



*Supplement of*

## **Reanalyses of Maskelyne’s tidal data at St. Helena in 1761**

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The 62 harmonic constants in the STHL4 set mentioned in the text are listed below. Column 1 shows the constant name, 2 its speed in degrees per hour, 3 its amplitude (mbar) and 4 its Greenwich phase lag (deg). As discussed in the text, a new set called STHL4.X was defined which is identical to STHL4 except for the S1 and S2 constituents, the amplitudes and phase lags of which are shown in columns 5 and 6 respectively.

SA	0.0410686	3.2637	73.501		
SSA	0.0821373	1.4702	18.099		
MM	0.5443747	0.6851	345.755		
MSF	1.0158958	0.2608	350.889		
MF	1.0980331	1.1299	348.557		
2Q1	12.8542862	0.2622	109.550		
SIG1	12.9271398	0.1621	92.274		
Q1	13.3986609	0.9427	153.027		
RO1	13.4715145	0.0590	194.631		
O1	13.9430356	2.0773	190.651		
MP1	14.0251729	0.0445	15.476		
M1	14.4920521	0.3073	20.107		
CHI1	14.5695476	0.0506	217.138		
PI1	14.9178647	0.0951	347.329		
P1	14.9589314	0.8959	337.644		
S1	15.0000000	0.2564	242.973	0.14	124.790
K1	15.0410686	3.4612	349.220		
PSI1	15.0821353	0.1093	354.465		
PHI1	15.1232059	0.0506	301.796		
TH1	15.5125897	0.0631	340.630		
J1	15.5854433	0.2601	48.329		
SO1	16.0569644	0.0400	139.560		
OO1	16.1391017	0.2489	90.082		
OQ2	27.3416965	0.2426	348.129		
MNS2	27.4238337	0.2823	47.716		
2N2	27.8953548	1.0208	65.219		
MU2	27.9682084	1.3598	54.676		
N2	28.4397295	6.6857	70.878		
NU2	28.5125831	1.1622	75.607		
OP2	28.9019669	0.1307	203.162		
M2	28.9841042	32.4879	80.037		
MKS2	29.0662415	0.0529	271.982		
LAM2	29.4556253	0.2252	84.372		
L2	29.5284789	0.7761	86.755		
T2	29.9589333	0.5066	86.417		
S2	30.0000000	10.2463	100.309	11.39	101.960
R2	30.0410667	0.0240	316.031		
K2	30.0821373	3.0370	96.328		
MSN2	30.5443747	0.0501	239.842		
KJ2	30.6265120	0.2393	263.243		
2SM2	31.0158958	0.0494	22.262		
MO3	42.9271398	0.0654	247.447		
M3	43.4761563	0.1835	75.225		

SO3	43.9430356	0.0176	45.777
MK3	44.0251729	0.0561	38.551
SK3	45.0410686	0.1279	227.946
MN4	57.4238337	0.1904	76.393
M4	57.9682084	0.2675	140.722
SN4	58.4397295	0.0612	28.755
MS4	58.9841042	0.0431	54.035
MK4	59.0662415	0.0541	227.005
S4	60.0000000	0.0817	246.724
SK4	60.0821373	0.0939	241.574
2MN6	86.4079380	0.0554	110.816
M6	86.9523127	0.0819	193.189
MSN6	87.4238337	0.0108	209.837
2MS6	87.9682084	0.0452	291.985
2MK6	88.0503457	0.0457	260.163
2SM6	88.9841042	0.0268	354.878
MSK6	89.0662415	0.0299	30.009
MA2	28.9430356	0.1671	42.176
MB2	29.0251728	0.1476	17.001

The 62 harmonic constants in the STHL2 set mentioned in the text are listed below. Column 1 shows the constant name, 2 its speed in degrees per hour, 3 its amplitude (mbar) and 4 its Greenwich phase lag (deg). (A slightly different format from STHL4 as the list derives from different software.)

Sa	0.0410686	3.736	35.91
SSa	0.0821373	1.429	63.08
Mm	0.5443747	0.622	344.95
MSf	1.0158958	0.219	228.03
Mf	1.0980331	1.540	359.61
2Q1	12.8542862	0.153	104.36
Sig1	12.9271398	0.189	120.12
Q1	13.3986609	0.851	136.83
Ro1	13.4715145	0.150	167.54
O1	13.9430356	2.026	187.89
MP1	14.0251729	0.071	325.78
M1	14.4920521	0.210	281.79
Chi1	14.5695476	0.011	7.06
Pi1	14.9178647	0.058	332.62
P1	14.9589314	0.894	336.86
S1	15.0000000	0.324	250.20
K1	15.0410686	3.488	349.71
Psi1	15.0821353	0.066	61.32
Phi1	15.1232059	0.069	18.96
Th1	15.5125897	0.097	48.39
J1	15.5854433	0.226	36.67
SO1	16.0569644	0.065	146.10
OO1	16.1391017	0.332	85.60
OQ2	27.3416964	0.153	126.80
MNS2	27.4238337	0.321	42.43
2N2	27.8953548	1.071	58.79
Mu2	27.9682084	1.310	52.34
N2	28.4397295	6.665	70.87
Nu2	28.5125831	1.151	72.64
OP2	28.9019669	0.078	46.29
M2	28.9841041	32.365	79.92
MKS2	29.0662415	0.439	107.02

Lam2	29.4556253	0.130	44.24
L2	29.5284788	0.639	80.87
T2	29.9589333	0.441	82.35
S2	30.0000000	10.406	99.57
R2	30.0410667	0.103	323.67
K2	30.0821372	3.097	94.82
MSN2	30.5443747	0.034	292.73
KJ2	30.6265120	0.172	288.06
2SM2	31.0158958	0.040	198.35
MO3	42.9271397	0.069	302.51
M3	43.4761563	0.182	77.43
SO3	43.9430356	0.046	358.58
MK3	44.0251729	0.052	18.98
SK3	45.0410686	0.113	220.82
MN4	57.4238339	0.149	83.76
M4	57.9682085	0.291	143.79
SN4	58.4397293	0.004	355.97
MS4	58.9841039	0.077	55.65
MK4	59.0662414	0.061	67.27
S4	59.9999999	0.081	229.59
SK4	60.0821374	0.088	239.77
2MN6	86.4079381	0.035	114.79
M6	86.9523128	0.042	211.27
MSN6	87.4238335	0.023	200.67
2MS6	87.9682082	0.072	301.54
2MK6	88.0503457	0.017	282.11
2SM6	88.9841042	0.028	55.44
MSK6	89.0662417	0.008	247.56
Ma2	28.9430375	0.079	265.66
Mb2	29.0251709	0.503	347.60