

V&V Reference Report

L2 ASCDS Version : 10.8.3

Observation 23206 - L2 Version 1
Chandra X-Ray Center

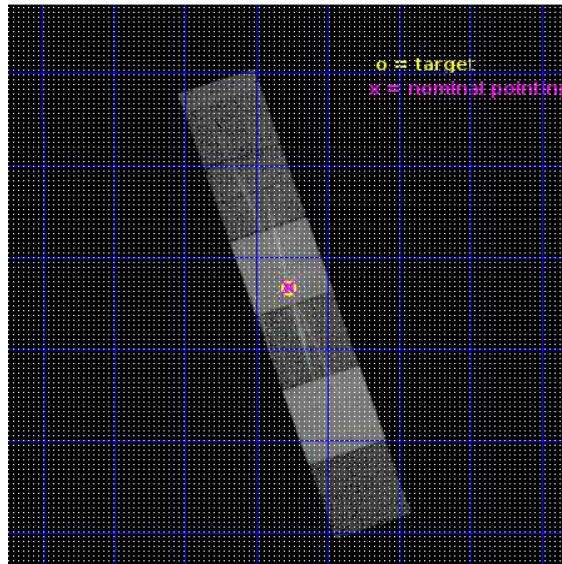
L2 Processing Date : Apr 2 2020

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1 Front

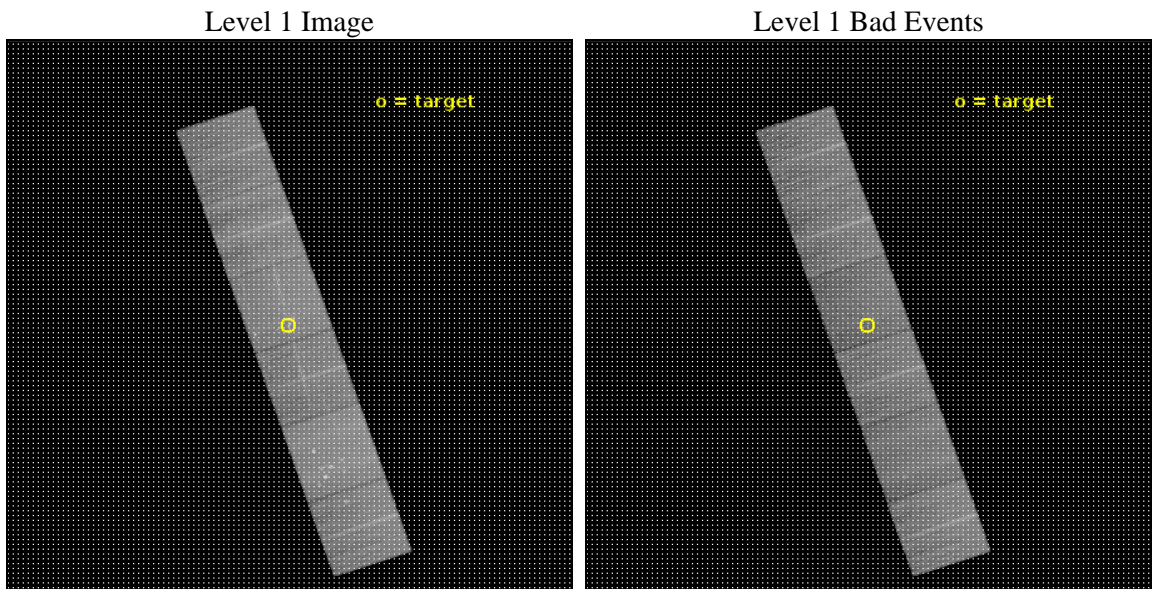
seq_num	201298	Sequence number
obs_id	23206	Observation id
title	THE TRUE NATURE OF X-RAYS FROM THE ORION TRAPEZIUM	Proposal title
observer	Norbert Schulz	Principal investigator
object	Orion Nebula Cluster	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.81875	Observer's specified target RA [deg]
dec_targ	-5.38975	Observer's specified target Dec [deg]
ra_nom	83.8174791307	Nominal RA [deg]
dec_nom	-5.38721759105	Nominal Dec [deg]
roll_nom	251.158988515	Nominal Roll [deg]
revision	1	Processing version of data
ontime	17941.34858799	Sum of GTIs [s]
livetime	17714.164429186	Livetime [s]
ontime4	17941.389627934	Sum of GTIs [s]
ontime5	17941.307547927	Sum of GTIs [s]
ontime6	17941.266507983	Sum of GTIs [s]
ontime7	17941.34858799	Sum of GTIs [s]
ontime8	17941.22546792	Sum of GTIs [s]
ontime9	17941.184427977	Sum of GTIs [s]
l2events	287356	Number of level 2 events



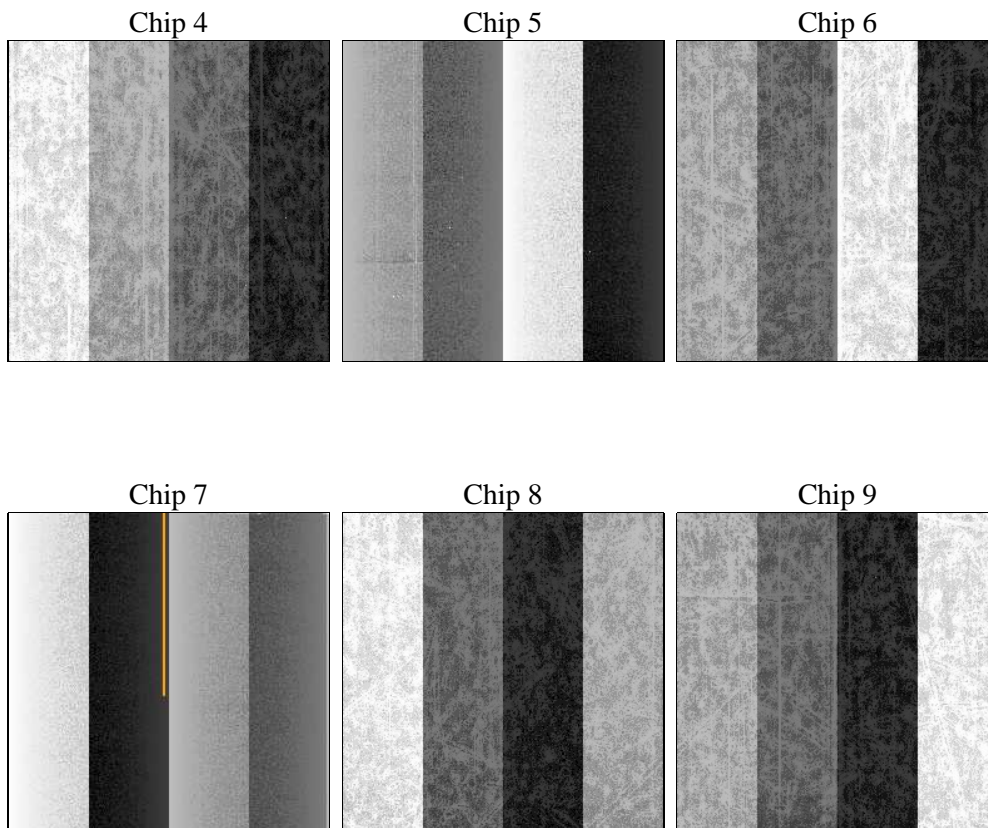
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	18000.000000	[s] Scheduled observation exposure time
ascdsver	10.8.3	Processing system revision	ontime	17941.34858799	Sum of GTIs [s]
caldsver	4.9.1	 	ontime4	17941.389627934	Sum of GTIs [s]
date	2020-04-03T02:51:20	Date and time of file creation	ontime5	17941.307547927	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	17941.266507983	Sum of GTIs [s]
			ontime7	17941.34858799	Sum of GTIs [s]
			ontime8	17941.22546792	Sum of GTIs [s]
			ontime9	17941.184427977	Sum of GTIs [s]
			l1events	1130891	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			z0_pos	(4088.50, 4077.80)	src1a sky pixel position

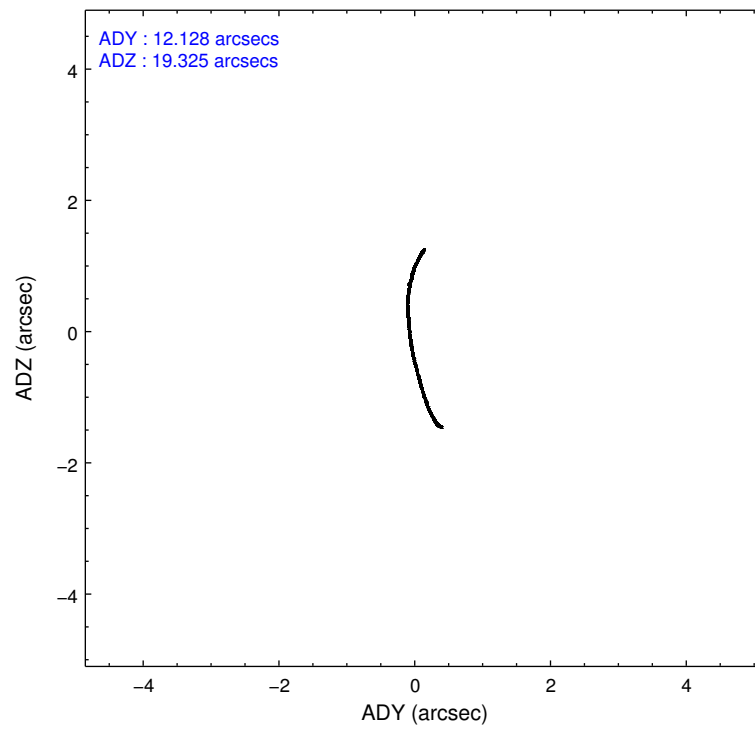
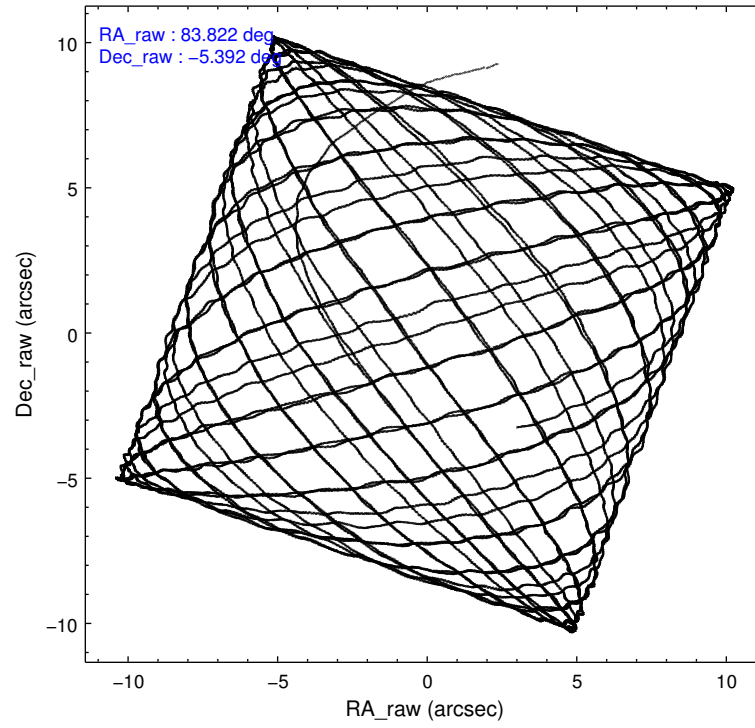
2.1.4 Events

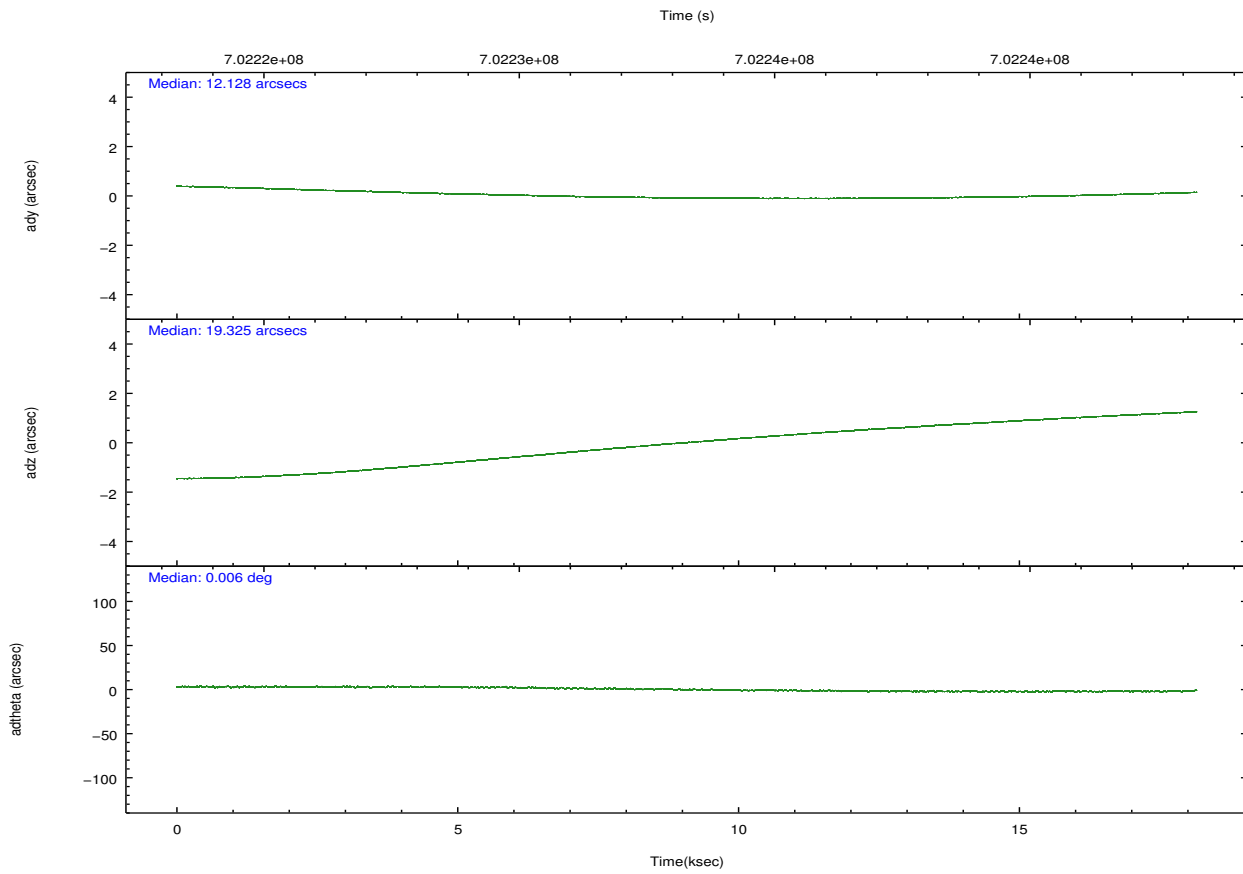
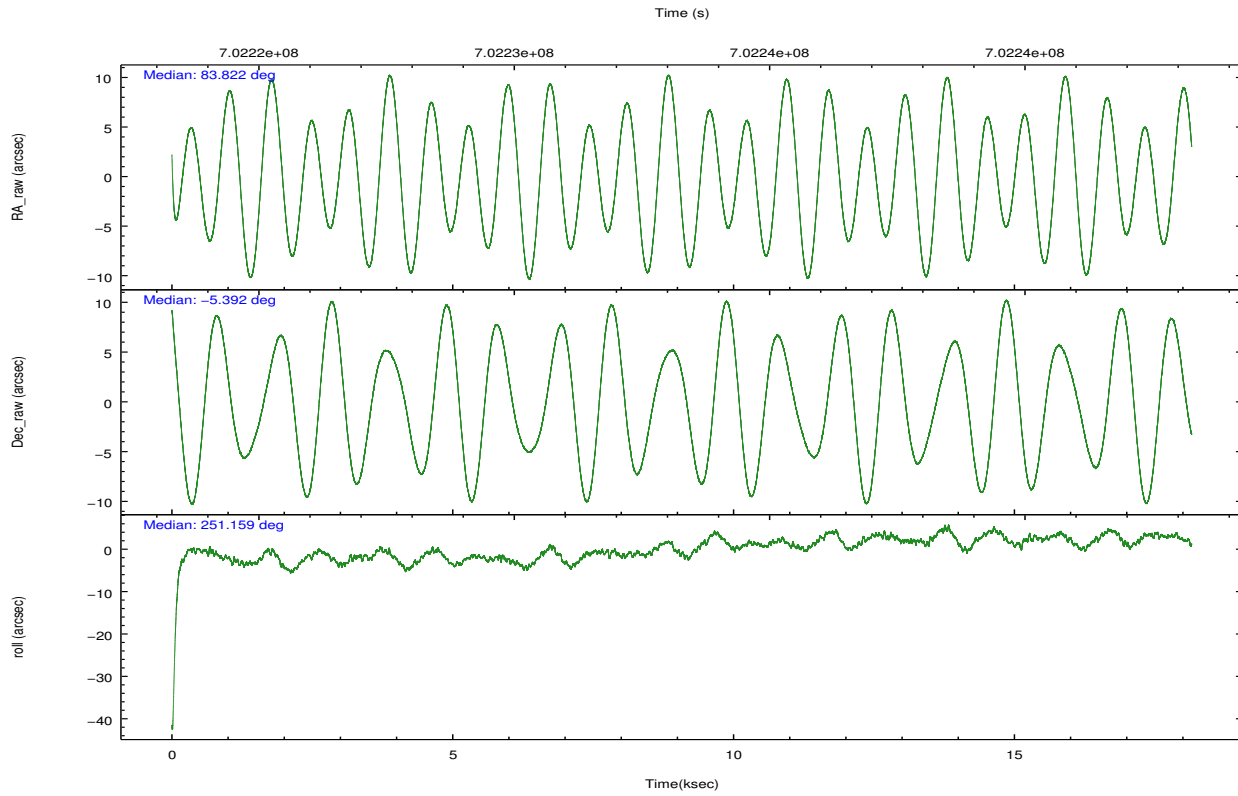
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	175597	241077	161775	212724	188383	151335	grade 0 events	7352	14250	13361	12391	18502	6761
rejected events	157975	121781	133455	105728	135785	132396		4%	5%	8%	5%	9%	4%
rejected %	89%	50%	82%	49%	72%	87%	grade 1 events	173	1010	105	380	163	92
								0%	0%	0%	0%	0%	0%
							grade 2 events	3810	36255	6803	23844	12148	4855
								2%	15%	4%	11%	6%	3%
							grade 3 events	1817	3428	1637	9068	4739	1512
								1%	1%	1%	4%	2%	0%
							grade 4 events	1710	3220	1568	8869	4481	1493
								0%	1%	0%	4%	2%	0%
							grade 5 events	6637	14258	5675	17592	9377	6585
								3%	5%	3%	8%	4%	4%
							grade 6 events	2938	62164	4955	52840	12747	4321
								1%	25%	3%	24%	6%	2%
							grade 7 events	151160	106492	127671	87740	126226	125716
								86%	44%	78%	41%	67%	83%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
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	83.815871	83.81747913069999	CCD I2 on	N	N
[deg] Pointing Dec	-5.365559	-5.38721759105	CCD I3 on	N	N
[deg] Pointing Roll	250.999727	251.158988515	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	702224366.184000	702223140.5024	CCD S5 on	O2	Y
Observation start date	2020-04-02T14:18:17	2020-04-02T13:59:00	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	702242366.184000	702243350.42863	On-chip summing requested	N	N
Observation end date	2020-04-02T19:18:17	2020-04-02T19:35:50	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





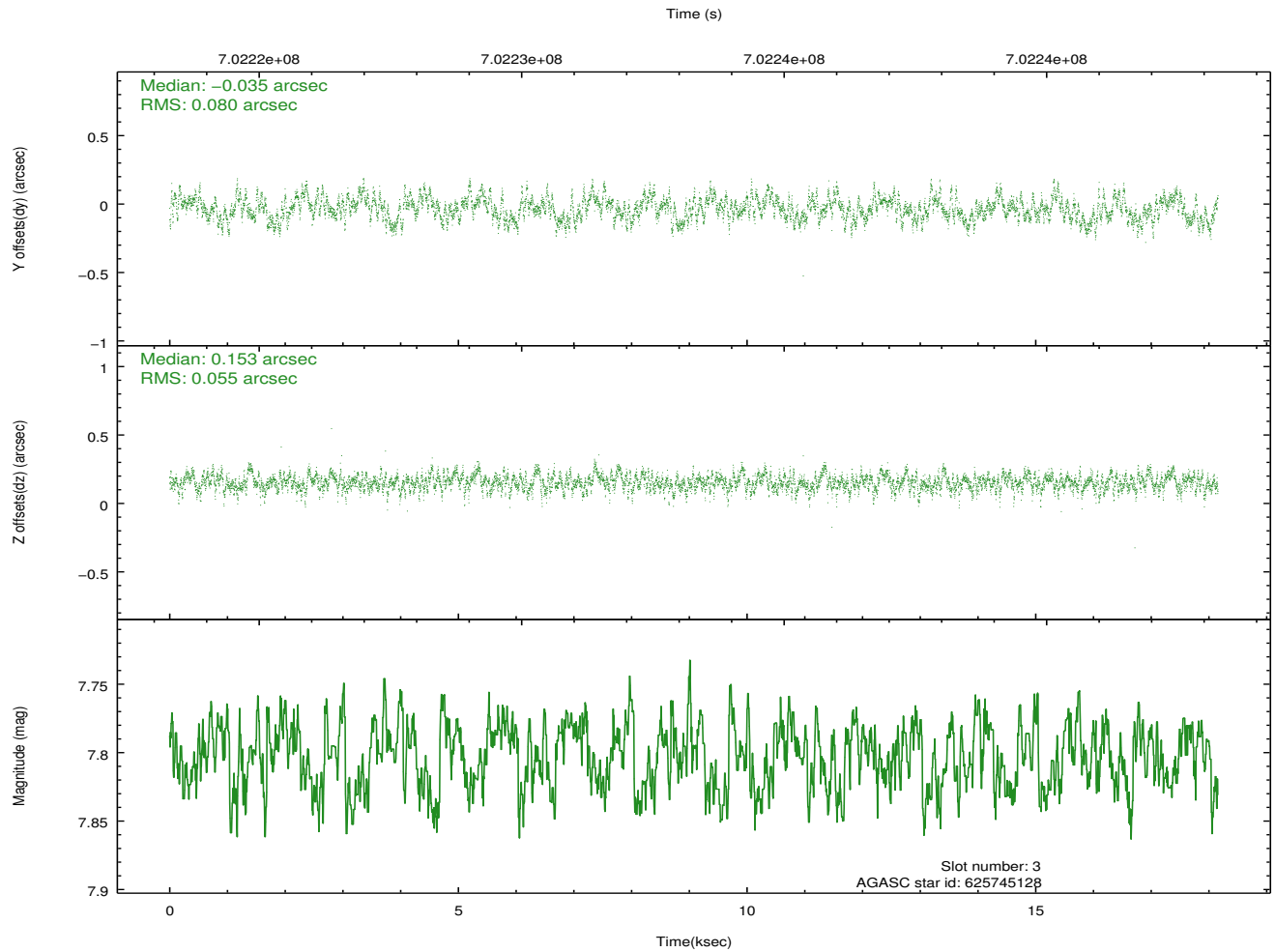
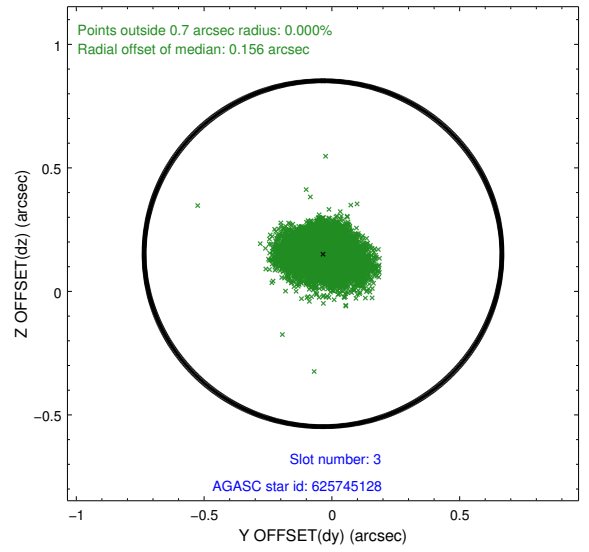
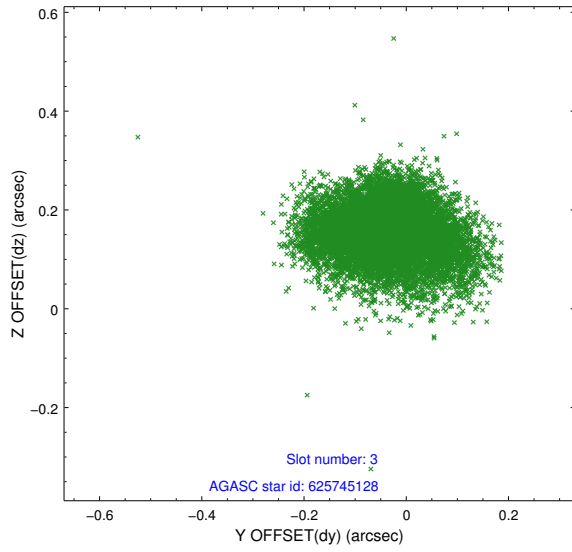
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-3	7.43	4429	1.000	0.188	-0.228	0.023	0.034	0.000000	0.000000	48.00	-1869
1	FID		ACIS-S-4	7.30	4429	1.000	0.163	0.014	0.016	0.025	0.000000	0.000000	2148.48	167
2	FID		ACIS-S-5	7.26	4429	1.000	-0.382	0.225	0.023	0.031	0.000000	0.000000	-1817.98	162
3	GUIDE	used	625745128	7.80	8856	1.000	-0.035	0.153	0.103	0.165	83.769930	-4.731835	-2103.11	-898
4	GUIDE	used	625745136	7.20	8856	1.000	0.068	-0.160	0.114	0.173	83.600341	-4.804339	-1658.58	-1388
5	GUIDE	used	625874672	7.67	8851	1.000	-0.455	0.105	0.111	0.184	84.403143	-4.934124	-2153.37	1486
6	GUIDE	used	626272880	7.70	8855	1.000	0.207	-0.046	0.096	0.152	83.815609	-6.032748	2271.90	781
7	GUIDE	used	626272976	7.97	8853	1.000	0.213	-0.040	0.090	0.150	83.795875	-5.926912	1935.13	590

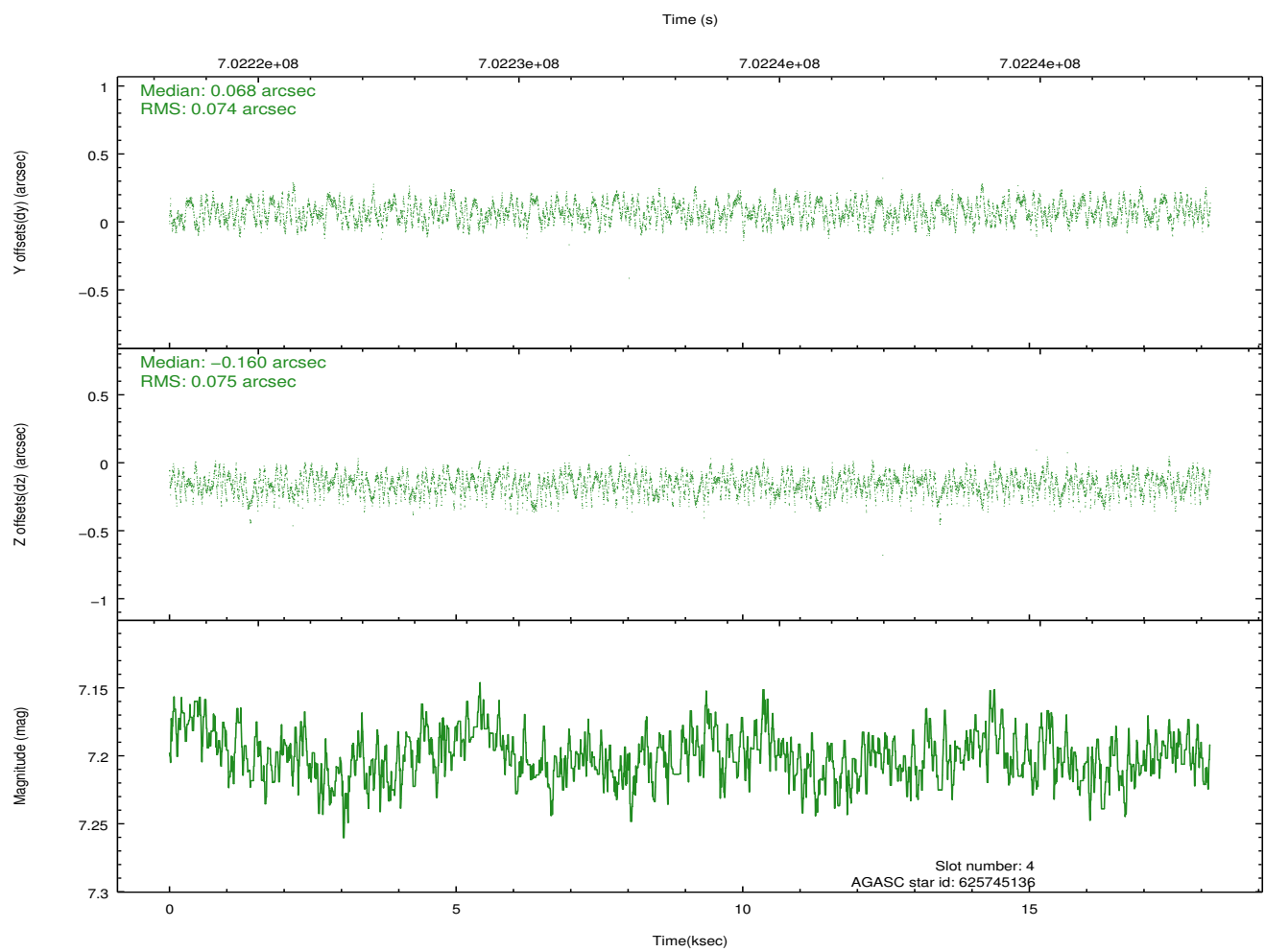
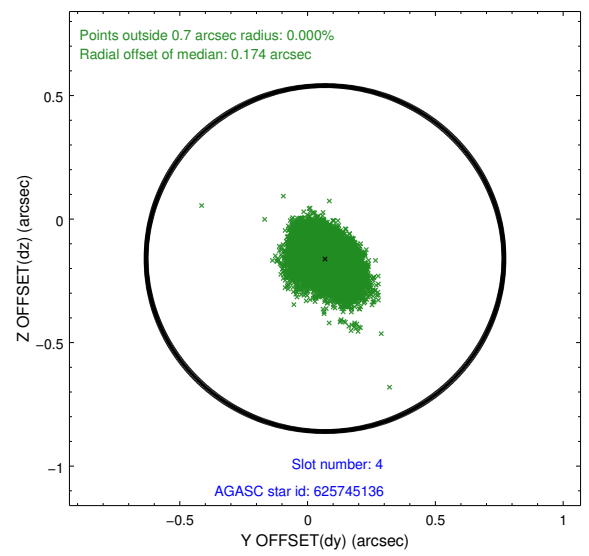
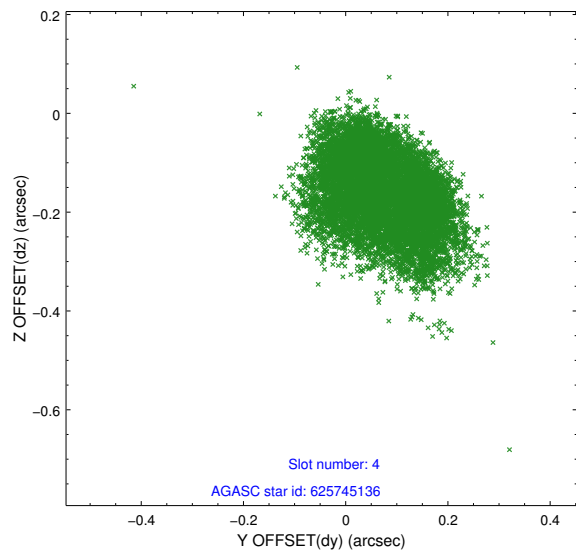
∞

2.4 Star Slots

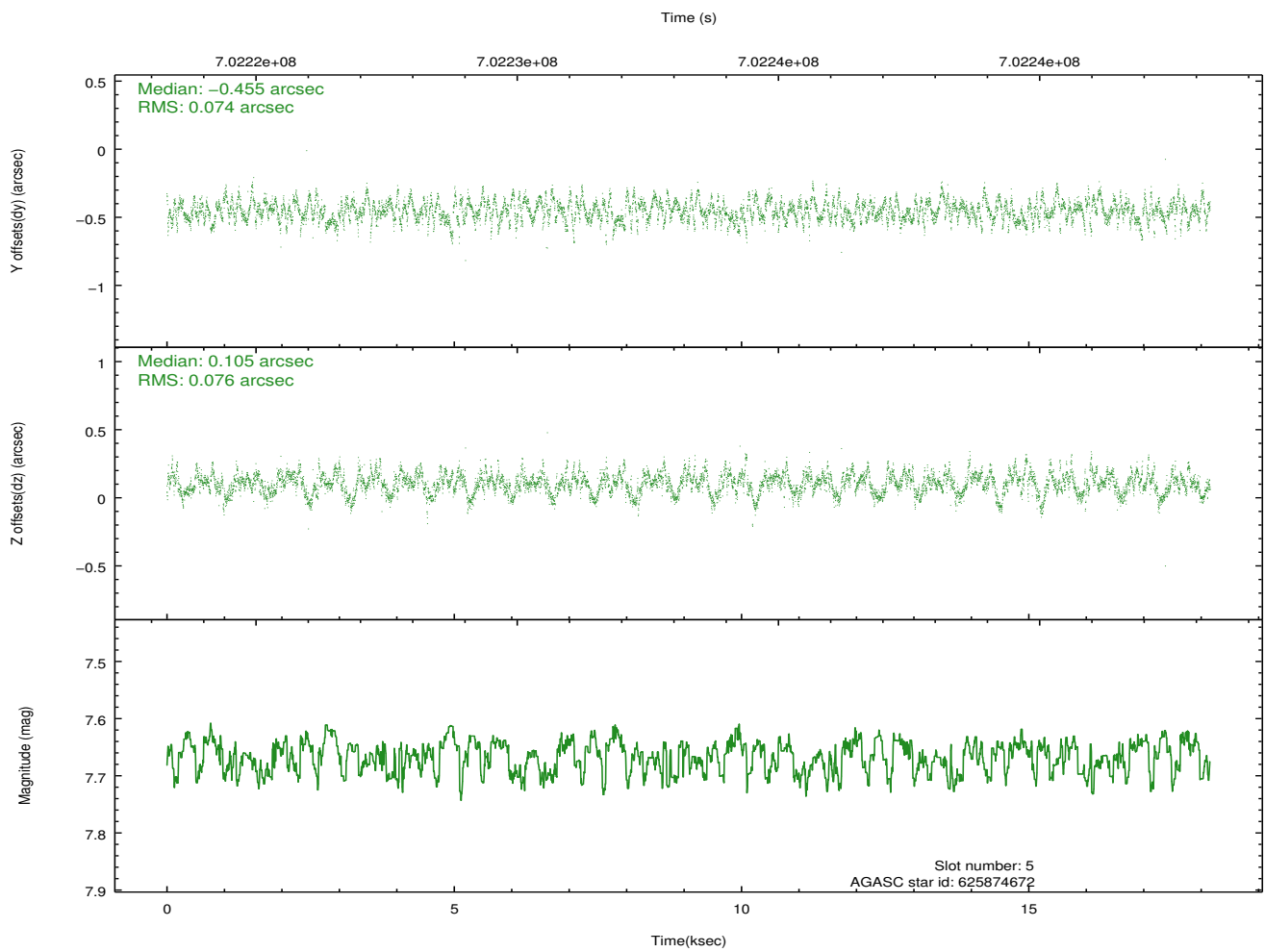
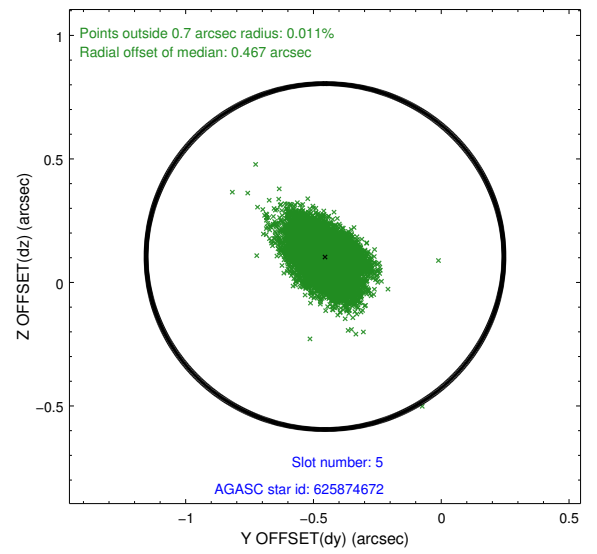
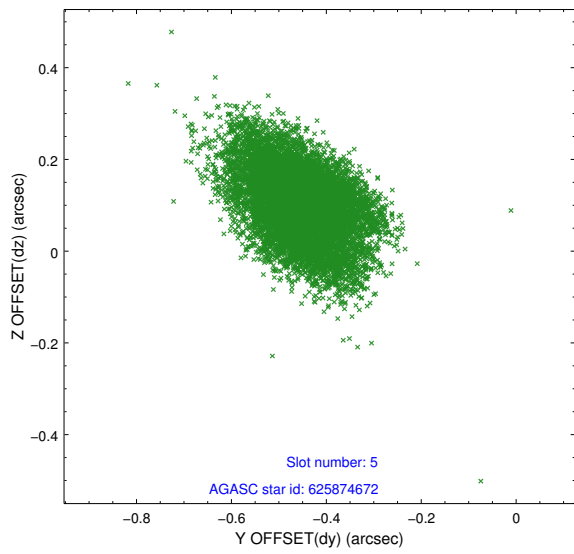
2.4.1 Slot 3



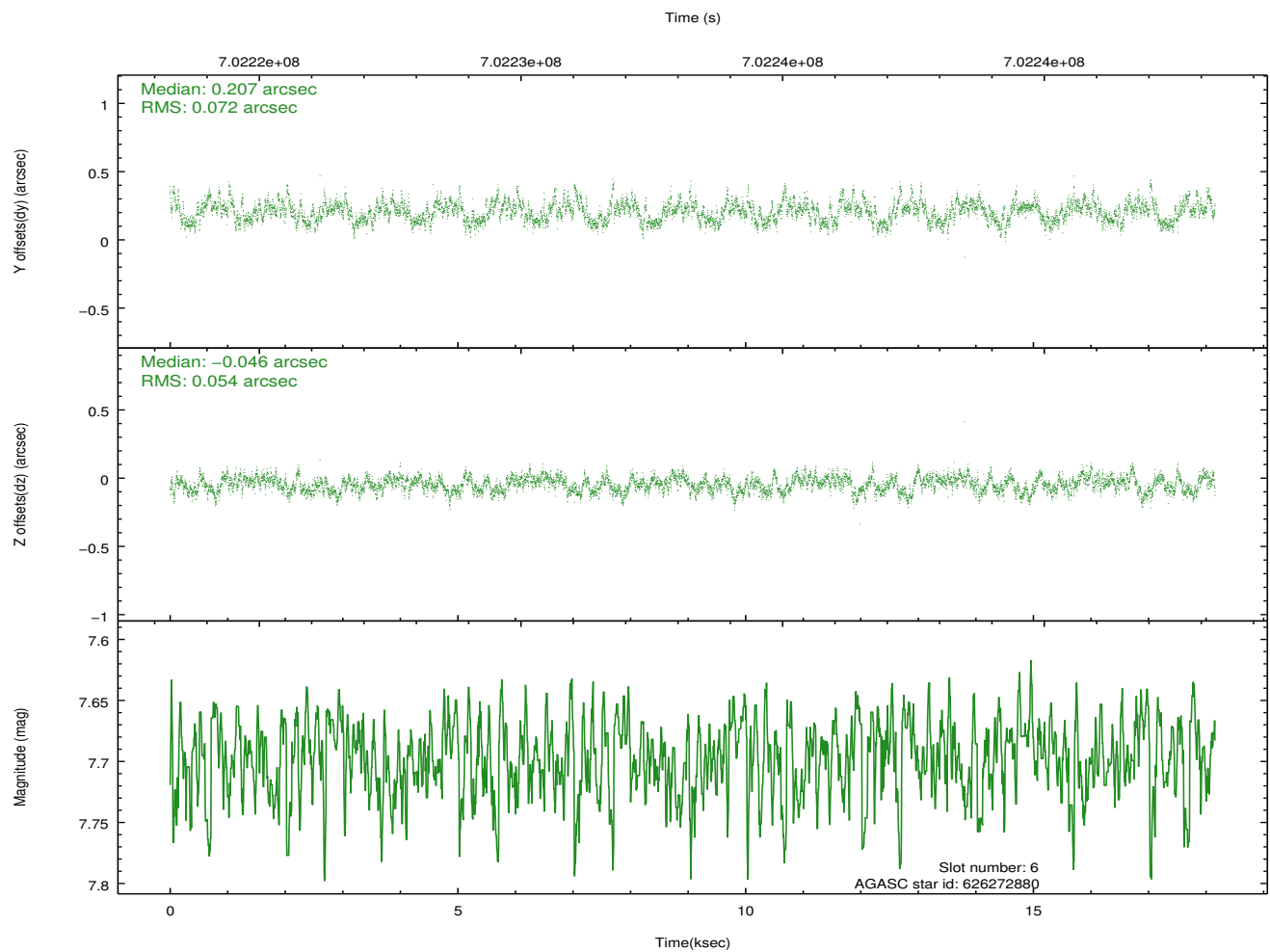
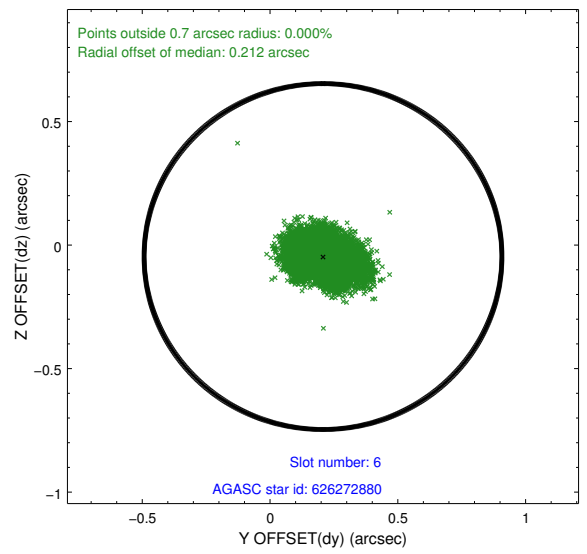
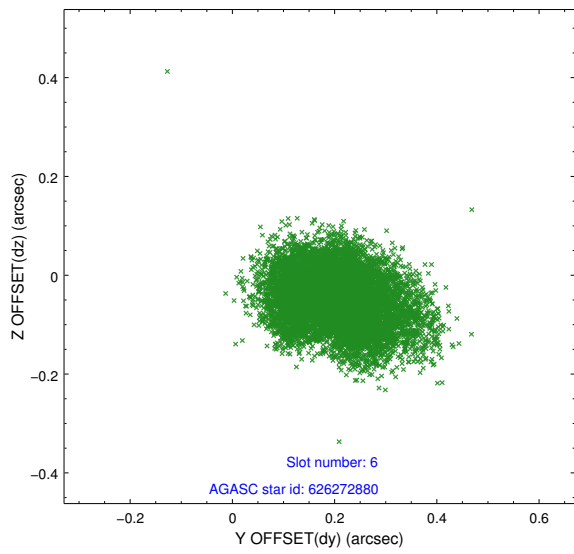
2.4.2 Slot 4



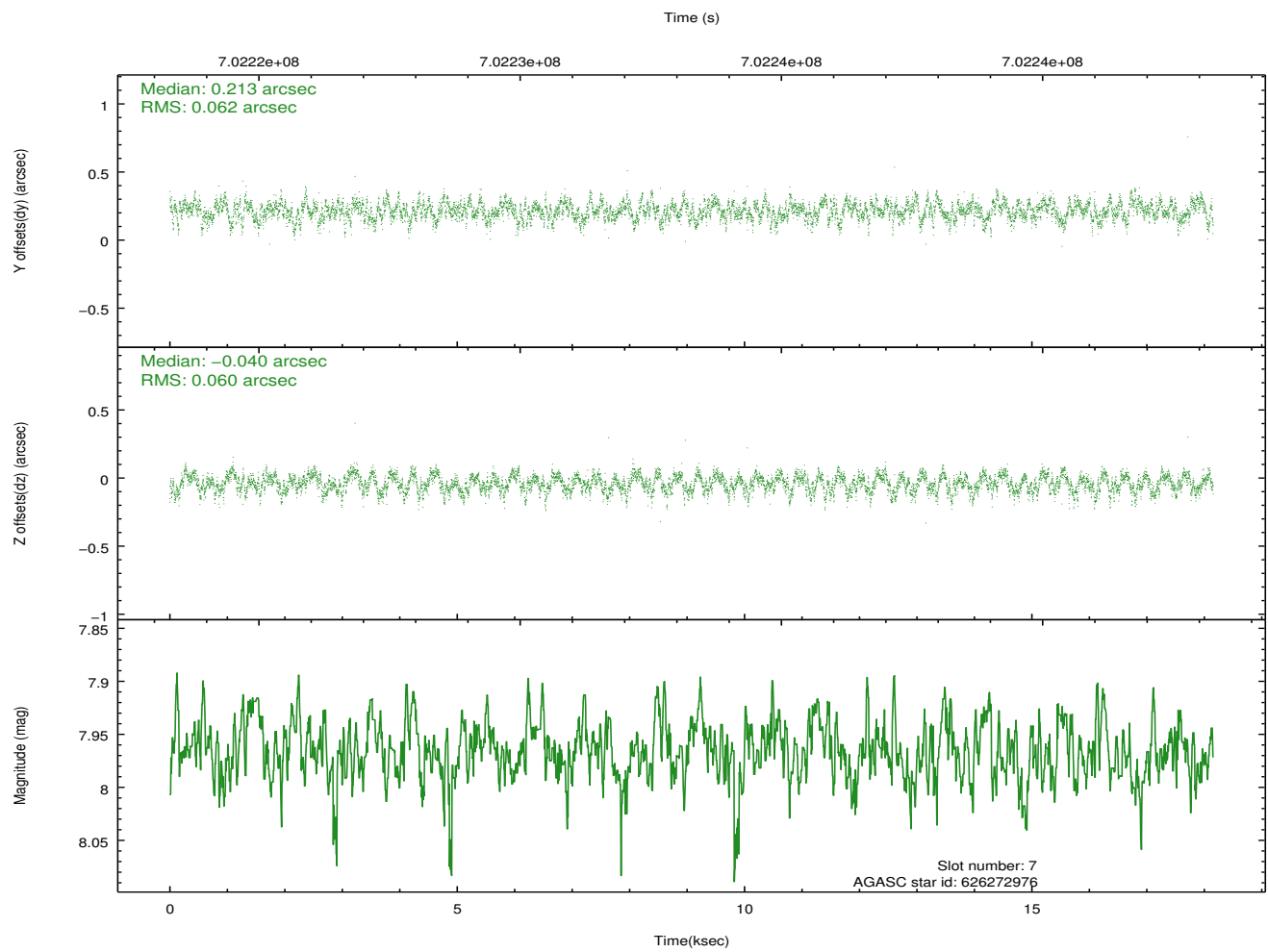
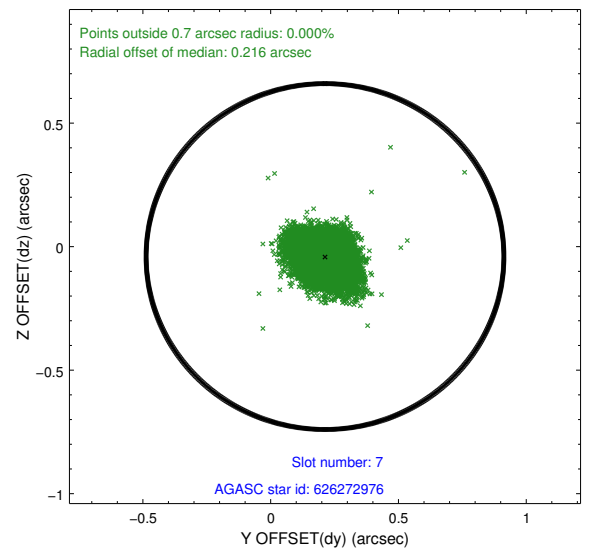
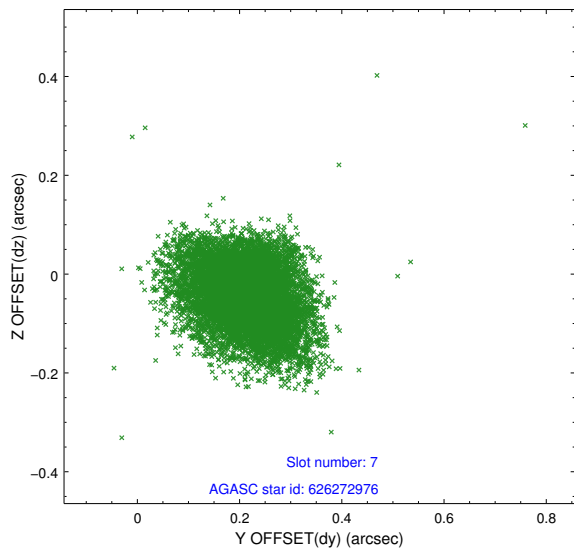
2.4.3 Slot 5



2.4.4 Slot 6

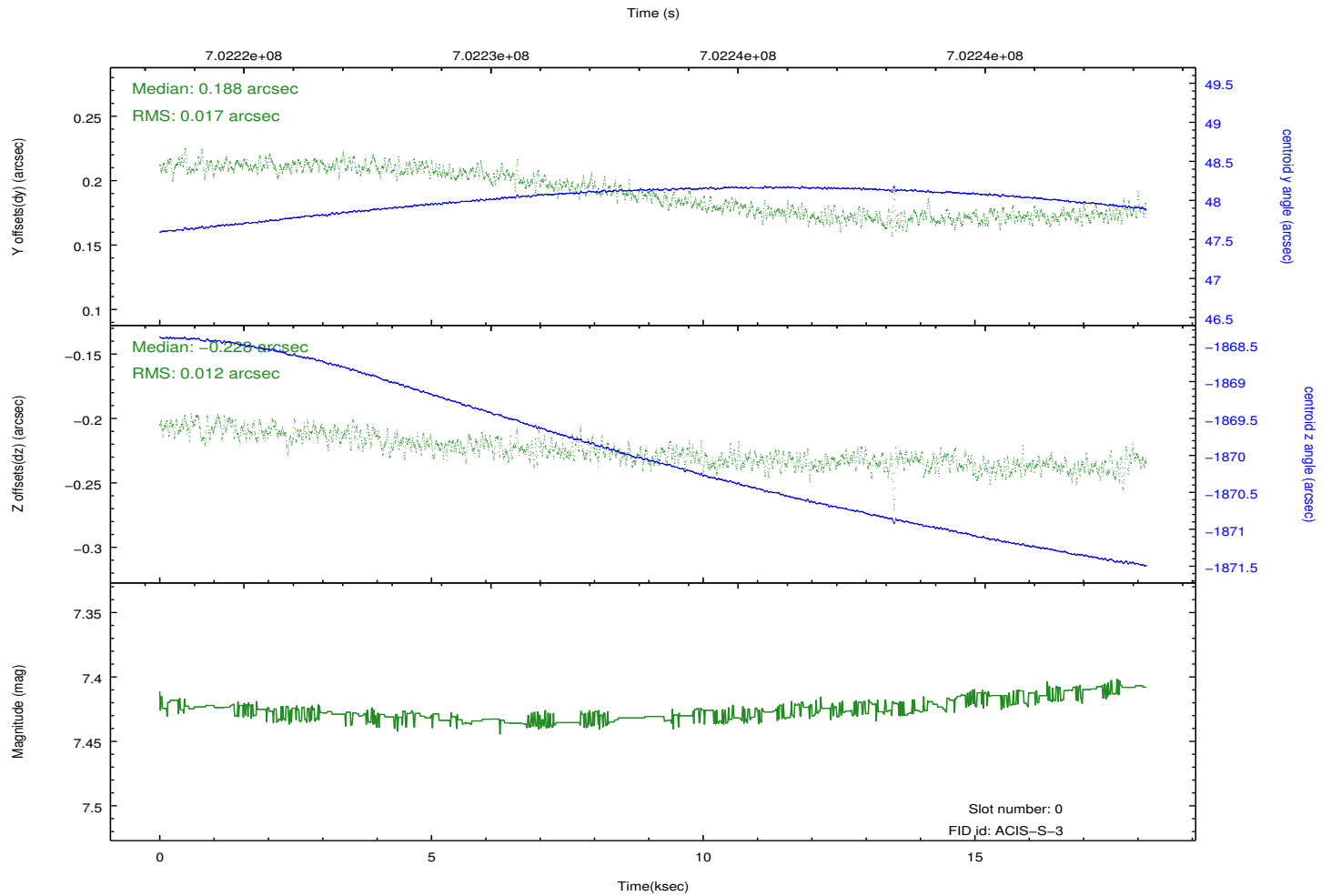
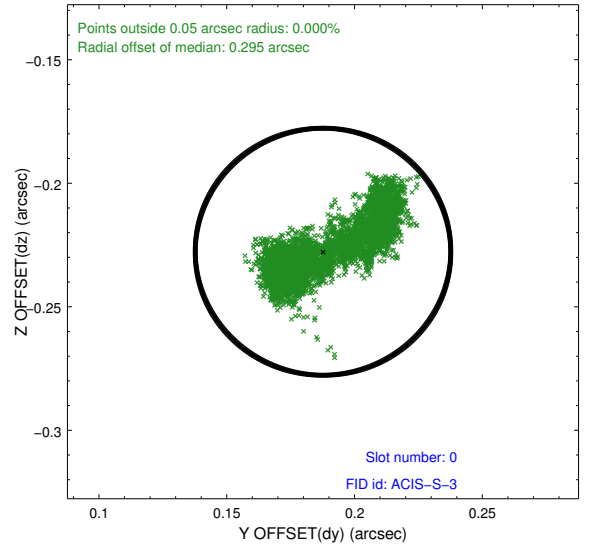
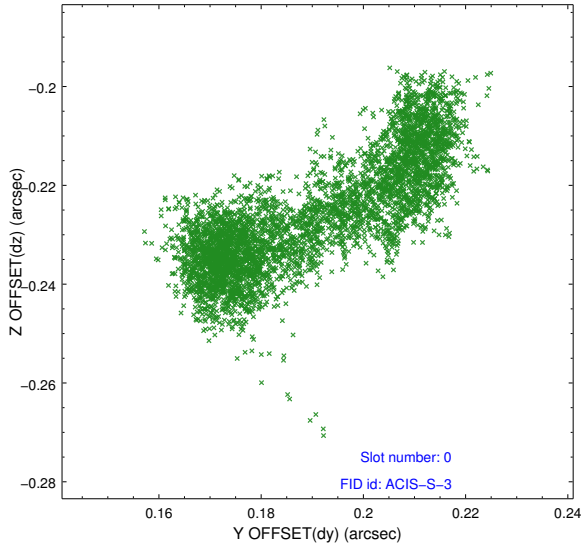


2.4.5 Slot 7

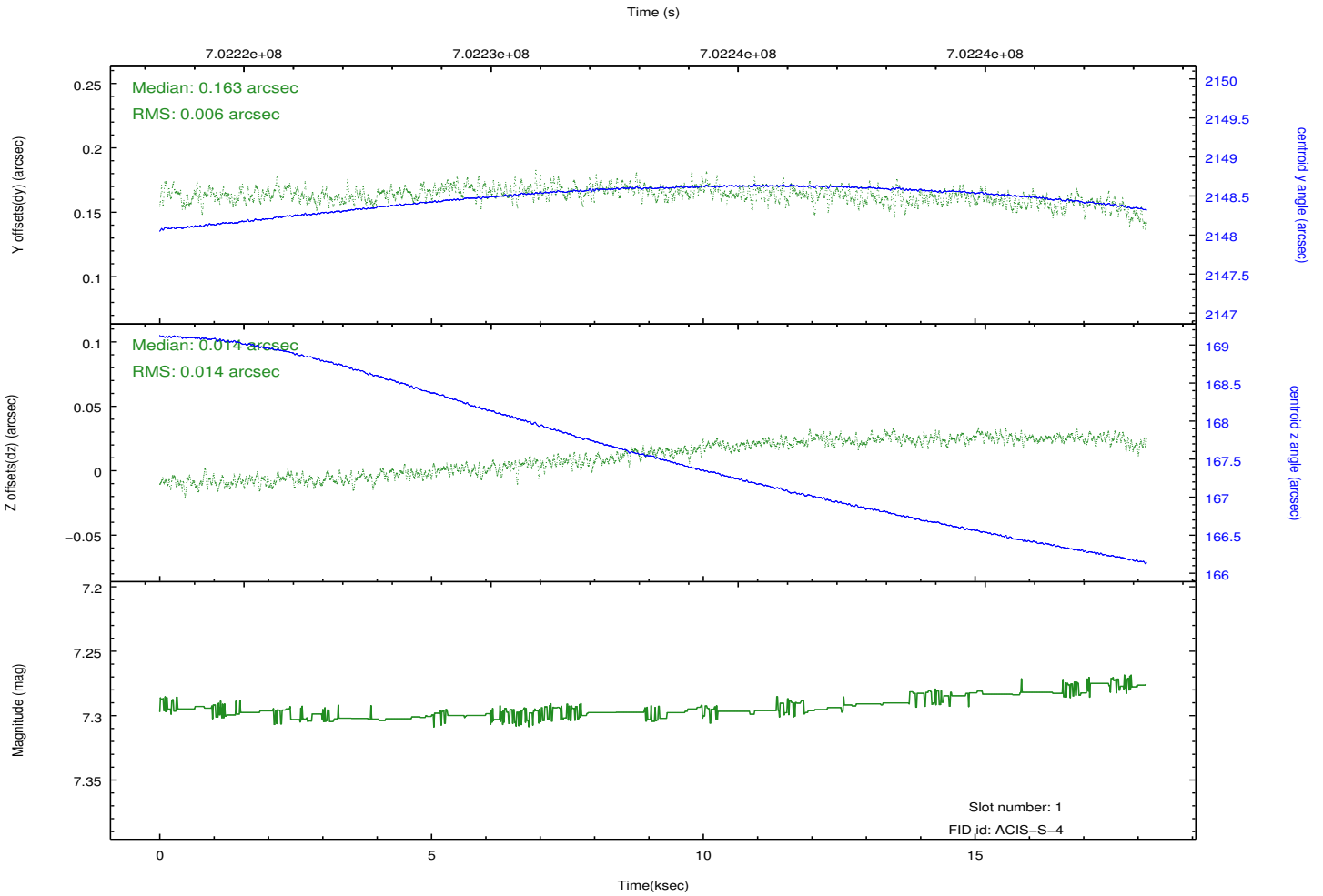
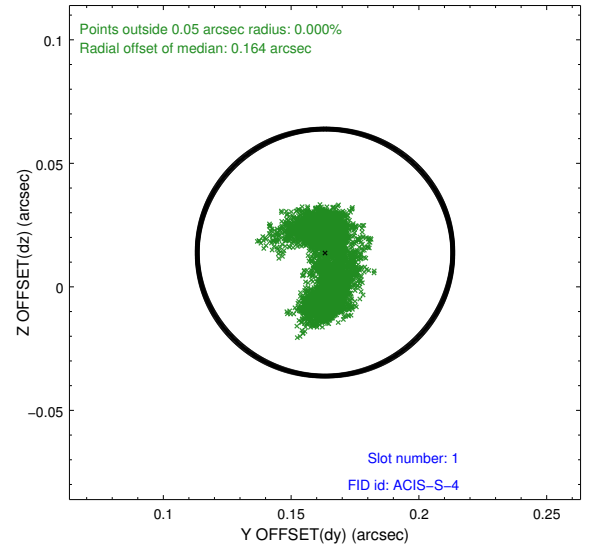
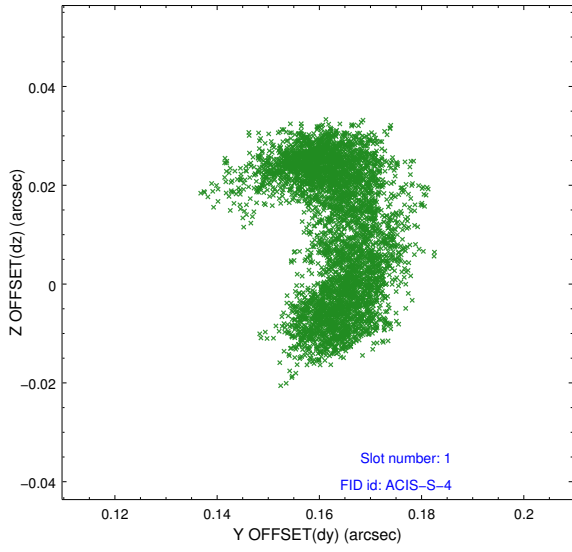


2.5 FID Slots

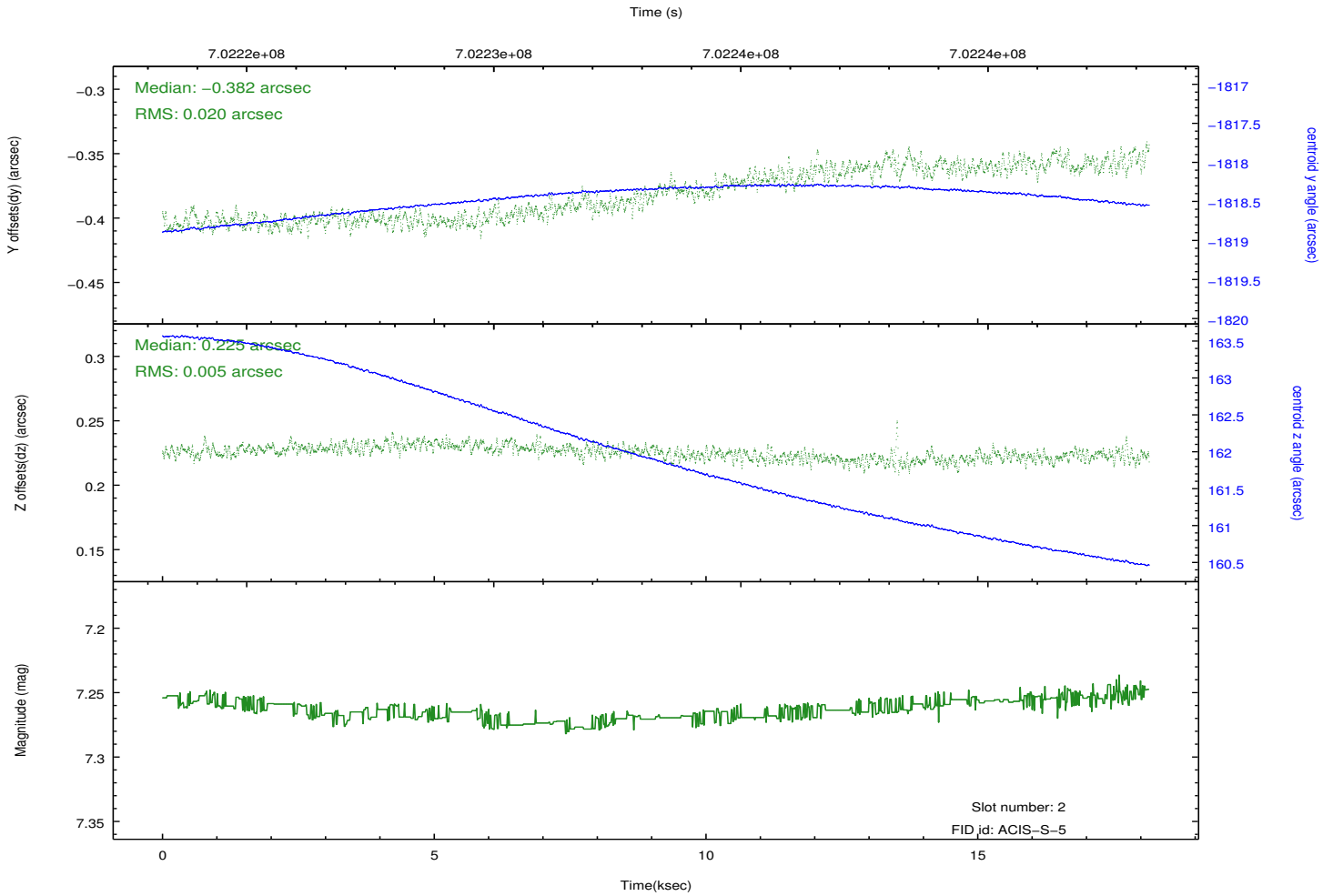
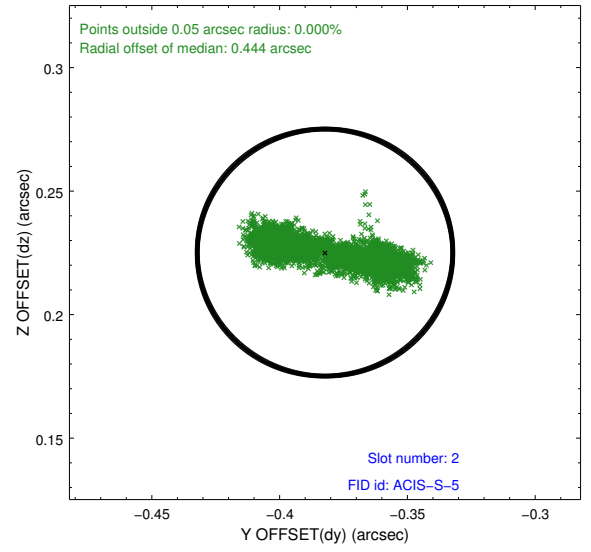
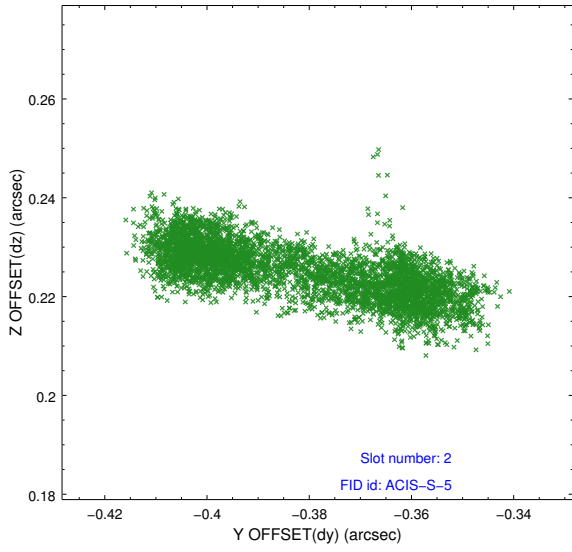
2.5.1 Slot 0



2.5.2 Slot 1

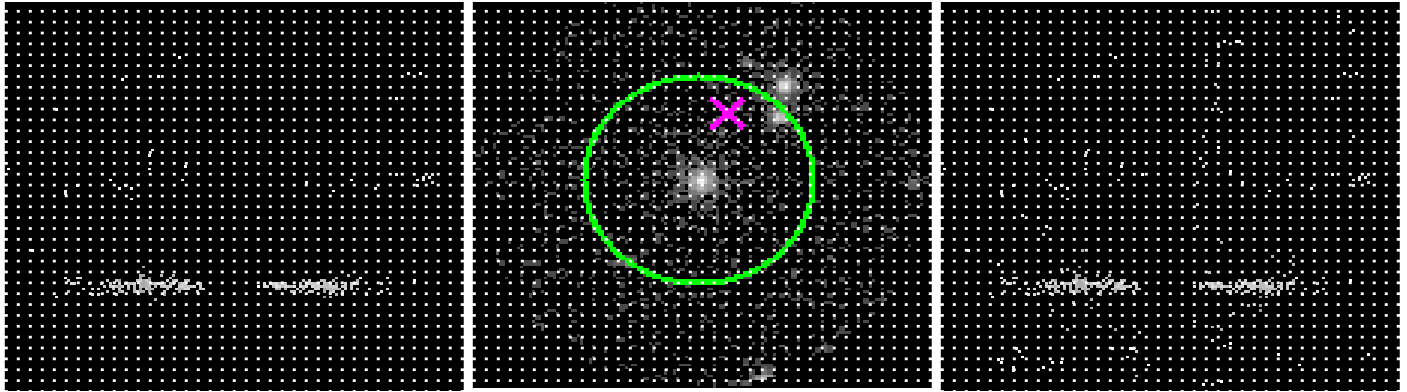


2.5.3 Slot 2



3 Gratings

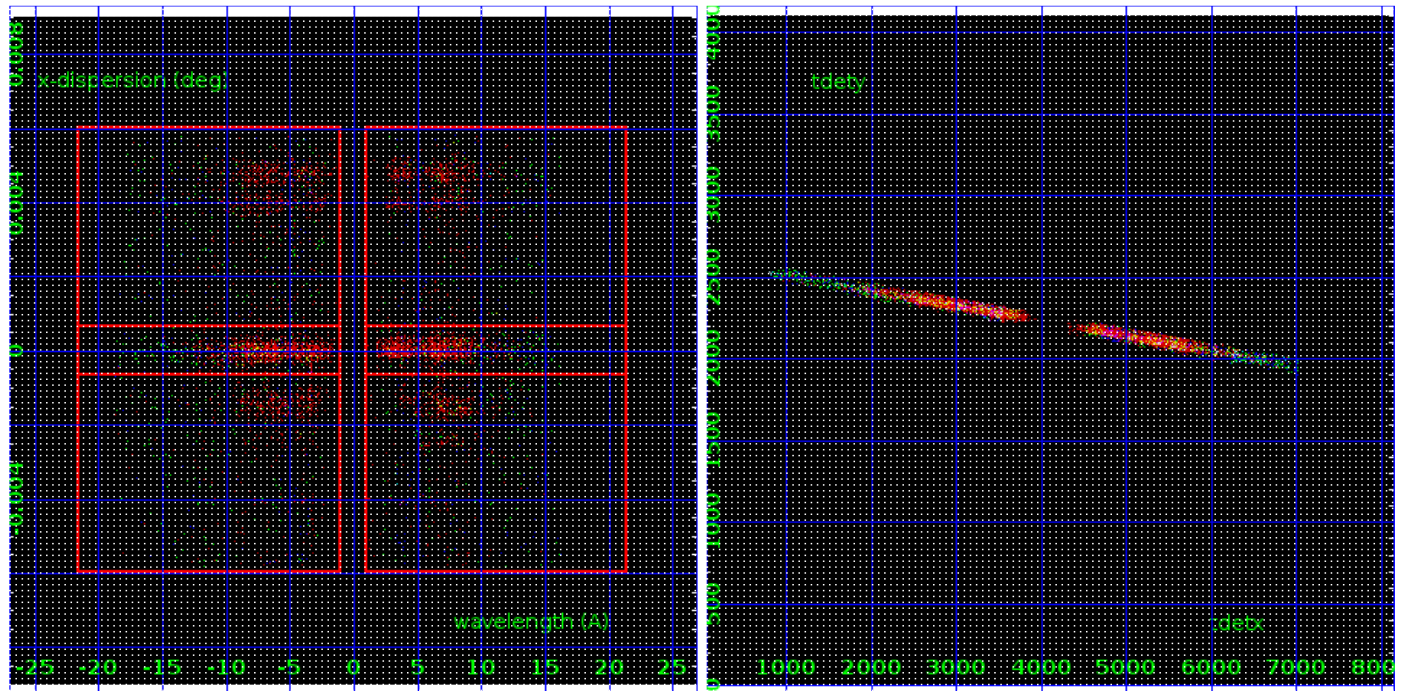
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

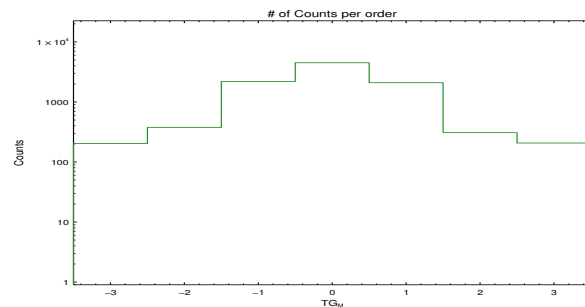
HEG Order Sort ALL

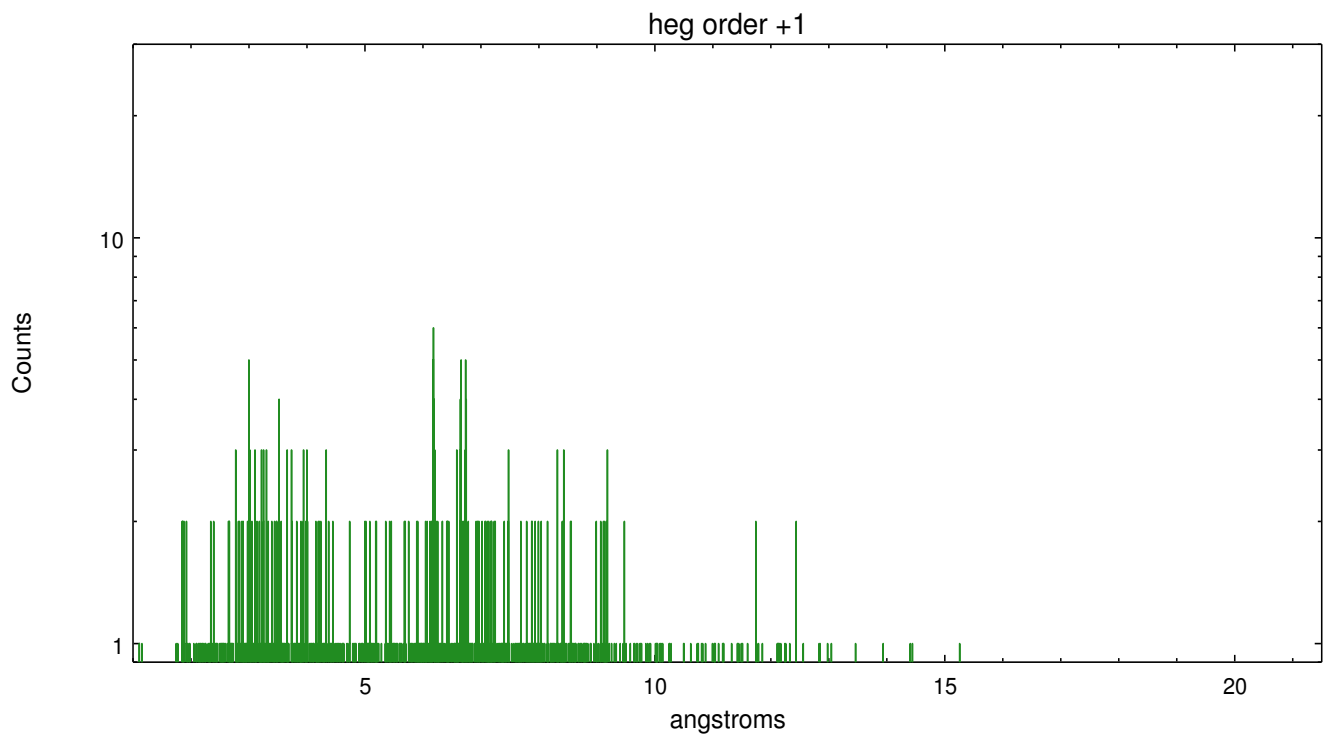
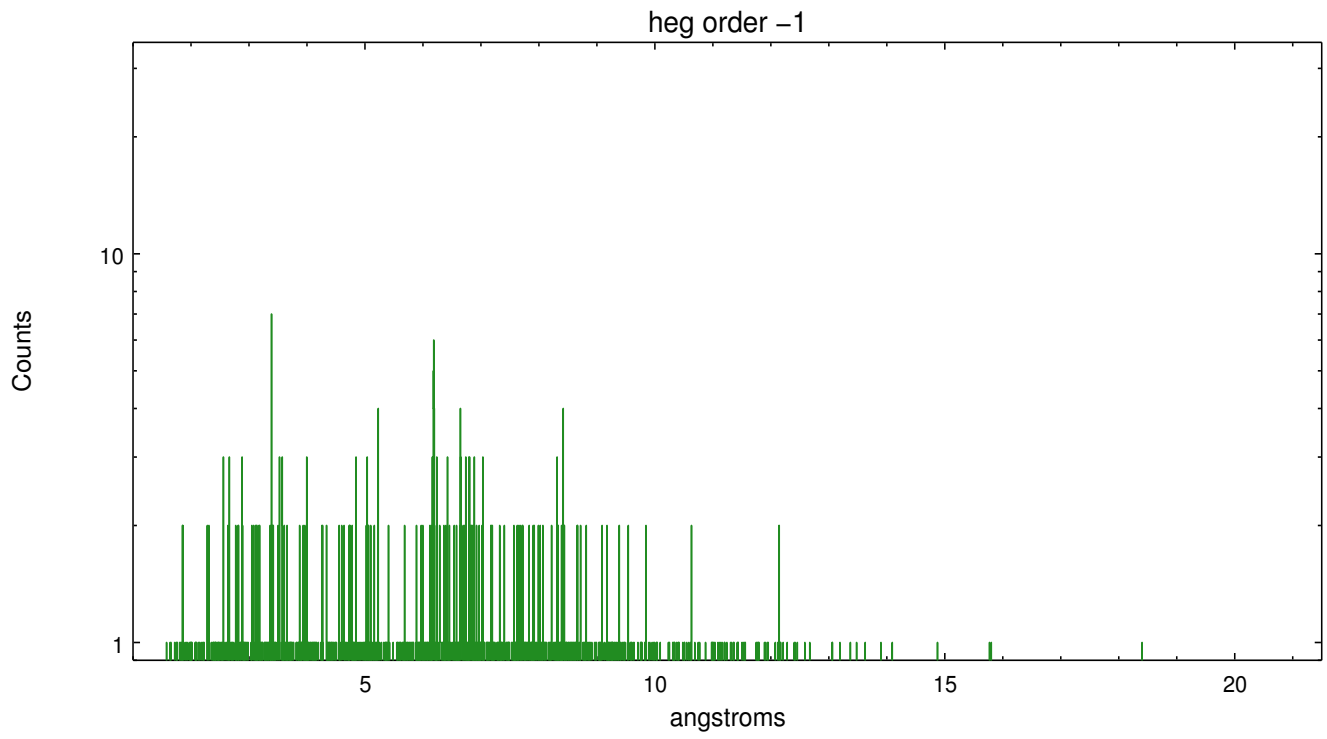


Spot Image HEG

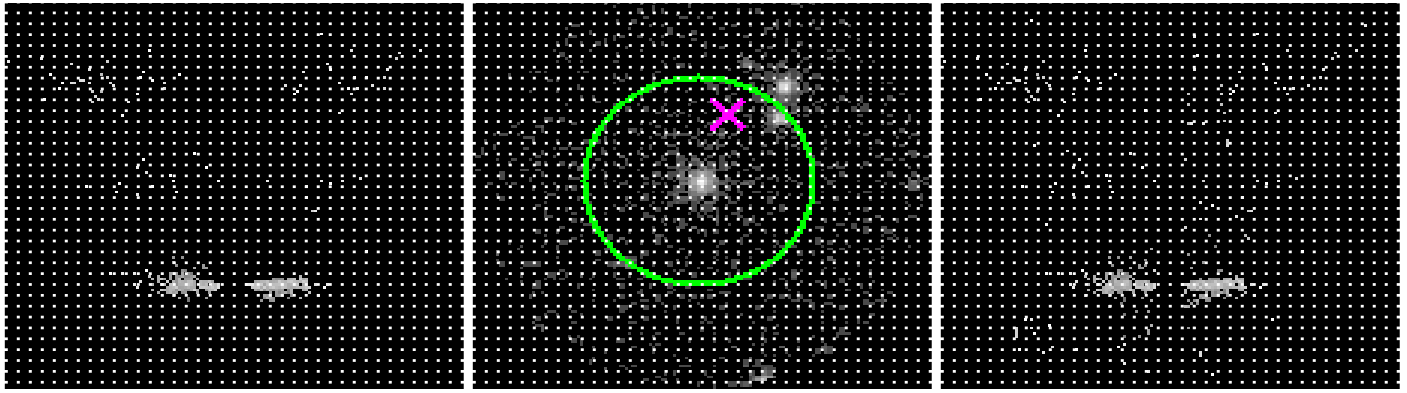
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	203	377	2198	4499	2092	308	207





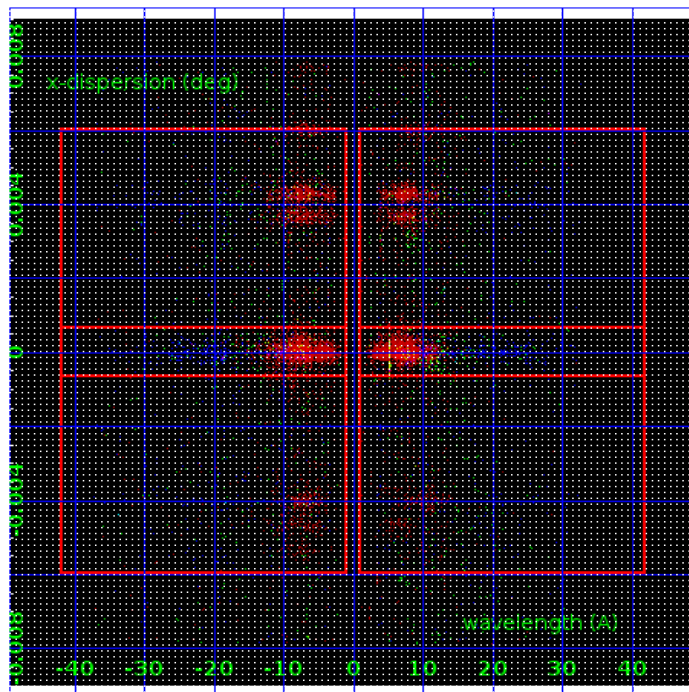
3.2 MEG Arm



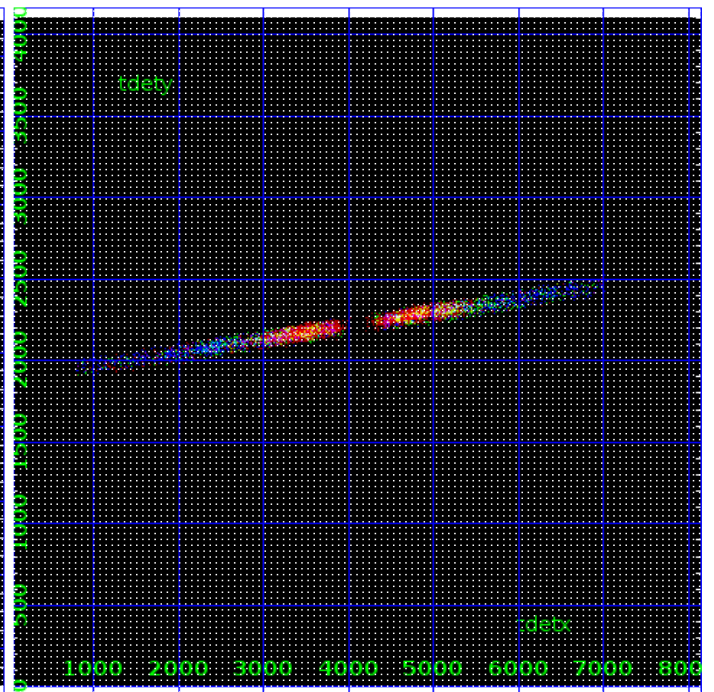
MEG Order Sort 123

MEG Zero Order

MEG Order Sort ALL

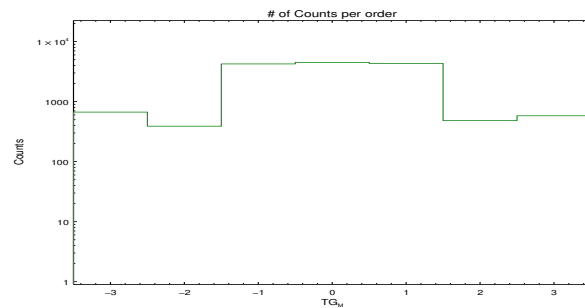


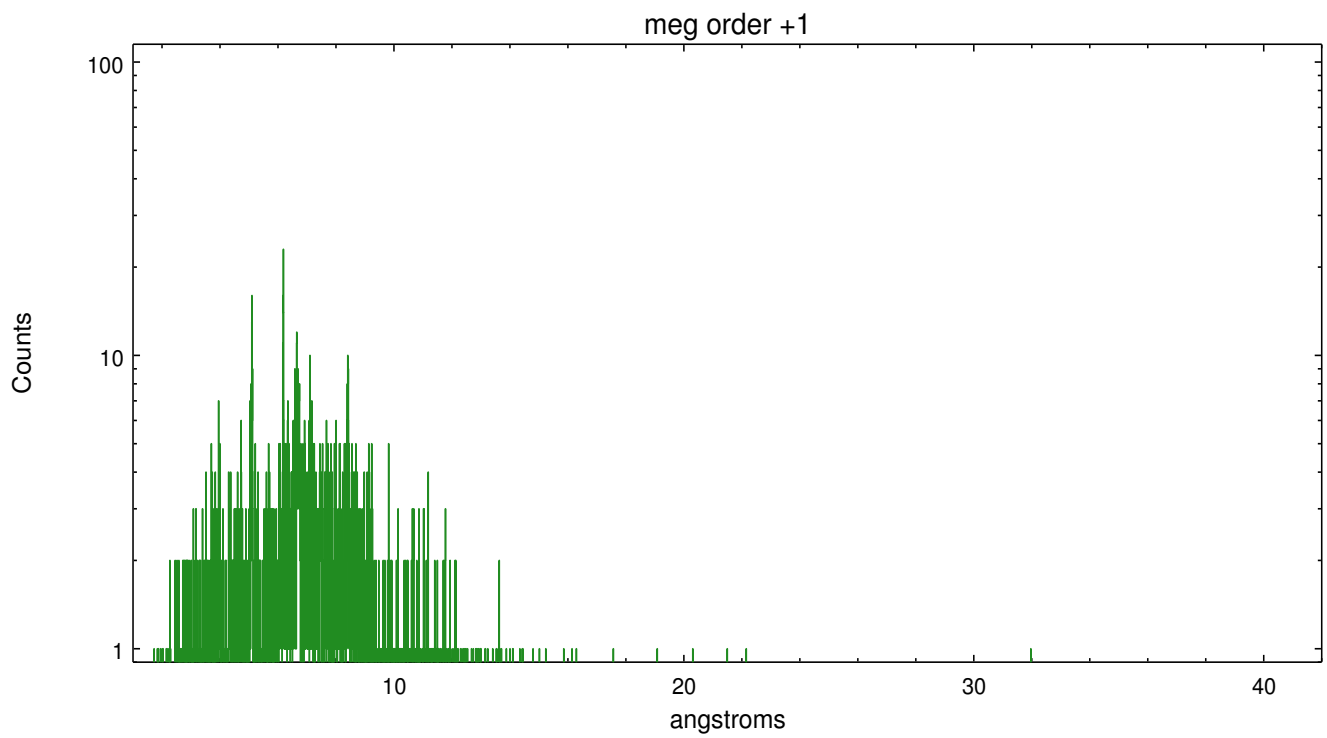
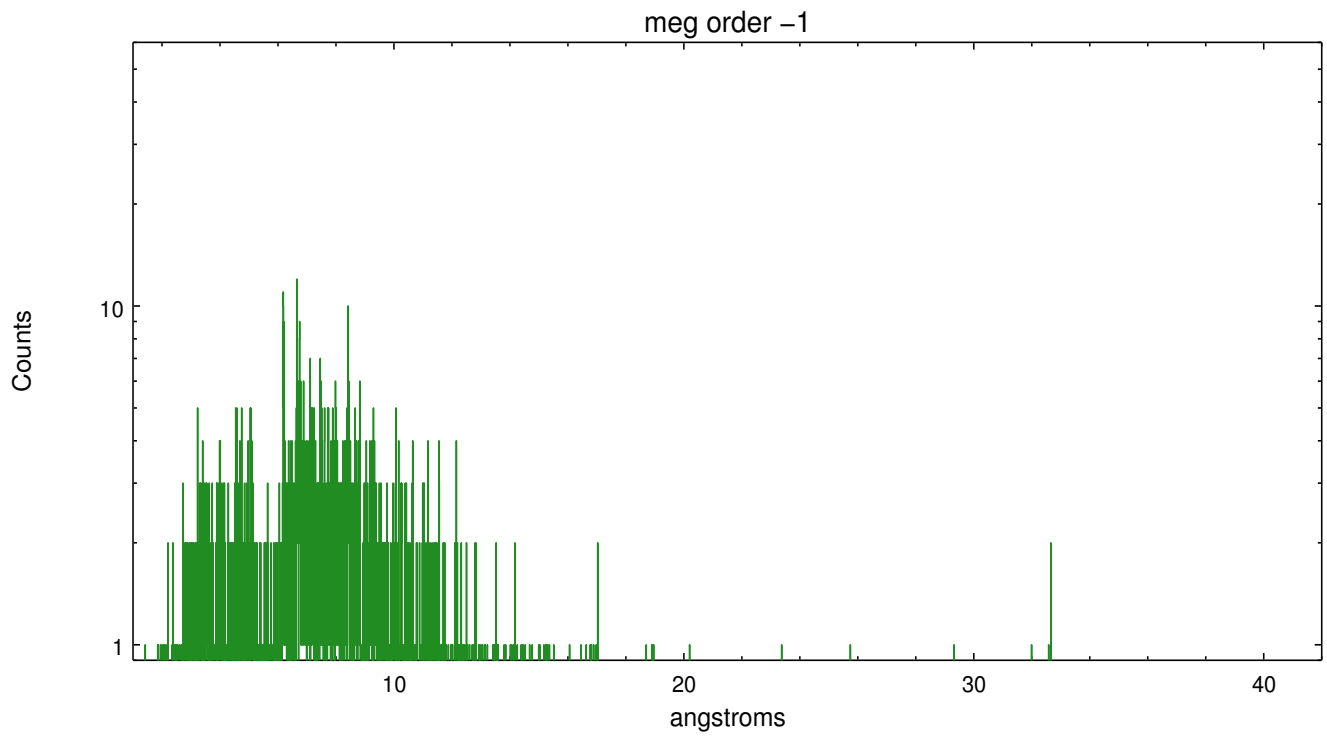
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	668	389	4242	4499	4325	482	581





A Summary

A.1 Status

V&V Scientist	Melania Nynka
V&V Date (YYYY-MM-DD)	2020.04.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.94134858799

A.2 Comments