

# Appendice C

**Selezione delle registrazioni dalle Banche Dati Accelerometriche Europea e COSMOS.**

**Tabella riassuntiva del numero di registrazioni selezionate**

Classi di distanza epicentrale	Classi di magnitudo				
	50-55	55-60	60-65	65-70	Totale
	DB Acc. Europea [Ambraseys <i>et al.</i> , 2000]				
< 10 km	32	4	2	0	38
10-30 km	112	20	6	2	140
30-60 km	38	44	8	4	94
60-100 km	11	7	14	4	36
> 100 Km	0	4	6	6	16
Tot. parz.	193	79	36	16	324
	DB COSMOS				
< 10 km	6	0	0	0	6
10-30 km	15	6	9	6	36
30-60 km	0	6	15	12	33
60-100 km	0	0	12	18	30
> 100 Km	0	0	0	0	0
Tot. parz.	21	12	36	36	105
	Totali				
< 10 km	38	4	2	0	44
10-30 km	127	26	15	8	176
30-60 km	38	50	23	16	127
60-100 km	11	7	26	22	66
> 100 Km	0	4	6	6	16
Totale	214	91	72	52	429

**Eventi con magnitudo da 5.0 a 5.5**

Earthquake Name	Country	Date	Latitude	Longitude	Depth	mb	ML	Ms	Mw	Mo	Epicentral intensity	Source Mechanism	Earthquake key
<b>European DB</b>													
aftershock of Friuli earthquake	Italy	15/09/1976	46.32°	13.16°	12 km	5.4	6.1	5.98		1.3e+018 Nm	IX+ (MCS)	thrust	65
Friuli	Italy	16/09/1977	46.26°	12.98°	15 km	5.1	5.3	5.22		1.4e+017 Nm	VII+ (MCS)	thrust	72
Calabria	Italy	11/03/1978	38.02°	16.03°	15 km	5.5	4.3	5.02		8.3e+016 Nm		thrust	80
Valnerina	Italy	19/09/1979	42.76°	13.02°	4 km	5.8	5.5	5.84		6.9e+017 Nm		normal	115
El Asnam	Algeria	22/10/1980	36.42°	1.65°	6 km	5	4.5	4.26				thrust	132
El Asnam	Algeria	30/10/1980	36.36°	1.69°	2 km	5.3	4.6	4.71				thrust	140
near coast of Scalea	Italy	21/03/1982	39.853°	15.721°	17 km	4.8	5	5.1			VII+ (MCS)	unknown	391
Umbria	Italy	29/04/1984	43.25°	12.47°	7 km	5.1	5.4	5.38		3.4e+017 Nm	VII+ (MCS)	normal	174
Lazio Abruzzo	Italy	07/05/1984	41.73°	13.9°	8 km	5.4	5.7	5.79		7.8e+017 Nm	VII+ (MCS)	normal	175
aftershock of Lazio Abruzzo earthquake	Italy	11/05/1984	41.77°	13.91°	8 km	5.2	5.1	5.27		2e+017 Nm	VII (MCS)	normal	176
Etolia	Greece	18/05/1988	38.35°	20.47°	26 km	5.4	5.3	5		1.1e+017 Nm	VI (MSK64)	unknown	203
Etolia	Greece	22/05/1988	38.35°	20.54°	15 km	5	5	4.68			VI (MSK64)	unknown	204
Potenza	Italy	05/05/1990	40.65°	15.92°	12 km	5.2	4.7	5.6			VII (MCS)	unknown	422
Javakheti Highland	Armenia	16/12/1990	41.37°	43.72°	28 km	5.2	5.2	5.1		1.7e+017 Nm		unknown	235
Umbro-Marchigiano	Italy	26/09/1997	43.023°	12.892°	7 km	5.5	5.6	5.5		3.82e+024 Nm	VIII (MCS)	normal	290
aftershock of Umbro-Marchigiana earthquake	Italy	03/10/1997	43.033°	12.838°	6 km	5.1	5.1	4.9		9.86e+016 Nm	VII (MCS)	normal	350
aftershock of Umbro-Marchigiana earthquake	Italy	06/10/1997	43.019°	12.838°	7 km	5.3	5.4	5.2		2.32e+017 Nm	VII+ (MCS)	normal	291
aftershock of Umbro-Marchigiana earthquake	Italy	12/10/1997	42.91°	12.946°	6 km	5.2	5.1	5.2		8.84e+016 Nm	VI+ (MCS)	normal	355
aftershock of Umbro-Marchigiana earthquake	Italy	14/10/1997	42.919°	12.926°	7 km	5.3	5.5	5.6		3.4e+017 Nm	VIII (MCS)	normal	292
aftershock of Umbro-Marchigiana earthquake	Italy	09/11/1997	42.903°	12.948°	10 km	4.8	5					unknown	360
aftershock of Umbro-Marchigiana earthquake	Italy	26/03/1998	43.115°	12.8°	7 km	5.4	5.5	4.8			VII (MCS)	unknown	363
aftershock of Umbro-Marchigiana earthquake	Italy	03/04/1998	43.2°	12.79°	6 km	5.1	5.2	4.8			VII (MCS)	unknown	364
aftershock of Umbro-Marchigiana earthquake	Italy	05/04/1998	43.185°	12.719°	10 km	4.7	5.1	4.4				unknown	365
<b>COSMOS - Rock</b>													
S.Francisco	USA	22/03/1957	37.6670	-122.4830	8 km		5.3		5.3		VII (MCS)	Reverse	
Hollister	USA	28/11/1974	36.9202	-121.4663	6,11 km		5.2	4.5	5.2		VI (MCS)	Strike-slip	
<b>COSMOS - Very dense soil and soft rock S/wave 600-800</b>													
Anza 2005	USA	12/06/2005	33.5330	-116.5780	14,10 km		5.6		5.2		VI (MCS)	Strike-slip	
Anza 1980	USA	25/02/1980	33.5050	-116.5140	13,60 km				5.3		VI (MCS)	Strike-slip	
Anza 2001	USA	31/10/2001	33.5083	-116.5143	15,20 km		5.1				V (MCS)	Normal-oblique	

**Registrazioni per eventi con magnitudo da 5.0 a 5.5**

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
European DB															
65	36	140	Robic, N-S	Slovenia	ROB		29 km	12 km	VII+	46.218°	13.502°	rock		0.868 m/s <sup>2</sup>	2.669 cm/s
65	36	140	Robic, E-W	Slovenia	ROB		29 km	12 km	VII+	46.218°	13.502°	rock		0.484 m/s <sup>2</sup>	1.785 cm/s
65	36	140	Robic, VERT	Slovenia	ROB		29 km	12 km	VII+	46.218°	13.502°	rock		0.456 m/s <sup>2</sup>	1.490 cm/s
80	45	169	Ferruzzano, NS	Italy	FRR		10 km			38.051°	16.132°	rock		0.743 m/s <sup>2</sup>	4.685 cm/s
80	45	169	Ferruzzano, EW	Italy	FRR		10 km			38.051°	16.132°	rock		0.762 m/s <sup>2</sup>	4.910 cm/s
80	45	169	Ferruzzano, VERT	Italy	FRR		10 km			38.051°	16.132°	rock		0.329 m/s <sup>2</sup>	1.514 cm/s
115	61	246	Arquata del Tronto, N-S	Italy	ARQ		22 km	21 km		42.772°	13.294°	rock		0.600 m/s <sup>2</sup>	4.031 cm/s
115	61	246	Arquata del Tronto, E-W	Italy	ARQ		22 km	21 km		42.772°	13.294°	rock		0.870 m/s <sup>2</sup>	5.185 cm/s
115	61	246	Arquata del Tronto, VERT	Italy	ARQ		22 km	21 km		42.772°	13.294°	rock		0.521 m/s <sup>2</sup>	3.263 cm/s
132	91	267	Beni Rashid, N-S	Algeria	BRS		21 km			36.273°	1.499°	rock		0.200 m/s <sup>2</sup>	2.233 cm/s
132	91	267	Beni Rashid, E-W	Algeria	BRS		21 km			36.273°	1.499°	rock		0.269 m/s <sup>2</sup>	2.623 cm/s
132	91	267	Beni Rashid, VERT	Algeria	BRS		21 km			36.273°	1.499°	rock		0.305 m/s <sup>2</sup>	1.453 cm/s
140	91	280	Beni Rashid, N-S	Algeria	BRS		20 km			36.273°	1.499°	rock		0.385 m/s <sup>2</sup>	3.397 cm/s
140	91	280	Beni Rashid, E-W	Algeria	BRS		20 km			36.273°	1.499°	rock		0.485 m/s <sup>2</sup>	2.946 cm/s
140	91	280	Beni Rashid, VERT	Algeria	BRS		20 km			36.273°	1.499°	rock		0.187 m/s <sup>2</sup>	1.912 cm/s
174	136	359	Gubbio, N-S	Italy	GBB		16 km			43.357°	12.602°	rock		0.497 m/s <sup>2</sup>	3.159 cm/s
174	136	359	Gubbio, E-W	Italy	GBB		16 km			43.357°	12.602°	rock		0.656 m/s <sup>2</sup>	3.611 cm/s
174	136	359	Gubbio, VERT	Italy	GBB		16 km			43.357°	12.602°	rock		0.357 m/s <sup>2</sup>	2.141 cm/s
174	60	361	Nocera Umbra, N-S	Italy	NCR		30 km		VI	43.113°	12.785°	rock		2.046 m/s <sup>2</sup>	5.472 cm/s
174	60	361	Nocera Umbra, E-W	Italy	NCR		30 km		VI	43.113°	12.785°	rock		1.571 m/s <sup>2</sup>	6.169 cm/s
174	60	361	Nocera Umbra, VERT	Italy	NCR		30 km		VI	43.113°	12.785°	rock		0.500 m/s <sup>2</sup>	1.183 cm/s
174	137	362	Umbertide, N-S	Italy	UMB		17 km		VI	43.254°	12.256°	rock		0.346 m/s <sup>2</sup>	1.311 cm/s
174	137	362	Umbertide, E-W	Italy	UMB		17 km		VI	43.254°	12.256°	rock		0.360 m/s <sup>2</sup>	1.825 cm/s
174	137	362	Umbertide, VERT	Italy	UMB		17 km		VI	43.254°	12.256°	rock		0.165 m/s <sup>2</sup>	0.902 cm/s
174	138	363	Pietralunga, N-S	Italy	PTL		20 km		VI	43.427°	12.449°	rock		1.742 m/s <sup>2</sup>	5.578 cm/s
174	138	363	Pietralunga, E-W	Italy	PTL		20 km		VI	43.427°	12.449°	rock		1.847 m/s <sup>2</sup>	8.485 cm/s
174	138	363	Pietralunga, VERT	Italy	PTL		20 km		VI	43.427°	12.449°	rock		0.532 m/s <sup>2</sup>	6.330 cm/s
175	140	365	Atina, N-S	Italy	ATN		15 km	12 km	VIII	41.62°	13.801°	rock		0.985 m/s <sup>2</sup>	3.679 cm/s
175	140	365	Atina, E-W	Italy	ATN		15 km	12 km	VII	41.62°	13.801°	rock		1.081 m/s <sup>2</sup>	3.652 cm/s
175	140	365	Atina, VERT	Italy	ATN		15 km	12 km	VII	41.62°	13.801°	rock		0.641 m/s <sup>2</sup>	2.917 cm/s
176	140	382	Atina, N-S	Italy	ATN		19 km		VI	41.62°	13.801°	rock		0.254 m/s <sup>2</sup>	1.266 cm/s
176	140	382	Atina, E-W	Italy	ATN		19 km		VI	41.62°	13.801°	rock		0.147 m/s <sup>2</sup>	0.884 cm/s
176	140	382	Atina, VERT	Italy	ATN		19 km		VI	41.62°	13.801°	rock		0.154 m/s <sup>2</sup>	0.948 cm/s
176	153	383	Pescasseroli, N-S	Italy	PSC		11 km		VIII	41.81°	13.79°	rock		0.198 m/s <sup>2</sup>	1.433 cm/s
176	153	383	Pescasseroli, E-W	Italy	PSC		11 km		VII	41.81°	13.79°	rock		0.201 m/s <sup>2</sup>	0.898 cm/s
176	153	383	Pescasseroli, VERT	Italy	PSC		11 km		VIII	41.81°	13.79°	rock		0.167 m/s <sup>2</sup>	0.604 cm/s
203	169	428	Valsamata-Seismograph Station, LONG	Greece	VLS		23 km			38.17°	20.6°	rock		1.624 m/s <sup>2</sup>	6.197 cm/s
203	169	428	Valsamata-Seismograph Station, TRAN	Greece	VLS		23 km			38.17°	20.6°	rock		1.730 m/s <sup>2</sup>	8.757 cm/s
203	169	428	Valsamata-Seismograph Station, VERT	Greece	VLS		23 km			38.17°	20.6°	rock		0.747 m/s <sup>2</sup>	4.395 cm/s
204	169	429	Valsamata-Seismograph Station, LONG	Greece	VLS		21 km	11 km		38.17°	20.6°	rock		0.527 m/s <sup>2</sup>	2.038 cm/s
204	169	429	Valsamata-Seismograph Station, TRAN	Greece	VLS		21 km	11 km		38.17°	20.6°	rock		0.788 m/s <sup>2</sup>	2.349 cm/s
204	169	429	Valsamata-Seismograph Station, VERT	Greece	VLS		21 km	11 km		38.17°	20.6°	rock		0.341 m/s <sup>2</sup>	1.341 cm/s
235	193	487	Akhalkalaki, N-S	Georgia	SAKH		20 km			41.4°	43.48°	rock		0.323 m/s <sup>2</sup>	2.075 cm/s
235	193	487	Akhalkalaki, E-W	Georgia	SAKH		20 km			41.4°	43.48°	rock		0.144 m/s <sup>2</sup>	0.728 cm/s
235	193	487	Akhalkalaki, UP	Georgia	SAKH		20 km			41.4°	43.48°	rock		0.116 m/s <sup>2</sup>	0.435 cm/s
290	60	593	Nocera Umbra, NS	Italy	NCR		13 km	13 km		43.113°	12.785°	rock		4.613 m/s <sup>2</sup>	20.293 cm/s
290	60	593	Nocera Umbra, WE	Italy	NCR		13 km	13 km		43.113°	12.785°	rock		3.425 m/s <sup>2</sup>	9.114 cm/s

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
290	60	593	Nocera Umbra, DU	Italy	NCR		13 km	13 km		43.113°	12.785°	rock		1.592 m/s <sup>2</sup>	5.921 cm/s
290	222	597	Monte Fiegni, NS	Italy	MNF		24 km	23 km		43.063°	13.185°	rock		0.240 m/s <sup>2</sup>	0.806 cm/s
290	222	597	Monte Fiegni, WE	Italy	MNF		24 km	23 km		43.063°	13.185°	rock		0.265 m/s <sup>2</sup>	1.053 cm/s
290	222	597	Monte Fiegni, DU	Italy	MNF		24 km	23 km		43.063°	13.185°	rock		0.170 m/s <sup>2</sup>	0.729 cm/s
291	60	623	Nocera Umbra, NS	Italy	NCR		11 km			43.113°	12.785°	rock		3.699 m/s <sup>2</sup>	14.511 cm/s
291	60	623	Nocera Umbra, WE	Italy	NCR		11 km			43.113°	12.785°	rock		3.031 m/s <sup>2</sup>	8.929 cm/s
291	60	623	Nocera Umbra, DU	Italy	NCR		11 km			43.113°	12.785°	rock		1.169 m/s <sup>2</sup>	5.644 cm/s
291	222	626	Monte Fiegni, NS	Italy	MNF		29 km			43.063°	13.185°	rock		0.138 m/s <sup>2</sup>	0.569 cm/s
291	222	626	Monte Fiegni, WE	Italy	MNF		29 km			43.063°	13.185°	rock		0.187 m/s <sup>2</sup>	0.753 cm/s
291	222	626	Monte Fiegni, DU	Italy	MNF		29 km			43.063°	13.185°	rock		0.156 m/s <sup>2</sup>	0.412 cm/s
292	60	636	Nocera Umbra, NS	Italy	NCR		24 km			43.113°	12.785°	rock		0.885 m/s <sup>2</sup>	2.207 cm/s
292	60	636	Nocera Umbra, WE	Italy	NCR		24 km			43.113°	12.785°	rock		1.026 m/s <sup>2</sup>	2.611 cm/s
292	60	636	Nocera Umbra, DU	Italy	NCR		24 km			43.113°	12.785°	rock		0.282 m/s <sup>2</sup>	0.871 cm/s
292	233	638	Cassignano, NS	Italy	CAG		17 km			43.054°	12.829°	rock		0.694 m/s <sup>2</sup>	2.810 cm/s
292	233	638	Cassignano, WE	Italy	CAG		17 km			43.054°	12.829°	rock		0.722 m/s <sup>2</sup>	1.570 cm/s
292	233	638	Cassignano, DU	Italy	CAG		17 km			43.054°	12.829°	rock		0.359 m/s <sup>2</sup>	1.498 cm/s
292	226	639	Forca Canapine, NS	Italy	FHC		29 km			42.761°	13.21°	rock		0.795 m/s <sup>2</sup>	2.750 cm/s
292	226	639	Forca Canapine, WE	Italy	FHC		29 km			42.761°	13.21°	rock		0.676 m/s <sup>2</sup>	2.278 cm/s
292	226	639	Forca Canapine, DU	Italy	FHC		29 km			42.761°	13.21°	rock		0.237 m/s <sup>2</sup>	1.728 cm/s
292	84	641	Spoletto Montelucio, NS	Italy	SPM		26 km			42.722°	12.752°	rock		0.346 m/s <sup>2</sup>	1.558 cm/s
292	84	641	Spoletto Montelucio, WE	Italy	SPM		26 km			42.722°	12.752°	rock		0.500 m/s <sup>2</sup>	2.025 cm/s
292	84	641	Spoletto Montelucio, DU	Italy	SPM		26 km			42.722°	12.752°	rock		0.201 m/s <sup>2</sup>	1.073 cm/s
292	225	642	Cascia, NS	Italy	CSC		23 km			42.719°	13.013°	rock		0.508 m/s <sup>2</sup>	5.140 cm/s
292	225	642	Cascia, WE	Italy	CSC		23 km			42.719°	13.013°	rock		0.670 m/s <sup>2</sup>	4.749 cm/s
292	225	642	Cascia, DU	Italy	CSC		23 km			42.719°	13.013°	rock		0.680 m/s <sup>2</sup>	3.210 cm/s
292	234	646	Serravalle di Chienti, NS	Italy	SER		17 km			43.073°	12.953°	rock		0.319 m/s <sup>2</sup>	1.283 cm/s
292	234	646	Serravalle di Chienti, WE	Italy	SER		17 km			43.073°	12.953°	rock		0.278 m/s <sup>2</sup>	0.853 cm/s
292	234	646	Serravalle di Chienti, DU	Italy	SER		17 km			43.073°	12.953°	rock		0.274 m/s <sup>2</sup>	1.666 cm/s
292	222	647	Monte Fiegni, NS	Italy	MNF		26 km			43.063°	13.185°	rock		0.111 m/s <sup>2</sup>	0.661 cm/s
292	222	647	Monte Fiegni, WE	Italy	MNF		26 km			43.063°	13.185°	rock		0.158 m/s <sup>2</sup>	0.749 cm/s
292	222	647	Monte Fiegni, DU	Italy	MNF		26 km			43.063°	13.185°	rock		0.141 m/s <sup>2</sup>	0.948 cm/s
291	235	649	Nocera Umbra-Biscontini, NS	Italy	NCB		10 km			43.103°	12.805°	rock		2.550 m/s <sup>2</sup>	9.331 cm/s
291	235	649	Nocera Umbra-Biscontini, EW	Italy	NCB		10 km			43.103°	12.805°	rock		3.347 m/s <sup>2</sup>	10.852 cm/s
291	235	649	Nocera Umbra-Biscontini, UD	Italy	NCB		10 km			43.103°	12.805°	rock		1.204 m/s <sup>2</sup>	6.726 cm/s
292	235	650	Nocera Umbra-Biscontini, NS	Italy	NCB		23 km			43.103°	12.805°	rock		0.372 m/s <sup>2</sup>	1.245 cm/s
292	235	650	Nocera Umbra-Biscontini, EW	Italy	NCB		23 km			43.103°	12.805°	rock		0.487 m/s <sup>2</sup>	1.289 cm/s
292	235	650	Nocera Umbra-Biscontini, UD	Italy	NCB		23 km			43.103°	12.805°	rock		0.159 m/s <sup>2</sup>	0.994 cm/s
290	266	763	Borgo-Cerreto Torre, NS	Italy			23 km	17 km		42.814°	12.915°	rock		1.831 m/s <sup>2</sup>	4.465 cm/s
290	266	763	Borgo-Cerreto Torre, EW	Italy			23 km	17 km		42.814°	12.915°	rock		1.534 m/s <sup>2</sup>	5.139 cm/s
290	266	763	Borgo-Cerreto Torre, V	Italy			23 km	17 km		42.814°	12.915°	rock		1.013 m/s <sup>2</sup>	3.617 cm/s
355	266	765	Borgo-Cerreto Torre, NS	Italy			11 km			42.814°	12.915°	rock		1.608 m/s <sup>2</sup>	3.940 cm/s
355	266	765	Borgo-Cerreto Torre, EW	Italy			11 km			42.814°	12.915°	rock		1.289 m/s <sup>2</sup>	5.580 cm/s
355	266	765	Borgo-Cerreto Torre, V	Italy			11 km			42.814°	12.915°	rock		0.901 m/s <sup>2</sup>	2.164 cm/s
292	266	766	Borgo-Cerreto Torre, NS	Italy			12 km			42.814°	12.915°	rock		2.534 m/s <sup>2</sup>	9.919 cm/s
292	266	766	Borgo-Cerreto Torre, EW	Italy			12 km			42.814°	12.915°	rock		3.292 m/s <sup>2</sup>	13.628 cm/s
292	266	766	Borgo-Cerreto Torre, V	Italy			12 km			42.814°	12.915°	rock		1.858 m/s <sup>2</sup>	7.162 cm/s
350	60	770	Nocera Umbra, NS	Italy	NCR		10 km			43.113°	12.785°	rock		2.805 m/s <sup>2</sup>	7.850 cm/s
350	60	770	Nocera Umbra, WE	Italy	NCR		10 km			43.113°	12.785°	rock		2.325 m/s <sup>2</sup>	4.342 cm/s
350	60	770	Nocera Umbra, DU	Italy	NCR		10 km			43.113°	12.785°	rock		1.075 m/s <sup>2</sup>	2.314 cm/s
350	222	773	Monte Fiegni, NS	Italy	MNF		28 km			43.063°	13.185°	rock		0.102 m/s <sup>2</sup>	0.578 cm/s
350	222	773	Monte Fiegni, WE	Italy	MNF		28 km			43.063°	13.185°	rock		0.119 m/s <sup>2</sup>	0.508 cm/s
350	222	773	Monte Fiegni, DU	Italy	MNF		28 km			43.063°	13.185°	rock		0.087 m/s <sup>2</sup>	0.264 cm/s

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
355	225	789	Cascia, NS	Italy	CSC		22 km			42.719°	13.013°	rock		0.264 m/s <sup>2</sup>	1.795 cm/s
355	225	789	Cascia, WE	Italy	CSC		22 km			42.719°	13.013°	rock		0.188 m/s <sup>2</sup>	0.889 cm/s
355	225	789	Cascia, DU	Italy	CSC		22 km			42.719°	13.013°	rock		0.193 m/s <sup>2</sup>	1.246 cm/s
355	234	791	Serravalle di Chienti, NS	Italy	SER		18 km			43.073°	12.953°	rock		0.197 m/s <sup>2</sup>	0.855 cm/s
355	234	791	Serravalle di Chienti, WE	Italy	SER		18 km			43.073°	12.953°	rock		0.157 m/s <sup>2</sup>	0.659 cm/s
355	234	791	Serravalle di Chienti, DU	Italy	SER		18 km			43.073°	12.953°	rock		0.163 m/s <sup>2</sup>	0.590 cm/s
355	60	794	Nocera Umbra, NS	Italy	NCR		26 km			43.113°	12.785°	rock		0.755 m/s <sup>2</sup>	1.559 cm/s
355	60	794	Nocera Umbra, WE	Italy	NCR		26 km			43.113°	12.785°	rock		0.664 m/s <sup>2</sup>	1.607 cm/s
355	60	794	Nocera Umbra, DU	Italy	NCR		26 km			43.113°	12.785°	rock		0.246 m/s <sup>2</sup>	0.798 cm/s
355	233	798	Cassignano, NS	Italy	CAG		19 km			43.054°	12.829°	rock		0.514 m/s <sup>2</sup>	1.492 cm/s
355	233	798	Cassignano, WE	Italy	CAG		19 km			43.054°	12.829°	rock		0.378 m/s <sup>2</sup>	2.326 cm/s
355	233	798	Cassignano, DU	Italy	CAG		19 km			43.054°	12.829°	rock		0.141 m/s <sup>2</sup>	1.155 cm/s
355	226	801	Forca Canapine, NS	Italy	FHC		27 km			42.761°	13.21°	rock		0.129 m/s <sup>2</sup>	0.930 cm/s
355	226	801	Forca Canapine, WE	Italy	FHC		27 km			42.761°	13.21°	rock		0.121 m/s <sup>2</sup>	1.454 cm/s
355	226	801	Forca Canapine, DU	Italy	FHC		27 km			42.761°	13.21°	rock		0.084 m/s <sup>2</sup>	0.357 cm/s
360	225	811	Cascia, NS	Italy	CSC		21 km			42.719°	13.013°	rock		0.168 m/s <sup>2</sup>	0.952 cm/s
360	225	811	Cascia, WE	Italy	CSC		21 km			42.719°	13.013°	rock		0.116 m/s <sup>2</sup>	1.321 cm/s
360	225	811	Cascia, DU	Italy	CSC		21 km			42.719°	13.013°	rock		0.080 m/s <sup>2</sup>	0.326 cm/s
355	235	818	Nocera Umbra-Biscontini, NS	Italy	NCB		24 km			43.103°	12.805°	rock		0.265 m/s <sup>2</sup>	0.829 cm/s
355	235	818	Nocera Umbra-Biscontini, EW	Italy	NCB		24 km			43.103°	12.805°	rock		0.389 m/s <sup>2</sup>	0.866 cm/s
355	235	818	Nocera Umbra-Biscontini, UD	Italy	NCB		24 km			43.103°	12.805°	rock		0.117 m/s <sup>2</sup>	0.482 cm/s
360	235	834	Nocera Umbra-Biscontini, NS	Italy	NCB		25 km			43.103°	12.805°	rock		0.132 m/s <sup>2</sup>	0.271 cm/s
360	235	834	Nocera Umbra-Biscontini, EW	Italy	NCB		25 km			43.103°	12.805°	rock		0.087 m/s <sup>2</sup>	0.196 cm/s
360	235	834	Nocera Umbra-Biscontini, UD	Italy	NCB		25 km			43.103°	12.805°	rock		0.052 m/s <sup>2</sup>	0.233 cm/s
360	60	838	Nocera Umbra, NS	Italy	NCR		27 km			43.113°	12.785°	rock		0.196 m/s <sup>2</sup>	0.460 cm/s
360	60	838	Nocera Umbra, EW	Italy	NCR		27 km			43.113°	12.785°	rock		0.185 m/s <sup>2</sup>	0.492 cm/s
360	60	838	Nocera Umbra, UD	Italy	NCR		27 km			43.113°	12.785°	rock		0.053 m/s <sup>2</sup>	0.307 cm/s
363	269	847	Sellano, NS	Italy	SLN		27 km			42.888°	12.926°	rock		0.224 m/s <sup>2</sup>	1.063 cm/s
363	269	847	Sellano, EW	Italy	SLN		27 km			42.888°	12.926°	rock		0.221 m/s <sup>2</sup>	1.067 cm/s
363	269	847	Sellano, UD	Italy	SLN		27 km			42.888°	12.926°	rock		0.120 m/s <sup>2</sup>	0.513 cm/s
364	235	852	Nocera Umbra-Biscontini, NS	Italy	NCB		11 km			43.103°	12.805°	rock		1.572 m/s <sup>2</sup>	3.426 cm/s
364	235	852	Nocera Umbra-Biscontini, EW	Italy	NCB		11 km			43.103°	12.805°	rock		3.126 m/s <sup>2</sup>	8.380 cm/s
364	235	852	Nocera Umbra-Biscontini, UD	Italy	NCB		11 km			43.103°	12.805°	rock		0.739 m/s <sup>2</sup>	1.954 cm/s
365	235	853	Nocera Umbra-Biscontini, NS	Italy	NCB		11 km			43.103°	12.805°	rock		0.959 m/s <sup>2</sup>	1.444 cm/s
365	235	853	Nocera Umbra-Biscontini, EW	Italy	NCB		11 km			43.103°	12.805°	rock		2.109 m/s <sup>2</sup>	6.363 cm/s
365	235	853	Nocera Umbra-Biscontini, UD	Italy	NCB		11 km			43.103°	12.805°	rock		0.481 m/s <sup>2</sup>	1.164 cm/s
364	228	854	Gubbio-Piana, NS	Italy	GBP		21 km			43.313°	12.589°	rock		0.529 m/s <sup>2</sup>	3.113 cm/s
364	228	854	Gubbio-Piana, EW	Italy	GBP		21 km			43.313°	12.589°	rock		0.494 m/s <sup>2</sup>	3.636 cm/s
364	228	854	Gubbio-Piana, UD	Italy	GBP		21 km			43.313°	12.589°	rock		0.253 m/s <sup>2</sup>	1.436 cm/s
365	228	855	Gubbio-Piana, NS	Italy	GBP		18 km			43.313°	12.589°	rock		0.292 m/s <sup>2</sup>	1.808 cm/s
365	228	855	Gubbio-Piana, EW	Italy	GBP		18 km			43.313°	12.589°	rock		0.235 m/s <sup>2</sup>	1.763 cm/s
365	228	855	Gubbio-Piana, UD	Italy	GBP		18 km			43.313°	12.589°	rock		0.129 m/s <sup>2</sup>	0.909 cm/s
364	60	856	Nocera Umbra, NS	Italy	NCR		10 km			43.113°	12.785°	rock		3.907 m/s <sup>2</sup>	9.964 cm/s
364	60	856	Nocera Umbra, EW	Italy	NCR		10 km			43.113°	12.785°	rock		2.771 m/s <sup>2</sup>	8.890 cm/s
364	60	856	Nocera Umbra, UD	Italy	NCR		10 km			43.113°	12.785°	rock		1.250 m/s <sup>2</sup>	2.618 cm/s
365	60	857	Nocera Umbra, NS	Italy	NCR		10 km			43.113°	12.785°	rock		1.710 m/s <sup>2</sup>	3.578 cm/s
365	60	857	Nocera Umbra, EW	Italy	NCR		10 km			43.113°	12.785°	rock		1.424 m/s <sup>2</sup>	3.595 cm/s
365	60	857	Nocera Umbra, UD	Italy	NCR		10 km			43.113°	12.785°	rock		0.635 m/s <sup>2</sup>	1.196 cm/s
364	136	870	Gubbio, NS	Italy	GBB		23 km			43.357°	12.602°	rock		0.288 m/s <sup>2</sup>	1.268 cm/s
364	136	870	Gubbio, WE	Italy	GBB		23 km			43.357°	12.602°	rock		0.385 m/s <sup>2</sup>	1.326 cm/s
364	136	870	Gubbio, DU	Italy	GBB		23 km			43.357°	12.602°	rock		0.148 m/s <sup>2</sup>	0.610 cm/s
364	233	873	Cassignano, NS	Italy	CAG		17 km			43.054°	12.829°	rock		0.815 m/s <sup>2</sup>	1.853 cm/s

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
364	233	873	Cassignano, WE	Italy	CAG		17 km			43.054°	12.829°	rock		0.852 m/s <sup>2</sup>	1.950 cm/s
364	233	873	Cassignano, DU	Italy	CAG		17 km			43.054°	12.829°	rock		0.299 m/s <sup>2</sup>	0.812 cm/s
365	233	874	Cassignano, NS	Italy	CAG		17 km			43.054°	12.829°	rock		0.312 m/s <sup>2</sup>	0.704 cm/s
365	233	874	Cassignano, WE	Italy	CAG		17 km			43.054°	12.829°	rock		0.224 m/s <sup>2</sup>	0.561 cm/s
365	233	874	Cassignano, DU	Italy	CAG		17 km			43.054°	12.829°	rock		0.146 m/s <sup>2</sup>	0.543 cm/s
391	280	908	Lauria-Galdo, NS	Italy	LRG		24 km			40.021°	15.89°	rock		0.319 m/s <sup>2</sup>	1.199 cm/s
391	280	908	Lauria-Galdo, WE	Italy	LRG		24 km			40.021°	15.89°	rock		0.394 m/s <sup>2</sup>	1.195 cm/s
391	280	908	Lauria-Galdo, UP	Italy	LRG		24 km			40.021°	15.89°	rock		0.268 m/s <sup>2</sup>	0.666 cm/s
422	103	946	Tricarico, NS	Italy	TRR		20 km			40.619°	16.156°	rock		0.346 m/s <sup>2</sup>	1.837 cm/s
422	103	946	Tricarico, WE	Italy	TRR		20 km			40.619°	16.156°	rock		0.324 m/s <sup>2</sup>	1.713 cm/s
422	103	946	Tricarico, UP	Italy	TRR		20 km			40.619°	16.156°	rock		0.188 m/s <sup>2</sup>	1.266 cm/s
72	309	982	Somplago-Uscita Galleria, NS	Italy	SMU		11 km			46.338°	13.061°	rock		1.870 m/s <sup>2</sup>	7.666 cm/s
72	309	982	Somplago-Uscita Galleria, EW	Italy	SMU		11 km			46.338°	13.061°	rock		0.918 m/s <sup>2</sup>	2.767 cm/s
72	309	982	Somplago-Uscita Galleria, UP	Italy	SMU		11 km			46.338°	13.061°	rock		0.587 m/s <sup>2</sup>	1.688 cm/s
<b>COSMOS - Rock</b>															
S.Francisco			San Francisco, CA - Golden Gate Park UP	USA	USGS 1117	15,2 Km	12,92 km			37.7700	-122.4800	rock(chert)	no data	37,20 cm/s <sup>2</sup>	-1,21 cm/s
S.Francisco			San Francisco, CA - Golden Gate Park 10	USA	USGS 1117	15,2 Km	12,92 km			37.7700	-122.4800	rock(chert)	no data	-81,79 cm/s <sup>2</sup>	-4,92 cm/s
S.Francisco			San Francisco, CA - Golden Gate Park 100	USA	USGS 1117	15,2 Km	12,92 km			37.7700	-122.4800	rock(chert)	no data	-102,80 cm/s <sup>2</sup>	-4,61 cm/s
Hollister			Gilroy Array Sta 1, CA - Gavilan College, Water Down	USA	CSMIP 47379		22 km			36.9730	-121.5720	rock	1428 m/s	29,32 cm/s <sup>2</sup>	0,92 cm/s
Hollister			Gilroy Array Sta 1, CA - Gavilan College, Water 157	USA	CSMIP 47379		22 km			36.9730	-121.5720	rock	1428 m/s	-94,11 cm/s <sup>2</sup>	-3,33 cm/s
Hollister			Gilroy Array Sta 1, CA - Gavilan College, Water 247	USA	CSMIP 47379		22 km			36.9730	-121.5720	rock	1428 m/s	-134,67 cm/s <sup>2</sup>	3,98 cm/s
<b>COSMOS - Very dense soil and soft rock S/wave 600-800</b>															
Anza 2005			Anza Array Santa Rosa Mountain, Rarick Springs 360	USA	USGS 5230	15,9 km	7,35 km			33.5680	-116.5100	rock M	589 m/s	-929,00 cm/s <sup>2</sup>	no data
Anza 2005			Anza Array Santa Rosa Mountain, Rarick Springs 270	USA	USGS 5230	15,9 km	7,35 km			33.5680	-116.5100	rock M	589 m/s	520,00 cm/s <sup>2</sup>	no data
Anza 2005			Anza Array Santa Rosa Mountain, Rarick Springs UP	USA	USGS 5230	15,9 km	7,35 km			33.5680	-116.5100	rock M	589 m/s	-309,00 cm/s <sup>2</sup>	no data
Anza 1980			Anza Array Terwilliger Valley, Snodgrass Reservoir 135	USA	USGS 5045	15,8 km	8,04 km			33.4800	-116.5900	no data M	589 m/s	83,70 cm/s <sup>2</sup>	no data
Anza 1980			Anza Array Terwilliger Valley, Snodgrass Reservoir 45	USA	USGS 5045	15,8 km	8,04 km			33.4800	-116.5900	no data M	589 m/s	124,20 cm/s <sup>2</sup>	no data
Anza 1980			Anza Array Terwilliger Valley, Snodgrass Reservoir UP	USA	USGS 5045	15,8 km	8,04 km			33.4800	-116.5900	no data M	589 m/s	61,70 cm/s <sup>2</sup>	no data
Anza 2005			Anza Array Pinyon Flat Observatory 360	USA	USGS 5044	18,2 km	11,51 km			33.6076	-116.4540	Quartz Dior-Granodior wthr to 20m M	589 m/s	309,00 cm/s <sup>2</sup>	5,71 cm/s
Anza 2005			Anza Array Pinyon Flat Observatory 90	USA	USGS 5044	18,2 km	11,51 km			33.6076	-116.4540	Quartz Dior-Granodior wthr to 20m M	589 m/s	273,00 cm/s <sup>2</sup>	7,28 cm/s
Anza 2005			Anza Array Pinyon Flat Observatory UP	USA	USGS 5044	18,2 km	11,51 km			33.6076	-116.4540	Quartz Dior-Granodior wthr to 20m M	589 m/s	219,00 cm/s <sup>2</sup>	-3,46 cm/s
Anza 2001			Anza Array Pinyon Flat Observatory 360	USA	USGS 5044	19,6 km	12,37 km			33.6076	-116.4540	Quartz Dior-Granodior wthr to 20m M	589 m/s	-132,40 cm/s <sup>2</sup>	2,30 cm/s

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
Anza 2001			Anza Array Pinyon Flat Observatory 90	USA	USGS 5044	19,6 km	12,37 km			33.6076	-116.4540	Quartz Dior-Granodior wthr to 20m M	589 m/s	120,50 cm/s <sup>2</sup>	-3,60 cm/s
Anza 2001			Anza Array Pinyon Flat Observatory UP	USA	USGS 5044	19,6 km	12,37 km			33.6076	-116.4540	Quartz Dior-Granodior wthr to 20m M	589 m/s	109,10 cm/s <sup>2</sup>	1,20 cm/s
Anza 1980			Anza Array Pinyon Flat Observatory 135	USA	USGS 5044	19,1 km	13,41 km			33.6076	-116.4540	Quartz Dior-Granodior wthr to 20m M	589 m/s	124,30 cm/s <sup>2</sup>	no data
Anza 1980			Anza Array Pinyon Flat Observatory 45	USA	USGS 5044	19,1 km	13,41 km			33.6076	-116.4540	Quartz Dior-Granodior wthr to 20m M	589 m/s	108,60 cm/s <sup>2</sup>	no data
Anza 1980			Anza Array Pinyon Flat Observatory UP	USA	USGS 5044	19,1 km	13,41 km			33.6076	-116.4540	Quartz Dior-Granodior wthr to 20m M	589 m/s	49,00 cm/s <sup>2</sup>	no data

**Eventi con magnitudo da 5.5 a 6.0**

Earthquake Name	Country	Date	Latitude	Longitude	Depth	mb	ML	Ms	Mw	Mo	Epicentral intensity	Source Mechanism	Earthquake key
<b>European DB</b>													
aftershock of Friuli earthquake	Italy	15/09/1976	46.32°	13.16°	12 km	5.4	6.1	5.98		1.3e+018 Nm	IX+ (MCS)	thrust	65
aftershock of Montenegro earthquake	Yugoslavia	15/04/1979	42.29°	18.68°	7 km	5.6	5.7	5.8		6e+017 Nm		thrust	98
aftershock of Montenegro earthquake	Yugoslavia	24/05/1979	42.23°	18.76°	5 km	5.7	6.2	6.34		2.2e+018 Nm		thrust	108
aftershock of Umbro-Marchigiana earthquake	Italy	14/10/1997	42.919°	12.926°	7 km	5.3	5.5	5.6		3.4e+017 Nm	VIII (MCS)	normal	292
Athens	Greece	07/09/1999	38.132°	23.545°	9 km	5.8		5.6		7.8e+017 Nm		normal	474
Calabria	Italy	11/03/1978	38.02°	16.03°	15 km	5.5	4.3	5.02		8.3e+016 Nm		thrust	80
Campano Lucano	Italy	23/11/1980	40.78°	15.33°	16 km	6	6.6	6.87		2.5e+019 Nm	VII+ (MCS)	normal	146
Golbasi	Turkey	05/05/1986	38.02°	37.79°	4 km	5.7		5.9		1.4e+018 Nm		thrust	189
Lazio Abruzzo	Italy	07/05/1984	41.73°	13.9°	8 km	5.4	5.7	5.79		7.8e+017 Nm	VII+ (MCS)	normal	175
Potenza	Italy	05/05/1990	40.65°	15.92°	12 km	5.2	4.7	5.6			VII (MCS)	unknown	422
Umbro-Marchigiano	Italy	26/09/1997	43.023°	12.892°	7 km	5.5	5.6	5.5		3.82e+024 Nm	VIII (MCS)	normal	290
Umbro-Marchigiano	Italy	26/09/1997	43.031°	12.862°	6 km	5.7	5.8	5.9		1.14e+018 Nm	VIII+ (MCS)	normal	286
Valnerina	Italy	19/09/1979	42.76°	13.02°	4 km	5.8	5.5	5.84		6.9e+017 Nm		normal	115
<b>COSMOS - Rock</b>													
Coyote Lake	USA	06/08/1979	37.0845	-121.5054	9,6 km		5.8	5.7	5.7		VII (MCS)	Strike-slip	
Sierra Madre	USA	28/06/1991	34.2591	-118.0010	12 km				5.6		VII (MCS)	Reverse	
<b>COSMOS - Very dense soil and soft rock S/wave 600-800</b>													
Parkfield	USA	28/09/2004	35.8150	-120.3740	7,9 km				6		VI (MCS)	Strike-slip	

**Registrazioni per eventi con magnitudo da 5.5 a 6.0**

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
European DB															
63	36	128	Robic, N-S	Slovenia	ROB		25 km	19 km	VII+	46.218°	13.502°	rock		0.999 m/s <sup>2</sup>	3.164 cm/s
63	36	128	Robic, E-W	Slovenia	ROB		25 km	19 km	VII+	46.218°	13.502°	rock		0.686 m/s <sup>2</sup>	3.295 cm/s
63	36	128	Robic, VERT	Slovenia	ROB		25 km	19 km	VII+	46.218°	13.502°	rock		0.442 m/s <sup>2</sup>	3.200 cm/s
65	36	140	Robic, N-S	Slovenia	ROB		29 km	12 km	VII+	46.218°	13.502°	rock		0.868 m/s <sup>2</sup>	2.669 cm/s
65	36	140	Robic, E-W	Slovenia	ROB		29 km	12 km	VII+	46.218°	13.502°	rock		0.484 m/s <sup>2</sup>	1.785 cm/s
65	36	140	Robic, VERT	Slovenia	ROB		29 km	12 km	VII+	46.218°	13.502°	rock		0.456 m/s <sup>2</sup>	1.490 cm/s
80	45	169	Ferruzzano, NS	Italy	FRR		10 km			38.051°	16.132°	rock		0.743 m/s <sup>2</sup>	4.685 cm/s
80	45	169	Ferruzzano, EW	Italy	FRR		10 km			38.051°	16.132°	rock		0.762 m/s <sup>2</sup>	4.910 cm/s
80	45	169	Ferruzzano, VERT	Italy	FRR		10 km			38.051°	16.132°	rock		0.329 m/s <sup>2</sup>	1.514 cm/s
98	68	212	Herceg Novi-O.S. D. Pavicic, N-S	Yugoslavia	HRZ		22 km	22 km		42.457°	18.531°	rock		0.909 m/s <sup>2</sup>	4.273 cm/s
98	68	212	Herceg Novi-O.S. D. Pavicic, E-W	Yugoslavia	HRZ		22 km	22 km		42.457°	18.531°	rock		0.802 m/s <sup>2</sup>	3.150 cm/s
98	68	212	Herceg Novi-O.S. D. Pavicic, VERT	Yugoslavia	HRZ		22 km	22 km		42.457°	18.531°	rock		0.445 m/s <sup>2</sup>	1.661 cm/s
108	77	232	Kotor Nas Rakit, N-S	Yugoslavia	KOTN		21 km	19 km		42.418°	18.773°	rock		0.560 m/s <sup>2</sup>	3.634 cm/s
108	77	232	Kotor Nas Rakit, E-W	Yugoslavia	KOTN		21 km	19 km		42.418°	18.773°	rock		0.543 m/s <sup>2</sup>	4.309 cm/s
108	77	232	Kotor Nas Rakit, VERT	Yugoslavia	KOTN		21 km	19 km		42.418°	18.773°	rock		0.331 m/s <sup>2</sup>	3.009 cm/s
115	61	246	Arquata del Tronto, N-S	Italy	ARQ		22 km	21 km		42.772°	13.294°	rock		0.600 m/s <sup>2</sup>	4.031 cm/s
115	61	246	Arquata del Tronto, E-W	Italy	ARQ		22 km	21 km		42.772°	13.294°	rock		0.870 m/s <sup>2</sup>	5.185 cm/s
115	61	246	Arquata del Tronto, VERT	Italy	ARQ		22 km	21 km		42.772°	13.294°	rock		0.521 m/s <sup>2</sup>	3.263 cm/s
146	98	292	Auletta, N-S	Italy	ALT		25 km	10 km	VIII	40.556°	15.395°	rock		0.588 m/s <sup>2</sup>	4.361 cm/s
146	98	292	Auletta, E-W	Italy	ALT		25 km	10 km	VIII	40.556°	15.395°	rock		0.588 m/s <sup>2</sup>	5.855 cm/s
146	98	292	Auletta, VERT	Italy	ALT		25 km	10 km	VIII	40.556°	15.395°	rock		0.345 m/s <sup>2</sup>	3.164 cm/s
175	140	365	Atina, N-S	Italy	ATN		15 km	12 km	VII	41.62°	13.801°	rock		0.985 m/s <sup>2</sup>	3.679 cm/s
175	140	365	Atina, E-W	Italy	ATN		15 km	12 km	VII	41.62°	13.801°	rock		1.081 m/s <sup>2</sup>	3.652 cm/s
175	140	365	Atina, VERT	Italy	ATN		15 km	12 km	VII	41.62°	13.801°	rock		0.641 m/s <sup>2</sup>	2.917 cm/s
189	161	410	Golbasi-Devlet Hastanesi, NS	Turkey	GOL		29 km	27 km		37.789°	37.636°	rock		0.383 m/s <sup>2</sup>	2.888 cm/s
189	161	410	Golbasi-Devlet Hastanesi, EW	Turkey	GOL		29 km	27 km		37.789°	37.636°	rock		0.538 m/s <sup>2</sup>	7.491 cm/s
189	161	410	Golbasi-Devlet Hastanesi, VERT	Turkey	GOL		29 km	27 km		37.789°	37.636°	rock		0.262 m/s <sup>2</sup>	3.588 cm/s
290	60	593	Nocera Umbra, NS	Italy	NCR		13 km	13 km		43.113°	12.785°	rock		4.613 m/s <sup>2</sup>	20.293 cm/s
290	60	593	Nocera Umbra, WE	Italy	NCR		13 km	13 km		43.113°	12.785°	rock		3.425 m/s <sup>2</sup>	9.114 cm/s
290	60	593	Nocera Umbra, DU	Italy	NCR		13 km	13 km		43.113°	12.785°	rock		1.592 m/s <sup>2</sup>	5.921 cm/s
286	60	594	Nocera Umbra, NS	Italy	NCR		11 km	4 km		43.113°	12.785°	rock		6.980 m/s <sup>2</sup>	27.615 cm/s
286	60	594	Nocera Umbra, WE	Italy	NCR		11 km	4 km		43.113°	12.785°	rock		7.454 m/s <sup>2</sup>	29.863 cm/s
286	60	594	Nocera Umbra, DU	Italy	NCR		11 km	4 km		43.113°	12.785°	rock		4.899 m/s <sup>2</sup>	28.502 cm/s
290	222	597	Monte Fiegni, NS	Italy	MNF		24 km	23 km		43.063°	13.185°	rock		0.240 m/s <sup>2</sup>	0.806 cm/s
290	222	597	Monte Fiegni, WE	Italy	MNF		24 km	23 km		43.063°	13.185°	rock		0.265 m/s <sup>2</sup>	1.053 cm/s
290	222	597	Monte Fiegni, DU	Italy	MNF		24 km	23 km		43.063°	13.185°	rock		0.170 m/s <sup>2</sup>	0.729 cm/s
286	222	598	Monte Fiegni, NS	Italy	MNF		27 km	25 km		43.063°	13.185°	rock		0.273 m/s <sup>2</sup>	1.664 cm/s
286	222	598	Monte Fiegni, WE	Italy	MNF		27 km	25 km		43.063°	13.185°	rock		0.312 m/s <sup>2</sup>	1.038 cm/s
286	222	598	Monte Fiegni, DU	Italy	MNF		27 km	25 km		43.063°	13.185°	rock		0.255 m/s <sup>2</sup>	0.787 cm/s
292	60	636	Nocera Umbra, NS	Italy	NCR		24 km			43.113°	12.785°	rock		0.885 m/s <sup>2</sup>	2.207 cm/s
292	60	636	Nocera Umbra, WE	Italy	NCR		24 km			43.113°	12.785°	rock		1.026 m/s <sup>2</sup>	2.611 cm/s
292	60	636	Nocera Umbra, DU	Italy	NCR		24 km			43.113°	12.785°	rock		0.282 m/s <sup>2</sup>	0.871 cm/s
292	233	638	Cassignano, NS	Italy	CAG		17 km			43.054°	12.829°	rock		0.694 m/s <sup>2</sup>	2.810 cm/s
292	233	638	Cassignano, WE	Italy	CAG		17 km			43.054°	12.829°	rock		0.722 m/s <sup>2</sup>	1.570 cm/s
292	233	638	Cassignano, DU	Italy	CAG		17 km			43.054°	12.829°	rock		0.359 m/s <sup>2</sup>	1.498 cm/s
292	226	639	Forca Canapine, NS	Italy	FHC		29 km			42.761°	13.21°	rock		0.795 m/s <sup>2</sup>	2.750 cm/s
292	226	639	Forca Canapine, WE	Italy	FHC		29 km			42.761°	13.21°	rock		0.676 m/s <sup>2</sup>	2.278 cm/s

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
292	226	639	Forca Canapine, DU	Italy	FHC		29 km			42.761°	13.21°	rock		0.237 m/s <sup>2</sup>	1.728 cm/s
292	84	641	Spoletto Montelucio, NS	Italy	SPM		26 km			42.722°	12.752°	rock		0.346 m/s <sup>2</sup>	1.558 cm/s
292	84	641	Spoletto Montelucio, WE	Italy	SPM		26 km			42.722°	12.752°	rock		0.500 m/s <sup>2</sup>	2.025 cm/s
292	84	641	Spoletto Montelucio, DU	Italy	SPM		26 km			42.722°	12.752°	rock		0.201 m/s <sup>2</sup>	1.073 cm/s
292	225	642	Cascia, NS	Italy	CSC		23 km			42.719°	13.013°	rock		0.508 m/s <sup>2</sup>	5.140 cm/s
292	225	642	Cascia, WE	Italy	CSC		23 km			42.719°	13.013°	rock		0.670 m/s <sup>2</sup>	4.749 cm/s
292	225	642	Cascia, DU	Italy	CSC		23 km			42.719°	13.013°	rock		0.680 m/s <sup>2</sup>	3.210 cm/s
292	234	646	Serravalle di Chienti, NS	Italy	SER		17 km			43.073°	12.953°	rock		0.319 m/s <sup>2</sup>	1.283 cm/s
292	234	646	Serravalle di Chienti, WE	Italy	SER		17 km			43.073°	12.953°	rock		0.278 m/s <sup>2</sup>	0.853 cm/s
292	234	646	Serravalle di Chienti, DU	Italy	SER		17 km			43.073°	12.953°	rock		0.274 m/s <sup>2</sup>	1.666 cm/s
292	222	647	Monte Fiegini, NS	Italy	MANF		26 km			43.063°	13.185°	rock		0.111 m/s <sup>2</sup>	0.661 cm/s
292	222	647	Monte Fiegini, WE	Italy	MANF		26 km			43.063°	13.185°	rock		0.158 m/s <sup>2</sup>	0.749 cm/s
292	222	647	Monte Fiegini, DU	Italy	MANF		26 km			43.063°	13.185°	rock		0.141 m/s <sup>2</sup>	0.948 cm/s
292	235	650	Nocera Umbra-Biscontini, NS	Italy	NCB		23 km			43.103°	12.805°	rock		0.372 m/s <sup>2</sup>	1.245 cm/s
292	235	650	Nocera Umbra-Biscontini, EW	Italy	NCB		23 km			43.103°	12.805°	rock		0.487 m/s <sup>2</sup>	1.289 cm/s
292	235	650	Nocera Umbra-Biscontini, UD	Italy	NCB		23 km			43.103°	12.805°	rock		0.159 m/s <sup>2</sup>	0.994 cm/s
290	266	763	Borgo-Cerreto Torre, NS	Italy			23 km	17 km		42.814°	12.915°	rock		1.831 m/s <sup>2</sup>	4.465 cm/s
290	266	763	Borgo-Cerreto Torre, EW	Italy			23 km	17 km		42.814°	12.915°	rock		1.534 m/s <sup>2</sup>	5.139 cm/s
290	266	763	Borgo-Cerreto Torre, V	Italy			23 km	17 km		42.814°	12.915°	rock		1.013 m/s <sup>2</sup>	3.617 cm/s
286	266	764	Borgo-Cerreto Torre, NS	Italy			24 km	23 km		42.814°	12.915°	rock		0.712 m/s <sup>2</sup>	3.286 cm/s
286	266	764	Borgo-Cerreto Torre, EW	Italy			24 km	23 km		42.814°	12.915°	rock		0.923 m/s <sup>2</sup>	4.584 cm/s
286	266	764	Borgo-Cerreto Torre, V	Italy			24 km	23 km		42.814°	12.915°	rock		0.507 m/s <sup>2</sup>	1.230 cm/s
292	266	766	Borgo-Cerreto Torre, NS	Italy			12 km			42.814°	12.915°	rock		2.534 m/s <sup>2</sup>	9.919 cm/s
292	266	766	Borgo-Cerreto Torre, EW	Italy			12 km			42.814°	12.915°	rock		3.292 m/s <sup>2</sup>	13.628 cm/s
292	266	766	Borgo-Cerreto Torre, V	Italy			12 km			42.814°	12.915°	rock		1.858 m/s <sup>2</sup>	7.162 cm/s
422	103	946	Tricarico, NS	Italy	TRR		20 km			40.619°	16.156°	rock		0.346 m/s <sup>2</sup>	1.837 cm/s
422	103	946	Tricarico, WE	Italy	TRR		20 km			40.619°	16.156°	rock		0.324 m/s <sup>2</sup>	1.713 cm/s
422	103	946	Tricarico, UP	Italy	TRR		20 km			40.619°	16.156°	rock		0.188 m/s <sup>2</sup>	1.266 cm/s
474	1100	1313	Athens 3 (Kallithea District), N46	Greece	ATH3		23 km			37.969°	23.702°	rock		2.602 m/s <sup>2</sup>	16.169 cm/s
474	1100	1313	Athens 3 (Kallithea District), N136	Greece	ATH3		23 km			37.969°	23.702°	rock		3.013 m/s <sup>2</sup>	14.795 cm/s
474	1100	1313	Athens 3 (Kallithea District), VERT	Greece	ATH3		23 km			37.969°	23.702°	rock		1.449 m/s <sup>2</sup>	6.834 cm/s
<b>COSMOS - Rock</b>															
Coyote Lake			Gilroy Array Sta 1, CA Gavilan College, Water Tank UP	USA	CSMIP 47379	19,3 km	16,74 km			36.9730	-121.5720	rock	1428 m/s	-57,98 cm/s <sup>2</sup>	2,56 cm/s
Coyote Lake			Gilroy Array Sta 1, CA Gavilan College, Water Tank 230	USA	CSMIP 47379	19,3 km	16,74 km			36.9730	-121.5720	rock	1428 m/s	-83,73 cm/s <sup>2</sup>	-3,99 cm/s
Coyote Lake			Gilroy Array Sta 1, CA Gavilan College, Water Tank 320	USA	CSMIP 47379	19,3 km	16,74 km			36.9730	-121.5720	rock	1428 m/s	-111,09 cm/s <sup>2</sup>	10,32 cm/s
Sierra Madre			Vasquez Rock Park, CA State Park 90	USA	CSMIP 24047	39,1 km	37,21 km			34.4900	-118.3200	Alluvium; 3m; Sandstone M	996 m/s	-122,90 cm/s <sup>2</sup>	-2,70 cm/s
Sierra Madre			Vasquez Rock Park, CA State Park UP	USA	CSMIP 24047	39,1 km	37,21 km			34.4900	-118.3200	Alluvium; 3m; Sandstone M	996 m/s	36,30 cm/s <sup>2</sup>	-1,20 cm/s
Sierra Madre			Vasquez Rock Park, CA State Park 0	USA	CSMIP 24047	39,1 km	37,21 km			34.4900	-118.3200	Alluvium; 3m; Sandstone M	996 m/s	96,10 cm/s <sup>2</sup>	-3,00 cm/s
<b>COSMOS - Very dense soil and soft rock S/wave 600-800</b>															
Parkfield			Parkfield Grade, CA Vineyard Cyn 2E 360	USA	CSMIP 36177	21,1 km	19,57 km			35.9730	-120.4670	Weathered Franciscan T	713 m/s	224,49 cm/s <sup>2</sup>	-12,11 cm/s

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
Parkfield			Parkfield Grade, CA Vineyard Cyn 2E 90	USA	CSMIP 36177	21,1 km	19,57 km			35.9730	-120.4670	Weathered Franciscan T	713 m/s	352,25 cm/s <sup>2</sup>	-23,53 cm/s
Parkfield			Parkfield Grade, CA Vineyard Cyn 2E UP	USA	CSMIP 36177	21,1 km	19,57 km			35.9730	-120.4670	Weathered Franciscan T	713 m/s	92,64 cm/s <sup>2</sup>	-8,57 cm/s
Parkfield			Coalinga, CA Slack Canyon Hidden Valley Ranch 360	USA	CSMIP 46175	32,1 km	31,11 km			36.034	120.590	Granite	685 m/s	-340,78 cm/s <sup>2</sup>	52,55 cm/s
Parkfield			Coalinga, CA Slack Canyon Hidden Valley Ranch 90	USA	CSMIP 46175	32,1 km	31,11 km			36.034	120.590	Granite	685 m/s	-206,65 cm/s <sup>2</sup>	25,24 cm/s
Parkfield			Coalinga, CA Slack Canyon Hidden Valley Ranch UP	USA	CSMIP 46175	32,1 km	31,11 km			36.034	120.590	Granite	685 m/s	-105,45 cm/s <sup>2</sup>	-8,84 cm/s

**Eventi con magnitudo da 6.0 a 6.5**

Earthquake Name	Country	Date	Latitude	Longitude	Depth	mb	ML	Ms	Mw	Mo	Epicentral intensity	Source Mechanism	Earthquake key
<b>European DB</b>													
Friuli	Italy	06/05/1976	46.32°	13.32°	6 km	5.9	6.3	6.5		3.4e+018 Nm	IX+ (MCS)	thrust	34
aftershock of Friuli earthquake	Italy	15/09/1976	46.29°	13.2°	15 km	5.7	6.2	6.06		6.3e+017 Nm	IX (MCS)	oblique	63
aftershock of Montenegro earthquake	Yugoslavia	24/05/1979	42.23°	18.76°	5 km	5.7	6.2	6.34		2.2e+018 Nm		thrust	108
Campano Lucano	Italy	23/11/1980	40.78°	15.33°	16 km	6	6.6	6.87		2.5e+019 Nm	VII+ (MCS)	normal	146
<b>COSMOS - Rock</b>													
Whittier Narrows	USA	01/10/1987	34.0493	-118.0810	14,6 km		5.9	5.8	6.1		VIII (MCS)	Reverse-oblique	
Morgan Hill	USA	24/04/1984	37.3060	-121.6950	8,5 km		6.2	6.1	6.1		VIII(MCS)	Strike-slip	
Big Bear	USA	28/06/1992	34.2100	-116.8260	13 km			6.6	6.4		VIII(MCS)	Strike-slip	
<b>COSMOS - Very dense soil and soft rock S/wave 600-800</b>													
Parkfield	USA	28/09/2004	35.8150	-120.3740	7,9 km				6		VI (MCS)	Strike-slip	
North Palm Springs	USA	08/07/1986	34.0000	-116.6117	11 km		5.9	6	6.2		VII (MCS)	Reverse-oblique	
Big Bear	USA	28/06/1992	34.2100	-116.8260	13 km			6.6	6.4		VIII (MCS)	Strike-slip	
Coalinga	USA	02/05/1983	36.2330	-120.3100	4,6 km		6.7	6.5	6.5		VIII (MCS)	Reverse	

**Registrazioni per eventi con magnitudo da 6.0 a 6.5**

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
<b>European DB</b>															
63	36	128	Robic, N-S	Slovenia	ROB		25 km	19 km	VII+	46.218°	13.502°	rock		0.999 m/s <sup>2</sup>	3.164 cm/s
63	36	128	Robic, E-W	Slovenia	ROB		25 km	19 km	VII+	46.218°	13.502°	rock		0.686 m/s <sup>2</sup>	3.295 cm/s
63	36	128	Robic, VERT	Slovenia	ROB		25 km	19 km	VII+	46.218°	13.502°	rock		0.442 m/s <sup>2</sup>	3.200 cm/s
65	36	140	Robic, N-S	Slovenia	ROB		29 km	12 km	VII+	46.218°	13.502°	rock		0.868 m/s <sup>2</sup>	2.669 cm/s
65	36	140	Robic, E-W	Slovenia	ROB		29 km	12 km	VII+	46.218°	13.502°	rock		0.484 m/s <sup>2</sup>	1.785 cm/s
65	36	140	Robic, VERT	Slovenia	ROB		29 km	12 km	VII+	46.218°	13.502°	rock		0.456 m/s <sup>2</sup>	1.490 cm/s
108	77	232	Kotor Nas Rakit, N-S	Yugoslavia	KOTN		21 km	19 km		42.418°	18.773°	rock		0.560 m/s <sup>2</sup>	3.634 cm/s
108	77	232	Kotor Nas Rakit, E-W	Yugoslavia	KOTN		21 km	19 km		42.418°	18.773°	rock		0.543 m/s <sup>2</sup>	4.309 cm/s
108	77	232	Kotor Nas Rakit, VERT	Yugoslavia	KOTN		21 km	19 km		42.418°	18.773°	rock		0.331 m/s <sup>2</sup>	3.009 cm/s
146	93	287	Bagnoli-Irpino, N-S	Italy	BGI		23 km	6 km	VI	40.831°	15.068°	rock		1.364 m/s <sup>2</sup>	20.569 cm/s
146	93	287	Bagnoli-Irpino, E-W	Italy	BGI		23 km	6 km	VI	40.831°	15.068°	rock		1.776 m/s <sup>2</sup>	30.454 cm/s
146	93	287	Bagnoli-Irpino, VERT	Italy	BGI		23 km	6 km	VI	40.831°	15.068°	rock		1.018 m/s <sup>2</sup>	14.390 cm/s
146	98	292	Auletta, N-S	Italy	ALT		25 km	10 km	VIII	40.556°	15.395°	rock		0.588 m/s <sup>2</sup>	4.361 cm/s
146	98	292	Auletta, E-W	Italy	ALT		25 km	10 km	VIII	40.556°	15.395°	rock		0.588 m/s <sup>2</sup>	5.855 cm/s
146	98	292	Auletta, VERT	Italy	ALT		25 km	10 km	VIII	40.556°	15.395°	rock		0.345 m/s <sup>2</sup>	3.164 cm/s
<b>COSMOS - Rock</b>															
Whittier Narrows			Vasquez Rock Park, CA State Park 90	USA	CGS/CSMIP 24047	54,7 km	52,72 km	49,8 km		34.4900	-118.3200	Alluvium; 3m; Sandstone M	996 m/s	-54,30 cm/s <sup>2</sup>	-1,70 cm/s
Whittier Narrows			Vasquez Rock Park, CA State Park UP	USA	CGS/CSMIP 24047	54,7 km	52,72 km	49,8 km		34.4900	-118.3200	Alluvium; 3m; Sandstone M	996 m/s	-34,10 cm/s <sup>2</sup>	-0,90 cm/s
Whittier Narrows			Vasquez Rock Park, CA State Park 0	USA	CGS/CSMIP 24047	54,7 km	52,72 km	49,8 km		34.4900	-118.3200	Alluvium; 3m; Sandstone M	996 m/s	61,70 cm/s <sup>2</sup>	2,20 cm/s
Morgan Hill			Gilroy Array Sta 1, CA Gavilan College Water Tank 320	USA	CGS/CSMIP 47379	39,5 km	38,57 km	13,4 km		36.9730	-121.5720	rock	1428 m/s	93,35 cm/s <sup>2</sup>	2,66 cm/s
Morgan Hill			Gilroy Array Sta 1, CA Gavilan College Water Tank 230	USA	CGS/CSMIP 47379	39,5 km	38,57 km	13,4 km		36.9730	-121.5720	rock	1428 m/s	-57,51 cm/s <sup>2</sup>	2,52 cm/s
Morgan Hill			Gilroy Array Sta 1, CA Gavilan College Water Tank UP	USA	CGS/CSMIP 47379	39,5 km	38,57 km	13,4 km		36.9730	-121.5720	rock	1428 m/s	-84,11 cm/s <sup>2</sup>	-3,01 cm/s
Big Bear			Rancho Cucamonga, CA Deer Canyon 180	USA	CSMIP 23598	69,7 km	68,48 km			34.1690	-117.5790	Granitic Rock Q	822 m/s	31,00 cm/s <sup>2</sup>	-2,00 cm/s
Big Bear			Rancho Cucamonga, CA Deer Canyon 90	USA	CSMIP 23598	69,7 km	68,48 km			34.1690	-117.5790	Granitic Rock Q	822 m/s	50,40 cm/s <sup>2</sup>	-3,50 cm/s
Big Bear			Rancho Cucamonga, CA Deer Canyon UP	USA	CSMIP 23598	69,7 km	68,48 km			34.1690	-117.5790	Granitic Rock Q	822 m/s	20,20 cm/s <sup>2</sup>	1,10 cm/s
<b>COSMOS - Very dense soil and soft rock S/wave 600-800</b>															
Parkfield			Parkfield Grade, CA Vineyard Cyn 2E 360	USA	CSMIP 36177	21,1 km	19,57 km			35.9730	-120.4670	Weathered Franciscan T	713 m/s	224,49 cm/s <sup>2</sup>	-12,11 cm/s
Parkfield			Parkfield Grade, CA Vineyard Cyn 2E 90	USA	CSMIP 36177	21,1 km	19,57 km			35.9730	-120.4670	Weathered Franciscan T	713 m/s	352,25 cm/s <sup>2</sup>	-23,53 cm/s
Parkfield			Parkfield Grade, CA Vineyard Cyn 2E UP	USA	CSMIP 36177	21,1 km	19,57 km			35.9730	-120.4670	Weathered Franciscan T	713 m/s	92,64 cm/s <sup>2</sup>	-8,57 cm/s
North Palm Springs			Silent Valley, CA Poppet Flat Hemet 90	USA	CSMIP 12206	19,5 km	16,1 km			33.8510	-116.8520	Weathered Granite	685 m/s	117,20 cm/s <sup>2</sup>	no

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
North Palm Springs			Silent Valley, CA Poppet Flat Hemet UP	USA	CSMIP 12206	19,5 km	16,1 km			33.8510	-116.8520	Weathered Granite	685 m/s	96,40 cm/s <sup>2</sup>	no
North Palm Springs			Silent Valley, CA Poppet Flat Hemet 0	USA	CSMIP 12206	19,5 km	16,1 km			33.8510	-116.8520	Weathered Granite	685 m/s	141,90 cm/s <sup>2</sup>	no
Parkfield			Coalinga, CA Slack Canyon Hidden Valley Ranch 360	USA	CSMIP 46175	32,1 km	31,11 km			36.034	120.590	Granite	685 m/s	-340,78 cm/s <sup>2</sup>	52,55 cm/s
Parkfield			Coalinga, CA Slack Canyon Hidden Valley Ranch 90	USA	CSMIP 46175	32,1 km	31,11 km			36.034	120.590	Granite	685 m/s	-206,65 cm/s <sup>2</sup>	25,24 cm/s
Parkfield			Coalinga, CA Slack Canyon Hidden Valley Ranch UP	USA	CSMIP 46175	32,1 km	31,11 km			36.034	120.590	Granite	685 m/s	-105,45 cm/s <sup>2</sup>	-8,84 cm/s
Big Bear			Silent Valley, CA Poppet Flat Hemet 360	USA	CSMIP 12206	19,5 km	14,53 km			33.8510	-116.8520	Weathered Granite	685 m/s	-68,30 cm/s <sup>2</sup>	-2,10 cm/s
Big Bear			Silent Valley, CA Poppet Flat Hemet 90	USA	CSMIP 12206	19,5 km	14,53 km			33.8510	-116.8520	Weathered Granite	685 m/s	58,20 cm/s <sup>2</sup>	2,00 cm/s
Big Bear			Silent Valley, CA Poppet Flat Hemet UP	USA	CSMIP 12206	19,5 km	14,53 km			33.8510	-116.8520	Weathered Granite	685 m/s	-46,30 cm/s <sup>2</sup>	-1,40 cm/s
North Palm Springs			Anza Array Santa Rosa Mountain, Rarick Springs 360	USA	USGS 5230	49,7 km	48,47 km	37,3 km		33.5680	-116.5100	rock M	589 m/s	81,90 cm/s <sup>2</sup>	no
North Palm Springs			Anza Array Santa Rosa Mountain, Rarick Springs 270	USA	USGS 5230	49,7 km	48,47 km	37,3 km		33.5680	-116.5100	rock M	589 m/s	112,70 cm/s <sup>2</sup>	no
North Palm Springs			Anza Array Santa Rosa Mountain, Rarick Springs UP	USA	USGS 5230	49,7 km	48,47 km	37,3 km		33.5680	-116.5100	rock M	589 m/s	47,90 cm/s <sup>2</sup>	no
Coalinga			Coalinga, CA Slack Canyon Hidden Valley Ranch 315	USA	CSMIP 46175	35 km	34,7 km			36.0340	-120.5900	Granite	685 m/s	-133,40 cm/s <sup>2</sup>	15,60 cm/s
Coalinga			Coalinga, CA Slack Canyon Hidden Valley Ranch 45	USA	CSMIP 46175	35 km	34,7 km			36.0340	-120.5900	Granite	685 m/s	-169,10 cm/s <sup>2</sup>	-15,70 cm/s
Coalinga			Coalinga, CA Slack Canyon Hidden Valley Ranch UP	USA	CSMIP 46175	35 km	34,7 km			36.0340	-120.5900	Granite	685 m/s	-51,60 cm/s <sup>2</sup>	-7,20 cm/s
Big Bear			Winchester, Ca Bergman Ranch Hemet Array B 360	USA	CSMIP 13199	67,5 km	66,24 km			33.6400	-117.0940	Weathered Granite	685 m/s	-57,40 cm/s <sup>2</sup>	-1,20 cm/s
Big Bear			Winchester, Ca Bergman Ranch Hemet Array B 90	USA	CSMIP 13199	67,5 km	66,24 km			33.6400	-117.0940	Weathered Granite	685 m/s	74,40 cm/s <sup>2</sup>	-1,70 cm/s
Big Bear			Winchester, Ca Bergman Ranch Hemet Array B UP	USA	CSMIP 13199	67,5 km	66,24 km			33.6400	-117.0940	Weathered Granite	685 m/s	-72,00 cm/s <sup>2</sup>	-1,40 cm/s
North Palm Springs			Winchester, Ca Bergman Ranch Hemet Array B 90	USA	CSMIP 13199	61,2 km	60,2 km	51,4 km		33.6400	-117.0940	Weathered Granite	685 m/s	94,30 cm/s <sup>2</sup>	no
North Palm Springs			Winchester, Ca Bergman Ranch Hemet Array B UP	USA	CSMIP 13199	61,2 km	60,2 km	51,4 km		33.6400	-117.0940	Weathered Granite	685 m/s	74,90 cm/s <sup>2</sup>	no
North Palm Springs			Winchester, Ca Bergman Ranch Hemet Array B 0	USA	CSMIP 13199	61,2 km	60,2 km	51,4 km		33.6400	-117.0940	Weathered Granite	685 m/s	70,30 cm/s <sup>2</sup>	no
North Palm Springs			Murrieta Hot Springs, CA Collins Ranch Hemet Array A 90	USA	CSMIP 13198	66,7 km	65,79 km	57,0 km		33.5990	-117.1320	Thin Soil 1m; Weathered Granite	685 m/s	49,90 cm/s <sup>2</sup>	no
North Palm Springs			Murrieta Hot Springs, CA Collins Ranch Hemet Array A UP	USA	CSMIP 13198	66,7 km	65,79 km	57,0 km		33.5990	-117.1320	Thin Soil 1m; Weathered Granite	685 m/s	33,10 cm/s <sup>2</sup>	no
North Palm Springs			Murrieta Hot Springs, CA Collins Ranch Hemet Array A 0	USA	CSMIP 13198	66,7 km	65,79 km	57,0 km		33.5990	-117.1320	Thin Soil 1m; Weathered Granite	685 m/s	53,00 cm/s <sup>2</sup>	no

**Eventi con magnitudo da 6.5 a 7.0**

Earthquake Name	Country	Date	Latitude	Longitude	Depth	mb	ML	Ms	Mw	Mo	Epicentral intensity	Source Mechanism	Earthquake key
<b>European DB</b>													
Tabas	Iran	16/09/1978	33.36°	57.42°	5 km	6.4		7.33		1.3e+020 Nm		thrust	87
Montenegro	Yugoslavia	15/04/1979	41.98°	18.98°	12 km	6.1		7.04		3.1e+019 Nm		thrust	93
Kocaeli	Turkey	17/08/1999	40.702°	29.987°	17 km	6.3		7.8		1.4e+020 Nm		strike slip	472
Campano Lucano	Italy	23/11/1980	40.78°	15.33°	16 km	6	6.6	6.87		2.5e+019 Nm	VII+ (MCS)	normal	146
<b>COSMOS - Rock</b>													
Loma Prieta/Santa Cruz Mountains	USA	18/10/1989	37.0407	-121.8829	17,48 km		7	7.1	7		IX (MCS)	Reverse-Oblique	
San Fernando	USA	09/02/1971	34.4400	-118.4100	13 km		6.4	6.5	6.6		XI (MCS)	Reverse	
Northridge	USA	17/01/1994	34.2057	-118.5539	17,50 km		6.4	6.8	6.7		IX (MCS)	Reverse	
<b>COSMOS - Very dense soil and soft rock S/wave 600-800</b>													
Northridge	USA	17/01/1994	34.2057	-118.5539	17,50 km		6.4	6.8	6.7		IX (MCS)	Reverse	
Coalinga	USA	02/05/1983	36.2330	-120.3100	4,6 km		6.7	6.5	6.5		VIII (MCS)	Reverse	

**Registrazioni per eventi con magnitudo da 6.5 a 7.0**

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
<b>European DB</b>															
87	54	182	Dayhook, N80W	Iran	DAY		11 km	11 km		33.29°	57.5°	rock		3.317 m/s <sup>2</sup>	17.680 cm/s
87	54	182	Dayhook, N10E	Iran	DAY		11 km	11 km		33.29°	57.5°	rock		3.780 m/s <sup>2</sup>	24.581 cm/s
87	54	182	Dayhook, VERT	Iran	DAY		11 km	11 km		33.29°	57.5°	rock		1.709 m/s <sup>2</sup>	10.793 cm/s
146	93	287	Bagnoli-Irpino, N-S	Italy	BGI		23 km	6 km	VI	40.831°	15.068°	rock		1.364 m/s <sup>2</sup>	20.569 cm/s
146	93	287	Bagnoli-Irpino, E-W	Italy	BGI		23 km	6 km	VI	40.831°	15.068°	rock		1.776 m/s <sup>2</sup>	30.454 cm/s
146	93	287	Bagnoli-Irpino, VERT	Italy	BGI		23 km	6 km	VI	40.831°	15.068°	rock		1.018 m/s <sup>2</sup>	14.390 cm/s
146	98	292	Auletta, N-S	Italy	ALT		25 km	10 km	VIII	40.556°	15.395°	rock		0.588 m/s <sup>2</sup>	4.361 cm/s
146	98	292	Auletta, E-W	Italy	ALT		25 km	10 km	VIII	40.556°	15.395°	rock		0.588 m/s <sup>2</sup>	5.855 cm/s
146	98	292	Auletta, VERT	Italy	ALT		25 km	10 km	VIII	40.556°	15.395°	rock		0.345 m/s <sup>2</sup>	3.164 cm/s
<b>COSMOS - Rock</b>															
Loma Prieta/Santa Cruz Mountains			Gilroy Array Sta 1, CA Gavilan College, Water Tank 90	USA	CGS/CSMIP 47379	33,4 km	28,46 km	2,8 km		36.9730	-121.5720	Rock	1428 m/s	433,60 cm/s <sup>2</sup>	-33,80 cm/s
Loma Prieta/Santa Cruz Mountains			Gilroy Array Sta 1, CA Gavilan College, Water Tank 0	USA	CGS/CSMIP 47379	33,4 km	28,46 km	2,8 km		36.9730	-121.5720	Rock	1428 m/s	426,60 cm/s <sup>2</sup>	31,90 cm/s
Loma Prieta/Santa Cruz Mountains			Gilroy Array Sta 1, CA Gavilan College, Water Tank UP	USA	CGS/CSMIP 47379	33,4 km	28,46 km	2,8 km		36.9730	-121.5720	Rock	1428 m/s	-206,40 cm/s <sup>2</sup>	-14,50 cm/s
San Fernando			Lake Hughes, CA Lake Hughes Array #4 201	USA	CSMIP 126	27,9 km	24,69 km	23,8 km		34.6400	-118.4800	Weathered Granite M	589 m/s	-143,51 cm/s <sup>2</sup>	-8,57 cm/s
San Fernando			Lake Hughes, CA Lake Hughes Array #4 111	USA	CSMIP 126	27,9 km	24,69 km	23,8 km		34.6400	-118.4800	Weathered Granite M	589 m/s	168,11 cm/s <sup>2</sup>	-5,70 cm/s
San Fernando			Lake Hughes, CA Lake Hughes Array #4 DOWN	USA	CSMIP 126	27,9 km	24,69 km	23,8 km		34.6400	-118.4800	Weathered Granite M	589 m/s	150,83 cm/s <sup>2</sup>	-6,93 cm/s
Northridge			Vasquez Rock Park, CA State Park 360	USA	CGS/CSMIP 24047	41,9 km	38,07 km	27,7 km		34.4900	-118.3200	Alluvium; 3m; Sandstone M	996 m/s	-148,00 cm/s <sup>2</sup>	18,20 cm/s
Northridge			Vasquez Rock Park, CA State Park 90	USA	CGS/CSMIP 24047	41,9 km	38,07 km	27,7 km		34.4900	-118.3200	Alluvium; 3m; Sandstone M	996 m/s	137,40 cm/s <sup>2</sup>	12,00 cm/s
Northridge			Vasquez Rock Park, CA State Park UP	USA	CGS/CSMIP 24047	41,9 km	38,07 km	27,7 km		34.4900	-118.3200	Alluvium; 3m; Sandstone M	996 m/s	84,00 cm/s <sup>2</sup>	-6,80 cm/s
Northridge			Lake Hughes, CA L.H.#4 Camp Mendhall Near Water Tank 90	USA	CGS/CSMIP 24469	52,9 km	49,92 km	35,4 km		34.6500	-118.4780	Weathered Granitic Rock	822 m/s	-82,40 cm/s <sup>2</sup>	6,10 cm/s
Northridge			Lake Hughes, CA L.H.#4 Camp Mendhall Near Water Tank 0	USA	CGS/CSMIP 24469	52,9 km	49,92 km	35,4 km		34.6500	-118.4780	Weathered Granitic Rock	822 m/s	56,40 cm/s <sup>2</sup>	6,10 cm/s
Northridge			Lake Hughes, CA L.H.#4 Camp Mendhall Near Water Tank UP	USA	CGS/CSMIP 24469	52,9 km	49,92 km	35,4 km		34.6500	-118.4780	Weathered Granitic Rock	822 m/s	52,00 cm/s <sup>2</sup>	-4,10 cm/s
Northridge			Littlerock, CA - Brainard Canyon 180	USA	CSMIP 23595	63,0 km	60,52 km	49,2 km		34.4860	-117.9800	Granitic Rock	822 m/s	59,00 cm/s <sup>2</sup>	6,30 cm/s
Northridge			Littlerock, CA - Brainard Canyon 90	USA	CSMIP 23595	63,0 km	60,52 km	49,2 km		34.4860	-117.9800	Granitic Rock	822 m/s	70,60 cm/s <sup>2</sup>	-6,00 cm/s
Northridge			Littlerock, CA - Brainard Canyon UP	USA	CSMIP 23595	63,0 km	60,52 km	49,2 km		34.4860	-117.9800	Granitic Rock	822 m/s	34,80 cm/s <sup>2</sup>	-2,20 cm/s
Northridge			Sandberg, CA - Bald Mountain 180	USA	CSMIP 24644	64,6 km	62,18 km	44,7 km		34.7430	-118.7240	Thin Alluvium over Weathered Granite	822 m/s	-96,50 cm/s <sup>2</sup>	-8,70 cm/s
Northridge			Sandberg, CA - Bald Mountain 90	USA	CSMIP 24644	64,6 km	62,18 km	44,7 km		34.7430	-118.7240	Thin Alluvium over Weathered Granite	822 m/s	-89,10 cm/s <sup>2</sup>	12,30 cm/s

Earthquake Name / key no.	Station key	Waveform key	Station name & Component	Country	Code	Hypocentral distance	Epicentral distance	Fault distance	Site intensity	Latitude	Longitude	Foundation category	Vs30	Peak acceleration	Peak velocity
Northridge			Sandberg, CA - Bald Mountain UP	USA	CSMIP 24644	64,6 km	62,18 km	44,7 km		34.7430	-118.7240	Thin Alluvium over Weathered Granite	822 m/s	43,40 cm/s <sup>2</sup>	-6,50 cm/s
Northridge			Antelope Buttes, CA Lake Hughes Array 90	USA	CSMIP 24310	66,1 km	63,74 km	50,4 km		34.7580	-118.3610	Weathered Granitic Rock	822 m/s	67,00 cm/s <sup>2</sup>	-4,10 cm/s
Northridge			Antelope Buttes, CA Lake Hughes Array UP	USA	CSMIP 24310	66,1 km	63,74 km	50,4 km		34.7580	-118.3610	Weathered Granitic Rock	822 m/s	28,50 cm/s <sup>2</sup>	3,40 cm/s
Northridge			Antelope Buttes, CA Lake Hughes Array 0	USA	CSMIP 24310	66,1 km	63,74 km	50,4 km		34.7580	-118.3610	Weathered Granitic Rock	822 m/s	44,90 cm/s <sup>2</sup>	-3,20 cm/s
Northridge			Wrightwood, CA Jackson Flat 180	USA	CSMIP 23590	78,7 km	76,73 km	66,3 Km		34.3810	-117.7370	Hard Metamorphic Rock	822 m/s	-36,20 cm/s <sup>2</sup>	3,50 cm/s
Northridge			Wrightwood, CA Jackson Flat 90	USA	CSMIP 23590	78,7 km	76,73 km	66,3 Km		34.3810	-117.7370	Hard Metamorphic Rock	822 m/s	-55,40 cm/s <sup>2</sup>	-5,10 cm/s
Northridge			Wrightwood, CA Jackson Flat UP	USA	CSMIP 23590	78,7 km	76,73 km	66,3 Km		34.3810	-117.7370	Hard Metamorphic Rock	822 m/s	-33,40 cm/s <sup>2</sup>	2,90 cm/s
Northridge			Rancho Cucamonga, CA Deer Canyon 180	USA	CSMIP 23598	90,7 km	89 km	80,6 km		34.1690	-117.5790	Granitic Rock	822 m/s	50,40 cm/s <sup>2</sup>	-5,80 cm/s
Northridge			Rancho Cucamonga, CA Deer Canyon 90	USA	CSMIP 23598	90,7 km	89 km	80,6 km		34.1690	-117.5790	Granitic Rock	822 m/s	70,10 cm/s <sup>2</sup>	4,10 cm/s
Northridge			Rancho Cucamonga, CA Deer Canyon UP	USA	CSMIP 23598	90,7 km	89 km	80,6 km		34.1690	-117.5790	Granitic Rock	822 m/s	24,90 cm/s <sup>2</sup>	-2,20 cm/s
Loma Prieta/Santa Cruz Mountain			S.Francisco, CA Rincorn Hill 90	USA	CSMIP 58151	96,1 km	94,5 km	64,3 km		37.7860	-122.3910	Franciscan	873 m/s	88,50 cm/s <sup>2</sup>	11,60 cm/s
Loma Prieta/Santa Cruz Mountain			S.Francisco, CA Rincorn Hill 0	USA	CSMIP 58151	96,1 km	94,5 km	64,3 km		37.7860	-122.3910	Franciscan	873 m/s	-78,60 cm/s <sup>2</sup>	7,30 cm/s
Loma Prieta/Santa Cruz Mountain			S.Francisco, CA Rincorn Hill UP	USA	CSMIP 58151	96,1 km	94,5 km	64,3 km		37.7860	-122.3910	Franciscan	873 m/s	-28,40 cm/s <sup>2</sup>	4,00 cm/s
<b>COSMOS - Very dense soil and soft rock S/wave 600-800</b>															
Northridge			Elizabeth Lake, CA Lake Hughes Array #12A 180	USA	CSMIP 24607	44,6 km	41,02 km	25,4 km		34.5710	-118.5600	Thin Alluvium; Conglomerate T	602 m/s	-252,70 cm/s <sup>2</sup>	-11,70 cm/s
Northridge			Elizabeth Lake, CA Lake Hughes Array #12A 90	USA	CSMIP 24607	44,6 km	41,02 km	25,4 km		34.5710	-118.5600	Thin Alluvium; Conglomerate T	602 m/s	171,00 cm/s <sup>2</sup>	-11,70 cm/s
Northridge			Elizabeth Lake, CA Lake Hughes Array #12A UP	USA	CSMIP 24607	44,6 km	41,02 km	25,4 km		34.5710	-118.5600	Thin Alluvium; Conglomerate T	602 m/s	115,10 cm/s <sup>2</sup>	4,50 cm/s
Coalinga			Coalinga, CA Slack Canyon Hidden Valley Ranch 315	USA	CSMIP 46175	35,0 km	34,7 km			36.034	120.590	Granite	685 m/s	-133,40 cm/s <sup>2</sup>	15,60 cm/s
Coalinga			Coalinga, CA Slack Canyon Hidden Valley Ranch 45	USA	CSMIP 46175	35,0 km	34,7 km			37.034	121.590	Granite	685 m/s	-169,10 cm/s <sup>2</sup>	-15,70 cm/s
Coalinga			Coalinga, CA Slack Canyon Hidden Valley Ranch UP	USA	CSMIP 46175	35,0 km	34,7 km			38.034	122.590	Granite	685 m/s	-51,60 cm/s <sup>2</sup>	-7,20 cm/s