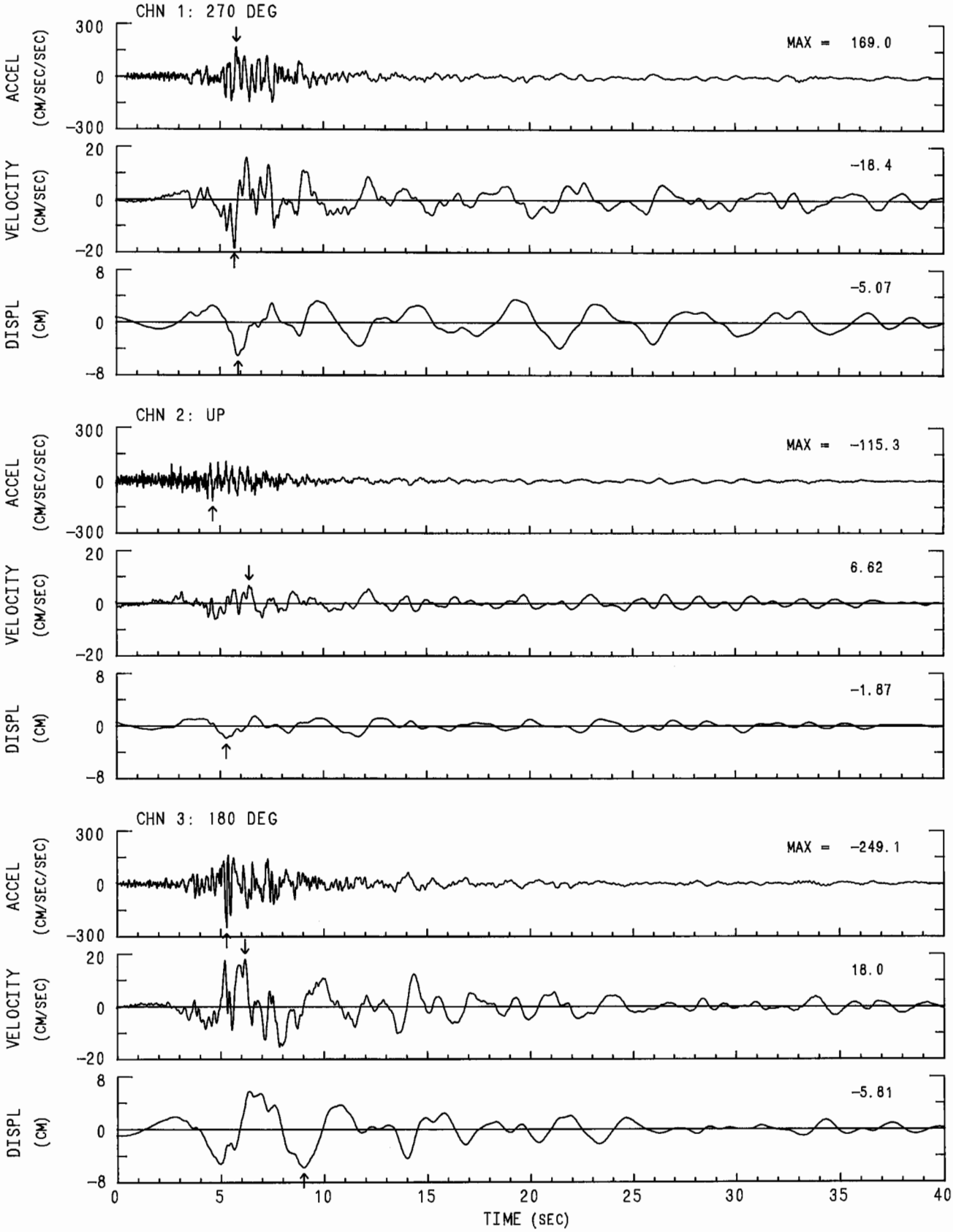




CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC) RECORD ID: 54171-S1718-86203.03.1



BISHOP – LADWP SOUTH STREET GARAGE: CSMIP S/N 171

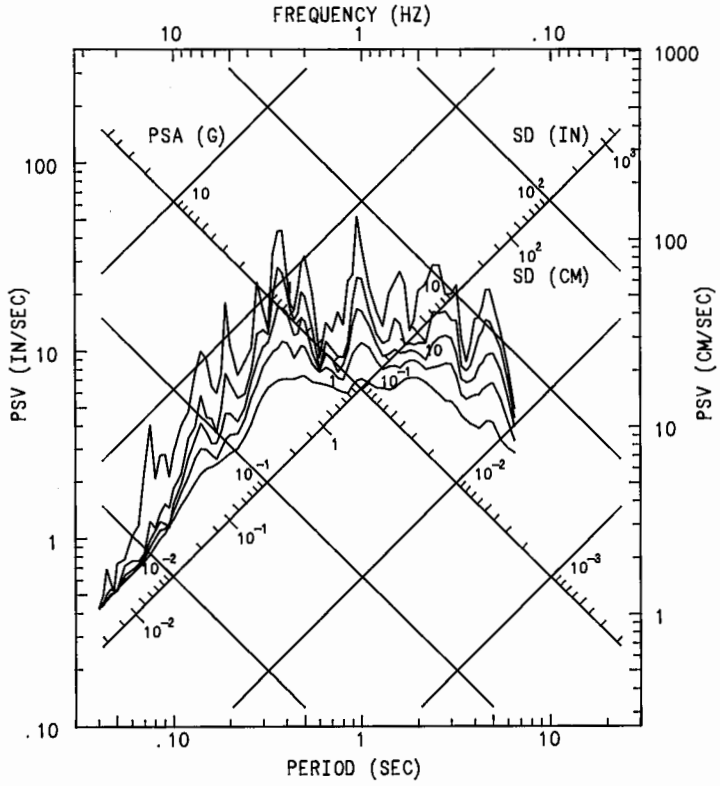
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ
(0.04 TO 5.88 SEC)

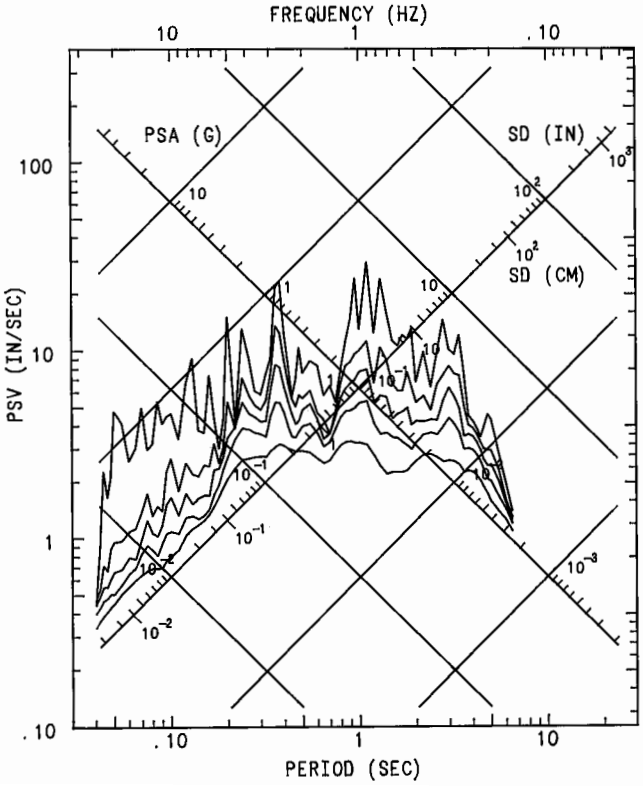
RECORD ID: 54171-S1718-86203.03.1

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

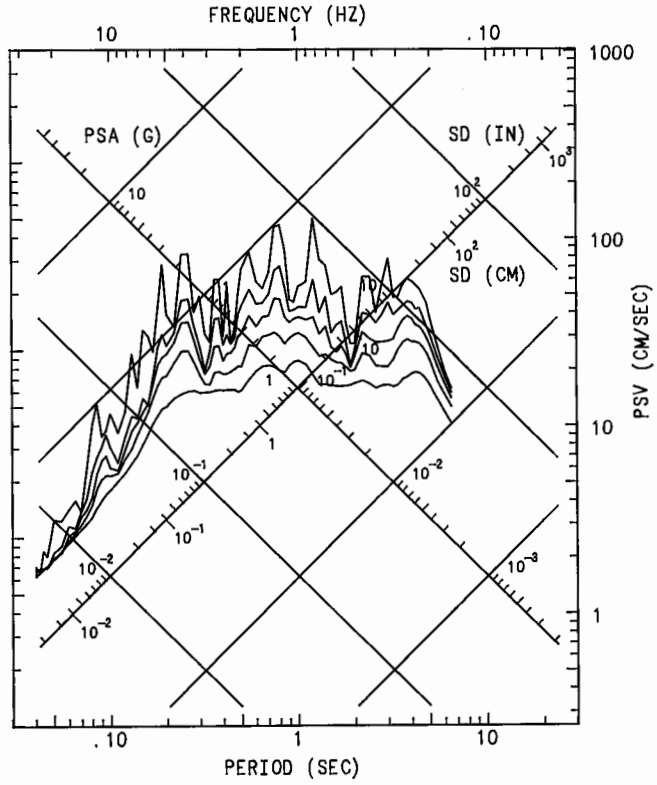
CHN 1: 270 DEG



CHN 2: UP

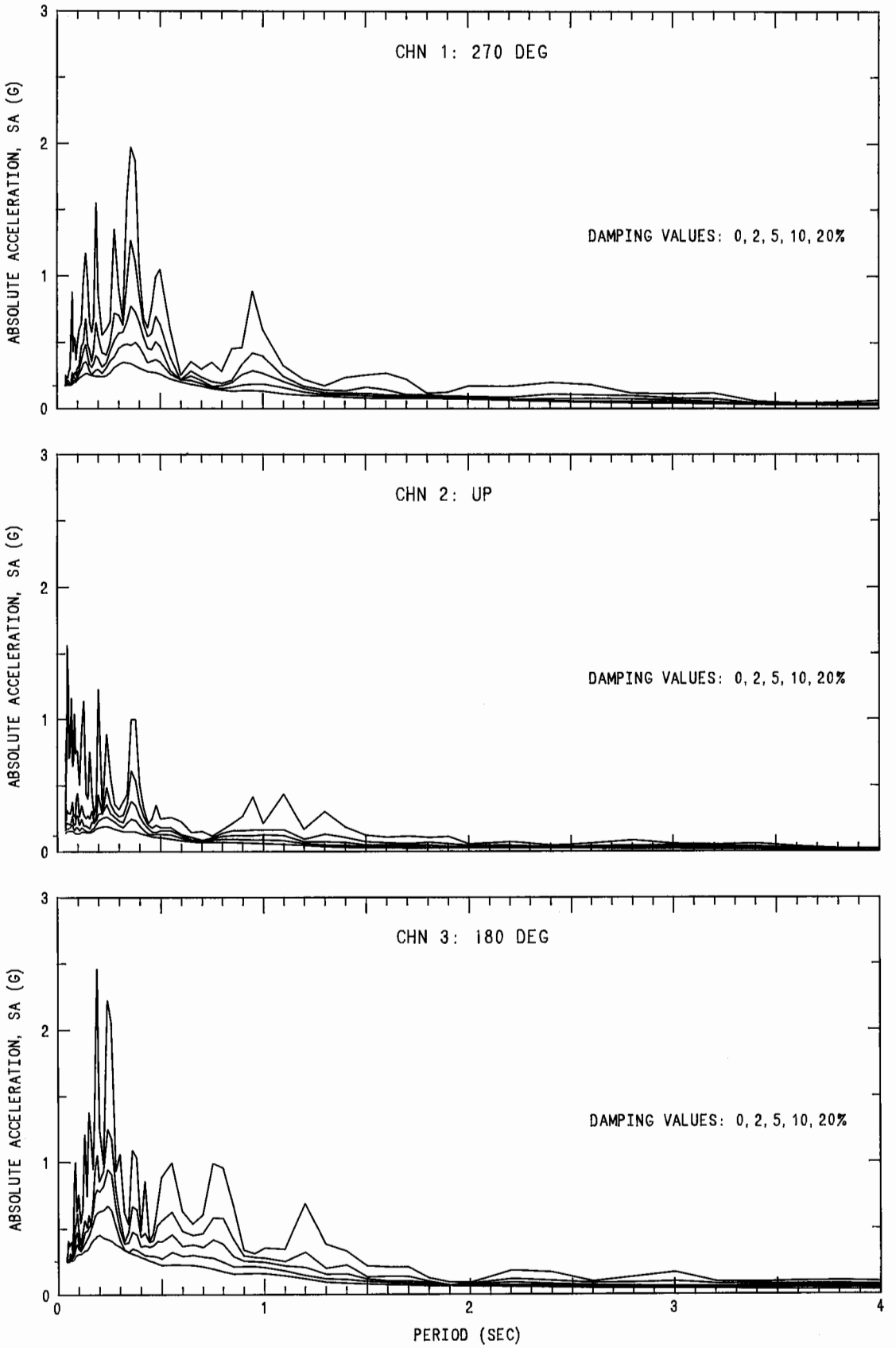


CHN 3: 180 DEG



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54171-S1718-86203.03.1
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC)

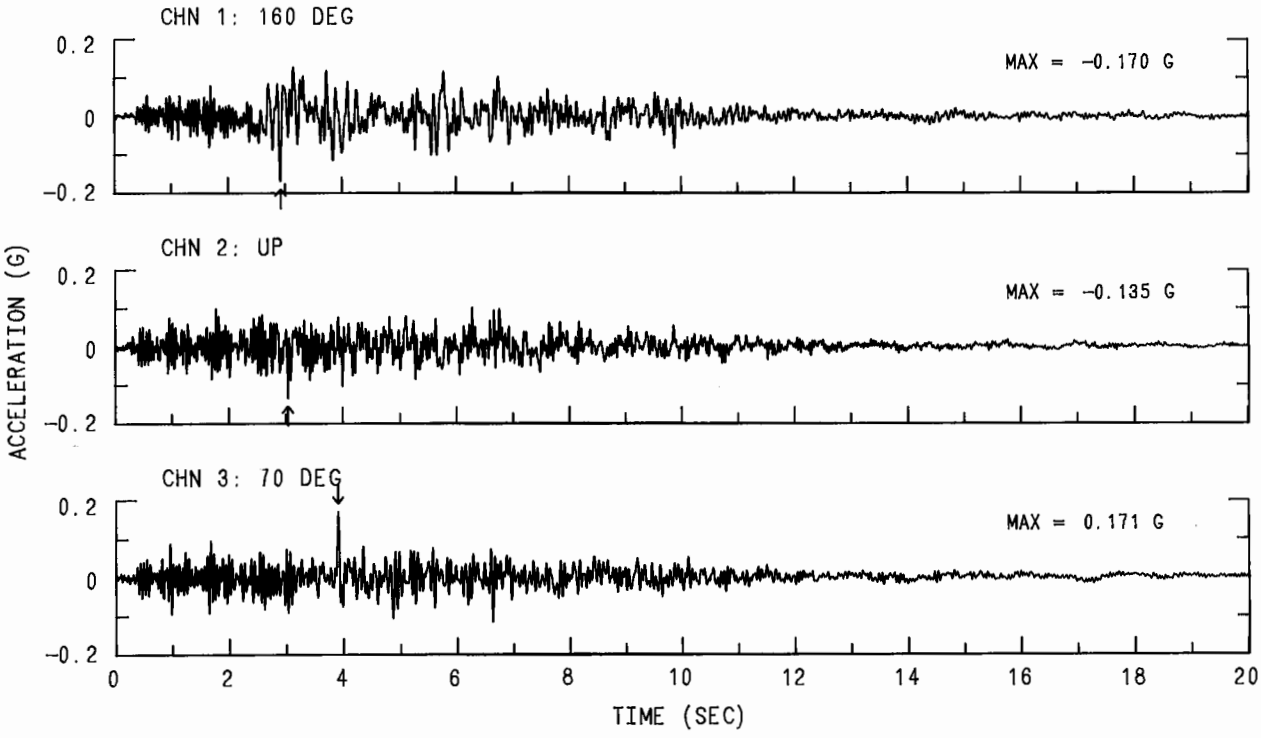


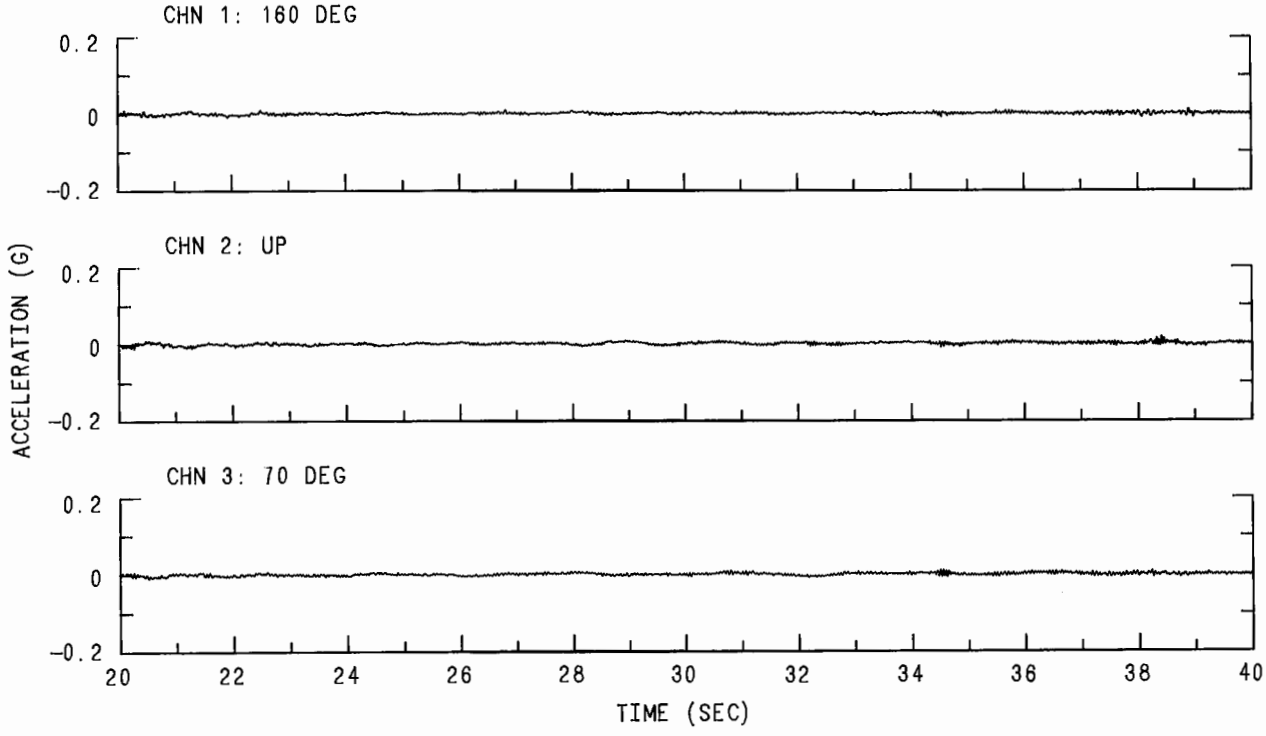
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT

BISHOP - PARADISE LODGE: CSMIP S/N 424

PHASE 1 ACCELERATION

RECORD ID: 54424-S1827-86202.02

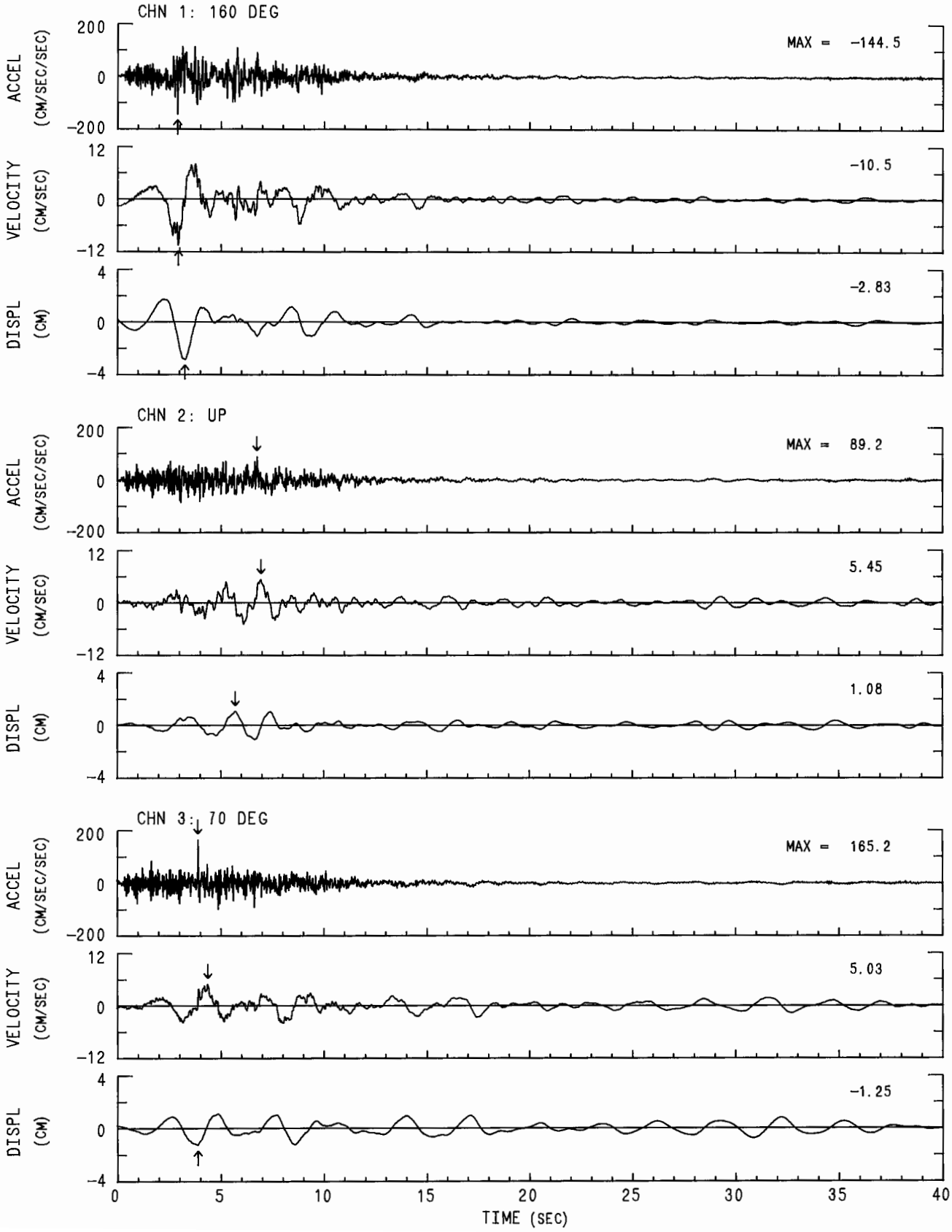




CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
BISHOP - PARADISE LODGE: CSMIP S/N 424

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.25 TO 23.6 HZ (0.04 TO 3.92 SEC) RECORD ID: 54424-S1827-86202.02



BISHOP - PARADISE LODGE: CSMIP S/N 424

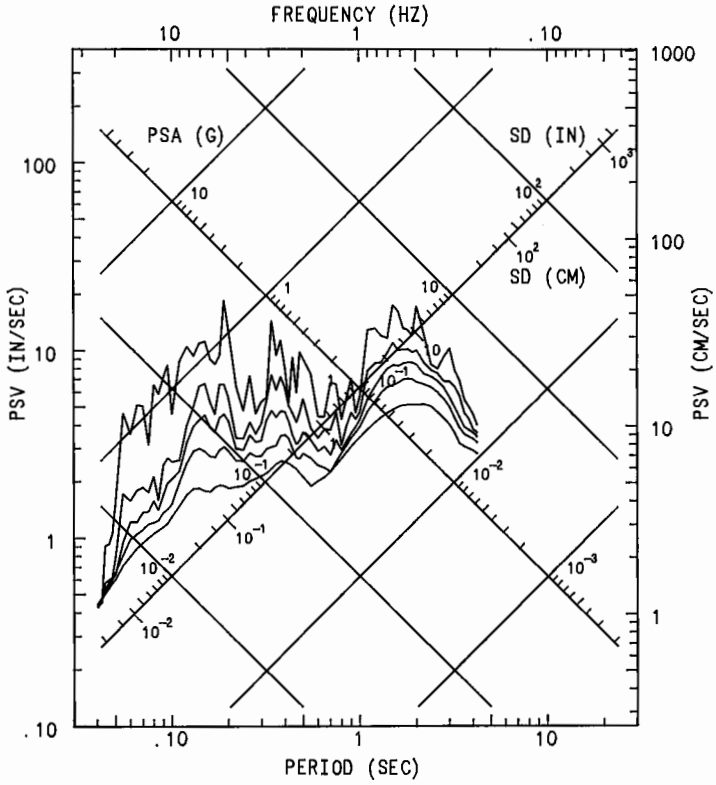
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.25 TO 23.6 HZ
(0.04 TO 3.92 SEC)

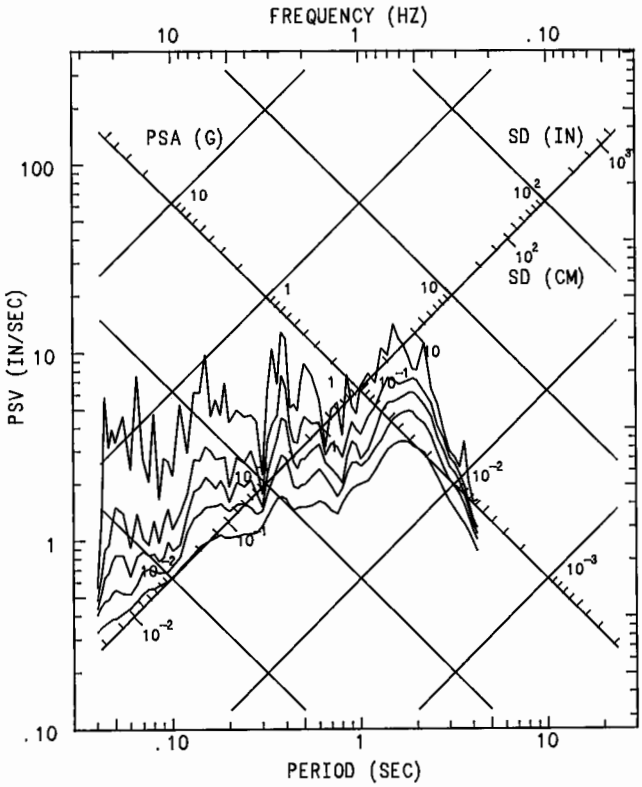
RECORD ID: 54424-S1827-86202.02

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

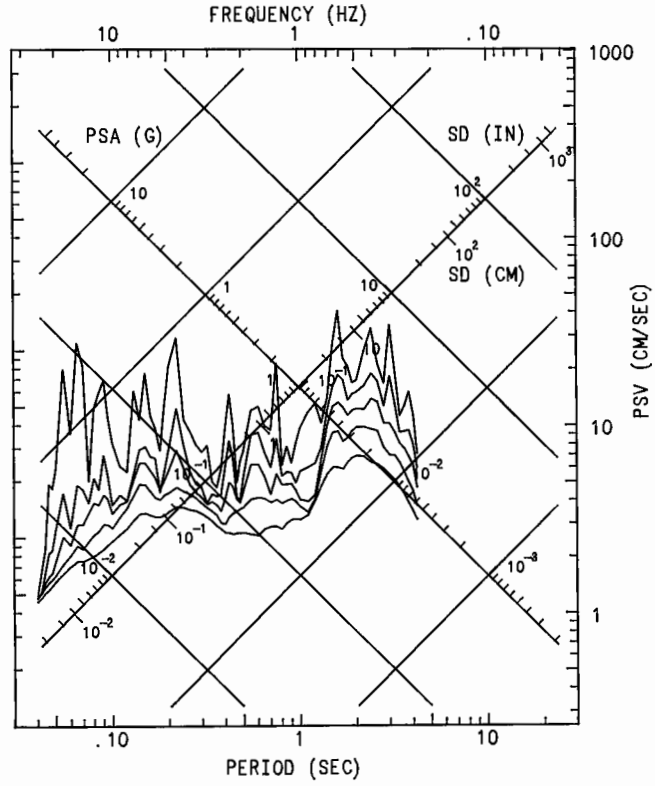
CHN 1: 160 DEG



CHN 2: UP

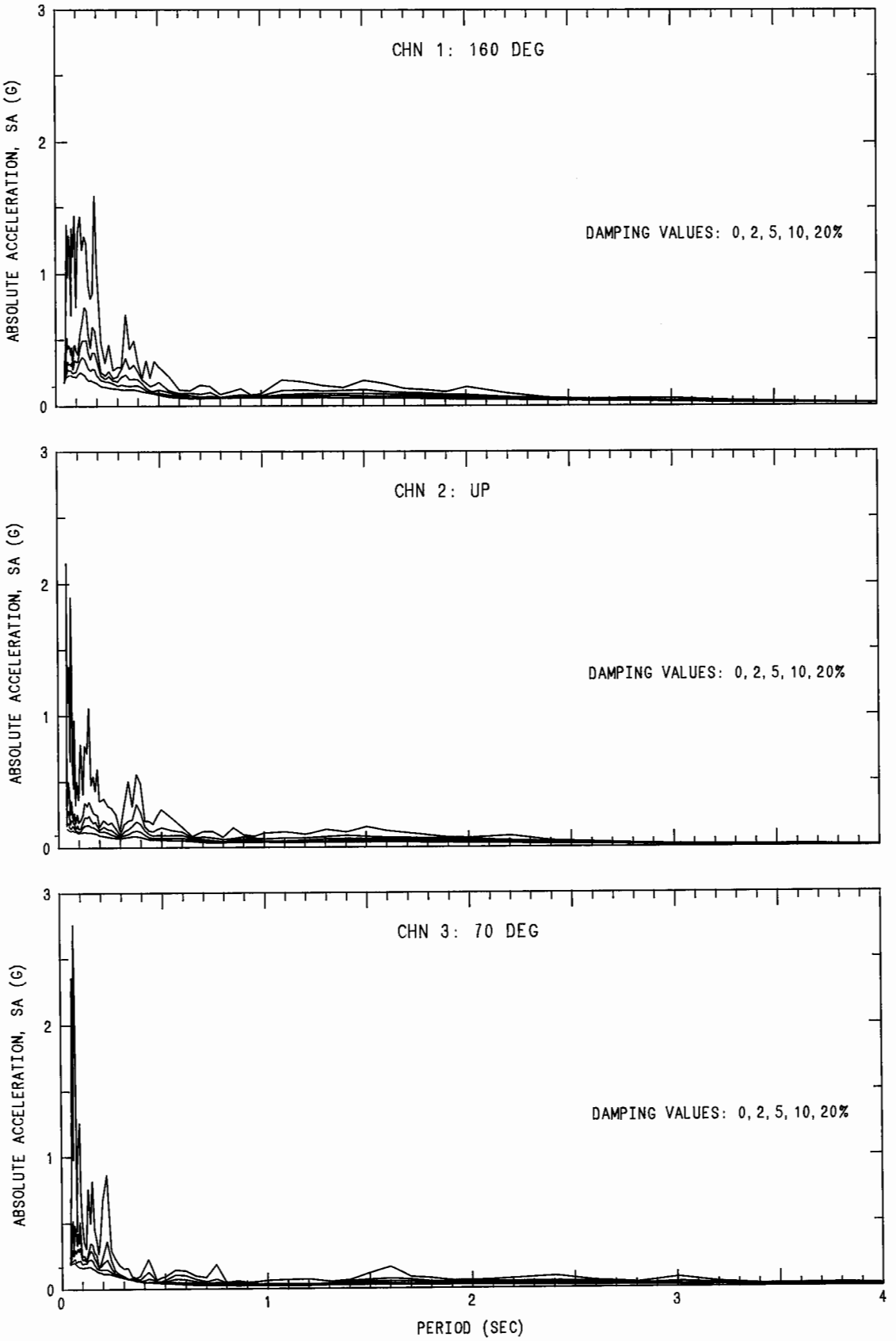


CHN 3: 70 DEG



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
BISHOP - PARADISE LODGE: CSMIP S/N 424

PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54424-S1827-86202.02
USABLE DATA BANDWIDTH: 0.25 TO 23.6 HZ (0.04 TO 3.92 SEC)

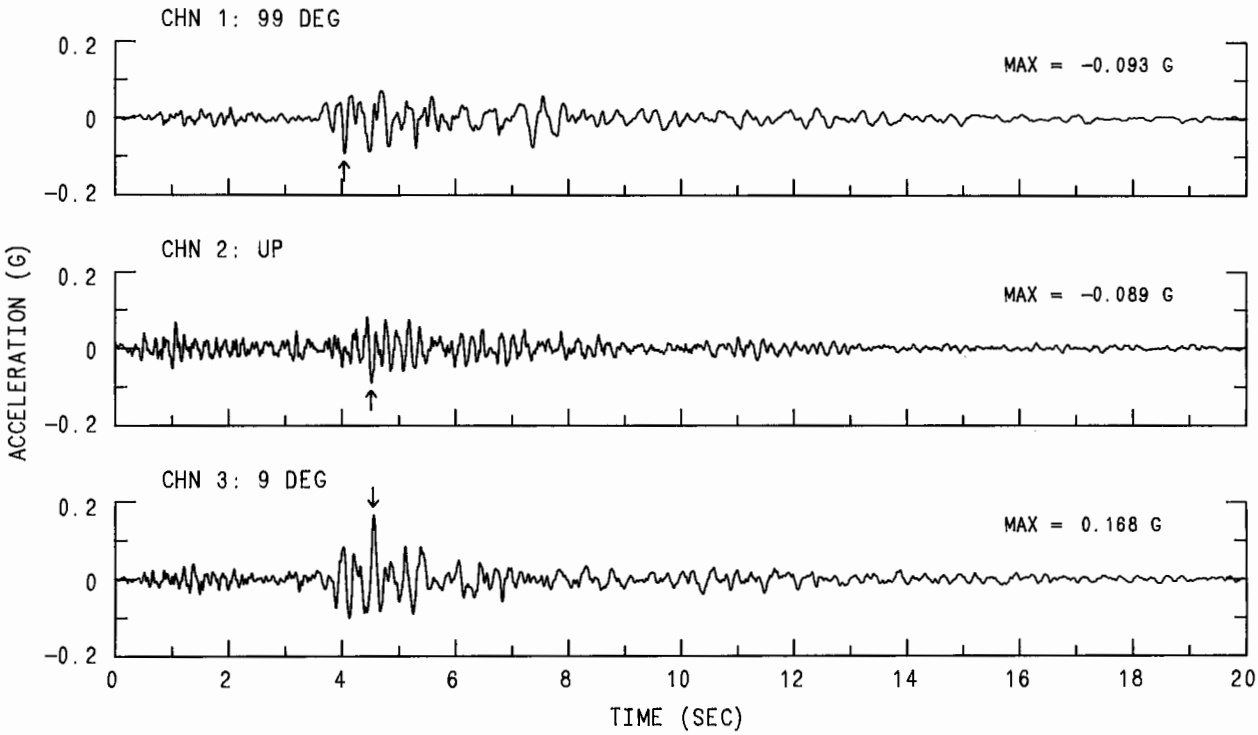


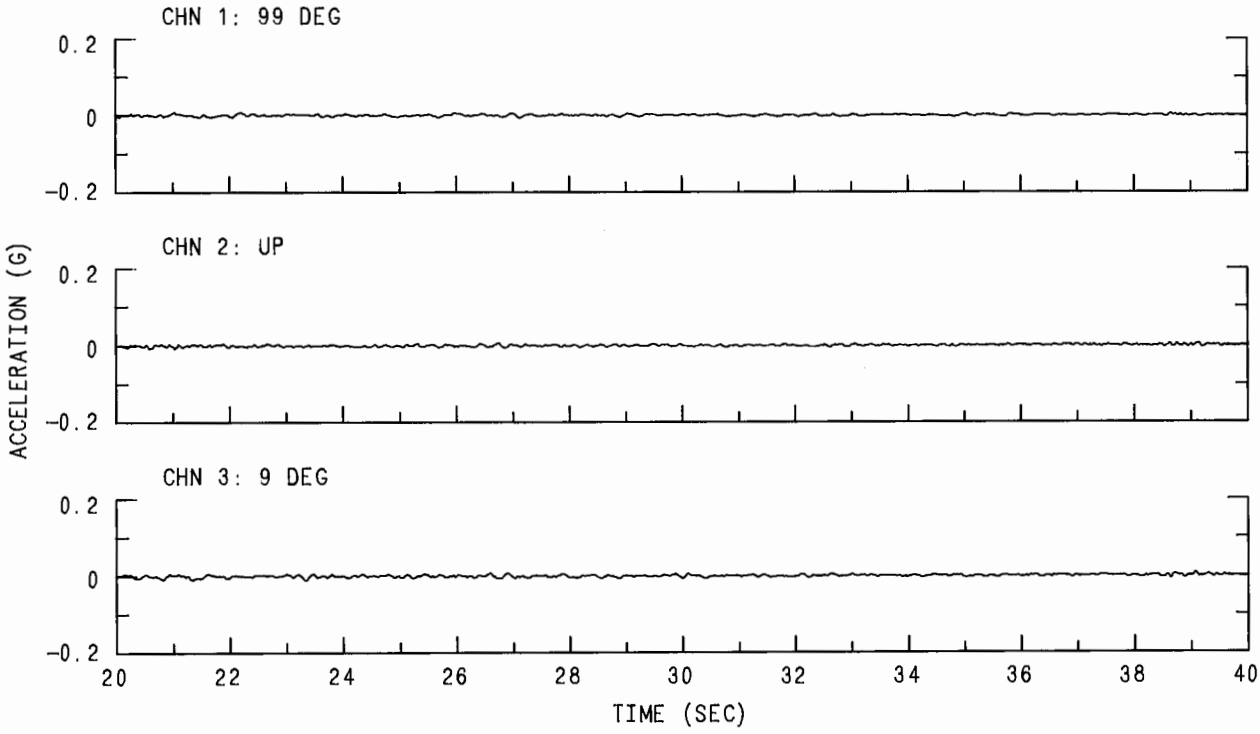
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT

LAKE CROWLEY - SHEHORN RESIDENCE: CSMIP S/N T03

PHASE 1 ACCELERATION

RECORD ID: 54T03-S1811-86203.02.1

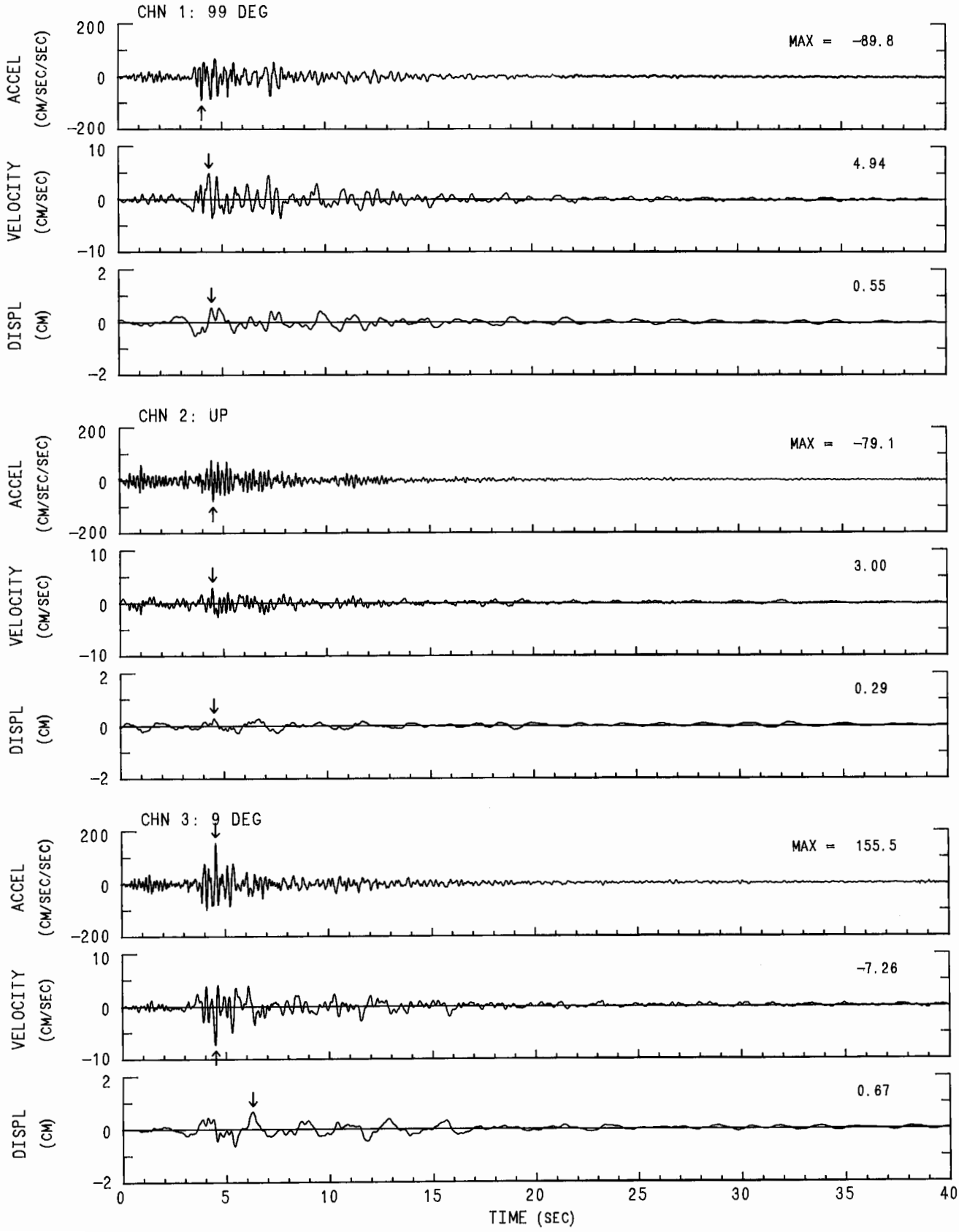




CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
LAKE CROWLEY - SHEHORN RESIDENCE: CSMIP S/N T03

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.34 TO 23.6 HZ (0.04 TO 2.94 SEC) RECORD ID: 54T03-S1811-86203.02.1



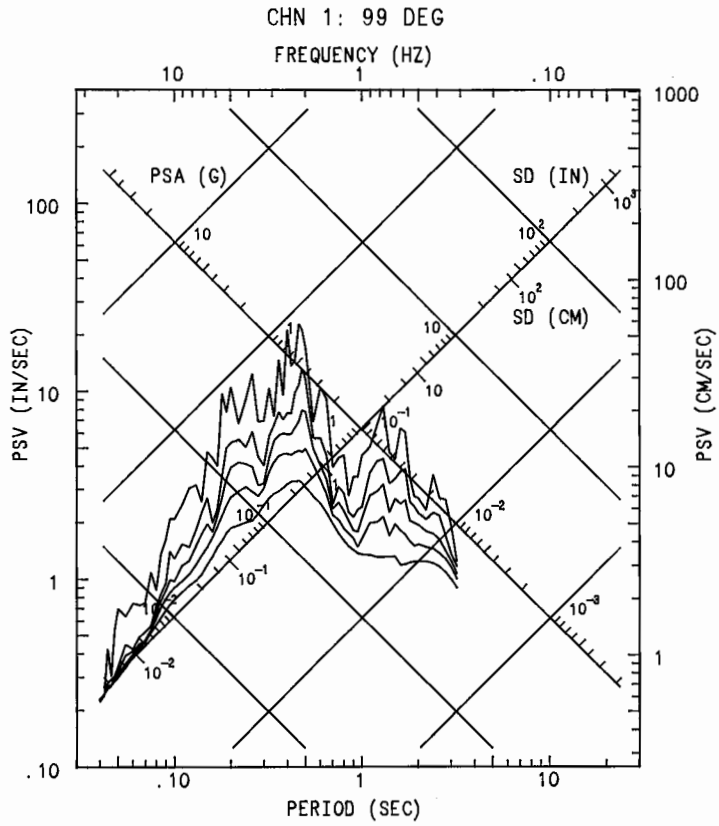
LAKE CROWLEY - SHEHORN RESIDENCE: CSMIP S/N T03

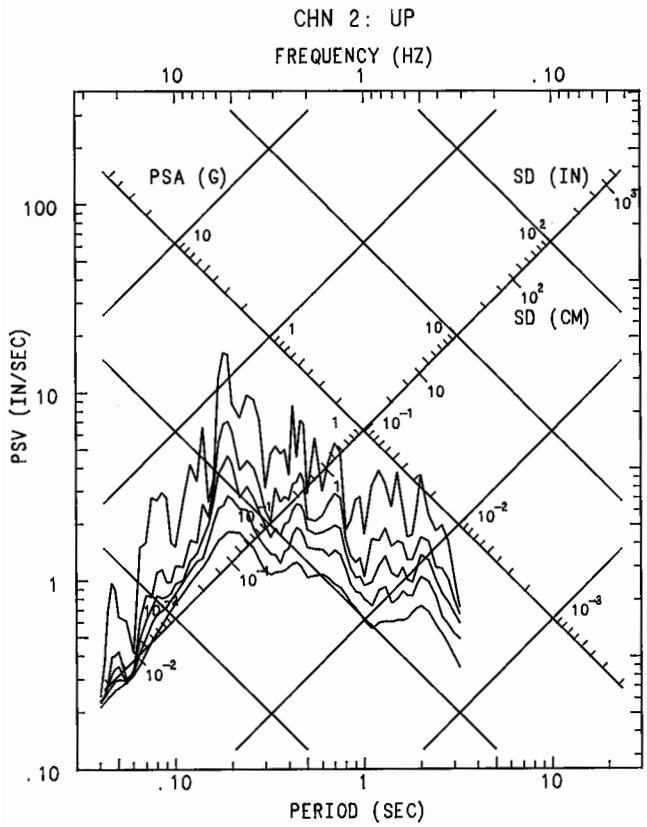
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

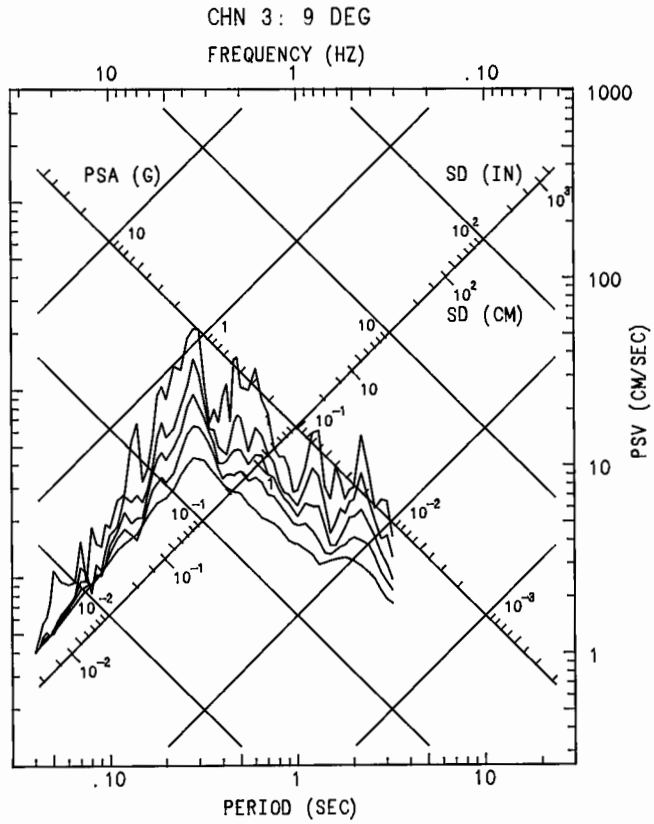
PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.34 TO 23.6 HZ
(0.04 TO 2.94 SEC)

RECORD ID: 54T03-S1811-86203.02.1

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

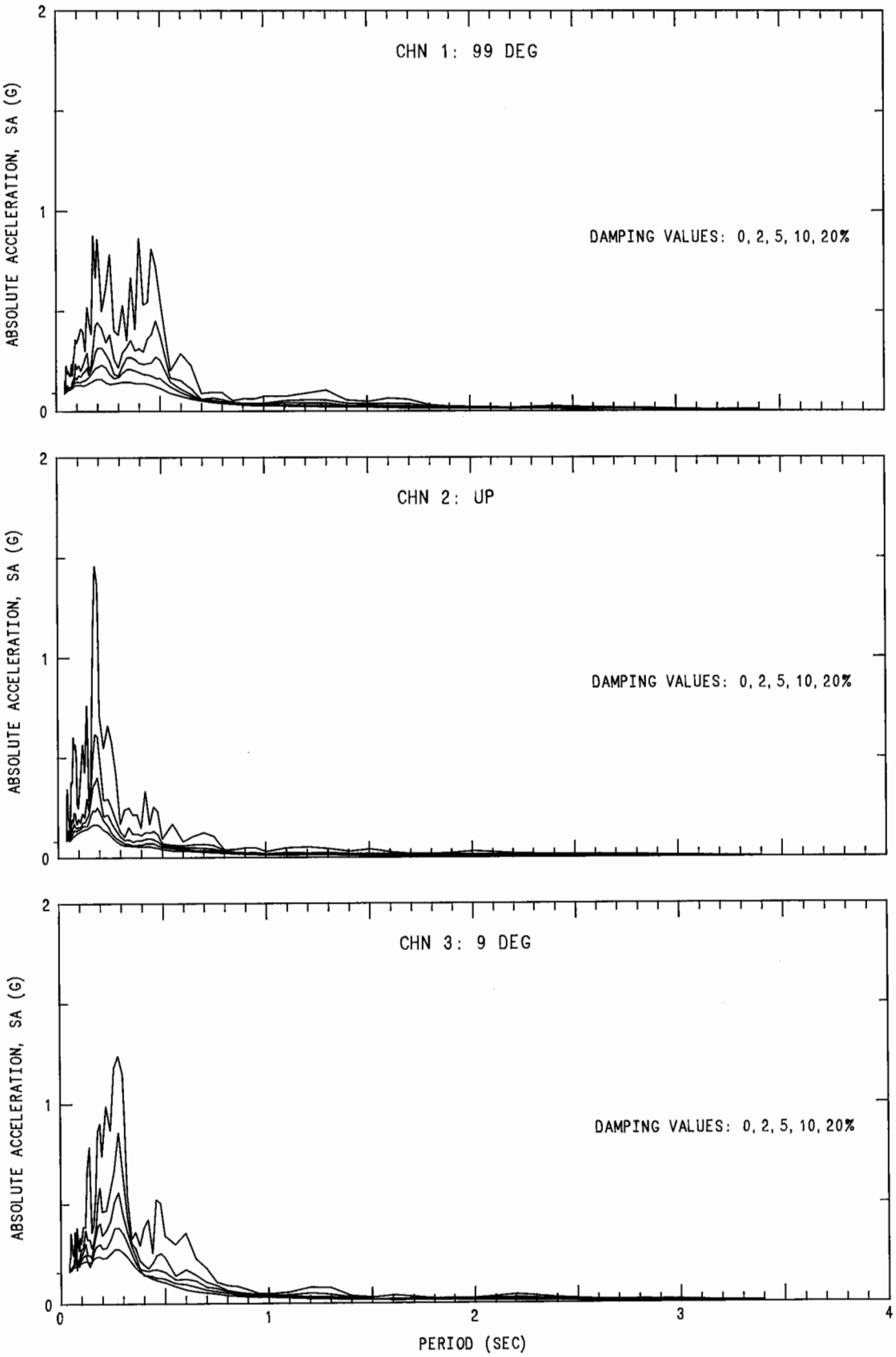






CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
LAKE CROWLEY - SHEHORN RESIDENCE: CSMIP S/N T03

PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54T03-S1811-86203.02.1
USABLE DATA BANDWIDTH: 0.34 TO 23.6 HZ (0.04 TO 2.94 SEC)

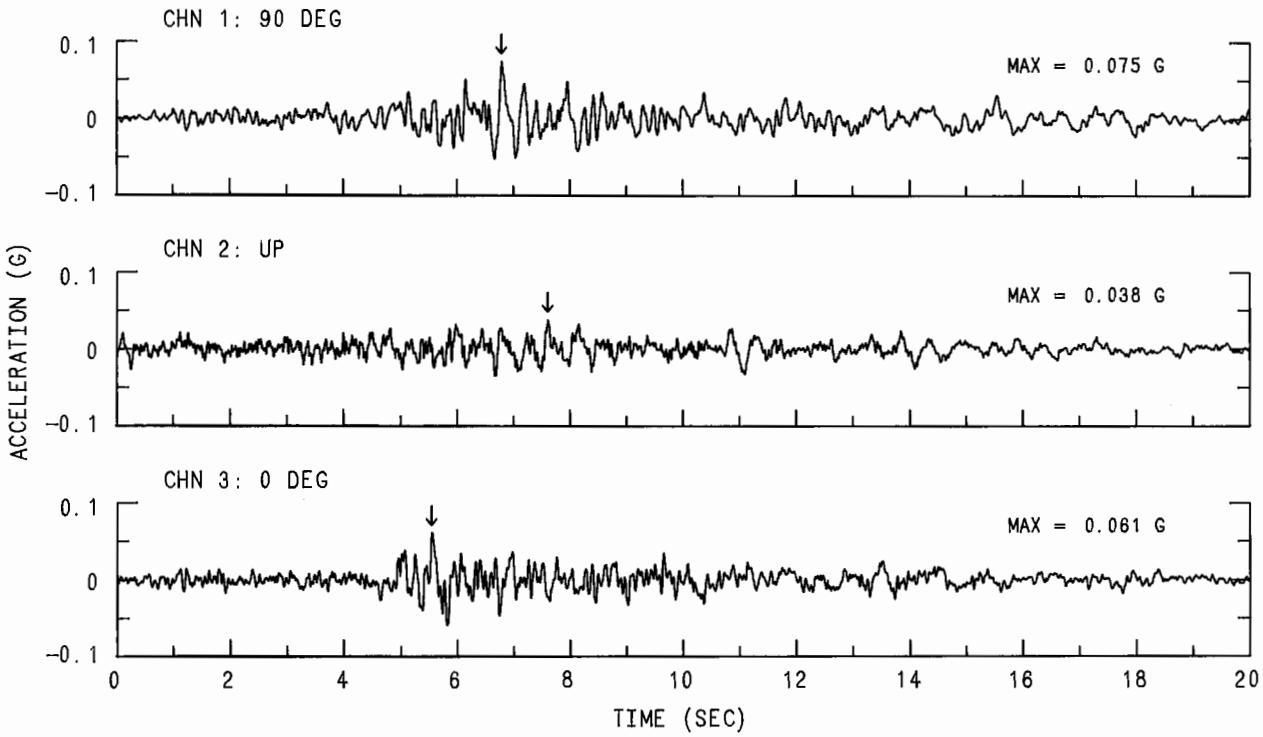


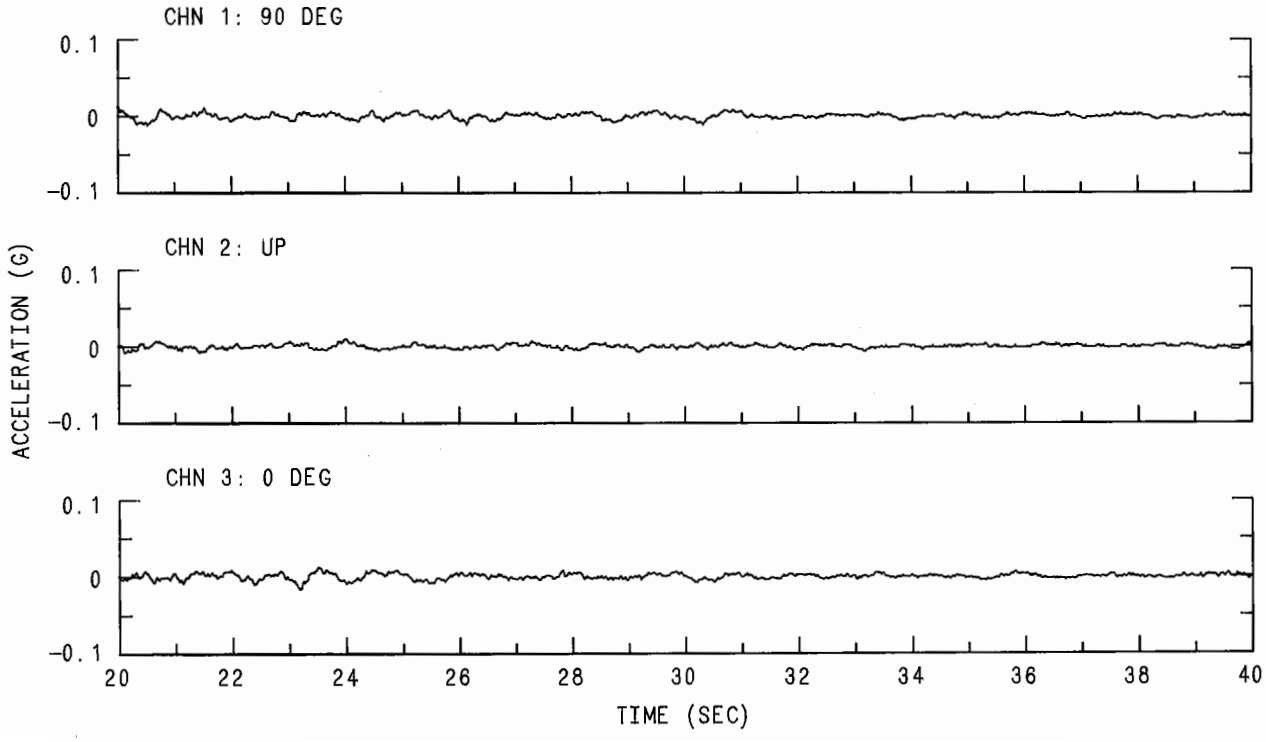
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT

CONVICT CREEK - U.C. EXP. STA.: CSMIP S/N 099

PHASE 1 ACCELERATION

RECORD ID: 54099-S2593-86203.03

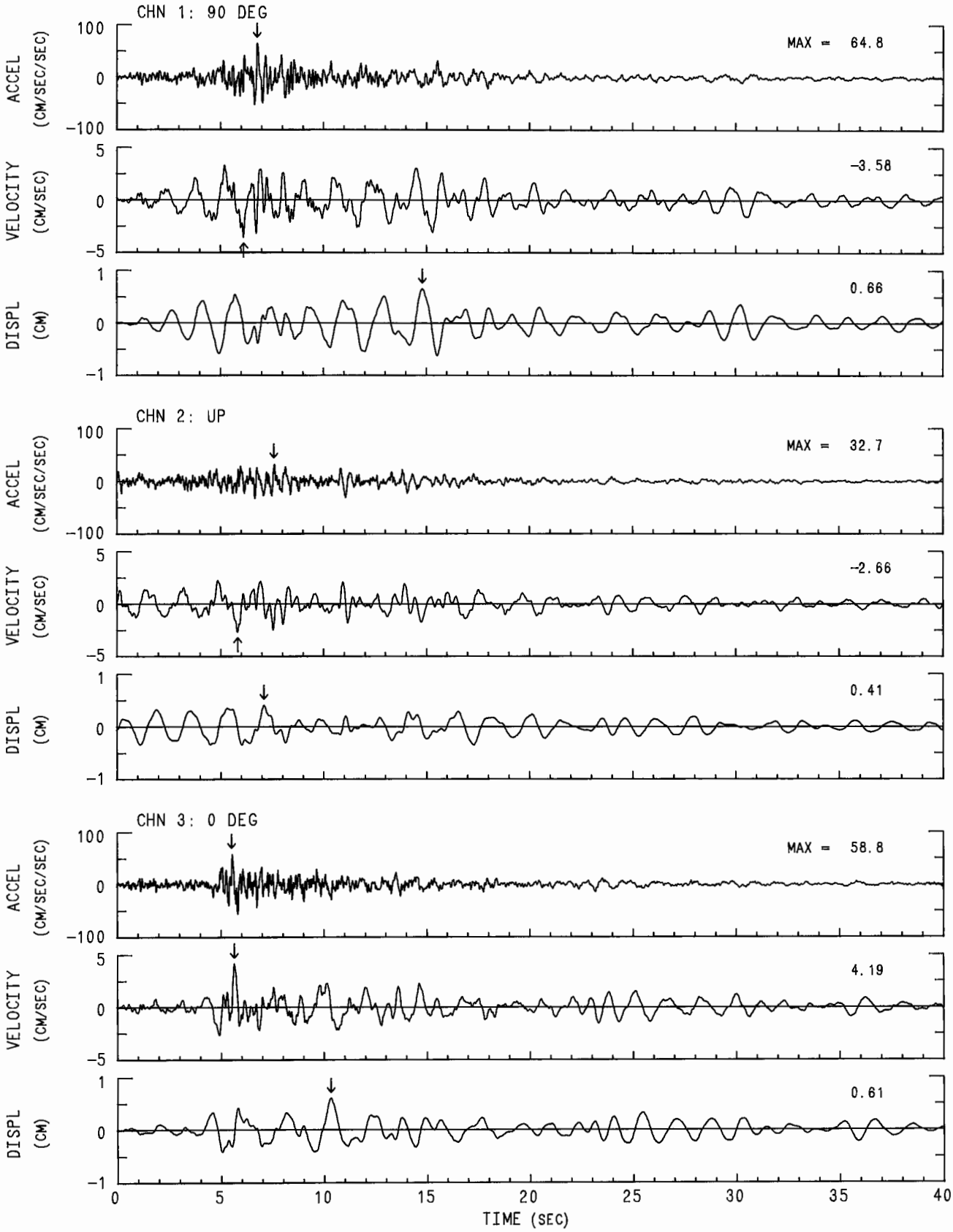




CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CONVICT CREEK - U.C. EXP. STA.: CSMIP S/N 099

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC) RECORD ID: 54099-S2593-86203.03



CONVICT CREEK – U.C. EXP. STA.: CSMIP S/N 099

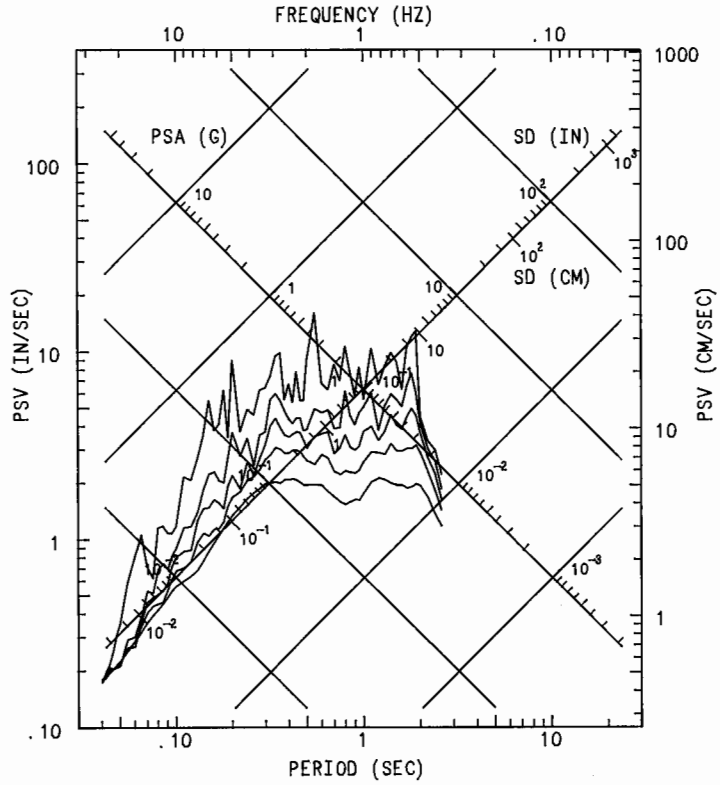
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ
(0.04 TO 2.35 SEC)

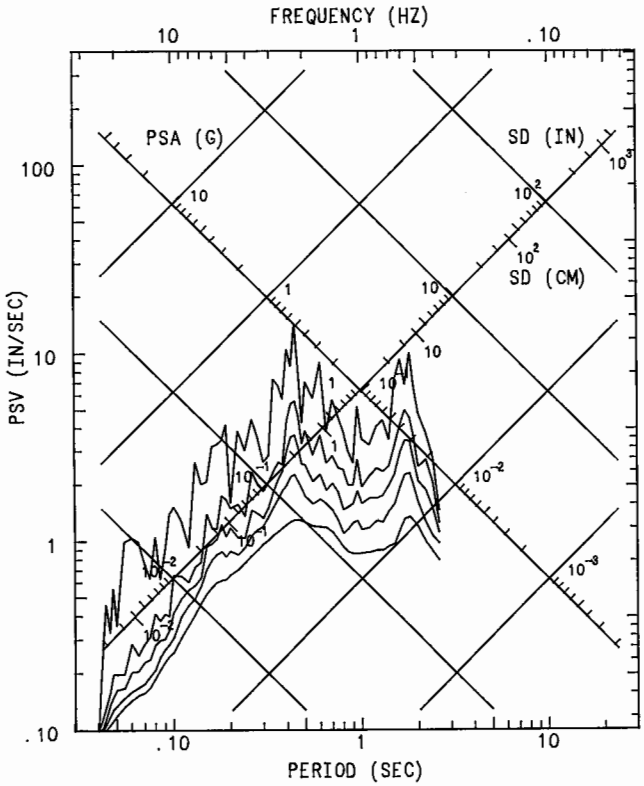
RECORD ID: 54099-S2593-86203.03

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

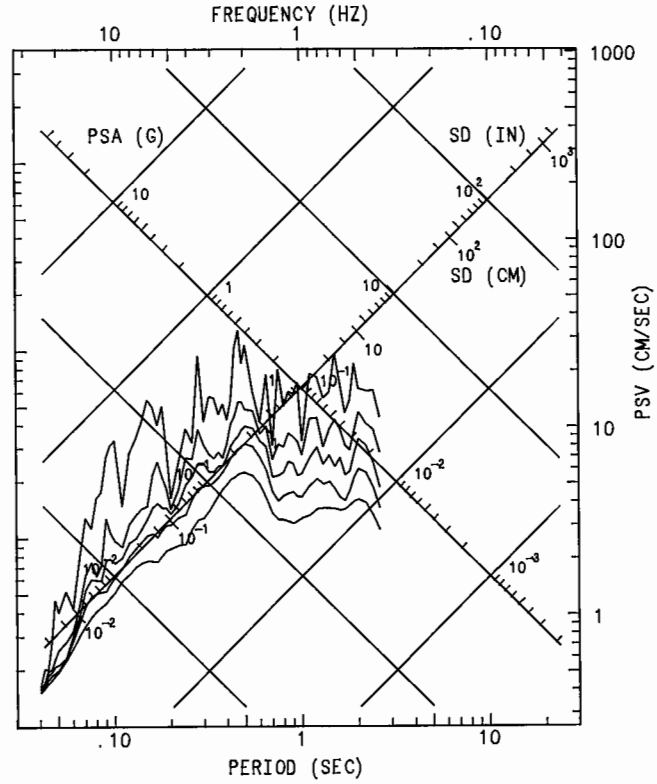
CHN 1: 90 DEG



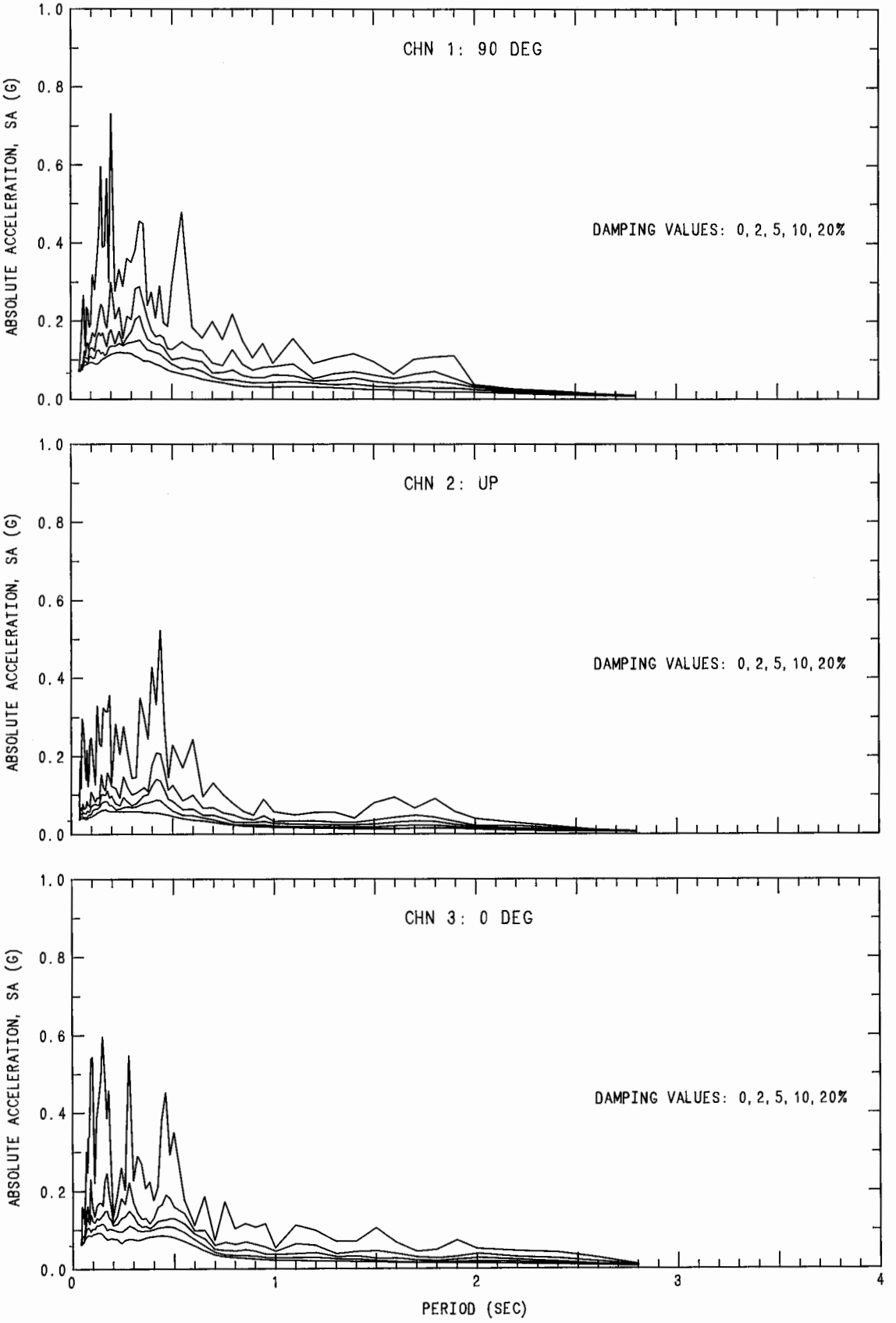
CHN 2: UP



CHN 3: 0 DEG



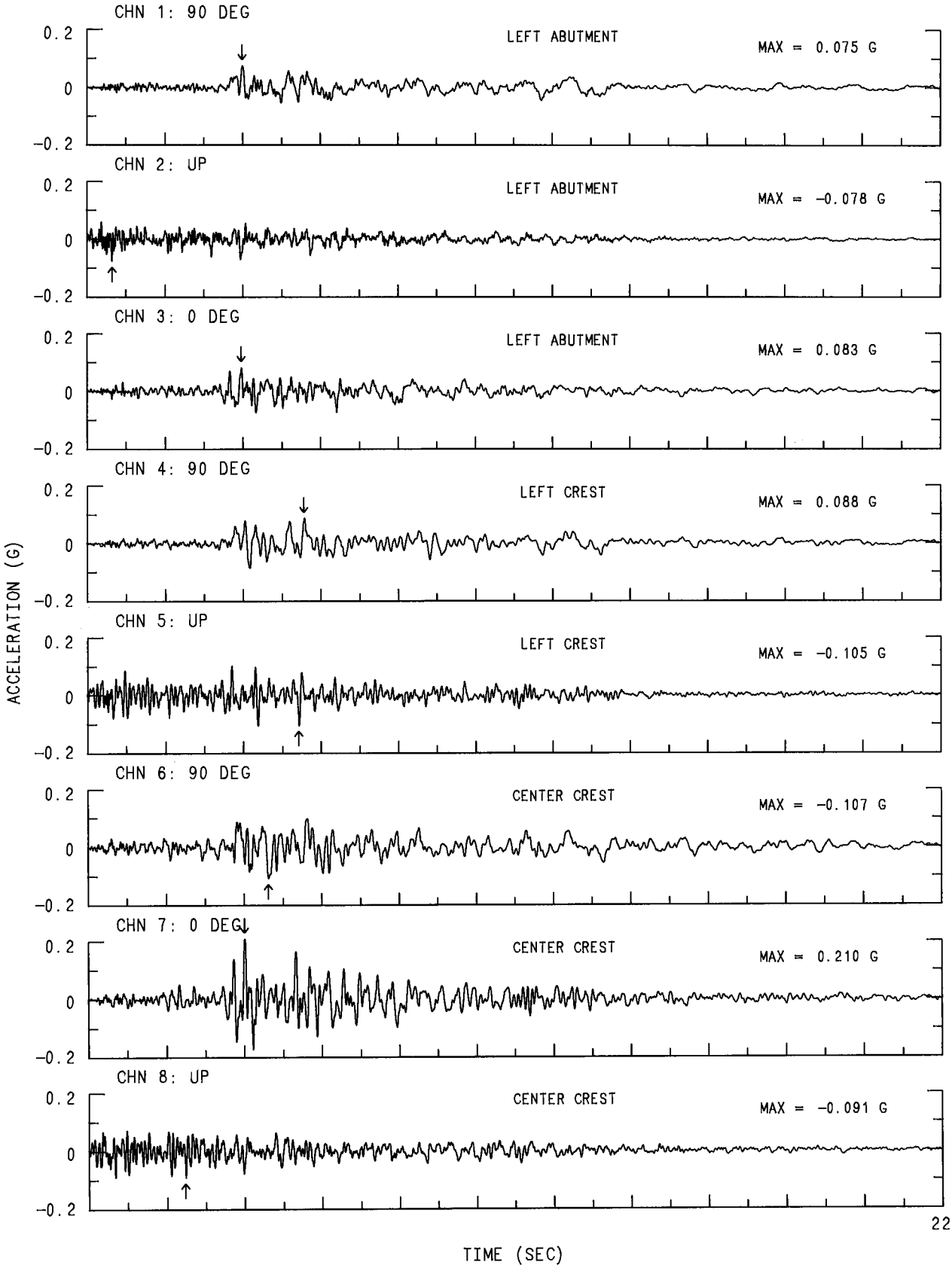
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CONVICT CREEK - U.C. EXP. STA.: CSMIP S/N 099
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54099-S2593-86203.03
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC)



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT

CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

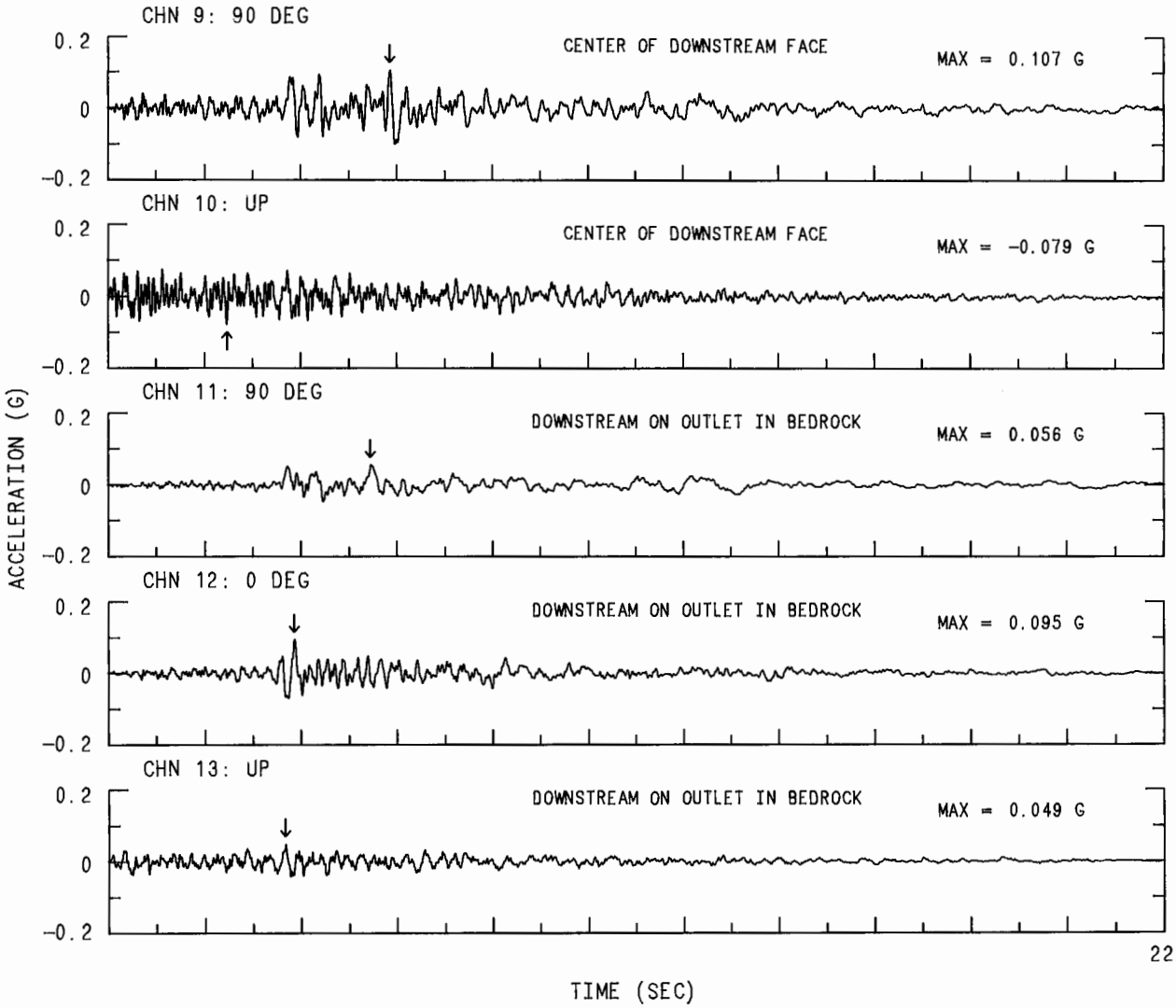
PHASE 1 ACCELERATION. RECORD ID: 54214-C0190-86202.03(1)



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT

CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

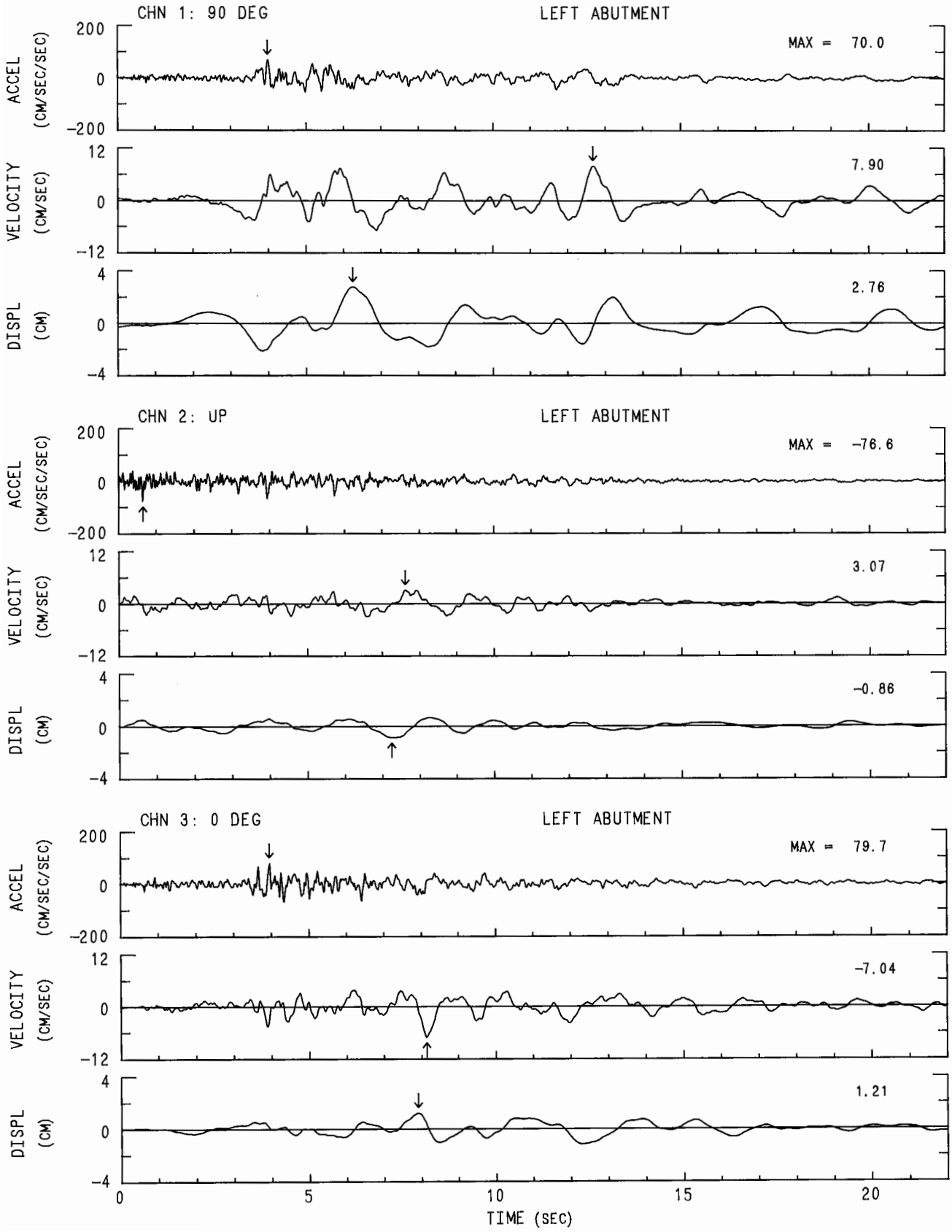
PHASE 1 ACCELERATION. RECORD ID: 54214-C0190-86202.03(1)



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

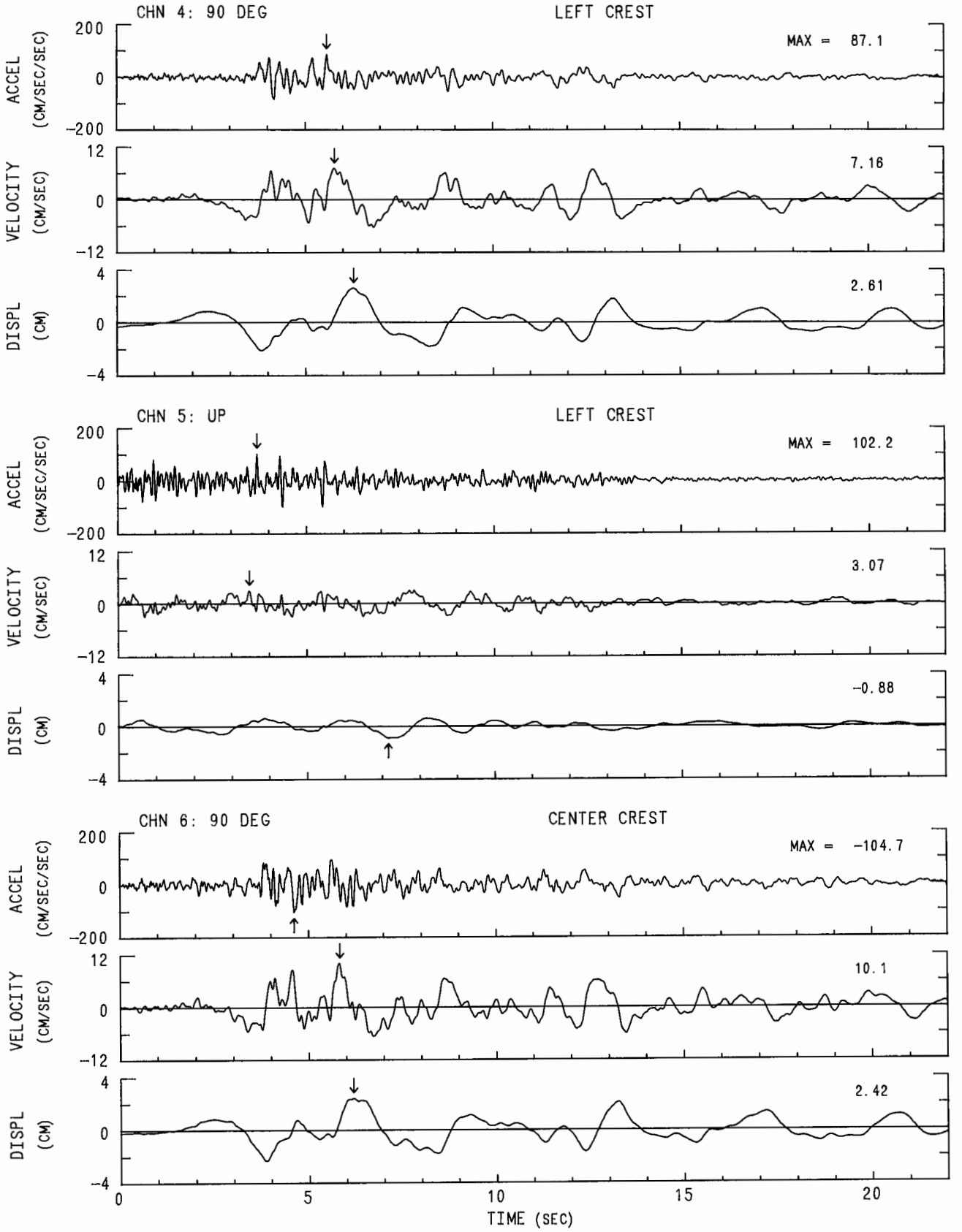
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC) RECORD ID: 54214-C0190-86202.03(1)



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

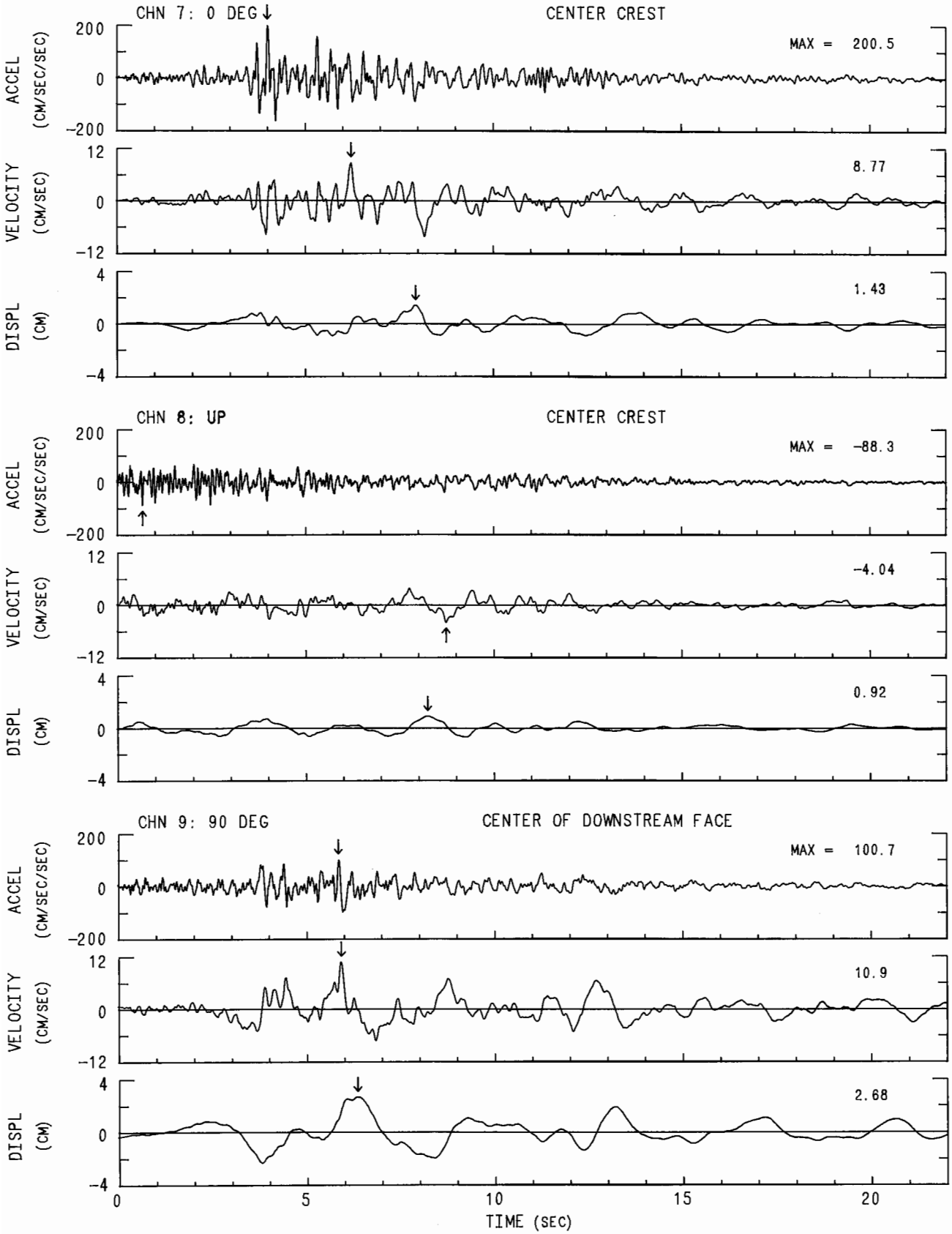
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC) RECORD ID: 54214-C0190-86202.03(1)



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

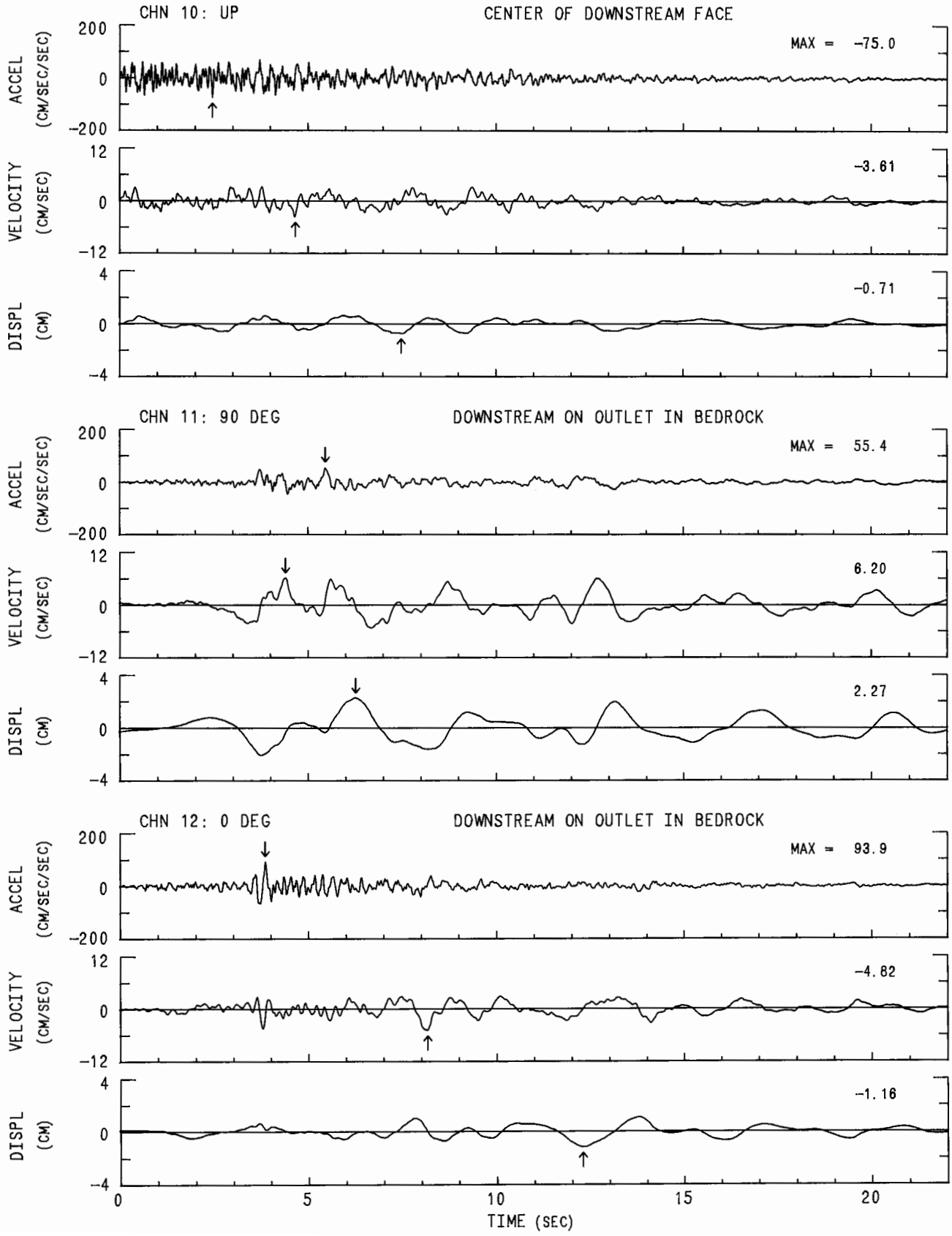
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC) RECORD ID: 54214-C0190-86202.03(1)



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

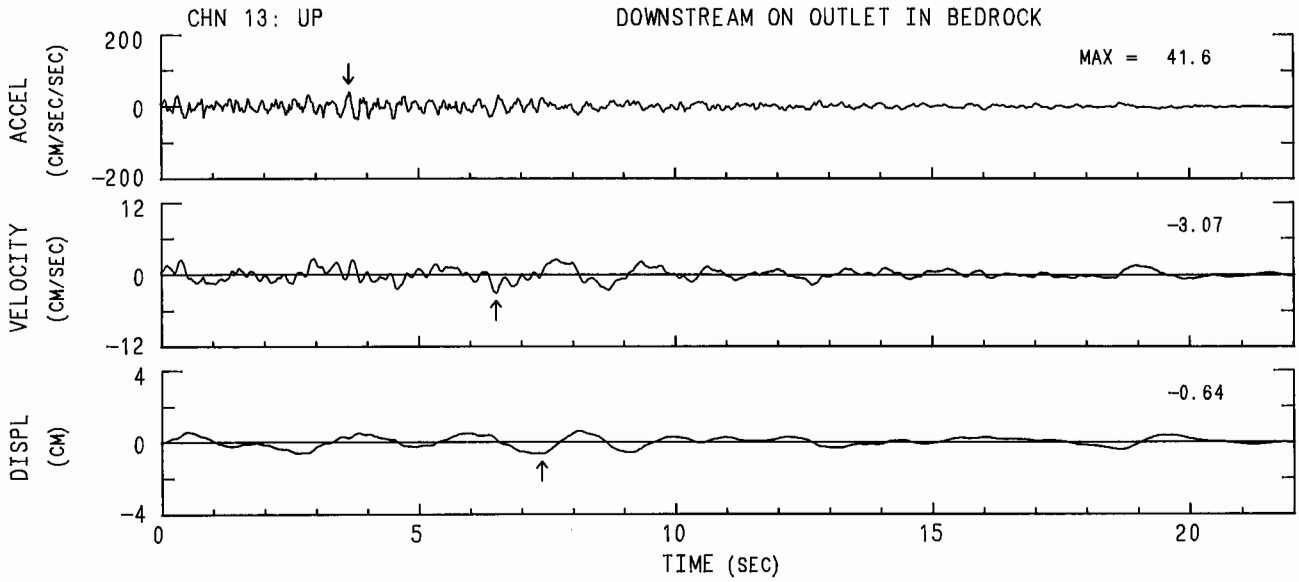
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC) RECORD ID: 54214-C0190-86202.03(1)



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC) RECORD ID: 54214-C0190-86202.03(1)



CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

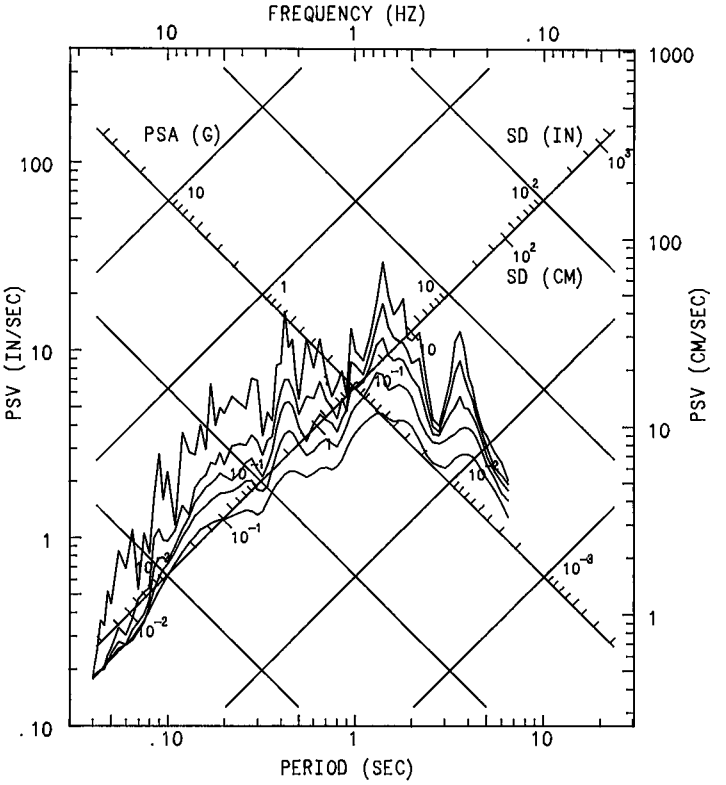
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ
(0.04 TO 5.88 SEC)

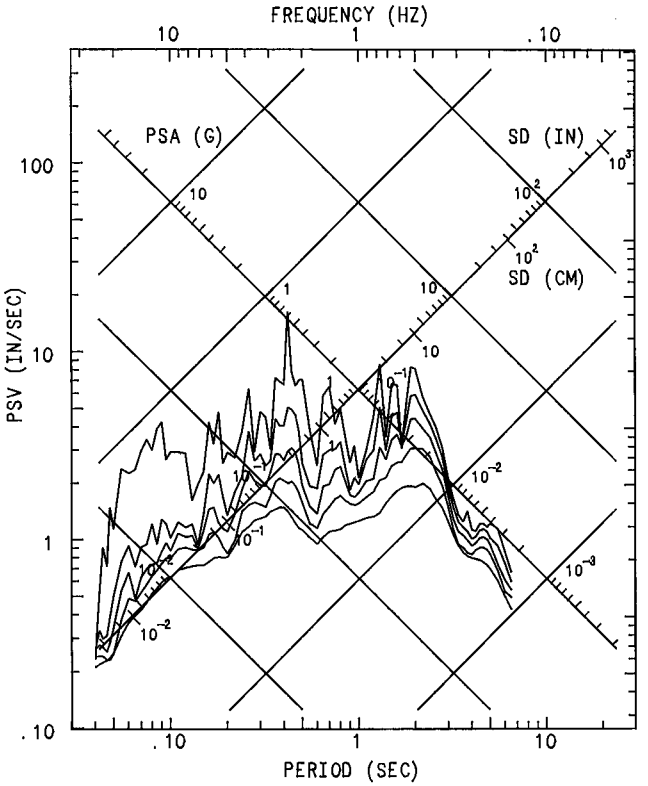
RECORD ID: 54214-C0190-86202.03(1)

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

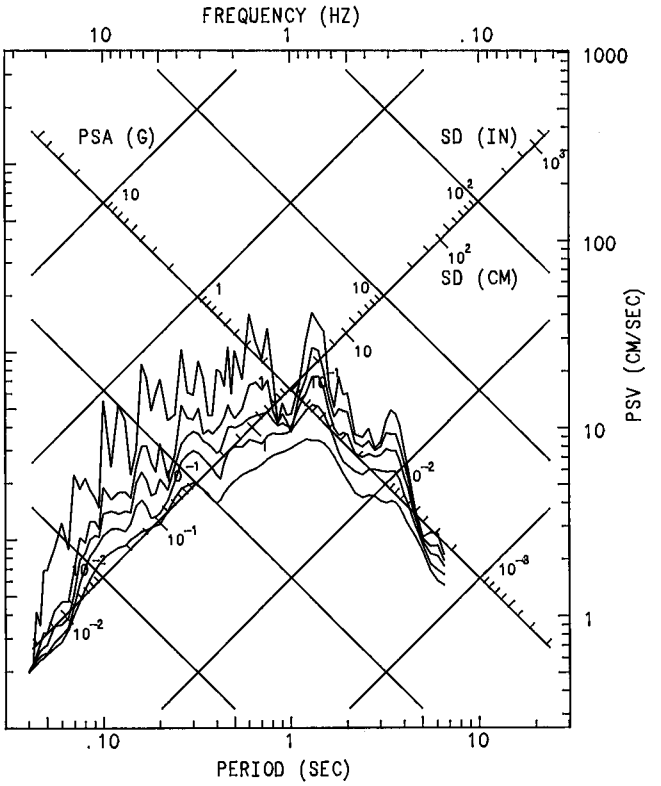
CHN 1: 90 DEG
LEFT ABUTMENT



CHN 2: UP
LEFT ABUTMENT



CHN 3: 0 DEG
LEFT ABUTMENT



CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

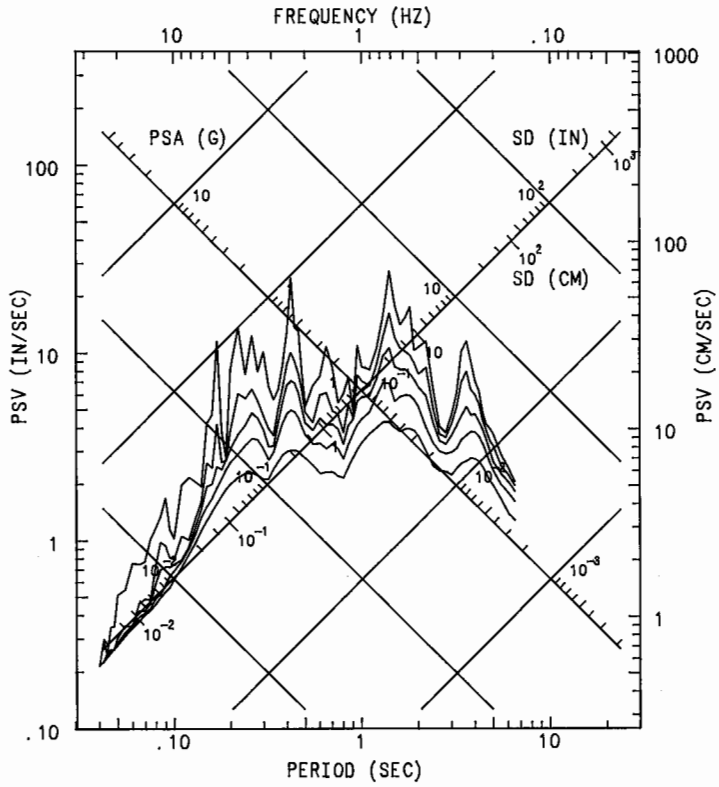
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ
(0.04 TO 5.88 SEC)

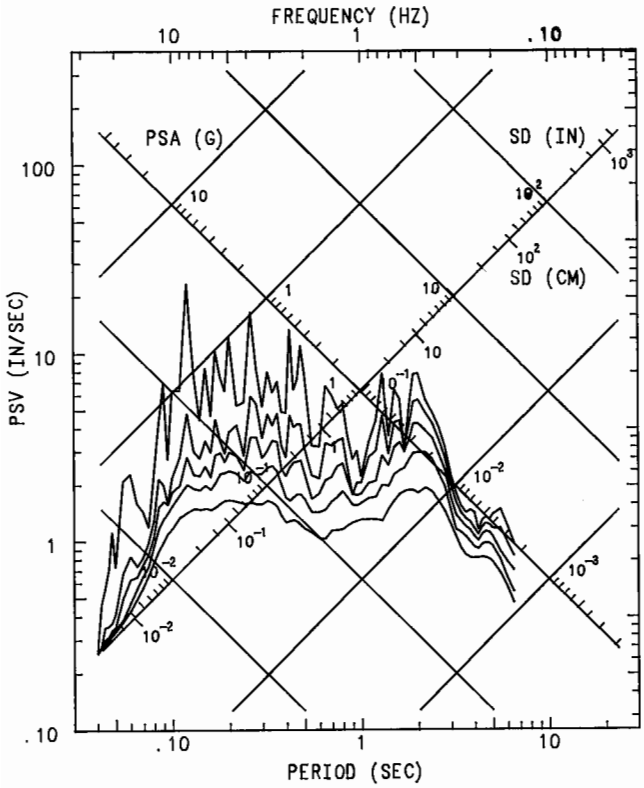
RECORD ID: 54214-C0190-86202.03(1)

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

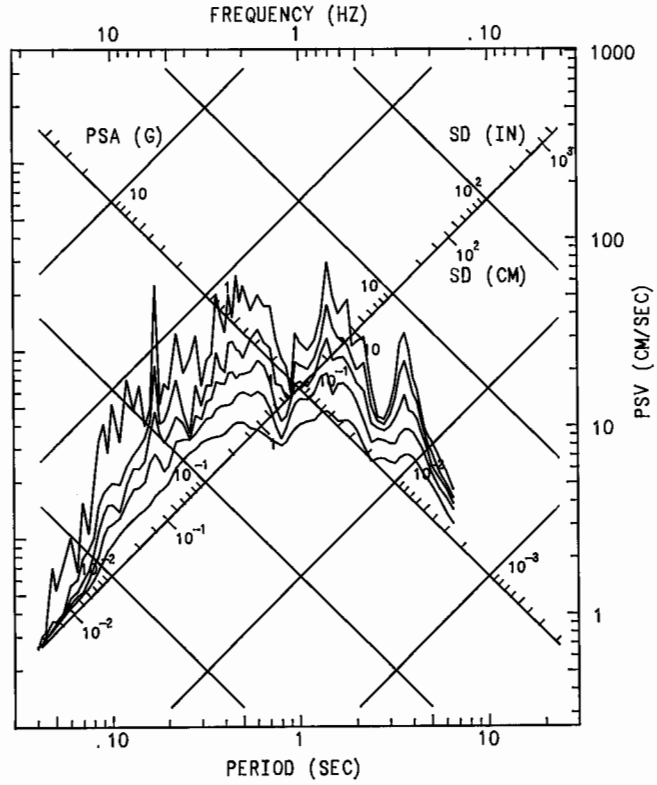
CHN 4: 90 DEG
LEFT CREST



CHN 5: UP
LEFT CREST



CHN 6: 90 DEG
CENTER CREST



CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

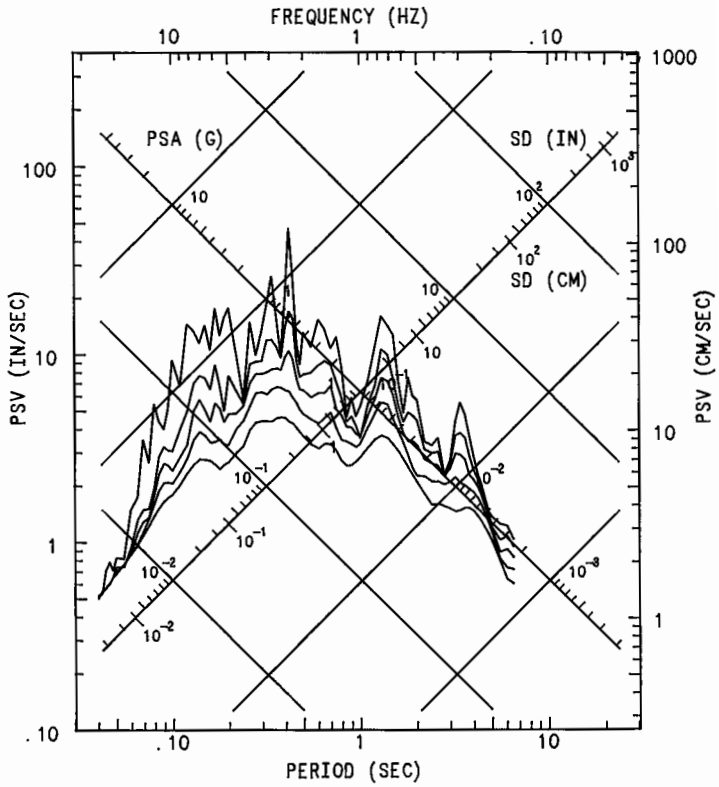
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ
(0.04 TO 5.88 SEC)

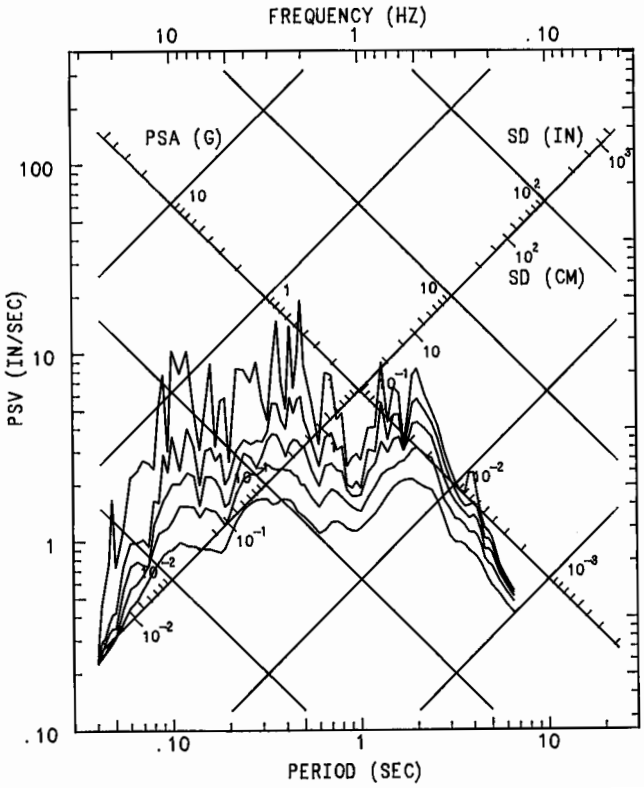
RECORD ID: 54214-C0190-86202.03(1)

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

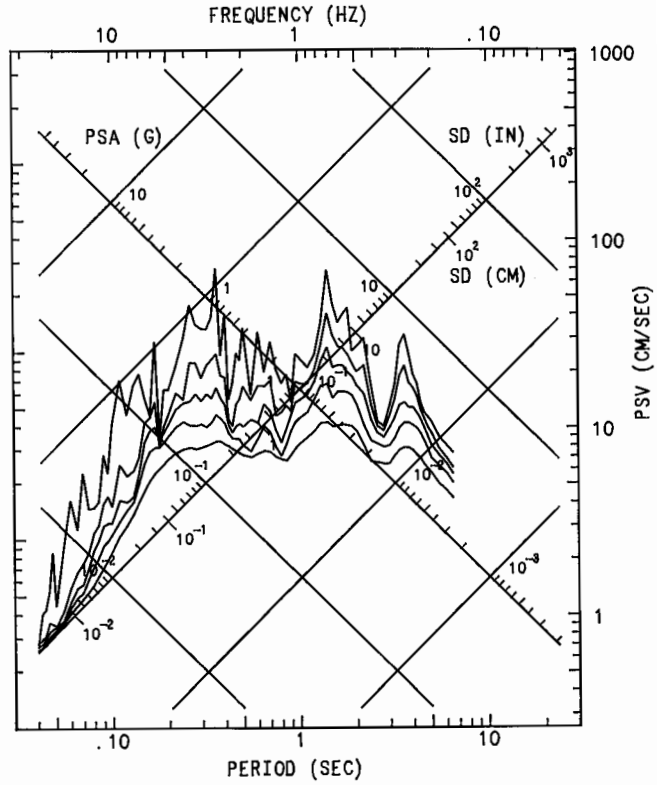
CHN 7: 0 DEG
CENTER CREST



CHN 8: UP
CENTER CREST



CHN 9: 90 DEG
CENTER OF DOWNSTREAM FACE



CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

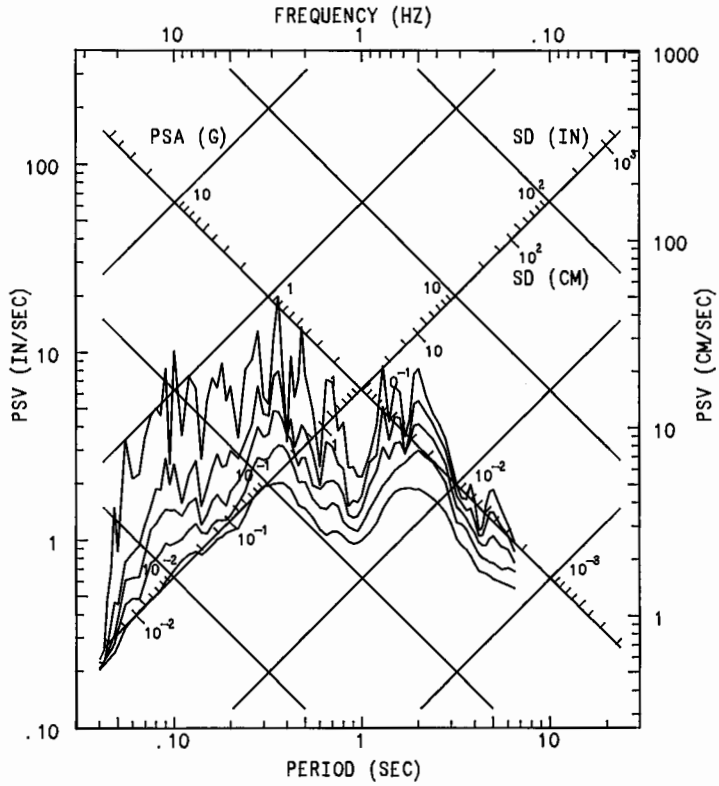
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ
(0.04 TO 5.88 SEC)

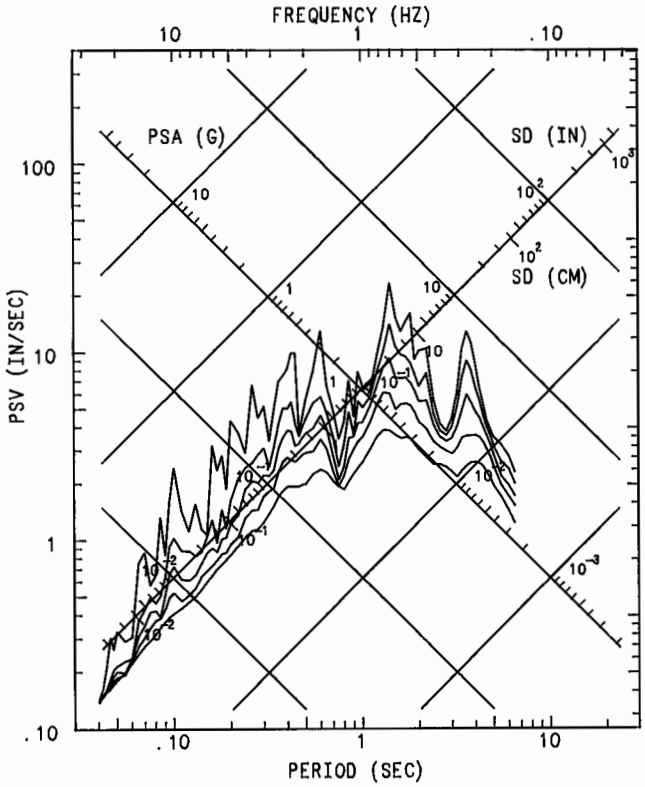
RECORD ID: 54214-C0190-86202.03(1)

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

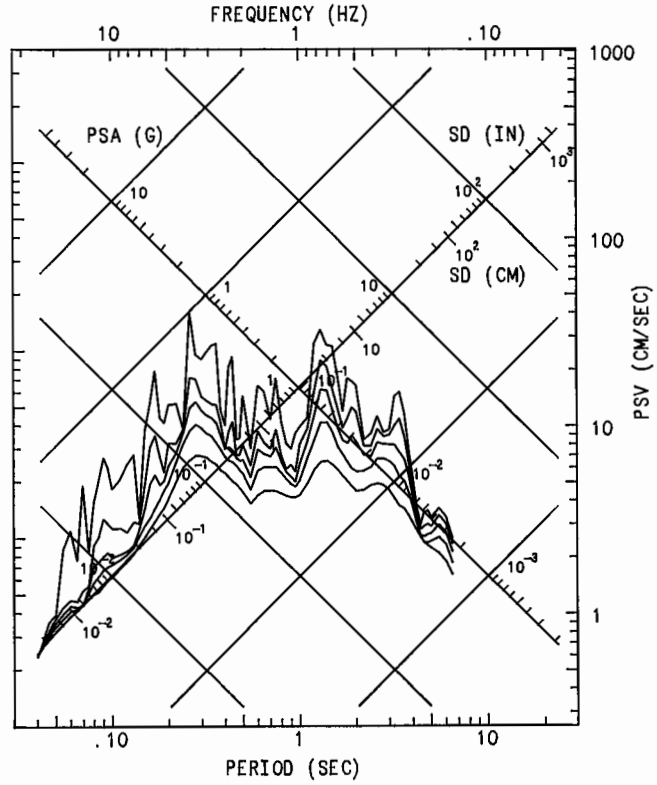
CHN 10: UP
CENTER OF DOWNSTREAM FACE



CHN 11: 90 DEG
DOWNSTREAM ON OUTLET IN BEDROCK



CHN 12: 0 DEG
DOWNSTREAM ON OUTLET IN BEDROCK



CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214

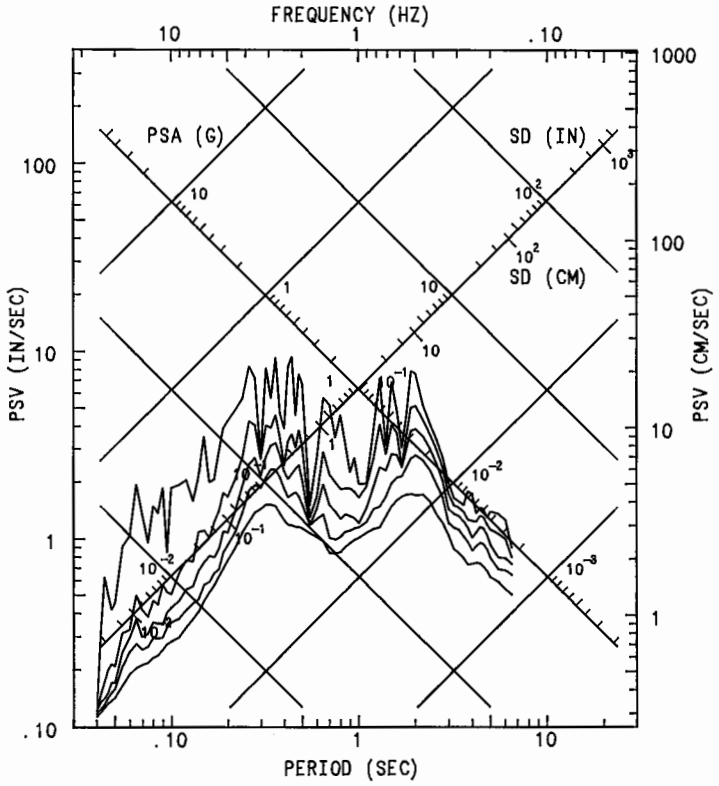
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ
(0.04 TO 5.88 SEC)

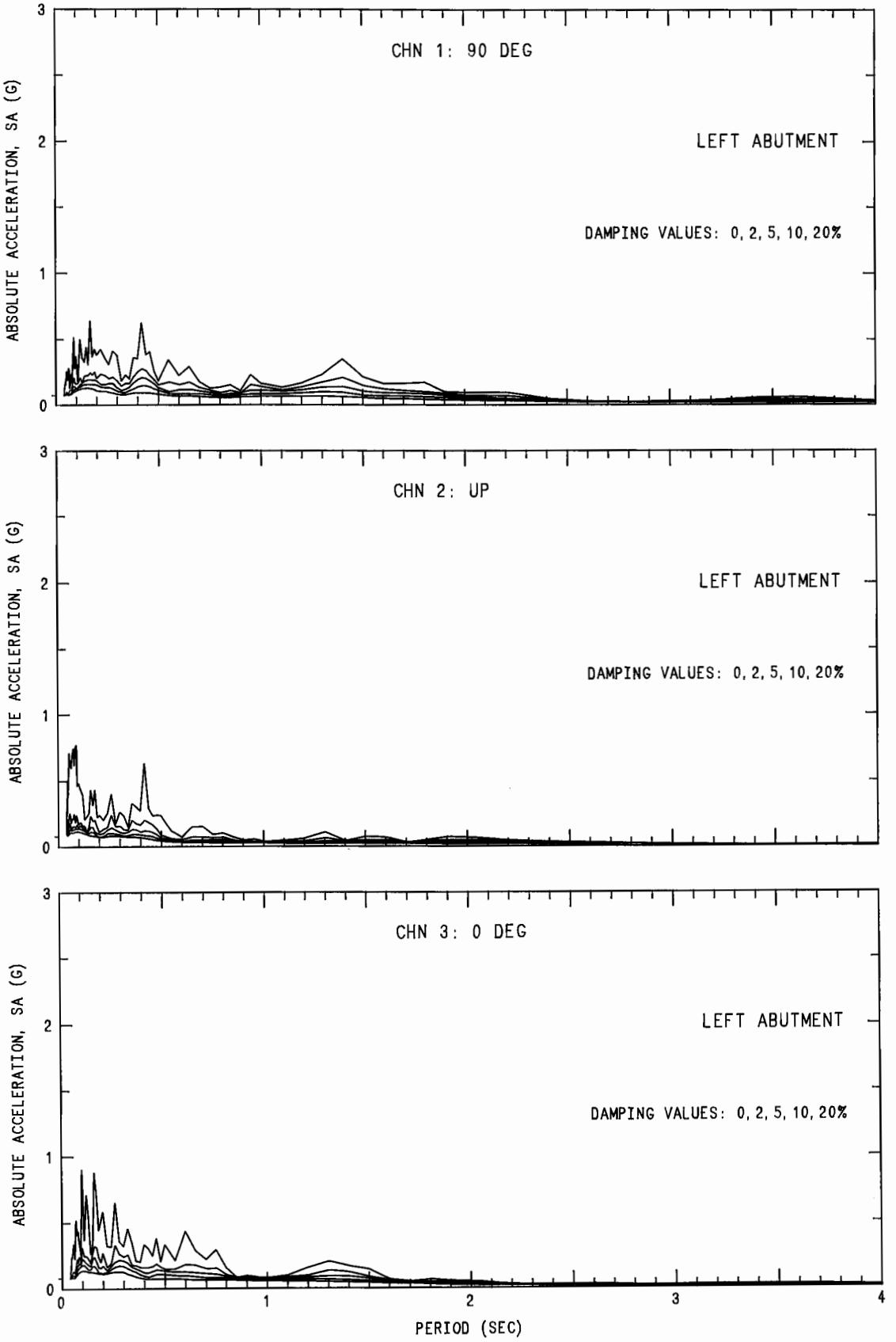
RECORD ID: 54214-C0190-86202.03(1)

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

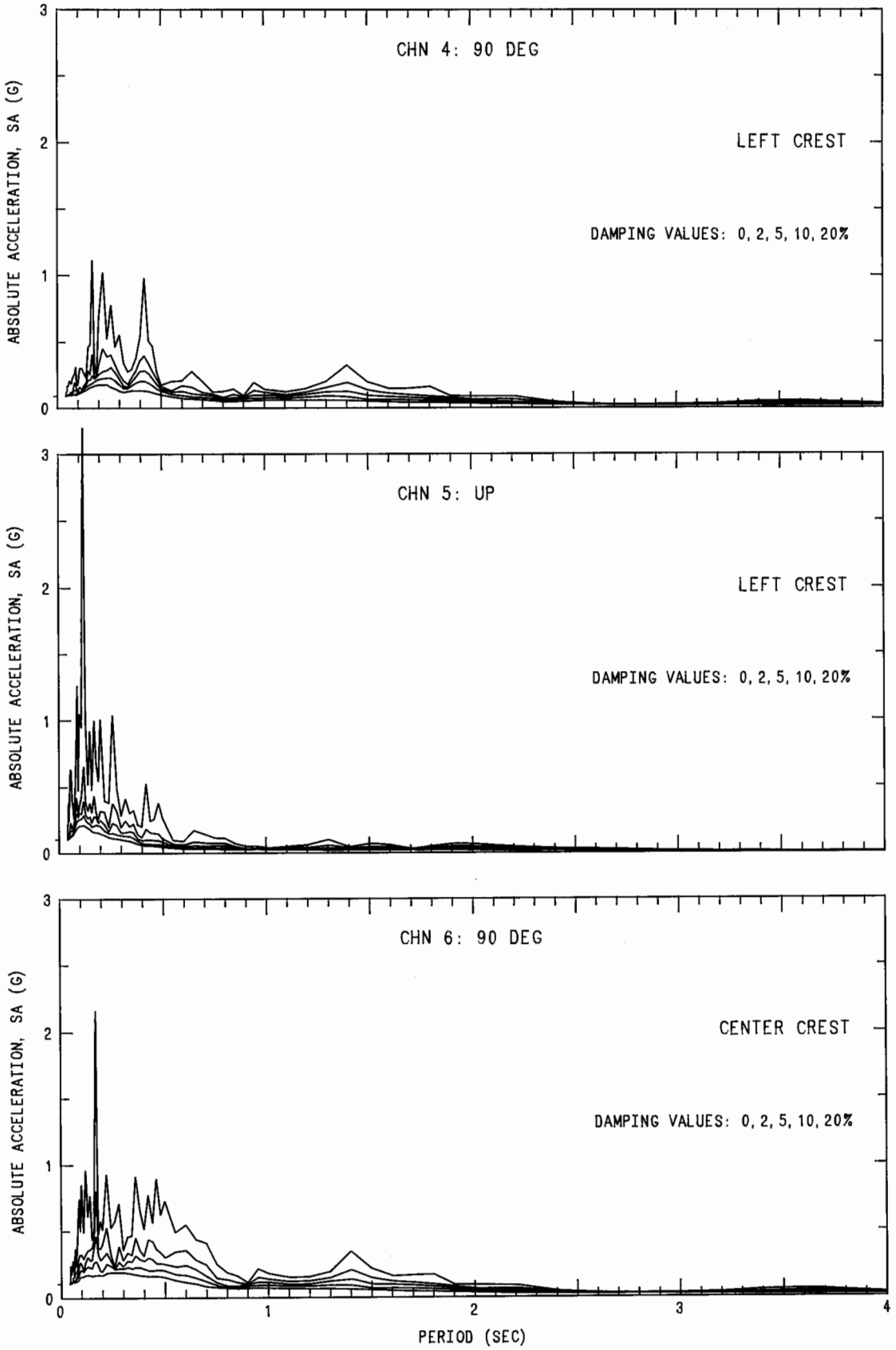
CHN 13: UP
DOWNSTREAM ON OUTLET IN BEDROCK



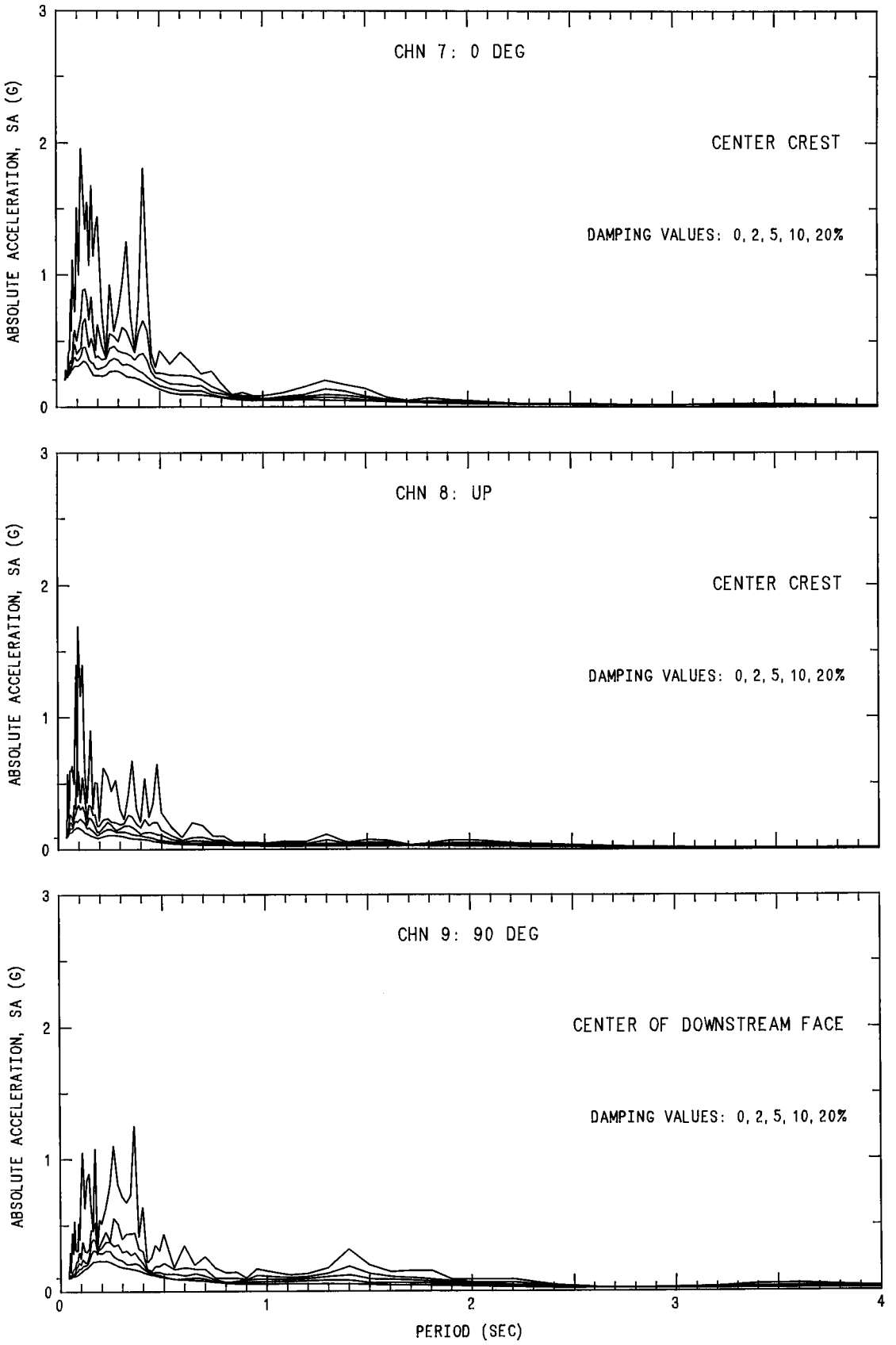
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54214-C0190-86202.03(1)
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC)



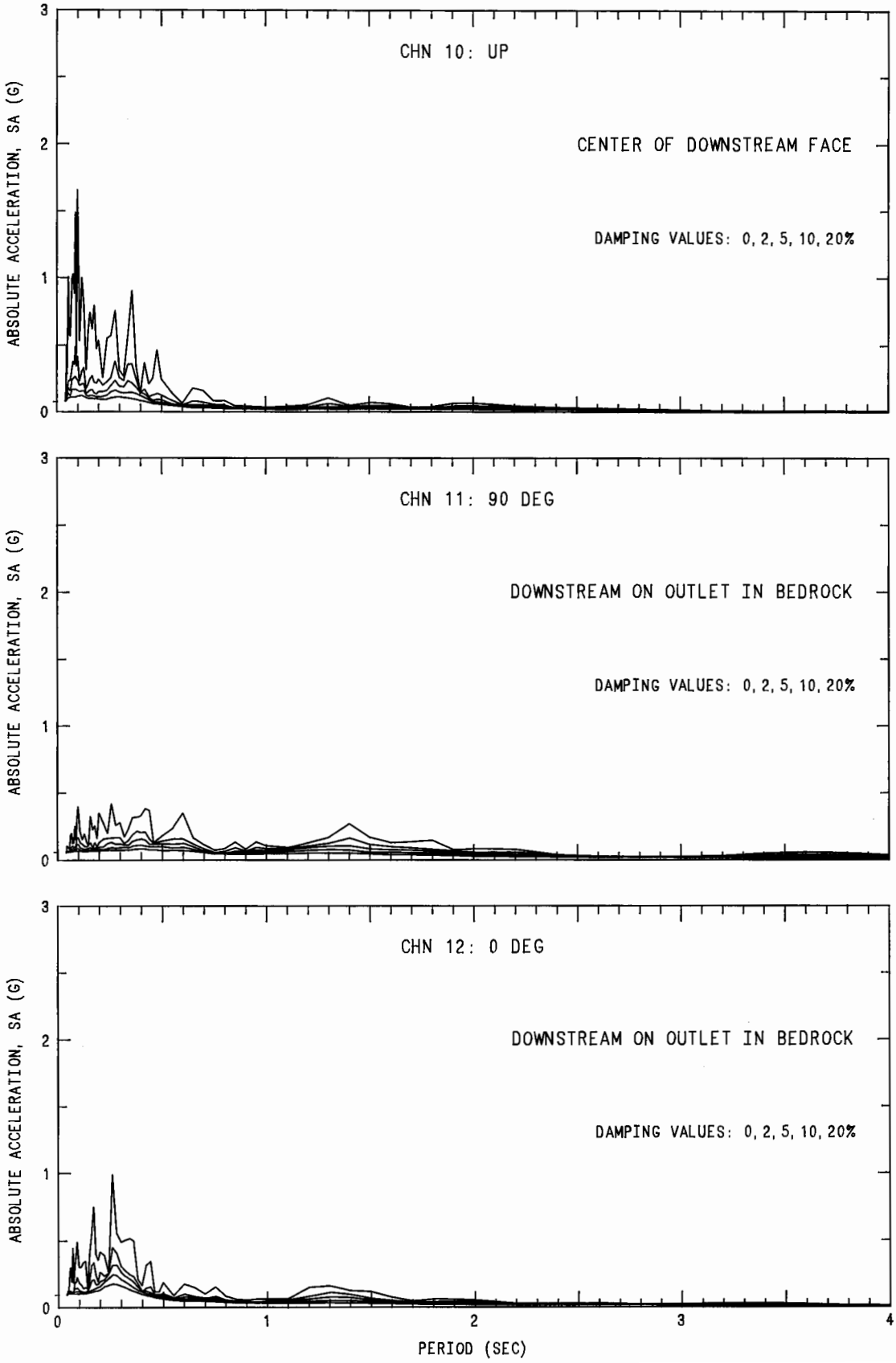
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54214-C0190-86202.03(1)
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC)



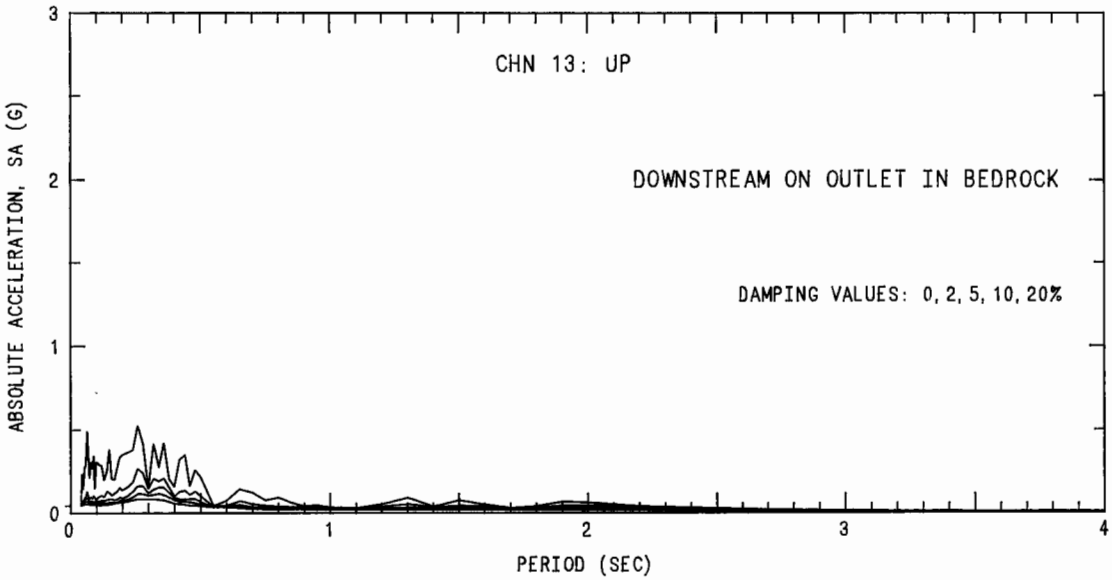
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54214-C0190-86202.03(1)
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC)



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54214-C0190-86202.03(1)
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC)



CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
CROWLEY LAKE - LONG VALLEY DAM: CSMIP S/N 214
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54214-C0190-86202.03(1)
USABLE DATA BANDWIDTH: 0.17 TO 23.6 HZ (0.04 TO 5.88 SEC)

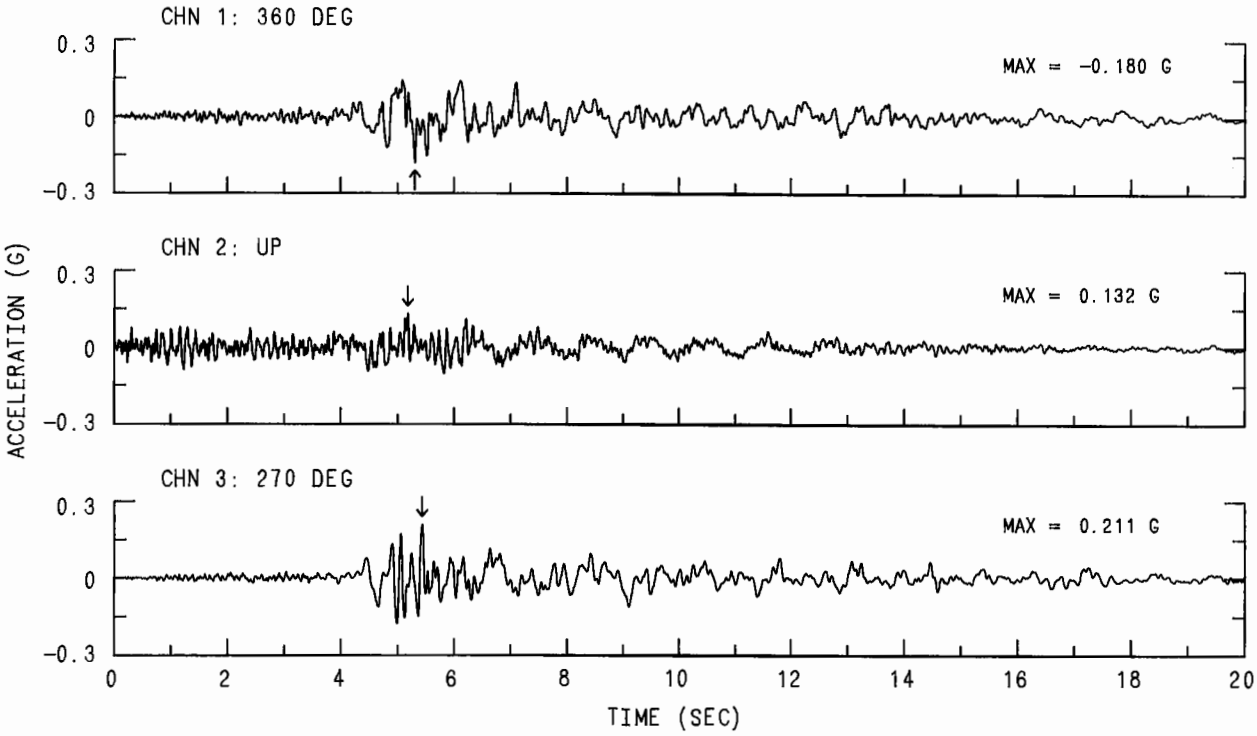


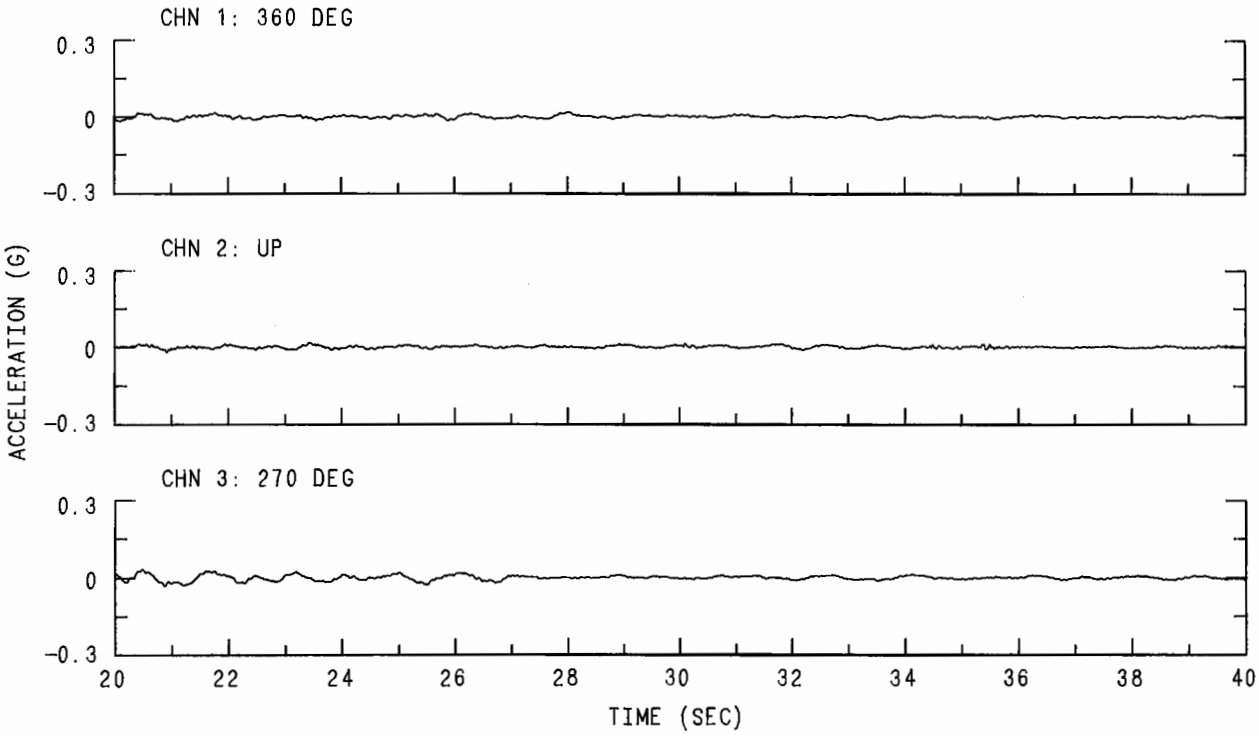
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT

BENTON: CSMIP S/N 100

PHASE 1 ACCELERATION

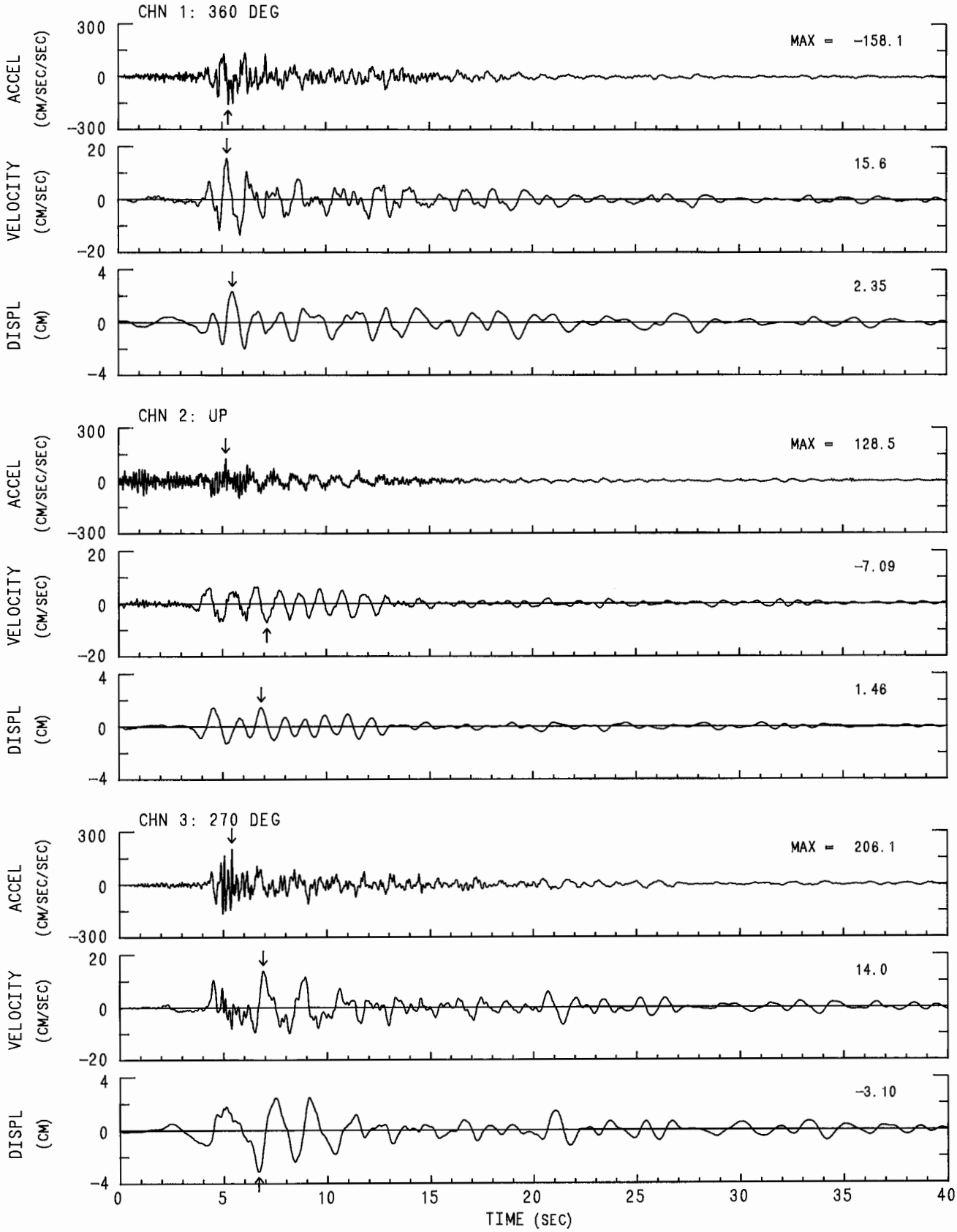
RECORD ID: 54100-S2498-86202.02.1





CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
BENTON: CSMIP S/N 100

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT
USABLE DATA BANDWIDTH: 0.25 TO 23.6 HZ (0.04 TO 3.92 SEC) RECORD ID: 54100-S2498-86202.02.1



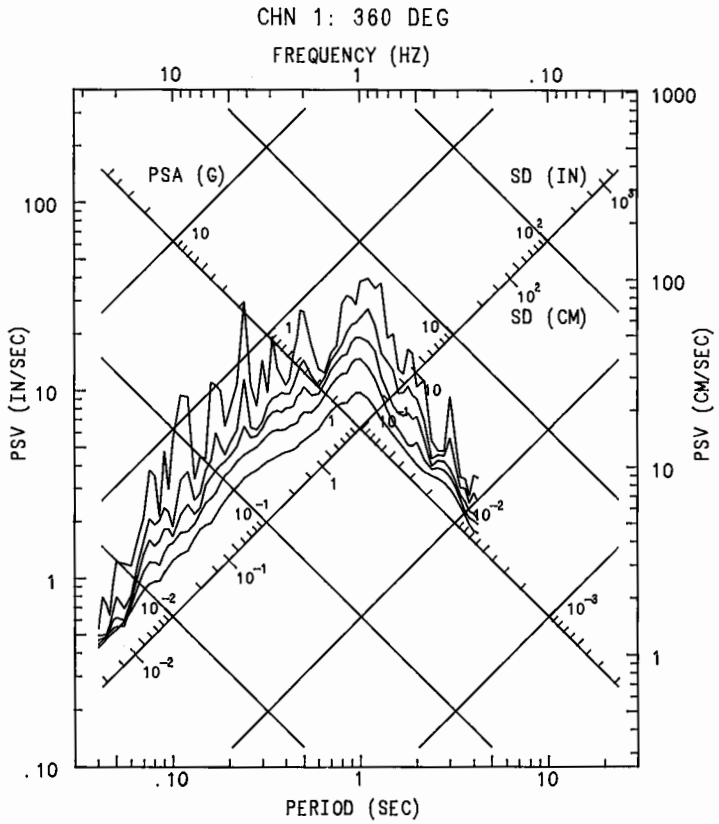
BENTON: CSMIP S/N 100

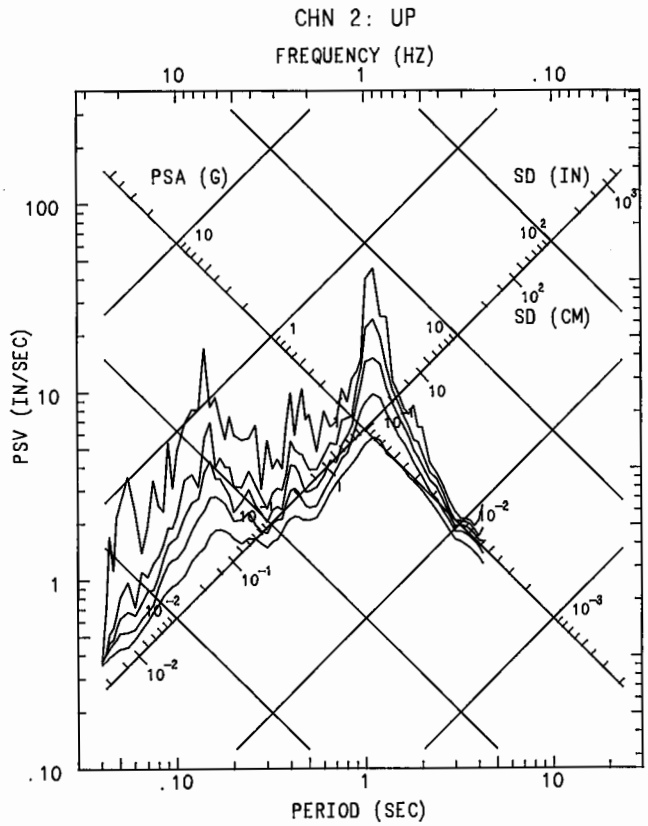
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

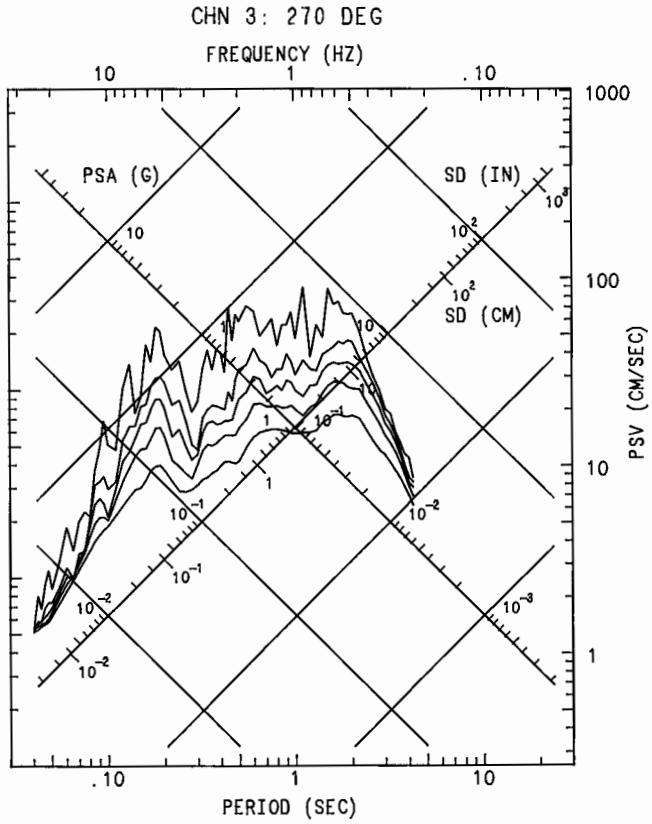
PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.25 TO 23.6 HZ
(0.04 TO 3.92 SEC)

RECORD ID: 54100-S2498-86202.02.1

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

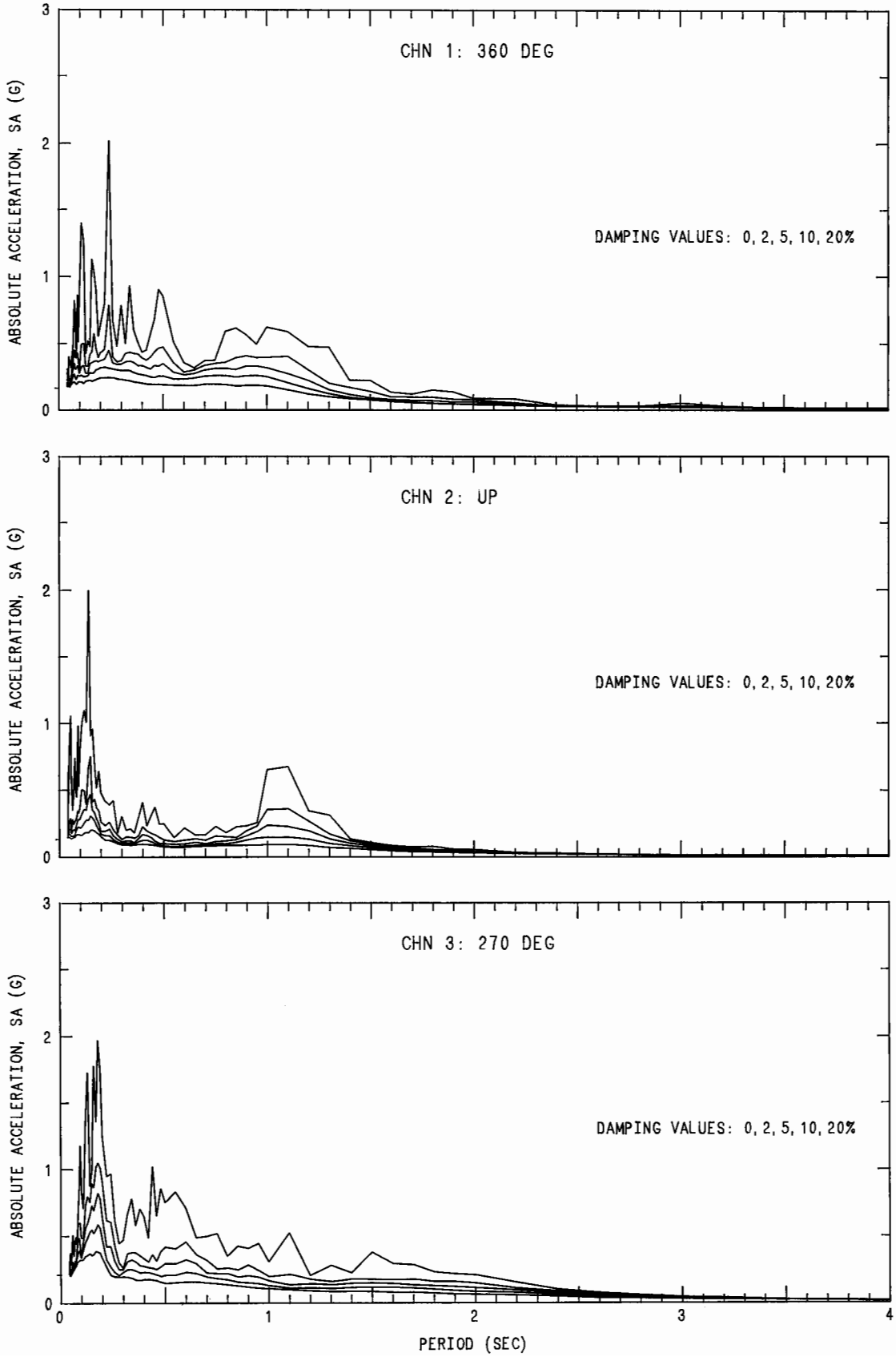






CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
BENTON: CSMIP S/N 100

PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54100-S2498-86202.02.1
USABLE DATA BANDWIDTH: 0.25 TO 23.6 HZ (0.04 TO 3.92 SEC)

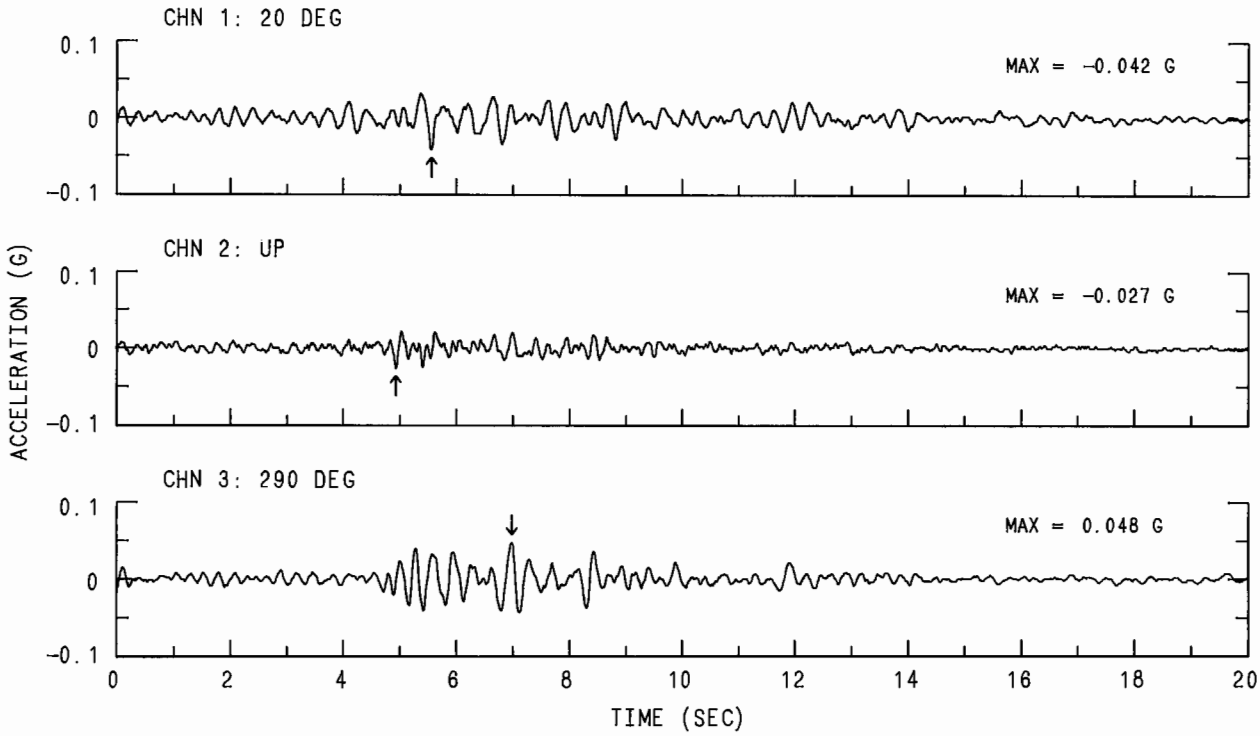


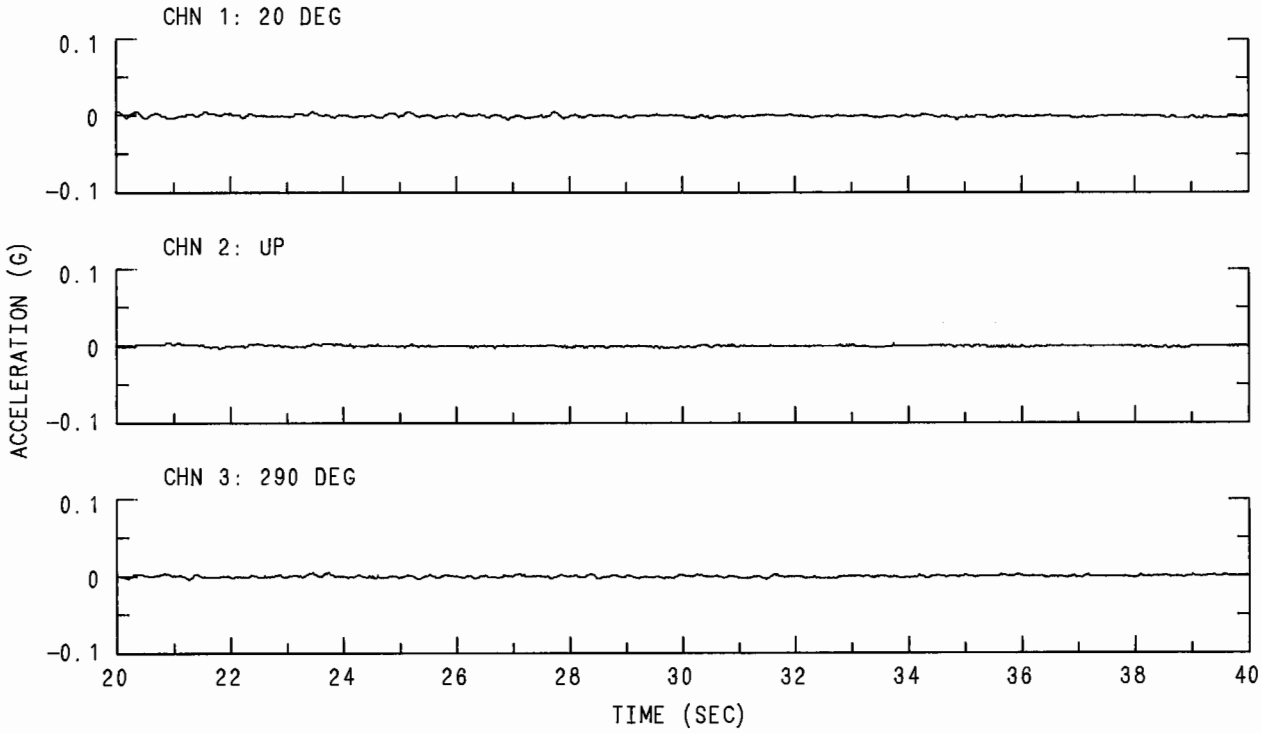
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT

MAMMOTH LAKES - SHERIFF SUBSTATION: CSMIP S/N T04

PHASE 1 ACCELERATION

RECORD ID: 54T04-S3507-86202.02

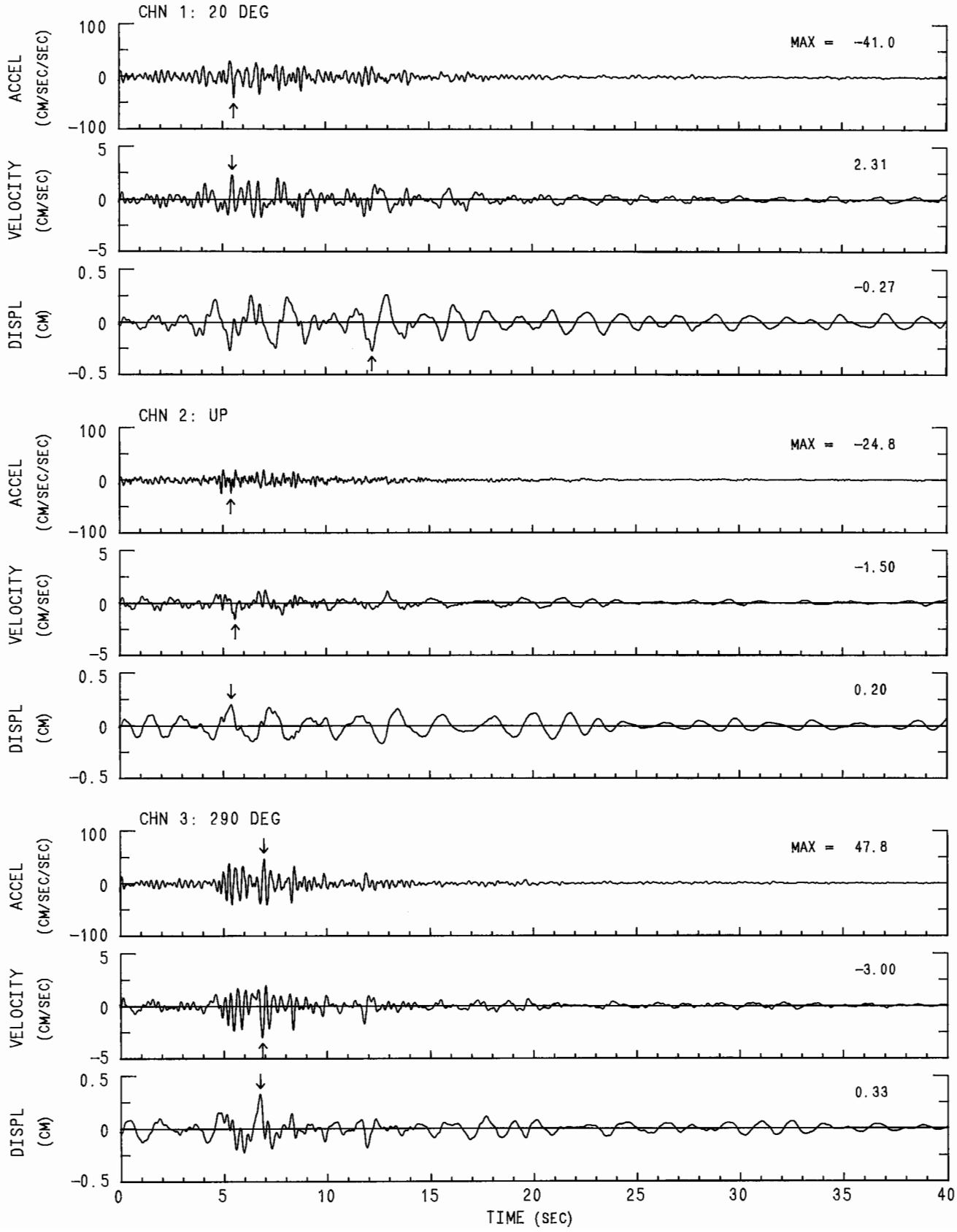




CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
MAMMOTH LAKES - SHERIFF SUBSTATION: CSMIP S/N T04

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC) RECORD ID: 54T04-S3507-86202.02



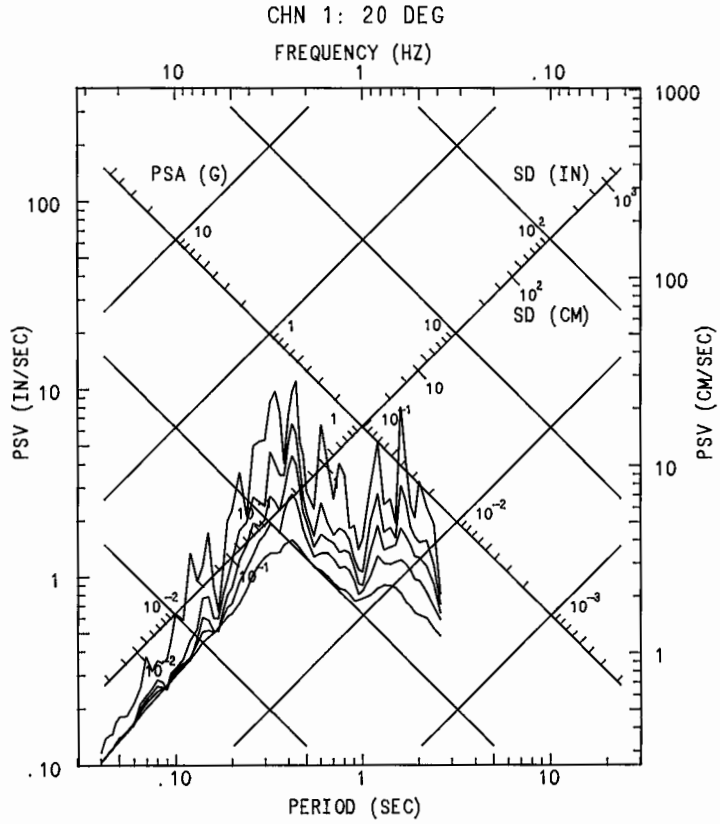
MAMMOTH LAKES - SHERIFF SUBSTATION: CSMIP S/N T04

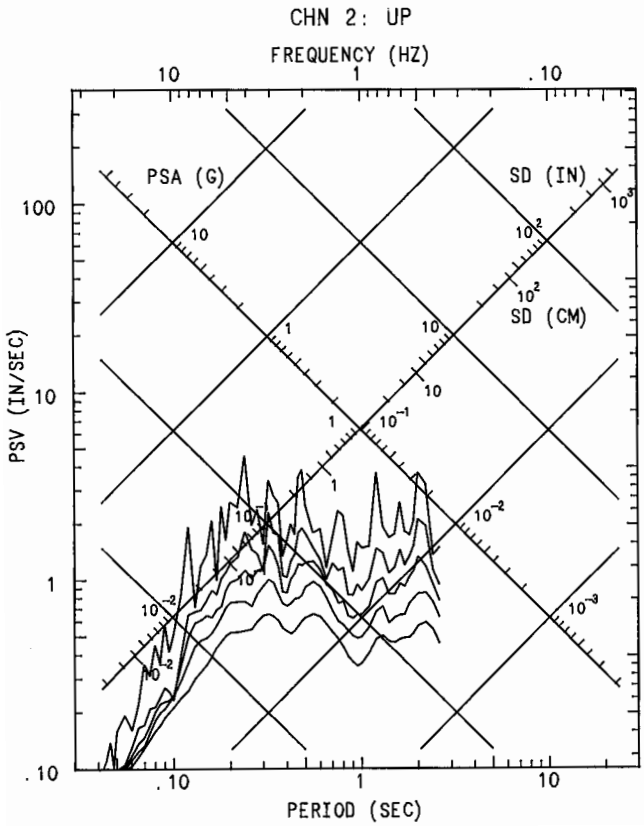
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

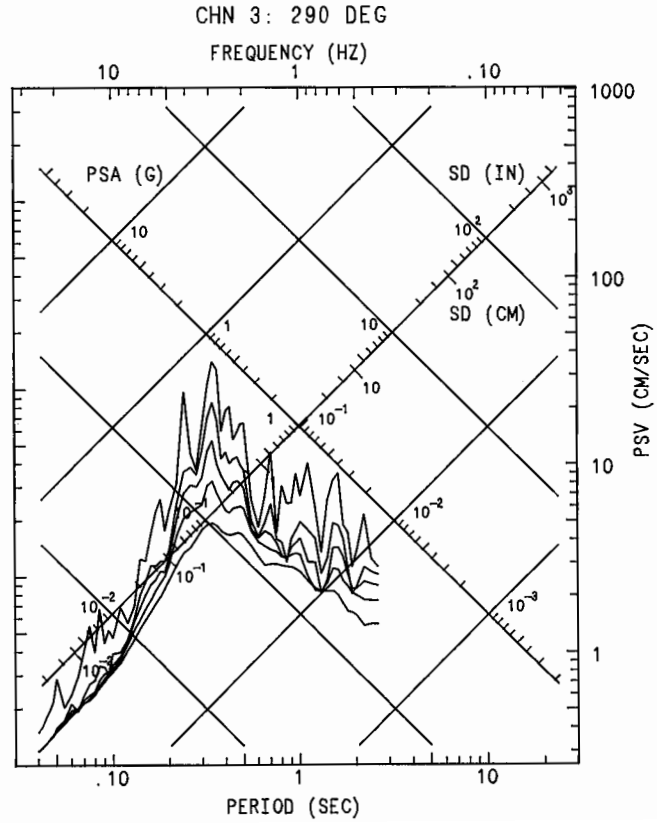
PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ
(0.04 TO 2.35 SEC)

RECORD ID: 54T04-S3507-86202.02

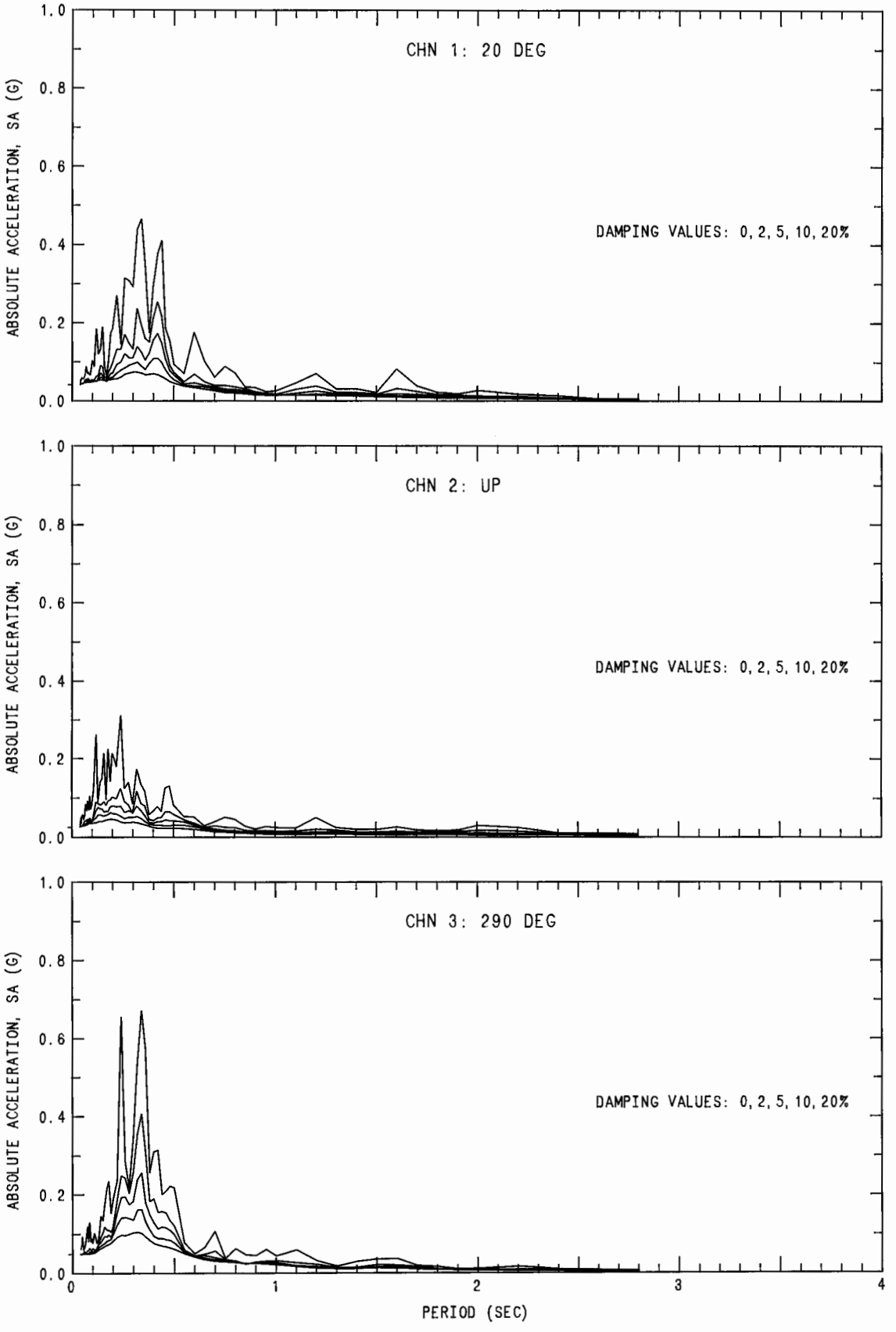
—— RESPONSE SPECTRA: PSV, PSA & SD
DAMPING VALUES: 0, 2, 5, 10, 20%







CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
MAMMOTH LAKES - SHERIFF SUBSTATION: CSMIP S/N T04
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54T04-S3507-86202.02
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC)

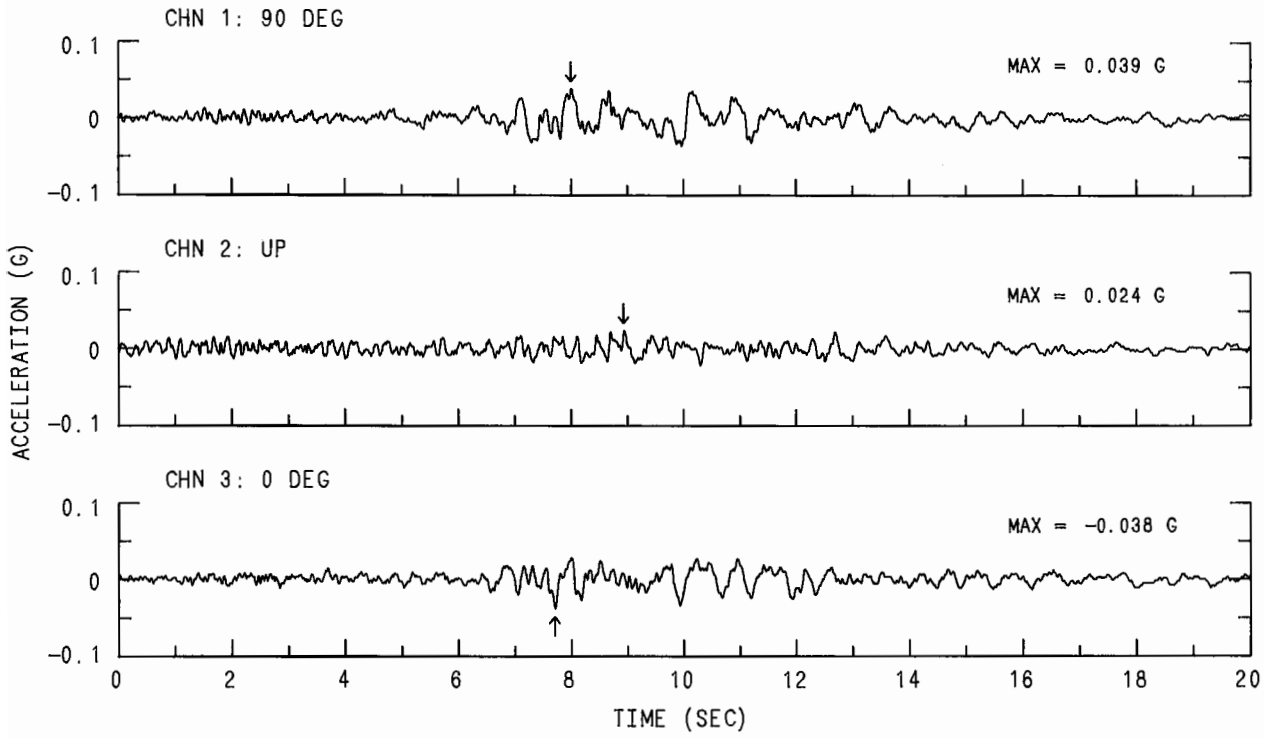


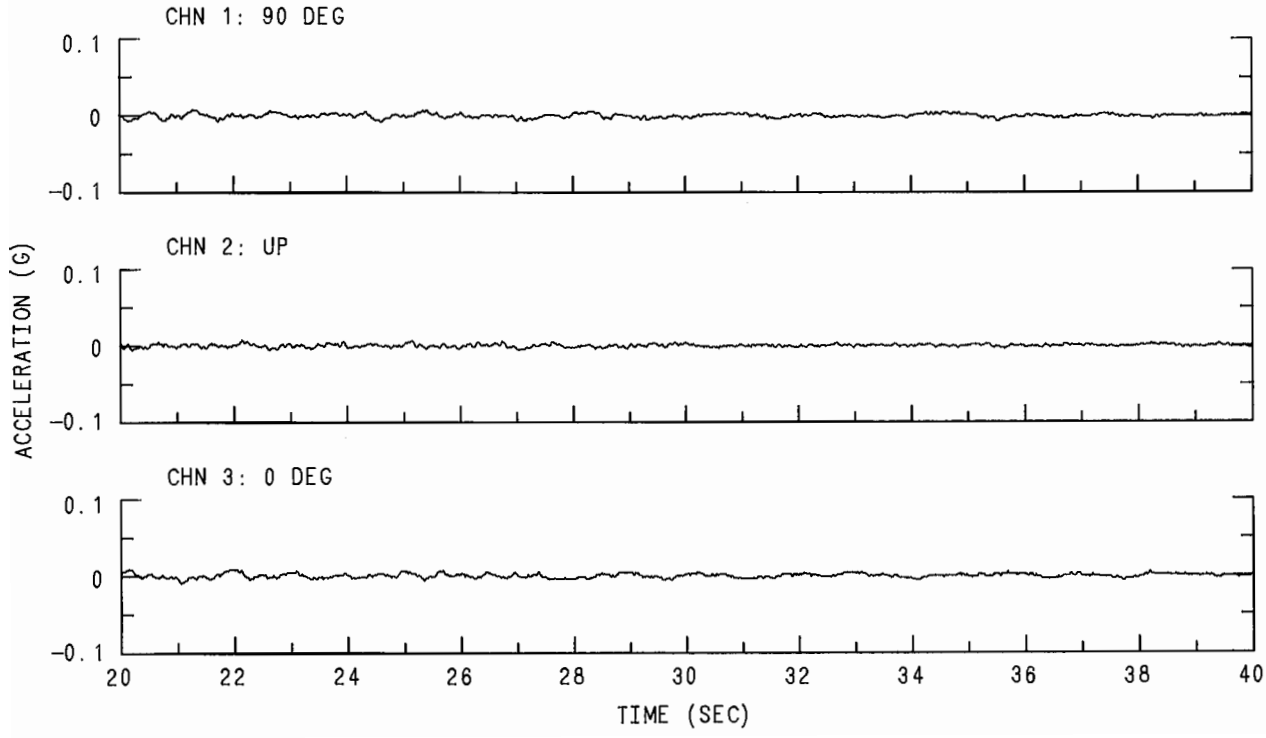
CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT

TINEMAHA RESERVOIR - FREE FIELD: CSMIP S/N 101

PHASE 1 ACCELERATION

RECORD ID: 54101-S1580-86203.03

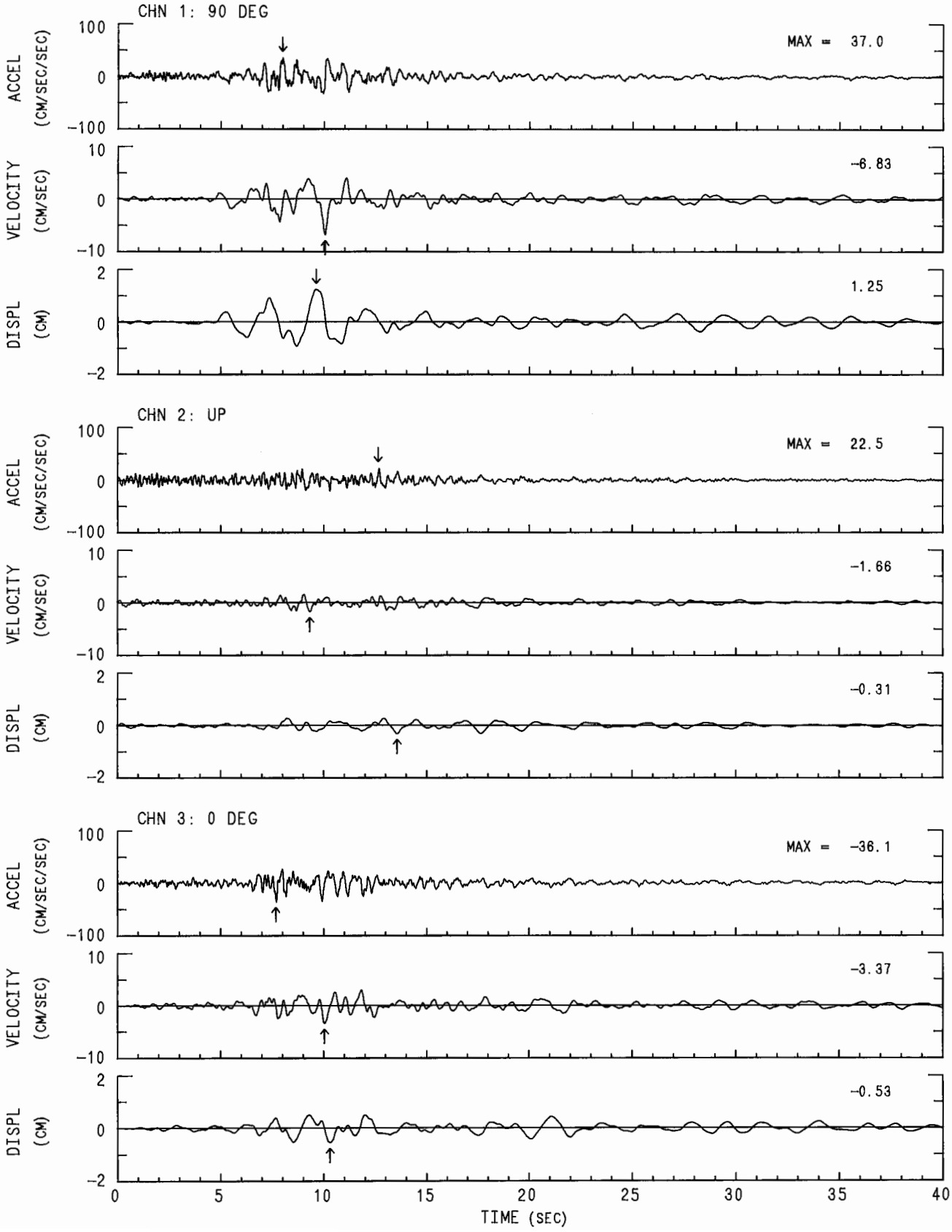




CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
TINEMAHA RESERVOIR - FREE FIELD: CSMIP S/N 101

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.34 TO 23.6 HZ (0.04 TO 2.94 SEC) RECORD ID: 54101-S1580-86203.03



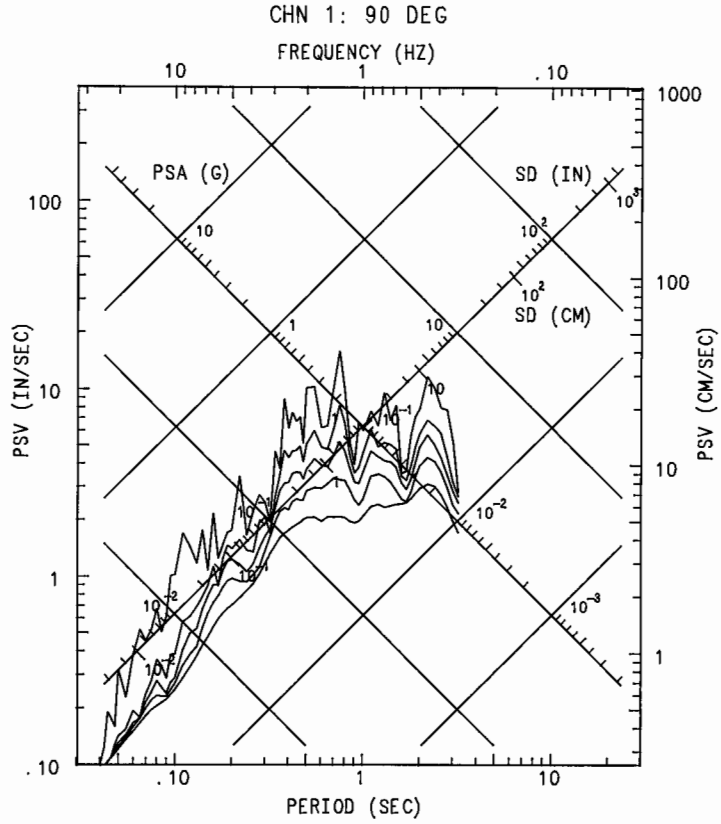
TINEMAHA RESERVOIR – FREE FIELD: CSMIP S/N 101

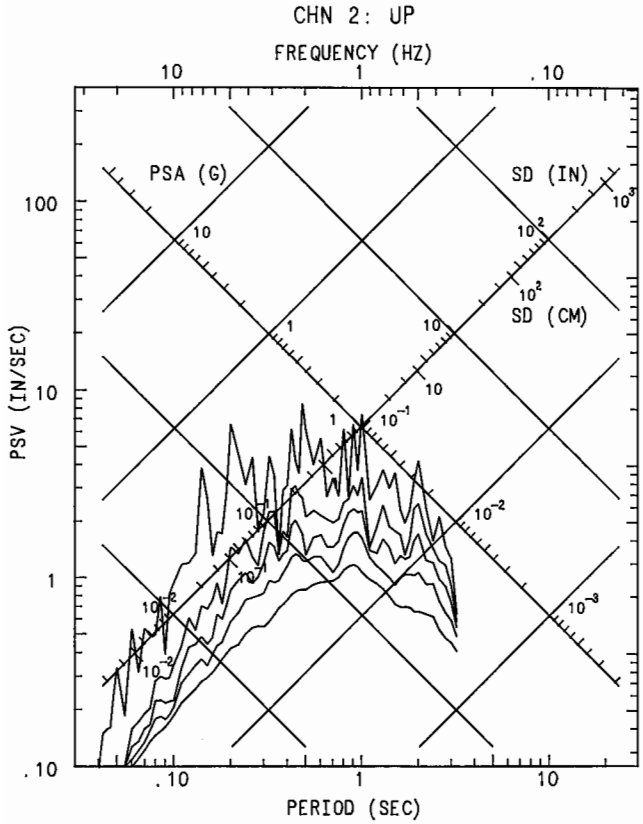
CHALFANT VALLEY EARTHQUAKE
JULY 21, 1986 07:42 PDT

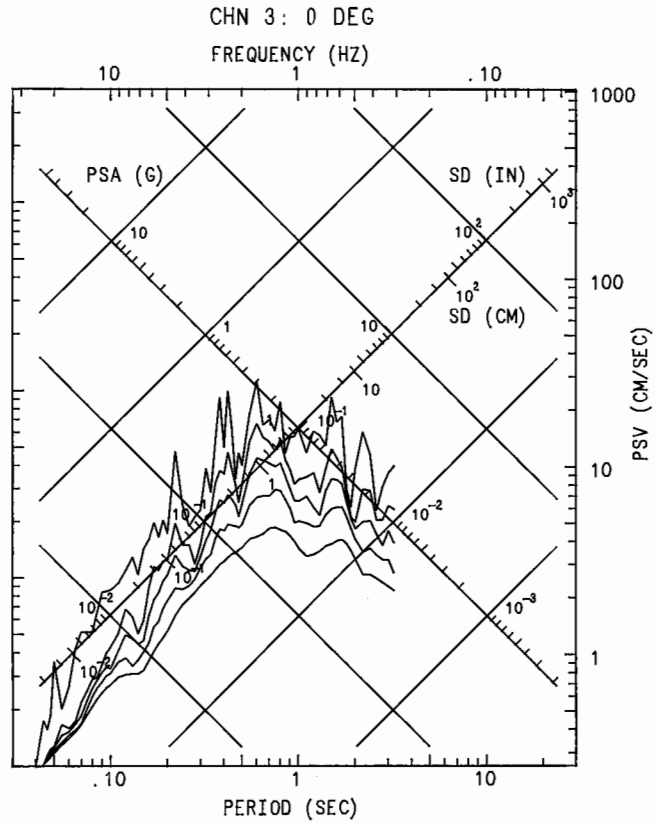
PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.34 TO 23.6 HZ
(0.04 TO 2.94 SEC)

RECORD ID: 54101-S1580-86203.03

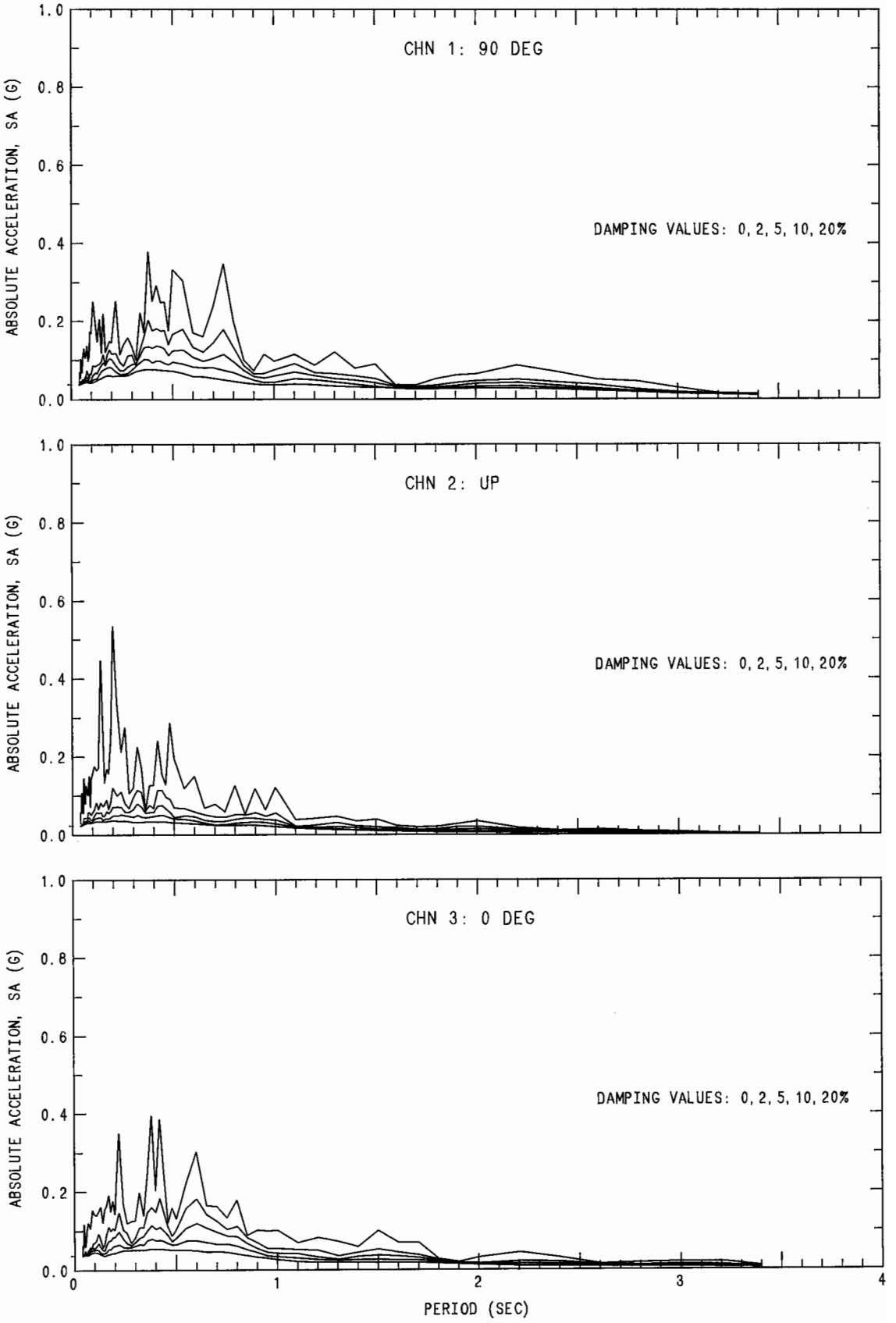
—— RESPONSE SPECTRA: PSV, PSA & SD
DAMPING VALUES: 0, 2, 5, 10, 20%







CHALFANT VALLEY EARTHQUAKE JULY 21, 1986 07:42 PDT
TINEMAHA RESERVOIR - FREE FIELD: CSMIP S/N 101
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54101-S1580-86203.03
USABLE DATA BANDWIDTH: 0.34 TO 23.6 HZ (0.04 TO 2.94 SEC)

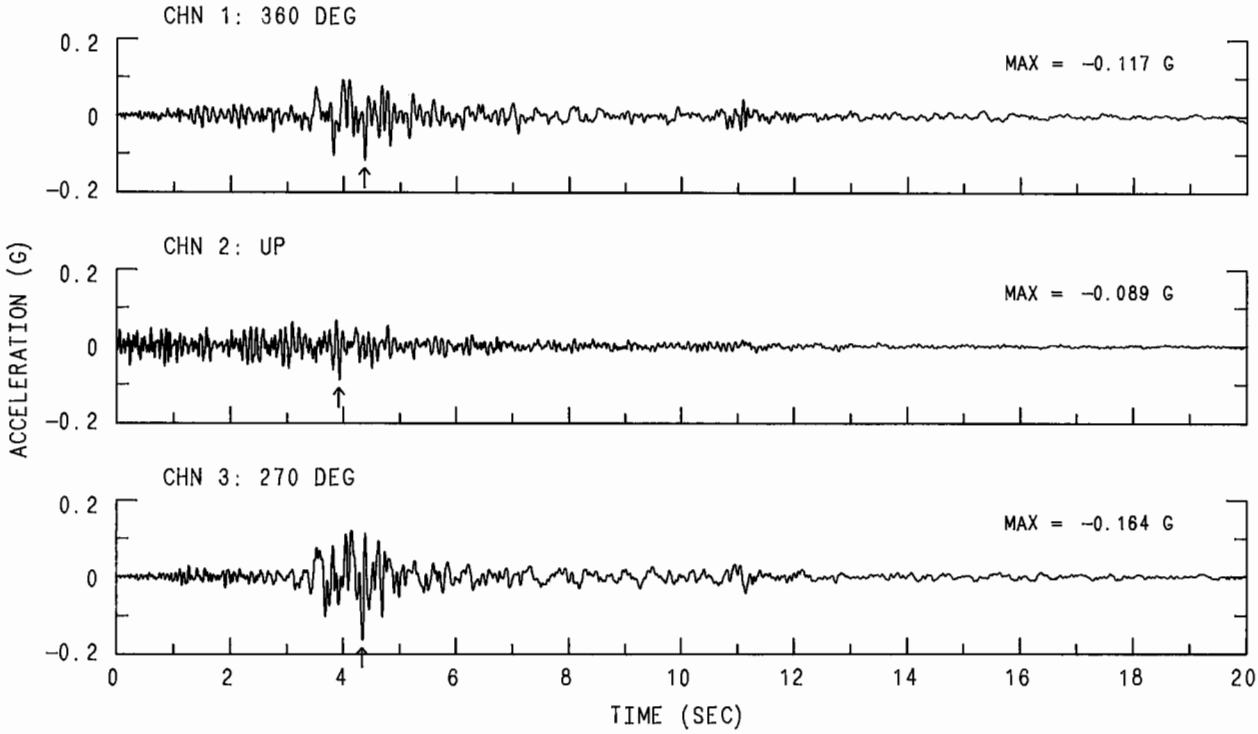


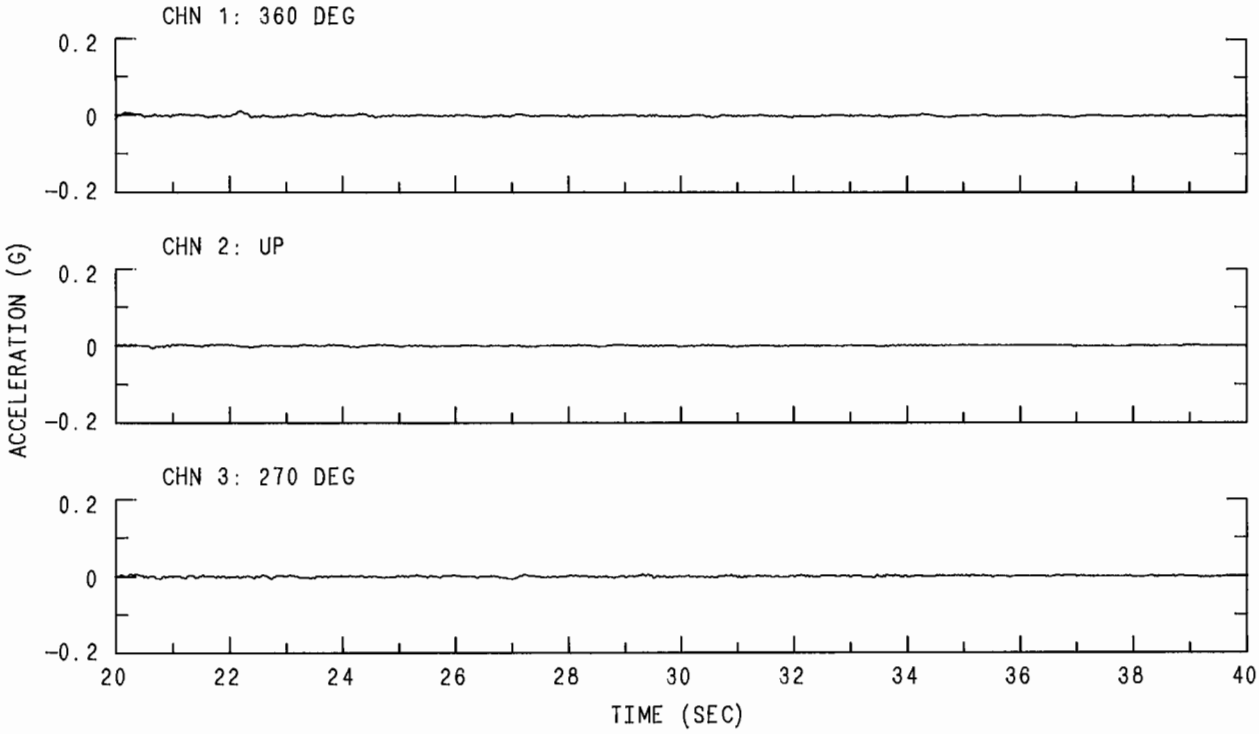
CHALFANT VALLEY AFTERSHOCK #1 JULY 21, 1986 07:51 PDT

CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

PHASE 1 ACCELERATION

RECORD ID: 54428-S1702-86202.09.1

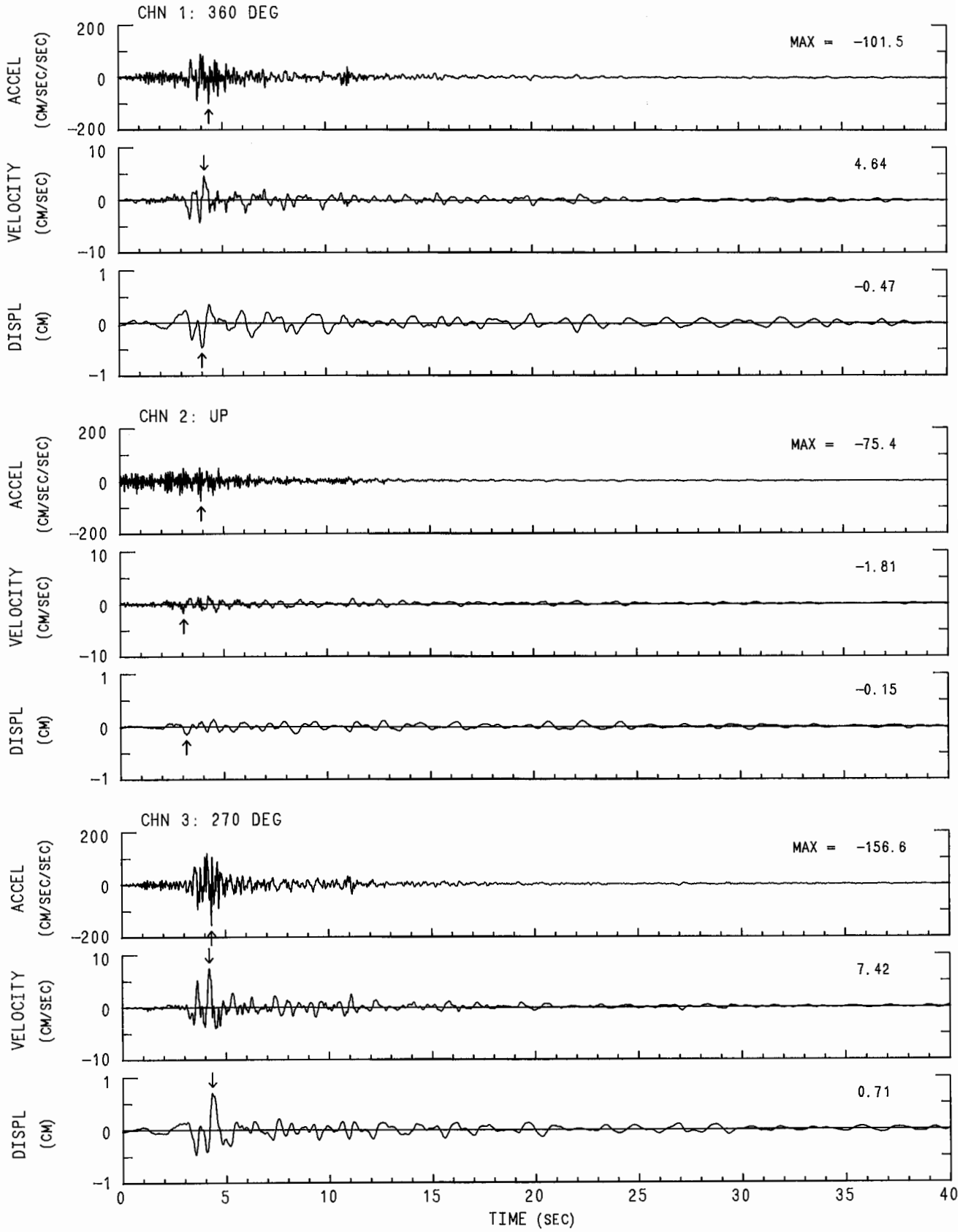




CHALFANT VALLEY AFTERSHOCK #1 JULY 21, 1986 07:51 PDT
CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC) RECORD ID: 54428-S1702-86202.09.1



CHALFANT – ZACK BROTHERS RANCH: CSMIP S/N 428

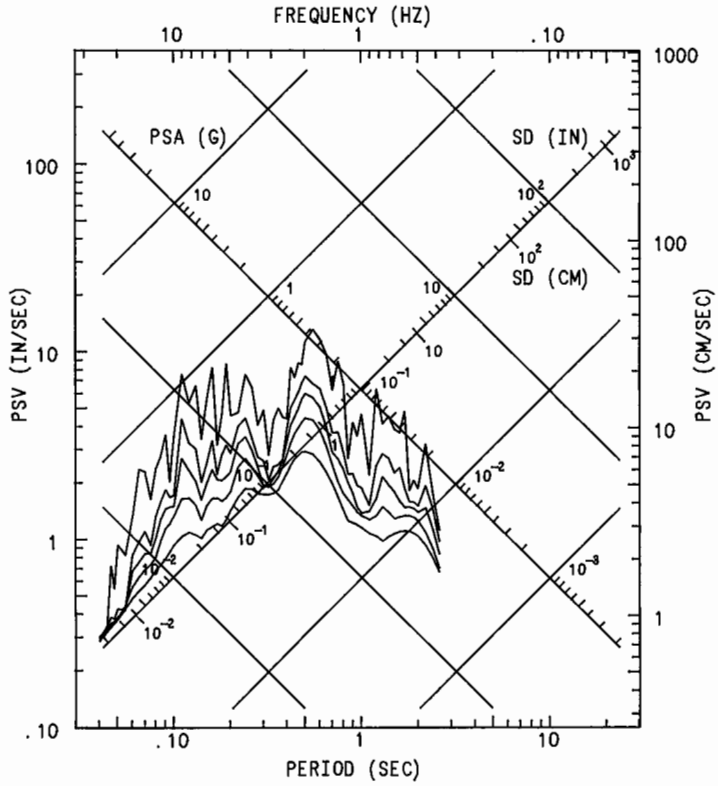
CHALFANT VALLEY AFTERSHOCK #1
JULY 21, 1986 07:51 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ
(0.04 TO 2.35 SEC)

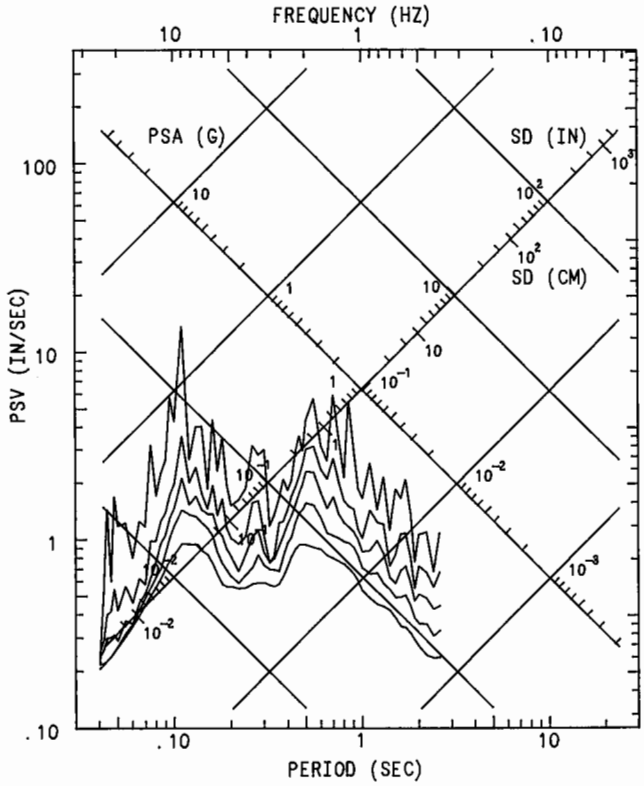
RECORD ID: 54428-S1702-86202.09.1

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

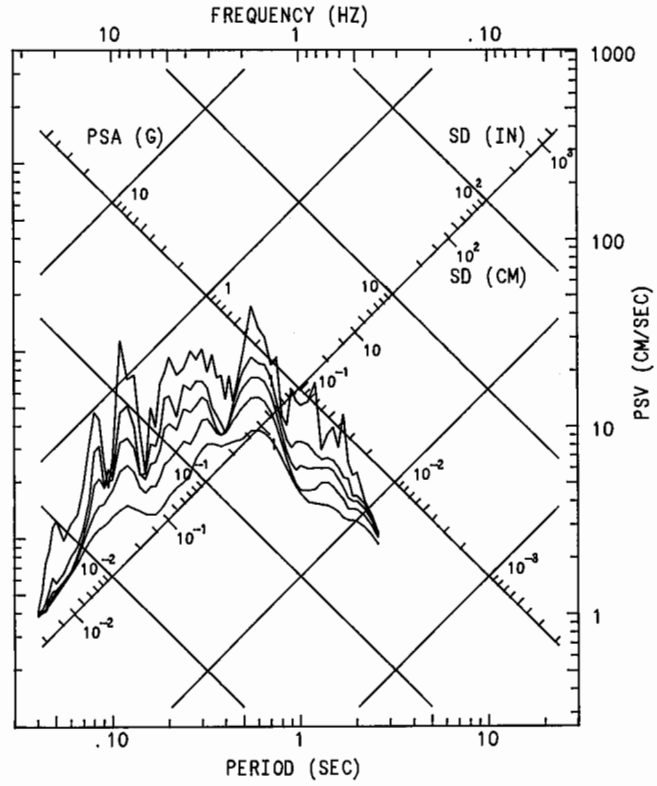
CHN 1: 360 DEG



CHN 2: UP

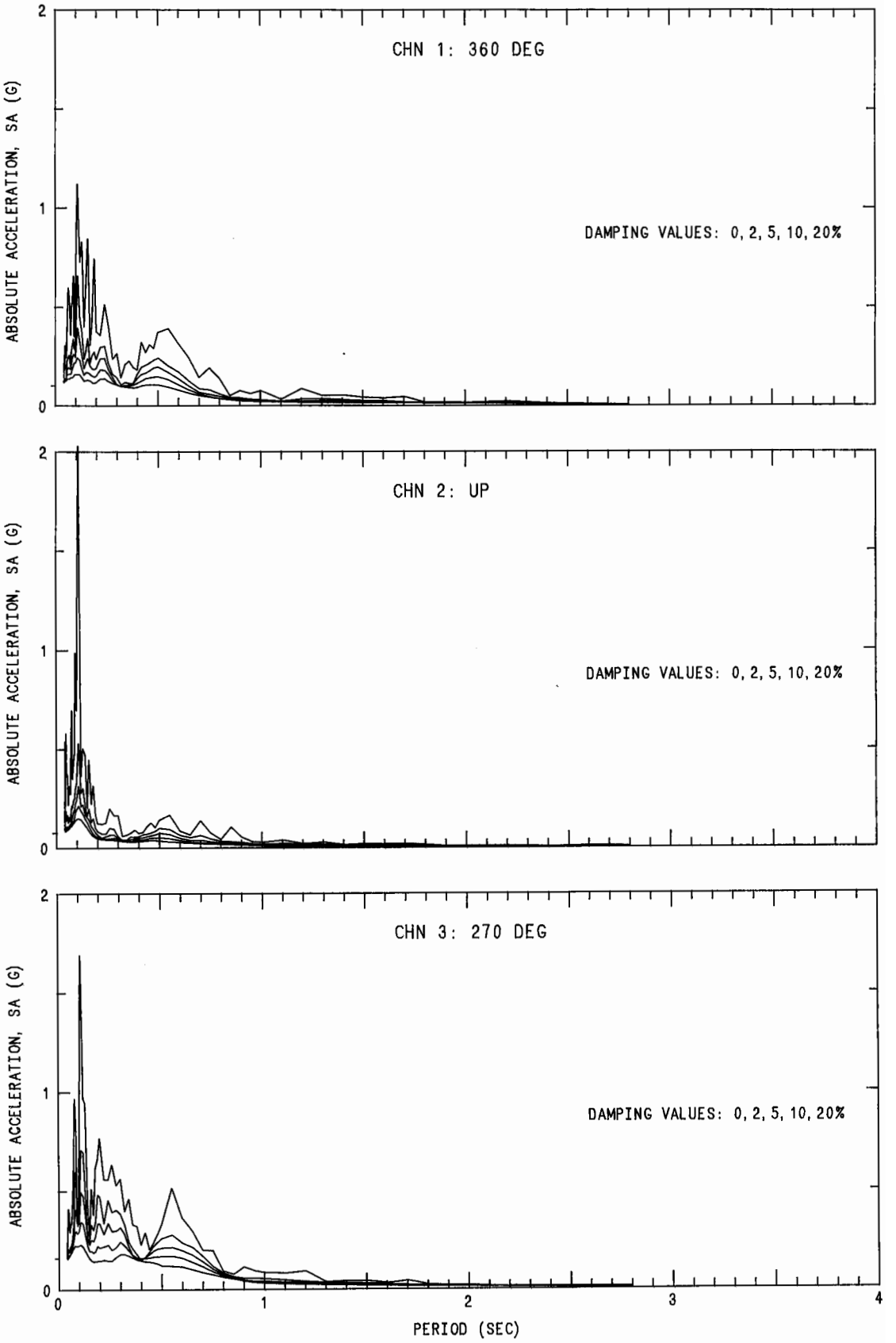


CHN 3: 270 DEG



CHALFANT VALLEY AFTERSHOCK #1 JULY 21, 1986 07:51 PDT
CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54428-S1702-86202.09.1
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC)

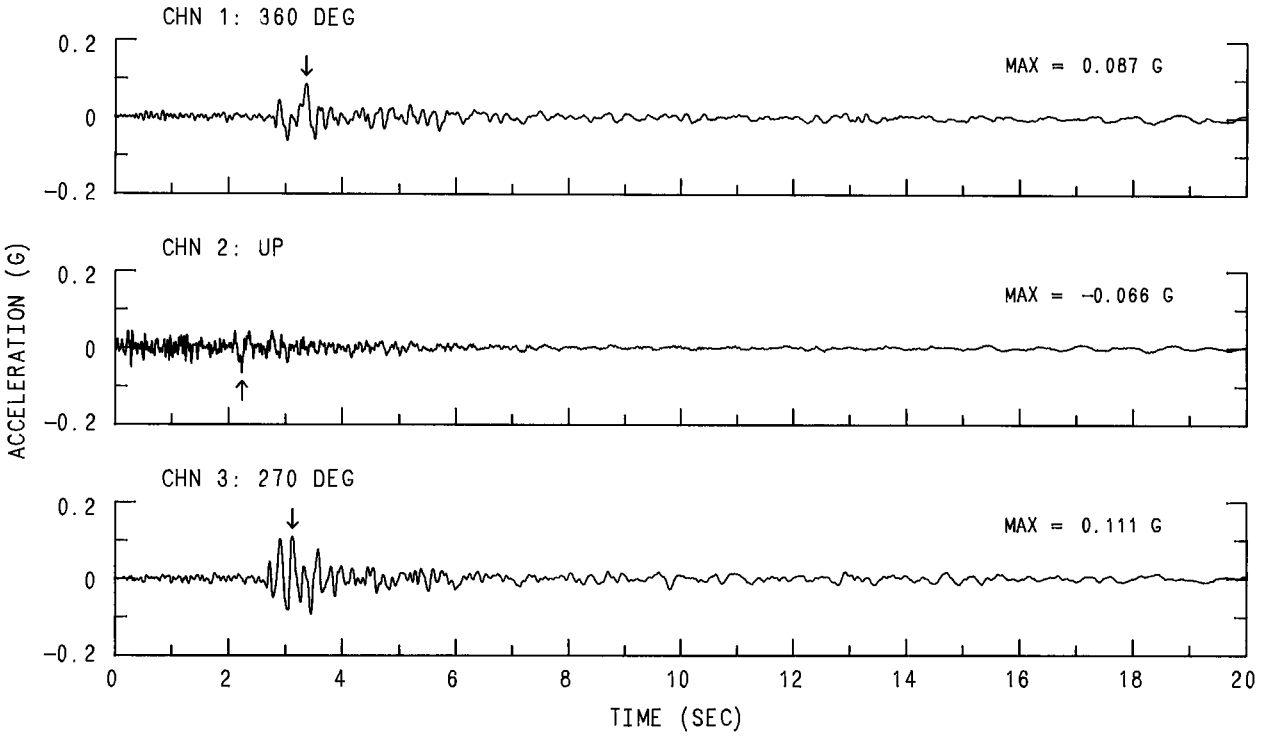


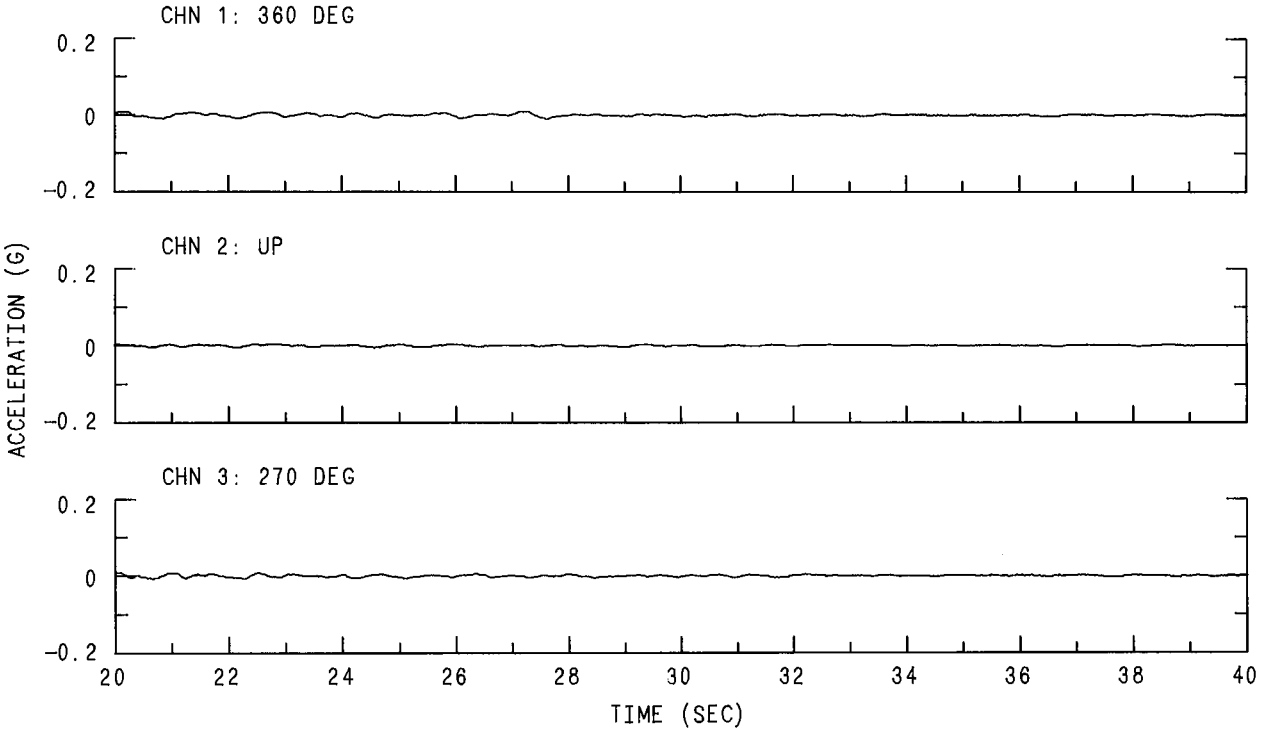
CHALFANT VALLEY AFTERSHOCK #1 JULY 21, 1986 07:51 PDT

BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

PHASE 1 ACCELERATION

RECORD ID: 54171-S1718-86203.04.1

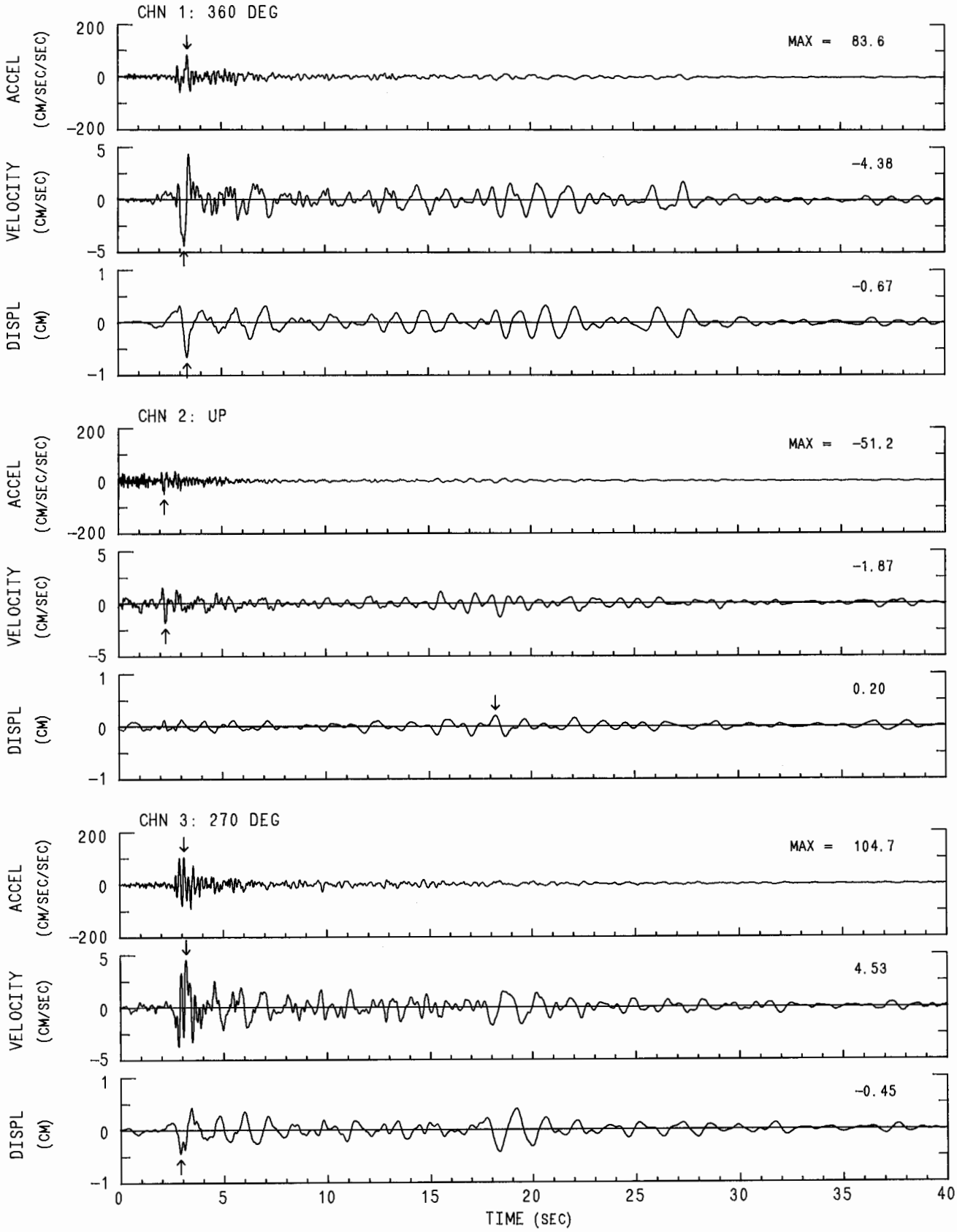




CHALFANT VALLEY AFTERSHOCK #1 JULY 21, 1986 07:51 PDT
BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC) RECORD ID: 54171-S1718-86203.04.1



BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

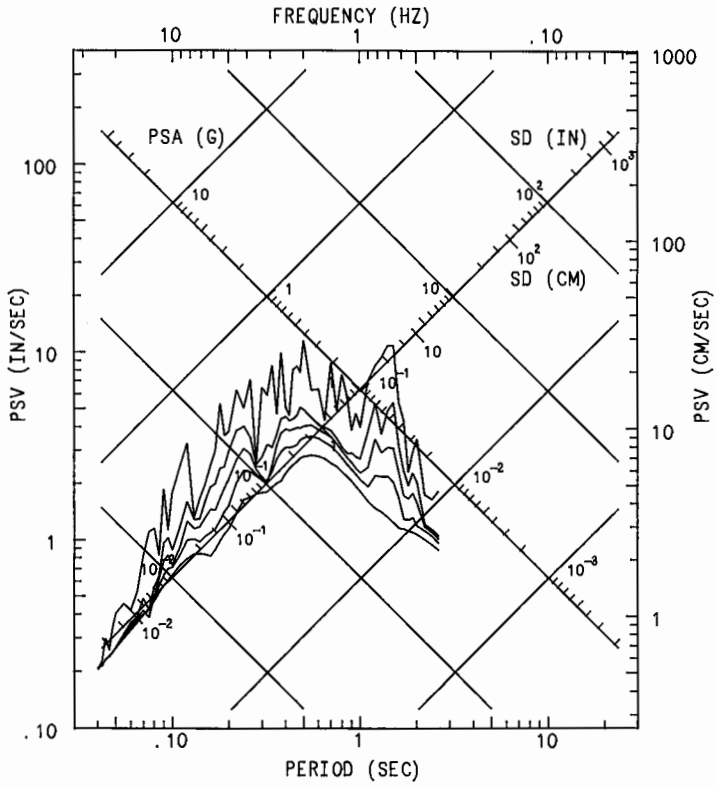
CHALFANT VALLEY AFTERSHOCK #1
JULY 21, 1986 07:51 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ
(0.04 TO 2.35 SEC)

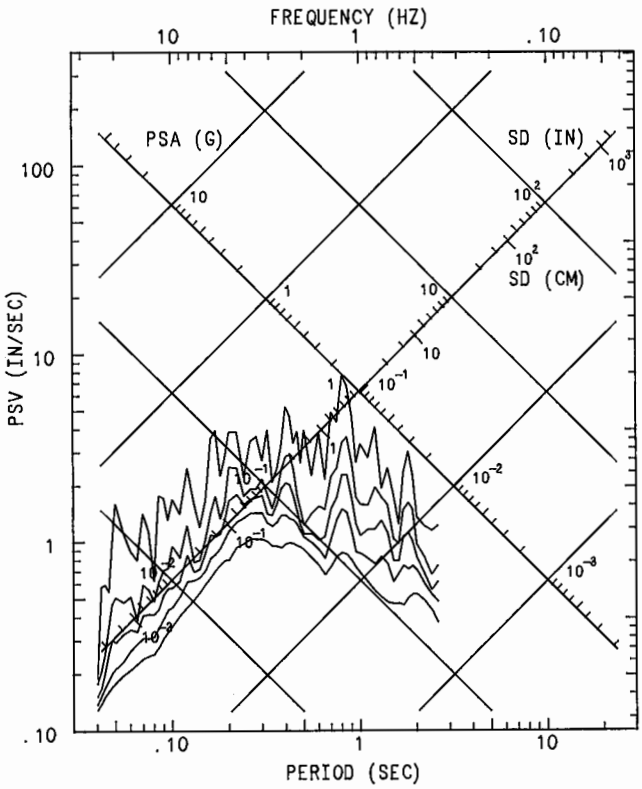
RECORD ID: 54171-S1718-86203.04.1

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

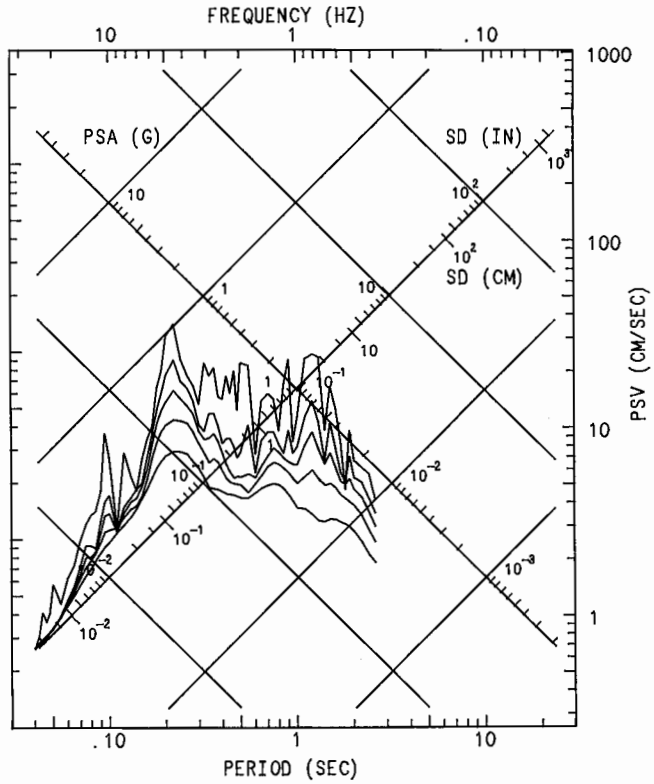
CHN 1: 360 DEG



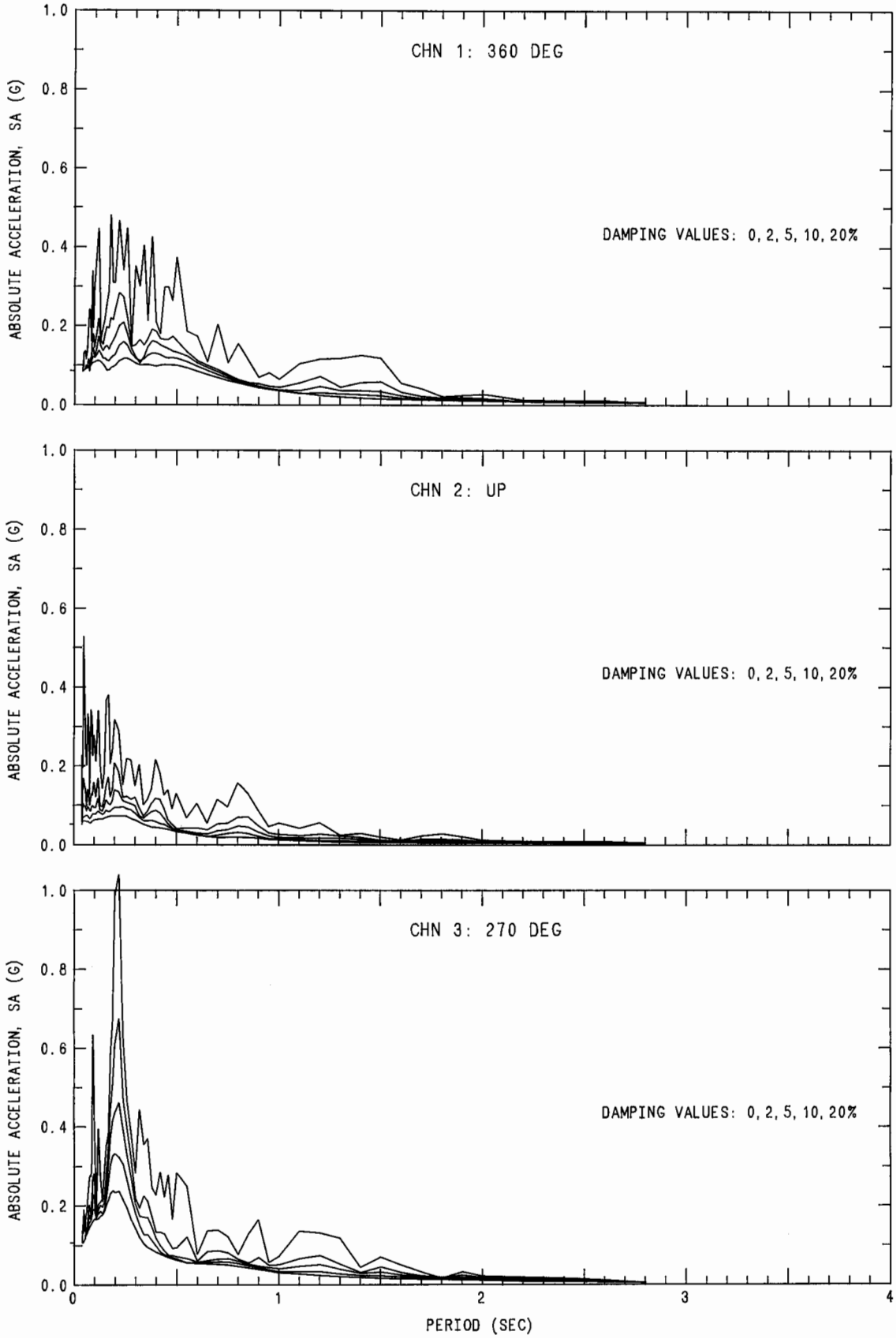
CHN 2: UP



CHN 3: 270 DEG



CHALFANT VALLEY AFTERSHOCK #1 JULY 21, 1986 07:51 PDT
BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54171-S1718-86203.04.1
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC)

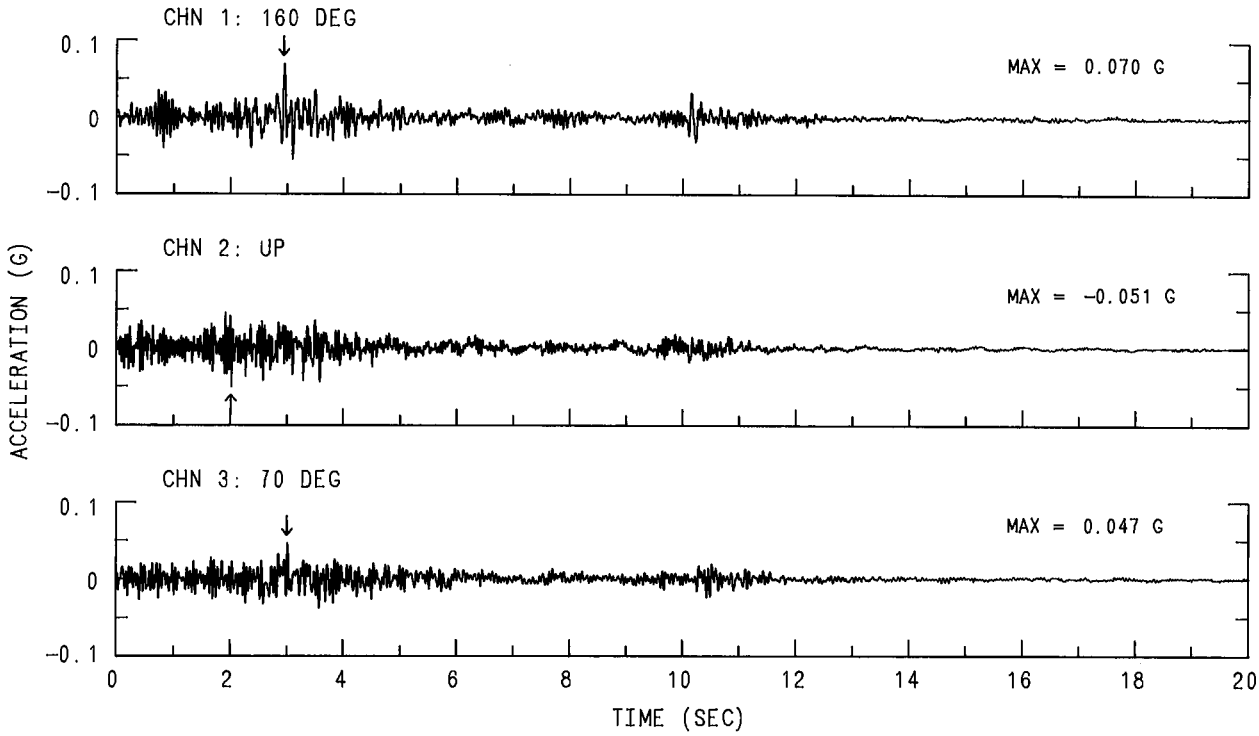


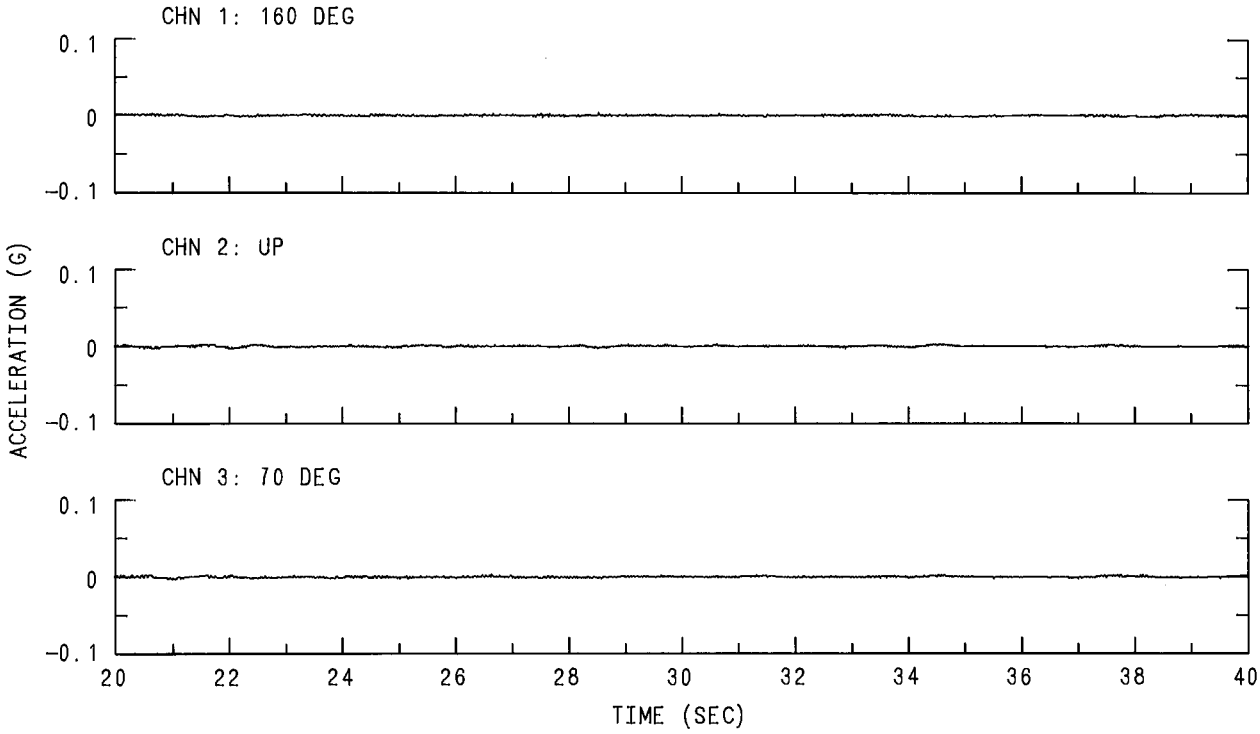
CHALFANT VALLEY AFTERSHOCK #1 JULY 21, 1986 07:51 PDT

BISHOP - PARADISE LODGE: CSMIP S/N 424

PHASE 1 ACCELERATION

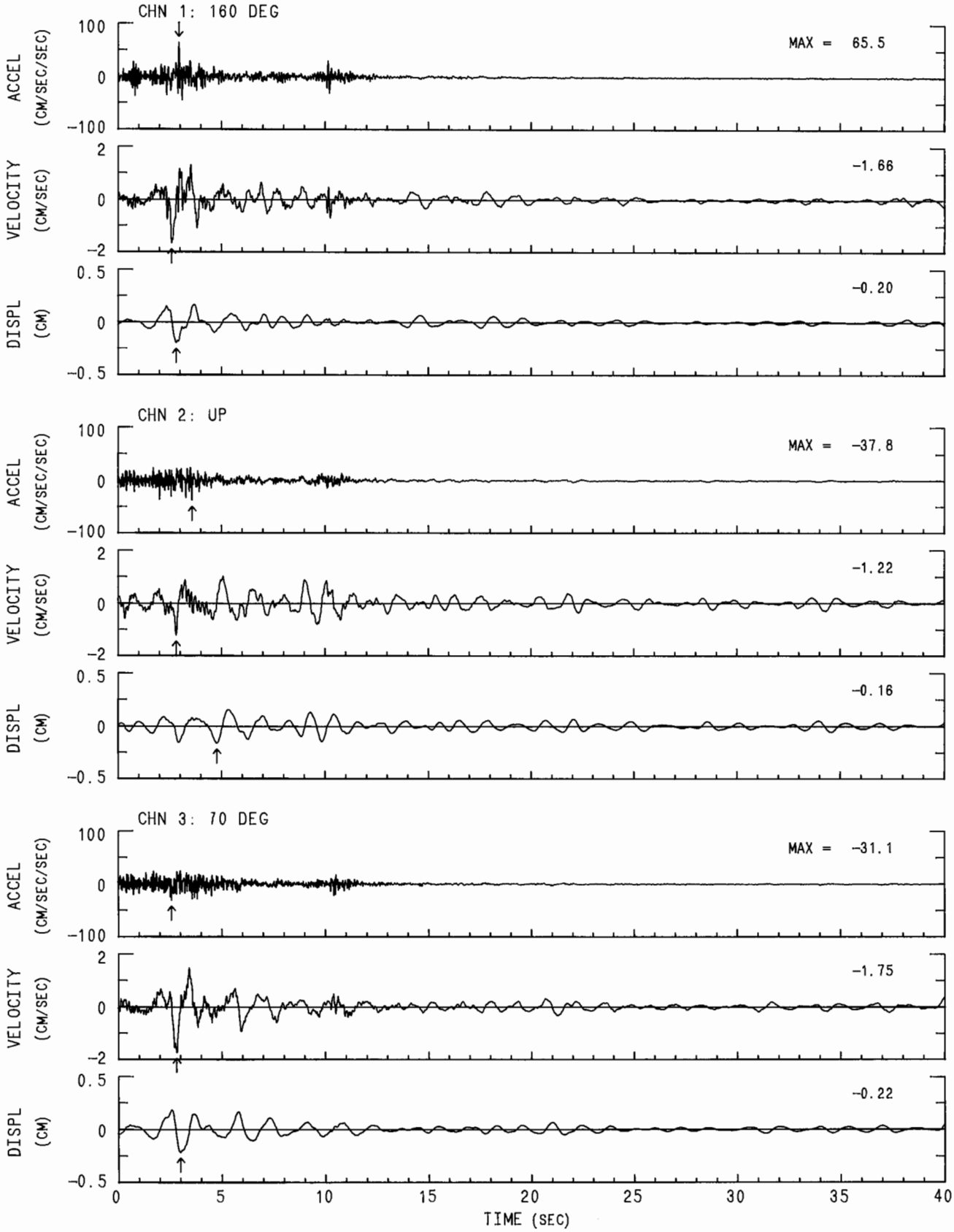
RECORD ID: 54424-S1827-86202.04





CHALFANT VALLEY AFTERSHOCK #1 JULY 21, 1986 07:51 PDT
BISHOP - PARADISE LODGE: CSMIP S/N 424

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT
USABLE DATA BANDWIDTH: 0.51 TO 23.6 HZ (0.04 TO 1.96 SEC) RECORD ID: 54424-S1827-86202.04



BISHOP – PARADISE LODGE: CSMIP S/N 424

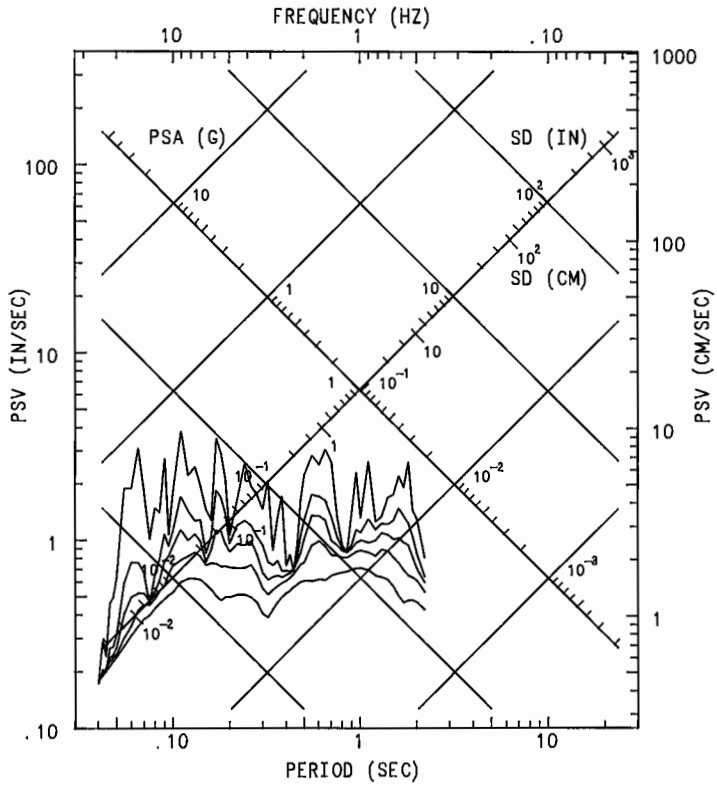
CHALFANT VALLEY AFTERSHOCK #1
JULY 21, 1986 07:51 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.51 TO 23.6 HZ
(0.04 TO 1.96 SEC)

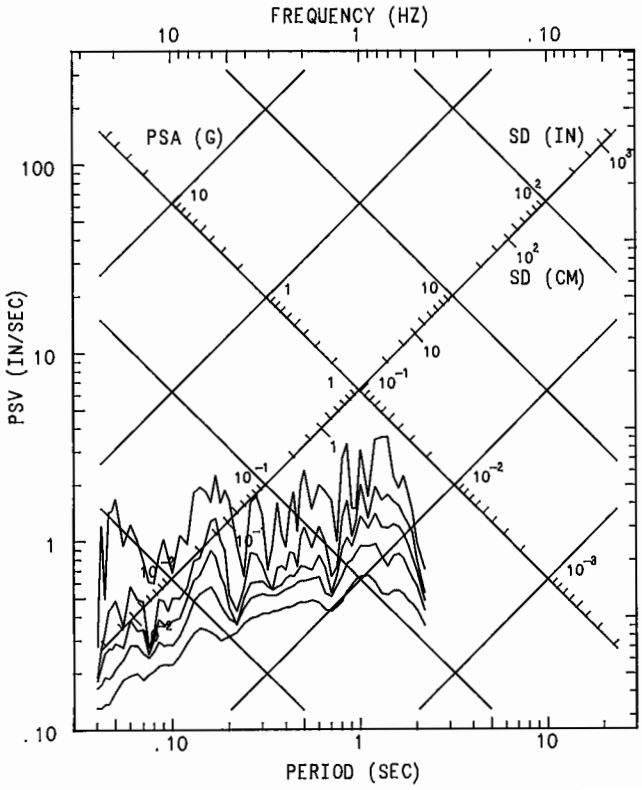
RECORD ID: 54424-S1827-86202.04

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

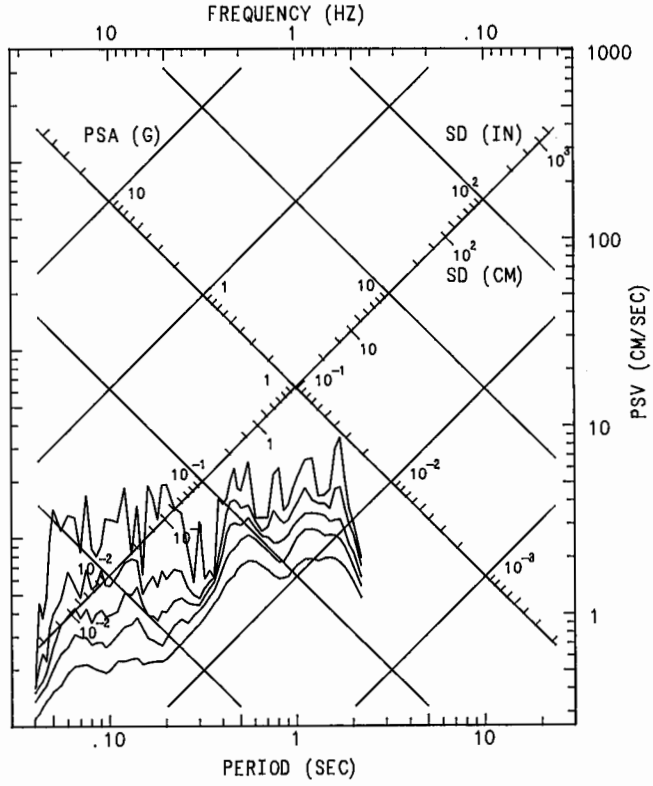
CHN 1: 160 DEG



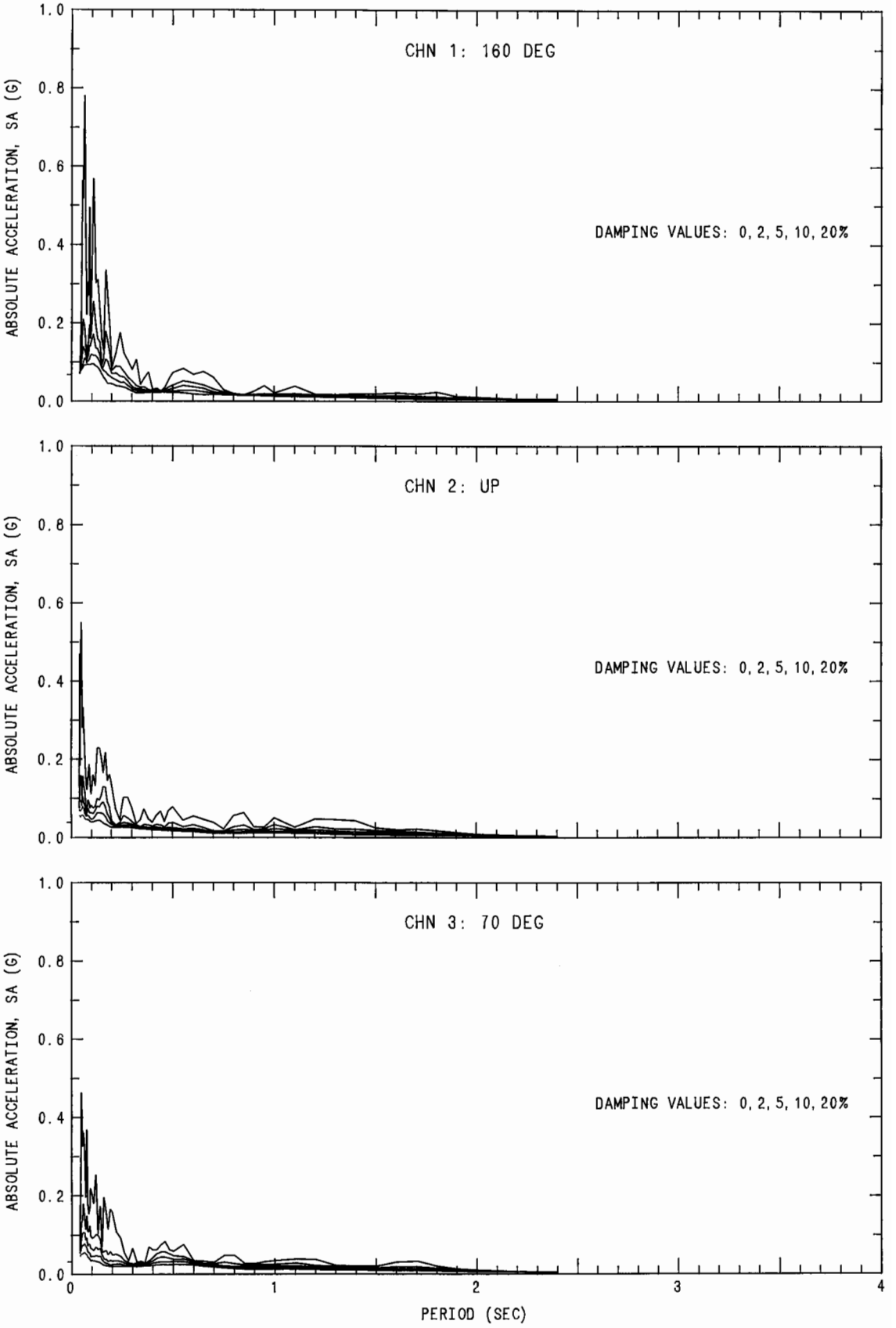
CHN 2: UP



CHN 3: 70 DEG



CHALFANT VALLEY AFTERSHOCK #1 JULY 21, 1986 07:51 PDT
BISHOP - PARADISE LODGE: CSMIP S/N 424
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54424-S1827-86202.04
USABLE DATA BANDWIDTH: 0.51 TO 23.6 HZ (0.04 TO 1.96 SEC)

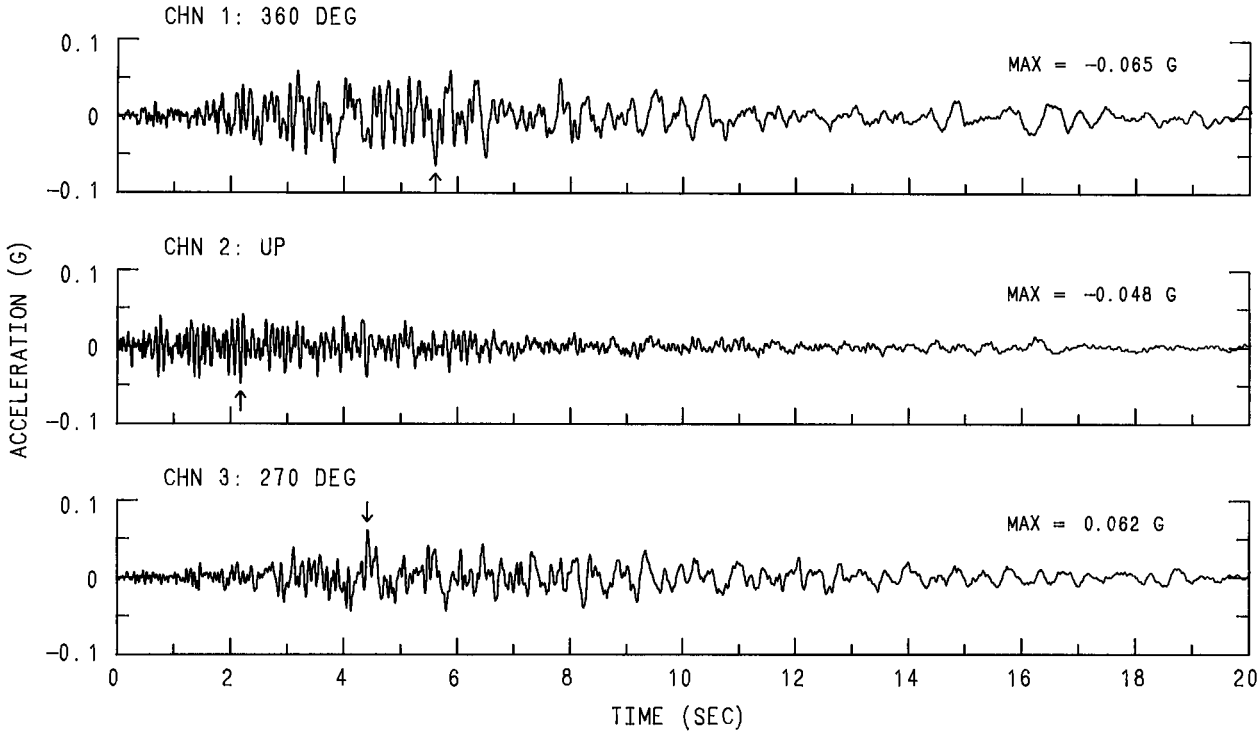


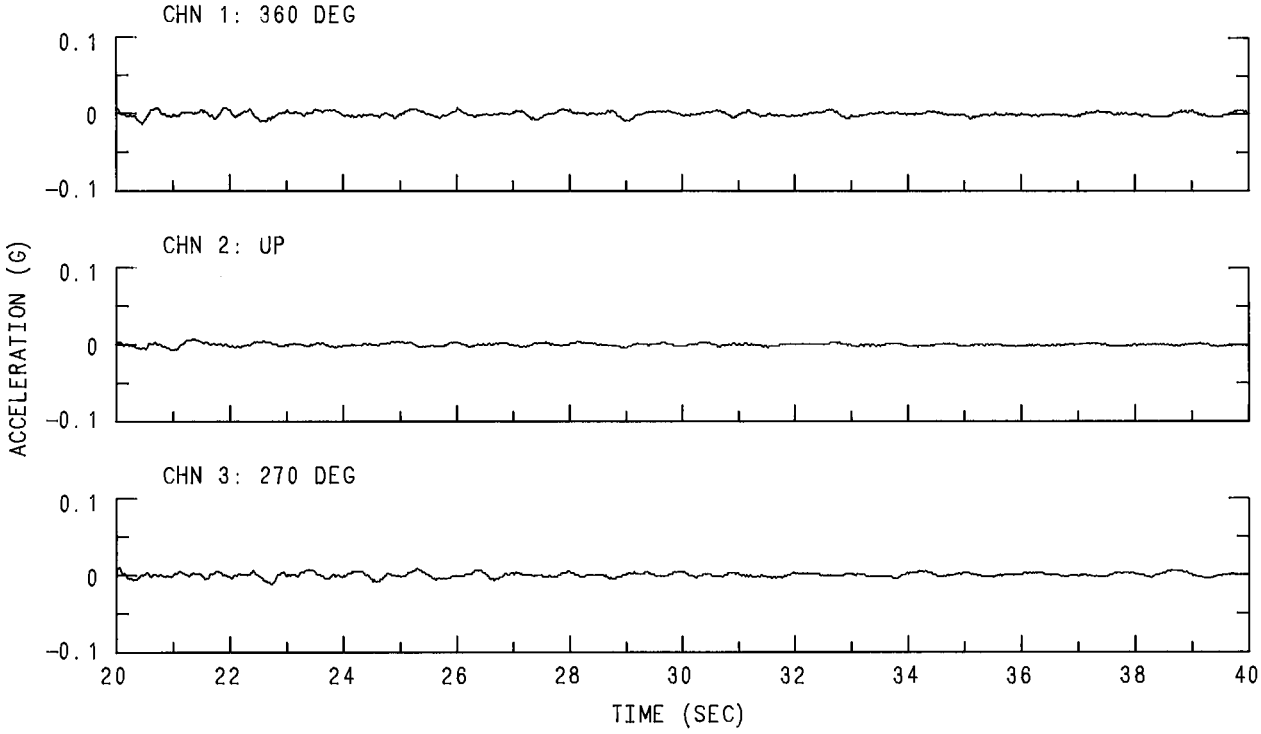
CHALFANT VALLEY AFTERSHOCK #2 JULY 31, 1986 00:22 PDT

CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

PHASE 1 ACCELERATION

RECORD ID: 54428-S1702-86213.09

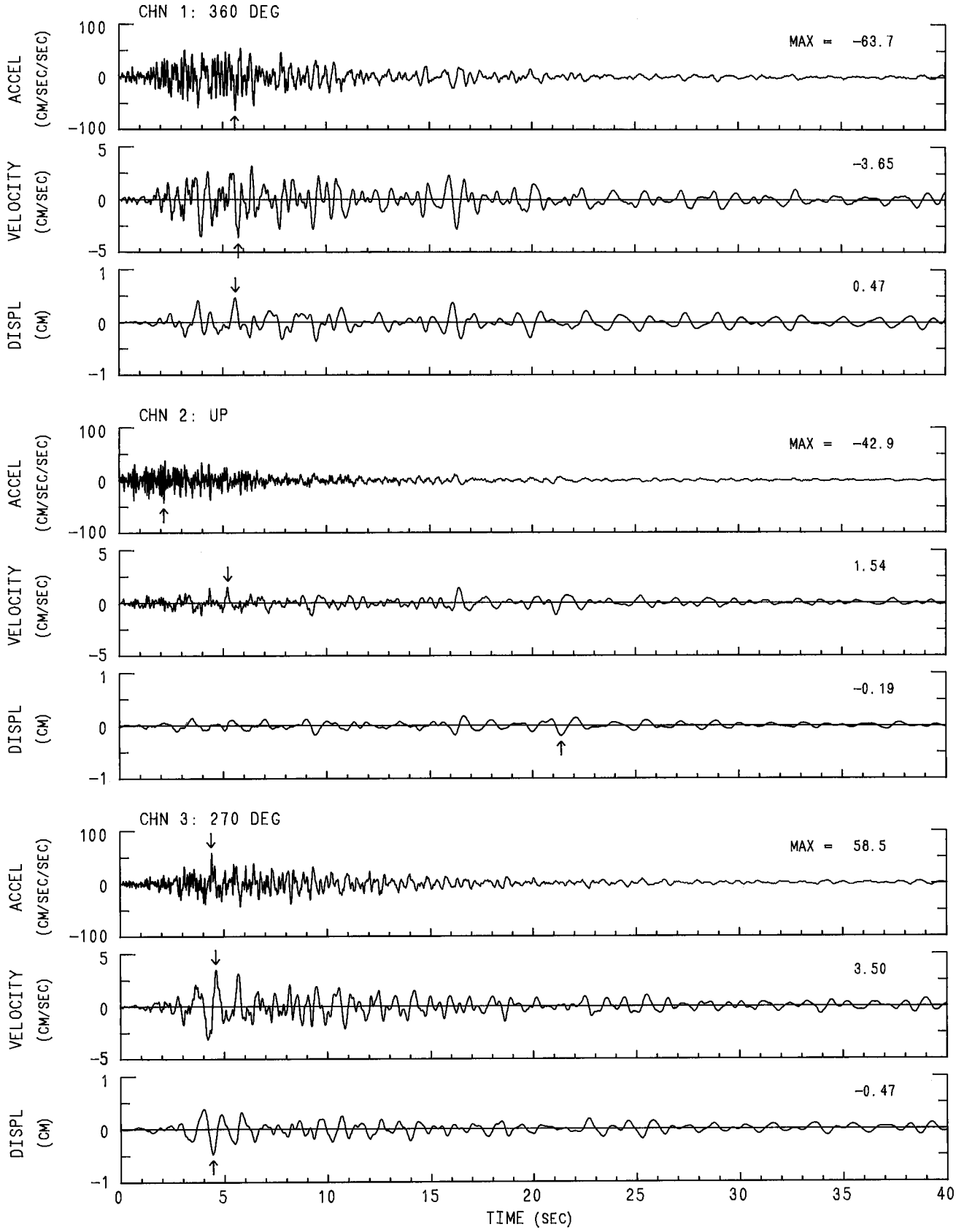




CHALFANT VALLEY AFTERSHOCK #2 JULY 31, 1986 00:22 PDT
CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.51 TO 23.6 HZ (0.04 TO 1.96 SEC) RECORD ID: 54428-S1702-86213.09



CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428

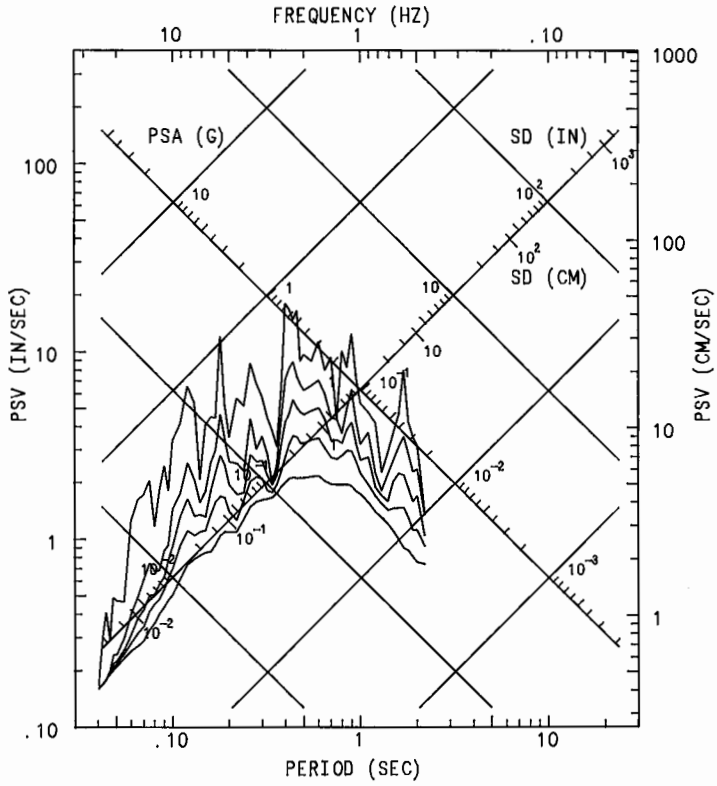
CHALFANT VALLEY AFTERSHOCK #2
JULY 31, 1986 00:22 PDT

PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.51 TO 23.6 HZ
(0.04 TO 1.96 SEC)

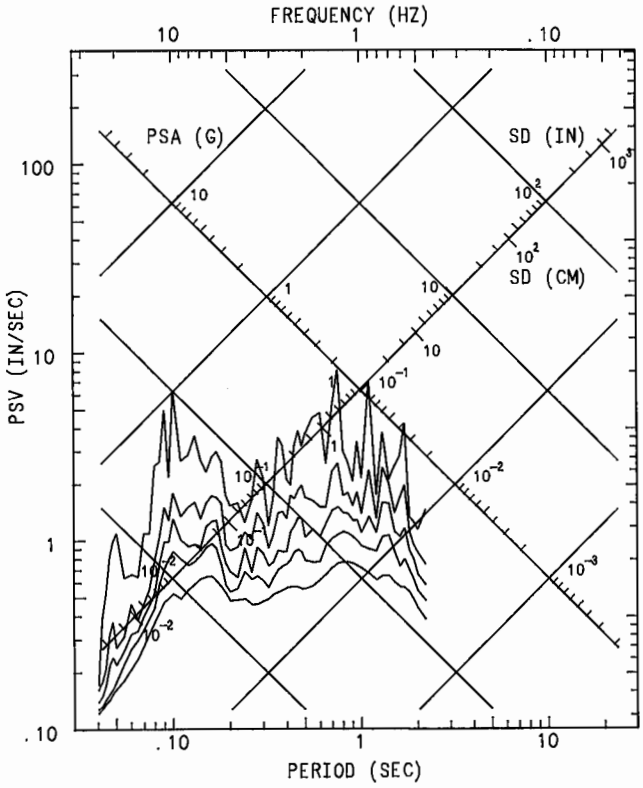
RECORD ID: 54428-S1702-86213.09

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

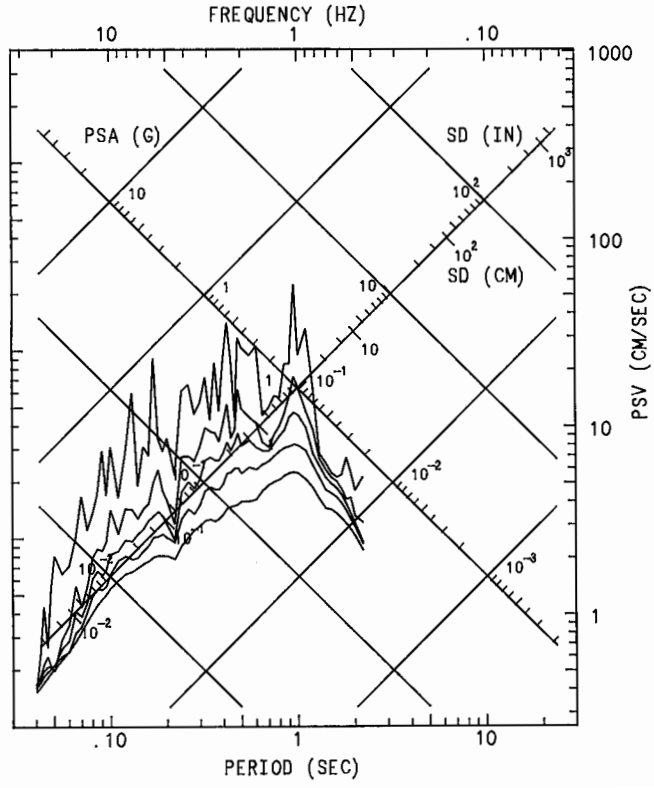
CHN 1: 360 DEG



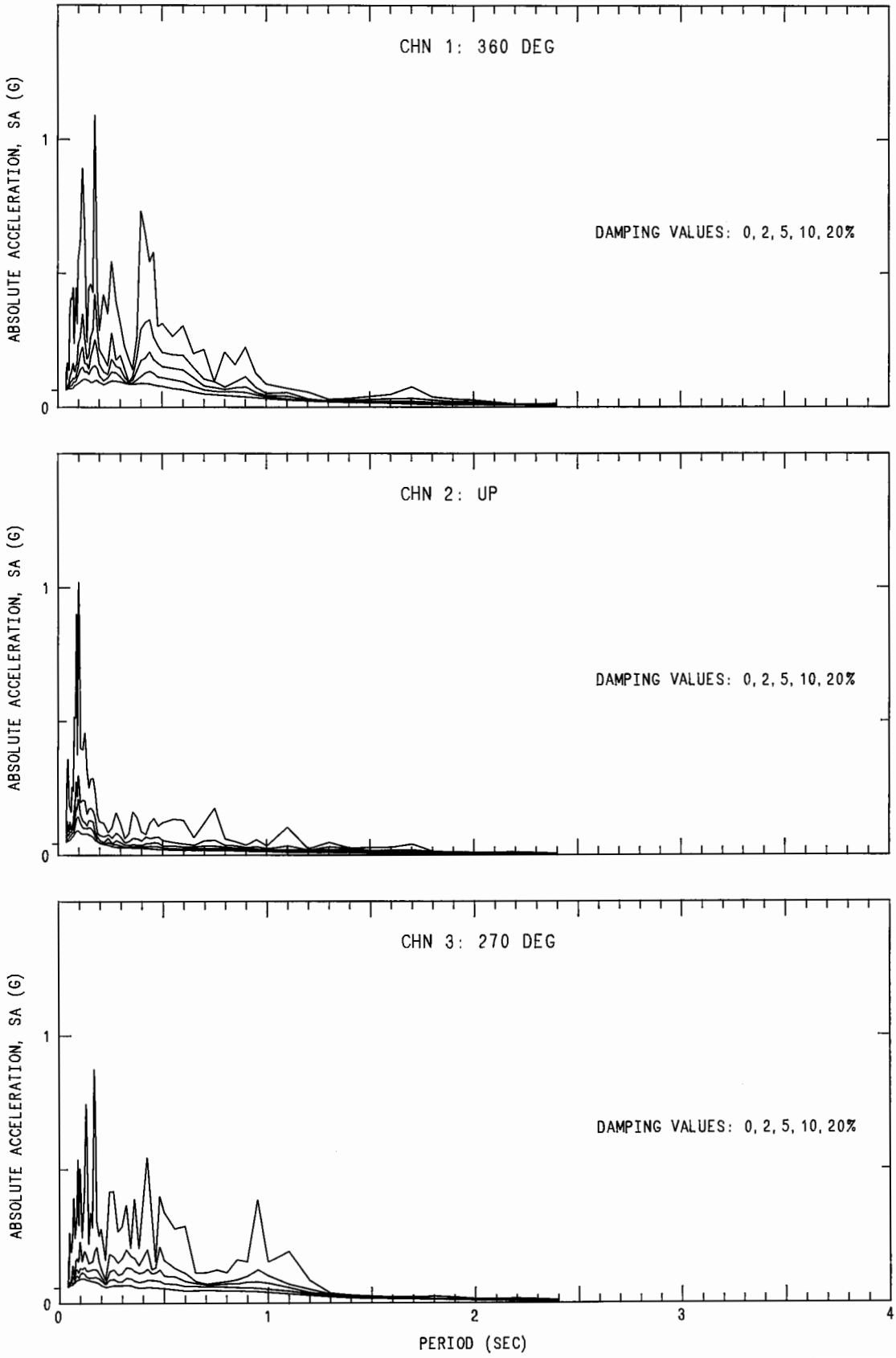
CHN 2: UP



CHN 3: 270 DEG



CHALFANT VALLEY AFTERSHOCK #2 JULY 31, 1986 00:22 PDT
CHALFANT - ZACK BROTHERS RANCH: CSMIP S/N 428
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54428-S1702-86213.09
USABLE DATA BANDWIDTH: 0.51 TO 23.6 HZ (0.04 TO 1.96 SEC)

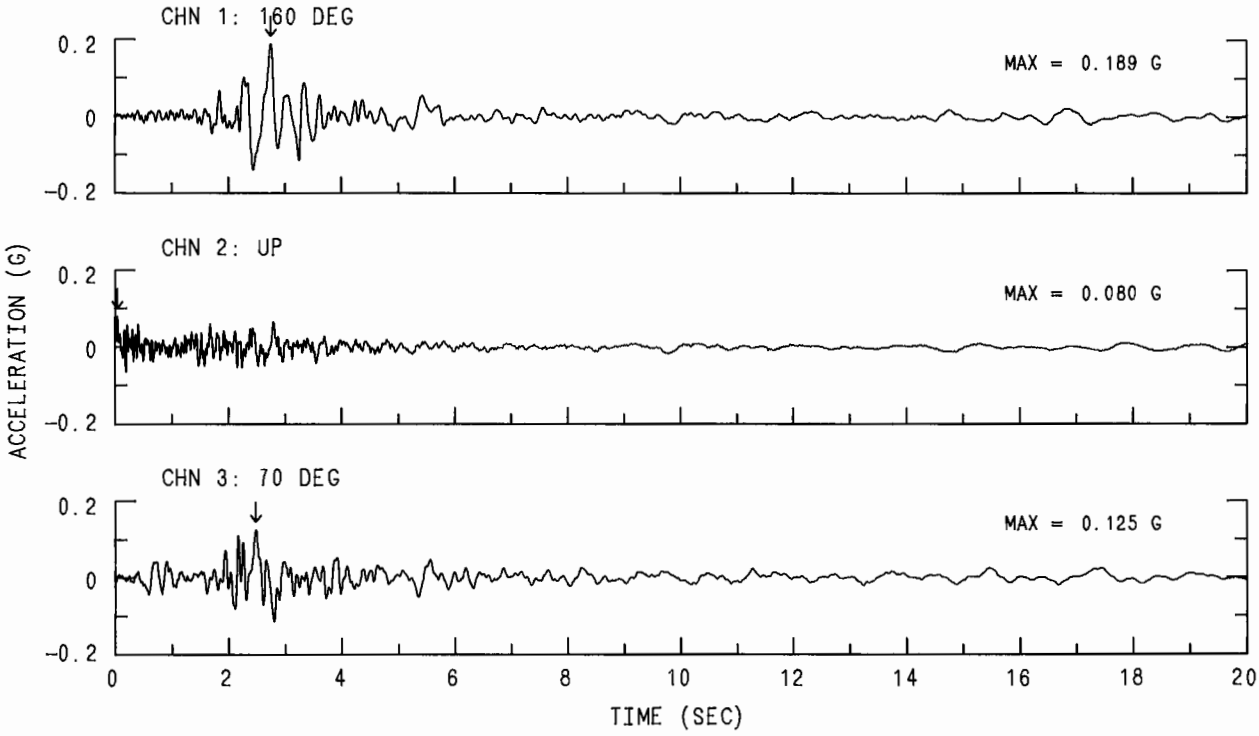


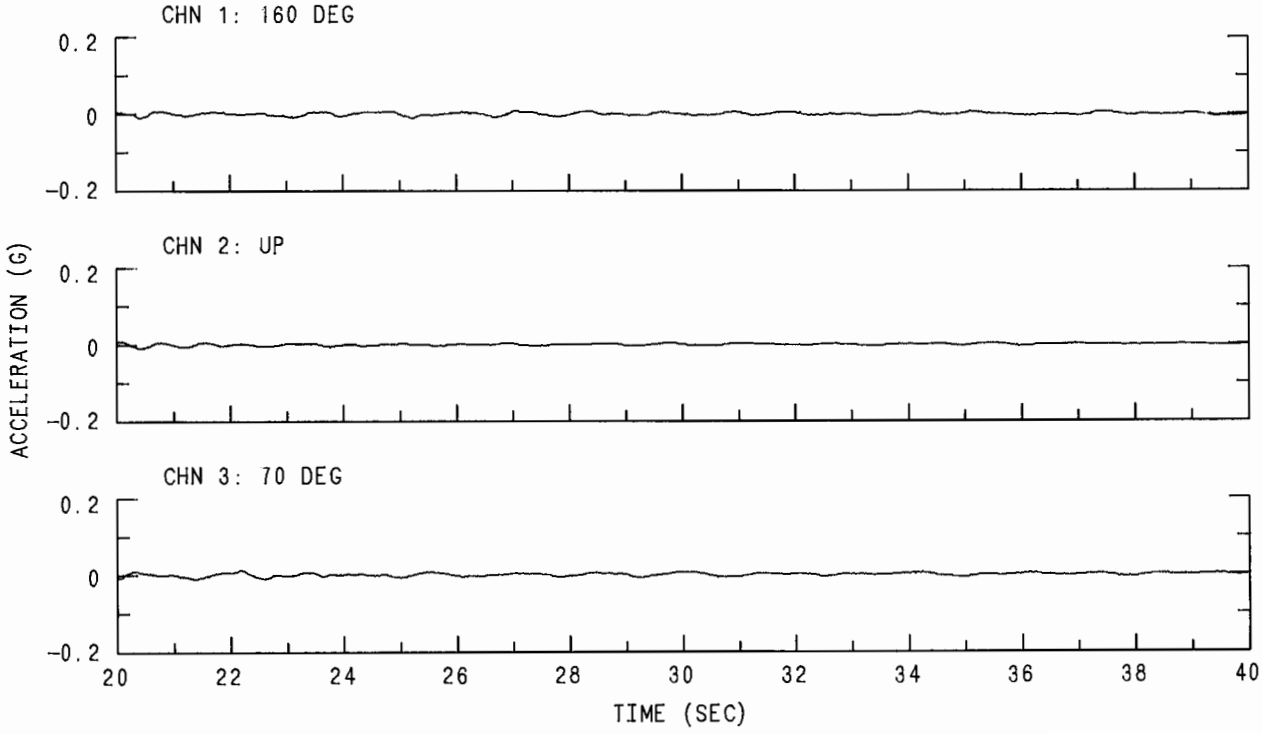
CHALFANT VALLEY AFTERSHOCK #2 JULY 31, 1986 00:22 PDT

BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

PHASE 1 ACCELERATION

RECORD ID: 54171-S1718-86246.01

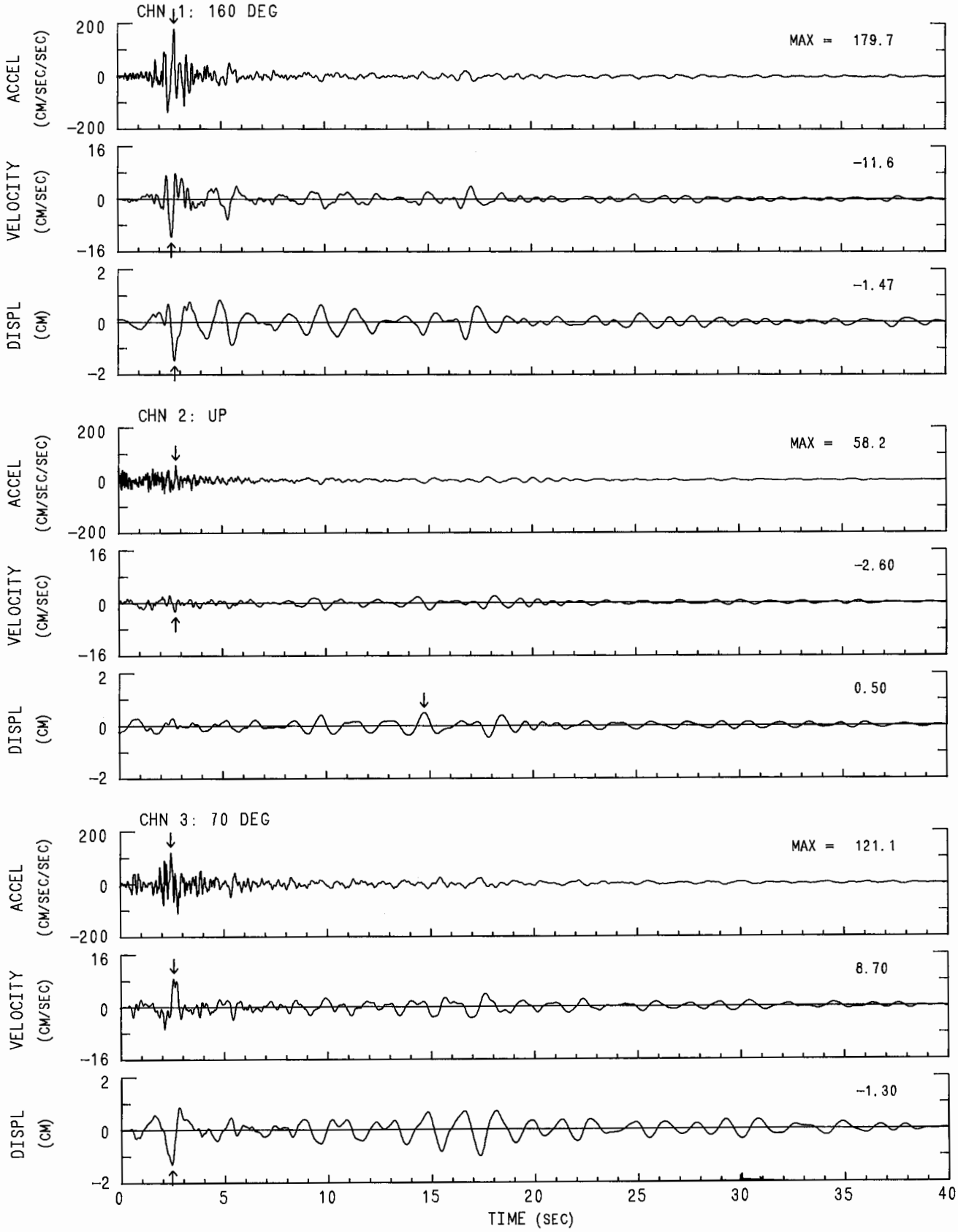




CHALFANT VALLEY AFTERSHOCK #2 JULY 31, 1986 00:22 PDT
BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC) RECORD ID: 54171-S1718-86246.01



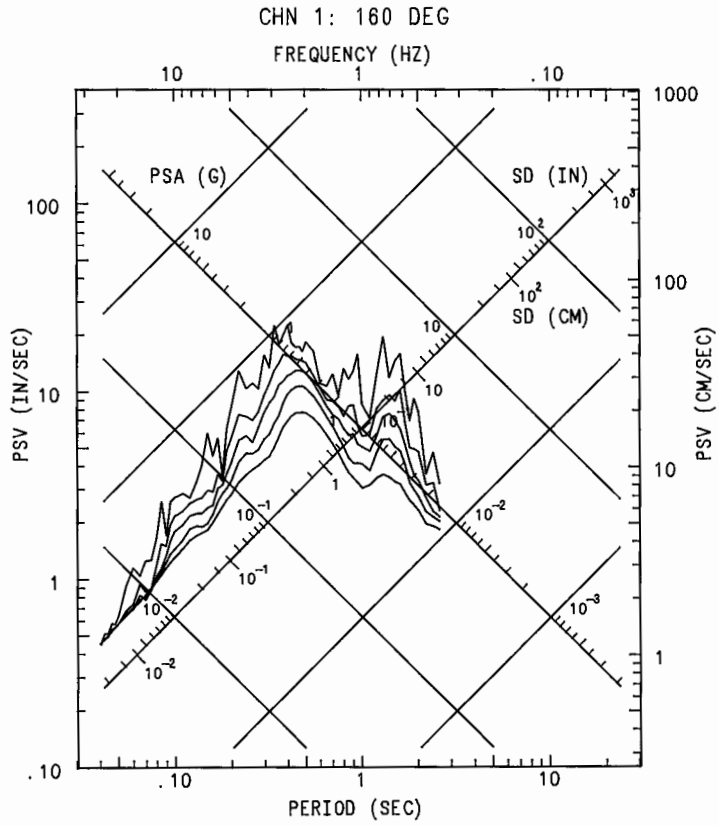
BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171

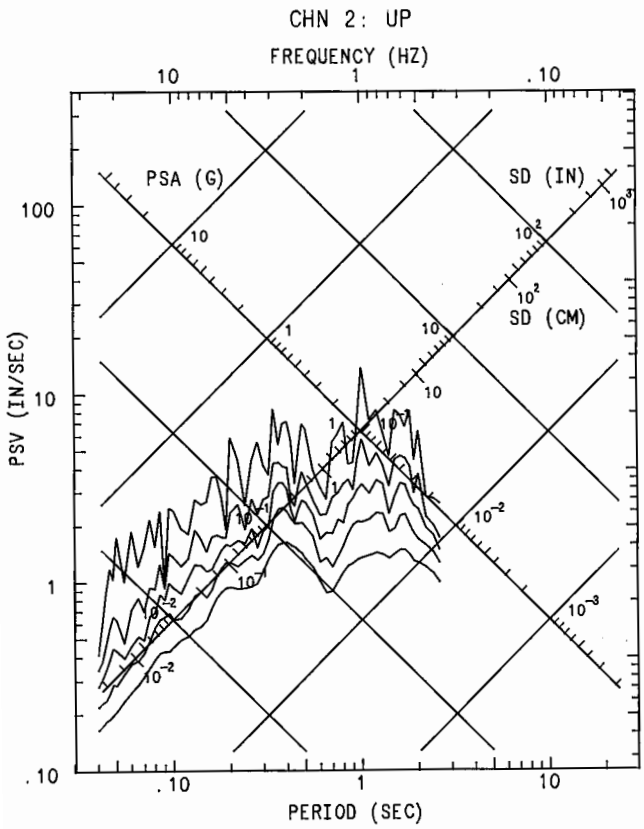
CHALFANT VALLEY AFTERSHOCK #2
JULY 31, 1986 00:22 PDT

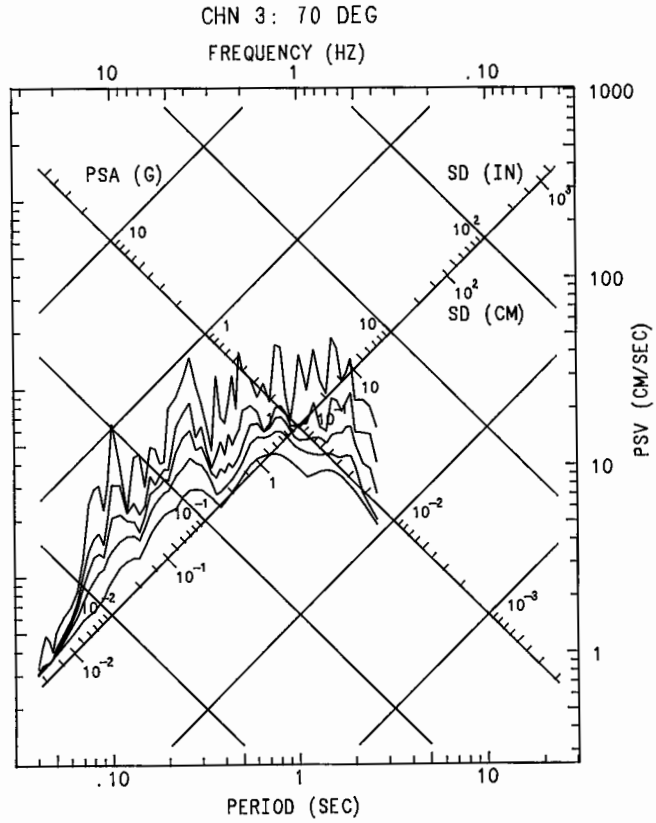
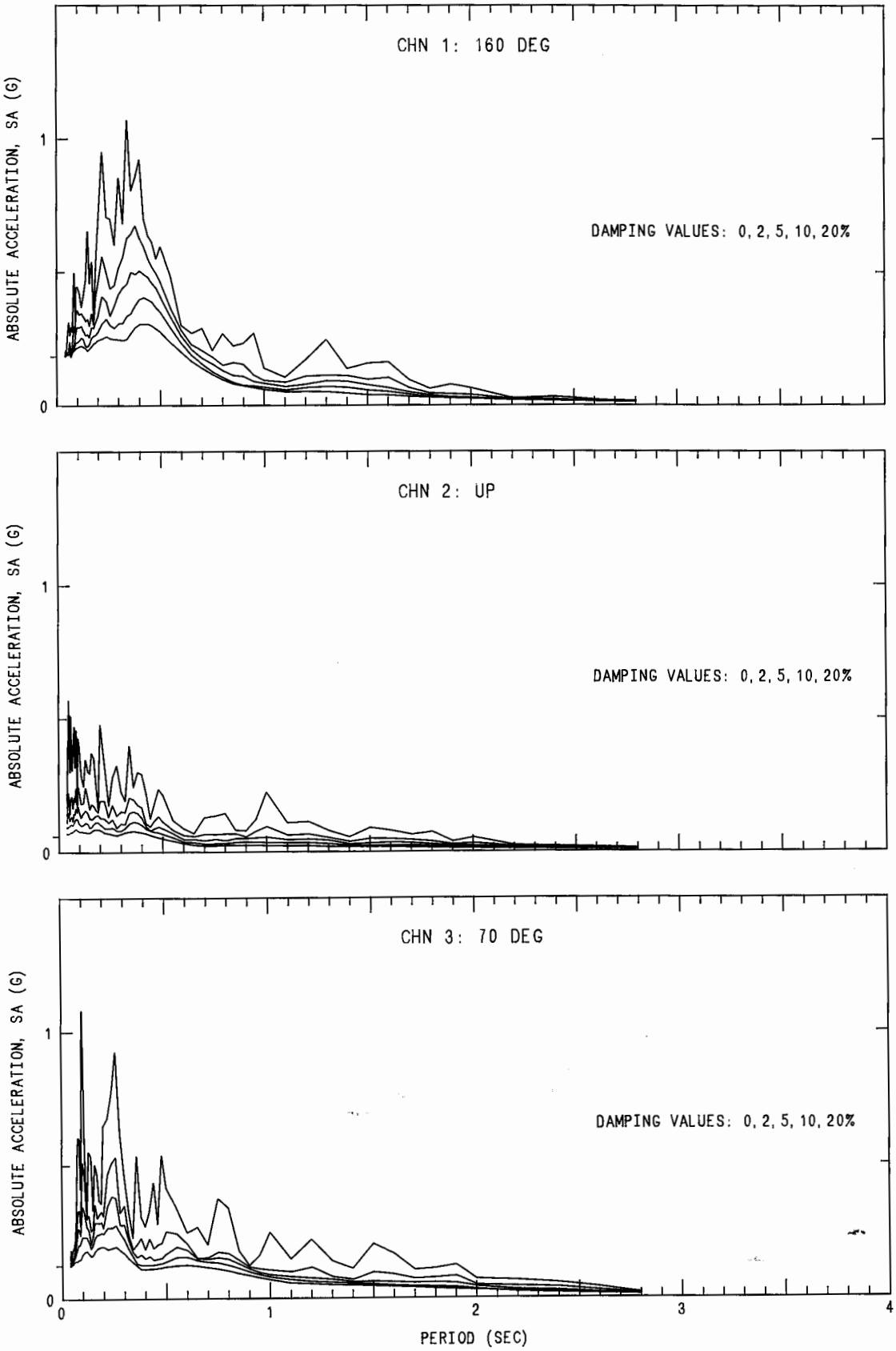
PHASE 3 DATA: RESPONSE SPECTRA
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ
(0.04 TO 2.35 SEC)

RECORD ID: 54171-S1718-86246.01

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







CHALFANT VALLEY AFTERSHOCK #2 JULY 31, 1986 00:22 PDT
BISHOP - LADWP SOUTH STREET GARAGE: CSMIP S/N 171
PHASE 3 DATA: RESPONSE SPECTRA RECORD ID: 54171-S1718-86246.01
USABLE DATA BANDWIDTH: 0.42 TO 23.6 HZ (0.04 TO 2.35 SEC)