Appendices

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Appendix 1: Modeled and Observed Tidal Current Ellipse Harmonic Parameters

Table A1.1. Current meter mooring site names and locations along with associated modeled and observed tidal current harmonics parameters from the CMIST mooring locations computed using T_Tide. Parameters include the semi-major and semi-minor ellipse axes (cm s^{-1}) and the sign of the semi-minor axis denotes clockwise rotation for negative values. Column labels denote modeled (M) and observed (O) parameters.

Site	Latitude (°N)	Longitude (°E)	Semi-Major Axis		Semi-Major Axis Error		Semi-Minor Axis		Semi-Minor Axis Error	
			M	O	M	O	M	O	M	O
COI0206	61.188	209.941	64.4	63.4	4.1	3.0	-9.7	-0.8	3.3	0.6
COI0207	61.168	209.863	49.4	1.8	1.7	16.9	12.7	-0.3	2.2	2.4
COI0213	61.176	209.763	260.9	157.0	7.6	2.3	-6.9	0.5	6.7	1.3
COI0301	61.209	210.058	28.7	248.0	1.2	3.5	1.2	-4.3	0.2	0.9
COI0302	61.209	210.058	28.7	168.8	1.2	2.4	1.2	-3.5	0.2	1.6
COI0303	61.208	210.019	79.5	158.8	3.6	2.2	0.9	7.9	0.3	2.1
COI0306	61.094	209.374	198.2	167.9	2.0	2.1	1.0	-9.5	1.7	0.5
COI0307	61.028	209.398	164.6	144.7	5.9	3.2	15.8	-7.3	3.5	1.1
COI0418	58.992	207.972	48.5	77.6	1.5	2.1	-4.8	-0.1	1.4	2.1
COI0419	59.773	207.565	101.9	106.4	2.4	3.3	-3.0	1.6	1.5	2.2
COI0420	59.751	207.776	114.9	108.1	2.2	3.2	-2.1	2.9	0.5	1.4
COI0421	59.506	208.275	31.1	16.7	0.7	0.9	0.6	6.6	0.7	0.8
COI0422	59.594	208.757	3.2	19.1	0.1	0.4	0.0	-0.1	0.0	0.3
COI0501	60.653	208.314	228.8	195.1	4.8	2.2	-17.6	11.3	2.3	1.8
COI0502	60.646	208.412	272.4	194.4	3.9	4.3	16.8	18.6	1.7	1.7
COI0503	60.649	208.528	196.8	256.4	12.1	3.9	8.2	4.3	2.4	0.8
COI0504	60.610	208.532	175.9	193.7	9.0	2.9	23.9	3.1	1.3	0.9
COI0505	60.526	208.191	79.2	155.9	3.2	2.6	-10.5	-19.1	3.4	2.4
COI0506	60.514	208.502	195.1	137.1	3.6	2.8	14.5	0.7	2.9	0.4
COI0507	60.478	207.808	99.7	101.0	6.2	1.3	24.6	-2.9	4.2	1.4
COI0508	60.414	208.280	212.2	179.4	3.4	2.3	-4.9	-1.0	1.9	1.1
COI0509	60.305	207.789	164.5	187.0	4.8	3.1	-21.9	2.4	5.6	0.9
COI0510	60.173	208.208	173.0	135.1	2.1	2.2	-0.6	2.4	1.8	1.6
COI0511	59.952	207.811	122.8	114.2	2.9	2.3	6.1	-9.4	1.7	1.7
COI0512	59.498	206.524	26.1	25.6	0.6	1.3	-8.1	-19.2	0.8	1.6
COI0513	59.456	208.186	26.3	49.8	0.9	1.6	0.2	-2.8	0.1	1.3
COI0514	59.229	207.012	28.6	41.9	1.2	1.1	-9.2	-16.0	1.0	1.1
COI0515	59.247	207.571	47.6	65.7	1.3	1.5	-12.4	-10.9	1.2	1.0
COI0516	59.327	207.993	112.5	97.2	2.4	1.3	4.5	-7.5	2.3	1.0
COI0517	58.818	206.771	12.6	13.9	0.7	0.7	-1.6	-0.7	0.5	0.5
COI0518	58.910	207.203	15.4	23.9	0.5	1.2	-6.5	-2.8	0.6	1.2
COI0519	58.740	207.538	35.2	62.1	0.9	1.4	-3.6	-10.0	1.0	1.1
COI0520	58.977	207.807	44.6	52.9	1.5	1.7	2.2	12.0	1.2	1.6
COI0521	59.051	208.040	48.1	88.6	1.3	1.3	-2.1	3.1	1.2	1.5
COI0522	59.142	208.236	32.0	8.9	1.2	0.9	11.1	-0.2	1.0	0.8
COI0523	59.093	208.185	66.9	109.3	2.4	3.0	3.0	-2.3	1.7	0.6
COI0524	59.066	208.243	59.0	165.4	2.1	4.6	1.0	-0.2	0.9	1.2
COI0801	60.620	208.551	167.1	144.9	10.4	4.3	17.3	-1.9	1.9	1.6

COI0802	60.601	208.552	161.6	137.9	9.4	3.4	22.1	2.1	1.1	2.2
COI1201	59.532	208.536	4.1	31.6	0.1	0.6	-0.1	0.0	0.0	0.5
COI1202	59.356	208.008	99.6	110.3	2.6	2.2	4.3	-4.1	2.0	1.9
COI1203	59.678	207.898	117.9	127.7	3.0	2.9	-2.1	-1.3	0.9	0.3
COI1204	60.990	208.870	276.7	183.4	2.0	2.4	1.2	5.8	1.6	2.3
COI1205	60.403	208.223	224.4	159.6	4.4	2.6	-3.7	0.2	2.9	0.8
COI1207	61.040	209.574	64.4	198.7	4.3	3.5	-6.8	2.2	2.7	1.5
COI1208	61.032	209.673	147.3	148.1	2.7	2.3	7.3	-1.9	2.8	2.0
COI1209	61.157	209.725	214.2	183.4	7.0	3.1	-23.1	-3.5	5.7	1.3
COI1210	60.815	208.728	285.3	182.6	6.1	2.4	-12.9	-5.5	6.0	2.1
KOD0901	57.661	207.607	0.7	5.5	0.0	0.6	0.1	-4.1	0.0	0.6
KOD0902	57.707	207.548	0.2	5.0	0.0	0.3	0.1	-0.1	0.0	0.4
KOD0903	57.717	207.565	1.4	39.6	0.1	0.7	-0.1	-0.1	0.1	0.7
KOD0904	57.737	207.598	1.7	29.4	0.1	0.5	-0.4	0.2	0.1	0.4
KOD0905	57.708	207.584	1.9	47.6	0.0	0.9	-0.2	-1.9	0.1	0.5
KOD0906	57.535	207.870	14.8	25.5	0.5	1.2	-2.8	-1.4	0.4	1.2
KOD0907	57.329	207.395	5.6	4.5	1.7	1.0	1.4	-1.1	1.0	0.9
KOD0910	57.157	207.151	3.6	3.6	1.3	0.3	0.3	0.1	1.0	0.4
KOD0911	57.165	206.832	0.2	1.1	0.0	0.2	0.0	0.1	0.0	0.1
KOD0912	57.108	206.610	0.8	0.8	0.0	0.1	0.0	0.0	0.0	0.2
KOD0913	56.998	206.502	2.2	2.2	0.1	0.2	0.1	0.0	0.1	0.2
KOD0914	56.705	206.142	12.5	5.4	1.5	0.3	0.0	0.0	1.3	0.3
KOD0915	56.614	206.033	78.2	34.3	5.1	1.3	-5.9	-6.3	4.4	1.5
KOD0916	56.504	206.154	24.3	21.8	4.0	1.0	-11.4	2.8	3.9	1.2
KOD0917	56.613	205.807	16.9	67.1	1.6	1.7	0.4	3.9	0.1	1.2
KOD0918	56.677	205.745	55.5	31.0	3.1	1.3	-0.8	-8.5	2.8	1.2
KOD0919	56.666	205.921	150.5	103.8	5.4	2.0	-8.2	3.8	3.1	1.6
KOD0920	56.712	205.285	21.9	14.2	0.6	0.5	-7.1	-10.1	0.7	0.5
KOD0921	57.213	205.145	8.3	31.1	0.7	1.3	2.7	-0.5	0.5	1.1
KOD0922	57.349	205.192	7.8	19.1	0.8	1.0	0.1	1.5	0.1	0.9
KOD0923	57.563	206.047	1.1	5.2	0.0	2.8	0.0	0.0	0.0	2.8
KOD0924	57.535	206.069	0.5	70.0	0.0	0.8	0.1	1.8	0.0	0.7
KOD0925	57.719	205.897	6.7	17.9	0.3	0.6	0.6	-4.2	0.2	0.6
KOD0926	58.148	206.754	4.4	5.3	0.1	0.6	0.5	1.2	0.1	0.5
KOD0927	57.975	206.507	4.4	7.4	0.2	0.3	0.0	-0.8	0.0	0.4
KOD0928	57.978	206.813	2.7	16.9	0.0	0.7	-0.1	-2.2	0.0	0.6
KOD0929	57.949	207.070	3.5	68.0	0.1	2.0	0.0	10.8	0.0	1.2
KOD0930	57.866	207.170	4.7	170.4	0.1	3.8	-0.3	3.9	0.1	3.0
KOD0931	57.846	207.137	6.1	188.6	0.1	3.9	-0.1	2.3	0.1	3.0
KOD0932	57.837	207.156	6.5	64.1	0.1	2.5	-0.1	0.8	0.1	2.3
KOD0933	57.914	207.452	0.4	55.6	0.0	1.5	0.1	0.9	0.0	1.2
KOD0934	57.927	207.271	2.7	28.7	0.0	1.4	0.1	-2.1	0.0	1.0
KOD0935	57.999	206.882	5.0	10.5	0.1	0.3	0.1	0.1	0.1	0.2
KOD0936	58.331	207.057	3.2	10.7	0.1	0.7	0.2	0.4	0.0	0.5
KOD0937	58.391	207.122	5.3	6.8	0.1	0.8	0.3	3.4	0.1	0.9
KOD0938	58.454	207.297	1.1	6.8	0.0	0.7	0.3	-0.6	0.0	0.4
KOD0939	58.395	207.541	0.7	186.0	0.0	3.7	0.1	-2.4	0.0	1.5
KOD0940	58.385	207.524	0.3	4.1	0.0	0.5	0.1	2.5	0.0	0.6
KOD0941	58.277	208.064	55.3	59.9	2.9	0.9	-6.2	-7.7	0.7	0.8
KOD0942	58.171	208.020	36.6	95.1	3.1	2.1	-3.2	0.3	2.2	0.6
KOD0943	58.102	207.973	10.5	42.7	1.6	1.6	-5.8	-4.7	1.4	2.2

KOD0944	58.616	207.571	0.2	51.5	0.0	1.9	0.0	4.7	0.0	1.3
PWS0701	60.922	211.896	1.6	14.3	0.0	0.8	0.0	-1.7	0.0	0.5
PWS0702	60.865	211.857	2.0	1.1	0.0	0.5	0.1	-0.7	0.0	0.5
PWS0703	60.703	211.642	0.9	3.4	0.0	0.7	0.0	-0.7	0.0	0.6
PWS0704	60.684	211.914	1.8	14.4	0.0	1.0	0.0	-0.8	0.0	0.7
PWS0705	60.750	212.051	3.0	4.0	0.1	0.4	0.0	-0.6	0.0	0.4
PWS0706	60.598	211.933	2.2	3.6	0.0	0.3	0.1	-0.3	0.0	0.3
PWS0707	60.541	211.777	0.3	0.6	0.0	0.2	0.0	0.0	0.0	0.1
PWS0708	60.435	212.067	3.3	7.3	0.1	0.6	0.0	0.3	0.0	0.3
PWS0709	60.302	211.988	3.4	3.4	0.1	0.3	0.0	0.2	0.0	0.3
PWS0710	60.293	212.007	8.1	9.3	0.1	0.6	-0.2	1.7	0.1	0.6
PWS0711	60.207	211.834	0.1	3.9	0.0	0.5	0.0	0.4	0.0	0.4
PWS0712	60.111	211.948	0.6	2.8	0.0	0.4	0.0	0.5	0.0	0.2
PWS0713	60.074	211.757	0.1	86.7	0.0	1.4	0.0	-1.0	0.0	1.4
PWS0714	59.988	211.814	0.5	61.2	0.0	1.7	0.0	-0.5	0.0	0.9
PWS0715	59.987	211.966	54.1	16.7	0.6	1.3	0.0	1.1	0.6	1.1
PWS0716	59.911	211.813	19.5	28.6	0.4	1.3	-2.3	2.7	0.3	1.2
PWS0717	59.911	211.889	25.6	54.3	0.5	1.1	-4.0	-3.3	0.3	1.2
PWS0718	59.854	211.623	6.2	18.0	0.3	1.2	-2.0	-9.1	0.3	1.6
PWS0719	59.844	211.984	25.7	37.5	2.0	0.8	-0.8	-2.9	1.7	0.9
PWS0720	59.682	211.926	30.7	82.5	1.8	3.5	-15.1	-28.0	1.8	3.4
PWS0721	59.793	212.647	16.0	33.3	0.4	1.6	-7.8	-0.8	0.4	1.7
PWS0722	60.046	213.209	14.5	17.8	0.3	4.7	-6.3	-4.8	0.5	1.9
PWS0723	60.206	212.294	4.2	7.7	0.0	0.2	0.2	-0.3	0.0	0.2
PWS0724	60.194	212.659	6.7	7.9	0.2	1.2	0.1	-1.9	0.2	0.9
PWS0725	60.345	212.895	0.2	15.4	0.0	0.6	0.0	0.1	0.0	0.3
PWS0726	60.284	213.200	30.6	41.0	0.3	1.4	0.9	1.2	0.5	0.6
PWS0727	60.436	213.323	5.6	18.9	0.2	1.8	0.0	-0.9	0.0	1.1
PWS0728	59.993	213.569	21.1	24.6	0.7	0.9	-11.9	-14.3	0.7	0.9
PWS0729	60.154	213.712	13.1	10.2	0.4	0.8	-4.8	-1.6	0.4	0.6
PWS0730	60.064	214.873	5.2	5.9	0.1	0.7	-2.1	-3.1	0.1	0.6
PWS0731	60.489	213.597	4.4	9.4	0.1	0.9	-0.2	0.8	0.1	0.5
PWS0732	60.538	214.143	2.4	7.7	0.3	0.9	1.9	-0.6	0.3	0.4
PWS0733	60.546	214.202	8.3	23.4	0.5	1.5	0.0	-0.1	0.5	1.3
PWS0734	60.546	214.202	8.3	60.9	0.5	1.1	0.0	-1.6	0.5	1.1
PWS0735	60.519	214.103	10.2	67.2	0.4	1.8	-0.6	0.0	0.4	1.0
PWS0736	60.538	213.542	5.3	6.7	0.1	0.3	-0.4	-0.6	0.1	0.4
PWS0737	60.599	213.234	4.7	5.4	0.1	0.5	1.2	-2.5	0.1	0.3
PWS0738	60.866	213.169	2.4	2.2	0.2	0.3	-0.1	0.3	0.2	0.1
PWS0739	60.539	212.475	8.3	22.0	0.1	1.0	-0.8	-2.4	0.0	0.9
PWS0740	60.671	212.634	0.2	5.2	0.0	0.2	0.0	1.4	0.0	0.3
PWS0741	60.700	212.538	0.2	11.8	0.0	0.9	0.0	-0.7	0.0	0.3
PWS0742	60.767	212.481	2.7	5.3	0.0	0.5	-0.4	-0.9	0.0	0.2
PWS0743	60.842	212.678	4.1	7.9	0.1	0.6	-0.4	0.6	0.1	0.7
PWS0744	60.831	212.893	1.3	10.3	0.1	0.6	0.4	-0.3	0.1	0.6
PWS0745	60.999	213.293	0.7	14.4	0.0	0.5	0.0	-1.3	0.0	0.5
PWS0746	61.090	213.573	0.5	0.2	0.0	0.2	0.0	0.0	0.0	0.0

Table A1.2. Current meter mooring site names and locations along with associated modeled and observed tidal current harmonics parameters from the CMIST mooring locations computed using T_Tide. Parameters include the ellipse inclination (degrees) and Greenwich Phase (degrees). Column labels denote modeled (M) and observed (O) parameters.

Site	Latitude (N)	Longitude (E)	Inclination		Inclination Error		Greenwich Phase		Greenwich Phase Error	
			M	O	M	O	M	O	M	O
COI0206	61.188	209.941	23	180	3	1	7	206	4	3
COI0207	61.168	209.863	104	160	3	10	111	347	2	241
COI0213	61.176	209.763	43	9	1	0	15	23	2	1
COI0301	61.209	210.058	179	79	0	0	207	36	2	1
COI0302	61.209	210.058	179	65	0	1	207	19	2	1
COI0303	61.208	210.019	178	52	0	1	209	22	2	1
COI0306	61.094	209.374	17	179	0	0	355	210	1	1
COI0307	61.028	209.398	25	8	1	0	324	12	2	1
COI0418	58.992	207.972	146	146	1	1	243	272	2	2
COI0419	59.773	207.565	68	66	1	1	302	315	2	2
COI0420	59.751	207.776	81	74	0	1	303	306	1	2
COI0421	59.506	208.275	33	28	1	3	240	235	1	3
COI0422	59.594	208.757	173	40	0	1	27	237	1	1
COI0501	60.653	208.314	69	98	1	1	315	350	1	1
COI0502	60.646	208.412	84	75	0	1	343	351	1	1
COI0503	60.649	208.528	89	82	1	0	310	345	3	1
COI0504	60.610	208.532	93	101	1	0	316	345	3	1
COI0505	60.526	208.191	65	37	2	1	281	345	2	1
COI0506	60.514	208.502	83	87	1	0	329	342	1	1
COI0507	60.478	207.808	73	43	3	1	274	337	4	1
COI0508	60.414	208.280	68	74	1	0	331	1	1	1
COI0509	60.305	207.789	65	77	2	0	321	339	2	1
COI0510	60.173	208.208	58	62	1	1	317	336	1	1
COI0511	59.952	207.811	70	60	1	1	303	333	1	1
COI0512	59.498	206.524	27	165	2	9	338	217	1	9
COI0513	59.456	208.186	4	34	0	2	227	261	2	2
COI0514	59.229	207.012	90	93	2	2	290	299	3	2
COI0515	59.247	207.571	100	95	2	1	269	277	2	1
COI0516	59.327	207.993	57	62	1	1	237	263	1	1
COI0517	58.818	206.771	64	108	2	2	326	286	3	3
COI0518	58.910	207.203	124	133	3	3	262	272	3	3
COI0519	58.740	207.538	162	153	2	1	228	270	2	2
COI0520	58.977	207.807	160	148	1	2	224	273	2	2
COI0521	59.051	208.040	143	140	2	1	248	254	2	1
COI0522	59.142	208.236	165	48	2	5	219	222	3	5
COI0523	59.093	208.185	152	96	1	0	254	233	2	2
COI0524	59.066	208.243	163	8	1	0	249	51	2	2
COI0801	60.620	208.551	93	105	1	1	306	336	4	2
COI0802	60.601	208.552	92	115	1	1	309	339	4	1
COI1201	59.532	208.536	11	43	0	1	174	238	1	1
COI1202	59.356	208.008	63	55	1	1	251	249	2	1
COI1203	59.678	207.898	91	92	0	0	297	300	2	1
COI1204	60.990	208.870	33	53	0	1	348	11	0	1

COI1205	60.403	208.223	64	77	1	0	326	355	1	1
COI1207	61.040	209.574	25	161	3	1	301	195	3	1
COI1208	61.032	209.673	146	147	1	1	152	201	1	1
COI1209	61.157	209.725	49	14	2	0	9	24	2	1
COI1210	60.815	208.728	32	34	1	1	318	2	1	1
KOD0901	57.661	207.607	29	122	2	15	7	235	2	16
KOD0902	57.707	207.548	161	87	13	4	174	232	6	3
KOD0903	57.717	207.565	146	45	3	1	186	228	2	1
KOD0904	57.737	207.598	135	33	2	1	187	244	2	1
KOD0905	57.708	207.584	162	69	2	1	188	237	2	1
KOD0906	57.535	207.870	72	72	2	3	242	253	2	3
KOD0907	57.329	207.395	83	111	11	13	223	224	20	14
KOD0910	57.157	207.151	74	163	17	6	131	220	22	5
KOD0911	57.165	206.832	49	17	2	6	356	37	2	9
KOD0912	57.108	206.610	91	47	1	11	167	196	3	12
KOD0913	56.998	206.502	101	85	2	4	170	209	3	5
KOD0914	56.705	206.142	16	11	6	3	312	359	7	3
KOD0915	56.614	206.033	159	169	4	2	187	185	3	2
KOD0916	56.504	206.154	54	126	14	3	176	229	13	3
KOD0917	56.613	205.807	3	156	0	1	288	195	6	1
KOD0918	56.677	205.745	137	113	3	3	176	205	3	3
KOD0919	56.666	205.921	160	145	1	1	160	196	2	1
KOD0920	56.712	205.285	47	39	2	6	241	275	2	6
KOD0921	57.213	205.145	82	81	4	2	207	248	6	3
KOD0922	57.349	205.192	92	63	0	2	226	238	7	3
KOD0923	57.563	206.047	60	127	2	30	17	180	3	35
KOD0924	57.535	206.069	114	156	2	1	29	233	2	1
KOD0925	57.719	205.897	5	39	2	2	214	250	2	2
KOD0926	58.148	206.754	131	26	2	5	21	265	2	8
KOD0927	57.975	206.507	3	164	0	3	215	132	3	2
KOD0928	57.978	206.813	180	152	0	2	4	172	1	3
KOD0929	57.949	207.070	180	180	0	1	6	183	2	2
KOD0930	57.866	207.170	52	152	1	1	1	193	1	1
KOD0931	57.846	207.137	49	146	1	1	1	193	1	1
KOD0932	57.837	207.156	49	146	1	2	2	199	1	3
KOD0933	57.914	207.452	17	144	1	1	321	158	2	1
KOD0934	57.927	207.271	50	168	1	2	360	215	1	3
KOD0935	57.999	206.882	146	112	1	1	5	66	1	2
KOD0936	58.331	207.057	93	88	0	3	306	20	2	4
KOD0937	58.391	207.122	122	61	1	11	329	11	1	12
KOD0938	58.454	207.297	6	22	1	3	286	355	3	5
KOD0939	58.395	207.541	52	165	3	0	27	182	3	1
KOD0940	58.385	207.524	56	140	2	15	26	163	3	15
KOD0941	58.277	208.064	86	101	1	1	213	234	3	1
KOD0942	58.171	208.020	67	79	4	0	236	257	5	1
KOD0943	58.102	207.973	76	68	14	3	234	259	15	2
KOD0944	58.616	207.571	48	3	4	1	22	33	4	3
PWS0701	60.922	211.896	59	80	1	2	169	184	1	3
PWS0702	60.865	211.857	58	169	1	66	164	136	1	67
PWS0703	60.703	211.642	59	128	2	12	343	179	1	11
PWS0704	60.684	211.914	91	153	0	3	157	185	1	4

PWS0705	60.750	212.051	180	139	0	6	154	182	1	6
PWS0706	60.598	211.933	137	125	1	4	155	216	1	5
PWS0707	60.541	211.777	89	45	2	16	311	352	3	15
PWS0708	60.435	212.067	89	88	0	2	141	194	1	4
PWS0709	60.302	211.988	89	44	0	5	154	127	1	5
PWS0710	60.293	212.007	75	76	0	4	161	187	1	5
PWS0711	60.207	211.834	135	141	2	7	345	217	2	7
PWS0712	60.111	211.948	60	73	2	5	347	132	2	9
PWS0713	60.074	211.757	135	42	2	1	343	154	2	1
PWS0714	59.988	211.814	169	69	2	1	343	187	5	1
PWS0715	59.987	211.966	45	31	1	5	141	167	1	5
PWS0716	59.911	211.813	25	35	1	2	179	189	1	3
PWS0717	59.911	211.889	29	54	1	1	167	176	1	1
PWS0718	59.854	211.623	69	57	3	8	183	204	3	6
PWS0719	59.844	211.984	55	37	4	1	180	204	4	1
PWS0720	59.682	211.926	118	111	5	3	159	168	5	3
PWS0721	59.793	212.647	50	51	2	3	208	207	2	3
PWS0722	60.046	213.209	94	100	2	7	168	188	2	15
PWS0723	60.206	212.294	59	73	0	1	177	225	1	1
PWS0724	60.194	212.659	52	56	1	7	185	236	1	9
PWS0725	60.345	212.895	44	175	6	1	357	184	6	2
PWS0726	60.284	213.200	93	95	1	1	166	203	1	2
PWS0727	60.436	213.323	87	24	0	3	148	206	2	5
PWS0728	59.993	213.569	122	134	3	3	155	194	3	3
PWS0729	60.154	213.712	146	165	2	4	151	197	2	5
PWS0730	60.064	214.873	120	133	2	8	137	148	2	9
PWS0731	60.489	213.597	31	9	1	4	160	206	1	5
PWS0732	60.538	214.143	159	10	24	3	294	224	24	7
PWS0733	60.546	214.202	43	31	4	3	40	189	3	4
PWS0734	60.546	214.202	43	52	4	1	40	41	3	1
PWS0735	60.519	214.103	39	20	2	1	191	49	2	1
PWS0736	60.538	213.542	11	15	1	4	167	207	1	3
PWS0737	60.599	213.234	81	101	1	5	170	140	1	6
PWS0738	60.866	213.169	52	175	5	4	140	18	5	7
PWS0739	60.539	212.475	87	135	0	2	148	189	1	2
PWS0740	60.671	212.634	44	139	3	3	344	208	3	3
PWS0741	60.700	212.538	45	179	7	1	178	222	6	4
PWS0742	60.767	212.481	16	5	1	3	15	70	1	6
PWS0743	60.842	212.678	164	41	1	5	186	21	2	5
PWS0744	60.831	212.893	129	131	3	3	170	216	3	3
PWS0745	60.999	213.293	85	59	0	2	156	194	3	2
PWS0746	61.090	213.573	172	180	0	11	344	349	2	48

**Appendix 2: Monthly climatology, NWGOA modeled velocity near the surface and the bottom.**
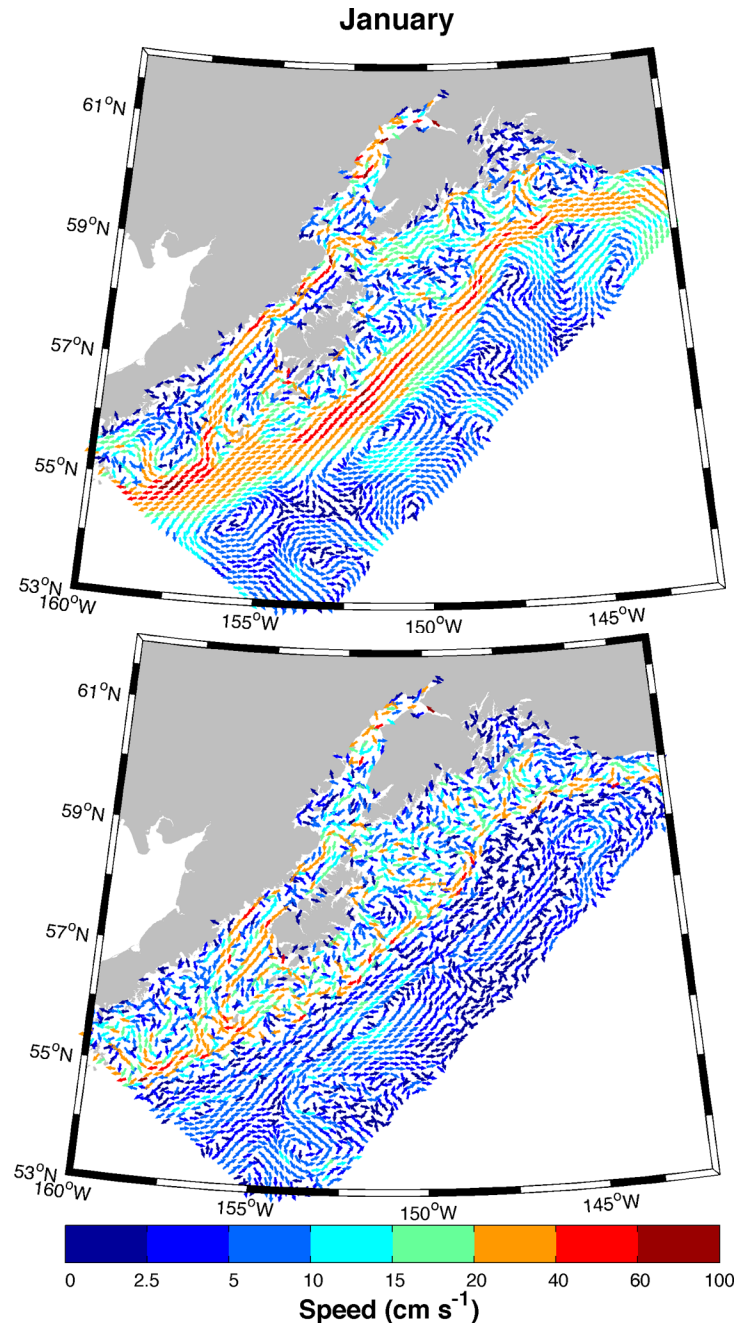
Figure A2.1: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for January. Every 9ᵗʰ grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s⁻¹.
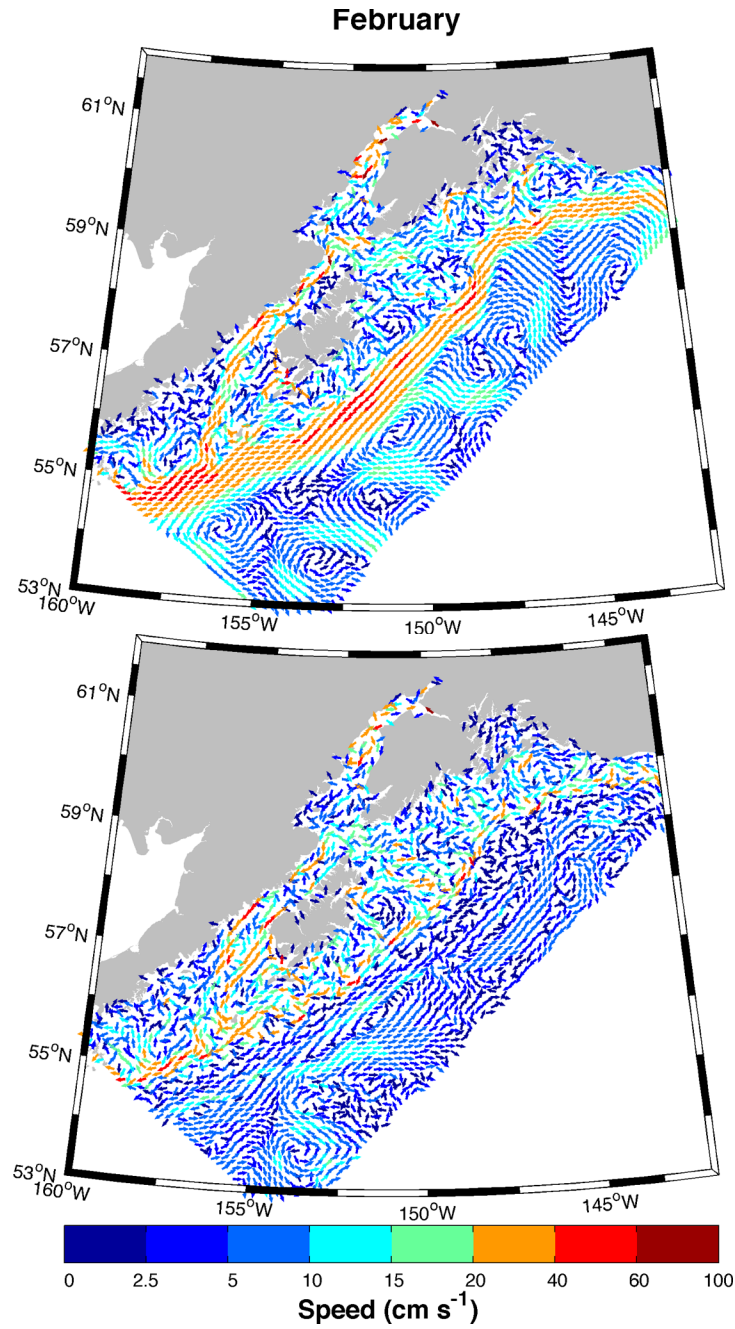
February

Figure A2.2: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for February. Every 9th grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s⁻¹.
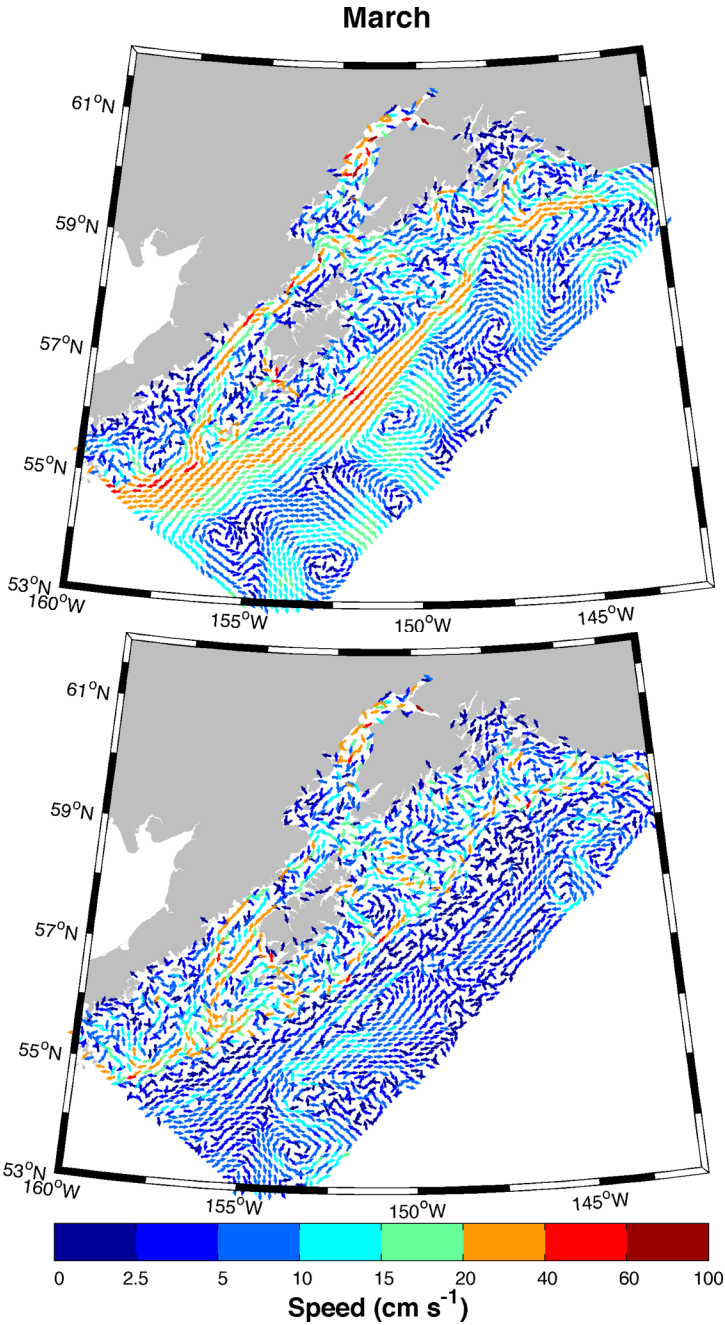
March

Figure A2.3: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for March. Every 9th grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s⁻¹.
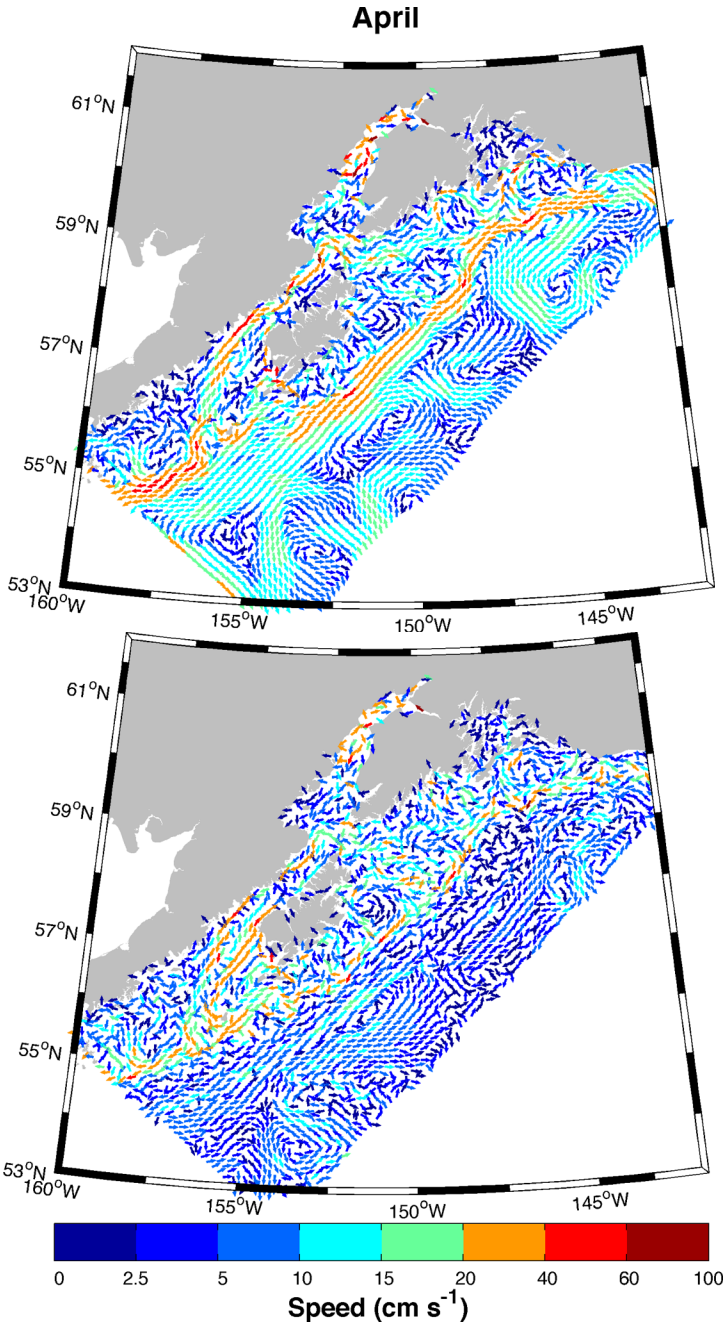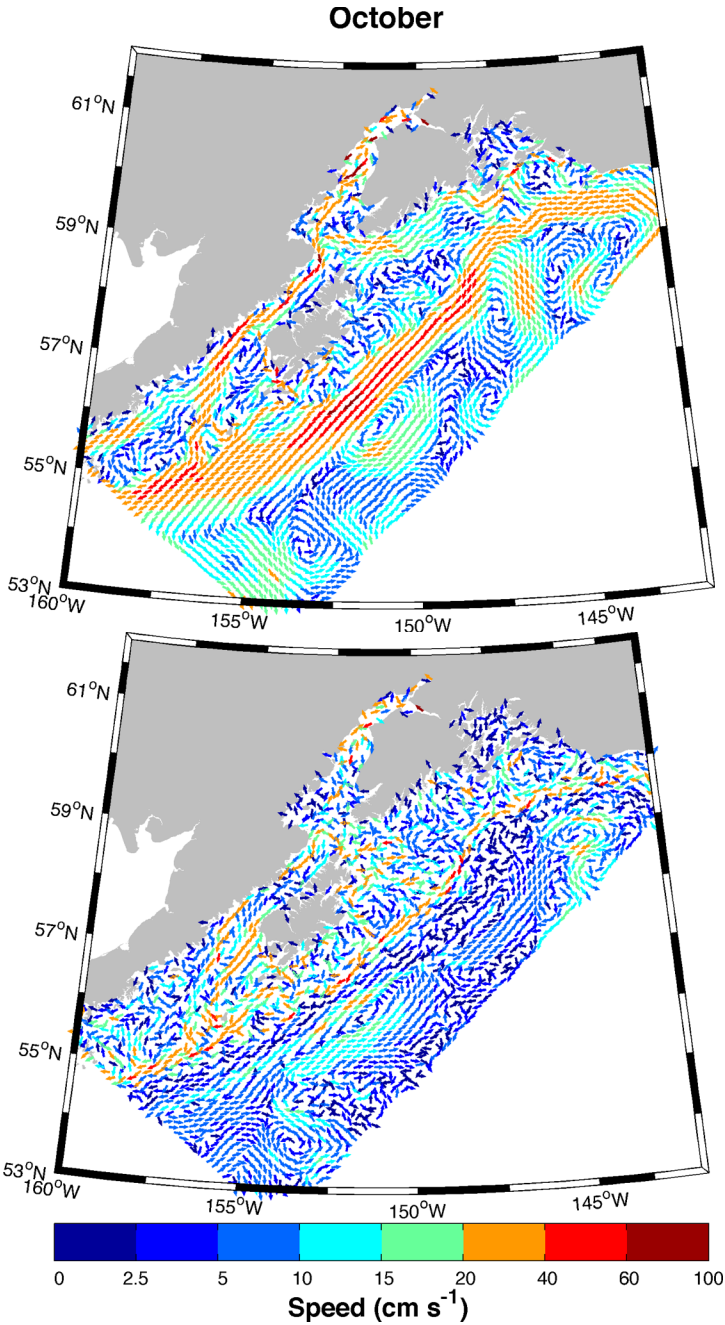
April

Figure A2.4: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for April. Every 9th grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s^{-1}.

May
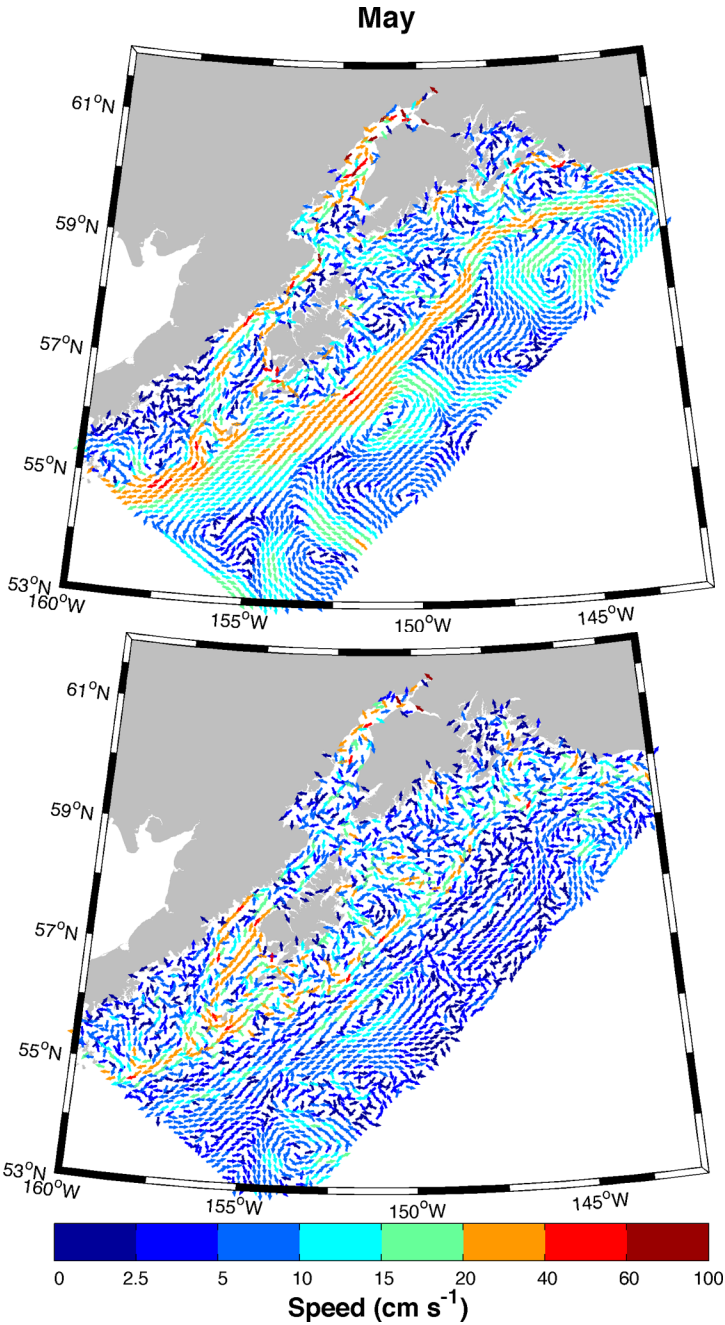
Figure A2.5: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for May. Every 9th grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s⁻¹.
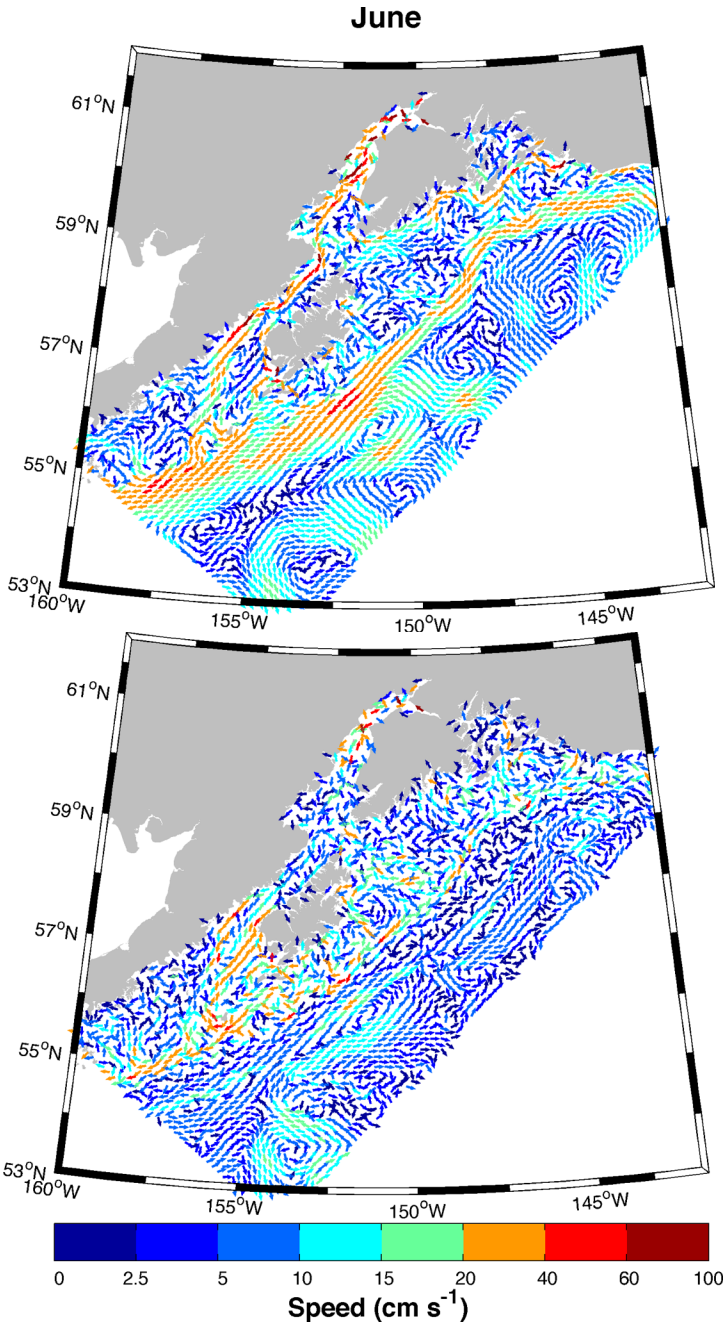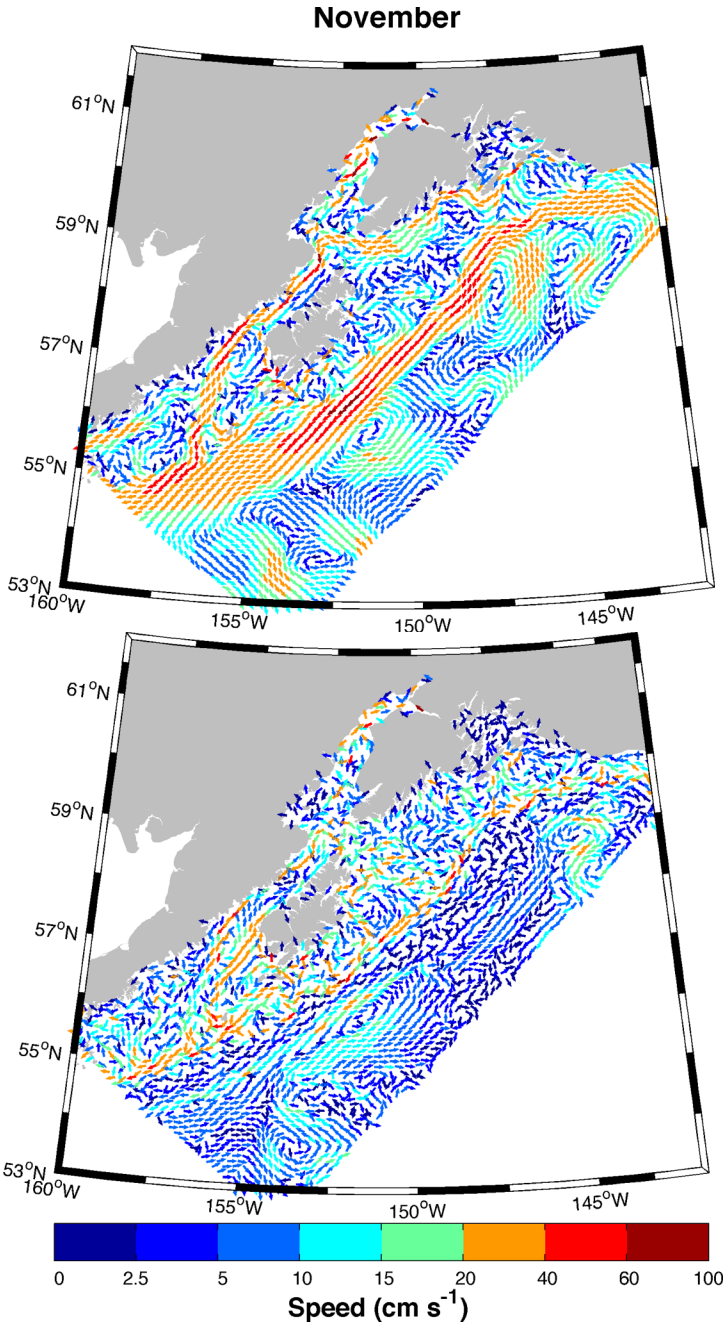
June

Figure A2.6: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for June. Every 9th grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s⁻¹.
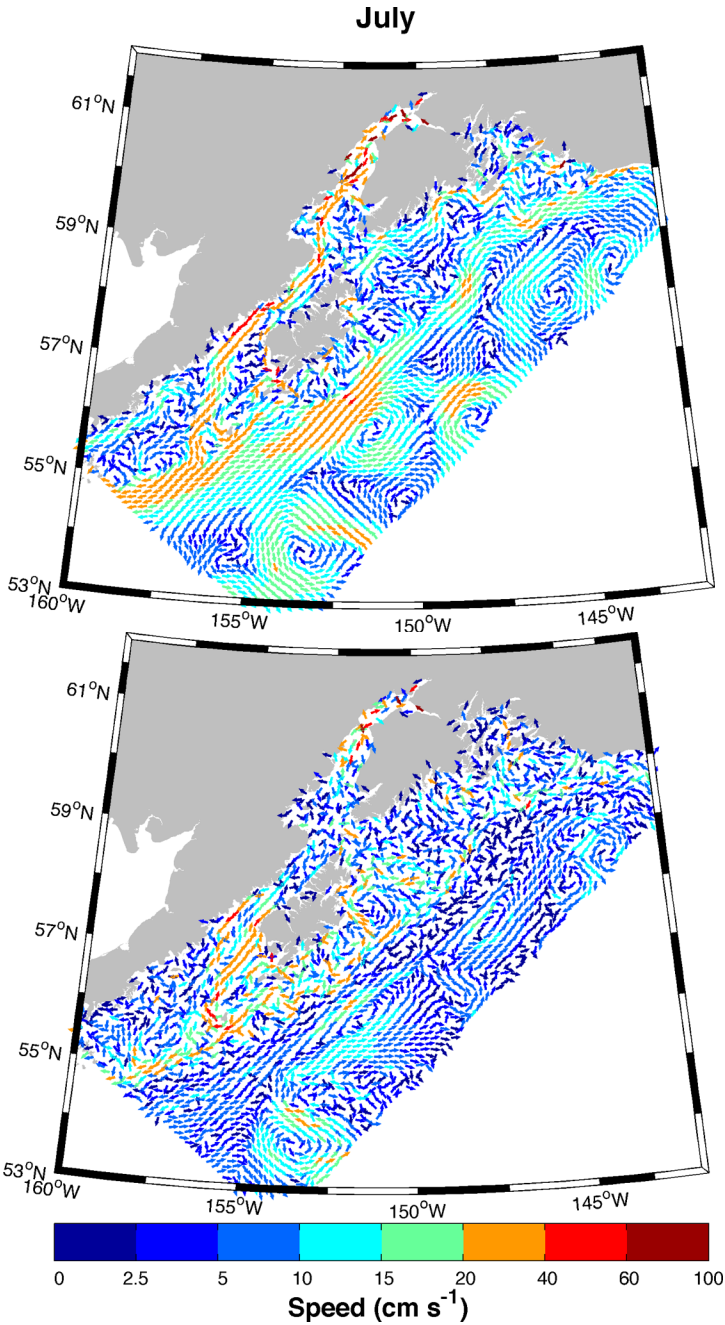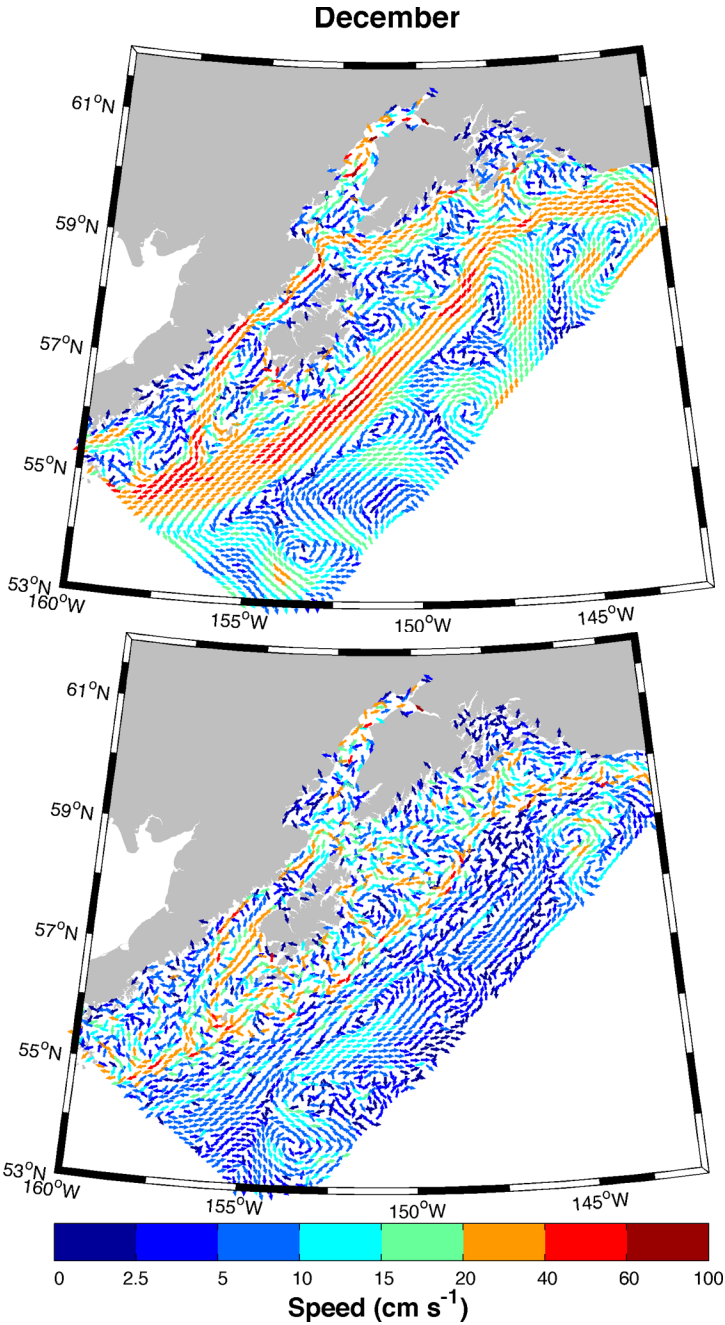
July

Figure A2.7: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for July. Every 9th grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s-1.
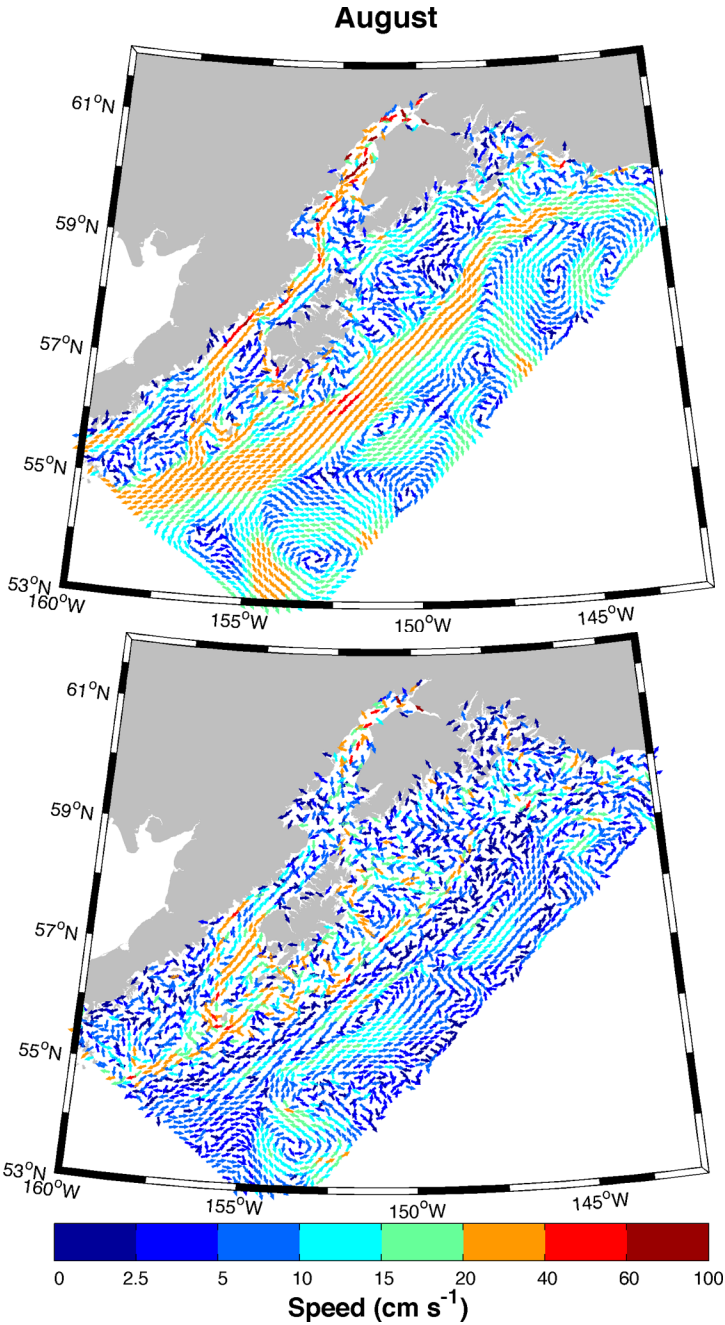
August

Figure A2.8: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for August. Every 9th grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s^{-1}.

September

Speed (cm s^{-1})
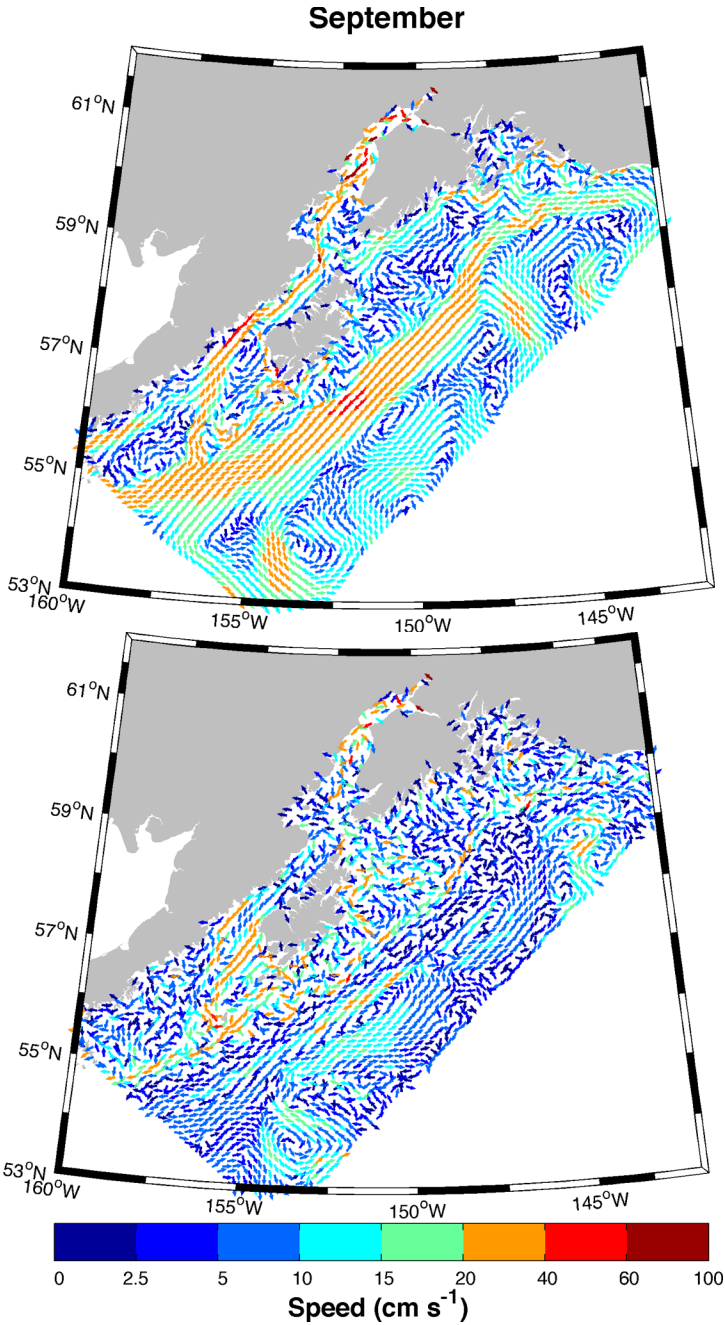
Figure A2.9: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for September. Every 9th grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s^{-1}.

Figure A2.10: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for October. Every 9ᵗʰ grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s⁻¹.

November

Figure A2.11: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for November. Every 9th grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s⁻¹.

December

Figure A2.12: Surface (upper) and near-bottom (lower) mean velocity fields over the 10-year hindcast for Decmber. Every 9th grid point velocity vector is shown. Arrows denote flow direction and colors denote flow speed in cm s⁻¹.

Appendix 3: Monthly climatology, NWGOA modeled sea surface temperature.
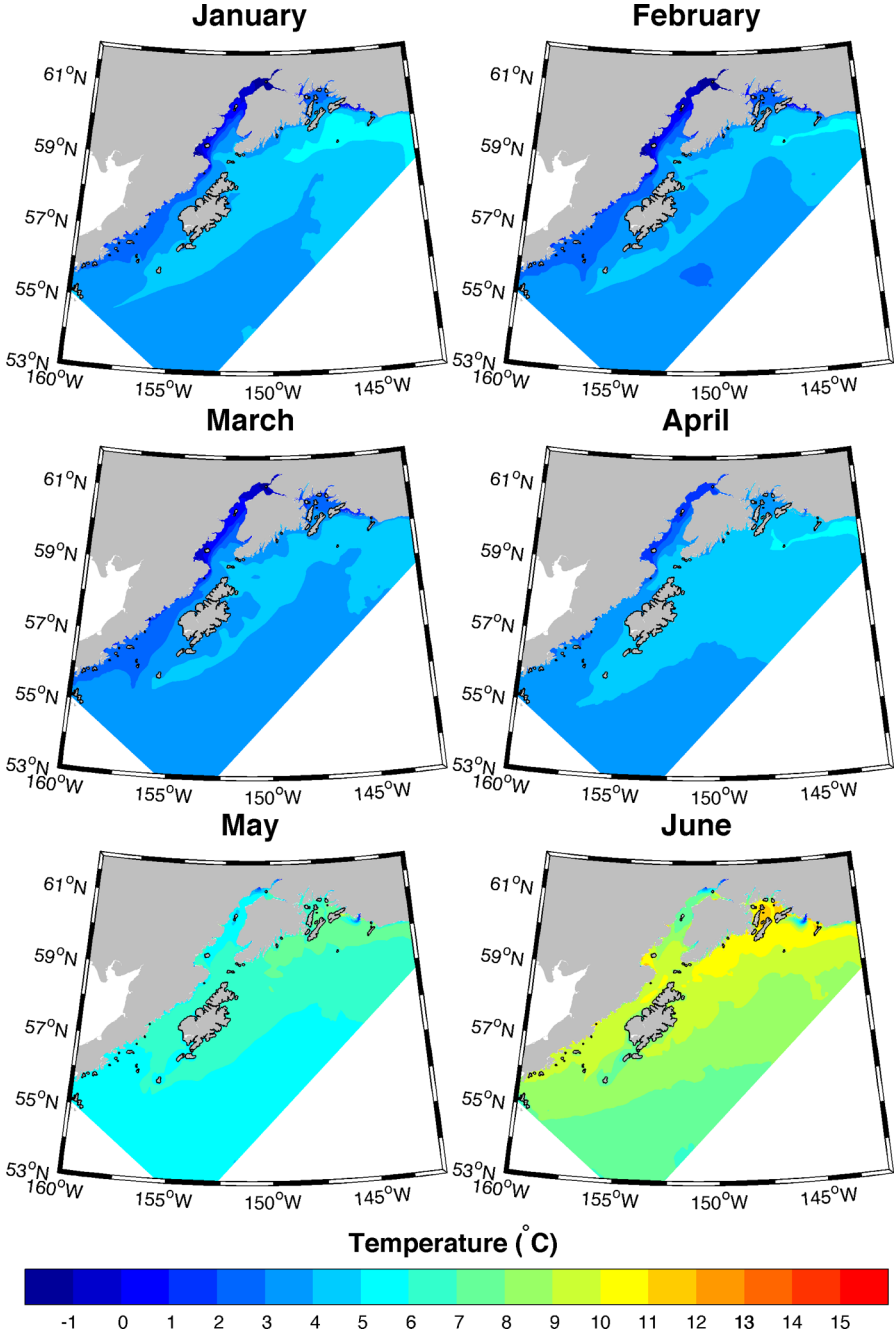
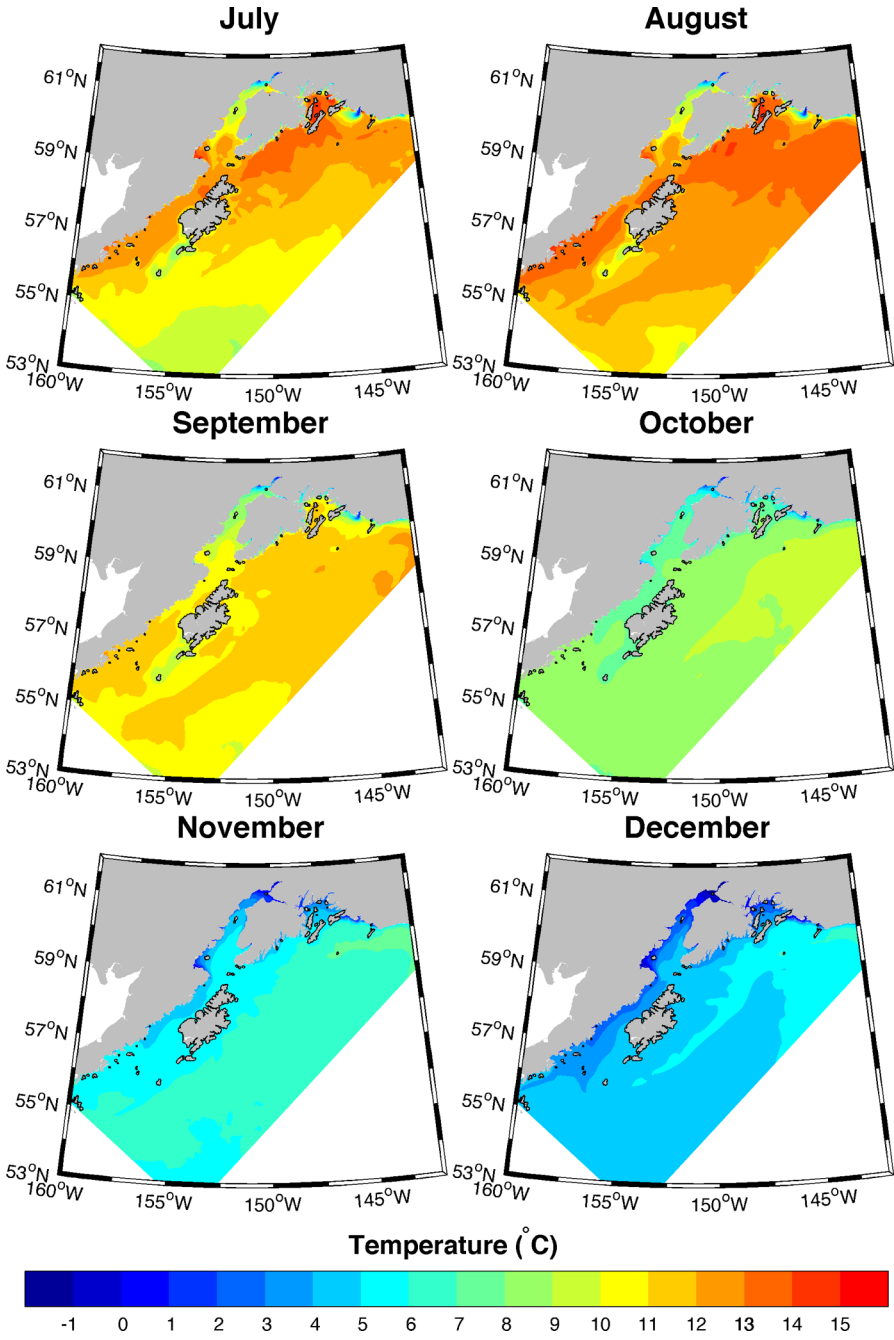Figure A3.1: Monthly mean sea surface temperature (SST) over the 10-year hindcast for January-June over the NWGOA domain.

Figure A3.2: Monthly mean sea surface temperature (SST) over the 10-year hindcast for July-December over the NWGOA domain.

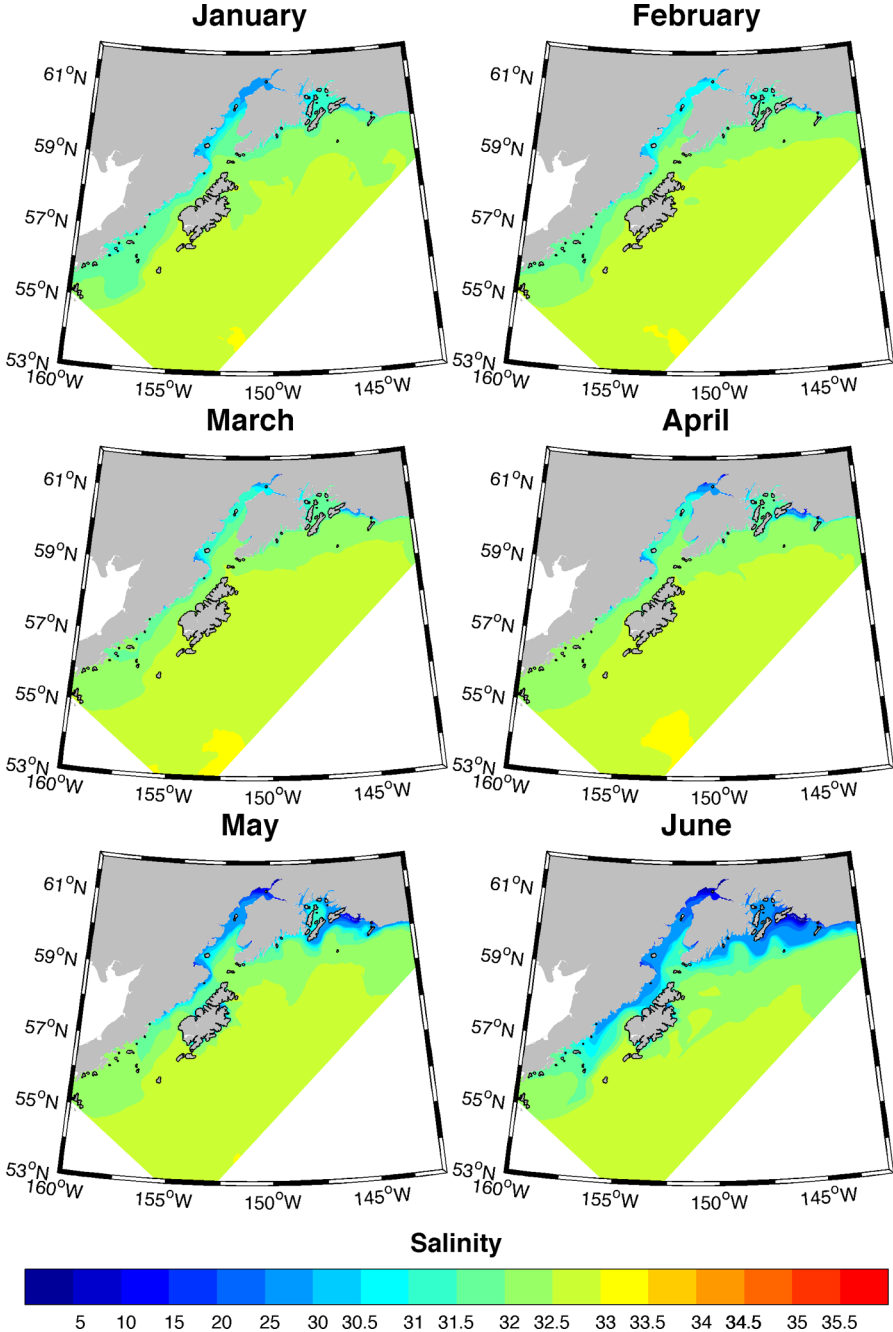## Appendix 4: Monthly climatology, NWGOA modeled sea surface salinity.

Figure A4.1: Monthly mean sea surface salinity (SSS) over the 10-year hindcast for January-June over the NWGOA domain.
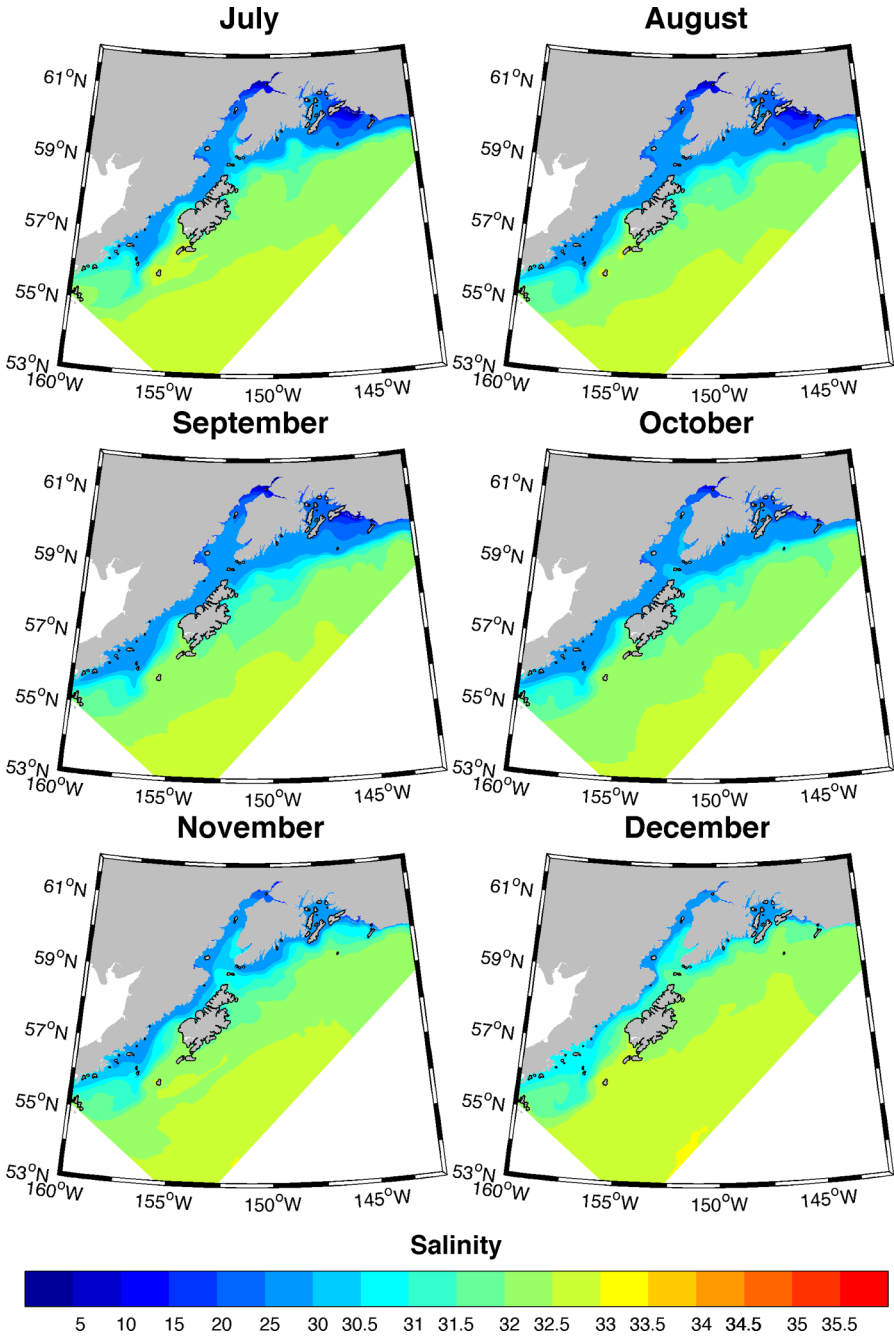
Figure A4.2: Monthly mean sea surface temperature (SST) over the 10-year hindcast for July-December.