

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 24834 - L2 Version 1
Chandra X-Ray Center

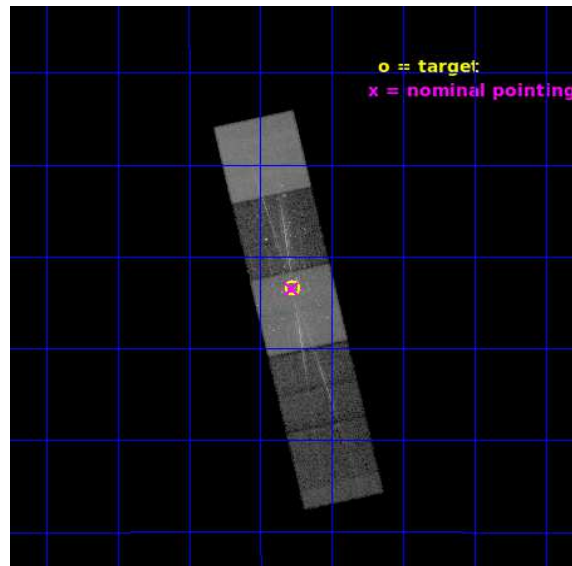
L2 Processing Date : Oct 16 2020

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1 Front

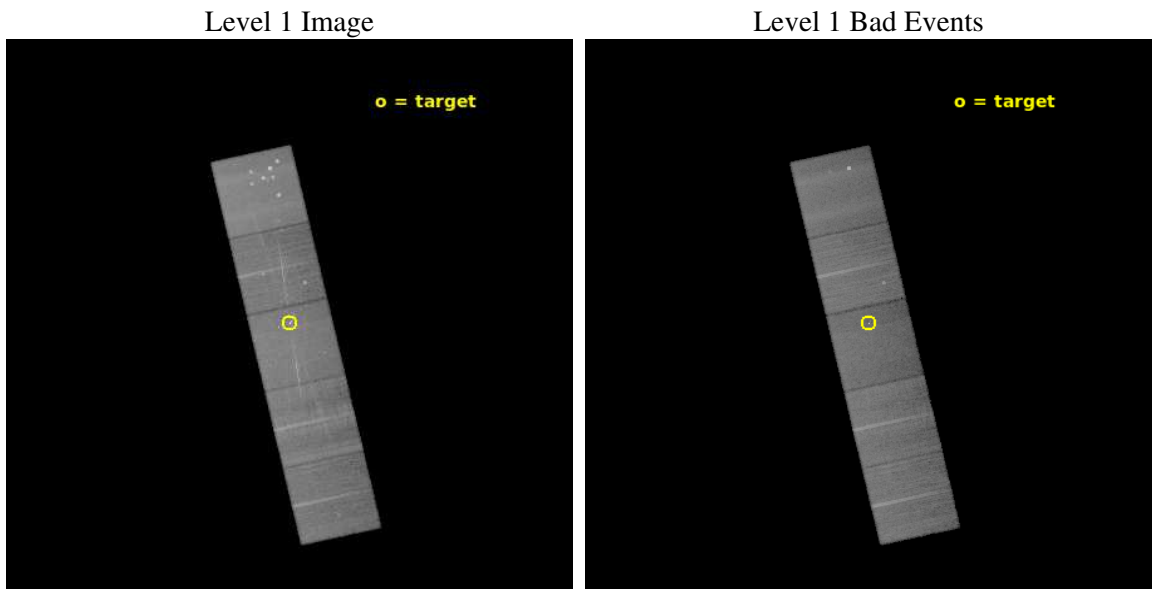
seq_num	201298	Sequence number
obs_id	24834	Observation id
title	THE TRUE NATURE OF X-RAYS FROM THE ORION TRAPEZIUM	Proposal title
observer	Norbert Schulz	Principal investigator
object	Orion Nebula Cluster	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.81875	Observer's specified target RA [deg]
dec_targ	-5.38975	Observer's specified target Dec [deg]
ra_nom	83.820034255364	Nominal RA [deg]
dec_nom	-5.3916993464722	Nominal Dec [deg]
roll_nom	77.153987825092	Nominal Roll [deg]
revision	1	Processing version of data
ontime	27269.948371649	Sum of GTIs [s]
livetime	26913.646420329	Livetime [s]
ontime5	27269.907331705	Sum of GTIs [s]
ontime6	27269.866291642	Sum of GTIs [s]
ontime7	27269.948371649	Sum of GTIs [s]
ontime8	27266.684191465	Sum of GTIs [s]
ontime9	27269.784211636	Sum of GTIs [s]
l2events	413595	Number of level 2 events



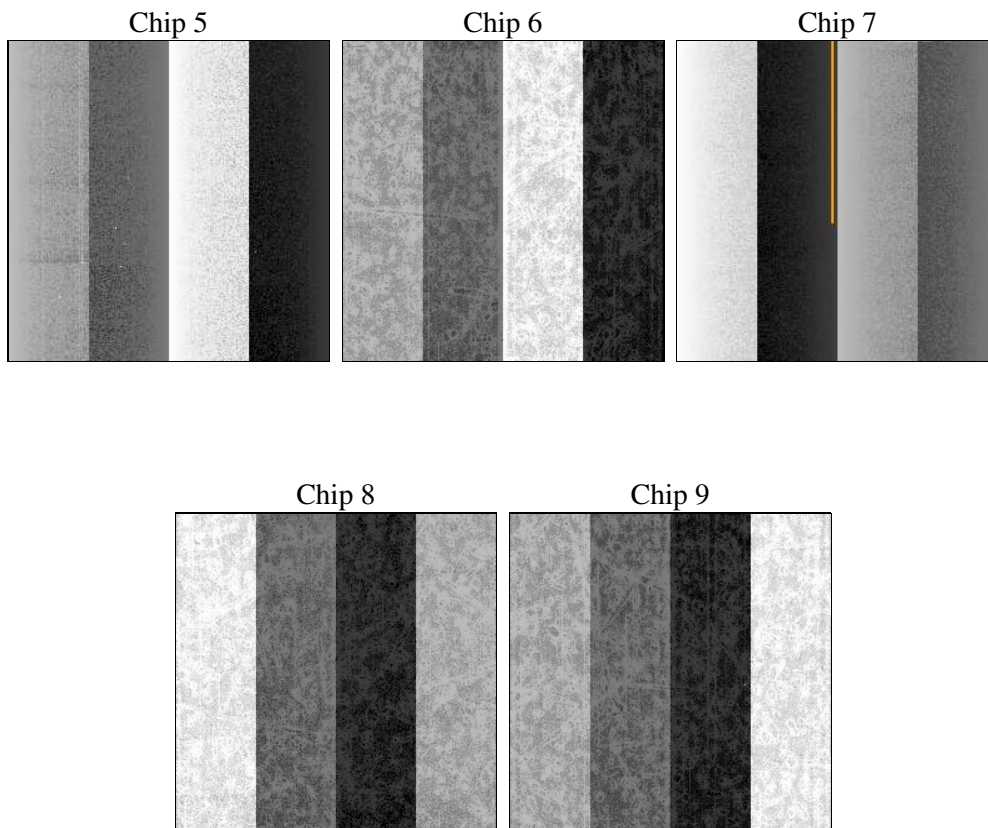
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	27218.931000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	27269.948371649	Sum of GTIs [s]
caldbver	4.9.3	 	ontime5	27269.907331705	Sum of GTIs [s]
date	2020-10-16T20:13:42	Date and time of file creation	ontime6	27269.866291642	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	27269.948371649	Sum of GTIs [s]
			ontime8	27266.684191465	Sum of GTIs [s]
			ontime9	27269.784211636	Sum of GTIs [s]
			l1events	1466202	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			zo_pos	(4105.13, 4110.61)	src1a sky pixel position
					src1a sky pixel position via

2.1.4 Events

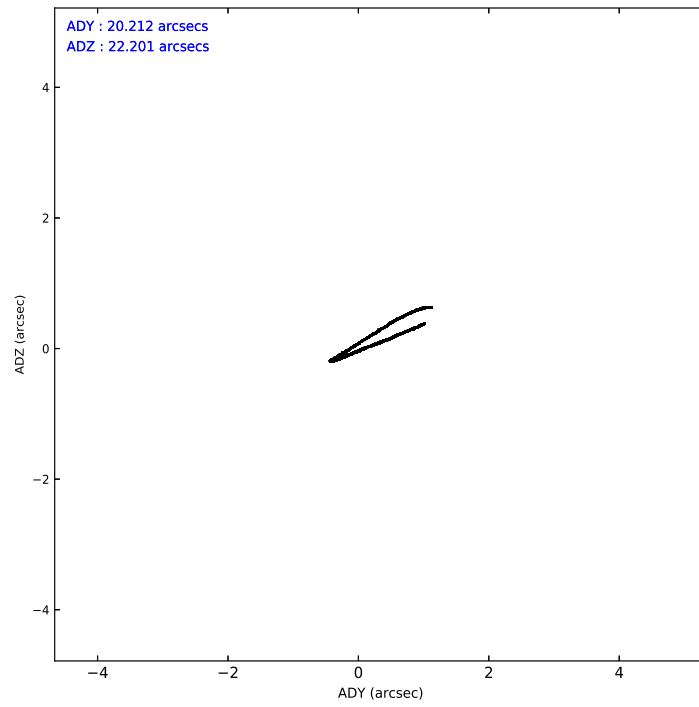
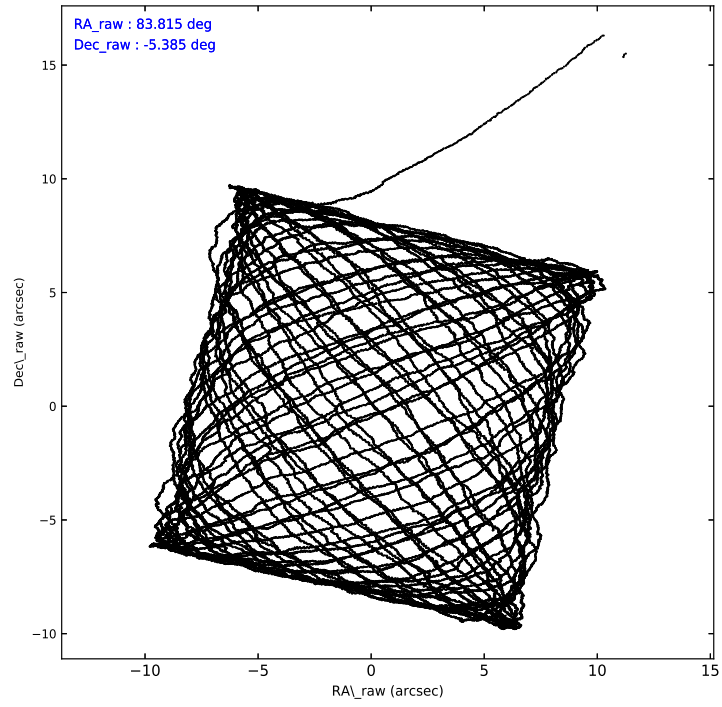
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	383913	257119	319333	283027	222810
rejected events	192957	207948	163460	205209	194286
rejected %	50%	80%	51%	72%	87%

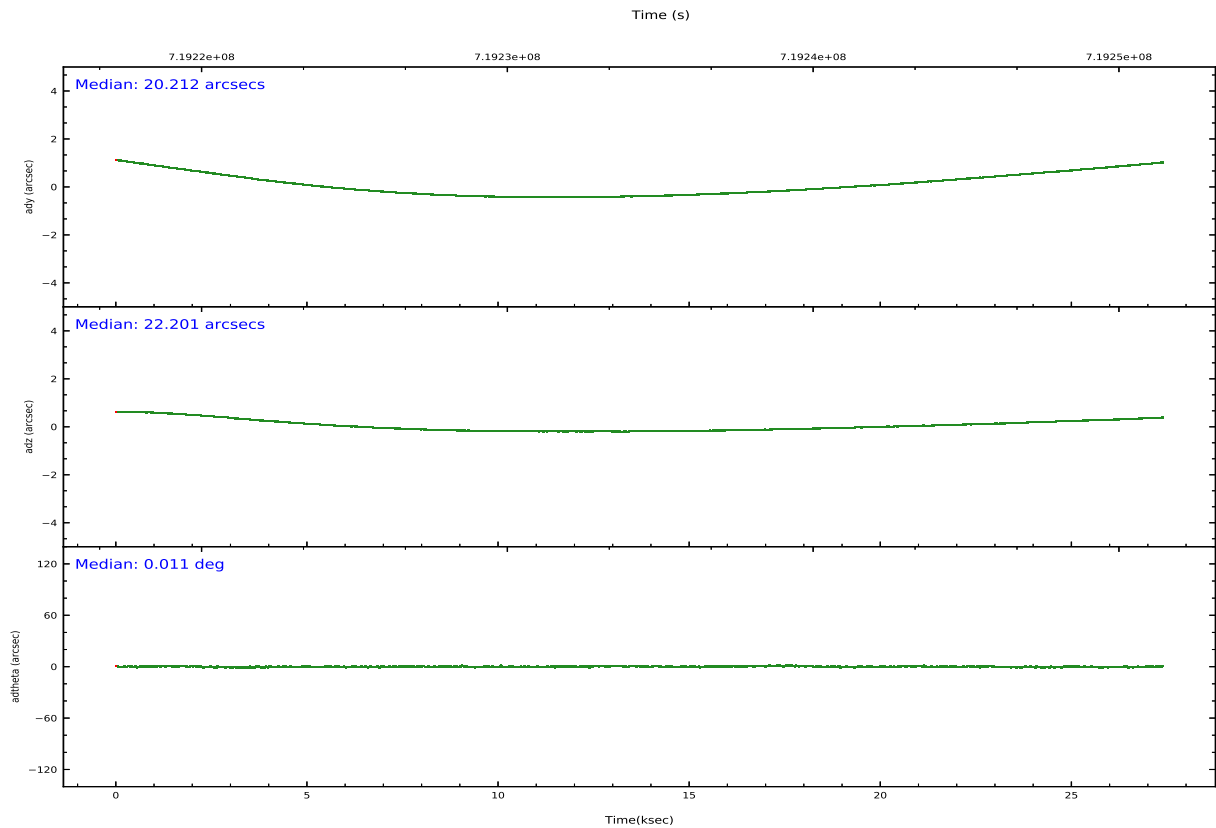
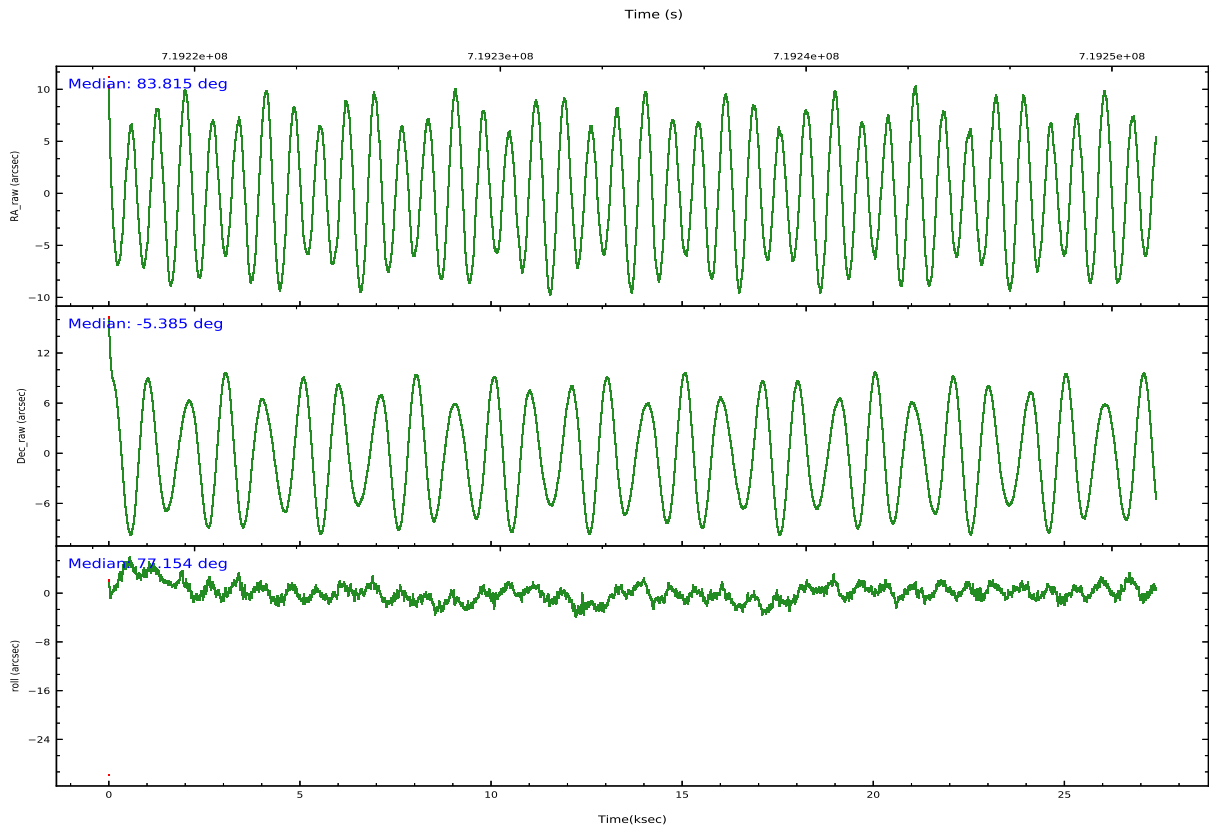
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	28386	23575	17440	25553	10046
	7%	9%	5%	9%	4%
grade 1 events	1007	735	571	231	113
	0%	0%	0%	0%	0%
grade 2 events	56239	12276	34205	18535	7198
	14%	4%	10%	6%	3%
grade 3 events	5293	2584	12894	6998	2384
	1%	1%	4%	2%	1%
grade 4 events	5091	2532	12514	6768	2306
	1%	0%	3%	2%	1%
grade 5 events	22166	8712	26926	14160	10170
	5%	3%	8%	5%	4%
grade 6 events	95979	8210	78838	19975	6591
	25%	3%	24%	7%	2%
grade 7 events	169752	198495	135945	190807	184002
	44%	77%	42%	67%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-56789	ACIS-56789	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	83.823462	83.82003425536401	CCD I2 on	N	N
[deg] Pointing Dec	-5.410546	-5.3916993464722	CCD I3 on	N	N
[deg] Pointing Roll	77.000444	77.153987825092	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)	719221938.184000	719221013.04847	CCD S5 on	O2	Y
Observation start date	2020-10-16T07:51:09	2020-10-16T07:36:53	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	719249157.184000	719249808.37523	On-chip summing requested	N	N
Observation end date	2020-10-16T15:24:48	2020-10-16T15:36:48	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





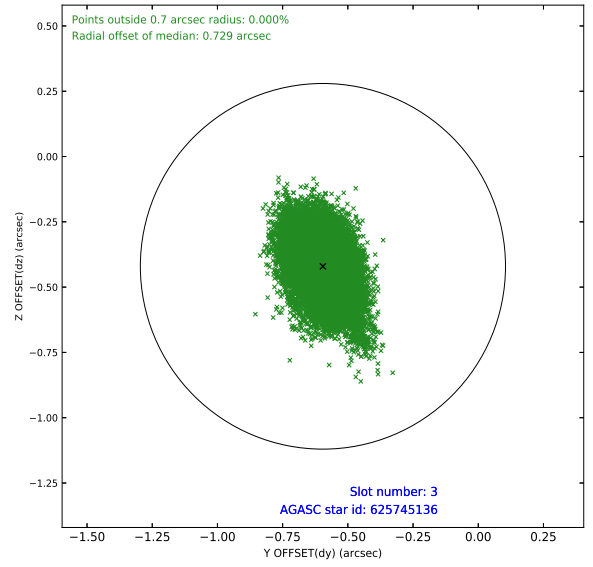
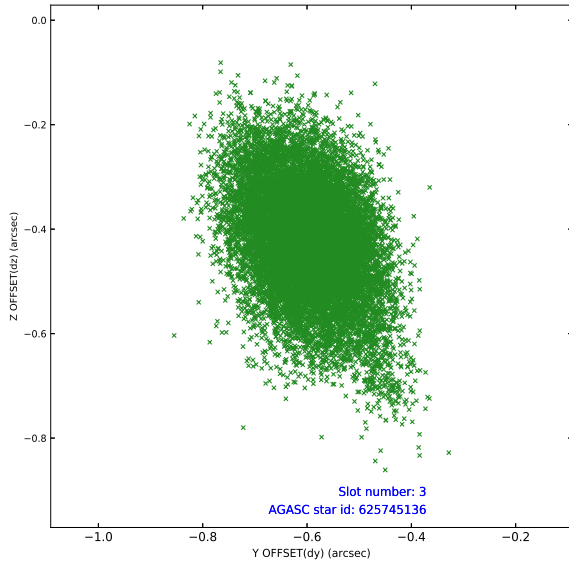
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.17	6683	1.000	0.287	-0.168	0.015	0.033	0.000000	0.000000	-773.60	-1743
1	FID		ACIS-S-4	7.31	6684	1.000	0.035	-0.093	0.021	0.044	0.000000	0.000000	2139.86	163
2	FID		ACIS-S-5	7.28	6682	1.000	-0.354	0.270	0.016	0.025	0.000000	0.000000	-1826.48	159
3	GUIDE	used	625745136	7.21	13363	1.000	-0.596	-0.420	0.135	0.231	83.600341	-4.804339	1946.73	1270
4	GUIDE	used	625874672	7.72	13359	1.000	0.254	-0.040	0.170	0.297	84.403143	-4.934124	2138.79	-1639
5	GUIDE	used	626272760	6.64	13366	1.000	0.247	0.097	0.145	0.230	84.363987	-5.938389	-1416.35	-2312
6	GUIDE	used	626272880	7.66	13363	1.000	0.090	0.244	0.150	0.238	83.815609	-6.032748	-2188.27	-475
7	GUIDE	used	626272976	7.95	13359	1.000	-0.012	0.130	0.138	0.221	83.795875	-5.926912	-1833.06	-320

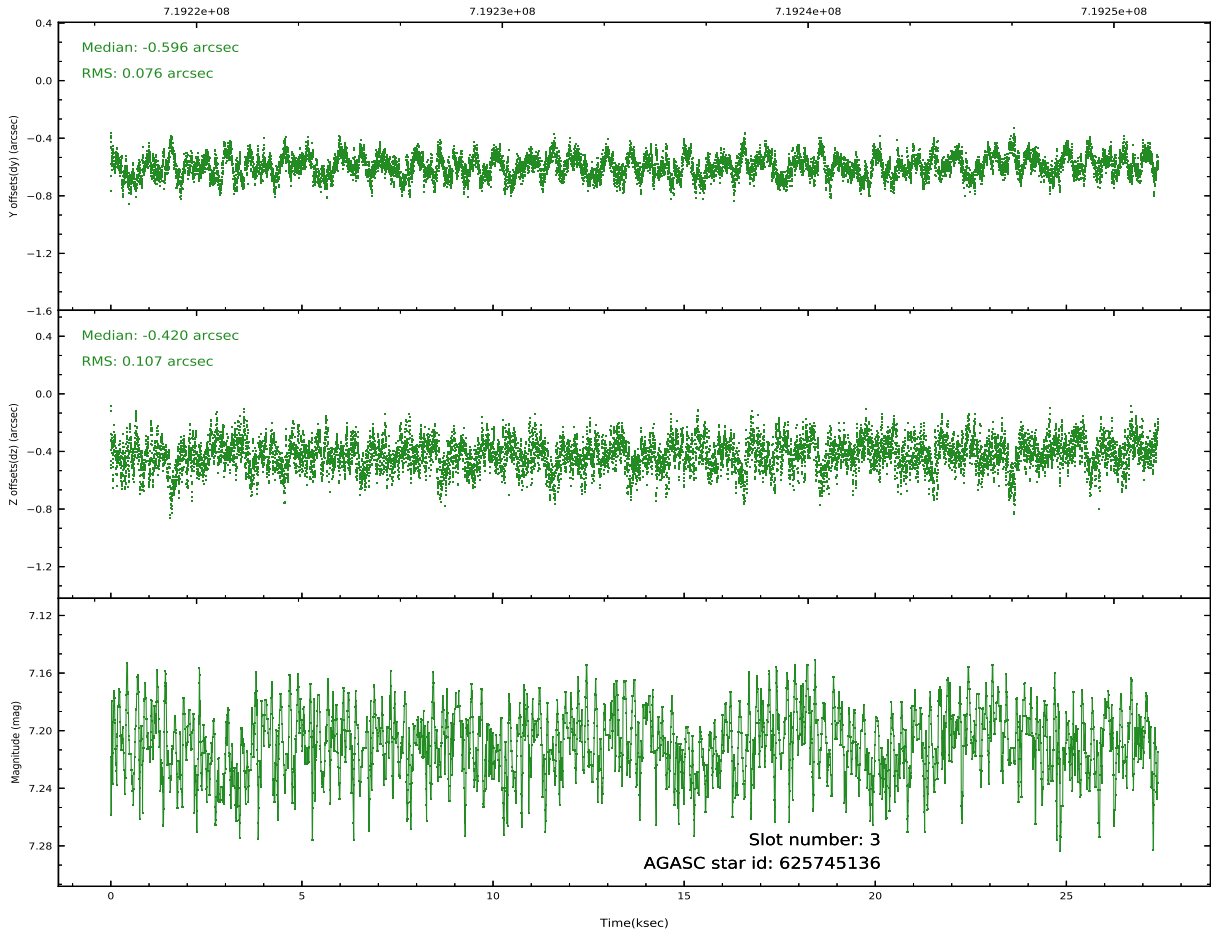
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2.4 Star Slots

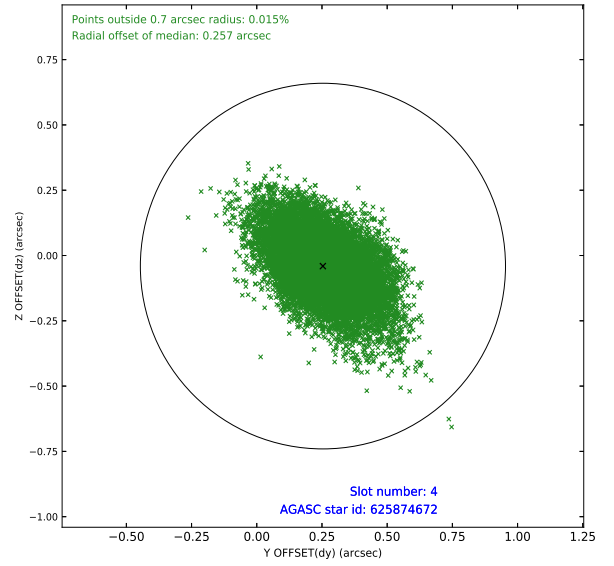
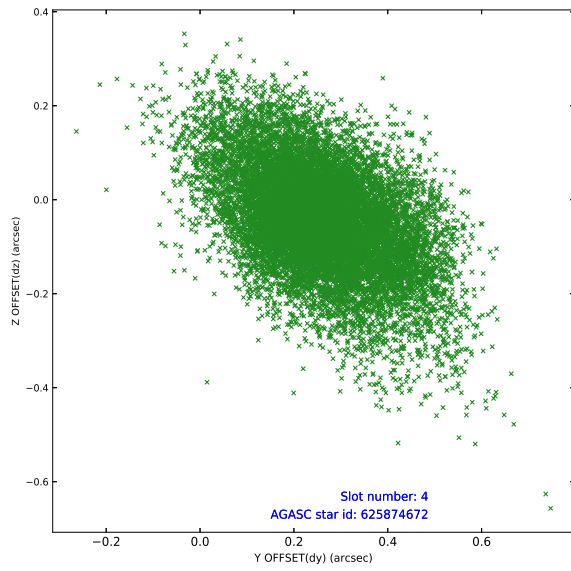
2.4.1 Slot 3



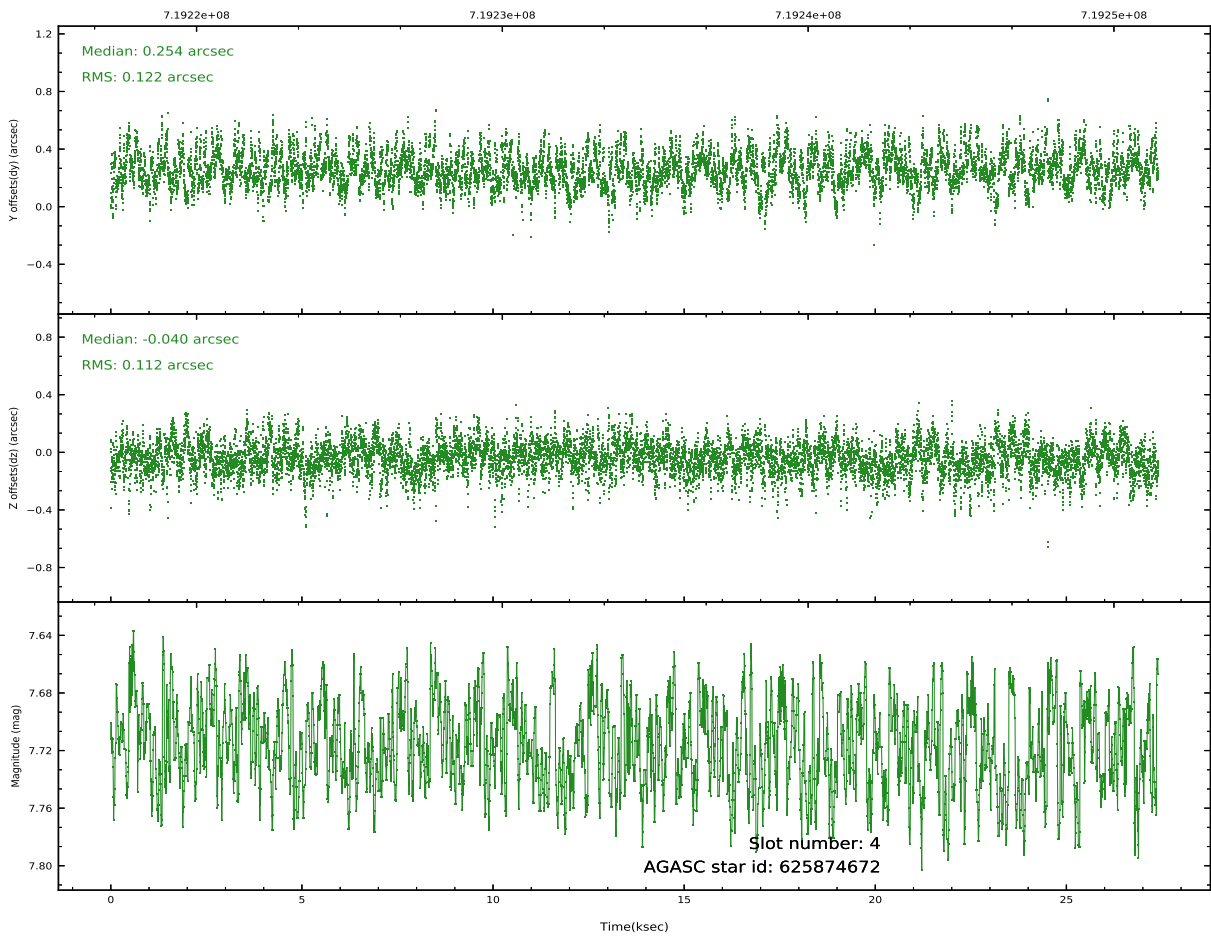
Time (s)



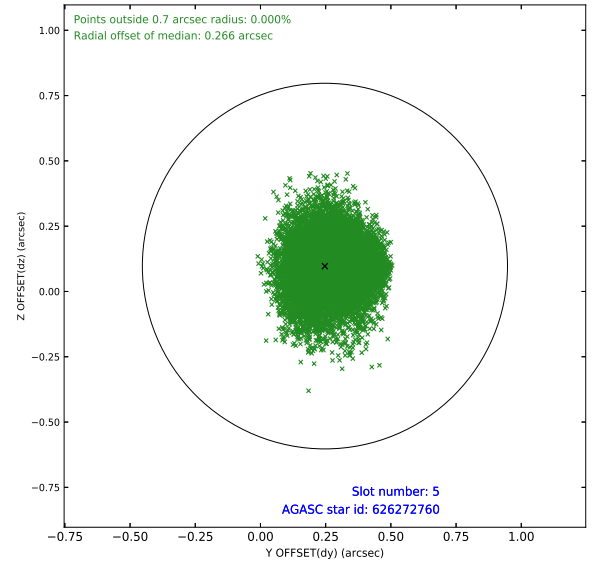
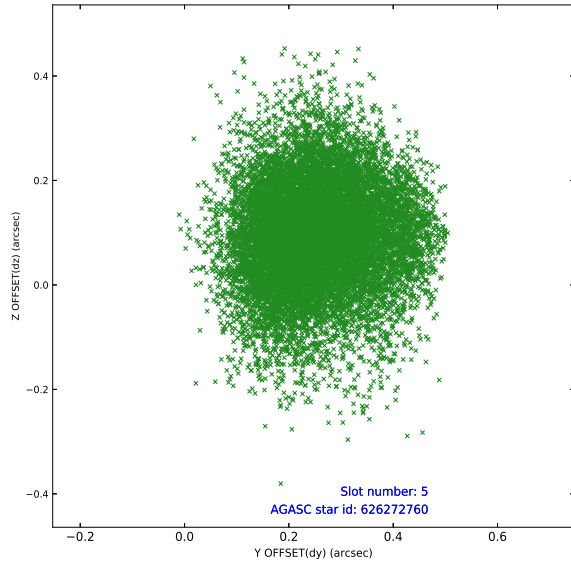
2.4.2 Slot 4



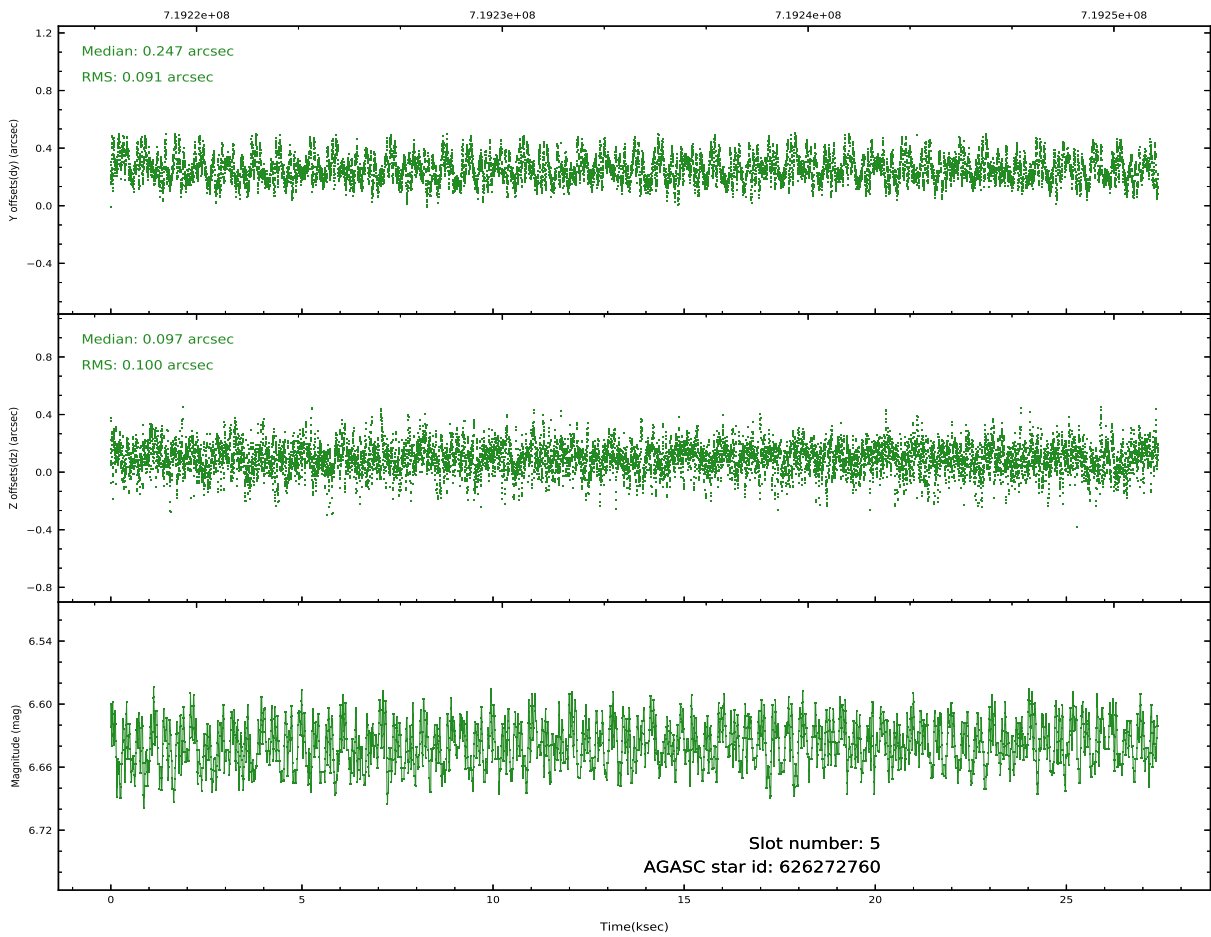
Time (s)



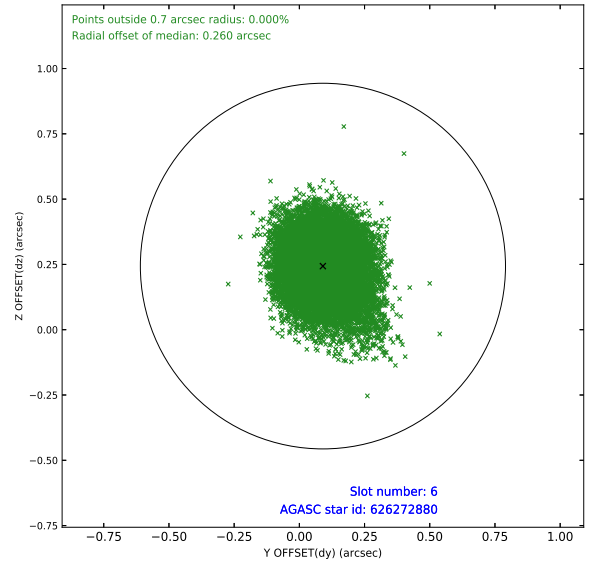
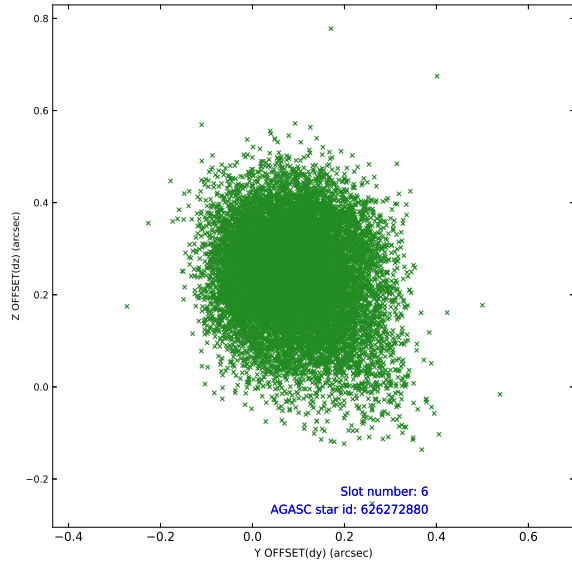
2.4.3 Slot 5



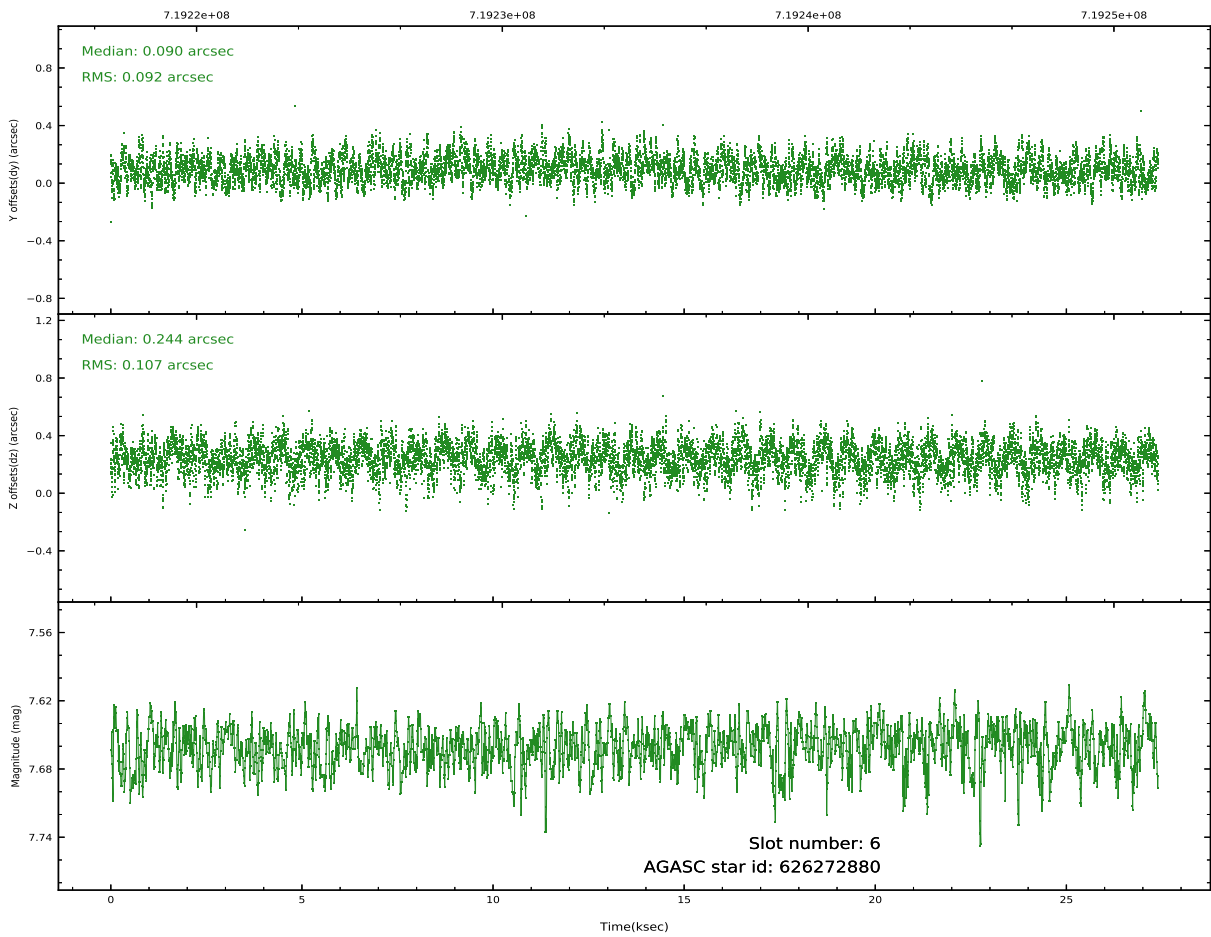
Time (s)



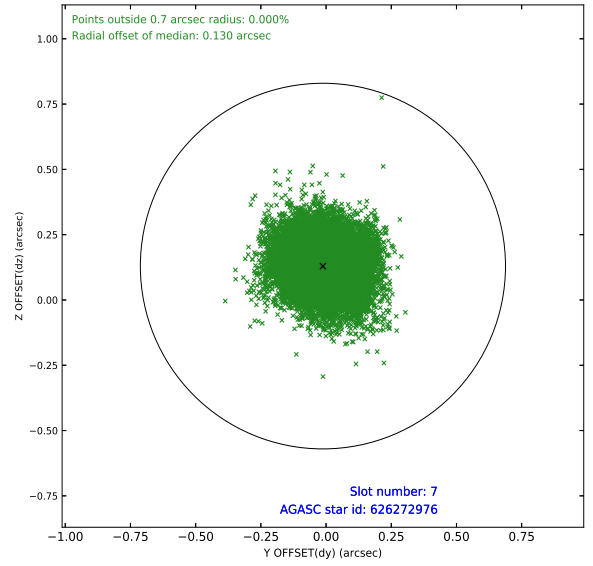
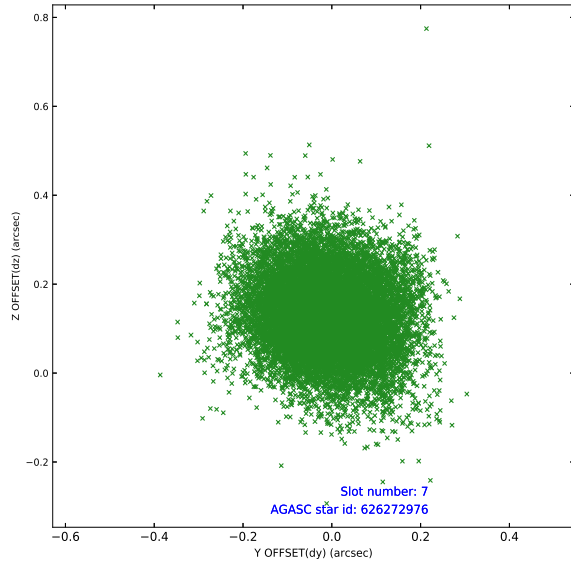
2.4.4 Slot 6



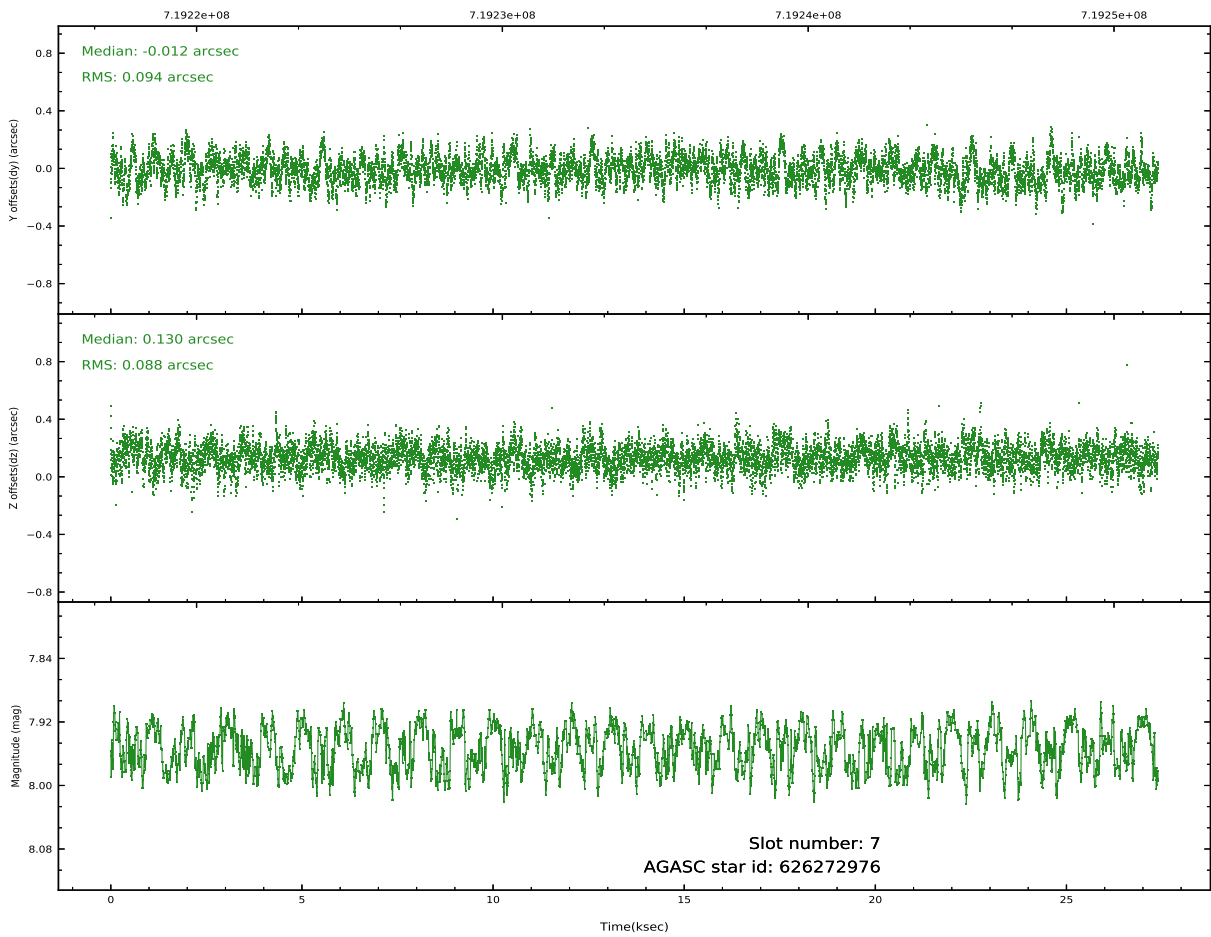
Time (s)



2.4.5 Slot 7

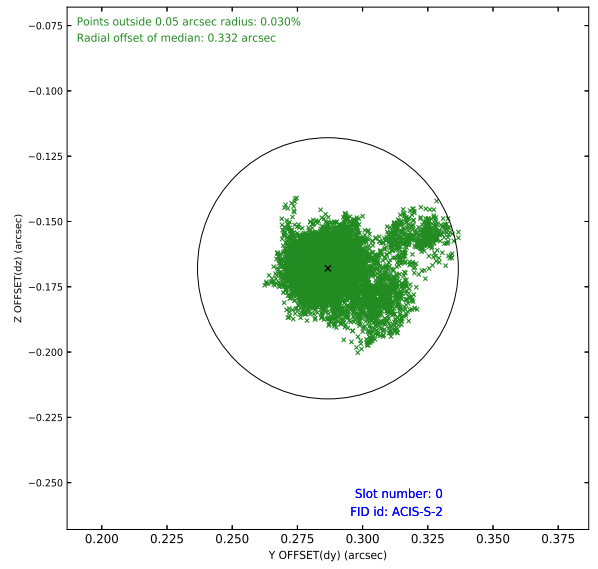
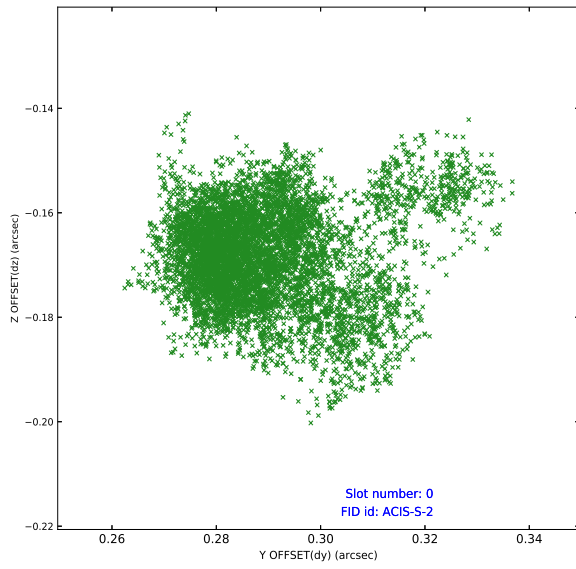


Time (s)

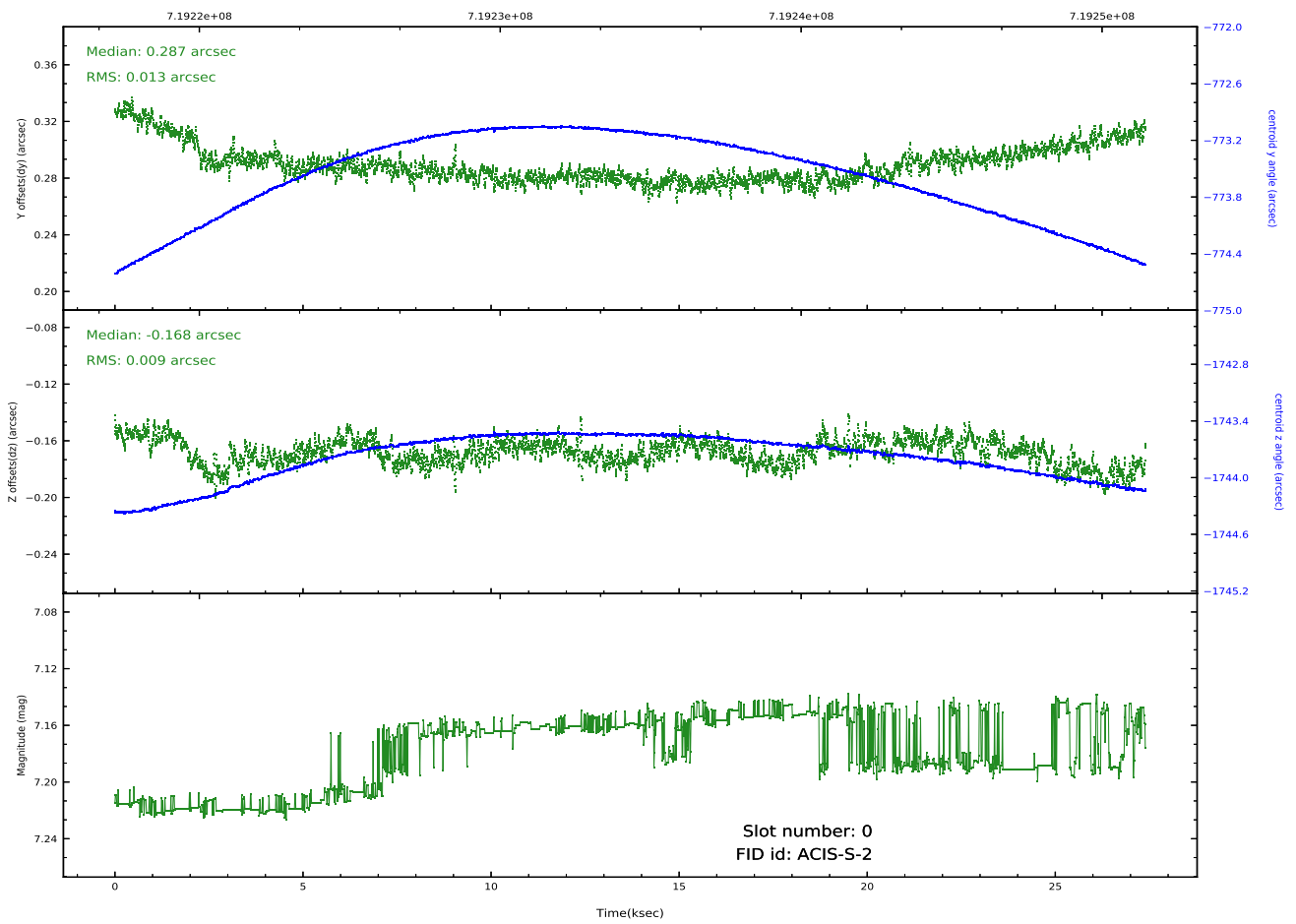


2.5 FID Slots

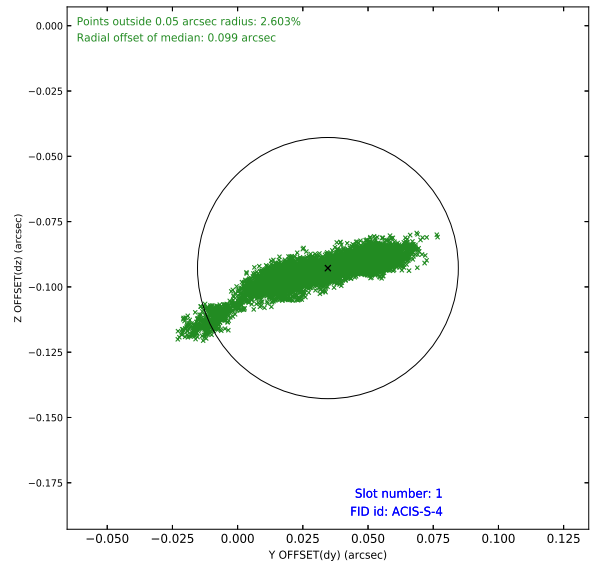
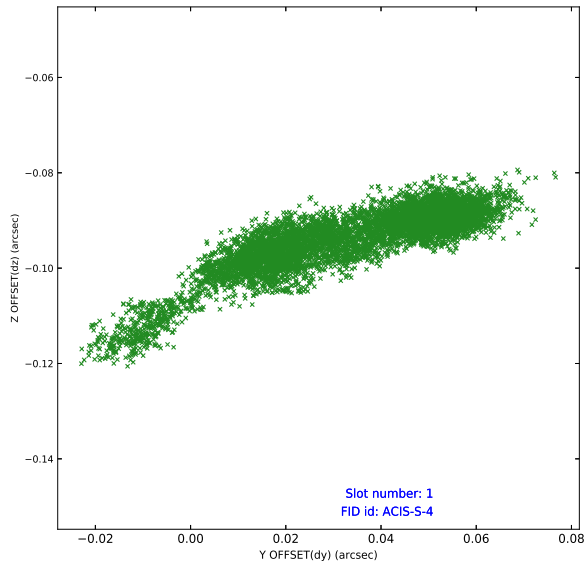
2.5.1 Slot 0



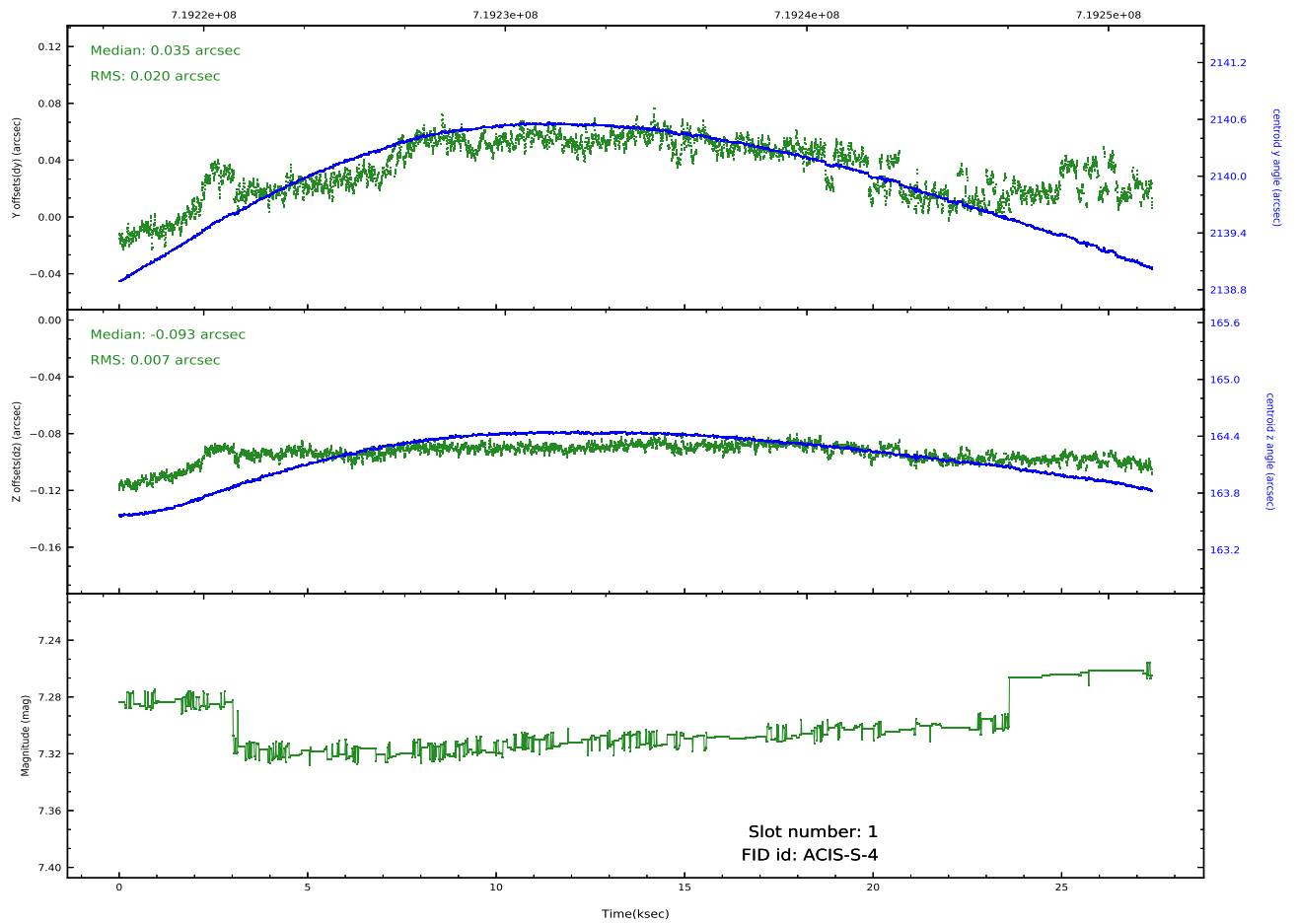
Time (s)



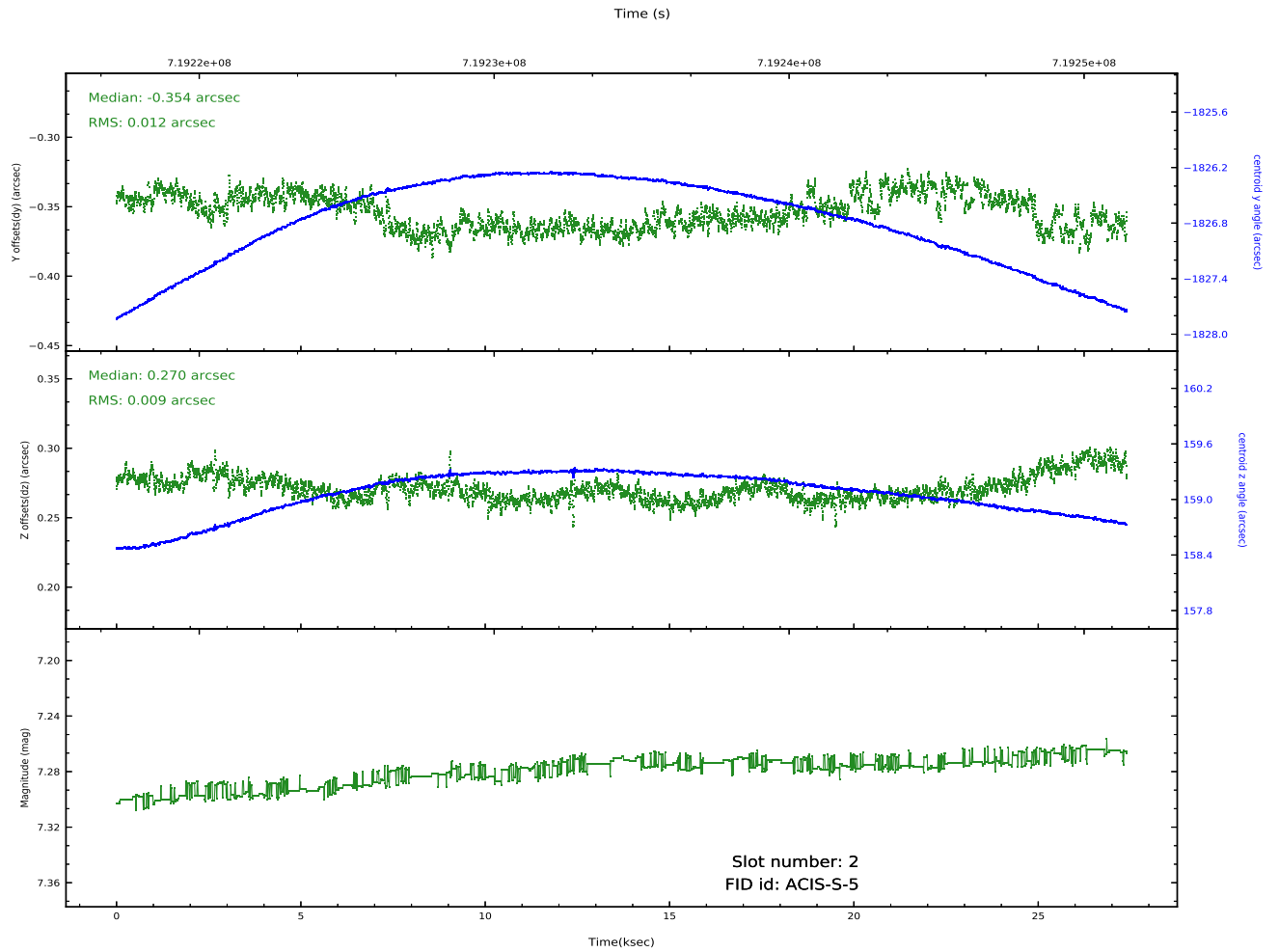
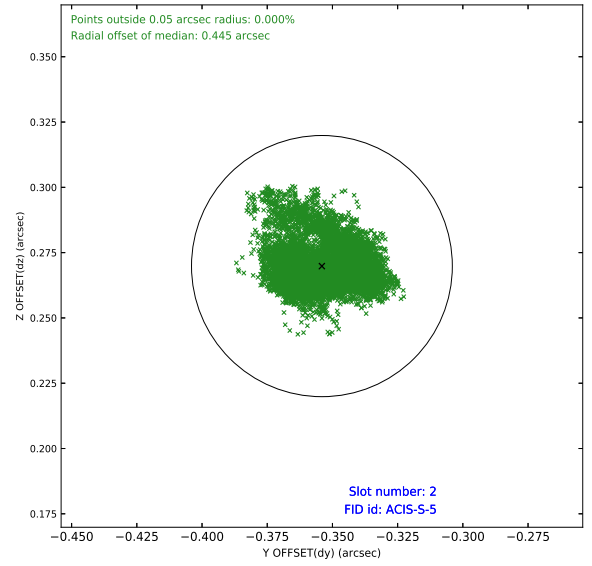
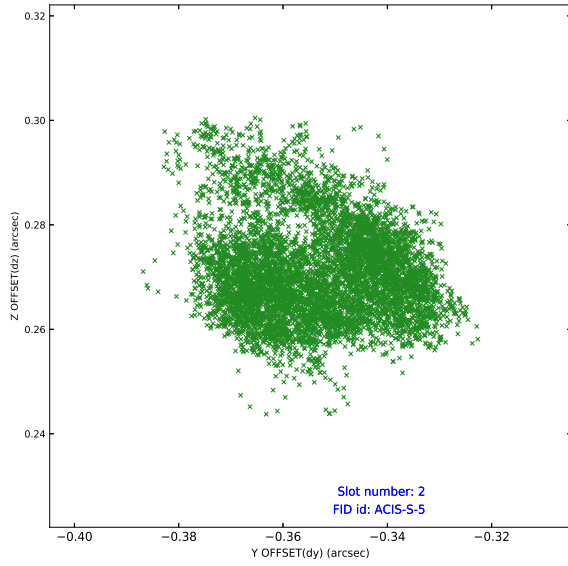
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2

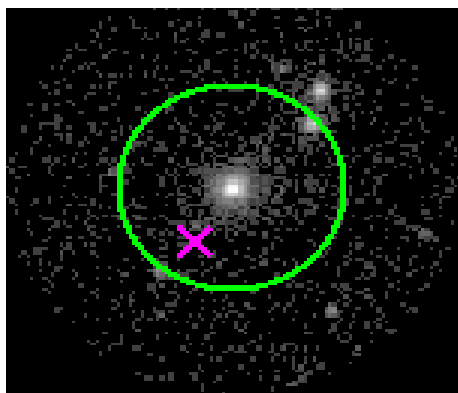


3 Gratings

3.1 HEG Arm



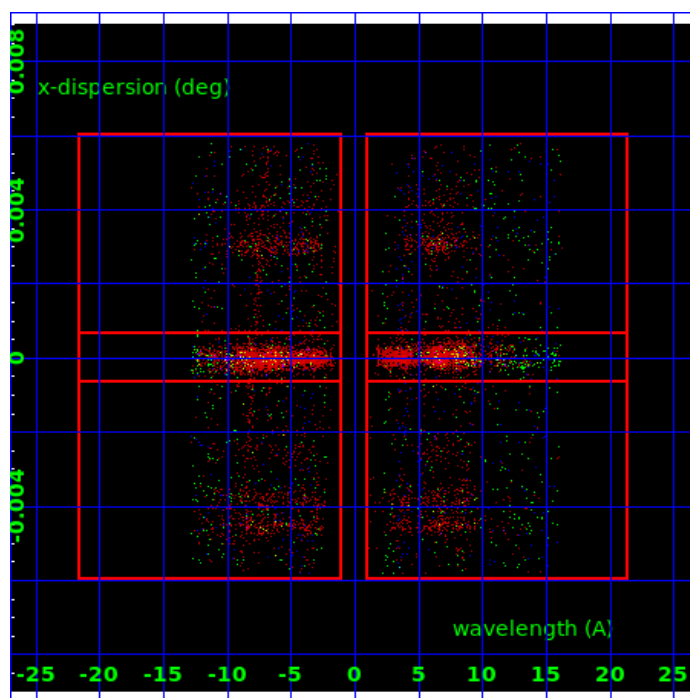
HEG Order Sort 123



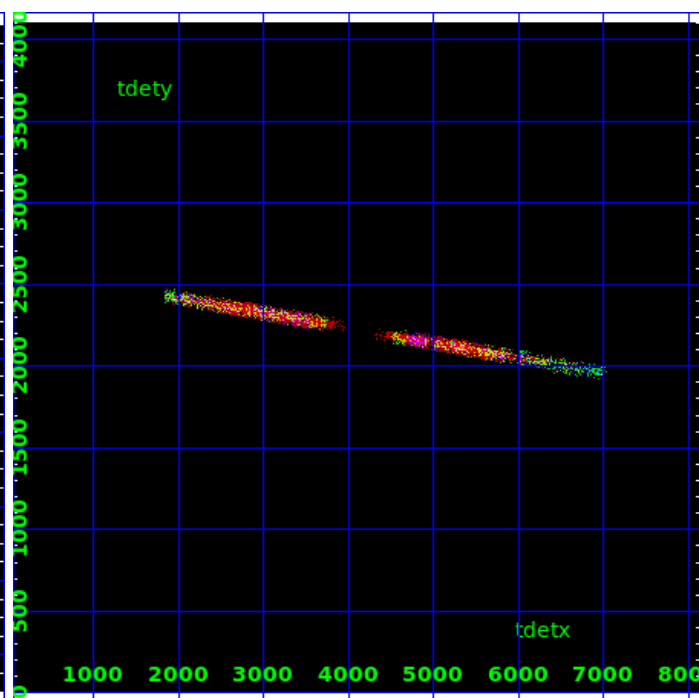
HEG Zero Order



HEG Order Sort ALL

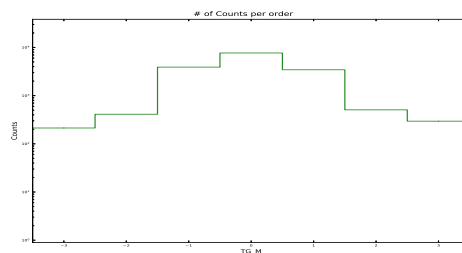


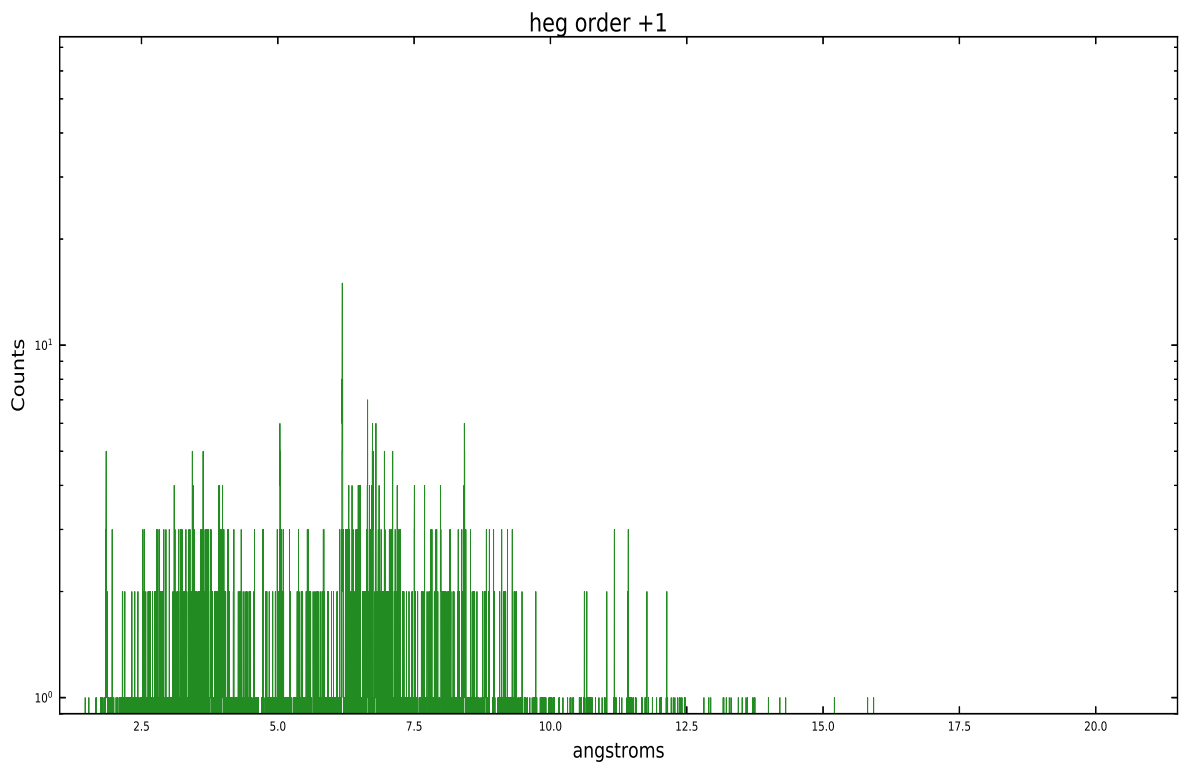
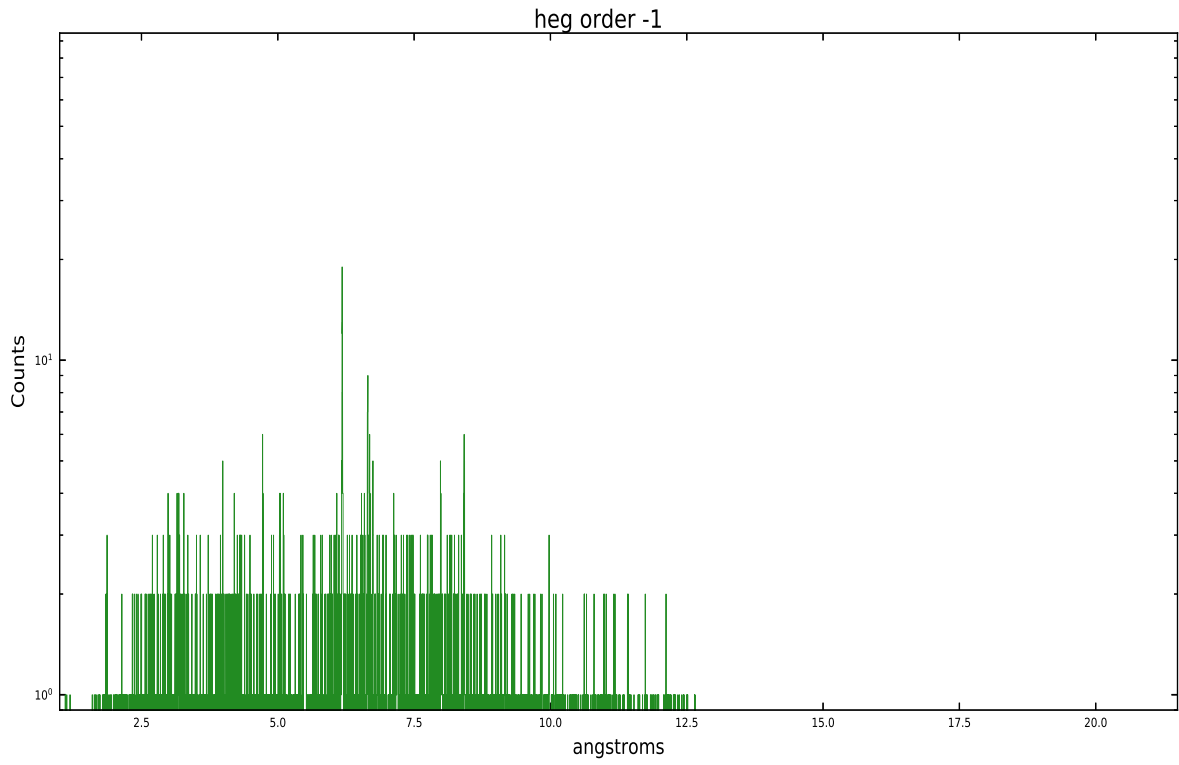
Spot Image HEG



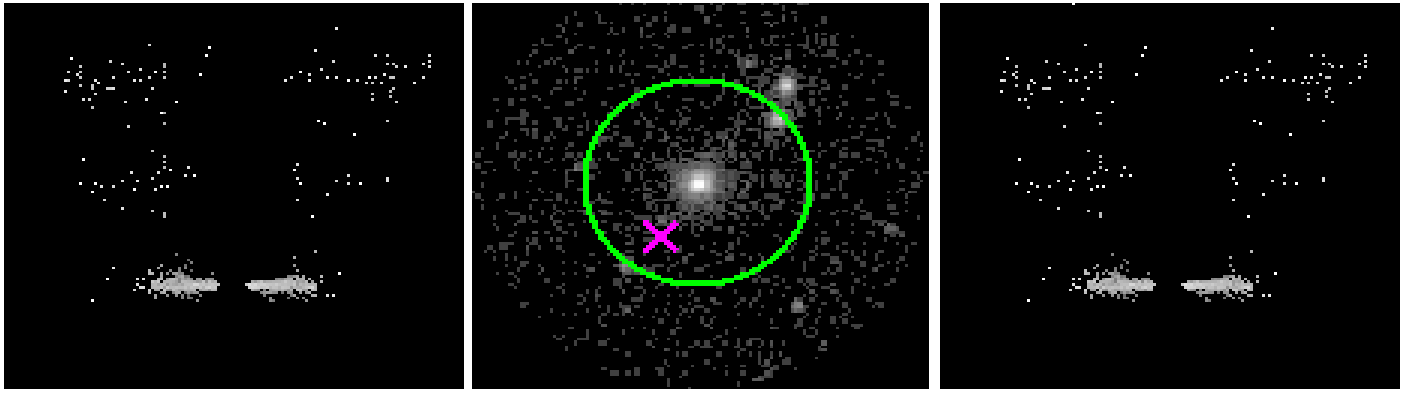
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	213	411	3904	7676	3438	507	295





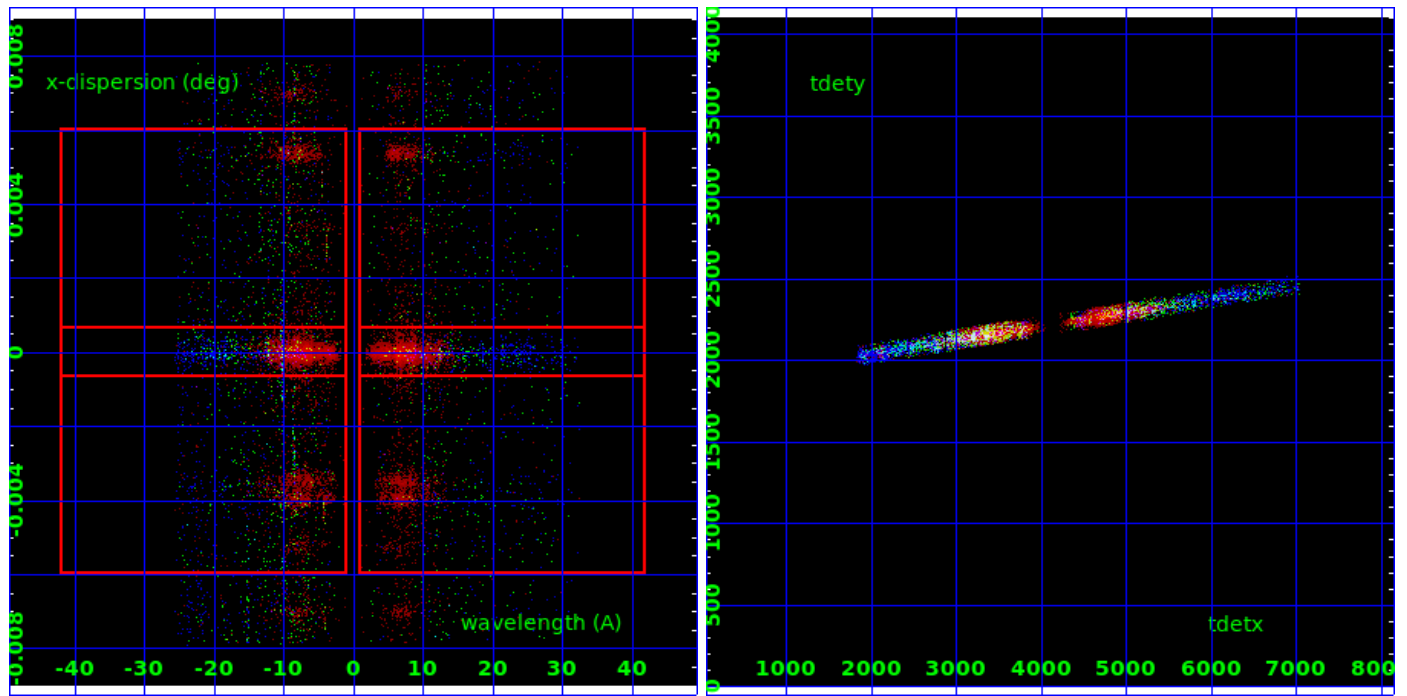
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

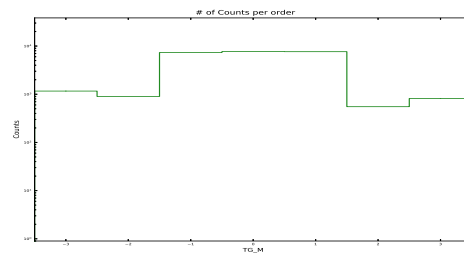
MEG Order Sort ALL

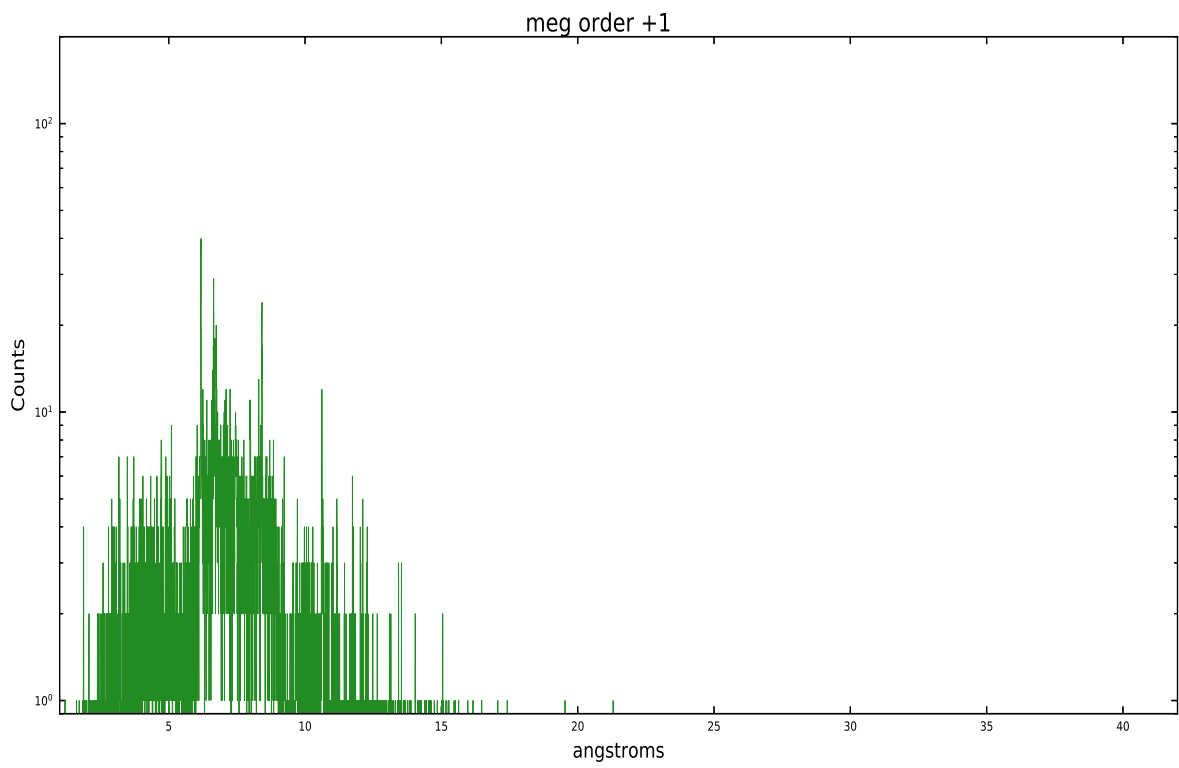
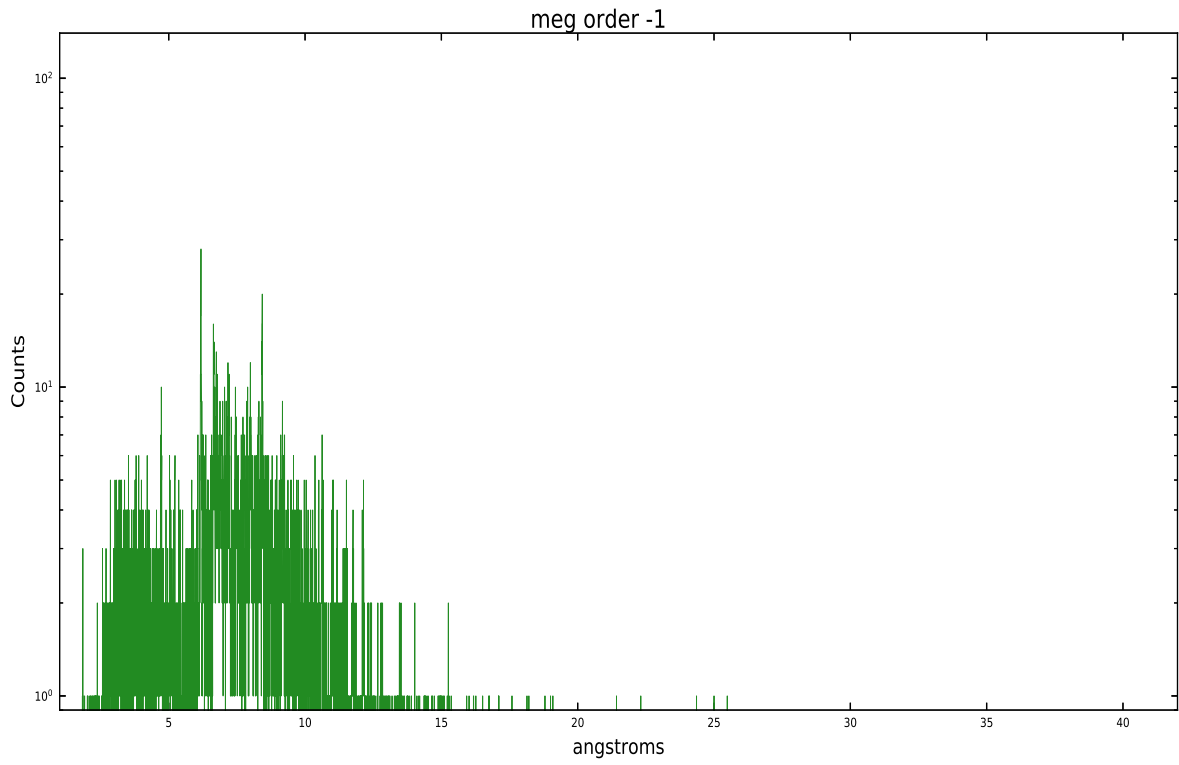


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1163	900	7331	7676	7648	552	815





A Summary

A.1 Status

V&V Scientist	Melania Nynka
V&V Date (YYYY-MM-DD)	2020.10.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	27.269948371649

A.2 Comments