

V&V Reference Report

L2 ASCDS Version : 10.8.3

Observation 23012 - L2 Version 1
Chandra X-Ray Center

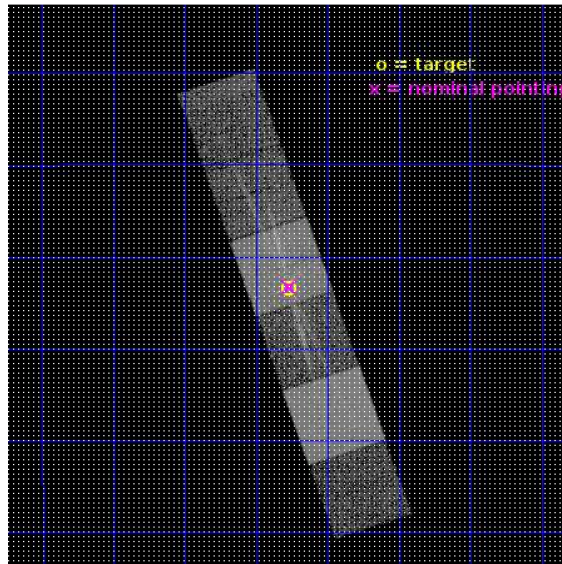
L2 Processing Date : Apr 2 2020

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1 Front

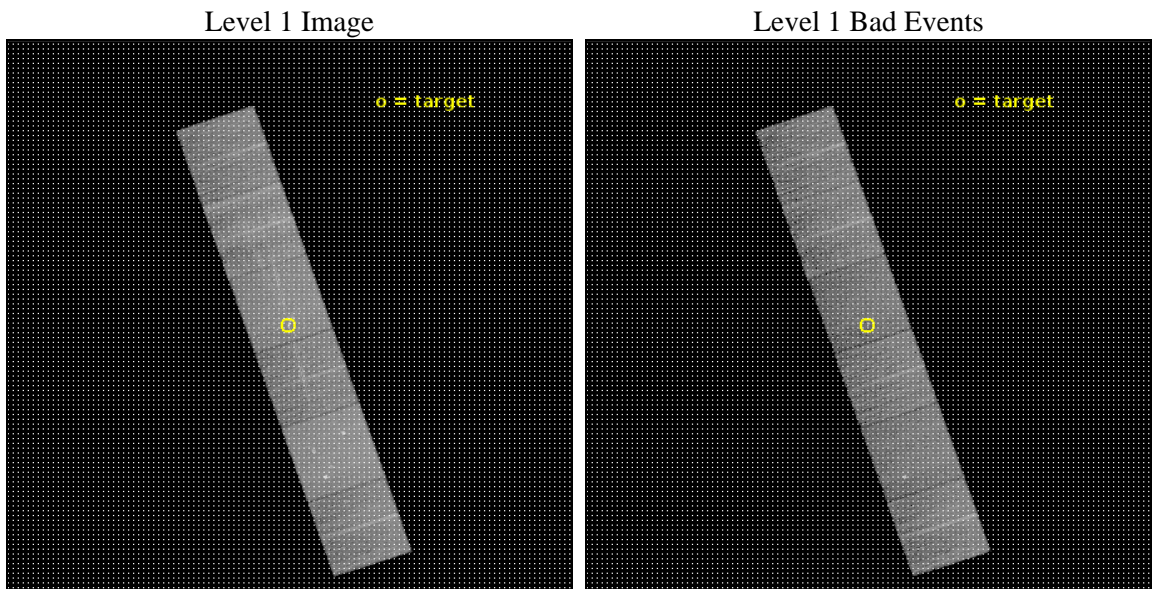
seq_num	201298	Sequence number
obs_id	23012	Observation id
title	THE TRUE NATURE OF X-RAYS FROM THE ORION TRAPEZIUM	Proposal title
observer	Norbert Schulz	Principal investigator
object	Orion Nebula Cluster	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.81875	Observer's specified target RA [deg]
dec_targ	-5.38975	Observer's specified target Dec [deg]
ra_nom	83.8170530464	Nominal RA [deg]
dec_nom	-5.38761286198	Nominal Dec [deg]
roll_nom	251.149931192	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10949.991690874	Sum of GTIs [s]
livetime	10811.336302791	Livetime [s]
ontime4	10950.032730818	Sum of GTIs [s]
ontime5	10949.950650811	Sum of GTIs [s]
ontime6	10949.909610868	Sum of GTIs [s]
ontime7	10949.991690874	Sum of GTIs [s]
ontime8	10949.868570805	Sum of GTIs [s]
ontime9	10949.827530861	Sum of GTIs [s]
l2events	177777	Number of level 2 events



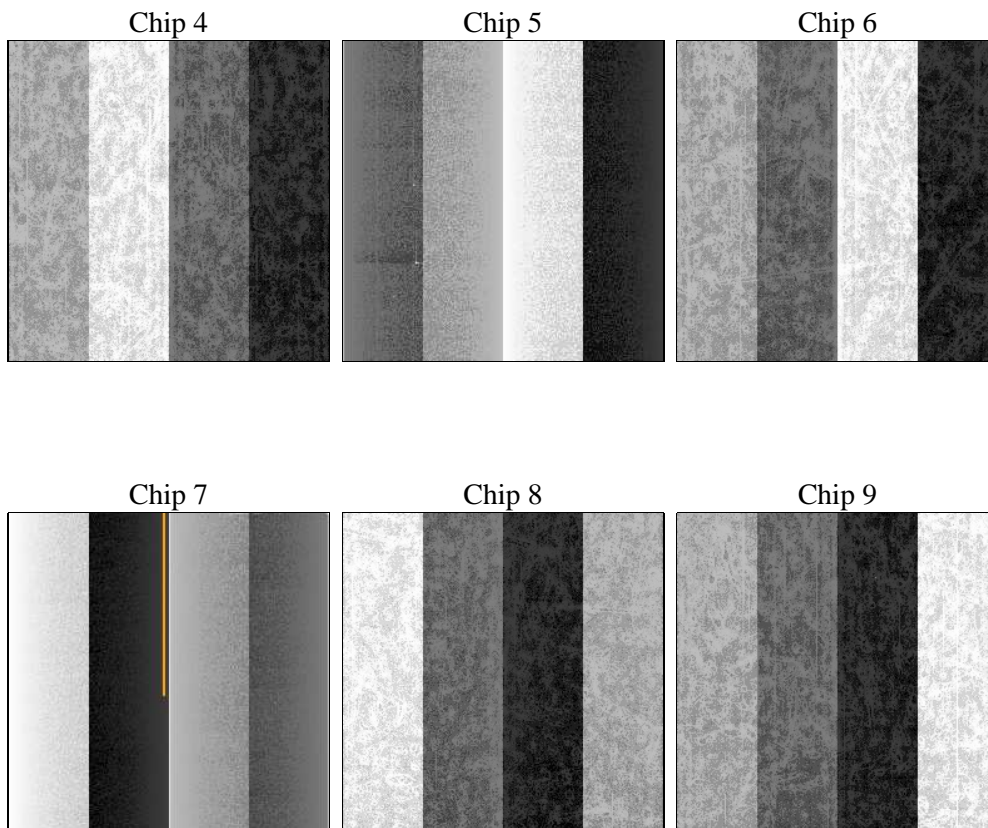
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	11000.000000	[s] Scheduled observation exposure time
ascdsver	10.8.3	Processing system revision	ontime	10949.991690874	Sum of GTIs [s]
caldbver	4.9.1	 	ontime4	10950.032730818	Sum of GTIs [s]
date	2020-04-02T12:19:16	Date and time of file creation	ontime5	10949.950650811	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	10949.909610868	Sum of GTIs [s]
			ontime7	10949.991690874	Sum of GTIs [s]
			ontime8	10949.868570805	Sum of GTIs [s]
			ontime9	10949.827530861	Sum of GTIs [s]
			l1events	671531	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			z0_pos	(4085.68, 4070.63)	src1a sky pixel position

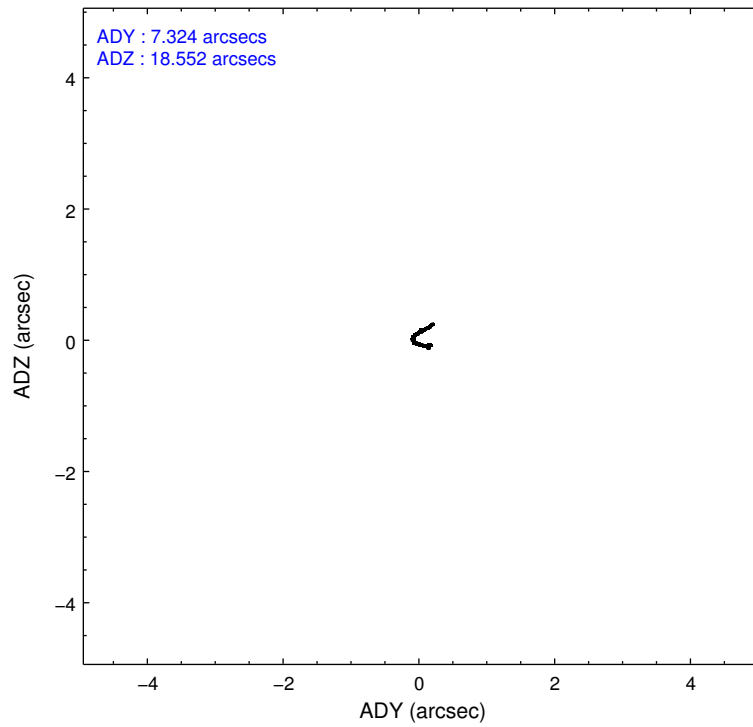
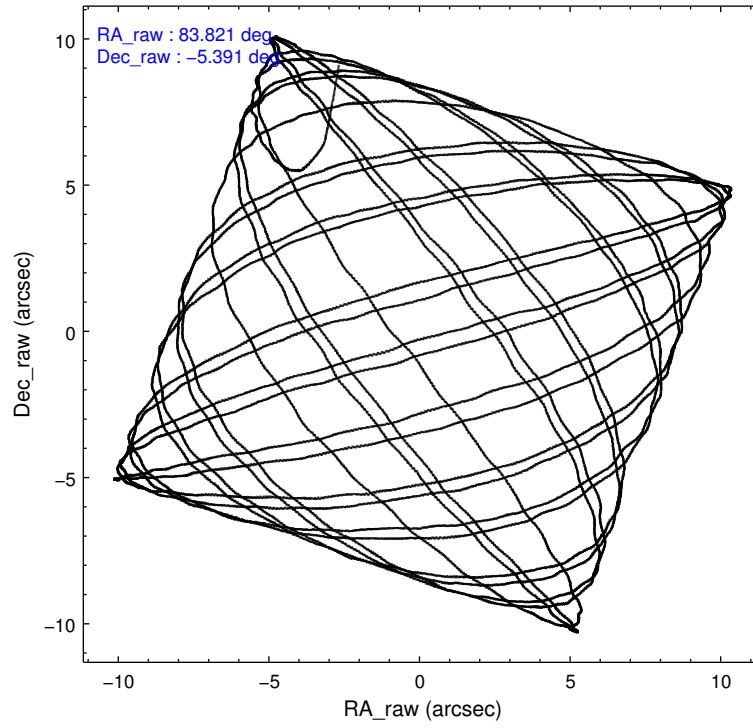
2.1.4 Events

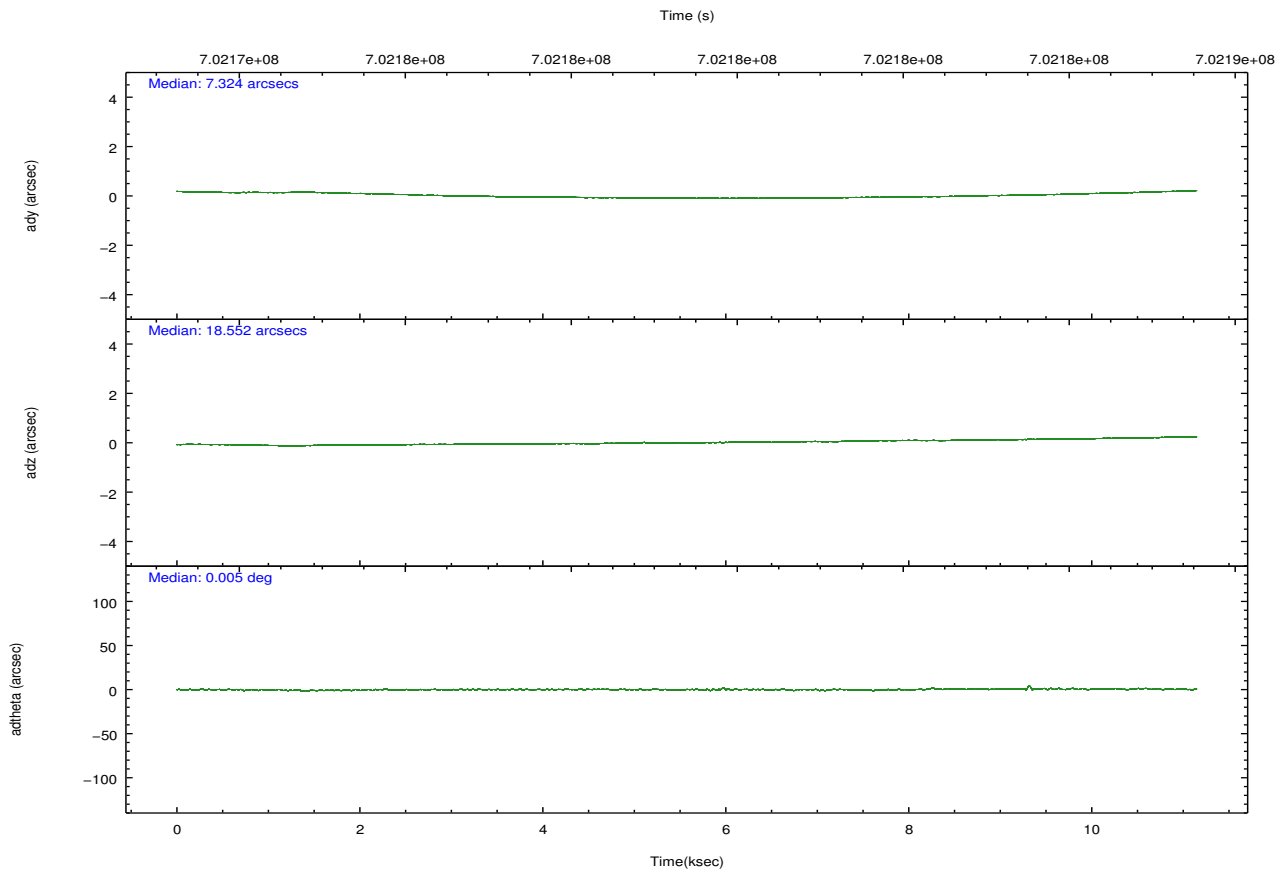
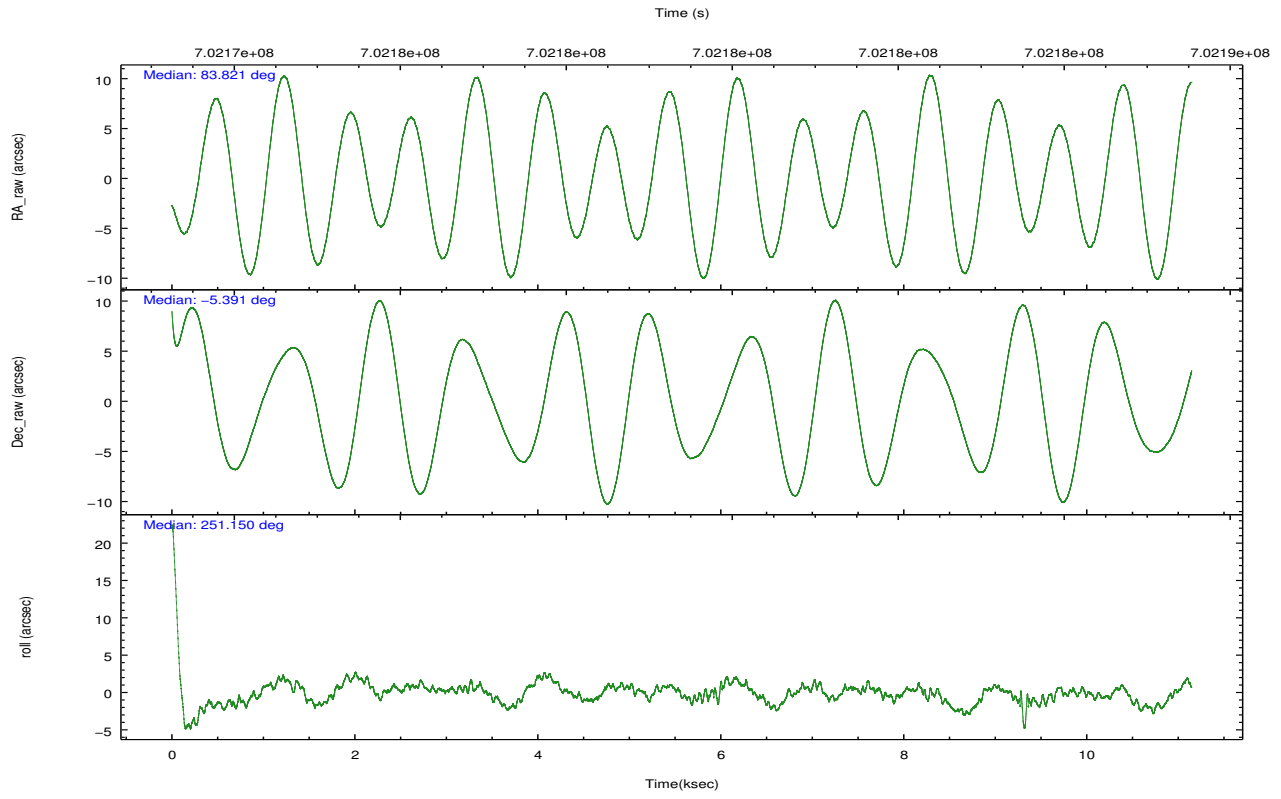
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	98415	144177	95517	128596	117956	86870	grade 0 events	5007	6928	9152	7730	12937	4852
rejected events	86610	72649	78078	63468	81457	75027		5%	4%	9%	6%	10%	5%
rejected %	88%	50%	81%	49%	69%	86%	grade 1 events	97	352	87	222	118	71
								0%	0%	0%	0%	0%	0%
							grade 2 events	2697	23428	3333	14862	8420	2554
								2%	16%	3%	11%	7%	2%
							grade 3 events	1113	2162	1169	5646	3379	1078
								1%	1%	1%	4%	2%	1%
							grade 4 events	1039	2137	1179	5502	3235	1017
								1%	1%	1%	4%	2%	1%
							grade 5 events	4244	10085	3943	11249	6210	4677
								4%	6%	4%	8%	5%	5%
							grade 6 events	1950	36895	2615	31409	8533	2344
								1%	25%	2%	24%	7%	2%
							grade 7 events	82268	62190	74039	51976	75124	70277
								83%	43%	77%	40%	63%	80%

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	83.815765	83.81705304640001	CCD I2 on	N	N
[deg] Pointing Dec	-5.364539	-5.38761286198	CCD I3 on	N	N
[deg] Pointing Roll	250.999727	251.149931192	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)	702173948.184000	702172774.04935	CCD S5 on	O2	Y
Observation start date	2020-04-02T00:17:59	2020-04-01T23:59:34	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	702184948.184000	702185931.97514	On-chip summing requested	N	N
Observation end date	2020-04-02T03:21:19	2020-04-02T03:38:51	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





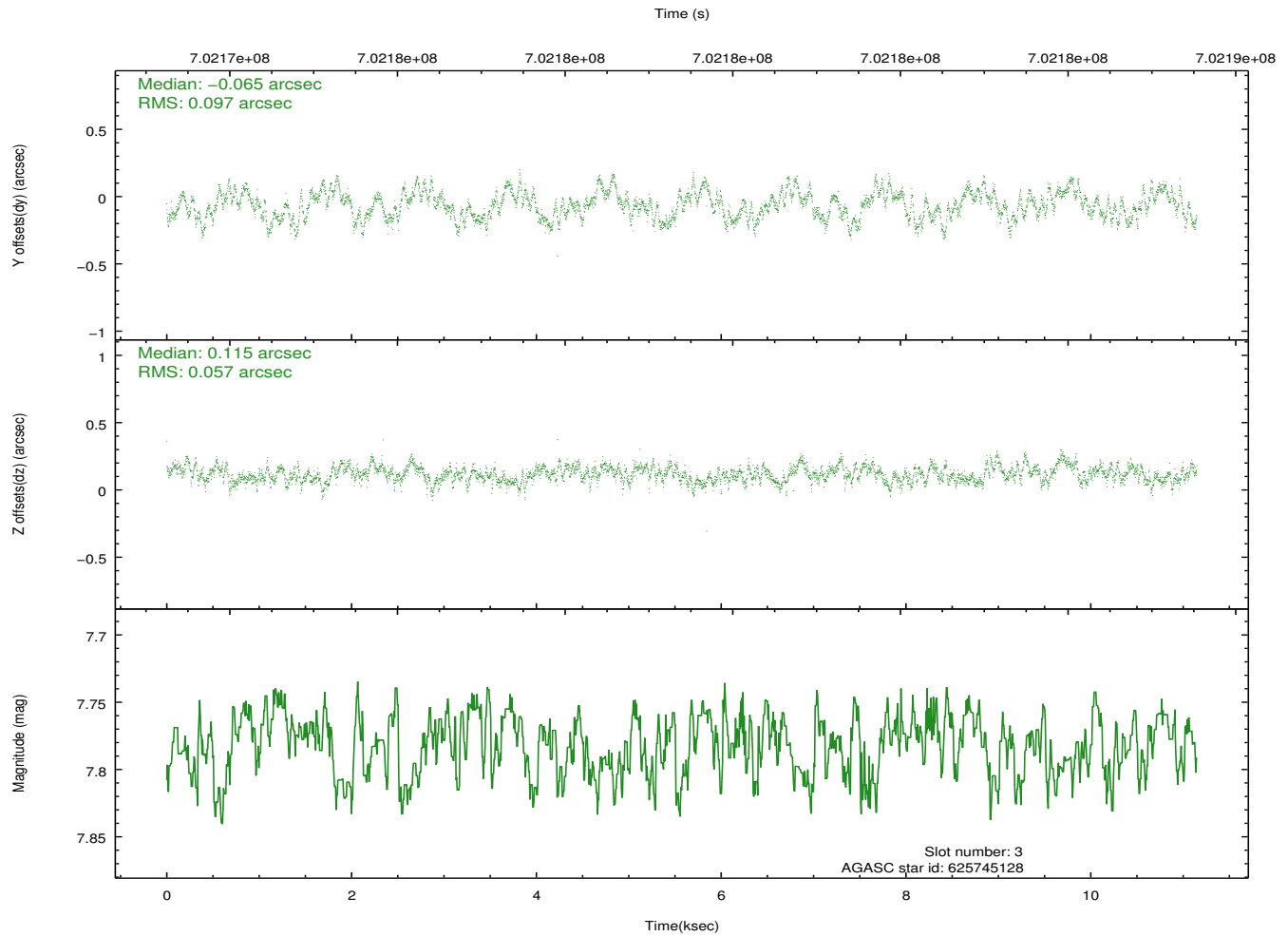
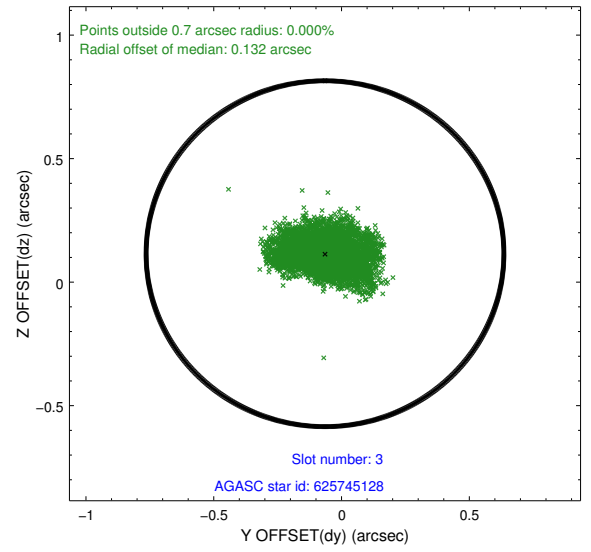
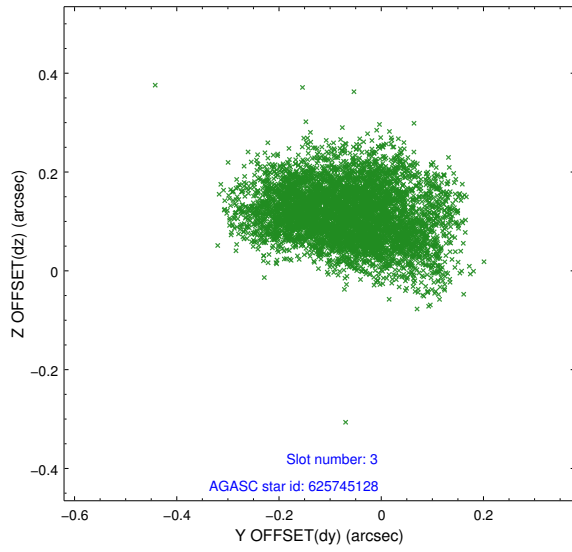
Slot Statistics

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	7.24	2717	1.000	0.116	-0.150	0.009	0.016	0.000000	0.000000	52.93	-1869
1	FID		ACIS-S-4	7.11	2718	1.000	0.069	0.013	0.012	0.021	0.000000	0.000000	2153.35	167
2	FID		ACIS-S-5	7.11	2719	1.000	-0.213	0.147	0.010	0.017	0.000000	0.000000	-1812.55	162
3	GUIDE	used	625745128	7.78	5439	1.000	-0.065	0.115	0.120	0.194	83.769930	-4.731835	-2099.87	-896
4	GUIDE	used	625745136	7.19	5439	1.000	0.009	-0.166	0.098	0.154	83.600341	-4.804339	-1655.43	-1387
5	GUIDE	used	625874672	7.66	5437	1.000	-0.412	0.100	0.106	0.177	84.403143	-4.934124	-2150.60	1487
6	GUIDE	used	626272880	7.67	5436	1.000	0.218	-0.010	0.093	0.179	83.815609	-6.032748	2274.73	783
7	GUIDE	used	626272976	7.96	5434	1.000	0.245	-0.039	0.092	0.145	83.795875	-5.926912	1938.33	592

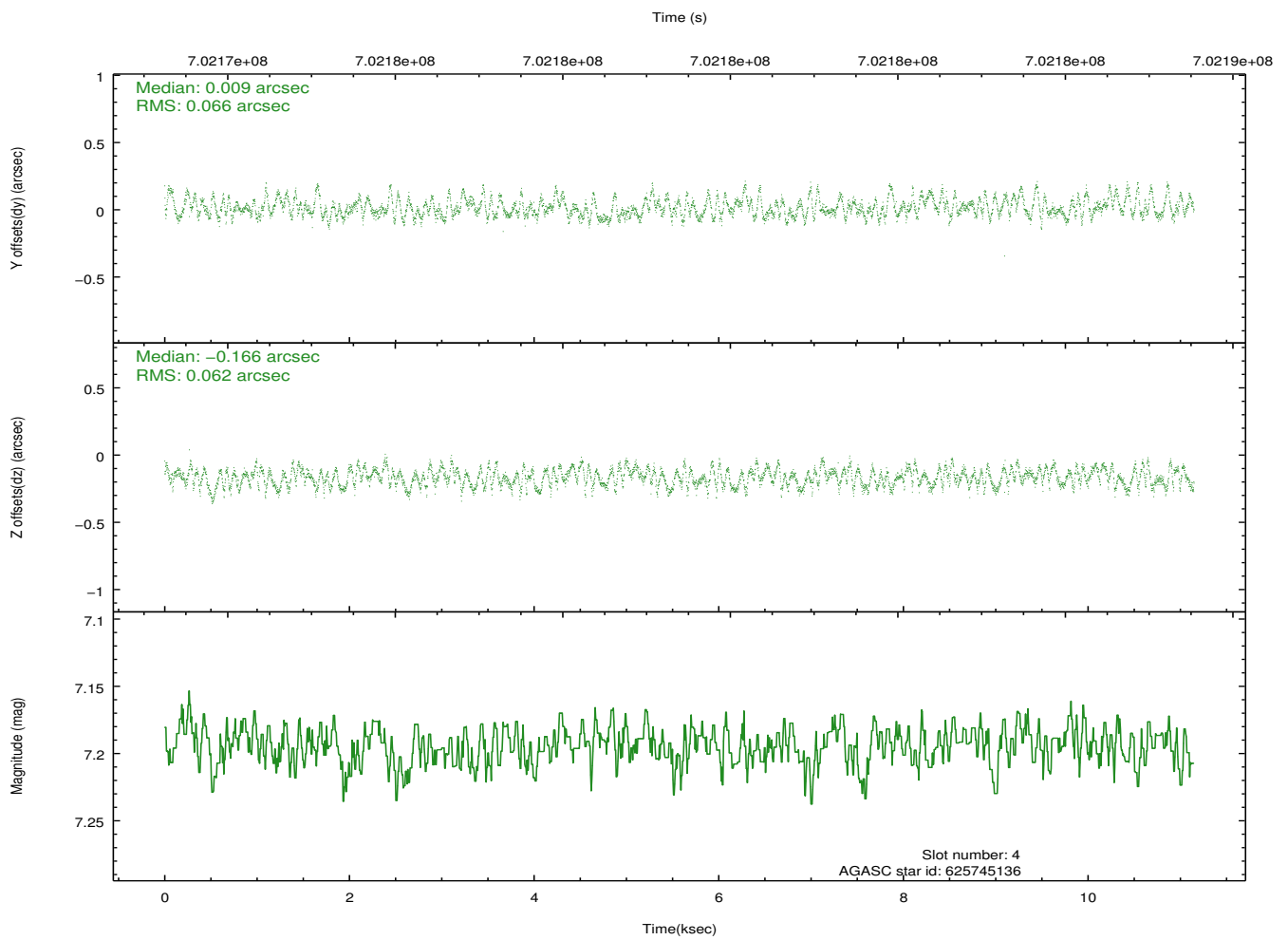
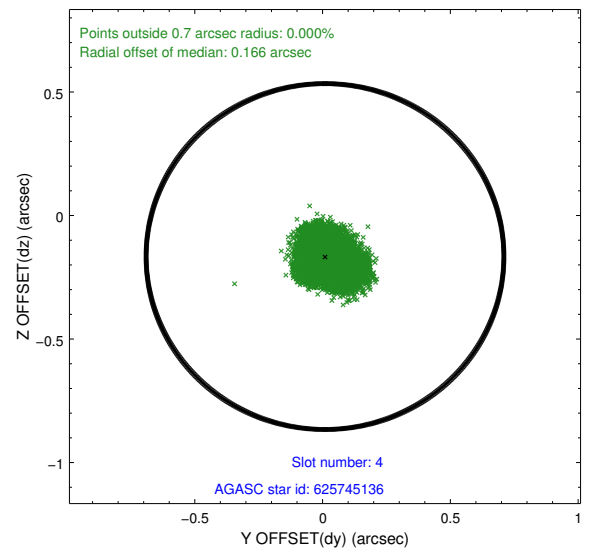
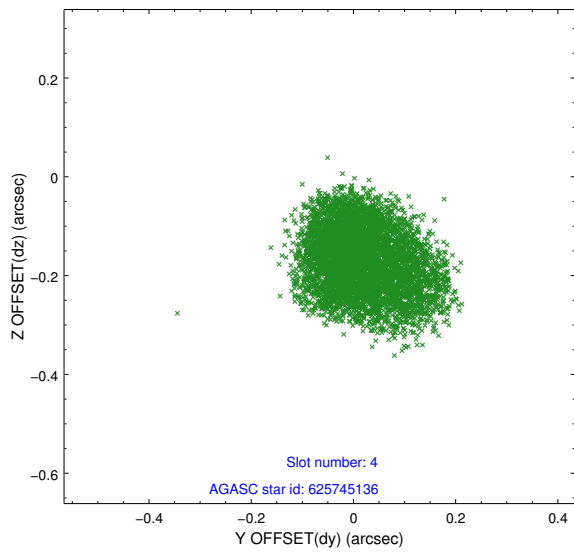
∞

2.4 Star Slots

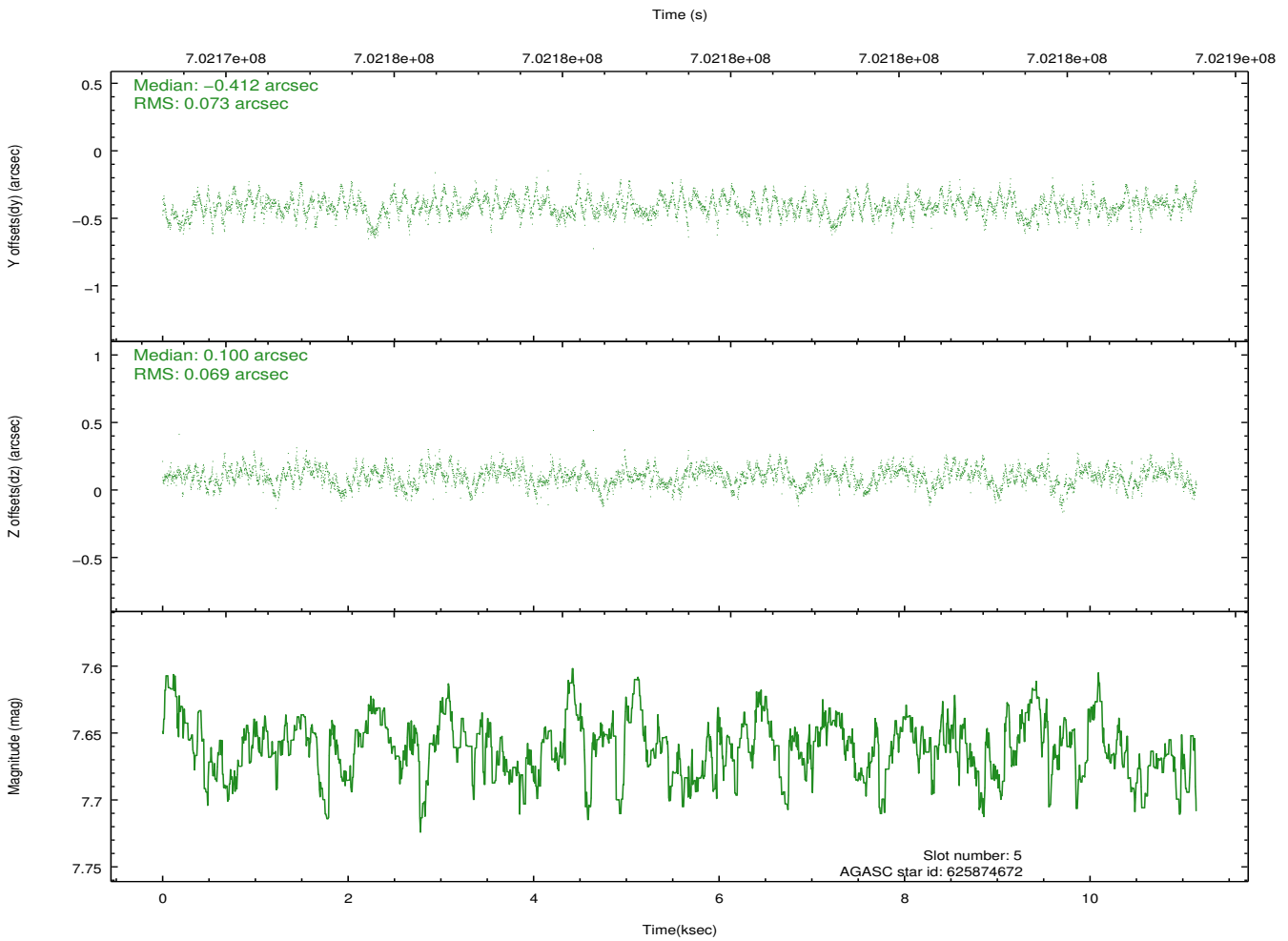
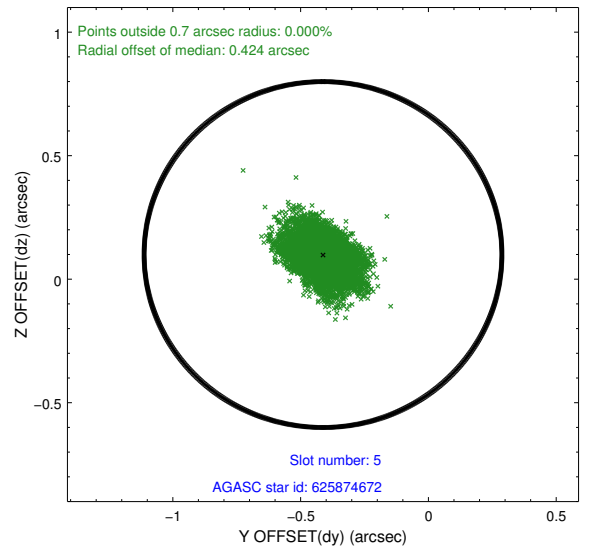
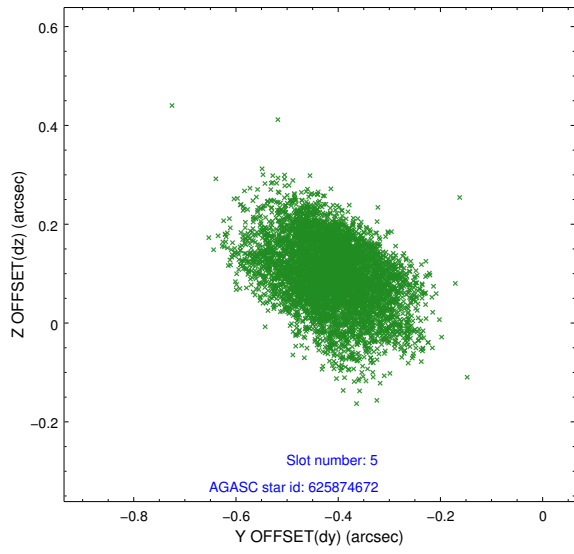
2.4.1 Slot 3



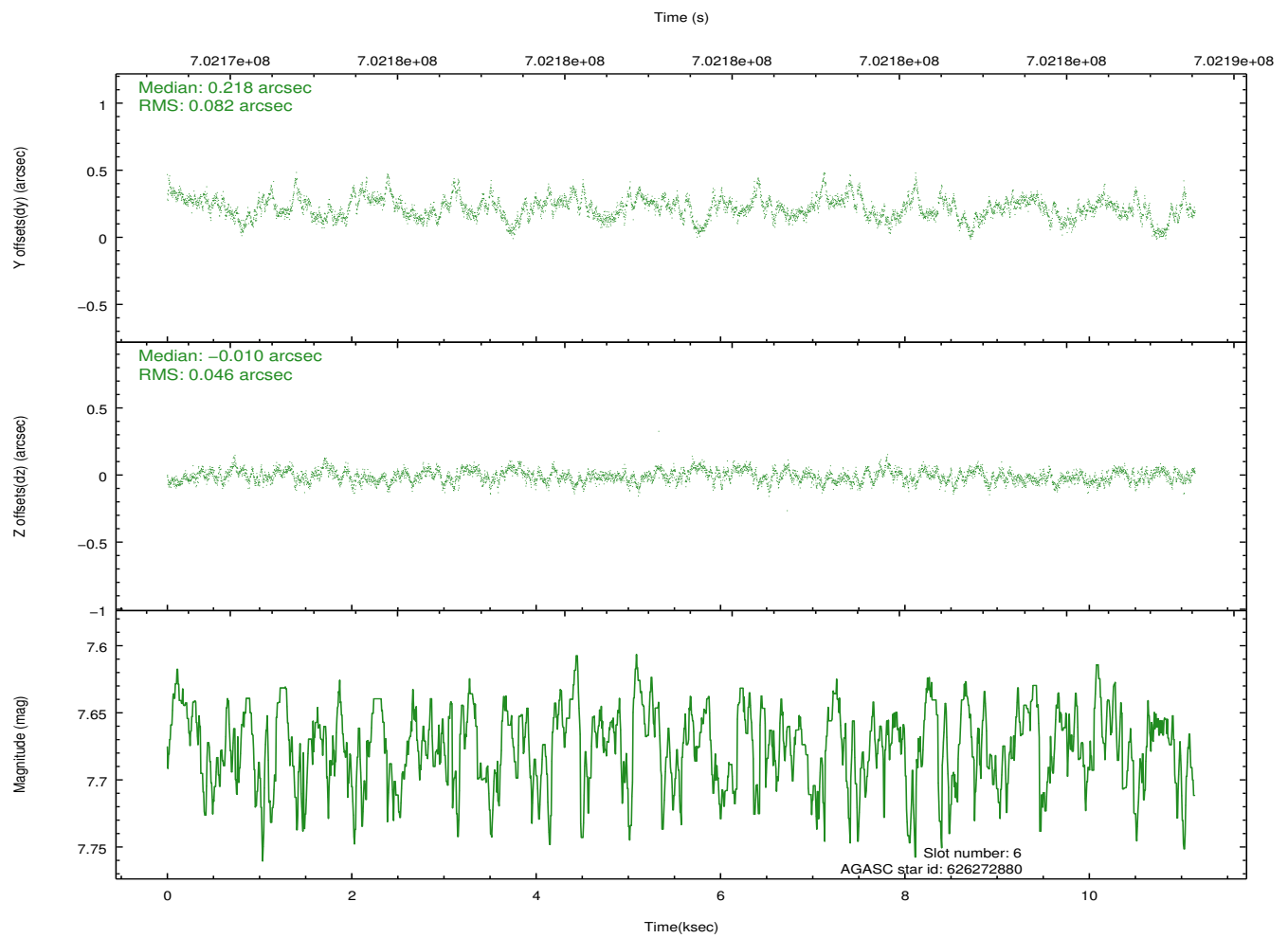
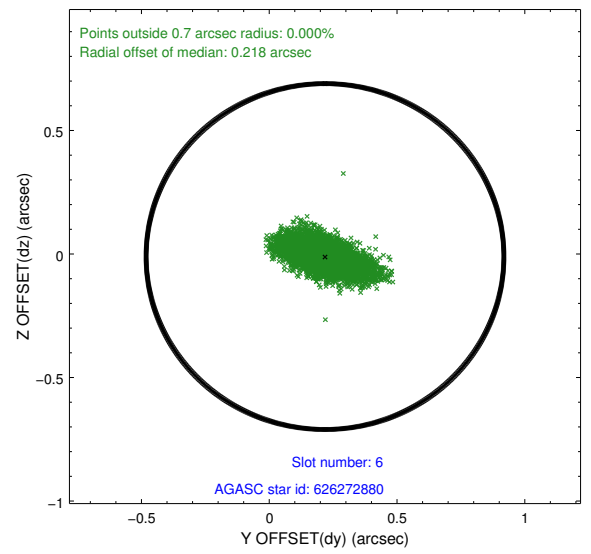
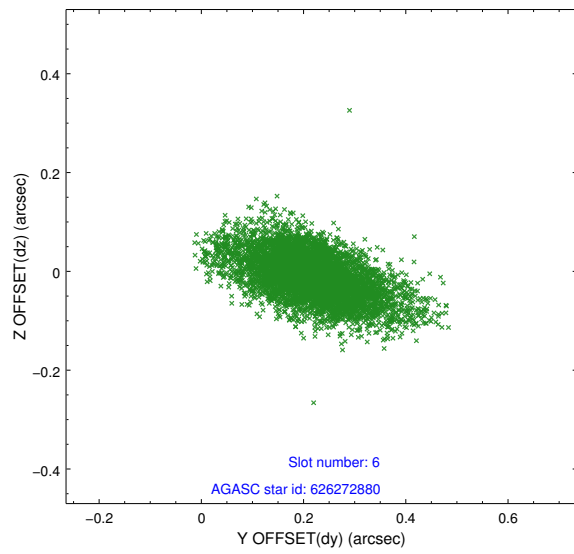
2.4.2 Slot 4



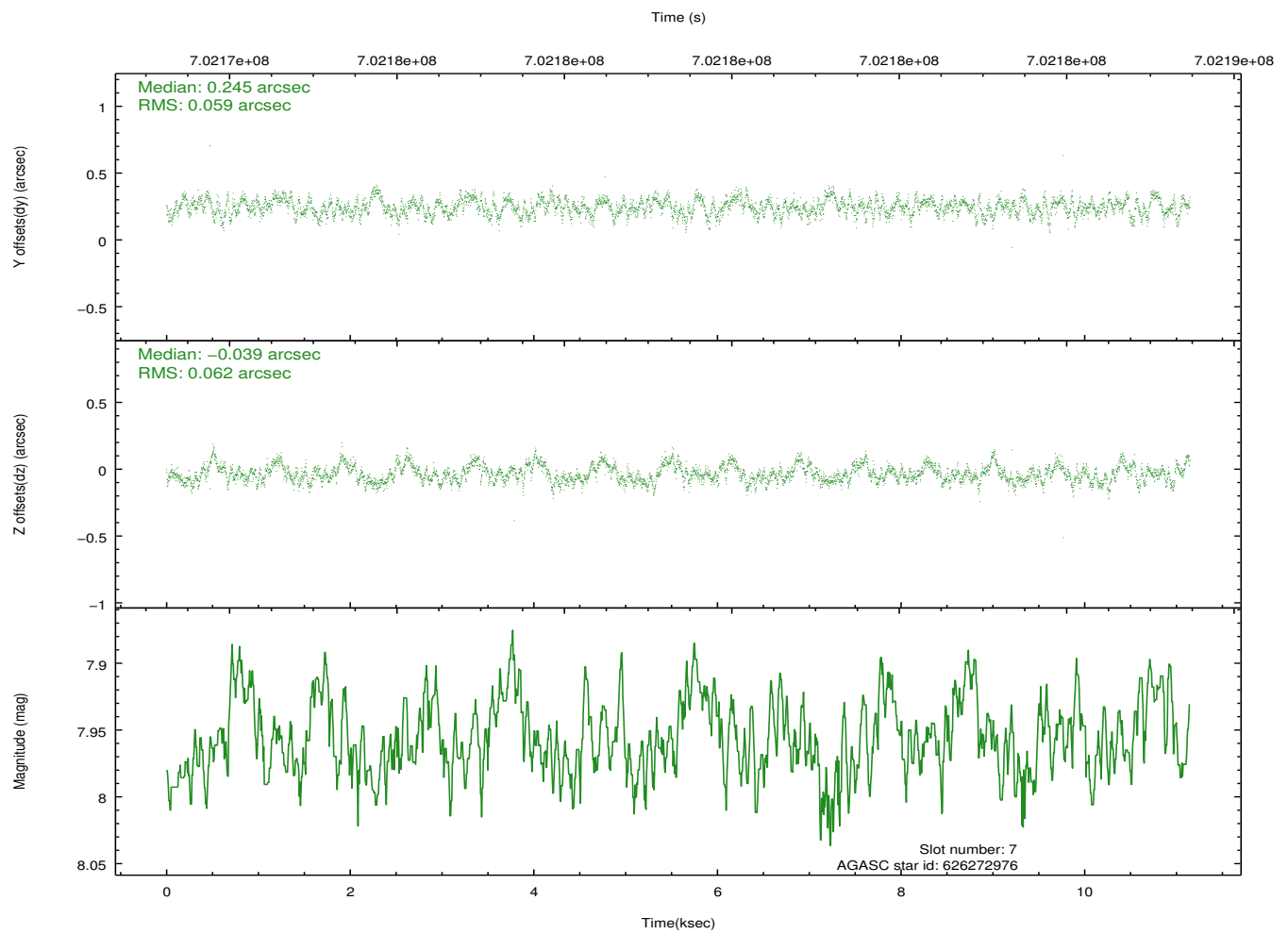
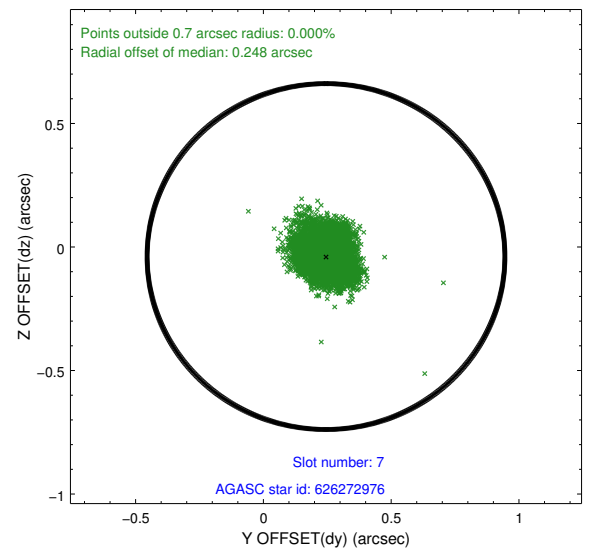
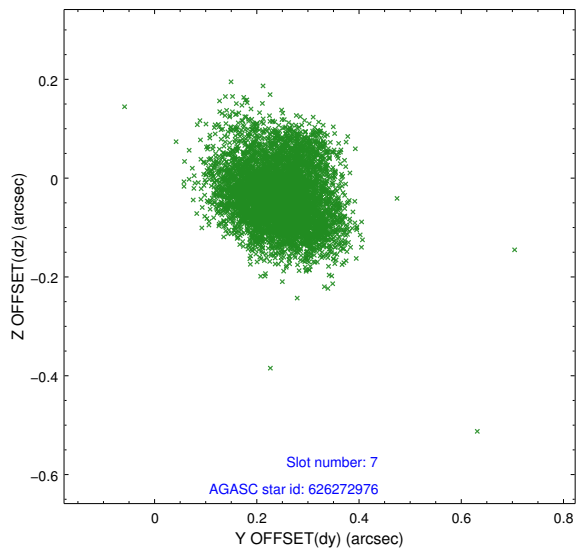
2.4.3 Slot 5



2.4.4 Slot 6

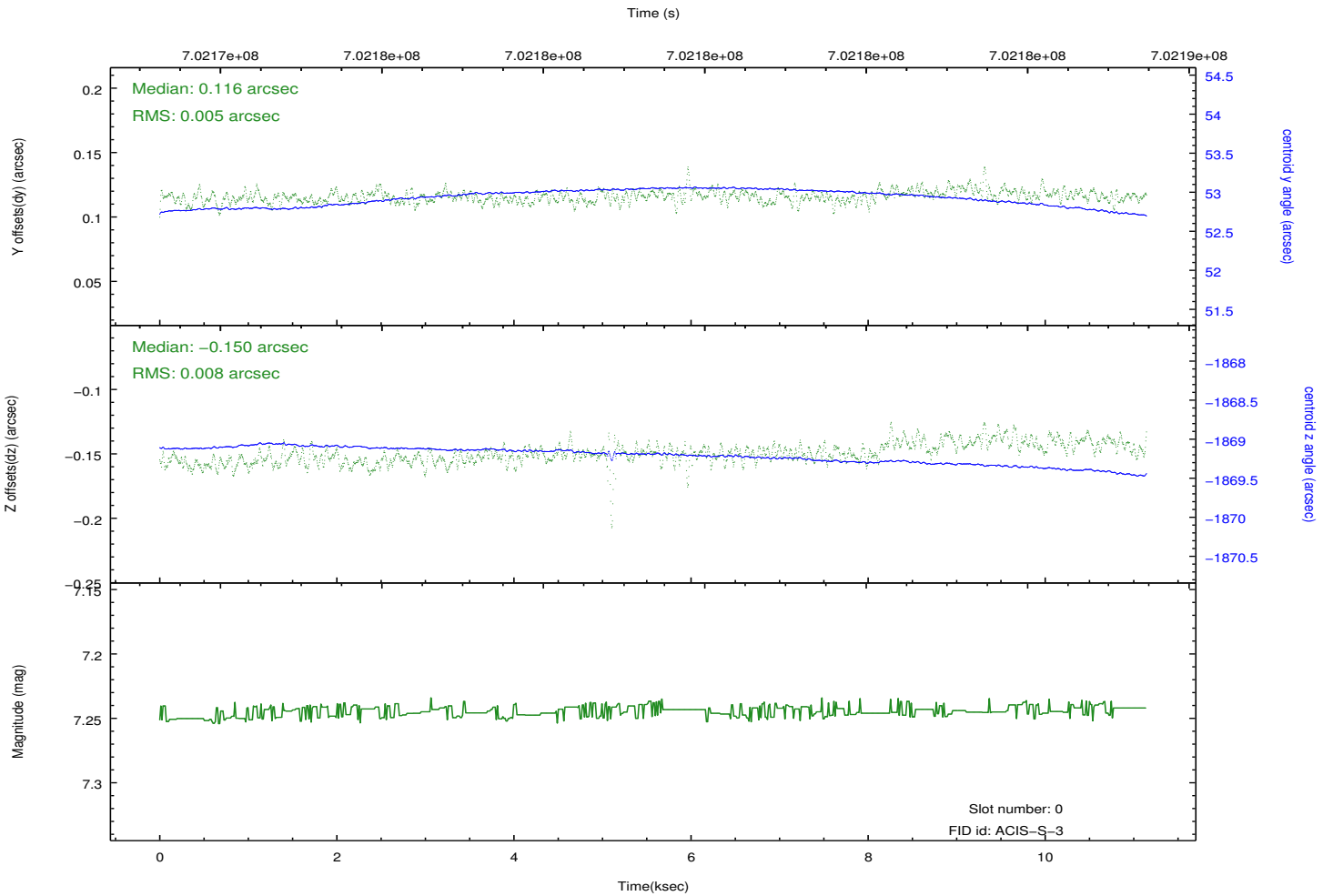
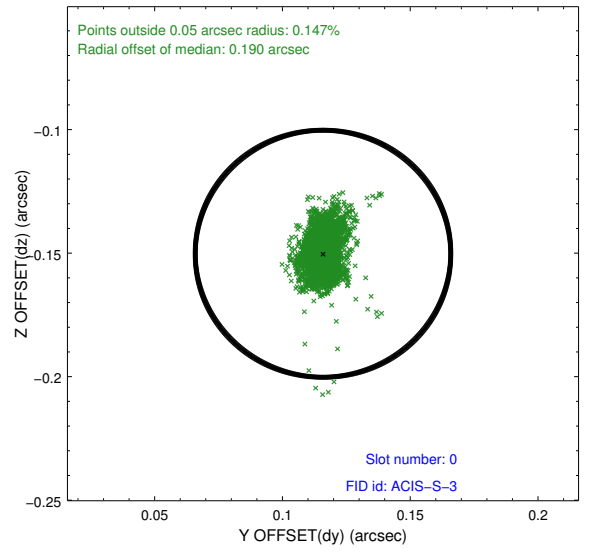
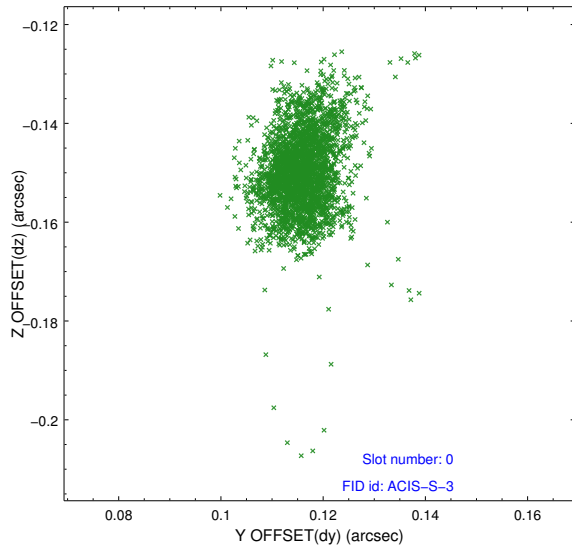


2.4.5 Slot 7

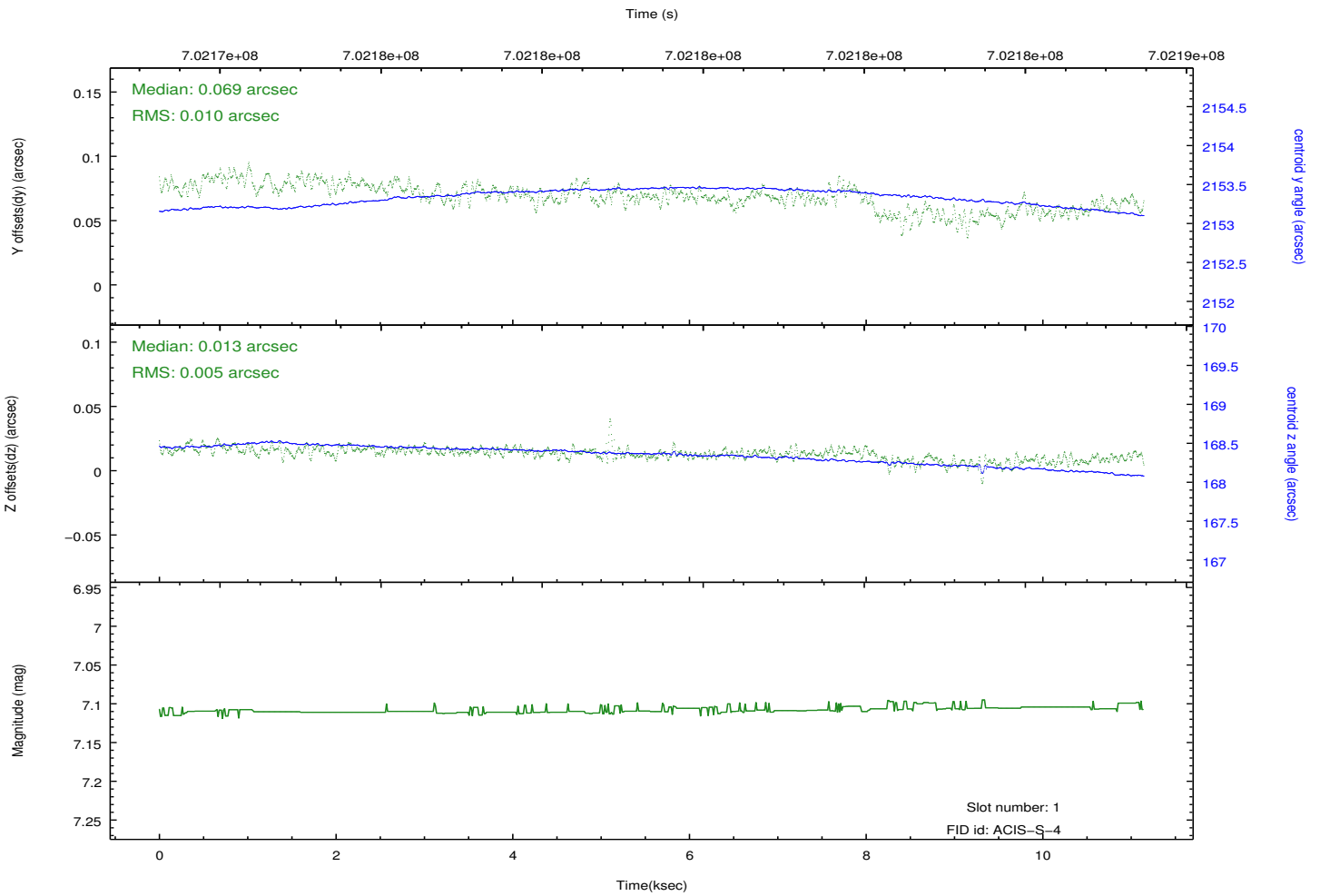
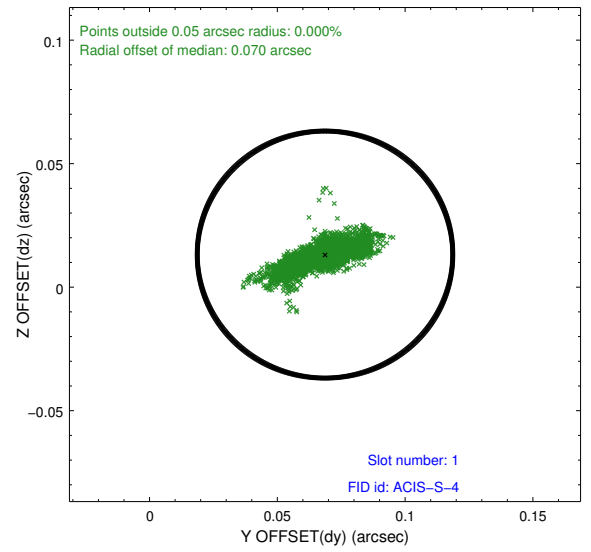
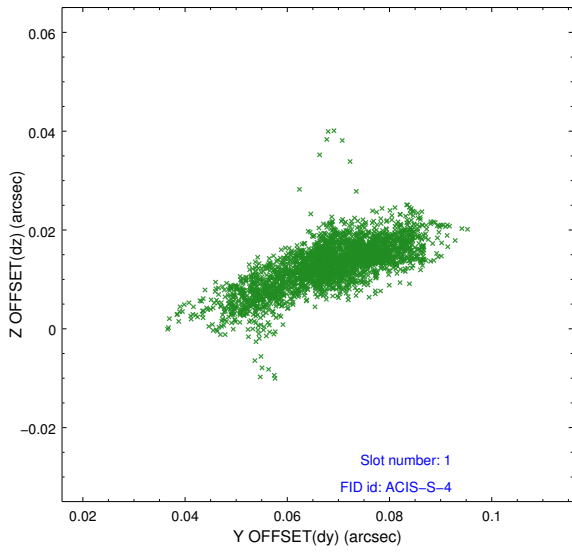


2.5 FID Slots

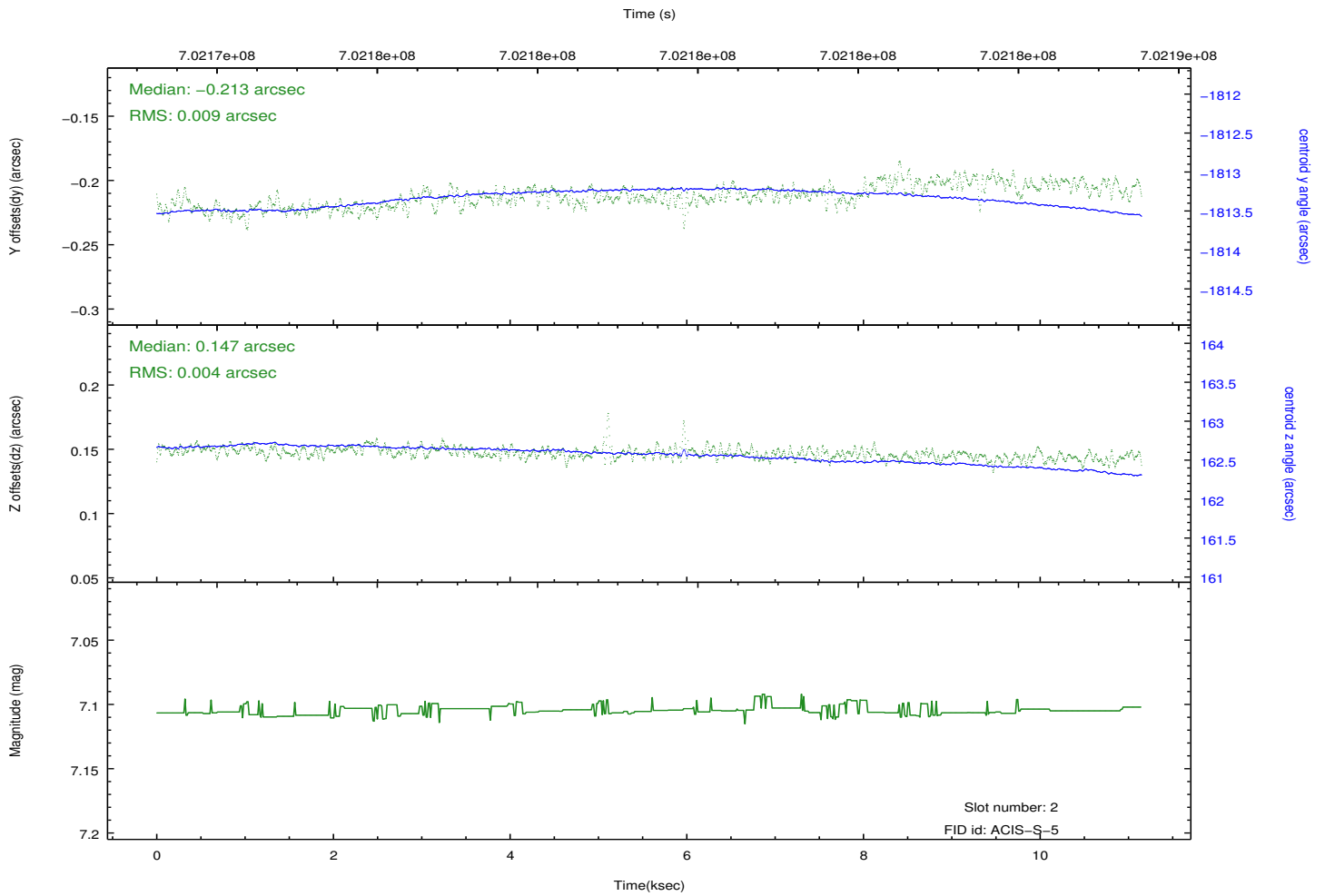
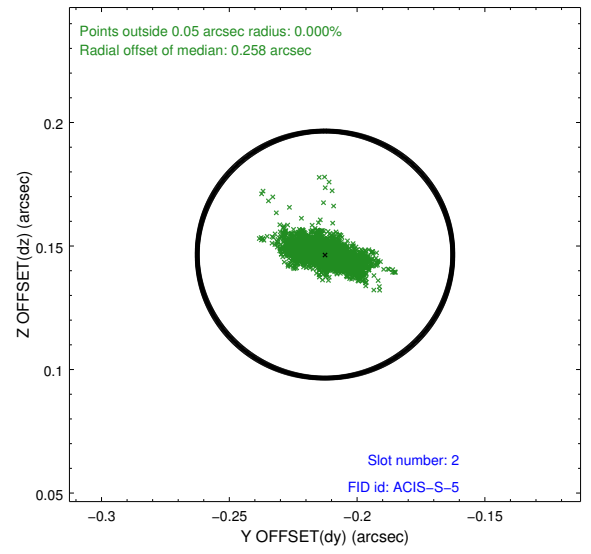
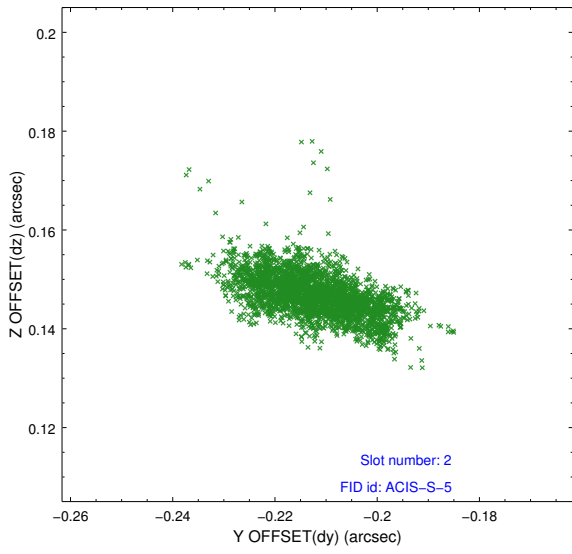
2.5.1 Slot 0



2.5.2 Slot 1

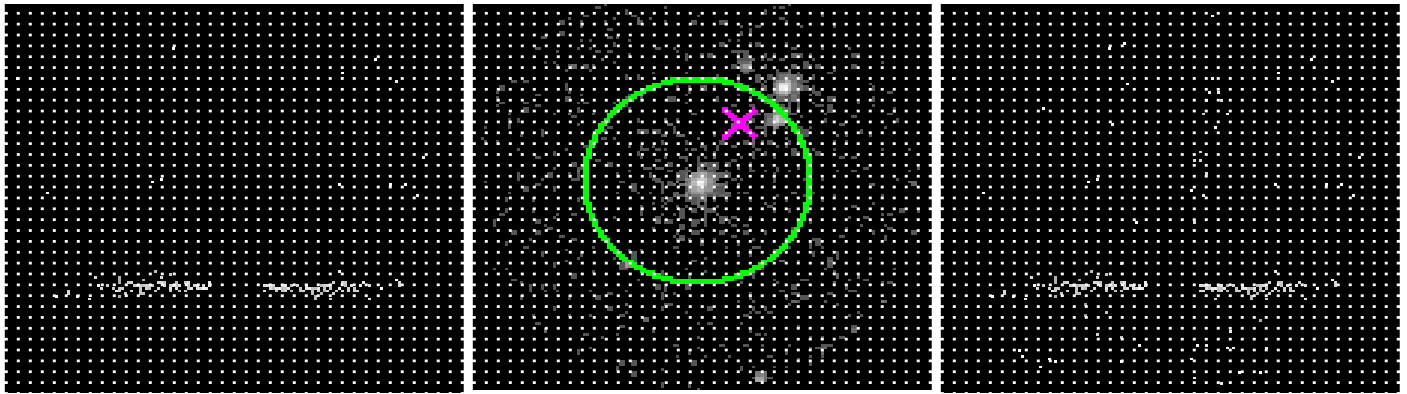


2.5.3 Slot 2



3 Gratings

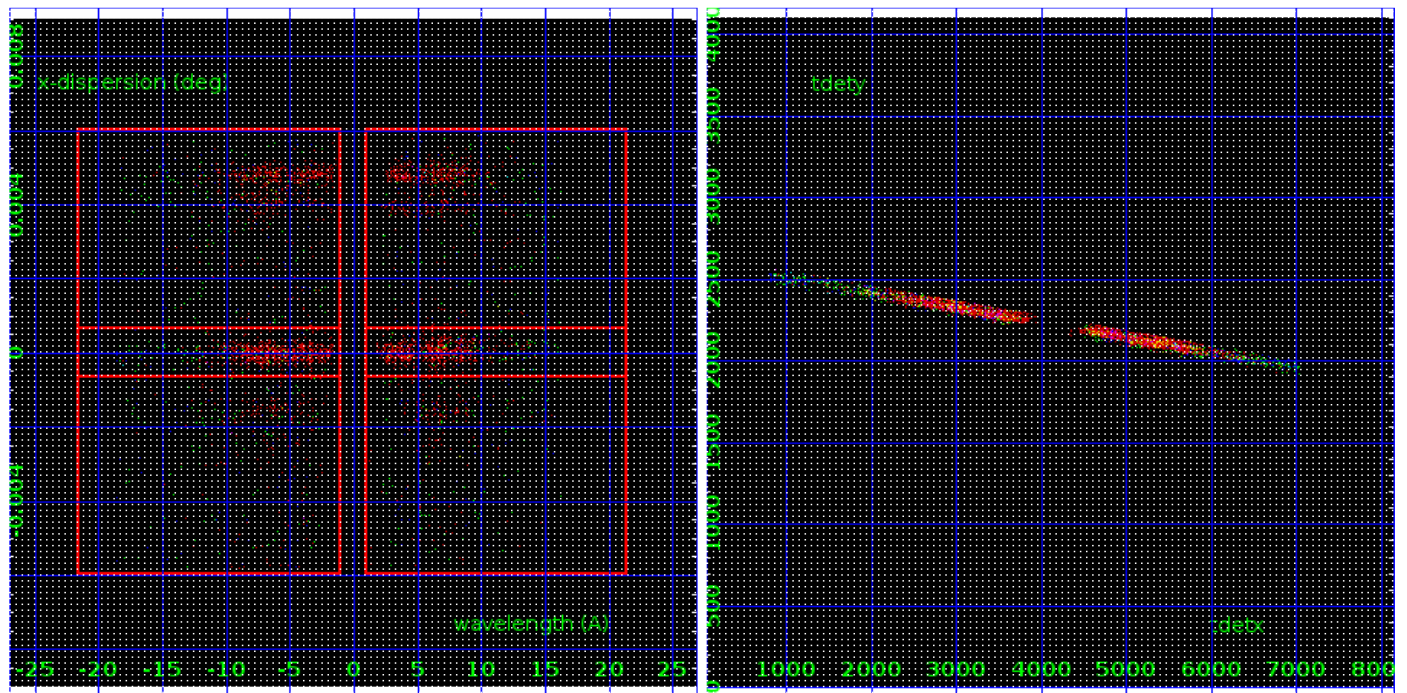
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

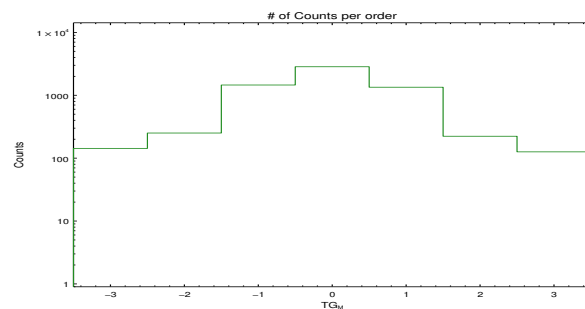
HEG Order Sort ALL

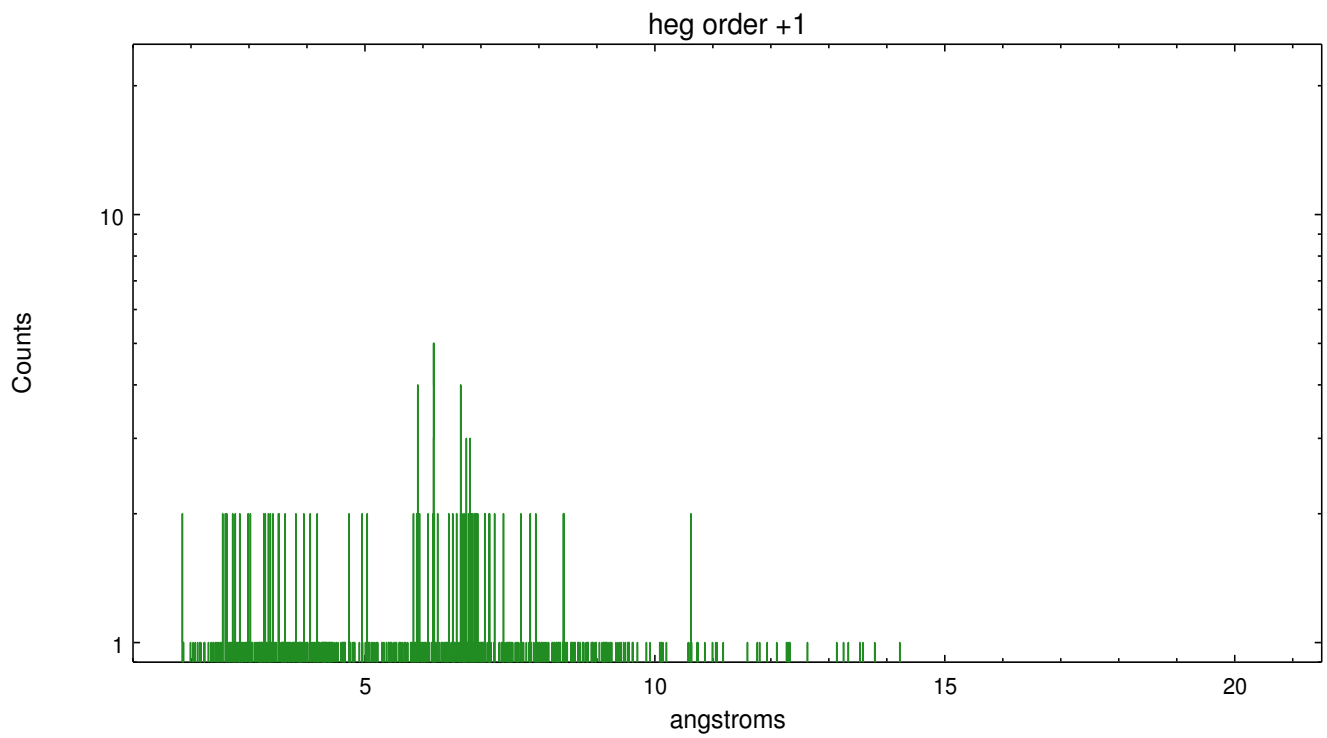
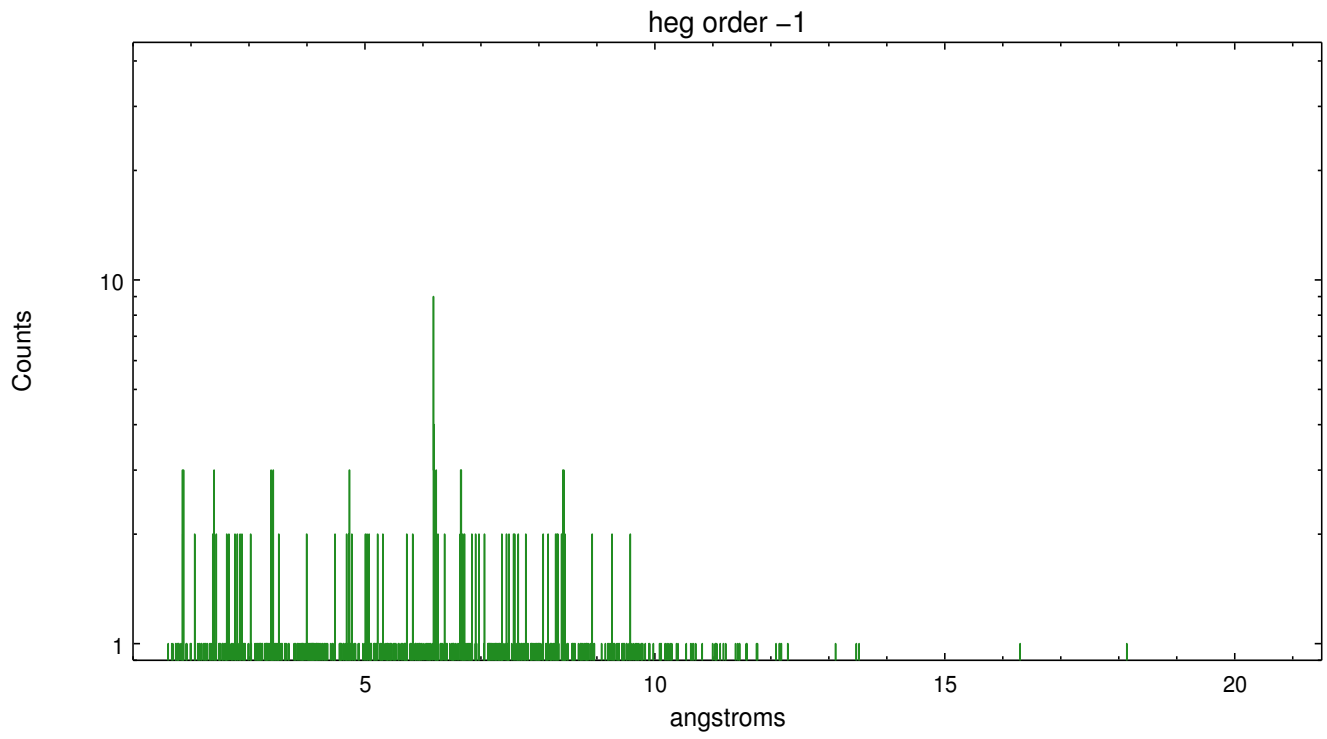


Spot Image HEG

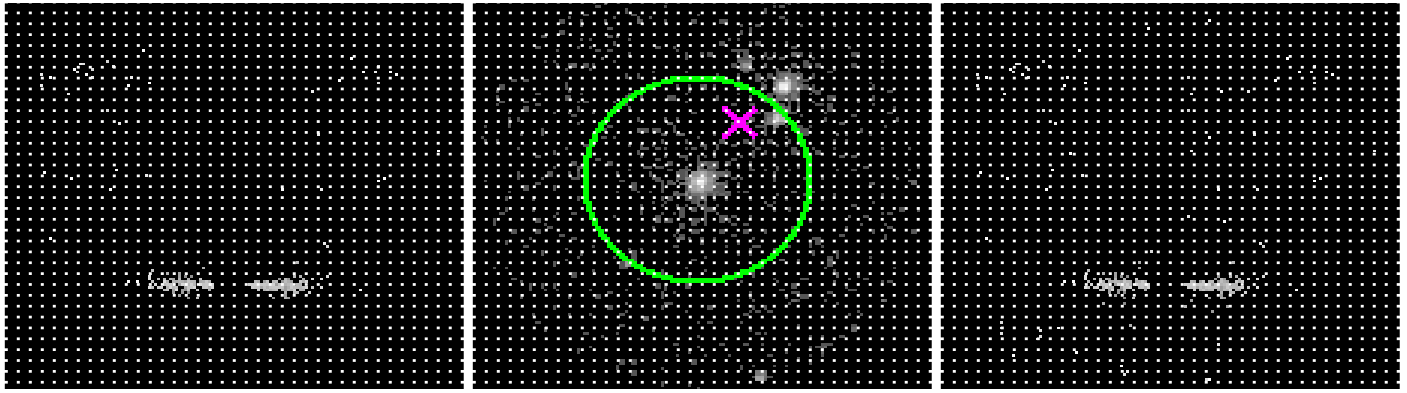
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	143	251	1457	2845	1343	223	126





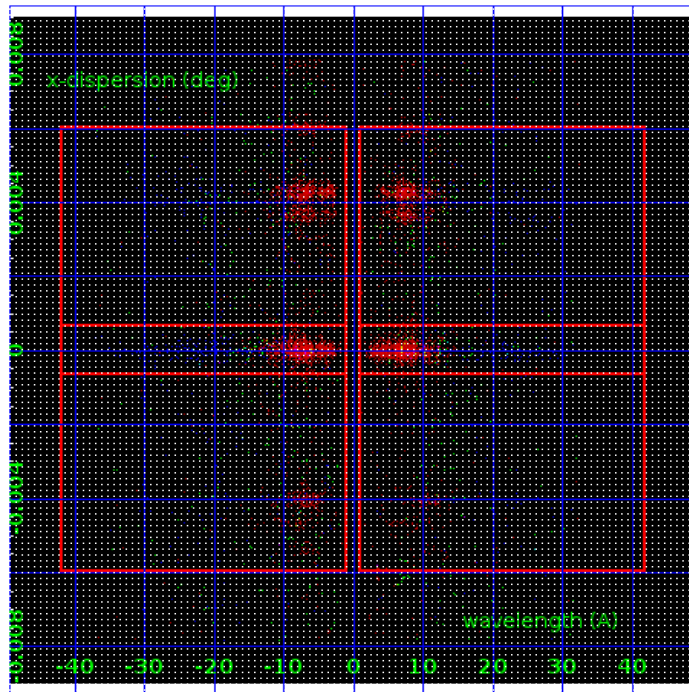
3.2 MEG Arm



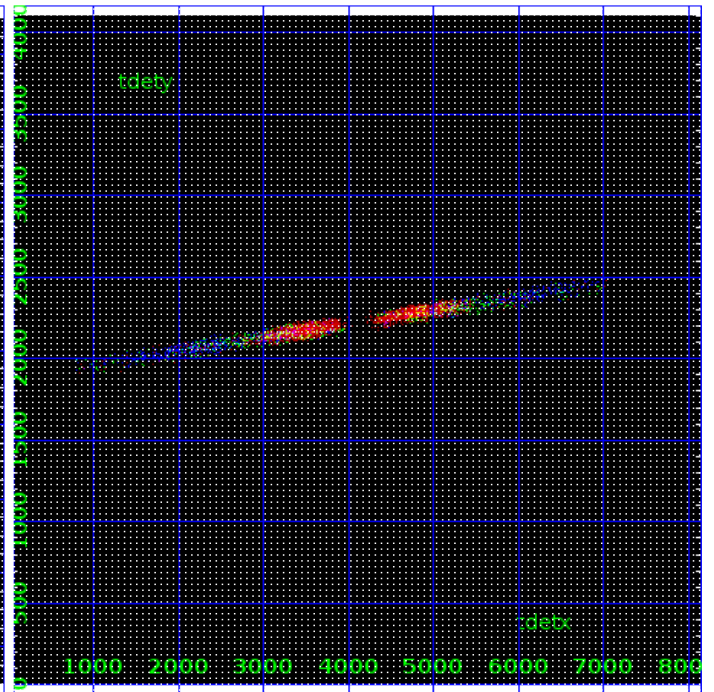
MEG Order Sort 123

MEG Zero Order

MEG Order Sort ALL

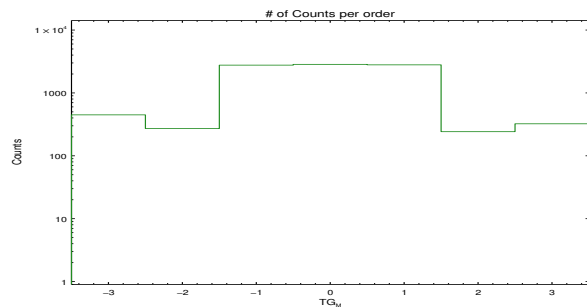


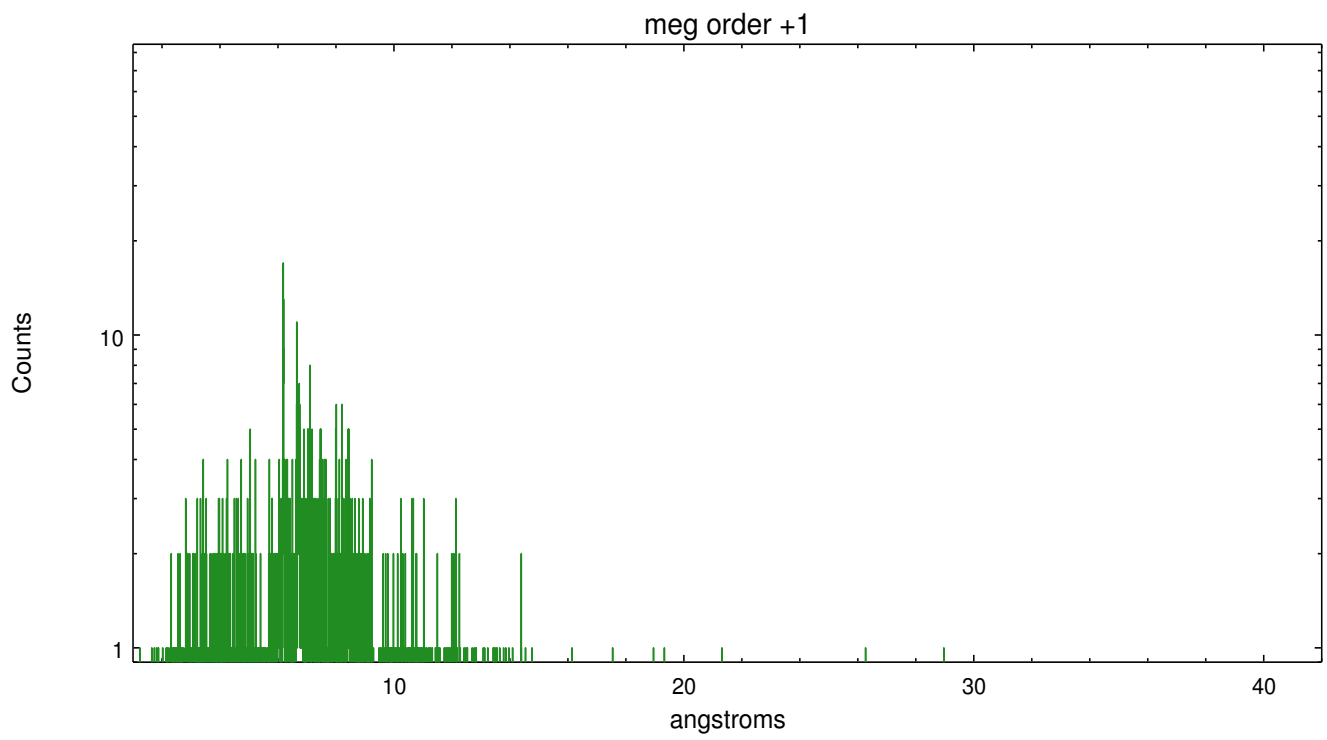
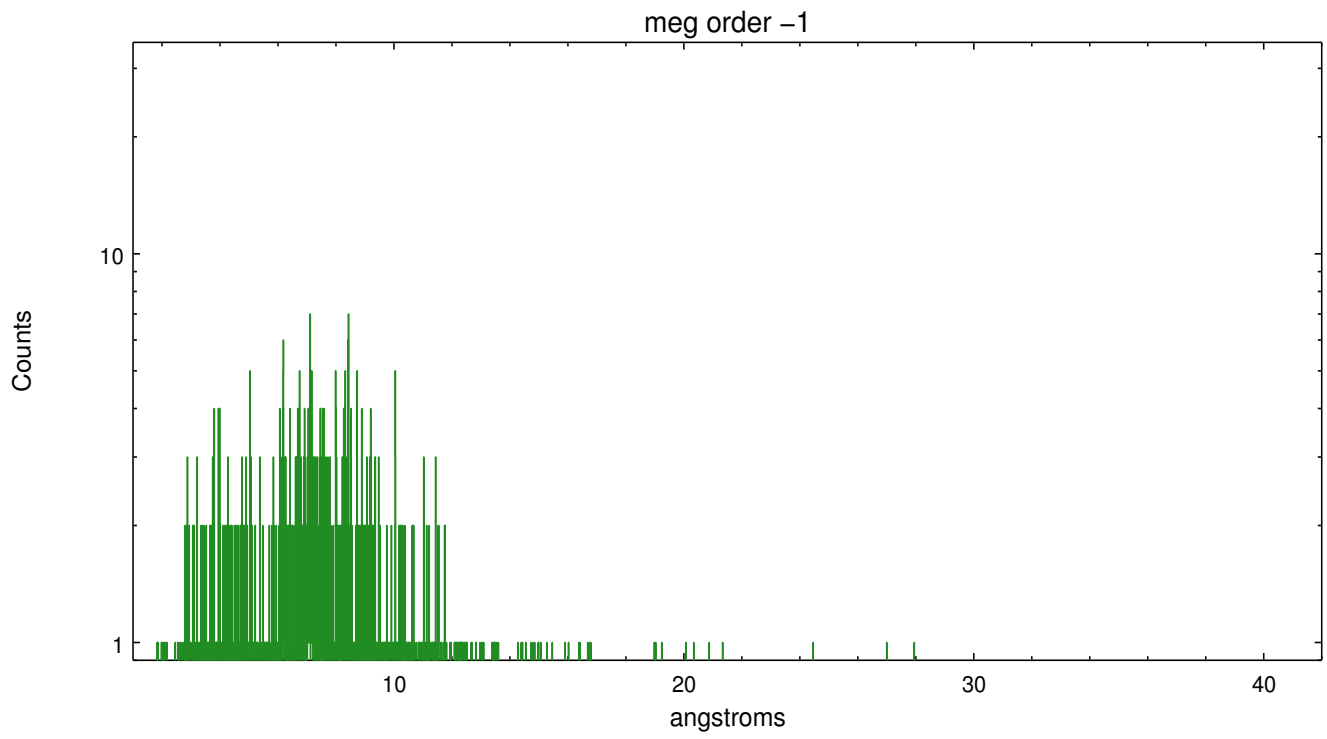
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	448	271	2766	2845	2797	242	323





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	10.949991690874

A.2 Comments