

V&V Reference Report

L2 ASCDS Version : 8.4.3.1

Observation 8453 - L2 Version 2
Chandra X-Ray Center

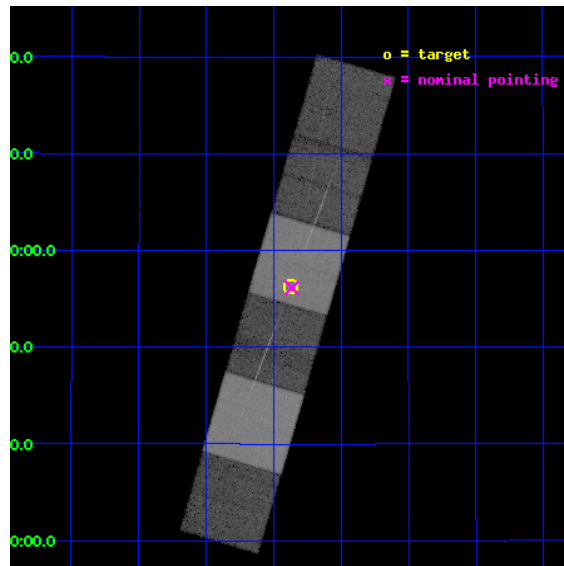
L2 Processing Date : Apr 14 2012

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1 Front

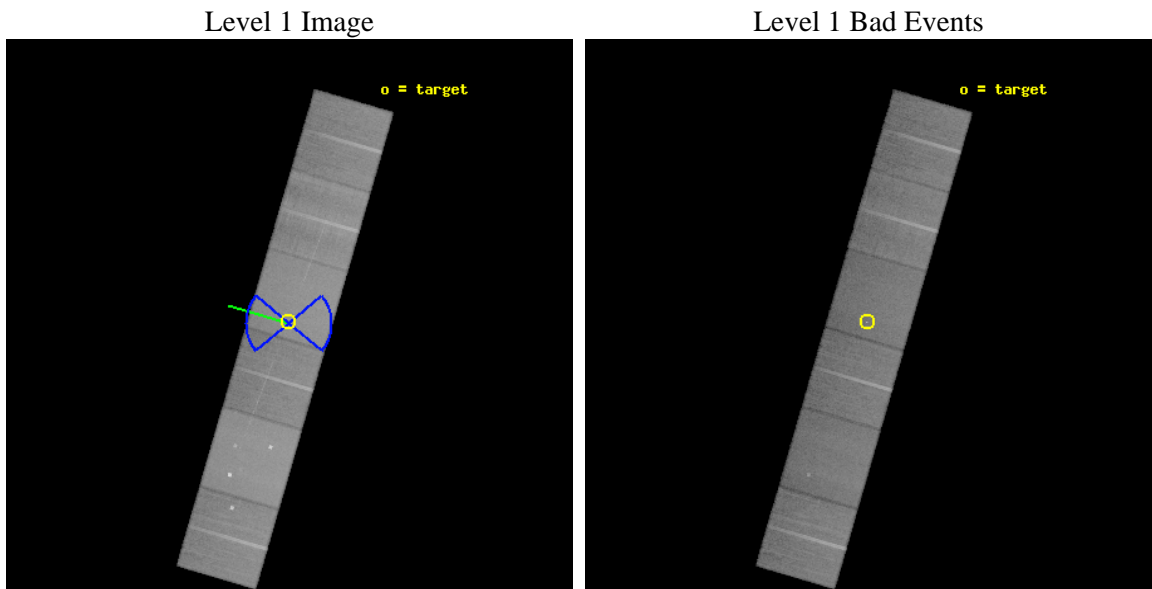
seq_num	200381	Sequence number
obs_id	8453	Observation id
title	Probing spectral changes in variable active M dwarfs	Proposal titl
observer	Dr. Jan-Uwe Ness	Principal investigator
object	EQ Peg	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	352.9675	Observer's specified target RA [deg]
dec_targ	19.93725	Observer's specified target Dec [deg]
ra_nom	352.9661597861	Nominal RA [deg]
dec_nom	19.935592472876	Nominal Dec [deg]
roll_nom	286.26708492518	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29948.799888492	Sum of GTIs [s]
livetime	29569.570151301	Livetime [s]
ontime4	29948.799888492	Sum of GTIs [s]
ontime5	29948.799888492	Sum of GTIs [s]
ontime6	29948.799888492	Sum of GTIs [s]
ontime7	29948.799888492	Sum of GTIs [s]
ontime8	29948.799888492	Sum of GTIs [s]
ontime9	29948.799888492	Sum of GTIs [s]
l2events	460712	Number of level 2 events



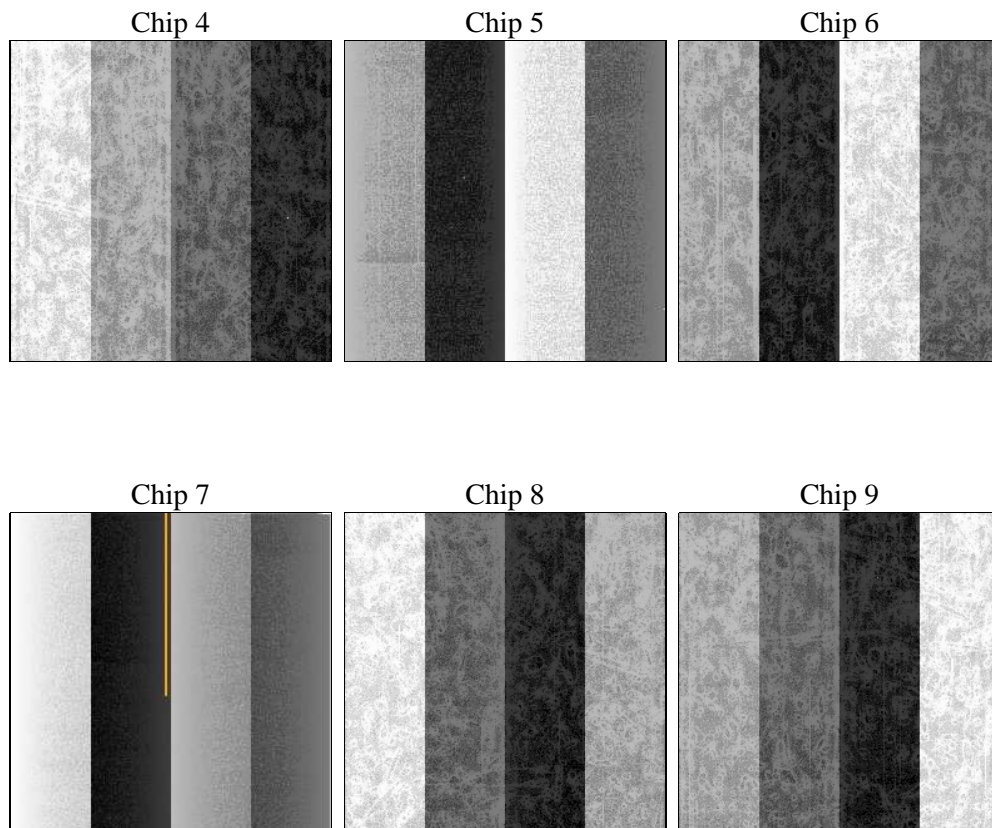
2 OBI

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	8.4.3.1	Processing system revision	ontime	29948.799888492	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	29948.799888492	Sum of GTIs [s]
date	2012-04-14T05:45:38	Date and time of file creation	ontime5	29948.799888492	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	29948.799888492	Sum of GTIs [s]
			ontime7	29948.799888492	Sum of GTIs [s]
			ontime8	29948.799888492	Sum of GTIs [s]
			ontime9	29948.799888492	Sum of GTIs [s]
			l1events	2028679	Number of level 1 events

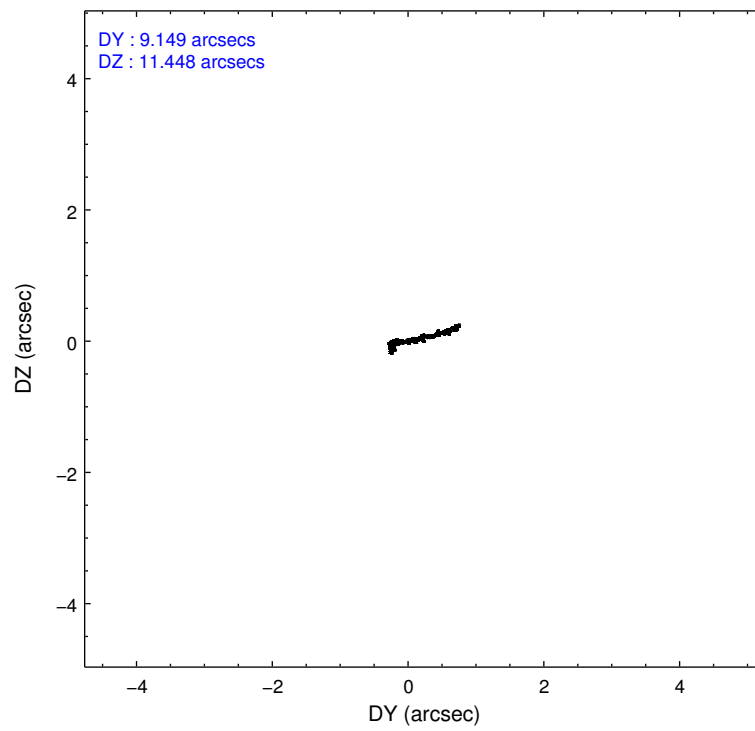
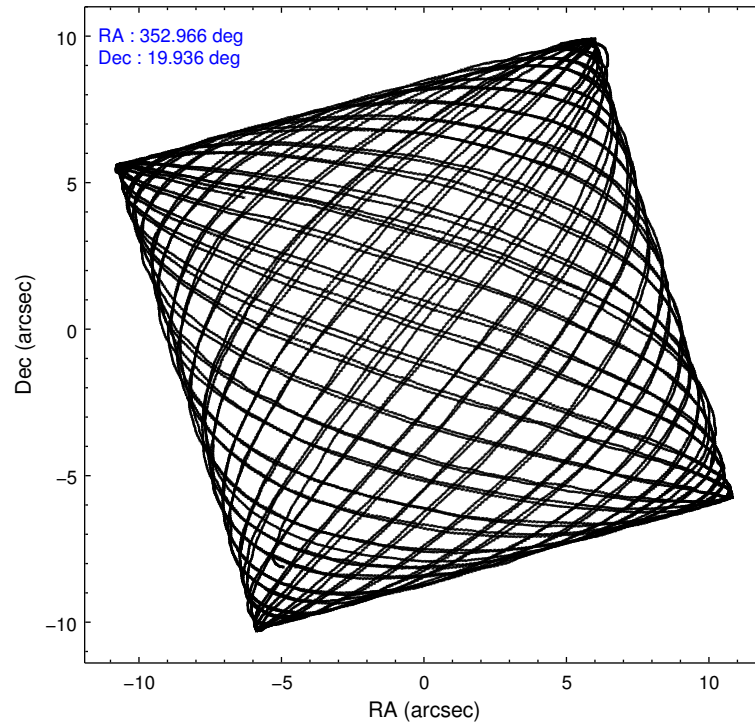
2.1.4 Events

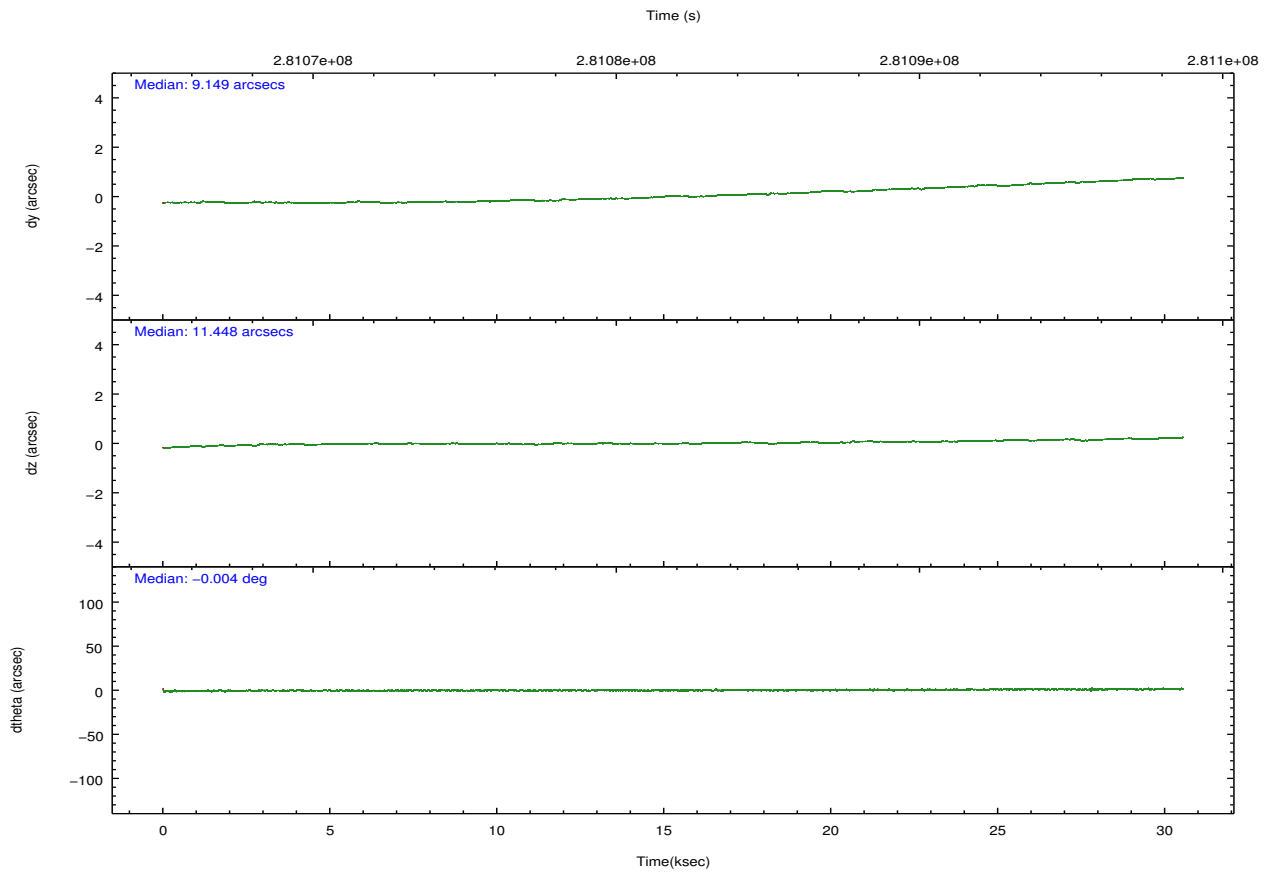
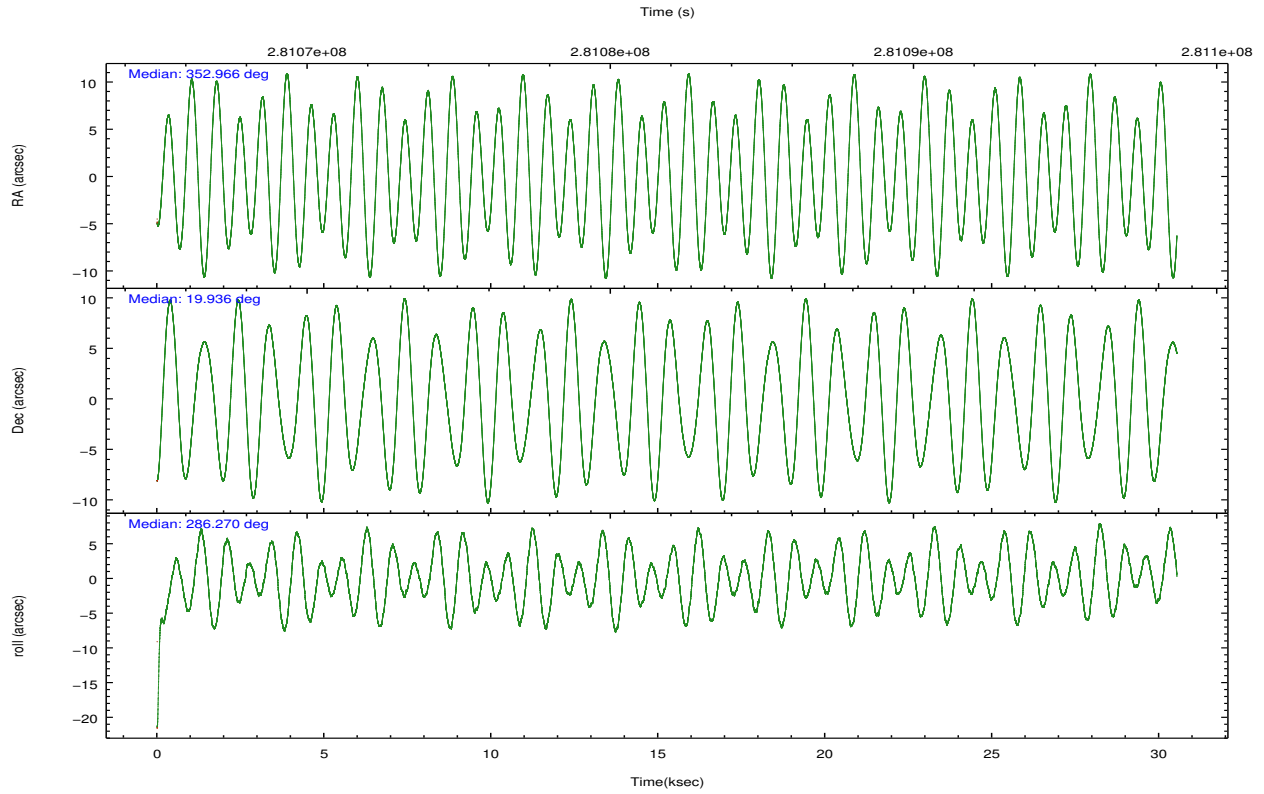
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	308048	428833	278669	383549	351912	277668	grade 0 events	19764	20196	14095	15016	25528	14135
rejected events	268885	228310	244165	220910	272395	243701		6%	4%	5%	3%	7%	5%
rejected %	87%	53%	87%	57%	77%	87%	grade 1 events	335	1201	145	437	272	169
								0%	0%	0%	0%	0%	0%
							grade 2 events	7137	63616	7328	33092	17892	6699
								2%	14%	2%	8%	5%	2%
							grade 3 events	3512	7063	3162	14401	7995	3300
								1%	1%	1%	3%	2%	1%
							grade 4 events	3365	7053	3059	14254	7534	3222
								1%	1%	1%	3%	2%	1%
							grade 5 events	12445	30371	12800	36238	17198	13526
								4%	7%	4%	9%	4%	4%
							grade 6 events	5387	102615	6868	85890	20573	6616
								1%	23%	2%	22%	5%	2%
							grade 7 events	256103	196718	231212	184221	254920	230001
								83%	45%	82%	48%	72%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	352.944961	352.9661597860962	Subarray requested	NONE	NONE
[deg] Pointing Dec	19.954148	19.93559247287567	Alternating exposures requested	N	N
[deg] Pointing Roll	286.117688	286.2670849251756	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	90.000000	90.000000			
[deg] Roll tolerance	40.000000	40.000000			
Roll constraint allows 180D rotation	Y	Y			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	281067140.184000	281065949.61643			
Observation start date	2006-11-28T02:11:15	2006-11-28T01:52:29			
[s] Observation end time (MET)	281097140.184000	281097513.98042			
Observation end date	2006-11-28T10:31:15	2006-11-28T10:38:33			
Read mode	TIMED	TIMED			

2.3 Aspect



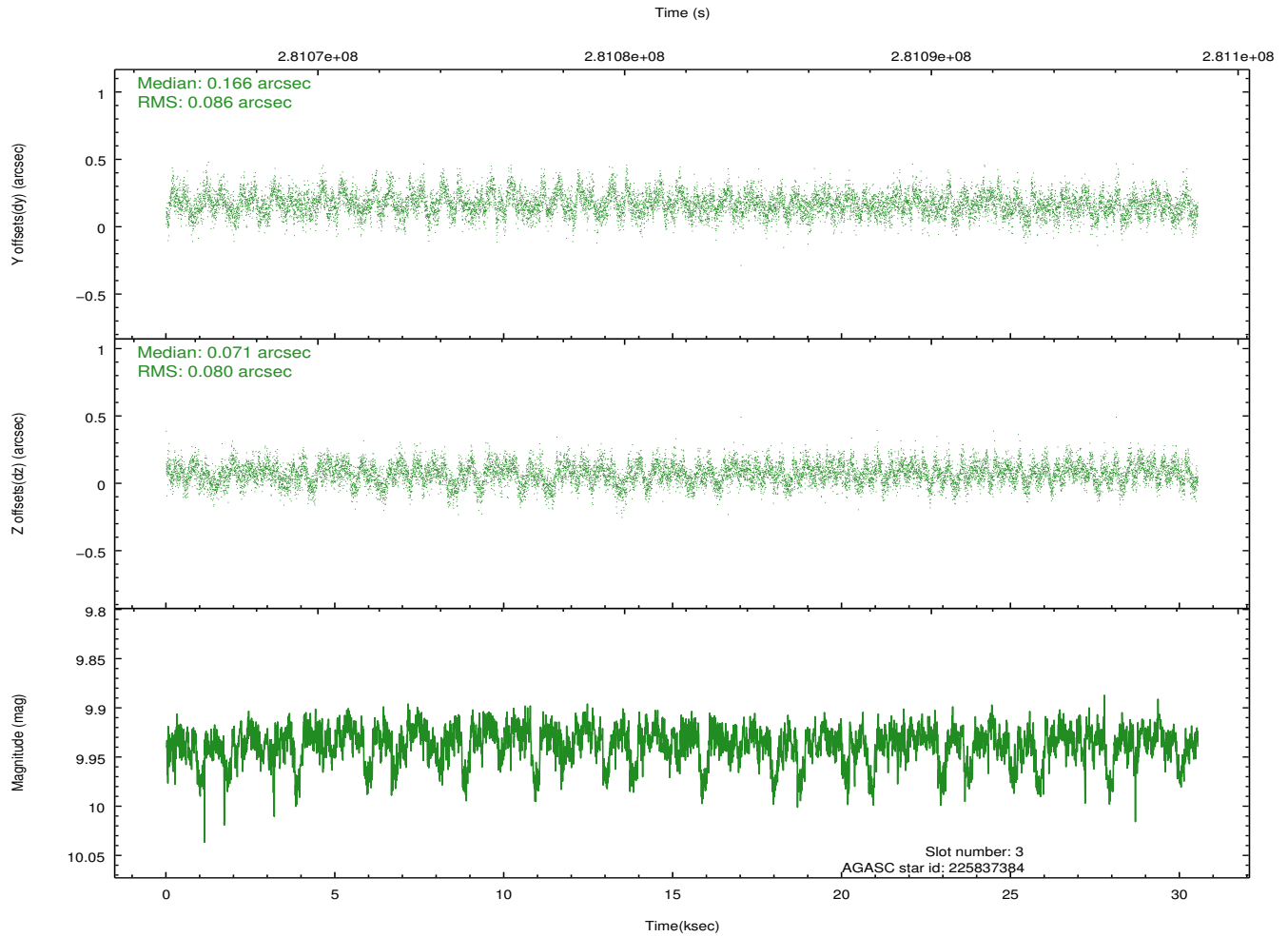
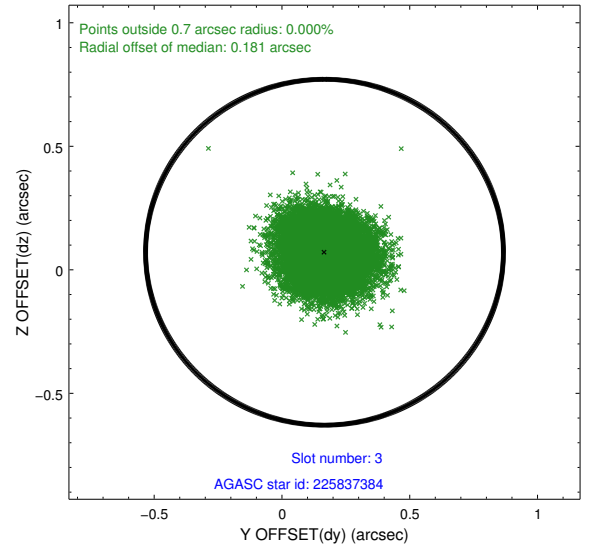
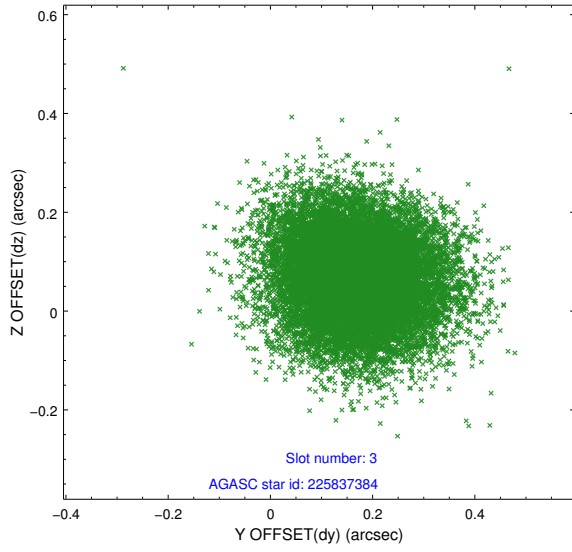


Slot Statistics

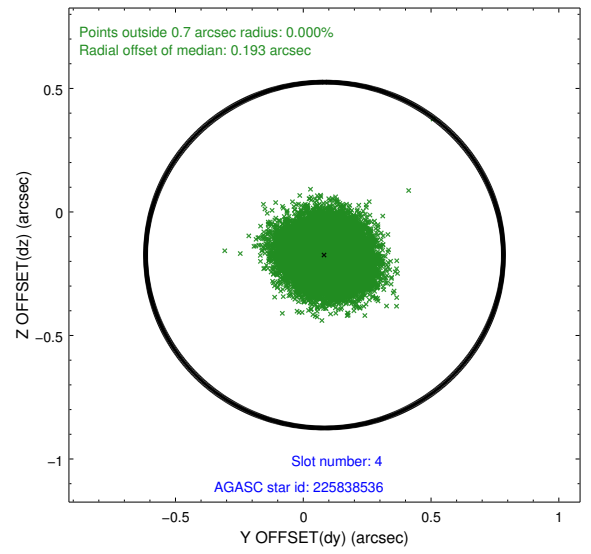
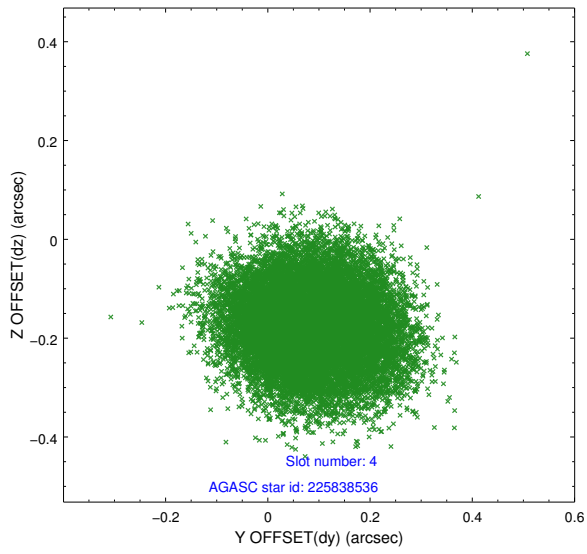
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	7449	-0.041	-0.033	0.007	0.013	0.000000	0.000000	-762.07	-1732.80
1	FID	ACIS-S-4	7.21	7449	0.169	0.029	0.009	0.021	0.000000	0.000000	2151.37	175.70
2	FID	ACIS-S-5	7.23	7449	-0.159	0.013	0.009	0.021	0.000000	0.000000	-1814.95	169.40
3	GUIDE	225837384	9.94	14871	0.166	0.071	0.125	0.202	352.987146	19.537840	1479.88	-278.52
4	GUIDE	225838536	9.58	14877	0.083	-0.175	0.128	0.196	353.052122	19.704878	963.21	99.63
5	GUIDE	225843792	9.27	14885	-0.027	0.037	0.102	0.162	353.581433	19.686286	1521.99	1806.09
6	GUIDE	226240768	8.89	14891	-0.077	0.060	0.087	0.134	353.030892	20.523748	-1889.34	847.95
7	GUIDE	226240232	8.84	14891	-0.154	0.008	0.070	0.113	352.730108	20.581655	-2371.99	-67.99

2.4 Star Slots

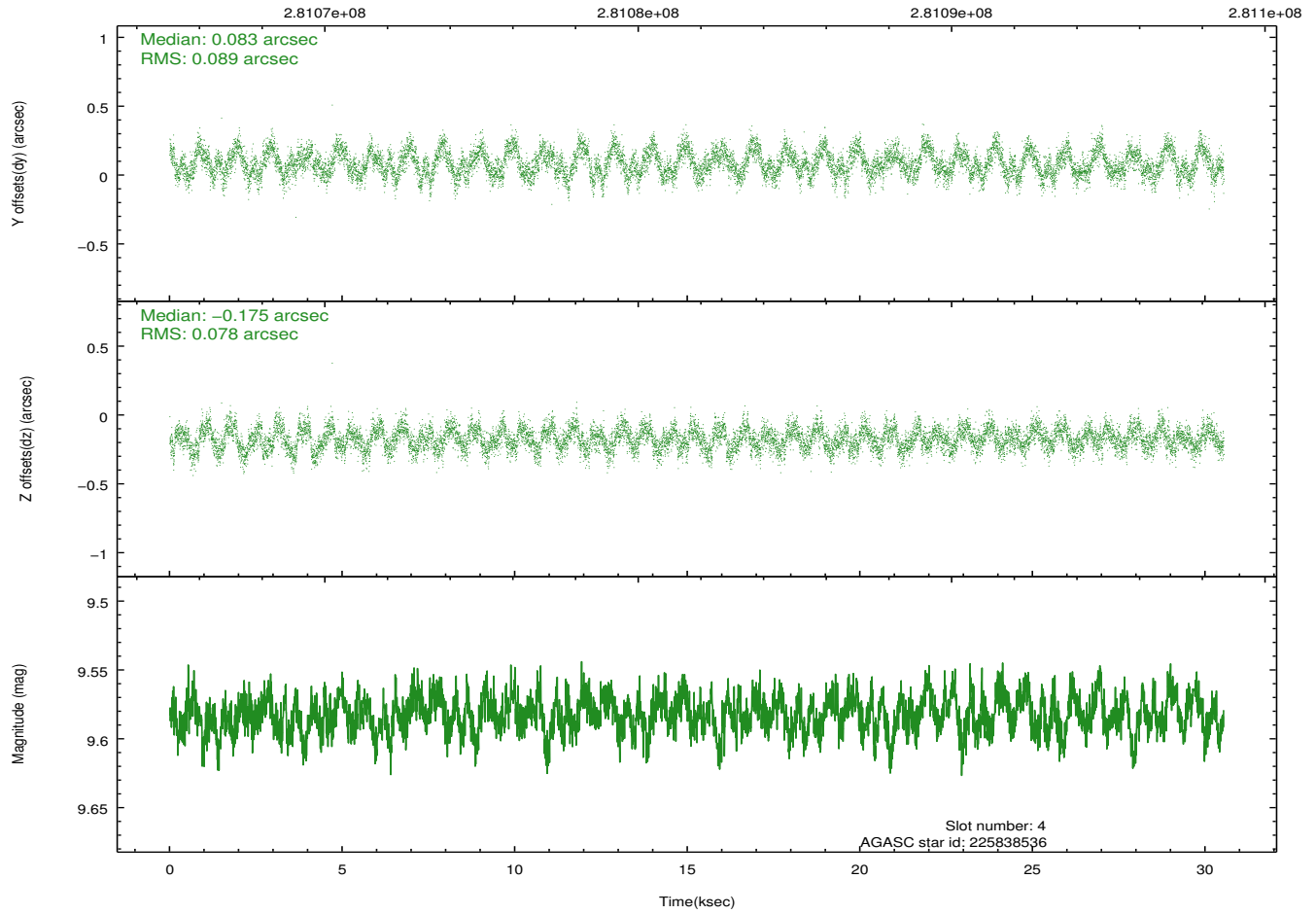
2.4.1 Slot 3



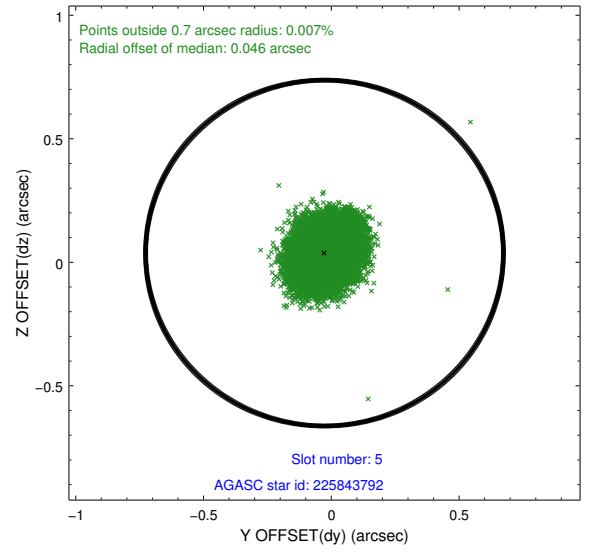
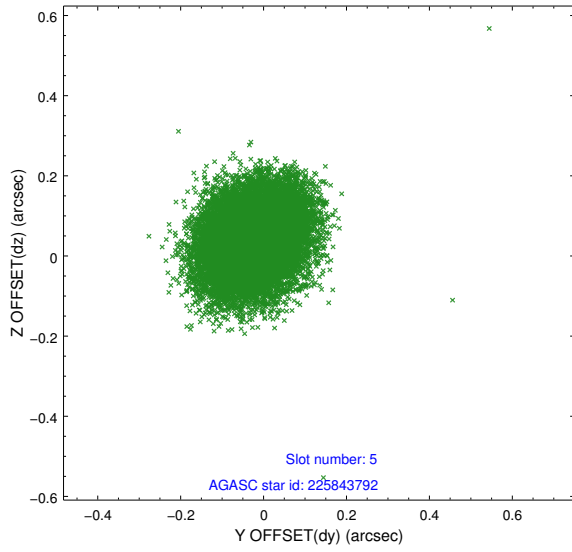
2.4.2 Slot 4



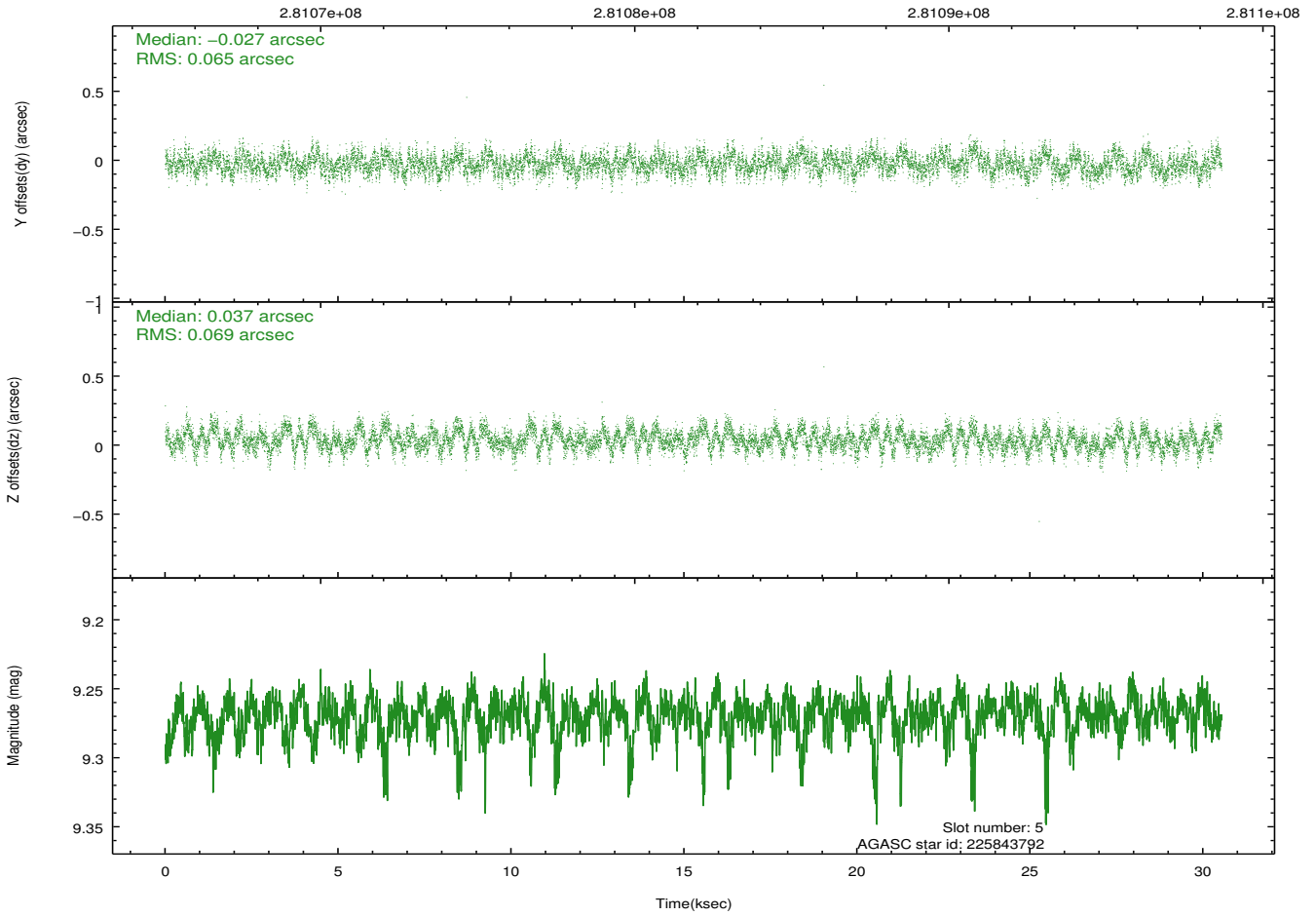
Time (s)



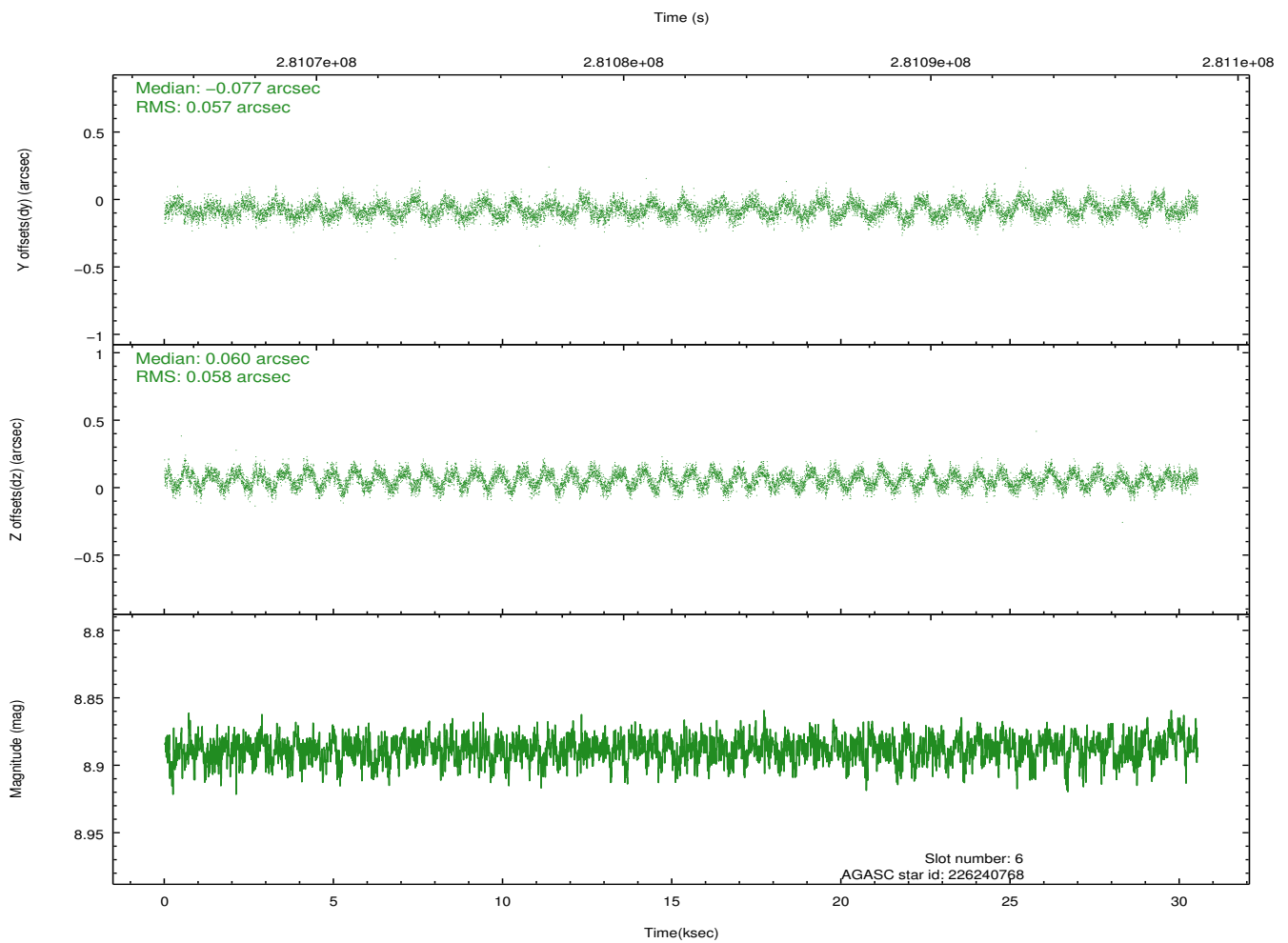
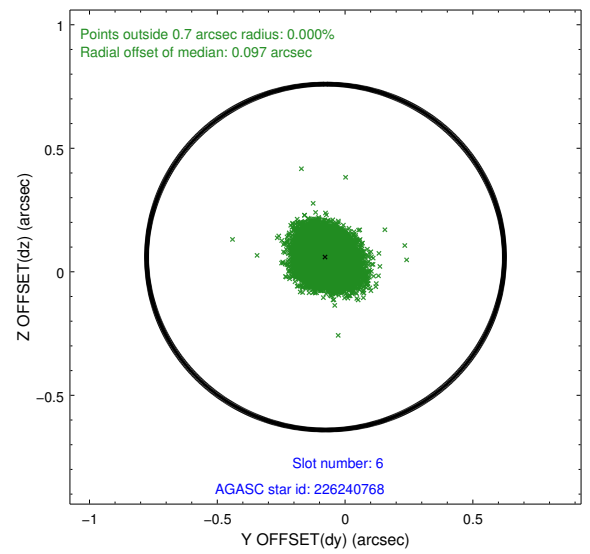
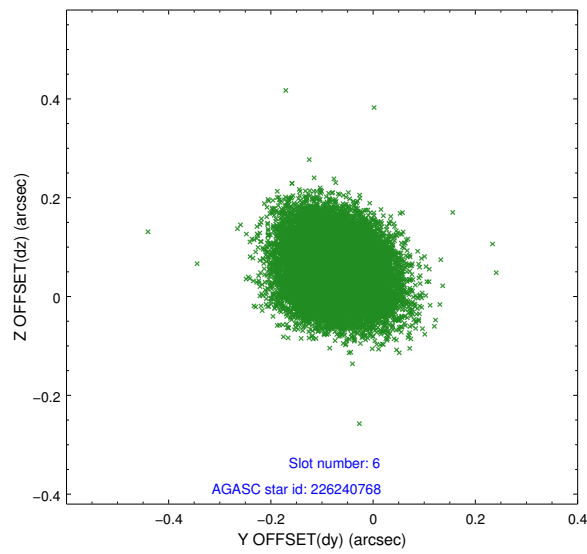
2.4.3 Slot 5



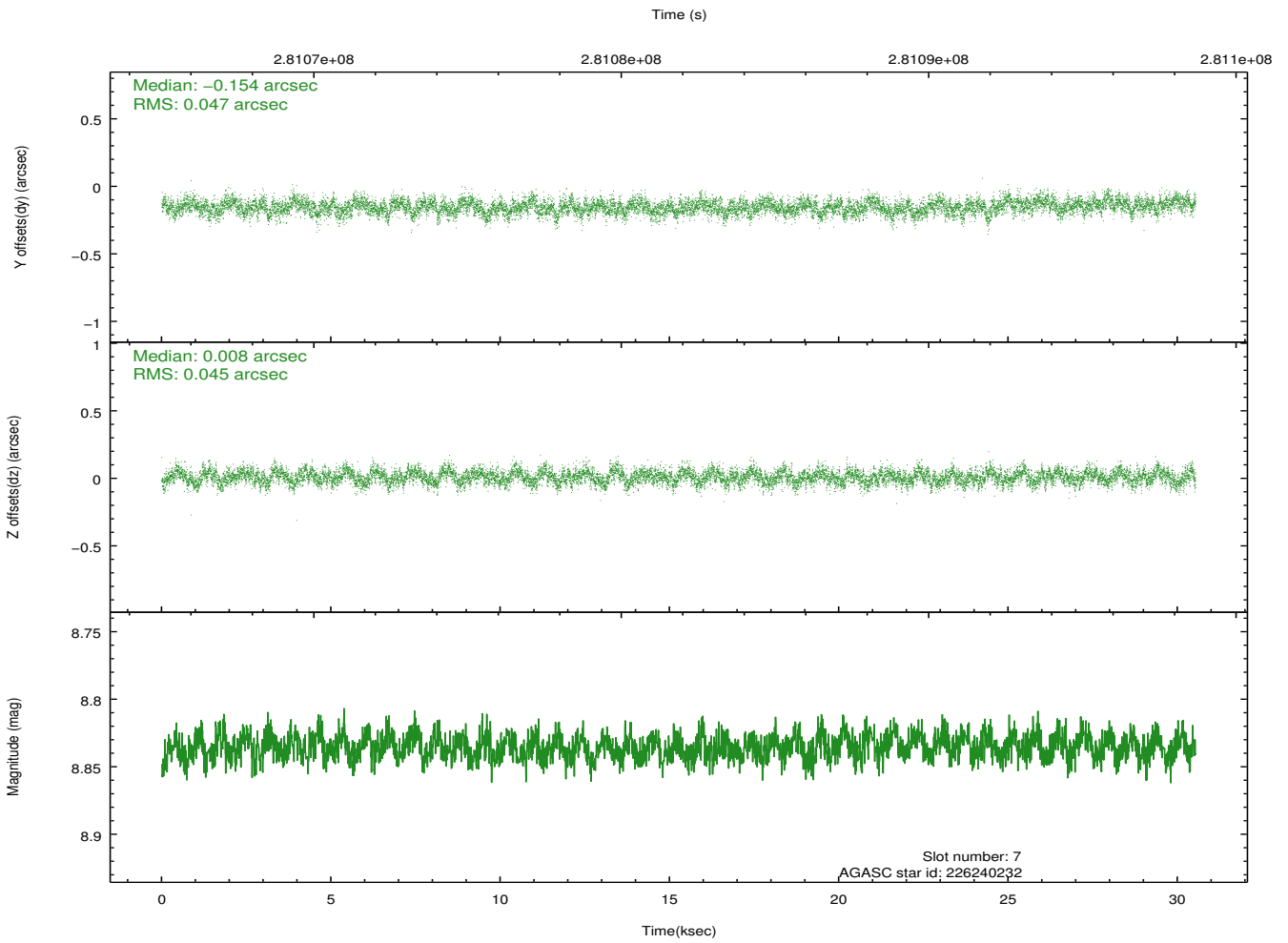
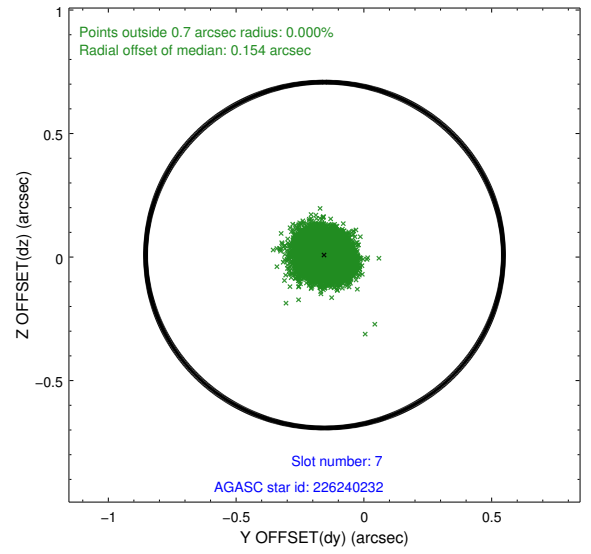
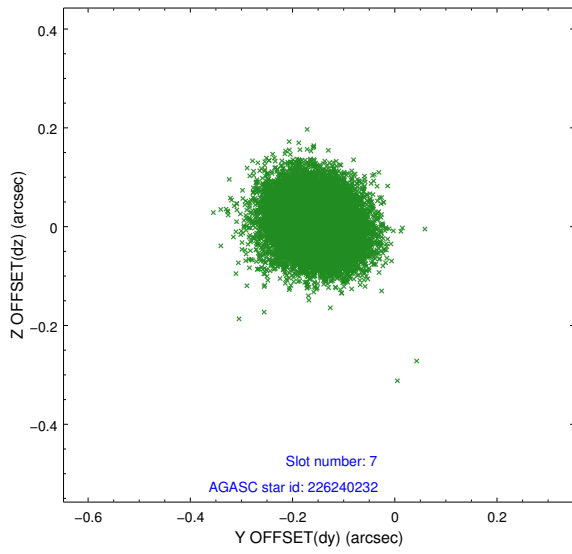
Time (s)



2.4.4 Slot 6

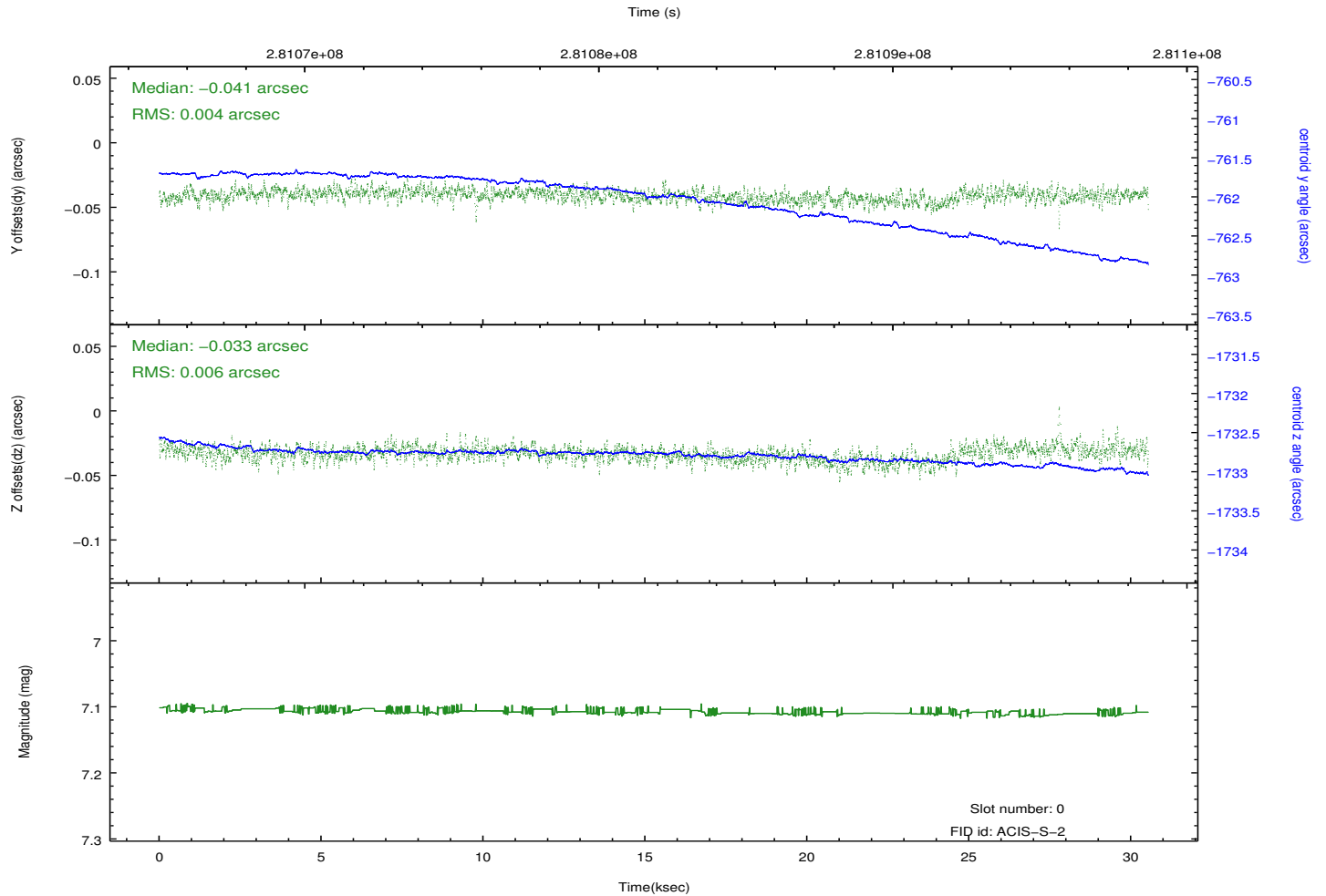
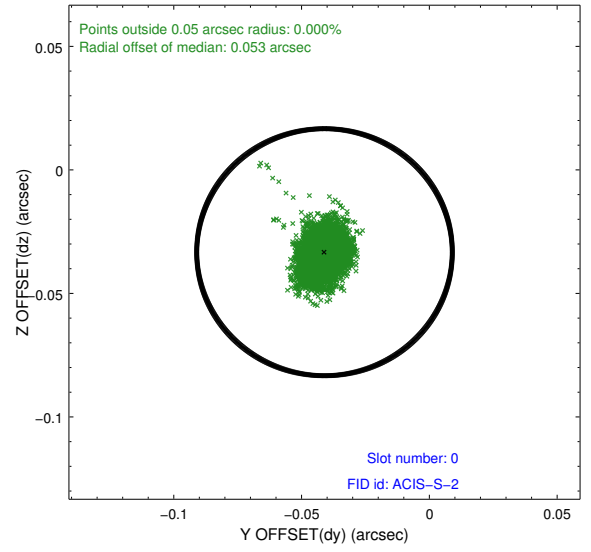
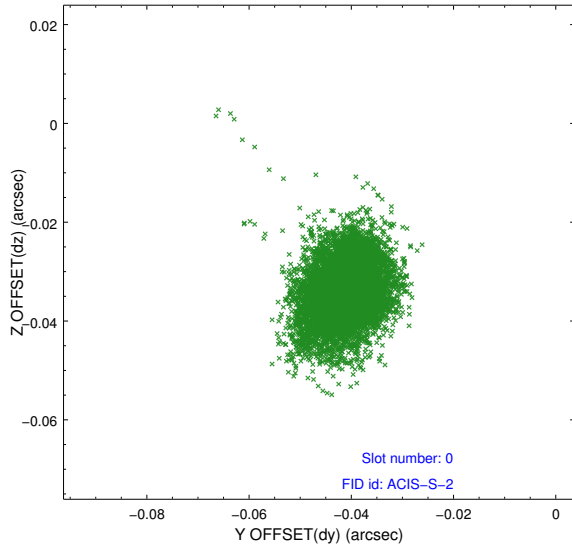


2.4.5 Slot 7

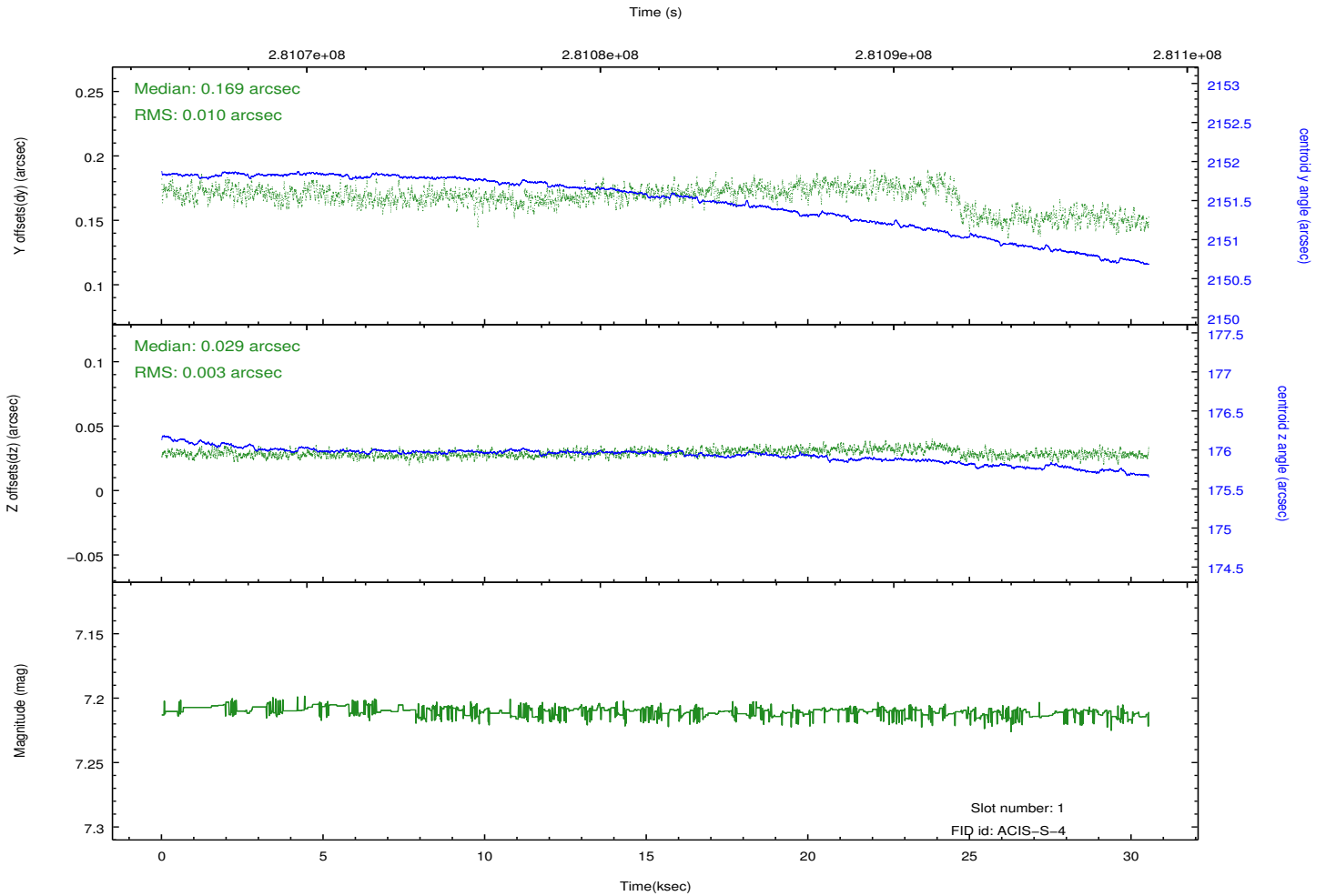
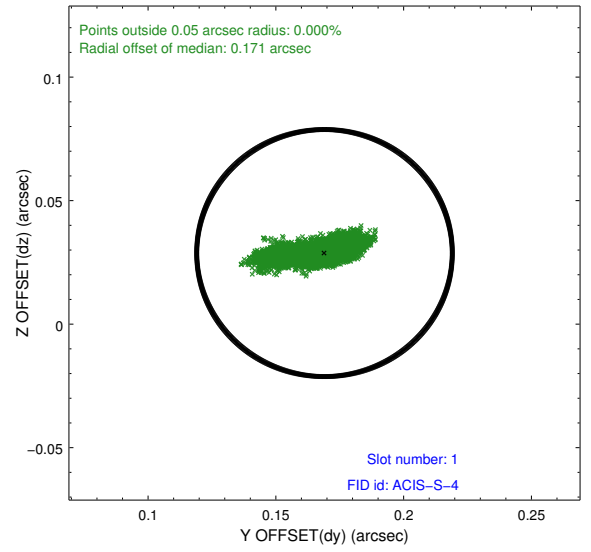
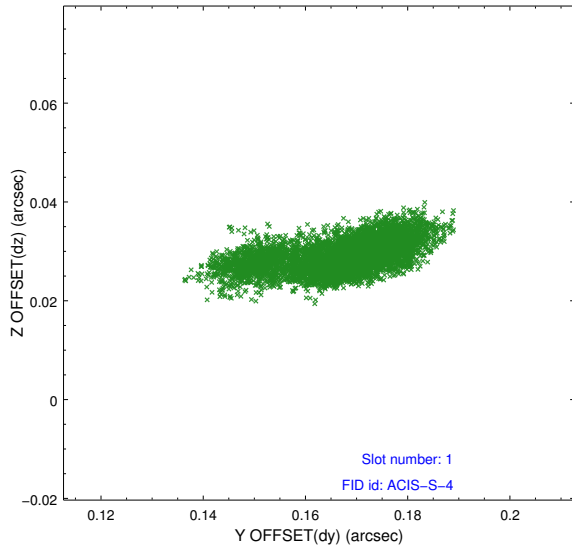


2.5 FID Slots

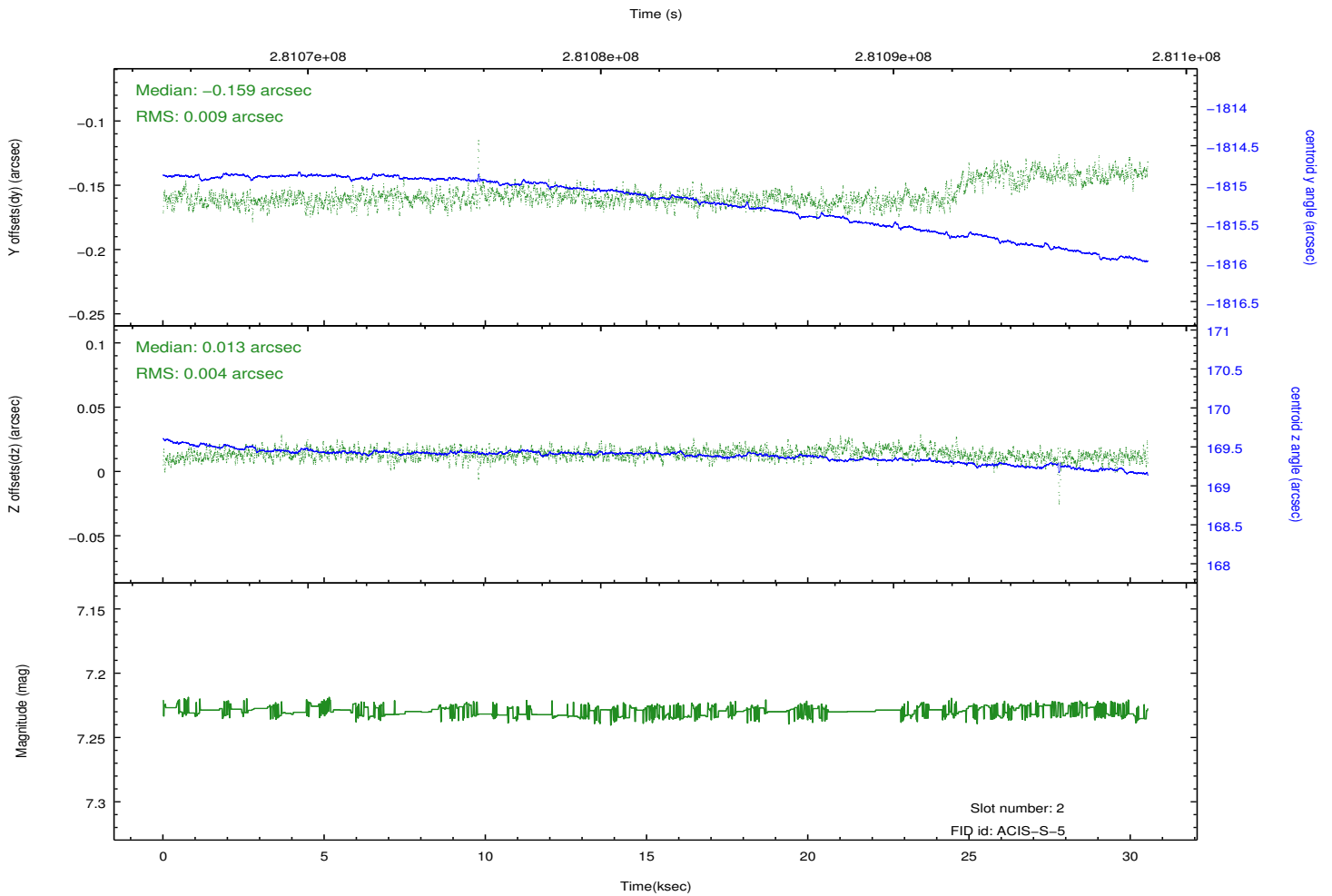
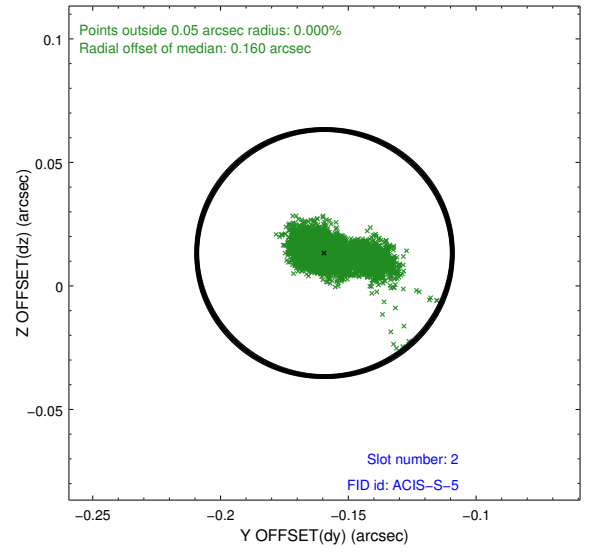
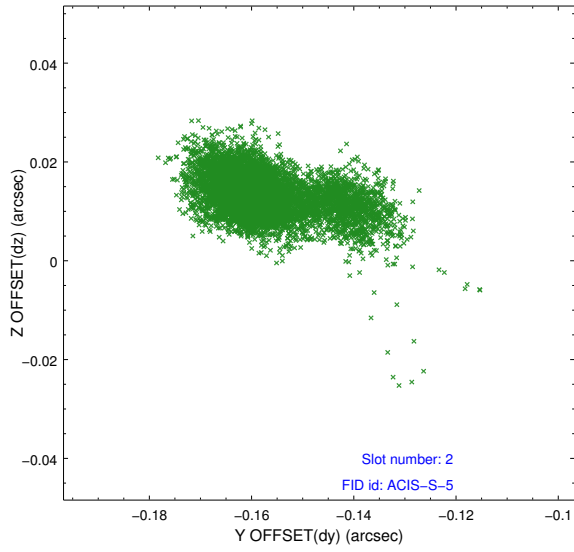
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

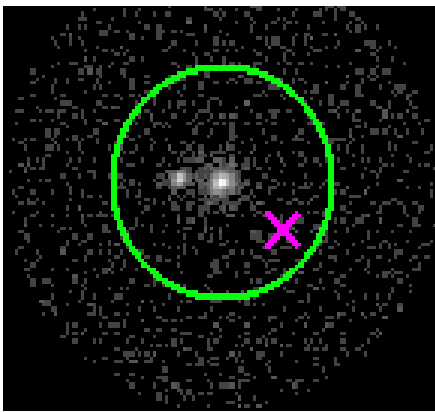


3 Gratings

3.1 HEG Arm



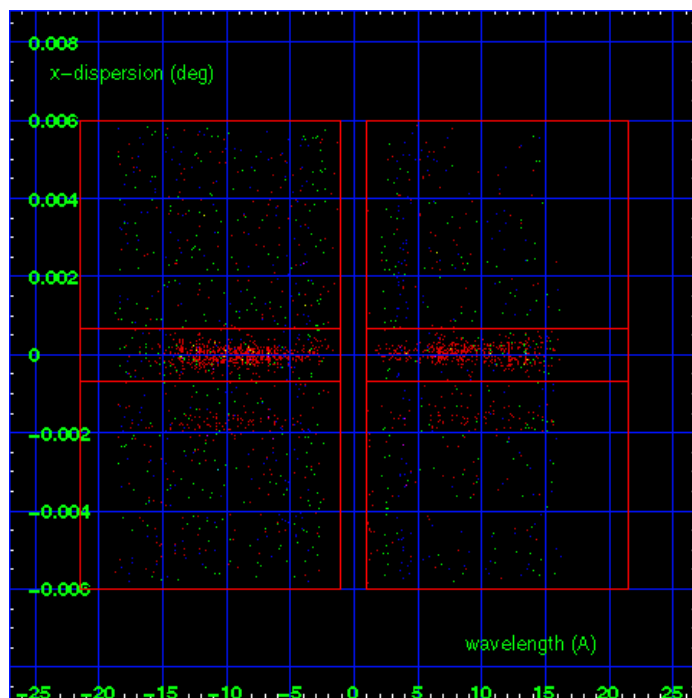
HEG Order Sort 123



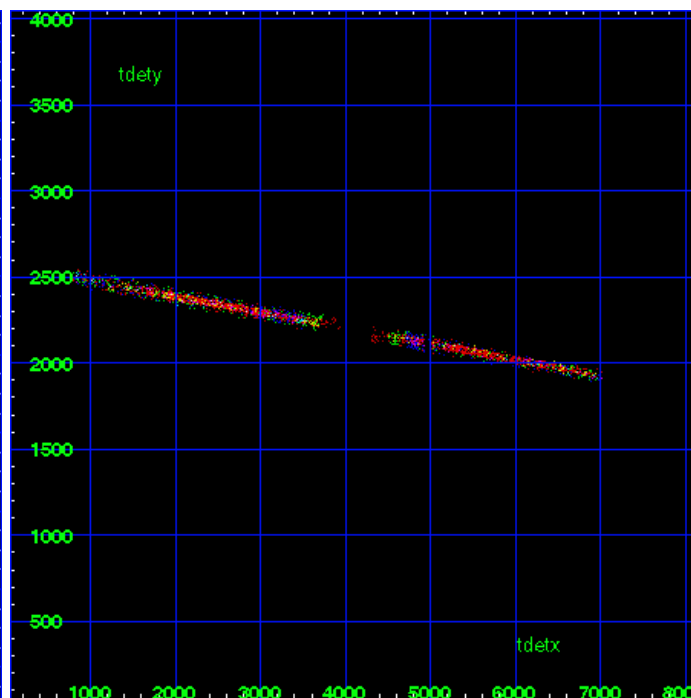
HEG Zero Order



HEG Order Sort ALL

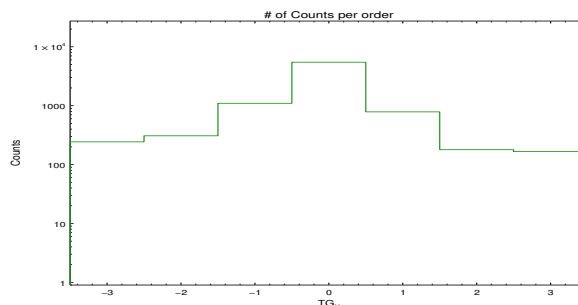


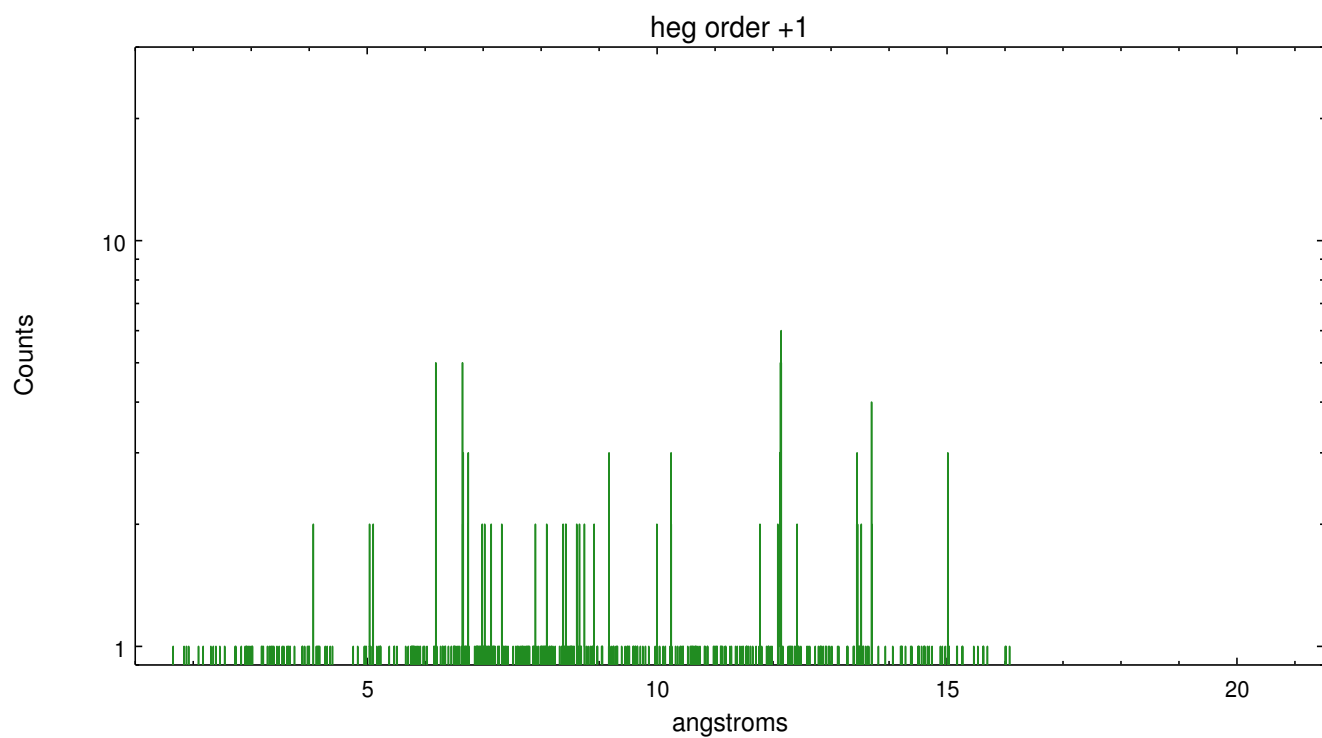
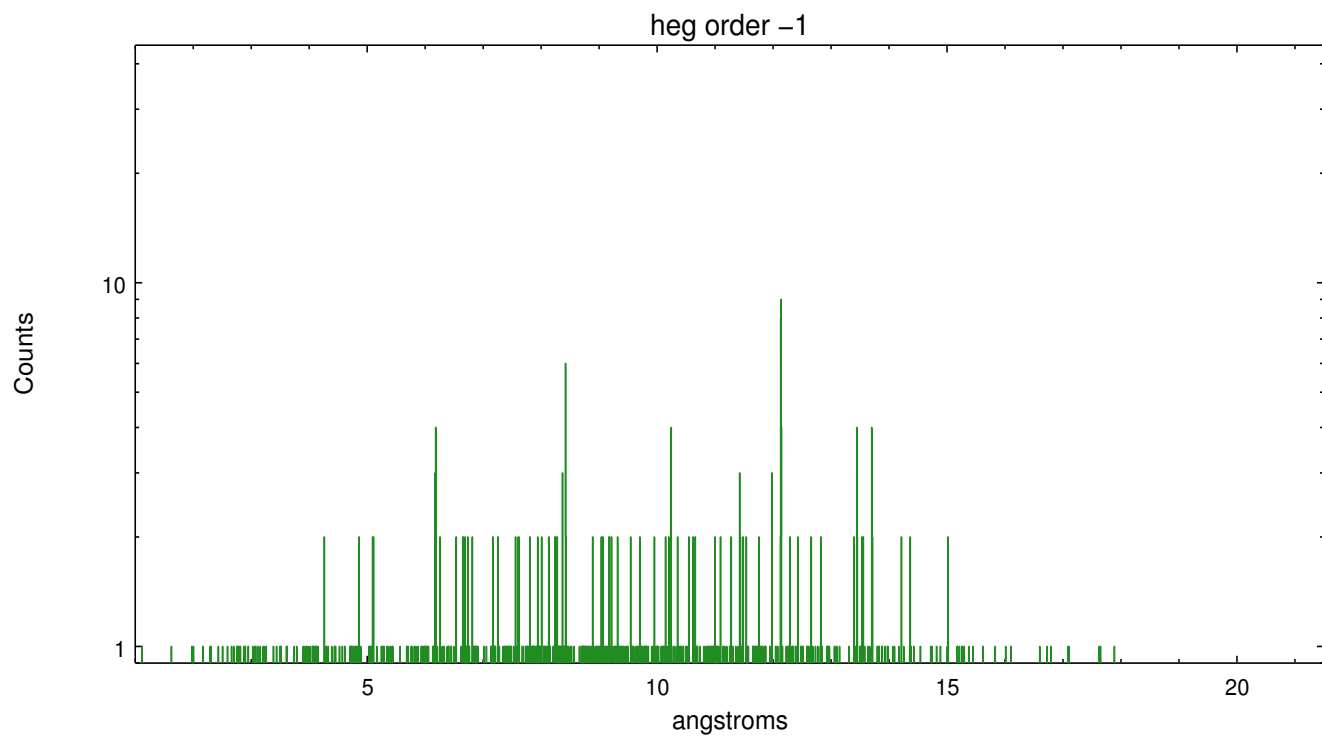
Spot Image HEG



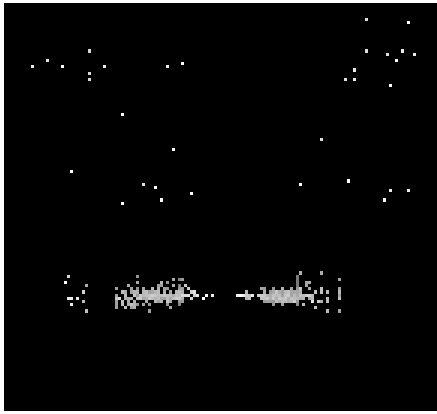
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	243	308	1098	5471	785	179	166

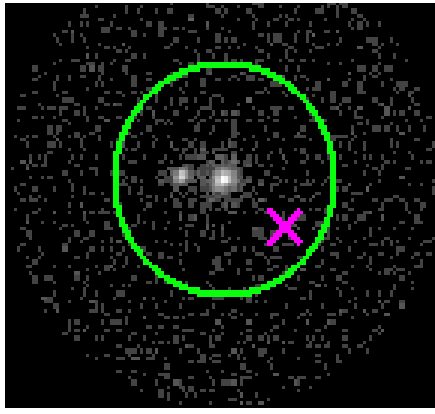




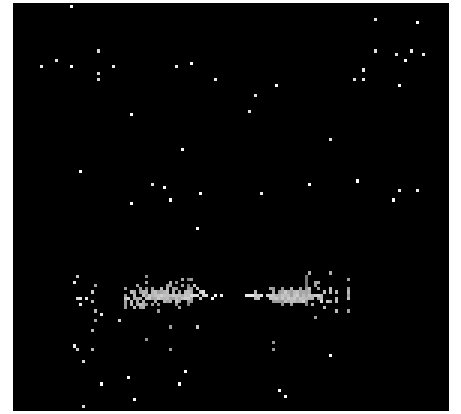
3.2 MEG Arm



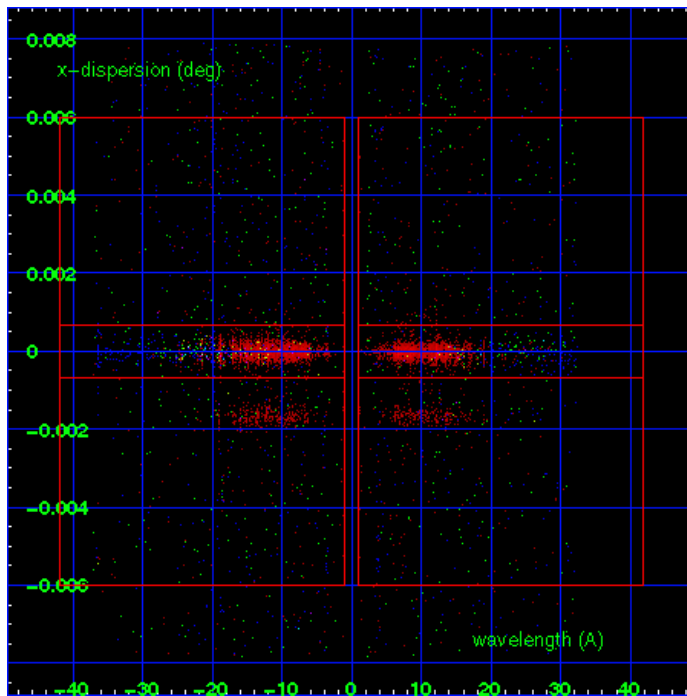
MEG Order Sort 123



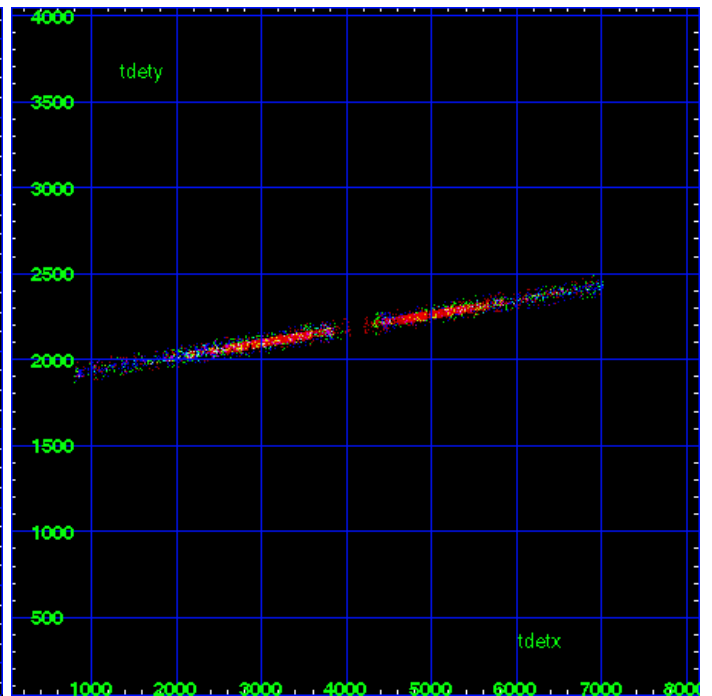
MEG Zero Order



MEG Order Sort ALL

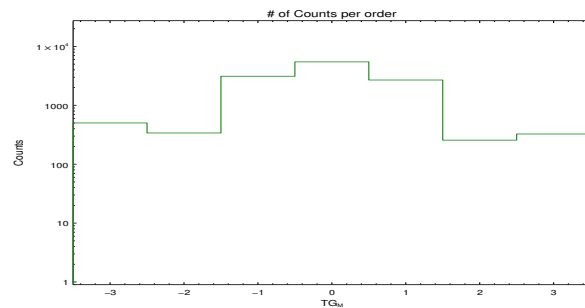


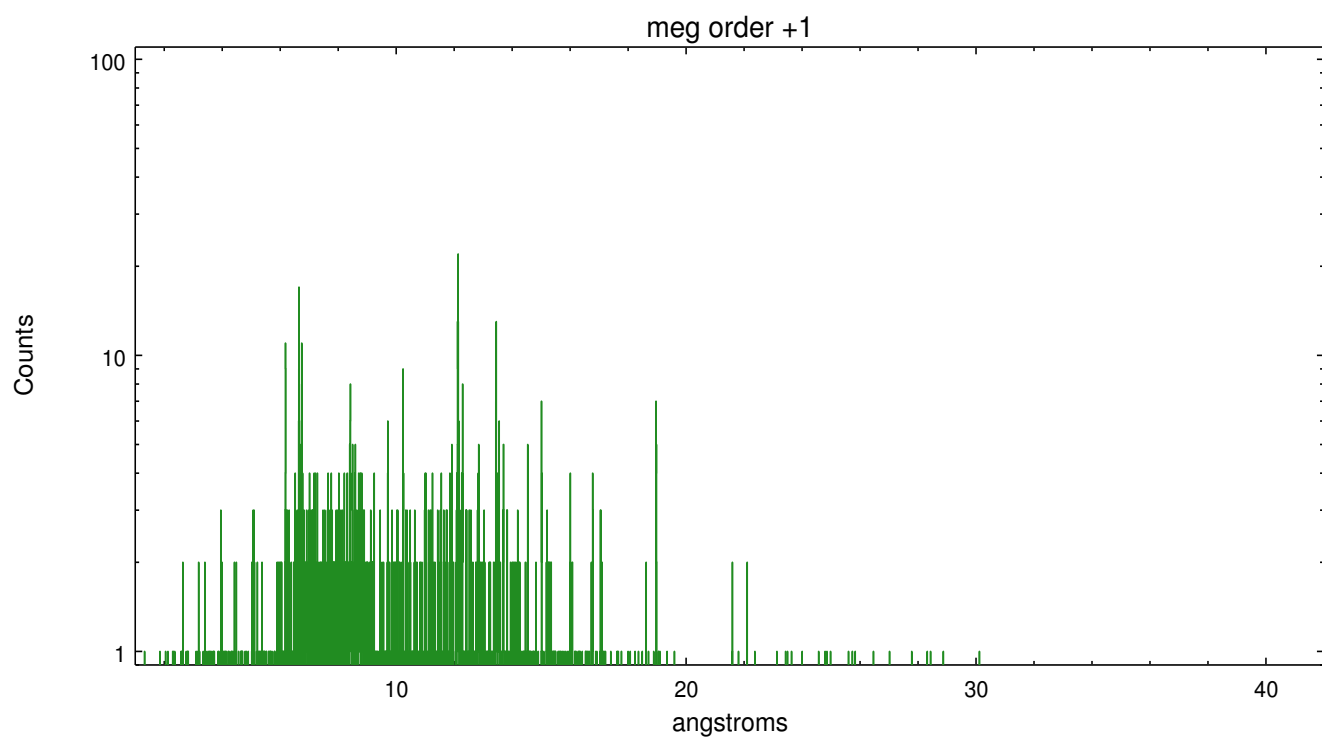
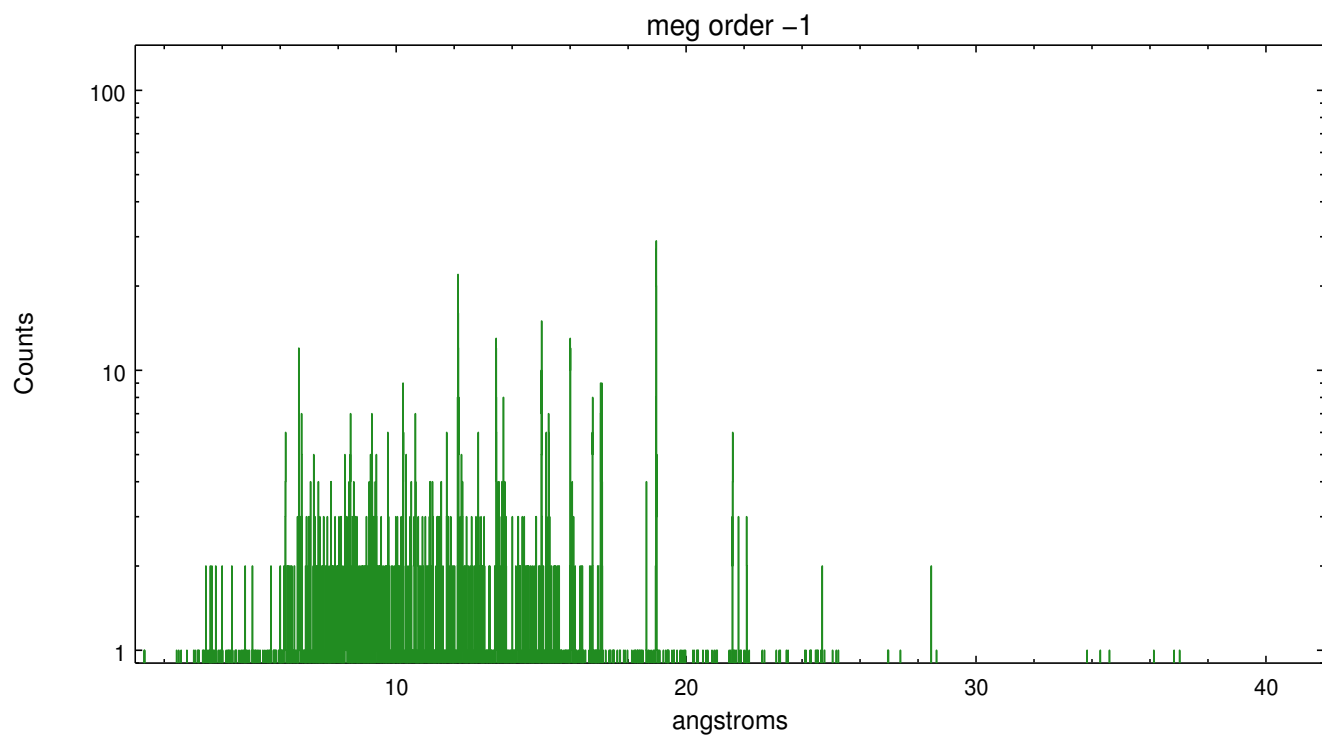
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	502	339	3113	5471	2690	256	326





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.04.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.9487998

A.2 Comments

Roll constraint met. Target coordinates are measured as ra=23:31:52.45. dec=+19:56:13.75, which differ from the SIMBAD coordinates by an amount consistent with the large proper motion. Binary companion is about 6-8 arcsec east of the target. Flux from the companion might be included in the extracted spectral data of the target. A custom extraction with a narrower width extraction region placed such that the spectral data from only one of the two stars is included would allow analysis of each star separately.