



PROGRAMMA OPERATIVO NAZIONALE RICERCA E COMPETITIVITÀ PER LE REGIONI DELLA CONVERGENZA - 2007/2013 - CCI: 2007IT161PO006

ASSE I “SOSTEGNO AI MUTAMENTI STRUTTURALI”

OBIETTIVO OPERATIVO 4.1.1.1. “AREE SCIENTIFICO-TECNOLOGICHE GENERATRICI DI PROCESSI DI TRASFORMAZIONE DEL SISTEMA PRODUTTIVO E CREATRICI DI NUOVI SETTORI”

AZIONE II: “INTERVENTI DI SOSTEGNO DELLA RICERCA INDUSTRIALE”

PROGETTO PON01_02710 MASSIMO

AMBITO/SETTORE BENI CULTURALI

CUP B21C11000550005

UNIVERSITÀ DELLA CALABRIA – DIPARTIMENTO DI FISICA

BOLLETTINO

DELLA

SISMICITÀ DELLA CALABRIA

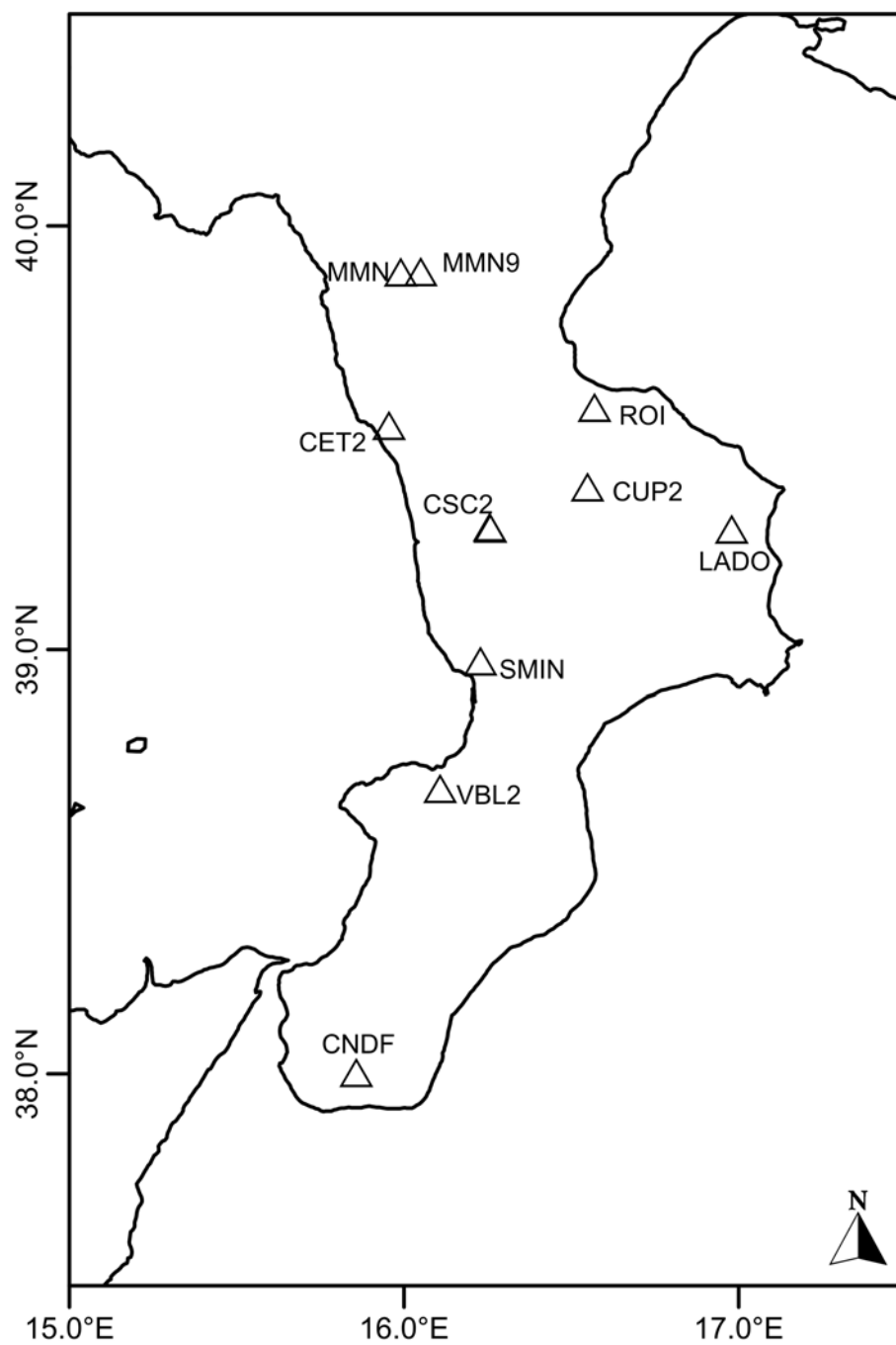
E

DELLE AREE CIRCOSTANTI

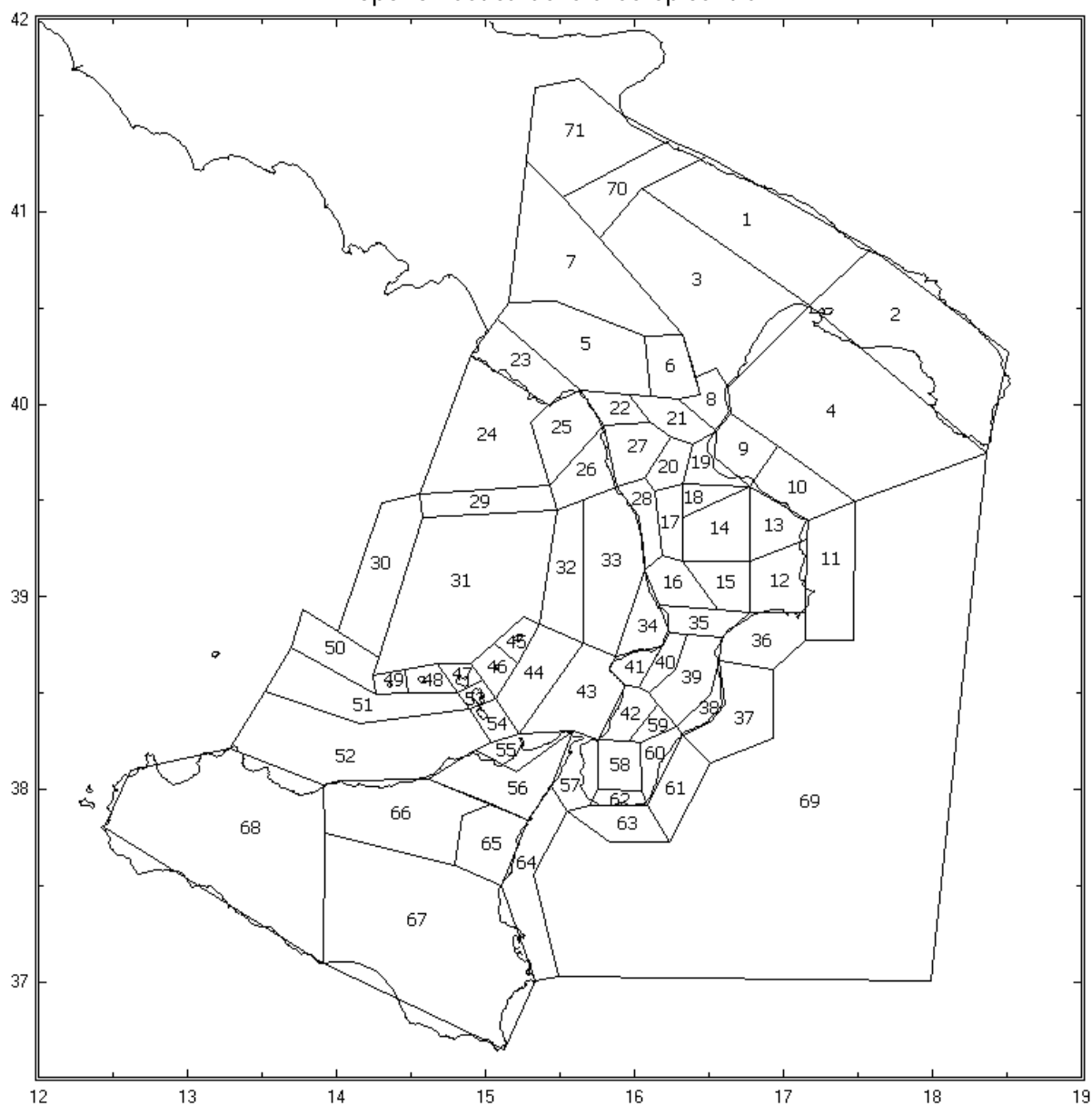
prodotto nell'ambito delle attività dell'O.R. 2.1

Periodo 16-31 Dicembre 2013

Distribuzione delle stazioni della Rete Sismica UniCal – Pon MASSIMO



Toponomastica delle aree epicentrali



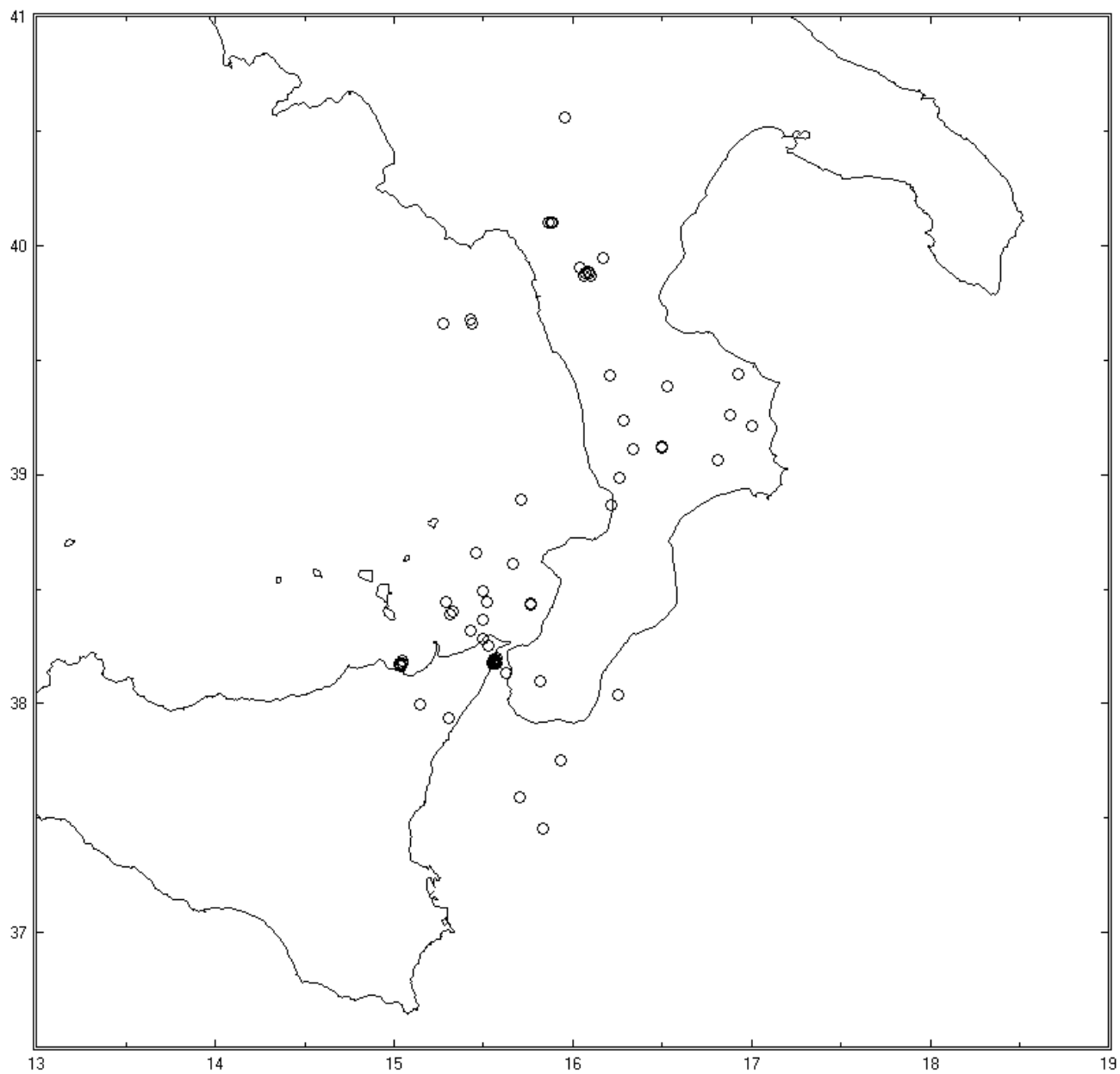
1 Murge	19 Piana di Sibari	37 Offshore Punta Stilo	55 Milazzo
2 Penisola Salentina	20 Valle dell'Esaro	38 Punta Stilo	56 Monti Peloritani
3 Piana del Bradano e del Basento	21 Catena del Pollino	39 Serre centro-settentrionali	57 Stretto di Messina
4 Golfo di Taranto	22 Marate - Rotonda	40 Valle del Mesima	58 Aspromonte
5 Vallo di Diano	23 Cilento	41 Monte Poro	59 Serre meridionali
6 Bacino di Sant'Arcangelo	24 Offshore Cilento	42 Piana di Gioia Tauro	60 Locride
7 Appennino Lucano	25 Golfo di Policastro	43 Bacino di Gioia	61 Offshore Locride
8 Confine calabro-lucano or.	26 Offshore Scalea - Diamante	44 Canyon di Stromboli	62 Aspromonte meridionale
9 Golfo di Sibari	27 Alto Tirreno Cosentino	45 Stromboli	63 Offshore Calabria Meridionale
10 Offshore Cirò	28 Catena Costiera	46 Panarea	64 Coste Sicilia or.
11 Offshore Crotona	29 Vulcani Palinuro ed Entrio	47 Salina	65 Etna
12 Marchesato	30 Vulcano Marsili	48 Filicudi	66 Monti Madonie - Nebrodi
13 Presila Nord-or.	31 Piana Batiale del tirreno	49 Alicudi	67 Sicilia centro-meridionale
14 Sila Grande	32 Scarpata di Paola	50 Seamount Sisifo ed Eolo	68 Sicilia occidentale
15 Sila Piccola	33 Bacino di Paola	51 Bacino di Alicudi	69 Piana batiale ionica
16 Amantea - Monte Reventino	34 Golfo di Sant'Eufemia	52 Bacino di Cefalù	70 Ofanto
17 Valle del Crati	35 Stretta di Catanzaro	53 Lipari	71 Capitanata
18 Sila Greca	36 Golfo di Squillace	54 Vulcano	

Parametri ipocentrali degli eventi localizzati nel periodo di riferimento

Data	Orario		Lat N	LON E	H ₀	m	δlat	δlon	δH ₀	nr	GAP	sqm	δT ₀
aammgg	hhmm	ss.s	°	°	km		km	km	km		°	sec	sec
131216	0542	3.6	39.1224	16.4947	17.4	1.8	0.51	0.59	2.08	27	78	0.36	0.07
131216	2204	30.9	39.1199	16.4999	0.0	1.0	0.54	0.55	1.15	11	110	0.26	0.09
131216	2206	48.7	40.0990	15.8814	12.6	1.8	0.29	0.45	1.08	17	99	0.19	0.05
131216	2301	5.0	40.1020	15.8653	11.9	1.9	0.61	0.78	2.22	21	77	0.38	0.08
131216	2308	43.1	38.0410	16.2514	14.1	2.8	1.25	1.25	2.98	27	209	0.51	0.22
131216	2322	36.4	40.1017	15.8835	12.9	2.0	0.38	0.53	1.56	24	92	0.27	0.06
131217	0917	16.3	38.4424	15.2900	129.3	2.3	2.61	3.08	4.91	25	130	0.61	0.17
131217	1359	33.4	38.0959	15.8173	9.1	1.6	0.61	0.64	1.68	15	116	0.29	0.08
131217	1706	16.1	37.5887	15.7031	26.8	1.8	1.46	1.78	3.68	26	183	0.57	0.20
131218	0110	22.1	37.9386	15.3036	14.5	1.9	1.19	0.92	3.09	21	110	0.53	0.14
131218	0412	9.5	38.6579	15.4596	171.8	2.3	1.71	2.17	3.25	36	121	0.39	0.10
131218	0420	55.0	38.3180	15.4277	118.6	2.5	1.43	1.41	3.95	53	88	0.49	0.07
131218	0514	57.6	39.8703	16.0634	6.4	1.3	0.51	0.62	1.18	12	113	0.20	0.08
131218	0558	37.0	38.3918	15.3155	129.2	2.2	1.80	2.25	4.21	35	116	0.51	0.12
131218	1550	13.0	39.3865	16.5270	30.3	1.4	0.99	0.86	2.30	17	80	0.35	0.09
131219	1718	43.8	39.2626	16.8835	15.6	1.2	1.06	1.53	2.21	9	139	0.38	0.15
131219	1718	44.0	39.0640	16.8129	5.3		6.41	3.47	4.24	5	296	0.73	1.21
131219	1910	24.8	38.8695	16.2166	8.2	1.8	0.65	0.90	2.63	19	118	0.45	0.11
131220	0354	18.4	38.6084	15.6669	88.6	2.1	0.92	1.09	2.90	38	117	0.36	0.06
131220	1315	13.0	39.8889	16.0849	5.3	1.6	0.77	0.61	1.57	12	153	0.35	0.12
131220	2234	40.6	39.2106	17.0056	27.3	1.2	0.98	1.34	1.81	13	250	0.28	0.18
131221	0045	17.1	38.4366	15.7624	38.8	2.1	0.66	0.84	2.92	51	59	0.45	0.06
131221	1132	47.0	39.4327	16.2096	9.4	1.4	0.51	0.46	1.41	14	82	0.24	0.07
131222	0243	32.0	38.4340	15.7612	37.6	1.6	1.31	1.66	3.02	14	117	0.46	0.14
131223	0408	28.5	38.4006	15.3303	122.1	2.0	2.19	2.31	2.97	22	118	0.37	0.11
131223	0420	37.9	38.1982	15.5746	19.0	4.0	0.81	0.63	3.65	58	65	0.63	0.09
131223	0427	38.6	38.1784	15.5652	7.2	1.5	0.28	0.18	0.80	22	104	0.14	0.03
131223	0457	52.6	38.1944	15.5639	10.2	2.8	0.89	0.64	3.46	41	70	0.60	0.09
131223	0458	10.5	38.1912	15.5572	15.8	2.8	0.87	0.64	3.13	41	67	0.54	0.09
131223	0526	2.0	38.1826	15.5587	5.6	1.2	0.69	0.44	1.50	10	118	0.26	0.08
131223	0535	4.4	38.1762	15.5528	5.4	1.6	0.56	0.38	1.12	10	133	0.19	0.06
131223	0538	19.7	38.1764	15.5739	0.2	1.3	0.93	0.63	1.87	13	132	0.41	0.12
131223	0609	42.4	38.1859	15.5612	8.4	1.8	0.57	0.34	1.58	19	116	0.27	0.06
131223	0640	31.9	38.1848	15.5600	6.0	1.2	0.60	0.31	1.53	20	117	0.26	0.06
131223	0646	2.9	38.1712	15.0358	11.7	2.4	0.80	0.66	3.01	29	46	0.52	0.10
131223	0810	23.6	38.1705	15.0302	14.7	2.2	0.59	0.43	1.72	21	74	0.30	0.07
131223	0838	55.6	38.1751	15.0341	14.7	1.9	0.63	0.48	2.02	27	72	0.35	0.08
131223	0916	6.2	38.1892	15.5604	4.0	1.2	0.87	0.32	0.93	16	172	0.21	0.09
131223	1125	28.5	38.1823	15.5542	6.5	1.6	0.52	0.35	1.31	14	118	0.23	0.06
131223	1148	57.9	38.1799	15.5501	5.0	1.2	0.42	0.26	0.75	12	119	0.17	0.05
131223	1229	12.0	38.2520	15.5301	21.6	1.5	1.97	1.15	3.56	19	72	0.61	0.19
131223	1328	36.2	39.6783	15.4306	20.3	1.3	2.44	2.73	3.99	12	241	0.51	0.40
131223	1510	21.7	38.3678	15.4966	128.4	2.9	1.32	1.89	5.16	77	48	0.62	0.08
131223	1617	10.4	38.1734	15.0461	16.2	2.9	0.63	0.51	3.07	59	32	0.53	0.08
131223	1626	40.8	38.1935	15.5563	5.5	1.6	0.46	0.27	1.53	27	100	0.26	0.05
131223	1955	7.6	38.1880	15.5626	7.5	1.7	0.39	0.22	1.01	20	102	0.17	0.04
131223	2000	59.6	38.1768	15.0419	17.4	2.4	0.54	0.45	2.26	40	70	0.39	0.07
131223	2011	25.8	38.1630	15.0408	14.5	1.8	0.51	0.39	1.76	28	77	0.30	0.06
131223	2227	40.0	40.5577	15.9526	13.9	2.2	0.55	0.60	2.43	37	37	0.42	0.07
131223	2245	45.7	37.9981	15.1446	8.6	1.9	0.71	0.40	1.47	22	170	0.25	0.09
131224	0608	0.2	38.1890	15.0440	17.8	2.8	0.65	0.53	2.68	49	46	0.46	0.07
131224	0727	25.1	38.4440	15.5157	135.3	2.8	1.22	1.76	3.64	52	99	0.44	0.07
131224	1937	29.9	38.1910	15.5611	5.6	1.4	0.57	0.39	1.62	17	112	0.28	0.07
131225	0731	23.3	39.8832	16.0935	5.0	0.9	0.84	0.53	1.46	9	150	0.25	0.09
131225	0836	54.6	38.1824	15.5640	4.7	1.8	0.47	0.27	1.14	26	103	0.25	0.05
131225	1038	44.1	37.7543	15.9329	10.8	1.8	3.47	2.59	4.13	11	272	0.71	0.65
131225	1417	22.5	38.1774	15.5540	4.6	2.0	0.43	0.29	1.04	22	105	0.23	0.05

Data	Orario		Lat N	LON E	H ₀	m	δlat	δlon	δH ₀	nr	GAP	sqm	δT ₀
aammgg	hhmm	ss.s	°	°	km		km	km	km		°	sec	sec
131227	1057	47.0	39.2378	16.2846	11.4	2.0	0.96	0.79	2.16	16	165	0.37	0.13
131228	0531	56.2	39.6578	15.4352	3.0	1.7	1.32	1.78	2.02	16	243	0.45	0.31
131228	0851	49.5	38.1860	15.5654	4.2	2.0	0.60	0.33	1.44	26	102	0.32	0.06
131228	1045	56.7	38.1835	15.5548	4.5	1.7	0.38	0.25	0.80	16	103	0.18	0.05
131228	1208	58.3	37.4518	15.8300	19.2	2.2	1.58	2.26	3.90	24	213	0.67	0.35
131228	1605	47.7	38.1861	15.5614	4.7	1.4	0.72	0.52	1.44	14	102	0.32	0.09
131228	1609	7.7	38.4912	15.4990	129.5	2.4	1.29	1.81	3.07	31	124	0.37	0.08
131229	0603	7.0	38.8901	15.7138	101.7	1.8	2.39	6.14	4.21	14	159	0.53	0.22
131229	0848	24.3	38.1349	15.6237	5.9	1.4	0.57	0.32	1.38	27	72	0.31	0.06
131229	1232	7.0	39.8672	16.1029	4.4	0.6	0.54	0.41	0.99	8	141	0.22	0.08
131229	2144	21.8	39.8828	16.0688	5.2	1.1	0.76	0.83	2.23	19	90	0.50	0.13
131230	1049	53.9	38.9852	16.2589	19.3	1.4	0.53	0.83	2.07	17	118	0.36	0.09
131230	2011	34.9	39.6630	15.2770	15.7	2.0	1.98	2.65	4.01	27	242	0.51	0.32
131231	0113	22.2	39.1104	16.3358	18.8	1.7	0.51	0.67	2.10	23	109	0.36	0.09
131231	0143	24.2	38.2831	15.4969	120.6	2.6	1.59	1.88	4.18	48	104	0.52	0.09
131231	1351	12.7	39.9050	16.0369	5.0		0.57	0.47	0.45	6	197	0.10	0.06
131231	1556	3.6	39.4405	16.9278	0.4	1.3	0.74	0.92	0.80	7	221	0.18	0.16
131231	1753	45.3	39.9481	16.1706	1.4	1.3	0.62	0.52	1.55	14	133	0.34	0.12

Epicentri localizzati nel periodo di riferimento



BOLLETTINO

1 131216 0542 03.6 - Sila Piccola
 Lat: 39.12 Lon: 16.49 Prof: 17.4 Km
 ± 0.51 km ± 0.59 km ± 2.1 km
 RMS: 0.36s GAP: 78.7° NR: 27

STN	PHASE	MN	SEC	DIST	AZM	RES
SCOI	P	42	9.57	27.69	311.9	0.018
SCOI	S	42	14.15	27.69	311.9	0.263
CUP2	P	42	10.21	29.35	8.9	0.258
CUP2	S	42	14.96	29.35	8.9	0.380
LADO	P	42	12.83	45.54	66.5	0.441
LADO	S	42	18.85	45.54	66.5	0.048
VBL2	P	42	15.04	60.04	213.9	0.246
VBL2	S	42	22.65	60.04	213.9	-0.316
CET2	P	42	15.34	64.84	314.1	-0.400
CET2	S	42	24.08	64.84	314.1	-0.525

2 131216 2204 30.9 - Sila Piccola
 Lat: 39.11 Lon: 16.49 Prof: 0.0 Km
 ± 0.54 km ± 0.55 km ± 1.2 km
 RMS: 0.26s GAP: 110.3° NR: 11

STN	PHASE	MN	SEC	DIST	AZM	RES
CUP2	P	04	37.01	29.55	7.9	-0.001
CUP2	S	04	42.07	29.55	7.9	0.587

3 131216 2206 48.7 - Vallo di Diano
 Lat: 40.09 Lon: 15.88 Prof: 12.6 Km
 ± 0.29 km ± 0.45 km ± 1.1 km
 RMS: 0.19s GAP: 99.5° NR: 17

STN	PHASE	MN	SEC	DIST	AZM	RES
CET2	P	07	.37	63.62	174.6	-0.183
CET2	S	07	8.77	63.62	174.6	-0.435

4 131216 2301 04.9 - Vallo di Diano
 Lat: 40.10 Lon: 15.86 Prof: 11.9 Km
 ± 0.61 km ± 0.78 km ± 2.2 km
 RMS: 0.38s GAP: 77.0° NR: 21

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN	P	01	10.62	25.77	155.7	0.330
CET2	P	01	16.51	64.10	173.4	-0.379
CET2	S	01	24.96	64.10	173.4	-0.632

5 131216 2308 43.0 - Offshore Locride
 Lat: 38.04 Lon: 16.25 Prof: 14.1 Km
 ± 1.25 km ± 1.25 km ± 3.0 km
 RMS: 0.51s GAP: 209.1° NR: 27

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	08	50.35	34.86	263.2	0.430
CNDF	S	08	54.85	34.86	263.2	-0.096
VBL2	P	08	55.90	71.34	349.9	-0.145
VBL2	S	09	5.68	71.34	349.9	0.127
CSC2	P	09	7.45	138.23	.2	0.067
CSC2	S	09	25.82	138.23	.2	0.623
CUP2	P	09	9.57	151.23	9.7	0.856
CET2	P	09	9.98	167.15	351.2	0.878
CET2	S	09	28.07	167.15	351.2	-0.093

6 131216 2322 36.4 - Vallo di Diano
 Lat: 40.10 Lon: 15.88 Prof: 12.9 Km
 ± 0.38 km ± 0.53 km ± 1.6 km
 RMS: 0.27s GAP: 92.0° NR: 24

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN	P	22	42.18	25.13	158.9	0.471
CET2	P	22	48.10	63.90	174.7	-0.227
CET2	S	22	56.45	63.90	174.7	-0.574

7 131217 0917 16.3 - Canyon di Stromboli
 Lat: 38.44 Lon: 15.29 Prof: 129.3 Km
 ± 2.61 km ± 3.08 km ± 4.9 km
 RMS: 0.61s GAP: 130.4° NR: 25

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	17	37.23	69.59	134.9	0.756
CNDF	S	17	51.77	69.59	134.9	0.561
CET2	P	17	41.96	133.64	25.9	0.858

8 131217 1359 33.4 - Aspromonte
 Lat: 38.09 Lon: 15.81 Prof: 9.1 Km
 ± 0.61 km ± 0.64 km ± 1.7 km
 RMS: 0.29s GAP: 116.8° NR: 15

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	59	36.38	10.86	161.5	0.239
CNDF	S	59	38.12	10.86	161.5	-0.010

9 131217 1706 16.0 - Piana bat. ionica
 Lat: 37.58 Lon: 15.70 Prof: 26.8 Km
 ± 1.46 km ± 1.78 km ± 3.7 km
 RMS: 0.57s GAP: 183.2° NR: 26

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	06	25.99	47.97	16.7	0.322
CNDF	S	06	33.07	47.97	16.7	0.392

10 131218 0110 22.1 - M. Peloritani
 Lat: 37.93 Lon: 15.30 Prof: 14.5 Km
 ± 1.19 km ± 0.92 km ± 3.1 km
 RMS: 0.53s GAP: 110.6° NR: 21

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	10	31.22	49.16	82.0	-0.114
CNDF	S	10	38.58	49.16	82.0	0.514

11 131218 0412 09.4 - Canyon di Stromboli
 Lat: 38.65 Lon: 15.45 Prof: 171.8 Km
 ± 1.71 km ± 2.17 km ± 3.3 km
 RMS: 0.39s GAP: 121.1° NR: 36

STN	PHASE	MN	SEC	DIST	AZM	RES
VBL2	P	12	33.33	56.45	88.5	-0.473
VBL2	S	12	51.27	56.45	88.5	-0.340
CNDF	P	12	35.10	80.55	154.8	0.291
CNDF	S	12	54.03	80.55	154.8	0.678
CET2	P	12	36.15	105.74	24.2	0.363
CET2	S	12	55.75	105.74	24.2	0.704

12 131218 0420 54.9 - Bacino di Gioia
 Lat: 38.31 Lon: 15.42 Prof: 118.6 Km
 ± 1.43 km ± 1.41 km ± 3.9 km
 RMS: 0.49s GAP: 88.2° NR: 53

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	21	13.39	51.35	133.2	0.413
CNDF	S	21	26.98	51.35	133.2	0.820
VBL2	P	21	14.23	71.27	56.6	-0.222
VBL2	S	21	27.99	71.27	56.6	-0.724
CET2	P	21	20.17	141.96	19.1	0.415
CET2	S	21	38.14	141.96	19.1	0.240
CUP2	P	21	22.10	153.12	39.6	0.350
CUP2	S	21	42.23	153.12	39.6	0.877

13 131218 0514 57.5 - Alto Tirreno Cosentino
 Lat: 39.87 Lon: 16.06 Prof: 6.4 Km
 ± 0.51 km ± 0.62 km ± 1.2 km
 RMS: 0.20s GAP: 113.8° NR: 12

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN	P	14	59.48	6.63	290.3	-0.026
MMN	S	15	.38	6.63	290.3	-0.551
CET2	P	15	5.25	39.04	194.0	0.202
CET2	S	15	10.46	39.04	194.0	-0.068

14 131218 0558 37.0 - Bacino di Gioia
 Lat: 38.39 Lon: 15.31 Prof: 129.2 Km
 ± 1.80 km ± 2.25 km ± 4.2 km
 RMS: 0.51s GAP: 116.8° NR: 35

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	58	57.36	64.13	132.7	0.379
CNDF	S	59	12.31	64.13	132.7	0.727
CET2	P	59	2.81	137.83	24.1	0.528
CET2	S	59	21.60	137.83	24.1	0.836
ROI	P	59	6.66	170.17	39.9	0.241

15 131218 1550 13.0 - Sila Grande
 Lat: 39.38 Lon: 16.52 Prof: 30.3 Km
 ± 0.99 km ± 0.86 km ± 2.3 km
 RMS: 0.35s GAP: 80.9° NR: 17

STN	PHASE	MN	SEC	DIST	AZM	RES
CUP2	P	50	18.43	1.85	100.4	-0.163
CUP2	S	50	23.09	1.85	100.4	0.427
ROI	P	50	19.21	20.89	9.8	-0.483
ROI	S	50	24.59	20.89	9.8	0.020
LADO	P	50	21.77	40.62	106.0	-0.095
CET2	P	50	23.09	51.73	287.8	-0.117
CET2	S	50	31.57	51.73	287.8	0.916

16 131219 1718 43.7 - Presila nord-or.
 Lat: 39.26 Lon: 16.88 Prof: 15.6 Km
 ± 1.06 km ± 1.53 km ± 2.2 km
 RMS: 0.38s GAP: 139.9° NR: 9

STN	PHASE	MN	SEC	DIST	AZM	RES
LADO	P	18	46.95	8.60	73.6	-0.139
LADO	S	18	49.70	8.60	73.6	0.167
ROI	P	18	52.48	43.71	321.4	0.101

17 131219 1718 44.0 - Marchesato
 Lat: 39.06 Lon: 16.81 Prof: 5.3 Km
 ± 6.41 km ± 3.47 km ± 4.2 km
 RMS: 0.73s GAP: 296.8° NR: 5

STN	PHASE	MN	SEC	DIST	AZM	RES
LADO	P	18	49.64	28.33	30.1	0.215
LADO	S	18	52.93	28.33	30.1	-0.444
CUP2	P	18	51.28	42.19	326.9	-0.632
ROI	P	18	55.81	60.16	339.3	0.533
ROI	S	19	3.73	60.16	339.3	0.226

18 131219 1910 24.8 - Stretta di Catanzaro
 Lat: 38.86 Lon: 16.21 Prof: 8.2 Km
 ± 0.65 km ± 0.90 km ± 2.6 km
 RMS: 0.45s GAP: 118.2° NR: 19

STN	PHASE	MN	SEC	DIST	AZM	RES
VBL2	P	10	30.03	23.69	203.5	0.467
VBL2	S	10	33.05	23.69	203.5	0.023
CUP2	P	10	36.78	63.85	26.6	0.289
CUP2	S	10	44.85	63.85	26.6	-0.178
CET2	P	10	38.53	76.61	342.9	-0.314
ROI	P	10	39.92	83.70	21.2	-0.255
LADO	P	10	40.08	80.45	54.9	0.845

19 131220 0354 18.3 - Bacino di Gioia
 Lat: 38.60 Lon: 15.66 Prof: 88.6 Km
 ± 0.92 km ± 1.09 km ± 2.9 km
 RMS: 0.36s GAP: 117.8° NR: 38

STN	PHASE	MN	SEC	DIST	AZM	RES
VBL2	P	54	32.34	39.07	79.5	-0.014
VBL2	S	54	42.46	39.07	79.5	-0.144
CNDF	P	54	34.36	69.20	166.4	0.036
CNDF	S	54	46.19	69.20	166.4	0.174
CET2	P	54	37.79	105.16	14.0	0.602
CET2	S	54	51.61	105.16	14.0	0.635

20 131220 1315 12.9 - Alto Tirreno Cosentino
 Lat: 39.88 Lon: 16.08 Prof: 5.3 Km
 ± 0.77 km ± 0.61 km ± 1.6 km
 RMS: 0.35s GAP: 153.2° NR: 12

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN	P	15	15.26	8.06	271.6	0.020
MMN	S	15	16.49	8.06	271.6	-0.402
CET2	P	15	21.09	41.51	195.8	-0.278
CET2	S	15	26.93	41.51	195.8	-0.577

21 131220 2234 40.6 - Marchesato
 Lat: 39.21 Lon: 17.00 Prof: 27.3 Km
 ± 0.98 km ± 1.34 km ± 1.8 km
 RMS: 0.28s GAP: 250.4° NR: 13

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	27	44.85	32.15	127.5	0.155
CNDF	S	27	48.91	32.15	127.5	-0.249
VBL2	P	27	51.70	72.59	41.0	0.054
VBL2	S	28	1.27	72.59	41.0	0.072

STN PHASE MN SEC DIST AZM RES
 LADO P 34 45.82 8.44 344.0 0.091
 LADO S 34 49.27 8.44 344.0 -0.191
 CUP2 P 34 50.03 43.87 295.6 0.224
 CUP2 S 34 56.85 43.87 295.6 0.322
 ROI P 34 51.19 54.96 316.5 -0.360

22 131221 0045 17.0 - Bacino di Gioia
 Lat: 38.43 Lon: 15.76 Prof: 38.8 Km
 ± 0.66 km ± 0.84 km ± 2.9 km
 RMS: 0.45s GAP: 59.2° NR: 51

STN	PHASE	MN	SEC	DIST	AZM	RES
VBL2	P	45	26.88	40.00	49.0	0.138
VBL2	S	45	33.28	40.00	49.0	-0.532
CNDF	P	45	27.80	48.81	170.5	0.033
CNDF	S	45	34.81	48.81	170.5	-0.777
CSC2	P	45	34.94	103.66	24.7	-0.110
CSC2	S	45	47.29	103.66	24.7	-0.912
CUP2	P	45	38.21	125.26	33.0	0.625
CUP2	S	45	52.90	125.26	33.0	0.308

23 131221 1132 47.0 - Valle del Crati
 Lat: 39.43 Lon: 16.20 Prof: 9.4 Km
 ± 0.51 km ± 0.46 km ± 1.4 km
 RMS: 0.24s GAP: 82.0° NR: 14

STN	PHASE	MN	SEC	DIST	AZM	RES
CET2	P	32	51.93	24.39	296.0	-0.121
CET2	S	32	55.32	24.39	296.0	-0.422
ROI	P	32	53.82	34.57	63.4	-0.034
ROI	S	32	58.73	34.57	63.4	-0.135

24 131222 0243 31.9 - Bacino di Gioia
 Lat: 38.43 Lon: 15.76 Prof: 37.6 Km
 ± 1.31 km ± 1.66 km ± 3.0 km
 RMS: 0.46s GAP: 117.8° NR: 14

STN	PHASE	MN	SEC	DIST	AZM	RES
CET2	P	43	51.50	122.68	8.1	0.630
CET2	S	44	4.92	122.68	8.1	0.208

25 131223 0408 28.4 - Bacino di Gioia
 Lat: 38.40 Lon: 15.33 Prof: 122.1 Km
 ± 2.19 km ± 2.31 km ± 3.0 km
 RMS: 0.37s GAP: 118.1° NR: 22

STN	PHASE	MN	SEC	DIST	AZM	RES
VBL2	P	08	48.31	74.27	66.2	-0.270
VBL2	S	09	3.42	74.27	66.2	0.119
CET2	P	08	53.61	136.43	23.7	0.565

26 131223 0420 37.9 - Stretto di Messina
 Lat: 38.19 Lon: 15.57 Prof: 19.0 Km
 ± 0.81 km ± 0.63 km ± 3.7 km
 RMS: 0.63s GAP: 65.3° NR: 58

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	20	44.87	32.90	131.4	0.068
CNDF	S	20	48.90	32.90	131.4	-0.925
VBL2	P	20	51.39	70.39	41.7	0.475
VBL2	S	21	1.20	70.39	41.7	0.786
CET2	P	21	2.31	151.35	12.9	0.853
CET2	S	21	19.59	151.35	12.9	0.919
ROI	P	21	5.89	175.21	29.6	-0.292
ROI	S	21	27.22	175.21	29.6	0.364
MMN	P	21	8.15	191.33	11.1	-0.458
MMN	S	21	30.54	191.33	11.1	-0.519

27 131223 0427 38.6 - Stretto di Messina
 Lat: 38.17 Lon: 15.56 Prof: 7.2 Km
 ± 0.28 km ± 0.18 km ± 0.8 km
 RMS: 0.14s GAP: 104.7° NR: 22

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	27	44.85	32.15	127.5	0.155
CNDF	S	27	48.91	32.15	127.5	-0.249
VBL2	P	27	51.70	72.59	41.0	0.054
VBL2	S	28	1.27	72.59	41.0	0.072

28	131223 0457 52.5 - Stretto di Messina	STN	PHASE	MN	SEC	DIST	AZM	RES
	Lat: 38.19 Lon: 15.56 Prof: 10.2 Km	CNDF	P	46	16.06	74.43	105.0	-0.298
	± 0.89 km ± 0.64 km ± 3.5 km	CNDF	S	46	26.43	74.43	105.0	0.254
	RMS: 0.60s GAP: 70.3° NR: 41							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	57	59.15	33.34	129.9	0.178
		CNDF	S	58	3.44	33.34	129.9	-0.213
		VBL2	P	58	5.62	71.32	42.0	0.166
		VBL2	S	58	15.82	71.32	42.0	0.941
		CET2	P	58	16.25	151.96	13.2	-0.820
		CET2	S	58	35.99	151.96	13.2	0.991
		CUP2	P	58	19.55	157.26	33.1	0.096
29	131223 0458 10.4 - Stretto di Messina							
	Lat: 38.19 Lon: 15.55 Prof: 15.8 Km							
	± 0.87 km ± 0.64 km ± 3.1 km							
	RMS: 0.54s GAP: 67.7° NR: 41							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	58	17.36	33.58	128.7	0.148
		CNDF	S	58	21.45	33.58	128.7	-0.690
		VBL2	P	58	24.08	71.98	42.2	0.474
		VBL2	S	58	33.40	71.98	42.2	0.186
		CET2	P	58	34.39	152.44	13.4	-0.070
		CET2	S	58	52.32	152.44	13.4	0.304
		CUP2	P	58	36.63	157.88	33.2	-0.159
		ROI	P	58	40.27	176.63	29.9	0.998
30	131223 0526 01.9 - Stretto di Messina							
	Lat: 38.18 Lon: 15.55 Prof: 5.6 Km							
	± 0.69 km ± 0.44 km ± 1.5 km							
	RMS: 0.26s GAP: 118.5° NR: 10							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	26	8.13	32.89	127.6	-0.033
		CNDF	S	26	12.41	32.89	127.6	-0.288
31	131223 0535 04.3 - Stretto di Messina							
	Lat: 38.17 Lon: 15.55 Prof: 5.4 Km							
	± 0.56 km ± 0.38 km ± 1.1 km							
	RMS: 0.19s GAP: 133.8° NR: 10							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	35	10.77	32.88	126.0	0.189
		CNDF	S	35	14.92	32.88	126.0	-0.192
32	131223 0538 19.6 - Stretto di Messina							
	Lat: 38.17 Lon: 15.57 Prof: .2 Km							
	± 0.93 km ± 0.63 km ± 1.9 km							
	RMS: 0.41s GAP: 132.8° NR: 13							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	38	26.39	31.41	128.0	0.184
		CNDF	S	38	30.76	31.41	128.0	-0.244
33	131223 0609 42.4 - Stretto di Messina							
	Lat: 38.18 Lon: 15.56 Prof: 8.4 Km							
	± 0.57 km ± 0.34 km ± 1.6 km							
	RMS: 0.27s GAP: 116.0° NR: 19							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	09	48.87	32.94	128.3	0.202
		CNDF	S	09	53.22	32.94	128.3	-0.034
34	131223 0640 31.9 - Stretto di Messina							
	Lat: 38.18 Lon: 15.56 Prof: 6.0 Km							
	± 0.60 km ± 0.31 km ± 1.5 km							
	RMS: 0.26s GAP: 117.4° NR: 20							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	40	38.27	32.95	128.0	0.134
		CNDF	S	40	42.34	32.95	128.0	-0.342
35	131223 0646 02.9 - Milazzo							
	Lat: 38.17 Lon: 15.03 Prof: 11.7 Km							
	± 0.80 km ± 0.66 km ± 3.0 km							
	RMS: 0.52s GAP: 46.2° NR: 29							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	10	41.17	51.33	142.4	0.403
		CNDF	S	10	55.12	51.33	142.4	0.362
		VBL2	P	10	41.59	63.21	57.8	-0.064
		VBL2	S	10	55.56	63.21	57.8	-0.735
		CET2	P	10	47.10	134.86	17.4	0.595
		CET2	S	11	4.94	134.86	17.4	0.243
		CUP2	P	10	48.88	145.04	39.1	0.568
		CUP2	S	11	8.60	145.04	39.1	0.776
36	131223 0810 23.5 - Milazzo							
	Lat: 38.17 Lon: 15.03 Prof: 14.7 Km							
	± 0.59 km ± 0.43 km ± 1.7 km							
	RMS: 0.30s GAP: 74.7° NR: 21							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	10	36.83	74.89	104.9	-0.312
		CNDF	S	10	47.87	74.89	104.9	0.800
37	131223 0838 55.5 - Milazzo							
	Lat: 38.17 Lon: 15.03 Prof: 14.7 Km							
	± 0.63 km ± 0.48 km ± 2.0 km							
	RMS: 0.35s GAP: 72.7° NR: 27							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	39	8.90	74.68	105.3	-0.197
		CNDF	S	39	19.96	74.68	105.3	0.962
38	131223 0916 06.1 - Stretto di Messina							
	Lat: 38.18 Lon: 15.56 Prof: 4.0 Km							
	± 0.87 km ± 0.32 km ± 0.9 km							
	RMS: 0.21s GAP: 172.4° NR: 16							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	16	12.59	33.22	128.7	0.049
		CNDF	S	16	16.98	33.22	128.7	-0.226
39	131223 1125 28.4 - Stretto di Messina							
	Lat: 38.18 Lon: 15.55 Prof: 6.5 Km							
	± 0.52 km ± 0.35 km ± 1.3 km							
	RMS: 0.23s GAP: 118.3° NR: 14							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	25	34.89	33.18	127.1	0.154
		CNDF	S	25	39.04	33.18	127.1	-0.278
40	131223 1148 57.8 - Stretto di Messina							
	Lat: 38.17 Lon: 15.55 Prof: 5.0 Km							
	± 0.42 km ± 0.26 km ± 0.7 km							
	RMS: 0.17s GAP: 119.6° NR: 12							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	49	4.18	33.31	126.4	0.058
		CNDF	S	49	8.42	33.31	126.4	-0.286
41	131223 1229 11.9 - M. Peloritani							
	Lat: 38.25 Lon: 15.53 Prof: 21.6 Km							
	± 1.97 km ± 1.15 km ± 3.6 km							
	RMS: 0.61s GAP: 72.3° NR: 19							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	29	20.34	39.81	134.2	0.234
42	131223 1328 36.2 - G. di Policastro							
	Lat: 39.67 Lon: 15.43 Prof: 20.3 Km							
	± 2.44 km ± 2.73 km ± 4.0 km							
	RMS: 0.51s GAP: 241.2° NR: 12							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CET2	P	28	45.15	47.96	110.6	0.529
		CET2	S	28	50.98	47.96	110.6	0.199
43	131223 1510 21.6 - Bacino di Gioia							
	Lat: 38.36 Lon: 15.49 Prof: 128.4 Km							
	± 1.32 km ± 1.89 km ± 5.2 km							
	RMS: 0.62s GAP: 48.8° NR: 77							
		STN	PHASE	MN	SEC	DIST	AZM	RES
		CNDF	P	10	41.17	51.33	142.4	0.403
		CNDF	S	10	55.12	51.33	142.4	0.362
		VBL2	P	10	41.59	63.21	57.8	-0.064
		VBL2	S	10	55.56	63.21	57.8	-0.735
		CET2	P	10	47.10	134.86	17.4	0.595
		CET2	S	11	4.94	134.86	17.4	0.243
		CUP2	P	10	48.88	145.04	39.1	0.568
		CUP2	S	11	8.60	145.04	39.1	0.776

58 131227 1057 46.9 - Valle del Crati
 Lat: 39.23 Lon: 16.28 Prof: 11.4 Km
 ± 0.96 km ± 0.79 km ± 2.2 km
 RMS: 0.37s GAP: 165.0° NR: 16

STN	PHASE	MN	SEC	DIST	AZM	RES
SCOI	P	57	49.62	6.20	336.9	0.160
SCOI	S	57	50.98	6.20	336.9	-0.288
CET2	P	57	55.08	43.03	318.7	-0.192
CET2	S	58	1.30	43.03	318.7	-0.033
ROI	P	57	56.43	44.45	33.4	0.840
ROI	S	58	2.24	44.45	33.4	0.354

59 131228 0531 56.1 - G. di Policastro
 Lat: 39.65 Lon: 15.43 Prof: 3.0 Km
 ± 1.32 km ± 1.78 km ± 2.0 km
 RMS: 0.45s GAP: 243.7° NR: 16

STN	PHASE	MN	SEC	DIST	AZM	RES
CET2	P	32	5.09	46.85	108.2	-0.120
CET2	S	32	11.14	46.85	108.2	-0.690
MMN	P	32	6.24	54.16	61.8	-0.105
CUP2	P	32	14.15	100.43	107.8	0.038
CUP2	S	32	27.42	100.43	107.8	0.171
ROI	P	32	14.38	97.84	95.8	0.494
ROI	S	32	26.94	97.84	95.8	0.083

60 131228 0851 49.5 - Stretto di Messina
 Lat: 38.18 Lon: 15.56 Prof: 4.2 Km
 ± 0.60 km ± 0.33 km ± 1.4 km
 RMS: 0.32s GAP: 102.5° NR: 26

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	51	55.96	32.66	128.7	0.185
CNDF	S	52	.24	32.66	128.7	-0.111

61 131228 1045 56.6 - Stretto di Messina
 Lat: 38.18 Lon: 15.55 Prof: 4.5 Km
 ± 0.38 km ± 0.25 km ± 0.8 km
 RMS: 0.18s GAP: 103.3° NR: 16

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	46	3.01	33.22	127.4	0.045
CNDF	S	46	7.34	33.22	127.4	-0.244

62 131228 1208 58.2 - Piana bat. ionica
 Lat: 37.45 Lon: 15.83 Prof: 19.2 Km
 ± 1.58 km ± 2.26 km ± 3.9 km
 RMS: 0.67s GAP: 213.3° NR: 24

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	09	9.58	61.25	2.5	-0.171
CNDF	S	09	17.98	61.25	2.5	-0.179

63 131228 1605 47.6 - Stretto di Messina
 Lat: 38.18 Lon: 15.56 Prof: 4.7 Km
 ± 0.72 km ± 0.52 km ± 1.4 km
 RMS: 0.32s GAP: 102.6° NR: 14

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	05	53.97	32.94	128.4	0.087
CNDF	S	05	58.12	32.94	128.4	-0.327

64 131228 1609 07.6 - Bacino di Gioia
 Lat: 38.49 Lon: 15.49 Prof: 129.5 Km
 ± 1.29 km ± 1.81 km ± 3.1 km
 RMS: 0.37s GAP: 124.3° NR: 31

STN	PHASE	MN	SEC	DIST	AZM	RES
VBL2	P	09	27.46	56.80	69.4	0.185
VBL2	S	09	41.64	56.80	69.4	0.036
CNDF	P	09	27.52	62.59	150.3	0.115
CNDF	S	09	41.37	62.59	150.3	-0.455
CET2	P	09	32.14	121.75	19.2	0.813
CET2	S	09	48.18	121.75	19.2	-0.442

65 131229 0603 06.9 - Bacino di Paola
 Lat: 38.89 Lon: 15.71 Prof: 101.7 Km
 ± 2.39 km ± 6.14 km ± 4.2 km
 RMS: 0.53s GAP: 159.3° NR: 14

STN	PHASE	MN	SEC	DIST	AZM	RES
VBL2	P	43	43.62	68.72	51.2	-0.146
VBL2	S	43	57.07	68.72	51.2	-0.984
CUP2	P	43	51.66	152.47	36.9	0.560
CUP2	S	44	11.45	152.47	36.9	0.695

STN PHASE MN SEC DIST AZM RES
 VBL2 P 03 23.02 41.83 125.2 0.429
 VBL2 S 03 34.65 41.83 125.2 0.641
 CET2 P 03 24.79 73.89 16.6 0.683
 CET2 S 03 37.05 73.89 16.6 0.415

66 131229 0848 24.2 - Stretto di Messina
 Lat: 38.13 Lon: 15.62 Prof: 5.9 Km
 ± 0.57 km ± 0.32 km ± 1.4 km
 RMS: 0.31s GAP: 72.9° NR: 27

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	48	29.64	25.16	125.8	0.166
CNDF	S	48	32.88	25.16	125.8	-0.411

67 131229 1232 06.9 - Alto Tirreno Cosentino
 Lat: 39.86 Lon: 16.10 Prof: 4.4 Km
 ± 0.54 km ± 0.41 km ± 1.0 km
 RMS: 0.22s GAP: 141.1° NR: 8

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN	P	32	9.57	9.95	285.4	0.084
MMN	S	32	10.97	9.95	285.4	-0.351

68 131229 2144 21.8 - Alto Tirreno Cosentino
 Lat: 39.88 Lon: 16.06 Prof: 5.2 Km
 ± 0.76 km ± 0.83 km ± 2.2 km
 RMS: 0.50s GAP: 90.4° NR: 19

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN	P	44	24.03	6.74	277.7	0.171
MMN	S	44	24.89	6.74	277.7	-0.446
CET2	P	44	29.99	40.51	194.1	-0.075
CET2	S	44	35.27	40.51	194.1	-0.823

69 131230 1049 53.8 - Amantea - M.Reventino
 Lat: 38.98 Lon: 16.25 Prof: 19.3 Km
 ± 0.53 km ± 0.83 km ± 2.1 km
 RMS: 0.36s GAP: 118.8° NR: 17

STN	PHASE	MN	SEC	DIST	AZM	RES
CET2	P	50	6.46	65.81	336.6	0.162
CET2	S	50	14.60	65.81	336.6	-0.787

70 131230 2011 34.9 - Offshore Cilento
 Lat: 39.66 Lon: 15.27 Prof: 15.7 Km
 ± 1.98 km ± 2.65 km ± 4.0 km
 RMS: 0.51s GAP: 242.1° NR: 27

STN	PHASE	MN	SEC	DIST	AZM	RES
CET2	P	11	44.18	60.08	104.8	-0.726
CET2	S	11	51.31	60.08	104.8	-0.909
CUP2	P	11	52.97	113.62	106.1	-0.100
CUP2	S	12	5.96	113.62	106.1	-0.398
LADO	P	11	58.85	152.40	106.1	0.967

71 131231 0113 22.2 - Amantea - M.Reventino
 Lat: 39.11 Lon: 16.33 Prof: 18.8 Km
 ± 0.51 km ± 0.67 km ± 2.1 km
 RMS: 0.36s GAP: 109.7° NR: 23

STN	PHASE	MN	SEC	DIST	AZM	RES
CUP2	P	13	29.76	35.42	31.0	0.182
ROI	P	13	32.49	55.03	21.3	-0.395
ROI	S	13	39.71	55.03	21.3	-0.983
CET2	P	13	32.98	56.90	324.8	-0.144
CET2	S	13	41.20	56.90	324.8	0.093
LADO	P	13	33.08	58.83	70.6	-0.156
LADO	S	13	41.30	58.83	70.6	-0.001

72 131231 0143 24.2 - Milazzo
 Lat: 38.28 Lon: 15.49 Prof: 120.6 Km
 ± 1.59 km ± 1.88 km ± 4.2 km
 RMS: 0.52s GAP: 104.1° NR: 48

STN	PHASE	MN	SEC	DIST	AZM	RES
VBL2	P	43	43.62	68.72	51.2	-0.146
VBL2	S	43	57.07	68.72	51.2	-0.984
CUP2	P	43	51.66	152.47	36.9	0.560
CUP2	S	44	11.45	152.47	36.9	0.695

73 131231 1351 12.7 - Alto Tirreno Cosentino
 Lat: 39.90 Lon: 16.03 Prof: 5.0 Km
 ± 0.57 km ± 0.47 km ± 0.5 km
 RMS: 0.10s GAP: 197.0° NR: 6

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN9	P	51	32.01	1.85	141.8	-0.174
MMN9	S	51	33.07	1.85	141.8	-0.144
MMN	P	51	32.35	4.25	248.5	-0.044
MMN	S	51	33.26	4.25	248.5	-0.314

74 131231 1556 03.6 - Presila nord-or.
 Lat: 39.44 Lon: 16.92 Prof: .4 Km
 ± 0.74 km ± 0.92 km ± 0.8 km
 RMS: 0.18s GAP: 221.3° NR: 7

STN	PHASE	MN	SEC	DIST	AZM	RES
LADO	P	56	7.68	17.94	165.2	0.131
LADO	S	56	10.31	17.94	165.2	-0.129

75 131231 1753 45.3 - Catena del Pollino
 Lat: 39.94 Lon: 16.17 Prof: 1.4 Km
 ± 0.62 km ± 0.52 km ± 1.5 km
 RMS: 0.34s GAP: 133.8° NR: 14

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN9	P	53	48.27	12.02	238.8	0.208
MMN9	S	53	49.89	12.02	238.8	-0.166
MMN	P	53	49.04	16.64	247.6	-0.029
MMN	S	53	51.30	16.64	247.6	-0.500