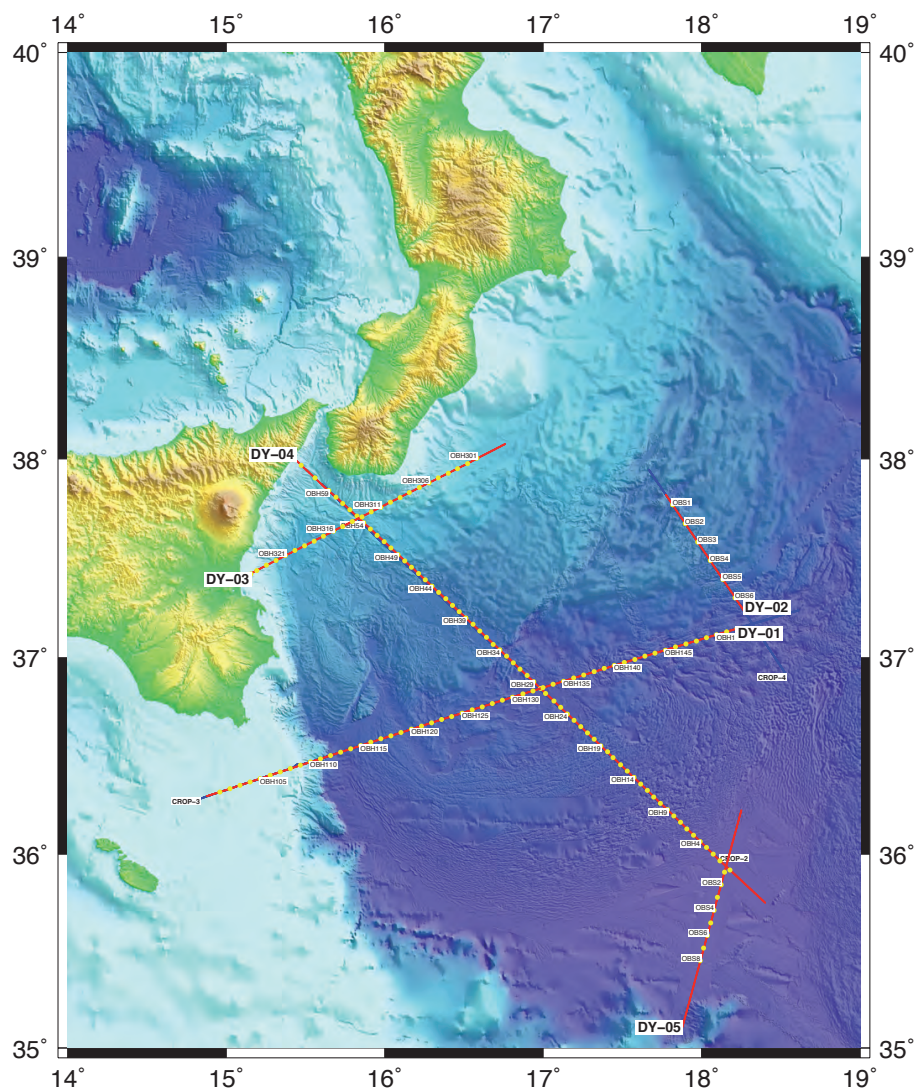


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Short Cruise Report RV METEOR Cruise M111

Catania – Catania
10. October – 01. November 2014
Chief Scientist: Heidrun Kopp
Captain: Rainer Hammacher



Profile and station locations during M111.

Objectives

In the Central Mediterranean, Mesozoic oceanic lithosphere (formerly part of the Tethys) subducts beneath Greece and Southern Italy generating abundant seismicity. This part of the Mediterranean has been repeatedly struck by devastating earthquakes and tsunamis in the past 5 centuries and is one of the most seismically hazardous regions in Europe. The Catania earthquake of 1693 (60.000 victims) and the Messina earthquake of 1908 (72.000 casualties) both generated tsunamis with amplitudes of 5 to 10 m. The origin of some of the most destructive earthquakes in the region remains uncertain. In addition, the exact location and deep geometry of the Calabria subduction zone, which is closely linked to the regional seismicity, remain unclear. Furthermore, the nature of the Ionian Sea and its margins are the subject of ongoing debate, with two contradictory interpretations concluding that the Ionian Sea is floored I) by Tethyan oceanic lithosphere or alternatively II) by thinned continental crust.

In summary, the scientific goals of the cruise are to:

- Obtain an image of the present day crustal and lithospheric architecture of the plate boundary region between Africa and Eurasia. Prior to cruise M111 there were no modern wide-angle seismic data available to image this plate boundary even though it is located in the heart of Europe. Our aim was to map the exact location or geometry at depth of the Calabrian subduction zone.
- Unravel the transition from the continental domain to the oceanic portion of the Ionian Sea. The nature and thickness of the crust in the Ionian Sea and the Tethys margin remain unknown, despite the fact that this may be one of the oldest margins on the planet.
- Image the present day wedge geometry and deformation pattern of the margin, including the geometry of the megathrust-fault at depth to improve the regional hazard assessment associated with seismic activity and tsunamigenic threats.

Narrative

The cruise M111 started on October 10, 2014 when FS Meteor left the port of Catania, Italy at 09:00h. Onboard was an international group of scientists from Italy, France, and Germany. The cruise track is displayed in Figure 4.1. The 23 hour transit to our first seismic station on profile DY-P04 was used to test our release units and to conduct a sound-velocity profile using an expendable sound velocity probe (XSV-02) to a depth of 2000m. During transit, we were also able to fill some remaining gaps in the swath-mapping grid of the Ionian Sea. At 08:00h on Oct. 11, we began deploying 61 Ocean Bottom Seismometers and Hydrophones (OBS/OBH) along profile DY-P04 at an average spacing of 2.8 nm; all instruments (OBH401 to OBS461) were deployed within 26 hours. Subsequently, we continued our swath bathymetric survey of the Calabrian Arc. On Oct. 13, communication with our partners onshore in Italy verified that all onshore stations were ready for recording and that we could commence with the shooting. The air gun array

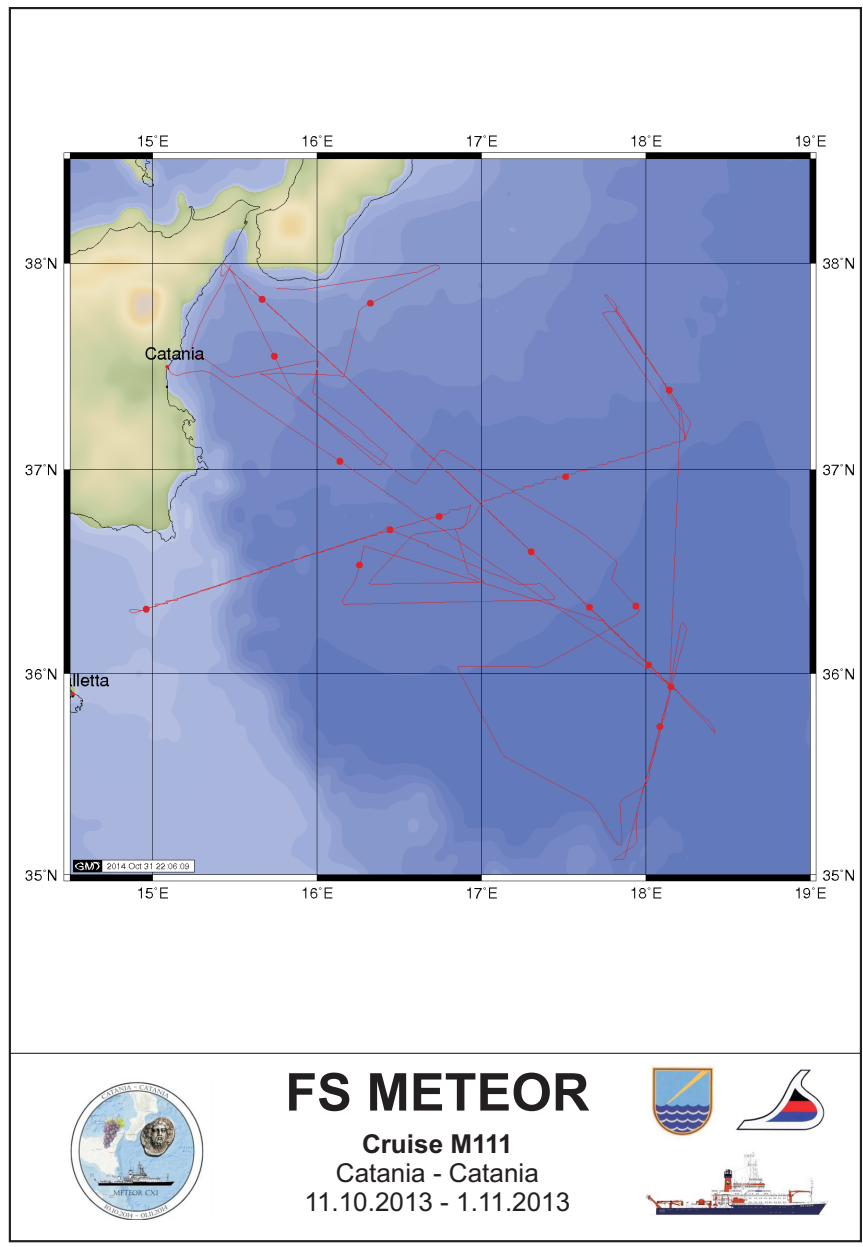
consisting of 6 G-gun clusters with a total volume of 84 l was fired along the 174 nm long spread of seismometers with a trigger interval of 60 s at the ship's average speed of 4.5 kn, resulting in a shot spacing of 110 m. In addition, a 4-channel streamer was deployed on all seismic profiles during cruise M111. Shooting started at 08:00h and was preceded by seismic survey mitigation measures for the protection of marine mammals. Shooting terminated at 06:20h on Oct. 15 and subsequently instruments along profile DY-P04 were recovered. Recovery of OBH 447 failed and will be attempted again on Oct. 31 after the automated time release. All other instruments were recovered by 14:00h on Oct. 17 and have recorded properly.

After a short transit to profile DY-P03 we deployed 25 instruments at a spacing of 3.2 nm between Oct. 17, 19:30h and Oct. 18., 06:00h. Shooting above OBH301-325 along this 77 nm long profile was achieved between Oct. 18., 10:00h and Oct. 19., 08:00h. This line was also recorded by the onshore stations installed on Sicily. Communication with the scientists onshore verified the correct functioning of the onshore seismometers. Instrument recovery commenced on Oct. 19., 10:00h and lasted until Oct. 20., 02:00h. OBH 316 did not release and we will return to its position for the automated time release on Oct. 31, 2014.

After transit to profile DY-P01 we began instrument deployment on Oct. 20., 10:00h. A total of 52 seafloor stations were spaced at a distance of 3.3 nm along the 317 nm spread, which subsequently was shot starting on Oct. 21., 09:45h. Due to adverse weather conditions with gales up to 10 Bft in the Ionian Sea we interrupted the seismic survey on Oct. 22 at 11:00h and reverted to bathymetric swath mapping of a missing segment in the Ionian Sea seafloor map about 20 nm south of profile DY-P01. Weather conditions calmed on Oct. 23 so that we could recommence shooting and reflection seismic data acquisition along the southwestern segment of DY-P01 starting at 16:00h. Shooting was terminated the following day at 10:30h, followed by instrument recovery. On the track back along the seismic profile we reverted south on Oct. 25, 16:00h to finish the bathymetric coverage that we had commenced during the period of deteriorated weather. The following morning we continued the recovery of the seafloor stations, which was terminated on Oct. 27, 00:00h. After a four-hour transit to the northern termination of profile DY-P02 we deployed a total of 6 instruments at a spacing of ~6 nm between 04:00-08:00h on Oct. 27. Shooting at 4.5kn commenced at 09:00h at a shot interval of 60 s; the streamer was deployed along the profile. Shooting along the 42 nm long line was terminated at 19:30h the same day, followed by instrument recovery. All 6 instruments were securely recovered by 04:00h, Oct. 28. Subsequently, we sailed south and after a transit of 6.5 hrs laid out 8 instruments spaced at 4 nm along profile DY-P05. This profile covers the Ionian Sea abyssal plain and shooting along the 84 nm transect was conducted between 19:30h on Oct. 28 and 10:00h on Oct. 29. Instrument recovery was completed by 22:00h on Oct. 29. Throughout the night and the following day we conducted swath bathymetric profiles to fill gaps in bathymetric coverage of the region. On Oct. 31 at 04:30h we returned to OBS 317 and OBH 447, both of which did not release during recovery of profile DY-P03 and

profile DY-P04. The automatic time release for these stations was set to 05:30h UTC and 07:00h UTC, respectively. Unfortunately, neither station appeared on the surface, despite additional efforts to release the anchor. We suspect a malfunction of the release unit. At 10:45h we returned to our bathymetric profile, which was terminated at 23:30h on Oct. 31.

On the morning of 01.11.14 at 08:00 the pilot entered the R/V Meteor, and soon after R/V Meteor berthed in Catania, terminating cruise M111.



Cruise track M86/3.

Acknowledgements

We like to thank Captain Rainer Hammacher, his officers and crew of RV Meteor for their support of our measurement programme and for creating a very friendly atmosphere on board. Their professional assistance at sea is kindly acknowledged.

The ship time of R/V METEOR was provided by the Deutsche Forschungsgemeinschaft DFG. We gratefully acknowledge the support.

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Number	Instrument type	Date	Hour	Latitude	Longitude	Water depth
101	OBH-Geomar	2014/10/20	08:52:59	36° 19.07' N	14° 57.61' E	104,3
102	OBH-Geomar	2014/10/20	09:22:59	36° 20.09' N	15° 01.42' E	88,3
103	OBH-Geomar	2014/10/20	09:49:59	36° 21.12' N	15° 05.19' E	90,7
104	MicrOBS-Ifremer	2014/10/20	10:15:59	36° 22.10' N	15° 08.97' E	95,4
105	MicrOBS-Ifremer	2014/10/20	10:40:59	36° 23.14' N	15° 12.82' E	106,6
106	MicrOBS-Ifremer	2014/10/20	11:04:59	36° 24.19' N	15° 16.58' E	131,0
107	OBH-Geomar	2014/10/20	11:30:59	36° 25.20' N	15° 20.41' E	144,6
108	MicrOBS-Ifremer	2014/10/20	11:55:59	36° 26.22' N	15° 24.23' E	147,0
109	OBH-Geomar	2014/10/20	12:20:59	36° 27.22' N	15° 28.03' E	596,6
110	MicrOBS-Ifremer	2014/10/20	12:43:59	36° 28.24' N	15° 31.85' E	1684,6
111	OBH-Geomar	2014/10/20	13:07:59	36° 29.23' N	15° 35.65' E	2118,8
112	MicrOBS-Ifremer	2014/10/20	13:31:59	36° 30.26' N	15° 39.44' E	3265,9
113	OBH-Geomar	2014/10/20	14:02:59	36° 31.26' N	15° 43.24' E	3366,4
114	MicrOBS-Ifremer	2014/10/20	14:29:59	36° 32.28' N	15° 47.07' E	3367,2
115	OBH-Geomar	2014/10/20	14:57:59	36° 33.26' N	15° 50.91' E	3320,4
116	MicrOBS-Ifremer	2014/10/20	15:24:59	36° 34.28' N	15° 54.76' E	3270,4
117	OBH-Geomar	2014/10/20	15:51:59	36° 35.31' N	15° 58.60' E	3247,3
118	MicrOBS-Ifremer	2014/10/20	16:18:59	36° 36.30' N	16° 02.37' E	3209,2
119	OBH-Geomar	2014/10/20	16:43:59	36° 37.26' N	16° 06.20' E	3276,8
120	MicrOBS-Ifremer	2014/10/20	17:08:59	36° 38.29' N	16° 10.06' E	3281,9
121	OBH-Geomar	2014/10/20	17:34:59	36° 39.22' N	16° 13.92' E	3241,9
122	MicrOBS-Ifremer	2014/10/20	18:00:59	36° 40.21' N	16° 17.74' E	3228,0
123	OBH-Geomar	2014/10/20	18:26:59	36° 41.19' N	16° 21.56' E	3340,0
124	MicrOBS-Ifremer	2014/10/20	18:50:59	36° 42.17' N	16° 25.40' E	3297,2
125	OBH-Geomar	2014/10/20	19:16:59	36° 43.15' N	16° 29.25' E	3269,1
126	MicrOBS-Ifremer	2014/10/20	19:42:59	36° 44.16' N	16° 33.08' E	3324,5
127	OBH-Geomar	2014/10/20	20:08:59	36° 45.11' N	16° 36.93' E	3325,8
128	MicrOBS-Ifremer	2014/10/20	20:33:59	36° 46.10' N	16° 40.75' E	3309,4
129	OBH-Geomar	2014/10/20	20:59:59	36° 47.08' N	16° 44.60' E	3380,6
130	MicrOBS-Ifremer	2014/10/20	21:24:59	36° 48.05' N	16° 48.45' E	3301,2
131	OBH-Geomar	2014/10/20	21:53:59	36° 49.02' N	16° 52.30' E	3463,4
132	MicrOBS-Ifremer	2014/10/20	22:20:59	36° 49.98' N	16° 56.18' E	3465,3
133	OBH-Geomar	2014/10/20	22:46:59	36° 50.94' N	16° 59.98' E	3470,6
134	MicrOBS-Ifremer	2014/10/20	23:09:59	36° 51.92' N	17° 03.85' E	3441,4
135	OBH-Geomar	2014/10/20	23:34:59	36° 52.88' N	17° 07.70' E	3380,3
136	MicrOBS-Ifremer	2014/10/20	23:57:59	36° 53.85' N	17° 11.57' E	3415,1
137	OBH-Geomar	2014/10/21	00:21:59	36° 54.81' N	17° 15.44' E	3411,9
138	MicrOBS-Ifremer	2014/10/21	00:45:59	36° 55.75' N	17° 19.30' E	3355,3
139	OBH-Geomar	2014/10/21	01:10:59	36° 56.82' N	17° 23.20' E	3462,2
140	MicrOBS-Ifremer	2014/10/21	01:34:59	36° 57.64' N	17° 26.97' E	3433,8
141	OBH-Geomar	2014/10/21	01:57:59	36° 58.58' N	17° 30.86' E	3438,2
142	MicrOBS-Ifremer	2014/10/21	02:24:59	36° 59.54' N	17° 34.75' E	3357,5
143	OBH-Geomar	2014/10/21	02:48:59	37° 00.47' N	17° 38.62' E	3357,8
144	MicrOBS-Ifremer	2014/10/21	03:12:59	37° 01.39' N	17° 42.42' E	3438,7
145	OBH-Geomar	2014/10/21	03:38:59	37° 02.32' N	17° 46.31' E	3544,8
146	MicrOBS-Ifremer	2014/10/21	04:03:59	37° 03.24' N	17° 50.16' E	3450,3
147	OBS-Geomar	2014/10/21	04:30:59	37° 04.20' N	17° 54.06' E	3333,0
148	MicrOBS-Ifremer	2014/10/21	04:55:59	37° 05.11' N	17° 58.02' E	3449,4
149	OBH-Geomar	2014/10/21	05:18:59	37° 06.07' N	18° 01.82' E	3377,9
150	MicrOBS-Ifremer	2014/10/21	05:42:59	37° 07.02' N	18° 05.72' E	3527,8
151	OBH-Geomar	2014/10/21	06:09:59	37° 07.93' N	18° 09.58' E	3361,4
152	MicrOBS-Ifremer	2014/10/21	06:34:59	37° 08.86' N	18° 13.45' E	3409,5

Number	Instrument type	Date	Hour	Latitude	Longitude	Water depth
201	MicrOBS-Ifremer	2014/10/27	02:41:59	37° 46.18' N	17° 49.12' E	2907,8
202	MicrOBS-Ifremer	2014/10/27	03:26:59	37° 40.56' N	17° 53.82' E	2618,0
203	OBS-Geomar	2014/10/27	04:14:59	37° 34.96' N	17° 58.59' E	2615,0
204	OBS-Geomar	2014/10/27	05:01:59	37° 29.33' N	18° 03.34' E	3002,3
205	MicrOBS-Ifremer	2014/10/27	05:43:59	37° 23.73' N	18° 08.04' E	3035,8
206	MicrOBS-Ifremer	2014/10/27	06:27:59	37° 18.10' N	18° 12.76' E	3205,0

Number	Instrument type	Data	Hour	Latitude	Longitude	Water depth
301	OBH-Geomar	2014/10/17	17:26:00	38° 00.13' N	16° 34.96' E	1727,6
302	MicrOBS-Ifremer	2014/10/17	17:57:59	37° 58.54' N	16° 31.40' E	1668,4
303	OBH-Geomar	2014/10/17	18:28:59	37° 57.09' N	16° 27.60' E	1617,3
304	MicrOBS-Ifremer	2014/10/17	18:53:59	37° 55.69' N	16° 24.07' E	1467,0
305	OBH-Geomar	2014/10/17	19:20:59	37° 54.24' N	16° 20.34' E	1369,3
306	MicrOBS-Ifremer	2014/10/17	19:45:59	37° 52.81' N	16° 16.77' E	1330,1
307	OBH-Geomar	2014/10/17	20:11:59	37° 51.36' N	16° 13.10' E	1290,5
308	MicrOBS-Ifremer	2014/10/17	20:36:59	37° 49.90' N	16° 09.47' E	1204,9
309	OBH-Geomar	2014/10/17	21:03:59	37° 48.43' N	16° 05.83' E	1370,0
310	MicrOBS-Ifremer	2014/10/17	21:27:59	37° 47.01' N	16° 02.22' E	1483,2
311	OBH-Geomar	2014/10/17	21:53:59	37° 45.53' N	15° 58.58' E	1658,2
312	MicrOBS-Ifremer	2014/10/17	22:19:59	37° 44.09' N	15° 54.96' E	1709,6
313	OBH-Geomar	2014/10/17	22:43:59	37° 42.60' N	15° 51.35' E	1726,7
314	MicrOBS-Ifremer	2014/10/17	23:06:59	37° 41.15' N	15° 47.77' E	1763,5
315	OBH-Geomar	2014/10/17	23:34:59	37° 39.72' N	15° 44.13' E	1772,8
316	MicrOBS-Ifremer	2014/10/18	00:00:59	37° 38.32' N	15° 40.55' E	1851,6
317	OBH-Geomar	2014/10/18	00:26:59	37° 36.77' N	15° 36.83' E	2012,8
318	MicrOBS-Ifremer	2014/10/18	00:50:59	37° 35.31' N	15° 33.28' E	2034,8
319	OBH-Geomar	2014/10/18	01:17:59	37° 33.90' N	15° 29.63' E	991,0
320	MicrOBS-Ifremer	2014/10/18	01:42:59	37° 32.40' N	15° 26.03' E	2074,0
321	OBH-Geomar	2014/10/18	02:08:59	37° 30.95' N	15° 22.41' E	1946,2
322	MicrOBS-Ifremer	2014/10/18	02:41:59	37° 29.48' N	15° 18.79' E	1855,8
323	OBH-Geomar	2014/10/18	03:10:59	37° 27.97' N	15° 15.25' E	1175,3
324	MicrOBS-Ifremer	2014/10/18	03:39:59	37° 26.45' N	15° 11.62' E	603,0
325	OBH-Geomar	2014/10/18	04:01:59	37° 25.39' N	15° 09.28' E	76,2

Number	Instrument type	Data	Hour	Latitude	Longitude	Water depth
400	MicrOBS-Ifremer	2014/10/11	06:44:59	35° 55.08' N	18° 10.86' E	4101.2
401	OBH-Geomar	2014/10/11	06:03:59	35° 58.00' N	18° 07.00' E	4086,0
402	MicrOBS-Ifremer	2014/10/11	07:34:59	35° 59.95' N	18° 04.51' E	4081.3
403	OBH-Geomar	2014/10/11	08:04:59	36° 02.02' N	18° 01.89' E	4058.0
404	MicrOBS-Ifremer	2014/10/11	08:28:59	36° 03.93' N	17° 59.45' E	4014.4
405	OBH-Geomar	2014/10/11	08:57:59	36° 05.82' N	17° 57.04' E	3966.3
406	MicrOBS-Ifremer	2014/10/11	09:22:59	36° 07.79' N	17° 54.55' E	3887.6
407	OBH-Geomar	2014/10/11	09:52:59	36° 09.77' N	17° 51.98' E	3803.7
408	MicrOBS-Ifremer	2014/10/11	10:19:59	36° 11.67' N	17° 49.52' E	3830.1
409	OBH-Geomar	2014/10/11	10:47:00	36° 13.64' N	17° 47.03' E	3710.8
410	MicrOBS-Ifremer	2014/10/11	11:11:59	36° 15.64' N	17° 44.47' E	3661.0
411	OBH-Geomar	2014/10/11	11:36:59	36° 17.55' N	17° 41.94' E	3742.6
412	MicrOBS-Ifremer	2014/10/11	12:01:59	36° 19.56' N	17° 39.48' E	3603.8
413	OBH-Geomar	2014/10/11	12:26:59	36° 21.51' N	17° 36.95' E	3709.8
414	MicrOBS-Ifremer	2014/10/11	12:52:59	36° 23.49' N	17° 34.45' E	3487.8
415	OBH-Geomar	2014/10/11	13:28:00	36° 25.42' N	17° 31.92' E	3533.0
416	MicrOBS-Ifremer	2014/10/11	13:53:59	36° 27.41' N	17° 29.41' E	3456.8
417	OBH-Geomar	2014/10/11	14:18:59	36° 29.35' N	17° 26.92' E	3375.3

418	MicrOBS-Ifremer	2014/10/11	14:44:59	36° 31.36' N	17° 24.40' E	3396,0
419	OBH-Geomar	2014/10/11	15:09:59	36° 33.21' N	17° 21.85' E	3296,0
420	MicrOBS-Ifremer	2014/10/11	15:33:59	36° 35.16' N	17° 19.38' E	3309,0
421	OBH-Geomar	2014/10/11	15:59:59	36° 37.18' N	17° 16.79' E	3342,0
422	MicrOBS-Ifremer	2014/10/11	16:22:59	36° 39.08' N	17° 14.30' E	3475,0
423	OBH-Geomar	2014/10/11	16:45:59	36° 40.98' N	17° 11.73' E	3488,0
424	MicrOBS-Ifremer	2014/10/11	17:09:59	36° 42.91' N	17° 09.18' E	3486,0
425	OBH-Geomar	2014/10/11	17:33:59	36° 44.90' N	17° 06.59' E	3450,0
426	MicrOBS-Ifremer	2014/10/11	17:58:59	36° 46.85' N	17° 04.06' E	3464,0
427	OBH-Geomar	2014/10/11	18:26:59	36° 48.81' N	17° 01.49' E	3468,0
428	MicrOBS-Ifremer	2014/10/11	18:49:59	36° 50.74' N	16° 58.98' E	3469,0
429	OBH-Geomar	2014/10/11	19:12:59	36° 52.67' N	16° 56.43' E	3429,0
430	MicrOBS-Ifremer	2014/10/11	19:35:59	36° 54.62' N	16° 53.88' E	3361,0
431	OBH-Geomar	2014/10/11	19:59:59	36° 56.55' N	16° 51.32' E	3365,0
432	MicrOBS-Ifremer	2014/10/11	20:23:59	36° 58.49' N	16° 48.79' E	3216,0
433	OBH-Geomar	2014/10/11	20:47:59	37° 0.43' N	16° 46.18' E	3234,0
434	MicrOBS-Ifremer	2014/10/11	21:11:59	37° 2.36' N	16° 43.66' E	3245,0
435	OBH-Geomar	2014/10/11	21:35:59	37° 4.31' N	16° 41.11' E	3073,0
436	MicrOBS-Ifremer	2014/10/11	21:58:59	37° 6.22' N	16° 38.53' E	3073,0
437	OBH-Geomar	2014/10/11	22:22:59	37° 8.18' N	16° 35.97' E	3073,0
438	MicrOBS-Ifremer	2014/10/11	22:44:59	37° 10.12' N	16° 33.42' E	3069,0
439	OBH-Geomar	2014/10/11	23:11:59	37° 12.06' N	16° 30.84' E	2894,0
440	MicrOBS-Ifremer	2014/10/11	23:34:59	37° 13.98' N	16° 28.28' E	2896,0
441	OBH-Geomar	2014/10/11	23:57:59	37° 15.90' N	16° 25.68' E	2934,0
442	MicrOBS-Ifremer	2014/10/12	00:19:59	37° 17.88' N	16° 23.09' E	2933,0
443	OBH-Geomar	2014/10/12	00:41:59	37° 19.77' N	16° 20.51' E	2924,1
444	MicrOBS-Ifremer	2014/10/12	01:05:59	37° 21.73' N	16° 17.93' E	2901,0
445	OBH-Geomar	2014/10/12	01:26:59	37° 23.58' N	16° 15.37' E	2602,0
446	MicrOBS-Ifremer	2014/10/12	01:48:59	37° 25.51' N	16° 12.76' E	2551,0
447	OBH-Geomar	2014/10/12	02:13:59	37° 27.43' N	16° 10.18' E	2516,0
448	MicrOBS-Ifremer	2014/10/12	02:37:59	37° 29.35' N	16° 07.64' E	2111,0
449	OBH-Geomar	2014/10/12	02:59:59	37° 31.24' N	16° 05.03' E	2006,0
450	MicrOBS-Ifremer	2014/10/12	03:23:59	37° 33.18' N	16° 02.42' E	2035,0
451	OBH-Geomar	2014/10/12	03:48:59	37° 35.07' N	15° 59.80' E	1995,0
452	MicrOBS-Ifremer	2014/10/12	04:11:59	37° 37.00' N	15° 57.18' E	1910,0
453	OBH-Geomar	2014/10/12	04:35:59	37° 38.94' N	15° 54.62' E	1817,0
454	MicrOBS-Ifremer	2014/10/12	04:58:59	37° 40.85' N	15° 52.02' E	1801,0
455	OBH-Geomar	2014/10/12	05:21:59	37° 42.79' N	15° 49.44' E	1773,0
456	MicrOBS-Ifremer	2014/10/12	05:44:59	37° 44.69' N	15° 46.86' E	1683,0
457	OBH-Geomar	2014/10/12	06:13:59	37° 46.62' N	15° 44.18' E	1682,0
458	MicrOBS-Ifremer	2014/10/12	06:39:59	37° 48.55' N	15° 41.54' E	1614,0
459	OBH-Geomar	2014/10/12	07:06:59	37° 50.47' N	15° 38.96' E	1507,0
460	MicrOBS-Ifremer	2014/10/12	07:44:59	37° 54.28' N	15° 33.69' E	1327,0
461	MicrOBS-Ifremer	2014/10/12	08:21:59	37° 58.11' N	15° 28.45' E	1029,0

Number	Instrument type	Date	Hour	Latitude	Longitude	Water depth
501	OBH-Geomar	2014/10/28	10:38:59	35° 54.45' N	18° 08.68' E	4083,2
502	MicrOBS-Ifremer	2014/10/28	11:11:59	35° 50.55' N	18° 07.37' E	4104,0
503	OBH-Geomar	2014/10/28	11:44:59	35° 46.63' N	18° 06.04' E	4086,8
504	MicrOBS-Ifremer	2014/10/28	12:12:59	35° 42.74' N	18° 04.74' E	4082,9
505	OBH-Geomar	2014/10/28	12:41:59	35° 38.83' N	18° 03.49' E	4093,8
506	MicrOBS-Ifremer	2014/10/28	13:11:59	35° 34.99' N	18° 02.22' E	4063,0
507	OBH-Geomar	2014/10/28	13:41:59	35° 31.01' N	18° 00.85' E	4008,4
508	MicrOBS-Ifremer	2014/10/28	14:08:59	35° 27.08' N	17° 59.61' E	3967,7