TABLE G-2
EARTHQUAKES OF MAGNITUDE 5 OR GREATER IN THE YUCCA MOUNTAIN HISTORICAL SEISMICITY CATALOGUE

Cat. No.	Year	Mo.	Day	Time (GMT) Hour	Min	Sec	Lat.	Long.	Depth (km)	Mag1	Scale	Mag1 Source	Mag2	Scale	Mag2 Source	Location Source
171	1964	10	30	19	3	09.3000	37.5000	-117.8000	n c	4.44	Mw	ML BRK	5.00	MI	SGB	MER
172	1965	9	25	17	43	44.1200	34.7125	-116.5027	10.6	5.2	Mw	ML PAS	5.20	ML	PAS	CIT
173	1965	9	26	7	0	01.7500	34.7112	-116.0268	8.3	5	Mw	ML PAS	5.00	ML	PAS	CIT
174	1966	4	2	12	48	38.0000	38.7000	-118.1000	n c	4.8	Mw	MD UNR	5.00	MI	CDMG	UNRENO
175	1966	8	16	18	2	32.8500	37.4635	-114.1512	7	5.3	Mw	DOSSM1	6.10	MB	NEIC	UVUTAH
176	1966	8	17	23	8	00.1600	37.3550	-114.2070	7	5.43	Mw	ML BRK	5.50	ML	BRK	MER
177	1966	8	18	9	15	37.5000	37.3000	-114.2000	33	5	Mw	ML PAS	5.10	MB	NEIC	DNAG
178	1966	8	18	10	9	22.4000	37.3000	-114.2000	33	3.84	Mw	ML BRK	5.60	MB	DNAG	DNAG
179	1966	8	18	17	35	06.4000	37.4000	-114.2000	33	5	Mw	ML PAS	5.20	MB	NEIC	DNAG
180	1966	9	22	18	56	41.5600	37.3160	-114.2140	7	5.3	Mw	ML PAS	5.30	ML	PAS	MER
181	1966	9	22	18	57	34.0700	37.3690	-114.1830	7	5.73	Mw	ML BRK	5.80	ML	BRK	MER
182	1966	10	1	2	57	58.0000	38.1000	-118.3000	n c	3.7	Mw	MD UNR	5.50	MB	DNAG	UNRENO
183	1966	12	22	17	30	01.7000	37.3390	-116.4300	8	5	Mw	MD UNR	5.00	MD	UNRENO	MER
184	1967	5	7	18	1	36.1000	37.0000	-115.0000	20	5.1	Mw	MD UNR	5.10	ML	PDX	MER
185	1968	2	6	0	41	38.0000	38.0200	-118.3500	n c	4.9	Mw	MD UNR	5.00	MI	CDMG	UNRENO
186	1968	4	26	15	14	52.0000	37.1380	-116.1980	33	5.1	Mw	MD UNR	5.10	MD	UNRENO	MER
187	1968	12	19	22	23	26.3000	37.2170	-116.4670	4	4.5	Mw	MD UNR	5.00	MB	PDX	MER
188	1968	12	21	0	14	25.1000	37.2630	-116.4880	3.5	4.7	Mw	MD UNR	5.00	MB	DNAG	MER
189	1969	9	16	17	31	14.2000	37.3170	-116.4600	0.6	4.14	Mw	ML BRK	5.00	UK	GDY	MER
190	1970	7	30	20	16	35.4000	37.2830	-116.5600	0.6	4.4	Mw	ML PAS	5.20	MB	DNAG	MER
191	1970	9	12	14	30	52.9800	34.2698	-117.5400	8	5.4	Mw	ML PAS	5.40	ML	PAS	CIT
192	1975	6	1	1	38	49.2300	34.5157	-116.4955	4.46	5.2	Mw	ML PAS	5.20	ML	PAS	CIT
193	1975	7	1	18	14	08.1400	37.3360	-116.1780	13.5	4.74	Mw	ML BRK	5.00	MI	SGB	MER
194	1977	2	22	6	24	06.1000	38.4800	-119.2800	n c	4.74	Mw	ML BRK	5.00	MI	GS	DNAG
195	1978	10	4	16	42	47.9300	37.5350	-118.6982	22.88	5.5	Mw	DOSSM1	5.80	ML	PAS	USGS
196	1978	10	4	17	39	02.4100	37.5447	-118.6657	25.19	4.88	Mw	MDUSGS	5.30	MX	USGS	USGS
197	1979	3	15	21	7	16.5300	34.3273	-116.4448	2.48	5.52	Mw	STOCOF	5.20	ML	PAS	CIT
198	1979	10	7	20	54	40.7100	38.2550	-119.3303	5	4.32	Mw	MDUSGS	5.20	ML	BRK	USGS
199	1980	5	25	16	33	43.9300	37.5893	-118.8458	10.16	6.21	Mw	STOCOF	6.50	ML	PAS	USGS
200	1980	5	25	16	49	27.1100	37.6747	-118.9152	8.86	5.93	Mw	ML BRK	6.00	ML	BRK	USGS
201	1980	5	25	17	6	27.2100	37.4743	-118.8490	5	5.1	Mw	ML PAS	5.10	ML	PAS	CIT
202	1980	5	25	19	44	49.4500	37.4788	-118.8332	20.6	5.9	Mw	STOCOF	6.70	ML	PAS	USGS
203	1980	5	25	20	35	48.0300	37.6258	-118.8407	8.15	5.63	Mw	ML BRK	5.90	ML	PAS	USGS
204	1980	5	25	20	59	22.3800	37.6070	-118.8245	17.15	4.93	Mw	ML BRK	5.50	ML	PAS	USGS

TABLE G-2
EARTHQUAKES OF MAGNITUDE 5 OR GREATER IN THE YUCCA MOUNTAIN HISTORICAL SEISMICITY CATALOGUE

Cat. No.	Year	Mo.	Day	Time (GMT)			Lat.	Long.	Depth	Mag1	Scale	Mag1 Source	Mag2	Scale	Mag2 Source	Location
				Hour	Min	Sec			(km)							Source
205	1980	5	26	12	24	24.8400	37.5582	-118.8765	7.86	4.72	Mw	MDUSGS	5.60	ML	PAS	USGS
206	1980	5	26	18	57	55.4900	37.5150	-118.8805	4.72	5.63	Mw	ML BRK	5.70	ML	BERK	USGS
207	1980	5	27	14	50	56.7300	37.4927	-118.8132	16.06	5.86	Mw	STOCOF	6.30	ML	PAS	USGS
208	1980	5	27	19	1	07.8200	37.5927	-118.7810	6.57	4.96	Mw	MDUSGS	5.00	MD	USGS	USGS
209	1980	5	28	5	16	22.9900	37.5765	-118.8887	5.07	4.64	Mw	MDUSGS	5.30	MD	UNRENO	USGS
210	1980	5	28	5	48	23.0200	37.6257	-118.8687	6.71	4.72	Mw	MDUSGS	5.20	MD	UNRENO	USGS
211	1980	6	1	6	47	36.1300	37.4737	-118.8447	7.04	4.48	Mw	MDUSGS	5.00	UK		USGS
212	1980	6	6	14	18	17.2500	37.5072	-118.8378	6.71	3.36	Mw	MDUSGS	5.27	ML	CCN	USGS
213	1980	6	7	3	16	41.3200	37.5312	-118.7535	6.05	3.6	Mw	MDUSGS	5.49	ML	CCN	USGS
214	1980	6	8	6	11	39.8300	37.5337	-118.7680	6.48	3.36	Mw	MDUSGS	5.12	ML	CCN	USGS
215	1980	6	11	4	40	58.3200	37.5448	-118.8822	7.74	4.64	Mw	MDUSGS	5.20	UK		USGS
216	1980	6	18	18	55	37.4900	37.5275	-118.8340	7.71	3.6	Mw	MDUSGS	5.30	UK		USGS
217	1980	6	19	7	19	31.0900	37.5592	-118.9170	3.94	3.36	Mw	MDUSGS	5.00	MD	UNRENO	USGS
218	1980	6	19	14	4	29.9400	37.6358	-118.8460	9.35	3.76	Mw	MDUSGS	5.20	UK		USGS
219	1980	6	20	15	24	59.4800	37.5445	-118.8470	9.16	3.36	Mw	MDUSGS	5.30	UK		USGS
220	1980	6	28	0	58	41.8400	37.5817	-118.8205	4.29	4.24	Mw	MDUSGS	5.90	MD	UNRENO	USGS
221	1980	6	29	7	46	13.2700	38.0133	-118.6620	9.32	4.64	Mw	MDUSGS	5.00	ML	BRK	USGS
222	1980	8	1	16	38	55.9200	37.5643	-118.8742	6.21	5.04	Mw	MDUSGS	5.40	ML	PAS	USGS
223	1980	9	4	21	3	33.8000	38.0750	-118.5640	7.28	4.9	Mw	MD UNR	5.10	MB	DNAG	UNRENO
224	1980	9	7	1	30	42.6000	38.0690	-118.5780	8.31	4.9	Mw	MD UNR	5.10	ML	BERK	UNRENO
225	1980	9	7	4	36	38.1000	38.0650	-118.5900	8.4	5.3	Mw	MD UNR	5.70	ML	PAS	UNRENO
226	1980	9	7	6	47	10.4000	38.0620	-118.5890	9.62	5.2	Mw	MD UNR	5.30	ML	BERK	UNRENO
227	1980	9	7	6	48	30.6000	38.0900	-118.5700	n c	5.23	Mw	ML BRK	5.40	ML	PAS	DNAG
228	1980	12	28	22	58	09.4000	38.1640	-118.3620	6.97	4.8	Mw	MD UNR	5.00	ML	BRK	UNRENO
229	1981	9	30	11	53	26.1800	37.5852	-118.8665	5.65	5.64	Mw	STOCOF	6.10	ML	PAS	USGS
230	1981	9	30	13	5	47.8200	37.6410	-118.8485	8.49	4.84	Mw	MLUSGS	5.30	MX	USGS	USGS
231	1982	4	15	21	52	09.0000	38.0710	-118.5490	1.38	4.9	Mw	MD UNR	5.10	ML	BERK	UNRENO
232	1982	6	24	14	14	37.9600	38.8297	-115.2645	n c	5.2	Mw	ML PAS	5.20	ML	PAS	CIT
233	1982	9	24	7	40	24.4300	37.8458	-118.1572	7.46	5.34	Mw	MD UNR	5.50	ML	BERK	UNRENO
234	1982	12	28	19	6	24.7700	37.9905	-118.3917	4.75	4.59	Mw	MD UNR	5.20	ML	PAS	UNRENO
235	1983	1	7	1	38	10.3200	37.6380	-118.8988	9.75	5.22	Mw	MLUSGS	5.70	ML	PAS	USGS
236	1983	1	7	3	24	14.8100	37.6202	-118.8787	4.17	5.33	Mw	ML BRK	5.60	ML	PAS	USGS
237	1983	1	7	3	24	18.9800	37.6295	-118.9350	5.82	5.26	Mw	MLUSGS	5.40	MD	UNRENO	USGS
238	1983	7	3	18	40	07.6200	37.5598	-118.8445	11.52	5.17	Mw	MLUSGS	5.30	ML	BERK	USGS

TABLE G-2
EARTHQUAKES OF MAGNITUDE 5 OR GREATER IN THE YUCCA MOUNTAIN HISTORICAL SEISMICITY CATALOGUE

Cat. No.	Year	Mo.	Day	Time (GMT)			Lat.	Long.	Depth	Mag1	Scale	Mag1 Source	Mag2	Scale	Mag2 Source	Location
				Hour	Min	Sec			(km)							Source
239	1984	11	23	18	8	25.3300	37.4590	-118.6057	11.46	5.8	Mw	STOCOF	6.20	ML	PAS	USGS
240	1984	11	23	19	12	34.7700	37.4372	-118.6070	12.13	5.37	Mw	MLUSGS	5.51	ML	USGS	USGS
241	1984	11	26	16	21	40.8500	37.4487	-118.6475	8.94	5.18	Mw	MLUSGS	5.60	ML	BERK	USGS
242	1985	1	24	11	27	21.0100	38.1550	-118.8108	10.82	4.92	Mw	MLUSGS	5.30	ML	BRK	USGS
243	1985	3	25	16	5	12.7800	37.4545	-118.6118	7.62	5.01	Mw	MLUSGS	5.10	ML	BERK	USGS
244	1986	7	20	14	29	45.4600	37.5668	-118.4380	6.67	5.8	Mw	DOSSM1	5.90	ML	BERK	USGS
245	1986	7	21	14	42	26.0200	37.5388	-118.4425	10.48	6.25	Mw	STOCOF	6.60	MD	UNRENO	USGS
246	1986	7	21	14	51	09.0200	37.4928	-118.4280	11.78	5.45	Mw	MLUSGS	5.80	MD	UNRENO	USGS
247	1986	7	21	14	57	49.8300	37.5240	-118.4738	8.29	4.76	Mw	MLUSGS	5.00	MD	USGS	USGS
248	1986	7	21	22	7	00.7600	37.4898	-118.3762	6.68	3.52	Mw	MDUSGS	5.50	MD	UNRENO	USGS
249	1986	7	21	22	7	16.4300	37.5940	-118.3768	6.1	5.33	Mw	MLUSGS	5.60	ML	BERK	USGS
250	1986	7	22	13	48	59.1700	37.5317	-118.4692	11.89	4.92	Mw	MLUSGS	5.00	ML	BERK	USGS
251	1986	7	31	7	22	39.7400	37.4732	-118.3653	8.1	5.5	Mw	DOSSM1	5.90	MX	USGS	USGS
252	1986	8	1	14	28	18.1600	37.5158	-118.3962	9	5.06	Mw	MLUSGS	5.30	MD	USGS	USGS
253	1988	6	10	23	6	43.0500	34.9430	-118.7427	6.81	5.4	Mw	ML PAS	5.40	ML	PAS	CIT
254	1988	9	19	2	56	31.7700	38.4613	-118.3418	8.97	5	Mw	MD UNR	5.35	ML	USGS	UNRENO
255	1990	10	24	6	15	17.7700	38.1712	-119.1997	8.22	5.12	Mw	MDUSGS	5.80	ML	BERK	USGS
256	1992	6	28	11	57	34.1300	34.2005	-116.4357	1.03	7.3	Mw	CALT1	7.40	ML	PAS	CIT
257	1992	6	28	12	0	45.0000	34.1307	-116.4082	0.01	5.6	Mw	ML PAS	5.60	ML	PAS	CIT
258	1992	6	28	12	1	16.1900	34.1198	-116.3232	6	5.4	Mw	ML PAS	5.40	ML	PAS	CIT
259	1992	6	28	12	36	40.6400	34.1348	-116.4343	7.39	5.3	Mw	ML PAS	5.30	ML	PAS	CIT
260	1992	6	28	12	40	53.8200	34.3305	-116.5473	6	5.4	Mw	ML PAS	5.40	ML	PAS	CIT
261	1992	6	28	14	43	21.8500	34.1618	-116.8522	11.06	5.5	Mw	ML PAS	5.50	ML	PAS	CIT
262	1992	6	28	15	5	30.7300	34.2027	-116.8268	5.32	6.4	Mw	ML PAS	6.40	ML	PAS	CIT
263	1992	6	28	17	1	31.9200	34.1785	-116.9225	13.72	5.1	Mw	ML PAS	5.10	ML	PAS	CIT
264	1992	6	28	17	5	57.5600	34.2552	-116.9120	7.66	5	Mw	ML PAS	5.00	ML	PAS	CIT
265	1992	6	29	10	14	20.0600	36.7183	-116.2860	11.8	5.61	Mw	MD UNR	5.61	MD	UNRENO	UNRENO
266	1992	6	29	10	31	03.3900	36.7330	-116.2500	6.64	4.3	Mw	MLGSDR	5.00	MX	USGS	SGB
267	1992	6	29	14	8	37.7300	34.1045	-116.4032	10.35	5.5	Mw	ML PAS	5.50	ML	PAS	CIT
268	1992	6	29	14	13	38.7800	34.1082	-116.4038	9.88	5	Mw	ML PAS	5.00	ML	PAS	CIT
269	1992	7	1	7	40	29.9000	34.3307	-116.4627	8.28	5.3	Mw	ML PAS	5.30	ML	PAS	CIT
270	1992	7	5	21	18	27.1400	34.5825	-116.3178	0.11	5.4	Mw	ML PAS	5.40	ML	PAS	CIT
271	1992	7	11	18	14	16.1500	35.2100	-118.0657	10.69	5.7	Mw	ML PAS	5.70	ML	PAS	CIT
272	1992	8	17	20	41	52.1200	34.1947	-116.8620	11.27	5.2	Mw	ML PAS	5.20	ML	PAS	CIT

TABLE G-2
EARTHQUAKES OF MAGNITUDE 5 OR GREATER IN THE YUCCA MOUNTAIN HISTORICAL SEISMICITY CATALOGUE

Cat. No.	Year	Mo.	Day	Time (GMT)			Lat.	Long.	Depth	Mag1	Scale	Mag1 Source	Mag2	Scale	Mag2 Source	Location
				Hour	Min	Sec			(km)							Source
273	1992	9	2	10	26	19.2900	37.1650	-113.3330	9.59	5.9	Mw	MLGSDR	5.90	ML	SLC	SGB
274	1992	9	15	8	47	11.2900	34.0637	-116.3607	8.3	5.1	Mw	ML PAS	5.10	ML	PAS	CIT
275	1992	11	27	16	0	57.4900	34.3397	-116.8995	1.48	5.4	Mw	ML PAS	5.40	ML	PAS	CIT
276	1992	12	4	2	8	57.5000	34.3683	-116.8973	2.99	5.3	Mw	ML PAS	5.30	ML	PAS	CIT
277	1993	5	17	23	20	50.1000	37.1763	-117.8323	9.13	6.1	Mw	MDUNRC	6.20	ML	PAS	UNRENO
278	1993	5	17	23	35	28.4700	37.0970	-117.5790	n c	4.64	Mw	MDUSGS	5.20	MX	USGS	USGS
279	1993	5	19	14	13	23.8400	37.1383	-117.7332	6	4.9	Mw	ML PAS	5.01	MD	UNRCSP	CIT
280	1993	5	28	4	47	40.6000	35.1493	-119.1037	21.43	5.2	Mw	ML PAS	5.20	ML	PAS	CIT
281	1993	11	28	8	21	22.4000	37.6365	-118.9308	7.2	2.48	Mw	MDUSGS	5.10	ML	PAS	USGS
282	1994	4	6	19	1	03.0600	34.2245	-117.0580	0.09	4.64	Mw	MDUSGS	5.00	MX	USGS	USGS
283	1995	8	17	22	39	58.4800	35.7665	-117.6517	10.54	5.2	Mw	MDUSGS	5.80	MX	USGS	USGS
284	1995	9	20	23	27	35.9000	35.7478	-117.6422	8.32	5.28	Mw	MDUSGS	5.90	MX	USGS	USGS
285	1995	9	25	4	47	28.7000	35.8025	-117.6073	12.14	4.72	Mw	MDUSGS	5.20	MX	USGS	USGS
286	1996	1	7	14	32	52.5500	35.7603	-117.6397	10.42	4.8	Mw	MDUSGS	5.20	MX	USGS	USGS
287	1996	3	30	15	22	23.7600	37.6230	-118.8600	8.45	5.46	Mw	MLUSGS	5.62	ML	USGS	USGS

Table G-3
MAGNITUDE CONVERSIONS FOR THE YUCCA MOUNTAIN CATALOGUE (MAJOR CONTRIBUTORS)

Catalogue	Magnitude Scale	MW-ML and Other Magnitude Relationships, Their Ranges of Validity, and References
CIT	ML PAS	MW = ML for $3 \leq ML \leq 6.8$ (L. Wald, USGS, personal communication, 1996; Hanks and Kanamori, 1979; Thatcher and Hanks, 1973) MW = 0.887 ML + 0.633 for ML < 3 for California (Chung and Bernreuter, 1981)
UCB	ML BRK	MW = (0.997± 0.02) ML - 0.05 (±0.131) for $3.6 \leq ML \leq 6.8$ (R. Uhrhammer, UCB, written communication, 1996) For ML < 3.6 assume same as above (R. Uhrhammer, UCB, oral communication, 1997)
USGS_CA	ML USGS MD USGS	For Mammoth region MW = 0.8 ML + 0.96 for $1 \leq ML \leq 6$ and MW = 0.54 ML + 1.55 for $½ \leq ML \leq 3$ (Chavez and Priestly, 1985) Coda duration magnitude equivalent to ML for $0.5 \leq ML \leq 5.5$ (Eaton, 1992) so use above conversions
SGB	ML USGSDR MC USGSDR MV USGSDR MD USGSDR MD USGSDV	MW = ML for $ML \geq 3$; Use MW = 0.667 ML + 1 for ML < 3 (D. von Seggern, UNR, written communication, 1996) Coda amplitude magnitude - convert to ML using ML =1.05 MC -0.01 for $1.0 \leq MC \leq 3.0$ (Figure G-6) then to MW ML from vertical record - convert to ML using ML =1.01 MV + 0.22. Valid for $0.5 \leq MV \leq \sim 3.0$ (Figure G-5) then to MW Coda duration magnitude - convert to ML using ML =1.01 MD + 0.06 for $0.5 \leq MD \leq 2.25$ (Figure G-7) then to MW Coda duration magnitude from develocorder - convert to MD UNR using MD (UNR) = 0.82MD (USGS)+ 1.07 for $1.25 \leq$ MD (USGS)≤ 2.5 (Figure G-8) then to MW
UNR	ML UNRENO MD UNRENO MD CUSP	Using same Mo-ML relation as for SGB MW = ML for $3 \leq ML \leq 6.8$; and MW = 0.667 ML + 1.0 for ML < 3 MD calibrated to ML (UNR or UCB) for $1.5 \leq ML \leq 5.7$. Use equations above Convert to ML CUSP using ML = -1.24 + 1.31 MD for $0.5 \leq MD \leq 4$ (D. von Seggern, UNR, written communication, 1996) then to MW
MER	ML MD MB MS	Adopted from UCB, CIT or UNR - use appropriate conversion Adopted from UNR or NTS related seismic research, e.g., HSF, ROW and FPH - Assume equivalent to MD UNR mb = ML for mb < 5.5 and then convert to MW (Boore and Joyner, 1982) MW = 0.79MS + 1.24 (Jost and Herrmann, 1990)
UU	ML MD	MW = 0.8 ML + 0.5 for $2.3 \leq ML \leq 3.5$ and MW = ML - 0.17 for $3.5 \leq ML \leq 6.0$ (Shemeta and Pechmann, 1989 and unpublished work): Calibrated to ML for $1.5 \leq ML \leq 2.5$

TABLE G-4
HIERARCHIES FOR MAGNITUDE CONVERSION FOR SUB-CATALOGUES OF THE 300 KM YUCCA MOUNTAIN CATALOGUE

CATALOGUE	MAGNITUDE SCALE	MAGNITUDE CONVERSION
CIT	ML PAS	See Table G-2
UCB	ML BRK/BERK/UCB	See Table G-2
	ML PAS	See Table G-2
	MI CDMG	=ML BRK (See Table G-2)
	MI BRK	=ML BRK (See Table G-2)
	UK MAK	=ML BRK (See Table G-2)
USGS_CA	ML USGS	See Table G-2
	MD USGS	See Table G-2
	MX USGS	=ML USGS (See Table G-2)
	MD UNRCSP	See Table G-2
	ML BRK/BERK	See Table G-2
	MD UNRENO	See Table G-2
	ML PAS	See Table G-2
	ML CCN	=ML USGS (See Table G-2)
SGB	ML USGSDR	See Table G-2
	MV USGSDR	See Table G-2
	MC USGSDR	See Table G-2
	MD USGSDR	See Table G-2
	MD USGSDV	See Table G-2
	MD UNRENO	See Table G-2
	MD SGB	=MD USGSDR (See Table G-2)
UNR	ML UNRENO	See Table G-2
	MD UNRENO	See Table G-2
	MD UNRCSP	See Table G-2
	ML BRK	See Table G-2
	ML USGSDR	See Table G-2
	MV USGSDR	See Table G-2
	MD USGS	See Table G-2
	ML PAS	See Table G-2

TABLE G-4
HIERARCHIES FOR MAGNITUDE CONVERSION FOR SUB-CATALOGUES OF THE 300 KM YUCCA MOUNTAIN CATALOGUE
(CONTINUED)

CATALOGUE	MAGNITUDE SCALE	MAGNITUDE CONVERSION
MER	ML BRK	See Table G-2
	ML PAS	See Table G-2
	ML UNRENO	See Table G-2
	MD UNR	See Table G-2
	MD HSF, ROW, FPH, RWL, PHM, SHJ, RYN	=MD UNRENO (See Table G-2)
	ML KKG, RYN, PDX, RWL, NOS	=ML USGSDR (See Table G-2)
	UK ALX, RYC, KKG, ERS, PDX, GDY, ISC	=ML USGSDR (See Table G-2)
	ML ISC	=ML USGSDR (See Table G-2)
	MI UVUTAH	=ML UVUTAH(See Table G-2)
	MX UVUTAH	=ML UVUTAH (See Table G-2)
	MB	See Table G-2
	MS	See Table G-2
UVUTAH	ML UVUTAH/SLC	See Table G-2
	MD UVUTAH/SLC	See Table G-2
	ML PAS	See Table G-2
	ML UNRENO	See Table G-2
	MI UVUTAH	=ML UVUTAH (See Table G-2)
	MD UNRENO	See Table G-2
	MX UVUTAH	=ML UVUTAH (See Table G-2)
DNAG	ML BRK	See Table G-2
	ML PAS	See Table G-2
	ML GS	=ML USGSDR (See Table G-2)
	ML CCN	=ML USGSDR (See Table G-2)
	MB DNAG	See Table G-2
	MD UNRENO	See Table G-2
	MD SGB	See Table G-2
	ML UNV	=ML UNRENO (See Table G-2)
	UK BRK	=ML BRK (See Table G-2)
	UK PAS	=ML PAS (See Table G-2)
	UK	=ML USGSDR (See Table G-2)
	MI BRK, CDMG	=ML BRK
DNAG (Cont.)	MI GS	=ML USGSDR (See Table G-2)
	MI SGB	=ML USGSDR (See Table G-2)

TABLE G-4
HIERARCHIES FOR MAGNITUDE CONVERSION FOR SUB-CATALOGUES OF THE 300 KM YUCCA MOUNTAIN CATALOGUE
(CONTINUED)

CATALOGUE	MAGNITUDE SCALE	MAGNITUDE CONVERSION
NEIC - CDMG	MW H&K	No conversion needed
	ML RI	=ML BRK (See Table G-2)
	ML EH	=ML BRK (See Table G-2)
	UK TO	=ML BRK (See Table G-2)
	UK DMG	=ML BRK (See Table G-2)
NEIC - SRA	MD UU	See Table G-2
	LG AE	=mb (See Table G-2)
NEIC - PDE	ML GS	=ML USGSDR (See Table G-2)
	ML AE	=ML USGSDR (See Table G-2)
	MB NEIC	See Table G-2
NAU	ML UNRENO	See Table G-2
	ML AE	=ML USGSDR (See Table G-2)
	ML GS	=ML USGSDR (See Table G-2)
	LG AE	=mb (See Table G-2)

TABLE G-5
EXPLANATION OF MAGNITUDE DATA SOURCES IN THE YUCCA MOUNTAIN CATALOGUE

ABE1	Abe and Noguchi (1983)
ALX	U.S. Army Corps of Engineers, Alexandria Laboratories
BDA	Unknown
BRK, BERK	University of California at Berkeley, California
BRP	Basin and Range Province
CALT1	Caltech
CCN	USGS Central California Network
CDMG	California Division of Mines and Geology
CGS	U.S. Coast and Geodetic Survey
CIT	California Institute of Technology
DMG	California Department of Mines and Geology
DNAG	Decade of North American Geology
DOSSM1	Doser and Smith (1989)
DW	Dewey
DWR	California Department of Water Resources
EQH	Earthquake History of the United States
ERL	Environmental Research Laboratory 1971-1973
ERS	W.W. Hays *et al.* (USGS, written communication, 1975)
FPH	Fischer *et al.*, 1972
GDY	W. Gawthrop and J. Dewey, USGS, written communication, 1980
GTR1	Gutenberg-Richter magnitude from intensity
HSF	Hamilton *et al.* (1971)
H&K	Hanks and Kanamori
ISC	International Seismological Centre
KKG	K.W. King *et al.* (NOAA, written communication, 1971) K. Bayer *et al.* (NOAA, written communication, 1972) K. Bayer (NOAA, written communications, 1973a,b, 1974)
MAK	Unknown
MER	Meremonte and Rogers (1987)
NAU	Northern Arizona University
NEIC	National Earthquake Information Center
NOS	Unknown
OTT	Ottawa
PAS	Pasadena, California
PDE	

TABLE G-5
EXPLANATION OF MAGNITUDE DATA SOURCES IN THE YUCCA MOUNTAIN CATALOGUE
(CONTINUED)

PDX	National Oceanic and Atmospheric Administration
PHM	Papanek and Hamilton (1972)
REN	Reno, Nevada
ROW	Rogers *et al.* (1977)
RPM	Unknown
RWL	Rogers and Lee (1976)
RYC	F. Ryall, UNR, written communication, 1980
RYN	Historical catalogue data, update of Slemmons *et al.* (1965)
SGB	Southern Great Basin Network
SHJ	Smith *et al.* (1971)
SLC	Salt Lake City, Utah
SRA	Stover, Reagor, Algermissen catalogue from NEIC
STOCOFF	Stover and Coffman
TOPO	Toppozada magnitude from intensity
UCB, UCBMLT	University of California, Berkeley
USE	U.S. Earthquakes, U.S. Coast and Geodetic Survey
USGS, NEIC, GS	National Earthquake Information Center, USGS
USGSDR	USGS SGB catalogue magnitude from digital recordings
USGSDV	USGS SGB catalogue magnitude from develocorders
UNRCSP	University of Nevada, Reno, from UNRSL CUSP system
UNW	Unknown
USN	W.W. Hays *et al.* (USGS, written communication, 1975)
UU, UVUTAH	University of Utah
VSB	Von Seggern and Brune (1996)
WCFS1	Woodward-Clyde Federal Services
XXX	Unknown

TABLE G-6
CATALOGUE OF UNDERGROUND NUCLEAR BLASTS AT THE NEVADA TEST SITE, 1957 TO 1992

Explanation of abbreviations:

Cat. No.	Event number
Date	Date of blast, GMT year, month, day
Time	Time of blast, GMT hour, minute, second
Latitude	Latitude, decimal degrees
Longitude	Longitude, decimal degrees
Depth	Depth of event, kilometers (all were assumed to be zero)
Magnitude 1	Magnitude, two-letter magnitude scale, magnitude source

Magnitude scales:

M_L	Local magnitude
M_B	Body-wave magnitude
M_D	Coda-duration magnitude
M_w	Moment magnitude

Magnitude sources:

WCFS	Woodward-Clyde Federal Services, calculated from yield
UNRENO	University of Nevada, Reno
RIL, RILEY OPP	Riley, California Institute of Technology
ISC	International Seismological Centre
ALX	U.S. Army Corps of Engineers, Alexandria Laboratories
RYN	Historical catalogue data, update of Slemmons *et al.* (1965)
UCB	University of California, Berkeley
MVDSDR	Calculated from USGS develocorder

Magnitude 2	Secondary magnitude
Intensity (MM)	Modified Mercalli intensity

Agency Source

LLNL	Data from Lawrence Livermore National Laboratory
UNRENO	Data from University of Nevada, Reno
RILEY OPP	Data from Riley, CIT, provided by David Oppenheimer, USGS (1996)
MER	Meremonte and Rogers (1987)

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
1	1957	JUL	26	00:00.0	37.052	-116.03	0	3.60MLWCFS		LLNL
2	1957	AUG	27	35:00.0	37.049	-116.03	0	3.60MLWCFS		LLNL
3	1957	SEP	19	59:00.6	37.196	-116.2	0	3.80MLWCFS		LLNL
4	1957	DEC	6	15:00.0	37.05	-116.03	0	3.60MLWCFS		LLNL
5	1958	FEB	22	00:00.0	0	0	0	3.60MLWCFS		LLNL
6	1958	MAR	14	00:00.0	0	0	0	3.60MLWCFS		LLNL
7	1958	SEP	12	00:00.0	37.05	-116.03	0	4.80MLWCFS		LLNL
8	1958	SEP	17	30:00.0	37.05	-116.03	0	4.40MLWCFS		LLNL
9	1958	SEP	21	00:00.0	37.049	-116.03	0	3.76MLWCFS		LLNL
10	1958	SEP	23	00:00.0	0	0	0	3.60MLWCFS		LLNL
11	1958	SEP	26	00:00.0	37.05	-116.03	0	3.86MLWCFS		LLNL
12	1958	SEP	26	00:00.0	37.193	-116.2	0	3.86MLWCFS		LLNL
13	1958	OCT	5	15:00.0	37.049	-116.03	0	4.24MLWCFS		LLNL
14	1958	OCT	8	00:00.0	37.195	-116.2	0	5.21MLWCFS		LLNL
15	1958	OCT	14	00:00.0	37.194	-116.2	0	5.39MLWCFS		LLNL
16	1958	OCT	16	00:00.0	37.184	-116.2	0	4.21MLWCFS		LLNL
17	1958	OCT	16	00:00.0	37.18	-116.2	0	4.50MDUNRENO		UNRENO
18	1958	OCT	20	30:00.0	37.05	-116.03	0	3.60MLWCFS		LLNL
19	1958	OCT	29	00:00.0	37.195	-116.21	0	5.10MLWCFS		LLNL
20	1958	OCT	30	00:00.0	37.186	-116.2	0	3.60MLWCFS		LLNL
21	1961	SEP	15	00:00.0	37.188	-116.21	0	3.96MLWCFS		LLNL
22	1961	SEP	16	45:00.0	37.048	-116.03	0	4.70MLWCFS		LLNL
23	1961	OCT	1	30:00.0	37.048	-116.04	0	4.70MLWCFS		LLNL
24	1961	OCT	10	00:00.0	37.194	-116.21	0	4.70MLWCFS		LLNL
25	1961	OCT	29	30:00.0	37.049	-116.03	0	4.70MLWCFS		LLNL
26	1961	DEC	3	04:00.6	37.046	-116.03	0	4.60MLWCFS		LLNL
27	1961	DEC	10	00:00.0	32.264	-103.87	0	4.00MLWCFS		LLNL
28	1961	DEC	13	00:00.0	37.127	-116.05	0	3.60MLWCFS		LLNL
29	1961	DEC	17	35:00.0	37.043	-116.03	0	4.70MLWCFS		LLNL
30	1961	DEC	22	30:00.0	37.195	-116.21	0	4.70MLWCFS		LLNL
31	1962	JAN	9	30:00.0	37.045	-116.04	0	4.20MLWCFS		LLNL
32	1962	JAN	18	00:00.0	37.047	-116.03	0	4.30MLWCFS		LLNL
33	1962	JAN	30	00:00.0	37.047	-116.04	0	4.70MLWCFS		LLNL
34	1962	FEB	8	00:00.0	37.127	-116.05	0	4.00MLWCFS		LLNL
35	1962	FEB	9	30:00.0	37.044	-116.04	0	4.30MLWCFS		LLNL
36	1962	FEB	15	00:00.0	37.226	-116.06	0	4.25MLWCFS		LLNL
37	1962	FEB	19	30:00.0	37.049	-116.03	0	3.85MLWCFS		LLNL
38	1962	FEB	19	50:00.0	37.127	-116.04	0	4.70MLWCFS		LLNL
39	1962	FEB	23	00:00.0	37.129	-116.05	0	4.50MLWCFS		LLNL
40	1962	FEB	24	30:00.0	37.048	-116.03	0	4.70MLWCFS		LLNL

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
41	1962	MAR	1	10:00.0	37.041	-116.03	0	4.70MLWCFS		LLNL
42	1962	MAR	5	15:00.0	37.111	-116.37	0	3.60MLWCFS		LLNL
43	1962	MAR	6	30:00.0	37.048	-116.03	0	4.70MLWCFS		LLNL
44	1962	MAR	8	00:00.0	37.122	-116.05	0	4.40MLWCFS		LLNL
45	1962	MAR	15	30:00.0	37.044	-116.03	0	4.70MLWCFS		LLNL
46	1962	MAR	28	00:00.0	37.124	-116.03	0	4.10MLWCFS		LLNL
47	1962	MAR	31	00:00.0	37.047	-116.04	0	4.70MLWCFS		LLNL
48	1962	APR	5	00:00.0	37.045	-116.02	0	4.50MLWCFS		LLNL
49	1962	APR	6	00:00.0	37.118	-116.04	0	4.70MLWCFS		LLNL
50	1962	APR	12	00:00.0	37.127	-116.05	0	4.70MLWCFS		LLNL
51	1962	APR	14	00:00.0	37.222	-116.16	0	3.84MLWCFS		LLNL
52	1962	APR	21	40:00.0	37.119	-116.03	0	4.70MLWCFS		LLNL
53	1962	APR	27	00:00.0	37.118	-116.04	0	4.70MLWCFS		LLNL
54	1962	MAY	7	33:00.0	37.047	-116.03	0	4.70MLWCFS		LLNL
55	1962	MAY	10	00:00.0	37.128	-116.05	0	4.70MLWCFS		LLNL
56	1962	MAY	12	00:00.0	37.065	-116.03	0	5.00MLWCFS		LLNL
57	1962	MAY	19	00:00.0	37.123	-116.05	0	4.70MLWCFS		LLNL
58	1962	MAY	25	00:00.0	37.125	-116.05	0	4.70MLWCFS		LLNL
59	1962	JUN	1	00:00.0	37.046	-116.03	0	4.70MLWCFS		LLNL
60	1962	JUN	6	00:00.0	37.046	-116.04	0	4.70MLWCFS		LLNL
61	1962	JUN	13	00:00.0	37.222	-116.16	0	4.70MLWCFS		LLNL
62	1962	JUN	21	00:00.0	37.043	-116.03	0	4.70MLWCFS		LLNL
63	1962	JUN	27	00:00.0	37.042	-116.04	0	5.20MLWCFS		LLNL
64	1962	JUN	28	00:00.0	37.009	-116.2	0	4.70MLWCFS		LLNL
65	1962	JUN	30	30:00.0	37.117	-116.05	0	4.70MLWCFS		LLNL
66	1962	JUL	6	00:00.0	37.177	-116.05	0	5.40MLWCFS		LLNL
67	1962	JUL	13	00:00.2	37.055	-116.03	0	5.15MLWCFS		LLNL
68	1962	JUL	27	00:00.0	37.13	-116.06	0	4.70MLWCFS		LLNL
69	1962	AUG	24	00:00.0	37.119	-116.04	0	4.70MLWCFS		LLNL
70	1962	AUG	24	00:00.0	37.046	-116.02	0	4.70MLWCFS		LLNL
71	1962	SEP	6	00:00.0	37.13	-116.05	0	4.70MLWCFS		LLNL
72	1962	SEP	14	10:00.0	37.044	-116.02	0	4.70MLWCFS		LLNL
73	1962	SEP	20	00:00.0	37.055	-116.03	0	4.70MLWCFS		LLNL
74	1962	SEP	29	00:00.0	37.117	-116.03	0	4.70MLWCFS		LLNL
75	1962	OCT	5	00:00.0	37.139	-116.05	0	5.40MLWCFS		LLNL
76	1962	OCT	12	00:00.0	37.123	-116.05	0	4.70MLWCFS		LLNL
77	1962	OCT	12	00:00.0	37.049	-116.03	0	4.70MLWCFS		LLNL
78	1962	OCT	18	00:00.0	37.129	-116.04	0	4.70MLWCFS		LLNL
79	1962	OCT	19	00:00.0	37.04	-116.02	0	4.70MLWCFS		LLNL
80	1962	OCT	27	00:00.0	37.149	-116.05	0	4.70MLWCFS		LLNL

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
81	1962	NOV	9	00:00.0	37.164	-116.07	0	4.70MLWCFS		LLNL
82	1962	NOV	15	30:00.0	37.042	-116.02	0	4.70MLWCFS		LLNL
83	1962	NOV	27	00:00.0	37.123	-116.03	0	4.70MLWCFS		LLNL
84	1962	DEC	4	00:00.0	37.128	-116.05	0	4.70MLWCFS		LLNL
85	1962	DEC	7	00:00.0	37.052	-116.03	0	4.70MLWCFS		LLNL
86	1962	DEC	12	25:00.0	37.172	-116.2	0	4.70MLWCFS		LLNL
87	1962	DEC	12	45:00.0	37.046	-116.02	0	4.70MLWCFS		LLNL
88	1962	DEC	14	00:00.0	37.124	-116.04	0	4.70MLWCFS		LLNL
89	1963	FEB	8	00:00.2	37.149	-116.05	0	4.70MLWCFS		LLNL
90	1963	FEB	8	30:00.1	37.058	-116.03	0	4.70MLWCFS		LLNL
91	1963	FEB	15	00:00.0	37.049	-116.03	0	4.70MLWCFS		LLNL
92	1963	FEB	21	47:00.0	37.12	-116.05	0	4.70MLWCFS		LLNL
93	1963	MAR	1	00:00.0	37.045	-116.03	0	4.70MLWCFS		LLNL
94	1963	MAR	15	22:00.5	37.126	-116.05	0	4.70MLWCFS		LLNL
95	1963	MAR	29	49:00.0	37.042	-116.02	0	4.70MLWCFS		LLNL
96	1963	APR	5	52:00.0	37.037	-116.02	0	4.70MLWCFS		LLNL
97	1963	APR	10	01:00.3	37.049	-116.03	0	4.70MLWCFS		LLNL
98	1963	APR	11	03:00.0	37.157	-116.07	0	4.70MLWCFS		LLNL
99	1963	APR	24	09:30.1	37.121	-116.04	0	4.70MLWCFS		LLNL
100	1963	MAY	9	19:00.3	37.049	-116.02	0	4.70MLWCFS		LLNL
101	1963	MAY	17	55:00.1	37.048	-116.03	0	4.70MLWCFS		LLNL
102	1963	MAY	22	40:00.0	37.111	-116.04	0	5.15MLWCFS		LLNL
103	1963	MAY	29	03:00.3	37.128	-116.04	0	4.70MLWCFS		LLNL
104	1963	JUN	5	00:00.0	37.196	-116.21	0	4.70MLWCFS		LLNL
105	1963	JUN	6	00:00.0	37.044	-116.04	0	4.70MLWCFS		LLNL
106	1963	JUN	6	58:00.0	37.125	-116.04	0	4.70MLWCFS		LLNL
107	1963	JUN	14	10:00.0	37.046	-116.02	0	4.70MLWCFS		LLNL
108	1963	JUN	25	00:00.0	37.131	-116.07	0	4.70MLWCFS		LLNL
109	1963	AUG	12	45:00.0	37.04	-116.02	0	4.70MLWCFS		RILEY OPP
110	1963	AUG	15	00:00.0	37.15	-116.08	0	4.70MLWCFS		RILEY OPP
111	1963	AUG	23	20:00.0	37.13	-116.04	0	4.70MLWCFS		RILEY OPP
112	1963	SEP	13	53:00.0	37.16	-116.08	0	4.70MLWCFS		RILEY OPP
113	1963	SEP	13	00:00.0	37.06	-116.02	0	5.70MLWCFS		RILEY OPP
114	1963	SEP	27	20:00.0	0	0	0	3.00MBRIL		RILEY OPP
115	1963	OCT	11	00:00.0	37.037	-116.02	0	4.70MLWCFS		RILEY OPP
116	1963	OCT	11	00:00.0	37.12	-116.03	0	4.70MLWCFS		RILEY OPP
117	1963	OCT	16	00:00.0	37.2	-116.23	0	5.15MLWCFS		RILEY OPP
118	1963	OCT	26	00:00.0	39.2	-118.38	0	4.80MLWCFS		RILEY OPP
119	1963	NOV	14	00:00.0	37.04	-116.02	0	4.70MLWCFS		RILEY OPP
120	1963	NOV	15	00:00.0	37.13	-116.05	0	4.70MLWCFS		RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
121	1963	NOV	22	30:00.0	37.12	-116.05	0	5.15MLWCFS		RILEY OPP
122	1963	DEC	4	38:30.0	37.04	-116.03	0	4.70MLWCFS		RILEY OPP
123	1963	DEC	12	02:00.0	37.13	-116.04	0	4.70MLWCFS		RILEY OPP
124	1964	JAN	16	00:00.0	37.142	-116.05	0	5.20MBISC		LLNL
125	1964	JAN	23	00:00.0	37.126	-116.04	0	4.20MBRIL		RILEY OPP
126	1964	JAN	30	00:00.0	37.1	-115.9	0	4.10MBRIL		RILEY OPP
127	1964	FEB	12	37:59.5	37.03	-116.12	0	4.70MLWCFS		RILEY OPP
128	1964	FEB	13	30:00.0	37.2	-115.9	0	4.00MBRIL		RILEY OPP
129	1964	FEB	18	37:19.0	37.1	-116	0	4.80MBRIL	4.40MBRIL	RILEY OPP
130	1964	FEB	20	30:00.0	37.15	-116.04	0	5.10MBRIL		RILEY OPP
131	1964	MAR	12	00:07.0	37.3	-116.2	0	3.30MBRIL		RILEY OPP
132	1964	MAR	13	02:00.0	37.05	-116.01	0	4.70MLWCFS		RILEY OPP
133	1964	APR	14	40:00.0	37.129	-116.03	0	4.70MLWCFS		RILEY OPP
134	1964	APR	15	30:00.0	37.044	-116.02	0	4.70MLWCFS		RILEY OPP
135	1964	APR	24	10:00.0	37.15	-116.06	0	5.20MBRIL		RILEY OPP
136	1964	APR	29	47:00.0	37.04	-116.03	0	4.10MBRIL		RILEY OPP
137	1964	MAY	14	40:00.0	37.12	-116.04	0	4.70MLWCFS		RILEY OPP
138	1964	MAY	15	15:00.0	37.04	-116.01	0	4.70MLWCFS		RILEY OPP
139	1964	JUN	11	45:00.0	37.15	-116.08	0	4.70MLWCFS		RILEY OPP
140	1964	JUN	12	01:00.0	36.8	-116.2	0	3.60MBRIL		RILEY OPP
141	1964	JUN	18	30:00.0	37.3	-115.6	0	3.20MBRIL		RILEY OPP
142	1964	JUN	24	06:12.0	36.8	-116.7	0	3.20MBRIL		RILEY OPP
143	1964	JUN	25	30:00.0	37.11	-116.03	0	4.70MLWCFS		RILEY OPP
144	1964	JUN	30	33:00.0	37.17	-116.06	0	4.70MLWCFS		RILEY OPP
145	1964	JUL	16	15:00.0	37.18	-116.05	0	5.15MLWCFS		RILEY OPP
146	1964	JUL	17	18:30.0	37.02	-116.03	0	4.70MLWCFS		RILEY OPP
147	1964	AUG	19	00:00.0	37.16	-116.08	0	4.70MLWCFS		RILEY OPP
148	1964	AUG	22	17:00.0	37.07	-116.02	0	4.70MLWCFS		RILEY OPP
149	1964	AUG	28	06:00.0	37.07	-116.02	0	4.70MLWCFS		RILEY OPP
150	1964	SEP	4	15:00.0	37.02	-116.02	0	4.70MLWCFS		RILEY OPP
151	1964	SEP	11	00:00.0	37.2	-114.8	0	3.30MBRIL		RILEY OPP
152	1964	OCT	2	03:00.0	37.08	-116.01	0	4.00MBISC		LLNL
153	1964	OCT	9	00:00.0	37.15	-116.08	0	4.80MBRIL		RILEY OPP
154	1964	OCT	16	59:30.0	37.04	-116.02	0	4.70MLWCFS		RILEY OPP
155	1964	OCT	22	00:00.0	31.14	-189.57	0	5.30MBRIL	4.60MBRIL	RILEY OPP
156	1964	OCT	31	04:59.0	37.11	-116.03	0	4.70MLWCFS		RILEY OPP
157	1964	NOV	5	00:00.0	37.17	-116.07	0	4.80MBRIL		RILEY OPP
158	1964	DEC	5	15:00.0	37.11	-116.05	0	4.80MBRIL		RILEY OPP
159	1964	DEC	5	15:00.0	37.13	-116.07	0	5.15MLWCFS		RILEY OPP
160	1964	DEC	16	00:00.0	37.03	-116.01	0	3.70MLWCFS		RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
161	1964	DEC	16	10:00.0	37.18	-116.07	0	4.00MLWCFS		RILEY OPP
162	1964	DEC	18	35:00.0	37.08	-116.34	0	3.60MLWCFS		RILEY OPP
163	1964	DEC	23	43:00.0	37.3	-115.1	0	2.90MBRIL		RILEY OPP
164	1965	JAN	14	00:00.0	37.119	-116.03	0	4.70MLWCFS		RILEY OPP
165	1965	JAN	29	22:00.0	37	-116	0	3.60MBRIL		RILEY OPP
166	1965	FEB	4	30:00.0	37.131	-116.06	0	4.70MLWCFS		RILEY OPP
167	1965	FEB	12	10:30.0	37.165	-116.08	0	4.70MLWCFS		RILEY OPP
168	1965	FEB	16	30:00.0	37.052	-116.02	0	4.50MLWCFS		RILEY OPP
169	1965	FEB	18	18:47.0	36.82	-115.95	0	4.70MLWCFS		RILEY OPP
170	1965	MAR	3	13:00.0	37.065	-116.04	0	5.15MLWCFS		RILEY OPP
171	1965	MAR	20	23:50.0	37	-116.3	0	3.60MBRIL		RILEY OPP
172	1965	MAR	26	34:08.0	37.148	-116.04	0	5.15MLWCFS		RILEY OPP
173	1965	APR	5	00:00.0	37.026	-116.02	0	4.70MLWCFS		RILEY OPP
174	1965	APR	14	14:00.0	37.28	-116.52	0	4.30MBRIL		RILEY OPP
175	1965	APR	21	00:00.0	37.01	-116.2	0	5.00MBRIL		RILEY OPP
176	1965	APR	22	39:00.0	37.1	-115.9	0	3.90MBRIL		RILEY OPP
177	1965	APR	23	44:00.0	37.02	-116	0	3.70MBRIL		RILEY OPP
178	1965	MAY	7	47:11.0	37.14	-116.07	0	4.70MLWCFS		RILEY OPP
179	1965	MAY	12	15:00.0	37.24	-116.43	0	4.70MLWCFS		RILEY OPP
180	1965	MAY	14	57:52.0	36.82	-115.97	0	4.70MLWCFS		RILEY OPP
181	1965	MAY	14	32:36.0	37.06	-116.01	0	4.70MLWCFS		RILEY OPP
182	1965	MAY	21	08:52.0	37.119	-116.03	0	4.70MLWCFS		RILEY OPP
183	1965	JUN	11	45:00.0	37.043	-116.02	0	3.70MLWCFS		RILEY OPP
184	1965	JUN	11	28:38.0	37.116	-116.02	0	3.60MBRIL		RILEY OPP
185	1965	JUN	16	30:00.0	36.82	-115.96	0	4.70MLWCFS		RILEY OPP
186	1965	JUN	17	00:00.0	37.22	-116.06	0	4.70MLWCFS		RILEY OPP
187	1965	JUL	22	21:10.1	37.2	-115.98	0	2.40UKALX		MER
188	1965	JUL	23	00:00.0	37.1	-116.03	0	5.40MBRIL		RILEY OPP
189	1965	AUG	6	23:30.0	37.02	-116.04	0	4.70MLWCFS		RILEY OPP
190	1965	AUG	21	43:09.0	37.113	-116.03	0	3.40MBRIL		RILEY OPP
191	1965	AUG	27	51:13.0	37.14	-116.07	0	4.70MLWCFS		RILEY OPP
192	1965	SEP	1	08:00.0	37.02	-116.01	0	4.20MBRIL		RILEY OPP
193	1965	SEP	10	12:00.0	37.08	-116.02	0	5.10MBRIL		RILEY OPP
194	1965	SEP	17	08:23.0	37.11	-116.03	0	4.70MLWCFS		RILEY OPP
195	1965	NOV	12	00:00.0	37.05	-116.02	0	4.70MLWCFS		RILEY OPP
196	1965	NOV	23	17:33.0	37.162	-116.07	0	3.60MBRIL		RILEY OPP
197	1965	DEC	3	13:02.0	37.165	-116.05	0	5.60MBRIL		RILEY OPP
198	1965	DEC	16	39:18.0	37.14	-116.06	0	4.70MLWCFS		RILEY OPP
199	1965	DEC	16	15:00.0	37.07	-116.03	0	5.30MBRIL		RILEY OPP
200	1965	DEC	25	59:53.0	37	-116.3	0	4.10MBRIL	3.60MBRIL	RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
201	1966	JAN	13	37:43.0	37.12	-116.03	0	4.70MLWCFS		RILEY OPP
202	1966	JAN	18	35:00.0	37.09	-116.02	0	5.20MBRIL		RILEY OPP
203	1966	JAN	21	28:00.0	37.03	-116.02	0	4.70MLWCFS		RILEY OPP
204	1966	JAN	22	17:20.0	36.5	-114.7	0	3.20MBRIL		RILEY OPP
205	1966	FEB	3	17:37.0	37.13	-116.07	0	4.30MBRIL		RILEY OPP
206	1966	FEB	24	55:07.0	37.27	-116.43	0	4.80MBRIL		RILEY OPP
207	1966	MAR	5	15:00.0	37.17	-116.21	0	4.70MLWCFS		RILEY OPP
208	1966	MAR	7	41:00.0	37.04	-116.03	0	4.70MLWCFS		RILEY OPP
209	1966	MAR	12	04:13.0	37.14	-116.05	0	4.70MLWCFS		RILEY OPP
210	1966	MAR	18	00:00.0	37.01	-116.01	0	4.70MLWCFS		RILEY OPP
211	1966	MAR	24	55:28.0	37.11	-116.03	0	4.70MLWCFS		RILEY OPP
212	1966	APR	1	40:00.0	37.1	-116.02	0	4.70MLWCFS		RILEY OPP
213	1966	APR	6	57:17.0	37.14	-116.14	0	4.40MBRIL		RILEY OPP
214	1966	APR	7	27:30.0	37.02	-115.99	0	4.70MLWCFS		RILEY OPP
215	1966	APR	14	13:43.0	37.24	-116.43	0	5.40MBRIL		RILEY OPP
216	1966	APR	23	55:26.0	37.161	-116.08	0	3.30MBRIL		RILEY OPP
217	1966	APR	25	38:00.0	36.89	-115.94	0	4.50MBRIL		RILEY OPP
218	1966	MAY	4	32:17.0	37.14	-116.14	0	5.50MBRIL		RILEY OPP
219	1966	MAY	5	00:00.0	37.05	-116.04	0	4.20MBRIL		RILEY OPP
220	1966	MAY	6	00:00.0	37.35	-116.32	0	5.50MBRIL		RILEY OPP
221	1966	MAY	12	37:26.0	37.13	-116.07	0	4.20MBRIL		RILEY OPP
222	1966	MAY	13	30:00.0	37.09	-116.03	0	5.60MBRIL		RILEY OPP
223	1966	MAY	19	56:28.0	37.11	-116.06	0	5.80MBRIL		RILEY OPP
224	1966	MAY	27	00:00.0	37.18	-116.1	0	5.10MBRIL		RILEY OPP
225	1966	JUN	2	30:00.0	37.23	-116.06	0	5.60MBRIL		RILEY OPP
226	1966	JUN	3	00:00.0	37.07	-116.04	0	5.70MBRIL		RILEY OPP
227	1966	JUN	10	30:00.0	37.06	-116.04	0	4.70MLWCFS		RILEY OPP
228	1966	JUN	15	00:00.0	37.01	-116.2	0	4.70MLWCFS		RILEY OPP
229	1966	JUN	15	02:47.0	37.17	-116.05	0	5.15MLWCFS		RILEY OPP
230	1966	JUN	25	13:00.0	37.16	-116.07	0	4.40MLWCFS		RILEY OPP
231	1966	JUN	30	15:00.0	37.32	-116.3	0	6.10MBRIL		RILEY OPP
232	1966	JUL	28	33:30.0	37.14	-116.13	0	4.70MLWCFS		RILEY OPP
233	1966	AUG	10	16:00.0	37.17	-116.05	0	4.70MLWCFS		RILEY OPP
234	1966	SEP	12	30:00.0	36.88	-115.95	0	4.60MBRIL		RILEY OPP
235	1966	SEP	23	00:00.0	37.1	-116.04	0	4.70MLWCFS		RILEY OPP
236	1966	SEP	29	45:30.0	37.17	-116.05	0	4.10MBRIL		RILEY OPP
237	1966	NOV	5	45:00.0	37.17	-116.05	0	4.70MLWCFS		RILEY OPP
238	1966	NOV	11	00:00.0	37.13	-116.05	0	4.70MLWCFS		RILEY OPP
239	1966	NOV	18	02:00.0	37.04	-116.01	0	4.70MLWCFS		RILEY OPP
240	1966	DEC	13	50:00.0	37.035	-116.01	0	3.90MBRIL		RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
241	1966	DEC	13	00:00.0	36.88	-115.94	0	4.60MBRIL		RILEY OPP
242	1966	DEC	20	30:00.0	37.3	-116.41	0	6.30MBRIL		RILEY OPP
243	1967	JAN	18	55:00.0	37.165	-116.05	0	3.20MBRIL		RILEY OPP
244	1967	JAN	19	45:00.0	37.14	-116.14	0	5.40MBRIL		RILEY OPP
245	1967	JAN	20	40:04.0	37.1	-116	0	5.20MBRIL		RILEY OPP
246	1967	JAN	26	30:00.0	37.165	-116.05	0	3.80MBRIL		RILEY OPP
247	1967	FEB	8	15:00.0	37.17	-116.05	0	4.80MBRIL		RILEY OPP
248	1967	FEB	23	34:00.0	37.02	-116.02	0	4.40MBRIL		RILEY OPP
249	1967	FEB	23	50:00.0	37.13	-116.07	0	5.80MBRIL		RILEY OPP
250	1967	MAR	2	00:00.0	37.17	-116.05	0	4.20MBRIL		RILEY OPP
251	1967	MAR	3	19:00.0	37.039	-116.01	0	3.70MBRIL		RILEY OPP
252	1967	APR	7	00:00.0	37.05	-116.02	0	3.90MBRIL		RILEY OPP
253	1967	APR	21	09:00.0	37.02	-116.04	0	4.30MBRIL		RILEY OPP
254	1967	APR	27	45:00.0	37.14	-116.06	0	3.80MBRIL		RILEY OPP
255	1967	MAY	10	40:00.0	37.08	-116	0	5.00MBRIL		RILEY OPP
256	1967	MAY	20	00:00.0	37.13	-116.06	0	5.90MBRIL		RILEY OPP
257	1967	MAY	23	00:00.0	37.28	-116.37	0	5.70MBRIL		RILEY OPP
258	1967	MAY	26	00:00.0	37.25	-116.48	0	5.50MBRIL		RILEY OPP
259	1967	JUN	22	10:00.0	37.13	-116.03	0	4.70MLWCFS		RILEY OPP
260	1967	JUN	26	00:00.0	37.2	-116.21	0	5.10MBRIL		RILEY OPP
261	1967	JUN	29	25:00.0	37.03	-116.02	0	4.60MBRIL		RILEY OPP
262	1967	JUL	27	00:00.0	37.15	-116.05	0	5.00MBRIL		RILEY OPP
263	1967	AUG	4	00:00.0	37.01	-116.15	0	4.00MBRIL		RILEY OPP
264	1967	AUG	10	10:00.0	37.16	-116.05	0	4.70MLWCFS		RILEY OPP
265	1967	AUG	18	12:30.0	37.01	-116.04	0	4.60MBRIL		RILEY OPP
266	1967	AUG	24	30:00.0	37.163	-116.07	0	4.70MLWCFS		RILEY OPP
267	1967	AUG	31	30:00.0	37.18	-116.21	0	5.00MBRIL		RILEY OPP
268	1967	SEP	7	45:00.0	37.15	-116.05	0	5.00MBRIL		RILEY OPP
269	1967	SEP	21	45:00.0	37.17	-116.04	0	3.90MLWCFS		RILEY OPP
270	1967	SEP	27	00:00.0	37.1	-116.05	0	5.70MBRIL		RILEY OPP
271	1967	OCT	18	30:00.0	37.12	-116.06	0	5.70MBRIL		RILEY OPP
272	1967	OCT	25	30:00.0	37.03	-116.03	0	4.70MLWCFS		RILEY OPP
273	1967	NOV	8	00:00.0	37.09	-116.04	0	5.10MBRIL		RILEY OPP
274	1967	DEC	6	00:00.0	37.159	-116.05	0	4.70MLWCFS		RILEY OPP
275	1967	DEC	10	30:00.0	36.68	-107.21	0	4.90MLWCFS		RILEY OPP
276	1967	DEC	15	00:00.0	37.04	-116	0	4.70MLWCFS		RILEY OPP
277	1968	JAN	18	30:00.0	37.15	-116.07	0	4.40MLWCFS		RILEY OPP
278	1968	JAN	19	00:00.0	37.16	-116.05	0	5.15MLWCFS		RILEY OPP
279	1968	JAN	19	15:00.0	38.63	-116.22	0	6.30MBRIL		RILEY OPP
280	1968	JAN	26	00:00.0	37.28	-116.51	0	2.30MBRIL		RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
281	1968	JAN	31	30:01.0	36.89	-116.12	0	4.70MLWCFS		RILEY OPP
282	1968	FEB	21	30:00.0	37.12	-116.05	0	5.80MBRIL		RILEY OPP
283	1968	FEB	29	08:30.0	37.18	-116.21	0	5.00MBRIL		RILEY OPP
284	1968	MAR	12	04:00.0	37.01	-116.37	0	5.40MBRIL	4.00MBRIL	RILEY OPP
285	1968	MAR	14	19:00.0	37.05	-116.01	0	1.50MBRIL		RILEY OPP
286	1968	MAR	22	00:00.0	37.33	-116.31	0	5.60MBRIL		RILEY OPP
287	1968	MAR	25	44:27.0	36.87	-115.93	0	4.70MLWCFS		RILEY OPP
288	1968	APR	10	00:00.0	37.15	-116.08	0	4.60MBRIL		RILEY OPP
289	1968	APR	18	05:00.0	37.15	-116.04	0	4.90MBRIL		RILEY OPP
290	1968	APR	23	01:30.0	37.34	-116.38	0	4.10MBRIL		RILEY OPP
291	1968	APR	26	00:00.0	37.3	-116.46	0	6.30MBRIL		RILEY OPP
292	1968	MAY	3	00:01.0	37	-115.99	0	4.10MBRIL		RILEY OPP
293	1968	MAY	8	10:00.0	37.157	-116.04	0	3.90MBRIL		RILEY OPP
294	1968	MAY	17	00:00.0	37.12	-116.06	0	4.70MBRIL		RILEY OPP
295	1968	JUN	5	21:30.0	37.035	-116.02	0	4.00MBRIL		RILEY OPP
296	1968	JUN	6	30:00.0	37.17	-116.04	0	4.70MLWCFS		RILEY OPP
297	1968	JUN	15	00:00.0	37.26	-116.31	0	5.90MBRIL		RILEY OPP
298	1968	JUN	28	22:00.0	37.25	-116.48	0	5.30MBRIL		RILEY OPP
299	1968	JUL	17	00:00.0	37.001	-116	0	4.00MBRIL		RILEY OPP
300	1968	JUL	30	00:00.0	37.12	-116.08	0	5.15MLWCFS		RILEY OPP
301	1968	AUG	9	00:00.0	37.162	-116.08	0	3.50MBRIL		RILEY OPP
302	1968	AUG	15	00:00.0	37.124	-116.05	0	3.90MBRIL		RILEY OPP
303	1968	AUG	27	30:00.0	36.88	-115.93	0	4.70MLWCFS		RILEY OPP
304	1968	AUG	29	45:00.0	37.25	-116.35	0	5.90MBRIL		RILEY OPP
305	1968	SEP	6	00:00.0	37.14	-116.05	0	5.60MBRIL		RILEY OPP
306	1968	SEP	12	00:00.0	37.03	-116.01	0	4.70MLWCFS		RILEY OPP
307	1968	SEP	17	00:00.0	37.12	-116.13	0	5.10MBRIL		RILEY OPP
308	1968	SEP	24	05:00.0	37.2	-116.21	0	5.00MBRIL		RILEY OPP
309	1968	OCT	3	29:00.0	37.03	-115.99	0	4.70MLWCFS		RILEY OPP
310	1968	OCT	10	30:00.0	37.133	-116.04	0	3.90MBRIL		RILEY OPP
311	1968	OCT	29	36:01.0	37.1	-116	0	3.40MBRIL		RILEY OPP
312	1968	OCT	31	30:00.0	37.047	-116.03	0	3.90MBRIL		RILEY OPP
313	1968	NOV	4	15:00.0	37.13	-116.09	0	5.00MBRIL		RILEY OPP
314	1968	NOV	15	30:00.0	37.048	-116	0	3.90MBRIL		RILEY OPP
315	1968	NOV	15	45:00.0	37.03	-116.03	0	4.70MLWCFS		RILEY OPP
316	1968	NOV	20	00:00.0	37.01	-116.21	0	4.90MBRIL		RILEY OPP
317	1968	NOV	22	19:00.0	37.14	-116.04	0	4.70MLWCFS		RILEY OPP
318	1968	DEC	8	00:00.0	37.34	-116.57	0	4.80MBRIL		RILEY OPP
319	1968	DEC	12	10:01.0	37.12	-116.08	0	4.70MLWCFS		RILEY OPP
320	1968	DEC	12	20:00.0	37	-116.1	0	3.90MBRIL		RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
321	1968	DEC	19	30:00.0	37.23	-116.47	0	6.30MBRIL		RILEY OPP
322	1969	JAN	15	00:00.0	37.15	-116.07	0	4.50MLWCFS		RILEY OPP
323	1969	JAN	15	30:00.0	37.21	-116.23	0	5.15MLWCFS		RILEY OPP
324	1969	JAN	22	00:02.0	36.96	-116.03	0	4.60MBRIL		RILEY OPP
325	1969	JAN	30	00:00.0	37.05	-116.03	0	4.80MBRIL	4.90MBRIL	RILEY OPP
326	1969	FEB	4	00:00.0	37	-116	0	3.70MBRIL		RILEY OPP
327	1969	FEB	12	18:21.0	37.17	-116.21	0	4.70MLWCFS		RILEY OPP
328	1969	MAR	18	40:02.0	37.1	-116	0	4.40MBRIL	4.10MBRIL	RILEY OPP
329	1969	MAR	20	12:00.0	37.02	-116.03	0	4.60MBRIL	4.50MBRIL	RILEY OPP
330	1969	MAR	21	30:00.0	37.13	-116.09	0	4.90MBRIL	4.85MBRIL	RILEY OPP
331	1969	APR	24	04:00.0	37.1	-116.1	0	3.80MBRIL		RILEY OPP
332	1969	APR	30	00:00.0	37.08	-116.01	0	5.30MBRIL	5.25MBRIL	RILEY OPP
333	1969	APR	30	00:00.0	37.09	-116.01	0	5.15MLWCFS		RILEY OPP
334	1969	MAY	7	45:00.0	37.283	-116.5	0	5.50MBISC		LLNL
335	1969	MAY	7	45:00.0	37.28	-116.5	0	5.80MBRIL	5.75MBRIL	RILEY OPP
336	1969	MAY	15	00:00.0	37	-116	0	4.50MBRIL	4.05MBRIL	RILEY OPP
337	1969	MAY	27	15:00.0	37.08	-116	0	5.00MBRIL	4.95MBRIL	RILEY OPP
338	1969	JUN	12	00:00.0	37.01	-116.03	0	4.40MBRIL	4.50MBRIL	RILEY OPP
339	1969	JUN	26	00:00.0	37.1	-116	0	4.40MBRIL	4.10MBRIL	RILEY OPP
340	1969	JUL	16	02:30.0	37.12	-116.06	0	4.70MBRIL	4.60MBRIL	RILEY OPP
341	1969	JUL	16	55:00.0	37.14	-116.09	0	5.60MBRIL	5.55MBRIL	RILEY OPP
342	1969	AUG	14	30:00.0	37.16	-116.06	0	4.70MLWCFS		RILEY OPP
343	1969	AUG	27	45:00.0	37.02	-116.04	0	4.70MBRIL	4.75MBRIL	RILEY OPP
344	1969	SEP	10	00:00.0	39.36	-107.95	0	5.30MBRIL		RILEY OPP
345	1969	SEP	12	02:23.0	36.88	-115.93	0	4.50MBRIL	4.40MBRIL	RILEY OPP
346	1969	SEP	16	30:00.0	37.31	-116.46	0	6.20MBRIL	6.25MBRIL	RILEY OPP
347	1969	SEP	20	30:01.0	37.1	-116.1	0	4.30MBRIL	3.90MBRIL	RILEY OPP
348	1969	OCT	8	30:00.0	37.26	-116.44	0	5.50MBRIL	5.50MBRIL	RILEY OPP
349	1969	OCT	28	35:00.0	37.3	-116.4	0	3.10MBRIL		RILEY OPP
350	1969	OCT	29	30:00.0	37.12	-116.13	0	5.10MBRIL	4.80MBRIL	RILEY OPP
351	1969	OCT	29	00:00.0	37.14	-116.14	0	5.00MBRIL	4.80MBRIL	RILEY OPP
352	1969	OCT	29	01:51.0	37.14	-116.06	0	5.70MBRIL	5.65MBRIL	RILEY OPP
353	1969	NOV	13	15:00.0	37.16	-116.07	0	3.80MLWCFS		RILEY OPP
354	1969	NOV	21	52:00.0	37.03	-116	0	5.00MBRIL	4.95MBRIL	RILEY OPP
355	1969	DEC	5	00:00.0	37.18	-116.21	0	5.00MBRIL	5.00MBRIL	RILEY OPP
356	1969	DEC	10	30:00.0	37.1	-116	0	4.20MBRIL		RILEY OPP
357	1969	DEC	17	00:00.0	37.08	-116	0	5.50MBRIL	5.45MBRIL	RILEY OPP
358	1969	DEC	17	15:00.0	37.01	-116.02	0	4.80MBRIL	4.70MBRIL	RILEY OPP
359	1969	DEC	18	00:00.0	37.12	-116.03	0	5.20MBRIL	5.10MBRIL	RILEY OPP
360	1970	JAN	23	30:00.0	37.14	-116.04	0	4.60MBRIL	4.30MBRIL	RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
361	1970	JAN	30	00:00.0	37.03	-116.03	0	4.60MBRIL	4.55MBRIL	RILEY OPP
362	1970	FEB	4	00:00.0	37.1	-116.03	0	5.60MBRIL	5.60MBRIL	RILEY OPP
363	1970	FEB	5	00:00.0	37.16	-116.04	0	4.40MBRIL	4.75MBRIL	RILEY OPP
364	1970	FEB	11	15:00.0	37.2	-116.21	0	4.60MBRIL	4.60MBRIL	RILEY OPP
365	1970	FEB	25	28:38.0	37.04	-116	0	5.20MBRIL	5.15MBRIL	RILEY OPP
366	1970	FEB	26	30:00.0	37.12	-116.06	0	5.30MBRIL	5.20MBRIL	RILEY OPP
367	1970	MAR	6	24:01.0	37.17	-116.09	0	4.50MBRIL	4.45MBRIL	RILEY OPP
368	1970	MAR	6	00:00.0	37.14	-116.04	0	4.30MBRIL	4.00MBRIL	RILEY OPP
369	1970	MAR	19	03:30.0	37	-116.02	0	4.10MBRIL	4.30MBRIL	RILEY OPP
370	1970	MAR	23	05:00.0	37.09	-116.02	0	5.50MBRIL	5.50MBRIL	RILEY OPP
371	1970	MAR	26	00:00.0	37.3	-116.53	0	6.50MBRIL	6.50MBRIL	RILEY OPP
372	1970	APR	21	30:00.0	37.05	-115.99	0	4.60MBRIL	4.65MBRIL	RILEY OPP
373	1970	APR	21	00:00.0	37.12	-116.08	0	4.80MBRIL	4.80MBRIL	RILEY OPP
374	1970	MAY	1	13:00.0	37.06	-116.03	0	4.20MBRIL	4.10MBRIL	RILEY OPP
375	1970	MAY	1	40:00.0	37.13	-116.03	0	4.50MBRIL	4.30MBRIL	RILEY OPP
376	1970	MAY	5	30:00.0	37.22	-116.18	0	5.20MBRIL	5.00MBRIL	RILEY OPP
377	1970	MAY	12	00:00.0	37.01	-116.2	0	4.70MLWCFS		RILEY OPP
378	1970	MAY	15	30:00.0	37.16	-116.04	0	5.30MBRIL	5.15MBRIL	RILEY OPP
379	1970	MAY	21	00:00.0	37.01	-115.99	0	3.50MBRIL	3.95MBRIL	RILEY OPP
380	1970	MAY	21	15:00.0	37.07	-116.01	0	5.10MBRIL	5.00MBRIL	RILEY OPP
381	1970	MAY	26	16:00.0	37.18	-116.21	0	5.00MBRIL	4.80MBRIL	RILEY OPP
382	1970	MAY	26	00:00.0	37.11	-116.06	0	5.60MBRIL	5.60MBRIL	RILEY OPP
383	1970	MAY	28	00:00.0	37.1	-116	0	4.20MBRIL	3.90MBRIL	RILEY OPP
384	1970	JUN	26	00:00.0	37.11	-116.09	0	4.30MBRIL	4.20MBRIL	RILEY OPP
385	1970	OCT	13	05:00.0	37.1	-116.1	0	3.90MBRIL		RILEY OPP
386	1970	OCT	14	30:00.0	37.07	-116.01	0	5.50MBRIL	5.50MBRIL	RILEY OPP
387	1970	OCT	28	30:00.0	37.3	-116	0	3.90MBRIL		RILEY OPP
388	1970	NOV	5	00:00.0	37.03	-116.01	0	4.90MBRIL	4.75MBRIL	RILEY OPP
389	1970	NOV	19	00:00.0	37	-116	0	4.10MBRIL		RILEY OPP
390	1970	DEC	3	07:00.0	37.12	-116.27	0	3.10MBRIL		RILEY OPP
391	1970	DEC	16	00:00.0	37.1	-116.01	0	5.10MBRIL	5.10MBRIL	RILEY OPP
392	1970	DEC	16	00:00.0	37.14	-116.03	0	4.70MLWCFS		RILEY OPP
393	1970	DEC	17	05:00.0	37.13	-116.08	0	5.70MBRIL	5.80MBRIL	RILEY OPP
394	1970	DEC	18	30:00.0	37.17	-116.1	0	5.20MBRIL	5.05MBRIL	RILEY OPP
395	1971	APR	29	00:00.0	37.12	-116.33	0	4.70MLWCFS		RILEY OPP
396	1971	JUN	16	50:00.0	37.03	-116.01	0	4.90MBRIL	4.60MBRIL	RILEY OPP
397	1971	JUN	23	30:00.0	37.02	-116.02	0	4.80MBRIL	4.70MBRIL	RILEY OPP
398	1971	JUN	24	00:00.0	37.15	-116.07	0	5.20MBRIL	5.10MBRIL	RILEY OPP
399	1971	JUN	29	30:00.0	37.18	-116.21	0	4.90MBRIL		RILEY OPP
400	1971	JUL	1	00:00.0	37.01	-116.2	0	4.70MLWCFS		RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
401	1971	JUL	8	00:00.0	37.11	-116.05	0	5.50MBRIL	5.50MBRIL	RILEY OPP
402	1971	JUL	9	00:00.0	37	-116.1	0	3.40MBRIL		RILEY OPP
403	1971	JUL	21	33:00.0	0	0	0	4.70MLWCFS		RILEY OPP
404	1971	AUG	18	00:00.0	37.06	-116.04	0	5.40MBRIL	5.30MBRIL	RILEY OPP
405	1971	SEP	22	00:00.0	37.1	-116	0	3.60MBRIL		RILEY OPP
406	1971	SEP	29	00:00.0	37.01	-116.01	0	4.40MBRIL	4.10MBRIL	RILEY OPP
407	1971	OCT	8	30:00.0	37.11	-116.04	0	4.70MBRIL	4.55MBRIL	RILEY OPP
408	1971	OCT	14	30:00.0	37.2	-116.1	0	4.40MBRIL	4.15MBRIL	RILEY OPP
409	1971	NOV	24	15:00.0	36.88	-115.93	0	3.80MBRIL		RILEY OPP
410	1971	NOV	30	45:00.0	37.1	-116.1	0	4.70MBRIL	4.44MBRIL	RILEY OPP
411	1971	DEC	14	09:59.0	37.12	-116.09	0	4.70MBRIL	4.50MBRIL	RILEY OPP
412	1972	FEB	3	45:00.0	37	-115.8	0	4.10MBRIL		RILEY OPP
413	1972	FEB	17	02:00.0	37.1	-116	0	4.60MBRIL	4.25MBRIL	RILEY OPP
414	1972	MAR	30	00:00.0	37	-116	0	4.60MBRIL	4.40MBRIL	RILEY OPP
415	1972	MAR	30	00:17.8	37.684	-116.96	0	4.30MLRYN	4.30MDUNRENO	MER
416	1972	APR	19	32:00.0	37.12	-116.08	0	4.60MBRIL	4.30MBRIL	RILEY OPP
417	1972	MAY	2	15:00.0	37.21	-116.21	0	5.00MBRIL	5.05MBRIL	RILEY OPP
418	1972	MAY	11	00:00.0	37.2	-116.1	0	3.60MBRIL		RILEY OPP
419	1972	MAY	17	10:00.0	37.12	-116.09	0	4.40MBRIL	4.35MBRIL	RILEY OPP
420	1972	MAY	19	00:00.0	37.06	-116	0	4.90MBRIL	4.55MBRIL	RILEY OPP
421	1972	JUN	7	20:00.0	0	0	0	3.80MBRIL		RILEY OPP
422	1972	JUN	28	30:00.0	37.1	-116.1	0	3.70MBRIL		RILEY OPP
423	1972	JUL	20	16:00.0	37.21	-116.18	0	5.00MBRIL	5.00MBRIL	RILEY OPP
424	1972	JUL	25	30:00.0	36.9	-116	0	4.00MBRIL	3.70MBRIL	RILEY OPP
425	1972	SEP	21	30:00.0	37.08	-116.04	0	5.70MBRIL	5.60MBRIL	RILEY OPP
426	1972	SEP	26	30:00.0	37.12	-116.09	0	4.40MBRIL	4.45MBRIL	RILEY OPP
427	1972	NOV	9	15:00.0	37.2	-116.3	0	3.70MBRIL		RILEY OPP
428	1972	NOV	9	15:00.0	0	0	0	3.70MBRIL		RILEY OPP
429	1972	DEC	12	30:00.0	37.081	-116.04	0	3.30MBRIL		RILEY OPP
430	1972	DEC	21	15:00.0	37.14	-116.08	0	5.00MBRIL	5.00MBRIL	RILEY OPP
431	1973	MAR	8	10:00.0	37.1	-116.03	0	5.40MBRIL	5.40MBRIL	RILEY OPP
432	1973	MAR	23	15:00.0	0	0	0	3.30MBRIL		RILEY OPP
433	1973	APR	25	25:00.0	37	-116.03	0	4.70MBRIL	4.70MBRIL	RILEY OPP
434	1973	APR	26	15:00.0	37	-116	0	4.10MBRIL	3.80MBRIL	RILEY OPP
435	1973	APR	26	15:00.0	37.12	-116.06	0	5.60MBRIL	5.50MBRIL	RILEY OPP
436	1973	MAY	17	00:00.0	39.79	-108.37	0	5.40MBRIL		RILEY OPP
437	1973	MAY	24	30:00.0	37.2	-116.1	0	4.80MBRIL	4.35MBRIL	RILEY OPP
438	1973	JUN	5	00:00.0	37.18	-116.22	0	5.10MBRIL	5.10MBRIL	RILEY OPP
439	1973	JUN	6	00:00.0	37.25	-116.35	0	6.10MBRIL	6.20MBRIL	RILEY OPP
440	1973	JUN	21	45:00.0	37.1	-116	0	5.30MBRIL	5.40MBRIL	RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
441	1973	JUN	28	15:12.0	37.15	-116.09	0	4.90MBRIL	5.00MBRIL	RILEY OPP
442	1973	JUN	28	45:00.0	37.1	-116	0	4.70MLWCFS		RILEY OPP
443	1973	OCT	2	15:00.0	37.2	-115.8	0	3.90MBRIL		RILEY OPP
444	1973	OCT	12	00:00.0	37.2	-116.2	0	4.80MBRIL	4.65MBRIL	RILEY OPP
445	1973	NOV	28	30:00.0	37.01	-116.02	0	4.40MBRIL	4.40MBRIL	RILEY OPP
446	1973	DEC	12	00:00.0	36.9	-116	0	4.50MBRIL	4.45MBRIL	RILEY OPP
447	1973	DEC	19	16:01.4	37.013	-116.03	0	3.50MDUNRENO	3.20MDRYN	MER
448	1974	FEB	27	00:00.0	37.1	-116.05	0	5.80MBRIL	5.60MBRIL	RILEY OPP
449	1974	APR	23	13:00.0	37.1	-116.1	0	3.40MLRIL		RILEY OPP
450	1974	MAY	22	15:00.0	37.1	-116.1	0	4.40MBRIL	4.30MBRIL	RILEY OPP
451	1974	MAY	23	38:30.0	37.12	-116.08	0	4.80MBRIL	4.80MBRIL	RILEY OPP
452	1974	JUN	6	40:00.0	37	-116	0	4.40MBRIL	4.30MBRIL	RILEY OPP
453	1974	JUN	19	00:00.0	37.21	-116.21	0	5.00MBRIL	4.90MBRIL	RILEY OPP
454	1974	JUL	10	00:00.0	37.08	-116.03	0	5.70MBRIL	5.70MBRIL	RILEY OPP
455	1974	JUL	18	00:00.0	37.1	-116.1	0	4.10MBRIL	3.90MBRIL	RILEY OPP
456	1974	AUG	14	00:00.0	37.02	-116.04	0	4.60MBRIL	4.45MBRIL	RILEY OPP
457	1974	AUG	30	00:00.0	37.15	-116.08	0	5.80MBRIL	5.70MBRIL	RILEY OPP
458	1974	SEP	25	00:00.0	37	-116	0	4.40MBRIL	4.20MBRIL	RILEY OPP
459	1974	SEP	26	30:00.0	0	0	0	3.30MBRIL		RILEY OPP
460	1974	SEP	26	05:00.0	37.13	-116.07	0	5.60MBRIL	5.50MBRIL	RILEY OPP
461	1974	OCT	28	00:00.0	37.2	-137.2	0	4.70MLWCFS		RILEY OPP
462	1974	DEC	16	30:00.0	36.9	-116	0	4.30MBRIL		RILEY OPP
463	1975	FEB	6	30:00.0	37.259	-115.91	0	3.50MBRIL		RILEY OPP
464	1975	FEB	6	13:00.0	37	-116	0	4.50MBRIL		RILEY OPP
465	1975	FEB	28	15:00.0	37.11	-116.06	0	5.70MBRIL	5.70MBRIL	RILEY OPP
466	1975	MAR	7	00:00.0	37.13	-116.08	0	5.50MBRIL	5.60MBRIL	RILEY OPP
467	1975	APR	5	45:00.0	37.19	-116.21	0	4.80MBRIL	5.00MBRIL	RILEY OPP
468	1975	APR	24	10:00.0	37.12	-116.09	0	4.60MBRIL	4.50MBRIL	RILEY OPP
469	1975	APR	30	00:00.0	37.11	-116.03	0	5.20MBRIL	5.10MBRIL	RILEY OPP
470	1975	MAY	14	00:00.0	37.22	-116.47	0	6.00MBRIL	6.00MBRIL	RILEY OPP
471	1975	JUN	3	20:00.0	37.34	-116.52	0	5.90MBRIL	5.80MBRIL	RILEY OPP
472	1975	JUN	3	40:00.0	37.09	-116.04	0	5.70MBRIL	5.65MBRIL	RILEY OPP
473	1975	JUN	19	00:00.0	37.35	-116.32	0	6.10MBRIL	6.05MBRIL	RILEY OPP
474	1975	JUN	26	30:00.0	37.28	-116.37	0	6.20MBRIL	6.15MBRIL	RILEY OPP
475	1975	AUG	30	12:00.0	37.28	-116.21	0	3.10MBRIL		RILEY OPP
476	1975	SEP	6	00:00.0	37.02	-116.03	0	4.60MBRIL	4.65MBRIL	RILEY OPP
477	1975	OCT	24	11:26.0	37.22	-116.18	0	4.70MBRIL	4.80MBRIL	RILEY OPP
478	1975	OCT	28	30:00.0	37.29	-116.41	0	6.40MBRIL	6.30MBRIL	RILEY OPP
479	1975	NOV	18	30:00.0	37	-116	0	4.40MBRIL	4.45MBRIL	RILEY OPP
480	1975	NOV	20	00:00.0	37.22	-116.37	0	6.00MBRIL	5.85MBRIL	RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT) hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
481	1975	NOV	26	30:00.0	37.12	-116.02	0	5.00MBRIL	4.35MBRIL	RILEY OPP
482	1975	DEC	20	00:00.0	37.13	-116.06	0	5.70MBRIL	5.70MBRIL	RILEY OPP
483	1976	JAN	3	15:00.0	37.3	-116.33	0	6.20MBRIL	6.25MBRIL	RILEY OPP
484	1976	FEB	4	20:00.0	37.07	-116.03	0	5.80MBRIL	5.65MBRIL	RILEY OPP
485	1976	FEB	4	40:00.0	37.11	-116.04	0	5.70MBRIL	5.65MBRIL	RILEY OPP
486	1976	FEB	12	45:00.0	37.27	-116.49	0	6.30MBRIL	6.20MBRIL	RILEY OPP
487	1976	FEB	14	30:00.0	37.24	-116.42	0	6.00MBRIL	5.85MBRIL	RILEY OPP
488	1976	FEB	26	50:00.0	37	-116	0	4.20MBRIL	4.25MBRIL	RILEY OPP
489	1976	MAR	9	00:00.0	37.31	-116.36	0	6.00MBRIL	6.05MBRIL	RILEY OPP
490	1976	MAR	14	30:00.0	37.31	-116.47	0	6.30MBRIL	6.40MBRIL	RILEY OPP
491	1976	MAR	17	15:00.0	37.26	-116.33	0	6.10MBRIL	6.05MBRIL	RILEY OPP
492	1976	MAR	17	45:00.0	37.11	-116.05	0	5.80MBRIL	5.90MBRIL	RILEY OPP
493	1976	MAY	12	50:00.0	37.21	-116.21	0	4.90MBRIL		RILEY OPP
494	1976	MAY	20	30:00.0	37.1	-116	0	3.70MBRIL		RILEY OPP
495	1976	JUL	27	30:00.0	37.08	-116.04	0	5.30MBRIL	5.40MBRIL	RILEY OPP
496	1976	AUG	26	30:00.0	37.13	-116.08	0	5.30MBRIL	5.30MBRIL	RILEY OPP
497	1976	OCT	6	30:00.0	0	0	0	3.70MBRIL		RILEY OPP
498	1976	NOV	23	15:00.0	37.17	-116.05	0	4.70MLWCFS		RILEY OPP
499	1976	DEC	8	49:30.0	37.08	-116	0	4.90MBRIL	4.70MBRIL	RILEY OPP
500	1976	DEC	21	09:00.0	37.12	-116.07	0	4.70MLWCFS		RILEY OPP
501	1976	DEC	28	00:00.0	37.1	-116.04	0	5.50MBRIL	5.45MBRIL	RILEY OPP
502	1977	FEB	16	53:00.0	37	-116	0	4.80MBRIL	4.35MBRIL	RILEY OPP
503	1977	MAR	8	24:00.0	37.2	-116.3	0	3.80MBRIL		RILEY OPP
504	1977	APR	5	00:00.0	37.12	-116.06	0	5.60MBRIL	5.65MBRIL	RILEY OPP
505	1977	APR	27	00:00.0	37.09	-116.03	0	5.40MBRIL	5.30MBRIL	RILEY OPP
506	1977	MAY	25	00:00.0	37.09	-116.04	0	5.30MBRIL	5.25MBRIL	RILEY OPP
507	1977	JUL	28	07:00.0	37.1	-115.9	0	3.70MBRIL		RILEY OPP
508	1977	AUG	4	40:00.0	37.09	-116.01	0	5.00MBRIL	5.05MBRIL	RILEY OPP
509	1977	AUG	16	41:00.0	37.2	-115.9	0	3.70MBRIL		RILEY OPP
510	1977	AUG	16	49:00.0	37.2	-116	0	4.00MBRIL		RILEY OPP
511	1977	AUG	19	32:00.0	37	-116	0	3.30MBRIL		RILEY OPP
512	1977	AUG	19	55:00.0	37.11	-116.05	0	5.60MBRIL	5.60MBRIL	RILEY OPP
513	1977	SEP	15	36:30.0	37.03	-116.04	0	4.50MBRIL	4.50MBRIL	RILEY OPP
514	1977	SEP	27	00:00.0	37.15	-116.07	0	4.80MBRIL	4.80MBRIL	RILEY OPP
515	1977	OCT	26	15:00.0	37.01	-116.02	0	4.40MBRIL	4.35MBRIL	RILEY OPP
516	1977	NOV	1	06:00.0	37.19	-116.21	0	4.70MBRIL		RILEY OPP
517	1977	NOV	9	00:00.0	37.07	-116.05	0	5.70MBRIL	5.70MBRIL	RILEY OPP
518	1977	NOV	17	30:00.0	37.02	-116.03	0	4.70MBRIL	4.70MBRIL	RILEY OPP
519	1977	DEC	14	00:00.0	37	-116.1	0	3.80MBRIL		RILEY OPP
520	1977	DEC	14	30:00.0	37.14	-116.09	0	5.70MBRIL	5.65MBRIL	RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
521	1978	FEB	13	53:00.0	37.13	-116.03	0	3.80MBRIL	3.95MBRIL	RILEY OPP
522	1978	FEB	23	00:00.0	37.12	-116.06	0	5.60MBRIL	5.65MBRIL	RILEY OPP
523	1978	MAR	16	00:00.0	37.1	-116.1	0	3.90MBRIL	4.05MBRIL	RILEY OPP
524	1978	MAR	23	30:00.0	37.1	-116.05	0	5.60MBRIL	5.60MBRIL	RILEY OPP
525	1978	APR	11	30:00.0	37.3	-116.33	0	5.30MBRIL	5.40MBRIL	RILEY OPP
526	1978	APR	11	45:00.0	37.23	-116.37	0	5.50MBRIL	5.50MBRIL	RILEY OPP
527	1978	JUN	1	00:00.0	37	-116	0	3.70MBRIL		RILEY OPP
528	1978	JUL	7	00:00.0	37.1	-116	0	4.00MBRIL	4.00MBRIL	RILEY OPP
529	1978	JUL	12	00:00.0	37.08	-116.04	0	5.50MBRIL	5.60MBRIL	RILEY OPP
530	1978	AUG	31	00:00.0	37.28	-116.36	0	5.60MBRIL	5.60MBRIL	RILEY OPP
531	1978	SEP	13	15:00.0	37.21	-116.21	0	4.60MBRIL	4.65MBRIL	RILEY OPP
532	1978	SEP	27	30:00.0	38.825	-115.98	0	3.40MBRIL		RILEY OPP
533	1978	SEP	27	00:00.0	37.07	-116.02	0	5.00MBRIL	5.05MBRIL	RILEY OPP
534	1978	SEP	27	20:00.0	37.08	-116.05	0	5.70MBRIL	5.80MBRIL	RILEY OPP
535	1978	NOV	2	25:00.0	37.29	-116.3	0	4.20MBRIL	4.25MBRIL	RILEY OPP
536	1978	NOV	18	00:00.0	37.13	-116.08	0	5.10MBRIL	5.20MBRIL	RILEY OPP
537	1978	DEC	1	07:30.0	37	-116	0	3.70MBRIL		RILEY OPP
538	1978	DEC	16	30:00.0	37.27	-116.41	0	5.50MBRIL	5.55MBRIL	RILEY OPP
539	1979	JAN	24	00:00.0	37.11	-116.01	0	4.50MBRIL	4.50MBRIL	RILEY OPP
540	1979	FEB	8	00:00.0	37.1	-116.05	0	5.50MBRIL	5.55MBRIL	RILEY OPP
541	1979	FEB	15	05:00.0	37.15	-116.07	0	4.80MBRIL	4.90MBRIL	RILEY OPP
542	1979	MAR	14	30:00.0	37.03	-116.04	0	4.30MBRIL	4.50MBRIL	RILEY OPP
543	1979	MAY	11	00:00.0	37	-116	0	4.40MBRIL		RILEY OPP
544	1979	JUN	11	00:00.0	37.29	-116.46	0	5.50MBRIL	5.50MBRIL	RILEY OPP
545	1979	JUN	20	00:14.0	37.11	-116.02	0	4.00MBRIL	4.15MBRIL	RILEY OPP
546	1979	JUN	28	44:00.0	37.14	-116.09	0	5.00MBRIL	5.05MBRIL	RILEY OPP
547	1979	AUG	3	07:30.0	37.08	-116.07	0	4.50MBRIL	4.55MBRIL	RILEY OPP
548	1979	AUG	8	00:00.0	37.01	-116.01	0	4.80MBRIL	4.75MBRIL	RILEY OPP
549	1979	AUG	29	08:00.0	37.12	-116.07	0	4.70MBRIL	4.90MBRIL	RILEY OPP
550	1979	SEP	6	00:00.0	37.09	-116.05	0	5.80MBRIL	5.80MBRIL	RILEY OPP
551	1979	SEP	8	02:00.0	37.16	-116.04	0	3.50MBRIL		RILEY OPP
552	1979	SEP	26	00:00.0	37.23	-116.36	0	5.60MBRIL	5.60MBRIL	RILEY OPP
553	1979	NOV	29	00:00.0	36.99	-116.02	0	3.80MBRIL	3.95MBRIL	RILEY OPP
554	1979	DEC	14	00:00.0	37.14	-116.06	0	3.70MBRIL		RILEY OPP
555	1980	FEB	28	00:00.0	37.13	-116.09	0	4.40MBRIL		RILEY OPP
556	1980	MAR	8	35:00.0	37.18	-116.08	0	3.90MBRIL		RILEY OPP
557	1980	APR	3	00:00.0	37.15	-116.08	0	4.70MBRIL		RILEY OPP
558	1980	APR	16	00:00.0	37.1	-116.03	0	5.30MBRIL		RILEY OPP
559	1980	APR	26	00:00.0	37.25	-116.42	0	5.40MBRIL		RILEY OPP
560	1980	MAY	2	46:30.0	37.06	-116.02	0	4.40MBRIL		RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
561	1980	MAY	22	00:00.0	37	-116.03	0	3.50MBRIL		RILEY OPP
562	1980	JUN	12	15:00.0	37.28	-116.45	0	5.60MBRIL		RILEY OPP
563	1980	JUN	24	10:00.0	37.02	-116.03	0	4.40MBRIL		RILEY OPP
564	1980	JUL	25	05:00.0	37.26	-116.48	0	5.50MBRIL		RILEY OPP
565	1980	JUL	31	19:00.0	37.01	-116.02	0	4.30MBRIL		RILEY OPP
566	1980	SEP	25	45:00.0	37.06	-116.05	0	4.60MBRIL		RILEY OPP
567	1980	SEP	25	26:30.0	37.12	-116.06	0	3.40MBRIL		RILEY OPP
568	1980	OCT	24	15:00.0	37.07	-116	0	4.40MBRIL		RILEY OPP
569	1980	OCT	31	00:00.0	37.24	-116.21	0	4.70MBRIL		RILEY OPP
570	1980	NOV	14	50:00.0	37.11	-116.02	0	4.10MBRIL		RILEY OPP
571	1980	DEC	17	10:00.0	37.32	-116.32	0	5.10MBRIL		RILEY OPP
572	1981	JAN	15	25:00.0	37.09	-116.04	0	5.60MBRIL		RILEY OPP
573	1981	FEB	5	00:00.0	37.01	-116.03	0	3.20MLRIL		RILEY OPP
574	1981	FEB	25	00:00.0	37.18	-116.08	0	3.00MLRIL		RILEY OPP
575	1981	APR	30	35:00.0	37.18	-116.08	0	3.20MBRIL		RILEY OPP
576	1981	MAY	29	00:00.0	37.1	-116	0	4.20MBRIL	4.30MBRIL	RILEY OPP
577	1981	JUN	6	00:00.0	37.303	-116.33	0	5.60MBISC		LLNL
578	1981	JUN	6	00:00.0	37.3	-116.33	0	5.50MBRIL	5.50MBRIL	RILEY OPP
579	1981	JUL	10	00:00.0	37.13	-116.03	0	4.10MBRIL		RILEY OPP
580	1981	JUL	16	00:00.0	37.09	-116.02	0	3.30MLRIL		RILEY OPP
581	1981	AUG	5	41:00.0	37.15	-116.04	0	2.80MLRIL		RILEY OPP
582	1981	AUG	27	31:00.0	37.16	-116.07	0	3.80MBRIL		RILEY OPP
583	1981	SEP	4	00:00.0	37.06	-116.05	0	3.80MBRIL		RILEY OPP
584	1981	SEP	24	00:00.0	37.01	-116.02	0	3.50MLRIL		RILEY OPP
585	1981	OCT	1	00:00.0	37.08	-116.01	0	4.90MBRIL	5.00MBRIL	RILEY OPP
586	1981	NOV	11	00:00.0	37.08	-116.07	0	4.80MBRIL	4.80MBRIL	RILEY OPP
587	1981	NOV	12	00:00.0	37.11	-116.05	0	5.30MBRIL	5.35MBRIL	RILEY OPP
588	1981	DEC	3	00:00.0	37.15	-116.07	0	4.60MBRIL	4.75MBRIL	RILEY OPP
589	1981	DEC	16	05:00.0	37.11	-116.12	0	4.40MBRIL	4.35MBRIL	RILEY OPP
590	1982	JAN	28	00:00.0	37.09	-116.05	0	5.90MBRIL	5.90MBRIL	RILEY OPP
591	1982	FEB	12	55:00.0	37.22	-116.46	0	5.40MBRIL	5.50MBRIL	RILEY OPP
592	1982	FEB	12	25:00.0	37.35	-116.32	0	5.60MBRIL	5.60MBRIL	RILEY OPP
593	1982	APR	17	00:00.0	37.02	-116.01	0	4.50MBRIL	4.50MBRIL	RILEY OPP
594	1982	APR	25	05:00.0	37.26	-116.42	0	5.40MBRIL	5.45MBRIL	RILEY OPP
595	1982	MAY	6	00:00.0	37.12	-116.13	0	4.30MBRIL	4.10MBRIL	RILEY OPP
596	1982	MAY	7	17:00.0	37.07	-116.05	0	5.70MBRIL	5.70MBRIL	RILEY OPP
597	1982	JUN	16	00:00.0	37.11	-116.02	0	3.90MBRIL		RILEY OPP
598	1982	JUN	24	15:00.0	37.24	-116.37	0	5.60MBRIL	5.70MBRIL	RILEY OPP
599	1982	JUL	29	05:00.0	37.1	-116.07	0	4.50MBRIL	4.45MBRIL	RILEY OPP
600	1982	AUG	5	00:00.0	37.08	-116.01	0	5.70MBRIL	5.70MBRIL	RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
601	1982	AUG	11	00:00.0	37.19	-116.05	0	3.30MLRIL		RILEY OPP
602	1982	SEP	2	00:00.0	37.02	-116.02	0	3.30MLRIL		RILEY OPP
603	1982	SEP	23	00:00.0	37.21	-116.21	0	4.90MBRIL	5.00MBRIL	RILEY OPP
604	1982	SEP	23	00:00.0	37.17	-116.09	0	4.90MBRIL	4.95MBRIL	RILEY OPP
605	1982	SEP	29	30:00.0	37.09	-116.04	0	3.80MBRIL		RILEY OPP
606	1982	NOV	12	17:00.0	37.02	-116.03	0	4.40MBRIL	4.50MBRIL	RILEY OPP
607	1982	DEC	10	20:00.0	37.03	-116.07	0	4.60MBRIL	4.70MBRIL	RILEY OPP
608	1983	FEB	11	00:00.0	37.05	-116.05	0	3.70MBRIL	4.20MLUCB	RILEY OPP
609	1983	FEB	17	00:00.0	37.16	-116.06	0	4.00MBRIL	3.90MBRIL	RILEY OPP
610	1983	MAR	26	20:00.0	37.3	-116.46	0	5.10MBRIL	5.25MBRIL	RILEY OPP
611	1983	APR	14	05:00.0	37.07	-116.05	0	5.70MBRIL	5.70MBRIL	RILEY OPP
612	1983	APR	22	53:00.0	37.11	-116.02	0	4.00MBRIL	4.00MBRIL	RILEY OPP
613	1983	MAY	5	20:00.0	37.01	-116.09	0	4.50MBRIL	4.55MBRIL	RILEY OPP
614	1983	MAY	26	30:00.0	0	0	0	4.70MLWCFS		RILEY OPP
615	1983	MAY	26	00:00.0	37.1	-116.01	0	4.40MBRIL	4.65MBRIL	RILEY OPP
616	1983	JUN	9	10:00.0	37.16	-116.09	0	4.50MBRIL	4.50MBRIL	RILEY OPP
617	1983	AUG	3	33:00.0	37.12	-116.09	0	4.20MBRIL	4.20MBRIL	RILEY OPP
618	1983	AUG	11	00:00.0	37	-116	0	4.40MBRIL	4.40MBRIL	RILEY OPP
619	1983	AUG	27	00:00.0	37.2	-116	0	4.10MBRIL		RILEY OPP
620	1983	SEP	1	00:00.0	37.27	-116.36	0	5.40MBRIL	5.45MBRIL	RILEY OPP
621	1983	SEP	21	00:00.0	37.21	-116.21	0	3.70MBRIL		RILEY OPP
622	1983	SEP	21	25:00.0	37.1	-116	0	3.70MBRIL		RILEY OPP
623	1983	SEP	22	00:00.0	37.11	-116.05	0	4.00MBRIL		RILEY OPP
624	1983	DEC	9	00:00.0	37	-116	0	4.00MBRIL		RILEY OPP
625	1983	DEC	16	30:00.0	37.14	-116.07	0	5.10MBRIL	5.10MBRIL	RILEY OPP
626	1984	JAN	31	30:00.0	37.11	-116.12	0	4.10MBRIL	4.40MBRIL	RILEY OPP
627	1984	FEB	15	00:00.0	37.22	-116.18	0	5.00MBRIL	5.05MBRIL	RILEY OPP
628	1984	MAR	1	45:00.0	37.07	-116.05	0	5.90MBRIL	5.85MBRIL	RILEY OPP
629	1984	MAR	31	30:00.0	37.15	-116.08	0	4.10MBRIL	4.35MBRIL	RILEY OPP
630	1984	MAY	1	05:00.0	37.11	-116.02	0	5.30MBRIL	5.40MBRIL	RILEY OPP
631	1984	MAY	2	50:00.0	37.2	-116	0	3.40MBRIL		RILEY OPP
632	1984	MAY	16	00:00.0	37.1	-116	0	3.80MBRIL		RILEY OPP
633	1984	MAY	31	04:00.0	37.1	-116.05	0	5.80MBRIL	5.75MBRIL	RILEY OPP
634	1984	JUN	20	15:00.0	37	-116.04	0	4.60MBRIL	4.75MBRIL	RILEY OPP
635	1984	JUL	12	00:00.0	37.2	-116.1	0	3.60MBRIL		RILEY OPP
636	1984	JUL	25	30:00.0	37.27	-116.41	0	5.30MBRIL	5.40MBRIL	RILEY OPP
637	1984	AUG	2	00:00.0	37.02	-116.01	0	4.70MBRIL	4.65MBRIL	RILEY OPP
638	1984	AUG	30	45:00.0	37.09	-115.99	0	4.50MBRIL	4.65MBRIL	RILEY OPP
639	1984	SEP	13	00:00.0	37.09	-116.07	0	5.00MBRIL	5.10MBRIL	RILEY OPP
640	1984	OCT	2	14:00.0	37.1	-116	0	4.20MBRIL		RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
641	1984	NOV	10	40:00.0	37	-116.02	0	4.50MBRIL	4.50MBRIL	RILEY OPP
642	1984	DEC	9	40:00.0	37.27	-116.49	0	5.50MBRIL	5.50MBRIL	RILEY OPP
643	1984	DEC	15	45:00.0	37.28	-116.31	0	5.40MBRIL	5.45MBRIL	RILEY OPP
644	1984	DEC	20	20:00.0	37	-116	0	4.20MBRIL		RILEY OPP
645	1985	MAR	15	31:00.0	37.06	-116.05	0	4.80MBRIL	4.80MBRIL	RILEY OPP
646	1985	MAR	23	30:00.0	37.18	-116.09	0	5.30MBRIL	5.35MBRIL	RILEY OPP
647	1985	APR	2	00:00.0	37.1	-116.03	0	5.70MBRIL	5.75MBRIL	RILEY OPP
648	1985	APR	6	15:00.0	37.2	-116.21	0	4.80MBRIL	4.90MBRIL	RILEY OPP
649	1985	MAY	2	20:00.0	37.25	-116.33	0	5.70MBRIL	5.65MBRIL	RILEY OPP
650	1985	JUN	12	15:00.0	37.25	-116.49	0	5.50MBRIL	5.50MBRIL	RILEY OPP
651	1985	JUN	12	30:00.0	37.01	-116.08	0	4.40MBRIL	4.30MBRIL	RILEY OPP
652	1985	JUN	26	03:00.0	37.12	-116.12	0	4.30MBRIL	4.10MBRIL	RILEY OPP
653	1985	JUL	25	00:00.0	37.3	-116.44	0	5.20MBRIL	5.25MBRIL	RILEY OPP
654	1985	AUG	14	00:00.0	0	0	0	4.70MLWCFS		RILEY OPP
655	1985	AUG	17	25:00.0	37	-116.04	0	4.60MBRIL	4.50MBRIL	RILEY OPP
656	1985	SEP	27	15:00.0	37.09	-116	0	4.60MBRIL	4.65MBRIL	RILEY OPP
657	1985	OCT	9	40:00.0	0	0	0	4.70MLWCFS		RILEY OPP
658	1985	OCT	9	20:00.0	37.21	-116.21	0	4.20MBRIL	4.30MBRIL	RILEY OPP
659	1985	OCT	16	35:00.0	37.11	-116.12	0	4.60MBRIL	4.60MBRIL	RILEY OPP
660	1985	DEC	5	00:00.0	37.05	-116.05	0	5.70MBRIL	5.65MBRIL	RILEY OPP
661	1985	DEC	28	01:00.0	37.24	-116.47	0	5.30MBRIL	5.35MBRIL	RILEY OPP
662	1986	MAR	22	15:00.0	37.08	-116.07	0	5.10MBRIL	5.25MBRIL	RILEY OPP
663	1986	APR	10	08:30.0	37.22	-116.18	0	4.90MBRIL	5.00MBRIL	RILEY OPP
664	1986	APR	20	12:30.0	37	-116	0	4.00MBRIL		RILEY OPP
665	1986	APR	22	30:00.0	37.26	-116.44	0	5.30MBRIL	5.35MBRIL	RILEY OPP
666	1986	MAY	21	59:00.0	37.13	-116.06	0	4.00MBRIL		RILEY OPP
667	1986	JUN	5	04:00.0	37.1	-116.02	0	5.30MBRIL	5.35MBRIL	RILEY OPP
668	1986	JUN	25	27:45.0	37.27	-116.5	0	5.50MBRIL		RILEY OPP
669	1986	JUL	17	00:00.0	37.28	-116.36	0	5.70MBRIL	5.70MBRIL	RILEY OPP
670	1986	JUL	24	05:00.0	37.14	-116.07	0	4.40MBRIL	4.45MBRIL	RILEY OPP
671	1986	SEP	4	09:00.0	37.2	-116.4	0	3.50MLRIL		RILEY OPP
672	1986	SEP	11	57:00.0	37.07	-116.05	0	3.20MLRIL		RILEY OPP
673	1986	SEP	30	30:00.0	37.3	-116.31	0	5.50MBRIL	5.50MBRIL	RILEY OPP
674	1986	OCT	16	25:00.0	37.22	-116.46	0	5.60MBRIL	5.60MBRIL	RILEY OPP
675	1986	NOV	14	00:00.0	37.1	-116.05	0	5.80MBRIL	5.75MBRIL	RILEY OPP
676	1986	DEC	13	50:05.0	37.26	-116.41	0	5.50MBRIL	5.55MBRIL	RILEY OPP
677	1987	FEB	3	20:00.0	37.18	-116.05	0	2.20MLRIL		RILEY OPP
678	1987	FEB	11	45:00.0	37.01	-116.05	0	4.50MBRIL	4.40MBRIL	RILEY OPP
679	1987	MAR	18	28:00.0	37.21	-116.21	0	4.30MBRIL		RILEY OPP
680	1987	APR	18	40:01.0	37.25	-116.51	0	5.50MBRIL		RILEY OPP

TABLE G-7

ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
681	1987	APR	22	00:00.0	36.983	-116.01	0	4.20MLUCB		UC BERK
682	1987	APR	22	00:00.0	36.98	-116.01	0	4.20MBRIL		RILEY OPP
683	1987	APR	30	30:00.0	37.23	-116.42	0	5.50MBRIL		RILEY OPP
684	1987	JUN	18	20:00.0	37.19	-116.04	0	4.70MLWCFS		RILEY OPP
685	1987	JUN	20	00:00.0	37.22	-116.18	0	3.50MLRIL		RILEY OPP
686	1987	JUN	30	05:00.0	36.99	-116.04	0	4.60MBRIL		RILEY OPP
687	1987	JUL	16	00:00.0	37.1	-116.02	0	4.80MBRIL		RILEY OPP
688	1987	AUG	13	00:00.0	37.06	-116.05	0	5.90MBRIL		RILEY OPP
689	1987	SEP	24	00:00.0	37.23	-116.38	0	5.70MBRIL		RILEY OPP
690	1987	OCT	23	00:00.0	37.14	-116.08	0	5.20MBRIL		RILEY OPP
691	1987	DEC	1	30:00.0	37	-116	0	4.70MLWCFS		RILEY OPP
692	1987	DEC	2	30:00.0	37.24	-116.16	0	4.10MBRIL		RILEY OPP
693	1988	FEB	15	10:00.0	37.31	-116.47	0	5.30MBRIL		RILEY OPP
694	1988	APR	7	15:00.0	37.01	-116.04	0	4.10MBRIL		RILEY OPP
695	1988	MAY	13	35:00.0	37.12	-116.07	0	4.80MBRIL		RILEY OPP
696	1988	MAY	21	30:00.0	37.03	-115.99	0	4.30MBRIL		RILEY OPP
697	1988	JUN	2	00:00.0	37.26	-116.44	0	5.30MBRIL		RILEY OPP
698	1988	JUN	22	00:00.0	37.17	-116.07	0	3.10MLRIL		RILEY OPP
699	1988	JUL	7	05:30.0	37.25	-116.38	0	5.60MBRIL		RILEY OPP
700	1988	AUG	17	00:00.0	37.3	-116.31	0	5.50MBRIL		RILEY OPP
701	1988	AUG	23	30:00.0	36.99	-116.01	0	4.10MBRIL		RILEY OPP
702	1988	AUG	30	00:00.0	37.09	-116.07	0	5.00MBRIL		RILEY OPP
703	1988	OCT	13	00:00.0	37.09	-116.05	0	5.90MBRIL		RILEY OPP
704	1988	NOV	9	15:00.0	36.98	-116.01	0	3.60MLRIL		RILEY OPP
705	1988	DEC	10	30:00.0	37.2	-116.21	0	5.00MBRIL		RILEY OPP
706	1989	FEB	10	06:00.0	37.08	-116	0	5.20MBRIL		RILEY OPP
707	1989	FEB	24	15:00.0	37.13	-116.12	0	4.40MBRIL		RILEY OPP
708	1989	MAR	9	05:00.0	37.14	-116.07	0	4.90MBRIL		RILEY OPP
709	1989	MAY	15	10:00.0	37.11	-116.12	0	4.40MBRIL	4.70MBRIL	RILEY OPP
710	1989	MAY	26	07:00.0	37.09	-116.06	0	3.70MLRIL	3.9	RILEY OPP
711	1989	JUN	22	15:00.0	37.28	-116.41	0	5.30MBRIL	5.60MBRIL	RILEY OPP
712	1989	JUN	27	30:00.0	37.28	-116.35	0	4.90MBRIL		RILEY OPP
713	1989	SEP	14	00:00.0	37.236	-116.16	0	4.40MLUCB		UC BERK
714	1989	SEP	14	00:00.0	37.24	-116.16	0	3.80MBRIL		RILEY OPP
715	1989	OCT	31	30:00.0	37.263	-116.49	0	5.40MLUCB		UC BERKRK
716	1989	OCT	31	30:00.0	37.26	-116.49	0	5.70MBRIL	5.70MBRIL	RILEY OPP
717	1989	NOV	15	20:00.0	37.11	-116.01	0	3.40MLRIL	3.50MBRIL	RILEY OPP
718	1989	DEC	8	00:00.0	37.23	-116.41	0	5.50MBRIL		RILEY OPP
719	1989	DEC	20	00:00.0	37.03	-116.03	0	4.70MLWCFS		RILEY OPP
720	1990	MAR	10	00:00.0	37.11	-116.06	0	5.00MBRIL	5.00MBRIL	RILEY OPP

TABLE G-7
ANNOUNCED UNITED STATES NUCLEAR TESTS AT THE NEVADA TEST SITE

Cat. No.	Year	Mo.	Day	Time (GMT hr:min.sec	Latitude	Longitude	Depth (km)	Magnitude 1	Magnitude 2	Agency Source
721	1990	APR	6	00:00.0	37	-116.05	0	3.10MBRIL		RILEY OPP
722	1990	JUN	13	00:00.0	37.26	-116.42	0	5.70MBRIL	5.80MBRIL	RILEY OPP
723	1990	JUN	21	15:00.0	36.99	-116	0	4.00MBRIL	4.50MBRIL	RILEY OPP
724	1990	JUL	25	00:00.0	37.21	-116.21	0	4.80MBRIL		RILEY OPP
725	1990	SEP	20	15:00.0	0	0	0	4.70MLWCFS		RILEY OPP
726	1990	SEP	27	02:00.0	37.004	-116.05	0	2.27MwMVGSDR		RILEY OPP
727	1990	OCT	12	30:00.0	37.25	-116.49	0	5.60MBRIL	5.70MBRIL	RILEY OPP
728	1990	NOV	14	17:00.0	37.23	-116.37	0	5.40MBRIL	5.40MBRIL	RILEY OPP
729	1991	MAR	8	02:00.0	37.1	-116.07	0	4.30MBRIL		RILEY OPP
730	1991	APR	4	00:00.0	37.3	-116.31	0	5.60MBRIL		RILEY OPP
731	1991	APR	16	30:00.0	37.24	-116.44	0	5.40MBRIL		RILEY OPP
732	1991	AUG	15	00:00.0	37.09	-116	0	4.20MBRIL		RILEY OPP
733	1991	SEP	14	00:00.0	37.23	-116.43	0	5.50MBRIL		RILEY OPP
734	1991	SEP	19	30:00.0	37.24	-116.17	0	4.00MBRIL		RILEY OPP
735	1991	OCT	18	12:00.0	37.06	-116.04	0	5.20MBRIL		RILEY OPP
736	1991	NOV	26	35:00.0	37.1	-116.07	0	4.60MBRIL		RILEY OPP
737	1992	MAR	26	30:00.0	37.27	-116.36	0	5.50MBRIL		RILEY OPP
738	1992	APR	30	30:00.0	37.2	-116.2	0	4.70MLWCFS		RILEY OPP
739	1992	JUN	19	45:00.0	37	-116.01	0	3.00MBRIL		RILEY OPP
740	1992	JUN	23	00:00.0	37.12	-116.03	0	3.90MBRIL		RILEY OPP
741	1992	SEP	18	00:00.0	37.2	-116.2	0	4.20MBRIL		RILEY OPP
742	1992	SEP	23	04:00.0	37	-116	0	4.40MBRIL		RILEY OPP
743	1993	SEP	22	01:00.0	37.2	-116.1	0	4.30MBRIL		RILEY OPP

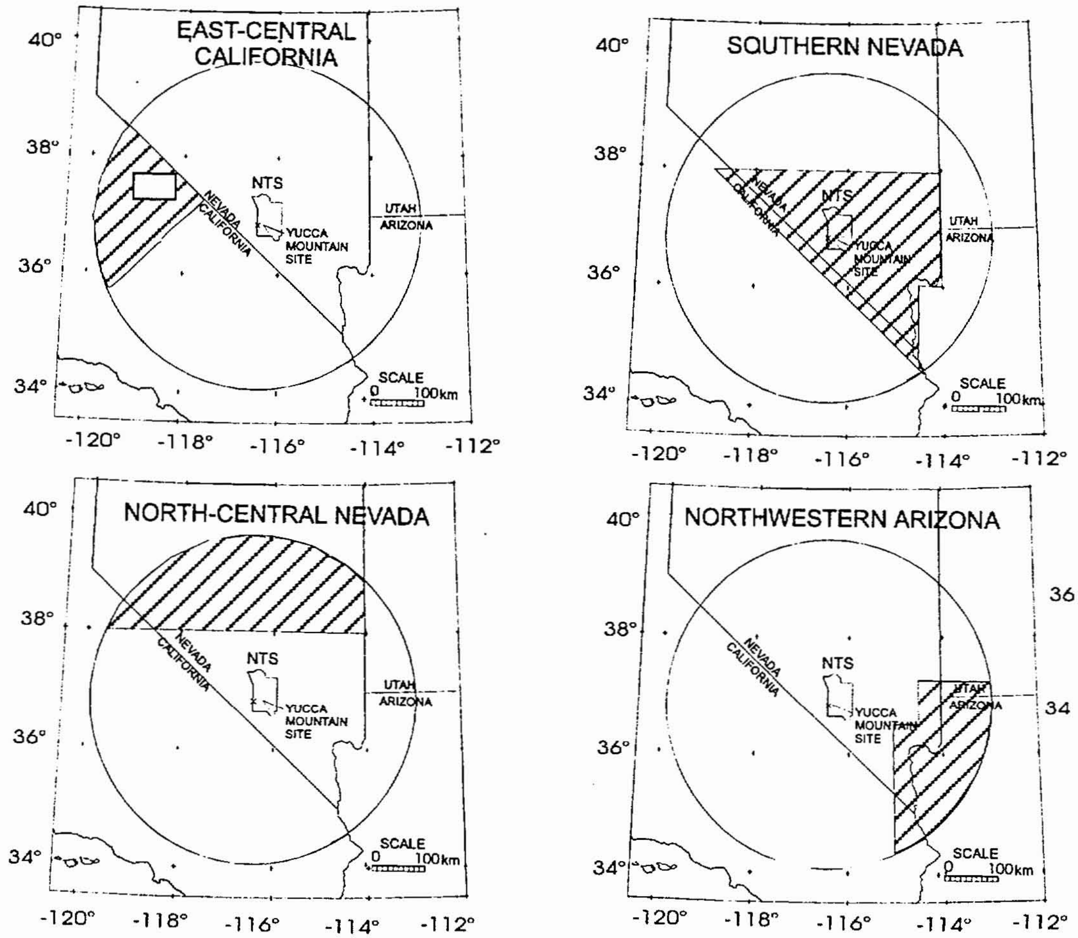


Figure G-1 Subregions that comprise the 300-km radius Yucca Mountain catalogue

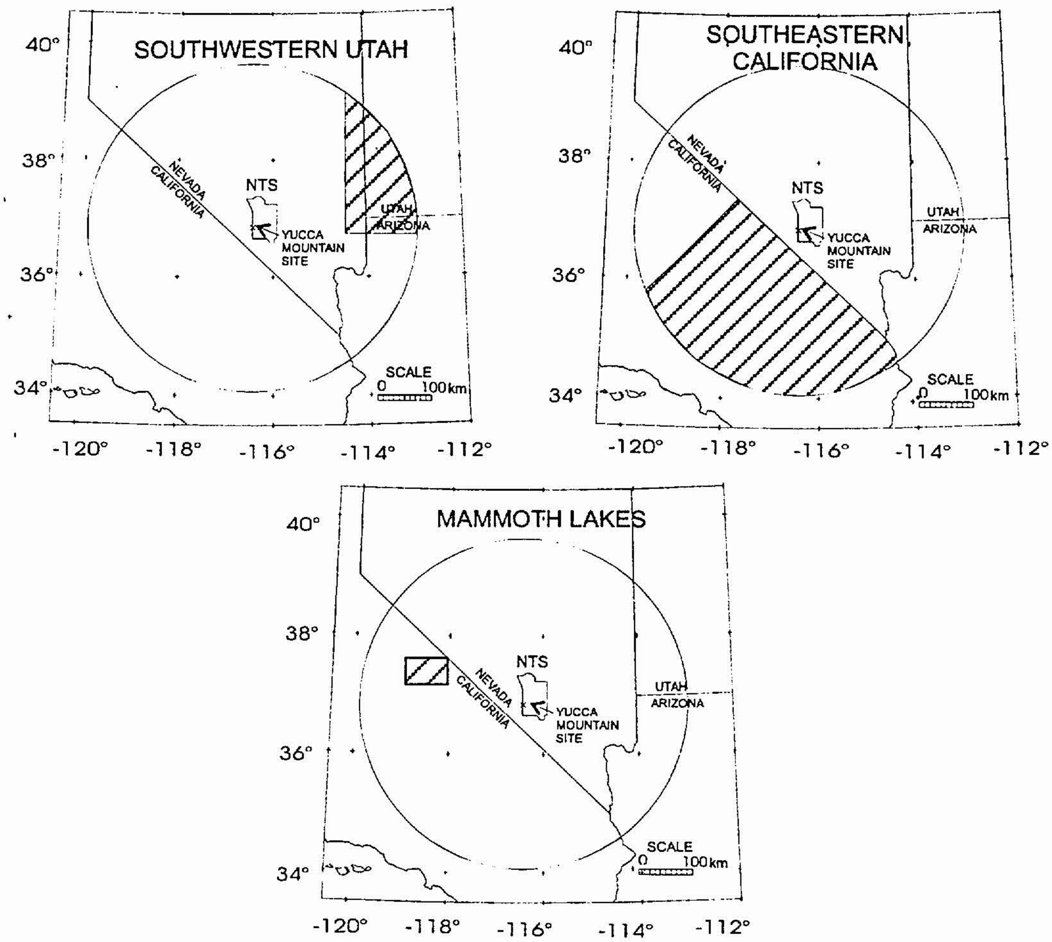
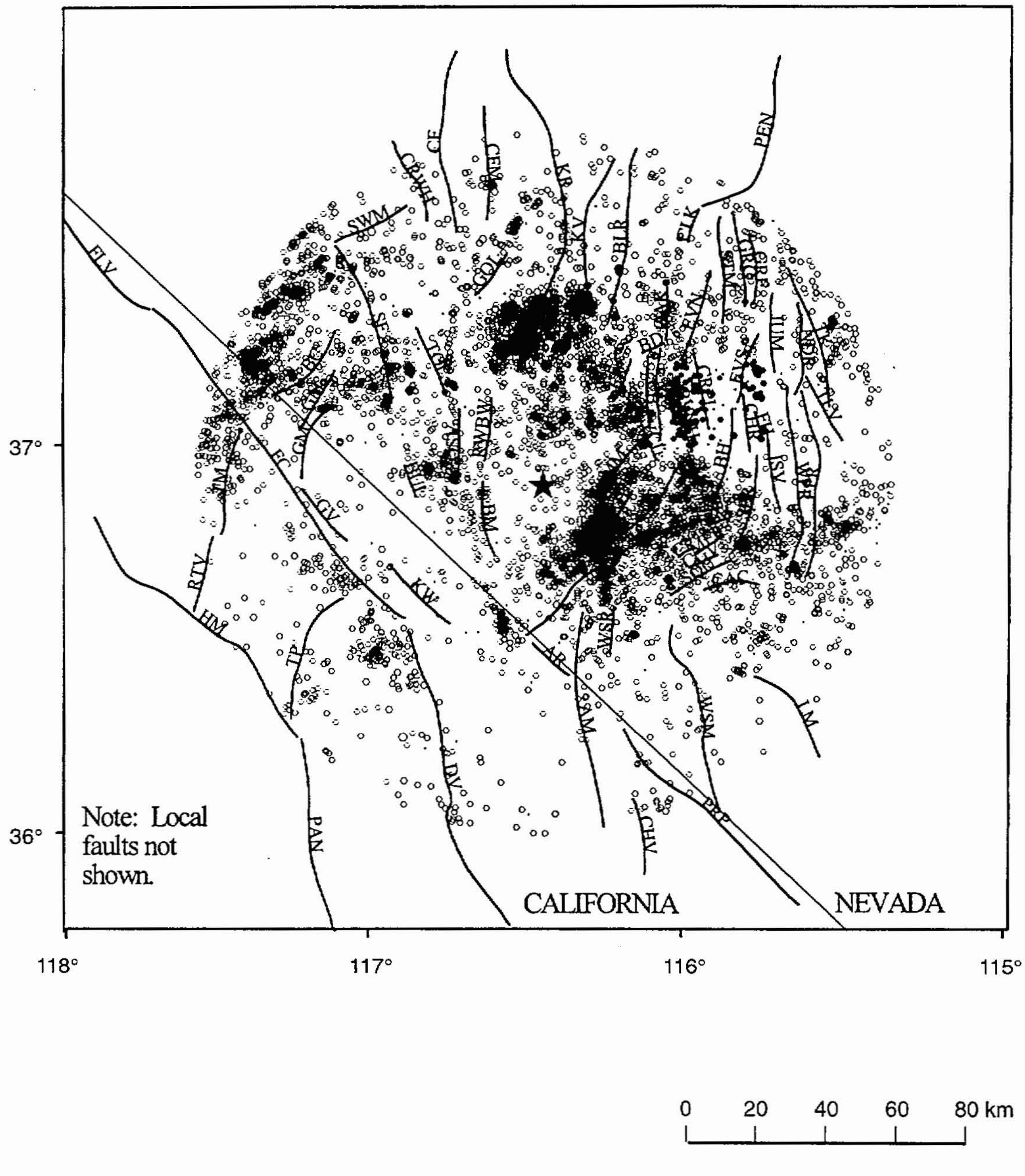


Figure G-1(continued) Subregions that comprise the 300-km radius Yucca Mountain catalogue



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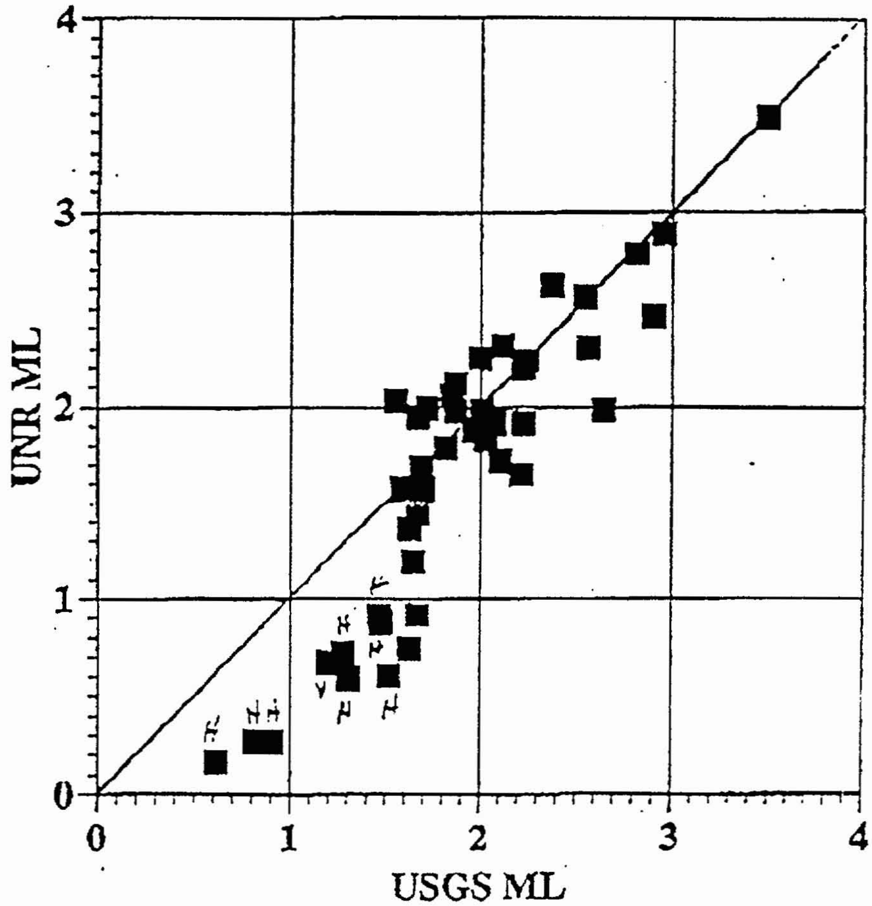


Figure G-3 M_L (UNR CUSP) vs. M_L (USGSDR) for the Southern Great Basin for common events in September 1992. From von Seggern (UNR, written communication, 1996).

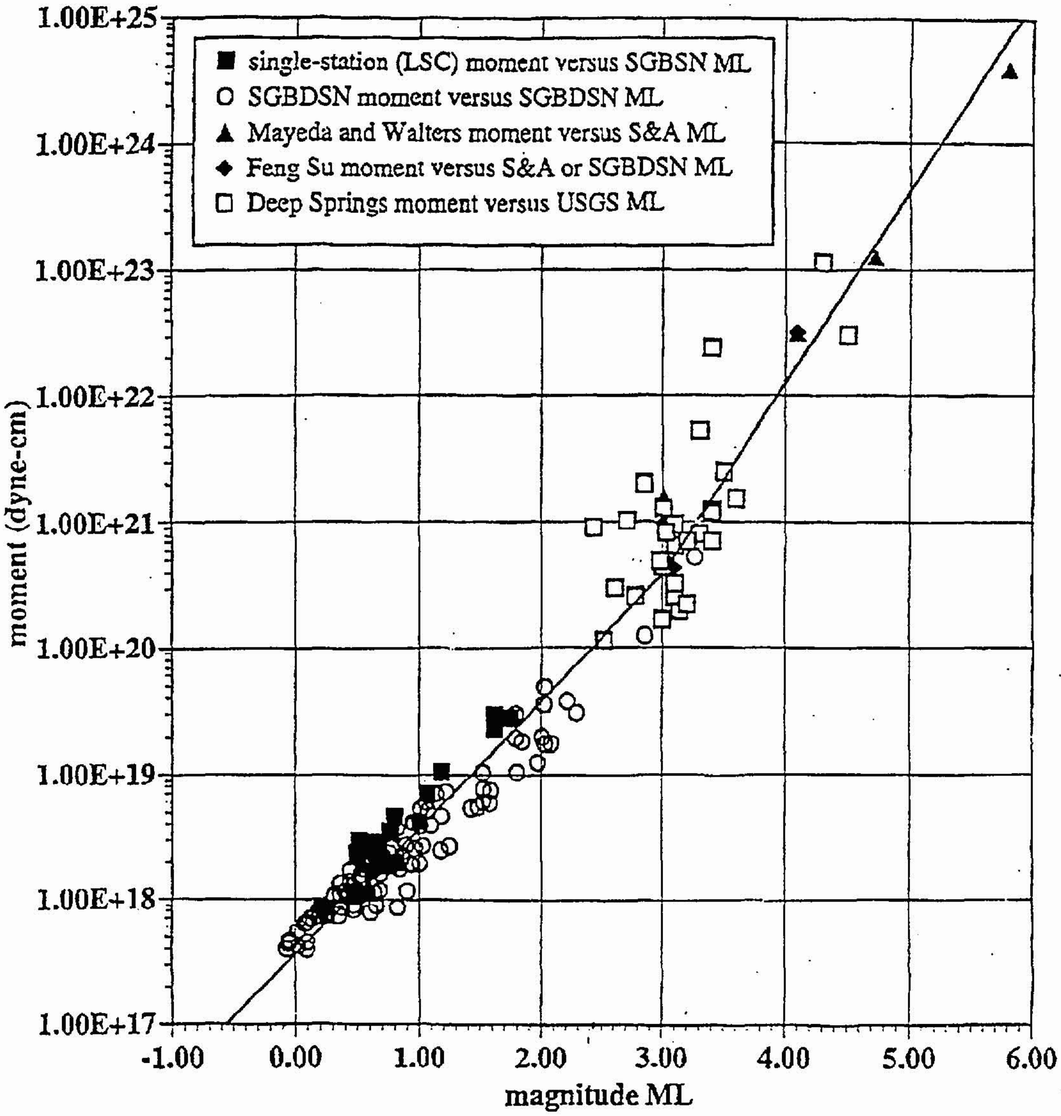
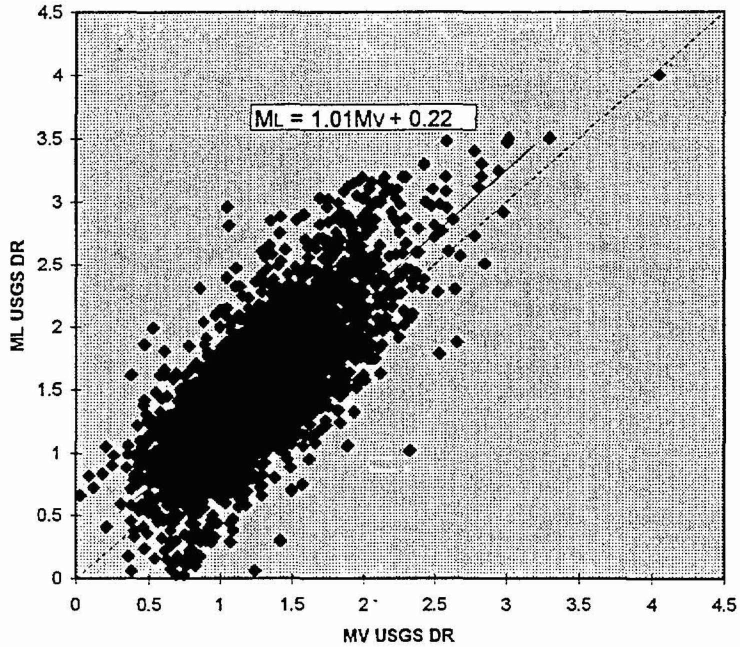


Figure G-4 Moment vs. M_L for the Southern Great Basin-selected data.
From von Seggern (UNR, written communication, 1996).



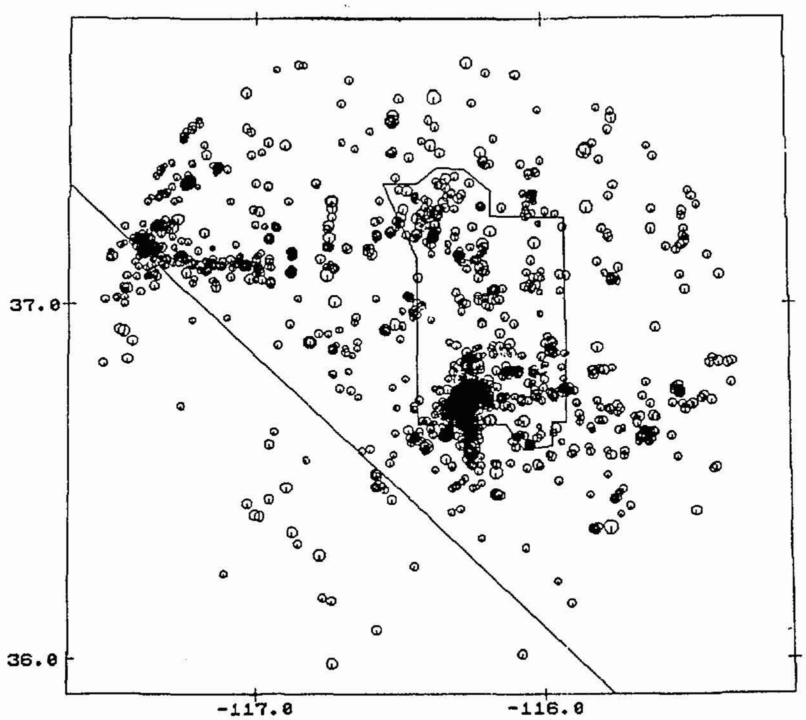
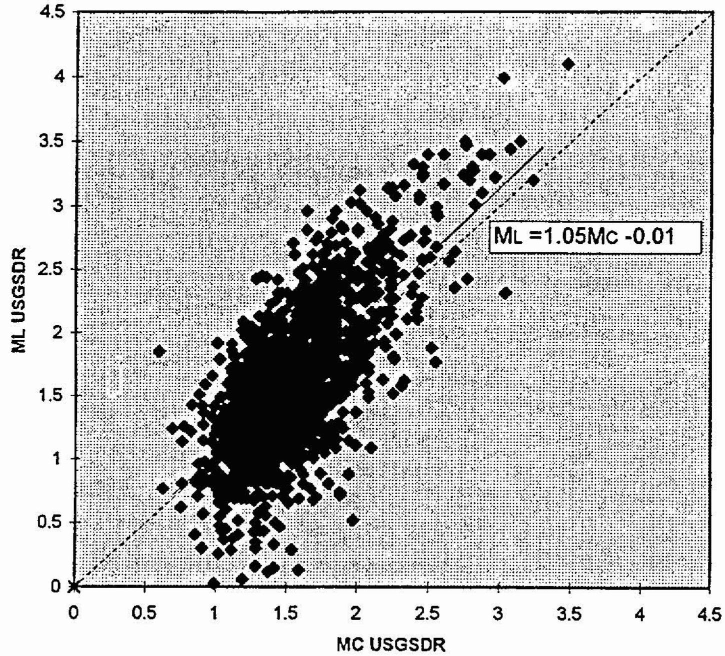


Figure G-5 Regression of M_L (USGSDR) on M_V (USGSDR) for the SGB catalogue and locations of earthquakes used (1985 to 1991)



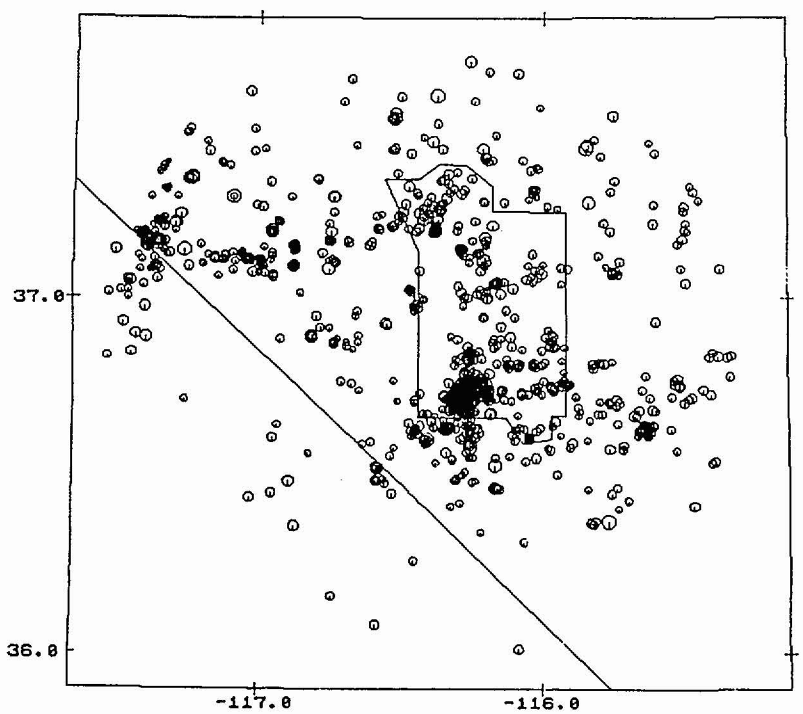
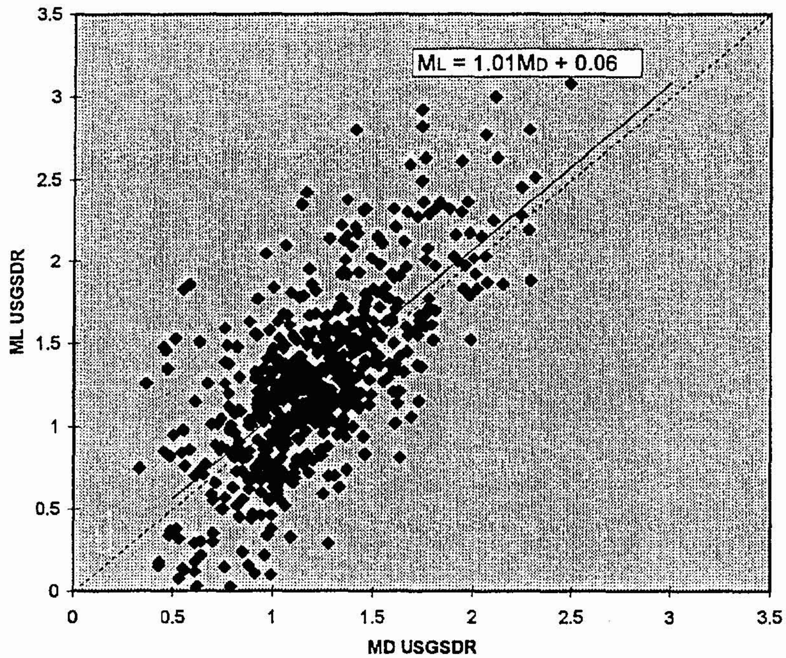
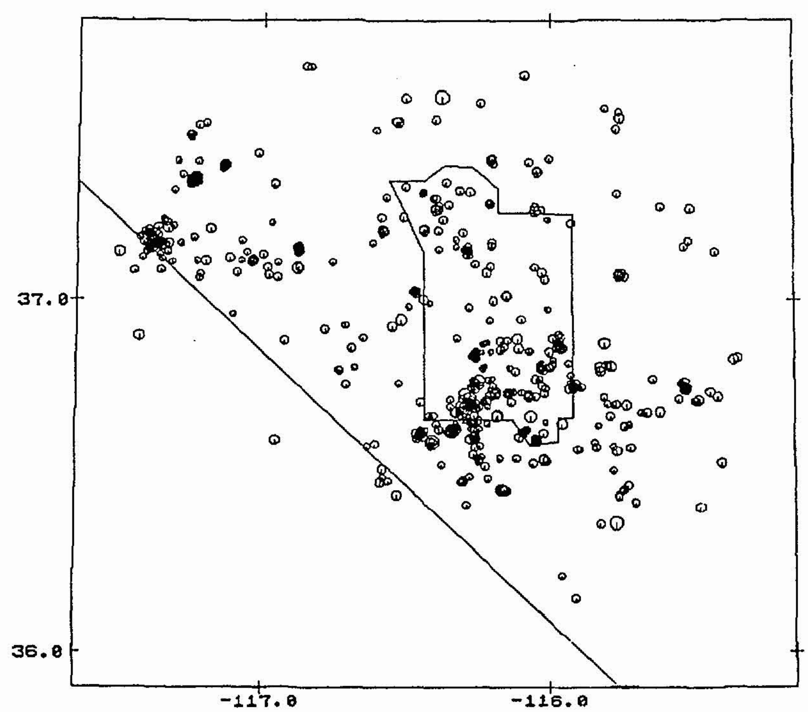


Figure G-6 Regression of M_L (USGSDR) on M_C (USGSDR) for the SGB catalogue and locations of earthquakes used (1985 to 1992)





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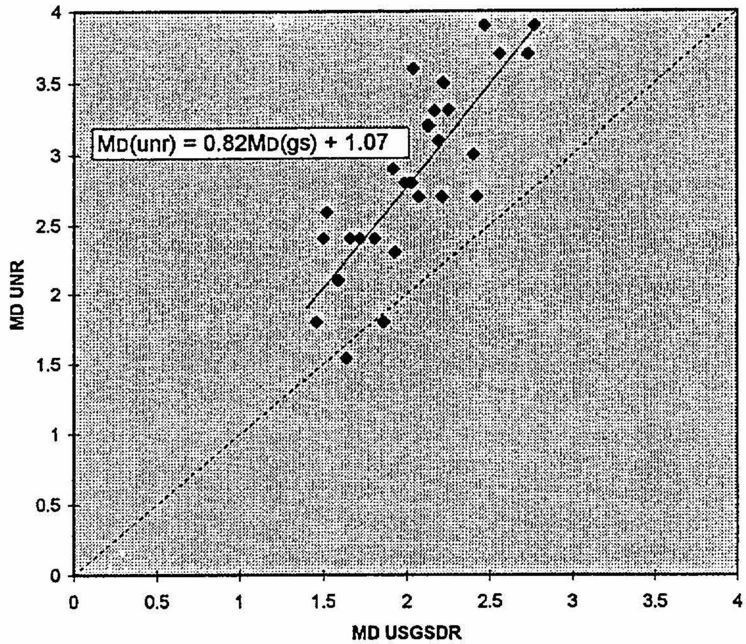

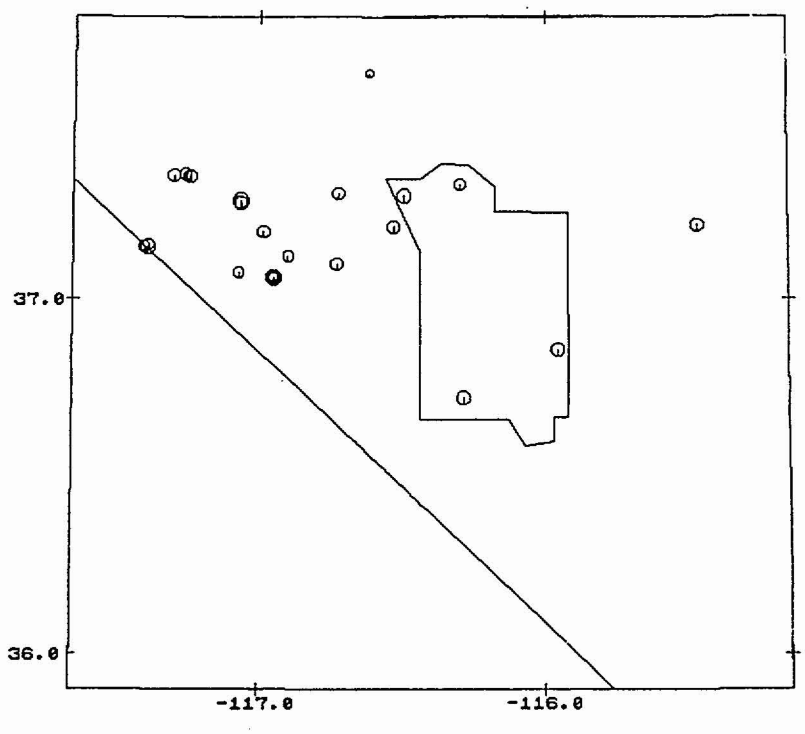

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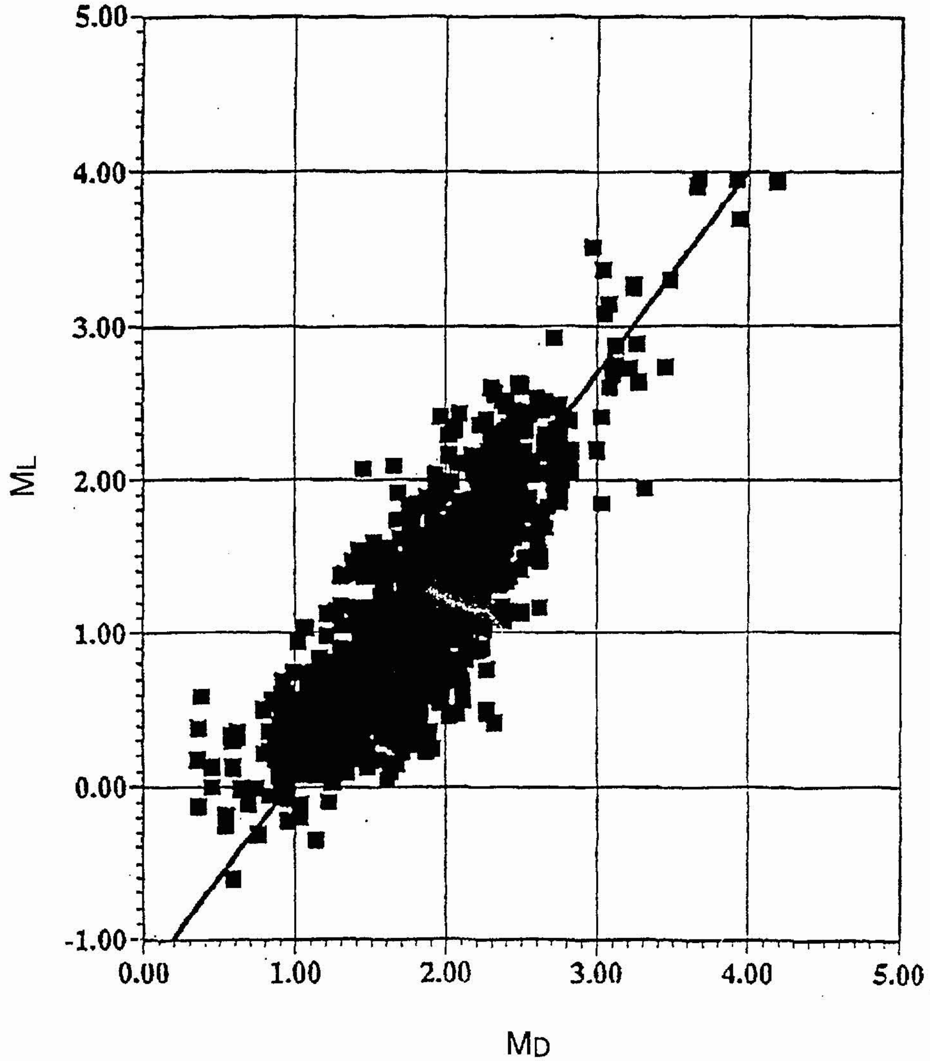


Figure G-9 ML (CUSP) vs. MD (CUSP) for the Southern Great Basin (1993 to 1995). From von Seggern (UNR, written communication, 1996).

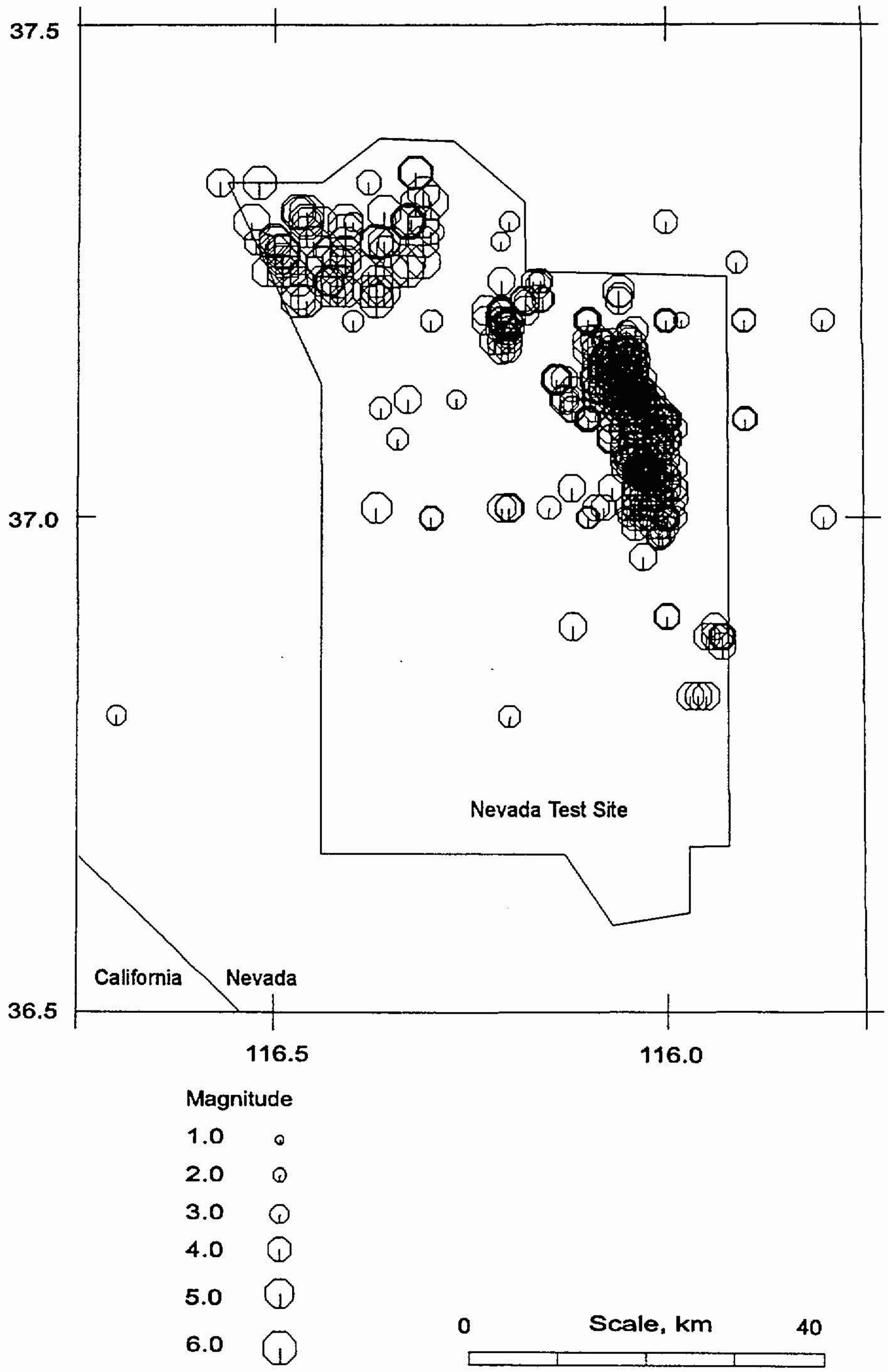


Figure G-10 Announced United States underground nuclear tests, 1957 to 1992

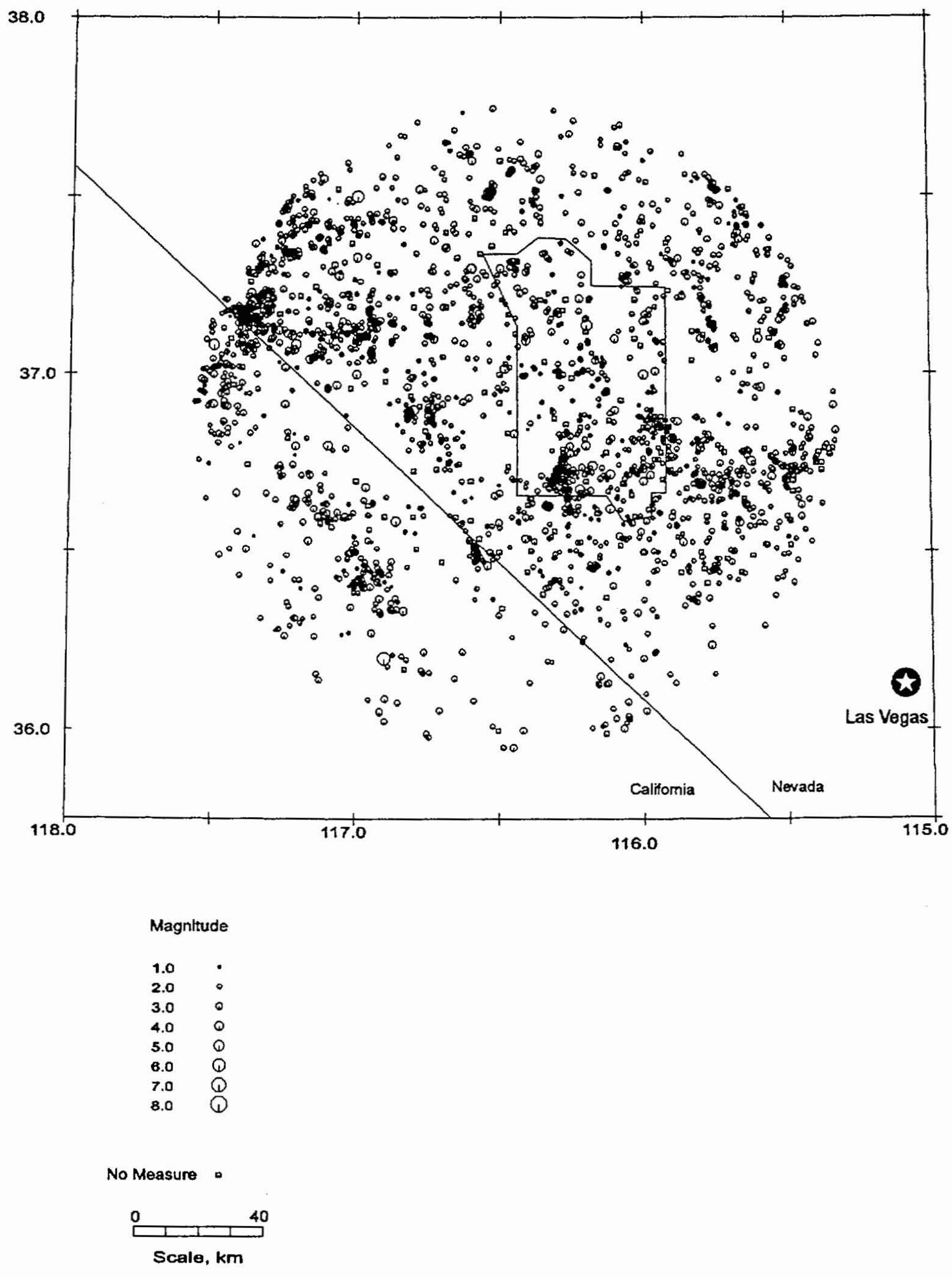
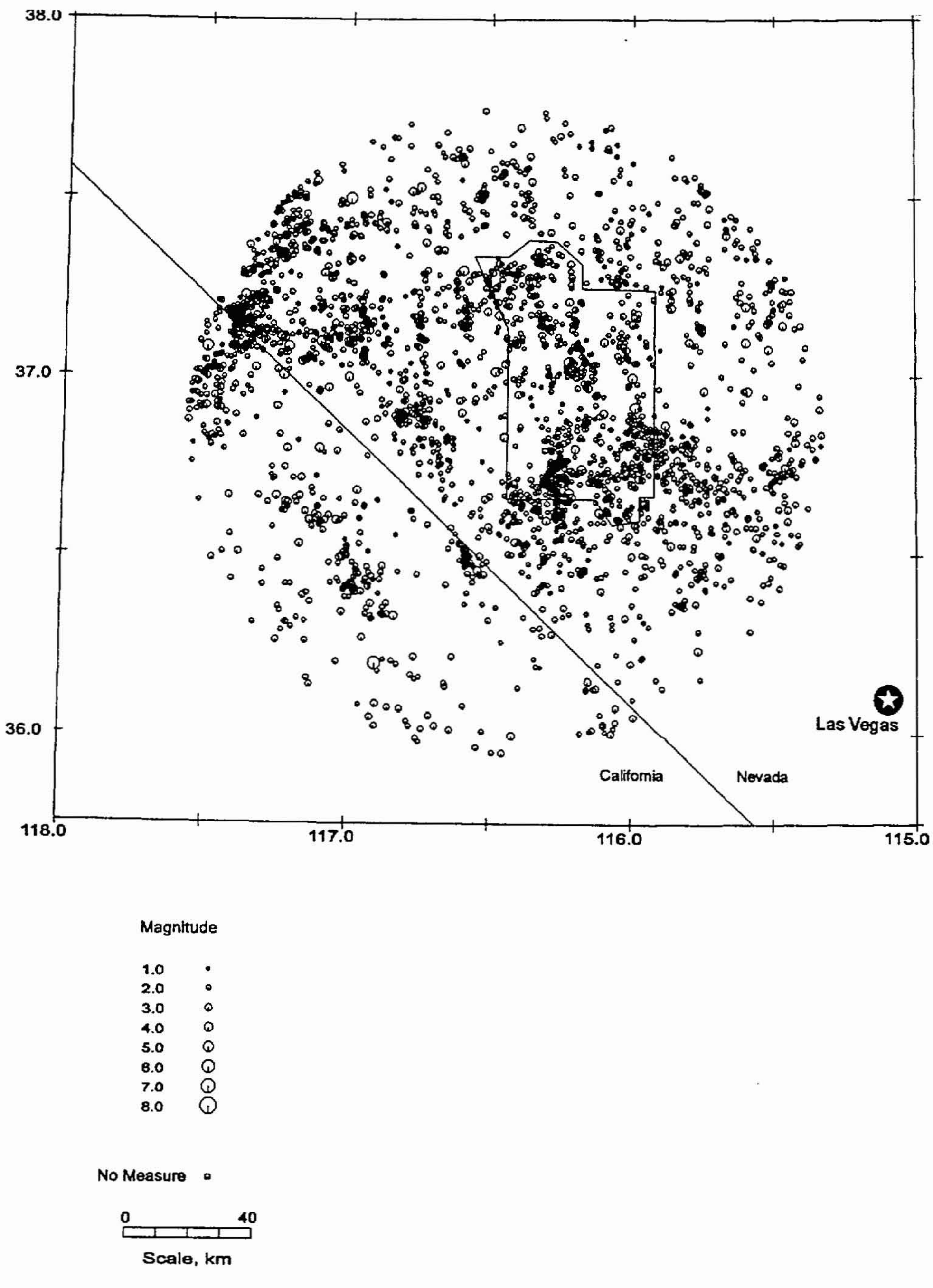


Figure G-11 Historical seismicity (1868 to 1996) after declustering with the Youngs *et al.* approach



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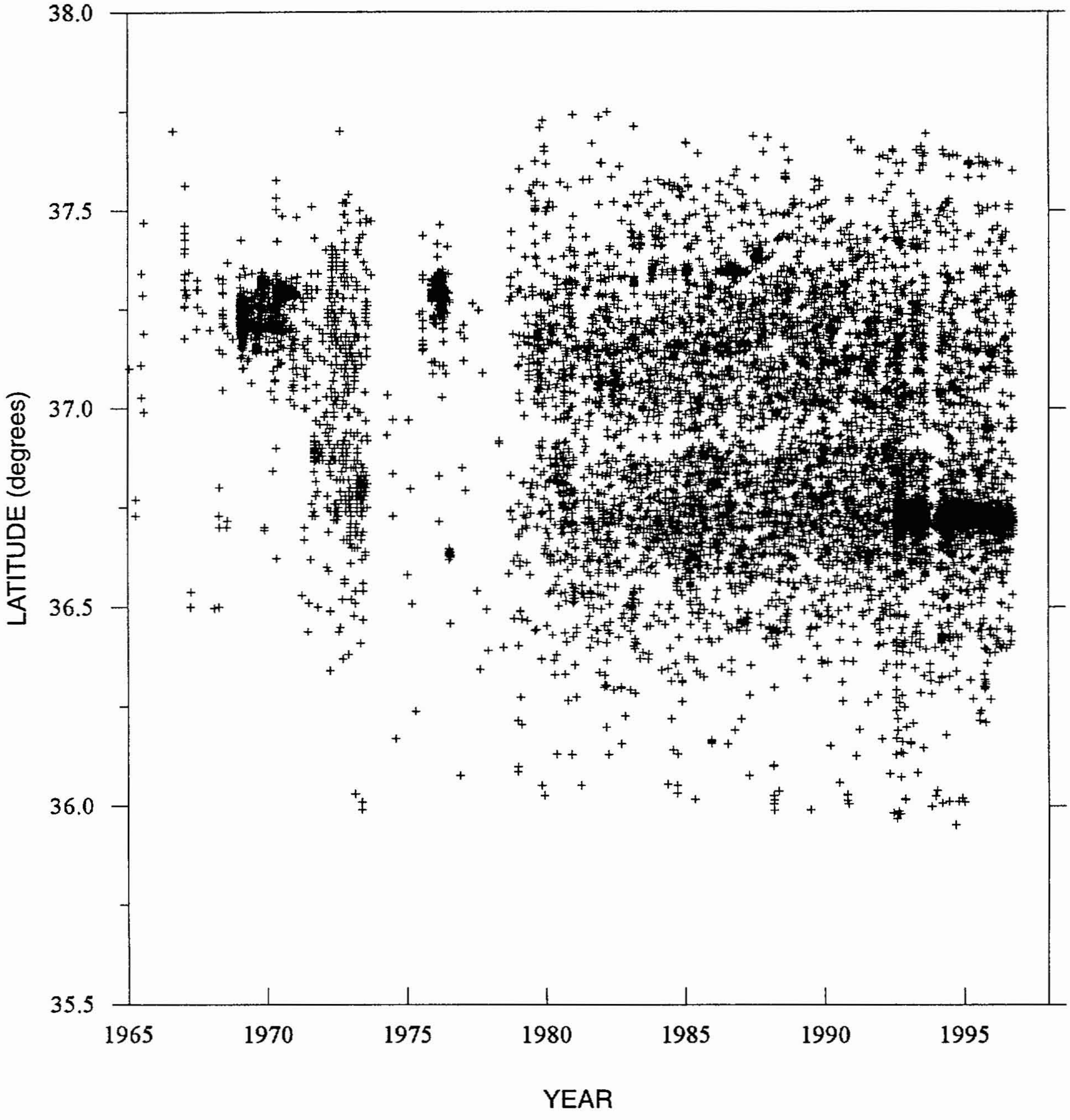
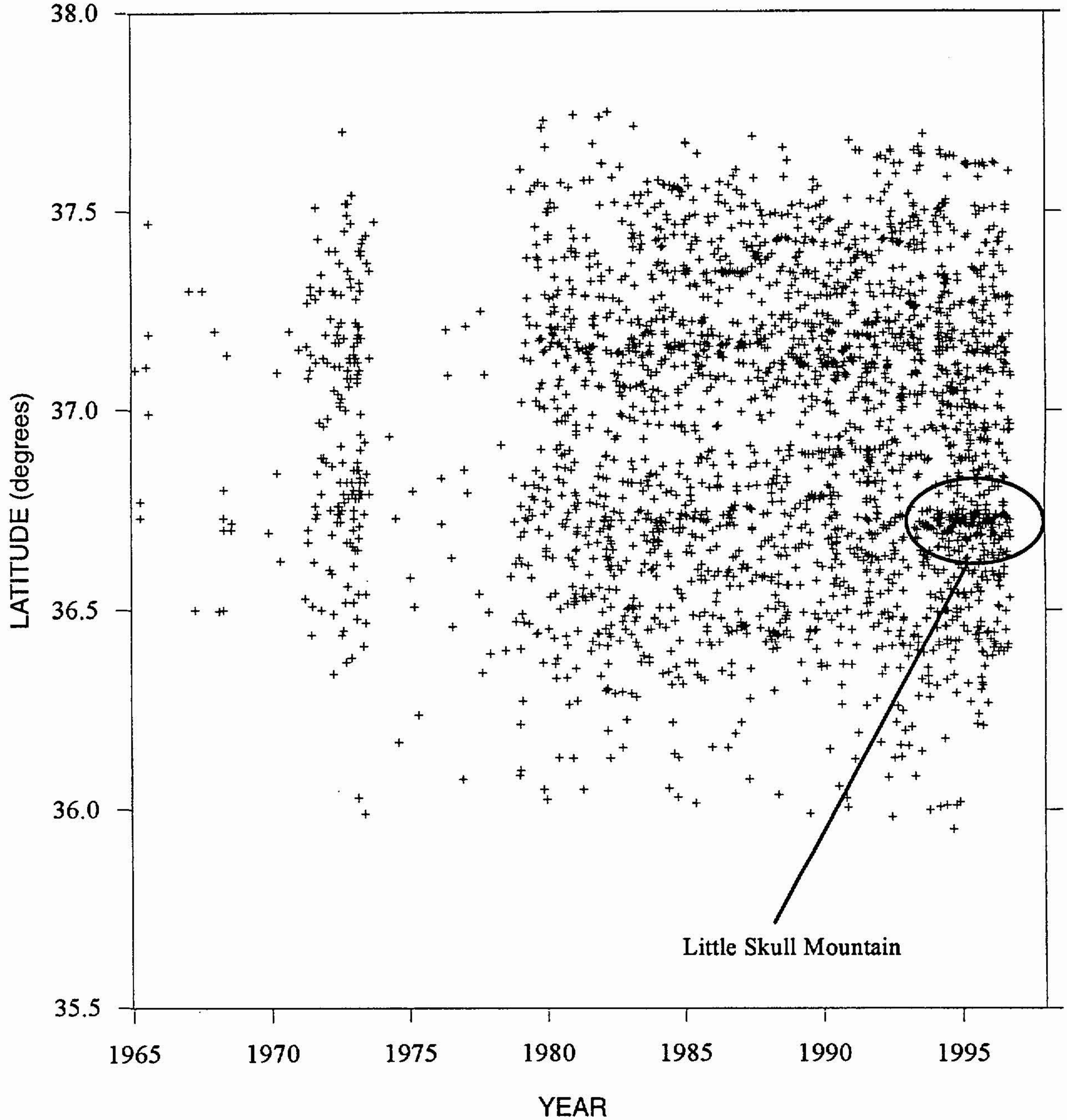


Figure G-13 Earthquakes in the 100 km catalogue as a function of latitude and time prior to declustering



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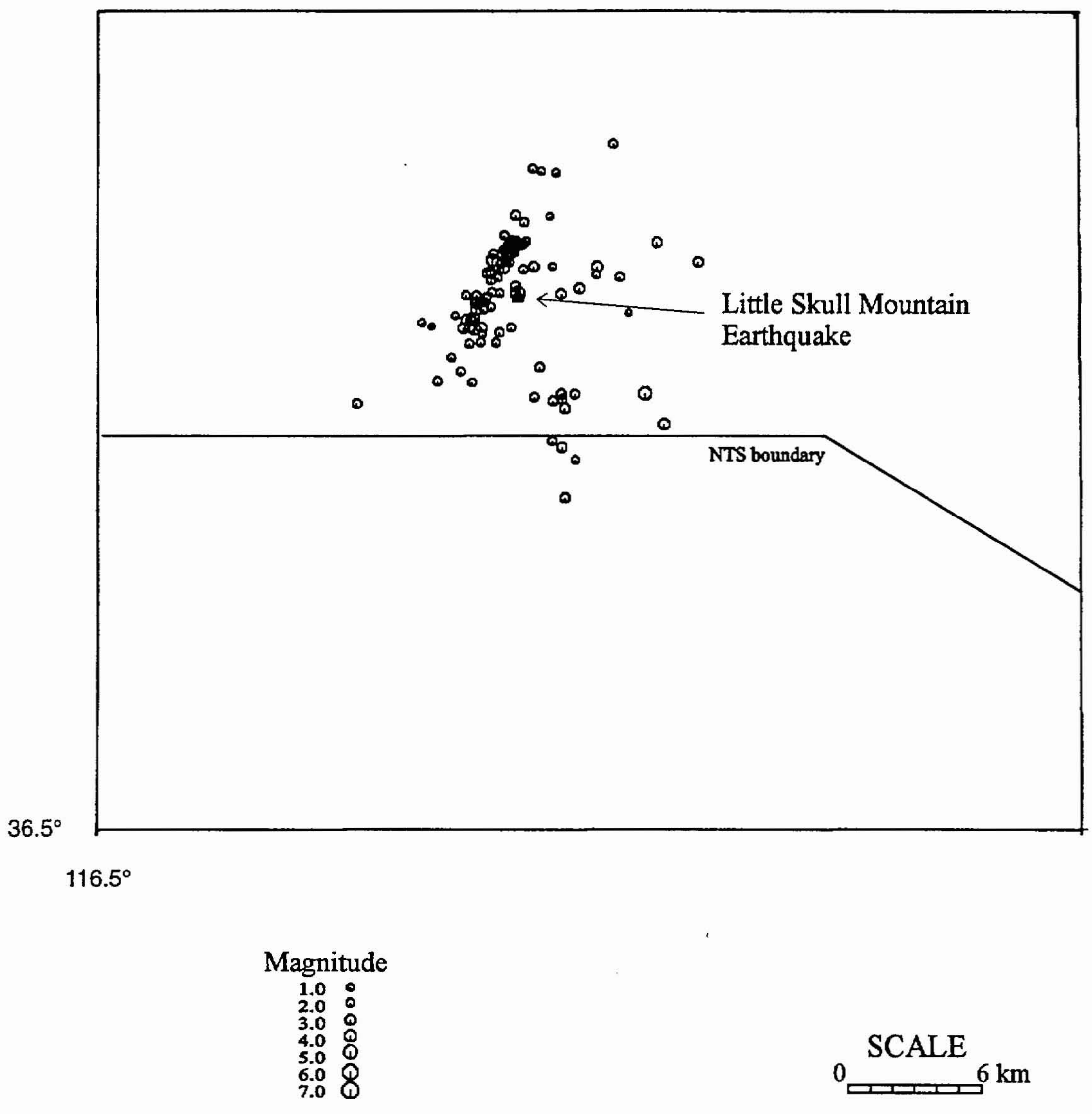


Figure G-16a Earthquakes from 1965 to 1996 within 10 km of Little Skull Mountain after declustering with the Youngs *et al.* approach

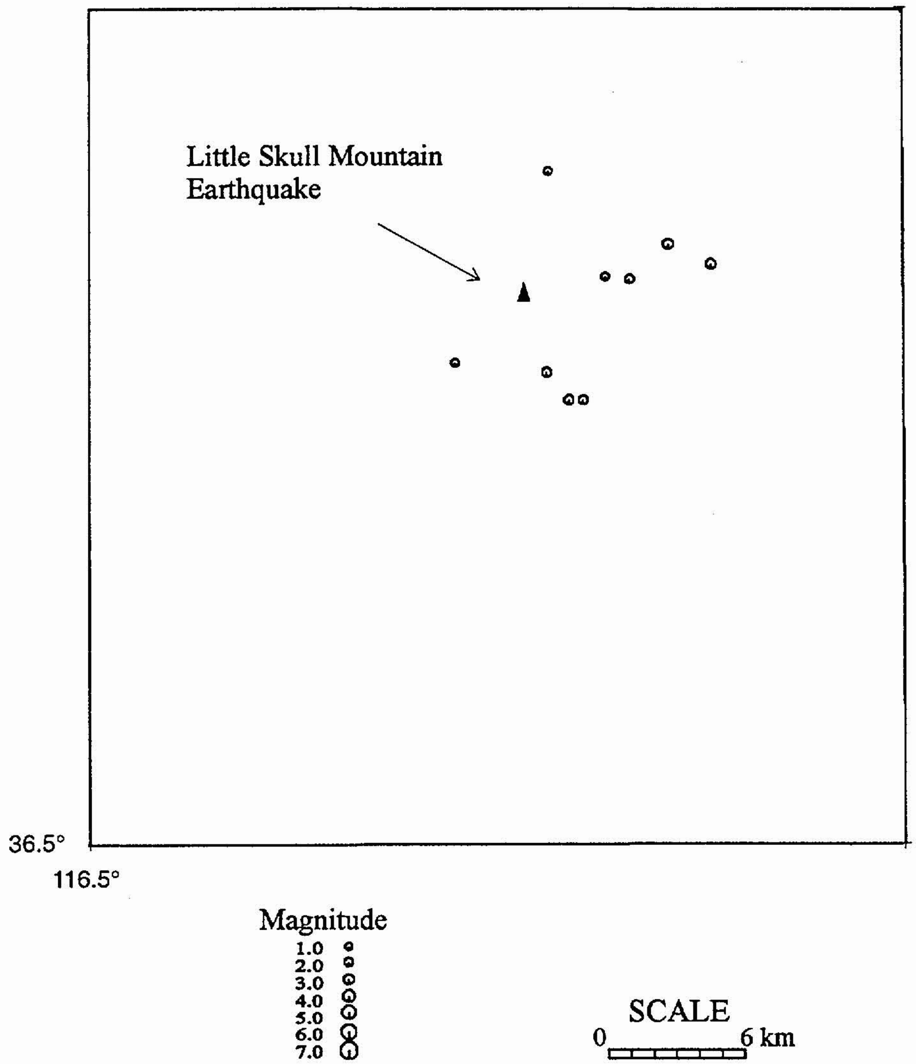
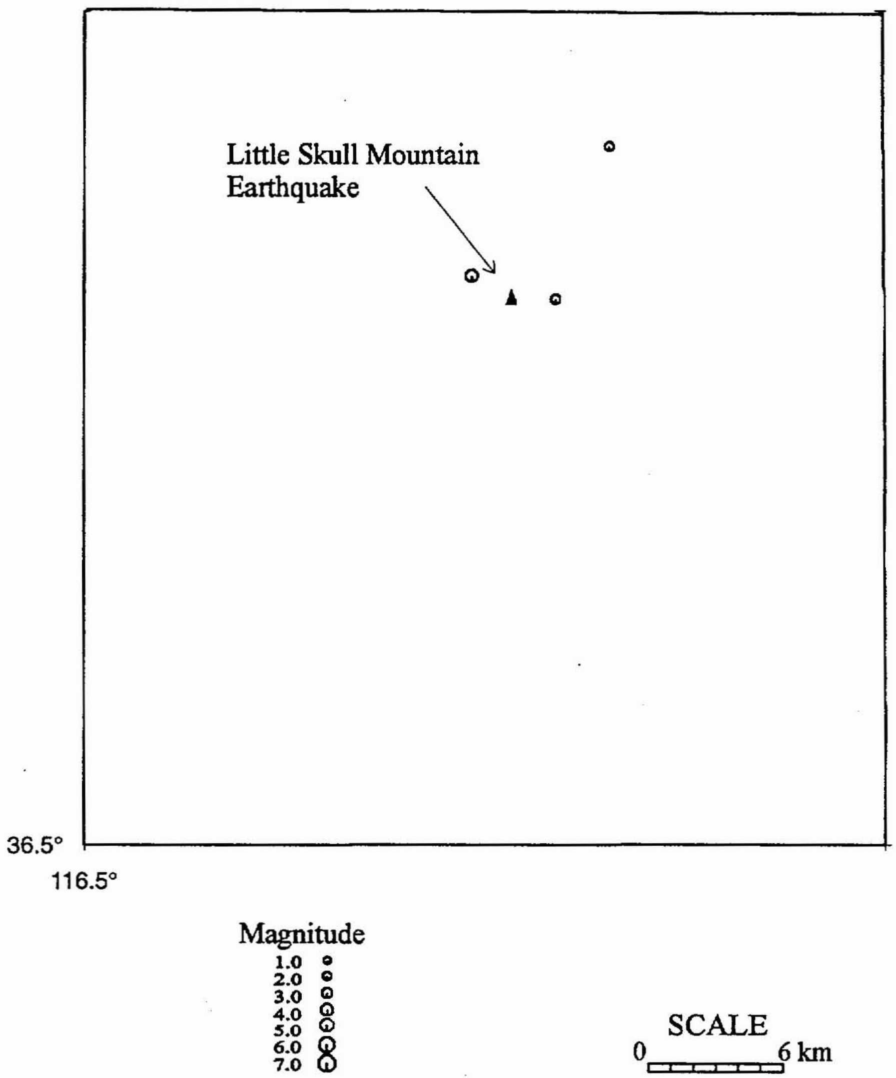


Figure G-16b Earthquakes in 1991 within 10 km of Little Skull Mountain after declustering with the Youngs *et al.* approach



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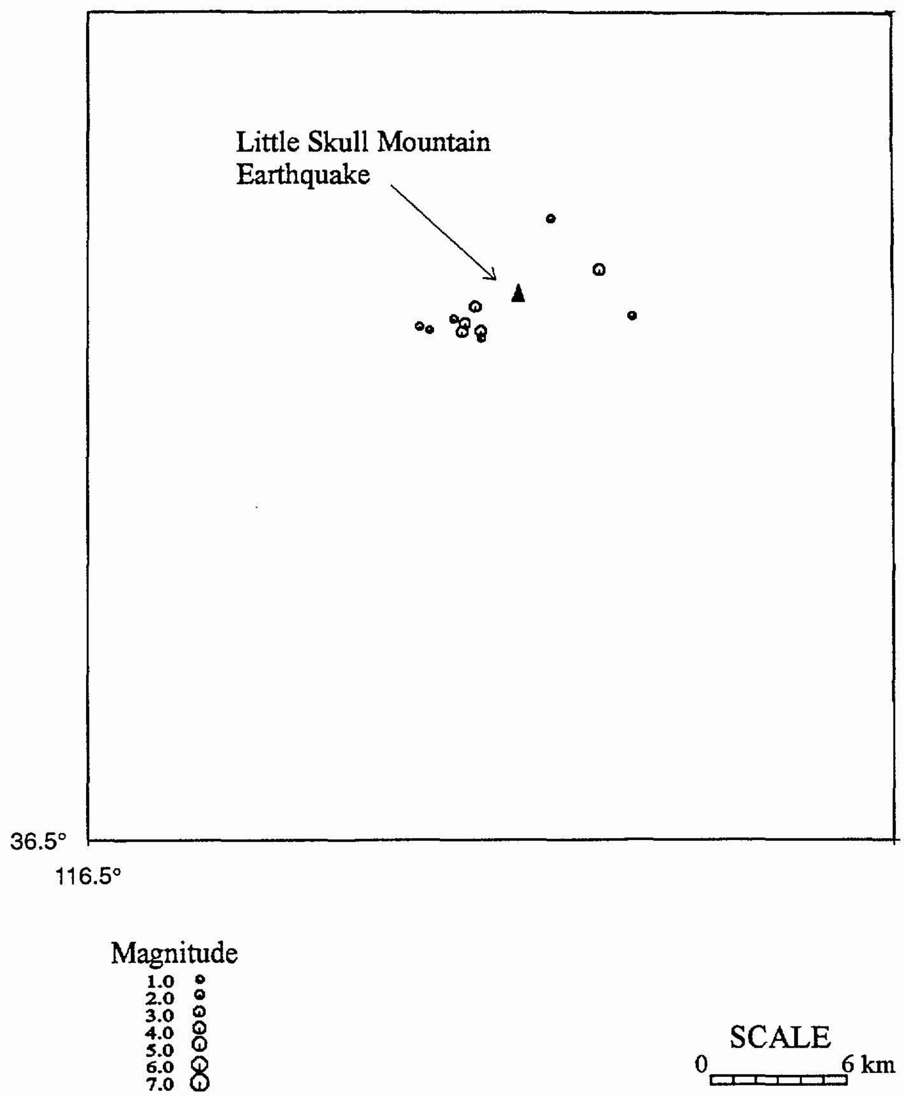

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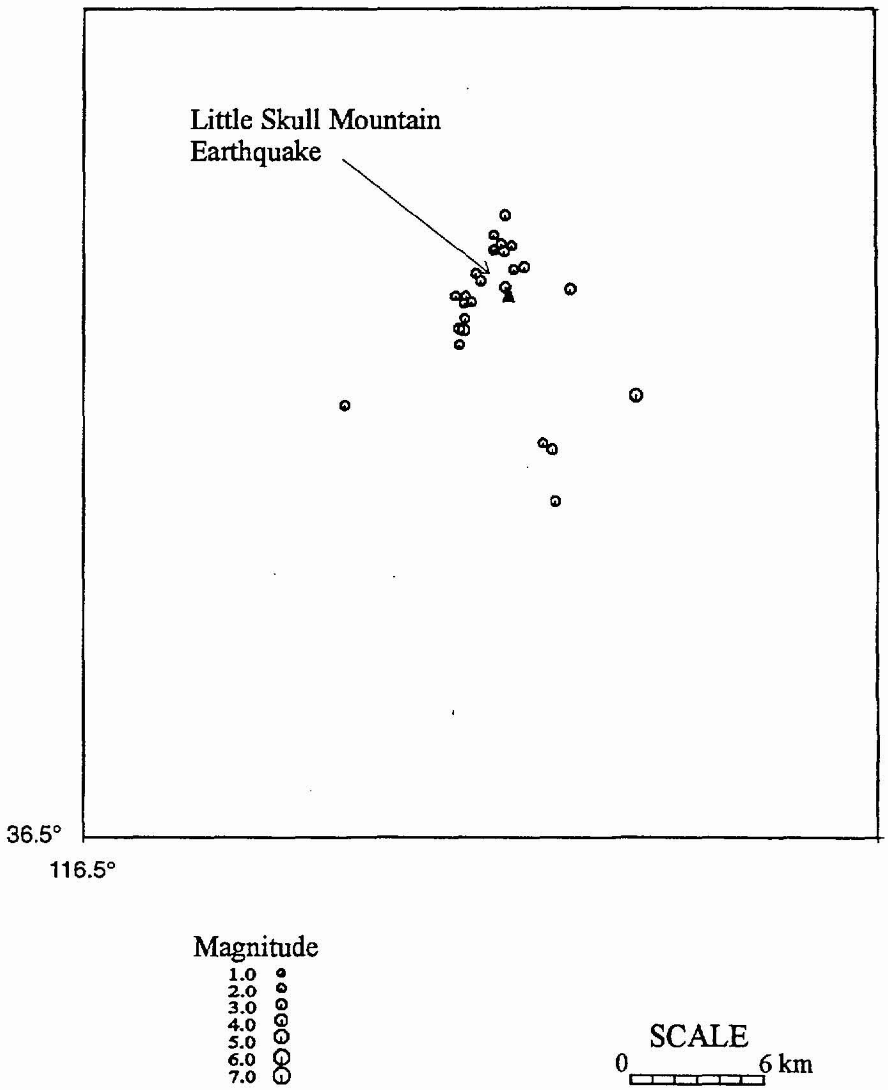
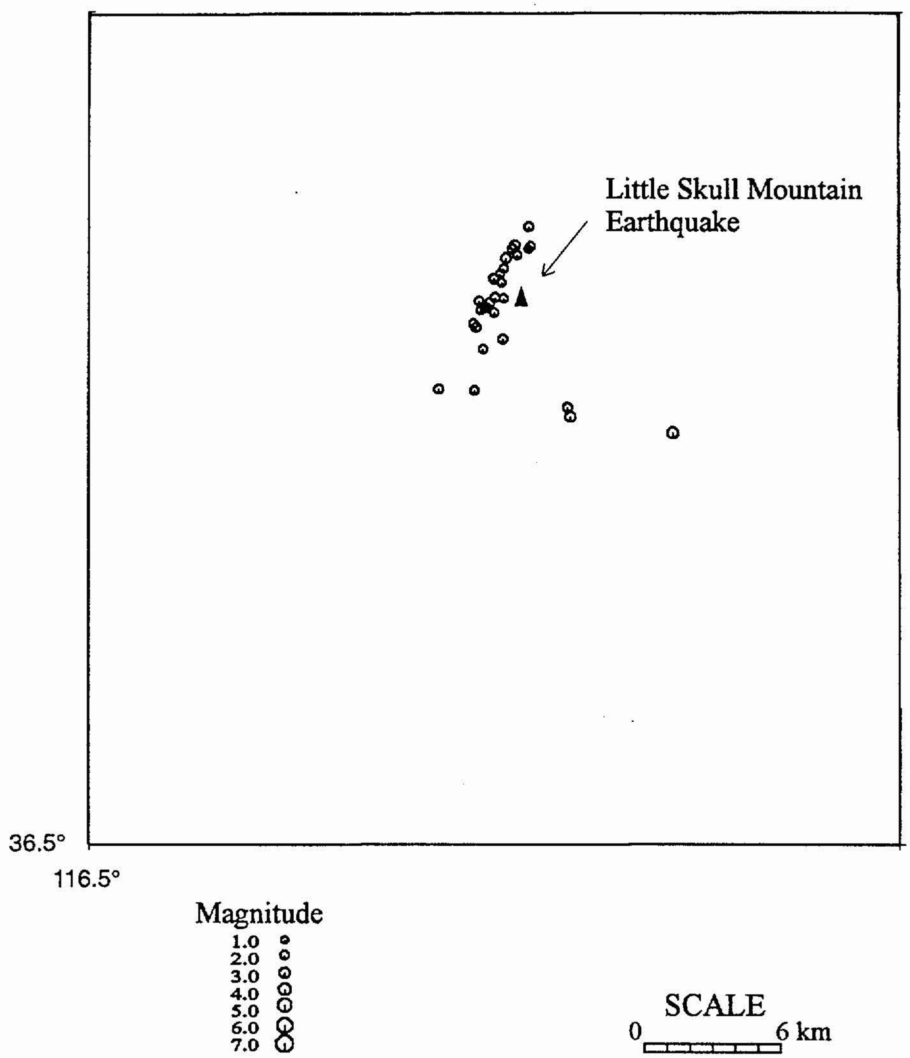


Figure G-16e Earthquakes in 1994 within 10 km of Little Skull Mountain after declustering with the Youngs *et al.* approach



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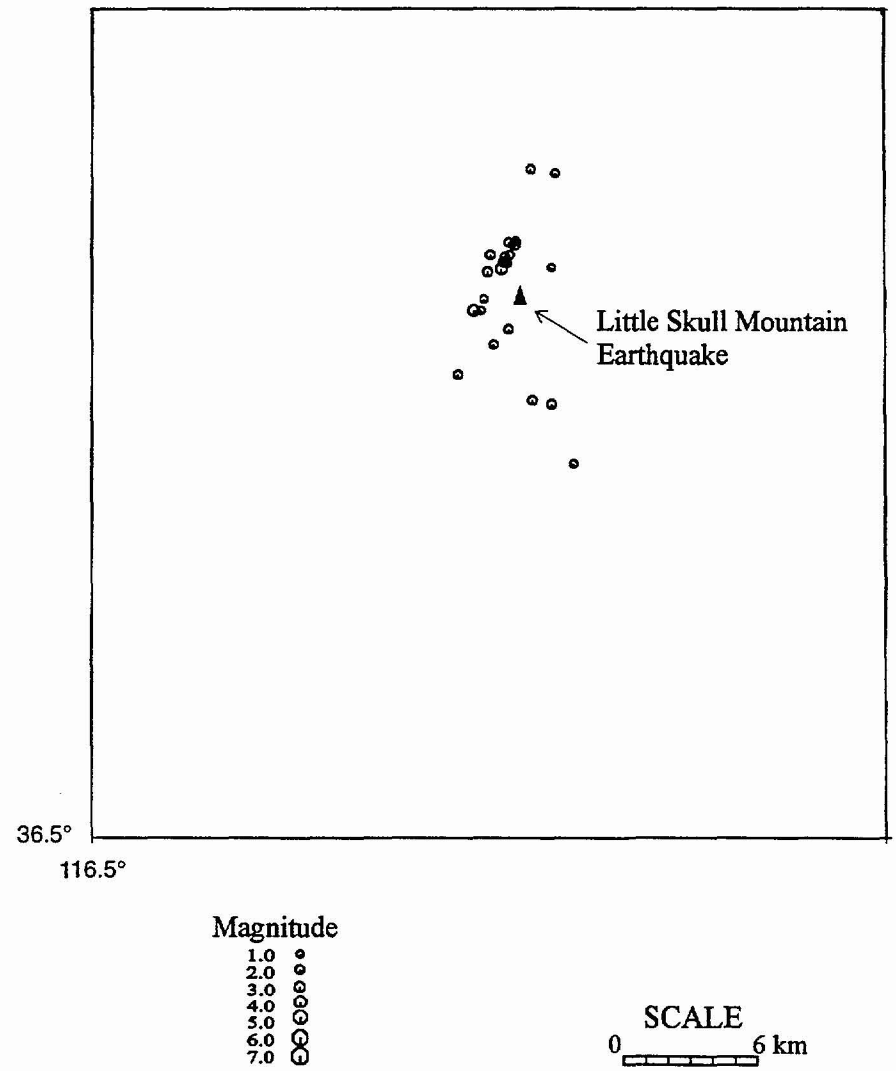
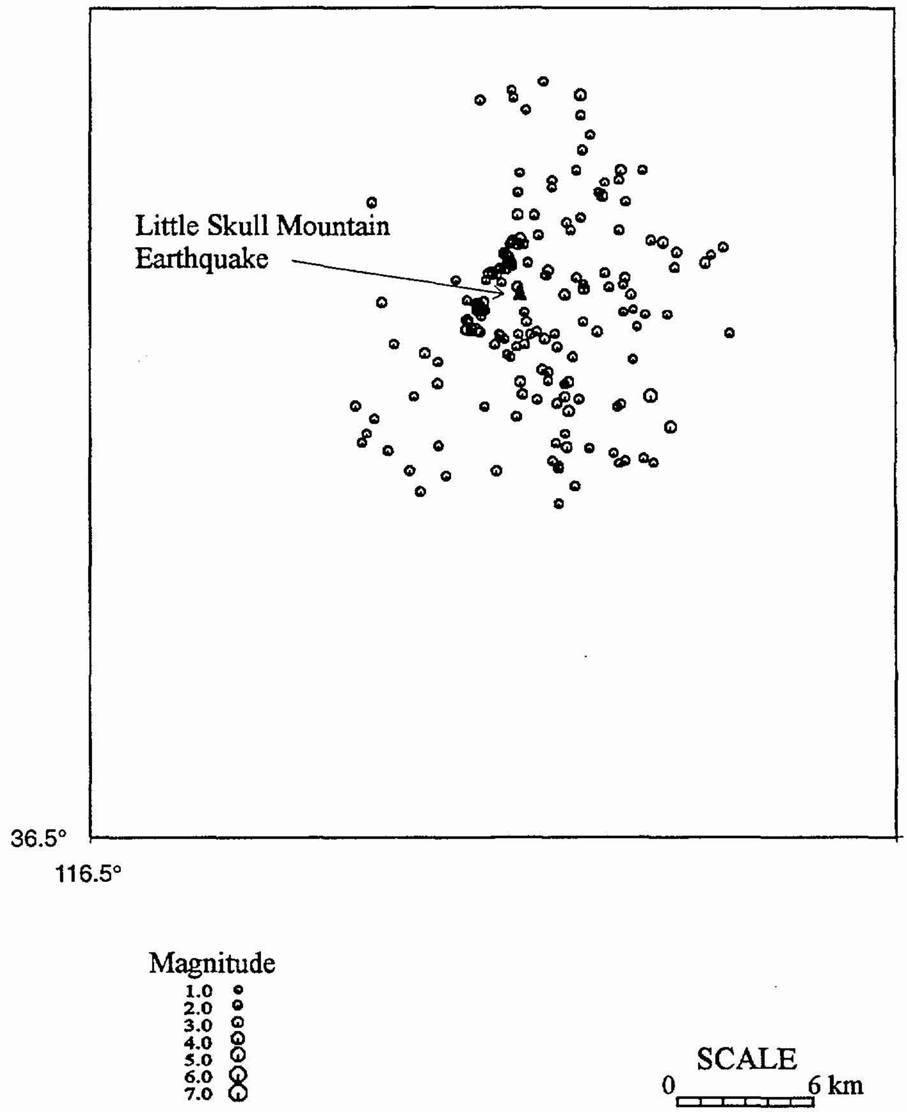


Figure G-16g Earthquakes in 1996 within 10 km of Little Skull Mountain after declustering with the Youngs *et al.* approach



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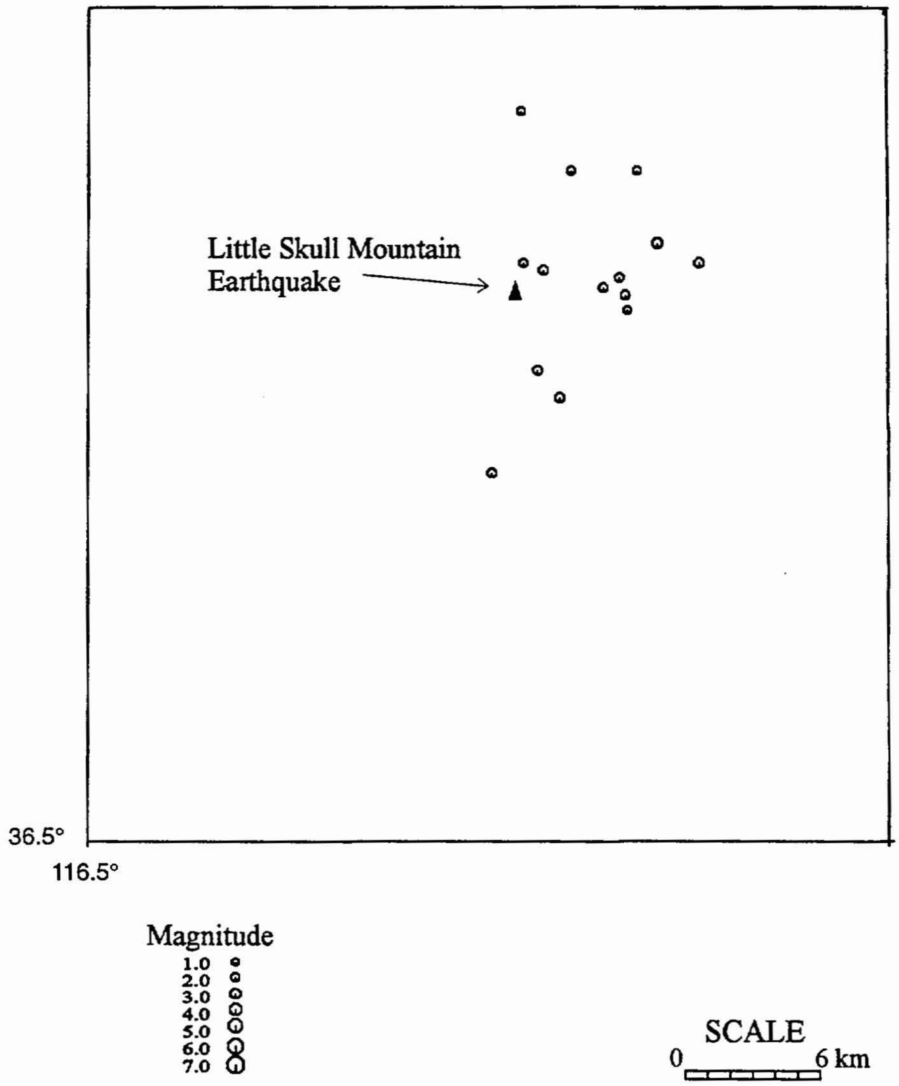


Figure G-17b Earthquakes in 1991 within 10 km of Little Skull Mountain after declustering with the Veneziano and van Dyck approach

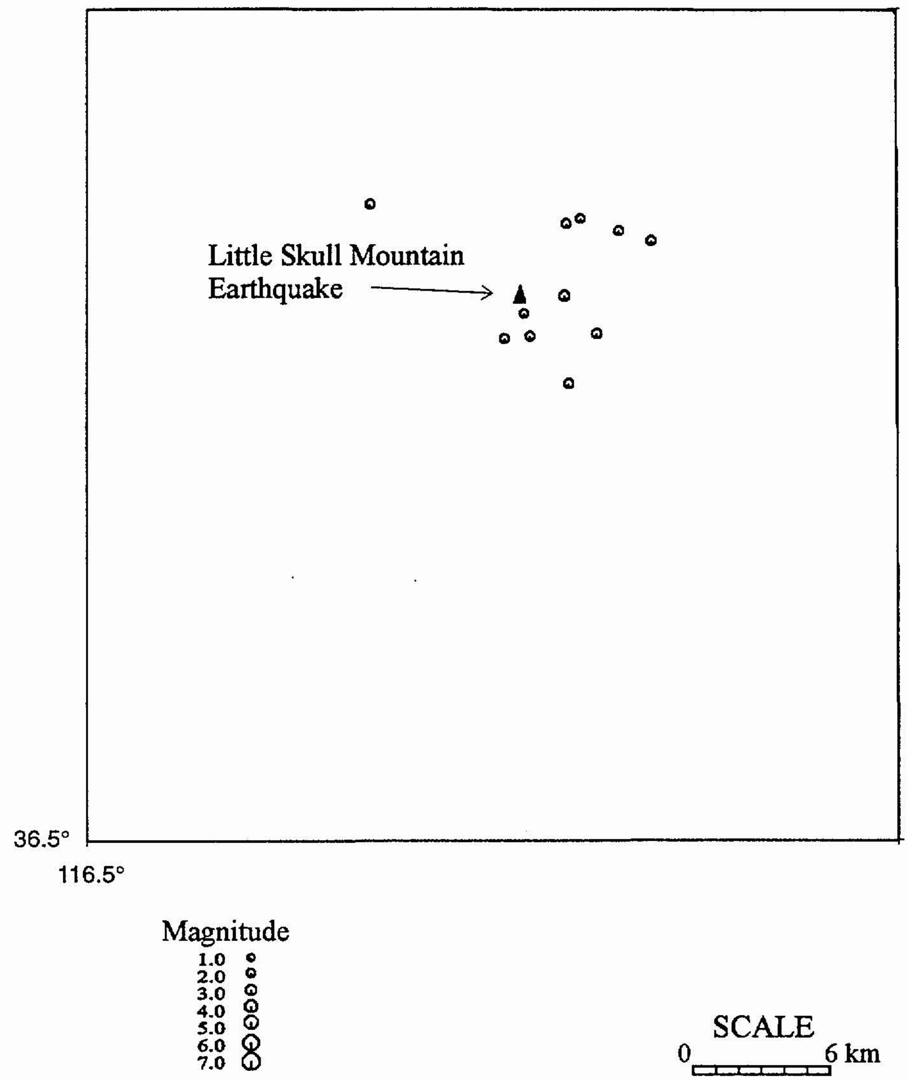


Figure G-17c Earthquakes in 1992 within 10 km of Little Skull Mountain after declustering with the Veneziano and van Dyck approach

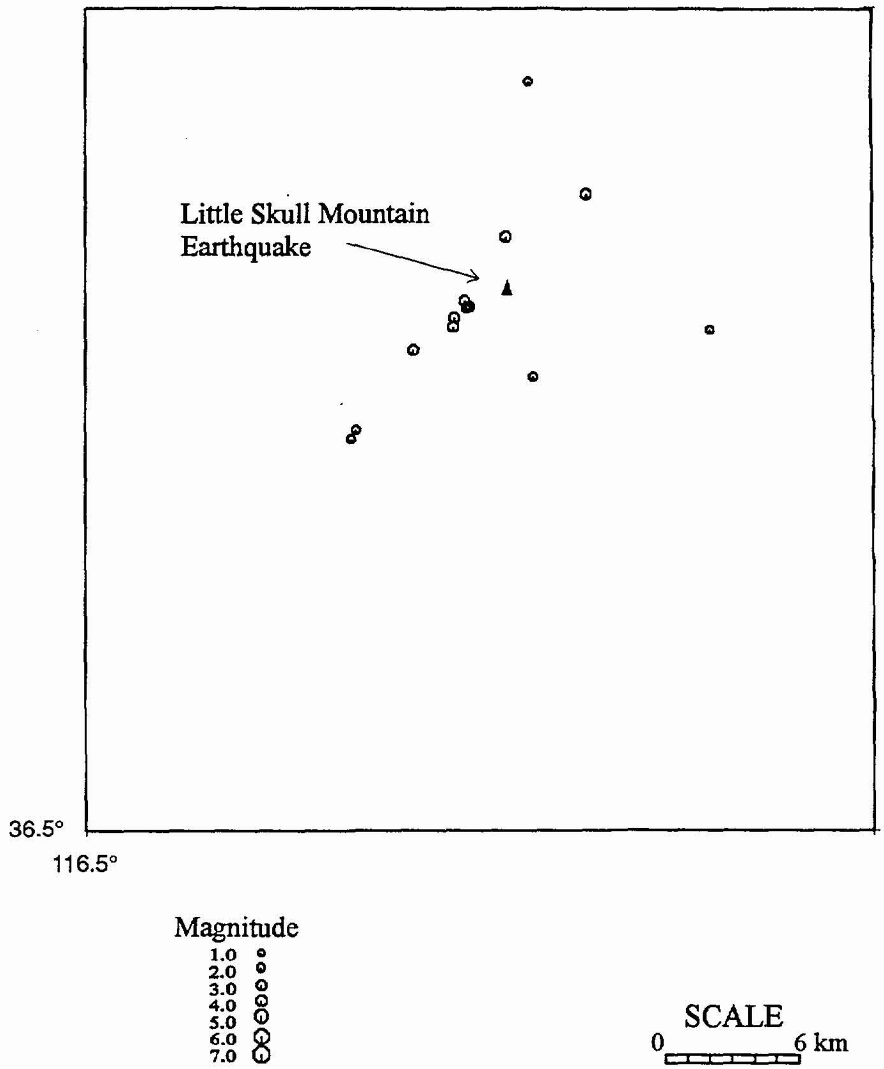
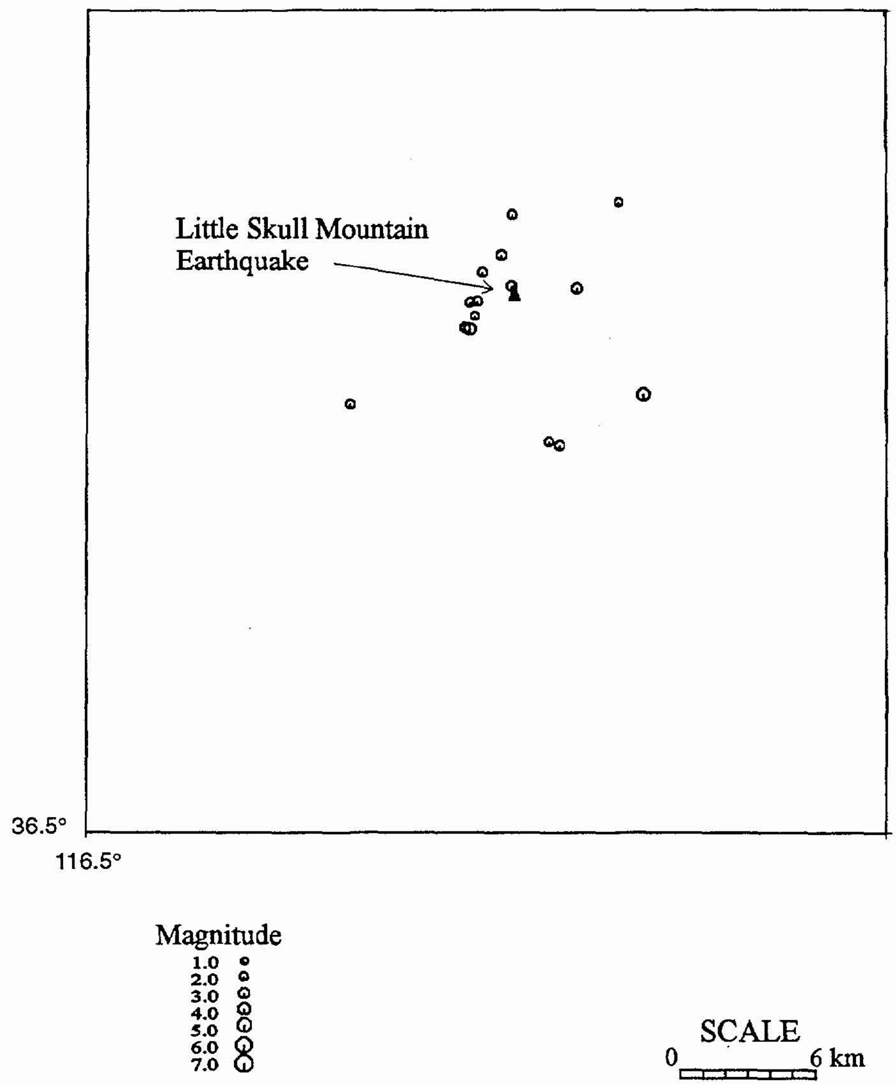


Figure G-17d Earthquakes in 1993 within 10 km of Little Skull Mountain after declustering with the Veneziano and van Dyck approach



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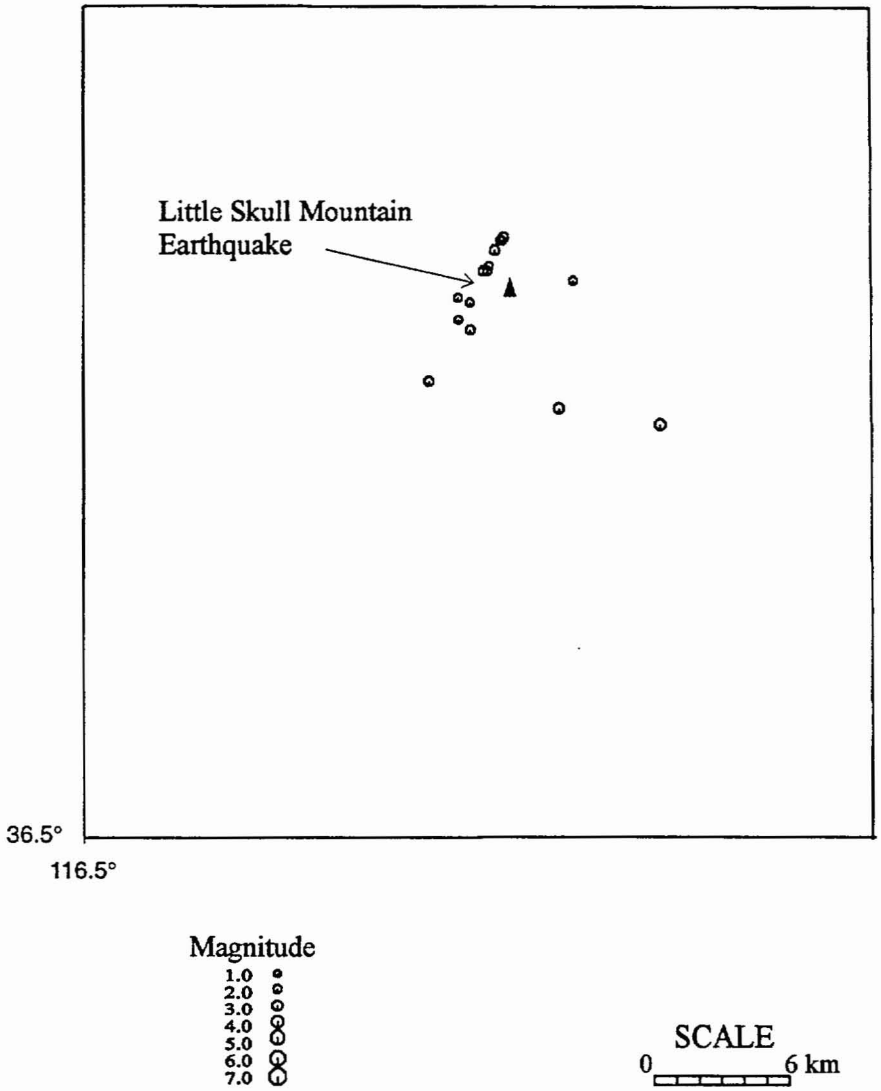
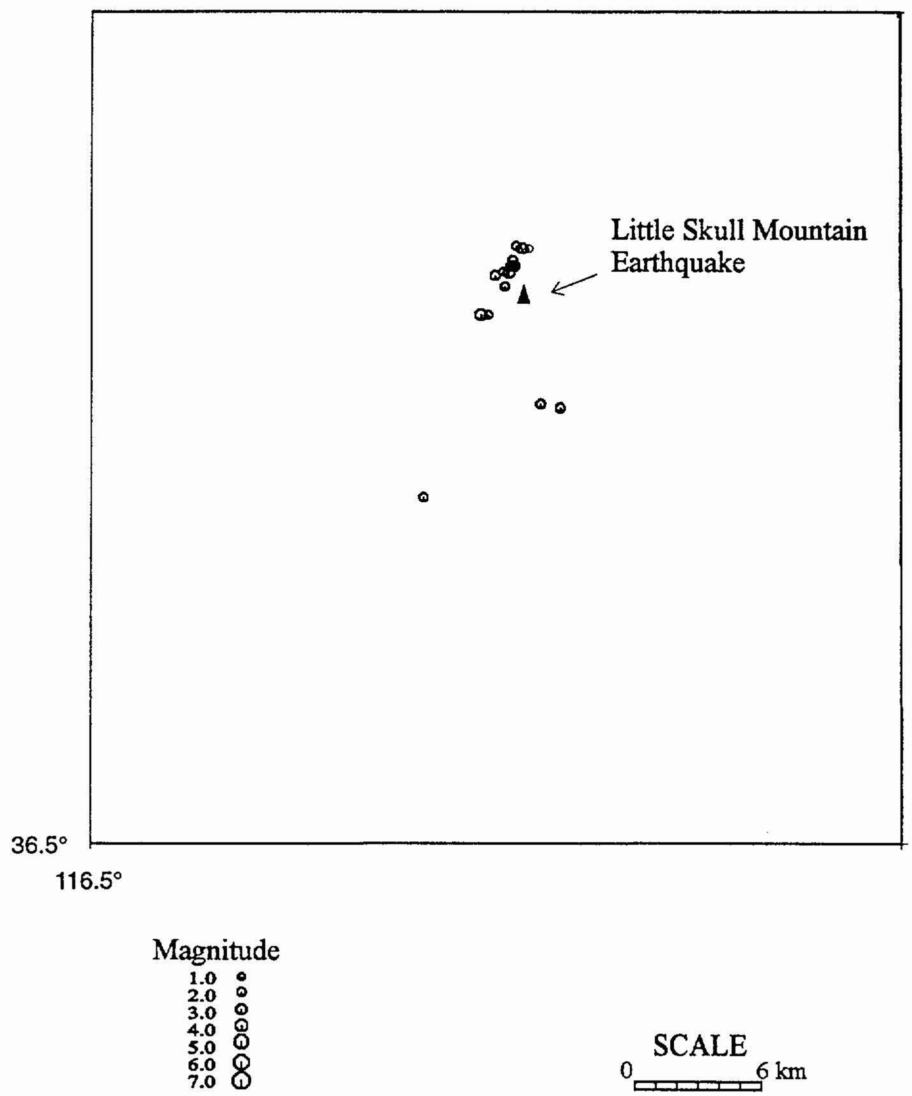


Figure G-17f Earthquakes in 1995 within 10 km of Little Skull Mountain after declustering with the Veneziano and van Dyck approach



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APPENDIX H

DEVELOPMENT OF FAULT DISPLACEMENT HAZARD PARAMETER DISTRIBUTIONS

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APPENDIX H
DEVELOPMENT OF
FAULT DISPLACEMENT HAZARD
PARAMETER DISTRIBUTIONS

H.1 INTRODUCTION

The approaches for assessing fault displacement hazard developed by the SSFD expert teams include a number of empirical models for the distribution of various parameters. To assist in translating the teams' assessments into quantitative methods for use in computing the fault displacement hazard, the SSFD facilitation Team fit statistical distributions to the various empirical data sets specified by the teams. This appendix documents the development of these fault displacement hazard parameter distributions.

H.2 DISTRIBUTIONS FOR NORMALIZED DISPLACEMENT DATA FROM YUCCA MOUNTAIN TRENCHING STUDIES

The assessment of fault displacement hazard requires a model for the conditional probability of exceeding a specified displacement, d, given the occurrence of a displacement event, $P(D>d)$. The SSFD expert teams developed a number of empirical models to compute this probability. These models were based on data for displacement in individual events obtained from the Yucca Mountain paleoseismic trenching studies. The data from the various trenches were typically pooled together by normalizing the data from each trench using a normalizing parameter related to the location where they were obtained. The SSFD Facilitation Team then developed a statistical model for the distribution of D/D_{norm} that can be used to compute $P(D>d)$. These various data sets and the fitted statistical models are described below.

H.2.1 Normalization by Average Displacement at a Point

The DFS team developed a pooled set of displacement data by normalizing the displacements from each trench by the average of all of the displacements measured in the trench, designated AD. They used only data from trenches with three or more displacement events. Figure H-1 shows the cumulative distribution function (CDF) of the normalized data (the data are listed in Table DFS-12 in Appendix E). The DFS team developed a triangular distribution for D/AD by setting the mode of the distribution at 1.0 and placing the lower and upper limits for D/AD at 0 and 2.6, respectively. However, the resulting CDF does not provide a good fit to the empirical CDF, as indicated in the upper left-hand plot on Figure H-1. In addition, it was judged more appropriate to fit a statistical model to the data that does not have a fixed upper limit. Because *D/AD* is restricted to non-negative values and the data indicate that the distribution is skewed to the right, three reasonable distributions are the exponential, lognormal, and gamma distributions. The exponential distribution has the form

$$F(x) = 1 - e^{-x/\mu_x} \qquad \text{(H-1)}$$

where $F(x)$ is the CDF (the probability that the variable X is less than or equal to a value x) and parameter μ_x is the mean value of x. Setting x equal to *D/AD*, the mean value of *D/AD* is 1.0.

The lognormal distribution has the form

$$F(x) = \frac{1}{\sqrt{2\pi}\sigma_{\ln(x)}} \int_{-\infty}^{\ln(x)} e^{-1/2\left(\frac{z-\mu_{\ln(x)}}{\sigma_{\ln(x)}}\right)^2} dz \qquad \text{(H-2)}$$

Setting x equal to *D/AD*, the resulting parameters are $\mu_{\ln(D/AD)}$ = -0.267 and $\sigma_{\ln(D/AD)}$ = 0.839.

The gamma distribution has the form

$$F(x) = \frac{1}{\Gamma(a)} \int_{0}^{x/b} e^{-t} t^{a-1} dt \qquad \text{(H-3)}$$

where $\Gamma(a)$ is the gamma function. Setting x equal to *D/AD* and using the moments of the data, the resulting parameters of the gamma distribution are a = 2.78 and b = 0.36.

Two other types of distributions that provide skewed-to-the-right density functions and a positive mode are the Type I and II extreme value distributions, although the Type I distribution is not limited to non-negative values.

The Type I distribution has the form

$$F(x) = e^{-e^{-a(x-u)}} \tag{H-4}$$

where $a = 1.282/\sigma_x$ and $u = \mu_x - 0.577/a$ (Benjamin and Cornell, 1970). Setting x equal to *D/AD* and using the moments of the data, the resulting parameters of the Type I distribution are $a = 2.11$ and $u = 0.726$.

The Type II distribution has the form

$$F(x) = e^{-(u/x)^k} \tag{H-5}$$

where $\mu_x = u\Gamma(1\text{-}1/k)$ and $\sigma^2_x = u^2[\Gamma(1\text{-}2/k) - \Gamma^2(1\text{-}1/k)]$ (Benjamin and Cornell, 1970). Setting x equal to *D/AD* and using the moments of the data, the resulting parameters of the Type II distribution are $u = 0.757$ and $k = 3.19$.

Shown on Figure H-1 are the resulting CDFs for the exponential, lognormal, gamma, Type I, and Type II distributions fit to the data for *D/AD*. The best fits are obtained using the gamma and Type I distributions. The fit of the Type I distribution (as measured by the χ^2 and Kolmogorov-Smirnov goodness of fit tests) is slightly better than the gamma distribution. However, the fitted Type I distribution has a small tail (0.01 probability) of negative values for *D/AD*. Therefore, the gamma distribution with parameters $a = 2.78$ and $b = 0.36$ is preferable to model the distribution of *D/AD*.

H.2.2 Normalization by Average Paleoseismic Displacement for a Fault

The SBK team also developed a pooled set of displacement data by normalizing the displacements from each trench by an estimate of the average displacement per event for paleoseismic events, designated $AD_{\text{-}paleo}$, for the fault on which the trench was located. These data are listed in Table SBK-6 in Appendix E. Figure H-2 shows the resulting CDFs for fits of exponential, lognormal, gamma, and Type I distributions to the $D/AD_{\text{-}paleo}$ data. The best fits are obtained using the gamma and Type I distributions, with the Type I distribution providing better goodness of fit statistics. However, as was the case for the data shown on Figure H-1, the fitted Type I distribution has a small tail (0.02 probability) of negative values for $D/AD_{\text{-}paleo}$. Therefore, the gamma distribution with parameters a = 2.17 and b = 0.46 is preferable to model the distribution of $D/AD_{\text{-}paleo}$.

H.2.3 Normalization by Average Displacement as a Function of Fault Rupture Length

The SBK team also developed a pooled set of displacement data by normalizing the displacements from each trench by the average displacement per event based on an empirical relationship between average displacement and fault rupture length, designated $AD_{\text{-}F(RL)}$, for the fault on which the trench was located. These data are listed in Table SBK-6 in Appendix E. Figure H-3 shows the resulting CDFs for fits of exponential, lognormal, gamma, and Type I distributions to the $D/AD_{\text{-}F(RL)}$ data. The best fit is obtained using the gamma distribution with parameters a = 0.82 and b = 1.77.

H.2.4 Normalization by Maximum Displacement as a Function of Fault Rupture Length

The SBK team developed a pooled set of displacement data by normalizing the displacements from each trench by the maximum displacement per event based on an empirical relationship between maximum displacement and fault rupture length, designated $MD_{\text{-}F(RL)}$, for the fault on which the trench was located. These data are listed in Table SBK-6 in Appendix E. Figure H-4 shows the resulting CDFs for fits of exponential, lognormal, gamma, and Type I distributions to the $D/MD_{\text{-}F(RL)}$ data. The best fit is obtained using the gamma distribution with parameters a = 0.69 and b = 1.05.

H.2.5 Normalization by Expected Maximum Displacement

The AAR team developed a pooled set of displacement data by normalizing the displacements from each trench by the expected maximum displacement for a feature, designated M/MD, for the fault on which the trench was located. These data are listed in Table AAR-10 in Appendix E. Figure H-4 shows the resulting CDFs for fits of exponential, lognormal, gamma, and Type I distributions to these data. Good fits were obtained for the exponential distribution with $\mu_{MD}{}^{max}$ = 0.83, and for the gamma distribution with parameters a = 1.41 and b = 0.59. The goodness of fit statistics were slightly better for the gamma distribution. Because the gamma distribution has two parameters, one would expect it to provide a better fit than the single parameter exponential model. The statistical significance of the improvement in the fit can be evaluated using the likelihood ratio test (e.g. Seber and Wild, 1989, p. 196). The likelihood of observing a particular data set, x_i (i = 1 to n), given a gamma distribution with parameters a and b is

$$L(a,b) = \prod_{i=1}^{n} \frac{(x_i/b)^{a-1} e^{-x_i/b}}{b\Gamma(a)} \tag{H-6}$$

The likelihood ratio statistic, LR, defined as

$$LR = 2\ln[L(\hat{\theta})/L(\theta_o)] \tag{H-7}$$

is used to test the hypothesis that the parameters $\hat{\theta}$ are equal to specified values θ_o. In this case, the exponential distribution is a special case of the gamma distribution with a = 1.0. The hypothesis that a is different from 1.0 is tested by setting $\hat{\theta}=\{1.41, 0.59\}$ and $\theta_o=\{1.0, 0.83\}$ (for the exponential case $b = \mu_x$). The resulting value of LR is 2.93. The LR statistic is approximately χ_r^2 distributed with the degrees of freedom, r, equal to the number of additional free parameters in going from parameter set θ_o to parameter set $\hat{\theta}$. For this case, r = 1, and $P(\chi_1^2 > 2.93) = 0.09$. Thus, the improved fit of the gamma distribution over the exponential distribution is only marginally statistically significant.

H.2.6 Normalization by Cumulative Displacement

The SBK team developed a pooled set of displacement data by normalizing the displacements from each trench by the cumulative displacement, designated D_{cum}, for the fault on which the trench was located. These data are listed in Table SBK-7 in Appendix E. Figure H-6 shows the resulting CDFs for fits of exponential, lognormal, gamma, and Type I distributions to the D/D_{cum} data. The best fits are obtained with the gamma and Type I distributions, with the fit of the Type I distribution producing better goodness of fit statistics. However, the fitted Type I distribution has a small tail (0.04 probability) of negative values for D/AD_{-paleo}. Therefore, the gamma distribution with parameters a = 1.79 and b = 0.00098 is preferable to model the distribution of D/D_{cum}.

H.3 DISTRIBUTIONS FOR DISPLACEMENT AT A POINT ALONG A PRINCIPAL RUPTURE

The SSFD expert teams developed an approach for assessing the variability of the displacement at a point along a principal rupture as a fraction of the maximum displacement on the rupture. These assessments were based on empirical data or simulations using fault roughness. The SSFD Facilitation Team then developed statistical models for the distribution of *D/MD* as a function of location along the principal rupture that can be used to compute $P(D_E > d)$. These models are described below.

H.3.1 Empirical Distribution for *D/MD* Along a Fault Rupture

Wheeler (1989) presented displacement profiles normalized by peak displacement for five large Basin and Range earthquake ruptures. The ASM team smoothed these data to develop curves defining the minimum, median, and maximum values of *D/MD* at a point as a function of normalized location along strike. The normalized point location is specified as x/L, where x is measured from one end of the rupture and L is the length of rupture. The data were smoothed to make the curves symmetric about $x/L = 0.5$. Shown at the left of Figure H-7 are the resulting normalized displacement curves. These curves were interpreted to represent a low percentile, the median value, and a high percentile for *D/MD*, and were used to construct a cumulative distribution function for *D/MD*.

The ratio *D/MD* is limited to the range of 0 to 1.0. A very flexible distribution form for modeling variables that have a fixed range is the beta distribution. When the variable y is limited to the range $0 \le y \le 1$, the beta distribution has the form

$$F(y) = \frac{\Gamma(a+b)}{\Gamma(a)\Gamma(b)} \int_0^y z^{a-1}(1-z)^{b-1}dz \qquad \text{(H-8)}$$

Setting $y = D/MD$ and interpreting the minimum and maximum curves to be the 5th and 95th percentiles of the CDF for *D/MD*, beta distributions were developed at increments of $0.05x/L$. The resulting a and b parameters are plotted on Figure H-8. Relationships were developed for the parameters a and b as a function of x/L; specifically, $a = 3.73+3.98x/L$ and $b = 5.28+46.28e^{-16.7x/L}$, with $0 \le x/L \le 0.5$. The CDFs shown on the right of Figure H-7 were obtained using values of a and b from these relationships.

H.3.2 Numerical Simulations of *D/MD* Along a Fault Rupture

The SBK team presented in Workshop #5 the results of numerical simulations of the displacement pattern along a fault based on a fractal modeling of fault roughness. Figure H-9 shows the resulting CDFs for *D/MD* as a function of *x/L* computed from 100 simulations. These simulated CDFs were fit with beta distributions. The resulting values of parameters *a* and *b* as a function of *x/L* are shown on Figure H-10. Relationships were developed for the parameters *a* and *b* as a function of *x/L*; specifically, $a = \exp[0.6064+21.83x/L - 108.0(x/L)^2 + 136.6(x/L)^3]$ and $b = \exp[2.027+12.21x/L - 87.90(x/L)^2 + 115.5(x/L)^3]$, with $0 \le x/L \le 0.5$. Figure H-11 shows a comparison of the simulated CDFs to those obtained using values of *a* and *b* from these relationships.

H.4 DISTRIBUTIONS FOR PROBABILITY OF NEAR SURFACE RUPTURE

The SSFD teams developed approaches for assessing the probability the rupture will occur near the surface, given the occurrence of an earthquake, using data sets developed from mapping of historical ruptures. These models are described below.

H.4.1 Empirical Distribution for Probability of Principal Fault Rupture

S.K. Pezzopane and T.E. Dawson (USGS, written communication, 1996) present a data base of historical ruptures that have occurred in the extensional Cordillera of the western U.S. On their Figures 9-4A, 9-6, and 9-8A they present histograms that list the number of earthquakes that have reported principal rupture near the surface and the number of earthquakes that have no reported principal rupture near the surface. These histograms show data on 105 earthquakes from the extensional Cordillera (their Figure 9-4A), 47 earthquakes in the northern Basin and Range Province that occurred post-1930 (their Figure 9-6), and 32 earthquakes in the Great Basin province that occurred post-1930 (their Figure 9-8A). These data, summarized in Table H-1, can be used to develop a model for the probability of near-surface rupture given the occurrence of an earthquake.

Wells and Coppersmith (1994) used a *logistic regression* model to analyze these types of data. The logistic regression model (e.g., Hosmer and Lemeshow, 1989) is a commonly used model for assessing the outcome of a dichotomous variable; in this case given the occurrence of an earthquake, surface rupture either occurs or does not occur. The probability of a positive outcome (the occurrence of principal faulting given the occurrence of the event) is given by the expression

$$P(rupture|event) = \frac{e^{f(x)}}{1+e^{f(x)}} \tag{H-9}$$

where $f(x)$ is a function of a set of variables characterizing the event. Wells and Coppersmith (1994) used magnitude to characterize the earthquake, defining $f(x)$ to be:

$$f(x) = a + b\mathbf{M} \tag{H-10}$$

Using this functional form, logistic regression functions were fit to the three data sets listed in Table H-1 using a maximum likelihood approach. The resulting models for the probability of principal surface faulting are shown on Figure H-12 and the parameters of the models are listed below.

Coefficients of Equation (H-10)

Data Set	a	b
32 Great Basin events	-16.02	2.685
47 Northern Basin & Range events	-18.71	3.041
105 extensional Cordillera events	-12.53	1.921

H.4.2 Empirical Distribution for Probability of Distributed Fault Rupture

S.K. Pezzopane and T.E. Dawson (USGS, written communication, 1996) present a set of maps (their Plate 21) of historical ruptures that have occurred in the extensional Cordillera of the western U.S. indicating the location of distributed (secondary) ruptures around the principal (primary) fault rupture. Silvio Pezzopane presented in Workshop #3 an analysis of these data that showed the length of distributed rupture as a function of the distance from the principal rupture. His analysis was performed by constructing a raster scan of each map with a 0.5 km pixel size. The length of distributed faulting was set equal to 0.5 km times the number of pixels containing distributed rupture at a given distance from the principal rupture.

These data were used in the assessment of the distributed faulting hazard to develop an empirical model for the probability of the occurrence of distributed faulting at a point given the occurrence of an earthquake. Dr. Pezzopane extended his analysis of the mapping data to also count the number of pixels that did not contain distributed faulting as a function of distance from the principal rupture. These data are presented in Table H-2. Figures H-13a and H-13b show these data in terms of the frequency of occurrence of distributed faulting. The frequencies plotted for each earthquake and distance from the principal rupture were computed by dividing the number of pixels with surface rupture by the total number of pixels. The row of data plotted at the bottom of the figures represent data points for which the observed frequency is zero. Figure H-13a shows the data including the hanging wall cracking that was observed in the 1988 Chalfant Valley, California earthquake and Figure H-13b shows the data without the Chalfant Valley hanging wall cracking observations.

The data for observations of the occurrence of distributed faulting listed in Table H-2 also represent the outcome of a dichotomous variable; distributed rupture either occurs or does not occur at each point (pixel). The logistic model [Equation (H-9)] was used to compute the probability of distributed rupturing occurring at a point. The data indicate a decrease in the frequency of occurrence with increasing distance, a decrease in frequency with decreasing magnitude, and lower frequencies in the footwall than in the hanging wall. The functional form used to represent these trends is

$$f(x) = C_1 + (C_2 + C_3 m + C_4 h) \cdot \ln(r + C_5) \tag{H-11}$$

where m is earthquake magnitude, r is the distance to the principal rupture (in km), and h = 1 for the hanging wall side of the rupture and h = 0 for the footwall side of the rupture. Equation (H-11) was fit to the data listed in Table H-2 considering the two cases shown on Figures H-13a and H-13b. The resulting maximum likelihood parameters are listed below, including a case specified by the AAR team.

Coefficients of Equation (H-11)

Data Set	C_1	C_2	C_3	C_4	C_5
Table H-2 with Chalfant Valley Cracking	-0.891	-2.93	0.0065	0.957	1.48
Table H-2 without Chalfant Valley Cracking	2.06	-4.62	0.118	0.682	3.32
Table H-2 without Chalfant Valley Cracking and Mammoth (AAR)	2.04	-4.60	0.118	0.705	3.38

Shown on Figures H-13a and H-13b are curves indicating the probability of distributed rupture at a point, give the occurrence of an earthquake of M_w 5.5, 6.5, and 7.5. These relationships indicate that when the hanging wall cracking data from the 1988 Chalfant Valley earthquake are included in the data set, the resulting relationship shows no dependence on magnitude. If these data are not considered appropriate, then a significant magnitude effect is observed. The AAR and SDO teams considered an additional case exluding the hanging wall cracking data from Chalfant Valley and data from the 1980 Mammoth earthquake. The resulting parameters of Equation (H-11) are listed above and the data and logistic regression model are shown on Figure H-13c

H.4.3 Empirical Distribution for Probability of Distributed Rupture as a Function of Fault Orientation

The SBK and SDO teams considered a model for the probability that distributed rupture could occur on a feature based on data on the relative orientation between the principal and distributed ruptures in historical earthquakes. The data used for this assessment were the maps of historical ruptures presented on Plate 21 of S.K. Pezzopane and T.E. Dawson (USGS, written communication, 1996). The digitized faulting maps were analyzed to calculate the strike azimuths of the principal faulting trace and the individual distributed faulting traces. Figure H-14 shows an example of how a straight line was fit to a digitized fault trace. The average strike line was found by minimizing the squared distance from the fault trace digitization points measured normal to the strike line. Table H-3 summarizes the data for the angle between the principal fault trace and the individual distributed fault traces in terms of the number of distributed ruptures with relative angles within 5° intervals. Figure H-15 shows the data for all of the historical ruptures in terms of frequency of ruptures in each 5° relative angle increment (the number of ruptures in each increment divided by the total number of ruptures). The data are presented in terms of the number of digitization points for each distributed rupture trace. It is expected that the average strike for traces with more digitization points are somewhat better defined.

The frequency data plotted at the top of Figure H-15 were fit with the functional form:

$$\ln(\textit{frequency}) = C_1 + C_2 \operatorname{int}[\theta / 5] + C_3 \operatorname{int}[\theta / 5]^2 \qquad \text{(H-12)}$$

where θ is the angle between the average strike of the principal and distributed rupture and int[ ] is the integer function (i.e., int[4/5] = 0, int[7/5] = 1). The following table lists the coefficients of the individual fits to the data.

Coefficients of Equation (H-12)

Data Set	C_1	C_2	C_3
$n \geq 2$	-2.09	-0.0732	-0.00546
$n \geq 3$	-1.84	-0.130	-0.00415
$n \geq 4$	-1.73	-0.173	-0.00226
$n \geq 5$	-1.72	-0.186	-0.00132
$n \geq 6$	-1.86	-0.0734	-0.0117

These relationships can be used to assess the relative likelihood of rupture by normalizing them to produce unity at $\theta = 0$ [i.e., setting C_1 to 0 in Equation (H-12)]. The resulting relationships are shown on the bottom plot of Figure H-15.

H.5 REFERENCES

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Wheeler, R.L., 1989, Persistent segment boundaries on Basin-Range normal faults, *in* D.P., Schwartz and R.H. Sibson, eds, Proceedings, Conference XLV-Fault Segmentation and Controls on Rupture Initiation and Termination: U.S. Geological Survey Open-File Report 89-315, p. 432-444.

Table H-1
Summary of Data Presented in S.K. Pezzopane and T.E. Dawson (USGS, written communication, 1996) For the Occurrence of Principal Faulting During Historical Ruptures

Moment Magnitude (M_W)	Extensional Cordillera		Northern Basin & Range Post-1930		Great Basin Post-1930	
	Number of Events with:		Number of Events with:		Number of Events with:	
	Surface Rupture	No Surface Rupture	Surface Rupture	No Surface Rupture	Surface Rupture	No Surface Rupture
4.5	1	0				
4.6						
4.7						
4.8						
4.9	1	0	1	0	1	0
5.0	0	1	0	1		
5.1						
5.2	1	0				
5.3	0	1	0	1	0	1
5.4						
5.5	1	17	0	7	0	4
5.6	1	4	1	4	1	2
5.7	0	4	0	3	0	2
5.8	2	3	2	2	2	1
5.9	0	3	0	3	0	1
6.0	5	23	2	2	2	2
6.1	2	6	2	5	2	3
6.2	1	3	1	0	1	0
6.3	1	3	1	1	1	0
6.4	1	1				
6.5	1	4				
6.6	3	0	2	0	2	0
6.7						
6.8	3	0	3	0	2	0
6.9						
7.0						
7.1	1	0	1	0	1	0
7.2	1	0	1	0	1	0
7.3	2	0				
7.4	3	0	1	0		
7.5						
7.6	1	0				

Table H-2
Summary of Data from S.K. Pezzopane and T.E. Dawson (USGS, written communication, 1996, Plate 21) for Frequency of Distributed Faulting

Distance from Principal Rupture (km)	Hanging Wall		Footwall	
	Number of 0.5 km² Pixels with Distributed Rupture	Number of 0.5 km² Pixels without Distributed Rupture	Number of 0.5 km² Pixels with Distributed Rupture	Number of 0.5 km² Pixels without Distributed Rupture
1992 M_w 7.4 Landers, CA				
0.5	88	396	58	426
1.0	28	300	18	310
1.5	42	281	0	323
2.0	48	439	10	477
2.5	6	332	6	332
3.0	2	422	2	422
3.5	2	347	0	349
4.0	4	407	0	411
4.5	2	452	0	454
5.0	2	357	0	359
5.5	2	435	2	435
6.0	4	366	2	368
6.5	0	474	0	474
7.0	4	411	0	415
7.5	2	383	0	385
8.0	2	494	0	496
8.5	0	464	0	464
9.0	2	449	0	451
9.5	2	436	0	438
10.0	0	412	0	412
10.5	0	525	0	525
11.0	0	482	0	482
11.5	0	481	0	481
12.0	0	465	0	465
12.5	0	534	0	534
13.0	0	493	0	493
13.5	0	479	0	479
14.0	0	540	0	540
14.5	0	489	0	489
15.0	0	562	0	562
15.5	0	506	0	506
16.0	0	485	0	485
16.5	0	521	0	521
17.0	0	546	0	546
1887 M_w 7.4 Sonora, Mexico				
0.5	0	375	0	375
1.0	6	299	0	305
1.5	4	298	0	302
2.0	2	403	0	405
2.5	4	306	0	310
3.0	0	345	0	345
3.5	0	322	0	322
4.0	0	339	0	339
4.5	0	418	0	418

Table H-2
Summary of Data from S.K. Pezzopane and T.E. Dawson (USGS, written communication, 1996, Plate 21) for Frequency of Distributed Faulting

Distance from Principal Rupture (km)	Hanging Wall		Footwall	
	Number of 0.5 km² Pixels with Distributed Rupture	Number of 0.5 km² Pixels without Distributed Rupture	Number of 0.5 km² Pixels with Distributed Rupture	Number of 0.5 km² Pixels without Distributed Rupture
5.0	0	333	0	333
5.5	0	367	0	367
6.0	0	345	0	345
6.5	0	403	0	403
7.0	0	378	0	378
7.5	0	361	0	361
8.0	6	426	0	432
8.5	10	414	0	424
9.0	12	383	0	395
9.5	6	395	0	401
10.0	0	387	0	387
10.5	0	454	0	454
11.0	0	437	0	437
11.5	0	428	0	428
12.0	0	426	0	426
12.5	0	489	0	489
13.0	0	452	0	452
13.5	0	439	0	439
14.0	0	482	0	482
14.5	0	451	0	451
15.0	0	507	0	507
15.5	0	474	0	474
16.0	0	467	0	467
16.5	0	490	0	490
17.0	0	537	0	537
1959 M_w 7.4 Hebgen Lake, MT				
0.5	14	185	12	187
1.0	4	135	10	129
1.5	6	125	4	127
2.0	10	185	0	195
2.5	0	117	4	113
3.0	0	157	2	155
3.5	0	128	0	128
4.0	0	159	0	159
4.5	0	179	0	179
5.0	2	141	0	143
5.5	4	183	0	187
6.0	6	150	0	156
6.5	20	187	0	207
7.0	6	179	0	185
7.5	2	168	0	170
8.0	0	229	0	229
8.5	16	196	0	212
9.0	16	201	0	217
9.5	0	211	0	211

Table H-2
Summary of Data from S.K. Pezzopane and T.E. Dawson (USGS, written communication, 1996, Plate 21) for Frequency of Distributed Faulting

Distance from Principal Rupture (km)	Hanging Wall		Footwall	
	Number of 0.5 km² Pixels with Distributed Rupture	Number of 0.5 km² Pixels without Distributed Rupture	Number of 0.5 km² Pixels with Distributed Rupture	Number of 0.5 km² Pixels without Distributed Rupture
10.0	4	193	0	197
10.5	0	263	0	263
11.0	2	233	0	235
11.5	14	237	0	251
12.0	0	238	0	238
12.5	8	269	0	277
13.0	4	257	0	261
13.5	4	248	0	252
14.0	2	291	0	293
14.5	0	265	0	265
15.0	0	308	0	308
15.5	0	288	0	288
16.0	0	280	0	280
16.5	0	315	0	315
17.0	0	321	0	321
1932 M_w 7.2 Cedar Mtn., NV				
0.5	4	169	0	173
1.0	6	184	4	186
1.5	4	197	2	199
2.0	14	289	0	303
2.5	4	229	0	233
3.0	0	275	6	269
3.5	4	244	6	242
4.0	6	264	18	252
4.5	10	335	2	343
5.0	2	274	0	276
5.5	0	322	0	322
6.0	6	288	0	294
6.5	6	330	2	334
7.0	0	315	2	313
7.5	0	295	4	291
8.0	0	367	2	365
8.5	0	346	0	346
9.0	0	331	0	331
9.5	0	336	0	336
10.0	0	318	0	318
10.5	0	378	0	378
11.0	0	367	0	367
11.5	0	361	0	361
12.0	0	359	0	359
12.5	0	403	0	403
13.0	0	384	0	384
13.5	0	370	2	368
14.0	0	410	2	408
14.5	0	381	0	381

Table H-2
Summary of Data from S.K. Pezzopane and T.E. Dawson (USGS, written communication, 1996, Plate 21) for Frequency of Distributed Faulting

Distance from Principal Rupture (km)	Hanging Wall		Footwall	
	Number of 0.5 km² Pixels with Distributed Rupture	Number of 0.5 km² Pixels without Distributed Rupture	Number of 0.5 km² Pixels with Distributed Rupture	Number of 0.5 km² Pixels without Distributed Rupture
15.0	0	429	0	429
15.5	0	407	0	407
16.0	0	397	0	397
16.5	0	411	0	411
17.0	0	433	0	433
1954 M_w 7.1 Fairview Peak, NV				
0.5	4	291	10	285
1.0	8	219	6	221
1.5	6	228	2	232
2.0	12	315	2	325
2.5	6	250	6	250
3.0	8	288	2	294
3.5	8	273	4	277
4.0	8	294	2	300
4.5	22	363	4	381
5.0	28	282	4	306
5.5	4	350	0	354
6.0	2	332	0	334
6.5	4	393	0	397
7.0	2	377	0	379
7.5	2	364	0	366
8.0	0	441	0	441
8.5	0	411	0	411
9.0	0	391	0	391
9.5	2	386	0	388
10.0	0	374	0	374
10.5	0	436	0	436
11.0	0	425	0	425
11.5	0	413	0	413
12.0	0	407	0	407
12.5	0	466	0	466
13.0	0	431	0	431
13.5	0	420	0	420
14.0	0	463	0	463
14.5	0	429	0	429
15.0	0	482	0	482
15.5	0	451	0	451
16.0	0	442	0	442
16.5	0	473	0	473
17.0	0	506	0	506
1954 M_w 6.8 Dixie Valley, NV				
0.5	16	243	4	255
1.0	18	178	0	196
1.5	36	164	0	200
2.0	32	257	0	289