

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9942 - L2 Version 2
Chandra X-Ray Center

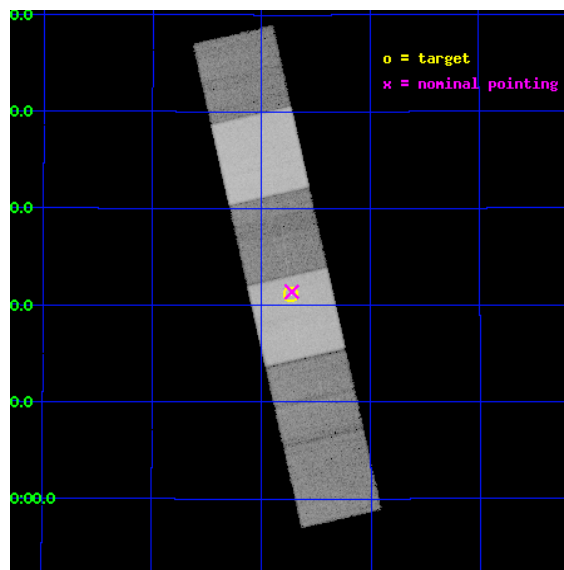
L2 Processing Date : Jun 3 2012

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1 Front

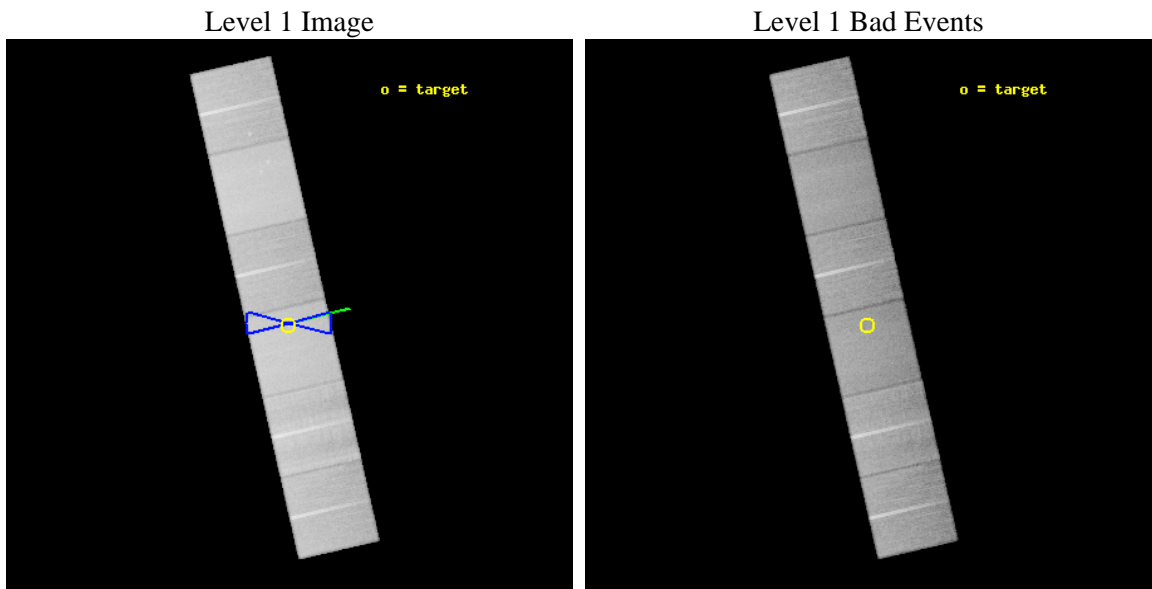
seq_num	200556	Sequence number
obs_id	9942	Observation id
title	Testing the Colliding Wind Paradigm: X-rays from the Wolf-Rayet Binary System WR 147	Proposal title
observer	Dr Svetozar ZHEKOV	Principal investigator
object	WR 147	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	309.182083	Observer's specified target RA [deg]
dec_targ	40.352028	Observer's specified target Dec [deg]
ra_nom	309.18003778493	Nominal RA [deg]
dec_nom	40.356620700831	Nominal Dec [deg]
roll_nom	77.157969645028	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29945.599888504	Sum of GTIs [s]
livetime	29566.41067164	Livetime [s]
ontime4	29945.599888504	Sum of GTIs [s]
ontime5	29945.599888504	Sum of GTIs [s]
ontime6	29942.358888268	Sum of GTIs [s]
ontime7	29945.599888504	Sum of GTIs [s]
ontime8	29942.35891813	Sum of GTIs [s]
ontime9	29939.117967725	Sum of GTIs [s]
l2events	531319	Number of level 2 events



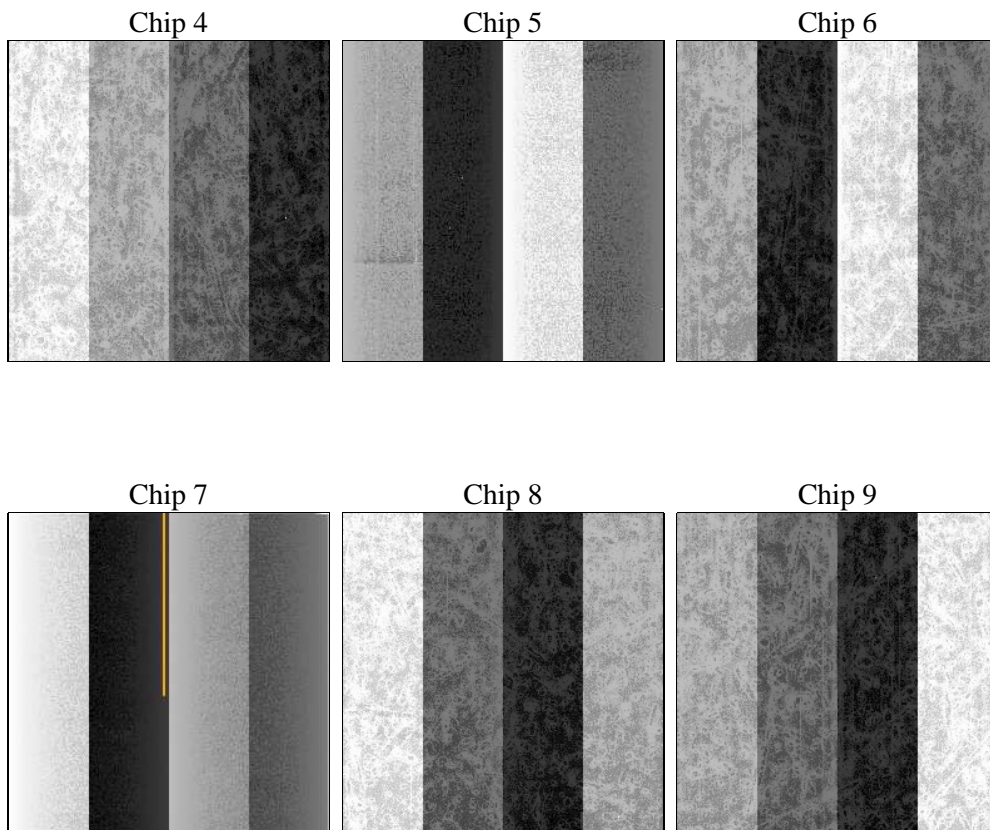
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	29945.599888504	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	29945.599888504	Sum of GTIs [s]
date	2012-06-03T07:23:44	Date and time of file creation	ontime5	29945.599888504	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	29942.358888268	Sum of GTIs [s]
			ontime7	29945.599888504	Sum of GTIs [s]
			ontime8	29942.35891813	Sum of GTIs [s]
			ontime9	29939.117967725	Sum of GTIs [s]
			l1events	2295657	Number of level 1 events

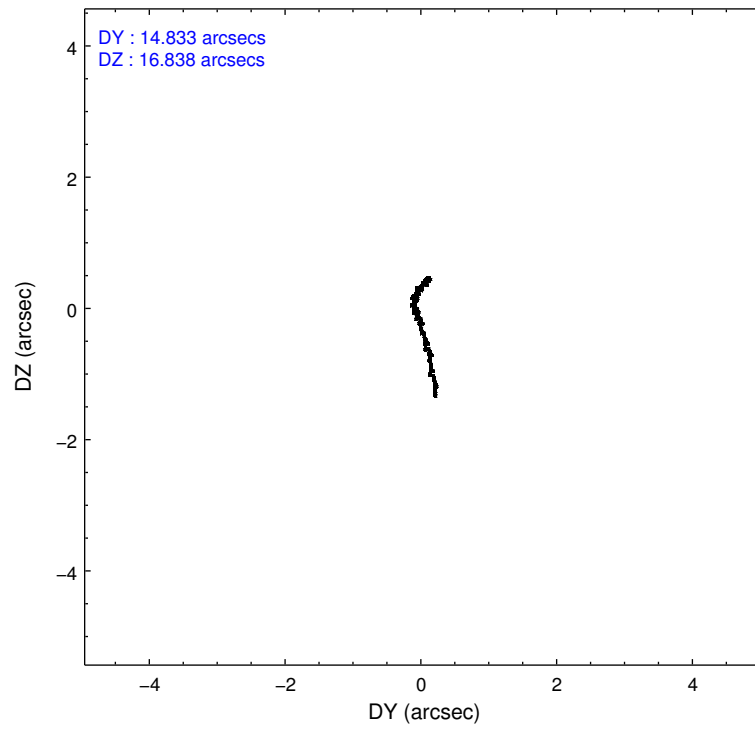
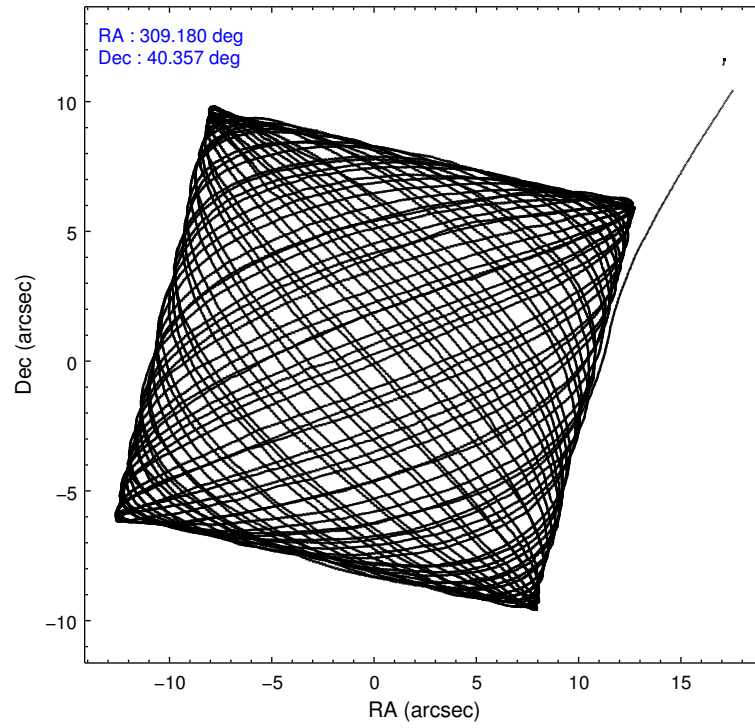
2.1.4 Events

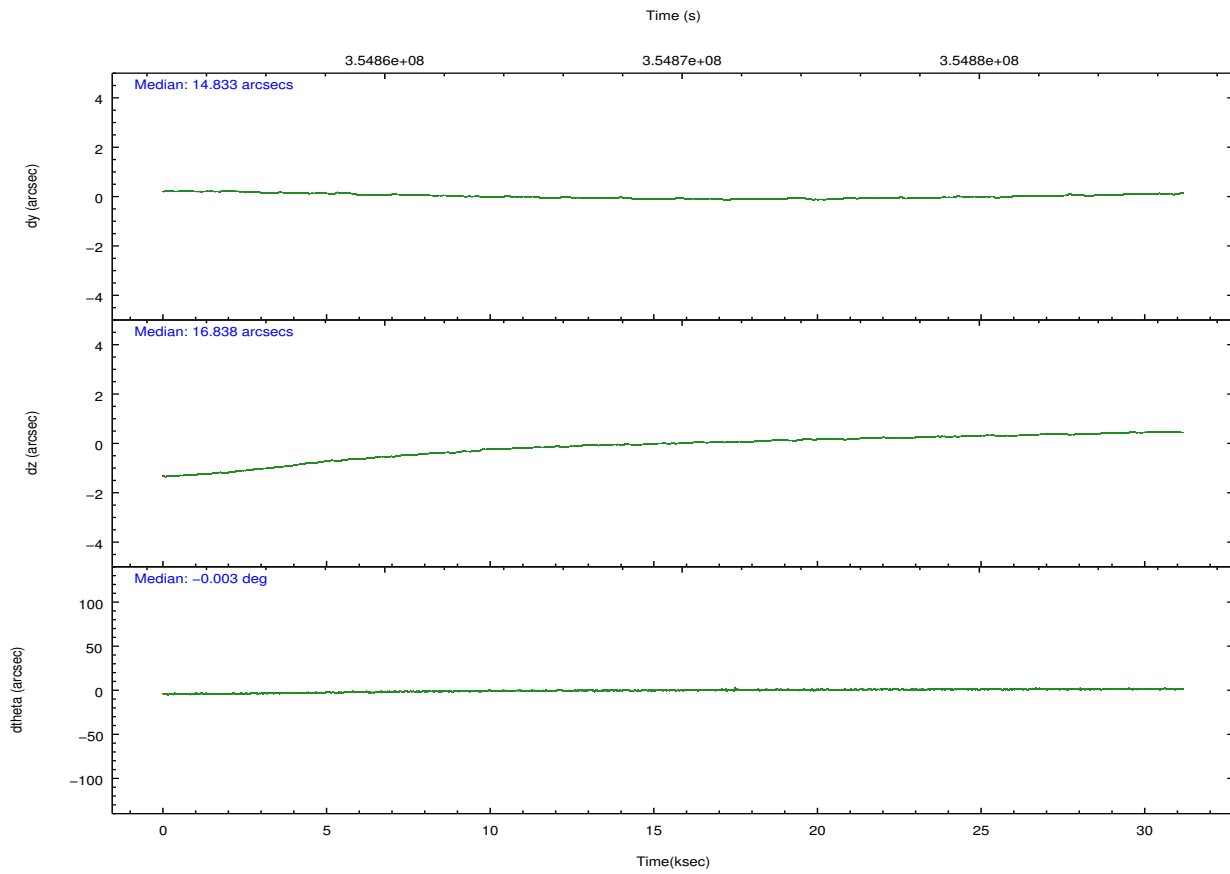
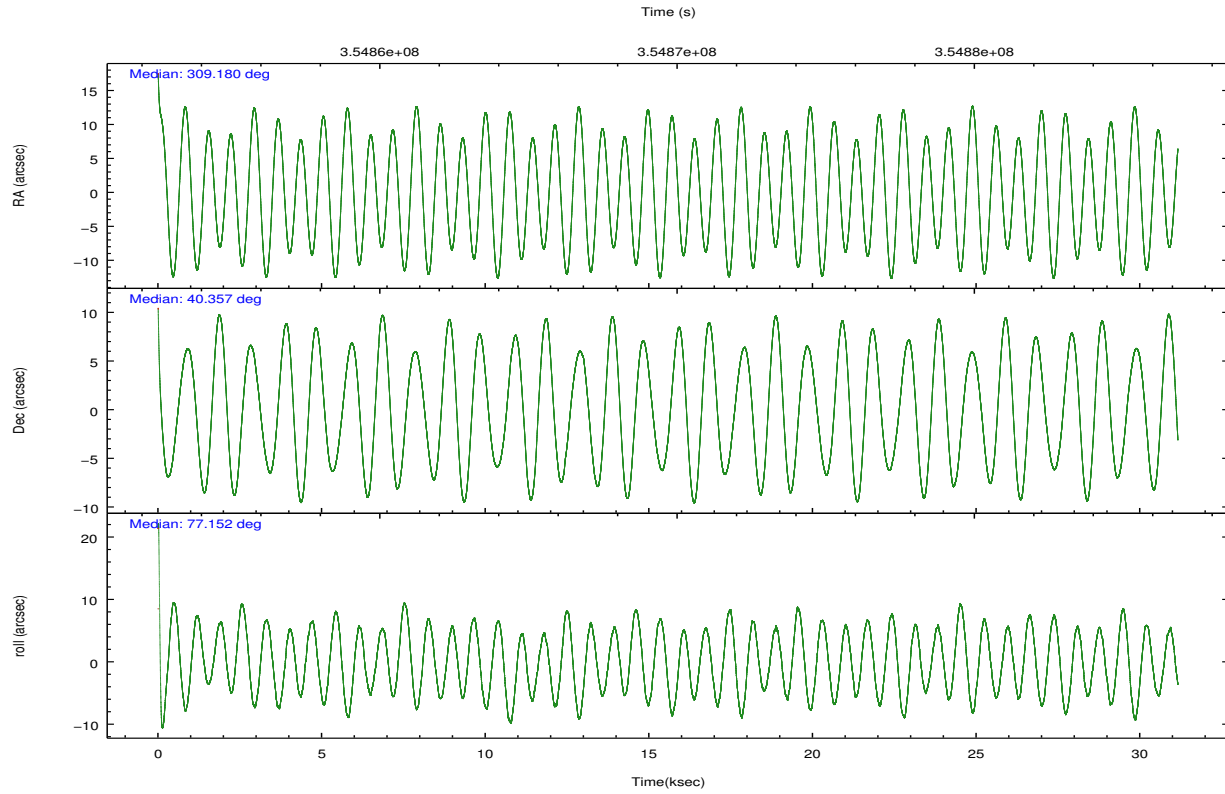
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	347921	479322	313701	438281	400770	315662	grade 0 events	18605	12587	14552	15169	29120	16099
rejected events	306434	261540	275665	255186	307117	275998		5%	2%	4%	3%	7%	5%
rejected %	88%	54%	87%	58%	76%	87%	grade 1 events	405	624	165	469	336	196
								0%	0%	0%	0%	0%	0%
							grade 2 events	8788	68714	8658	37920	21371	8151
								2%	14%	2%	8%	5%	2%
							grade 3 events	3932	8368	3575	15337	9570	3876
								1%	1%	1%	3%	2%	1%
							grade 4 events	3902	8062	3538	14959	9039	3756
								1%	1%	1%	3%	2%	1%
							grade 5 events	14717	35052	14925	40938	20351	16329
								4%	7%	4%	9%	5%	5%
							grade 6 events	6262	120077	7718	99735	24574	7789
								1%	25%	2%	22%	6%	2%
							grade 7 events	291310	225838	260570	213754	286409	259466
								83%	47%	83%	48%	71%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	309.191070	309.1800377849273	CCD I2 on	N	N
[deg] Pointing Dec	40.330606	40.35662070083082	CCD I3 on	N	N
[deg] Pointing Roll	76.994190	77.15796964502815	CCD S0 on	O1	Y
[deg] Roll angle	90.000000	90.000000	CCD S1 on	Y	Y
[deg] Roll tolerance	15.000000	15.000000	CCD S2 on	Y	Y
Roll constraint allows 180D rotation	Y	Y	CCD S3 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S4 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S5 on	O2	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	Number of optional ACIS chips dropped	0	0
[mm] SIM translation stage offset	0	0.00754346686406393	On-chip summing requested	N	N
[s] Observation start time (MET)	354855280.184000	354853060.51691	Subarray requested	NONE	NONE
Observation start date	2009-03-31T02:53:34	2009-03-31T02:17:40	Alternating exposures requested	N	N
[s] Observation end time (MET)	354885280.184000	354885980.44355	[s] Primary exposure time	0.000000	3.2
Observation end date	2009-03-31T11:13:34	2009-03-31T11:26:20			
Read mode	TIMED	TIMED			

2.3 Aspect



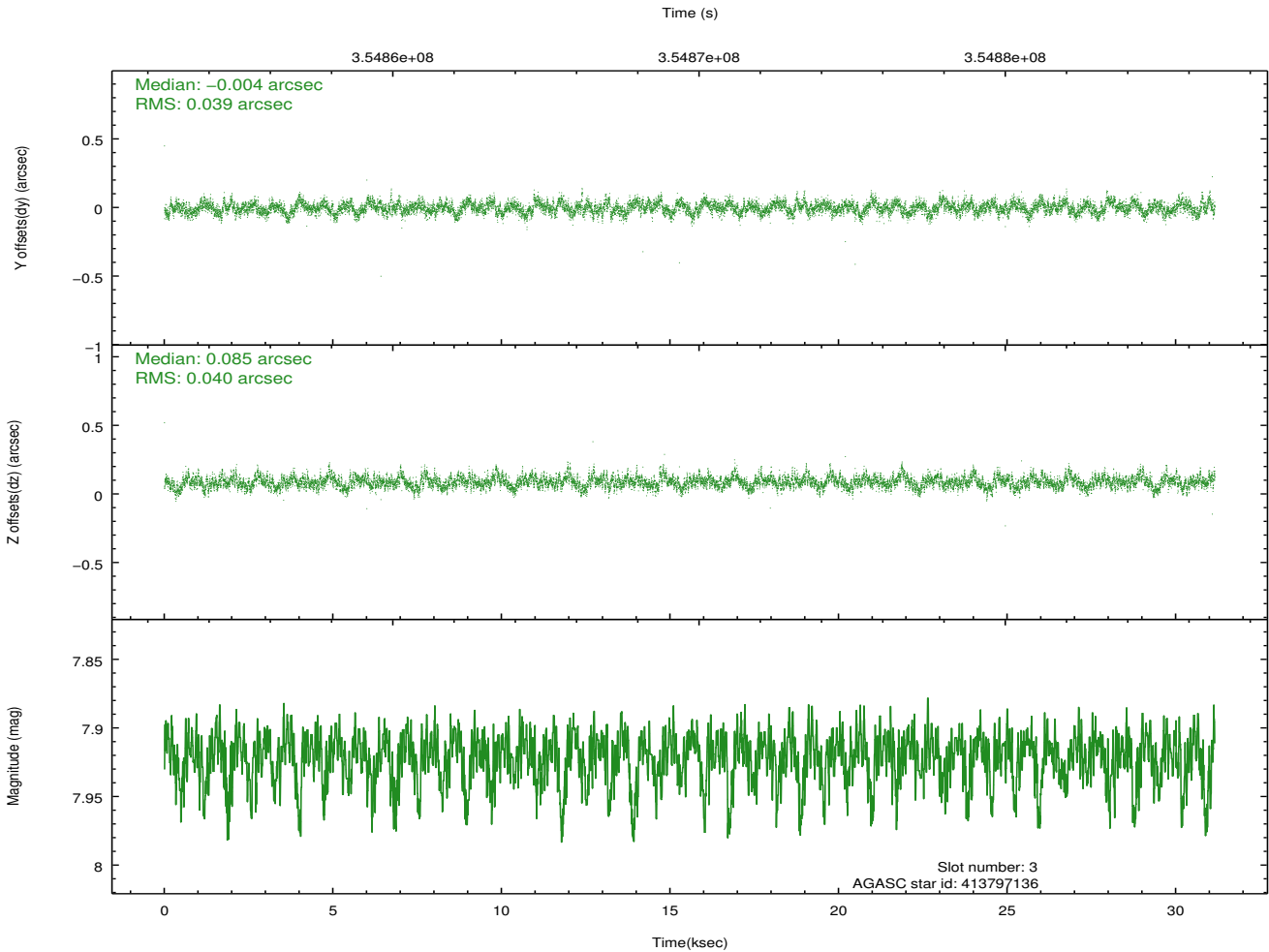
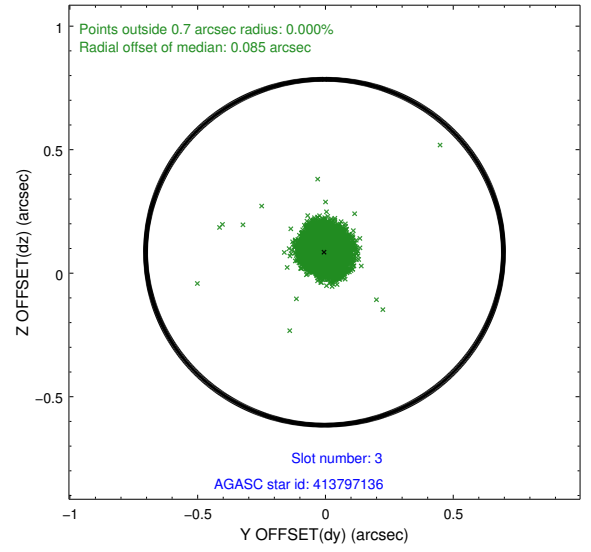
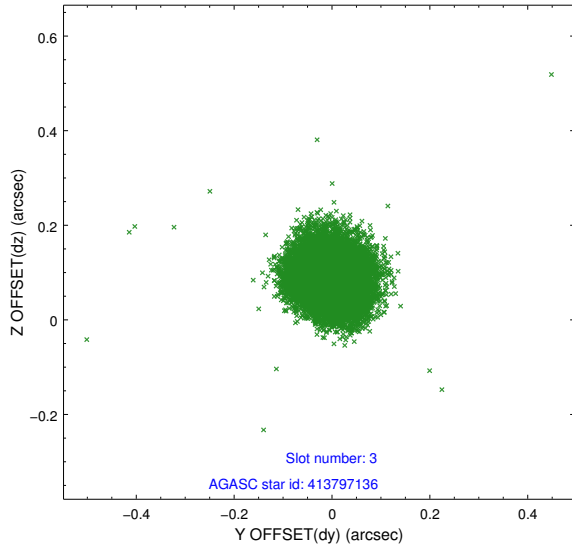


Slot Statistics

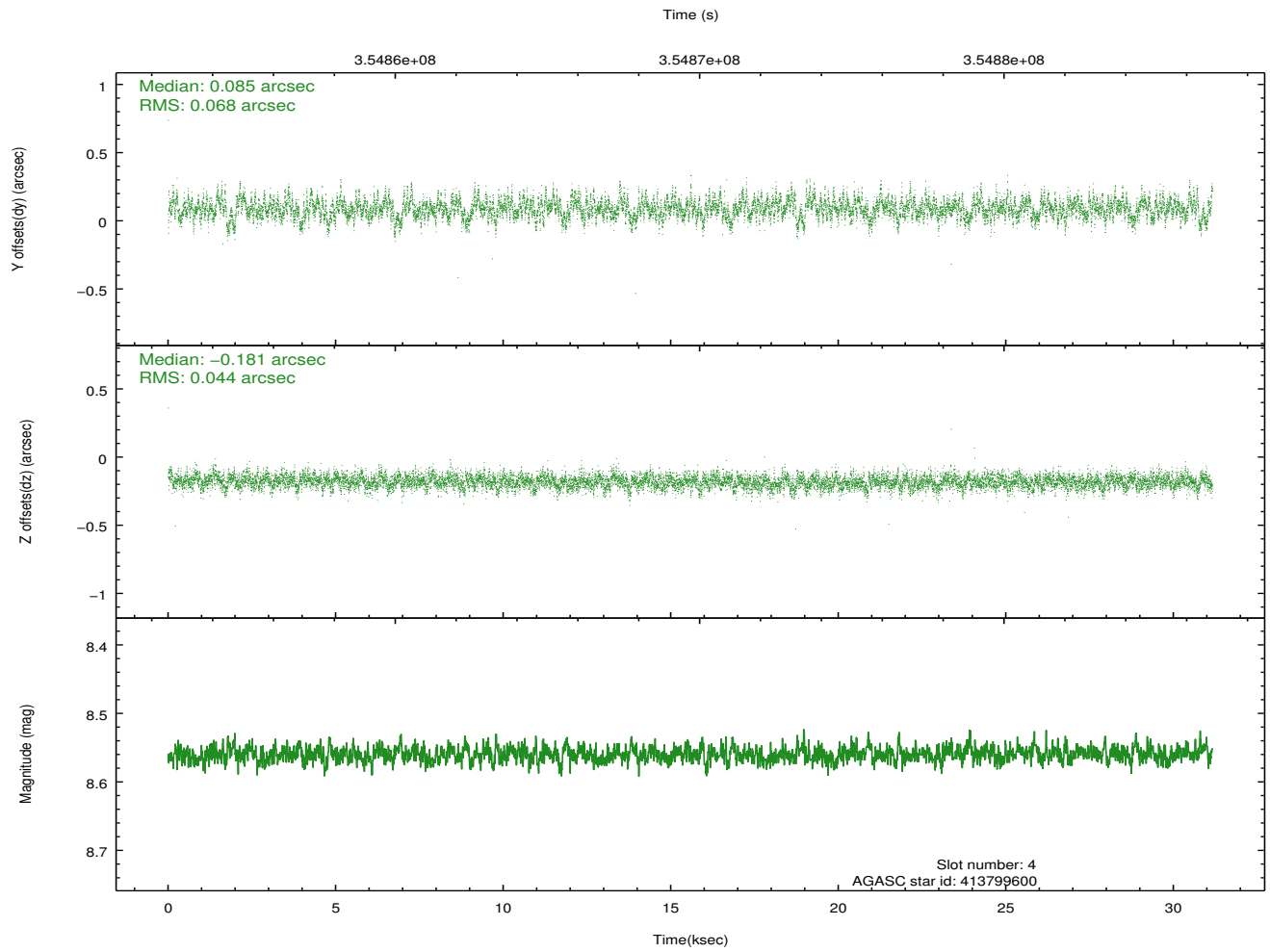
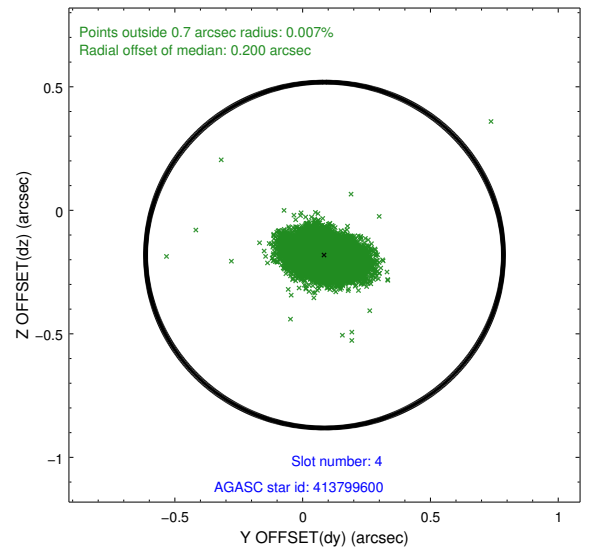
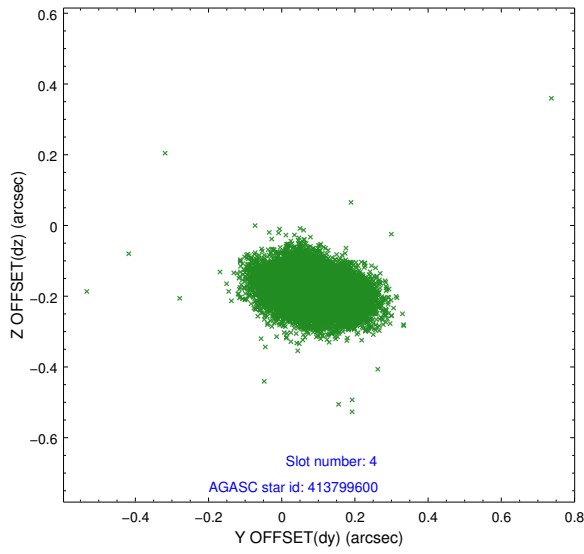
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.90	7601	-0.065	-0.026	0.015	0.035	0.000000	0.000000	-767.91	-1738.13
1	FID	ACIS-S-4	6.98	7601	0.179	0.039	0.010	0.026	0.000000	0.000000	2145.61	170.30
2	FID	ACIS-S-5	7.01	7601	-0.143	-0.003	0.014	0.027	0.000000	0.000000	-1820.72	164.06
3	GUIDE	413797136	7.92	15192	-0.004	0.085	0.059	0.096	309.356621	39.806092	-1736.15	-870.74
4	GUIDE	413799600	8.56	15198	0.085	-0.181	0.083	0.144	308.280373	39.866891	-2180.46	2078.96
5	GUIDE	413803744	8.83	15187	-0.091	-0.174	0.077	0.124	308.586342	40.704904	946.94	1912.84
6	GUIDE	415508568	9.00	15120	-0.158	0.157	0.078	0.124	310.015866	40.581838	1399.24	-1990.56
7	GUIDE	413794944	7.62	15198	0.166	0.114	0.056	0.090	309.554319	39.690543	-2016.25	-1498.42

2.4 Star Slots

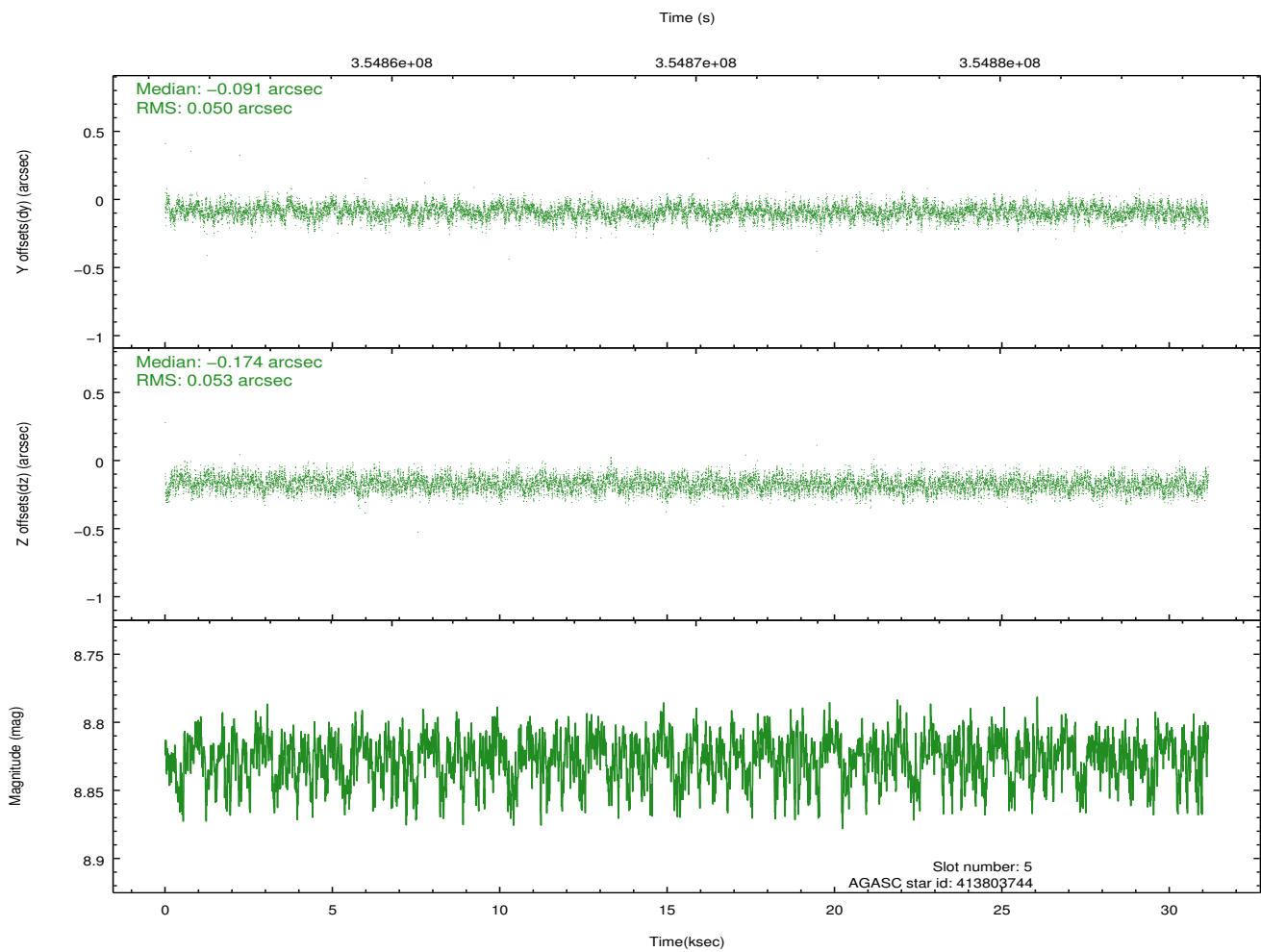
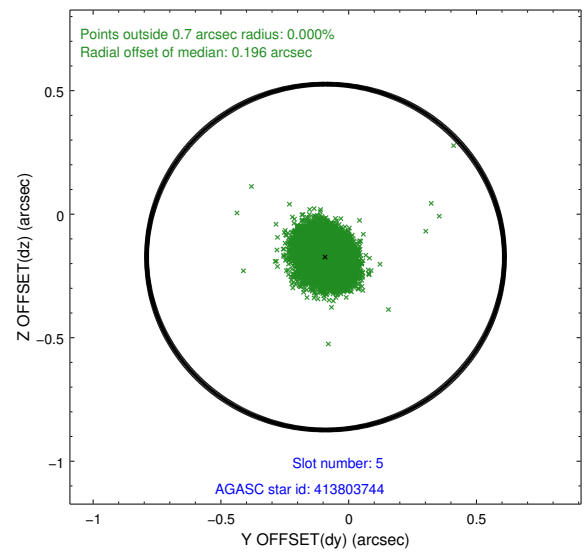
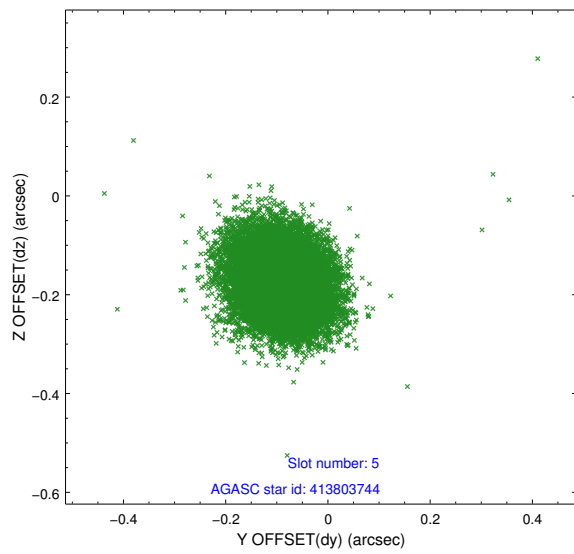
2.4.1 Slot 3



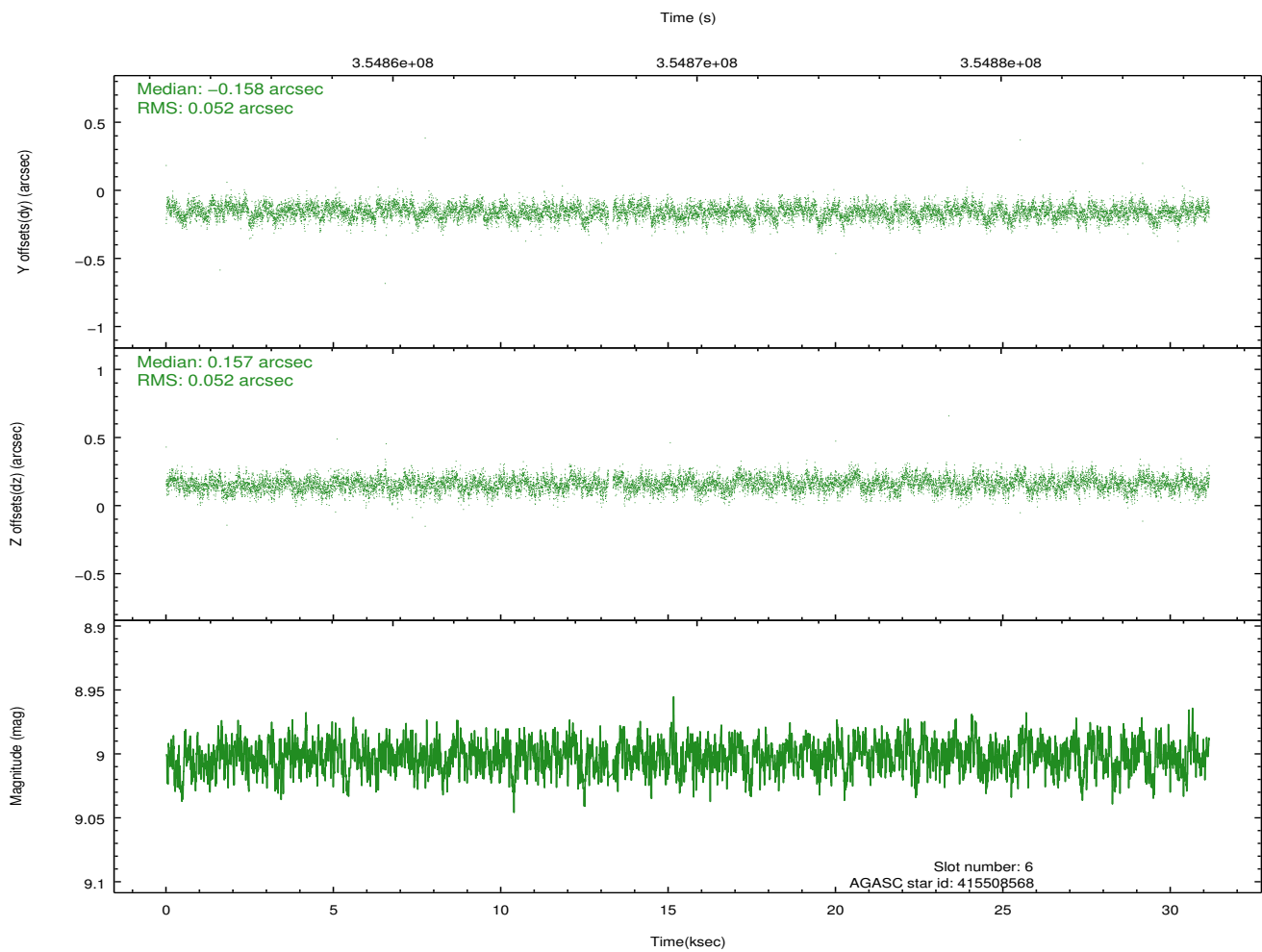
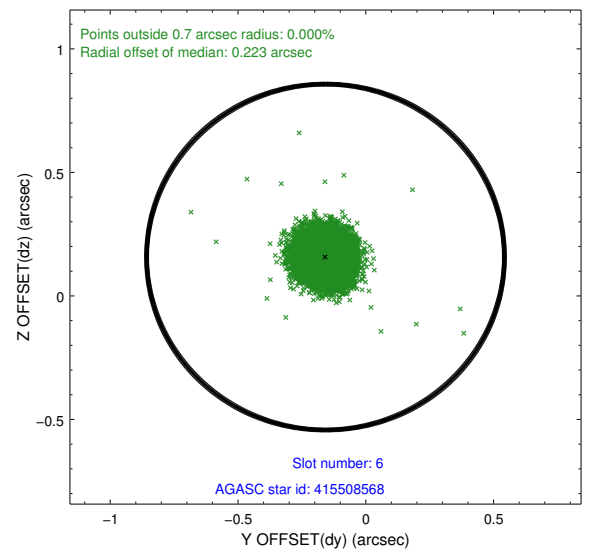
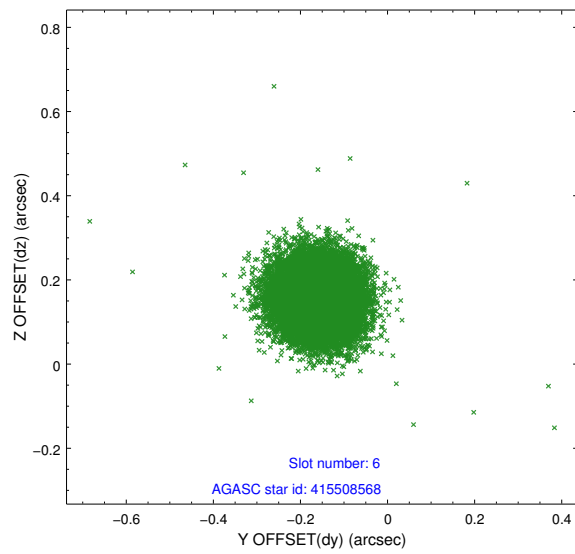
2.4.2 Slot 4



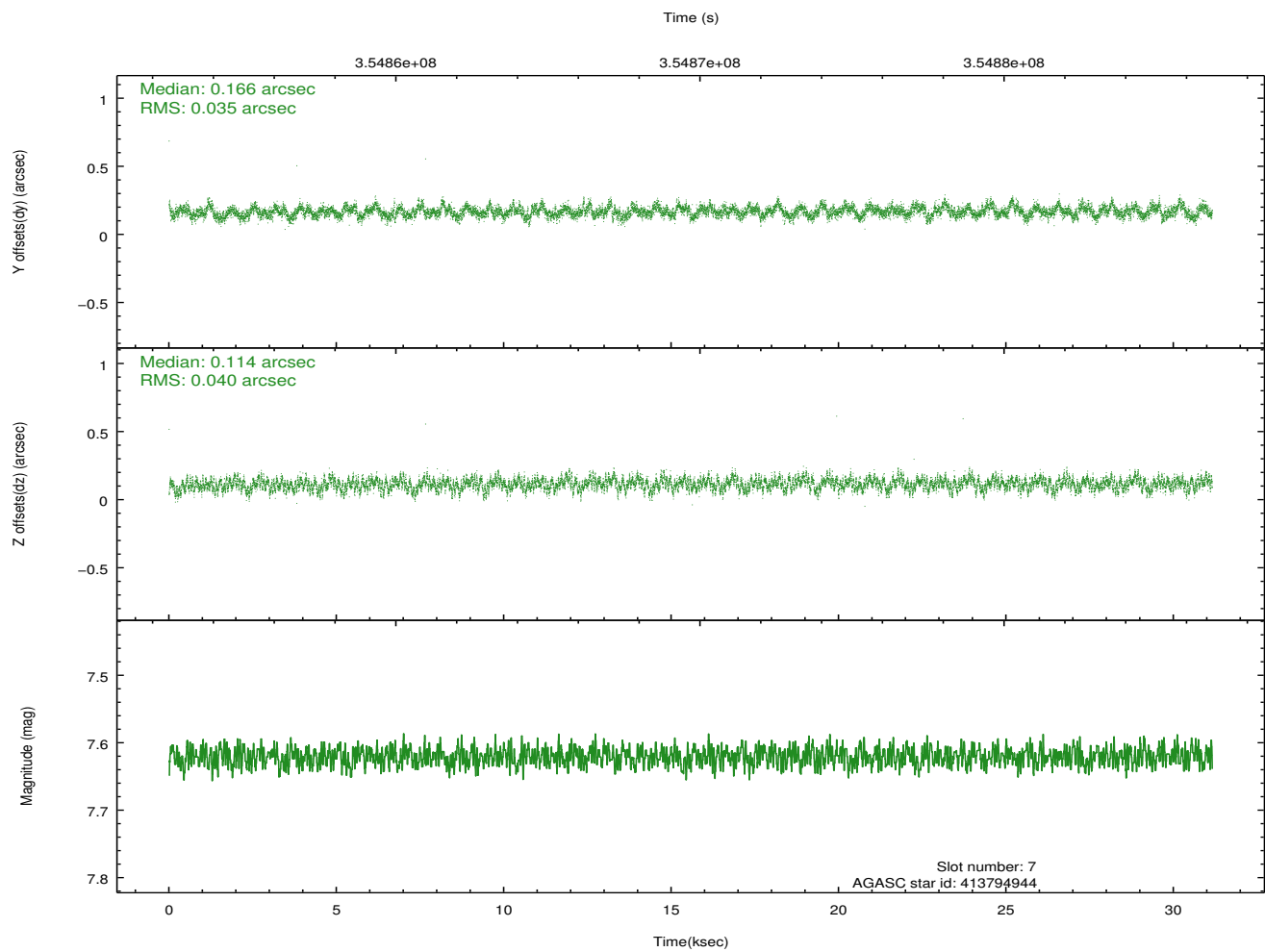
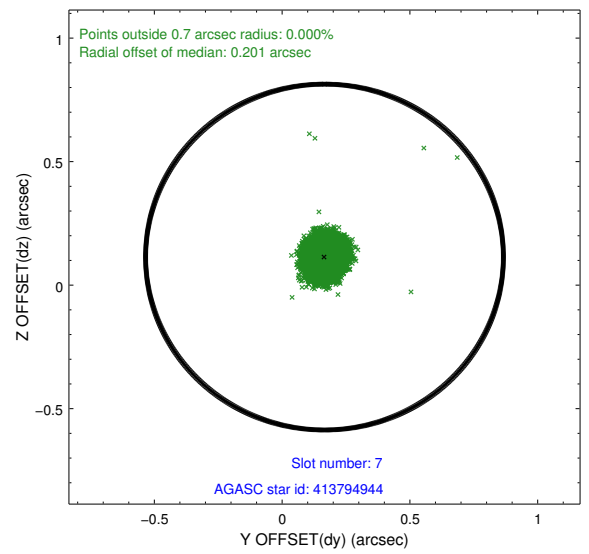
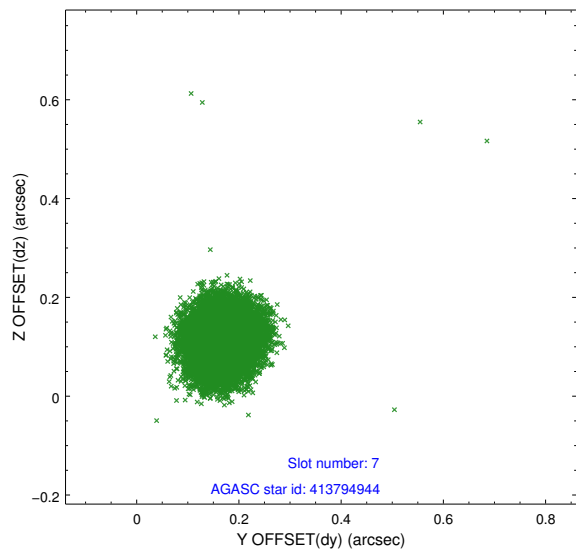
2.4.3 Slot 5



2.4.4 Slot 6

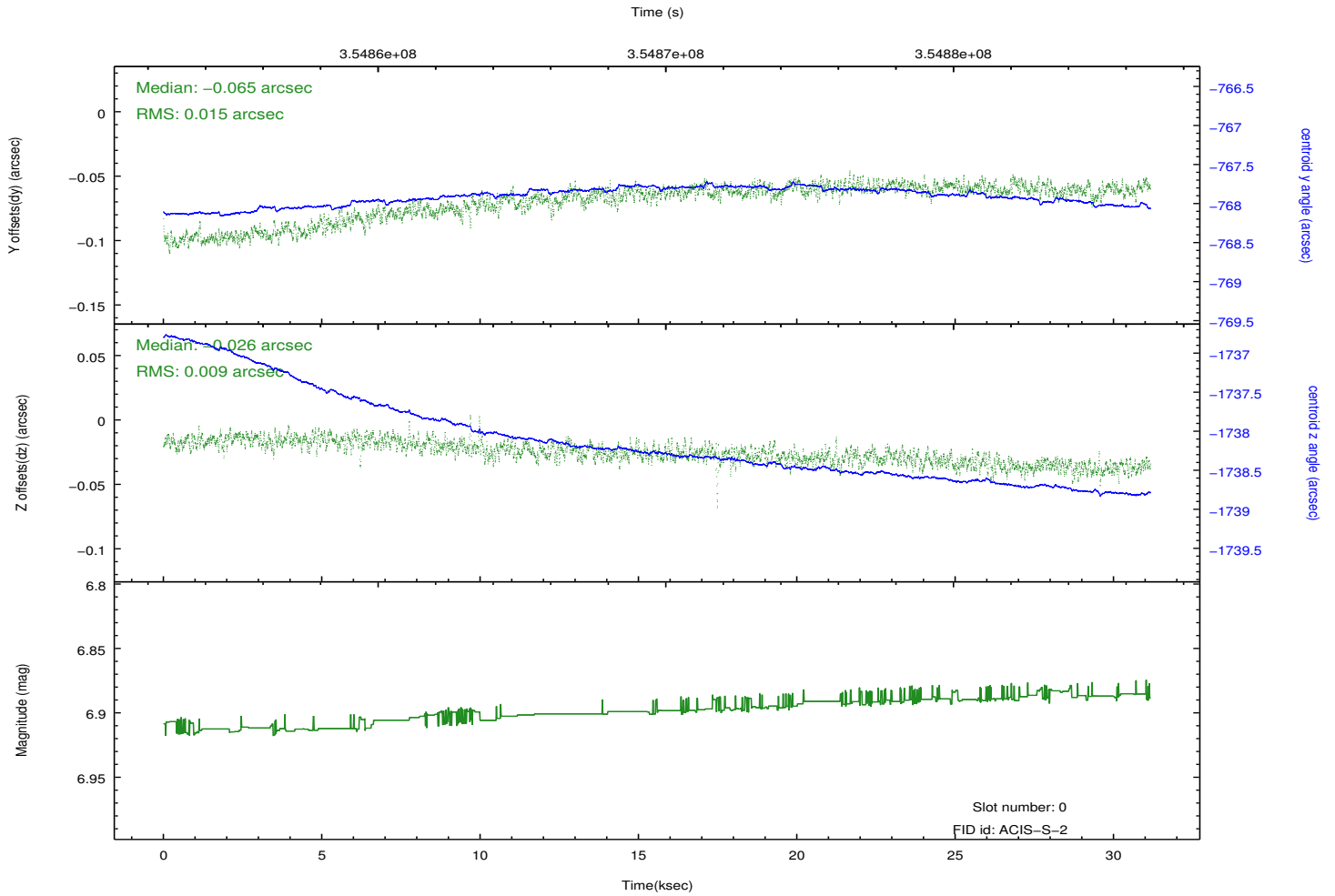
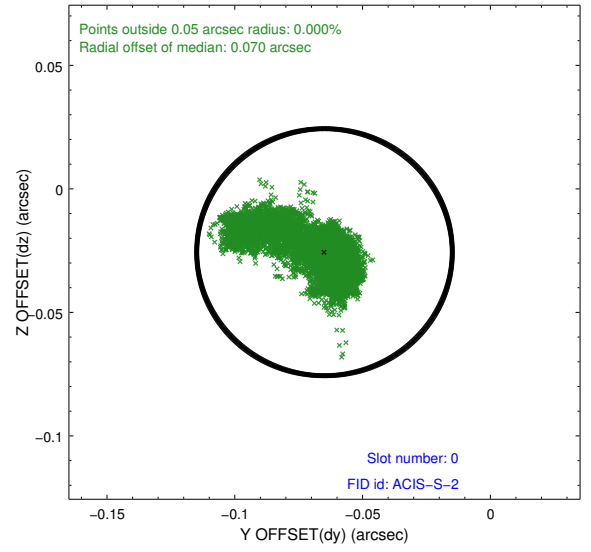
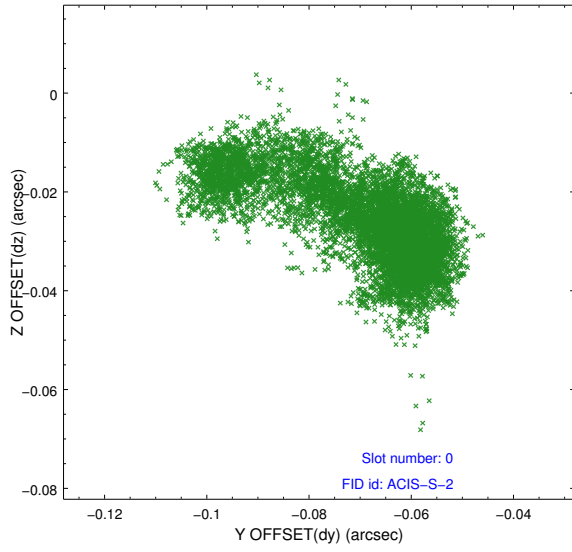


2.4.5 Slot 7

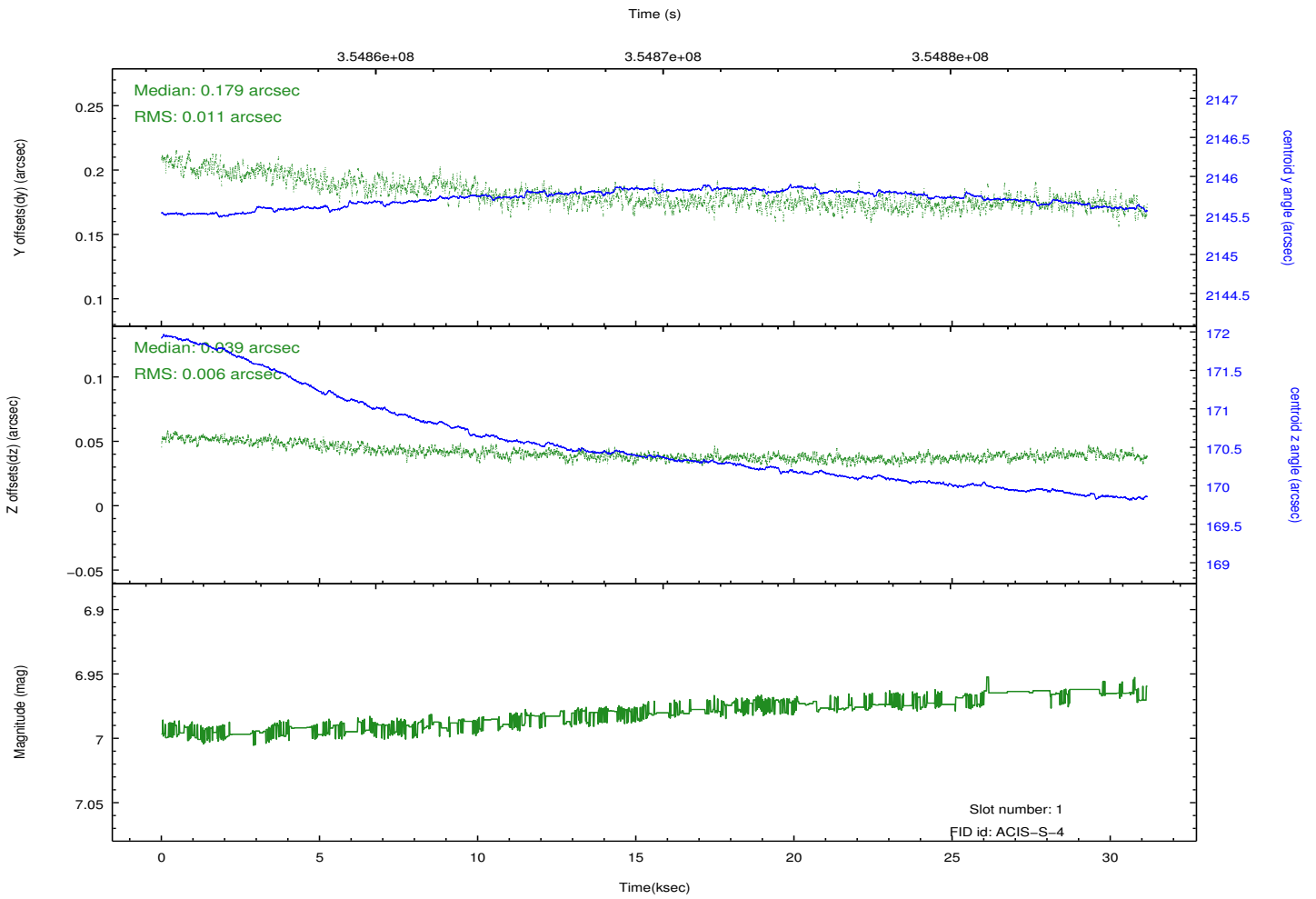
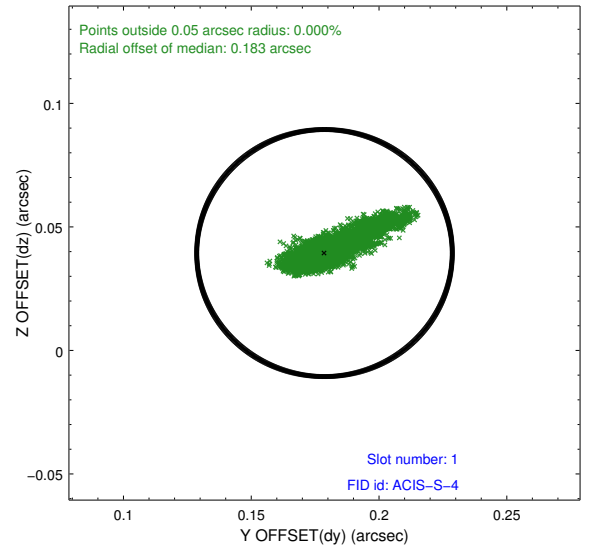
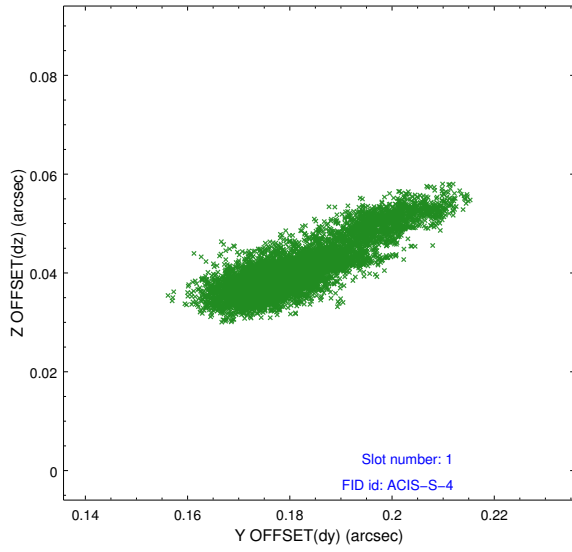


2.5 FID Slots

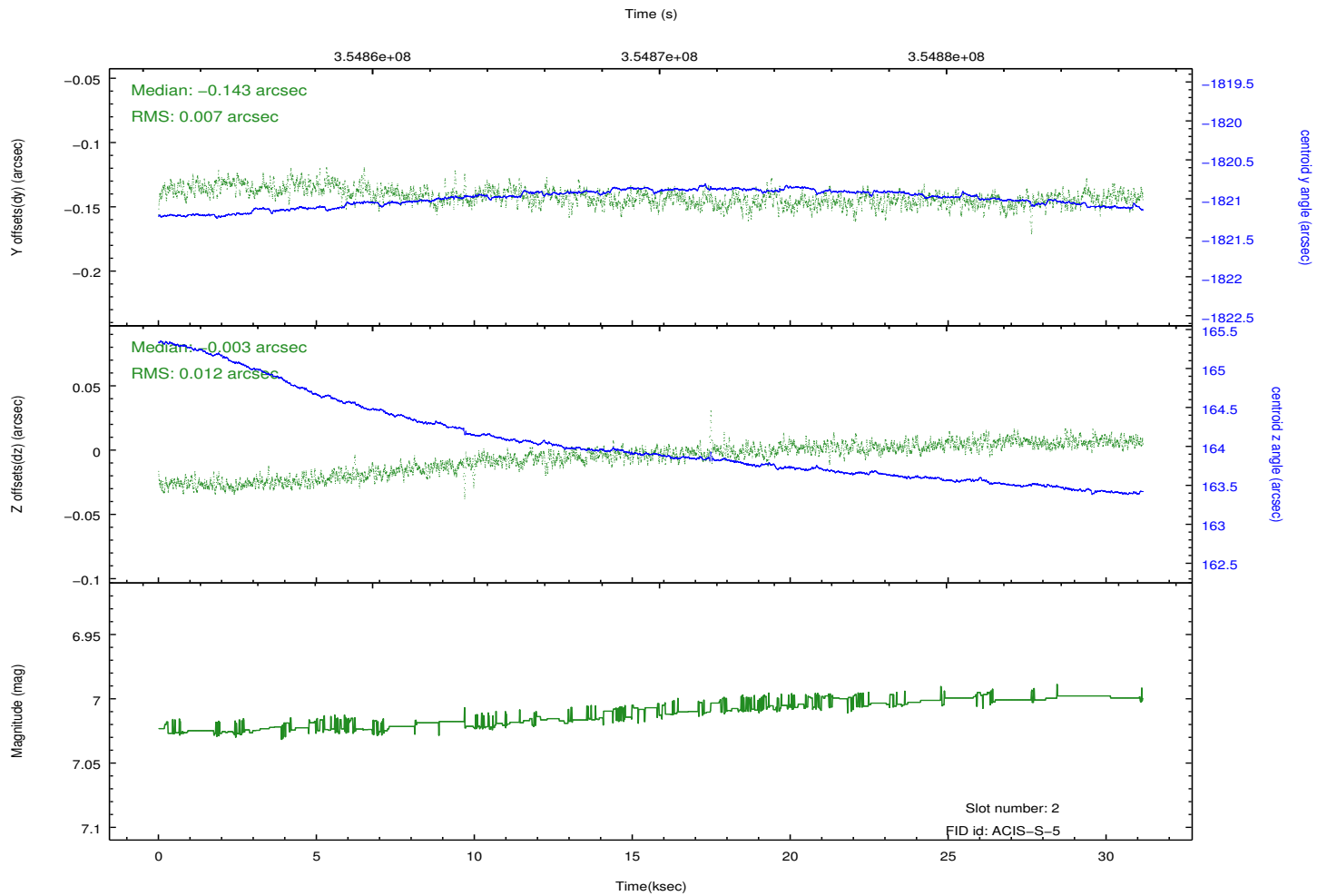
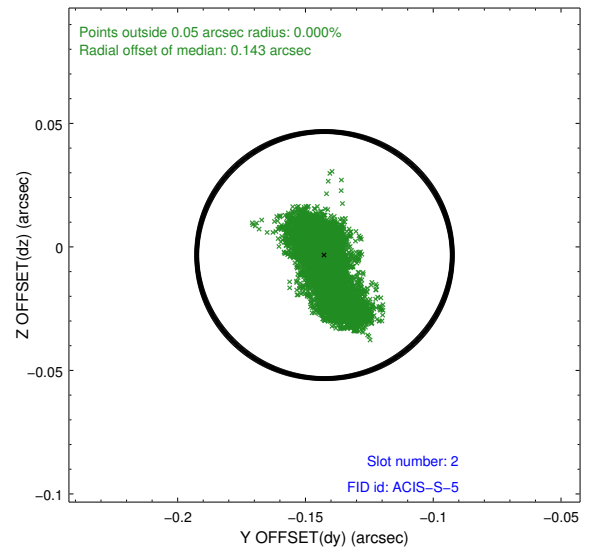
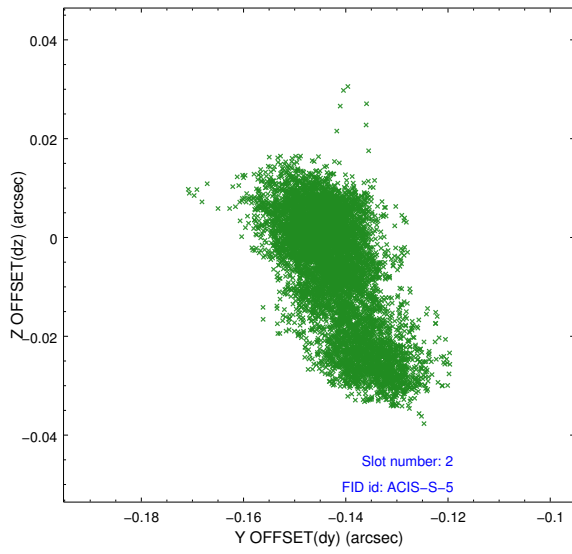
2.5.1 Slot 0



2.5.2 Slot 1

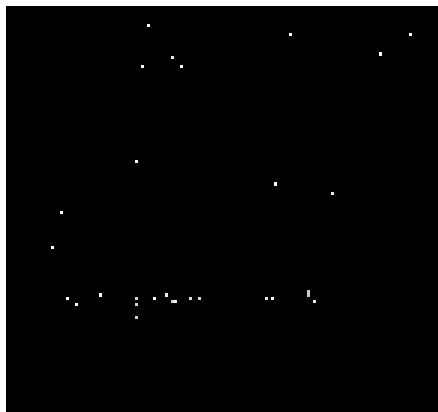


2.5.3 Slot 2

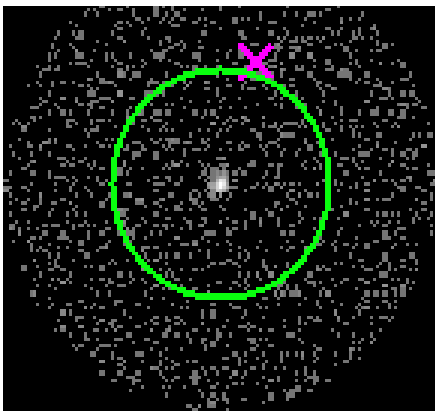


3 Gratings

3.1 HEG Arm



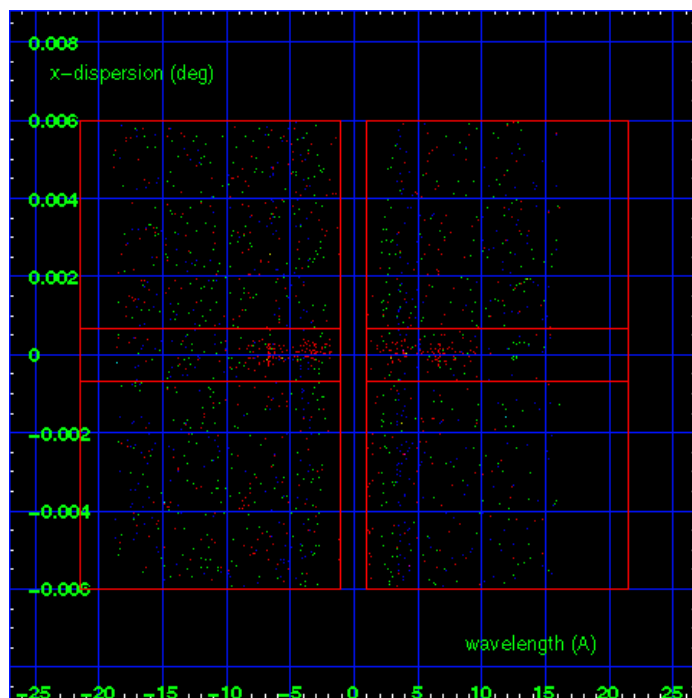
HEG Order Sort 123



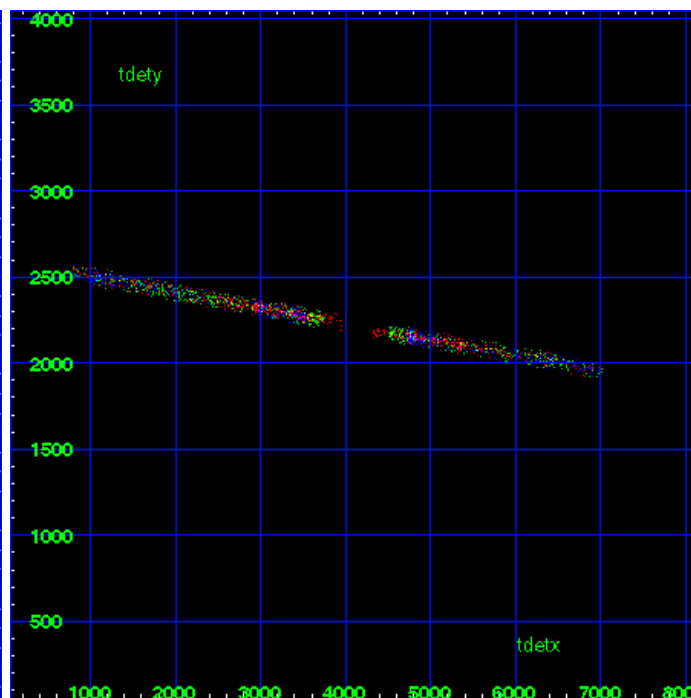
HEG Zero Order



HEG Order Sort ALL

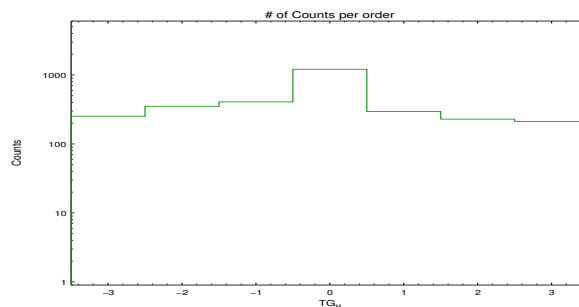


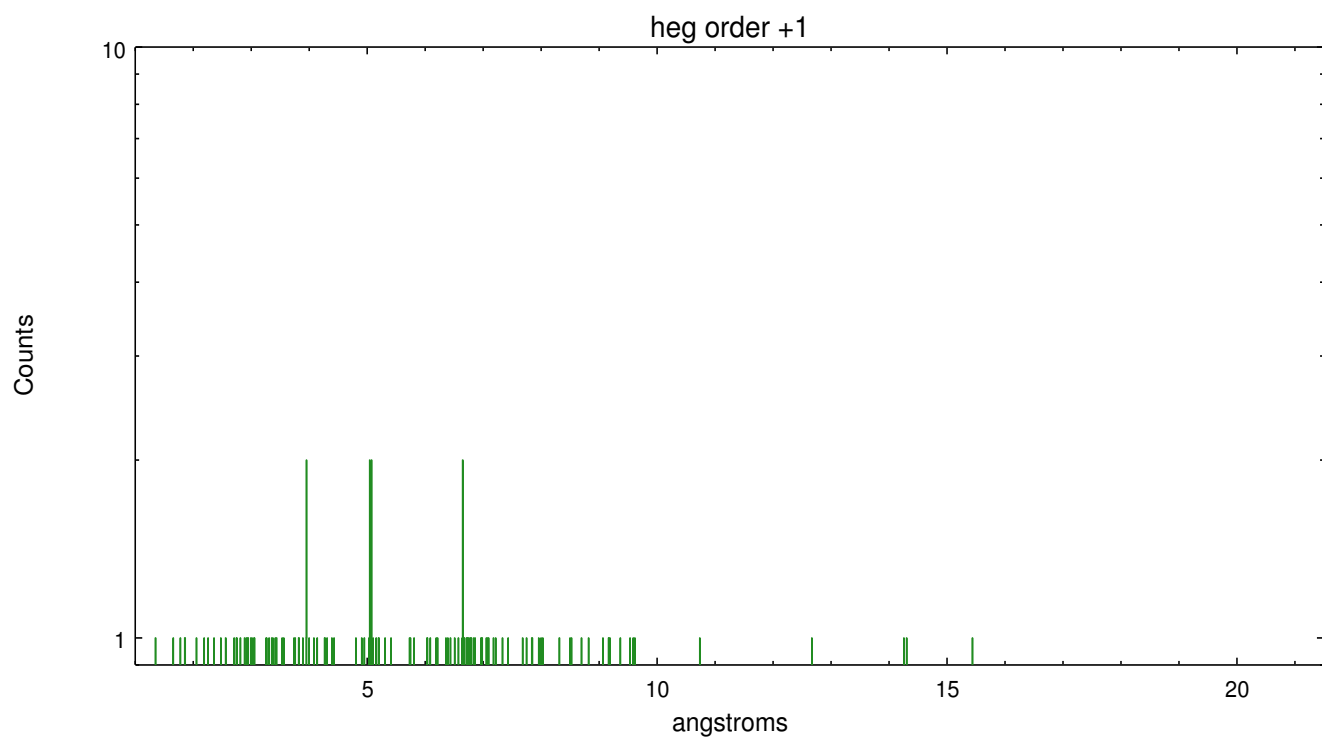
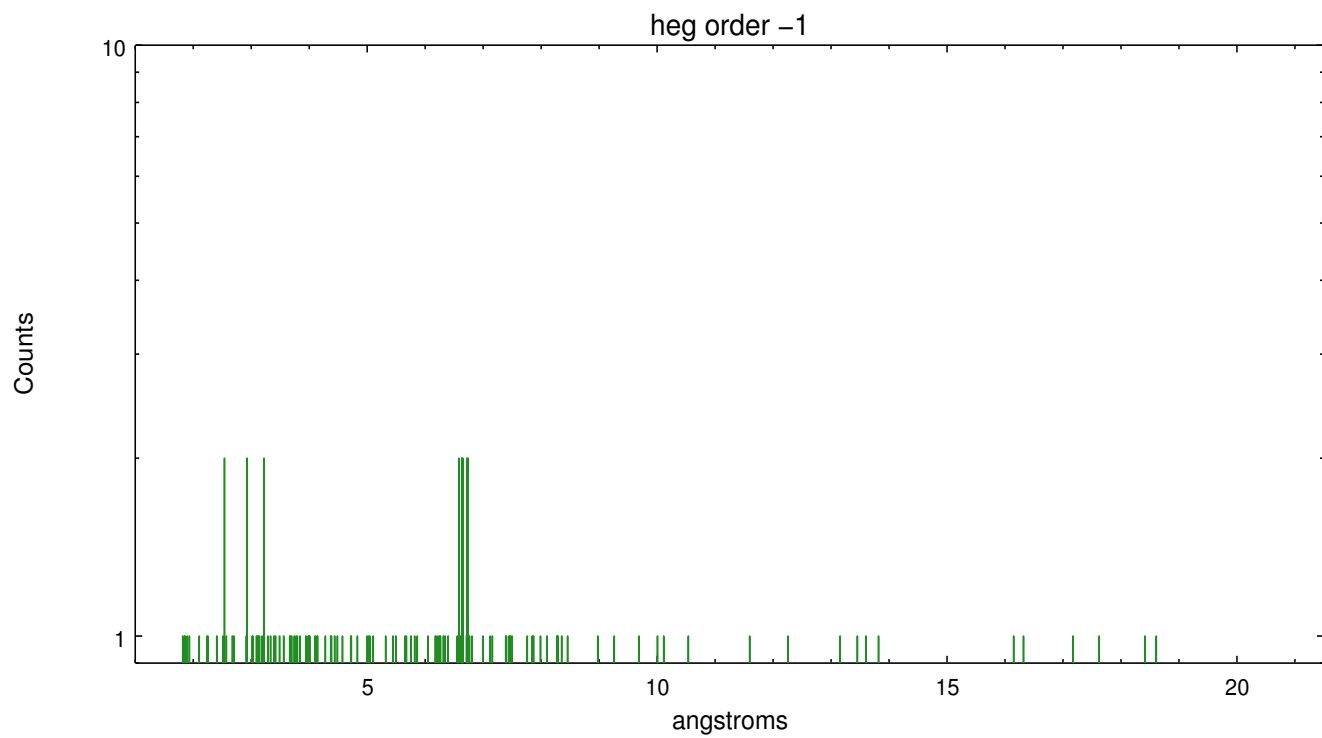
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	252	351	407	1210	296	229	212

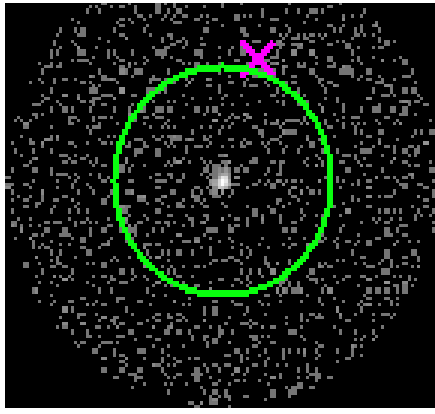




3.2 MEG Arm



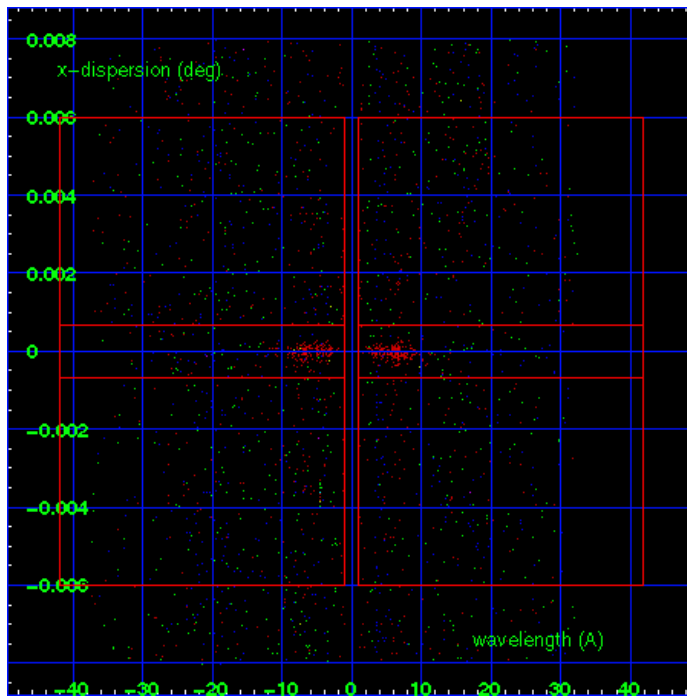
MEG Order Sort 123



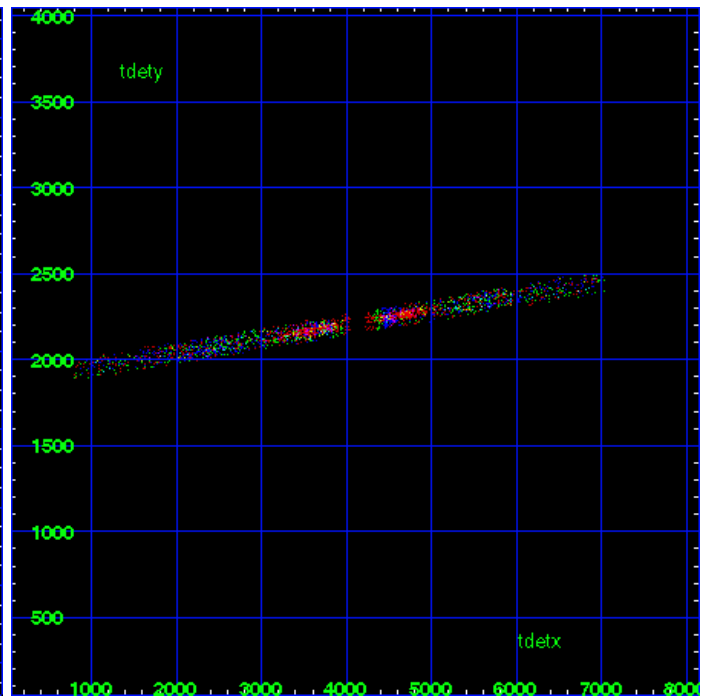
MEG Zero Order



MEG Order Sort ALL

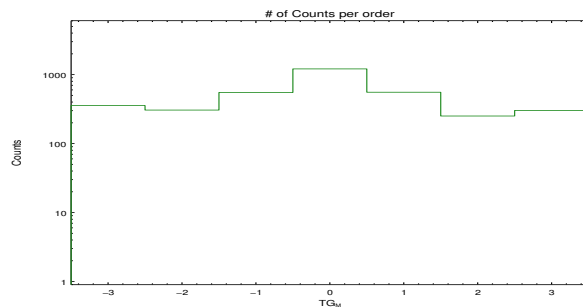


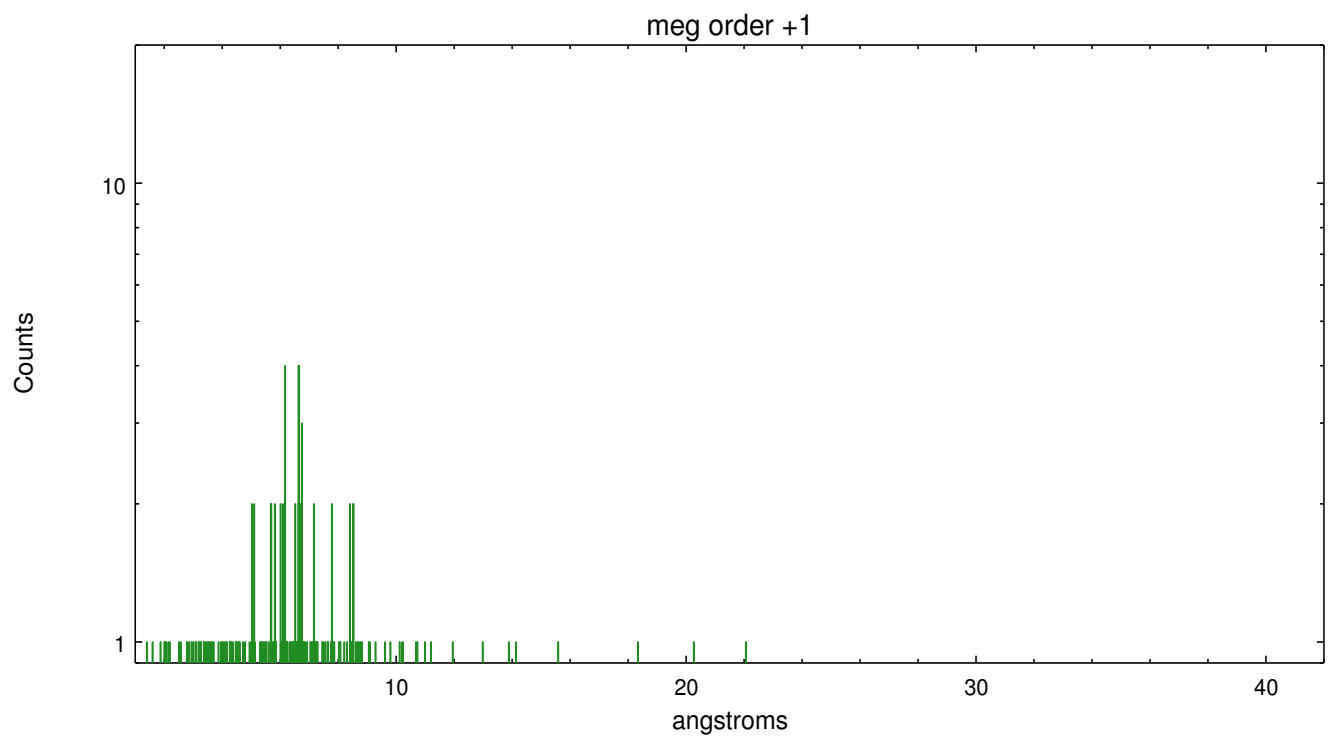
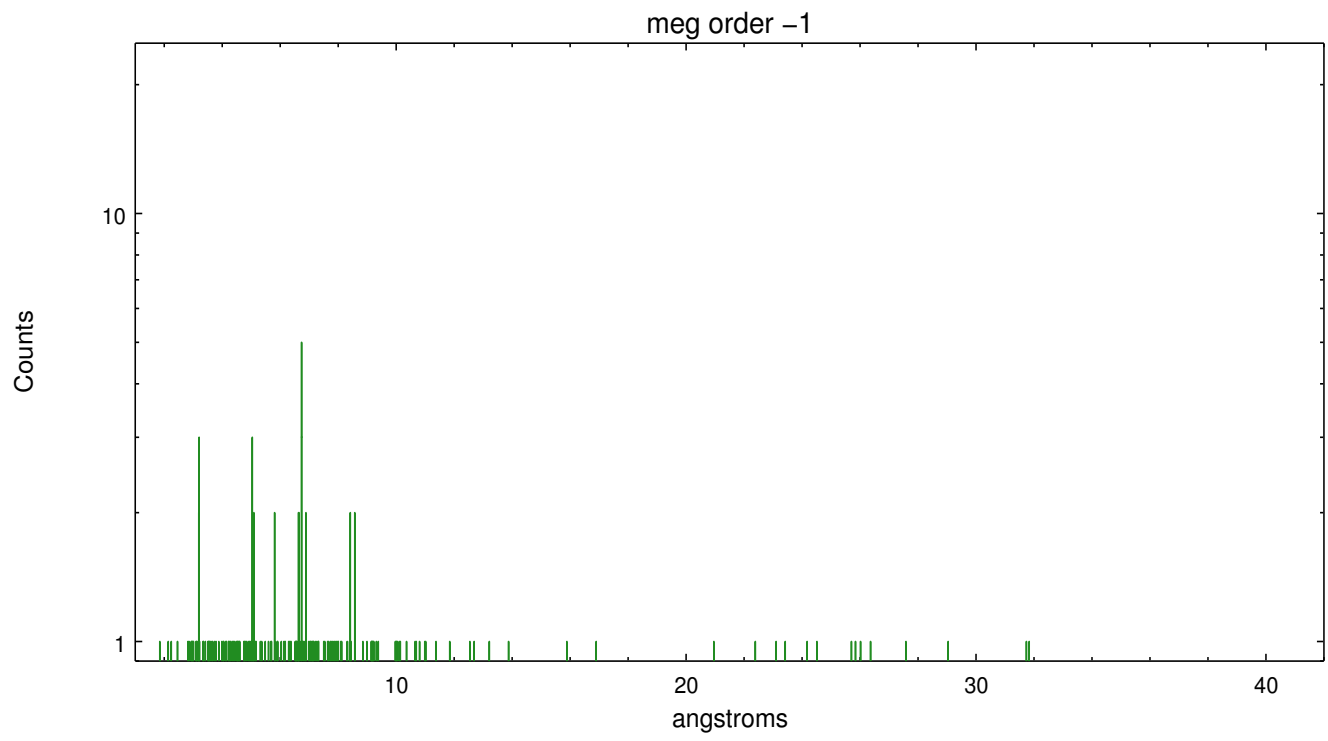
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	356	306	551	1210	555	251	302





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.06.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.9455998

A.2 Comments

Roll constraint met.