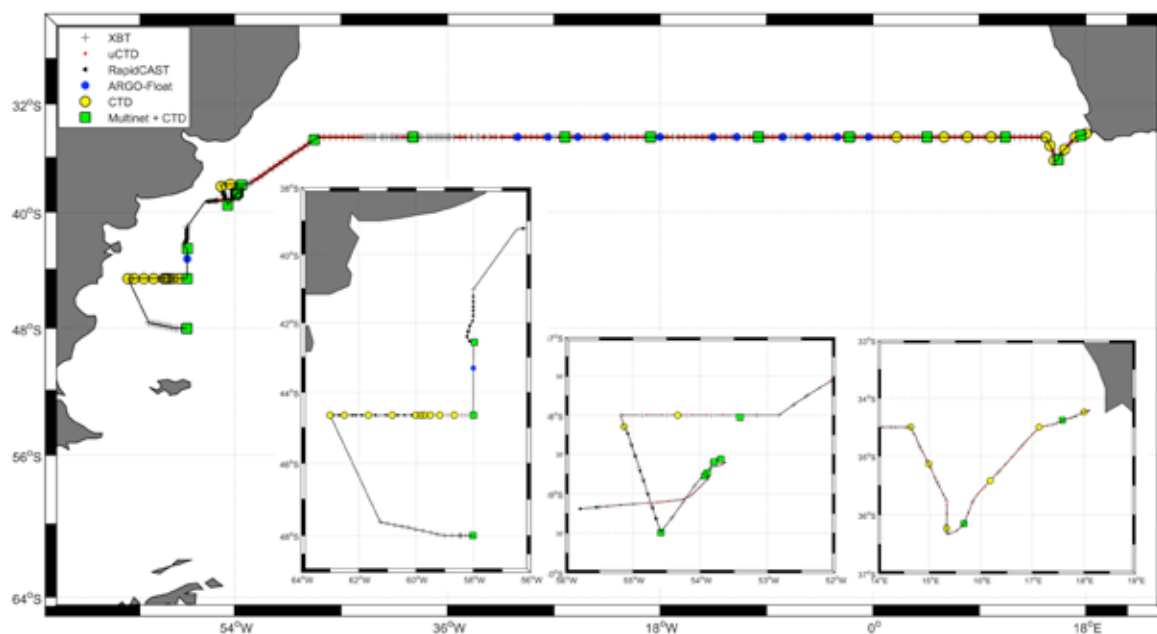


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Short Cruise Report
R/V METEOR M133 Cape Town – Stanley
15th Dec 2016 – 13th Jan 2017
Chief Scientist: Prof. Dr. Martin Visbeck
Captain: Rainer Hammacher



Objectives

The South Atlantic crossing is a multidisciplinary ocean survey of the South Atlantic gyre roughly along 34.5°S. This transect is covered by the international SAMOC moored array and also the path of the internationally agreed AX18 XBT line.

Most of the measurements are based on using under-way methods including near-surface water sampling for the determination of near surface temperature and salinity as well as shipboard ADCP current observations. Moreover an underway CTD will allow to sample the upper 300-400 m every hour. Chemical analysis of surface waters as well as atmospheric parameters are of scientific interest to both compare different regions with each other but also to document long term trends. At the western and eastern boundary current regime full water column water mass properties will be measured.

Upper ocean 10-700m plankton assemblages will allow to improve the calibration of sediment proxies. And water samples for later lab based biodiversity analysis will be taken. A number of smaller student projects will be carried out as part of a global ocean learning and capacity building effort.

Finally continuous swath bathymetry map-ping will occur and a profiling Argo floats were launched in support of the global ocean observing system arrays.

The cruise was very successful and all objectives were reached and the measurements were carried out as planned.



Scientific party of the cruise M133

Narrative

R/V METEOR departed from Cape Town, South Africa on December 15, 2016 at 10:00 and sailed south to reach the starting point of the underway measurements at 34°10'S. The first goal was to survey an Agulhas Eddy southward of the crossing latitude and three floats were deployed in its center at 36°14'S and 15° 20'E. On December 12 midday we returned to the 34.5°S latitude and continued our westward survey with UCTD every hour and XBTs typically every 30nm. On January 2 2017 shortly before the Brazilian EEZ we went on a southwest course and completed the zonal crossing along 38°S until on January 4 at 16:00 we reached 38°N 55°10'W on the Patagonian shelf. Along the way we deployed Several Argo floats for WHOI and BSH.

Between January 4 and January 6 we crossed the Malvinas Currents three times and performed a MultiNet transect parallel to the shelf along the Malvinas Current across the confluence zone between 39°30'S 54°35' W and 38°35'S 53°50'W targeting a range of surface temperature conditions.

From there a survey of the Malvinas Current and its fronts followed with on shelf and off shelf transects on our transit south. On January 8 and 9 we sampled along a westward transect on 44° 39'S between 58° and 63°W towards the shelf. A final crossing of the Malvinas Current System happened on January 11 with a lastMultinet And CTD station at 48°S 58°W.

We reached the port of Stanley, Falkland Islands in the morning of January 13 2017.

Acknowledgements

We greatly appreciate the wonderful working atmosphere as well as the professionalism and seamanship of crew, officers and Captain of R/V METEOR, which made this work a success. Financial support came from the German Science Foundation (DFG) the German Ministry of Science (BMBF, SACUS) and the EU Project AtlantOS.

Participants

Name	Position/Discipline	Institute
1. Prof. Dr. Visbeck, Martin	Chief scientist	GEOMAR
2. Prof. Dr. Falk, Christine	Plankton imaging	MHH
3. Pinck, Andreas	Technician	GEOMAR
4. Hahn, Tobias	O ₂ , pCO ₂ , underway	GEOMAR
5. Canning, Anna	underway CO ₂	GEOMAR
6. Seelmann, Katharina	underway TA-System	GEOMAR
7. Handmann, Patricia	ADCP/(u)CTD/XBT	GEOMAR
8. Campen, Hanna	(u)CTD/XBT	UKiel/GEOMAR
9. Thölken, Elisabeth	(u)CTD/XBT	UKiel
10. Igelmann, Clara	(u)CTD/XBT	Pupil
11. Frühling, Anna	(u)CTD/XBT	Pupil
12. Dr. Siccha, Michael	MultiNet Forams	UBremen/MARUM
13. Dr. Groeneveld, Jeroen	MultiNet Forams	UBremen/MARUM
14. Dr. Johnstone, Heather	MultiNet Forams	UBremen/MARUM
15. Dr. Weinkauff, Manuel	MultiNet Forams	UBremen/MARUM
16. Papp, Maximilian	MultiNet Forams	UBremen/MARUM
17. Manta, Gastón	(u)CTD/XBT/salinometer	Uruguay
18. Olivier, Léa Lucie Alice	(u)CTD/XBT	France
19. Risaro, Daniela	(u)CTD/XBT	Argentina
20. Bonelli, Ana Gabriela	(u)CTD/XBT	Argentina
21. Trassiera, Jacqueline	(u)CTD/XBT plastics	RSA
22. Orselli, Iole	(u)CTD/XBT/salinometer	Brazil
23. Heitmann-Bacza, Carola	Weather	DWD
24. Rohleder, Christian	Weather	DWD
25.		

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U-Geneve (1)	University of Geneva, 13 Rue des Maraîchers, Geneva, Switzerland.
U-Rhodes (1)	Rhodes University, Drosty Rd, Grahamstown 6139, South Africa.
SHN (2)	Servicio de Hidrografía Naval, Av. Montes de Oca 2124 - C1270ABV Ciudad Autónoma de Buenos Aires, República Argentina.

Station List: of R/V METEOR cruise M133.

Station M133	Type	#N	Date (2017)	Time UTC	Latitude	Longitude	Max. depth [m]	Parameters
673-1	uCTD	1	15/12	12:14	34° 12' S	18° 06' E	~400	T,S,P
674-1	XBT	1	15/12	12:32	34° 13' S	18° 03' E	~760	T,P
675-1	CTD/RO	1	15/12	13:14	34° 14' S	18° 00' E	253	T,S,P,O2,Fl,TA
676-1	XBT	2	15/12	14:53	34° 18' S	17° 50' E	~760	T,P
677-1	uCTD	2	15/12	15:22	34° 20' S	17° 45' E	~400	T,S,P
678-1	MultiNet	1	15/12	16:27	34° 22' S	17° 35' E	515	T,S,P,Fl,TA,μPlast, Plank,Foram
678-2	CTD/RO	2	15/12	17:23	34° 22' S	17° 35' E	1103	T,S,P,O2,Fl,TA
677-1	uCTD	3	15/12	19:03	34° 25' S	17° 28' E	~400	T,S,P
679-1	XBT	3	15/12	19:32	34° 27' S	17° 23' E	~760	T,P
677-1	uCTD	4	15/12	20:02	34° 28' S	17° 17' E	~400	T,S,P
680-1	CTD/RO	3	15/12	21:02	34° 30' S	17° 08' E	2755	T,S,P,O2,Fl,TA
677-1	uCTD	5	15/12	23:00	34° 30' S	17° 08' E	~400	T,S,P
677-1	uCTD	6	15/12	23:54	34° 37' S	17° 01' E	~400	T,S,P
677-1	uCTD	7	16/12	00:59	34° 45' S	16° 52' E	~400	T,S,P
681-1	XBT	4	16/12	01:24	34° 48' S	16° 49' E	~760	T,P
677-1	uCTD	8	16/12	01:54	34° 52' S	16° 44' E	~400	T,S,P
677-1	uCTD	9	16/12	03:03	35° 01' S	16° 36' E	~400	T,S,P
677-1	uCTD	10	16/12	04:04	35° 08' S	16° 28' E	~400	T,S,P
682-1	XBT	5	16/12	04:59	35° 15' S	16° 21' E	~760	T,P
677-1	uCTD	11	16/12	05:15	35° 18' S	16° 19' E	~400	T,S,P
683-1	CTD/RO	4	16/12	06:17	35° 25' S	16° 11' E	2001	T,S,P,O2,Fl,TA
677-1	uCTD	12	16/12	08:25	35° 31' S	16° 04' E	~400	T,S,P
677-1	uCTD	13	16/12	09:25	35° 39' S	15° 56' E	~400	T,S,P
684-1	XBT	6	16/12	10:19	35° 46' S	15° 50' E	~760	T,P
677-1	uCTD	14	16/12	10:24	35° 47' S	15° 50' E	~400	T,S,P
677-1	uCTD	15	16/12	11:36	35° 58' S	15° 45' E	~400	T,S,P
677-1	uCTD	16	16/12	12:36	36° 06' S	15° 41' E	~400	T,S,P
685-1	MultiNet	2	16/12	13:06	36° 09' S	15° 40' E	720	T,S,P,Fl,TA,μPlast, Plank,Foram
685-2	MultiNet	3	16/12	14:06	36° 09' S	15° 40' E	110	T,S,P,Fl,TA,μPlast, Plank,Foram
685-3	MultiNet	4	16/12	14:23	36° 09' S	15° 40' E	520	T,S,P,Fl,TA,μPlast, Plank,Foram
685-4	CTD/RO	5	16/12	15:11	36° 09' S	15° 40' E	1999	T,S,P,O2,Fl,TA
677-1	uCTD	17	16/12	17:06	36° 11' S	15° 38' E	~400	T,S,P
677-1	uCTD	18	16/12	17:59	36° 16' S	15° 32' E	~400	T,S,P
677-1	uCTD	19	16/12	19:00	36° 19' S	15° 23' E	~400	T,S,P
686-1	XBT	7	16/12	19:46	36° 18' S	15° 20' E	~760	T,P
687-1	CTD/RO	6	16/12	20:21	36° 13' S	15° 20' E	2001	T,S,P,O2,Fl,TA
687-2	ARGO- Float	1	16/12	21:52	36° 13' S	15° 20' E		T,S,P
687-2	ARGO-	2	16/12	22:00	36° 13' S	15° 20' E		T,S,P

	Float							
687-2	ARGO-Float	3	16/12	22:07	36° 13' S	15° 20' E		T,S,P
677-1	uCTD	20	16/12	22:36	36° 10' S	15° 20' E	~400	T,S,P
677-1	uCTD	21	16/12	23:40	35° 58' S	15° 20' E	~400	T,S,P
677-1	uCTD	22	17/12	00:34	35° 49' S	15° 20' E	~400	T,S,P
688-1	XBT	8	17/12	00:57	35° 45' S	15° 20' E	~760	T,P
677-1	uCTD	23	17/12	01:39	35° 39' S	15° 16' E	~400	T,S,P
677-1	uCTD	24	17/12	02:32	35° 31' S	15° 11' E	~400	T,S,P
689-1	XBT	9	17/12	02:58	35° 27' S	15° 09' E	~760	T,P
677-1	uCTD	25	17/12	03:32	35° 21' S	15° 06' E	~400	T,S,P
677-1	uCTD	26	17/12	04:32	35° 12' S	15° 01' E	~400	T,S,P
690-1	CTD/RO	7	17/12	05:05	35° 07' S	14° 59' E	2000	T,S,P,O2,Fl,TA
677-1	uCTD	27	17/12	07:00	35° 04' S	14° 56' E	~400	T,S,P
677-1	uCTD	28	17/12	07:58	34° 54' S	14° 52' E	~400	T,S,P
691-1	XBT	10	17/12	08:29	34° 49' S	14° 49' E	~760	T,P
677-1	uCTD	29	17/12	08:57	34° 45' S	14° 46' E	~400	T,S,P
677-1	uCTD	30	17/12	10:06	34° 36' S	14° 42' E	~400	T,S,P
692-1	CTD/RO	8	17/12	11:06	34° 30' S	14° 38' E	2006	T,S,P,O2,Fl,TA
677-1	uCTD	31	17/12	13:37	34° 30' S	14° 32' E	~400	T,S,P
677-1	uCTD	32	17/12	14:45	34° 30' S	14° 20' E	~400	T,S,P
693-1	XBT	11	17/12	15:14	34° 30' S	14° 15' E	~760	T,P
677-1	uCTD	33	17/12	16:06	34° 30' S	14° 05' E	~400	T,S,P
694-1	XBT	12	17/12	17:04	34° 30' S	13° 55' E	~760	T,P
677-1	uCTD	34	17/12	17:17	34° 30' S	13° 53' E	~400	T,S,P
677-1	uCTD	35	17/12	18:06	34° 30' S	13° 44' E	~400	T,S,P
677-1	uCTD	36	17/12	19:00	34° 30' S	13° 33' E	~400	T,S,P
695-1	XBT	13	17/12	19:37	34° 30' S	13° 26' E	~760	T,P
696-1	XBT	14	17/12	19:44	34° 30' S	13° 25' E	~760	T,P
677-1	uCTD	37	17/12	20:00	34° 30' S	13° 22' E	~400	T,S,P
677-1	uCTD	38	17/12	20:57	34° 30' S	13° 10' E	~400	T,S,P
677-1	uCTD	39	17/12	22:03	34° 30' S	12° 57' E	~400	T,S,P
697-1	XBT	15	17/12	22:21	34° 30' S	12° 53' E	~760	T,P
677-1	uCTD	40	17/12	23:03	34° 30' S	12° 45' E	~400	T,S,P
677-1	uCTD	41	17/12	23:59	34° 30' S	12° 34' E	~400	T,S,P
698-1	XBT	16	18/12	00:49	34° 30' S	12° 26' E	~760	T,P
677-1	uCTD	42	18/12	00:57	34° 30' S	12° 24' E	~400	T,S,P
677-1	uCTD	43	18/12	02:10	34° 30' S	12° 10' E	~400	T,S,P
677-1	uCTD	44	18/12	03:08	34° 30' S	11° 58' E	~400	T,S,P
699-1	XBT	17	18/12	03:27	34° 30' S	11° 55' E	~760	T,P
677-1	uCTD	45	18/12	04:02	34° 30' S	11° 48' E	~400	T,S,P
677-1	uCTD	46	18/12	04:59	34° 30' S	11° 37' E	~400	T,S,P
677-1	uCTD	47	18/12	05:25	34° 30' S	11° 32' E	~400	T,S,P
700-1	XBT	18	18/12	06:05	34° 30' S	11° 25' E	~760	T,P
700-2	XBT	19	18/12	06:12	34° 30' S	11° 23' E	~760	T,P
700-3	XBT	20	18/12	06:16	34° 30' S	11° 22' E	~760	T,P
677-1	uCTD	48	18/12	06:27	34° 30' S	11° 20' E	~400	T,S,P
701-1	MultiNet	5	18/12	07:21	34° 30' S	11° 12' E	730	T,S,P,Fl,TA,µPlast,

								Plank,Foram
701-2	MultiNet	6	18/12	08:20	34° 30' S	11° 12' E	110	T,S,P,Fl,TA,µPlast, Plank,Foram
701-3	MultiNet	7	18/12	08:36	34° 30' S	11° 12' E	515	T,S,P,Fl,TA,µPlast, Plank,Foram
701-4	CTD/RO	9	18/12	09:22	34° 30' S	11° 12' E	2001	T,S,P,O2,Fl,TA
677-1	uCTD	49	18/12	11:19	34° 30' S	11° 07' E	~400	T,S,P
677-1	uCTD	50	18/12	12:18	34° 30' S	10° 56' E	~400	T,S,P
702-1	XBT	21	18/12	12:39	34° 30' S	10° 52' E	~760	T,P
702-2	XBT	22	18/12	12:56	34° 30' S	10° 49' E	~760	T,P
677-1	uCTD	51	18/12	13:22	34° 30' S	10° 44' E	~400	T,S,P
677-1	uCTD	52	18/12	14:18	34° 30' S	10° 34' E	~400	T,S,P
703-1	XBT	23	18/12	15:06	34° 30' S	10° 25' E	~760	T,P
677-1	uCTD	53	18/12	15:17	34° 30' S	10° 23' E	~400	T,S,P
677-1	uCTD	54	18/12	16:24	34° 30' S	10° 11' E	~400	T,S,P
704-1	CTD/RO	10	18/12	17:25	34° 30' S	10° 00' E	1998	T,S,P,O2,Fl,TA
704-2	ARGO- Float	4	18/12	18:51	34° 30' S	10° 00' E		T,S,P
705-1	XBT	24	18/12	19:21	34° 30' S	09° 56' E	~760	T,P
677-1	uCTD	55	18/12	19:32	34° 30' S	09° 53' E	~400	T,S,P
677-1	uCTD	56	18/12	20:28	34° 30' S	09° 43' E	~400	T,S,P
677-1	uCTD	57	18/12	21:30	34° 30' S	09° 32' E	~400	T,S,P
706-1	XBT	25	18/12	22:05	34° 30' S	09° 26' E	~760	T,P
677-1	uCTD	58	18/12	22:37	34° 30' S	09° 20' E	~400	T,S,P
677-1	uCTD	59	18/12	23:23	34° 30' S	09° 12' E	~400	T,S,P
677-1	uCTD	60	19/12	00:28	34° 30' S	09° 01' E	~400	T,S,P
707-1	XBT	26	19/12	01:07	34° 30' S	08° 54' E	~760	T,P
677-1	uCTD	61	19/12	01:31	34° 30' S	08° 50' E	~400	T,S,P
677-1	uCTD	62	19/12	02:32	34° 30' S	08° 40' E	~400	T,S,P
677-1	uCTD	63	19/12	03:31	34° 30' S	08° 30' E	~400	T,S,P
708-1	XBT	27	19/12	03:57	34° 30' S	08° 26' E	~760	T,P
677-1	uCTD	64	19/12	04:34	34° 30' S	08° 19' E	~400	T,S,P
677-1	uCTD	65	19/12	05:28	34° 30' S	08° 10' E	~400	T,S,P
709-1	CTD/RO	11	19/12	06:50	34° 30' S	08° 00' E	2001	T,S,P,O2,Fl,TA
709-2	ARGO- Float	5	19/12	08:13	34° 30' S	08° 00' E		T,S,P
710-1	XBT	28	19/12	08:44	34° 30' S	07° 55' E	~760	T,P
710-2	XBT	29	19/12	08:49	34° 30' S	07° 55' E	~760	T,P
710-3	XBT	30	19/12	08:52	34° 30' S	07° 54' E	~760	T,P
677-1	uCTD	66	19/12	08:59	34° 30' S	07° 53' E	~400	T,S,P
677-1	uCTD	67	19/12	10:00	34° 30' S	07° 43' E	~400	T,S,P
677-1	uCTD	68	19/12	11:02	34° 30' S	07° 33' E	~400	T,S,P
711-1	XBT	31	19/12	11:45	34° 30' S	07° 26' E	~760	T,P
677-1	uCTD	69	19/12	12:00	34° 30' S	07° 24' E	~400	T,S,P
677-1	uCTD	70	19/12	12:53	34° 30' S	07° 16' E	~400	T,S,P
677-1	uCTD	71	19/12	14:00	34° 30' S	07° 05' E	~400	T,S,P
712-1	XBT	32	19/12	15:01	34° 30' S	06° 55' E	~760	T,P
677-1	uCTD	72	19/12	15:12	34° 30' S	06° 53' E	~400	T,S,P

677-1	uCTD	73	19/12	16:05	34° 30' S	06° 45' E	~400	T,S,P
677-1	uCTD	74	19/12	17:05	34° 30' S	06° 35' E	~400	T,S,P
677-1	uCTD	75	19/12	17:48	34° 30' S	06° 28' E	~400	T,S,P
713-1	XBT	33	19/12	18:30	34° 30' S	06° 23' E	~760	T,P
677-1	uCTD	76	19/12	19:03	34° 30' S	06° 18' E	~400	T,S,P
677-1	uCTD	77	19/12	19:55	34° 30' S	06° 10' E	~400	T,S,P
714-1	CTD/RO	12	19/12	21:00	34° 30' S	06° 00' E	1998	T,S,P,O2,Fl,TA
714-2	ARGO-Float	6	19/12	22:26	34° 30' S	06° 00' E		T,S,P
677-1	uCTD	78	19/12	23:04	34° 30' S	05° 55' E	~400	T,S,P
677-1	uCTD	79	20/12	00:06	34° 30' S	05° 44' E	~400	T,S,P
677-1	uCTD	80	20/12	01:05	34° 30' S	05° 35' E	~400	T,S,P
677-1	uCTD	81	20/12	01:55	34° 30' S	05° 26' E	~400	T,S,P
715-1	XBT	34	20/12	02:15	34° 30' S	05° 23' E	~760	T,P
677-1	uCTD	82	20/12	03:04	34° 30' S	05° 15' E	~400	T,S,P
677-1	uCTD	83	20/12	04:00	34° 30' S	05° 05' E	~400	T,S,P
716-1	XBT	35	20/12	06:03	34° 31' S	04° 55' E	~760	T,P
716-2	XBT	36	20/12	06:22	34° 30' S	04° 51' E	~760	T,P
677-1	uCTD	84	20/12	07:05	34° 29' S	04° 44' E	~400	T,S,P
717-1	MultiNet	8	20/12	08:06	34° 30' S	04° 35' E	720	T,S,P,Fl,TA,μPlast, Plank,Foram
717-2	MultiNet	9	20/12	09:03	34° 30' S	04° 35' E	110	T,S,P,Fl,TA,μPlast, Plank,Foram
717-3	MultiNet	10	20/12	09:18	34° 30' S	04° 35' E	515	T,S,P,Fl,TA,μPlast, Plank,Foram
717-4	CTD/RO	13	20/12	10:02	34° 30' S	04° 35' E	1169	T,S,P,O2,Fl,TA
677-1	uCTD	85	20/12	11:37	34° 30' S	04° 30' E	~400	T,S,P
677-1	uCTD	86	20/12	12:37	34° 30' S	04° 20' E	~400	T,S,P
677-1	uCTD	87	20/12	14:09	34° 30' S	04° 05' E	~400	T,S,P
718-1	XBT	37	20/12	15:22	34° 30' S	03° 52' E	~760	T,P
677-1	uCTD	88	20/12	15:37	34° 30' S	03° 50' E	~400	T,S,P
677-1	uCTD	89	20/12	16:43	34° 30' S	03° 38' E	~400	T,S,P
677-1	uCTD	90	20/12	17:38	34° 30' S	03° 28' E	~400	T,S,P
719-1	XBT	38	20/12	17:54	34° 30' S	03° 26' E	~760	T,P
677-1	uCTD	91	20/12	19:03	34° 30' S	03° 14' E	~400	T,S,P
677-1	uCTD	92	20/12	19:57	34° 30' S	03° 04' E	~400	T,S,P
720-1	XBT	39	20/12	20:46	34° 30' S	02° 56' E	~760	T,P
677-1	uCTD	93	20/12	20:58	34° 30' S	02° 53' E	~400	T,S,P
677-1	uCTD	94	20/12	23:30	34° 30' S	02° 38' E	~400	T,S,P
677-1	uCTD	95	21/12	00:37	34° 30' S	02° 28' E	~400	T,S,P
677-1	uCTD	96	21/12	01:56	34° 30' S	02° 16' E	~400	T,S,P
677-1	uCTD	97	21/12	02:17	34° 30' S	02° 13' E	~400	T,S,P
677-1	uCTD	98	21/12	03:00	34° 30' S	02° 06' E	~400	T,S,P
721-1	CTD/RO	14	21/12	03:51	34° 30' S	02° 00' E	1998	T,S,P,O2,Fl,TA
721-2	ARGO-Float	7	21/12	05:13	34° 30' S	02° 00' E		T,S,P
722-1	XBT	40	21/12	06:13	34° 30' S	01° 53' E	~760	T,P
677-1	uCTD	99	21/12	06:22	34° 30' S	01° 52' E	~400	T,S,P

677-1	uCTD	100	21/12	07:21	34° 30' S	01° 44' E	~400	T,S,P
677-1	uCTD	101	21/12	08:40	34° 30' S	01° 35' E	~400	T,S,P
677-1	uCTD	102	21/12	09:38	34° 30' S	01° 27' E	~400	T,S,P
723-1	XBT	41	21/12	09:57	34° 30' S	01° 24' E	~760	T,P
677-1	uCTD	103	21/12	10:36	34° 30' S	01° 19' E	~400	T,S,P
677-1	uCTD	104	21/12	11:29	34° 30' S	01° 11' E	~400	T,S,P
677-1	uCTD	105	21/12	12:44	34° 30' S	01° 01' E	~400	T,S,P
724-1	XBT	42	21/12	13:29	34° 30' S	00° 55' E	~760	T,P
724-2	XBT	43	21/12	13:33	34° 30' S	00° 55' E	~760	T,P
677-1	uCTD	106	21/12	13:43	34° 30' S	00° 53' E	~400	T,S,P
677-1	uCTD	107	21/12	14:45	34° 30' S	00° 43' E	~400	T,S,P
677-1	uCTD	108	21/12	15:55	34° 30' S	00° 33' E	~400	T,S,P
725-1	XBT	44	21/12	16:41	34° 30' S	00° 26' E	~760	T,P
677-1	uCTD	109	21/12	17:06	34° 30' S	00° 22' E	~400	T,S,P
677-1	uCTD	110	21/12	18:10	34° 30' S	00° 11' E	~400	T,S,P
677-1	uCTD	111	21/12	19:06	34° 30' S	00° 03' E	~400	T,S,P
726-1	XBT	45	21/12	19:28	34° 30' S	00° 01' E	~760	T,P
677-1	uCTD	112	21/12	20:00	34° 30' S	00° 06' W	~400	T,S,P
677-1	uCTD	113	21/12	21:05	34° 30' S	00° 16' W	~400	T,S,P
727-1	ARGO-Float	8	21/12	21:52	34° 30' S	00° 23' W		T,S,P
728-1	XBT	46	21/12	22:03	34° 30' S	00° 25' W	~760	T,P
677-1	uCTD	114	21/12	22:18	34° 30' S	00° 27' W	~400	T,S,P
677-1	uCTD	115	21/12	23:42	34° 30' S	00° 40' W	~400	T,S,P
677-1	uCTD	116	22/12	00:45	34° 30' S	00° 51' W	~400	T,S,P
729-1	XBT	47	22/12	02:02	34° 30' S	00° 57' W	~760	T,P
677-1	uCTD	117	22/12	03:07	34° 30' S	01° 08' W	~400	T,S,P
677-1	uCTD	118	22/12	04:07	34° 30' S	01° 17' W	~400	T,S,P
730-1	XBT	48	22/12	04:57	34° 30' S	01° 25' W	~760	T,P
677-1	uCTD	119	22/12	05:47	34° 30' S	01° 31' W	~400	T,S,P
677-1	uCTD	120	22/12	06:50	34° 30' S	01° 41' W	~400	T,S,P
677-1	uCTD	121	22/12	08:01	34° 30' S	01° 52' W	~400	T,S,P
732-1	XBT	49	22/12	08:19	34° 30' S	01° 55' W	~760	T,P
733-1	MultiNet	11	22/12	08:54	34° 30' S	02° 00' W	720	T,S,P,Fl,TA,μPlast, Plank,Foram
733-2	MultiNet	12	22/12	09:53	34° 30' S	02° 00' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
733-3	MultiNet	13	22/12	10:12	34° 30' S	02° 00' W	515	T,S,P,Fl,TA,μPlast, Plank,Foram
733-4	CTD/RO	15	22/12	11:04	34° 30' S	02° 00' W	1998	T,S,P,O2,Fl,TA
677-1	uCTD	122	22/12	12:54	34° 30' S	02° 04' W	~400	T,S,P
677-1	uCTD	123	22/12	13:50	34° 30' S	02° 12' W	~400	T,S,P
677-1	uCTD	124	22/12	14:53	34° 30' S	02° 21' W	~400	T,S,P
734-1	XBT	50	22/12	15:57	34° 30' S	02° 30' W	~760	T,P
734-2	XBT	51	22/12	16:04	34° 30' S	02° 31' W	~760	T,P
677-1	uCTD	125	22/12	16:15	34° 30' S	02° 32' W	~400	T,S,P
677-1	uCTD	126	22/12	17:14	34° 30' S	02° 40' W	~400	T,S,P
677-1	uCTD	127	22/12	18:19	34° 30' S	02° 49' W	~400	T,S,P

735-1	XBT	52	22/12	18:55	34° 30' S	02° 55' W	~760	T,P
736-1	ARGO-Float	9	22/12	19:29	34° 30' S	03° 00' W		T,S,P
677-1	uCTD	128	22/12	19:35	34° 30' S	03° 00' W	~400	T,S,P
677-1	uCTD	129	22/12	20:33	34° 30' S	03° 09' W	~400	T,S,P
677-1	uCTD	130	22/12	21:33	34° 30' S	03° 19' W	~400	T,S,P
737-1	XBT	53	22/12	22:11	34° 30' S	03° 24' W	~760	T,P
677-1	uCTD	131	22/12	22:40	34° 30' S	03° 29' W	~400	T,S,P
677-1	uCTD	132	22/12	23:40	34° 30' S	03° 39' W	~400	T,S,P
677-1	uCTD	133	23/12	00:42	34° 30' S	03° 49' W	~400	T,S,P
738-1	XBT	54	23/12	01:11	34° 30' S	03° 55' W	~760	T,P
677-1	uCTD	134	23/12	01:46	34° 30' S	04° 01' W	~400	T,S,P
677-1	uCTD	135	23/12	02:55	34° 30' S	04° 13' W	~400	T,S,P
739-1	XBT	55	23/12	03:54	34° 30' S	04° 24' W	~760	T,P
739-2	XBT	56	23/12	04:01	34° 30' S	04° 25' W	~760	T,P
677-1	uCTD	136	23/12	04:13	34° 30' S	04° 28' W	~400	T,S,P
677-1	uCTD	137	23/12	05:14	34° 30' S	04° 39' W	~400	T,S,P
740-1	XBT	57	23/12	06:30	34° 30' S	04° 54' W	~760	T,P
677-1	uCTD	138	23/12	06:45	34° 30' S	04° 57' W	~400	T,S,P
677-1	uCTD	139	23/12	07:16	34° 30' S	05° 03' W	~400	T,S,P
677-1	uCTD	140	23/12	08:20	34° 30' S	05° 16' W	~400	T,S,P
741-1	XBT	58	23/12	09:18	34° 30' S	05° 25' W	~760	T,P
742-1	ARGO-Float	10	23/12	09:42	34° 30' S	05° 30' W		T,S,P
677-1	uCTD	141	23/12	09:58	34° 30' S	05° 33' W	~400	T,S,P
677-1	uCTD	142	23/12	10:58	34° 30' S	05° 45' W	~400	T,S,P
743-1	XBT	59	23/12	12:00	34° 30' S	05° 56' W	~760	T,P
677-1	uCTD	143	23/12	12:07	34° 30' S	05° 58' W	~400	T,S,P
677-1	uCTD	144	23/12	13:15	34° 30' S	06° 12' W	~400	T,S,P
677-1	uCTD	145	23/12	14:15	34° 30' S	06° 24' W	~400	T,S,P
744-1	XBT	60	23/12	14:39	34° 30' S	06° 29' W	~760	T,P
744-2	XBT	61	23/12	14:44	34° 30' S	06° 30' W	~760	T,P
677-1	uCTD	146	23/12	15:16	34° 30' S	06° 36' W	~400	T,S,P
745-1	XBT	62	23/12	16:51	34° 30' S	06° 55' W	~760	T,P
746-1	XBT	63	23/12	19:18	34° 30' S	07° 24' W	~760	T,P
747-1	ARGO-Float	11	23/12	20:23	34° 30' S	07° 37' W		T,S,P
748-1	XBT	64	23/12	21:55	34° 30' S	07° 55' W	~760	T,P
677-1	uCTD	147	23/12	22:22	34° 30' S	08° 00' W	~400	T,S,P
677-1	uCTD	148	23/12	23:13	34° 30' S	08° 11' W	~400	T,S,P
677-1	uCTD	149	24/12	00:17	34° 30' S	08° 24' W	~400	T,S,P
749-1	XBT	65	24/12	00:35	34° 30' S	08° 27' W	~760	T,P
677-1	uCTD	150	24/12	01:18	34° 30' S	08° 36' W	~400	T,S,P
677-1	uCTD	151	24/12	02:17	34° 30' S	08° 47' W	~400	T,S,P
750-1	XBT	66	24/12	02:56	34° 30' S	08° 54' W	~760	T,P
677-1	uCTD	152	24/12	03:14	34° 30' S	08° 57' W	~400	T,S,P
677-1	uCTD	153	24/12	04:36	34° 30' S	09° 10' W	~400	T,S,P
677-1	uCTD	154	24/12	05:40	34° 30' S	09° 19' W	~400	T,S,P

751-1	XBT	67	24/12	06:13	34° 30' S	09° 24' W	~760	T,P
677-1	uCTD	155	24/12	06:38	34° 30' S	09° 27' W	~400	T,S,P
752-1	ARGO-Float	12	24/12	06:57	34° 30' S	09° 30' W		T,S,P
677-1	uCTD	156	24/12	07:29	34° 30' S	09° 34' W	~400	T,S,P
753-1	MultiNet	14	24/12	08:16	34° 30' S	09° 39' W	720	T,S,P,Fl,TA,μPlast, Plank,Foram
753-2	MultiNet	15	24/12	09:15	34° 30' S	09° 39' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
753-3	MultiNet	16	24/12	09:34	34° 30' S	09° 39' W	515	T,S,P,Fl,TA,μPlast, Plank,Foram
753-4	CTD/RO	16	24/12	10:25	34° 30' S	09° 39' W	1998	T,S,P,O2,Fl,TA
677-1	uCTD	157	24/12	12:14	34° 30' S	09° 43' W	~400	T,S,P
677-1	uCTD	158	24/12	13:09	34° 30' S	09° 53' W	~400	T,S,P
754-1	XBT	68	24/12	13:27	34° 30' S	09° 56' W	~760	T,P
677-1	uCTD	159	24/12	14:29	34° 30' S	10° 08' W	~400	T,S,P
677-1	uCTD	160	24/12	15:18	34° 30' S	10° 17' W	~400	T,S,P
755-1	XBT	69	24/12	15:58	34° 30' S	10° 25' W	~760	T,P
677-1	uCTD	161	24/12	16:17	34° 30' S	10° 28' W	~400	T,S,P
677-1	uCTD	162	24/12	17:17	34° 30' S	10° 39' W	~400	T,S,P
756-1	XBT	70	24/12	18:51	34° 30' S	10° 54' W	~760	T,P
677-1	uCTD	163	24/12	19:08	34° 30' S	10° 57' W	~400	T,S,P
757-1	XBT	71	24/12	21:31	34° 30' S	11° 23' W	~760	T,P
757-2	XBT	72	24/12	21:37	34° 30' S	11° 24' W	~760	T,P
757-3	XBT	73	24/12	21:41	34° 30' S	11° 25' W	~760	T,P
758-1	ARGO-Float	13	24/12	22:17	34° 30' S	11° 31' W		T,S,P
759-1	XBT	74	25/12	00:33	34° 30' S	11° 55' W	~760	T,P
677-1	uCTD	164	25/12	00:45	34° 30' S	11° 57' W	~400	T,S,P
677-1	uCTD	165	25/12	01:38	34° 30' S	12° 07' W	~400	T,S,P
677-1	uCTD	166	25/12	02:38	34° 30' S	12° 18' W	~400	T,S,P
760-1	XBT	75	25/12	03:15	34° 30' S	12° 24' W	~760	T,P
677-1	uCTD	167	25/12	03:51	34° 30' S	12° 31' W	~400	T,S,P
677-1	uCTD	168	25/12	04:48	34° 30' S	12° 41' W	~400	T,S,P
761-1	XBT	76	25/12	05:57	34° 30' S	12° 54' W	~760	T,P
677-1	uCTD	169	25/12	06:17	34° 30' S	12° 58' W	~400	T,S,P
677-1	uCTD	170	25/12	07:28	34° 30' S	13° 10' W	~400	T,S,P
762-1	XBT	77	25/12	08:35	34° 30' S	13° 24' W	~760	T,P
763-1	ARGO-Float	14	25/12	09:11	34° 30' S	13° 30' W		T,S,P
763-1	ARGO-Float	15	25/12	09:11	34° 30' S	13° 30' W		T,S,P
677-1	uCTD	171	25/12	09:30	34° 30' S	13° 33' W	~400	T,S,P
677-1	uCTD	172	25/12	10:34	34° 30' S	13° 45' W	~400	T,S,P
764-1	XBT	78	25/12	11:26	34° 30' S	13° 54' W	~760	T,P
677-1	uCTD	173	25/12	11:38	34° 30' S	13° 57' W	~400	T,S,P
677-1	uCTD	174	25/12	12:25	34° 30' S	14° 05' W	~400	T,S,P
677-1	uCTD	175	25/12	13:28	34° 30' S	14° 17' W	~400	T,S,P
765-1	XBT	79	25/12	14:10	34° 30' S	14° 25' W	~760	T,P

677-1	uCTD	176	25/12	14:30	34° 30' S	14° 29' W	~400	T,S,P
677-1	uCTD	177	25/12	15:32	34° 30' S	14° 40' W	~400	T,S,P
677-1	uCTD	178	25/12	16:34	34° 30' S	14° 51' W	~400	T,S,P
766-1	XBT	80	25/12	16:52	34° 30' S	14° 54' W	~760	T,P
677-1	uCTD	179	25/12	17:38	34° 30' S	15° 02' W	~400	T,S,P
677-1	uCTD	180	25/12	18:28	34° 30' S	15° 10' W	~400	T,S,P
767-1	XBT	81	25/12	19:49	34° 30' S	15° 24' W	~760	T,P
677-1	uCTD	181	25/12	20:08	34° 30' S	15° 28' W	~400	T,S,P
677-1	uCTD	182	25/12	21:41	34° 30' S	15° 44' W	~400	T,S,P
768-1	XBT	82	25/12	22:39	34° 30' S	15° 55' W	~760	T,P
768-2	XBT	83	25/12	22:42	34° 30' S	15° 55' W	~760	T,P
768-3	XBT	84	25/12	22:46	34° 30' S	15° 56' W	~760	T,P
677-1	uCTD	183	25/12	22:57	34° 30' S	15° 58' W	~400	T,S,P
677-1	uCTD	184	25/12	23:53	34° 30' S	16° 09' W	~400	T,S,P
677-1	uCTD	185	26/12	00:57	34° 30' S	16° 21' W	~400	T,S,P
769-1	XBT	85	26/12	01:22	34° 30' S	16° 27' W	~760	T,P
677-1	uCTD	186	26/12	02:00	34° 30' S	16° 34' W	~400	T,S,P
770-1	XBT	86	26/12	03:52	34° 30' S	16° 55' W	~760	T,P
677-1	uCTD	187	26/12	04:35	34° 30' S	17° 03' W	~400	T,S,P
677-1	uCTD	188	26/12	05:44	34° 30' S	17° 16' W	~400	T,S,P
771-1	XBT	87	26/12	06:26	34° 30' S	17° 25' W	~760	T,P
677-1	uCTD	189	26/12	06:39	34° 30' S	17° 27' W	~400	T,S,P
677-1	uCTD	190	26/12	07:08	34° 30' S	17° 33' W	~400	T,S,P
677-1	uCTD	191	26/12	08:10	34° 30' S	17° 46' W	~400	T,S,P
772-1	XBT	88	26/12	08:53	34° 30' S	17° 54' W	~760	T,P
773-1	ARGO-Float	16	26/12	09:17	34° 30' S	17° 59' W		T,S,P
677-1	uCTD	192	26/12	09:25	34° 30' S	18° 01' W	~400	T,S,P
677-1	uCTD	193	26/12	10:33	34° 30' S	18° 14' W	~400	T,S,P
774-1	XBT	89	26/12	11:21	34° 30' S	18° 24' W	~760	T,P
677-1	uCTD	194	26/12	11:38	34° 30' S	18° 28' W	~400	T,S,P
677-1	uCTD	195	26/12	12:28	34° 30' S	18° 37' W	~400	T,S,P
775-1	MultiNet	17	26/12	13:31	34° 30' S	18° 48' W	750	T,S,P,Fl,TA,μPlast, Plank,Foram
775-2	MultiNet	18	26/12	14:29	34° 30' S	18° 48' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
775-3	MultiNet	19	26/12	14:45	34° 30' S	18° 48' W	515	T,S,P,Fl,TA,μPlast, Plank,Foram
775-4	CTD/RO	17	26/12	15:38	34° 30' S	18° 48' W	2002	T,S,P,O2,Fl,TA
677-1	uCTD	196	26/12	17:15	34° 30' S	18° 49' W	~400	T,S,P
776-1	XBT	90	26/12	17:44	34° 30' S	18° 55' W	~760	T,P
677-1	uCTD	197	26/12	18:06	34° 30' S	19° 00' W	~400	T,S,P
677-1	uCTD	198	26/12	19:16	34° 30' S	19° 14' W	~400	T,S,P
777-1	XBT	91	26/12	20:06	34° 30' S	19° 24' W	~760	T,P
677-1	uCTD	199	26/12	20:18	34° 30' S	19° 27' W	~400	T,S,P
677-1	uCTD	200	26/12	21:41	34° 30' S	19° 43' W	~400	T,S,P
677-1	uCTD	201	26/12	22:31	34° 30' S	19° 52' W	~400	T,S,P
778-1	XBT	92	26/12	22:48	34° 30' S	19° 56' W	~760	T,P

677-1	uCTD	202	26/12	23:33	34° 30' S	20° 04' W	~400	T,S,P
677-1	uCTD	203	27/12	00:33	34° 30' S	20° 15' W	~400	T,S,P
779-1	XBT	93	27/12	01:21	34° 30' S	20° 24' W	~760	T,P
677-1	uCTD	204	27/12	01:41	34° 30' S	20° 28' W	~400	T,S,P
677-1	uCTD	205	27/12	02:35	34° 30' S	20° 37' W	~400	T,S,P
780-1	XBT	94	27/12	04:19	34° 30' S	20° 58' W	~760	T,P
780-2	XBT	95	27/12	04:22	34° 30' S	20° 58' W	~760	T,P
780-3	XBT	96	27/12	04:26	34° 30' S	20° 59' W	~760	T,P
677-1	uCTD	206	27/12	04:31	34° 30' S	21° 00' W	~400	T,S,P
677-1	uCTD	207	27/12	06:12	34° 30' S	21° 20' W	~400	T,S,P
781-1	XBT	97	27/12	06:37	34° 30' S	21° 25' W	~760	T,P
677-1	uCTD	208	27/12	07:20	34° 30' S	21° 33' W	~400	T,S,P
677-1	uCTD	209	27/12	08:15	34° 30' S	21° 44' W	~400	T,S,P
782-1	XBT	98	27/12	09:06	34° 30' S	21° 54' W	~760	T,P
677-1	uCTD	210	27/12	09:22	34° 30' S	21° 57' W	~400	T,S,P
677-1	uCTD	211	27/12	10:22	34° 30' S	22° 09' W	~400	T,S,P
677-1	uCTD	212	27/12	11:26	34° 30' S	22° 22' W	~400	T,S,P
783-1	XBT	99	27/12	11:48	34° 30' S	22° 26' W	~760	T,P
783-2	XBT	100	27/12	11:55	34° 30' S	22° 27' W	~760	T,P
784-1	ARGO-Float	17	27/12	12:09	34° 30' S	22° 30' W		T,S,P
677-1	uCTD	213	27/12	12:24	34° 30' S	22° 32' W	~400	T,S,P
677-1	uCTD	214	27/12	13:24	34° 30' S	22° 44' W	~400	T,S,P
785-1	XBT	101	27/12	14:17	34° 30' S	22° 54' W	~760	T,P
677-1	uCTD	215	27/12	14:32	34° 30' S	22° 57' W	~400	T,S,P
677-1	uCTD	216	27/12	15:24	34° 30' S	23° 07' W	~400	T,S,P
677-1	uCTD	217	27/12	16:23	34° 30' S	23° 18' W	~400	T,S,P
786-1	XBT	102	27/12	16:56	34° 30' S	23° 25' W	~760	T,P
677-1	uCTD	218	27/12	17:21	34° 30' S	23° 29' W	~400	T,S,P
677-1	uCTD	219	27/12	18:22	34° 30' S	23° 40' W	~400	T,S,P
787-1	XBT	103	27/12	19:39	34° 30' S	23° 55' W	~760	T,P
677-1	uCTD	220	27/12	20:02	34° 30' S	23° 59' W	~400	T,S,P
677-1	uCTD	221	27/12	21:25	34° 30' S	24° 13' W	~400	T,S,P
788-1	XBT	104	27/12	22:29	34° 30' S	24° 25' W	~760	T,P
788-2	XBT	105	27/12	22:36	34° 30' S	24° 26' W	~760	T,P
677-1	uCTD	222	27/12	22:48	34° 30' S	24° 28' W	~400	T,S,P
677-1	uCTD	223	27/12	23:40	34° 30' S	24° 37' W	~400	T,S,P
677-1	uCTD	224	28/12	00:42	34° 30' S	24° 48' W	~400	T,S,P
789-1	XBT	106	28/12	01:23	34° 30' S	24° 55' W	~760	T,P
789-2	XBT	107	28/12	01:26	34° 30' S	24° 55' W	~760	T,P
790-1	ARGO-Float	18	28/12	01:43	34° 30' S	24° 58' W		T,S,P
677-1	uCTD	225	28/12	01:50	34° 30' S	24° 59' W	~400	T,S,P
677-1	uCTD	226	28/12	02:59	34° 30' S	25° 10' W	~400	T,S,P
677-1	uCTD	227	28/12	04:09	34° 30' S	25° 21' W	~400	T,S,P
791-1	XBT	108	28/12	04:34	34° 30' S	25° 24' W	~760	T,P
677-1	uCTD	228	28/12	05:15	34° 30' S	25° 30' W	~400	T,S,P
677-1	uCTD	229	28/12	06:14	34° 30' S	25° 39' W	~400	T,S,P

677-1	uCTD	230	28/12	07:16	34° 30' S	25° 47' W	~400	T,S,P
792-1	XBT	109	28/12	08:15	34° 30' S	25° 55' W	~760	T,P
677-1	uCTD	231	28/12	08:30	34° 30' S	25° 57' W	~400	T,S,P
793-1	MultiNet	20	28/12	09:33	34° 30' S	26° 04' W	720	T,S,P,Fl,TA,μPlast, Plank,Foram
793-2	MultiNet	21	28/12	10:29	34° 30' S	26° 04' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
793-3	MultiNet	22	28/12	10:48	34° 30' S	26° 04' W	515	T,S,P,Fl,TA,μPlast, Plank,Foram
793-4	CTD/RO	18	28/12	11:45	34° 30' S	26° 04' W	1996	T,S,P,O2,Fl,TA
677-1	uCTD	232	28/12	14:23	34° 30' S	26° 08' W	~400	T,S,P
677-1	uCTD	233	28/12	15:26	34° 30' S	26° 18' W	~400	T,S,P
794-1	XBT	110	28/12	16:16	34° 30' S	26° 25' W	~760	T,P
677-1	uCTD	234	28/12	16:27	34° 30' S	26° 27' W	~400	T,S,P
677-1	uCTD	235	28/12	17:35	34° 30' S	26° 37' W	~400	T,S,P
795-1	XBT	111	28/12	19:15	34° 30' S	26° 55' W	~760	T,P
796-1	XBT	112	28/12	21:57	34° 30' S	27° 24' W	~760	T,P
677-1	uCTD	236	28/12	22:11	34° 30' S	27° 27' W	~400	T,S,P
797-1	ARGO-Float	19	28/12	22:32	34° 30' S	27° 30' W		T,S,P
677-1	uCTD	237	28/12	23:09	34° 30' S	27° 36' W	~400	T,S,P
677-1	uCTD	238	29/12	00:17	34° 30' S	27° 48' W	~400	T,S,P
798-1	XBT	113	29/12	00:55	34° 30' S	27° 55' W	~760	T,P
677-1	uCTD	239	29/12	01:21	34° 30' S	28° 00' W	~400	T,S,P
677-1	uCTD	240	29/12	02:23	34° 30' S	28° 11' W	~400	T,S,P
677-1	uCTD	241	29/12	03:21	34° 30' S	28° 22' W	~400	T,S,P
799-1	XBT	114	29/12	03:40	34° 30' S	28° 25' W	~760	T,P
677-1	uCTD	242	29/12	04:25	34° 30' S	28° 34' W	~400	T,S,P
677-1	uCTD	243	29/12	05:34	34° 30' S	28° 47' W	~400	T,S,P
800-1	XBT	115	29/12	06:16	34° 30' S	28° 55' W	~760	T,P
677-1	uCTD	244	29/12	06:30	34° 30' S	28° 57' W	~400	T,S,P
677-1	uCTD	245	29/12	07:36	34° 30' S	29° 10' W	~400	T,S,P
677-1	uCTD	246	29/12	08:30	34° 30' S	29° 20' W	~400	T,S,P
801-1	XBT	116	29/12	08:51	34° 30' S	29° 24' W	~760	T,P
677-1	uCTD	247	29/12	09:30	34° 30' S	29° 31' W	~400	T,S,P
677-1	uCTD	248	29/12	10:30	34° 30' S	29° 43' W	~400	T,S,P
802-1	XBT	117	29/12	11:28	34° 30' S	29° 54' W	~760	T,P
802-1	XBT	118	29/12	11:31	34° 30' S	29° 54' W	~760	T,P
677-1	uCTD	249	29/12	11:59	34° 30' S	30° 00' W	~400	T,S,P
803-1	ARGO-Float	20	29/12	12:18	34° 30' S	30° 04' W		T,S,P
677-1	uCTD	250	29/12	13:07	34° 30' S	30° 13' W	~400	T,S,P
677-1	uCTD	251	29/12	13:53	34° 30' S	30° 22' W	~400	T,S,P
804-1	XBT	119	29/12	14:13	34° 30' S	30° 26' W	~760	T,P
677-1	uCTD	252	29/12	15:04	34° 30' S	30° 36' W	~400	T,S,P
677-1	uCTD	253	29/12	16:05	34° 30' S	30° 48' W	~400	T,S,P
677-1	uCTD	254	29/12	17:22	34° 30' S	31° 03' W	~400	T,S,P
677-1	uCTD	255	29/12	18:25	34° 30' S	31° 16' W	~400	T,S,P

806-1	XBT	120	29/12	19:09	34° 30' S	31° 24' W	~760	T,P
677-1	uCTD	256	29/12	19:33	34° 30' S	31° 28' W	~400	T,S,P
677-1	uCTD	257	29/12	21:44	34° 30' S	31° 52' W	~400	T,S,P
807-1	XBT	121	29/12	22:00	34° 30' S	31° 55' W	~760	T,P
677-1	uCTD	258	29/12	23:09	34° 30' S	32° 07' W	~400	T,S,P
677-1	uCTD	259	30/12	00:12	34° 30' S	32° 18' W	~400	T,S,P
808-1	XBT	122	30/12	00:55	34° 30' S	32° 25' W	~760	T,P
677-1	uCTD	260	30/12	03:04	34° 30' S	32° 48' W	~400	T,S,P
809-1	XBT	123	30/12	03:40	34° 30' S	32° 55' W	~760	T,P
677-1	uCTD	261	30/12	04:11	34° 30' S	33° 01' W	~400	T,S,P
810-1	XBT	124	30/12	06:16	34° 30' S	33° 24' W	~760	T,P
810-2	XBT	125	30/12	06:22	34° 30' S	33° 25' W	~760	T,P
677-1	uCTD	262	30/12	08:47	34° 30' S	33° 55' W	~400	T,S,P
811-1	XBT	126	30/12	09:04	34° 30' S	33° 58' W	~760	T,P
812-1	XBT	127	30/12	11:12	34° 30' S	34° 24' W	~760	T,P
677-1	uCTD	263	30/12	11:36	34° 30' S	34° 29' W	~400	T,S,P
677-1	uCTD	264	30/12	12:29	34° 30' S	34° 39' W	~400	T,S,P
677-1	uCTD	265	30/12	13:35	34° 30' S	34° 52' W	~400	T,S,P
813-1	XBT	128	30/12	13:57	34° 30' S	34° 55' W	~760	T,P
677-1	uCTD	266	30/12	14:35	34° 30' S	35° 02' W	~400	T,S,P
677-1	uCTD	267	30/12	15:48	34° 30' S	35° 16' W	~400	T,S,P
814-1	XBT	129	30/12	16:34	34° 30' S	35° 25' W	~760	T,P
814-2	XBT	130	30/12	16:38	34° 30' S	35° 26' W	~760	T,P
815-1	XBT	131	30/12	18:22	34° 30' S	35° 47' W	~760	T,P
816-1	XBT	132	30/12	19:00	34° 30' S	35° 54' W	~760	T,P
817-1	XBT	133	30/12	20:13	34° 30' S	36° 09' W	~760	T,P
818-1	XBT	134	30/12	21:32	34° 30' S	36° 24' W	~760	T,P
819-1	XBT	135	30/12	22:47	34° 30' S	36° 39' W	~760	T,P
820-1	XBT	136	31/12	00:07	34° 30' S	36° 54' W	~760	T,P
821-1	XBT	137	31/12	01:24	34° 30' S	37° 10' W	~760	T,P
821-2	XBT	138	31/12	01:28	34° 30' S	37° 10' W	~760	T,P
822-1	XBT	139	31/12	02:46	34° 30' S	37° 26' W	~760	T,P
823-1	XBT	140	31/12	03:56	34° 30' S	37° 40' W	~760	T,P
824-1	XBT	141	31/12	06:21	34° 30' S	38° 09' W	~760	T,P
824-2	XBT	142	31/12	06:24	34° 30' S	38° 09' W	~760	T,P
825-1	XBT	143	31/12	07:40	34° 30' S	38° 24' W	~760	T,P
826-1	XBT	144	31/12	08:56	34° 30' S	38° 39' W	~760	T,P
826-2	XBT	145	31/12	09:05	34° 30' S	38° 41' W	~760	T,P
827-1	XBT	146	31/12	10:03	34° 30' S	38° 52' W	~760	T,P
828-1	MultiNet	23	31/12	10:20	34° 30' S	38° 54' W	720	T,S,P,Fl,TA,μPlast, Plank,Foram
828-2	MultiNet	24	31/12	11:16	34° 30' S	38° 54' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
828-3	MultiNet	25	31/12	11:32	34° 30' S	38° 54' W	515	T,S,P,Fl,TA,μPlast, Plank,Foram
828-4	CTD/RO	19	31/12	12:27	34° 30' S	38° 54' W	2000	T,S,P,O2,Fl,TA
829-1	XBT	147	31/12	15:58	34° 30' S	39° 11' W	~760	T,P
677-1	uCTD	268	31/12	16:50	34° 30' S	39° 22' W	~400	T,S,P

830-1	XBT	148	31/12	17:11	34° 30' S	39° 27' W	~760	T,P
677-1	uCTD	269	31/12	18:00	34° 30' S	39° 37' W	~400	T,S,P
831-1	XBT	149	31/12	18:17	34° 30' S	39° 41' W	~760	T,P
677-1	uCTD	270	31/12	19:03	34° 30' S	39° 51' W	~400	T,S,P
832-1	XBT	150	31/12	19:20	34° 30' S	39° 55' W	~760	T,P
833-1	XBT	151	31/12	20:29	34° 30' S	40° 09' W	~760	T,P
677-1	uCTD	271	31/12	20:56	34° 30' S	40° 15' W	~400	T,S,P
834-1	XBT	152	31/12	21:39	34° 30' S	40° 24' W	~760	T,P
835-1	XBT	153	31/12	22:39	34° 30' S	40° 36' W	~760	T,P
835-2	XBT	154	31/12	22:45	34° 30' S	40° 37' W	~760	T,P
836-1	XBT	155	31/12	23:47	34° 30' S	40° 49' W	~760	T,P
837-1	XBT	156	1/01	01:26	34° 30' S	41° 09' W	~760	T,P
001-1	XBT	157	1/01	03:25	34° 30' S	41° 25' W	~760	T,P
002-1	XBT	158	1/01	04:40	34° 30' S	41° 38' W	~760	T,P
003-1	XBT	159	1/01	07:26	34° 30' S	42° 07' W	~760	T,P
004-1	XBT	160	1/01	07:46	34° 30' S	42° 10' W	~760	T,P
005-1	XBT	161	1/01	08:57	34° 30' S	42° 24' W	~760	T,P
006-1	XBT	162	1/01	10:20	34° 30' S	42° 40' W	~760	T,P
007-1	XBT	163	1/01	11:33	34° 30' S	42° 54' W	~760	T,P
008-1	XBT	164	1/01	12:50	34° 30' S	43° 09' W	~760	T,P
677-1	uCTD	272	1/01	13:02	34° 30' S	43° 12' W	~400	T,S,P
677-1	uCTD	273	1/01	14:08	34° 30' S	43° 25' W	~400	T,S,P
009-1	XBT	165	1/01	14:23	34° 30' S	43° 28' W	~760	T,P
009-2	XBT	166	1/01	14:26	34° 30' S	43° 28' W	~760	T,P
677-1	uCTD	274	1/01	15:09	34° 30' S	43° 37' W	~400	T,S,P
677-1	uCTD	275	1/01	16:04	34° 30' S	43° 48' W	~400	T,S,P
010-1	XBT	167	1/01	16:41	34° 30' S	43° 55' W	~760	T,P
677-1	uCTD	276	1/01	17:12	34° 30' S	44° 01' W	~400	T,S,P
677-1	uCTD	277	1/01	18:07	34° 30' S	44° 11' W	~400	T,S,P
011-1	XBT	168	1/01	19:10	34° 30' S	44° 23' W	~760	T,P
677-1	uCTD	278	1/01	19:21	34° 30' S	44° 25' W	~400	T,S,P
677-1	uCTD	279	1/01	20:40	34° 30' S	44° 40' W	~400	T,S,P
677-1	uCTD	280	1/01	21:30	34° 30' S	44° 50' W	~400	T,S,P
012-1	XBT	169	1/01	21:50	34° 30' S	44° 54' W	~760	T,P
677-1	uCTD	281	1/01	22:42	34° 30' S	45° 04' W	~400	T,S,P
677-1	uCTD	282	1/01	23:50	34° 30' S	45° 17' W	~400	T,S,P
013-1	XBT	170	2/01	00:31	34° 30' S	45° 24' W	~760	T,P
677-1	uCTD	283	2/01	00:49	34° 30' S	45° 28' W	~400	T,S,P
677-1	uCTD	284	2/01	01:44	34° 30' S	45° 37' W	~400	T,S,P
677-1	uCTD	285	2/01	02:51	34° 30' S	45° 51' W	~400	T,S,P
014-1	XBT	171	2/01	03:14	34° 30' S	45° 55' W	~760	T,P
677-1	uCTD	286	2/01	04:04	34° 30' S	46° 04' W	~400	T,S,P
677-1	uCTD	287	2/01	05:08	34° 30' S	46° 17' W	~400	T,S,P
015-1	XBT	172	2/01	05:44	34° 30' S	46° 25' W	~760	T,P
677-1	uCTD	288	2/01	06:20	34° 30' S	46° 32' W	~400	T,S,P
677-1	uCTD	289	2/01	07:18	34° 30' S	46° 45' W	~400	T,S,P
016-1	XBT	173	2/01	08:02	34° 30' S	46° 54' W	~760	T,P
677-1	uCTD	290	2/01	08:27	34° 31' S	46° 58' W	~400	T,S,P

677-1	uCTD	291	2/01	09:22	34° 37' S	47° 07' W	~400	T,S,P
017-1	MultiNet	26	2/01	10:23	34° 42' S	47° 15' W	730	T,S,P,Fl,TA,μPlast, Plank,Foram
017-2	MultiNet	27	2/01	11:18	34° 42' S	47° 15' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
017-3	MultiNet	28	2/01	11:33	34° 42' S	47° 15' W	515	T,S,P,Fl,TA,μPlast, Plank,Foram
017-4	CTD/RO	20	2/01	12:26	34° 42' S	47° 15' W	2007	T,S,P,O2,Fl,TA
017-5	ARGO- Float	21	2/01	13:52	34° 42' S	47° 15' W		T,S,P
018-1	XBT	174	2/01	14:22	34° 45' S	47° 20' W	~760	T,P
677-1	uCTD	292	2/01	14:38	34° 46' S	47° 23' W	~400	T,S,P
677-1	uCTD	293	2/01	15:44	34° 54' S	47° 34' W	~400	T,S,P
677-1	uCTD	294	2/01	16:35	34° 59' S	47° 44' W	~400	T,S,P
019-1	XBT	175	2/01	16:56	35° 01' S	47° 48' W	~760	T,P
019-2	XBT	176	2/01	17:00	35° 01' S	47° 49' W	~760	T,P
019-3	XBT	177	2/01	17:04	35° 02' S	47° 49' W	~760	T,P
677-1	uCTD	295	2/01	17:34	35° 05' S	47° 55' W	~400	T,S,P
677-1	uCTD	296	2/01	18:36	35° 12' S	48° 06' W	~400	T,S,P
020-1	XBT	178	2/01	18:58	35° 15' S	48° 10' W	~760	T,P
677-1	uCTD	297	2/01	19:47	35° 20' S	48° 19' W	~400	T,S,P
677-1	uCTD	298	2/01	20:51	35° 27' S	48° 31' W	~400	T,S,P
021-1	XBT	179	2/01	21:12	35° 30' S	48° 36' W	~760	T,P
677-1	uCTD	299	2/01	21:27	35° 31' S	48° 39' W	~400	T,S,P
677-1	uCTD	300	2/01	22:53	35° 40' S	48° 54' W	~400	T,S,P
022-1	XBT	180	2/01	23:31	35° 44' S	49° 01' W	~760	T,P
677-1	uCTD	301	2/01	23:57	35° 47' S	49° 05' W	~400	T,S,P
677-1	uCTD	302	3/01	01:03	35° 53' S	49° 16' W	~400	T,S,P
677-1	uCTD	303	3/01	02:04	35° 59' S	49° 25' W	~400	T,S,P
023-1	XBT	181	3/01	02:22	36° 01' S	49° 28' W	~760	T,P
677-1	uCTD	304	3/01	03:01	36° 04' S	49° 34' W	~400	T,S,P
677-1	uCTD	305	3/01	04:10	36° 11' S	49° 46' W	~400	T,S,P
024-1	XBT	182	3/01	04:45	36° 15' S	49° 51' W	~760	T,P
024-2	XBT	183	3/01	04:48	36° 15' S	49° 52' W	~760	T,P
677-1	uCTD	306	3/01	05:07	36° 16' S	49° 55' W	~400	T,S,P
677-1	uCTD	307	3/01	06:22	36° 24' S	50° 08' W	~400	T,S,P
025-1	XBT	184	3/01	07:15	36° 30' S	50° 18' W	~760	T,P
677-1	uCTD	308	3/01	07:27	36° 31' S	50° 19' W	~400	T,S,P
677-1	uCTD	309	3/01	08:30	36° 37' S	50° 31' W	~400	T,S,P
026-1	XBT	185	3/01	09:37	36° 45' S	50° 42' W	~760	T,P
677-1	uCTD	310	3/01	09:49	36° 46' S	50° 44' W	~400	T,S,P
677-1	uCTD	311	3/01	11:00	36° 52' S	50° 55' W	~400	T,S,P
677-1	uCTD	312	3/01	12:06	36° 58' S	51° 06' W	~400	T,S,P
027-1	XBT	186	3/01	12:33	37° 00' S	51° 09' W	~760	T,P
677-1	uCTD	313	3/01	14:20	37° 10' S	51° 24' W	~400	T,S,P
677-1	uCTD	314	3/01	15:20	37° 16' S	51° 32' W	~400	T,S,P
028-1	XBT	187	3/01	15:39	37° 18' S	51° 34' W	~760	T,P
028-2	XBT	188	3/01	15:43	37° 18' S	51° 35' W	~760	T,P

677-1	uCTD	315	3/01	16:26	37° 21' S	51° 42' W	~400	T,S,P
677-1	uCTD	316	3/01	17:34	37° 27' S	51° 52' W	~400	T,S,P
029-1	XBT	189	3/01	18:16	37° 30' S	51° 58' W	~760	T,P
677-1	uCTD	317	3/01	18:52	37° 33' S	52° 03' W	~400	T,S,P
677-1	uCTD	318	3/01	20:03	37° 39' S	52° 13' W	~400	T,S,P
030-1	XBT	190	3/01	21:19	37° 45' S	52° 24' W	~760	T,P
677-1	uCTD	319	3/01	21:34	37° 46' S	52° 27' W	~400	T,S,P
031-1	XBT	191	3/01	22:42	37° 51' S	52° 36' W	~760	T,P
032-1	XBT	192	4/01	00:16	38° 00' S	52° 49' W	~760	T,P
033-1	XBT	193	4/01	02:17	38° 00' S	53° 10' W	~760	T,P
034-1	MultiNet	29	4/01	03:48	38° 00' S	53° 25' W	720	T,S,P,Fl,TA,μPlast, Plank,Foram
034-2	MultiNet	30	4/01	04:45	38° 01' S	53° 24' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
034-3	MultiNet	31	4/01	05:02	38° 01' S	53° 24' W	525	T,S,P,Fl,TA,μPlast, Plank,Foram
034-4	CTD/RO	21	4/01	05:53	38° 01' S	53° 24' W	2000	T,S,P,O2,Fl,TA
677-1	uCTD	320	4/01	07:31	38° 01' S	53° 24' W	~400	T,S,P
035-1	XBT	194	4/01	07:54	38° 00' S	53° 28' W	~760	T,P
677-1	uCTD	321	4/01	08:42	38° 00' S	53° 39' W	~400	T,S,P
036-1	XBT	195	4/01	09:30	38° 00' S	53° 50' W	~760	T,P
677-1	uCTD	322	4/01	09:48	38° 00' S	53° 54' W	~400	T,S,P
677-1	uCTD	323	4/01	10:45	38° 00' S	54° 07' W	~400	T,S,P
037-1	XBT	196	4/01	11:05	38° 00' S	54° 12' W	~760	T,P
038-1	CTD/RO	22	4/01	11:50	38° 00' S	54° 20' W	1246	T,S,P,O2,Fl,TA
039-1	XBT	197	4/01	13:40	38° 00' S	54° 29' W	~760	T,P
677-1	uCTD	324	4/01	14:01	38° 00' S	54° 34' W	~400	T,S,P
677-1	uCTD	325	4/01	15:02	38° 00' S	54° 48' W	~400	T,S,P
040-1	XBT	198	4/01	15:21	38° 00' S	54° 51' W	~760	T,P
677-1	uCTD	326	4/01	16:41	38° 00' S	55° 08' W	~400	T,S,P
041-1	XBT	199	4/01	16:52	38° 00' S	55° 10' W	~760	T,P
042-1	CTD/RO	23	4/01	18:07	38° 09' S	55° 07' W	537	T,S,P,O2,Fl,TA
043-1	RCast	1	4/01	19:25	38° 14' S	55° 04' W	101	T,S,P
044-1	XBT	200	4/01	20:08	38° 21' S	55° 01' W	~760	T,P
043-1	RCast	2	4/01	20:19	38° 23' S	55° 01' W	98	T,S,P
045-1	XBT	201	4/01	21:03	38° 30' S	54° 58' W	~760	T,P
043-1	RCast	3	4/01	21:08	38° 31' S	54° 57' W	101	T,S,P
046-1	XBT	202	4/01	22:04	38° 40' S	54° 54' W	~760	T,P
043-1	RCast	4	4/01	22:20	38° 42' S	54° 53' W	95	T,S,P
047-1	XBT	203	4/01	22:58	38° 48' S	54° 51' W	~760	T,P
043-1	RCast	5	4/01	23:08	38° 50' S	54° 50' W	98	T,S,P
048-1	XBT	204	5/01	00:03	38° 59' S	54° 46' W	~760	T,P
043-1	RCast	6	5/01	00:10	39° 00' S	54° 46' W	97	T,S,P
049-1	XBT	205	5/01	01:01	39° 08' S	54° 43' W	~760	T,P
049-2	XBT	206	5/01	01:09	39° 09' S	54° 42' W	~760	T,P
043-1	RCast	7	5/01	01:17	39° 11' S	54° 42' W	94	T,S,P
050-1	XBT	207	5/01	02:02	39° 18' S	54° 39' W	~760	T,P
043-1	RCast	8	5/01	02:08	39° 19' S	54° 39' W	93	T,S,P

051-1	XBT	208	5/01	03:06	39° 28' S	54° 35' W	~760	T,P
052-1	MultiNet	32	5/01	03:31	39° 30' S	54° 34' W	725	T,S,P,Fl,TA,μPlast, Plank,Foram
052-2	MultiNet	33	5/01	04:28	39° 29' S	54° 34' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
052-3	MultiNet	34	5/01	04:45	39° 29' S	54° 34' W	525	T,S,P,Fl,TA,μPlast, Plank,Foram
052-4	CTD/RO	24	5/01	05:35	39° 29' S	54° 34' W	NaN	T,S,P,O2,Fl,TA
052-4	CTD/RO	25	5/01	05:50	39° 29' S	54° 34' W	2031	T,S,P,O2,Fl,TA
053-1	XBT	209	5/01	08:39	39° 18' S	54° 25' W	~760	T,P
054-1	XBT	210	5/01	10:03	39° 06' S	54° 15' W	~760	T,P
055-1	XBT	211	5/01	11:22	38° 54' S	54° 04' W	~760	T,P
056-1	MultiNet	35	5/01	12:25	38° 46' S	53° 58' W	720	T,S,P,Fl,TA,μPlast, Plank,Foram
056-2	MultiNet	36	5/01	13:28	38° 46' S	53° 56' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
056-3	MultiNet	37	5/01	13:47	38° 46' S	53° 55' W	525	T,S,P,Fl,TA,μPlast, Plank,Foram
056-4	CTD/RO	26	5/01	14:39	38° 46' S	53° 54' W	2024	T,S,P,O2,Fl,TA
043-1	RCast	9	5/01	16:13	38° 46' S	53° 54' W	87	T,S,P
057-1	XBT	212	5/01	17:14	38° 36' S	53° 49' W	~760	T,P
058-1	MultiNet	38	5/01	17:34	38° 34' S	53° 49' W	745	T,S,P,Fl,TA,μPlast, Plank,Foram
058-2	MultiNet	39	5/01	18:43	38° 35' S	53° 48' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
058-3	MultiNet	40	5/01	19:00	38° 36' S	53° 48' W	550	T,S,P,Fl,TA,μPlast, Plank,Foram
058-4	CTD/RO	27	5/01	19:56	38° 36' S	53° 47' W	1037	T,S,P,O2,Fl,TA
043-1	RCast	10	5/01	21:02	38° 36' S	53° 46' W	91	T,S,P
059-1	MultiNet	41	5/01	21:41	38° 31' S	53° 43' W	814	T,S,P,Fl,TA,μPlast, Plank,Foram
059-2	MultiNet	42	5/01	22:46	38° 33' S	53° 42' W	109	T,S,P,Fl,TA,μPlast, Plank,Foram
059-3	MultiNet	43	5/01	23:03	38° 33' S	53° 41' W	590	T,S,P,Fl,TA,μPlast, Plank,Foram
059-4	CTD/RO	28	5/01	23:57	38° 34' S	53° 39' W	2121	T,S,P,O2,Fl,TA
677-1	uCTD	327	6/01	02:00	38° 37' S	53° 40' W	~400	T,S,P
060-1	XBT	213	6/01	03:04	38° 40' S	53° 49' W	~760	T,P
061-1	MultiNet	44	6/01	03:50	38° 44' S	53° 54' W	520	T,S,P,Fl,TA,μPlast, Plank,Foram
061-2	MultiNet	45	6/01	04:41	38° 45' S	53° 53' W	120	T,S,P,Fl,TA,μPlast, Plank,Foram
061-3	MultiNet	46	6/01	05:07	38° 45' S	53° 53' W	730	T,S,P,Fl,TA,μPlast, Plank,Foram
061-4	CTD/RO	29	6/01	06:10	38° 46' S	53° 52' W	1057	T,S,P,O2,Fl,TA
677-1	uCTD	328	6/01	07:19	38° 48' S	53° 53' W	~400	T,S,P
677-1	uCTD	329	6/01	08:24	38° 55' S	54° 01' W	~400	T,S,P
677-1	uCTD	330	6/01	09:17	39° 00' S	54° 07' W	~400	T,S,P
677-1	uCTD	331	6/01	10:19	39° 04' S	54° 15' W	~400	T,S,P

677-1	uCTD	332	6/01	11:29	39° 05' S	54° 28' W	~400	T,S,P
677-1	uCTD	333	6/01	12:25	39° 06' S	54° 37' W	~400	T,S,P
677-1	uCTD	334	6/01	13:28	39° 07' S	54° 46' W	~400	T,S,P
677-1	uCTD	335	6/01	14:35	39° 07' S	54° 59' W	~400	T,S,P
677-1	uCTD	336	6/01	15:37	39° 09' S	55° 11' W	~400	T,S,P
677-1	uCTD	337	6/01	16:36	39° 09' S	55° 22' W	~400	T,S,P
062-1	XBT	214	6/01	17:08	39° 10' S	55° 29' W	~760	T,P
043-1	RCast	11	6/01	17:22	39° 10' S	55° 32' W	100	T,S,P
043-1	RCast	12	6/01	18:32	39° 11' S	55° 46' W	85	T,S,P
043-1	RCast	13	6/01	19:44	39° 12' S	56° 02' W	67	T,S,P
043-1	RCast	14	6/01	20:53	39° 13' S	56° 16' W	61	T,S,P
063-1	XBT	215	7/01	11:16	41° 01' S	58° 00' W	~760	T,P
043-1	RCast	15	7/01	12:38	41° 14' S	58° 00' W	59	T,S,P
043-1	RCast	16	7/01	13:41	41° 23' S	58° 00' W	69	T,S,P
043-1	RCast	17	7/01	14:42	41° 31' S	58° 00' W	74	T,S,P
043-1	RCast	18	7/01	15:34	41° 39' S	58° 00' W	79	T,S,P
043-1	RCast	19	7/01	16:39	41° 47' S	58° 00' W	104	T,S,P
043-1	RCast	20	7/01	17:49	41° 57' S	58° 01' W	99	T,S,P
043-1	RCast	21	7/01	19:00	42° 05' S	58° 07' W	141	T,S,P
064-1	XBT	216	7/01	20:13	42° 14' S	58° 10' W	~760	T,P
043-1	RCast	22	7/01	20:18	42° 15' S	58° 10' W	134	T,S,P
043-1	RCast	23	7/01	21:34	42° 24' S	58° 13' W	135	T,S,P
043-1	RCast	24	7/01	22:47	42° 31' S	58° 07' W	126	T,S,P
065-1	MultiNet	47	7/01	23:33	42° 34' S	57° 59' W	720	T,S,P,Fl,TA,μPlast, Plank,Foram
065-2	MultiNet	48	8/01	00:28	42° 34' S	57° 58' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
065-3	MultiNet	49	8/01	00:46	42° 33' S	57° 58' W	520	T,S,P,Fl,TA,μPlast, Plank,Foram
065-4	CTD/RO	30	8/01	01:40	42° 33' S	57° 57' W	1001	T,S,P,O2,Fl,TA
067-1	ARGO-Float	22	8/01	07:48	43° 18' S	58° 00' W		T,S,P
068-1	MultiNet	50	8/01	16:49	44° 39' S	58° 00' W	720	T,S,P,Fl,TA,μPlast, Plank,Foram
068-2	MultiNet	51	8/01	17:46	44° 39' S	58° 00' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
068-3	MultiNet	52	8/01	18:02	44° 39' S	58° 00' W	515	T,S,P,Fl,TA,μPlast, Plank,Foram
068-4	CTD/RO	31	8/01	18:54	44° 39' S	58° 00' W	2826	T,S,P,O2,Fl,TA
069-1	ARGO-Float	23	8/01	20:49	44° 39' S	58° 00' W		T,S,P
070-1	XBT	217	8/01	21:11	44° 39' S	58° 04' W	~760	T,P
071-1	XBT	218	8/01	21:57	44° 39' S	58° 14' W	~760	T,P
072-1	XBT	219	8/01	22:35	44° 39' S	58° 23' W	~760	T,P
073-1	XBT	220	8/01	23:24	44° 39' S	58° 34' W	~760	T,P
074-1	CTD/RO	32	9/01	00:03	44° 39' S	58° 40' W	2009	T,S,P,O2,Fl,TA
075-1	XBT	221	9/01	01:56	44° 39' S	58° 45' W	~760	T,P
076-1	XBT	222	9/01	02:44	44° 39' S	58° 54' W	~760	T,P
077-1	XBT	223	9/01	03:34	44° 39' S	59° 04' W	~760	T,P

077-2	XBT	224	9/01	03:37	44° 39' S	59° 05' W	~760	T,P
078-1	CTD/RO	33	9/01	04:17	44° 39' S	59° 10' W	1562	T,S,P,O2,FI,TA
079-1	XBT	225	9/01	05:58	44° 39' S	59° 15' W	~760	T,P
079-2	XBT	226	9/01	06:01	44° 39' S	59° 15' W	~760	T,P
080-1	XBT	227	9/01	06:42	44° 39' S	59° 24' W	~760	T,P
080-2	XBT	228	9/01	06:46	44° 39' S	59° 25' W	~760	T,P
081-1	CTD/RO	34	9/01	07:12	44° 39' S	59° 30' W	1310	T,S,P,O2,FI,TA
082-1	XBT	229	9/01	08:34	44° 39' S	59° 34' W	~760	T,P
083-1	CTD/RO	35	9/01	09:15	44° 39' S	59° 42' W	1162	T,S,P,O2,FI,TA
084-1	XBT	230	9/01	10:22	44° 38' S	59° 43' W	~760	T,P
085-1	CTD/RO	36	9/01	10:56	44° 39' S	59° 49' W	760	T,S,P,O2,FI,TA
086-1	XBT	231	9/01	12:11	44° 39' S	59° 54' W	~760	T,P
087-1	CTD/RO	37	9/01	12:47	44° 39' S	60° 00' W	182	T,S,P,O2,FI,TA
088-1	XBT	232	9/01	13:35	44° 39' S	60° 04' W	~760	T,P
088-2	XBT	233	9/01	13:38	44° 39' S	60° 05' W	~760	T,P
043-1	RCast	25	9/01	13:58	44° 39' S	60° 09' W	93	T,S,P
043-1	RCast	26	9/01	15:09	44° 39' S	60° 24' W	91	T,S,P
043-1	RCast	27	9/01	16:40	44° 39' S	60° 38' W	94	T,S,P
089-1	CTD/RO	38	9/01	17:53	44° 39' S	60° 49' W	98	T,S,P,O2,FI,TA
043-1	RCast	28	9/01	18:23	44° 39' S	60° 51' W	79	T,S,P
043-1	RCast	29	9/01	19:22	44° 39' S	61° 03' W	78	T,S,P
043-1	RCast	30	9/01	21:28	44° 39' S	61° 25' W	88	T,S,P
090-1	CTD/RO	39	9/01	22:58	44° 39' S	61° 40' W	94	T,S,P,O2,FI,TA
043-1	RCast	31	9/01	23:35	44° 39' S	61° 42' W	73	T,S,P
043-1	RCast	32	10/01	00:34	44° 39' S	61° 54' W	75	T,S,P
043-1	RCast	33	10/01	01:39	44° 39' S	62° 07' W	74	T,S,P
043-1	RCast	34	10/01	02:14	44° 39' S	62° 13' W	75	T,S,P
091-1	CTD/RO	40	10/01	03:42	44° 39' S	62° 30' W	89	T,S,P,O2,FI,TA
043-1	RCast	35	10/01	04:07	44° 39' S	62° 30' W	74	T,S,P
043-1	RCast	36	10/01	05:02	44° 39' S	62° 42' W	76	T,S,P
043-1	RCast	37	10/01	06:01	44° 39' S	62° 53' W	76	T,S,P
092-1	CTD/RO	41	10/01	06:48	44° 39' S	63° 00' W	75	T,S,P,O2,FI,TA
093-1	XBT	234	11/01	05:42	47° 37' S	61° 14' W	~760	T,P
094-1	XBT	235	11/01	06:42	47° 40' S	60° 59' W	~760	T,P
095-1	XBT	236	11/01	07:43	47° 43' S	60° 45' W	~760	T,P
096-1	XBT	237	11/01	08:49	47° 45' S	60° 30' W	~760	T,P
097-1	XBT	238	11/01	09:54	47° 46' S	60° 15' W	~760	T,P
098-1	XBT	239	11/01	11:03	47° 49' S	60° 00' W	~760	T,P
099-1	XBT	240	11/01	12:11	47° 52' S	59° 45' W	~760	T,P
100-1	XBT	241	11/01	13:19	47° 55' S	59° 30' W	~760	T,P
101-1	XBT	242	11/01	14:23	47° 58' S	59° 15' W	~760	T,P
102-1	XBT	243	11/01	15:29	48° 00' S	59° 00' W	~760	T,P
103-1	XBT	244	11/01	16:31	48° 00' S	58° 45' W	~760	T,P
104-1	XBT	245	11/01	17:30	48° 00' S	58° 30' W	~760	T,P
104-2	XBT	246	11/01	17:38	48° 00' S	58° 28' W	~760	T,P
104-3	XBT	247	11/01	17:44	48° 00' S	58° 26' W	~760	T,P
104-4	XBT	248	11/01	17:50	48° 00' S	58° 25' W	~760	T,P
105-1	XBT	249	11/01	18:30	48° 00' S	58° 15' W	~760	T,P

106-1	MultiNet	53	11/01	19:43	48° 00' S	58° 00' W	720	T,S,P,Fl,TA,μPlast, Plank,Foram
106-2	MultiNet	54	11/01	20:52	48° 00' S	58° 00' W	110	T,S,P,Fl,TA,μPlast, Plank,Foram
106-3	MultiNet	55	11/01	21:07	48° 00' S	58° 01' W	515	T,S,P,Fl,TA,μPlast, Plank,Foram
106-4	CTD/RO	42	11/01	21:52	48° 00' S	58° 01' W	2473	T,S,P,O2,Fl,TA
107-1	ARGO- Float	24	11/01	23:30	48° 00' S	58° 03' W		T,S,P
108-1	XBT	250	11/01	23:39	48° 00' S	58° 04' W	~760	T,P