

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 22334 - L2 Version 1
Chandra X-Ray Center

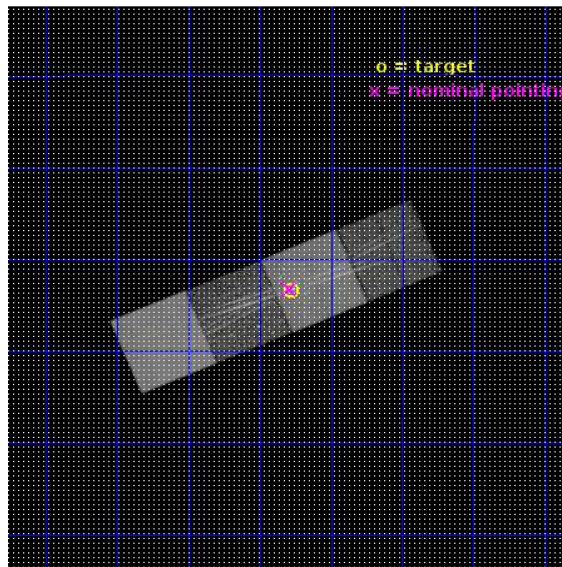
L2 Processing Date : Jan 1 2020

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1 Front

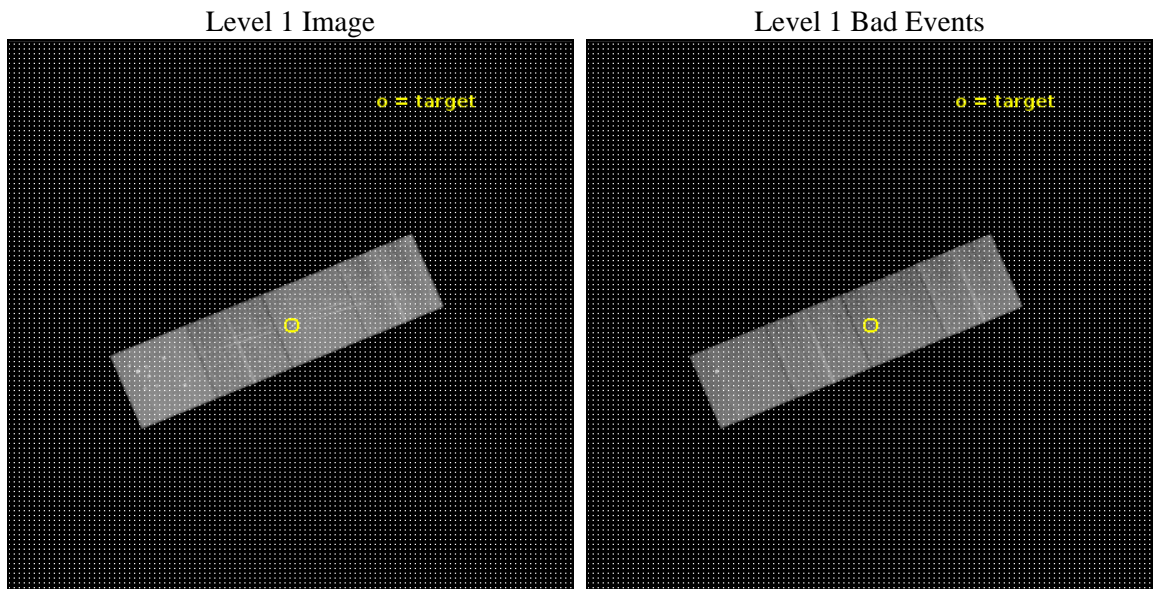
seq_num	201298	Sequence number
obs_id	22334	Observation id
title	THE TRUE NATURE OF X-RAYS FROM THE ORION TRAPEZIUM	Proposal title
observer	Norbert Schulz	Principal investigator
object	Orion Nebula Cluster	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.81875	Observer's specified target RA [deg]
dec_targ	-5.38975	Observer's specified target Dec [deg]
ra_nom	83.822720632224	Nominal RA [deg]
dec_nom	-5.3871138400503	Nominal Dec [deg]
roll_nom	337.15698992227	Nominal Roll [deg]
revision	1	Processing version of data
ontime	25062.287672877	Sum of GTIs [s]
livetime	24734.830433843	Livetime [s]
ontime5	25062.246632934	Sum of GTIs [s]
ontime6	25062.205592871	Sum of GTIs [s]
ontime7	25062.287672877	Sum of GTIs [s]
ontime8	25059.023452759	Sum of GTIs [s]
l2events	353817	Number of level 2 events



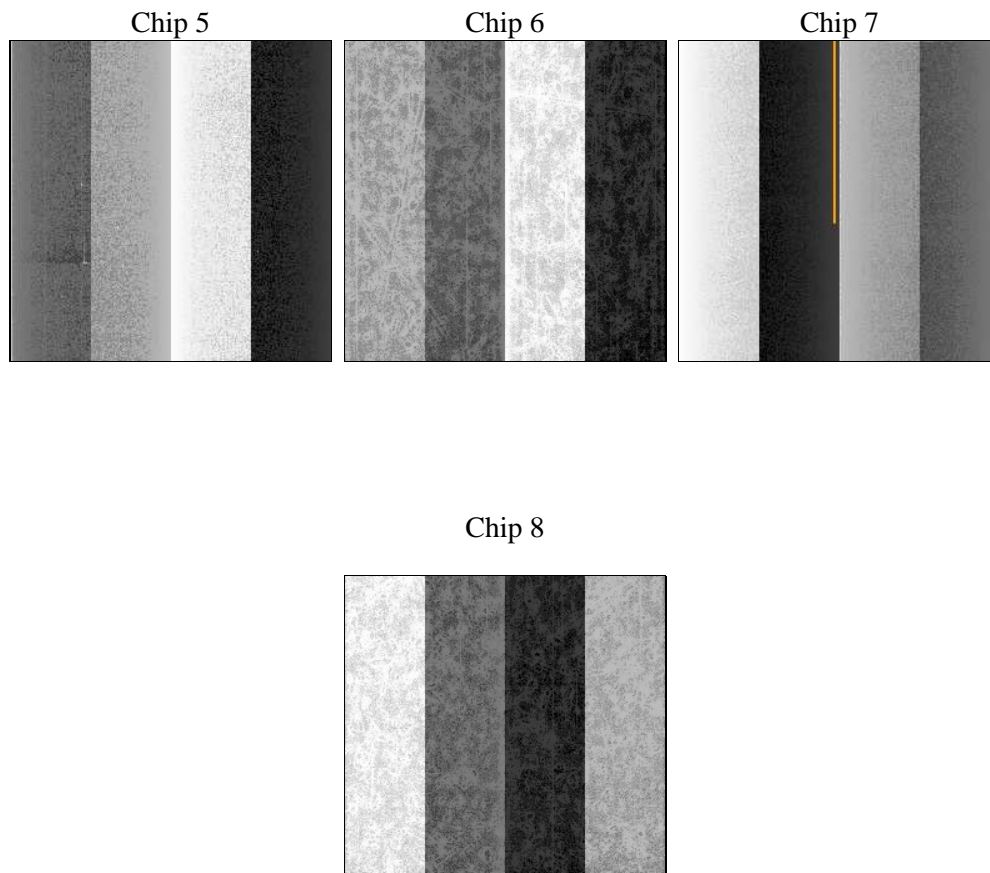
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	25062.287672877	Sum of GTIs [s]
caldsver	4.8.4.2	 	ontime5	25062.246632934	Sum of GTIs [s]
date	2020-01-01T04:49:36	Date and time of file creation	ontime6	25062.205592871	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	25062.287672877	Sum of GTIs [s]
			ontime8	25059.023452759	Sum of GTIs [s]
			l1events	1103233	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4126.14, 4077.31)	src1a sky pixel position

2.1.4 Events

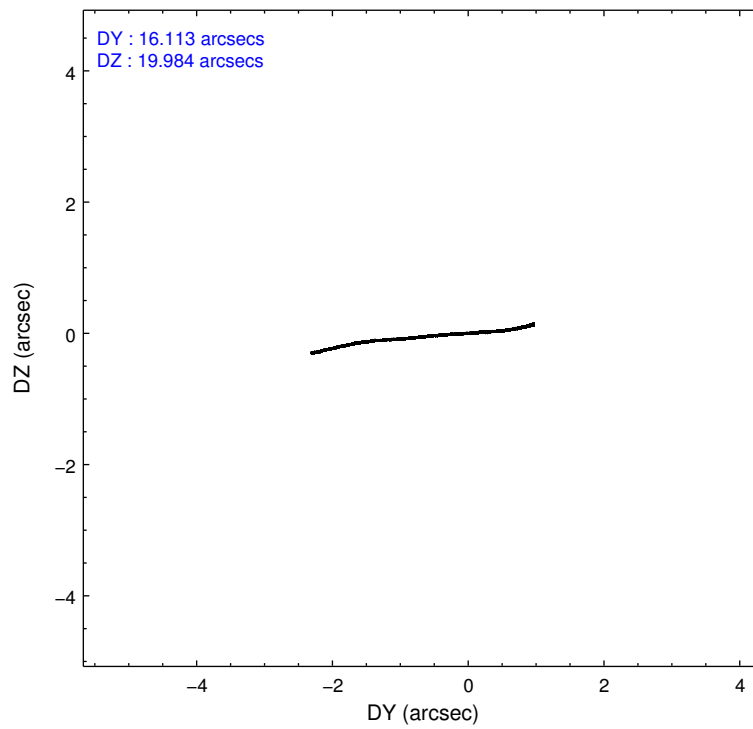
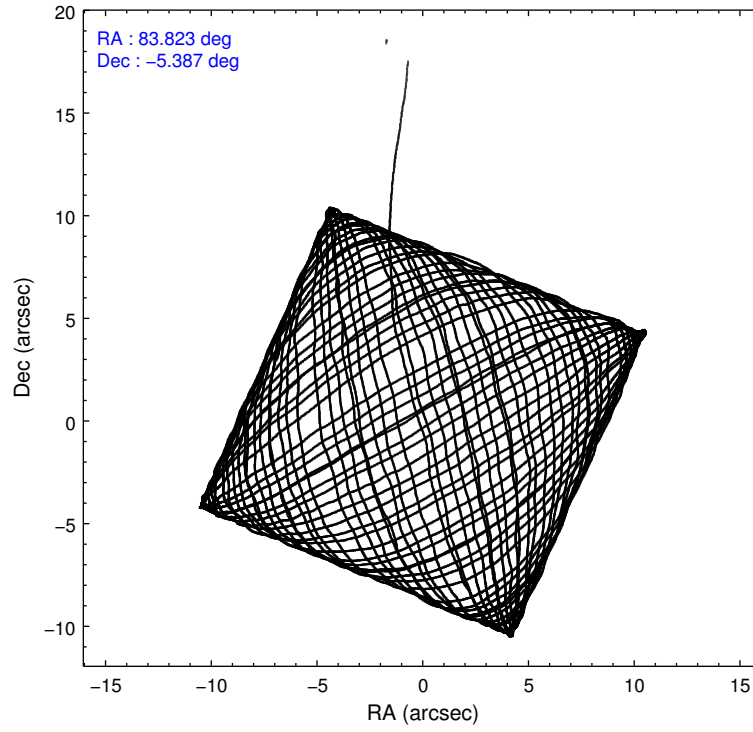
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	328732	222430	292775	259296
rejected events	165893	181660	146298	185273
rejected %	50%	81%	49%	71%

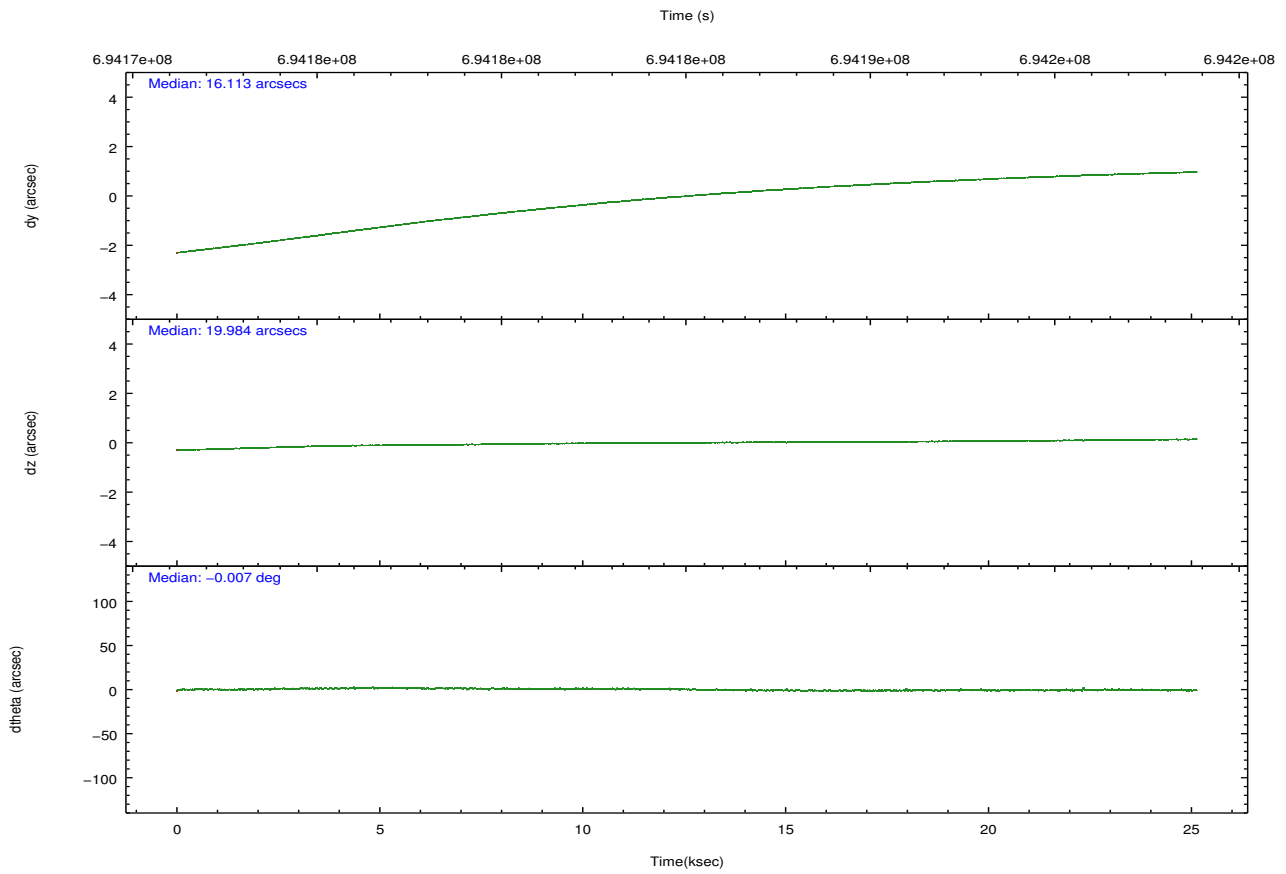
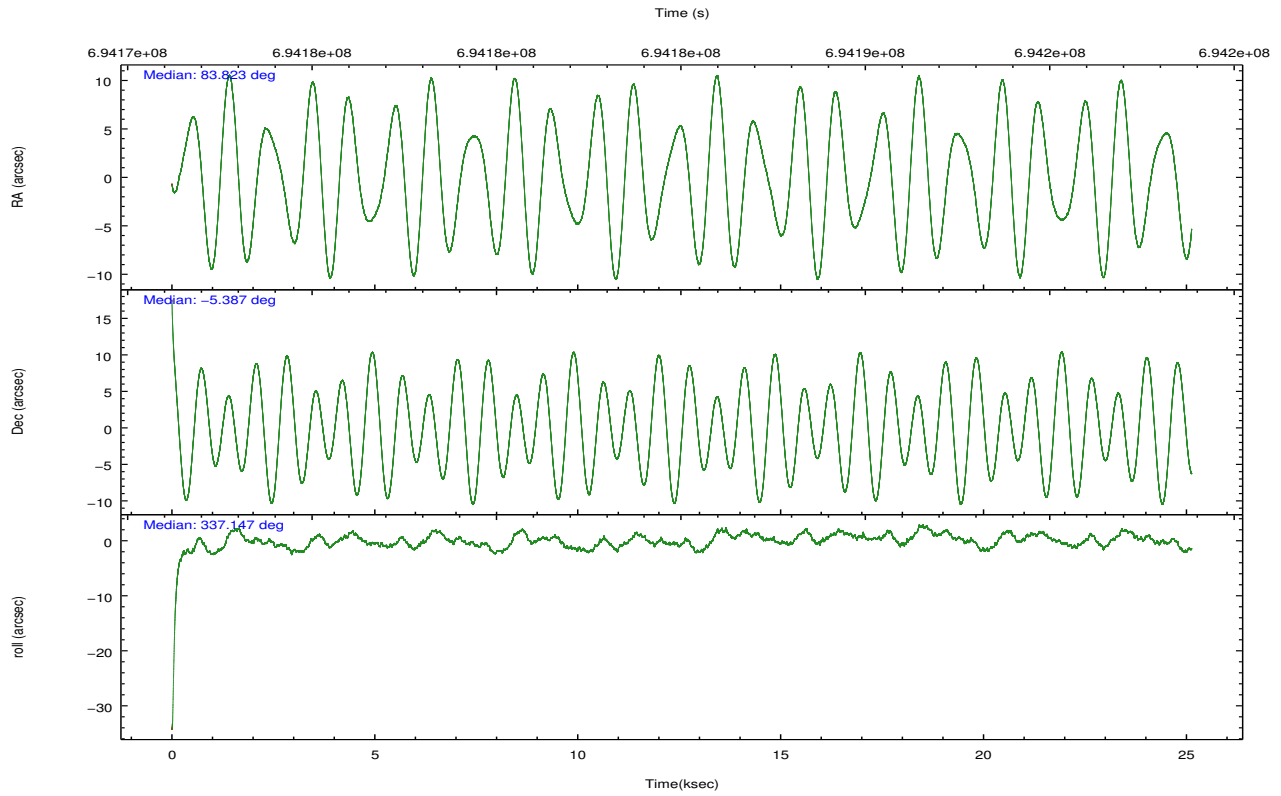
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	18892	21217	16901	24929
	5%	9%	5%	9%
grade 1 events	823	170	516	224
	0%	0%	0%	0%
grade 2 events	51536	8125	32888	17270
	15%	3%	11%	6%
grade 3 events	4495	2583	12357	6830
	1%	1%	4%	2%
grade 4 events	4301	2518	12278	6467
	1%	1%	4%	2%
grade 5 events	20136	8653	24929	13514
	6%	3%	8%	5%
grade 6 events	83641	6330	72076	18537
	25%	2%	24%	7%
grade 7 events	144908	172834	120830	171525
	44%	77%	41%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	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	83.795422	83.82272063222388	CCD I2 on	N	N
[deg] Pointing Dec	-5.390904	-5.387113840050271	CCD I3 on	N	N
[deg] Pointing Roll	336.997811	337.1569899222732	CCD S0 on	O1	N
[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)	694172587.184000	694171140.27737	CCD S5 on	O2	N
Observation start date	2019-12-31T09:41:58	2019-12-31T09:19:00	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	694197587.184000	694198415.5290101	On-chip summing requested	N	N
Observation end date	2019-12-31T16:38:38	2019-12-31T16:53:35	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





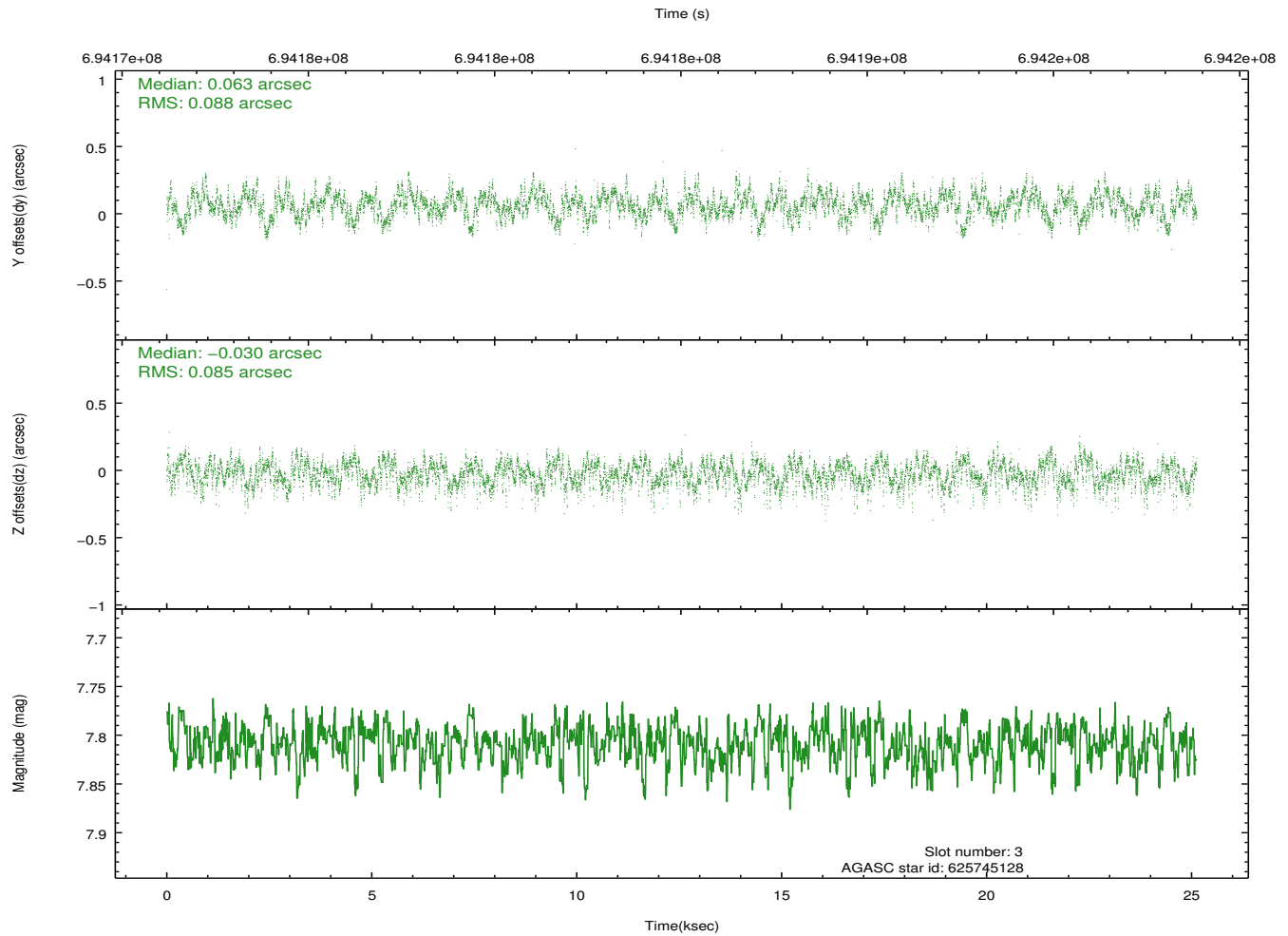
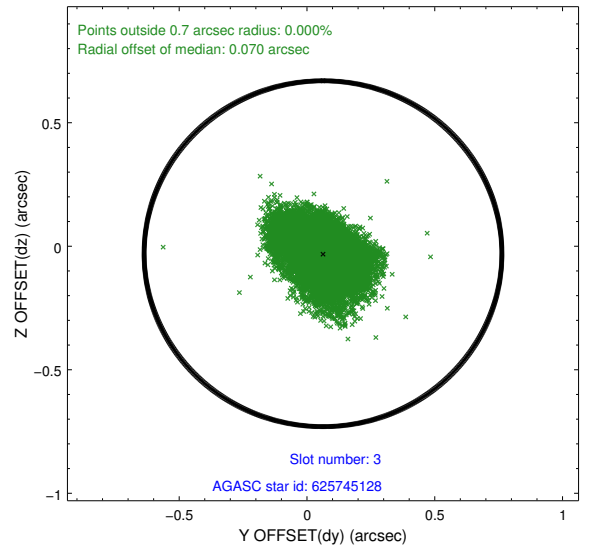
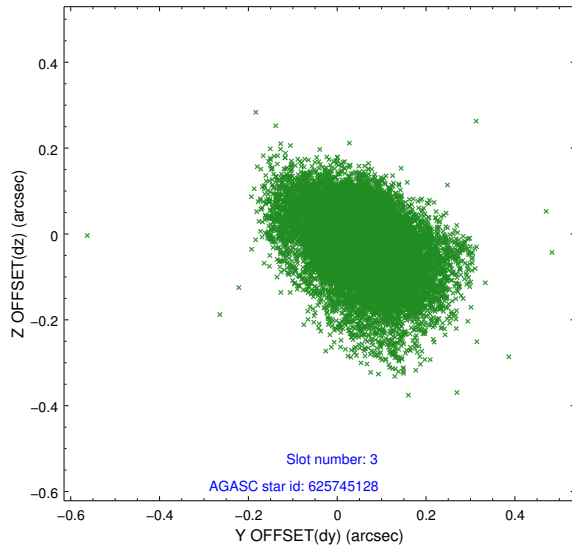
Slot Statistics

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-2	7.08	6130	1.000	-0.317	-0.198	0.022	0.053	0.000000	0.000000	-769.08	-1741
1	FID		ACIS-S-4	7.22	6130	1.000	0.800	0.208	0.011	0.037	0.000000	0.000000	2145.16	167
2	FID		ACIS-S-5	7.16	6129	1.000	-0.517	0.005	0.020	0.030	0.000000	0.000000	-1822.07	160
3	GUIDE	used	625745128	7.81	12257	1.000	0.063	-0.030	0.130	0.211	83.769930	-4.731835	-1011.35	2147
4	GUIDE	used	625745136	7.19	12257	1.000	-0.046	0.187	0.095	0.160	83.600341	-4.804339	-1469.24	1670
5	GUIDE	used	625874672	7.68	12257	1.000	-0.170	-0.539	0.103	0.166	84.403143	-4.934124	1363.93	2364
6	GUIDE	used	626272880	7.67	12257	1.000	0.093	0.214	0.132	0.213	83.815609	-6.032748	970.38	-2098
7	GUIDE	used	626272976	7.94	12254	1.000	0.063	0.174	0.119	0.184	83.795875	-5.926912	756.33	-1775

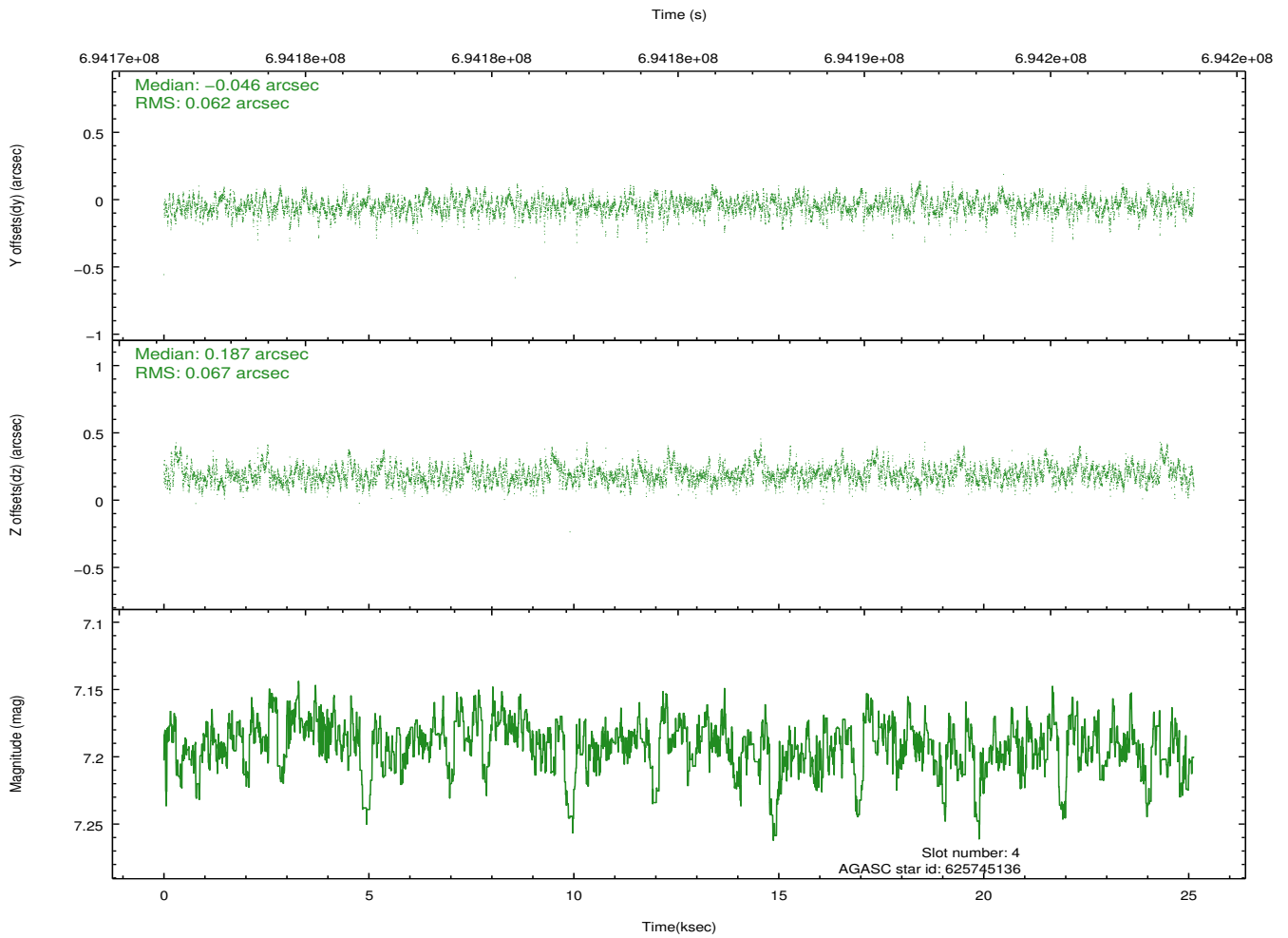
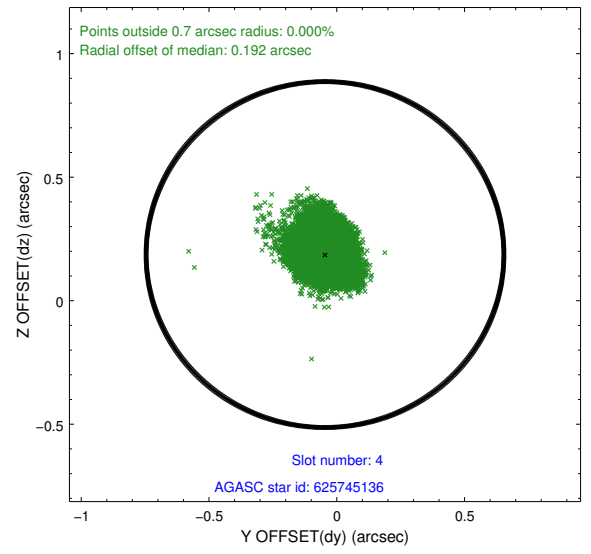
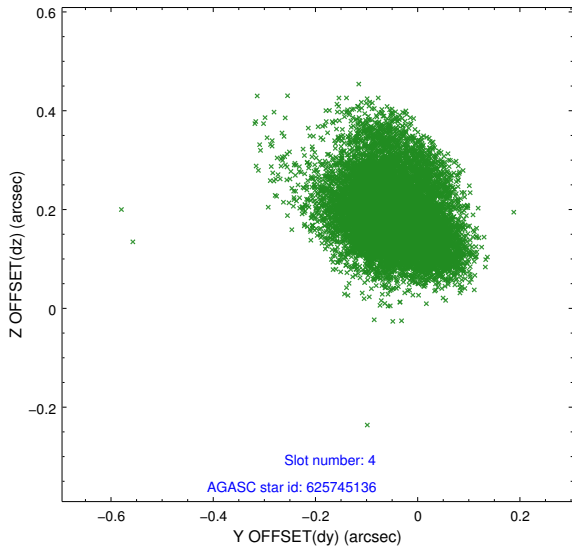
∞

2.4 Star Slots

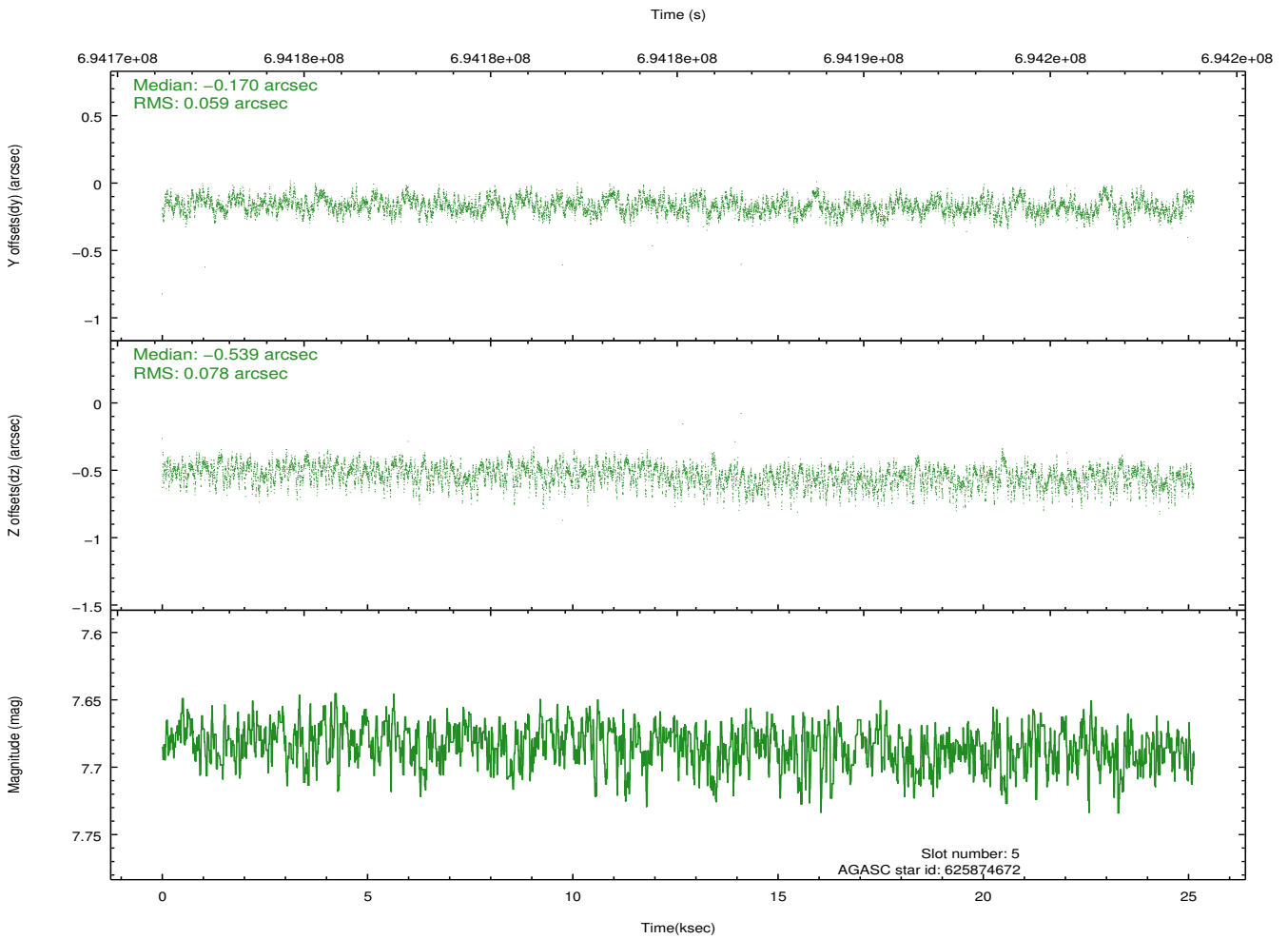
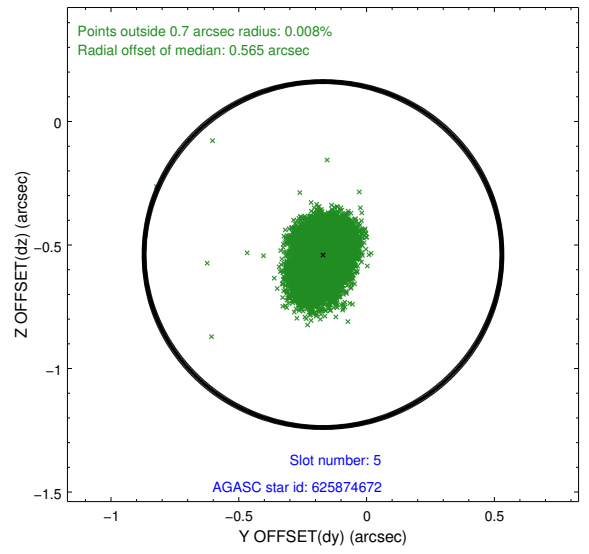
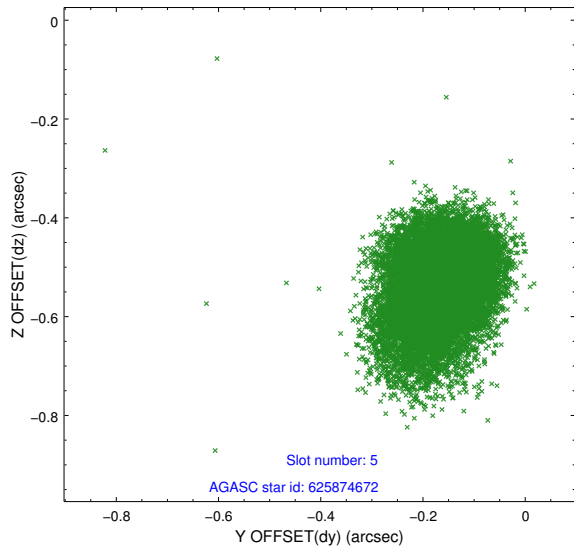
2.4.1 Slot 3



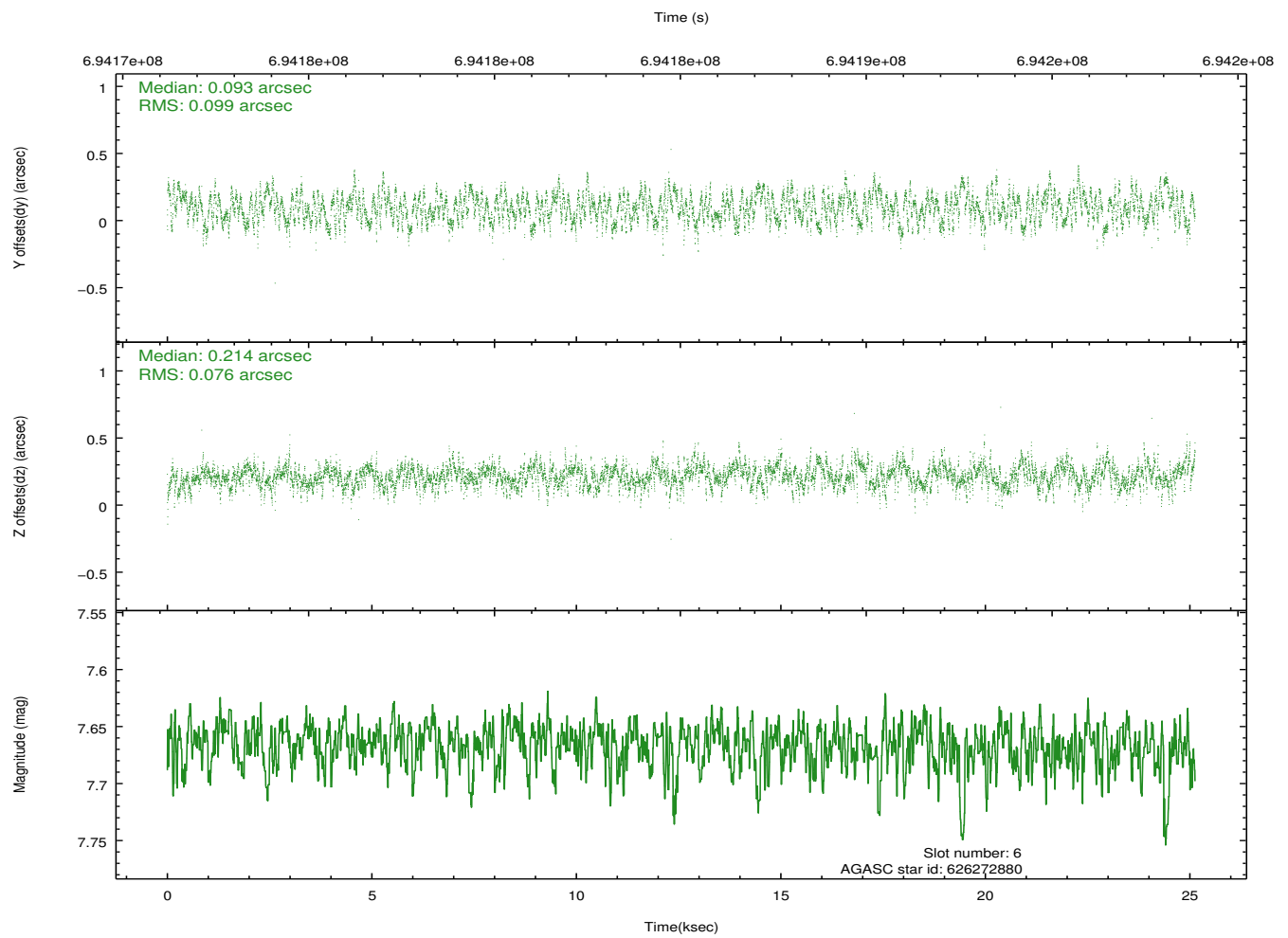
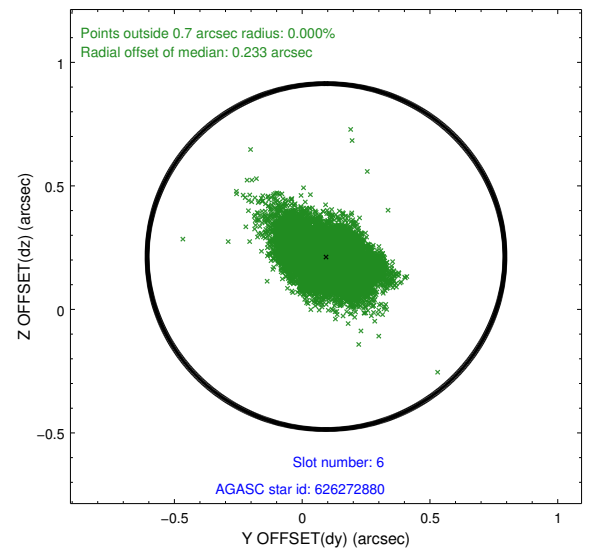
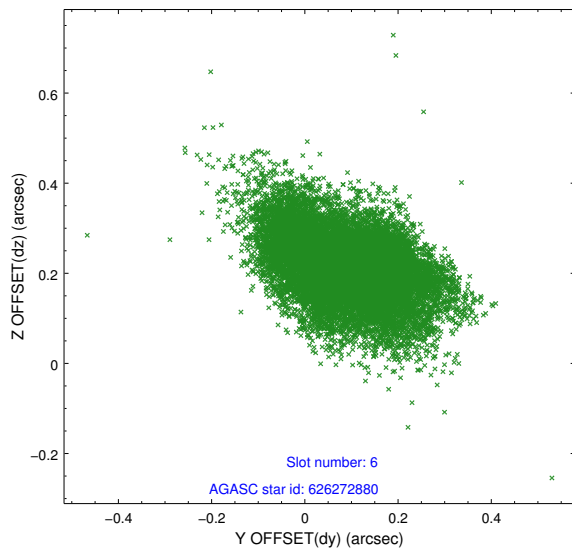
2.4.2 Slot 4



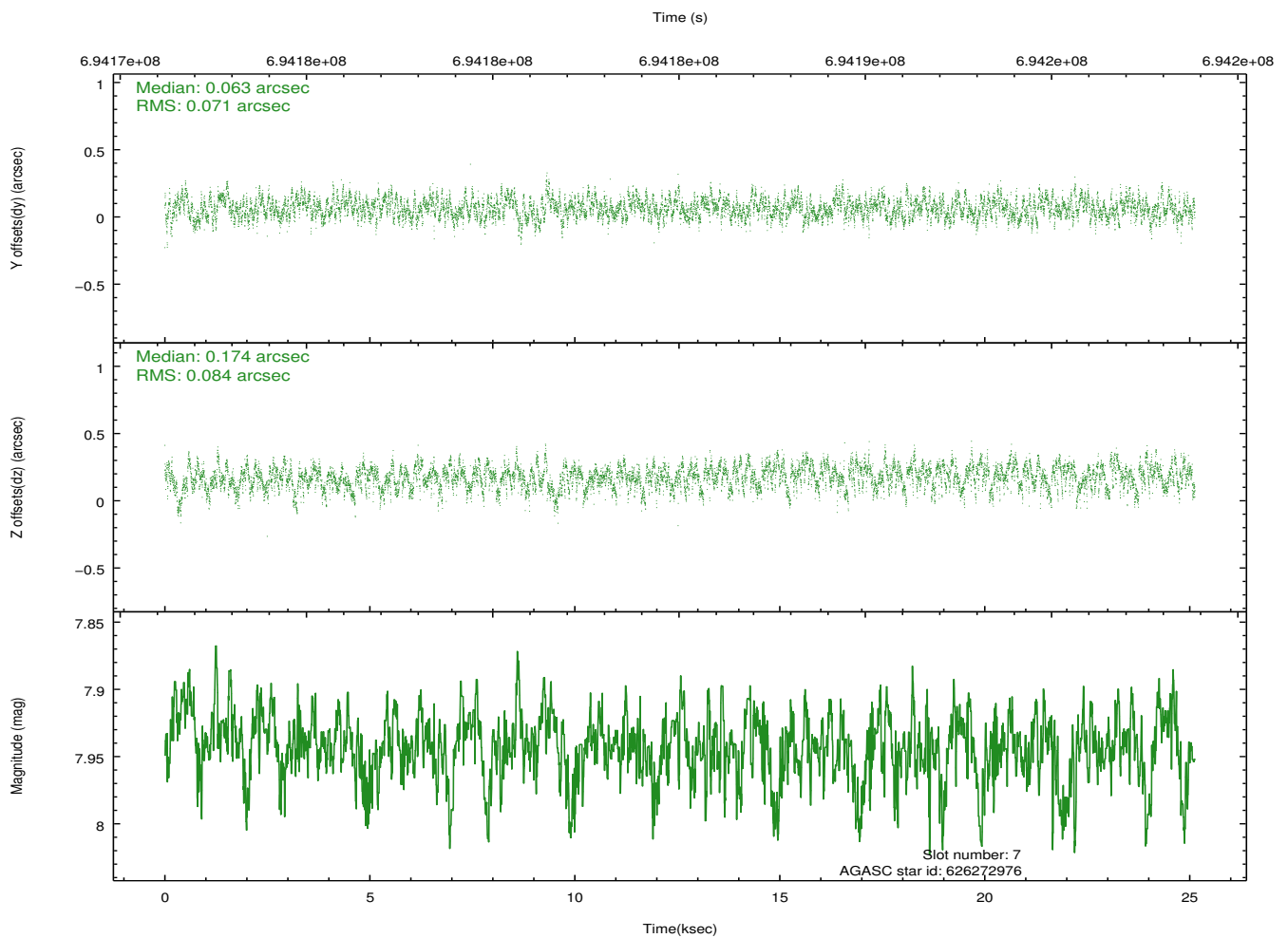
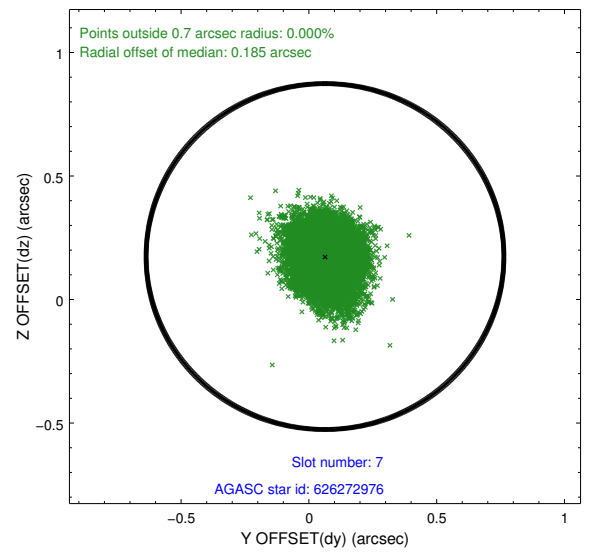
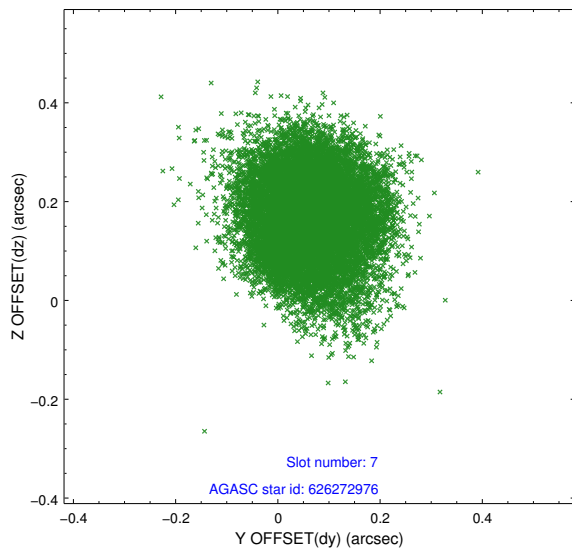
2.4.3 Slot 5



2.4.4 Slot 6

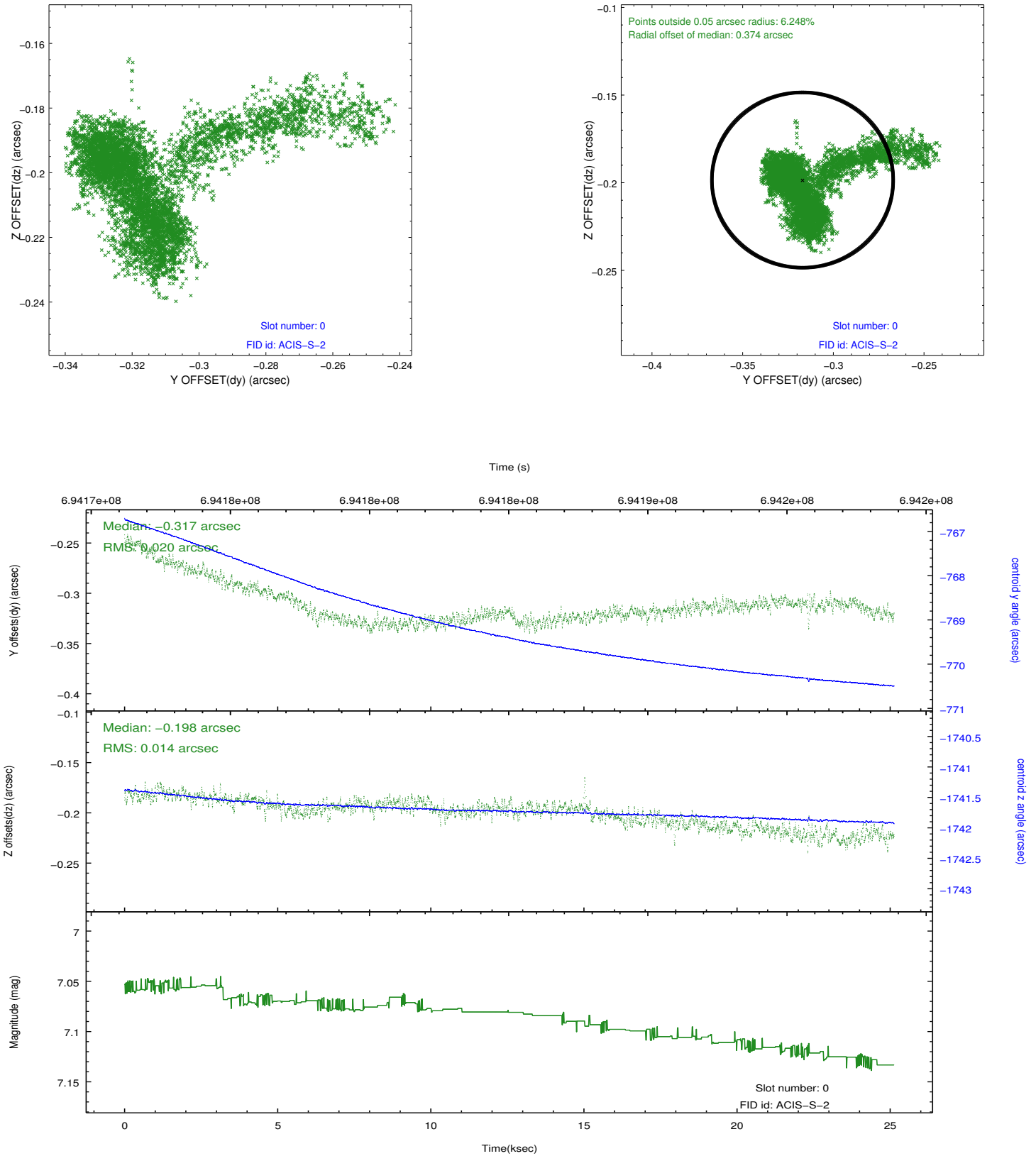


2.4.5 Slot 7

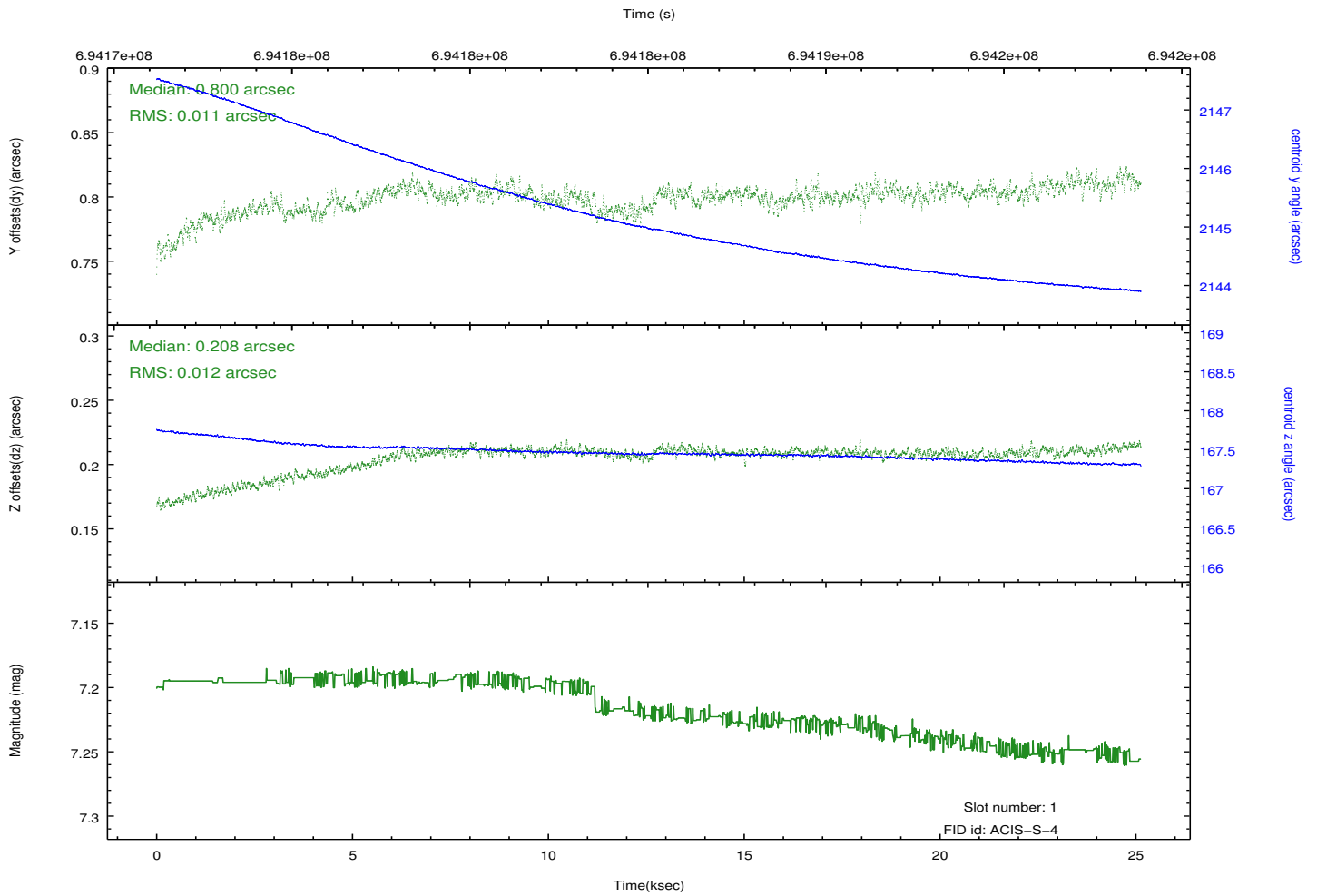
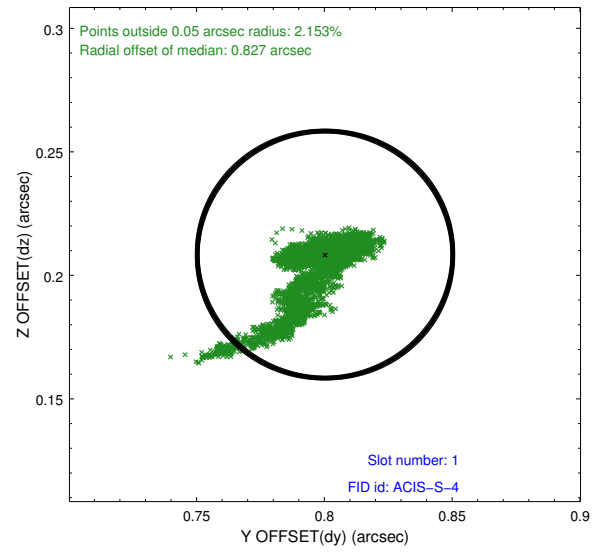
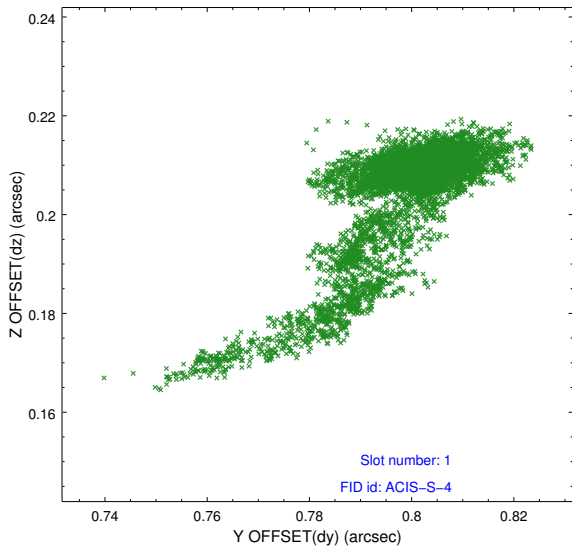


2.5 FID Slots

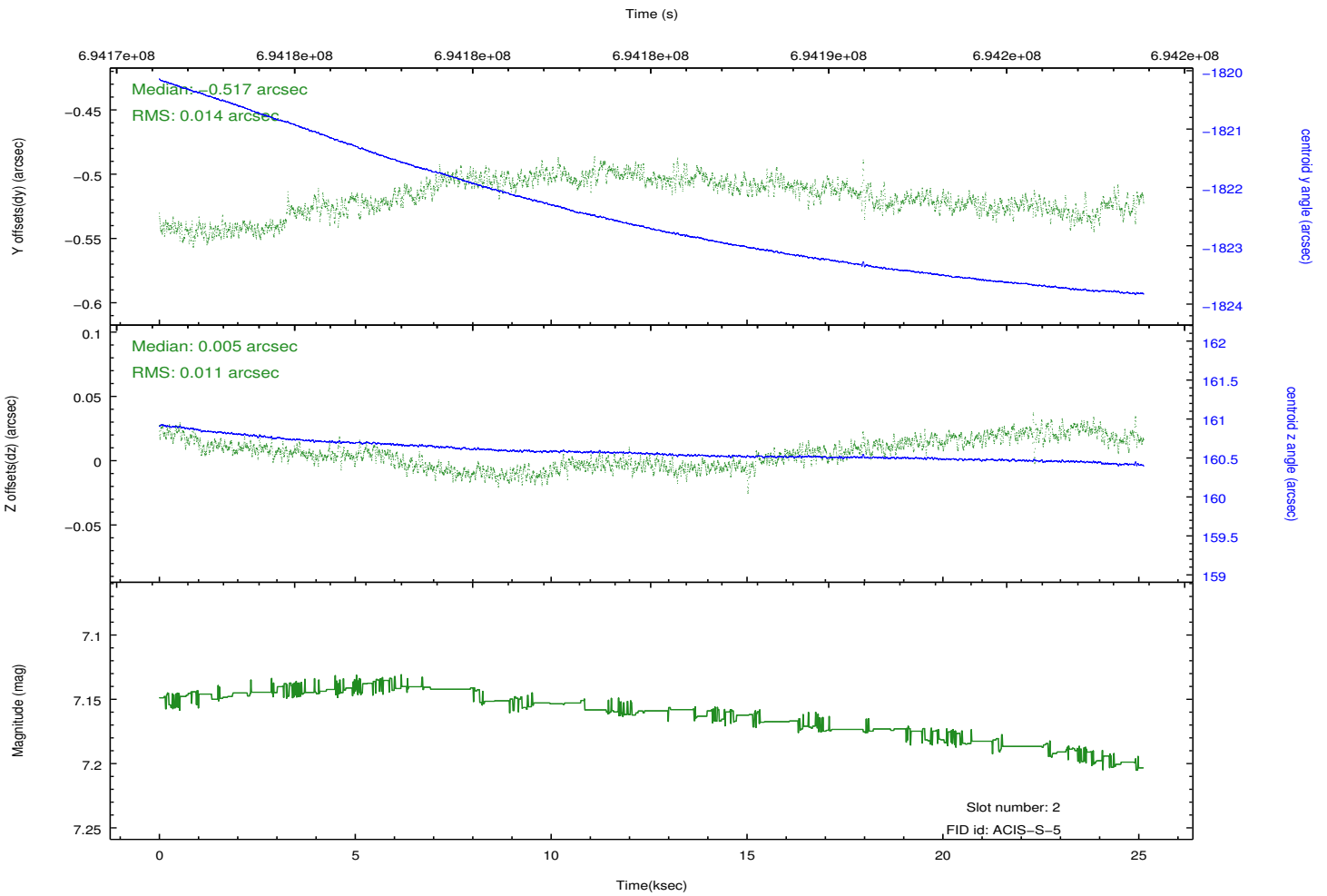
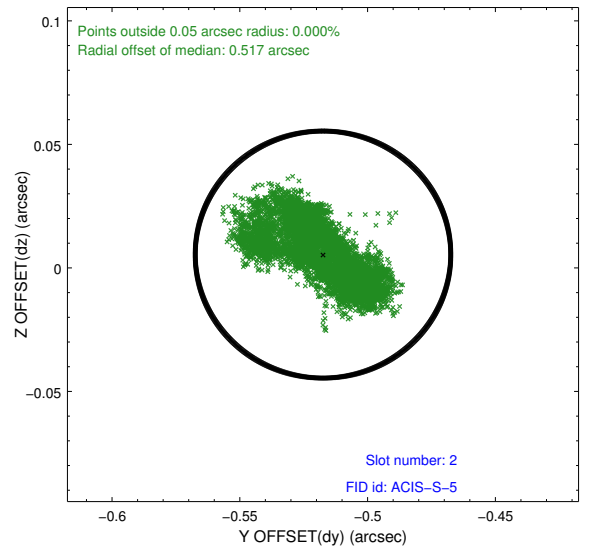
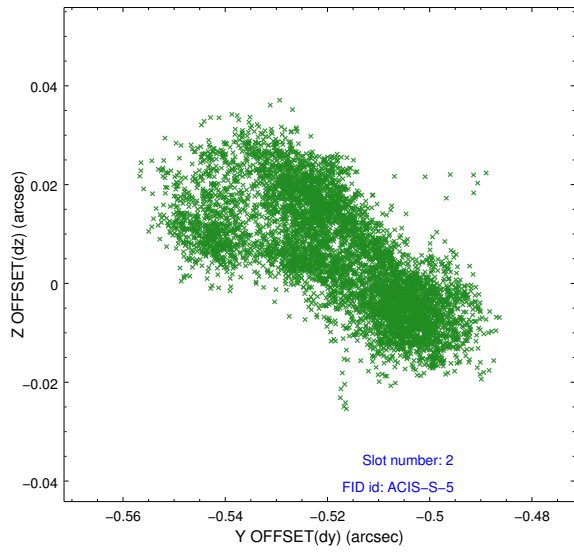
2.5.1 Slot 0



2.5.2 Slot 1

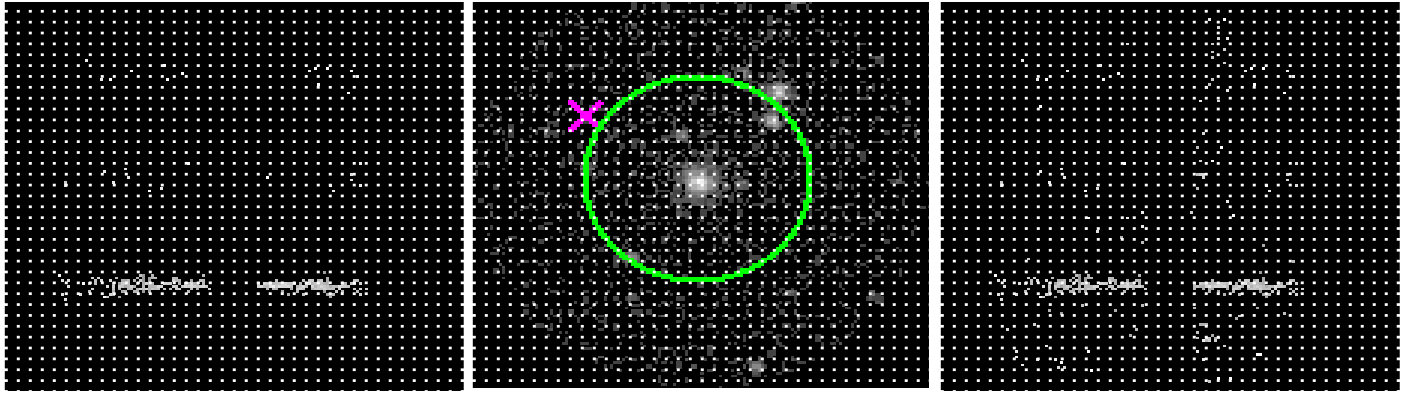


2.5.3 Slot 2



3 Gratings

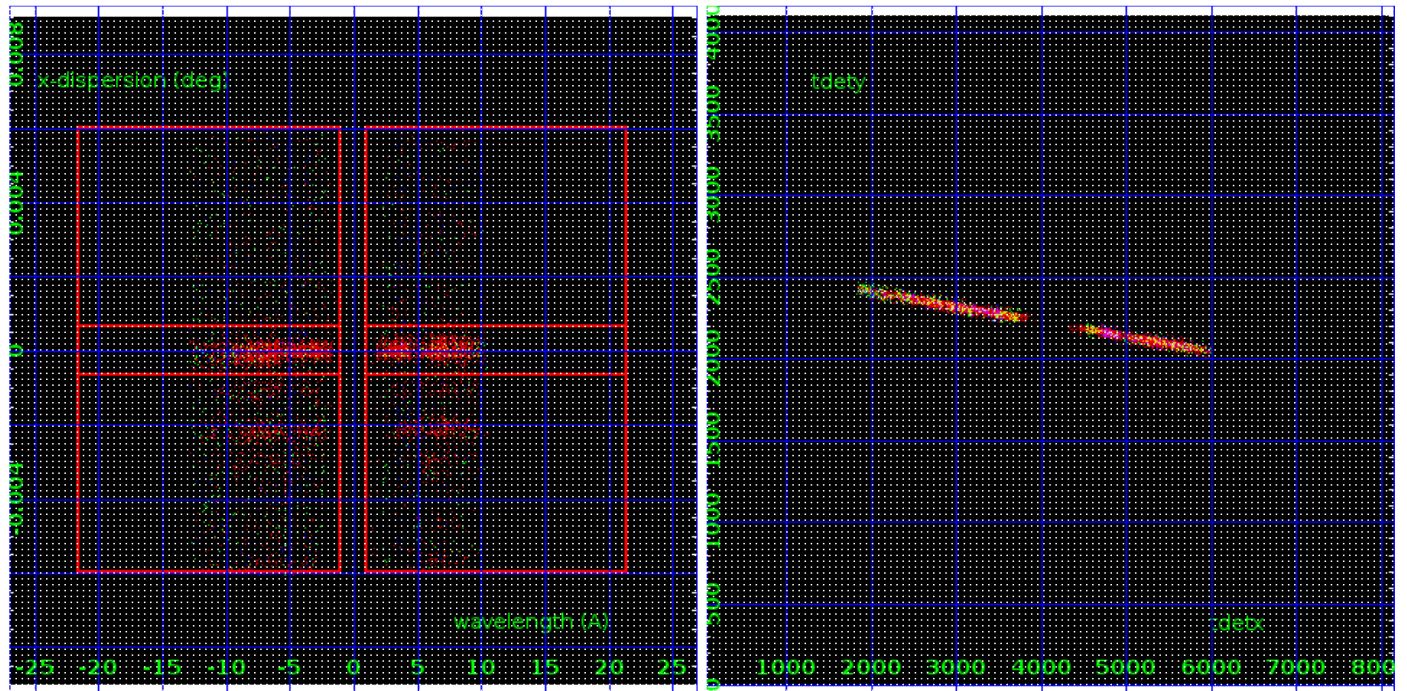
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

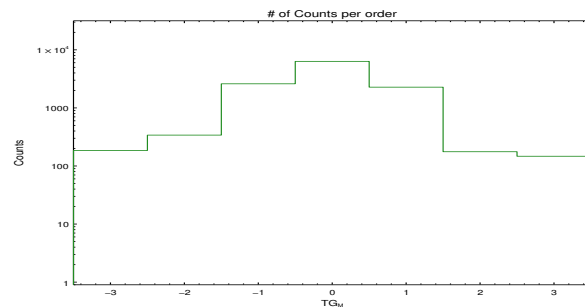
HEG Order Sort ALL

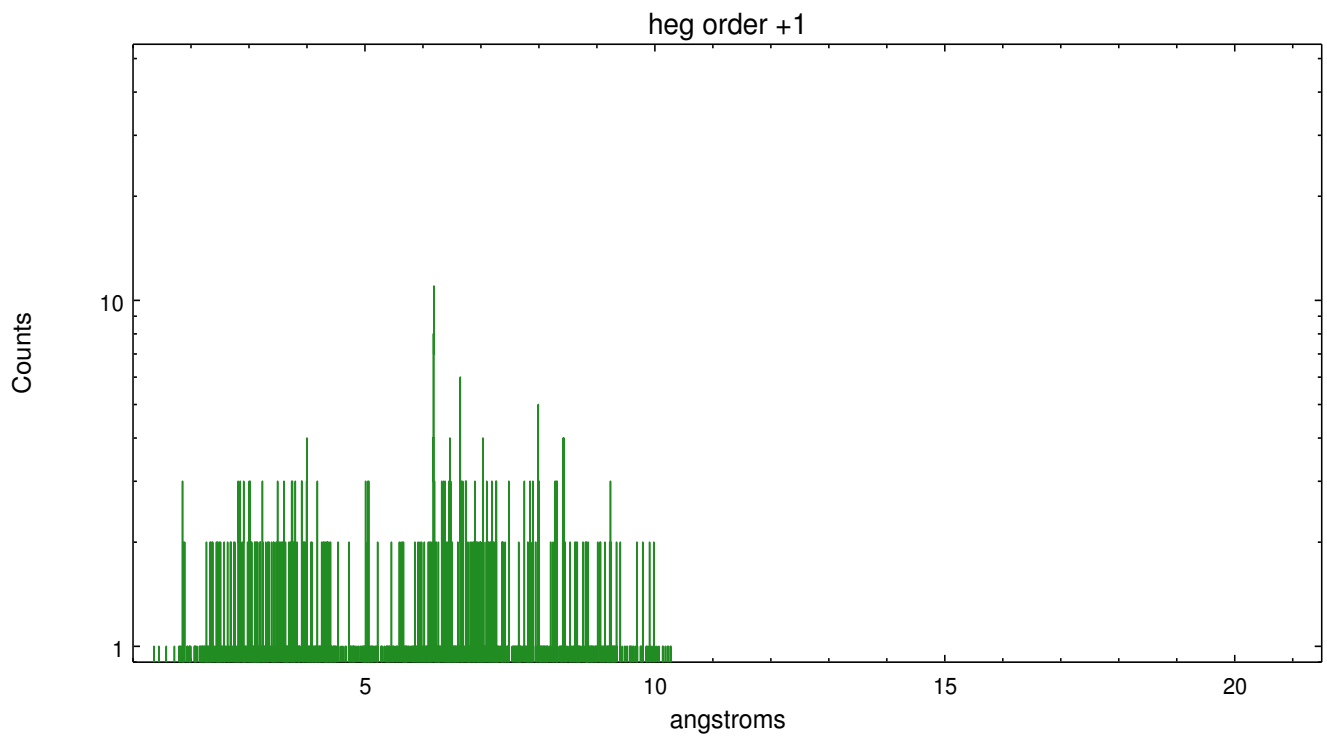
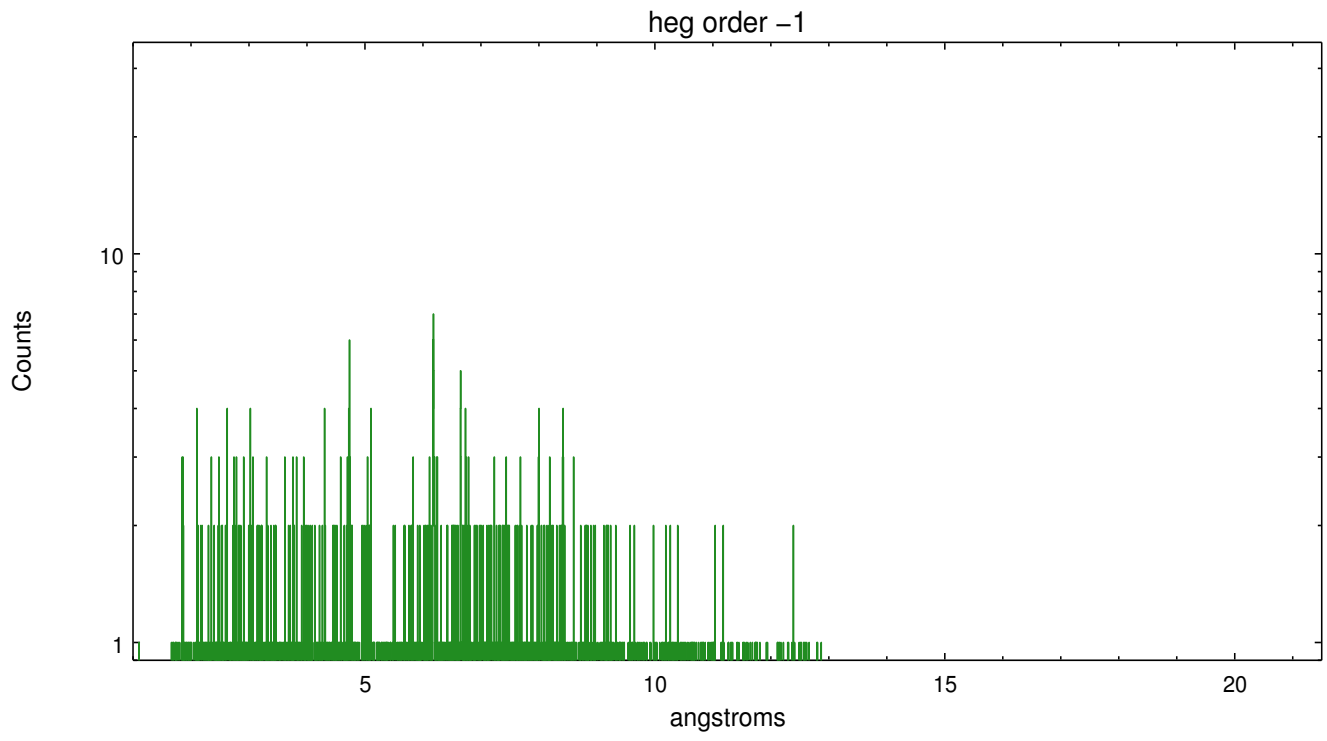


Spot Image HEG

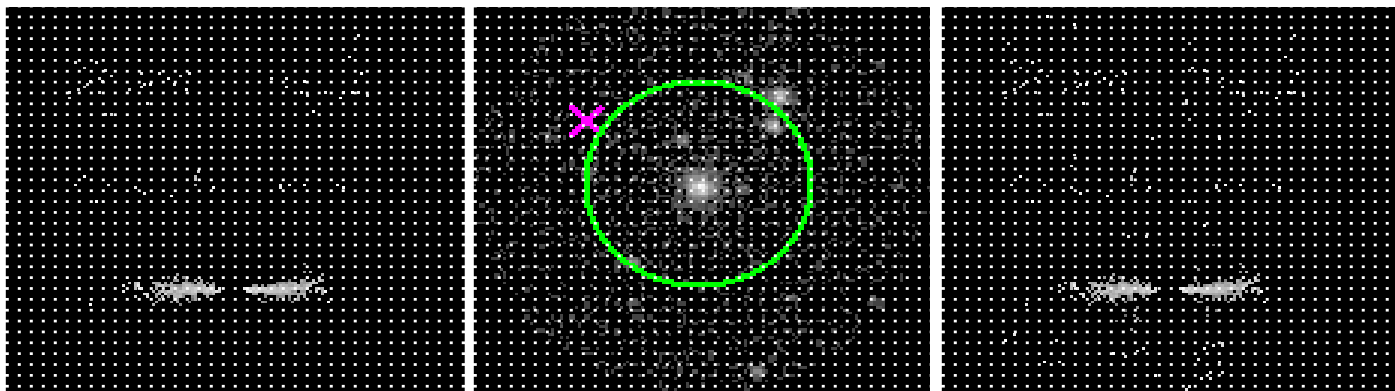
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	185	340	2601	6326	2275	176	147





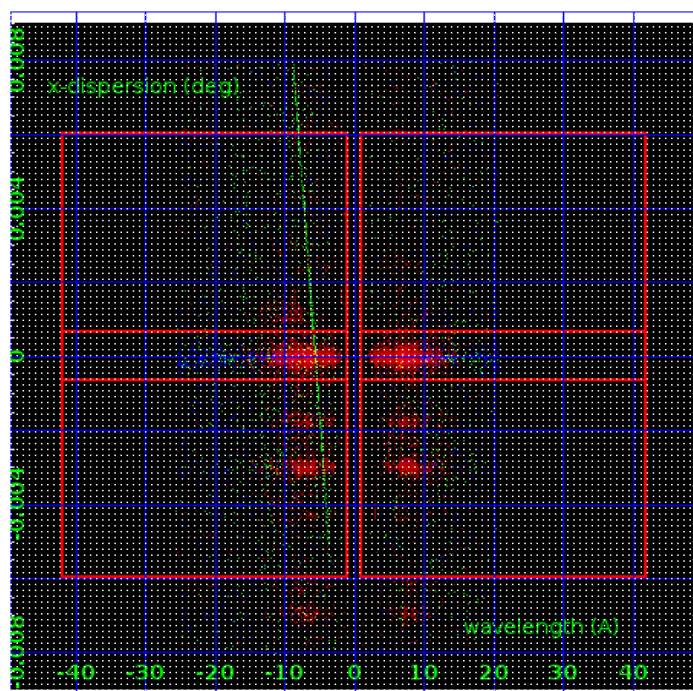
3.2 MEG Arm



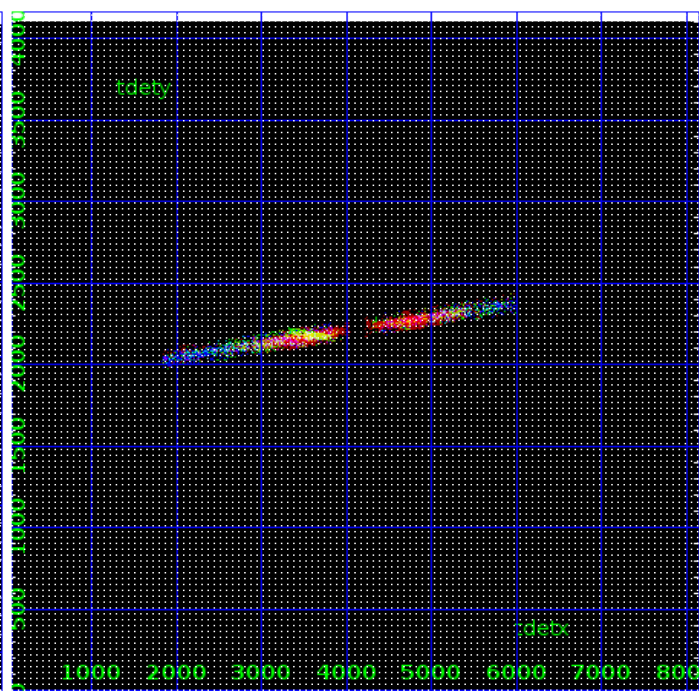
MEG Order Sort 123

MEG Zero Order

MEG Order Sort ALL

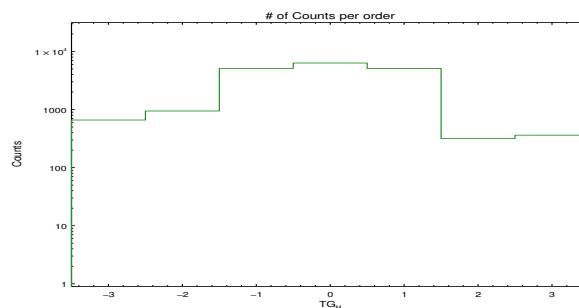


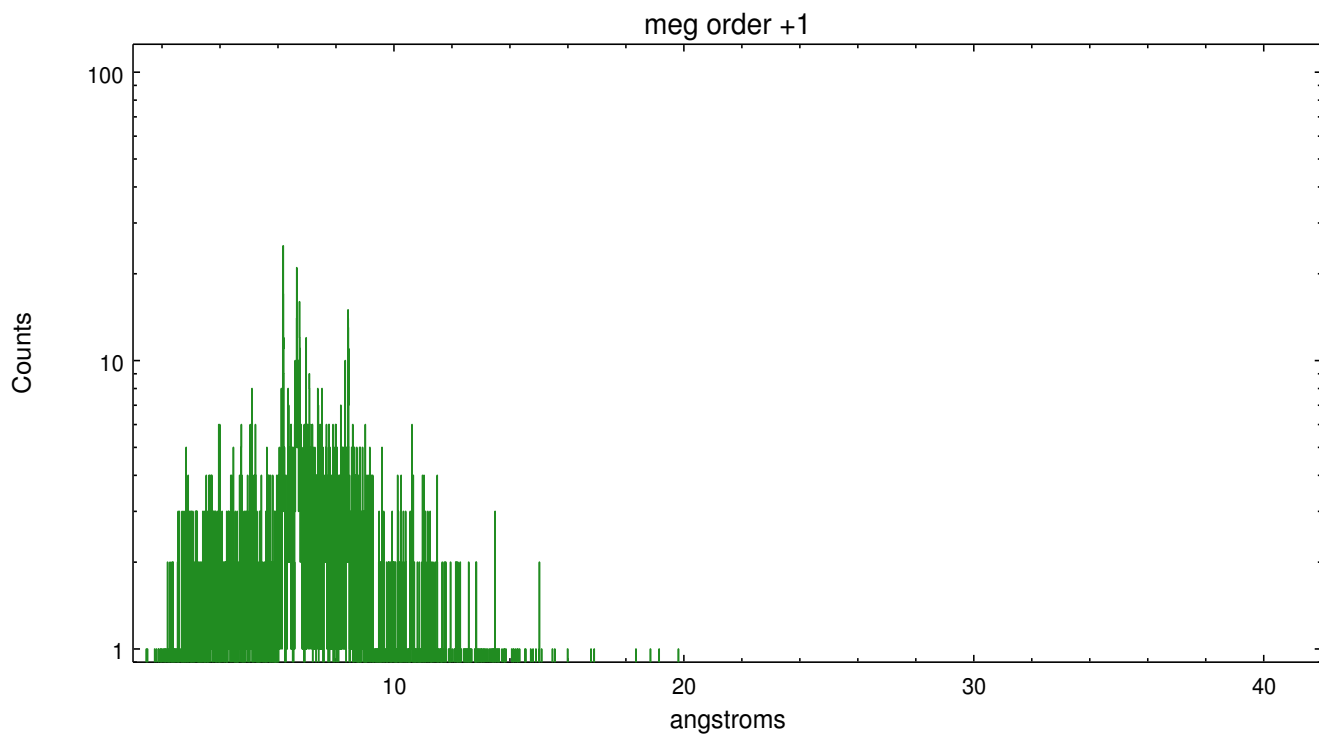
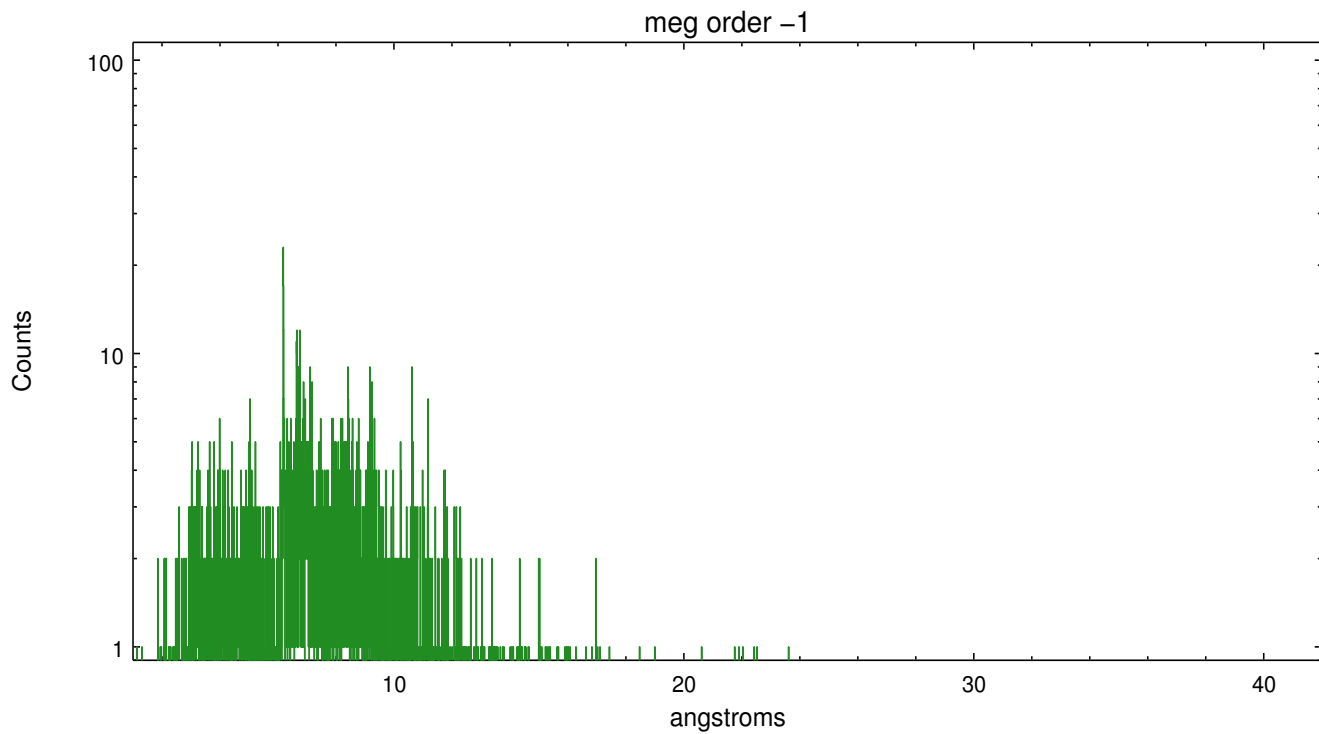
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	660	944	5112	6326	5088	316	362





A Summary

A.1 Status

V&V Scientist	Melania Nynka
V&V Date (YYYY-MM-DD)	2020.01.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.062287672877

A.2 Comments