

Woodgate etal : TABLE 1

<b>ID</b>	<b>Location</b>	<b>Latitude &amp; Longitude</b>	<b>Water Depth (m)</b>	<b>RCM depth (m)</b>	<b>Mean Velocity (cm/s)</b>	<b>Mean Velocity (deg)</b>	<b>Direction of PC1 (deg)</b>	<b>Fraction of variance in PC1</b>
<b>MA1</b>	West Bering Strait	65° 54.0' N 169° 25.7' W	50	41	29.1 (3.8) <sup>a</sup>	27	20	1.00
<b>MA2</b>	East Bering Strait	65° 46.5' N 168° 35.2' W	53	44	28.7 (2.6) <sup>a</sup>	8	358	1.00
<b>MA3</b>	North Bering Strait	66° 17.6' N 168° 57.9' W	56	47	22.4 (2.9)	338	334	0.99
<b>MC1</b>	West Central Chukchi	67° 56.9' N 174° 33.2' W	44	35	1.2 (0.9)	9	309	0.98
<b>MC2</b>	Central Chukchi	68° 20.5' N 172° 29.8' W	51	42	4.5 (0.8)	327	302	0.91
<b>MC3</b>	Central Chukchi	68° 36.7' N 171° 4.4' W	55	47	5.2 (0.9)	320	317	0.81
<b>MC4</b>	Central Chukchi	68° 51.4' N 169° 35.6' W	53	44	5.4 (1.3)	331	350	0.90
<b>MC6</b>	East Central Chukchi	69° 1.1' N 166° 57.3' W	47	38	4.1 (1.0)	6	3	0.96
<b>ME2</b>	North Long Strait	70° 29.7' N 181° 33.1' W	46	37	3.1 (1.3)	294	279	0.98
<b>MF1</b>	West Herald Valley	71° 6.9' N 175 43.9 W	48	39	0.4 (1.0) <sup>b</sup>	337	45	0.90
<b>MF2</b>	East Herald Valley	70° 57.8' N 174° 11.2' W	49	40	12.5 (2.7)	358	358	0.98
<b>MK1</b>	Barrow Canyon	71° 2.0' N 159° 41.9' W	80	71	14.4 (3.2)	74	60	1.00

<sup>a</sup> Velocity means calculated from the surrogate timeseries

<sup>b</sup> Record only 115 days long

Woodgate et al: TABLE 2

ID	Depth (m)		M2 (cm/s & deg)			S2 (cm/s & deg)			K1 (cm/s & deg)			O1 (cm/s & deg)			Other components (cm/s)			
	WD	RCM	Ma	Mi	Inc	Ma	Mi	Inc	Ma	Mi	Inc	Ma	Mi	Inc	Name	Ma	Name	Ma
<b>MA1<sup>a</sup></b>	50	41	2.2	0.1	63	-	-	-	2.1	0.2	71	1.7	0.1	66	MSF	8.5	MM	7.7
<b>MA2<sup>b</sup></b>	53	44	2.8	0.4	80	-	-	-	1.8	0.2	84	1.9	0.2	88	MSF	9.5	SSA	6.8
<b>MA3</b>	56	47	1.8	1.2	33	0.6	-0.0	129	1.3	0.2	101	1.1	0.3	103	SA	13.1	SSA	5.9
<b>MC1</b>	44	35	2.5	0.4	140	1.1	0.3	153	0.4	0.2	147	0.3	0.0	120	SA	2.9	MSM	2.0
<b>MC2</b>	51	42	1.9	-0.0	155	1.0	-0.2	169	0.2	0.1	136	0.2	0.1	121	MM	1.9	MSF	1.7
<b>MC3</b>	55	47	1.4	-0.2	160	0.9	-0.4	174	0.2	0.1	8	-	-	-	SSA	2.5	SA	2.2
<b>MC4</b>	53	44	1.0	-0.3	147	0.5	-0.3	174	-	-	-	-	-	-	SSA	4.0	MSM	2.7
<b>MC6</b>	47	38	0.9	-0.3	71	0.9	-0.4	43	0.5	0.0	88	-	-	-	SSA	3.1	SA	2.8
<b>ME2</b>	46	37	3.9	1.1	147	2.4	0.3	140	0.5	-0.0	144	0.5	0.0	143	SSA	3.1	MSF	2.9
<b>MF1<sup>c</sup></b>	48	39	5.5	-2.0	61	3.3	-1.4	58	0.5	-0.1	157	-	-	-	MM	1.9	N2	1.4
<b>MF2</b>	49	40	3.4	-1.0	56	1.8	-0.7	53	0.3	-0.1	10	-	-	-	SA	8.7	SSA	2.4
<b>MK1</b>	80	71	-	-	-	-	-	-	-	-	-	0.6	-0.1	25	SA	13.0	MSF	7.4

<sup>a</sup> MA1 record only 179 days; <sup>b</sup> MA2 record only 200 days; <sup>c</sup> MF1 record only 115 days.

Woodgate et al : TABLE 3

<b>ID</b>	<b>Direction of PC1 (deg)</b>	<b>Heading of best surface wind component (deg)</b>	<b>Correlation at zero lag</b>	<b><math>P_h</math> velocity at wind = 0 (cm/s)</b>	<b>m gradient of best fit</b>
<b>MA1<sup>a</sup></b>	20	340	0.76	40.7	0.042
<b>MA2<sup>a</sup></b>	358	330	0.75	38.4	0.043
<b>MA3</b>	334	340	0.74	30.9	0.032
<b>MC1</b>	309	300	0.27	0.5	0.009
<b>MC2</b>	302	310	0.50	4.7	0.011
<b>MC3</b>	317	330	0.52	6.8	0.010
<b>MC4</b>	350	0	0.54	8.3	0.009
<b>MC6</b>	3	20	0.61	9.4	0.013
<b>ME2</b>	279	270	0.63	1.2	0.017
<b>MF1<sup>b</sup></b>	45	30	0.25	1.0	0.005
<b>MF2</b>	358	270	0.07	12.2	0.002
<b>MK1</b>	60	60	0.60	22.4	0.038

<sup>a</sup> Calculated from the surrogate timeseries    <sup>b</sup> Record only 115 days long

Woodgate etal : TABLE 4

Starting at each mooring location, the % chance of a water parcel  
having transited over 300km in:

<b>ID</b>	<b>10 days</b>	<b>30 days</b>	<b>60 days</b>	<b>90 days</b>	<b>120 days</b>
<b>MA1<sup>a</sup></b>	48	89	98	98	98
<b>MA2<sup>a</sup></b>	44	91	98	98	98
<b>MA3</b>	28	82	98	98	98
<b>MC1</b>	0	0	0	2	17
<b>MC2</b>	0	0	28	42	58
<b>MC3</b>	0	0	48	79	81
<b>MC4</b>	0	9	39	56	64
<b>MC6</b>	0	4	26	51	59
<b>ME2</b>	2	8	15	31	49
<b>MF2</b>	0	34	91	96	96
<b>MK1</b>	21	62	80	94	94

<sup>a</sup> Calculated from the surrogate timeseries

Woodgate et al : TABLE 5

ID	Section Length (km)	Cross-section area ( $10^6 \text{ m}^2$ )	Trans (Sv)	Estimated Error (Sv)
MA1 <sup>a</sup>	45	1.0	0.28	0.04 + 10-20%
MA2 <sup>a</sup>	33	1.6	0.47	0.05 + 10-20%
<b>Sum MA</b>			<b>0.8</b>	<b>0.2</b>
MC1	89	3.4	0.02	0.03 + 10-20%
MC2	81	4.2	0.17	0.03 + 10-20%
MC3	66	3.5	0.19	0.03 + 10-20%
MC4	85	4.7	0.23	0.06 + 10-20%
MC6	91	3.8	0.16	0.04 + 10-20%
<b>Sum MC</b>			<b>0.8</b>	<b>0.2</b>
ME2	90	5.9	0.18	0.08 + 10-20%
MF1 <sup>b</sup>	70	3.5	0.004	0.03 + 10-20%
MF2	37	2.2	0.28	0.06 + 10-20%
MK1	17	1.0	0.14	0.03 + 10-20%
<b>Sum MEFK</b>			<b>0.6</b>	<b>0.3</b>

<sup>a</sup> Calculated from the surrogate timeseries    <sup>b</sup> MF1 record only 115 days.