

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5513 - L2 Version 4
Chandra X-Ray Center

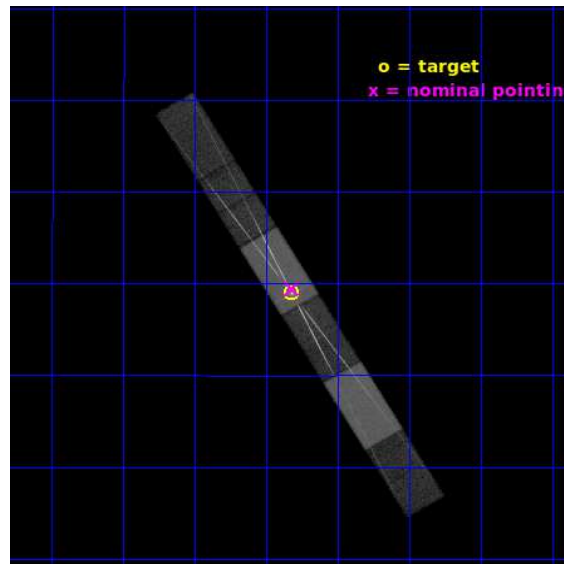
L2 Processing Date : Oct 9 2020

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1 Front

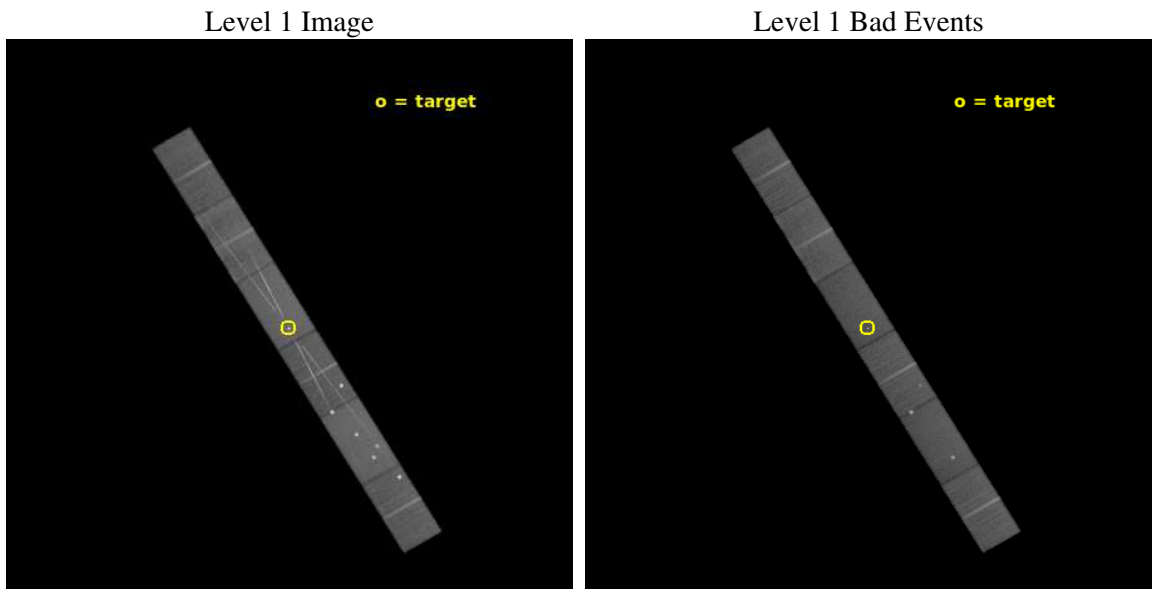
seq_num	400443	Sequence number
obs_id	5513	Observation id
title	Detailed Studies of the Jets in SS 433	Proposal title
observer	Dr. Claude Canizares	Principal investigator
object	SS 433	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	287.95625	Observer's specified target RA [deg]
dec_targ	4.982778	Observer's specified target Dec [deg]
ra_nom	287.95570944866	Nominal RA [deg]
dec_nom	4.9907754663423	Nominal Dec [deg]
roll_nom	239.09546715291	Nominal Roll [deg]
revision	4	Processing version of data
ontime	49177.800325692	Sum of GTIs [s]
livetime	48081.541186637	Livetime [s]
ontime4	49177.800325692	Sum of GTIs [s]
ontime5	49177.800325692	Sum of GTIs [s]
ontime6	49174.118275553	Sum of GTIs [s]
ontime7	49177.800325692	Sum of GTIs [s]
ontime8	49177.800325692	Sum of GTIs [s]
ontime9	49175.959315538	Sum of GTIs [s]
l2events	459735	Number of level 2 events



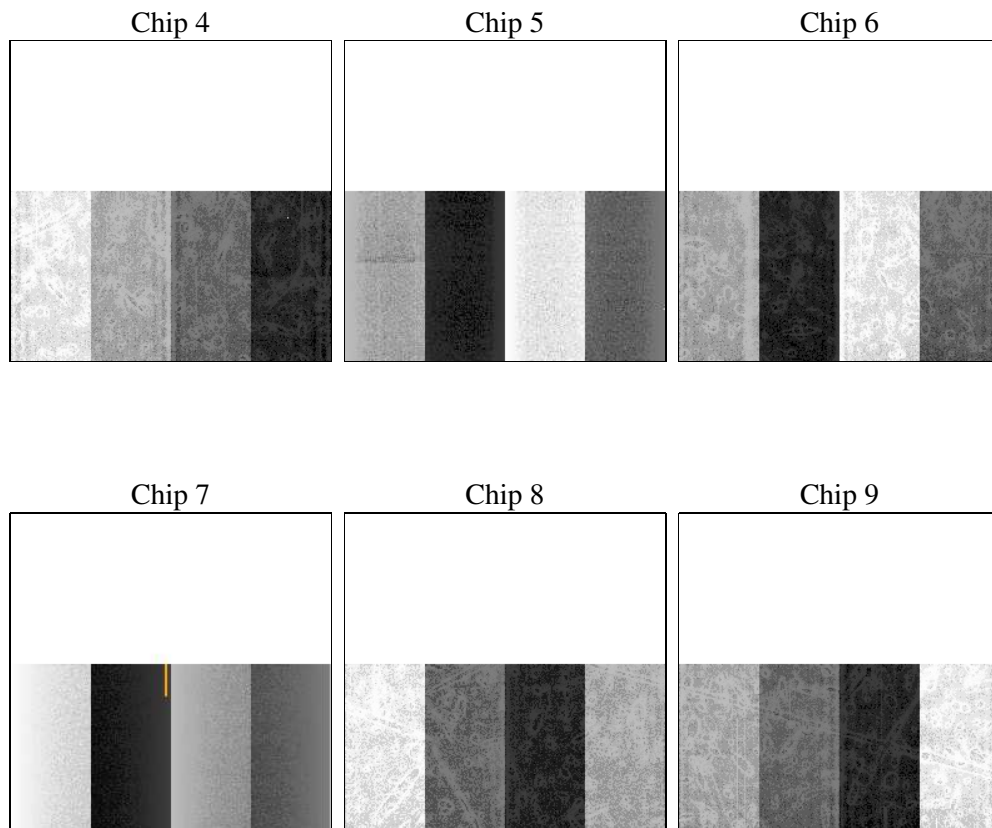
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	49000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	49177.800325692	Sum of GTIs [s]
caldbver	4.9.2	 	ontime4	49177.800325692	Sum of GTIs [s]
date	2020-10-09T19:03:26	Date and time of file creation	ontime5	49177.800325692	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	49174.118275553	Sum of GTIs [s]
			ontime7	49177.800325692	Sum of GTIs [s]
			ontime8	49177.800325692	Sum of GTIs [s]
			ontime9	49175.959315538	Sum of GTIs [s]
			l1events	1695092	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			z0_pos	(4000.55, 4037.66)	src1a sky pixel position

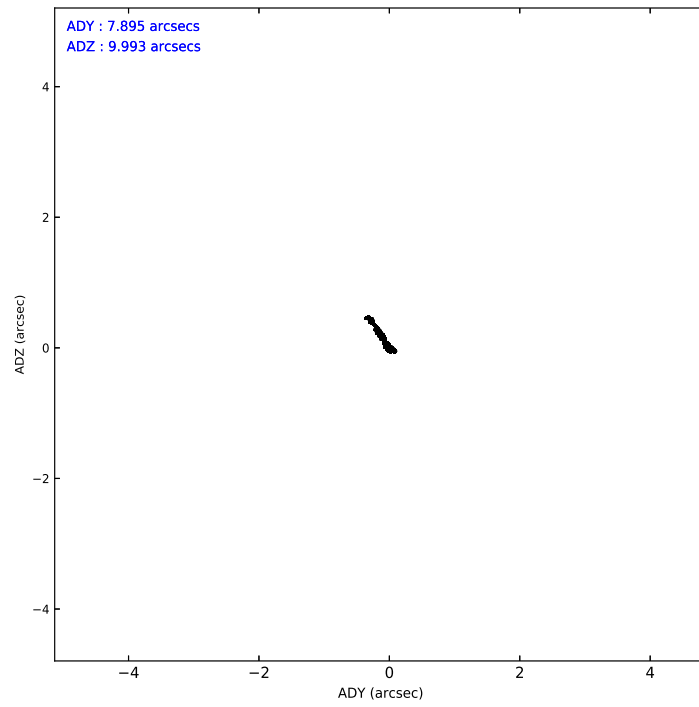
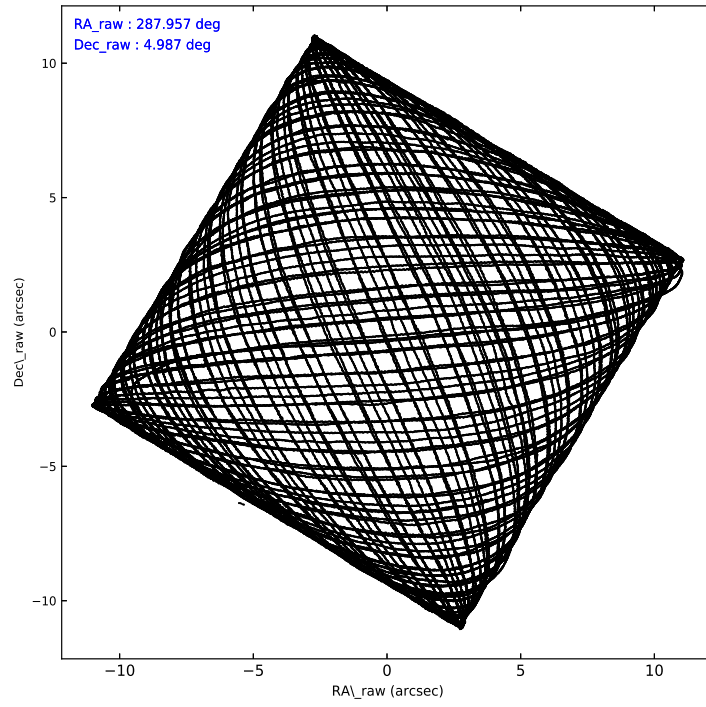
2.1.4 Events

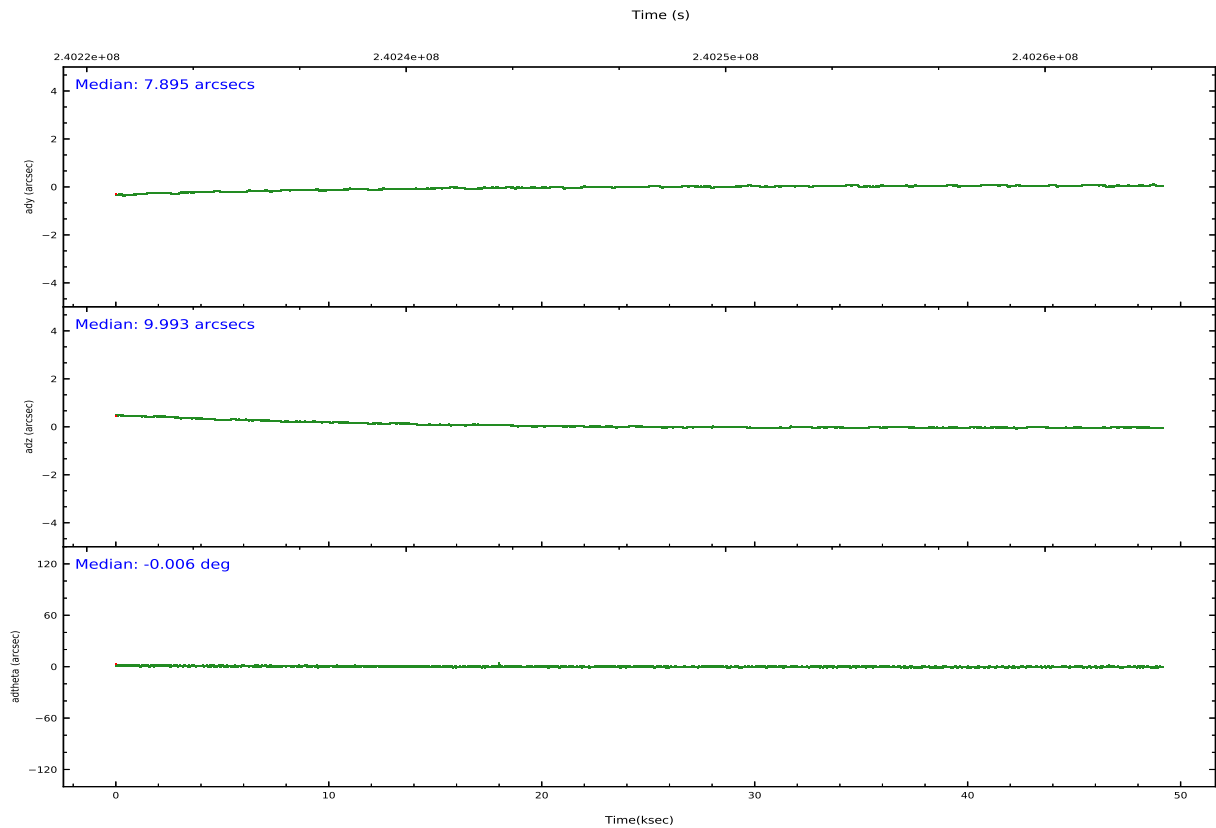
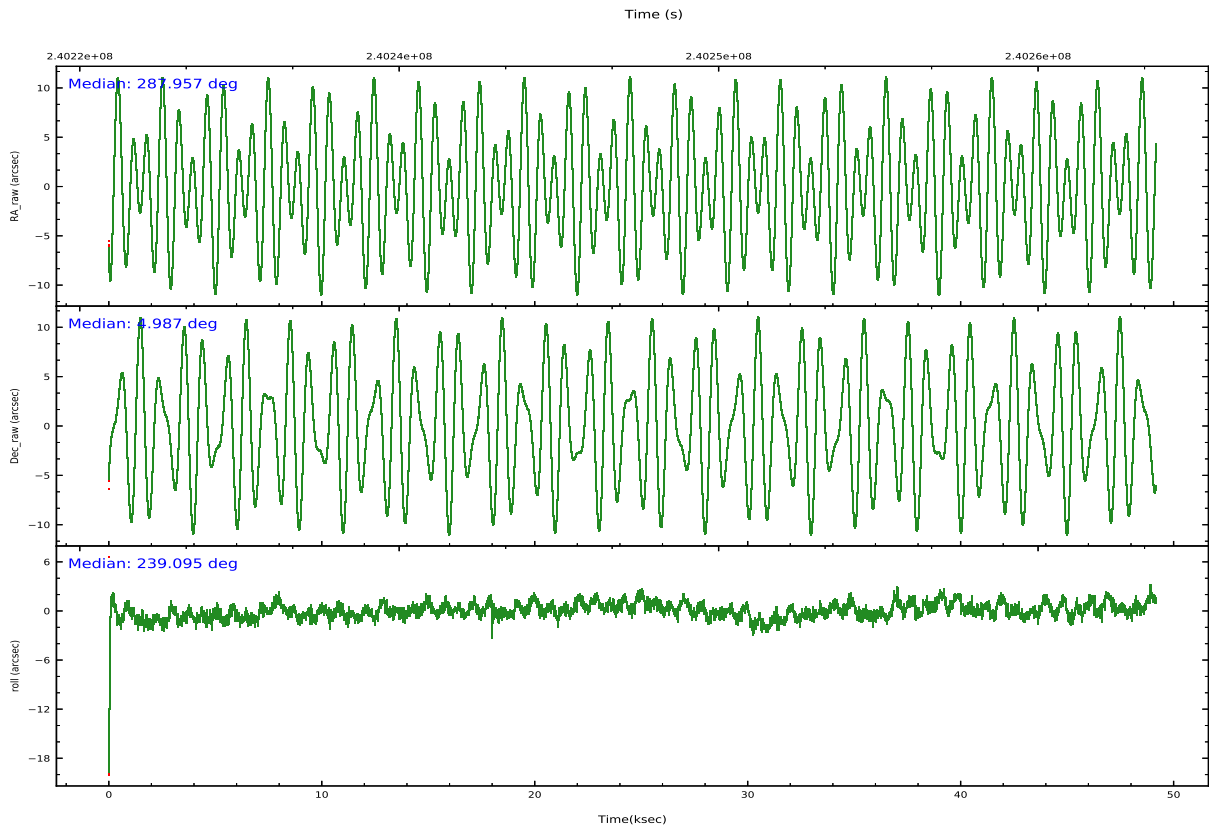
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	246872	352674	277214	349674	269817	198841	grade 0 events	36899	42424	44480	23924	28402	12265
rejected events	194344	167416	180375	165985	200842	170898		14%	12%	16%	6%	10%	6%
rejected %	78%	47%	65%	47%	74%	85%	grade 1 events	227	2824	184	780	193	81
								0%	0%	0%	0%	0%	0%
							grade 2 events	5715	47888	36133	39605	13120	5234
								2%	13%	13%	11%	4%	2%
							grade 3 events	2929	10600	4728	17999	6524	2943
								1%	3%	1%	5%	2%	1%
							grade 4 events	2889	10222	4545	17827	6112	2839
								1%	2%	1%	5%	2%	1%
							grade 5 events	8160	28942	9432	28500	11292	9208
								3%	8%	3%	8%	4%	4%
							grade 6 events	4164	74409	7117	84656	14908	4714
								1%	21%	2%	24%	5%	2%
							grade 7 events	185889	135365	170595	136383	189266	161557
								75%	38%	61%	39%	70%	81%

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	287.957108	287.95570944866	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	5.014565	4.9907754663423	Subarray start row	1	1
[deg] Pointing Roll	238.935346	239.09546715291	Subarray row count	542	542
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	1.8
[mm] SIM translation stage pos	-184.532523	-184.5306286120915			
[mm] SIM translation stage offset	-5.6	-5.601893970916279			
Phase constraints	Y	Y			
[d] Phase period	13.082110	13.082110			
[d] Phase epoch (MJD)	52377.900000	52377.900000			
Phase start	0.000000	0.000000			
Phase end	0.020000	0.020000			
Phase start error	0.050000	0.050000			
Phase end error	0.050000	0.050000			
[s] Observation start time (MET)	240221544.184000	240220497.21439			
Observation start date	2005-08-12T08:11:20	2005-08-12T07:54:57			
[s] Observation end time (MET)	240270544.184000	240272287.90426			
Observation end date	2005-08-12T21:48:00	2005-08-12T22:18:07			
Read mode	TIMED	TIMED			

2.3 Aspect





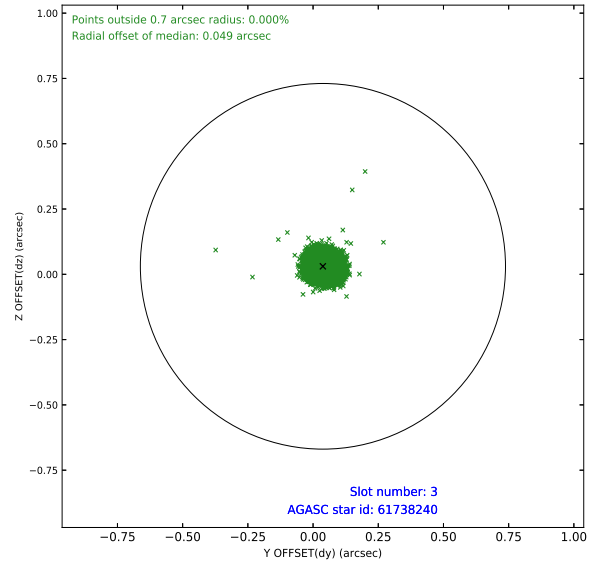
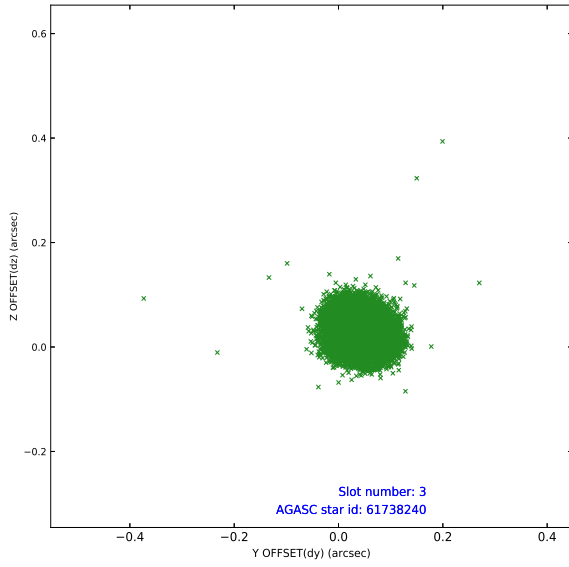
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-1	7.19	11995	1.000	0.077	-0.029	0.008	0.014	0.000000	0.000000	935.89	-1842
1	FID		ACIS-S-5	7.23	11990	1.000	-0.149	0.051	0.009	0.017	0.000000	0.000000	-1813.35	55
2	FID		ACIS-S-6	7.39	11992	1.000	0.050	-0.011	0.007	0.012	0.000000	0.000000	401.42	699
3	GUIDE	used	61738240	7.31	23984	1.000	0.038	0.031	0.042	0.066	287.996556	4.354861	1961.43	1347
4	GUIDE	used	61741304	7.64	23987	1.000	-0.094	0.043	0.054	0.086	287.957418	5.377327	-1119.17	-672
5	GUIDE	used	61743800	7.48	23986	1.000	0.069	-0.164	0.060	0.092	287.776811	5.274666	-468.45	-1036
6	GUIDE	used	61744976	7.58	23989	1.000	-0.131	0.036	0.049	0.077	288.430364	5.306675	-1776.72	910
7	GUIDE	used	61745016	8.65	23984	1.000	0.115	0.054	0.059	0.094	288.113628	4.368816	1701.52	1681

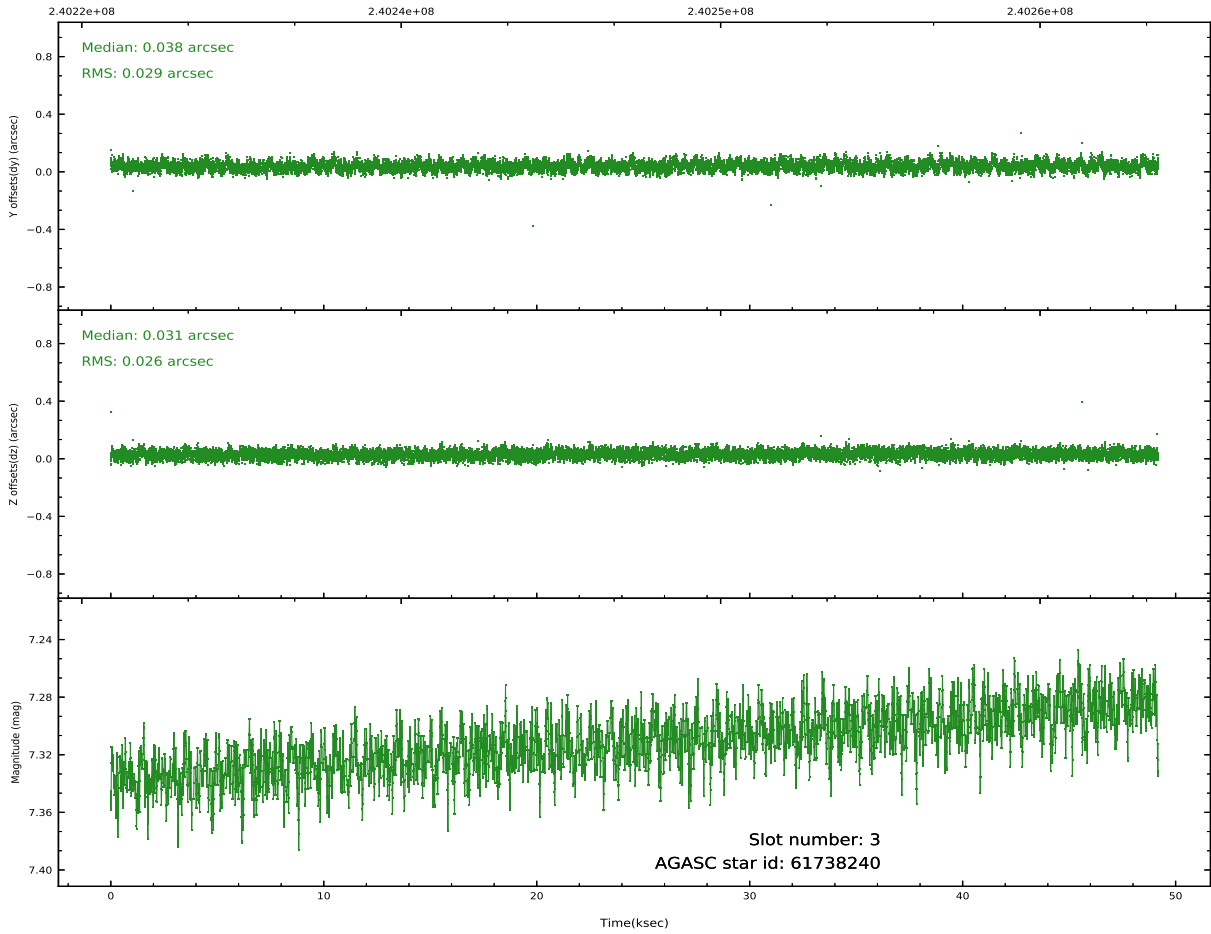
∞

2.4 Star Slots

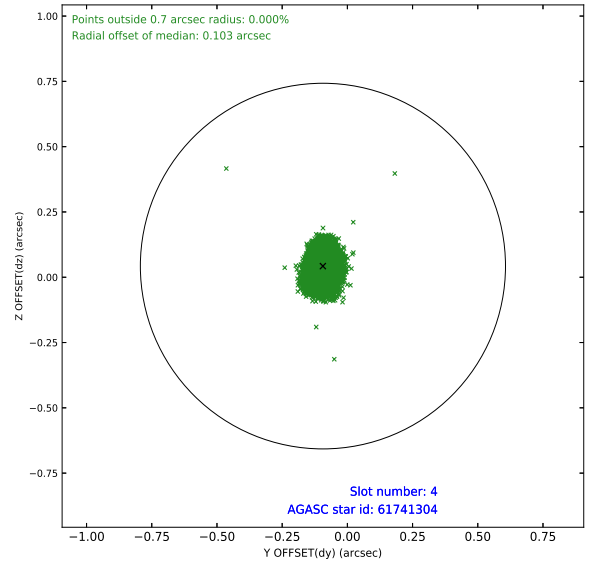
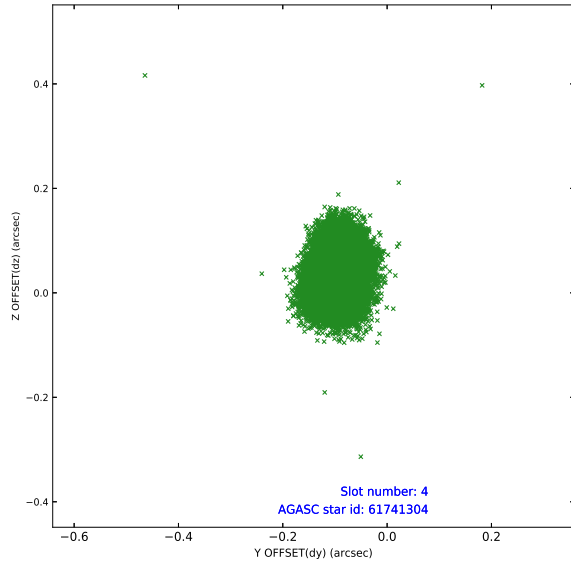
2.4.1 Slot 3



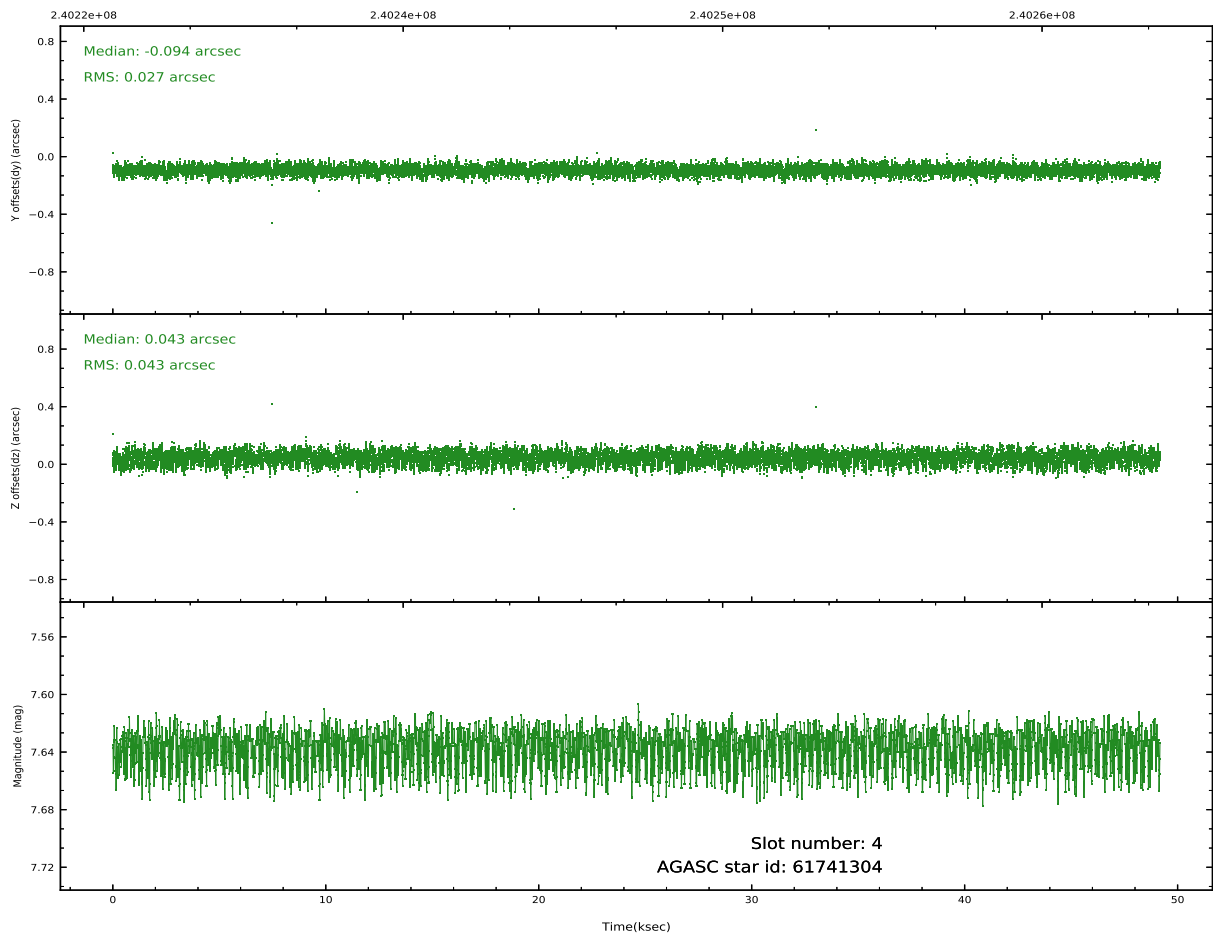
Time (s)



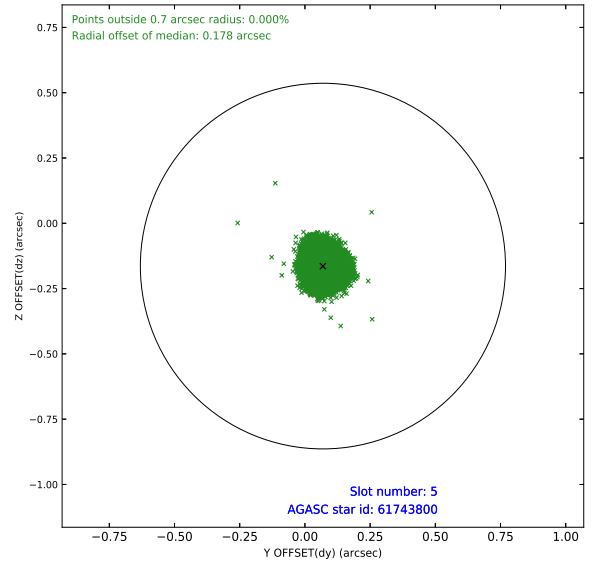
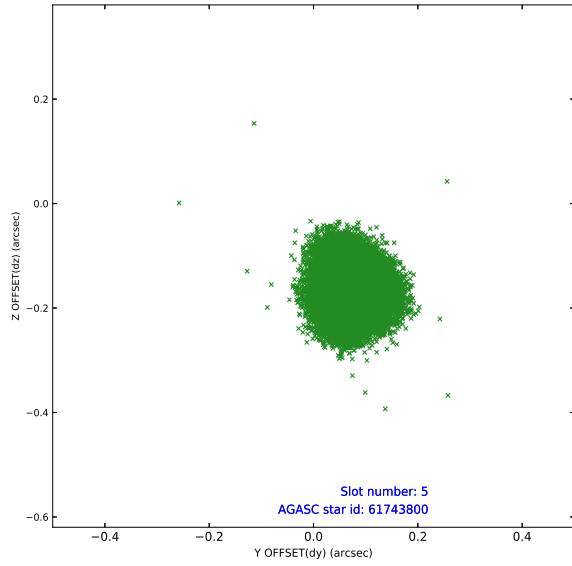
2.4.2 Slot 4



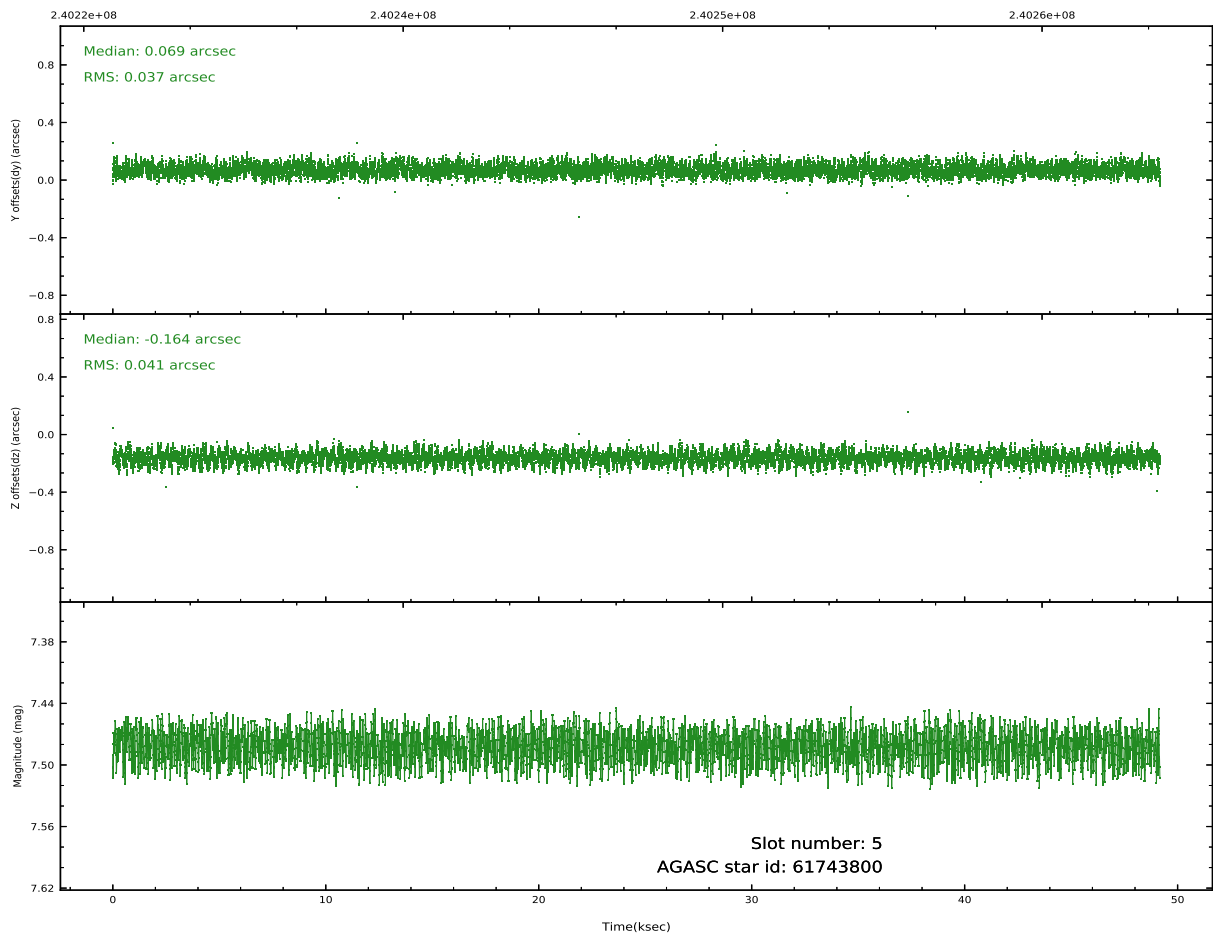
Time (s)



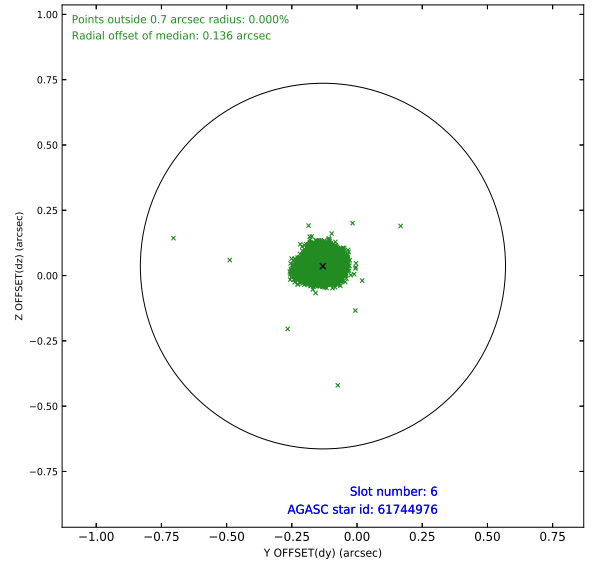
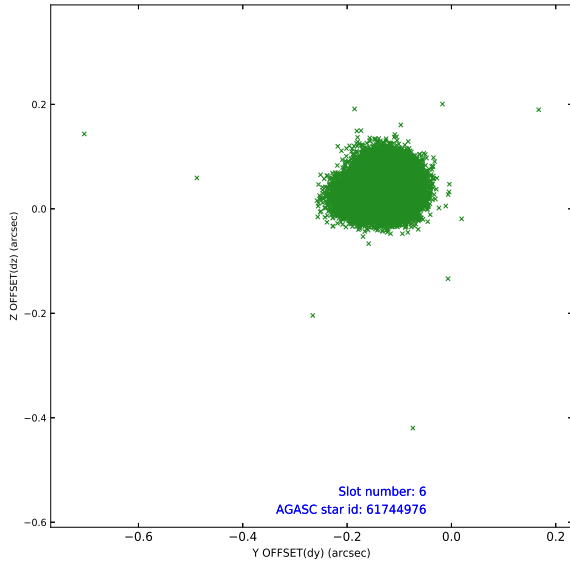
2.4.3 Slot 5



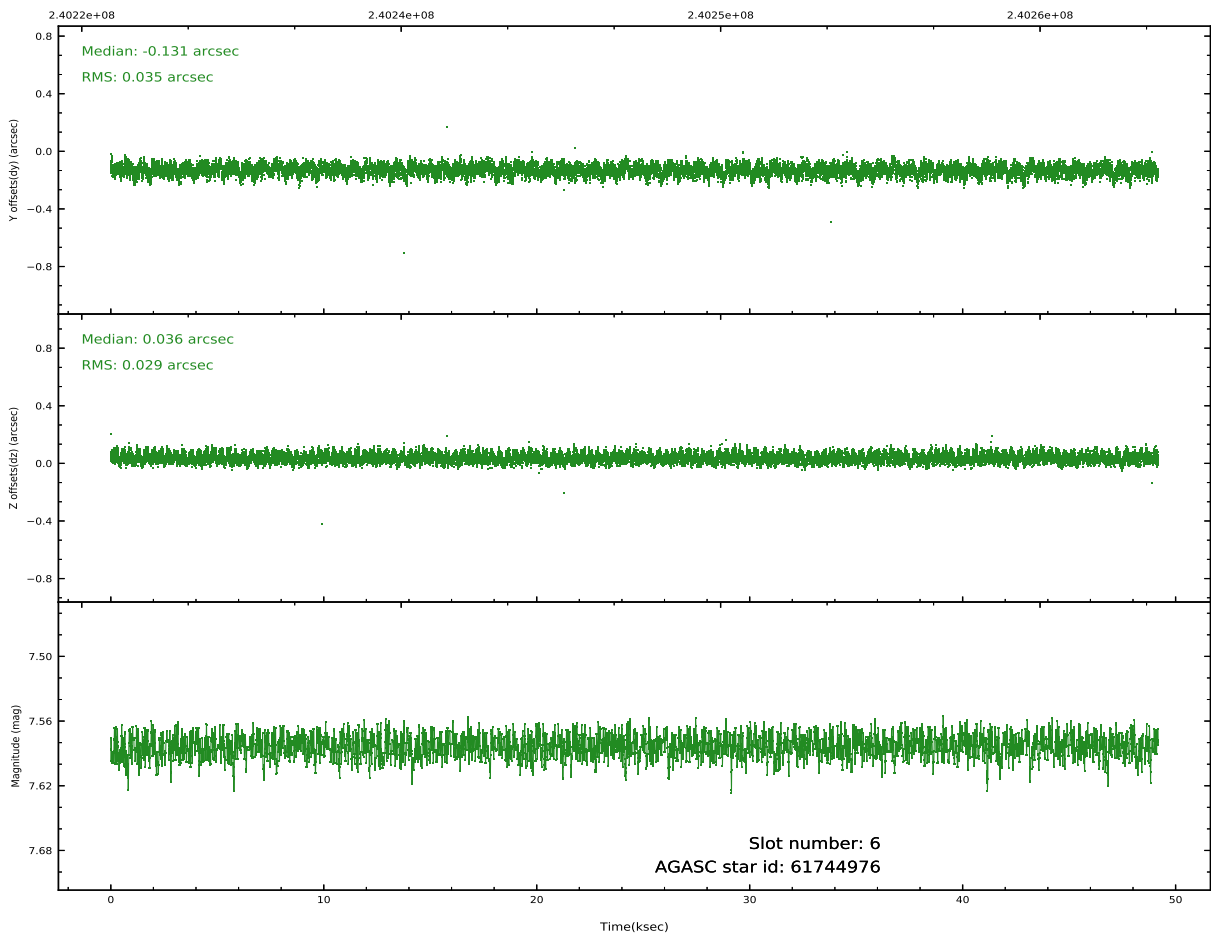
Time (s)



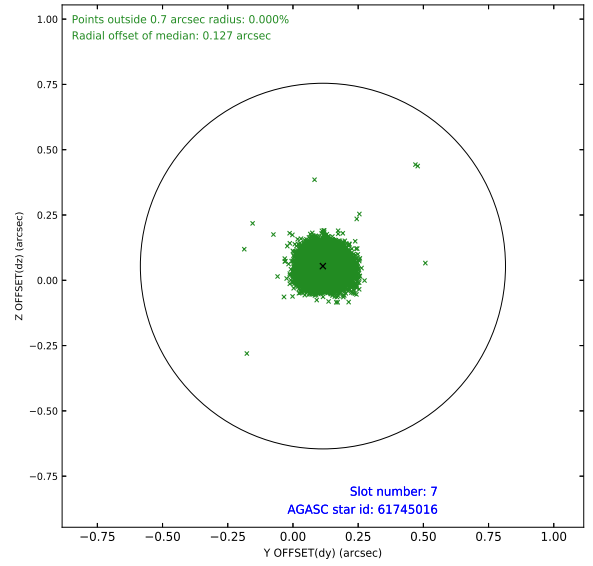
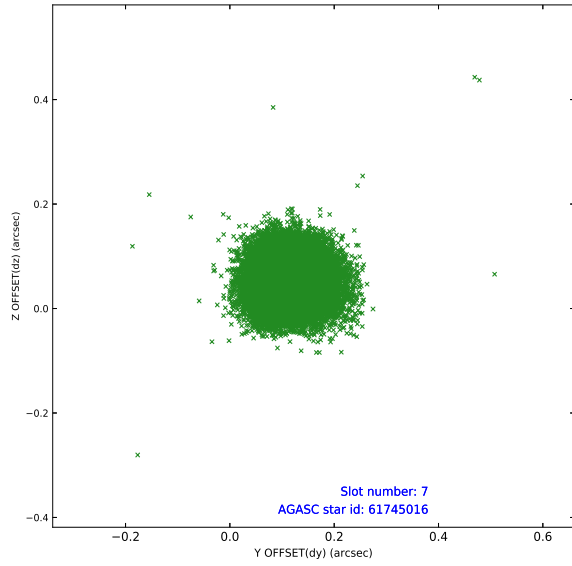
2.4.4 Slot 6



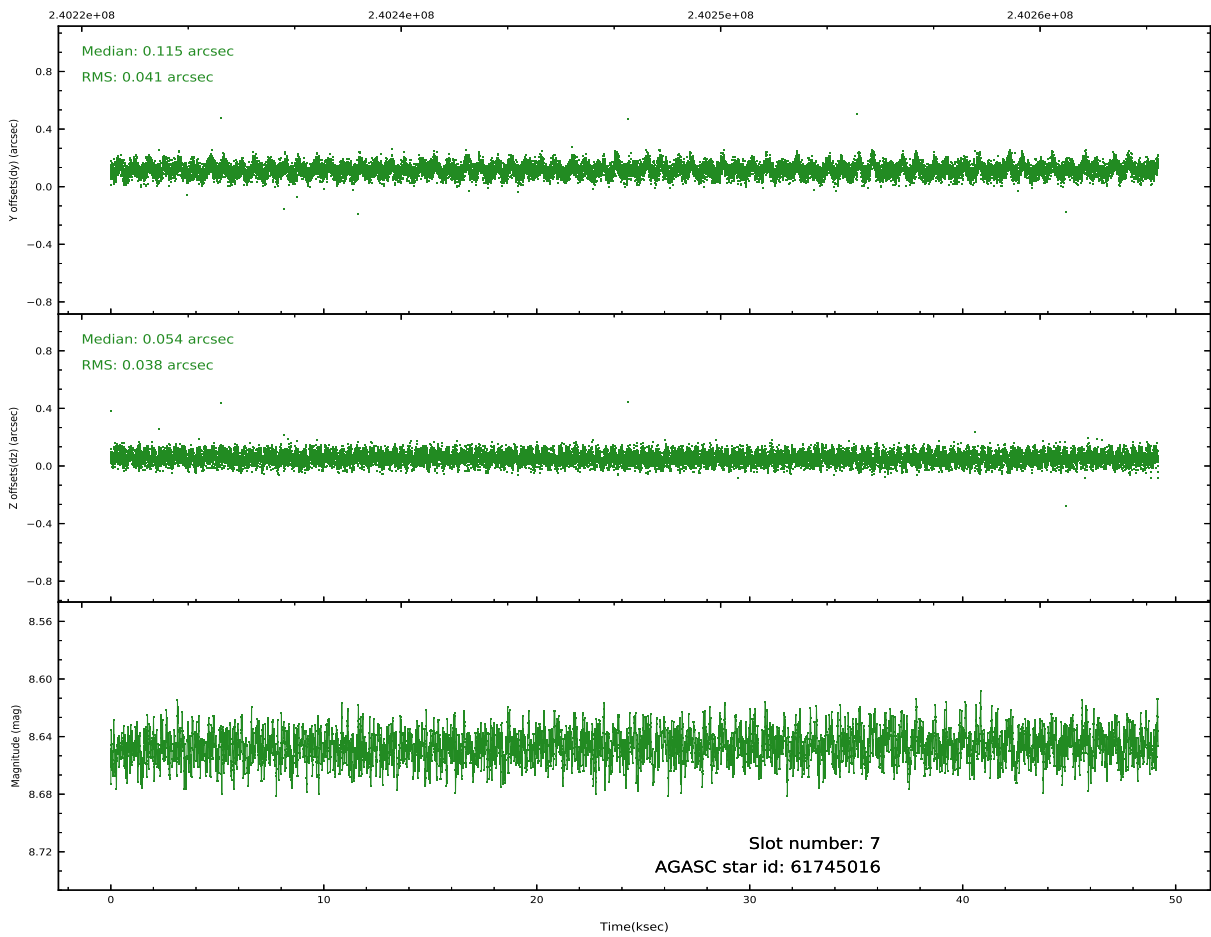
Time (s)



2.4.5 Slot 7

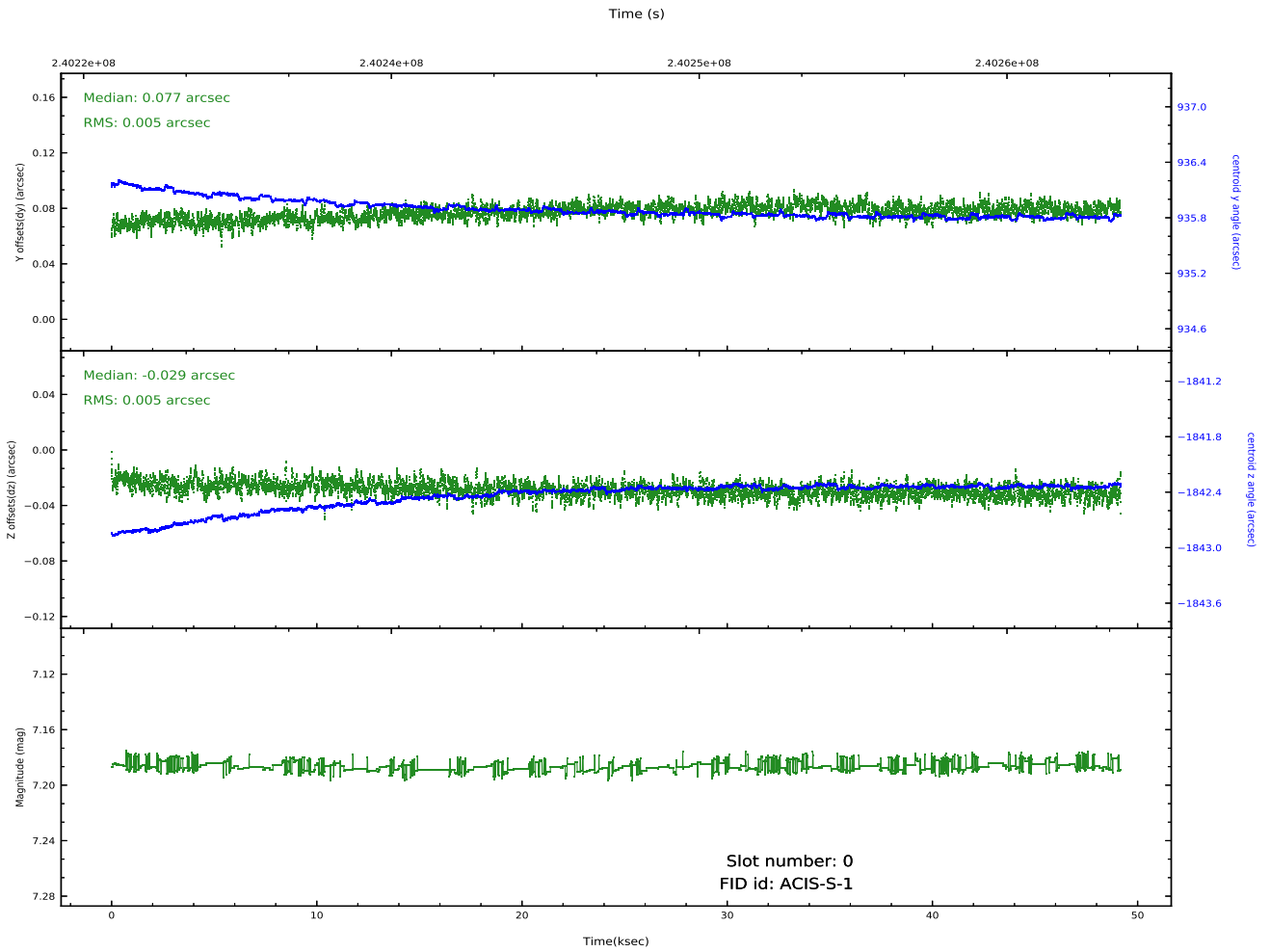
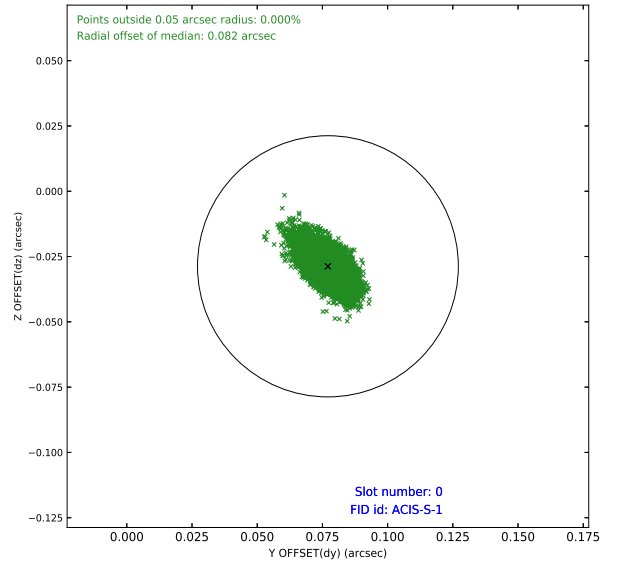
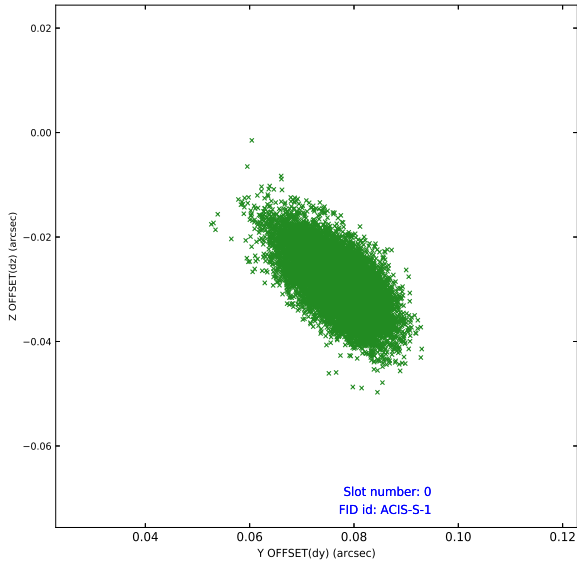


Time (s)

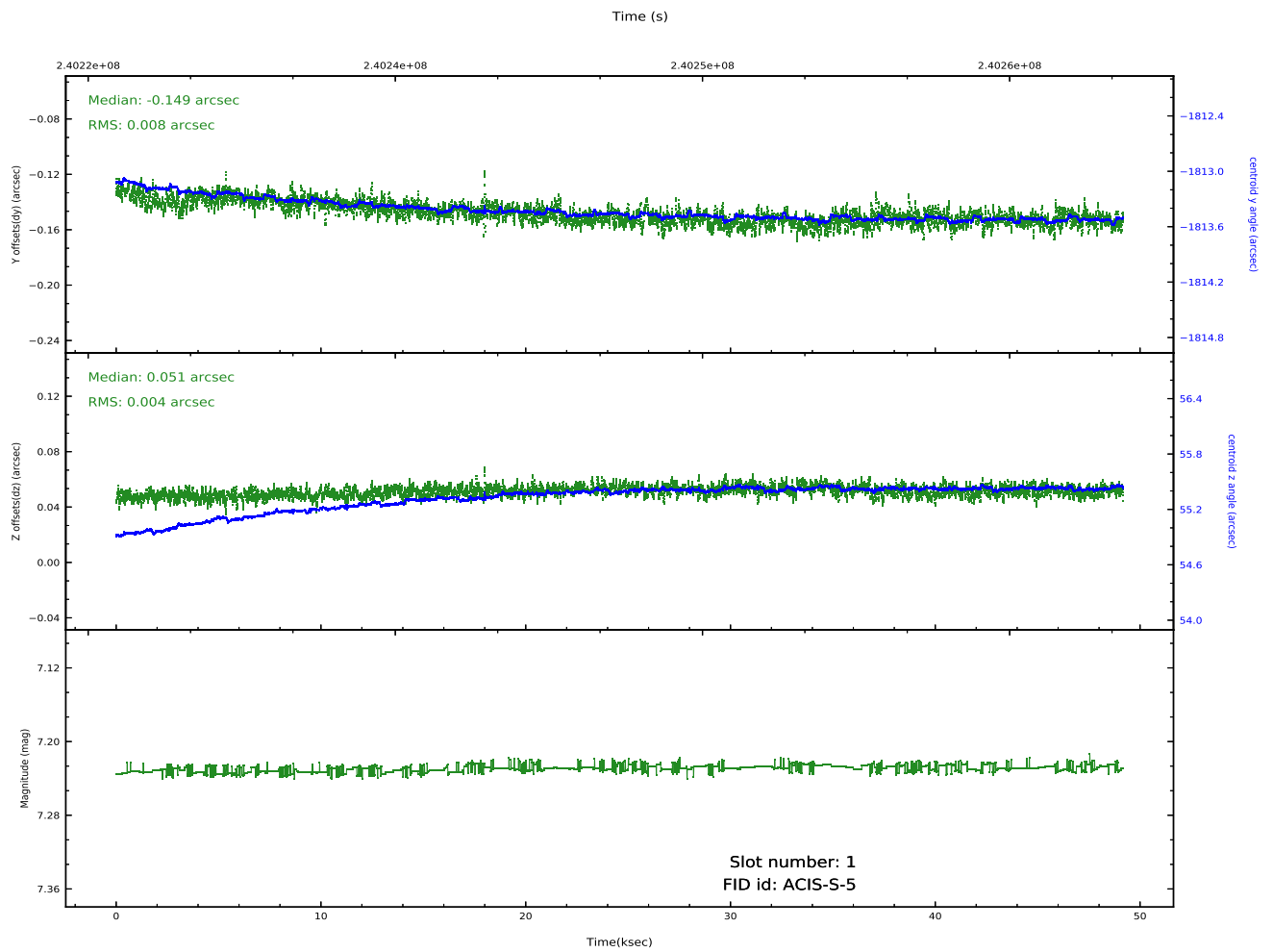
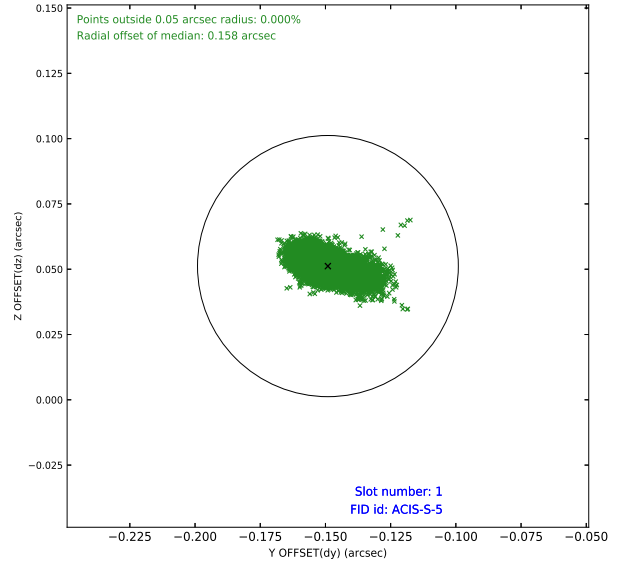
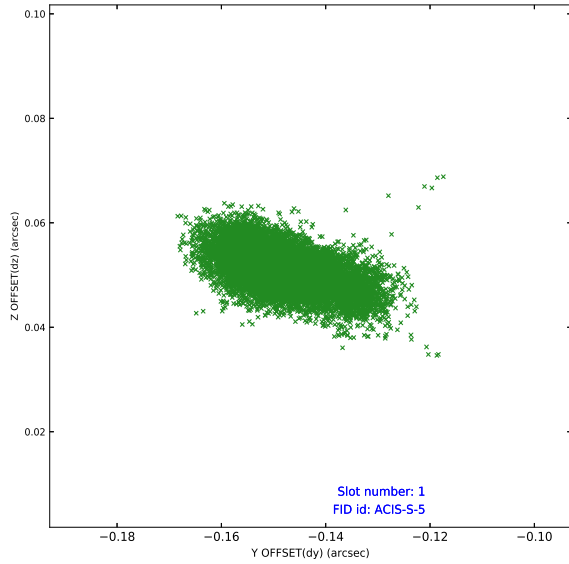


2.5 FID Slots

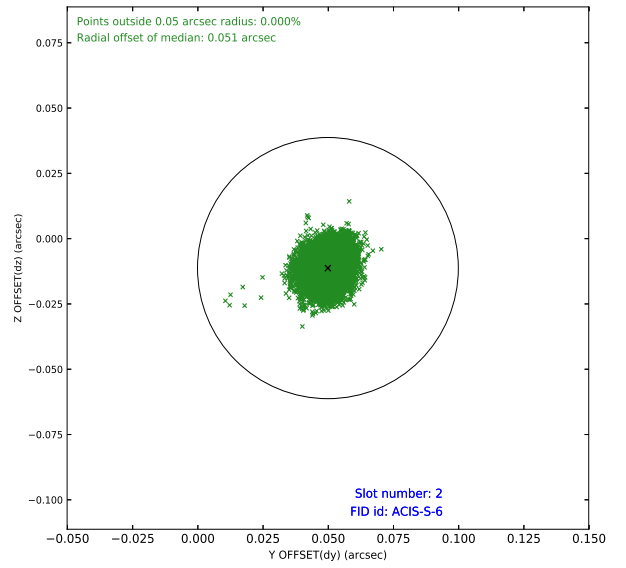
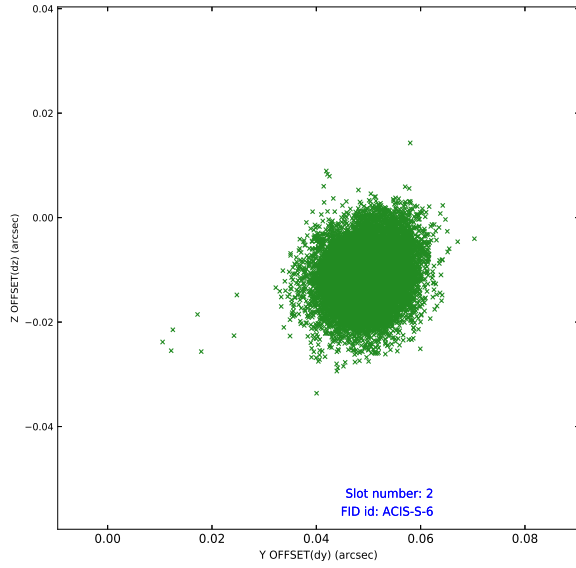
2.5.1 Slot 0



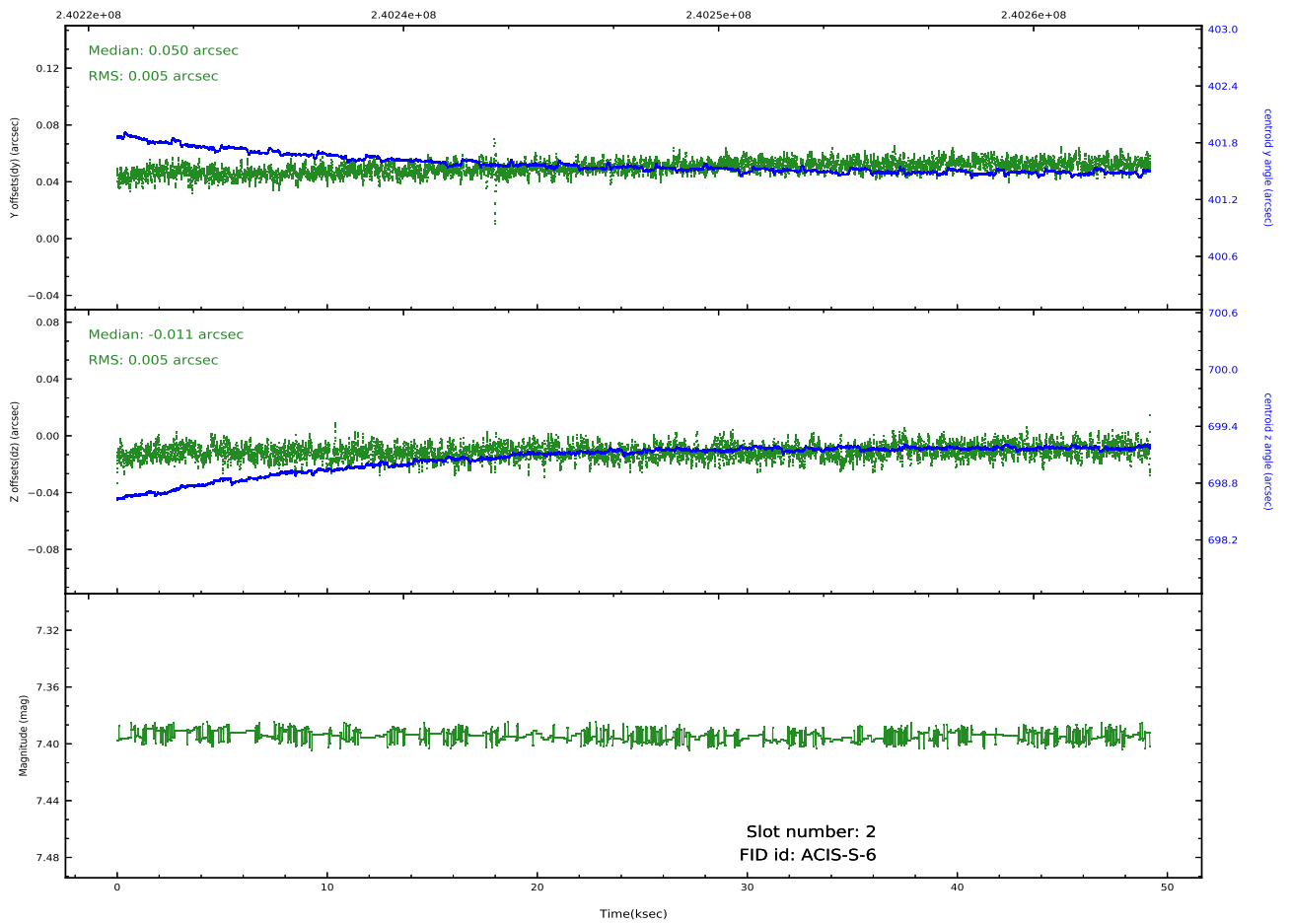
2.5.2 Slot 1



2.5.3 Slot 2

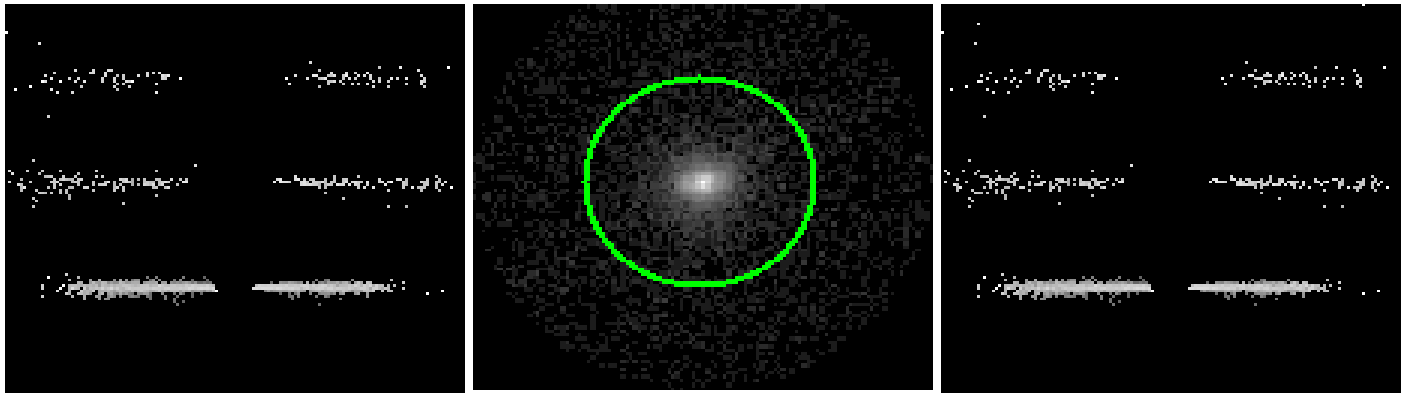


Time (s)



3 Gratings

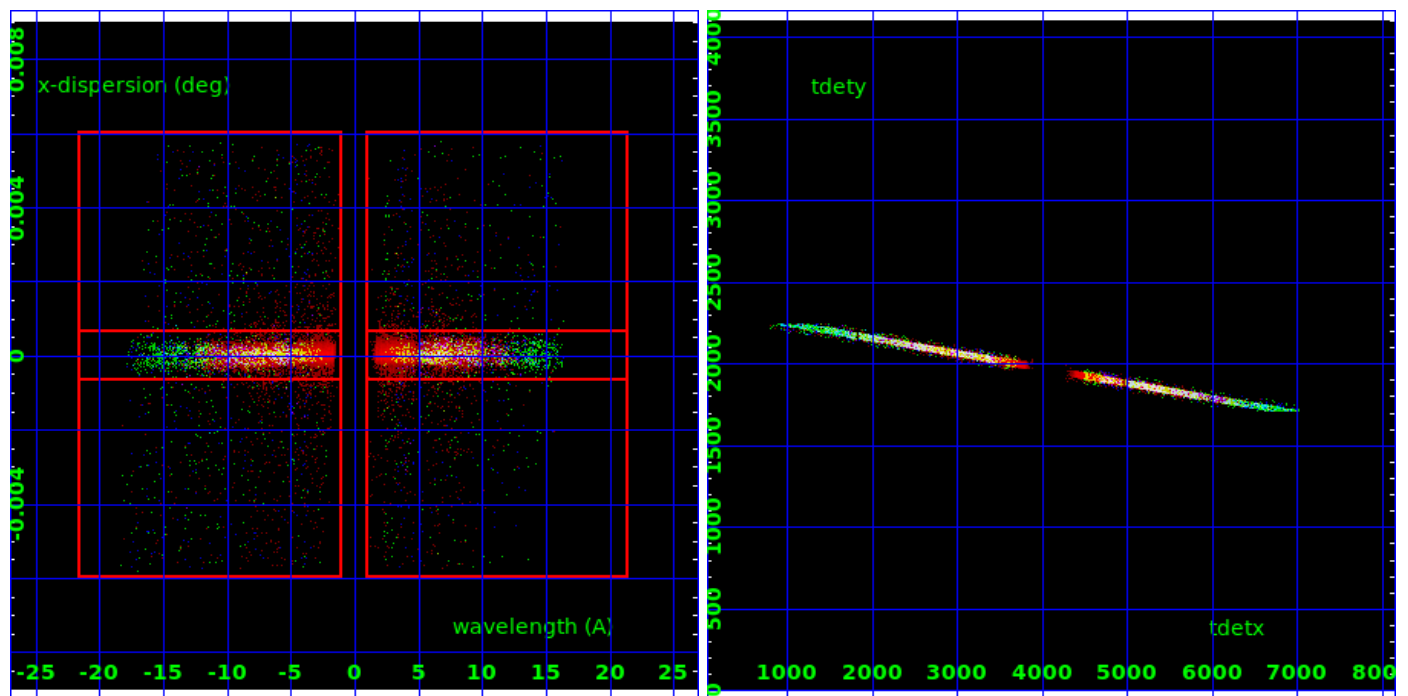
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

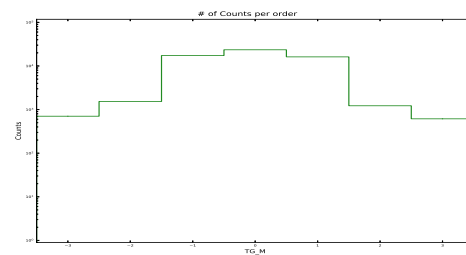
HEG Order Sort ALL

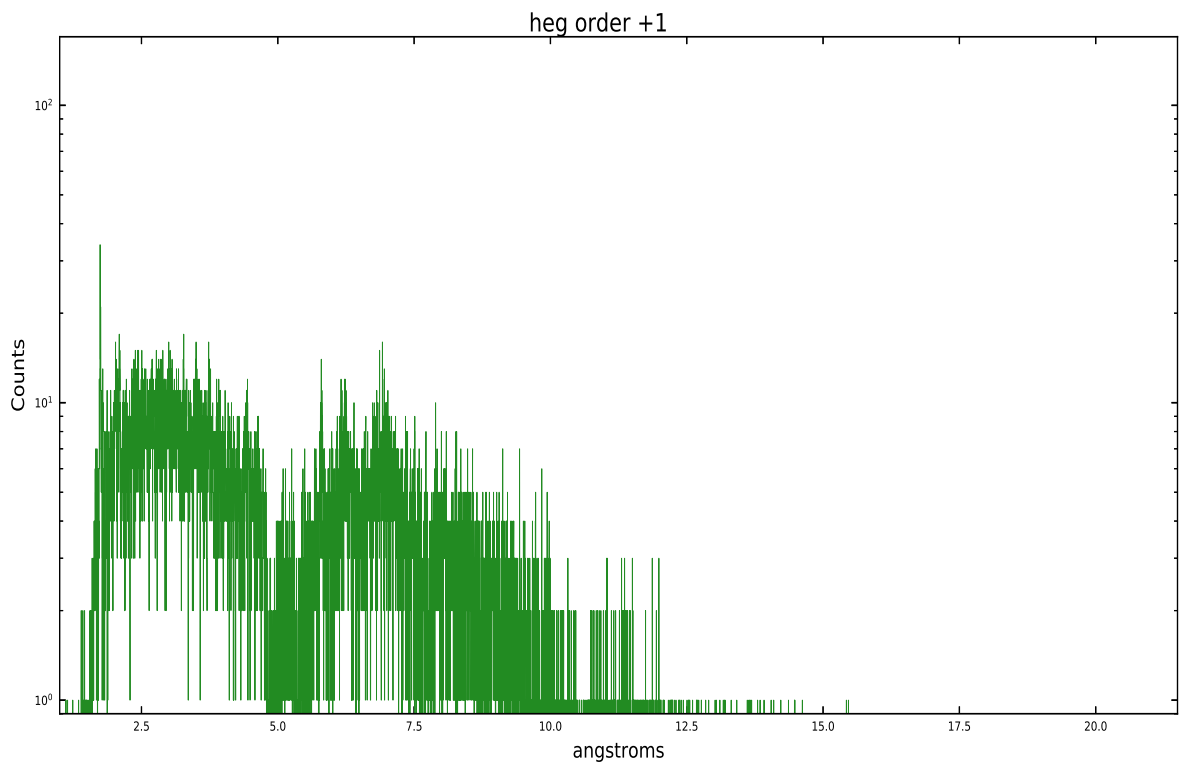
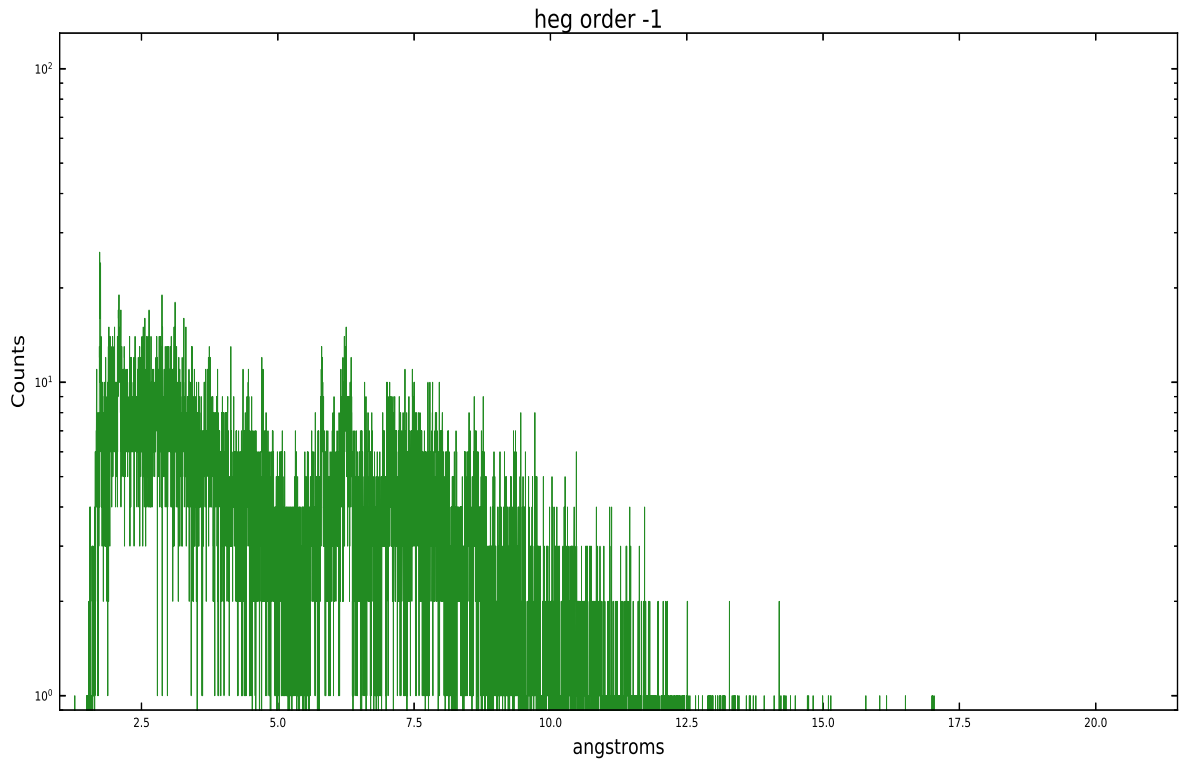


Spot Image HEG

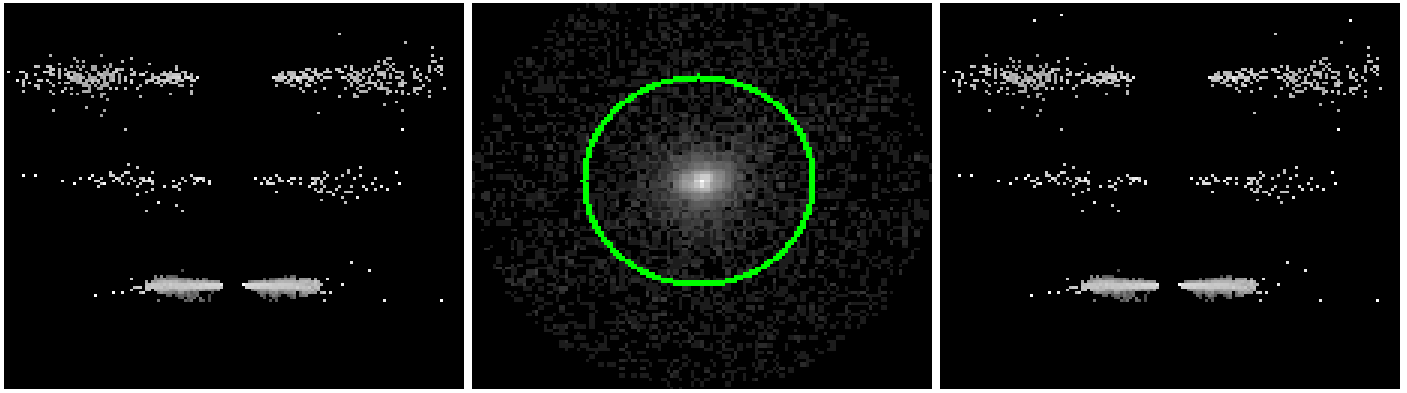
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	704	1534	17325	23511	16167	1223	614





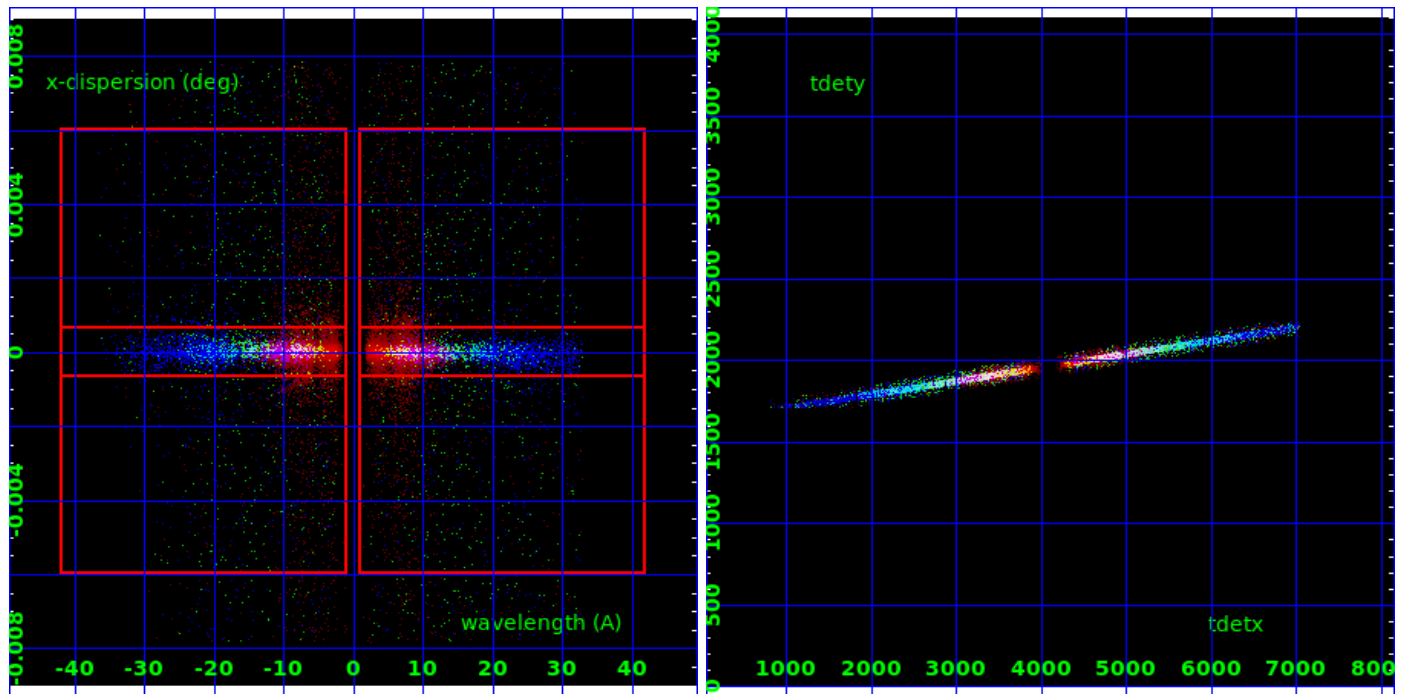
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

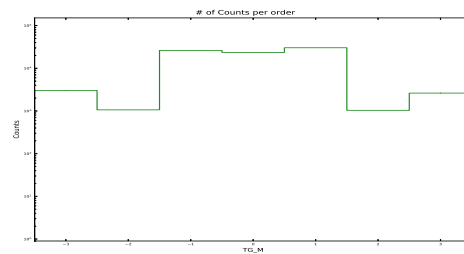
MEG Order Sort ALL

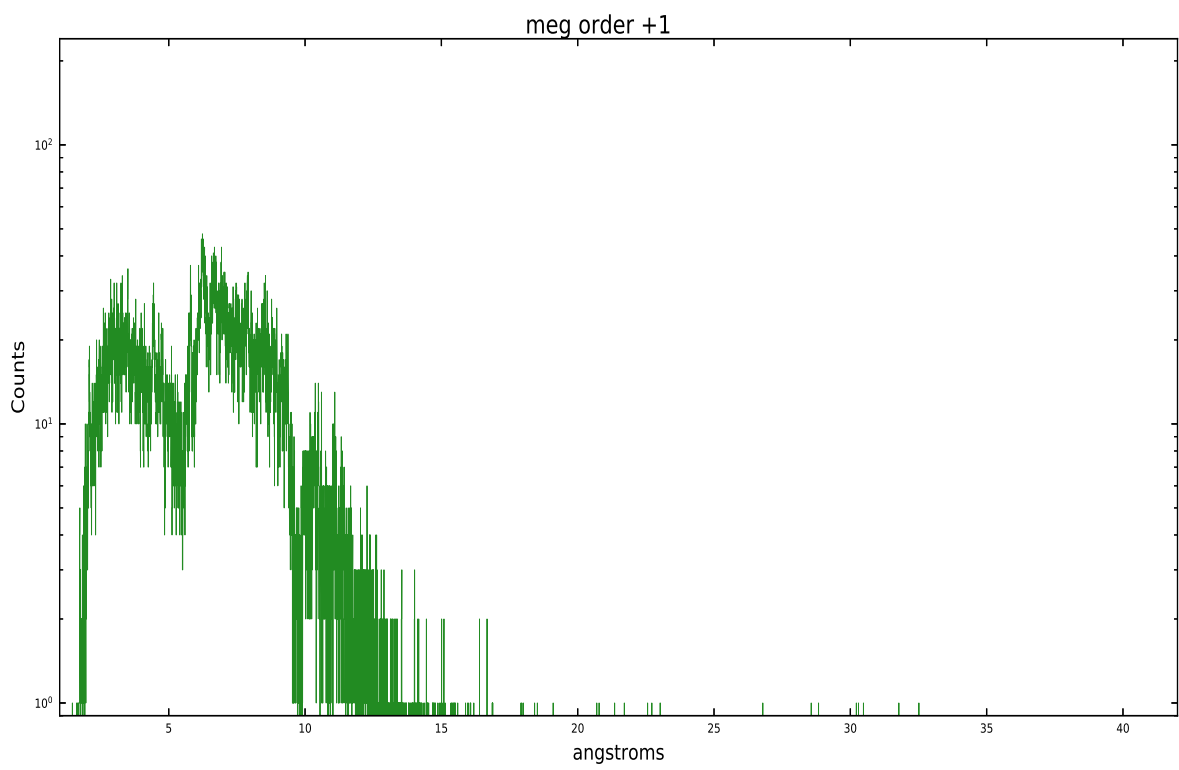
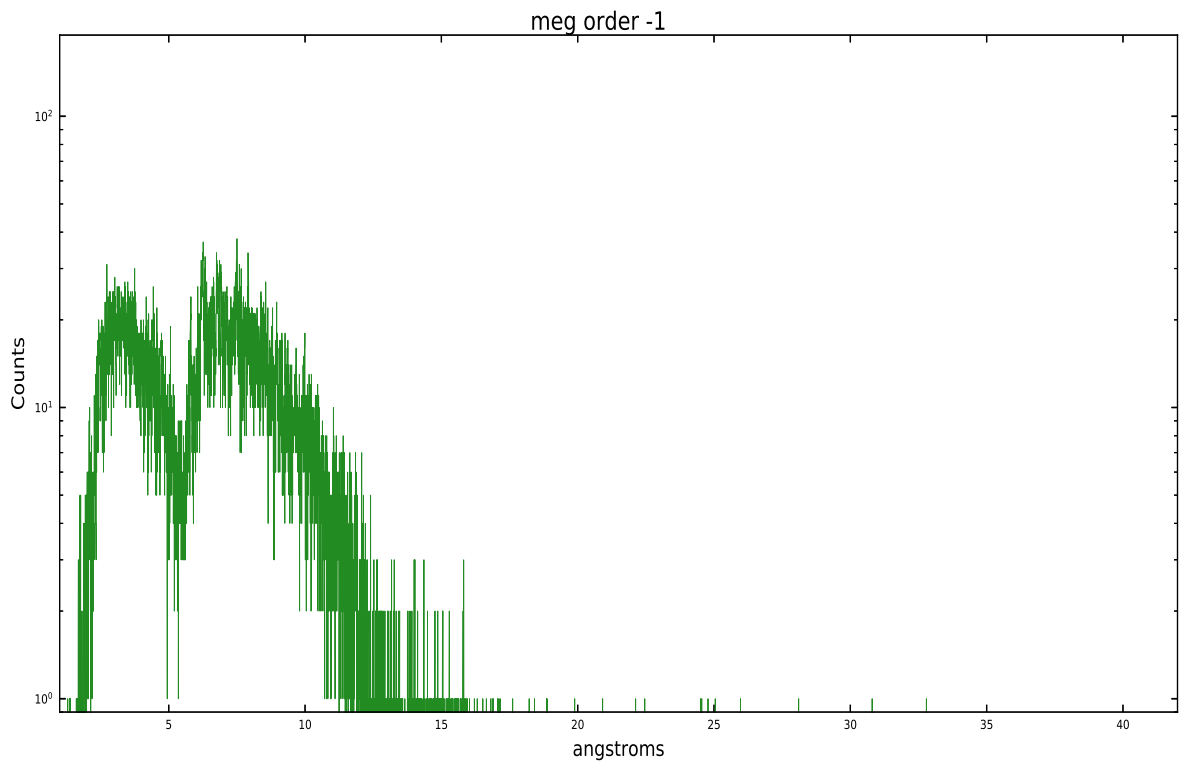


Spot Image MEG

Full Detector MEG

	order	order	order	order	order	order	order
	-3	-2	-1	0	1	2	3
Events	3008	1062	26185	23511	30266	1035	2623





A Summary

A.1 Status

V&V Scientist	David Principe
V&V Date (YYYY-MM-DD)	2020.10.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	49.1778

A.2 Comments