

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8568 - L2 Version 2
Chandra X-Ray Center

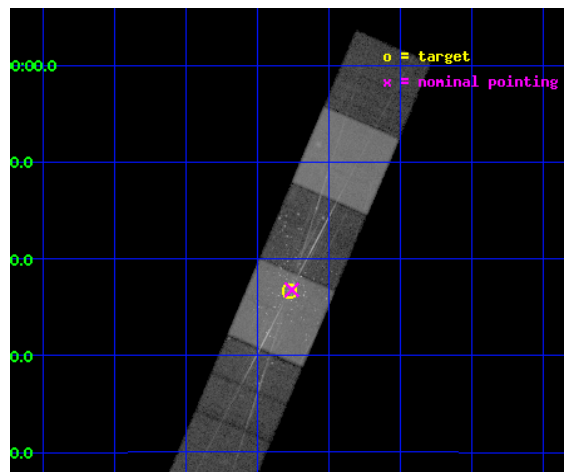
L2 Processing Date : Apr 29 2012

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1 Front

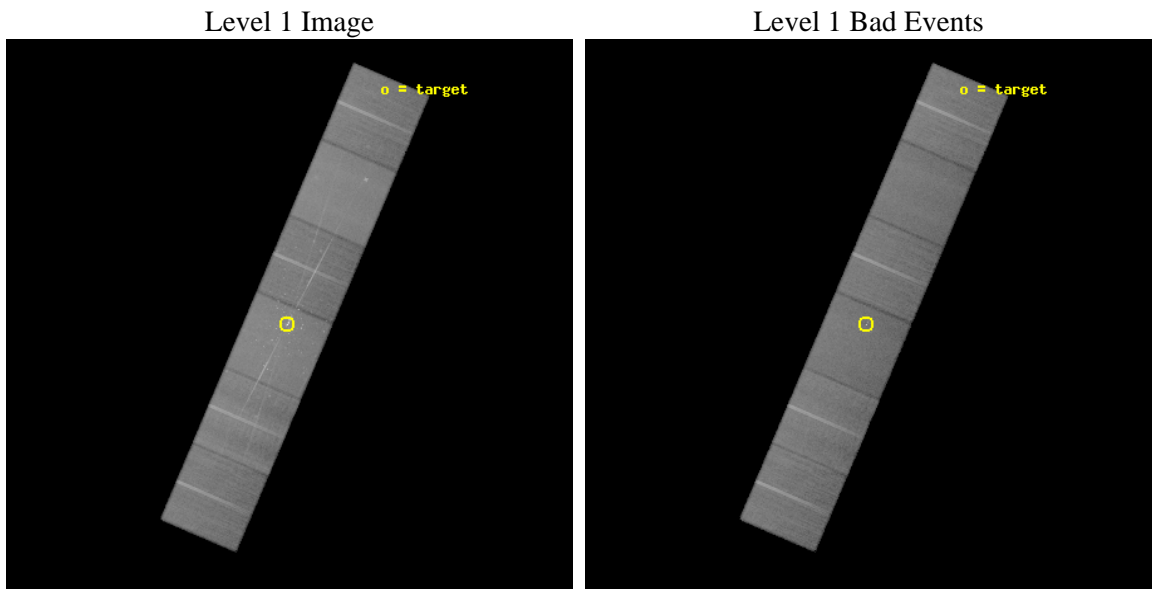
seq_num	200462	Sequence number
obs_id	8568	Observation id
title	The HETG Orion Legacy Project: The Periastron Passage of Theta1 OriC's Massive Secondary	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	Orion Trapezium Cluster	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.81875	Observer's specified target RA [deg]
dec_targ	-5.38975	Observer's specified target Dec [deg]
ra_nom	83.814775487989	Nominal RA [deg]
dec_nom	-5.3869395053293	Nominal Dec [deg]
roll_nom	113.15624962025	Nominal Roll [deg]
revision	2	Processing version of data
ontime	36319.999864757	Sum of GTIs [s]
livetime	35860.094157191	Livetime [s]
ontime4	36319.999864757	Sum of GTIs [s]
ontime5	36319.999864757	Sum of GTIs [s]
ontime6	36319.999864757	Sum of GTIs [s]
ontime7	36319.999864757	Sum of GTIs [s]
ontime8	36316.758894444	Sum of GTIs [s]
ontime9	36319.999864757	Sum of GTIs [s]
l2events	708517	Number of level 2 events



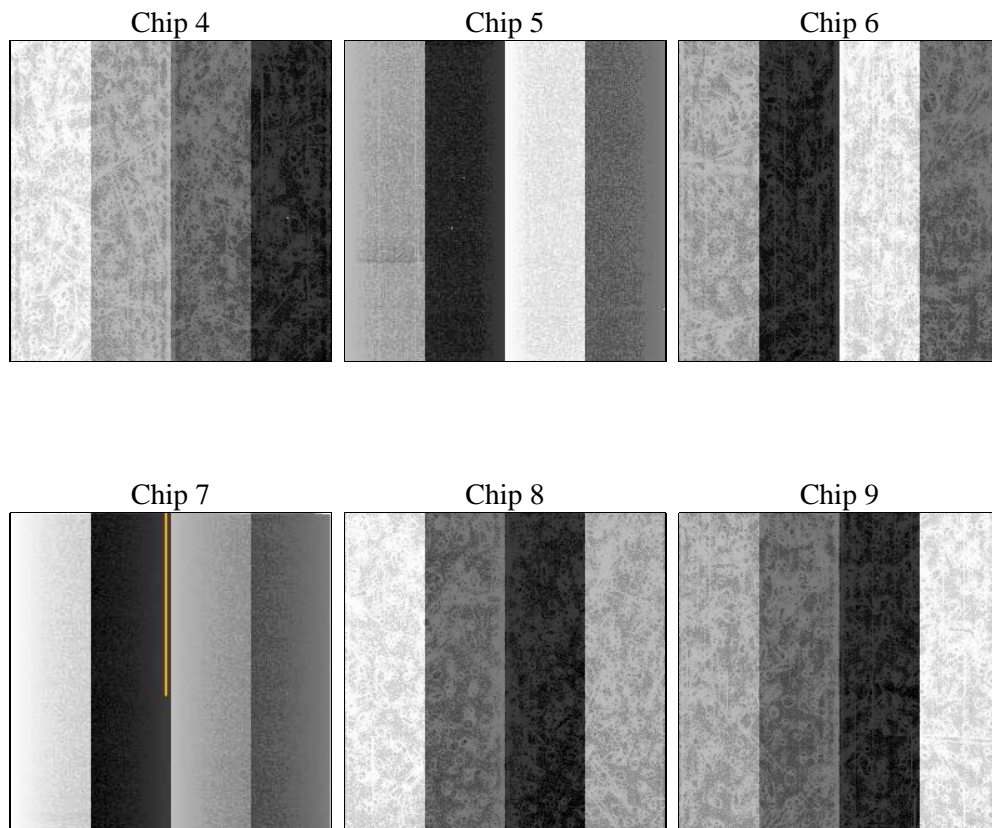
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36179.298000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	36319.999864757	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	36319.999864757	Sum of GTIs [s]
date	2012-04-29T03:28:29	Date and time of file creation	ontime5	36319.999864757	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	36319.999864757	Sum of GTIs [s]
			ontime7	36319.999864757	Sum of GTIs [s]
			ontime8	36316.758894444	Sum of GTIs [s]
			ontime9	36319.999864757	Sum of GTIs [s]
			l1events	2755161	Number of level 1 events

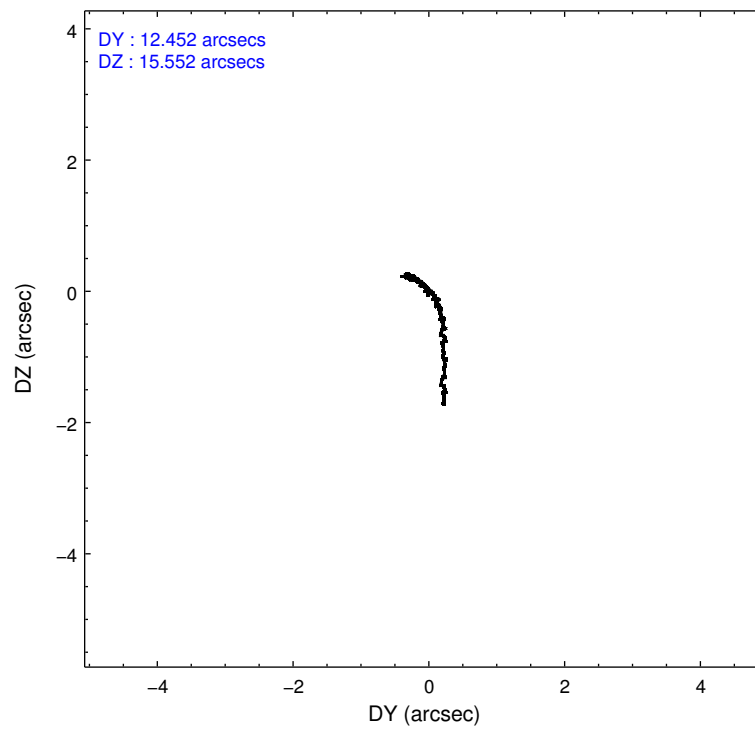
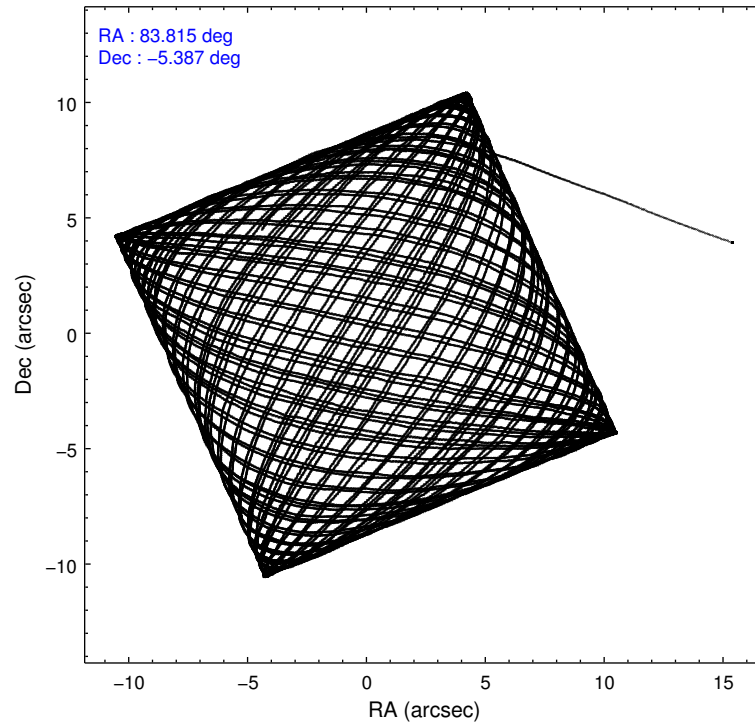
2.1.4 Events

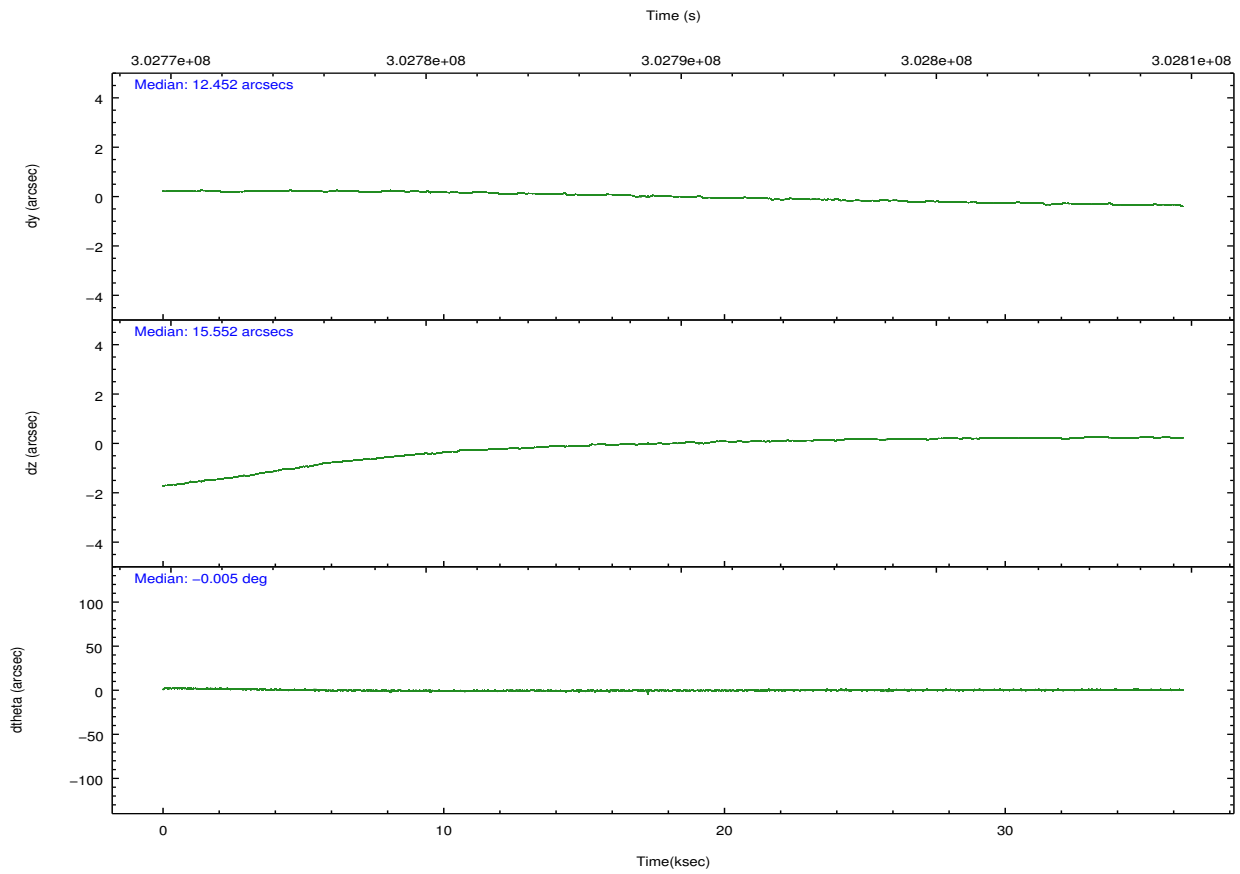
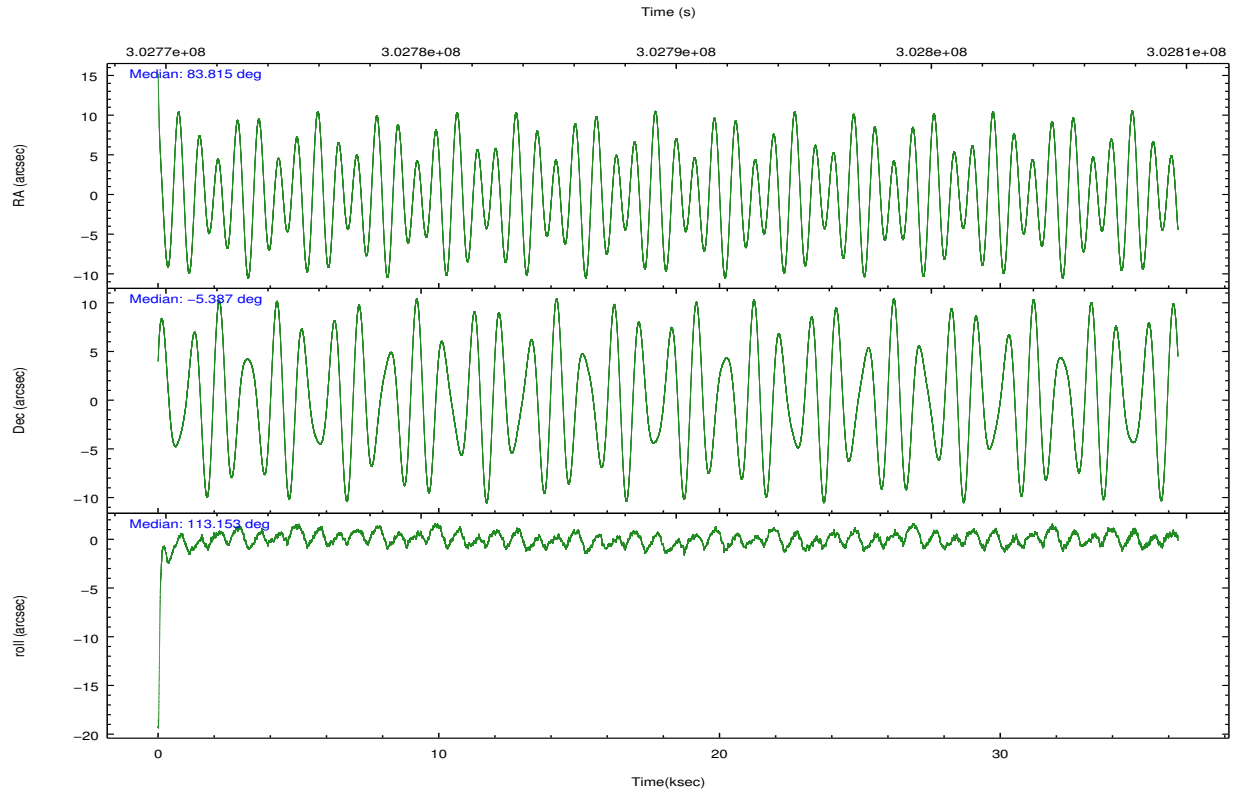
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	407627	546164	402190	556434	474158	368588	grade 0 events	23171	17919	43126	31614	45981	21420
rejected events	359292	297039	326046	291221	356598	321032		5%	3%	10%	5%	9%	5%
rejected %	88%	54%	81%	52%	75%	87%	grade 1 events	421	971	342	681	446	243
								0%	0%	0%	0%	0%	0%
							grade 2 events	9643	79147	13417	57086	24499	9239
								2%	14%	3%	10%	5%	2%
							grade 3 events	4618	9106	5178	24594	10800	4400
								1%	1%	1%	4%	2%	1%
							grade 4 events	4272	8957	5071	24000	10161	4132
								1%	1%	1%	4%	2%	1%
							grade 5 events	15738	36859	16412	46924	22152	17747
								3%	6%	4%	8%	4%	4%
							grade 6 events	6969	135630	9826	129432	26802	8637
								1%	24%	2%	23%	5%	2%
							grade 7 events	342795	257575	308818	242103	333317	302770
								84%	47%	76%	43%	70%	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	83.836970	83.81477548798854	CCD I2 on	N	N
[deg] Pointing Dec	-5.403053	-5.386939505329347	CCD I3 on	N	N
[deg] Pointing Roll	113.001718	113.1562496202462	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	302771671.184000	302770448.13758	CCD S5 on	Y	Y
Observation start date	2007-08-06T07:13:26	2007-08-06T06:54:08	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	302807850.184000	302808856.42692	On-chip summing requested	N	N
Observation end date	2007-08-06T17:16:25	2007-08-06T17:34:16	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



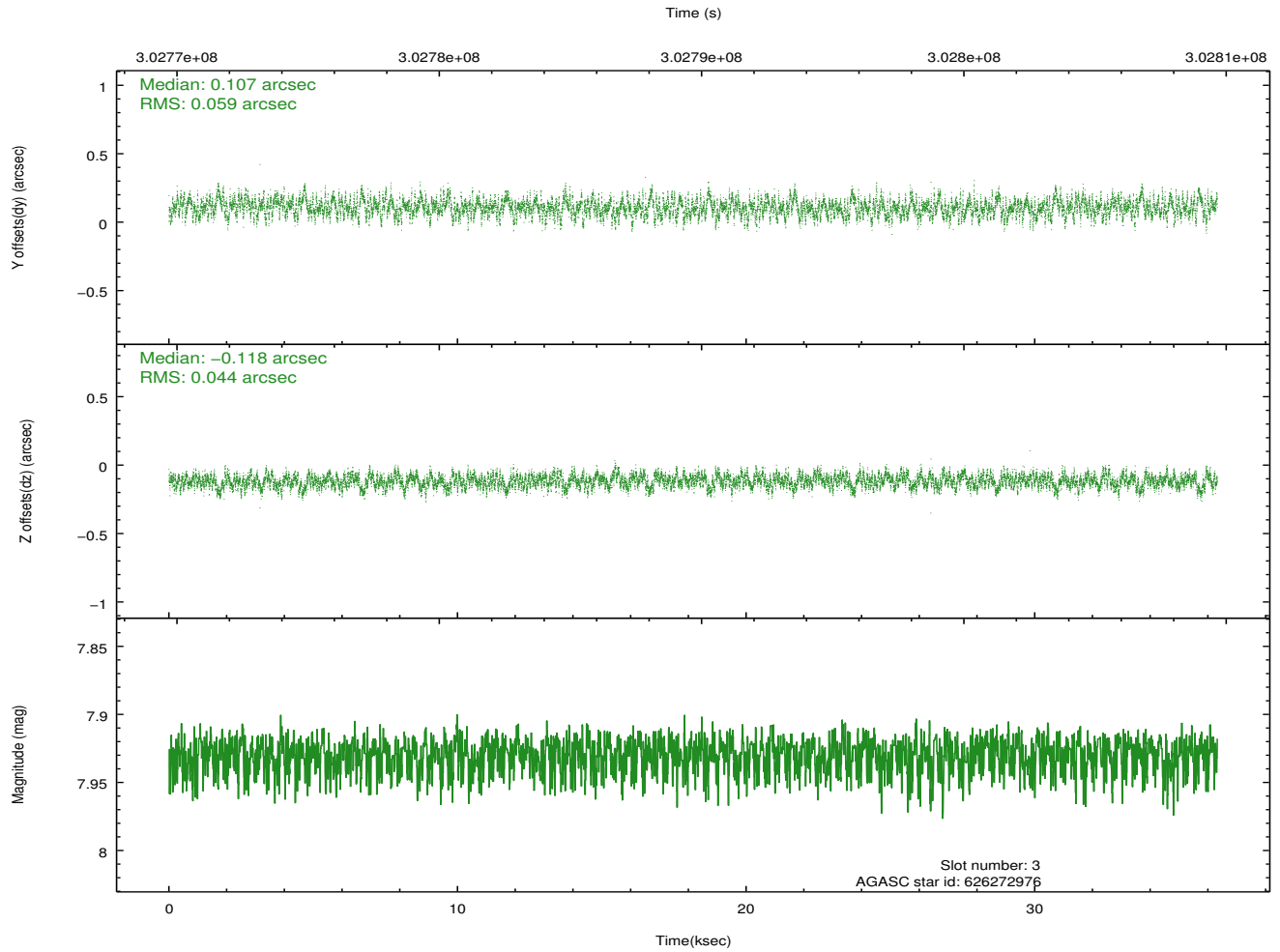
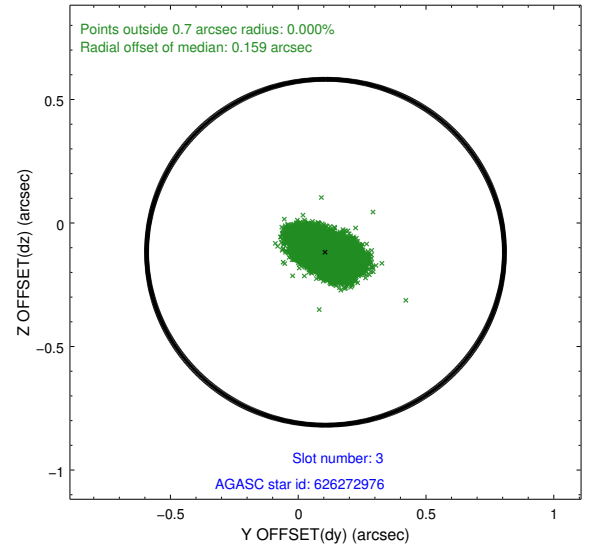
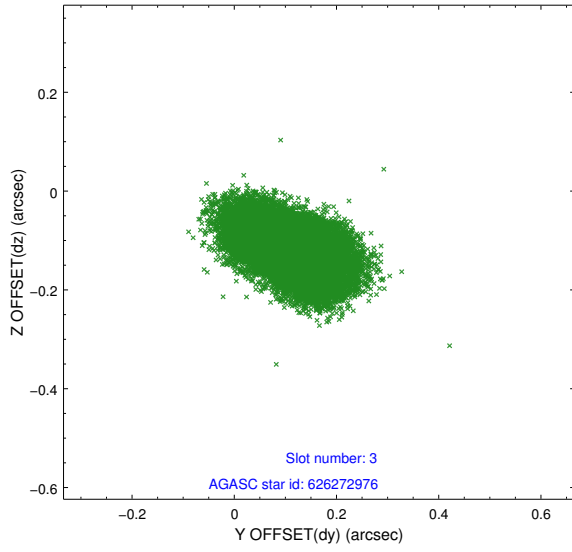


Slot Statistics

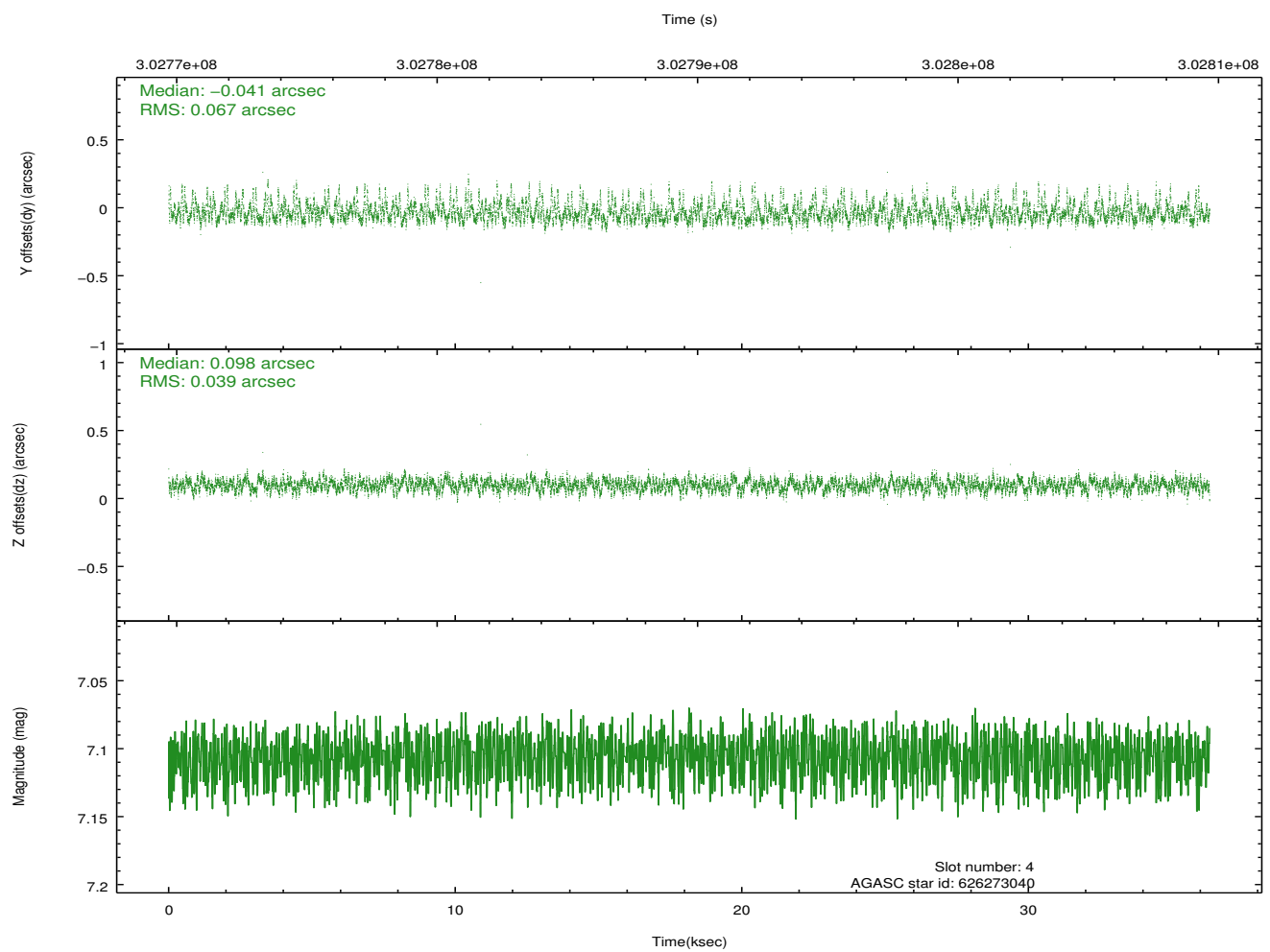
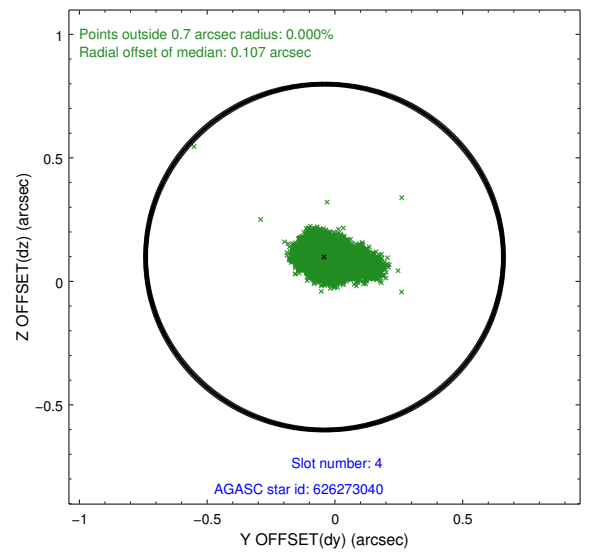
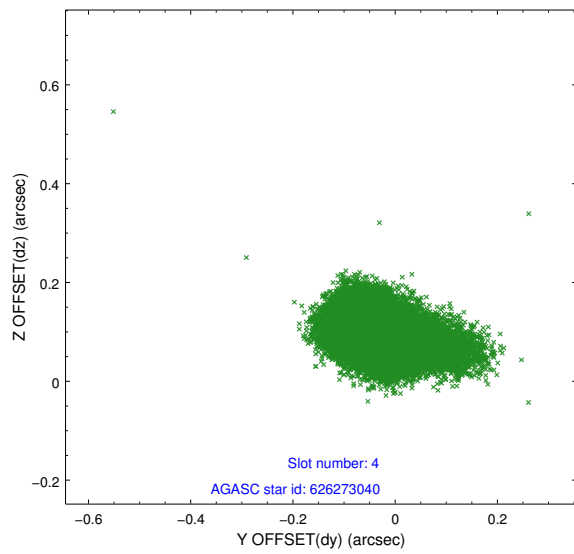
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	8859	-0.049	-0.036	0.010	0.019	0.000000	0.000000	-765.36	-1736.77
1	FID	ACIS-S-4	7.19	8860	0.159	0.033	0.010	0.019	0.000000	0.000000	2148.09	171.79
2	FID	ACIS-S-5	7.22	8861	-0.142	0.011	0.011	0.018	0.000000	0.000000	-1818.28	165.42
3	GUIDE	626272976	7.93	17716	0.107	-0.118	0.078	0.129	83.795875	-5.926912	-1678.31	872.41
4	GUIDE	626273040	7.11	17719	-0.041	0.098	0.076	0.149	84.062610	-5.647920	-1127.46	-399.28
5	GUIDE	625745128	7.83	17719	-0.176	-0.011	0.071	0.115	83.769930	-4.731835	2318.15	-722.55
6	GUIDE	625745144	7.86	17718	-0.045	0.109	0.073	0.119	83.888985	-4.837539	1801.31	-966.93
7	GUIDE	626272880	7.64	17718	0.137	-0.074	0.076	0.127	83.815609	-6.032748	-2056.51	956.21

2.4 Star Slots

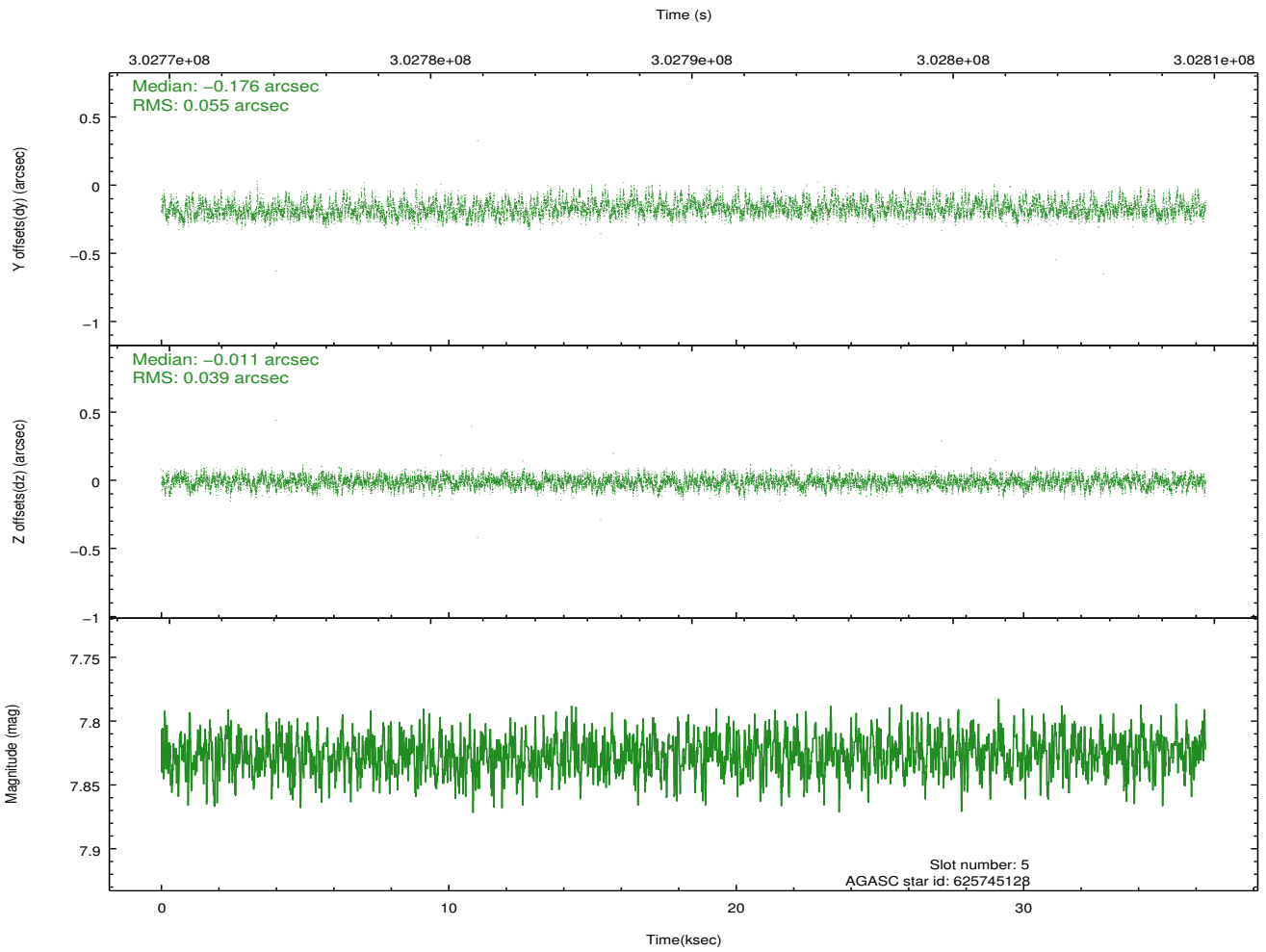
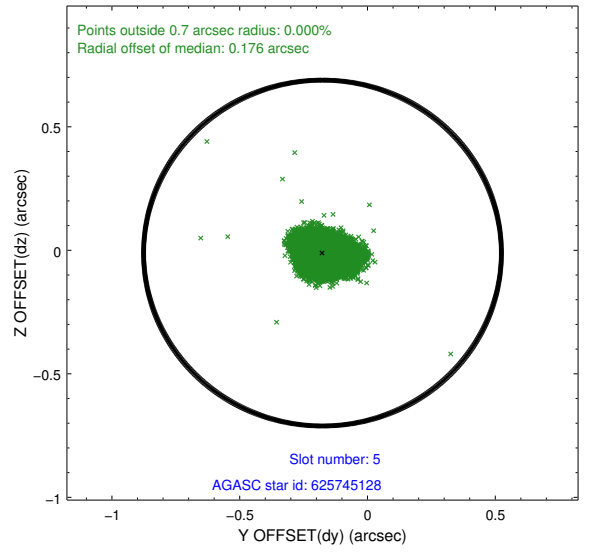
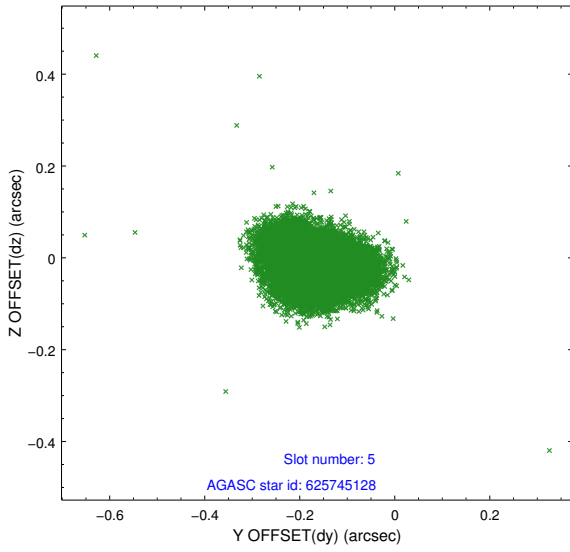
2.4.1 Slot 3



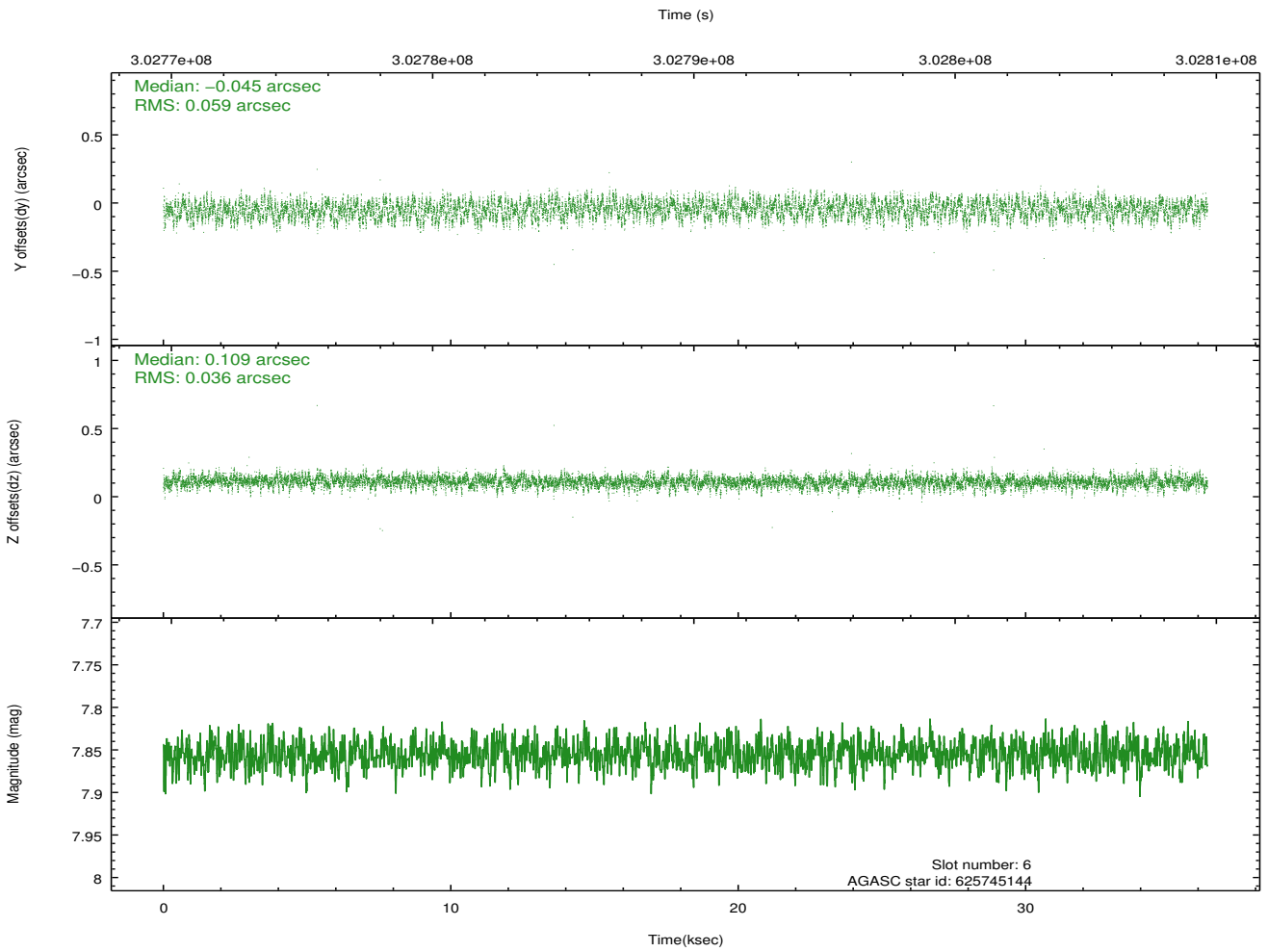
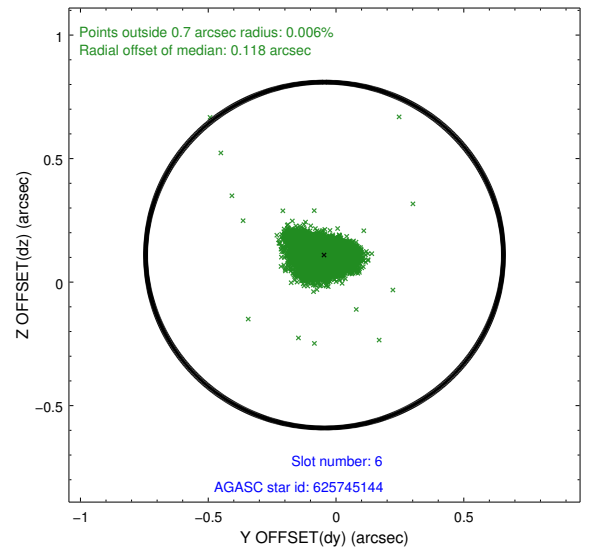
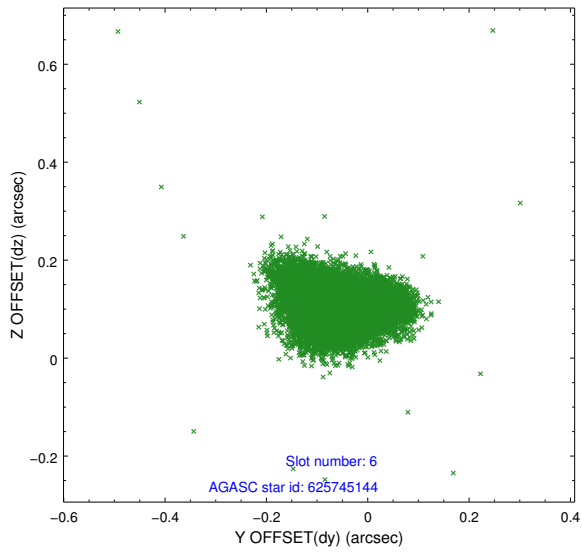
2.4.2 Slot 4



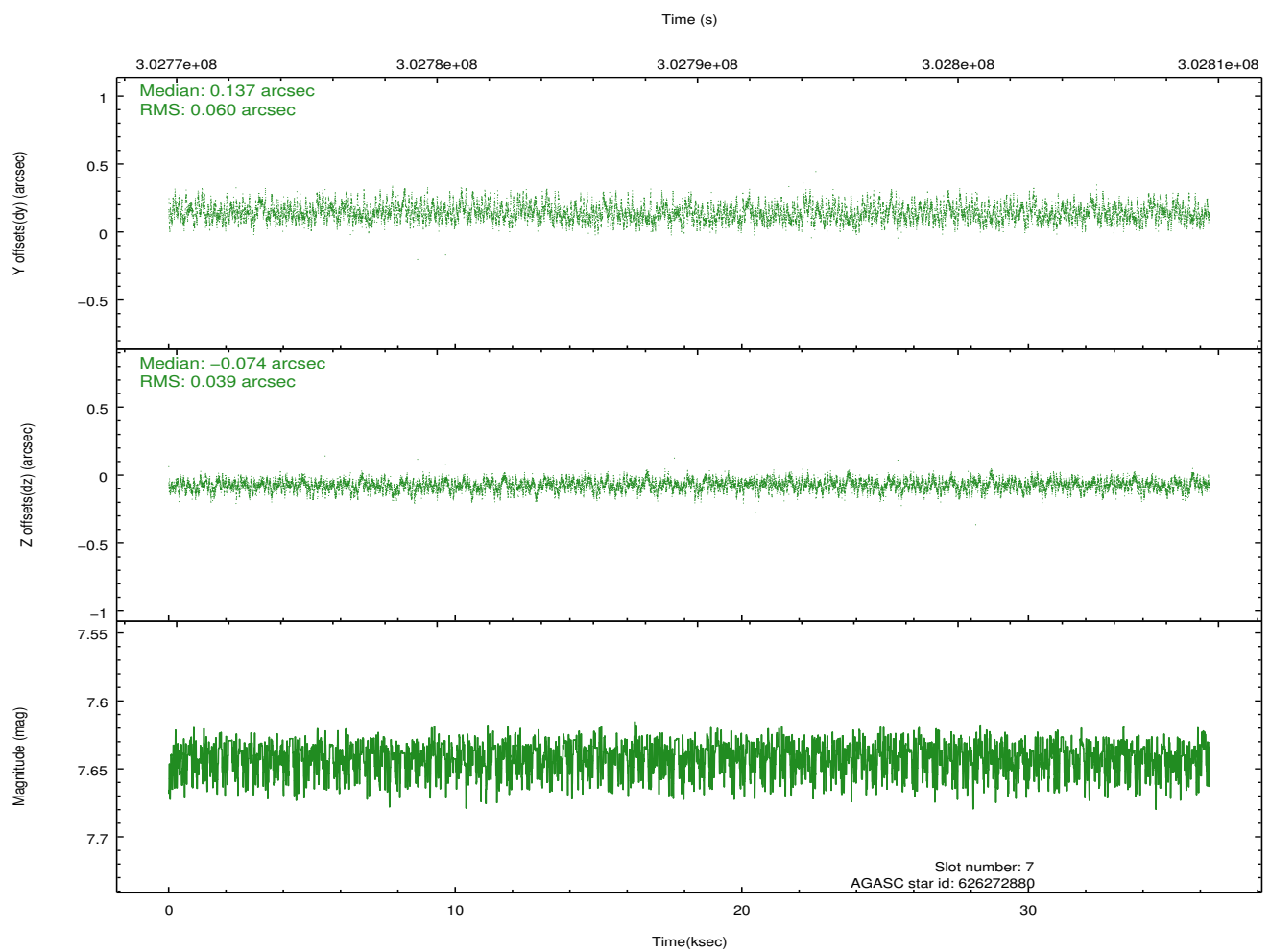
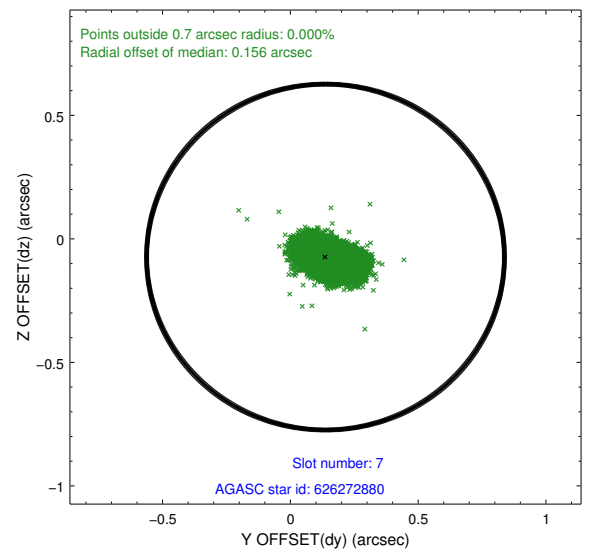
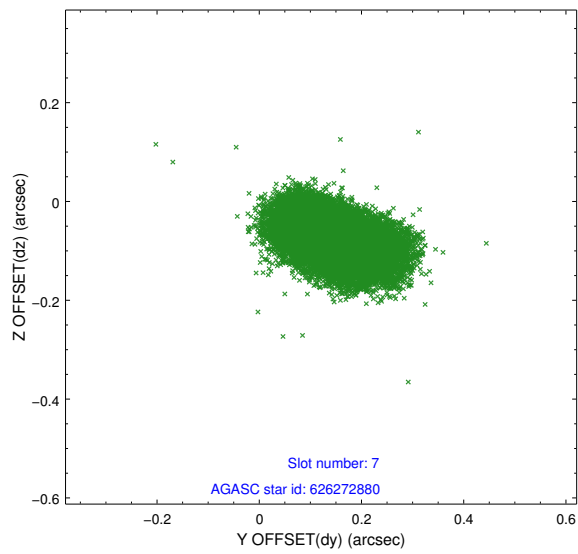
2.4.3 Slot 5



2.4.4 Slot 6

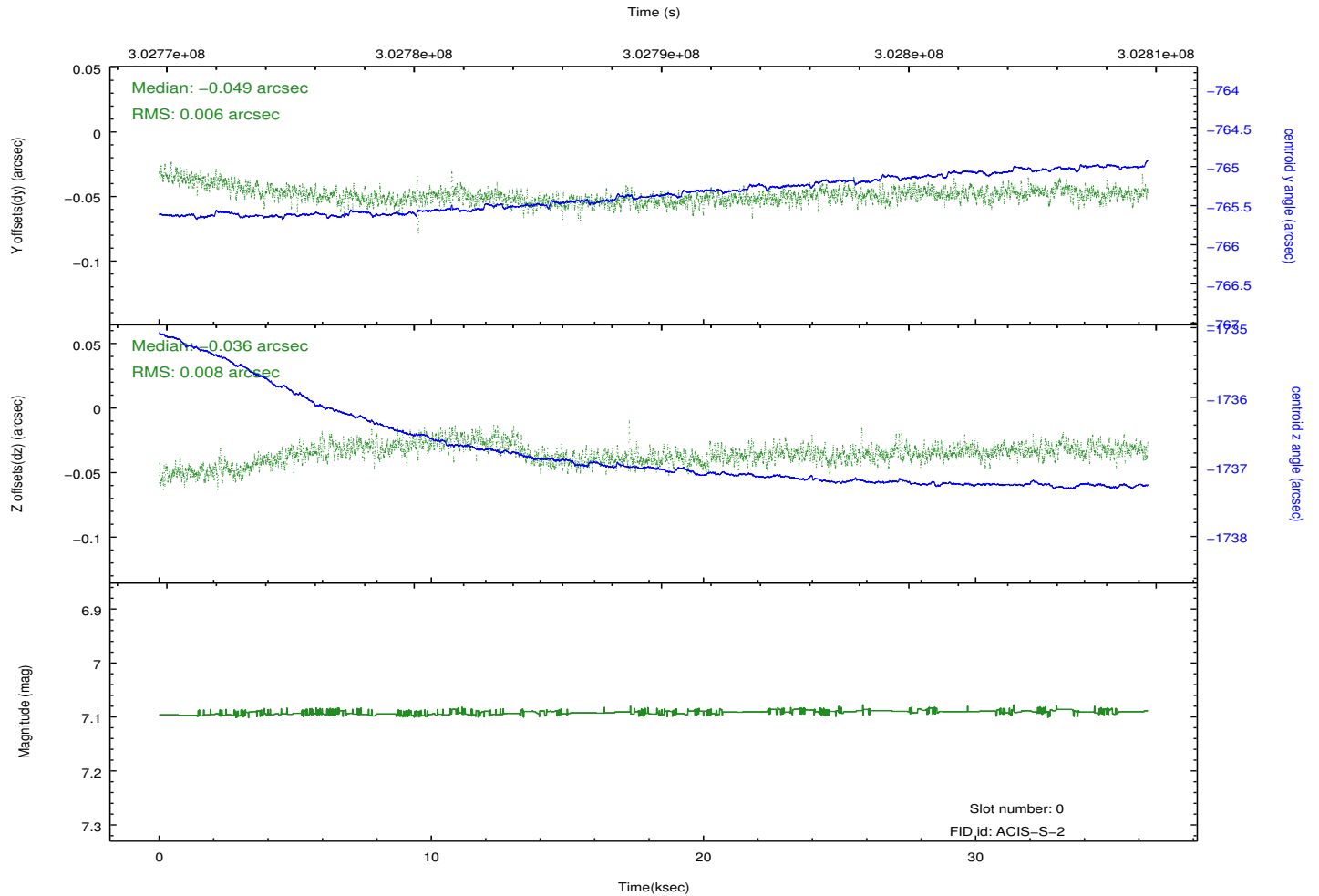
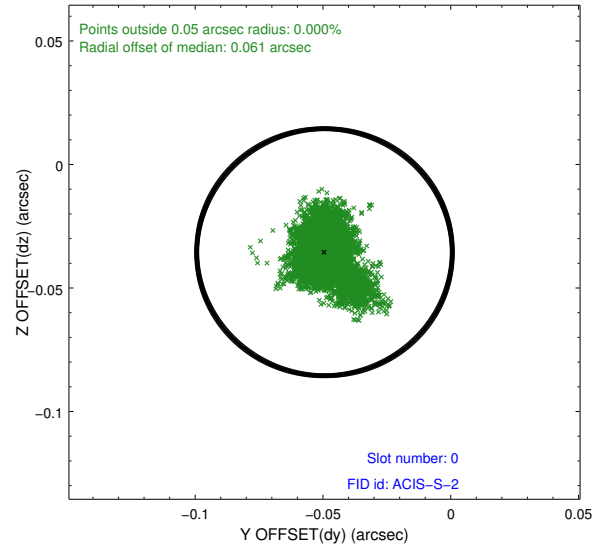
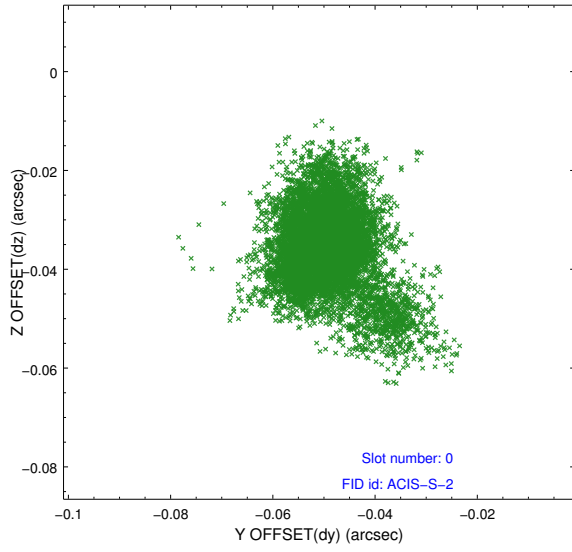


2.4.5 Slot 7

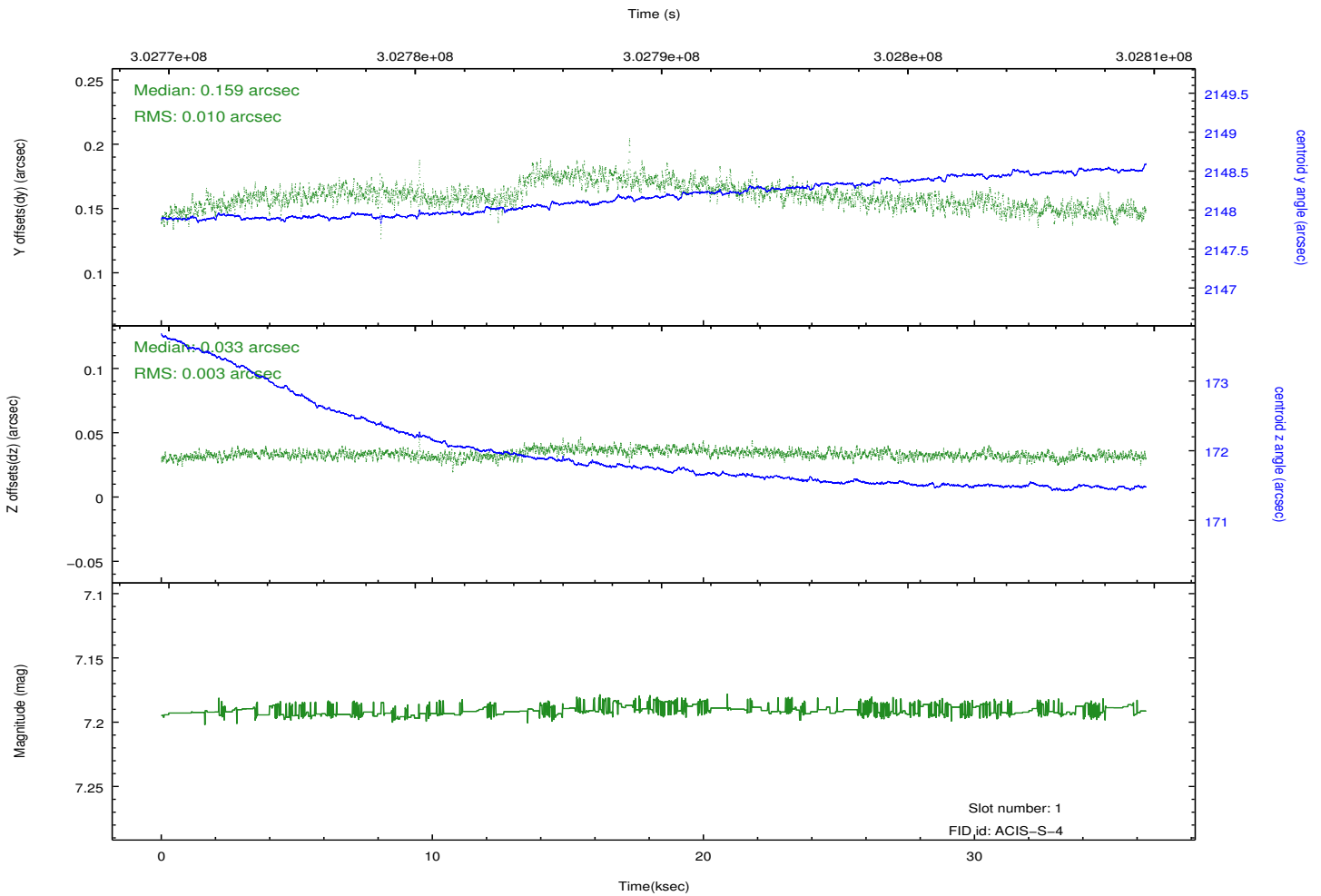
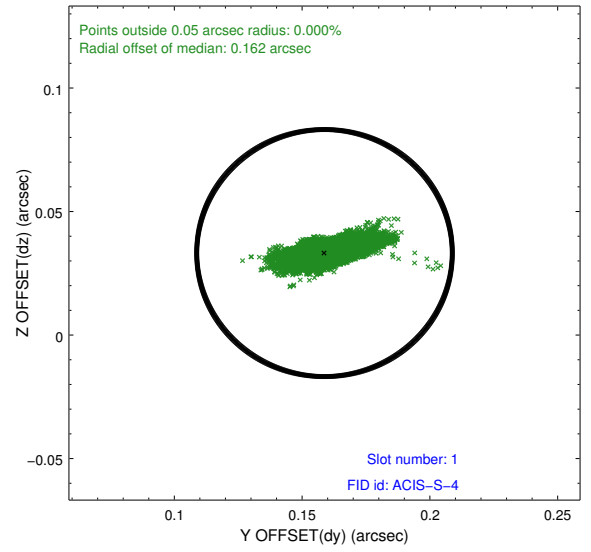
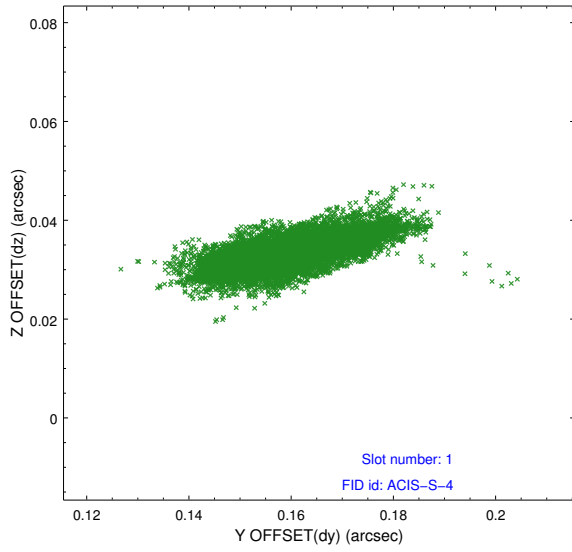


2.5 FID Slots

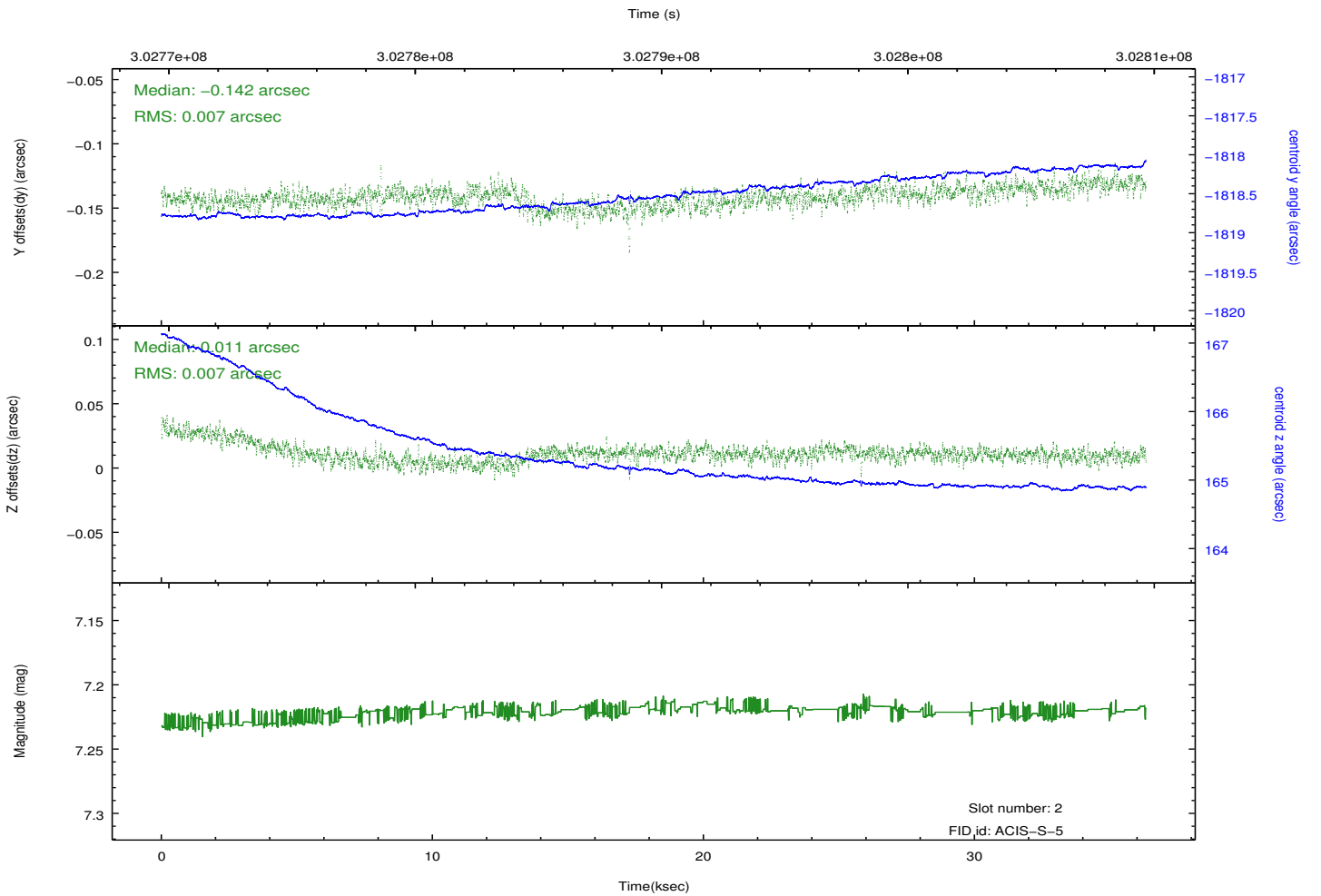
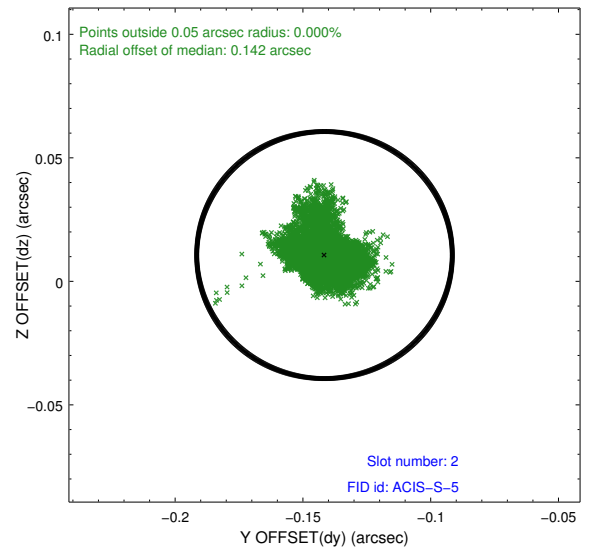
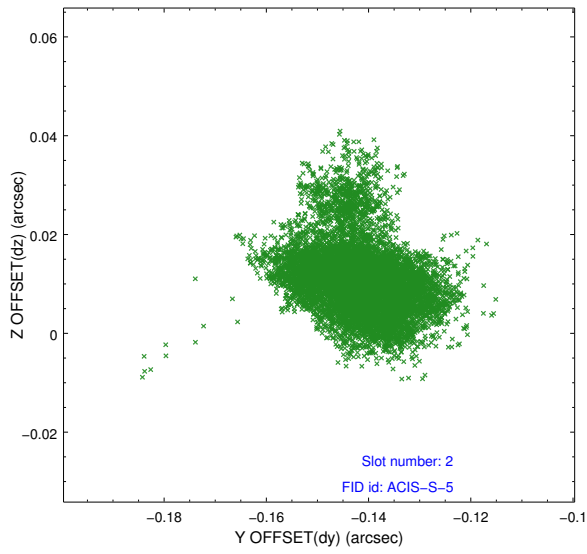
2.5.1 Slot 0



2.5.2 Slot 1

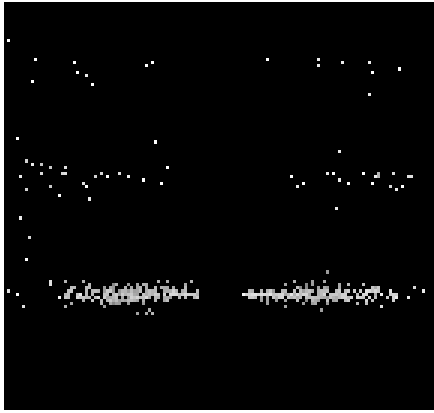


2.5.3 Slot 2

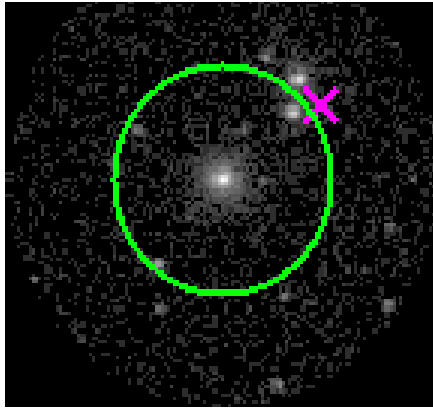


3 Gratings

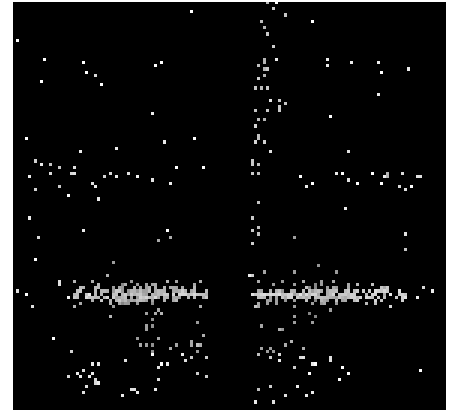
3.1 HEG Arm



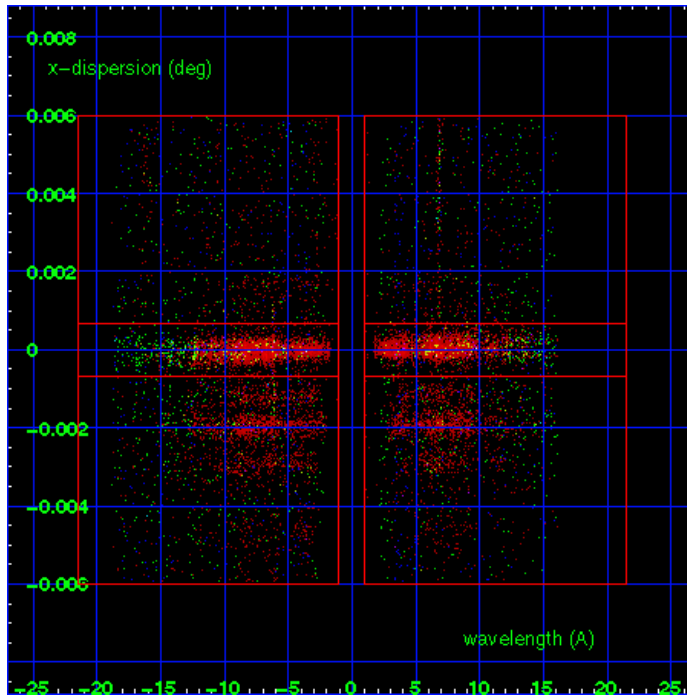
HEG Order Sort 123



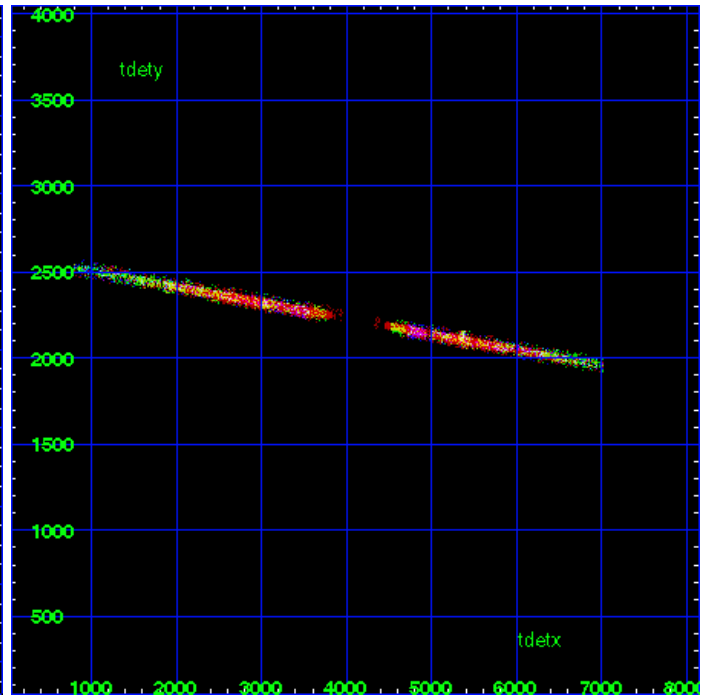
HEG Zero Order



HEG Order Sort ALL

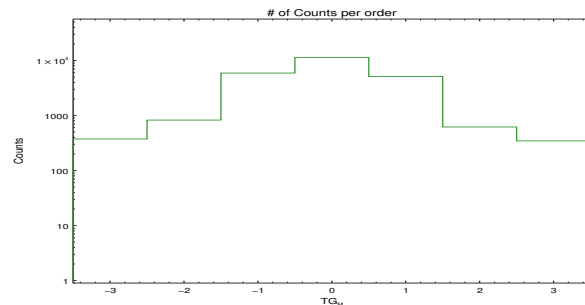


Spot Image HEG

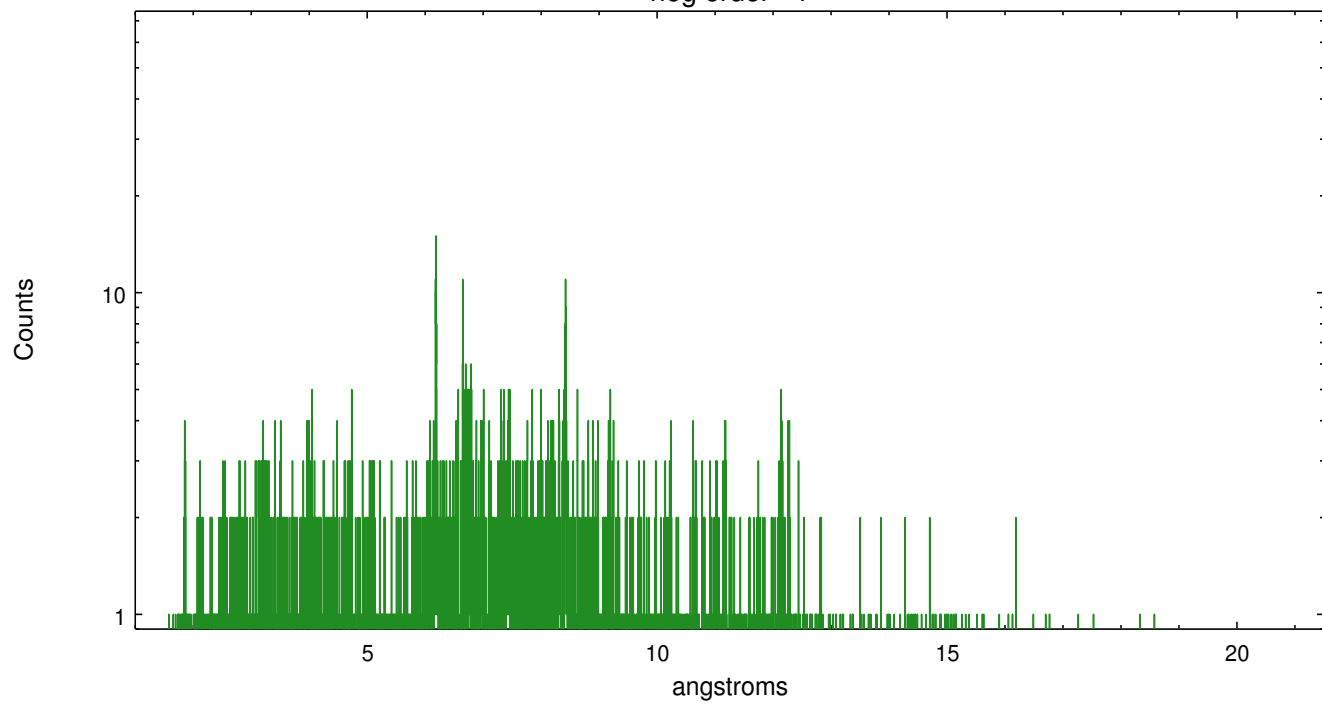


Full Detector HEG

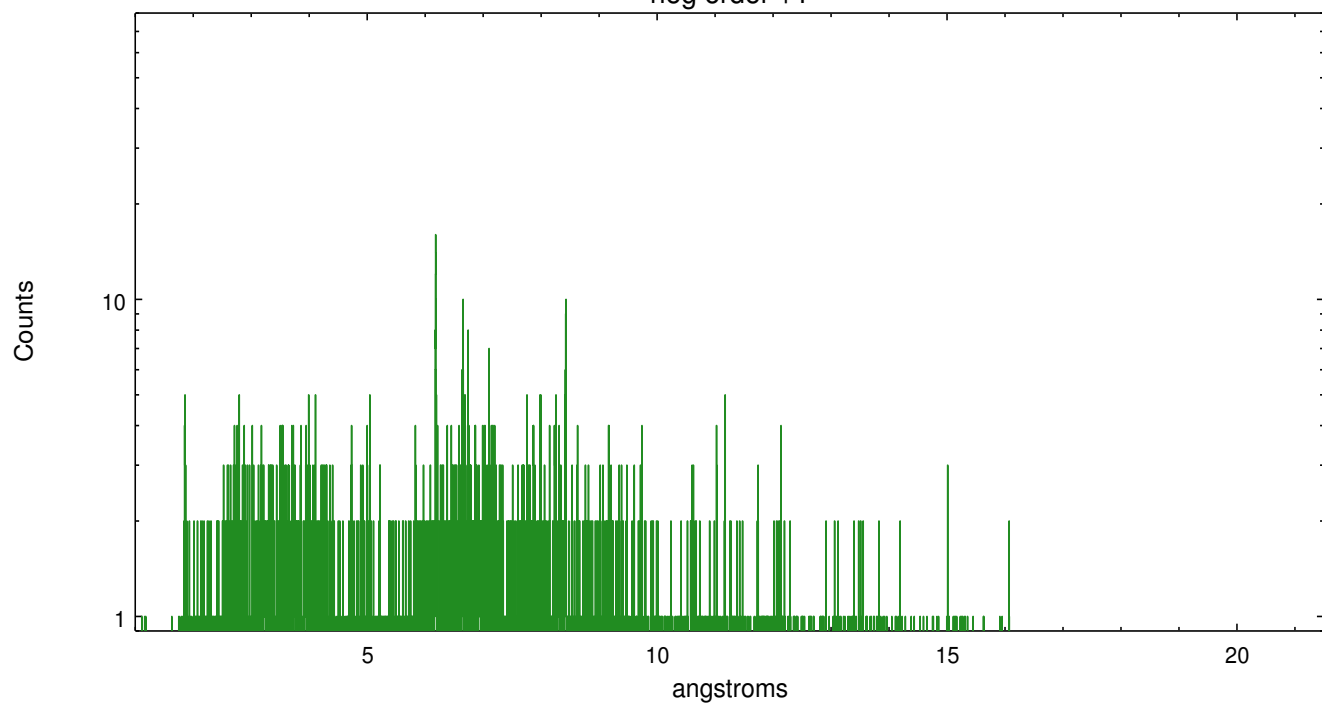
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	374	825	5901	11316	5089	618	345



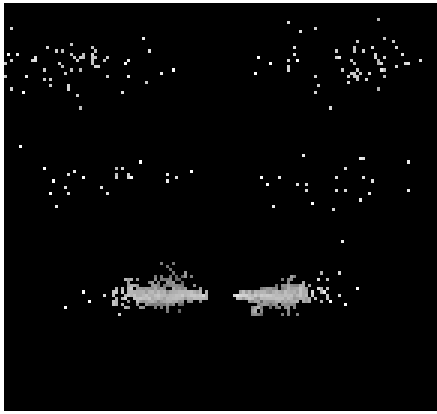
heg order -1



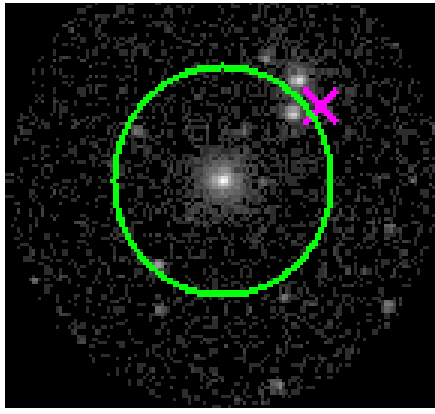
heg order +1



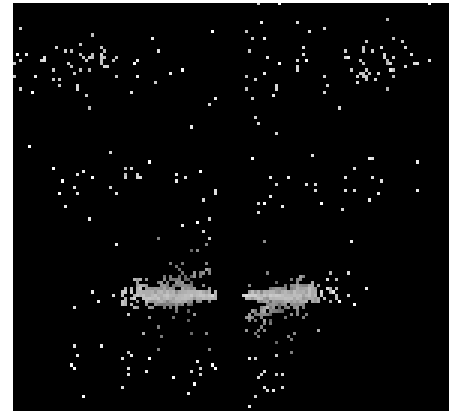
3.2 MEG Arm



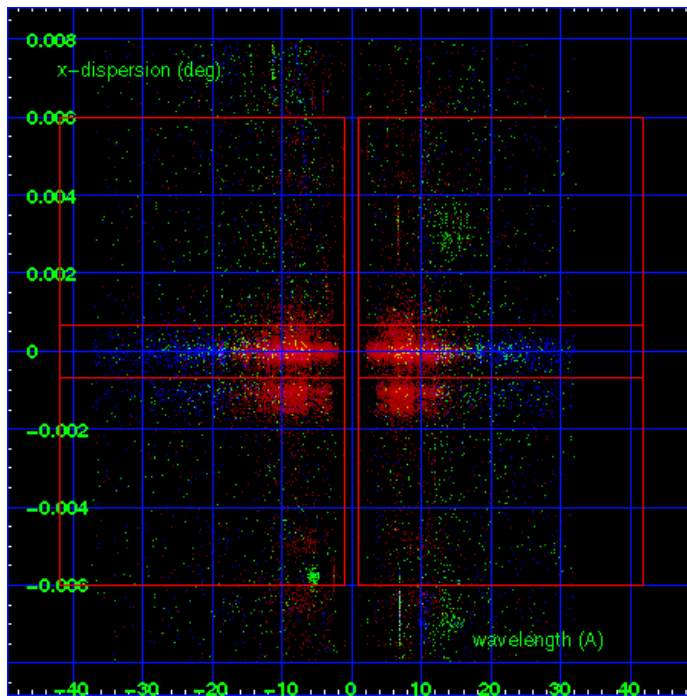
MEG Order Sort 123



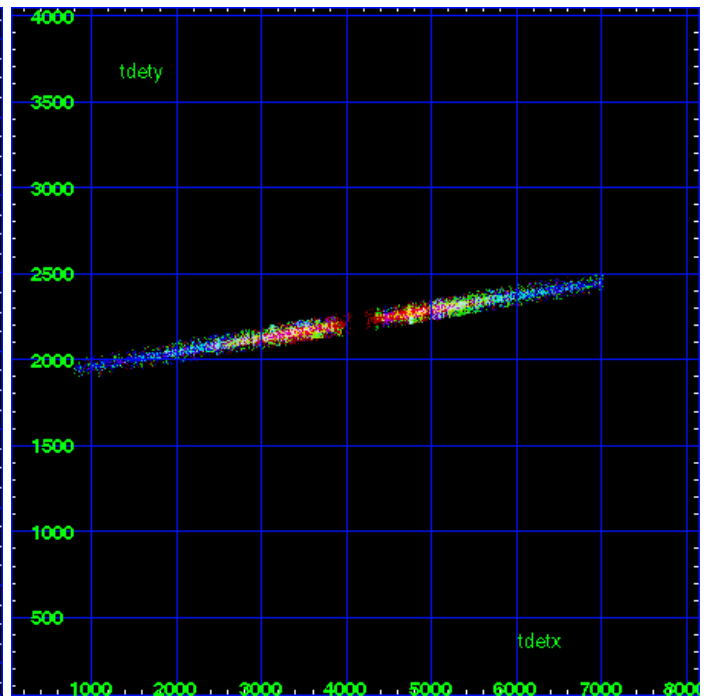
MEG Zero Order



MEG Order Sort ALL

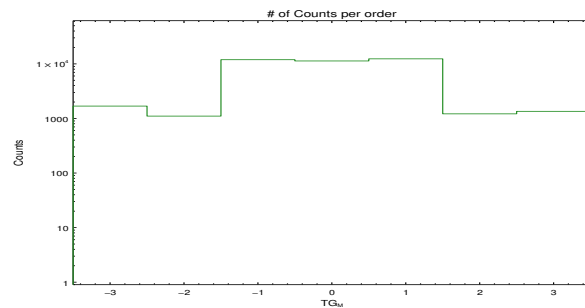


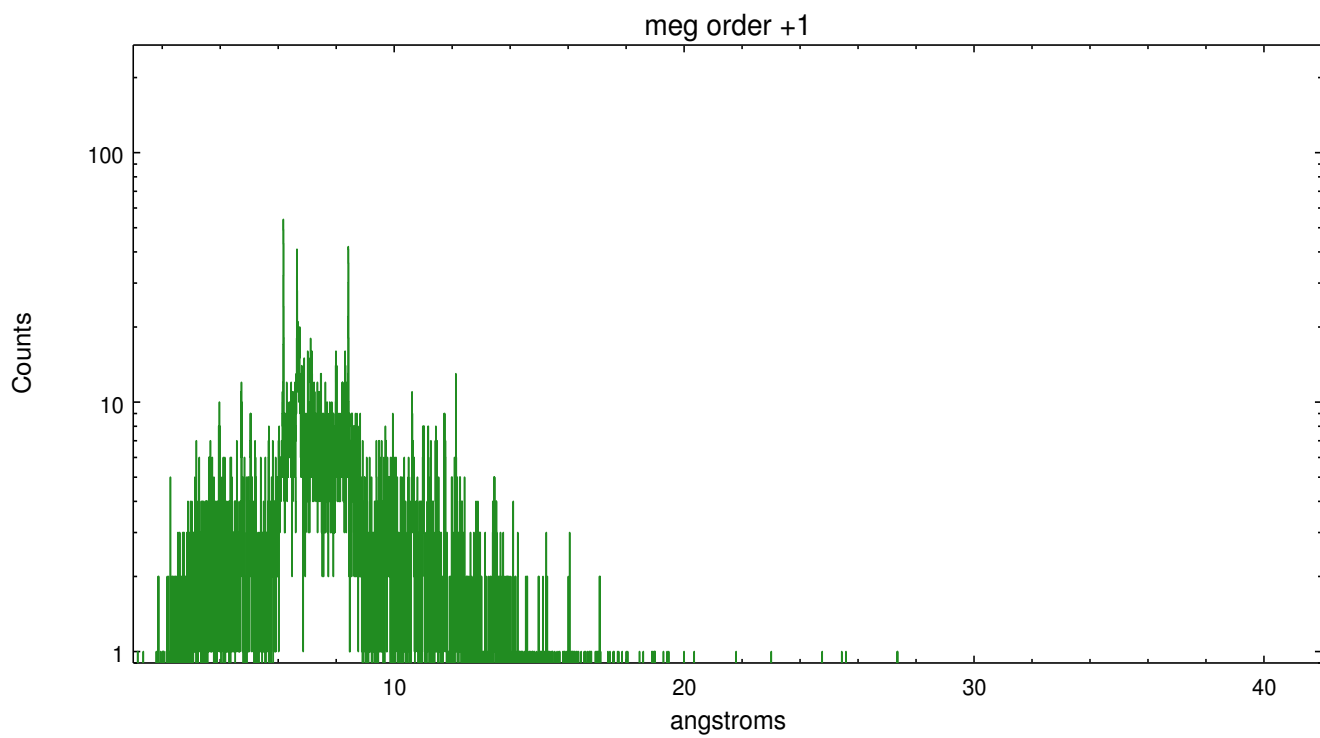
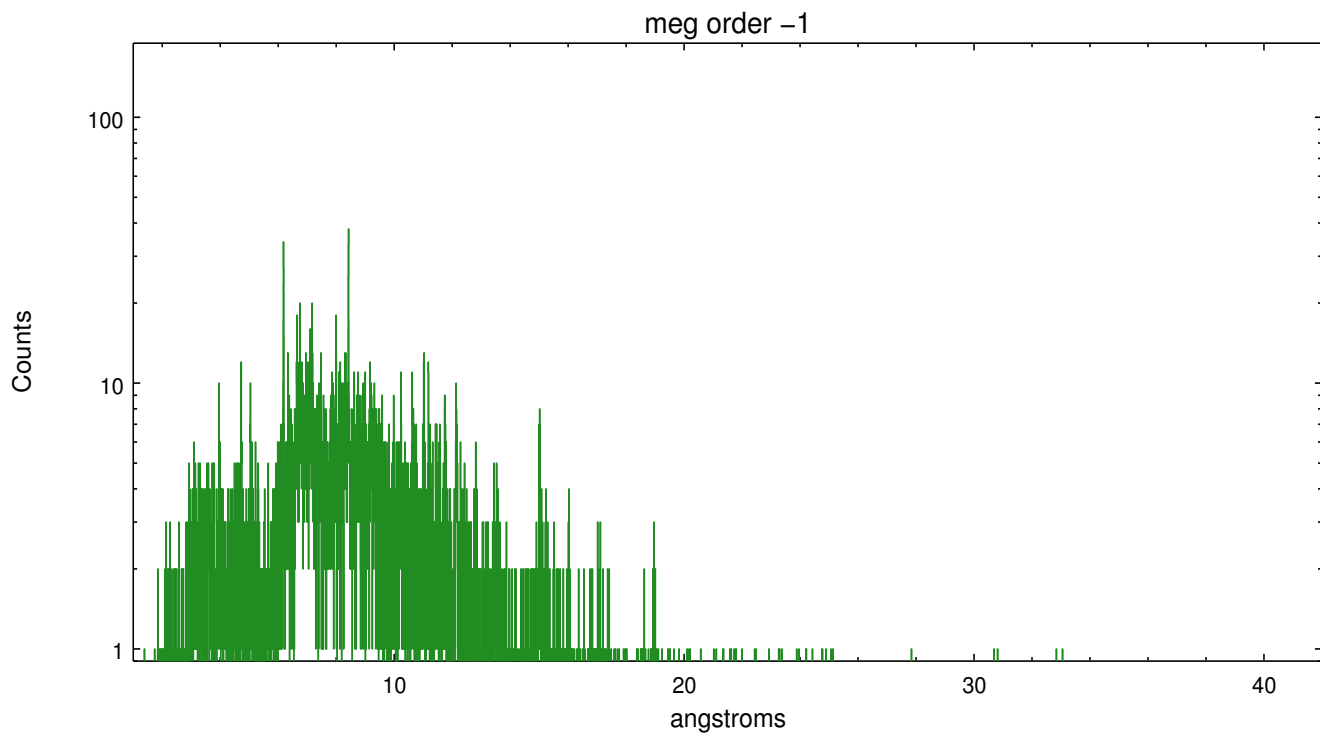
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1685	1104	11934	11316	12374	1215	1350





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.05.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.3199998

A.2 Comments

Multiple sources in field. Spectral extraction is of theta 1 Ori C.

Note: this is a crowded field. Default extraction was centered on the brightest object, theta 1 Ori C. Default extraction regions may include other sources; the MEG order-sorting plots show some confusion.

Customized extraction is advised.