

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 6150 - L2 Version 3
Chandra X-Ray Center

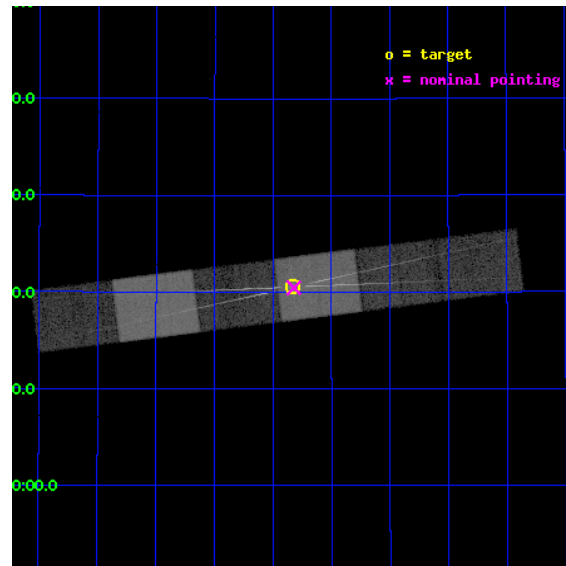
L2 Processing Date : Dec 12 2012

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1 Front

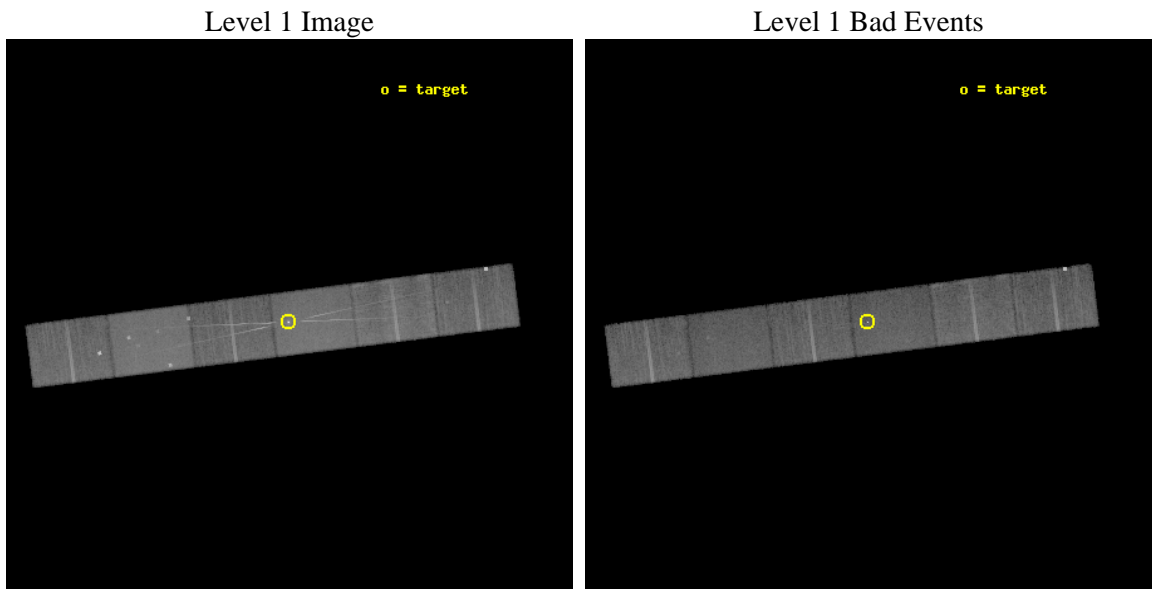
seq_num	400367	Sequence number
obs_id	6150	Observation id
title	Using the Intensity Dips in Hercules X-1 to Probe the Inner Accretion Disk	Proposal title
observer	Dr. Mario Jimenez-Garate	Principal investigator
object	Her X-1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	254.4575	Observer's specified target RA [deg]
dec_targ	35.342389	Observer's specified target Dec [deg]
ra_nom	254.45539052753	Nominal RA [deg]
dec_nom	35.340928911043	Nominal Dec [deg]
roll_nom	352.83301693989	Nominal Roll [deg]
revision	3	Processing version of data
ontime	22044.127429038	Sum of GTIs [s]
livetime	21688.095650834	Livetime [s]
ontime4	22044.168469042	Sum of GTIs [s]
ontime5	22044.086389035	Sum of GTIs [s]
ontime6	22044.045349032	Sum of GTIs [s]
ontime7	22044.127429038	Sum of GTIs [s]
ontime8	22044.004309028	Sum of GTIs [s]
ontime9	22041.422278851	Sum of GTIs [s]
l2events	240199	Number of level 2 events



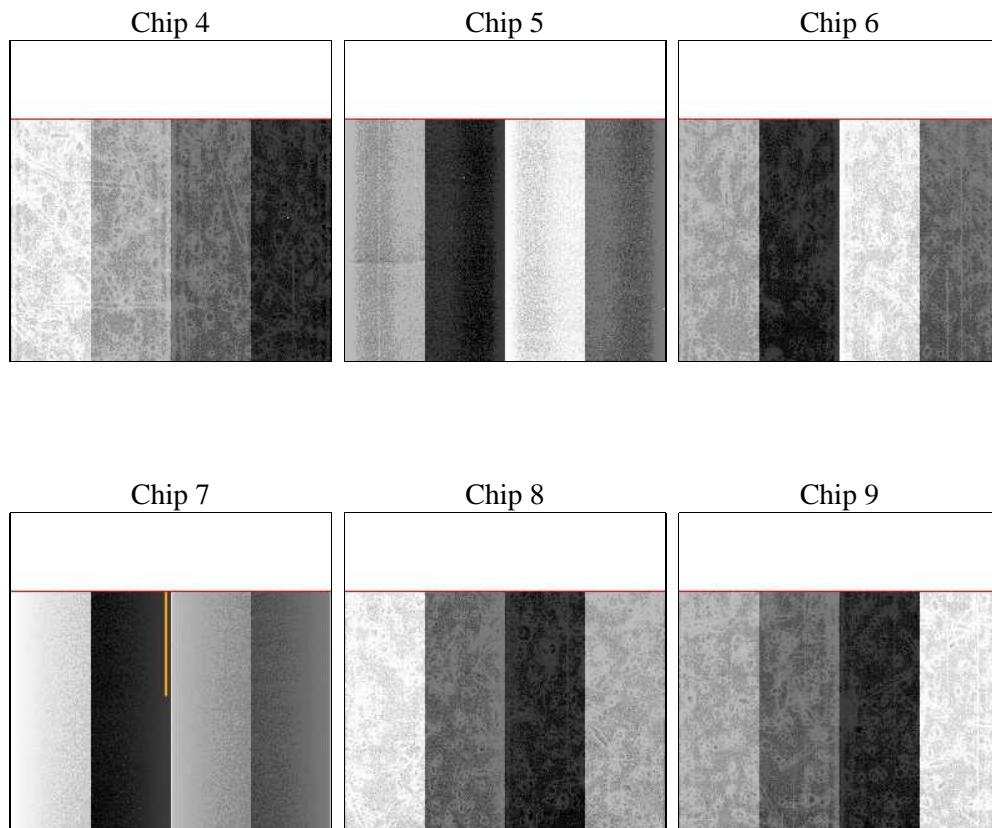
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	22000.000000	[s] Scheduled observation exposure time
ascdsver	8.5	Processing system revision	ontime	22044.127429038	Sum of GTIs [s]
caldsver	4.5.4	 	ontime4	22044.168469042	Sum of GTIs [s]
date	2012-12-12T11:21:27	Date and time of file creation	ontime5	22044.086389035	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	22044.045349032	Sum of GTIs [s]
			ontime7	22044.127429038	Sum of GTIs [s]
			ontime8	22044.004309028	Sum of GTIs [s]
			ontime9	22041.422278851	Sum of GTIs [s]
			l1events	987372	Number of level 1 events

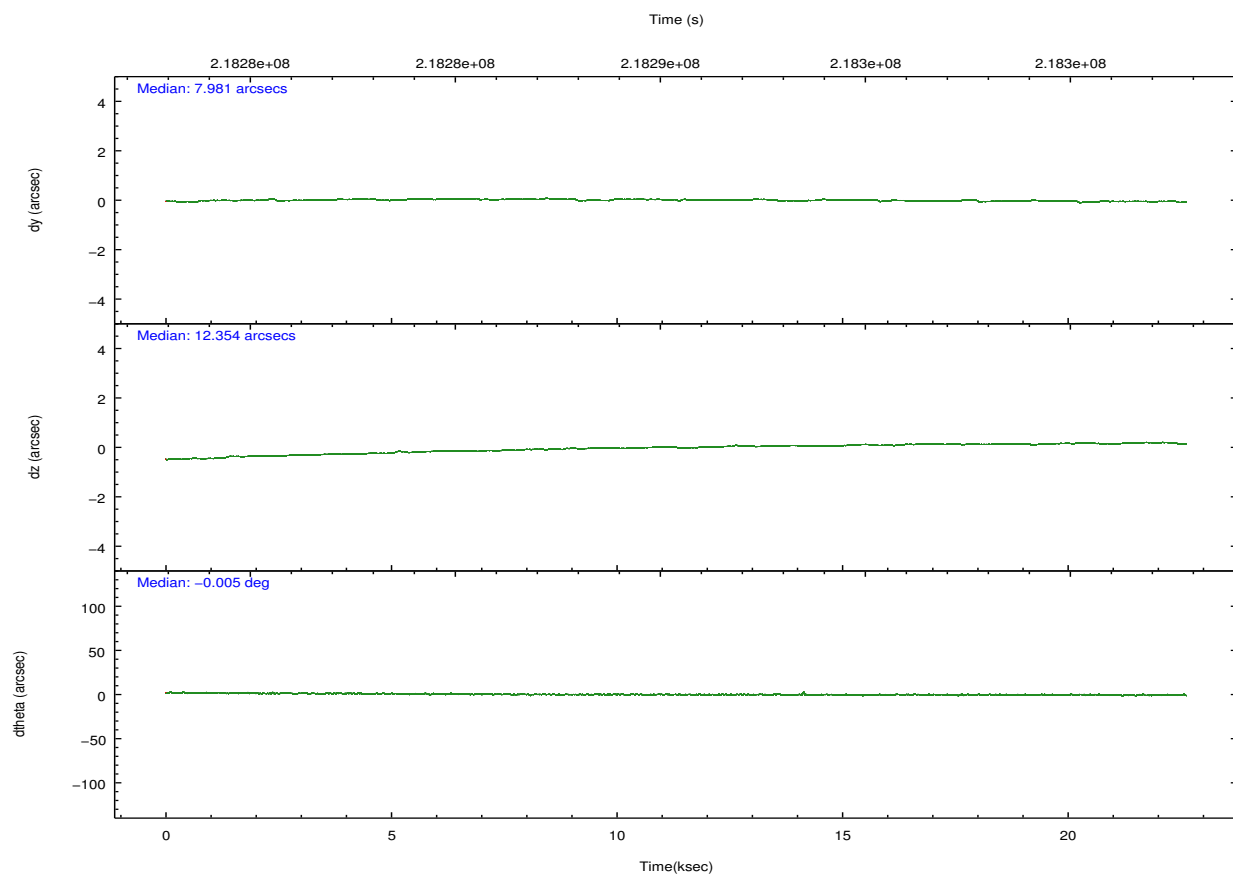
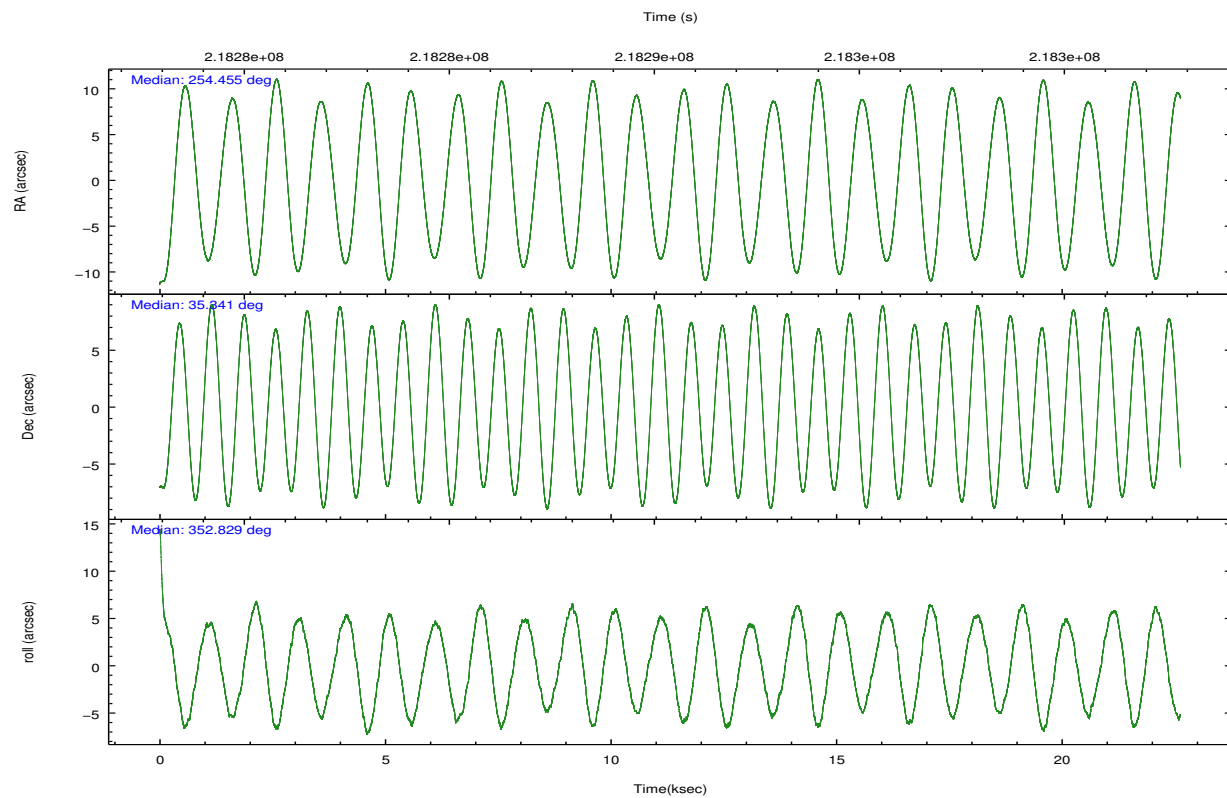
2.1.4 Events

	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	150967	194427	140500	192642	170332	138504	grade 0 events	13387	12675	12966	10160	13340	6917
rejected events	128113	101646	114864	102587	131137	122077		8%	6%	9%	5%	7%	4%
rejected %	84%	52%	81%	53%	76%	88%	grade 1 events	127	457	79	399	112	8554
								0%	0%	0%	0%	0%	6%
							grade 2 events	3468	25810	4467	18515	8233	3080
								2%	13%	3%	9%	4%	2%
							grade 3 events	1727	4420	2123	8345	3869	1721
								1%	2%	1%	4%	2%	1%
							grade 4 events	1725	4424	2065	8357	3757	1641
								1%	2%	1%	4%	2%	1%
							grade 5 events	5533	14663	5790	17571	7710	6152
								3%	7%	4%	9%	4%	4%
							grade 6 events	2550	45470	4023	44698	10006	3071
								1%	23%	2%	23%	5%	2%
							grade 7 events	122450	86508	108987	84597	123305	107368
								81%	44%	77%	43%	72%	77%

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	254.424802	254.4553905275345	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	35.330024	35.34092891104337	Subarray start row	1	1
[deg] Pointing Roll	352.694077	352.8330169398893	Subarray row count	774	774
[s] Window start time (MET)	218272864.184000	218272864.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	218300464.184000	218300464.184000	[s] Primary exposure time	0.000000	2.5
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
Phase constraints	Y	Y			
[d] Phase period	1.700167	1.700167			
[d] Phase epoch (MJD)	51310.760000	51310.760000			
Phase start	0.750000	0.750000			
Phase end	0.900000	0.900000			
Phase start error	0.020000	0.020000			
Phase end error	0.010000	0.010000			
[s] Observation start time (MET)	218279695.184000	218278423.20538			
Observation start date	2004-12-01T09:13:51	2004-12-01T08:53:43			
[s] Observation end time (MET)	218301695.184000	218302327.23145			

2.3 Aspect

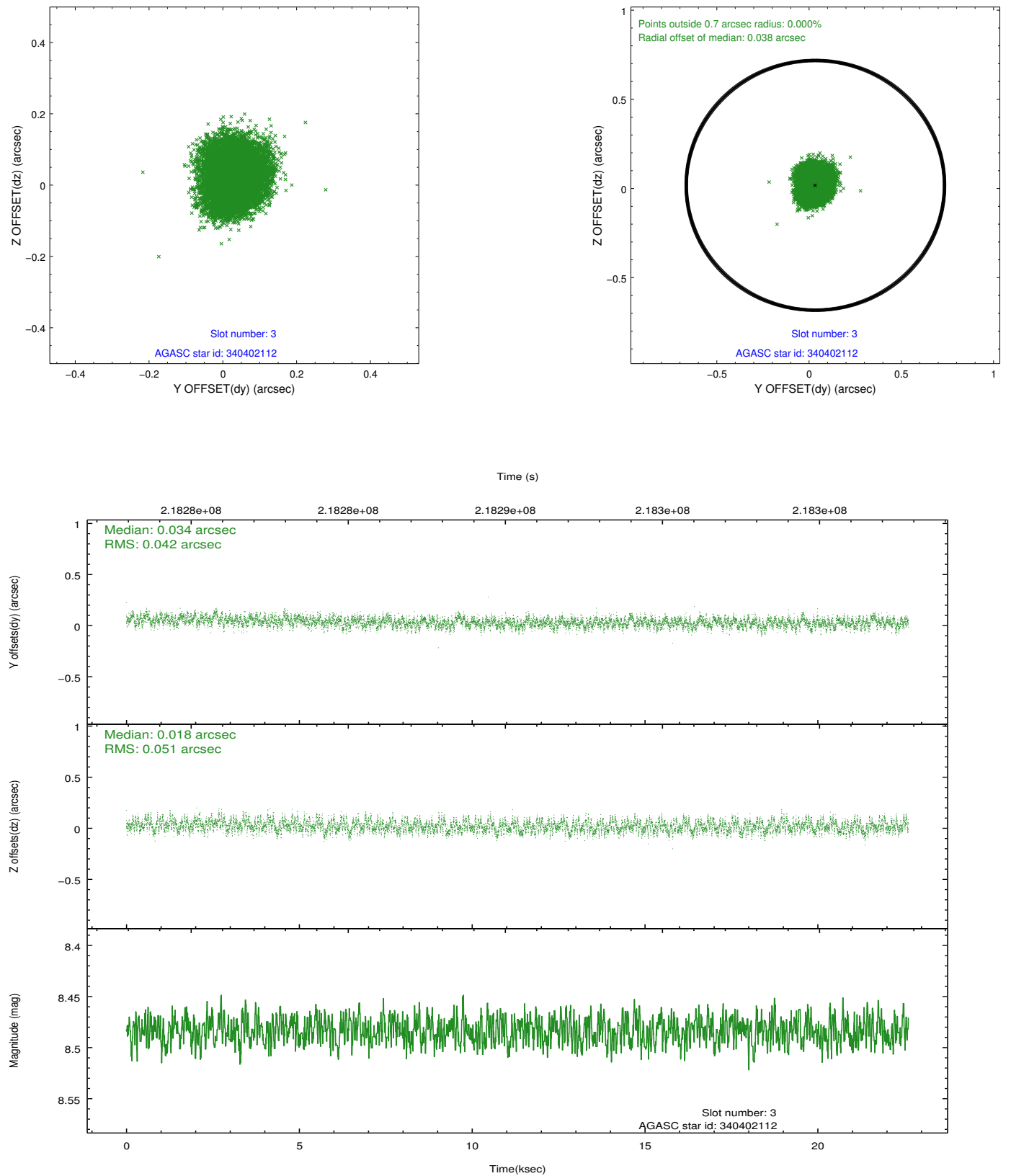


Slot Statistics

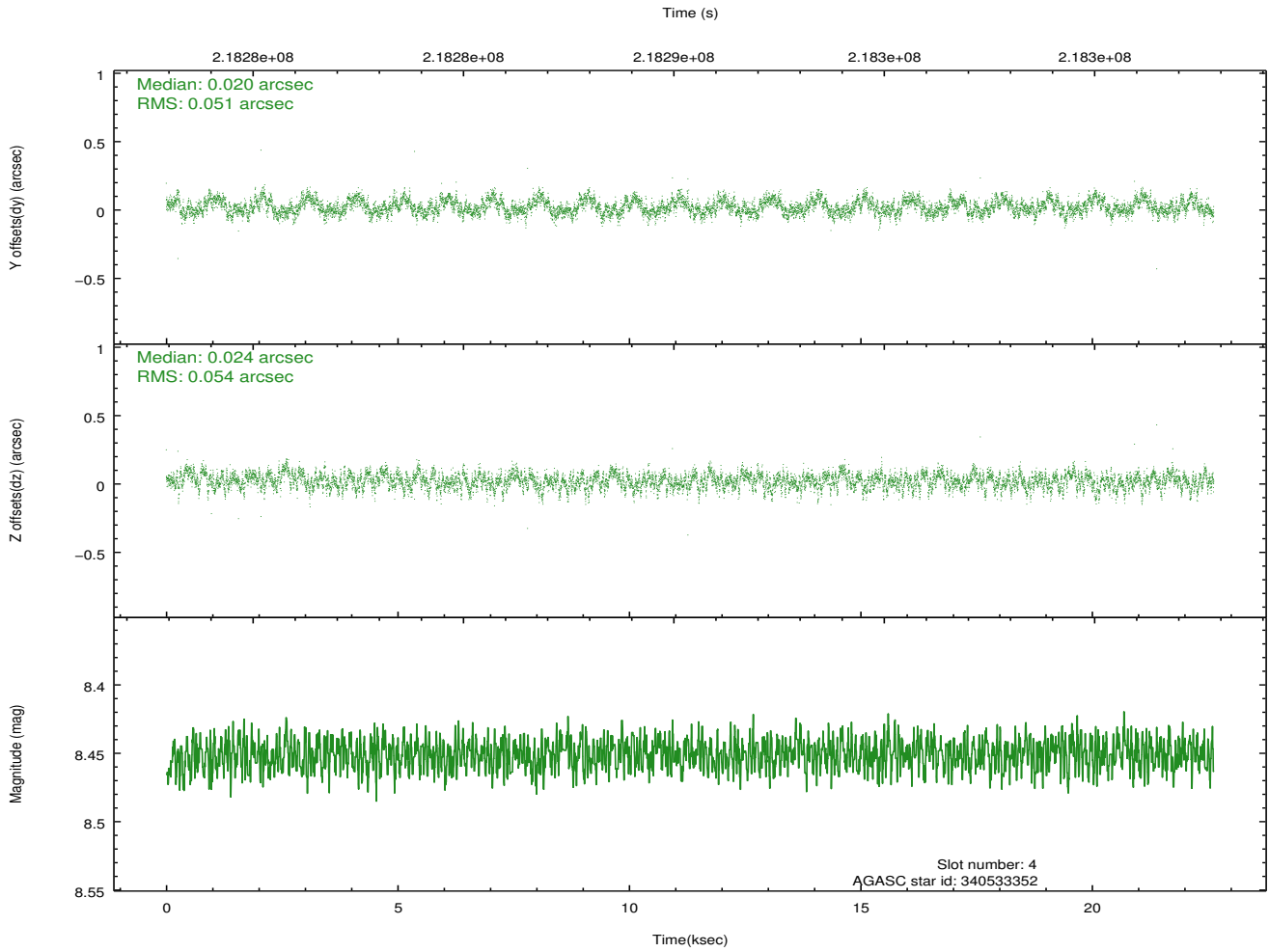
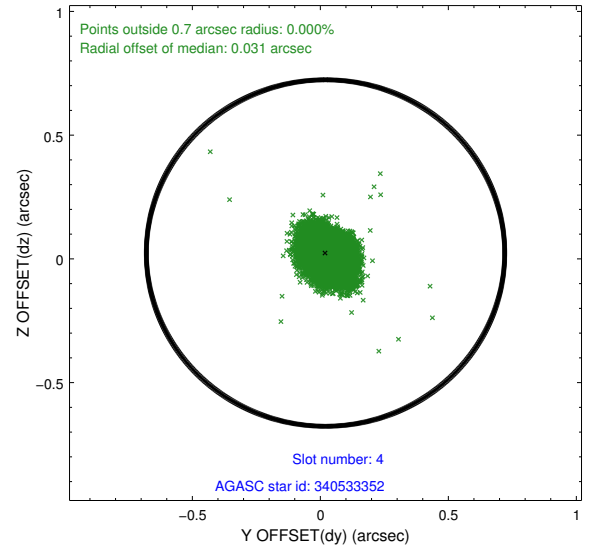
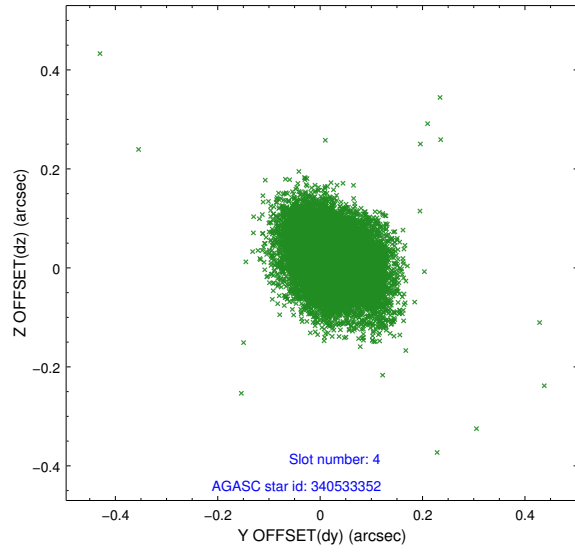
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	5520	-0.069	-0.070	0.009	0.016	0.000000	0.000000	-760.59	-1795.78
1	FID	ACIS-S-4	7.18	5520	0.131	0.052	0.009	0.027	0.000000	0.000000	2152.79	112.70
2	FID	ACIS-S-5	7.23	5520	-0.093	0.027	0.009	0.015	0.000000	0.000000	-1813.29	106.46
3	GUIDE	340402112	8.48	11039	0.034	0.018	0.071	0.113	253.640936	34.860529	-2082.45	-1961.92
4	GUIDE	340533352	8.45	11038	0.020	0.024	0.078	0.126	254.563691	34.717962	688.14	-2133.08
5	GUIDE	340534080	8.83	11034	0.052	-0.043	0.068	0.109	255.228954	35.471551	2273.01	814.71
6	GUIDE	340536192	7.73	11040	0.028	0.040	0.054	0.084	254.294567	35.286536	-359.09	-203.47
7	GUIDE	340534896	8.60	11037	-0.136	-0.037	0.058	0.095	255.288450	35.541682	2411.18	1088.76

2.4 Star Slots

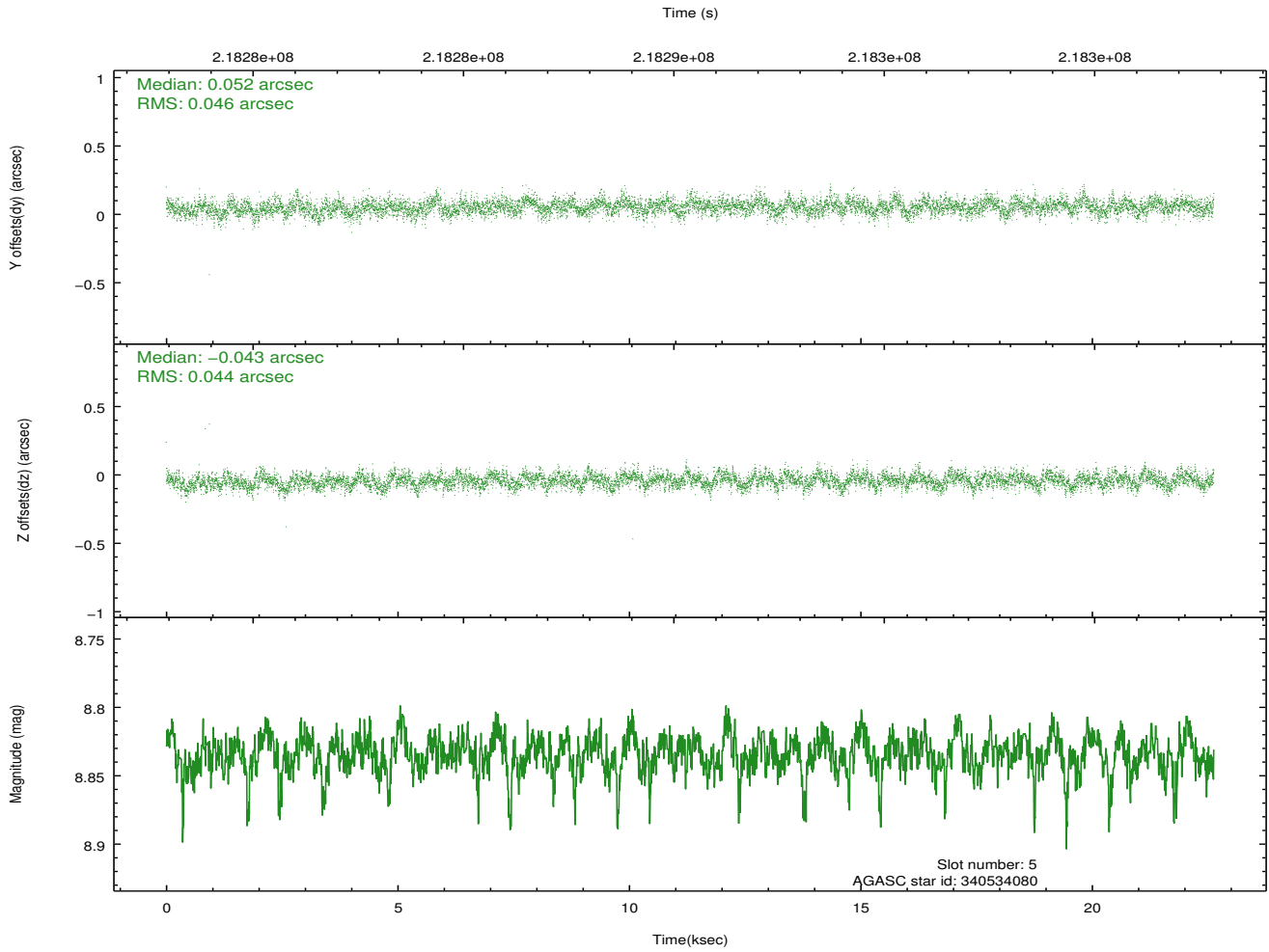
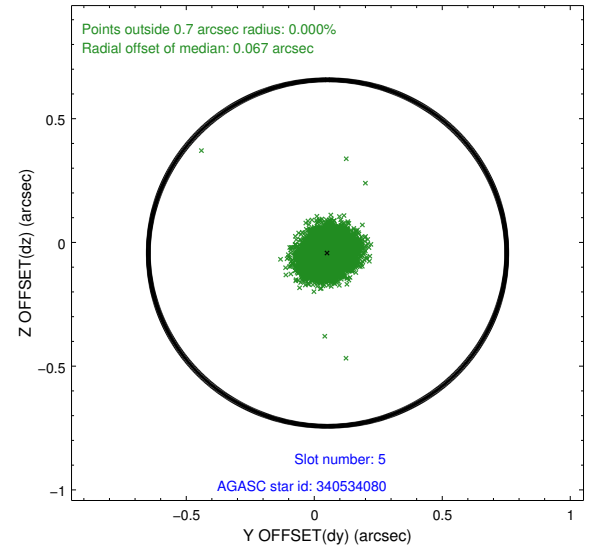
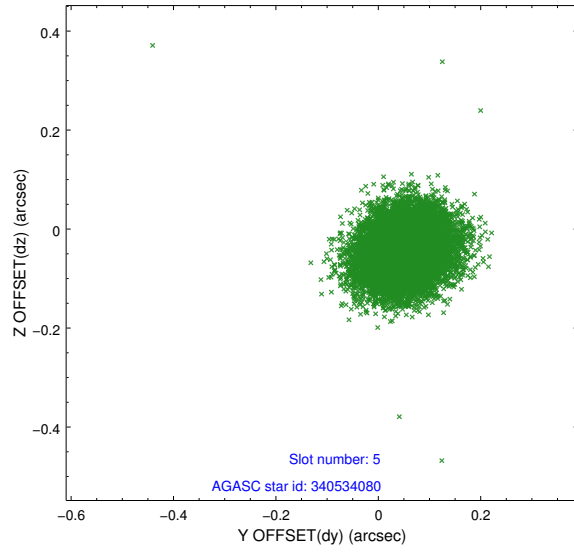
2.4.1 Slot 3



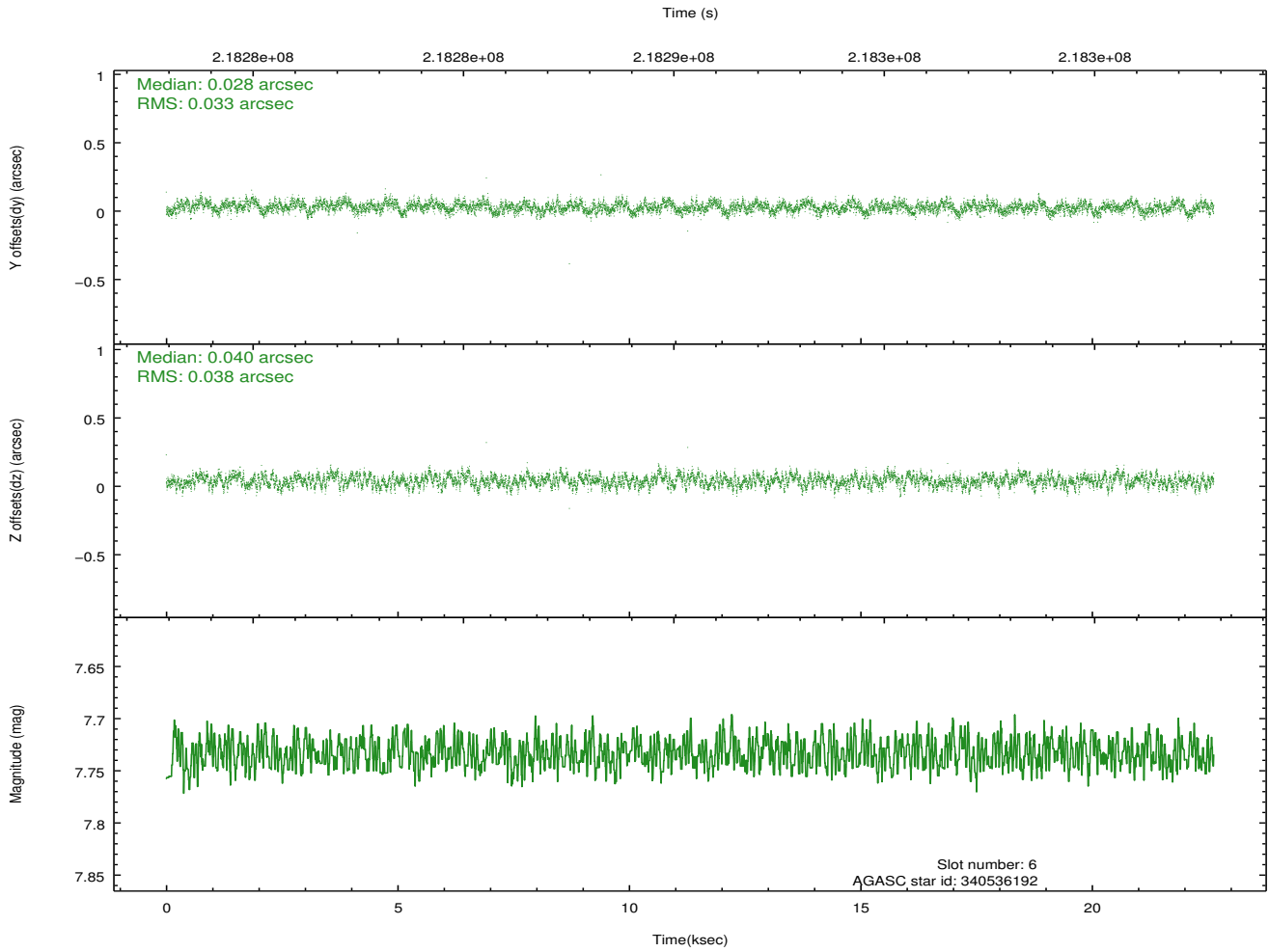
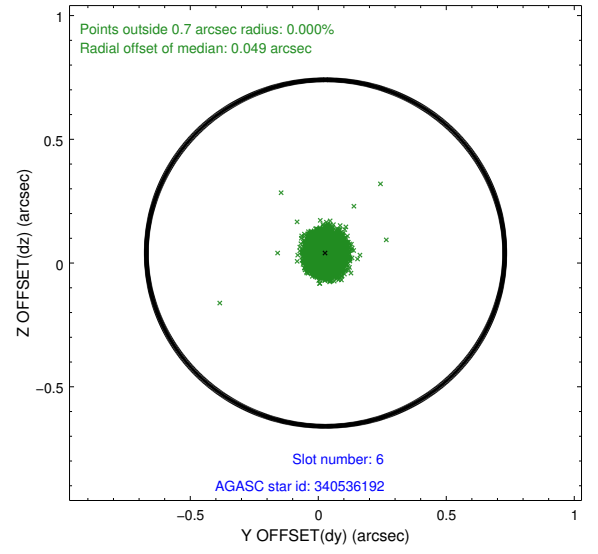
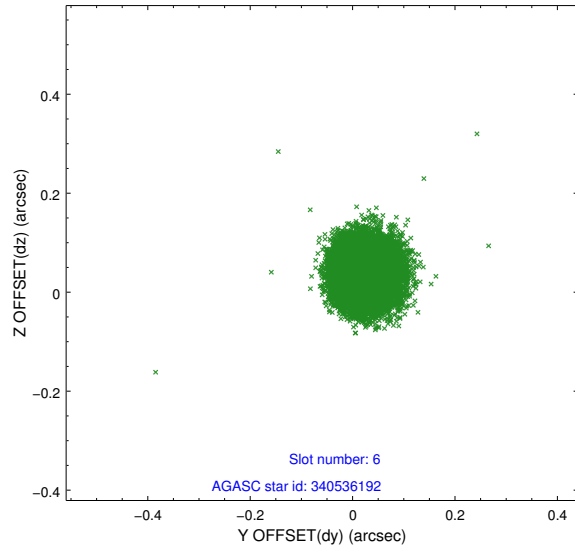
2.4.2 Slot 4



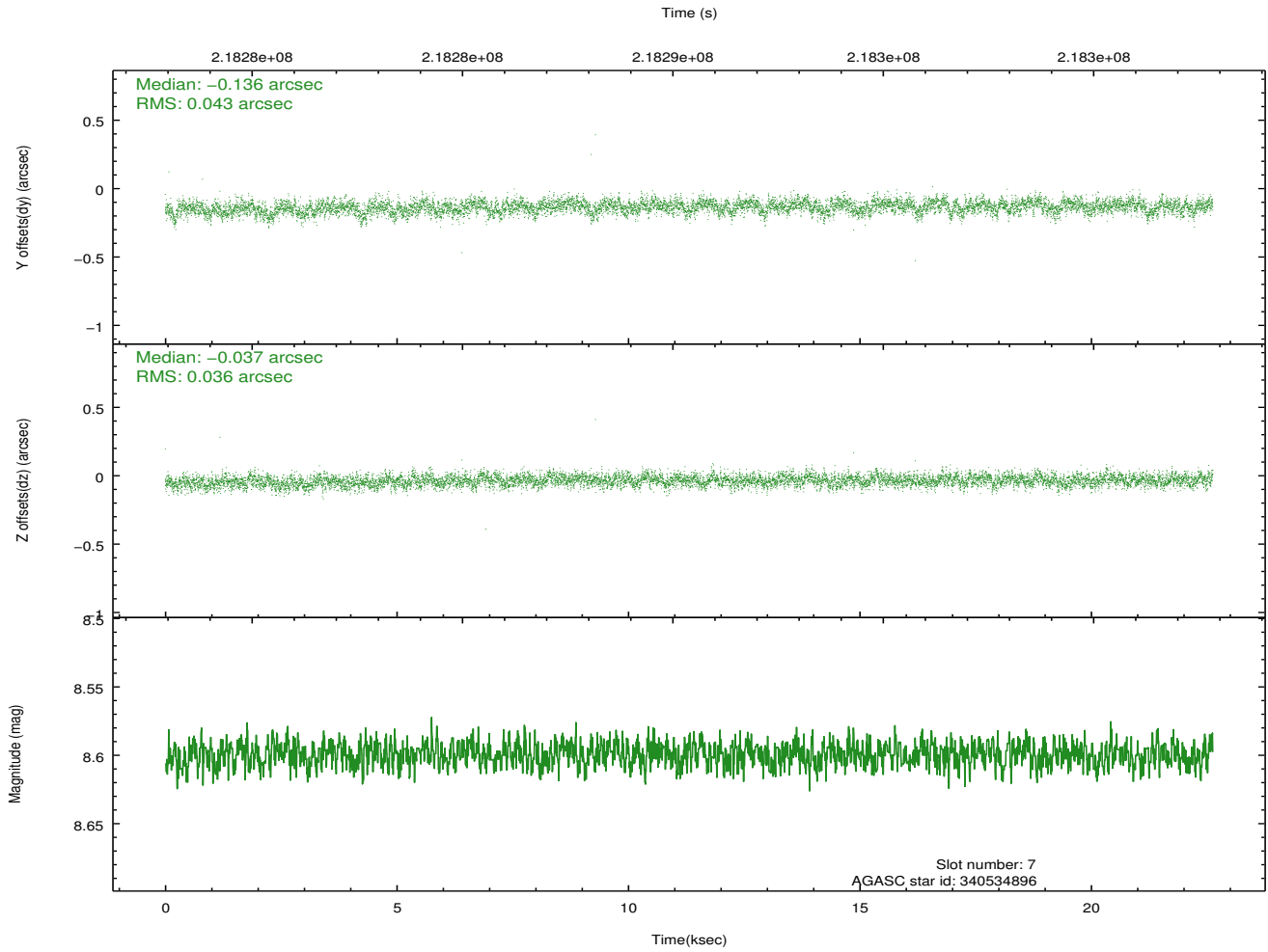
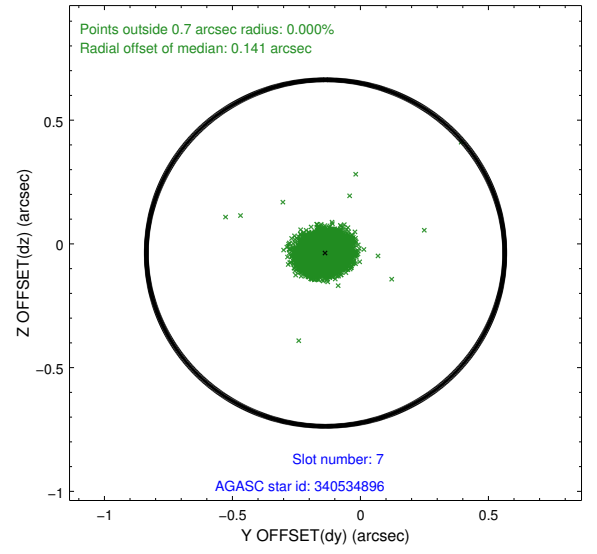
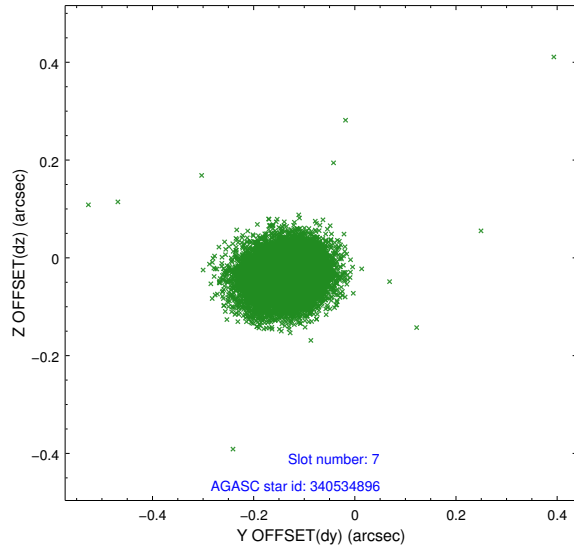
2.4.3 Slot 5



2.4.4 Slot 6

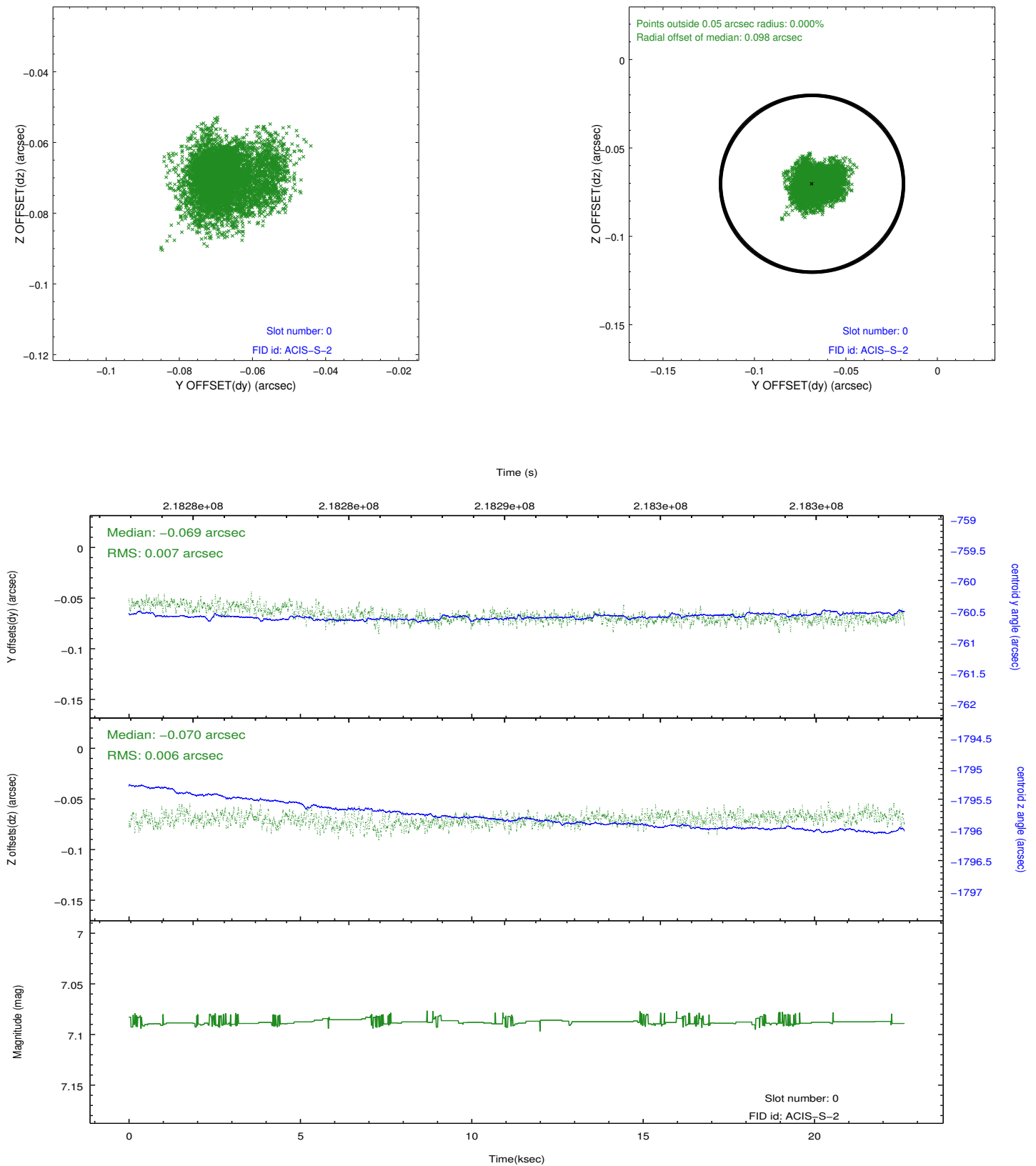


2.4.5 Slot 7

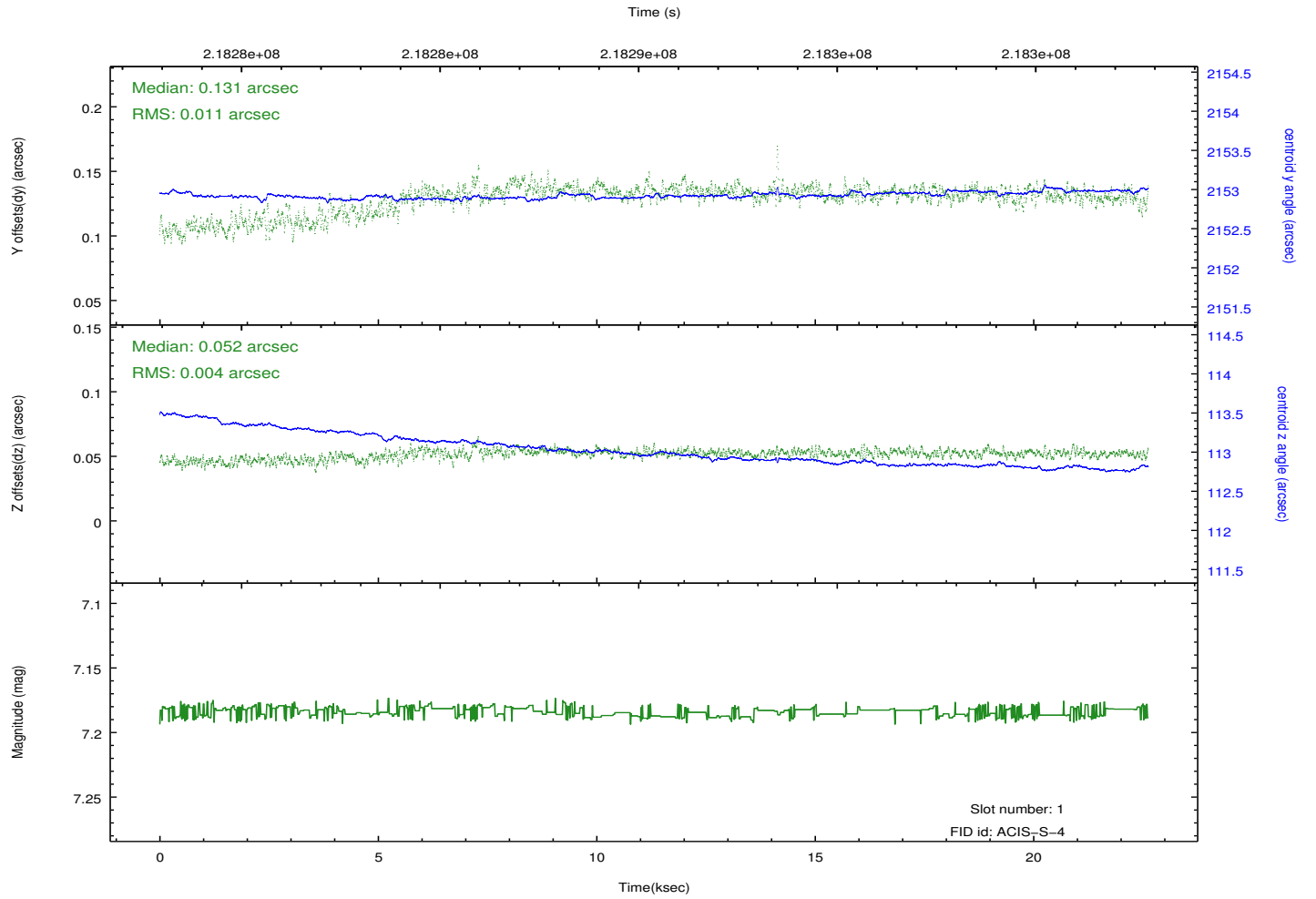
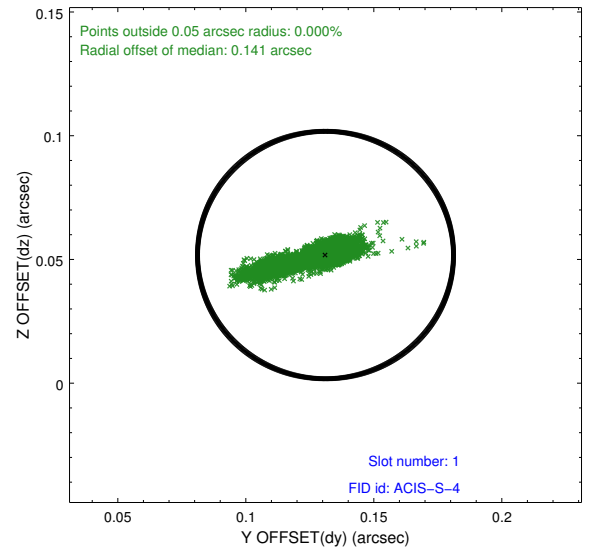
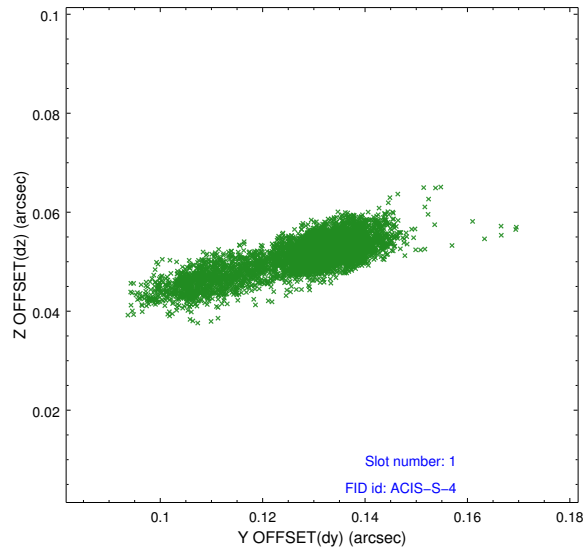


2.5 FID Slots

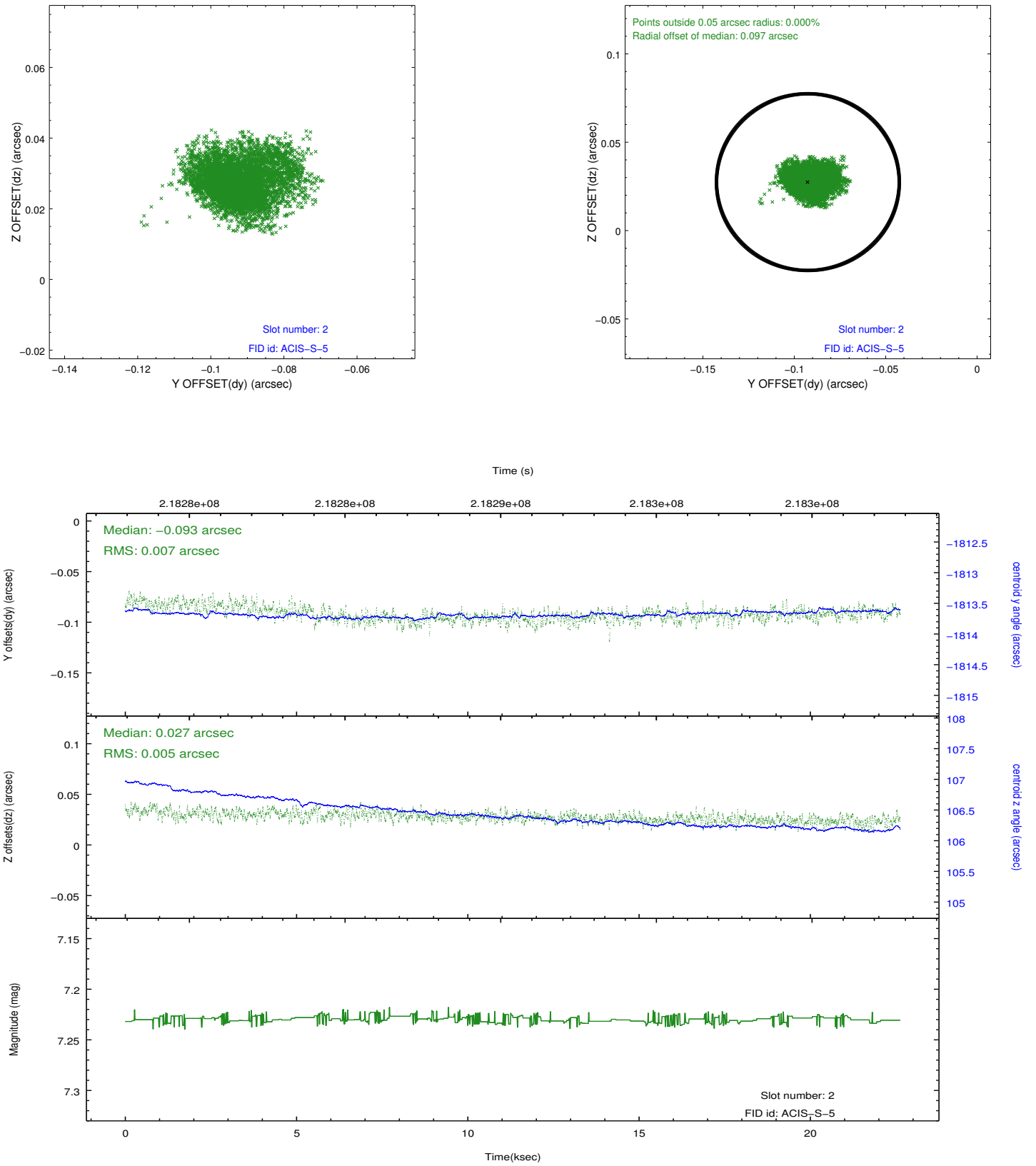
2.5.1 Slot 0



2.5.2 Slot 1

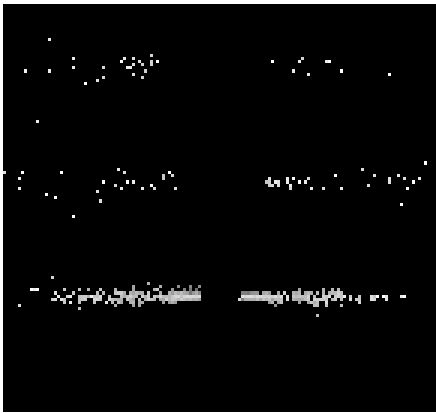


2.5.3 Slot 2

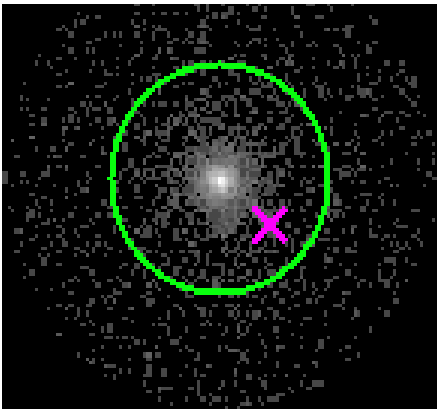


3 Gratings

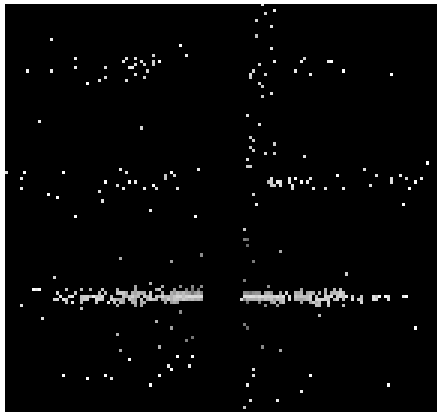
3.1 HEG Arm



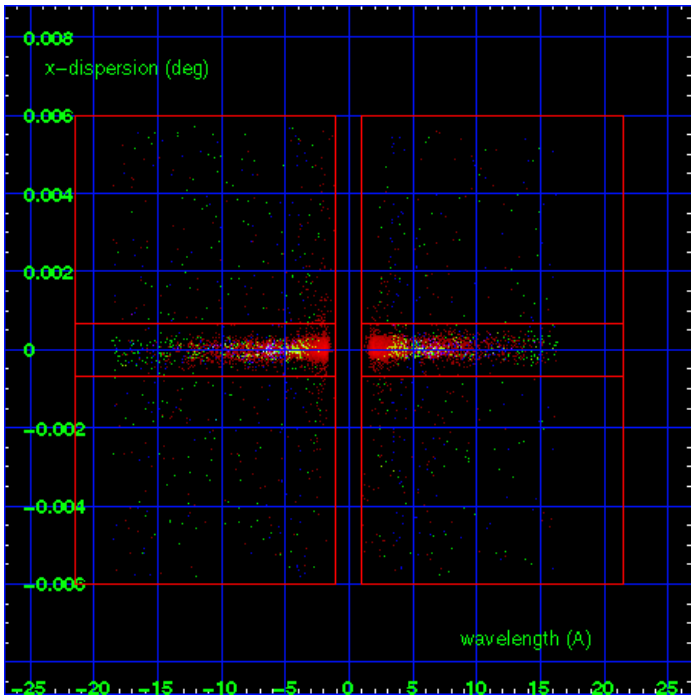
HEG Order Sort 123



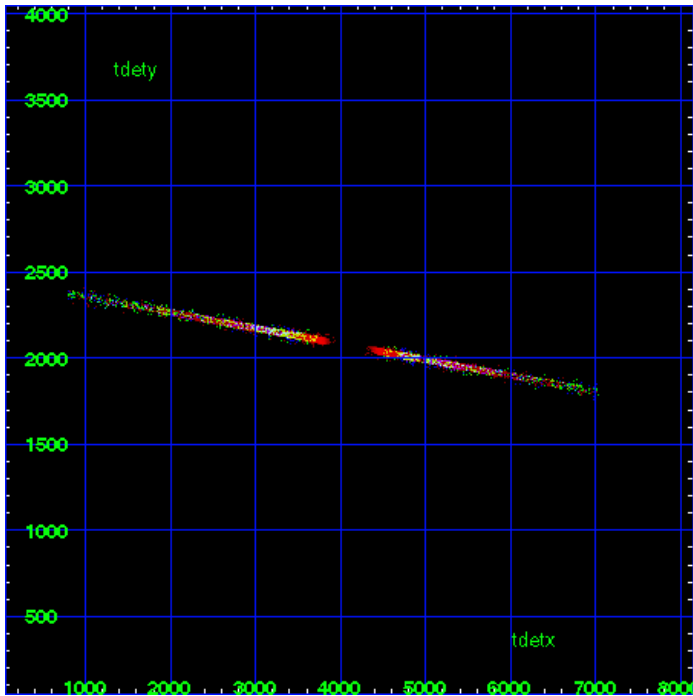
HEG Zero Order



HEG Order Sort ALL

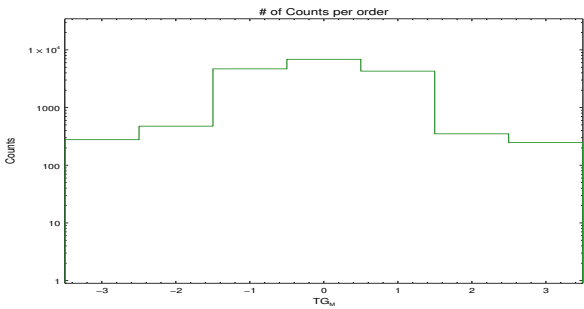


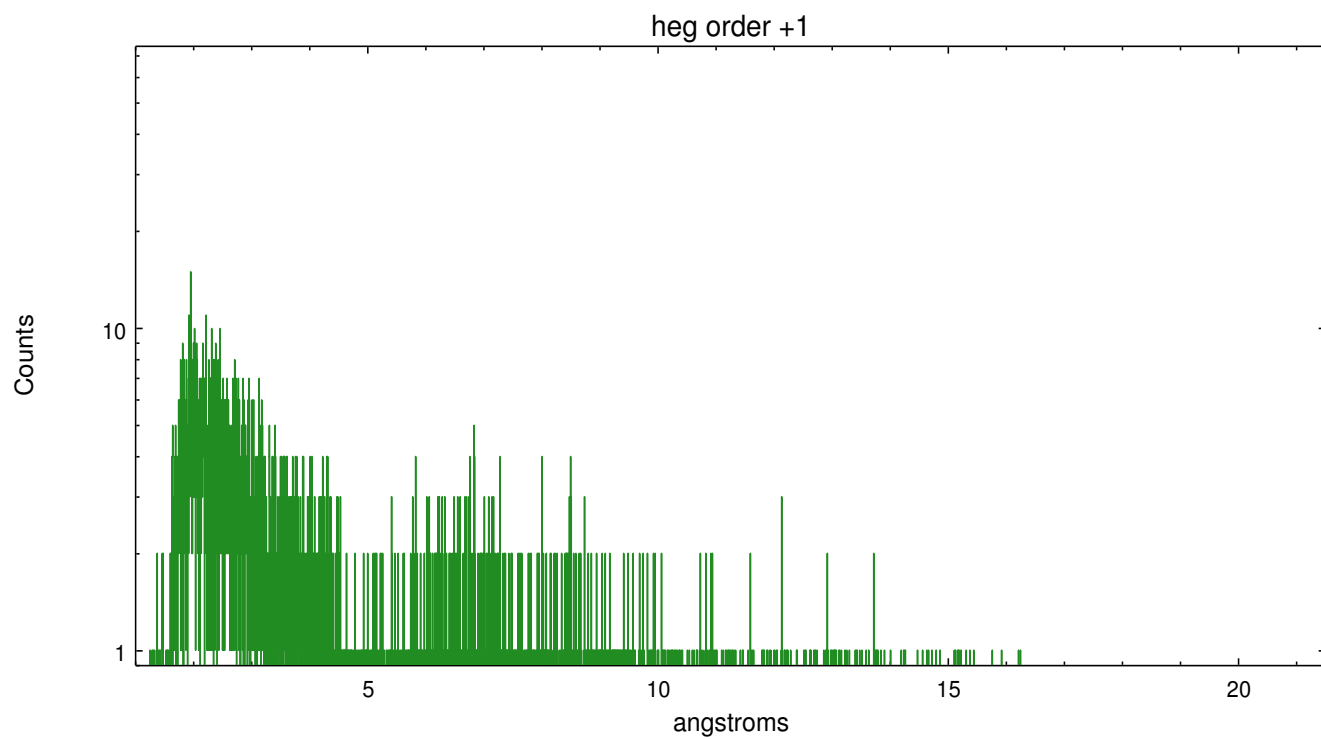
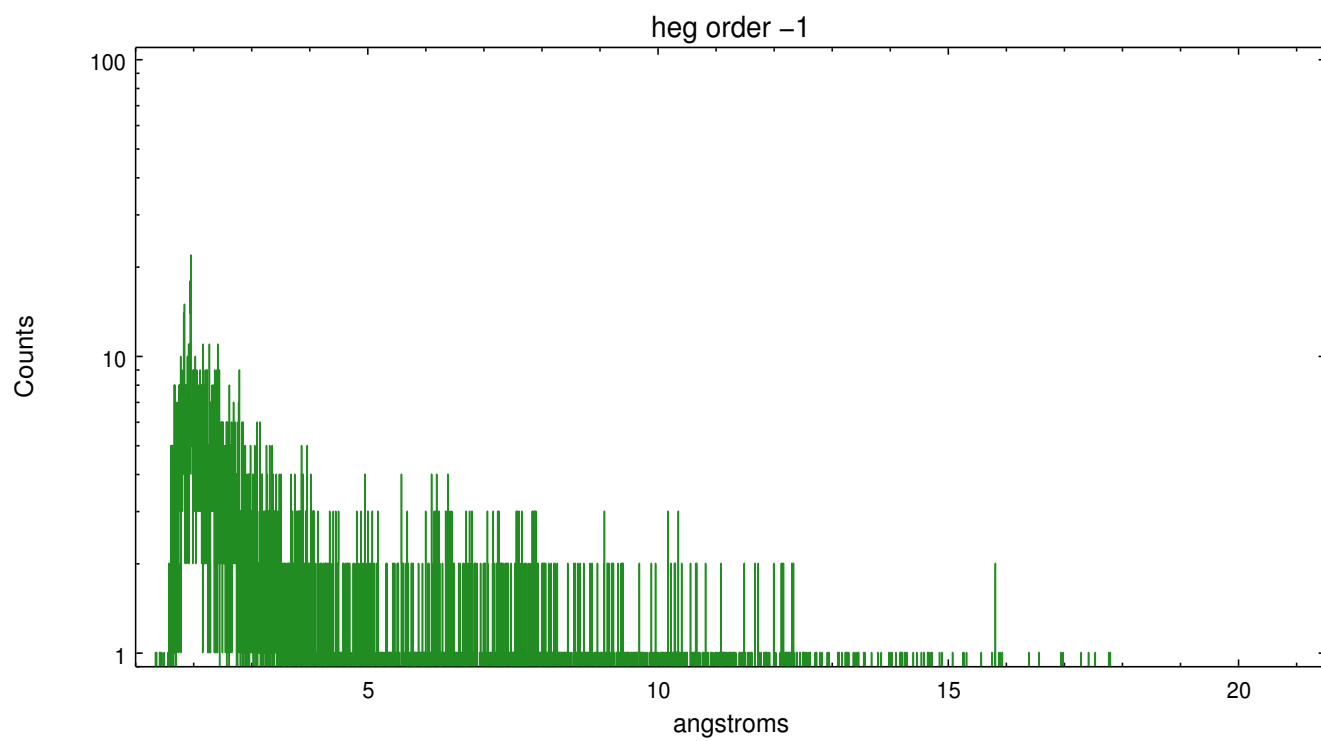
Spot Image HEG



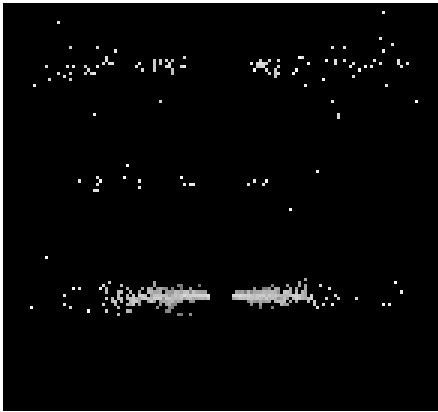
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	278	477	4715	6911	4305	351	248

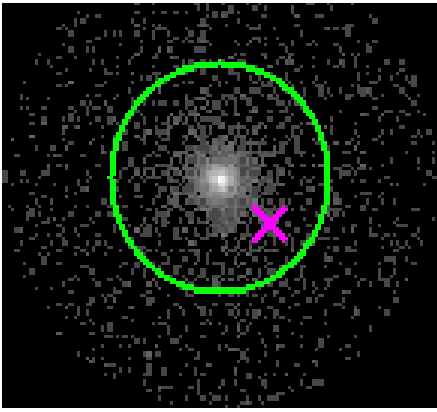




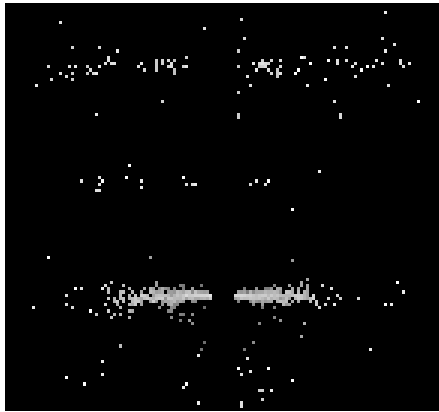
3.2 MEG Arm



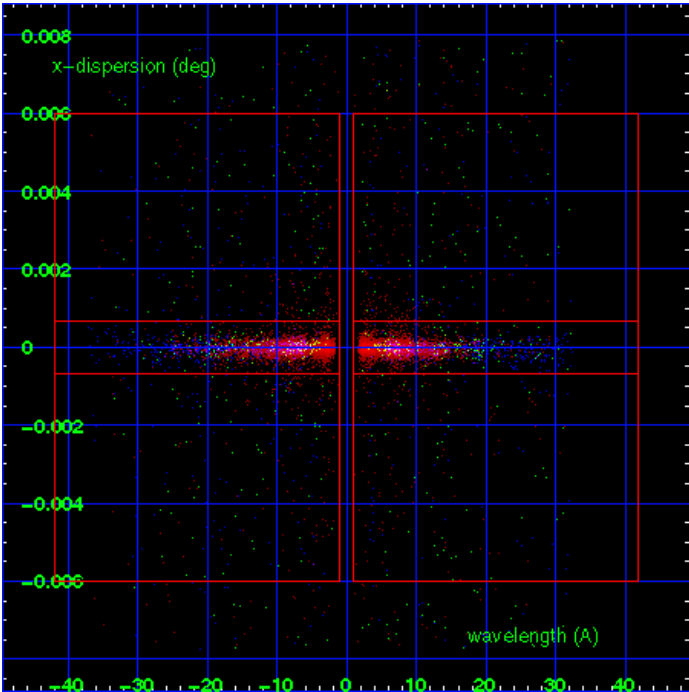
MEG Order Sort 123



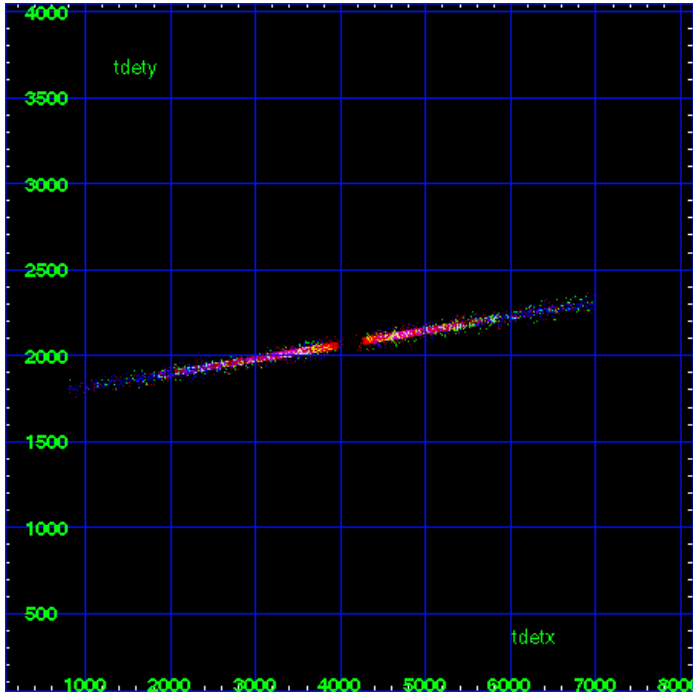
MEG Zero Order



MEG Order Sort ALL

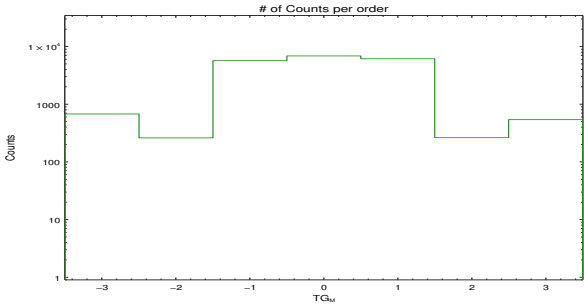


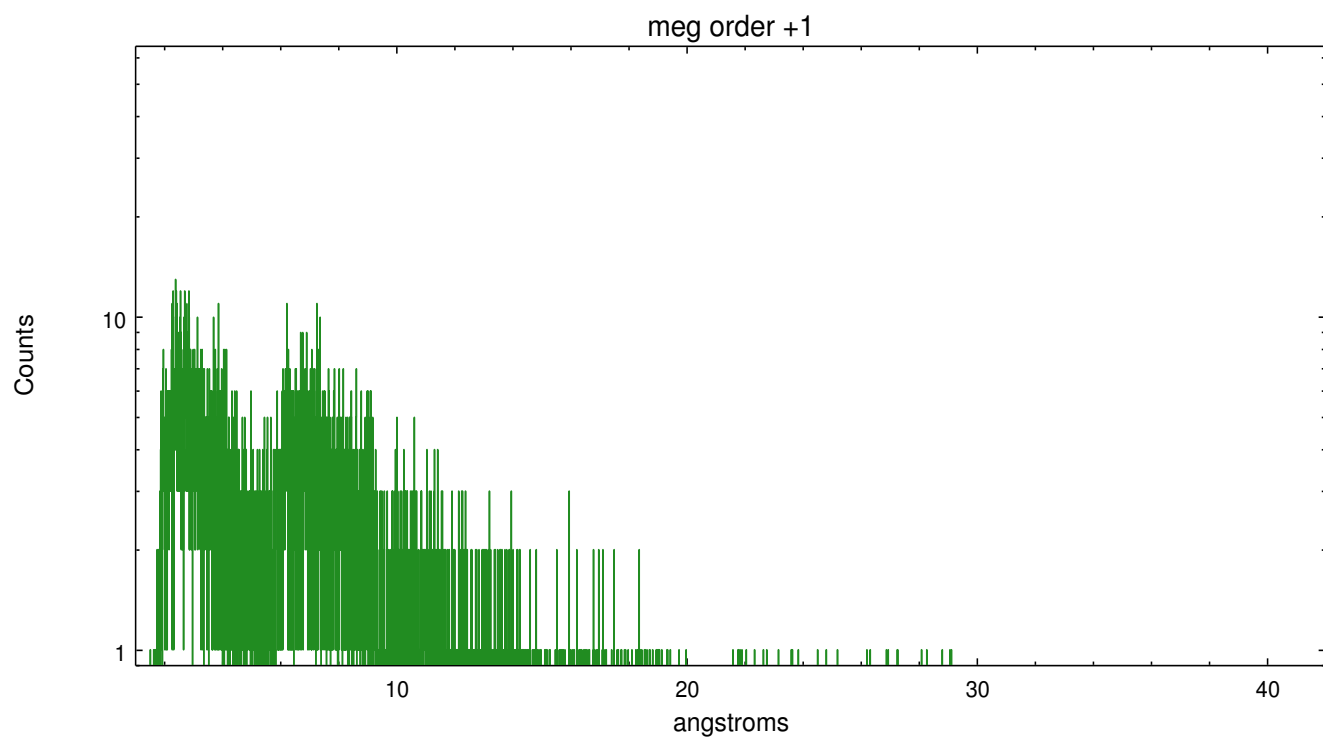
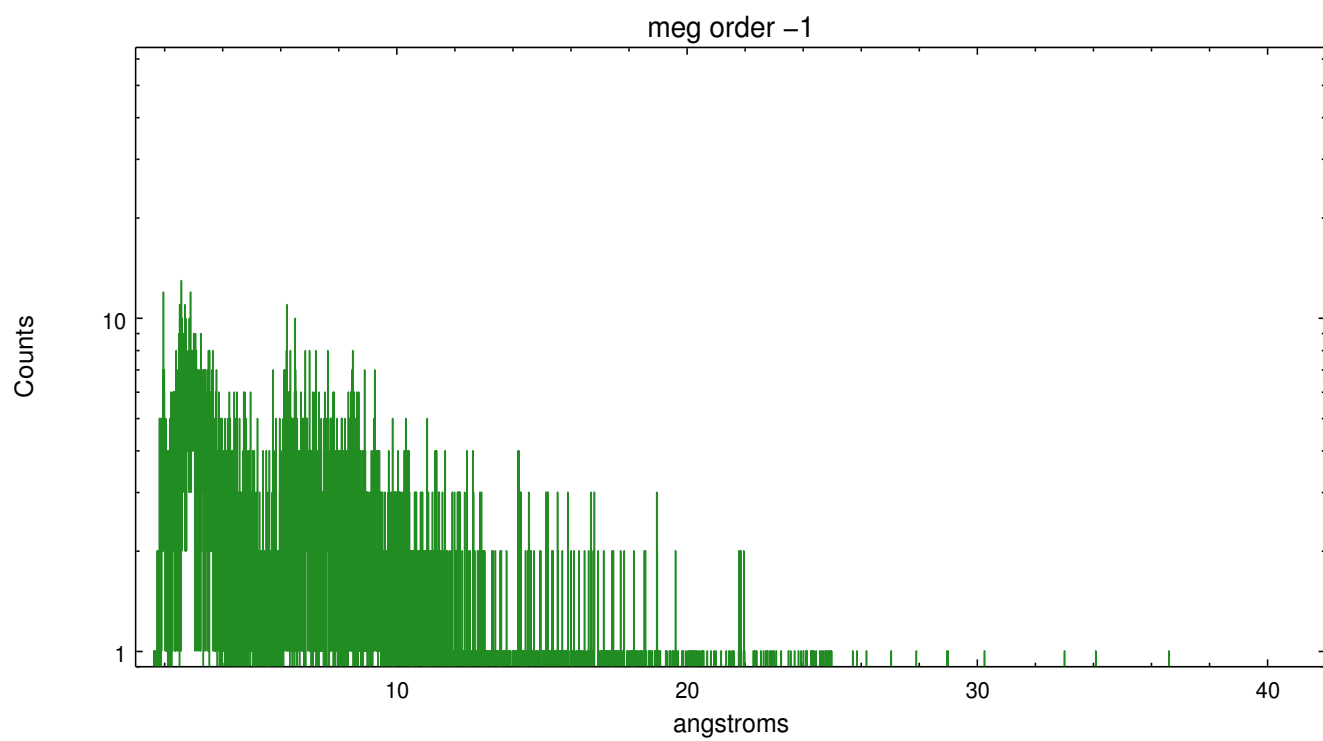
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	679	261	5716	6911	6171	263	541





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.045

A.2 Comments