



HOKKAIDO UNIVERSITY

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**THE "OSHOROMARU" CRUISE 266
TO TSUGARU STRAIT, IBURI and HIDAKA OFF, and IWATE OFF**

IN FEBRUARY 2014

1. Cruise Itinerary

Cruise 266

Departure from Hakodate		
and start hydrographic research (OS14001)	February	12 2014
Finish hydrographic research (OS14007)		14
Return to Hakodate		15
Departure from Hakodate		17
Start hydrographic research (OS14008)		18
Finish hydrographic research (OS14015)		19
Return to Hakodate		20
Departure from Hakodate and start hydrographic research (OS14016)		21
Finish hydrographic research (OS14048)		26
Return to Hakodate		27

Total coverage 719.8 miles

2. Vessel Personnel

Crew:	Captain:	Associate Professor	Shogo Takagi
			And 28 persons
Research Staff:	Leg1		
		Graduate Students:	2 persons
		Undergraduate Students:	5 persons
	Leg2		
		Technical Specialist (Tokyo University of Marine Science and Technology)	
			Yukari Ito
	Leg3		
		Specially Appointed Associate Professor	
		(School of Fisheries Sciences, Hokkaido University)	
			Mituhiko Nakaya
		Graduate Students:	2 persons
		Undergraduate Students:	9 persons
			Total 20 persons

3. Items of Research

Hydrographic observations: (Observation of Temperature, Salinity, and Computed Dynamic Depth Anomaly)

Hydrographic work on deck and the data processing were made by the Science officer, the deck officers, crews, research staff and cadets of the “Oshoro maru”. Temperature and salinity were measured by CTD (Seabird SBE-9Plus) and XCTD.

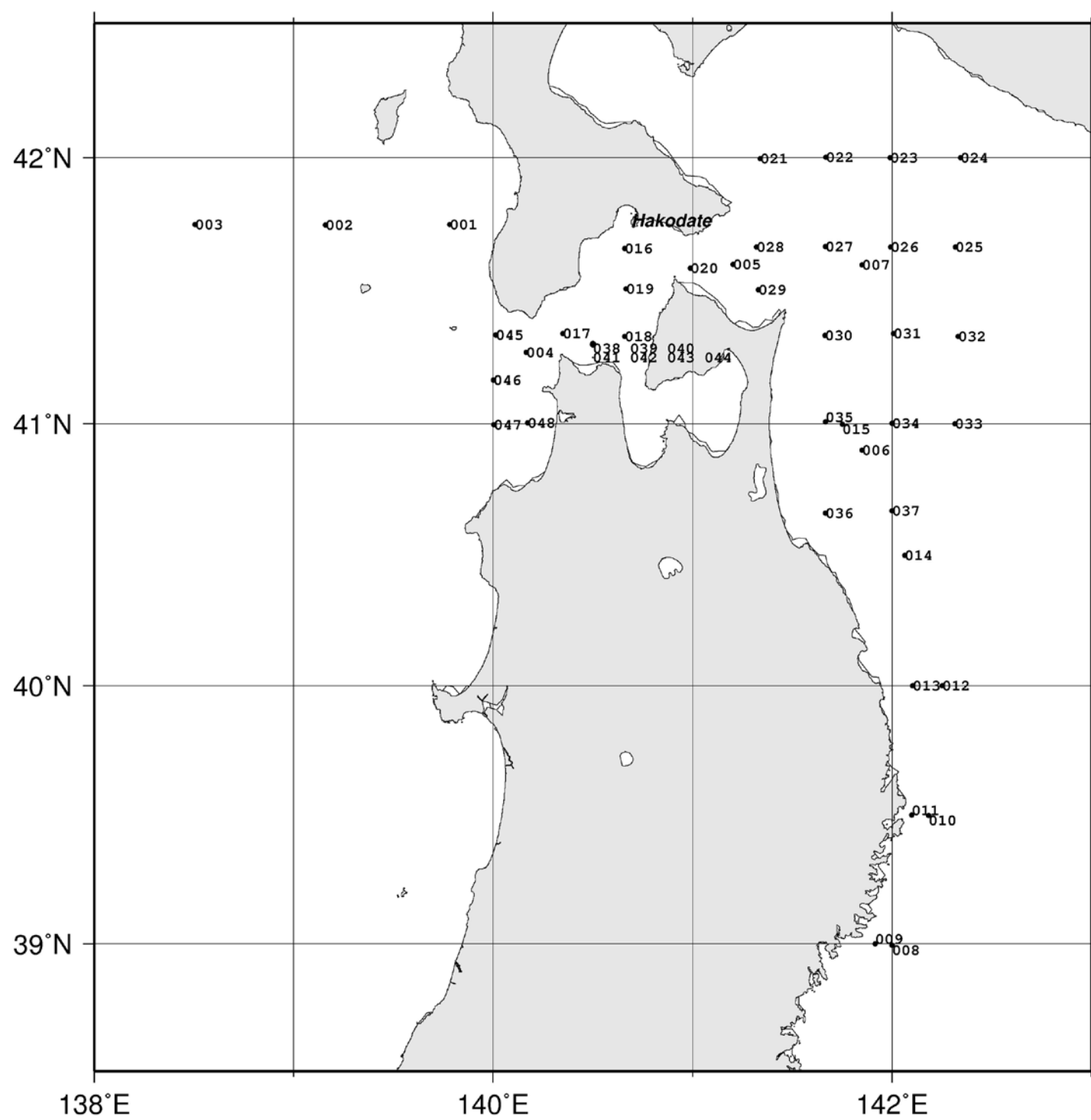


Fig. 1 Oceanographic stations

Table 1. List of Oceanographic station

Station	Lat.	Long.	Date (MGT)	Hour (GMT)	T.Z.	Depth	Col.	Tr.	SST	Wr.	Gear
OS14001	41 45.02 N	139 46.93 E	2/12	7:38	9	1432	-	-	8.6	bc	19p-4636
OS14002	41 44.93 N	139 09.52 E	2/12	12:41	9	2054	-	-	8.5	bc	19p-4636
OS14003	41 45.06 N	138 30.36 E	2/12	17:11	9	3716	-	-	6.8	bc	19p-4636
OS14004	41 16.16 N	140 09.97 E	2/13	0:47	9	151	-	-	8.6	s	19p-4636
OS14005	41 36.03 N	141 12.18 E	2/13	5:42	9	232	-	-	6.3	bc	19p-4636
OS14006	40 54.01 N	141 51.04 E	2/13	22:56	9	384	-	-	5.8	c	19p-4636
OS14007	41 35.90 N	141 50.93 E	2/14	3:41	9	985	-	-	3.0	c	19p-4636
OS14008	38 59.65 N	142 00.03 E	2/18	8:39	9	206	-	-	8.6	bc	19p-4636
OS14009	38 59.96 N	141 54.95 E	2/18	9:28	9	140	-	-	8.4	bc	19p-4636
OS14010	39 29.85 N	142 11.08 E	2/18	12:56	9	238	-	-	8.3	b	19p-4636
OS14011	39 30.02 N	142 05.94 E	2/18	13:55	9	148	-	-	6.9	b	19p-4636
OS14012	39 59.92 N	142 15.07 E	2/18	17:32	9	238	-	-	5.4	bc	19p-4636
OS14013	39 59.95 N	142 06.20 E	2/18	18:59	9	130	-	-	5.6	bc	19p-4636
OS14014	40 29.93 N	142 03.87 E	2/18	22:29	9	253	-	-	6.2	c	XCTD
OS14015	40 59.88 N	141 45.10 E	2/19	2:17	9	495	-	-	5.2	bc	XCTD
OS14016	41 39.61 N	140 39.60 E	2/21	2:21	9	119	-	-	5.5	bc	19p-4636
OS14017	41 20.48 N	140 20.96 E	2/21	5:04	9	185	-	-	7.2	bc	19p-4636
OS14018	41 19.84 N	140 39.62 E	2/21	6:49	9	187	-	-	6.1	bc	19p-4636
OS14019	41 30.52 N	140 40.04 E	2/21	21:17	9	222	-	-	3.6	bc	19p-4636
OS14020	41 35.20 N	140 59.37 E	2/21	23:25	9	299	-	-	1.9	bc	19p-4636
OS14021	41 59.78 N	141 20.31 E	2/22	3:11	9	320	-	-	2.2	b	19p-4636
OS14022	42 00.13 N	141 40.18 E	2/22	5:06	9	844	-	-	1.6	b	19p-4636
OS14023	42 00.05 N	141 59.50 E	2/22	6:54	9	987	-	-	0.6	bc	19p-4636
OS14024	42 00.05 N	142 20.67 E	2/22	8:57	9	980	-	-	0.4	b	19p-4636
OS14025	41 39.98 N	142 19.13 E	2/22	21:15	9	1194	-	-	0.8	c	19p-4636
OS14026	41 39.96 N	141 59.61 E	2/22	22:59	9	1058	-	-	0.5	bc	19p-4636
OS14027	41 40.04 N	141 40.03 E	2/23	0:51	9	579	-	-	1.0	bc	19p-4636
OS14028	41 39.98 N	141 19.29 E	2/23	2:46	9	230	-	-	1.5	b	19p-4636
OS14029	41 30.35 N	141 19.87 E	2/23	4:12	9	249	-	-	1.3	bc	19p-4636
OS14030	41 20.03 N	141 39.85 E	2/23	6:31	9	764	-	-	1.2	bc	19p-4636
OS14031	41 20.42 N	142 00.43 E	2/23	8:23	9	1090	-	-	0.6	c	19p-4636
OS14032	41 19.80 N	142 19.92 E	2/23	21:09	9	1320	-	-	1.0	b	19p-4636
OS14033	40 59.91 N	142 19.00 E	2/23	23:22	9	1338	-	-	1.2	b	19p-4636
OS14034	41 00.10 N	142 00.03 E	2/24	1:11	9	873	-	-	1.8	b	19p-4636
OS14035	41 00.35 N	141 40.05 E	2/24	3:11	9	468	-	-	3.2	b	19p-4636
OS14036	40 39.58 N	141 40.04 E	2/24	5:34	9	79	-	-	4.0	b	19p-4636
OS14037	40 40.15 N	142 00.09 E	2/24	7:19	9	215	-	-	2.7	bc	19p-4636
OS14038	41 18.17 N	140 29.95 E	2/24	23:06	9	148	-	-	6.1	c	19p-4636
OS14039	41 17.86 N	140 29.97 E	2/24	3:03	9	160	-	-	6.1	c	19p-4636
OS14040	41 17.97 N	140 29.99 E	2/25	7:02	9	157	-	-	5.8	bc	19p-4636
OS14041	41 17.98 N	140 29.99 E	2/25	11:02	9	155	-	-	5.9	bc	19p-4636
OS14042	41 17.99 N	140 30.25 E	2/25	15:00	9	161	-	-	6.4	bc	19p-4636
OS14043	41 17.99 N	140 30.01 E	2/25	18:57	9	157	-	-	6.2	bc	19p-4636
OS14044	41 18.02 N	140 29.82 E	2/25	23:01	9	154	-	-	6.1	b	19p-4636
OS14045	41 20.12 N	140 00.86 E	2/26	3:08	9	255	-	-	7.3	bc	19p-4636
OS14046	41 09.85 N	140 00.11 E	2/26	4:45	9	96	-	-	8.7	b	19p-4636
OS14047	40 59.77 N	140 00.20 E	2/26	6:11	9	502	-	-	9.0	b	19p-4636
OS14048	41 00.18 N	140 10.33 E	2/26	7:30	9	107	-	-	9.1	b	19p-4636

T.Z.: Time Difference between G.M.T and S.M.T.

Col.: Water color in Forel-Ule scale

Tr.: Transparency in meters with Secchi disc

SST: Surface temperature

Wr.: Weather in WMO Code 4501

Table 2. Oceanographic data

Station	OS14001		
Latitude	41-45.02N		
Longitude	139-09.52E		
Depth(m)	1432		
Press.	Temp.	Sal.	SIG-T
10	7.817	33.937	26.466
20	7.802	33.935	26.466
30	7.753	33.932	26.471
50	7.730	33.932	26.475
75	6.279	34.003	26.729
100	4.422	34.003	26.949
150	2.632	34.010	27.127
200	1.465	34.028	27.233
300	0.975	34.051	27.284
400	0.822	34.060	27.301
500	0.701	34.068	27.314
600	0.599	34.070	27.323
700	0.527	34.070	27.327

Station	OS14002		
Latitude	41-44.93N		
Longitude	139-09.52E		
Depth(m)	2054		
Press.	Temp.	Sal.	SIG-T
10	5.926	33.993	26.767
20	5.763	33.995	26.788
30	4.312	33.987	26.948
50	3.209	34.012	27.078
75	2.930	34.011	27.101
100	2.628	34.010	27.127
150	1.538	34.027	27.226
200	1.150	34.038	27.262
300	0.849	34.054	27.294
400	0.768	34.063	27.307
500	0.703	34.069	27.315
600	0.600	34.072	27.324
700	0.511	34.072	27.329

Station	OS14003		
Latitude	41-45.06N		
Longitude	138-30.36E		
Depth(m)	3716		
Press.	Temp.	Sal.	SIG-T
10	5.963	34.005	26.771
20	5.849	34.003	26.784
30	2.816	33.974	27.082
50	2.472	34.006	27.137
75	2.350	34.013	27.153
100	2.158	34.017	27.172
150	1.197	34.047	27.266
200	1.034	34.050	27.280
300	0.860	34.060	27.299
400	0.755	34.067	27.311
500	0.668	34.071	27.319
600	0.570	34.072	27.326
700	0.496	34.072	27.330

Station	OS14004		
Latitude	41-16.16N		
Longitude	140-09.97E		
Depth(m)	151		
Press.	Temp.	Sal.	SIG-T
10	7.779	33.924	26.461
20	7.693	33.929	26.477
30	7.516	33.940	26.511
50	5.931	33.994	26.766
75	5.304	34.010	26.855
100	4.467	34.010	26.950
125	3.594	34.010	27.047

Station	OS14005		
Latitude	41-36.03N		
Longitude	141-12.18E		
Depth(m)	232		
Press.	Temp.	Sal.	SIG-T
10	7.779	33.924	26.461
20	7.693	33.929	26.477
30	7.516	33.940	26.511
50	5.931	33.994	26.766
75	5.304	34.010	26.855
100	4.467	34.010	26.950
125	3.594	34.019	27.047

Station	OS14006		
Latitude	40-54.01N		
Longitude	141-51.04E		
Depth(m)	384		
Press.	Temp.	Sal.	SIG-T
10	4.977	33.171	26.228
20	5.440	33.261	26.247
30	6.239	33.400	26.258
50	6.707	33.483	26.263
75	7.275	33.603	26.281
100	7.833	33.735	26.305
150	7.816	33.759	26.327
200	7.763	33.778	26.349
300	5.822	33.583	26.455

Station	OS14007		
Latitude	41-35.90N		
Longitude	141-50.93E		
Depth(m)	985		
Press.	Temp.	Sal.	SIG-T
10	1.945	32.535	26.002
20	1.947	32.538	26.003
30	2.495	32.635	26.039
50	3.249	32.767	26.081
75	5.615	33.239	26.208
100	6.398	33.388	26.229
150	6.284	33.450	26.292
200	5.476	33.518	26.445
300	3.497	33.484	26.629
400	3.014	33.624	26.785
500	3.337	33.837	26.926
600	3.733	34.011	27.027
700	3.534	34.138	27.147

Station	OS14008		
Latitude	38-59.65N		
Longitude	142-00.03E		
Depth(m)	206		
Press.	Temp.	Sal.	SIG-T
10	7.859	33.599	26.194
20	7.860	33.597	26.193
30	7.854	33.595	26.192
50	7.847	33.594	26.192
75	7.839	33.593	26.192
100	7.785	33.591	26.199
150	7.285	33.591	26.270

Station	OS14009		
Latitude	38-59.96N		
Longitude	141-54.95E		
Depth(m)	140		
Press.	Temp.	Sal.	SIG-T
10	7.607	33.602	26.233
20	7.615	33.604	26.233
30	7.613	33.600	26.231
50	7.549	33.594	26.235
75	7.460	33.590	26.244
100	7.471	33.596	26.247

Station	OS14010		
Latitude	39-29.85N		
Longitude	142-11.08E		
Depth(m)	238		
Press.	Temp.	Sal.	SIG-T
10	7.518	33.575	26.224
20	7.513	33.575	26.225
30	7.514	33.575	26.225
50	7.510	33.574	26.225
75	7.491	33.575	26.228
100	7.184	33.544	26.247
150	6.515	33.460	26.270
200	7.037	33.598	26.309

Station	OS14011		
Latitude	39-30.02N		
Longitude	142-05.94E		
Depth(m)	148		
Press.	Temp.	Sal.	SIG-T
10	5.966	33.365	26.265
20	5.993	33.367	26.263
30	5.985	33.365	26.263
50	6.099	33.391	26.269
75	6.081	33.410	26.286
100	6.107	33.422	26.292

Station	OS14012		
Latitude	39-59.92N		
Longitude	142-15.07E		
Depth(m)	238		
Press.	Temp.	Sal.	SIG-T
10	4.391	33.099	26.234
20	4.579	33.135	26.243
30	4.801	33.167	26.244
50	5.294	33.253	26.257
75	5.516	33.294	26.263
100	5.811	33.352	26.274
150	5.893	33.369	26.277
200	5.984	33.388	26.281

Station	OS14013		
Latitude	39-59.95N		
Longitude	142-06.20E		
Depth(m)	130		
Press.	Temp.	Sal.	SIG-T
10	3.714	32.944	26.179
20	3.713	32.944	26.179
30	3.724	32.944	26.178
50	3.756	32.949	26.179
75	4.984	33.207	26.255
100	6.395	33.494	26.312

Station	OS14014		
Latitude	40-29.93N		
Longitude	142-03.87E		
Depth(m)	253		
Depth	Temp.	Sal.	SIG-T
5	5.168	33.210	-
10	5.178	33.217	-
20	5.326	33.255	-
30	5.519	33.293	-
40	5.605	33.319	-
50	5.635	33.331	-
75	6.067	33.416	-
100	6.288	33.453	-
125	6.319	33.459	-
150	6.339	33.463	-
175	6.358	33.472	-
200	6.532	33.524	-

Station	OS14015		
Latitude	40-59.88N		
Longitude	141-45.10E		
Depth(m)	495		
Depth	Temp.	Sal.	SIG-T
5	3.674	32.915	-
10	3.658	32.917	-
20	3.669	32.923	-
30	3.679	32.934	-
40	3.679	32.940	-
50	3.837	32.989	-
75	4.977	33.254	-
100	5.445	33.346	-
125	6.013	33.478	-
150	6.324	33.543	-
175	7.020	33.683	-
200	7.033	33.687	-
250	6.550	33.626	-
300	4.803	33.599	-
400	3.557	33.684	-

Station	OS14016		
Latitude	41-39.61N		
Longitude	140-39.60E		
Depth(m)	119		
Press.	Temp.	Sal.	SIG-T
5	5.414	33.702	26.598
10	5.516	33.910	26.750
20	5.089	33.985	26.860
30	4.928	33.992	26.884
50	4.310	33.982	26.944
75	2.697	34.000	27.113
100	2.122	34.014	27.172

Station	OS14017		
Latitude	41-20.48N		
Longitude	140-20.96E		
Depth(m)	185		
Press.	Temp.	Sal.	SIG-T
10	7.918	33.952	26.463
20	7.917	33.952	26.463
30	6.751	33.952	26.627
50	5.238	33.991	26.847
75	4.743	33.997	26.909
100	3.320	34.005	27.061
150	2.687	34.020	27.130

Station	OS14018		
Latitude	41-19.84N		
Longitude	140-39.62E		
Depth(m)	187		
Press.	Temp.	Sal.	SIG-T
10	6.644	33.945	26.636
20	6.637	33.946	26.638
30	6.610	33.948	26.643
50	6.512	33.953	26.659
75	6.131	33.965	26.718
100	5.056	33.978	26.859
150	3.839	33.994	27.002

Station	OS14019		
Latitude	41-30.52N		
Longitude	140-40.04E		
Depth(m)	223		
Press.	Temp.	Sal.	SIG-T
10	3.441	33.907	26.972
20	3.525	33.936	26.987
30	3.488	33.965	27.013
50	3.102	34.006	27.082
75	2.639	34.018	27.133
100	2.307	34.024	27.166
150	2.029	34.029	27.192

Station	OS14020		
Latitude	41-35.20N		
Longitude	140-59.37E		
Depth(m)	299		
Press.	Temp.	Sal.	SIG-T
10	1.953	32.598	26.051
20	2.322	32.767	26.159
30	2.462	32.834	26.201
50	2.670	32.955	26.281
75	3.101	33.374	26.578
100	3.145	33.413	26.605

Station	OS14021		
Latitude	41-59.78N		
Longitude	140-20.31E		
Depth(m)	320		
Press.	Temp.	Sal.	SIG-T
10	2.143	32.606	26.043
20	2.465	32.690	26.086
30	2.733	32.735	26.100
50	3.303	32.833	26.128
75	6.410	33.427	26.258
100	6.316	33.507	26.333
150	4.558	33.457	26.500

Station	OS14022		
Latitude	42-00.13N		
Longitude	141-40.18E		
Depth(m)	844		
Press.	Temp.	Sal.	SIG-T
10	1.894	32.562	26.026
20	2.231	32.626	26.053
30	2.302	32.634	26.054
50	2.391	32.648	26.058
75	2.486	32.667	26.066
100	3.293	32.854	26.146
150	5.670	33.407	26.334

Station	OS14023		
Latitude	42-00.05N		
Longitude	141-59.50E		
Depth(m)	987		
Press.	Temp.	Sal.	SIG-T
10	0.579	32.197	25.815
20	0.560	32.196	25.816
30	0.524	32.205	25.825
50	0.564	32.252	25.861
75	0.644	32.345	25.931
100	1.217	32.513	26.033
150	2.198	32.924	26.294

Station	OS14024		
Latitude	42-00.05N		
Longitude	142-20.67E		
Depth(m)	980		
Press.	Temp.	Sal.	SIG-T
10	0.495	32.177	25.803
20	0.528	32.185	25.809
30	0.562	32.196	25.815
50	0.729	32.253	25.852
75	0.759	32.287	25.878
100	0.756	32.363	25.940
150	1.489	32.597	26.082
200	3.469	33.035	26.275
300	3.886	33.464	26.576
400	2.906	33.554	26.739
500	3.149	33.724	26.853
600	3.577	33.939	26.984
700	3.691	34.084	27.089
800	3.423	34.190	27.199
900	3.215	34.271	27.284

Station	OS14025		
Latitude	41-39.98N		
Longitude	142-19.13E		
Depth(m)	1194		
Press.	Temp.	Sal.	SIG-T
10	0.582	32.360	25.947
20	1.578	32.633	26.105
30	1.883	32.710	26.146
50	2.150	32.825	26.218
75	3.004	33.052	26.330
100	3.186	33.135	26.380
150	2.992	33.171	26.426

Station	OS14026		
Latitude	41-39.96N		
Longitude	141-59.61E		
Depth(m)	1058		
Press.	Temp.	Sal.	SIG-T
10	0.809	32.409	25.973
20	1.243	32.509	26.028
30	1.804	32.636	26.092
50	2.205	32.770	26.170
75	2.099	32.886	26.271
100	2.739	33.025	26.331
150	2.729	33.135	26.419

Station	OS14027		
Latitude	41-40.04N		
Longitude	141-40.03E		
Depth(m)	579		
Press.	Temp.	Sal.	SIG-T
10	0.862	32.326	25.903
20	1.178	32.400	25.944
30	1.318	32.429	25.959
50	1.799	32.531	26.009
75	3.474	32.864	26.138
100	5.552	33.383	26.330
150	4.395	33.473	26.531

Station	OS14028		
Latitude	41-39.98N		
Longitude	141-19.29E		
Depth(m)	230		
Press.	Temp.	Sal.	SIG-T
10	1.340	32.373	25.913
20	1.262	32.375	25.919
30	1.386	32.398	25.929
50	1.650	32.453	25.956
75	2.901	32.724	26.077
100	3.930	32.918	26.137
150	4.572	33.235	26.323

Station	OS14029		
Latitude	41-30.35N		
Longitude	141-19.87E		
Depth(m)	249		
Press.	Temp.	Sal.	SIG-T
10	1.198	32.376	25.924
20	4.073	33.048	26.226
30	5.276	33.327	26.317
50	3.828	33.545	26.646
75	4.018	33.687	26.740
100	4.045	33.816	26.840
150	3.474	33.941	26.996

Station	OS14030		
Latitude	41-20.03N		
Longitude	141-39.85E		
Depth(m)	764		
Press.	Temp.	Sal.	SIG-T
10	1.063	32.379	25.934
20	1.111	32.397	25.946
30	1.770	32.536	26.014
50	4.713	33.201	26.281
75	5.045	33.291	26.315
100	5.002	33.344	26.362
150	3.950	33.385	26.507

Station	OS14031		
Latitude	41-20.42N		
Longitude	142-00.43E		
Depth(m)	1090		
Press.	Temp.	Sal.	SIG-T
10	0.468	32.239	25.855
20	0.478	32.243	25.857
30	0.442	32.246	25.862
50	0.422	32.253	25.869
75	1.342	32.570	26.070
100	2.067	32.785	26.193
150	2.547	33.145	26.443

Station	OS14032		
Latitude	41-19.80N		
Longitude	142-19.92E		
Depth(m)	1320		
Press.	Temp.	Sal.	SIG-T
10	1.038	32.400	25.953
20	1.079	32.406	25.955
30	1.220	32.433	25.968
50	2.417	32.713	26.108
75	4.738	33.208	26.284
100	5.220	33.348	26.341
150	3.567	33.331	26.501

Station	OS14033		
Latitude	40-59.91N		
Longitude	142-19.00E		
Depth(m)	1338		
Press.	Temp.	Sal.	SIG-T
10	2.016	32.862	26.258
20	2.866	33.115	26.392
30	3.025	33.161	26.415
50	3.037	33.172	26.422
75	3.028	33.176	26.427
100	3.149	33.205	26.439
150	2.860	33.257	26.506

Station	OS14034		
Latitude	41-00.10N		
Longitude	142-00.03E		
Depth(m)	873		
Press.	Temp.	Sal.	SIG-T
10	1.565	32.508	26.006
20	1.637	32.519	26.010
30	1.634	32.519	26.010
50	3.233	32.832	26.134
75	4.942	33.155	26.219
100	7.647	33.678	26.287
150	6.153	33.514	26.359

Station	OS14035		
Latitude	41-00.35N		
Longitude	141-40.05E		
Depth(m)	468		
Press.	Temp.	Sal.	SIG-T
10	3.017	32.814	26.139
20	3.019	32.821	26.145
30	3.060	32.838	26.155
50	3.763	33.007	26.224
75	4.299	33.150	26.285
100	4.494	33.206	26.309
150	7.169	33.749	26.410

Station	OS14036		
Latitude	40-39.58N		
Longitude	141-40.04E		
Depth(m)	79		
Press.	Temp.	Sal.	SIG-T
10	4.015	33.067	26.247
20	4.457	33.188	26.298
30	5.222	33.339	26.334
50	5.308	33.355	26.336

Station	OS14037		
Latitude	40-40.15N		
Longitude	141-00.10E		
Depth(m)	215		
Press.	Temp.	Sal.	SIG-T
10	2.472	32.680	26.077
20	2.884	32.841	26.172
30	3.347	32.975	26.238
50	3.856	33.102	26.290
75	4.410	33.212	26.322
100	4.992	33.347	26.366
150	5.491	33.527	26.451

Station	OS14038		
Latitude	41-18.17N		
Longitude	140-29.95E		
Depth(m)	148		
Press.	Temp.	Sal.	SIG-T
10	6.083	33.960	26.720
20	6.076	33.959	26.721
30	6.082	33.959	26.720
50	6.064	33.958	26.721
75	5.916	33.954	26.736
100	5.284	33.975	26.829

Station	OS14039		
Latitude	41-17.86N		
Longitude	140-29.97E		
Depth(m)	160		
Press.	Temp.	Sal.	SIG-T
10	6.006	33.886	26.672
20	6.007	33.887	26.672
30	6.009	33.909	26.690
50	5.958	33.923	26.707
75	5.951	33.929	26.713
100	5.904	33.956	26.739

Station	OS14040		
Latitude	41-17.97N		
Longitude	140-29.99E		
Depth(m)	157		
Press.	Temp.	Sal.	SIG-T
10	5.657	33.693	26.562
20	5.655	33.698	26.567
30	5.780	33.787	26.621
50	6.096	33.946	26.707
75	6.062	33.959	26.722
100	5.953	33.958	26.735

Station	OS14041		
Latitude	41-17.98N		
Longitude	140-29.99E		
Depth(m)	155		
Press.	Temp.	Sal.	SIG-T
10	5.987	33.860	26.653
20	6.091	33.945	26.708
30	6.107	33.960	26.717
50	5.957	33.965	26.740
75	5.768	33.966	26.765
100	5.515	33.978	26.805

Station	OS14042		
Latitude	41-17.99N		
Longitude	140-30.25E		
Depth(m)	161		
Press.	Temp.	Sal.	SIG-T
10	6.427	33.894	26.624
20	5.967	33.947	26.724
30	5.848	33.962	26.751
50	5.717	33.972	26.775
75	5.485	33.979	26.809
100	5.392	33.989	26.828

Station	OS14043		
Latitude	41-17.99N		
Longitude	140-30.01E		
Depth(m)	157		
Press.	Temp.	Sal.	SIG-T
10	6.474	33.942	26.655
20	6.369	33.946	26.672
30	6.172	33.955	26.705
50	6.183	33.955	26.704
75	6.108	33.958	26.715
100	5.923	33.968	26.747

Station	OS14044		
Latitude	41-18.02N		
Longitude	140-29.82E		
Depth(m)	154		
Press.	Temp.	Sal.	SIG-T
10	6.107	33.931	26.694
20	6.061	33.927	26.697
30	5.982	33.929	26.709
50	5.946	33.936	26.718
75	5.873	33.944	26.734
100	5.819	33.962	26.755

Station	OS14045		
Latitude	41-20.12E		
Longitude	140-00.86E		
Depth(m)	255		
Press.	Temp.	Sal.	SIG-T
10	6.314	33.952	26.684
20	3.667	33.932	26.969
30	4.493	33.969	26.914
50	2.978	33.995	27.084
75	3.267	33.994	27.057
100	2.253	34.017	27.164

Station	OS14046		
Latitude	41-09.85N		
Longitude	140-00.11E		
Depth(m)	96		
Press.	Temp.	Sal.	SIG-T
10	8.668	33.918	26.323
20	8.511	33.911	26.342
30	8.480	33.912	26.347
50	8.438	33.919	26.359
75	8.351	33.948	26.395

Station	OS14047		
Latitude	40-59.77N		
Longitude	140-00.20E		
Depth(m)	502		
Press.	Temp.	Sal.	SIG-T
10	8.927	33.903	26.271
20	8.888	33.905	26.278
30	8.792	33.911	26.298
50	8.744	33.914	26.308
75	8.700	33.914	26.315
100	8.553	33.910	26.335
150	5.270	34.020	26.867

Station	OS14048		
Latitude	41-00.18N		
Longitude	140-10.33E		
Depth(m)	107		
Press.	Temp.	Sal.	SIG-T
10	9.074	33.902	26.246
20	8.978	33.900	26.260
30	8.967	33.901	26.263
50	8.957	33.901	26.265
75	8.842	33.905	26.286