

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 33.0 m
 Mooring Number: 3401

File Name: 3401-alh.nc
 nobs = 1180, ngood = 1179, record length (days) = 49.17
 start time: 28-Mar-1990 21:00:00
 rayleigh criterion = 1.0

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

x0= -1.45, x trend= 0

var(x)= 46.9417 var(xp)= 29.5234 var(xres)= 17.1073
 percent var predicted/var original= 62.9 %

y0= 0.354, x trend= 0

var(y)= 9.803 var(yp)= 2.3439 var(yres)= 7.5705
 percent var predicted/var original= 23.9 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| *MM | 0.0015122 | 2.666 | 0.931 | 0.178 | 0.85 | 152.79 | 17.61 | 228.77 | 24.03 | 8.2 |
| *MSF | 0.0028219 | 1.890 | 1.028 | -0.014 | 0.90 | 149.82 | 25.20 | 341.23 | 30.46 | 3.4 |
| ALP1 | 0.0343966 | 0.564 | 0.543 | -0.196 | 0.47 | 169.87 | 56.81 | 193.02 | 103.79 | 1.1 |
| 2Q1 | 0.0357064 | 0.352 | 0.472 | -0.216 | 0.49 | 22.88 | 84.19 | 267.08 | 123.34 | 0.56 |
| Q1 | 0.0372185 | 0.311 | 0.482 | -0.135 | 0.41 | 18.12 | 73.56 | 314.82 | 126.62 | 0.42 |
| O1 | 0.0387307 | 0.709 | 0.608 | 0.086 | 0.47 | 173.31 | 44.90 | 40.16 | 67.39 | 1.4 |
| NO1 | 0.0402686 | 0.305 | 0.559 | -0.118 | 0.43 | 155.21 | 79.41 | 201.97 | 129.93 | 0.3 |
| K1 | 0.0417807 | 0.858 | 0.608 | -0.395 | 0.49 | 168.19 | 46.60 | 140.48 | 69.47 | 2 |
| J1 | 0.0432929 | 0.238 | 0.455 | -0.183 | 0.42 | 148.54 | 83.79 | 74.66 | 152.19 | 0.28 |
| OO1 | 0.0448308 | 0.347 | 0.421 | -0.026 | 0.42 | 139.06 | 70.37 | 343.30 | 88.60 | 0.68 |
| UPS1 | 0.0463430 | 0.236 | 0.349 | -0.067 | 0.34 | 130.44 | 92.12 | 235.89 | 121.62 | 0.46 |
| EPS2 | 0.0761773 | 0.362 | 0.445 | -0.223 | 0.45 | 67.08 | 131.41 | 6.51 | 117.30 | 0.66 |
| MU2 | 0.0776895 | 0.531 | 0.529 | -0.015 | 0.47 | 155.65 | 60.39 | 283.88 | 77.56 | 1 |
| *N2 | 0.0789992 | 1.670 | 0.684 | 0.188 | 0.48 | 170.72 | 19.33 | 334.18 | 25.60 | 6 |
| *M2 | 0.0805114 | 6.927 | 0.666 | 0.983 | 0.55 | 177.30 | 4.83 | 353.27 | 7.00 | 1.1e+002 |
| *L2 | 0.0820236 | 1.010 | 0.510 | -0.177 | 0.54 | 161.06 | 32.95 | 63.12 | 35.40 | 3.9 |
| *S2 | 0.0833333 | 1.641 | 0.627 | 0.189 | 0.57 | 154.99 | 17.38 | 356.04 | 23.73 | 6.8 |
| ETA2 | 0.0850736 | 0.357 | 0.315 | -0.228 | 0.34 | 145.37 | 93.91 | 190.83 | 92.01 | 1.3 |
| MO3 | 0.1192421 | 0.069 | 0.205 | 0.045 | 0.15 | 156.22 | 116.74 | 82.21 | 220.36 | 0.11 |
| M3 | 0.1207671 | 0.226 | 0.241 | -0.101 | 0.20 | 71.12 | 73.27 | 192.64 | 98.17 | 0.88 |
| MK3 | 0.1222921 | 0.148 | 0.208 | -0.002 | 0.18 | 42.01 | 101.36 | 266.77 | 105.88 | 0.51 |
| SK3 | 0.1251141 | 0.211 | 0.201 | 0.003 | 0.23 | 162.21 | 88.10 | 81.23 | 72.35 | 1.1 |
| MN4 | 0.1595106 | 0.172 | 0.232 | 0.015 | 0.20 | 22.19 | 90.53 | 72.87 | 109.54 | 0.55 |
| *M4 | 0.1610228 | 0.460 | 0.254 | -0.208 | 0.25 | 15.39 | 50.58 | 32.51 | 54.66 | 3.3 |
| SN4 | 0.1623326 | 0.265 | 0.265 | -0.090 | 0.21 | 126.69 | 73.86 | 69.87 | 68.83 | 1 |
| MS4 | 0.1638447 | 0.337 | 0.244 | -0.145 | 0.24 | 141.72 | 64.42 | 279.43 | 65.50 | 1.9 |
| S4 | 0.1666667 | 0.119 | 0.205 | -0.076 | 0.22 | 109.02 | 126.79 | 82.16 | 130.14 | 0.34 |
| 2MK5 | 0.2028035 | 0.169 | 0.195 | 0.036 | 0.20 | 7.07 | 86.34 | 18.99 | 104.56 | 0.75 |
| 2SK5 | 0.2084474 | 0.155 | 0.173 | -0.035 | 0.19 | 154.94 | 99.45 | 50.78 | 90.75 | 0.81 |
| *2MN6 | 0.2400221 | 0.382 | 0.261 | -0.063 | 0.25 | 16.53 | 37.28 | 311.25 | 47.29 | 2.1 |
| *M6 | 0.2415342 | 0.520 | 0.272 | 0.100 | 0.26 | 23.05 | 36.67 | 340.49 | 30.41 | 3.7 |
| *2MS6 | 0.2443561 | 0.332 | 0.208 | -0.013 | 0.22 | 32.11 | 46.46 | 20.62 | 44.01 | 2.6 |
| 2SM6 | 0.2471781 | 0.078 | 0.164 | -0.001 | 0.16 | 58.51 | 121.81 | 38.58 | 162.82 | 0.22 |
| 3MK7 | 0.2833149 | 0.074 | 0.128 | -0.046 | 0.11 | 107.45 | 117.44 | 291.11 | 126.36 | 0.33 |
| M8 | 0.3220456 | 0.094 | 0.099 | -0.015 | 0.10 | 128.95 | 88.63 | 145.16 | 76.32 | 0.91 |

total var= 56.7446 pred var= 31.8673
 percent total var predicted/var original= 56.2 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 33.0 m
 Mooring Number: 3471

File Name: 3471-alh.nc
 nobs = 1204, ngood = 1203, record length (days) = 50.17
 start time: 10-Jul-1990 22:00:00
 rayleigh criterion = 1.0

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

x0= -0.755, x trend= 0

var(x)= 44.0748 var(xp)= 37.2044 var(xres)= 6.7705
 percent var predicted/var original= 84.4 %

y0= 0.434, x trend= 0

var(y)= 6.2583 var(yp)= 2.5252 var(yres)= 3.7071
 percent var predicted/var original= 40.3 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.378 | 0.719 | 0.160 | 0.62 | 44.87 | 80.76 | 21.43 | 146.23 | 0.28 |
| MSF | 0.0028219 | 0.195 | 0.790 | -0.042 | 0.62 | 153.29 | 95.29 | 46.35 | 215.78 | 0.061 |
| ALP1 | 0.0343966 | 0.180 | 0.164 | -0.090 | 0.15 | 90.38 | 94.29 | 199.46 | 77.02 | 1.2 |
| *2Q1 | 0.0357064 | 0.220 | 0.155 | 0.051 | 0.17 | 18.24 | 45.45 | 254.43 | 57.44 | 2 |
| *Q1 | 0.0372185 | 0.399 | 0.172 | -0.173 | 0.16 | 157.13 | 38.26 | 61.63 | 36.25 | 5.4 |
| O1 | 0.0387307 | 0.254 | 0.192 | -0.059 | 0.17 | 22.51 | 46.14 | 314.18 | 53.74 | 1.8 |
| NO1 | 0.0402686 | 0.148 | 0.201 | 0.011 | 0.21 | 79.51 | 115.12 | 249.57 | 118.72 | 0.54 |
| *K1 | 0.0417807 | 0.296 | 0.169 | 0.026 | 0.20 | 98.27 | 44.56 | 333.19 | 42.78 | 3.1 |
| J1 | 0.0432929 | 0.170 | 0.143 | 0.114 | 0.15 | 108.59 | 113.06 | 31.68 | 93.63 | 1.4 |
| OO1 | 0.0448308 | 0.201 | 0.163 | -0.051 | 0.13 | 175.55 | 52.88 | 195.06 | 61.27 | 1.5 |
| *UPS1 | 0.0463430 | 0.237 | 0.149 | -0.041 | 0.13 | 137.31 | 36.36 | 313.71 | 38.45 | 2.5 |
| EPS2 | 0.0761773 | 0.244 | 0.413 | -0.038 | 0.37 | 172.05 | 105.04 | 10.05 | 106.38 | 0.35 |
| MU2 | 0.0776895 | 0.427 | 0.463 | -0.168 | 0.40 | 33.13 | 87.77 | 277.32 | 88.15 | 0.85 |
| *N2 | 0.0789992 | 1.518 | 0.598 | 0.072 | 0.49 | 161.27 | 20.68 | 332.26 | 22.46 | 6.4 |
| *M2 | 0.0805114 | 8.685 | 0.523 | 0.412 | 0.56 | 166.77 | 4.04 | 1.33 | 4.07 | 2.8e+002 |
| *L2 | 0.0820236 | 1.029 | 0.410 | -0.302 | 0.46 | 142.63 | 29.27 | 38.11 | 29.83 | 6.3 |
| *S2 | 0.0833333 | 1.088 | 0.533 | 0.008 | 0.57 | 4.47 | 30.67 | 240.90 | 36.01 | 4.2 |
| ETA2 | 0.0850736 | 0.237 | 0.292 | 0.035 | 0.31 | 156.26 | 79.12 | 7.39 | 103.80 | 0.66 |
| MO3 | 0.1192421 | 0.110 | 0.180 | -0.022 | 0.16 | 18.53 | 93.91 | 185.03 | 124.32 | 0.37 |
| M3 | 0.1207671 | 0.244 | 0.201 | -0.033 | 0.22 | 28.60 | 60.59 | 287.75 | 71.67 | 1.5 |
| MK3 | 0.1222921 | 0.179 | 0.191 | 0.012 | 0.20 | 143.77 | 80.15 | 119.42 | 91.44 | 0.88 |
| SK3 | 0.1251141 | 0.232 | 0.187 | -0.044 | 0.20 | 119.03 | 70.47 | 103.17 | 62.00 | 1.5 |
| MN4 | 0.1595106 | 0.203 | 0.255 | 0.014 | 0.19 | 153.62 | 66.01 | 359.62 | 92.78 | 0.64 |
| *M4 | 0.1610228 | 0.587 | 0.296 | -0.100 | 0.22 | 175.13 | 25.06 | 289.20 | 35.23 | 3.9 |
| SN4 | 0.1623326 | 0.244 | 0.208 | -0.043 | 0.25 | 131.77 | 72.30 | 21.82 | 67.24 | 1.4 |
| MS4 | 0.1638447 | 0.365 | 0.285 | 0.045 | 0.21 | 171.25 | 35.61 | 350.13 | 60.92 | 1.6 |
| S4 | 0.1666667 | 0.222 | 0.204 | -0.031 | 0.24 | 54.31 | 73.26 | 117.19 | 67.66 | 1.2 |
| *2MK5 | 0.2028035 | 0.206 | 0.136 | -0.012 | 0.15 | 173.48 | 50.62 | 267.81 | 44.12 | 2.3 |
| 2SK5 | 0.2084474 | 0.071 | 0.101 | 0.007 | 0.11 | 159.01 | 115.28 | 115.40 | 134.57 | 0.5 |
| 2MN6 | 0.2400221 | 0.308 | 0.313 | -0.036 | 0.21 | 154.17 | 37.99 | 116.89 | 57.32 | 0.97 |
| *M6 | 0.2415342 | 0.501 | 0.306 | -0.036 | 0.19 | 19.15 | 21.82 | 13.22 | 36.65 | 2.7 |
| 2MS6 | 0.2443561 | 0.135 | 0.207 | 0.055 | 0.21 | 80.29 | 128.27 | 127.38 | 106.79 | 0.42 |
| 2SM6 | 0.2471781 | 0.126 | 0.188 | -0.022 | 0.18 | 77.27 | 138.17 | 208.57 | 107.26 | 0.45 |
| 3MK7 | 0.2833149 | 0.049 | 0.080 | -0.013 | 0.08 | 102.98 | 123.58 | 154.24 | 122.59 | 0.38 |
| M8 | 0.3220456 | 0.096 | 0.083 | -0.033 | 0.08 | 43.74 | 68.12 | 176.71 | 76.33 | 1.4 |

total var= 50.3331 pred var= 39.7296
 percent total var predicted/var original= 78.9 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 33.0 m
 Mooring Number: 3581

File Name: 3581-alh.nc
 nobs = 2619, ngood = 2619, record length (days) = 109.13
 start time: 24-Oct-1990 17:00:00
 rayleigh criterion = 1.0

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

x0= -0.781, x trend= 0

var(x)= 28.4515 var(xp)= 21.2922 var(xres)= 7.1379
 percent var predicted/var original= 74.8 %

y0= 0.305, x trend= 0

var(y)= 7.0272 var(yp)= 1.207 var(yres)= 5.8263
 percent var predicted/var original= 17.2 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.931 | 0.704 | -0.127 | 0.66 | 161.18 | 45.64 | 13.85 | 56.68 | 1.7 |
| MSF | 0.0028219 | 0.439 | 0.580 | 0.062 | 0.67 | 109.98 | 116.54 | 51.69 | 100.63 | 0.57 |
| ALP1 | 0.0343966 | 0.158 | 0.172 | 0.008 | 0.16 | 110.85 | 86.01 | 25.80 | 95.80 | 0.85 |
| 2Q1 | 0.0357064 | 0.139 | 0.190 | -0.029 | 0.18 | 171.54 | 91.38 | 216.18 | 98.79 | 0.54 |
| Q1 | 0.0372185 | 0.207 | 0.191 | 0.045 | 0.21 | 120.78 | 75.79 | 135.28 | 74.87 | 1.2 |
| O1 | 0.0387307 | 0.258 | 0.204 | -0.059 | 0.20 | 175.80 | 66.02 | 116.37 | 62.69 | 1.6 |
| NO1 | 0.0402686 | 0.319 | 0.357 | 0.061 | 0.36 | 154.92 | 84.80 | 70.60 | 90.39 | 0.8 |
| *K1 | 0.0417807 | 0.413 | 0.249 | -0.036 | 0.23 | 39.73 | 35.14 | 284.51 | 36.35 | 2.8 |
| J1 | 0.0432929 | 0.106 | 0.180 | -0.046 | 0.17 | 57.26 | 122.96 | 57.67 | 127.52 | 0.35 |
| OO1 | 0.0448308 | 0.151 | 0.174 | -0.019 | 0.18 | 118.05 | 90.16 | 57.95 | 97.04 | 0.75 |
| UPS1 | 0.0463430 | 0.124 | 0.147 | -0.081 | 0.12 | 162.23 | 101.18 | 127.93 | 123.89 | 0.72 |
| EPS2 | 0.0761773 | 0.173 | 0.237 | -0.014 | 0.20 | 149.83 | 68.73 | 301.72 | 122.03 | 0.53 |
| MU2 | 0.0776895 | 0.191 | 0.250 | -0.006 | 0.22 | 154.10 | 82.77 | 261.10 | 116.17 | 0.58 |
| *N2 | 0.0789992 | 1.774 | 0.381 | 0.071 | 0.25 | 11.96 | 8.34 | 151.05 | 12.47 | 22 |
| *M2 | 0.0805114 | 6.451 | 0.382 | 0.619 | 0.24 | 11.82 | 2.46 | 184.36 | 3.70 | 2.9e+002 |
| *L2 | 0.0820236 | 0.401 | 0.234 | 0.093 | 0.21 | 12.85 | 30.04 | 233.99 | 46.13 | 2.9 |
| *S2 | 0.0833333 | 0.962 | 0.344 | 0.133 | 0.27 | 17.49 | 16.51 | 226.52 | 23.26 | 7.8 |
| ETA2 | 0.0850736 | 0.088 | 0.158 | -0.030 | 0.15 | 141.23 | 93.91 | 343.07 | 149.86 | 0.31 |
| MO3 | 0.1192421 | 0.079 | 0.084 | -0.022 | 0.07 | 147.75 | 84.45 | 168.42 | 92.96 | 0.88 |
| M3 | 0.1207671 | 0.044 | 0.094 | 0.041 | 0.09 | 120.77 | 130.95 | 356.23 | 150.98 | 0.22 |
| MK3 | 0.1222921 | 0.049 | 0.090 | 0.026 | 0.08 | 169.09 | 124.90 | 62.26 | 131.19 | 0.29 |
| SK3 | 0.1251141 | 0.064 | 0.083 | 0.007 | 0.07 | 55.03 | 97.39 | 15.09 | 107.85 | 0.61 |
| *MN4 | 0.1595106 | 0.169 | 0.113 | -0.053 | 0.10 | 172.34 | 43.69 | 249.66 | 45.41 | 2.2 |
| *M4 | 0.1610228 | 0.289 | 0.107 | 0.015 | 0.10 | 177.67 | 20.21 | 268.58 | 23.59 | 7.4 |
| SN4 | 0.1623326 | 0.057 | 0.079 | 0.004 | 0.07 | 33.17 | 95.12 | 23.32 | 125.54 | 0.51 |
| MS4 | 0.1638447 | 0.139 | 0.100 | -0.002 | 0.10 | 172.85 | 44.55 | 4.86 | 49.84 | 1.9 |
| S4 | 0.1666667 | 0.056 | 0.076 | -0.001 | 0.08 | 88.20 | 121.88 | 131.59 | 117.40 | 0.54 |
| 2MK5 | 0.2028035 | 0.026 | 0.046 | -0.020 | 0.05 | 108.03 | 124.67 | 221.52 | 168.10 | 0.33 |
| 2SK5 | 0.2084474 | 0.073 | 0.056 | -0.021 | 0.07 | 171.84 | 56.41 | 309.46 | 58.88 | 1.7 |
| *2MN6 | 0.2400221 | 0.258 | 0.099 | 0.030 | 0.09 | 31.26 | 20.38 | 304.68 | 24.59 | 6.8 |
| *M6 | 0.2415342 | 0.400 | 0.104 | 0.085 | 0.09 | 29.36 | 13.57 | 346.40 | 15.57 | 15 |
| *2MS6 | 0.2443561 | 0.130 | 0.085 | -0.020 | 0.09 | 29.06 | 39.52 | 47.26 | 47.82 | 2.3 |
| 2SM6 | 0.2471781 | 0.061 | 0.067 | -0.010 | 0.07 | 46.12 | 86.85 | 135.77 | 103.59 | 0.83 |
| 3MK7 | 0.2833149 | 0.022 | 0.053 | 0.001 | 0.04 | 13.28 | 98.20 | 246.60 | 155.35 | 0.17 |
| *M8 | 0.3220456 | 0.118 | 0.054 | -0.028 | 0.05 | 9.10 | 23.49 | 309.00 | 30.03 | 4.8 |

total var= 35.4787 pred var= 22.4992
 percent total var predicted/var original= 63.4 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 28.8 m
 Mooring Number: 3741

File Name: 3741spd-alh_d0.nc
 nobs = 2698, ngood = 2697, record length (days) = 112.42
 start time: 13-Feb-1991 00:57:31
 rayleigh criterion = 1.0

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

x0= -1.28, x trend= 0

var(x)= 49.7702 var(xp)= 28.147 var(xres)= 21.4595
 percent var predicted/var original= 56.6 %

y0= -0.153, x trend= 0

var(y)= 7.5839 var(yp)= 1.5324 var(yres)= 6.0594
 percent var predicted/var original= 20.2 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.378 | 1.001 | -0.199 | 0.69 | 55.36 | 43.84 | 317.09 | 190.11 | 0.14 |
| MSF | 0.0028219 | 0.647 | 1.433 | -0.097 | 0.51 | 8.11 | 32.16 | 103.37 | 133.83 | 0.2 |
| ALP1 | 0.0343966 | 0.099 | 0.303 | 0.026 | 0.25 | 164.23 | 57.95 | 28.56 | 195.74 | 0.11 |
| 2Q1 | 0.0357064 | 0.451 | 0.348 | -0.153 | 0.37 | 131.79 | 54.41 | 86.72 | 57.40 | 1.7 |
| Q1 | 0.0372185 | 0.297 | 0.344 | -0.089 | 0.30 | 40.85 | 75.32 | 188.56 | 88.61 | 0.74 |
| O1 | 0.0387307 | 0.350 | 0.386 | 0.038 | 0.24 | 157.90 | 56.43 | 23.24 | 89.76 | 0.82 |
| NO1 | 0.0402686 | 0.183 | 0.604 | 0.103 | 0.44 | 143.17 | 85.62 | 0.98 | 233.81 | 0.091 |
| K1 | 0.0417807 | 0.376 | 0.363 | -0.201 | 0.32 | 177.71 | 61.96 | 168.76 | 126.13 | 1.1 |
| J1 | 0.0432929 | 0.268 | 0.322 | -0.123 | 0.30 | 45.90 | 75.42 | 291.72 | 107.40 | 0.69 |
| OO1 | 0.0448308 | 0.271 | 0.345 | 0.010 | 0.30 | 47.66 | 75.75 | 136.45 | 82.66 | 0.61 |
| UPS1 | 0.0463430 | 0.281 | 0.323 | -0.077 | 0.23 | 166.82 | 54.18 | 158.40 | 87.81 | 0.76 |
| EPS2 | 0.0761773 | 0.081 | 0.314 | -0.045 | 0.21 | 110.15 | 107.10 | 342.38 | 195.38 | 0.067 |
| MU2 | 0.0776895 | 0.392 | 0.486 | -0.025 | 0.27 | 176.22 | 43.97 | 209.93 | 85.38 | 0.65 |
| *N2 | 0.0789992 | 1.060 | 0.570 | 0.222 | 0.31 | 23.21 | 23.25 | 146.38 | 29.44 | 3.5 |
| *M2 | 0.0805114 | 7.524 | 0.591 | 0.544 | 0.32 | 11.88 | 2.63 | 179.61 | 3.93 | 1.6e+002 |
| L2 | 0.0820236 | 0.581 | 0.461 | -0.000 | 0.24 | 172.62 | 25.19 | 40.75 | 48.72 | 1.6 |
| *S2 | 0.0833333 | 1.352 | 0.477 | 0.218 | 0.34 | 10.98 | 14.25 | 211.07 | 24.09 | 8.1 |
| ETA2 | 0.0850736 | 0.277 | 0.323 | 0.015 | 0.25 | 22.04 | 42.20 | 253.68 | 77.66 | 0.74 |
| MO3 | 0.1192421 | 0.193 | 0.166 | -0.057 | 0.15 | 170.35 | 63.44 | 2.68 | 73.60 | 1.4 |
| M3 | 0.1207671 | 0.114 | 0.146 | -0.036 | 0.14 | 144.11 | 92.56 | 93.26 | 117.16 | 0.61 |
| MK3 | 0.1222921 | 0.102 | 0.154 | 0.043 | 0.13 | 8.74 | 93.40 | 247.06 | 134.97 | 0.44 |
| SK3 | 0.1251141 | 0.100 | 0.141 | -0.055 | 0.14 | 161.13 | 92.86 | 120.65 | 136.01 | 0.5 |
| MN4 | 0.1595106 | 0.284 | 0.237 | -0.031 | 0.18 | 17.43 | 38.74 | 19.17 | 57.27 | 1.4 |
| *M4 | 0.1610228 | 0.649 | 0.241 | -0.119 | 0.17 | 171.47 | 16.45 | 256.12 | 23.84 | 7.3 |
| SN4 | 0.1623326 | 0.123 | 0.157 | 0.008 | 0.15 | 146.05 | 83.75 | 184.95 | 118.78 | 0.61 |
| MS4 | 0.1638447 | 0.219 | 0.196 | -0.013 | 0.16 | 159.52 | 43.54 | 297.65 | 65.33 | 1.3 |
| S4 | 0.1666667 | 0.069 | 0.142 | 0.013 | 0.14 | 155.09 | 90.23 | 159.30 | 148.16 | 0.24 |
| 2MK5 | 0.2028035 | 0.125 | 0.122 | -0.008 | 0.09 | 0.85 | 50.57 | 221.26 | 66.13 | 1.1 |
| 2SK5 | 0.2084474 | 0.116 | 0.115 | 0.013 | 0.09 | 169.51 | 57.66 | 323.13 | 69.64 | 1 |
| *2MN6 | 0.2400221 | 0.301 | 0.177 | 0.008 | 0.14 | 24.96 | 27.49 | 313.67 | 38.11 | 2.9 |
| *M6 | 0.2415342 | 0.540 | 0.194 | -0.008 | 0.15 | 33.84 | 17.48 | 344.50 | 21.11 | 7.7 |
| *2MS6 | 0.2443561 | 0.295 | 0.200 | 0.013 | 0.13 | 17.57 | 29.35 | 33.77 | 41.98 | 2.2 |
| 2SM6 | 0.2471781 | 0.083 | 0.129 | 0.049 | 0.12 | 3.30 | 81.12 | 63.59 | 157.93 | 0.41 |
| 3MK7 | 0.2833149 | 0.041 | 0.079 | 0.019 | 0.06 | 107.79 | 141.79 | 2.28 | 168.18 | 0.27 |
| M8 | 0.3220456 | 0.070 | 0.068 | -0.004 | 0.06 | 156.90 | 62.89 | 106.14 | 63.05 | 1 |

total var= 57.3541 pred var= 29.6794
 percent total var predicted/var original= 51.7 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 32.0 m
 Mooring Number: 3831

File Name: 3831v-alh.nc
 nobs = 2282, ngood = 2281, record length (days) = 95.08
 start time: 11-Jun-1991 22:00:00
 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)= 44.6068 var(xp)= 32.7791 var(xres)= 11.7813
 percent var predicted/var original= 73.5 %

y0= 0.813, x trend= 0

var(y)= 4.6528 var(yp)= 0.28466 var(yres)= 4.3641
 percent var predicted/var original= 6.1 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.569 | 0.725 | 0.007 | 0.60 | 147.56 | 64.76 | 258.35 | 117.68 | 0.62 |
| MSF | 0.0028219 | 0.486 | 0.633 | -0.180 | 0.63 | 138.56 | 81.76 | 35.29 | 121.09 | 0.59 |
| ALP1 | 0.0343966 | 0.045 | 0.154 | 0.006 | 0.14 | 89.61 | 177.12 | 129.97 | 169.65 | 0.087 |
| 2Q1 | 0.0357064 | 0.101 | 0.181 | 0.050 | 0.11 | 175.64 | 52.87 | 315.14 | 134.55 | 0.31 |
| Q1 | 0.0372185 | 0.174 | 0.202 | 0.003 | 0.15 | 171.95 | 46.23 | 86.66 | 94.66 | 0.74 |
| O1 | 0.0387307 | 0.185 | 0.156 | -0.004 | 0.19 | 111.40 | 98.90 | 228.85 | 65.75 | 1.4 |
| NO1 | 0.0402686 | 0.252 | 0.263 | -0.053 | 0.27 | 132.19 | 80.22 | 115.93 | 88.66 | 0.91 |
| K1 | 0.0417807 | 0.249 | 0.179 | -0.000 | 0.24 | 109.30 | 66.20 | 336.78 | 45.88 | 1.9 |
| J1 | 0.0432929 | 0.168 | 0.185 | 0.098 | 0.14 | 4.68 | 66.45 | 291.68 | 114.36 | 0.83 |
| OO1 | 0.0448308 | 0.229 | 0.219 | 0.085 | 0.13 | 176.02 | 42.81 | 94.72 | 69.74 | 1.1 |
| UPS1 | 0.0463430 | 0.119 | 0.143 | 0.023 | 0.14 | 124.41 | 88.26 | 273.98 | 97.15 | 0.7 |
| EPS2 | 0.0761773 | 0.413 | 0.500 | -0.079 | 0.29 | 3.89 | 42.79 | 300.92 | 70.11 | 0.68 |
| MU2 | 0.0776895 | 0.256 | 0.319 | -0.012 | 0.34 | 94.35 | 136.78 | 211.93 | 93.41 | 0.64 |
| *N2 | 0.0789992 | 2.166 | 0.543 | 0.101 | 0.34 | 174.97 | 9.13 | 317.82 | 14.67 | 16 |
| *M2 | 0.0805114 | 7.611 | 0.625 | 0.071 | 0.34 | 178.09 | 2.60 | 0.47 | 3.96 | 1.5e+002 |
| *L2 | 0.0820236 | 0.688 | 0.346 | -0.061 | 0.33 | 140.91 | 24.32 | 87.32 | 32.28 | 4 |
| *S2 | 0.0833333 | 0.913 | 0.514 | 0.098 | 0.36 | 2.74 | 19.66 | 208.38 | 32.57 | 3.2 |
| ETA2 | 0.0850736 | 0.334 | 0.331 | 0.014 | 0.24 | 170.37 | 43.69 | 209.44 | 73.65 | 1 |
| MO3 | 0.1192421 | 0.145 | 0.137 | -0.087 | 0.12 | 166.96 | 75.95 | 15.21 | 103.15 | 1.1 |
| M3 | 0.1207671 | 0.201 | 0.165 | -0.052 | 0.14 | 156.56 | 49.45 | 93.38 | 64.75 | 1.5 |
| MK3 | 0.1222921 | 0.230 | 0.165 | -0.016 | 0.14 | 160.24 | 39.50 | 35.65 | 45.45 | 1.9 |
| SK3 | 0.1251141 | 0.144 | 0.144 | -0.066 | 0.13 | 153.29 | 78.59 | 245.12 | 99.53 | 1 |
| MN4 | 0.1595106 | 0.336 | 0.265 | 0.019 | 0.16 | 16.46 | 33.60 | 31.98 | 46.59 | 1.6 |
| *M4 | 0.1610228 | 0.364 | 0.202 | 0.022 | 0.21 | 130.16 | 42.76 | 240.92 | 36.04 | 3.3 |
| *SN4 | 0.1623326 | 0.481 | 0.226 | -0.151 | 0.19 | 155.26 | 24.47 | 50.55 | 33.97 | 4.5 |
| MS4 | 0.1638447 | 0.145 | 0.181 | -0.121 | 0.16 | 27.41 | 107.49 | 9.58 | 137.67 | 0.65 |
| S4 | 0.1666667 | 0.166 | 0.172 | -0.043 | 0.15 | 148.77 | 74.99 | 154.58 | 87.86 | 0.93 |
| 2MK5 | 0.2028035 | 0.072 | 0.076 | 0.022 | 0.09 | 50.89 | 76.90 | 78.57 | 85.96 | 0.89 |
| 2SK5 | 0.2084474 | 0.113 | 0.118 | -0.029 | 0.07 | 1.70 | 44.95 | 314.97 | 86.56 | 0.92 |
| *2MN6 | 0.2400221 | 0.501 | 0.146 | -0.067 | 0.10 | 10.15 | 11.50 | 301.32 | 22.27 | 12 |
| *M6 | 0.2415342 | 0.425 | 0.156 | 0.025 | 0.12 | 22.92 | 13.80 | 2.35 | 22.76 | 7.4 |
| *2MS6 | 0.2443561 | 0.272 | 0.151 | 0.015 | 0.10 | 9.76 | 23.01 | 51.81 | 31.94 | 3.2 |
| 2SM6 | 0.2471781 | 0.117 | 0.099 | 0.069 | 0.10 | 47.91 | 87.49 | 131.28 | 98.88 | 1.4 |
| 3MK7 | 0.2833149 | 0.089 | 0.067 | -0.060 | 0.06 | 154.22 | 96.62 | 63.21 | 105.75 | 1.7 |
| M8 | 0.3220456 | 0.086 | 0.073 | -0.004 | 0.05 | 14.09 | 41.43 | 274.10 | 52.97 | 1.4 |

total var= 49.2596 pred var= 33.0638
 percent total var predicted/var original= 67.1 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 28.7 m
 Mooring Number: 3891
 File Name: 3891spd-alh_d1.nc
 nobs = 323, ngood = 323, record length (days) = 13.46
 start time: 16-Oct-1991 22:00:00
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -1.26, x trend= 0

var(x)= 35.6798 var(xp)= 9.5135 var(xres)= 26.0073
 percent var predicted/var original= 26.7 %

y0= -0.105, x trend= 0

var(y)= 6.2359 var(yp)= 2.6147 var(yres)= 3.6039
 percent var predicted/var original= 41.9 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|-------|-------|--------|------|--------|--------|--------|--------|------|
| K1 | 0.0417807 | 1.391 | 1.013 | -0.026 | 0.55 | 12.17 | 24.07 | 228.05 | 52.56 | 1.9 |
| *M2 | 0.0805114 | 4.701 | 1.318 | 0.394 | 0.91 | 25.80 | 9.30 | 165.72 | 20.60 | 13 |
| M3 | 0.1207671 | 0.210 | 0.423 | -0.103 | 0.38 | 17.46 | 119.72 | 85.50 | 178.95 | 0.25 |
| *M4 | 0.1610228 | 1.039 | 0.706 | -0.779 | 0.44 | 3.96 | 65.26 | 39.13 | 94.40 | 2.2 |
| 2MK5 | 0.2028035 | 0.156 | 0.241 | 0.034 | 0.26 | 40.94 | 115.97 | 1.97 | 141.08 | 0.42 |
| 2SK5 | 0.2084474 | 0.126 | 0.250 | -0.049 | 0.23 | 21.45 | 103.30 | 296.82 | 145.61 | 0.25 |
| *M6 | 0.2415342 | 0.825 | 0.459 | -0.121 | 0.53 | 49.82 | 34.92 | 335.05 | 37.29 | 3.2 |
| 3MK7 | 0.2833149 | 0.123 | 0.223 | -0.036 | 0.22 | 46.68 | 117.61 | 168.34 | 130.43 | 0.31 |
| M8 | 0.3220456 | 0.123 | 0.157 | -0.044 | 0.20 | 100.58 | 145.22 | 10.55 | 118.46 | 0.62 |

total var= 41.9157 pred var= 12.1282
 percent total var predicted/var original= 28.9 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 28.6 m
 Mooring Number: 4001

File Name: 4001spd-alh_d1.nc
 nobs = 2701, ngood = 2701, record length (days) = 112.54
 start time: 02-Jun-1992 22:00:00
 rayleigh criterion = 1.0

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

x0= -0.0356, x trend= 0

var(x)= 19.0116 var(xp)= 12.2843 var(xres)= 6.7565
 percent var predicted/var original= 64.6 %

y0= 0.114, x trend= 0

var(y)= 2.847 var(yp)= 0.56999 var(yres)= 2.284
 percent var predicted/var original= 20.0 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|-------|
| MM | 0.0015122 | 0.165 | 0.313 | -0.033 | 0.23 | 173.77 | 65.34 | 31.52 | 171.32 | 0.28 |
| MSF | 0.0028219 | 0.285 | 0.374 | 0.029 | 0.28 | 157.94 | 51.96 | 27.38 | 103.66 | 0.58 |
| ALP1 | 0.0343966 | 0.104 | 0.127 | -0.023 | 0.09 | 26.91 | 57.21 | 185.41 | 90.60 | 0.67 |
| 2Q1 | 0.0357064 | 0.056 | 0.092 | 0.033 | 0.10 | 49.03 | 110.87 | 104.01 | 152.14 | 0.37 |
| Q1 | 0.0372185 | 0.136 | 0.112 | -0.050 | 0.11 | 125.01 | 72.39 | 237.81 | 73.02 | 1.5 |
| O1 | 0.0387307 | 0.144 | 0.103 | -0.007 | 0.15 | 87.22 | 77.60 | 339.34 | 53.76 | 2 |
| NO1 | 0.0402686 | 0.122 | 0.110 | 0.047 | 0.08 | 153.52 | 50.78 | 192.84 | 59.42 | 1.2 |
| *K1 | 0.0417807 | 0.291 | 0.106 | -0.022 | 0.14 | 94.84 | 35.42 | 335.06 | 23.76 | 7.5 |
| J1 | 0.0432929 | 0.084 | 0.123 | 0.019 | 0.09 | 168.18 | 68.98 | 102.68 | 107.04 | 0.46 |
| OO1 | 0.0448308 | 0.062 | 0.096 | -0.049 | 0.08 | 179.35 | 88.94 | 141.64 | 161.47 | 0.42 |
| UPS1 | 0.0463430 | 0.114 | 0.114 | -0.023 | 0.09 | 172.16 | 51.47 | 258.10 | 81.50 | 1 |
| EPS2 | 0.0761773 | 0.104 | 0.397 | -0.013 | 0.20 | 173.92 | 43.81 | 155.89 | 206.76 | 0.069 |
| MU2 | 0.0776895 | 0.190 | 0.384 | 0.015 | 0.23 | 143.96 | 40.83 | 186.82 | 162.69 | 0.25 |
| *N2 | 0.0789992 | 1.481 | 0.555 | -0.238 | 0.25 | 3.55 | 10.28 | 156.79 | 25.73 | 7.1 |
| *M2 | 0.0805114 | 4.778 | 0.617 | 0.013 | 0.25 | 11.60 | 3.08 | 196.39 | 7.97 | 60 |
| L2 | 0.0820236 | 0.326 | 0.550 | -0.003 | 0.24 | 177.83 | 34.09 | 32.67 | 107.38 | 0.35 |
| S2 | 0.0833333 | 0.722 | 0.603 | -0.076 | 0.26 | 14.53 | 19.28 | 239.59 | 47.98 | 1.4 |
| ETA2 | 0.0850736 | 0.049 | 0.386 | 0.043 | 0.19 | 146.37 | 39.52 | 58.31 | 227.16 | 0.016 |
| *MO3 | 0.1192421 | 0.112 | 0.076 | -0.036 | 0.09 | 44.79 | 64.83 | 55.47 | 68.75 | 2.2 |
| M3 | 0.1207671 | 0.100 | 0.104 | -0.017 | 0.08 | 7.40 | 60.74 | 195.63 | 84.43 | 0.92 |
| *MK3 | 0.1222921 | 0.263 | 0.120 | -0.040 | 0.08 | 3.74 | 21.76 | 354.24 | 31.94 | 4.8 |
| SK3 | 0.1251141 | 0.144 | 0.111 | -0.053 | 0.09 | 10.96 | 47.88 | 288.13 | 59.31 | 1.7 |
| *MN4 | 0.1595106 | 0.147 | 0.102 | 0.048 | 0.10 | 30.87 | 41.79 | 75.77 | 52.69 | 2.1 |
| *M4 | 0.1610228 | 0.146 | 0.085 | 0.067 | 0.10 | 91.61 | 60.86 | 237.86 | 56.20 | 2.9 |
| *SN4 | 0.1623326 | 0.222 | 0.114 | -0.069 | 0.09 | 11.85 | 30.33 | 295.89 | 35.55 | 3.8 |
| MS4 | 0.1638447 | 0.099 | 0.089 | 0.060 | 0.07 | 169.98 | 75.58 | 23.88 | 101.93 | 1.2 |
| S4 | 0.1666667 | 0.053 | 0.096 | 0.025 | 0.07 | 121.46 | 112.76 | 320.51 | 123.90 | 0.31 |
| 2MK5 | 0.2028035 | 0.066 | 0.050 | -0.043 | 0.05 | 169.98 | 72.33 | 102.69 | 90.68 | 1.7 |
| 2SK5 | 0.2084474 | 0.061 | 0.047 | 0.007 | 0.05 | 67.49 | 73.73 | 236.04 | 61.96 | 1.7 |
| *2MN6 | 0.2400221 | 0.143 | 0.092 | -0.028 | 0.06 | 17.14 | 26.51 | 323.10 | 33.35 | 2.4 |
| *M6 | 0.2415342 | 0.269 | 0.083 | -0.041 | 0.07 | 27.11 | 15.56 | 14.10 | 19.26 | 10 |
| *2MS6 | 0.2443561 | 0.148 | 0.085 | -0.020 | 0.06 | 26.66 | 30.05 | 67.11 | 34.07 | 3 |
| 2SM6 | 0.2471781 | 0.088 | 0.074 | -0.016 | 0.06 | 142.75 | 52.63 | 227.61 | 56.07 | 1.4 |
| 3MK7 | 0.2833149 | 0.031 | 0.040 | 0.028 | 0.04 | 111.02 | 144.59 | 99.85 | 131.66 | 0.61 |
| *M8 | 0.3220456 | 0.055 | 0.035 | 0.003 | 0.03 | 158.45 | 39.59 | 183.62 | 48.38 | 2.5 |

total var= 21.8586 pred var= 12.8543
 percent total var predicted/var original= 58.8 %

Tidal Analysis of Current at LT-A
Point Current-Meter Observations, 28.6 m
Mooring Number: 4071

File Name: 4071spd-alh_d1.nc

nobs = 689, ngood = 689, record length (days) = 28.71

start time: 20-Oct-1992 21:59:58

rayleigh criterion = 1.0

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

x0= -2.1, x trend= 0

var(x)= 32.3106 var(xp)= 19.5646 var(xres)= 12.8139

percent var predicted/var original= 60.6 %

y0= 0.452, x trend= 0

var(y)= 4.9306 var(yp)= 1.6923 var(yres)= 3.1972

percent var predicted/var original= 34.3 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|------|
| MSF | 0.0028219 | 1.499 | 2.717 | -0.047 | 1.66 | 22.31 | 35.20 | 171.95 | 136.49 | 0.3 |
| 2Q1 | 0.0357064 | 0.434 | 0.562 | 0.249 | 0.26 | 176.66 | 44.90 | 32.99 | 130.57 | 0.6 |
| Q1 | 0.0372185 | 0.310 | 0.493 | -0.158 | 0.26 | 148.04 | 50.86 | 103.02 | 147.77 | 0.39 |
| O1 | 0.0387307 | 0.303 | 0.509 | -0.235 | 0.31 | 179.84 | 55.04 | 143.90 | 168.50 | 0.35 |
| NO1 | 0.0402686 | 0.316 | 0.420 | -0.081 | 0.18 | 172.91 | 28.50 | 335.97 | 104.63 | 0.56 |
| K1 | 0.0417807 | 0.720 | 0.696 | 0.032 | 0.21 | 6.42 | 17.38 | 218.74 | 53.99 | 1.1 |
| J1 | 0.0432929 | 0.369 | 0.529 | -0.215 | 0.27 | 8.23 | 46.38 | 290.52 | 142.59 | 0.49 |
| OO1 | 0.0448308 | 0.250 | 0.526 | 0.059 | 0.23 | 157.89 | 27.41 | 98.14 | 137.50 | 0.23 |
| UPS1 | 0.0463430 | 0.473 | 0.613 | -0.004 | 0.20 | 174.53 | 15.97 | 97.10 | 94.40 | 0.6 |
| N2 | 0.0789992 | 0.868 | 0.734 | 0.319 | 0.48 | 151.28 | 48.42 | 197.58 | 67.43 | 1.4 |
| *M2 | 0.0805114 | 5.999 | 0.806 | 0.824 | 0.49 | 13.69 | 4.43 | 175.98 | 8.46 | 55 |
| *S2 | 0.0833333 | 1.692 | 0.849 | -0.197 | 0.43 | 176.08 | 15.10 | 31.99 | 28.08 | 4 |
| ETA2 | 0.0850736 | 0.198 | 0.481 | 0.061 | 0.36 | 82.28 | 143.97 | 232.68 | 139.87 | 0.17 |
| MO3 | 0.1192421 | 0.148 | 0.160 | 0.089 | 0.16 | 55.42 | 106.08 | 317.90 | 102.37 | 0.86 |
| M3 | 0.1207671 | 0.142 | 0.166 | 0.118 | 0.19 | 94.64 | 135.74 | 125.91 | 113.23 | 0.73 |
| MK3 | 0.1222921 | 0.211 | 0.185 | -0.020 | 0.17 | 124.63 | 67.29 | 232.30 | 56.69 | 1.3 |
| SK3 | 0.1251141 | 0.282 | 0.206 | -0.118 | 0.15 | 169.52 | 46.37 | 231.51 | 70.78 | 1.9 |
| *MN4 | 0.1595106 | 0.443 | 0.255 | -0.353 | 0.26 | 147.85 | 100.04 | 181.82 | 100.27 | 3 |
| *M4 | 0.1610228 | 0.656 | 0.279 | -0.383 | 0.29 | 27.53 | 44.26 | 14.88 | 42.09 | 5.5 |
| MS4 | 0.1638447 | 0.195 | 0.258 | -0.014 | 0.19 | 95.55 | 68.00 | 247.01 | 110.76 | 0.57 |
| S4 | 0.1666667 | 0.076 | 0.202 | 0.003 | 0.21 | 77.15 | 96.03 | 342.12 | 194.47 | 0.14 |
| 2MK5 | 0.2028035 | 0.059 | 0.120 | -0.026 | 0.10 | 45.34 | 85.84 | 176.46 | 141.48 | 0.25 |
| 2SK5 | 0.2084474 | 0.175 | 0.157 | 0.057 | 0.13 | 118.92 | 48.15 | 95.62 | 69.64 | 1.2 |
| *2MN6 | 0.2400221 | 0.448 | 0.191 | 0.009 | 0.19 | 25.05 | 24.72 | 300.88 | 27.68 | 5.5 |
| *M6 | 0.2415342 | 0.789 | 0.224 | -0.001 | 0.21 | 33.16 | 14.06 | 347.57 | 14.15 | 12 |
| *2MS6 | 0.2443561 | 0.336 | 0.180 | -0.095 | 0.21 | 44.34 | 38.47 | 12.75 | 42.35 | 3.5 |
| 2SM6 | 0.2471781 | 0.108 | 0.159 | -0.084 | 0.15 | 167.22 | 119.38 | 256.75 | 143.95 | 0.46 |
| 3MK7 | 0.2833149 | 0.104 | 0.077 | -0.028 | 0.09 | 80.48 | 85.68 | 64.09 | 64.88 | 1.8 |
| M8 | 0.3220456 | 0.036 | 0.077 | -0.008 | 0.08 | 80.08 | 123.31 | 116.44 | 152.33 | 0.21 |

total var= 37.2412 pred var= 21.2569

percent total var predicted/var original= 57.1 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 30.0 m
 Mooring Number: 4131
 File Name: 4131s1-alh_d1.nc
 nobs = 597, ngood = 597, record length (days) = 24.88
 start time: 25-Feb-1993 17:00:00
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.21, x trend= 0

var(x)= 30.8339 var(xp)= 21.0033 var(xres)= 11.412
 percent var predicted/var original= 68.1 %

y0= 0.0601, x trend= 0

var(y)= 7.1212 var(yp)= 0.78322 var(yres)= 6.4172
 percent var predicted/var original= 11.0 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|-------|-------|--------|------|--------|--------|--------|--------|------|
| MSF | 0.0028219 | 0.496 | 1.020 | 0.033 | 0.57 | 161.25 | 54.11 | 143.62 | 149.91 | 0.24 |
| O1 | 0.0387307 | 0.450 | 0.494 | -0.080 | 0.45 | 152.19 | 76.39 | 53.02 | 101.05 | 0.83 |
| K1 | 0.0417807 | 0.384 | 0.439 | -0.054 | 0.45 | 151.36 | 86.09 | 208.88 | 105.02 | 0.76 |
| *M2 | 0.0805114 | 6.412 | 1.587 | 1.182 | 0.53 | 3.15 | 6.05 | 179.10 | 15.04 | 16 |
| S2 | 0.0833333 | 1.580 | 1.601 | 0.392 | 0.60 | 177.58 | 26.91 | 24.89 | 73.92 | 0.97 |
| M3 | 0.1207671 | 0.151 | 0.192 | -0.117 | 0.17 | 100.00 | 123.66 | 244.95 | 112.49 | 0.62 |
| SK3 | 0.1251141 | 0.131 | 0.174 | -0.025 | 0.18 | 92.40 | 115.70 | 352.13 | 82.41 | 0.57 |
| M4 | 0.1610228 | 0.361 | 0.346 | 0.032 | 0.21 | 15.21 | 39.60 | 93.17 | 75.92 | 1.1 |
| MS4 | 0.1638447 | 0.218 | 0.302 | -0.071 | 0.24 | 135.80 | 71.44 | 337.70 | 106.48 | 0.52 |
| S4 | 0.1666667 | 0.205 | 0.310 | -0.114 | 0.24 | 16.33 | 63.75 | 223.18 | 129.73 | 0.44 |
| 2MK5 | 0.2028035 | 0.100 | 0.168 | -0.013 | 0.09 | 33.11 | 47.35 | 353.65 | 130.17 | 0.36 |
| 2SK5 | 0.2084474 | 0.135 | 0.186 | 0.049 | 0.11 | 13.84 | 48.17 | 153.59 | 99.00 | 0.53 |
| *M6 | 0.2415342 | 0.422 | 0.193 | 0.045 | 0.14 | 15.81 | 21.30 | 352.47 | 24.77 | 4.8 |
| 2MS6 | 0.2443561 | 0.230 | 0.166 | 0.012 | 0.15 | 29.73 | 38.87 | 40.07 | 49.99 | 1.9 |
| 2SM6 | 0.2471781 | 0.097 | 0.111 | 0.007 | 0.10 | 145.89 | 83.64 | 317.16 | 106.69 | 0.76 |
| 3MK7 | 0.2833149 | 0.088 | 0.126 | 0.031 | 0.11 | 21.39 | 96.90 | 288.32 | 120.73 | 0.49 |
| M8 | 0.3220456 | 0.095 | 0.093 | -0.015 | 0.08 | 172.56 | 65.65 | 122.50 | 82.03 | 1.1 |

total var= 37.9551 pred var= 21.7865
 percent total var predicted/var original= 57.4 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 31.9 m
 Mooring Number: 4201

File Name: 4201spd-alh_d1.nc

nobs = 2427, ngood = 2427, record length (days) = 101.13

start time: 15-Jun-1993 19:59:59

rayleigh criterion = 1.0

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

x0= -0.861, x trend= 0

var(x)= 15.5233 var(xp)= 11.8621 var(xres)= 3.6444

percent var predicted/var original= 76.4 %

y0= 0.386, x trend= 0

var(y)= 6.1619 var(yp)= 3.5156 var(yres)= 2.6345

percent var predicted/var original= 57.1 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.252 | 0.453 | -0.009 | 0.45 | 144.51 | 118.38 | 17.86 | 157.00 | 0.31 |
| MSF | 0.0028219 | 0.426 | 0.502 | 0.002 | 0.46 | 153.87 | 89.97 | 210.25 | 97.91 | 0.72 |
| ALP1 | 0.0343966 | 0.109 | 0.134 | -0.016 | 0.10 | 112.82 | 73.00 | 254.42 | 93.06 | 0.66 |
| 2Q1 | 0.0357064 | 0.081 | 0.103 | -0.003 | 0.11 | 167.05 | 111.49 | 184.89 | 116.26 | 0.62 |
| Q1 | 0.0372185 | 0.089 | 0.124 | -0.025 | 0.11 | 133.42 | 93.34 | 60.92 | 113.07 | 0.52 |
| *O1 | 0.0387307 | 0.271 | 0.143 | -0.005 | 0.15 | 166.54 | 36.17 | 92.76 | 27.14 | 3.6 |
| NO1 | 0.0402686 | 0.057 | 0.082 | 0.032 | 0.08 | 88.53 | 98.54 | 204.27 | 142.71 | 0.48 |
| *K1 | 0.0417807 | 0.276 | 0.135 | 0.151 | 0.13 | 126.85 | 48.60 | 357.63 | 56.16 | 4.2 |
| J1 | 0.0432929 | 0.066 | 0.101 | 0.041 | 0.10 | 157.03 | 122.32 | 236.41 | 153.54 | 0.43 |
| OO1 | 0.0448308 | 0.098 | 0.130 | 0.004 | 0.10 | 107.13 | 72.12 | 34.77 | 114.32 | 0.56 |
| UPS1 | 0.0463430 | 0.069 | 0.127 | 0.051 | 0.12 | 168.61 | 138.70 | 103.56 | 161.18 | 0.29 |
| EPS2 | 0.0761773 | 0.102 | 0.221 | -0.064 | 0.18 | 72.69 | 134.45 | 148.99 | 153.68 | 0.21 |
| MU2 | 0.0776895 | 0.263 | 0.220 | -0.029 | 0.22 | 121.41 | 67.48 | 218.06 | 65.04 | 1.4 |
| *N2 | 0.0789992 | 1.252 | 0.284 | -0.140 | 0.27 | 157.65 | 11.83 | 331.17 | 13.38 | 19 |
| *M2 | 0.0805114 | 5.115 | 0.286 | -0.229 | 0.24 | 150.97 | 3.38 | 359.17 | 3.18 | 3.2e+002 |
| *L2 | 0.0820236 | 0.822 | 0.308 | -0.016 | 0.36 | 128.29 | 22.61 | 18.09 | 21.40 | 7.1 |
| *S2 | 0.0833333 | 0.857 | 0.284 | -0.071 | 0.23 | 170.89 | 15.24 | 43.50 | 19.34 | 9.1 |
| ETA2 | 0.0850736 | 0.221 | 0.271 | -0.116 | 0.24 | 126.17 | 99.25 | 65.94 | 97.48 | 0.67 |
| MO3 | 0.1192421 | 0.108 | 0.113 | -0.017 | 0.10 | 104.82 | 65.91 | 46.56 | 77.13 | 0.91 |
| M3 | 0.1207671 | 0.137 | 0.112 | 0.012 | 0.11 | 135.81 | 60.79 | 356.31 | 52.90 | 1.5 |
| MK3 | 0.1222921 | 0.125 | 0.106 | -0.030 | 0.10 | 5.97 | 64.74 | 260.63 | 71.00 | 1.4 |
| SK3 | 0.1251141 | 0.093 | 0.106 | -0.031 | 0.09 | 150.31 | 90.46 | 21.08 | 94.40 | 0.77 |
| MN4 | 0.1595106 | 0.064 | 0.120 | 0.051 | 0.10 | 151.59 | 111.78 | 202.06 | 167.99 | 0.29 |
| *M4 | 0.1610228 | 0.322 | 0.164 | 0.077 | 0.11 | 170.75 | 24.40 | 254.67 | 34.67 | 3.9 |
| SN4 | 0.1623326 | 0.161 | 0.120 | 0.035 | 0.13 | 136.14 | 48.75 | 219.61 | 59.38 | 1.8 |
| MS4 | 0.1638447 | 0.149 | 0.137 | 0.063 | 0.10 | 7.44 | 55.87 | 156.44 | 75.93 | 1.2 |
| S4 | 0.1666667 | 0.117 | 0.137 | -0.035 | 0.11 | 154.66 | 62.33 | 163.35 | 99.77 | 0.73 |
| 2MK5 | 0.2028035 | 0.040 | 0.064 | -0.010 | 0.06 | 27.75 | 112.92 | 129.79 | 125.40 | 0.39 |
| 2SK5 | 0.2084474 | 0.100 | 0.083 | -0.010 | 0.08 | 160.26 | 56.02 | 155.81 | 56.53 | 1.5 |
| 2MN6 | 0.2400221 | 0.220 | 0.176 | 0.003 | 0.09 | 18.88 | 23.25 | 315.22 | 47.33 | 1.6 |
| *M6 | 0.2415342 | 0.469 | 0.169 | -0.063 | 0.08 | 169.30 | 11.20 | 156.33 | 22.57 | 7.7 |
| 2MS6 | 0.2443561 | 0.181 | 0.156 | 0.015 | 0.08 | 160.07 | 31.88 | 211.88 | 57.06 | 1.3 |
| 2SM6 | 0.2471781 | 0.057 | 0.118 | 0.010 | 0.06 | 142.57 | 75.64 | 253.62 | 118.34 | 0.23 |
| 3MK7 | 0.2833149 | 0.081 | 0.070 | -0.013 | 0.05 | 8.26 | 44.25 | 204.57 | 55.61 | 1.4 |
| M8 | 0.3220456 | 0.033 | 0.042 | -0.003 | 0.04 | 55.61 | 99.38 | 61.30 | 105.85 | 0.63 |

total var= 21.6851 pred var= 15.3778

percent total var predicted/var original= 70.9 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 30.5 m
 Mooring Number: 4281

File Name: 4281spd-alh_d1.nc
 nobs = 1009, ngood = 1009, record length (days) = 42.04
 start time: 05-Oct-1993 14:59:57
 rayleigh criterion = 1.0

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

x0= -1.44, x trend= 0

var(x)= 38.6668 var(xp)= 26.1937 var(xres)= 11.9777
 percent var predicted/var original= 67.7 %

y0= 0.821, x trend= 0

var(y)= 11.3914 var(yp)= 4.1299 var(yres)= 7.4774
 percent var predicted/var original= 36.3 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 1.412 | 1.069 | 0.343 | 0.80 | 141.81 | 43.85 | 87.80 | 49.64 | 1.7 |
| MSF | 0.0028219 | 1.096 | 0.803 | -0.239 | 0.78 | 137.62 | 57.44 | 166.62 | 60.92 | 1.9 |
| ALP1 | 0.0343966 | 0.222 | 0.440 | -0.076 | 0.43 | 138.60 | 119.54 | 50.42 | 129.16 | 0.25 |
| 2Q1 | 0.0357064 | 0.413 | 0.424 | 0.078 | 0.47 | 138.06 | 86.62 | 218.78 | 89.71 | 0.95 |
| Q1 | 0.0372185 | 0.442 | 0.500 | -0.120 | 0.47 | 138.08 | 76.57 | 329.01 | 85.89 | 0.78 |
| O1 | 0.0387307 | 0.210 | 0.404 | 0.013 | 0.39 | 128.12 | 130.17 | 79.63 | 138.58 | 0.27 |
| NO1 | 0.0402686 | 0.328 | 0.340 | -0.040 | 0.31 | 124.92 | 82.97 | 44.71 | 87.77 | 0.93 |
| K1 | 0.0417807 | 0.184 | 0.403 | 0.171 | 0.41 | 130.35 | 129.68 | 354.57 | 205.49 | 0.21 |
| J1 | 0.0432929 | 0.249 | 0.461 | 0.110 | 0.41 | 127.42 | 116.64 | 34.54 | 136.95 | 0.29 |
| OO1 | 0.0448308 | 0.162 | 0.423 | 0.010 | 0.36 | 4.71 | 106.09 | 103.50 | 183.36 | 0.15 |
| UPS1 | 0.0463430 | 0.111 | 0.465 | -0.025 | 0.42 | 91.05 | 144.91 | 220.83 | 194.16 | 0.057 |
| EPS2 | 0.0761773 | 0.386 | 0.516 | 0.094 | 0.51 | 150.79 | 86.15 | 227.41 | 105.54 | 0.56 |
| MU2 | 0.0776895 | 0.454 | 0.553 | -0.107 | 0.44 | 14.05 | 63.78 | 121.02 | 105.82 | 0.67 |
| *N2 | 0.0789992 | 1.278 | 0.657 | 0.524 | 0.63 | 141.43 | 40.13 | 287.21 | 43.21 | 3.8 |
| *M2 | 0.0805114 | 7.273 | 0.681 | 0.479 | 0.59 | 159.69 | 5.10 | 343.77 | 6.22 | 1.1e+002 |
| L2 | 0.0820236 | 0.555 | 0.606 | -0.191 | 0.56 | 18.79 | 73.83 | 342.21 | 95.98 | 0.84 |
| *S2 | 0.0833333 | 1.070 | 0.734 | 0.150 | 0.59 | 150.22 | 36.58 | 1.59 | 38.88 | 2.1 |
| ETA2 | 0.0850736 | 0.787 | 0.577 | -0.227 | 0.70 | 129.25 | 67.50 | 259.97 | 64.22 | 1.9 |
| MO3 | 0.1192421 | 0.299 | 0.249 | -0.108 | 0.24 | 6.79 | 72.75 | 130.69 | 67.86 | 1.4 |
| M3 | 0.1207671 | 0.104 | 0.170 | 0.008 | 0.17 | 152.67 | 116.62 | 126.99 | 166.23 | 0.38 |
| MK3 | 0.1222921 | 0.144 | 0.195 | 0.012 | 0.20 | 119.53 | 91.64 | 355.53 | 122.73 | 0.54 |
| SK3 | 0.1251141 | 0.167 | 0.224 | 0.111 | 0.22 | 19.79 | 108.74 | 53.29 | 103.75 | 0.55 |
| *MN4 | 0.1595106 | 0.383 | 0.232 | 0.145 | 0.23 | 141.19 | 52.73 | 212.84 | 53.34 | 2.7 |
| *M4 | 0.1610228 | 0.640 | 0.274 | -0.295 | 0.27 | 124.38 | 35.91 | 278.63 | 31.50 | 5.5 |
| SN4 | 0.1623326 | 0.325 | 0.266 | 0.041 | 0.24 | 115.00 | 43.37 | 357.64 | 59.74 | 1.5 |
| MS4 | 0.1638447 | 0.166 | 0.206 | -0.088 | 0.22 | 106.93 | 110.13 | 349.17 | 106.89 | 0.64 |
| S4 | 0.1666667 | 0.106 | 0.211 | -0.048 | 0.21 | 104.46 | 110.55 | 110.23 | 177.63 | 0.25 |
| 2MK5 | 0.2028035 | 0.099 | 0.126 | 0.003 | 0.13 | 12.50 | 111.38 | 222.05 | 111.65 | 0.61 |
| 2SK5 | 0.2084474 | 0.133 | 0.136 | -0.015 | 0.16 | 2.36 | 87.11 | 326.76 | 100.36 | 0.95 |
| *2MN6 | 0.2400221 | 0.437 | 0.250 | -0.131 | 0.15 | 5.45 | 26.45 | 268.51 | 43.79 | 3.1 |
| *M6 | 0.2415342 | 0.639 | 0.239 | -0.031 | 0.17 | 19.22 | 16.02 | 332.21 | 22.54 | 7.2 |
| 2MS6 | 0.2443561 | 0.173 | 0.177 | -0.017 | 0.16 | 22.41 | 62.04 | 3.60 | 82.95 | 0.96 |
| 2SM6 | 0.2471781 | 0.142 | 0.168 | -0.016 | 0.17 | 107.21 | 107.61 | 289.84 | 76.26 | 0.71 |
| 3MK7 | 0.2833149 | 0.082 | 0.116 | 0.050 | 0.10 | 156.74 | 91.64 | 158.62 | 105.67 | 0.5 |
| *M8 | 0.3220456 | 0.220 | 0.109 | 0.043 | 0.11 | 141.33 | 32.37 | 78.03 | 29.68 | 4 |

total var= 50.0581 pred var= 30.3236
 percent total var predicted/var original= 60.6 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 31.3 m
 Mooring Number: 4301
 File Name: 4301v1-alh_d1.nc
 nobs = 2689, ngood = 2689, record length (days) = 112.04
 start time: 15-Feb-1994 17:59:59
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -1.81, x trend= 0

var(x)= 29.4463 var(xp)= 15.1877 var(xres)= 14.2664
 percent var predicted/var original= 51.6 %

y0= -0.281, x trend= 0

var(y)= 7.4931 var(yp)= 3.8208 var(yres)= 3.6658
 percent var predicted/var original= 51.0 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|-------|--------|--------|----------|
| MM | 0.0015122 | 0.368 | 1.091 | 0.029 | 0.35 | 167.71 | 25.58 | 186.24 | 179.15 | 0.11 |
| MSF | 0.0028219 | 0.821 | 1.102 | -0.096 | 0.49 | 18.93 | 26.73 | 260.06 | 82.21 | 0.55 |
| ALP1 | 0.0343966 | 0.289 | 0.362 | 0.003 | 0.18 | 170.30 | 27.91 | 87.54 | 96.15 | 0.63 |
| 2Q1 | 0.0357064 | 0.114 | 0.293 | -0.014 | 0.20 | 36.71 | 50.89 | 210.42 | 180.69 | 0.15 |
| Q1 | 0.0372185 | 0.250 | 0.414 | -0.030 | 0.16 | 7.59 | 29.86 | 133.41 | 111.14 | 0.37 |
| O1 | 0.0387307 | 0.263 | 0.411 | 0.109 | 0.19 | 178.83 | 44.85 | 344.46 | 119.12 | 0.41 |
| NO1 | 0.0402686 | 0.193 | 0.321 | -0.048 | 0.15 | 15.27 | 35.52 | 204.74 | 120.60 | 0.36 |
| K1 | 0.0417807 | 0.360 | 0.326 | -0.089 | 0.26 | 45.25 | 50.42 | 281.71 | 63.45 | 1.2 |
| J1 | 0.0432929 | 0.127 | 0.311 | -0.069 | 0.21 | 31.42 | 51.36 | 55.88 | 181.57 | 0.17 |
| OO1 | 0.0448308 | 0.235 | 0.482 | -0.042 | 0.22 | 9.59 | 42.29 | 59.44 | 143.82 | 0.24 |
| UPS1 | 0.0463430 | 0.357 | 0.473 | -0.069 | 0.22 | 171.32 | 33.92 | 216.62 | 105.79 | 0.57 |
| EPS2 | 0.0761773 | 0.227 | 0.329 | 0.000 | 0.28 | 52.46 | 88.33 | 129.61 | 109.13 | 0.48 |
| MU2 | 0.0776895 | 0.176 | 0.311 | -0.099 | 0.24 | 141.31 | 69.38 | 49.13 | 162.23 | 0.32 |
| *N2 | 0.0789992 | 1.626 | 0.471 | 0.032 | 0.31 | 27.09 | 12.48 | 153.46 | 15.16 | 12 |
| *M2 | 0.0805114 | 5.668 | 0.503 | 0.391 | 0.31 | 26.53 | 3.26 | 172.38 | 4.94 | 1.3e+002 |
| *L2 | 0.0820236 | 0.850 | 0.430 | -0.018 | 0.24 | 7.29 | 16.87 | 185.25 | 32.37 | 3.9 |
| *S2 | 0.0833333 | 0.869 | 0.411 | 0.083 | 0.32 | 30.97 | 21.32 | 209.72 | 31.63 | 4.5 |
| ETA2 | 0.0850736 | 0.156 | 0.427 | -0.086 | 0.30 | 156.27 | 65.83 | 57.93 | 183.75 | 0.13 |
| MO3 | 0.1192421 | 0.175 | 0.208 | 0.062 | 0.15 | 170.85 | 60.66 | 28.10 | 102.04 | 0.71 |
| M3 | 0.1207671 | 0.065 | 0.158 | 0.009 | 0.14 | 42.15 | 88.87 | 215.03 | 169.52 | 0.17 |
| MK3 | 0.1222921 | 0.094 | 0.169 | 0.038 | 0.16 | 5.41 | 75.14 | 6.05 | 132.75 | 0.31 |
| SK3 | 0.1251141 | 0.125 | 0.195 | 0.015 | 0.15 | 31.91 | 82.24 | 36.30 | 126.08 | 0.41 |
| *MN4 | 0.1595106 | 0.320 | 0.179 | -0.029 | 0.14 | 6.81 | 28.60 | 11.26 | 38.04 | 3.2 |
| *M4 | 0.1610228 | 0.589 | 0.193 | -0.047 | 0.12 | 10.46 | 12.68 | 34.42 | 21.27 | 9.3 |
| SN4 | 0.1623326 | 0.150 | 0.126 | 0.012 | 0.15 | 109.10 | 94.30 | 250.68 | 70.29 | 1.4 |
| MS4 | 0.1638447 | 0.208 | 0.187 | -0.072 | 0.11 | 6.86 | 42.75 | 54.94 | 70.10 | 1.2 |
| S4 | 0.1666667 | 0.100 | 0.155 | -0.017 | 0.10 | 5.82 | 63.79 | 150.34 | 117.50 | 0.42 |
| 2MK5 | 0.2028035 | 0.051 | 0.090 | -0.006 | 0.09 | 0.39 | 80.56 | 95.15 | 152.02 | 0.33 |
| 2SK5 | 0.2084474 | 0.032 | 0.099 | -0.019 | 0.09 | 43.14 | 98.11 | 259.60 | 184.79 | 0.11 |
| *2MN6 | 0.2400221 | 0.280 | 0.138 | -0.060 | 0.15 | 64.37 | 32.63 | 291.61 | 31.78 | 4.1 |
| *M6 | 0.2415342 | 0.396 | 0.134 | -0.056 | 0.14 | 46.71 | 20.42 | 320.64 | 19.89 | 8.8 |
| 2MS6 | 0.2443561 | 0.123 | 0.120 | 0.017 | 0.09 | 36.10 | 64.79 | 359.31 | 83.92 | 1.1 |
| 2SM6 | 0.2471781 | 0.050 | 0.098 | -0.007 | 0.10 | 165.46 | 83.95 | 223.89 | 137.70 | 0.26 |
| 3MK7 | 0.2833149 | 0.059 | 0.075 | -0.002 | 0.07 | 43.35 | 91.68 | 168.19 | 95.25 | 0.62 |
| *M8 | 0.3220456 | 0.106 | 0.067 | -0.047 | 0.04 | 31.53 | 41.24 | 281.52 | 46.45 | 2.5 |

total var= 36.9394 pred var= 19.0085
 percent total var predicted/var original= 51.5 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 32.5 m
 Mooring Number: 4401
 File Name: 4401sl1-alh_d1.nc
 nobs = 2853, ngood = 2853, record length (days) = 118.88
 start time: 07-Jun-1994 14:59:59
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.555, x trend= 0

var(x)= 13.1827 var(xp)= 8.1462 var(xres)= 4.9776
 percent var predicted/var original= 61.8 %

y0= 0.398, x trend= 0

var(y)= 7.6081 var(yp)= 2.3037 var(yres)= 5.2913
 percent var predicted/var original= 30.3 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.748 | 0.576 | 0.026 | 0.51 | 124.05 | 56.80 | 44.23 | 51.17 | 1.7 |
| MSF | 0.0028219 | 0.294 | 0.444 | -0.011 | 0.40 | 141.56 | 97.13 | 148.08 | 118.16 | 0.44 |
| ALP1 | 0.0343966 | 0.287 | 0.212 | 0.009 | 0.21 | 143.17 | 53.93 | 34.02 | 52.30 | 1.8 |
| 2Q1 | 0.0357064 | 0.116 | 0.173 | -0.050 | 0.17 | 147.31 | 124.87 | 256.99 | 147.18 | 0.45 |
| Q1 | 0.0372185 | 0.174 | 0.182 | 0.036 | 0.21 | 171.67 | 105.74 | 56.61 | 89.02 | 0.91 |
| *O1 | 0.0387307 | 0.246 | 0.168 | -0.006 | 0.23 | 3.58 | 73.69 | 284.35 | 53.96 | 2.1 |
| NO1 | 0.0402686 | 0.149 | 0.161 | -0.076 | 0.17 | 153.51 | 100.84 | 168.01 | 91.63 | 0.85 |
| K1 | 0.0417807 | 0.280 | 0.202 | 0.090 | 0.19 | 124.77 | 53.58 | 342.17 | 58.84 | 1.9 |
| J1 | 0.0432929 | 0.078 | 0.170 | -0.005 | 0.17 | 32.55 | 127.18 | 198.31 | 149.61 | 0.21 |
| OO1 | 0.0448308 | 0.252 | 0.276 | 0.053 | 0.25 | 142.65 | 82.06 | 320.63 | 71.68 | 0.84 |
| UPS1 | 0.0463430 | 0.130 | 0.222 | -0.067 | 0.22 | 6.97 | 133.21 | 281.33 | 136.45 | 0.34 |
| EPS2 | 0.0761773 | 0.375 | 0.373 | 0.002 | 0.33 | 105.45 | 69.61 | 39.24 | 71.53 | 1 |
| MU2 | 0.0776895 | 0.389 | 0.428 | -0.127 | 0.34 | 136.89 | 70.93 | 82.76 | 79.00 | 0.83 |
| *N2 | 0.0789992 | 0.595 | 0.368 | 0.036 | 0.38 | 168.04 | 46.49 | 303.55 | 42.98 | 2.6 |
| *M2 | 0.0805114 | 4.368 | 0.395 | 0.352 | 0.43 | 152.11 | 5.51 | 355.29 | 5.06 | 1.2e+002 |
| L2 | 0.0820236 | 0.445 | 0.374 | 0.090 | 0.35 | 141.90 | 61.06 | 348.35 | 61.23 | 1.4 |
| *S2 | 0.0833333 | 0.543 | 0.381 | 0.063 | 0.46 | 161.02 | 56.43 | 11.60 | 55.16 | 2 |
| ETA2 | 0.0850736 | 0.328 | 0.482 | 0.141 | 0.39 | 161.41 | 111.00 | 263.02 | 147.01 | 0.46 |
| MO3 | 0.1192421 | 0.139 | 0.126 | -0.006 | 0.13 | 132.46 | 65.78 | 113.65 | 68.12 | 1.2 |
| M3 | 0.1207671 | 0.099 | 0.122 | -0.049 | 0.11 | 132.80 | 91.78 | 8.39 | 99.21 | 0.66 |
| *MK3 | 0.1222921 | 0.167 | 0.116 | -0.007 | 0.13 | 103.33 | 43.03 | 249.65 | 61.13 | 2.1 |
| SK3 | 0.1251141 | 0.112 | 0.122 | -0.097 | 0.12 | 127.84 | 116.59 | 141.18 | 136.99 | 0.86 |
| MN4 | 0.1595106 | 0.103 | 0.136 | 0.051 | 0.11 | 129.59 | 80.56 | 160.93 | 99.04 | 0.58 |
| *M4 | 0.1610228 | 0.261 | 0.157 | 0.058 | 0.13 | 124.15 | 40.93 | 166.24 | 41.70 | 2.8 |
| SN4 | 0.1623326 | 0.067 | 0.130 | -0.002 | 0.11 | 87.64 | 82.37 | 174.68 | 154.29 | 0.27 |
| *MS4 | 0.1638447 | 0.203 | 0.135 | -0.006 | 0.14 | 134.44 | 50.62 | 257.92 | 49.11 | 2.2 |
| S4 | 0.1666667 | 0.058 | 0.117 | -0.036 | 0.11 | 113.93 | 99.23 | 142.14 | 169.52 | 0.25 |
| 2MK5 | 0.2028035 | 0.042 | 0.076 | -0.028 | 0.07 | 149.81 | 111.19 | 327.56 | 155.51 | 0.31 |
| 2SK5 | 0.2084474 | 0.101 | 0.076 | -0.072 | 0.07 | 31.41 | 96.85 | 254.43 | 102.39 | 1.8 |
| *2MN6 | 0.2400221 | 0.207 | 0.133 | -0.035 | 0.11 | 7.79 | 32.58 | 293.04 | 42.36 | 2.4 |
| *M6 | 0.2415342 | 0.357 | 0.117 | -0.068 | 0.12 | 1.76 | 19.27 | 354.14 | 24.04 | 9.3 |
| 2MS6 | 0.2443561 | 0.135 | 0.122 | -0.046 | 0.11 | 15.33 | 64.01 | 44.60 | 78.42 | 1.2 |
| 2SM6 | 0.2471781 | 0.071 | 0.100 | 0.006 | 0.10 | 51.15 | 110.71 | 24.43 | 117.96 | 0.51 |
| 3MK7 | 0.2833149 | 0.040 | 0.069 | 0.021 | 0.07 | 109.06 | 119.94 | 132.77 | 153.57 | 0.35 |
| M8 | 0.3220456 | 0.044 | 0.047 | 0.019 | 0.04 | 61.27 | 96.98 | 24.48 | 90.79 | 0.86 |

total var= 20.7908 pred var= 10.4499
 percent total var predicted/var original= 50.3 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 31.7 m
 Mooring Number: 4451

File Name: 4451spd-alh_d1.nc
 nobs = 3131, ngood = 3131, record length (days) = 130.46
 start time: 04-Oct-1994 15:00:00
 rayleigh criterion = 1.0

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

x0= -1.13, x trend= 0

var(x)= 24.9456 var(xp)= 12.973 var(xres)= 11.98
 percent var predicted/var original= 52.0 %

y0= 0.368, x trend= 0

var(y)= 5.733 var(yp)= 0.60975 var(yres)= 5.1239
 percent var predicted/var original= 10.6 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|-------|
| MM | 0.0015122 | 1.215 | 1.008 | 0.021 | 1.01 | 158.69 | 52.83 | 43.65 | 59.98 | 1.5 |
| MSF | 0.0028219 | 0.551 | 0.816 | 0.014 | 0.62 | 150.32 | 84.91 | 33.46 | 121.04 | 0.46 |
| ALP1 | 0.0343966 | 0.102 | 0.239 | -0.082 | 0.21 | 148.21 | 106.28 | 303.05 | 207.19 | 0.18 |
| 2Q1 | 0.0357064 | 0.248 | 0.271 | 0.023 | 0.24 | 155.52 | 74.96 | 79.18 | 88.61 | 0.84 |
| Q1 | 0.0372185 | 0.222 | 0.270 | 0.107 | 0.25 | 10.24 | 79.75 | 181.27 | 119.23 | 0.67 |
| O1 | 0.0387307 | 0.396 | 0.337 | -0.065 | 0.24 | 175.57 | 41.03 | 72.86 | 55.57 | 1.4 |
| NO1 | 0.0402686 | 0.067 | 0.227 | 0.025 | 0.21 | 59.28 | 126.14 | 13.92 | 170.39 | 0.087 |
| K1 | 0.0417807 | 0.435 | 0.323 | 0.042 | 0.22 | 2.60 | 33.37 | 244.58 | 47.17 | 1.8 |
| J1 | 0.0432929 | 0.182 | 0.232 | -0.113 | 0.27 | 72.35 | 139.24 | 168.32 | 123.37 | 0.62 |
| OO1 | 0.0448308 | 0.275 | 0.396 | -0.054 | 0.34 | 172.47 | 78.13 | 217.50 | 165.74 | 0.48 |
| UPS1 | 0.0463430 | 0.399 | 0.449 | 0.058 | 0.36 | 175.52 | 50.72 | 284.69 | 86.10 | 0.79 |
| EPS2 | 0.0761773 | 0.257 | 0.441 | 0.073 | 0.24 | 18.76 | 52.62 | 149.81 | 135.42 | 0.34 |
| MU2 | 0.0776895 | 0.104 | 0.370 | -0.058 | 0.25 | 42.48 | 52.08 | 48.67 | 204.06 | 0.079 |
| *N2 | 0.0789992 | 1.168 | 0.565 | 0.089 | 0.28 | 3.49 | 13.34 | 130.98 | 27.22 | 4.3 |
| *M2 | 0.0805114 | 4.819 | 0.618 | 0.742 | 0.28 | 8.52 | 3.31 | 175.02 | 6.96 | 61 |
| L2 | 0.0820236 | 0.414 | 0.421 | 0.092 | 0.22 | 169.47 | 32.27 | 342.54 | 74.69 | 0.97 |
| S2 | 0.0833333 | 0.679 | 0.607 | 0.102 | 0.26 | 0.55 | 23.61 | 193.22 | 53.96 | 1.2 |
| ETA2 | 0.0850736 | 0.198 | 0.498 | -0.149 | 0.43 | 44.22 | 70.26 | 8.07 | 173.81 | 0.16 |
| MO3 | 0.1192421 | 0.048 | 0.119 | 0.039 | 0.11 | 146.31 | 128.33 | 291.88 | 231.98 | 0.17 |
| M3 | 0.1207671 | 0.076 | 0.114 | -0.015 | 0.10 | 8.39 | 83.57 | 299.05 | 116.05 | 0.45 |
| MK3 | 0.1222921 | 0.093 | 0.111 | 0.023 | 0.12 | 99.88 | 104.61 | 182.10 | 108.34 | 0.7 |
| SK3 | 0.1251141 | 0.117 | 0.136 | 0.001 | 0.13 | 135.24 | 95.49 | 144.41 | 96.65 | 0.74 |
| MN4 | 0.1595106 | 0.045 | 0.090 | -0.021 | 0.08 | 49.62 | 87.55 | 91.06 | 159.49 | 0.25 |
| M4 | 0.1610228 | 0.172 | 0.135 | 0.040 | 0.10 | 29.18 | 36.59 | 77.82 | 51.27 | 1.6 |
| SN4 | 0.1623326 | 0.117 | 0.125 | 0.015 | 0.09 | 170.79 | 46.87 | 357.34 | 73.13 | 0.88 |
| MS4 | 0.1638447 | 0.096 | 0.084 | 0.001 | 0.13 | 74.72 | 115.24 | 132.63 | 75.92 | 1.3 |
| S4 | 0.1666667 | 0.087 | 0.123 | 0.009 | 0.09 | 169.70 | 54.86 | 33.19 | 92.93 | 0.49 |
| 2MK5 | 0.2028035 | 0.098 | 0.089 | -0.033 | 0.07 | 6.64 | 54.78 | 0.10 | 61.87 | 1.2 |
| 2SK5 | 0.2084474 | 0.050 | 0.059 | 0.024 | 0.07 | 86.94 | 124.44 | 135.28 | 119.23 | 0.72 |
| *2MN6 | 0.2400221 | 0.218 | 0.091 | -0.034 | 0.08 | 37.09 | 23.87 | 285.40 | 26.79 | 5.8 |
| *M6 | 0.2415342 | 0.402 | 0.092 | -0.033 | 0.09 | 37.14 | 13.11 | 339.54 | 13.50 | 19 |
| 2MS6 | 0.2443561 | 0.118 | 0.086 | -0.013 | 0.07 | 37.31 | 46.83 | 20.42 | 46.47 | 1.9 |
| 2SM6 | 0.2471781 | 0.079 | 0.081 | 0.020 | 0.07 | 152.63 | 78.10 | 288.12 | 74.94 | 0.95 |
| 3MK7 | 0.2833149 | 0.030 | 0.050 | 0.005 | 0.05 | 83.18 | 135.95 | 118.66 | 124.68 | 0.35 |
| M8 | 0.3220456 | 0.027 | 0.037 | -0.026 | 0.04 | 80.62 | 143.00 | 208.79 | 136.32 | 0.54 |

total var= 30.6786 pred var= 13.5827
 percent total var predicted/var original= 44.3 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 31.3 m
 Mooring Number: 4501
 File Name: 4501spd-alh_d3.nc
 nobs = 2845, ngood = 2845, record length (days) = 118.54
 start time: 15-Feb-1995
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.913, x trend= 0

var(x)= 16.4061 var(xp)= 11.5496 var(xres)= 4.8661
 percent var predicted/var original= 70.4 %

y0= -0.00747, x trend= 0

var(y)= 7.1946 var(yp)= 2.5007 var(yres)= 4.7085
 percent var predicted/var original= 34.8 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.360 | 0.616 | -0.143 | 0.57 | 115.21 | 120.30 | 243.62 | 131.17 | 0.34 |
| MSF | 0.0028219 | 0.360 | 0.544 | 0.028 | 0.53 | 152.05 | 101.83 | 203.16 | 123.54 | 0.44 |
| ALP1 | 0.0343966 | 0.140 | 0.215 | -0.001 | 0.20 | 164.12 | 108.60 | 190.96 | 104.24 | 0.42 |
| 2Q1 | 0.0357064 | 0.225 | 0.217 | -0.154 | 0.24 | 103.85 | 103.42 | 260.04 | 115.00 | 1.1 |
| Q1 | 0.0372185 | 0.066 | 0.194 | -0.046 | 0.20 | 148.88 | 130.91 | 303.02 | 217.18 | 0.12 |
| O1 | 0.0387307 | 0.195 | 0.237 | -0.076 | 0.21 | 22.87 | 102.70 | 280.80 | 96.87 | 0.67 |
| NO1 | 0.0402686 | 0.228 | 0.268 | 0.055 | 0.26 | 104.69 | 83.34 | 46.04 | 86.02 | 0.73 |
| *K1 | 0.0417807 | 0.407 | 0.266 | -0.171 | 0.26 | 108.06 | 54.67 | 191.31 | 61.88 | 2.3 |
| J1 | 0.0432929 | 0.220 | 0.227 | 0.040 | 0.24 | 156.08 | 89.66 | 112.44 | 88.91 | 0.93 |
| OO1 | 0.0448308 | 0.328 | 0.412 | 0.058 | 0.42 | 67.30 | 91.62 | 305.16 | 117.41 | 0.64 |
| UPS1 | 0.0463430 | 0.405 | 0.390 | -0.125 | 0.42 | 1.34 | 84.28 | 80.47 | 77.64 | 1.1 |
| EPS2 | 0.0761773 | 0.215 | 0.330 | 0.029 | 0.25 | 168.15 | 70.17 | 324.94 | 118.62 | 0.42 |
| MU2 | 0.0776895 | 0.151 | 0.282 | -0.037 | 0.26 | 167.97 | 83.11 | 307.75 | 120.69 | 0.29 |
| *N2 | 0.0789992 | 1.358 | 0.389 | 0.148 | 0.32 | 162.14 | 12.77 | 333.81 | 18.29 | 12 |
| *M2 | 0.0805114 | 4.700 | 0.373 | 0.903 | 0.35 | 156.46 | 3.62 | 349.50 | 5.51 | 1.6e+002 |
| L2 | 0.0820236 | 0.159 | 0.243 | 0.007 | 0.24 | 115.22 | 116.69 | 215.46 | 105.71 | 0.43 |
| *S2 | 0.0833333 | 0.890 | 0.433 | 0.113 | 0.29 | 157.59 | 18.77 | 31.66 | 26.39 | 4.2 |
| ETA2 | 0.0850736 | 0.295 | 0.446 | 0.196 | 0.40 | 64.56 | 114.05 | 166.76 | 109.92 | 0.44 |
| MO3 | 0.1192421 | 0.072 | 0.134 | -0.061 | 0.13 | 2.85 | 127.73 | 327.35 | 155.10 | 0.28 |
| M3 | 0.1207671 | 0.115 | 0.122 | -0.025 | 0.13 | 65.20 | 82.46 | 276.37 | 85.43 | 0.88 |
| MK3 | 0.1222921 | 0.029 | 0.131 | -0.018 | 0.12 | 128.00 | 150.93 | 191.69 | 197.79 | 0.049 |
| SK3 | 0.1251141 | 0.143 | 0.154 | 0.036 | 0.14 | 150.35 | 86.89 | 128.38 | 95.14 | 0.86 |
| MN4 | 0.1595106 | 0.102 | 0.093 | 0.062 | 0.10 | 150.72 | 96.82 | 254.80 | 95.60 | 1.2 |
| *M4 | 0.1610228 | 0.288 | 0.119 | 0.039 | 0.10 | 173.24 | 23.73 | 253.05 | 23.42 | 5.8 |
| SN4 | 0.1623326 | 0.063 | 0.086 | 0.005 | 0.09 | 114.34 | 101.87 | 55.73 | 131.89 | 0.54 |
| *MS4 | 0.1638447 | 0.194 | 0.115 | 0.009 | 0.11 | 142.28 | 43.56 | 284.48 | 42.16 | 2.9 |
| S4 | 0.1666667 | 0.102 | 0.117 | -0.006 | 0.10 | 9.37 | 71.42 | 238.85 | 92.15 | 0.76 |
| 2MK5 | 0.2028035 | 0.059 | 0.076 | 0.012 | 0.07 | 23.05 | 104.97 | 37.32 | 117.67 | 0.6 |
| 2SK5 | 0.2084474 | 0.050 | 0.084 | 0.005 | 0.09 | 115.14 | 125.61 | 256.13 | 127.17 | 0.36 |
| *2MN6 | 0.2400221 | 0.268 | 0.128 | 0.019 | 0.09 | 178.92 | 23.28 | 136.38 | 26.19 | 4.4 |
| *M6 | 0.2415342 | 0.457 | 0.115 | 0.004 | 0.09 | 3.97 | 10.87 | 330.78 | 15.60 | 16 |
| *2MS6 | 0.2443561 | 0.165 | 0.113 | -0.012 | 0.09 | 2.34 | 32.55 | 38.94 | 44.56 | 2.2 |
| 2SM6 | 0.2471781 | 0.036 | 0.069 | -0.001 | 0.08 | 34.87 | 102.47 | 94.91 | 168.30 | 0.28 |
| 3MK7 | 0.2833149 | 0.028 | 0.055 | -0.004 | 0.05 | 79.41 | 125.30 | 252.56 | 156.96 | 0.26 |
| M8 | 0.3220456 | 0.032 | 0.040 | 0.027 | 0.04 | 164.71 | 110.13 | 110.04 | 150.42 | 0.63 |

total var= 23.6007 pred var= 14.0503
 percent total var predicted/var original= 59.5 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 10.0 m
 Mooring Number: 4591
 File Name: 4591-alh.nc

nobs = 2167, ngood = 2167, record length (days) = 90.29
 start time: 13-Jun-1995 17:00:00
 rayleigh criterion = 1.0

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

x0= -0.509, x trend= 0

var(x)= 94.1471 var(xp)= 58.7463 var(xres)= 34.2136
 percent var predicted/var original= 62.4 %

y0= 1.33, x trend= 0

var(y)= 61.8212 var(yp)= 8.4535 var(yres)= 53.2797
 percent var predicted/var original= 13.7 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|--------|-------|--------|------|--------|--------|--------|--------|------|
| MM | 0.0015122 | 1.216 | 2.739 | 0.455 | 1.45 | 68.36 | 36.54 | 289.70 | 155.83 | 0.2 |
| MSF | 0.0028219 | 4.105 | 3.415 | -0.341 | 1.72 | 101.95 | 18.51 | 76.07 | 61.83 | 1.4 |
| ALP1 | 0.0343966 | 0.494 | 0.717 | 0.229 | 0.60 | 45.01 | 109.83 | 325.00 | 125.90 | 0.47 |
| 2Q1 | 0.0357064 | 0.443 | 0.601 | -0.007 | 0.56 | 131.58 | 107.11 | 104.00 | 114.03 | 0.54 |
| Q1 | 0.0372185 | 0.556 | 0.676 | -0.288 | 0.62 | 1.52 | 90.23 | 323.80 | 112.95 | 0.68 |
| O1 | 0.0387307 | 0.382 | 0.585 | 0.369 | 0.56 | 111.80 | 144.20 | 67.11 | 154.79 | 0.43 |
| NO1 | 0.0402686 | 0.544 | 0.674 | -0.047 | 0.66 | 81.89 | 102.16 | 89.70 | 111.93 | 0.65 |
| K1 | 0.0417807 | 0.829 | 0.644 | -0.428 | 0.53 | 27.77 | 71.38 | 10.05 | 78.96 | 1.7 |
| J1 | 0.0432929 | 0.733 | 0.709 | 0.031 | 0.66 | 137.96 | 78.53 | 78.01 | 80.43 | 1.1 |
| OO1 | 0.0448308 | 0.581 | 1.216 | -0.111 | 1.01 | 35.66 | 104.25 | 359.94 | 143.83 | 0.23 |
| UPS1 | 0.0463430 | 0.989 | 1.156 | -0.463 | 1.15 | 84.52 | 103.79 | 63.05 | 102.97 | 0.73 |
| EPS2 | 0.0761773 | 0.627 | 1.087 | -0.344 | 1.13 | 78.43 | 115.16 | 194.81 | 136.90 | 0.33 |
| MU2 | 0.0776895 | 0.320 | 0.918 | -0.109 | 1.09 | 64.78 | 128.74 | 308.16 | 214.68 | 0.12 |
| N2 | 0.0789992 | 2.005 | 1.463 | 0.091 | 1.16 | 3.25 | 39.83 | 151.83 | 41.70 | 1.9 |
| *M2 | 0.0805114 | 11.117 | 1.366 | -1.377 | 1.25 | 19.58 | 6.97 | 201.90 | 6.73 | 66 |
| L2 | 0.0820236 | 0.792 | 0.867 | -0.513 | 0.91 | 6.97 | 106.58 | 218.36 | 122.10 | 0.83 |
| S2 | 0.0833333 | 1.263 | 1.173 | -0.197 | 1.29 | 11.46 | 74.19 | 248.22 | 74.92 | 1.2 |
| ETA2 | 0.0850736 | 1.161 | 1.750 | -0.839 | 1.68 | 148.49 | 131.12 | 343.28 | 149.23 | 0.44 |
| MO3 | 0.1192421 | 0.352 | 0.366 | 0.046 | 0.38 | 152.26 | 86.09 | 102.44 | 92.37 | 0.92 |
| M3 | 0.1207671 | 0.109 | 0.299 | 0.026 | 0.24 | 60.22 | 133.10 | 264.27 | 180.35 | 0.13 |
| MK3 | 0.1222921 | 0.150 | 0.341 | -0.032 | 0.29 | 130.62 | 115.78 | 201.75 | 163.90 | 0.19 |
| SK3 | 0.1251141 | 0.317 | 0.366 | -0.009 | 0.32 | 179.04 | 93.23 | 42.83 | 158.25 | 0.75 |
| MN4 | 0.1595106 | 0.434 | 0.316 | 0.040 | 0.34 | 6.66 | 58.60 | 337.60 | 61.10 | 1.9 |
| M4 | 0.1610228 | 0.277 | 0.298 | 0.091 | 0.31 | 14.31 | 80.61 | 58.20 | 90.69 | 0.86 |
| SN4 | 0.1623326 | 0.233 | 0.306 | 0.008 | 0.32 | 15.03 | 94.97 | 226.71 | 106.11 | 0.58 |
| MS4 | 0.1638447 | 0.465 | 0.374 | -0.135 | 0.31 | 3.86 | 59.28 | 109.19 | 59.89 | 1.6 |
| S4 | 0.1666667 | 0.185 | 0.292 | -0.046 | 0.29 | 57.89 | 96.36 | 107.44 | 142.92 | 0.4 |
| 2MK5 | 0.2028035 | 0.149 | 0.221 | -0.059 | 0.22 | 47.74 | 111.05 | 60.38 | 139.27 | 0.45 |
| 2SK5 | 0.2084474 | 0.168 | 0.265 | -0.130 | 0.23 | 88.23 | 131.56 | 172.17 | 143.61 | 0.4 |
| *2MN6 | 0.2400221 | 0.323 | 0.216 | 0.132 | 0.24 | 23.68 | 60.47 | 297.01 | 62.82 | 2.2 |
| *M6 | 0.2415342 | 0.701 | 0.239 | -0.043 | 0.24 | 40.94 | 23.48 | 16.92 | 19.12 | 8.6 |
| 2MS6 | 0.2443561 | 0.207 | 0.211 | -0.041 | 0.20 | 67.58 | 80.10 | 88.76 | 80.76 | 0.96 |
| 2SM6 | 0.2471781 | 0.165 | 0.192 | -0.017 | 0.19 | 52.94 | 98.75 | 148.93 | 93.51 | 0.73 |
| 3MK7 | 0.2833149 | 0.122 | 0.151 | -0.051 | 0.15 | 117.19 | 108.51 | 260.41 | 106.69 | 0.66 |
| *M8 | 0.3220456 | 0.272 | 0.112 | -0.089 | 0.12 | 37.59 | 29.08 | 336.19 | 30.77 | 5.9 |

total var= 155.9682 pred var= 67.1998
 percent total var predicted/var original= 43.1 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 29.2 m
 Mooring Number: 4601

File Name: 4601spd-alh_d1.nc
 nobs = 2518, ngood = 2517, record length (days) = 104.92
 start time: 13-Jun-1995 14:59:59
 rayleigh criterion = 1.0

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

x0= -0.413, x trend= 0

var(x)= 48.1823 var(xp)= 36.5562 var(xres)= 11.6555
 percent var predicted/var original= 75.9 %

y0= 0.709, x trend= 0

var(y)= 6.1441 var(yp)= 3.4211 var(yres)= 2.7195
 percent var predicted/var original= 55.7 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.242 | 0.582 | 0.085 | 0.21 | 167.49 | 28.74 | 175.18 | 132.41 | 0.17 |
| MSF | 0.0028219 | 0.359 | 0.621 | -0.142 | 0.23 | 8.80 | 32.78 | 237.67 | 129.42 | 0.33 |
| ALP1 | 0.0343966 | 0.229 | 0.255 | -0.012 | 0.20 | 151.93 | 47.78 | 43.40 | 67.54 | 0.81 |
| 2Q1 | 0.0357064 | 0.208 | 0.250 | -0.036 | 0.17 | 7.57 | 54.47 | 138.48 | 84.49 | 0.69 |
| Q1 | 0.0372185 | 0.153 | 0.231 | 0.004 | 0.16 | 16.94 | 57.43 | 340.20 | 113.00 | 0.44 |
| O1 | 0.0387307 | 0.278 | 0.237 | 0.147 | 0.18 | 23.42 | 63.30 | 269.59 | 80.35 | 1.4 |
| NO1 | 0.0402686 | 0.172 | 0.214 | -0.071 | 0.20 | 131.44 | 79.58 | 303.60 | 121.84 | 0.65 |
| *K1 | 0.0417807 | 0.529 | 0.209 | -0.061 | 0.24 | 127.43 | 28.41 | 330.52 | 25.68 | 6.4 |
| J1 | 0.0432929 | 0.261 | 0.280 | -0.074 | 0.18 | 5.20 | 44.58 | 107.42 | 74.60 | 0.87 |
| OO1 | 0.0448308 | 0.336 | 0.374 | -0.057 | 0.27 | 142.27 | 65.81 | 345.49 | 100.72 | 0.81 |
| UPS1 | 0.0463430 | 0.092 | 0.350 | 0.026 | 0.25 | 95.12 | 188.65 | 14.95 | 166.00 | 0.069 |
| EPS2 | 0.0761773 | 0.288 | 0.531 | -0.080 | 0.31 | 3.40 | 50.74 | 87.15 | 137.08 | 0.29 |
| MU2 | 0.0776895 | 0.666 | 0.596 | -0.178 | 0.32 | 161.93 | 39.53 | 5.56 | 63.91 | 1.3 |
| *N2 | 0.0789992 | 1.630 | 0.722 | 0.064 | 0.37 | 18.27 | 13.37 | 141.90 | 22.20 | 5.1 |
| *M2 | 0.0805114 | 8.429 | 0.652 | 0.289 | 0.40 | 16.47 | 2.52 | 184.47 | 4.64 | 1.7e+002 |
| L2 | 0.0820236 | 0.784 | 0.603 | 0.031 | 0.29 | 178.16 | 20.84 | 59.36 | 40.27 | 1.7 |
| *S2 | 0.0833333 | 0.988 | 0.694 | -0.000 | 0.39 | 23.08 | 22.39 | 241.21 | 38.80 | 2 |
| ETA2 | 0.0850736 | 0.508 | 0.826 | -0.151 | 0.51 | 173.32 | 59.01 | 66.93 | 118.79 | 0.38 |
| MO3 | 0.1192421 | 0.095 | 0.162 | 0.016 | 0.14 | 87.42 | 153.16 | 228.37 | 114.87 | 0.34 |
| M3 | 0.1207671 | 0.110 | 0.133 | -0.059 | 0.14 | 158.55 | 77.75 | 224.74 | 125.70 | 0.69 |
| MK3 | 0.1222921 | 0.120 | 0.176 | -0.039 | 0.13 | 171.43 | 75.02 | 94.14 | 151.18 | 0.46 |
| SK3 | 0.1251141 | 0.157 | 0.203 | 0.021 | 0.14 | 9.75 | 59.06 | 77.46 | 109.84 | 0.6 |
| MN4 | 0.1595106 | 0.190 | 0.258 | -0.009 | 0.16 | 13.33 | 50.56 | 62.11 | 97.93 | 0.54 |
| *M4 | 0.1610228 | 0.440 | 0.248 | -0.023 | 0.20 | 16.40 | 31.11 | 93.85 | 36.95 | 3.1 |
| SN4 | 0.1623326 | 0.052 | 0.207 | 0.003 | 0.15 | 104.38 | 135.54 | 318.99 | 181.28 | 0.065 |
| MS4 | 0.1638447 | 0.094 | 0.191 | 0.005 | 0.16 | 169.82 | 80.86 | 168.42 | 163.49 | 0.24 |
| S4 | 0.1666667 | 0.200 | 0.260 | -0.019 | 0.19 | 167.21 | 56.09 | 170.69 | 92.46 | 0.6 |
| 2MK5 | 0.2028035 | 0.105 | 0.103 | -0.032 | 0.12 | 91.39 | 116.84 | 130.88 | 80.87 | 1 |
| 2SK5 | 0.2084474 | 0.138 | 0.116 | -0.055 | 0.11 | 35.57 | 66.49 | 325.94 | 66.01 | 1.4 |
| *2MN6 | 0.2400221 | 0.276 | 0.143 | -0.032 | 0.14 | 40.16 | 30.13 | 315.24 | 30.76 | 3.7 |
| *M6 | 0.2415342 | 0.473 | 0.164 | 0.023 | 0.13 | 31.78 | 15.03 | 4.01 | 17.99 | 8.3 |
| 2MS6 | 0.2443561 | 0.132 | 0.135 | 0.016 | 0.09 | 21.69 | 54.02 | 55.20 | 70.74 | 0.95 |
| 2SM6 | 0.2471781 | 0.043 | 0.101 | 0.017 | 0.10 | 148.44 | 102.93 | 1.53 | 155.15 | 0.18 |
| 3MK7 | 0.2833149 | 0.047 | 0.085 | 0.013 | 0.08 | 160.81 | 102.88 | 21.13 | 155.16 | 0.3 |
| M8 | 0.3220456 | 0.074 | 0.066 | -0.031 | 0.05 | 172.16 | 51.64 | 99.44 | 74.37 | 1.3 |

total var= 54.3264 pred var= 39.9773
 percent total var predicted/var original= 73.6 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 28.8 m
 Mooring Number: 4621

File Name: 4621spd-alh_d1.nc
 nobs = 3065, ngood = 3065, record length (days) = 127.71
 start time: 26-Sep-1995 18:59:57
 rayleigh criterion = 1.0

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

x0= -0.743, x trend= 0

var(x)= 26.8474 var(xp)= 9.4562 var(xres)= 17.3123
 percent var predicted/var original= 35.2 %

y0= -0.403, x trend= 0

var(y)= 8.2178 var(yp)= 2.9146 var(yres)= 5.2675
 percent var predicted/var original= 35.5 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|-------|-------|--------|------|--------|--------|--------|--------|-------|
| MM | 0.0015122 | 0.440 | 0.576 | 0.077 | 0.58 | 78.71 | 139.35 | 155.86 | 99.58 | 0.58 |
| MSF | 0.0028219 | 1.086 | 0.890 | -0.091 | 0.46 | 179.82 | 27.74 | 136.85 | 66.02 | 1.5 |
| ALP1 | 0.0343966 | 0.156 | 0.299 | -0.018 | 0.26 | 34.46 | 75.99 | 158.58 | 136.31 | 0.27 |
| 2Q1 | 0.0357064 | 0.362 | 0.312 | 0.063 | 0.34 | 118.62 | 68.36 | 127.52 | 64.78 | 1.3 |
| Q1 | 0.0372185 | 0.251 | 0.290 | 0.038 | 0.33 | 119.13 | 85.46 | 279.97 | 87.60 | 0.75 |
| O1 | 0.0387307 | 0.263 | 0.289 | 0.088 | 0.24 | 0.49 | 75.38 | 266.14 | 99.37 | 0.83 |
| NO1 | 0.0402686 | 0.162 | 0.241 | 0.034 | 0.23 | 111.93 | 119.51 | 29.02 | 132.33 | 0.45 |
| K1 | 0.0417807 | 0.153 | 0.211 | -0.016 | 0.25 | 59.74 | 111.27 | 127.36 | 132.45 | 0.52 |
| J1 | 0.0432929 | 0.135 | 0.251 | 0.036 | 0.26 | 147.40 | 107.02 | 49.90 | 139.87 | 0.29 |
| OO1 | 0.0448308 | 0.497 | 0.570 | -0.027 | 0.51 | 25.50 | 72.17 | 301.61 | 88.98 | 0.76 |
| UPS1 | 0.0463430 | 0.302 | 0.413 | -0.092 | 0.48 | 69.83 | 129.86 | 65.27 | 121.00 | 0.53 |
| EPS2 | 0.0761773 | 0.175 | 0.500 | 0.048 | 0.44 | 160.80 | 101.81 | 205.67 | 143.07 | 0.12 |
| MU2 | 0.0776895 | 0.357 | 0.458 | 0.171 | 0.46 | 177.00 | 98.28 | 266.56 | 138.29 | 0.61 |
| N2 | 0.0789992 | 0.642 | 0.588 | -0.141 | 0.52 | 26.12 | 57.80 | 142.81 | 80.14 | 1.2 |
| *M2 | 0.0805114 | 4.797 | 0.717 | 0.013 | 0.61 | 28.95 | 7.80 | 151.80 | 8.43 | 45 |
| L2 | 0.0820236 | 0.399 | 0.434 | 0.016 | 0.43 | 24.18 | 76.01 | 81.34 | 107.14 | 0.84 |
| S2 | 0.0833333 | 0.639 | 0.676 | 0.166 | 0.54 | 23.80 | 62.00 | 163.83 | 78.34 | 0.9 |
| ETA2 | 0.0850736 | 0.352 | 0.735 | -0.100 | 0.84 | 155.71 | 115.48 | 89.92 | 152.11 | 0.23 |
| MO3 | 0.1192421 | 0.051 | 0.104 | -0.035 | 0.10 | 63.95 | 138.96 | 251.50 | 179.26 | 0.24 |
| M3 | 0.1207671 | 0.092 | 0.091 | -0.014 | 0.08 | 166.04 | 81.73 | 53.69 | 86.28 | 1 |
| MK3 | 0.1222921 | 0.055 | 0.099 | 0.007 | 0.10 | 33.18 | 111.37 | 279.24 | 148.44 | 0.31 |
| SK3 | 0.1251141 | 0.114 | 0.110 | 0.002 | 0.11 | 161.50 | 75.03 | 141.22 | 77.26 | 1.1 |
| MN4 | 0.1595106 | 0.178 | 0.130 | 0.008 | 0.13 | 37.02 | 40.90 | 11.26 | 40.58 | 1.9 |
| *M4 | 0.1610228 | 0.368 | 0.141 | -0.058 | 0.13 | 41.61 | 22.02 | 358.21 | 22.68 | 6.8 |
| SN4 | 0.1623326 | 0.084 | 0.100 | -0.016 | 0.12 | 56.81 | 108.14 | 97.16 | 94.14 | 0.71 |
| MS4 | 0.1638447 | 0.168 | 0.121 | -0.052 | 0.14 | 65.87 | 69.86 | 91.39 | 55.32 | 1.9 |
| S4 | 0.1666667 | 0.074 | 0.103 | -0.005 | 0.09 | 22.84 | 72.87 | 49.54 | 115.96 | 0.51 |
| 2MK5 | 0.2028035 | 0.049 | 0.065 | 0.000 | 0.05 | 27.01 | 96.45 | 312.34 | 94.51 | 0.58 |
| 2SK5 | 0.2084474 | 0.059 | 0.061 | 0.019 | 0.06 | 43.43 | 90.30 | 47.86 | 91.70 | 0.94 |
| 2MN6 | 0.2400221 | 0.076 | 0.102 | 0.041 | 0.09 | 7.28 | 100.68 | 342.14 | 104.04 | 0.55 |
| M6 | 0.2415342 | 0.104 | 0.106 | 0.042 | 0.09 | 24.80 | 85.05 | 352.26 | 80.47 | 0.96 |
| 2MS6 | 0.2443561 | 0.057 | 0.088 | 0.023 | 0.09 | 113.65 | 120.15 | 76.21 | 123.42 | 0.42 |
| 2SM6 | 0.2471781 | 0.030 | 0.096 | 0.011 | 0.09 | 121.86 | 138.86 | 157.26 | 207.54 | 0.097 |
| 3MK7 | 0.2833149 | 0.038 | 0.049 | 0.001 | 0.05 | 38.07 | 84.09 | 90.47 | 98.08 | 0.6 |
| *M8 | 0.3220456 | 0.062 | 0.042 | -0.032 | 0.03 | 21.78 | 49.42 | 241.79 | 53.39 | 2.2 |

total var= 35.0652 pred var= 12.3708
 percent total var predicted/var original= 35.3 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 32.2 m
 Mooring Number: 4651

File Name: 4651spd-alh_d1.nc
 nobs = 2828, ngood = 2827, record length (days) = 117.83
 start time: 14-Feb-1996 17:59:59
 rayleigh criterion = 1.0

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

x0= -0.51, x trend= 0

var(x)= 28.6286 var(xp)= 17.3441 var(xres)= 11.3286
 percent var predicted/var original= 60.6 %

y0= -0.296, x trend= 0

var(y)= 16.7091 var(yp)= 12.3255 var(yres)= 4.3831
 percent var predicted/var original= 73.8 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.989 | 1.015 | 0.102 | 0.44 | 8.85 | 20.86 | 324.55 | 70.54 | 0.95 |
| MSF | 0.0028219 | 0.394 | 0.895 | -0.090 | 0.37 | 174.88 | 29.14 | 242.27 | 154.37 | 0.19 |
| ALP1 | 0.0343966 | 0.222 | 0.252 | -0.043 | 0.29 | 82.59 | 122.24 | 36.39 | 96.60 | 0.77 |
| 2Q1 | 0.0357064 | 0.151 | 0.295 | -0.045 | 0.23 | 16.82 | 83.89 | 358.18 | 136.84 | 0.26 |
| Q1 | 0.0372185 | 0.253 | 0.282 | -0.141 | 0.29 | 19.21 | 81.32 | 328.57 | 117.86 | 0.8 |
| O1 | 0.0387307 | 0.379 | 0.294 | 0.103 | 0.29 | 46.57 | 60.47 | 269.59 | 66.26 | 1.7 |
| NO1 | 0.0402686 | 0.207 | 0.243 | -0.123 | 0.30 | 85.54 | 137.03 | 203.54 | 102.51 | 0.73 |
| *K1 | 0.0417807 | 0.444 | 0.288 | -0.224 | 0.26 | 32.17 | 52.89 | 347.84 | 70.62 | 2.4 |
| J1 | 0.0432929 | 0.035 | 0.234 | 0.002 | 0.22 | 137.21 | 93.35 | 51.41 | 261.58 | 0.022 |
| OO1 | 0.0448308 | 0.457 | 0.586 | -0.083 | 0.45 | 6.40 | 59.87 | 234.31 | 107.45 | 0.61 |
| UPS1 | 0.0463430 | 0.311 | 0.458 | -0.152 | 0.43 | 47.76 | 98.10 | 359.62 | 129.95 | 0.46 |
| EPS2 | 0.0761773 | 0.168 | 0.324 | 0.012 | 0.30 | 40.01 | 95.60 | 119.97 | 130.11 | 0.27 |
| MU2 | 0.0776895 | 0.392 | 0.357 | -0.085 | 0.33 | 166.23 | 53.60 | 130.34 | 67.01 | 1.2 |
| *N2 | 0.0789992 | 1.346 | 0.408 | 0.032 | 0.37 | 34.82 | 15.80 | 149.42 | 15.70 | 11 |
| *M2 | 0.0805114 | 7.063 | 0.389 | 0.951 | 0.35 | 40.16 | 3.26 | 177.97 | 3.51 | 3.3e+002 |
| *L2 | 0.0820236 | 0.570 | 0.334 | -0.033 | 0.33 | 32.49 | 41.42 | 220.46 | 41.92 | 2.9 |
| *S2 | 0.0833333 | 1.071 | 0.402 | 0.119 | 0.37 | 38.98 | 22.52 | 208.80 | 23.55 | 7.1 |
| ETA2 | 0.0850736 | 0.721 | 0.604 | -0.277 | 0.51 | 9.73 | 61.87 | 280.54 | 68.76 | 1.4 |
| MO3 | 0.1192421 | 0.127 | 0.159 | 0.063 | 0.18 | 97.82 | 122.36 | 80.20 | 116.19 | 0.64 |
| M3 | 0.1207671 | 0.053 | 0.137 | -0.018 | 0.12 | 14.65 | 118.81 | 229.17 | 173.27 | 0.15 |
| MK3 | 0.1222921 | 0.057 | 0.149 | 0.036 | 0.13 | 8.88 | 116.53 | 248.58 | 193.89 | 0.15 |
| SK3 | 0.1251141 | 0.194 | 0.192 | -0.184 | 0.19 | 159.74 | 134.83 | 317.66 | 139.78 | 1 |
| MN4 | 0.1595106 | 0.096 | 0.126 | -0.030 | 0.11 | 25.09 | 86.95 | 95.05 | 93.83 | 0.59 |
| *M4 | 0.1610228 | 0.399 | 0.138 | -0.088 | 0.13 | 28.74 | 21.53 | 67.43 | 22.58 | 8.4 |
| SN4 | 0.1623326 | 0.056 | 0.116 | 0.036 | 0.11 | 159.72 | 123.97 | 249.99 | 193.02 | 0.23 |
| *MS4 | 0.1638447 | 0.230 | 0.135 | -0.114 | 0.12 | 24.96 | 50.91 | 83.65 | 57.17 | 2.9 |
| S4 | 0.1666667 | 0.098 | 0.132 | -0.016 | 0.11 | 47.81 | 89.59 | 193.24 | 100.59 | 0.55 |
| 2MK5 | 0.2028035 | 0.083 | 0.089 | -0.011 | 0.09 | 35.19 | 85.82 | 204.36 | 75.72 | 0.88 |
| 2SK5 | 0.2084474 | 0.048 | 0.094 | -0.001 | 0.08 | 47.58 | 104.37 | 287.35 | 174.95 | 0.26 |
| *2MN6 | 0.2400221 | 0.228 | 0.115 | -0.008 | 0.10 | 59.12 | 30.99 | 300.04 | 29.75 | 3.9 |
| *M6 | 0.2415342 | 0.523 | 0.124 | 0.059 | 0.11 | 56.44 | 13.31 | 338.64 | 13.12 | 18 |
| 2MS6 | 0.2443561 | 0.126 | 0.096 | 0.059 | 0.10 | 60.71 | 75.03 | 35.50 | 65.06 | 1.7 |
| 2SM6 | 0.2471781 | 0.108 | 0.098 | -0.005 | 0.10 | 48.46 | 72.11 | 148.74 | 66.81 | 1.2 |
| 3MK7 | 0.2833149 | 0.032 | 0.064 | -0.002 | 0.06 | 15.05 | 108.66 | 48.28 | 166.37 | 0.24 |
| *M8 | 0.3220456 | 0.117 | 0.052 | -0.006 | 0.05 | 25.82 | 25.29 | 251.19 | 28.18 | 5.1 |

total var= 45.3377 pred var= 29.6696
 percent total var predicted/var original= 65.4 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 30.5 m
 Mooring Number: 4701

File Name: 4701spd-alh_d1.nc
 nobs = 2706, ngood = 2705, record length (days) = 112.75
 start time: 11-Jun-1996 17:00:00
 rayleigh criterion = 1.0

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

x0= -1.29, x trend= 0

var(x)= 49.6935 var(xp)= 31.6512 var(xres)= 18.243
 percent var predicted/var original= 63.7 %

y0= 0.0792, x trend= 0

var(y)= 7.5336 var(yp)= 3.5877 var(yres)= 3.9406
 percent var predicted/var original= 47.6 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.513 | 0.682 | -0.194 | 0.52 | 154.61 | 60.15 | 201.32 | 112.44 | 0.57 |
| MSF | 0.0028219 | 0.768 | 0.908 | -0.120 | 0.48 | 11.39 | 31.69 | 123.04 | 80.25 | 0.72 |
| ALP1 | 0.0343966 | 0.122 | 0.222 | 0.034 | 0.17 | 112.32 | 103.51 | 244.32 | 129.48 | 0.3 |
| 2Q1 | 0.0357064 | 0.239 | 0.263 | -0.023 | 0.16 | 4.39 | 36.63 | 76.88 | 85.34 | 0.83 |
| Q1 | 0.0372185 | 0.144 | 0.205 | 0.010 | 0.18 | 52.87 | 72.78 | 337.27 | 106.34 | 0.49 |
| O1 | 0.0387307 | 0.439 | 0.342 | -0.044 | 0.17 | 0.47 | 25.49 | 315.81 | 52.17 | 1.6 |
| NO1 | 0.0402686 | 0.180 | 0.212 | -0.115 | 0.20 | 121.12 | 107.15 | 53.60 | 100.43 | 0.72 |
| *K1 | 0.0417807 | 0.486 | 0.276 | 0.098 | 0.23 | 143.91 | 26.07 | 342.81 | 38.10 | 3.1 |
| J1 | 0.0432929 | 0.263 | 0.203 | -0.170 | 0.22 | 109.46 | 106.95 | 71.97 | 74.32 | 1.7 |
| OO1 | 0.0448308 | 0.407 | 0.422 | -0.083 | 0.27 | 177.07 | 42.16 | 142.83 | 88.10 | 0.93 |
| UPS1 | 0.0463430 | 0.308 | 0.421 | 0.055 | 0.30 | 22.69 | 52.88 | 131.73 | 114.86 | 0.53 |
| EPS2 | 0.0761773 | 0.521 | 0.532 | -0.101 | 0.38 | 17.07 | 40.67 | 280.24 | 85.05 | 0.96 |
| MU2 | 0.0776895 | 0.349 | 0.494 | -0.005 | 0.30 | 160.05 | 46.41 | 188.08 | 99.59 | 0.5 |
| *N2 | 0.0789992 | 1.669 | 0.569 | 0.491 | 0.33 | 14.71 | 15.45 | 139.46 | 23.42 | 8.6 |
| *M2 | 0.0805114 | 7.703 | 0.588 | 0.205 | 0.38 | 18.35 | 2.95 | 183.56 | 4.31 | 1.7e+002 |
| L2 | 0.0820236 | 0.653 | 0.483 | -0.048 | 0.30 | 171.02 | 31.75 | 34.65 | 57.37 | 1.8 |
| *S2 | 0.0833333 | 1.194 | 0.636 | -0.017 | 0.35 | 16.25 | 16.88 | 220.24 | 34.64 | 3.5 |
| ETA2 | 0.0850736 | 0.388 | 0.709 | 0.034 | 0.53 | 10.11 | 51.67 | 269.52 | 137.41 | 0.3 |
| MO3 | 0.1192421 | 0.240 | 0.213 | -0.063 | 0.17 | 149.72 | 49.71 | 53.17 | 64.13 | 1.3 |
| M3 | 0.1207671 | 0.051 | 0.127 | -0.004 | 0.11 | 26.84 | 91.05 | 185.32 | 180.86 | 0.16 |
| MK3 | 0.1222921 | 0.202 | 0.211 | -0.075 | 0.17 | 167.66 | 54.24 | 75.17 | 85.92 | 0.92 |
| SK3 | 0.1251141 | 0.068 | 0.138 | -0.011 | 0.14 | 51.69 | 106.81 | 22.10 | 173.54 | 0.24 |
| MN4 | 0.1595106 | 0.108 | 0.158 | -0.078 | 0.14 | 31.24 | 114.19 | 325.22 | 134.24 | 0.47 |
| *M4 | 0.1610228 | 0.646 | 0.226 | -0.039 | 0.18 | 169.84 | 17.05 | 242.12 | 20.74 | 8.1 |
| SN4 | 0.1623326 | 0.228 | 0.200 | 0.103 | 0.18 | 153.87 | 71.79 | 335.73 | 84.08 | 1.3 |
| MS4 | 0.1638447 | 0.210 | 0.204 | 0.070 | 0.17 | 1.32 | 60.51 | 33.99 | 81.25 | 1.1 |
| S4 | 0.1666667 | 0.132 | 0.183 | -0.081 | 0.17 | 128.84 | 106.43 | 198.88 | 102.97 | 0.52 |
| 2MK5 | 0.2028035 | 0.101 | 0.112 | -0.038 | 0.11 | 38.47 | 106.92 | 112.29 | 102.89 | 0.81 |
| 2SK5 | 0.2084474 | 0.103 | 0.113 | -0.058 | 0.10 | 54.02 | 108.76 | 302.63 | 98.71 | 0.82 |
| *2MN6 | 0.2400221 | 0.220 | 0.153 | -0.005 | 0.14 | 34.33 | 39.76 | 332.85 | 48.63 | 2.1 |
| *M6 | 0.2415342 | 0.456 | 0.175 | -0.010 | 0.15 | 36.19 | 18.73 | 347.93 | 19.88 | 6.8 |
| *2MS6 | 0.2443561 | 0.212 | 0.147 | 0.027 | 0.14 | 47.02 | 40.71 | 62.70 | 45.48 | 2.1 |
| 2SM6 | 0.2471781 | 0.046 | 0.118 | -0.021 | 0.12 | 100.67 | 164.74 | 49.02 | 185.77 | 0.15 |
| 3MK7 | 0.2833149 | 0.051 | 0.075 | -0.045 | 0.08 | 53.33 | 116.91 | 313.13 | 132.50 | 0.47 |
| M8 | 0.3220456 | 0.085 | 0.063 | -0.032 | 0.05 | 25.56 | 52.37 | 308.04 | 60.94 | 1.8 |

total var= 57.2271 pred var= 35.2389
 percent total var predicted/var original= 61.6 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 28.0 m
 Mooring Number: 4801
 File Name: 4801spd-alh_d1.nc
 nobs = 3112, ngood = 3111, record length (days) = 129.67
 start time: 01-Oct-1996 18:59:59
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.876, x trend= 0

var(x)= 12.5706 var(xp)= 6.2384 var(xres)= 6.3356
 percent var predicted/var original= 49.6 %

y0= -0.219, x trend= 0

var(y)= 10.7835 var(yp)= 4.5109 var(yres)= 6.2698
 percent var predicted/var original= 41.8 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.978 | 0.877 | -0.195 | 0.84 | 147.68 | 53.43 | 196.87 | 70.18 | 1.2 |
| MSF | 0.0028219 | 0.446 | 0.651 | -0.183 | 0.53 | 137.03 | 114.92 | 350.45 | 123.08 | 0.47 |
| ALP1 | 0.0343966 | 0.066 | 0.231 | -0.043 | 0.23 | 172.60 | 154.80 | 315.49 | 191.96 | 0.082 |
| 2Q1 | 0.0357064 | 0.147 | 0.268 | 0.036 | 0.21 | 179.07 | 112.57 | 55.63 | 145.33 | 0.3 |
| Q1 | 0.0372185 | 0.150 | 0.254 | 0.086 | 0.25 | 143.28 | 122.47 | 283.05 | 134.99 | 0.35 |
| O1 | 0.0387307 | 0.232 | 0.263 | -0.016 | 0.25 | 80.65 | 88.86 | 301.45 | 90.60 | 0.78 |
| NO1 | 0.0402686 | 0.124 | 0.207 | -0.031 | 0.19 | 129.74 | 113.28 | 46.06 | 134.16 | 0.36 |
| K1 | 0.0417807 | 0.284 | 0.265 | 0.060 | 0.26 | 81.18 | 73.21 | 290.67 | 71.37 | 1.1 |
| J1 | 0.0432929 | 0.284 | 0.260 | -0.179 | 0.28 | 117.18 | 102.63 | 217.13 | 109.42 | 1.2 |
| OO1 | 0.0448308 | 0.118 | 0.363 | -0.026 | 0.32 | 106.16 | 116.98 | 149.66 | 177.77 | 0.11 |
| UPS1 | 0.0463430 | 0.310 | 0.409 | 0.257 | 0.40 | 99.25 | 122.68 | 280.87 | 135.44 | 0.58 |
| EPS2 | 0.0761773 | 0.343 | 0.250 | 0.096 | 0.33 | 109.86 | 83.32 | 221.45 | 61.42 | 1.9 |
| MU2 | 0.0776895 | 0.163 | 0.313 | -0.086 | 0.26 | 98.55 | 180.14 | 2.59 | 133.40 | 0.27 |
| *N2 | 0.0789992 | 0.963 | 0.334 | 0.097 | 0.36 | 43.06 | 20.54 | 163.65 | 22.56 | 8.3 |
| *M2 | 0.0805114 | 4.167 | 0.339 | 1.128 | 0.34 | 39.69 | 5.42 | 184.36 | 5.32 | 1.5e+002 |
| L2 | 0.0820236 | 0.405 | 0.348 | 0.004 | 0.32 | 42.41 | 51.23 | 159.66 | 53.20 | 1.4 |
| *S2 | 0.0833333 | 0.658 | 0.362 | 0.096 | 0.35 | 34.88 | 28.70 | 232.88 | 33.79 | 3.3 |
| ETA2 | 0.0850736 | 0.239 | 0.465 | -0.141 | 0.44 | 61.63 | 110.90 | 26.86 | 135.51 | 0.26 |
| MO3 | 0.1192421 | 0.175 | 0.147 | 0.043 | 0.13 | 117.32 | 63.66 | 295.72 | 62.36 | 1.4 |
| M3 | 0.1207671 | 0.115 | 0.108 | 0.070 | 0.11 | 67.54 | 102.66 | 198.55 | 121.73 | 1.1 |
| MK3 | 0.1222921 | 0.125 | 0.131 | -0.056 | 0.14 | 116.48 | 78.89 | 306.44 | 92.73 | 0.91 |
| SK3 | 0.1251141 | 0.135 | 0.137 | 0.015 | 0.13 | 64.92 | 57.52 | 146.44 | 92.38 | 0.97 |
| MN4 | 0.1595106 | 0.116 | 0.113 | -0.007 | 0.12 | 18.01 | 82.09 | 29.85 | 70.33 | 1.1 |
| *M4 | 0.1610228 | 0.415 | 0.130 | 0.056 | 0.14 | 8.00 | 20.93 | 19.56 | 14.62 | 10 |
| SN4 | 0.1623326 | 0.151 | 0.123 | 0.006 | 0.11 | 126.73 | 51.17 | 222.36 | 59.30 | 1.5 |
| MS4 | 0.1638447 | 0.109 | 0.112 | -0.003 | 0.12 | 4.11 | 89.83 | 69.95 | 77.15 | 0.95 |
| S4 | 0.1666667 | 0.045 | 0.089 | -0.005 | 0.08 | 82.89 | 109.71 | 326.78 | 175.93 | 0.26 |
| 2MK5 | 0.2028035 | 0.070 | 0.074 | -0.013 | 0.07 | 102.49 | 69.84 | 345.48 | 86.19 | 0.91 |
| 2SK5 | 0.2084474 | 0.022 | 0.065 | 0.011 | 0.07 | 155.04 | 128.87 | 70.20 | 189.23 | 0.11 |
| *2MN6 | 0.2400221 | 0.180 | 0.081 | 0.077 | 0.08 | 77.44 | 33.85 | 338.66 | 48.22 | 4.9 |
| *M6 | 0.2415342 | 0.425 | 0.087 | 0.133 | 0.08 | 56.02 | 14.56 | 349.41 | 14.27 | 24 |
| *2MS6 | 0.2443561 | 0.177 | 0.102 | 0.047 | 0.09 | 46.25 | 33.55 | 38.66 | 38.12 | 3 |
| 2SM6 | 0.2471781 | 0.059 | 0.081 | -0.020 | 0.08 | 163.25 | 121.09 | 339.18 | 110.68 | 0.53 |
| 3MK7 | 0.2833149 | 0.055 | 0.052 | 0.003 | 0.06 | 5.21 | 98.04 | 30.58 | 65.35 | 1.1 |
| *M8 | 0.3220456 | 0.086 | 0.042 | 0.027 | 0.05 | 140.03 | 36.56 | 53.82 | 37.97 | 4.2 |

total var= 23.3541 pred var= 10.7492
 percent total var predicted/var original= 46.0 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 28.6 m
 Mooring Number: 4951
 File Name: 4951spd-alh_d1.nc
 nobs = 2830, ngood = 2829, record length (days) = 117.92
 start time: 12-Feb-1997 15:00:00
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= 0.709, x trend= 0

var(x)= 32.7739 var(xp)= 19.3925 var(xres)= 13.3869
 percent var predicted/var original= 59.2 %

y0= 1.04, x trend= 0

var(y)= 9.151 var(yp)= 5.726 var(yres)= 3.4208
 percent var predicted/var original= 62.6 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.662 | 1.217 | -0.077 | 0.44 | 0.01 | 23.74 | 313.80 | 136.66 | 0.3 |
| MSF | 0.0028219 | 0.434 | 1.259 | 0.176 | 0.45 | 170.37 | 27.71 | 139.79 | 179.87 | 0.12 |
| ALP1 | 0.0343966 | 0.285 | 0.255 | 0.082 | 0.25 | 157.68 | 54.52 | 269.00 | 90.04 | 1.3 |
| 2Q1 | 0.0357064 | 0.146 | 0.259 | -0.098 | 0.25 | 146.94 | 101.72 | 105.49 | 193.80 | 0.32 |
| Q1 | 0.0372185 | 0.212 | 0.290 | -0.115 | 0.26 | 105.01 | 144.48 | 131.22 | 118.15 | 0.53 |
| O1 | 0.0387307 | 0.304 | 0.295 | -0.231 | 0.23 | 32.36 | 93.10 | 258.08 | 105.96 | 1.1 |
| NO1 | 0.0402686 | 0.140 | 0.205 | 0.090 | 0.18 | 170.06 | 83.09 | 342.01 | 151.32 | 0.46 |
| K1 | 0.0417807 | 0.405 | 0.311 | -0.292 | 0.23 | 13.98 | 80.09 | 328.95 | 98.68 | 1.7 |
| J1 | 0.0432929 | 0.387 | 0.323 | 0.103 | 0.28 | 169.25 | 44.30 | 353.89 | 70.87 | 1.4 |
| OO1 | 0.0448308 | 0.089 | 0.356 | 0.025 | 0.36 | 113.85 | 135.98 | 292.24 | 191.79 | 0.062 |
| UPS1 | 0.0463430 | 0.453 | 0.443 | -0.017 | 0.41 | 144.71 | 71.91 | 243.88 | 69.56 | 1 |
| EPS2 | 0.0761773 | 0.101 | 0.245 | -0.028 | 0.18 | 37.42 | 55.46 | 331.24 | 169.49 | 0.17 |
| MU2 | 0.0776895 | 0.212 | 0.268 | -0.116 | 0.22 | 154.61 | 74.87 | 331.65 | 125.88 | 0.63 |
| *N2 | 0.0789992 | 1.336 | 0.342 | -0.021 | 0.28 | 28.23 | 11.07 | 153.50 | 16.33 | 15 |
| *M2 | 0.0805114 | 6.456 | 0.343 | 0.869 | 0.24 | 27.89 | 2.21 | 181.08 | 3.23 | 3.5e+002 |
| *L2 | 0.0820236 | 0.684 | 0.360 | -0.043 | 0.29 | 155.59 | 22.21 | 340.69 | 38.18 | 3.6 |
| *S2 | 0.0833333 | 1.142 | 0.404 | 0.106 | 0.28 | 26.40 | 13.49 | 206.08 | 22.21 | 8 |
| ETA2 | 0.0850736 | 0.408 | 0.555 | -0.017 | 0.32 | 8.72 | 44.46 | 176.47 | 105.26 | 0.54 |
| MO3 | 0.1192421 | 0.112 | 0.160 | -0.003 | 0.15 | 24.85 | 73.92 | 189.21 | 114.64 | 0.5 |
| M3 | 0.1207671 | 0.051 | 0.111 | 0.034 | 0.10 | 115.65 | 144.69 | 141.68 | 153.04 | 0.21 |
| MK3 | 0.1222921 | 0.103 | 0.126 | -0.023 | 0.14 | 93.00 | 130.65 | 30.11 | 102.62 | 0.67 |
| SK3 | 0.1251141 | 0.060 | 0.114 | -0.039 | 0.12 | 155.66 | 105.73 | 227.95 | 164.33 | 0.28 |
| MN4 | 0.1595106 | 0.085 | 0.122 | -0.027 | 0.11 | 51.35 | 96.52 | 33.83 | 97.24 | 0.49 |
| *M4 | 0.1610228 | 0.314 | 0.168 | -0.055 | 0.14 | 19.24 | 30.83 | 58.80 | 35.58 | 3.5 |
| SN4 | 0.1623326 | 0.032 | 0.112 | 0.011 | 0.10 | 177.61 | 104.04 | 226.22 | 214.99 | 0.083 |
| MS4 | 0.1638447 | 0.152 | 0.148 | 0.015 | 0.12 | 176.93 | 62.26 | 284.50 | 110.12 | 1.1 |
| S4 | 0.1666667 | 0.079 | 0.123 | -0.030 | 0.12 | 159.15 | 95.96 | 279.75 | 124.99 | 0.41 |
| 2MK5 | 0.2028035 | 0.041 | 0.077 | 0.015 | 0.07 | 148.62 | 111.53 | 272.92 | 141.23 | 0.28 |
| 2SK5 | 0.2084474 | 0.110 | 0.090 | 0.008 | 0.10 | 68.22 | 64.48 | 151.75 | 66.53 | 1.5 |
| *2MN6 | 0.2400221 | 0.215 | 0.083 | 0.007 | 0.09 | 47.25 | 21.74 | 295.62 | 22.74 | 6.7 |
| *M6 | 0.2415342 | 0.438 | 0.078 | -0.026 | 0.09 | 51.94 | 12.26 | 344.69 | 11.82 | 31 |
| *2MS6 | 0.2443561 | 0.180 | 0.072 | 0.033 | 0.09 | 84.23 | 39.41 | 47.12 | 26.50 | 6.2 |
| 2SM6 | 0.2471781 | 0.080 | 0.097 | 0.040 | 0.08 | 33.67 | 74.09 | 20.60 | 99.19 | 0.68 |
| 3MK7 | 0.2833149 | 0.042 | 0.057 | 0.009 | 0.05 | 16.88 | 94.60 | 65.70 | 103.85 | 0.53 |
| *M8 | 0.3220456 | 0.074 | 0.044 | -0.011 | 0.04 | 19.05 | 32.92 | 269.22 | 36.87 | 2.9 |

total var= 41.9249 pred var= 25.1184
 percent total var predicted/var original= 59.9 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 28.6 m
 Mooring Number: 5011

File Name: 5011spd-alh_d1.nc
 nobs = 2516, ngood = 2515, record length (days) = 104.83
 start time: 10-Jun-1997 14:59:59
 rayleigh criterion = 1.0

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

x0= -0.85, x trend= 0

var(x)= 46.3008 var(xp)= 30.5218 var(xres)= 15.7768
 percent var predicted/var original= 65.9 %

y0= -0.567, x trend= 0

var(y)= 13.1812 var(yp)= 8.9136 var(yres)= 4.269
 percent var predicted/var original= 67.6 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|-------|
| MM | 0.0015122 | 0.107 | 0.838 | 0.028 | 0.32 | 43.99 | 26.22 | 342.19 | 238.24 | 0.016 |
| MSF | 0.0028219 | 0.123 | 0.851 | 0.035 | 0.28 | 176.30 | 25.13 | 54.17 | 231.27 | 0.021 |
| ALP1 | 0.0343966 | 0.060 | 0.222 | -0.032 | 0.18 | 144.65 | 75.73 | 64.46 | 234.88 | 0.074 |
| 2Q1 | 0.0357064 | 0.242 | 0.285 | -0.025 | 0.20 | 19.71 | 50.17 | 291.10 | 87.36 | 0.72 |
| Q1 | 0.0372185 | 0.231 | 0.277 | -0.119 | 0.23 | 23.91 | 67.94 | 249.01 | 107.68 | 0.69 |
| O1 | 0.0387307 | 0.156 | 0.219 | -0.014 | 0.22 | 61.90 | 98.35 | 228.56 | 117.44 | 0.51 |
| NO1 | 0.0402686 | 0.052 | 0.161 | 0.021 | 0.13 | 88.33 | 182.28 | 341.67 | 177.82 | 0.1 |
| *K1 | 0.0417807 | 0.418 | 0.244 | -0.073 | 0.29 | 123.85 | 47.41 | 296.32 | 37.32 | 2.9 |
| J1 | 0.0432929 | 0.172 | 0.191 | -0.014 | 0.22 | 98.34 | 138.82 | 248.30 | 87.66 | 0.81 |
| OO1 | 0.0448308 | 0.362 | 0.421 | 0.038 | 0.23 | 179.75 | 42.58 | 293.98 | 78.83 | 0.74 |
| UPS1 | 0.0463430 | 0.446 | 0.493 | 0.038 | 0.30 | 6.78 | 42.50 | 192.86 | 71.28 | 0.82 |
| EPS2 | 0.0761773 | 0.700 | 0.789 | -0.291 | 0.45 | 2.33 | 42.77 | 211.85 | 108.69 | 0.79 |
| MU2 | 0.0776895 | 0.577 | 0.707 | -0.211 | 0.45 | 16.35 | 45.64 | 328.37 | 118.32 | 0.67 |
| *N2 | 0.0789992 | 1.298 | 0.890 | 0.165 | 0.63 | 34.52 | 29.42 | 149.79 | 36.69 | 2.1 |
| *M2 | 0.0805114 | 8.407 | 0.885 | -0.032 | 0.72 | 28.03 | 4.13 | 182.38 | 6.70 | 90 |
| L2 | 0.0820236 | 0.936 | 0.966 | -0.014 | 0.60 | 25.28 | 34.40 | 251.24 | 74.13 | 0.94 |
| S2 | 0.0833333 | 1.243 | 1.018 | 0.022 | 0.64 | 24.81 | 23.92 | 218.42 | 41.07 | 1.5 |
| ETA2 | 0.0850736 | 0.507 | 1.217 | 0.353 | 0.87 | 166.74 | 66.72 | 278.04 | 152.94 | 0.17 |
| MO3 | 0.1192421 | 0.148 | 0.183 | -0.028 | 0.15 | 32.35 | 68.48 | 287.95 | 104.35 | 0.66 |
| M3 | 0.1207671 | 0.132 | 0.159 | -0.083 | 0.14 | 3.16 | 71.12 | 266.88 | 119.51 | 0.69 |
| MK3 | 0.1222921 | 0.195 | 0.173 | -0.049 | 0.13 | 5.77 | 55.92 | 297.10 | 83.77 | 1.3 |
| SK3 | 0.1251141 | 0.239 | 0.203 | -0.096 | 0.18 | 50.27 | 72.06 | 11.57 | 71.03 | 1.4 |
| MN4 | 0.1595106 | 0.296 | 0.256 | 0.000 | 0.22 | 10.24 | 35.88 | 96.75 | 62.87 | 1.3 |
| *M4 | 0.1610228 | 0.561 | 0.295 | 0.107 | 0.22 | 21.97 | 24.91 | 92.71 | 33.79 | 3.6 |
| SN4 | 0.1623326 | 0.326 | 0.253 | 0.002 | 0.20 | 167.09 | 41.88 | 110.46 | 58.50 | 1.7 |
| MS4 | 0.1638447 | 0.216 | 0.243 | -0.010 | 0.19 | 155.59 | 64.19 | 249.01 | 95.54 | 0.79 |
| S4 | 0.1666667 | 0.174 | 0.233 | 0.008 | 0.21 | 31.01 | 72.53 | 154.85 | 107.93 | 0.56 |
| 2MK5 | 0.2028035 | 0.093 | 0.113 | -0.006 | 0.13 | 88.37 | 114.52 | 28.46 | 103.28 | 0.68 |
| 2SK5 | 0.2084474 | 0.080 | 0.136 | -0.033 | 0.14 | 91.55 | 142.71 | 245.77 | 133.96 | 0.34 |
| *2MN6 | 0.2400221 | 0.286 | 0.142 | -0.024 | 0.13 | 39.85 | 26.40 | 332.98 | 27.73 | 4 |
| *M6 | 0.2415342 | 0.470 | 0.116 | -0.076 | 0.14 | 47.18 | 14.71 | 356.98 | 18.08 | 17 |
| 2MS6 | 0.2443561 | 0.148 | 0.125 | 0.044 | 0.11 | 51.45 | 62.46 | 19.08 | 66.76 | 1.4 |
| 2SM6 | 0.2471781 | 0.058 | 0.102 | -0.008 | 0.10 | 107.56 | 152.25 | 6.29 | 160.73 | 0.32 |
| 3MK7 | 0.2833149 | 0.060 | 0.089 | 0.001 | 0.09 | 144.79 | 85.73 | 220.36 | 119.57 | 0.46 |
| *M8 | 0.3220456 | 0.121 | 0.072 | -0.021 | 0.06 | 5.92 | 30.56 | 302.30 | 39.80 | 2.8 |

total var= 59.482 pred var= 39.4354
 percent total var predicted/var original= 66.3 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 28.6 m
 Mooring Number: 5071

File Name: 5071spd-alh_d3.nc
 nobs = 3109, ngood = 3109, record length (days) = 129.54
 start time: 23-Sep-1997 16:00:00
 rayleigh criterion = 1.0

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

x0= -0.556, x trend= 0

var(x)= 29.0635 var(xp)= 18.0797 var(xres)= 10.8743
 percent var predicted/var original= 62.2 %

y0= -0.499, x trend= 0

var(y)= 9.1525 var(yp)= 5.008 var(yres)= 4.1493
 percent var predicted/var original= 54.7 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.660 | 0.598 | -0.249 | 0.48 | 172.55 | 55.22 | 174.16 | 79.44 | 1.2 |
| MSF | 0.0028219 | 0.319 | 0.500 | -0.020 | 0.37 | 2.14 | 61.28 | 274.46 | 117.28 | 0.41 |
| ALP1 | 0.0343966 | 0.244 | 0.281 | -0.062 | 0.22 | 14.89 | 50.71 | 111.83 | 83.70 | 0.75 |
| 2Q1 | 0.0357064 | 0.244 | 0.277 | 0.075 | 0.22 | 164.91 | 57.52 | 30.44 | 88.24 | 0.78 |
| Q1 | 0.0372185 | 0.162 | 0.227 | 0.014 | 0.25 | 63.37 | 114.55 | 335.86 | 120.67 | 0.51 |
| O1 | 0.0387307 | 0.284 | 0.249 | -0.007 | 0.26 | 45.02 | 57.78 | 255.82 | 70.26 | 1.3 |
| NO1 | 0.0402686 | 0.103 | 0.181 | -0.044 | 0.14 | 3.76 | 72.71 | 29.96 | 154.97 | 0.32 |
| *K1 | 0.0417807 | 0.420 | 0.271 | -0.035 | 0.26 | 33.50 | 38.58 | 294.00 | 41.60 | 2.4 |
| J1 | 0.0432929 | 0.299 | 0.287 | 0.095 | 0.22 | 155.85 | 58.98 | 349.78 | 83.82 | 1.1 |
| OO1 | 0.0448308 | 0.187 | 0.357 | -0.020 | 0.25 | 4.81 | 67.91 | 27.87 | 144.95 | 0.28 |
| UPS1 | 0.0463430 | 0.159 | 0.326 | 0.035 | 0.30 | 132.67 | 86.40 | 139.95 | 156.99 | 0.24 |
| EPS2 | 0.0761773 | 0.246 | 0.266 | 0.007 | 0.22 | 32.07 | 64.11 | 281.03 | 105.37 | 0.85 |
| MU2 | 0.0776895 | 0.205 | 0.273 | 0.115 | 0.21 | 6.63 | 77.35 | 292.88 | 143.57 | 0.56 |
| *N2 | 0.0789992 | 1.299 | 0.308 | 0.030 | 0.25 | 32.56 | 11.96 | 154.26 | 15.00 | 18 |
| *M2 | 0.0805114 | 6.327 | 0.321 | 0.631 | 0.24 | 26.92 | 2.33 | 185.69 | 3.14 | 3.9e+002 |
| L2 | 0.0820236 | 0.355 | 0.358 | -0.081 | 0.23 | 161.06 | 43.31 | 101.60 | 76.76 | 0.98 |
| *S2 | 0.0833333 | 1.122 | 0.408 | 0.046 | 0.30 | 30.35 | 12.30 | 221.88 | 18.18 | 7.6 |
| ETA2 | 0.0850736 | 0.501 | 0.603 | 0.016 | 0.31 | 1.31 | 34.24 | 12.61 | 79.09 | 0.69 |
| MO3 | 0.1192421 | 0.051 | 0.089 | 0.008 | 0.10 | 86.05 | 151.70 | 318.43 | 158.08 | 0.33 |
| M3 | 0.1207671 | 0.109 | 0.094 | -0.022 | 0.08 | 136.88 | 59.06 | 0.47 | 72.75 | 1.4 |
| MK3 | 0.1222921 | 0.050 | 0.094 | 0.004 | 0.08 | 168.27 | 104.89 | 55.23 | 127.58 | 0.28 |
| SK3 | 0.1251141 | 0.087 | 0.102 | -0.030 | 0.10 | 115.88 | 93.42 | 169.70 | 81.14 | 0.73 |
| *MN4 | 0.1595106 | 0.157 | 0.094 | -0.005 | 0.09 | 156.14 | 36.50 | 214.19 | 41.00 | 2.8 |
| *M4 | 0.1610228 | 0.184 | 0.097 | -0.008 | 0.09 | 21.61 | 32.70 | 67.02 | 34.82 | 3.6 |
| SN4 | 0.1623326 | 0.102 | 0.083 | 0.036 | 0.09 | 152.51 | 73.04 | 293.44 | 73.76 | 1.5 |
| MS4 | 0.1638447 | 0.051 | 0.086 | -0.021 | 0.06 | 34.40 | 106.96 | 150.69 | 139.64 | 0.35 |
| S4 | 0.1666667 | 0.083 | 0.092 | -0.043 | 0.09 | 35.42 | 102.65 | 162.43 | 96.06 | 0.81 |
| 2MK5 | 0.2028035 | 0.066 | 0.064 | -0.002 | 0.06 | 130.02 | 73.33 | 236.29 | 63.49 | 1.1 |
| 2SK5 | 0.2084474 | 0.090 | 0.072 | 0.016 | 0.08 | 23.23 | 60.13 | 45.24 | 70.32 | 1.6 |
| *2MN6 | 0.2400221 | 0.280 | 0.083 | 0.009 | 0.09 | 40.96 | 16.24 | 289.82 | 18.31 | 11 |
| *M6 | 0.2415342 | 0.432 | 0.086 | 0.102 | 0.08 | 47.02 | 12.00 | 336.99 | 13.74 | 25 |
| *2MS6 | 0.2443561 | 0.157 | 0.080 | -0.013 | 0.09 | 38.47 | 34.79 | 34.85 | 38.40 | 3.8 |
| 2SM6 | 0.2471781 | 0.053 | 0.076 | -0.015 | 0.07 | 41.57 | 81.72 | 50.02 | 113.12 | 0.49 |
| 3MK7 | 0.2833149 | 0.033 | 0.040 | -0.005 | 0.04 | 77.04 | 107.00 | 25.32 | 88.26 | 0.67 |
| *M8 | 0.3220456 | 0.076 | 0.036 | 0.006 | 0.04 | 60.59 | 32.86 | 301.43 | 30.95 | 4.4 |

total var= 38.2161 pred var= 23.0877
 percent total var predicted/var original= 60.4 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 29.5 m
 Mooring Number: 5161

File Name: 5161v-alh_d1.nc
 nobs = 3046, ngood = 3045, record length (days) = 126.92
 start time: 10-Feb-1998 15:58:08
 rayleigh criterion = 1.0

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

x0= -0.652, x trend= 0

var(x)= 42.9288 var(xp)= 23.9958 var(xres)= 18.8694
 percent var predicted/var original= 55.9 %

y0= 0.364, x trend= 0

var(y)= 10.5264 var(yp)= 0.52932 var(yres)= 9.9902
 percent var predicted/var original= 5.0 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 1.364 | 1.535 | 0.004 | 1.44 | 136.36 | 68.88 | 77.82 | 92.41 | 0.79 |
| MSF | 0.0028219 | 1.315 | 1.560 | -0.483 | 1.40 | 152.56 | 80.12 | 101.01 | 115.58 | 0.71 |
| ALP1 | 0.0343966 | 0.372 | 0.482 | -0.180 | 0.40 | 140.27 | 76.55 | 176.92 | 103.11 | 0.6 |
| 2Q1 | 0.0357064 | 0.333 | 0.430 | -0.063 | 0.35 | 159.66 | 56.51 | 214.14 | 116.23 | 0.6 |
| Q1 | 0.0372185 | 0.469 | 0.554 | -0.066 | 0.43 | 147.95 | 49.83 | 44.84 | 81.40 | 0.72 |
| O1 | 0.0387307 | 0.257 | 0.401 | -0.082 | 0.41 | 105.54 | 160.82 | 214.88 | 123.10 | 0.41 |
| NO1 | 0.0402686 | 0.221 | 0.294 | 0.003 | 0.24 | 155.83 | 73.38 | 265.47 | 154.47 | 0.57 |
| K1 | 0.0417807 | 0.633 | 0.568 | -0.107 | 0.36 | 173.15 | 36.86 | 94.24 | 54.00 | 1.2 |
| J1 | 0.0432929 | 0.455 | 0.393 | 0.095 | 0.46 | 127.58 | 66.01 | 210.19 | 69.13 | 1.3 |
| OO1 | 0.0448308 | 0.267 | 0.532 | -0.144 | 0.44 | 131.09 | 86.63 | 315.52 | 162.16 | 0.25 |
| UPS1 | 0.0463430 | 0.296 | 0.670 | 0.120 | 0.52 | 31.80 | 67.57 | 211.02 | 185.69 | 0.2 |
| EPS2 | 0.0761773 | 0.442 | 0.405 | -0.015 | 0.33 | 163.74 | 42.67 | 44.74 | 72.87 | 1.2 |
| MU2 | 0.0776895 | 0.160 | 0.303 | -0.077 | 0.29 | 138.20 | 81.53 | 174.62 | 144.21 | 0.28 |
| *N2 | 0.0789992 | 1.466 | 0.494 | 0.204 | 0.32 | 169.71 | 12.69 | 312.90 | 17.62 | 8.8 |
| *M2 | 0.0805114 | 6.452 | 0.440 | 0.727 | 0.36 | 176.25 | 2.66 | 358.59 | 4.51 | 2.2e+002 |
| L2 | 0.0820236 | 0.591 | 0.555 | 0.124 | 0.34 | 0.45 | 36.24 | 277.12 | 59.53 | 1.1 |
| *S2 | 0.0833333 | 1.248 | 0.515 | 0.199 | 0.31 | 168.40 | 14.18 | 27.56 | 23.77 | 5.9 |
| ETA2 | 0.0850736 | 0.208 | 0.447 | 0.142 | 0.40 | 72.02 | 142.45 | 171.93 | 147.43 | 0.22 |
| MO3 | 0.1192421 | 0.213 | 0.190 | -0.049 | 0.20 | 116.76 | 82.17 | 312.08 | 73.76 | 1.2 |
| M3 | 0.1207671 | 0.174 | 0.160 | 0.027 | 0.17 | 119.86 | 80.13 | 135.51 | 75.52 | 1.2 |
| MK3 | 0.1222921 | 0.109 | 0.172 | -0.024 | 0.16 | 44.05 | 98.87 | 357.84 | 130.61 | 0.4 |
| SK3 | 0.1251141 | 0.168 | 0.184 | -0.093 | 0.17 | 179.65 | 95.21 | 123.88 | 131.01 | 0.83 |
| MN4 | 0.1595106 | 0.272 | 0.194 | 0.032 | 0.16 | 147.96 | 40.30 | 196.64 | 46.86 | 2 |
| *M4 | 0.1610228 | 0.562 | 0.219 | -0.169 | 0.14 | 166.10 | 19.90 | 223.24 | 29.20 | 6.6 |
| SN4 | 0.1623326 | 0.081 | 0.151 | -0.020 | 0.13 | 107.22 | 118.73 | 252.49 | 120.64 | 0.29 |
| MS4 | 0.1638447 | 0.283 | 0.206 | -0.124 | 0.15 | 158.21 | 44.77 | 292.49 | 61.72 | 1.9 |
| S4 | 0.1666667 | 0.147 | 0.165 | -0.017 | 0.14 | 179.13 | 71.08 | 341.00 | 83.19 | 0.8 |
| 2MK5 | 0.2028035 | 0.017 | 0.123 | 0.003 | 0.12 | 169.63 | 118.37 | 214.76 | 192.29 | 0.02 |
| 2SK5 | 0.2084474 | 0.101 | 0.135 | 0.054 | 0.14 | 2.91 | 98.60 | 176.34 | 143.74 | 0.56 |
| *2MN6 | 0.2400221 | 0.259 | 0.135 | -0.026 | 0.11 | 21.73 | 23.01 | 286.78 | 23.34 | 3.7 |
| *M6 | 0.2415342 | 0.533 | 0.126 | 0.018 | 0.10 | 20.12 | 11.75 | 339.82 | 12.13 | 18 |
| 2MS6 | 0.2443561 | 0.114 | 0.110 | 0.030 | 0.11 | 13.26 | 64.71 | 28.59 | 76.87 | 1.1 |
| 2SM6 | 0.2471781 | 0.063 | 0.094 | -0.027 | 0.09 | 169.68 | 98.48 | 110.04 | 173.02 | 0.45 |
| 3MK7 | 0.2833149 | 0.060 | 0.078 | -0.000 | 0.08 | 8.46 | 89.77 | 26.21 | 110.31 | 0.59 |
| M8 | 0.3220456 | 0.077 | 0.060 | 0.018 | 0.06 | 154.95 | 46.22 | 66.95 | 61.09 | 1.7 |

total var= 53.4552 pred var= 24.5252
 percent total var predicted/var original= 45.9 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 29.9 m
 Mooring Number: 5301

File Name: 5301Bv-alh_d1.nc
 nobs = 657, ngood = 657, record length (days) = 27.38
 start time: 03-Sep-1998 02:58:07
 rayleigh criterion = 1.0

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

x0= -1.38, x trend= 0

var(x)= 60.2022 var(xp)= 48.5829 var(xres)= 11.6355
 percent var predicted/var original= 80.7 %

y0= 0.114, x trend= 0

var(y)= 5.8623 var(yp)= 2.5542 var(yres)= 3.3224
 percent var predicted/var original= 43.6 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|------|
| *MSF | 0.0028219 | 0.574 | 0.316 | 0.210 | 0.29 | 43.66 | 38.54 | 59.56 | 36.01 | 3.3 |
| O1 | 0.0387307 | 0.406 | 0.303 | 0.063 | 0.33 | 54.14 | 71.45 | 311.38 | 62.14 | 1.8 |
| *K1 | 0.0417807 | 0.534 | 0.355 | -0.122 | 0.34 | 141.09 | 41.99 | 6.67 | 49.52 | 2.3 |
| OO1 | 0.0448308 | 0.682 | 0.517 | -0.059 | 0.41 | 22.20 | 38.02 | 327.76 | 48.55 | 1.7 |
| *M2 | 0.0805114 | 9.272 | 1.398 | 0.292 | 0.92 | 11.97 | 7.01 | 178.80 | 10.50 | 44 |
| *S2 | 0.0833333 | 2.311 | 1.486 | -0.591 | 1.05 | 2.29 | 29.90 | 231.36 | 43.45 | 2.4 |
| MO3 | 0.1192421 | 0.133 | 0.301 | -0.073 | 0.24 | 20.09 | 93.83 | 150.45 | 169.82 | 0.19 |
| M3 | 0.1207671 | 0.071 | 0.202 | 0.014 | 0.20 | 81.38 | 163.21 | 0.61 | 190.04 | 0.12 |
| MK3 | 0.1222921 | 0.191 | 0.280 | 0.110 | 0.26 | 107.10 | 129.30 | 88.29 | 124.37 | 0.47 |
| SK3 | 0.1251141 | 0.262 | 0.265 | -0.017 | 0.33 | 73.82 | 89.62 | 3.02 | 74.69 | 0.98 |
| *M4 | 0.1610228 | 0.602 | 0.271 | 0.350 | 0.39 | 76.80 | 68.96 | 106.73 | 49.15 | 4.9 |
| MS4 | 0.1638447 | 0.525 | 0.439 | -0.015 | 0.32 | 25.49 | 37.48 | 116.35 | 43.27 | 1.4 |
| S4 | 0.1666667 | 0.306 | 0.268 | -0.031 | 0.34 | 86.07 | 105.24 | 210.78 | 77.25 | 1.3 |
| *2MK5 | 0.2028035 | 0.297 | 0.198 | 0.027 | 0.20 | 159.99 | 42.40 | 282.92 | 42.97 | 2.3 |
| 2SK5 | 0.2084474 | 0.294 | 0.226 | -0.111 | 0.19 | 4.69 | 52.48 | 352.08 | 58.53 | 1.7 |
| *M6 | 0.2415342 | 0.475 | 0.334 | -0.091 | 0.28 | 37.85 | 50.28 | 353.61 | 50.09 | 2 |
| 2MS6 | 0.2443561 | 0.371 | 0.289 | -0.116 | 0.33 | 6.81 | 68.79 | 31.97 | 67.07 | 1.6 |
| 2SM6 | 0.2471781 | 0.148 | 0.276 | 0.068 | 0.23 | 10.93 | 116.96 | 334.35 | 135.70 | 0.29 |
| 3MK7 | 0.2833149 | 0.174 | 0.162 | -0.069 | 0.15 | 30.56 | 74.37 | 25.23 | 84.11 | 1.2 |
| M8 | 0.3220456 | 0.069 | 0.101 | -0.000 | 0.09 | 124.28 | 96.11 | 75.54 | 94.42 | 0.47 |

total var= 66.0645 pred var= 51.1372
 percent total var predicted/var original= 77.4 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 28.6 m
 Mooring Number: 5401

File Name: 5401v-alh_d1.nc
 nobs = 3114, ngood = 3113, record length (days) = 129.75
 start time: 30-Sep-1998 13:58:07
 rayleigh criterion = 1.0

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

x0= -1.79, x trend= 0

var(x)= 33.9311 var(xp)= 19.7977 var(xres)= 14.2037
 percent var predicted/var original= 58.3 %

y0= 0.851, x trend= 0

var(y)= 5.1682 var(yp)= 0.25477 var(yres)= 4.9059
 percent var predicted/var original= 4.9 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 1.262 | 0.967 | -0.041 | 0.57 | 159.63 | 24.82 | 224.79 | 44.26 | 1.7 |
| MSF | 0.0028219 | 0.414 | 0.639 | 0.141 | 0.51 | 146.88 | 62.27 | 234.62 | 128.33 | 0.42 |
| ALP1 | 0.0343966 | 0.187 | 0.270 | -0.094 | 0.19 | 159.60 | 59.75 | 188.07 | 129.00 | 0.48 |
| 2Q1 | 0.0357064 | 0.132 | 0.269 | -0.010 | 0.16 | 9.71 | 53.37 | 137.51 | 175.61 | 0.24 |
| Q1 | 0.0372185 | 0.349 | 0.376 | -0.169 | 0.20 | 179.91 | 44.60 | 88.87 | 88.91 | 0.86 |
| *O1 | 0.0387307 | 0.613 | 0.349 | -0.003 | 0.22 | 156.69 | 22.04 | 29.91 | 35.26 | 3.1 |
| NO1 | 0.0402686 | 0.292 | 0.260 | 0.014 | 0.21 | 146.74 | 39.05 | 151.75 | 61.03 | 1.3 |
| *K1 | 0.0417807 | 0.548 | 0.366 | -0.112 | 0.18 | 177.05 | 22.16 | 119.36 | 49.84 | 2.2 |
| J1 | 0.0432929 | 0.125 | 0.280 | 0.010 | 0.17 | 176.18 | 50.13 | 6.53 | 134.47 | 0.2 |
| OO1 | 0.0448308 | 0.312 | 0.418 | -0.125 | 0.27 | 148.13 | 58.78 | 10.23 | 94.45 | 0.56 |
| UPS1 | 0.0463430 | 0.331 | 0.393 | -0.209 | 0.30 | 9.99 | 62.72 | 126.42 | 129.28 | 0.71 |
| EPS2 | 0.0761773 | 0.107 | 0.339 | 0.056 | 0.22 | 27.38 | 70.24 | 209.67 | 181.12 | 0.1 |
| MU2 | 0.0776895 | 0.105 | 0.310 | 0.016 | 0.27 | 88.59 | 183.41 | 164.18 | 157.65 | 0.11 |
| *N2 | 0.0789992 | 1.251 | 0.516 | 0.020 | 0.28 | 2.49 | 12.86 | 142.51 | 22.55 | 5.9 |
| *M2 | 0.0805114 | 5.713 | 0.514 | 0.489 | 0.28 | 2.31 | 3.11 | 176.38 | 4.57 | 1.2e+002 |
| L2 | 0.0820236 | 0.527 | 0.394 | -0.053 | 0.38 | 145.19 | 39.14 | 92.73 | 52.44 | 1.8 |
| *S2 | 0.0833333 | 1.007 | 0.527 | 0.091 | 0.26 | 174.00 | 17.02 | 27.96 | 30.60 | 3.7 |
| ETA2 | 0.0850736 | 0.411 | 0.471 | 0.102 | 0.38 | 148.29 | 66.32 | 287.48 | 92.97 | 0.76 |
| MO3 | 0.1192421 | 0.112 | 0.105 | 0.001 | 0.12 | 106.47 | 92.10 | 343.48 | 81.91 | 1.1 |
| M3 | 0.1207671 | 0.062 | 0.089 | -0.033 | 0.09 | 115.27 | 119.08 | 45.01 | 122.44 | 0.49 |
| MK3 | 0.1222921 | 0.117 | 0.116 | -0.018 | 0.10 | 138.62 | 66.41 | 198.10 | 74.37 | 1 |
| SK3 | 0.1251141 | 0.142 | 0.111 | 0.026 | 0.10 | 173.84 | 66.06 | 66.30 | 93.81 | 1.6 |
| *MN4 | 0.1595106 | 0.215 | 0.116 | -0.121 | 0.12 | 151.12 | 63.48 | 200.57 | 66.78 | 3.5 |
| *M4 | 0.1610228 | 0.522 | 0.133 | -0.122 | 0.12 | 3.66 | 13.94 | 38.10 | 16.68 | 16 |
| *SN4 | 0.1623326 | 0.176 | 0.111 | -0.059 | 0.11 | 145.64 | 56.93 | 26.70 | 55.60 | 2.5 |
| *MS4 | 0.1638447 | 0.237 | 0.166 | -0.019 | 0.12 | 166.11 | 33.19 | 269.98 | 38.74 | 2 |
| S4 | 0.1666667 | 0.054 | 0.113 | -0.002 | 0.10 | 22.88 | 109.66 | 22.71 | 148.32 | 0.23 |
| *2MK5 | 0.2028035 | 0.124 | 0.084 | -0.035 | 0.08 | 7.29 | 49.11 | 115.18 | 52.69 | 2.2 |
| *2SK5 | 0.2084474 | 0.113 | 0.079 | -0.029 | 0.08 | 167.84 | 59.78 | 23.23 | 64.35 | 2.1 |
| *2MN6 | 0.2400221 | 0.283 | 0.094 | -0.056 | 0.08 | 14.21 | 17.64 | 304.49 | 21.05 | 9.2 |
| *M6 | 0.2415342 | 0.356 | 0.085 | -0.002 | 0.07 | 28.85 | 12.54 | 346.78 | 13.60 | 18 |
| *2MS6 | 0.2443561 | 0.159 | 0.088 | -0.057 | 0.08 | 19.69 | 37.83 | 37.78 | 42.90 | 3.3 |
| 2SM6 | 0.2471781 | 0.039 | 0.070 | -0.018 | 0.07 | 122.70 | 113.25 | 31.08 | 132.46 | 0.32 |
| 3MK7 | 0.2833149 | 0.082 | 0.063 | 0.019 | 0.06 | 146.46 | 51.16 | 304.32 | 53.55 | 1.7 |
| *M8 | 0.3220456 | 0.055 | 0.035 | -0.041 | 0.03 | 133.52 | 91.10 | 118.82 | 89.75 | 2.5 |

total var= 39.0993 pred var= 20.0525
 percent total var predicted/var original= 51.3 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 27.0 m
 Mooring Number: 5521

File Name: 5521v-alh_d1.nc
 nobs = 2121, ngood = 2121, record length (days) = 88.38
 start time: 10-Feb-1999 14:58:07
 rayleigh criterion = 1.0

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

x0= -1.99, x trend= 0

var(x)= 40.9807 var(xp)= 19.7646 var(xres)= 21.0896
 percent var predicted/var original= 48.2 %

y0= 0.133, x trend= 0

var(y)= 8.1941 var(yp)= 3.0183 var(yres)= 5.1754
 percent var predicted/var original= 36.8 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|-------|
| MM | 0.0015122 | 0.433 | 1.485 | 0.135 | 0.87 | 34.85 | 47.91 | 14.91 | 199.54 | 0.085 |
| MSF | 0.0028219 | 0.618 | 1.476 | 0.076 | 0.74 | 1.68 | 40.96 | 218.61 | 176.97 | 0.18 |
| ALP1 | 0.0343966 | 0.456 | 0.459 | 0.170 | 0.31 | 10.93 | 43.21 | 339.48 | 84.79 | 0.99 |
| 2Q1 | 0.0357064 | 0.357 | 0.485 | -0.027 | 0.24 | 4.11 | 38.45 | 85.88 | 102.34 | 0.54 |
| Q1 | 0.0372185 | 0.708 | 0.518 | -0.131 | 0.28 | 3.43 | 24.53 | 289.27 | 52.54 | 1.9 |
| *O1 | 0.0387307 | 0.769 | 0.525 | -0.040 | 0.33 | 28.39 | 27.38 | 213.98 | 40.27 | 2.1 |
| NO1 | 0.0402686 | 0.617 | 0.578 | -0.041 | 0.34 | 156.10 | 31.10 | 176.19 | 51.92 | 1.1 |
| *K1 | 0.0417807 | 1.251 | 0.578 | -0.242 | 0.24 | 0.36 | 12.80 | 313.84 | 28.37 | 4.7 |
| J1 | 0.0432929 | 0.560 | 0.403 | 0.128 | 0.32 | 21.69 | 30.46 | 202.79 | 63.84 | 1.9 |
| OO1 | 0.0448308 | 0.751 | 0.688 | 0.182 | 0.37 | 175.09 | 35.15 | 293.46 | 71.18 | 1.2 |
| UPS1 | 0.0463430 | 0.197 | 0.436 | -0.041 | 0.42 | 121.94 | 67.58 | 263.84 | 170.22 | 0.2 |
| EPS2 | 0.0761773 | 0.236 | 0.356 | -0.077 | 0.32 | 129.50 | 83.76 | 285.52 | 124.23 | 0.44 |
| MU2 | 0.0776895 | 0.274 | 0.365 | -0.012 | 0.44 | 91.61 | 148.76 | 35.88 | 104.47 | 0.56 |
| *N2 | 0.0789992 | 1.587 | 0.630 | 0.313 | 0.40 | 19.07 | 15.79 | 142.61 | 22.05 | 6.4 |
| *M2 | 0.0805114 | 5.932 | 0.608 | 0.594 | 0.47 | 20.76 | 4.31 | 176.89 | 7.18 | 95 |
| *L2 | 0.0820236 | 0.996 | 0.556 | -0.252 | 0.36 | 172.96 | 22.60 | 39.72 | 36.85 | 3.2 |
| *S2 | 0.0833333 | 1.007 | 0.591 | 0.153 | 0.40 | 13.72 | 26.57 | 197.73 | 41.18 | 2.9 |
| ETA2 | 0.0850736 | 0.368 | 0.633 | -0.005 | 0.40 | 5.73 | 52.48 | 156.60 | 96.43 | 0.34 |
| MO3 | 0.1192421 | 0.061 | 0.181 | 0.047 | 0.15 | 37.79 | 63.53 | 91.39 | 196.97 | 0.11 |
| M3 | 0.1207671 | 0.112 | 0.149 | 0.041 | 0.15 | 115.45 | 113.29 | 344.42 | 97.10 | 0.57 |
| MK3 | 0.1222921 | 0.105 | 0.195 | -0.057 | 0.14 | 150.25 | 75.40 | 279.28 | 162.10 | 0.29 |
| SK3 | 0.1251141 | 0.167 | 0.207 | -0.143 | 0.17 | 7.10 | 87.63 | 75.42 | 151.35 | 0.65 |
| *MN4 | 0.1595106 | 0.329 | 0.201 | -0.215 | 0.16 | 179.41 | 103.59 | 260.37 | 107.83 | 2.7 |
| *M4 | 0.1610228 | 0.645 | 0.233 | -0.292 | 0.17 | 24.38 | 20.06 | 42.36 | 26.01 | 7.6 |
| SN4 | 0.1623326 | 0.043 | 0.142 | -0.032 | 0.14 | 171.82 | 91.65 | 350.85 | 189.32 | 0.091 |
| *MS4 | 0.1638447 | 0.391 | 0.209 | -0.139 | 0.17 | 29.54 | 38.00 | 95.87 | 44.96 | 3.5 |
| S4 | 0.1666667 | 0.117 | 0.173 | -0.053 | 0.15 | 9.16 | 80.16 | 156.36 | 122.25 | 0.45 |
| 2MK5 | 0.2028035 | 0.125 | 0.117 | -0.050 | 0.13 | 108.68 | 100.26 | 144.11 | 69.51 | 1.1 |
| 2SK5 | 0.2084474 | 0.072 | 0.117 | 0.003 | 0.11 | 121.22 | 95.02 | 130.18 | 119.99 | 0.37 |
| *2MN6 | 0.2400221 | 0.227 | 0.124 | -0.036 | 0.16 | 67.85 | 47.67 | 329.42 | 38.23 | 3.4 |
| *M6 | 0.2415342 | 0.573 | 0.133 | -0.087 | 0.15 | 40.03 | 17.35 | 334.41 | 15.21 | 19 |
| 2MS6 | 0.2443561 | 0.187 | 0.138 | 0.027 | 0.14 | 44.87 | 47.65 | 19.05 | 49.54 | 1.8 |
| 2SM6 | 0.2471781 | 0.072 | 0.116 | -0.048 | 0.10 | 29.66 | 91.26 | 21.48 | 159.70 | 0.39 |
| 3MK7 | 0.2833149 | 0.073 | 0.074 | 0.008 | 0.07 | 76.90 | 76.21 | 37.80 | 76.38 | 0.97 |
| *M8 | 0.3220456 | 0.084 | 0.059 | 0.041 | 0.06 | 28.81 | 59.59 | 264.58 | 67.88 | 2 |

total var= 49.1748 pred var= 22.7829
 percent total var predicted/var original= 46.3 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 32.6 m
 Mooring Number: 5692

File Name: 5692Bv-alh_d2.nc
 nobs = 753, ngood = 753, record length (days) = 31.38
 start time: 10-Jun-1999 21:58:08
 rayleigh criterion = 1.0

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

x0= -1.18, x trend= 0

var(x)= 22.3994 var(xp)= 19.3309 var(xres)= 3.0927
 percent var predicted/var original= 86.3 %

y0= -0.0945, x trend= 0

var(y)= 3.511 var(yp)= 2.2337 var(yres)= 1.3188
 percent var predicted/var original= 63.6 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|------|
| MSF | 0.0028219 | 0.885 | 0.757 | -0.154 | 0.39 | 157.34 | 28.93 | 169.82 | 63.39 | 1.4 |
| 2Q1 | 0.0357064 | 0.100 | 0.141 | 0.000 | 0.15 | 41.52 | 96.31 | 209.86 | 121.37 | 0.5 |
| Q1 | 0.0372185 | 0.202 | 0.171 | -0.003 | 0.17 | 64.22 | 71.60 | 298.94 | 55.26 | 1.4 |
| O1 | 0.0387307 | 0.134 | 0.179 | -0.030 | 0.14 | 176.82 | 74.13 | 144.67 | 116.26 | 0.56 |
| NO1 | 0.0402686 | 0.260 | 0.209 | -0.187 | 0.19 | 127.56 | 93.24 | 68.24 | 94.67 | 1.5 |
| *K1 | 0.0417807 | 0.488 | 0.185 | -0.144 | 0.21 | 56.50 | 22.94 | 317.69 | 25.61 | 6.9 |
| J1 | 0.0432929 | 0.213 | 0.187 | -0.053 | 0.16 | 20.27 | 45.80 | 203.87 | 60.71 | 1.3 |
| OO1 | 0.0448308 | 0.138 | 0.238 | -0.060 | 0.20 | 50.70 | 113.68 | 114.10 | 130.55 | 0.33 |
| UPS1 | 0.0463430 | 0.232 | 0.248 | -0.002 | 0.18 | 171.48 | 57.49 | 277.95 | 87.73 | 0.87 |
| *N2 | 0.0789992 | 1.427 | 0.634 | -0.033 | 0.42 | 12.06 | 16.01 | 120.98 | 22.30 | 5.1 |
| *M2 | 0.0805114 | 5.936 | 0.631 | 0.041 | 0.49 | 18.66 | 4.19 | 182.76 | 5.73 | 88 |
| *S2 | 0.0833333 | 1.315 | 0.621 | -0.088 | 0.43 | 15.04 | 20.13 | 207.52 | 28.10 | 4.5 |
| ETA2 | 0.0850736 | 0.167 | 0.454 | -0.127 | 0.46 | 116.56 | 128.35 | 77.05 | 201.52 | 0.14 |
| MO3 | 0.1192421 | 0.213 | 0.182 | -0.061 | 0.25 | 65.08 | 93.16 | 192.68 | 71.71 | 1.4 |
| M3 | 0.1207671 | 0.188 | 0.154 | 0.100 | 0.16 | 121.20 | 91.05 | 270.47 | 77.99 | 1.5 |
| MK3 | 0.1222921 | 0.197 | 0.159 | -0.043 | 0.21 | 96.30 | 103.40 | 335.76 | 62.73 | 1.5 |
| SK3 | 0.1251141 | 0.154 | 0.245 | -0.034 | 0.13 | 17.13 | 45.07 | 287.22 | 117.13 | 0.39 |
| MN4 | 0.1595106 | 0.156 | 0.174 | 0.014 | 0.20 | 76.47 | 140.17 | 161.42 | 93.73 | 0.8 |
| M4 | 0.1610228 | 0.417 | 0.315 | 0.033 | 0.17 | 166.03 | 24.73 | 266.06 | 41.88 | 1.7 |
| MS4 | 0.1638447 | 0.240 | 0.180 | -0.068 | 0.20 | 127.71 | 71.51 | 268.06 | 70.03 | 1.8 |
| S4 | 0.1666667 | 0.123 | 0.178 | -0.003 | 0.20 | 89.69 | 175.67 | 46.49 | 110.40 | 0.48 |
| 2MK5 | 0.2028035 | 0.154 | 0.155 | -0.076 | 0.15 | 103.74 | 74.49 | 33.33 | 95.13 | 0.99 |
| 2SK5 | 0.2084474 | 0.131 | 0.157 | -0.054 | 0.16 | 102.82 | 94.39 | 36.24 | 104.97 | 0.7 |
| *2MN6 | 0.2400221 | 0.226 | 0.121 | 0.041 | 0.11 | 33.90 | 29.82 | 265.25 | 36.64 | 3.5 |
| *M6 | 0.2415342 | 0.507 | 0.106 | -0.052 | 0.11 | 44.17 | 13.18 | 4.37 | 13.19 | 23 |
| 2MS6 | 0.2443561 | 0.112 | 0.098 | -0.010 | 0.09 | 35.89 | 56.05 | 93.24 | 73.70 | 1.3 |
| 2SM6 | 0.2471781 | 0.092 | 0.103 | -0.019 | 0.10 | 32.13 | 61.08 | 344.91 | 88.80 | 0.79 |
| 3MK7 | 0.2833149 | 0.119 | 0.105 | -0.021 | 0.10 | 33.57 | 57.62 | 324.12 | 66.22 | 1.3 |
| M8 | 0.3220456 | 0.045 | 0.056 | -0.020 | 0.05 | 179.08 | 82.20 | 38.48 | 156.42 | 0.63 |

total var= 25.9104 pred var= 21.5646
 percent total var predicted/var original= 83.2 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 30.5 m
 Mooring Number: 5912

File Name: 5912v-alh_d2.nc

nobs = 815, ngood = 815, record length (days) = 33.96

start time: 21-Sep-1999 16:58:07

rayleigh criterion = 1.0

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

x0= -2.67, x trend= 0

var(x)= 27.1401 var(xp)= 16.501 var(xres)= 10.3994
 percent var predicted/var original= 60.8 %

y0= 1.35, x trend= 0

var(y)= 4.5156 var(yp)= 1.2828 var(yres)= 3.3046
 percent var predicted/var original= 28.4 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|-------|-------|--------|------|--------|--------|--------|--------|-------|
| MM | 0.0015122 | 2.031 | 1.626 | 0.107 | 0.88 | 155.71 | 23.59 | 233.97 | 48.32 | 1.6 |
| *MSF | 0.0028219 | 3.486 | 1.452 | 0.161 | 0.83 | 157.78 | 11.75 | 76.18 | 24.35 | 5.8 |
| ALP1 | 0.0343966 | 0.252 | 0.771 | 0.030 | 0.43 | 120.33 | 47.97 | 270.65 | 152.55 | 0.11 |
| 2Q1 | 0.0357064 | 0.917 | 0.903 | 0.111 | 0.43 | 155.61 | 27.04 | 200.65 | 60.10 | 1 |
| Q1 | 0.0372185 | 0.414 | 0.849 | -0.150 | 0.35 | 7.13 | 33.45 | 112.34 | 150.40 | 0.24 |
| O1 | 0.0387307 | 0.449 | 0.872 | 0.084 | 0.40 | 147.89 | 37.61 | 308.66 | 128.31 | 0.27 |
| NO1 | 0.0402686 | 0.605 | 1.138 | 0.140 | 0.64 | 148.35 | 35.21 | 13.91 | 135.37 | 0.28 |
| K1 | 0.0417807 | 0.169 | 0.673 | -0.017 | 0.38 | 68.61 | 38.91 | 9.52 | 212.03 | 0.063 |
| J1 | 0.0432929 | 0.531 | 0.926 | 0.003 | 0.32 | 162.63 | 26.81 | 206.21 | 109.01 | 0.33 |
| OO1 | 0.0448308 | 0.370 | 1.059 | 0.072 | 0.66 | 79.41 | 93.00 | 182.72 | 119.21 | 0.12 |
| UPS1 | 0.0463430 | 0.628 | 1.028 | -0.017 | 0.60 | 147.17 | 38.11 | 184.05 | 130.33 | 0.37 |
| EPS2 | 0.0761773 | 0.549 | 0.502 | -0.177 | 0.56 | 121.29 | 72.76 | 67.87 | 70.64 | 1.2 |
| *MU2 | 0.0776895 | 0.943 | 0.623 | 0.148 | 0.64 | 143.23 | 40.36 | 134.77 | 47.03 | 2.3 |
| *N2 | 0.0789992 | 1.067 | 0.682 | 0.473 | 0.61 | 18.75 | 44.05 | 161.16 | 56.03 | 2.4 |
| *M2 | 0.0805114 | 4.454 | 0.799 | -0.071 | 0.52 | 176.94 | 6.19 | 346.40 | 9.98 | 31 |
| L2 | 0.0820236 | 0.334 | 0.431 | 0.071 | 0.43 | 33.87 | 81.12 | 57.08 | 117.47 | 0.6 |
| S2 | 0.0833333 | 0.713 | 0.632 | 0.262 | 0.53 | 145.03 | 58.35 | 294.78 | 67.32 | 1.3 |
| ETA2 | 0.0850736 | 0.447 | 0.586 | -0.177 | 0.52 | 148.40 | 87.90 | 301.85 | 111.34 | 0.58 |
| MO3 | 0.1192421 | 0.192 | 0.243 | 0.065 | 0.23 | 81.00 | 93.83 | 92.04 | 104.34 | 0.63 |
| M3 | 0.1207671 | 0.122 | 0.197 | -0.029 | 0.19 | 81.90 | 91.39 | 123.44 | 145.80 | 0.38 |
| MK3 | 0.1222921 | 0.075 | 0.177 | 0.018 | 0.19 | 88.35 | 111.54 | 145.58 | 161.72 | 0.18 |
| SK3 | 0.1251141 | 0.224 | 0.249 | -0.083 | 0.26 | 149.04 | 88.97 | 258.90 | 93.81 | 0.81 |
| MN4 | 0.1595106 | 0.136 | 0.207 | 0.003 | 0.18 | 54.32 | 111.18 | 333.02 | 129.08 | 0.43 |
| *M4 | 0.1610228 | 0.700 | 0.270 | -0.175 | 0.27 | 179.77 | 24.44 | 176.07 | 27.94 | 6.7 |
| SN4 | 0.1623326 | 0.321 | 0.286 | 0.002 | 0.26 | 120.82 | 52.79 | 248.69 | 49.96 | 1.3 |
| *MS4 | 0.1638447 | 0.644 | 0.251 | -0.214 | 0.30 | 166.33 | 32.11 | 241.59 | 29.55 | 6.6 |
| S4 | 0.1666667 | 0.344 | 0.247 | 0.135 | 0.29 | 139.60 | 65.93 | 315.78 | 66.79 | 1.9 |
| 2MK5 | 0.2028035 | 0.156 | 0.204 | -0.015 | 0.17 | 172.82 | 71.80 | 352.00 | 90.61 | 0.59 |
| 2SK5 | 0.2084474 | 0.042 | 0.173 | -0.005 | 0.16 | 170.33 | 130.82 | 199.73 | 183.87 | 0.06 |
| 2MN6 | 0.2400221 | 0.153 | 0.184 | 0.055 | 0.14 | 19.28 | 63.62 | 299.38 | 100.59 | 0.69 |
| *M6 | 0.2415342 | 0.428 | 0.236 | -0.015 | 0.19 | 30.39 | 24.10 | 323.57 | 27.73 | 3.3 |
| 2MS6 | 0.2443561 | 0.084 | 0.137 | 0.013 | 0.14 | 29.85 | 89.26 | 355.54 | 130.47 | 0.37 |
| 2SM6 | 0.2471781 | 0.217 | 0.201 | -0.019 | 0.18 | 159.42 | 54.02 | 105.71 | 70.77 | 1.2 |
| 3MK7 | 0.2833149 | 0.110 | 0.109 | -0.022 | 0.11 | 154.86 | 75.40 | 74.56 | 81.45 | 1 |
| M8 | 0.3220456 | 0.093 | 0.085 | -0.007 | 0.10 | 80.53 | 86.73 | 156.93 | 69.76 | 1.2 |

total var= 31.6557 pred var= 17.7838
 percent total var predicted/var original= 56.2 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 28.6 m
 Mooring Number: 6112
 File Name: 6112v-alh.nc
 nobs = 2005, ngood = 2005, record length (days) = 83.54
 start time: 15-Feb-2000 16:58:07
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -3.04, x trend= 0

var(x)= 7.9057 var(xp)= 4.8777 var(xres)= 3.0485
 percent var predicted/var original= 61.7 %

y0= -0.48, x trend= 0

var(y)= 24.7405 var(yp)= 12.2262 var(yres)= 12.6074
 percent var predicted/var original= 49.4 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 2.165 | 1.810 | 0.066 | 0.37 | 90.58 | 11.10 | 326.92 | 48.04 | 1.4 |
| MSF | 0.0028219 | 0.605 | 1.201 | -0.131 | 0.40 | 104.92 | 28.06 | 173.36 | 164.74 | 0.25 |
| ALP1 | 0.0343966 | 0.247 | 0.411 | 0.131 | 0.27 | 93.12 | 59.28 | 163.88 | 128.93 | 0.36 |
| 2Q1 | 0.0357064 | 0.346 | 0.419 | -0.133 | 0.26 | 107.80 | 50.66 | 341.66 | 108.14 | 0.68 |
| Q1 | 0.0372185 | 0.176 | 0.373 | -0.008 | 0.28 | 92.58 | 46.64 | 264.40 | 174.94 | 0.22 |
| O1 | 0.0387307 | 0.265 | 0.418 | -0.000 | 0.28 | 118.70 | 56.94 | 80.07 | 112.75 | 0.4 |
| NO1 | 0.0402686 | 0.288 | 0.747 | -0.186 | 0.50 | 115.30 | 58.76 | 95.67 | 179.39 | 0.15 |
| *K1 | 0.0417807 | 0.666 | 0.452 | -0.031 | 0.37 | 118.09 | 30.72 | 120.09 | 46.74 | 2.2 |
| J1 | 0.0432929 | 0.139 | 0.347 | 0.092 | 0.24 | 138.20 | 66.37 | 227.55 | 154.22 | 0.16 |
| OO1 | 0.0448308 | 0.693 | 0.757 | -0.195 | 0.44 | 98.55 | 33.91 | 246.74 | 75.06 | 0.84 |
| UPS1 | 0.0463430 | 0.523 | 0.626 | -0.154 | 0.34 | 93.06 | 41.09 | 226.75 | 91.28 | 0.7 |
| EPS2 | 0.0761773 | 0.159 | 0.243 | 0.134 | 0.21 | 111.38 | 102.53 | 52.41 | 159.25 | 0.43 |
| MU2 | 0.0776895 | 0.244 | 0.310 | -0.095 | 0.23 | 113.34 | 60.88 | 97.57 | 99.67 | 0.62 |
| *N2 | 0.0789992 | 0.965 | 0.374 | 0.110 | 0.32 | 120.10 | 19.12 | 319.64 | 22.84 | 6.6 |
| *M2 | 0.0805114 | 5.355 | 0.362 | 0.893 | 0.33 | 120.86 | 3.52 | 354.18 | 4.12 | 2.2e+002 |
| L2 | 0.0820236 | 0.340 | 0.317 | 0.018 | 0.21 | 117.41 | 39.09 | 39.80 | 55.52 | 1.1 |
| *S2 | 0.0833333 | 1.116 | 0.359 | 0.045 | 0.37 | 131.10 | 14.32 | 60.94 | 17.60 | 9.6 |
| ETA2 | 0.0850736 | 0.231 | 0.320 | 0.025 | 0.24 | 118.24 | 65.40 | 352.24 | 113.40 | 0.52 |
| MO3 | 0.1192421 | 0.191 | 0.194 | -0.008 | 0.14 | 84.25 | 46.69 | 296.74 | 69.90 | 0.97 |
| M3 | 0.1207671 | 0.022 | 0.132 | 0.008 | 0.12 | 173.95 | 92.66 | 160.25 | 237.83 | 0.028 |
| MK3 | 0.1222921 | 0.112 | 0.155 | -0.067 | 0.16 | 149.80 | 117.06 | 162.32 | 122.65 | 0.52 |
| SK3 | 0.1251141 | 0.145 | 0.164 | 0.034 | 0.17 | 141.09 | 84.18 | 237.66 | 98.73 | 0.78 |
| MN4 | 0.1595106 | 0.111 | 0.120 | -0.042 | 0.12 | 147.53 | 109.07 | 165.84 | 92.18 | 0.86 |
| *M4 | 0.1610228 | 0.395 | 0.167 | -0.167 | 0.16 | 126.72 | 32.78 | 234.82 | 31.05 | 5.6 |
| SN4 | 0.1623326 | 0.188 | 0.162 | -0.039 | 0.13 | 118.34 | 48.81 | 260.89 | 65.72 | 1.3 |
| MS4 | 0.1638447 | 0.161 | 0.116 | -0.031 | 0.14 | 172.62 | 83.72 | 219.31 | 53.95 | 1.9 |
| S4 | 0.1666667 | 0.113 | 0.119 | -0.049 | 0.13 | 57.86 | 74.87 | 251.17 | 121.26 | 0.9 |
| 2MK5 | 0.2028035 | 0.064 | 0.089 | -0.016 | 0.09 | 6.97 | 95.62 | 35.06 | 124.20 | 0.52 |
| 2SK5 | 0.2084474 | 0.048 | 0.079 | -0.027 | 0.09 | 129.29 | 138.02 | 37.86 | 158.15 | 0.37 |
| 2MN6 | 0.2400221 | 0.129 | 0.104 | -0.001 | 0.10 | 150.25 | 63.25 | 113.62 | 69.14 | 1.5 |
| *M6 | 0.2415342 | 0.380 | 0.127 | 0.008 | 0.12 | 148.04 | 18.02 | 165.12 | 19.59 | 9 |
| *2MS6 | 0.2443561 | 0.203 | 0.127 | -0.008 | 0.11 | 127.52 | 39.56 | 200.81 | 39.31 | 2.6 |
| 2SM6 | 0.2471781 | 0.046 | 0.092 | 0.017 | 0.08 | 150.91 | 119.84 | 171.58 | 140.80 | 0.25 |
| 3MK7 | 0.2833149 | 0.036 | 0.061 | -0.025 | 0.05 | 23.79 | 125.24 | 350.48 | 135.08 | 0.34 |
| M8 | 0.3220456 | 0.030 | 0.046 | -0.025 | 0.04 | 55.03 | 107.24 | 93.63 | 134.21 | 0.42 |

total var= 32.6463 pred var= 17.1038
 percent total var predicted/var original= 52.4 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 28.5 m
 Mooring Number: 6252
 File Name: 6252v-alh.nc
 nobs = 1981, ngood = 1981, record length (days) = 82.54
 start time: 09-May-2000 14:58:07
 rayleigh criterion = 1.0

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

x0= -1.06, x trend= 0

var(x)= 46.4316 var(xp)= 32.8724 var(xres)= 13.6263
 percent var predicted/var original= 70.8 %

y0= 0.847, x trend= 0

var(y)= 8.5095 var(yp)= 1.2352 var(yres)= 7.2663
 percent var predicted/var original= 14.5 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|--------|
| MM | 0.0015122 | 1.542 | 1.165 | 0.095 | 1.09 | 141.41 | 54.47 | 179.35 | 62.99 | 1.8 |
| MSF | 0.0028219 | 1.348 | 1.254 | 0.067 | 1.21 | 134.57 | 60.48 | 306.23 | 71.26 | 1.2 |
| ALP1 | 0.0343966 | 0.179 | 0.238 | 0.083 | 0.19 | 152.07 | 96.69 | 96.00 | 108.17 | 0.57 |
| 2Q1 | 0.0357064 | 0.161 | 0.246 | 0.012 | 0.23 | 26.97 | 104.45 | 80.26 | 105.74 | 0.43 |
| Q1 | 0.0372185 | 0.256 | 0.255 | -0.071 | 0.26 | 125.77 | 85.78 | 20.06 | 85.73 | 1 |
| O1 | 0.0387307 | 0.283 | 0.271 | -0.055 | 0.27 | 70.40 | 67.67 | 256.25 | 65.94 | 1.1 |
| NO1 | 0.0402686 | 0.713 | 0.595 | -0.014 | 0.58 | 131.30 | 65.68 | 349.82 | 60.77 | 1.4 |
| *K1 | 0.0417807 | 0.474 | 0.271 | -0.069 | 0.28 | 24.17 | 41.79 | 293.67 | 36.53 | 3.1 |
| J1 | 0.0432929 | 0.205 | 0.203 | 0.079 | 0.24 | 83.38 | 88.36 | 355.08 | 98.08 | 1 |
| OO1 | 0.0448308 | 0.519 | 0.433 | 0.077 | 0.35 | 145.67 | 48.20 | 227.85 | 56.09 | 1.4 |
| *UPS1 | 0.0463430 | 0.477 | 0.320 | -0.174 | 0.36 | 153.66 | 57.94 | 330.34 | 54.79 | 2.2 |
| EPS2 | 0.0761773 | 0.092 | 0.276 | 0.065 | 0.27 | 120.06 | 137.04 | 168.69 | 203.99 | 0.11 |
| *MU2 | 0.0776895 | 0.634 | 0.379 | -0.102 | 0.46 | 75.10 | 48.50 | 153.96 | 38.97 | 2.8 |
| *N2 | 0.0789992 | 1.592 | 0.496 | 0.198 | 0.39 | 175.40 | 15.02 | 340.08 | 18.73 | 10 |
| *M2 | 0.0805114 | 7.845 | 0.451 | 0.138 | 0.38 | 171.27 | 3.14 | 4.65 | 3.42 | 3e+002 |
| *L2 | 0.0820236 | 0.551 | 0.303 | 0.274 | 0.30 | 154.91 | 56.14 | 69.56 | 62.34 | 3.3 |
| *S2 | 0.0833333 | 0.717 | 0.439 | 0.225 | 0.38 | 3.50 | 42.06 | 242.13 | 51.62 | 2.7 |
| ETA2 | 0.0850736 | 0.437 | 0.374 | -0.356 | 0.33 | 163.26 | 96.21 | 133.64 | 105.78 | 1.4 |
| MO3 | 0.1192421 | 0.303 | 0.232 | -0.105 | 0.20 | 164.96 | 43.17 | 118.49 | 67.84 | 1.7 |
| M3 | 0.1207671 | 0.193 | 0.195 | 0.008 | 0.16 | 171.27 | 59.69 | 105.55 | 113.91 | 0.98 |
| MK3 | 0.1222921 | 0.205 | 0.203 | 0.089 | 0.19 | 152.20 | 70.34 | 89.41 | 84.45 | 1 |
| SK3 | 0.1251141 | 0.230 | 0.239 | -0.070 | 0.17 | 168.51 | 44.98 | 120.86 | 77.32 | 0.92 |
| MN4 | 0.1595106 | 0.152 | 0.182 | -0.013 | 0.18 | 23.87 | 79.83 | 194.28 | 89.47 | 0.69 |
| *M4 | 0.1610228 | 0.476 | 0.226 | -0.234 | 0.21 | 138.71 | 43.73 | 262.95 | 38.96 | 4.4 |
| SN4 | 0.1623326 | 0.208 | 0.222 | -0.129 | 0.19 | 169.43 | 85.92 | 90.58 | 110.04 | 0.87 |
| MS4 | 0.1638447 | 0.135 | 0.156 | -0.058 | 0.19 | 141.99 | 100.19 | 275.79 | 105.86 | 0.74 |
| S4 | 0.1666667 | 0.187 | 0.202 | -0.083 | 0.18 | 178.79 | 85.40 | 174.91 | 136.95 | 0.86 |
| 2MK5 | 0.2028035 | 0.097 | 0.128 | -0.053 | 0.11 | 87.72 | 142.05 | 129.30 | 109.89 | 0.57 |
| 2SK5 | 0.2084474 | 0.125 | 0.119 | -0.068 | 0.12 | 132.70 | 81.41 | 121.86 | 92.24 | 1.1 |
| 2MN6 | 0.2400221 | 0.237 | 0.183 | -0.097 | 0.14 | 17.16 | 48.80 | 304.06 | 57.62 | 1.7 |
| *M6 | 0.2415342 | 0.573 | 0.210 | -0.125 | 0.16 | 14.81 | 16.58 | 353.54 | 23.48 | 7.4 |
| 2MS6 | 0.2443561 | 0.153 | 0.151 | -0.078 | 0.15 | 15.70 | 73.12 | 60.72 | 98.14 | 1 |
| 2SM6 | 0.2471781 | 0.079 | 0.139 | -0.003 | 0.12 | 163.20 | 83.46 | 296.96 | 154.20 | 0.33 |
| 3MK7 | 0.2833149 | 0.109 | 0.117 | -0.041 | 0.09 | 13.47 | 77.36 | 259.91 | 90.97 | 0.88 |
| M8 | 0.3220456 | 0.091 | 0.080 | -0.004 | 0.08 | 140.91 | 56.83 | 149.06 | 68.30 | 1.3 |

total var= 54.9411 pred var= 34.1076
 percent total var predicted/var original= 62.1 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 29.8 m
 Mooring Number: 6322

File Name: 6322v-alh_d2.nc
 nobs = 828, ngood = 464, record length (days) = 34.50
 start time: 27-Sep-2000 10:58:07
 rayleigh criterion = 1.0

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

x0= -2.73, x trend= 0

var(x)= 21.2471 var(xp)= 11.7188 var(xres)= 9.5826
 percent var predicted/var original= 55.2 %

y0= 0.652, x trend= 0

var(y)= 3.2118 var(yp)= 1.4969 var(yres)= 1.6891
 percent var predicted/var original= 46.6 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 1.142 | 1.574 | -0.141 | 0.81 | 162.62 | 29.32 | 309.82 | 109.98 | 0.53 |
| MSF | 0.0028219 | 0.718 | 1.593 | -0.134 | 0.67 | 6.03 | 28.66 | 109.56 | 152.07 | 0.2 |
| *ALP1 | 0.0343966 | 0.599 | 0.230 | 0.045 | 0.20 | 14.89 | 15.23 | 350.17 | 24.97 | 6.8 |
| 2Q1 | 0.0357064 | 0.261 | 0.221 | -0.045 | 0.19 | 10.56 | 42.66 | 295.11 | 61.48 | 1.4 |
| *Q1 | 0.0372185 | 0.476 | 0.222 | 0.026 | 0.17 | 167.77 | 22.59 | 93.42 | 28.42 | 4.6 |
| *O1 | 0.0387307 | 0.448 | 0.269 | -0.081 | 0.16 | 10.29 | 25.64 | 87.22 | 33.20 | 2.8 |
| *NO1 | 0.0402686 | 0.885 | 0.450 | 0.286 | 0.34 | 159.22 | 26.21 | 174.66 | 34.01 | 3.9 |
| *K1 | 0.0417807 | 0.768 | 0.251 | -0.122 | 0.19 | 164.43 | 13.78 | 6.48 | 20.93 | 9.4 |
| *J1 | 0.0432929 | 0.727 | 0.217 | -0.048 | 0.18 | 178.81 | 15.56 | 88.94 | 25.62 | 11 |
| *OO1 | 0.0448308 | 0.733 | 0.303 | -0.176 | 0.27 | 25.09 | 20.17 | 222.62 | 26.65 | 5.8 |
| *UPS1 | 0.0463430 | 1.272 | 0.243 | -0.021 | 0.23 | 163.83 | 10.20 | 7.19 | 12.36 | 27 |
| *EPS2 | 0.0761773 | 0.402 | 0.139 | -0.055 | 0.23 | 82.46 | 36.55 | 132.76 | 24.27 | 8.3 |
| *MU2 | 0.0776895 | 0.451 | 0.223 | 0.253 | 0.16 | 23.87 | 39.81 | 159.93 | 49.27 | 4.1 |
| *N2 | 0.0789992 | 2.106 | 0.273 | -0.042 | 0.15 | 6.71 | 4.22 | 168.23 | 7.49 | 60 |
| *M2 | 0.0805114 | 3.286 | 0.222 | -0.223 | 0.17 | 18.95 | 2.89 | 187.90 | 4.30 | 2.2e+002 |
| *L2 | 0.0820236 | 0.610 | 0.180 | -0.052 | 0.13 | 21.10 | 12.40 | 244.99 | 19.89 | 11 |
| *S2 | 0.0833333 | 1.052 | 0.265 | 0.344 | 0.16 | 6.05 | 10.21 | 246.74 | 15.80 | 16 |
| *ETA2 | 0.0850736 | 0.712 | 0.223 | 0.008 | 0.18 | 142.50 | 15.36 | 238.06 | 17.00 | 10 |
| MO3 | 0.1192421 | 0.280 | 0.211 | 0.014 | 0.18 | 165.17 | 42.03 | 175.15 | 50.94 | 1.8 |
| M3 | 0.1207671 | 0.142 | 0.144 | -0.033 | 0.16 | 116.14 | 103.46 | 196.71 | 97.78 | 0.98 |
| *MK3 | 0.1222921 | 0.322 | 0.214 | 0.018 | 0.19 | 30.82 | 36.51 | 109.94 | 38.54 | 2.3 |
| *SK3 | 0.1251141 | 0.439 | 0.222 | -0.046 | 0.19 | 170.36 | 23.37 | 271.12 | 34.95 | 3.9 |
| *MN4 | 0.1595106 | 0.569 | 0.330 | -0.001 | 0.24 | 12.48 | 26.71 | 339.45 | 41.05 | 3 |
| *M4 | 0.1610228 | 0.456 | 0.257 | -0.407 | 0.24 | 48.20 | 120.34 | 56.58 | 112.86 | 3.2 |
| *SN4 | 0.1623326 | 0.457 | 0.247 | -0.063 | 0.33 | 115.48 | 49.15 | 53.02 | 37.48 | 3.4 |
| MS4 | 0.1638447 | 0.364 | 0.326 | 0.011 | 0.26 | 34.07 | 43.32 | 25.52 | 57.68 | 1.2 |
| S4 | 0.1666667 | 0.213 | 0.277 | 0.124 | 0.25 | 33.51 | 77.55 | 39.18 | 109.88 | 0.59 |
| 2MK5 | 0.2028035 | 0.227 | 0.164 | 0.069 | 0.17 | 15.82 | 56.31 | 268.21 | 58.08 | 1.9 |
| 2SK5 | 0.2084474 | 0.088 | 0.142 | 0.041 | 0.14 | 84.43 | 106.89 | 310.47 | 132.22 | 0.38 |
| *2MN6 | 0.2400221 | 0.265 | 0.139 | 0.014 | 0.16 | 46.75 | 38.67 | 336.74 | 33.70 | 3.7 |
| *M6 | 0.2415342 | 0.482 | 0.167 | 0.001 | 0.18 | 57.20 | 22.97 | 41.35 | 19.17 | 8.3 |
| *2MS6 | 0.2443561 | 0.227 | 0.138 | 0.080 | 0.16 | 55.19 | 56.94 | 74.33 | 49.76 | 2.7 |
| 2SM6 | 0.2471781 | 0.092 | 0.147 | 0.010 | 0.11 | 19.25 | 73.49 | 260.46 | 112.89 | 0.39 |
| 3MK7 | 0.2833149 | 0.073 | 0.096 | -0.016 | 0.10 | 151.21 | 100.10 | 9.43 | 113.78 | 0.58 |
| *M8 | 0.3220456 | 0.140 | 0.094 | 0.013 | 0.10 | 131.93 | 53.49 | 286.85 | 45.39 | 2.2 |

total var= 24.459 pred var= 13.2158
 percent total var predicted/var original= 54.0 %

Tidal Analysis of Current at LT-A
Point Current-Meter Observations, 34.7 m
Mooring Number: 6382

File Name: 6382v-alh_d1.nc

nobs = 2398, ngood = 2397, record length (days) = 99.92

start time: 13-Feb-2001 15:58:08

rayleigh criterion = 1.0

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

x0= -1.58, x trend= 0

var(x)= 34.4221 var(xp)= 14.9959 var(xres)= 19.2732

percent var predicted/var original= 43.6 %

y0= 0.58, x trend= 0

var(y)= 8.3137 var(yp)= 3.8792 var(yres)= 4.4397

percent var predicted/var original= 46.7 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.343 | 1.132 | -0.152 | 0.53 | 152.87 | 43.93 | 161.40 | 141.64 | 0.092 |
| MSF | 0.0028219 | 1.636 | 1.686 | -0.240 | 0.55 | 9.36 | 18.33 | 219.34 | 58.38 | 0.94 |
| ALP1 | 0.0343966 | 0.089 | 0.315 | 0.035 | 0.23 | 81.81 | 110.06 | 68.38 | 160.13 | 0.08 |
| 2Q1 | 0.0357064 | 0.225 | 0.373 | -0.053 | 0.20 | 5.13 | 40.56 | 202.61 | 124.34 | 0.37 |
| Q1 | 0.0372185 | 0.092 | 0.334 | -0.003 | 0.20 | 166.67 | 49.02 | 163.44 | 235.70 | 0.076 |
| O1 | 0.0387307 | 0.451 | 0.460 | -0.029 | 0.26 | 22.61 | 30.02 | 237.15 | 65.87 | 0.96 |
| NO1 | 0.0402686 | 0.191 | 0.409 | -0.119 | 0.26 | 29.96 | 62.81 | 322.67 | 174.02 | 0.22 |
| K1 | 0.0417807 | 0.662 | 0.483 | -0.222 | 0.23 | 176.61 | 24.70 | 161.67 | 62.30 | 1.9 |
| J1 | 0.0432929 | 0.181 | 0.324 | 0.026 | 0.18 | 25.11 | 52.20 | 268.76 | 117.50 | 0.31 |
| OO1 | 0.0448308 | 0.246 | 0.394 | -0.038 | 0.23 | 158.90 | 46.43 | 94.53 | 135.56 | 0.39 |
| UPS1 | 0.0463430 | 0.105 | 0.308 | 0.010 | 0.19 | 43.49 | 48.31 | 211.66 | 209.10 | 0.12 |
| EPS2 | 0.0761773 | 0.090 | 0.274 | 0.039 | 0.24 | 142.08 | 78.60 | 326.33 | 185.21 | 0.11 |
| MU2 | 0.0776895 | 0.216 | 0.355 | 0.125 | 0.33 | 53.82 | 87.93 | 333.84 | 161.19 | 0.37 |
| *N2 | 0.0789992 | 1.155 | 0.413 | 0.450 | 0.39 | 37.03 | 25.02 | 128.62 | 27.40 | 7.8 |
| *M2 | 0.0805114 | 5.915 | 0.523 | 0.017 | 0.33 | 26.59 | 3.30 | 182.98 | 4.72 | 1.3e+002 |
| L2 | 0.0820236 | 0.291 | 0.398 | 0.024 | 0.24 | 174.05 | 52.49 | 46.16 | 98.51 | 0.53 |
| *S2 | 0.0833333 | 1.107 | 0.502 | -0.028 | 0.34 | 19.34 | 16.08 | 214.17 | 23.68 | 4.9 |
| ETA2 | 0.0850736 | 0.124 | 0.293 | 0.032 | 0.24 | 1.46 | 59.92 | 294.95 | 171.78 | 0.18 |
| MO3 | 0.1192421 | 0.067 | 0.139 | 0.042 | 0.13 | 23.80 | 128.06 | 43.93 | 153.05 | 0.23 |
| M3 | 0.1207671 | 0.120 | 0.148 | -0.037 | 0.14 | 77.15 | 95.80 | 265.97 | 100.36 | 0.66 |
| MK3 | 0.1222921 | 0.036 | 0.125 | -0.001 | 0.12 | 25.18 | 129.39 | 167.72 | 169.35 | 0.084 |
| SK3 | 0.1251141 | 0.173 | 0.158 | -0.126 | 0.16 | 167.18 | 110.43 | 148.01 | 101.18 | 1.2 |
| MN4 | 0.1595106 | 0.232 | 0.175 | -0.068 | 0.18 | 178.78 | 53.61 | 207.12 | 60.61 | 1.8 |
| *M4 | 0.1610228 | 0.407 | 0.166 | -0.117 | 0.17 | 25.03 | 35.71 | 24.76 | 34.95 | 6 |
| SN4 | 0.1623326 | 0.211 | 0.176 | 0.010 | 0.18 | 20.65 | 59.84 | 139.15 | 63.82 | 1.4 |
| MS4 | 0.1638447 | 0.191 | 0.186 | 0.005 | 0.16 | 170.04 | 70.23 | 246.26 | 74.29 | 1.1 |
| S4 | 0.1666667 | 0.152 | 0.154 | -0.113 | 0.14 | 6.86 | 105.66 | 211.55 | 102.51 | 0.98 |
| 2MK5 | 0.2028035 | 0.116 | 0.119 | -0.003 | 0.11 | 149.45 | 76.89 | 62.04 | 80.16 | 0.95 |
| 2SK5 | 0.2084474 | 0.068 | 0.100 | 0.009 | 0.10 | 178.39 | 113.22 | 263.36 | 122.13 | 0.47 |
| *2MN6 | 0.2400221 | 0.244 | 0.114 | -0.020 | 0.12 | 38.47 | 27.19 | 258.86 | 29.01 | 4.6 |
| *M6 | 0.2415342 | 0.429 | 0.111 | -0.110 | 0.13 | 67.71 | 21.08 | 319.65 | 20.29 | 15 |
| *2MS6 | 0.2443561 | 0.172 | 0.095 | -0.049 | 0.12 | 58.64 | 58.70 | 357.83 | 46.89 | 3.2 |
| 2SM6 | 0.2471781 | 0.067 | 0.112 | -0.024 | 0.08 | 11.88 | 76.74 | 100.94 | 123.03 | 0.36 |
| 3MK7 | 0.2833149 | 0.059 | 0.075 | -0.038 | 0.08 | 128.24 | 110.67 | 181.96 | 131.38 | 0.63 |
| M8 | 0.3220456 | 0.079 | 0.064 | -0.064 | 0.07 | 106.84 | 94.30 | 178.55 | 109.51 | 1.5 |

total var= 42.7358 pred var= 18.875

percent total var predicted/var original= 44.2 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 31.2 m
 Mooring Number: 6452

File Name: 6452v-alh_d2.nc
 nobs = 1487, ngood = 1487, record length (days) = 61.96
 start time: 23-May-2001 14:58:07
 rayleigh criterion = 1.0

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

x0= -0.498, x trend= 0

var(x)= 6.3139 var(xp)= 3.5061 var(xres)= 2.8815
 percent var predicted/var original= 55.5 %

y0= -0.768, x trend= 0

var(y)= 8.2485 var(yp)= 4.1746 var(yres)= 4.1625
 percent var predicted/var original= 50.6 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|------|
| MM | 0.0015122 | 0.306 | 0.384 | -0.033 | 0.40 | 62.44 | 93.42 | 247.26 | 114.40 | 0.63 |
| MSF | 0.0028219 | 0.392 | 0.398 | -0.082 | 0.40 | 147.58 | 90.15 | 143.06 | 83.20 | 0.97 |
| ALP1 | 0.0343966 | 0.059 | 0.099 | 0.025 | 0.12 | 124.69 | 115.85 | 31.68 | 158.17 | 0.36 |
| 2Q1 | 0.0357064 | 0.102 | 0.123 | 0.018 | 0.11 | 88.42 | 92.96 | 186.31 | 96.23 | 0.69 |
| Q1 | 0.0372185 | 0.068 | 0.112 | 0.018 | 0.11 | 52.90 | 108.90 | 341.64 | 143.26 | 0.36 |
| O1 | 0.0387307 | 0.110 | 0.127 | 0.086 | 0.14 | 176.05 | 124.74 | 238.83 | 128.50 | 0.76 |
| NO1 | 0.0402686 | 0.186 | 0.147 | -0.075 | 0.15 | 37.61 | 66.64 | 139.01 | 64.85 | 1.6 |
| *K1 | 0.0417807 | 0.353 | 0.151 | -0.116 | 0.14 | 77.84 | 32.25 | 295.86 | 32.63 | 5.4 |
| J1 | 0.0432929 | 0.040 | 0.106 | -0.015 | 0.09 | 127.98 | 129.47 | 328.35 | 190.09 | 0.14 |
| OO1 | 0.0448308 | 0.103 | 0.126 | 0.082 | 0.12 | 25.60 | 117.86 | 40.78 | 122.29 | 0.66 |
| UPS1 | 0.0463430 | 0.094 | 0.129 | 0.029 | 0.12 | 52.66 | 113.51 | 298.24 | 109.57 | 0.52 |
| EPS2 | 0.0761773 | 0.215 | 0.291 | -0.118 | 0.24 | 77.07 | 104.73 | 274.98 | 116.56 | 0.54 |
| MU2 | 0.0776895 | 0.246 | 0.260 | 0.200 | 0.30 | 97.36 | 99.17 | 289.56 | 131.88 | 0.9 |
| *N2 | 0.0789992 | 1.105 | 0.329 | -0.251 | 0.35 | 48.25 | 20.06 | 148.40 | 21.57 | 11 |
| *M2 | 0.0805114 | 3.385 | 0.358 | 0.458 | 0.37 | 47.98 | 6.57 | 186.76 | 6.13 | 90 |
| L2 | 0.0820236 | 0.210 | 0.258 | 0.005 | 0.27 | 24.48 | 91.70 | 181.88 | 85.68 | 0.66 |
| *S2 | 0.0833333 | 0.867 | 0.405 | 0.056 | 0.35 | 48.98 | 25.86 | 202.02 | 21.69 | 4.6 |
| ETA2 | 0.0850736 | 0.187 | 0.244 | -0.044 | 0.22 | 177.33 | 115.72 | 79.36 | 92.61 | 0.59 |
| MO3 | 0.1192421 | 0.155 | 0.154 | -0.113 | 0.14 | 80.65 | 98.00 | 137.49 | 124.06 | 1 |
| M3 | 0.1207671 | 0.056 | 0.144 | 0.023 | 0.14 | 49.15 | 101.85 | 179.70 | 153.15 | 0.15 |
| MK3 | 0.1222921 | 0.148 | 0.150 | 0.031 | 0.16 | 30.94 | 93.64 | 352.24 | 85.50 | 0.97 |
| SK3 | 0.1251141 | 0.165 | 0.172 | -0.035 | 0.16 | 161.62 | 83.80 | 266.64 | 67.94 | 0.92 |
| MN4 | 0.1595106 | 0.234 | 0.189 | -0.107 | 0.18 | 71.06 | 71.84 | 231.59 | 65.10 | 1.5 |
| *M4 | 0.1610228 | 0.620 | 0.193 | -0.129 | 0.19 | 35.06 | 19.41 | 335.67 | 17.02 | 10 |
| SN4 | 0.1623326 | 0.153 | 0.174 | 0.020 | 0.15 | 169.09 | 79.26 | 113.28 | 101.04 | 0.78 |
| *MS4 | 0.1638447 | 0.250 | 0.165 | 0.026 | 0.18 | 31.47 | 51.68 | 29.91 | 54.33 | 2.3 |
| S4 | 0.1666667 | 0.158 | 0.156 | -0.105 | 0.16 | 73.94 | 112.39 | 324.81 | 112.48 | 1 |
| 2MK5 | 0.2028035 | 0.179 | 0.129 | -0.058 | 0.14 | 40.18 | 56.58 | 75.11 | 50.00 | 1.9 |
| 2SK5 | 0.2084474 | 0.161 | 0.152 | -0.026 | 0.10 | 86.32 | 34.64 | 268.22 | 62.77 | 1.1 |
| *2MN6 | 0.2400221 | 0.293 | 0.130 | 0.018 | 0.13 | 86.69 | 25.57 | 305.24 | 26.60 | 5.1 |
| *M6 | 0.2415342 | 0.302 | 0.144 | 0.086 | 0.14 | 57.51 | 28.49 | 358.14 | 28.58 | 4.4 |
| *2MS6 | 0.2443561 | 0.246 | 0.120 | 0.009 | 0.13 | 65.55 | 31.57 | 88.14 | 35.86 | 4.2 |
| 2SM6 | 0.2471781 | 0.101 | 0.099 | 0.005 | 0.11 | 131.80 | 76.81 | 53.18 | 82.83 | 1 |
| 3MK7 | 0.2833149 | 0.043 | 0.106 | 0.027 | 0.09 | 168.81 | 98.18 | 310.78 | 173.96 | 0.16 |
| M8 | 0.3220456 | 0.060 | 0.064 | 0.013 | 0.08 | 23.18 | 111.27 | 273.80 | 100.89 | 0.9 |

total var= 14.5624 pred var= 7.6807
 percent total var predicted/var original= 52.7 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 29.6 m
 Mooring Number: 6652

File Name: 6652v-alh_d2.nc
 nobs = 2541, ngood = 2541, record length (days) = 105.88
 start time: 23-Oct-2001 17:00:11
 rayleigh criterion = 1.0

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

x0= -1.08, x trend= 0

var(x)= 29.8335 var(xp)= 21.2258 var(xres)= 8.5831
 percent var predicted/var original= 71.1 %

y0= 1.85, x trend= 0

var(y)= 4.5851 var(yp)= 0.76559 var(yres)= 3.8129
 percent var predicted/var original= 16.7 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.445 | 0.680 | -0.038 | 0.55 | 23.81 | 80.90 | 333.76 | 124.97 | 0.43 |
| MSF | 0.0028219 | 0.353 | 0.640 | 0.010 | 0.56 | 166.38 | 70.60 | 141.51 | 130.94 | 0.31 |
| ALP1 | 0.0343966 | 0.194 | 0.252 | -0.039 | 0.19 | 165.34 | 58.11 | 239.72 | 99.27 | 0.59 |
| 2Q1 | 0.0357064 | 0.260 | 0.247 | -0.101 | 0.18 | 12.16 | 53.56 | 321.91 | 95.46 | 1.1 |
| Q1 | 0.0372185 | 0.197 | 0.220 | 0.082 | 0.20 | 129.47 | 91.39 | 49.60 | 98.77 | 0.81 |
| *O1 | 0.0387307 | 0.516 | 0.357 | 0.100 | 0.20 | 13.51 | 24.93 | 244.84 | 40.92 | 2.1 |
| NO1 | 0.0402686 | 0.120 | 0.209 | 0.043 | 0.16 | 155.00 | 60.94 | 202.45 | 132.35 | 0.33 |
| *K1 | 0.0417807 | 0.402 | 0.272 | -0.046 | 0.17 | 176.81 | 29.79 | 113.74 | 49.80 | 2.2 |
| J1 | 0.0432929 | 0.059 | 0.189 | -0.027 | 0.15 | 152.04 | 84.74 | 263.00 | 236.45 | 0.097 |
| OO1 | 0.0448308 | 0.240 | 0.201 | 0.028 | 0.19 | 136.81 | 52.73 | 191.62 | 64.75 | 1.4 |
| UPS1 | 0.0463430 | 0.186 | 0.199 | -0.071 | 0.18 | 23.99 | 68.09 | 287.64 | 104.78 | 0.87 |
| EPS2 | 0.0761773 | 0.189 | 0.296 | 0.043 | 0.29 | 155.50 | 95.58 | 78.29 | 122.31 | 0.41 |
| MU2 | 0.0776895 | 0.139 | 0.285 | 0.088 | 0.30 | 159.58 | 97.45 | 199.10 | 163.62 | 0.24 |
| *N2 | 0.0789992 | 1.480 | 0.460 | 0.042 | 0.38 | 6.05 | 13.64 | 152.84 | 16.26 | 10 |
| *M2 | 0.0805114 | 6.216 | 0.448 | 0.846 | 0.36 | 6.26 | 3.44 | 180.59 | 3.61 | 1.9e+002 |
| *L2 | 0.0820236 | 0.759 | 0.475 | -0.171 | 0.36 | 177.87 | 34.61 | 58.33 | 39.61 | 2.6 |
| *S2 | 0.0833333 | 0.979 | 0.422 | -0.008 | 0.35 | 4.34 | 20.53 | 209.03 | 27.44 | 5.4 |
| ETA2 | 0.0850736 | 0.140 | 0.279 | -0.011 | 0.25 | 166.11 | 86.20 | 207.59 | 150.62 | 0.25 |
| MO3 | 0.1192421 | 0.129 | 0.113 | -0.038 | 0.09 | 105.90 | 57.88 | 40.12 | 73.25 | 1.3 |
| *M3 | 0.1207671 | 0.173 | 0.106 | -0.017 | 0.12 | 161.10 | 55.24 | 23.30 | 43.53 | 2.7 |
| *MK3 | 0.1222921 | 0.173 | 0.109 | -0.067 | 0.12 | 141.61 | 55.02 | 226.72 | 55.28 | 2.5 |
| SK3 | 0.1251141 | 0.151 | 0.108 | -0.009 | 0.12 | 161.31 | 62.85 | 244.36 | 56.51 | 1.9 |
| MN4 | 0.1595106 | 0.114 | 0.115 | -0.048 | 0.10 | 179.66 | 59.65 | 212.64 | 77.52 | 0.99 |
| *M4 | 0.1610228 | 0.474 | 0.127 | -0.325 | 0.09 | 177.45 | 33.09 | 253.56 | 35.11 | 14 |
| SN4 | 0.1623326 | 0.127 | 0.097 | -0.048 | 0.09 | 142.00 | 67.41 | 26.77 | 70.11 | 1.7 |
| *MS4 | 0.1638447 | 0.260 | 0.123 | -0.127 | 0.09 | 175.62 | 36.40 | 312.35 | 45.20 | 4.5 |
| S4 | 0.1666667 | 0.133 | 0.110 | -0.036 | 0.10 | 8.20 | 49.50 | 232.30 | 60.74 | 1.4 |
| 2MK5 | 0.2028035 | 0.105 | 0.088 | -0.048 | 0.08 | 149.39 | 65.87 | 119.64 | 72.32 | 1.4 |
| 2SK5 | 0.2084474 | 0.042 | 0.074 | -0.029 | 0.07 | 131.91 | 115.78 | 60.53 | 160.07 | 0.32 |
| *2MN6 | 0.2400221 | 0.208 | 0.130 | -0.021 | 0.11 | 33.14 | 38.38 | 304.45 | 42.11 | 2.5 |
| *M6 | 0.2415342 | 0.583 | 0.137 | 0.021 | 0.14 | 40.38 | 14.64 | 342.60 | 13.01 | 18 |
| *2MS6 | 0.2443561 | 0.190 | 0.112 | 0.052 | 0.11 | 44.35 | 50.00 | 24.53 | 45.21 | 2.9 |
| 2SM6 | 0.2471781 | 0.044 | 0.101 | -0.009 | 0.10 | 64.14 | 121.24 | 27.53 | 152.13 | 0.19 |
| 3MK7 | 0.2833149 | 0.020 | 0.055 | 0.000 | 0.05 | 33.87 | 123.92 | 264.89 | 194.64 | 0.13 |
| M8 | 0.3220456 | 0.079 | 0.058 | -0.021 | 0.06 | 62.40 | 55.68 | 235.18 | 56.91 | 1.8 |

total var= 34.4186 pred var= 21.9914
 percent total var predicted/var original= 63.9 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 32.6 m
 Mooring Number: 6832

File Name: 6832v-alh_d2.nc
 nobs = 2493, ngood = 2492, record length (days) = 103.88
 start time: 06-Feb-2002 16:00:38
 rayleigh criterion = 1.0

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

x0= -1.77, x trend= 0

var(x)= 21.4458 var(xp)= 9.5803 var(xres)= 11.7887
 percent var predicted/var original= 44.7 %

y0= 0.246, x trend= 0

var(y)= 5.7573 var(yp)= 2.6794 var(yres)= 3.0703
 percent var predicted/var original= 46.5 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.834 | 1.164 | -0.043 | 0.45 | 165.18 | 24.63 | 126.43 | 100.77 | 0.51 |
| MSF | 0.0028219 | 0.330 | 0.896 | -0.032 | 0.48 | 38.88 | 34.66 | 143.29 | 177.89 | 0.14 |
| ALP1 | 0.0343966 | 0.185 | 0.285 | -0.106 | 0.21 | 19.13 | 72.85 | 213.71 | 132.75 | 0.42 |
| 2Q1 | 0.0357064 | 0.240 | 0.321 | -0.010 | 0.22 | 18.36 | 50.99 | 302.08 | 107.16 | 0.56 |
| Q1 | 0.0372185 | 0.146 | 0.243 | -0.038 | 0.20 | 162.85 | 72.56 | 111.34 | 172.35 | 0.36 |
| O1 | 0.0387307 | 0.364 | 0.297 | -0.024 | 0.26 | 44.95 | 55.90 | 207.76 | 53.47 | 1.5 |
| NO1 | 0.0402686 | 0.126 | 0.197 | 0.039 | 0.20 | 67.77 | 111.34 | 300.21 | 107.25 | 0.41 |
| K1 | 0.0417807 | 0.523 | 0.427 | -0.209 | 0.23 | 12.48 | 40.93 | 343.03 | 60.90 | 1.5 |
| J1 | 0.0432929 | 0.230 | 0.331 | -0.082 | 0.22 | 11.73 | 54.97 | 307.53 | 105.37 | 0.48 |
| OO1 | 0.0448308 | 0.093 | 0.211 | -0.050 | 0.16 | 42.78 | 82.74 | 207.11 | 180.99 | 0.2 |
| UPS1 | 0.0463430 | 0.160 | 0.223 | -0.020 | 0.17 | 9.51 | 54.54 | 16.35 | 122.39 | 0.52 |
| EPS2 | 0.0761773 | 0.255 | 0.242 | 0.013 | 0.24 | 39.79 | 63.47 | 277.45 | 68.19 | 1.1 |
| MU2 | 0.0776895 | 0.225 | 0.255 | -0.105 | 0.22 | 162.05 | 71.58 | 183.48 | 107.51 | 0.78 |
| *N2 | 0.0789992 | 0.789 | 0.310 | 0.178 | 0.27 | 32.63 | 20.51 | 132.43 | 24.20 | 6.5 |
| *M2 | 0.0805114 | 4.824 | 0.349 | 0.344 | 0.25 | 26.92 | 3.19 | 172.82 | 3.98 | 1.9e+002 |
| L2 | 0.0820236 | 0.392 | 0.325 | -0.021 | 0.32 | 10.84 | 49.90 | 238.99 | 70.89 | 1.5 |
| *S2 | 0.0833333 | 0.712 | 0.337 | -0.002 | 0.27 | 32.98 | 21.16 | 220.48 | 24.54 | 4.5 |
| ETA2 | 0.0850736 | 0.183 | 0.192 | -0.011 | 0.19 | 137.56 | 86.53 | 155.96 | 86.33 | 0.92 |
| MO3 | 0.1192421 | 0.070 | 0.109 | -0.045 | 0.10 | 21.88 | 126.27 | 320.11 | 127.66 | 0.41 |
| M3 | 0.1207671 | 0.102 | 0.120 | -0.019 | 0.13 | 37.87 | 88.62 | 295.46 | 88.58 | 0.73 |
| MK3 | 0.1222921 | 0.110 | 0.129 | 0.030 | 0.13 | 117.43 | 94.96 | 15.99 | 95.49 | 0.73 |
| SK3 | 0.1251141 | 0.092 | 0.111 | -0.008 | 0.11 | 43.94 | 100.35 | 240.05 | 107.88 | 0.68 |
| *MN4 | 0.1595106 | 0.254 | 0.132 | -0.139 | 0.13 | 20.78 | 49.13 | 356.54 | 52.63 | 3.7 |
| *M4 | 0.1610228 | 0.410 | 0.189 | -0.211 | 0.12 | 11.67 | 30.54 | 63.85 | 35.60 | 4.7 |
| SN4 | 0.1623326 | 0.148 | 0.133 | -0.000 | 0.12 | 19.88 | 59.95 | 126.64 | 73.72 | 1.3 |
| MS4 | 0.1638447 | 0.122 | 0.131 | -0.027 | 0.12 | 38.75 | 69.37 | 94.43 | 92.37 | 0.86 |
| S4 | 0.1666667 | 0.143 | 0.152 | -0.074 | 0.11 | 6.30 | 82.85 | 47.91 | 93.93 | 0.89 |
| 2MK5 | 0.2028035 | 0.067 | 0.081 | -0.019 | 0.09 | 88.18 | 95.21 | 223.82 | 103.51 | 0.7 |
| 2SK5 | 0.2084474 | 0.050 | 0.094 | -0.033 | 0.08 | 1.17 | 125.80 | 134.89 | 156.86 | 0.28 |
| *2MN6 | 0.2400221 | 0.358 | 0.114 | -0.055 | 0.12 | 64.18 | 18.27 | 279.04 | 15.99 | 9.8 |
| *M6 | 0.2415342 | 0.378 | 0.109 | -0.063 | 0.12 | 51.88 | 19.15 | 324.91 | 18.14 | 12 |
| *2MS6 | 0.2443561 | 0.253 | 0.103 | -0.020 | 0.12 | 55.16 | 28.85 | 37.26 | 27.40 | 6 |
| 2SM6 | 0.2471781 | 0.073 | 0.092 | -0.032 | 0.09 | 61.09 | 117.20 | 100.24 | 103.31 | 0.64 |
| 3MK7 | 0.2833149 | 0.069 | 0.061 | -0.014 | 0.06 | 106.65 | 69.33 | 329.83 | 70.59 | 1.3 |
| *M8 | 0.3220456 | 0.091 | 0.047 | -0.066 | 0.05 | 27.37 | 74.86 | 246.15 | 72.01 | 3.8 |

total var= 27.2032 pred var= 12.2597
 percent total var predicted/var original= 45.1 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 29.3 m
 Mooring Number: 6902
 File Name: 6902v-alh_d2.nc
 nobs = 3074, ngood = 3073, record length (days) = 128.08
 start time: 21-May-2002 15:58:08
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -1.27, x trend= 0

var(x)= 29.149 var(xp)= 15.7429 var(xres)= 13.3804
 percent var predicted/var original= 54.0 %

y0= 0.478, x trend= 0

var(y)= 2.5413 var(yp)= 0.49882 var(yres)= 2.0427
 percent var predicted/var original= 19.6 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 1.345 | 1.177 | -0.001 | 0.24 | 174.70 | 9.40 | 36.83 | 56.64 | 1.3 |
| MSF | 0.0028219 | 0.449 | 0.966 | 0.080 | 0.28 | 170.20 | 16.91 | 11.82 | 156.77 | 0.22 |
| ALP1 | 0.0343966 | 0.173 | 0.162 | 0.072 | 0.10 | 17.51 | 44.32 | 328.71 | 82.15 | 1.1 |
| 2Q1 | 0.0357064 | 0.160 | 0.188 | -0.040 | 0.09 | 170.31 | 46.36 | 238.13 | 95.10 | 0.73 |
| Q1 | 0.0372185 | 0.085 | 0.132 | -0.048 | 0.10 | 1.01 | 54.78 | 343.14 | 147.67 | 0.41 |
| O1 | 0.0387307 | 0.113 | 0.146 | -0.004 | 0.11 | 143.16 | 53.11 | 267.83 | 99.98 | 0.59 |
| NO1 | 0.0402686 | 0.133 | 0.126 | -0.028 | 0.07 | 6.32 | 34.07 | 322.73 | 74.55 | 1.1 |
| *K1 | 0.0417807 | 0.230 | 0.144 | 0.009 | 0.17 | 130.24 | 43.25 | 288.50 | 43.08 | 2.5 |
| J1 | 0.0432929 | 0.062 | 0.138 | 0.002 | 0.09 | 142.06 | 59.71 | 295.87 | 168.58 | 0.2 |
| OO1 | 0.0448308 | 0.101 | 0.118 | -0.020 | 0.07 | 166.17 | 42.77 | 298.27 | 105.84 | 0.72 |
| UPS1 | 0.0463430 | 0.054 | 0.110 | -0.031 | 0.08 | 158.87 | 61.22 | 302.59 | 154.60 | 0.24 |
| EPS2 | 0.0761773 | 0.319 | 0.326 | 0.159 | 0.23 | 148.63 | 54.19 | 162.08 | 80.92 | 0.96 |
| MU2 | 0.0776895 | 0.200 | 0.352 | -0.063 | 0.21 | 161.95 | 50.11 | 245.37 | 133.10 | 0.32 |
| *N2 | 0.0789992 | 1.032 | 0.481 | -0.244 | 0.29 | 17.46 | 13.85 | 152.25 | 28.05 | 4.6 |
| *M2 | 0.0805114 | 5.538 | 0.486 | -0.171 | 0.23 | 7.80 | 2.34 | 177.22 | 4.58 | 1.3e+002 |
| *L2 | 0.0820236 | 1.233 | 0.577 | -0.389 | 0.32 | 175.89 | 18.01 | 53.26 | 36.85 | 4.6 |
| S2 | 0.0833333 | 0.590 | 0.450 | -0.014 | 0.25 | 18.76 | 21.31 | 225.77 | 40.20 | 1.7 |
| ETA2 | 0.0850736 | 0.140 | 0.244 | 0.060 | 0.19 | 26.60 | 61.21 | 77.44 | 148.96 | 0.33 |
| MO3 | 0.1192421 | 0.117 | 0.120 | -0.051 | 0.11 | 142.91 | 76.24 | 86.30 | 77.09 | 0.95 |
| M3 | 0.1207671 | 0.133 | 0.130 | -0.108 | 0.12 | 147.37 | 104.79 | 354.74 | 126.47 | 1.1 |
| MK3 | 0.1222921 | 0.122 | 0.125 | -0.062 | 0.10 | 166.33 | 63.94 | 91.80 | 97.14 | 0.95 |
| SK3 | 0.1251141 | 0.111 | 0.126 | 0.007 | 0.11 | 35.00 | 66.78 | 339.73 | 86.85 | 0.78 |
| MN4 | 0.1595106 | 0.121 | 0.129 | -0.046 | 0.12 | 9.14 | 81.88 | 353.75 | 100.33 | 0.88 |
| *M4 | 0.1610228 | 0.501 | 0.179 | -0.093 | 0.16 | 179.14 | 19.82 | 212.44 | 21.98 | 7.9 |
| *SN4 | 0.1623326 | 0.254 | 0.158 | -0.069 | 0.16 | 163.92 | 44.51 | 105.51 | 51.79 | 2.6 |
| MS4 | 0.1638447 | 0.083 | 0.129 | 0.028 | 0.11 | 50.87 | 125.52 | 138.03 | 134.82 | 0.42 |
| S4 | 0.1666667 | 0.132 | 0.133 | 0.035 | 0.15 | 133.28 | 86.10 | 254.68 | 97.91 | 0.99 |
| 2MK5 | 0.2028035 | 0.079 | 0.093 | 0.011 | 0.07 | 16.41 | 60.85 | 172.40 | 83.27 | 0.72 |
| 2SK5 | 0.2084474 | 0.064 | 0.081 | -0.016 | 0.07 | 169.46 | 60.40 | 160.46 | 95.03 | 0.62 |
| *2MN6 | 0.2400221 | 0.255 | 0.134 | 0.004 | 0.14 | 39.46 | 30.45 | 302.44 | 33.58 | 3.6 |
| *M6 | 0.2415342 | 0.435 | 0.136 | -0.164 | 0.14 | 33.55 | 22.67 | 336.15 | 23.11 | 10 |
| 2MS6 | 0.2443561 | 0.073 | 0.099 | 0.037 | 0.10 | 64.86 | 116.22 | 29.70 | 114.44 | 0.55 |
| 2SM6 | 0.2471781 | 0.046 | 0.088 | 0.008 | 0.09 | 114.50 | 130.94 | 213.69 | 148.32 | 0.27 |
| 3MK7 | 0.2833149 | 0.072 | 0.079 | -0.064 | 0.06 | 162.76 | 112.16 | 229.96 | 123.21 | 0.83 |
| *M8 | 0.3220456 | 0.080 | 0.045 | -0.005 | 0.06 | 84.18 | 54.98 | 208.47 | 36.75 | 3.1 |

total var= 31.6903 pred var= 16.2417
 percent total var predicted/var original= 51.3 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 32.5 m
 Mooring Number: 6903

File Name: 6903rcm-alh.nc
 nobs = 1027, ngood = 993, record length (days) = 42.79
 start time: 22-May-2002 05:54:00
 rayleigh criterion = 1.0

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

x0= -1.08, x trend= 0

var(x)= 45.4071 var(xp)= 23.7716 var(xres)= 21.4675
 percent var predicted/var original= 52.4 %

y0= 1.41, x trend= 0

var(y)= 10.9356 var(yp)= 0.68487 var(yres)= 10.1856
 percent var predicted/var original= 6.3 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|------|
| MM | 0.0015122 | 3.170 | 2.885 | 0.294 | 2.30 | 149.22 | 42.95 | 82.06 | 53.76 | 1.2 |
| MSF | 0.0028219 | 1.908 | 2.455 | -0.411 | 2.03 | 133.86 | 74.55 | 287.38 | 120.44 | 0.6 |
| ALP1 | 0.0343966 | 0.378 | 0.461 | 0.070 | 0.22 | 1.43 | 30.00 | 312.27 | 88.44 | 0.67 |
| 2Q1 | 0.0357064 | 0.370 | 0.384 | -0.053 | 0.30 | 147.26 | 46.85 | 266.90 | 73.77 | 0.93 |
| Q1 | 0.0372185 | 0.281 | 0.274 | -0.048 | 0.35 | 79.79 | 126.95 | 347.15 | 73.53 | 1.1 |
| *O1 | 0.0387307 | 0.685 | 0.477 | -0.109 | 0.36 | 147.12 | 28.20 | 338.43 | 39.55 | 2.1 |
| NO1 | 0.0402686 | 0.485 | 0.361 | -0.099 | 0.23 | 152.29 | 29.57 | 119.27 | 44.59 | 1.8 |
| *K1 | 0.0417807 | 0.522 | 0.280 | 0.130 | 0.48 | 79.14 | 72.35 | 290.52 | 40.43 | 3.5 |
| J1 | 0.0432929 | 0.262 | 0.253 | -0.065 | 0.35 | 114.42 | 99.37 | 337.12 | 91.68 | 1.1 |
| OO1 | 0.0448308 | 0.435 | 0.316 | -0.024 | 0.24 | 150.59 | 32.41 | 318.54 | 52.75 | 1.9 |
| UPS1 | 0.0463430 | 0.104 | 0.253 | 0.025 | 0.16 | 142.68 | 63.77 | 205.75 | 171.74 | 0.17 |
| *EPS2 | 0.0761773 | 0.902 | 0.626 | 0.344 | 0.64 | 160.20 | 61.13 | 234.05 | 64.74 | 2.1 |
| MU2 | 0.0776895 | 0.681 | 0.638 | 0.031 | 0.62 | 151.70 | 68.14 | 256.55 | 67.25 | 1.1 |
| *N2 | 0.0789992 | 1.000 | 0.658 | 0.188 | 0.70 | 18.84 | 50.57 | 146.32 | 46.81 | 2.3 |
| *M2 | 0.0805114 | 6.602 | 0.744 | -0.428 | 0.77 | 178.34 | 7.36 | 9.08 | 7.27 | 79 |
| *L2 | 0.0820236 | 1.361 | 0.850 | -0.763 | 0.91 | 170.61 | 64.84 | 105.53 | 74.68 | 2.6 |
| *S2 | 0.0833333 | 1.374 | 0.728 | 0.034 | 0.84 | 178.19 | 39.52 | 72.82 | 48.34 | 3.6 |
| ETA2 | 0.0850736 | 0.739 | 0.597 | 0.027 | 0.62 | 119.60 | 65.18 | 89.06 | 69.01 | 1.5 |
| MO3 | 0.1192421 | 0.222 | 0.301 | 0.167 | 0.30 | 105.00 | 158.51 | 41.03 | 106.10 | 0.54 |
| M3 | 0.1207671 | 0.491 | 0.388 | -0.272 | 0.33 | 139.04 | 60.97 | 11.20 | 69.67 | 1.6 |
| MK3 | 0.1222921 | 0.190 | 0.377 | -0.004 | 0.23 | 162.45 | 53.01 | 78.16 | 144.71 | 0.25 |
| SK3 | 0.1251141 | 0.387 | 0.415 | -0.022 | 0.27 | 163.40 | 47.25 | 124.27 | 76.77 | 0.87 |
| MN4 | 0.1595106 | 0.402 | 0.308 | -0.374 | 0.31 | 145.14 | 125.02 | 164.47 | 132.86 | 1.7 |
| *M4 | 0.1610228 | 0.779 | 0.354 | 0.020 | 0.38 | 153.30 | 26.67 | 245.76 | 29.59 | 4.8 |
| SN4 | 0.1623326 | 0.491 | 0.360 | -0.101 | 0.32 | 166.82 | 47.18 | 120.96 | 49.94 | 1.9 |
| MS4 | 0.1638447 | 0.188 | 0.315 | -0.059 | 0.26 | 0.41 | 94.69 | 198.65 | 109.48 | 0.36 |
| S4 | 0.1666667 | 0.317 | 0.298 | -0.131 | 0.28 | 4.27 | 74.94 | 157.47 | 80.19 | 1.1 |
| 2MK5 | 0.2028035 | 0.216 | 0.208 | 0.104 | 0.21 | 138.44 | 82.85 | 312.41 | 95.37 | 1.1 |
| 2SK5 | 0.2084474 | 0.140 | 0.171 | -0.119 | 0.17 | 150.35 | 114.08 | 291.62 | 137.54 | 0.67 |
| 2MN6 | 0.2400221 | 0.272 | 0.298 | 0.126 | 0.26 | 0.37 | 84.85 | 253.06 | 105.01 | 0.84 |
| *M6 | 0.2415342 | 0.503 | 0.293 | -0.278 | 0.29 | 17.71 | 53.14 | 353.26 | 58.77 | 3 |
| 2MS6 | 0.2443561 | 0.163 | 0.243 | 0.088 | 0.22 | 150.05 | 110.72 | 102.57 | 134.91 | 0.45 |
| 2SM6 | 0.2471781 | 0.173 | 0.269 | 0.019 | 0.23 | 166.34 | 101.75 | 243.92 | 135.14 | 0.41 |
| 3MK7 | 0.2833149 | 0.171 | 0.166 | -0.066 | 0.19 | 117.59 | 98.78 | 268.47 | 94.90 | 1.1 |
| M8 | 0.3220456 | 0.061 | 0.133 | -0.042 | 0.11 | 140.73 | 116.15 | 174.53 | 152.64 | 0.21 |

total var= 56.3427 pred var= 24.4565
 percent total var predicted/var original= 43.4 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 23.5 m
 Mooring Number: 7075

File Name: 7075vm-alh.nc
 nobs = 2676, ngood = 2675, record length (days) = 111.50
 start time: 30-Mar-2003 15:59:30
 rayleigh criterion = 1.0

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

x0= -0.511, x trend= 0

var(x)= 79.6901 var(xp)= 46.1718 var(xres)= 33.0888
 percent var predicted/var original= 57.9 %

y0= 0.802, x trend= 0

var(y)= 20.8269 var(yp)= 1.5012 var(yres)= 19.3515
 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 | 1.434 | 1.338 | -0.596 | 1.30 | 76.84 | 70.79 | 136.00 | 80.87 | 1.1 |
| MSF | 0.0028219 | 1.252 | 1.498 | -0.624 | 1.34 | 127.15 | 101.63 | 220.22 | 104.93 | 0.7 |
| ALP1 | 0.0343966 | 0.225 | 0.346 | 0.111 | 0.31 | 151.39 | 97.56 | 26.17 | 129.94 | 0.42 |
| 2Q1 | 0.0357064 | 0.166 | 0.312 | -0.023 | 0.30 | 28.20 | 90.46 | 167.03 | 150.99 | 0.28 |
| Q1 | 0.0372185 | 0.255 | 0.339 | -0.040 | 0.35 | 35.36 | 79.91 | 168.71 | 102.22 | 0.57 |
| O1 | 0.0387307 | 0.276 | 0.321 | 0.094 | 0.32 | 114.72 | 108.01 | 358.62 | 102.64 | 0.74 |
| NO1 | 0.0402686 | 0.295 | 0.286 | -0.142 | 0.27 | 51.48 | 82.66 | 298.54 | 79.19 | 1.1 |
| *K1 | 0.0417807 | 0.896 | 0.466 | -0.456 | 0.34 | 1.64 | 42.47 | 311.14 | 50.20 | 3.7 |
| J1 | 0.0432929 | 0.310 | 0.327 | -0.207 | 0.36 | 102.61 | 118.42 | 100.38 | 101.42 | 0.9 |
| OO1 | 0.0448308 | 0.138 | 0.243 | -0.037 | 0.22 | 110.84 | 141.82 | 247.36 | 132.55 | 0.32 |
| UPS1 | 0.0463430 | 0.086 | 0.235 | -0.042 | 0.22 | 156.01 | 97.03 | 39.35 | 236.69 | 0.13 |
| EPS2 | 0.0761773 | 0.543 | 0.723 | -0.017 | 0.48 | 155.81 | 50.67 | 19.70 | 103.90 | 0.56 |
| MU2 | 0.0776895 | 1.086 | 0.927 | -0.289 | 0.48 | 5.26 | 31.81 | 179.06 | 51.52 | 1.4 |
| *N2 | 0.0789992 | 2.040 | 0.916 | 0.632 | 0.56 | 10.86 | 22.00 | 168.92 | 28.76 | 5 |
| *M2 | 0.0805114 | 9.477 | 0.910 | -0.324 | 0.55 | 7.19 | 3.32 | 207.16 | 5.49 | 1.1e+002 |
| L2 | 0.0820236 | 0.886 | 0.719 | -0.374 | 0.61 | 145.99 | 65.03 | 17.78 | 75.37 | 1.5 |
| *S2 | 0.0833333 | 1.101 | 0.742 | 0.363 | 0.54 | 165.56 | 32.23 | 26.65 | 53.11 | 2.2 |
| ETA2 | 0.0850736 | 0.401 | 0.608 | -0.146 | 0.43 | 19.53 | 64.20 | 330.18 | 118.37 | 0.43 |
| MO3 | 0.1192421 | 0.169 | 0.228 | -0.104 | 0.21 | 167.16 | 131.49 | 228.63 | 116.79 | 0.55 |
| M3 | 0.1207671 | 0.094 | 0.267 | -0.001 | 0.21 | 144.17 | 129.89 | 48.95 | 233.15 | 0.12 |
| *MK3 | 0.1222921 | 0.579 | 0.256 | -0.184 | 0.33 | 12.45 | 36.14 | 289.94 | 32.68 | 5.1 |
| SK3 | 0.1251141 | 0.083 | 0.203 | -0.041 | 0.17 | 162.04 | 130.93 | 172.82 | 200.67 | 0.17 |
| MN4 | 0.1595106 | 0.348 | 0.275 | -0.221 | 0.30 | 71.99 | 101.27 | 264.48 | 76.85 | 1.6 |
| *M4 | 0.1610228 | 0.692 | 0.295 | -0.247 | 0.42 | 87.39 | 43.32 | 265.24 | 34.01 | 5.5 |
| SN4 | 0.1623326 | 0.345 | 0.342 | -0.140 | 0.25 | 169.55 | 66.04 | 348.51 | 101.24 | 1 |
| MS4 | 0.1638447 | 0.278 | 0.345 | -0.019 | 0.23 | 163.90 | 49.42 | 310.16 | 103.63 | 0.65 |
| S4 | 0.1666667 | 0.176 | 0.284 | -0.033 | 0.23 | 30.51 | 72.22 | 97.80 | 120.68 | 0.38 |
| 2MK5 | 0.2028035 | 0.094 | 0.169 | 0.011 | 0.13 | 35.70 | 71.53 | 44.90 | 131.35 | 0.31 |
| 2SK5 | 0.2084474 | 0.066 | 0.141 | 0.042 | 0.12 | 25.26 | 78.75 | 242.48 | 193.26 | 0.21 |
| *2MN6 | 0.2400221 | 0.324 | 0.197 | -0.079 | 0.18 | 28.35 | 35.95 | 307.88 | 48.76 | 2.7 |
| *M6 | 0.2415342 | 0.553 | 0.216 | -0.020 | 0.19 | 35.32 | 19.78 | 311.09 | 25.63 | 6.5 |
| 2MS6 | 0.2443561 | 0.154 | 0.162 | 0.007 | 0.16 | 37.15 | 67.24 | 13.37 | 84.85 | 0.9 |
| 2SM6 | 0.2471781 | 0.152 | 0.168 | -0.017 | 0.13 | 21.56 | 68.33 | 317.40 | 85.22 | 0.82 |
| 3MK7 | 0.2833149 | 0.126 | 0.122 | -0.011 | 0.09 | 169.36 | 61.37 | 91.99 | 78.28 | 1.1 |
| *M8 | 0.3220456 | 0.137 | 0.087 | 0.030 | 0.09 | 37.53 | 48.49 | 35.59 | 44.20 | 2.5 |

total var= 100.517 pred var= 47.6731
 percent total var predicted/var original= 47.4 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 30.1 m
 Mooring Number: 7082

File Name: 7082v-alh_d2.nc
 nobs = 4191, ngood = 4191, record length (days) = 174.63
 start time: 30-Mar-2003 13:02:06
 rayleigh criterion = 1.0

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

x0= -0.477, x trend= 0

var(x)= 6.4134 var(xp)= 2.8174 var(xres)= 3.5987
 percent var predicted/var original= 43.9 %

y0= -0.332, x trend= 0

var(y)= 5.8436 var(yp)= 1.7712 var(yres)= 4.0805
 percent var predicted/var original= 30.3 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| *MM | 0.0015122 | 0.393 | 0.243 | 0.061 | 0.29 | 62.31 | 50.69 | 144.33 | 53.48 | 2.6 |
| MSF | 0.0028219 | 0.286 | 0.232 | -0.229 | 0.24 | 69.83 | 114.22 | 253.06 | 105.59 | 1.5 |
| ALP1 | 0.0343966 | 0.071 | 0.100 | -0.018 | 0.09 | 31.06 | 102.99 | 269.51 | 108.46 | 0.51 |
| 2Q1 | 0.0357064 | 0.069 | 0.085 | -0.040 | 0.08 | 41.48 | 104.85 | 144.48 | 126.13 | 0.66 |
| Q1 | 0.0372185 | 0.076 | 0.084 | 0.065 | 0.09 | 177.90 | 139.84 | 19.32 | 206.16 | 0.82 |
| O1 | 0.0387307 | 0.107 | 0.092 | 0.043 | 0.09 | 48.39 | 78.32 | 125.70 | 74.64 | 1.3 |
| *NO1 | 0.0402686 | 0.140 | 0.087 | -0.027 | 0.09 | 45.89 | 42.84 | 322.01 | 43.98 | 2.6 |
| *K1 | 0.0417807 | 0.218 | 0.126 | -0.003 | 0.10 | 83.98 | 30.79 | 279.21 | 29.14 | 3 |
| *J1 | 0.0432929 | 0.142 | 0.092 | -0.039 | 0.10 | 36.51 | 62.11 | 217.64 | 57.43 | 2.4 |
| OO1 | 0.0448308 | 0.091 | 0.076 | -0.024 | 0.07 | 106.01 | 58.98 | 230.46 | 66.37 | 1.4 |
| UPS1 | 0.0463430 | 0.041 | 0.065 | -0.018 | 0.06 | 141.71 | 105.04 | 317.46 | 148.03 | 0.4 |
| EPS2 | 0.0761773 | 0.170 | 0.208 | -0.035 | 0.22 | 171.76 | 103.01 | 347.18 | 99.58 | 0.67 |
| *MU2 | 0.0776895 | 0.347 | 0.237 | -0.095 | 0.28 | 10.19 | 51.87 | 209.02 | 49.14 | 2.1 |
| *N2 | 0.0789992 | 0.467 | 0.280 | 0.161 | 0.29 | 23.57 | 42.54 | 138.13 | 41.71 | 2.8 |
| *M2 | 0.0805114 | 2.729 | 0.261 | 0.515 | 0.26 | 37.45 | 5.96 | 183.04 | 5.72 | 1.1e+002 |
| *L2 | 0.0820236 | 0.373 | 0.224 | -0.192 | 0.24 | 134.94 | 62.76 | 325.22 | 62.48 | 2.8 |
| *S2 | 0.0833333 | 0.646 | 0.222 | 0.291 | 0.25 | 45.36 | 31.66 | 209.17 | 34.86 | 8.4 |
| ETA2 | 0.0850736 | 0.116 | 0.187 | -0.057 | 0.17 | 103.25 | 102.24 | 154.11 | 127.29 | 0.39 |
| *MO3 | 0.1192421 | 0.189 | 0.120 | -0.018 | 0.09 | 88.13 | 26.14 | 105.68 | 35.84 | 2.5 |
| M3 | 0.1207671 | 0.045 | 0.092 | 0.006 | 0.09 | 20.89 | 139.29 | 203.35 | 132.52 | 0.24 |
| MK3 | 0.1222921 | 0.122 | 0.099 | 0.027 | 0.11 | 145.68 | 68.24 | 121.60 | 68.31 | 1.5 |
| SK3 | 0.1251141 | 0.065 | 0.090 | 0.025 | 0.09 | 34.40 | 91.24 | 353.71 | 112.38 | 0.52 |
| *MN4 | 0.1595106 | 0.266 | 0.132 | -0.020 | 0.17 | 23.15 | 36.88 | 330.74 | 29.08 | 4.1 |
| *M4 | 0.1610228 | 0.587 | 0.133 | -0.118 | 0.17 | 19.52 | 16.45 | 335.02 | 13.62 | 19 |
| *SN4 | 0.1623326 | 0.213 | 0.134 | 0.031 | 0.12 | 67.51 | 39.16 | 130.65 | 42.30 | 2.5 |
| MS4 | 0.1638447 | 0.145 | 0.109 | -0.032 | 0.13 | 179.22 | 87.28 | 225.10 | 88.93 | 1.8 |
| S4 | 0.1666667 | 0.043 | 0.098 | -0.010 | 0.10 | 165.49 | 125.45 | 256.17 | 145.86 | 0.19 |
| 2MK5 | 0.2028035 | 0.063 | 0.080 | -0.011 | 0.08 | 33.43 | 96.75 | 143.63 | 96.41 | 0.62 |
| 2SK5 | 0.2084474 | 0.027 | 0.068 | -0.001 | 0.05 | 36.49 | 107.24 | 112.13 | 128.37 | 0.16 |
| 2MN6 | 0.2400221 | 0.112 | 0.096 | 0.003 | 0.09 | 52.81 | 52.86 | 327.84 | 61.65 | 1.4 |
| *M6 | 0.2415342 | 0.306 | 0.113 | 0.061 | 0.09 | 63.24 | 19.02 | 351.37 | 24.54 | 7.3 |
| 2MS6 | 0.2443561 | 0.108 | 0.101 | 0.075 | 0.09 | 35.61 | 98.75 | 5.81 | 93.62 | 1.1 |
| 2SM6 | 0.2471781 | 0.065 | 0.088 | -0.028 | 0.07 | 101.77 | 69.73 | 223.71 | 122.25 | 0.54 |
| 3MK7 | 0.2833149 | 0.058 | 0.059 | 0.049 | 0.06 | 48.16 | 107.05 | 263.73 | 120.57 | 0.97 |
| M8 | 0.3220456 | 0.078 | 0.056 | -0.004 | 0.07 | 172.33 | 66.16 | 163.38 | 45.60 | 2 |

total var= 12.257 pred var= 4.5886
 percent total var predicted/var original= 37.4 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 30.5 m
 Mooring Number: 7083
 File Name: 7083rcm-alh.nc
 nobs = 4266, ngood = 4261, record length (days) = 177.75
 start time: 30-Mar-2003 16:44:00
 rayleigh criterion = 1.0
 Greenwich phase computed with nodal corrections applied to amplitude and phase relative to center time

x0= -0.551, x trend= 0

var(x)= 16.4302 var(xp)= 8.4525 var(xres)= 8.0018
 percent var predicted/var original= 51.4 %

y0= 0.383, x trend= 0

var(y)= 7.2751 var(yp)= 1.2171 var(yres)= 6.0593
 percent var predicted/var original= 16.7 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.538 | 0.384 | 0.129 | 0.36 | 46.93 | 57.45 | 150.32 | 51.77 | 2 |
| MSF | 0.0028219 | 0.375 | 0.378 | -0.291 | 0.33 | 166.24 | 93.29 | 145.38 | 113.94 | 0.99 |
| ALP1 | 0.0343966 | 0.101 | 0.105 | -0.050 | 0.10 | 17.34 | 97.59 | 276.46 | 109.76 | 0.93 |
| 2Q1 | 0.0357064 | 0.132 | 0.148 | 0.008 | 0.12 | 28.55 | 65.14 | 139.09 | 74.75 | 0.79 |
| *Q1 | 0.0372185 | 0.166 | 0.110 | 0.055 | 0.12 | 118.43 | 54.94 | 353.69 | 55.74 | 2.3 |
| O1 | 0.0387307 | 0.112 | 0.118 | 0.010 | 0.11 | 160.06 | 73.30 | 322.73 | 80.35 | 0.9 |
| *NO1 | 0.0402686 | 0.185 | 0.097 | -0.033 | 0.10 | 27.83 | 36.32 | 318.35 | 39.62 | 3.6 |
| *K1 | 0.0417807 | 0.227 | 0.126 | -0.051 | 0.16 | 72.06 | 41.70 | 291.23 | 39.62 | 3.3 |
| J1 | 0.0432929 | 0.199 | 0.152 | -0.045 | 0.12 | 171.05 | 41.68 | 61.20 | 51.15 | 1.7 |
| OO1 | 0.0448308 | 0.107 | 0.078 | -0.048 | 0.09 | 97.54 | 78.61 | 245.04 | 73.45 | 1.9 |
| UPS1 | 0.0463430 | 0.067 | 0.075 | 0.017 | 0.07 | 138.15 | 105.93 | 322.94 | 108.04 | 0.79 |
| EPS2 | 0.0761773 | 0.258 | 0.297 | 0.030 | 0.25 | 154.07 | 83.80 | 11.11 | 86.94 | 0.75 |
| *MU2 | 0.0776895 | 0.465 | 0.253 | -0.192 | 0.26 | 165.95 | 53.88 | 44.16 | 54.19 | 3.4 |
| *N2 | 0.0789992 | 0.748 | 0.356 | 0.221 | 0.29 | 177.70 | 28.88 | 320.35 | 31.36 | 4.4 |
| *M2 | 0.0805114 | 4.067 | 0.339 | 0.761 | 0.30 | 15.71 | 4.87 | 190.24 | 4.98 | 1.4e+002 |
| *L2 | 0.0820236 | 0.536 | 0.346 | -0.196 | 0.29 | 126.90 | 45.30 | 341.83 | 44.86 | 2.4 |
| *S2 | 0.0833333 | 0.810 | 0.263 | 0.369 | 0.28 | 16.63 | 32.88 | 213.69 | 35.69 | 9.5 |
| ETA2 | 0.0850736 | 0.168 | 0.178 | -0.138 | 0.20 | 100.86 | 129.73 | 169.99 | 119.87 | 0.9 |
| *MO3 | 0.1192421 | 0.207 | 0.140 | -0.019 | 0.12 | 60.29 | 41.29 | 126.13 | 40.60 | 2.2 |
| M3 | 0.1207671 | 0.073 | 0.116 | 0.033 | 0.11 | 164.98 | 138.46 | 11.27 | 146.25 | 0.39 |
| MK3 | 0.1222921 | 0.140 | 0.105 | -0.018 | 0.13 | 148.91 | 69.19 | 126.00 | 57.05 | 1.8 |
| SK3 | 0.1251141 | 0.092 | 0.107 | 0.041 | 0.10 | 19.99 | 112.97 | 14.32 | 101.46 | 0.74 |
| *MN4 | 0.1595106 | 0.335 | 0.173 | -0.038 | 0.19 | 174.34 | 33.88 | 169.85 | 32.24 | 3.8 |
| *M4 | 0.1610228 | 0.771 | 0.179 | -0.383 | 0.19 | 172.52 | 22.50 | 180.25 | 18.34 | 19 |
| *SN4 | 0.1623326 | 0.260 | 0.167 | 0.074 | 0.15 | 38.86 | 49.27 | 137.80 | 45.54 | 2.4 |
| MS4 | 0.1638447 | 0.198 | 0.161 | -0.056 | 0.17 | 168.18 | 69.45 | 252.81 | 64.52 | 1.5 |
| S4 | 0.1666667 | 0.033 | 0.122 | 0.014 | 0.12 | 174.19 | 138.33 | 299.31 | 191.36 | 0.073 |
| 2MK5 | 0.2028035 | 0.047 | 0.101 | 0.005 | 0.08 | 150.83 | 103.24 | 340.55 | 137.86 | 0.22 |
| 2SK5 | 0.2084474 | 0.028 | 0.082 | -0.020 | 0.07 | 50.30 | 126.82 | 52.88 | 177.63 | 0.12 |
| *2MN6 | 0.2400221 | 0.170 | 0.111 | -0.005 | 0.14 | 30.23 | 50.10 | 346.75 | 47.69 | 2.3 |
| *M6 | 0.2415342 | 0.359 | 0.136 | 0.072 | 0.14 | 48.87 | 24.28 | 16.31 | 24.27 | 7 |
| 2MS6 | 0.2443561 | 0.131 | 0.098 | 0.061 | 0.13 | 3.39 | 93.97 | 27.61 | 71.97 | 1.8 |
| 2SM6 | 0.2471781 | 0.066 | 0.100 | -0.018 | 0.10 | 105.75 | 84.68 | 209.38 | 125.23 | 0.44 |
| 3MK7 | 0.2833149 | 0.103 | 0.091 | 0.072 | 0.08 | 0.08 | 97.93 | 259.30 | 94.53 | 1.3 |
| *M8 | 0.3220456 | 0.122 | 0.068 | -0.000 | 0.08 | 164.22 | 42.67 | 198.34 | 42.99 | 3.2 |

total var= 23.7053 pred var= 9.6696
 percent total var predicted/var original= 40.8 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 23.0 m
 Mooring Number: 7165

File Name: 7165vm-alh.nc
 nobs = 3213, ngood = 3212, record length (days) = 133.88
 start time: 24-Sep-2003 17:03:00
 rayleigh criterion = 1.0

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

x0= -0.719, x trend= 0

var(x)= 77.0648 var(xp)= 51.6448 var(xres)= 25.436
 percent var predicted/var original= 67.0 %

y0= 1.1, x trend= 0

var(y)= 22.1434 var(yp)= 0.95486 var(yres)= 21.1841
 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 | 0.897 | 1.202 | 0.058 | 1.12 | 163.98 | 105.33 | 329.38 | 104.91 | 0.56 |
| MSF | 0.0028219 | 1.764 | 1.422 | -0.035 | 1.34 | 128.72 | 53.86 | 161.72 | 55.19 | 1.5 |
| ALP1 | 0.0343966 | 0.272 | 0.391 | -0.137 | 0.38 | 40.73 | 113.27 | 293.84 | 117.54 | 0.48 |
| 2Q1 | 0.0357064 | 0.146 | 0.348 | -0.064 | 0.35 | 78.23 | 127.19 | 204.59 | 178.13 | 0.18 |
| Q1 | 0.0372185 | 0.162 | 0.356 | -0.043 | 0.32 | 131.88 | 113.83 | 97.02 | 201.87 | 0.21 |
| O1 | 0.0387307 | 0.408 | 0.446 | 0.034 | 0.48 | 173.17 | 88.28 | 62.53 | 109.57 | 0.84 |
| NO1 | 0.0402686 | 0.417 | 0.394 | -0.297 | 0.37 | 12.39 | 101.56 | 44.50 | 97.85 | 1.1 |
| K1 | 0.0417807 | 0.563 | 0.435 | 0.135 | 0.47 | 177.36 | 57.71 | 88.06 | 60.65 | 1.7 |
| J1 | 0.0432929 | 0.145 | 0.358 | -0.020 | 0.33 | 118.23 | 133.07 | 107.30 | 183.95 | 0.16 |
| OO1 | 0.0448308 | 0.277 | 0.340 | -0.093 | 0.30 | 140.33 | 84.47 | 122.04 | 94.78 | 0.66 |
| UPS1 | 0.0463430 | 0.209 | 0.270 | -0.001 | 0.29 | 148.89 | 97.67 | 113.90 | 106.77 | 0.6 |
| EPS2 | 0.0761773 | 0.195 | 0.336 | -0.051 | 0.30 | 135.50 | 121.64 | 212.24 | 139.33 | 0.34 |
| *MU2 | 0.0776895 | 0.546 | 0.382 | -0.163 | 0.35 | 7.52 | 50.72 | 106.55 | 60.11 | 2 |
| *N2 | 0.0789992 | 2.345 | 0.442 | -0.066 | 0.46 | 9.18 | 10.81 | 178.10 | 10.38 | 28 |
| *M2 | 0.0805114 | 9.976 | 0.439 | -0.585 | 0.46 | 5.82 | 2.28 | 199.71 | 2.70 | 5.2e+002 |
| *L2 | 0.0820236 | 0.778 | 0.389 | -0.202 | 0.39 | 176.28 | 29.37 | 41.27 | 30.01 | 4 |
| *S2 | 0.0833333 | 1.597 | 0.498 | 0.236 | 0.48 | 9.34 | 15.16 | 237.23 | 15.19 | 10 |
| *ETA2 | 0.0850736 | 0.468 | 0.307 | -0.140 | 0.30 | 146.19 | 56.93 | 153.94 | 45.93 | 2.3 |
| MO3 | 0.1192421 | 0.132 | 0.172 | 0.037 | 0.15 | 177.78 | 78.98 | 175.66 | 96.45 | 0.59 |
| M3 | 0.1207671 | 0.126 | 0.184 | -0.087 | 0.17 | 26.65 | 107.02 | 250.46 | 150.31 | 0.47 |
| MK3 | 0.1222921 | 0.221 | 0.182 | 0.047 | 0.20 | 129.04 | 65.77 | 129.84 | 69.41 | 1.5 |
| SK3 | 0.1251141 | 0.260 | 0.191 | 0.031 | 0.21 | 128.10 | 55.11 | 236.39 | 51.55 | 1.8 |
| MN4 | 0.1595106 | 0.255 | 0.222 | -0.033 | 0.22 | 77.69 | 78.43 | 234.20 | 65.98 | 1.3 |
| *M4 | 0.1610228 | 0.617 | 0.241 | -0.182 | 0.24 | 150.79 | 26.53 | 284.16 | 29.13 | 6.6 |
| SN4 | 0.1623326 | 0.176 | 0.188 | -0.084 | 0.22 | 17.78 | 92.90 | 37.36 | 91.17 | 0.87 |
| MS4 | 0.1638447 | 0.099 | 0.180 | -0.017 | 0.16 | 172.27 | 113.60 | 254.18 | 137.82 | 0.3 |
| S4 | 0.1666667 | 0.168 | 0.212 | 0.125 | 0.20 | 57.73 | 118.07 | 240.95 | 112.13 | 0.63 |
| 2MK5 | 0.2028035 | 0.060 | 0.112 | 0.029 | 0.10 | 12.28 | 113.16 | 256.54 | 152.95 | 0.29 |
| 2SK5 | 0.2084474 | 0.155 | 0.112 | -0.060 | 0.14 | 94.68 | 80.53 | 297.40 | 65.37 | 1.9 |
| 2MN6 | 0.2400221 | 0.195 | 0.151 | 0.077 | 0.15 | 38.68 | 56.50 | 291.72 | 62.90 | 1.7 |
| *M6 | 0.2415342 | 0.489 | 0.158 | 0.112 | 0.15 | 27.18 | 20.61 | 310.50 | 25.85 | 9.7 |
| 2MS6 | 0.2443561 | 0.155 | 0.152 | 0.075 | 0.11 | 171.57 | 69.04 | 112.99 | 87.02 | 1 |
| 2SM6 | 0.2471781 | 0.048 | 0.111 | -0.022 | 0.11 | 147.64 | 87.09 | 312.07 | 146.54 | 0.19 |
| 3MK7 | 0.2833149 | 0.103 | 0.095 | -0.028 | 0.10 | 140.00 | 87.76 | 170.71 | 81.45 | 1.2 |
| M8 | 0.3220456 | 0.090 | 0.088 | 0.019 | 0.06 | 167.42 | 56.81 | 89.36 | 73.99 | 1 |

total var= 99.2081 pred var= 52.5997
 percent total var predicted/var original= 53.0 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 31.7 m
 Mooring Number: 7173

File Name: 7173advAs-callh.nc
 nobs = 1760, ngood = 1759, record length (days) = 73.33
 start time: 24-Sep-2003 15:00:01
 rayleigh criterion = 1.0

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

x0= -2.74, x trend= 0

var(x)= 67.3531 var(xp)= 33.8168 var(xres)= 33.7952
 percent var predicted/var original= 50.2 %

y0= 1.82, x trend= 0

var(y)= 12.4686 var(yp)= 0.53434 var(yres)= 11.9559
 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 | 1.001 | 1.929 | 0.049 | 0.97 | 157.88 | 52.15 | 234.40 | 125.17 | 0.27 |
| MSF | 0.0028219 | 3.262 | 2.331 | -0.012 | 1.37 | 159.87 | 25.61 | 140.90 | 42.01 | 2 |
| ALP1 | 0.0343966 | 0.190 | 0.408 | 0.123 | 0.37 | 32.49 | 94.79 | 20.95 | 158.88 | 0.22 |
| 2Q1 | 0.0357064 | 0.176 | 0.385 | -0.044 | 0.33 | 12.28 | 74.00 | 291.19 | 168.27 | 0.21 |
| Q1 | 0.0372185 | 0.231 | 0.387 | 0.117 | 0.37 | 114.19 | 138.38 | 330.49 | 142.22 | 0.36 |
| O1 | 0.0387307 | 0.264 | 0.446 | -0.060 | 0.34 | 3.15 | 71.96 | 243.95 | 135.42 | 0.35 |
| NO1 | 0.0402686 | 0.367 | 0.487 | 0.040 | 0.36 | 176.88 | 54.23 | 257.07 | 93.30 | 0.57 |
| K1 | 0.0417807 | 0.416 | 0.483 | 0.152 | 0.38 | 25.32 | 66.51 | 238.23 | 97.56 | 0.74 |
| J1 | 0.0432929 | 0.342 | 0.429 | 0.063 | 0.48 | 108.64 | 127.89 | 15.31 | 94.59 | 0.63 |
| OO1 | 0.0448308 | 0.383 | 0.322 | -0.106 | 0.29 | 129.98 | 60.50 | 144.33 | 66.65 | 1.4 |
| UPS1 | 0.0463430 | 0.319 | 0.389 | 0.004 | 0.28 | 175.48 | 53.98 | 125.24 | 73.68 | 0.68 |
| EPS2 | 0.0761773 | 0.703 | 0.636 | -0.046 | 0.69 | 116.81 | 90.14 | 196.07 | 56.30 | 1.2 |
| MU2 | 0.0776895 | 0.627 | 0.740 | -0.005 | 0.50 | 1.77 | 36.48 | 110.55 | 85.71 | 0.72 |
| *N2 | 0.0789992 | 1.780 | 0.866 | -0.248 | 0.51 | 4.59 | 17.05 | 170.36 | 29.41 | 4.2 |
| *M2 | 0.0805114 | 7.911 | 0.961 | 0.148 | 0.55 | 173.91 | 3.25 | 357.39 | 7.15 | 68 |
| L2 | 0.0820236 | 0.605 | 0.739 | 0.061 | 0.43 | 166.95 | 40.73 | 40.62 | 79.98 | 0.67 |
| *S2 | 0.0833333 | 1.603 | 0.916 | 0.075 | 0.45 | 174.91 | 15.80 | 354.72 | 35.62 | 3.1 |
| ETA2 | 0.0850736 | 0.369 | 0.528 | 0.085 | 0.40 | 166.19 | 55.08 | 157.32 | 124.15 | 0.49 |
| MO3 | 0.1192421 | 0.255 | 0.260 | -0.063 | 0.19 | 173.49 | 60.86 | 163.59 | 79.72 | 0.97 |
| M3 | 0.1207671 | 0.089 | 0.217 | -0.074 | 0.22 | 95.58 | 165.09 | 128.73 | 175.16 | 0.17 |
| MK3 | 0.1222921 | 0.209 | 0.259 | -0.043 | 0.22 | 163.30 | 84.79 | 107.95 | 100.23 | 0.65 |
| SK3 | 0.1251141 | 0.266 | 0.200 | -0.083 | 0.23 | 138.00 | 73.30 | 231.27 | 72.40 | 1.8 |
| *MN4 | 0.1595106 | 0.411 | 0.260 | -0.271 | 0.29 | 3.83 | 84.35 | 20.86 | 74.38 | 2.5 |
| *M4 | 0.1610228 | 0.580 | 0.297 | -0.388 | 0.33 | 30.47 | 71.71 | 29.40 | 63.69 | 3.8 |
| SN4 | 0.1623326 | 0.143 | 0.233 | 0.025 | 0.23 | 147.45 | 103.74 | 174.80 | 159.21 | 0.38 |
| MS4 | 0.1638447 | 0.204 | 0.232 | -0.050 | 0.26 | 88.18 | 92.53 | 309.50 | 100.55 | 0.78 |
| S4 | 0.1666667 | 0.231 | 0.245 | -0.036 | 0.27 | 161.46 | 82.75 | 319.45 | 117.48 | 0.89 |
| 2MK5 | 0.2028035 | 0.141 | 0.186 | 0.042 | 0.18 | 158.10 | 91.95 | 133.35 | 125.88 | 0.58 |
| 2SK5 | 0.2084474 | 0.112 | 0.190 | -0.008 | 0.18 | 56.89 | 104.54 | 242.31 | 115.66 | 0.35 |
| 2MN6 | 0.2400221 | 0.399 | 0.288 | -0.144 | 0.22 | 26.43 | 40.76 | 323.09 | 55.83 | 1.9 |
| *M6 | 0.2415342 | 0.820 | 0.278 | -0.131 | 0.19 | 15.98 | 14.87 | 344.37 | 24.38 | 8.7 |
| 2MS6 | 0.2443561 | 0.370 | 0.268 | -0.025 | 0.22 | 34.21 | 32.22 | 351.69 | 44.15 | 1.9 |
| 2SM6 | 0.2471781 | 0.114 | 0.199 | -0.020 | 0.14 | 176.69 | 70.63 | 300.20 | 141.69 | 0.33 |
| 3MK7 | 0.2833149 | 0.058 | 0.134 | 0.023 | 0.14 | 14.87 | 99.85 | 79.87 | 167.55 | 0.19 |
| M8 | 0.3220456 | 0.127 | 0.151 | -0.023 | 0.12 | 27.86 | 83.97 | 209.61 | 88.16 | 0.7 |

total var= 79.8217 pred var= 34.3512
 percent total var predicted/var original= 43.0 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 31.8 m
 Mooring Number: 7562

File Name: 7562rcm-alh.nc
 nobs = 2492, ngood = 1661, record length (days) = 103.83
 start time: 05-Feb-2004 17:38:05
 rayleigh criterion = 1.0

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

x0= -1.19, x trend= 0

var(x)= 25.1458 var(xp)= 14.3834 var(xres)= 11.3386
 percent var predicted/var original= 57.2 %

y0= -0.528, x trend= 0

var(y)= 10.3298 var(yp)= 2.118 var(yres)= 8.284
 percent var predicted/var original= 20.5 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.778 | 1.002 | 0.155 | 0.92 | 147.75 | 74.55 | 4.90 | 94.30 | 0.6 |
| MSF | 0.0028219 | 1.178 | 1.155 | -0.567 | 1.01 | 157.20 | 67.68 | 73.30 | 91.05 | 1 |
| *ALP1 | 0.0343966 | 0.421 | 0.282 | 0.049 | 0.26 | 137.83 | 42.64 | 51.55 | 46.14 | 2.2 |
| 2Q1 | 0.0357064 | 0.312 | 0.240 | -0.095 | 0.25 | 170.47 | 64.78 | 50.40 | 66.80 | 1.7 |
| Q1 | 0.0372185 | 0.399 | 0.286 | -0.116 | 0.22 | 43.20 | 46.43 | 103.70 | 46.64 | 1.9 |
| O1 | 0.0387307 | 0.154 | 0.245 | 0.033 | 0.20 | 175.98 | 85.96 | 29.71 | 123.54 | 0.39 |
| NO1 | 0.0402686 | 0.168 | 0.227 | -0.005 | 0.24 | 105.90 | 116.83 | 333.96 | 122.92 | 0.55 |
| *K1 | 0.0417807 | 0.476 | 0.276 | -0.215 | 0.23 | 1.00 | 53.32 | 300.88 | 48.94 | 3 |
| J1 | 0.0432929 | 0.218 | 0.238 | -0.014 | 0.27 | 76.47 | 86.34 | 295.10 | 78.08 | 0.84 |
| OO1 | 0.0448308 | 0.167 | 0.169 | 0.062 | 0.17 | 21.19 | 69.72 | 261.71 | 97.80 | 0.97 |
| UPS1 | 0.0463430 | 0.143 | 0.197 | -0.035 | 0.17 | 16.04 | 86.30 | 11.83 | 87.43 | 0.52 |
| EPS2 | 0.0761773 | 0.087 | 0.403 | -0.072 | 0.30 | 133.93 | 126.93 | 51.15 | 178.08 | 0.047 |
| MU2 | 0.0776895 | 0.432 | 0.442 | -0.109 | 0.43 | 135.08 | 82.69 | 147.49 | 79.35 | 0.96 |
| *N2 | 0.0789992 | 1.012 | 0.488 | 0.202 | 0.42 | 24.99 | 24.09 | 148.37 | 30.50 | 4.3 |
| *M2 | 0.0805114 | 5.376 | 0.524 | 1.236 | 0.40 | 14.62 | 4.79 | 179.86 | 6.45 | 1.1e+002 |
| L2 | 0.0820236 | 0.240 | 0.307 | -0.027 | 0.27 | 45.61 | 99.31 | 188.47 | 95.24 | 0.61 |
| *S2 | 0.0833333 | 1.121 | 0.528 | 0.025 | 0.42 | 19.42 | 19.75 | 207.31 | 25.33 | 4.5 |
| ETA2 | 0.0850736 | 0.275 | 0.275 | 0.015 | 0.35 | 78.22 | 107.58 | 88.10 | 81.34 | 1 |
| MO3 | 0.1192421 | 0.115 | 0.134 | -0.037 | 0.15 | 129.88 | 106.26 | 136.18 | 106.56 | 0.74 |
| M3 | 0.1207671 | 0.253 | 0.192 | 0.011 | 0.18 | 28.05 | 55.90 | 206.86 | 51.99 | 1.7 |
| MK3 | 0.1222921 | 0.092 | 0.132 | 0.024 | 0.13 | 43.87 | 106.10 | 134.92 | 144.89 | 0.49 |
| SK3 | 0.1251141 | 0.132 | 0.167 | -0.016 | 0.13 | 15.49 | 63.27 | 237.44 | 94.43 | 0.63 |
| MN4 | 0.1595106 | 0.167 | 0.189 | 0.001 | 0.16 | 32.11 | 60.51 | 221.66 | 83.26 | 0.78 |
| *M4 | 0.1610228 | 0.651 | 0.172 | -0.461 | 0.26 | 90.81 | 52.16 | 243.99 | 43.28 | 14 |
| SN4 | 0.1623326 | 0.204 | 0.163 | -0.081 | 0.18 | 118.52 | 87.68 | 182.47 | 67.42 | 1.6 |
| MS4 | 0.1638447 | 0.299 | 0.216 | -0.099 | 0.15 | 6.98 | 47.21 | 16.22 | 62.87 | 1.9 |
| S4 | 0.1666667 | 0.163 | 0.152 | -0.077 | 0.20 | 73.41 | 109.67 | 133.04 | 81.38 | 1.1 |
| *2MK5 | 0.2028035 | 0.211 | 0.097 | -0.003 | 0.13 | 78.28 | 37.38 | 188.59 | 29.67 | 4.7 |
| *2SK5 | 0.2084474 | 0.265 | 0.091 | 0.064 | 0.11 | 64.39 | 26.53 | 178.72 | 22.30 | 8.5 |
| *2MN6 | 0.2400221 | 0.168 | 0.100 | -0.029 | 0.10 | 40.20 | 42.17 | 265.99 | 39.38 | 2.8 |
| *M6 | 0.2415342 | 0.387 | 0.107 | 0.062 | 0.12 | 23.13 | 19.22 | 294.08 | 15.68 | 13 |
| *2MS6 | 0.2443561 | 0.138 | 0.091 | 0.100 | 0.09 | 175.05 | 161.63 | 211.86 | 150.77 | 2.3 |
| *2SM6 | 0.2471781 | 0.253 | 0.098 | 0.025 | 0.11 | 34.11 | 21.89 | 83.57 | 24.93 | 6.6 |
| *3MK7 | 0.2833149 | 0.165 | 0.096 | -0.017 | 0.09 | 105.77 | 31.12 | 218.50 | 31.82 | 3 |
| M8 | 0.3220456 | 0.065 | 0.057 | 0.045 | 0.06 | 69.82 | 110.55 | 182.02 | 85.06 | 1.3 |

total var= 35.4755 pred var= 16.5014
 percent total var predicted/var original= 46.5 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 31.6 m
 Mooring Number: 7563

File Name: 7563v-alh_d2.nc
 nobs = 2494, ngood = 2493, record length (days) = 103.92
 start time: 05-Feb-2004 15:57:54
 rayleigh criterion = 1.0

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

x0= -0.737, x trend= 0

var(x)= 10.4318 var(xp)= 4.9247 var(xres)= 5.4998
 percent var predicted/var original= 47.2 %

y0= 0.125, x trend= 0

var(y)= 6.2756 var(yp)= 1.8645 var(yres)= 4.4121
 percent var predicted/var original= 29.7 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|------|
| MM | 0.0015122 | 0.511 | 0.763 | 0.065 | 0.56 | 157.72 | 53.53 | 358.88 | 124.54 | 0.45 |
| MSF | 0.0028219 | 0.692 | 0.751 | -0.333 | 0.63 | 161.02 | 61.51 | 83.06 | 110.74 | 0.85 |
| *ALP1 | 0.0343966 | 0.295 | 0.192 | 0.060 | 0.18 | 134.86 | 39.43 | 31.65 | 46.69 | 2.4 |
| 2Q1 | 0.0357064 | 0.149 | 0.181 | -0.104 | 0.18 | 1.70 | 99.51 | 236.66 | 125.12 | 0.68 |
| Q1 | 0.0372185 | 0.166 | 0.150 | -0.132 | 0.17 | 132.28 | 105.59 | 28.98 | 125.26 | 1.2 |
| O1 | 0.0387307 | 0.189 | 0.154 | 0.036 | 0.18 | 33.91 | 53.44 | 233.58 | 70.58 | 1.5 |
| NO1 | 0.0402686 | 0.080 | 0.180 | 0.005 | 0.17 | 3.42 | 91.00 | 215.04 | 141.16 | 0.2 |
| *K1 | 0.0417807 | 0.304 | 0.198 | -0.112 | 0.16 | 175.65 | 46.94 | 140.78 | 58.93 | 2.4 |
| J1 | 0.0432929 | 0.218 | 0.166 | -0.000 | 0.19 | 59.39 | 66.06 | 318.04 | 61.85 | 1.7 |
| OO1 | 0.0448308 | 0.088 | 0.109 | 0.029 | 0.12 | 46.49 | 94.19 | 324.58 | 133.37 | 0.65 |
| UPS1 | 0.0463430 | 0.133 | 0.134 | 0.004 | 0.14 | 45.73 | 71.16 | 23.20 | 78.78 | 0.98 |
| EPS2 | 0.0761773 | 0.150 | 0.297 | -0.068 | 0.28 | 164.00 | 92.39 | 62.07 | 132.32 | 0.26 |
| MU2 | 0.0776895 | 0.264 | 0.300 | -0.019 | 0.24 | 142.32 | 65.08 | 133.41 | 89.43 | 0.78 |
| *N2 | 0.0789992 | 0.717 | 0.396 | 0.168 | 0.33 | 42.65 | 32.17 | 158.11 | 34.58 | 3.3 |
| *M2 | 0.0805114 | 3.426 | 0.416 | 0.776 | 0.32 | 28.73 | 6.01 | 183.92 | 7.95 | 68 |
| L2 | 0.0820236 | 0.149 | 0.203 | 0.005 | 0.20 | 40.23 | 88.81 | 235.05 | 109.41 | 0.53 |
| *S2 | 0.0833333 | 0.717 | 0.379 | 0.030 | 0.33 | 32.86 | 27.78 | 217.10 | 28.97 | 3.6 |
| ETA2 | 0.0850736 | 0.143 | 0.220 | 0.078 | 0.23 | 68.93 | 132.62 | 97.22 | 118.96 | 0.43 |
| MO3 | 0.1192421 | 0.050 | 0.103 | 0.012 | 0.10 | 121.40 | 115.66 | 151.69 | 157.69 | 0.23 |
| M3 | 0.1207671 | 0.102 | 0.117 | -0.060 | 0.10 | 21.17 | 100.50 | 215.00 | 116.34 | 0.75 |
| MK3 | 0.1222921 | 0.094 | 0.123 | 0.047 | 0.09 | 177.17 | 102.36 | 115.34 | 136.72 | 0.59 |
| SK3 | 0.1251141 | 0.065 | 0.111 | 0.019 | 0.11 | 52.47 | 112.06 | 318.27 | 133.63 | 0.34 |
| MN4 | 0.1595106 | 0.131 | 0.163 | -0.065 | 0.16 | 85.70 | 110.29 | 245.04 | 105.93 | 0.65 |
| *M4 | 0.1610228 | 0.377 | 0.185 | -0.336 | 0.15 | 28.42 | 107.11 | 330.65 | 113.19 | 4.2 |
| SN4 | 0.1623326 | 0.056 | 0.146 | 0.027 | 0.14 | 61.98 | 128.18 | 106.18 | 176.90 | 0.15 |
| MS4 | 0.1638447 | 0.144 | 0.144 | -0.049 | 0.15 | 139.21 | 83.24 | 257.96 | 98.69 | 1 |
| S4 | 0.1666667 | 0.061 | 0.127 | -0.044 | 0.14 | 1.71 | 98.89 | 222.60 | 152.53 | 0.23 |
| 2MK5 | 0.2028035 | 0.050 | 0.085 | -0.032 | 0.07 | 168.36 | 85.80 | 222.24 | 141.67 | 0.35 |
| 2SK5 | 0.2084474 | 0.045 | 0.072 | 0.012 | 0.05 | 177.24 | 64.49 | 282.81 | 129.04 | 0.38 |
| *2MN6 | 0.2400221 | 0.171 | 0.103 | -0.014 | 0.10 | 33.09 | 37.74 | 271.22 | 36.12 | 2.7 |
| *M6 | 0.2415342 | 0.341 | 0.118 | 0.051 | 0.11 | 45.47 | 19.45 | 315.01 | 19.70 | 8.3 |
| 2MS6 | 0.2443561 | 0.100 | 0.087 | 0.061 | 0.09 | 10.02 | 105.94 | 328.54 | 87.13 | 1.3 |
| 2SM6 | 0.2471781 | 0.045 | 0.081 | -0.016 | 0.07 | 54.18 | 107.61 | 141.15 | 145.16 | 0.31 |
| 3MK7 | 0.2833149 | 0.063 | 0.071 | -0.037 | 0.08 | 86.96 | 98.99 | 99.68 | 111.99 | 0.78 |
| M8 | 0.3220456 | 0.054 | 0.063 | -0.023 | 0.05 | 96.58 | 71.91 | 97.78 | 93.29 | 0.72 |

total var= 16.7075 pred var= 6.7892
 percent total var predicted/var original= 40.6 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 21.0 m
 Mooring Number: 7664

File Name: 7664vm-alh.nc
 nobs = 3020, ngood = 3019, record length (days) = 125.83
 start time: 19-May-2004 17:59:30
 rayleigh criterion = 1.0

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

x0= 0.661, x trend= 0

var(x)= 75.4812 var(xp)= 55.8288 var(xres)= 19.8496
 percent var predicted/var original= 74.0 %

y0= -0.117, x trend= 0

var(y)= 14.5426 var(yp)= 1.8228 var(yres)= 12.7354
 percent var predicted/var original= 12.5 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|--------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.744 | 0.978 | 0.412 | 1.05 | 80.18 | 120.72 | 327.09 | 124.76 | 0.58 |
| MSF | 0.0028219 | 1.002 | 0.999 | 0.247 | 1.10 | 164.76 | 77.13 | 338.88 | 90.74 | 1 |
| ALP1 | 0.0343966 | 0.146 | 0.207 | -0.048 | 0.19 | 69.08 | 108.07 | 310.90 | 110.44 | 0.5 |
| 2Q1 | 0.0357064 | 0.070 | 0.188 | -0.047 | 0.21 | 97.61 | 132.48 | 262.94 | 190.59 | 0.14 |
| Q1 | 0.0372185 | 0.255 | 0.233 | 0.015 | 0.23 | 81.52 | 68.02 | 291.63 | 56.71 | 1.2 |
| O1 | 0.0387307 | 0.259 | 0.213 | 0.215 | 0.23 | 139.40 | 113.25 | 34.64 | 122.46 | 1.5 |
| NO1 | 0.0402686 | 0.178 | 0.259 | 0.136 | 0.27 | 122.51 | 125.55 | 327.65 | 136.97 | 0.47 |
| *K1 | 0.0417807 | 0.841 | 0.262 | -0.252 | 0.26 | 60.47 | 22.20 | 321.78 | 21.11 | 10 |
| J1 | 0.0432929 | 0.206 | 0.223 | -0.117 | 0.21 | 160.84 | 93.32 | 227.10 | 97.58 | 0.85 |
| OO1 | 0.0448308 | 0.264 | 0.191 | -0.063 | 0.15 | 126.41 | 57.59 | 17.96 | 49.94 | 1.9 |
| UPS1 | 0.0463430 | 0.105 | 0.144 | -0.055 | 0.15 | 126.88 | 104.62 | 312.83 | 123.58 | 0.53 |
| *EPS2 | 0.0761773 | 0.899 | 0.585 | -0.532 | 0.52 | 177.35 | 53.04 | 148.50 | 59.58 | 2.4 |
| MU2 | 0.0776895 | 0.530 | 0.416 | -0.378 | 0.50 | 77.37 | 116.62 | 247.45 | 100.38 | 1.6 |
| *N2 | 0.0789992 | 1.617 | 0.573 | 0.467 | 0.51 | 2.01 | 21.16 | 160.10 | 24.69 | 8 |
| *M2 | 0.0805114 | 10.719 | 0.635 | -0.841 | 0.55 | 6.02 | 2.83 | 210.22 | 3.30 | 2.9e+002 |
| *L2 | 0.0820236 | 0.700 | 0.435 | -0.354 | 0.33 | 162.13 | 48.68 | 74.77 | 56.48 | 2.6 |
| *S2 | 0.0833333 | 0.999 | 0.593 | 0.083 | 0.43 | 22.84 | 33.55 | 272.78 | 31.93 | 2.8 |
| ETA2 | 0.0850736 | 0.320 | 0.345 | -0.249 | 0.35 | 94.71 | 136.12 | 302.75 | 115.73 | 0.86 |
| MO3 | 0.1192421 | 0.121 | 0.182 | 0.078 | 0.18 | 77.71 | 136.16 | 249.49 | 111.20 | 0.44 |
| M3 | 0.1207671 | 0.136 | 0.205 | -0.113 | 0.17 | 35.89 | 107.86 | 39.11 | 141.93 | 0.44 |
| MK3 | 0.1222921 | 0.359 | 0.257 | -0.057 | 0.19 | 17.60 | 36.73 | 323.78 | 51.27 | 2 |
| SK3 | 0.1251141 | 0.065 | 0.168 | 0.010 | 0.14 | 114.68 | 120.04 | 131.16 | 170.38 | 0.15 |
| MN4 | 0.1595106 | 0.229 | 0.241 | 0.167 | 0.27 | 139.41 | 89.67 | 282.35 | 107.81 | 0.9 |
| *M4 | 0.1610228 | 0.448 | 0.240 | 0.302 | 0.27 | 123.48 | 86.85 | 254.30 | 69.34 | 3.5 |
| SN4 | 0.1623326 | 0.167 | 0.278 | 0.036 | 0.20 | 5.95 | 56.69 | 305.47 | 121.76 | 0.36 |
| MS4 | 0.1638447 | 0.233 | 0.255 | 0.030 | 0.23 | 128.41 | 72.22 | 316.14 | 87.92 | 0.84 |
| S4 | 0.1666667 | 0.277 | 0.287 | -0.038 | 0.18 | 178.65 | 48.09 | 332.34 | 76.15 | 0.93 |
| 2MK5 | 0.2028035 | 0.136 | 0.133 | -0.103 | 0.14 | 161.06 | 107.46 | 170.88 | 119.69 | 1 |
| 2SK5 | 0.2084474 | 0.084 | 0.122 | 0.029 | 0.13 | 15.59 | 93.41 | 340.06 | 127.18 | 0.47 |
| *2MN6 | 0.2400221 | 0.309 | 0.153 | 0.004 | 0.16 | 23.29 | 29.12 | 283.93 | 39.50 | 4.1 |
| *M6 | 0.2415342 | 0.468 | 0.149 | 0.108 | 0.15 | 28.93 | 21.92 | 324.56 | 24.09 | 9.9 |
| 2MS6 | 0.2443561 | 0.133 | 0.137 | 0.050 | 0.12 | 28.91 | 73.53 | 22.46 | 75.95 | 0.94 |
| 2SM6 | 0.2471781 | 0.116 | 0.133 | -0.037 | 0.13 | 8.34 | 84.74 | 147.94 | 91.92 | 0.76 |
| 3MK7 | 0.2833149 | 0.131 | 0.102 | -0.029 | 0.09 | 152.09 | 43.81 | 183.09 | 53.13 | 1.7 |
| M8 | 0.3220456 | 0.079 | 0.082 | 0.001 | 0.08 | 61.76 | 81.32 | 168.12 | 65.79 | 0.94 |

total var= 90.0238 pred var= 57.6516
 percent total var predicted/var original= 64.0 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 31.3 m
 Mooring Number: 7674

File Name: 7674advs-callh.nc
 nobs = 3020, ngood = 3019, record length (days) = 125.83
 start time: 19-May-2004 16:37:31
 rayleigh criterion = 1.0

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

x0= -1.77, x trend= 0

var(x)= 55.1914 var(xp)= 38.6482 var(xres)= 16.6758
 percent var predicted/var original= 70.0 %

y0= 1.01, x trend= 0

var(y)= 6.2818 var(yp)= 1.0386 var(yres)= 5.2557
 percent var predicted/var original= 16.5 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 0.686 | 1.122 | 0.044 | 0.37 | 175.76 | 21.22 | 36.13 | 126.17 | 0.37 |
| MSF | 0.0028219 | 0.745 | 1.217 | -0.020 | 0.44 | 10.33 | 24.15 | 152.05 | 96.02 | 0.38 |
| ALP1 | 0.0343966 | 0.165 | 0.196 | -0.004 | 0.14 | 173.71 | 65.07 | 44.63 | 80.51 | 0.7 |
| 2Q1 | 0.0357064 | 0.126 | 0.180 | -0.005 | 0.15 | 175.99 | 68.65 | 229.90 | 102.30 | 0.49 |
| Q1 | 0.0372185 | 0.108 | 0.166 | 0.076 | 0.15 | 97.87 | 133.49 | 250.83 | 137.95 | 0.42 |
| O1 | 0.0387307 | 0.167 | 0.166 | 0.031 | 0.15 | 145.20 | 70.12 | 350.10 | 79.18 | 1 |
| NO1 | 0.0402686 | 0.100 | 0.187 | 0.023 | 0.20 | 130.34 | 126.27 | 331.28 | 132.28 | 0.29 |
| *K1 | 0.0417807 | 0.406 | 0.192 | -0.010 | 0.26 | 102.68 | 28.65 | 311.54 | 26.45 | 4.5 |
| J1 | 0.0432929 | 0.254 | 0.196 | -0.029 | 0.19 | 157.82 | 47.96 | 278.30 | 65.33 | 1.7 |
| OO1 | 0.0448308 | 0.191 | 0.152 | -0.064 | 0.14 | 166.06 | 43.93 | 358.44 | 68.79 | 1.6 |
| UPS1 | 0.0463430 | 0.122 | 0.127 | -0.002 | 0.11 | 168.25 | 66.36 | 296.83 | 112.97 | 0.91 |
| *EPS2 | 0.0761773 | 0.980 | 0.517 | -0.219 | 0.50 | 147.15 | 32.50 | 145.08 | 37.98 | 3.6 |
| MU2 | 0.0776895 | 0.490 | 0.422 | -0.333 | 0.41 | 133.69 | 94.64 | 164.20 | 87.54 | 1.4 |
| *N2 | 0.0789992 | 1.534 | 0.582 | 0.366 | 0.45 | 22.86 | 17.90 | 141.93 | 20.17 | 7 |
| *M2 | 0.0805114 | 8.881 | 0.566 | -0.377 | 0.43 | 5.30 | 2.37 | 185.52 | 3.51 | 2.5e+002 |
| *L2 | 0.0820236 | 0.561 | 0.355 | -0.098 | 0.30 | 155.92 | 39.00 | 40.70 | 49.02 | 2.5 |
| *S2 | 0.0833333 | 0.813 | 0.439 | 0.081 | 0.40 | 21.54 | 28.29 | 242.96 | 39.01 | 3.4 |
| ETA2 | 0.0850736 | 0.217 | 0.283 | -0.072 | 0.27 | 173.41 | 85.39 | 202.58 | 140.99 | 0.59 |
| MO3 | 0.1192421 | 0.117 | 0.139 | -0.021 | 0.15 | 14.18 | 81.54 | 158.69 | 107.75 | 0.71 |
| M3 | 0.1207671 | 0.201 | 0.215 | -0.076 | 0.18 | 34.14 | 65.62 | 123.34 | 78.86 | 0.88 |
| MK3 | 0.1222921 | 0.232 | 0.170 | -0.072 | 0.16 | 156.68 | 58.21 | 144.63 | 61.60 | 1.9 |
| SK3 | 0.1251141 | 0.137 | 0.163 | 0.035 | 0.15 | 20.17 | 80.22 | 349.04 | 114.79 | 0.7 |
| MN4 | 0.1595106 | 0.057 | 0.207 | -0.031 | 0.17 | 18.62 | 106.48 | 316.17 | 210.87 | 0.077 |
| *M4 | 0.1610228 | 0.630 | 0.356 | -0.218 | 0.28 | 176.17 | 29.57 | 224.61 | 39.59 | 3.1 |
| SN4 | 0.1623326 | 0.201 | 0.255 | -0.002 | 0.21 | 176.56 | 70.17 | 150.98 | 85.84 | 0.62 |
| MS4 | 0.1638447 | 0.170 | 0.213 | -0.052 | 0.20 | 8.82 | 86.37 | 67.31 | 122.16 | 0.63 |
| S4 | 0.1666667 | 0.179 | 0.230 | -0.032 | 0.21 | 134.71 | 82.25 | 322.76 | 98.70 | 0.6 |
| 2MK5 | 0.2028035 | 0.137 | 0.119 | -0.066 | 0.13 | 98.55 | 87.29 | 106.80 | 84.41 | 1.3 |
| 2SK5 | 0.2084474 | 0.071 | 0.108 | 0.004 | 0.11 | 93.40 | 116.16 | 84.46 | 129.84 | 0.44 |
| *2MN6 | 0.2400221 | 0.318 | 0.198 | -0.068 | 0.20 | 41.17 | 39.47 | 316.17 | 43.24 | 2.6 |
| *M6 | 0.2415342 | 0.794 | 0.197 | -0.204 | 0.22 | 32.44 | 17.13 | 349.69 | 16.87 | 16 |
| 2MS6 | 0.2443561 | 0.237 | 0.170 | -0.109 | 0.19 | 30.04 | 70.41 | 66.45 | 57.17 | 1.9 |
| 2SM6 | 0.2471781 | 0.094 | 0.140 | -0.022 | 0.14 | 66.79 | 95.10 | 94.48 | 137.04 | 0.45 |
| 3MK7 | 0.2833149 | 0.093 | 0.097 | 0.028 | 0.07 | 34.93 | 82.03 | 358.42 | 84.92 | 0.91 |
| *M8 | 0.3220456 | 0.151 | 0.087 | -0.017 | 0.09 | 14.25 | 33.12 | 227.98 | 43.08 | 3 |

total var= 61.4732 pred var= 39.6867
 percent total var predicted/var original= 64.6 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 20.5 m
 Mooring Number: 7745

File Name: 7745vm-alh.nc
 nobs = 2295, ngood = 2295, record length (days) = 95.63
 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= -0.751, x trend= 0

var(x)= 68.8426 var(xp)= 46.9751 var(xres)= 21.9992
 percent var predicted/var original= 68.2 %

y0= 1.5, x trend= 0

var(y)= 19.536 var(yp)= 3.0851 var(yres)= 16.4323
 percent var predicted/var original= 15.8 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|--------|
| *MM | 0.0015122 | 2.722 | 1.444 | -0.040 | 1.40 | 124.72 | 35.90 | 244.01 | 34.16 | 3.6 |
| MSF | 0.0028219 | 0.525 | 0.967 | 0.016 | 1.00 | 11.61 | 118.42 | 346.55 | 173.81 | 0.29 |
| ALP1 | 0.0343966 | 0.128 | 0.298 | 0.040 | 0.25 | 140.66 | 115.91 | 23.85 | 172.04 | 0.18 |
| 2Q1 | 0.0357064 | 0.261 | 0.293 | -0.099 | 0.37 | 49.34 | 103.66 | 133.80 | 105.44 | 0.79 |
| Q1 | 0.0372185 | 0.130 | 0.292 | 0.075 | 0.30 | 91.01 | 158.22 | 346.76 | 179.33 | 0.2 |
| *O1 | 0.0387307 | 0.750 | 0.387 | -0.157 | 0.34 | 3.60 | 33.67 | 304.87 | 32.04 | 3.7 |
| NO1 | 0.0402686 | 0.256 | 0.416 | 0.007 | 0.45 | 13.95 | 111.47 | 328.14 | 119.22 | 0.38 |
| *K1 | 0.0417807 | 0.686 | 0.360 | -0.008 | 0.42 | 140.40 | 35.60 | 58.21 | 40.00 | 3.6 |
| J1 | 0.0432929 | 0.360 | 0.365 | -0.294 | 0.36 | 158.31 | 124.20 | 138.50 | 136.20 | 0.97 |
| OO1 | 0.0448308 | 0.135 | 0.245 | 0.112 | 0.20 | 168.44 | 129.26 | 354.45 | 142.14 | 0.3 |
| UPS1 | 0.0463430 | 0.277 | 0.260 | 0.055 | 0.25 | 142.08 | 65.94 | 305.62 | 71.77 | 1.1 |
| EPS2 | 0.0761773 | 0.343 | 0.478 | 0.079 | 0.50 | 105.80 | 122.63 | 106.02 | 129.18 | 0.51 |
| MU2 | 0.0776895 | 0.366 | 0.409 | -0.126 | 0.42 | 6.39 | 81.92 | 63.89 | 113.63 | 0.8 |
| *N2 | 0.0789992 | 1.670 | 0.595 | -0.162 | 0.52 | 14.22 | 20.25 | 179.12 | 21.97 | 7.9 |
| *M2 | 0.0805114 | 9.519 | 0.676 | -0.266 | 0.55 | 3.53 | 3.33 | 202.85 | 3.47 | 2e+002 |
| L2 | 0.0820236 | 0.246 | 0.286 | -0.074 | 0.31 | 92.67 | 110.06 | 122.11 | 112.65 | 0.74 |
| *S2 | 0.0833333 | 1.436 | 0.591 | 0.239 | 0.57 | 5.21 | 21.51 | 226.77 | 24.21 | 5.9 |
| ETA2 | 0.0850736 | 0.200 | 0.301 | -0.048 | 0.35 | 85.57 | 139.91 | 287.15 | 149.10 | 0.44 |
| MO3 | 0.1192421 | 0.091 | 0.154 | -0.016 | 0.15 | 144.37 | 107.59 | 10.38 | 147.04 | 0.35 |
| M3 | 0.1207671 | 0.175 | 0.186 | 0.068 | 0.20 | 160.14 | 83.00 | 182.50 | 95.67 | 0.88 |
| MK3 | 0.1222921 | 0.182 | 0.188 | 0.003 | 0.17 | 22.71 | 64.46 | 68.36 | 73.40 | 0.94 |
| *SK3 | 0.1251141 | 0.255 | 0.176 | 0.046 | 0.18 | 155.02 | 48.52 | 137.28 | 51.73 | 2.1 |
| *MN4 | 0.1595106 | 0.409 | 0.224 | -0.254 | 0.22 | 147.28 | 59.25 | 317.98 | 65.12 | 3.3 |
| *M4 | 0.1610228 | 0.396 | 0.228 | -0.279 | 0.23 | 70.20 | 80.45 | 28.20 | 74.92 | 3 |
| SN4 | 0.1623326 | 0.153 | 0.195 | -0.061 | 0.19 | 97.94 | 112.91 | 15.49 | 97.90 | 0.61 |
| *MS4 | 0.1638447 | 0.398 | 0.248 | -0.143 | 0.23 | 2.39 | 40.64 | 69.15 | 45.57 | 2.6 |
| S4 | 0.1666667 | 0.180 | 0.216 | 0.114 | 0.23 | 95.18 | 103.68 | 243.84 | 116.30 | 0.69 |
| 2MK5 | 0.2028035 | 0.125 | 0.124 | -0.015 | 0.11 | 38.64 | 73.98 | 355.70 | 71.05 | 1 |
| 2SK5 | 0.2084474 | 0.084 | 0.100 | -0.021 | 0.11 | 54.72 | 99.64 | 89.64 | 102.09 | 0.7 |
| *2MN6 | 0.2400221 | 0.299 | 0.191 | 0.060 | 0.18 | 19.43 | 37.22 | 286.46 | 56.55 | 2.4 |
| *M6 | 0.2415342 | 0.446 | 0.228 | 0.087 | 0.15 | 19.33 | 23.46 | 321.60 | 30.39 | 3.8 |
| 2MS6 | 0.2443561 | 0.186 | 0.150 | 0.082 | 0.18 | 116.16 | 96.40 | 85.11 | 78.76 | 1.5 |
| 2SM6 | 0.2471781 | 0.171 | 0.157 | -0.040 | 0.15 | 43.32 | 66.97 | 141.26 | 74.67 | 1.2 |
| 3MK7 | 0.2833149 | 0.045 | 0.078 | 0.031 | 0.08 | 77.69 | 141.38 | 341.55 | 137.95 | 0.34 |
| M8 | 0.3220456 | 0.059 | 0.077 | 0.014 | 0.06 | 14.98 | 87.75 | 197.01 | 107.56 | 0.59 |

total var= 88.3786 pred var= 50.0602
 percent total var predicted/var original= 56.6 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 31.1 m
 Mooring Number: 7752

File Name: 7752advs-callh.nc
 nobs = 1294, ngood = 1293, record length (days) = 53.92
 start time: 22-Sep-2004 15:57:31
 rayleigh criterion = 1.0

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

x0= -1.48, x trend= 0

var(x)= 18.0203 var(xp)= 6.2706 var(xres)= 11.7526
 percent var predicted/var original= 34.8 %

y0= -0.0737, x trend= 0

var(y)= 7.1421 var(yp)= 1.0009 var(yres)= 6.1171
 percent var predicted/var original= 14.0 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|-------|-------|--------|------|--------|--------|--------|--------|-------|
| MM | 0.0015122 | 1.657 | 1.482 | -0.146 | 1.18 | 144.07 | 45.03 | 240.56 | 65.10 | 1.3 |
| MSF | 0.0028219 | 0.357 | 1.245 | -0.053 | 1.04 | 87.01 | 188.43 | 321.85 | 176.32 | 0.082 |
| ALP1 | 0.0343966 | 0.190 | 0.283 | 0.037 | 0.19 | 2.75 | 58.56 | 173.58 | 98.72 | 0.45 |
| 2Q1 | 0.0357064 | 0.174 | 0.242 | 0.058 | 0.20 | 123.98 | 88.69 | 37.96 | 105.35 | 0.52 |
| Q1 | 0.0372185 | 0.175 | 0.217 | -0.065 | 0.22 | 56.18 | 107.83 | 97.09 | 98.53 | 0.65 |
| *O1 | 0.0387307 | 0.434 | 0.273 | 0.054 | 0.23 | 29.52 | 35.61 | 322.75 | 41.92 | 2.5 |
| NO1 | 0.0402686 | 0.310 | 0.389 | 0.089 | 0.26 | 4.31 | 58.93 | 306.99 | 93.90 | 0.64 |
| K1 | 0.0417807 | 0.380 | 0.310 | -0.153 | 0.24 | 169.64 | 34.14 | 358.76 | 67.97 | 1.5 |
| J1 | 0.0432929 | 0.193 | 0.239 | 0.081 | 0.24 | 34.12 | 75.98 | 312.58 | 98.16 | 0.65 |
| OO1 | 0.0448308 | 0.207 | 0.210 | 0.023 | 0.16 | 1.02 | 46.83 | 165.01 | 77.45 | 0.97 |
| UPS1 | 0.0463430 | 0.160 | 0.136 | 0.001 | 0.17 | 74.41 | 113.89 | 247.19 | 79.96 | 1.4 |
| EPS2 | 0.0761773 | 0.311 | 0.444 | -0.045 | 0.50 | 61.21 | 106.97 | 144.33 | 124.97 | 0.49 |
| MU2 | 0.0776895 | 0.230 | 0.415 | -0.024 | 0.43 | 11.83 | 119.60 | 57.92 | 149.49 | 0.31 |
| *N2 | 0.0789992 | 0.845 | 0.566 | 0.221 | 0.57 | 27.76 | 50.19 | 186.39 | 52.46 | 2.2 |
| *M2 | 0.0805114 | 3.526 | 0.660 | 0.949 | 0.65 | 14.15 | 11.33 | 172.05 | 11.41 | 28 |
| L2 | 0.0820236 | 0.249 | 0.379 | -0.011 | 0.28 | 147.98 | 105.39 | 253.05 | 106.49 | 0.43 |
| S2 | 0.0833333 | 0.708 | 0.502 | 0.141 | 0.53 | 27.30 | 48.90 | 177.77 | 47.57 | 2 |
| ETA2 | 0.0850736 | 0.479 | 0.458 | -0.156 | 0.50 | 10.75 | 72.44 | 333.43 | 69.55 | 1.1 |
| MO3 | 0.1192421 | 0.081 | 0.132 | -0.003 | 0.13 | 75.76 | 126.80 | 85.29 | 144.71 | 0.38 |
| M3 | 0.1207671 | 0.124 | 0.195 | 0.000 | 0.15 | 173.64 | 82.37 | 305.68 | 120.37 | 0.4 |
| MK3 | 0.1222921 | 0.060 | 0.148 | 0.020 | 0.13 | 159.94 | 91.42 | 160.85 | 163.07 | 0.16 |
| SK3 | 0.1251141 | 0.129 | 0.149 | -0.009 | 0.13 | 3.81 | 64.03 | 122.24 | 88.13 | 0.74 |
| MN4 | 0.1595106 | 0.184 | 0.350 | -0.044 | 0.31 | 111.35 | 122.61 | 356.86 | 121.20 | 0.28 |
| *M4 | 0.1610228 | 1.008 | 0.477 | -0.078 | 0.34 | 27.42 | 24.66 | 331.45 | 30.41 | 4.5 |
| SN4 | 0.1623326 | 0.314 | 0.377 | -0.141 | 0.29 | 24.42 | 67.85 | 84.84 | 103.10 | 0.69 |
| MS4 | 0.1638447 | 0.374 | 0.417 | -0.097 | 0.31 | 8.26 | 52.11 | 25.09 | 80.34 | 0.8 |
| S4 | 0.1666667 | 0.219 | 0.307 | 0.131 | 0.28 | 72.73 | 128.41 | 205.96 | 112.11 | 0.51 |
| 2MK5 | 0.2028035 | 0.092 | 0.158 | -0.017 | 0.16 | 104.46 | 99.36 | 66.17 | 137.78 | 0.34 |
| 2SK5 | 0.2084474 | 0.125 | 0.176 | 0.056 | 0.17 | 27.49 | 108.90 | 32.34 | 120.39 | 0.51 |
| 2MN6 | 0.2400221 | 0.110 | 0.206 | 0.056 | 0.18 | 72.42 | 93.50 | 275.11 | 140.30 | 0.29 |
| *M6 | 0.2415342 | 0.624 | 0.225 | 0.041 | 0.26 | 33.68 | 27.07 | 325.43 | 22.35 | 7.7 |
| 2MS6 | 0.2443561 | 0.208 | 0.199 | -0.060 | 0.19 | 59.24 | 76.87 | 15.47 | 89.16 | 1.1 |
| 2SM6 | 0.2471781 | 0.093 | 0.164 | 0.043 | 0.15 | 158.77 | 134.28 | 17.95 | 213.37 | 0.32 |
| 3MK7 | 0.2833149 | 0.063 | 0.128 | 0.049 | 0.13 | 21.73 | 130.83 | 40.81 | 173.72 | 0.24 |
| M8 | 0.3220456 | 0.092 | 0.129 | -0.015 | 0.13 | 56.71 | 101.86 | 24.25 | 104.12 | 0.51 |

total var= 25.1625 pred var= 7.2715
 percent total var predicted/var original= 28.9 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 31.4 m
 Mooring Number: 7753

File Name: 7753v-alh.nc
 nobs = 1293, ngood = 1293, record length (days) = 53.88
 start time: 22-Sep-2004 17:50:00
 rayleigh criterion = 1.0

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

x0= -1.34, x trend= 0

var(x)= 16.2523 var(xp)= 5.3116 var(xres)= 10.9431
 percent var predicted/var original= 32.7 %

y0= 0.626, x trend= 0

var(y)= 7.1902 var(yp)= 1.6313 var(yres)= 5.5419
 percent var predicted/var original= 22.7 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|-------|-------|--------|------|--------|--------|--------|--------|------|
| MM | 0.0015122 | 1.708 | 1.597 | -0.167 | 0.90 | 159.29 | 33.39 | 239.74 | 57.05 | 1.1 |
| MSF | 0.0028219 | 0.393 | 1.156 | -0.135 | 0.84 | 90.91 | 132.20 | 317.44 | 160.66 | 0.12 |
| ALP1 | 0.0343966 | 0.196 | 0.227 | 0.064 | 0.18 | 178.63 | 62.88 | 336.94 | 105.58 | 0.75 |
| 2Q1 | 0.0357064 | 0.249 | 0.249 | 0.046 | 0.20 | 142.60 | 64.03 | 41.42 | 76.42 | 1 |
| Q1 | 0.0372185 | 0.202 | 0.228 | -0.055 | 0.23 | 75.16 | 113.27 | 92.47 | 78.75 | 0.78 |
| *O1 | 0.0387307 | 0.388 | 0.239 | 0.043 | 0.22 | 40.41 | 39.89 | 322.56 | 45.51 | 2.6 |
| NO1 | 0.0402686 | 0.308 | 0.407 | -0.009 | 0.22 | 0.07 | 46.22 | 299.68 | 81.39 | 0.57 |
| *K1 | 0.0417807 | 0.425 | 0.299 | -0.224 | 0.20 | 9.85 | 48.76 | 173.01 | 70.58 | 2 |
| J1 | 0.0432929 | 0.121 | 0.212 | 0.031 | 0.21 | 60.17 | 90.16 | 328.15 | 134.70 | 0.33 |
| OO1 | 0.0448308 | 0.153 | 0.187 | 0.061 | 0.15 | 173.86 | 70.08 | 344.80 | 150.23 | 0.67 |
| UPS1 | 0.0463430 | 0.175 | 0.146 | -0.001 | 0.20 | 86.77 | 110.00 | 260.89 | 67.72 | 1.4 |
| EPS2 | 0.0761773 | 0.318 | 0.547 | -0.050 | 0.43 | 77.21 | 131.10 | 147.47 | 104.89 | 0.34 |
| MU2 | 0.0776895 | 0.258 | 0.433 | 0.016 | 0.38 | 20.26 | 101.40 | 69.40 | 160.00 | 0.36 |
| *N2 | 0.0789992 | 0.731 | 0.478 | 0.213 | 0.54 | 38.18 | 47.24 | 202.62 | 44.65 | 2.3 |
| *M2 | 0.0805114 | 3.454 | 0.586 | 0.937 | 0.60 | 24.12 | 12.46 | 178.60 | 11.20 | 35 |
| L2 | 0.0820236 | 0.168 | 0.289 | -0.024 | 0.30 | 155.17 | 94.13 | 250.06 | 151.26 | 0.34 |
| S2 | 0.0833333 | 0.606 | 0.521 | 0.144 | 0.51 | 38.09 | 58.44 | 184.08 | 69.30 | 1.4 |
| ETA2 | 0.0850736 | 0.368 | 0.389 | -0.111 | 0.35 | 17.05 | 78.73 | 347.86 | 93.20 | 0.9 |
| MO3 | 0.1192421 | 0.120 | 0.129 | 0.025 | 0.13 | 64.13 | 108.67 | 67.97 | 95.41 | 0.87 |
| M3 | 0.1207671 | 0.080 | 0.139 | 0.025 | 0.14 | 151.69 | 71.61 | 351.25 | 149.06 | 0.33 |
| MK3 | 0.1222921 | 0.080 | 0.131 | 0.023 | 0.11 | 134.65 | 98.43 | 170.85 | 149.24 | 0.38 |
| SK3 | 0.1251141 | 0.112 | 0.148 | 0.004 | 0.11 | 5.13 | 64.54 | 130.59 | 111.17 | 0.57 |
| MN4 | 0.1595106 | 0.148 | 0.291 | -0.030 | 0.28 | 140.61 | 122.09 | 329.15 | 189.14 | 0.26 |
| *M4 | 0.1610228 | 0.924 | 0.392 | -0.157 | 0.48 | 36.10 | 25.48 | 339.12 | 32.11 | 5.5 |
| SN4 | 0.1623326 | 0.295 | 0.324 | -0.124 | 0.34 | 42.50 | 92.56 | 80.89 | 100.92 | 0.83 |
| MS4 | 0.1638447 | 0.390 | 0.390 | -0.148 | 0.33 | 7.72 | 64.26 | 41.16 | 72.75 | 1 |
| S4 | 0.1666667 | 0.206 | 0.288 | 0.101 | 0.33 | 65.77 | 124.40 | 203.74 | 124.26 | 0.51 |
| 2MK5 | 0.2028035 | 0.063 | 0.142 | -0.011 | 0.14 | 116.58 | 109.70 | 82.11 | 206.12 | 0.2 |
| 2SK5 | 0.2084474 | 0.085 | 0.141 | 0.041 | 0.16 | 26.78 | 122.22 | 54.76 | 136.69 | 0.37 |
| 2MN6 | 0.2400221 | 0.106 | 0.202 | 0.059 | 0.17 | 56.89 | 97.04 | 248.44 | 179.77 | 0.28 |
| *M6 | 0.2415342 | 0.481 | 0.252 | 0.090 | 0.22 | 45.72 | 34.93 | 344.23 | 39.49 | 3.6 |
| 2MS6 | 0.2443561 | 0.177 | 0.213 | -0.050 | 0.18 | 66.77 | 67.52 | 23.04 | 99.15 | 0.69 |
| 2SM6 | 0.2471781 | 0.081 | 0.183 | 0.037 | 0.16 | 0.11 | 186.39 | 222.55 | 168.17 | 0.2 |
| 3MK7 | 0.2833149 | 0.052 | 0.127 | 0.014 | 0.12 | 31.66 | 121.95 | 347.63 | 177.14 | 0.17 |
| M8 | 0.3220456 | 0.094 | 0.124 | -0.042 | 0.12 | 68.74 | 93.50 | 57.25 | 117.50 | 0.57 |

total var= 23.4426 pred var= 6.9429
 percent total var predicted/var original= 29.6 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 10.5 m
 Mooring Number: 7762

File Name: 7762vm-alh.nc
 nobs = 2346, ngood = 2345, record length (days) = 97.75
 start time: 09-Feb-2005 19:00:15
 rayleigh criterion = 1.0

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

x0= -0.414, x trend= 0

var(x)= 104.5596 var(xp)= 63.0336 var(xres)= 41.424
 percent var predicted/var original= 60.3 %

y0= -1.67, x trend= 0

var(y)= 76.9752 var(yp)= 1.9041 var(yres)= 75.0293
 percent var predicted/var original= 2.5 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|--------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 1.513 | 2.394 | -1.217 | 2.37 | 140.24 | 102.96 | 207.01 | 164.29 | 0.4 |
| MSF | 0.0028219 | 2.607 | 3.215 | 0.416 | 2.30 | 108.94 | 56.86 | 302.04 | 100.76 | 0.66 |
| ALP1 | 0.0343966 | 0.501 | 0.741 | -0.158 | 0.69 | 100.58 | 114.44 | 75.51 | 121.06 | 0.46 |
| 2Q1 | 0.0357064 | 0.873 | 0.899 | -0.147 | 0.77 | 8.03 | 75.77 | 111.20 | 68.52 | 0.94 |
| Q1 | 0.0372185 | 0.429 | 0.690 | -0.145 | 0.67 | 154.19 | 124.60 | 146.47 | 132.77 | 0.39 |
| O1 | 0.0387307 | 0.377 | 0.632 | 0.222 | 0.66 | 127.81 | 116.39 | 7.66 | 133.58 | 0.36 |
| NO1 | 0.0402686 | 0.664 | 0.770 | -0.307 | 0.78 | 111.54 | 108.75 | 169.56 | 126.31 | 0.74 |
| K1 | 0.0417807 | 0.954 | 0.878 | 0.112 | 0.84 | 61.88 | 58.08 | 325.17 | 72.81 | 1.2 |
| J1 | 0.0432929 | 0.548 | 0.719 | -0.234 | 0.82 | 33.51 | 116.53 | 231.50 | 136.68 | 0.58 |
| OO1 | 0.0448308 | 0.458 | 0.496 | -0.260 | 0.49 | 44.20 | 104.08 | 290.10 | 117.42 | 0.85 |
| UPS1 | 0.0463430 | 0.429 | 0.546 | 0.058 | 0.51 | 62.65 | 92.38 | 337.46 | 101.40 | 0.62 |
| EPS2 | 0.0761773 | 0.403 | 0.788 | -0.129 | 0.76 | 68.72 | 98.43 | 226.39 | 152.52 | 0.26 |
| MU2 | 0.0776895 | 0.735 | 0.805 | -0.574 | 0.88 | 65.75 | 102.48 | 38.66 | 128.99 | 0.84 |
| *N2 | 0.0789992 | 2.484 | 0.886 | -0.087 | 1.09 | 2.52 | 25.96 | 166.75 | 21.79 | 7.9 |
| *M2 | 0.0805114 | 11.279 | 0.831 | 0.213 | 0.99 | 8.62 | 5.38 | 200.66 | 4.87 | 1.8e+002 |
| L2 | 0.0820236 | 0.350 | 0.569 | 0.066 | 0.48 | 113.96 | 91.94 | 103.92 | 131.26 | 0.38 |
| *S2 | 0.0833333 | 2.212 | 0.826 | -0.521 | 0.90 | 14.13 | 30.45 | 239.53 | 20.91 | 7.2 |
| ETA2 | 0.0850736 | 0.469 | 0.611 | 0.092 | 0.55 | 114.23 | 86.98 | 343.65 | 104.17 | 0.59 |
| MO3 | 0.1192421 | 0.250 | 0.276 | -0.099 | 0.28 | 104.46 | 103.14 | 206.41 | 105.66 | 0.82 |
| M3 | 0.1207671 | 0.273 | 0.344 | -0.036 | 0.34 | 129.72 | 103.56 | 256.24 | 113.97 | 0.63 |
| MK3 | 0.1222921 | 0.290 | 0.305 | 0.070 | 0.31 | 145.73 | 74.76 | 217.17 | 82.18 | 0.91 |
| SK3 | 0.1251141 | 0.305 | 0.335 | -0.261 | 0.32 | 115.57 | 145.09 | 222.08 | 131.64 | 0.83 |
| MN4 | 0.1595106 | 0.242 | 0.245 | -0.130 | 0.26 | 139.60 | 93.19 | 341.13 | 113.93 | 0.98 |
| *M4 | 0.1610228 | 0.722 | 0.327 | -0.250 | 0.27 | 50.15 | 30.80 | 85.05 | 30.99 | 4.9 |
| SN4 | 0.1623326 | 0.295 | 0.261 | -0.116 | 0.27 | 25.83 | 65.97 | 148.79 | 74.65 | 1.3 |
| MS4 | 0.1638447 | 0.131 | 0.223 | -0.046 | 0.23 | 21.46 | 91.42 | 96.14 | 144.40 | 0.35 |
| S4 | 0.1666667 | 0.146 | 0.198 | 0.025 | 0.21 | 107.38 | 110.61 | 181.27 | 123.38 | 0.54 |
| 2MK5 | 0.2028035 | 0.167 | 0.175 | 0.014 | 0.17 | 119.90 | 86.53 | 140.38 | 71.51 | 0.91 |
| 2SK5 | 0.2084474 | 0.069 | 0.129 | -0.011 | 0.12 | 111.80 | 135.94 | 254.28 | 157.07 | 0.29 |
| 2MN6 | 0.2400221 | 0.179 | 0.169 | 0.114 | 0.17 | 36.54 | 97.99 | 310.08 | 100.78 | 1.1 |
| *M6 | 0.2415342 | 0.621 | 0.219 | 0.102 | 0.24 | 48.41 | 22.41 | 12.69 | 21.04 | 8.1 |
| *2MS6 | 0.2443561 | 0.450 | 0.197 | 0.001 | 0.20 | 54.01 | 27.52 | 48.23 | 25.67 | 5.2 |
| 2SM6 | 0.2471781 | 0.072 | 0.145 | -0.022 | 0.13 | 82.92 | 110.90 | 63.65 | 144.97 | 0.25 |
| 3MK7 | 0.2833149 | 0.085 | 0.107 | -0.024 | 0.11 | 41.30 | 96.56 | 34.65 | 93.93 | 0.64 |
| *M8 | 0.3220456 | 0.149 | 0.095 | -0.120 | 0.08 | 139.76 | 93.94 | 213.29 | 103.44 | 2.5 |

total var= 181.5348 pred var= 64.9377
 percent total var predicted/var original= 35.8 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 23.5 m
 Mooring Number: 7765

File Name: 7765vm-alh.nc
 nobs = 2346, ngood = 2345, record length (days) = 97.75
 start time: 09-Feb-2005 18:59:30
 rayleigh criterion = 1.0

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

x0= 0.855, x trend= 0

var(x)= 76.7783 var(xp)= 50.0049 var(xres)= 26.644
 percent var predicted/var original= 65.1 %

y0= -0.243, x trend= 0

var(y)= 23.1806 var(yp)= 1.1629 var(yres)= 21.9744
 percent var predicted/var original= 5.0 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|-------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 1.104 | 1.092 | 0.232 | 1.19 | 103.72 | 85.13 | 202.29 | 98.97 | 1 |
| MSF | 0.0028219 | 0.981 | 1.159 | 0.295 | 1.13 | 106.54 | 106.15 | 206.95 | 99.81 | 0.72 |
| ALP1 | 0.0343966 | 0.274 | 0.418 | -0.081 | 0.48 | 117.93 | 97.49 | 84.87 | 117.07 | 0.43 |
| 2Q1 | 0.0357064 | 0.456 | 0.461 | -0.373 | 0.51 | 81.29 | 119.64 | 275.41 | 110.09 | 0.98 |
| Q1 | 0.0372185 | 0.263 | 0.462 | 0.034 | 0.37 | 167.69 | 93.48 | 61.56 | 194.16 | 0.32 |
| O1 | 0.0387307 | 0.706 | 0.667 | -0.134 | 0.42 | 17.28 | 38.93 | 248.22 | 59.36 | 1.1 |
| NO1 | 0.0402686 | 0.331 | 0.553 | 0.231 | 0.41 | 37.19 | 106.85 | 275.78 | 140.46 | 0.36 |
| *K1 | 0.0417807 | 1.269 | 0.667 | -0.579 | 0.51 | 166.94 | 33.28 | 133.87 | 45.70 | 3.6 |
| J1 | 0.0432929 | 0.291 | 0.468 | -0.183 | 0.41 | 9.29 | 91.98 | 93.90 | 147.22 | 0.39 |
| OO1 | 0.0448308 | 0.140 | 0.274 | -0.099 | 0.26 | 171.87 | 86.08 | 343.78 | 185.13 | 0.26 |
| UPS1 | 0.0463430 | 0.221 | 0.335 | -0.023 | 0.28 | 144.77 | 73.18 | 66.93 | 131.65 | 0.44 |
| EPS2 | 0.0761773 | 0.421 | 0.673 | -0.294 | 0.60 | 47.02 | 104.10 | 48.96 | 119.60 | 0.39 |
| MU2 | 0.0776895 | 0.555 | 0.716 | 0.004 | 0.53 | 172.26 | 71.88 | 169.97 | 126.52 | 0.6 |
| *N2 | 0.0789992 | 1.691 | 0.815 | 0.171 | 0.61 | 179.59 | 22.49 | 320.91 | 31.10 | 4.3 |
| *M2 | 0.0805114 | 9.985 | 0.943 | -0.481 | 0.73 | 7.24 | 3.60 | 202.15 | 4.85 | 1.1e+002 |
| L2 | 0.0820236 | 0.273 | 0.451 | -0.041 | 0.47 | 98.60 | 156.30 | 124.02 | 126.35 | 0.37 |
| *S2 | 0.0833333 | 1.843 | 0.893 | -0.027 | 0.66 | 9.82 | 21.48 | 229.86 | 27.61 | 4.3 |
| ETA2 | 0.0850736 | 0.311 | 0.511 | -0.174 | 0.43 | 22.03 | 84.25 | 319.73 | 128.37 | 0.37 |
| MO3 | 0.1192421 | 0.159 | 0.206 | 0.016 | 0.18 | 89.29 | 91.19 | 271.19 | 103.01 | 0.59 |
| M3 | 0.1207671 | 0.219 | 0.238 | -0.094 | 0.29 | 16.95 | 99.31 | 141.30 | 97.74 | 0.85 |
| MK3 | 0.1222921 | 0.155 | 0.230 | -0.079 | 0.25 | 9.16 | 130.49 | 70.38 | 135.50 | 0.46 |
| SK3 | 0.1251141 | 0.279 | 0.250 | -0.233 | 0.22 | 114.88 | 114.65 | 48.94 | 115.99 | 1.3 |
| MN4 | 0.1595106 | 0.184 | 0.279 | -0.063 | 0.21 | 12.33 | 76.51 | 45.43 | 123.76 | 0.44 |
| M4 | 0.1610228 | 0.540 | 0.397 | -0.121 | 0.26 | 151.78 | 32.80 | 257.92 | 39.39 | 1.9 |
| SN4 | 0.1623326 | 0.301 | 0.257 | -0.067 | 0.33 | 63.89 | 80.19 | 80.40 | 70.62 | 1.4 |
| MS4 | 0.1638447 | 0.110 | 0.271 | 0.024 | 0.21 | 22.69 | 78.87 | 206.77 | 170.32 | 0.17 |
| S4 | 0.1666667 | 0.165 | 0.273 | 0.057 | 0.23 | 41.29 | 83.12 | 106.86 | 111.21 | 0.37 |
| 2MK5 | 0.2028035 | 0.076 | 0.110 | 0.006 | 0.11 | 130.77 | 81.99 | 357.11 | 130.75 | 0.47 |
| 2SK5 | 0.2084474 | 0.105 | 0.145 | -0.035 | 0.14 | 124.03 | 88.89 | 68.34 | 100.74 | 0.53 |
| 2MN6 | 0.2400221 | 0.213 | 0.186 | -0.001 | 0.18 | 52.56 | 64.75 | 290.55 | 54.48 | 1.3 |
| *M6 | 0.2415342 | 0.448 | 0.211 | 0.212 | 0.19 | 22.97 | 33.69 | 284.60 | 42.86 | 4.5 |
| 2MS6 | 0.2443561 | 0.105 | 0.148 | 0.066 | 0.15 | 124.33 | 131.26 | 106.17 | 138.43 | 0.5 |
| 2SM6 | 0.2471781 | 0.147 | 0.152 | 0.077 | 0.15 | 18.01 | 75.54 | 348.13 | 105.05 | 0.93 |
| 3MK7 | 0.2833149 | 0.084 | 0.122 | 0.019 | 0.10 | 20.85 | 88.68 | 218.67 | 121.44 | 0.47 |
| M8 | 0.3220456 | 0.057 | 0.082 | 0.004 | 0.08 | 118.27 | 101.46 | 47.72 | 103.54 | 0.49 |

total var= 99.9589 pred var= 51.1678
 percent total var predicted/var original= 51.2 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 30.8 m
 Mooring Number: 7775

File Name: 7775-alh.nc
 nobs = 2347, ngood = 2347, record length (days) = 97.79
 start time: 09-Feb-2005 17:58:26
 rayleigh criterion = 1.0

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

x0= -0.583, x trend= 0

var(x)= 23.8378 var(xp)= 11.7924 var(xres)= 12.0066
 percent var predicted/var original= 49.5 %

y0= -0.236, x trend= 0

var(y)= 10.1422 var(yp)= 0.56937 var(yres)= 9.5796
 percent var predicted/var original= 5.6 %

ellipse parameters with 95% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|-------|-------|--------|------|--------|--------|--------|--------|------|
| MM | 0.0015122 | 0.463 | 0.709 | 0.078 | 0.64 | 94.88 | 102.61 | 174.73 | 119.56 | 0.43 |
| MSF | 0.0028219 | 0.804 | 0.813 | -0.145 | 0.76 | 128.60 | 78.75 | 233.97 | 71.02 | 0.98 |
| ALP1 | 0.0343966 | 0.168 | 0.298 | -0.110 | 0.30 | 99.66 | 166.53 | 57.13 | 123.06 | 0.32 |
| 2Q1 | 0.0357064 | 0.255 | 0.365 | -0.093 | 0.32 | 37.83 | 81.97 | 341.95 | 116.31 | 0.49 |
| Q1 | 0.0372185 | 0.201 | 0.290 | 0.038 | 0.27 | 35.49 | 86.06 | 309.83 | 146.55 | 0.48 |
| O1 | 0.0387307 | 0.408 | 0.386 | -0.055 | 0.29 | 13.44 | 50.45 | 236.46 | 81.13 | 1.1 |
| NO1 | 0.0402686 | 0.246 | 0.330 | 0.039 | 0.34 | 64.33 | 104.27 | 342.80 | 102.74 | 0.55 |
| K1 | 0.0417807 | 0.419 | 0.385 | -0.211 | 0.35 | 146.51 | 69.75 | 144.65 | 79.23 | 1.2 |
| J1 | 0.0432929 | 0.221 | 0.353 | -0.045 | 0.29 | 17.12 | 69.16 | 85.15 | 133.62 | 0.39 |
| OO1 | 0.0448308 | 0.117 | 0.226 | -0.049 | 0.18 | 144.50 | 87.75 | 250.48 | 153.82 | 0.27 |
| UPS1 | 0.0463430 | 0.097 | 0.215 | 0.020 | 0.21 | 116.97 | 106.12 | 13.84 | 160.81 | 0.2 |
| EPS2 | 0.0761773 | 0.427 | 0.479 | -0.354 | 0.45 | 40.22 | 108.19 | 68.34 | 119.45 | 0.79 |
| MU2 | 0.0776895 | 0.476 | 0.457 | -0.266 | 0.44 | 128.40 | 92.44 | 124.24 | 95.45 | 1.1 |
| *N2 | 0.0789992 | 0.859 | 0.547 | 0.328 | 0.42 | 3.09 | 39.88 | 141.84 | 49.34 | 2.5 |
| *M2 | 0.0805114 | 4.820 | 0.625 | 0.815 | 0.54 | 6.16 | 5.72 | 177.70 | 8.13 | 59 |
| L2 | 0.0820236 | 0.210 | 0.306 | -0.091 | 0.28 | 122.68 | 111.12 | 342.47 | 129.43 | 0.47 |
| *S2 | 0.0833333 | 1.154 | 0.500 | 0.118 | 0.42 | 11.66 | 21.45 | 226.13 | 26.08 | 5.3 |
| ETA2 | 0.0850736 | 0.365 | 0.373 | -0.061 | 0.35 | 4.10 | 56.31 | 337.53 | 78.55 | 0.96 |
| MO3 | 0.1192421 | 0.113 | 0.165 | 0.062 | 0.15 | 1.29 | 141.21 | 230.32 | 121.94 | 0.48 |
| M3 | 0.1207671 | 0.160 | 0.203 | -0.020 | 0.22 | 70.72 | 81.87 | 116.41 | 96.70 | 0.63 |
| MK3 | 0.1222921 | 0.071 | 0.152 | 0.030 | 0.17 | 144.42 | 139.24 | 51.92 | 162.15 | 0.22 |
| SK3 | 0.1251141 | 0.111 | 0.163 | 0.012 | 0.14 | 56.63 | 97.71 | 30.90 | 122.55 | 0.46 |
| MN4 | 0.1595106 | 0.223 | 0.233 | 0.026 | 0.19 | 13.92 | 65.01 | 301.90 | 84.04 | 0.92 |
| *M4 | 0.1610228 | 0.418 | 0.258 | -0.322 | 0.22 | 159.97 | 82.63 | 186.82 | 87.01 | 2.6 |
| SN4 | 0.1623326 | 0.119 | 0.215 | -0.022 | 0.18 | 22.85 | 97.98 | 166.82 | 119.27 | 0.3 |
| MS4 | 0.1638447 | 0.181 | 0.198 | -0.049 | 0.19 | 147.26 | 84.77 | 263.45 | 93.18 | 0.84 |
| S4 | 0.1666667 | 0.085 | 0.172 | -0.027 | 0.17 | 22.66 | 99.72 | 208.83 | 179.70 | 0.24 |
| 2MK5 | 0.2028035 | 0.075 | 0.093 | -0.004 | 0.10 | 135.46 | 99.16 | 291.73 | 100.15 | 0.66 |
| 2SK5 | 0.2084474 | 0.115 | 0.101 | -0.072 | 0.10 | 49.65 | 90.75 | 58.63 | 97.81 | 1.3 |
| 2MN6 | 0.2400221 | 0.139 | 0.135 | 0.003 | 0.13 | 12.43 | 70.86 | 297.51 | 71.09 | 1 |
| *M6 | 0.2415342 | 0.390 | 0.151 | 0.042 | 0.14 | 37.61 | 25.29 | 342.24 | 22.67 | 6.7 |
| 2MS6 | 0.2443561 | 0.159 | 0.130 | 0.007 | 0.13 | 31.89 | 55.94 | 29.55 | 60.90 | 1.5 |
| 2SM6 | 0.2471781 | 0.076 | 0.116 | 0.058 | 0.11 | 51.44 | 134.07 | 36.31 | 135.83 | 0.43 |
| 3MK7 | 0.2833149 | 0.051 | 0.083 | 0.033 | 0.09 | 102.44 | 129.51 | 152.22 | 138.94 | 0.38 |
| M8 | 0.3220456 | 0.056 | 0.075 | -0.005 | 0.07 | 104.95 | 93.67 | 121.10 | 125.72 | 0.55 |

total var= 33.98 pred var= 12.3617
 percent total var predicted/var original= 36.4 %

Tidal Analysis of Current at LT-A
Point Current-Meter Observations, 31.9 m
Mooring Number: 7776

File Name: 7776advs-callh.nc

nobs = 2344, ngood = 2343, record length (days) = 97.67

start time: 09-Feb-2005 17:37:26

rayleigh criterion = 1.0

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

x0= -0.583, x trend= 0

var(x)= 23.8418 var(xp)= 11.8115 var(xres)= 11.9924

percent var predicted/var original= 49.5 %

y0= -0.231, x trend= 0

var(y)= 10.0585 var(yp)= 0.56721 var(yres)= 9.4955

percent var predicted/var original= 5.6 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|------|
| MM | 0.0015122 | 0.467 | 0.588 | 0.076 | 0.72 | 94.96 | 118.50 | 175.70 | 110.09 | 0.63 |
| MSF | 0.0028219 | 0.810 | 0.760 | -0.146 | 0.79 | 128.17 | 75.25 | 234.15 | 75.70 | 1.1 |
| ALP1 | 0.0343966 | 0.172 | 0.332 | -0.108 | 0.30 | 100.54 | 143.48 | 55.23 | 126.42 | 0.27 |
| 2Q1 | 0.0357064 | 0.259 | 0.380 | -0.090 | 0.30 | 38.63 | 81.86 | 342.72 | 99.48 | 0.46 |
| Q1 | 0.0372185 | 0.203 | 0.367 | 0.032 | 0.28 | 35.86 | 79.26 | 308.45 | 153.54 | 0.3 |
| O1 | 0.0387307 | 0.407 | 0.417 | -0.065 | 0.31 | 13.80 | 43.00 | 235.94 | 78.72 | 0.95 |
| NO1 | 0.0402686 | 0.248 | 0.360 | 0.042 | 0.34 | 65.19 | 112.20 | 344.19 | 103.88 | 0.48 |
| K1 | 0.0417807 | 0.416 | 0.354 | -0.214 | 0.33 | 148.32 | 75.57 | 143.82 | 90.70 | 1.4 |
| J1 | 0.0432929 | 0.221 | 0.376 | -0.036 | 0.27 | 16.42 | 65.42 | 85.57 | 116.87 | 0.35 |
| OO1 | 0.0448308 | 0.119 | 0.265 | -0.053 | 0.21 | 142.38 | 81.82 | 252.03 | 158.14 | 0.2 |
| UPS1 | 0.0463430 | 0.093 | 0.207 | 0.017 | 0.20 | 118.65 | 103.02 | 15.20 | 165.34 | 0.2 |
| EPS2 | 0.0761773 | 0.420 | 0.461 | -0.359 | 0.50 | 41.97 | 123.28 | 66.65 | 130.29 | 0.83 |
| MU2 | 0.0776895 | 0.481 | 0.406 | -0.266 | 0.45 | 126.50 | 82.93 | 125.92 | 87.90 | 1.4 |
| *N2 | 0.0789992 | 0.865 | 0.513 | 0.331 | 0.42 | 3.30 | 35.64 | 142.04 | 47.52 | 2.8 |
| *M2 | 0.0805114 | 4.816 | 0.631 | 0.809 | 0.48 | 6.14 | 6.19 | 177.78 | 7.61 | 58 |
| L2 | 0.0820236 | 0.204 | 0.303 | -0.097 | 0.34 | 122.05 | 121.15 | 344.68 | 151.50 | 0.45 |
| *S2 | 0.0833333 | 1.155 | 0.598 | 0.126 | 0.44 | 11.92 | 24.81 | 226.37 | 26.38 | 3.7 |
| ETA2 | 0.0850736 | 0.363 | 0.362 | -0.067 | 0.30 | 4.60 | 63.85 | 336.66 | 77.55 | 1 |
| MO3 | 0.1192421 | 0.119 | 0.145 | 0.058 | 0.17 | 3.63 | 126.55 | 229.32 | 108.84 | 0.68 |
| M3 | 0.1207671 | 0.162 | 0.186 | -0.020 | 0.19 | 68.60 | 80.53 | 116.90 | 100.99 | 0.76 |
| MK3 | 0.1222921 | 0.075 | 0.151 | 0.040 | 0.17 | 144.25 | 126.87 | 50.92 | 142.87 | 0.25 |
| SK3 | 0.1251141 | 0.111 | 0.164 | 0.017 | 0.16 | 59.02 | 85.68 | 28.02 | 112.55 | 0.46 |
| MN4 | 0.1595106 | 0.225 | 0.270 | 0.022 | 0.22 | 14.50 | 61.75 | 302.02 | 88.48 | 0.69 |
| *M4 | 0.1610228 | 0.423 | 0.244 | -0.319 | 0.22 | 159.70 | 99.48 | 186.80 | 97.63 | 3 |
| SN4 | 0.1623326 | 0.114 | 0.188 | -0.024 | 0.19 | 31.48 | 101.89 | 163.51 | 124.66 | 0.37 |
| MS4 | 0.1638447 | 0.175 | 0.199 | -0.071 | 0.21 | 140.81 | 88.73 | 266.62 | 108.44 | 0.77 |
| S4 | 0.1666667 | 0.087 | 0.193 | -0.023 | 0.16 | 19.53 | 85.91 | 214.94 | 163.04 | 0.2 |
| 2MK5 | 0.2028035 | 0.073 | 0.094 | -0.007 | 0.09 | 134.59 | 92.39 | 288.41 | 116.01 | 0.6 |
| 2SK5 | 0.2084474 | 0.105 | 0.107 | -0.070 | 0.10 | 54.44 | 103.88 | 56.93 | 113.97 | 0.97 |
| 2MN6 | 0.2400221 | 0.136 | 0.116 | 0.018 | 0.13 | 12.21 | 72.93 | 289.69 | 67.62 | 1.4 |
| *M6 | 0.2415342 | 0.381 | 0.129 | 0.054 | 0.15 | 35.63 | 23.26 | 343.10 | 27.18 | 8.7 |
| *2MS6 | 0.2443561 | 0.151 | 0.101 | 0.018 | 0.13 | 30.37 | 65.28 | 32.73 | 56.70 | 2.2 |
| 2SM6 | 0.2471781 | 0.068 | 0.102 | 0.050 | 0.08 | 65.69 | 117.52 | 49.40 | 139.30 | 0.45 |
| 3MK7 | 0.2833149 | 0.071 | 0.092 | 0.032 | 0.09 | 112.10 | 113.42 | 151.99 | 123.15 | 0.59 |
| M8 | 0.3220456 | 0.046 | 0.084 | 0.000 | 0.08 | 94.33 | 97.81 | 98.65 | 126.18 | 0.31 |

total var= 33.9003 pred var= 12.3787

percent total var predicted/var original= 36.5 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 33.2 m
 Mooring Number: 7864

File Name: 7864advs-callh.nc
 nobs = 3110, ngood = 3108, record length (days) = 129.58
 start time: 18-May-2005 14:37:31
 rayleigh criterion = 1.0

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

x0= -0.571, x trend= 0

var(x)= 18.7991 var(xp)= 9.9853 var(xres)= 8.8373
 percent var predicted/var original= 53.1 %

y0= 0.105, x trend= 0

var(y)= 9.2943 var(yp)= 0.88153 var(yres)= 8.4154
 percent var predicted/var original= 9.5 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|-------|-------|--------|------|--------|--------|--------|--------|-------|
| MM | 0.0015122 | 0.537 | 0.536 | 0.362 | 0.48 | 126.69 | 109.35 | 346.27 | 106.78 | 1 |
| MSF | 0.0028219 | 0.443 | 0.522 | -0.006 | 0.53 | 90.10 | 97.53 | 116.82 | 82.13 | 0.72 |
| ALP1 | 0.0343966 | 0.080 | 0.113 | -0.016 | 0.10 | 176.67 | 111.55 | 262.82 | 180.31 | 0.5 |
| 2Q1 | 0.0357064 | 0.126 | 0.132 | 0.027 | 0.12 | 96.86 | 87.80 | 27.97 | 84.87 | 0.91 |
| Q1 | 0.0372185 | 0.129 | 0.131 | -0.074 | 0.14 | 163.63 | 98.97 | 295.09 | 99.40 | 0.97 |
| O1 | 0.0387307 | 0.163 | 0.136 | -0.097 | 0.12 | 4.58 | 77.77 | 45.22 | 75.17 | 1.4 |
| NO1 | 0.0402686 | 0.121 | 0.118 | 0.021 | 0.10 | 150.52 | 83.58 | 319.16 | 83.07 | 1.1 |
| *K1 | 0.0417807 | 0.231 | 0.151 | -0.114 | 0.13 | 95.38 | 57.08 | 316.39 | 56.40 | 2.3 |
| J1 | 0.0432929 | 0.153 | 0.152 | -0.028 | 0.13 | 130.32 | 74.49 | 236.57 | 73.22 | 1 |
| OO1 | 0.0448308 | 0.121 | 0.089 | 0.049 | 0.09 | 147.10 | 63.77 | 104.76 | 63.44 | 1.8 |
| UPS1 | 0.0463430 | 0.088 | 0.094 | -0.012 | 0.08 | 45.71 | 74.44 | 82.26 | 81.64 | 0.87 |
| EPS2 | 0.0761773 | 0.282 | 0.375 | -0.141 | 0.36 | 77.78 | 111.08 | 78.31 | 102.02 | 0.57 |
| MU2 | 0.0776895 | 0.398 | 0.409 | -0.064 | 0.38 | 47.32 | 72.03 | 89.25 | 85.00 | 0.95 |
| *N2 | 0.0789992 | 1.096 | 0.441 | 0.372 | 0.49 | 25.05 | 28.31 | 155.91 | 30.14 | 6.2 |
| *M2 | 0.0805114 | 4.425 | 0.472 | 0.889 | 0.43 | 171.22 | 4.91 | 347.72 | 5.91 | 88 |
| L2 | 0.0820236 | 0.498 | 0.379 | -0.141 | 0.33 | 1.51 | 45.72 | 138.00 | 55.58 | 1.7 |
| S2 | 0.0833333 | 0.468 | 0.389 | 0.048 | 0.38 | 9.03 | 55.14 | 204.27 | 63.46 | 1.4 |
| ETA2 | 0.0850736 | 0.140 | 0.263 | -0.044 | 0.23 | 10.64 | 105.27 | 285.89 | 134.64 | 0.28 |
| MO3 | 0.1192421 | 0.140 | 0.139 | -0.037 | 0.13 | 81.51 | 80.94 | 38.24 | 80.30 | 1 |
| M3 | 0.1207671 | 0.038 | 0.132 | -0.018 | 0.14 | 3.79 | 119.78 | 56.35 | 201.33 | 0.083 |
| *MK3 | 0.1222921 | 0.212 | 0.136 | -0.079 | 0.15 | 87.42 | 62.44 | 60.44 | 55.64 | 2.4 |
| SK3 | 0.1251141 | 0.099 | 0.118 | -0.002 | 0.13 | 98.27 | 106.99 | 195.28 | 92.98 | 0.71 |
| *MN4 | 0.1595106 | 0.382 | 0.232 | -0.037 | 0.29 | 165.79 | 54.72 | 120.84 | 52.29 | 2.7 |
| *M4 | 0.1610228 | 0.815 | 0.251 | -0.235 | 0.31 | 152.74 | 26.96 | 152.70 | 22.46 | 11 |
| SN4 | 0.1623326 | 0.103 | 0.208 | 0.041 | 0.16 | 81.17 | 92.61 | 268.47 | 154.03 | 0.25 |
| MS4 | 0.1638447 | 0.286 | 0.233 | 0.061 | 0.21 | 160.05 | 71.92 | 198.42 | 61.57 | 1.5 |
| S4 | 0.1666667 | 0.148 | 0.219 | 0.061 | 0.20 | 28.49 | 112.15 | 277.55 | 114.10 | 0.45 |
| 2MK5 | 0.2028035 | 0.117 | 0.122 | 0.017 | 0.12 | 148.66 | 83.13 | 358.42 | 80.19 | 0.93 |
| 2SK5 | 0.2084474 | 0.109 | 0.102 | 0.017 | 0.11 | 125.07 | 78.65 | 120.59 | 80.54 | 1.1 |
| *2MN6 | 0.2400221 | 0.289 | 0.166 | -0.004 | 0.18 | 23.60 | 27.79 | 297.25 | 38.25 | 3 |
| *M6 | 0.2415342 | 0.417 | 0.191 | -0.015 | 0.15 | 25.86 | 24.56 | 332.65 | 27.29 | 4.8 |
| 2MS6 | 0.2443561 | 0.181 | 0.141 | 0.109 | 0.13 | 26.71 | 78.98 | 68.59 | 94.34 | 1.7 |
| 2SM6 | 0.2471781 | 0.076 | 0.132 | -0.040 | 0.12 | 81.53 | 135.68 | 175.86 | 120.32 | 0.33 |
| 3MK7 | 0.2833149 | 0.037 | 0.077 | -0.018 | 0.09 | 132.32 | 120.94 | 213.50 | 171.59 | 0.24 |
| M8 | 0.3220456 | 0.101 | 0.085 | 0.043 | 0.08 | 163.24 | 76.83 | 31.33 | 62.73 | 1.4 |

total var= 28.0934 pred var= 10.8668
 percent total var predicted/var original= 38.7 %

Tidal Analysis of Current at LT-A
Point Current-Meter Observations, 12.0 m
Mooring Number: 7872

File Name: 7872vm-alh.nc
nobs = 154, ngood = 153, record length (days) = 6.42
start time: 18-May-2005 16:00:00
rayleigh criterion = 1.0

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

x0= 2.78, x trend= 0

var(x)= 147.9825 var(xp)= 79.0389 var(xres)= 69.4124
percent var predicted/var original= 53.4 %

y0= -9.28, x trend= 0

var(y)= 92.0075 var(yp)= 6.3518 var(yres)= 85.7309
percent var predicted/var original= 6.9 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|--------|-------|--------|------|--------|--------|--------|--------|------|
| K1 | 0.0417807 | 2.765 | 4.024 | -0.688 | 3.92 | 23.82 | 125.20 | 30.02 | 113.77 | 0.47 |
| *M2 | 0.0805114 | 13.310 | 1.769 | -2.189 | 1.00 | 11.47 | 4.23 | 199.02 | 7.78 | 57 |
| *M3 | 0.1207671 | 1.233 | 0.794 | -0.335 | 1.32 | 90.87 | 85.03 | 272.35 | 46.73 | 2.4 |
| M4 | 0.1610228 | 1.346 | 1.019 | -0.145 | 1.17 | 15.65 | 63.67 | 46.92 | 55.97 | 1.7 |
| 2MK5 | 0.2028035 | 0.763 | 1.134 | -0.252 | 1.18 | 13.28 | 109.03 | 257.05 | 141.92 | 0.45 |
| *M6 | 0.2415342 | 0.977 | 0.664 | -0.289 | 0.46 | 66.33 | 42.47 | 351.11 | 41.97 | 2.2 |
| 3MK7 | 0.2833149 | 0.391 | 0.397 | 0.021 | 0.31 | 139.46 | 73.21 | 254.60 | 73.24 | 0.97 |
| M8 | 0.3220456 | 0.278 | 0.382 | 0.006 | 0.39 | 54.96 | 116.55 | 272.12 | 122.08 | 0.53 |

total var= 239.99 pred var= 85.3906
percent total var predicted/var original= 35.6 %

Tidal Analysis of Current at LT-A
Point Current-Meter Observations, 24.7 m
Mooring Number: 7875

File Name: 7875vm-alh.nc
nobs = 154, ngood = 153, record length (days) = 6.42
start time: 18-May-2005 16:00:00
rayleigh criterion = 1.0

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

x0= 3.11, x trend= 0

var(x)= 106.2937 var(xp)= 46.0217 var(xres)= 60.5801
percent var predicted/var original= 43.3 %

y0= -2.51, x trend= 0

var(y)= 41.1734 var(yp)= 0.35051 var(yres)= 40.8363
percent var predicted/var original= 0.9 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|-------|-------|--------|------|--------|--------|--------|--------|-------|
| K1 | 0.0417807 | 1.166 | 2.018 | -0.969 | 1.75 | 19.43 | 118.00 | 323.40 | 162.64 | 0.33 |
| *M2 | 0.0805114 | 9.976 | 5.407 | 0.642 | 1.94 | 178.31 | 10.77 | 17.62 | 29.73 | 3.4 |
| M3 | 0.1207671 | 0.891 | 0.806 | 0.319 | 0.64 | 51.88 | 57.68 | 99.93 | 83.04 | 1.2 |
| M4 | 0.1610228 | 0.788 | 1.088 | -0.318 | 0.92 | 51.45 | 93.45 | 329.21 | 120.24 | 0.52 |
| 2MK5 | 0.2028035 | 0.602 | 0.551 | -0.094 | 0.47 | 24.55 | 69.91 | 294.92 | 66.26 | 1.2 |
| M6 | 0.2415342 | 0.770 | 0.648 | -0.073 | 0.57 | 52.96 | 32.48 | 10.77 | 55.61 | 1.4 |
| 3MK7 | 0.2833149 | 0.151 | 0.742 | 0.064 | 0.65 | 147.60 | 88.63 | 166.65 | 283.28 | 0.042 |
| *M8 | 0.3220456 | 0.569 | 0.358 | -0.207 | 0.30 | 78.63 | 39.17 | 358.32 | 51.16 | 2.5 |

total var= 147.4671 pred var= 46.3722
percent total var predicted/var original= 31.4 %

Tidal Analysis of Current at LT-A
Point Current-Meter Observations, 12.0 m
Mooring Number: 7922

File Name: 7922vm-alh.nc
nobs = 181, ngood = 181, record length (days) = 7.54
start time: 07-Jun-2005 14:00:00
rayleigh criterion = 1.0

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

x0= 0.935, x trend= 0

var(x)= 99.1272 var(xp)= 62.4162 var(xres)= 36.6527
percent var predicted/var original= 63.0 %

y0= -2.55, x trend= 0

var(y)= 26.3258 var(yp)= 4.7906 var(yres)= 21.4547
percent var predicted/var original= 18.2 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|------|-----------|--------|-------|--------|------|-------|-------|--------|--------|------|
| K1 | 0.0417807 | 1.700 | 1.313 | 0.119 | 1.78 | 61.44 | 86.14 | 7.17 | 64.50 | 1.7 |
| *M2 | 0.0805114 | 11.625 | 1.491 | 2.893 | 2.56 | 6.96 | 12.95 | 195.37 | 9.20 | 61 |
| M3 | 0.1207671 | 1.421 | 1.018 | -0.476 | 1.28 | 97.83 | 80.41 | 247.57 | 59.03 | 1.9 |
| M4 | 0.1610228 | 1.514 | 1.789 | 0.424 | 1.17 | 19.77 | 54.80 | 76.76 | 85.16 | 0.72 |
| 2MK5 | 0.2028035 | 0.572 | 0.580 | 0.024 | 0.39 | 75.25 | 44.45 | 242.38 | 65.60 | 0.97 |
| 2SK5 | 0.2084474 | 0.774 | 0.557 | 0.157 | 0.44 | 70.36 | 38.08 | 337.09 | 51.03 | 1.9 |
| M6 | 0.2415342 | 0.670 | 0.609 | 0.352 | 0.57 | 94.82 | 75.88 | 32.20 | 82.36 | 1.2 |
| 3MK7 | 0.2833149 | 0.261 | 0.593 | -0.071 | 0.41 | 65.75 | 95.51 | 82.67 | 146.59 | 0.19 |
| M8 | 0.3220456 | 0.507 | 0.466 | -0.031 | 0.45 | 6.36 | 55.92 | 182.73 | 57.69 | 1.2 |

total var= 125.453 pred var= 67.2067
percent total var predicted/var original= 53.6 %

Tidal Analysis of Current at LT-A
 Point Current-Meter Observations, 24.7 m
 Mooring Number: 7925

File Name: 7925vm-alh.nc
 nobs = 2712, ngood = 2711, record length (days) = 113.00
 start time: 07-Jun-2005 14:00:00
 rayleigh criterion = 1.0

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

x0= 0.568, x trend= 0

var(x)= 99.5489 var(xp)= 72.6293 var(xres)= 26.8558
 percent var predicted/var original= 73.0 %

y0= -0.489, x trend= 0

var(y)= 20.9053 var(yp)= 1.4483 var(yres)= 19.4967
 percent var predicted/var original= 6.9 %

ellipse parameters with 95%% CI estimates

| tide | freq | major | emaj | minor | emin | inc | einc | pha | epha | snr |
|-------|-----------|--------|-------|--------|------|--------|--------|--------|--------|----------|
| MM | 0.0015122 | 1.630 | 1.538 | -0.366 | 1.57 | 131.43 | 67.02 | 313.42 | 60.42 | 1.1 |
| MSF | 0.0028219 | 0.422 | 1.148 | -0.167 | 1.03 | 83.66 | 119.36 | 11.27 | 145.84 | 0.14 |
| ALP1 | 0.0343966 | 0.091 | 0.198 | -0.022 | 0.21 | 91.60 | 150.45 | 164.69 | 159.41 | 0.21 |
| 2Q1 | 0.0357064 | 0.106 | 0.205 | -0.010 | 0.21 | 109.22 | 126.04 | 137.37 | 162.38 | 0.27 |
| Q1 | 0.0372185 | 0.281 | 0.249 | -0.111 | 0.21 | 0.71 | 71.74 | 257.99 | 89.09 | 1.3 |
| O1 | 0.0387307 | 0.218 | 0.230 | 0.081 | 0.22 | 36.18 | 76.21 | 254.93 | 84.45 | 0.89 |
| NO1 | 0.0402686 | 0.283 | 0.260 | -0.078 | 0.23 | 15.03 | 59.41 | 154.93 | 80.25 | 1.2 |
| *K1 | 0.0417807 | 0.936 | 0.303 | -0.142 | 0.31 | 52.06 | 20.59 | 354.90 | 19.02 | 9.5 |
| J1 | 0.0432929 | 0.313 | 0.240 | -0.153 | 0.27 | 82.00 | 87.14 | 290.07 | 75.41 | 1.7 |
| OO1 | 0.0448308 | 0.163 | 0.159 | -0.048 | 0.18 | 92.05 | 92.43 | 136.87 | 71.03 | 1 |
| *UPS1 | 0.0463430 | 0.277 | 0.165 | -0.195 | 0.17 | 99.12 | 86.95 | 40.11 | 75.78 | 2.8 |
| EPS2 | 0.0761773 | 0.313 | 0.639 | 0.101 | 0.57 | 142.21 | 111.08 | 354.76 | 189.46 | 0.24 |
| MU2 | 0.0776895 | 0.563 | 0.657 | 0.197 | 0.65 | 50.97 | 91.73 | 162.74 | 92.03 | 0.73 |
| *N2 | 0.0789992 | 2.114 | 0.845 | 0.453 | 0.55 | 0.68 | 19.83 | 169.42 | 26.06 | 6.3 |
| *M2 | 0.0805114 | 12.206 | 0.930 | -1.047 | 0.57 | 3.05 | 2.91 | 199.39 | 4.40 | 1.7e+002 |
| L2 | 0.0820236 | 0.777 | 0.645 | 0.032 | 0.48 | 4.70 | 39.85 | 271.82 | 62.53 | 1.5 |
| *S2 | 0.0833333 | 1.690 | 0.868 | -0.227 | 0.57 | 3.16 | 23.19 | 245.10 | 32.40 | 3.8 |
| ETA2 | 0.0850736 | 0.164 | 0.402 | -0.097 | 0.35 | 6.17 | 92.16 | 140.10 | 195.33 | 0.17 |
| MO3 | 0.1192421 | 0.032 | 0.128 | -0.003 | 0.13 | 7.71 | 105.63 | 283.27 | 234.50 | 0.061 |
| M3 | 0.1207671 | 0.079 | 0.176 | -0.023 | 0.15 | 160.40 | 109.62 | 278.73 | 187.79 | 0.2 |
| MK3 | 0.1222921 | 0.251 | 0.183 | 0.176 | 0.18 | 44.13 | 93.32 | 330.96 | 87.67 | 1.9 |
| SK3 | 0.1251141 | 0.209 | 0.188 | -0.137 | 0.15 | 31.01 | 77.51 | 11.92 | 87.48 | 1.2 |
| *MN4 | 0.1595106 | 0.397 | 0.259 | -0.221 | 0.24 | 137.91 | 65.88 | 201.63 | 65.64 | 2.3 |
| *M4 | 0.1610228 | 0.485 | 0.242 | 0.141 | 0.31 | 119.26 | 51.54 | 226.42 | 44.03 | 4 |
| SN4 | 0.1623326 | 0.303 | 0.282 | -0.200 | 0.23 | 19.94 | 83.10 | 74.83 | 106.29 | 1.2 |
| MS4 | 0.1638447 | 0.195 | 0.232 | 0.006 | 0.22 | 124.52 | 98.62 | 279.03 | 88.21 | 0.71 |
| S4 | 0.1666667 | 0.113 | 0.189 | 0.040 | 0.18 | 157.73 | 93.40 | 293.24 | 168.39 | 0.36 |
| 2MK5 | 0.2028035 | 0.188 | 0.143 | -0.026 | 0.13 | 24.09 | 40.72 | 41.55 | 70.47 | 1.7 |
| 2SK5 | 0.2084474 | 0.097 | 0.125 | -0.068 | 0.11 | 174.86 | 93.89 | 144.72 | 135.34 | 0.6 |
| *2MN6 | 0.2400221 | 0.240 | 0.166 | 0.082 | 0.19 | 114.75 | 70.86 | 310.59 | 55.28 | 2.1 |
| *M6 | 0.2415342 | 0.301 | 0.193 | 0.041 | 0.22 | 54.71 | 45.76 | 331.87 | 41.24 | 2.4 |
| 2MS6 | 0.2443561 | 0.115 | 0.182 | -0.034 | 0.15 | 130.26 | 89.36 | 85.91 | 115.99 | 0.4 |
| 2SM6 | 0.2471781 | 0.065 | 0.144 | -0.052 | 0.13 | 113.52 | 139.21 | 238.20 | 157.84 | 0.2 |
| 3MK7 | 0.2833149 | 0.073 | 0.112 | 0.034 | 0.10 | 53.13 | 113.98 | 62.57 | 117.31 | 0.43 |
| M8 | 0.3220456 | 0.127 | 0.095 | 0.043 | 0.10 | 137.33 | 54.20 | 59.19 | 50.05 | 1.8 |

total var= 120.4542 pred var= 74.0775
 percent total var predicted/var original= 61.5 %