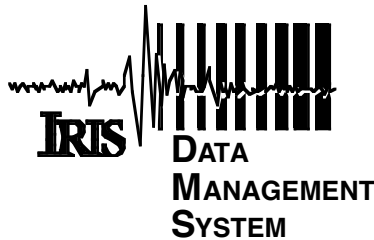


CAMP2

1984 Campi Flegrei Experiment, Italy, Part 2

William Lutter and Clifford Thurber
University of Wisconsin-Madison

Data Set 03-005



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Data Report No. 03-005

William Lutter and Clifford Thurber
(University of Wisconsin-Madison)

1984 Campi Flegrei Experiment, Italy, Part 2

A "seismic crisis" occurred in the Campi Flegrei caldera area of southern Italy in 1983-1984, when rapid uplift was detected and microearthquake activity increased dramatically. A temporary network of University of Wisconsin-Madison portable digital seismic recorders with 3-component sensors was deployed in the vicinity of the Campi Flegrei caldera from January to June 1984 (Figure 1a). The associated seismicity reached a maximum during March-April 1984 including a large earthquake swarm on 1 April, 1984. Aster and Meyer (1988) determined hypocenter location and velocity structure of the caldera using this segment of the data from mid-March to mid-April (see IRIS DMC Data Report 99-003). Aster and Meyer (1989) later incorporated into their analysis data from mid-February to early June. We have processed from available UW field tapes these other important segments of the data set from mid-February to mid-March, mid-April through May, and the Natural Event Profile (NEP) recorded from 6/2/84-6/6/84 (see Figure 1b). The event data collected by these segments of the temporary network are being made publicly available through the IRIS DMC as part of an NSF-supported project to archive historic UW-Madison digital seismic datasets collected by the research group of Prof. R. P. Meyer.

Data Collection and Processing

Data were recorded in triggered mode for all stations. Table 1 presents the station coordinates. Table 2 contains the SEG-Y headers set during the UW-to-SEG-Y format conversion process. Clock corrections are incorporated into the data. The data have been assembled in the form of a SEG-Y event volume. Table 3 lists the trigger time and number of stations per cluster identified event. We have not attempted to separate out seismic events from 'false' clustering of trigger times due to non-seismic activity. Table 4 lists time intervals per station that were processed from raw field tapes.

Tape Provided

The data archive consists of the event-volume data, this data report with file versions of the tabled station and event information.

UW Seismic Recorders

The University of Wisconsin-Madison portable digital seismic recorders are wide-dynamic-range instruments (106 dB) designed for recording seismic waves from earthquakes or explosions (Table 5) [Powell, 1983]. Data from 1-Hz Geotech S-13 and Hall-Sears HS-10-1 geophones were recorded at 100- or 200-Hz sampling rates, with a 4-pole Butterworth anti-aliasing filter at 24 and 48 Hz, respectively. A 13.6 kHz Omega receiver incorporated in each seismograph recorded data from the worldwide Omega network concurrently with seismic signals. A timing-correction process developed for application to the UW seismic recorders provides 1/4 sample RMS time error relative to Universal Time [Schneider et al., 1987]. Ground motion may be estimated from an average value for voltage sensitivity of 150 V/m/s for the UW Hall-Sears geophones (1000 ohm). S-13 geophones were deployed at stations W11 and W13 (200 Hz).

Acknowledgments

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Related publications

Aster, R. C., and R. P. Meyer, Three-dimensional velocity structure and hypocenter distribution in the Campi Flegrei caldera, Italy, *Tectonophysics*, *149*, 195-218, 1988.

Aster, R. C., and R. P. Meyer, Determination of shear- and compressional-wave velocity variations and hypocenter locations in a rapidly inflating caldera: the Campi Flegrei, *Phys. Earth Planet. Inter.*, *55*, 313-325, 1989.

Powell, L.A., Engineering Description of the U.W. Portable Digital Seismograph, Proceedings of the Committee on Controlled Source Seismology (CCSS), Workshop on Portable Digital Seismograph Development, Los Altos, California, 121-122, 1983.

Schneider, J.F., R.C. Aster, L.A. Powell, and R.P. Meyer, Timing of portable seismographs from Omega navigation signals, *Bull. Seismo. Soc. Am.*, *77*, 1457-1478, 1987.

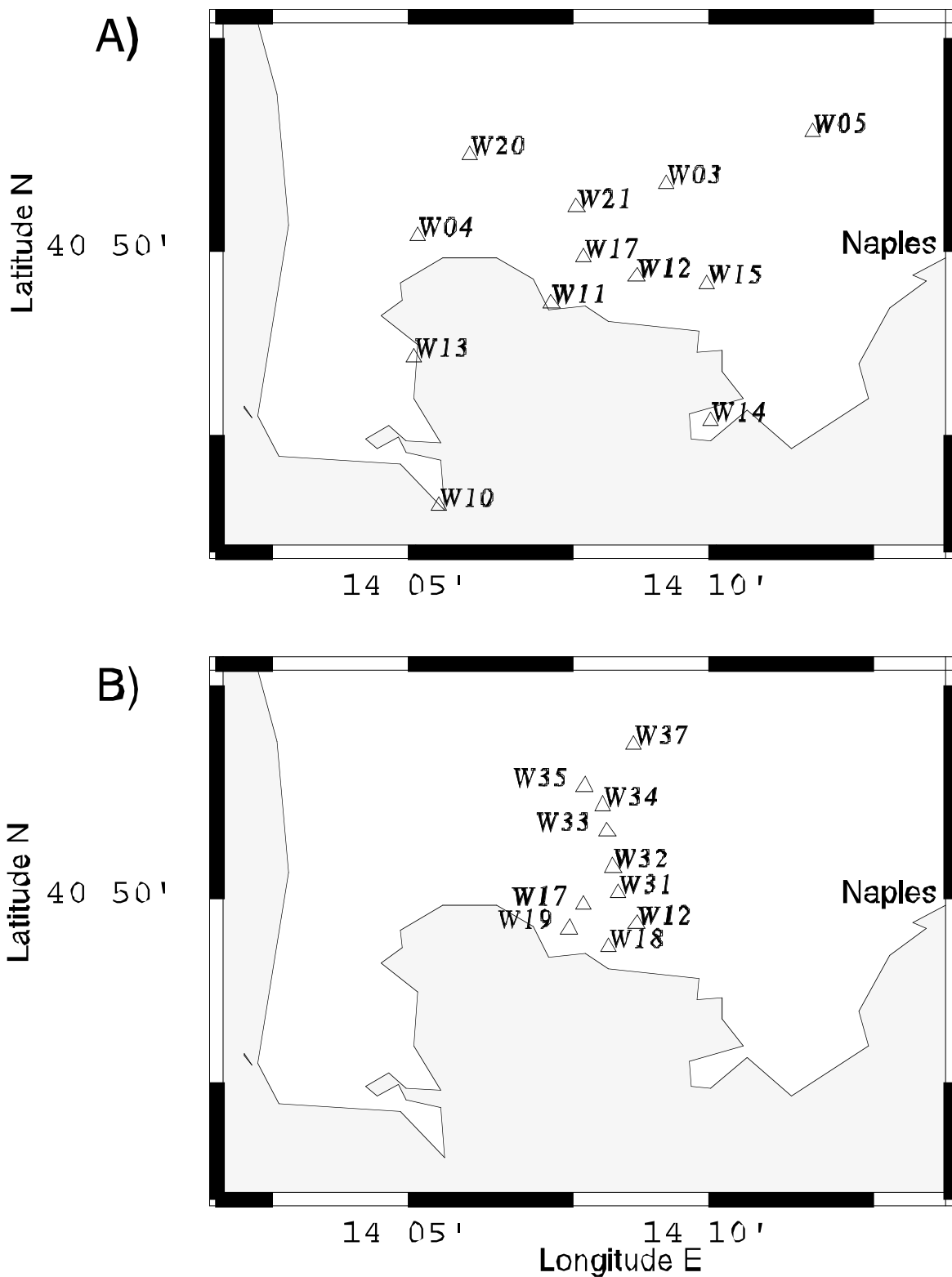


Figure 1. Map of UW station locations of the Campi Flegrei caldera array, 1984 that are included in the data report from a) mid-February to mid-March and mid-April through May prior to the Natural Event Profile (NEP) b) during the NEP (June 2 to June 6, 1984).

Table 1. Locations of UW stations of the Campi Flegrei caldera array, 1984 that are included in this data report. Temporary UW stations W31-W37 (labeled p1-p7 in Fig. 4 of Aster and Meyer, 1984) were deployed to record a Natural Event Profile (NEP) (June 2 to June 6, 1984). For each of these stations, 3 vertical seismometers were deployed in a north-south pattern with a 0.3 km separation between geophones. The north, central and south geophones were recorded by channels 1-3 (V, N, E) based on profile plots and known earthquake location (pers. comm. P. Capuano).

Id	Latitude		Longitude		Elevation	Name
	North		East			
W03	40	50.77	14	9.17	35	ASTRONI B
W04	40	50.11	14	5.03	70	MT.NUOVO
W05	40	51.42	14	11.58	457	CAMALDOLI
W10	40	46.69	14	5.37	50	CAPOMISENO
W11	40	49.26	14	7.25	82	DARSENА (POZZUOLI)
W12	40	49.60	14	8.66	180	SOLFATARA B
W13	40	48.58	14	4.96	20	BAIA CASTELLO
W14	40	47.78	14	9.90	40	NISIDA
W15	40	49.51	14	9.84	150	MT.SPINA
W17	40	49.84	14	7.78	84	DA MARIO
W18	40	49.30	14	8.20	90	MADONNA
W19	40	49.54	14	7.54	37	ANFITEATRO
W20	40	51.14	14	5.89	306	MT.S.ANGELO
W21	40	50.47	14	7.67	175	FONDI DI CIGLIANO
W31N	40	50.076	14	8.322	195.000	p1 (north)
W31C	40	49.986	14	8.352	195.000	p1 (central)
W31S	40	49.902	14	8.382	185.000	p1 (south)
W32N	40	50.4	14	8.25	236.000	p2 (north)
W32C	40	50.316	14	8.268	245.000	p2 (central)
W32S	40	50.256	14	8.28	233.000	p2 (south)
W33N	40	50.85	14	8.232	190.000	p3 (north)
W33C	40	50.772	14	8.172	184.000	p3 (central)
W33S	40	50.676	14	8.148	192.000	p3 (south)
W34N	40	51.18	14	8.04	155.000	p4 (north)
W34C	40	51.096	14	8.106	159.000	p4 (central)
W34S	40	51.012	14	8.178	175.000	p4 (south)
W35N	40	51.384	14	7.938	140.000	p5 (north)
W35C	40	51.336	14	7.8	120.000	p5 (central)
W35S	40	51.246	14	7.752	85.0000	p5 (south)
W37N	40	52.002	14	8.718	94.0000	p7 (north)
W37C	40	51.87	14	8.622	94.0000	p7 (central)
W37S	40	51.78	14	8.55	94.0000	p7 (south)

Table 2. Portions of the PASSCAL SEGY headers used and instrument parameters

SEG Y Headers set via UW data archiving	Comments (standard usages followed)
lineSeq	UW Instrument event# + channel
reelSeq	UW Instrument event# + channel
event_number	Experiment Event Number
channel_number	standard (1-3:V,N,E)
traceID	standard (1)
elevationScale	standard (1)
coordScale	standard (1)
coordUnits	standard (2 for lat and lon)
sampleLength	standard
num_samps*	standard
deltaSample	microseconds
samp_rate	microseconds
gainType	standard
gainConst	standard
scale_fac	Scale to volts
year	Trace start time
day	
hour	
minute	
second	
m_secs	
timeBasisCode	standard usage (2 is GMT)
trigyear	UW instrument trigger time
trigday	
trighour	
trigminute	
trigsecond	
trigmills	
data form	standard usage (1 is 32-bit)
inst no	UW instrument number
station_name	W## with number from 1 to 37
recLongOrX	receiver longitude*3600
recLatOrY	receiver longitude*3600

Table 3. Event list constructed from clustering trigger time information (minimum of 3 stations within an 8 second interval). Data report 99-003 reported 160 events based on event information provided by Osservatorio Vesuviano, Naples for the 3/15/84 to 4/15/84 time period. We have concentrated on processing all available field tapes covering the Feb-March and May-June 1984 time periods. We have not attempted to separate seismic events from ‘false’ clustering of trigger times due to non-seismic activity.

Id	Year	Month	Day	Hour	Min	Sec	# stations
1	84	02	15	00	00	55.540	4
2	84	02	15	01	59	8.160	4
3	84	02	15	03	55	23.640	3
4	84	02	15	05	23	20.140	4
5	84	02	15	14	11	40.080	4
6	84	02	15	18	13	1.940	4
7	84	02	15	19	10	40.900	4
8	84	02	15	19	25	20.420	4
9	84	02	15	19	55	37.040	3
10	84	02	15	20	32	1.630	6
11	84	02	15	21	04	7.990	4
12	84	02	15	21	05	25.010	3
13	84	02	15	21	51	16.720	4
14	84	02	15	23	17	17.700	3
15	84	02	15	23	30	16.810	5
16	84	02	16	00	00	54.700	6
17	84	02	16	01	25	23.720	4
18	84	02	16	01	43	32.710	4
19	84	02	16	02	27	42.130	5
20	84	02	16	02	40	15.580	4
21	84	02	16	02	59	28.760	3
22	84	02	16	03	32	15.920	4
23	84	02	16	04	40	11.840	5
24	84	02	16	04	47	37.110	4
25	84	02	16	05	05	53.430	5
26	84	02	16	05	09	1.330	5
27	84	02	16	05	19	28.950	5
28	84	02	16	05	32	55.050	5
29	84	02	16	05	44	15.550	3
30	84	02	16	05	52	12.430	3
31	84	02	16	07	26	7.910	3
32	84	02	16	08	10	41.810	3
33	84	02	16	11	09	37.280	3
34	84	02	16	11	49	52.650	4
35	84	02	16	13	37	30.110	4
36	84	02	16	15	58	39.900	3
37	84	02	16	19	56	40.500	3
38	84	02	16	20	11	25.650	3
39	84	02	16	20	40	21.490	5
40	84	02	16	22	05	56.590	7
41	84	02	16	22	44	31.330	5
42	84	02	16	22	46	14.030	6
43	84	02	16	22	49	25.370	4
44	84	02	16	23	38	22.840	3
45	84	02	16	23	56	4.900	3
46	84	02	17	00	00	54.350	8

47	84	02	17	00	31	47.480	6
48	84	02	17	01	15	40.300	3
49	84	02	17	03	34	6.240	3
50	84	02	17	04	15	2.270	3
51	84	02	17	09	14	33.360	3
52	84	02	17	11	27	14.380	3
53	84	02	17	11	55	10.360	3
54	84	02	17	12	18	22.240	3
55	84	02	17	19	23	50.220	4
56	84	02	17	19	42	22.550	4
57	84	02	17	20	27	31.870	3
58	84	02	17	20	41	1.050	6
59	84	02	17	21	23	50.560	3
60	84	02	17	21	25	6.200	5
61	84	02	17	21	29	35.410	3
62	84	02	17	23	03	49.350	6
63	84	02	18	00	00	55.150	6
64	84	02	18	00	15	2.810	3
65	84	02	18	00	18	27.030	3
66	84	02	18	00	23	41.400	7
67	84	02	18	00	46	44.790	4
68	84	02	18	02	16	41.470	8
69	84	02	18	02	29	37.160	7
70	84	02	18	02	31	40.570	6
71	84	02	18	03	02	43.960	6
72	84	02	18	03	39	16.780	7
73	84	02	18	03	45	18.470	3
74	84	02	18	04	02	56.970	8
75	84	02	18	04	14	37.560	6
76	84	02	18	04	22	56.950	4
77	84	02	18	04	33	32.060	4
78	84	02	18	04	54	20.530	3
79	84	02	18	04	59	44.000	3
80	84	02	18	05	48	10.410	3
81	84	02	18	05	50	10.680	5
82	84	02	18	05	54	36.590	4
83	84	02	18	06	34	22.350	4
84	84	02	18	06	55	0.970	6
85	84	02	18	07	18	46.650	6
86	84	02	18	07	24	7.250	4
87	84	02	18	12	13	51.640	3
88	84	02	18	13	01	39.790	6
89	84	02	18	13	12	29.840	3
90	84	02	18	13	26	0.240	4
91	84	02	18	14	25	56.160	4
92	84	02	18	14	38	27.460	3
93	84	02	18	14	53	24.140	5
94	84	02	18	17	21	51.310	4
95	84	02	18	18	16	8.720	3
96	84	02	18	18	56	15.750	5
97	84	02	18	19	55	41.260	4
98	84	02	18	21	17	21.110	4
99	84	02	18	21	32	8.840	3
100	84	02	18	22	15	7.560	4
101	84	02	18	22	25	46.140	3
102	84	02	18	22	36	16.450	3

103	84	02	18	22	42	39.460	6
104	84	02	18	22	52	41.950	8
105	84	02	18	22	56	23.950	3
106	84	02	18	22	57	29.430	4
107	84	02	18	23	02	49.230	6
108	84	02	18	23	06	30.250	3
109	84	02	18	23	43	44.980	5
110	84	02	19	00	00	53.960	8
111	84	02	19	00	13	33.050	6
112	84	02	19	00	14	40.530	5
113	84	02	19	00	23	6.350	4
114	84	02	19	00	39	25.630	7
115	84	02	19	00	53	52.640	7
116	84	02	19	01	21	54.950	4
117	84	02	19	03	19	18.880	5
118	84	02	19	03	46	54.730	4
119	84	02	19	03	49	1.260	5
120	84	02	19	04	26	50.560	3
121	84	02	19	04	53	30.030	5
122	84	02	19	05	17	53.560	4
123	84	02	19	06	03	38.760	4
124	84	02	19	08	55	20.350	6
125	84	02	19	08	59	7.250	4
126	84	02	19	09	08	31.830	3
127	84	02	19	15	11	55.970	6
128	84	02	19	15	13	4.760	4
129	84	02	19	15	40	50.990	4
130	84	02	19	16	09	58.880	7
131	84	02	19	16	11	54.980	3
132	84	02	19	22	45	49.320	7
133	84	02	19	23	37	55.320	5
134	84	02	19	23	42	57.420	7
135	84	02	19	23	58	28.900	4
136	84	02	20	00	00	53.800	8
137	84	02	20	00	11	40.980	5
138	84	02	20	00	16	15.560	3
139	84	02	20	00	26	39.100	4
140	84	02	20	00	50	31.630	3
141	84	02	20	00	52	30.210	4
142	84	02	20	01	11	19.460	8
143	84	02	20	01	42	25.810	3
144	84	02	20	02	20	57.510	5
145	84	02	20	02	59	22.600	7
146	84	02	20	03	23	27.800	6
147	84	02	20	03	28	17.920	5
148	84	02	20	14	44	55.380	4
149	84	02	20	15	03	25.180	4
150	84	02	20	15	05	23.490	4
151	84	02	20	15	08	33.380	4
152	84	02	20	15	18	12.810	3
153	84	02	20	23	29	36.590	7
154	84	02	20	23	31	42.220	6
155	84	02	20	23	33	56.070	4
156	84	02	20	23	35	38.320	4
157	84	02	21	00	00	53.470	7
158	84	02	21	01	13	17.400	4

159	84	02	21	01	15	4.470	6
160	84	02	21	01	17	9.490	6
161	84	02	21	01	18	56.870	5
162	84	02	21	01	21	52.230	5
163	84	02	21	02	22	20.130	4
164	84	02	21	02	34	18.740	3
165	84	02	21	02	43	19.670	5
166	84	02	21	03	39	25.020	4
167	84	02	21	03	42	35.470	6
168	84	02	21	03	44	37.880	5
169	84	02	21	04	15	20.850	3
170	84	02	21	06	33	52.960	4
171	84	02	21	09	58	57.790	4
172	84	02	21	11	20	44.980	4
173	84	02	21	11	44	46.850	4
174	84	02	21	17	09	9.710	5
175	84	02	21	19	17	13.520	3
176	84	02	21	19	22	16.930	3
177	84	02	21	20	14	27.910	3
178	84	02	21	20	17	45.640	4
179	84	02	21	21	55	1.300	7
180	84	02	21	22	37	27.800	3
181	84	02	21	23	14	33.690	4
182	84	02	21	23	27	48.440	4
183	84	02	21	23	29	54.350	7
184	84	02	21	23	35	7.580	5
185	84	02	21	23	56	45.740	3
186	84	02	22	00	00	54.830	6
187	84	02	22	00	59	20.120	5
188	84	02	22	01	24	19.490	3
189	84	02	22	01	28	4.170	4
190	84	02	22	01	30	25.160	6
191	84	02	22	01	34	25.590	3
192	84	02	22	01	35	3.240	3
193	84	02	22	01	37	49.650	5
194	84	02	22	01	42	14.590	5
195	84	02	22	01	51	13.930	5
196	84	02	22	01	56	44.300	4
197	84	02	22	02	05	42.020	5
198	84	02	22	02	12	0.170	4
199	84	02	22	02	19	47.940	5
200	84	02	22	02	25	18.450	3
201	84	02	22	02	36	52.750	5
202	84	02	22	03	16	19.020	3
203	84	02	22	03	21	5.390	3
204	84	02	22	04	33	55.000	4
205	84	02	22	04	39	48.460	3
206	84	02	22	07	01	31.860	3
207	84	02	22	09	25	16.640	4
208	84	02	22	10	29	44.560	4
209	84	02	22	16	00	53.470	4
210	84	02	22	16	09	20.520	4
211	84	02	22	17	20	11.420	7
212	84	02	22	18	53	42.540	6
213	84	02	22	21	40	28.540	3
214	84	02	22	21	47	54.070	4

215	84	02	22	22	34	4.860	6
216	84	02	23	00	00	54.680	6
217	84	02	23	03	24	53.320	5
218	84	02	23	03	35	6.430	6
219	84	02	23	03	37	23.450	3
220	84	02	23	07	50	7.780	3
221	84	02	23	07	52	2.950	3
222	84	02	23	09	49	12.400	3
223	84	02	23	18	38	30.990	4
224	84	02	23	19	01	58.380	3
225	84	02	23	19	05	9.360	3
226	84	02	23	20	12	6.500	3
227	84	02	23	20	42	56.690	4
228	84	02	23	23	34	58.850	6
229	84	02	24	00	00	54.590	7
230	84	02	24	00	44	33.040	3
231	84	02	24	06	59	59.180	3
232	84	02	24	15	26	34.360	4
233	84	02	24	20	19	34.240	4
234	84	02	24	20	29	57.470	4
235	84	02	24	20	38	12.700	3
236	84	02	24	20	51	47.920	3
237	84	02	24	21	46	5.900	4
238	84	02	24	22	02	4.700	3
239	84	02	24	22	51	30.990	4
240	84	02	24	22	58	57.220	3
241	84	02	24	23	55	12.440	3
242	84	02	25	00	00	54.470	6
243	84	02	25	01	26	40.560	3
244	84	02	25	01	45	49.010	3
245	84	02	25	02	03	49.490	4
246	84	02	25	02	22	11.620	3
247	84	02	25	02	50	6.950	5
248	84	02	25	03	52	21.940	4
249	84	02	25	03	56	42.640	6
250	84	02	25	04	16	36.570	5
251	84	02	25	04	27	26.480	3
252	84	02	25	06	25	13.680	4
253	84	02	25	09	01	26.080	3
254	84	02	25	09	21	39.180	5
255	84	02	25	11	27	17.500	3
256	84	02	25	12	13	12.060	5
257	84	02	25	12	33	13.350	4
258	84	02	25	14	37	17.640	5
259	84	02	25	18	56	55.010	4
260	84	02	25	23	27	10.450	4
261	84	02	26	00	00	54.350	8
262	84	02	26	05	19	1.280	3
263	84	02	26	08	51	40.610	3
264	84	02	26	11	03	9.720	5
265	84	02	26	11	04	26.640	4
266	84	02	26	11	44	39.120	4
267	84	02	26	12	31	10.410	6
268	84	02	26	13	08	23.800	3
269	84	02	26	15	27	6.080	3
270	84	02	26	17	13	9.150	7

271	84	02	26	17	42	32.970	4
272	84	02	26	17	49	35.270	3
273	84	02	26	17	56	39.270	6
274	84	02	26	18	54	16.560	5
275	84	02	26	19	25	43.940	7
276	84	02	26	20	04	39.850	3
277	84	02	26	20	14	3.230	4
278	84	02	26	20	32	20.280	3
279	84	02	26	20	37	14.380	3
280	84	02	26	21	26	13.690	3
281	84	02	26	21	29	9.220	5
282	84	02	26	21	32	13.540	7
283	84	02	26	21	47	9.640	5
284	84	02	26	21	51	25.620	4
285	84	02	26	21	56	10.120	4
286	84	02	26	23	16	45.970	3
287	84	02	26	23	41	19.320	3
288	84	02	26	23	53	29.690	3
289	84	02	27	00	00	54.320	7
290	84	02	27	00	50	59.390	4
291	84	02	27	02	06	25.770	3
292	84	02	27	02	50	49.100	6
293	84	02	27	02	52	1.620	3
294	84	02	27	03	27	33.720	5
295	84	02	27	06	34	27.350	3
296	84	02	27	07	57	25.080	3
297	84	02	27	09	24	25.780	3
298	84	02	27	09	28	15.930	7
299	84	02	27	10	09	54.120	6
300	84	02	27	23	59	55.690	3
301	84	02	28	00	00	54.180	3
302	84	02	28	00	58	2.350	5
303	84	02	28	02	30	34.760	5
304	84	02	28	03	26	13.340	6
305	84	02	28	03	37	41.460	3
306	84	02	28	03	41	7.510	3
307	84	02	28	05	37	6.590	4
308	84	02	28	12	52	15.310	5
309	84	02	28	14	35	22.380	3
310	84	02	28	14	38	38.300	5
311	84	02	28	15	35	11.430	6
312	84	02	28	18	11	18.540	3
313	84	02	28	23	03	28.920	3
314	84	02	29	00	00	54.100	6
315	84	02	29	00	37	15.310	5
316	84	02	29	00	38	59.680	3
317	84	02	29	00	56	59.040	4
318	84	02	29	01	19	5.740	6
319	84	02	29	02	54	43.000	4
320	84	02	29	03	16	14.320	3
321	84	02	29	03	21	49.600	3
322	84	02	29	04	25	31.740	3
323	84	02	29	04	40	50.700	6
324	84	02	29	05	10	34.150	6
325	84	02	29	05	52	35.170	3
326	84	02	29	09	05	10.690	5

327	84	02	29	10	27	7.230	5
328	84	02	29	10	31	52.860	3
329	84	02	29	11	42	17.920	3
330	84	02	29	13	39	50.360	5
331	84	02	29	15	23	6.240	3
332	84	02	29	15	57	40.230	4
333	84	02	29	16	31	9.850	4
334	84	02	29	21	46	23.620	6
335	84	02	29	22	29	43.660	4
336	84	03	01	00	00	54.030	5
337	84	03	01	01	40	17.190	5
338	84	03	01	02	29	32.230	5
339	84	03	01	02	37	11.740	3
340	84	03	01	05	47	6.580	3
341	84	03	01	06	36	39.680	6
342	84	03	01	12	45	1.300	4
343	84	03	01	15	02	23.140	4
344	84	03	01	15	23	48.500	3
345	84	03	01	21	34	46.830	3
346	84	03	01	22	56	39.350	3
347	84	03	01	22	58	26.240	3
348	84	03	01	23	23	15.350	3
349	84	03	02	00	00	53.980	6
350	84	03	02	01	41	55.990	4
351	84	03	02	02	26	37.070	4
352	84	03	02	03	54	55.600	4
353	84	03	02	05	16	1.780	3
354	84	03	02	05	23	25.590	6
355	84	03	02	05	32	47.360	3
356	84	03	02	05	40	57.790	5
357	84	03	02	08	01	52.440	3
358	84	03	02	08	07	11.110	3
359	84	03	02	11	59	25.150	3
360	84	03	03	00	00	53.860	6
361	84	03	03	00	08	37.260	3
362	84	03	03	02	24	54.670	3
363	84	03	03	04	15	52.030	4
364	84	03	03	08	15	54.710	3
365	84	03	03	08	35	13.480	4
366	84	03	03	09	11	29.760	3
367	84	03	04	00	00	53.930	5
368	84	03	04	03	59	53.860	5
369	84	03	04	07	28	14.380	4
370	84	03	05	00	00	53.780	5
371	84	03	05	03	59	53.830	4
372	84	03	05	13	42	6.230	4
373	84	03	06	00	00	53.790	5
374	84	03	06	06	24	17.260	5
375	84	03	06	06	25	23.760	5
376	84	03	06	07	28	37.740	3
377	84	03	06	13	28	23.770	5
378	84	03	06	17	16	48.900	3
379	84	03	07	00	00	53.610	6
380	84	03	07	02	10	16.860	3
381	84	03	07	06	02	8.050	4
382	84	03	07	11	07	16.160	4

383	84	03	07	11	30	29.490	4
384	84	03	07	13	27	15.980	4
385	84	03	07	14	08	34.090	4
386	84	03	07	20	53	58.680	3
387	84	03	07	23	42	31.380	3
388	84	03	07	23	47	38.230	4
389	84	03	08	00	00	53.530	8
390	84	03	08	01	24	10.000	4
391	84	03	08	03	59	53.530	3
392	84	03	08	04	26	21.150	5
393	84	03	08	12	03	59.140	8
394	84	03	08	14	24	10.480	4
395	84	03	08	16	03	54.600	4
396	84	03	08	16	18	31.320	4
397	84	03	08	16	29	41.030	4
398	84	03	08	17	38	19.000	5
399	84	03	08	18	59	17.440	7
400	84	03	08	19	00	26.640	8
401	84	03	08	19	04	21.690	3
402	84	03	08	19	05	38.160	8
403	84	03	08	19	12	15.250	7
404	84	03	08	19	47	16.940	8
405	84	03	08	19	52	37.930	6
406	84	03	08	19	56	39.730	8
407	84	03	08	20	00	1.650	3
408	84	03	08	21	25	46.100	3
409	84	03	08	21	40	55.760	3
410	84	03	08	23	32	27.170	3
411	84	03	09	00	00	53.410	8
412	84	03	09	02	34	43.670	3
413	84	03	09	03	59	53.510	4
414	84	03	09	04	36	49.010	3
415	84	03	09	06	11	9.700	8
416	84	03	09	10	10	53.410	3
417	84	03	09	14	10	53.350	3
418	84	03	09	18	10	44.850	5
419	84	03	09	18	11	28.300	3
420	84	03	09	18	17	22.380	3
421	84	03	09	18	35	22.200	8
422	84	03	09	18	40	35.280	4
423	84	03	09	18	42	25.710	3
424	84	03	09	18	54	39.770	3
425	84	03	09	19	46	22.990	8
426	84	03	09	21	30	41.910	4
427	84	03	09	23	33	23.360	5
428	84	03	10	00	00	53.370	8
429	84	03	10	00	51	40.310	7
430	84	03	10	01	00	50.420	3
431	84	03	10	01	27	45.080	3
432	84	03	10	02	19	22.090	3
433	84	03	10	02	30	31.540	7
434	84	03	10	02	40	14.290	3
435	84	03	10	02	44	24.430	4
436	84	03	10	02	54	18.280	3
437	84	03	10	03	40	35.720	5
438	84	03	10	04	35	28.970	3

439	84	03	10	04	38	3.480	7
440	84	03	10	05	37	47.760	6
441	84	03	10	08	33	0.370	5
442	84	03	10	19	04	47.500	5
443	84	03	10	20	34	34.500	3
444	84	03	11	00	00	53.270	9
445	84	03	11	01	09	41.310	3
446	84	03	11	03	59	53.280	5
447	84	03	11	04	35	10.810	4
448	84	03	11	05	36	7.450	7
449	84	03	11	08	17	56.750	3
450	84	03	11	08	47	6.250	3
451	84	03	11	09	13	56.460	4
452	84	03	11	10	29	49.420	3
453	84	03	11	10	30	5.510	4
454	84	03	11	14	06	26.540	4
455	84	03	11	20	54	8.520	3
456	84	03	11	21	45	51.020	6
457	84	03	11	23	02	46.830	9
458	84	03	11	23	05	45.420	9
459	84	03	12	00	00	53.230	9
460	84	03	12	01	02	21.540	5
461	84	03	12	01	47	23.120	7
462	84	03	12	03	02	22.380	3
463	84	03	12	06	10	18.790	9
464	84	03	12	09	54	6.690	5
465	84	03	12	10	56	55.210	4
466	84	03	12	12	03	56.800	4
467	84	03	12	16	03	54.480	4
468	84	03	12	17	43	31.740	3
469	84	03	12	20	13	59.200	4
470	84	03	12	20	22	9.810	9
471	84	03	12	20	52	8.220	9
472	84	03	12	21	43	3.450	8
473	84	03	12	22	42	8.810	4
474	84	03	12	23	05	35.440	4
475	84	03	13	00	00	53.170	9
476	84	03	13	01	23	10.100	5
477	84	03	13	01	36	7.970	7
478	84	03	13	01	50	25.020	4
479	84	03	13	01	56	11.900	4
480	84	03	13	02	04	46.690	3
481	84	03	13	02	22	28.610	3
482	84	03	13	02	28	58.760	3
483	84	03	13	04	01	5.810	3
484	84	03	13	04	03	42.210	9
485	84	03	13	08	03	54.490	5
486	84	03	13	12	03	54.460	3
487	84	03	13	14	07	16.080	4
488	84	03	13	15	24	34.150	3
489	84	03	13	17	21	39.750	3
490	84	03	13	21	01	36.280	5
491	84	03	14	00	00	53.030	8
492	84	03	14	03	26	44.750	8
493	84	03	14	03	59	11.010	4
494	84	03	14	04	35	8.340	4

495	84	03	14	09	32	22.100	4
496	84	03	14	10	01	34.990	5
497	84	03	14	10	25	6.670	3
498	84	03	14	10	30	56.690	3
499	84	03	14	10	43	53.880	5
500	84	03	14	11	03	13.780	7
501	84	03	14	11	06	27.760	3
502	84	03	14	11	10	55.140	3
503	84	03	14	11	18	42.330	7
504	84	03	14	11	23	51.030	6
505	84	03	14	11	32	47.890	3
506	84	03	14	11	33	10.500	4
507	84	03	14	11	39	57.370	3
508	84	03	14	12	01	38.630	6
509	84	03	14	12	21	36.580	6
510	84	03	14	12	28	41.420	4
511	84	03	14	12	34	49.790	4
512	84	03	14	13	06	7.590	4
513	84	03	14	19	27	51.810	5
514	84	03	14	19	29	3.090	4
515	84	03	15	00	00	54.470	5
516	84	03	15	03	59	53.030	5
517	84	03	15	07	59	56.410	3
518	84	04	15	03	04	24.310	7
519	84	04	15	03	46	2.130	6
520	84	04	15	05	01	11.810	3
521	84	04	15	07	28	44.960	4
522	84	04	15	21	32	37.840	5
523	84	04	15	23	39	52.330	5
524	84	04	15	23	52	58.990	7
525	84	04	16	00	00	54.170	6
526	84	04	16	00	43	47.700	3
527	84	04	17	00	00	54.130	5
528	84	04	17	03	59	54.180	4
529	84	04	17	07	59	56.750	3
530	84	04	17	11	00	13.730	6
531	84	04	17	11	01	46.120	6
532	84	04	17	15	33	22.740	5
533	84	04	18	00	00	54.020	6
534	84	04	18	01	39	43.650	4
535	84	04	18	05	39	54.000	3
536	84	04	18	09	39	53.970	3
537	84	04	18	13	39	53.970	3
538	84	04	18	14	10	51.550	4
539	84	04	18	14	25	8.340	4
540	84	04	19	00	00	54.550	5
541	84	04	19	02	01	21.490	4
542	84	04	19	22	48	41.030	4
543	84	04	20	00	00	54.520	5
544	84	04	20	01	34	44.550	3
545	84	04	21	00	00	54.470	4
546	84	04	21	03	59	55.420	3
547	84	04	21	16	33	42.190	3
548	84	04	21	19	03	19.620	4
549	84	04	21	19	21	32.870	5
550	84	04	21	19	26	14.980	4

551	84	04	21	23	10	32.330	5
552	84	04	22	00	00	54.420	5
553	84	04	22	03	59	55.450	3
554	84	04	22	14	54	2.550	4
555	84	04	22	14	59	11.680	3
556	84	04	23	00	00	54.360	5
557	84	04	23	00	06	54.460	5
558	84	04	23	00	09	4.640	5
559	84	04	23	00	19	49.100	3
560	84	04	23	03	33	44.280	4
561	84	04	23	15	32	45.250	3
562	84	04	23	19	36	20.220	5
563	84	04	23	20	09	54.540	4
564	84	04	23	20	31	9.130	4
565	84	04	23	20	53	43.860	5
566	84	04	23	21	07	40.450	3
567	84	04	24	00	00	55.330	4
568	84	04	24	01	56	1.840	4
569	84	04	24	17	08	50.280	5
570	84	04	24	21	08	55.310	3
571	84	04	25	00	00	54.270	5
572	84	04	25	02	51	28.900	3
573	84	04	25	19	41	8.660	4
574	84	04	25	22	03	26.790	4
575	84	04	26	00	00	55.290	4
576	84	04	26	01	02	13.630	3
577	84	04	26	01	56	44.630	4
578	84	04	27	00	00	55.270	4
579	84	04	27	06	47	32.210	4
580	84	04	27	10	47	55.250	3
581	84	04	27	13	10	39.430	4
582	84	04	27	17	10	55.240	3
583	84	04	27	19	54	2.240	4
584	84	04	27	20	16	36.340	4
585	84	04	27	23	20	49.060	4
586	84	04	28	00	00	55.240	4
587	84	04	28	00	57	20.620	3
588	84	04	28	01	36	25.830	3
589	84	04	29	00	00	55.220	4
590	84	04	29	05	11	49.760	3
591	84	04	29	09	28	31.190	3
592	84	04	30	00	00	55.190	4
593	84	04	30	00	41	58.530	3
594	84	04	30	02	14	33.840	4
595	84	04	30	23	39	50.680	4
596	84	05	01	00	00	55.150	4
597	84	05	01	00	23	54.340	4
598	84	05	01	02	17	24.260	3
599	84	05	01	03	14	17.760	4
600	84	05	01	05	52	43.730	4
601	84	05	01	18	51	44.700	3
602	84	05	01	21	55	11.310	3
603	84	05	01	22	53	51.560	3
604	84	05	02	00	00	55.140	4
605	84	05	02	00	44	15.150	4
606	84	05	02	00	50	42.450	4

607	84	05	02	05	45	31.460	4
608	84	05	02	06	07	52.720	3
609	84	05	02	06	11	4.950	3
610	84	05	02	07	26	23.930	3
611	84	05	02	16	14	33.380	3
612	84	05	02	18	50	12.920	3
613	84	05	03	00	00	55.120	4
614	84	05	03	03	33	40.320	3
615	84	05	03	03	37	20.230	4
616	84	05	03	03	39	50.220	4
617	84	05	03	03	48	16.030	4
618	84	05	03	03	50	43.430	4
619	84	05	03	04	01	54.310	4
620	84	05	04	00	00	55.100	4
621	84	05	04	00	47	56.000	4
622	84	05	04	01	04	40.610	4
623	84	05	05	00	00	55.070	4
624	84	05	05	03	59	55.080	4
625	84	05	05	07	59	57.130	3
626	84	05	05	10	12	33.970	4
627	84	05	05	12	52	36.820	3
628	84	05	05	13	09	24.570	3
629	84	05	05	13	14	18.100	3
630	84	05	05	20	33	47.370	3
631	84	05	06	00	00	55.040	4
632	84	05	06	03	41	14.730	4
633	84	05	06	07	40	55.030	4
634	84	05	06	11	40	55.030	3
635	84	05	06	15	40	55.030	3
636	84	05	06	20	32	41.580	3
637	84	05	06	20	47	30.670	3
638	84	05	07	00	00	55.030	4
639	84	05	07	03	49	58.810	4
640	84	05	07	17	49	56.090	3
641	84	05	07	18	07	29.270	3
642	84	05	07	23	58	48.050	3
643	84	05	08	00	00	55.020	3
644	84	05	09	17	20	48.370	3
645	84	05	10	00	00	57.030	3
646	84	05	10	00	14	6.890	3
647	84	05	10	04	18	42.160	3
648	84	05	10	14	19	40.860	3
649	84	05	10	19	14	10.440	3
650	84	05	11	00	00	57.030	3
651	84	05	11	03	26	22.440	3
652	84	05	11	10	09	31.620	3
653	84	05	11	10	42	3.890	3
654	84	05	11	11	26	29.390	3
655	84	05	11	13	15	10.780	3
656	84	05	11	18	44	43.880	3
657	84	05	11	20	25	52.310	3
658	84	05	12	00	00	57.010	3
659	84	05	12	03	13	5.150	3
660	84	05	12	03	53	59.850	3
661	84	05	28	15	06	24.000	3
662	84	05	28	20	04	43.130	3

663	84	05	28	20	25	55.420	3
664	84	05	28	20	29	22.510	3
665	84	05	28	20	35	35.900	3
666	84	05	28	20	43	57.420	3
667	84	05	28	21	09	56.330	3
668	84	05	28	21	11	12.630	3
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670	84	05	28	21	19	35.400	3
671	84	05	28	21	20	44.320	3
672	84	05	28	21	46	45.900	3
673	84	05	29	00	00	54.820	3
674	84	05	29	16	28	13.180	3
675	84	05	31	00	00	54.740	3
676	84	05	31	21	17	28.930	4
677	84	05	31	23	16	52.870	4
678	84	05	31	23	19	8.530	3
679	84	05	31	23	23	49.740	3
680	84	05	31	23	59	13.850	4
681	84	06	01	00	00	54.710	4
682	84	06	01	00	13	28.920	3
683	84	06	01	00	23	38.770	3
684	84	06	01	00	38	54.620	4
685	84	06	01	01	37	11.330	4
686	84	06	01	07	52	39.590	4
687	84	06	01	09	13	43.620	4
688	84	06	01	09	31	42.640	4
689	84	06	01	09	46	56.320	4
690	84	06	01	10	24	45.050	4
691	84	06	01	10	47	23.410	3
692	84	06	01	11	13	9.260	4
693	84	06	01	15	10	21.980	3
694	84	06	01	22	10	32.550	4
695	84	06	01	22	14	42.970	3
696	84	06	01	22	20	19.220	4
697	84	06	01	22	21	30.970	4
698	84	06	02	00	00	54.680	4
699	84	06	02	02	15	56.170	4
700	84	06	02	03	39	36.870	4
701	84	06	02	04	02	57.660	4
702	84	06	02	08	14	52.670	4
703	84	06	02	08	19	4.560	4
704	84	06	02	08	22	33.660	3
705	84	06	02	09	43	9.340	3
706	84	06	02	10	33	1.070	4
707	84	06	02	11	58	25.350	5
708	84	06	02	12	31	6.860	3
709	84	06	02	12	43	21.350	4
710	84	06	02	12	50	21.850	5
711	84	06	02	13	01	3.540	5
712	84	06	02	13	04	4.060	5
713	84	06	02	13	07	55.340	5
714	84	06	02	13	08	57.300	3
715	84	06	02	13	38	1.060	3
716	84	06	02	13	55	7.950	6
717	84	06	02	16	06	26.850	3
718	84	06	02	16	29	15.480	6

719	84	06	02	16	32	34.140	5
720	84	06	02	17	08	16.170	3
721	84	06	02	17	50	43.450	6
722	84	06	02	18	00	4.050	5
723	84	06	02	18	57	28.690	4
724	84	06	02	19	35	54.150	4
725	84	06	02	21	13	31.930	3
726	84	06	02	21	27	54.270	3
727	84	06	02	21	34	58.970	4
728	84	06	02	21	36	3.260	6
729	84	06	02	22	22	35.030	4
730	84	06	02	23	05	38.280	3
731	84	06	02	23	26	50.550	3
732	84	06	02	23	28	7.690	4
733	84	06	02	23	30	31.930	3
734	84	06	02	23	53	12.490	3
735	84	06	03	00	00	54.640	7
736	84	06	03	00	16	53.950	3
737	84	06	03	00	30	58.520	3
738	84	06	03	01	04	41.130	5
739	84	06	03	01	34	36.750	3
740	84	06	03	01	48	52.190	4
741	84	06	03	02	02	48.850	6
742	84	06	03	02	05	54.750	3
743	84	06	03	02	48	38.050	3
744	84	06	03	04	35	42.400	3
745	84	06	03	17	47	47.820	5
746	84	06	03	20	45	41.390	4
747	84	06	04	00	00	54.610	6
748	84	06	04	01	40	55.120	6
749	84	06	04	03	21	54.240	5
750	84	06	04	03	45	2.280	5
751	84	06	04	04	14	42.280	7
752	84	06	04	08	14	56.240	5
753	84	06	04	11	05	28.290	4
754	84	06	04	18	02	8.680	7
755	84	06	04	18	06	1.410	3
756	84	06	04	22	02	36.070	5
757	84	06	04	23	31	14.530	8
758	84	06	05	00	00	54.580	9
759	84	06	05	00	19	29.660	5
760	84	06	05	00	41	42.640	8
761	84	06	05	00	52	18.650	7
762	84	06	05	01	31	47.480	4
763	84	06	05	22	38	27.090	4
764	84	06	06	00	00	54.560	8
765	84	06	06	00	21	50.210	5
766	84	06	06	00	28	22.490	6
767	84	06	06	01	06	26.400	5
768	84	06	06	01	18	34.600	5
769	84	06	06	03	00	17.700	5
770	84	06	06	17	05	35.330	4
771	84	06	07	00	00	54.520	8
772	84	06	07	03	59	54.510	6
773	84	06	07	07	59	54.520	6
774	84	06	07	11	59	54.490	6

775	84	06	07	15	59	54.500	6
776	84	06	07	19	59	54.490	4
777	84	06	07	21	33	0.580	3
778	84	06	07	23	26	29.280	5
779	84	06	08	00	00	54.780	6
780	84	06	08	02	57	58.180	3
781	84	06	08	03	59	54.490	5
782	84	06	08	07	59	54.460	5
783	84	06	08	11	59	54.470	5
784	84	06	09	03	59	54.450	3
785	84	06	09	07	59	54.450	3
786	84	06	09	11	59	54.440	3
787	84	06	09	15	59	54.430	3
788	84	06	09	19	59	54.420	3
789	84	06	11	00	00	55.040	3
790	84	06	11	03	59	54.380	4
791	84	06	11	07	59	54.360	4

Table 4. Table 4 lists data time intervals per station that were either reprocessed from raw field tapes (field) or recovered from 9-track tapes containing the original processed data (processed). Time corrections were applied to all the available data. We list the standard deviation of the omega clock corrections. The larger standard deviations (W11 run 14, W12 run 11) were due to time intervals where there was no lock on omega timing signal. These intervals were discarded from the data set prior to clustering.

Sta	Run	Start Trigger	End Trigger	Rate	Time Std	Type
W03	07	45-11:38:11	55-00:44:33	100	0.0031	processed
W03	08	55-14:54:16	61-11:20:16	100	0.0026	processed
W03	09	61-15:02:23	75-08:29:56	100	0.0044	processed
W03	14	109-18:03:34	117-07:09:58	200	0.0033	field
W03	15	117-08:51:35	123-06:11:08	200	0.0028	field
W03	16	123-13:14:58	128-16:56:59	200	0.0029	field
W03	17	130-14:52:59	133-08:56:59	200	0.0022	field
W04	06	38-17:15:56	51-08:03:55	100	0.0258	field
W04	07	51-14:34:38	60-13:39:51	100	0.0042	processed
W04	11	95-09:02:14	109-10:34:55	100	0.0075	field
W04	12	109-12:03:27	125-10:24:03	100	0.0038	field
W04	13	125-11:29:33	129-08:28:08	100	0.0029	field
W05	07	70-02:30:33	81-05:12:56	100	0.0412	processed
W10	03	39-21:02:57	51-12:55:55	100	0.0028	field
W10	05a	60-16:03:28	67-15:36:25	100	0.0030	field
W10	05b	67-15:58:09	73-15:24:34	100	0.0018	field
W10	08	103-13:19:39	116-14:35:45	100	0.0031	field
W11	03	45-15:31:43	55-11:00:55	100	0.0055	field
W11	04	55-02:29:30	61-13:05:40	200	0.0376	field
W11	05	61-13:24:26	68-11:10:41	200	0.0399	field
W11	06	68-11:28:36	75-12:04:20	200	0.0943	field
W11	09	93-13:51:18	101-12:54:03	200	0.0075	field
W11	10	101-17:57:57	108-09:29:57	200	0.0065	field
W11	11	108-09:46:52	118-10:10:10	200	0.0078	field
W11	12	118-10:23:35	123-13:54:58	200	0.0059	field
W11	13	123-16:14:36	131-10:34:38	200	0.0069	field
W11	14	131-10:47:50	134-23:01:58	200	0.6495	field
W12	01	55-15:37:52	60-05:54:07	100	0.0020	field
W12	03	67-11:07:16	74-05:53:32	100	0.0022	field
W12	04a	74-09:31:30	74-13:06:07	100	0.0009	field
W12	04b	75-13:34:29	82-07:40:56	100	0.0022	field
W12	07	94-13:29:59	108-11:01:46	100	0.0040	field
W12	08	108-15:33:26	115-09:26:41	100	0.0027	field
W12	09	115-09:37:08	121-12:16:35	100	0.0024	field
W12	10	121-16:42:58	130-10:48:32	100	0.0042	field
W12	11	130-12:55:05	134-22:11:22	100	0.4872	field
W12	12	136-12:08:08	140-10:55:07	100	0.0023	field
W12	13	149-12:06:18	156-13:00:27	100	0.0068	processed
W12	14	156-16:24:14	157-09:44:56	100	0.0012	field
W13	01	66-13:29:45	74-17:24:20	200	0.1239	field
W13	02	74-19:27:55	81-13:51:05	200	0.1729	field
W13	03	81-15:04:26	88-10:28:59	200	0.0016	field
W13	04	95-12:24:59	103-10:30:38	200	0.0027	field
W13	05	103-11:31:56	109-12:41:08	200	0.0016	field
W14	08	47-11:37:15	54-10:28:13	100	0.0039	field
W14	09	54-10:53:02	62-06:44:51	100	0.0042	field
W14	10	62-11:35:59	75-09:41:50	100	0.0060	field

W14	13	96-16:12:04	109-15:34:09	100	0.0090	field
W15	06	47-10:59:54	55-07:59:54	100	0.0108	processed
W15	07	55-22:59:25	62-09:40:54	100	0.0040	processed
W15	08	62-10:21:10	75-09:57:47	100	0.0126	processed
W17	01	82-16:03:06	88-06:28:25	100	0.0032	field
W17	02	88-09:57:24	94-07:12:09	100	0.0027	field
W17	03	94-14:20:57	99-11:19:38	100	0.0031	field
W17	04	101-12:43:54	107-03:35:52	100	0.0062	field
W17	10	149-14:44:15	156-11:05:28	100	0.0046	processed
W17	11	156-13:57:24	158-14:21:18	100	0.0010	processed
W18	04	149-13:38:57	156-15:57:28	100	0.0075	field
W18	05	156-16:13:16	163-07:59:55	100	0.0105	field
W19	04	149-14:21:55	156-07:55:00	100	0.0029	field
W19	05	156-10:53:47	163-09:55:28	100	0.0041	field
W20	06	46-14:11:42	53-10:29:45	100	0.0016	field
W20	07	53-12:05:50	57-00:00:54	100	0.0026	field
W20	08	60-02:02:31	67-01:15:30	200	0.0037	field
W20	09	67-18:06:01	74-07:27:01	200	0.0033	field
W20	10	75-10:47:34	83-09:26:00	200	0.0038	field
W21	07	46-12:00:06	52-23:35:08	100	0.0202	field
W21	08	53-10:08:33	58-10:35:48	100	0.0013	field
W21	09	60-11:27:17	63-04:15:52	100	0.0143	field
W31	02	158-13:50:58	160-11:40:57	200	0.0034	processed
W32	01	152-12:25:05	158-07:00:56	200	0.0019	processed
W32	02	158-15:11:56	164-08:33:58	200	0.0019	processed
W33	01	154-09:56:57	158-10:59:57	200	0.0048	processed
W33	02	158-15:58:57	160-10:58:57	200	0.0027	processed
W34	01	154-13:01:08	158-11:00:58	200	0.0029	processed
W34	02	158-12:28:02	164-07:59:58	200	0.0032	processed
W35	01	156-18:02:10	158-12:51:55	100	0.0014	processed
W35	02	158-17:05:35	160-12:34:54	100	0.0018	processed
W37	01	154-15:09:06	158-15:00:57	200	0.0161	processed
W37	02	159-00:00:57	160-11:59:58	200	0.0114	processed

Table 5. General specifications, University of Wisconsin-Madison digital 3-component recorders

DATA STORAGE:	5" reel 1/4" tape, 1800 feet	or	SCSI 3-1/2" disk
CAPACITY:	20 Mbyte		210 Mbyte
FORMAT:	4-track; 3-channel + error correction		multi-stream packet
DYNAMIC RANGE:	106 dB	Noise = 0.25 μ V P-P	Clipping = 0.05 V P-P
CALIBRATION:	Random binary sequence and step current applied to seismometer coils through a bridge (at programmed start times)		
PASSBAND:	Low end: 2 poles at 0.09 Hz High end: 4-pole Butterworth at (0.25 * sample rate)		
SAMPLE RATE:	25, 50, 100, 200, 400 samples/second		
PRE-EVENT DELAY:	512, 1024, 2048 samples/channel		
MODES:	Programmed and/or multiple-mode triggered		
PROGRAMMING:	Time (ddd – hr:mn:sc), repeat interval and count for run, calibrate, trigger arm and disarm (24 entries)		
RUN TIMES:	Programmable to 1000 minutes in 1 sec steps with optional programmed limits on total recording time for each mode		
TRIGGER HARDWARE:	STA/delayed LTA ratio; broadband or teleseismic filtered		
TRIGGER SOFTWARE:	Three frequency band Walsh transform filter to discriminate teleseismic, regional, and noise; with independent run times		
STATUS REVIEW:	Omega signal, time, configuration, schedules, number of events recorded and time used for each mode, times of last 500 events, seismometer period and damping		
TIMING INTERNAL:	1 mHz TCXO, +/- 1 x 10 ⁻⁶ over temperature range		
EXTERNAL:	13.6 kHz Omega VLF phase recorded with seismic data; worldwide coverage (except Antarctica and central Greenland) Post-processing time corrections: +/- 1 x 10 ⁻⁸ oscillator error; 1/4 sample RMS time error relative to U.T.		
POWER:	12.5 V DC +/- 20% 40 ma average current waiting for trigger 400 ma average current recording to tape 50 ma average current recording to disk		
DIMENSIONS:	56 x 33 x 40 cm		
WEIGHT:	22 kg		
TEMPERATURE:	0 deg to 50 deg C normal range (tape operates to 0 deg C) -20 deg to 70 dec C reduced spec. (disk operates to -20 deg C) -40 deg to 80 deg C storage		