

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 4914 - L2 Version 4
Chandra X-Ray Center

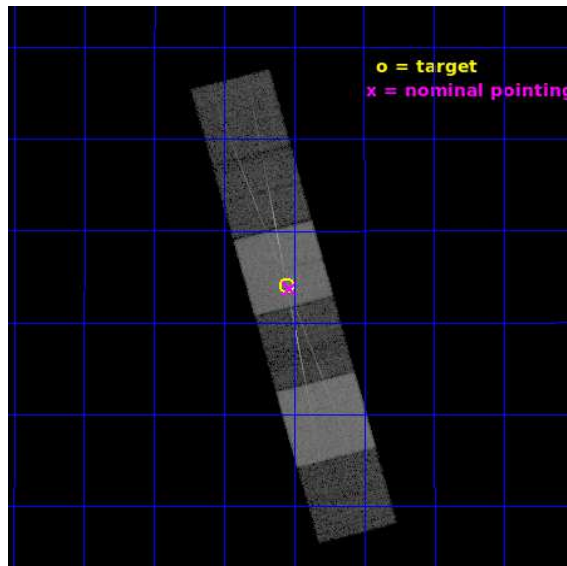
L2 Processing Date : Sep 24 2020

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1 Front

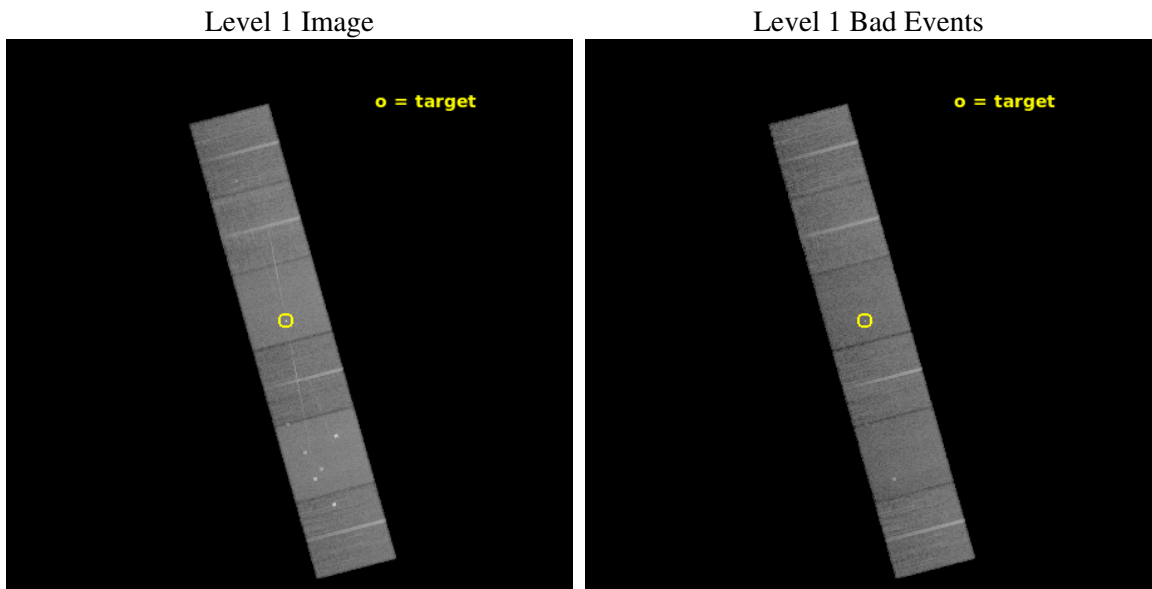
seq_num	700995	Sequence number
obs_id	4914	Observation id
title	Evolution of Active Galaxies: Exploring the NLS1-Starburst Connection	Proposal title
observer	Dr. Peter Predehl	Principal investigator
object	Mrk 705	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	141.51375	Observer's specified target RA [deg]
dec_targ	12.734444	Observer's specified target Dec [deg]
ra_nom	141.50740984918	Nominal RA [deg]
dec_nom	12.72841859764	Nominal Dec [deg]
roll_nom	254.8659993752	Nominal Roll [deg]
revision	4	Processing version of data
ontime	21257.599920809	Sum of GTIs [s]
livetime	20988.423390822	Livetime [s]
ontime4	21257.599920809	Sum of GTIs [s]
ontime5	21257.599920809	Sum of GTIs [s]
ontime6	21254.35901016	Sum of GTIs [s]
ontime7	21257.599920809	Sum of GTIs [s]
ontime8	21254.358920604	Sum of GTIs [s]
ontime9	21257.599920809	Sum of GTIs [s]
l2events	257524	Number of level 2 events



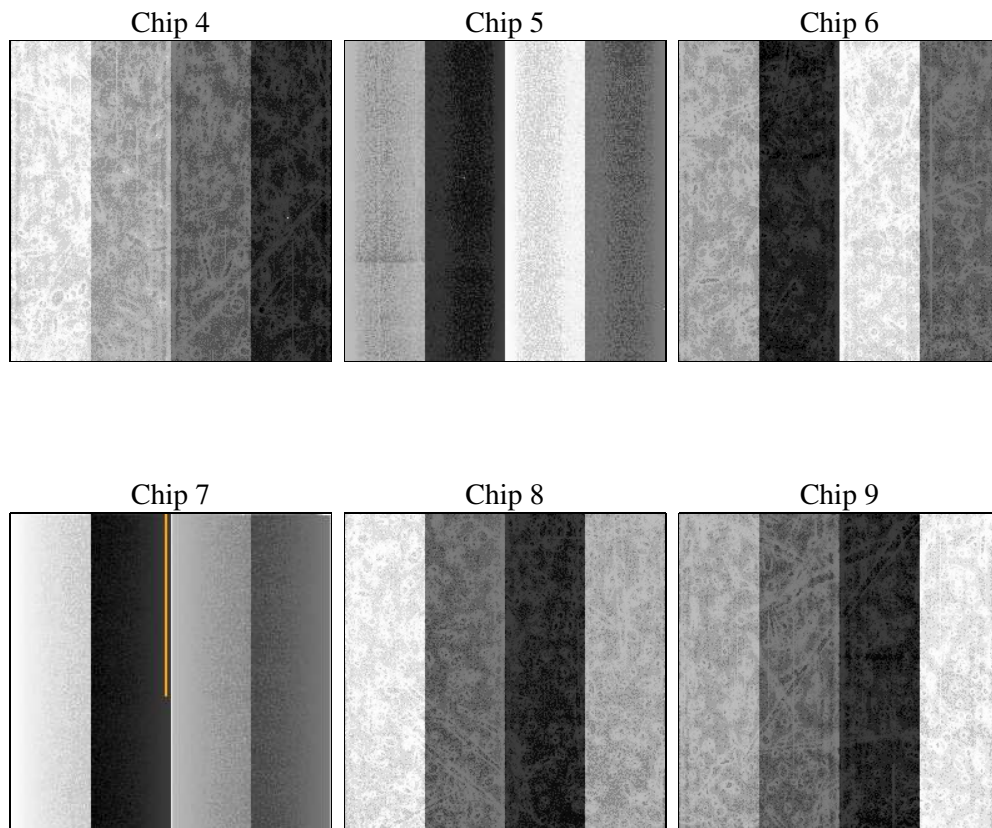
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	21420.824000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	21257.599920809	Sum of GTIs [s]
caldbver	4.9.2	 	ontime4	21257.599920809	Sum of GTIs [s]
date	2020-09-24T11:46:14	Date and time of file creation	ontime5	21257.599920809	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	21254.35901016	Sum of GTIs [s]
			ontime7	21257.599920809	Sum of GTIs [s]
			ontime8	21254.358920604	Sum of GTIs [s]
			ontime9	21257.599920809	Sum of GTIs [s]
			l1events	1082539	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			z0_pos	(4052.26, 4140.22)	grade 0 sky pixel position

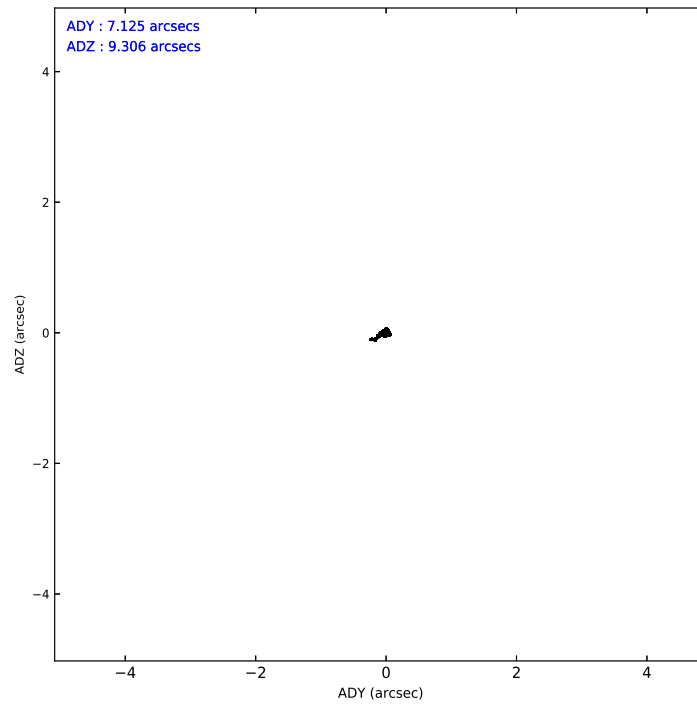
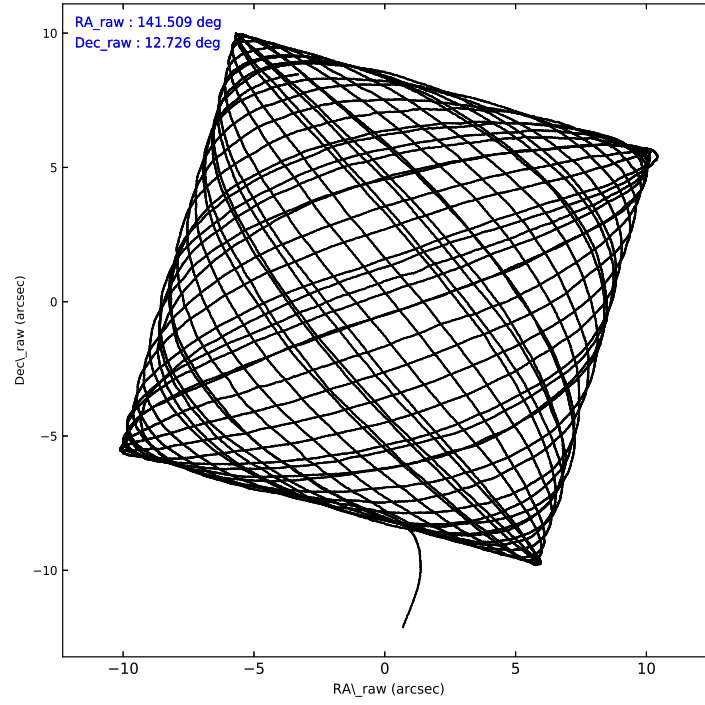
2.1.4 Events

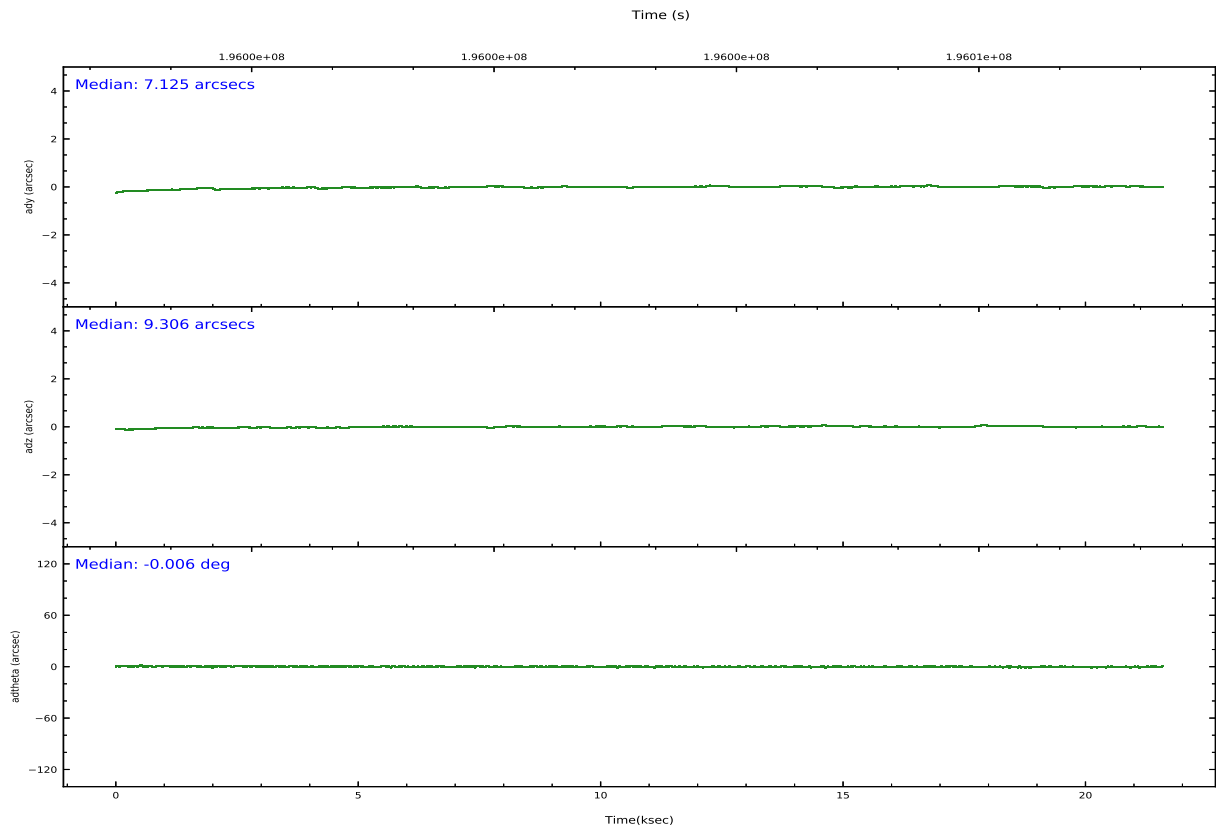
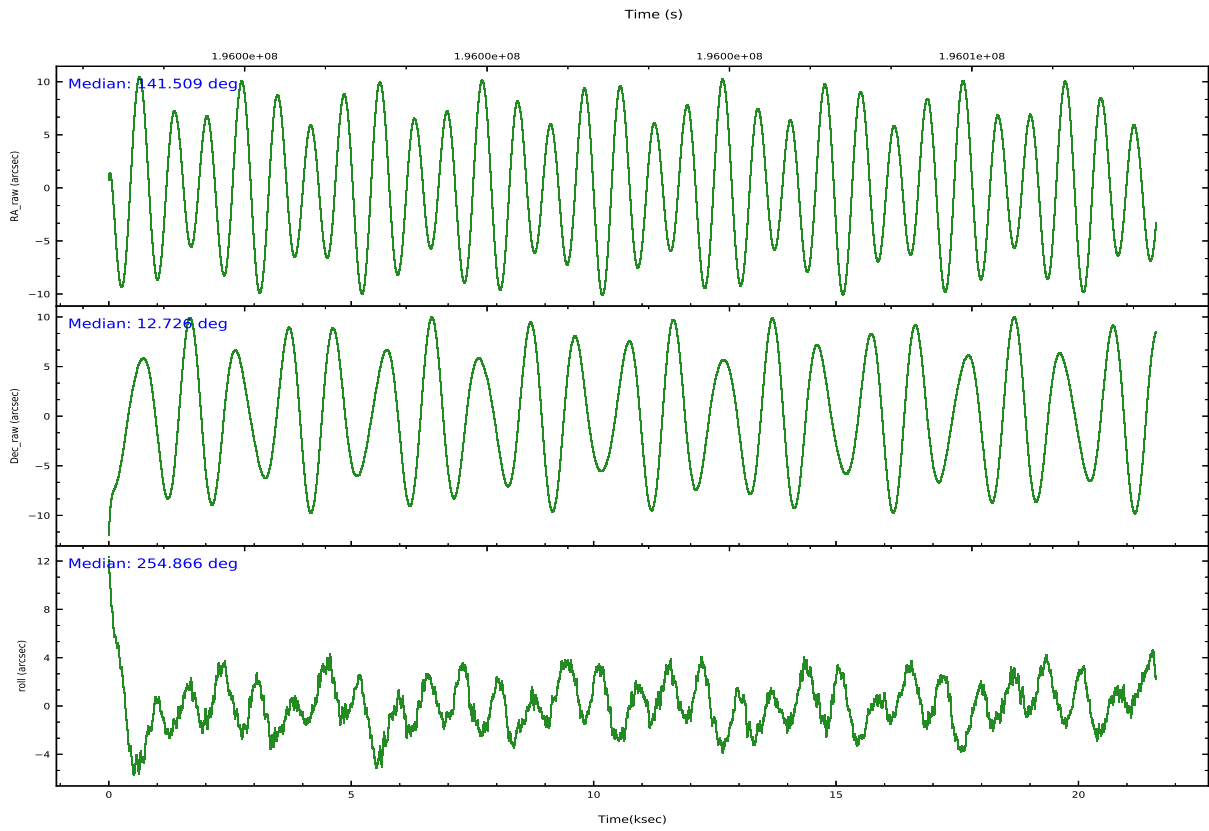
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	166682	223393	153991	205064	187247	146162	grade 0 events	14565	13967	10835	9127	15458	9605
rejected events	140802	118523	130757	115939	144656	124913		8%	6%	7%	4%	8%	6%
rejected %	84%	53%	84%	56%	77%	85%	grade 1 events	177	301	83	290	120	94
								0%	0%	0%	0%	0%	0%
							grade 2 events	4090	30644	4329	17735	8667	3822
								2%	13%	2%	8%	4%	2%
							grade 3 events	2046	3997	1962	8035	4277	1966
								1%	1%	1%	3%	2%	1%
							grade 4 events	1932	3817	1996	7968	4206	1885
								1%	1%	1%	3%	2%	1%
							grade 5 events	6404	16125	6544	19150	8825	7110
								3%	7%	4%	9%	4%	4%
							grade 6 events	3255	52470	4116	46282	10003	3974
								1%	23%	2%	22%	5%	2%
							grade 7 events	134213	102072	124126	96477	135691	117706
								80%	45%	80%	47%	72%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	141.501993	141.50740984918	Subarray requested	NONE	NONE
[deg] Pointing Dec	12.751916	12.72841859764	Alternating exposures requested	N	N
[deg] Pointing Roll	254.711299	254.8659993752	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	195992379.184000	195991344.96533			
Observation start date	2004-03-18T10:18:35	2004-03-18T10:02:24			
[s] Observation end time (MET)	196013799.184000	196014114.31633			
Observation end date	2004-03-18T16:15:35	2004-03-18T16:21:54			
Read mode	TIMED	TIMED			

2.3 Aspect





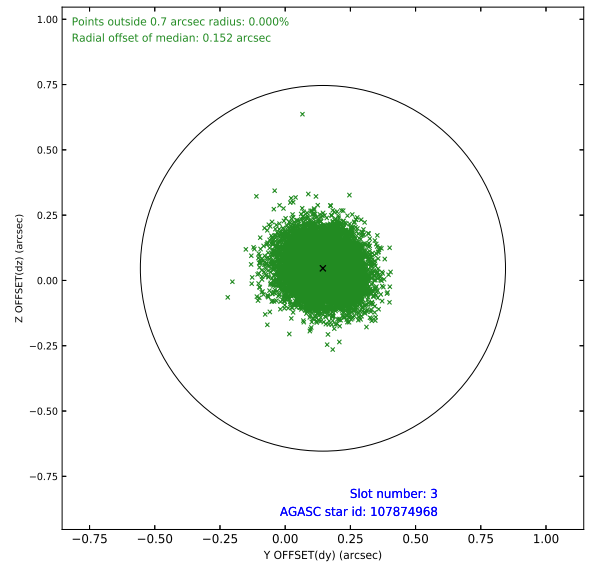
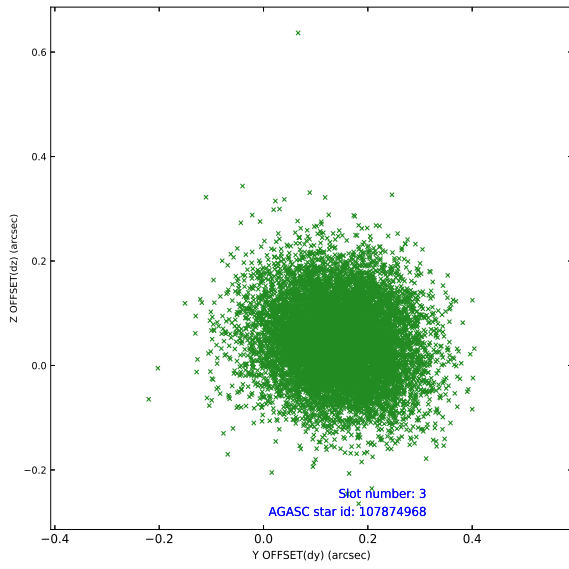
Slot Statistics

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	7.10	5269	1.000	-0.061	-0.063	0.007	0.011	0.000000	0.000000	-759.88	-1730
1	FID		ACIS-S-4	7.20	5269	1.000	0.125	0.046	0.006	0.010	0.000000	0.000000	2153.46	177
2	FID		ACIS-S-5	7.24	5268	1.000	-0.094	0.025	0.007	0.011	0.000000	0.000000	-1812.59	171
3	GUIDE	used	107874968	9.95	10533	1.000	0.145	0.046	0.114	0.188	141.308691	12.185415	2146.82	-118
4	GUIDE	used	108269584	8.53	10533	1.000	-0.009	0.015	0.069	0.109	141.684428	12.507889	678.71	850
5	GUIDE	used	108273032	9.08	10536	1.000	0.102	-0.022	0.079	0.130	141.083954	12.520007	1192.17	-1196
6	GUIDE	used	108273952	7.81	10539	1.000	-0.046	0.033	0.064	0.105	142.111925	12.674985	-299.37	2138
7	GUIDE	used	108274000	8.70	10533	1.000	-0.194	-0.073	0.076	0.121	141.000036	13.388222	-1747.49	-2300

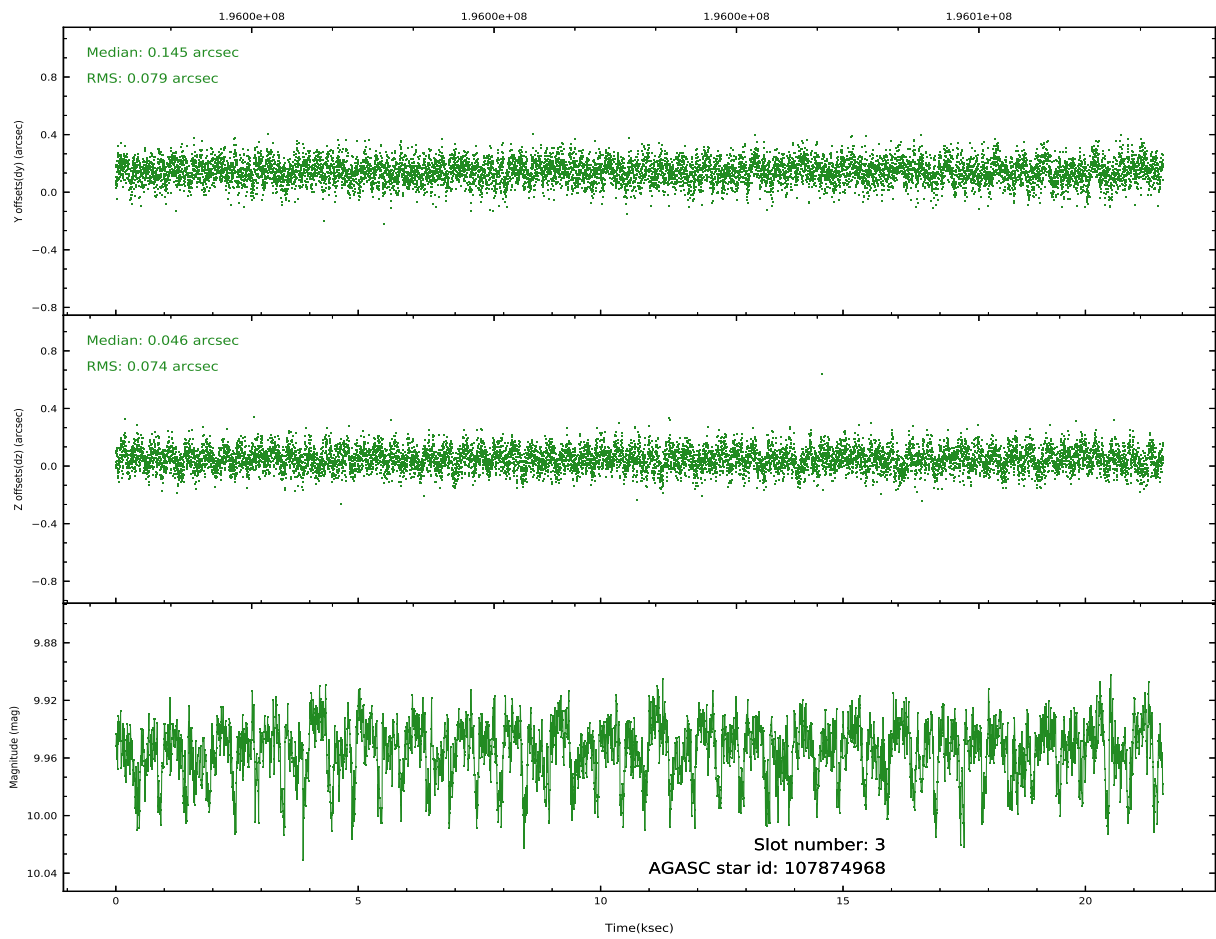
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2.4 Star Slots

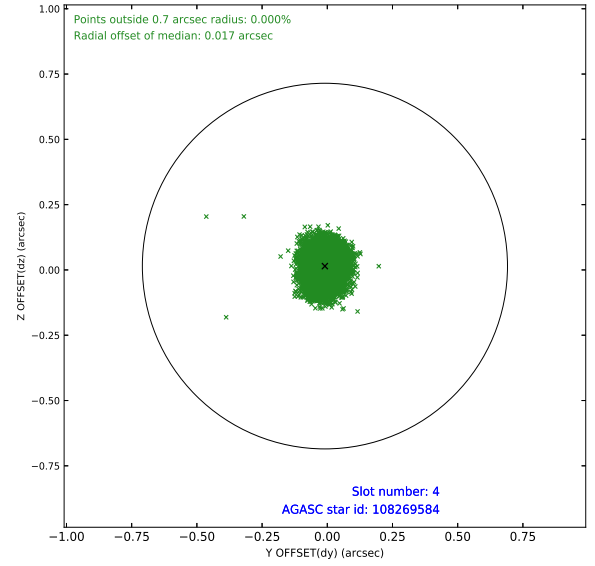
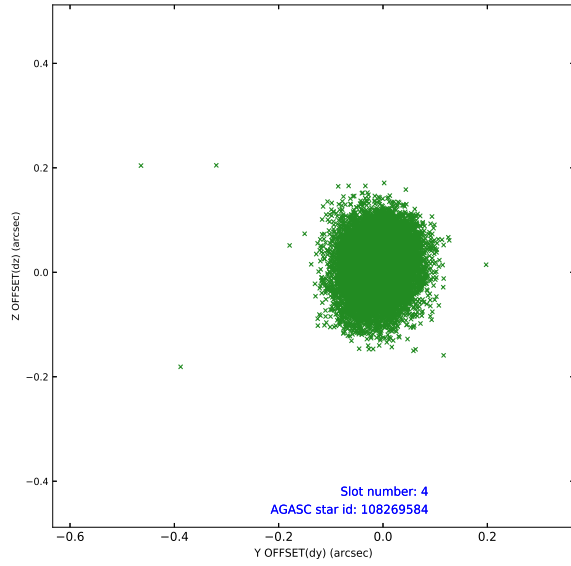
2.4.1 Slot 3



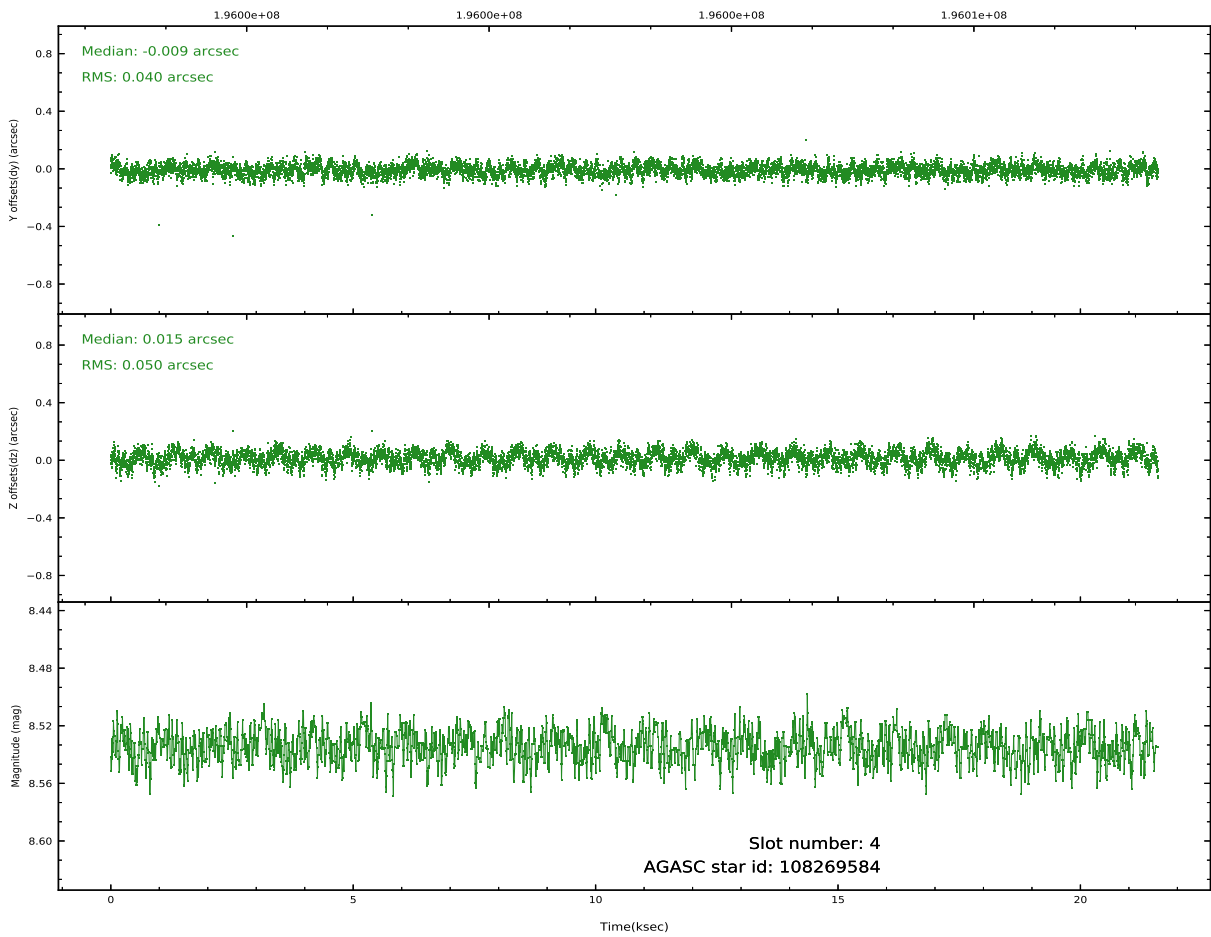
Time (s)



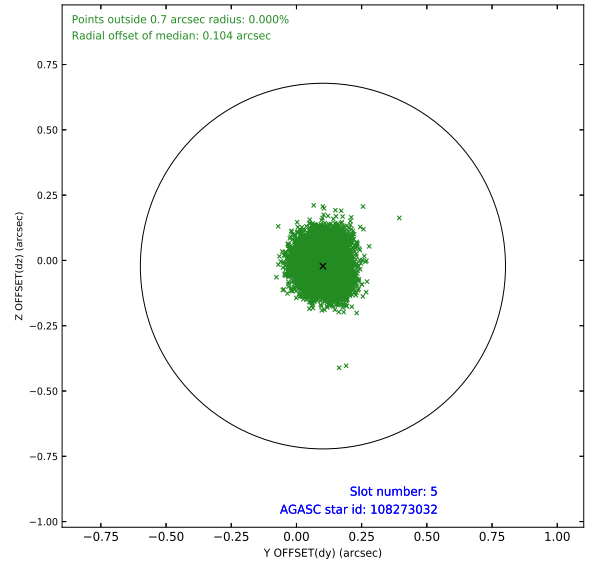
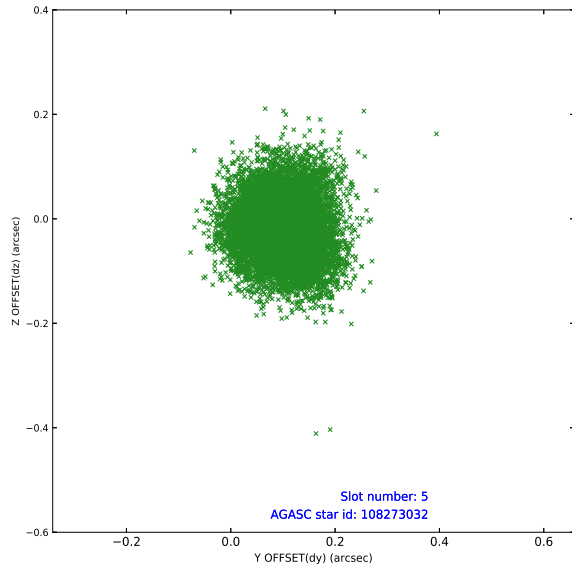
2.4.2 Slot 4



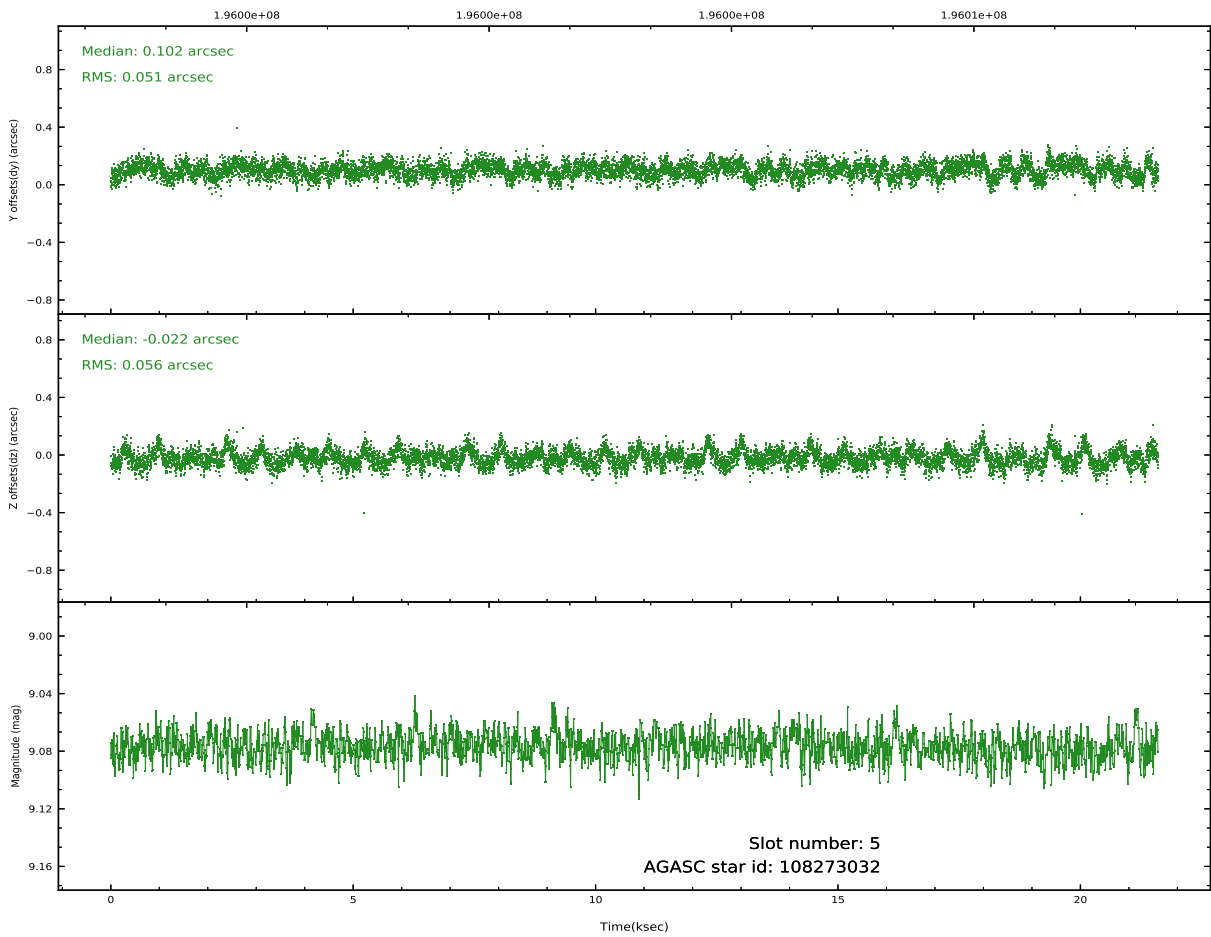
Time (s)



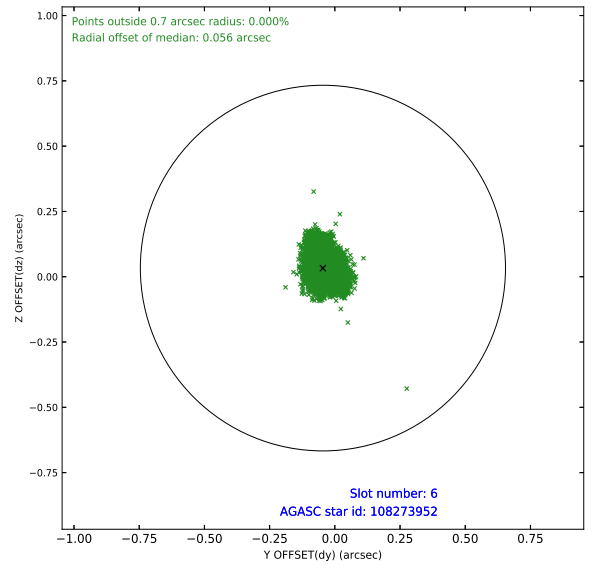
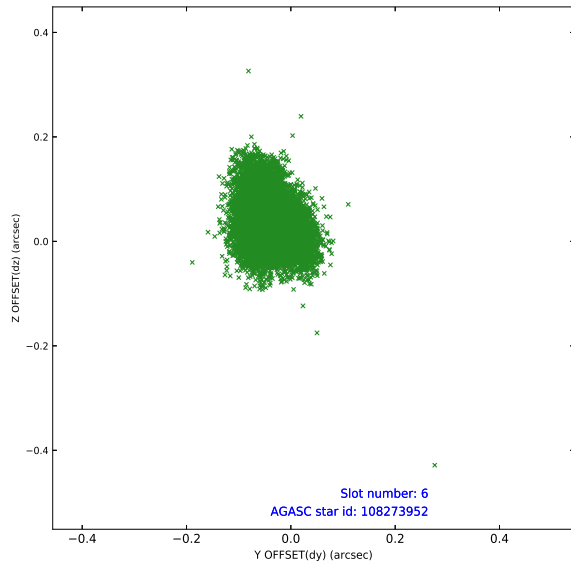
2.4.3 Slot 5



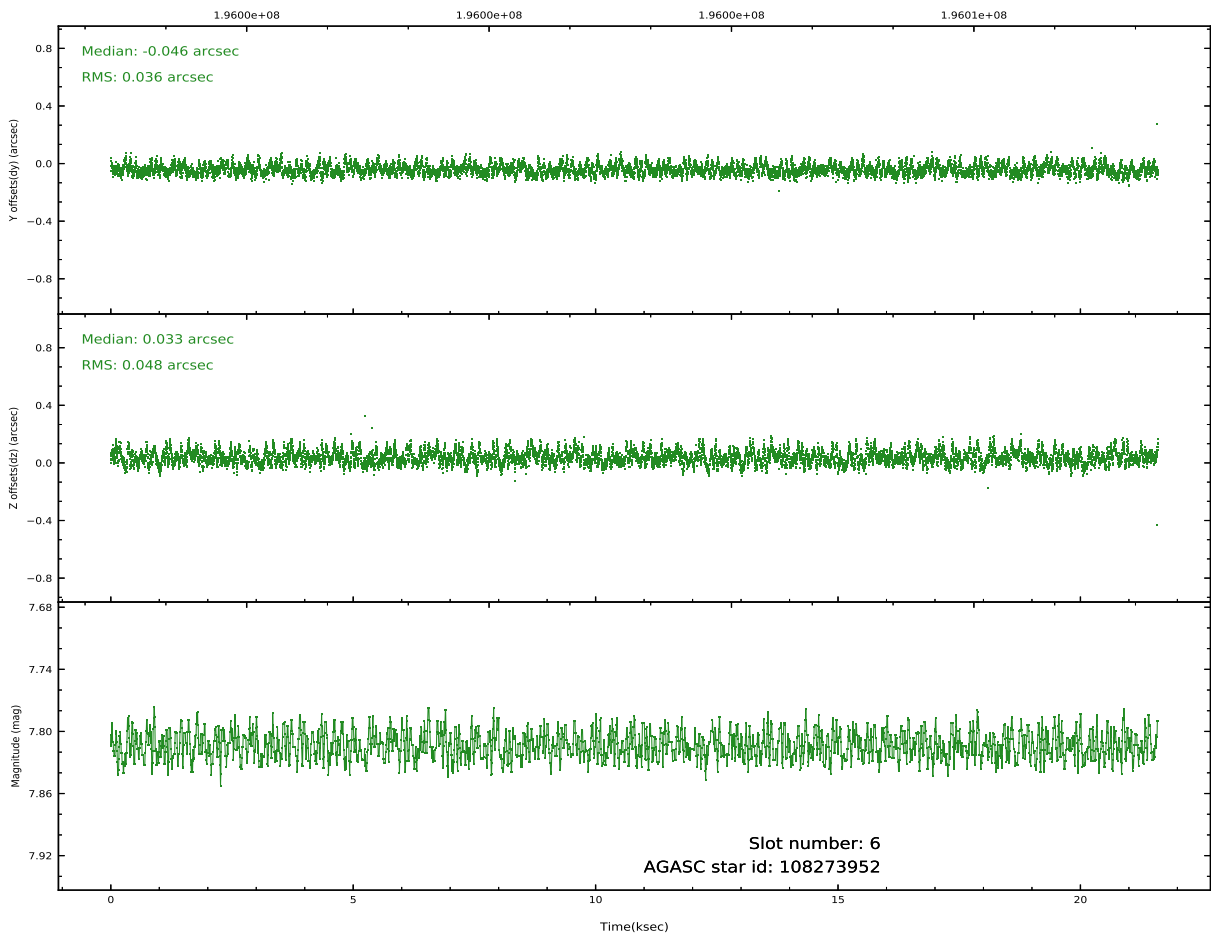
Time (s)



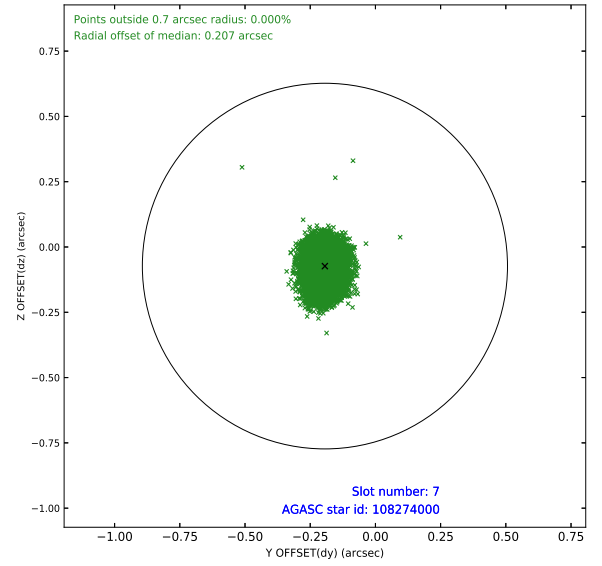
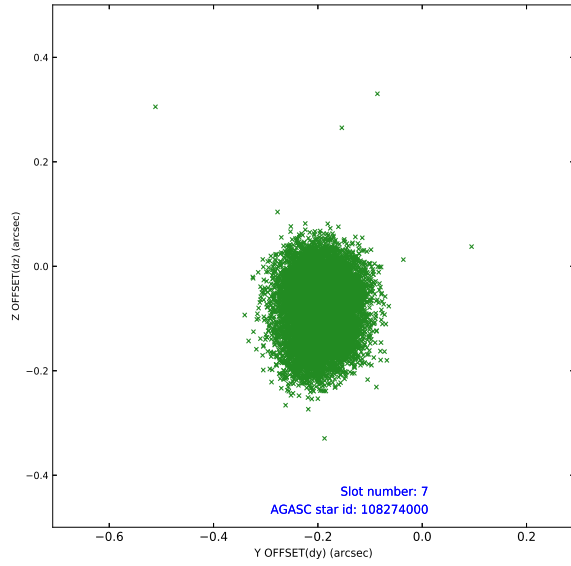
2.4.4 Slot 6



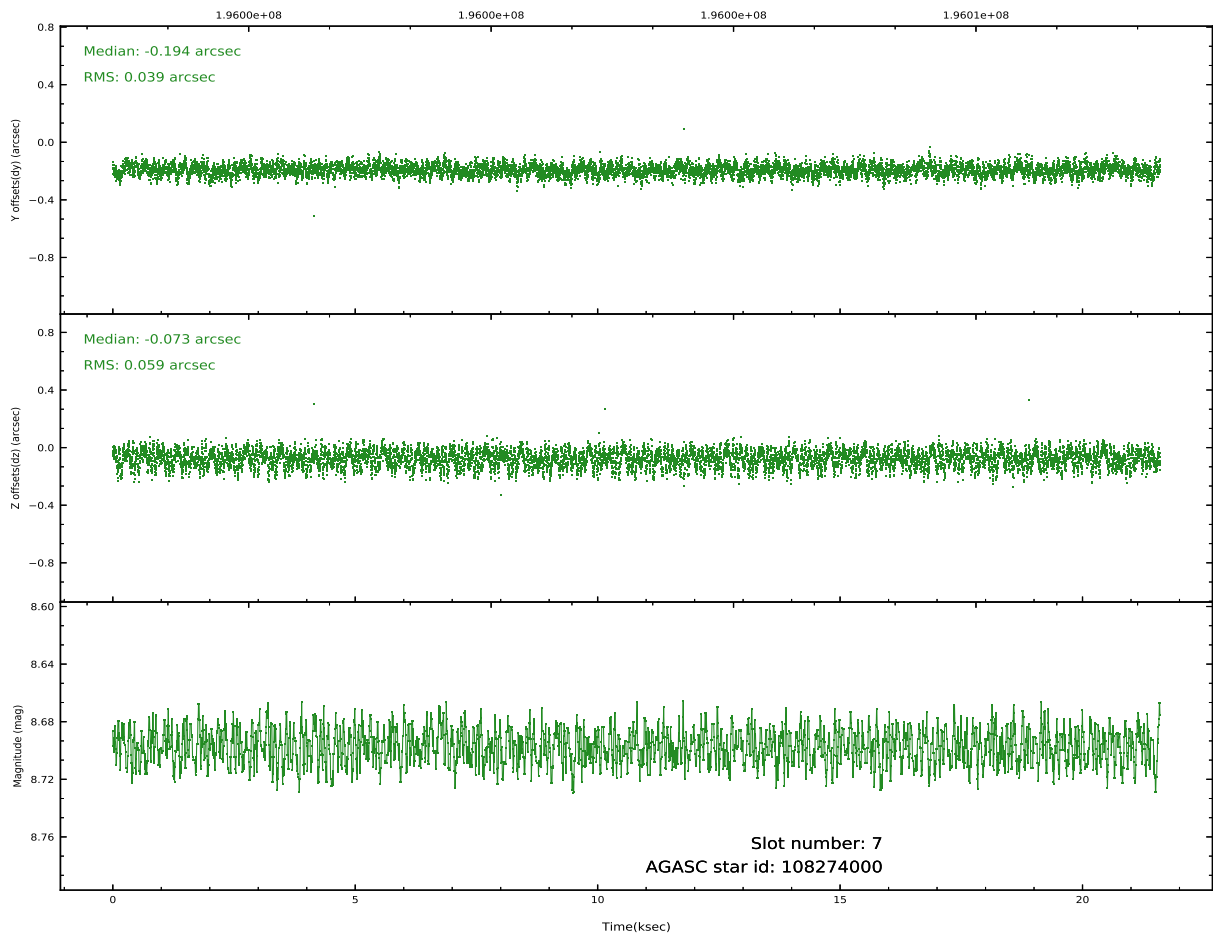
Time (s)



2.4.5 Slot 7

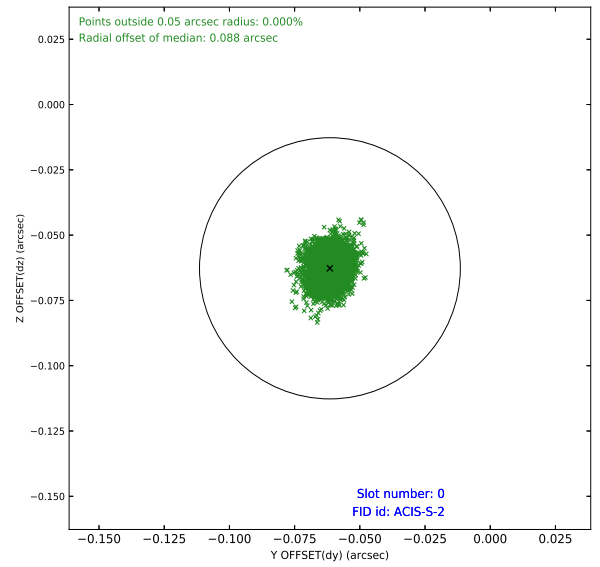
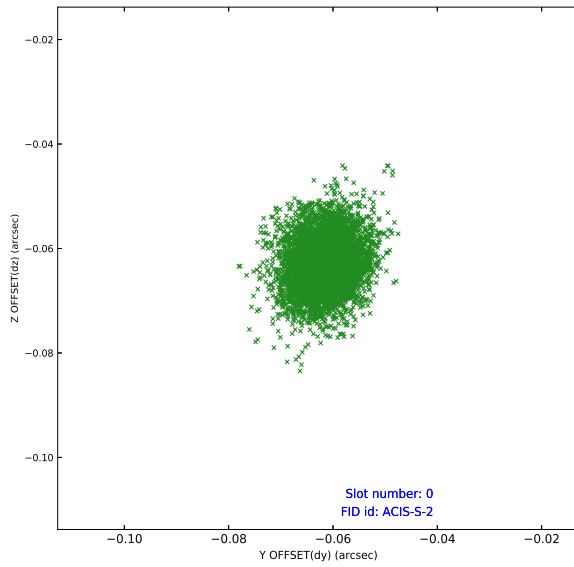


Time (s)

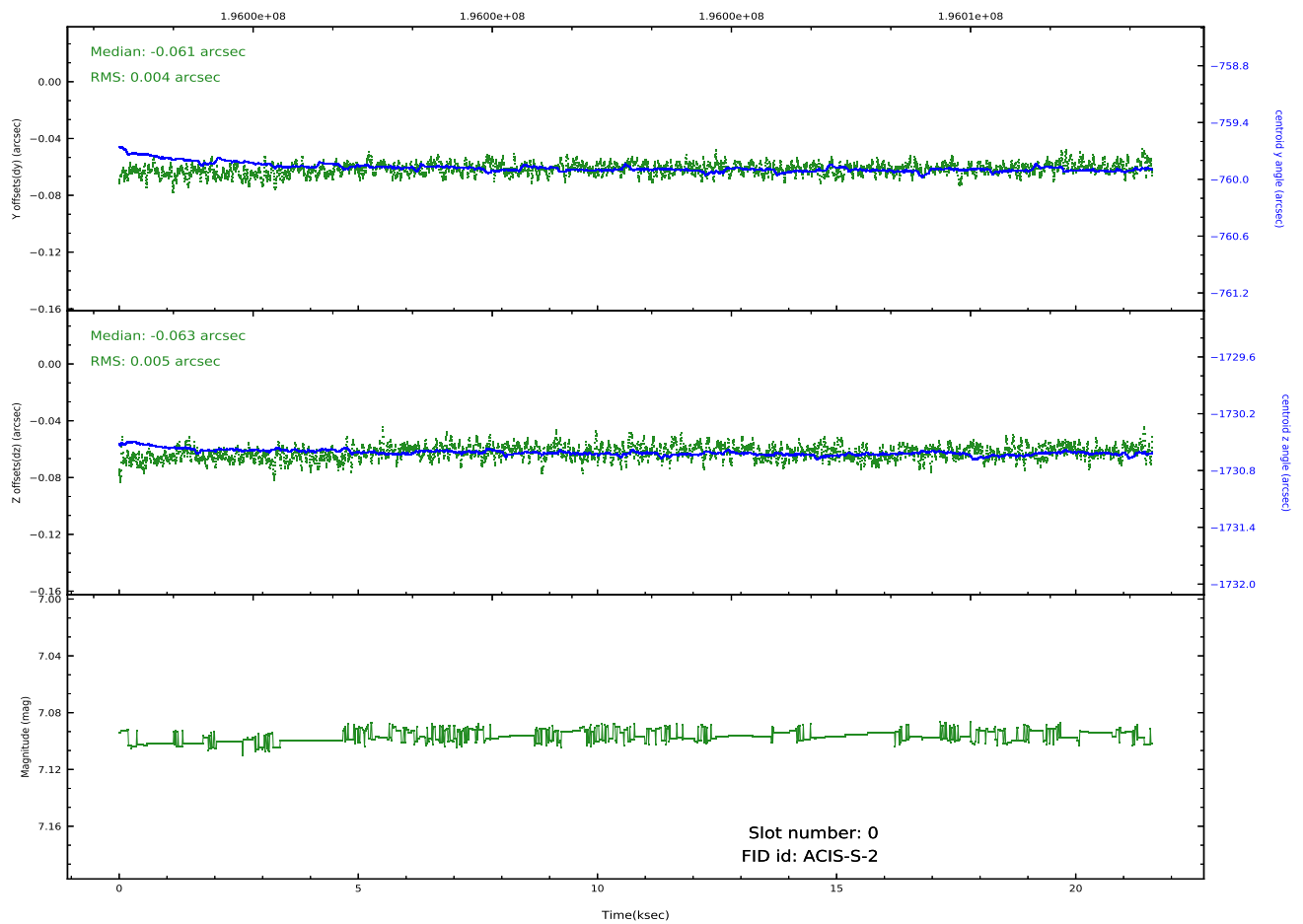


2.5 FID Slots

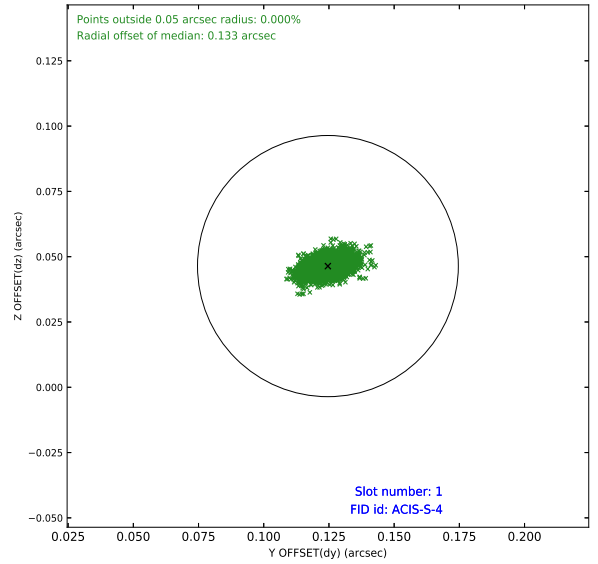
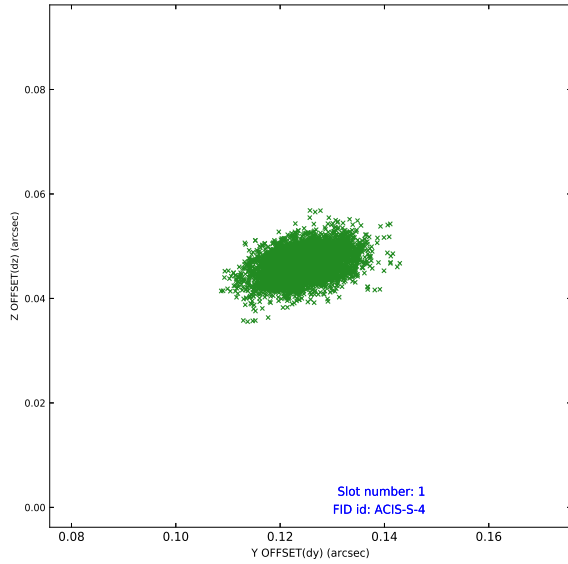
2.5.1 Slot 0



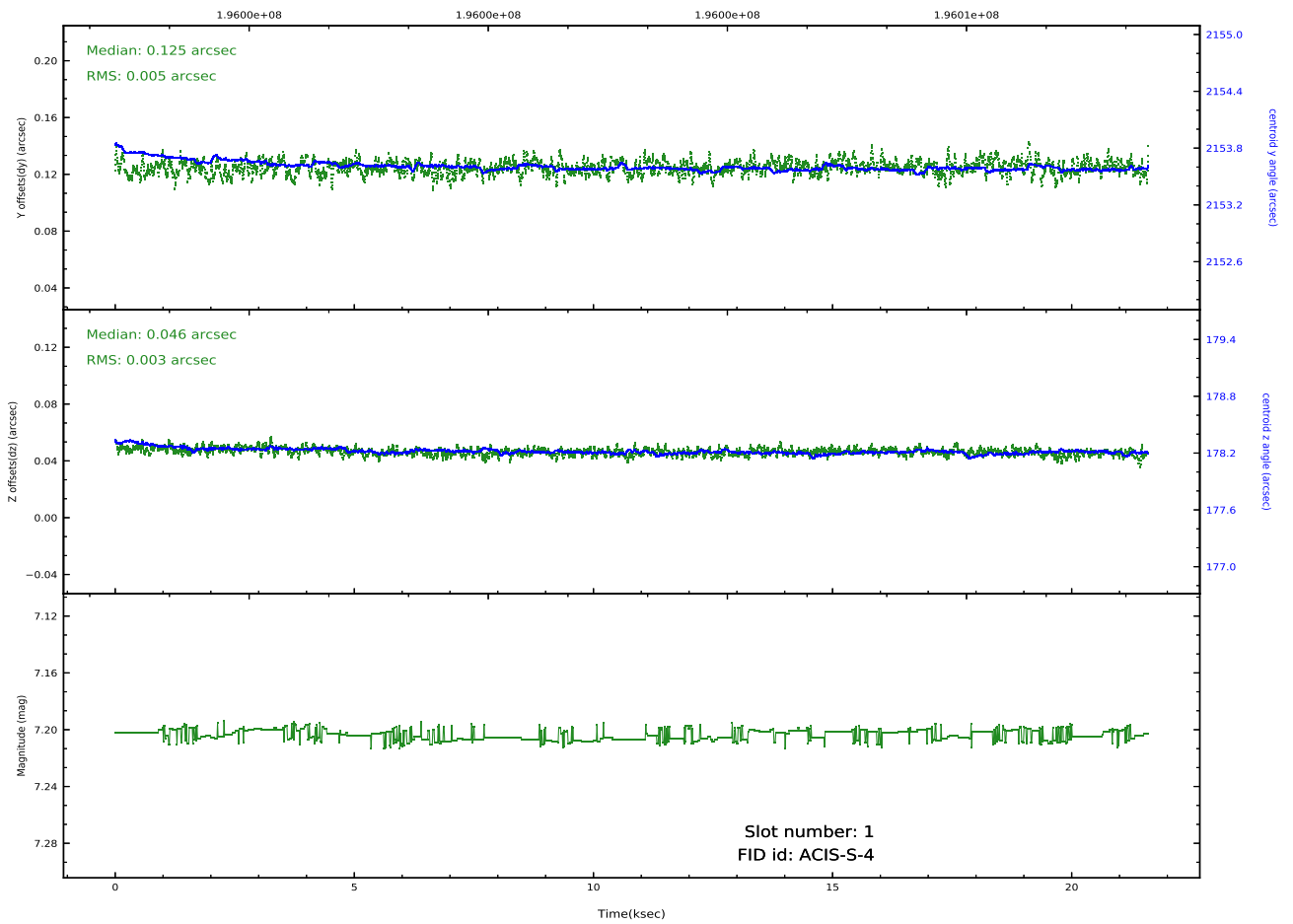
Time (s)



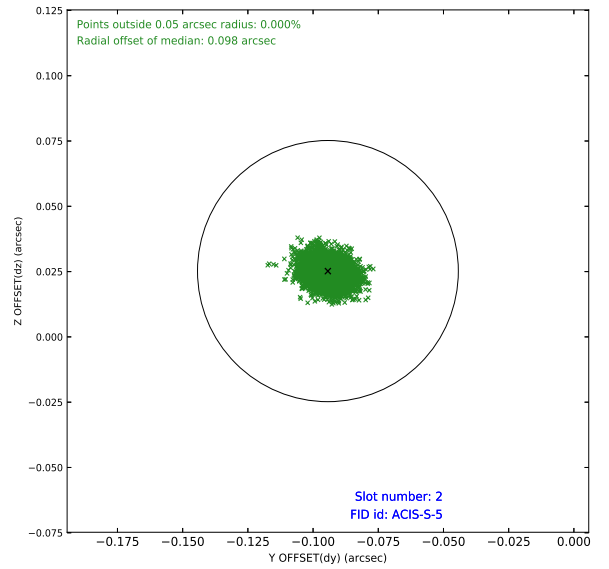
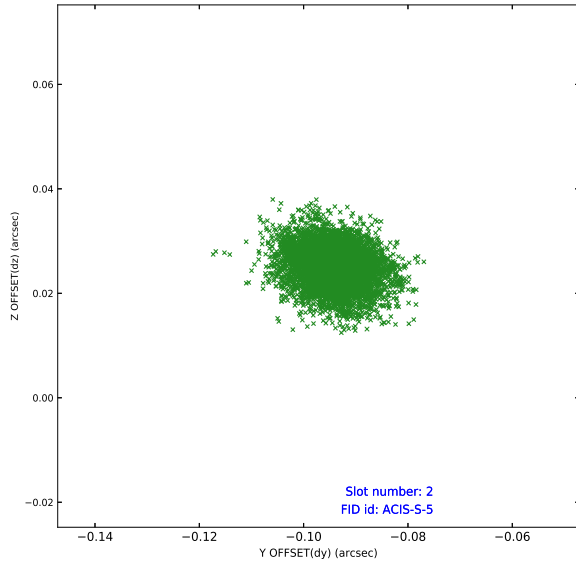
2.5.2 Slot 1



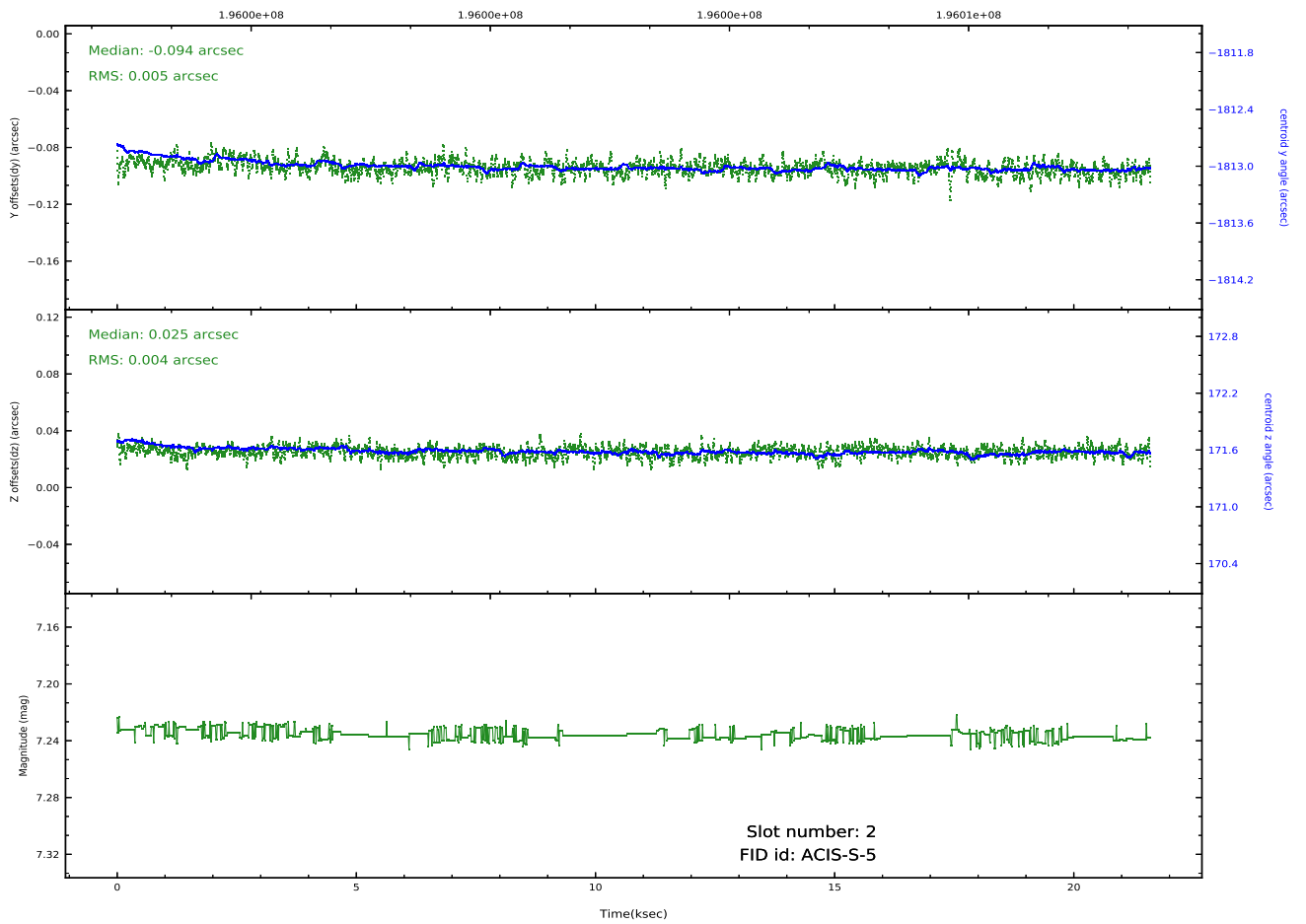
Time (s)



2.5.3 Slot 2



Time (s)

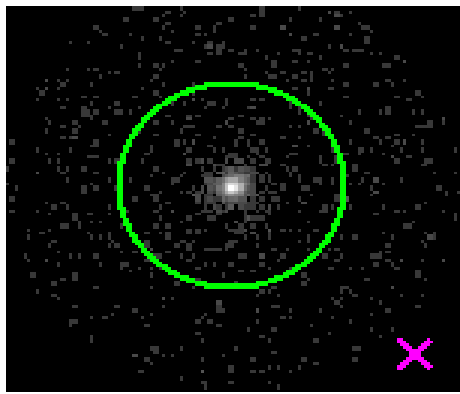


3 Gratings

3.1 HEG Arm



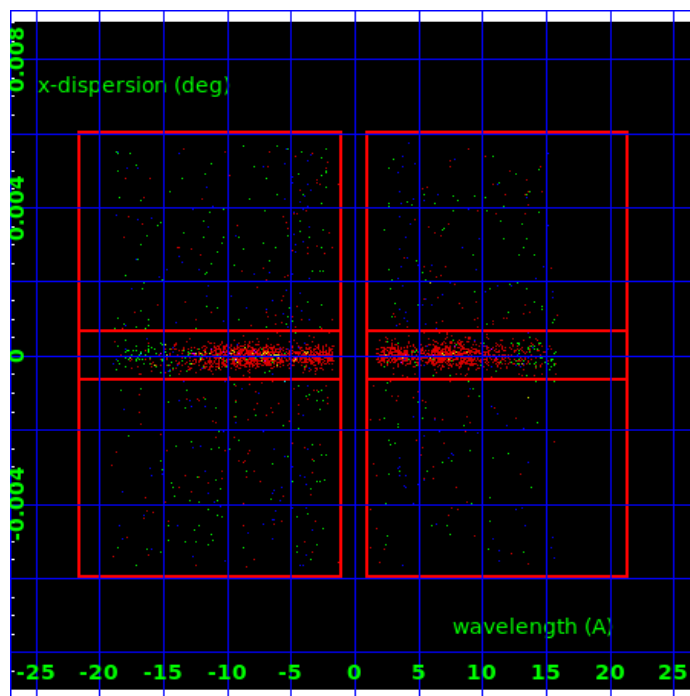
HEG Order Sort 123



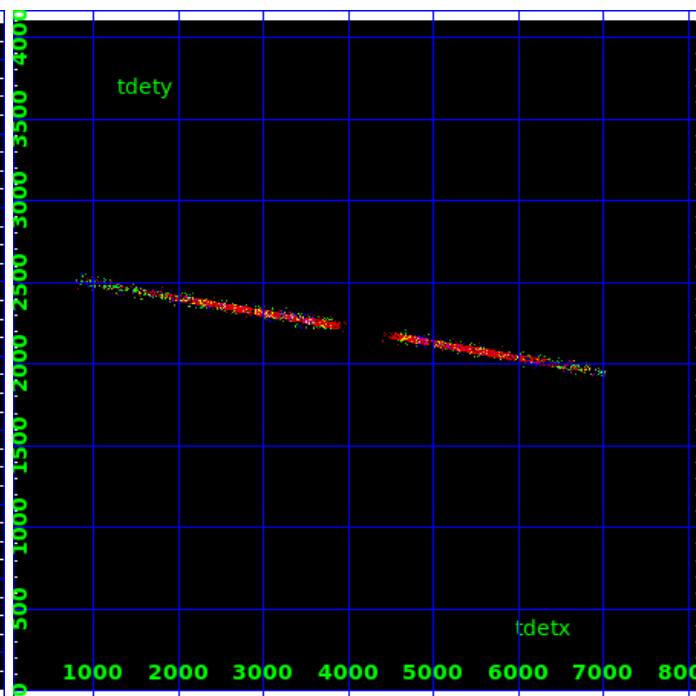
HEG Zero Order



HEG Order Sort ALL

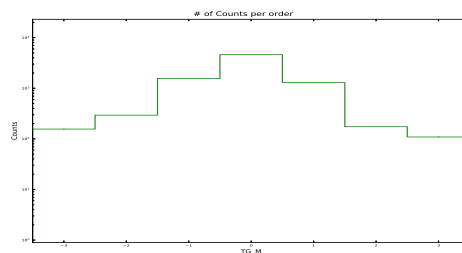


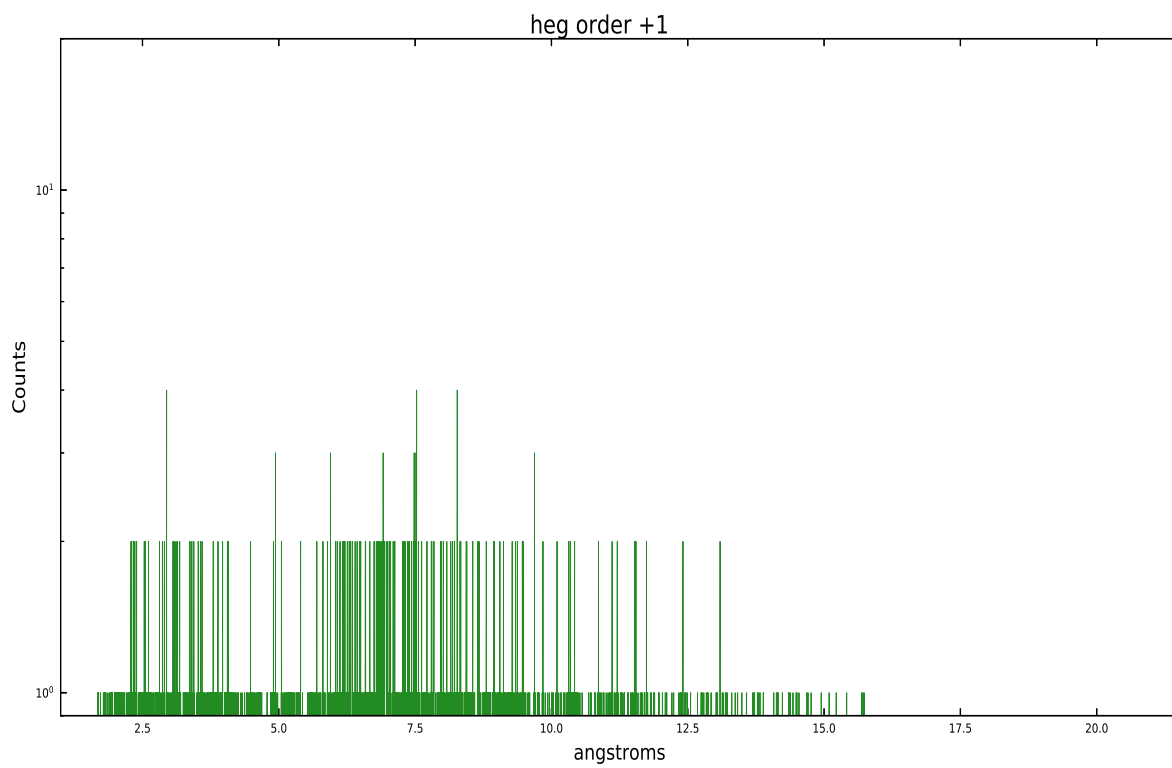
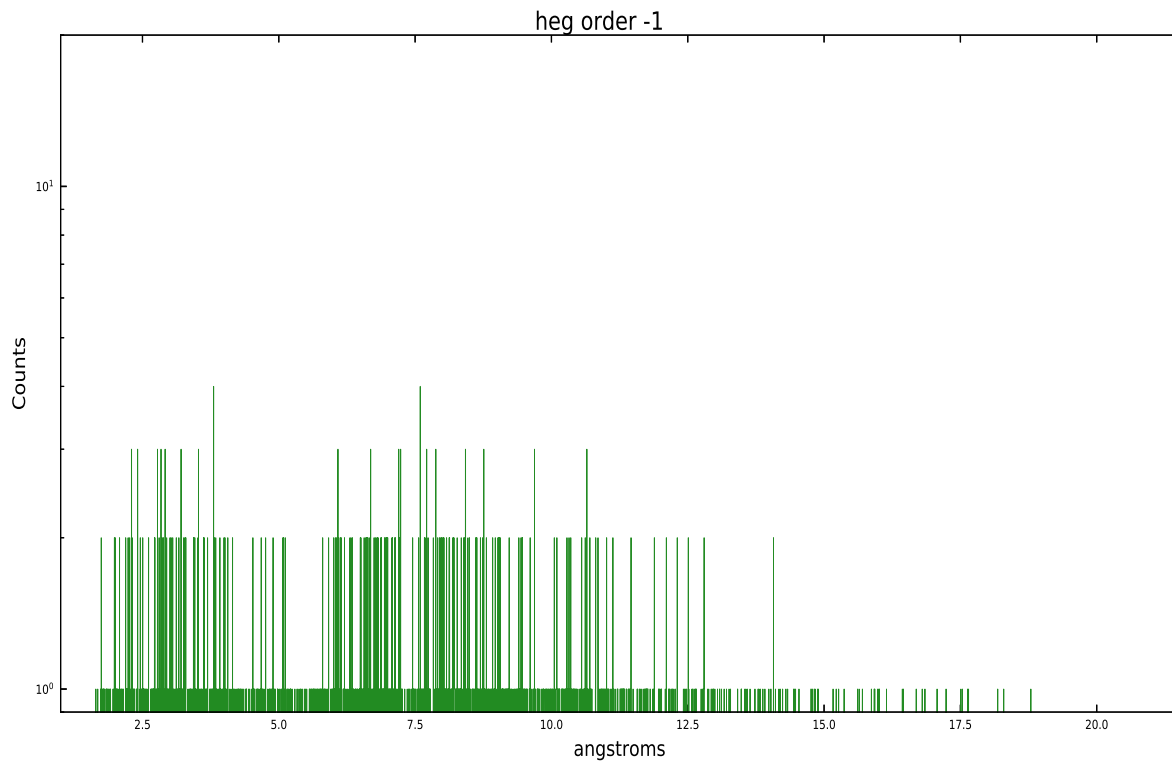
Spot Image HEG



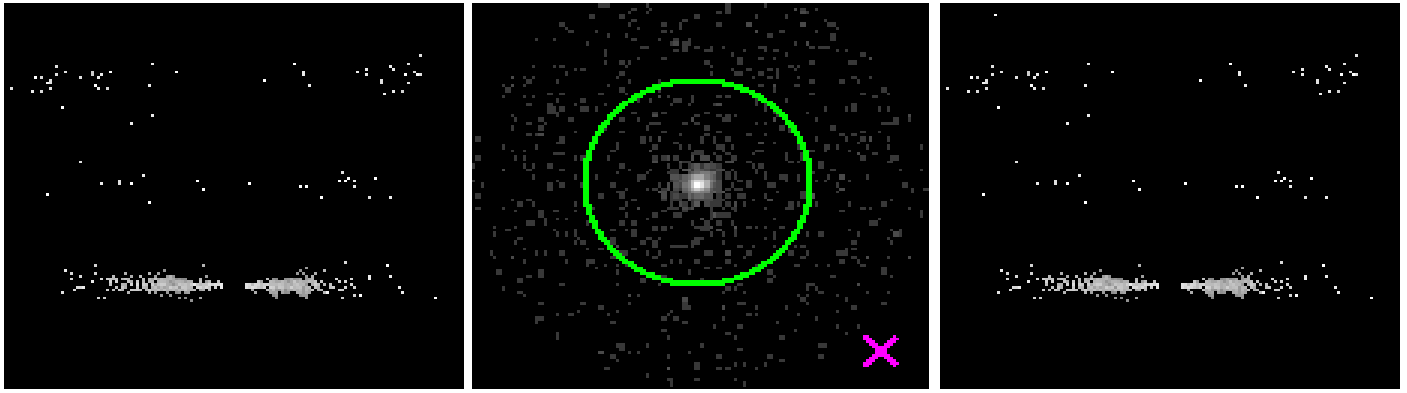
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	156	294	1565	4607	1294	174	109





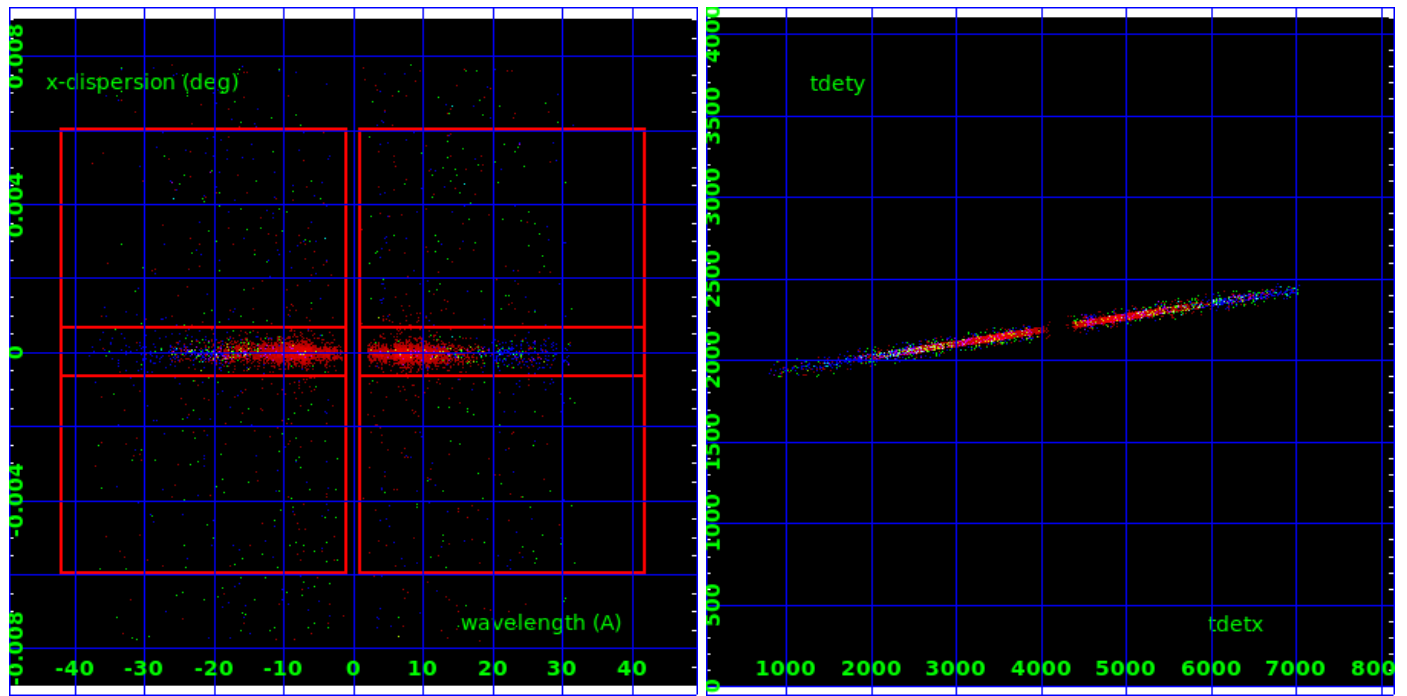
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

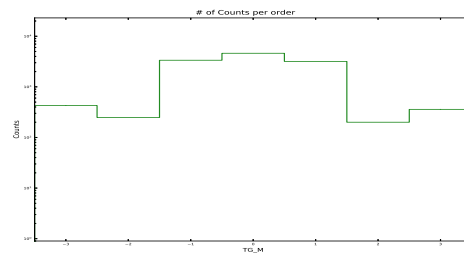
MEG Order Sort ALL

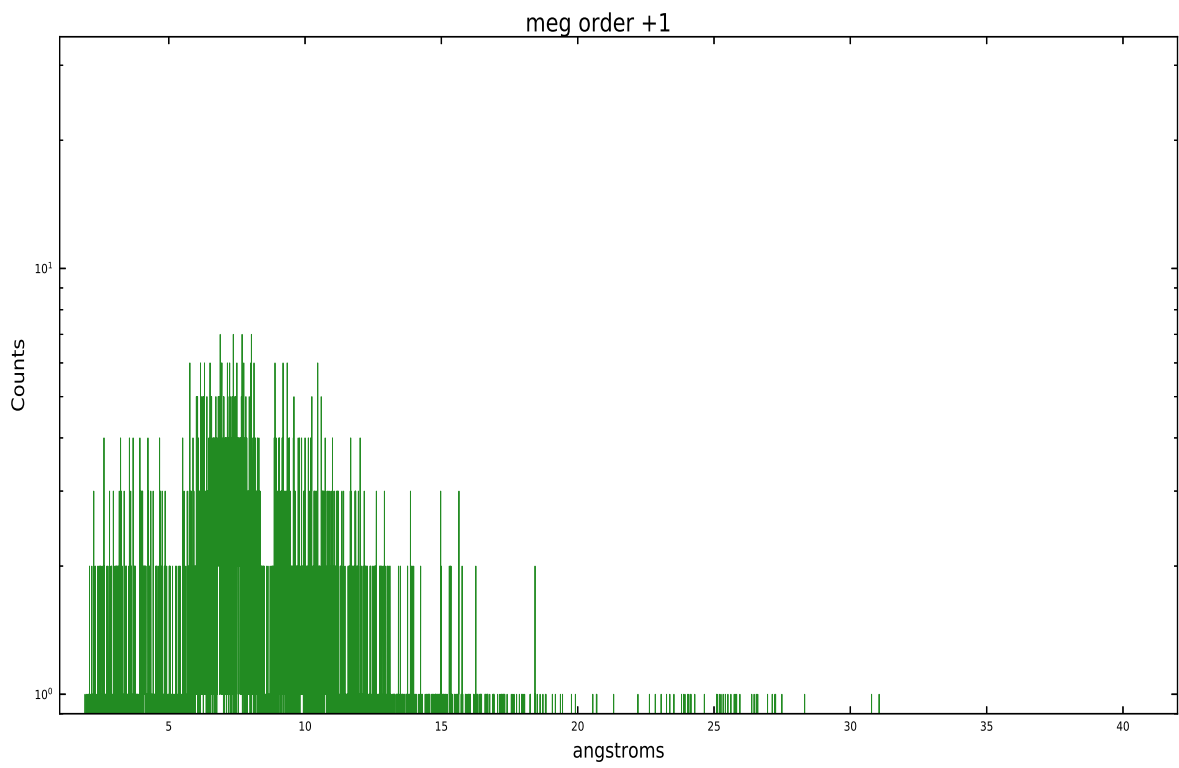
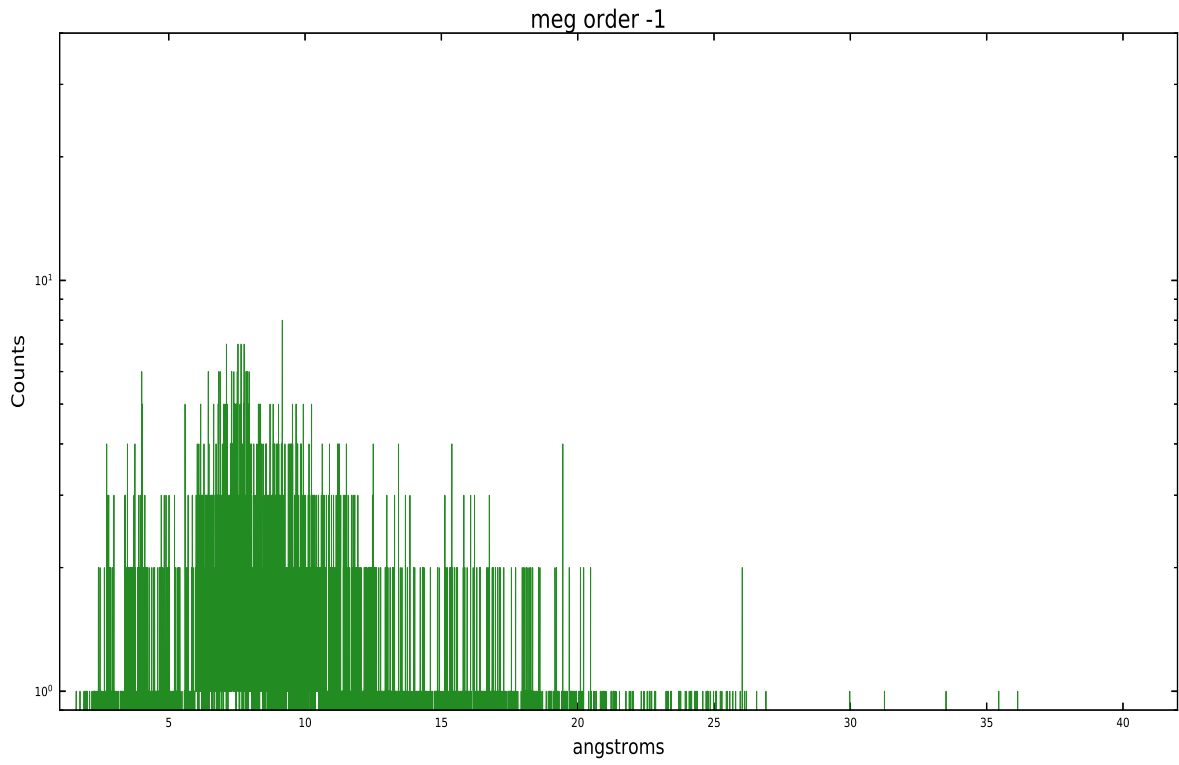


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	428	248	3355	4607	3184	200	359





A Summary

A.1 Status

V&V Scientist	David Principe
V&V Date (YYYY-MM-DD)	2020.10.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	21.26

A.2 Comments