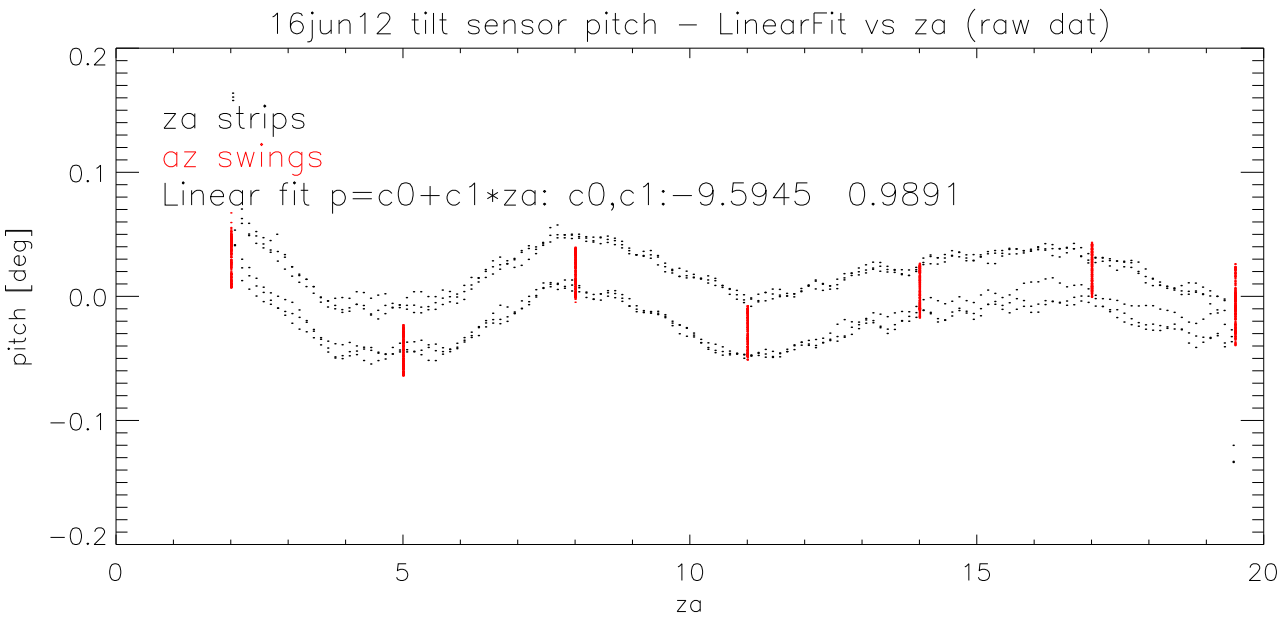
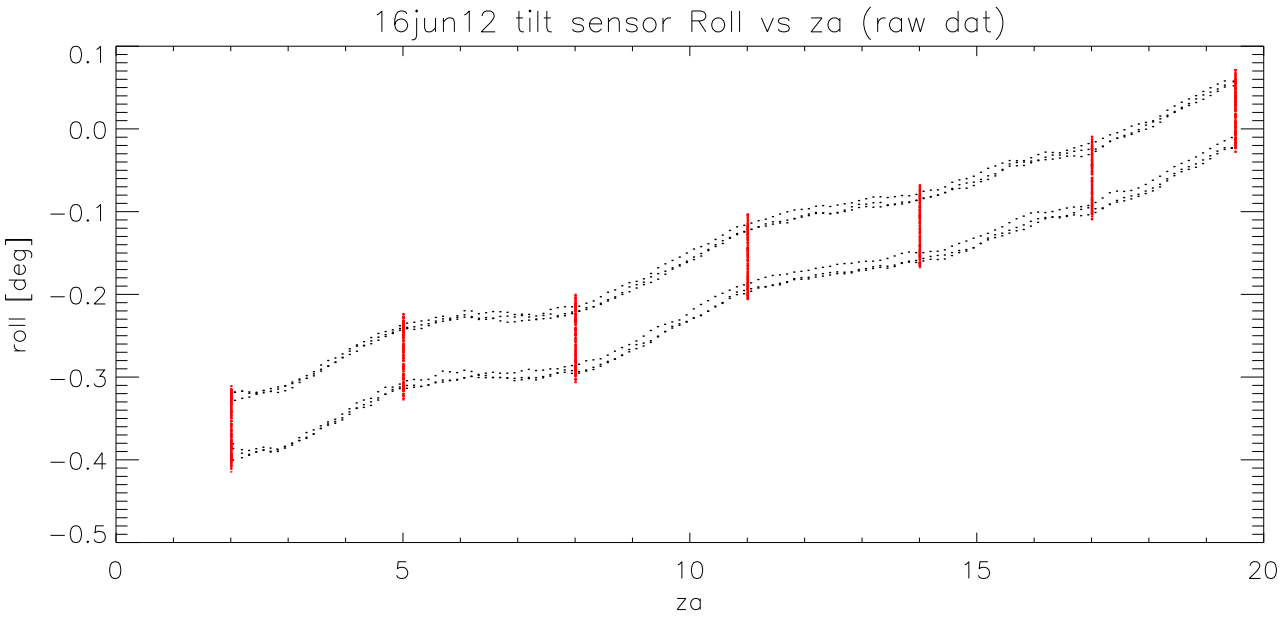
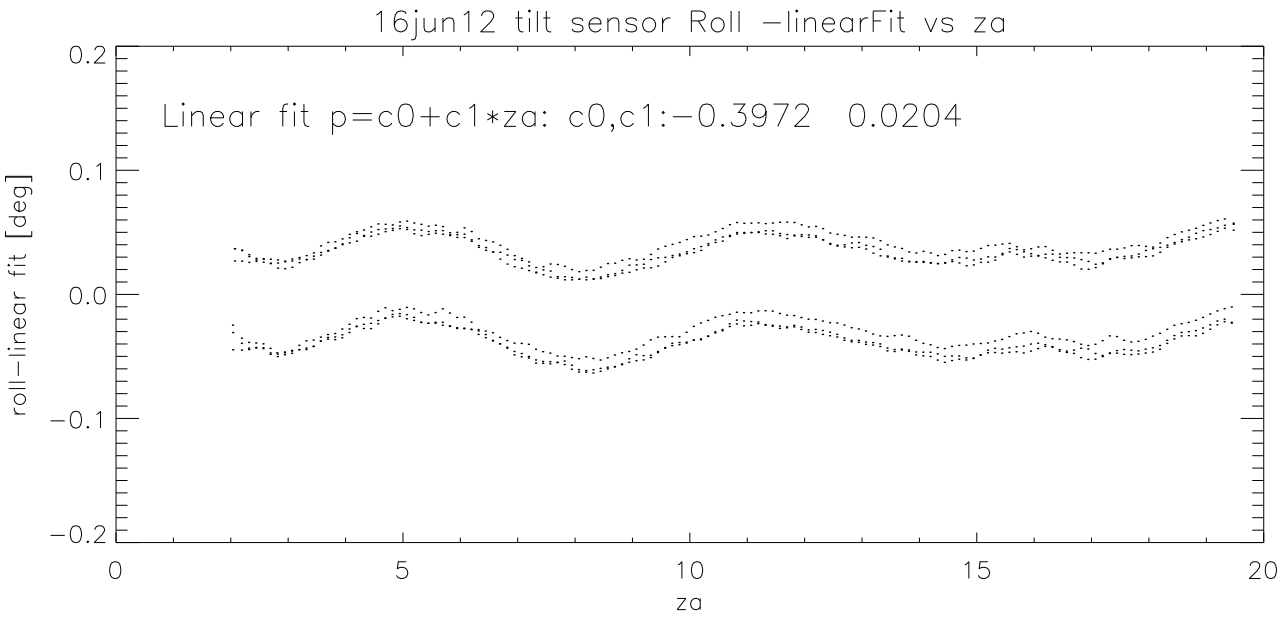
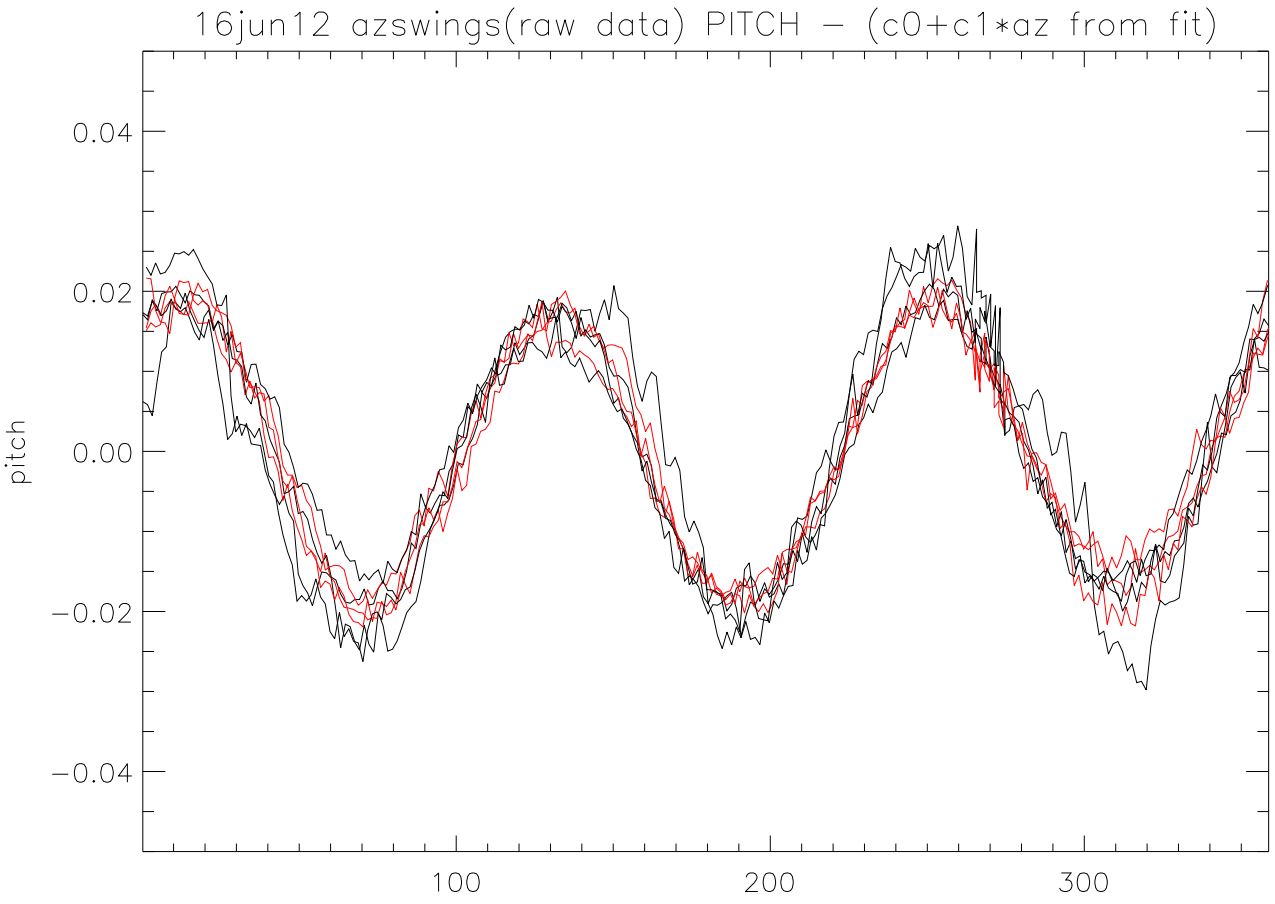
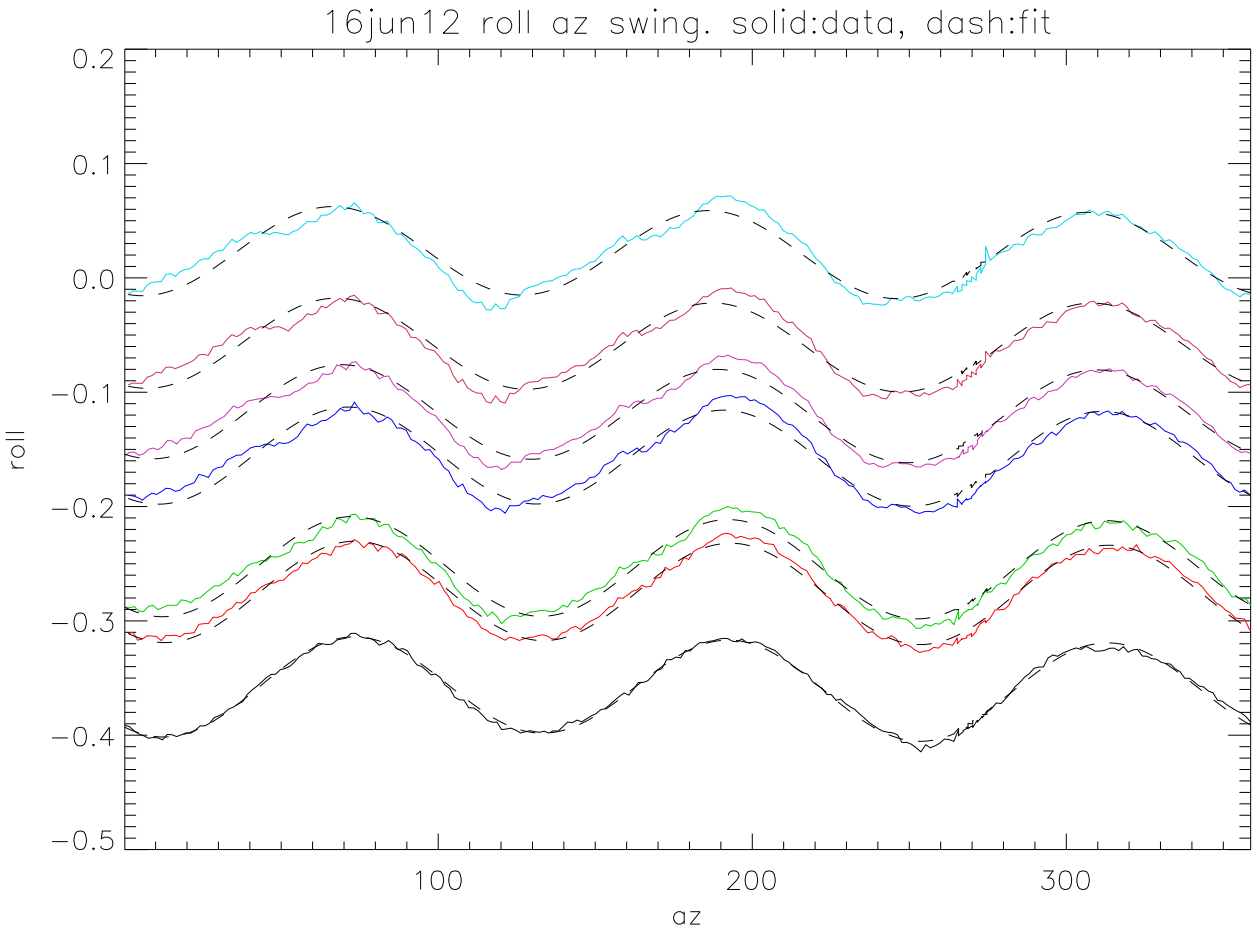

16jun12 tilt sensor pitch – LinearFit vs za (raw dat)
za strips
az swings
Linear fit p=c0+c1*za: c0,c1:−9.5945 0.9891
pitch [deg]
0.2
0.1
0.0
−0.1
−0.2
0
5
10
15
20
za


16jun12 tilt sensor Roll vs za (raw dat)
roll [deg]
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
5
10
15
20
za


16jun12 tilt sensor Roll –linearFit vs za
Linear fit p=c0+c1*za: c0,c1:−0.3972 0.0204
roll−linear fit [deg]
0.2
0.1
0.0
−0.1
−0.2
0
5
10
15
20
za


16jun12 azswings(raw data) PITCH – (c0+c1*az from fit)
pitch
0.04
0.02
0.00
−0.02
−0.04
100
200
300



Roll = −0.3555 + 0.0000*za −7.98e−06*az +
za: 2.0 0.0037*sin(az − 26.0) +
0.0423*sin(3az − 129.1)

Roll = −0.2756 + 0.0000*za +2.40e−07*az +
za: 5.0 0.0020*sin(az − 12.2) +
0.0435*sin(3az − 130.1)

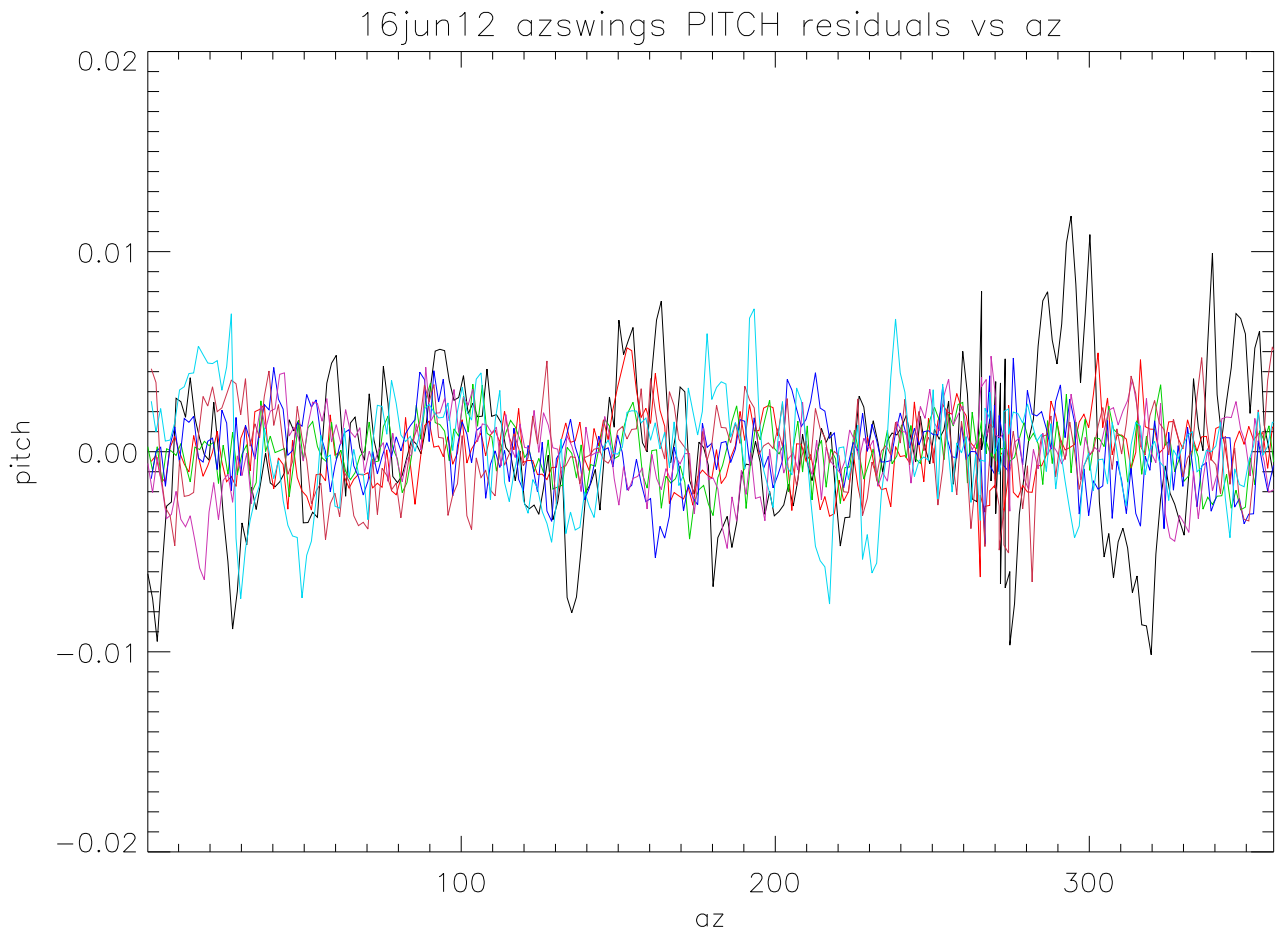
Roll = −0.2564 + 0.0000*za +5.47e−06*az +
za: 8.0 0.0021*sin(az − 337.5) +
0.0432*sin(3az − 127.6)

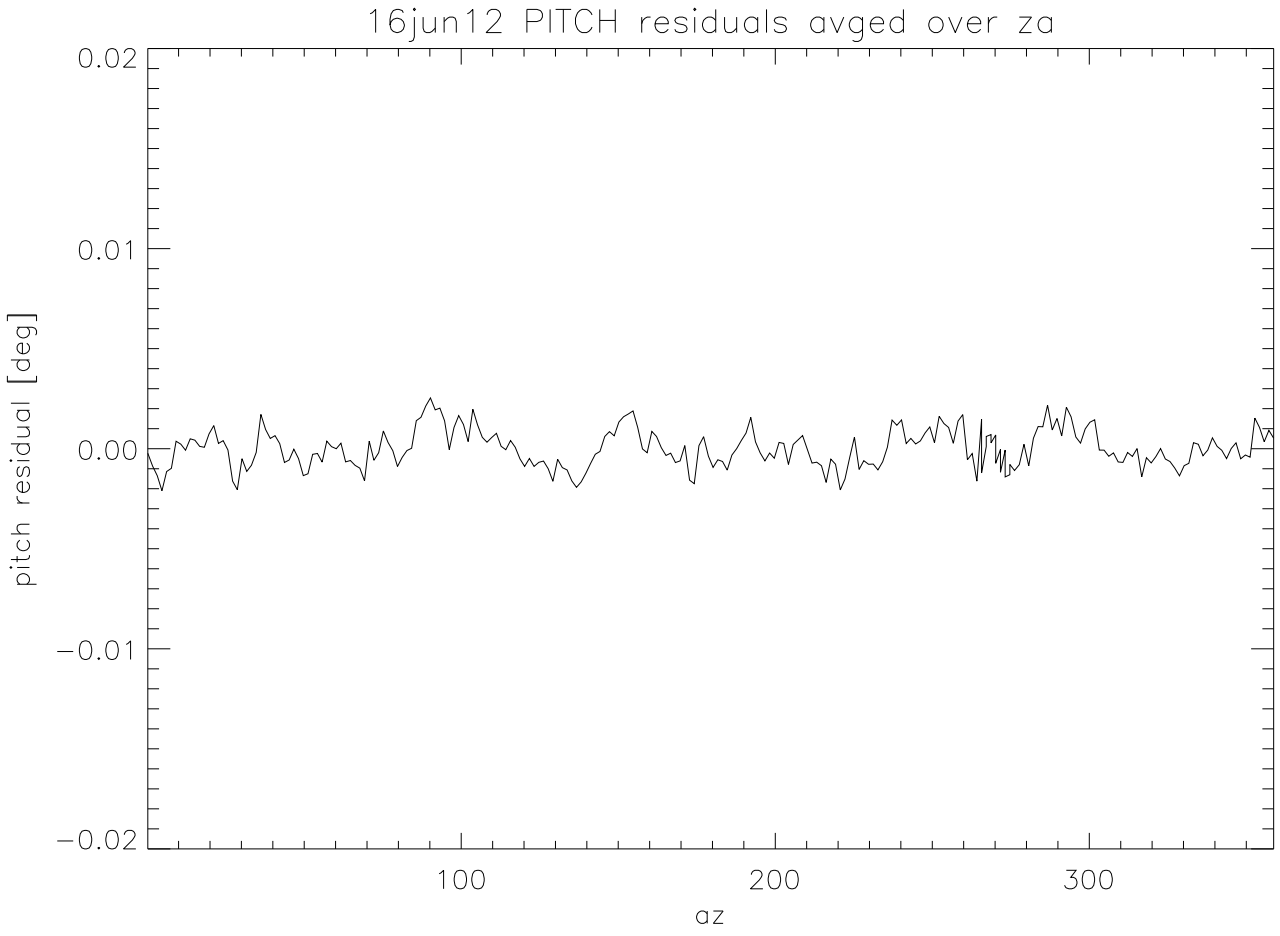
Roll = −0.1605 + 0.0000*za +7.89e−06*az +
za:11.0 0.0022*sin(az − 329.5) +
0.0419*sin(3az − 123.3)

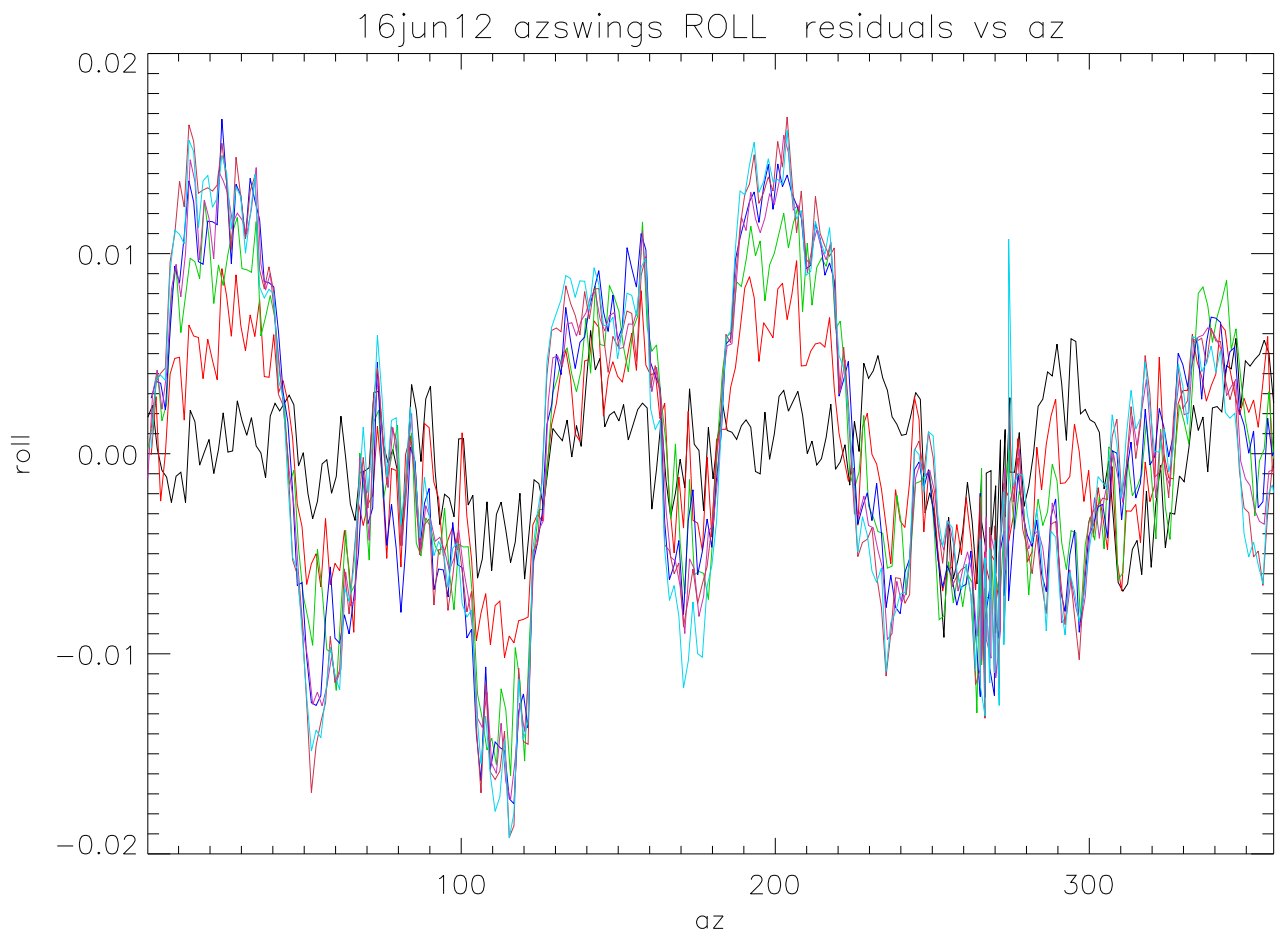
Roll = −0.1221 + 0.0000*za +6.32e−06*az +
za:14.0 0.0030*sin(az − 327.2) +
0.0405*sin(3az − 117.7)

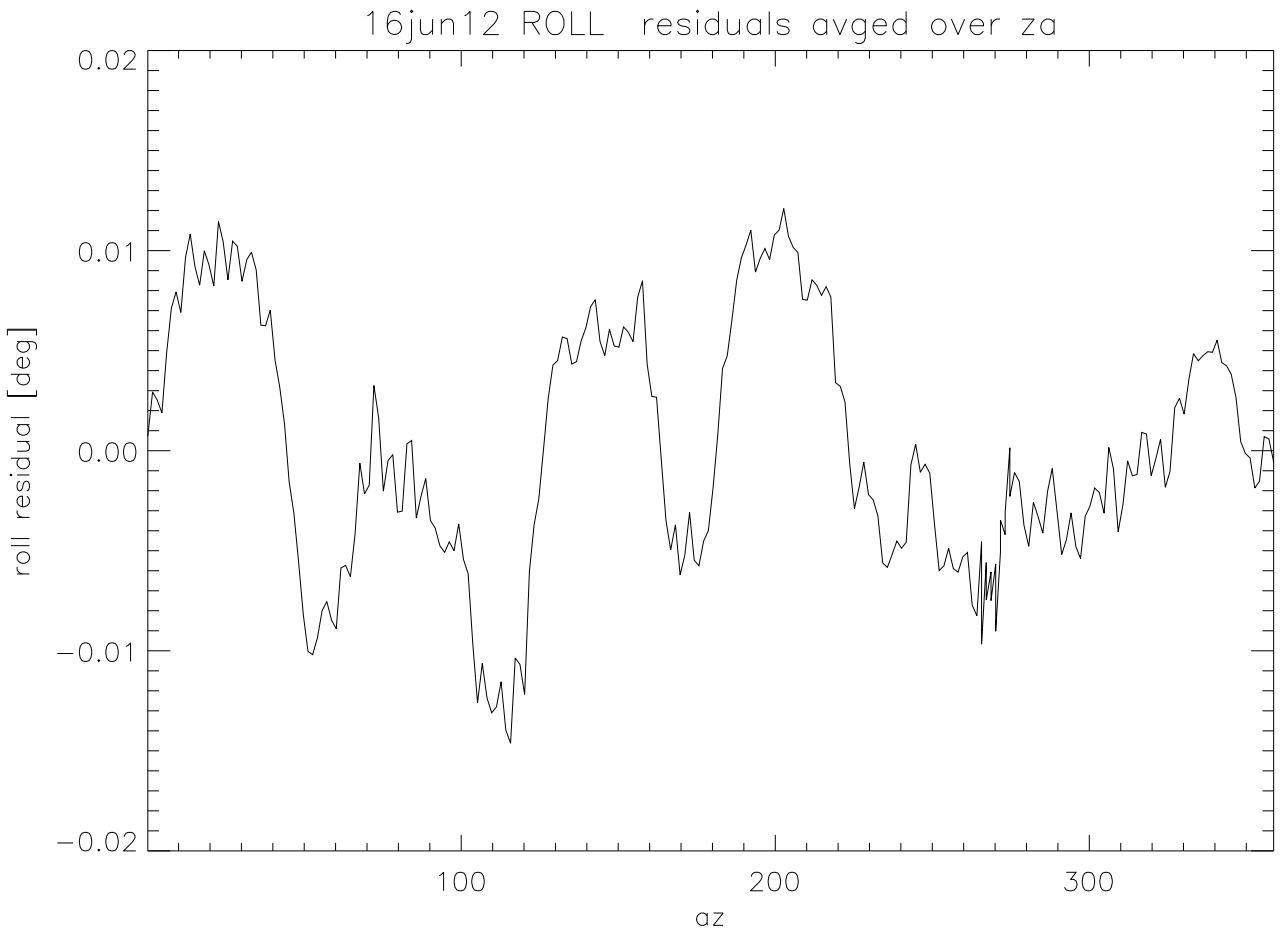
Roll = −0.0629 + 0.0000*za +7.95e−06*az +
za:17.0 0.0031*sin(az − 317.6) +
0.0389*sin(3az − 112.9)

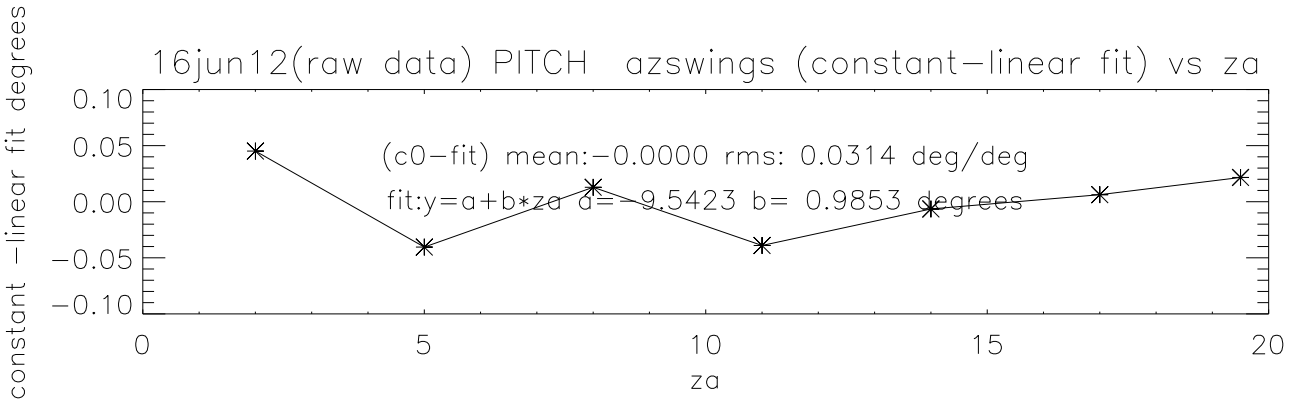
Roll = 0.0182 + 0.0000*za +7.53e−06*az +
za:19.5 0.0028*sin(az − 332.5) +
0.0381*sin(3az − 108.8)

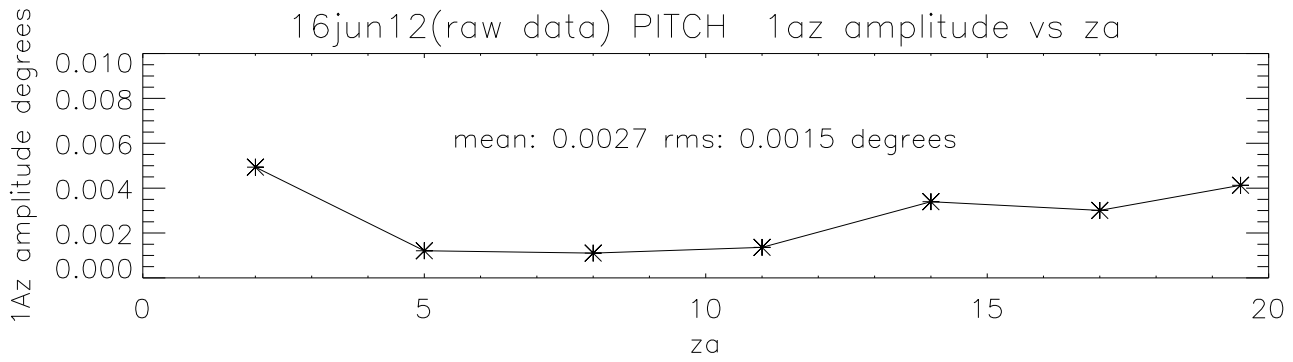

16jun12 azswings PITCH residuals vs az
0.02
0.01
0.00
−0.01
−0.02
pitch
100
200
300
az

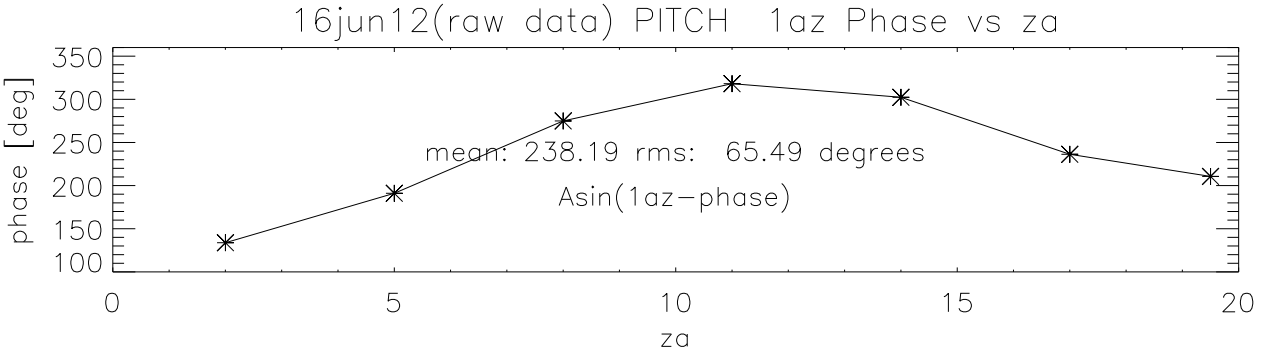

16jun12 PITCH residuals avged over za
0.02
0.01
0.00
−0.01
−0.02
pitch residual [deg]
100
200
300
az

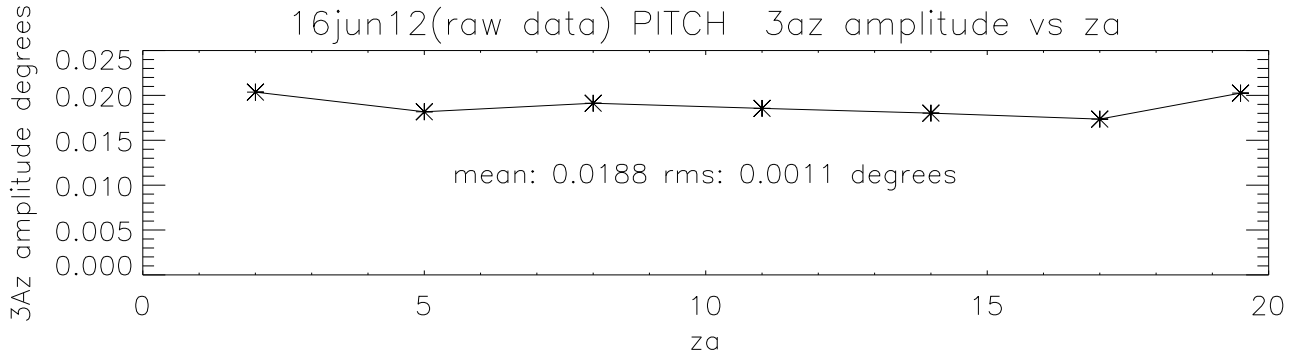

16jun12 azswings ROLL residuals vs az
0.02
0.01
0.00
−0.01
−0.02
roll
100
200
300
az

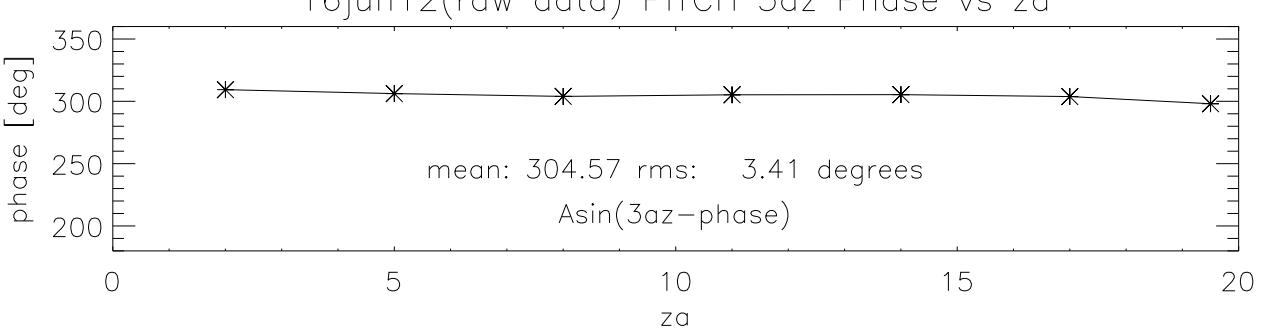

16jun12 ROLL residuals avged over za
0.02
0.01
0.00
−0.01
−0.02
roll residual [deg]
100
200
300
az

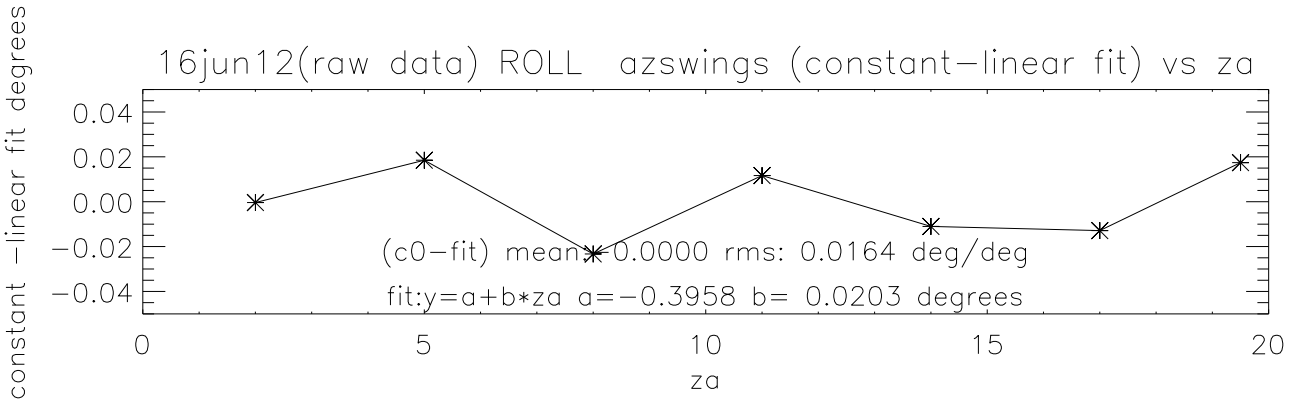

16jun12(raw data) PITCH azswings (constant−linear fit) vs za
constant −linear fit degrees
0.10
0.05
0.00
−0.05
−0.10
(c0−fit) mean:−0.0000 rms: 0.0314 deg/deg
fit:y=a+b*za a= −9.5423 b= 0.9853 degrees
0
5
10
15
20
za

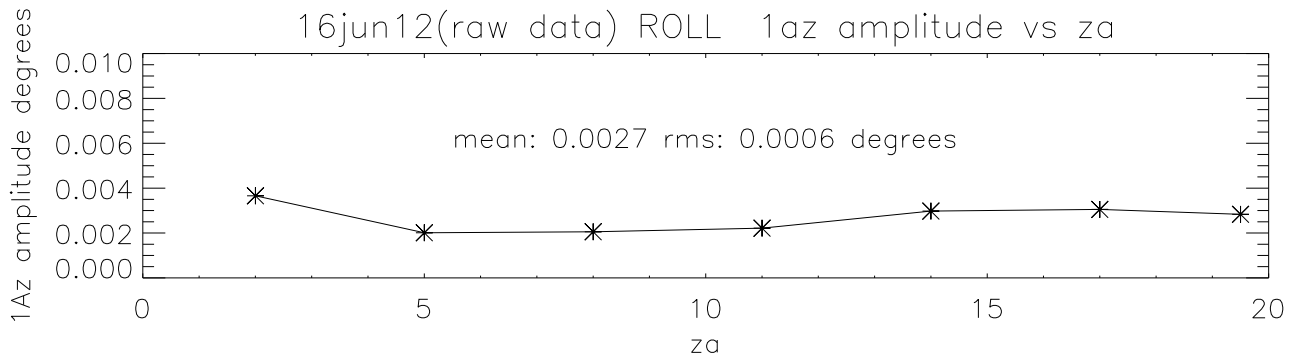

16jun12(raw data) PITCH 1az amplitude vs za
1Az amplitude degrees
0.010
0.008
0.006
0.004
0.002
0.000
mean: 0.0027 rms: 0.0015 degrees
0
5
10
15
20
za

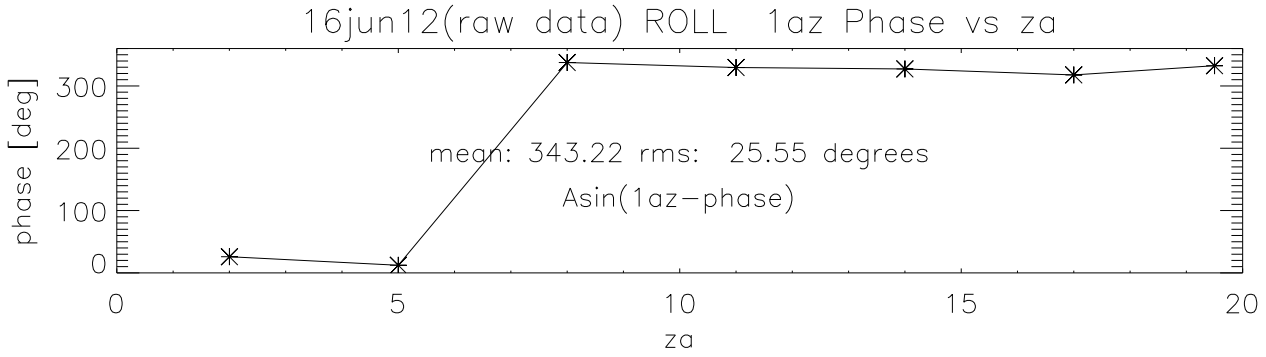

16jun12(raw data) PITCH 1az Phase vs za
phase [deg]
350
300
250
200
150
100
mean: 238.19 rms: 65.49 degrees
Asin(1az−phase)
0
5
10
15
20
za

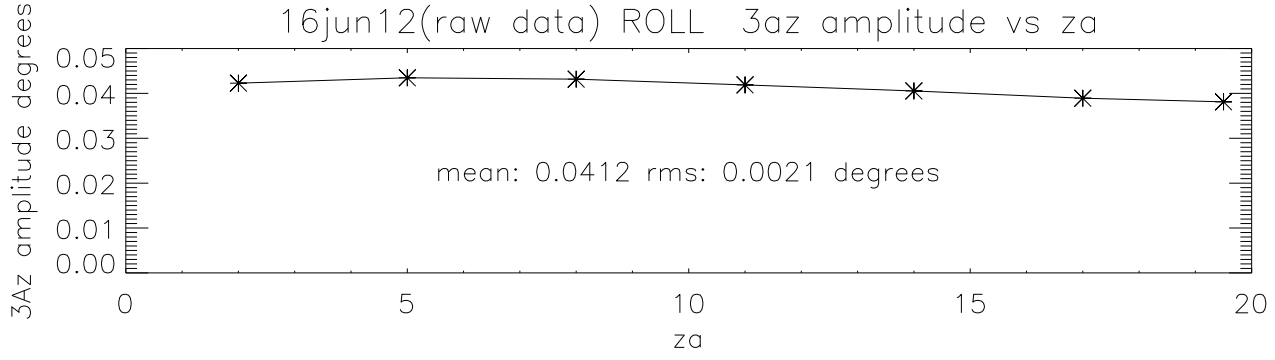

16jun12(raw data) PITCH 3az amplitude vs za
3Az amplitude degrees
0.025
0.020
0.015
0.010
0.005
0.000
mean: 0.0188 rms: 0.0011 degrees
0
5
10
15
20
za

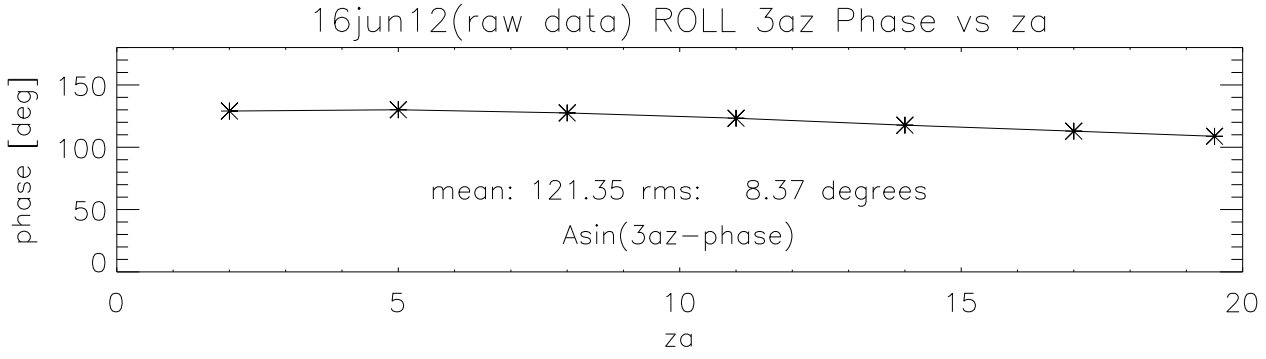

16jun12(raw data) PITCH 3az Phase vs za
phase [deg]
350
300
250
200
mean: 304.57 rms: 3.41 degrees
Asin(3az−phase)
0
5
10
15
20
za


16jun12(raw data) ROLL azswings (constant−linear fit) vs za
constant −linear fit degrees
0.04
0.02
0.00
−0.02
−0.04
(c0−fit) mean: −0.0000 rms: 0.0164 deg/deg
fit:y=a+b*za a=−0.3958 b= 0.0203 degrees
0
5
10
15
20
za


16jun12(raw data) ROLL 1az amplitude vs za
1Az amplitude degrees
0.010
0.008
0.006
0.004
0.002
0.000
mean: 0.0027 rms: 0.0006 degrees
0
5
10
15
20
za


16jun12(raw data) ROLL 1az Phase vs za
phase [deg]
300
200
100
0
mean: 343.22 rms: 25.55 degrees
Asin(1az−phase)
0
5
10
15
20
za


16jun12(raw data) ROLL 3az amplitude vs za
3Az amplitude degrees
0.05
0.04
0.03
0.02
0.01
0.00
mean: 0.0412 rms: 0.0021 degrees
0
5
10
15
20
za


16jun12(raw data) ROLL 3az Phase vs za
phase [deg]
150
100
50
0
mean: 121.35 rms: 8.37 degrees
Asin(3az−phase)
0
5
10
15
20
za