



Report for passive data acquired in the 1998-1999 Los Angeles Region Seismic Experiment II: a transect from Santa Monica Bay to the Westernmost Mojave Desert

By Monica D. Kohler¹ and Bryan C. Kerr²

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**U.S. DEPARTMENT OF THE INTERIOR
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¹ Department of Earth and Space Sciences, University of California, Los Angeles, Los Angeles, CA 90095-1567

² Department of Geophysics, Mitchell Building, Room 360, Stanford University, Stanford, CA 94305-2215

ABSTRACT

Between October, 1998 and April, 1999, 83 seismic stations were installed in the greater western Los Angeles, California area to record teleseismic, regional, and local earthquakes. The near-linear 93-km long array extended between Santa Monica Bay and the western Mojave Desert, through the epicentral region of the Northridge earthquake. The goals of the experiment were to determine crustal thickness below the western Transverse Ranges, San Fernando Valley basin, and western Mojave Desert, measure anisotropy along the line with special emphasis on the San Andreas fault region, evaluate the potential for future strong ground shaking at sites in the basins, and determine the kinematic relationship between crustal and uppermost mantle deformation by three-dimensional tomographic inversion using regional network data combined with the array data. The stations consisted of three-component, broadband and short-period seismometers, and timing was controlled by Global Positioning System (GPS) receivers. The array recorded 165 Gb of raw waveform data in continuous (25 sps) and triggered (50 sps) streams. Approximately 144 teleseismic earthquakes with magnitudes ≥ 5.5 , and 2025 local earthquakes with magnitude ≥ 2.0 were recorded. Preliminary results from three-dimensional teleseismic travel-time inversion tomography indicate that uppermost mantle seismic anomalies strongly correlate with thickened crust in the Transverse Ranges suggesting that the width of the compressional region and convergence rate control the location of deformation more than the San Andreas shear zone does.

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INTRODUCTION

The passive array of the Los Angeles Region Seismic Experiment (LARSE) II was installed across the greater western Los Angeles region from October 1998 to April 1999. It provided dense, high-resolution teleseismic and local earthquake waveform data in the Transverse Ranges and western Mojave Desert, including the epicentral region of the Northridge earthquake (Fig. 1). Not only do data from this experiment provide constraints on deep crustal and uppermost mantle structure, but they are also useful in the computation of wavefields for seismic hazard purposes. For example, teleseismic amplitudes have been used to identify previously unrecognized extremely low-velocity sedimentary layers in the uppermost crust (Kohler et al., 1998). Teleseisms recorded on Southern California seismometers are being used to study basin resonance and the effects of velocity gradients between tectonic regions (Prindle and Tanimoto, 2000). In addition, short-period (10-30 s) regional surface waves are being used to compute the centroid moment tensors of large Southern California earthquakes (Marcinkovich and Tanimoto, 2000).

Local, regional, and teleseismic earthquakes were recorded continuously during the experiment. Most of the 83 stations, including those in the central part of the San Fernando Valley basin, recorded both local and teleseismic events with unprecedented clarity and waveform coherence. Scientific goals of the experiment were to 1) determine crustal thickness below the western Transverse Ranges, San Fernando Valley basin, and western Mojave Desert by receiver function analysis, and by analysis of *PmP* and *SmS* waveforms, 2) measure anisotropy along the line with special emphasis on the San Andreas fault region, 3) evaluate the potential for future strong ground shaking at sites in the basins, 4) determine whether the upper mantle high-velocity anomaly of the Transverse Ranges is a large regional feature or whether it bifurcates beneath the

Santa Monica and Santa Susana Mountains, and 5) determine the kinematic and dynamic relationship between crustal and uppermost mantle deformation in the convergent region.

The Los Angeles Region Seismic Experiment was first conceived in 1993, and the first phase in 1993-1994 consisted of three seismic lines across Southern California to study basin hazard and lithospheric structure. The LARSE II 1998-1999 passive array complemented the 1993-1994 arrays by providing high-resolution earthquake waveform data to image subsurface structures and to estimate the potential for future strong ground shaking in western Los Angeles County. The LARSE II passive array ran through the epicentral region of the 1994 Northridge earthquake and was designed to answer questions about why particular areas suffered amplified shaking. In addition, its location was motivated by the need for a more detailed velocity model for the upper few kilometers in the San Fernando Valley basin to aid in determining aftershock locations, ground-motion amplification effects, and simulating long-period strong motion.

The array was designed and maintained by UCLA seismologists, and the experiment was a collaboration among UCLA, USC, Caltech, and U.S. Geological Survey scientists. Seismometer installation and pickup were made possible by a large number of volunteers from these institutions.

ARRAY DESIGN

The array layout was designed to complement the 1994 LARSE Line 2, an onshore-offshore and a marine multi-channel seismic survey along essentially the same line (ten Brink et al., 1996). The LARSE II passive array was almost linear and began near the coast of Santa Monica Bay. The array extended N7°E through the Santa Monica Mountains, eastern San Fernando Valley, Santa Susana Mountains, Santa Clarita Valley, Transverse Ranges, and western Mojave Desert (see Table 1; Fig. 1). Sites were chosen based on availability of continuous

power and on site security. Station names from “001” to “084” were chosen to give an estimate of distance from the coast in km (with errors ~ 2 km). Although 84 stations were originally planned, we never received permission to install station 034; thus it does not appear on any tables in this report. Stations were 1.5-2.0 km apart on average in the Santa Monica Mountains, San Fernando Valley, and Transverse Ranges, and up to 3 km apart in the Mojave Desert. The total length of the array was 93 km.

The LARSE II passive array was followed by the active (onshore explosion) phase in Fall, 1999, along the same approximate corridor. The explosion profile was less than 5 km at maximum from the passive stations. Approximately 100 shots were detonated along this line and recorded at 1400 seismometers over a 150 km array. The primary crustal imaging targets of this experiment were the buried Northridge earthquake fault, and the thrust faults beneath the Santa Monica and Santa Susana Mountains. A goal of the active survey was to obtain high-resolution images of upper crustal velocity structure below the San Fernando Valley basin and mountains. For more information on the active survey, see associated Open-File Reports (Fuis et al., 2001; Murphy et al., 2002).

INSTRUMENTATION AND FIELD MAINTENANCE

The LARSE II passive data recording units consisted of Reftek Data Acquisition Systems (DAS) with 16-bit and 24-bit digitizers. See Tables 2 and 3 for instrumentation locations and configuration. All DAS's recorded a continuous data stream at 25 sps. Most DAS's recorded continuous data as a 24-bit word (represented as a 32-bit integer) that was then compressed using the Steim-2 compression algorithm. All broadband and a few short-period stations also recorded a triggered data stream at 50 sps as 32-bit words. However, a few DAS's were able to record continuous and triggered data streams only as 16-bit words and most short-period stations were

equipped with DAS's that were unable to record a triggered data stream concurrently with the continuous stream. Each instrument recorded data in record lengths of approximately one hour and each hour-long record was automatically written to an external hard disk. Triggered data were also written to disk hourly but their record lengths were determined by signal-to-noise ratios and thus varied in size. Raw Reftek data were image copied onto DAT disks in the lab because the external field disks had to be immediately returned to the field after reformatting.

Sensors were all three-component; 37 were broadband and 46 were short period (Table 2). Broadband sensor types consisted of Guralp CMG-3T (120-second natural period), CMG-3ESP (30-second), and CMG-40T (30-second) seismometers. Short-period sensors included Mark Products L4C3D (1 Hz) and L22 (2 Hz) seismometers. Approximately 80% of the DAS's, sensors, external disks, and GPS clocks were supplied by the Incorporated Research Institutions for Seismology (IRIS) Program for the Array Seismic Studies of the Continental Lithosphere (PASSCAL). The Southern California Earthquake Center (SCEC) Portable Broadband Instrument Center (PBIC) managed by the Institute for Crustal Studies at the University of California at Santa Barbara supplied the remaining instruments. UCLA's collection of DAS's, external disks, and GPS clocks supplemented the array.

The extremely sensitive nature of the broadband sensors required much more care with installation than the short-period sensors. In addition to being larger, heavier, and more cumbersome, the broadband sensors were also more fragile and more sensitive to temperature fluctuations. To address these considerations, crude vaults were constructed to house them. First, a hole 3-4 ft in diameter by 3-4 ft deep was dug. Then, approximately 0.5 ft³ of quick-setting concrete was poured into the base of the hole. Next, a 1 ft² granite floor tile was pressed and leveled into the concrete. Magnetic north was marked with a straight line on the tile. Once the concrete

was stable, the sensor was aligned to the marked line and leveled according to a bubble spirit level built into the sensor. Plastic Rubbermaid[®] garbage cans (1.25 ft wide and 3 ft tall) were lined with a one-inch-thick layer of sheet insulation and placed over the sensor to protect it from temperature changes. The vault was then buried, and covered by a plastic sheet and soil to prevent water from flooding the sensor. Each broadband site took two to four hours to install by two people. One broadband sensor (site 062) was placed on a concrete slab porch and never buried. In contrast, the short-period sensors were simply buried in about 1 ft³ of soil.

The DAS's internal clock time-stamped the absolute date and time, and an external clock attached to a GPS receiver provided corrections to the internal clock. Twenty minutes before the hour, the external clock powered up for twenty minutes to obtain a lock, i.e., clock synchronization with a GPS satellite. When the DAS sensed the lock, it synchronized its internal clock with the external clock, thus adjusting the absolute time labels of the data by recording the adjustments in the log file. If the DAS's clock was within +11 or -5 milliseconds, the DAS gradually adjusted the internal clock over a period of a few minutes. If this tolerance was exceeded, the DAS 'jerked' the internal clock to the correct time. The GPS receivers also provided elevation and horizontal location data that were recorded in the station log file. Since the receivers relied on line-of-sight transmissions with the GPS satellites, they were placed on nearby roofs, fences, or open areas wherever possible to minimize local obstructions.

Car and boat batteries supplied direct power to the instruments. At most stations, local power supplies (e.g., a nearby electrical outlet) continuously recharged a single battery. Two batteries were connected in parallel where continuous A/C power was not available. An array of solar panels was sometimes installed to maintain battery voltage. Drained batteries were swapped for fresh batteries that were recharged at UCLA. At least 11.5 volts were necessary for

proper instrument function. A broadband station operating only on batteries could record approximately 14 days of data before the batteries were exhausted. However, a short-period station could record for 40 days or more on the same battery system.

Every station was visited approximately once every four weeks. External hard disks were swapped or data were downloaded to another disk using a copy system designed by PASSCAL. Events related to timing receivers, power, temperature, and data acquisition were automatically recorded in the log files for each DAS although some DAS's lacked the ability to record temperature and power. Operators communicated with the seismometer using a palmtop computer linked to the DAS and manually recorded the information requested on site visit forms. The Appendix contains a summary of operator notes taken during station visits. It shows unusual occurrences not recorded in the log files that may be relevant to data analysis.

The sophistication of the broadband sensors, CMG-3ESP and CMG-3T, ensured that the instrument responses of these sensors remain close to the manufacturer specifications by automatically receiving a calibration centering pulse from the DAS every five days. The CMG-40T did not have this calibration feature. The short-period sensors, L4C3D and L22, however, can vary significantly from manufacturer specifications. Thus, all of the short-period sensors were manually calibrated approximately four months after the experiment began, and again shortly before the end of the experiment.

The sensors recorded velocity as voltage. True amplitude can be obtained by entering individual sensor parameters into the instrument removal response code contained in the Seismic Analysis Code (SAC) software routine *transfer* (produced at Lawrence Livermore). More information, a tutorial, and manual on SAC can be found at <http://www.llnl.gov/sac/>. The three parameters that define amplitude sensitivity are the free period of the sensor, the observed gen-

erator constant, and the observed damping ratio. The calibration parameters were obtained by Mike Watkins and processed by Aaron Martin using the method of Rodgers et al. (1995) to obtain the generator constant, free period, and damping constant of each short-period sensor. The resulting values for each sensor component are given in Table 4.

DATA PROCESSING

The final raw data products obtained directly from the seismometers were 1) hour-long raw Reftek files containing the continuous waveform, 2) variable-length triggered Reftek files, and 3) state-of-health log files recorded at each station for each day of the experiment. The raw data were processed at PASSCAL using release 1.9.20 of the PASSCAL Database software suite that interfaced with the PostgreSQL (Ver. 6.2.1) database management system. Reference information for the PostgreSQL database management system can be found at <http://www.PostgreSQL.ORG>.

The database facilitated converting approximately 165 Gb of raw data into day-long volumes in Standard for the Exchange of Earthquake Data (SEED) format. For more information on the SEED format, see http://www.iris.washington.edu/manuals/SEED_chpt1.html. The final products of processing were 1) day-long, “dataonly” SEED volumes of only waveform data, and 2) “dataless” SEED volumes containing only header information. The dataless and dataonly SEED volumes were generated by the database software which also made timing corrections to the waveforms. See Fig. 2 for data processing steps.

Some timing problems occurred. Internal clocks at some stations did not lock regularly to GPS clocks due to malfunction, bad receiver-to-DAS cables, or obstructions blocking satellite-receiver line of site. Rarely, clock locks were not obtained for several weeks and in these cases the data are not time-corrected. Some clocks consistently reported erroneous phase errors. For

these, timing is unreliable and they are not time-corrected. The most common problem was a firmware bug that caused the DAS to adjust absolute time by one full second. This was only sometimes corrected automatically. As a consequence, the absolute time of some files/traces are incorrect by exactly 1 second. These occurrences are relatively easy to spot in traces when they are viewed together with other nearby stations in an event profile. Fig. 2 summarizes the data processing events chronologically.

EARTHQUAKE DATA RECORDED

Data recording began October 6, 1998 and continued until April 30, 1999 during which stations recorded local, regional, and teleseismic earthquakes (Figs. 3 and 4). The Preliminary Determination of Epicenters (PDE) catalog produced by the USGS National Earthquake Information Center provided source parameters for the teleseismic data. Of those, 144 earthquakes with magnitudes ≥ 5.5 were recorded by the LARSE II array (Table 5). The earthquake catalog of the Southern California Earthquake Center Data Center provided source parameters for local events. Of those, 2025 with magnitudes ≥ 2.0 were recorded the array (Table 6). During the months of December (the last week), and parts of January, February, and March, some data were irretrievably lost due to tape drive copying problems.

The data are currently archived in long-term storage at the IRIS Data Management Center (DMC) in Seattle, Washington. Requests for waveform data can be made via the DMC World Wide Web (www.iris.washington.edu) page using the data request software *weed* or *SeismicQuery*. These software tools automatically generate files in a format suitable for automatic data retrieval from the DMC. The requested data subset can be sent to a user via tape, ftp, or email. The data are in SEED format and can be converted to SAC trace files categorized by event directories using the IRIS DMC software *rdseed*. Note for these requests that the experiment network

code is “XN.” All CMG and L4 seismometers have the seed naming convention *BH* and the L22 seismometers have *BP*.

TRAVEL-TIME RESIDUAL INVERSION

We describe preliminary results from a three-dimensional inversion of the teleseismic travel-time residuals. Details will not be covered here since they will be more fully contained in a separate manuscript (Kohler et al., 2002). The teleseismic travel-time inversions for P-wave velocity variations in the lithosphere were computed with the goal of obtaining tomographic images to understand and provide geometric constraints to the dynamics of transpressional plate boundary deformation. P-wave teleseismic travel-time residuals from the LARSE II passive array were combined with travel-time residuals obtained from other dense arrays (Kohler et al., 1996; 2000) and from Southern California Seismic Network (SCSN) stations. The SCSN data consist of hand-picked teleseismic P-wave travel-time residuals compiled for several western United States tomography studies (Raikes, 1980; Humphreys et al., 1984; Humphreys and Clayton, 1990; Humphreys and Dueker, 1994) with the goal of improving the resolution of the tomographic images in regions of maximum compression near the plate boundary. Several SCSN stations located within 10 km of the LARSE II array were used to adjust the array residual data by a constant time shift for each event in order to make them consistent with the larger number of more evenly distributed regional SCSN residuals. Events within similar back-azimuth ranges were chosen for the adjustment.

The three-dimensional inversion uses previously determined crustal velocities and Moho depth variations from the SCEC 3D Seismic Velocity Model Version 2 (Magistrale et al., 2001) to remove the effects of crustal heterogeneity on the teleseismic travel times. Before inversion, each teleseismic ray is traced through the three-dimensional crustal model to 45 km depth in or-

der to make sure the total crustal thickness is included in the crustal correction. Rays are traced through the crust in 0.1 km depth intervals. Choice of starting model and crustal corrections affects the uppermost 20-50 km of the mantle. Thus, confidence in the uppermost mantle velocities should be governed by confidence in the independently determined crustal velocity heterogeneity and Moho depth variations. All arrivals were corrected for topography using a P-wave velocity of 5.5 km/s. LARSE II travel-time residuals illustrate the significance of three-dimensional velocity heterogeneity on the arrival times (Fig. 5). The residuals range from -0.8 to 1.0 s. The largest differences occur for back azimuth ranges 90°-135°, 135°-180°, and 225°-270°.

Below the LARSE II array, high uppermost mantle velocities underlie the southern two thirds of the array and are not centered beneath the San Andreas fault (Fig. 6). This is in contrast to the findings of lithospheric structure below the LARSE I array in which the high-velocity anomaly and crustal root are centered below the San Andreas fault (Kohler, 1999). The fact that the high-velocity anomaly is farther south below the LARSE II array with respect to the San Andreas fault is in agreement with the east-west nature of the anomaly. This suggests a closer kinematic relationship between the Transverse Ranges anomaly and rates (or total amounts) of north-south compression than with shear along the San Andreas fault. Near the LARSE I array where elevations are as high as 2.3 km, the depth of the high-velocity anomaly extends to at least 200 km depth (Kohler, 1999). However, near the LARSE II array the anomaly remains intact only to a depth of ~150 km and elevations reach only 1.2 km.

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Appendix A

This is a summary of notes taken in the field during station visits. This summary only contains accounts of unusual occurrences at the station which may not be recorded in the corresponding log file or dataless seed file included with the data archived at the IRIS DMC. The notes are organized by station number, then chronologically by station visit date.

Station No.	Time (yr:day:hr)	Comments
001	98:327:17	Found extension cord unplugged at outlet.
001	98:357:00	Reveled sensor. Bubble of spirit level was in SE quadrant of circle.
001	99:024:00	RAM and disk full. Weird. Temp power loss? No, not dumped before X-mas? Too few events. Parameters OK? Yes. Maybe disk not formatted on last visit? Check data.
001	99:052:21	No locks for ~18 days. Cycled cable--ULK PLN. Setup looks fine--cables uncut. Wait for lock. Check log file to see if event tried to lock. LK at 052:21:44, but why did it need the push?
001	99:075:19	No GPS lock for ~11 days. Cycled power, & status change from No Clock → UTC ULK. WAIT before STOP ACQ. LK at 075:19:11.
002	99:027:00	Sensor cable looks in bad shape—pulled away from yellow shrink tubing. Monitors look OK. Check data and maybe replace cable. Wrapped in electrical tape for now.
002	99:052:22	Sensor cable bad? Flatlines on stomp/monitor tests. Cycled sensor cable, DAS and sensor—No change. Cable looks intact. Need to look at data. Squirrely. Tried DAS 1054. Dead on all channels at first. 2 nd try channel. 2 sort of working. What's the deal? With DAS 1054 at flatlines/offset at +32767.
002	99:073:18	RAM weird. Memory used: 253, memory available: 259 with *SCSI. Partial dump? Cont. events every 20 secs. (:08, :28, :48, etc.). Bad parameters? Bad RAM chips? Events jumped to 9813 before stopping ACQ. Parameters look OK—pull DAS with power. Tried monitor and got “insufficient memory for monitor,” although showing 259 memory available. Cable looks bad--tested with L4 from #059 through calibration box. Left battery & sensor in bag/ground.
002	99:075:20	DAS install 7083. Replace fixed sensor cable 2 nd visit. Calibration pulses now look good—on DRS 5232 at 30 K ohm.
003	98:299:17	Battery lead was hooked up to the supply screw and vice-versa. I

switched them to correct positions. Doesn't look like parameters were uploaded.

003 98:327:18 Raised trigger ger ratio from 10.0-13.0.

003 98:356:23 Raised trigger ger ratio from 13.0-14.0.

003 99:028:00 Ant swarm between DRS and DAS. No lock for 17 days. Reseated cables and waited. Bad GPS position—talk to owner about moving clock on top of trailer? Tough to lock in canyon, bushes, trees, and trailer. Bring pulse clock next time if possible. Check log file and try other GPS next time. Maybe just bad ant. May need to place in Rubbermaid or other measures to avoid ants if problems arise.

003 99:056:17 GPS working better here, too. Still ants.

004 98:327:19 DAS 7075: not getting signal from sensor. Attached different sensor to DAS and still nothing (if you shake the sensor hard, a saturated signal shows up on the stomp test). Both sensors work on another DAS. Pulling DAS 7075. Installing DAS 7092. Reloaded parameters but didn't input sensor serial #.

004 98:355:23 Relevelled sensor. Bubble of spirit level was in the SE quadrant of the circle.

004 99:052:23 Copy system hung at 32% during copy system operation. Didn't format. Restart ACQ and return with replacement 07 as soon as possible.

004 99:056:18 Revisit. Copy system hung first time around. OK, worked this time—no drama. Just need to be more persistent, it seems. Maybe SCSI cable slipped last time.

005 98:327:20 Temperature and voltage reading coming from the DAS are inaccurate. DAS hard drive is very loaded.

005 99:053:00 Copy system hung at 34% on 1st try, similar to site 004. Maybe copy system disk only good to a point. Switched copy system disks in the bottom part of copy system and it worked.

006 98:299:19 Incorrect wiring again!! Battery lead attached to supply screw and vice-versa. Fixed problem. LVD was tripped. Disconnected battery to reset. Checked SCSI STATUS, message "SCSI device not formatted." Plenty of water in battery. Couldn't format new disk, "SCSI device not formatted." Reinitialized DAS. Tried new disk, got "Insufficient battery power," but there's 13.26 V going into disk. Battery at 11.98 V when I left.

006 98:303:19 GPS not locking. No parameters loaded. I loaded 3ESP file with station #. "SCSI not formatted", "Insufficient battery power." Swapped batteries, still no luck. Left station as is; did NOT start ACQ. Bad disk or DAS?

006 98:327:21 Station wasn't working because of bad SCSI cable. Reloaded parameters. Last lock 327:21:31.

006 98:355:21 Got lock 355:21:37 with a different clock, but when I put the original

clock back onto DAS, the DAS could now see the clock (UTC ULK PLN). Keeping original clock for now.

006 99:027:23 No GPS lock for 18 days. Reseated cables and waited—Nope. Plugged in good SCEC cable and GPS and waited 20 min—Nope. ULK PLN status, not No Clock, so comm port OK? Bad sky (blocked by tree and house)? Check log file to see if locks are typically infrequent. Not many options for repositioning GPS. Finally got a lock with original GPS and cable.

006 99:056:18 GPS seems better now.

006 99:090:17 Last lock at 087:05:59. Arrived with NO UTC CLOCK status. Power cycled GPS, waited for lock.

007 98:327:22 Disk filled up. Another DAS with a small disk. I dumped disk, let memory dump after I reformatted disk, and then copied to dump-disk again.

007 98:355:20 Dumped to copy system, formatted, stopped ACQ, accidentally cleared RAM and formatted disk before redumping. Left without clearing RAM.

007 99:006:19 Disked filled ~7 hours ago. Copied disk, then RAM.

007 99:023:23 Owner moved out and turned off power 2-3 days ago. Battery still OK, but copy system killed it. Lost RAM. Neighbor agreed to let us plug in at his place. Replace extension cord with longer black or green to camouflage it. Can we install outdoor socket? Calibration at 50 K ohm. Installed new DAS 7053.

007 99:053:01 No lock for weeks. Since last visit? DAS forgetting to trigger ger? LK almost immediately (< 3 min.) after cycling cable. What is happening with this at so many sites?

008 98:328:23 Had trouble starting ACQ because didn't notice that a start delay was set.

008 98:355:19 Disk full. Dumped to copy system, formatted disk, stopped ACQ, dumped to copy system.

008 99:006:19 Disk full. Dumped disk, then RAM.

008 99:023:21 RAM and disk full. Lost events in RAM. No battery backup for power loss. DAS 7103—Init—SCSI status: 527 Mb total. Clear, format, send. GPS LK? 1999:023:21:25.

009 98:300:00 Battery lead attached to supply screw, KEPCO lead attached to non-jumpered screw. Battery at 11.74 V. Fixed it.

009 98:327:00 Raised trigger ratio from 10.0-15.0.

009 98:355:19 Tried getting lock (different GPS receivers, cables, etc.), nothing worked. Raised trigger ratio from 15.0 to 17.0.

009 99:027:21 Many events—heavy traffic, dog, and stream? Trigger ratio already at 17.0. GPS knocked off top of DRS, so antenna not positioned well. Waited for new lock. Site needs a Rubbermaid (dog, etc.). Swapped GPS, but old one maybe OK—test. New GPS LK—OK at 027:21:30.

009 99:056:16 Last event doesn't make sense—ACQ START ON, RAM not full. Weird. Hung on “Waiting on SCSI command” during stop ACQ. RAM still used (not empty). Try to force autodump—OK, worked. But although showing STOP OFF, still collecting data (memory used increasing even after second try and clear RAM). Receive parameters → ”L98_DB09” and check SOH rec. Still collecting after reset and clear, and after INIT? After START ACQ, “last events” says no events in DAS. Bad RAM or?

009 99:090:17 Events reads “EVENTS +2”. There were no events in the event directory. SCSI stat 583.706. DAS still acquiring data after STOP ACQ. Reinitialized DAS, set trigger ratio to 20.0, but still acquiring in STOP OFF.

009 99:094:01 DAS acquiring data after STOP ACQ. DAS 1055 pulled. Installed DAS 0503 (02). Sent parameters, set trigger ratio at 20.0. This DAS is tripping. Can't get SCSI command. Come back tomorrow.

009 99:095:18 Disk was working fine, so I started ACQ.

009 99:103:01 Couldn't get DAS status. Can hear the relays constantly clicking, though.

010 98:299:20 Got an “Insufficient batter power” message when tried to format...formatted again and it worked fine.

010 98:355:17 Heard disk running, power cycled it (RAM full). After power cycling DRS, RAM dumped. ACQ went to START ON.

011 98:326:23 KEPCO has bad AC power cord. Replaced. Battery was at 11.3 V (DAS reported). So I swapped out battery. DAS only has 228 Mb disk, need to swap out.

011 98:338:22 Old GPS: 1197, new GPS 0407. Mike put GPS on roof; this didn't help!

011 98:355:18 Assumed disk was full on arrival, so I copied internal disk to copy system, first. Then formatted disk, RAM/dumped, then ACQ went back to ON. Then stopped ACQ.

011 99:006:18 Disk filled 2 hours ago. Couldn't dump RAM at STOP ACQ. Copy to copy system, format disk, events dump to disk, copy to copy system, clear RAM, format disk.

011 99:023:19 RAM and disk full. Calibrated at 40 K ohm. Dumped disk, then RAM to copy system. New 07 DAS (7059). DAS init—format—clear—send parameters. LK at 023:19:32. SCSI status—527 Mb available.

011 99:053:23 Wait for new lock before stop ACQ.

011 99:076:01 Toward end: accidental reset which screwed clock. Waited for new lock.

011 99:090:19 Re-leveled sensor.

012 98:338:20 Disk full—stopped ACQ, didn't clear RAM, dumped to copy system. After copy events to disk, SCSI 0.514 Mb used.

012	98:354:21	No locks—Reseated cables. Good position. No more spares. Used last spare GPS-GPS cable to lock, then stopped ACQ.
012	99:054:01	GPS hassle again. LK with reseating—wait—should be fine. Problem with new DAS? LK almost immediately. LK at 054:01:02.
012	99:076:23	Palmtop hung after format—lost communication. Terminal port seems loose, so maybe bad connection in faceplate.
012	99:090:21	Had to power cycle GPS here, too.
013	98:354:20	No GPS lock for 7 days. No more spares—move to roof?
013	99:026:22	GPS on roof seems to be working better.
013	99:076:23	Bad DAS? Maybe didn't START ACQ after calibration. Check log file. 38 memory used—force autodump. Hung on “Waiting on SCSI command.” Had to hit ESC to get out—weird. Memory or disk problems?
014	98:299:23	Battery lead attached to supply screw and vice-versa. Fixed it. Battery at 13.11 V when I wrapped up.
014	98:327:23	Looks like another bad disk (memory full). Got “Insufficient battery power” when stopping ACQ. Ants are storing larvae in disk? Raised trigger ratio from 10.0-14.0. Forgot control box, but no centering was needed.
014	98:356:22	Raised trigger ratio from 14.0-15.0.
014	99:060:17	No lock ~7 days. Cycled power and waited before stop. LK at 060:17:29.
014	99:102:23	Locked sensor.
015	98:328:00	Raised trigger ratio from 10.0-12.0. Channel 6 was on stops when I arrived.
015	99:027:17	RAM full? On stop “SCSI not ready”. Hung on SCSI status—cycle power at seat cables. “*” SCSI, but no autodump. Hangs on force autodump and reset DAS. Received parameters and SCSI status hangs. Power supply AC through SCEC charger #4 and gel cell. Fast charge light on, but seems battery low. Swap? Attach new disk and format—then autodumped and +SCSI. Didn't format just dumped. See SCSI status for new disk (593.761 Mb used—only last 35 Mb from 015.
015	99:056:21	Sensor in kids' play yard. Raised trigger ratio to 14.
016	98:328:19	Raised trigger ratio from 10.0-12.0
016	99:027:49	RAM full. 4.4 Gn on AC. On STOP ACQ, “Insufficient battery power”. Cycled power to disk and forced autodump—Nope. Hangs during SCSI status. Attached new disk (-SCSI), and reset DAS (*SCSI), and autodump—Nope. SCSI status—Nope. 2 nd attempt attaching new disk and reseating cables all around—autodump and +SCSI! Unfortunately, DRS had old, old data on it, so autodump appended but can't waste 2.5 Mb. See SCSI status above (287.512 Mb

used).

016 99:056:22 RAM full. Cycled power and SCSI, and started dumping immediately. Agghh.... Too much on disk for six events. Format didn't work last time or what?

016 99:086:00 Owner says GPS antenna interfering with TV reception. He decided to let it stay on roof, though.

017 99:026:20 RAM and disk full. Pulled DAS to dump. Hung during copy at 86%. Brought in extra battery and swapped copy system disks. First attempt, copy system didn't boot up. 2nd attempt copy system hung at 0%. Pull DAS and replace? 3rd attempt—past 0%--waiting again. Installed DAS 7101.

017 99:085:18 Copy system wouldn't boot, but would with another disk.

018 99:026:19 RAM and disk full. Copy system keypad not responding, as yesterday. Still locking next day—good GPS.

018 99:053:21 Keypad (?) not working again. Same site as before—why? Try another disk. Worked with different copy system disk. Strange.

019 98:299:21 Breakout box calibration jumper not inserted when I arrived. Owner said there was a quake in the morning that he felt.

019 98:326:21 Raised trigger ratio from 10.0 –14.0.

019 98:354:17 No GPS lock ~3 days. Tried power cycle and reseating cable at both ends. Swapped in GPS clock 1105 (replacing serial # 245) and waited, no change. Swapped in new cable (with new GPS) and got lock—no time here for further troubleshooting. Now STOP ACQ. Maybe strain on cable from steeply sloped roof. Use duct tape.

019 99:060:18 Power failure due to tripped switch on power strip in garage. SCSI failure on STOP ACQ, no dump. Reset DAS and force autodump. OK.

019 99:102:17 Locked sensor.

020 98:299:22 Clock was wrong when I started ACQ. Stopped ACQ at 1998:300:03:24:19. Set clock to 1998:299:22:41 according to my watch. Restarted ACQ at 1998:299:22:41:19 (+ SCSI, 2 events).

020 99:024:23 No lock ~11 days. Cycled GPS & waited 5 min., still no lock. Went from No clock to ULK, though. Check data for pattern—bad antenna?

021 98:326:20 KEPCO was wired to the board backwards, so battery wasn't charging. Found GPS clock cable not completely screwed into receiver. Restarted ACQ 98:326:19:56 to record lock. Stopped ACQ at 98:326:19:58. Battery at 11.7 V (DAS V) when I wrapped up.

021 99:024:22 RAM and disk full. Same as 001, what's going on?! Tried to copy RAM to copy system, but when copy system asked "copy y/n", and I press "y", no response. Tried twice. Broken copy system? Left

RAM on disk. Get it next time? Maybe low battery with calibration DAS...Nope. Unstuck keys on pad?...Nope. Power good all around, KEPCO, etc.

021 99:085:20 No lock ~2 days. Cycled cable at both ends—worked. LK at 085:20:42.

022 98:326:18 Sensor was dug up when I arrived. Owner had notified me of a couple of weeks ago. Need to check with him exactly when it was dug up. Repositioned, releveled, reburied sensor. Placed recording instruments on top.

022 99:024:20 Calibration at 50 K ohm. No response, comm or terminal. KEPCO OK, voltage is 13.6 V. Battery OK at 13.6 V. LVD OK, 13.6 V going into DAS. Power cycle port B...No. Power cycle port A...No. No response—pull and check out. Installed DAS 7043. Not getting lock—new cable and old GPS. After 5 min., no lock, just “ULK PLN”. Old cable and new GPS: after 5 min., no. Hope it works out, check later.

022 99:053:18 Have to use PASSCAL palmtop through comm port to wake up DAS. No lock 10 days? Reseated cable—ULK (just forgetting again?). Once again, should have great reception. Cable OK, etc. Waiting. LK at 053:18:29. Annoying.

022 99:085:21 Copy system problems, no data dumped.

022 99:090:22 Dumped disk, formatted, let RAM autodump, then stopped ACQ. The copy system hung at 99:057 (9%). Rebooted copy system...OK!

023 98:300:16 Moved GPS out from underneath tree. Power cycled DAS after disk swap. Stopped ACQ 1998:300:17:00 to power cycle DAS to get GPS lock. Reset DAS. START ACQ 1998:300:17:03 START ON, +SCSI, 2 events.

023 98:325:00 Memory full. “Insufficient battery power” message when stopped ACQ. Disk case very warm, almost hot, especially on top. Might have been the KEPCO on top. SCSI turned (+) after I unplugged power cable. Plugged power cable back in, events dumped from memory. Raised trigger ratio from 10.0-12.0.

023 98:356:21 Channel 4 not “off” enough to let me recenter. On the stomp test, I can see “stomps”, they’re just centered somewhat above 32767 counts. Bottom half of trace (all that I can see) looks OK.

023 99:025:22 Trouble formatting new disk #5231. “Insufficient battery power.” Bad disk? Still trouble with DRS #5495; not hearing it spin up. Battery shows 13.4 V and DAS responds. Responded after received parameters. -SCSI then +SCSI then OK—good. Channel 4 beyond range on monitor test, but OK.

023 99:056:23 Cycled power and SCSI to disk—Nothing. On stop ACQ, “SCSI device not ready.” Reset and receive parameters—SCSI still. Init →send—failed on writing parameters to SCSI. On SCSI status for new disk, “Insufficient batter power.” Battery at 12.54 V--& again.

		Bad SCSI cable? Looks new. Swapped SCSI & power cables—Reset—No change. DRS 5777 bad? Same setup with FD-03 working. Vertical channel off scale, maybe OK.
023	99:090:23	I can see a good signal on channel 4, but only the bottom half of it. Have anything to do with breakout box calibration jumper?
024	98:324:23	When stopped ACQ, got a “SCSI device not ready” message. When I tried to copy RAM to disk, got a “SCSI device full” message. Dumped disk, then reformatted. RAM dumped to disk. Reran disk (redumped) to copy system. Need to check data to see if it’s clipping. Need to swap with DAS with bigger disk.
024	98:327:18	Swapped DAS 7044 out for DAS 7093 because of 7044’s small disk. Reloaded parameters.
024	99:024:18	RAM and disk full. ACQ START OFF. Not formatted on last visit? Copied disk and RAM to copy system. Check log file from data dump to see what happened. Same as site 001.
024	99:053:17	Copy system problems again. Maybe SCSI cable is starting to flake out. Could use a field spare.
025	98:324:22	Raised trigger ratio from 10.0-13.0.
025	99:057:00	RAM full. Disk not full. Cycled power at SCSI cables. Feel disk spinning but it is not dumping. Force autodump worked. No GPS locks; disk died. Swapped GPS clock—took #1398, left UCLA01. Waited. LK in minutes.
025	99:091:22	Can still see signal on channel 5 on stomp test (though most of it is out of range). Channels 5 & 6 look fine now.
026	98:324:21	Can’t talk to DAS. AC OK. No blown fuse (power coming through other power port). Removing DAS 7052, installing DAS 7083. Reloaded parameters. Internal disk size is 528 Mb. Clock reset to my watch at 98:324:21:56:30. Couldn’t get lock while I was there. Removed pulse clock #324, and installed UCLA GPS01. Also changed GPS cable which was working, but chewed through.
026	98:353:22	Summary: Couldn’t get DAS to dump to copy system. ACQ restarted until new DAS could be installed.
026	98:356:20	Can’t dump to copy system. Swapping out DAS 7083. Installing DAS 7606 (72A-07/G). Used existing external GPS clock, left antenna in tub with DAS. Had to set clock manually 1998:356:20:51:00 to watch.
026	99:015:17	BAD clock/board. Calibration at 50 K ohm. Never locked, not even during install? Replacement 07? With known bad GPS board? Found GPS antenna with BNC connector in box—attached it—no change. Reseated exterior GPS cable to comm port—no change. WITH no starting point, end point wouldn’t do much good anyway.
026	99:053	Clock way off, never locked. Cycled GPS-comm cable. 07/G ant. in box, not plugged in, though. Pull ant. at GPS to test—leave in ACQ.

Plenty of room and try to get pulse later for time corrections.

026 99:085 No clock attached, pulled on last visit. Tried GPS-comm with GPS 0528—No clock. Same with GPS 245. Put on GPS antenna from site 047 and left in ACQ. Revisit soon.

026 99:091:02 99:134 first day for which we had data→99:204→99:085.

027 98:301:00 On last events, under stream it says, “CON25.” Parameters weren’t loaded. Couldn’t get a lock when I power cycled DAS, even when I used different cable. Bad GPS?

027 98:325:00 Tried everything to get a GPS lock before stopping ACQ. New comm-GPS cable. New GPS to GPS cable, and a new GPS clock and a GPS pulse clock. Comm port is working—at least for a PASSCAL palmtop. Status always reads “No UTC clock.” Last lock on julian day 281 as above. Stopped ACQ and power cycled DAS—still no clock. *Switched to 72A-08 DAS S/N 0695(SCEC). Went immediately to ULK and locked at 325:00:13.

028 98:324:21 Noisy all channels—tried power cycling DAS, but no change. Stomps can still be seen on monitor. Pump or A/C running right next door. Within 5 meters of sensor—can’t see (fence), but can hear.

028 98:353:19 ¾” water in bottom of tub. Can’t see how—drained & tried to seal lid better. Taped external plug. No apparent effect on equipment.

028 99:025:19 Calibration at 30 K ohm. No water leaking into bin this time. Stomps look terrible; check data. Clean monitor pulses, though during calibration tests.

028 99:060:19 Background noise bad.

028 99:091:21 RAM full on arrival. Disk not spinning. Copied events to disk—didn’t work. Changed SCSI cable and it worked fine.

029 98:353:02 GPS hasn’t locked—setup looks OK and DAS sees it. Reseated cables. Bad antenna? Waited 5+ minutes. Switched GPS #152 for GPS #0461. Waited 2 min. & LK PLL, so probably bad antenna. Now STOP ACQ.

030 98:300:18 Battery 030-2 fluctuates between 13.8-14.25 V. Dusted off solar panels with shirt.

030 98:324:19 SCSI status before copy events to disk = 20.481 Mb used. *Bad disk? Another 4.4 Gb. Looks like copy to old DAS OK, though. No parameter changes. Note—batteries not bagged, caused some problem? Bagged now.

030 98:353:17 3243 events? Crazy, it’s a quiet site except for gardening nearby. Used “last resort” disk on solar (all I’ve got); check soon. Low voltage—cloudy morning ~9:30 am; should be fine. Sensor power cable strain relief busted, wires a bit loose. Replace. Working now, may need to be reseated. Very touchy—busted centering device? Used control box. Need channel locks for calibration jumper.

030	99:014:23	Left 4.4 Gb disk on solar site—no others left, check soon. First few tries on stomp test looked bad—screwy sensor or power supply? Once again, sensor power cable needs replaced—strain release broken.
030	99:028:18	4.4 Gb disk on solar site and still good—unusual. Replace with 1.0 Gb anyway and replace sensor power cable. Crosswired sensor power cables. Need to replace fuse in breakout box—return later. Replaced fuse—OK. New cable seems to be helping. Monitors more consistent—better.
030	99:051:23	Disk never took data. –SCSI. Tried cycling, etc., No. Reset, dump, No. Swap drive—dumped OK. But too full to leave out. Format—lose it.
030	99:095:19	RAM full on arrival. Disk not spinning. Power cycled DAS. Let RAM dump. Stopped ACQ.
030	99:102:18	RAM full on arrival.
030	99:103:23	Bad board? LVD? Batteries at 13.4 V. Output from board only 8.0 V. Cycled negative terminal on battery, nothing. DAS won't respond. Draw power directly from battery. "SCSI device not ready" –reset—receive parameters—dumping OK on own.
031	98:324:19	Releveled sensor, still no change to high offsets on sensor check. I also got same offsets with a different L22 sensor. Bad DAS? 2 bad sensors?
031	98:353:00	Offsets look bad. Sensor may have shifted in planter, probably plants and lots of watering.
031	99:015:00	Calibration at 50 K ohm. Power failure due to loose wall outlet outside. Plug into bottom socket now on. Clock 13 days off before lock. LK just after power-up. Data on disk, so it died after ACQ for some time anyway. Copy system hung at 82%--problem with disk or SCSI termination.
031	99:015:22	Installed DAS 7075.
031	99:051:22	RAM and disk full. Filled too fast? When was last visit?
031	99:078:19	Disk filled up. Dumped internal disk first then stopped ACQ. Formatted disk, let RAM dump, stopped ACQ. Incorrect parameters loaded: preamp gain at 1 for channel 1, and data format was 32-bit (not CO). Reloaded and sent parameters to DAS.
032	98:351:21	When I stopped ACQ, I got a "SCSI device is full" message. Stopped ACQ after disk copy, let RAM dump to newly formatted disk, then performed another disk copy.
032	99:015:19	Dumped disk to copy system, format disk, let RAM dump, then stopped ACQ. Received parameters from DAS 7112. Swapping DAS 7112 for 07 DAS 7076. Formatted disk on new DAS sent parameters to DAS 7076.
032	99:057:00	1-2 inches of water in bin. Poked holes in bottom with screwdriver and drained it. Batteries died day 055.

033	98:351:23	Stopped ACQ 351:23:02 to look at offsets/stomp. START ACQ 351:23:06. Got lock, stopped ACQ. Installed L4C-3D #0278. Reloaded 08 parameters. Channel 5 seemed to have 0.5 Hz signal that was rather large.
033	99:015:20	Last event before 015:20:02 is 009:01:13:47. Dug up ESP sensor T3105. It had a ~1/8" of water on top of sensor. Installed ESP sensor T3175; left in existing cables and breakout box. Discontinued use of L4C3D sensor. Might not have reduced gain. Check log file.
033	99:057:01	Last CON event before new batteries, 1999:033:10:35:34. Clock locked at 057:01:02.
033	99:078:21	Memory full on arrival. Couldn't get SCSI +, dumped events to disk. Power cycled DAS, RAM dumped. DAS went to START ON.
035	98:353:00	GPS found turned upside-down. Tape down with duct tape. Freeway noise? Top bits cut off?
035	99:014:22	Weird calibration at 30 K ohm. Sensor just freaking out—2 nd time. Channel 4 offsets passed out just like 5 & 6 monitors, too. Big event or something? Power cycled DAS and reset DAS. Monitor noise top to bottom. Leave it for now.
035	99:060:20	Cycled GPS cable 060:20:31. Pulled GPS away from hill for lock. All channels clipped on noise test due to freeway traffic.
036	98:324:18	Can't get SCSI status, but can Force Auto Dump. Copy events to disk. Cleared RAM. Very funny signal on stomp/noise test. All channels were completely saturated (even with the sensor cable off). Power cycled DAS, and it was fine.
036	98:349:20	No control box—monitors look very good. Assume no need to recenter.
036	99:014:21	Bad disk or DAS? RAM full at first. Woke up with palmtop? GPS problems? When I first check status, RAM full and ACQ START OFF. Then it dumped RAM to disk and changed to ACQ START ON with no user intervention. Palmtop woke it up? Cycled power for a GPS lock, good location, should be locking fine. No lock ~10 minutes. Stopped ACQ.
036	99:051:00	Never accessed disk? Why not? Cycled power—Nah. Stop—Reset—Autodump—No. Cycle—copy d—d-- --SCSI. With new disk, autodumped right away. Left old data on new, untied old to check out, & didn't clear RAM.
036	99:078:18	RAM full, but dumped right away after power up and went into ACQ START ON. AC cord had been unplugged at post—accident? Last event ~Day 059. Last lock at 066:11:44—weird. Got new lock at 078:18:21 with #1364. Testing #245, waiting. Talked with owner, maybe loose horse hit plug. She'll keep an eye on it now.
036	99:102:18	Locked sensor.

037	98:324:18	8 days since last lock—Antenna looks OK, plugged in and fine position. Lost power and fell asleep? Memory available in RAM (1023). Memory used stayed same after STOP ACQ at 1537. Copy events to disk before clear RAM and cleared event directory—that dropped memory used to 0, but no change in SCSI status. Swapped DAS 7624 with DAS 7592. Formatted disk, reset DAS, START ACQ 98:324:19:01. START ON, 1 event, +SCSI.
037	98:349:20	No lock for ~3 weeks. Last visit? Antenna in good position. Tried cycling GPS by unplugging—stays at No UTC Clock—similar problem to another 07/G. Suggest replacement when possible. Tried external GPS through comm port. Nothing, still. No UTC clock.
037	99:014:20	Bad GPS card? Replace 07. No GPS lock; old problem here. Tried cycling GPS before STOP ACQ—no help. Need GPS—comm cord to hook up external. Stop ACQ. Calibration at 50 K ohm.
037	99:051:01	Replace DAS with good GPS or new antenna?
037	99:078:16	More copy system problems. Pull DAS anyway. Installed DAS 7110. Waiting for GPS lock with new DAS and GPS—ULK PLN. Start ACQ and return to check for lock.
038	99:014:18	Calibration at 50 K ohm.
038	99:078:19	No response at first. LVD tripped—swapped out SCEC AC charger and detached LVD. Used extra battery to power copy system, but copy system isn't booting again. Couldn't fix copy system problem. Just start ACQ and collect at pickup. Already cleared RAM.
039	98:300:20	Channel 4 not good; completely saturated. ~90 Hz signal (9 cycles in 0.1 sec) on all channels, but greatest on channel 4. Check data.
039	98:324:17	Found sensor cable unplugged! I didn't plug it back in during last visit.
039	98:352:21	DRS marked (#5284) "use as last resort" used. Vertical shot? Re-seated plugs, no help. Top of sensor tub outline seen through tarp--not buried deep enough?
039	99:051:00	Someone knocked all equipment and battery out of bag. Still functioning, no cable disconnected. Bring Rubbermaid, or dig into hill? Stopped ACQ before getting last event. Vertical gone? Blackout on monitor. Look at data.
039	99:078:21	GPS clock and DRS knocked from normal positions. GPS upside down, so no locks.
040	98:300:21	Disk filled up. Looks like 3ESP parameters weren't uploaded. The SHIPS parameters were in DAS.
040	99:013:23	RAM full. On STOP ACQ, "Insufficient battery power." Power cycle worked, started autodump. Maybe we should only leave out the good disks in field and use copy system to dump.
041	98:324:00	Raised trigger ratio from 10.0 to 12.0.

041	98:349:22	Stomp/noise test: ringy?
041	99:050:23	No lock ~4 hours, tree cover. Pulled into yard, power cycled and waited.
042	98:300:22	GPS hadn't locked since day 294. Stop ACQ 1998:300:23:47. Got a lock starting at 300:22:48 but not sure if it's from manually setting the clock to that time. Tried setting clock again (twice); didn't produce the "LK" message on DAS STATUS. Switched GPS receivers, installed #1040, removed #1365.
042	99:019:20	Installed new sensor cable to breakout box. Installed tub.
042	99:050:22	No DAS response. KEPCO failed? Initially 0 V going into board from KEPCO, and battery at 11.45 V—tripped LVD a while back. After cycling extension-KEPCO cord, KEPCO woke up and DAS responded. Screwy, but doesn't look too bad. May want to replace KEPCO and keep close eye regardless.
042	99:083:22	AC extension cord bitten through. Last continuous event before outage: 075:00:43:33. Clock was locked at START ACQ.
042	99:091:19	Can't wake up DAS. Disk spins, but can't talk to DAS at all. Pulled DAS 0476. Installed DAS 0506 (02). Loaded 02 parameters, but put in ESP calibration parameters.
043	98:324:16	I never started ACQ last time. GPS cable & sensor cable are chewed through; neither work. Need to come back to site. Pulled GPS cable. Found AC extension cord chewed on but still working, so I duct taped it.
044	98:324:00	GPS inside Rubbermaid—placed on top. Set station # in parameters, but not sensor # and type—need install sheet. Reset trigger ratio to 12.0 from 10.0--may need to be even higher—many events here, probably from family (next to trampoline).
044	99:013:22	RAM full. "?Insufficient battery power" on STOP ACQ. Power cycle didn't work. Swapped disks and formatted new. No autodump. Forced autodump worked. Old events in RAM on new disk.
044	99:043:00	Monitors all look OK. Cable still probably fine, but swap (sensor cable) anyway.
044	99:083:21	Raised trigger ratio from 12.0-15.0.
045	98:300:23	Parameters not sent to DAS. Guessing it's an ESP since there's no automatic unlock on breakout box. Pool filter running during sensor check. START ACQ 301:04:29:17 wrong time. STOP ACQ 301:04:29:46 wrong time. Clock then locked on its own...started ACQ.
045	98:324:00	Clock somehow changed when I started ACQ. It had already jumped 2 hours ahead. So I stopped ACQ at 98:324:02:25. Cleared RAM re-formatted SCSI, reset DAS, set clock manually, START ACQ 98:324:00:17. START ON, + SCSI, 1 event. *Every time DAS is

reset, DAS clock changes!

045 99:013:00 Strain release on SCSI cable broken; replace if possible. Sensor fell off pad? Horizontals on stops. Dug up—return to fix tomorrow—can't set tub down far enough. How? Tub not completely buried, but... Fairly level now, so start ACQ anyway.

045 99:013:18 Return visit to re-level and bury sensor. Components [masses] drifted since last night. Temperature variations? Bad sensor? Note: sensor missing center screw-plug under handle. OK? Bad calibration plug? Maybe just natural settling drift—bury, check data and return.

045 99:051:20 SCSI cable strain release busted—may need to replace. Seems OK...Nope..."Insufficient battery power" on format of new disk. 2nd try...Nope...No SCSI status either. Cables busted? Most obvious could be disk. OK.

046 98:323:23 Battery dead—GFI tripped. Charger only putting out 9.8 V. Put on new charger. Reset GFI. No station # or sensor serial #(0580) entered in parameters. Reloaded parameters, set trigger ratio at 12.0

046 99:013:21 Ran calibration tests at 50 K ohm ohm.

046 99:083:21 Another 90-Hz signal on channel 5, like site 039. Also on channels 5 & 6..

047 98:323:21 Found with ACQ off. Upon START ACQ, time jumped several hours. Then GPS locked within 2 minutes and it fixed itself.

047 99:013:20 Ran calibration tests at 50 K ohm.

047 99:050:19 Disk and RAM full ~4 hours.

047 99:079:00 Couldn't see stomp through noise though ground is very soft, and near a busy street.

047 99:116:23 Disk full. ACQ not stopped. ACQ stopped in lab.

048 98:323:21 For some reason, there was an activation of data stream 4. I deactivated it. Raised trigger ratio from 10.0 to 12.0.

048 99:012:23 Ram Full. 4.4 Gb disk on AC site. Power cycle didn't work. Copy events to disk. Said it worked by memory used didn't change. On STOP ACQ, "SCSI device not ready." Force auto dump didn't work, SCSI status works. Attached new disk and formatted—autodumped right after. Clear RAM after dump.

048 99:103:01 Weird sensor voltages. After re-center—not drifting as usual. Original readings false?

049 98:323:21 GPS pulse clock (S/N 148) found at site inside Rubbermaid. Swapped with standard GPS, S/N 337.

049 99:012:21 Channel 2 looked funny during calibration tests—more like a stomp than pulse on 2+, 2—weird pulse. Dug up—out-of-level—releveled. Now offset ranges look large, but calibration pulses look great. Just background noise?

049 99:050:17 Disk and RAM filled 10 hrs ago. Couldn't copy to one of the copy

system disks though it said I still had space. Wouldn't accept keyboard commands—hung at y/n? Don't know how swapping disks helped, but it did.

049 99:079:00 Lots of noise seen in noise test. Seems to be typical for this site. Tried a different sensor but it didn't make a difference. Noise seemed to increase with better coupling (e.g. more noise when sensor in ground as opposed to on the surface).

049 99:117:22 ACQ stopped in lab.

050 98:302:17 Problem with disk 51273; couldn't format disk.

050 98:323:18 Return with breakout box for sensor calibration check. Channel 6 looks funny, offset high—check after recentering. Sensor may have shifted. Dig up and releve?

050 99:012:19 RAM full at STOP ACQ (4.4 Gb on AC)—error “Insufficient battery power”—but at 13.2 V. AC OK. Board and KEPCO OK. Didn't clear RAM—SCSI status failed, same error. Cycled power to disk—dumped automatically. Cleared RAM—got SCSI status.

050 99:050:01 No lock for 23 days. Power cycled, came up ULK PLN. Looks fine. Pine tree cover as usual. Waiting—Pulled off roof to get from tree. Bad antenna? Return with spare? Finally LK PLL at 050:01:34.

050 99:083:18 No lock since last visit. Cycled GPS cable—working.

050 99:091:18 Got a lock at 091:18:03.

050 99:103:01 No lock since last visit (day 092)—cycled and left it until tomorrow.

051 98:352:18 New DRS, #51549, had problems before, but should work better on this site (with AC).

051 98:302:18 Replaced bad GPS cable (not sure if it's the comm port or the cable that was bad). For some reason, KEPCO wasn't charging battery, but it is now??? Last lock 302:18:56.

051 98:323:18 Station was dead when I arrived. Had to replace battery to get it running. Last continuous event before today was 317:16:15:54. Found water in KEPCO bag, but not in KEPCO box. Replaced KEPCO. Raised trigger ratio from 10.0-13.0.

051 98:349:23 Raised trigger ratio from 13.0-14.0.

051 99:017:22 Had to power cycle GPS to get DAS to 'see' it. Clock locked at 017:22:50. Raised trigger ratio from 14.0-17.0.

051 99:050:52 No clock lock for 11 days. Power cycled and waited, went to ULK PLN. LK after 10 min, can't say why. Setup looks generally fine. LK PLL at 050:00:43.

051 99:083:20 Power cycle clock to get DAS to recognize clock. Will come back. Locked 083:19:46.

052 98:302:19 After trying to center, EW channel (6) drifts for a while 'til it goes above 1 V, then I center again. The voltage jumps the other direction and keeps drifting in the direction the mass was moved to be centered.

052 98:323:19 On STOP ACQ, “Insufficient battery power”. Battery voltage fine

(13.03 V). Out from power board fine 12.98 V, so LVD OK. AC site, power should be OK all the time. Upon connection of new DRS—RAM dumped. Old disk as yet unformatted—so old events from some other site + new. Changed PARAM stream 2 trigger ratio from 10 to 12.

052 98:349:23 When I arrived, found DRS running and somewhat warm. RAM full. Power cycled DRS & RAM dumped.

052 99:017:22 Found disk spinning upon arrival. RAM full. Power cycled disk, let RAM dump, stopped ACQ.

052 99:051:20 DAS swap. Installed DAS 0632. Waiting on lock.

052 99:083:17 RAM full on arrival. Disk won't spin up on power cycle. Sounds like it tries but not enough power. Voltage goes from 12.9-11.9 V when I try to power cycle. Disk is in bad shape. Tried new battery but didn't do the trick. Formatted new disk, RAM dumped. Stopped ACQ. New disk hung on STOP ACQ. Didn't use the new disk and take a chance since it hung last time in the field.

052 99:103:02 "SCSI device not ready." Cycled cables—reset—received parameters—force dumped after STOP ACQ.

053 98:322:23 No lock had been achieved, GPS was in tub. Power cycled DAS; came back up START ON, + SCSI. Power cycling DAS set time to 1999:072:11:07. Reset time myself. Tried several different GPS cables and nothing worked. When stopping ACQ, got "SCSI device is full" message. But copy system says there's only 223 Mb on the disk. Copied events still in RAM to disk after formatting. Had to reload parameters. Swapped GPS cables. Removed GPS S/N 212 and replace with S/N 1120. Still couldn't get lock.

053 98:323:17 Still no clock lock. Removed DAS 7039 and installed DAS 7113 after disk copy. Clock locked at 323:17:20. DAS disk only 500+ Mb big.

053 99:049:23 No response through term port. OK through comm port, but...

054 98:322:22 Couldn't get DAS STATUS when I arrived. Appears LVD was bad—when DAS disconnected, voltage at station power terminals was ~12.7 V. When DAS was plugged into board, voltage was 7.4 V. Replaced board. DAS never started recording. Won't bother with disk copy. Had to reload parameters. Got a lock at 322:22:20. DAS voltage = 12.2 V when I left.

054 99:049:22 LVD had cut in, batteries at 11.3 V. Dead a few days—woke up in ACQ START ON with new batteries. SAND FLIES MUST DIE!!!

055 99:049:21 Calibration at 30 K ohm. Sensor number? Not on install sheet. Assume SCEC L4 (yellow cable).

056 98:322:19 Installed 2 tubs.

056 98:344:00 Changed station # in parameters from 46 to 56.

056	99:017:21	Raised trigger ratio from 10.0-12.0.
056	99:042:23	No voltage through breakout box and monitors look dead. Blown fuse replaced, probably all data useless.
056	99:070:02	Clock hadn't locked in several days. Returned and got a lock at 070:01:59.
058	98:302:20	Range on horizontal when car drove by was ~ 3000 counts. Dusted off panels with T-shirt.
058	98:322:17	Raised trigger ratio to 12.0 from 10.0.
058	98:349:18	Raised trigger ratio from 12.0-13.0.
058	99:017:19	Raised trigger ratio from 13.0-15.0.
058	99:042:23	Wow. 4.4 Gb disk on solar and it's OK. Amazing.
059	98:322:17	DAS STATUS shows only 512 blocks available (total). Memory un-seated? Stomp test very noisy.
059	98:343:23	Ring in sensor? I think DAS is responsible because of signal in channels 5 & 6 with no sensor attached.
059	99:017:19	Raised trigger ratio from 10.0-13.0. Signal looks ringy on horizontals.
059	99:048:20	Disk is hosed. Can't get it to spin up (even with SCSI power on). I will leave events in RAM. Pulled sensor 1110(SCEC). Installed sensor 0278(PASSCAL?). Still saw 'spike' signal and channel 5. Attached sensor and 08 DAS, and still saw signal. Is it the cable? When I plugged power back into DAS 0615 it started beeping and wouldn't stop. So I pulled power. ARGHH! Left the disk there. Might need to pull DAS. Try a different sensor cable.
059	99:059:00	DAS 0507 installed. Sensor 1110 installed. (Diagnosis notes too long to include.)
059	99:093:22	Can't get disk to wake up. It spins but can't get SCSI status or format. SCSI cable is fine. Disk FD-03 won't work either. Couldn't get anything to work. Probably needs some sun.
060	98:322:16	When stopped ACQ, got "SCSI device is full" message (77 memory blocks used). Copied what was left on RAM to new disk. RAM cleared. Raised trigger ratio to 14.0 from 10.0. Gate was open when I arrived (garbage maybe?).
060	98:349:19	"SCSI device not ready" when stopped ACQ. Ram full (probably a full disk)...Yep! After SCSI format, events dumped to disk! Raised trigger ratio from 14.0-17.0.
060	99:017:18	Clock has very peculiar time. Manually reset time to my watch 99:017:18:36:20. I will hit other stations to let the clock lock. See log file. Could plugging in of palmtop reawaken the DAS? It wasn't hissing before I plugged in the serial cable. Clock locked at 99:017:18:49. Raised trigger ratio from 17.0-20.0.
060	99:069:21	Got "insufficient battery power" when I tried to format disk 5243. Battery couldn't spin up disk. Pulled battery. Raised trigger ratio

		from 20.0-23.0. Sensor had very low counts on noise tests. Reloaded parameters and sensor was fine.
060	99:116:23	DAS “woke up” when I plugged in serial cable. Power cycled DAS to reset SCSI Stat. Clock is off, too.
061	98:317:00	DAS voltage=11.5 V.
061	99:048:22	Last event 069:22:27:46. Clock must have drifted after batteries failed. Clock locked ~2 min. after power was resumed.
062	98:302:21	Calibration jumper not inserted.
062	98:316:23	Changed trigger ratio from 10.0 to 12.0.
062	98:343:22	Couldn’t format disk 51594, “Insufficient power, even though plenty of DC going to disk (13.13 V). Put in different disk. Raised trigger ratio from 12.0-13.0.
062	99:008:17	Raised trigger ratio from 13.0-15.0.
063	98:316:22	Installed Rubbermaid tub for sensor equipment, not AC equipment.
063	99:008:17	Channel 5 is starting to become a bit off-center.
064	99:048:22	Batteries dead on arrival. Attached temporary battery to dump data. Batteries died on day 040.
064	99:117:18	ACQ stopped in lab.
065	98:315:23	RAM full. On STOP ACQ, “Insufficient battery power.” Check power board after LVD at 12.93 V, OK. SCSI STATUS, “Insufficient battery power” again. Can feel disk spinning. Cycled power in disk—woke up—dumped RAM, OK. Check disk for leak-through. Changed trigger ratio on stream 2 from 10 to 12.
065	98:343:18	Raised trigger ratio from 12.0-13.0.
065	99:008:20	Raised trigger ratio from 13.0-15.0
065	99:070:00	Can’t get a large signal out of channel 6. Why?
066	98:316:20	Raised trigger ratio from 10.0-12.0.
066	99:008:20	The one continuous event before 008:19:55:26 was 98:343:18:23.
066	99:042:21	Tub filled ~1” water and sediment. Runoff from hillside, no apparent effect on equipment, but did some bailing to help out.
066	99:069:23	Couldn’t format disk 5243. Raised trigger ratio from 12.0 to 15.0.
067	99:042:20	CALIBRATION NOTES ONLY. Still can’t get good current reading for calibrations. New batteries. Good leads. Fuses OK on FLUKE. Just low-none dropping current readings. Leads inside calibration box (green to ammeter) test and look OK. Same with both calibration boxes. What’s wrong? Hopeless today. Return for calibration. Same with L22 and L4s, FLUKE and WAVETEK, both calibration boxes, test leads and batteries.
067	99:117:18	Stopped ACQ in lab.

068	98:302:22	ESP parameters were loaded instead of 3T parameters.
068	98:315:22	Raised trigger ratio from 10.0 to 12.0. Installed tub for DAS/DRS/cables. Left KEPCO & battery in bag. Bad SCSI cable--swapped cables. AC connector to KEPCO was bad, need to replace and get new Rubbermaid container. START ACQ 1998:315:22:31. START ON, 2 events, + SCSI.
068	98:316:19	Installed new KEPCO cord. Placed KEPCO in new container and caulked container. With 101 events in less than a day, I raised trigger ratio from 12.0 to 14.0.
068	98:343:16	Raised trigger ratio from 14.0-15.0.
068	99:008:00	Raised trigger ratio from 15.0-17.0.
068	99:042:00	Raised trigger ratio from 17.0-19.0.
068	99:103:19	No lock since last visit. Cycle cable—wait ~10-15 min. at ULK. Switched clocks at 19:45. Still no lock and no options, so STOP ACQ.
069	98:315:21	Battery at 4.51 V. Charger was dead; not putting out voltage. Installed KEPCO, power board and wet battery. Caulk KEPCO box during next visit. After DAS dumped RAM, clock corrected itself and ACQ ON.
069	98:343:16	Raised trigger ratio from 10.0-13.0. Somehow clock jumped ahead while I was working; jumped ~22 minutes ahead. Power cycling DAS couldn't get clock to lock; reset clock manually to my watch.
069	99:008:00	Raised trigger ratio from 13.0-15.0.
069	99:042:00	Lots of noise on channel 5. Not sure where from but I can hear a large fan.
070	99:117:18	ACQ stopped in lab.
071	98:315:19	On STOP ACQ, "SCSI device not ready." Attempt copy events to disk. SCSI STATUS now 0.711 Mb used. Not all in RAM dumped? DAS not responding for a bit—came back after power cycle and switched to power port B from A. DAS dumped RAM to new disk after formatting automatically—reflected in SCSI STATUS (2.520 Mb used). Received parameters, all looks good.
071	98:343:00	12/8/98: Couldn't get GPS to lock. Will return tomorrow to give it time to lock.... I found GPS hanging vertically on the bush branches.
071	98:343:15	Raised trigger ratio from 10.0-12.0.
071	99:008:22	Raised trigger ratio to 14.0 from 12.0.
071	99:041:19	Power cycling GPS at DAS port caused UTC ULK PLN to appear. Visited site 072 and came back. Last lock now 99:041:18:59.
071	99:063:23	ACQ never started at last visit!! ARRGH!!!
072	98:302:23	Power supply cord connector from KEPCO to power board was backwards. Need to recaulk box. KEPCO blown; only works when

tipped on its top (where the connections are). Will repair tomorrow. Water was inside box.

072 98:303:23 Replaced KEPCO. All the events are probably from puppy. Need to ask if I can put some kind of fencing around sensor.

072 98:342:23 Owner said she had the trees trimmed. Raised trigger ratio from 12.0-13.0.

072 99:008:23 Lots of events could be from cutting another tree down. Raised trigger ratio from 13.0-15.0.

072 99:041:19 RAM full. Disk spinning on arrival. Power cycled disk and RAM dumped. ACQ changed to START ON.

072 99:064:00 Disk 51273 hung on SCSI format (it was spinning, though). Raised trigger ratio from 15.0 to 20.0.

073 98:303:22 Found GPS lying upside-down; turn it back over. Clock locked as I started ACQ.

073 98:315:17 Raised trigger ratio to 12.0. Installed plastic bin, left battery in bag.

073 98:342:23 Raised trigger ratio from 12.0-13.0.

073 99:007:23 Raised trigger ratio from 13.0-15.0.

073 99:042:20 Raised trigger ratio from 15.0-17.0.

073 99:103:20 No lock since last visit. Cycled cable and wait. Return, new LK at 103:18:52.

074 98:315:01 Found tub cover open and battery bag open. Put out sign.

074 99:007:22 Funny step-function-like signal on channel 5. Swapped L22 sensors. New sensor 978L, old sensor 972L.

075 98:303:21 Dusted off solar panels. Heard loud rumbling 21:35:25.

075 98:342:19 Looks like power just came on as I arrived. Last continuous event before 342:19:19:45 was 326:00:30:49.

075 99:042:21 Heard disk spinning when I arrived, probably RAM dumping. I'm just going to leave it running. Not performing disk swap.

075 99:064:20 Got lock 064:19:44. RAM full on arrival. Connecting serial cable seemed to wake DAS up. RAM dumped itself. Installed DAS 1066. Pulled DAS 0379.

076 98:315:18 Found bin with top on but not latched down.

077 98:314:23 STOP ACQ 1998:314:23:39. Clear RAM. Reset DAS. START ACQ 1998:314:23:40. START ON, 1 event, +SCSI.

078 98:303:20 Dusted off solar panels with shirt. When I stopped ACQ, palmtop hung on "waiting on SCSI command." Tried to recenter but it wouldn't. Stopped ACQ 303:20:27. Power cycled DAS. Reinitialized DAS. Reload ESP parameters. Reset DAS. START ACQ 1998:303:20:43. START ON, +SCSI, 1 event. Check RAM when we revisit.

078	98:314:22	Installed 2 tubs for batteries and DAS.
078	98:342:16	Raised trigger ratio from 12.0-13.0. Not sure if I uploaded parameters. Check log file.
078	99:063:21	RAM full on arrival. Had to power cycle DAS to get RAM to dump. Copied events to disk before DAS power cycle. ACQ went to START ON.
078	99:103:17	RAM full. Disk hung. Cycled cables—reset. Received parameters—dumped on its own.
079	99:116:19	Disk full, ACQ not stopped.
080	98:303:19	I had mistakenly loaded ESP parameters on my last visit. Loaded 3T parameters. Tried to recenter using breakout box; didn't work. I guess EW channel not out of alignment enough. Installed Rubbermaid tub.
080	98:314:17	Changed trigger ratio parameter on stream 2 from 10 to 12. Dog uncovered sensor. Need flag stones—used scrap wood from owner temporarily.
080	99:007:18	When I arrived, station was dead. Battery 11.5 V. A circuit breaker was turned off but not sure when. “SCSI device not ready” when stopped ACQ. Performed “copy events to disk” and cleared event directory. Raised trigger ratio from 12-13.0. Clock was locked at start ACQ.
080	99:042:01	4.4 Gb disk. RAM full, START OFF. Cycle power to disk, nothing. Cycle power to DAS—No. Force autodump—dumped. Clear RAM.
081	98:314:17	Memory was full when I arrived (2560 used, 0 available). DAS voltage was 10.3 V. Detached batteries temporarily. Put on new battery to spin up disk. Still got “Insufficient battery power” with 12.1 volts in DAS (and with 12.8 V). Solar panels at 1.31, 1.14, 1.25 amps. SCSI STATUS would go to “+” while trying to get SCSI STAT. Clearing RAM gave “+” SCSI. Disk does spin up. After I put a new disk on, DAS “saw” original disk. Installed container for DAS/disk only. Will have to let batteries charge and come back to START ACQ.
081	98:339:21	Funny time jump at START ACQ. Will fix itself at next lock.
081	99:007:17	Raised trigger ratio from 12-13.0.
082	99:007:17	Got a “SCSI device not ready” when I stopped ACQ. Disk full. Dumped to copy system, formatted disk, let RAM dump to disk, then redump to copy system.
082	99:028:18	RAM and disk full. Copied disk and RAM to copy system. New DAS installed, #7110.
082	99:051:17	Didn't dump data. Cleared RAM. Left in ACQ. Copy system problems.
082	99:061:01	Copy system failed as before. Copy system should be OK. Problem

with DAS, even used a 3rd battery. Installed DAS 7609.

082 99:082:21 DAS not responding. LVD tripped. Batteries at 11.8 V, couldn't untrip. Looks like LVD not charging batteries, though solar panel each pumping out 17-18 V—good sunlight. Swapped LVD's without power re-initialized. Tried to use copy system but it won't boot. Problem with DAS. Leave in field until pickup—plenty of room. Careful with data. Look for first 124.

083 98:303:18 Owner said they've been having a lot of sonic booms last 3-4 weeks.

083 98:314:21 Installed 2 Rubbermaid tubs to replace tarp covering. Note—DAS not responding due to lack of power; LVD tripped. Reset by disconnecting negative terminals on both batteries. Received error “?SCSI device not available” during STOP ACQ. Ram Full—after ACQ stopped use F5-2-0—copy events → disk to collect events in RAM. Seemed to work—no errors and could hear disk spin up, but remained (-) SCSI as before. Bad solar panel in center? Possibly spilled battery acid—replace.

083 98:316:18 Replaced the middle solar panel (0.93 Amps) with SCEC solar panel. Reburied cables.

084 98:314:19 Could use new battery-to-board lead. Scorched negative end of battery connector; may come loose but generally looks OK. DAS voltage at 12.2 V when left site.

084 99:041:23 Too cold for calibrations. Tried various methods, but rechargables just can't pump the juice today. Return with Energizers. Snow. Even the palmtop is sluggish.

Table 1. Geographical coordinates and elevations of instruments in the array. North latitude and east longitude are defined as positive. Elevations and associated errors were read directly off USGS quad maps in feet and converted into meters. MSL: elevations are based on Mean Sea Level Datum. NGVD 1929: elevations are based on National Geodetic Vertical Datum of 1929.

Station No.	Latitude (°N)	Longitude (°E)	Elevation (m)	Elevation Error (m)	Measurement Basis	City
001	34.04270	-118.57628	67	3	MSL	Malibu
002	34.05517	-118.58192	53	6	MSL	Malibu
003	34.05772	-118.58385	61	3	MSL	Malibu
004	34.07053	-118.60523	488	8	MSL	Topanga
005	34.08292	-118.60180	300	3	MSL	Topanga
006	34.08936	-118.58999	396	8	MSL	Topanga
007	34.09771	-118.59900	268	3	MSL	Topanga
008	34.10473	-118.58985	312	3	MSL	Topanga
009	34.11644	-118.59253	294	5	MSL	Topanga
010	34.12460	-118.58940	369	8	MSL	Topanga
011	34.13425	-118.59502	440	2	MSL	Topanga
012	34.14166	-118.55643	340	15	MSL	Tarzana
013	34.14927	-118.55459	329	3	MSL	Tarzana
014	34.15880	-118.55372	297	2	MSL	Tarzana
015	34.16783	-118.54910	253	2	MSL	Tarzana
016	34.17975	-118.55872	236	2	MSL	Tarzana
017	34.18921	-118.55852	226	1	MSL	Reseda
018	34.19531	-118.55084	225	1	MSL	Reseda
019	34.20439	-118.54510	227	1	MSL	Reseda
020	34.21500	-118.55048	233	1	MSL	Reseda
021	34.22171	-118.54232	236	1	MSL	Northridge
022	34.23217	-118.53963	250	1	MSL	Northridge
023	34.23858	-118.54895	254	1	MSL	Northridge
024	34.24938	-118.54504	271	1	MSL	Northridge
025	34.25827	-118.54662	295	1	NGVD 1929	Northridge
026	34.26657	-118.54388	319	1	NGVD 1929	Northridge
027	34.27596	-118.54338	378	5	NGVD 1929	Northridge
028	34.28500	-118.53683	411	30	NGVD 1929	Northridge
029	34.29363	-118.54120	465	8	NGVD 1929	Northridge
030	34.30131	-118.52672	503	30	NGVD 1929	Granada Hills
031	34.30885	-118.50705	404	3	NGVD 1929	Granada Hills
032	34.32391	-118.54609	820	3	NGVD 1929	Sylmar
033	34.32838	-118.53564	768	5	NGVD 1929	Sylmar
035	34.34668	-118.53566	518	15	NGVD 1929	Newhall
036	34.35315	-118.52990	515	9	NGVD 1929	Newhall
037	34.36476	-118.52963	431	8	NGVD 1929	Newhall
038	34.37451	-118.53525	413	5	NGVD 1929	Newhall
039	34.38177	-118.52308	402	3	MSL	Newhall
040	34.39109	-118.52611	390	5	MSL	Newhall
041	34.40124	-118.52325	389	15	MSL	Saugus
042	34.41053	-118.52483	381	6	MSL	Saugus
043	34.42049	-118.53334	393	3	MSL	Saugus
044	34.42964	-118.52795	369	3	MSL	Saugus
045	34.43823	-118.53050	416	5	MSL	Santa Clarita

Station No.	Latitude (°N)	Longitude (°E)	Elevation (m)	Elevation Error (m)	Measurement Basis	City
046	34.44773	-118.53221	395	3	MSL	Saugus
047	34.45805	-118.53396	410	6	MSL	Saugus
048	34.46661	-118.53050	450	23	MSL	Saugus
049	34.47575	-118.52780	450	23	MSL	Saugus
050	34.48688	-118.54485	396	2	MSL	Saugus
051	34.49243	-118.54067	411	5	MSL	Saugus
052	34.50338	-118.53688	424	3	NGVD 1929	Saugus
053	34.51241	-118.53658	430	6	NGVD 1929	Saugus
054	34.52348	-118.53162	445	3	NGVD 1929	Saugus
055	34.53208	-118.52822	482	9	NGVD 1929	Saugus
056	34.53726	-118.53052	526	5	NGVD 1929	Saugus
057	34.54668	-118.51605	536	12	NGVD 1929	Saugus
058	34.55704	-118.49907	543	6	NGVD 1929	Saugus
059	34.56486	-118.48949	555	6	NGVD 1929	Saugus
060	34.57004	-118.46435	590	6	NGVD 1929	Saugus
061	34.57863	-118.46000	622	12	NGVD 1929	Saugus
062	34.58570	-118.45444	628	6	NGVD 1929	Saugus
063	34.59472	-118.44653	671	6	NGVD 1929	Saugus
064	34.60255	-118.44747	780	30	NGVD 1929	Saugus
065	34.61393	-118.43424	814	6	NGVD 1929	Saugus
066	34.61753	-118.44057	817	9	NGVD 1929	Saugus
067	34.63052	-118.44325	957	6	NGVD 1929	Saugus
068	34.64352	-118.49396	983	5	NGVD 1929	Lake Hughes
069	34.65355	-118.47957	885	3	NGVD 1929	Lake Hughes
070	34.66188	-118.45898	939	6	NGVD 1929	Lake Hughes
071	34.66982	-118.45613	1012	12	NGVD 1929	Lake Hughes
072	34.67625	-118.45313	981	3	NGVD 1929	Lake Hughes
073	34.68737	-118.45563	1071	3	NGVD 1929	Lake Hughes
074	34.69556	-118.45554	1151	6	NGVD 1929	Lake Hughes
075	34.70863	-118.46680	1076	12	NGVD 1929	Lancaster
076	34.71492	-118.45672	984	5	NGVD 1929	Lancaster
077	34.72401	-118.45743	887	3	NGVD 1929	Lancaster
078	34.73955	-118.47292	892	3	NGVD 1929	Lancaster
079	34.75386	-118.46614	867	2	NGVD 1929	Lancaster
080	34.77290	-118.46740	848	2	NGVD 1929	Lancaster
081	34.79841	-118.46489	819	1	NGVD 1929	Lancaster
082	34.82651	-118.47645	831	2	NGVD 1929	Lancaster
083	34.83426	-118.46704	824	2	NGVD 1929	Rosamond
084	34.86748	-118.45253	872	3	NGVD 1929	Rosamond

Table 2. Sensor type and Data Acquisition System data format. See text for description of sensor types. Sample rate is in sps, and “Con” and “Trig” refer to continuous and triggered data streams, respectively. Stations with more than one entry indicate a change in hardware during experiment. See the network configuration table (Table 3) for exact time of change and hardware serial numbers.

<u>Station No.</u>	<u>Sensor Type</u>	<u>Sample Rate</u>		<u>Digitizer</u>	<u>Data format</u>		<u>Preamp gain</u>
		Con	Trig		Con	Trig	
001	L22 2Hz	25	--	24-bit	CO	--	32
002	L4C3D 1Hz	25	--	24-bit	CO	--	32
003	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
004	L22 2Hz	25	--	24-bit	CO	--	32
005	L4C3D 1Hz	25	--	24-bit	CO	--	32
006	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
007	L4C3D 1Hz	25	--	24-bit	CO	--	32
008	L4C3D 1Hz	25	--	24-bit	CO	--	32
009	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
				16-bit	16-bit	16-bit	1?
010	CMG-40T 30s	25	50	24-bit	CO	32-bit	1
011	L22 2Hz	25	--	24-bit	CO	--	32
012	L4C3D 1Hz	25	--	24-bit	CO	--	32
013	L22 2Hz	25	--	24-bit	CO	--	32
014	CMG-3T 120s	25	50	24-bit	CO	32-bit	1
015	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
016	CMG-40T 30s	25	50	24-bit	CO	32-bit	1
017	L22 2Hz	25	--	24-bit	CO	--	32
018	L22 2Hz	25	--	24-bit	CO	--	32
019	CMG-3T 120s	25	50	24-bit	CO	32-bit	1
020	CMG-40T 30s	25	50	24-bit	CO	32-bit	1
021	L4C3D 1Hz	25	--	24-bit	CO	--	32
022	L22 2Hz	25	--	24-bit	CO	--	32
023	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
024	L22 2Hz	25	--	24-bit	CO	--	32
025	CMG-3T 120s	25	50	24-bit	CO	32-bit	1
026	L22 2Hz	25	--	24-bit	CO	--	32
027	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
028	L4C3D 1Hz	25	50	24-bit	CO	32-bit	32
029	L22 2Hz	25	--	24-bit	CO	--	32
030	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
031	L22 2Hz	25	--	24-bit	CO	--	32
032	L22 2Hz	25	--	24-bit	CO	--	32
033	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
	L4C3D 1Hz						32
035	L4C3D 1Hz	25	50	24-bit	CO	32-bit	32
036	CMG-3T 120s	25	50	24-bit	CO	32-bit	1
037	L22 2Hz	25	--	24-bit	CO	--	32
038	L22 2Hz	25	--	24-bit	CO	--	32
039	CMG-3ESP	25	50	24-bit	CO	32-bit	1
040	CMG-3ESP	25	50	24-bit	CO	32-bit	1
041	L4C3D 1Hz	25	50	24-bit	CO	32-bit	32
042	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1

<u>Station No.</u>	<u>Sensor Type</u>	<u>Sample Rate</u>		<u>Digitizer</u>	<u>Data format</u>		<u>Preamp gain</u>
		Con	Trig		Con	Trig	
				16-bit	16-bit	16-bit	1?
043	L4C3D 1Hz	25	--	24-bit	CO	--	32
044	L4C3D 1Hz	25	50	16-bit	16-bit	16-bit	32
045	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
046	L4C3D 1Hz	25	50	24-bit	CO	32-bit	32
047	L22 2Hz	25	--	24-bit	CO	--	32
048	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
049	L4C3D 1Hz	25	--	24-bit	CO	--	32
050	CMG-40T 30s	25	50	24-bit	CO	32-bit	1
051	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
052	CMG-3T 120s	25	50	24-bit	CO	32-bit	1
				16-bit	16-bit	16-bit	1?
053	L22 2Hz	25	--	24-bit	CO	--	32
054	L4C3D 1Hz	25	--	24-bit	CO	--	32
055	L4C3D 1Hz	25	--	24-bit	CO	--	32
056	CMG-40T	25	50	24-bit	CO	32-bit	1
057	L22 2Hz	25	--	24-bit	CO	--	32
058	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
059	L4C3D 1Hz	25	50	16-bit	16-bit	16-bit	32
060	L4C3D 1Hz	25	50	24-bit	CO	32-bit	32
061	L4C3D 1Hz	25	--	24-bit	CO	--	32
062	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
063	CMG-40T 30s	25	50	24-bit	CO	32-bit	1
064	L22 2Hz	25	--	24-bit	CO	--	32
065	CMG-3ESP 30s	25	50-	24-bit	CO	32-bit	1
066	L4C3D 1Hz	25	50	24-bit	CO	32-bit	32
067	L22 2Hz	25	--	24-bit	CO	--	32
068	CMG-3T 120s	25	50	24-bit	CO	32-bit	1
069	L4C3D 1Hz	25	50	24-bit	CO	32-bit	32
070	L22 2Hz	25	--	24-bit	CO	--	32
071	CMG-40T 30s	25	50	24-bit	CO	32-bit	1
072	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
073	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
074	L22 2Hz	25	50	24-bit	CO	32-bit	32
075	CMG-3T 120s	25	50	24-bit	CO	32-bit	1
076	L4C3D 1Hz	25	--	24-bit	CO	--	32
077	L22 2Hz	25	--	24-bit	CO	--	32
078	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
079	L4C3D 1Hz	25	--	24-bit	CO	--	32
080	CMG-3T 120s	25	50	24-bit	CO	32-bit	1
081	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
082	L22 2Hz	25	--	24-bit	CO	--	32
083	CMG-3ESP 30s	25	50	24-bit	CO	32-bit	1
084	L4C3D 1Hz	25	--	24-bit	CO	--	32

Table 3. Network configuration showing time span, serial number, and type of hardware installed at a given station. This table does not show whether a station was actually recording data.

Station No.	Date effective	DAS No.	DAS type	Channels	Sensor No.	Sensor type
001	10/26/98-4/30/99	7096	72A-07	123	964L	L22
002	10/26/98-3/16/99	7067	72A-07	123	1108	L4C3D
002	3/16/99-4/30/99	7083	72A-07	123	1108	L4C3D
003	10/5/98-4/12/99	1033	72A-08	456	T3145	CMG-3ESP
004	10/26/98-11/23/98	7075	72A-07	123	953L	L22
004	11-23/98-4/30/99	7092	72A-07	123	953L	L22
005	10/30/98-4/30/99	7091	72A-07	123	1112	L4C3D
006	10/4/98-4/17/99	0235	72A-08	456	T3109	CMG-3ESP
007	10/26/98-1/23/99	7108	72A-07	123	1199	L4C3D
007	1/23/98-4/30/99	7053	72A-07	123	1199	L4C3D
008	10/27/98-1/23/99	7063	72A-07	123	1113	L4C3D
008	1/23/99-4/30/99	7103	72A-07	123	1113	L4C3D
009	10/6/98-4/5/99	1055	72A-08	456	T3125	CMG-3ESP
009	4/5/99-4/17/99	0503	72A-02	456	T3125	CMG-3ESP
010	10/5/98-4/17/99	1069	72A-08	456	T4510	CMG-40T
011	10/27/98-1/23/99	7078	72A-07	123	954L	L22
011	1/23/99-4/30/99	7059	72A-07	123	954L	L22
012	10/27/98-4/30/99	7094	72A-07	123	1847	L4C
013	10/27/98-4/30/99	7065	72A-07	123	962L	L22
014	10/6/98-4/16/99	0261	72A-08	456	T3465	CMG-3T
015	10/26/98-4/16/99	0593	72A-08	456	T3184	CMG3
016	10/5/98-4/17/99	0373	72A-08	456	T4512	CMG-40T
017	10/27/98-1/26/99	7099	72A-07	123	968L	L22
017	1/26/99-4/30/99	7101	72A-07	123	968L	L22
018	10/27/98-4/30/99	7107	72A-07	123	963L	L22
019	10/7/98-4/16/99	0114	72A-08	456	T3437	CMG-3T
020	10/6/98-4/16/99	1053	72A-08	456	T4511	CMG-40T
021	10/26/98-4/30/99	7072	72A-07	123	0582	L4C

Station No.	Date effective	DAS No.	DAS type	Channels	Sensor No.	Sensor type
022	10/26/98-1/24/99	7066	72A-07	123	970L	L22
022	1/24/99-4/30/99	7043	72A-07	123	970L	L22
023	10/6/98-4/16/99	0558	72A-08	456	T399	CMG-3ESP
024	10/26/98-11/22/98	7044	72A-07	123	950L	L22
024	11/22/98-4/30/99	7093	72A-07	123	950L	L22
025	10/7/98-4/17/99	0195	72A-08	456	T3466	CMG-3T
026	10/27/98-11/20/98	7052	72A-07	123	959L	L22
026	11/20/98-12/22/98	7083	72A-07	123	959L	L22
026	12/22/98-4/30/99	7606	72A-07/G	123	959L	L22
027	10/5/98-11/21/98	1066	72A-08	456	T3100	CMG-3ESP
027	11/21/98-4/17/99	1066	72A-08	456	T3100	CMG-3ESP
028	10/27/98-4/30/99	0554	72A-08	456	1114	L4C
029	10/27/98-4/30/99	7061	72A-07	123	961L	L22
030	10/5/98-4/16/99	0154	72A-08	456	T3152	CMG-3ESP
031	10/27/98-1/15/99	7062	72A-07	123	951L	L22
031	1/15/99-4/30/99	7075	72A-07	123	951L	L22
032	10/27/98-1/15/99	7112	72A-07	123	960L	L22
032	1/15/99-4/29/99	7076	72A-07	123	960L	L22
033	10/28/98-12/17/98	0594	72A-08	456	T3105	CMG-3ESP
033	12/17/98-1/15/99	0594	72A-08	456	0278	L4C3D
033	1/15/99-4/16/99	0594	72A-08	456	T3175	CMG-3ESP
035	11/24/98-4/30/99	1048	72A-08	456	0909	L4C
036	10/6/98-4/16/99	0344	72A-08	456	T3302	CMG-3T
037	10/26/98-11/20/98	7624	72A-07/G	123	967L	L22
037	11/20/98-3/19/99	7592	72A-07/G	123	967L	L22
037	3/19/99-4/30/99	7110	72A-07	123	967L	L22
038	10/27/98-4/30/99	7622	72A-07/G	123	956L	L22
039	10/6/98-4/16/99	1047	72A-08	456	T344	CMG-3ESP
040	10/5/98-4/16/99	0900	72A-08	456	T3174	CMG-3ESP
041	10/27/98-4/30/99	0883	72A-08	456	1200	L4C
042	10/15/98-4/1/99	0476	72A-08	456	T3142	CMG-3ESP
042	4/1/99-4/15/99	0506	72A-02	456	T3142	CMG-3ESP
043	2/10/99-4/30/99	7066	72A-07	123	0579	L4C3D

Station No.	Date effective	DAS No.	DAS type	Channels	Sensor No.	Sensor type
044	10/26/98-4/30/99	0500	72A-02	456	0279	L4C
045	10/5/98-4/15/99	0242	72A-08	456	T3150	CMG-3ESP
046	10/26/98-4/30/99	0884	72A-08	456	0580	L4C
047	10/26/98-4/30/99	7109	72A-07	123	949L	L22
048	10/6/98-4/16/99	0390	72A-08	456	T3187	CMG-3ESP
049	10/26/98-4/30/99	7114	72A-07	123	0578	L4C
050	10/6/98-4/16/99	1051	72A-08	456	T4624	CMG-40T
051	10/6/98-4/16/99	1027	72A-08	456	T318	CMG3
052	10/6/98-2/20/99	1054	72A-08	456	T3467	CMG-3T
052	2/20/99-4/16/99	0632	72A-02	456	T3467	CMG-3T
053	10/26/98-11/19/98	7039	72A-07	123	977L	L22
053	11/19/98-4/30/99	7113	72A-07	123	977L	L22
054	10/27/98-4/13/99	7289	72A-07/G	123	1201	L4C
055	10/25/98-4/29/99	7630	72A-07/G	123	0283	L4C
056	10/28/98-4/16/99	0110	72A-08	456	T4461	CMG-40T
057	10/25/98-4/30/99	7604	72A-07/G	123	966L	L22
058	10/6/98-4/16/99	0916	72A-08	456	T3180	CMG-3ESP
059	10/26/98-2/17/99	0615	72A-02	456	1110	L4C
059	2/17/99-2/28/99	0615	72A-02	456	0278	L4C
059	2/28/99-4/30/99	0507	72A-02	456	1110	L4C
060	10/27/98-4/30/99	0403	72A-08	456	1848	L4C
061	10/26/98-4/29/99	7287	72A-07/G	123	1316	L4C
062	10/6/98-4/16/99	1049	72A-08	456	T3111	CMG-3ESP
063	10/28/98-4/16/99	0630	72A-08	456	T4620	CMG-40T
064	10/26/98-4/29/99	7299	72A-07/G	123	969L	L22
065	10/8/98-4/16/99	0372	72A-08	456	T398	CMG-3ESP
066	10/27/98-4/29/99	0695	72A-08	456	1116	L4C
067	10/27/98-4/29/99	7599	72A-07/G	123	952L	L22

Station No.	Date effective	DAS No.	DAS type	Channels	Sensor No.	Sensor type
068	10/7/98-4/16/99	0906	72A-08	456	T302	CMG-3T
069	10/26/98-4/30/99	0629	72A-08	456	0581	L4C
070	11/25/98-4/30/99	7605	72A-07/G	123	957L	L22
071	10/7/98-4/15/99	0342	72A-08	456	T4618	CMG-40T
072	10/6/98-4/16/99	1052	72A-08	456	T3178	CMG-3ESP
073	10/7/98-4/16/99	1046	72A-08	456	T3151	CMG-3ESP
074	10/26/98-1/7/99	0528	72A-08	456	972L	L22
074	1/7/99-4/30/99	0528	72A-08	456	978L	L22
075	10/7/98-3/5/99	0379	72A-08	456	T3479	CMG-3T
075	3/5/99-4/16/99	1066	72A-08	456	T3479	CMG-3T
076	10/26/98-4/22/99	7286	72A-07/G	123	0273	L4C
077	10/27/98-4/22/99	7614	72A-07/G	123	975L	L22
078	10/5/98-4/16/99	0345	72A-08	456	T3104	CMG-3ESP
079	10/27/98-4/30/99	7056	72A-07	123	1111	L4C
080	10/15/98-4/16/99	0231	72A-08	456	T3303	CMG-3T
081	10/6/98-4/16/99	1045	72A-08	456	T3146	CMG-3ESP
082	12/15/98-1/28/99	7100	72A-07	123	973L	L22
082	1/28/99-3/2/99	7110	72A-07	123	973L	L22
082	3/2/99-4/30/99	7609	72A-07/G	123	973L	L22
083	10/6/98-4/16/99	0341	72A-08	456	T3149	CMG-3ESP
084	10/27/98-4/22/99	7602	72A-07/G	123	1115	L4C

Table 4. Values for the free period, generator constant, and damping ratio for each sensor that was manually calibrated. See Table 2 for cross reference to sensor type. Channel 4 (4a) refers to the vertical component, channel 5 (4b) refers to north-south, and channel 6 (4c) refers to east-west. Each number shown is the mean of positive and negative pulse polarities. Note that these factors can be different for different channels of the same station.

Table 4a (channel 4: vertical component)

<u>Station No.</u>	<u>Free Period</u> (s)	<u>Generator Constant</u> (volts/m/s)	<u>Damping Ratio</u>	<u>Date Effective</u>
003	30	2000	0.707	Beg.-End
006	30	2000	0.707	Beg.-End
009	30	2000	0.707	Beg.-End
010	30	800	0.707	Beg.-End
014	120	1500	0.707	Beg.-End
015	30	2000	0.707	Beg.-End
016	30	800	0.707	Beg.-End
019	120	1500	0.707	Beg.-End
020	30	800	0.707	Beg.-End
023	30	2000	0.707	Beg.-End
025	120	1500	0.707	Beg.-End
027	30	2000	0.707	Beg.-End
030	30	2000	0.707	Beg.-End
033	30	2000	0.707	Beg.-End
036	120	1500	0.707	Beg.-End
039	30	2000	0.707	Beg.-End
040	30	2000	0.707	Beg.-End
042	30	2000	0.707	Beg.-End
045	30	2000	0.707	Beg.-End
048	30	2000	0.707	Beg.-End
050	30	800	0.707	Beg.-End
051	30	2000	0.707	Beg.-End
052	120	1500	0.707	Beg.-End
056	30	800	0.707	Beg.-End
058	30	2000	0.707	Beg.-End
062	30	2000	0.707	Beg.-End
063	30	800	0.707	Beg.-End
065	30	2000	0.707	Beg.-End
068	100	1500	0.707	Beg.-End
071	30	800	0.707	Beg.-End
072	30	2000	0.707	Beg.-End
073	30	2000	0.707	Beg.-End
075	120	1500	0.707	Beg.-End
078	30	2000	0.707	Beg.-End
080	120	1500	0.707	Beg.-End
081	30	2000	0.707	Beg.-End
083	30	2000	0.707	Beg.-End

Table 4b (channel 5: north-south component)

Station No.	Free Period (s)	Generator Constant (volts/m/s)	Damping Ration	Date Effective
003	30	2000	0.707	Beg.-End
006	30	2000	0.707	Beg.-End
009	30	2000	0.707	Beg.-End
010	30	800	0.707	Beg.-End
014	120	1500	0.707	Beg.-End
015	30	2000	0.707	Beg.-End
016	30	800	0.707	Beg.-End
019	120	1500	0.707	Beg.-End
020	30	800	0.707	Beg.-End
023	30	2000	0.707	Beg.-End
025	120	1500	0.707	Beg.-End
027	30	2000	0.707	Beg.-End
030	30	2000	0.707	Beg.-End
033	30	2000	0.707	Beg.-End
036	120	1500	0.707	Beg.-End
039	30	2000	0.707	Beg.-End
040	30	2000	0.707	Beg.-End
042	30	2000	0.707	Beg.-End
045	30	2000	0.707	Beg.-End
048	30	2000	0.707	Beg.-End
050	30	800	0.707	Beg.-End
051	30	2000	0.707	Beg.-End
052	120	1500	0.707	Beg.-End
056	30	800	0.707	Beg.-End
058	30	2000	0.707	Beg.-End
062	30	2000	0.707	Beg.-End
063	30	800	0.707	Beg.-End
065	30	2000	0.707	Beg.-End
068	100	1500	0.707	Beg.-End
071	30	800	0.707	Beg.-End
072	30	2000	0.707	Beg.-End
073	30	2000	0.707	Beg.-End
075	120	1500	0.707	Beg.-End
078	30	2000	0.707	Beg.-End
080	120	1500	0.707	Beg.-End
081	30	2000	0.707	Beg.-End
083	30	2000	0.707	Beg.-End

Table 4c (channel 6: east-west component)

Station No.	Free Period (s)	Generator Constant (volts/m/s)	Damping Ration	Date Effective
003	30	2000	0.707	Beg.-End
006	30	2000	0.707	Beg.-End
009	30	2000	0.707	Beg.-End
010	30	800	0.707	Beg.-End
014	120	1500	0.707	Beg.-End
015	30	2000	0.707	Beg.-End
016	30	800	0.707	Beg.-End
019	120	1500	0.707	Beg.-End
020	30	800	0.707	Beg.-End
023	30	2000	0.707	Beg.-End
025	120	1500	0.707	Beg.-End
027	30	2000	0.707	Beg.-End
030	30	2000	0.707	Beg.-End
033	30	2000	0.707	Beg.-End
036	120	1500	0.707	Beg.-End
039	30	2000	0.707	Beg.-End
040	30	2000	0.707	Beg.-End
042	30	2000	0.707	Beg.-End
045	30	2000	0.707	Beg.-End
048	30	2000	0.707	Beg.-End
050	30	800	0.707	Beg.-End
051	30	2000	0.707	Beg.-End
052	120	1500	0.707	Beg.-End
056	30	800	0.707	Beg.-End
058	30	2000	0.707	Beg.-End
062	30	2000	0.707	Beg.-End
063	30	800	0.707	Beg.-End
065	30	2000	0.707	Beg.-End
068	100	1500	0.707	Beg.-End
071	30	800	0.707	Beg.-End
072	30	2000	0.707	Beg.-End
073	30	2000	0.707	Beg.-End
075	120	1500	0.707	Beg.-End
078	30	2000	0.707	Beg.-End
080	120	1500	0.707	Beg.-End
081	30	2000	0.707	Beg.-End
083	30	2000	0.707	Beg.-End

Table 5. Teleseismic events with magnitudes ≥ 5.5 that occurred during the experiment. Source information is from the Preliminary Determination of Epicenters (PDE) catalog published by the USGS National Earthquake Information Center.

yr	<u>Time (GMT)</u>					<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
	mo	day	hr	min	sec	latitude (°N)	longitude (°E)	(km)	
98	10	08	04	51	42.89	-16.12	-71.40	136	6.4
98	10	09	11	54	36.17	11.32	-86.45	68	6.0
98	10	10	16	29	8.18	-0.38	119.86	33	6.1
98	10	10	16	32	19.49	-0.40	119.84	33	6.0
98	10	11	12	04	54.74	-21.04	-179.11	623	5.9
98	10	11	21	44	16.19	-27.33	-63.33	582	5.6
98	10	11	23	36	22.37	-56.91	-142.62	10	6.3
98	10	11	23	57	30.05	-56.27	-143.19	10	5.5
98	10	14	02	54	4.45	-5.91	151.04	33	6.0
98	10	18	01	39	1.35	24.72	141.24	110	5.5
98	10	18	08	33	54.06	19.28	145.34	152	5.5
98	10	19	01	25	1.01	-17.27	167.76	33	6.0
98	10	23	01	48	51.60	-2.42	-76.36	146	5.5
98	10	27	01	38	52.88	-3.55	123.16	33	5.7
98	10	27	11	33	37.33	33.49	141.40	33	5.8
98	10	27	21	16	0.21	2.92	128.62	60	5.9
98	10	28	16	25	3.84	0.84	125.97	33	6.6
98	10	28	21	39	52.97	11.98	143.53	33	5.5
98	11	02	23	10	59.21	43.67	147.62	57	5.5
98	11	08	07	25	48.51	-9.14	121.42	33	6.4
98	11	09	05	30	14.40	-6.95	129.02	33	6.7
98	11	09	05	38	44.22	-6.92	128.95	33	7.3
98	11	11	23	20	47.23	-34.56	179.79	33	5.5
98	11	11	23	36	33.72	1.08	-85.28	33	5.7
98	11	14	15	03	12.07	-14.95	167.37	115	6.0
98	11	15	02	44	12.38	-21.59	-176.50	149	6.3
98	11	17	03	16	8.70	-26.83	-113.29	10	5.5
98	11	17	03	57	58.99	7.67	-82.78	16	5.9
98	11	18	15	48	40.82	-3.32	130.77	33	6.1
98	11	19	11	38	14.83	27.31	101.03	33	5.6
98	11	19	12	03	47.46	5.17	126.14	88	5.8
98	11	19	15	39	19.10	22.60	125.78	10	6.4
98	11	19	20	50	31.46	1.68	126.54	33	5.5
98	11	23	09	30	19.10	-23.72	-70.51	33	5.7
98	11	24	23	54	46.10	-16.51	-174.75	223	6.0
98	11	25	18	05	25.70	-7.86	158.62	47	6.2
98	11	26	19	49	53.76	40.62	-122.41	23	5.5
98	11	27	00	43	0.48	40.67	-125.38	5	5.8
98	11	27	10	27	2.88	-32.14	-69.33	126	5.5
98	11	28	09	58	9.99	-7.59	-74.42	149	5.5
98	11	28	15	21	5.04	-15.36	172.96	33	5.9
98	11	29	14	10	31.96	-2.07	124.89	33	8.1
98	11	29	17	32	32.51	-1.91	124.71	33	5.7
98	11	30	20	58	36.21	-5.88	151.26	33	5.8

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	12	01	10	38	45.55	53.10	-164.34	22	5.6
98	12	02	23	41	17.80	-9.14	67.46	10	5.9
98	12	04	11	00	17.62	20.09	120.90	10	5.5
98	12	05	01	12	47.63	52.12	-169.41	33	5.8
98	12	06	00	47	13.45	1.25	126.20	33	6.6
98	12	07	23	37	6.67	-8.34	121.45	33	5.9
98	12	08	02	32	57.82	18.82	-64.04	29	5.6
98	12	11	08	37	50.35	-31.27	-68.92	117	5.5
98	12	11	20	16	24.04	36.51	71.02	222	5.7
98	12	13	17	31	58.89	13.35	-44.85	10	5.6
98	12	14	04	30	56.12	30.92	137.65	463	5.5
98	12	14	16	25	24.98	-38.21	-71.03	138	6.0
98	12	14	19	35	26.75	-15.06	167.31	139	6.0
98	12	16	00	18	0.45	31.29	131.29	41	6.0
98	12	16	17	45	5.44	1.12	126.18	33	6.2
98	12	20	10	02	4.14	-4.76	101.96	33	5.6
98	12	24	11	15	44.43	-3.64	131.22	33	5.5
98	12	26	15	39	7.80	-1.36	123.64	33	6.1
98	12	27	00	38	26.76	-21.63	-176.38	144	6.9
98	12	28	07	23	31.66	20.78	-74.67	10	5.6
99	01	05	08	32	46.81	-18.50	-174.07	33	5.9
99	01	09	03	05	37.57	44.39	147.31	119	5.8
99	01	12	02	32	25.59	26.74	140.17	440	6.1
99	01	12	08	49	20.75	-5.42	151.68	42	6.0
99	01	13	20	12	15.40	-20.60	169.76	125	5.9
99	01	16	10	44	39.49	56.23	-147.43	21	6.0
99	01	19	03	35	33.84	-4.60	153.24	114	7.0
99	01	24	00	37	4.63	30.62	131.09	33	6.4
99	01	24	07	01	58.40	-21.13	-174.66	33	6.1
99	01	24	08	00	8.54	-26.46	74.48	10	6.3
99	01	25	18	19	16.87	4.46	-75.72	17	6.3
99	01	25	22	40	16.46	4.37	-75.68	10	5.5
99	01	26	12	30	49.16	-20.51	-174.21	41	5.9
99	01	27	08	09	1.92	-5.32	146.76	230	5.9
99	01	28	08	10	5.42	52.89	-169.12	67	6.6
99	01	28	18	24	25.27	-4.58	153.66	101	6.4
99	01	29	01	09	16.96	-15.86	-179.75	33	5.9
99	01	29	15	04	29.15	-18.73	169.25	236	5.5
99	01	30	03	51	5.42	41.67	88.46	23	5.9
99	01	31	05	07	13.63	43.16	46.84	33	5.8
99	01	31	19	29	11.02	43.46	146.96	33	5.6
99	02	01	11	56	0.80	85.57	87.14	10	5.8
99	02	03	01	13	57.58	-20.31	-174.37	33	6.3
99	02	03	06	35	56.68	-6.19	104.22	33	5.8
99	02	04	02	35	36.18	-8.61	149.28	98	5.9
99	02	04	19	28	0.81	4.03	95.28	55	5.9
99	02	05	11	39	45.18	-12.62	166.97	213	6.0
99	02	05	14	37	0.53	47.51	147.16	407	6.0
99	02	06	17	45	24.47	19.20	121.26	33	6.0
99	02	06	21	47	59.47	-12.85	166.70	90	7.4
99	02	08	16	22	54.36	-7.91	147.73	70	5.9
99	02	11	14	08	51.68	34.26	69.36	33	6.0
99	02	11	15	16	46.34	-6.97	150.40	33	5.5
99	02	12	17	44	48.52	44.47	149.68	33	5.6
99	02	13	14	45	12.73	-3.56	144.83	10	6.3

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	02	14	11	22	37.82	44.51	149.71	33	5.7
99	02	14	21	12	24.58	-15.51	168.00	10	6.0
99	02	17	02	27	12.33	-2.01	133.48	33	5.7
99	02	17	21	58	54.54	-21.14	-70.04	33	5.6
99	02	20	05	00	15.19	-6.18	154.43	33	5.8
99	02	22	01	00	32.89	-21.45	169.68	33	6.5
99	02	22	13	49	0.81	24.11	122.65	42	6.1
99	02	23	07	27	56.43	0.20	119.54	33	5.8
99	02	24	00	18	45.72	2.04	127.39	86	5.5
99	02	24	05	18	54.28	18.05	146.52	33	5.9
99	02	25	18	58	29.40	51.60	104.86	10	6.1
99	03	01	08	51	0.80	-2.97	126.53	33	5.7
99	03	02	07	12	20.78	35.59	141.75	33	6.1
99	03	02	17	45	55.19	-22.72	-68.50	110	6.1
99	03	02	21	15	29.87	51.59	179.54	72	5.5
99	03	04	05	38	26.52	28.34	57.19	33	6.6
99	03	04	05	47	49.91	28.32	57.15	33	5.6
99	03	04	08	52	1.90	5.40	121.94	33	7.1
99	03	04	12	26	55.04	54.85	-164.23	33	5.5
99	03	05	00	33	46.99	-20.42	-68.90	110	5.9
99	03	05	03	35	14.71	-34.67	-69.60	10	5.5
99	03	05	13	01	10.95	5.26	122.17	33	5.7
99	03	06	20	28	53.67	-21.73	-179.46	602	5.8
99	03	07	01	32	0.27	-5.81	107.56	325	5.6
99	03	07	20	35	44.16	-15.77	-179.53	33	6.2
99	03	08	12	25	48.99	52.06	159.52	56	6.9
99	03	09	17	48	42.69	43.45	-127.07	10	5.8
99	03	12	11	16	39.49	-20.00	-177.76	587	5.6
99	03	16	03	32	16.27	2.68	125.67	114	5.6
99	03	18	01	59	0.96	-0.03	124.31	88	5.8
99	03	18	17	55	43.24	41.10	142.97	41	6.1
99	03	12	11	16	39.59	-19.87	-177.87	585	5.6
99	03	12	11	22	54.67	-34.16	-71.32	59	5.7
99	03	16	03	32	11.71	2.70	125.59	74	5.6
99	03	18	01	59	0.70	-0.01	124.35	89	5.8
99	03	18	17	55	43.49	41.13	143.00	42	6.1
99	03	20	10	47	47.95	51.57	-177.63	49	6.9
99	03	21	15	24	8.20	85.71	86.22	10	5.5
99	03	21	16	16	2.19	55.88	110.23	10	5.8
99	03	21	16	17	3.56	55.94	110.23	10	6.3
99	03	22	08	04	6.58	-7.12	128.67	33	5.9
99	03	23	11	23	44.77	-20.72	-178.83	573	5.7
99	03	24	20	32	58.94	-7.05	117.11	620	5.9
99	03	27	08	03	44.66	-9.70	112.81	33	5.7
99	03	27	12	44	18.12	-3.84	131.43	33	5.5
99	03	28	19	05	10.09	30.55	79.42	10	6.6
99	03	29	01	43	36.17	-10.61	161.31	33	5.5
99	03	29	06	17	58.51	-4.01	87.30	10	5.8
99	03	30	09	59	7.54	10.64	-70.42	10	5.6
99	03	31	05	54	44.76	6.14	-82.69	10	6.8
99	04	01	21	36	21.41	-4.38	152.71	33	6.3
99	04	02	17	05	50.26	-19.90	168.13	33	6.2
99	04	03	06	17	19.86	-16.68	-72.68	101	6.8
99	04	03	10	10	29.86	13.14	-87.60	33	6.0
99	04	05	11	08	4.06	-5.62	149.58	150	7.4

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	04	06	04	51	5.55	24.45	-46.35	10	5.9
99	04	06	08	22	14.19	-6.53	146.95	33	6.4
99	04	08	13	10	33.96	43.60	130.38	562	7.1
99	04	09	12	16	2.01	-26.29	178.20	621	6.2
99	04	11	16	50	36.49	-5.97	148.50	33	6.1
99	04	12	09	41	12.29	-20.11	168.62	13	5.7
99	04	13	10	38	48.19	-21.39	-176.50	164	6.8
99	04	15	13	54	45.43	-6.34	146.99	48	5.9
99	04	17	00	56	0.25	19.25	-155.49	10	5.9
99	04	20	19	04	8.62	-31.85	-179.06	95	6.5
99	04	22	22	19	36.96	-27.95	26.66	5	5.6
99	04	23	18	56	28.56	13.24	145.02	64	5.9
99	04	24	08	45	16.83	-17.95	-178.56	567	5.6
99	04	26	18	17	26.20	-1.64	-77.79	172	6.0
99	04	29	07	46	8.85	28.96	131.09	33	5.9

Table 6. Local events with $M_L \geq 2.0$ that occurred during the experiment Source information is from the Southern California Earthquake Center Data Center catalog.

yr	<u>Time (GMT)</u>					<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
	mo	day	hr	min	sec	latitude (°N)	longitude (°E)	(km)	
98	10	05	16	51	29.10	34.29	-118.44	8.8	2.0
98	10	06	04	58	15.20	37.57	-118.79	6.0	3.0
98	10	06	08	38	17.40	37.56	-118.82	6.0	2.9
98	10	06	09	02	6.20	37.56	-118.80	6.0	2.4
98	10	06	11	08	44.50	34.87	-119.20	12.9	2.2
98	10	06	14	00	14.60	36.20	-120.15	6.0	2.2
98	10	06	21	53	39.70	37.61	-118.94	5.5	2.6
98	10	07	05	56	19.60	34.95	-117.03	2.9	2.0
98	10	07	09	17	0.90	37.62	-118.83	5.4	2.8
98	10	07	10	24	40.60	31.95	-116.85	6.0	2.1
98	10	07	13	17	49.00	31.93	-116.84	6.0	2.2
98	10	07	17	32	22.50	32.60	-116.07	8.4	2.3
98	10	07	17	44	37.00	34.14	-118.54	10.8	2.1
98	10	07	22	36	53.00	34.46	-117.94	8.3	2.3
98	10	07	23	12	28.20	31.93	-116.85	6.0	2.5
98	10	07	23	59	2.10	31.54	-116.12	6.0	2.4
98	10	08	00	11	38.20	31.47	-116.17	6.0	2.3
98	10	08	12	23	12.80	32.41	-115.27	6.0	2.2
98	10	08	16	09	37.80	33.47	-118.41	14.6	2.1
98	10	08	17	52	34.90	37.48	-118.88	6.0	2.4
98	10	08	23	45	57.10	32.61	-116.07	8.8	2.0
98	10	09	06	07	38.60	32.60	-116.06	8.5	2.2
98	10	09	07	02	50.10	33.68	-118.42	6.0	2.4
98	10	09	10	47	28.30	36.02	-117.76	0.9	2.0
98	10	09	18	14	57.20	37.53	-118.81	6.0	2.0
98	10	09	18	48	24.60	33.81	-117.00	13.7	2.0
98	10	10	11	22	22.40	34.02	-118.33	12.1	2.1
98	10	10	15	24	15.30	34.37	-116.47	0.5	2.1
98	10	10	17	44	15.10	32.05	-116.23	6.0	2.5
98	10	10	20	51	2.40	35.38	-121.36	6.0	3.2
98	10	10	22	06	23.00	37.27	-117.87	6.0	2.1
98	10	10	23	57	14.60	32.78	-115.51	9.8	2.3
98	10	11	01	56	38.00	36.92	-117.66	6.0	2.2
98	10	11	10	23	16.20	32.24	-115.54	6.0	2.4
98	10	11	17	44	27.90	33.19	-115.58	3.1	2.9
98	10	11	19	37	56.40	35.52	-120.93	6.0	2.4
98	10	11	21	21	23.80	34.61	-116.62	5.5	2.8
98	10	11	22	05	20.30	36.11	-119.90	6.0	2.2
98	10	12	01	49	8.80	37.60	-118.81	9.4	2.4
98	10	12	09	24	56.30	37.61	-118.81	6.0	2.3
98	10	12	17	14	0.10	33.95	-116.94	17.6	2.2
98	10	12	20	23	51.10	35.92	-117.76	6.5	2.1
98	10	13	01	05	22.70	34.15	-116.43	3.8	2.0
98	10	13	04	41	55.80	35.66	-121.04	25.4	2.2
98	10	13	04	43	6.10	33.13	-117.82	6.0	2.2

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	10	13	11	26	49.30	37.53	-118.86	6.0	2.7
98	10	13	14	00	6.00	37.40	-118.64	6.0	2.0
98	10	13	15	39	45.80	35.00	-116.94	4.5	2.3
98	10	14	00	55	23.60	37.63	-118.86	6.0	2.7
98	10	14	02	22	58.30	37.61	-118.88	6.0	2.3
98	10	14	13	04	42.30	37.64	-118.65	6.0	2.6
98	10	14	14	37	4.00	32.36	-115.25	6.0	3.8
98	10	14	19	06	11.90	33.38	-118.64	0.0	2.1
98	10	15	00	46	28.00	34.02	-117.24	16.6	2.2
98	10	15	01	36	6.30	32.35	-115.25	6.0	2.0
98	10	15	06	12	20.30	37.57	-118.79	6.0	3.3
98	10	15	11	38	18.70	37.57	-118.79	6.0	2.6
98	10	15	11	47	51.40	37.55	-118.79	6.0	2.1
98	10	15	16	04	10.20	37.53	-118.82	0.0	2.0
98	10	15	16	43	8.60	33.18	-115.61	1.5	2.4
98	10	15	16	46	23.60	33.18	-115.61	0.5	2.4
98	10	15	17	59	44.20	32.81	-115.45	11.0	2.6
98	10	15	18	18	44.20	33.28	-116.29	0.0	2.1
98	10	15	19	48	49.70	32.81	-115.46	5.7	2.0
98	10	15	20	06	1.00	32.82	-115.46	9.6	3.0
98	10	15	20	38	12.10	32.83	-115.45	8.7	2.3
98	10	15	20	38	17.50	32.80	-115.46	9.7	2.6
98	10	15	20	41	7.50	32.83	-115.45	11.2	2.3
98	10	15	20	47	52.90	32.81	-115.46	10.3	2.7
98	10	15	21	34	46.40	32.81	-115.45	7.9	2.3
98	10	15	21	50	17.20	32.82	-115.46	10.6	2.4
98	10	15	21	50	19.30	34.51	-116.53	2.1	2.4
98	10	16	01	48	11.30	34.81	-120.35	0.0	2.9
98	10	16	02	25	45.90	32.80	-115.45	5.9	2.6
98	10	16	02	29	47.40	32.79	-115.44	4.8	2.2
98	10	16	04	28	27.30	37.58	-118.78	5.4	2.0
98	10	16	05	04	25.90	37.56	-118.80	5.5	2.0
98	10	16	06	39	25.30	37.57	-118.79	6.0	2.5
98	10	16	09	30	29.90	37.56	-118.78	6.0	2.5
98	10	16	14	09	24.20	33.72	-118.05	6.0	2.2
98	10	16	19	51	1.30	34.31	-118.46	10.4	2.0
98	10	16	21	29	21.20	33.28	-116.29	0.0	2.0
98	10	17	02	18	7.90	32.07	-115.42	6.0	2.7
98	10	17	08	12	16.70	34.20	-118.57	17.3	2.0
98	10	17	09	52	29.80	33.58	-118.25	0.0	2.2
98	10	17	11	58	12.20	34.31	-116.99	11.0	2.2
98	10	17	12	33	31.30	37.43	-118.88	6.0	2.3
98	10	17	15	16	41.80	34.25	-116.44	0.0	2.0
98	10	17	17	09	22.40	33.28	-116.29	0.0	2.2
98	10	17	17	29	43.70	33.23	-116.09	6.0	2.5
98	10	17	18	52	0.40	34.34	-118.43	7.0	2.0
98	10	17	19	04	40.70	37.59	-118.80	6.0	3.1
98	10	17	23	36	53.30	37.58	-118.80	6.0	2.6
98	10	18	06	00	43.50	34.23	-116.76	4.1	2.7
98	10	18	06	20	43.50	34.23	-116.76	3.4	2.6
98	10	18	06	34	39.20	32.08	-115.42	6.0	2.7
98	10	18	07	53	35.30	34.79	-118.93	13.4	2.5
98	10	18	09	13	5.20	33.19	-115.57	0.4	2.0
98	10	18	09	48	39.60	32.37	-115.08	6.0	2.3
98	10	18	11	42	8.60	34.20	-118.67	0.7	2.2

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	10	18	18	15	20.40	32.10	-115.43	6.0	2.5
98	10	18	18	21	46.10	32.08	-115.42	6.0	3.1
98	10	18	18	34	17.00	38.08	-118.76	6.0	2.3
98	10	18	19	38	30.90	32.04	-115.41	6.0	3.6
98	10	18	22	24	14.70	32.09	-115.42	6.0	2.4
98	10	19	01	26	32.80	37.53	-118.86	6.0	2.3
98	10	19	02	03	17.80	34.30	-118.47	5.9	2.5
98	10	19	03	59	29.60	32.05	-115.41	6.0	2.8
98	10	19	04	27	4.40	34.98	-119.30	3.3	2.1
98	10	19	06	06	13.70	32.02	-115.42	6.0	3.6
98	10	19	09	32	30.90	35.72	-117.67	5.0	2.5
98	10	19	11	34	24.70	38.29	-118.35	6.0	2.5
98	10	19	11	53	18.10	38.21	-118.41	6.0	2.8
98	10	19	12	29	9.80	38.17	-118.40	6.0	2.8
98	10	19	13	36	1.00	33.49	-116.49	6.0	2.3
98	10	19	13	55	6.60	35.79	-117.65	4.6	2.2
98	10	19	18	24	39.30	33.19	-115.58	0.6	2.8
98	10	19	18	44	20.30	32.08	-115.43	6.0	2.3
98	10	19	21	12	1.90	32.09	-115.42	6.0	2.0
98	10	19	21	18	42.90	32.08	-115.42	6.0	3.2
98	10	20	00	05	52.30	32.07	-115.42	6.0	2.8
98	10	20	02	48	57.10	32.06	-115.41	6.0	4.2
98	10	20	02	53	6.10	32.02	-115.41	6.0	3.7
98	10	20	05	44	29.40	37.53	-118.82	0.0	2.1
98	10	20	06	21	33.40	32.12	-115.41	6.0	2.6
98	10	20	06	52	50.20	32.07	-115.42	6.0	2.9
98	10	20	07	25	37.90	37.47	-118.80	6.0	2.3
98	10	20	07	56	21.00	32.73	-115.40	16.1	2.7
98	10	20	08	38	23.50	33.54	-116.67	6.0	2.1
98	10	20	09	25	24.10	31.84	-115.72	6.0	3.9
98	10	20	09	33	18.20	32.00	-115.73	6.0	2.5
98	10	20	15	51	0.90	32.08	-115.42	6.0	2.2
98	10	20	18	12	55.20	35.79	-117.65	4.5	2.2
98	10	20	22	48	36.90	32.06	-115.42	6.0	3.2
98	10	20	23	14	20.20	32.08	-115.40	6.0	3.8
98	10	20	23	28	5.90	32.07	-115.43	6.0	3.1
98	10	20	23	43	28.80	34.63	-116.57	6.6	2.3
98	10	21	00	49	0.60	32.08	-115.42	6.0	2.7
98	10	21	01	31	57.40	32.10	-115.42	6.0	2.3
98	10	21	04	19	36.50	34.98	-116.96	5.8	2.1
98	10	21	05	27	2.60	35.63	-120.97	6.0	3.2
98	10	21	05	31	58.80	34.98	-116.96	5.5	2.2
98	10	21	06	43	57.90	34.99	-116.95	6.9	2.1
98	10	21	07	38	25.60	32.00	-115.74	6.0	2.6
98	10	21	07	48	46.50	32.09	-115.42	6.0	2.3
98	10	21	08	56	19.50	34.94	-116.66	0.4	3.1
98	10	21	11	34	33.80	32.09	-115.42	6.0	2.5
98	10	21	12	28	37.80	32.07	-115.42	6.0	2.6
98	10	21	12	58	1.00	34.37	-118.60	12.0	2.6
98	10	21	13	54	43.20	32.08	-115.41	6.0	3.2
98	10	21	16	35	34.50	35.33	-119.32	6.0	2.0
98	10	22	00	41	36.80	33.20	-116.41	16.1	2.6
98	10	22	00	51	24.20	32.12	-115.39	6.0	2.1
98	10	22	02	55	50.70	32.07	-115.42	6.0	2.3
98	10	22	03	05	44.20	36.04	-120.60	2.2	2.2

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	10	22	03	34	0.50	32.11	-115.41	6.0	2.0
98	10	22	05	08	37.30	32.07	-115.43	6.0	2.6
98	10	22	05	16	48.50	32.00	-116.31	6.0	2.9
98	10	22	06	40	14.80	37.60	-118.82	6.0	2.5
98	10	22	08	21	48.60	32.05	-115.42	6.0	2.6
98	10	22	09	49	55.90	32.12	-115.40	6.0	2.0
98	10	22	10	35	32.40	32.06	-115.44	6.0	2.2
98	10	22	10	51	13.30	32.06	-115.41	6.0	2.1
98	10	22	11	06	21.30	31.87	-115.42	6.0	3.2
98	10	22	11	41	51.70	32.05	-115.43	6.0	2.1
98	10	22	11	43	47.60	32.05	-115.44	6.0	2.1
98	10	22	12	09	37.50	32.06	-115.41	6.0	2.0
98	10	22	14	14	21.00	32.14	-116.66	6.0	2.3
98	10	23	03	04	48.80	33.65	-116.74	13.4	2.0
98	10	23	08	44	51.50	33.15	-115.65	2.1	2.8
98	10	23	10	22	56.30	33.51	-116.52	6.0	2.2
98	10	23	11	25	46.20	35.64	-119.79	6.0	2.4
98	10	23	12	04	39.40	37.70	-118.83	4.5	2.0
98	10	23	15	56	2.50	32.06	-115.41	6.0	2.5
98	10	23	15	58	31.20	32.04	-115.43	6.0	2.1
98	10	24	00	40	1.70	32.04	-115.43	6.0	2.3
98	10	24	02	26	21.30	33.22	-116.78	6.2	2.4
98	10	24	02	54	41.80	32.89	-115.67	5.7	2.3
98	10	24	08	38	56.70	37.64	-118.87	6.0	2.9
98	10	24	15	49	39.90	34.32	-116.85	6.2	2.1
98	10	24	17	09	4.50	34.16	-116.44	2.5	2.0
98	10	24	18	41	45.90	34.32	-116.85	6.0	2.1
98	10	24	19	38	43.40	31.89	-115.81	6.0	2.0
98	10	25	01	37	16.20	32.06	-115.43	6.0	2.1
98	10	25	03	05	6.30	34.99	-116.96	7.0	2.2
98	10	25	03	10	2.50	32.08	-115.43	6.0	2.0
98	10	25	09	13	18.30	32.04	-115.44	6.0	2.6
98	10	25	09	16	18.80	32.03	-115.42	6.0	2.6
98	10	25	11	35	37.90	32.05	-115.43	6.0	2.0
98	10	25	11	40	49.00	33.97	-117.18	14.1	3.0
98	10	25	11	54	9.50	32.06	-115.43	6.0	3.0
98	10	25	12	15	30.80	37.48	-118.87	6.0	2.3
98	10	25	14	44	28.50	37.57	-118.80	6.0	2.5
98	10	25	15	22	39.10	37.47	-118.87	6.0	2.4
98	10	25	17	20	49.40	32.53	-115.29	6.0	2.2
98	10	25	20	56	32.40	32.06	-115.46	6.0	2.6
98	10	25	21	48	7.60	34.16	-116.45	3.1	2.2
98	10	26	00	00	20.20	31.90	-115.81	6.0	2.7
98	10	26	17	17	56.00	37.46	-118.85	6.0	2.5
98	10	27	01	08	40.60	34.32	-116.84	5.9	4.9
98	10	27	01	20	51.40	34.32	-116.85	5.5	2.3
98	10	27	01	42	32.40	34.32	-116.85	5.2	3.2
98	10	27	02	02	26.80	34.32	-116.85	5.9	2.1
98	10	27	02	18	45.00	34.32	-116.84	7.4	2.3
98	10	27	02	38	41.00	34.32	-116.85	5.5	2.0
98	10	27	02	47	25.70	34.32	-116.85	7.3	2.0
98	10	27	03	10	14.90	34.32	-116.84	5.6	2.4
98	10	27	03	34	23.00	34.32	-116.84	6.2	2.2
98	10	27	04	26	25.50	34.32	-116.85	6.2	2.6
98	10	27	04	30	18.20	34.32	-116.85	6.3	2.2

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	10	27	04	48	8.20	34.32	-116.85	6.4	2.0
98	10	27	04	54	17.70	34.33	-116.85	5.3	2.3
98	10	27	05	48	40.60	34.32	-116.85	7.3	2.2
98	10	27	07	16	7.00	34.32	-116.85	4.5	3.6
98	10	27	08	33	32.80	32.06	-115.42	6.0	2.5
98	10	27	09	59	40.70	34.33	-116.85	6.2	2.0
98	10	27	10	22	50.60	34.33	-116.86	4.7	2.8
98	10	27	11	22	4.90	34.33	-116.85	6.0	2.0
98	10	27	11	39	47.90	32.07	-115.43	6.0	2.3
98	10	27	12	50	15.90	37.52	-118.50	1.7	2.9
98	10	27	13	09	6.00	34.33	-116.85	6.0	2.3
98	10	27	13	33	33.00	34.33	-116.47	4.7	2.1
98	10	27	13	35	17.10	34.33	-116.46	5.2	2.1
98	10	27	13	38	30.70	34.32	-116.84	5.8	2.3
98	10	27	15	26	46.30	34.32	-116.84	6.2	2.0
98	10	27	15	40	17.10	34.32	-116.85	4.3	4.1
98	10	27	16	18	0.60	34.31	-116.83	5.4	2.5
98	10	27	16	37	44.90	34.32	-116.85	4.9	2.3
98	10	27	17	13	3.30	34.32	-116.84	6.2	2.1
98	10	27	18	21	11.20	32.92	-115.59	6.0	2.1
98	10	27	19	43	4.90	34.32	-116.84	5.8	2.1
98	10	27	19	46	12.60	34.33	-116.85	5.6	2.1
98	10	27	19	57	44.60	34.32	-116.85	5.4	2.5
98	10	27	22	02	48.70	31.89	-115.81	6.0	2.4
98	10	27	23	35	52.50	34.49	-118.75	13.7	2.1
98	10	28	03	24	12.80	34.91	-118.30	10.6	2.3
98	10	28	04	08	43.60	32.67	-115.87	5.8	2.2
98	10	28	04	12	8.90	34.33	-116.85	5.8	2.2
98	10	28	05	11	10.40	34.32	-116.84	5.4	2.3
98	10	28	07	24	15.80	31.89	-115.83	6.0	2.7
98	10	28	10	17	2.60	32.09	-115.41	6.0	2.3
98	10	28	10	47	45.90	34.33	-116.85	6.6	2.4
98	10	28	11	03	25.60	34.33	-116.85	6.8	2.2
98	10	28	12	37	27.30	32.05	-115.42	6.0	2.3
98	10	28	20	33	52.60	34.31	-116.83	5.5	2.0
98	10	29	00	06	13.60	34.32	-116.84	5.7	3.0
98	10	29	00	59	21.50	34.32	-116.85	4.6	2.0
98	10	29	01	33	21.50	31.08	-116.12	6.0	2.4
98	10	29	04	18	36.80	34.31	-116.84	6.6	2.3
98	10	29	04	53	51.10	34.31	-116.84	5.7	2.0
98	10	29	06	26	25.10	34.33	-116.85	6.0	2.0
98	10	29	07	49	33.20	34.32	-116.85	5.6	2.1
98	10	29	08	26	50.20	36.08	-117.65	0.0	2.2
98	10	29	09	01	56.30	34.33	-116.86	5.6	2.3
98	10	29	11	41	14.70	37.55	-118.56	6.0	2.5
98	10	29	12	52	2.00	34.32	-116.84	5.4	2.4
98	10	29	14	50	27.40	34.37	-116.46	3.2	2.0
98	10	29	20	08	36.30	32.08	-115.43	6.0	2.0
98	10	29	20	49	45.50	34.32	-116.85	5.0	3.4
98	10	29	20	55	19.50	34.31	-116.85	4.0	2.6
98	10	29	21	02	23.90	34.32	-116.85	5.5	2.0
98	10	30	00	13	34.40	32.08	-115.43	6.0	2.3
98	10	30	02	52	4.00	34.32	-116.85	4.7	2.1
98	10	30	04	32	21.70	34.41	-116.55	3.8	2.1
98	10	30	11	26	17.50	32.10	-115.42	6.0	2.6

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	10	30	11	29	55.30	32.08	-115.43	6.0	2.2
98	10	30	14	34	0.20	32.33	-115.16	6.0	2.6
98	10	30	15	04	54.20	34.33	-116.85	6.6	2.0
98	10	30	15	11	30.10	35.69	-116.54	6.0	2.1
98	10	30	16	54	42.30	34.32	-116.85	5.1	2.3
98	10	30	17	13	16.10	34.32	-116.85	5.5	2.0
98	10	30	22	00	29.10	34.33	-116.85	5.8	2.9
98	10	30	22	37	20.90	34.32	-116.85	5.3	2.0
98	10	31	01	18	47.50	34.31	-116.84	5.3	2.8
98	10	31	01	40	10.10	36.03	-117.54	0.0	2.0
98	10	31	01	59	53.90	35.30	-118.58	0.9	2.3
98	10	31	02	39	7.40	34.32	-116.84	5.3	2.0
98	10	31	03	19	39.10	32.37	-118.52	6.0	2.5
98	10	31	08	17	8.90	34.22	-117.43	12.4	2.1
98	10	31	12	55	5.00	34.18	-116.44	4.6	2.5
98	10	31	14	15	21.50	34.03	-116.32	5.3	2.0
98	10	31	14	50	9.80	34.32	-116.85	5.1	2.7
98	10	31	19	45	8.10	34.92	-116.93	0.7	2.3
98	11	01	03	10	11.90	37.58	-118.78	6.0	2.4
98	11	01	04	04	8.80	37.59	-118.76	6.0	2.0
98	11	01	06	16	10.70	34.82	-116.64	5.0	2.1
98	11	01	08	21	16.30	37.55	-118.82	0.0	2.3
98	11	01	09	28	52.80	34.32	-116.85	6.2	3.0
98	11	01	10	42	43.30	34.32	-116.84	5.4	2.2
98	11	01	10	43	0.50	34.32	-116.84	5.3	2.0
98	11	01	11	26	28.60	36.10	-117.72	0.0	2.0
98	11	01	11	32	44.60	37.56	-118.87	6.0	2.2
98	11	01	13	09	54.60	31.76	-115.96	6.0	2.0
98	11	01	15	15	12.10	32.49	-115.46	6.0	2.8
98	11	01	17	12	57.60	32.07	-115.44	6.0	2.3
98	11	01	17	13	51.90	32.06	-115.44	6.0	2.4
98	11	02	02	30	45.50	34.03	-117.29	17.6	2.1
98	11	02	03	23	31.20	34.37	-116.46	0.5	2.1
98	11	02	03	30	8.30	35.42	-119.34	6.0	2.2
98	11	02	08	22	33.40	34.35	-116.46	0.3	2.0
98	11	02	10	16	5.70	31.90	-115.77	6.0	4.0
98	11	02	13	03	45.00	34.32	-116.84	5.3	2.6
98	11	02	15	51	46.80	33.18	-115.60	0.3	2.0
98	11	02	15	51	51.40	33.19	-115.61	1.2	2.5
98	11	02	15	53	35.90	33.18	-115.60	0.9	3.9
98	11	02	16	03	55.90	33.17	-115.60	1.2	2.2
98	11	02	18	02	42.70	35.93	-117.24	6.0	2.1
98	11	02	18	17	3.10	35.92	-117.25	6.0	2.2
98	11	02	20	53	51.10	33.18	-115.60	0.5	2.3
98	11	02	22	17	54.30	34.33	-116.85	6.2	2.4
98	11	03	05	21	3.20	32.08	-115.42	6.0	2.5
98	11	03	07	32	59.50	34.61	-116.61	4.3	2.2
98	11	03	11	51	36.00	33.17	-115.62	2.0	2.6
98	11	03	18	48	4.50	34.32	-116.85	5.1	2.5
98	11	04	02	08	9.00	37.54	-118.81	6.0	2.6
98	11	04	02	12	45.70	33.24	-116.00	0.0	2.0
98	11	04	07	13	1.90	37.53	-118.81	6.0	2.5
98	11	04	07	21	38.00	34.32	-116.84	5.2	3.1
98	11	04	07	22	32.30	34.32	-116.84	6.5	2.1
98	11	04	07	38	20.50	34.32	-116.84	5.6	2.0

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	11	04	10	16	14.70	37.62	-118.89	6.0	2.3
98	11	04	14	11	60.00	35.81	-118.47	10.6	2.2
98	11	04	14	41	3.10	34.56	-116.59	0.0	2.2
98	11	04	14	45	46.50	34.33	-116.84	6.2	2.2
98	11	04	17	38	32.10	34.24	-116.43	2.9	2.0
98	11	04	21	49	59.50	34.14	-116.45	5.3	2.5
98	11	05	03	38	19.30	32.68	-115.87	4.6	2.3
98	11	05	04	11	36.30	33.93	-116.95	7.1	2.9
98	11	05	08	02	2.90	32.99	-117.75	6.0	2.1
98	11	05	15	57	49.30	34.20	-117.40	13.1	2.1
98	11	05	16	23	14.40	34.99	-116.95	7.3	2.3
98	11	05	22	01	43.90	37.53	-118.81	0.0	2.6
98	11	06	00	31	48.90	34.33	-116.96	6.7	2.0
98	11	06	09	24	4.60	37.53	-118.80	6.0	2.3
98	11	06	10	00	13.00	34.15	-116.83	10.3	2.0
98	11	06	11	17	11.40	32.06	-116.14	6.0	2.6
98	11	06	14	16	17.90	33.07	-117.86	6.0	2.3
98	11	06	16	41	32.40	37.54	-118.76	6.0	2.5
98	11	06	17	15	3.20	31.55	-114.72	6.0	3.0
98	11	06	17	42	4.60	34.16	-117.35	9.8	2.2
98	11	06	21	38	17.30	33.77	-117.57	6.4	2.4
98	11	06	22	34	43.00	34.18	-118.47	2.3	2.1
98	11	06	23	54	3.10	35.30	-118.59	3.1	2.6
98	11	07	00	17	6.80	32.44	-115.14	6.0	2.0
98	11	07	00	20	49.50	32.45	-115.14	6.0	2.4
98	11	07	00	38	10.80	34.98	-116.95	4.9	2.3
98	11	07	11	08	31.00	34.24	-118.49	14.3	2.0
98	11	07	16	50	31.70	36.08	-117.63	0.7	2.4
98	11	07	18	10	27.90	34.95	-117.03	3.1	2.2
98	11	08	06	18	39.70	35.11	-119.08	11.4	2.3
98	11	08	09	07	43.80	35.92	-120.49	12.3	3.1
98	11	08	14	05	50.20	37.50	-118.85	6.0	2.2
98	11	08	15	00	43.50	37.48	-118.86	7.5	2.8
98	11	08	16	41	15.40	37.48	-118.86	6.0	2.7
98	11	08	17	07	43.40	37.48	-118.86	6.0	2.4
98	11	08	20	50	34.80	36.00	-117.69	2.3	2.1
98	11	09	02	07	1.60	37.53	-118.76	6.0	2.2
98	11	09	09	16	15.30	34.21	-117.41	12.8	2.1
98	11	09	20	48	22.40	34.94	-119.07	10.3	2.3
98	11	09	21	18	7.30	33.26	-115.99	6.0	2.2
98	11	10	03	20	40.60	37.40	-118.91	6.0	2.0
98	11	10	03	34	15.50	31.89	-115.79	6.0	2.1
98	11	10	05	03	6.20	36.10	-117.84	3.2	2.4
98	11	10	13	15	12.50	33.24	-120.44	6.0	2.4
98	11	10	14	13	28.40	32.27	-118.36	6.0	3.6
98	11	10	15	42	26.90	36.06	-117.64	0.5	2.2
98	11	10	20	28	20.00	34.02	-116.76	18.6	2.1
98	11	10	20	59	35.60	34.15	-116.43	10.1	3.5
98	11	11	01	36	50.50	32.00	-115.74	6.0	2.0
98	11	11	03	43	24.40	34.15	-116.42	4.2	2.1
98	11	11	05	40	28.90	34.16	-118.50	11.3	2.5
98	11	11	06	07	53.10	35.77	-117.65	7.2	2.0
98	11	11	07	01	6.70	36.09	-117.59	0.0	2.2
98	11	11	13	47	28.60	31.86	-115.81	6.0	2.0
98	11	12	02	54	15.40	36.00	-118.87	6.0	2.6

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	11	12	03	33	38.40	37.47	-118.81	6.0	3.7
98	11	12	08	31	14.40	34.34	-119.93	0.0	2.0
98	11	12	11	12	27.70	37.62	-118.88	6.0	2.8
98	11	12	11	28	10.20	31.89	-115.77	6.0	2.0
98	11	12	13	53	25.30	34.50	-116.50	3.6	2.1
98	11	12	23	42	17.40	34.27	-116.44	0.0	2.0
98	11	12	23	44	52.90	34.37	-116.47	2.7	2.0
98	11	13	01	57	40.00	37.53	-118.75	6.0	2.9
98	11	13	05	56	16.30	35.62	-120.98	6.0	2.5
98	11	13	16	58	35.60	34.37	-116.47	2.5	2.2
98	11	13	19	57	19.10	35.06	-117.11	4.8	2.4
98	11	13	21	26	36.00	35.28	-118.53	5.8	2.3
98	11	14	00	13	7.50	34.33	-116.84	6.7	2.3
98	11	14	03	26	8.70	33.46	-116.44	6.0	2.6
98	11	14	12	39	51.80	34.10	-116.93	6.1	2.2
98	11	14	14	07	19.90	36.07	-117.63	0.5	2.2
98	11	14	17	03	35.50	32.96	-117.76	6.0	2.2
98	11	14	18	21	15.10	35.30	-118.60	1.6	2.4
98	11	14	23	19	31.00	34.49	-119.11	19.1	2.6
98	11	15	02	41	2.70	34.01	-116.32	5.7	2.0
98	11	15	06	16	21.70	35.30	-118.48	3.3	2.1
98	11	15	11	14	56.70	33.22	-116.06	13.5	3.3
98	11	16	07	34	34.00	32.94	-116.24	6.0	2.2
98	11	16	08	12	38.20	34.15	-116.42	2.8	2.1
98	11	16	11	19	35.10	32.41	-115.33	6.0	2.6
98	11	16	15	27	13.60	33.70	-116.82	17.8	2.1
98	11	16	18	41	29.30	34.15	-116.43	7.6	2.3
98	11	17	00	41	26.50	32.42	-115.33	6.0	2.3
98	11	17	16	13	57.00	34.64	-116.53	4.2	2.2
98	11	17	18	14	17.80	34.15	-116.43	9.2	2.2
98	11	17	21	44	7.80	32.01	-116.30	6.0	3.0
98	11	17	22	58	54.20	31.98	-116.32	6.0	2.8
98	11	18	01	51	53.50	36.82	-121.60	6.0	2.3
98	11	18	02	29	30.20	34.32	-119.27	10.5	2.4
98	11	18	06	27	15.70	36.04	-117.72	1.3	2.1
98	11	18	07	14	51.20	32.66	-117.35	6.0	2.1
98	11	18	12	45	52.80	37.52	-118.44	6.0	2.7
98	11	18	15	49	2.10	34.33	-116.84	5.8	2.9
98	11	18	16	50	9.50	34.29	-118.76	15.9	2.0
98	11	18	18	19	17.60	31.80	-115.99	6.0	2.5
98	11	18	18	38	25.20	34.32	-116.84	5.8	2.3
98	11	18	20	13	12.90	34.33	-118.47	4.3	2.8
98	11	18	20	30	21.10	34.33	-116.85	6.1	2.2
98	11	18	22	37	28.10	33.92	-118.74	15.3	2.0
98	11	18	22	39	53.20	32.12	-115.43	6.0	2.0
98	11	18	22	41	38.40	31.90	-115.77	6.0	2.5
98	11	18	23	03	19.80	37.53	-118.79	6.0	2.2
98	11	18	23	39	35.80	35.98	-117.83	6.3	2.0
98	11	19	01	03	13.70	32.11	-115.42	6.0	2.5
98	11	19	02	20	58.30	33.68	-116.80	16.9	2.0
98	11	19	04	29	2.00	33.79	-118.60	6.0	2.0
98	11	19	06	24	58.90	32.01	-115.42	6.0	2.9
98	11	19	06	33	20.40	32.08	-115.44	6.0	2.7
98	11	19	07	08	34.00	35.98	-117.83	6.7	2.1
98	11	19	10	21	15.00	34.33	-116.84	6.1	2.1

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	11	19	11	39	21.90	31.92	-115.77	6.0	2.1
98	11	19	16	23	47.50	37.56	-118.79	6.0	2.4
98	11	19	19	27	8.50	33.18	-115.59	0.6	2.1
98	11	20	11	13	48.50	34.17	-116.43	5.3	2.3
98	11	20	12	17	58.00	31.99	-115.74	6.0	2.3
98	11	20	18	28	18.80	34.34	-118.26	6.0	2.1
98	11	20	23	58	9.20	34.22	-117.44	8.0	3.3
98	11	21	09	39	15.70	31.92	-115.42	6.0	3.0
98	11	21	15	39	40.30	32.59	-117.30	6.0	2.5
98	11	21	16	57	9.90	34.44	-116.50	0.6	2.0
98	11	21	23	02	32.50	37.52	-118.76	6.0	2.6
98	11	22	01	27	16.50	34.65	-116.34	0.0	2.1
98	11	22	15	17	22.90	35.80	-118.03	9.4	2.0
98	11	22	19	56	7.90	31.88	-116.26	6.0	2.4
98	11	23	03	30	40.80	35.98	-117.90	3.7	2.9
98	11	23	04	42	57.00	34.11	-116.92	5.5	2.2
98	11	23	05	42	39.40	34.33	-116.86	3.5	2.0
98	11	23	08	18	6.90	34.31	-116.45	8.2	2.2
98	11	24	01	54	46.90	35.18	-117.66	7.6	2.1
98	11	24	03	40	25.00	34.31	-116.44	7.9	2.2
98	11	24	04	36	9.10	33.72	-116.84	17.0	2.8
98	11	24	05	12	9.60	34.39	-116.46	3.3	2.1
98	11	24	09	15	11.10	34.21	-117.40	12.5	2.5
98	11	24	19	01	4.60	34.39	-116.46	3.8	2.4
98	11	24	19	07	57.20	34.02	-116.73	16.8	2.3
98	11	24	19	14	30.20	33.66	-117.05	0.0	2.2
98	11	24	21	39	59.90	34.41	-116.47	3.2	2.1
98	11	25	00	52	56.30	35.12	-118.58	9.9	2.1
98	11	25	02	02	7.80	36.04	-117.71	0.0	3.0
98	11	25	02	03	58.00	36.04	-117.71	1.1	2.1
98	11	25	03	57	49.20	35.29	-118.55	0.4	2.0
98	11	25	04	26	35.00	34.02	-116.73	13.7	2.3
98	11	25	09	07	32.20	34.39	-116.48	0.9	2.2
98	11	25	09	20	56.20	34.85	-118.97	14.2	2.7
98	11	25	09	29	2.70	36.31	-117.89	3.8	2.4
98	11	25	16	17	36.30	33.89	-116.92	13.5	2.7
98	11	25	19	25	29.20	31.82	-116.22	6.0	2.8
98	11	26	00	47	8.70	34.25	-118.47	6.1	2.4
98	11	26	14	37	38.50	37.58	-119.02	5.3	2.3
98	11	26	18	44	1.00	32.11	-115.42	6.0	2.7
98	11	26	21	21	9.20	37.60	-118.84	6.0	2.5
98	11	26	21	22	34.30	37.60	-118.84	6.0	2.0
98	11	26	21	42	35.90	34.38	-118.67	14.9	2.0
98	11	27	03	44	6.60	31.08	-116.88	6.0	3.6
98	11	27	05	32	15.20	36.22	-120.00	6.0	2.5
98	11	27	10	51	52.50	32.11	-115.39	6.0	2.2
98	11	28	00	47	25.90	32.11	-115.83	6.0	3.0
98	11	28	02	42	34.70	33.38	-116.37	6.0	2.1
98	11	28	03	43	52.60	34.09	-116.42	8.6	2.3
98	11	28	04	31	40.20	37.47	-118.81	6.0	2.2
98	11	28	07	30	12.00	32.06	-115.42	6.0	3.0
98	11	28	16	19	51.70	37.54	-118.81	6.0	2.4
98	11	28	17	23	46.20	32.41	-115.20	6.0	2.7
98	11	28	19	15	42.10	33.51	-116.46	6.0	2.0
98	11	28	21	42	4.40	31.99	-116.30	6.0	2.2

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	11	29	01	35	19.60	34.39	-118.63	14.3	2.3
98	11	29	03	08	14.70	37.51	-118.82	4.9	2.0
98	11	29	05	20	47.90	34.15	-116.43	9.5	2.6
98	11	29	07	04	38.50	35.99	-120.87	6.0	2.5
98	11	29	08	16	55.40	37.50	-118.82	6.0	2.5
98	11	29	09	17	36.70	34.07	-119.22	22.4	2.3
98	11	29	12	03	30.60	34.11	-116.66	5.0	2.2
98	11	29	15	36	50.20	34.39	-118.63	15.8	2.1
98	11	29	20	36	48.80	34.05	-117.51	4.5	2.2
98	11	29	20	44	24.10	34.87	-117.78	3.5	2.4
98	11	30	01	29	21.30	37.15	-116.35	6.0	2.3
98	11	30	06	29	24.90	31.92	-115.66	6.0	2.2
98	11	30	09	37	21.20	32.01	-115.72	6.0	2.2
98	11	30	11	34	15.20	31.04	-116.13	6.0	2.7
98	11	30	21	47	42.60	34.39	-118.64	14.8	2.5
98	12	01	05	02	55.10	31.86	-116.25	6.0	2.3
98	12	01	05	52	45.90	31.82	-115.69	6.0	2.2
98	12	01	09	11	26.90	32.41	-115.19	6.0	2.5
98	12	01	16	52	13.00	32.84	-117.43	6.0	2.4
98	12	01	20	47	40.30	33.27	-117.49	6.0	2.5
98	12	02	00	29	37.30	34.47	-116.49	3.5	2.2
98	12	02	03	29	21.30	35.84	-119.88	6.0	2.4
98	12	02	16	24	21.40	31.53	-115.93	6.0	2.4
98	12	02	16	33	26.10	34.01	-117.24	17.4	2.0
98	12	02	18	12	5.30	34.34	-116.47	4.2	2.3
98	12	03	01	08	44.60	34.23	-116.76	3.7	2.0
98	12	03	02	51	18.90	34.06	-118.93	14.8	2.3
98	12	03	10	10	56.60	31.75	-115.98	6.0	2.2
98	12	03	11	59	30.00	32.66	-115.97	5.4	2.5
98	12	03	12	35	56.40	35.04	-116.99	5.2	2.2
98	12	03	14	26	1.00	34.35	-118.68	14.3	2.2
98	12	04	01	56	34.70	32.07	-115.44	6.0	2.4
98	12	04	02	22	24.20	32.06	-115.43	6.0	2.5
98	12	04	03	45	23.60	32.23	-116.45	6.0	2.6
98	12	04	07	08	48.70	37.53	-118.79	6.0	2.2
98	12	04	09	55	35.60	34.16	-116.41	4.8	2.1
98	12	04	13	38	48.50	32.07	-115.42	6.0	2.3
98	12	04	16	02	35.10	34.02	-117.20	17.0	2.5
98	12	04	18	10	47.60	33.28	-117.48	6.0	2.2
98	12	05	02	03	23.20	33.84	-117.76	5.3	2.3
98	12	05	08	02	41.70	31.94	-115.85	6.0	2.0
98	12	05	14	40	1.90	35.57	-118.07	10.6	2.0
98	12	05	23	41	50.10	32.78	-115.44	10.9	2.5
98	12	05	23	57	52.10	37.58	-118.81	6.0	2.3
98	12	06	01	29	5.50	32.76	-115.43	4.4	2.2
98	12	06	03	20	11.00	33.62	-118.04	6.0	2.7
98	12	06	03	42	25.40	36.02	-117.69	0.2	2.0
98	12	06	04	23	19.60	36.02	-117.69	0.8	2.2
98	12	06	09	38	53.10	32.34	-115.25	6.0	2.4
98	12	06	10	35	59.20	38.27	-118.34	6.0	2.8
98	12	06	12	41	11.50	33.79	-116.17	6.0	2.2
98	12	06	19	39	2.80	37.58	-118.78	6.0	2.5
98	12	07	00	59	34.20	36.06	-117.86	3.1	2.0
98	12	07	07	55	44.40	35.33	-118.61	2.7	2.3
98	12	07	11	26	52.00	33.56	-118.34	3.5	2.0

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	12	07	14	12	25.40	34.09	-116.84	4.8	2.2
98	12	07	16	15	55.10	37.63	-118.93	6.0	3.7
98	12	08	05	11	26.70	34.12	-116.92	5.5	2.0
98	12	08	06	38	20.00	37.63	-119.00	6.0	3.2
98	12	08	10	06	15.40	34.00	-117.58	4.9	2.0
98	12	08	10	17	11.10	36.18	-120.17	6.0	2.0
98	12	08	11	59	27.60	31.66	-116.05	6.0	2.6
98	12	08	19	54	53.20	32.06	-115.44	6.0	2.0
98	12	09	02	18	11.20	33.06	-117.89	6.0	2.3
98	12	09	04	19	0.20	33.72	-116.81	16.3	2.7
98	12	09	10	40	8.20	34.36	-119.54	3.0	2.5
98	12	09	13	03	33.80	35.79	-117.64	3.8	2.5
98	12	09	15	54	31.40	32.76	-115.43	13.3	2.4
98	12	09	17	45	33.30	34.42	-117.73	5.8	2.3
98	12	09	19	10	19.20	31.57	-115.74	6.0	2.2
98	12	10	00	44	13.50	37.64	-118.93	6.0	2.9
98	12	10	06	11	34.60	32.26	-115.81	6.0	2.6
98	12	10	10	11	5.10	38.25	-118.39	6.0	2.5
98	12	10	17	01	8.40	32.52	-115.24	6.0	2.5
98	12	10	17	43	59.80	35.12	-118.51	1.4	2.3
98	12	10	20	02	14.70	33.95	-116.86	8.0	2.7
98	12	11	06	03	7.00	35.34	-118.54	1.1	3.6
98	12	11	06	04	35.80	35.34	-118.55	1.4	2.6
98	12	11	06	06	17.70	35.34	-118.56	2.5	2.0
98	12	11	06	54	38.20	35.34	-118.55	0.9	2.5
98	12	11	07	16	18.30	33.35	-115.72	4.0	2.1
98	12	11	08	14	58.70	34.31	-120.80	6.0	3.7
98	12	11	08	42	44.40	32.51	-115.24	6.0	2.9
98	12	11	09	01	31.10	32.53	-115.24	6.0	2.6
98	12	11	11	01	28.60	32.81	-115.47	6.6	2.2
98	12	11	12	48	49.80	34.19	-116.82	10.0	2.2
98	12	11	13	49	1.20	36.95	-117.46	6.0	2.3
98	12	11	16	37	24.90	34.34	-120.74	6.0	3.3
98	12	11	20	40	41.20	34.42	-117.72	5.6	2.2
98	12	12	13	02	44.90	34.37	-116.47	2.6	2.5
98	12	12	13	29	24.60	34.42	-116.48	2.4	2.1
98	12	12	15	03	11.00	34.01	-116.77	19.9	3.5
98	12	12	16	16	42.90	33.28	-116.79	6.0	2.4
98	12	12	18	11	25.40	36.65	-116.99	6.0	2.1
98	12	12	22	52	28.60	32.81	-115.61	10.5	2.5
98	12	13	02	18	36.20	35.34	-118.55	0.9	2.0
98	12	13	07	30	50.20	31.72	-115.98	6.0	2.7
98	12	13	07	39	42.30	32.72	-115.92	6.9	3.7
98	12	13	08	11	2.40	32.72	-115.92	2.7	2.8
98	12	13	11	53	29.30	34.34	-116.46	4.3	2.0
98	12	13	15	15	45.00	32.81	-115.61	12.6	2.2
98	12	13	18	57	31.10	33.27	-116.80	6.0	2.2
98	12	13	20	38	56.00	31.98	-115.74	6.0	2.8
98	12	13	23	09	50.80	33.96	-118.32	11.1	2.5
98	12	14	00	06	10.60	32.01	-115.42	6.0	2.3
98	12	14	00	58	13.30	31.72	-116.00	6.0	3.0
98	12	14	02	21	19.70	33.90	-118.52	9.6	2.1
98	12	14	03	15	55.60	34.42	-116.48	2.5	2.3
98	12	14	03	44	56.40	33.27	-116.79	6.0	2.2
98	12	14	04	14	3.90	37.55	-118.83	5.5	4.0

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	12	14	04	15	50.00	37.58	-118.86	6.0	3.8
98	12	14	05	13	4.30	32.01	-115.73	6.0	2.6
98	12	14	05	54	10.10	37.55	-118.83	5.5	4.0
98	12	14	08	24	59.10	37.53	-118.86	6.0	2.5
98	12	14	11	43	51.90	37.56	-118.79	6.0	3.0
98	12	14	11	51	51.10	37.54	-118.80	6.0	2.9
98	12	14	12	18	34.50	32.52	-115.24	6.0	2.0
98	12	14	12	32	3.50	32.09	-116.38	6.0	2.3
98	12	14	16	38	18.10	34.00	-116.87	16.8	2.1
98	12	14	17	18	26.00	34.61	-116.66	8.9	2.4
98	12	14	18	28	31.40	35.17	-117.67	6.0	2.2
98	12	14	23	26	1.80	34.01	-116.32	9.6	2.6
98	12	15	00	17	53.00	33.28	-116.78	6.0	2.1
98	12	15	02	50	3.80	34.34	-120.77	6.0	2.0
98	12	15	09	36	15.20	35.76	-117.62	3.4	2.1
98	12	15	22	42	51.50	32.98	-117.70	6.0	2.4
98	12	16	01	23	12.20	33.36	-115.69	1.9	2.1
98	12	16	09	36	55.40	32.15	-115.53	6.0	2.0
98	12	16	09	53	1.00	35.92	-119.83	6.0	2.5
98	12	16	11	54	43.00	34.36	-118.69	13.0	2.2
98	12	16	14	52	36.30	31.80	-116.65	6.0	2.5
98	12	16	19	48	42.70	32.09	-115.40	6.0	2.4
98	12	16	20	01	55.90	31.72	-115.94	6.0	2.3
98	12	16	21	14	14.10	34.21	-117.63	5.5	2.1
98	12	17	01	49	2.40	36.04	-117.58	0.0	3.3
98	12	17	02	36	57.50	32.08	-115.43	6.0	2.4
98	12	17	03	01	5.90	32.05	-115.44	6.0	3.0
98	12	17	03	15	2.60	32.08	-115.42	6.0	2.1
98	12	17	08	57	55.80	34.53	-119.11	17.9	2.0
98	12	17	10	32	13.80	37.59	-118.84	19.0	4.1
98	12	17	14	00	52.90	37.41	-118.91	6.0	3.0
98	12	17	15	07	56.80	36.08	-117.60	0.0	2.3
98	12	17	20	35	33.40	32.09	-115.40	6.0	2.3
98	12	17	22	13	45.60	34.62	-116.66	9.7	2.5
98	12	17	23	54	31.00	32.17	-115.52	6.0	2.0
98	12	18	06	03	37.60	33.97	-117.17	15.4	2.3
98	12	18	08	19	3.00	34.16	-117.38	5.9	2.1
98	12	18	08	43	14.50	32.82	-115.62	10.7	2.3
98	12	18	08	51	23.90	34.35	-118.69	14.1	2.2
98	12	18	09	38	59.20	33.64	-119.07	6.0	3.9
98	12	18	12	39	44.70	34.11	-116.92	4.2	2.9
98	12	18	16	31	12.60	32.05	-116.27	6.0	2.0
98	12	18	21	35	33.10	32.71	-115.91	5.7	2.2
98	12	19	01	00	14.10	33.34	-115.72	3.8	2.4
98	12	19	01	00	22.70	33.35	-115.72	3.4	2.0
98	12	19	01	03	40.80	33.34	-115.72	3.8	2.1
98	12	19	01	05	10.90	32.07	-115.42	6.0	3.2
98	12	19	01	06	3.50	33.34	-115.72	4.0	2.5
98	12	19	06	10	56.80	32.09	-115.44	6.0	2.1
98	12	19	08	17	17.00	34.02	-117.04	17.9	2.3
98	12	19	08	23	53.30	33.77	-118.08	6.0	2.0
98	12	19	08	27	25.20	33.80	-118.07	4.7	2.1
98	12	19	08	29	10.20	32.04	-115.43	6.0	2.0
98	12	19	09	38	59.60	32.06	-115.43	6.0	2.4
98	12	19	14	08	44.50	34.33	-116.86	5.2	2.1

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	12	19	21	50	5.30	32.97	-115.54	6.0	2.3
98	12	19	22	24	38.20	32.97	-115.55	6.3	2.0
98	12	19	22	40	46.10	32.97	-115.56	7.0	2.0
98	12	20	04	33	29.80	35.76	-116.59	6.0	2.8
98	12	20	06	40	51.70	35.92	-117.76	6.5	2.3
98	12	20	13	55	3.00	32.81	-115.62	9.6	2.0
98	12	20	14	23	39.70	33.50	-117.92	6.8	3.2
98	12	20	14	25	44.70	33.51	-117.92	11.4	3.7
98	12	20	15	12	30.70	33.52	-117.92	6.0	2.3
98	12	20	19	20	52.10	35.12	-120.43	6.0	3.0
98	12	20	22	24	38.80	32.96	-115.54	6.0	2.2
98	12	21	02	18	31.80	33.51	-117.92	6.0	2.8
98	12	21	03	07	29.50	33.53	-117.92	6.0	2.3
98	12	21	03	15	16.50	33.50	-117.92	6.0	2.6
98	12	21	04	05	45.50	35.76	-117.64	6.8	2.2
98	12	21	05	57	35.50	32.47	-115.06	6.0	2.2
98	12	21	06	05	50.40	33.13	-116.03	6.0	2.2
98	12	21	06	54	42.30	34.29	-119.49	3.5	2.1
98	12	21	16	06	38.20	31.98	-115.77	6.0	2.7
98	12	21	21	05	22.40	33.40	-116.99	8.7	2.4
98	12	21	21	07	10.60	33.39	-117.00	7.4	2.6
98	12	21	21	10	6.80	32.07	-115.41	6.0	2.6
98	12	21	22	55	28.50	32.68	-115.81	5.2	2.7
98	12	22	03	59	53.00	33.28	-116.79	6.0	2.6
98	12	22	04	01	16.50	33.28	-116.79	6.0	2.5
98	12	22	05	29	10.00	33.50	-116.56	10.9	2.9
98	12	22	06	54	44.20	32.97	-115.56	6.9	2.1
98	12	22	08	53	52.70	32.05	-115.42	6.0	2.5
98	12	22	13	55	5.00	32.19	-115.65	6.0	2.4
98	12	22	15	17	53.00	36.49	-117.89	6.0	2.5
98	12	22	19	26	3.80	33.89	-120.31	6.0	2.7
98	12	23	01	40	4.60	32.03	-115.40	6.0	2.6
98	12	23	08	29	20.30	33.57	-116.47	6.0	2.1
98	12	23	10	09	11.60	37.54	-118.85	6.0	2.0
98	12	23	12	13	40.40	33.44	-116.36	6.0	2.1
98	12	23	14	16	51.40	35.75	-117.64	2.9	2.2
98	12	23	15	14	48.20	37.47	-118.81	6.0	3.0
98	12	23	16	00	54.30	34.37	-116.47	0.9	2.0
98	12	23	19	10	49.20	33.17	-115.65	1.0	2.3
98	12	24	03	10	54.70	32.81	-115.61	9.4	2.3
98	12	24	08	54	9.00	33.39	-116.34	2.8	2.8
98	12	24	09	28	53.30	33.52	-117.92	6.0	2.1
98	12	24	10	21	6.70	36.06	-117.64	0.6	2.5
98	12	24	12	49	22.00	35.16	-119.16	25.1	2.1
98	12	24	16	51	15.70	32.71	-115.91	5.5	2.5
98	12	24	18	33	0.60	33.31	-116.36	6.0	2.8
98	12	24	19	16	47.70	31.77	-116.70	6.0	2.6
98	12	24	22	36	31.40	32.74	-115.50	12.9	2.1
98	12	24	23	43	3.30	36.08	-117.60	0.7	2.5
98	12	25	00	48	6.10	32.72	-115.90	6.4	2.0
98	12	25	05	20	38.20	37.17	-119.47	6.0	2.8
98	12	25	05	43	27.70	34.31	-116.85	5.8	2.0
98	12	25	06	56	32.30	36.09	-118.38	11.6	3.3
98	12	25	07	27	33.30	34.31	-116.85	5.4	2.8
98	12	25	07	55	4.40	33.20	-116.42	6.0	2.2

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
98	12	25	08	07	51.00	34.31	-116.85	5.9	2.0
98	12	25	09	31	57.10	34.31	-116.85	6.6	2.3
98	12	25	13	42	25.30	31.96	-116.32	6.0	2.9
98	12	25	16	38	1.40	35.50	-119.19	6.0	2.0
98	12	25	18	34	54.80	32.66	-115.79	3.9	2.3
98	12	25	22	07	2.70	32.81	-115.61	8.1	2.0
98	12	25	23	00	26.80	34.38	-118.63	13.9	2.5
98	12	26	01	06	51.90	34.24	-117.47	13.2	2.4
98	12	26	08	11	42.40	33.78	-116.96	14.8	2.4
98	12	26	11	07	23.70	36.04	-117.58	0.6	2.0
98	12	26	13	53	54.40	32.08	-115.44	6.0	2.3
98	12	26	15	57	3.00	31.63	-116.50	6.0	2.7
98	12	26	16	47	52.60	34.13	-118.51	9.5	2.4
98	12	26	17	36	17.50	34.31	-116.85	7.1	2.0
98	12	27	01	15	45.80	34.31	-116.85	6.3	2.1
98	12	27	09	43	41.70	32.01	-116.29	6.0	2.5
98	12	27	11	34	21.20	32.10	-115.44	6.0	2.3
98	12	28	01	22	4.80	34.16	-119.12	2.6	2.4
98	12	28	14	49	48.00	34.41	-116.47	9.8	2.0
98	12	28	23	22	48.60	36.11	-118.39	14.9	2.2
98	12	29	01	46	34.40	32.17	-115.03	6.0	3.2
98	12	29	04	51	59.40	35.33	-119.43	6.0	2.1
98	12	29	13	36	31.40	31.97	-115.51	6.0	3.1
98	12	29	13	42	40.80	36.07	-117.83	2.3	3.1
98	12	29	14	04	14.00	36.07	-117.84	1.0	2.3
98	12	29	16	22	51.00	32.68	-115.80	5.3	2.1
98	12	29	21	51	10.90	34.21	-118.63	3.0	2.5
98	12	30	02	47	41.90	36.07	-117.84	2.2	2.3
98	12	30	02	48	35.40	36.07	-117.83	2.5	2.5
98	12	30	03	10	46.20	33.83	-116.79	17.7	2.1
98	12	30	05	41	36.30	32.28	-116.36	6.0	2.1
98	12	30	06	38	5.60	32.57	-117.28	6.0	2.1
98	12	30	07	26	57.90	36.07	-117.83	2.6	2.5
98	12	30	12	22	36.00	36.00	-117.97	2.7	2.8
98	12	30	14	00	21.70	32.05	-116.29	6.0	2.6
98	12	30	15	17	46.00	35.64	-117.49	10.4	2.9
98	12	30	18	48	35.20	33.76	-116.12	8.2	2.8
98	12	30	22	10	56.50	32.80	-115.60	9.5	2.0
98	12	30	22	37	17.60	34.35	-116.46	9.0	2.1
98	12	31	17	36	28.80	33.84	-117.09	16.0	2.6
98	12	31	19	57	2.10	36.45	-116.93	6.0	2.1
98	12	31	20	47	3.20	35.92	-117.75	7.0	2.5
99	01	01	08	44	39.30	32.82	-115.61	8.6	2.0
99	01	01	11	08	4.00	34.57	-119.15	6.0	2.8
99	01	01	11	45	48.80	37.64	-118.90	6.0	3.1
99	01	01	12	03	46.80	31.90	-115.75	6.0	2.0
99	01	01	12	21	58.50	35.01	-119.20	9.5	3.5
99	01	01	19	31	29.60	32.83	-115.62	14.9	3.2
99	01	01	19	32	3.30	32.84	-115.62	10.1	3.0
99	01	01	19	44	31.20	32.83	-115.61	10.1	2.2
99	01	01	19	51	24.80	32.83	-115.61	14.6	3.3
99	01	01	20	19	28.20	34.56	-119.14	0.5	2.4
99	01	01	20	37	18.90	32.82	-115.60	13.9	2.2
99	01	01	22	08	47.50	32.82	-115.60	11.8	2.3
99	01	02	07	52	42.90	32.83	-115.61	14.6	2.2

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	01	02	09	16	8.00	34.28	-116.77	2.2	2.7
99	01	02	09	47	54.50	32.16	-115.00	6.0	2.5
99	01	02	18	49	47.60	32.68	-115.80	5.2	2.3
99	01	02	20	49	20.60	33.73	-118.48	6.0	2.3
99	01	02	21	36	3.40	36.11	-118.40	14.8	2.2
99	01	02	23	25	35.60	31.57	-115.63	6.0	3.3
99	01	03	01	42	34.90	37.53	-118.77	6.0	2.5
99	01	03	02	35	21.20	37.56	-118.73	6.0	2.7
99	01	03	03	35	15.90	36.11	-118.41	16.0	2.1
99	01	03	05	05	30.50	35.99	-117.57	0.0	2.5
99	01	03	05	37	42.60	36.07	-117.84	2.5	3.1
99	01	03	05	38	30.90	36.07	-117.84	2.5	2.1
99	01	03	06	41	53.50	33.71	-116.83	15.7	2.1
99	01	03	06	42	31.90	33.71	-116.83	15.6	2.4
99	01	03	10	52	11.30	37.64	-118.66	6.0	2.2
99	01	03	11	36	45.60	34.47	-116.50	3.0	2.2
99	01	03	15	30	23.00	37.53	-118.81	6.0	3.1
99	01	03	15	31	42.40	37.52	-118.82	0.5	2.8
99	01	03	16	36	15.30	37.50	-118.78	6.0	2.2
99	01	03	18	24	5.20	36.10	-118.40	13.3	3.0
99	01	03	20	33	14.70	34.27	-118.55	13.4	2.3
99	01	04	01	45	18.90	34.31	-119.75	0.0	2.3
99	01	04	12	09	39.00	32.77	-115.44	9.6	2.2
99	01	04	13	32	26.40	34.04	-116.36	0.0	2.1
99	01	04	20	41	48.80	34.55	-116.49	0.0	2.1
99	01	04	22	22	51.40	32.73	-115.41	4.4	2.1
99	01	04	23	02	46.10	34.22	-117.68	5.6	2.2
99	01	05	10	57	27.40	36.89	-115.94	6.0	3.2
99	01	05	23	49	19.70	34.35	-116.46	4.6	2.0
99	01	06	09	23	7.30	33.69	-116.75	15.5	2.0
99	01	06	12	02	41.70	36.32	-118.02	6.0	2.1
99	01	06	16	00	34.40	31.82	-116.22	6.0	2.4
99	01	06	21	41	39.50	32.98	-115.54	6.0	2.4
99	01	07	02	56	1.30	37.55	-118.80	8.2	2.6
99	01	07	14	29	38.80	31.64	-116.02	6.0	2.7
99	01	07	17	50	34.00	36.23	-120.17	6.0	2.5
99	01	07	20	36	56.00	34.47	-116.50	3.1	2.3
99	01	08	02	03	4.50	34.07	-116.72	6.8	2.0
99	01	08	05	23	2.70	33.09	-119.02	6.0	2.5
99	01	08	06	23	39.30	33.40	-116.96	16.4	2.2
99	01	08	20	44	16.70	35.88	-119.83	6.0	2.2
99	01	08	21	21	33.10	32.75	-115.43	6.8	2.1
99	01	09	00	27	17.60	34.20	-119.64	6.0	2.7
99	01	09	02	48	36.80	38.38	-118.43	6.0	2.8
99	01	09	04	14	48.50	37.25	-119.81	6.0	2.9
99	01	09	13	43	35.60	35.64	-117.61	5.5	2.4
99	01	09	14	55	49.20	33.18	-115.59	0.7	2.1
99	01	09	17	19	33.00	34.99	-119.28	1.9	2.1
99	01	09	19	40	2.80	32.18	-115.09	6.0	2.7
99	01	09	19	40	19.50	32.17	-115.09	6.0	3.0
99	01	10	07	19	18.20	32.27	-118.32	6.0	2.5
99	01	10	09	05	12.50	35.02	-117.02	7.4	2.2
99	01	10	15	20	18.00	34.94	-119.22	3.0	2.9
99	01	11	11	09	28.30	36.77	-116.26	6.0	2.6
99	01	11	13	30	12.70	34.19	-116.83	9.1	2.6

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	01	11	14	00	17.00	34.20	-116.83	9.3	2.4
99	01	12	01	58	13.30	34.23	-118.45	11.9	2.4
99	01	12	03	14	3.40	37.57	-119.10	6.0	2.5
99	01	12	04	50	55.30	34.24	-116.75	5.4	2.3
99	01	12	10	08	39.10	34.12	-119.15	9.1	2.5
99	01	12	16	42	28.40	31.63	-115.92	6.0	3.3
99	01	12	18	21	29.30	34.37	-120.70	1.0	2.6
99	01	12	20	57	0.80	34.06	-116.98	14.9	2.1
99	01	12	23	42	50.30	33.47	-116.47	6.0	2.4
99	01	12	23	48	9.70	35.99	-120.53	12.9	2.8
99	01	13	02	26	47.50	34.34	-116.47	3.8	2.3
99	01	13	09	12	35.40	34.20	-119.64	6.0	2.6
99	01	13	09	26	47.00	34.62	-116.57	8.5	2.3
99	01	13	10	02	5.40	32.72	-115.92	9.4	3.8
99	01	13	12	03	40.20	32.72	-115.92	5.5	2.6
99	01	13	12	03	59.80	32.73	-115.92	1.1	2.7
99	01	13	12	15	23.50	32.72	-115.92	5.9	2.2
99	01	13	12	38	48.10	32.72	-115.92	6.0	2.1
99	01	13	13	20	56.00	32.73	-115.93	2.6	4.4
99	01	13	13	23	34.50	32.71	-115.91	5.5	2.3
99	01	13	13	23	57.40	32.71	-115.92	5.5	3.1
99	01	13	13	27	57.40	32.72	-115.92	5.7	2.3
99	01	13	14	30	33.30	33.52	-118.26	6.0	2.2
99	01	13	16	27	12.90	32.71	-115.91	5.8	2.0
99	01	14	02	29	39.40	34.97	-117.43	2.3	2.3
99	01	14	05	17	2.20	32.39	-117.12	6.0	2.3
99	01	14	06	42	52.90	34.18	-119.58	6.0	2.0
99	01	14	06	44	13.40	33.65	-119.01	6.0	3.5
99	01	14	19	23	14.20	37.54	-118.80	6.0	2.4
99	01	14	19	51	19.30	32.73	-115.92	5.4	2.5
99	01	15	04	07	50.20	37.66	-118.85	6.0	2.5
99	01	15	04	34	28.60	37.64	-118.86	6.0	2.5
99	01	15	05	48	18.50	36.10	-118.32	6.0	2.7
99	01	15	06	26	3.10	36.10	-118.32	6.2	2.5
99	01	15	08	46	41.20	35.72	-119.19	6.0	2.1
99	01	15	20	25	1.10	33.83	-117.70	9.2	2.0
99	01	16	10	54	20.50	33.21	-116.06	1.8	2.1
99	01	16	18	48	49.70	33.52	-117.92	6.0	2.3
99	01	16	19	49	3.40	32.71	-115.91	6.7	2.9
99	01	16	20	12	12.50	32.71	-115.91	5.5	2.3
99	01	17	03	58	42.50	32.60	-117.27	6.0	2.0
99	01	17	04	55	29.40	34.14	-116.43	3.2	2.0
99	01	17	05	13	58.80	32.36	-115.14	6.0	2.5
99	01	17	11	31	39.00	32.33	-115.25	6.0	2.5
99	01	17	11	49	41.00	36.07	-117.83	3.1	2.0
99	01	17	18	39	30.80	32.76	-115.44	13.3	2.1
99	01	17	20	08	50.90	33.83	-117.61	6.7	2.0
99	01	17	21	05	29.80	33.09	-117.98	6.0	2.3
99	01	17	22	20	43.40	32.50	-115.44	6.0	2.6
99	01	18	11	21	11.10	34.12	-116.39	3.4	2.0
99	01	18	13	25	46.40	35.84	-121.26	6.0	2.7
99	01	18	21	34	48.40	36.64	-121.24	6.0	3.1
99	01	18	22	12	29.10	34.10	-119.16	9.7	2.7
99	01	18	22	52	59.20	32.71	-115.91	6.8	3.0
99	01	19	00	09	50.10	33.42	-117.22	16.0	2.1

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	01	19	00	26	40.80	32.71	-115.91	6.0	2.4
99	01	19	06	27	48.70	34.62	-116.63	5.3	2.2
99	01	19	07	51	11.40	32.71	-115.90	6.8	2.1
99	01	19	08	44	0.70	34.26	-118.51	13.3	2.5
99	01	19	14	33	27.10	36.06	-117.83	3.0	2.0
99	01	19	17	48	52.70	33.14	-116.47	12.6	2.2
99	01	19	19	01	8.70	32.00	-115.75	6.0	2.9
99	01	19	22	25	31.70	36.07	-117.83	3.0	3.3
99	01	19	23	10	48.60	36.06	-117.83	3.3	2.2
99	01	19	23	14	57.60	36.06	-117.83	2.8	2.5
99	01	19	23	32	8.30	36.06	-117.83	3.4	2.8
99	01	19	23	32	50.30	36.06	-117.83	3.2	2.1
99	01	20	00	00	52.60	31.98	-116.27	6.0	2.6
99	01	20	00	53	56.20	36.06	-117.83	3.0	3.6
99	01	20	00	55	32.50	36.07	-117.84	3.5	2.1
99	01	20	01	17	19.30	36.06	-117.83	3.0	2.5
99	01	20	01	40	27.60	36.06	-117.83	3.7	2.0
99	01	20	01	51	18.20	36.07	-117.83	3.0	2.5
99	01	20	06	42	39.00	35.65	-118.06	15.0	2.2
99	01	20	08	14	35.20	34.21	-119.57	6.0	2.4
99	01	20	08	16	49.00	34.22	-119.57	6.0	2.6
99	01	20	09	27	18.00	32.71	-115.91	5.2	2.1
99	01	20	10	00	25.90	34.22	-119.57	6.0	2.5
99	01	20	11	20	4.50	32.03	-115.74	6.0	2.7
99	01	20	11	32	44.80	34.21	-119.59	6.0	2.5
99	01	20	11	37	19.60	36.06	-117.83	2.8	2.4
99	01	20	11	54	0.30	34.21	-119.58	6.0	2.6
99	01	20	12	09	1.20	34.21	-119.58	6.0	2.9
99	01	20	13	23	21.40	36.07	-117.83	2.7	2.9
99	01	20	16	09	26.40	34.19	-119.59	6.0	2.4
99	01	20	16	51	37.70	34.20	-119.59	6.0	2.3
99	01	20	18	10	12.50	34.14	-119.17	2.4	3.2
99	01	20	19	52	42.10	34.21	-119.59	6.0	2.6
99	01	20	19	58	7.50	34.22	-119.59	6.0	2.5
99	01	20	20	40	9.60	34.22	-119.59	6.0	2.5
99	01	20	20	56	25.10	33.26	-115.99	6.0	2.0
99	01	21	00	03	52.40	34.09	-117.31	9.3	2.2
99	01	21	00	31	40.40	34.20	-119.59	6.0	2.3
99	01	21	03	01	26.50	34.21	-119.58	6.0	2.5
99	01	21	04	46	56.40	36.09	-117.59	0.0	2.4
99	01	21	04	58	34.40	34.34	-116.47	5.1	2.6
99	01	21	04	59	44.40	34.34	-116.47	4.6	2.7
99	01	21	07	10	46.60	36.03	-117.87	4.7	2.4
99	01	21	16	45	56.60	32.71	-115.91	5.4	2.2
99	01	21	16	52	46.20	32.80	-116.65	18.0	2.2
99	01	21	20	04	35.80	32.42	-117.93	6.0	3.1
99	01	21	22	49	7.60	36.06	-117.83	3.5	3.1
99	01	21	22	52	2.70	33.99	-116.67	14.1	2.1
99	01	22	02	18	48.40	32.72	-115.92	5.5	2.5
99	01	22	02	25	5.60	37.56	-118.79	6.0	2.5
99	01	22	09	46	53.10	37.57	-118.78	6.0	2.7
99	01	22	12	34	6.20	32.02	-116.20	6.0	2.3
99	01	22	17	22	53.90	33.18	-115.61	1.1	2.1
99	01	22	23	50	49.60	35.34	-118.57	6.6	3.1
99	01	23	00	41	57.80	33.99	-118.36	13.6	2.4

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	01	23	08	24	40.30	37.64	-118.91	6.0	2.2
99	01	23	10	28	51.40	32.78	-115.44	11.9	2.4
99	01	23	15	16	36.80	36.06	-117.83	3.8	2.0
99	01	23	15	43	48.10	32.07	-115.42	6.0	2.7
99	01	23	20	33	30.90	34.06	-117.28	11.6	2.2
99	01	23	23	54	23.50	33.97	-117.23	12.9	2.3
99	01	24	01	11	16.50	31.98	-115.75	6.0	2.8
99	01	24	22	24	50.30	34.29	-118.38	2.8	2.8
99	01	24	23	58	51.70	34.32	-116.84	5.0	3.4
99	01	25	00	20	4.40	34.32	-116.84	5.8	2.3
99	01	25	06	05	8.10	34.63	-116.56	8.5	2.2
99	01	25	06	18	9.60	32.73	-115.41	15.9	2.4
99	01	25	07	34	54.10	36.60	-118.03	6.0	2.0
99	01	25	15	46	15.00	34.08	-117.31	16.5	2.1
99	01	26	09	36	32.60	32.73	-115.93	4.7	2.3
99	01	26	13	46	30.80	34.36	-118.65	13.9	2.3
99	01	27	03	11	6.90	36.00	-117.79	1.4	2.2
99	01	27	03	32	51.20	36.00	-117.78	1.8	2.5
99	01	27	03	35	19.20	32.89	-116.24	6.0	2.1
99	01	27	06	23	53.30	34.03	-117.25	18.5	2.2
99	01	27	06	55	51.50	36.02	-117.77	1.9	2.4
99	01	27	15	58	3.40	36.06	-117.84	1.7	2.3
99	01	27	16	50	35.70	33.16	-116.08	6.0	2.0
99	01	27	20	16	32.40	32.66	-115.97	5.4	2.0
99	01	27	22	33	26.60	32.71	-115.92	5.5	2.3
99	01	28	17	50	13.90	34.39	-116.47	2.7	2.1
99	01	28	19	48	1.90	38.05	-118.95	6.0	3.2
99	01	28	20	19	51.90	34.39	-118.62	14.4	2.5
99	01	28	21	03	48.40	34.38	-118.67	20.8	2.1
99	01	29	02	37	7.80	36.01	-117.81	0.7	2.0
99	01	29	18	10	1.00	35.32	-118.54	2.0	2.1
99	01	30	06	41	44.00	35.93	-117.71	1.9	2.1
99	01	30	08	24	6.80	32.76	-118.03	6.0	2.6
99	01	30	10	20	34.60	33.22	-116.76	6.5	2.1
99	01	30	11	06	22.40	33.26	-116.08	2.6	2.3
99	01	30	13	17	13.90	33.93	-116.71	11.5	2.2
99	01	30	14	43	45.20	36.07	-119.57	6.0	2.9
99	01	30	14	55	28.30	34.31	-116.84	5.4	2.1
99	01	30	19	15	50.40	37.62	-118.79	6.0	2.7
99	01	30	21	35	3.90	34.43	-119.03	20.9	2.5
99	01	30	23	24	4.50	34.09	-117.43	3.2	3.6
99	01	30	23	59	40.80	34.09	-117.44	3.4	2.3
99	01	31	00	06	51.40	34.08	-117.44	3.2	2.1
99	01	31	01	10	1.40	33.33	-116.34	6.0	2.0
99	01	31	07	55	53.10	35.34	-118.54	0.0	3.0
99	01	31	11	13	8.70	35.34	-118.54	0.0	2.4
99	01	31	17	40	18.50	34.61	-116.58	8.1	2.2
99	01	31	19	13	23.60	31.38	-115.46	6.0	3.0
99	01	31	20	14	24.70	34.32	-116.84	5.0	2.4
99	02	01	01	34	45.80	34.08	-117.56	11.8	2.1
99	02	01	03	32	15.60	33.55	-116.67	6.0	2.4
99	02	01	04	39	29.90	32.10	-115.40	6.0	2.0
99	02	01	09	38	37.30	34.22	-117.45	9.8	2.2
99	02	01	16	14	0.20	37.63	-118.69	6.0	2.1
99	02	01	20	10	47.70	34.62	-116.67	7.9	2.3

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	02	01	23	33	15.10	32.70	-116.01	2.7	2.3
99	02	02	00	14	37.90	36.06	-117.85	1.5	2.4
99	02	02	03	14	34.80	34.08	-117.44	3.7	2.0
99	02	02	03	18	12.30	34.08	-117.44	3.2	2.6
99	02	02	03	53	3.70	36.04	-117.71	0.9	3.2
99	02	02	07	07	1.20	31.55	-115.72	6.0	3.2
99	02	02	11	15	37.40	32.42	-115.33	6.0	2.5
99	02	02	14	36	51.30	32.04	-115.15	6.0	3.1
99	02	02	14	38	42.20	32.25	-115.85	6.0	2.0
99	02	02	15	23	53.00	32.04	-115.14	6.0	2.9
99	02	02	17	24	2.10	32.40	-115.35	6.0	2.0
99	02	02	18	40	33.00	32.44	-115.36	6.0	2.1
99	02	03	06	26	31.50	37.59	-118.91	6.0	2.4
99	02	03	07	29	9.60	33.97	-116.90	17.6	2.0
99	02	03	09	55	29.00	34.11	-116.92	5.1	2.1
99	02	03	13	24	12.90	37.55	-118.79	6.0	2.2
99	02	03	15	31	41.20	36.46	-117.52	6.0	2.0
99	02	03	21	54	3.60	33.12	-115.63	1.4	2.1
99	02	04	07	53	37.90	37.07	-116.01	6.0	2.8
99	02	04	08	26	17.30	37.51	-118.82	0.0	2.9
99	02	04	13	02	10.80	35.34	-118.54	0.0	3.1
99	02	04	15	23	7.50	33.18	-115.57	1.8	2.5
99	02	04	15	30	48.90	33.17	-115.61	4.6	2.2
99	02	04	20	15	48.40	33.19	-115.57	0.6	2.5
99	02	04	20	26	16.10	33.19	-115.57	1.4	2.5
99	02	04	20	39	3.00	34.08	-117.44	3.3	2.1
99	02	05	02	32	43.20	34.17	-116.43	5.3	2.2
99	02	05	17	26	45.80	37.57	-118.88	6.0	2.2
99	02	05	22	07	29.20	34.02	-117.09	17.9	2.2
99	02	06	07	54	49.80	35.96	-120.49	19.3	2.7
99	02	06	09	38	48.60	34.33	-116.84	5.0	3.0
99	02	06	12	14	31.70	34.01	-119.56	6.0	2.5
99	02	07	01	51	55.00	37.10	-115.83	6.0	2.8
99	02	07	05	35	10.70	33.94	-116.37	3.2	2.8
99	02	07	07	04	17.30	35.70	-117.59	3.5	2.2
99	02	07	07	43	14.40	36.55	-121.19	6.0	3.3
99	02	07	16	04	33.50	31.40	-115.60	6.0	2.3
99	02	07	17	46	42.30	34.06	-117.27	11.0	2.2
99	02	07	18	13	56.50	35.76	-118.38	8.4	2.2
99	02	07	23	24	39.60	34.06	-117.50	3.9	2.0
99	02	08	03	43	37.20	35.51	-119.32	6.0	2.2
99	02	08	12	08	33.50	35.29	-118.61	0.9	2.2
99	02	08	13	40	57.60	33.06	-117.85	6.0	2.0
99	02	08	15	52	31.90	34.16	-116.44	4.4	2.1
99	02	08	17	44	50.10	34.04	-116.81	2.7	2.1
99	02	08	18	22	39.90	34.64	-116.64	10.0	2.2
99	02	09	01	47	21.80	31.98	-115.77	6.0	2.6
99	02	09	05	07	40.20	32.70	-116.00	2.7	2.2
99	02	09	19	48	33.00	31.84	-115.84	6.0	2.0
99	02	09	21	09	3.50	32.02	-115.76	6.0	2.7
99	02	10	06	15	7.30	36.00	-117.79	1.3	2.3
99	02	10	06	25	1.90	31.98	-115.10	6.0	3.3
99	02	10	08	50	32.10	34.31	-116.84	6.3	2.3
99	02	10	11	21	59.20	34.31	-116.84	5.8	2.8
99	02	10	12	18	34.60	34.31	-116.84	6.8	2.1

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	02	10	17	58	44.00	31.73	-116.14	6.0	3.0
99	02	10	19	35	39.10	32.68	-116.01	5.1	2.2
99	02	10	22	09	31.70	34.17	-117.34	9.5	2.2
99	02	11	00	16	35.60	32.75	-115.42	10.4	2.4
99	02	11	00	19	31.60	32.75	-115.42	9.7	2.5
99	02	11	04	10	21.70	33.94	-116.96	8.9	2.0
99	02	11	04	23	10.10	34.37	-117.64	7.0	2.1
99	02	11	06	46	50.00	34.06	-116.96	14.6	2.1
99	02	11	09	42	2.00	32.70	-116.00	2.8	2.2
99	02	11	12	00	54.90	37.58	-118.82	6.0	2.2
99	02	11	15	52	4.20	34.11	-116.92	5.6	2.5
99	02	11	17	00	10.00	37.60	-118.70	6.0	2.1
99	02	11	18	16	56.30	34.96	-116.82	11.0	2.1
99	02	11	22	42	43.90	37.51	-118.79	6.0	2.9
99	02	11	22	50	6.50	32.58	-117.27	6.0	2.4
99	02	11	23	44	2.20	34.67	-116.51	2.0	2.3
99	02	12	00	48	29.80	36.18	-117.85	3.5	2.7
99	02	12	02	20	4.30	34.09	-117.44	3.9	2.6
99	02	12	03	17	41.70	34.09	-117.44	3.8	2.1
99	02	12	09	09	6.80	34.22	-116.85	0.5	2.0
99	02	12	12	00	49.90	32.06	-115.43	6.0	2.3
99	02	12	15	59	24.20	33.87	-118.27	18.8	2.4
99	02	13	01	39	24.00	34.31	-116.46	4.2	2.1
99	02	13	14	13	13.40	31.70	-116.95	6.0	2.5
99	02	13	21	19	3.20	31.96	-115.81	6.0	2.5
99	02	14	01	16	34.10	34.36	-116.46	4.4	2.4
99	02	14	07	59	22.10	32.79	-117.88	6.0	2.1
99	02	14	08	29	54.50	32.76	-118.19	6.0	2.0
99	02	14	15	27	7.50	34.23	-118.69	21.5	2.2
99	02	14	16	28	56.70	33.75	-118.27	6.0	2.2
99	02	14	19	04	2.40	36.07	-117.85	2.5	2.2
99	02	15	19	53	27.90	36.06	-117.86	2.1	2.4
99	02	15	21	05	48.10	36.01	-117.81	1.9	2.1
99	02	15	23	42	46.00	36.06	-117.86	2.3	2.2
99	02	15	23	42	54.80	36.05	-117.86	2.0	2.5
99	02	16	13	33	1.70	31.85	-115.50	6.0	3.0
99	02	16	16	59	9.10	34.42	-119.95	6.4	2.3
99	02	16	20	33	4.70	34.39	-119.94	4.2	2.0
99	02	16	21	12	34.20	33.86	-116.84	16.5	2.0
99	02	16	22	25	12.40	34.35	-116.47	1.0	2.2
99	02	16	22	28	44.80	34.35	-116.47	4.1	2.2
99	02	16	23	39	27.70	34.35	-116.47	4.3	2.1
99	02	16	23	46	32.90	31.78	-116.26	6.0	2.1
99	02	17	06	19	4.90	34.41	-119.95	8.4	2.0
99	02	17	15	20	7.90	34.29	-116.89	5.2	2.0
99	02	17	20	23	56.10	32.42	-115.37	6.0	2.5
99	02	18	02	39	49.40	32.79	-115.45	10.1	2.3
99	02	18	03	38	57.90	35.67	-118.09	11.6	2.1
99	02	18	03	57	14.20	35.67	-118.09	11.3	2.6
99	02	18	03	58	34.90	35.67	-118.09	11.9	2.0
99	02	18	04	06	37.00	34.34	-118.44	6.0	2.4
99	02	18	14	39	45.50	32.97	-117.79	6.0	2.2
99	02	18	18	15	59.00	35.47	-120.75	6.0	2.8
99	02	19	00	55	0.60	34.32	-118.42	6.0	2.5
99	02	19	03	08	32.20	32.59	-116.17	3.4	4.3

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	02	19	03	22	38.30	32.60	-116.15	6.0	3.5
99	02	19	06	00	54.90	33.18	-115.60	0.2	2.2
99	02	19	07	47	0.50	33.22	-115.69	0.3	2.6
99	02	19	14	04	13.30	34.20	-116.83	3.3	2.1
99	02	19	16	27	51.00	33.20	-115.99	6.0	3.5
99	02	19	16	58	55.10	34.84	-118.95	13.3	3.4
99	02	19	17	01	40.00	34.84	-118.95	12.7	2.3
99	02	19	17	08	0.10	34.84	-118.96	15.3	2.4
99	02	19	17	20	36.90	34.84	-118.95	15.2	2.4
99	02	19	17	53	3.50	32.24	-115.80	6.0	2.7
99	02	20	01	43	38.00	32.43	-115.39	6.0	2.2
99	02	20	03	31	47.30	33.19	-115.60	1.0	2.1
99	02	20	07	57	9.20	33.70	-116.82	17.5	2.0
99	02	20	07	57	12.20	33.70	-116.84	16.6	2.2
99	02	20	09	43	41.50	32.40	-115.33	6.0	2.2
99	02	20	12	18	30.80	37.59	-118.81	6.0	2.3
99	02	20	14	45	38.90	34.52	-120.90	6.0	2.5
99	02	20	20	30	9.40	34.28	-120.97	6.0	2.5
99	02	21	18	55	55.10	34.31	-116.44	6.6	2.0
99	02	21	23	55	4.20	33.93	-116.34	6.0	2.2
99	02	22	05	19	2.20	32.26	-115.63	6.0	2.3
99	02	22	14	46	53.90	31.90	-117.17	6.0	2.5
99	02	22	16	04	9.20	33.70	-116.78	18.1	2.5
99	02	22	17	12	31.80	32.71	-115.91	4.1	2.1
99	02	22	19	37	0.30	37.61	-118.73	6.0	2.0
99	02	22	21	56	21.10	31.56	-114.98	6.0	3.1
99	02	23	06	12	13.30	31.05	-115.46	6.0	3.0
99	02	23	06	57	23.90	34.80	-120.95	6.0	2.6
99	02	23	11	22	51.50	32.71	-115.93	5.2	2.0
99	02	23	13	31	54.90	37.46	-118.98	6.0	2.5
99	02	23	16	00	49.50	34.06	-117.50	4.2	2.0
99	02	23	21	31	44.90	32.59	-117.06	6.0	2.6
99	02	23	23	55	11.20	33.94	-116.95	8.7	2.1
99	02	24	03	24	3.40	32.71	-115.91	5.5	2.3
99	02	24	08	38	23.30	36.08	-117.59	0.4	2.6
99	02	24	15	29	35.50	32.25	-115.78	6.0	2.0
99	02	24	23	10	11.50	37.63	-119.01	8.7	3.1
99	02	25	01	51	34.60	34.34	-116.47	5.3	2.4
99	02	25	01	59	35.10	34.34	-116.47	6.0	2.2
99	02	25	03	10	54.90	37.59	-118.76	6.0	2.8
99	02	25	03	48	51.90	37.63	-118.72	6.0	2.0
99	02	25	04	07	48.40	37.58	-118.77	6.0	2.7
99	02	25	08	19	16.40	35.47	-118.73	1.2	2.0
99	02	25	11	02	23.70	37.62	-118.99	7.5	2.9
99	02	25	12	17	55.70	34.13	-117.40	4.5	2.3
99	02	25	14	10	51.50	35.47	-118.74	0.1	2.5
99	02	25	15	10	40.40	33.19	-115.56	0.5	2.6
99	02	25	15	12	46.10	33.19	-115.57	1.3	2.0
99	02	25	15	59	45.40	35.47	-118.74	1.4	2.3
99	02	25	17	51	42.60	34.01	-117.24	19.5	2.2
99	02	25	18	27	40.10	33.22	-116.78	6.0	2.4
99	02	25	19	20	5.60	34.98	-119.00	17.1	2.4
99	02	26	03	29	10.10	36.36	-120.34	6.0	2.4
99	02	26	04	49	23.80	34.02	-118.34	12.3	2.1
99	02	26	04	57	22.00	31.75	-115.97	6.0	2.9

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	02	26	14	03	39.30	32.26	-115.62	6.0	2.9
99	02	26	15	25	57.40	35.94	-120.50	12.8	4.1
99	02	26	19	30	48.70	32.98	-115.89	9.5	2.3
99	02	26	19	32	19.60	32.19	-116.96	6.0	3.3
99	02	26	21	16	43.20	32.84	-115.71	9.7	2.2
99	02	27	00	49	59.30	34.88	-119.06	14.1	2.4
99	02	27	14	00	5.20	35.47	-118.74	0.0	2.2
99	02	27	20	03	58.20	37.53	-118.81	6.0	3.0
99	02	27	20	45	24.40	32.06	-115.40	6.0	2.4
99	02	27	22	31	55.00	32.19	-115.10	6.0	3.5
99	02	28	01	55	28.80	32.26	-115.60	6.0	2.0
99	02	28	02	50	17.00	33.98	-116.29	3.3	2.6
99	02	28	06	51	50.60	32.71	-115.91	5.9	2.7
99	02	28	07	13	16.10	34.01	-117.24	19.5	2.1
99	03	01	03	31	29.80	35.77	-117.66	7.1	2.4
99	03	01	05	50	27.60	35.49	-120.76	6.0	2.0
99	03	01	05	51	32.50	34.03	-118.32	8.5	2.6
99	03	01	06	53	23.10	34.22	-118.41	11.7	2.4
99	03	01	22	34	28.30	34.04	-117.28	17.0	2.4
99	03	02	01	52	49.30	31.85	-115.78	6.0	2.9
99	03	02	01	54	20.60	31.92	-115.79	6.0	2.6
99	03	02	02	33	4.80	31.83	-115.79	6.0	3.2
99	03	02	09	03	40.20	31.99	-116.94	6.0	2.5
99	03	02	09	05	53.40	35.00	-119.21	9.3	2.4
99	03	02	11	56	0.60	34.17	-117.34	12.1	2.5
99	03	02	14	22	5.70	35.14	-117.14	6.9	2.2
99	03	02	14	37	57.50	35.15	-117.14	9.2	2.4
99	03	02	21	06	47.40	34.37	-119.22	3.5	2.5
99	03	03	01	13	18.00	36.65	-121.25	6.0	2.7
99	03	03	01	34	53.60	32.72	-115.93	3.0	2.1
99	03	03	02	54	11.10	31.87	-115.79	6.0	2.7
99	03	03	05	58	26.70	31.80	-115.79	6.0	2.9
99	03	03	15	20	49.30	34.35	-118.61	12.8	2.5
99	03	03	17	16	51.20	34.35	-118.64	18.0	2.1
99	03	04	10	27	34.20	37.63	-118.70	6.0	2.9
99	03	04	13	59	16.80	34.34	-116.47	3.6	2.3
99	03	04	14	03	53.60	35.98	-120.02	6.0	2.3
99	03	04	19	34	17.10	35.58	-117.51	9.8	3.0
99	03	04	19	44	34.90	35.90	-119.85	6.0	2.1
99	03	05	00	18	50.00	35.94	-120.49	12.1	3.4
99	03	05	02	00	29.40	32.40	-115.37	6.0	2.6
99	03	05	03	23	4.70	33.01	-115.83	3.1	2.3
99	03	05	06	13	2.90	33.97	-116.35	7.9	3.5
99	03	05	09	53	2.30	34.41	-116.47	2.4	2.0
99	03	06	02	38	15.60	34.58	-118.81	2.4	2.3
99	03	06	06	04	0.90	32.00	-116.30	6.0	2.0
99	03	06	08	51	34.60	36.99	-117.44	6.0	2.9
99	03	06	11	00	50.50	35.82	-118.10	16.4	2.2
99	03	06	11	48	7.50	32.25	-115.78	6.0	2.0
99	03	06	13	01	38.70	33.25	-116.00	2.3	2.0
99	03	06	15	01	41.30	32.60	-116.15	7.1	2.0
99	03	06	20	55	2.90	35.83	-115.73	6.0	2.4
99	03	07	04	01	45.70	31.83	-115.85	6.0	2.5
99	03	07	09	59	50.90	36.03	-117.58	0.0	2.3
99	03	07	10	46	37.40	36.00	-117.80	1.0	2.0

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	03	07	13	53	11.40	32.24	-116.45	6.0	2.5
99	03	07	15	50	49.10	33.36	-116.40	6.0	2.7
99	03	07	19	07	30.60	36.06	-117.84	2.3	2.1
99	03	08	03	09	9.30	34.06	-118.40	11.4	2.2
99	03	08	10	52	35.00	34.33	-118.46	9.0	2.7
99	03	08	11	26	15.30	34.33	-118.49	9.0	2.0
99	03	08	12	03	55.80	34.34	-118.47	9.0	2.2
99	03	08	12	09	20.80	34.33	-118.47	9.6	3.0
99	03	08	17	41	49.50	34.34	-118.47	9.0	2.4
99	03	08	19	29	31.30	34.22	-119.51	14.5	2.2
99	03	09	00	05	7.40	33.83	-118.44	6.0	2.1
99	03	09	06	33	57.40	34.26	-116.44	3.9	2.1
99	03	09	17	19	40.60	31.80	-116.14	6.0	2.7
99	03	09	19	35	23.60	34.38	-116.46	5.2	2.2
99	03	10	10	26	6.00	34.62	-116.55	9.3	2.6
99	03	10	13	45	37.50	37.54	-118.81	6.0	2.5
99	03	10	16	42	2.40	34.28	-116.45	1.5	2.0
99	03	10	17	26	52.90	33.20	-116.01	1.5	2.8
99	03	10	20	22	1.50	32.02	-115.49	6.0	2.0
99	03	10	23	15	28.40	37.58	-118.76	6.0	2.5
99	03	11	04	04	7.20	34.34	-116.46	5.5	2.1
99	03	11	05	54	17.10	32.33	-116.35	6.0	2.0
99	03	11	08	36	43.10	33.96	-118.97	10.4	2.4
99	03	11	09	56	37.20	36.15	-116.91	6.0	2.2
99	03	11	14	08	52.80	36.06	-117.83	2.6	2.2
99	03	11	14	20	35.20	33.96	-117.23	13.8	2.0
99	03	11	15	11	23.70	34.33	-116.85	5.1	3.0
99	03	11	20	52	11.60	33.99	-117.18	14.3	2.2
99	03	12	01	47	22.60	33.72	-120.02	6.0	2.6
99	03	12	04	29	21.40	31.67	-115.96	6.0	3.3
99	03	12	05	59	58.80	36.09	-117.87	3.3	2.1
99	03	12	07	05	31.50	33.01	-117.71	6.0	2.0
99	03	12	09	07	42.60	36.06	-117.84	2.5	2.2
99	03	12	20	01	9.30	37.52	-118.88	6.0	3.9
99	03	13	03	30	26.00	33.24	-116.23	1.4	2.6
99	03	13	08	44	9.30	37.53	-118.80	6.0	2.5
99	03	13	12	25	33.20	32.17	-115.42	6.0	2.2
99	03	13	13	31	20.40	32.59	-116.17	6.8	4.3
99	03	13	14	22	18.10	34.74	-116.91	6.0	2.5
99	03	13	17	06	26.90	36.29	-120.33	6.0	2.7
99	03	13	18	16	30.50	33.65	-116.71	18.2	2.2
99	03	13	19	59	39.70	32.58	-116.15	5.7	2.1
99	03	14	06	28	25.70	33.44	-116.40	6.0	2.2
99	03	14	14	45	14.60	35.69	-118.45	4.0	2.9
99	03	14	16	49	37.70	32.34	-115.22	6.0	3.0
99	03	15	06	44	56.50	32.43	-115.38	6.0	2.5
99	03	15	08	56	32.40	32.42	-115.37	6.0	2.9
99	03	15	13	22	34.80	37.48	-118.69	0.8	2.9
99	03	15	15	14	25.00	34.60	-116.62	8.1	2.4
99	03	15	16	24	47.40	33.64	-119.06	6.0	3.1
99	03	15	18	37	22.00	34.60	-116.64	8.4	2.2
99	03	15	21	08	54.80	35.78	-117.65	7.0	2.7
99	03	16	01	34	29.50	34.15	-116.43	4.5	2.1
99	03	16	09	46	57.30	31.76	-115.89	6.0	2.3
99	03	16	12	03	17.90	32.08	-115.42	6.0	2.0

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	03	16	12	26	59.20	35.35	-118.55	1.0	2.2
99	03	17	01	36	18.10	31.85	-116.17	6.0	2.7
99	03	17	02	47	39.50	35.03	-117.08	8.9	2.0
99	03	17	04	03	40.20	32.59	-116.15	6.4	2.1
99	03	17	04	07	24.10	32.97	-115.53	8.3	2.2
99	03	17	19	28	19.30	37.50	-118.76	6.0	3.0
99	03	17	20	00	6.80	31.91	-115.77	6.0	2.8
99	03	17	21	59	24.90	31.98	-116.22	6.0	2.0
99	03	18	00	45	14.30	34.34	-116.46	4.3	2.1
99	03	18	04	20	23.30	32.70	-116.00	3.5	2.0
99	03	18	05	57	18.10	32.17	-116.99	6.0	2.2
99	03	18	09	49	21.40	32.14	-116.99	6.0	2.8
99	03	18	11	22	17.90	33.64	-117.90	2.5	2.1
99	03	18	16	41	47.50	35.92	-119.34	6.0	2.3
99	03	18	19	18	45.50	34.43	-116.49	3.2	2.2
99	03	18	21	50	33.70	32.60	-116.14	5.6	2.3
99	03	18	21	51	24.50	32.59	-116.14	5.6	2.2
99	03	18	23	37	45.70	36.13	-120.64	6.0	3.5
99	03	19	00	18	33.10	32.07	-115.40	6.0	2.6
99	03	19	09	48	19.00	33.78	-118.14	14.4	2.5
99	03	19	10	46	50.20	34.99	-116.95	7.3	2.4
99	03	19	16	45	9.60	33.19	-115.61	0.5	2.0
99	03	19	16	45	44.50	33.19	-115.61	0.5	2.7
99	03	19	16	46	30.70	33.19	-115.60	1.2	2.6
99	03	19	16	47	30.90	33.20	-115.61	3.2	2.0
99	03	19	16	48	24.80	33.19	-115.60	3.2	2.9
99	03	19	16	52	47.60	33.18	-115.62	0.4	2.2
99	03	19	20	50	27.90	34.03	-116.88	12.5	2.6
99	03	19	23	30	21.80	34.34	-116.46	4.5	2.7
99	03	20	06	12	29.40	35.92	-117.70	1.9	2.0
99	03	20	19	18	14.60	31.66	-115.92	6.0	2.6
99	03	21	02	14	50.50	34.42	-120.78	6.0	2.8
99	03	21	02	43	0.30	33.23	-116.77	5.5	2.0
99	03	21	03	53	29.40	33.28	-116.22	2.8	2.0
99	03	21	11	39	57.10	32.37	-115.24	6.0	2.3
99	03	21	13	53	33.10	35.69	-118.45	4.0	3.1
99	03	21	20	54	25.90	32.16	-117.00	6.0	2.5
99	03	21	21	50	54.80	32.13	-116.98	6.0	2.4
99	03	21	23	23	4.10	32.24	-116.95	6.0	2.0
99	03	21	23	31	9.10	34.33	-116.85	5.3	2.7
99	03	22	02	17	33.60	35.76	-117.51	3.4	2.8
99	03	22	08	31	29.30	34.03	-117.23	16.7	3.8
99	03	22	08	39	58.10	34.04	-117.24	15.6	2.5
99	03	22	11	49	6.40	34.03	-116.35	0.9	2.1
99	03	22	18	13	58.00	34.39	-118.65	14.9	2.1
99	03	22	23	48	0.40	32.02	-116.95	6.0	2.3
99	03	23	04	09	2.60	33.16	-115.92	6.0	2.1
99	03	23	06	16	51.90	33.16	-115.92	0.6	2.5
99	03	23	06	38	12.30	33.19	-115.57	1.3	2.4
99	03	23	14	17	7.40	32.59	-116.16	6.5	2.4
99	03	23	15	19	29.00	34.03	-116.35	0.7	2.0
99	03	23	17	02	19.20	34.33	-116.85	5.5	2.1
99	03	23	21	39	44.80	33.25	-116.00	0.0	2.2
99	03	24	06	00	52.30	36.69	-121.20	9.1	2.7
99	03	24	07	35	34.70	32.70	-116.01	2.3	2.5

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	03	24	19	15	31.90	33.68	-116.77	19.0	2.1
99	03	24	21	11	24.50	33.01	-116.09	2.8	2.3
99	03	24	23	16	32.30	34.53	-116.52	6.5	2.2
99	03	25	00	56	47.80	34.05	-118.93	14.3	2.2
99	03	25	13	15	28.20	31.96	-116.29	6.0	3.0
99	03	25	13	23	49.80	31.98	-116.28	6.0	2.0
99	03	25	18	03	40.10	32.65	-115.65	4.8	2.4
99	03	25	18	20	52.50	34.00	-116.32	6.3	2.8
99	03	25	22	40	2.20	33.99	-116.32	0.0	2.1
99	03	26	03	02	13.20	32.07	-115.42	6.0	2.8
99	03	26	05	07	38.90	32.42	-115.38	6.0	2.5
99	03	26	07	21	12.50	34.36	-116.47	6.0	2.1
99	03	26	15	54	43.90	32.57	-115.27	6.0	2.0
99	03	26	17	34	2.00	32.44	-116.87	6.0	2.0
99	03	26	21	00	43.00	32.66	-115.65	5.5	2.9
99	03	27	01	04	7.20	32.66	-115.64	5.4	2.9
99	03	27	02	02	33.50	32.66	-115.97	5.4	2.1
99	03	27	02	36	46.60	34.37	-116.47	2.3	2.1
99	03	27	12	22	12.10	33.24	-115.62	0.0	2.2
99	03	27	15	14	47.80	36.03	-117.76	0.7	2.6
99	03	27	15	58	55.80	32.44	-115.22	6.0	2.7
99	03	27	20	48	3.30	37.66	-118.86	6.0	3.1
99	03	27	22	51	21.70	32.35	-115.26	6.0	2.7
99	03	28	00	12	6.50	33.73	-117.06	11.6	3.4
99	03	28	04	28	41.80	34.33	-116.84	6.1	2.1
99	03	28	07	35	12.30	34.97	-116.81	6.0	2.0
99	03	28	09	05	29.50	36.55	-117.91	6.0	2.5
99	03	28	13	38	49.40	34.03	-116.35	0.5	2.5
99	03	28	13	56	40.50	34.12	-116.38	3.3	2.5
99	03	28	22	35	22.10	37.48	-118.76	6.0	2.7
99	03	29	01	50	56.30	35.28	-118.89	13.1	2.7
99	03	29	17	49	42.40	34.33	-116.84	5.3	2.5
99	03	29	17	59	25.60	34.33	-116.84	6.0	2.6
99	03	29	18	20	14.70	34.32	-116.84	5.8	2.4
99	03	29	19	00	41.20	34.33	-116.84	5.8	2.4
99	03	30	05	48	59.20	33.87	-118.89	12.2	2.5
99	03	30	05	50	6.50	33.87	-118.90	14.2	2.3
99	03	30	07	18	1.50	33.78	-118.91	6.0	2.2
99	03	30	14	53	56.10	31.86	-116.14	6.0	2.4
99	03	30	17	01	13.10	34.56	-118.90	21.5	2.4
99	03	30	17	42	50.60	32.08	-115.42	6.0	2.5
99	03	30	19	21	28.90	33.88	-118.88	11.8	2.3
99	03	31	05	56	31.80	32.22	-115.63	6.0	2.0
99	03	31	09	00	40.60	34.62	-116.60	7.6	2.3
99	03	31	10	06	47.50	34.48	-116.50	1.0	2.1
99	03	31	15	24	4.10	34.38	-116.46	2.8	2.6
99	03	31	16	21	51.20	35.72	-118.06	5.2	2.1
99	03	31	19	13	47.80	35.60	-118.47	8.2	2.1
99	04	01	00	29	43.80	34.20	-119.69	6.0	2.6
99	04	01	00	49	37.30	32.58	-116.16	5.7	3.1
99	04	01	00	54	23.50	32.59	-116.17	5.4	3.1
99	04	01	01	05	45.20	32.58	-116.16	5.8	2.8
99	04	01	01	08	7.30	32.58	-116.16	6.0	2.4
99	04	01	01	47	33.70	34.33	-116.84	5.8	2.4
99	04	01	06	33	25.80	35.61	-118.47	8.5	2.0

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	04	01	09	48	6.30	33.99	-116.40	0.3	2.6
99	04	01	13	13	12.80	32.58	-116.16	6.5	2.1
99	04	01	23	38	55.10	35.10	-118.29	8.5	2.7
99	04	02	06	33	55.50	34.12	-116.92	3.1	2.0
99	04	02	08	03	54.50	35.10	-118.30	8.8	2.5
99	04	02	09	18	24.40	34.09	-116.76	12.0	2.1
99	04	02	22	17	3.30	33.76	-116.17	2.3	2.1
99	04	03	04	06	15.20	34.14	-116.43	3.0	3.1
99	04	03	05	52	18.00	34.38	-117.05	3.3	2.6
99	04	03	07	44	53.40	32.10	-115.39	6.0	2.2
99	04	03	07	57	44.20	32.09	-115.44	6.0	2.1
99	04	03	08	34	5.80	32.43	-115.32	6.0	2.0
99	04	03	09	10	5.40	34.21	-119.60	6.0	2.2
99	04	03	10	15	9.30	34.25	-119.58	6.0	2.2
99	04	03	13	13	32.50	31.98	-116.32	6.0	3.4
99	04	04	06	40	35.00	37.63	-118.90	6.0	2.5
99	04	04	07	19	10.20	32.79	-117.30	4.8	2.5
99	04	04	16	21	20.40	33.90	-116.76	20.0	2.1
99	04	04	22	24	51.50	33.97	-116.87	8.2	2.1
99	04	05	08	04	30.40	32.11	-115.42	6.0	2.0
99	04	05	08	59	33.10	37.60	-118.77	6.0	2.7
99	04	05	09	27	9.90	37.59	-118.84	6.0	2.5
99	04	05	12	12	10.20	34.44	-120.84	6.0	2.3
99	04	05	18	38	18.20	32.03	-115.45	6.0	2.2
99	04	05	21	03	44.50	34.60	-117.40	6.0	2.3
99	04	05	21	15	56.20	32.05	-114.95	6.0	2.0
99	04	05	23	16	24.80	34.35	-116.40	12.9	2.3
99	04	06	06	24	5.00	34.99	-116.94	4.2	2.0
99	04	06	12	14	47.70	34.48	-118.44	13.9	2.1
99	04	06	18	12	44.90	33.17	-115.64	2.7	2.2
99	04	06	18	43	36.20	33.16	-115.98	6.1	2.1
99	04	06	20	59	26.90	31.37	-115.44	6.0	3.3
99	04	06	23	27	31.20	34.49	-120.70	0.0	2.5
99	04	07	01	59	18.50	34.04	-117.25	16.3	2.2
99	04	07	03	34	45.20	33.85	-118.90	11.6	2.1
99	04	07	04	35	53.30	33.72	-116.86	14.5	2.5
99	04	07	06	26	40.10	32.59	-116.16	8.5	4.0
99	04	07	08	00	6.30	36.32	-118.32	3.4	2.1
99	04	07	12	21	20.90	33.50	-116.46	6.0	2.1
99	04	07	14	17	12.20	33.31	-116.33	6.0	2.2
99	04	07	15	17	55.10	33.15	-115.95	6.0	2.1
99	04	07	16	05	59.50	33.32	-116.33	6.0	2.0
99	04	07	22	10	0.20	32.07	-115.43	6.0	2.8
99	04	07	22	15	7.70	32.00	-116.40	6.0	2.3
99	04	08	05	04	31.00	34.27	-118.45	11.6	2.2
99	04	08	06	13	42.20	32.59	-116.17	0.5	3.0
99	04	08	17	32	28.60	33.99	-116.40	0.0	2.1
99	04	08	23	28	0.30	33.05	-117.86	6.0	2.1
99	04	09	20	40	14.50	34.28	-120.33	6.0	2.8
99	04	10	00	00	49.40	33.99	-116.40	0.0	2.0
99	04	10	01	18	52.00	34.06	-117.29	15.7	2.5
99	04	10	03	35	7.30	31.98	-115.77	6.0	2.0
99	04	10	04	16	15.40	32.48	-115.07	6.0	2.1
99	04	10	12	03	27.70	32.43	-115.07	6.0	2.4
99	04	10	12	43	11.50	33.20	-116.00	6.0	2.1

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	04	11	02	36	32.30	35.63	-117.60	7.5	2.3
99	04	11	03	34	15.00	37.52	-118.82	6.0	2.3
99	04	11	05	18	30.10	36.02	-117.80	1.9	2.2
99	04	11	09	09	19.60	34.35	-118.58	2.2	3.6
99	04	11	17	21	10.80	34.32	-116.84	7.2	3.1
99	04	11	20	08	36.20	34.32	-116.84	6.2	2.7
99	04	12	11	40	36.00	33.18	-115.60	0.5	2.4
99	04	12	11	53	58.80	34.48	-116.51	1.7	2.5
99	04	12	18	05	1.50	36.28	-118.33	6.0	2.0
99	04	12	23	08	2.60	34.01	-118.28	12.0	2.4
99	04	13	08	31	55.90	33.65	-117.96	6.0	2.1
99	04	13	09	34	37.40	33.50	-115.83	7.3	2.0
99	04	13	13	47	27.80	35.90	-118.36	3.2	2.7
99	04	13	13	54	26.80	35.89	-118.36	3.5	2.0
99	04	13	16	12	51.10	36.03	-119.97	6.0	2.4
99	04	13	18	22	54.30	33.67	-117.95	10.9	3.5
99	04	13	18	44	32.40	33.71	-118.04	6.0	2.0
99	04	13	22	35	58.20	35.92	-117.65	2.1	2.3
99	04	13	23	39	58.10	33.98	-116.40	3.1	3.4
99	04	14	00	18	19.90	33.31	-116.18	6.0	2.2
99	04	14	03	57	10.40	33.07	-116.04	5.5	2.0
99	04	14	07	25	34.20	33.46	-116.58	6.0	2.0
99	04	14	13	53	2.80	32.14	-117.00	6.0	2.3
99	04	14	17	16	25.50	33.95	-116.81	17.4	2.1
99	04	14	18	23	20.30	34.20	-118.89	15.2	2.0
99	04	14	20	23	35.30	34.32	-116.84	4.4	2.0
99	04	14	21	29	43.40	35.43	-118.32	10.8	2.2
99	04	14	22	01	59.80	37.67	-118.90	6.0	2.5
99	04	14	23	50	8.70	33.69	-117.41	13.6	2.0
99	04	15	01	03	55.60	36.40	-117.94	6.0	2.0
99	04	15	03	47	13.20	33.16	-115.64	0.6	2.0
99	04	15	03	48	38.60	33.16	-115.64	0.0	2.4
99	04	15	03	51	53.30	33.17	-115.64	0.8	3.3
99	04	15	03	56	30.20	33.16	-115.64	1.2	2.5
99	04	15	03	59	2.80	33.17	-115.64	1.5	3.1
99	04	15	04	12	20.70	33.16	-115.63	0.8	2.4
99	04	15	04	15	54.80	33.16	-115.64	1.6	2.7
99	04	15	05	24	19.00	33.16	-115.64	1.7	2.1
99	04	15	07	08	26.70	34.23	-116.76	4.2	2.8
99	04	15	09	00	19.30	33.16	-115.64	1.1	2.3
99	04	15	09	44	42.00	36.10	-117.82	0.4	2.2
99	04	15	10	33	4.70	32.54	-115.20	6.0	2.0
99	04	15	14	12	30.70	34.37	-118.72	17.1	2.1
99	04	15	18	04	50.30	34.74	-121.04	6.0	2.3
99	04	15	23	03	33.40	34.84	-116.21	7.7	3.0
99	04	16	01	44	1.40	33.03	-117.78	6.0	2.5
99	04	16	02	57	8.70	35.83	-119.75	6.0	2.1
99	04	16	03	35	15.80	37.53	-118.81	6.0	2.9
99	04	16	08	40	1.80	35.50	-119.52	6.0	2.7
99	04	16	09	58	51.20	36.37	-120.34	6.0	3.1
99	04	16	10	44	27.40	37.54	-118.80	6.0	2.9
99	04	16	15	18	26.60	34.56	-116.54	10.3	2.2
99	04	16	15	53	51.60	34.48	-116.51	3.3	3.2
99	04	16	16	18	51.40	34.58	-116.55	7.7	2.2
99	04	16	16	26	6.50	34.02	-117.24	16.4	2.1

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	04	16	17	18	0.10	36.10	-117.82	0.0	2.0
99	04	16	18	51	56.30	33.99	-116.41	0.5	2.7
99	04	16	21	18	28.40	33.93	-116.92	17.8	2.1
99	04	16	23	50	1.40	36.09	-117.60	0.8	2.2
99	04	17	05	51	26.30	35.54	-117.43	8.1	2.3
99	04	17	07	26	40.40	33.23	-116.04	2.7	2.4
99	04	17	13	07	57.90	32.36	-115.23	6.0	2.3
99	04	17	14	14	47.80	33.42	-117.96	6.0	2.2
99	04	17	15	03	28.10	33.16	-115.65	2.5	2.0
99	04	17	17	01	6.00	35.29	-117.48	0.0	2.6
99	04	17	17	37	30.20	33.86	-120.18	6.0	2.4
99	04	17	20	23	32.70	32.32	-115.26	6.0	2.5
99	04	17	20	41	37.40	36.26	-120.82	3.0	3.2
99	04	17	22	17	52.80	34.94	-116.66	0.2	2.5
99	04	18	05	38	1.10	36.11	-120.12	6.0	2.2
99	04	18	05	56	52.70	32.60	-116.14	7.4	2.0
99	04	18	06	22	9.80	34.62	-116.66	9.2	2.5
99	04	18	07	38	53.40	31.86	-115.43	6.0	2.4
99	04	18	08	10	16.90	31.87	-115.49	6.0	2.6
99	04	18	08	53	48.50	34.94	-120.74	6.0	2.2
99	04	18	08	58	9.70	34.95	-120.74	6.0	2.0
99	04	18	14	33	14.20	32.59	-116.17	8.8	3.5
99	04	18	14	52	1.00	37.53	-118.77	6.0	2.5
99	04	18	15	53	1.10	32.59	-116.16	7.8	4.2
99	04	19	01	56	0.30	7.29	17.57	6.0	0.4
99	04	21	03	10	20.40	32.34	-115.26	6.0	2.8
99	04	21	13	36	37.20	32.08	-115.52	6.0	3.4
99	04	21	13	46	50.80	31.96	-115.52	6.0	3.6
99	04	21	14	18	56.20	32.15	-115.56	6.0	2.7
99	04	21	17	28	18.00	34.14	-116.77	10.9	3.9
99	04	21	17	32	19.10	34.14	-116.76	11.4	2.3
99	04	21	19	58	47.10	33.81	-116.97	12.7	2.0
99	04	21	21	35	48.90	35.04	-118.97	18.4	2.3
99	04	21	23	58	51.40	32.15	-115.50	6.0	2.6
99	04	22	00	41	5.50	34.29	-118.46	1.1	2.3
99	04	22	01	50	43.90	32.07	-115.42	6.0	2.6
99	04	22	08	02	13.20	32.71	-115.91	5.6	2.0
99	04	22	10	19	44.60	33.26	-115.99	0.0	2.1
99	04	22	12	43	53.60	32.61	-116.15	7.5	2.3
99	04	22	13	47	17.90	36.10	-117.81	2.9	2.0
99	04	22	16	07	46.40	33.98	-116.67	17.4	2.3
99	04	23	02	47	28.90	33.58	-116.82	8.6	2.0
99	04	23	05	10	54.70	36.01	-117.80	1.6	2.1
99	04	23	05	14	9.00	36.01	-117.80	0.0	2.3
99	04	23	13	48	14.40	32.58	-116.16	6.0	2.3
99	04	23	14	39	22.00	37.29	-119.96	6.0	2.8
99	04	23	17	17	43.80	32.23	-116.53	6.0	2.4
99	04	23	17	46	35.90	33.48	-116.51	6.0	2.1
99	04	24	03	01	7.00	35.68	-119.68	6.0	2.4
99	04	24	05	24	50.90	34.16	-116.42	8.9	2.3
99	04	24	05	25	54.50	34.16	-116.42	6.4	2.1
99	04	24	07	56	28.20	37.55	-118.88	6.0	3.9
99	04	24	08	55	54.80	35.17	-119.04	11.2	2.1
99	04	24	10	12	29.70	31.82	-115.77	6.0	2.7
99	04	24	15	38	29.40	32.60	-116.16	7.7	2.9

<u>Time (GMT)</u>						<u>Location coordinates</u>		<u>Depth</u>	<u>Magnitude</u>
99	04	24	17	42	17.80	33.99	-116.40	3.8	3.1
99	04	24	19	27	19.20	34.04	-117.26	16.9	2.1
99	04	24	23	05	27.40	34.31	-116.44	6.1	2.0
99	04	25	16	23	31.20	37.05	-118.06	6.0	2.9
99	04	26	07	18	6.60	36.32	-118.33	2.8	2.5
99	04	26	11	17	1.10	35.08	-118.72	5.0	2.0
99	04	26	11	26	29.70	32.05	-115.65	6.0	2.6
99	04	26	11	35	38.80	32.08	-115.63	6.0	2.2
99	04	26	11	37	19.50	32.06	-115.64	6.0	2.6
99	04	26	11	41	31.00	32.05	-115.68	6.0	2.6
99	04	26	12	12	41.10	32.05	-115.64	6.0	2.3
99	04	26	12	15	28.80	32.06	-115.68	6.0	2.3
99	04	26	12	44	58.70	32.10	-115.55	6.0	2.6
99	04	26	13	53	10.30	36.28	-118.33	6.0	2.2
99	04	26	15	49	32.20	33.59	-118.29	0.0	2.1
99	04	26	16	37	22.70	33.99	-116.40	2.7	2.0
99	04	26	22	42	24.30	33.99	-116.41	0.0	2.2
99	04	27	00	21	51.30	32.76	-115.42	11.5	2.3
99	04	27	01	38	5.70	33.58	-116.83	8.9	2.4
99	04	27	03	04	50.00	35.90	-118.36	4.3	2.5
99	04	27	03	21	32.10	34.44	-116.49	1.1	2.2
99	04	27	07	03	7.60	35.90	-118.36	8.2	2.1
99	04	27	07	46	1.40	32.07	-115.39	6.0	2.7
99	04	27	07	59	32.60	31.60	-115.67	6.0	2.2
99	04	27	19	21	40.50	32.57	-116.16	5.3	2.0
99	04	27	22	53	42.30	36.18	-118.14	6.0	2.1
99	04	28	03	27	6.50	36.29	-118.33	6.0	2.2
99	04	28	17	29	11.30	32.59	-116.15	8.1	2.1
99	04	28	18	21	31.20	32.60	-116.15	6.0	2.4
99	04	28	23	44	23.70	33.02	-115.58	6.6	2.8
99	04	29	01	01	38.80	35.84	-119.66	6.0	2.7
99	04	29	01	16	32.90	34.16	-117.73	8.1	2.5
99	04	29	01	20	1.10	33.02	-115.57	5.9	2.8
99	04	29	06	27	15.40	34.20	-119.07	15.4	2.8
99	04	29	07	03	44.30	36.59	-120.93	22.2	3.2
99	04	29	07	40	19.80	32.17	-117.01	6.0	2.0
99	04	29	08	24	34.90	34.10	-115.81	0.0	2.3
99	04	29	13	44	24.20	35.69	-119.65	6.0	2.7
99	04	29	15	37	56.30	32.60	-116.17	0.7	2.4
99	04	29	17	29	33.60	33.15	-115.64	0.7	2.2
99	04	29	18	42	20.30	33.34	-116.29	3.5	2.1
99	04	29	20	34	26.20	36.56	-121.16	6.0	2.6

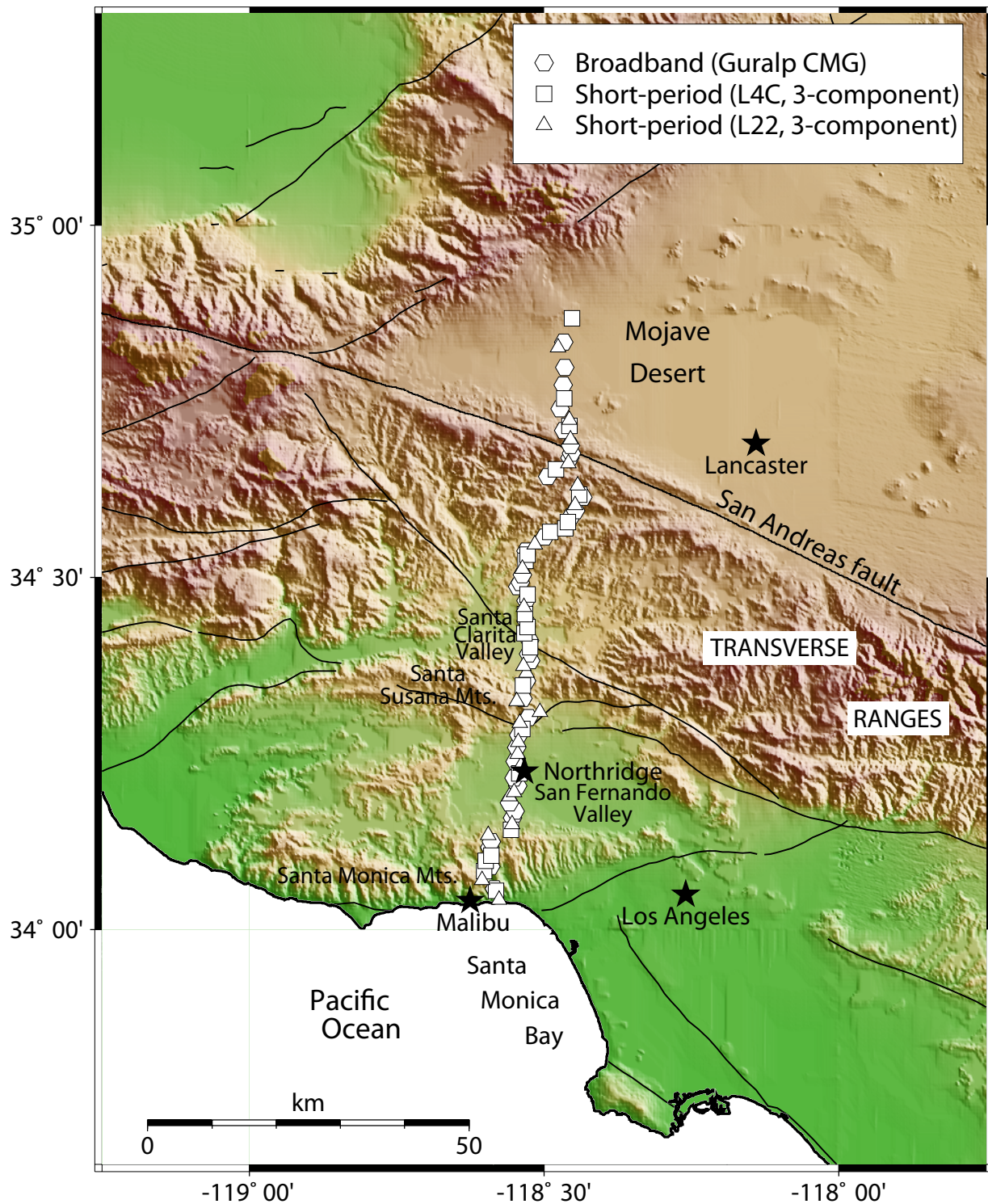


Figure 1. Topographic relief map of Southern California showing locations of 1998-1999 LARSE II passive array seismometers. City locations are shown by stars.

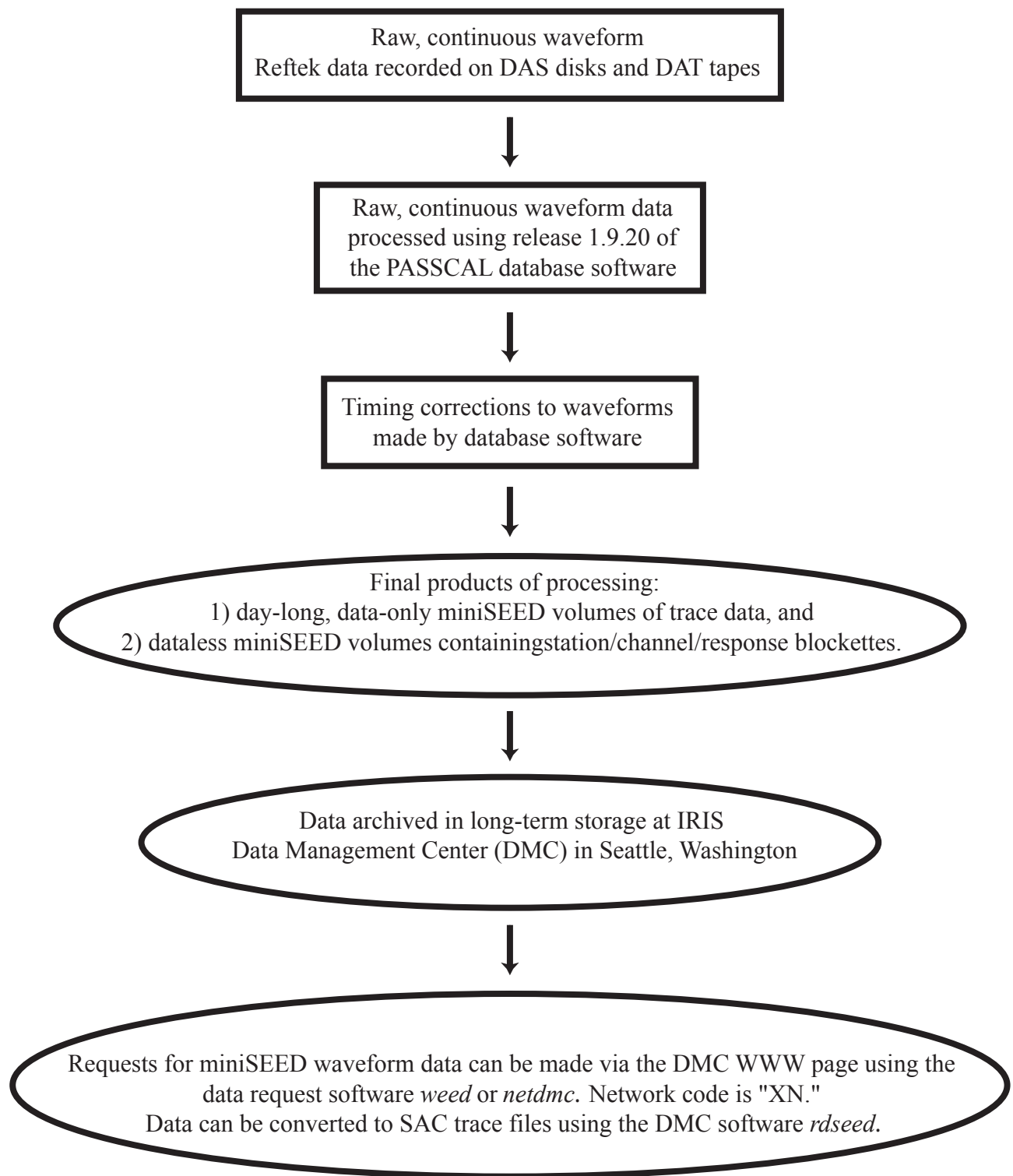


Figure 2. Diagram showing chronological order of data processing events.

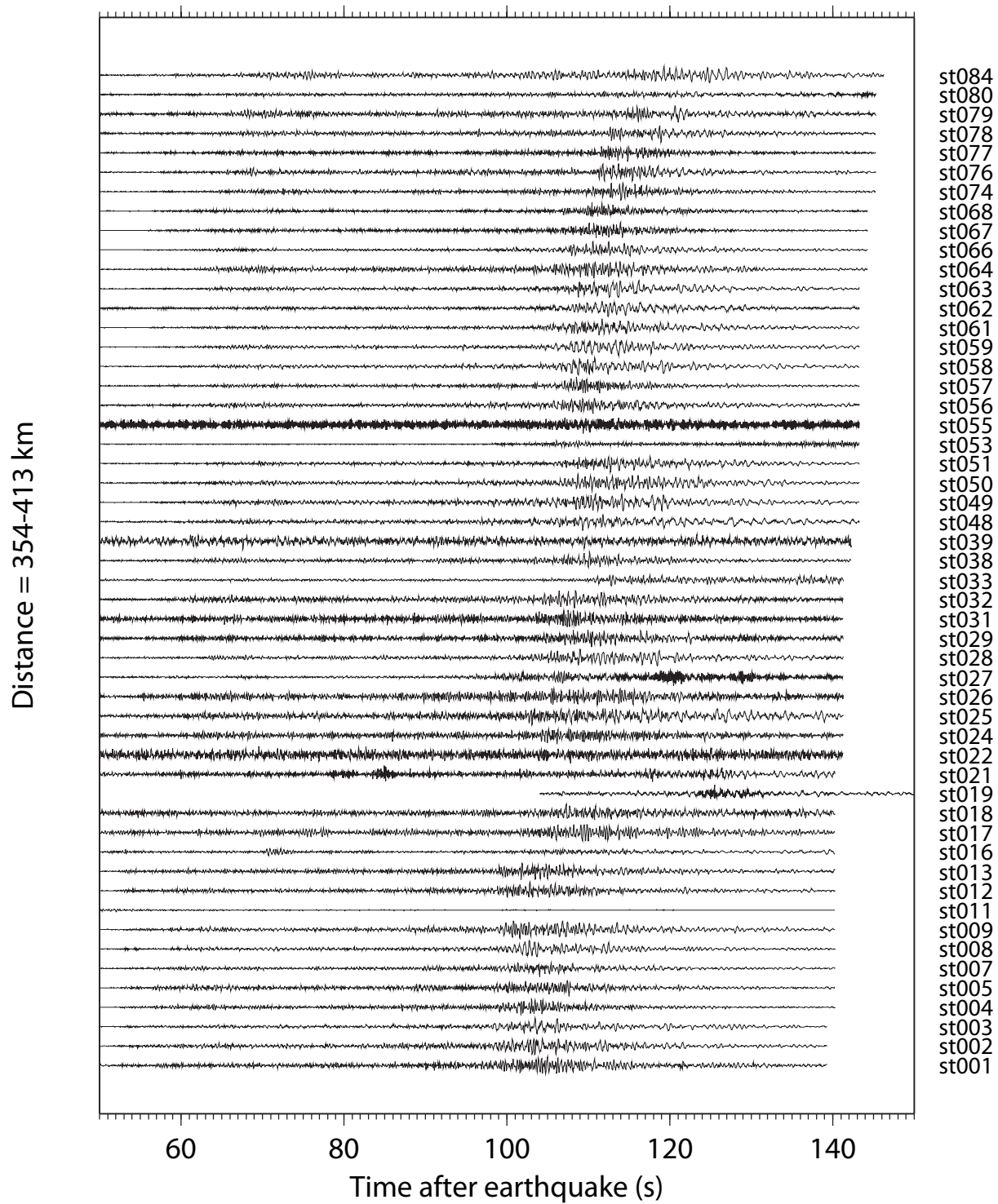


Figure 3a. Vertical-component record section for local earthquake which occurred on November 2, 1998 (Event_1998.11.02.10.16.05.07).

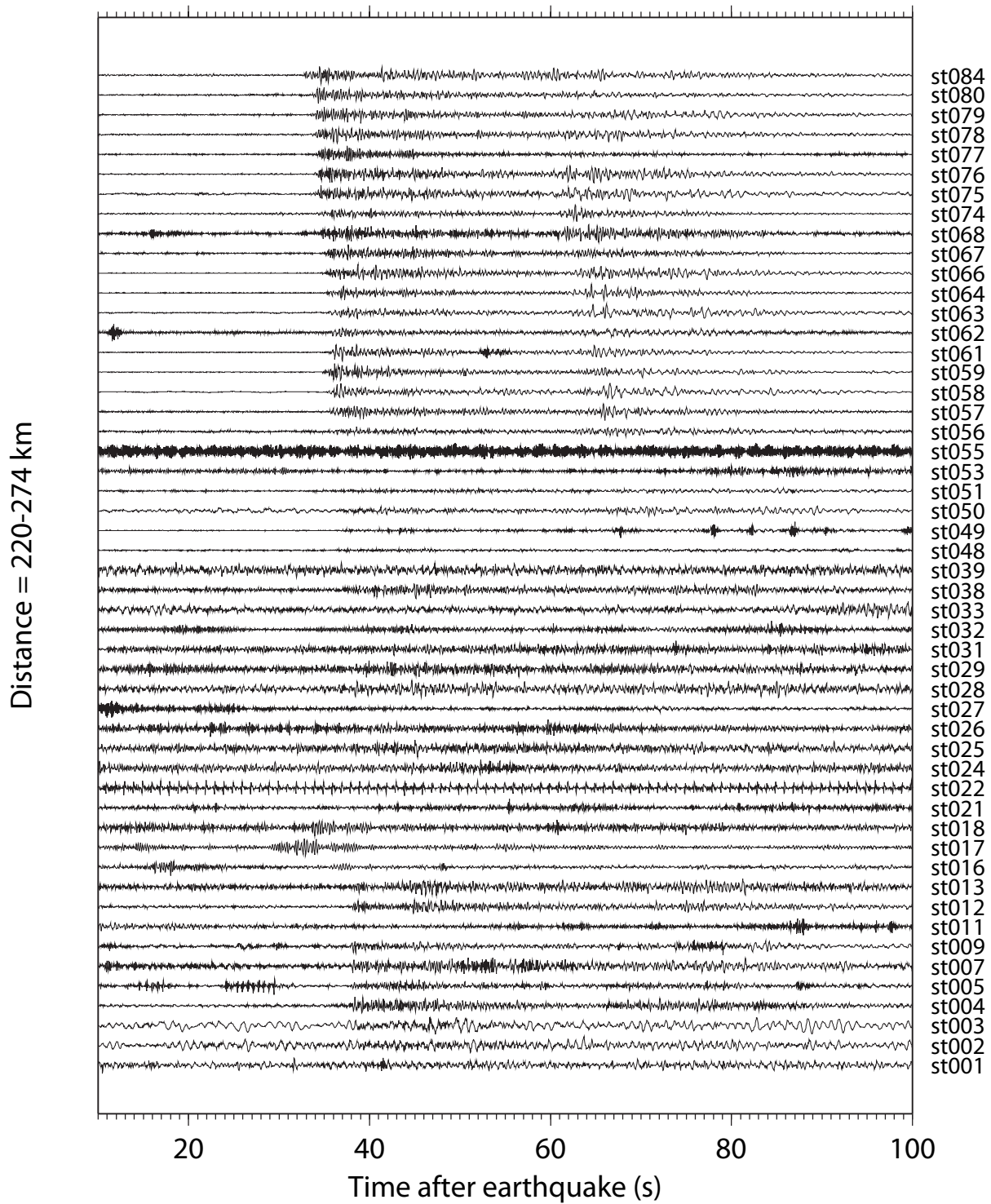


Figure 3b. Vertical-component record section for local earthquake which occurred on November 8, 1998 (Event_1998.11.08.09.07.43.08).

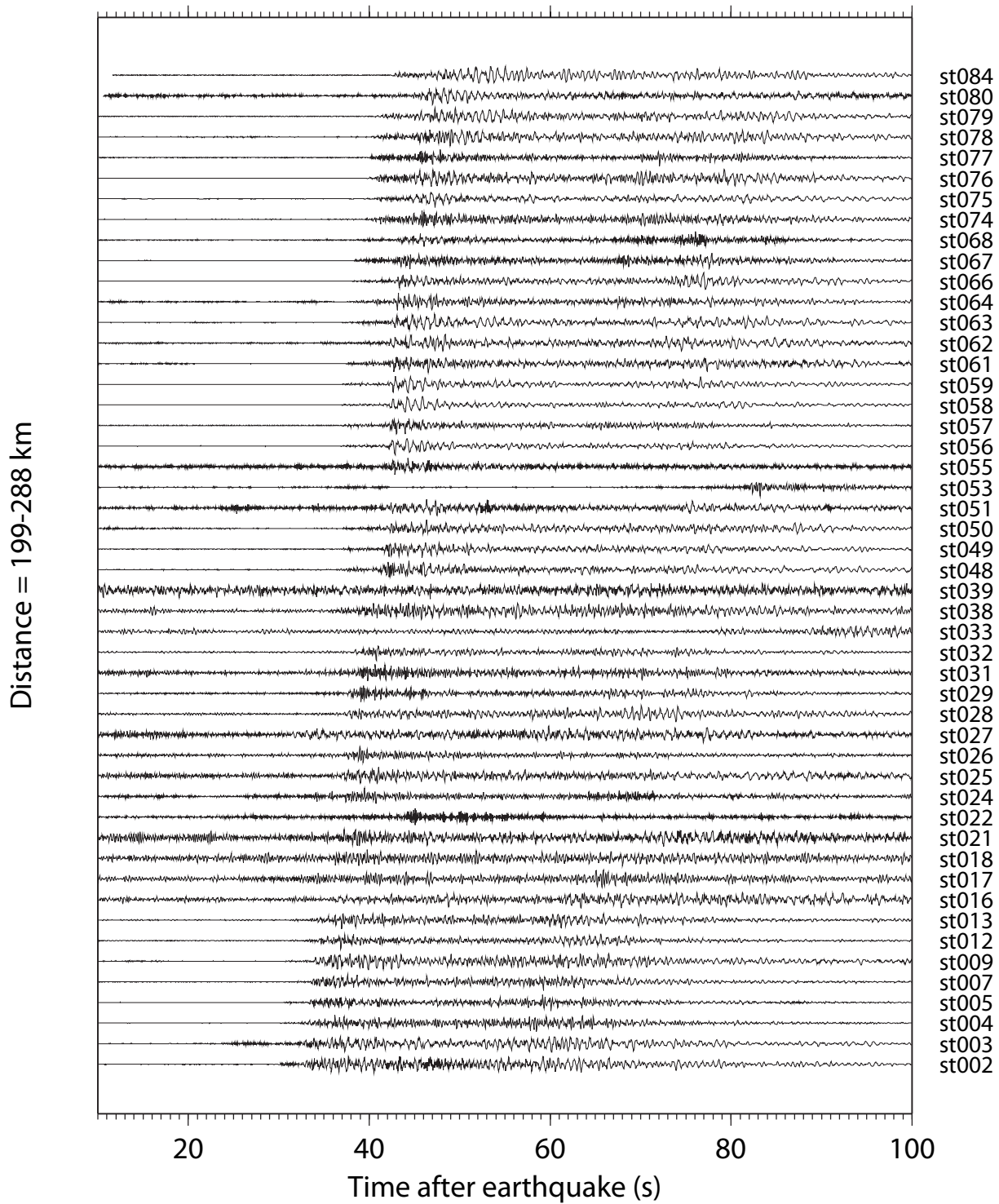


Figure 3c. Vertical-component record section for local earthquake which occurred on November 10, 1998 (Event_1998.11.10.14.13.28.04).

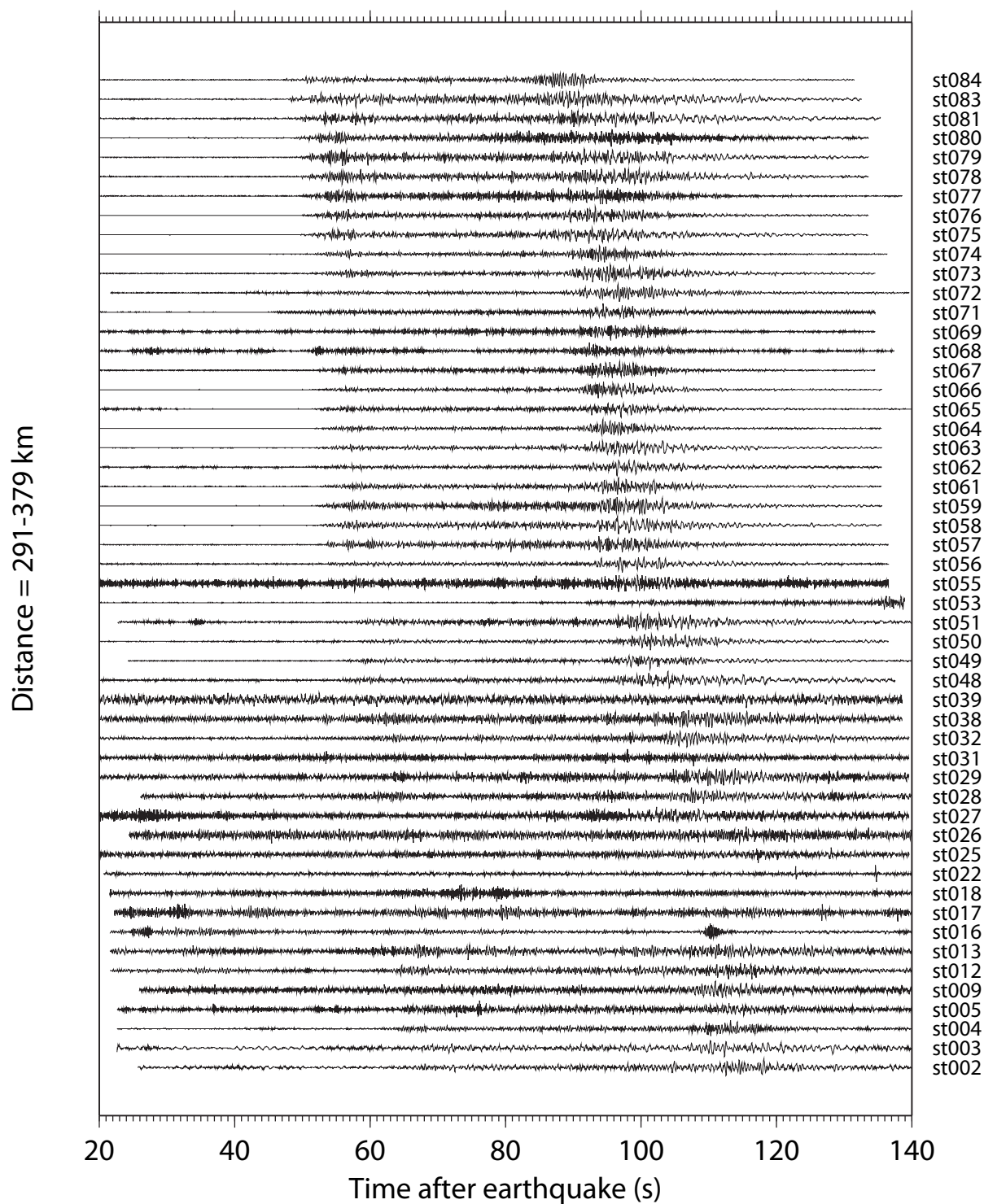


Figure 3d. Vertical-component record section for local earthquake which occurred on November 12, 1998 (Event_1998.11.12.03.33.38.04).

Distance = 309-399 km

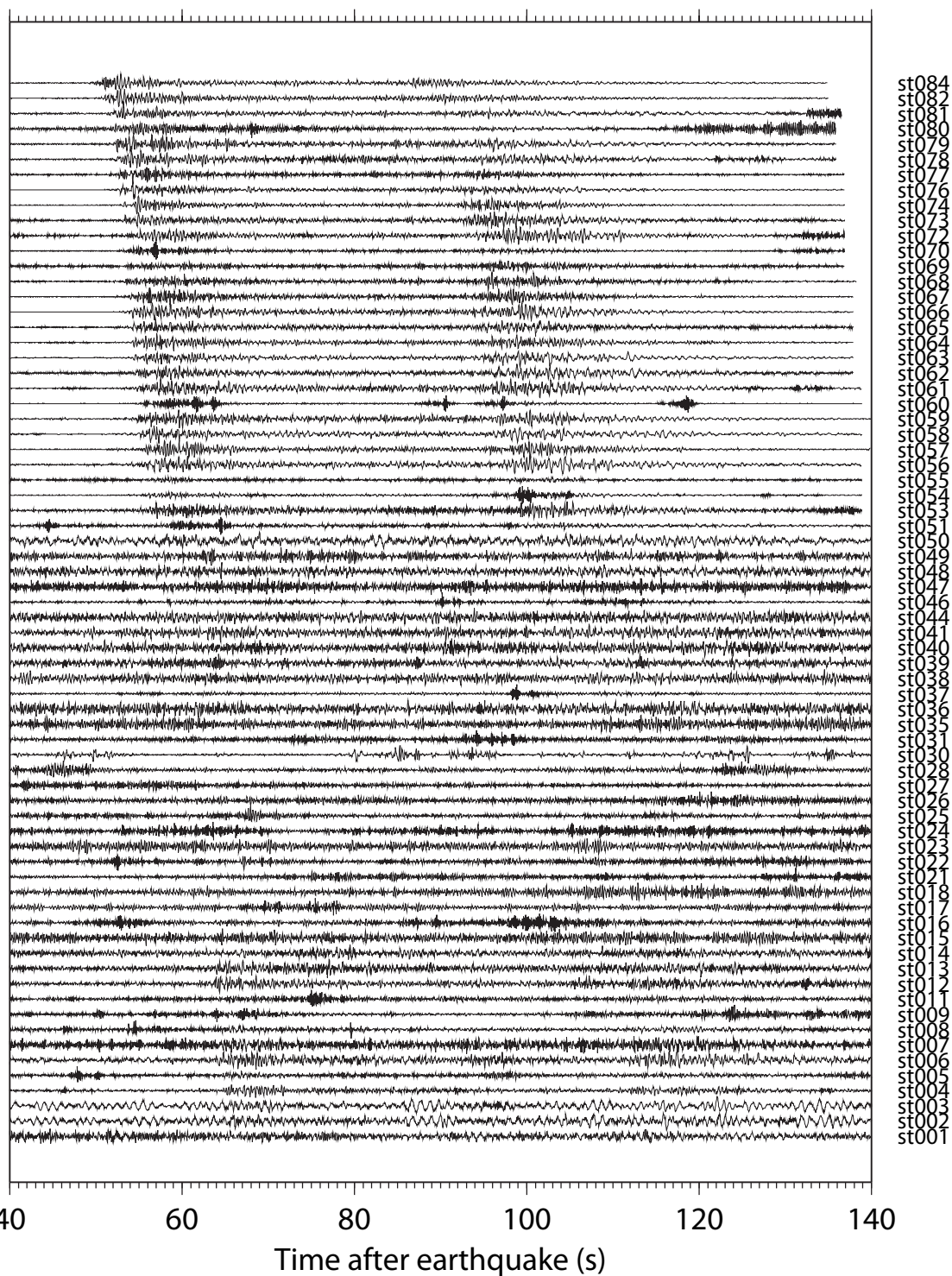


Figure 3e. Vertical-component record section for local earthquake which occurred on December 7, 1998 (Event_1998.12.07.16.15.55.01).

Distance = 164-182 km

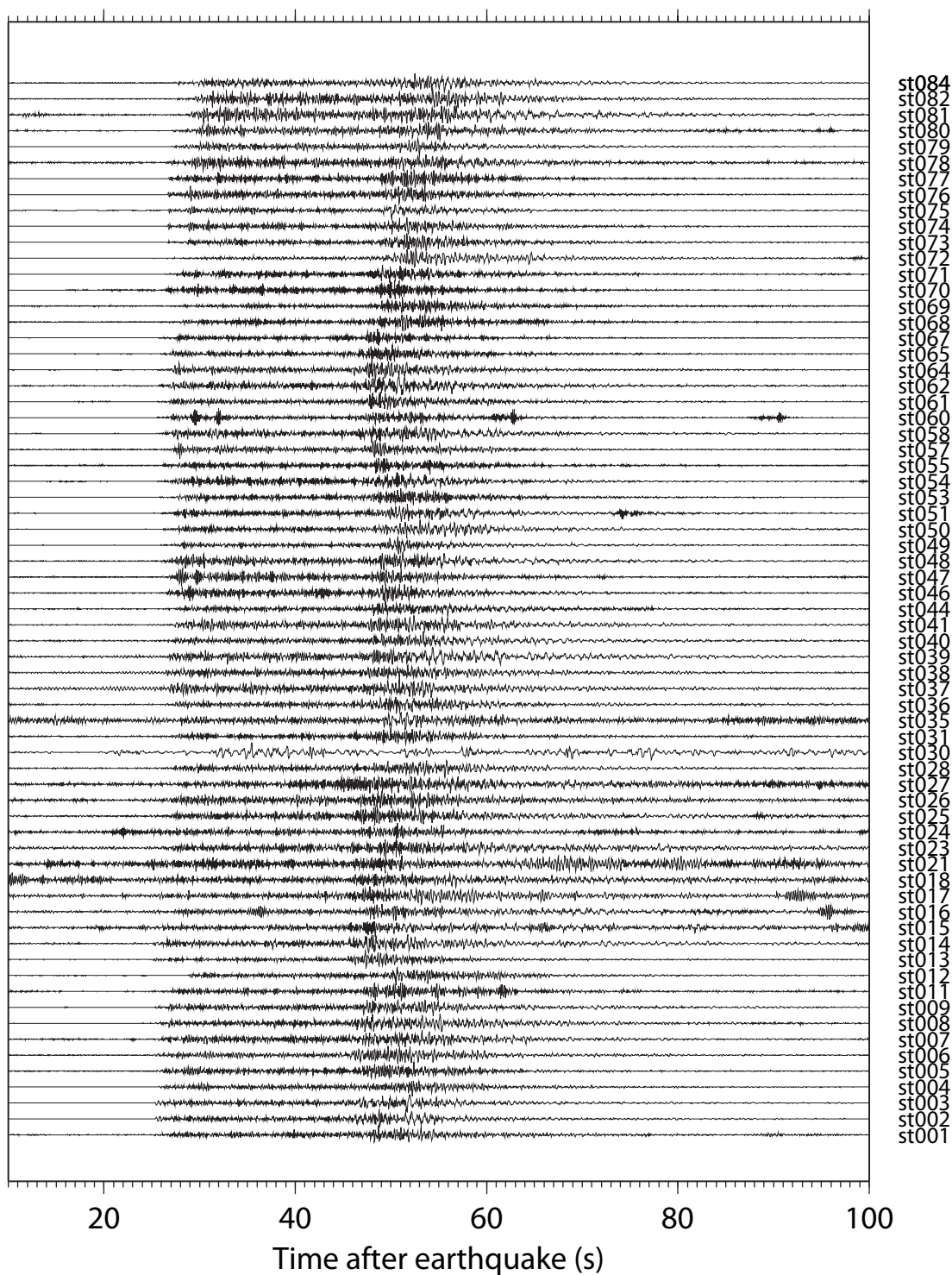


Figure 3f. Vertical-component record section for local earthquake which occurred on December 12, 1998 (Event_1998.12.12.15.03.11.00).

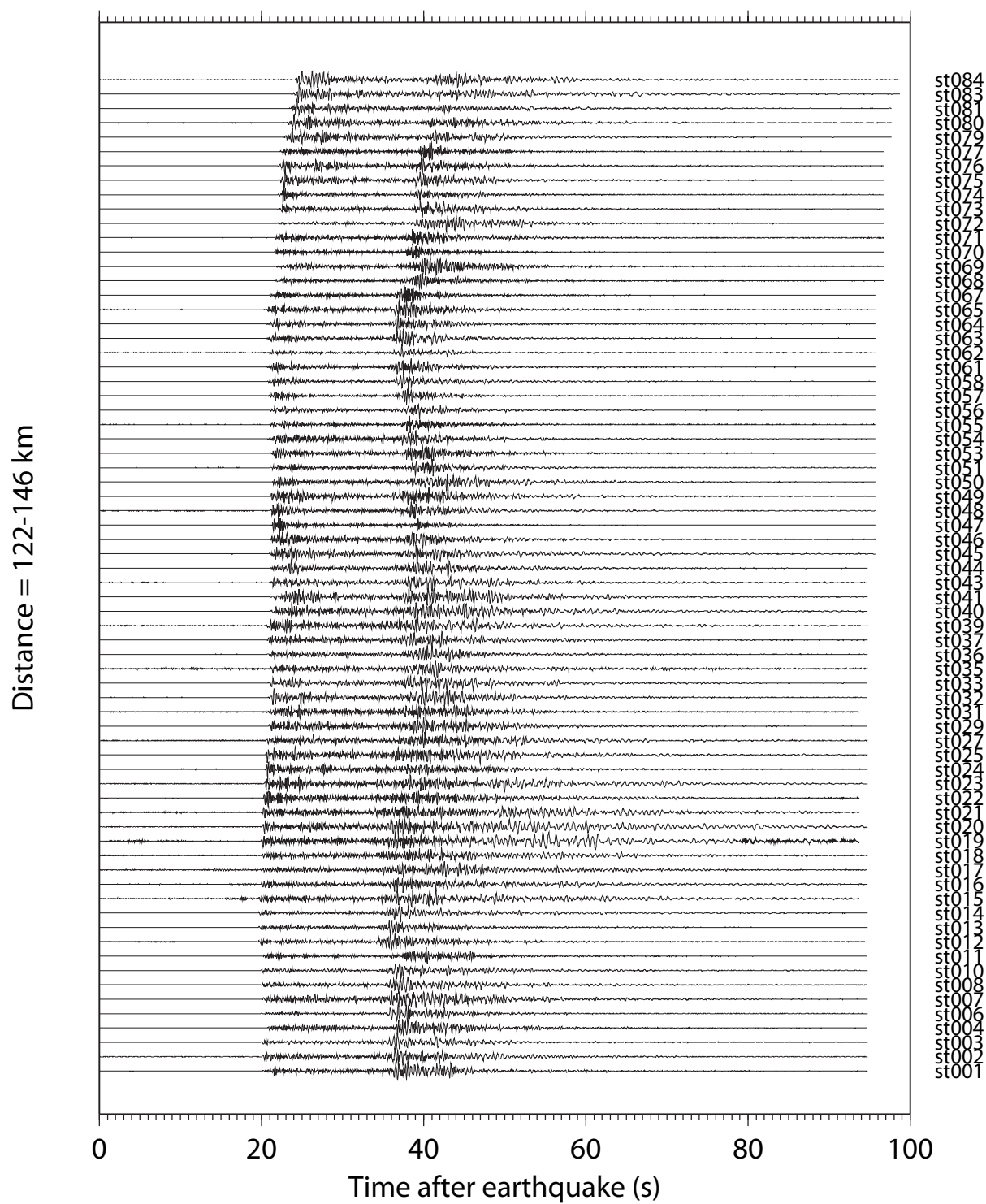


Figure 3g. Vertical-component record section for local earthquake which occurred on March 22, 1999 (Event_1999.03.22.08.31.29.03).

Distance = 8-50 km

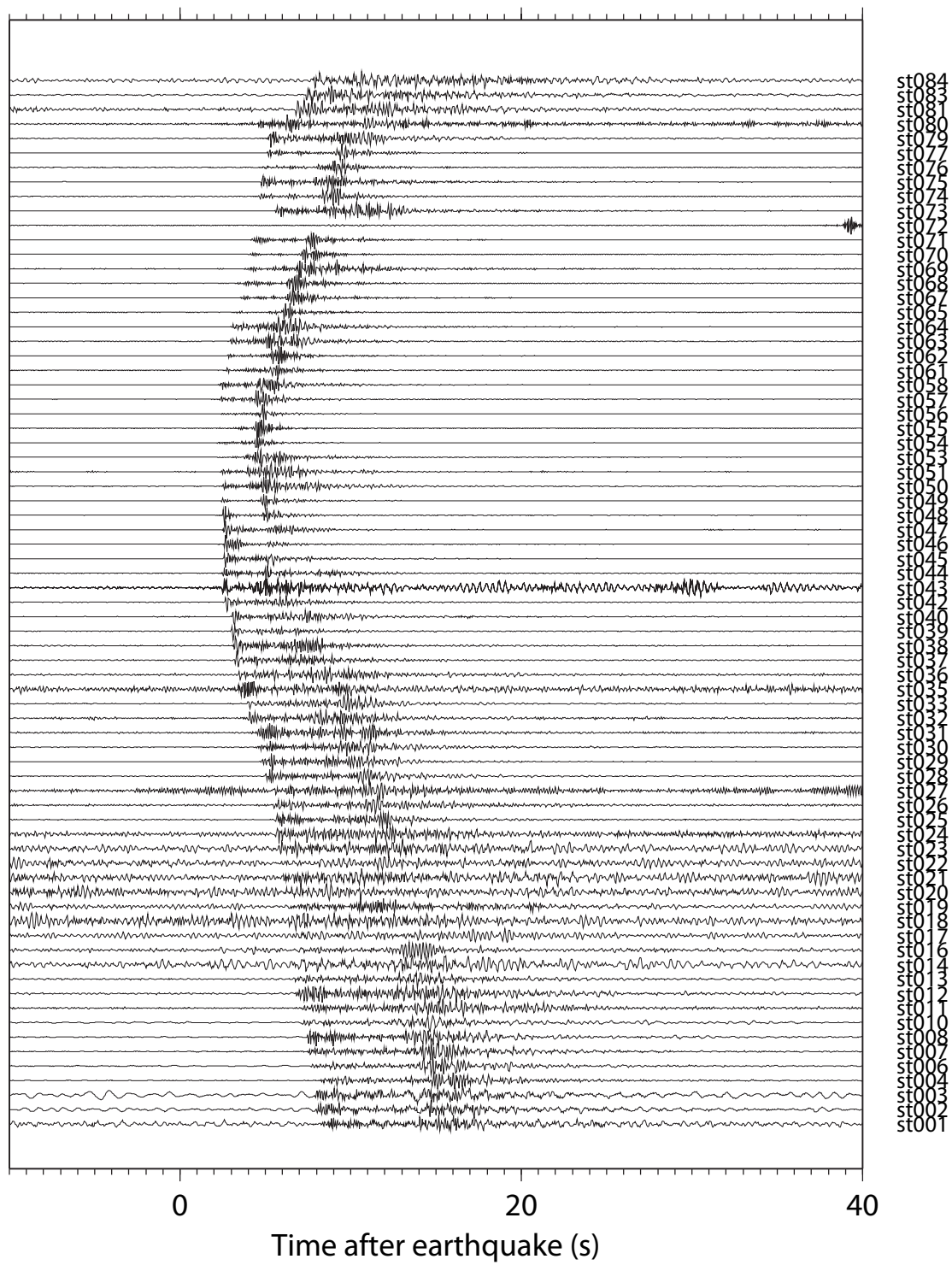


Figure 3h. Vertical-component record section for local earthquake which occurred on April 6, 1999 (Event_1999.04.06.12.14.47.07).

Distance = 7-67 km

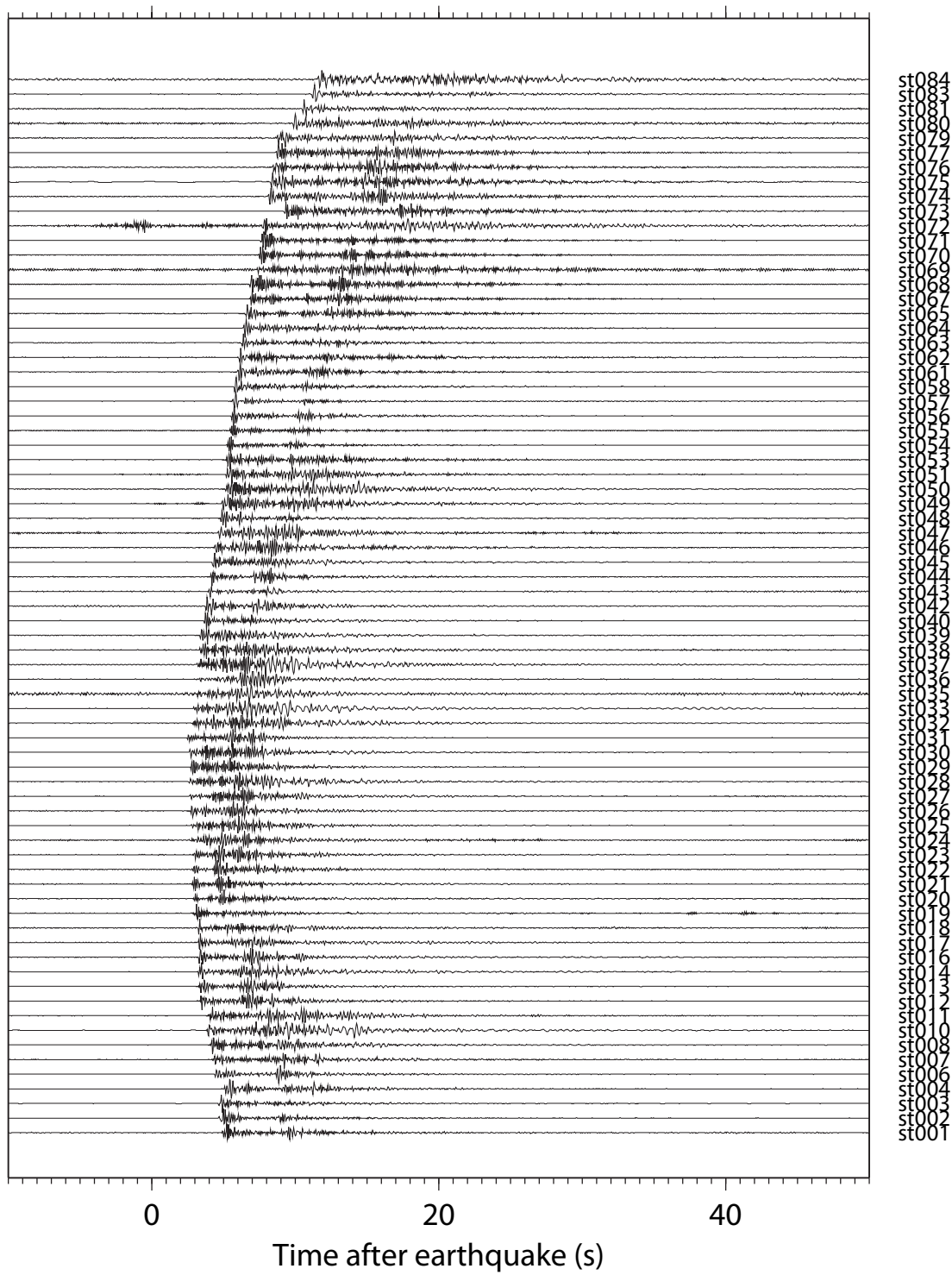


Figure 3i. Vertical-component record section for local earthquake which occurred on April 8, 1999 (Event_1999.04.08.05.04.31.00).

Distance = 4-57 km

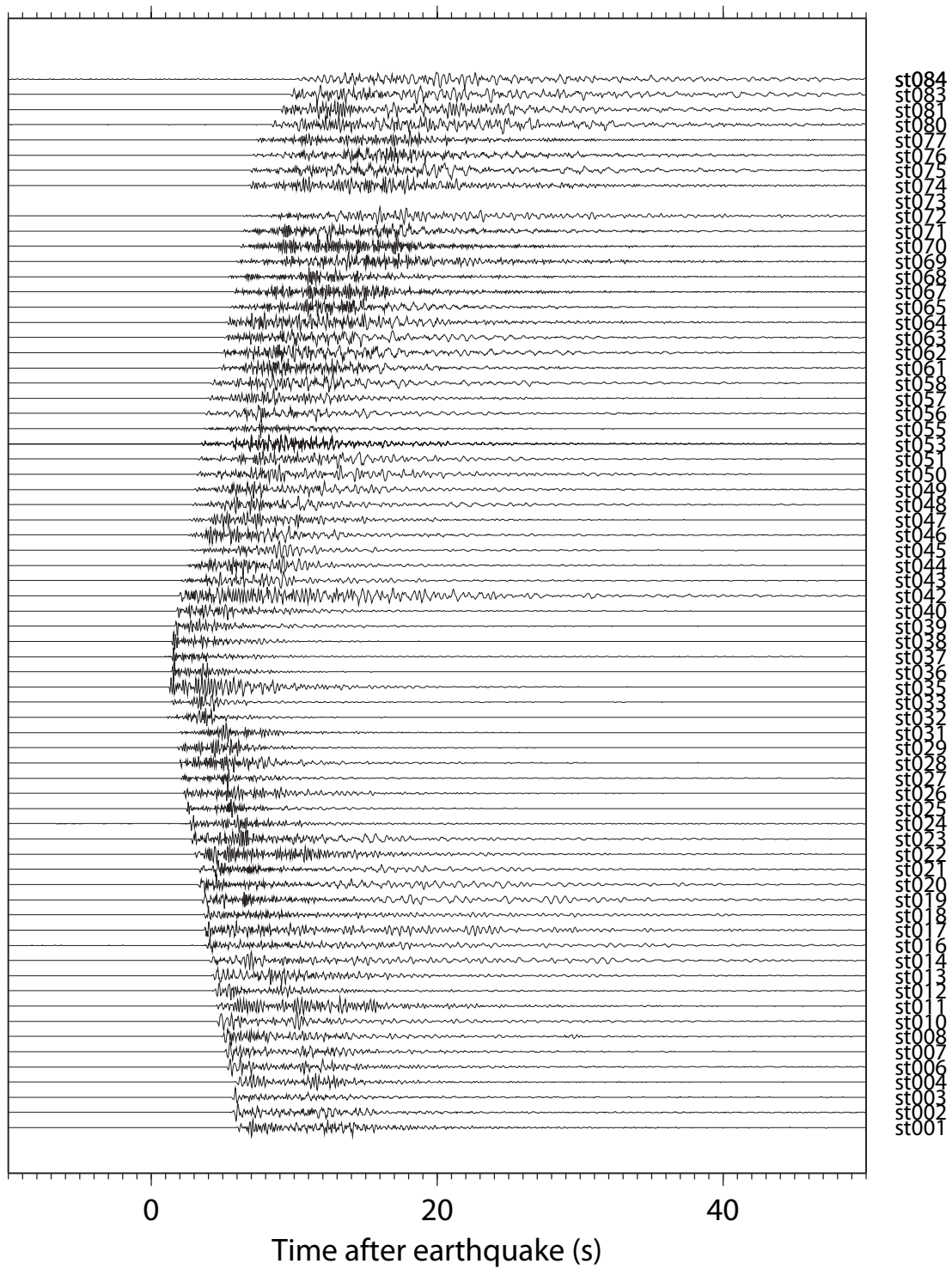


Figure 3j. Vertical-component record section for local earthquake which occurred on April 11, 1999 (Event_1999.04.11.09.09.19.06).

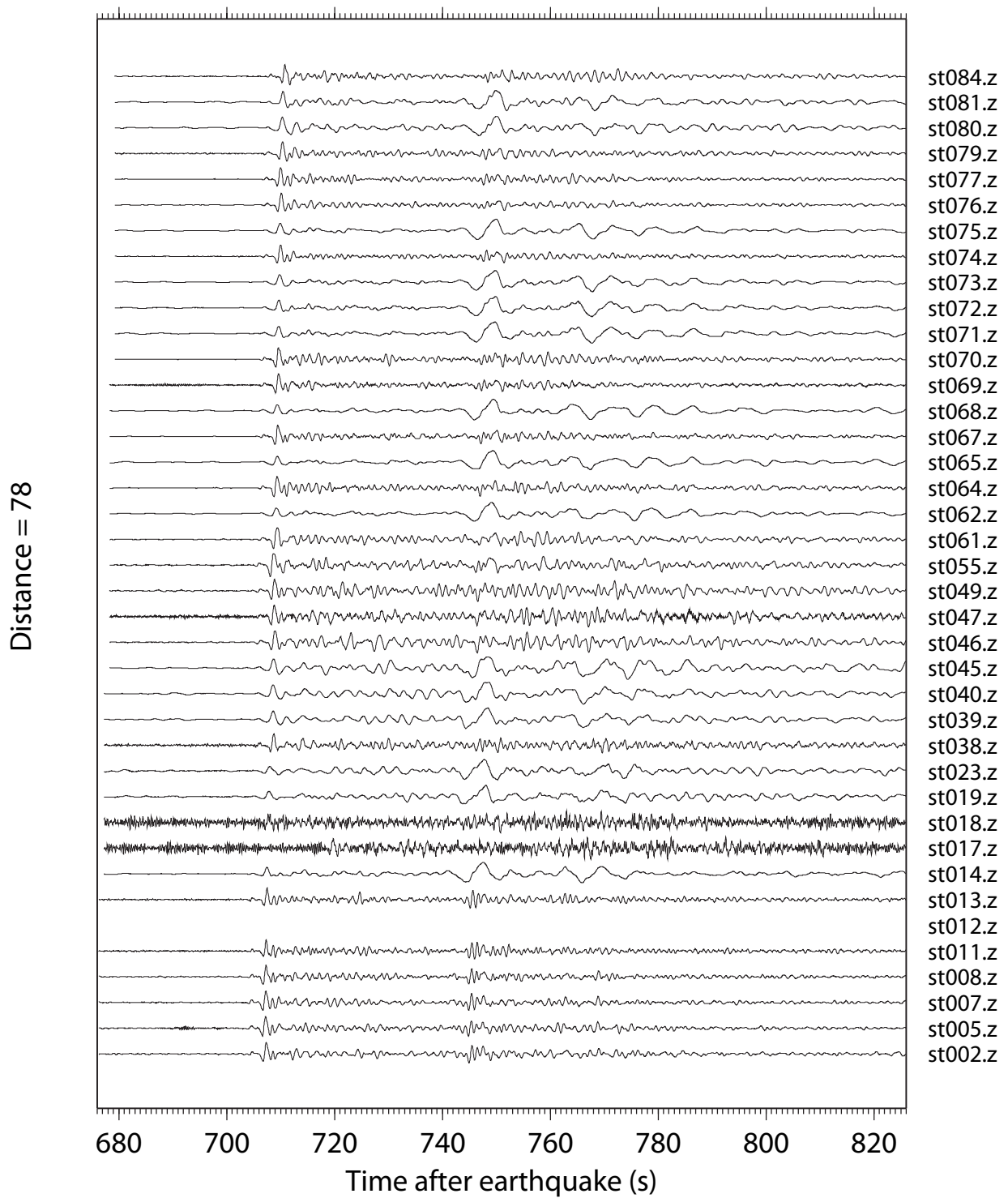


Figure 4a. Vertical-component record section for teleseismic event which occurred on December 27, 1998 in Fiji (Event_1998.12.27.00.38.26.07).

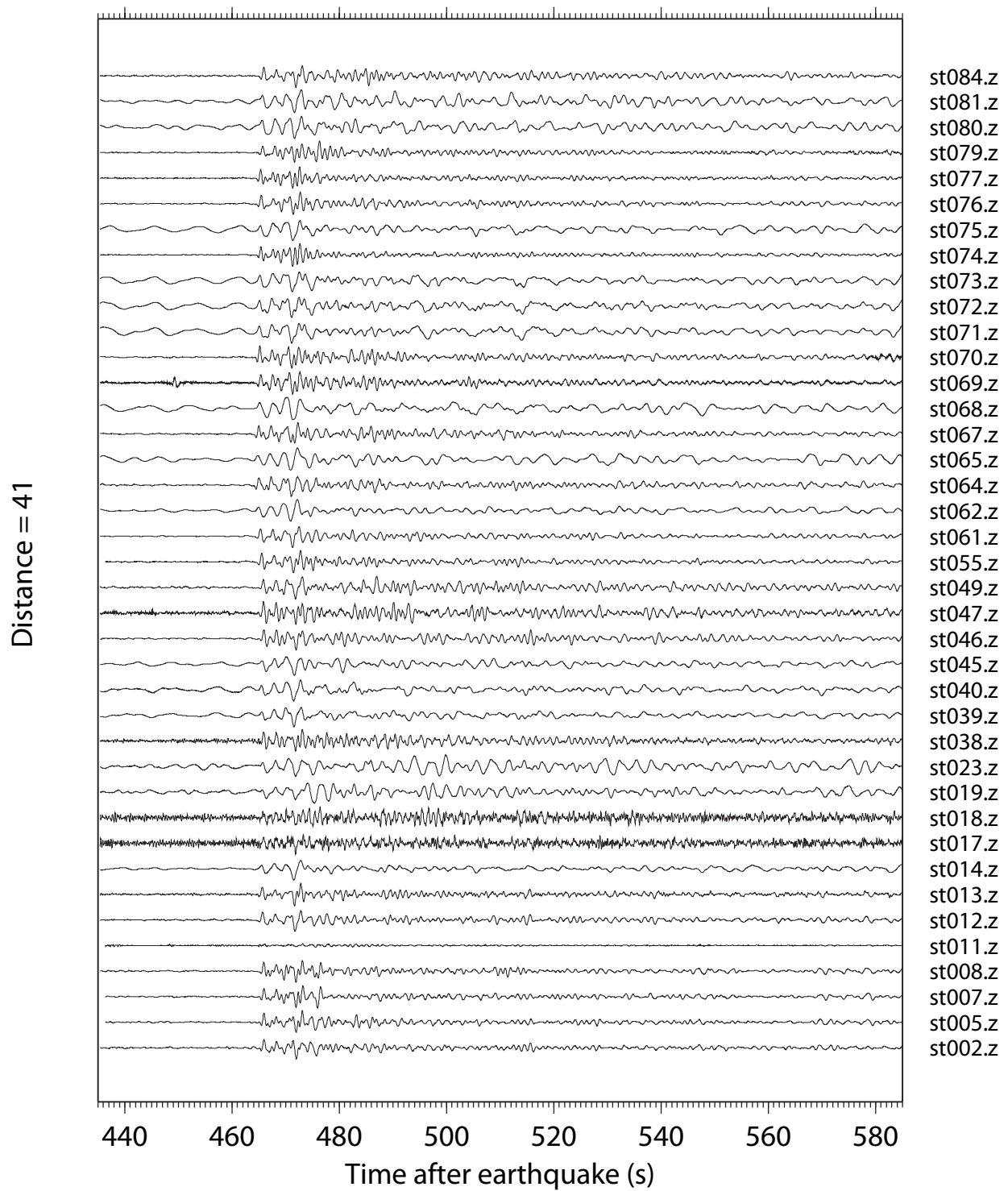


Figure 4b. Vertical-component record section for teleseismic event which occurred on December 28, 1998 in Cuba (Event_1998.12.28.07.23.31.06).

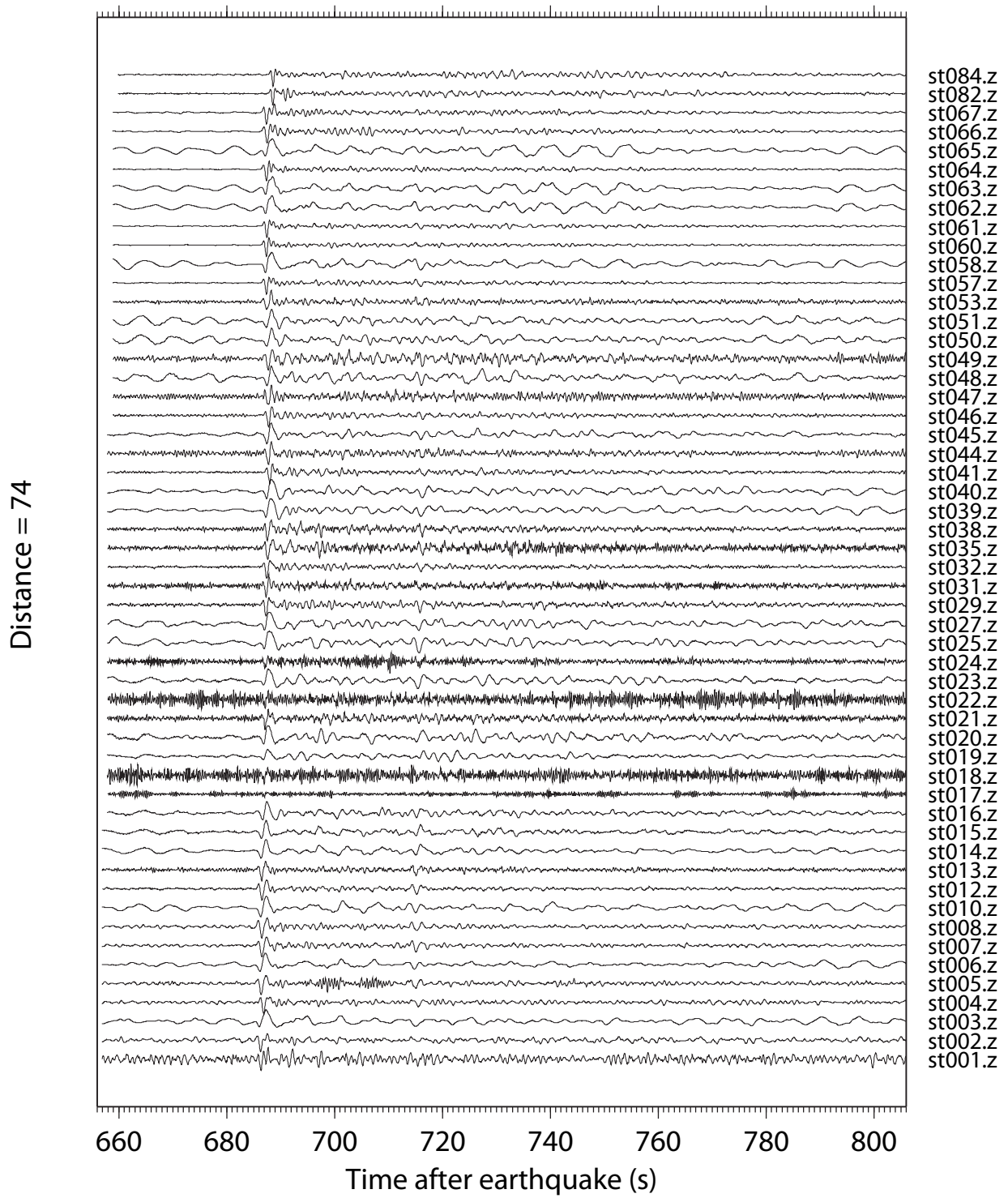


Figure 4c. Vertical-component record section for teleseismic event which occurred on March 2, 1999 in Northern Chile (Event_1999.03.02.17.45.55.01).

Distance = 72

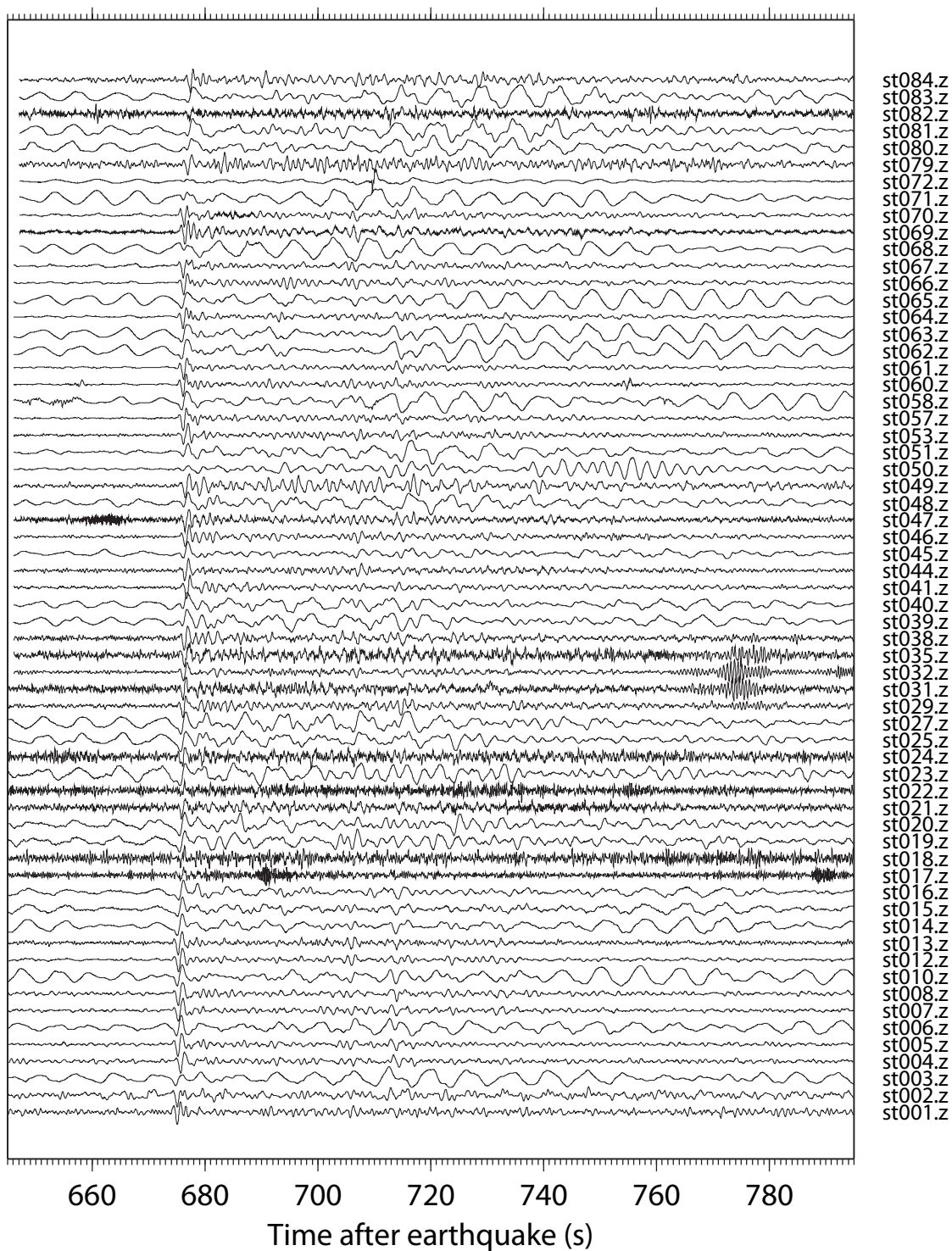


Figure 4d. Vertical-component record section for teleseismic event which occurred on March 5, 1999 in Chile-Bolivia (Event_1999.03.05.00.33.46.09).

Distance = 74

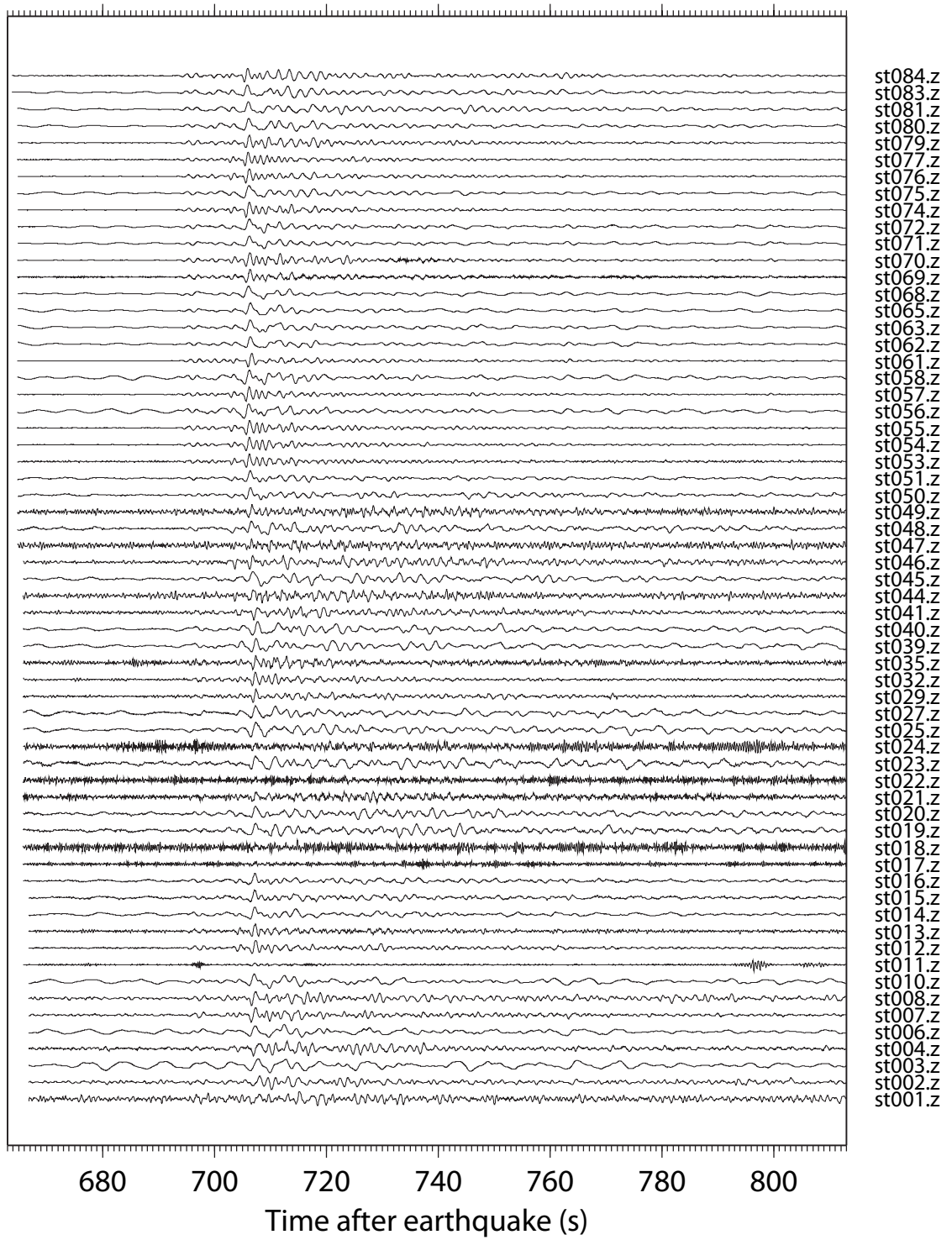


Figure 4e. Vertical-component record section for teleseismic event which occurred on March 18, 1999 in Japan (Event_1999.03.18.17.55.43.02).

Distance = 81

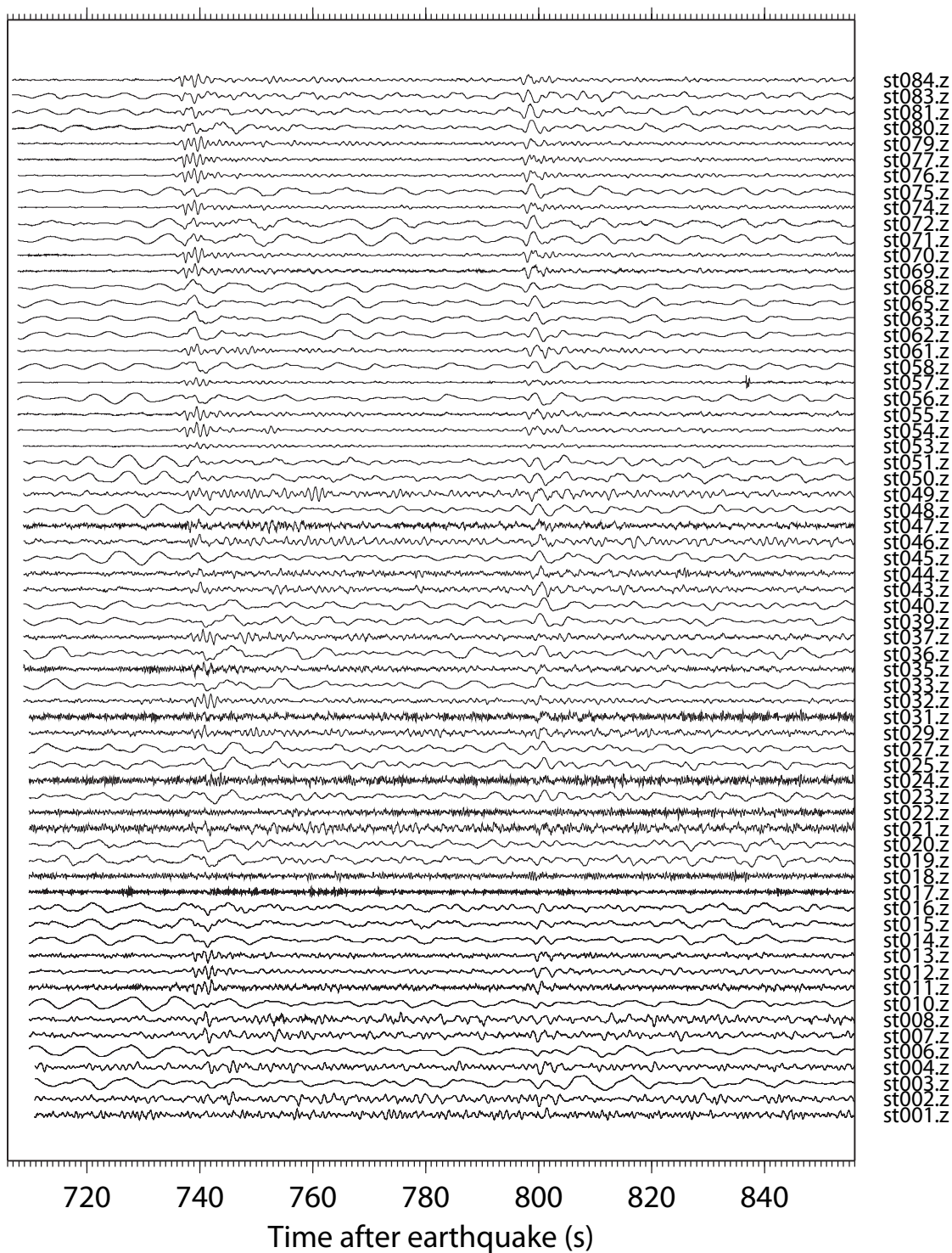


Figure 4f. Vertical-component record section for teleseismic event which occurred on March 21, 1999 in Lake Baikal, Russia (Event_1999.03.21.16.16.02.02).

Distance = 44

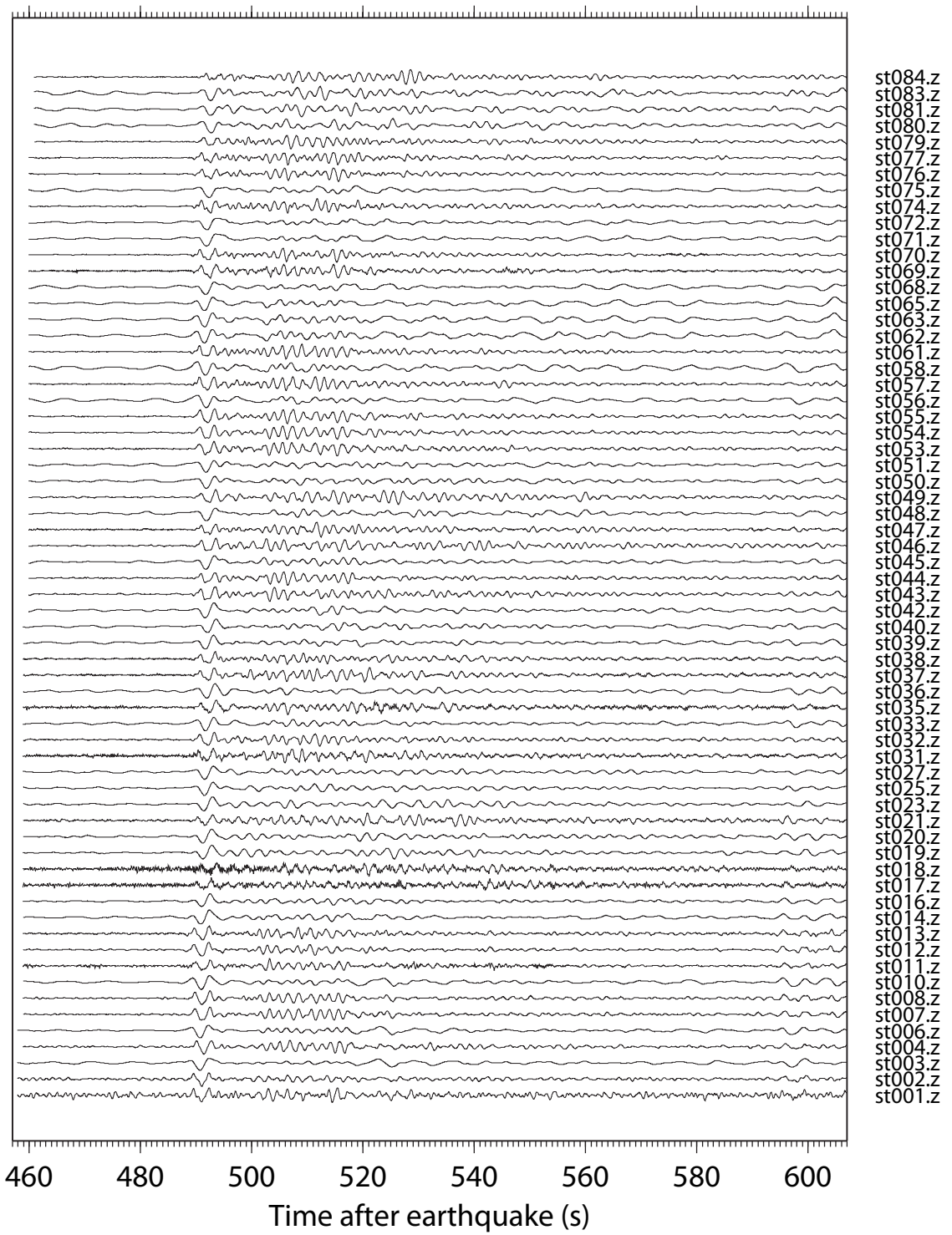


Figure 4g. Vertical-component record section for teleseismic event which occurred on March 31, 1999 south of Panama (Event_1999.03.31.05.54.42.01).

Distance = 95

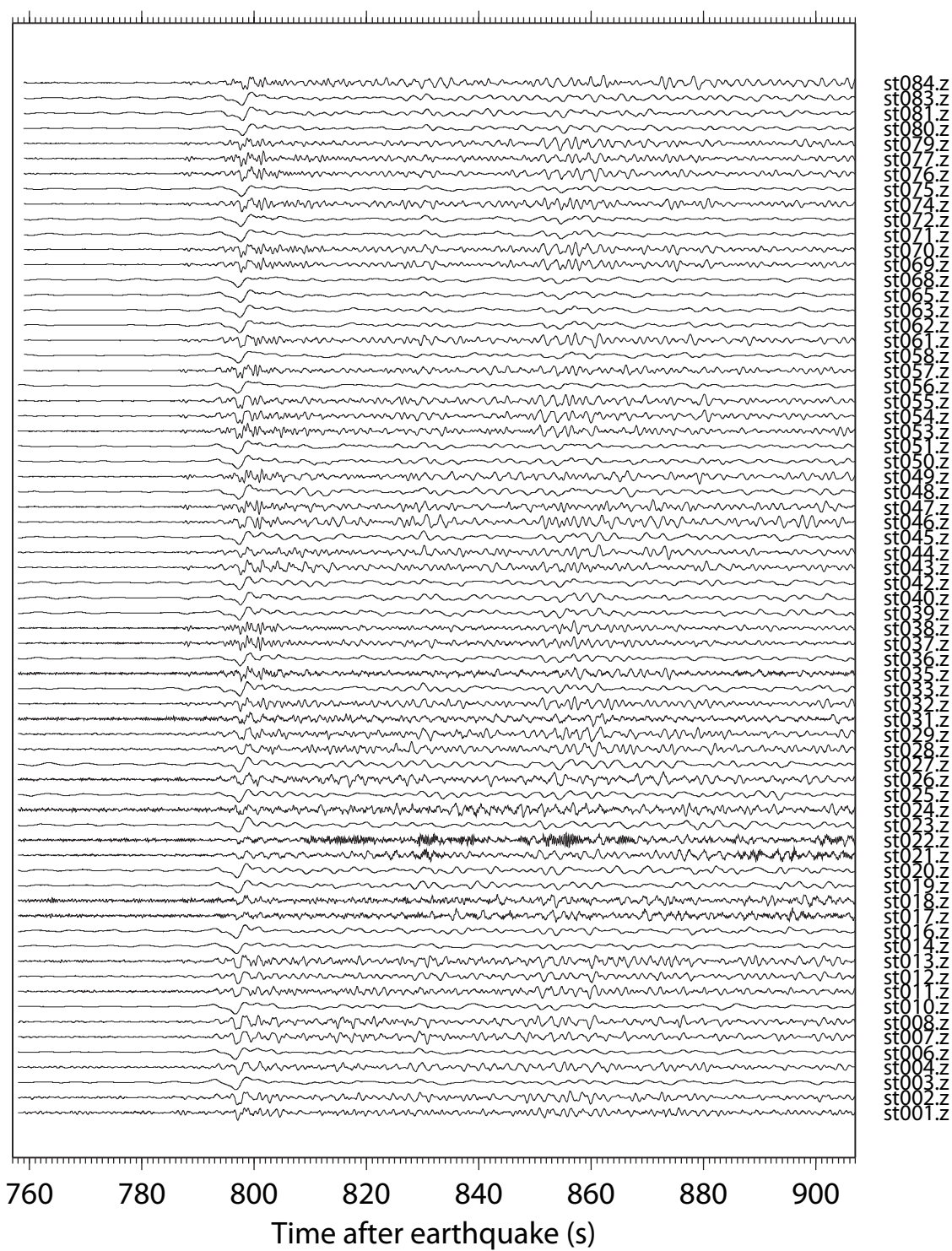


Figure 4h. Vertical-component record section for teleseismic event which occurred on April 5, 1999 in New Britain (Event_1999.04.05.11.08.04.00).



Figure 4i. Vertical-component record section for teleseismic event which occurred on April 8, 1999 on the Eastern Russia-China border (Event_1999.04.08.13.10.34.00).

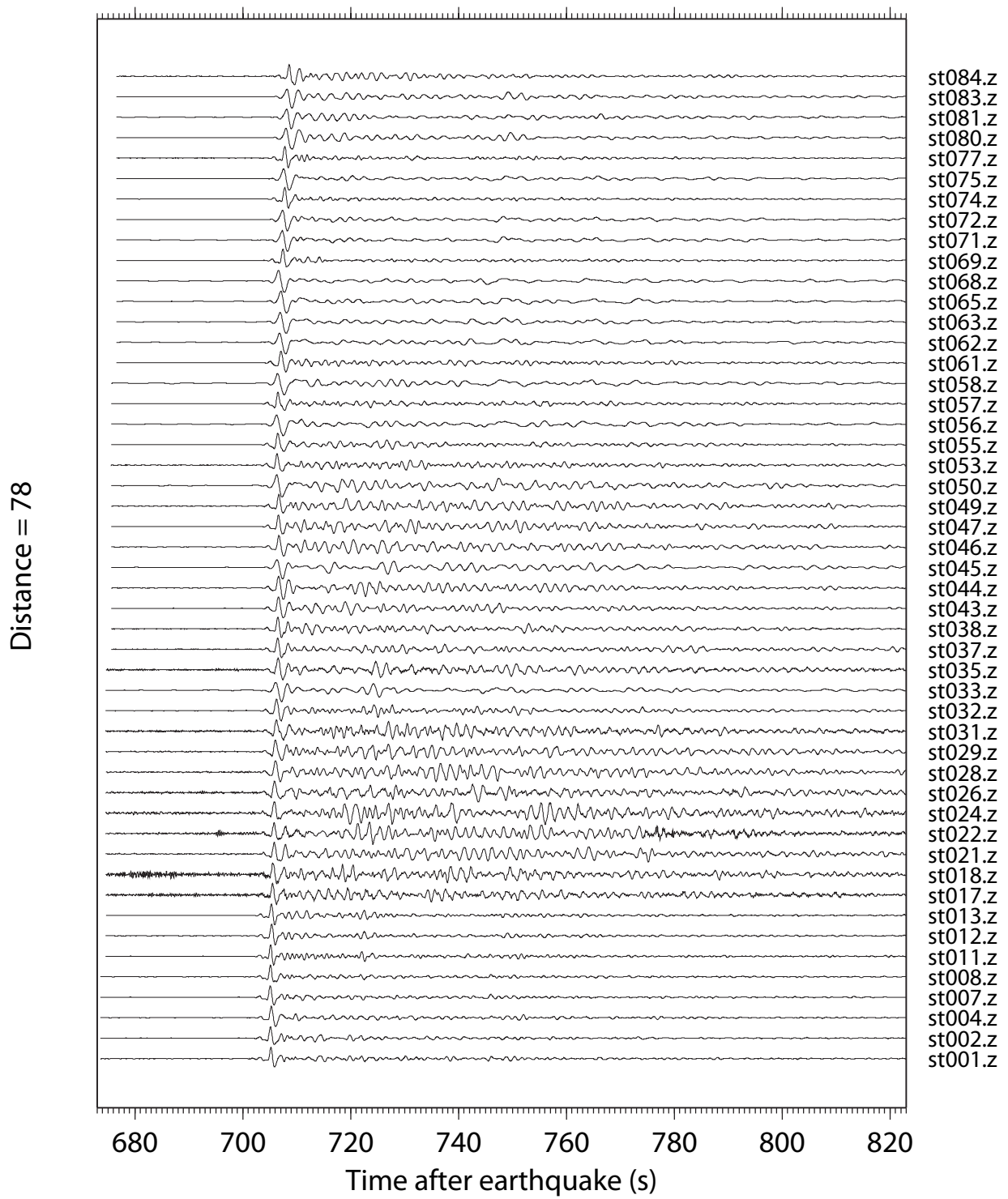


Figure 4j. Vertical-component record section for teleseismic event which occurred on April 13, 1999 in Fiji (Event_1999.04.13.10.38.48.04).

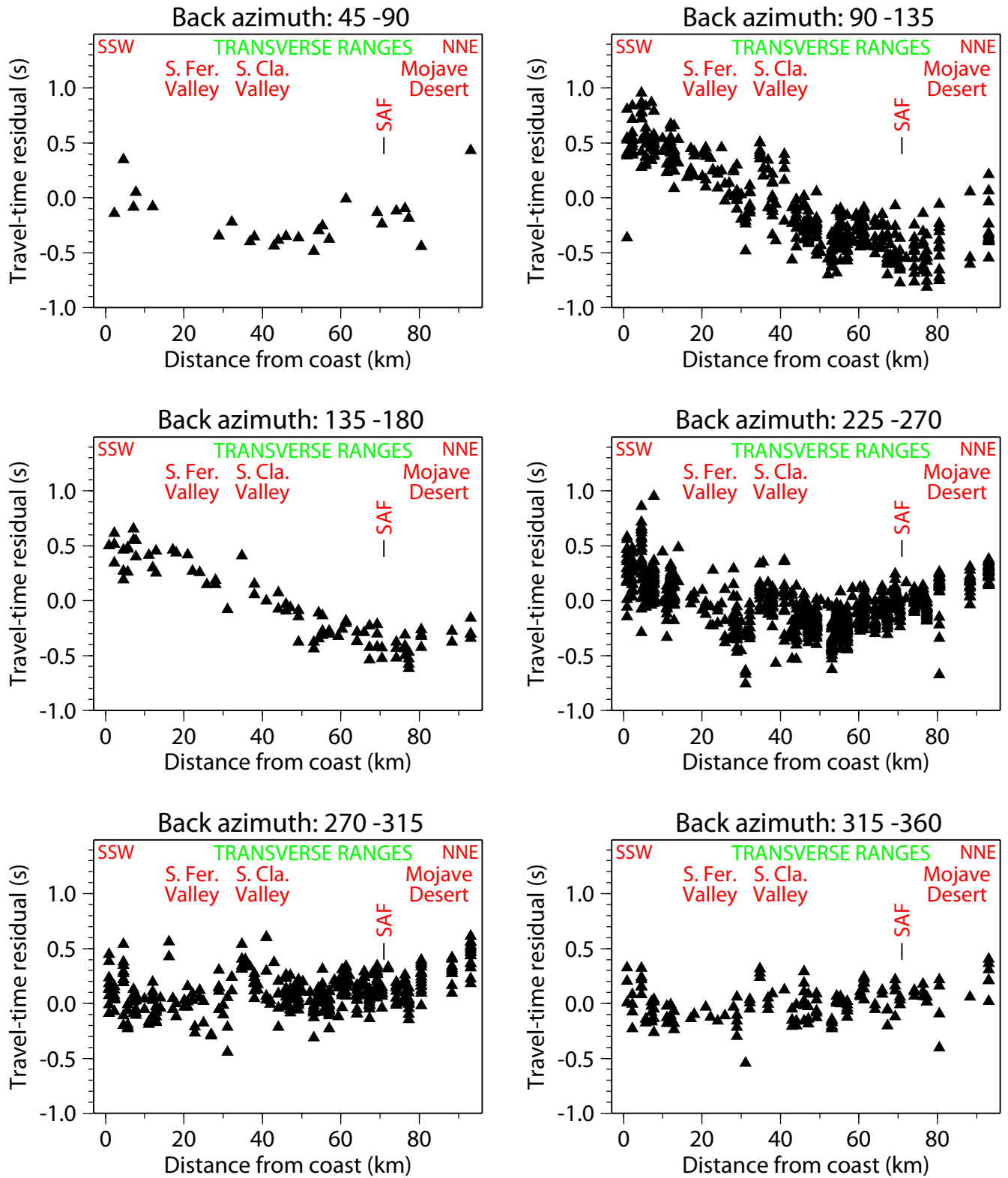


Figure 5. Teleseismic travel-time residuals grouped by back-azimuth range. S. Fer. Valley=San Fernando Valley; S. Cla. Valley=Santa Clarita Valley; SAF=San Andreas fault.

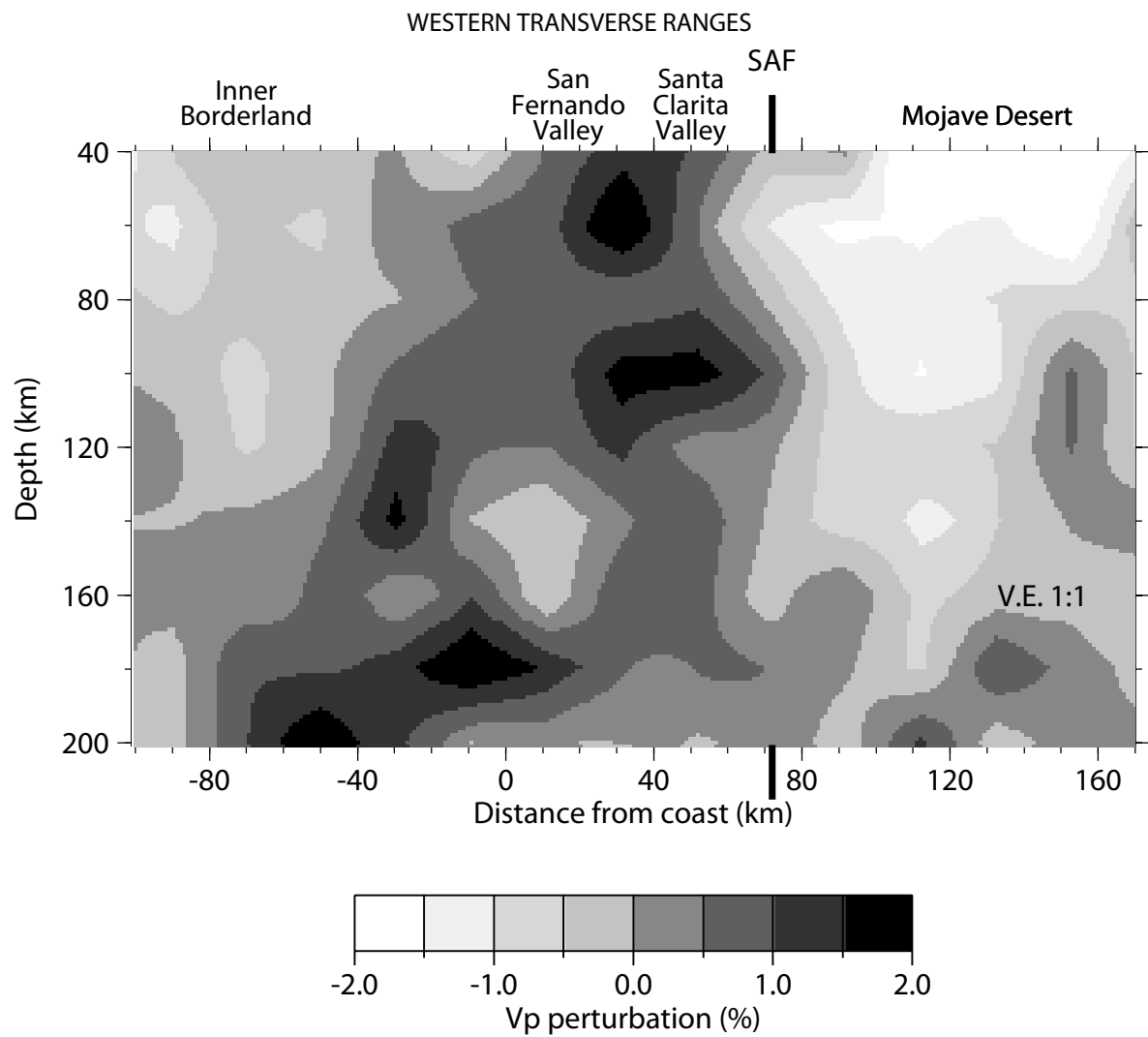


Figure 6. Tomographic P-wave velocity cross section below LARSE II array.