

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5955 - L2 Version 4
Chandra X-Ray Center

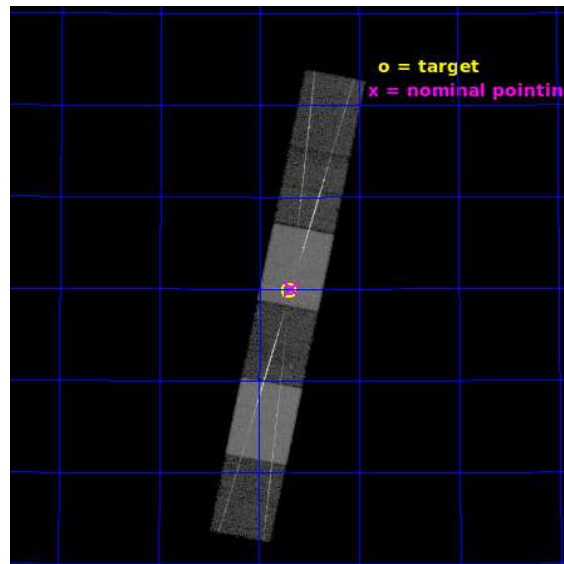
L2 Processing Date : Oct 7 2020

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1 Front

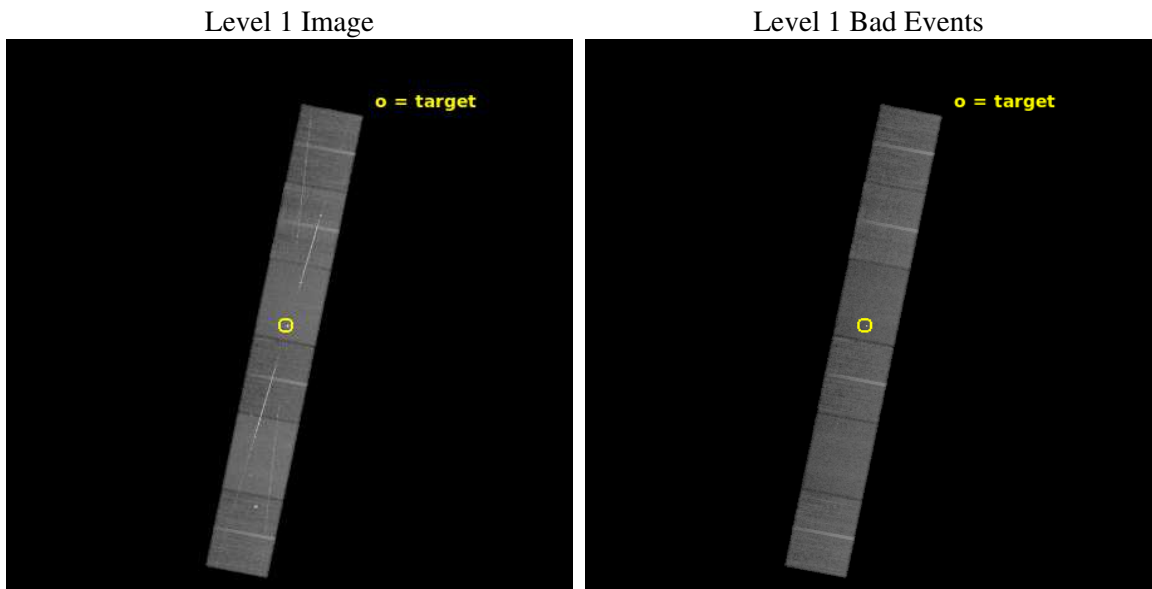
seq_num	290447	Sequence number
obs_id	5955	Observation id
title	AO6 Calibration Observations of Capella	Proposal title
observer	CXC Calibration	Principal investigator
object	Capella	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	79.17625	Observer's specified target RA [deg]
dec_targ	45.997889	Observer's specified target Dec [deg]
ra_nom	79.16839905277	Nominal RA [deg]
dec_nom	46.000510542137	Nominal Dec [deg]
roll_nom	281.22562637153	Nominal Roll [deg]
revision	4	Processing version of data
ontime	29147.5	Sum of GTIs [s]
livetime	28676.742593584	Livetime [s]
ontime4	29147.5	Sum of GTIs [s]
ontime5	29147.5	Sum of GTIs [s]
ontime6	29144.959009796	Sum of GTIs [s]
ontime7	29147.5	Sum of GTIs [s]
ontime8	29147.5	Sum of GTIs [s]
ontime9	29147.5	Sum of GTIs [s]
l2events	352986	Number of level 2 events



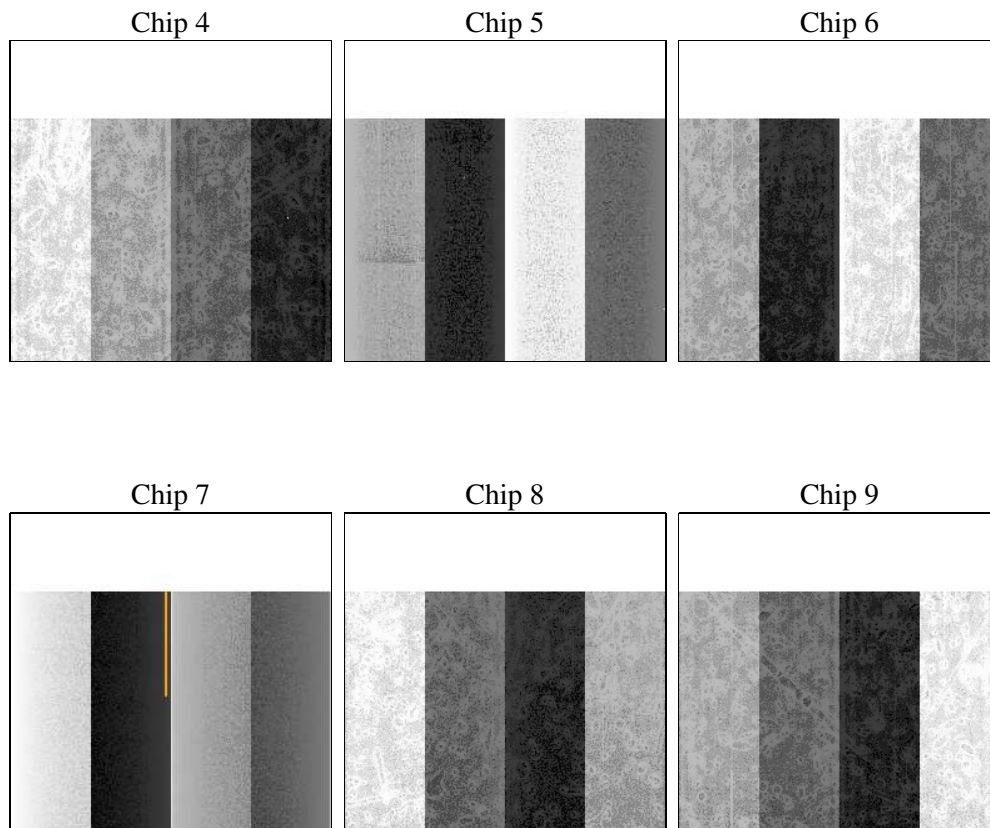
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	29147.5	Sum of GTIs [s]
caldbver	4.9.2	 	ontime4	29147.5	Sum of GTIs [s]
date	2020-10-07T12:21:39	Date and time of file creation	ontime5	29147.5	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	29144.959009796	Sum of GTIs [s]
			ontime7	29147.5	Sum of GTIs [s]
			ontime8	29147.5	Sum of GTIs [s]
			ontime9	29147.5	Sum of GTIs [s]
			l1events	1293392	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			z0_pos	(4075.40, 4073.27)	src1a sky level position

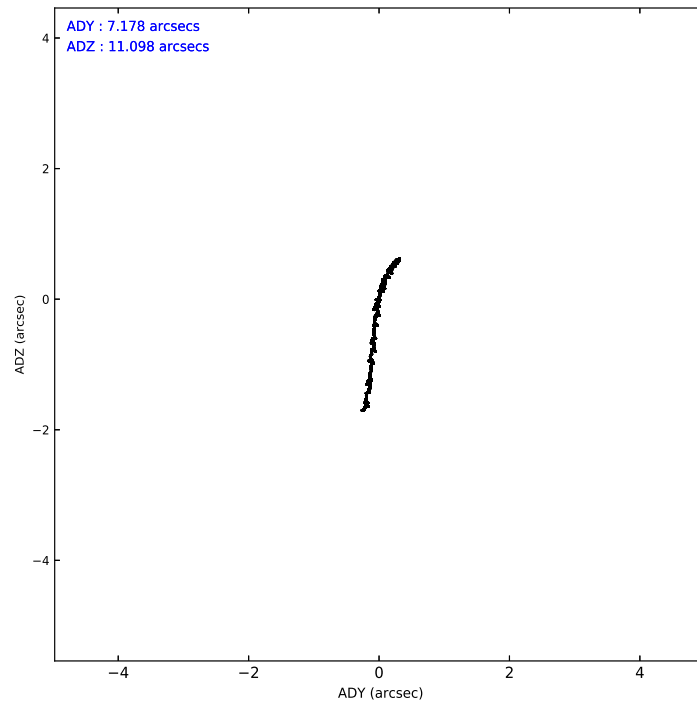
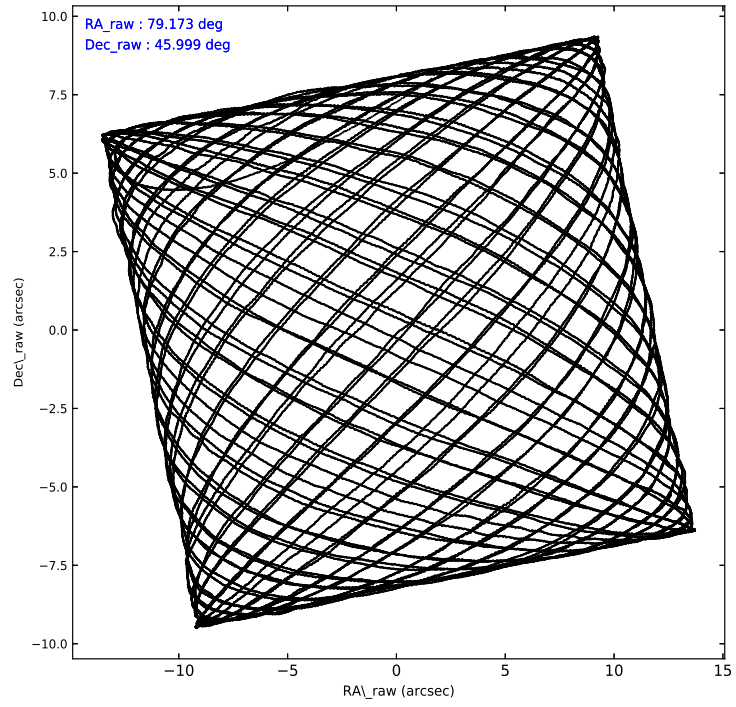
2.1.4 Events

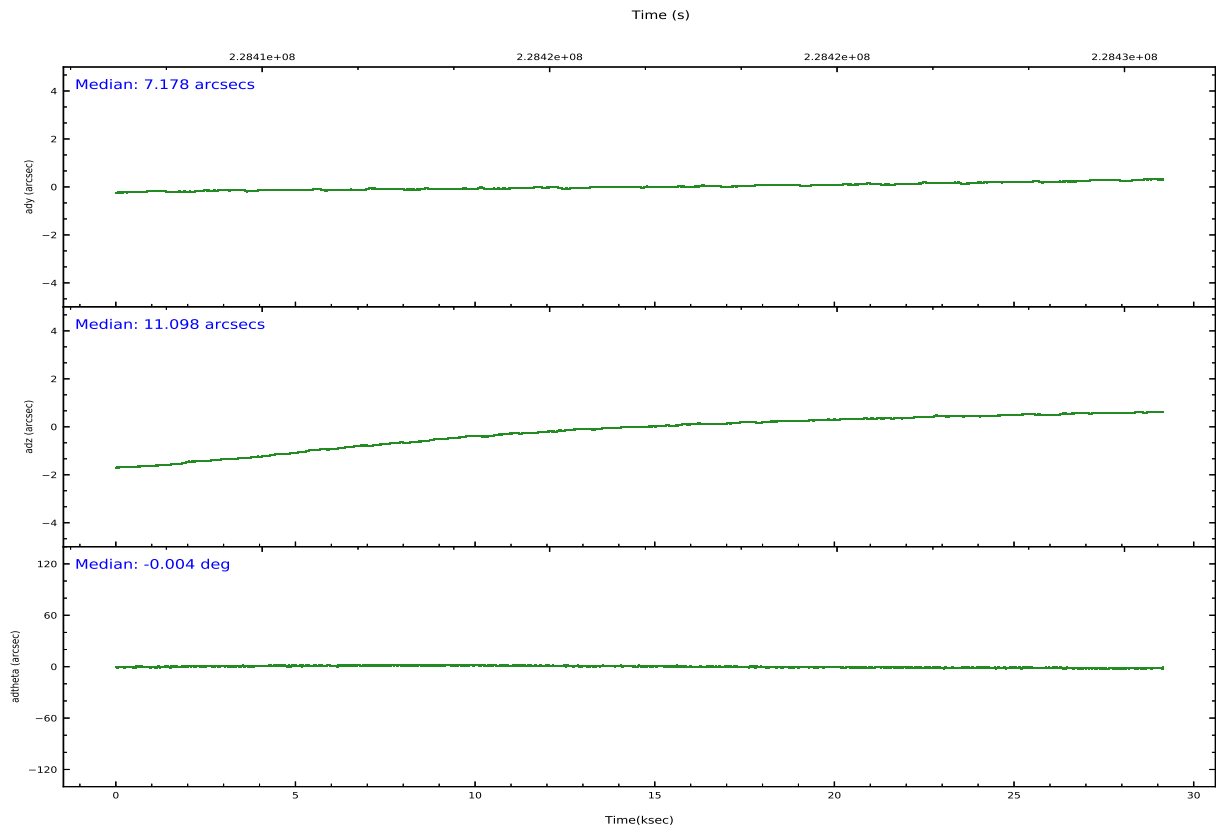
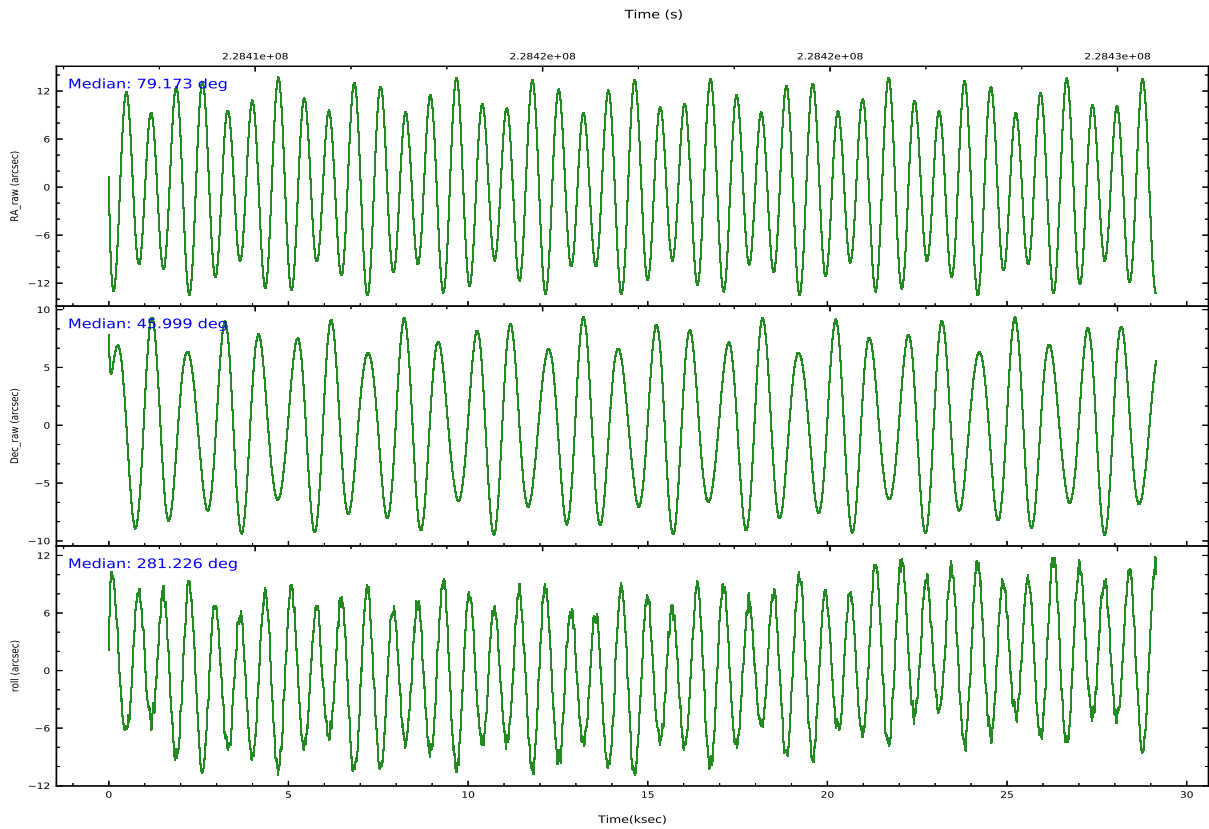
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	190614	265449	186636	249348	233473	167872	grade 0 events	16441	17514	25687	11994	34958	12929
rejected events	161665	134891	145963	140282	164559	142210		8%	6%	13%	4%	14%	7%
rejected %	84%	50%	78%	56%	70%	84%	grade 1 events	186	382	159	453	258	104
								0%	0%	0%	0%	0%	0%
							grade 2 events	4784	38319	5871	22447	11662	4374
								2%	14%	3%	9%	4%	2%
							grade 3 events	2271	7139	2545	10000	5444	2241
								1%	2%	1%	4%	2%	1%
							grade 4 events	2249	7023	2518	10062	4964	2162
								1%	2%	1%	4%	2%	1%
							grade 5 events	7190	18975	7531	22265	9769	8044
								3%	7%	4%	8%	4%	4%
							grade 6 events	3348	61080	4207	54996	12220	4067
								1%	23%	2%	22%	5%	2%
							grade 7 events	154145	115017	138118	117131	154198	133951
								80%	43%	74%	46%	66%	79%

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	79.147239	79.16839905277	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	46.019251	46.000510542137	Subarray start row	1	1
[deg] Pointing Roll	281.089228	281.22562637153	Subarray row count	774	774
[s] Window start time (MET)	227232064.184000	227232064.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	241833664.184000	241833664.184000	[s] Primary exposure time	0.000000	2.5
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
[s] Observation start time (MET)	228404077.184000	228403008.76276			
Observation start date	2005-03-28T13:33:33	2005-03-28T13:16:48			
[s] Observation end time (MET)	228433077.184000	228433866.38916			
Observation end date	2005-03-28T21:36:53	2005-03-28T21:51:06			
Read mode	TIMED	TIMED			

2.3 Aspect





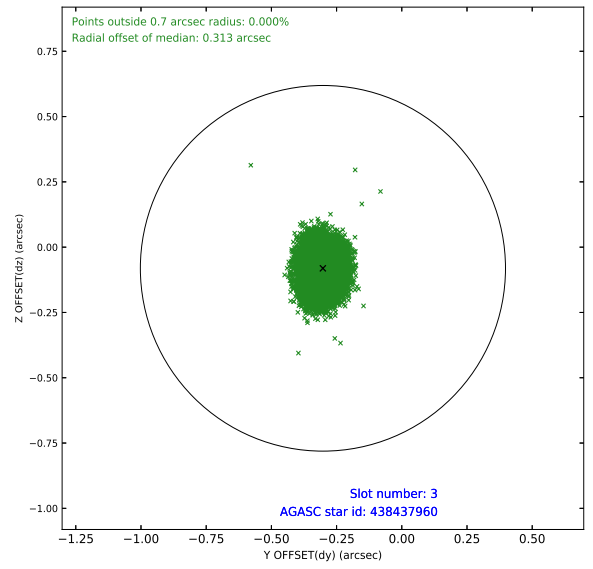
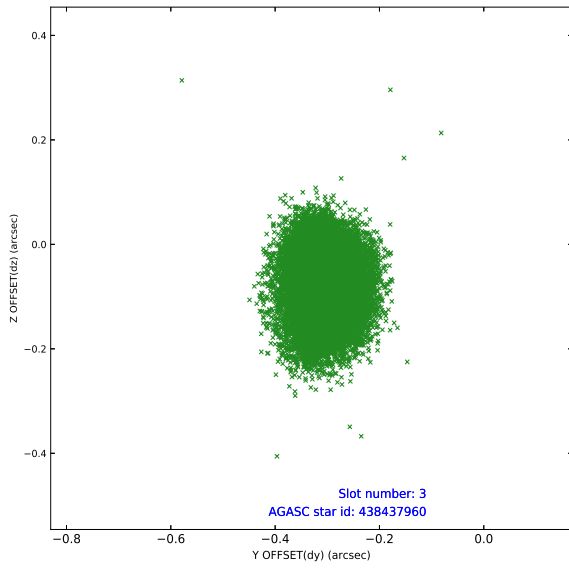
Slot Statistics

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	7.09	7109	1.000	-0.084	-0.136	0.011	0.030	0.000000	0.000000	-759.81	-1794
1	FID		ACIS-S-4	7.18	7110	1.000	0.170	0.076	0.007	0.012	0.000000	0.000000	2153.66	114
2	FID		ACIS-S-5	7.23	7111	1.000	-0.117	0.068	0.011	0.027	0.000000	0.000000	-1812.60	107
3	GUIDE	used	438437960	8.50	14213	1.000	-0.302	-0.081	0.083	0.128	78.069023	46.438843	-2014.58	-2331
4	GUIDE	used	438460832	8.97	14216	1.000	0.175	0.037	0.078	0.126	78.414614	45.554782	1278.21	-2132
5	GUIDE	used	440150048	7.19	14215	1.000	-0.158	0.039	0.074	0.114	79.112838	46.416060	-1417.95	190
6	GUIDE	used	440163960	8.88	14215	1.000	0.206	0.052	0.081	0.128	79.298370	45.827072	751.93	239
7	GUIDE	used	438455912	9.25	14210	1.000	0.077	-0.044	0.108	0.174	78.251946	45.690923	715.32	-2433

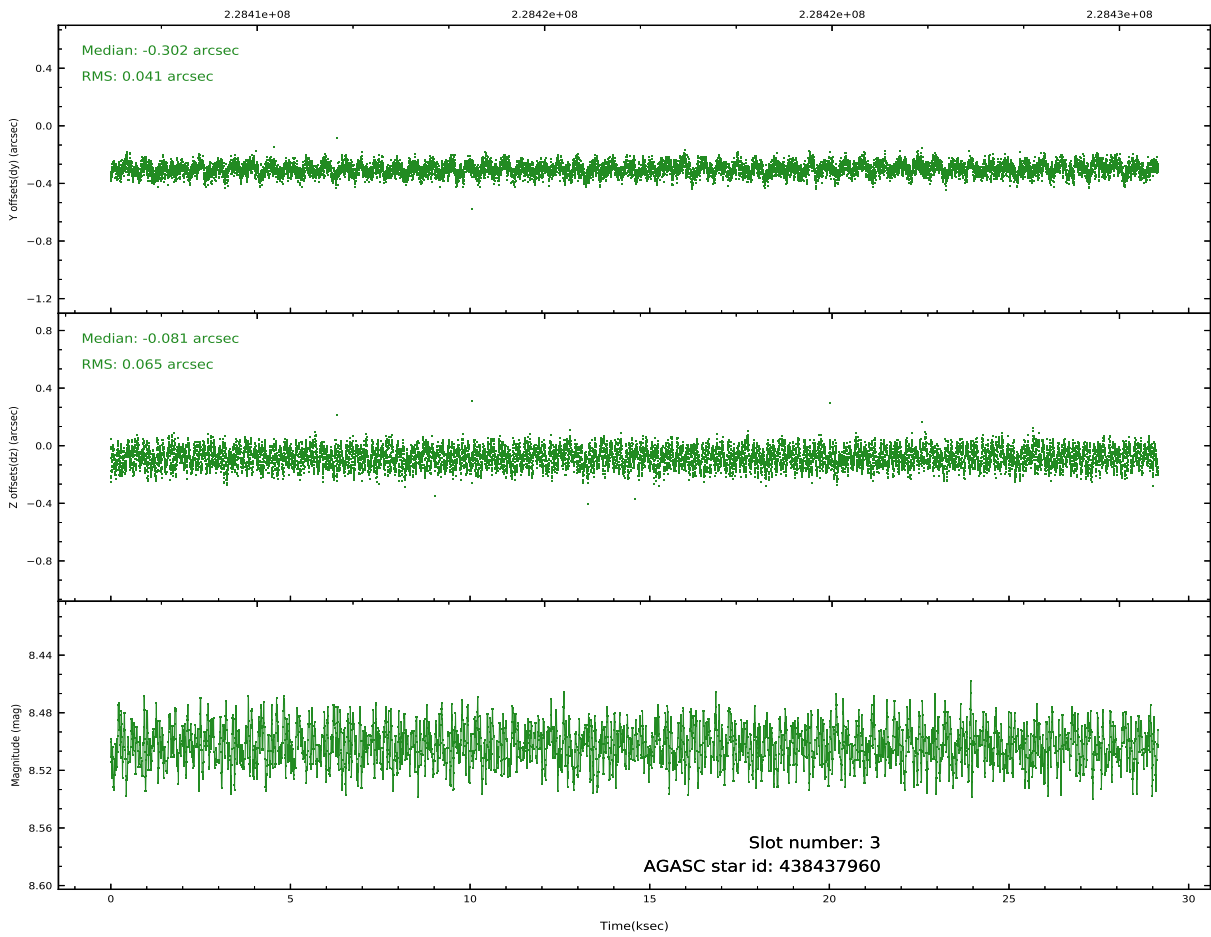
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2.4 Star Slots

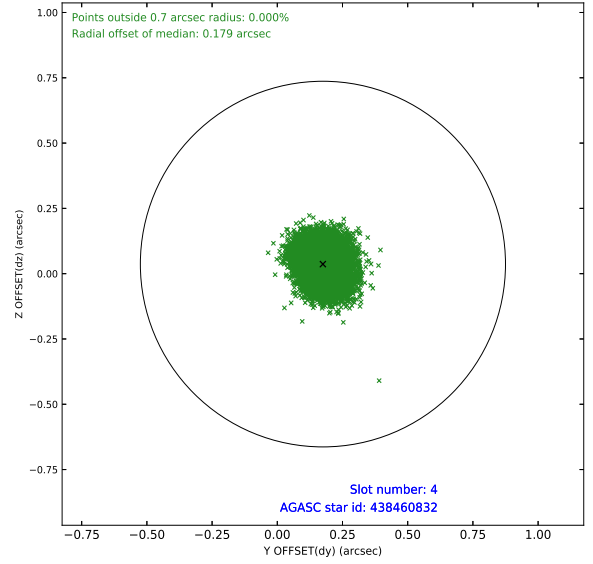
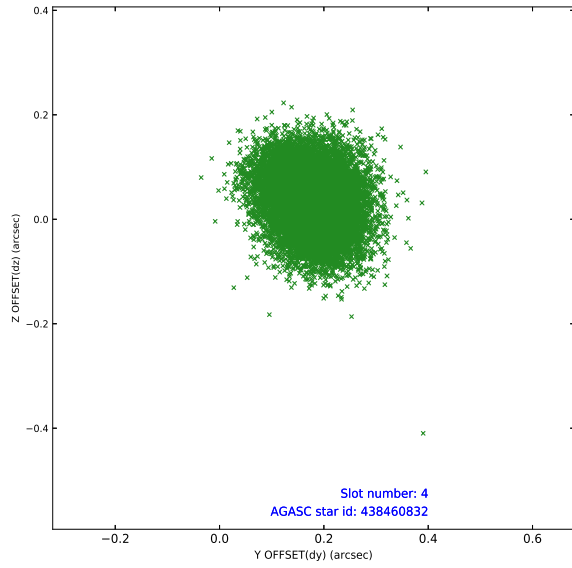
2.4.1 Slot 3



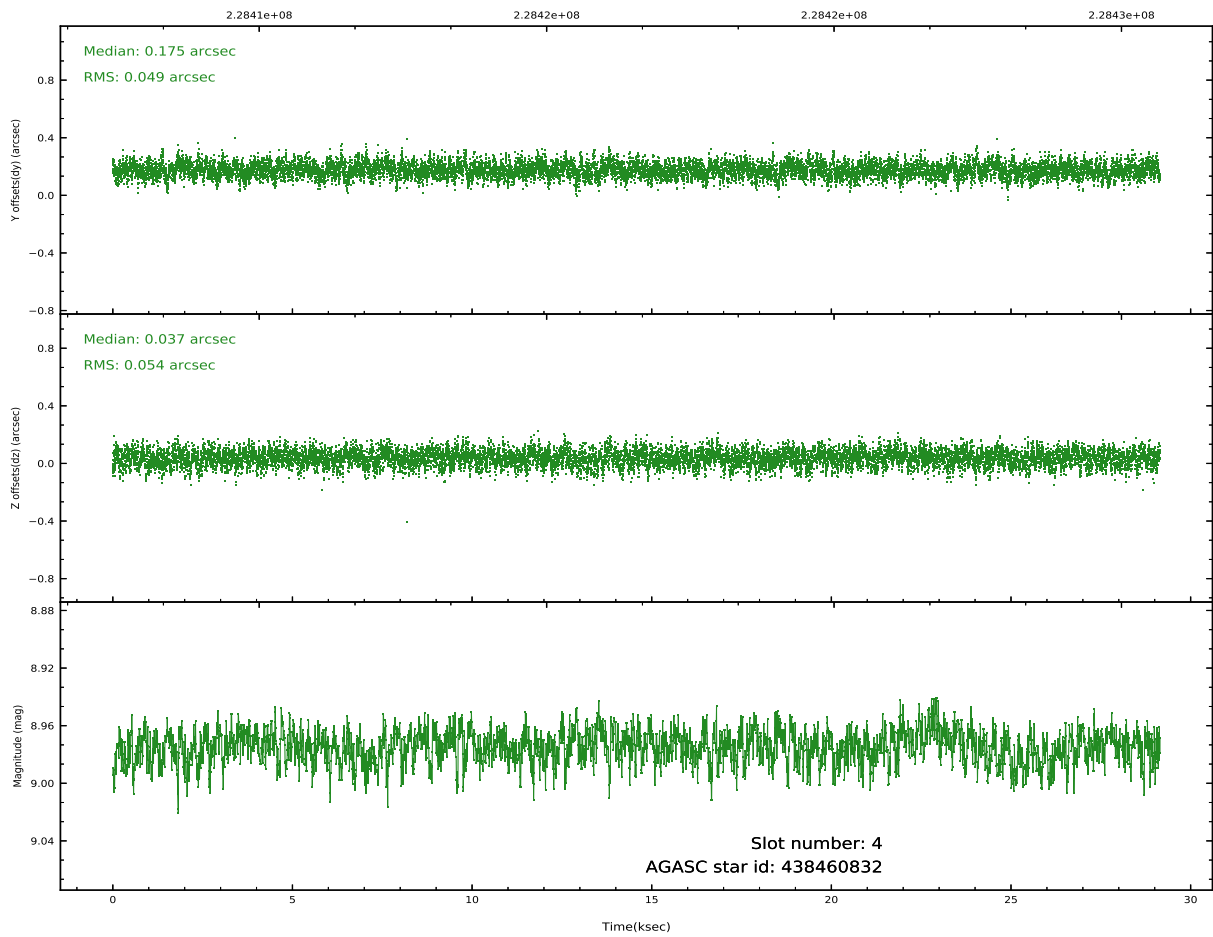
Time (s)



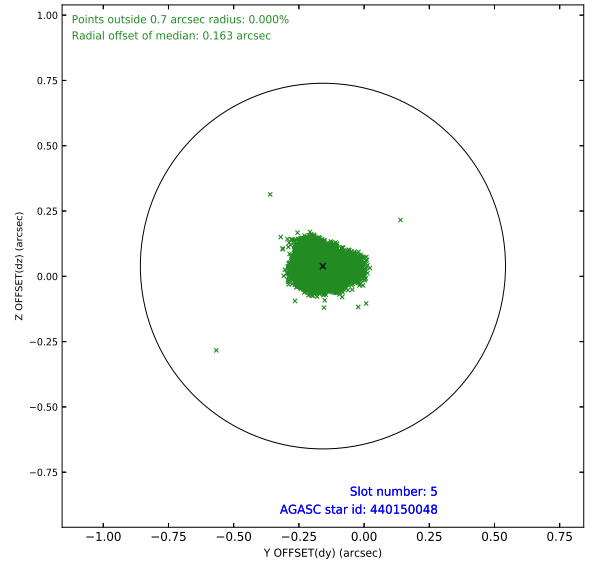
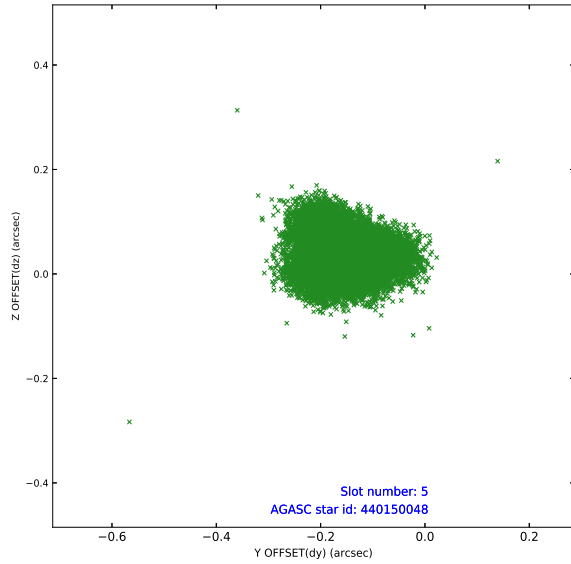
2.4.2 Slot 4



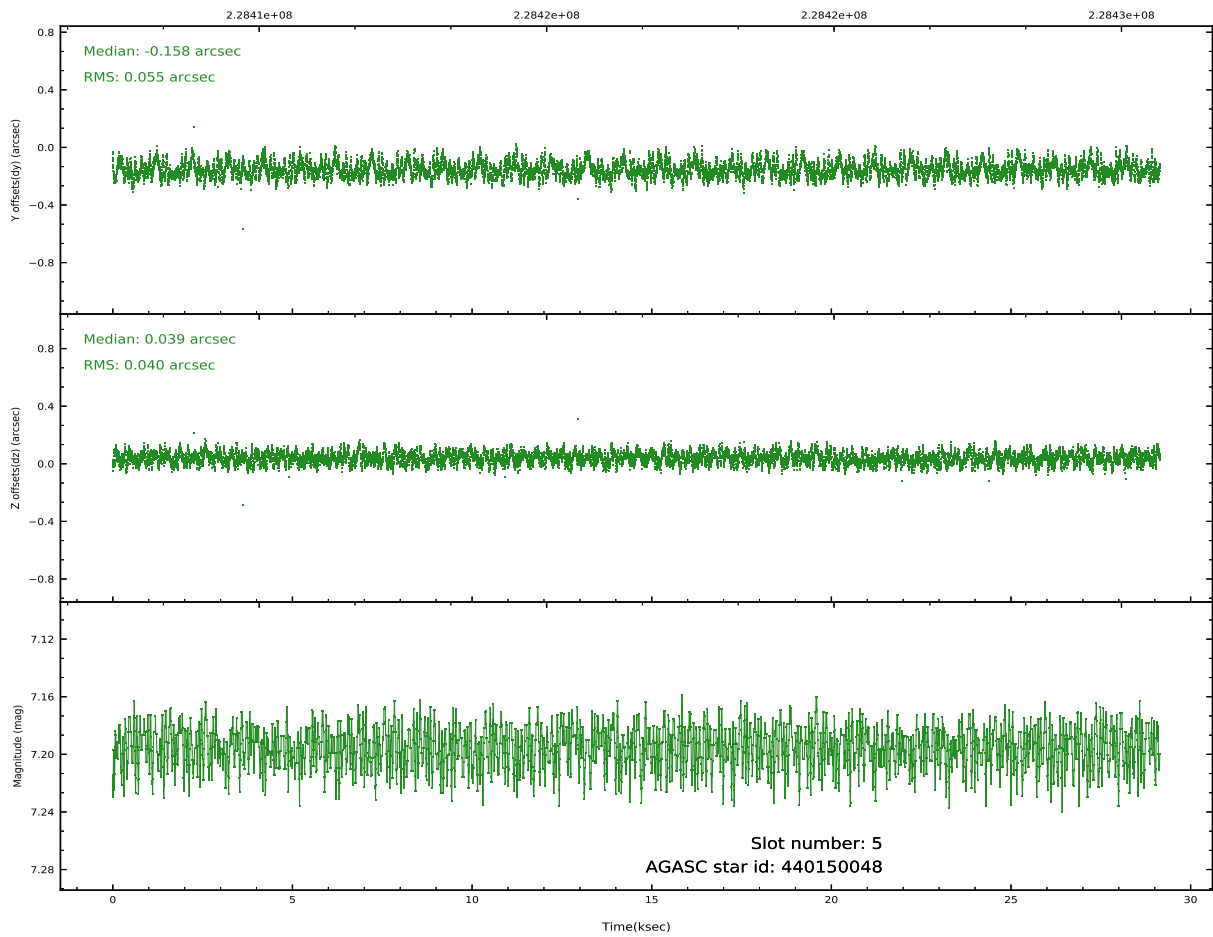
Time (s)



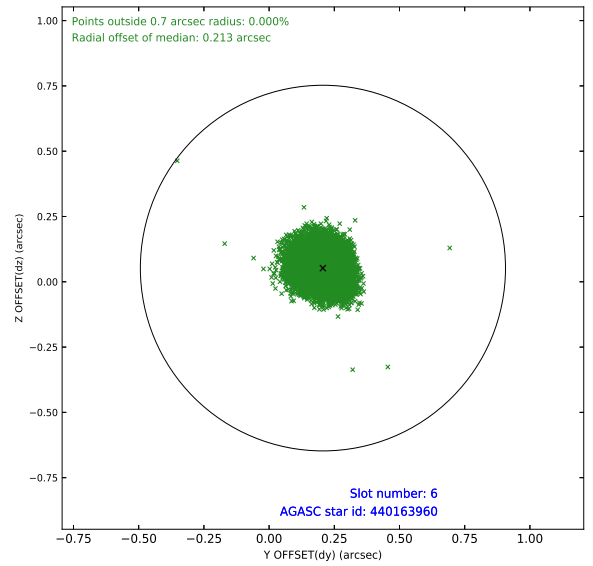
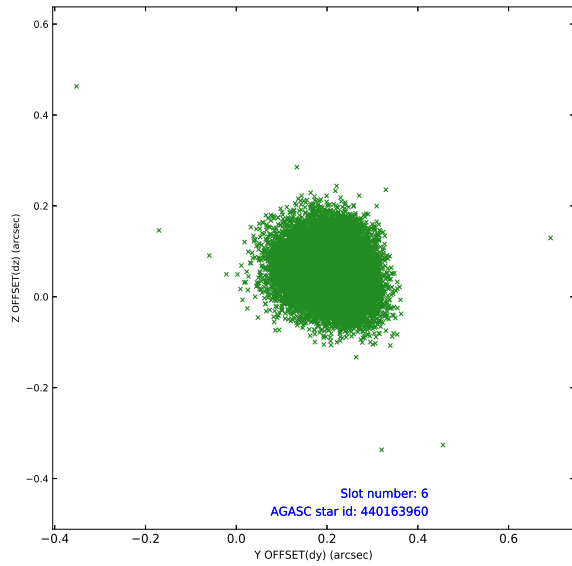
2.4.3 Slot 5



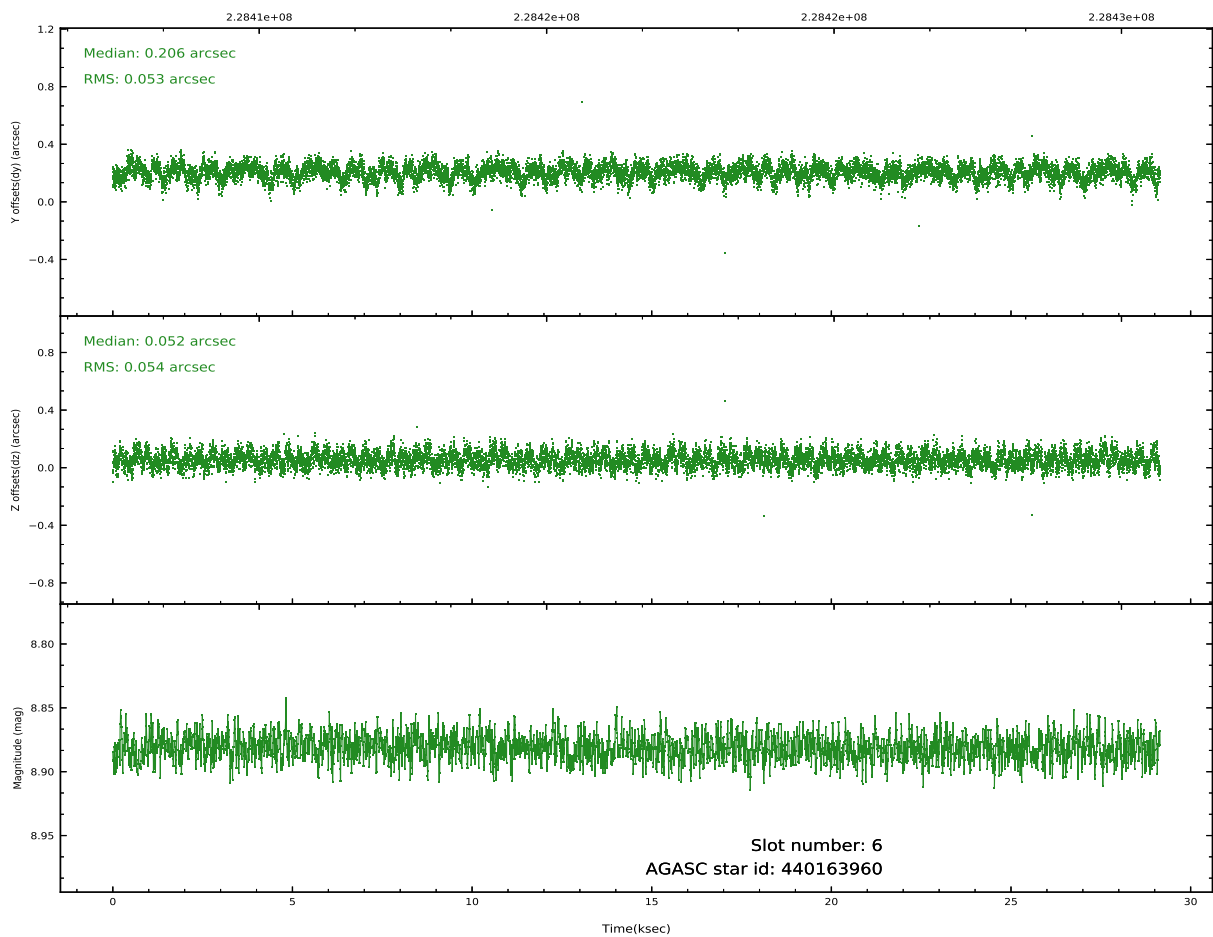
Time (s)



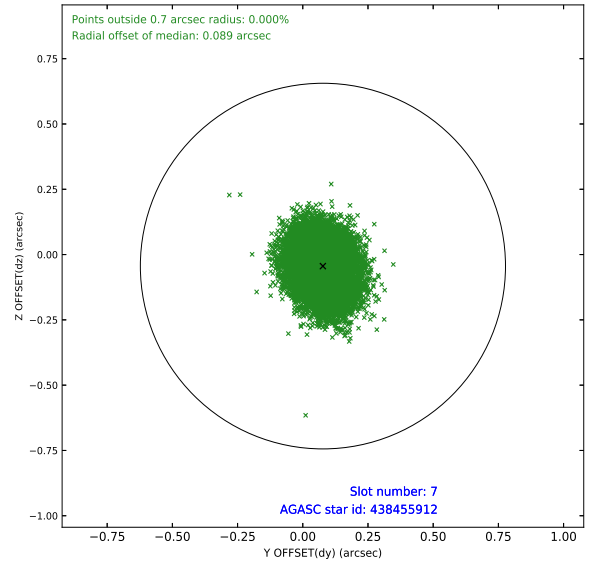
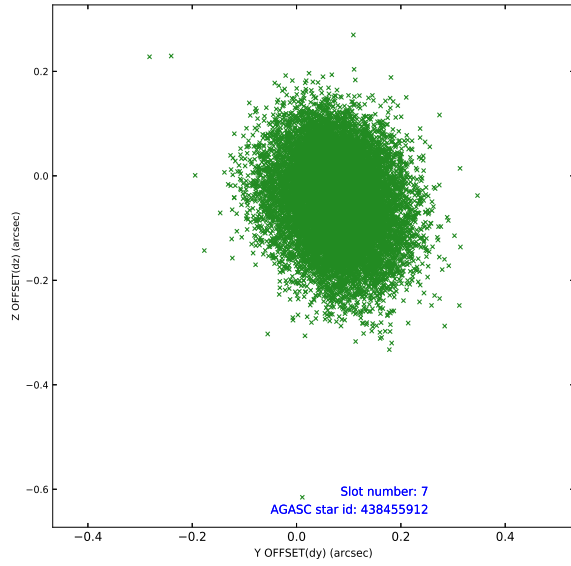
2.4.4 Slot 6



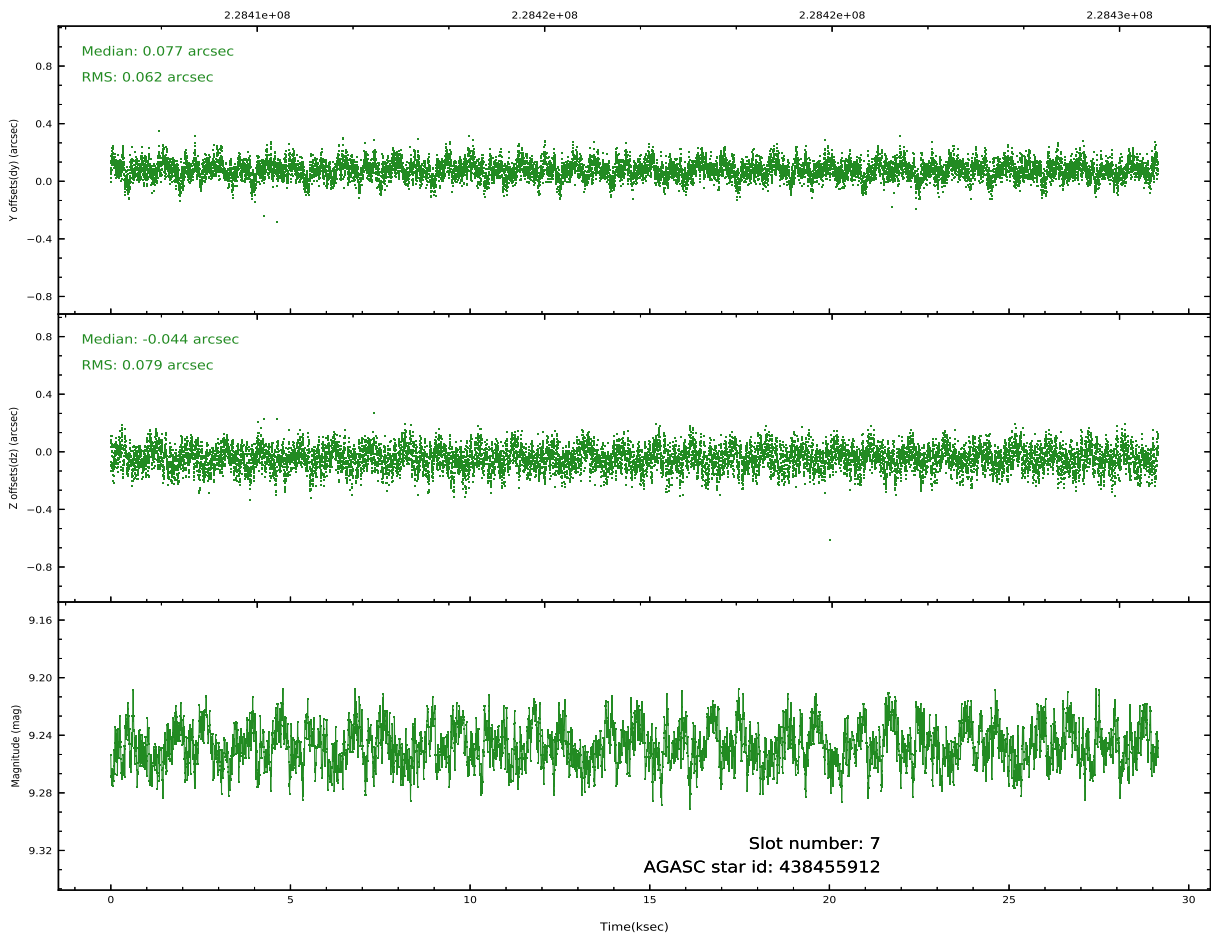
Time (s)



2.4.5 Slot 7

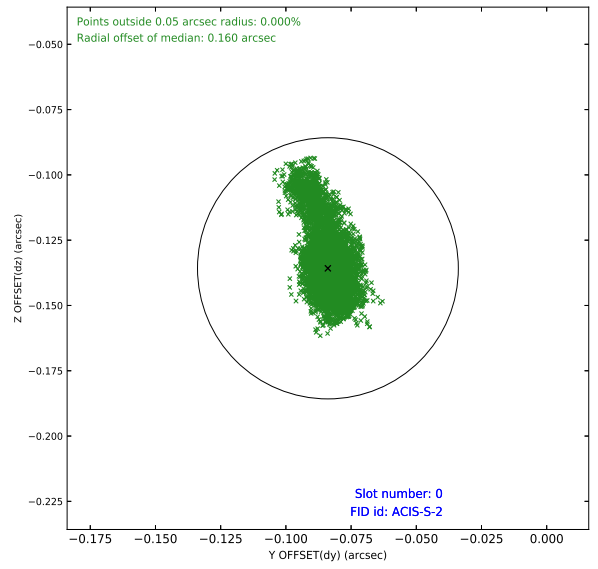
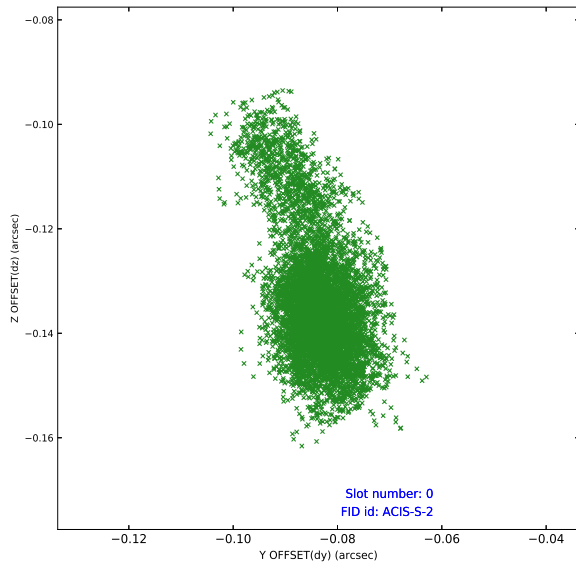


Time (s)

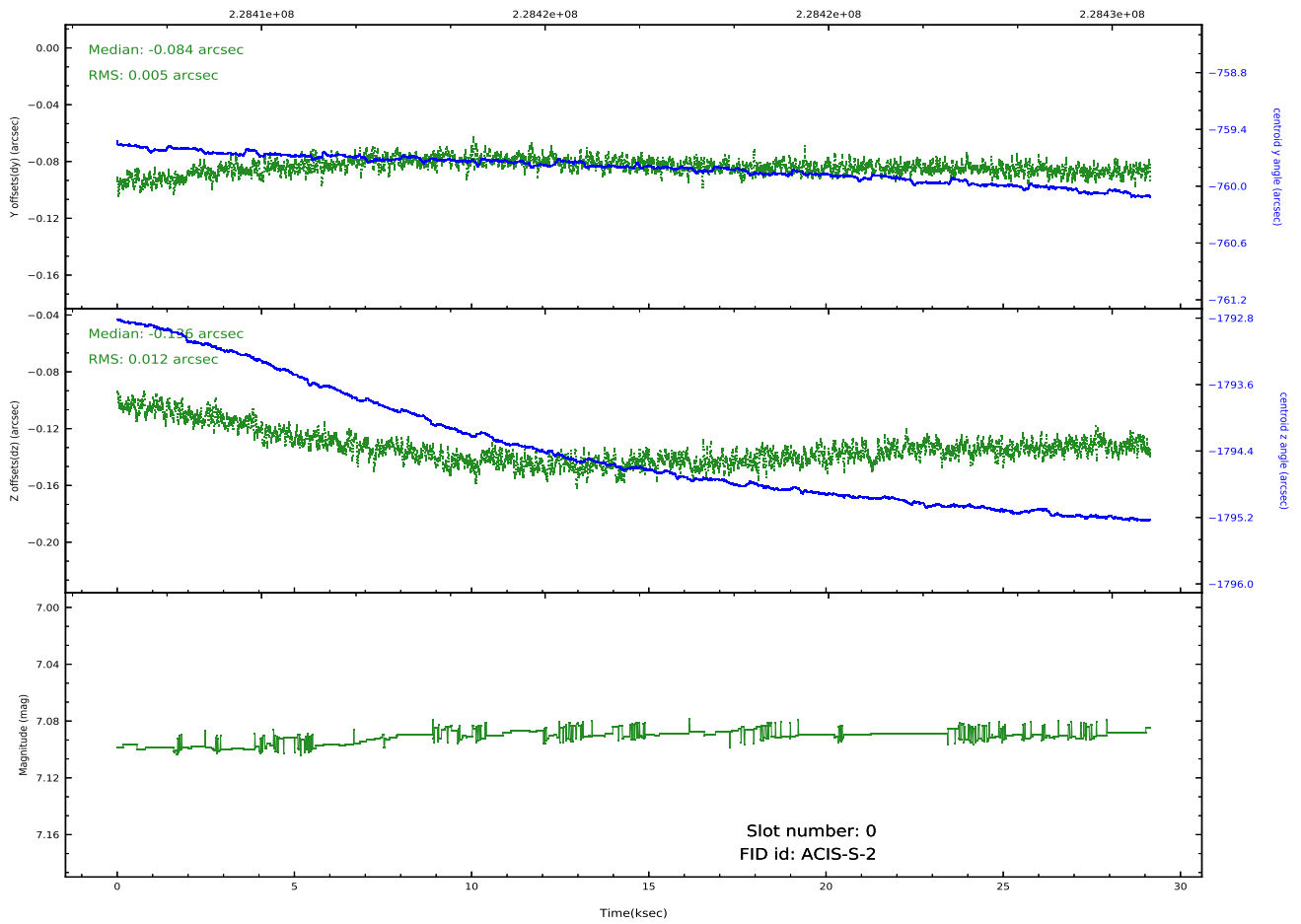


2.5 FID Slots

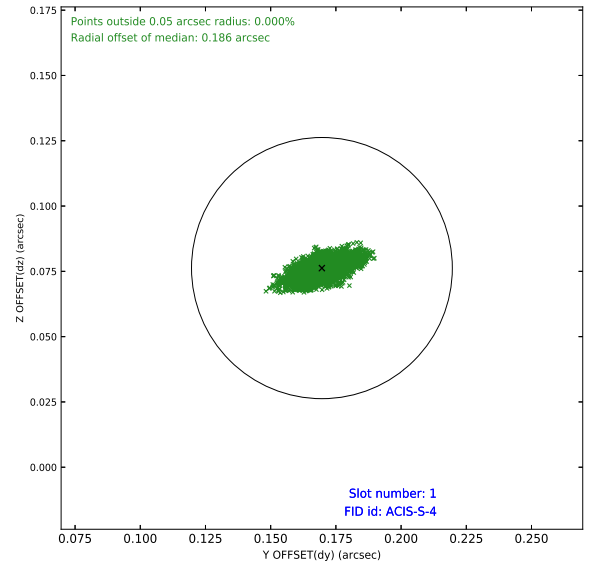
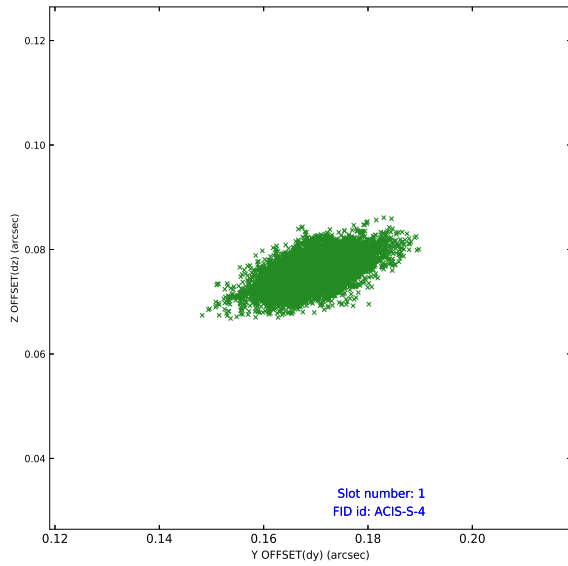
2.5.1 Slot 0



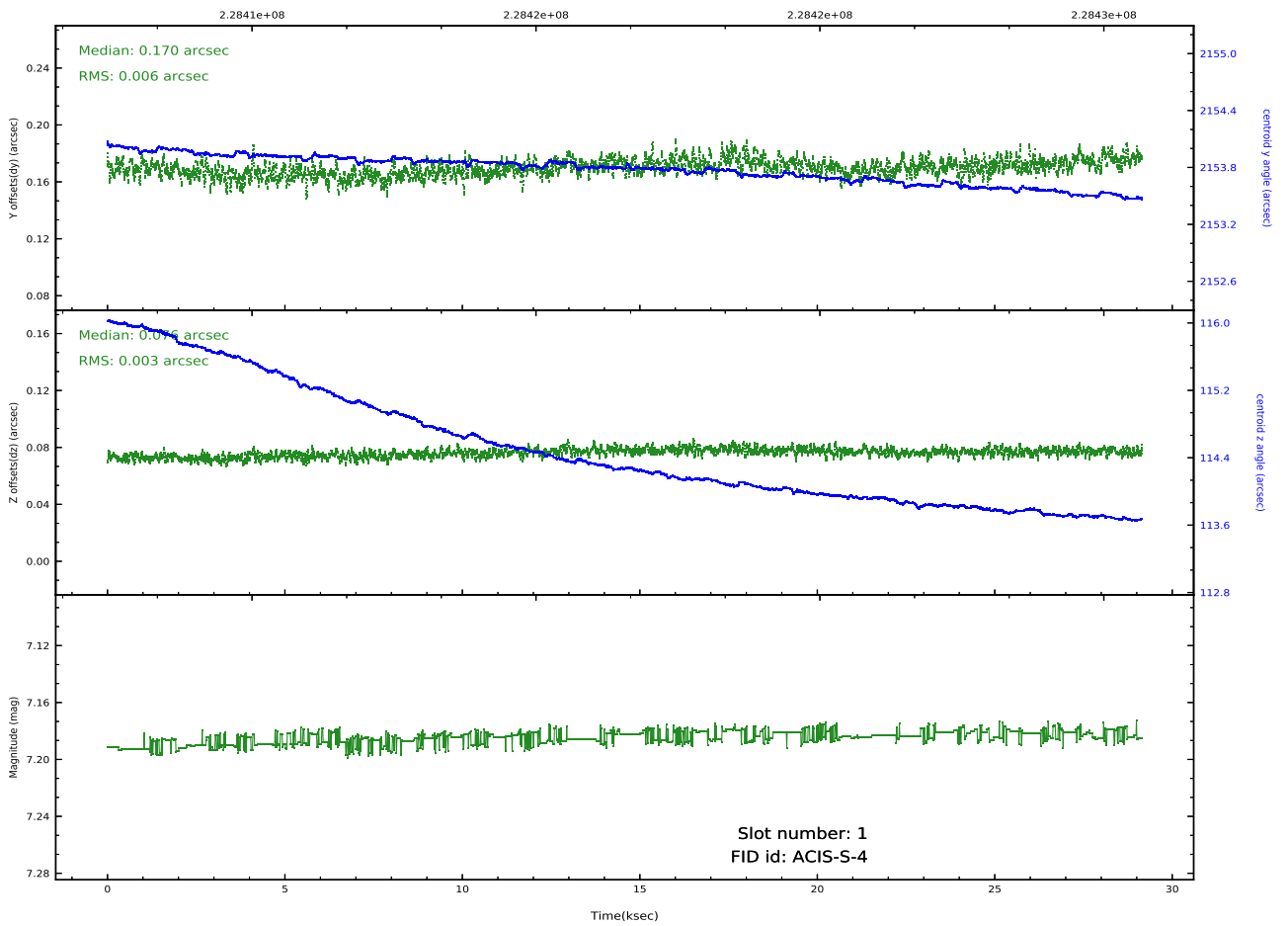
Time (s)



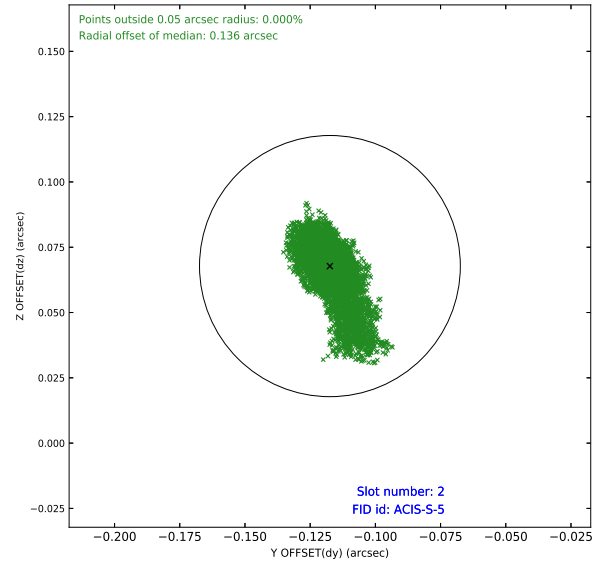
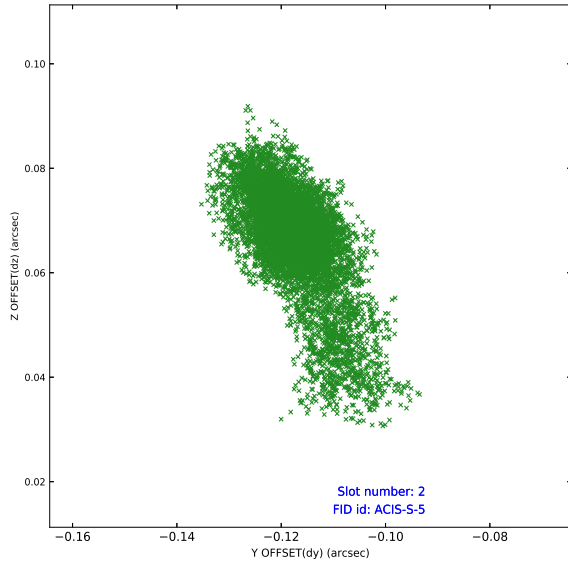
2.5.2 Slot 1



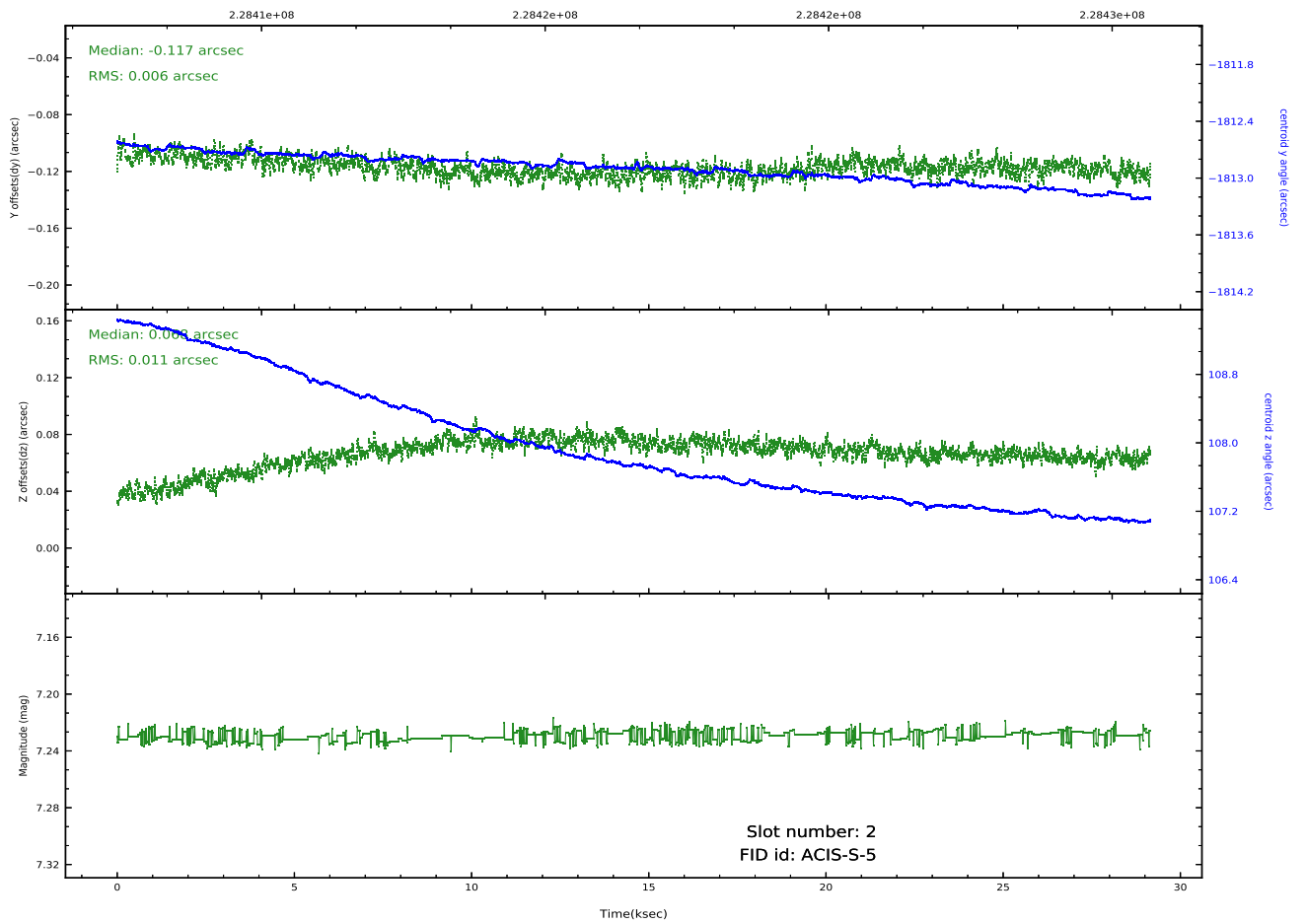
Time (s)



2.5.3 Slot 2

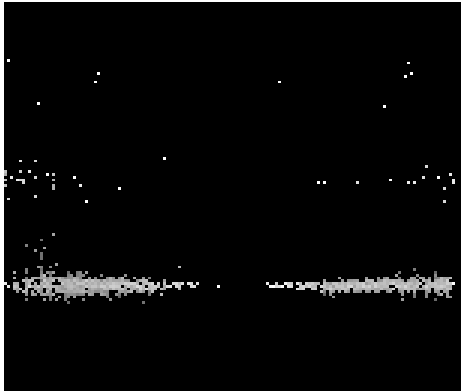


Time (s)

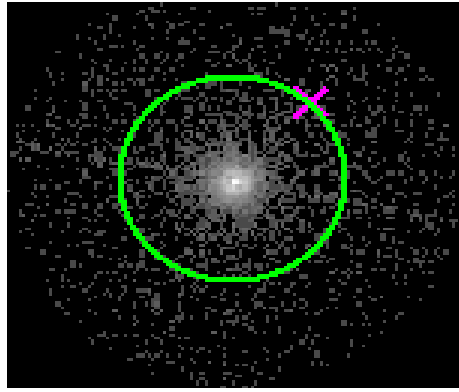


3 Gratings

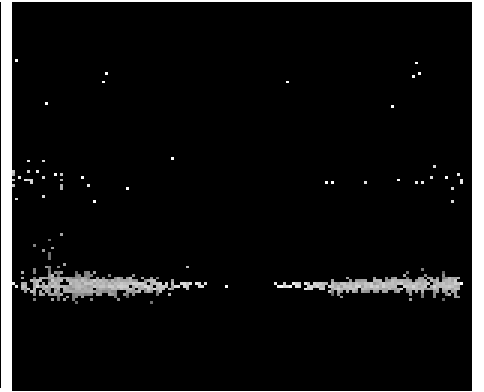
3.1 HEG Arm



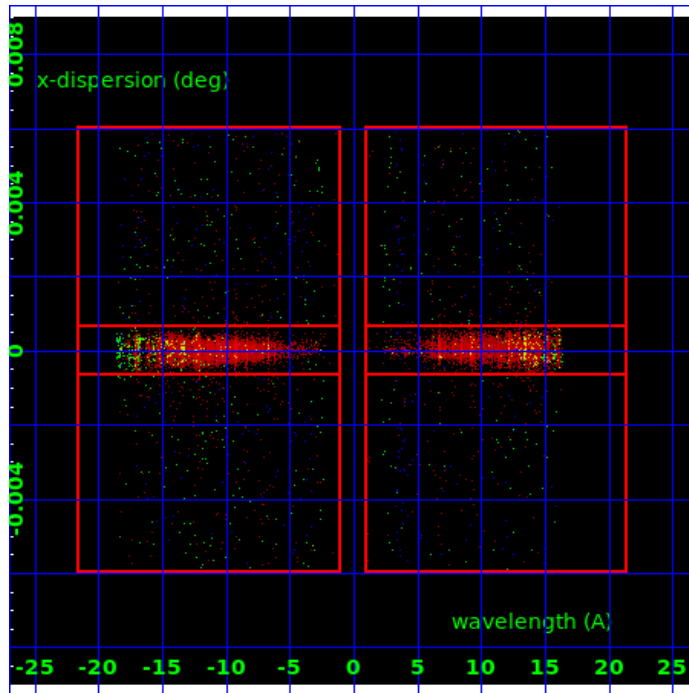
HEG Order Sort 123



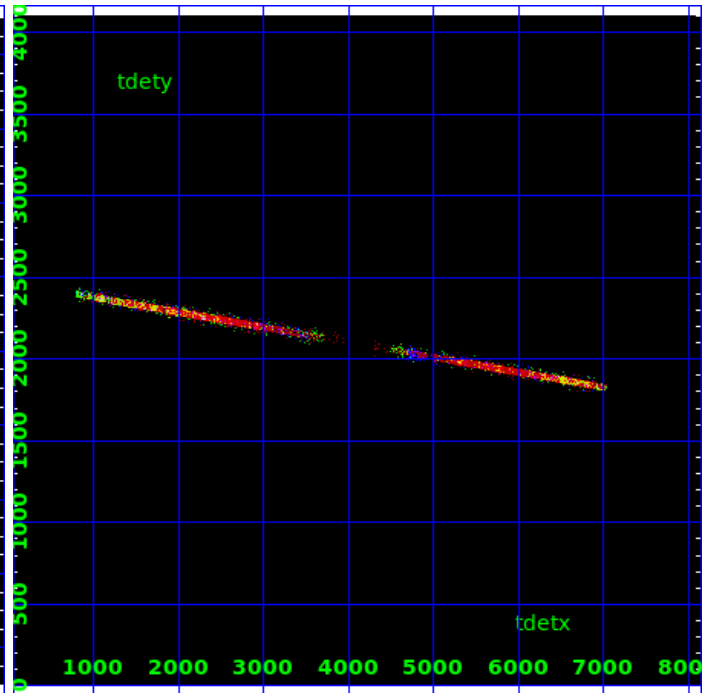
HEG Zero Order



HEG Order Sort ALL

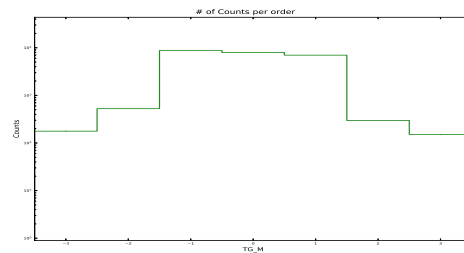


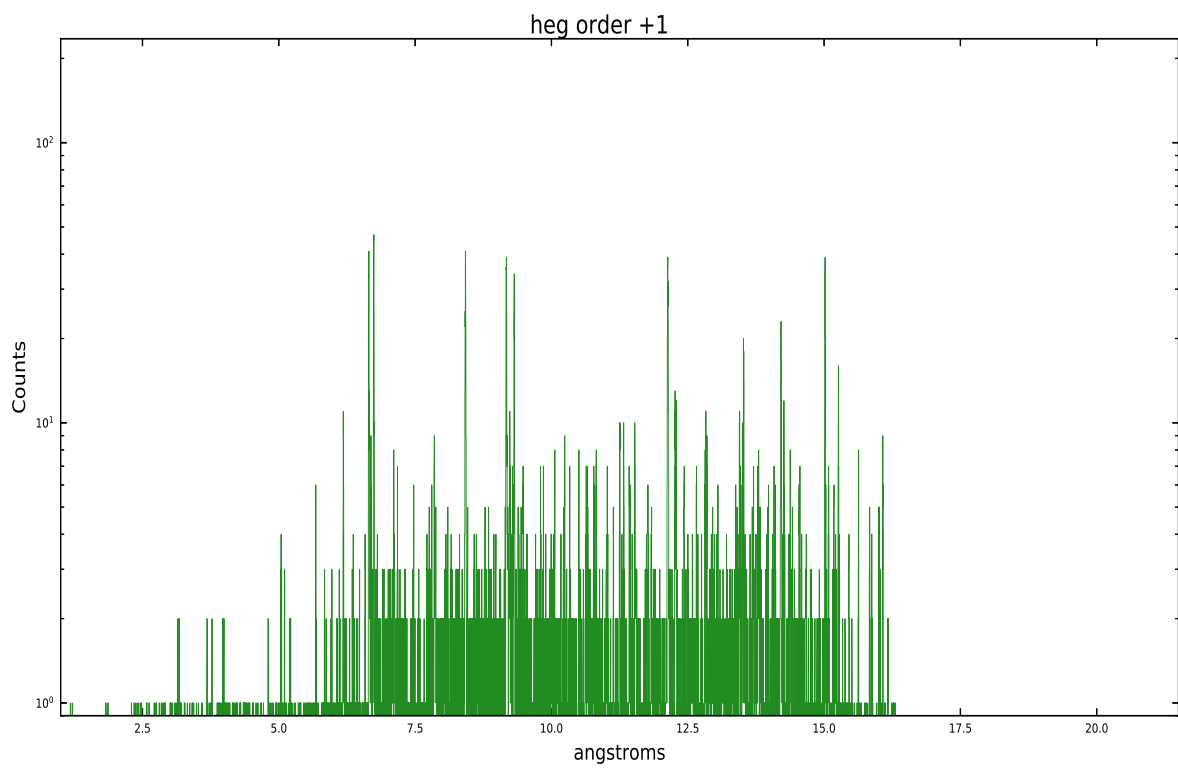
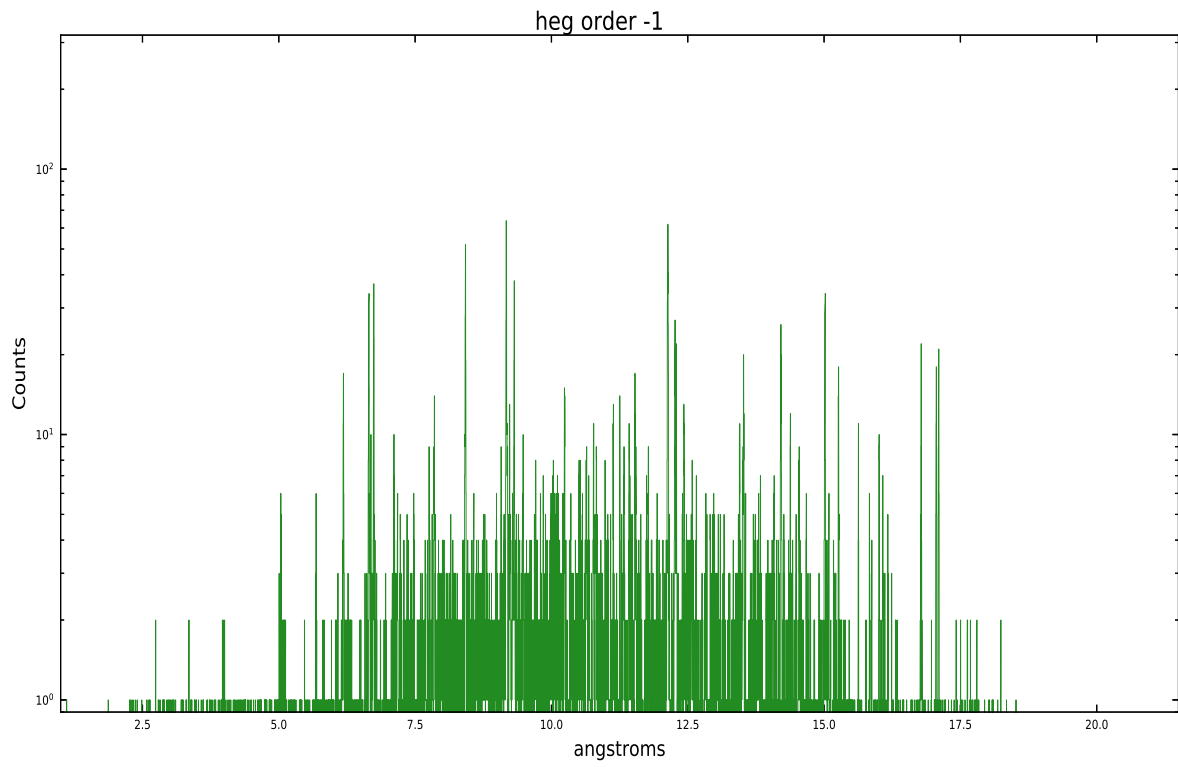
Spot Image HEG



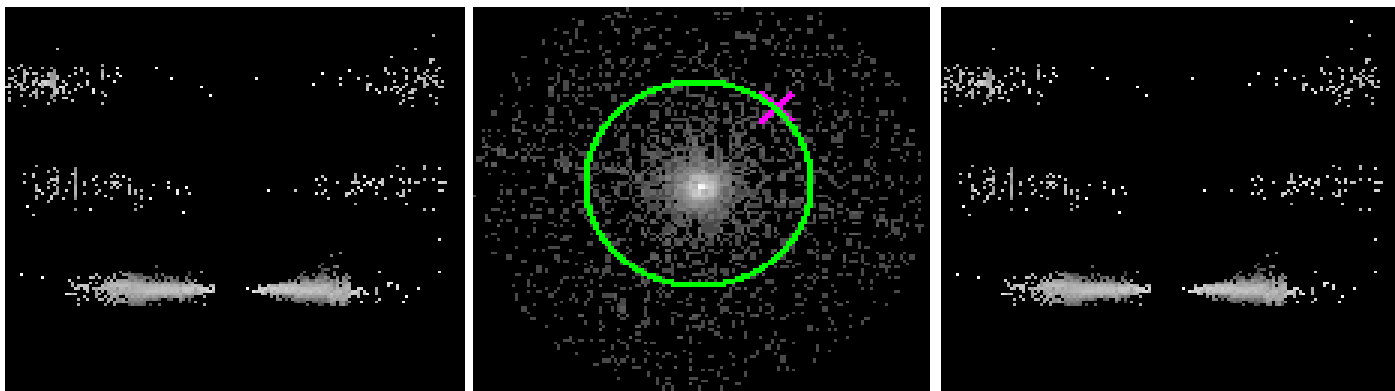
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	177	526	8720	7937	6989	297	151





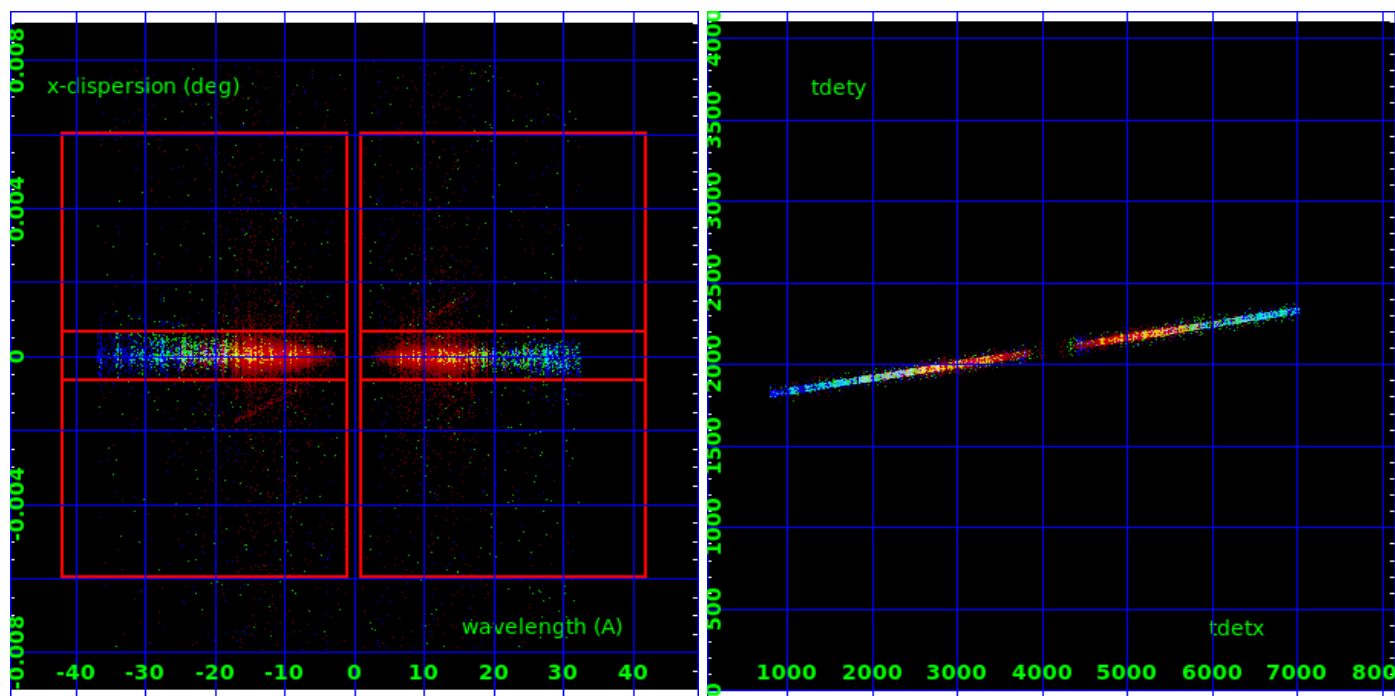
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

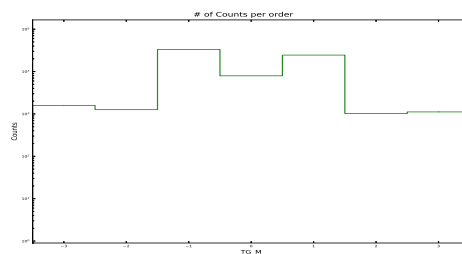
MEG Order Sort ALL

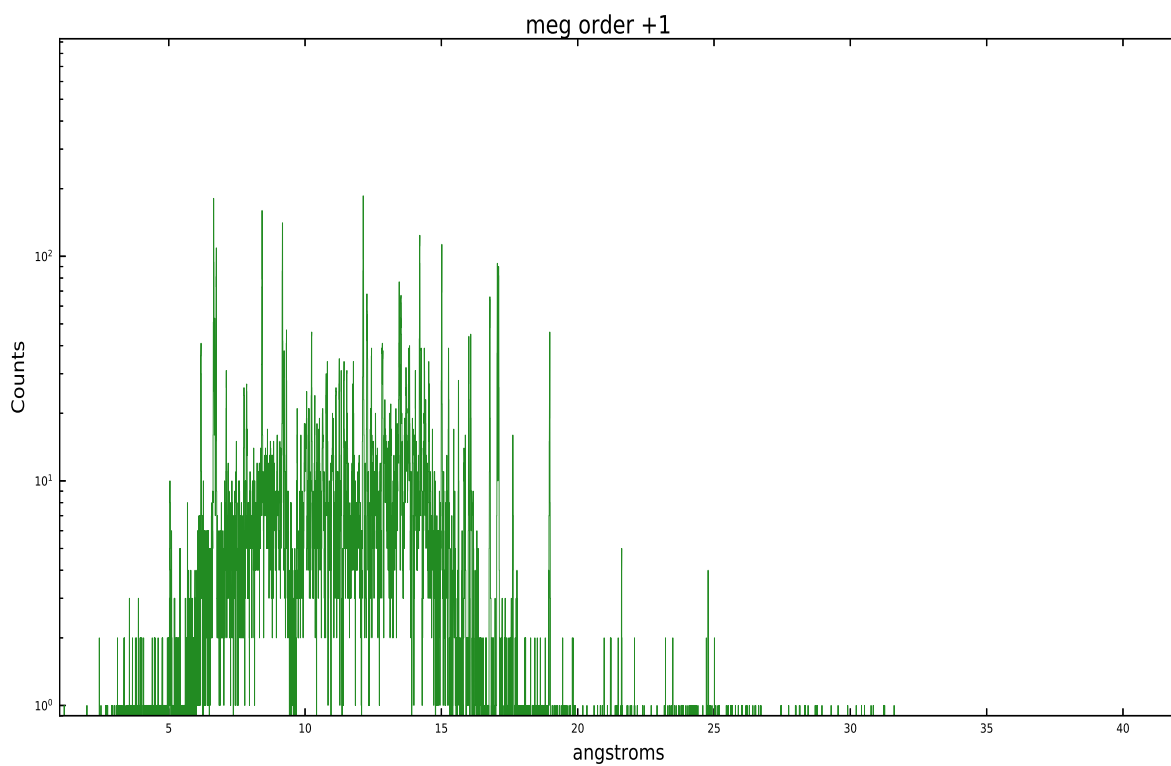
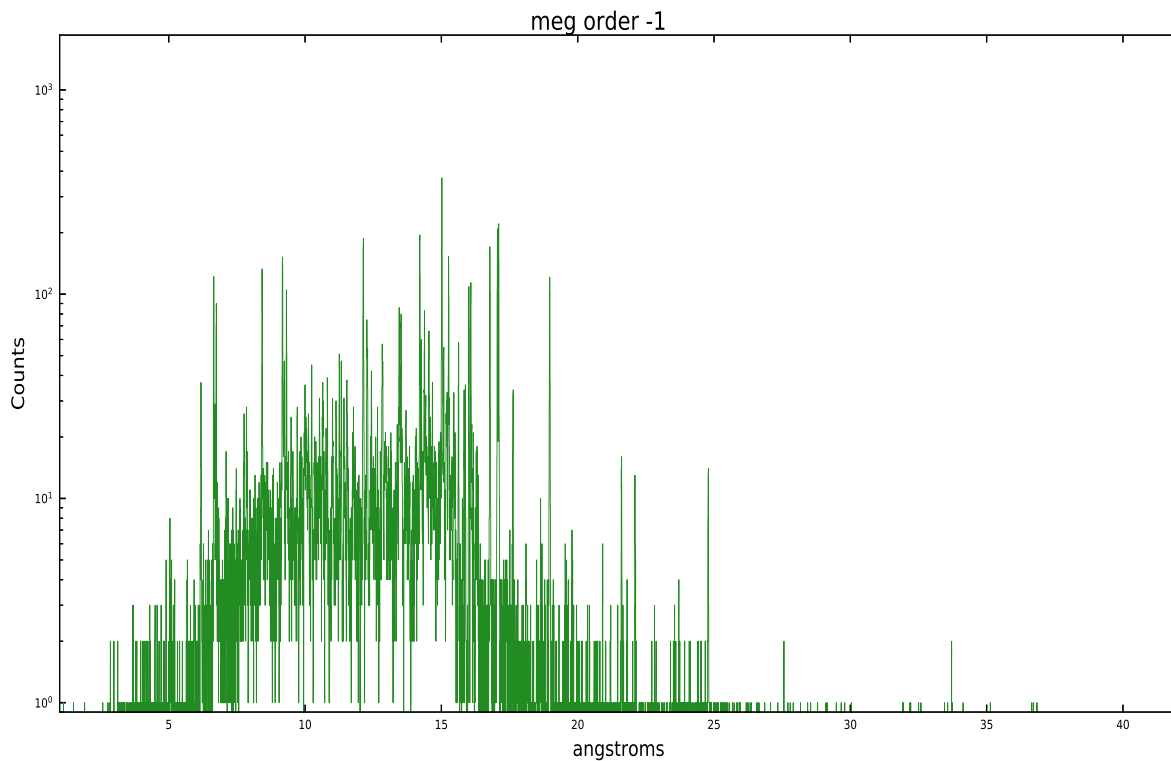


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1579	1262	33071	7937	24433	1022	1116





A Summary

A.1 Status

V&V Scientist	David Principe
V&V Date (YYYY-MM-DD)	2020.10.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.1475

A.2 Comments

Zeroth order piled up.