

## **Data Report No. 02-005**

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### **XV 1999-2000 – Kilauea East Rift Zone Experiment, Hawaii**

The Kilauea East Rift Zone (ERZ) passive seismic array project was carried out in Hawaii in 1999-2000. From November 11, 1999 to June 23, 2000, UW-Madison operated a temporary network of 29 IRIS-PASSCAL seismic instruments equipped with 1 Hz 3-component geophones at 30 sites in the area of the upper ERZ and South Flank of Kilauea volcano (Figure 1). The network was deployed along a roughly NNW-SSE trending western profile from north of Kilauea caldera almost to the coast, another short eastern profile from the Hilina fault up to the ERZ, and a dense array north of the ERZ. Table 1 contains the coordinates and elevations of the passive array stations, along with sensor type and installation and removal dates. The coordinates were determined using hand-held GPS units. Sensors either were buried in soil, where present, or were plastered to lava.

### **Data Collection and Processing**

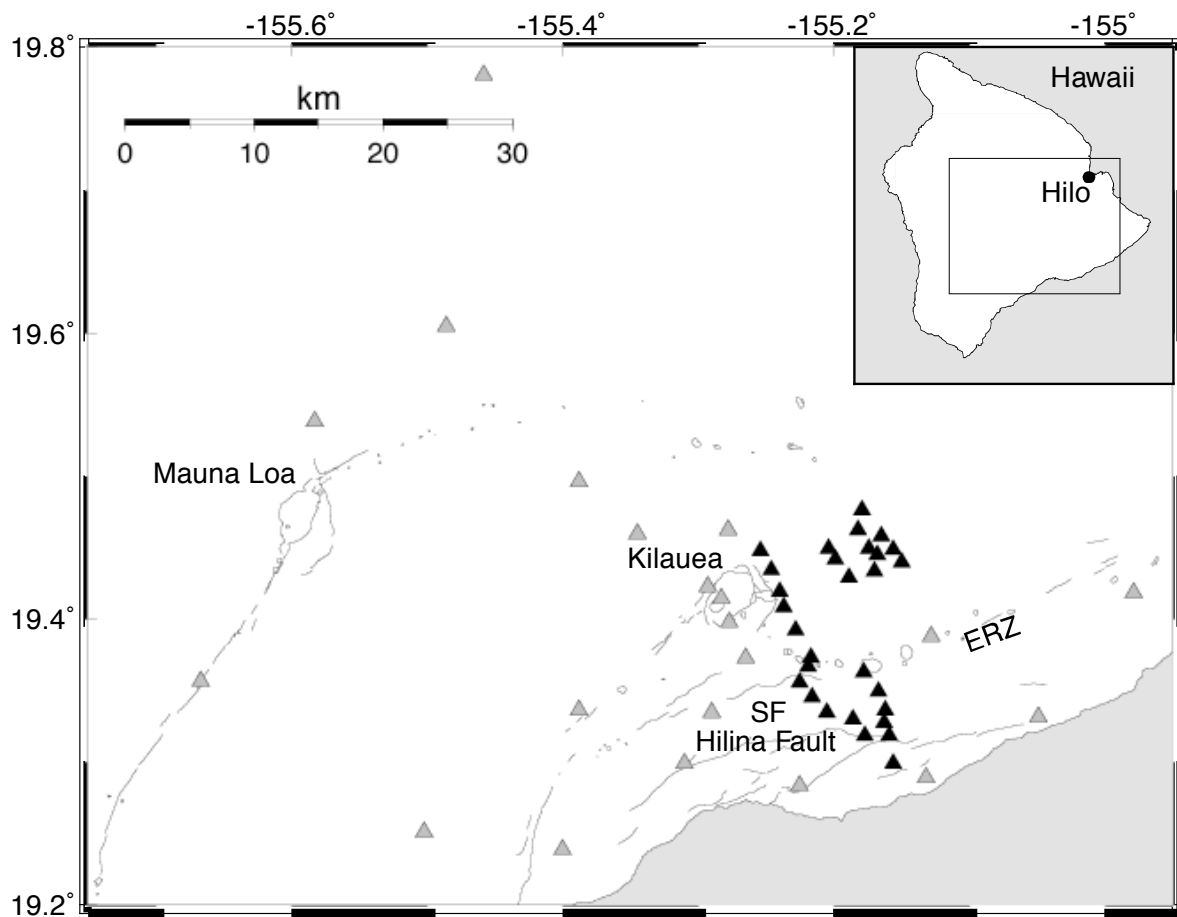
Data were recorded in triggered mode at 100 SPS. Approximately 4300 local earthquakes were recorded, as defined by 4 or more coincident triggers. Approximately 20% of these events correspond to earthquakes in the preliminary Hawaiian Volcano Observatory catalog. The data were assembled and time-corrected using the PASSCAL database system. The completed database has been submitted to the IRIS DMC in SEED format.

### **Known Problems**

A serious RefTek timing problem was discovered by Florian Haslinger, a post-doc working on the project. At a number of the service visits, when a system reset was routinely done, there was a 1-second time jump after the reset. This 1-second jump was then corrected by a DSP SET of -1 second on the next GPS fix (within 1 hour). At the time, the current refrate code did not interpret this time jump as an error, but instead applied time corrections for times after the DSP SET, instead of before, until the next GPS fix. Thus all data between the start of acquisition for this recording period and the second GPS fix will have an erroneous correction applied: no correction when it should be 1 second, and a linear taper between 1 second and 0 between the first and second GPS fixes. This problem was reported to PASSCAL in June 2000. The known incidents of this problem are documented in the Appendix.

Related publications and abstracts:

- Haslinger, F., M. Mandernach, R. Hartog, and C. Thurber, Seismic investigation of the anatomy of Kilauea volcano's East Rift Zone and South Flank (abstract), *Seismol. Res. Lett.*, **71**, 250, 2000.
- Haslinger, F., C. Thurber, M. Mandernach and P. Okubo, Tomographic image of P-velocity structure beneath Kilauea's East Rift Zone and South Flank: seismic evidence for a deep magma body, *Geophys. Res. Lett.*, **28**, 375-378, 2001.
- Mandernach, M., Three-dimensional Vp and Vp/Vs structure of the East Rift Zone and South Flank of Kilauea volcano, Hawaii, M.S. thesis, UW-Madison, 52 pp., 2001.
- Mandernach, M., C. Thurber, F. Haslinger, C. Doran, A. Haslinger, and P. Okubo, Three-dimensional Vp and Vp/Vs structure of the East Rift Zone and South Flank of Kilauea Volcano, Hawaii, *EOS, Trans. Am. Geophys. Un. Suppl.*, **81**, F855, 2000.



**Figure 1.** The location of the PASSCAL KERZ array (black triangles) and nearby HVO stations (gray triangles). Geographic features are marked, SF: South Flank, ERZ: East Rift Zone. The inset shows the boundary of the plot region on the Big Island of Hawaii.

Table 1 KERZ 99-00 site locations (datum used: WGS84)

<u>STA</u>	<u>LAT</u>	<u>LON</u>	<u>ELEV(M)</u>	<u>sensor</u>	<u>Install-Remove</u>
W31	19.2994N	155.1559W	195	L-4	11/11/99-06/15/00
W32	19.3189N	155.1771W	671	L-4	11/11/99-06/16/00
W33	19.3304N	155.1859W	783	L-4	11/11/99-06/16/00
W34	19.3352N	155.2051W	829	L-4	11/10/99-06/16/00
W35	19.3457N	155.2165W	918	HS-10	11/15/99-06/15/00
W36	19.3562N	155.2245W	995	HS-10	11/13/99-06/14/00
W37	19.3672N	155.2190W	1006	HS-10	11/13/99-06/22/00
W38	19.3735N	155.2166W	1019	HS-10	11/13/99-06/22/00
W39	19.3926N	155.2284W	1121	HS-10	11/16/99-06/23/00
W40	19.4088N	155.2365W	1213	HS-10	11/15/99-06/23/00
W42	19.4197N	155.2402W	1209	HS-10	11/15/99-06/23/00
W44	19.4349N	155.2459W	1208	HS-10	11/14/99-06/21/00
W45	19.4480N	155.2539W	1218	HS-10	11/20/99-06/21/00
W46	19.4600N	155.2600W	1224	HS-10	01/08/00-06/21/00
W51	19.3189N	155.1592W	633	L-4	11/12/99-06/15/00
W52	19.3281N	155.1626W	729	L-4	11/17/99-06/20/00
W53	19.3368N	155.1622W	770	L-4	11/17/99-06/20/00
W54	19.3499N	155.1666W	827	L-4	11/17/99-06/20/00
W55	19.3633N	155.1777W	926	L-4	11/17/99-06/20/00
W61	19.4297N	155.1887W	971	HS-10	11/13/99-06/18/00
W62	19.4424N	155.1989W	1000	HS-10	11/16/99-06/18/00
W63	19.4497N	155.2038W	1005	HS-10	11/19/99-06/17/00
W65	19.4340N	155.1700W	916	HS-10	11/18/99-06/17/00
W66	19.4454N	155.1683W	860	HS-10	11/19/99-01/07/00
W67	19.4496N	155.1737W	874	HS-10	11/18/99-06/18/00
W68	19.4628N	155.1817W	881	HS-10	11/20/99-06/23/00
W70	19.4401N	155.1500W	822	HS-10	11/16/99-06/17/00
W71	19.4488N	155.1564W	824	HS-10	11/18/99-06/17/00
W72	19.4587N	155.1647W	820	HS-10	11/16/99-06/17/00
W73	19.4767N	155.1787W	894	HS-10	11/18/99-06/16/00

## Appendix

010400.00:003:17:21.7301.log

332:23:14:23 ACQUISITION STARTED

332:23:41:09 DSP CLOCK SET: OLD=99:332:23:41:08.005, NEW=99:332:23:41:09.005

332:23:41:09 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

332:23:41:09 DSP CLOCK HAS CHANGED 1 TIMES

010400.00:003:17:21.7607.log

332:22:34:55 ACQUISITION STARTED

332:22:42:04 DSP CLOCK SET: OLD=99:332:22:42:03.005, NEW=99:332:22:42:04.005

332:22:42:04 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

332:22:42:04 DSP CLOCK HAS CHANGED 1 TIMES

010400.00:003:17:21.7623.log

332:21:35:48 ACQUISITION STARTED

332:21:41:39 DSP CLOCK SET: OLD=99:332:21:41:38.005, NEW=99:332:21:41:39.005

332:21:41:39 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

332:21:41:39 DSP CLOCK HAS CHANGED 1 TIMES

010600.00:006:22:22.7284.log

351:02:01:19 ACQUISITION STARTED

351:02:41:09 DSP CLOCK SET: OLD=99:351:02:41:08.005, NEW=99:351:02:41:09.005

351:02:41:09 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

351:02:41:09 DSP CLOCK HAS CHANGED 1 TIMES

010600.00:006:22:22.7462.log

334:23:24:25 ACQUISITION STARTED

334:23:40:48 DSP CLOCK SET: OLD=99:334:23:40:47.005, NEW=99:334:23:40:48.005

334:23:40:48 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

334:23:40:48 DSP CLOCK HAS CHANGED 1 TIMES

010600.00:006:22:22.7599.log

334:20:17:10 ACQUISITION STARTED

334:20:41:50 DSP CLOCK SET: OLD=99:334:20:41:49.005, NEW=99:334:20:41:50.005

334:20:41:50 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

334:20:41:50 DSP CLOCK HAS CHANGED 1 TIMES

010600.00:006:22:22.7601.log

334:21:32:43 ACQUISITION STARTED

334:21:41:57 DSP CLOCK SET: OLD=99:334:21:41:56.005, NEW=99:334:21:41:57.005

334:21:41:57 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

334:21:41:57 DSP CLOCK HAS CHANGED 1 TIMES

010600.00:006:22:22.7618.log

334:22:33:42 ACQUISITION STARTED

334:22:41:14 DSP CLOCK SET: OLD=99:334:22:41:13.005, NEW=99:334:22:41:14.005

334:22:41:14 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

334:22:41:14 DSP CLOCK HAS CHANGED 1 TIMES

010800.00:007:19:59.7114.log

339:00:05:28 ACQUISITION STARTED

339:00:41:20 DSP CLOCK SET: OLD=99:339:00:41:19.005, NEW=99:339:00:41:20.005

339:00:41:20 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

339:00:41:20 DSP CLOCK HAS CHANGED 1 TIMES

010800.00:007:19:59.7612.log

335:22:41:43 ACQUISITION STARTED

335:22:42:30 DSP CLOCK SET: OLD=99:335:22:42:29.005, NEW=99:335:22:42:30.005

335:22:42:30 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

335:22:42:30 DSP CLOCK HAS CHANGED 1 TIMES

010800a.00:007:21:27.7282.log

349:00:17:48 ACQUISITION STARTED

349:00:43:44 DSP CLOCK SET: OLD=99:349:00:43:43.005, NEW=99:349:00:43:44.005

349:00:43:44 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

349:00:43:44 DSP CLOCK HAS CHANGED 1 TIMES

012800.00:028:11:46.7332.log

350:23:35:30 ACQUISITION STARTED

350:23:41:39 DSP CLOCK SET: OLD=99:350:23:41:38.005, NEW=99:350:23:41:39.005

350:23:41:39 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

350:23:41:39 DSP CLOCK HAS CHANGED 1 TIMES

012800.00:028:11:46.7359.log

339:01:31:47 ACQUISITION STARTED

339:01:46:05 DSP CLOCK SET: OLD=99:339:01:46:04.005, NEW=99:339:01:46:05.005

339:01:46:05 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

339:01:46:05 DSP CLOCK HAS CHANGED 1 TIMES

012800.00:028:11:46.7595.log

351:00:13:44 ACQUISITION STARTED

351:00:41:33 DSP CLOCK SET: OLD=99:351:00:41:32.005, NEW=99:351:00:41:33.005

351:00:41:33 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

351:00:41:33 DSP CLOCK HAS CHANGED 1 TIMES

013100.00:031:11:07.7297.log

337:20:18:58 ACQUISITION STARTED

337:20:21:23 DSP CLOCK SET: OLD=99:337:20:21:22.005, NEW=99:337:20:21:23.005

337:20:21:23 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

337:20:21:23 DSP CLOCK HAS CHANGED 1 TIMES

013100.00:031:11:07.7605.log

338:22:57:55 ACQUISITION STARTED

338:23:41:38 DSP CLOCK SET: OLD=99:338:23:41:37.005, NEW=99:338:23:41:38.005

338:23:41:38 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

338:23:41:38 DSP CLOCK HAS CHANGED 1 TIMES

013100b.00:031:16:46.7607.log

004:01:03:44 ACQUISITION STARTED

004:01:41:33 DSP CLOCK SET: OLD=00:004:01:41:32.005, NEW=00:004:01:41:33.005

004:01:41:33 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

004:01:41:33 DSP CLOCK HAS CHANGED 1 TIMES

013100b.00:031:16:46.7623.log

004:00:23:36 ACQUISITION STARTED

004:00:41:09 DSP CLOCK SET: OLD=00:004:00:41:08.005, NEW=00:004:00:41:09.005

004:00:41:09 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

004:00:41:09 DSP CLOCK HAS CHANGED 1 TIMES

013100c.00:031:16:52.7280.log

007:20:01:06 ACQUISITION STARTED

007:20:40:37 DSP CLOCK SET: OLD=00:007:20:40:36.005, NEW=00:007:20:40:37.005

007:20:40:37 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

007:20:40:37 DSP CLOCK HAS CHANGED 1 TIMES

013100c.00:031:16:52.7306.log

005:21:41:19 ACQUISITION STARTED

005:21:45:19 DSP CLOCK SET: OLD=00:005:21:45:18.005, NEW=00:005:21:45:19.005

005:21:45:19 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

005:21:45:19 DSP CLOCK HAS CHANGED 1 TIMES

013100d.00:031:16:56.7612.log

008:01:19:42 ACQUISITION STARTED

008:01:28:10 DSP CLOCK SET: OLD=00:008:01:28:10.005, NEW=00:008:01:28:10.005

008:01:28:10 DSP CLOCK DIFFERENCE: 0 SECS AND 0 MSECS

008:01:28:10 DSP CLOCK HAS CHANGED 1 TIMES

013100e.00:031:16:57.7114.log

008:00:08:13 ACQUISITION STARTED

008:00:47:54 DSP CLOCK SET: OLD=00:008:00:47:53.005, NEW=00:008:00:47:54.005

008:00:47:54 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

008:00:47:54 DSP CLOCK HAS CHANGED 1 TIMES

013100e.00:031:16:57.7282.log

009:20:02:49 ACQUISITION STARTED

009:20:41:09 DSP CLOCK SET: OLD=00:009:20:41:08.005, NEW=00:009:20:41:09.005

009:20:41:09 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

009:20:41:09 DSP CLOCK HAS CHANGED 1 TIMES

013100e.00:031:16:57.7450.log

009:01:03:44 ACQUISITION STARTED

009:01:40:43 DSP CLOCK SET: OLD=00:009:01:40:42.005, NEW=00:009:01:40:43.005

009:01:40:43 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

009:01:40:43 DSP CLOCK HAS CHANGED 1 TIMES

013100f.00:031:16:59.7599.log

006:21:10:16 ACQUISITION STARTED

006:21:41:38 DSP CLOCK SET: OLD=00:006:21:41:37.005, NEW=00:006:21:41:38.005

006:21:41:38 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

006:21:41:38 DSP CLOCK HAS CHANGED 1 TIMES

013100f.00:031:16:59.7601.log

006:22:18:27 ACQUISITION STARTED

006:22:41:34 DSP CLOCK SET: OLD=00:006:22:41:33.005, NEW=00:006:22:41:34.005

006:22:41:34 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

006:22:41:34 DSP CLOCK HAS CHANGED 1 TIMES

013100g.00:031:15:12.7601.log

006:22:18:27 ACQUISITION STARTED

006:22:41:34 DSP CLOCK SET: OLD=00:006:22:41:33.005, NEW=00:006:22:41:34.005

006:22:41:34 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

006:22:41:34 DSP CLOCK HAS CHANGED 1 TIMES

013100g.00:031:15:12.7618.log

006:23:10:45 ACQUISITION STARTED

006:23:41:39 DSP CLOCK SET: OLD=00:006:23:41:38.005, NEW=00:006:23:41:39.005

006:23:41:39 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

006:23:41:39 DSP CLOCK HAS CHANGED 1 TIMES

013100h.00:031:17:01.7462.log

007:00:08:50 ACQUISITION STARTED

007:00:40:53 DSP CLOCK SET: OLD=00:007:00:40:52.005, NEW=00:007:00:40:53.005

007:00:40:53 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

007:00:40:53 DSP CLOCK HAS CHANGED 1 TIMES

022200.00:053:14:06.7452.log

012:23:20:15 ACQUISITION STARTED

012:23:43:50 DSP CLOCK SET: OLD=00:012:23:43:49.005, NEW=00:012:23:43:50.005

012:23:43:50 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

012:23:43:50 DSP CLOCK HAS CHANGED 1 TIMES

060200a.00:154:10:45.7282.log

015:19:37:43 ACQUISITION STARTED

015:19:42:04 DSP CLOCK SET: OLD=00:015:19:42:03.005, NEW=00:015:19:42:04.005

015:19:42:04 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

015:19:42:04 DSP CLOCK HAS CHANGED 1 TIMES

060200a.00:154:10:45.7297.log

011:21:03:51 ACQUISITION STARTED

011:21:41:38 DSP CLOCK SET: OLD=00:011:21:41:37.005, NEW=00:011:21:41:38.005

011:21:41:38 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

011:21:41:38 DSP CLOCK HAS CHANGED 1 TIMES

060200a.00:154:10:45.7446.log

015:20:30:40 ACQUISITION STARTED

015:20:51:00 DSP CLOCK SET: OLD=00:015:20:50:59.005, NEW=00:015:20:51:00.005

015:20:51:00 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

015:20:51:00 DSP CLOCK HAS CHANGED 1 TIMES

060200a.00:154:10:45.7594.log

011:22:04:34 ACQUISITION STARTED

011:22:41:13 DSP CLOCK SET: OLD=00:011:22:41:12.005, NEW=00:011:22:41:13.005

011:22:41:13 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

011:22:41:13 DSP CLOCK HAS CHANGED 1 TIMES

061900a.00:171:12:39.7114.log

015:22:43:52 ACQUISITION STARTED

015:22:55:10 DSP CLOCK SET: OLD=00:015:22:55:09.005, NEW=00:015:22:55:10.005

015:22:55:10 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

015:22:55:10 DSP CLOCK HAS CHANGED 1 TIMES

061900a.00:171:12:39.7306.log

013:22:09:19 ACQUISITION STARTED

013:22:58:25 DSP CLOCK SET: OLD=00:013:22:58:24.005, NEW=00:013:22:58:25.005

013:22:58:25 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

013:22:58:25 DSP CLOCK HAS CHANGED 1 TIMES

061900a.00:171:12:39.7605.log

011:19:55:13 ACQUISITION STARTED

011:20:41:39 DSP CLOCK SET: OLD=00:011:20:41:38.005, NEW=00:011:20:41:39.005

011:20:41:39 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

011:20:41:39 DSP CLOCK HAS CHANGED 1 TIMES

061900b.00:171:13:49.7462.log

018:22:24:16 ACQUISITION STARTED

018:22:41:54 DSP CLOCK SET: OLD=00:018:22:41:53.005, NEW=00:018:22:41:54.005

018:22:41:54 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

018:22:41:54 DSP CLOCK HAS CHANGED 1 TIMES

061900b.00:171:13:49.7599.log

017:20:29:11 ACQUISITION STARTED

017:20:42:20 DSP CLOCK SET: OLD=00:017:20:42:19.005, NEW=00:017:20:42:20.005

017:20:42:20 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

017:20:42:20 DSP CLOCK HAS CHANGED 1 TIMES

061900b.00:171:13:49.7601.log

017:23:37:50 ACQUISITION STARTED

017:23:41:09 DSP CLOCK SET: OLD=00:017:23:41:08.005, NEW=00:017:23:41:09.005

017:23:41:09 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

017:23:41:09 DSP CLOCK HAS CHANGED 1 TIMES

061900b.00:171:13:49.7618.log

018:01:14:12 ACQUISITION STARTED

018:01:41:20 DSP CLOCK SET: OLD=00:018:01:41:19.005, NEW=00:018:01:41:20.005

018:01:41:20 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

018:01:41:20 DSP CLOCK HAS CHANGED 1 TIMES

061900c.00:171:14:02.7597.log

011:22:49:48 ACQUISITION STARTED

011:23:41:20 DSP CLOCK SET: OLD=00:011:23:41:19.005, NEW=00:011:23:41:20.005

011:23:41:20 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

011:23:41:20 DSP CLOCK HAS CHANGED 1 TIMES

061900c.00:171:14:02.7619.log

011:23:30:35 ACQUISITION STARTED

011:23:41:08 DSP CLOCK SET: OLD=00:011:23:41:07.005, NEW=00:011:23:41:08.005

011:23:41:08 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

011:23:41:08 DSP CLOCK HAS CHANGED 1 TIMES

061900d.00:171:14:11.7301.log

012:21:59:13 ACQUISITION STARTED

012:22:41:14 DSP CLOCK SET: OLD=00:012:22:41:13.005, NEW=00:012:22:41:14.005

012:22:41:14 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

012:22:41:14 DSP CLOCK HAS CHANGED 1 TIMES

061900d.00:171:14:11.7359.log

011:01:55:18 ACQUISITION STARTED

011:02:43:08 DSP CLOCK SET: OLD=00:011:02:43:07.005, NEW=00:011:02:43:08.005

011:02:43:08 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

011:02:43:08 DSP CLOCK HAS CHANGED 1 TIMES

061900d.00:171:14:11.7607.log

004:01:03:44 ACQUISITION STARTED

004:01:41:33 DSP CLOCK SET: OLD=00:004:01:41:32.005, NEW=00:004:01:41:33.005

004:01:41:33 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

004:01:41:33 DSP CLOCK HAS CHANGED 1 TIMES

061900d.00:171:14:11.7623.log

012:20:42:04 ACQUISITION STARTED

012:21:41:57 DSP CLOCK SET: OLD=00:012:21:41:56.005, NEW=00:012:21:41:57.005

012:21:41:57 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

012:21:41:57 DSP CLOCK HAS CHANGED 1 TIMES

112099.99:324:20:59.7450.log

316:02:20:07 ACQUISITION STARTED

316:02:42:05 DSP CLOCK SET: OLD=99:316:02:42:04.005, NEW=99:316:02:42:05.005

316:02:42:05 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

316:02:42:05 DSP CLOCK HAS CHANGED 1 TIMES

112199.99:325:20:58.7452.log

325:01:53:17 ACQUISITION STARTED

325:02:40:35 DSP CLOCK SET: OLD=99:325:02:40:34.005, NEW=99:325:02:40:35.005

325:02:40:35 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

325:02:40:35 DSP CLOCK HAS CHANGED 1 TIMES

112599.99:329:17:57.7452.log

326:01:31:31 ACQUISITION STARTED

326:01:41:45 DSP CLOCK SET: OLD=99:326:01:41:44.005, NEW=99:326:01:41:45.005

326:01:41:45 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

326:01:41:45 DSP CLOCK HAS CHANGED 1 TIMES

120199.99:335:13:35.7597.log

317:23:26:20 ACQUISITION STARTED

317:23:41:40 DSP CLOCK SET: OLD=99:317:23:41:39.005, NEW=99:317:23:41:40.005

317:23:41:40 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

317:23:41:40 DSP CLOCK HAS CHANGED 1 TIMES

121499.99:353:11:00.7282.log

337:23:06:10 ACQUISITION STARTED

337:23:41:39 DSP CLOCK SET: OLD=99:337:23:41:38.005, NEW=99:337:23:41:39.005

337:23:41:39 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

337:23:41:39 DSP CLOCK HAS CHANGED 1 TIMES

121499.99:353:11:00.7619.log

335:21:51:42 ACQUISITION STARTED

335:22:41:34 DSP CLOCK SET: OLD=99:335:22:41:33.005, NEW=99:335:22:41:34.005

335:22:41:34 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

335:22:41:34 DSP CLOCK HAS CHANGED 1 TIMES

121699.99:353:11:52.7284.log

330:00:07:48 ACQUISITION STARTED

330:00:41:27 DSP CLOCK SET: OLD=99:330:00:41:26.005, NEW=99:330:00:41:27.005

330:00:41:27 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

330:00:41:27 DSP CLOCK HAS CHANGED 1 TIMES

121699.99:353:11:52.7332.log

325:01:08:21 ACQUISITION STARTED

325:01:41:39 DSP CLOCK SET: OLD=99:325:01:41:38.005, NEW=99:325:01:41:39.005

325:01:41:39 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

325:01:41:39 DSP CLOCK HAS CHANGED 1 TIMES

121699.99:353:11:52.7450.log

324:22:06:39 ACQUISITION STARTED

324:22:40:59 DSP CLOCK SET: OLD=99:324:22:40:58.005, NEW=99:324:22:40:59.005

324:22:40:59 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

324:22:40:59 DSP CLOCK HAS CHANGED 1 TIMES

121699.99:353:11:52.7595.log

324:23:17:58 ACQUISITION STARTED

324:23:41:20 DSP CLOCK SET: OLD=99:324:23:41:19.005, NEW=99:324:23:41:20.005

324:23:41:20 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

324:23:41:20 DSP CLOCK HAS CHANGED 1 TIMES

121699.99:353:11:52.7598.log

329:23:11:44 ACQUISITION STARTED

329:23:40:46 DSP CLOCK SET: OLD=99:329:23:40:45.005, NEW=99:329:23:40:46.005

329:23:40:46 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

329:23:40:46 DSP CLOCK HAS CHANGED 1 TIMES

122099.99:354:16:00.7617.log

351:23:09:52 ACQUISITION STARTED

351:23:41:54 DSP CLOCK SET: OLD=99:351:23:41:53.005, NEW=99:351:23:41:54.005

351:23:41:54 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

351:23:41:54 DSP CLOCK HAS CHANGED 1 TIMES

190600.00:171:12:14.7332.log

010:22:32:28 ACQUISITION STARTED

010:22:41:09 DSP CLOCK SET: OLD=00:010:22:41:08.005, NEW=00:010:22:41:09.005

010:22:41:09 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

010:22:41:09 DSP CLOCK HAS CHANGED 1 TIMES

190600.00:171:12:14.7598.log

010:21:54:20 ACQUISITION STARTED

010:22:40:48 DSP CLOCK SET: OLD=00:010:22:40:47.005, NEW=00:010:22:40:48.005

010:22:40:48 DSP CLOCK DIFFERENCE: 1 SECS AND 0 MSECS

010:22:40:48 DSP CLOCK HAS CHANGED 1 TIMES