

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 3411

File Name: 3411-alh.nc
 nobs = 2496, ngood = 2495, record length (days) = 104.00
 start time: 28-Mar-1990 13:00:00
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.751, x trend= 0

var(x)= 93.6461 var(xp)= 19.6964 var(xres)= 73.5983
 percent var predicted/var original= 21.0 %

y0= 0.885, x trend= 0

var(y)= 67.8067 var(yp)= 1.1221 var(yres)= 66.7809
 percent var predicted/var original= 1.7 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	1.670	2.639	-0.093	2.78	53.48	83.26	205.50	131.83	0.4
MSF	0.0028219	1.975	2.920	-0.077	2.36	103.69	70.83	12.55	126.33	0.46
ALP1	0.0343966	0.592	0.721	0.168	0.71	55.45	104.76	206.29	122.96	0.67
2Q1	0.0357064	0.186	0.659	-0.102	0.58	131.71	143.69	71.28	190.94	0.08
Q1	0.0372185	0.494	0.749	-0.020	0.66	137.57	103.95	62.91	116.53	0.43
O1	0.0387307	0.689	0.818	-0.053	0.71	18.92	75.98	289.42	87.87	0.71
NO1	0.0402686	0.830	0.816	-0.086	0.99	78.60	102.81	98.05	96.67	1
*K1	0.0417807	1.801	0.985	-1.122	0.91	151.37	64.56	29.23	66.98	3.3
J1	0.0432929	0.642	0.817	0.268	0.67	147.08	98.16	40.17	107.40	0.62
OO1	0.0448308	0.294	0.563	0.027	0.51	171.48	101.87	315.81	185.55	0.27
UPS1	0.0463430	0.411	0.605	0.130	0.56	124.47	112.75	186.81	110.43	0.46
EPS2	0.0761773	0.773	1.056	-0.094	1.14	144.02	114.02	76.28	120.37	0.54
MU2	0.0776895	1.174	1.204	-0.288	1.22	90.51	86.85	47.85	79.54	0.95
N2	0.0789992	1.421	1.334	-0.193	1.44	179.76	73.25	327.63	72.59	1.1
*M2	0.0805114	6.111	1.690	-0.461	1.59	0.60	16.92	188.74	12.35	13
L2	0.0820236	1.204	1.173	0.130	1.22	152.52	77.52	349.96	80.93	1.1
S2	0.0833333	0.561	1.280	0.185	0.98	160.26	114.41	110.07	141.51	0.19
ETA2	0.0850736	0.413	0.651	-0.170	0.68	107.20	113.39	135.58	147.84	0.4
*MO3	0.1192421	0.684	0.480	0.030	0.61	166.28	61.83	100.45	62.23	2
M3	0.1207671	0.183	0.483	0.058	0.42	12.60	147.30	339.56	153.89	0.14
MK3	0.1222921	0.541	0.571	-0.228	0.54	46.93	84.78	79.86	89.25	0.9
SK3	0.1251141	0.475	0.497	0.138	0.57	170.63	106.73	249.13	93.79	0.91
MN4	0.1595106	0.381	0.444	0.168	0.50	117.97	101.96	15.24	109.84	0.74
M4	0.1610228	0.755	0.534	-0.380	0.60	157.33	65.81	1.68	60.48	2
SN4	0.1623326	0.324	0.453	0.120	0.43	160.46	116.24	67.76	115.05	0.51
MS4	0.1638447	0.578	0.495	-0.378	0.50	150.68	94.45	111.40	96.07	1.4
S4	0.1666667	0.375	0.481	0.061	0.50	53.05	95.68	295.23	103.72	0.61
2MK5	0.2028035	0.217	0.291	0.038	0.29	27.97	105.48	235.23	125.38	0.55
2SK5	0.2084474	0.187	0.307	0.009	0.29	123.80	105.64	302.34	136.35	0.37
2MN6	0.2400221	0.302	0.344	0.200	0.27	10.84	91.26	287.35	99.39	0.77
M6	0.2415342	0.304	0.305	-0.017	0.30	36.90	67.74	356.76	90.18	1
2MS6	0.2443561	0.139	0.294	-0.054	0.22	179.29	100.93	192.22	208.00	0.22
2SM6	0.2471781	0.192	0.272	-0.093	0.25	19.97	98.95	30.07	138.75	0.5
3MK7	0.2833149	0.149	0.186	0.060	0.19	132.23	91.52	68.92	111.88	0.64
M8	0.3220456	0.174	0.158	0.005	0.14	172.01	65.85	198.20	69.40	1.2

total var= 161.4528 pred var= 20.8184
 percent total var predicted/var original= 12.9 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 3481

File Name: 3481-alh.nc
 nobs = 966, ngood = 965, record length (days) = 40.25
 start time: 10-Jul-1990 15:00:00
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 0.494, x trend= 0

var(x)= 74.2 var(xp)= 30.9731 var(xres)= 44.7509
 percent var predicted/var original= 41.7 %

y0= -1.73, x trend= 0

var(y)= 87.0513 var(yp)= 7.4097 var(yres)= 79.3404
 percent var predicted/var original= 8.5 %

ellipse parameters with 95% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	5.718	4.801	-0.293	3.84	90.67	43.69	5.49	49.54	1.4
MSF	0.0028219	3.680	3.778	1.928	3.12	86.93	77.66	82.55	96.16	0.95
ALP1	0.0343966	0.393	0.604	0.008	0.56	116.78	112.40	355.02	119.55	0.42
2Q1	0.0357064	0.874	0.830	0.316	0.72	142.55	64.40	221.81	75.20	1.1
Q1	0.0372185	0.646	0.742	0.226	0.66	132.99	76.27	65.71	85.24	0.76
*O1	0.0387307	1.254	0.853	-0.370	0.67	9.10	36.33	259.32	49.34	2.2
NO1	0.0402686	1.878	1.363	-0.347	0.85	19.03	29.94	276.09	49.74	1.9
*K1	0.0417807	1.506	0.752	-0.896	0.89	97.28	71.07	145.74	48.79	4
J1	0.0432929	1.306	0.954	0.120	0.62	172.65	27.17	164.38	40.48	1.9
OO1	0.0448308	0.887	0.645	0.087	0.59	148.21	42.22	42.30	52.59	1.9
UPS1	0.0463430	0.387	0.500	-0.011	0.49	141.19	78.18	141.07	108.50	0.6
EPS2	0.0761773	0.967	0.998	-0.402	1.18	16.39	96.66	91.36	104.71	0.94
MU2	0.0776895	1.088	1.329	-0.146	1.17	30.25	79.64	176.00	82.88	0.67
*N2	0.0789992	3.617	1.394	-1.650	1.45	163.29	31.69	275.87	31.03	6.7
*M2	0.0805114	6.465	1.478	1.799	1.47	6.64	14.78	189.23	16.20	19
L2	0.0820236	0.671	1.022	0.091	0.89	145.43	87.71	33.46	101.43	0.43
*S2	0.0833333	3.497	1.489	-1.506	1.33	4.83	32.50	177.31	33.84	5.5
ETA2	0.0850736	0.732	0.789	-0.603	0.79	136.59	126.42	138.02	122.75	0.86
MO3	0.1192421	0.491	0.366	-0.327	0.37	162.43	102.76	59.92	82.42	1.8
*M3	0.1207671	0.741	0.506	-0.220	0.44	106.69	38.51	45.67	52.46	2.1
MK3	0.1222921	0.457	0.429	-0.112	0.35	108.97	56.86	78.24	76.03	1.1
SK3	0.1251141	0.210	0.330	-0.081	0.32	156.62	132.46	5.17	127.98	0.4
MN4	0.1595106	0.384	0.371	-0.019	0.37	10.70	73.50	61.46	86.09	1.1
*M4	0.1610228	1.547	0.497	-0.688	0.48	22.90	24.41	65.48	26.63	9.7
SN4	0.1623326	0.386	0.459	0.244	0.37	178.11	94.55	39.73	104.48	0.7
MS4	0.1638447	0.282	0.378	-0.008	0.34	78.33	117.46	60.51	107.51	0.56
S4	0.1666667	0.307	0.348	-0.097	0.41	97.81	107.69	329.94	99.97	0.78
2MK5	0.2028035	0.302	0.278	-0.037	0.27	19.58	69.44	244.76	82.76	1.2
2SK5	0.2084474	0.175	0.251	-0.085	0.23	118.26	116.72	90.75	123.97	0.49
2MN6	0.2400221	0.290	0.264	-0.264	0.27	26.75	129.59	333.86	123.47	1.2
*M6	0.2415342	0.733	0.351	-0.213	0.32	47.93	31.47	9.97	30.87	4.4
*2MS6	0.2443561	0.428	0.294	-0.267	0.30	21.19	80.28	100.30	75.37	2.1
2SM6	0.2471781	0.137	0.262	-0.042	0.23	16.21	133.60	245.92	136.96	0.27
3MK7	0.2833149	0.100	0.161	-0.033	0.14	45.17	111.61	272.61	133.64	0.39
M8	0.3220456	0.190	0.146	-0.103	0.14	49.41	77.67	276.93	72.61	1.7

total var= 161.2513 pred var= 38.3828
 percent total var predicted/var original= 23.8 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 3591
 File Name: 3591-alh.nc
 nobs = 2695, ngood = 2695, record length (days) = 112.29
 start time: 23-Oct-1990 15:00:00
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 1.09, x trend= 0

var(x)= 63.0635 var(xp)= 50.3676 var(xres)= 12.7927
 percent var predicted/var original= 79.9 %

y0= -0.681, x trend= 0

var(y)= 30.5592 var(yp)= 3.8609 var(yres)= 26.6191
 percent var predicted/var original= 12.6 %

ellipse parameters with 95% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
*MM	0.0015122	1.632	1.049	0.639	1.07	48.87	52.44	27.94	58.55	2.4
MSF	0.0028219	0.865	0.959	-0.342	0.93	143.86	86.90	3.21	85.13	0.82
ALP1	0.0343966	0.319	0.350	-0.101	0.38	150.19	91.63	263.35	93.42	0.83
2Q1	0.0357064	0.167	0.296	-0.033	0.29	115.99	119.31	7.68	151.89	0.32
Q1	0.0372185	0.451	0.416	-0.152	0.34	102.06	66.52	80.69	68.91	1.2
O1	0.0387307	0.407	0.396	-0.117	0.39	4.05	84.86	291.81	90.22	1.1
NO1	0.0402686	0.329	0.594	-0.034	0.56	112.24	125.10	127.64	171.16	0.31
*K1	0.0417807	0.637	0.400	0.015	0.51	0.28	48.20	297.74	45.21	2.5
J1	0.0432929	0.318	0.338	-0.286	0.31	152.71	127.37	81.43	134.65	0.89
OO1	0.0448308	0.363	0.374	-0.064	0.33	94.85	70.79	311.60	64.52	0.94
UPS1	0.0463430	0.238	0.283	-0.181	0.30	57.73	113.39	132.34	115.94	0.7
EPS2	0.0761773	0.204	0.308	0.130	0.25	113.23	112.53	204.55	146.87	0.44
MU2	0.0776895	0.379	0.334	-0.026	0.38	174.62	84.58	341.56	68.81	1.3
*N2	0.0789992	2.668	0.408	-0.294	0.39	13.95	9.17	171.86	8.60	43
*M2	0.0805114	9.940	0.345	-0.992	0.42	12.40	2.36	203.45	2.24	8.3e+002
*L2	0.0820236	0.585	0.295	0.130	0.34	174.07	39.64	88.27	29.89	3.9
*S2	0.0833333	1.571	0.393	-0.364	0.44	6.69	16.35	232.54	12.16	16
ETA2	0.0850736	0.133	0.213	-0.024	0.20	126.92	103.83	138.72	141.36	0.39
MO3	0.1192421	0.118	0.118	-0.022	0.12	72.04	107.18	178.47	89.76	1
M3	0.1207671	0.099	0.142	-0.042	0.12	170.20	95.82	165.59	145.48	0.49
MK3	0.1222921	0.103	0.147	-0.053	0.14	86.80	126.10	297.77	122.18	0.49
SK3	0.1251141	0.085	0.128	-0.023	0.11	45.92	93.05	15.48	125.97	0.45
MN4	0.1595106	0.213	0.152	0.041	0.17	173.34	55.76	262.13	53.75	2
*M4	0.1610228	0.393	0.152	-0.013	0.18	32.26	27.74	104.10	24.24	6.7
SN4	0.1623326	0.087	0.122	0.016	0.12	163.82	113.50	92.97	149.52	0.51
*MS4	0.1638447	0.182	0.128	-0.027	0.16	22.45	62.42	135.49	59.10	2
S4	0.1666667	0.088	0.111	-0.023	0.13	176.69	136.91	328.67	169.93	0.62
2MK5	0.2028035	0.054	0.080	-0.000	0.08	103.71	111.33	221.06	107.50	0.46
2SK5	0.2084474	0.065	0.069	-0.030	0.08	50.50	100.19	1.84	113.09	0.88
*2MN6	0.2400221	0.325	0.119	0.100	0.12	35.84	23.06	310.01	23.92	7.5
*M6	0.2415342	0.441	0.111	0.087	0.13	33.12	16.02	352.83	15.71	16
2MS6	0.2443561	0.113	0.095	0.078	0.09	24.57	98.97	35.32	105.52	1.4
2SM6	0.2471781	0.038	0.072	0.019	0.08	84.12	125.81	240.89	170.19	0.27
3MK7	0.2833149	0.075	0.074	0.023	0.06	17.55	59.24	82.82	84.37	1
M8	0.3220456	0.062	0.056	0.018	0.05	24.75	69.94	11.87	75.75	1.2

total var= 93.6228 pred var= 54.2285
 percent total var predicted/var original= 57.9 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 3751
 File Name: 3751-alh.nc
 nobs = 2850, ngood = 2849, record length (days) = 118.75
 start time: 13-Feb-1991
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 0.589, x trend= 0

var(x)= 97.2865 var(xp)= 39.3751 var(xres)= 57.8548
 percent var predicted/var original= 40.5 %

y0= -1.06, x trend= 0

var(y)= 63.5979 var(yp)= 4.6728 var(yres)= 58.8157
 percent var predicted/var original= 7.3 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	1.614	2.347	0.055	1.89	43.41	55.70	20.28	116.80	0.47
MSF	0.0028219	1.658	2.448	-0.476	1.62	61.13	47.49	32.26	151.46	0.46
ALP1	0.0343966	0.432	0.739	-0.173	0.66	142.17	106.91	211.15	145.44	0.34
2Q1	0.0357064	0.791	0.762	-0.412	0.71	7.97	71.38	20.74	93.99	1.1
Q1	0.0372185	0.433	0.739	-0.000	0.61	29.43	93.75	35.76	144.76	0.34
O1	0.0387307	0.719	0.702	-0.325	0.77	55.38	89.07	291.82	93.43	1
NO1	0.0402686	0.703	1.111	-0.307	1.29	128.27	124.82	218.55	158.92	0.4
*K1	0.0417807	1.720	0.856	-1.216	0.82	86.31	74.83	88.07	63.96	4
J1	0.0432929	0.722	0.691	-0.336	0.76	115.10	98.42	86.12	86.79	1.1
OO1	0.0448308	0.576	0.609	-0.170	0.64	90.69	110.88	222.97	84.98	0.89
UPS1	0.0463430	0.521	0.628	-0.383	0.57	138.04	107.10	9.49	110.76	0.69
EPS2	0.0761773	0.401	0.723	-0.190	0.70	112.18	141.40	280.02	136.09	0.31
MU2	0.0776895	0.591	0.765	-0.103	0.88	99.85	138.22	84.36	105.06	0.6
*N2	0.0789992	2.829	1.342	-0.480	0.94	4.43	20.92	173.97	29.39	4.4
*M2	0.0805114	8.799	1.300	-0.060	1.05	15.99	6.66	196.94	7.84	46
L2	0.0820236	0.473	0.610	-0.129	0.55	54.36	118.38	302.74	108.38	0.6
S2	0.0833333	1.546	1.106	0.283	0.81	5.47	40.51	224.71	47.15	2
ETA2	0.0850736	0.243	0.529	0.083	0.49	120.91	116.98	243.81	155.51	0.21
MO3	0.1192421	0.112	0.231	0.086	0.25	22.64	129.93	224.35	161.47	0.24
M3	0.1207671	0.139	0.228	0.007	0.23	78.69	102.48	198.01	161.76	0.37
MK3	0.1222921	0.120	0.231	0.004	0.22	77.73	103.47	167.08	156.80	0.27
SK3	0.1251141	0.142	0.204	0.031	0.26	176.53	127.48	230.63	121.76	0.48
MN4	0.1595106	0.228	0.226	0.049	0.26	33.30	80.69	114.13	90.51	1
*M4	0.1610228	0.522	0.255	-0.023	0.25	169.32	36.22	299.51	35.48	4.2
SN4	0.1623326	0.283	0.224	-0.002	0.24	53.04	62.65	115.25	69.19	1.6
MS4	0.1638447	0.281	0.241	-0.061	0.21	38.04	63.83	176.37	65.18	1.4
S4	0.1666667	0.127	0.225	-0.014	0.21	104.17	105.59	152.68	144.11	0.32
2MK5	0.2028035	0.062	0.126	0.046	0.11	97.69	90.37	300.98	160.05	0.24
2SK5	0.2084474	0.146	0.143	0.010	0.14	51.40	65.17	289.55	77.23	1
*2MN6	0.2400221	0.247	0.141	0.002	0.16	49.81	37.99	334.42	39.03	3.1
*M6	0.2415342	0.582	0.156	0.069	0.16	40.66	15.18	359.26	16.89	14
*2MS6	0.2443561	0.236	0.130	0.084	0.15	57.18	50.49	34.40	50.84	3.3
2SM6	0.2471781	0.152	0.127	-0.051	0.14	91.91	84.24	144.15	70.78	1.4
3MK7	0.2833149	0.085	0.102	0.016	0.08	87.37	62.15	72.19	81.52	0.7
M8	0.3220456	0.053	0.081	-0.024	0.07	121.29	99.50	151.77	122.77	0.43

total var= 160.8845 pred var= 44.0478
 percent total var predicted/var original= 27.4 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 3841

File Name: 3841-alh.nc
 nobs = 2511, ngood = 2511, record length (days) = 104.63
 start time: 11-Jun-1991 20:00:00
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.898, x trend= 0

var(x)= 73.9242 var(xp)= 17.9216 var(xres)= 55.788
 percent var predicted/var original= 24.2 %

y0= 2.73, x trend= 0

var(y)= 81.0021 var(yp)= 2.9382 var(yres)= 78.0397
 percent var predicted/var original= 3.6 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	2.852	3.790	0.003	2.62	114.15	45.02	247.27	102.84	0.57
MSF	0.0028219	2.107	3.875	-0.105	2.42	85.15	47.43	47.05	127.83	0.3
ALP1	0.0343966	0.524	0.629	0.226	0.65	165.57	115.55	110.49	115.90	0.69
2Q1	0.0357064	0.630	0.816	-0.281	0.66	117.64	77.59	178.66	105.11	0.6
Q1	0.0372185	0.248	0.611	-0.140	0.57	110.50	109.75	284.83	176.63	0.16
O1	0.0387307	1.008	0.781	-0.176	0.94	161.63	63.16	89.29	50.98	1.7
NO1	0.0402686	1.196	1.024	-0.075	1.02	134.61	70.81	334.78	78.06	1.4
*K1	0.0417807	2.081	0.803	-1.254	0.82	146.15	48.57	120.27	39.73	6.7
J1	0.0432929	0.122	0.586	-0.087	0.46	82.74	107.31	202.73	221.78	0.043
OO1	0.0448308	0.355	0.696	-0.121	0.56	70.78	98.46	359.24	144.60	0.26
UPS1	0.0463430	0.383	0.579	-0.319	0.60	150.26	111.96	8.30	150.22	0.44
EPS2	0.0761773	0.864	1.074	-0.191	0.96	31.29	96.88	158.98	125.02	0.65
MU2	0.0776895	0.613	1.110	-0.248	1.06	34.20	113.27	135.26	139.50	0.3
N2	0.0789992	1.572	1.555	0.429	1.21	162.33	62.34	308.53	83.27	1
*M2	0.0805114	5.576	1.714	1.455	1.48	3.53	15.95	191.48	18.61	11
L2	0.0820236	0.520	0.962	-0.269	0.83	102.26	122.37	291.52	134.63	0.29
S2	0.0833333	0.884	1.239	0.023	1.10	168.75	88.57	56.98	116.00	0.51
ETA2	0.0850736	0.633	0.913	-0.266	0.80	27.12	93.93	210.47	123.00	0.48
MO3	0.1192421	0.120	0.254	-0.082	0.24	170.58	109.83	265.10	188.17	0.22
M3	0.1207671	0.236	0.356	-0.085	0.29	172.66	108.51	250.51	134.46	0.44
MK3	0.1222921	0.079	0.262	0.027	0.24	46.59	135.83	100.74	188.48	0.092
SK3	0.1251141	0.171	0.240	0.036	0.25	131.39	108.99	324.03	111.59	0.51
*MN4	0.1595106	0.463	0.307	-0.232	0.31	33.47	65.51	45.64	66.58	2.3
*M4	0.1610228	1.065	0.314	-0.675	0.36	12.45	40.54	113.72	39.01	11
SN4	0.1623326	0.333	0.318	-0.040	0.32	35.51	65.18	108.97	73.17	1.1
*MS4	0.1638447	0.463	0.327	-0.251	0.35	11.01	75.06	163.23	67.23	2
S4	0.1666667	0.243	0.291	-0.113	0.30	54.00	92.62	141.26	95.94	0.7
2MK5	0.2028035	0.122	0.143	0.049	0.14	110.19	117.01	122.98	89.06	0.73
2SK5	0.2084474	0.092	0.139	-0.016	0.13	57.16	111.86	353.51	122.00	0.44
*2MN6	0.2400221	0.447	0.188	-0.172	0.16	45.77	25.99	329.06	31.80	5.7
*M6	0.2415342	0.619	0.179	-0.058	0.20	51.55	17.04	14.57	17.57	12
*2MS6	0.2443561	0.275	0.159	-0.122	0.17	51.93	63.62	61.29	54.52	3
2SM6	0.2471781	0.072	0.128	-0.046	0.12	59.13	123.84	94.42	135.67	0.32
3MK7	0.2833149	0.061	0.107	-0.037	0.09	143.73	105.04	215.28	125.20	0.32
M8	0.3220456	0.101	0.079	-0.083	0.09	140.26	114.72	64.01	110.87	1.6

total var= 154.9264 pred var= 20.8597
 percent total var predicted/var original= 13.5 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 3971

File Name: 3971-alh.nc
 nobs = 2679, ngood = 2679, record length (days) = 111.63
 start time: 11-Feb-1992 23:00:00
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 0.485, x trend= 0

var(x)= 109.7276 var(xp)= 62.6972 var(xres)= 47.0749
 percent var predicted/var original= 57.1 %

y0= 0.786, x trend= 0

var(y)= 99.8819 var(yp)= 5.0742 var(yres)= 94.9519
 percent var predicted/var original= 5.1 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	3.297	3.613	-1.739	2.26	80.02	52.33	95.79	109.69	0.83
MSF	0.0028219	0.656	2.806	-0.148	1.98	148.14	60.31	77.59	210.38	0.055
ALP1	0.0343966	0.368	0.633	0.122	0.48	94.02	87.30	339.64	134.24	0.34
2Q1	0.0357064	0.335	0.580	-0.018	0.55	168.49	121.33	336.60	124.42	0.33
Q1	0.0372185	0.156	0.566	0.092	0.48	141.93	119.14	250.28	196.39	0.076
*O1	0.0387307	1.039	0.714	-0.545	0.80	22.39	77.87	292.95	66.63	2.1
NO1	0.0402686	0.633	0.603	-0.207	0.70	1.91	102.13	320.33	81.54	1.1
*K1	0.0417807	1.453	0.737	-0.919	0.69	128.21	64.53	63.26	62.62	3.9
J1	0.0432929	0.569	0.698	-0.237	0.57	110.53	82.01	332.92	103.27	0.67
OO1	0.0448308	0.733	0.550	-0.235	0.66	159.95	73.94	128.78	67.33	1.8
UPS1	0.0463430	0.574	0.634	-0.478	0.58	46.75	129.41	13.85	118.90	0.82
EPS2	0.0761773	0.403	0.669	0.009	0.61	72.41	78.68	183.52	126.59	0.36
MU2	0.0776895	0.855	0.752	-0.593	0.67	103.21	78.89	31.33	107.28	1.3
*N2	0.0789992	2.726	0.772	0.316	0.94	178.94	23.19	331.49	16.42	12
*M2	0.0805114	10.907	0.734	-0.897	0.93	13.46	5.26	198.06	3.67	2.2e+002
L2	0.0820236	0.722	0.684	-0.387	0.74	165.50	109.23	80.47	88.19	1.1
*S2	0.0833333	1.953	0.842	0.076	0.94	17.99	25.82	242.24	26.05	5.4
ETA2	0.0850736	0.132	0.543	-0.102	0.45	178.44	154.22	78.15	179.90	0.059
MO3	0.1192421	0.145	0.227	0.044	0.19	89.95	71.53	229.83	148.21	0.41
M3	0.1207671	0.287	0.272	-0.009	0.24	127.22	60.81	335.15	70.29	1.1
MK3	0.1222921	0.215	0.245	-0.089	0.22	85.57	60.91	117.59	113.87	0.77
SK3	0.1251141	0.240	0.268	-0.133	0.25	53.15	90.13	323.36	108.67	0.8
MN4	0.1595106	0.199	0.179	-0.022	0.17	10.62	65.74	58.80	65.26	1.2
*M4	0.1610228	0.698	0.209	-0.433	0.22	7.49	38.09	136.15	35.37	11
SN4	0.1623326	0.126	0.162	-0.011	0.16	5.97	93.68	132.76	106.10	0.6
*MS4	0.1638447	0.304	0.188	-0.212	0.17	25.29	73.60	216.62	83.60	2.6
S4	0.1666667	0.168	0.194	-0.070	0.16	107.29	87.96	236.82	72.92	0.75
2MK5	0.2028035	0.092	0.123	0.045	0.11	34.59	115.30	135.88	104.68	0.56
2SK5	0.2084474	0.065	0.120	-0.054	0.11	34.63	120.96	33.77	152.76	0.29
*2MN6	0.2400221	0.227	0.122	-0.001	0.12	59.44	35.36	302.91	33.85	3.5
*M6	0.2415342	0.537	0.119	0.059	0.13	47.80	14.07	4.48	13.41	20
*2MS6	0.2443561	0.183	0.119	-0.016	0.11	54.96	46.98	66.40	43.43	2.4
2SM6	0.2471781	0.104	0.106	-0.060	0.09	8.23	95.69	87.46	121.51	0.95
3MK7	0.2833149	0.067	0.073	-0.012	0.07	56.76	83.76	227.81	91.40	0.85
M8	0.3220456	0.082	0.072	0.023	0.06	3.00	62.23	328.26	61.31	1.3

total var= 209.6095 pred var= 67.7713
 percent total var predicted/var original= 32.3 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 4011
 File Name: 4011-alh.nc
 nobs = 3378, ngood = 3377, record length (days) = 140.75
 start time: 02-Jun-1992 21:00:00
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 0.117, x trend= 0

var(x)= 76.6286 var(xp)= 31.763 var(xres)= 44.976
 percent var predicted/var original= 41.5 %

y0= 0.32, x trend= 0

var(y)= 67.4945 var(yp)= 2.9018 var(yres)= 64.5793
 percent var predicted/var original= 4.3 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	1.903	2.092	-0.156	1.33	66.83	31.38	95.21	74.16	0.83
MSF	0.0028219	2.637	1.943	-0.728	1.34	120.13	37.81	317.37	55.65	1.8
ALP1	0.0343966	0.371	0.569	-0.091	0.58	164.23	125.68	53.87	121.11	0.43
2Q1	0.0357064	0.608	0.573	-0.209	0.57	50.93	83.97	56.84	93.50	1.1
Q1	0.0372185	0.378	0.621	-0.198	0.56	86.18	96.25	126.86	127.86	0.37
*O1	0.0387307	0.976	0.606	-0.389	0.58	26.98	64.21	205.90	55.80	2.6
NO1	0.0402686	0.388	0.447	-0.121	0.41	62.86	91.76	15.57	107.75	0.75
*K1	0.0417807	1.480	0.599	-1.266	0.60	132.95	103.95	118.86	106.36	6.1
J1	0.0432929	0.407	0.526	-0.287	0.58	16.13	116.48	343.74	124.70	0.6
OO1	0.0448308	0.464	0.509	-0.282	0.53	145.01	95.71	302.30	110.53	0.83
UPS1	0.0463430	0.401	0.497	-0.338	0.43	4.77	133.53	132.81	136.16	0.65
EPS2	0.0761773	0.627	0.776	-0.252	0.86	73.23	115.64	145.97	104.41	0.65
MU2	0.0776895	0.280	0.683	0.115	0.66	147.98	116.41	242.69	183.11	0.17
*N2	0.0789992	1.696	1.060	0.387	0.81	163.16	35.44	312.74	46.73	2.6
*M2	0.0805114	7.569	1.233	0.918	1.02	170.54	7.31	348.36	9.35	38
L2	0.0820236	0.292	0.873	0.161	0.73	29.76	103.35	207.13	158.80	0.11
S2	0.0833333	1.266	1.044	0.110	0.90	165.77	48.55	20.50	59.20	1.5
ETA2	0.0850736	0.372	0.751	-0.173	0.59	152.13	104.49	308.03	172.60	0.25
MO3	0.1192421	0.379	0.272	-0.090	0.27	5.89	47.58	341.60	54.69	1.9
M3	0.1207671	0.186	0.230	0.058	0.20	9.37	93.80	225.80	108.98	0.66
*MK3	0.1222921	0.419	0.231	-0.336	0.24	29.42	89.78	163.29	101.18	3.3
SK3	0.1251141	0.339	0.242	-0.111	0.23	148.29	60.85	23.33	57.61	2
*MN4	0.1595106	0.431	0.205	-0.277	0.17	11.72	54.75	62.24	53.33	4.4
*M4	0.1610228	0.961	0.264	-0.453	0.18	11.64	18.04	102.99	20.25	13
SN4	0.1623326	0.245	0.173	-0.187	0.19	107.57	104.06	63.43	101.90	2
*MS4	0.1638447	0.385	0.234	-0.073	0.20	17.58	35.84	125.16	41.37	2.7
S4	0.1666667	0.135	0.176	-0.017	0.19	59.95	107.30	191.79	100.23	0.59
2MK5	0.2028035	0.165	0.156	-0.107	0.13	88.78	98.63	37.92	91.87	1.1
2SK5	0.2084474	0.048	0.102	-0.025	0.13	55.56	127.63	150.01	166.85	0.22
*2MN6	0.2400221	0.444	0.153	-0.056	0.14	41.37	19.29	335.28	19.13	8.4
*M6	0.2415342	0.572	0.152	-0.017	0.14	42.70	14.74	9.41	12.99	14
*2MS6	0.2443561	0.247	0.130	-0.037	0.15	34.04	35.59	50.36	38.75	3.6
2SM6	0.2471781	0.086	0.113	-0.031	0.12	1.99	106.09	185.80	121.46	0.58
3MK7	0.2833149	0.079	0.088	-0.073	0.10	138.93	131.84	336.02	144.04	0.82
*M8	0.3220456	0.111	0.070	-0.059	0.07	7.92	55.20	321.51	58.06	2.5

total var= 144.1231 pred var= 34.6648
 percent total var predicted/var original= 24.1 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 4081

File Name: 4081v-alh.nc
 nobs = 1341, ngood = 1341, record length (days) = 55.88
 start time: 21-Oct-1992 17:00:00
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 1.15, x trend= 0

var(x)= 59.8291 var(xp)= 47.3424 var(xres)= 12.2149
 percent var predicted/var original= 79.1 %

y0= -1.04, x trend= 0

var(y)= 32.1526 var(yp)= 5.0047 var(yres)= 27.0713
 percent var predicted/var original= 15.6 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	1.556	2.296	0.195	1.46	60.97	45.23	174.58	106.44	0.46
MSF	0.0028219	1.370	2.191	-0.466	1.32	114.51	51.32	218.72	120.91	0.39
ALP1	0.0343966	0.603	0.435	-0.153	0.49	176.01	63.69	271.22	55.67	1.9
2Q1	0.0357064	0.447	0.444	-0.020	0.47	153.71	78.24	252.28	84.37	1
Q1	0.0372185	0.474	0.454	-0.005	0.44	76.61	54.48	71.03	74.96	1.1
*O1	0.0387307	0.741	0.461	-0.116	0.56	151.64	46.31	74.53	40.83	2.6
NO1	0.0402686	0.157	0.243	0.081	0.28	9.21	136.62	54.52	126.56	0.42
K1	0.0417807	0.415	0.415	0.061	0.42	27.55	74.41	316.18	80.23	1
J1	0.0432929	0.564	0.428	-0.294	0.40	153.63	74.44	340.30	76.13	1.7
OO1	0.0448308	0.285	0.356	-0.095	0.36	162.80	107.32	282.13	87.51	0.64
UPS1	0.0463430	0.240	0.367	-0.089	0.33	131.46	113.15	344.58	128.05	0.43
EPS2	0.0761773	0.363	0.474	-0.106	0.49	152.65	117.58	4.20	110.74	0.58
MU2	0.0776895	0.695	0.500	-0.145	0.57	32.27	67.28	208.20	59.02	1.9
*N2	0.0789992	2.538	0.501	-0.603	0.67	7.41	16.15	159.85	13.25	26
*M2	0.0805114	9.569	0.588	-0.644	0.65	17.52	4.55	203.74	3.69	2.7e+002
*L2	0.0820236	1.010	0.698	-0.545	0.73	130.48	66.09	123.26	74.86	2.1
*S2	0.0833333	1.082	0.576	0.074	0.63	178.28	45.06	44.41	27.29	3.5
ETA2	0.0850736	0.744	0.561	-0.166	0.55	123.31	54.21	198.11	57.12	1.8
*MO3	0.1192421	0.377	0.250	-0.079	0.29	1.19	61.75	3.86	49.96	2.3
M3	0.1207671	0.303	0.248	-0.010	0.27	135.32	68.89	72.39	70.85	1.5
MK3	0.1222921	0.266	0.285	-0.004	0.27	124.96	70.09	7.54	84.46	0.87
SK3	0.1251141	0.142	0.232	0.033	0.22	159.46	124.44	128.95	117.27	0.38
MN4	0.1595106	0.239	0.199	0.097	0.21	11.88	92.65	153.55	69.03	1.4
*M4	0.1610228	0.373	0.248	0.198	0.16	80.88	55.07	201.90	66.28	2.3
SN4	0.1623326	0.159	0.183	-0.001	0.22	167.46	116.28	277.90	100.27	0.76
*MS4	0.1638447	0.263	0.182	0.011	0.25	178.55	72.06	285.75	45.81	2.1
S4	0.1666667	0.215	0.219	-0.001	0.19	52.23	58.23	227.86	78.38	0.96
2MK5	0.2028035	0.041	0.102	0.022	0.09	97.60	147.04	274.28	179.14	0.16
2SK5	0.2084474	0.163	0.118	-0.060	0.12	157.97	61.91	159.27	65.84	1.9
*2MN6	0.2400221	0.240	0.118	-0.017	0.11	32.67	29.82	270.00	30.26	4.1
*M6	0.2415342	0.394	0.105	0.095	0.10	25.58	17.08	354.85	17.61	14
2MS6	0.2443561	0.096	0.096	-0.043	0.10	53.24	91.57	22.14	92.72	1
2SM6	0.2471781	0.082	0.090	-0.036	0.10	38.25	90.98	304.33	101.06	0.84
3MK7	0.2833149	0.071	0.093	0.011	0.08	132.80	95.47	165.90	96.39	0.58
M8	0.3220456	0.064	0.061	-0.036	0.06	86.57	92.58	158.49	90.55	1.1

total var= 91.9818 pred var= 52.3471
 percent total var predicted/var original= 56.9 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 4211
 File Name: 4211-alh.nc
 nobs = 2688, ngood = 2687, record length (days) = 112.00
 start time: 15-Jun-1993 16:00:00
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.219, x trend= 0

var(x)= 99.5376 var(xp)= 40.0208 var(xres)= 59.8697
 percent var predicted/var original= 40.2 %

y0= 1.96, x trend= 0

var(y)= 78.4848 var(yp)= 5.2204 var(yres)= 73.2688
 percent var predicted/var original= 6.7 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	2.050	2.809	-0.413	1.81	95.14	49.21	233.89	110.39	0.53
MSF	0.0028219	2.279	2.538	0.192	1.80	112.40	50.58	317.17	91.70	0.81
ALP1	0.0343966	0.293	0.629	-0.108	0.69	37.73	148.67	154.15	156.18	0.22
2Q1	0.0357064	0.508	0.685	-0.117	0.73	30.37	111.06	208.80	107.16	0.55
Q1	0.0372185	0.537	0.731	-0.292	0.69	39.34	116.34	289.93	123.60	0.54
O1	0.0387307	1.066	0.828	-0.101	0.91	15.11	53.94	271.40	55.55	1.7
NO1	0.0402686	0.243	0.509	-0.004	0.51	41.20	125.81	356.41	147.29	0.23
*K1	0.0417807	2.134	0.827	-1.509	0.88	141.45	53.84	117.78	57.25	6.7
J1	0.0432929	0.945	0.939	-0.527	0.77	97.44	102.32	139.21	91.12	1
OO1	0.0448308	0.731	0.744	-0.466	0.76	1.28	109.27	332.74	100.64	0.97
UPS1	0.0463430	0.606	0.812	-0.300	0.73	17.17	108.32	226.57	121.45	0.56
EPS2	0.0761773	1.004	0.921	-0.588	0.87	9.54	88.80	124.02	94.14	1.2
*MU2	0.0776895	1.636	0.978	-0.828	0.93	1.94	56.60	187.66	60.34	2.8
*N2	0.0789992	1.957	1.101	0.111	1.10	154.68	30.47	322.80	37.20	3.2
*M2	0.0805114	8.078	1.142	1.399	1.22	168.00	8.62	350.71	7.58	50
L2	0.0820236	1.546	1.134	-1.167	1.12	119.61	103.10	271.47	99.49	1.9
*S2	0.0833333	1.883	1.011	-0.409	1.04	153.45	34.71	19.70	38.76	3.5
ETA2	0.0850736	0.734	0.975	-0.579	1.08	175.78	116.35	253.53	168.16	0.57
MO3	0.1192421	0.106	0.351	0.072	0.35	124.22	130.25	85.69	205.86	0.091
M3	0.1207671	0.220	0.350	-0.037	0.34	150.28	107.92	208.31	130.74	0.39
MK3	0.1222921	0.491	0.426	-0.272	0.44	9.73	85.85	176.78	95.51	1.3
SK3	0.1251141	0.336	0.385	-0.190	0.37	98.31	102.51	273.24	123.97	0.76
*MN4	0.1595106	0.444	0.274	-0.128	0.31	176.53	54.76	271.32	56.79	2.6
*M4	0.1610228	1.298	0.305	-0.244	0.34	3.09	15.79	96.76	14.55	18
SN4	0.1623326	0.285	0.282	-0.038	0.28	24.07	74.58	106.29	63.00	1
*MS4	0.1638447	0.509	0.240	-0.280	0.31	14.31	55.92	141.48	54.01	4.5
S4	0.1666667	0.178	0.255	-0.043	0.24	161.19	98.96	40.11	111.37	0.49
2MK5	0.2028035	0.180	0.171	-0.055	0.20	70.91	84.30	50.74	79.40	1.1
2SK5	0.2084474	0.120	0.161	0.012	0.17	25.29	95.90	262.96	114.36	0.55
*2MN6	0.2400221	0.400	0.204	-0.062	0.20	44.00	30.79	340.22	34.11	3.8
*M6	0.2415342	0.638	0.183	0.015	0.19	47.85	17.55	8.52	18.49	12
2MS6	0.2443561	0.184	0.179	-0.117	0.19	47.02	88.64	44.68	89.08	1.1
2SM6	0.2471781	0.169	0.189	-0.046	0.17	134.48	78.98	66.85	81.70	0.8
3MK7	0.2833149	0.134	0.115	-0.037	0.12	151.19	75.70	257.99	83.70	1.4
M8	0.3220456	0.068	0.094	-0.003	0.08	126.13	87.48	106.77	84.82	0.53

total var= 178.0224 pred var= 45.2413
 percent total var predicted/var original= 25.4 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 4291

File Name: 4291-alh.nc
 nobs = 3189, ngood = 3189, record length (days) = 132.88
 start time: 05-Oct-1993 17:00:00
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 1.56, x trend= 0

var(x)= 77.5633 var(xp)= 62.0521 var(xres)= 15.5771
 percent var predicted/var original= 80.0 %

y0= 1.13, x trend= 0

var(y)= 28.317 var(yp)= 3.0703 var(yres)= 25.2618
 percent var predicted/var original= 10.8 %

ellipse parameters with 95% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	1.222	1.688	-0.172	0.87	101.47	41.12	279.62	95.17	0.52
MSF	0.0028219	0.752	1.370	0.419	1.22	29.50	73.97	204.10	138.18	0.3
ALP1	0.0343966	0.131	0.248	-0.004	0.23	129.46	118.85	162.13	177.20	0.28
2Q1	0.0357064	0.309	0.310	0.029	0.28	15.43	75.65	333.33	80.54	0.99
Q1	0.0372185	0.409	0.292	-0.062	0.32	121.77	59.65	132.13	59.17	2
*O1	0.0387307	0.658	0.345	-0.195	0.34	35.01	33.70	257.29	37.24	3.6
NO1	0.0402686	0.188	0.247	0.027	0.21	30.26	86.64	9.07	92.95	0.58
*K1	0.0417807	0.689	0.338	-0.082	0.35	18.80	28.29	318.06	31.42	4.2
J1	0.0432929	0.277	0.309	0.064	0.27	7.86	81.97	39.36	100.95	0.8
OO1	0.0448308	0.321	0.305	-0.056	0.31	170.50	75.89	52.61	79.04	1.1
UPS1	0.0463430	0.162	0.302	-0.089	0.30	147.52	119.52	6.47	157.02	0.29
EPS2	0.0761773	0.318	0.350	-0.109	0.32	142.09	80.60	196.54	94.25	0.83
MU2	0.0776895	0.231	0.288	-0.049	0.30	151.54	107.68	10.54	124.15	0.64
*N2	0.0789992	2.822	0.417	-0.324	0.36	15.08	8.40	167.24	9.66	46
*M2	0.0805114	10.495	0.376	-0.837	0.40	10.12	1.91	203.86	2.32	7.8e+002
L2	0.0820236	0.363	0.349	-0.304	0.38	88.79	121.97	137.08	119.60	1.1
*S2	0.0833333	1.653	0.400	0.143	0.43	4.97	14.35	243.60	16.64	17
ETA2	0.0850736	0.341	0.381	0.022	0.40	155.76	96.33	33.97	93.91	0.8
MO3	0.1192421	0.131	0.159	0.018	0.14	95.03	92.62	231.38	95.96	0.67
M3	0.1207671	0.088	0.128	-0.022	0.12	170.42	92.76	331.06	134.25	0.48
MK3	0.1222921	0.133	0.151	-0.094	0.15	2.08	106.72	2.36	121.67	0.77
SK3	0.1251141	0.129	0.179	0.000	0.14	28.83	81.48	51.92	93.84	0.52
*MN4	0.1595106	0.440	0.138	-0.287	0.14	119.20	39.83	15.99	44.83	10
*M4	0.1610228	0.725	0.150	-0.234	0.14	86.63	12.94	67.61	15.60	23
SN4	0.1623326	0.157	0.123	-0.088	0.12	135.40	77.35	126.36	80.02	1.6
*MS4	0.1638447	0.230	0.128	-0.083	0.12	73.23	50.43	123.70	53.35	3.2
S4	0.1666667	0.049	0.107	0.007	0.09	44.43	132.24	186.71	167.49	0.21
2MK5	0.2028035	0.054	0.079	-0.031	0.08	102.54	143.91	144.06	123.36	0.46
2SK5	0.2084474	0.029	0.080	-0.004	0.07	21.86	74.82	46.82	188.03	0.13
*2MN6	0.2400221	0.182	0.088	0.143	0.11	56.96	96.73	333.23	99.34	4.3
*M6	0.2415342	0.395	0.116	0.159	0.13	20.84	22.76	342.11	24.63	12
2MS6	0.2443561	0.138	0.103	0.097	0.11	28.34	102.94	23.57	98.91	1.8
2SM6	0.2471781	0.079	0.096	-0.005	0.10	175.15	101.19	223.05	101.56	0.68
3MK7	0.2833149	0.080	0.071	0.006	0.06	7.09	61.22	339.51	55.83	1.3
M8	0.3220456	0.062	0.049	-0.045	0.05	46.84	96.63	287.51	104.36	1.6

total var= 105.8803 pred var= 65.1223
 percent total var predicted/var original= 61.5 %

Tidal Analysis of Current at LT-A
Point Current-Meter Observations, 5.0 m
Mooring Number: 4311

File Name: 4311-alh.nc

nobs = 342, ngood = 341, record length (days) = 14.25

start time: 15-Feb-1994 15:00:00

rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 0.523, x trend= 0

var(x)= 60.6759 var(xp)= 48.7319 var(xres)= 11.8564

percent var predicted/var original= 80.3 %

y0= -0.169, x trend= 0

var(y)= 22.9774 var(yp)= 5.4851 var(yres)= 17.5307

percent var predicted/var original= 23.9 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
O1	0.0387307	0.995	1.145	-0.373	1.02	92.53	66.61	58.06	96.16	0.75
K1	0.0417807	0.567	0.997	-0.202	0.84	73.38	81.82	82.63	158.59	0.32
*M2	0.0805114	10.141	1.740	-0.895	1.16	17.96	7.76	193.00	11.31	34
M3	0.1207671	0.320	0.342	-0.048	0.38	14.24	74.04	247.59	100.49	0.88
M4	0.1610228	0.386	0.321	-0.180	0.41	83.22	119.91	91.39	83.25	1.5
2MK5	0.2028035	0.160	0.160	-0.028	0.18	34.18	74.97	218.60	93.12	0.99
2SK5	0.2084474	0.212	0.169	-0.121	0.20	59.62	106.23	184.46	87.16	1.6
*M6	0.2415342	0.506	0.294	0.157	0.28	2.55	43.91	296.97	40.37	3
3MK7	0.2833149	0.189	0.178	0.054	0.22	69.65	101.67	102.56	78.93	1.1
M8	0.3220456	0.202	0.168	0.006	0.12	6.39	34.57	249.48	54.67	1.4

total var= 83.6533 pred var= 54.217

percent total var predicted/var original= 64.8 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 7.5 m
 Mooring Number: 4522

File Name: 4522-alh.nc
 nobs = 2850, ngood = 2849, record length (days) = 118.75
 start time: 14-Feb-1995 20:00:00
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 0.812, x trend= 0

var(x)= 92.1569 var(xp)= 63.9005 var(xres)= 28.2837
 percent var predicted/var original= 69.3 %

y0= -1.11, x trend= 0

var(y)= 54.4349 var(yp)= 4.5564 var(yres)= 49.8968
 percent var predicted/var original= 8.4 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	0.666	2.352	-0.012	1.41	50.68	46.58	36.02	203.01	0.08
MSF	0.0028219	2.529	3.063	0.307	1.82	106.34	32.18	22.97	106.36	0.68
ALP1	0.0343966	0.587	0.784	0.183	0.76	136.76	97.39	275.83	106.28	0.56
2Q1	0.0357064	0.469	0.743	-0.328	0.66	53.49	103.55	201.31	135.01	0.4
Q1	0.0372185	0.533	0.720	-0.031	0.71	166.07	93.56	220.55	89.74	0.55
O1	0.0387307	0.462	0.714	0.021	0.58	40.46	120.06	243.43	121.39	0.42
NO1	0.0402686	0.519	0.756	-0.181	0.75	8.39	118.51	330.09	136.30	0.47
*K1	0.0417807	1.388	0.740	-0.698	0.80	80.95	56.63	35.04	50.70	3.5
J1	0.0432929	0.427	0.668	0.028	0.74	115.97	115.71	70.14	101.54	0.41
OO1	0.0448308	1.105	1.269	-0.623	1.28	14.88	103.05	283.77	123.34	0.76
UPS1	0.0463430	0.484	1.250	-0.029	1.04	30.97	120.81	196.98	158.09	0.15
EPS2	0.0761773	0.362	0.583	-0.096	0.57	76.91	88.65	220.30	133.19	0.39
MU2	0.0776895	0.303	0.490	-0.051	0.53	63.95	90.87	74.35	136.91	0.38
*N2	0.0789992	2.195	0.607	-0.625	0.74	8.75	25.15	176.77	18.62	13
*M2	0.0805114	10.794	0.687	-1.070	0.84	12.17	4.59	201.15	3.37	2.5e+002
*L2	0.0820236	0.881	0.506	-0.088	0.57	167.03	52.12	4.06	44.48	3
*S2	0.0833333	1.742	0.622	0.159	0.90	178.72	28.15	61.55	24.40	7.9
ETA2	0.0850736	0.624	0.951	-0.537	0.87	141.49	127.24	346.58	143.14	0.43
MO3	0.1192421	0.325	0.282	0.030	0.31	167.63	83.64	124.64	59.17	1.3
M3	0.1207671	0.168	0.228	-0.118	0.20	125.30	96.30	90.89	124.32	0.54
MK3	0.1222921	0.212	0.247	-0.082	0.23	77.19	69.33	16.19	116.31	0.74
SK3	0.1251141	0.099	0.219	0.063	0.23	137.06	97.95	29.81	178.85	0.2
MN4	0.1595106	0.258	0.210	-0.190	0.17	68.63	85.53	93.61	90.09	1.5
*M4	0.1610228	0.444	0.214	-0.302	0.17	90.85	62.27	87.05	67.36	4.3
SN4	0.1623326	0.190	0.200	-0.011	0.19	41.36	78.82	335.84	81.81	0.9
MS4	0.1638447	0.169	0.188	-0.142	0.21	61.04	112.20	126.02	131.69	0.8
S4	0.1666667	0.170	0.208	-0.056	0.20	126.16	79.76	25.21	86.16	0.67
2MK5	0.2028035	0.086	0.149	-0.043	0.13	136.40	103.40	253.96	147.87	0.33
2SK5	0.2084474	0.054	0.161	0.026	0.12	126.30	112.60	293.21	175.32	0.11
*2MN6	0.2400221	0.245	0.151	-0.025	0.14	43.21	36.64	348.33	38.68	2.6
*M6	0.2415342	0.352	0.149	0.056	0.15	59.85	27.72	18.15	26.61	5.6
2MS6	0.2443561	0.164	0.145	0.016	0.15	60.19	57.16	61.85	65.21	1.3
2SM6	0.2471781	0.097	0.125	0.009	0.12	136.46	86.76	141.44	111.61	0.6
3MK7	0.2833149	0.054	0.076	-0.006	0.06	162.87	104.30	148.13	130.82	0.5
*M8	0.3220456	0.093	0.062	0.020	0.06	174.66	51.73	152.90	46.33	2.3

total var= 146.5918 pred var= 68.4569
 percent total var predicted/var original= 46.7 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 4631

File Name: 4631-alh.nc
 nobs = 1822, ngood = 1821, record length (days) = 75.92
 start time: 26-Sep-1995 18:00:00
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 1.1, x trend= 0

var(x)= 74.0323 var(xp)= 51.1239 var(xres)= 23.2778
 percent var predicted/var original= 69.1 %

y0= -0.778, x trend= 0

var(y)= 49.2958 var(yp)= 3.5358 var(yres)= 45.8155
 percent var predicted/var original= 7.2 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	1.560	2.206	-0.423	1.48	45.32	51.71	260.50	93.12	0.5
MSF	0.0028219	2.715	2.587	0.460	1.16	83.69	20.90	131.61	66.74	1.1
ALP1	0.0343966	1.144	1.098	-0.420	1.27	179.68	90.56	186.93	94.10	1.1
2Q1	0.0357064	0.456	1.030	-0.224	0.90	38.45	128.43	319.91	147.85	0.2
Q1	0.0372185	0.606	0.983	-0.333	1.00	93.26	99.96	208.57	124.71	0.38
O1	0.0387307	0.668	1.053	-0.274	0.99	94.62	104.74	334.07	138.42	0.4
NO1	0.0402686	0.433	0.980	-0.075	0.98	136.81	112.58	7.87	167.74	0.2
K1	0.0417807	0.876	0.914	-0.151	1.06	33.95	97.14	295.94	99.23	0.92
J1	0.0432929	0.924	1.081	-0.367	1.05	92.56	84.34	245.82	94.58	0.73
OO1	0.0448308	1.182	1.976	-0.598	1.99	23.32	120.45	96.96	116.26	0.36
UPS1	0.0463430	0.456	1.501	0.020	1.19	176.16	128.79	262.90	292.49	0.092
EPS2	0.0761773	0.328	0.485	0.129	0.51	86.93	115.48	249.03	119.27	0.46
MU2	0.0776895	0.480	0.517	-0.154	0.50	73.78	76.92	211.31	81.56	0.86
*N2	0.0789992	2.383	0.616	0.133	0.62	12.77	15.19	185.35	15.86	15
*M2	0.0805114	9.443	0.620	-0.654	0.67	13.96	3.65	200.52	3.82	2.3e+002
L2	0.0820236	0.367	0.425	-0.178	0.38	3.47	96.24	288.71	109.97	0.75
*S2	0.0833333	2.015	0.713	0.107	0.61	19.48	19.18	226.28	19.04	8
ETA2	0.0850736	0.765	0.766	-0.421	0.86	88.08	104.44	344.74	101.59	1
MO3	0.1192421	0.267	0.226	-0.125	0.24	94.19	79.99	49.70	84.51	1.4
M3	0.1207671	0.122	0.178	-0.034	0.17	140.85	111.82	253.66	125.30	0.47
MK3	0.1222921	0.202	0.216	0.018	0.22	58.59	85.71	359.49	97.09	0.88
SK3	0.1251141	0.258	0.207	-0.020	0.24	37.53	68.50	61.42	68.65	1.5
*MN4	0.1595106	0.564	0.251	-0.073	0.24	17.44	27.38	128.64	29.72	5.1
*M4	0.1610228	0.575	0.264	-0.292	0.26	26.46	39.64	138.13	40.81	4.8
SN4	0.1623326	0.228	0.248	-0.075	0.24	69.71	96.62	243.46	93.94	0.84
MS4	0.1638447	0.185	0.223	-0.060	0.25	107.21	108.98	171.12	92.94	0.69
S4	0.1666667	0.175	0.247	-0.046	0.21	3.01	87.37	220.57	107.56	0.5
2MK5	0.2028035	0.053	0.084	-0.016	0.11	13.39	109.77	41.66	144.19	0.39
2SK5	0.2084474	0.170	0.135	-0.032	0.14	39.91	61.92	68.50	61.99	1.6
2MN6	0.2400221	0.154	0.157	-0.017	0.16	52.20	73.50	346.17	71.45	0.96
*M6	0.2415342	0.481	0.189	0.068	0.16	27.68	22.61	347.30	22.78	6.5
2MS6	0.2443561	0.170	0.153	0.052	0.13	17.67	81.77	11.37	75.52	1.2
2SM6	0.2471781	0.072	0.142	0.018	0.12	167.64	123.28	73.02	190.05	0.25
3MK7	0.2833149	0.095	0.109	0.017	0.08	25.63	69.12	338.65	85.35	0.75
M8	0.3220456	0.068	0.069	-0.008	0.06	6.63	55.23	291.66	75.43	0.99

total var= 123.3281 pred var= 54.6597
 percent total var predicted/var original= 44.3 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 4661
 File Name: 4661-alh.nc
 nobs = 2831, ngood = 2831, record length (days) = 117.96
 start time: 14-Feb-1996 14:00:00
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 0.255, x trend= 0

var(x)= 96.4153 var(xp)= 53.0716 var(xres)= 43.1358
 percent var predicted/var original= 55.0 %

y0= -0.438, x trend= 0

var(y)= 70.1457 var(yp)= 3.9657 var(yres)= 66.1724
 percent var predicted/var original= 5.7 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	1.903	2.198	0.473	1.65	87.12	58.11	150.22	91.62	0.75
MSF	0.0028219	1.693	2.057	0.359	1.80	132.55	79.75	23.58	91.83	0.68
ALP1	0.0343966	0.533	0.819	-0.205	0.92	37.87	103.98	156.33	121.29	0.42
2Q1	0.0357064	0.672	0.837	-0.465	0.70	75.00	95.90	92.44	111.53	0.64
Q1	0.0372185	0.536	0.848	-0.367	0.81	107.57	88.35	332.33	126.93	0.4
O1	0.0387307	0.531	0.749	0.243	0.79	31.94	107.10	279.45	114.31	0.5
NO1	0.0402686	0.415	0.743	0.009	0.69	170.13	145.45	39.34	127.68	0.31
*K1	0.0417807	1.435	0.807	-0.562	0.91	138.06	55.03	36.30	49.80	3.2
J1	0.0432929	0.299	0.715	0.173	0.65	97.31	95.90	61.37	191.24	0.17
OO1	0.0448308	1.322	1.661	-0.733	1.37	107.11	80.36	202.54	105.22	0.63
UPS1	0.0463430	0.973	1.270	-0.602	1.28	31.11	106.30	132.93	131.26	0.59
EPS2	0.0761773	0.773	0.758	-0.512	0.70	101.43	87.88	95.99	104.69	1
MU2	0.0776895	0.355	0.632	0.050	0.53	93.22	82.49	299.79	139.05	0.31
*N2	0.0789992	1.586	0.691	0.372	0.84	27.77	36.80	194.44	28.85	5.3
*M2	0.0805114	9.762	0.611	-0.083	0.91	13.37	5.34	201.00	4.18	2.6e+002
L2	0.0820236	0.569	0.632	-0.060	0.63	61.02	78.66	29.75	84.76	0.81
*S2	0.0833333	2.074	0.667	-0.215	0.91	173.39	29.28	46.62	23.17	9.7
ETA2	0.0850736	1.135	1.064	-0.344	1.00	29.99	73.38	55.08	80.46	1.1
MO3	0.1192421	0.372	0.296	0.099	0.34	145.57	74.32	114.35	67.25	1.6
M3	0.1207671	0.142	0.209	-0.001	0.21	169.27	127.64	334.62	128.54	0.46
MK3	0.1222921	0.272	0.283	-0.200	0.29	68.25	97.50	118.82	112.47	0.93
SK3	0.1251141	0.092	0.283	-0.043	0.25	112.53	130.83	126.89	187.86	0.11
MN4	0.1595106	0.254	0.213	-0.058	0.21	39.53	57.48	86.35	55.79	1.4
*M4	0.1610228	0.665	0.237	-0.209	0.22	74.03	19.00	79.98	25.07	7.9
SN4	0.1623326	0.198	0.160	-0.044	0.20	161.42	96.50	174.64	85.30	1.5
MS4	0.1638447	0.263	0.226	-0.169	0.20	92.73	81.81	103.93	85.54	1.4
S4	0.1666667	0.110	0.184	-0.033	0.16	136.59	115.01	54.43	140.88	0.36
2MK5	0.2028035	0.165	0.130	-0.017	0.14	101.21	68.52	278.71	53.57	1.6
2SK5	0.2084474	0.126	0.138	-0.093	0.13	125.13	107.79	119.29	95.78	0.84
*2MN6	0.2400221	0.223	0.126	0.062	0.13	65.06	42.94	343.58	41.91	3.1
*M6	0.2415342	0.569	0.149	0.071	0.15	31.61	14.66	6.24	17.08	15
2MS6	0.2443561	0.117	0.114	0.051	0.11	71.25	92.66	84.23	90.94	1
2SM6	0.2471781	0.145	0.130	-0.068	0.13	174.51	93.96	242.93	110.14	1.2
3MK7	0.2833149	0.048	0.077	0.021	0.08	50.10	123.45	38.62	142.57	0.38
*M8	0.3220456	0.122	0.061	-0.044	0.07	149.23	45.41	220.12	41.97	3.9

total var= 166.5609 pred var= 57.0373
 percent total var predicted/var original= 34.2 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 4681

File Name: 4681-alh.nc
 nobs = 2685, ngood = 2685, record length (days) = 111.88
 start time: 11-Jun-1996 16:00:00
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.191, x trend= 0

var(x)= 95.1227 var(xp)= 33.7231 var(xres)= 60.6289
 percent var predicted/var original= 35.5 %

y0= 1.73, x trend= 0

var(y)= 109.3571 var(yp)= 2.1579 var(yres)= 107.2933
 percent var predicted/var original= 2.0 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	4.814	3.807	-0.016	1.89	91.82	24.59	195.04	45.46	1.6
MSF	0.0028219	4.473	3.858	-2.088	1.91	78.60	40.67	328.25	72.57	1.3
ALP1	0.0343966	0.772	0.879	0.019	0.71	73.26	73.02	270.18	76.47	0.77
2Q1	0.0357064	0.526	0.844	-0.369	0.83	121.69	101.23	129.57	134.96	0.39
Q1	0.0372185	0.444	0.773	0.058	0.69	81.14	94.84	352.15	144.17	0.33
O1	0.0387307	0.607	0.855	-0.194	0.71	91.35	80.13	97.73	105.49	0.5
NO1	0.0402686	1.068	0.816	-0.418	0.70	61.59	60.12	280.90	64.67	1.7
*K1	0.0417807	1.843	0.770	-1.063	0.98	152.14	49.63	84.15	47.30	5.7
J1	0.0432929	1.286	1.006	-0.962	0.90	91.19	83.62	230.96	92.69	1.6
OO1	0.0448308	1.492	1.346	-0.754	1.34	115.63	78.12	323.51	85.23	1.2
UPS1	0.0463430	1.265	1.264	0.371	1.26	114.78	64.56	97.24	81.43	1
EPS2	0.0761773	0.947	0.930	-0.386	0.94	29.83	85.95	128.31	109.01	1
MU2	0.0776895	0.993	0.981	-0.560	1.00	51.80	98.23	159.35	90.23	1
*N2	0.0789992	2.627	1.473	0.069	1.01	14.36	23.92	167.61	32.12	3.2
*M2	0.0805114	7.226	1.643	1.248	1.02	1.90	8.92	192.02	12.05	19
L2	0.0820236	0.983	0.995	-0.755	1.05	66.66	132.02	245.56	103.84	0.98
S2	0.0833333	1.067	1.161	-0.073	0.93	176.08	65.06	40.72	113.52	0.84
ETA2	0.0850736	0.857	1.568	-0.501	1.44	36.28	112.29	358.25	154.19	0.3
MO3	0.1192421	0.344	0.401	0.047	0.39	49.15	90.45	87.75	92.38	0.73
M3	0.1207671	0.252	0.280	-0.057	0.30	165.99	103.12	354.60	127.80	0.81
MK3	0.1222921	0.331	0.359	-0.027	0.39	32.08	91.72	51.88	86.27	0.85
SK3	0.1251141	0.382	0.424	-0.039	0.40	88.63	75.70	120.16	76.42	0.81
*MN4	0.1595106	0.460	0.279	0.044	0.27	17.62	37.89	95.18	37.84	2.7
*M4	0.1610228	0.914	0.318	-0.304	0.29	15.82	18.17	99.50	22.29	8.3
SN4	0.1623326	0.130	0.233	-0.061	0.21	178.68	126.50	212.32	224.59	0.31
*MS4	0.1638447	0.580	0.274	-0.391	0.29	55.04	65.24	89.85	63.89	4.5
S4	0.1666667	0.244	0.253	-0.136	0.29	44.55	117.68	143.19	110.37	0.93
2MK5	0.2028035	0.046	0.147	0.014	0.14	177.18	160.58	35.71	171.59	0.097
2SK5	0.2084474	0.169	0.192	-0.087	0.22	174.57	117.18	25.15	95.54	0.77
*2MN6	0.2400221	0.432	0.195	-0.093	0.18	39.01	32.26	321.79	34.46	4.9
*M6	0.2415342	0.603	0.232	-0.101	0.20	39.57	24.46	15.48	22.92	6.8
*2MS6	0.2443561	0.293	0.206	-0.008	0.18	24.55	45.81	62.38	42.18	2
2SM6	0.2471781	0.151	0.198	0.003	0.18	133.82	94.24	38.98	97.71	0.58
3MK7	0.2833149	0.097	0.132	-0.049	0.12	146.28	111.66	343.68	129.49	0.54
M8	0.3220456	0.106	0.085	-0.055	0.07	84.48	75.75	277.04	80.20	1.5

total var= 204.4798 pred var= 35.881
 percent total var predicted/var original= 17.5 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 5.0 m
 Mooring Number: 4771

File Name: 4771-alh_dl.nc
 nobs = 2624, ngood = 2623, record length (days) = 109.33
 start time: 01-Oct-1996 17:00:00
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 1.8, x trend= 0

var(x)= 66.9125 var(xp)= 42.4141 var(xres)= 24.4656
 percent var predicted/var original= 63.4 %

y0= -0.812, x trend= 0

var(y)= 53.3631 var(yp)= 11.2098 var(yres)= 42.1314
 percent var predicted/var original= 21.0 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	2.614	2.884	0.791	2.21	119.74	71.02	208.54	75.14	0.82
MSF	0.0028219	1.159	2.139	0.211	2.31	64.90	93.14	309.63	146.48	0.29
ALP1	0.0343966	0.475	0.564	-0.126	0.58	177.15	107.57	342.53	93.16	0.71
2Q1	0.0357064	0.884	0.696	-0.063	0.64	94.73	53.06	49.41	57.83	1.6
Q1	0.0372185	0.340	0.569	-0.135	0.51	142.87	124.82	54.26	165.00	0.36
O1	0.0387307	0.645	0.574	-0.160	0.70	7.39	95.15	277.00	81.30	1.3
NO1	0.0402686	0.411	0.437	-0.004	0.46	123.74	80.20	243.07	83.16	0.88
*K1	0.0417807	1.014	0.575	-0.464	0.63	38.69	53.24	280.44	53.94	3.1
J1	0.0432929	0.401	0.559	-0.007	0.54	73.81	90.22	63.76	120.97	0.51
OO1	0.0448308	0.915	0.947	-0.556	0.87	85.82	95.21	289.62	110.89	0.93
UPS1	0.0463430	0.958	1.041	0.069	0.77	117.10	68.68	81.38	80.79	0.85
EPS2	0.0761773	0.401	0.368	-0.198	0.40	172.88	87.13	305.16	96.09	1.2
MU2	0.0776895	0.264	0.344	-0.080	0.33	28.84	100.84	91.08	102.00	0.59
*N2	0.0789992	1.733	0.440	-0.037	0.44	30.46	13.31	172.66	15.25	15
*M2	0.0805114	9.691	0.480	-0.387	0.46	26.38	2.81	202.83	2.78	4.1e+002
L2	0.0820236	0.217	0.315	-0.182	0.35	156.99	121.42	154.07	152.65	0.47
*S2	0.0833333	1.422	0.432	-0.316	0.45	36.42	20.20	223.74	21.58	11
ETA2	0.0850736	0.949	0.677	0.305	0.72	13.18	59.98	165.44	53.03	2
MO3	0.1192421	0.123	0.225	0.039	0.18	78.04	85.47	195.48	149.53	0.3
M3	0.1207671	0.141	0.201	-0.040	0.17	130.08	82.26	319.85	98.31	0.49
MK3	0.1222921	0.069	0.200	0.035	0.17	122.37	99.47	327.12	178.56	0.12
SK3	0.1251141	0.208	0.250	-0.126	0.21	97.15	76.54	267.40	113.92	0.69
MN4	0.1595106	0.215	0.189	-0.101	0.19	37.50	67.78	75.33	71.98	1.3
*M4	0.1610228	0.629	0.209	-0.001	0.22	76.88	20.78	107.77	17.90	9
SN4	0.1623326	0.151	0.176	0.042	0.19	156.03	95.74	342.79	119.17	0.74
*MS4	0.1638447	0.304	0.195	-0.070	0.26	65.59	56.50	150.68	53.06	2.4
S4	0.1666667	0.223	0.201	0.083	0.20	75.19	87.67	88.30	79.37	1.2
2MK5	0.2028035	0.079	0.124	-0.041	0.12	103.21	127.73	7.65	112.50	0.41
2SK5	0.2084474	0.117	0.121	-0.015	0.13	63.03	81.04	52.66	87.21	0.93
*2MN6	0.2400221	0.219	0.101	0.145	0.09	67.88	55.13	329.01	62.06	4.7
*M6	0.2415342	0.332	0.096	0.212	0.10	34.15	36.14	330.41	34.99	12
2MS6	0.2443561	0.153	0.110	0.037	0.08	87.05	37.60	52.84	54.64	1.9
2SM6	0.2471781	0.037	0.083	-0.002	0.07	112.73	98.41	37.55	167.07	0.2
3MK7	0.2833149	0.034	0.071	0.001	0.06	81.30	114.35	268.86	146.30	0.23
*M8	0.3220456	0.066	0.045	0.004	0.05	40.04	47.51	266.07	45.95	2.2

total var= 120.2756 pred var= 53.6239
 percent total var predicted/var original= 44.6 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 7.0 m
 Mooring Number: 7162

File Name: 7162vm-alh.nc
 nobs = 3213, ngood = 3213, record length (days) = 133.88
 start time: 24-Sep-2003 16:59:30
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.65, x trend= 0

var(x)= 83.1799 var(xp)= 61.5639 var(xres)= 21.6262
 percent var predicted/var original= 74.0 %

y0= -1.26, x trend= 0

var(y)= 47.4057 var(yp)= 4.3951 var(yres)= 43.001
 percent var predicted/var original= 9.3 %

ellipse parameters with 95% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	1.488	1.779	-0.025	1.70	92.00	74.75	333.19	96.38	0.7
MSF	0.0028219	1.243	1.797	-0.125	1.67	85.30	79.04	215.82	116.22	0.48
ALP1	0.0343966	0.204	0.337	-0.079	0.34	156.66	108.02	92.95	134.79	0.37
2Q1	0.0357064	0.259	0.367	0.087	0.38	30.88	114.48	335.00	123.31	0.5
Q1	0.0372185	0.226	0.363	0.027	0.33	79.22	82.14	10.86	129.19	0.39
*O1	0.0387307	0.687	0.448	-0.017	0.47	11.97	48.61	287.09	37.50	2.4
NO1	0.0402686	0.352	0.380	-0.177	0.40	148.55	101.05	103.72	132.44	0.86
*K1	0.0417807	0.776	0.440	0.094	0.54	10.05	43.16	271.33	36.70	3.1
J1	0.0432929	0.457	0.406	-0.048	0.36	94.42	52.12	304.86	61.34	1.3
OO1	0.0448308	0.303	0.282	-0.166	0.28	25.63	95.17	73.13	74.76	1.2
UPS1	0.0463430	0.187	0.258	-0.084	0.25	128.69	107.39	23.67	125.83	0.53
EPS2	0.0761773	0.384	0.431	0.022	0.35	43.94	75.84	148.04	80.78	0.79
MU2	0.0776895	0.436	0.390	0.152	0.48	69.67	84.91	197.61	72.27	1.2
*N2	0.0789992	2.764	0.520	-0.045	0.49	15.98	10.01	171.34	10.36	28
*M2	0.0805114	11.153	0.554	-0.432	0.43	14.27	2.10	201.43	2.84	4.1e+002
L2	0.0820236	0.260	0.333	0.053	0.31	34.84	88.87	192.84	105.33	0.61
*S2	0.0833333	1.632	0.495	0.003	0.34	10.54	14.28	224.53	17.50	11
ETA2	0.0850736	0.220	0.304	0.101	0.26	23.09	92.13	112.77	119.10	0.52
MO3	0.1192421	0.181	0.145	-0.110	0.13	25.65	100.50	277.27	88.87	1.6
M3	0.1207671	0.122	0.160	0.010	0.15	47.25	92.10	91.99	99.84	0.58
MK3	0.1222921	0.145	0.154	-0.085	0.13	0.37	99.77	282.76	93.97	0.88
SK3	0.1251141	0.182	0.165	-0.068	0.15	171.63	68.12	184.85	73.46	1.2
*MN4	0.1595106	0.388	0.214	0.032	0.19	52.34	31.05	95.86	35.58	3.3
*M4	0.1610228	0.561	0.220	0.047	0.21	53.96	22.82	147.82	19.30	6.5
SN4	0.1623326	0.090	0.154	0.084	0.15	46.20	138.54	71.34	151.40	0.34
MS4	0.1638447	0.235	0.192	0.041	0.18	41.52	59.32	180.90	52.05	1.5
S4	0.1666667	0.072	0.142	0.048	0.14	122.39	129.99	182.70	167.78	0.26
2MK5	0.2028035	0.062	0.103	-0.022	0.10	81.72	126.21	123.63	131.54	0.36
2SK5	0.2084474	0.055	0.093	0.029	0.10	157.66	126.24	169.76	129.21	0.35
*2MN6	0.2400221	0.427	0.136	-0.014	0.14	47.07	18.93	338.52	18.39	9.9
*M6	0.2415342	0.614	0.152	-0.066	0.14	60.18	13.01	5.68	13.43	16
*2MS6	0.2443561	0.274	0.123	0.037	0.12	58.48	29.41	56.88	31.83	4.9
2SM6	0.2471781	0.064	0.097	-0.005	0.10	39.00	106.86	152.02	135.85	0.43
3MK7	0.2833149	0.075	0.077	0.041	0.07	99.20	95.19	87.13	96.70	0.97
*M8	0.3220456	0.133	0.070	0.033	0.07	37.84	37.55	11.36	38.49	3.6

total var= 130.5855 pred var= 65.959
 percent total var predicted/var original= 50.5 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 9.3 m
 Mooring Number: 7552

File Name: 7552vm-alh.nc
 nobs = 2494, ngood = 2493, record length (days) = 103.92
 start time: 05-Feb-2004 16:59:30
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.572, x trend= 0

var(x)= 81.4922 var(xp)= 58.8185 var(xres)= 22.6216
 percent var predicted/var original= 72.2 %

y0= -1.91, x trend= 0

var(y)= 44.2785 var(yp)= 3.6946 var(yres)= 40.5963
 percent var predicted/var original= 8.3 %

ellipse parameters with 95% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	1.139	2.248	0.176	1.82	130.98	60.60	6.16	196.65	0.26
MSF	0.0028219	2.872	3.623	-0.092	1.93	97.29	48.12	146.64	100.72	0.63
ALP1	0.0343966	0.604	0.523	-0.127	0.54	24.19	57.09	0.74	64.08	1.3
2Q1	0.0357064	0.584	0.534	-0.013	0.51	21.41	66.04	337.25	66.41	1.2
Q1	0.0372185	0.213	0.396	-0.131	0.41	158.19	107.44	183.18	162.68	0.29
O1	0.0387307	0.378	0.487	0.142	0.44	91.98	96.47	333.14	113.99	0.6
NO1	0.0402686	0.409	0.548	-0.321	0.51	56.53	109.04	213.19	137.64	0.56
*K1	0.0417807	0.823	0.525	-0.122	0.55	36.37	51.68	359.66	51.97	2.5
J1	0.0432929	0.553	0.492	-0.173	0.49	137.91	69.39	54.03	75.95	1.3
OO1	0.0448308	0.060	0.276	-0.023	0.30	134.96	128.51	139.23	232.14	0.047
UPS1	0.0463430	0.431	0.355	-0.260	0.39	164.54	88.08	83.77	91.31	1.5
EPS2	0.0761773	0.270	0.545	0.065	0.55	15.18	139.52	40.53	158.78	0.24
MU2	0.0776895	0.303	0.509	-0.116	0.50	166.59	125.15	252.12	119.74	0.35
*N2	0.0789992	2.153	0.671	-0.067	0.70	11.64	21.35	182.38	17.48	10
*M2	0.0805114	10.871	0.637	-0.461	0.78	12.86	4.25	199.13	3.29	2.9e+002
L2	0.0820236	0.189	0.374	0.016	0.42	157.59	135.96	294.32	213.22	0.26
*S2	0.0833333	2.082	0.580	-0.103	0.69	21.35	21.75	244.00	15.49	13
ETA2	0.0850736	0.241	0.416	-0.188	0.45	40.07	126.29	348.02	152.74	0.34
MO3	0.1192421	0.210	0.192	-0.070	0.20	74.17	80.83	178.90	84.67	1.2
M3	0.1207671	0.080	0.197	-0.038	0.19	159.76	117.61	349.91	167.57	0.16
MK3	0.1222921	0.329	0.236	-0.034	0.25	59.12	56.04	62.99	51.31	1.9
SK3	0.1251141	0.229	0.214	0.011	0.21	127.31	63.66	138.63	63.86	1.1
MN4	0.1595106	0.253	0.225	-0.050	0.24	44.48	73.39	131.65	81.39	1.3
*M4	0.1610228	0.640	0.299	-0.328	0.29	56.44	45.94	109.55	46.58	4.6
SN4	0.1623326	0.085	0.206	0.025	0.20	126.43	139.71	182.45	187.21	0.17
MS4	0.1638447	0.150	0.242	-0.082	0.21	79.79	102.98	128.34	125.39	0.38
S4	0.1666667	0.125	0.209	0.003	0.21	147.02	107.76	301.21	129.34	0.36
2MK5	0.2028035	0.061	0.123	0.034	0.11	88.66	127.31	260.49	157.87	0.25
2SK5	0.2084474	0.131	0.134	-0.020	0.13	115.43	69.06	259.80	81.87	0.95
*2MN6	0.2400221	0.203	0.131	-0.062	0.14	38.98	62.42	352.63	55.35	2.4
*M6	0.2415342	0.567	0.148	0.002	0.14	40.01	15.47	14.14	17.20	15
*2MS6	0.2443561	0.297	0.167	0.052	0.14	55.66	33.79	68.64	33.26	3.2
2SM6	0.2471781	0.117	0.125	-0.017	0.13	43.53	78.63	23.68	85.42	0.87
3MK7	0.2833149	0.089	0.116	-0.018	0.09	86.33	62.51	75.48	82.08	0.59
M8	0.3220456	0.043	0.075	-0.001	0.07	41.65	113.42	339.12	126.03	0.33

total var= 125.7708 pred var= 62.513
 percent total var predicted/var original= 49.7 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 7.5 m
 Mooring Number: 7742

File Name: 7742vm-alh.nc
 nobs = 2294, ngood = 2293, record length (days) = 95.58
 start time: 22-Sep-2004 16:59:30
 rayleigh criterion = 1.0

Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.112, x trend= 0

var(x)= 67.0562 var(xp)= 54.0836 var(xres)= 13.3251
 percent var predicted/var original= 80.7 %

y0= -1.97, x trend= 0

var(y)= 30.8163 var(yp)= 3.377 var(yres)= 27.5114
 percent var predicted/var original= 11.0 %

ellipse parameters with 95%% CI estimates

tide	freq	major	emaj	minor	emin	inc	einc	pha	epha	snr
MM	0.0015122	2.252	2.292	0.325	1.22	96.56	38.94	257.05	69.13	0.97
MSF	0.0028219	0.964	1.896	-0.320	1.13	94.89	56.88	305.68	140.10	0.26
ALP1	0.0343966	0.252	0.325	0.070	0.30	79.35	94.15	242.92	111.27	0.6
2Q1	0.0357064	0.183	0.315	0.014	0.34	41.44	116.45	300.48	137.58	0.34
Q1	0.0372185	0.177	0.304	0.044	0.29	59.65	116.16	118.60	145.00	0.34
O1	0.0387307	0.295	0.311	-0.005	0.34	1.47	82.46	249.81	89.39	0.9
NO1	0.0402686	0.402	0.468	-0.061	0.44	82.96	95.42	26.90	100.50	0.74
*K1	0.0417807	0.953	0.437	-0.071	0.41	40.56	29.02	292.37	30.14	4.8
J1	0.0432929	0.467	0.385	-0.142	0.41	69.05	66.70	102.74	72.76	1.5
OO1	0.0448308	0.087	0.254	-0.048	0.21	150.23	124.63	76.29	184.88	0.12
UPS1	0.0463430	0.296	0.246	-0.088	0.29	130.90	66.92	201.97	82.30	1.4
EPS2	0.0761773	0.297	0.452	-0.199	0.43	146.20	136.36	58.96	126.85	0.43
MU2	0.0776895	0.532	0.455	-0.100	0.53	24.61	75.39	109.31	75.24	1.4
*N2	0.0789992	2.131	0.510	-0.640	0.59	28.75	18.77	178.69	15.90	17
*M2	0.0805114	10.447	0.550	-0.903	0.65	10.05	3.20	204.31	3.22	3.6e+002
L2	0.0820236	0.338	0.300	-0.094	0.31	61.59	70.90	227.62	85.71	1.3
*S2	0.0833333	2.023	0.513	-0.291	0.57	15.83	16.64	222.12	16.93	16
ETA2	0.0850736	0.282	0.400	0.046	0.32	99.64	87.93	216.02	104.08	0.5
MO3	0.1192421	0.140	0.146	-0.019	0.14	38.40	84.77	324.56	86.66	0.92
M3	0.1207671	0.179	0.178	0.035	0.18	27.10	73.69	325.09	73.90	1
MK3	0.1222921	0.216	0.155	0.141	0.15	20.47	73.71	218.46	82.78	2
SK3	0.1251141	0.174	0.141	-0.152	0.15	1.85	114.71	116.17	114.01	1.5
*MN4	0.1595106	0.268	0.183	-0.054	0.24	70.58	71.25	114.32	53.90	2.1
*M4	0.1610228	0.644	0.230	-0.179	0.26	47.49	22.86	126.76	23.99	7.9
SN4	0.1623326	0.180	0.193	0.004	0.20	51.66	86.29	317.39	83.63	0.87
MS4	0.1638447	0.139	0.175	-0.071	0.20	97.95	117.23	88.00	111.46	0.63
S4	0.1666667	0.045	0.151	-0.010	0.15	138.22	101.27	112.20	182.92	0.089
2MK5	0.2028035	0.145	0.110	0.040	0.10	84.01	52.98	122.10	65.51	1.7
2SK5	0.2084474	0.116	0.111	-0.008	0.10	69.52	54.37	68.48	68.26	1.1
*2MN6	0.2400221	0.307	0.125	0.030	0.13	53.50	24.40	348.17	25.26	6
*M6	0.2415342	0.644	0.123	0.132	0.14	50.83	13.12	12.53	13.53	27
*2MS6	0.2443561	0.285	0.120	-0.056	0.13	22.41	28.52	35.10	24.54	5.6
2SM6	0.2471781	0.118	0.103	-0.068	0.10	139.89	98.27	239.29	82.83	1.3
3MK7	0.2833149	0.051	0.072	-0.004	0.07	12.23	112.06	48.28	126.09	0.49
*M8	0.3220456	0.112	0.066	0.039	0.07	55.44	54.65	336.60	47.75	2.8

total var= 97.8726 pred var= 57.4606
 percent total var predicted/var original= 58.7 %