

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13266 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Feb 28 2012

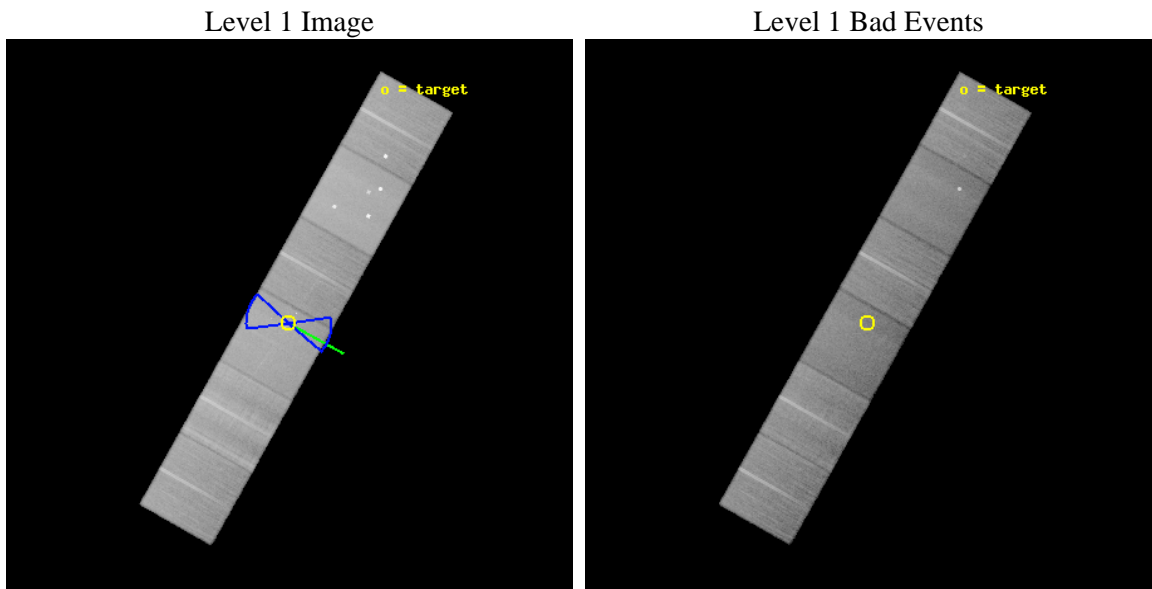
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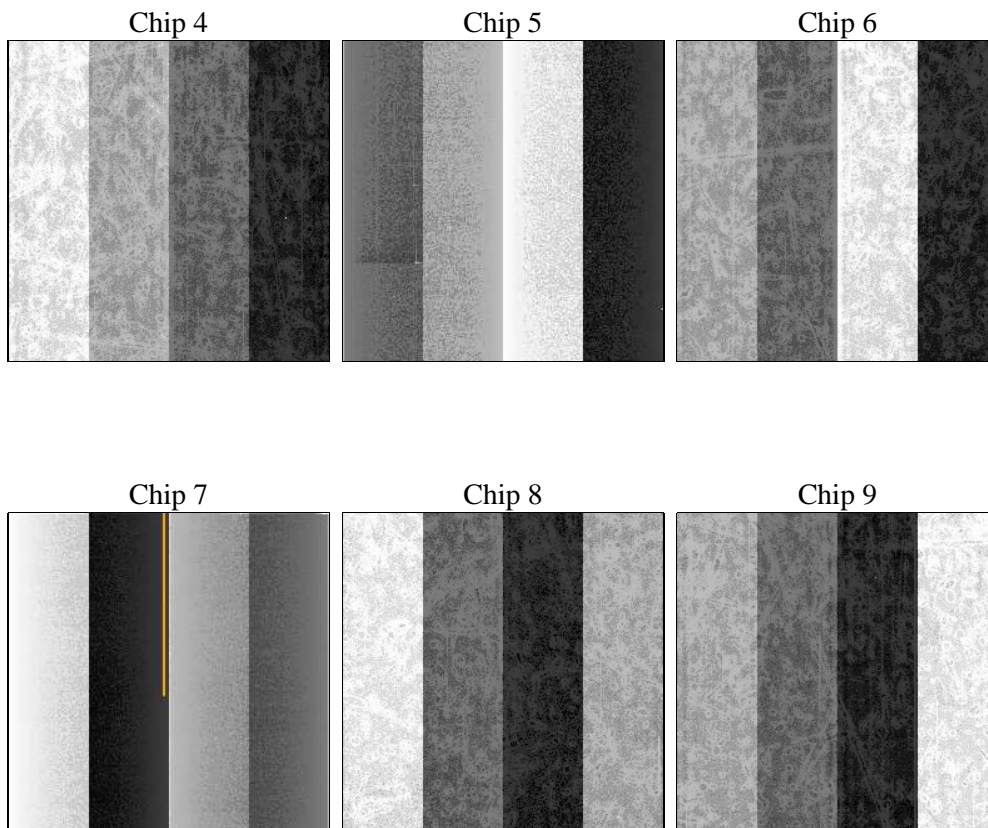
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	48062.953000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	48022.399821162	Sum of GTIs [s]
caldbver	4.4.8	 	ontime4	48022.399821162	Sum of GTIs [s]
date	2012-02-26T04:40:51	Date and time of file creation	ontime5	48022.399821162	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	48022.399821162	Sum of GTIs [s]
			ontime7	48022.399821162	Sum of GTIs [s]
			ontime8	48019.158801079	Sum of GTIs [s]
			ontime9	48022.399821162	Sum of GTIs [s]
			l1events	2258928	Number of level 1 events

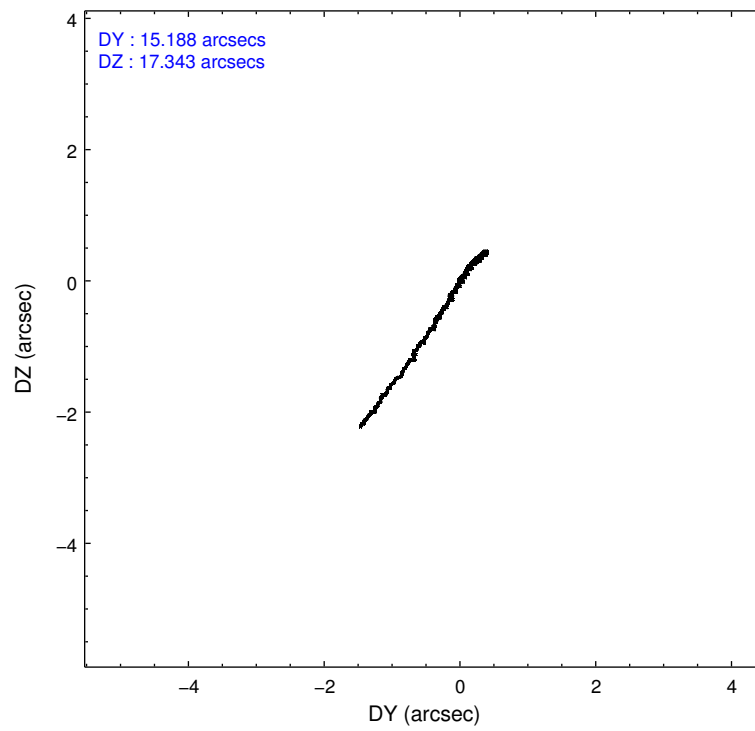
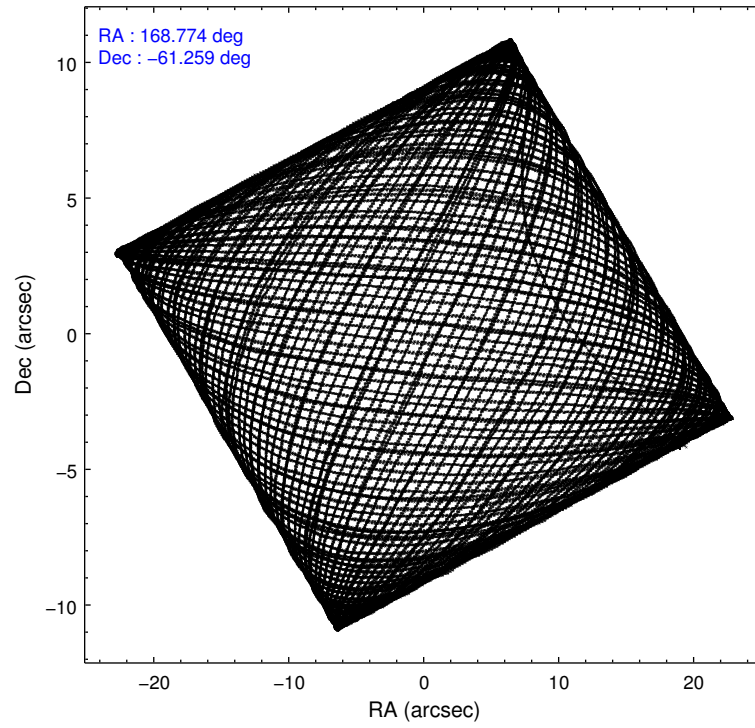
2.1.4 Events

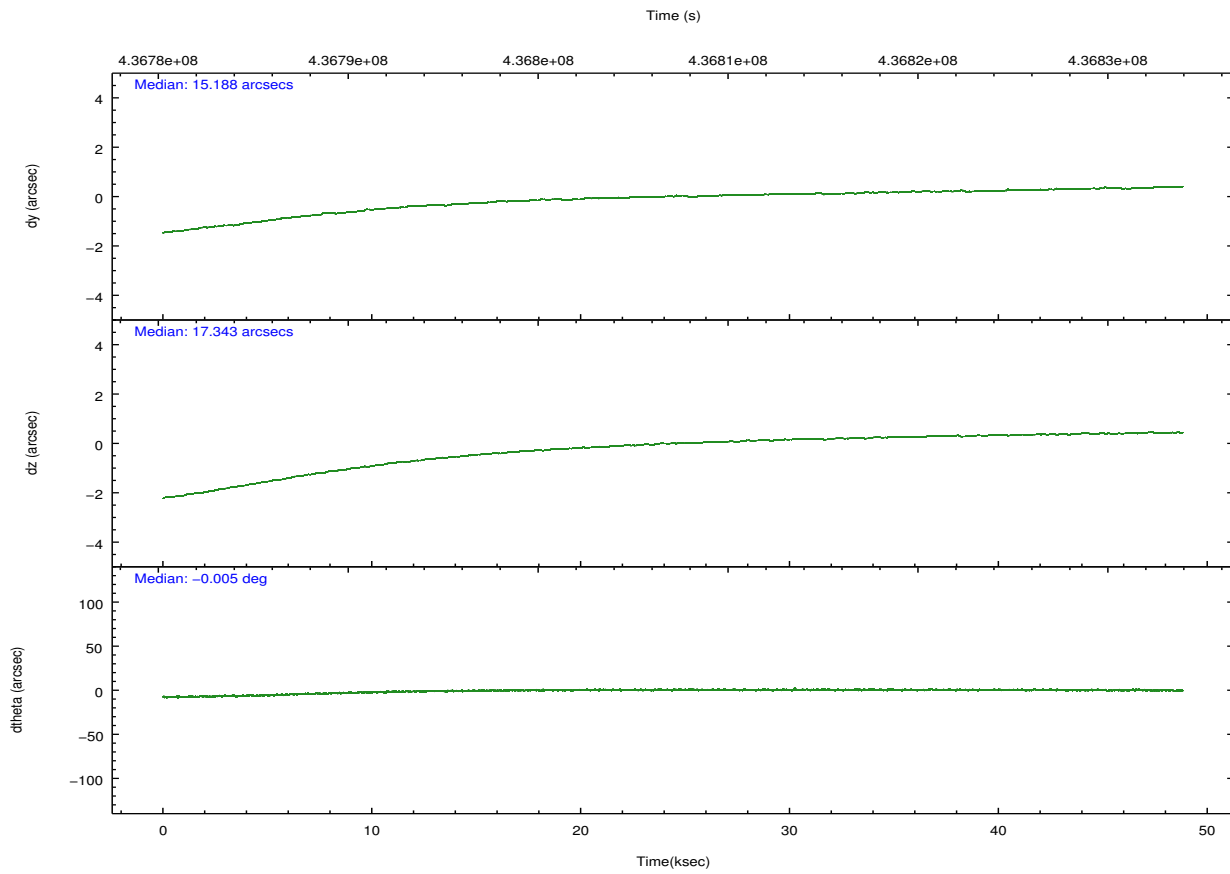
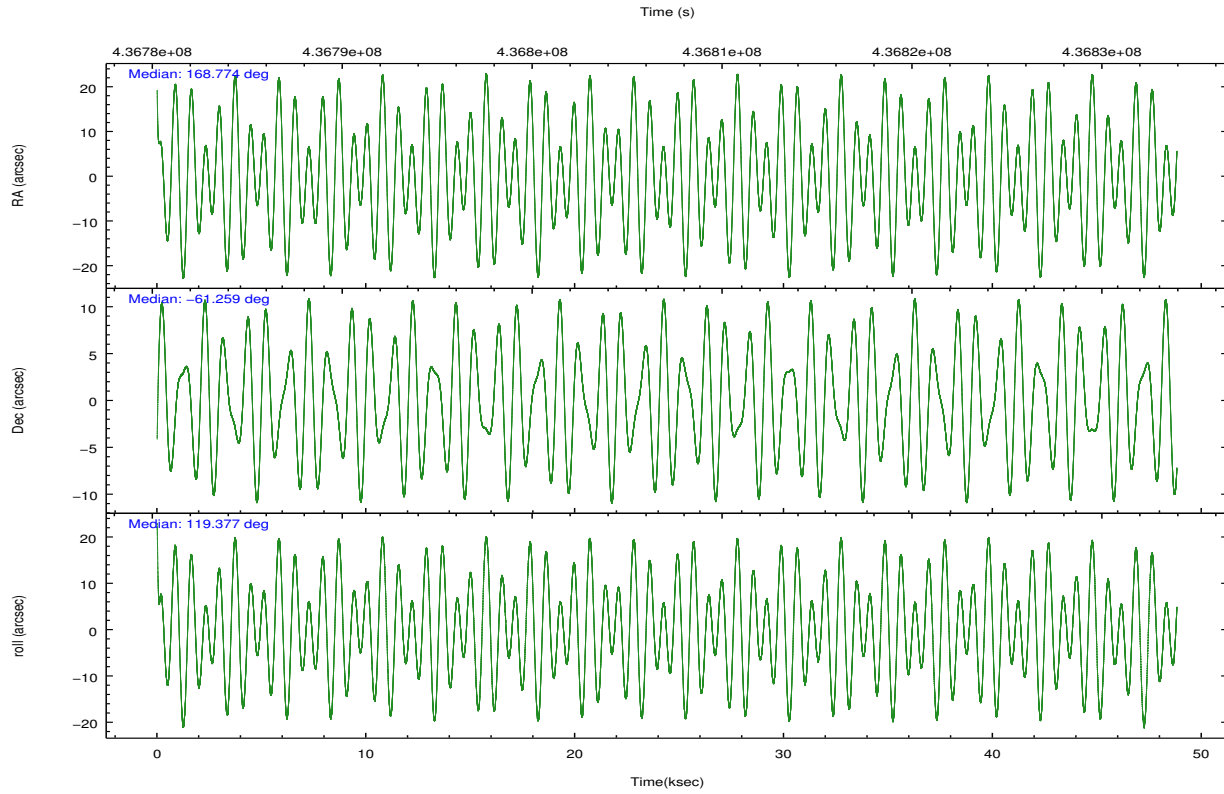
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	355348	489914	308237	391409	408597	305423	grade 0 events	26265	34595	16186	17836	35877	14375
rejected events	305312	240702	267695	209965	293126	267030		7%	7%	5%	4%	8%	4%
rejected %	85%	49%	86%	53%	71%	87%	grade 1 events	367	887	192	530	328	214
								0%	0%	0%	0%	0%	0%
							grade 2 events	9360	75408	8573	37929	26266	8205
								2%	15%	2%	9%	6%	2%
							grade 3 events	4039	8962	3879	16124	12156	3909
								1%	1%	1%	4%	2%	1%
							grade 4 events	3869	8236	3837	15815	11391	3788
								1%	1%	1%	4%	2%	1%
							grade 5 events	14277	36368	14088	39593	20792	15726
								4%	7%	4%	10%	5%	5%
							grade 6 events	6507	122034	8068	93752	29790	8116
								1%	24%	2%	23%	7%	2%
							grade 7 events	290664	203424	253414	169830	271997	251090
								81%	41%	82%	43%	66%	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	168.823049	168.7737203604619	CCD I2 on	N	N
[deg] Pointing Dec	-61.272322	-61.25872036553722	CCD I3 on	N	N
[deg] Pointing Roll	119.268112	119.3814892464201	CCD S0 on	O1	Y
[deg] Roll angle	107.000000	107.000000	CCD S1 on	Y	Y
[deg] Roll tolerance	25.000000	25.000000	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	Y	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)	436783463.184000	436782044.43315	Subarray requested	NONE	NONE
Observation start date	2011-11-04T08:43:17	2011-11-04T08:20:44	Alternating exposures requested	N	N
[s] Observation end time (MET)	436831526.184000	436831751.81076	[s] Primary exposure time	0.000000	3.2
Observation end date	2011-11-04T22:04:20	2011-11-04T22:09:11			
Read mode	TIMED	TIMED			

2.3 Aspect



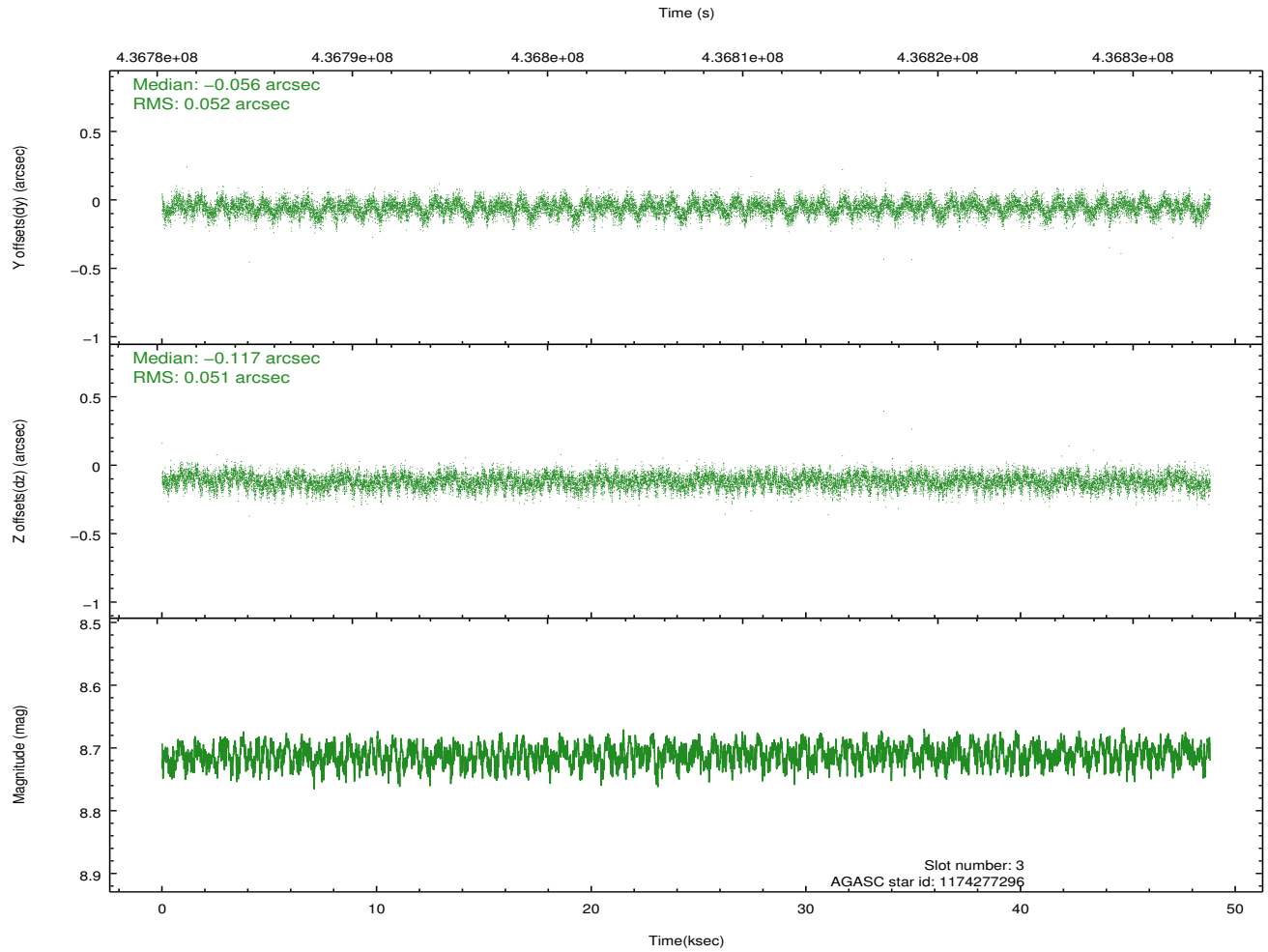
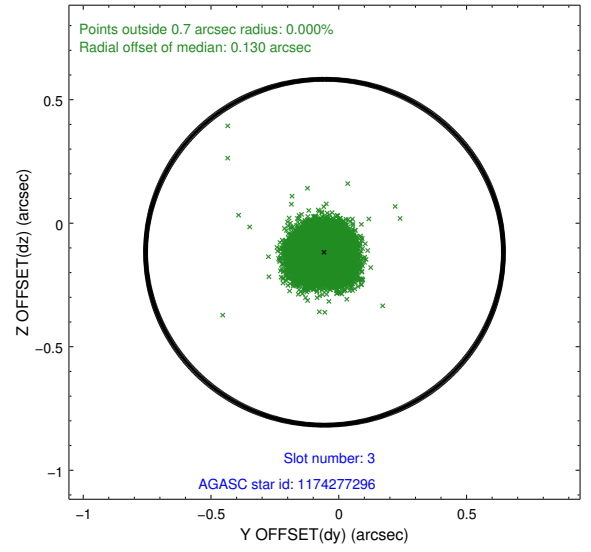
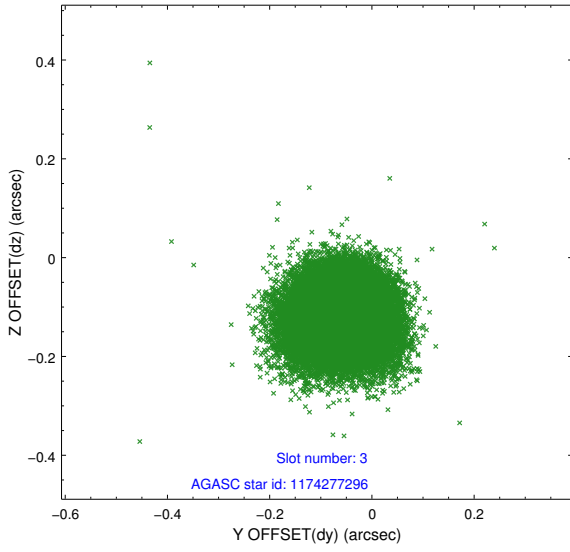


Slot Statistics

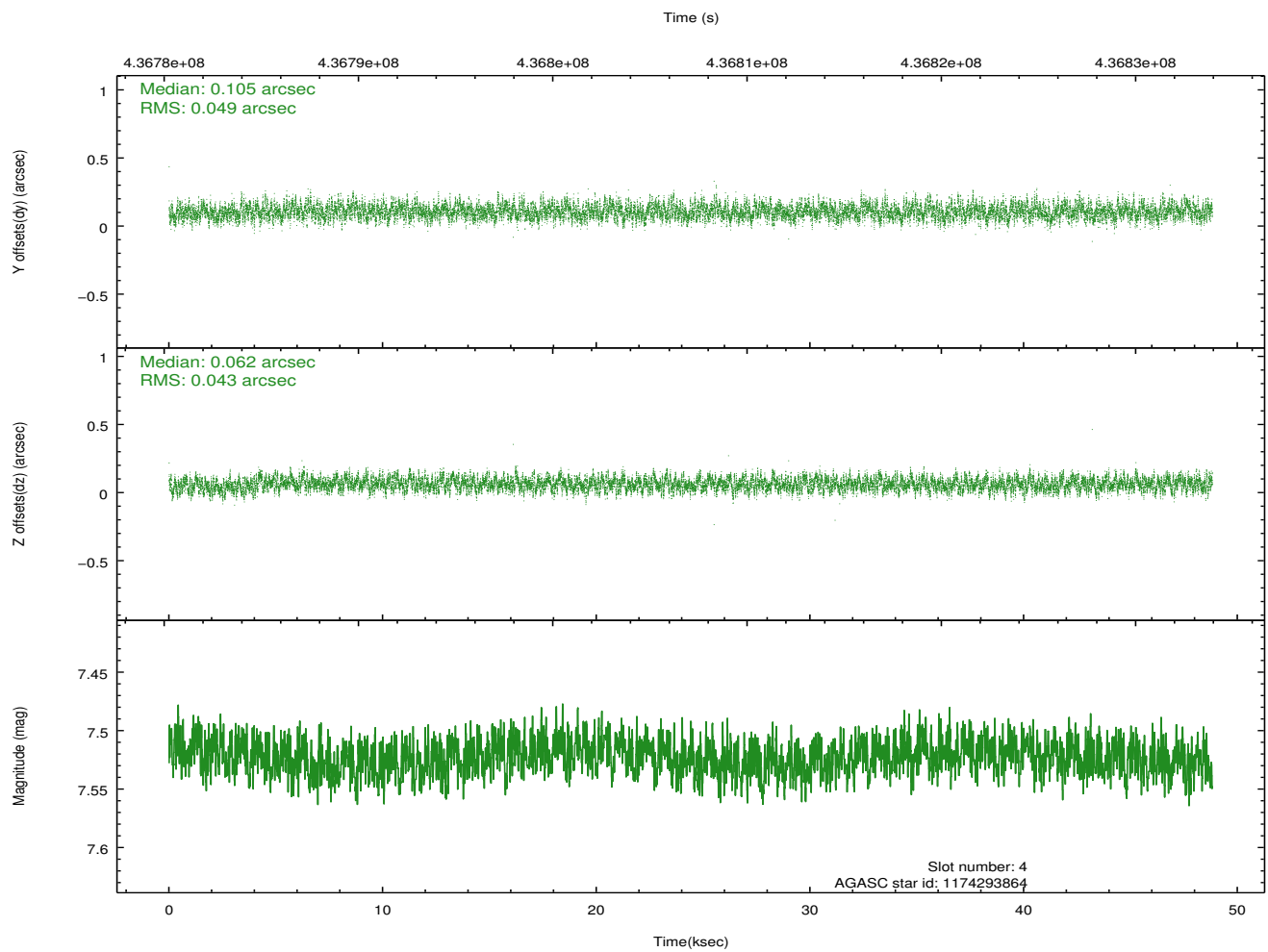
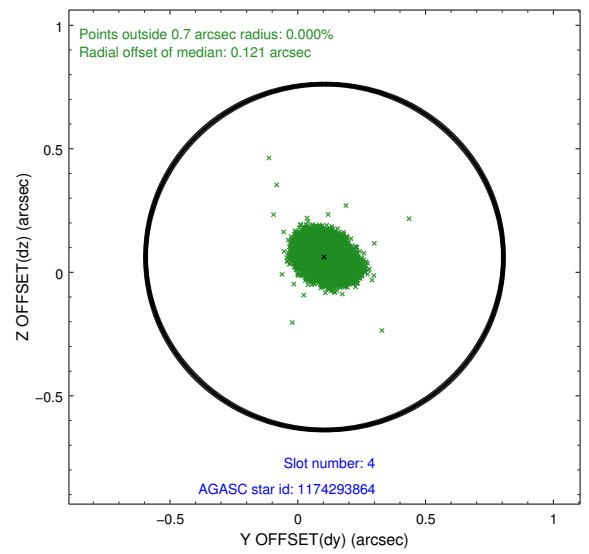
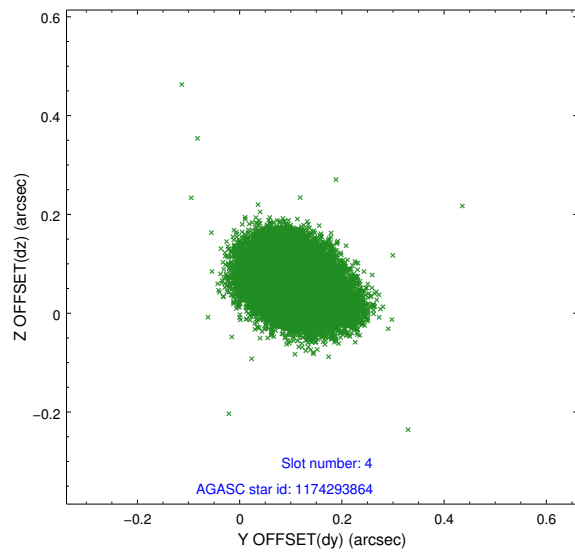
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.93	11908	0.107	-0.085	0.022	0.031	0.000000	0.000000	928.12	-1734.21
1	FID	ACIS-S-5	6.98	11908	-0.176	0.067	0.018	0.028	0.000000	0.000000	-1821.14	163.54
2	FID	ACIS-S-6	7.07	11909	0.044	0.030	0.032	0.050	0.000000	0.000000	393.67	807.43
3	GUIDE	1174277296	8.71	23805	-0.056	-0.117	0.078	0.124	167.558753	-61.273161	1048.39	1919.99
4	GUIDE	1174293864	7.52	23812	0.105	0.062	0.069	0.110	170.089015	-61.097044	-544.17	-2219.09
5	GUIDE	1174277360	8.32	23807	-0.077	-0.045	0.061	0.101	167.516992	-60.979156	2015.94	1484.87
6	GUIDE	1174281072	8.76	23807	-0.009	-0.069	0.092	0.146	167.775652	-61.117932	1362.71	1324.18
7	GUIDE	1174283976	7.17	23812	0.034	0.170	0.054	0.087	170.390254	-61.226219	-1209.79	-2433.29

2.4 Star Slots

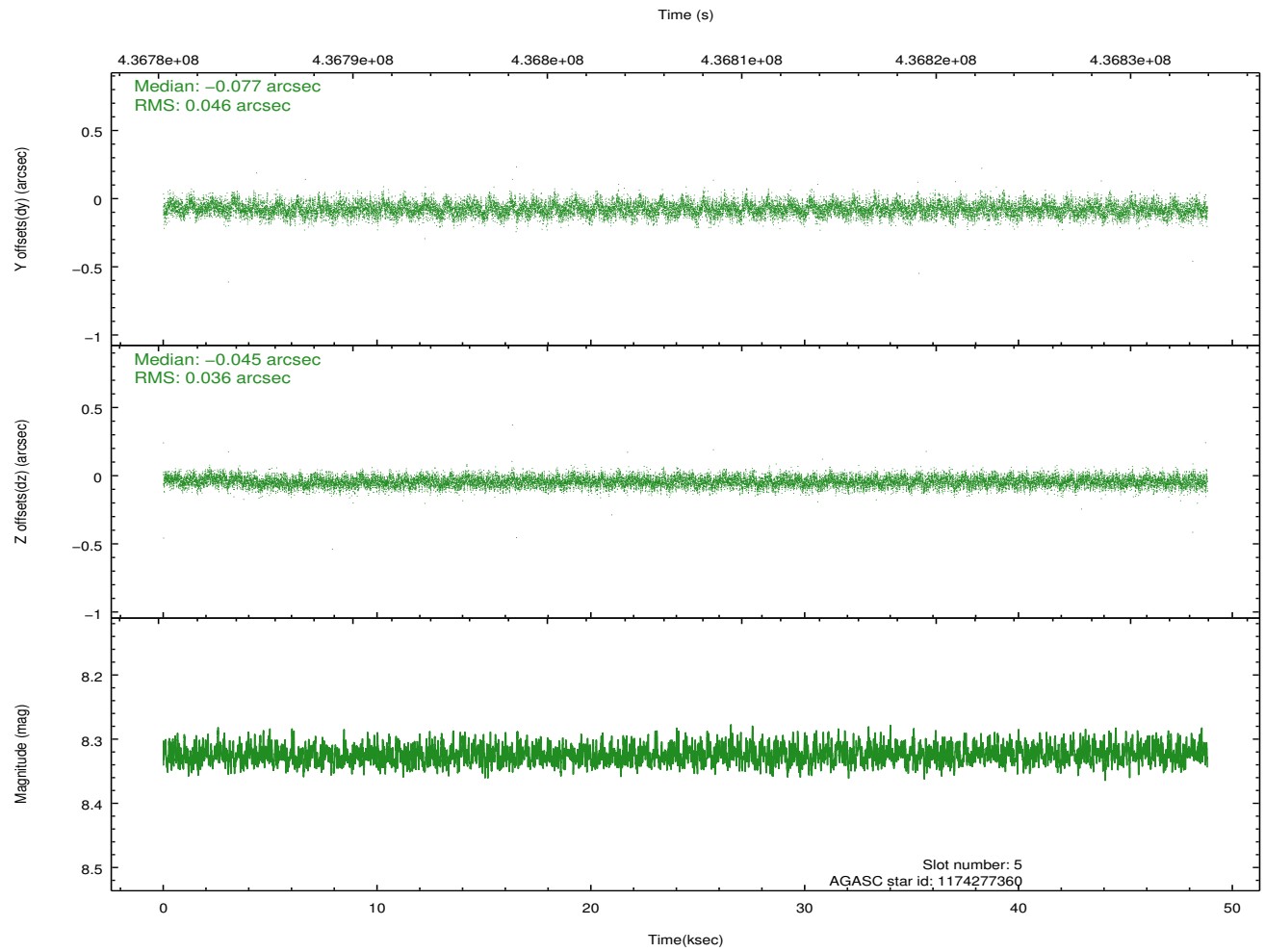
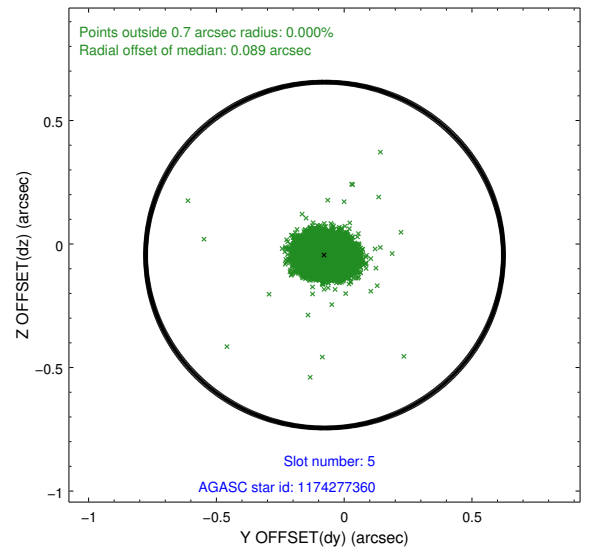
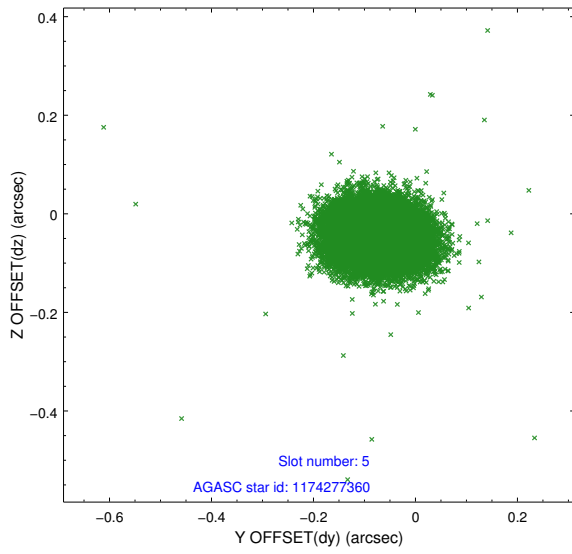
2.4.1 Slot 3



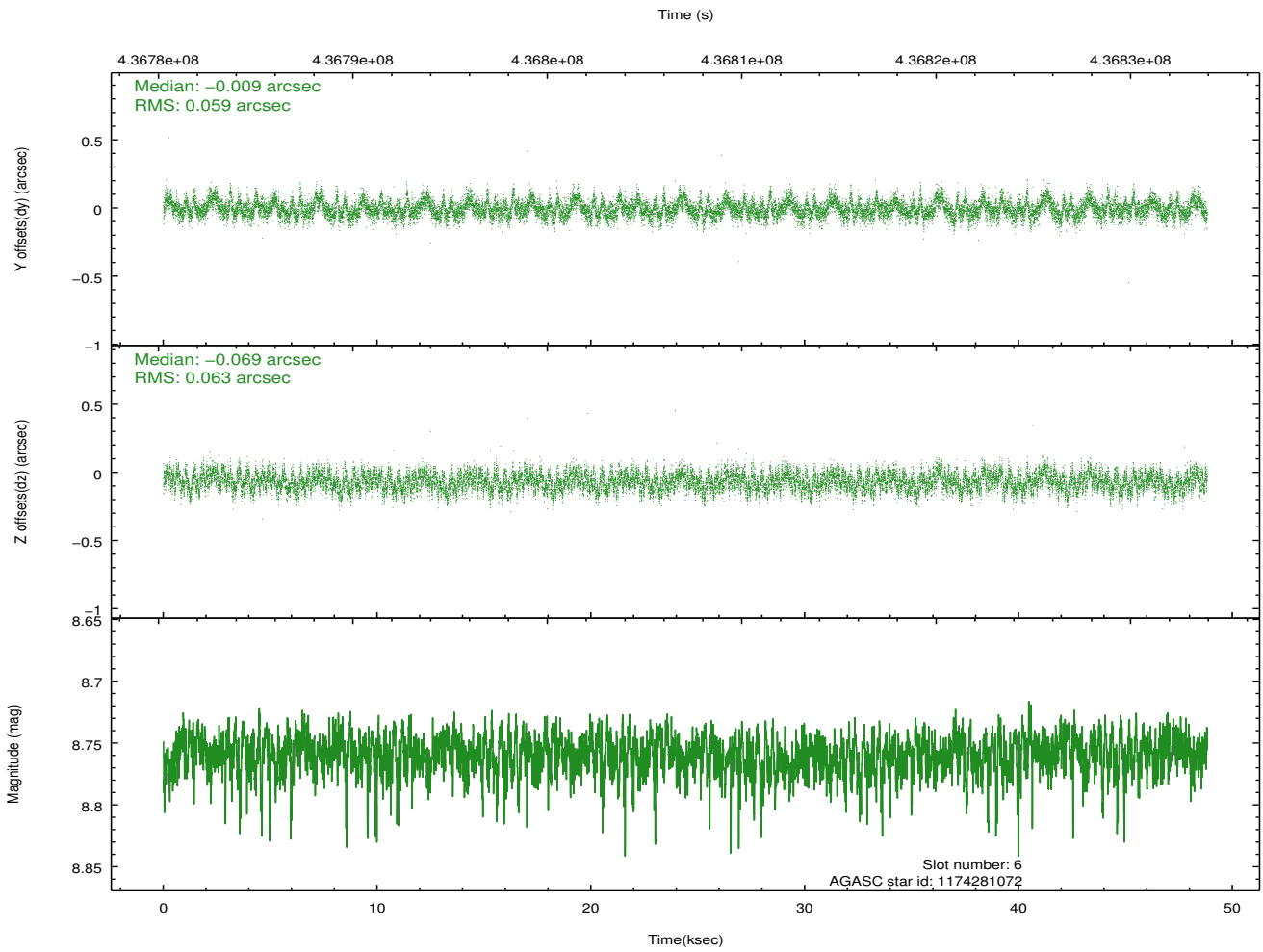
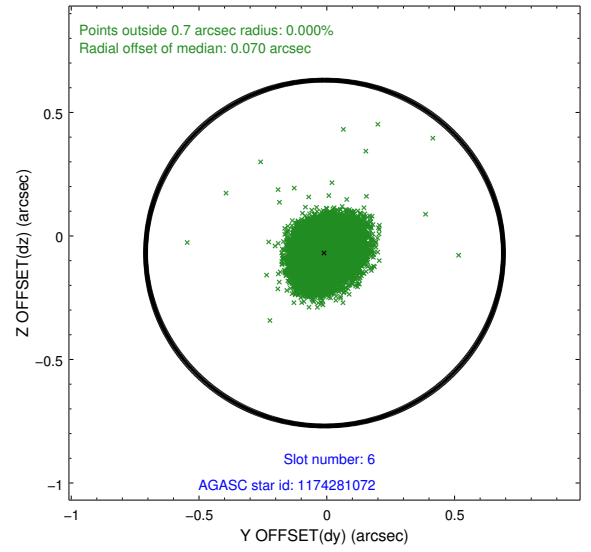
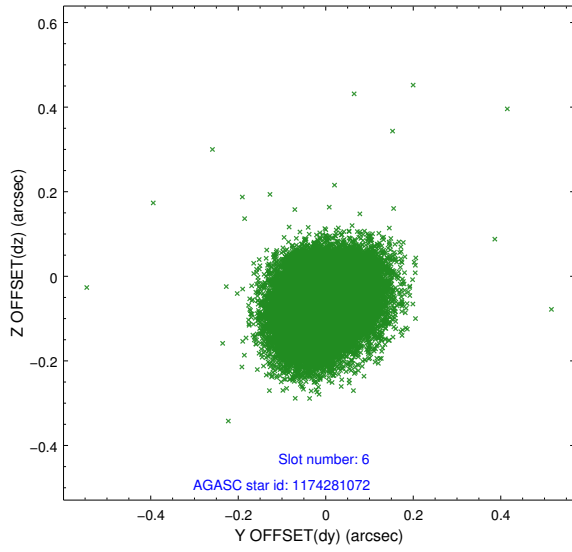
2.4.2 Slot 4



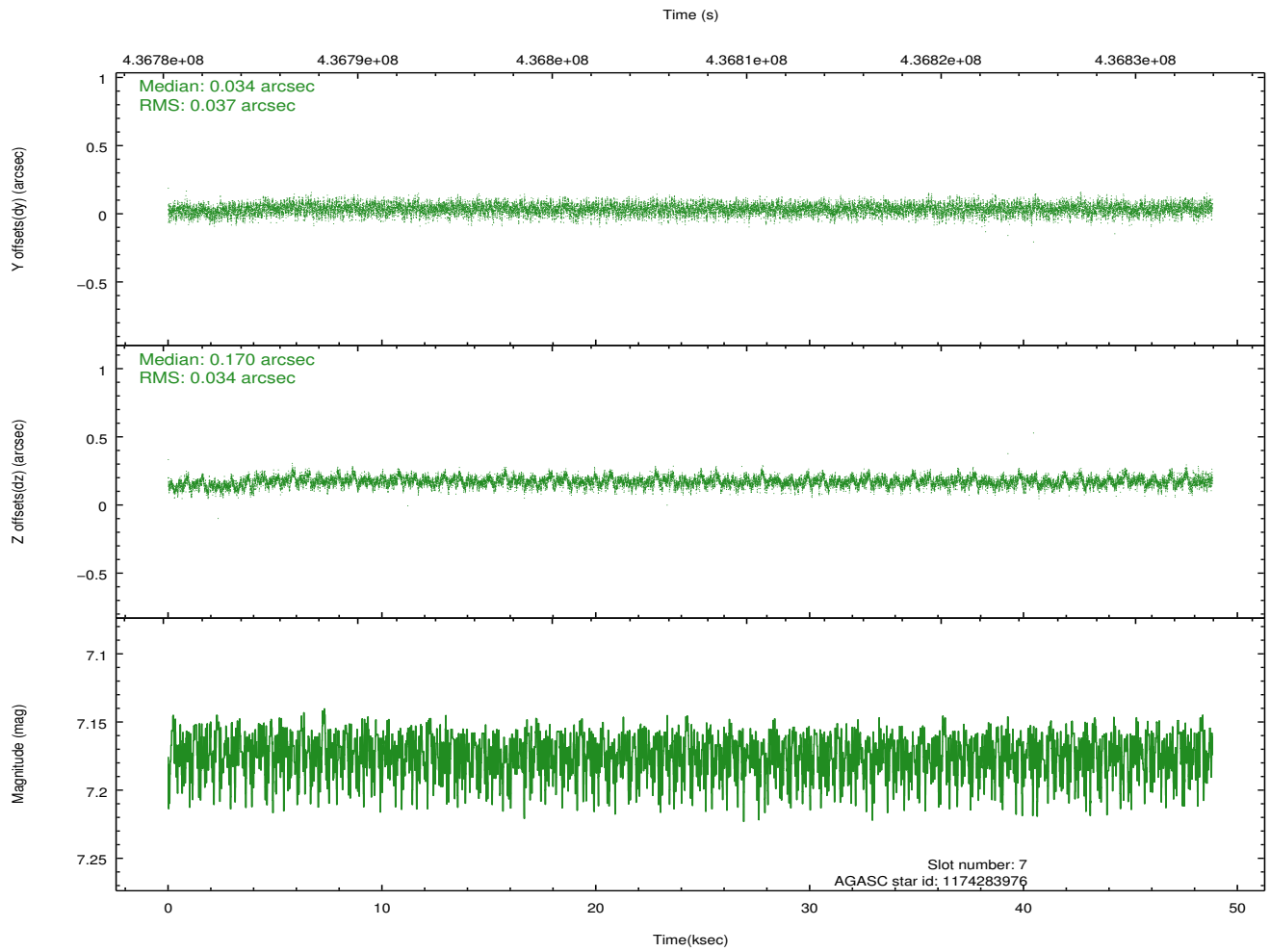
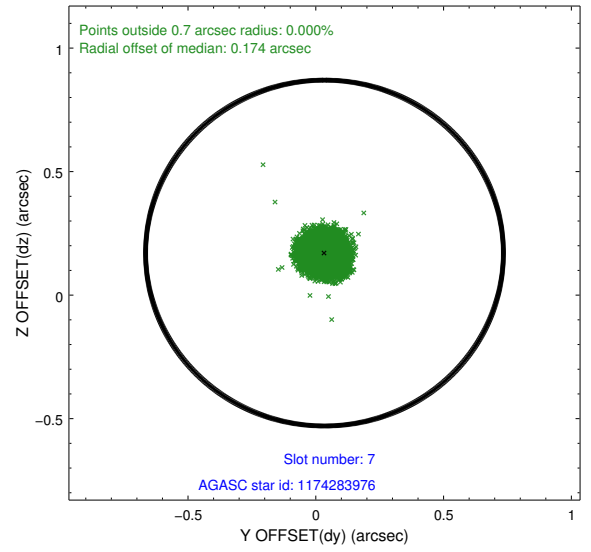
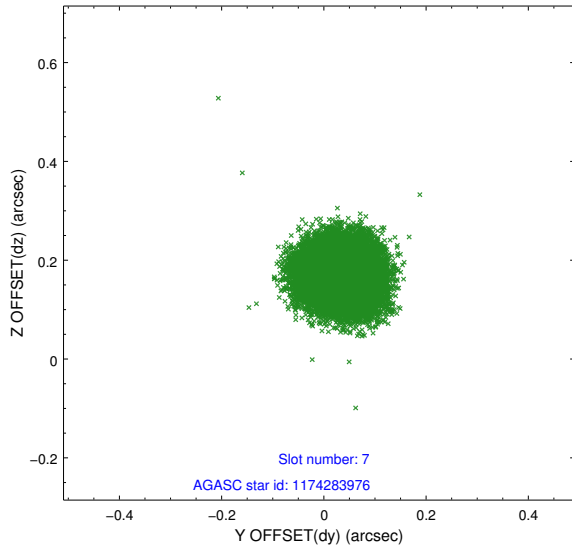
2.4.3 Slot 5



2.4.4 Slot 6

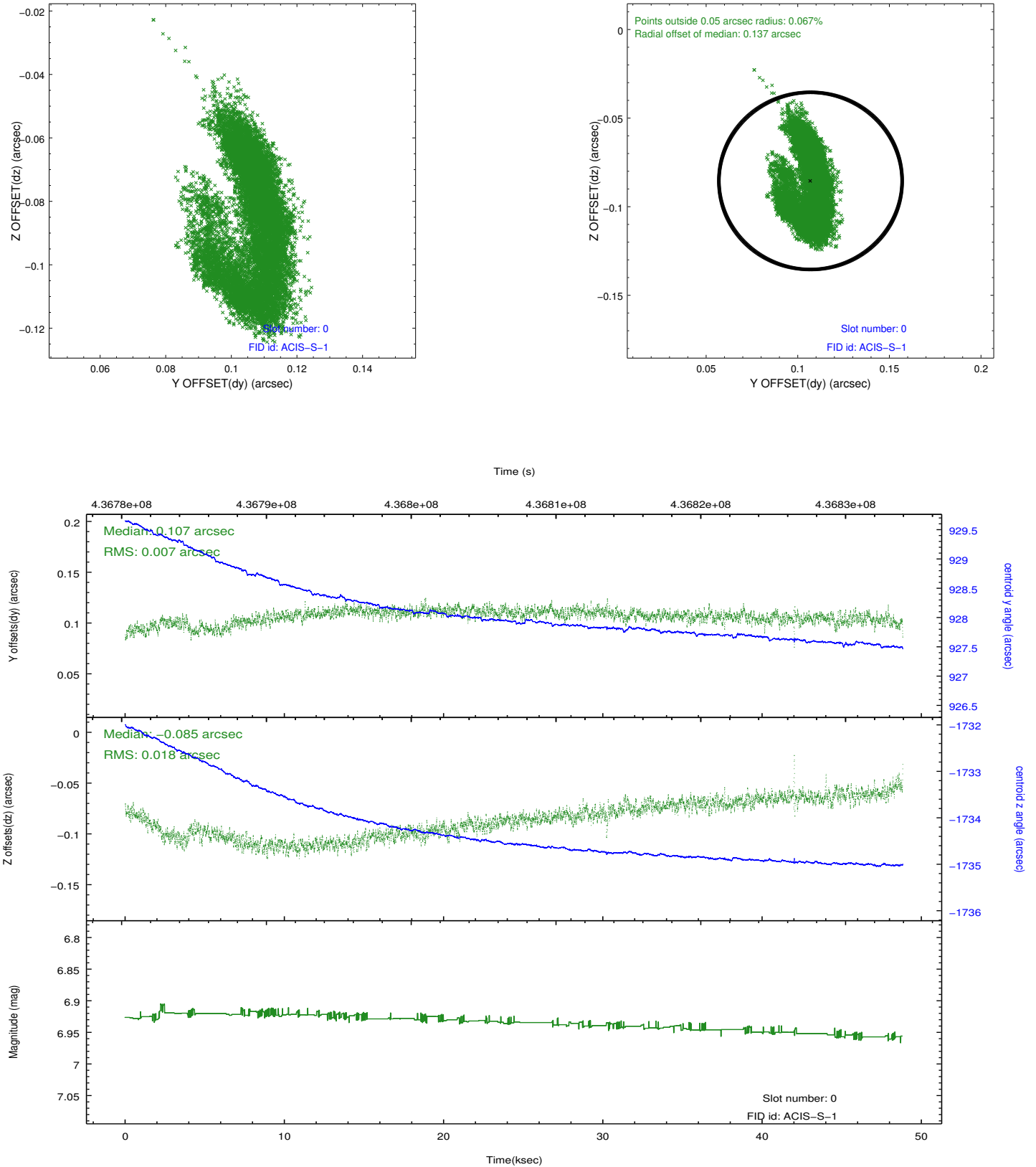


2.4.5 Slot 7

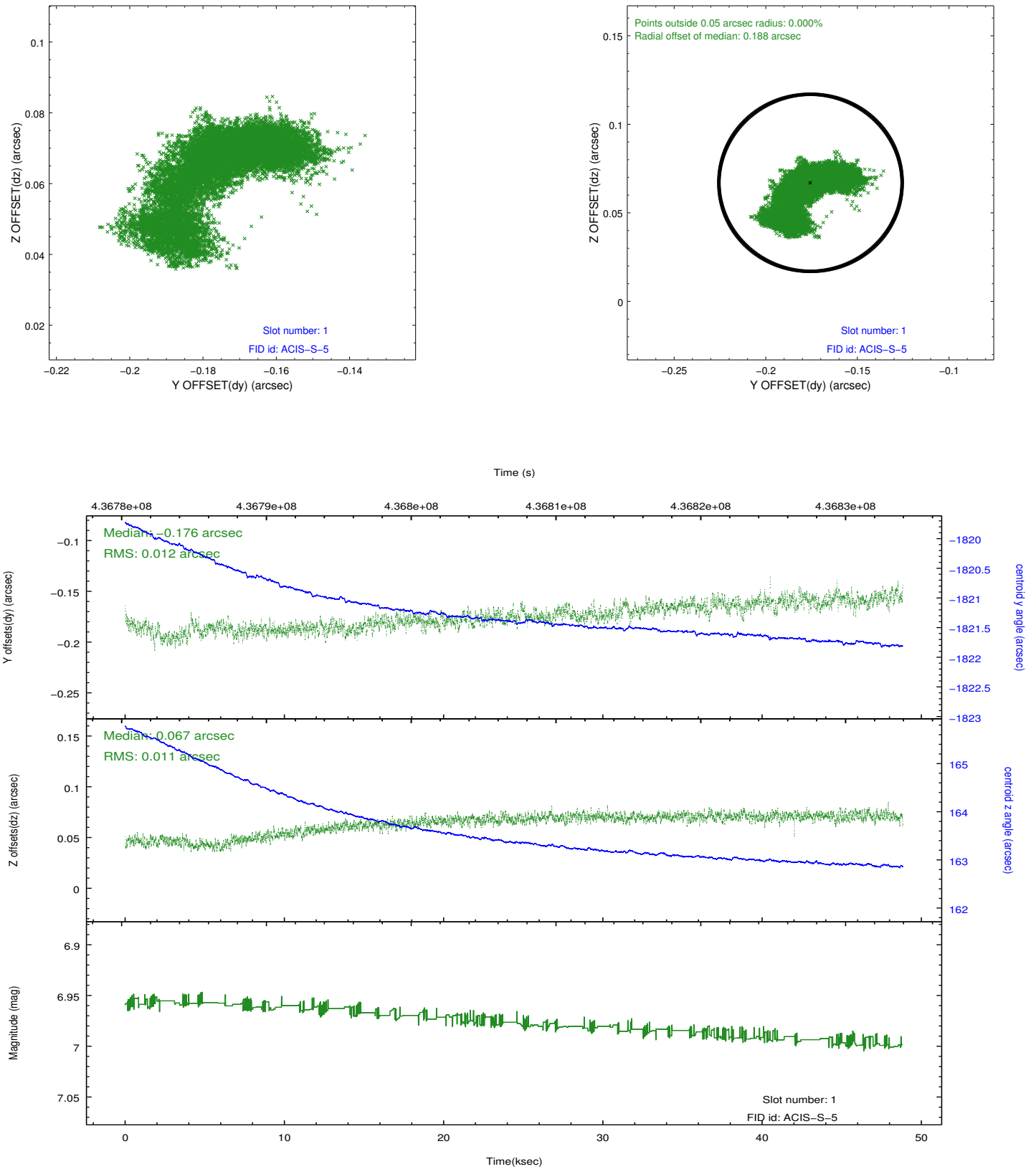


2.5 FID Slots

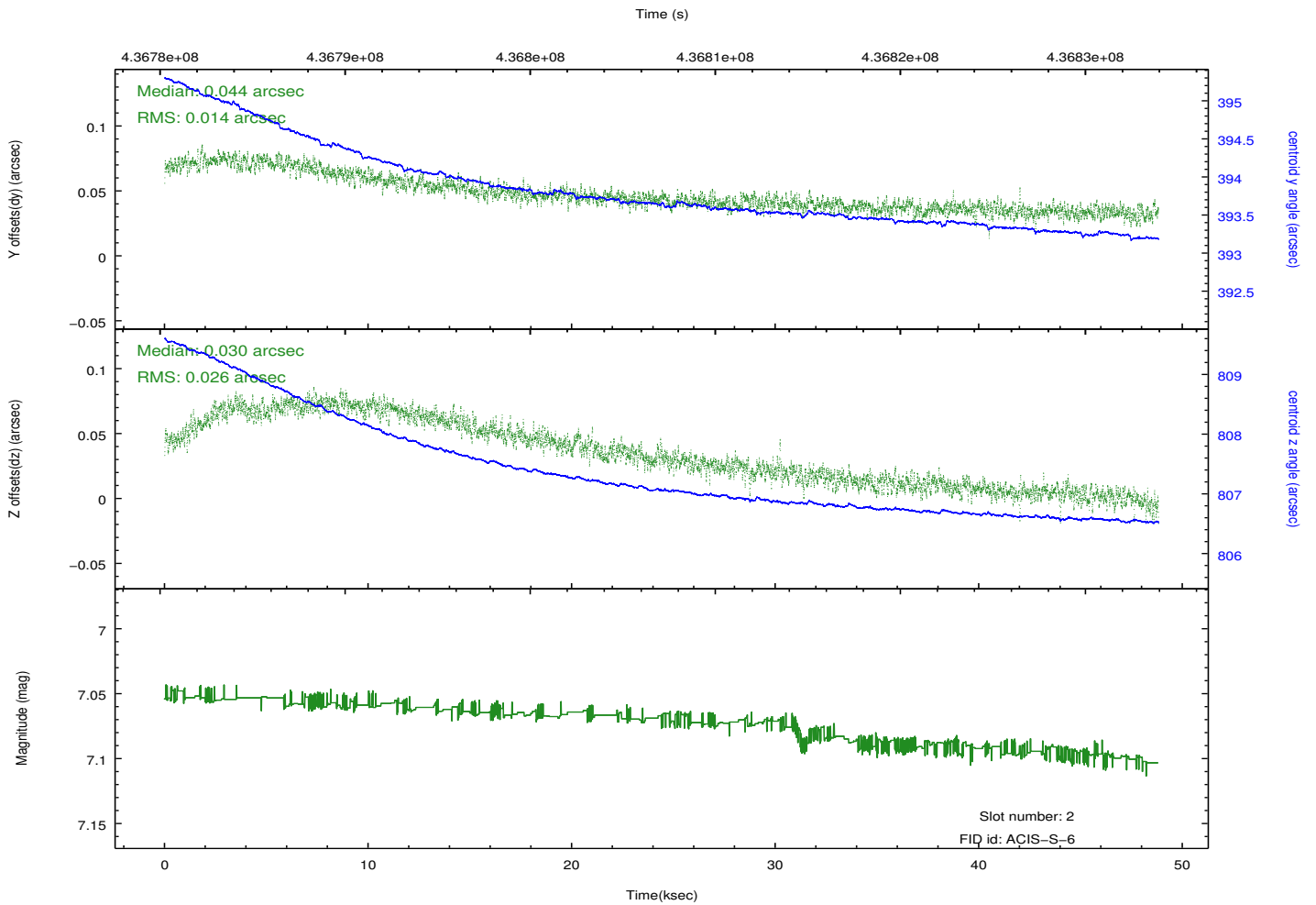
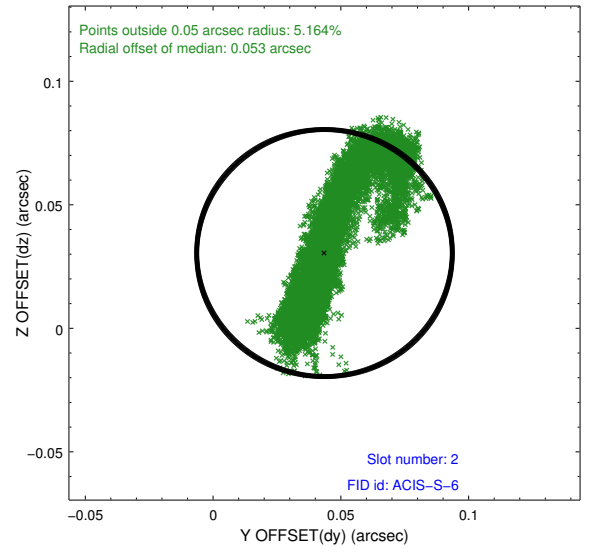
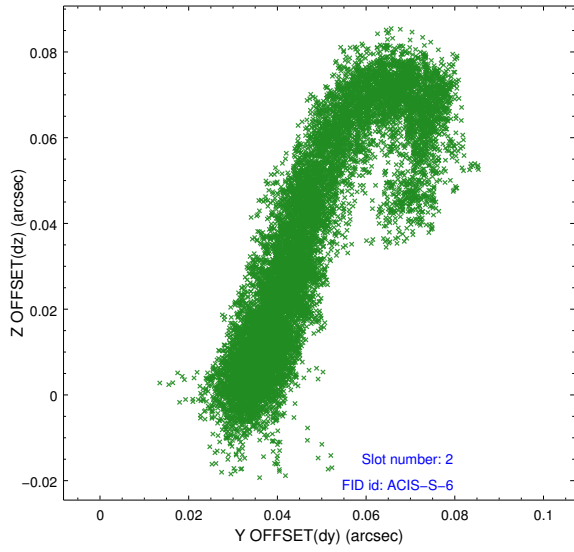
2.5.1 Slot 0



2.5.2 Slot 1

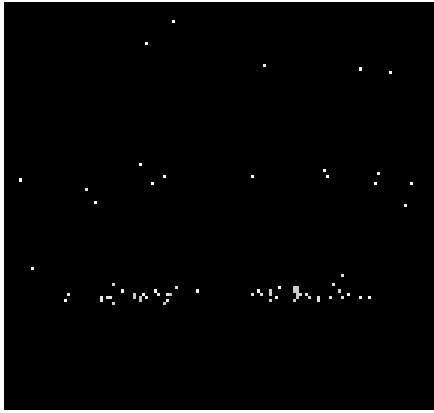


2.5.3 Slot 2

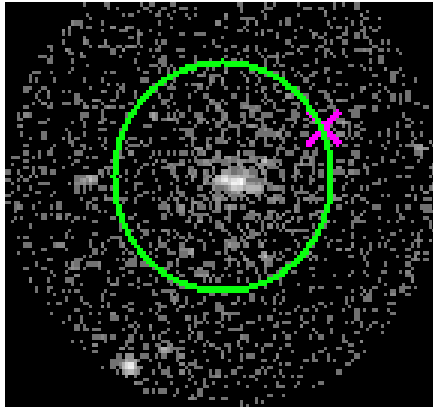


3 Gratings

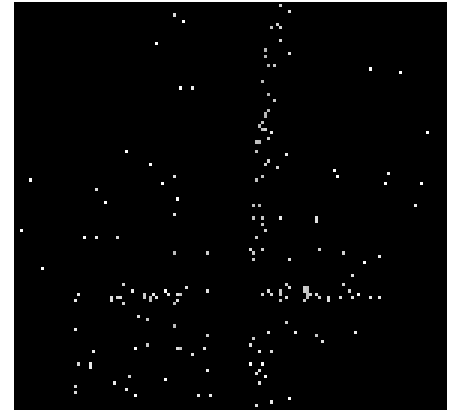
3.1 HEG Arm



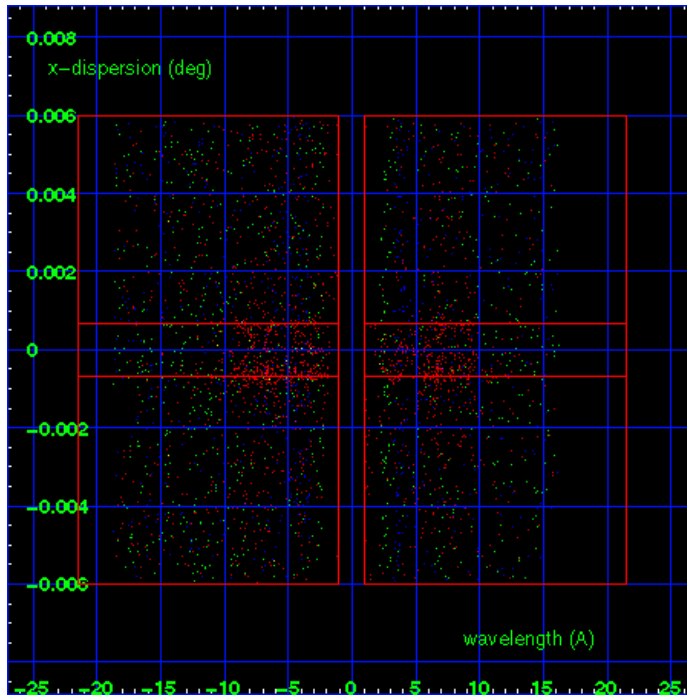
HEG Order Sort 123



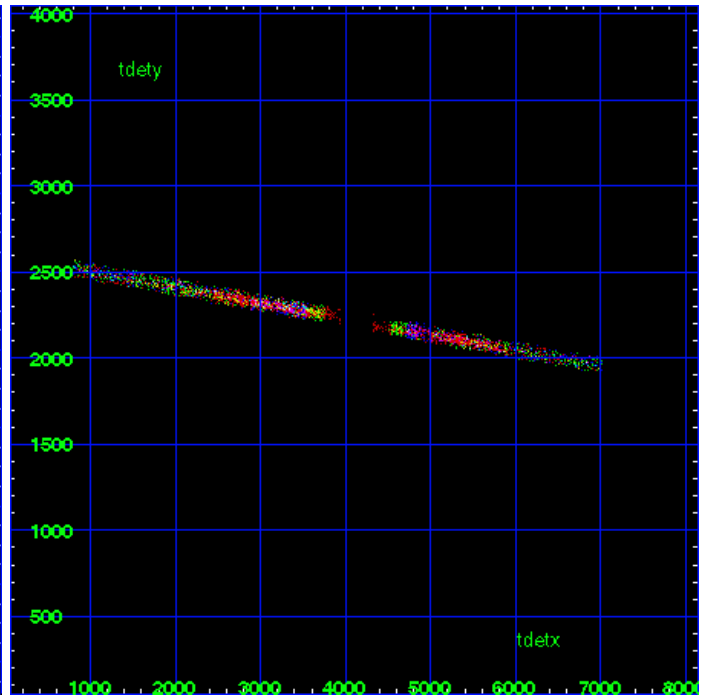
HEG Zero Order



HEG Order Sort ALL

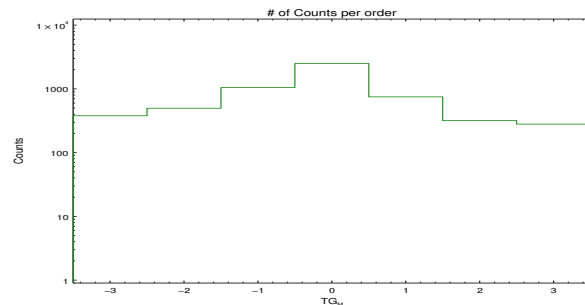


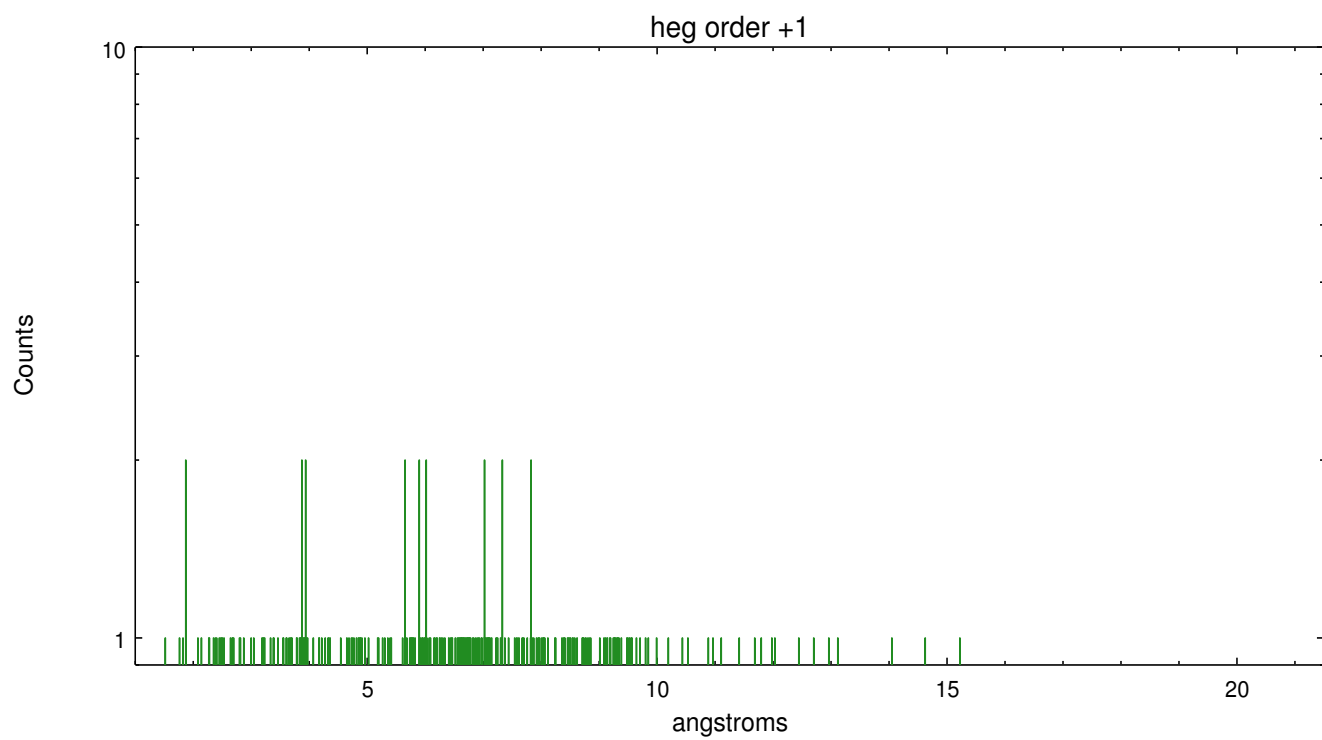
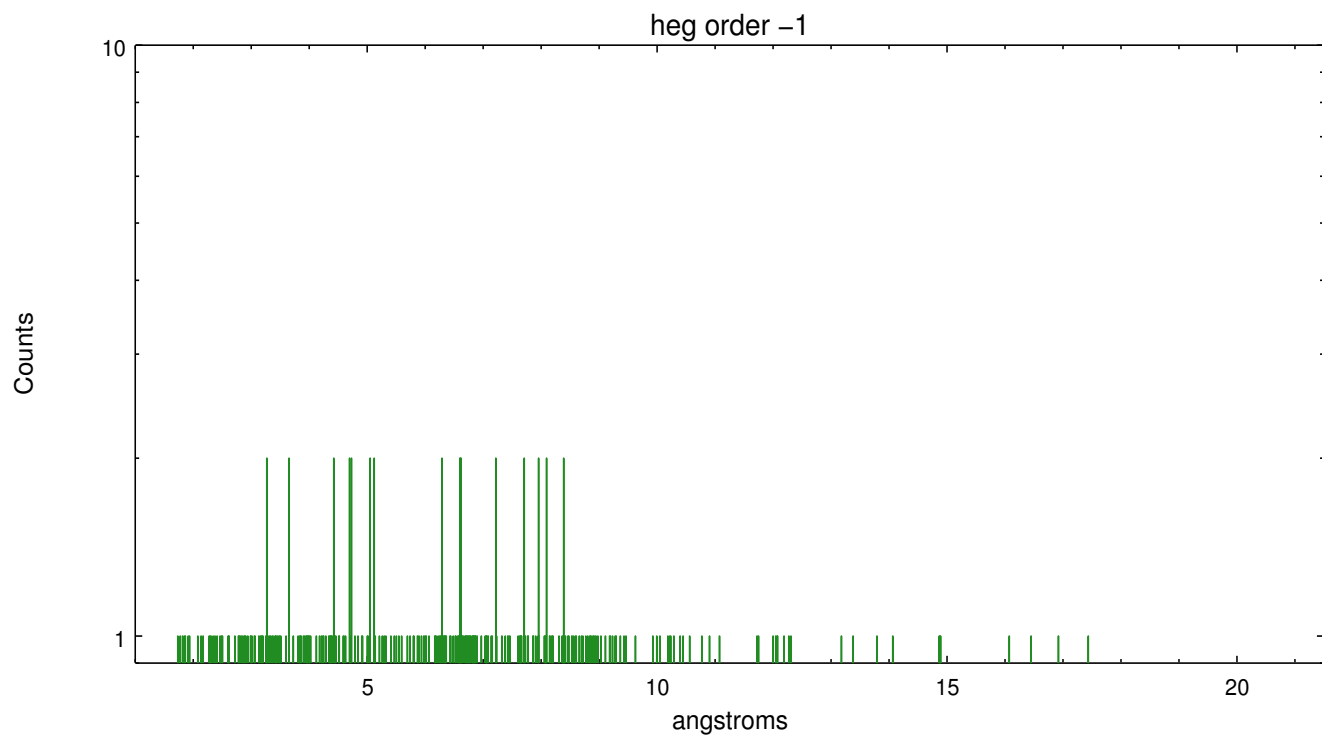
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	379	497	1050	2493	750	318	280

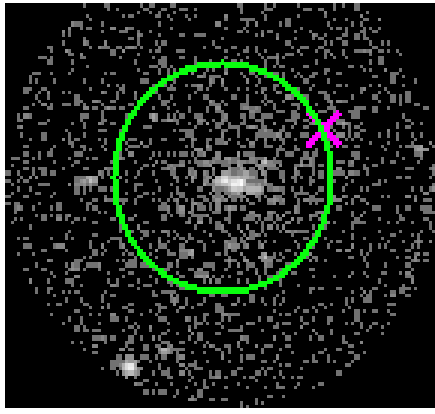




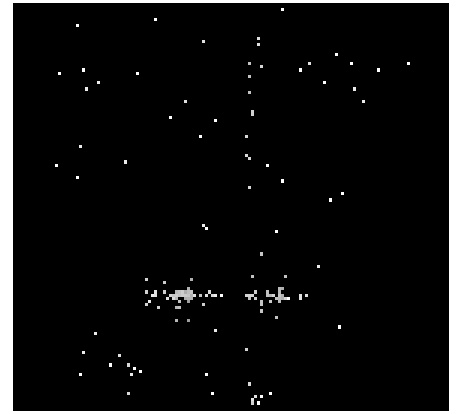
3.2 MEG Arm



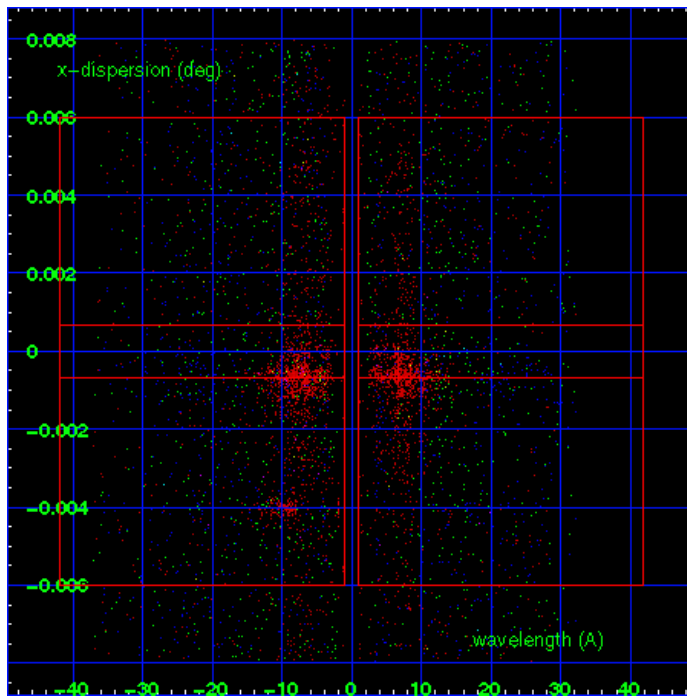
MEG Order Sort 123



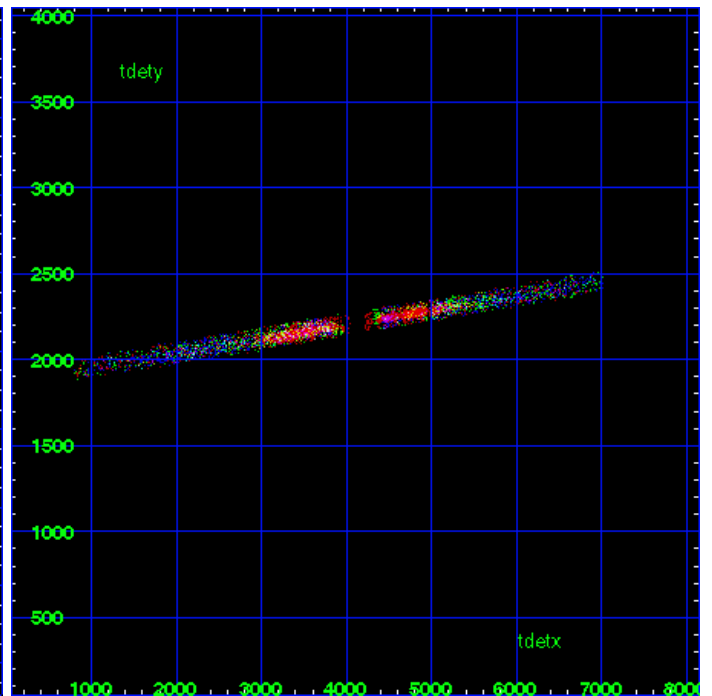
MEG Zero Order



MEG Order Sort ALL

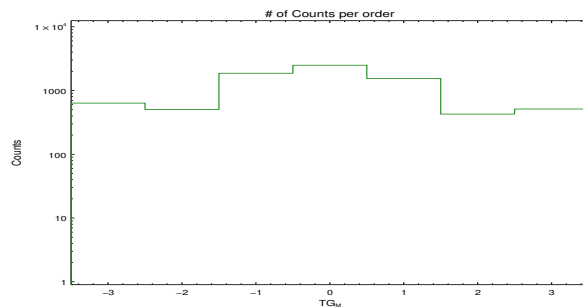


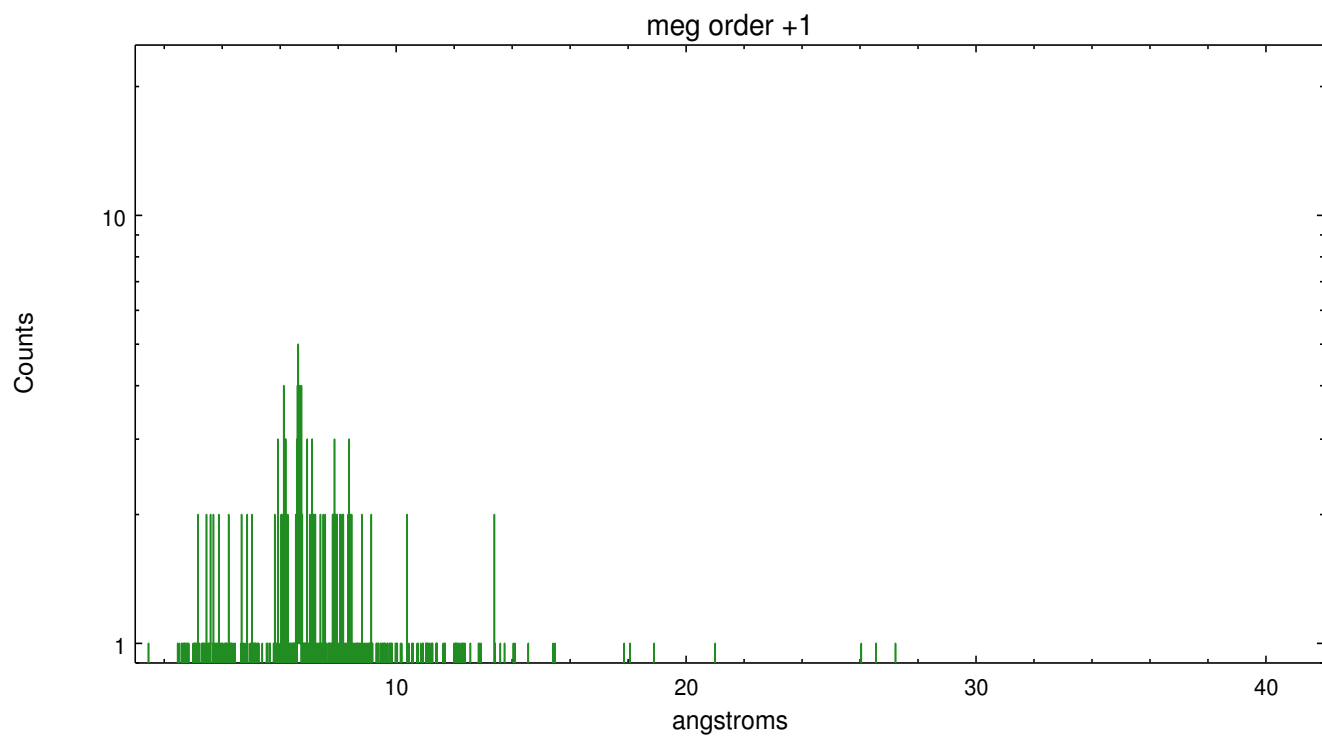
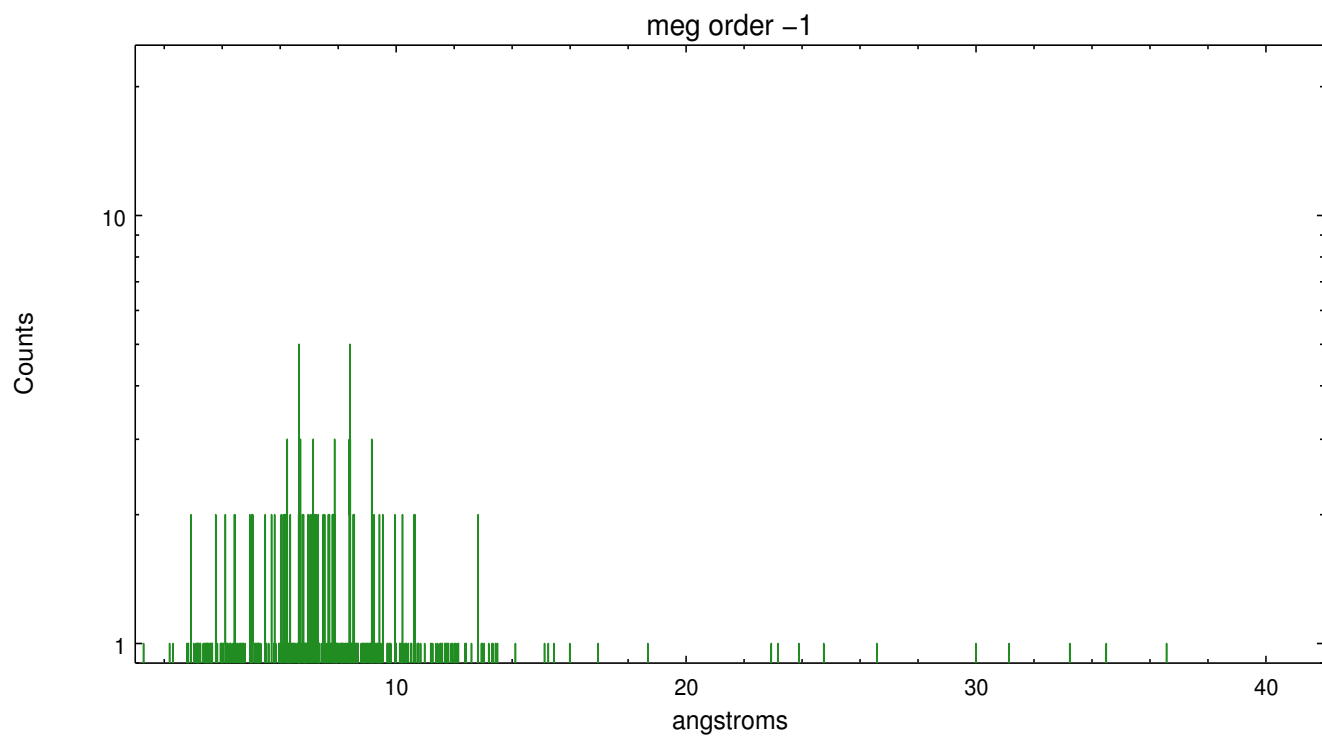
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	635	505	1866	2493	1544	427	513





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.03.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	48.022399821162

A.2 Comments

Multiple, closely-spaced sources are present. Standard software processing technique using the tool `tgdetect` did not give an accurate position for the zeroth order for any one of the sources. The zeroth order position for this observation has instead been determined manually, specifically for the source HD 97950 C. The newly determined zeroth order coordinates ($x = 4068.71$, $y = 4083.07$) have been placed in the `*src1a.fits` file, replacing the coordinates determined by `tgdetect`. Please note that rerunning `tgdetect` for analysis purposes will not give the same zeroth order position as that used in this processing.