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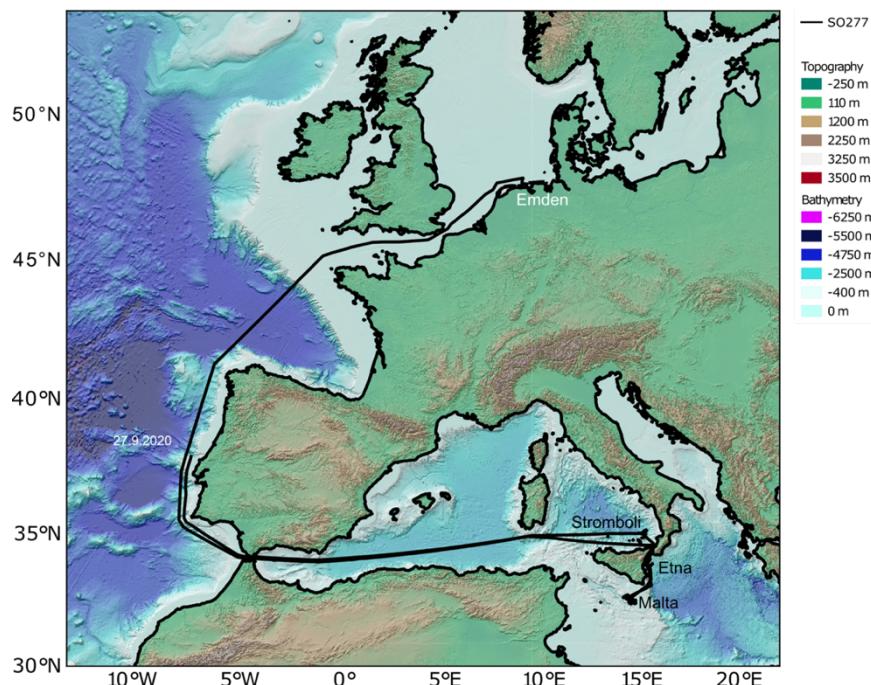
R/V SONNE
Short Cruise Report
SO277 (GPF 19-2_012)

Emden – Emden (Germany)

14.8.2020 – 03.10.2020

Chief Scientist: Christian Berndt

Captain: Oliver Meyer



Objectives

SO277 OMAX had two objectives. The first goal was to study the offshore groundwater aquifers off Malta (GPF 19-2_012) and the second goal was to study the stability of the flank of Mt. Etna off Sicily (GPF 18-1_089).

Offshore groundwater

Coastal regions are the most densely-populated areas in the world with an average population density nearly 3 times higher than the global average (Small, C. 2003). Freshwater resources in coastal states and island nations are therefore under enormous stress, and their quantities and qualities are rapidly deteriorating. This problem is exacerbated by population growth, pollution, climate change and political conflicts (Bates, B. 2008). Problems are especially felt in arid areas, such as Malta, where groundwater is the only source of freshwater and the periods of highest demand (e.g., agricultural and tourist seasons) coincide with the periods of lowest recharge from precipitation (Post, V. 2005). By comparison, Cape Town, South Africa is the first major city in the modern era to face the threat of running out of drinking water, and other large cities like Jakarta, and Beijing are likely to follow suit. Offshore aquifers (OAs) have been proposed as an alternative source of freshwater to cover demand by domestic, agricultural and tourist industries in coastal regions (Bakken, T. H. et al. 2012). During the Last Glacial Maximum (19-22,000 years ago), modern shelf areas were sub-aerially exposed, leading to the development of extensive water tables recharged by atmospheric precipitation (meteoric water), rivers, lakes and, in some areas, glacial meltwater (Burnett, W. et al. 2006). In view of the fact that sea level has been much lower than today for 80% of the Quaternary period (last 2.6 million years), and that meteoric groundwater systems migrate landwards more slowly than rising sea levels, remnants of meteoric groundwater occur extensively offshore (Evans, R. L. 2007). An OA has been defined by (Post, V. E. 2013) “*as a groundwater body with a minimum horizontal extent of 10 km, and a minimum concentration of total dissolved solids (TDS) less than 10 g/L, roughly ⅓ the salinity of seawater.*” Two types of OAs can be distinguished. The first type (active) entails a present-day, permeable connection of the OA with a terrestrial aquifer recharged by meteoric water (Bratton, J. F. 2011, Johnston, R. H. 1983). Such aquifers tend to be wedge-shaped, becoming thinner and more saline with increasing distance from the coast. However, onshore hydraulic heads are sometimes too low to drive water offshore (Kooi, H. et al. 2001) or a hydraulic connection between offshore and onshore aquifers may be absent (Person, M. et al. 2003). In such cases, offshore groundwater systems are associated with paleo-groundwater (fossil) systems that have been emplaced by meteoric recharge during lowered sea level periods (Leahy, P. et al. 1982) and that are no longer recharged. The data collected during the cruise SO277 will be used to a) develop a best practice guide on how to combine geophysical measurements with geochemical characterisation to detect, characterise and monitor OAs, and b) to quantify the hydrologic budget of OAs off Malta.

Slope stability of volcanic islands

Volcanoes are among the most rapidly growing geological structures on Earth. Consequently, volcanoes commonly suffer structural instability that may result in lateral flank collapses, such as the 1980 Mt St Helens collapse. Collapses of ocean island volcanoes or those along shorelines can trigger ocean-wide tsunamis with extreme effects. The world just witnessed a small example of such an event: the 22 December 2018 collapse of Anak-Krakatau in Indonesia that caused a tsunami with 430 fatalities at the surrounding coasts (Walter et al. 2019). Volcanic flank instability is a global and widespread phenomenon, and varying degrees of flank instability have been reported from all scales of volcanoes, such as Kilauea (Hawaii), the Canary Islands, Galapagos, and Tristan da Cunha (Poland et al. 2017). Mount Etna, located on the coast of Sicily (Italy), is a basaltic stratovolcano located at the edge of the Calabria-Tyrrhenian slab. Right-lateral transtension between two slabs produce a vertical ‘slab window’, which allow magma to upwell. Mount Etna is one of the most intensively monitored and best studied volcanoes in the world. Repeated and ongoing GPS

campaigns, permanent GPS monitoring onshore, and interferometric synthetic aperture radar (InSAR) data provide evidence for downward movement of the eastern and south-eastern flanks coupled with overall flank subsidence (e.g. Bonforte et al. 2011, Palano 2016). In contrast, the western flank is apparently more stable with no or only minor movement (e.g. Puglisi et al. 2001). Seaward motion of Mount Etna's southeastern flank manifests in continuous deformation as well as episodic 'slow slip' events that are aseismic and occur irrespective of volcanic activity (Palano 2016). Hence, displacement rates are highly variable over time, resulting in about 30-50 mm/year. Whereas vertical ground deformation due to magma overpressure reaches a maximum at the volcano summit, flank subsidence and seaward movement concentrates along the coast (Bonforte et al. 2011). The first objective of the work off Sicily was to install an autonomous seafloor geodetic array to understand deformation of Mount Etna's submerged flank over long terms. Our successful previous monitoring campaign (Urlaub et al. 2018) proved that (i) the technique is well suited to monitor unstable volcanic flanks under water, (ii) the location of the array coincides with the boundary of the unstable flank, (iii) the array design is ideal for monitoring flank instability, and (iv) the slip lies well within the resolution of the array. It is now important to analyse the displacement trend over long-terms (years to decades). In order to evaluate the hazard from a potential flank collapse it is crucial to know if the unstable flank is accelerating or decelerating. The second objective is to collect high-resolution multibeam and Parasound data to identify if the active fault partitions into multiple faults in the landward direction and if it is linked to regional tectonic structures. If Mount Etna's unstable flank was connected to a deep, large-scale tectonic structure, its instability could in parts be controlled by the regional tectonic setting. A connection is not fully recognizable from existing bathymetric data with a grid spacing of 30 m (<1000 m water depth) and 100 m (>1000 m water depth). It could, however, be recognizable in multibeam data collected during dedicated surveys with the shipboard system. The third objective is to map the distribution of the volcanic deposits associated with the 2019 eruptions at Stromboli. This is a unique opportunity because Italian colleagues have carried out a similar bathymetric survey of the flank of Mt. Stromboli in 2016 (Casalbore, pers. comm.). By calculating the difference between that data and our new data we will be able to identify the nature and distribution of volcanic deposits associated to the recent eruptions. These changes could include traces of pyroclastic flows, landslide scars, landslide blocks, all of which could have formed due to the recent major eruptions.

Narrative

R/V SONNE left Emden, Germany on 14.8.2020. After nine days we had reached the first station north of Sicily where we carried out a releaser test and measured a sound velocity profile to calibrate the hydroacoustic systems. Afterwards we sailed on to our first study area east of Sicily. On 24.8.2020 we began with the deployment of two geodesy stations which was completed by 15:00. On 25.8.2020 we managed to place the remaining four stations on the seabed. Afterwards, we continued to collect multi-beam data over the lower slope of Mount Etna. The next morning, we returned to the geodesy stations and communicated with them to ascertain that all were functioning properly. After we were satisfied that this was the case and that they could all range each other, we started our transit to the next study area off Malta. Initially we collected multi-beam data along the Malta Escarpment until we reached the boundary of our permitted work area. We arrived off Malta shortly before midnight of 27.8.2020. We started with a first CTD cast off Gozo to obtain a sound velocity profile for the calibration of the hydro-acoustic systems and to collect background water samples for the geochemistry. Afterwards until 07:00, we did a Video-CTD transect closer to the coast off the eastern tip of Gozo. At 08:00 we deployed the AUV off St. Paul's Bay and conducted a video survey of the seafloor in an area known for gas seepage. At 14:00 we retrieved the AUV and started to deploy 9 OBEMs until 19:00, then 10 OBS until 23:00. Afterwards, we carried out a multi-beam survey throughout the night. On 28.8.2020 at 10:00 we started to deploy the 2D seismic system off Camino. The system was up and running at 10:45, but after half an hour a fishing line got entangled and we had to retrieve the streamer to unhook it. From 13:00 onwards we acquired

2D seismic lines off the central and eastern parts of Malta until Tuesday 1.9.2020. After we had retrieved the seismic system, we recovered the two outermost OBS that were carrying the experimental mini-OBS because their batteries only last for five days. We also deployed three more OBEM in the study area off Gozo. Afterwards, we started a multi-beam survey beyond the shelf edge to ascertain that there are no obstacles for the CSEM tow that was planned for the following day. On Wednesday 2.9.2020 at 08:00 we deployed the CSEM system and towed it along a track below and parallel to the escarpment along the NE coast of Gozo. Unfortunately, only the first two of the four receivers logged data but those are of good quality. We recovered the CSEM system between 07:00 and 09:00 the next morning. Afterwards we surveyed a video CTD track down the shelf edge across a phase reversal in the seismic data and crossing the CSEM line that was acquired in the night before. There were no signs of fluid escape along this track and the entire seafloor including the escarpment that forms the shelf edge turned out to be covered with soft sediment. On Thursday 3.9.2020 we deployed the P-Cable 3D seismic system which was operational at 15:30 and we started to acquire 3D seismic data until Tuesday 8.9.2020 without major problems. The system was back on board and the aft deck was set up for CSEM operations. The CSEM system was deployed until 17:00 and we collected another CSEM profile beyond the shelf edge. We recovered the CSEM system on Wednesday morning until 09:30 in the morning. The system was working well and all receivers collected data. At 10:30 we deployed the AUV close to Gozo and then started a first video-CTD transect near Sikka-i-Bajda reef. This was completed at 16:00 when we returned to the AUV station and retrieved the vehicle. We then started a second video-CTD transect at the pockmark field east off Gozo. Within the pockmarks the water was more turbid but no signs of fluid escape could be found. The station was finished at 22:00 and we collected several parallel Parasound profiles on the shelf to ascertain that there are no obstacles for the CSEM track planned for the next day. On Thursday, 10.9.2020 we recovered four of the OBEM receivers. This was finished successfully by 11:00. Afterwards we conducted two CTD transects in the east and north off Gozo. During the first dive we could see the water column imaging anomaly east off Comino, but we could not detect a signal in the CTD or the other sensors. The second site confirmed the impression that the pockmarks below the shelf break are not active. At 16:00 we redeployed the CSEM system for another transect east off Gozo. The CSEM transect was finished at 04:30 on Friday 11.9.2020 and the system was recovered until 06:30. Afterwards we steamed to the meeting point off Comino to take onboard the spare USBL modem for the AUV. This was delivered by boat at 09:00. From 10:00 to 11:30 we deployed four OBEM on a transect off northern Malta and the Comino channel and from lunch time to 16:00 we collected the first gravity cores. The first core consisted of fine sands and carbonate debris and it was possible to centrifuge pore water. At the other two coring sites there was no penetration but some carbonate debris in the core catcher. During the night we conducted another CSEM tow north off Gozo. The CSEM system was successfully recovered on the following morning and at 08:30 we deployed the AUV at the most prominent water column imaging anomaly southeast off Comino. Afterwards we collected three more gravity cores north off Gozo with mixed success before recovering the AUV at 14:00. Afterwards we retrieved the eight OBS and throughout the night we collected Parasound data to survey the track of the next CSEM deployment. On Sunday 13.9.2020 at 10:00 we met with Dr. Owen Bonicci, the Maltese Minister of Education, who came out to visit us on a pilot boat. He was accompanied by Prof. Aaron Micallef and Dr. Axel Steuwer the University of Malta's vice rector. Due to the COVID-19 pandemic it was not possible for them to come onboard R/V SONNE but it was possible to exchange presents and talk over the side of the ship. Afterwards they stayed on to witness the deployment of the video CTD at the site of the most prominent water column anomaly that was identified in the multi-beam data. When a violent thunderstorm came up, they left back for the harbor. The thunderstorm delayed the following AUV deployment until 14:00 because it was not safe to work on deck. The AUV carried out a short 1.5 hour-dive at the easternmost of the water column anomalies and from 16:00 onwards we began to acquire the next CSEM profile east off Sikka I Bajda reef. On Monday, 14.9.2020 we recovered the CSEM system from 06:00 to 08:00. Although the Parasound profile had suggested that there was sufficient sediment cover along the

track signs of wear and tear indicated the presence of several hard rock outcrops along the track and one receiver was damaged. From 08:00 to 10:30 we collected more Parasound data off the eastern tip of Malta to find out if another CSEM profile was possible in that region. Unfortunately, it also turned out to be too rough. We discovered, however, several water column anomalies in this area that indicate gas emissions from the seafloor. From 11:00 onwards we conducted three video-CTD casts at sites off eastern Malta where water column anomalies were reported previously. The sites did not show signs of fluid seepage. From 19:00 onwards, we collected multibeam bathymetry data off Comino in extension of Markan CSEM profile 2 as a pre-survey for the final CSEM line. On Tuesday morning at 08:00, we deployed the AUV at the northern water column anomaly off Comino in spite of a strong breeze (force 6-7). From 10:00 to 14:30 we collected three gravity cores further north before recovering the AUV at 15:30. The gravity cores showed mainly hemi-pelagic mud, but no evidence for methane in the sediments, authigenic carbonates but fragments of limestones. Afterwards we deployed the EM system in MMR mode (vertical dipole) that allows to tow the system also in rocky areas, but without a receiver. These signals were recorded by the OBEM. The CSEM transmitter worked splendidly throughout the night and we recovered the system on Wednesday morning. At 08:00 we deployed the AUV at a gas flare off the shelf edge off Gozo. Afterwards we took three gravity cores at the northern water column anomaly off Comino. Core recovery was limited but it showed the correct interpretation of the AUV imagery. We then collected the AUV, before commencing with another CTD station at the same site where we took the gravity cores. On Thursday 17.9.2020 from 08:00 onwards we collected two video-CTDs at an enigmatic mound NE off Malta that consists of carbonate rocks above the post Messinian soft sediments and at the flare site investigated with the AUV on the day before. With force 7 winds it was not possible to use the AUV. In the afternoon, we took one more gravity core from a box canyon NE of Gozo, before we deployed the CSEM system to acquire electrical resistivity data further offshore. The windy conditions persisted during through Friday. At 08:00 in the morning, we recovered the CSEM system which was on deck by 09:30. Afterwards, we collected the twelve OBEM receivers. This was completed by 16:00. All instruments were safely retrieved and found to have recorded data, although one of the twelve data loggers had stopped after four days. In the evening, we conducted a final video-CTD cast at the southern water column anomaly off Comino before we left the study area to sail back to Sicily. We arrived there in the early morning on Saturday and set up communication with the seafloor geodesy stations. After we had downloaded the data from the past four weeks since their deployment and had ascertained that they were working correctly, we conducted one video-CTD dive near the geodesy array to see if there are obvious signs of flank deformation across the fault system, but apart from some elongate seafloor discolorations we could not find any anomalies. At 13:00 we started to deploy six ocean bottom seismometers which will stay in the area for one year to measure seismicity in the vicinity of the seafloor geodesy stations. This was completed by 16:00. Afterwards, we carried out a second video-CTD cast further down along the fault system in about 2000 m water depth. Towards the end of this dive we found signs of chemosynthetic ecosystems that were not expected. Analysis of the water samples will reveal the driving process for the associated fluid seepage. During the night we collected more multi-beam bathymetry data on this part of the slope. On Sunday 20.9.2020, we continued multibeam surveying until 08:00 in the morning. Then we left the study area to proceed to our final study site off Stromboli. We arrived there at 15:00 and carried out a CTD cast. Afterwards, we started to survey the western flank of Stromboli using the multi-beam echosounder to image the recent deposits from Sciara del Fuoco. The survey was completed the following evening and we started the transit back to Emden where we arrived on Saturday, 3.10.2020.

Acknowledgements

We thank Captain Oliver Meyer of R/V SONNE and his crew for relentless support throughout the entire cruise and the many extra efforts that this cruise involved in times of coronavirus. Particular thanks go to our partners at the University of Malta who could not join the cruise because of coronavirus. We like to thank the Maltese Department of Continental Shelf and the superintendent

for Cultural Heritage for granting work permits and the German embassy in Malta for their support on the ground. The cruise would not have been possible without financial support by the Helmholtz Association for the SMART project through the Helmholtz European Partnering program.

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Station list

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
23.8.	SO277_1-1	MB	14:08:00	1303,99	38° 21.636' N	014° 48.500' E	rwK: 093°; d= 11nm
23.8.	SO277_1-1	MB	15:00:14	608,06	38° 20.851' N	014° 59.875' E	rwK = 090°, d= 24nm
23.8.	SO277_1-1	MB	15:11:00	852,91	38° 20.851' N	015° 02.632' E	Unterbrechung wg. Verlassen Aufzeichnungsgebiet
23.8.	SO277_1-1	MB	20:00:00	1154,45	37° 51.752' N	015° 26.567' E	Eintritt in neues Aufzeichnungsgebiet
24.8.	SO277_2-1	CTD	01:35:25	1118,58	37° 32.327' N	015° 15.645' E	BOSI, SL: 1148m
24.8.	SO277_2-1	CTD	02:25:32	1135,55	37° 32.185' N	015° 15.646' E	Beginn hieven

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
24.8.	SO277_3-1	AGSS	06:30:30	1021,07	37° 32.489' N	015° 15.478' E	Geosea GDS 2
24.8.	SO277_3-1	AGSS	06:31:16	1021,28	37° 32.490' N	015° 15.477' E	(Modem)
24.8.	SO277_3-1	AGSS	06:44:54	1024,01	37° 32.488' N	015° 15.482' E	Gewichte zu Wasser
24.8.	SO277_3-1	AGSS	06:47:15	1024,02	37° 32.488' N	015° 15.482' E	Bei SL: 10m Transponder am Draht
24.8.	SO277_3-1	AGSS	06:58:37	1024,50	37° 32.487' N	015° 15.479' E	AGSS zu Wasser, FW2/SPW2
24.8.	SO277_3-1	AGSS	08:09:56	0,00	37° 32.497' N	015° 15.472' E	SLmax: 1024m
24.8.	SO277_3-1	AGSS	08:12:23	0,00	37° 32.498' N	015° 15.472' E	AGSS ausgelöst
24.8.	SO277_3-1	AGSS	08:12:57	0,00	37° 32.498' N	015° 15.472' E	Beginn hieven
24.8.	SO277_3-1	AGSS	08:53:53	0,00	37° 32.500' N	015° 15.477' E	Gewicht an Deck
24.8.	SO277_3-1	AGSS	09:00:15	0,00	37° 32.501' N	015° 15.477' E	Modem an Deck, Ende Station
24.8.	SO277_3-2	AGSS	11:02:00	1186,87	37° 32.115' N	015° 15.784' E	Geosea GDS 4
24.8.	SO277_3-2	AGSS	11:03:05	1185,44	37° 32.115' N	015° 15.784' E	Modem zu Wasser über SB70 mit EL2
24.8.	SO277_3-2	AGSS	11:10:12	1185,34	37° 32.114' N	015° 15.784' E	Modem auf Tiefe, SL: 54m
24.8.	SO277_3-2	AGSS	11:14:50	1187,04	37° 32.113' N	015° 15.782' E	Gewicht zu Wasser über SB250 mit SPW2
24.8.	SO277_3-2	AGSS	11:17:27	1190,74	37° 32.113' N	015° 15.781' E	Transponder bei SL: 10m angebracht und zu Wasser
24.8.	SO277_3-2	AGSS	11:20:03	1188,86	37° 32.113' N	015° 15.779' E	AGSS Geosea + Auftriebskörper zu Wasser über Kran1
24.8.	SO277_3-2	AGSS	12:26:01	0,00	37° 32.120' N	015° 15.779' E	Ausgelöst, SLmax: 1165m
24.8.	SO277_3-2	AGSS	13:12:54	1175,79	37° 32.122' N	015° 15.781' E	Transponder an Deck
24.8.	SO277_3-2	AGSS	13:15:08	1172,76	37° 32.123' N	015° 15.781' E	Gewicht + Auftriebskörper an Deck
24.8.	SO277_3-2	AGSS	13:21:31	1173,24	37° 32.123' N	015° 15.781' E	Modem an Deck
24.8.	SO277_4-1	MB	15:49:33	447,26	37° 30.888' N	015° 10.363' E	rwK: 046°, d: 5nm
24.8.	SO277_4-1	MB	16:35:48	907,09	37° 34.103' N	015° 15.874' E	rwK = 226°, d= 5nm
24.8.	SO277_4-1	MB	17:24:38	517,39	37° 30.911' N	015° 10.992' E	rwK = 046°, d= 5nm
24.8.	SO277_4-1	MB	18:11:40	833,09	37° 34.244' N	015° 15.776' E	rwK = 226°, d= 5nm
24.8.	SO277_4-1	MB	19:00:01	514,33	37° 30.698' N	015° 11.558' E	rwK = 046°, d= 5nm
24.8.	SO277_4-1	MB	19:51:14	879,07	37° 34.214' N	015° 15.953' E	rwK= 226°, d = 5nm
24.8.	SO277_4-1	MB	20:38:24	594,02	37° 30.646' N	015° 11.786' E	rwK = 046°, d = 5nm
24.8.	SO277_4-1	MB	21:30:32	897,04	37° 34.174' N	015° 16.191' E	rwK = 226°, d = 5nm
24.8.	SO277_4-1	MB	22:15:43	689,88	37° 30.534' N	015° 12.250' E	rwK: 046°, d: 5nm
24.8.	SO277_4-1	MB	23:05:06	872,34	37° 34.192' N	015° 16.112' E	rwK: 225°, d: 5nm
24.8.	SO277_4-1	MB	23:52:06	767,51	37° 30.478' N	015° 12.501' E	rwK: 046°, d: 5nm
25.8.	SO277_4-1	MB	00:38:42	882,12	37° 34.177' N	015° 16.251' E	rwK: 225°, d: 5nm
25.8.	SO277_4-1	MB	01:26:21	893,09	37° 30.334' N	015° 12.763' E	Profilwechsel, rwK: 130°, d: 2nm
25.8.	SO277_4-1	MB	01:43:07	1173,70	37° 28.878' N	015° 14.806' E	rwK: 014°, d: 3nm
25.8.	SO277_4-1	MB	02:15:45	1341,25	37° 32.050' N	015° 16.572' E	Switch on Parasound
25.8.	SO277_4-1	MB	02:23:30	1591,15	37° 31.897' N	015° 17.510' E	rwK: 192°, d: 3nm
25.8.	SO277_4-1	MB	03:04:00	1342,12	37° 28.895' N	015° 15.826' E	rwK = 014°, d = 3nm
25.8.	SO277_4-1	MB	03:50:37	1716,88	37° 31.896' N	015° 17.851' E	rwK = 189°, d = 3nm
25.8.	SO277_4-1	MB	04:34:05	1357,19	37° 28.885' N	015° 16.039' E	rwK = 012°, d = 3nm
25.8.	SO277_4-1	MB	05:19:47	1818,95	37° 31.842' N	015° 18.308' E	rwK = 188°, d = 3nm
25.8.	SO277_4-1	MB	05:29:34	1826,77	37° 30.896' N	015° 18.383' E	Unterbrechung Profil
25.8.	SO277_4-1	MB	15:00:00	1119,42	37° 32.252' N	015° 15.548' E	Fortsetzung Profil, rwK = 198°, d= 3nm
25.8.	SO277_4-1	MB	15:49:14	1242,00	37° 28.595' N	015° 15.838' E	rwK = 011°, d= 3nm
25.8.	SO277_4-1	MB	16:30:50	1473,21	37° 32.231' N	015° 17.192' E	rwK = 192°, d = 3nm

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
25.8.	SO277 4-1	MB	17:19:52	1594,84	37° 28.344' N	015° 17.917' E	rwK = 008° d = 2nm
25.8.	SO277 4-1	MB	17:57:19	1843,23	37° 31.931' N	015° 18.563' E	Ende Profil Nr. 2, Anfahr Profil Nr. 3
25.8.	SO277 4-1	MB	18:19:20	1656,36	37° 33.777' N	015° 19.255' E	Beginn Profil Nr. 3 rwK = 185°, d= 6nm
25.8.	SO277 4-1	MB	19:21:37	1696,40	37° 27.458' N	015° 18.803' E	rwK = 004°, d = 6nm
25.8.	SO277 4-1	MB	20:28:51	1862,02	37° 33.512' N	015° 20.180' E	rwK = 184°, d = 6nm
25.8.	SO277 4-1	MB	21:35:43	1861,48	37° 26.988' N	015° 20.076' E	rwK = 004° , d = 6,5nm
25.8.	SO277 4-1	MB	22:44:01	1885,91	37° 33.328' N	015° 21.147' E	rwK: 183°, d: 7nm
25.8.	SO277 4-1	MB	23:52:47	1930,44	37° 26.536' N	015° 21.313' E	rwK: 003°, d: 7nm
26.8.	SO277 4-1	MB	01:07:25	1979,92	37° 33.257' N	015° 22.340' E	Profilwechsel, rwK: 308°, d: 2nm
26.8.	SO277 4-1	MB	01:24:12	1604,87	37° 34.452' N	015° 19.887' E	rwK: 034°, d: 13nm
26.8.	SO277 4-1	MB	03:26:15	1589,74	37° 45.141' N	015° 30.210' E	rwK: 214°, d: 13nm
26.8.	SO277 4-1	MB	05:15:28	1866,37	37° 34.445' N	015° 21.622' E	Ende Profil Nr. 4
25.8.	SO277 3-3	AGSS	05:56:46	0,00	37° 32.213' N	015° 15.548' E	GeoSea GDS 1
25.8.	SO277 3-3	AGSS	05:58:15	0,00	37° 32.214' N	015° 15.544' E	Modem zu Wasser (EL 2)
25.8.	SO277 3-3	AGSS	06:06:15	0,00	37° 32.216' N	015° 15.522' E	Gewicht zu Wasser (FW2/SPW2)
25.8.	SO277 3-3	AGSS	06:08:27	0,00	37° 32.216' N	015° 15.517' E	bei SL: 10m Transponder am Draht
25.8.	SO277 3-3	AGSS	06:09:48	0,00	37° 32.215' N	015° 15.518' E	AGSS
25.8.	SO277 3-3	AGSS	07:03:40	0,00	37° 32.216' N	015° 15.504' E	AGSS ausgelöst, SLmax: 1106m
25.8.	SO277 3-3	AGSS	07:47:59	0,00	37° 32.213' N	015° 15.512' E	Transponder + Auftriebskörper
25.8.	SO277 3-3	AGSS	07:49:32	0,00	37° 32.212' N	015° 15.511' E	Gewicht an Deck
25.8.	SO277 3-3	AGSS	07:54:13	0,00	37° 32.215' N	015° 15.509' E	Modem an Deck, Ende Station
25.8.	SO277 3-4	AGSS	08:19:41	0,00	37° 32.249' N	015° 15.680' E	GeoSea GDS 5, Modem zu Wasser (EL 2)
25.8.	SO277 3-4	AGSS	08:26:54	0,00	37° 32.250' N	015° 15.678' E	Gewicht zu Wasser (FW2/SPW2)
25.8.	SO277 3-4	AGSS	08:28:25	0,00	37° 32.249' N	015° 15.677' E	Bei SL: 10m Transponder am Draht
25.8.	SO277 3-4	AGSS	08:30:23	0,00	37° 32.248' N	015° 15.675' E	AGSS zu Wasser
25.8.	SO277 3-4	AGSS	09:28:06	0,00	37° 32.250' N	015° 15.669' E	AGSS ausgelöst, SLmax: 1125m
25.8.	SO277 3-4	AGSS	10:10:44	0,00	37° 32.251' N	015° 15.668' E	Transponder an Deck
25.8.	SO277 3-4	AGSS	10:13:14	0,00	37° 32.251' N	015° 15.668' E	Gewicht + Auftriebskörper an Deck
25.8.	SO277 3-4	AGSS	10:19:47	0,00	37° 32.251' N	015° 15.672' E	Modem an Deck
25.8.	SO277 3-5	AGSS	10:37:03	0,00	37° 32.433' N	015° 14.893' E	Geosea GDS 3
25.8.	SO277 3-5	AGSS	10:39:01	0,00	37° 32.436' N	015° 14.901' E	Modem zu Wasser
25.8.	SO277 3-5	AGSS	10:42:19	0,00	37° 32.434' N	015° 14.902' E	Modem auf Tiefe, SL: 34m
25.8.	SO277 3-5	AGSS	10:45:22	0,00	37° 32.432' N	015° 14.902' E	Gewicht zu Wasser
25.8.	SO277 3-5	AGSS	10:47:47	0,00	37° 32.431' N	015° 14.899' E	Transponder bei SL: 10m angebracht
25.8.	SO277 3-5	AGSS	10:49:41	0,00	37° 32.431' N	015° 14.899' E	AGSS + Auftriebskörper zu Wasser
25.8.	SO277 3-5	AGSS	10:50:45	0,00	37° 32.431' N	015° 14.900' E	Beginn Fieren
25.8.	SO277 3-5	AGSS	11:25:58	0,00	37° 32.448' N	015° 14.906' E	BOKO, SLmax: 944m
25.8.	SO277 3-5	AGSS	11:33:53	0,00	37° 32.448' N	015° 14.907' E	AGSS ausgelöst
25.8.	SO277 3-5	AGSS	11:34:20	0,00	37° 32.448' N	015° 14.907' E	Beginn Hieven
25.8.	SO277 3-5	AGSS	12:09:26	0,00	37° 32.448' N	015° 14.907' E	Transponder an Deck
25.8.	SO277 3-5	AGSS	12:11:52	0,00	37° 32.448' N	015° 14.907' E	Gewicht + Auftriebskörper + Releaser an Deck
25.8.	SO277 3-5	AGSS	12:17:01	0,00	37° 32.445' N	015° 14.903' E	Modem an Deck
25.8.	SO277 3-6	AGSS	12:36:04	0,00	37° 32.264' N	015° 16.044' E	Geosea GDS 6
25.8.	SO277 3-6	AGSS	12:36:32	0,00	37° 32.265' N	015° 16.044' E	Modem zu Wasser

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
25.8.	SO277_3-6	AGSS	12:40:17	0,00	37° 32.272' N	015° 16.047' E	Modem auf Tiefe, SL: 34m
25.8.	SO277_3-6	AGSS	12:48:09	0,00	37° 32.278' N	015° 16.050' E	Gewicht zu Wasser
25.8.	SO277_3-6	AGSS	12:50:10	0,00	37° 32.281' N	015° 16.050' E	Transponder bei SL: 10m angebracht
25.8.	SO277_3-6	AGSS	12:52:24	0,00	37° 32.281' N	015° 16.050' E	AGSS + Auftriebskörper + Releaser zu Wasser
25.8.	SO277_3-6	AGSS	12:54:35	0,00	37° 32.282' N	015° 16.048' E	Beginn Fieren
25.8.	SO277_3-6	AGSS	13:44:14	0,00	37° 32.289' N	015° 16.046' E	BOKO, SLmax:1185m
25.8.	SO277_3-6	AGSS	13:47:02	0,00	37° 32.288' N	015° 16.046' E	AGSS ausgelöst
25.8.	SO277_3-6	AGSS	13:47:21	0,00	37° 32.288' N	015° 16.046' E	Beginn Hieven
25.8.	SO277_3-6	AGSS	14:31:36	0,00	37° 32.287' N	015° 16.051' E	Ankerstein mit Auftriebskörper an Deck
25.8.	SO277_3-6	AGSS	14:45:10	0,00	37° 32.291' N	015° 16.050' E	Modem an Deck
26.8.	SO277_5-1	MB	07:41:06	1074,19	37° 32.345' N	015° 15.373' E	rwK: 142°, d: 3,5nm, v: 8kn
26.8.	SO277_5-1	MB	08:11:18	1837,58	37° 29.590' N	015° 18.167' E	rwK: 162°, d: 8nm
26.8.	SO277_5-1	MB	09:10:31	1967,40	37° 22.083' N	015° 21.330' E	rwK: 140°, d: 7nm
26.8.	SO277_5-1	MB	10:00:38	2261,94	37° 16.997' N	015° 26.623' E	rwK: 177°, d: 18nm
26.8.	SO277_5-1	MB	12:13:27	2617,18	36° 59.151' N	015° 27.804' E	rwK: 168°, d: 23nm
26.8.	SO277_5-1	MB	15:08:42	3226,56	36° 36.747' N	015° 32.855' E	Ende Profil
26.8.	SO277_6-1	CTD	21:10:14	183,76	36° 06.954' N	014° 19.647' E	Clean Ship liegt an
26.8.	SO277_6-1	CTD	21:23:27	184,00	36° 06.950' N	014° 19.618' E	FW1/SPW1
26.8.	SO277_6-1	CTD	21:37:05	184,23	36° 06.953' N	014° 19.618' E	Bodensicht, SLmax: 187m
26.8.	SO277_6-1	CTD	21:37:38	183,87	36° 06.953' N	014° 19.619' E	SZmax: 3,7kN
27.8.	SO277_7-1	CTD	00:20:21	72,89	36° 03.245' N	014° 20.316' E	Transponder bei SL: 10m angebracht
27.8.	SO277_7-1	CTD	00:52:09	73,11	36° 03.245' N	014° 20.325' E	Transponder an Deck
27.8.	SO277_7-1	CTD	01:19:24	72,28	36° 03.239' N	014° 20.317' E	Transponder bei SL: 10m angebracht
27.8.	SO277_7-1	CTD	01:27:46	72,49	36° 03.240' N	014° 20.317' E	BOSI, SL: 72m
27.8.	SO277_7-1	CTD	01:29:34	73,34	36° 03.242' N	014° 20.321' E	rwK: 037°
27.8.	SO277_7-1	CTD	03:38:35	258,36	36° 03.522' N	014° 20.586' E	Transponder an Deck
27.8.	SO277_7-1	CTD	03:43:27	258,66	36° 03.524' N	014° 20.587' E	CTD an Deck
27.8.	SO277_8-1	AUV_L	05:52:48	43,70	35° 58.225' N	014° 26.322' E	FW1/SPW1
27.8.	SO277_8-1	AUV_L	05:53:58	43,20	35° 58.224' N	014° 26.320' E	AUV ausgelöst
27.8.	SO277_8-1	AUV_L	05:59:12	43,50	35° 58.227' N	014° 26.326' E	Beginn Mission
27.8.	SO277_8-1	AUV_L	06:29:41	44,00	35° 58.225' N	014° 26.323' E	Mission zum 2. mal gestartet
27.8.	SO277_8-1	AUV_L	11:44:25	44,70	35° 58.222' N	014° 26.321' E	Mission beendet, Beginn Auftauchen
27.8.	SO277_8-1	AUV_L	12:00:57	44,00	35° 58.224' N	014° 26.324' E	AUV aufgetaucht
27.8.	SO277_9-1	OBE_M	12:58:59	54,34	36° 00.691' N	014° 26.945' E	OBMT 09
27.8.	SO277_9-1	OBE_M	13:34:25	62,38	36° 01.925' N	014° 22.427' E	OBMT 08
27.8.	SO277_9-1	OBE_M	14:05:42	67,11	36° 02.566' N	014° 21.079' E	OBMT 07
27.8.	SO277_9-1	OBE_M	14:32:13	151,43	36° 03.766' N	014° 23.638' E	OBMT 06
27.8.	SO277_9-1	OBE_M	14:56:46	152,78	36° 03.890' N	014° 20.932' E	OBMT 05
27.8.	SO277_9-1	OBE_M	15:18:10	68,86	36° 04.103' N	014° 18.470' E	OBMT 04
27.8.	SO277_9-1	OBE_M	16:06:35	169,61	36° 05.319' N	014° 20.320' E	OBMT 03
27.8.	SO277_9-1	OBE_M	16:30:15	155,46	36° 05.559' N	014° 17.700' E	OBMT 02

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
27.8.	SO277_9-1	OBE M	16:54:27	156,09	36° 05.825' N	014° 14.974' E	OBMT 01
01.9.	SO277_9-1	OBE M	14:31:06	60,87	36° 01.293' N	014° 25.067' E	OBMT 10
01.9.	SO277_9-1	OBE M	15:30:19	67,95	36° 01.879' N	014° 23.881' E	OBMT 11
01.9.	SO277_9-1	OBE M	16:11:08	87,96	36° 03.680' N	014° 19.577' E	OBMT12
27.8.	SO277_10-1	SEISO BR	17:20:26	146,96	36° 05.920' N	014° 16.506' E	OBS 1
27.8.	SO277_10-1	SEISO BR	17:46:53	142,02	36° 05.414' N	014° 17.534' E	OBS 02
27.8.	SO277_10-1	SEISO BR	18:12:18	127,22	36° 04.662' N	014° 19.005' E	OBS 03
27.8.	SO277_10-1	SEISO BR	18:39:32	165,98	36° 05.373' N	014° 21.065' E	OBS 04
27.8.	SO277_10-1	SEISO BR	19:00:45	167,15	36° 04.796' N	014° 20.594' E	OBS 05
27.8.	SO277_10-1	SEISO BR	19:17:44	134,96	36° 04.112' N	014° 20.063' E	OBS 06
27.8.	SO277_10-1	SEISO BR	19:33:52	67,31	36° 03.523' N	014° 19.608' E	OBS 07
27.8.	SO277_10-1	SEISO BR	19:57:31	132,04	36° 03.370' N	014° 21.442' E	OBS 08
27.8.	SO277_10-1	SEISO BR	20:18:14	86,91	36° 02.894' N	014° 22.320' E	OBS 09
27.8.	SO277_10-1	SEISO BR	20:52:52	66,98	36° 01.507' N	014° 25.037' E	OBS 10
12.9.	SO277_10-1	SEISO BR	13:08:27	123,70	36° 03.095' N	014° 22.221' E	Hydrophon zu Wasser, OBS ausgelöst
12.9.	SO277_10-1	SEISO BR	13:10:22	121,00	36° 03.097' N	014° 22.221' E	Hydrophon an Deck
12.9.	SO277_10-1	SEISO BR	13:36:19	137,70	36° 03.196' N	014° 21.542' E	Hydrophon zu Wasser, OBS ausgelöst
12.9.	SO277_10-1	SEISO BR	13:37:15	135,50	36° 03.200' N	014° 21.533' E	Hydrophon an Deck
12.9.	SO277_10-1	SEISO BR	14:09:42	88,20	36° 03.497' N	014° 19.854' E	Hydrophon zu Wasser, OBS ausgelöst
12.9.	SO277_10-1	SEISO BR	14:10:22	87,50	36° 03.493' N	014° 19.851' E	Hydrophon an Deck
12.9.	SO277_10-1	SEISO BR	14:33:24	128,00	36° 03.874' N	014° 19.946' E	Hydrophon zu Wasser
12.9.	SO277_10-1	SEISO BR	14:33:48	127,20	36° 03.872' N	014° 19.947' E	Hydrophon an Deck
12.9.	SO277_10-1	SEISO BR	14:44:32	134,70	36° 04.098' N	014° 20.033' E	OBS an Deck
12.9.	SO277_10-1	SEISO BR	14:57:24	163,00	36° 04.573' N	014° 20.436' E	Hydrophon zu Wasser
12.9.	SO277_10-1	SEISO BR	14:58:06	163,50	36° 04.575' N	014° 20.440' E	Hydrophon an Deck
12.9.	SO277_10-1	SEISO BR	15:00:05	166,70	36° 04.576' N	014° 20.446' E	aufgetaucht
12.9.	SO277_10-1	SEISO BR	15:10:02	165,20	36° 04.780' N	014° 20.599' E	OBS an Deck
12.9.	SO277_10-1	SEISO BR	15:20:01	166,50	36° 05.188' N	014° 20.914' E	Hydrophon zu Wasser
12.9.	SO277_10-1	SEISO BR	15:20:54	165,20	36° 05.188' N	014° 20.921' E	Hydrophon an Deck
12.9.	SO277_10-1	SEISO BR	15:22:45	164,20	36° 05.188' N	014° 20.936' E	aufgetaucht
12.9.	SO277_10-1	SEISO BR	15:31:46	166,70	36° 05.357' N	014° 21.068' E	OBS an Deck
12.9.	SO277_10-1	SEISO BR	15:56:38	124,70	36° 04.452' N	014° 19.072' E	Hydrohon zu Wasser
12.9.	SO277_10-1	SEISO BR	15:57:09	125,00	36° 04.453' N	014° 19.066' E	Hydrophon an Deck
12.9.	SO277_10-1	SEISO BR	15:58:50	124,20	36° 04.453' N	014° 19.053' E	aufgetaucht
12.9.	SO277_10-1	SEISO BR	16:08:00	130,20	36° 04.666' N	014° 18.977' E	OBS an Deck
12.9.	SO277_10-1	SEISO BR	16:25:44	135,50	36° 05.189' N	014° 17.507' E	Hydrophon zu Wasser

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
12.9.	SO277_10-1	SEISO BR	16:26:37	136,70	36° 05.194' N	014° 17.498' E	Hydrophon an Deck
12.9.	SO277_10-1	SEISO BR	16:38:19	142,70	36° 05.423' N	014° 17.525' E	OBS an Deck
27.8.	SO277_11-1	MB	22:03:02	199,93	36° 07.760' N	014° 17.368' E	rwK: 128°, d: 8nm
27.8.	SO277_11-1	MB	23:17:04	146,98	36° 02.555' N	014° 25.892' E	rwK: 308°, d: 8nm
28.8.	SO277_11-1	MB	00:33:16	200,37	36° 07.946' N	014° 17.978' E	rwK: 128°, d: 8nm
28.8.	SO277_11-1	MB	01:49:19	146,65	36° 02.703' N	014° 26.042' E	rwK: 308°, d: 8nm
28.8.	SO277_11-1	MB	03:02:04	200,46	36° 08.015' N	014° 18.223' E	rwK: 128°, d: 8nm
28.8.	SO277_11-1	MB	04:18:33	146,69	36° 02.815' N	014° 26.137' E	rwK = 308°, d= 8nm
28.8.	SO277_11-1	MB	05:34:53	203,19	36° 08.288' N	014° 19.130' E	rwK = 128°, d= 21nm
28.8.	SO277_11-1	MB	06:40:18	148,77	36° 03.806' N	014° 26.514' E	Abbruch Profil
01.9.	SO277_11-1	MB	17:55:57	127,41	36° 01.982' N	014° 25.216' E	Start Profil M8-Survey 3, rwK= 128°, d=6nm
01.9.	SO277_11-1	MB	18:36:48	96,25	35° 58.606' N	014° 30.543' E	rwK = 308°, d= 3nm
01.9.	SO277_11-1	MB	19:06:56	109,14	36° 00.777' N	014° 27.632' E	rwK: 128°, d: 3nm
01.9.	SO277_11-1	MB	19:36:36	98,14	35° 58.641' N	014° 30.659' E	rwK: 308°, d: 5nm
01.9.	SO277_11-1	MB	20:21:27	134,91	36° 02.103' N	014° 25.835' E	rwK: 130°, d: 3nm
01.9.	SO277_11-1	MB	20:46:40	128,05	36° 01.223' N	014° 28.479' E	rwK: 095°, d: 1nm
01.9.	SO277_11-1	MB	20:52:13	131,71	36° 01.108' N	014° 29.295' E	rwK: 130°, d: 2nm
01.9.	SO277_11-1	MB	21:09:23	124,80	35° 59.687' N	014° 31.420' E	rwK: 308°, d: 4nm
01.9.	SO277_11-1	MB	21:40:00	132,50	36° 01.562' N	014° 27.417' E	Abbruch Profil
02.9.	SO277_11-1	MB	02:33:03	134,81	36° 01.688' N	014° 27.211' E	Fortsetzung Profil Survey 3, rwK = 308°, d = 1nm
02.9.	SO277_11-1	MB	02:38:07	140,79	36° 02.027' N	014° 26.598' E	rwK = 144°, d = 2nm
02.9.	SO277_11-1	MB	02:57:48	67,31	36° 00.777' N	014° 27.505' E	rwK = 128°, d = 3nm
02.9.	SO277_11-1	MB	03:45:34	110,32	35° 58.971' N	014° 31.050' E	rwK = 308°, d= 6nm
28.8.	SO277_12-1	SEIST R	07:58:27	41,88	36° 00.944' N	014° 21.636' E	Beginn aussetzen Airguns
28.8.	SO277_12-1	SEIST R	08:00:49	42,12	36° 00.989' N	014° 21.697' E	Airguns zu Wasser
28.8.	SO277_12-1	SEIST R	08:12:40	45,51	36° 01.187' N	014° 21.901' E	Beginn aussetzen Streamer
28.8.	SO277_12-1	SEIST R	08:22:57	50,03	36° 01.314' N	014° 22.043' E	1. Bird zu Wasser
28.8.	SO277_12-1	SEIST R	08:25:41	50,75	36° 01.342' N	014° 22.080' E	2. Bird zu Wasser
28.8.	SO277_12-1	SEIST R	08:29:19	50,74	36° 01.381' N	014° 22.125' E	3. Bird zu Wasser
28.8.	SO277_12-1	SEIST R	08:31:04	51,05	36° 01.400' N	014° 22.146' E	4. Bird zu Wasser
28.8.	SO277_12-1	SEIST R	08:47:06	55,50	36° 01.563' N	014° 22.333' E	komplett ausgesteckt, 280m
28.8.	SO277_12-1	SEIST R	08:53:41	57,94	36° 01.737' N	014° 22.481' E	1. Schuss , Beginn Profil, rwK: 042°, d: 10nm
28.8.	SO277_12-1	SEIST R	09:25:57	150,26	36° 03.328' N	014° 24.162' E	Airguns ausgeschaltet, Fischereizeichen im Streamer verhangen
28.8.	SO277_12-1	SEIST R	09:30:18	151,33	36° 03.486' N	014° 24.355' E	Beginn hieven Streamer
28.8.	SO277_12-1	SEIST R	09:34:12	151,46	36° 03.583' N	014° 24.486' E	4. Bird an Deck
28.8.	SO277_12-1	SEIST R	09:36:46	150,97	36° 03.639' N	014° 24.552' E	3. Bird an Deck
28.8.	SO277_12-1	SEIST R	09:40:20	150,80	36° 03.706' N	014° 24.637' E	2. Bird an Deck
28.8.	SO277_12-1	SEIST R	09:54:24	150,40	36° 03.993' N	014° 24.990' E	Longline wieder frei und im Wasser
28.8.	SO277_12-1	SEIST R	10:00:51	150,95	36° 04.140' N	014° 25.165' E	2. Bird zu Wasser
28.8.	SO277_12-1	SEIST R	10:07:27	150,84	36° 04.293' N	014° 25.346' E	3. Bird zu Wasser

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
28.8.	SO277_12-1	SEIST R	10:09:53	150,63	36° 04.350' N	014° 25.413' E	4. Bird zu Wasser
28.8.	SO277_12-1	SEIST R	10:13:12	151,23	36° 04.427' N	014° 25.504' E	Streamer komplett ausgesteckt, SL: 280m
28.8.	SO277_12-1	SEIST R	10:16:27	151,93	36° 04.502' N	014° 25.599' E	Airgun zu Wasser, Fortsetzung Profil
28.8.	SO277_12-1	SEIST R	11:33:52	146,17	36° 08.354' N	014° 30.775' E	rwK: 132°, d: 2nm
28.8.	SO277_12-1	SEIST R	12:00:04	141,80	36° 07.360' N	014° 32.659' E	rwK: 196°, d: 10nm
28.8.	SO277_12-1	SEIST R	14:14:23	66,08	35° 57.754' N	014° 29.573' E	rwK: 059°, d: 10nm
28.8.	SO277_12-1	SEIST R	16:19:25	129,32	36° 01.611' N	014° 39.707' E	rwK = 212°, d= 9nm
28.8.	SO277_12-1	SEIST R	18:03:18	107,63	35° 55.130' N	014° 35.475' E	rwK: 091°, d: 8nm
28.8.	SO277_12-1	SEIST R	19:45:35	64,71	35° 54.301' N	014° 44.771' E	rwK: 200°, d: 1,7nm
28.8.	SO277_12-1	SEIST R	20:15:20	53,53	35° 52.421' N	014° 44.453' E	rwK: 307°, d: 2nm
28.8.	SO277_12-1	SEIST R	20:43:23	60,62	35° 53.196' N	014° 42.385' E	rwK: 011°, d: 7nm
28.8.	SO277_12-1	SEIST R	22:02:07	112,74	35° 58.847' N	014° 43.465' E	rwK: 227°, d: 9nm
29.8.	SO277_12-1	SEIST R	00:09:06	92,44	35° 53.515' N	014° 35.063' E	rwK: 313°, d: 1nm
29.8.	SO277_12-1	SEIST R	00:27:04	89,05	35° 54.163' N	014° 33.946' E	rwK: 032°, d: 5nm
29.8.	SO277_12-1	SEIST R	01:35:51	126,24	35° 58.446' N	014° 37.036' E	rwK: 312°, d: 3nm
29.8.	SO277_12-1	SEIST R	02:20:32	134,43	36° 00.705' N	014° 34.177' E	rwK: 222°, d: 5nm
29.8.	SO277_12-1	SEIST R	03:25:48	59,22	35° 57.266' N	014° 30.012' E	rwK = 291°, d = 2nm
29.8.	SO277_12-1	SEIST R	03:40:04	47,16	35° 57.557' N	014° 28.797' E	rwK = 038°, d = 6nm
29.8.	SO277_12-1	SEIST R	04:50:56	138,05	36° 02.042' N	014° 32.171' E	rwK = 310°, d = 2nm
29.8.	SO277_12-1	SEIST R	05:10:11	140,04	36° 02.619' N	014° 30.793' E	rwK = 215°, d= 6nm
29.8.	SO277_12-1	SEIST R	06:23:20	46,17	35° 58.608' N	014° 26.547' E	rwK = 306°, d = 1nm
29.8.	SO277_12-1	SEIST R	06:33:16	44,59	35° 58.851' N	014° 25.763' E	rwK: 040°, d: 6nm
29.8.	SO277_12-1	SEIST R	07:56:01	145,19	36° 03.841' N	014° 29.541' E	rwK: 310°, d: 2,2nm
29.8.	SO277_12-1	SEIST R	08:17:40	147,78	36° 04.976' N	014° 28.406' E	rwK: 218°, d: 6,7nm
29.8.	SO277_12-1	SEIST R	08:24:25	149,14	36° 05.035' N	014° 28.090' E	Airguns abgeschaltet
29.8.	SO277_12-1	SEIST R	08:40:35	148,97	36° 04.736' N	014° 27.463' E	Airguns wieder angeschaltet
29.8.	SO277_12-1	SEIST R	09:39:43	53,13	36° 01.344' N	014° 24.128' E	rwK: 039°, d: 5nm
29.8.	SO277_12-1	SEIST R	10:57:12	150,50	36° 05.340' N	014° 27.310' E	rwK: 303°, d: 1nm
29.8.	SO277_12-1	SEIST R	11:16:09	153,67	36° 06.093' N	014° 26.263' E	rwK: 220°, d: 6nm
29.8.	SO277_12-1	SEIST R	12:35:04	48,65	36° 01.820' N	014° 21.613' E	rwK: 040°, d: 6nm
29.8.	SO277_12-1	SEIST R	14:03:25	157,16	36° 06.692' N	014° 25.213' E	rwK: 217°, d:6nm
29.8.	SO277_12-1	SEIST R	15:14:13	69,15	36° 02.876' N	014° 21.031' E	rwK = 035°, d = 6nm
29.8.	SO277_12-1	SEIST R	16:33:09	165,66	36° 07.573' N	014° 23.770' E	rwK = 213°, d= 5nm
29.8.	SO277_12-1	SEIST R	17:57:36	91,20	36° 04.107' N	014° 18.732' E	rwK = 036°, d= 5nm
29.8.	SO277_12-1	SEIST R	19:14:51	208,96	36° 08.890' N	014° 21.715' E	rwK: 220°, d: 6nm
29.8.	SO277_12-1	SEIST R	20:38:51	86,09	36° 05.243' N	014° 16.433' E	rwK: 037°, d: 6nm

Date	Station	Gear	Time	Depth [m]	Latitude [°N]	Longitude [°E]	Remarks
2020	SONNE		UTC				
29.8.	SO277_12-1	SEIST R	21:52:20	285,81	36° 09.563' N	014° 19.915' E	rwK: 304°, d: 1nm
29.8.	SO277_12-1	SEIST R	22:09:20	322,61	36° 10.420' N	014° 19.065' E	rwK: 213°, d:6nm
29.8.	SO277_12-1	SEIST R	23:34:57	135,76	36° 05.268' N	014° 14.398' E	rwK: 033°, d: 8nm
30.8.	SO277_12-1	SEIST R	01:33:07	402,24	36° 12.279' N	014° 18.980' E	rwK: 234°, d: 16nm
30.8.	SO277_12-1	SEIST R	05:00:10	223,61	36° 04.093' N	014° 03.878' E	rwK: 327°, d: 2nm
30.8.	SO277_12-1	SEIST R	05:17:49	485,02	36° 05.123' N	014° 02.815' E	rwK = 053°, d = 10nm
30.8.	SO277_12-1	SEIST R	07:32:19	451,77	36° 11.515' N	014° 12.397' E	rwK = 128°, d= 32nm
30.8.	SO277_12-1	SEIST R	14:30:35	61,39	35° 52.694' N	014° 43.084' E	rwK = 200° d= 3nm
30.8.	SO277_12-1	SEIST R	15:08:37	89,56	35° 49.737' N	014° 42.980' E	rwK = 268°, d= 5nm
30.8.	SO277_12-1	SEIST R	16:08:29	91,53	35° 49.655' N	014° 37.660' E	rwK = 359°, d = 3nm
30.8.	SO277_12-1	SEIST R	16:44:34	86,29	35° 52.467' N	014° 37.262' E	rwK = 307°, d= 19nm
30.8.	SO277_12-1	SEIST R	20:52:15	64,30	36° 03.980' N	014° 18.617' E	rwK: 313°, d: 5,5nm
30.8.	SO277_12-1	SEIST R	21:58:03	193,56	36° 06.687' N	014° 13.302' E	rwK: 041°, d: 2nm
30.8.	SO277_12-1	SEIST R	22:29:03	212,10	36° 08.508' N	014° 14.518' E	rwK: 128°, d: 24nm
31.8.	SO277_12-1	SEIST R	03:47:01	119,36	35° 54.729' N	014° 37.686' E	rwK = 310°, d= 12nm
31.8.	SO277_12-1	SEIST R	06:11:39	140,93	36° 02.189' N	014° 27.623' E	rwK: 238°, d: 2nm
31.8.	SO277_12-1	SEIST R	06:44:45	53,99	36° 01.224' N	014° 24.978' E	rwK: 294°, d: 4,5nm
31.8.	SO277_12-1	SEIST R	07:41:43	62,25	36° 02.698' N	014° 20.297' E	rwK: 313°, d: 2nm
31.8.	SO277_12-1	SEIST R	08:04:35	50,68	36° 03.795' N	014° 18.792' E	rwK: 035°, d: 4,5nm
31.8.	SO277_12-1	SEIST R	09:03:52	173,11	36° 07.304' N	014° 22.027' E	rwK: 128°, d: 20nm
31.8.	SO277_12-1	SEIST R	13:30:12	92,53	35° 55.284' N	014° 41.102' E	rwK: 309°, d: 11nm
31.8.	SO277_12-1	SEIST R	15:54:08	133,10	36° 00.880' N	014° 30.567' E	rwK = 216°, d = 4nm
31.8.	SO277_12-1	SEIST R	16:36:46	49,72	35° 58.642' N	014° 27.813' E	rwK = 300° d = 4nm
31.8.	SO277_12-1	SEIST R	17:19:56	18,37	36° 00.529' N	014° 24.378' E	rwK = 046°, d = 7nm
31.8.	SO277_12-1	SEIST R	18:36:40	145,42	36° 04.772' N	014° 28.934' E	rwK: 046°, d:3nm
31.8.	SO277_12-1	SEIST R	19:18:56	143,00	36° 06.999' N	014° 31.833' E	rwK: 115°, d: 4nm
31.8.	SO277_12-1	SEIST R	20:05:34	134,89	36° 05.703' N	014° 35.957' E	rwK: 213°, d: 10nm
31.8.	SO277_12-1	SEIST R	22:23:15	42,08	35° 56.990' N	014° 29.462' E	rwK: 297°, d: 3nm
31.8.	SO277_12-1	SEIST R	23:00:02	41,93	35° 58.033' N	014° 26.534' E	rwK: 036°, d: 3nm
31.8.	SO277_12-1	SEIST R	23:36:07	65,63	36° 00.204' N	014° 28.200' E	rwK: 339°, d: 5nm
01.9.	SO277_12-1	SEIST R	00:41:12	150,55	36° 04.639' N	014° 26.136' E	rwK: 222°, d: 6nm
01.9.	SO277_12-1	SEIST R	01:52:40	42,23	36° 00.965' N	014° 21.625' E	rwK: 340°, d: 4nm
01.9.	SO277_12-1	SEIST R	02:40:07	131,20	36° 03.971' N	014° 19.991' E	rwK: 284°, d: 7nm
01.9.	SO277_12-1	SEIST R	04:01:57	176,10	36° 05.564' N	014° 12.813' E	rwK = 067°, d = 2nm
01.9.	SO277_12-1	SEIST R	04:29:13	211,54	36° 06.779' N	014° 14.423' E	rwK = 122°, d= 11nm
01.9.	SO277_12-1	SEIST R	06:56:16	60,38	36° 00.972' N	014° 26.431' E	rwK: 303°, d: 11nm

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
01.9.	SO277_12-1	SEIST R	07:25:58	129,91	36° 01.702' N	014° 26.117' E	Datenprobleme, Beginn einholen Streamer
01.9.	SO277_12-1	SEIST R	07:35:34	131,51	36° 01.618' N	014° 25.783' E	Airguns abgeschaltet, Beginn einholen der Airguns
01.9.	SO277_12-1	SEIST R	07:40:37	133,08	36° 01.657' N	014° 25.587' E	Bird 4 an Deck
01.9.	SO277_12-1	SEIST R	07:44:35	132,81	36° 01.700' N	014° 25.428' E	Bird 3 an Deck
01.9.	SO277_12-1	SEIST R	07:48:27	129,71	36° 01.747' N	014° 25.265' E	Bird 2 an Deck
01.9.	SO277_12-1	SEIST R	07:51:03	129,84	36° 01.779' N	014° 25.156' E	Bird 1 an Deck
01.9.	SO277_12-1	SEIST R	07:53:22	127,37	36° 01.805' N	014° 25.060' E	Streamer an Deck
01.9.	SO277_12-1	SEIST R	07:57:05	126,27	36° 01.836' N	014° 24.912' E	Fortsetzung Profil, ohne Streamer nur mit Airguns
01.9.	SO277_12-1	SEIST R	07:57:38	125,73	36° 01.842' N	014° 24.888' E	Airguns ausgesteckt und schießen wieder
01.9.	SO277_12-1	SEIST R	08:49:51	57,56	36° 00.869' N	014° 26.553' E	Erneut Profilbeginn ab WP 1, rw: 303°, d: 11nm
01.9.	SO277_12-1	SEIST R	11:16:04	201,56	36° 06.498' N	014° 15.336' E	rwK: 099°, d: 5nm
01.9.	SO277_12-1	SEIST R	12:29:02	167,33	36° 06.027' N	014° 21.473' E	rwK: 212°, d: 3nm
01.9.	SO277_12-1	SEIST R	13:26:14	71,66	36° 03.738' N	014° 19.212' E	Airgun an Deck
01.9.	SO277_10-2	SEISO BR	14:43:58	64,13	36° 01.483' N	014° 24.691' E	Recovery OBS 01, Hydrophon zu Wasser
01.9.	SO277_10-2	SEISO BR	16:41:23	146,65	36° 05.698' N	014° 16.606' E	Recovery OBS 10, Hydrophon zu Wasser
01.9.	SO277_10-2	SEISO BR	16:43:18	147,38	36° 05.695' N	014° 16.611' E	OBS 10 ausgelöst
01.9.	SO277_10-2	SEISO BR	16:44:55	146,80	36° 05.696' N	014° 16.612' E	Hydrophon an Deck
01.9.	SO277_10-2	SEISO BR	16:45:57	147,55	36° 05.698' N	014° 16.612' E	aufgetaucht
01.9.	SO277_10-2	SEISO BR	16:57:00	147,10	36° 05.952' N	014° 16.408' E	OBS 10 an Deck
01.9.	SO277_13-1	CTD	22:06:22	52,76	36° 01.341' N	014° 23.908' E	clean ship liegt an
01.9.	SO277_13-1	CTD	22:16:28	52,70	36° 01.343' N	014° 23.898' E	BOSI, SL: 52m
01.9.	SO277_13-1	CTD	22:21:09	52,20	36° 01.338' N	014° 23.903' E	rwK: 294°, d: 1nm
02.9.	SO277_13-1	CTD	00:00:02	58,70	36° 01.768' N	014° 22.717' E	rwK: 049°, d: 1nm
02.9.	SO277_13-1	CTD	01:12:25	123,20	36° 02.312' N	014° 23.464' E	Beginn Hieven
02.9.	SO277_14-1	CSEM	06:32:56	134,73	36° 01.699' N	014° 28.221' E	Erster Dipol zu Wasser
02.9.	SO277_14-1	CSEM	06:44:02	135,05	36° 01.713' N	014° 28.180' E	Zweite Messstrecke zu Wasser
02.9.	SO277_14-1	CSEM	06:57:13	135,23	36° 01.725' N	014° 28.160' E	Dritte Messstrecke zu Wasser
02.9.	SO277_14-1	CSEM	07:08:58	135,38	36° 01.733' N	014° 28.124' E	Vierte Messstrecke zu Wasser
02.9.	SO277_14-1	CSEM	08:00:00	135,83	36° 01.772' N	014° 28.070' E	Schweinchen zu Wasser
02.9.	SO277_14-1	CSEM	08:17:33	136,38	36° 01.826' N	014° 28.017' E	Schwein am Grund
02.9.	SO277_14-1	CSEM	09:00:00	138,16	36° 01.890' N	014° 27.590' E	rwK: 297°, d: 6nm
02.9.	SO277_14-1	CSEM	19:14:40	148,20	36° 03.176' N	014° 24.511' E	Hydrophone zu Wasser
02.9.	SO277_14-1	CSEM	19:17:42	147,50	36° 03.170' N	014° 24.512' E	Hydrophone an Deck
02.9.	SO277_14-1	CSEM	20:06:13	148,20	36° 03.300' N	014° 24.225' E	Hydrophone zu Wasser
02.9.	SO277_14-1	CSEM	20:09:14	149,00	36° 03.298' N	014° 24.230' E	Hydrophone an Deck
02.9.	SO277_14-1	CSEM	22:47:41	152,00	36° 03.881' N	014° 22.809' E	Hydrophon zu Wasser
02.9.	SO277_14-1	CSEM	22:53:01	151,20	36° 03.880' N	014° 22.808' E	Hydrophon an Deck
03.9.	SO277_14-1	CSEM	02:30:56	164,20	36° 04.719' N	014° 20.790' E	Hydrophon zu Wasser
03.9.	SO277_14-1	CSEM	02:37:12	165,20	36° 04.717' N	014° 20.790' E	Hydrophon an Deck
03.9.	SO277_14-1	CSEM	02:38:23	165,50	36° 04.719' N	014° 20.787' E	rwK = 308°

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
03.9.	SO277_14-1	CSEM	05:03:09	171,50	36° 05.441' N	014° 19.650' E	Beginn hieven
03.9.	SO277_14-1	CSEM	05:04:04	172,70	36° 05.440' N	014° 19.650' E	Hydrophon zu Wasser
03.9.	SO277_14-1	CSEM	05:13:06	173,50	36° 05.434' N	014° 19.651' E	Hydrophon an Deck
03.9.	SO277_14-1	CSEM	05:23:53	174,20	36° 05.435' N	014° 19.642' E	Schweinchen an Deck
03.9.	SO277_14-1	CSEM	06:06:43	173,00	36° 05.423' N	014° 19.680' E	Erste Messkette an Deck
03.9.	SO277_14-1	CSEM	06:18:41	171,20	36° 05.420' N	014° 19.683' E	Zweite Messkette an Deck
03.9.	SO277_14-1	CSEM	06:27:04	171,50	36° 05.419' N	014° 19.682' E	Dritte Messkette an Deck
03.9.	SO277_14-1	CSEM	06:43:23	173,00	36° 05.424' N	014° 19.676' E	CSEM komplett an Deck
03.9.	SO277_15-1	CTD	07:46:51	67,70	36° 03.600' N	014° 19.537' E	FW1/SPW1
03.9.	SO277_15-1	CTD	07:54:11	67,70	36° 03.597' N	014° 19.538' E	Bodensicht, SL: 66m
03.9.	SO277_15-1	CTD	07:59:36	68,20	36° 03.602' N	014° 19.540' E	Beginn Profil, rwK: 037°, d: 1nm, v: 0,5kn
03.9.	SO277_15-1	CTD	11:03:37	166,00	36° 04.815' N	014° 20.672' E	Beginn Hieven, SL: 171m
03.9.	SEIST R		12:06:15	54,50	36° 01.238' N	014° 24.942' E	STB-Scherbrett zu Wasser
03.9.	SEIST R		12:49:07	46,00	36° 01.179' N	014° 23.473' E	Streamer zu Wasser
03.9.	SEIST R		13:01:25	42,70	36° 01.154' N	014° 23.067' E	BB-Scherbrett zu Wasser
03.9.	SEIST R		13:23:01	57,50	36° 01.619' N	014° 22.192' E	Airgun zu Wasser
03.9.	SEIST R		13:32:06	51,00	36° 01.935' N	014° 21.762' E	rwK: 312°, d: 5nm
03.9.	SEIST R		15:33:34	192,24	36° 06.462' N	014° 17.327' E	rwK = 132°, d= 6nm
03.9.	SEIST R		17:43:43	64,89	36° 01.633' N	014° 23.073' E	rwK = 312°, d= 6nm
03.9.	SEIST R		19:48:15	159,86	36° 05.986' N	014° 16.928' E	rwK: 132°, d: 7nm
03.9.	SEIST R		22:18:57	64,27	36° 01.746' N	014° 23.185' E	rwK: 312°, d: 6nm
04.9.	SEIST R		00:17:12	168,20	36° 05.998' N	014° 17.183' E	rwK: 132°, d: 6nm
04.9.	SEIST R		02:53:09	63,03	36° 01.552' N	014° 23.014' E	rwK: 312°, d: 6nm
04.9.	SEIST R		04:53:58	160,84	36° 05.906' N	014° 17.136' E	rwK = 132°, d = 6nm
04.9.	SEIST R		07:07:48	68,78	36° 02.025' N	014° 23.139' E	rwK = 312°, d = 6nm
04.9.	SEIST R		08:52:42	93,14	36° 04.107' N	014° 18.804' E	Airgun-Probleme, Airgun abgeschaltet und wird eingeholt
04.9.	SEIST R		08:58:57	93,90	36° 04.274' N	014° 18.553' E	Airgun an Deck
04.9.	SEIST R		09:09:23	119,21	36° 04.647' N	014° 18.058' E	Airgun zu Wasser
04.9.	SEIST R		09:14:44	129,22	36° 04.848' N	014° 17.771' E	Airgun wird wieder eingeholt
04.9.	SEIST R		09:18:17	125,93	36° 04.974' N	014° 17.590' E	Airgun an Deck
04.9.	SEIST R		09:30:59	131,65	36° 05.440' N	014° 16.954' E	rwK: 132°, d: 6nm
04.9.	SEIST R		10:11:14	162,29	36° 05.240' N	014° 18.570' E	Airgun zu Wasser
04.9.	SEIST R		10:30:11	157,84	36° 04.650' N	014° 19.388' E	Airgun an Deck
04.9.	SEIST R		11:53:45	74,42	36° 02.152' N	014° 22.849' E	Airgun zu Wasser
04.9.	SEIST R		11:59:12	85,70	36° 01.980' N	014° 23.075' E	Airgun zugeschaltet
04.9.	SEIST R		12:03:56	70,14	36° 01.685' N	014° 23.118' E	rwK: 312°, d: 6nm
04.9.	SEIST R		13:52:49	151,59	36° 05.733' N	014° 16.910' E	rwK: 132°, d: 6nm
04.9.	SEIST R		16:18:45	64,34	36° 01.620' N	014° 23.057' E	rwK = 312°, d= 6nm
04.9.	SEIST		18:03:36	138,41	36° 05.411' N	014° 17.121' E	rwK = 132°, d = 6nm

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
		R					
04.9.	SO277_16-1	SEIST R	20:44:15	95,57	36° 02.224' N	014° 23.126' E	rwK: 312°, d: 6nm
04.9.	SO277_16-1	SEIST R	22:54:17	159,83	36° 05.896' N	014° 17.099' E	rwK: 132°, d: 6nm
05.9.	SO277_16-1	SEIST R	01:12:17	62,37	36° 01.925' N	014° 23.316' E	rwK: 312°, d: 6nm
05.9.	SO277_16-1	SEIST R	03:22:16	185,77	36° 06.044' N	014° 17.235' E	rwK= 132°, d= 6nm
05.9.	SO277_16-1	SEIST R	05:39:50	62,89	36° 01.759' N	014° 23.235' E	rwK = 312°, d = 6nm
05.9.	SO277_16-1	SEIST R	07:51:47	150,29	36° 05.617' N	014° 17.252' E	rwK = 132°, d = 6nm
05.9.	SO277_16-1	SEIST R	10:15:19	67,20	36° 01.921' N	014° 23.412' E	rwK: 312°, d: 6nm
05.9.	SO277_16-1	SEIST R	12:12:10	165,20	36° 05.902' N	014° 17.154' E	rwK: 132°, d: 6nm
05.9.	SO277_16-1	SEIST R	14:32:45	67,37	36° 01.845' N	014° 23.277' E	rwK = 312°, d = 6nm
05.9.	SO277_16-1	SEIST R	16:23:02	195,74	36° 06.146' N	014° 17.358' E	rwK = 132° , d= 6nm
05.9.	SO277_16-1	SEIST R	18:48:37	97,41	36° 02.343' N	014° 23.278' E	rwK = 312°, d= 6nm
05.9.	SO277_16-1	SEIST R	21:05:00	151,71	36° 05.683' N	014° 17.349' E	rwK: 132°, d: 6nm
05.9.	SO277_16-1	SEIST R	23:42:53	64,80	36° 02.023' N	014° 23.433' E	rwK: 312°, d: 6nm
06.9.	SO277_16-1	SEIST R	01:40:16	182,53	36° 06.013' N	014° 17.262' E	rwK: 132°, d: 6nm
06.9.	SO277_16-1	SEIST R	04:15:40	62,14	36° 01.830' N	014° 23.263' E	rwK = 312°, d= 6nm
06.9.	SO277_16-1	SEIST R	06:00:29	153,85	36° 05.682' N	014° 17.417' E	rwK = 132°, d = 6nm
06.9.	SO277_16-1	SEIST R	08:23:31	133,15	36° 02.402' N	014° 23.367' E	rwK: 312°, d: 6nm
06.9.	SO277_16-1	SEIST R	10:34:20	165,15	36° 05.939' N	014° 17.088' E	rwK: 132°, d: 6nm
06.9.	SO277_16-1	SEIST R	12:53:12	91,27	36° 02.160' N	014° 23.542' E	rwK: 312°, d: 6nm
06.9.	SO277_16-1	SEIST R	15:00:32	186,25	36° 06.271' N	014° 17.882' E	rwK = 132°, d= 6nm
06.9.	SO277_16-1	SEIST R	17:12:25	69,96	36° 02.013' N	014° 23.461' E	rwK = 312°, d= 6nm
06.9.	SO277_16-1	SEIST R	19:18:32	163,58	36° 05.756' N	014° 17.392' E	rwK = 132°, d = 6nm
06.9.	SO277_16-1	SEIST R	21:44:52	139,38	36° 02.455' N	014° 23.473' E	rwK: 312°, d: 6nm
07.9.	SO277_16-1	SEIST R	00:00:21	165,47	36° 05.921' N	014° 17.144' E	rwK: 132°, d: 6nm
07.9.	SO277_16-1	SEIST R	02:42:02	70,36	36° 01.977' N	014° 23.569' E	rwK: 312°, d: 6nm
07.9.	SO277_16-1	SEIST R	04:57:41	193,89	36° 06.576' N	014° 17.633' E	rwK = 132°,d = 6nm
07.9.	SO277_16-1	SEIST R	07:01:01	137,09	36° 02.545' N	014° 23.478' E	rwK = 312°, d= 6nm
07.9.	SO277_16-1	SEIST R	09:28:57	175,30	36° 06.163' N	014° 16.933' E	rwK: 131°, d: 0,4nm
07.9.	SO277_16-1	SEIST R	09:52:00	184,94	36° 06.059' N	014° 17.904' E	rwK: 107°, d: 0,25nm
07.9.	SO277_16-1	SEIST R	09:58:07	181,57	36° 05.931' N	014° 18.291' E	rwK: 132°, d: 1,5nm
07.9.	SO277_16-1	SEIST R	11:43:17	63,85	36° 01.928' N	014° 23.194' E	rwK: 311°, d:6nm
07.9.	SO277_16-1	SEIST R	14:00:09	139,06	36° 05.365' N	014° 17.087' E	rwK: 132°, d: 6nm
07.9.	SO277_16-1	SEIST R	14:05:42	145,22	36° 05.507' N	014° 16.940' E	Airgun an Deck
07.9.	SO277_16-1	SEIST R	14:28:22	182,18	36° 06.119' N	014° 17.034' E	Airguns zu Wasser
07.9.	SO277_16-1	SEIST R	14:52:50	189,45	36° 05.827' N	014° 17.849' E	rwK = 132°, d = 6nm
07.9.	SO277_16-1	SEIST	15:18:08	156,91	36° 04.748' N	014° 19.180' E	Profilunterbrechung wegen elektr. Problem am

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
		R					Streamer
07.9.	SO277_16-1	SEIST R	15:30:11	144,68	36° 04.359' N	014° 19.706' E	Airguns an Deck
07.9.	SO277_16-1	SEIST R	15:32:16	140,22	36° 04.321' N	014° 19.792' E	Streamer auf 60m vorholen
07.9.	SO277_16-1	SEIST R	16:13:05	98,61	36° 03.152' N	014° 21.060' E	Bb-Scherbrett an Deck
07.9.	SO277_16-1	SEIST R	16:31:10	70,61	36° 02.731' N	014° 21.712' E	5 Streamer an Deck
07.9.	SO277_16-1	SEIST R	17:00:24	65,58	36° 02.009' N	014° 22.696' E	Beginn aussetzen Streamer
07.9.	SO277_16-1	SEIST R	17:16:51	60,38	36° 01.752' N	014° 23.372' E	Streamer ausgesteckt
07.9.	SO277_16-1	SEIST R	17:20:13	61,94	36° 01.712' N	014° 23.508' E	Bb-Scherbrett zu Wasser
07.9.	SO277_16-1	SEIST R	17:32:30	59,22	36° 01.568' N	014° 23.988' E	Scherbretter auf 110m ausgesteckt, Beginn Drehung über Stb.
07.9.	SO277_16-1	SEIST R	18:20:44	50,12	36° 01.347' N	014° 22.686' E	rwK =312°, d= 6nm
07.9.	SO277_16-1	SEIST R	20:29:33	138,94	36° 05.360' N	014° 17.109' E	rwK: 041°, d: 1nm
07.9.	SO277_16-1	SEIST R	20:49:52	194,23	36° 06.208' N	014° 17.435' E	rwK: 132°, d:2,5nm
07.9.	SO277_16-1	SEIST R	21:37:58	175,30	36° 05.000' N	014° 19.807' E	rwK: 123°, d: 0,3nm
07.9.	SO277_16-1	SEIST R	21:44:10	173,33	36° 04.827' N	014° 20.120' E	rwK: 130°, 0,7nm
07.9.	SO277_16-1	SEIST R	23:04:10	113,69	36° 02.226' N	014° 23.739' E	rwK: 311°, d: 6nm
08.9.	SO277_16-1	SEIST R	01:14:52	194,83	36° 06.164' N	014° 17.440' E	rwK: 136°, d: 7nm
08.9.	SO277_16-1	SEIST R	04:00:54	58,43	36° 01.330' N	014° 23.756' E	rwK = 311°d= 7nm (NW-Kurse)
08.9.	SO277_16-1	SEIST R	06:12:26	148,09	36° 05.601' N	014° 17.074' E	rwK: 131°, d: 7nm SE Kurse
08.9.	SO277_16-1	SEIST R	08:25:26	66,48	36° 01.858' N	014° 23.389' E	rwK: 304°, d: 1,5nm
08.9.	SO277_16-1	SEIST R	09:04:24	75,70	36° 02.478' N	014° 22.007' E	rwK: 288°, d: 1,7nm
08.9.	SO277_16-1	SEIST R	09:39:53	91,90	36° 03.300' N	014° 20.018' E	rwK: 033°, d: 1,5nm
08.9.	SO277_16-1	SEIST R	10:45:18	101,41	36° 03.192' N	014° 21.246' E	rwK: 308°, d: 6nm
08.9.	SO277_16-1	SEIST R	12:15:21	150,91	36° 05.928' N	014° 16.446' E	Airgun abgeschaltet
08.9.	SO277_16-1	SEIST R	12:31:10	188,86	36° 06.357' N	014° 15.731' E	Airgun an Deck
08.9.	SO277_16-1	SEIST R	13:07:25	206,08	36° 07.525' N	014° 15.847' E	BB-Scherbrett an Deck
08.9.	SO277_16-1	SEIST R	13:31:42	209,60	36° 07.984' N	014° 15.391' E	Streamer an Deck
08.9.	SO277_16-1	SEIST R	13:51:06	205,00	36° 07.819' N	014° 14.637' E	STB-Scherbrett an Deck
08.9.	SO277_17-1	CSEM	14:43:49	188,40	36° 06.374' N	014° 17.394' E	1.Messstrecke zu Wasser
08.9.	SO277_17-1	CSEM	14:52:51	187,50	36° 06.314' N	014° 17.448' E	2.Messkette zu Wasser
08.9.	SO277_17-1	CSEM	14:54:16	187,50	36° 06.304' N	014° 17.456' E	3.Messkette zu Wasser
08.9.	SO277_17-1	CSEM	15:02:11	186,50	36° 06.264' N	014° 17.492' E	4.Messkette zu Wasser
08.9.	SO277_17-1	CSEM	15:08:57	186,50	36° 06.244' N	014° 17.517' E	5.Messkette zu Wasser
08.9.	SO277_17-1	CSEM	15:41:39	186,20	36° 06.196' N	014° 17.575' E	Schweinchen zu Wasser
08.9.	SO277_17-1	CSEM	16:07:38	183,70	36° 06.073' N	014° 17.746' E	Schweinchen auf Grund
08.9.	SO277_17-1	CSEM	16:28:50	181,80	36° 05.974' N	014° 17.907' E	Hydrophon zu Wasser
08.9.	SO277_17-1	CSEM	16:33:53	182,10	36° 05.974' N	014° 17.905' E	Hydrophon an Deck
08.9.	SO277_17-1	CSEM	18:37:57	178,70	36° 05.593' N	014° 18.552' E	Hydrophon zu Wasser
08.9.	SO277_17-1	CSEM	18:46:02	175,60	36° 05.592' N	014° 18.552' E	Hydrophon an Deck
09.9.	SO277_17-1	CSEM	08:16:33	150,00	36° 03.456' N	014° 23.398' E	Beginn Einholen der Messinstrumente

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
09.9.	SO277 17-1	CSEM	08:36:27	149,60	36° 03.459' N	014° 23.396' E	Schweinchen an Deck
09.9.	SO277 17-1	CSEM	09:04:07	149,60	36° 03.479' N	014° 23.306' E	Erste Messstrecke an Deck
09.9.	SO277 17-1	CSEM	09:13:03	149,60	36° 03.488' N	014° 23.301' E	Zweite Messstrecke an Deck
09.9.	SO277 17-1	CSEM	09:21:30	150,90	36° 03.490' N	014° 23.301' E	Dritte Messstrecke an Deck
09.9.	SO277 17-1	CSEM	09:24:05	151,20	36° 03.496' N	014° 23.288' E	Vierte Messstrecke an Deck
09.9.	SO277 17-1	CSEM	09:30:53	151,20	36° 03.495' N	014° 23.284' E	Alles an Deck
09.9.	SO277 18-1	AUV_L	10:58:01	62,70	36° 04.393' N	014° 17.870' E	Hydrophon zu Wasser
09.9.	SO277 18-1	AUV_L	11:00:05	62,50	36° 04.392' N	014° 17.869' E	AUV abgetaucht
09.9.	SO277 18-1	AUV_L	11:07:22	62,50	36° 04.393' N	014° 17.872' E	Hydrophon an Deck
09.9.	SO277 18-1	AUV_L	14:54:44	63,00	36° 04.390' N	014° 17.874' E	Modem zu Wasser
09.9.	SO277 18-1	AUV_L	15:59:10	62,70	36° 04.388' N	014° 17.875' E	AUV L an Deck
09.9.	SO277 18-1	AUV_L	15:59:49	62,70	36° 04.388' N	014° 17.875' E	Modem an Deck
09.9.	SO277 19-1	CTD	11:45:11	160,03	36° 04.412' N	014° 19.758' E	Clean Ship
09.9.	SO277 19-1	CTD	12:07:05	155,94	36° 04.415' N	014° 19.782' E	BOSI, SL: 158m
09.9.	SO277 20-1	CTD	16:37:15	136,08	36° 05.081' N	014° 18.271' E	Transponder SL = 10m zu Wasser
09.9.	SO277 20-1	CTD	17:01:19	136,05	36° 05.077' N	014° 18.276' E	Bodensicht SL = 139m
09.9.	SO277 20-1	CTD	17:02:25	136,06	36° 05.077' N	014° 18.276' E	rwK = 032°, d = 0,5nm
09.9.	SO277 20-1	CTD	18:10:30	178,72	36° 05.413' N	014° 18.538' E	rwK: 294°, d: 0,15nm
09.9.	SO277 20-1	CTD	18:46:25	179,63	36° 05.466' N	014° 18.373' E	rwK: 214°, d: 0,45nm
09.9.	SO277 20-1	CTD	19:57:03	136,25	36° 05.088' N	014° 18.069' E	Beginn hieven
09.9.	SO277 20-1	CTD	20:02:48	136,30	36° 05.088' N	014° 18.069' E	Transponder an Deck
09.9.	SO277 20-1	CTD	20:04:55	136,30	36° 05.088' N	014° 18.069' E	CTD an Deck
09.9.	SO277 21-1	PS	20:23:08	60,39	36° 04.035' N	014° 18.482' E	rwK: 131°, 1nm
09.9.	SO277 21-1	PS	20:31:59	64,88	36° 03.261' N	014° 19.570' E	rwK: 122°, d: 1,7nm
09.9.	SO277 21-1	PS	20:40:30	72,77	36° 02.643' N	014° 20.767' E	rwK: 189°, d: 1,2nm
09.9.	SO277 21-1	PS	20:55:22	48,73	36° 01.122' N	014° 21.170' E	rwK: 125°, d: 3,9nm
09.9.	SO277 21-1	PS	21:37:09	48,54	35° 58.518' N	014° 25.354' E	rwK: 305°, d: 3,9nm
09.9.	SO277 21-1	PS	22:48:41	68,68	36° 04.217' N	014° 18.252' E	rwK: 134°, d: 8nm
10.9.	SO277 21-1	PS	00:03:01	48,44	35° 58.896' N	014° 25.136' E	Parasound
10.9.	SO277 21-1	PS	00:16:03	42,64	35° 58.844' N	014° 25.105' E	EM710, rwK: 314°, d: 8nm
10.9.	SO277 21-1	PS	01:24:07	36,83	36° 04.044' N	014° 18.363' E	rwK. 134°, d: 8nm
10.9.	SO277 21-1	PS	02:35:41	43,79	35° 58.783' N	014° 25.543' E	rwK = 305°, d= 4nm
10.9.	SO277 21-1	PS	03:08:53	40,17	36° 00.806' N	014° 21.555' E	rwK = 125°, d = 4nm
10.9.	SO277 21-1	PS	03:46:01	43,62	35° 58.817' N	014° 25.384' E	rwK = 305°, d= 5nm
10.9.	SO277 21-1	PS	04:17:40	34,65	36° 00.646' N	014° 21.793' E	rwK = 356°, d = 2nm
10.9.	SO277 21-1	PS	04:30:49	60,88	36° 02.269' N	014° 21.374' E	rwK = 302°, d = 2nm
10.9.	SO277 21-1	PS	04:41:59	60,97	36° 03.104' N	014° 19.800' E	rwK = 311°, d = 2nm
10.9.	SO277 22-1	OBE_M	06:00:48	140,50	36° 05.358' N	014° 17.651' E	Hydrophon zu Wasser
10.9.	SO277 22-1	OBE_M	06:13:40	140,00	36° 05.357' N	014° 17.649' E	OBMT 01 ausgelöst
10.9.	SO277 22-1	OBE_M	06:18:22	141,20	36° 05.356' N	014° 17.646' E	Hydrophon an Deck
10.9.	SO277 22-1	OBE_M	06:30:16	149,20	36° 05.490' N	014° 17.663' E	OBMT 01
10.9.	SO277 22-1	OBE_M	06:55:52	168,20	36° 05.155' N	014° 20.256' E	Hydrophon zu Wasser

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
10.9.	SO277_22-1	OBE M	06:57:59	168,20	36° 05.156' N	014° 20.252' E	OBMT 02 ausgelöst
10.9.	SO277_22-1	OBE M	07:03:24	169,00	36° 05.155' N	014° 20.253' E	Hydrophon an Deck
10.9.	SO277_22-1	OBE M	07:12:57	168,20	36° 05.299' N	014° 20.410' E	OBMT 02 an Deck
10.9.	SO277_22-1	OBE M	07:39:50	127,00	36° 03.608' N	014° 20.832' E	Hydrophon zu Wasser
10.9.	SO277_22-1	OBE M	07:41:50	128,20	36° 03.614' N	014° 20.846' E	OBMT 03 ausgelöst
10.9.	SO277_22-1	OBE M	07:46:11	128,00	36° 03.611' N	014° 20.852' E	Hydrophon an Deck
10.9.	SO277_22-1	OBE M	07:56:43	154,00	36° 03.822' N	014° 21.026' E	OBMT 03 an Deck
10.9.	SO277_22-1	OBE M	08:17:46	149,20	36° 03.572' N	014° 23.578' E	Hydrophon zu Wasser
10.9.	SO277_22-1	OBE M	08:19:01	151,20	36° 03.571' N	014° 23.576' E	OBMT 04 ausgelöst
10.9.	SO277_22-1	OBE M	08:23:55	150,70	36° 03.570' N	014° 23.571' E	Hydrophon an Deck
10.9.	SO277_22-1	OBE M	08:35:00	153,20	36° 03.788' N	014° 23.636' E	OBMT 04 an Deck
10.9.	SO277_23-1	CTD	10:05:56	175,20	36° 06.035' N	014° 14.726' E	clean ship liegt an
10.9.	SO277_23-1	CTD	10:20:14	173,00	36° 06.035' N	014° 14.723' E	wg tech Probleme
10.9.	SO277_23-1	CTD	10:43:38	172,00	36° 06.036' N	014° 14.724' E	BOSI, SL: 177m
10.9.	SO277_24-1	CTD	11:40:12	133,50	36° 03.427' N	014° 21.543' E	Clean Ship
10.9.	SO277_24-1	CTD	11:50:12	132,70	36° 03.427' N	014° 21.550' E	Transponder bei SL: 10m angebracht und zu Wasser
10.9.	SO277_24-1	CTD	11:58:44	133,00	36° 03.430' N	014° 21.550' E	BOSI, SL: 136m
10.9.	SO277_24-1	CTD	13:18:47	135,58	36° 03.464' N	014° 21.598' E	Beginn Hieven
10.9.	SO277_24-1	CTD	13:26:15	135,77	36° 03.465' N	014° 21.594' E	Transponder an Deck
10.9.	SO277_25-1	CSEM	14:25:23	63,00	36° 02.372' N	014° 21.375' E	1. Messkette zu Wasser
10.9.	SO277_25-1	CSEM	14:29:14	63,50	36° 02.382' N	014° 21.356' E	BOKO 1.Messkette
10.9.	SO277_25-1	CSEM	14:34:34	64,50	36° 02.406' N	014° 21.311' E	2.Messkette zu Wassr
10.9.	SO277_25-1	CSEM	14:35:59	64,70	36° 02.411' N	014° 21.299' E	3.Messkette zu Wasser
10.9.	SO277_25-1	CSEM	14:41:55	65,50	36° 02.435' N	014° 21.254' E	4.Messkette zu Wasser
10.9.	SO277_25-1	CSEM	15:05:51	65,00	36° 02.502' N	014° 21.123' E	Schweinchen zu Wasser
10.9.	SO277_25-1	CSEM	15:13:34	65,00	36° 02.502' N	014° 21.120' E	Schweinchen an Deck
10.9.	SO277_25-1	CSEM	15:17:25	65,20	36° 02.501' N	014° 21.123' E	Schweinchen zu Wasser
10.9.	SO277_25-1	CSEM	15:29:49	65,20	36° 02.501' N	014° 21.123' E	rwK = 302°, d=2nm
10.9.	SO277_25-1	CSEM	22:06:51	60,50	36° 03.263' N	014° 19.615' E	rwK: 311°, d: 1nm
11.9.	SO277_25-1	CSEM	03:51:19	62,50	36° 03.972' N	014° 18.612' E	Beginn hieven
11.9.	SO277_25-1	CSEM	04:00:56	62,70	36° 03.972' N	014° 18.612' E	Schweinchen an Deck
11.9.	SO277_25-1	CSEM	04:29:44	61,00	36° 03.948' N	014° 18.666' E	1.Messkette an Deck
11.9.	SO277_25-1	CSEM	04:36:20	61,50	36° 03.948' N	014° 18.674' E	2.Messkette an Deck
11.9.	SO277_25-1	CSEM	04:38:26	61,50	36° 03.948' N	014° 18.672' E	3.Messkette an Deck
11.9.	SO277_25-1	CSEM	04:41:42	61,00	36° 03.948' N	014° 18.670' E	frei vom Grund
11.9.	SO277_25-1	CSEM	04:44:46	61,20	36° 03.949' N	014° 18.665' E	Streamer an Deck
11.9.	SO277_26-1	OBE M	07:35:05	56,50	36° 00.326' N	014° 26.857' E	OBMT 13 zu Wasser
11.9.	SO277_26-1	OBE M	07:49:46	51,70	36° 00.070' N	014° 26.934' E	OBMT 14 zu Wasser
11.9.	SO277_26-1	OBE M	08:05:37	49,00	35° 59.857' N	014° 26.995' E	OBMT 15 zu Wasser
11.9.	SO277_26-1	OBE M	08:22:30	50,50	35° 59.637' N	014° 27.064' E	OBMT 16 zu Wasser
11.9.	SO277_27-1	GC	09:09:55	65,70	36° 01.654' N	014° 22.995' E	GC 3m

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
11.9.	SO277_27-1	GC	09:12:47	65,50	36° 01.657' N	014° 22.988' E	FW2/SPW2
11.9.	SO277_27-1	GC	09:15:03	66,00	36° 01.656' N	014° 22.986' E	Boko, SLmax: 78m
11.9.	SO277_27-1	GC	09:15:28	66,50	36° 01.656' N	014° 22.985' E	SZmax: 16,6kN
11.9.	SO277_28-1	GC	11:05:58	56,50	36° 01.593' N	014° 23.229' E	GC 3m
11.9.	SO277_28-1	GC	11:11:26	56,70	36° 01.592' N	014° 23.228' E	BOKO, SLmax: 67m
11.9.	SO277_28-1	GC	11:12:11	57,50	36° 01.592' N	014° 23.228' E	Beginn Hieven, SZmax: 14kN
11.9.	SO277_29-1	GC	11:40:06	54,00	36° 01.459' N	014° 23.597' E	GC 3m
11.9.	SO277_29-1	GC	11:43:35	53,20	36° 01.461' N	014° 23.600' E	SLmax: 60m
11.9.	SO277_29-1	GC	11:43:56	53,20	36° 01.461' N	014° 23.600' E	Beginn Hieven, SZmax: 14kN
11.9.	SO277_29-1	GC	12:01:57	53,70	36° 01.458' N	014° 23.613' E	2. Versuch
11.9.	SO277_29-1	GC	12:03:45	53,70	36° 01.459' N	014° 23.613' E	BOKO, SLmax: 61m
11.9.	SO277_29-1	GC	12:04:03	53,20	36° 01.459' N	014° 23.613' E	Beginn Hieven, SZmax: 14kN
11.9.	SO277_30-1	CSEM	14:18:07	185,00	36° 06.092' N	014° 17.692' E	Streamer zu Wassr
11.9.	SO277_30-1	CSEM	14:18:56	185,50	36° 06.091' N	014° 17.687' E	1.Messkette zu Wasser
11.9.	SO277_30-1	CSEM	14:25:37	185,20	36° 06.085' N	014° 17.647' E	2.Messkette zu Wasser
11.9.	SO277_30-1	CSEM	14:27:16	186,00	36° 06.084' N	014° 17.637' E	3.Messkette zu Wasser
11.9.	SO277_30-1	CSEM	14:33:48	186,20	36° 06.081' N	014° 17.614' E	4.Messkette zu Wasser
11.9.	SO277_30-1	CSEM	14:53:11	187,00	36° 06.070' N	014° 17.547' E	Schweinchen zu Wasser
11.9.	SO277_30-1	CSEM	15:37:48	164,20	36° 06.017' N	014° 17.174' E	komplett ausgesteckt SL = 320m
12.9.	SO277_30-1	CSEM	02:50:55	145,20	36° 05.407' N	014° 13.259' E	80m Kabel zusätzlich ausgesteckt
12.9.	SO277_30-1	CSEM	03:43:02	145,00	36° 05.409' N	014° 13.263' E	Beginn hieven
12.9.	SO277_30-1	CSEM	04:00:29	145,50	36° 05.410' N	014° 13.260' E	Schweinchen an Deck
12.9.	SO277_30-1	CSEM	04:23:33	145,70	36° 05.414' N	014° 13.287' E	1.Messkette an Deck
12.9.	SO277_30-1	CSEM	04:35:36	145,70	36° 05.411' N	014° 13.278' E	2.Messkette an Deck
12.9.	SO277_30-1	CSEM	04:38:21	145,50	36° 05.412' N	014° 13.277' E	3.Messkette an Deck
12.9.	SO277_30-1	CSEM	04:43:45	145,00	36° 05.412' N	014° 13.277' E	Streamer an Deck
12.9.	SO277_31-1	AUV_L	06:30:55	32,50	36° 00.886' N	014° 22.117' E	AUV auf Mission
12.9.	SO277_31-1	AUV_L	12:25:47	34,70	36° 00.900' N	014° 22.112' E	AUV aufgetaucht
12.9.	SO277_32-1	GC	07:40:54	44,00	36° 05.016' N	014° 16.104' E	GC - 3nm
12.9.	SO277_32-1	GC	07:43:49	44,00	36° 05.018' N	014° 16.100' E	FW2/SPW2
12.9.	SO277_32-1	GC	07:45:28	43,70	36° 05.017' N	014° 16.101' E	Boko, SLmax: 54m
12.9.	SO277_32-1	GC	07:45:58	43,70	36° 05.016' N	014° 16.101' E	Beginn hieven, SZmax: 14,2kN
12.9.	SO277_33-1	GC	08:15:38	91,00	36° 05.293' N	014° 16.473' E	GC - 3m
12.9.	SO277_33-1	GC	08:17:47	91,70	36° 05.298' N	014° 16.476' E	FW2/SPW2
12.9.	SO277_33-1	GC	08:20:30	92,00	36° 05.299' N	014° 16.477' E	Boko, SLmax: 105m
12.9.	SO277_33-1	GC	08:21:01	91,00	36° 05.299' N	014° 16.478' E	Beginn hieven, SZmax: 24,6kN
12.9.	SO277_33-2	GC	08:50:26	91,00	36° 05.297' N	014° 16.476' E	GC - 3m
12.9.	SO277_33-2	GC	08:52:04	93,70	36° 05.297' N	014° 16.475' E	FW2/SPW2
12.9.	SO277_33-2	GC	08:54:45	93,00	36° 05.296' N	014° 16.475' E	Boko, SLmax: 104m
12.9.	SO277_33-2	GC	08:55:55	91,00	36° 05.295' N	014° 16.474' E	Beginn hieven, SZmax: 22,9kN
12.9.	SO277_34-1	GC	11:07:10	70,20	36° 04.497' N	014° 17.621' E	GC 3m
12.9.	SO277_34-1	GC	11:11:25	70,20	36° 04.496' N	014° 17.622' E	BOKO, SLmax: 85m
12.9.	SO277_34-1	GC	11:11:48	70,50	36° 04.496' N	014° 17.622' E	Beginn Hieven, SZmax: 18kN
12.9.	SO277_35-1	PS	17:25:18	72,29	36° 01.722' N	014° 24.319' E	rwK = 120°, d = 2nm

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
12.9.	SO277_35-1	PS	17:40:12	57,32	36° 00.584' N	014° 26.514' E	rwK = 165°, d = 2nm
12.9.	SO277_35-1	PS	17:50:20	59,25	36° 00.530' N	014° 26.876' E	rwK = 300°, d = 4nm
12.9.	SO277_35-1	PS	18:19:34	90,56	36° 02.777' N	014° 22.286' E	rwK = 036°, d = 2nm
12.9.	SO277_35-1	PS	18:34:34	158,68	36° 04.440' N	014° 23.440' E	rwK: 128°, d: 3,2nm
12.9.	SO277_35-1	PS	18:56:25	150,35	36° 02.760' N	014° 26.515' E	rwK: 126°, d: 9,1nm
12.9.	SO277_35-1	PS	19:57:34	125,20	35° 57.418' N	014° 35.581' E	rwK: 183°, d: 1,3nm
12.9.	SO277_35-1	PS	20:06:37	122,59	35° 56.195' N	014° 35.677' E	rwK: 267°, d: 3nm
12.9.	SO277_35-1	PS	20:27:20	102,08	35° 55.807' N	014° 32.126' E	rwK: 308°, d: 3,3nm
12.9.	SO277_35-1	PS	20:50:20	62,88	35° 57.793' N	014° 28.814' E	rwK: 226°, d: 2,3nm
12.9.	SO277_35-1	PS	21:05:45	57,33	35° 59.875' N	014° 27.655' E	rwK: 156°, d: 2,3nm
12.9.	SO277_35-1	PS	21:33:52	55,28	35° 57.809' N	014° 28.675' E	Ende Parasound Profil
12.9.	SO277_35-1	PS	21:36:11	47,49	35° 57.586' N	014° 28.950' E	Multibeam Profil Beginn, rwK: 129°, d: 0,9nm
12.9.	SO277_35-1	PS	21:51:05	54,45	35° 57.202' N	014° 29.891' E	rwK: 308°, d: 3,9nm
12.9.	SO277_35-1	PS	22:19:26	44,32	35° 59.778' N	014° 26.301' E	rwK: 128°, d: 4nm
12.9.	SO277_35-1	PS	22:52:09	65,25	35° 57.478' N	014° 30.171' E	rwK: 308°, d: 4nm
12.9.	SO277_35-1	PS	23:25:27	45,68	35° 59.892' N	014° 26.283' E	rwK: 128°, d: 4nm
12.9.	SO277_35-1	PS	23:57:09	62,63	35° 57.528' N	014° 30.217' E	rwK: 308°, d: 4nm
13.9.	SO277_35-1	PS	00:27:52	45,60	35° 59.897' N	014° 26.280' E	rwK: 128°, d: 4nm
13.9.	SO277_35-1	PS	00:58:51	65,04	35° 57.600' N	014° 30.284' E	rwK: 308°, d: 4nm
13.9.	SO277_35-1	PS	01:28:50	46,68	35° 59.957' N	014° 26.338' E	rwK: 128°, d: 4nm
13.9.	SO277_35-1	PS	02:00:00	65,48	35° 57.636' N	014° 30.292' E	rwK: 308°, d: 4nm
13.9.	SO277_35-1	PS	02:35:23	53,73	36° 00.239' N	014° 26.666' E	rwK: 128°, d: 4nm
13.9.	SO277_35-1	PS	03:08:30	57,16	35° 57.593' N	014° 30.031' E	rwK = 308°, d= 4nm
13.9.	SO277_35-1	PS	03:35:46	50,12	36° 00.132' N	014° 26.508' E	rwK = 128°, d= 4nm
13.9.	SO277_35-1	PS	04:06:36	86,80	35° 57.792' N	014° 30.468' E	rwK =308°, d=4nm
13.9.	SO277_35-1	PS	04:37:46	52,88	36° 00.197' N	014° 26.661' E	rwK = 128°, d=4nm
13.9.	SO277_35-1	PS	05:10:41	90,24	35° 57.731' N	014° 30.953' E	rwK= 308°, d= 4nm
13.9.	SO277_35-1	PS	05:42:14	53,04	36° 00.494' N	014° 26.748' E	Ende MBES Survey 06, Beginn MBES Survey 07, rwK = 299°, d= 2nm
13.9.	SO277_35-1	PS	06:08:34	129,90	36° 02.659' N	014° 22.880' E	rwK: 130°, d: 6,3nm
13.9.	SO277_35-1	PS	07:01:32	66,52	35° 59.273' N	014° 29.300' E	rwK: 037°, d: 1nm
13.9.	SO277_35-1	PS	07:09:00	115,04	35° 59.797' N	014° 30.130' E	rwK: 308°, d: 3,5nm
13.9.	SO277_36-1	CTD	08:12:24	34,00	36° 00.925' N	014° 22.212' E	FW2/ SPW2
13.9.	SO277_36-1	CTD	08:14:51	33,70	36° 00.928' N	014° 22.212' E	Bei SL 10m Transponder am Draht
13.9.	SO277_36-1	CTD	08:18:24	34,50	36° 00.928' N	014° 22.212' E	Bodensicht, SL: 28m
13.9.	SO277_36-1	CTD	09:41:26	33,04	36° 00.845' N	014° 22.281' E	Transponder an Deck
13.9.	SO277_37-1	AUV_L	12:35:56	64,70	36° 01.350' N	014° 25.317' E	AUV taucht ab
13.9.	SO277_38-1	CSEM	14:56:43	66,70	36° 01.804' N	014° 24.242' E	1.Messkette zu Wasser
13.9.	SO277_38-1	CSEM	14:57:46	66,70	36° 01.805' N	014° 24.244' E	2.Messkette zu Wasser
13.9.	SO277_38-1	CSEM	15:03:55	67,70	36° 01.790' N	014° 24.261' E	3.Messkette zu Wasser
13.9.	SO277_38-1	CSEM	15:05:16	66,50	36° 01.788' N	014° 24.267' E	4.Messkette zu Wasser
13.9.	SO277_38-1	CSEM	15:11:30	69,00	36° 01.772' N	014° 24.309' E	5.Messkette zu Wasser
13.9.	SO277_38-1	CSEM	15:50:50	66,20	36° 01.679' N	014° 24.524' E	Schweinchen zu Wasser
13.9.	SO277_38-1	CSEM	16:00:20	66,70	36° 01.681' N	014° 24.522' E	rwK = 120°. d= 2nm
13.9.	SO277_38-1	CSEM	16:02:53	65,70	36° 01.674' N	014° 24.537' E	Bodenkontakt

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
13.9.	SO277_38-1	CSEM	16:17:50	67,50	36° 01.611' N	014° 24.663' E	Streamer komplett ausgesteckt, SL = 200m
13.9.	SO277_38-1	CSEM	22:17:12	55,00	36° 00.675' N	014° 26.689' E	Hydrophon zu Wasser
13.9.	SO277_38-1	CSEM	22:32:03	54,00	36° 00.675' N	014° 26.688' E	Hydrophon an Deck
13.9.	SO277_38-1	CSEM	23:01:19	54,20	36° 00.613' N	014° 26.828' E	rwK: 165°, d: 2nm
13.9.	SO277_38-1	CSEM	23:22:25	55,20	36° 00.453' N	014° 26.877' E	Hydrophon zu Wasser
13.9.	SO277_38-1	CSEM	23:27:20	57,00	36° 00.456' N	014° 26.875' E	Hydrophon an Deck
14.9.	SO277_38-1	CSEM	01:33:01	54,50	35° 59.798' N	014° 27.095' E	Hydrophon zu Wasser
14.9.	SO277_38-1	CSEM	01:42:15	55,20	35° 59.801' N	014° 27.096' E	Hydrophon an Deck
14.9.	SO277_38-1	CSEM	04:12:29	46,20	35° 59.278' N	014° 27.198' E	Schweinchen an Deck
14.9.	SO277_38-1	CSEM	04:53:54	45,50	35° 59.377' N	014° 27.163' E	1.Messkette an Deck
14.9.	SO277_38-1	CSEM	05:05:21	45,20	35° 59.433' N	014° 27.157' E	2.Messkette an Deck
14.9.	SO277_38-1	CSEM	05:06:33	45,70	35° 59.432' N	014° 27.154' E	3.Messkette an Deck
14.9.	SO277_38-1	CSEM	05:13:02	45,00	35° 59.441' N	014° 27.165' E	4.Messkette an Deck
14.9.	SO277_38-1	CSEM	05:13:46	45,20	35° 59.442' N	014° 27.166' E	Streamer an Deck
14.9.	SO277_38-1	CSEM	05:43:38	52,20	36° 00.066' N	014° 26.918' E	Hydrophon zu Wasser
14.9.	SO277_38-1	CSEM	06:06:00	52,50	36° 00.071' N	014° 26.937' E	Hydrophon an Deck
14.9.	SO277_39-1	MB	06:21:40	46,87	35° 58.910' N	014° 27.093' E	rwK: 125°, d: 1nm, v: 10kn ü.G.
14.9.	SO277_39-1	MB	06:27:43	50,37	35° 58.363' N	014° 28.058' E	rwK: 128°, d: 1,7nm
14.9.	SO277_39-1	MB	06:37:30	51,59	35° 57.356' N	014° 29.658' E	rwK: 123°, d: 1,9nm
14.9.	SO277_39-1	MB	06:48:38	99,43	35° 56.336' N	014° 31.593' E	rwK: 161°, d: 0,8nm
14.9.	SO277_39-1	MB	06:53:21	95,78	35° 55.664' N	014° 32.014' E	rwK: 128°, d: 3,1nm
14.9.	SO277_39-1	MB	07:13:32	95,55	35° 53.714' N	014° 35.215' E	rwK: 153°, d: 3,1nm
14.9.	SO277_39-1	MB	07:32:01	58,20	35° 51.058' N	014° 36.955' E	rwK: 333°, d: 3,2nm
14.9.	SO277_39-1	MB	07:56:24	107,75	35° 54.113' N	014° 35.615' E	rwK: 153°, d: 3,1nm
14.9.	SO277_39-1	MB	08:23:00	62,13	35° 51.098' N	014° 37.066' E	rwK: 333°, d: 3,2nm
14.9.	SO277_39-1	MB	08:47:56	106,29	35° 54.125' N	014° 35.780' E	rwK: 153°, d: 3,1nm
14.9.	SO277_39-1	MB	09:14:48	61,83	35° 50.975' N	014° 37.285' E	Ende Profil
14.9.	SO277_39-1	MB	09:42:13	99,32	35° 53.416' N	014° 35.884' E	Parasound Profil, rwK: 157°, d: 2,6nm, v: 7kn ü.G.
14.9.	SO277_39-1	MB	10:05:19	67,62	35° 50.962' N	014° 37.150' E	Ende Parasound Profil
14.9.	SO277_40-1	CTD	10:43:05	116,55	35° 54.794' N	014° 37.847' E	Clean Ship
14.9.	SO277_40-1	CTD	10:56:28	116,59	35° 54.794' N	014° 37.868' E	BOSI, SL: 119m
14.9.	SO277_40-1	CTD	11:16:12	115,74	35° 54.754' N	014° 37.878' E	Abbruch wg tech. Probleme
14.9.	SO277_40-1	CTD	11:16:20	116,00	35° 54.755' N	014° 37.878' E	Beginn Hieven
14.9.	SO277_40-1	CTD	11:48:24	115,41	35° 54.760' N	014° 37.880' E	BOSI, SL: 119m
14.9.	SO277_40-1	CTD	11:50:17	115,95	35° 54.757' N	014° 37.887' E	Fortsetzung Profil
14.9.	SO277_40-1	CTD	12:14:06	115,63	35° 54.770' N	014° 37.864' E	Beginn Hieven
14.9.	SO277_40-1	CTD	12:55:35	118,38	35° 55.076' N	014° 37.529' E	BOSI, SL: 122m
14.9.	SO277_40-1	CTD	12:56:08	118,52	35° 55.076' N	014° 37.530' E	rwK: 258°, d: 0,2nm
14.9.	SO277_41-1	CTD	14:37:40	62,50	35° 53.001' N	014° 34.851' E	BOKO, SLmax = 65m
14.9.	SO277_41-1	CTD	14:39:32	62,35	35° 53.002' N	014° 34.851' E	rwK = 210°
14.9.	SO277_42-1	CTD	15:43:25	96,58	35° 55.918' N	014° 31.721' E	Posidonia SL = 10m
14.9.	SO277_42-1	CTD	16:00:25	96,66	35° 55.919' N	014° 31.714' E	SL = 100m
14.9.	SO277_42-1	CTD	16:00:45	97,07	35° 55.918' N	014° 31.714' E	rwK = 120°
14.9.	SO277_42-1	CTD	17:23:34	99,36	35° 55.895' N	014° 31.980' E	Posidonia an Deck

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
14.9.	SO277_43-1	PS	19:05:01	97,94	36° 01.681' N	014° 25.089' E	Beginn Profil, rwK: 046°, d: 8,6nm, v: 7kn ü.G.
14.9.	SO277_43-1	PS	20:18:31	142,18	36° 07.551' N	014° 32.539' E	Ende Parasound Profil
14.9.	SO277_43-1	PS	20:26:08	140,09	36° 06.914' N	014° 33.257' E	Beginn Multibeam Profil, rwK: 226°, d: 7nm, v: 10kn ü.G.
14.9.	SO277_43-1	PS	21:09:49	137,12	36° 01.845' N	014° 26.972' E	rwK: 046°, d: 7,1nm
14.9.	SO277_43-1	PS	21:53:19	140,20	36° 06.460' N	014° 33.448' E	rwK: 226°, d: 7,1nm
14.9.	SO277_43-1	PS	22:41:10	141,63	36° 02.029' N	014° 26.723' E	rwK: 046°, d: 7nm
14.9.	SO277_43-1	PS	23:29:52	139,04	36° 06.771' N	014° 33.364' E	rwK: 226°, d: 7nm
15.9.	SO277_43-1	PS	00:17:10	145,58	36° 02.281' N	014° 26.495' E	rwK: 046°, d: 7nm
15.9.	SO277_43-1	PS	01:08:54	142,49	36° 07.623' N	014° 32.299' E	rwK: 226°, d: 7nm
15.9.	SO277_43-1	PS	01:53:21	145,59	36° 02.643' N	014° 26.594' E	rwK: 046°, d: 7nm
15.9.	SO277_43-1	PS	02:44:09	144,12	36° 07.876' N	014° 32.061' E	rwK: 226°, d: 7nm
15.9.	SO277_43-1	PS	03:27:47	149,02	36° 03.580' N	014° 25.717' E	rwK = 046°, d= 7nm
15.9.	SO277_43-1	PS	04:15:45	144,48	36° 08.138' N	014° 31.791' E	rwK = 226°c = 7nm
15.9.	SO277_43-1	PS	05:00:17	147,97	36° 03.577' N	014° 25.758' E	rwK = 046°, d= 2nm
15.9.	SO277_44-1	AUV_L	05:55:52	38,20	36° 01.843' N	014° 21.102' E	Modem wird im Schacht hinab gelassen
15.9.	SO277_44-1	AUV_L	06:26:10	38,50	36° 01.846' N	014° 21.113' E	AUV Luise zu Wasser
15.9.	SO277_44-1	AUV_L	06:29:54	39,00	36° 01.847' N	014° 21.114' E	Mission wurde gestartet
15.9.	SO277_44-1	AUV_L	06:38:07	38,50	36° 01.843' N	014° 21.116' E	Modem wieder an Deck
15.9.	SO277_44-1	AUV_L	12:21:24	33,50	36° 01.730' N	014° 20.961' E	AUV gesichtet
15.9.	SO277_45-1	GC	07:17:31	124,70	36° 04.430' N	014° 19.257' E	GC - 3m
15.9.	SO277_45-1	GC	07:20:06	126,20	36° 04.428' N	014° 19.258' E	FW2/SPW2
15.9.	SO277_45-1	GC	07:23:19	126,00	36° 04.427' N	014° 19.258' E	SLmax: 138m
15.9.	SO277_45-1	GC	07:24:01	124,00	36° 04.425' N	014° 19.259' E	Beginn hieven, SZmax: 16,0kN
15.9.	SO277_45-2	GC	07:42:47	123,70	36° 04.427' N	014° 19.268' E	GC - 3m
15.9.	SO277_45-2	GC	07:45:38	125,20	36° 04.428' N	014° 19.265' E	FW2/SPW2
15.9.	SO277_45-2	GC	07:49:16	126,00	36° 04.426' N	014° 19.272' E	Boko, SLmax: 137m
15.9.	SO277_45-2	GC	07:50:05	123,70	36° 04.424' N	014° 19.270' E	Beginn hieven, SZmax: 23,5kN
15.9.	SO277_46-1	GC	08:20:48	147,00	36° 04.367' N	014° 19.740' E	GC - 3m
15.9.	SO277_46-1	GC	08:25:28	145,70	36° 04.364' N	014° 19.748' E	FW2/SPW2
15.9.	SO277_46-1	GC	08:30:40	147,70	36° 04.369' N	014° 19.748' E	Boko, SLmax: 161m
15.9.	SO277_46-1	GC	08:31:45	148,00	36° 04.369' N	014° 19.744' E	SZmax: 20,7kN
15.9.	SO277_47-1	GC	11:00:27	130,50	36° 03.958' N	014° 19.917' E	GC 3m
15.9.	SO277_47-1	GC	11:07:50	130,70	36° 03.958' N	014° 19.913' E	BOKO, SLmax: 142m
15.9.	SO277_47-1	GC	11:08:15	127,70	36° 03.957' N	014° 19.915' E	Beginn Hieven, Szmax: 19kN
15.9.	SO277_47-2	GC	11:28:42	127,50	36° 03.965' N	014° 19.918' E	GC 3m
15.9.	SO277_47-2	GC	11:32:43	129,20	36° 03.969' N	014° 19.919' E	BOKO, SLmax: 145m
15.9.	SO277_47-2	GC	11:33:11	129,50	36° 03.969' N	014° 19.919' E	SZmax: 19kN
15.9.	SO277_48-1	CSEM	14:31:39	47,20	35° 59.492' N	014° 27.089' E	Streamer zu Wasser / 1. Messkette
15.9.	SO277_48-1	CSEM	14:40:07	45,50	35° 59.493' N	014° 27.093' E	2.Messkette zu Wasser
15.9.	SO277_48-1	CSEM	14:51:51	46,50	35° 59.493' N	014° 27.091' E	Streamer komplett ausgesteckt, SL = 200m
15.9.	SO277_48-1	CSEM	16:03:50	44,20	35° 59.515' N	014° 27.111' E	rwK = 341°
16.9.	SO277_48-1	CSEM	04:24:22	54,20	36° 00.483' N	014° 26.821' E	1.Messkette an Deck
16.9.	SO277_48-1	CSEM	04:33:06	53,50	36° 00.479' N	014° 26.819' E	Streamer an Deck

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
16.9.	SO277_49-1	AUV_L	06:00:30	146,50	36° 03.542' N	014° 26.271' E	Mission gestartet
16.9.	SO277_49-1	AUV_L	06:19:48	147,20	36° 03.540' N	014° 26.267' E	Modem an Deck
16.9.	SO277_49-1	AUV_L	12:22:51	146,70	36° 03.623' N	014° 26.287' E	AUV gesichtet
16.9.	SO277_50-1	GC	07:03:12	50,36	35° 59.489' N	014° 27.599' E	GC - 3m
16.9.	SO277_50-1	GC	07:07:32	52,00	35° 59.489' N	014° 27.601' E	FW2/SPW2
16.9.	SO277_50-1	GC	07:09:04	50,70	35° 59.488' N	014° 27.600' E	Boko, SLmax: 60m
16.9.	SO277_50-1	GC	07:10:39	51,20	35° 59.488' N	014° 27.603' E	SZmax: 14,0kN
16.9.	SO277_50-2	GC	07:20:59	49,70	35° 59.494' N	014° 27.604' E	GC - 3m
16.9.	SO277_50-2	GC	07:23:32	49,20	35° 59.495' N	014° 27.601' E	FW2/SPW2
16.9.	SO277_50-2	GC	07:24:59	50,70	35° 59.496' N	014° 27.602' E	Boko, SLmax: 65m
16.9.	SO277_50-2	GC	07:26:00	49,00	35° 59.496' N	014° 27.603' E	Beginn hieven, SZmax: 14,3kN
16.9.	SO277_51-1	GC	08:16:04	68,70	36° 00.243' N	014° 27.424' E	GC - 3m
16.9.	SO277_51-1	GC	08:18:28	67,20	36° 00.241' N	014° 27.427' E	FW2/SPW2
16.9.	SO277_51-1	GC	08:20:36	68,20	36° 00.243' N	014° 27.425' E	Boko, SLmax: 83m
16.9.	SO277_51-1	GC	08:21:51	69,00	36° 00.244' N	014° 27.425' E	SZmax: 17,3kN
16.9.	SO277_52-1	GC	09:23:22	33,20	36° 00.935' N	014° 22.220' E	GC - 3m
16.9.	SO277_52-1	GC	09:25:47	33,50	36° 00.933' N	014° 22.218' E	FW2/SPW2
16.9.	SO277_52-1	GC	09:26:55	34,00	36° 00.933' N	014° 22.219' E	SLmax: 43m
16.9.	SO277_52-1	GC	09:27:55	34,20	36° 00.934' N	014° 22.220' E	SZmax: 14,4kN
16.9.	SO277_52-2	GC	11:00:40	34,50	36° 00.942' N	014° 22.220' E	GC 3m
16.9.	SO277_52-2	GC	11:01:55	34,00	36° 00.942' N	014° 22.220' E	BOKO, SLmax: 44m
16.9.	SO277_52-2	GC	11:02:11	33,50	36° 00.942' N	014° 22.220' E	SZmax: 14kN
16.9.	SO277_53-1	GC	11:19:01	34,00	36° 00.899' N	014° 22.241' E	BOKO, SLmax: 43m
16.9.	SO277_53-1	GC	11:19:17	33,70	36° 00.899' N	014° 22.242' E	SZmax: 14kN
16.9.	SO277_53-2	GC	11:32:10	34,20	36° 00.890' N	014° 22.246' E	BOKO, SLmax: 45m
16.9.	SO277_53-2	GC	11:32:21	33,20	36° 00.889' N	014° 22.246' E	SZmax: 14kN
16.9.	SO277_54-1	CTD	13:39:11	39,00	36° 01.936' N	014° 21.069' E	clean ship
16.9.	SO277_54-1	CTD	13:46:21	37,78	36° 01.934' N	014° 21.070' E	Transponder bei SL: 10m angebracht und zu Wasser
16.9.	SO277_54-1	CTD	14:12:07	38,04	36° 01.939' N	014° 21.076' E	Posidonia an Deck
16.9.	SO277_54-1	CTD	14:14:26	38,40	36° 01.940' N	014° 21.076' E	CTD an Deck
16.9.	SO277_54-1	CTD	14:31:31	37,81	36° 01.939' N	014° 21.075' E	Video-CTD zu Wasser
16.9.	SO277_54-1	CTD	14:34:50	38,83	36° 01.939' N	014° 21.076' E	Posidonia SL= 10m
16.9.	SO277_54-1	CTD	14:38:04	38,96	36° 01.939' N	014° 21.075' E	Bodensicht SL= 34m
16.9.	SO277_54-1	CTD	15:50:18	40,90	36° 01.771' N	014° 21.213' E	SLmax = 42m
16.9.	SO277_54-1	CTD	16:04:46	41,49	36° 01.772' N	014° 21.213' E	Posidonia an Deck
16.9.	SO277_54-1	CTD	16:07:09	41,66	36° 01.772' N	014° 21.212' E	CTD an Deck
16.9.	SO277_55-1	MB	16:31:30	30,16	36° 00.191' N	014° 22.688' E	rwK = 125°, d= 4nm
16.9.	SO277_55-1	MB	16:55:41	42,89	35° 58.089' N	014° 26.629' E	rwK = 111°, d= 3nm
16.9.	SO277_55-1	MB	17:12:12	48,06	35° 57.094' N	014° 29.672' E	rwK = 129°, d= 2nm
16.9.	SO277_55-1	MB	17:27:37	95,53	35° 55.588' N	014° 32.091' E	rwK = 127°, d= 3nm
16.9.	SO277_55-1	MB	17:46:16	93,44	35° 53.818' N	014° 35.036' E	rwK = 125°, d= 2nm
16.9.	SO277_55-1	MB	17:57:17	95,18	35° 52.772' N	014° 36.702' E	rwK = 149°, dd= 1nm
16.9.	SO277_55-1	MB	18:05:03	66,26	35° 51.644' N	014° 37.228' E	viele kurze Kurse in unterschiedliche Richtungen

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
16.9.	SO277_55-1	MB	19:23:34	92,66	35° 54.561' N	014° 40.437' E	Begibnn Profil Nr. 2. rwK: 308°, d: 12,5nm
16.9.	SO277_55-1	MB	20:48:08	140,16	36° 02.272' N	014° 28.298' E	rwK: 048°, d: 0,7nm
16.9.	SO277_55-1	MB	20:53:53	141,99	36° 02.772' N	014° 28.644' E	rwK: 128°, d: 14nm
16.9.	SO277_55-1	MB	22:41:11	73,20	35° 54.215' N	014° 42.429' E	rwK: 308°, d: 14nm
17.9.	SO277_55-1	MB	00:20:06	143,22	36° 02.661' N	014° 28.650' E	rwK: 129°, d: 14nm
17.9.	SO277_55-1	MB	02:00:00	75,71	35° 54.465' N	014° 42.803' E	rwK: 308°, d: 14nm
17.9.	SO277_55-1	MB	03:40:05	142,23	36° 02.841' N	014° 28.863' E	rwK: 129°, d: 14nm
17.9.	SO277_56-1	CTD	06:02:46	121,70	35° 56.701' N	014° 35.667' E	clean ship liegt an
17.9.	SO277_56-1	CTD	06:04:20	121,70	35° 56.699' N	014° 35.669' E	FW1/SPW1
17.9.	SO277_56-1	CTD	06:07:26	121,20	35° 56.702' N	014° 35.669' E	Bei SL: 10m Transponder am Draht
17.9.	SO277_56-1	CTD	06:14:36	122,00	35° 56.700' N	014° 35.671' E	Fieren gestopt, warten auf Kamerabild, SL: 100m
17.9.	SO277_56-1	CTD	06:32:51	120,20	35° 56.703' N	014° 35.671' E	Bodensicht, SL: 125m
17.9.	SO277_56-1	CTD	06:34:35	120,50	35° 56.704' N	014° 35.671' E	rwK: 215°, d: 411m, v: 0,3kn
17.9.	SO277_56-1	CTD	07:21:53	120,08	35° 56.519' N	014° 35.513' E	rwK: 090°, d: 446m
17.9.	SO277_56-1	CTD	08:11:12	121,64	35° 56.520' N	014° 35.807' E	rwK: 297°, d: 737m, v: 0,5kn
17.9.	SO277_56-1	CTD	08:56:24	119,68	35° 56.686' N	014° 35.405' E	Beginn hieven, SL: 123m, SZmax: 3,3 kN
17.9.	SO277_56-1	CTD	09:01:49	121,35	35° 56.687' N	014° 35.406' E	Transponder an Deck
17.9.	SO277_57-1	CTD	10:19:21	54,50	36° 01.058' N	014° 25.243' E	clean ship liegt an
17.9.	SO277_57-1	CTD	10:29:00	55,20	36° 01.064' N	014° 25.242' E	Transponder bei SL: 10m angebracht und zu Wasser
17.9.	SO277_57-1	CTD	10:34:18	54,50	36° 01.065' N	014° 25.244' E	BOSI; SL: 57m
17.9.	SO277_57-1	CTD	10:34:50	55,20	36° 01.065' N	014° 25.245' E	rwK: 027°, d: 0,5nm
17.9.	SO277_57-1	CTD	11:46:09	64,20	36° 01.350' N	014° 25.415' E	Transponder an Deck
17.9.	SO277_58-1	GC	12:49:44	80,58	36° 03.298' N	014° 19.833' E	BOKO, SLmax: 92m
17.9.	SO277_58-1	GC	12:49:55	81,14	36° 03.298' N	014° 19.834' E	Beginn Hieven, SZmax: 19kN
17.9.	SO277_59-1	CSEM	14:10:04	143,99	36° 02.481' N	014° 27.435' E	rwK= 308°
17.9.	SO277_59-1	CSEM	14:11:17	143,50	36° 02.481' N	014° 27.435' E	1.Messkette zu Wasser
17.9.	SO277_59-1	CSEM	14:13:10	142,96	36° 02.479' N	014° 27.440' E	2. Messkette zu Wasser
17.9.	SO277_59-1	CSEM	14:22:15	143,59	36° 02.500' N	014° 27.411' E	3.Messkette zu Wasser
17.9.	SO277_59-1	CSEM	14:27:55	142,82	36° 02.517' N	014° 27.385' E	4.Messkette zu Wasser
17.9.	SO277_59-1	CSEM	14:33:27	143,38	36° 02.533' N	014° 27.357' E	4.Messkette zu Wasser
17.9.	SO277_59-1	CSEM	14:50:09	143,85	36° 02.558' N	014° 27.321' E	Schweinchen zu Wasser
17.9.	SO277_59-1	CSEM	15:03:00	144,62	36° 02.578' N	014° 27.288' E	Schweinchen auf Grund
17.9.	SO277_59-1	CSEM	15:45:34	145,00	36° 02.854' N	014° 26.846' E	Streamer vollständig ausgesteckt, SL = 320m
18.9.	SO277_59-1	CSEM	06:07:27	157,20	36° 05.289' N	014° 23.007' E	Schweinchen an Deck
18.9.	SO277_59-1	CSEM	06:32:01	159,20	36° 05.234' N	014° 23.086' E	1. Messkette an Deck
18.9.	SO277_59-1	CSEM	06:38:48	158,50	36° 05.211' N	014° 23.121' E	2. Messkette an Deck
18.9.	SO277_59-1	CSEM	06:44:51	156,20	36° 05.193' N	014° 23.147' E	3. Messkette an Deck
18.9.	SO277_59-1	CSEM	06:53:01	155,70	36° 05.177' N	014° 23.173' E	4. Messkette an Deck
18.9.	SO277_60-1	OBE M	07:50:54	46,50	35° 59.505' N	014° 27.336' E	Hydrophon zu Wasser
18.9.	SO277_60-1	OBE M	07:51:11	45,70	35° 59.504' N	014° 27.336' E	OBMT # 01 ausgelöst
18.9.	SO277_60-1	OBE M	07:52:34	46,20	35° 59.502' N	014° 27.335' E	OBMT an der Oberfläche
18.9.	SO277_60-1	OBE M	07:53:26	46,50	35° 59.501' N	014° 27.334' E	Hydrophon an Deck
18.9.	SO277_60-1	OBE M	08:12:21	51,00	35° 59.651' N	014° 27.095' E	OBMT # 1 an Deck

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
18.9.	SO277_60-1	OBE M	08:16:18	52,50	35° 59.652' N	014° 27.094' E	Hydrophon zu Wasser
18.9.	SO277_60-1	OBE M	08:16:48	52,20	35° 59.651' N	014° 27.094' E	OBMT # 02 ausgelöst
18.9.	SO277_60-1	OBE M	08:17:37	51,50	35° 59.651' N	014° 27.093' E	OBMT # 02 an der Oberfläche
18.9.	SO277_60-1	OBE M	08:18:11	52,00	35° 59.651' N	014° 27.093' E	Hydrophon an Deck
18.9.	SO277_60-1	OBE M	08:34:28	50,00	35° 59.821' N	014° 27.068' E	OBMT # 02 an Deck
18.9.	SO277_60-1	OBE M	08:35:30	50,20	35° 59.822' N	014° 27.072' E	Hydrophon zu Wasser
18.9.	SO277_60-1	OBE M	08:37:56	49,70	35° 59.821' N	014° 27.068' E	OBMT #03 ausgelöst
18.9.	SO277_60-1	OBE M	08:39:13	49,70	35° 59.820' N	014° 27.066' E	OBMT # 03 aufgetaucht
18.9.	SO277_60-1	OBE M	08:40:30	50,00	35° 59.819' N	014° 27.067' E	Hydrophon an Deck
18.9.	SO277_60-1	OBE M	08:55:26	51,20	36° 00.053' N	014° 26.996' E	OBMT # 03 an Deck
18.9.	SO277_60-1	OBE M	08:56:00	51,70	36° 00.052' N	014° 26.994' E	Hydrophon zu Wasser
18.9.	SO277_60-1	OBE M	08:57:03	52,20	36° 00.051' N	014° 26.992' E	OBMT #04 ausgelöst
18.9.	SO277_60-1	OBE M	08:58:13	51,70	36° 00.051' N	014° 26.992' E	OBMT #04 an der Oberfläche
18.9.	SO277_60-1	OBE M	08:59:37	52,20	36° 00.052' N	014° 26.994' E	Hydrophon an Deck
18.9.	SO277_60-1	OBE M	09:16:49	56,20	36° 00.245' N	014° 26.904' E	OBMT #04 an Deck
18.9.	SO277_60-1	OBE M	10:01:15	54,20	36° 00.533' N	014° 27.023' E	OBMT 05 ausgelöst
18.9.	SO277_60-1	OBE M	10:15:10	56,00	36° 00.633' N	014° 27.078' E	OBMT 05
18.9.	SO277_60-1	OBE M	10:40:48	57,00	36° 01.147' N	014° 25.282' E	OBMT 06 ausgelöst
18.9.	SO277_60-1	OBE M	10:51:58	58,00	36° 01.246' N	014° 25.154' E	OBMT 06
18.9.	SO277_60-1	OBE M	11:09:47	64,50	36° 01.740' N	014° 24.035' E	OBMT 07 ausgelöst
18.9.	SO277_60-1	OBE M	11:20:04	66,50	36° 01.849' N	014° 23.949' E	OBMT 07
18.9.	SO277_60-1	OBE M	11:39:25	58,50	36° 01.794' N	014° 22.603' E	OBMT 08 ausgelöst
18.9.	SO277_60-1	OBE M	11:50:26	62,20	36° 01.907' N	014° 22.491' E	OBMT 08
18.9.	SO277_60-1	OBE M	12:09:38	66,20	36° 02.428' N	014° 21.289' E	OBMT 09 ausgelöst
18.9.	SO277_60-1	OBE M	12:22:17	67,50	36° 02.565' N	014° 21.109' E	OBMT 09
18.9.	SO277_60-1	OBE M	12:43:03	81,50	36° 03.565' N	014° 19.744' E	OBMT 10 ausgelöst
18.9.	SO277_60-1	OBE M	12:52:27	85,00	36° 03.655' N	014° 19.631' E	OBMT 10
18.9.	SO277_60-1	OBE M	13:10:25	65,50	36° 03.971' N	014° 18.660' E	OBMT 11 ausgelöst
18.9.	SO277_60-1	OBE M	13:21:07	68,50	36° 04.078' N	014° 18.515' E	OBMT 11
18.9.	SO277_60-1	OBE M	13:51:35	143,70	36° 05.706' N	014° 15.178' E	OBMT 12 ausgelöst
18.9.	SO277_60-1	OBE M	14:03:47	156,23	36° 05.852' N	014° 15.088' E	OBMT 12
18.9.	SO277_60-1	OBE M	14:05:17	160,55	36° 05.909' N	014° 15.070' E	
18.9.	SO277_61-1	CTD	15:06:26	33,84	36° 00.882' N	014° 22.285' E	
18.9.	SO277_61-1	CTD	15:07:17	34,46	36° 00.881' N	014° 22.285' E	
18.9.	SO277_61-1	CTD	15:11:48	34,03	36° 00.882' N	014° 22.280' E	Posidonia SL= 10m
18.9.	SO277_61-1	CTD	15:15:36	34,25	36° 00.882' N	014° 22.275' E	Bodensicht SL= 33m
18.9.	SO277_61-1	CTD	15:16:06	33,84	36° 00.883' N	014° 22.274' E	

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
18.9.	SO277 61-1	CTD	16:13:02	34,80	36° 00.880' N	014° 22.219' E	
18.9.	SO277 61-1	CTD	16:13:17	34,13	36° 00.880' N	014° 22.219' E	
18.9.	SO277 61-1	CTD	16:18:04	34,40	36° 00.880' N	014° 22.219' E	Posidonia an Deck
18.9.	SO277 61-1	CTD	16:20:39	34,66	36° 00.879' N	014° 22.217' E	CTD an Deck
18.9.	SO277 61-1	CTD	16:25:29	34,36	36° 00.879' N	014° 22.216' E	
	SO277 62-1 wurde wegen falscher Einträge gelöscht und unter SO277 63-1 neu angelegt. Gesamtsumme der Stationen 69	EM71 0					
18.9.	SO277 63-1	EM71 0	21:37:06	108,93	36° 36.534' N	015° 19.069' E	Beginn Profil, rwK: 035°, d: 19,9nm
18.9.	SO277 63-1	EM71 0	23:31:00	2747,57	36° 52.190' N	015° 32.485' E	rwK: 356°, d: 25nm
19.9.	SO277 63-1	EM71 0	02:00:00	2253,68	37° 17.282' N	015° 30.519' E	rwK: 341°, d: 8nm
19.9.	SO277 63-1	EM71 0	02:50:40	2154,94	37° 24.885' N	015° 27.326' E	rwK = 313°, d = 4nm
19.9.	SO277 63-1	EM71 0	03:28:31	2044,01	37° 27.546' N	015° 23.715' E	rwk= 316°, d= 2nm
19.9.	SO277 63-1	EM71 0	03:46:38	1971,02	37° 28.893' N	015° 22.099' E	rwK = 310°, d = 2nm
19.9.	SO277 63-1	EM71 0	04:08:25	1807,06	37° 30.348' N	015° 19.894' E	rwK = 298°, d= 1nm
19.9.	SO277 63-1	EM71 0	04:20:02	1810,15	37° 30.943' N	015° 18.525' E	rwK = 300°, d= 3nm
19.9.	SO277 63-1	AGSS	05:10:25	0,00	37° 32.372' N	015° 15.514' E	Einmessen
19.9.	SO277 64-1	AGSS	05:13:43	0,00	37° 32.374' N	015° 15.513' E	Modem zu Wasser
19.9.	SO277 64-1	AGSS	05:21:04	0,00	37° 32.374' N	015° 15.517' E	Modem auf SLmax = 30m
19.9.	SO277 64-1	CTD	07:02:02	1192,54	37° 32.133' N	015° 15.892' E	clean ship lieg an
19.9.	SO277 65-1	CTD	07:05:10	1196,16	37° 32.127' N	015° 15.891' E	FW1/SPW1
19.9.	SO277 65-1	CTD	07:07:15	1194,31	37° 32.126' N	015° 15.895' E	Bei SL: 10m Transponder am Draht
19.9.	SO277 65-1	CTD	07:49:15	1192,32	37° 32.161' N	015° 15.878' E	Bodensicht, SL: 1196m
19.9.	SO277 65-1	CTD	07:54:12	1201,29	37° 32.181' N	015° 15.878' E	rwK: 117°, d: 0,1nm, v: 0,5kn
19.9.	SO277 65-1	CTD	08:27:58	1208,17	37° 32.111' N	015° 15.953' E	rwK: 268°, d: 0,3nm
19.9.	SO277 65-1	CTD	08:46:49	1197,46	37° 32.111' N	015° 15.835' E	Abbruch Profil
19.9.	SO277 65-1	CTD	08:48:02	1199,65	37° 32.110' N	015° 15.835' E	Beginn hieven, SZmax: 11,4kN
19.9.	SO277 65-1	CTD	09:29:56	1198,79	37° 32.113' N	015° 15.838' E	Transponder an Deck
19.9.	SO277 65-1	SEISO BR	10:06:08	814,35	37° 33.173' N	015° 14.554' E	OBS # 01 zu Wasser
19.9.	SO277 66-1	SEISO BR	10:26:03	1166,93	37° 32.928' N	015° 15.825' E	OBS 02
19.9.	SO277 66-1	SEISO BR	10:36:09	1275,52	37° 32.590' N	015° 16.334' E	OBS 03
19.9.	SO277 66-1	SEISO BR	10:49:03	1378,31	37° 31.939' N	015° 16.497' E	OBS 04
19.9.	SO277 66-1	SEISO BR	11:06:31	1145,15	37° 32.140' N	015° 15.339' E	OBS 05
19.9.	SO277 66-1	SEISO BR	11:20:21	913,98	37° 32.426' N	015° 14.438' E	OBS 06
19.9.	SO277 67-1	CTD	14:23:59	1967,68	37° 25.778' N	015° 26.670' E	Posidonia SL = 10m
19.9.	SO277 67-1	CTD	15:20:09	1964,50	37° 25.786' N	015° 26.670' E	Bodensicht, SL = 1972m
19.9.	SO277 67-1	CTD	15:21:27	1959,97	37° 25.786' N	015° 26.670' E	rwK = 272°, d= 0,7nm
19.9.	SO277 67-1	CTD	17:14:45	2109,89	37° 25.819' N	015° 25.703' E	SLmax = 2123m
19.9.	SO277 67-1	CTD	18:33:53	2110,31	37° 25.818' N	015° 25.704' E	Transponder an Deck

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
19.9.	SO277 67-1	CTD	18:37:40	2111,00	37° 25.820' N	015° 25.702' E	CTD an Deck
19.9.	SO277 67-1	MB	19:20:45	2144,66	37° 24.098' N	015° 25.426' E	Beginn Profil, rwK: 044°, d: 13nm, v: 6kn
19.9.	SO277 68-1	MB	21:29:13	2008,59	37° 33.479' N	015° 36.856' E	rwK: 134°, d: 1nm
19.9.	SO277 68-1	MB	21:39:52	2129,25	37° 33.024' N	015° 37.821' E	rwK: 224°, d: 13,2nm
19.9.	SO277 68-1	MB	23:49:51	2160,63	37° 23.462' N	015° 26.560' E	rwK: 134°, d: 1nm
20.9.	SO277 68-1	MB	00:01:47	2166,36	37° 22.702' N	015° 27.308' E	rwK: 041°, d: 2nm
20.9.	SO277 68-1	MB	00:21:32	2182,59	37° 23.893' N	015° 28.813' E	rwK: 312°, d: 8nm
20.9.	SO277 68-1	MB	01:39:09	1941,01	37° 29.084' N	015° 21.790' E	rwK: 307°, d: 3nm
20.9.	SO277 68-1	MB	02:09:03	1823,00	37° 30.868' N	015° 18.772' E	rwK = 263°, d=2nm
20.9.	SO277 68-1	MB	02:27:55	1427,45	37° 30.657' N	015° 16.265' E	rwK = 013°,d=1nm
20.9.	SO277 68-1	MB	02:39:26	1490,63	37° 31.615' N	015° 16.346' E	rwK = 256°, d= 1nm
20.9.	SO277 68-1	MB	02:47:52	1387,71	37° 31.592' N	015° 15.388' E	rwK = 114°, d= 1nm
20.9.	SO277 68-1	MB	02:57:06	1492,46	37° 31.134' N	015° 16.031' E	rwK = 076°, d= 1nm
20.9.	SO277 68-1	MB	03:07:05	1652,71	37° 31.365' N	015° 17.330' E	rwK= 095°, d= 2nm
20.9.	SO277 68-1	MB	03:27:18	1824,32	37° 31.205' N	015° 20.049' E	rwK = 281°, d = 3nm
20.9.	SO277 68-1	MB	03:57:34	1444,97	37° 31.999' N	015° 16.932' E	rwK = 294°,d= 2nm
20.9.	SO277 68-1	MB	04:13:09	891,81	37° 32.683' N	015° 14.976' E	rwK = 285°, d 2nm
20.9.	SO277 68-1	MB	04:29:58	430,17	37° 33.281' N	015° 12.749' E	rwK = 302°, d= 1nm
20.9.	SO277 68-1	MB	04:53:40	433,71	37° 32.910' N	015° 12.601' E	rwK = 104°, d = 3nm
20.9.	SO277 68-1	MB	05:10:05	915,06	37° 32.531' N	015° 14.746' E	rwK = 114°, d = 2nm
20.9.	SO277 68-1	MB	05:34:13	1445,78	37° 31.551' N	015° 15.961' E	rwK = 002°, d = 2nm
20.9.	SO277 68-1	CTD	12:05:03	1577,05	38° 41.529' N	015° 16.335' E	clean ship
20.9.	SO277 69-1	CTD	13:10:35	1577,07	38° 41.529' N	015° 16.333' E	BOSI, SL: 1575m
20.9.	SO277 69-1	CTD	13:12:24	1578,36	38° 41.529' N	015° 16.333' E	SLmax: 1577m
20.9.	SO277 69-1	CTD	13:13:42	1576,87	38° 41.530' N	015° 16.334' E	Beginn Hieven
20.9.	SO277 69-1	MB	15:26:08	363,51	38° 47.673' N	015° 10.698' E	rwK = 048°,d = 2nm
20.9.	SO277 70-1	MB	15:42:53	340,57	38° 49.096' N	015° 12.764' E	rwK = 070°, d= 2nm
20.9.	SO277 70-1	MB	15:50:28	174,17	38° 49.434' N	015° 13.947' E	rwK = 248°, d= 2nm
20.9.	SO277 70-1	MB	16:00:02	123,79	38° 49.450' N	015° 14.320' E	rwK = 219°, d= 1nm
20.9.	SO277 70-1	MB	16:18:42	358,91	38° 48.232' N	015° 11.612' E	rwK = 237°, d= 1nm
20.9.	SO277 70-1	MB	16:25:18	359,28	38° 47.714' N	015° 10.722' E	rwK = 053°, d= 2nm
20.9.	SO277 70-1	MB	16:43:53	460,69	38° 49.191' N	015° 12.595' E	rwK = 070°, d= 1nm
20.9.	SO277 70-1	MB	16:56:29	351,75	38° 50.004' N	015° 14.328' E	rwK = 236°,d = 4nm
20.9.	SO277 70-1	MB	17:29:27	904,85	38° 47.905' N	015° 09.874' E	Unterbrechung Profil
20.9.	SO277 70-1	MB	18:55:05	2916,99	38° 52.480' N	014° 50.688' E	Fortsetzung Profil, rwK: 100°, d: 6,6nm, v: 6kn ü. G.
20.9.	SO277 70-1	MB	20:01:24	2267,15	38° 51.370' N	014° 59.008' E	rwK: 054°, d: 16nm
20.9.	SO277 70-1	MB	22:42:43	2488,38	39° 00.714' N	015° 15.687' E	rwK: 234°, d: 16nm
21.9.	SO277 70-1	MB	01:34:15	2226,12	38° 50.462' N	015° 00.161' E	rwK: 054°, d: 17nm
21.9.	SO277 70-1	MB	04:26:42	2334,57	38° 59.369' N	015° 18.232' E	rwk= 234°, d =14nm
21.9.	SO277 70-1	MB	06:45:33	2207,83	38° 50.615' N	015° 05.000' E	rwK: 146°, d: 1nm
21.9.	SO277 70-1	MB	06:53:24	2134,49	38° 49.902' N	015° 05.388' E	rwK: 054°, d: 8,7nm, v: 8kn ü. G.
21.9.	SO277 70-1	MB	07:57:59	2415,97	38° 54.753' N	015° 14.362' E	rwK: 174°, d: 1nm
21.9.	SO277 70-1	MB	08:06:25	2345,21	38° 54.085' N	015° 14.737' E	rwK: 234°, d: 7,1nm
21.9.	SO277 70-1	MB	09:00:29	1827,54	38° 49.781' N	015° 07.548' E	rwK: 132°, d: 0,5nm

Date	Station	Gear	Time	Depth	Latitude	Longitude	Remarks
2020	SONNE		UTC	[m]	[°N]	[°E]	
21.9.	SO277_70-1	MB	09:05:50	1778,89	38° 49.371' N	015° 07.687' E	rwK: 056°, d: 5,4nm
21.9.	SO277_70-1	MB	09:46:26	1940,12	38° 52.223' N	015° 13.417' E	rwK: 162°, d: 0,6nm
21.9.	SO277_70-1	MB	09:52:11	1701,69	38° 51.934' N	015° 13.872' E	rwK: 236°, d: 5,1nm
21.9.	SO277_70-1	MB	10:32:50	1530,23	38° 48.946' N	015° 08.565' E	rwK: 055°, d: 5nm
21.9.	SO277_70-1	MB	11:14:50	1302,99	38° 51.209' N	015° 14.057' E	rwK: 236°, d: 4nm
21.9.	SO277_70-1	MB	11:56:00	1054,93	38° 48.138' N	015° 09.575' E	Profilwechsel, rwK: 176°, d: 8nm
21.9.	SO277_70-1	MB	12:39:04	902,51	38° 41.487' N	015° 10.252' E	Beginn Panarea Profil, rwK: 253°, d: 7nm
21.9.	SO277_70-1	MB	13:30:47	677,34	38° 39.539' N	015° 01.811' E	rwK: 073°, d: 7nm
21.9.	SO277_70-1	MB	14:38:58	1196,22	38° 42.447' N	015° 10.213' E	Profilende Panarea
21.9.	SO277_70-1	MB	15:13:43	1253,06	38° 48.189' N	015° 09.107' E	rwK = 56°, d= 5nm