



**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

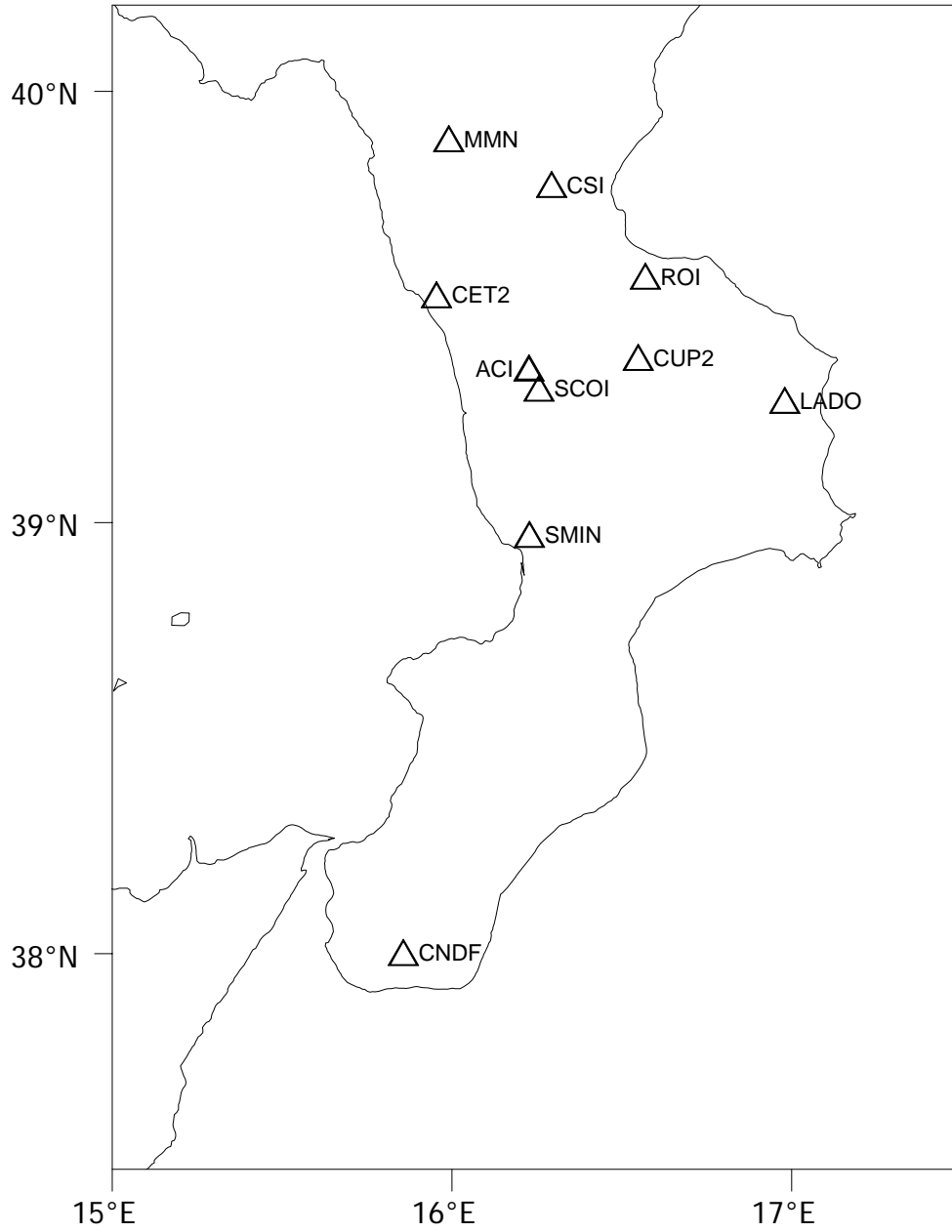
E

DELLE AREE CIRCOSTANTI

prodotto nell'ambito delle attività dell'O.R. 2

Periodo 16-31 MAGGIO 2013

Distribuzione delle stazioni della Rete Sismica UniCal



Toponomastica delle aree epicentrali

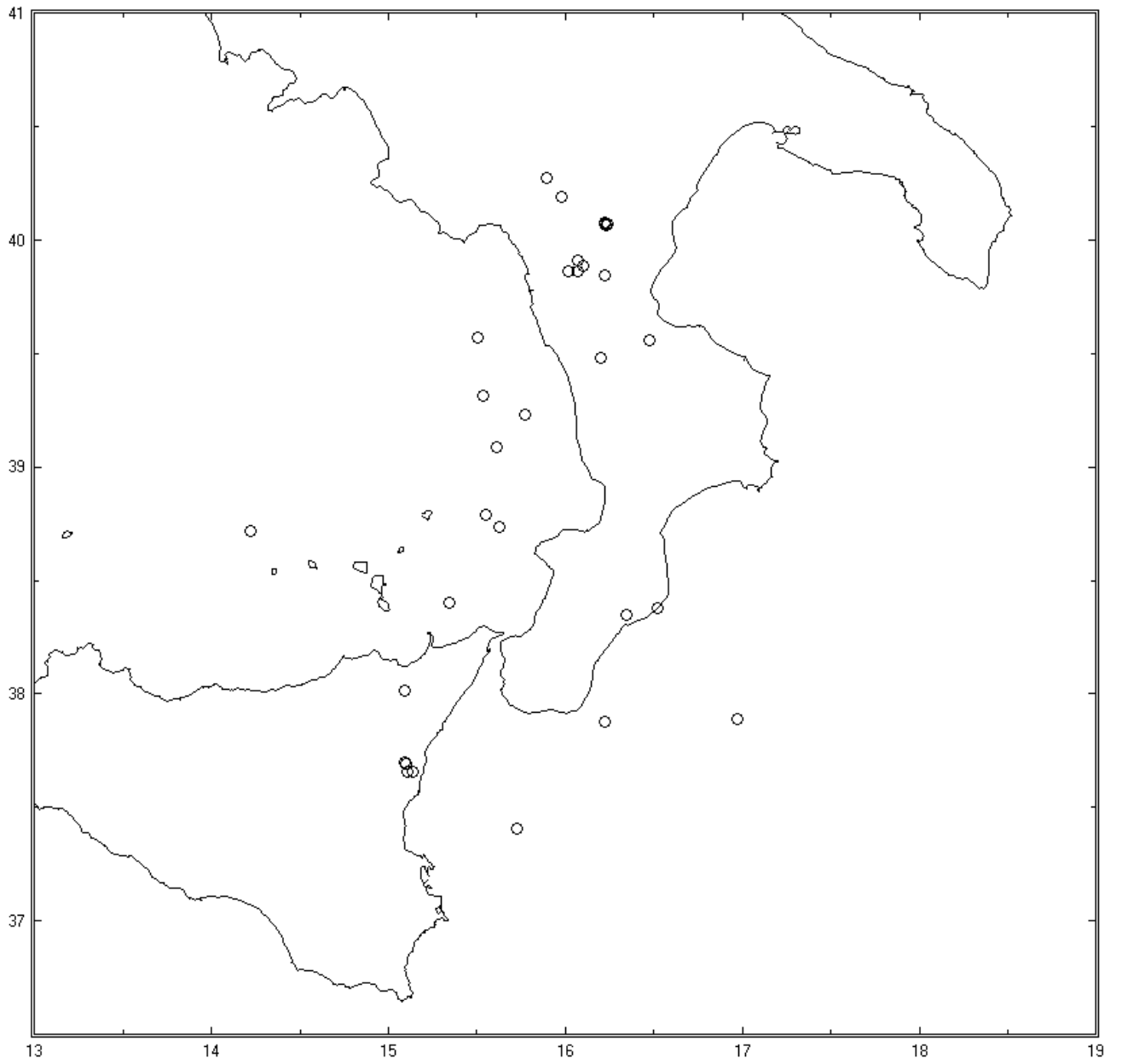


1 Murge	19 Piana di Sibari	37 Offshore Punta Stilo	55 Milazzo
2 Penisola Salentina	20 Valle dell'Esaro	38 Punta Stilo	56 Monti Peloritani
3 Piana del Bradano e del Basento	21 Catena del Pollino	39 Serre centro-settentrionali	57 Stretto di Messina
4 Golfo di Taranto	22 Marate - Rotonda	40 Valle del Mesima	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
130516	1540	49.6	37.8754	16.2256	31.9	2.9	2.57	2.14	3.71	18	227	0.57	0.37
130516	1738	11.4	40.1894	15.9786	9.3	2.2	1.22	1.38	5.39	29	55	0.93	0.20
130516	2211	9.8	39.0855	15.6097	190.0	2.7	2.86	5.28	5.68	34	169	0.68	0.22
130517	0523	7.9	37.4078	15.7251	20.7	2.2	1.06	1.50	3.13	29	217	0.48	0.23
130517	0918	0.6	40.0703	16.2380	16.8	2.4	0.73	0.86	2.69	27	80	0.46	0.12
130518	0132	17.1	39.8477	16.2200	6.3	2.1	0.94	1.03	3.74	35	69	0.83	0.14
130518	0643	31.4	39.9094	16.0707	4.3	2.0	1.01	1.00	3.59	31	97	0.80	0.15
130519	0102	22.0	39.4787	16.1996	18.1	2.4	1.38	1.91	4.55	29	108	0.78	0.18
130519	1521	22.1	38.3471	16.3431	17.1	2.4	1.21	1.36	2.56	13	183	0.44	0.19
130519	1813	12.7	38.7365	15.6266	99.6	2.4	1.34	2.11	4.11	29	148	0.51	0.12
130519	1921	37.1	40.0645	16.2340	15.7	2.4	0.86	1.04	3.68	33	60	0.63	0.13
130522	0204	35.5	40.0701	16.2253	14.2	2.5	0.83	1.12	3.94	39	69	0.68	0.15
130522	2105	55.8	38.7924	15.5528	179.3	2.6	4.80	10.10	7.02	20	210	0.85	0.45
130523	1304	48.6	37.6552	15.1364	11.8	3.5	0.98	1.25	5.45	55	53	0.94	0.14
130523	1936	49.3	39.8867	16.0974	0.1	2.0	7.16	1.91	1.50	6	351	0.33	0.51
130523	1937	4.6	37.6579	15.1106	5.4	2.0	1.44	1.16	3.09	13	101	0.69	0.19
130524	0240	44.4	37.6978	15.0938	9.4	2.3	1.27	1.43	3.73	14	114	0.64	0.19
130524	0247	0.5	37.6907	15.0977	7.3	3.0	0.92	1.21	3.45	35	46	0.77	0.13
130524	0437	38.5	38.3772	16.5169	13.9	2.2	0.83	1.49	1.86	12	239	0.32	0.24
130525	0354	3.4	39.5702	15.5037	297.2	2.9	3.99	7.94	5.77	26	176	0.67	0.28
130527	0010	21.5	39.3157	15.5346	268.0	3.0	7.72	12.92	8.29	25	231	0.96	0.51
130527	0022	18.0	38.4031	15.3456	112.7	2.6	2.11	4.19	4.19	18	191	0.52	0.26
130528	0414	52.4	39.2287	15.7736	231.3	2.9	3.31	5.76	7.43	44	136	0.89	0.17
130529	1241	12.4	40.2726	15.8967	9.2	2.3	0.90	0.80	2.55	19	91	0.44	0.13
130529	1244	40.4	39.8643	16.0161	1.2		0.61	0.21	0.36	6	273	0.08	0.12
130530	0030	31.7	39.5600	16.4754	24.0	3.0	0.89	1.30	5.14	72	85	0.89	0.12
130530	1655	6.6	38.7202	14.2197	2.0	2.7	1.91	1.60	2.11	12	212	0.47	0.31
130530	1657	1.6	38.0118	15.0888	19.3	2.8	0.76	0.65	3.12	38	42	0.54	0.09
130531	0854	3.3	40.0766	16.2209	0.1	2.3	0.88	1.00	3.50	32	56	0.78	0.16
130531	1422	14.9	37.8871	16.9735	40.0	2.6	4.01	6.94	5.70	19	275	0.73	0.83
130531	1423	54.9	39.8623	16.0716	1.9		0.68	0.46	0.42	6	320	0.09	0.14

Epicentri localizzati nel periodo di riferimento



BOLLETTINO

1 130516 1540 49.5 - Offshore Locride
 Lat: 37.87 Lon: 16.22 Prof: 31.9 Km
 ± 2.57 km ± 2.14 km ± 3.7 km
 RMS: 0.57s GAP: 227.5° NR: 18

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	40	58.33	35.36	293.8	0.474
CNDF	S	41	4.63	35.36	293.8	0.706
CUP2	P	41	15.32	169.74	9.4	-0.430

2 130516 1738 11.3 - Vallo di Diano
 Lat: 40.18 Lon: 15.97 Prof: 9.3 Km
 ± 1.22 km ± 1.38 km ± 5.4 km
 RMS: 0.93s GAP: 55.6° NR: 29

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN9	P	38	17.94	33.59	169.6	0.098
CSI	P	38	20.86	52.37	149.2	-0.606
CET2	P	38	24.58	73.37	181.8	-0.235
CET2	S	38	34.64	73.37	181.8	-0.019

3 130516 2211 09.7 - Scarpata di Paola
 Lat: 39.08 Lon: 15.60 Prof: 190.0 Km
 ± 2.86 km ± 5.28 km ± 5.7 km
 RMS: 0.68s GAP: 169.1° NR: 34

STN	PHASE	MN	SEC	DIST	AZM	RES
SCOI	P	11	36.27	60.28	68.2	-0.085
CET2	P	11	36.30	57.50	31.4	0.646
CET2	S	11	54.86	57.50	31.4	0.289
CUP2	P	11	38.23	87.51	67.9	0.556
LADO	P	11	39.05	120.37	79.4	-0.424
CNDF	P	11	39.92	122.06	170.1	0.205
CNDF	S	12	2.57	122.06	170.1	0.958

4 130517 0523 07.9 - Piana bat. ionica
 Lat: 37.40 Lon: 15.72 Prof: 20.7 Km
 ± 1.06 km ± 1.50 km ± 3.1 km
 RMS: 0.48s GAP: 217.3° NR: 29

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	23	20.35	67.10	10.3	0.071
CNDF	S	23	29.02	67.10	10.3	-0.315

5 130517 0918 00.5 - Bacino di S.Arcangelo
 Lat: 40.07 Lon: 16.23 Prof: 16.8 Km
 ± 0.73 km ± 0.86 km ± 2.7 km
 RMS: 0.46s GAP: 80.9° NR: 27

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN9	P	18	6.54	25.48	219.0	0.286
MMN9	S	18	10.06	25.48	219.0	-0.355
CSI	P	18	7.21	32.08	171.5	-0.296
CSI	S	18	12.33	32.08	171.5	-0.254
CET2	P	18	13.00	64.84	202.1	0.288
CET2	S	18	21.11	64.84	202.1	-0.491

6 130518 0132 17.1 - Catena del Pollino
 Lat: 39.84 Lon: 16.22 Prof: 6.3 Km
 ± 0.94 km ± 1.03 km ± 3.7 km
 RMS: 0.83s GAP: 69.7° NR: 35

STN	PHASE	MN	SEC	DIST	AZM	RES
CSI	P	32	19.40	9.41	138.2	-0.309
CSI	S	32	21.91	9.41	138.2	0.312
MMN9	P	32	20.92	15.32	288.8	0.122
MMN9	S	32	24.06	15.32	288.8	0.577
CET2	P	32	24.99	42.09	212.8	-0.495
CET2	S	32	30.84	42.09	212.8	-0.762
CUP2	P	32	28.95	58.74	151.2	0.790
CNDF	P	32	50.42	207.15	188.9	-0.969

7 130518 0643 31.4 - Alto Tirreno Cosentino
 Lat: 39.90 Lon: 16.07 Prof: 4.3 Km
 ± 1.01 km ± 1.00 km ± 3.6 km
 RMS: 0.80s GAP: 97.8° NR: 31

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN9	P	43	33.09	2.61	221.8	0.331
MMN9	S	43	33.74	2.61	221.8	0.014
CSI	P	43	36.49	23.56	126.1	-0.291
CSI	S	43	40.12	23.56	126.1	-0.572
CET2	P	43	39.41	43.42	193.4	-0.866
CUP2	P	43	45.63	71.34	144.9	0.745

8 130519 0102 21.9 - Valle del Crati
 Lat: 39.47 Lon: 16.19 Prof: 18.1 Km
 ± 1.38 km ± 1.91 km ± 4.5 km
 RMS: 0.78s GAP: 108.7° NR: 29

STN	PHASE	MN	SEC	DIST	AZM	RES
CET2	P	02	27.09	21.79	284.9	-0.226
CET2	S	02	30.24	21.79	284.9	-0.973
CSI	P	02	29.53	34.88	13.3	0.099
CSI	S	02	34.54	34.88	13.3	-0.335
MMN9	P	02	31.11	47.62	344.5	-0.104
MMN9	S	02	37.85	47.62	344.5	-0.113

9 130519 1521 22.0 - Punta Stilo
 Lat: 38.34 Lon: 16.34 Prof: 17.1 Km
 ± 1.21 km ± 1.36 km ± 2.6 km
 RMS: 0.44s GAP: 183.7° NR: 13

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	21	33.53	57.17	228.2	0.820

10 130519 1813 12.6 - Canyon di Stromboli
 Lat: 38.73 Lon: 15.62 Prof: 99.6 Km
 ± 1.34 km ± 2.11 km ± 4.1 km
 RMS: 0.51s GAP: 148.7° NR: 29

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	13	31.20	83.85	166.4	0.340
CNDF	S	13	44.59	83.85	166.4	0.408
CET2	P	13	31.92	92.41	18.2	0.783

11 130519 1921 37.1 - Bacino di S.Arcangelo
 Lat: 40.06 Lon: 16.23 Prof: 15.7 Km
 ± 0.86 km ± 1.04 km ± 3.7 km
 RMS: 0.63s GAP: 60.5° NR: 33

STN	PHASE	MN	SEC	DIST	AZM	RES
CSI	P	21	43.51	31.49	170.7	-0.402
CET2	P	21	49.05	64.11	202.0	-0.110
CUP2	P	21	51.29	80.26	160.3	-0.479

12 130522 0204 35.5 - Bacino di S.Arcangelo
 Lat: 40.07 Lon: 16.22 Prof: 14.2 Km
 ± 0.83 km ± 1.12 km ± 3.9 km
 RMS: 0.68s GAP: 69.3° NR: 39

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN9	P	04	40.91	24.79	217.1	0.003
MMN9	S	04	45.32	24.79	217.1	0.489
CSI	P	04	41.71	32.23	169.6	-0.648
MMN	P	04	41.75	28.24	225.3	0.336
CET2	P	04	47.10	64.41	201.2	-0.474
CET2	S	04	56.03	64.41	201.2	-0.348

13 130522 2105 55.7 - Canyon di Stromboli
 Lat: 38.79 Lon: 15.55 Prof: 179.3 Km
 ± 4.80 km ± 10.10 km ± 7.0 km
 RMS: 0.85s GAP: 210.9° NR: 20

STN	PHASE	MN	SEC	DIST	AZM	RES
CET2	P	06	21.92	88.82	23.3	0.138
CET2	S	06	41.49	88.82	23.3	0.665
CNDF	P	06	22.95	91.54	163.4	0.450
CNDF	S	06	42.80	91.54	163.4	0.732
LADO	P	06	25.07	135.02	66.1	-0.289

14 130523 1304 48.5 - Etna
 Lat: 37.65 Lon: 15.13 Prof: 11.8 Km
 ± 0.98 km ± 1.25 km ± 5.4 km
 RMS: 0.94s GAP: 53.1° NR: 55

STN	PHASE	MN	SEC	DIST	AZM	RES
CUP2	P	05	23.86	227.94	32.9	-0.456

15 130523 1936 49.3 - Alto Tirreno Cosentino
 Lat: 39.88 Lon: 16.09 Prof: .1 Km
 ± 7.16 km ± 1.91 km ± 1.5 km
 RMS: 0.33s GAP: 351.7° NR: 6

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN9	P	36	50.26	4.06	278.1	-0.019
MMN9	S	36	50.78	4.06	278.1	-0.182

16 130523 1937 04.5 - Etna
 Lat: 37.65 Lon: 15.11 Prof: 5.4 Km
 ± 1.44 km ± 1.16 km ± 3.1 km
 RMS: 0.69s GAP: 101.0° NR: 13

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	37	17.66	76.08	60.2	-0.912

17 130524 0240 44.4 - Etna
 Lat: 37.69 Lon: 15.09 Prof: 9.4 Km
 ± 1.27 km ± 1.43 km ± 3.7 km
 RMS: 0.64s GAP: 114.6° NR: 14

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	40	57.93	75.25	63.7	-0.007
CNDF	S	41	7.90	75.25	63.7	0.058

18 130524 0247 00.4 - Etna
 Lat: 37.69 Lon: 15.09 Prof: 7.3 Km
 ± 0.92 km ± 1.21 km ± 3.5 km
 RMS: 0.77s GAP: 46.4° NR: 35

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	47	14.12	75.30	63.0	0.047
CUP2	P	47	36.67	226.48	34.2	0.074
CUP2	S	48	2.30	226.48	34.2	-0.746

19 130524 0437 38.5 - Punta Stilo
 Lat: 38.37 Lon: 16.51 Prof: 13.9 Km
 ± 0.83 km ± 1.49 km ± 1.9 km
 RMS: 0.32s GAP: 239.6° NR: 12

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	37	51.19	71.15	234.3	-0.265
CNDF	S	38	.91	71.15	234.3	-0.005

20 130525 0354 03.3 - Offshore Scalea -
 Diamante
 Lat: 39.57 Lon: 15.50 Prof: 297.2 Km
 ± 3.99 km ± 7.94 km ± 5.8 km
 RMS: 0.67s GAP: 176.2° NR: 26

STN	PHASE	MN	SEC	DIST	AZM	RES
CUP2	P	54	43.94	92.23	103.1	0.749
CUP2	S	55	12.50	92.23	103.1	0.165
LADO	P	54	44.76	130.97	104.0	0.087
LADO	S	55	13.91	130.97	104.0	-0.990
CNDF	P	54	47.44	176.64	170.3	-0.143
CNDF	S	55	19.31	176.64	170.3	-0.631

21 130527 0010 21.4 - Scarpata di Paola
 Lat: 39.31 Lon: 15.53 Prof: 268.0 Km
 ± 7.72 km ± 12.92 km ± 8.3 km
 RMS: 0.96s GAP: 231.7° NR: 25

STN	PHASE	MN	SEC	DIST	AZM	RES
CET2	P	10	55.95	43.21	57.1	0.124
CET2	S	11	21.27	43.21	57.1	0.315
CUP2	P	10	58.48	87.68	85.2	0.624
LADO	P	10	59.33	124.67	91.6	-0.015
LADO	P	10	59.41	124.67	91.6	0.064
CNDF	P	11	.83	148.37	169.4	-0.116
CNDF	S	11	30.16	148.37	169.4	0.338

22 130527 0022 17.9 - Bacino di Gioia
 Lat: 38.40 Lon: 15.34 Prof: 112.7 Km
 ± 2.11 km ± 4.19 km ± 4.2 km
 RMS: 0.52s GAP: 191.0° NR: 18

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	22	36.07	63.07	135.1	-0.046
CNDF	S	22	49.89	63.07	135.1	0.508
LADO	P	22	46.01	172.26	55.5	-0.251

23 130528 0414 52.3 - Bacino di Paola
 Lat: 39.22 Lon: 15.77 Prof: 231.3 Km
 ± 3.31 km ± 5.76 km ± 7.4 km
 RMS: 0.89s GAP: 136.2° NR: 44

STN	PHASE	MN	SEC	DIST	AZM	RES
CET2	P	15	22.64	36.78	25.3	0.218
CET2	S	15	44.42	36.78	25.3	0.007
CUP2	P	15	24.71	68.97	75.6	0.717
LADO	P	15	25.56	104.25	86.5	0.223
CNDF	P	15	27.58	136.23	177.2	0.183
CNDF	S	15	52.85	136.23	177.2	-0.181

24 130529 1241 12.3 - Vallo di Diano
 Lat: 40.27 Lon: 15.89 Prof: 9.2 Km
 ± 0.90 km ± 0.80 km ± 2.5 km
 RMS: 0.44s GAP: 91.3° NR: 19

STN	PHASE	MN	SEC	DIST	AZM	RES
CET2	P	41	26.86	82.73	176.8	-0.561

25 130529 1244 40.4 - Alto Tirreno Cosentino
 Lat: 39.86 Lon: 16.01 Prof: 1.2 Km
 ± 0.61 km ± 0.21 km ± 0.4 km
 RMS: 0.08s GAP: 273.6° NR: 6

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN9	P	44	41.42	4.23	43.9	-0.055
MMN9	S	44	42.32	4.23	43.9	0.063

26 130530 0030 31.7 - Sila Greca
 Lat: 39.56 Lon: 16.47 Prof: 24.0 Km
 ± 0.89 km ± 1.30 km ± 5.1 km
 RMS: 0.89s GAP: 85.8° NR: 72

STN	PHASE	MN	SEC	DIST	AZM	RES
CUP2	P	30	37.84	20.58	162.1	0.210
CUP2	S	30	42.19	20.58	162.1	0.245
SCOI	P	30	39.20	35.48	212.0	-0.217
SCOI	S	30	44.76	35.48	212.0	-0.279
CET2	P	30	40.59	44.90	265.6	-0.130
CET2	S	30	46.87	44.90	265.6	-0.427
LADO	P	30	41.50	53.12	124.9	-0.642
LADO	S	30	47.40	53.12	124.9	2.359
MMN9	P	30	41.94	51.82	315.3	-0.085
CNDF	P	31	.15	180.97	197.3	0.248

27 130530 1655 06.6 - Vulcano Marsili
 Lat: 38.72 Lon: 14.21 Prof: 2.0 Km
 ± 1.91 km ± 1.60 km ± 2.1 km
 RMS: 0.47s GAP: 212.9° NR: 12

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	55	31.98	163.78	119.8	-0.906

28 130530 1657 01.6 - M. Peloritani
 Lat: 38.01 Lon: 15.08 Prof: 19.3 Km
 ± 0.76 km ± 0.65 km ± 3.1 km
 RMS: 0.54s GAP: 42.5° NR: 38

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	57	13.95	67.49	91.3	-0.115
CET2	P	57	30.21	184.44	24.5	0.335
CUP2	P	57	32.60	198.23	40.1	-0.706

29 130531 0854 03.3 - Bacino di S.Arcangelo
 Lat: 40.07 Lon: 16.22 Prof: .1 Km
 ± 0.88 km ± 1.00 km ± 3.5 km
 RMS: 0.78s GAP: 56.6° NR: 32

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN9	P	54	8.96	25.15	215.4	0.029

30 130531 1422 14.9 - Piana bat. ionica
 Lat: 37.88 Lon: 16.97 Prof: 40.0 Km
 ± 4.01 km ± 6.94 km ± 5.7 km
 RMS: 0.73s GAP: 275.2° NR: 19

STN	PHASE	MN	SEC	DIST	AZM	RES
CNDF	P	22	32.47	98.96	277.4	0.927

31 130531 1423 54.9 - Alto Tirreno Cosentino
 Lat: 39.86 Lon: 16.07 Prof: 1.9 Km
 ± 0.68 km ± 0.46 km ± 0.4 km
 RMS: 0.09s GAP: 320.2° NR: 6

STN	PHASE	MN	SEC	DIST	AZM	RES
MMN9	P	23	55.95	3.75	331.1	-0.028
MMN9	S	23	56.75	3.75	331.1	-0.003