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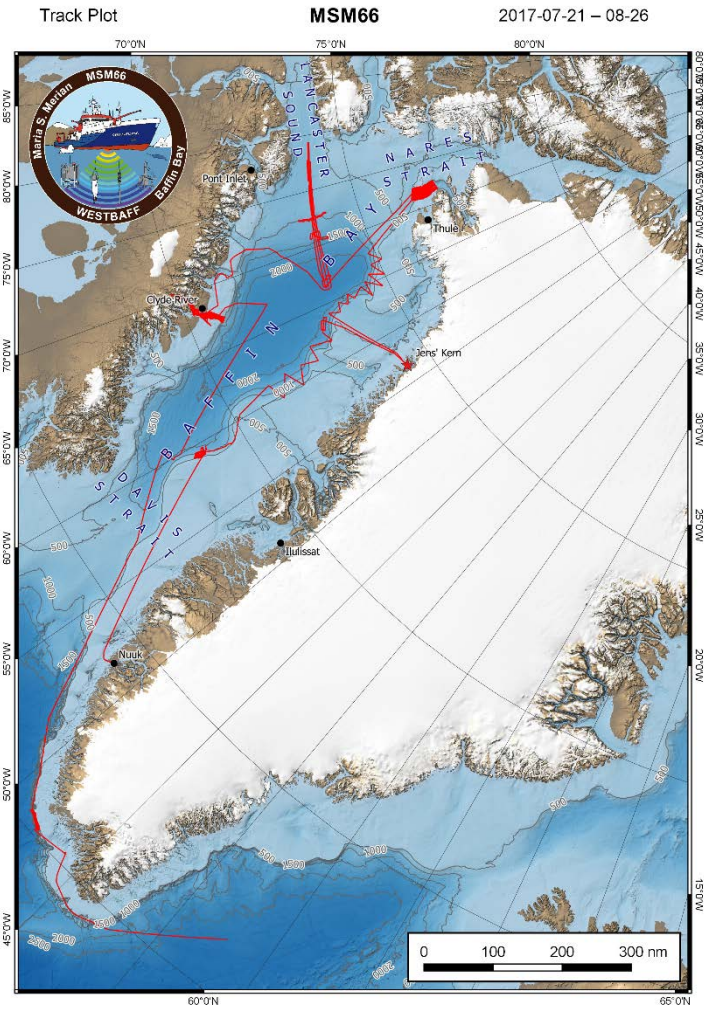
Cruise Summary Report
MARIA S. MERIAN – MSM66

Nuuk - Reykjavik
22.07.2017 – 28.08.2017
Chief Scientist: Boris Dorschel
Captain: Ralf Schmidt



Objectives

The objectives were to systematically search for and map glaciogenic seafloor features providing information on the maximum extend and retreat histories of ice sheets during the last glacial and Holocene. We particularly searched for grounding lines of ice shelves, terminal moraines, mega-scale glacial lineations and drumlins in glacier-troughs, shelf-troughs, fjords and on inter-trough banks. An additional objective was to study the potential of planktonic foraminifera to serve as proxies for past ocean circulation in north Baffin Bay, their behaviour under the unique oceanographic conditions in Baffin Bay and their pattern of calcite delivery to the sea floor.

Narrative of the Cruise

Expedition MSM66 was proposed to conduct research in the northern and western Baffin Bay on the Lancaster Sound trough mouth fan (LSTMF) and on the shelf of Baffin Island. For Canadian water in Baffin Bay navigation restriction limited the access to certain areas depending on the ice class of the vessel. RV Maria S. Merian was only allowed to enter the area east of Baffin Island after the 10th of August. Therefore, before this date, research in the northern Baffin Bay was conducted.

The scientific party of the expedition MSM66 arrived in Nuuk and signed in on RV Maria S. Merian on Friday the 21st of July in the afternoon. The remaining time of the 21st was used to unload the containers, assemble the sampling equipment, check the hydroacoustic systems on board and to set up the laboratories. After some final preparation, RV Maria S. Merian left Nuuk on the 22nd of July at 11:15 UTC (09:15 ship time) to commence expedition MSM66 – WESTBAFF to the north Baffin Bay. Soon after leaving Nuuk, the collection of hydroacoustic data commenced. This continued, except for the time of station work for the entire expedition until entering Icelandic water on the transit to Reykjavik.

After a short transit, RV Maria S. Merian arrived in the first of seven working areas (working area 1) on the 23rd of July at 14:30 UTC. It was a site on the lower continental slope between 1100 m and 700 m water depth, where elongated ridges and depression occur at the seafloor.

On 26th of July at 16:15 UTC, the transit was interrupted for a CTD cast and a short pre-site survey for an IODP proposal submitted by GEUS (working area 2). The pre-site survey was completed on the 27th of July at 02:30 UTC. Following this survey, a Geo-station from MSM44 in 2015 was revisited and resampled between 17.00 UTC and 20:00 UTC on the 27th of July. After a CTD cast, a gravity core was successfully recovered. Then, the transit to the north Baffin Bay was resumed.

We arrive in working area 3 in the southern Nares Strait on the 30th of July at 01:00 UTC. Target was a glacial trough that enters into northern Baffin Bay. At the last geo-station also plankton was sampled with the MutiNet. On the 3rd of August at 09:45 UTC, the sampling in working area 3 was completed and we commenced the transit to our next working area on the Lancaster Sound trough mouth fan.

We arrived on the LSTMF (working area 4) on the 4th of August at 03:30 UTC and started a survey to collect bathymetry and sediment echosounder data. The survey followed a profile from the Baffin Bay basin to the Lancaster Sound finishing in front of the Canadian territorial waters. Two initial profiles offset by the width of the swath of the multibeam echosounder were performed as reconnaissance survey. Based on the bathymetric and sediment echosounder data five geo-stations were selected at the deep and the shallow end of the profile and below and above steps in the morphology of the Lancaster Sound trough mouth fan for coring. In addition, plankton was sampled with the MultiNet at both ends of the survey. Work on the LSTMF finished on the 10th of August at 04:30 UTC. At this time, we were allowed to enter navigation zone 9 east of Baffin Island according to navigation restriction in Canadian waters.

Due to the ice situation the work in the eastern Baffin Bay was limited to the area of north Baffin Island. As a consequence, the activities were focused on the Clyde River area, where existing shallow seismic data indicated the presence of glacial landforms including grounding zone wedges. On the transit to Clyde River, on 11th of August between 00:30 UTC and 02:30 UTC, we crossed a site in front of Scott inlet where natural oil seeps had been reported. However,

neither the sediment echosounder dater, nor the bathymetry or water column data showed any indication of the seeps.

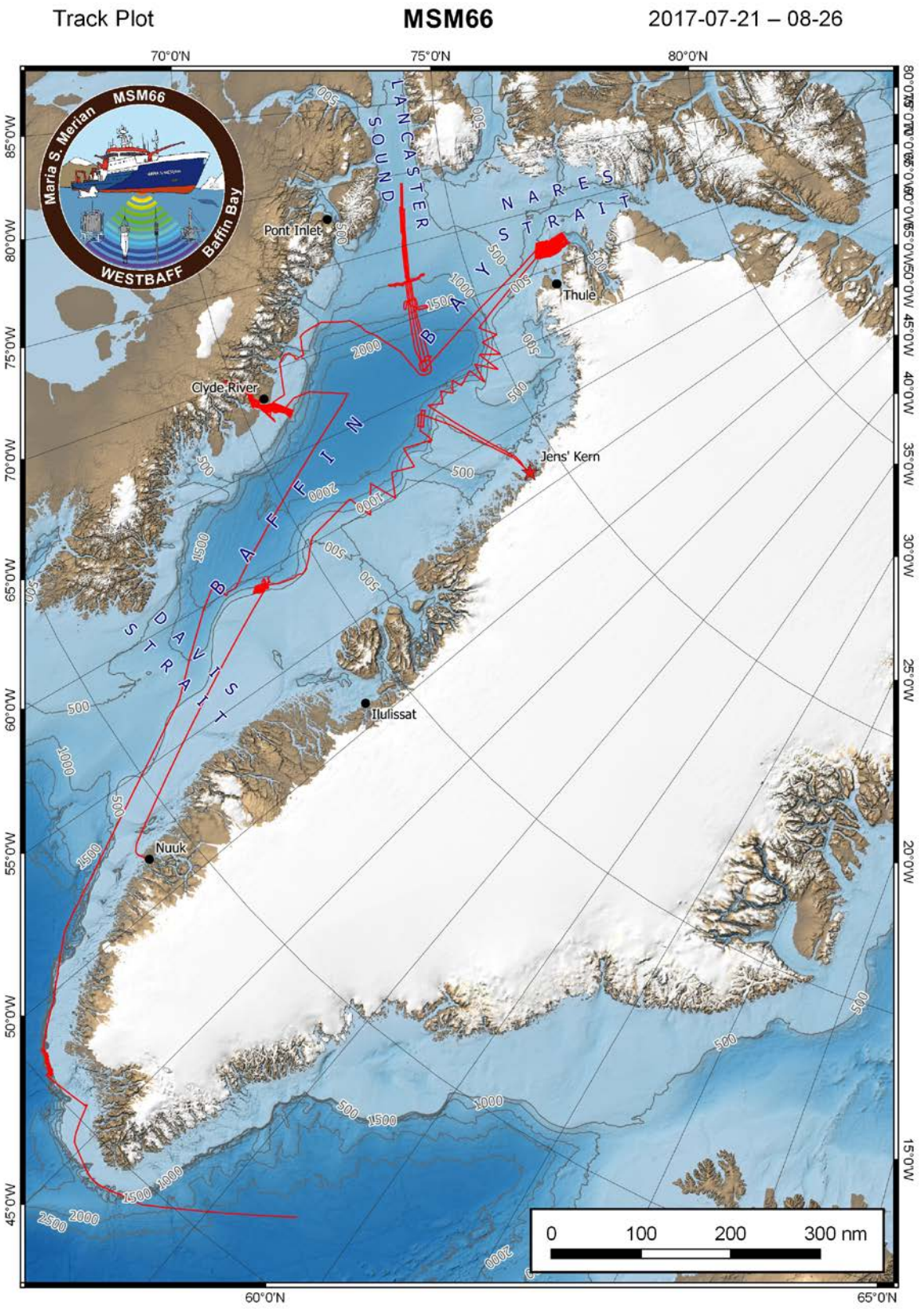
On the 11th of August at 12:00 UTC we arrived in the Clyde River area (working area 5). Clyde River is an Inuit community, a hamlet. In addition to research permits provided by Canada and Nunavutm, working in the vicinity of a hamlet requires the approval of the local hamlet office. Therefore, the administration from Clyde River was contacted prior to arrival to arrange for a meeting. This meeting took place on board the RV Maria S. Merian on the 15th of August at 13:00 UTC. In the time between arrival in the working area and the meeting, a mapping survey was conducted in Clyde trough and inlet. Following the meeting, the mapping was extended to Clyde fjord. Mapping of the fjord started on the 15th of August at 22:00 UTC. Work in the working area 5 was completed on the 19th of August at 09:30 and we commenced our transit to our next working area offshore southwest Greenland.

During the transit, a transect for plankton was sampled with the MultiNet at 72°N, 70°N and 69°N. Furthermore, sea ice was collected for plankton analyses. In the Davis Strait and the north Labrador Sea, a transect of six CTD casts were performed.

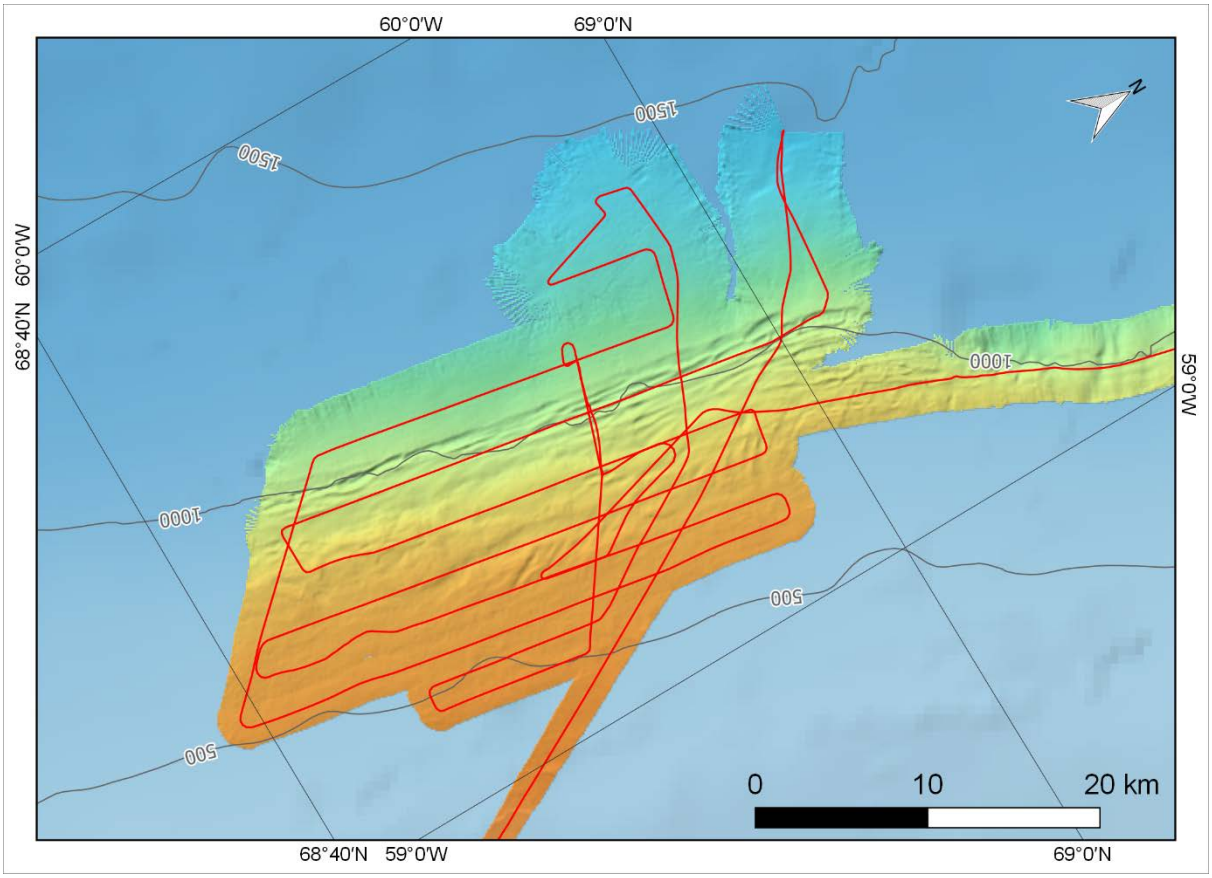
On arrival in the working area 6 offshore southwest Greenland on the 22nd of August at 05:00 UTC, a hydroacoustic survey commenced. Based on the bathymetric data, four sites were selected for subsequent sampling. Targeted were small mound features located on the upper flanks of a canyon. Grab samples and gravity cores from the sites only produced stones with small coral and bryozoan fragments and sponges. Coral-bearing sediments were not encountered. To find additional coring targets, an additional bathymetry survey was done from 23rd of August at 20:30 UTC until 11:30 UTC the following day. Based on the data 3 more coring sites with mounds of different shape and in different water depths were selected. Also at these sites, only gravel and rocks were recovered. Coring was stopped on the 24th of August at 15:30 UTC and we commenced out transit to the last working area closed to Kap Farvel, the southernmost tip of Greenland.

In last working area, we mapped a wreck in ca 150 m water depth. The wreck is expected to be the Terra Nova. On arrival we performed a CTD cast for water column velocities to calibrate the multibeam echosounder data. Than the wreck site was crossed varies times at varies angles to fully cover the wreck without acoustic shadows. The survey at the Terra Nova site lasted from the 25th of August 02:00 UTC until 07:00 UTC the same day. Once this survey was completed, we commenced our transit to Reykjavik where we arrived according to schedule on the 28th of August at 09:00 UTC.

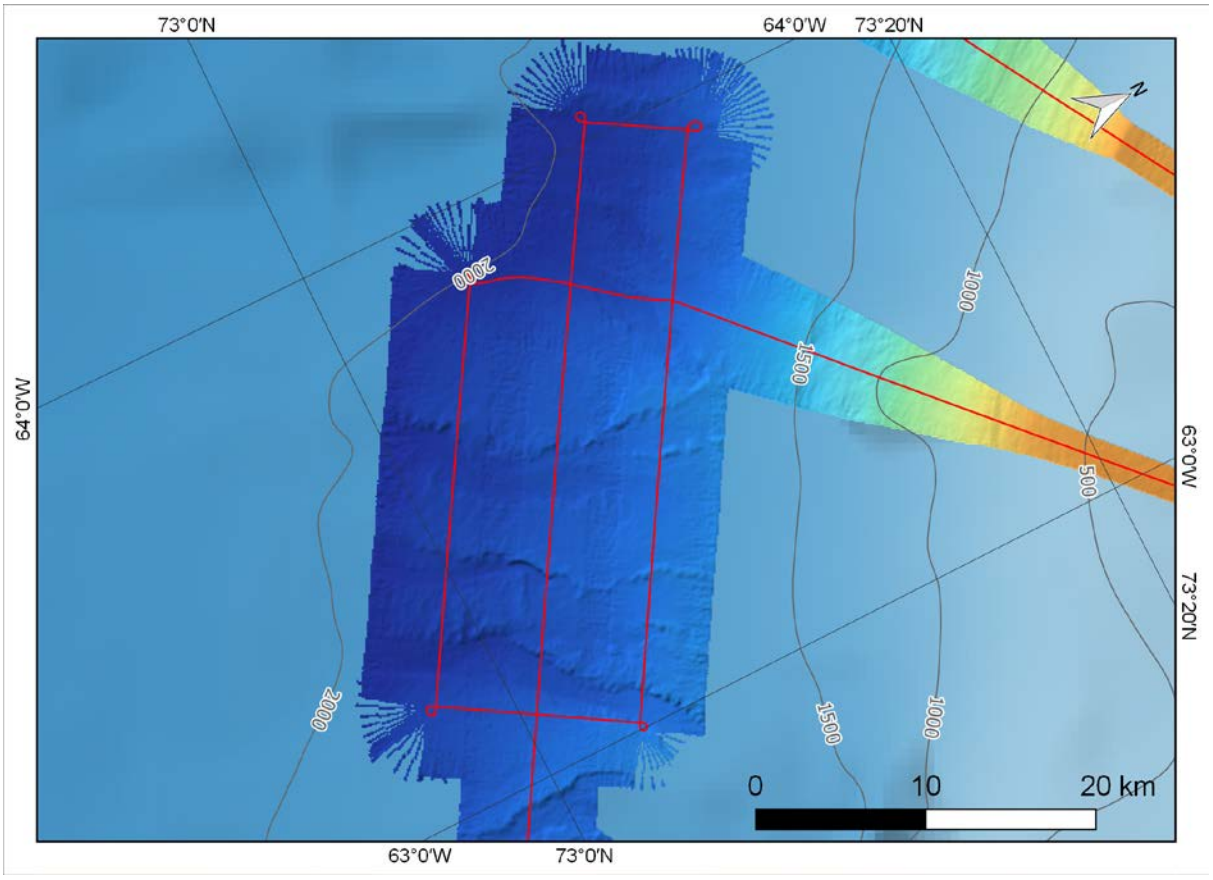
During most of the cruise the weather conditions were excellent with hardly any wind or swell. Only during the southward transit, winds picked up. This, however, did not affect the scientific work during the expedition. Furthermore, navigation restrictions in Canadian waters and the sea ice conditions required significant adjustments to the initially planned work programme. Because of navigation restrictions, we were only able to enter the area east of Baffin Island after the 10th of August and because of sea ice conditions, scientific activities were focused in one area of Baffin Island.



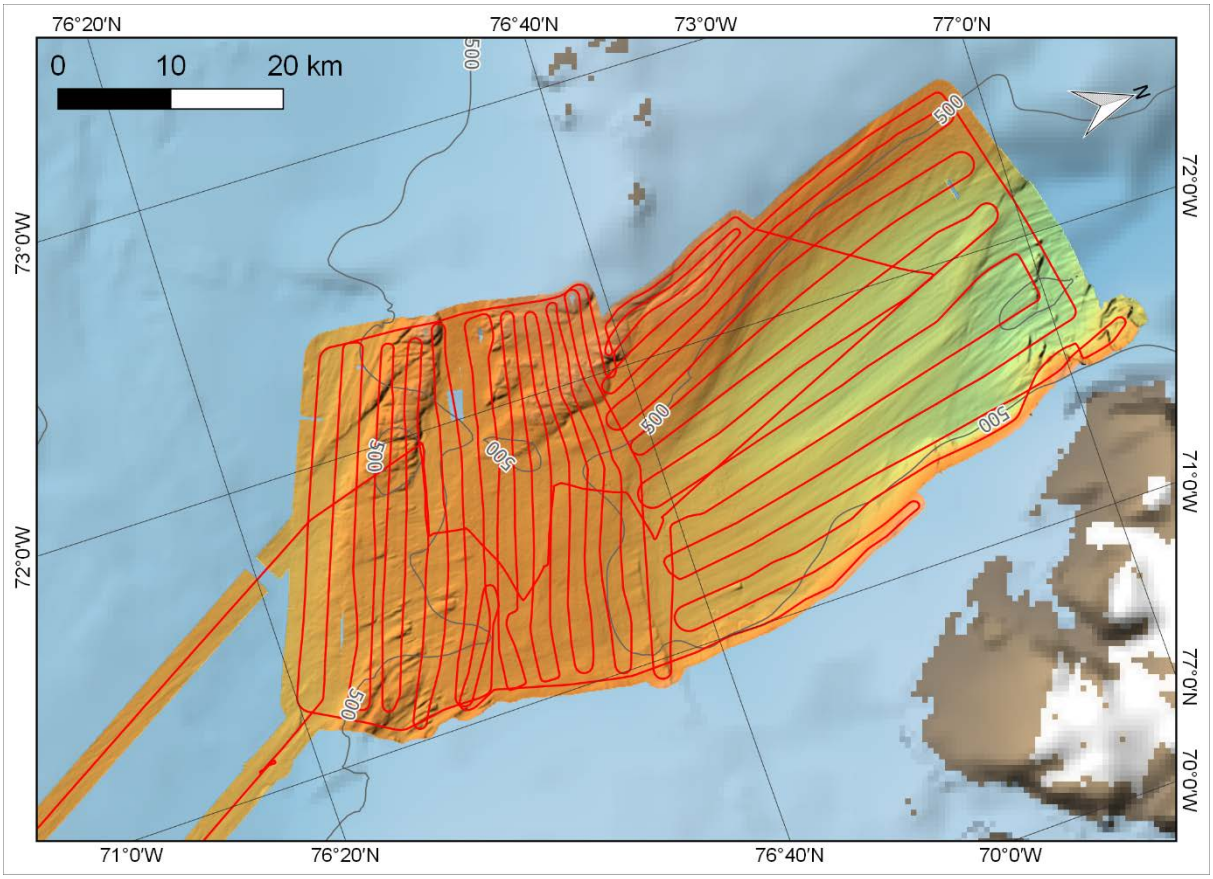
Track chart and study areas of RV Maria S. Merian Cruise MSM66 - WESTBAFF. Map compile and created by S. Dreutter, AWI. Background bathymetry from the International Bathymetric Chart of the Arctic Ocean IBCAO (Jakobsson et al., 2012).



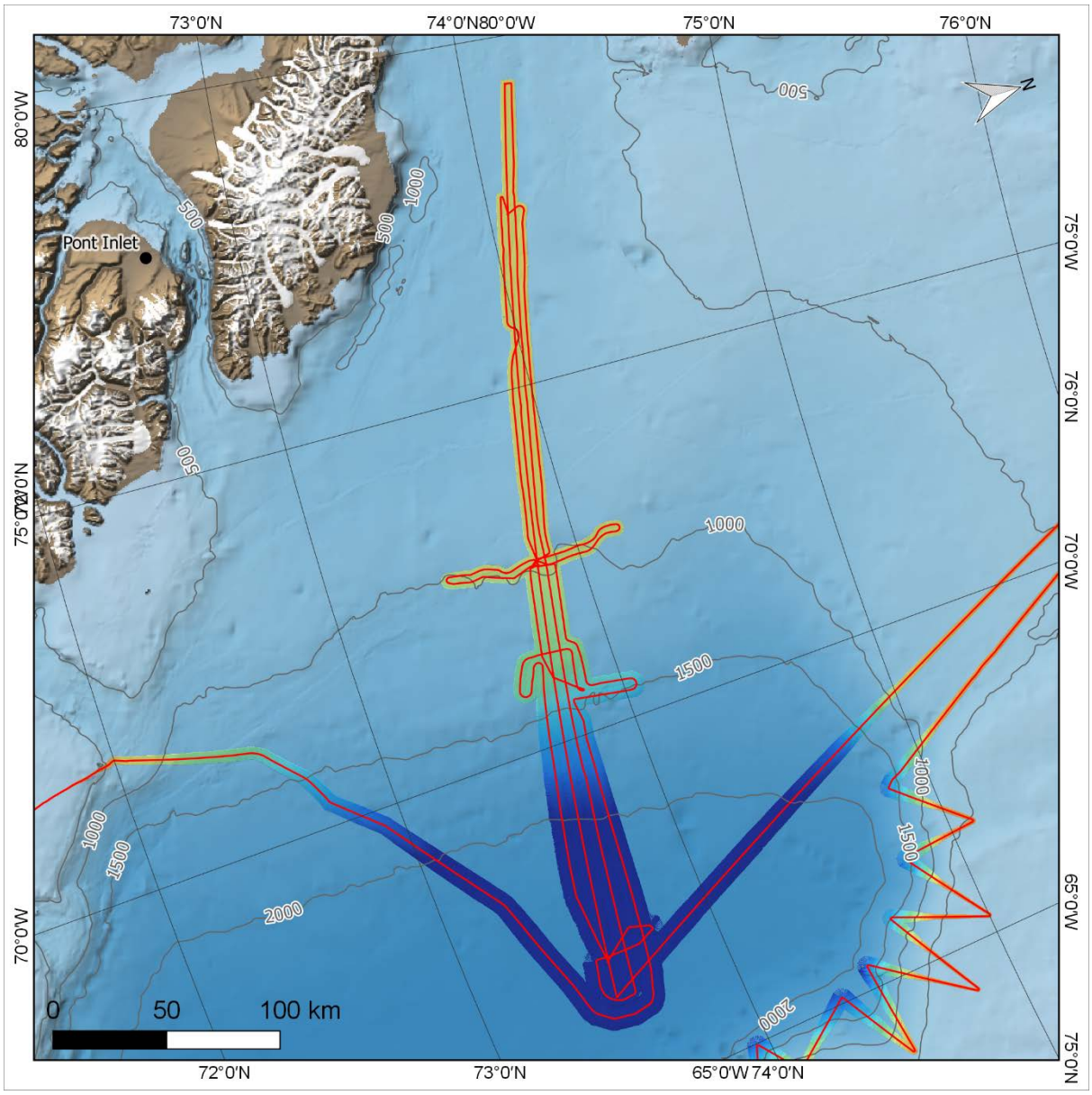
Survey area 1



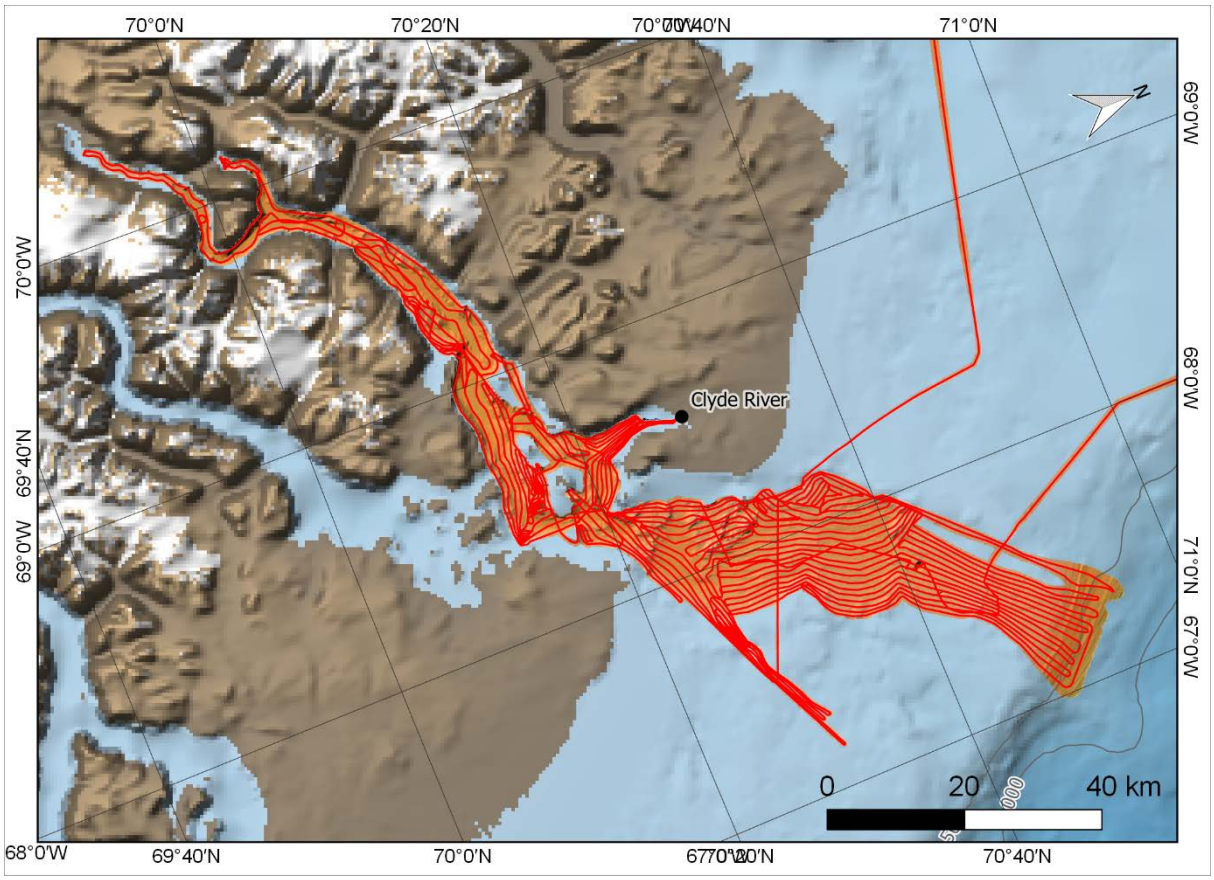
Survey area 2



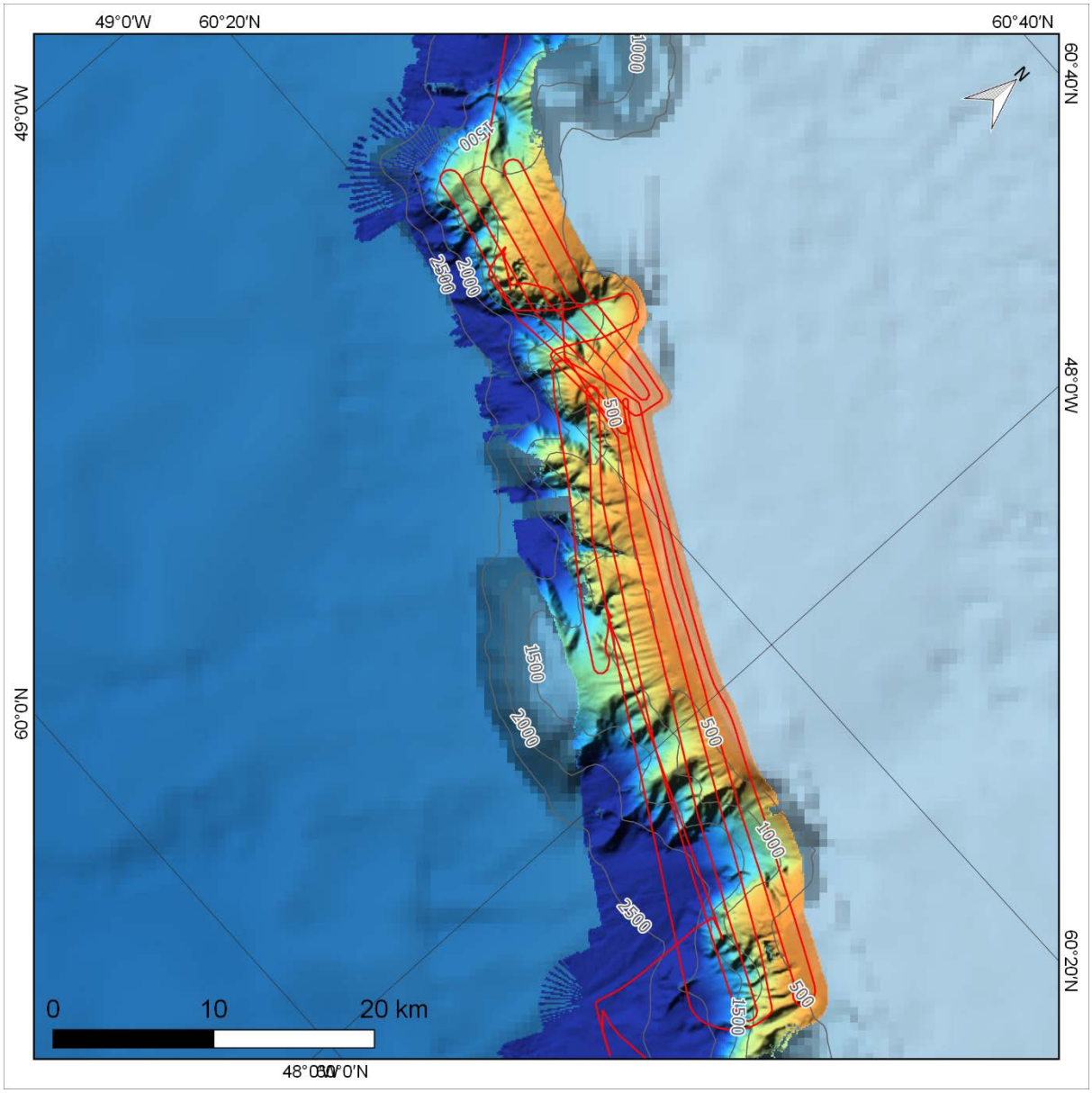
Survey area 3



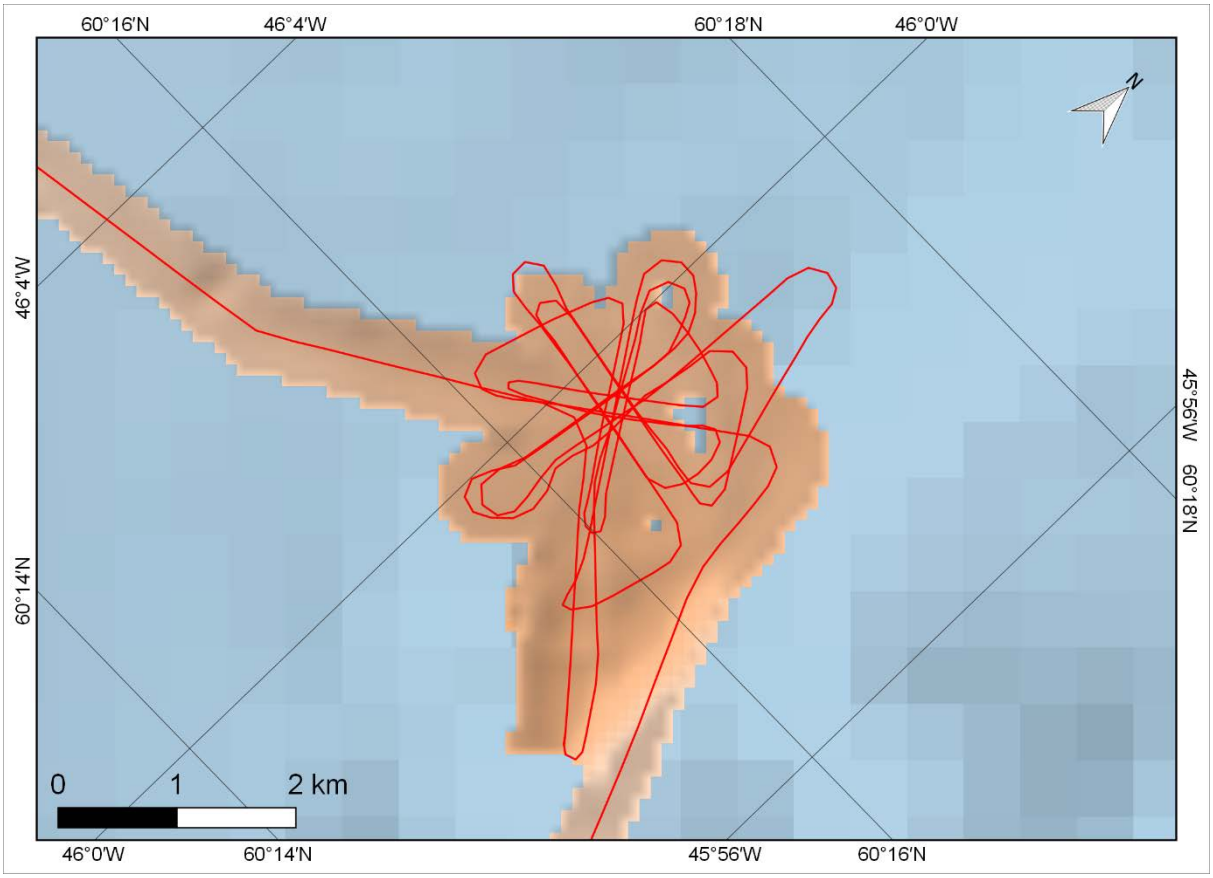
Survey area 4



Survey area 5



Survey area 6



Survey area 7

Acknowledgements

The Scientific Shipboard Party during expedition MSM66 is very grateful to Captain Ralf Schmidt and his officers and crew for the excellent cooperation, the very professional and efficient technical assistance and the very good working atmosphere on board R/V MARIA S. MERIAN. They all contributed substantially to the overall scientific success of this cruise. Also acknowledged are the Geological Survey of Canada (GSC), the Geological Survey of Denmark and Greenland (GEUS), and the ArcticNet programme for providing data and information for cruise planning. Finally we thank the German Science Foundation (DFG) for providing ship time on R/V MARIA S. MERIAN to investigate the late Glacial and Holocene development of the palaeo-ice sheets of the north Baffin Bay and the palaoceanography of the north Baffin Bay.

Participants

Name	Discipline	Institution
Boris Dorschel	Chief scientist	AWI
Estelle Allan	Palaeoce/Sediment	UQAM
Martin Bartels	Palaeoce/Sediment	MARUM
Calvin Campbell	Palaeoce/Sediment	GSC
Pierre-Olivier Couette	Hydroacoustic	ULaval
Volker Diekamp	Palaeoce/Sediment	MARUM
Simon Dreutter	Hydroacoustic	AWI
Quentin Duboc	Palaeoce/Sediment	UQAR
Jonah Geils	Hydroacoustic	AWI
Mattia Greco	Plankton	MARUM
Kai-Frederik Lenz	Hydroacoustic	AWI
Birgit Lübben	Plankton	MARUM
Mona Lütjens	Hydroacoustic	AWI
Lina Madaj	Palaeoce/Sediment	MARUM
Lara Perez	CTD	GEUS
Beatriz Recinos	Palaeoce/Sediment	MARUM
Jeetendra Saini	Palaeoce/Sediment	AWI
Tobias Schade	Palaeoce/Sediment	MARUM
Friederike Täuber	Hydroacoustic	AWI
Laerke-Corinn Ulner	Palaeoce/Sediment	GEO AU
Fynn Warnke	Hydroacoustic	AWI
Jens Weiser	Palaeoce/Sediment/CTD	MARUM

AWI	Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung
GEO AU	Institute for Geoscience Aarhus University
GEUS	Geological Survey of Denmark and Greenland
GSC	Geological Survey of Canada
MARUM	Zentrum für Marine Umweltwissenschaften, Universität Bremen
ULava	Université Laval in Québec City
UQAM	Université du Québec à Montréal
UQAR	Université du Québec à Rimouski

2 Station List MSM66

Station No. MSM66/	GeoB		Gear	Date in 2017	Time (UTC)	Latitude (°N)	Longitude (°W)	Depth (m)	Recovery (cm)	Comment
01-1	22301	-1	MB+PS	22.07.	11:55	64° 08,688' N	051° 47,402' W	113		profile start
01-1	22301	-1	MB+PS	23.07.	15:52	69° 03,220' N	059° 36,214' W	1479		profile end
02-1	22302	-1	CTD/RO	23.07.	16:36	69° 03,381' N	059° 36,710' W	1482		
03-1	22303	-1	MB+PS	23.07.	17:15	69° 03,298' N	059° 36,446' W	1475		profile start
03-1	22303	-1	MB+PS	24.07.	10:17	68° 54,178' N	059° 28,624' W	490		profile end
04-3	22304	-3	GC 12	24.07.	12:49	68° 54,170' N	059° 28,593' W	1145	1144	
05-2	22305	-2	BC	24.07.	18:16	68° 53,775' N	059° 24,650' W	0	52	
06-1	22306	-1	GC 12	24.07.	20:49	68° 53,051' N	059° 18,924' W	809	449	
07-1	22307	-1	MB+PS	24.07.	23:08	68° 53,070' N	059° 18,944' W	811		profile start
07-1	22307	-1	MB+PS	26.07.	16:23	72° 58,107' N	062° 53,217' W	1832		profile end
08-2	22308	-2	MN	26.07.	17:52	72° 58,109' N	062° 53,218' W	1840		
09-1	22309	-1	MB+PS	26.07.	18:20	72° 58,334' N	062° 54,519' W	1844		profile start
09-1	22309	-1	MB+PS	27.07.	02:06	73° 10,109' N	063° 40,235' W	1844		profile end
10-1	22310	-1	MB+PS	27.07.	02:06	73° 10,125' N	063° 40,201' W	1843		profile start
10-1	22310	-1	MB+PS	27.07.	17:17	74° 23,514' N	056° 35,682' W	640		profile end
11-1	22311	-1	CTD/RO	27.07.	17:42	74° 23,511' N	056° 35,671' W	641		
11-2	22311	-2	GC 18	27.07.	18:36	74° 23,524' N	056° 35,535' W	644	1312	
12-1	22312	-1	MB+PS	27.07.	19:50	74° 23,534' N	056° 36,639' W	642		profile start
12-1	22312	-1	MB+PS	30.07.	01:08	76° 17,666' N	071° 05,449' W	661		profile end
13-1	22313	-1	CTD/RO	30.07.	01:42	76° 17,631' N	071° 05,355' W	661		
13-2	22313	-2	MN	30.07.	02:09	76° 17,631' N	071° 05,358' W	662		
14-1	22314	-1	MB+PS	30.07.	02:51	76° 17,300' N	071° 04,644' W	657		profile start
14-1	22314	-1	MB+PS	02.08.	08:37	76° 54,344' N	072° 00,197' W	875		profile end
15-1	22315	-1	CTD/RO	02.08.	09:34	76° 55,117' N	071° 57,695' W	897		
15-2	22315	-2	GC 12	02.08.	10:29	76° 55,111' N	071° 57,677' W	908	758	
15-3	22315	-3	BC	02.08.	11:28	76° 55,101' N	071° 57,647' W	907	44	
15-4	22315	-4	GC 12	02.08.	12:25	76° 55,093' N	071° 57,618' W	907	753	
16-1	22316	-1	BC	02.08.	15:17	76° 39,296' N	071° 27,813' W	638	42	
16-2	22316	-2	GC 12	02.08.	16:12	76° 39,294' N	071° 27,755' W	638	351	core bent
16-3	22316	-3	GC 6	02.08.	18:14	76° 39,293' N	071° 27,703' W	637	303	
17-1	22317	-1	BC	02.08.	20:03	76° 34,865' N	071° 40,895' W	509	31	
17-2	22317	-2	GC 6	02.08.	20:44	76° 34,853' N	071° 40,850' W	507	292	
18-1	22318	-1	BC	02.08.	22:12	76° 33,206' N	071° 25,816' W	439	37	
18-2	22318	-2	GC 6	02.08.	22:52	76° 33,194' N	071° 25,803' W	440	93	core bent
19-1	22319	-1	BC	03.08.	00:10	76° 31,756' N	071° 20,684' W	489	23	
20-1	22320	-1	BC	03.08.	01:45	76° 30,176' N	071° 38,228' W	468	17	
21-1	22321	-1	BC	03.08.	03:03	76° 28,486' N	071° 39,216' W	518	27	
21-2	22321	-2	GC 3	03.08.	04:13	76° 28,477' N	071° 39,255' W	517	48	
22-1	22322	-1	BC	03.08.	05:59	76° 29,435' N	071° 57,623' W	550		no recovery
23-1	22323	-1	GC 3	03.08.	07:36	76° 23,289' N	071° 49,769' W	652	300	
23-2	22323	-2	CTD/RO	03.08.	08:51	76° 23,183' N	071° 49,647' W	653		
23-3	22323	-3	MN	03.08.	09:18	76° 23,183' N	071° 49,648' W	651		
24-1	22324	-1	MB+PS	03.08.	09:42	76° 22,925' N	071° 48,957' W	653		profile start
24-1	22324	-1	MB+PS	04.08.	05:07	73° 31,251' N	066° 24,811' W	2354		profile end
25-1	22325	-1	CTD/RO	04.08.	05:54	73° 31,268' N	066° 24,715' W	2356		
26-1	22326	-1	MB+PS	04.08.	06:44	73° 31,334' N	066° 26,099' W	2353		profile start
26-1	22326	-1	MB+PS	05.08.	04:44	74° 10,003' N	079° 18,428' W	804		profile end
27-1	22327	-1	CTD/RO	05.08.	05:10	74° 09,967' N	079° 18,445' W	803		
27-2	22327	-2	MN	05.08.	05:39	74° 09,967' N	079° 18,447' W	803		
28-1	22328	-1	MB+PS	05.08.	06:11	74° 11,494' N	079° 17,916' W	804		profile start
28-1	22328	-1	MB+PS	06.08.	08:52	73° 32,881' N	066° 55,816' W	2358		profile end
29-1	22329	-1	CTD/RO	06.08.	09:48	73° 32,700' N	066° 54,629' W	2355		
29-2	22329	-2	MN	06.08.	10:54	73° 32,700' N	066° 54,630' W	2356		
29-3	22329	-3	BC	06.08.	12:04	73° 32,704' N	066° 54,607' W	2350	49	
29-4	22329	-4	GC 12	06.08.	13:51	73° 32,644' N	066° 54,581' W	2347	511	
29-5	22329	-5	GC 12	06.08.	15:49	73° 32,592' N	066° 54,570' W	2349	330	
30-1	22330	-1	MB+PS	06.08.	17:01	73° 32,658' N	066° 59,715' W	2348		profile start
30-1	22330	-1	MB+PS	07.08.	06:05	73° 50,654' N	070° 37,243' W	1369		profile end
31-1	22331	-1	CTD/RO	07.08.	07:26	73° 44,869' N	070° 55,388' W	1215		
31-2	22331	-2	BC	07.08.	08:34	73° 44,878' N	070° 55,411' W	1215	48	
31-3	22331	-3	GC 12	07.08.	09:44	73° 44,889' N	070° 55,416' W	1216	380	
32-1	22332	-1	MB+PS	07.08.	10:25	73° 44,832' N	070° 56,149' W	1210		profile start
32-1	22332	-1	MB+PS	07.08.	13:28	73° 49,571' N	072° 28,645' W	951		profile end
33-1	22333	-1	CTD/RO	07.08.	13:54	73° 49,558' N	072° 28,641' W	951		
33-2	22333	-2	MN	07.08.	14:27	73° 49,550' N	072° 28,676' W	949		

Station No. MSM66/	GeoB		Gear	Date in 2017	Time (UTC)	Latitude (°N)	Longitude (°W)	Depth (m)	Recovery (cm)	Comment
33-3	22333	-3	BC	07.08.	15:18	73° 49,565' N	072° 28,713' W	949	28	
33-4	22333	-4	GC 12	07.08.	16:18	73° 49,578' N	072° 28,724' W	949	485	
34-1	22334	-1	BC	07.08.	17:54	73° 49,850' N	072° 34,228' W	894	44	
34-2	22334	-2	GC 12	07.08.	18:47	73° 49,864' N	072° 34,215' W	894	0	core bent
34-3	22334	-3	GC 6	07.08.	19:53	73° 49,877' N	072° 34,201' W	892	340	
34-4	22334	-4	GC 6	07.08.	21:27	73° 49,864' N	072° 34,287' W	893	0	no recovery
34-5	22334	-5	GC 12	07.08.	22:20	73° 49,864' N	072° 34,288' W	893	688	
35-1	22335	-1	MB+PS	07.08.	22:25	73° 49,863' N	072° 34,288' W	892		profile start
35-1	22335	-1	MB+PS	08.08.	09:20	74° 03,917' N	077° 42,970' W	847		profile end
36-1	22336	-1	CTD/RO	08.08.	10:28	74° 04,394' N	077° 27,034' W	839		
36-2	22336	-2	BC	08.08.	11:29	74° 04,388' N	077° 27,063' W	841	47	
36-3	22336	-3	GC 12	08.08.	12:24	74° 04,400' N	077° 27,046' W	842	613	degassing
36-4	22336	-4	GC 6	08.08.	13:37	74° 04,415' N	077° 27,019' W	839	318	
37-1	22337	-1	MB+PS	08.08.	14:21	74° 04,616' N	077° 27,536' W	839		profile start
37-1	22337	-1	MB+PS	09.08.	00:26	73° 49,863' N	072° 34,173' W	894		profile end
38-1	22338	-1	GC 12	09.08.	00:56	73° 49,860' N	072° 34,326' W	892	483	
39-1	22339	-1	MB+PS	09.08.	02:00	73° 52,638' N	072° 33,998' W	892		profile start
39-1	22339	-1	MB+PS	11.08.	14:40	70° 27,636' N	067° 29,743' W	87		profile end
40-1	22340	-1	MB+PS	11.08.	14:42	70° 27,351' N	067° 29,409' W	100		profile start
40-1	22340	-1	MB+PS	11.08.	19:54	70° 18,274' N	068° 23,111' W	426		profile end
4-1	22304	-1	CTD/RO	24.07.	11:12	68° 54,179' N	059° 28,639' W	1151		
41-1	22341	-1	CTD/RO	11.08.	20:16	70° 18,771' N	068° 22,700' W	438		
4-2	22304	-2	MN	24.07.	11:49	68° 54,182' N	059° 28,636' W	1150		
42-1	22342	-1	MB+PS	11.08.	20:33	70° 18,771' N	068° 22,698' W	425		profile start
42-1	22342	-1	MB+PS	15.08.	13:42	70° 27,848' N	068° 35,210' W	25		profile end
43-1	22343	-1	MB+PS	15.08.	19:56	70° 27,852' N	068° 35,179' W	29		profile start
43-1	22343	-1	MB+PS	16.08.	21:38	70° 03,898' N	070° 02,952' W	365		profile end
4-4	22304	-4	BC	24.07.	13:56	68° 54,170' N	059° 28,554' W	1147	50	
44-1	22344	-1	CTD/RO	16.08.	21:57	70° 03,901' N	070° 02,952' W	364		
44-2	22344	-2	BC	16.08.	22:26	70° 03,901' N	070° 02,951' W	366	46	
44-3	22344	-3	GC 12	16.08.	22:59	70° 03,906' N	070° 02,923' W	367	783	
4-5	22304	-5	GC 12	24.07.	15:07	68° 54,171' N	059° 28,554' W	1141	1152	
45-1	22345	-1	MB+PS	16.08.	23:20	70° 03,905' N	070° 02,922' W	365		profile start
45-1	22345	-1	MB+PS	17.08.	03:07	69° 54,187' N	070° 13,556' W	204		profile end
46-1	22346	-1	CTD/RO	17.08.	03:26	69° 54,189' N	070° 13,553' W	204		
46-2	22346	-2	BC	17.08.	03:50	69° 54,188' N	070° 13,552' W	203	38	
46-3	22346	-3	GC 12	17.08.	04:25	69° 54,193' N	070° 13,537' W	203	896	
47-1	22347	-1	MB+PS	17.08.	04:55	69° 54,202' N	070° 13,476' W	202		profile start
47-1	22347	-1	MB+PS	17.08.	05:54	69° 58,985' N	069° 57,306' W	361		profile end
48-1	22348	-1	CTD/RO	17.08.	06:14	69° 58,979' N	069° 57,464' W	362		
48-2	22348	-2	BC	17.08.	06:45	69° 58,979' N	069° 57,464' W	361	46	
48-3	22348	-3	GC 12	17.08.	07:21	69° 58,976' N	069° 57,480' W	361	137	
49-1	22349	-1	MB+PS	17.08.	07:47	69° 58,976' N	069° 57,479' W	361		profile start
49-1	22349	-1	MB+PS	17.08.	15:23	70° 08,522' N	069° 44,374' W	435		profile end
50-1	22350	-1	CTD/RO	17.08.	15:39	70° 08,524' N	069° 44,372' W	436		
50-2	22350	-2	BC	17.08.	16:10	70° 08,524' N	069° 44,373' W	435	27	
50-3	22350	-3	GC 12	17.08.	16:44	70° 08,531' N	069° 44,349' W	435	523	
5-1	22305	-1	GC 12	24.07.	16:58	68° 53,757' N	059° 24,667' W	1042	883	
51-1	22351	-1	CTD/RO	17.08.	17:53	70° 10,158' N	069° 38,304' W	363		
51-2	22351	-2	BC	17.08.	18:22	70° 10,158' N	069° 38,300' W	365	37	
51-3	22351	-3	GC 12	17.08.	18:55	70° 10,166' N	069° 38,290' W	364	862	
52-1	22352	-1	MB+PS	17.08.	22:27	70° 13,345' N	069° 00,019' W	490		profile end
52-1	22352	-1	MB+PS	17.08.	19:30	70° 10,615' N	069° 35,703' W	386		profile start
5-3	22305	-3	GC 12	24.07.	19:16	68° 53,804' N	059° 24,679' W	1045	389	
53-1	22353	-1	CTD/RO	17.08.	22:45	70° 13,349' N	069° 00,020' W	483		
53-2	22353	-2	BC	17.08.	23:17	70° 13,349' N	069° 00,023' W	491	57	
53-3	22353	-3	GC 12	17.08.	23:55	70° 13,355' N	069° 00,036' W	484	965	
54-1	22354	-1	MB+PS	18.08.	00:20	70° 13,357' N	069° 00,028' W	491		profile start
54-1	22354	-1	MB+PS	18.08.	16:48	70° 27,807' N	068° 35,041' W	36		profile end
55-1	22355	-1	MB+PS	18.08.	19:27	70° 27,583' N	068° 34,622' W	56		profile start
55-1	22355	-1	MB+PS	18.08.	21:20	70° 27,250' N	068° 13,828' W	233		profile end
56-1	22356	-1	CTD/RO	18.08.	22:10	70° 27,686' N	067° 58,384' W	337		
56-2	22356	-2	BC	18.08.	22:37	70° 27,686' N	067° 58,382' W	335	45	
56-3	22356	-3	GC 12	18.08.	23:10	70° 27,692' N	067° 58,384' W	339	902	
57-1	22357	-1	CTD/RO	19.08.	00:54	70° 36,281' N	067° 53,649' W	314		
57-2	22357	-2	BC	19.08.	01:21	70° 36,280' N	067° 53,657' W	310	36	
57-3	22357	-3	GC 6	19.08.	01:52	70° 36,284' N	067° 53,657' W	315	500	

Station No. MSM66/	GeoB		Gear	Date in 2017	Time (UTC)	Latitude (°N)	Longitude (°W)	Depth (m)	Recovery (cm)	Comment
58-1	22358	-1	CTD/RO	19.08.	04:07	70° 41,684' N	067° 41,819' W	262		
58-2	22358	-2	BC	19.08.	04:32	70° 41,684' N	067° 41,818' W	262	39	
58-3	22358	-3	GC 6	19.08.	05:00	70° 41,689' N	067° 41,828' W	260	166	
59-1	22359	-1	CTD/RO	19.08.	07:31	70° 46,043' N	067° 27,966' W	198		
59-2	22359	-2	BC	19.08.	07:52	70° 46,043' N	067° 27,962' W	197	32	
59-3	22359	-3	GC 6	19.08.	08:16	70° 46,061' N	067° 27,963' W	197	0	no recovery
60-1	22360	-1	MB+PS	19.08.	08:38	70° 46,021' N	067° 27,918' W	198		profile start
60-1	22360	-1	MB+PS	19.08.	15:49	72° 00,009' N	067° 00,024' W	2323		profile end
61-1	22361	-1	CTD/RO	19.08.	16:37	71° 59,996' N	067° 00,023' W	2323		
61-2	22361	-2	MN	19.08.	17:35	71° 59,997' N	067° 00,022' W	2330		
61-3	22361	-3	MN	19.08.	18:08	71° 59,997' N	067° 00,025' W	2329		
61-4	22361	-4	MN	19.08.	19:00	71° 59,997' N	067° 00,024' W	2329		
6-2	22306	-2	BC	24.07.	21:45	68° 53,064' N	059° 18,920' W	812	40	
62-1	22362	-1	MB+PS	19.08.	19:26	71° 59,999' N	067° 00,025' W	2329		profile start
62-1	22362	-1	MB+PS	20.08.	06:40	70° 00,372' N	062° 54,785' W	2034		profile end
6-3	22306	-3	GC 12	24.07.	22:28	68° 53,077' N	059° 18,910' W	812	468	
63-1	22363	-1	CTD/RO	20.08.	07:33	69° 59,999' N	062° 53,535' W	2031		
63-2	22363	-2	MN	20.08.	08:25	69° 59,998' N	062° 53,534' W	2032		
63-3	22363	-3	MN	20.08.	08:58	69° 59,996' N	062° 53,533' W	2033		
63-4	22363	-4	MN	20.08.	09:27	69° 59,996' N	062° 53,533' W	2030		
64-1	22364	-1	MB+PS	20.08.	09:44	69° 59,744' N	062° 53,042' W	2033		profile start
64-1	22364	-1	MB+PS	20.08.	15:13	68° 59,959' N	061° 04,993' W	1802		profile end
65-1	22365	-1	CTD/RO	20.08.	16:06	69° 00,003' N	061° 04,865' W	1799		
65-2	22365	-2	MN	20.08.	16:52	69° 00,000' N	061° 04,847' W	1804		
65-3	22365	-3	MN	20.08.	17:22	69° 00,009' N	061° 04,972' W	1802		
65-4	22365	-4	MN	20.08.	17:51	69° 00,018' N	061° 05,108' W	1805		
66-1	22366	-1	MB+PS	20.08.	18:12	68° 59,952' N	061° 04,807' W	1800		profile start
66-1	22366	-1	MB+PS	23.08.	05:05	60° 23,243' N	048° 36,840' W	962		profile end
68-1	22368	-1	CTD/RO	21.08.	12:20	66° 23,943' N	056° 45,365' W	592		
69-1	22369	-1	CTD/RO	21.08.	18:55	65° 20,936' N	055° 18,188' W	635		
70-1	22370	-1	CTD/RO	22.08.	01:30	64° 14,042' N	053° 54,148' W	402		
71-1	22371	-1	CTD/RO	22.08.	08:06	63° 15,195' N	052° 46,712' W	1436		
72-1	22372	-1	CTD/RO	22.08.	16:01	62° 06,944' N	051° 35,462' W	2480		
73-1	22373	-1	CTD/RO	22.08.	23:41	61° 08,490' N	049° 46,729' W	1702		
74-1	22374	-1	MB+PS	23.08.	05:08	60° 23,017' N	048° 36,133' W	881		profile start
74-1	22374	-1	MB+PS	23.08.	11:38	60° 22,065' N	048° 32,079' W	793		profile end
75-1	22375	-1	Grab	23.08.	12:27	60° 22,040' N	048° 31,922' W	743		
75-2	22375	-2	BC	23.08.	13:23	60° 21,984' N	048° 31,671' W	771		no recovery
75-3	22375	-3	GC 3	23.08.	14:20	60° 22,034' N	048° 31,886' W	1541	0	
76-1	22376	-1	Grab	23.08.	15:43	60° 21,623' N	048° 30,445' W	679		
76-2	22376	-2	GC 3	23.08.	16:56	60° 21,609' N	048° 30,391' W	722	10	
77-1	22377	-1	Grab	23.08.	18:40	60° 22,453' N	048° 26,840' W	777		
78-1	22378	-1	GC 3	23.08.	19:56	60° 21,288' N	048° 23,938' W	671	5	
79-1	22379	-1	MB+PS	23.08.	20:32	60° 21,282' N	048° 23,633' W	673		profile start
79-1	22379	-1	MB+PS	24.08.	11:45	60° 15,679' N	048° 07,093' W	1049		profile end
80-1	22380	-1	GC 3	24.08.	12:13	60° 15,764' N	048° 07,310' W	973		
8-1	22308	-1	CTD/RO	26.07.	17:03	72° 58,107' N	062° 53,213' W	1838		
81-1	22381	-1	GC 3	24.08.	13:23	60° 16,624' N	048° 08,734' W	908	0	no recovery
81-2	22381	-2	GC 3	24.08.	14:16	60° 16,615' N	048° 08,816' W	887	0	no recovery
82-1	22382	-1	GC 3	24.08.	15:24	60° 16,722' N	048° 09,478' W	1237		
84-1	22384	-1	CTD/RO	24.08.	20:35	60° 07,055' N	047° 48,171' W	2696		
85-1	22385	-1	MB+PS	24.08.	21:28	60° 07,560' N	047° 49,328' W	2732		profile start
85-1	22385	-1	MB+PS	25.08.	02:18	60° 15,229' N	045° 57,651' W	189		profile end
86-1	22386	-1	CTD/RO	25.08.	02:29	60° 15,255' N	045° 57,694' W	191		
87-1	22387	-1	MB+PS	25.08.	02:45	60° 15,362' N	045° 57,618' W	190		profile start
87-1	22387	-1	MB+PS	25.08.	06:55	60° 16,662' N	045° 58,906' W	0		profile end
88-1	22388	-1	MB+PS	25.08.	07:06	60° 16,083' N	045° 57,831' W	186		profile start
88-1	22388	-1	MB+PS	26.08.	22:00	62° 41,127' N	033° 03,595' W	2892		profile end

CTD/RO	CTD & Rosette water sampler
MN	MultiNet
MB+PS	Multibeam EM122, EM712 & Parasound survey
GC x	Gravity corer with x m core barrel
BC	Box corer
MUC	Multi corer
VGRAB	Van Veen grab sampler