

Table 4: Comparison between observed (Obs.) and calculated (Cal.) K1 tidal elevations in the Arctic Ocean

Position		Amplitude			Phase			Station
Long.	Lat.	Obs.	Cal.	Diff.	Obs.	Cal.	Diff.	
3.2167	56.5500	2.5	2.9	0.4	273.0	259.3	-13.7	EKOFISK
2.0667	59.8833	4.5	5.1	0.6	159.0	169.9	10.9	FRIGG
0.0000	63.1333	7.5	8.5	1.0	157.0	145.2	-11.8	SHETLAND REGION
-0.6191	60.8092	8.0	8.6	0.6	164.0	154.0	-10.0	LERUIK
-6.4305	60.1526	9.0	9.7	0.7	147.0	136.6	-10.4	OPEN SEA 10
-6.5748	61.7599	4.0	6.0	2.0	142.0	109.8	-32.2	TORSHAVN
-14.2833	64.6667	6.6	9.0	2.4	77.0	74.9	-2.1	DJUBVOGUR
-18.1556	65.7844	7.0	5.5	-1.5	136.0	131.4	-4.6	AKKUREYN
-19.0000	66.1333	6.0	5.4	-0.6	138.0	136.3	-1.7	SIGLUFJORD
-24.7167	62.8333	12.2	12.2	0.0	136.0	129.3	-6.7	REYKJANES RIDGE
-22.2500	64.1500	11.0	13.0	2.0	117.0	110.3	-6.7	REYKIYAVIK
-37.5833	65.6000	14.0	17.6	3.6	147.0	159.2	12.2	ANGMASSALIK
-21.9667	70.4167	10.6	12.3	1.7	87.1	66.9	-20.2	KAP TOBIN
-23.9167	72.2333	11.0	11.1	0.1	105.1	89.6	-15.5	MESTERVIG
-21.1333	73.9833	11.8	13.8	2.0	96.2	80.0	-16.2	VESLE FINSCHOYA
-19.4167	76.9000	8.0	12.2	4.2	62.0	54.3	-7.7	DATSKAYA HAVAN
-18.7667	76.7667	8.4	11.4	3.0	51.6	46.1	-5.5	DANMARCS HAVN
-8.6833	70.9667	6.0	6.6	0.6	116.0	116.4	0.4	KVALROSSBUKTA
-8.4036	71.0246	3.2	7.1	3.9	105.5	112.5	7.0	MARRY MUSS BAY
4.5372	59.0142	1.4	2.4	1.0	180.0	182.6	2.6	STAVANGER
5.3000	60.4000	3.2	3.1	-0.1	170.0	162.5	-7.5	BERGEN
4.5213	61.7005	4.4	4.6	0.2	165.0	144.1	-20.9	FLORO
5.4179	61.9069	4.0	3.4	-0.6	160.0	148.6	-11.4	KJOLSDAL
6.1500	62.4833	6.0	7.5	1.5	155.0	134.3	-20.7	ALESUND
7.7333	63.1000	6.3	6.8	0.5	174.0	154.2	-19.8	KRISTIANSUND N.
9.1167	63.4333	6.0	7.7	1.7	176.0	154.4	-21.6	HEIMSJO
9.5795	63.6331	6.8	8.4	1.6	179.0	153.2	-25.8	TRONDHEIM
11.0987	64.8081	7.4	9.1	1.7	182.0	156.8	-25.2	RORVIK
12.2257	65.5736	8.3	10.6	2.3	188.0	173.8	-14.2	BRONNOYSUND
12.9325	65.9527	8.8	11.4	2.6	193.0	180.7	-12.3	MOSJOEN
13.3752	66.3008	9.2	11.2	2.0	200.0	187.0	-13.0	MO I RANA
8.1333	66.9167	4.5	5.2	0.7	171.0	166.9	-4.1	SHELF WEST NORWAY
14.7230	67.3160	10.0	12.2	2.2	210.0	205.3	-4.7	BODO
14.5000	68.2167	10.5	12.3	1.8	212.0	199.1	-12.9	KABELVAG
16.0000	68.4167	10.2	12.4	2.2	213.0	201.6	-11.4	LODINGEN
16.7341	68.8102	6.5	7.3	0.8	209.0	192.2	-16.8	EVENSKJER

16.4845	68.4604	11.7	11.4	-0.3	213.0	213.2	0.2	NARVIK
15.5334	68.8502	3.2	4.7	1.5	239.0	215.4	-23.6	RISOYHAMN
16.1500	69.3167	5.9	6.9	1.0	191.0	175.3	-15.7	ANDENES
19.2000	74.4833	5.4	7.5	2.1	210.8	172.1	-38.7	BJORNOYA
19.1667	74.3667	1.8	2.5	0.7	281.1	122.6	-158.5	SOERHAMNA
25.0667	76.5000	11.8	9.7	-2.1	346.0	359.7	13.7	HUSDALEN
23.0672	77.1257	12.6	13.2	0.6	331.0	337.5	6.5	HALVMAANEOEYA
17.9095	76.5287	6.8	6.6	-0.2	334.0	335.7	1.7	KVALVAGEN
14.2500	78.0667	6.7	7.9	1.2	218.0	202.4	-15.6	GRONF JORDEN
13.6333	78.0500	6.8	8.0	1.2	194.4	200.4	6.0	KAPP LINNE
11.9500	78.9333	6.7	8.3	1.6	283.0	222.4	-60.6	NY-ALESUND
12.0500	78.9667	5.4	8.3	2.9	240.9	223.1	-17.8	LONDON, KING'S BAY
10.8667	79.7167	2.7	5.8	3.1	204.1	230.8	26.7	PORT VIRGO
11.4764	80.2173	6.9	11.8	4.9	233.0	246.5	13.5	J. MORRISON
16.0667	79.9500	7.1	13.5	6.4	227.0	226.9	-0.1	MOSSEL BAY
16.8667	80.0000	7.3	12.6	5.3	253.0	233.1	-19.9	SORGF JORDEN
18.3000	79.9333	8.7	10.8	2.1	252.7	235.1	-17.6	SVERNOR
19.4833	80.3833	4.0	10.8	6.8	254.0	244.1	-9.9	BRENNEVINSFFJORDEN
30.6824	79.9555	7.0	7.6	0.6	305.0	307.6	2.6	AAGAARD ET. AL
52.8000	80.3333	6.9	4.9	-2.0	343.2	335.0	-8.2	B. TIKHOI
57.8500	81.8000	3.9	3.5	-0.4	359.2	304.7	-54.5	B. TEPLITZ
23.4000	70.6667	8.1	8.2	0.1	214.0	200.7	-13.3	HAMMERFEST
31.5801	70.5973	11.9	11.1	-0.8	252.1	247.4	-4.7	VARDO
40.4673	65.8310	2.0	1.6	-0.4	4.0	79.0	75.0	INTCY
43.9819	68.2388	14.0	17.2	3.2	300.0	284.2	-15.8	SHOINA
47.5066	68.6573	18.0	20.0	2.0	300.0	319.0	19.0	KANIN
48.0188	69.2110	18.0	16.3	-1.7	317.0	325.2	8.2	BUGRINO
52.7000	72.6500	4.9	6.5	1.6	169.3	13.0	-156.3	PUKHOVY BAY
54.8000	73.6500	5.8	6.3	0.5	205.2	22.2	177.0	MITYUCHIKHA BAY
56.3833	73.2500	2.4	1.2	-1.2	208.8	203.7	-5.1	MATOTCHKIN SHAR
55.5000	74.1167	5.2	5.3	0.1	2.5	30.7	28.2	KRESTOVAYA BAY
59.9167	76.0000	3.4	4.2	0.8	69.0	89.5	20.5	ST.PHOQUE BAY (ST. THOMAS)
63.0500	76.2667	3.3	2.5	-0.8	84.8	119.8	35.0	RUSSKAYA GAVAN
68.5833	76.9500	1.0	2.0	1.0	191.0	183.7	-7.3	M ZJELANIA
59.0667	70.4500	4.0	2.1	-1.9	114.0	90.2	-23.8	M. BOLSHOY BOLV. NOS
61.0000	69.8000	6.0	1.9	-4.1	101.0	116.2	15.2	YUGORSKIY SHAR
61.7000	69.7500	4.0	1.7	-2.3	121.0	129.2	8.2	AMDERMA
65.8849	69.3098	6.0	1.8	-4.2	144.0	165.8	21.8	YSTI KARA
65.5163	71.1193	3.0	2.3	-0.7	135.0	157.6	22.6	HARASAVEY
70.0000	73.3333	7.0	3.9	-3.1	189.0	178.1	-10.9	BELIY
83.0000	75.9167	2.0	1.5	-0.5	259.0	247.3	-11.7	IZVESTIY CTIK ISL.
82.0000	77.5000	3.0	1.8	-1.2	312.0	237.1	-74.9	UEDINENIA ISL.

76.8333	79.6000	5.0	3.4	-1.6	288.0	275.2	-12.8	VIZE ISL.
89.0833	77.3000	2.0	1.3	-0.7	319.0	191.5	-127.5	ISACHENKO ISL.
90.6667	79.7000	5.0	5.3	0.3	331.0	324.5	-6.5	PIONER ISL.
102.4167	79.5000	5.0	6.0	1.0	283.0	272.0	-11.0	PESCHANY M.
96.5000	77.1000	3.0	2.9	-0.1	305.0	293.1	-11.9	RUSSKIY ISL.
97.4167	76.5500	3.0	3.0	0.0	268.0	259.3	-8.7	TAYMIR ISL.
101.4167	77.5000	4.0	4.2	0.2	296.0	273.6	-22.4	GEYBERGA ISL.
103.1000	78.2167	6.0	6.5	0.5	299.0	281.8	-17.2	SOLNECHNAYA BAY
107.0000	77.1333	5.0	6.6	1.6	281.0	264.3	-16.7	KOMSOMOL. PRAVDY ISLS.
107.0000	78.1333	7.0	6.4	-0.6	225.0	278.0	53.0	M. TAYMYR ISL.
111.0000	76.7000	5.0	6.5	1.5	280.0	265.7	-14.3	ANDREY ISL.
113.4167	75.5667	8.0	9.3	1.3	313.0	290.7	-22.3	M. PRONCHISHEVOY BAY
112.7833	74.6500	5.0	8.7	3.7	322.0	321.1	-0.9	PREOBRAJENIYA ISL
117.6003	73.5841	4.0	5.2	1.2	32.0	16.5	-15.5	M. TERPIAY-TUMSA
124.3333	73.9333	2.0	1.7	-0.3	145.0	177.5	32.5	DUNAY ISL.
129.4057	71.3870	4.0	4.2	0.2	312.0	324.7	12.7	TIKSY
130.0000	71.5000	4.0	3.8	-0.2	4.0	326.6	-37.4	MUOSTAKH
130.5646	71.1600	1.0	3.9	2.9	45.0	332.5	-72.5	BUOR-HAYA
140.0833	72.9000	2.0	1.5	-0.5	165.0	160.0	-5.0	SVIATOY NOS
139.3333	73.3000	2.0	0.8	-1.2	70.0	145.2	75.2	KIGILLIAKH
142.4963	73.2337	2.0	0.3	-1.7	63.0	256.2	-166.8	SHALAUROVA
142.0833	74.9000	1.0	2.8	1.8	19.0	345.4	-33.6	ZEMLIA BUNGE
137.1399	75.9547	2.0	2.2	0.2	163.0	118.3	-44.7	TEMPA
137.2572	75.7320	3.0	2.7	-0.3	165.0	93.0	-72.0	KOTELNIY
152.7500	76.1000	8.0	3.2	-4.8	307.0	264.6	-42.4	ZJOKHOVA
166.5000	69.5000	1.0	1.2	0.2	291.0	278.2	-12.8	RAUCHUA
-178.5500	70.9667	1.0	1.4	0.4	210.0	215.1	5.1	VRANGELYA
-179.4833	68.9167	3.0	2.6	-0.4	215.0	187.8	-27.2	SHMIDTA
-176.1667	67.9167	2.0	2.9	0.9	180.0	208.4	28.4	VANKAREM
-174.6500	67.4833	3.0	3.0	0.0	237.0	219.7	-17.3	KOLUCHIN
-171.6667	67.0000	3.0	2.4	-0.6	238.0	243.5	5.5	NATTAN
-169.8333	66.1000	1.0	2.5	1.5	231.0	258.9	27.9	UALLEN
-165.4300	64.5000	9.0	8.2	-0.8	145.2	152.1	6.9	NOME,NORTON SOUND
-163.7142	67.1505	4.1	1.8	-2.3	37.9	45.5	7.6	RED DOG DOCK
-148.5267	70.4000	2.2	2.3	0.1	161.2	300.8	139.6	PRUDHOE BAY
-138.9167	69.5667	2.8	1.5	-1.3	137.8	116.7	-21.1	HERSCHEL ISLAND
-138.4333	69.2833	3.1	1.7	-1.4	117.4	115.7	-1.7	KAY POINT YUKON
-137.2000	68.9333	3.5	1.9	-1.6	147.7	117.0	-30.7	SHINGLE BAY
-135.7500	69.5000	3.2	1.7	-1.5	134.3	129.5	-4.8	CARRY ISLAND
-135.3667	69.6167	4.6	1.5	-3.1	165.8	130.6	-35.2	PELLY ISLAND
-134.8333	69.6833	2.9	1.4	-1.5	148.2	131.0	-17.2	HOOPER ISLAND
-133.0000	69.4500	3.1	1.1	-2.0	165.6	132.1	-33.5	TUKTOYAKTUK

-131.4167	69.9500	2.8	0.8	-2.0	122.9	88.0	-34.9	ATKINSON POINT
-130.1228	69.8582	1.4	1.9	0.5	304.9	83.1	138.2	LIVERPOOL BAY
-129.4754	70.2243	0.7	1.6	0.9	205.0	39.1	-165.9	CAPE DAKHOUSIE
-127.7654	70.5047	2.1	3.6	1.5	132.0	81.7	-50.3	BAILLIE IS (S.SPIT)
-126.9167	69.9500	4.2	3.6	-0.6	136.4	86.5	-49.9	FRANKLIN BAY
-124.6667	70.1500	5.5	4.1	-1.4	115.0	83.0	-32.0	CAPE PARRY
-124.0667	69.3500	6.4	4.4	-2.0	124.3	92.2	-32.1	PAULATUK
-122.6667	69.8167	5.2	4.2	-1.0	137.8	89.0	-48.8	PEARCE POINT
-120.7833	69.6167	5.5	4.6	-0.9	137.8	89.3	-48.5	TYSOE POINT
-125.6829	72.1707	4.0	2.5	-1.5	150.8	100.4	-50.4	SACHS HARBOUR
-112.9600	68.4789	7.8	5.6	-2.2	224.8	196.4	-28.4	COPPERMINE
-114.2749	68.5514	8.5	7.0	-1.5	133.3	121.3	-12.0	BERNARD HARBOUR
-104.2640	68.8539	5.1	3.8	-1.3	128.9	86.3	-42.6	CAMBRIDGE BAY
-119.4667	76.2833	3.9	4.7	0.8	227.3	17.5	150.2	MOULD BAY
-110.8000	74.7833	6.7	7.5	0.8	18.3	351.2	-27.1	WINTER HARBOUR
-105.9950	75.1894	8.3	8.4	0.1	7.3	338.4	-28.9	BYAM CHANNEL (LP)
-105.5186	75.5564	6.9	6.9	0.0	5.0	337.8	-27.2	RAE POINT
-98.1978	74.0565	6.1	5.5	-0.6	3.1	321.7	-41.4	HAMILTON ISLAND
-96.7138	71.5173	10.2	10.9	0.7	11.3	352.8	-18.5	TASMANIA ISLAND
-95.2224	69.6742	2.1	3.5	1.4	137.2	53.2	-84.0	SPENCE BAY
-95.1667	71.9833	9.8	9.7	-0.1	27.2	350.6	-36.6	FALSE STRAIT
-94.2333	72.0167	42.7	29.8	-12.9	337.2	316.7	-20.5	FORT ROSS
-95.5500	72.6000	9.9	9.2	-0.7	359.6	345.5	-14.1	OTRICK ISLAND
-95.6833	73.4333	8.7	7.4	-1.3	347.2	332.5	-14.7	WADSWORTH ISLAND
-93.8833	74.1333	10.6	8.2	-2.4	320.7	283.2	-37.5	CUNNINGHAM INLET
-90.3333	73.8333	27.4	18.9	-8.5	306.2	277.5	-28.7	PORT LEOPOLD
-88.9000	74.6833	28.1	24.8	-3.3	320.0	281.1	-38.9	MAXWELL BAY
-90.1667	74.5500	27.4	23.2	-4.2	315.3	287.3	-28.0	RIGBY BAY
-91.0833	74.7167	26.8	24.1	-2.7	318.0	292.8	-25.2	RADSTOCK BAY
-91.9000	74.7167	27.4	22.6	-4.8	335.2	301.3	-33.9	BEECHY ISLAND
-94.9000	74.6833	19.5	16.8	-2.7	338.8	314.5	-24.3	RESOLUTE
-98.0333	75.0333	16.2	14.4	-1.8	353.7	329.5	-24.2	CAPE CAPEL
-96.2427	75.7271	11.8	8.3	-3.5	346.8	304.1	-42.7	LITTLE CORNWALLIS IS.
-97.7333	76.0833	10.9	5.8	-5.1	346.2	316.2	-30.0	AIRSTRIIP POINT
-97.2167	76.4833	10.2	8.0	-2.2	6.6	340.8	-25.8	HYDE PARKER ISLAND
-97.7162	76.8116	9.4	5.9	-3.5	11.2	354.7	-16.5	NORTHUMBERLAND SOUND
-97.1993	77.0605	8.3	7.0	-1.3	29.5	9.2	-20.3	NORAH ISLAND
-89.0667	76.4167	23.3	27.0	3.7	276.2	245.6	-30.6	BAY OF WOE
-89.4167	76.9000	8.6	7.4	-1.2	324.2	308.9	-15.3	HELL GATE
-88.9500	77.7000	6.3	7.3	1.0	340.3	337.5	-2.8	NORWEGIAN BAY
-88.8833	78.1333	5.7	7.5	1.8	347.5	338.0	-9.5	HYPERITE POINT
-90.3333	78.3333	2.9	7.4	4.5	348.8	338.8	-10.0	SURPRISE FIORD

-91.8333	78.2167	5.6	7.1	1.5	357.1	343.3	-13.8	CAPE SOUTHWEST
-103.5333	78.7833	4.8	6.1	1.3	43.3	10.5	-32.8	ISACHSEN
-79.5833	80.6000	6.2	8.8	2.6	101.5	26.3	-75.2	GREELY FIORD
-73.5000	82.8833	2.9	5.8	2.9	27.9	7.1	-20.8	DISRAELI FIORD
-69.6667	83.1167	5.1	7.4	2.3	21.2	6.1	-15.1	CAPE ALDRICH
-62.3167	82.5000	4.7	8.4	3.7	2.8	4.4	1.6	ALERT
-61.5000	82.4500	4.8	7.8	3.0	359.2	2.0	2.8	CAPE SHERIDAN
-55.0292	82.2879	9.7	15.6	5.9	346.2	343.5	-2.7	CAPE BRYANT
-60.0000	81.9667	9.6	13.5	3.9	321.4	321.8	0.4	NEWMAN BAY GREENLAND
-61.8333	81.6667	12.2	13.5	1.3	303.3	304.9	1.6	CAPE LUPTON GREENLAND
-61.6333	81.6000	12.1	13.9	1.8	306.2	303.0	-3.2	THANK GOD HARBOUR
-62.0667	82.1167	6.5	8.3	1.8	307.3	325.2	17.9	LINKOLN BAY
-62.5000	82.0000	10.2	8.8	-1.4	311.4	317.3	5.9	WRANGEL BAY
-64.1667	81.8000	8.3	8.8	0.5	295.0	298.7	3.7	ST. PATRICK BAY
-64.7333	81.7333	8.5	8.9	0.4	286.2	297.1	10.9	DISCOVERY HARBOUR
-65.7167	81.2167	9.6	11.3	1.7	271.8	269.5	-2.3	CAPE DEFOSSE
-74.1667	78.6667	34.4	31.4	-3.0	253.2	237.6	-15.6	PIM ISLAND
-72.7437	78.1151	25.9	34.7	8.8	253.2	241.2	-12.0	RENSSELAER BAY
-72.6333	78.3000	32.0	34.2	2.2	247.2	241.2	-6.0	FOULKE FIORD
-68.8833	76.5500	37.7	35.4	-2.3	250.0	232.9	-17.1	NORTH STAR BAY
-81.0667	76.1333	35.8	32.4	-3.4	260.4	237.7	-22.7	KING EDWARD POINT
-83.0833	76.4167	30.8	32.3	1.5	265.2	238.9	-26.3	GRISE FIORD, NTW
-81.0833	75.7667	33.4	31.0	-2.4	256.7	236.7	-20.0	BELCHER POINT
-84.2167	75.7667	32.0	30.4	-1.6	259.1	238.4	-20.7	CAPE SKOGN, NTW
-79.3667	74.8667	30.1	30.9	0.8	262.8	240.1	-22.7	CAPE COCKBURN
-82.4167	74.5167	34.1	27.1	-7.0	268.2	247.4	-20.8	DUNGAS HARBOUR
-78.1000	73.6333	21.6	26.0	4.4	254.3	229.3	-25.0	CAPE LIVERPOOL
-74.6500	72.2167	26.3	27.8	1.5	252.0	228.5	-23.5	NOVA ZEMBLA ISLAND
-71.1667	70.8667	24.5	28.1	3.6	254.0	230.8	-23.2	REFUGE HARBOUR
-80.5000	72.5833	33.2	27.6	-5.6	243.8	227.3	-16.5	PISIKTARFIK ISLAND
-80.7833	72.1000	25.6	27.7	2.1	248.2	227.2	-21.0	KOLUKTOD BAY
-80.8500	71.9000	25.3	27.7	2.4	245.7	227.2	-18.5	MILNE INLET (HEAD)
-84.4000	73.0500	17.2	19.2	2.0	265.8	231.6	-34.2	STRATHCONA SOUND
-85.1667	73.0333	15.8	19.2	3.4	280.2	231.3	-48.9	ARCTIC BAY
-89.6333	72.6333	21.5	12.7	-8.8	350.4	344.3	-6.1	MCBEAN ISLAND
-86.8333	70.0333	63.7	54.7	-9.0	0.9	19.0	18.1	CROWN PRINCE FREDERICK
-90.2599	62.6424	12.0	3.3	-8.7	249.0	305.7	56.7	RANKIN INLET
-93.6022	58.9993	8.0	3.1	-4.9	308.0	10.3	62.3	CHERCHIL
-78.1058	63.0142	7.0	4.1	-2.9	168.0	236.7	68.7	NOTTINGEN
-69.4347	59.1201	19.0	13.5	-5.5	188.0	161.9	-26.1	LIVE RIVER
-65.5218	60.3872	12.0	12.5	0.5	165.0	167.4	2.4	PORT BERRUAL
-69.7491	62.6492	15.0	13.4	-1.6	177.0	181.8	4.8	LAKE HARBOUR

-67.8368	63.4616	18.0	16.3	-1.7	161.0	164.2	3.2	FROBISHER
-66.0000	68.2500	19.0	24.3	5.3	251.0	237.0	-14.0	CAPE HUPER
-51.4167	69.3333	41.0	36.9	-4.1	217.0	206.6	-10.4	YACOBHAVN
-51.5000	64.0000	20.0	18.5	-1.5	174.0	166.8	-7.2	GODHOB
-51.4167	63.7000	18.0	18.3	0.3	170.0	164.2	-5.8	FERINGEHAVN
-49.5833	61.8667	15.0	17.5	2.5	160.0	159.7	-0.3	FREDERICSHOB
-45.3333	60.1167	19.0	16.1	-2.9	159.0	153.8	-5.2	NANORTALIK
				0.0			-12.5	
				2.0			26.6	
				2.8			41.5	