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September 2, 1994

CSMIP STRONG-MOTION DATA FROM THE OFFSHORE EUREKA EARTHQUAKE OF 1 SEPTEMBER 1994

Report OSMS 94-18
California Strong Motion Instrumentation Program (CSMIP)

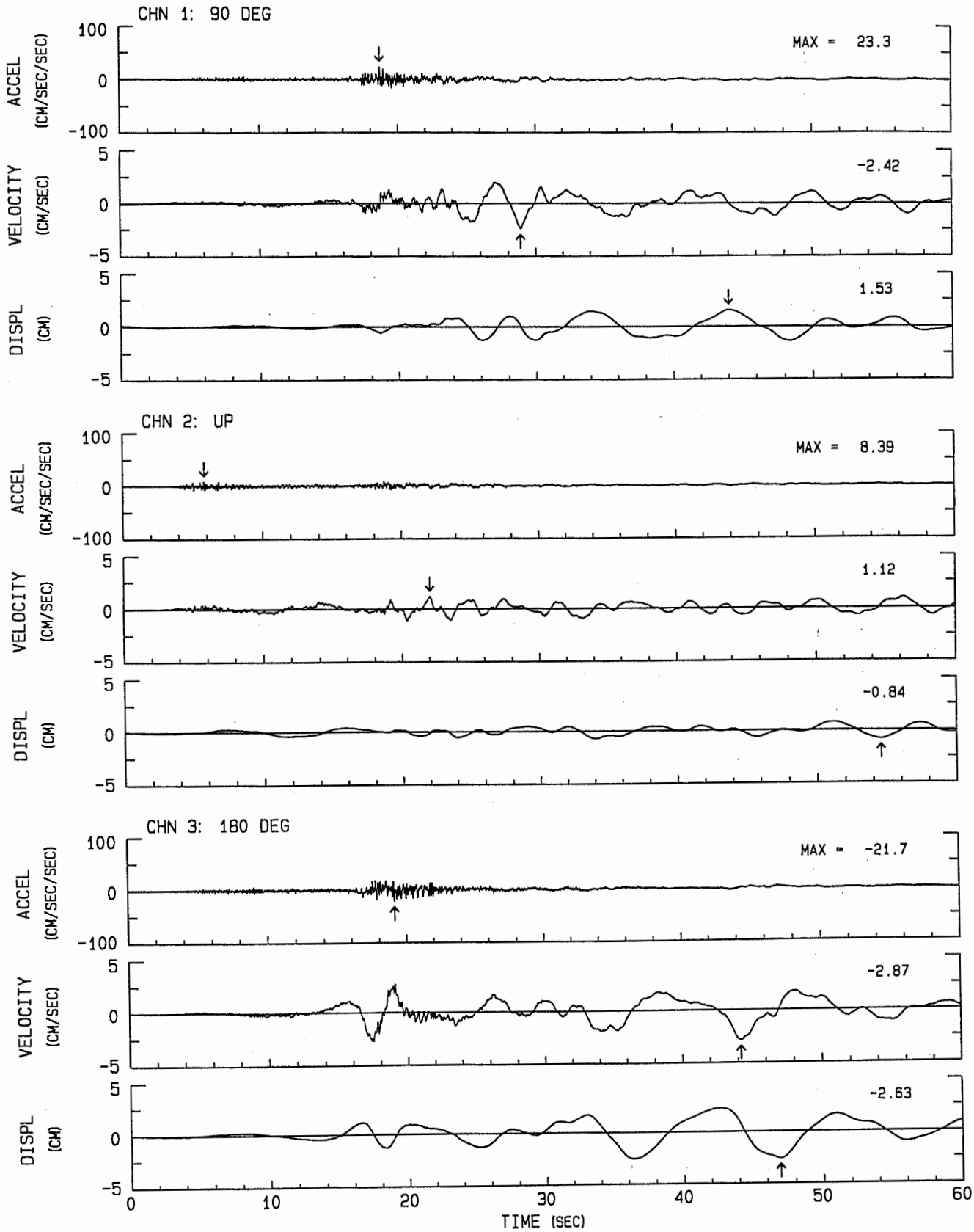
A magnitude 6.8 (M_L BRK; moment magnitude 7.2 NEIC) earthquake occurred on September 1, 1994 at 8:15 am (PDT). According to the Seismographic Stations at Berkeley and the USGS the epicenter is located approximately 145 km west of Petrolia beneath the Pacific Ocean. The strike-slip earthquake probably occurred along the Mendocino Fracture Zone.

Strong-motion records are available from 3 CSMIP stations. Processed data from 2 ground-response and one instrumented structure are included in this early release. The ground response stations are located at Cape Mendocino and Shelter Cove. (Cape Mendocino had the very high acceleration during the April 1992 earthquake). The structure is a Caltrans bridge near Eureka. Processed acceleration, velocity and displacement (preliminary) and spectra from these 3 stations are included in this report.

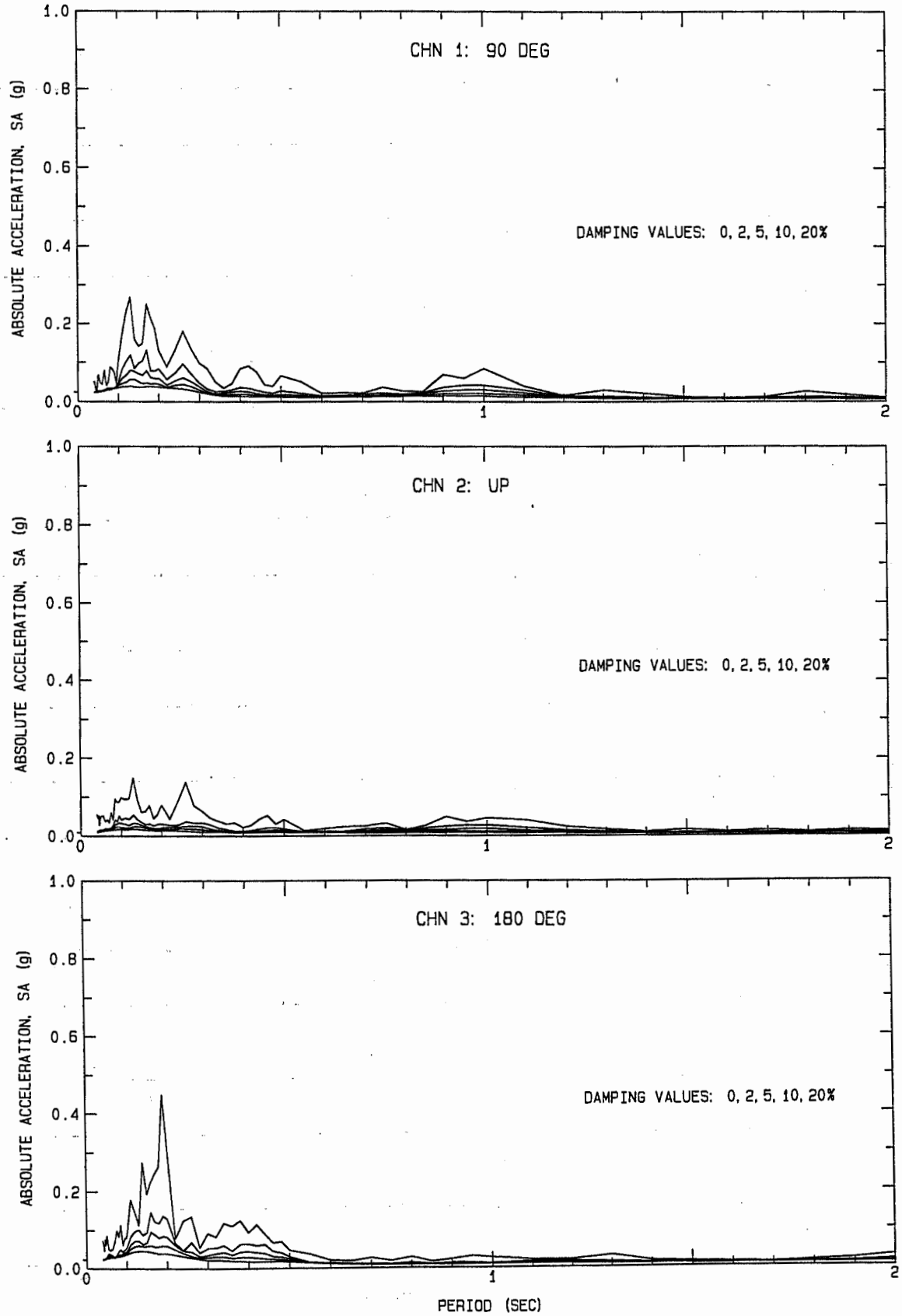
The early processing and release of these data take advantage of new developments in instrumentation and communications. Files of the processed data are on the Internet. (They are available in directory pub/csmip_eq_data at ftp.netcom.com by anonymous ftp).

OFFSHORE EUREKA EARTHQUAKE OF 1 SEP 1994 CSMIP PRELIMINARY PROCESSING
CAPE MENDOCINO: CSMIP S/N 005

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT
USABLE DATA BANDWIDTH: .09 TO 47.2 HZ (.02 TO 11.8 SEC) RECORD ID: 89005-E0563-94244.05



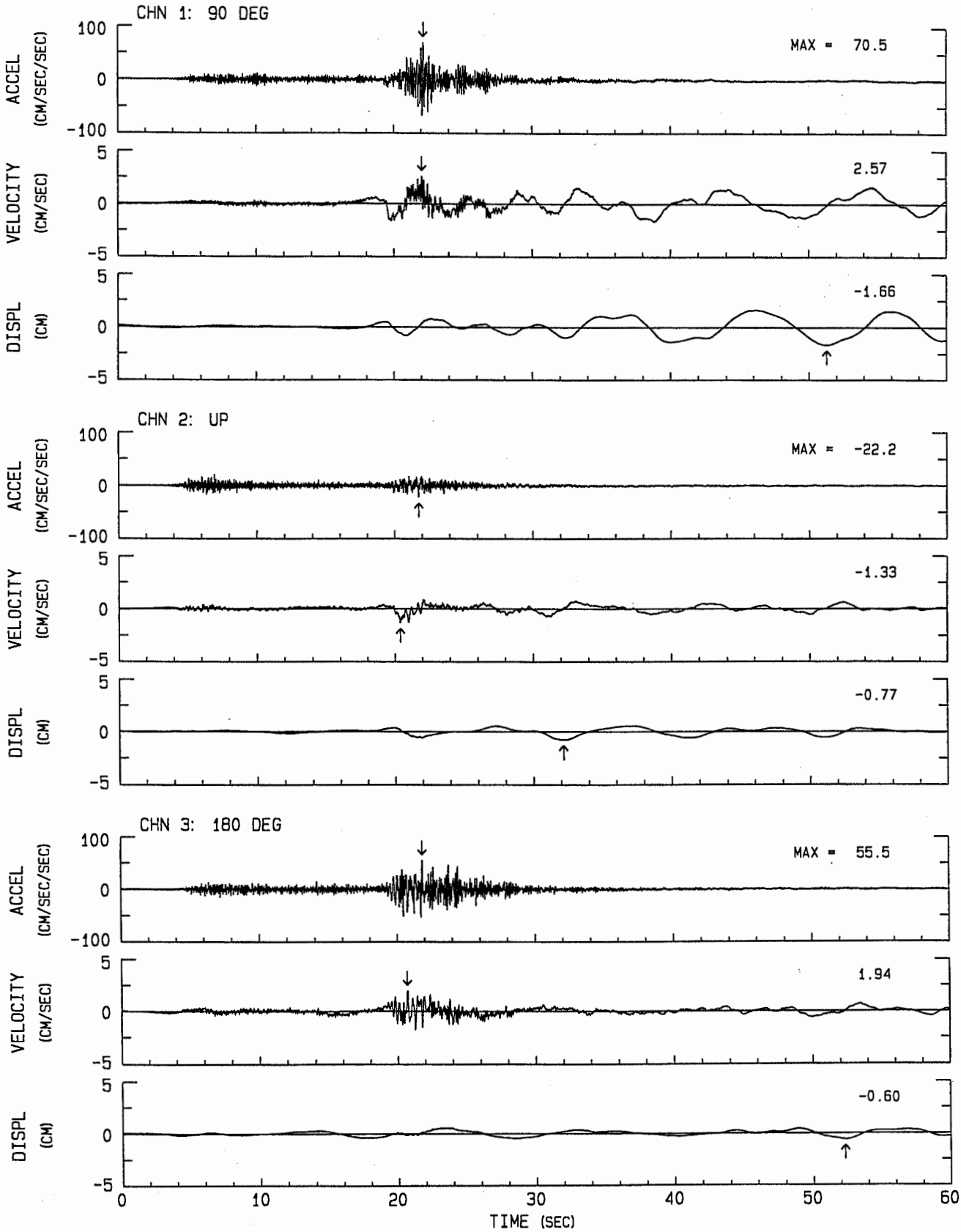
OFFSHORE EUREKA EARTHQUAKE OF 1 SEP 1994 CSMIP PRELIMINARY PROCESSING
CAPE MENDOCINO
ACCELEROGRAM BANDPASS-FILTERED WITH RAMPS AT .05-.10 TO 46.0-50.0 HZ.
89005-E0563-94244.05 090294.1307-QE94A563



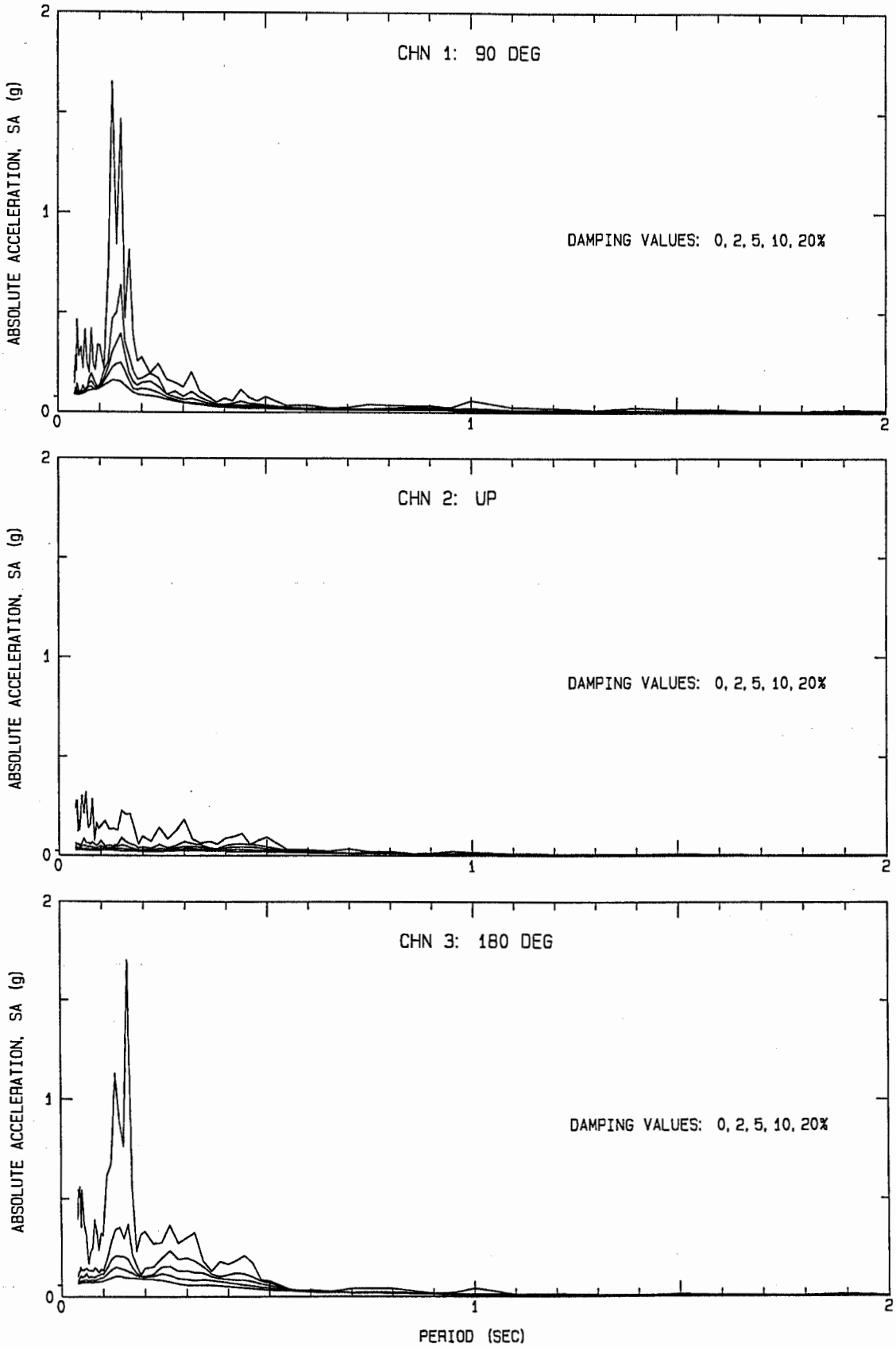
OFFSHORE EUREKA EARTHQUAKE OF 1 SEP 1994 CSMIP PRELIMINARY PROCESSING
SHELTER COVE - AIRPORT: CSMIP S/N 530

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: .09 TO 47.2 HZ (.02 TO 11.8 SEC) RECORD ID: 89530-E0555-94245.15



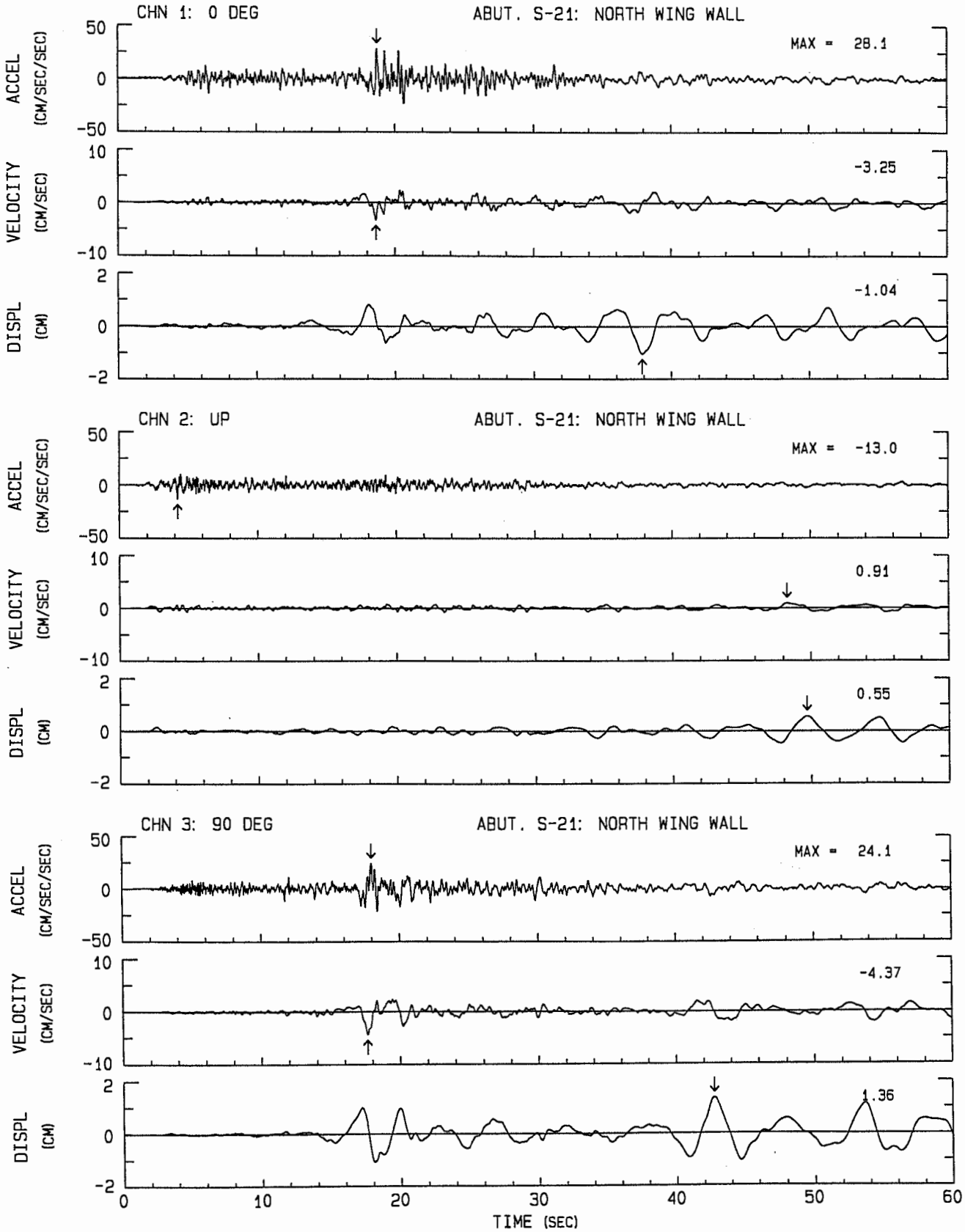
OFFSHORE EUREKA EARTHQUAKE OF 1 SEP 1994 CSMIP PRELIMINARY PROCESSING
SHELTER COVE - AIRPORT
ACCELEROGRAM BANDPASS-FILTERED WITH RAMPS AT .05-.10 TO 46.0-50.0 HZ.
89530-E0555-94245.15 090294.1341-QE94A555



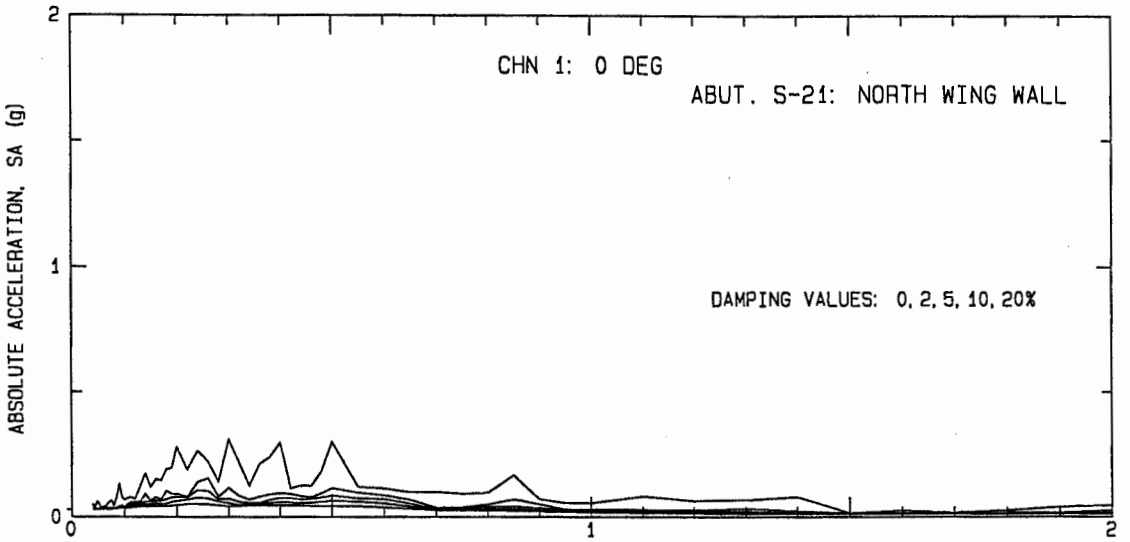
OFFSHORE EUREKA EARTHQUAKE OF 1 SEP 1994 CSMIP PRELIMINARY PROCESSING
EUREKA - HUMBOLDT BAY BRIDGE: CSMIP S/N 686

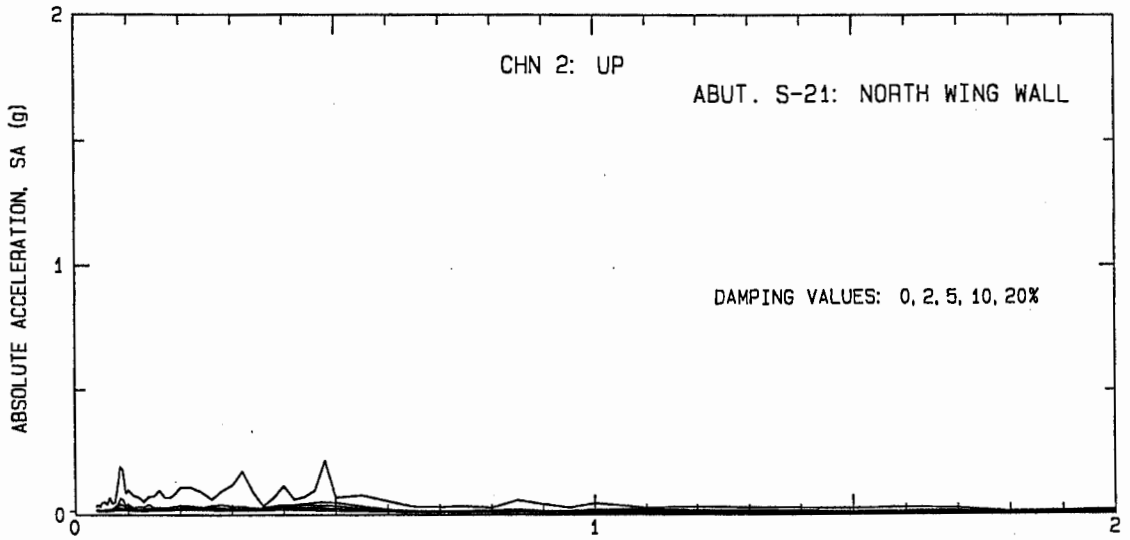
PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

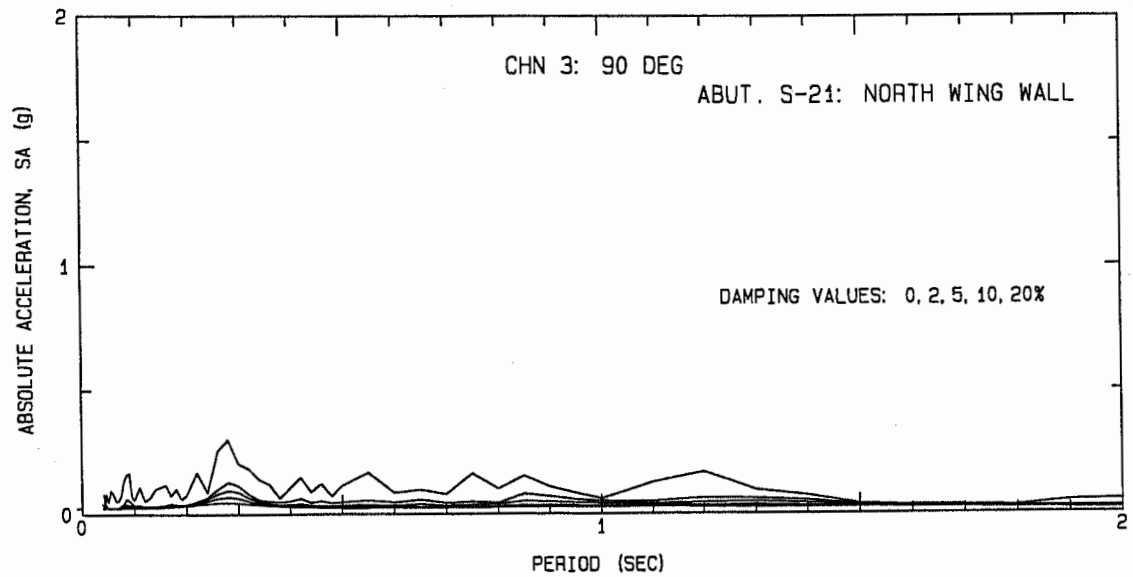
USABLE DATA BANDWIDTH: .17 TO 47.2 HZ (.02 TO 5.88 SEC) RECORD ID: 89686-F0851-94244.14



OFFSHORE EUREKA EARTHQUAKE OF 1 SEP 1994 CSMIP PRELIMINARY PROCESSING
EUREKA - HUMBOLDT BAY BRIDGE
ACCELEROGRAM BANDPASS-FILTERED WITH RAMPS AT .10-.20 TO 46.0-50.0 HZ.
89686-F0851-94244.14 090194.1332-QE94A851



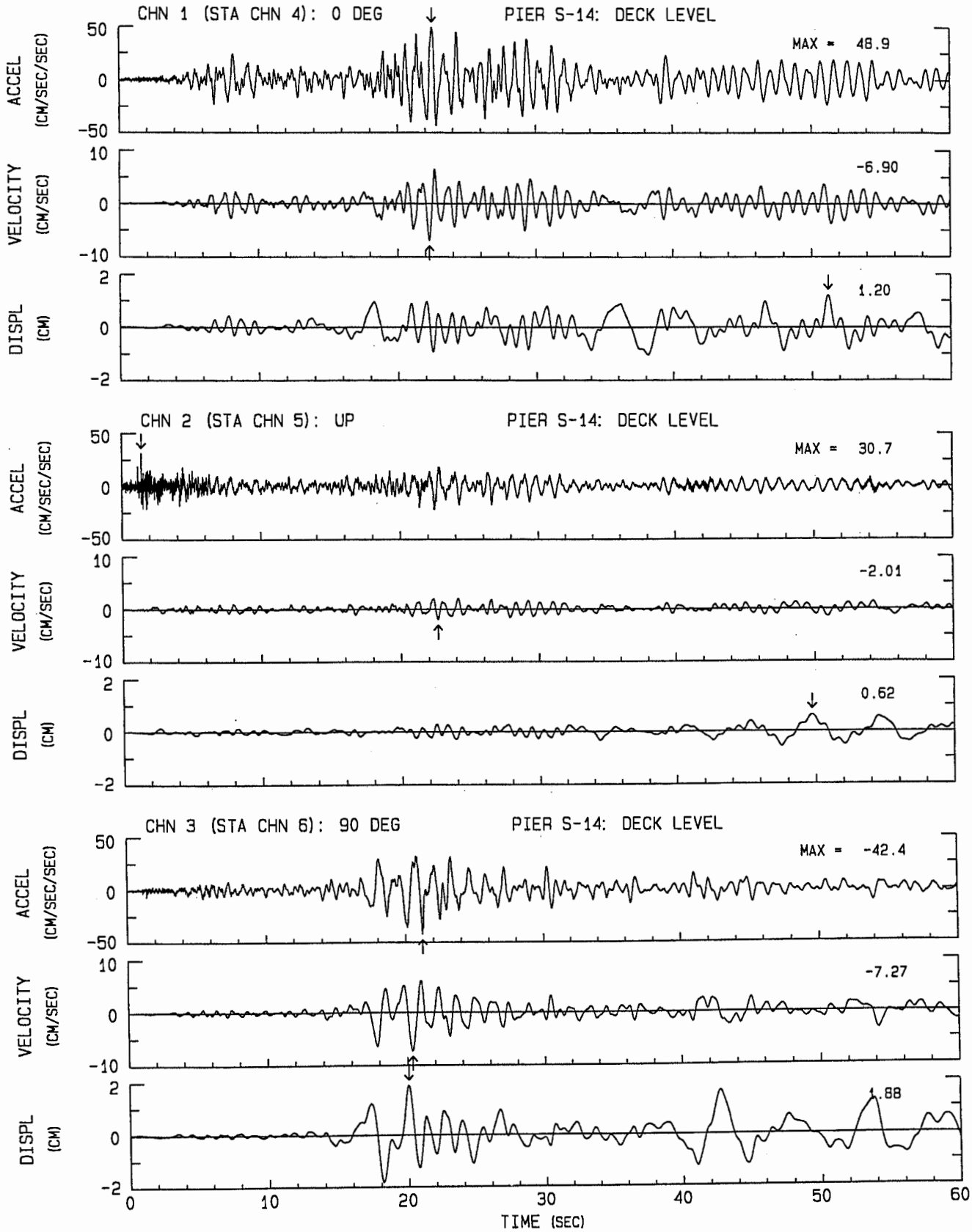




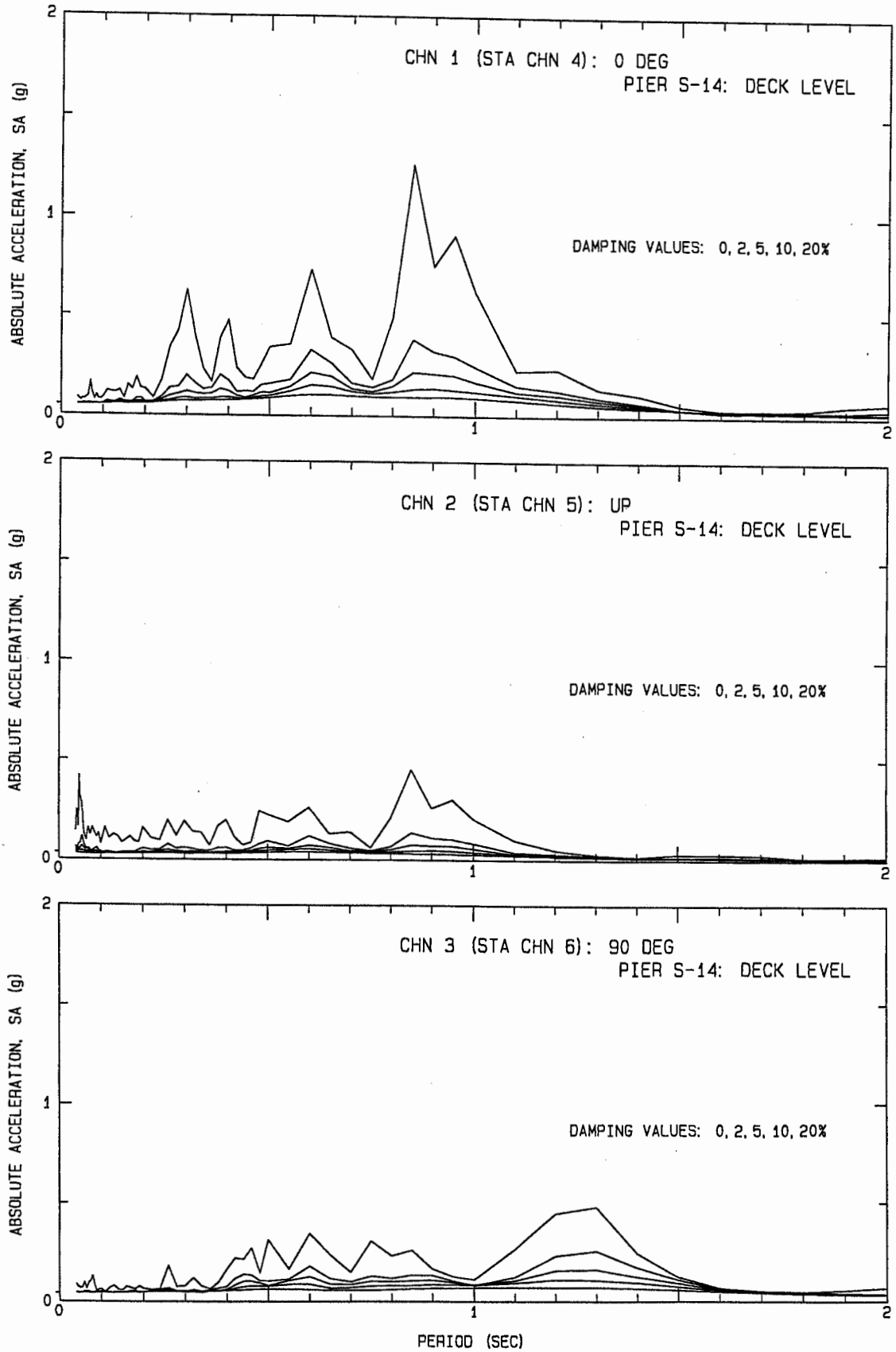
OFFSHORE EUREKA EARTHQUAKE OF 1 SEP 1994 CSMIP PRELIMINARY PROCESSING
EUREKA - HUMBOLDT BAY BRIDGE: CSMIP S/N 6B6

PHASE 2 FILTERED DATA: ACCELERATION, VELOCITY AND DISPLACEMENT

USABLE DATA BANDWIDTH: .17 TO 47.2 HZ (.02 TO 5.88 SEC) RECORD ID: 89686-F0852-94244.14

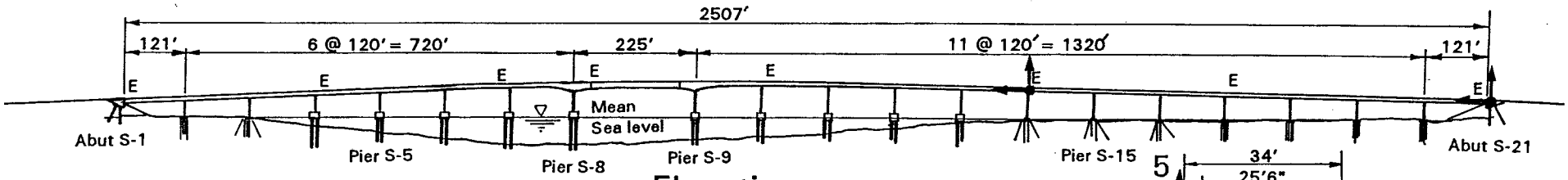


OFFSHORE EUREKA EARTHQUAKE OF 1 SEP 1994 CSMIP PRELIMINARY PROCESSING
EUREKA - HUMBOLDT BAY BRIDGE
ACCELEROGRAM BANDPASS-FILTERED WITH RAMPS AT .10-.20 TO 46.0-50.0 HZ.
89686-F0852-94244.14 090194.1440-QE94A852



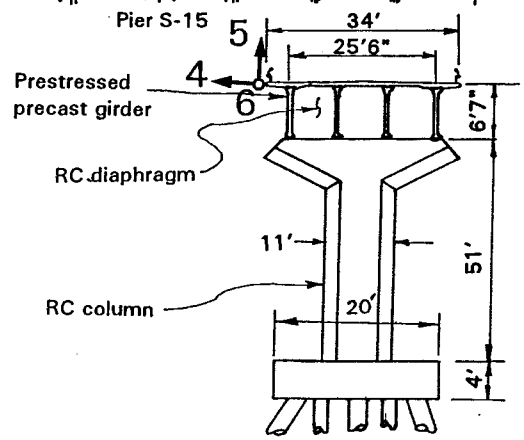
Eureka - Humboldt Bay Bridge
(CSMIP Station No. 89686)

SENSOR LOCATIONS



Elevation

E = expansion joints

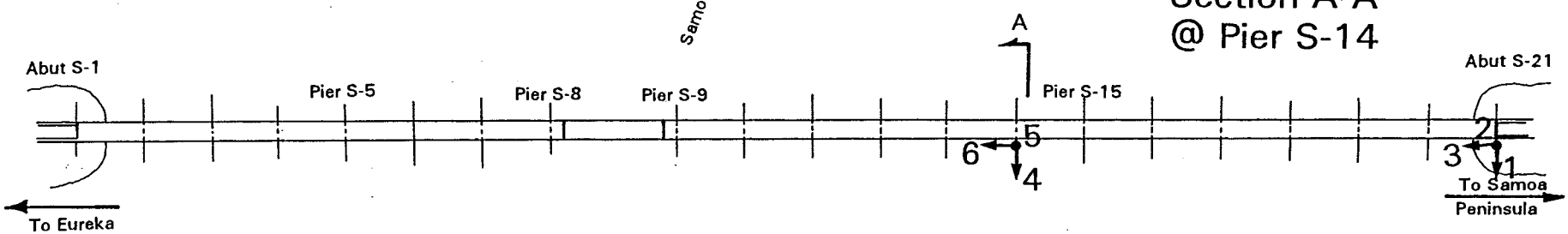


Section A-A
@ Pier S-14

Structure Reference
Orientation: N = 42°

N_{ref}

Samoa Channel



4/12/94