

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6174 - L2 Version 4
Chandra X-Ray Center

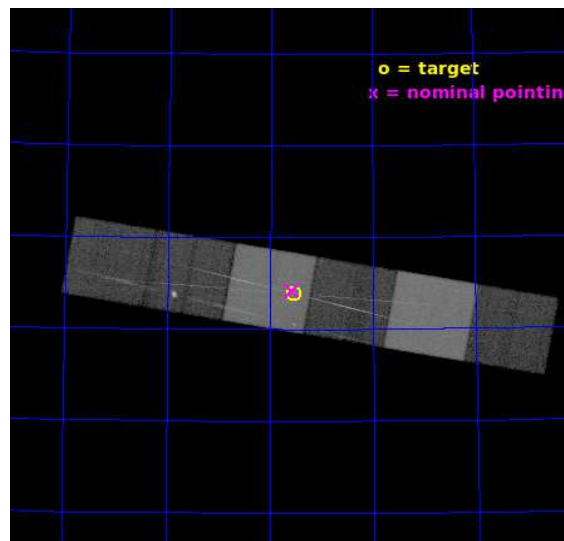
L2 Processing Date : Oct 6 2020

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1 Front

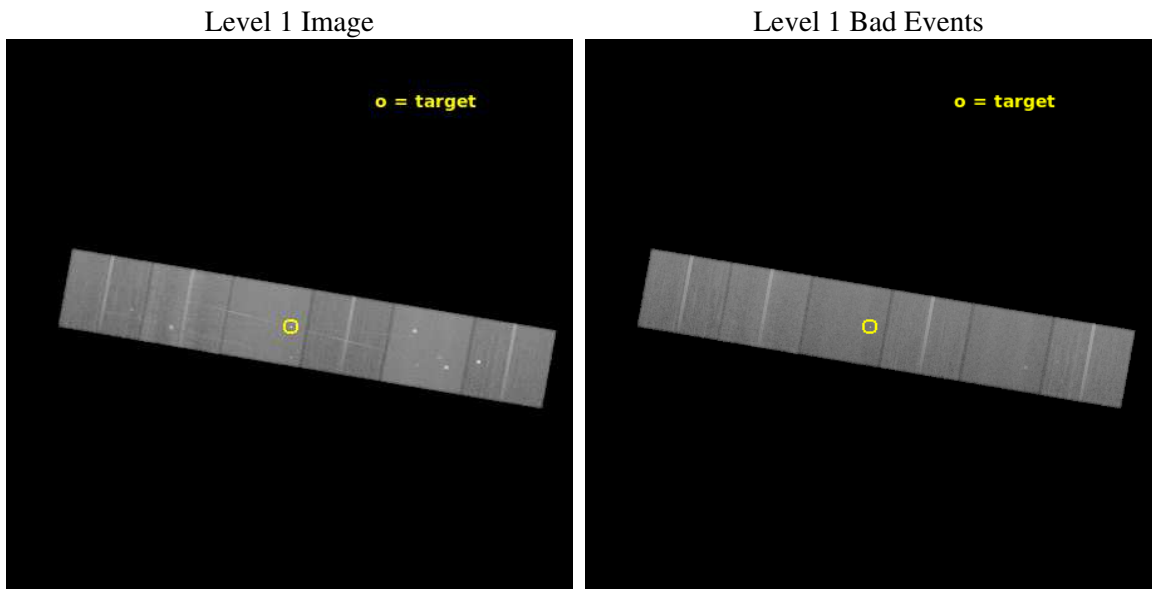
seq_num	701024	Sequence number
obs_id	6174	Observation id
title	Understanding the accretion process in a Low-Luminosity AGN: is M81* a starved black hole?	Proposal title
observer	Dr. Claude Canizares	Principal investigator
object	M81	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.888333	Observer's specified target RA [deg]
dec_targ	69.065306	Observer's specified target Dec [deg]
ra_nom	148.89525930878	Nominal RA [deg]
dec_nom	69.070155943307	Nominal Dec [deg]
roll_nom	189.97890714947	Nominal Roll [deg]
revision	4	Processing version of data
ontime	45180.799831688	Sum of GTIs [s]
livetime	44608.693339608	Livetime [s]
ontime4	45180.799831688	Sum of GTIs [s]
ontime5	45180.799831688	Sum of GTIs [s]
ontime6	45180.799831688	Sum of GTIs [s]
ontime7	45180.799831688	Sum of GTIs [s]
ontime8	45180.799831688	Sum of GTIs [s]
ontime9	45180.799831688	Sum of GTIs [s]
l2events	569812	Number of level 2 events



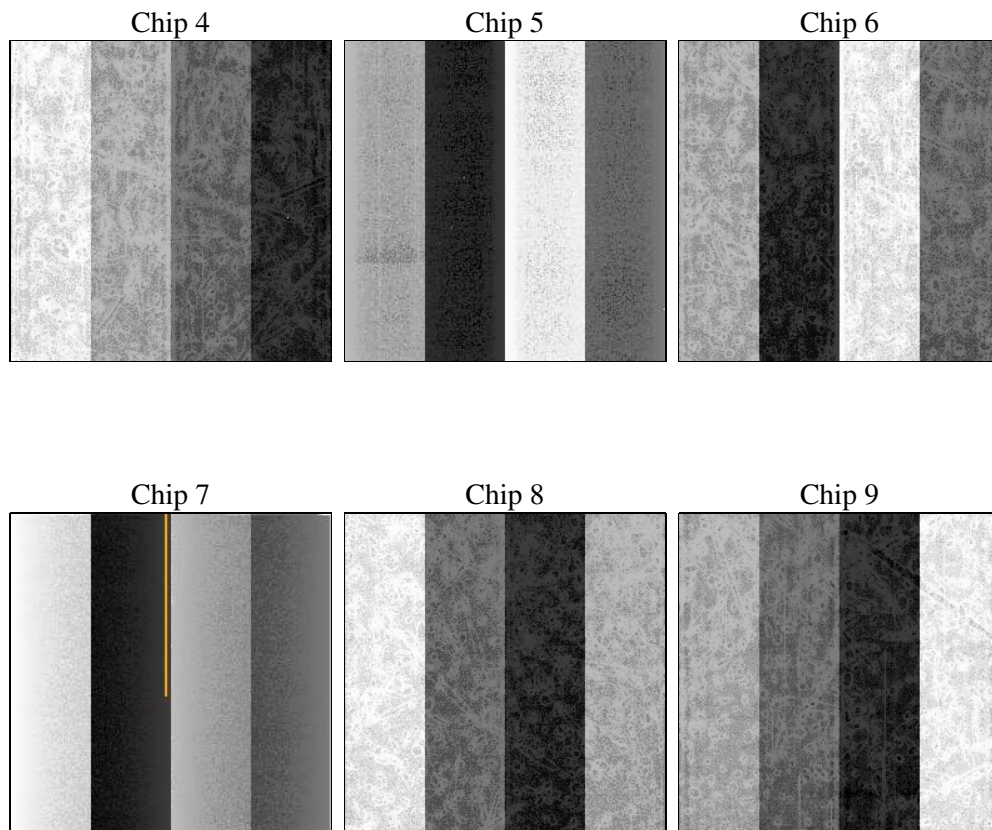
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	45180.799831688	Sum of GTIs [s]
caldbver	4.9.2	 	ontime4	45180.799831688	Sum of GTIs [s]
date	2020-10-06T22:48:31	Date and time of file creation	ontime5	45180.799831688	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	45180.799831688	Sum of GTIs [s]
			ontime7	45180.799831688	Sum of GTIs [s]
			ontime8	45180.799831688	Sum of GTIs [s]
			ontime9	45180.799831688	Sum of GTIs [s]
			l1events	2555851	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			z0_pos	(4115.02, 4061.11)	src1a sky pixel position

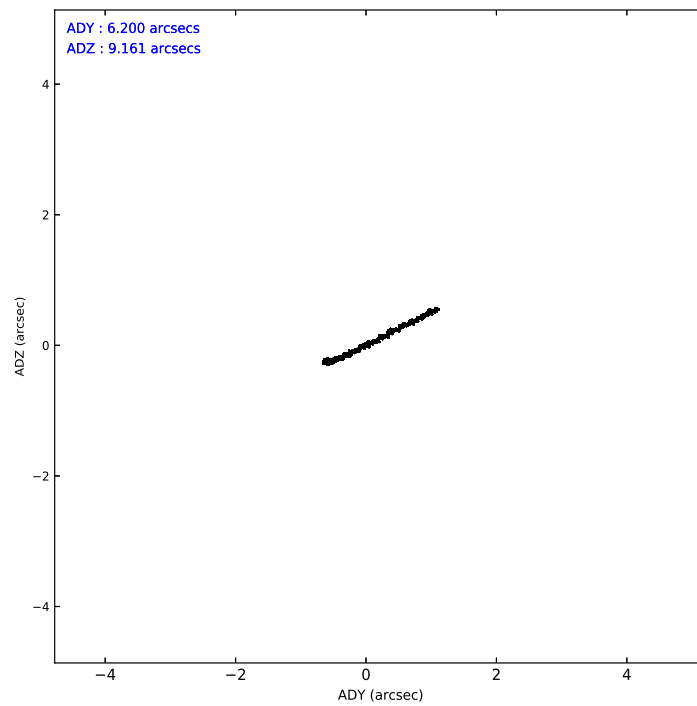
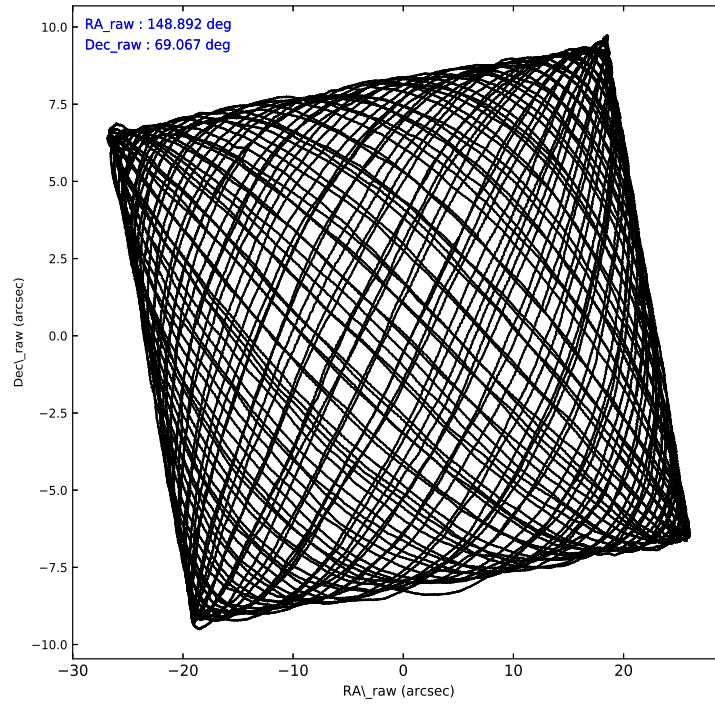
2.1.4 Events

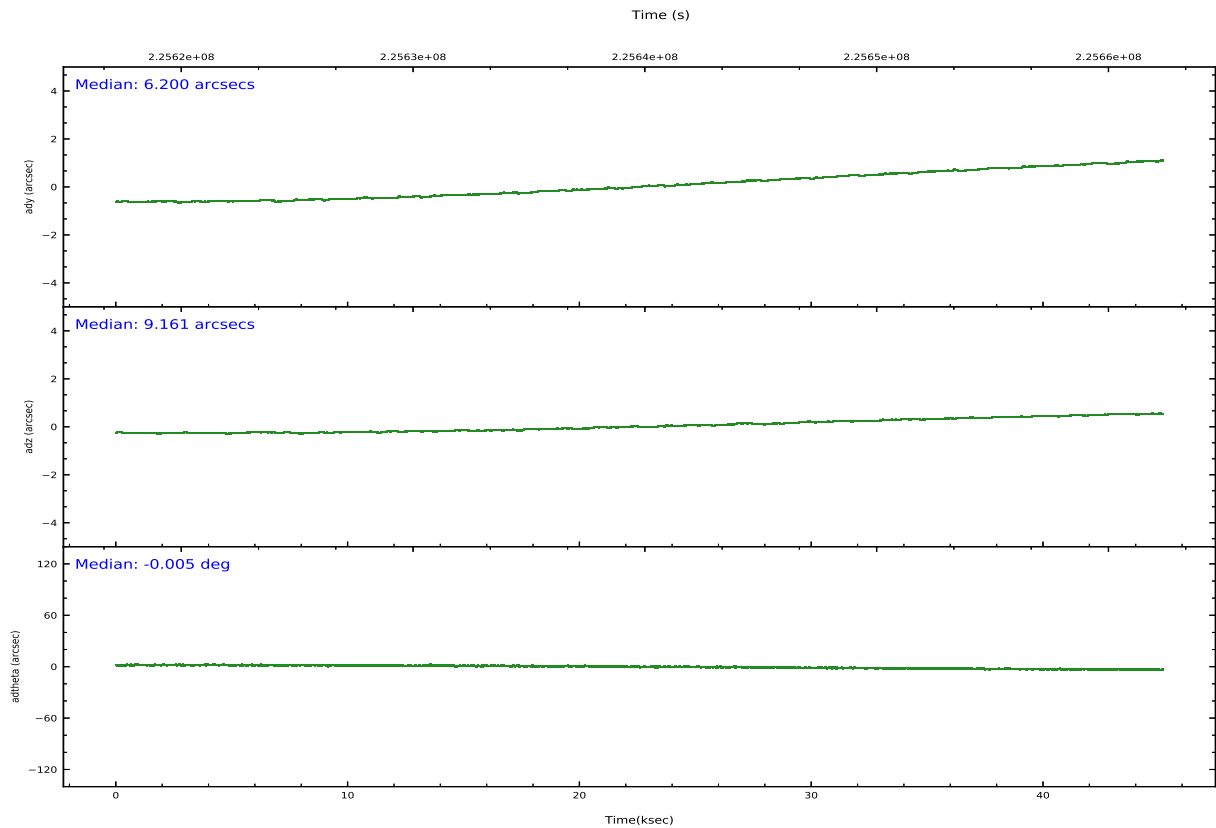
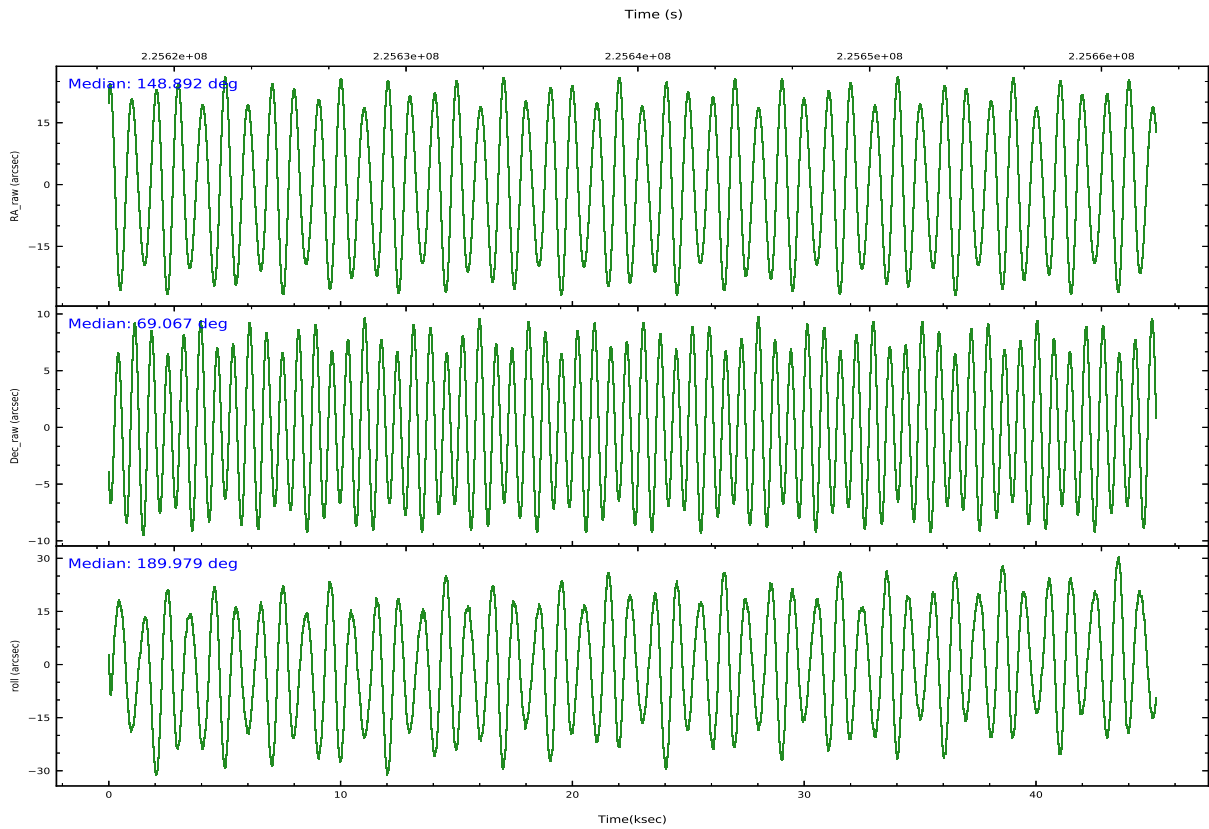
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	391268	524700	354178	486154	449109	350442	grade 0 events	30670	28937	21632	20928	36384	20142
rejected events	338133	288119	307605	281440	347858	306145		7%	5%	6%	4%	8%	5%
rejected %	86%	54%	86%	57%	77%	87%	grade 1 events	470	613	179	562	342	227
								0%	0%	0%	0%	0%	0%
							grade 2 events	8948	72353	9270	43112	22434	8559
								2%	13%	2%	8%	4%	2%
							grade 3 events	4302	9733	4208	18658	10397	4353
								1%	1%	1%	3%	2%	1%
							grade 4 events	4228	8887	4197	19018	9679	4182
								1%	1%	1%	3%	2%	1%
							grade 5 events	15417	38145	16273	45185	21602	17274
								3%	7%	4%	9%	4%	4%
							grade 6 events	6652	124493	8505	108885	25467	8428
								1%	23%	2%	22%	5%	2%
							grade 7 events	320581	241539	289914	229806	322804	287277
								81%	46%	81%	47%	71%	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	148.949370	148.89525930878	Subarray requested	NONE	NONE
[deg] Pointing Dec	69.084978	69.070155943307	Alternating exposures requested	N	N
[deg] Pointing Roll	189.772263	189.97890714947	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	225604864.184000	225604864.184000			
[s] Window stop time (MET)	225662464.184000	225662464.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	225617359.184000	225615419.66138			
Observation start date	2005-02-24T07:28:15	2005-02-24T06:56:59			
[s] Observation end time (MET)	225662359.184000	225664070.26359			
Observation end date	2005-02-24T19:58:15	2005-02-24T20:27:50			
Read mode	TIMED	TIMED			

2.3 Aspect



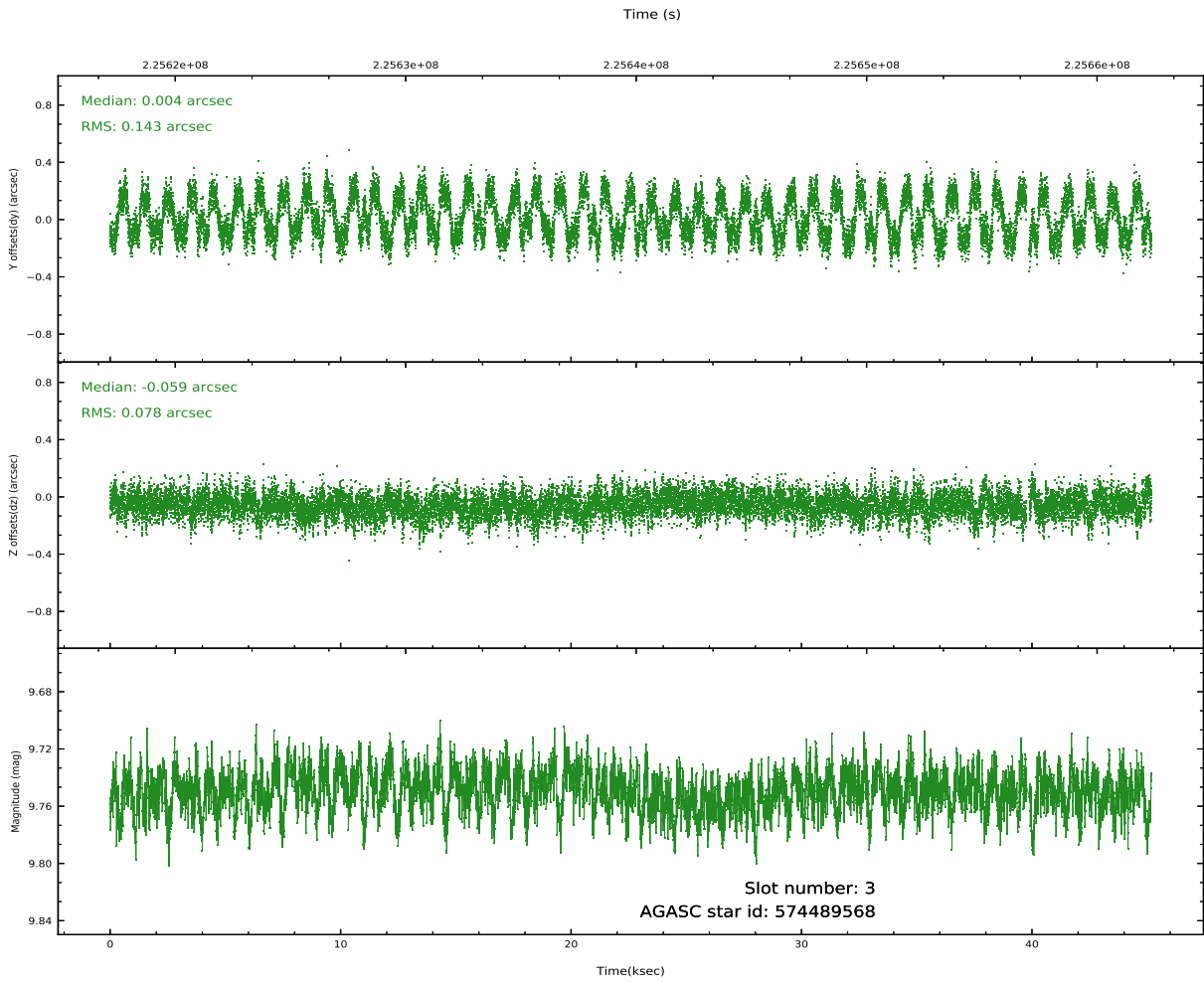
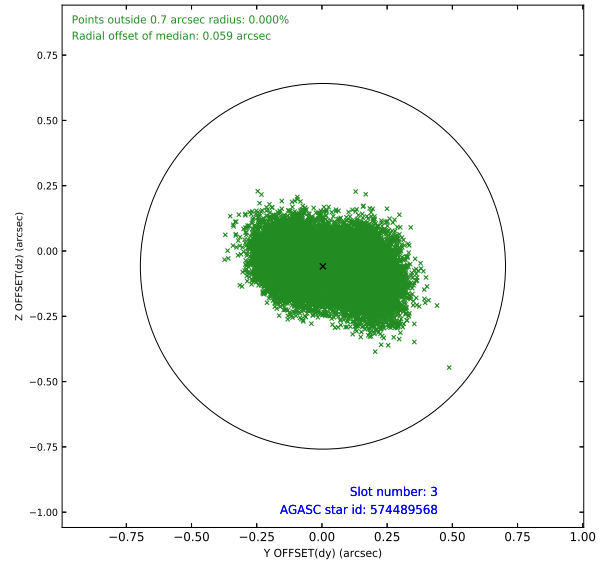
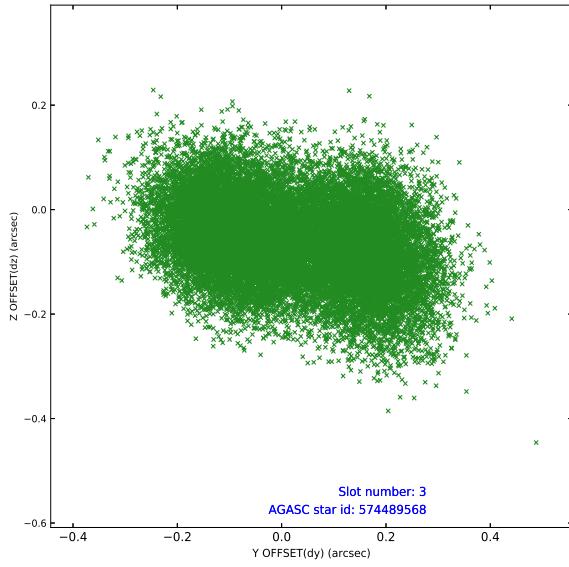


Slot Statistics

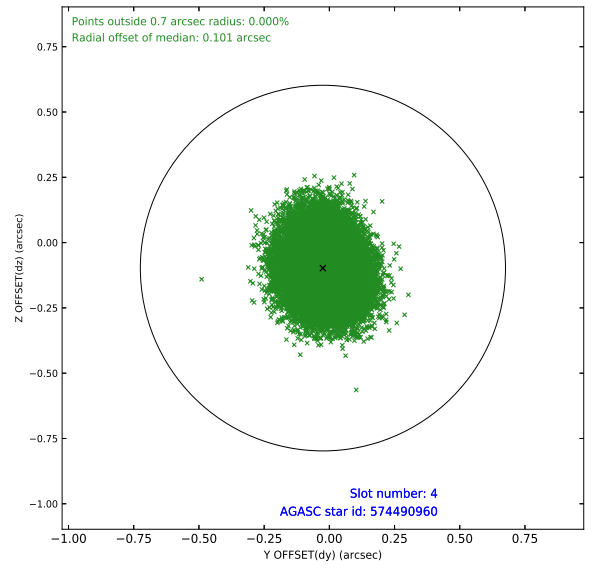
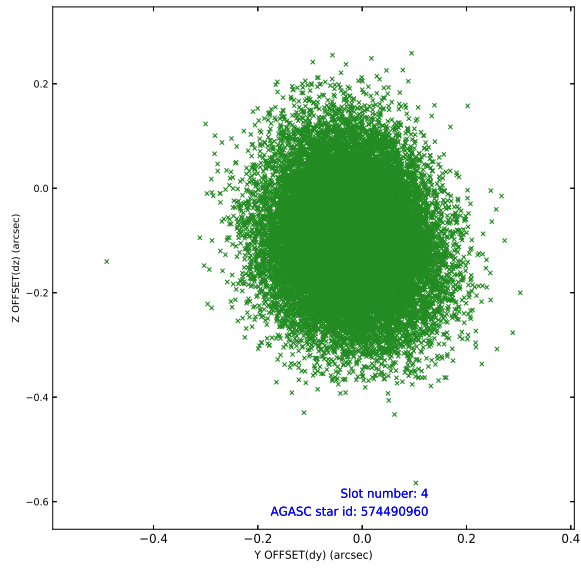
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	11021	1.000	-0.082	-0.083	0.011	0.018	0.000000	0.000000	-759.06	-1730
1	FID		ACIS-S-4	7.21	11019	1.000	0.158	0.062	0.012	0.019	0.000000	0.000000	2154.43	178
2	FID		ACIS-S-5	7.23	11020	1.000	-0.109	0.030	0.011	0.019	0.000000	0.000000	-1811.97	171
3	GUIDE	used	574489568	9.75	21957	1.000	0.004	-0.059	0.177	0.269	147.223974	69.438157	1929.04	-1653
4	GUIDE	used	574490960	9.73	22019	1.000	-0.025	-0.098	0.139	0.219	148.185918	69.658768	590.57	-2203
5	GUIDE	used	574491280	9.33	22031	1.000	0.016	-0.068	0.126	0.200	148.611567	69.450135	198.44	-1368
6	GUIDE	used	574497600	10.43	21941	1.000	0.091	0.136	0.239	0.365	147.824120	68.451903	1850.82	1980
7	GUIDE	used	574496360	9.47	22023	1.000	-0.118	0.072	0.130	0.215	150.806604	68.529829	-2078.82	2348

2.4 Star Slots

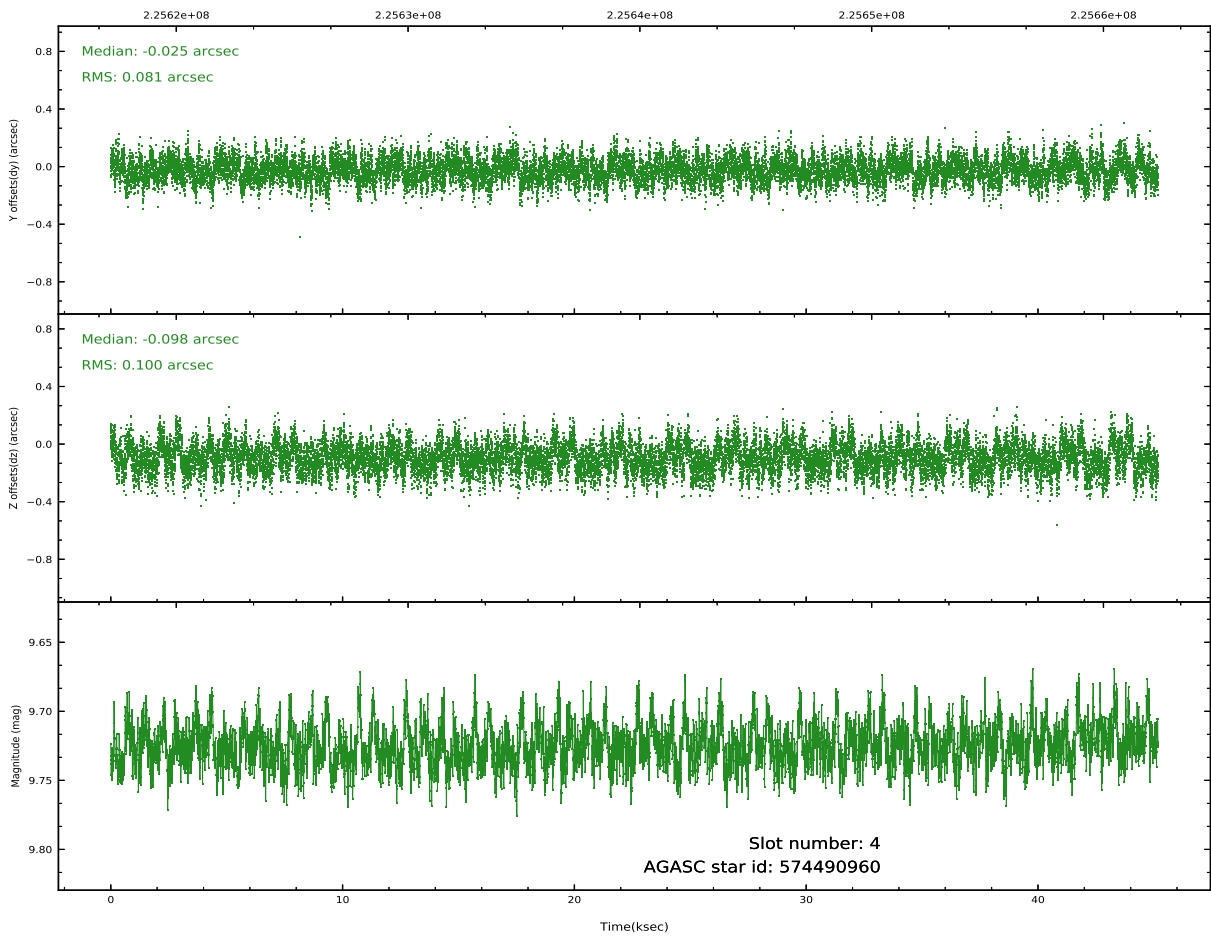
2.4.1 Slot 3



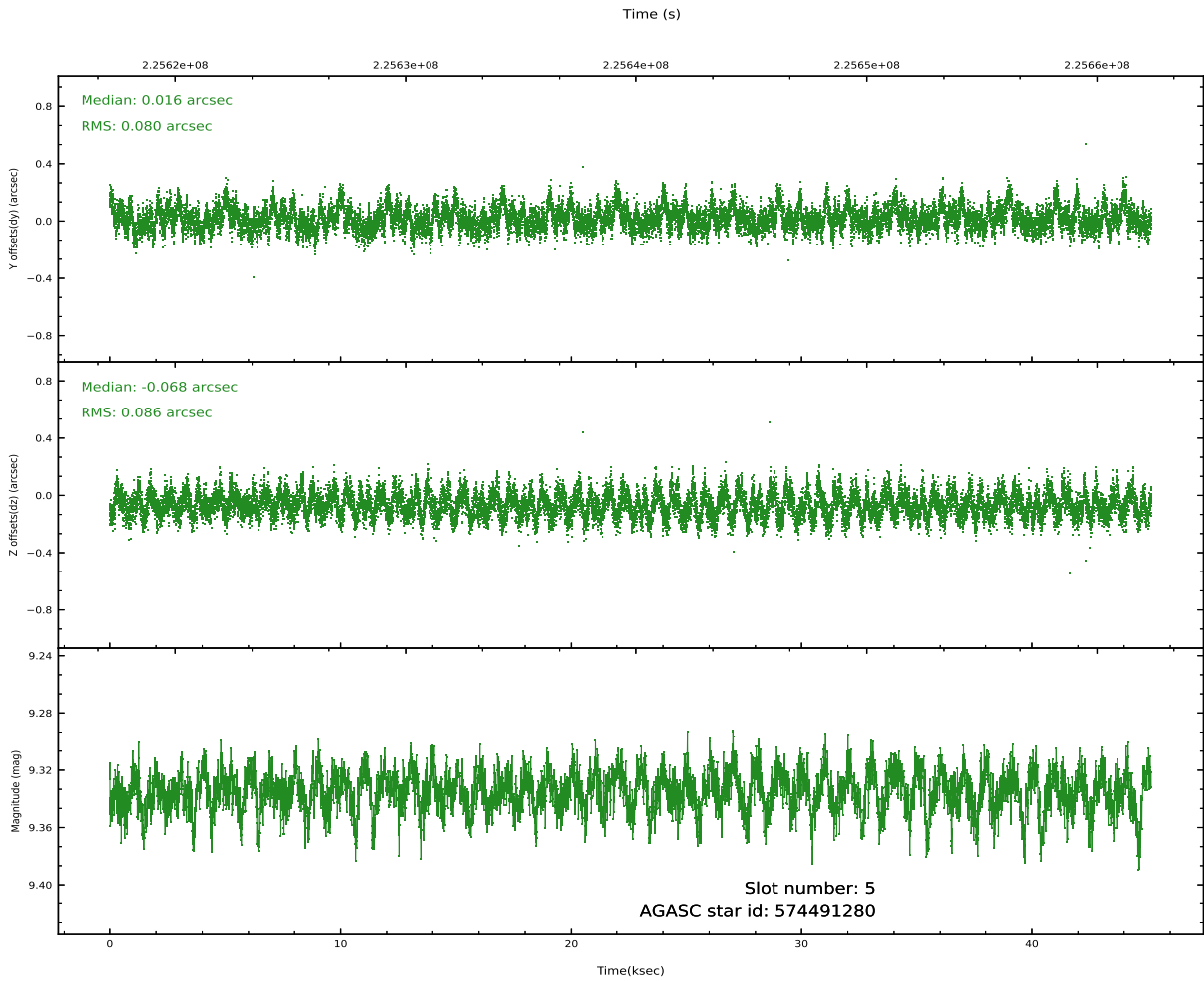
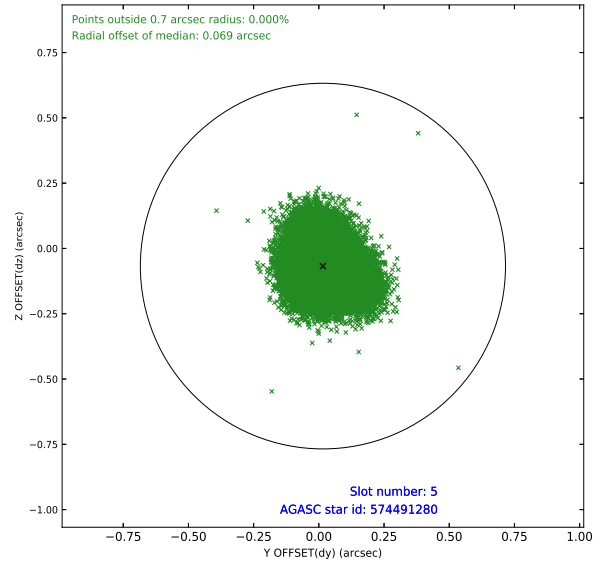
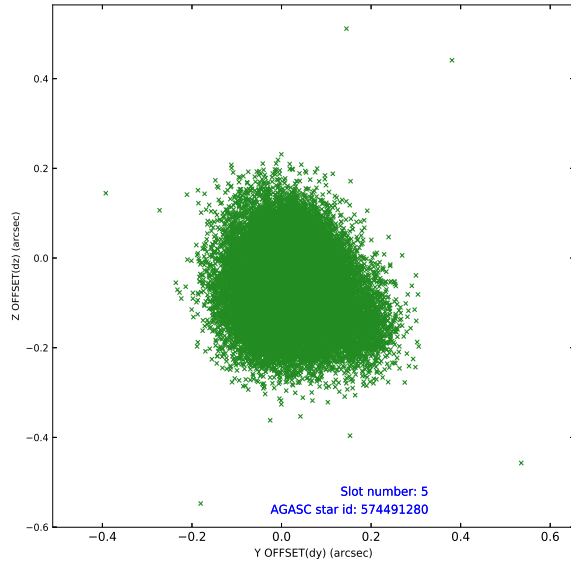
2.4.2 Slot 4



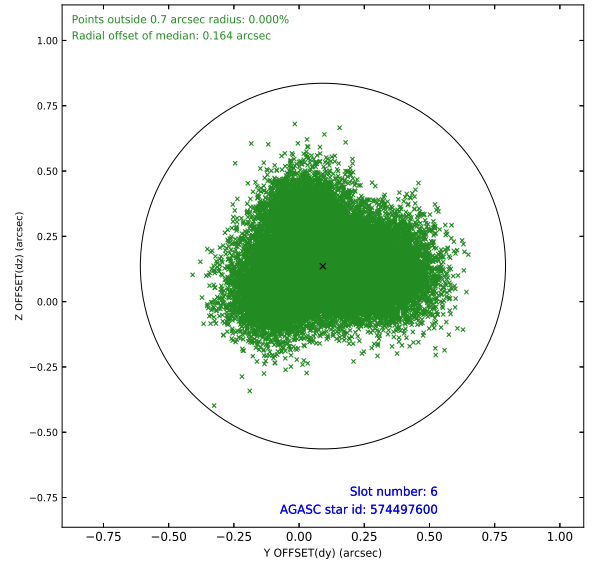
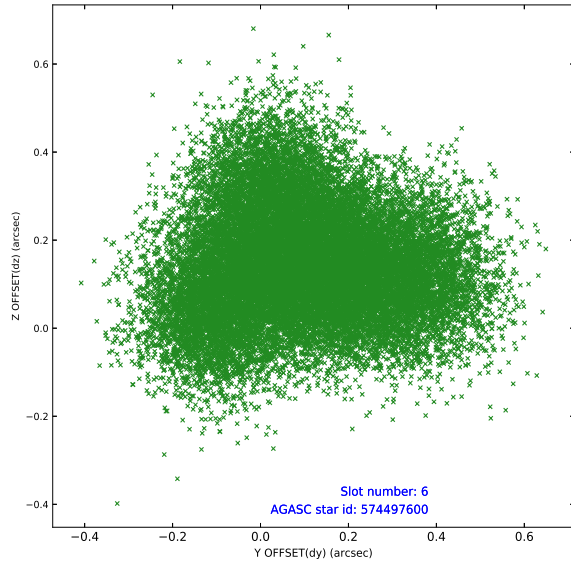
Time (s)



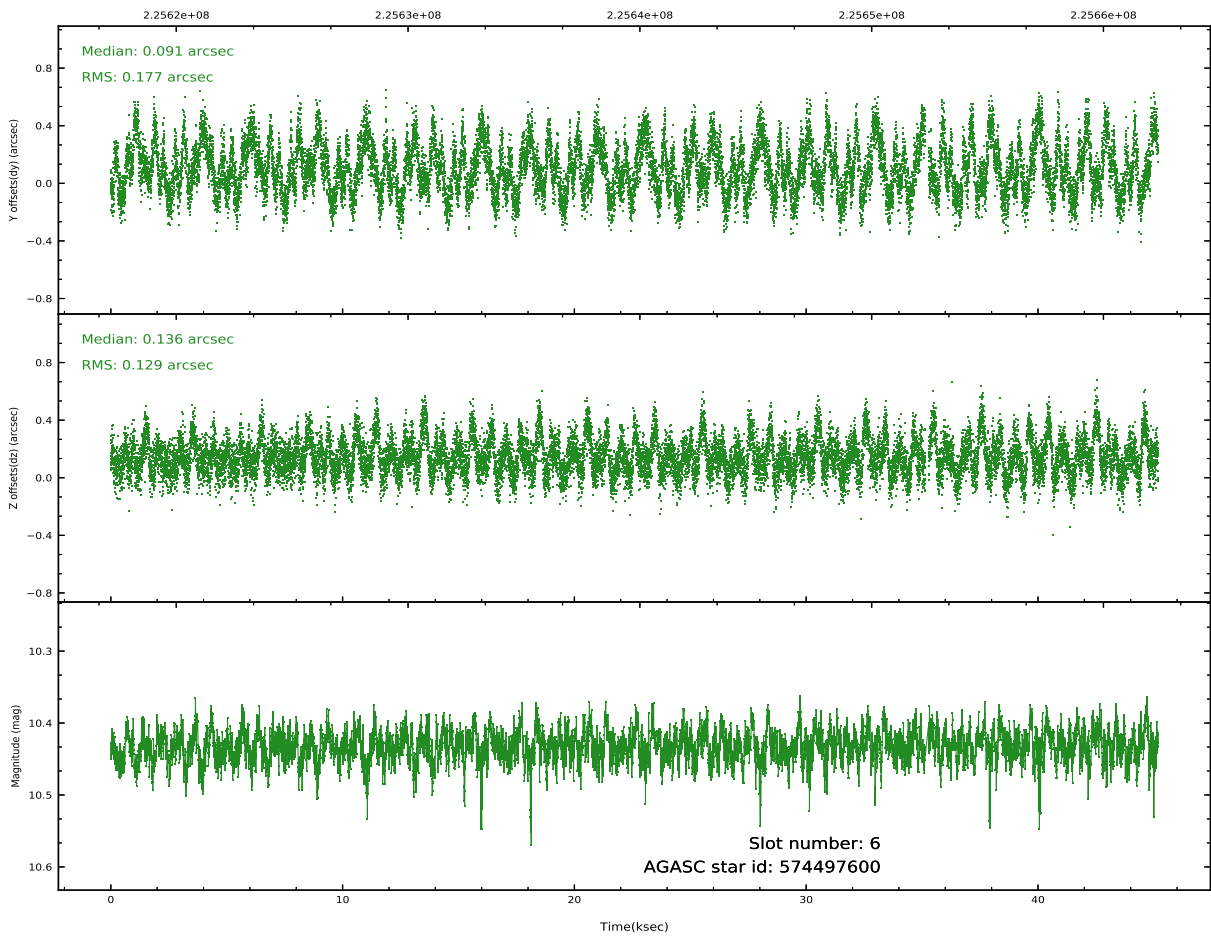
2.4.3 Slot 5



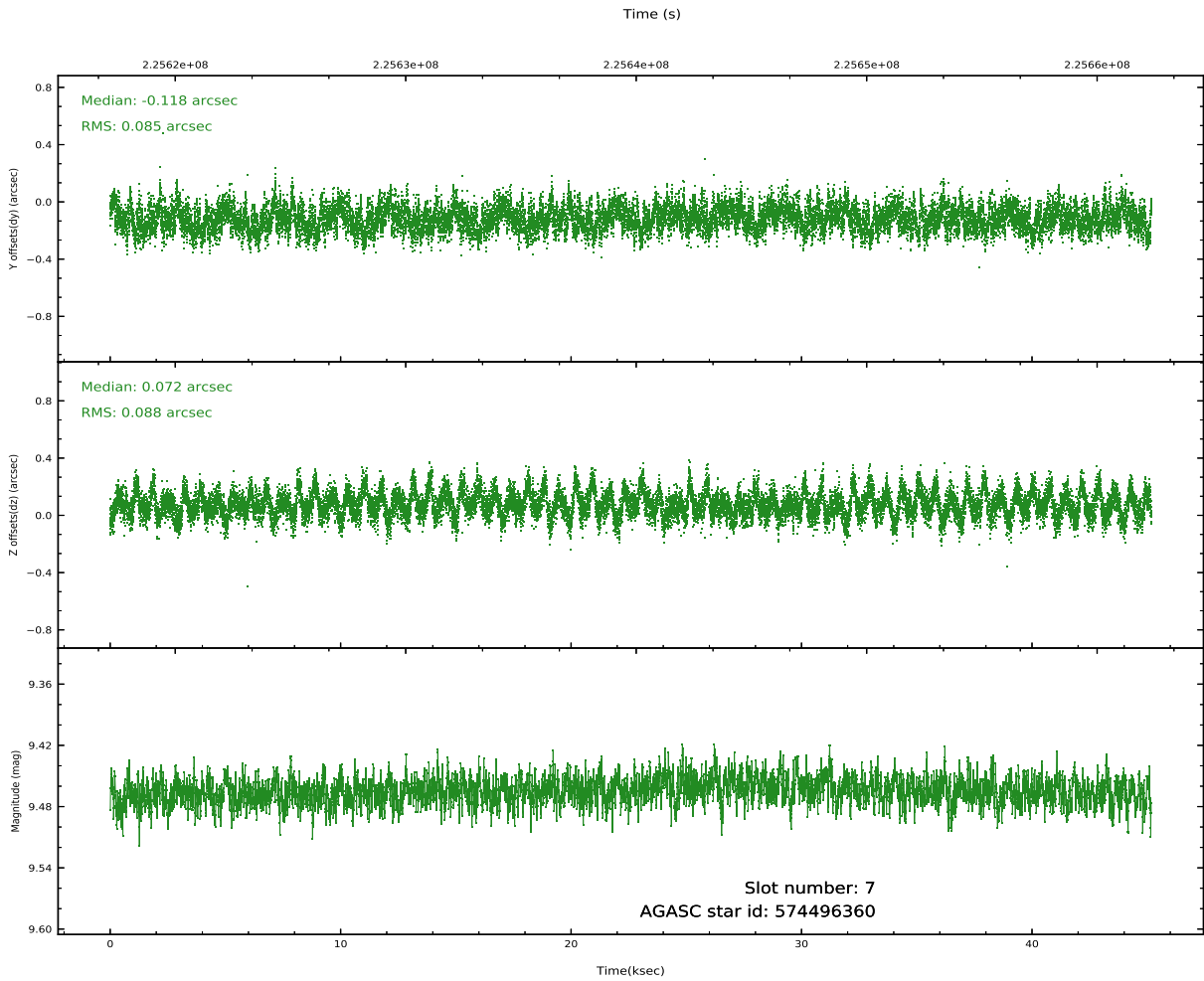
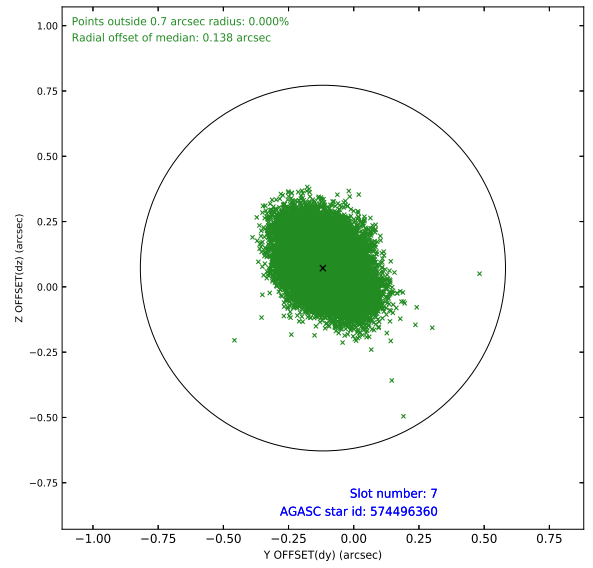
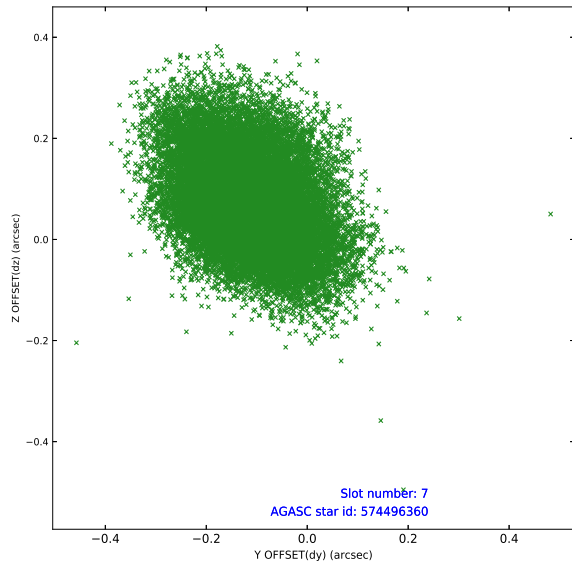
2.4.4 Slot 6



Time (s)

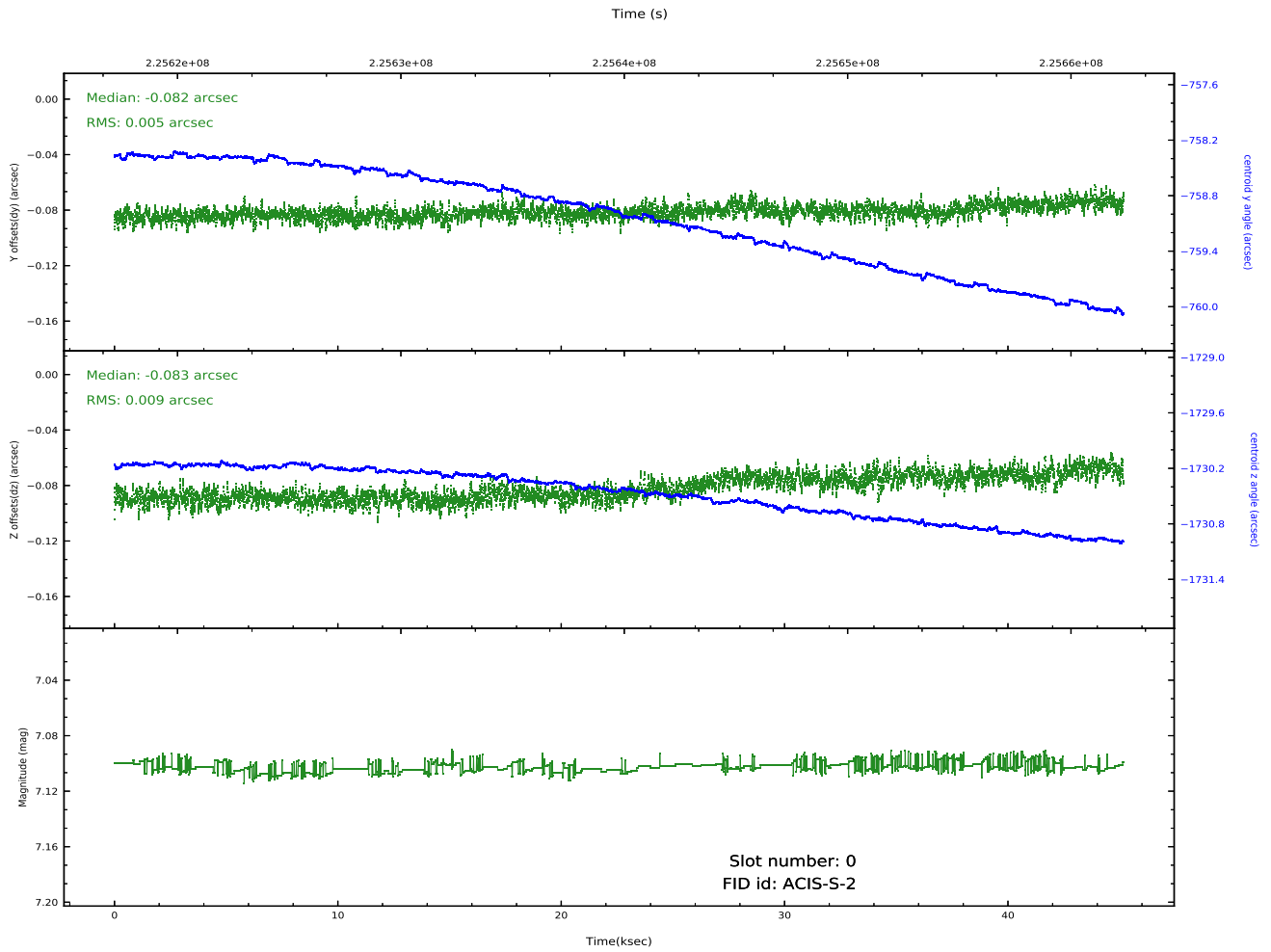
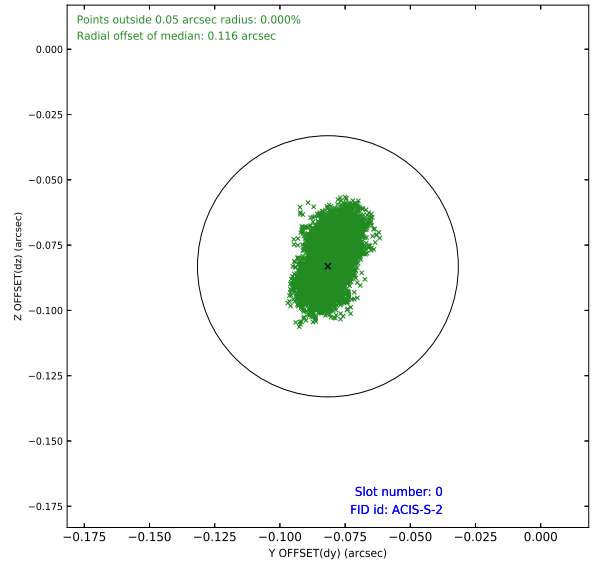
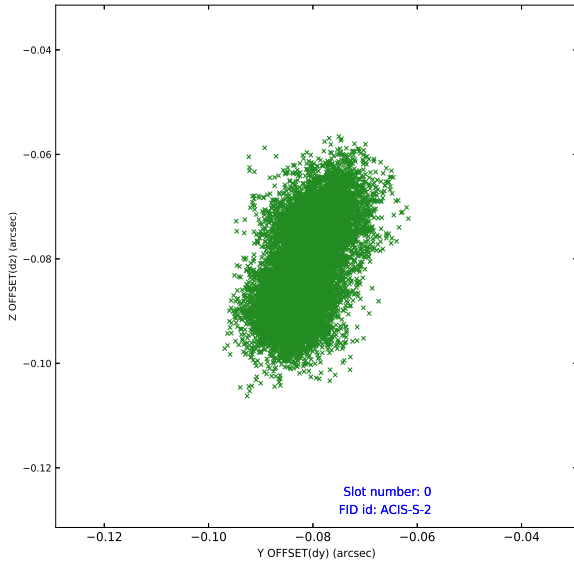


2.4.5 Slot 7

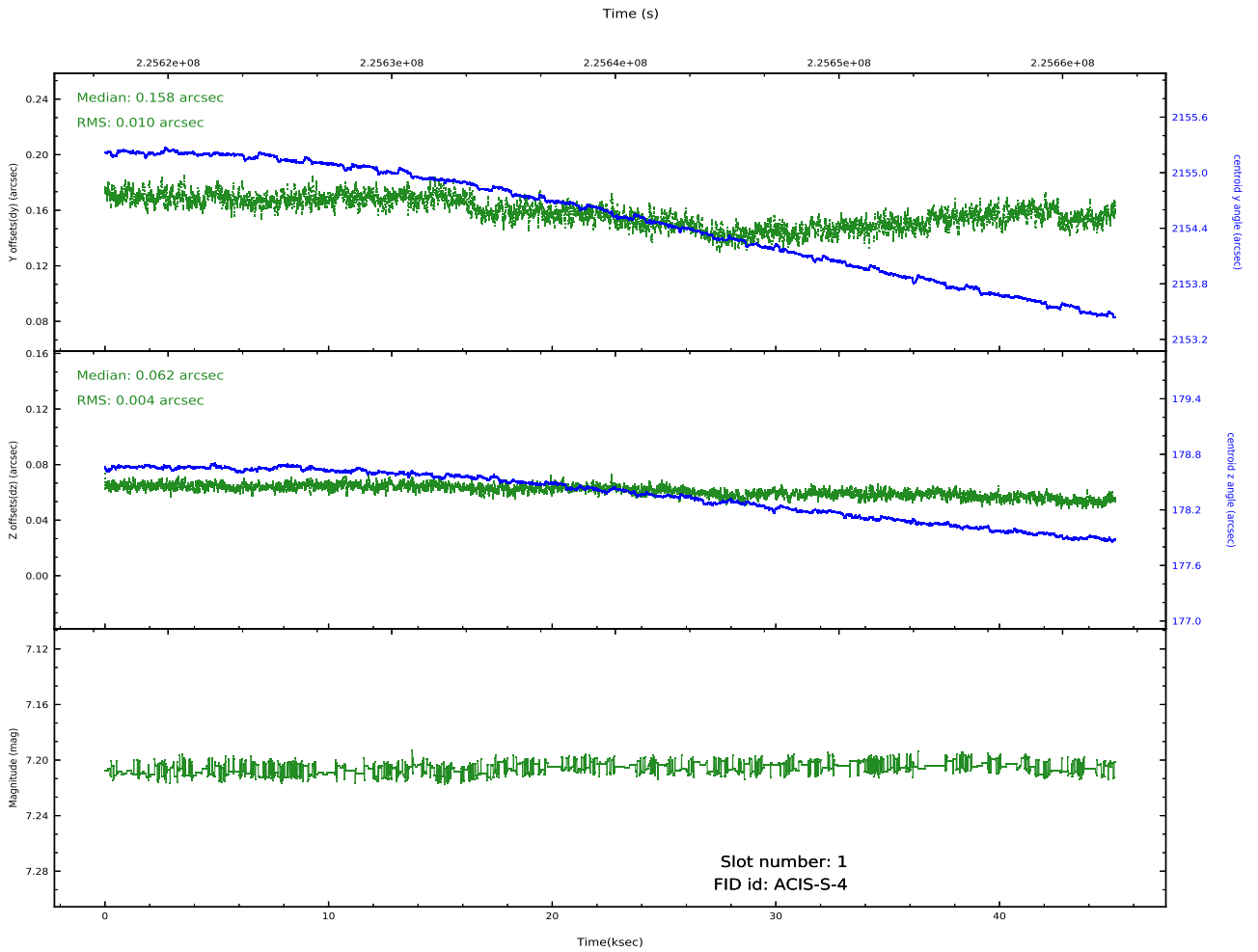
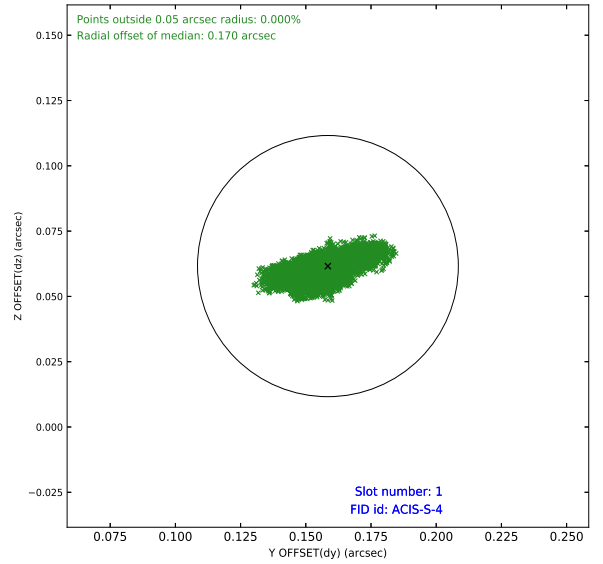
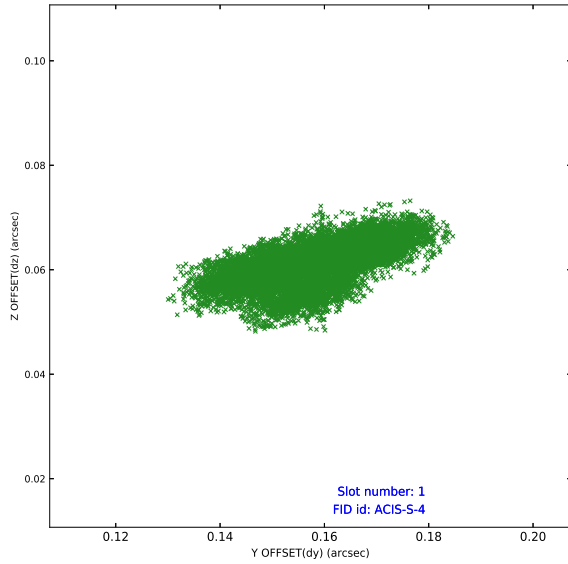


2.5 FID Slots

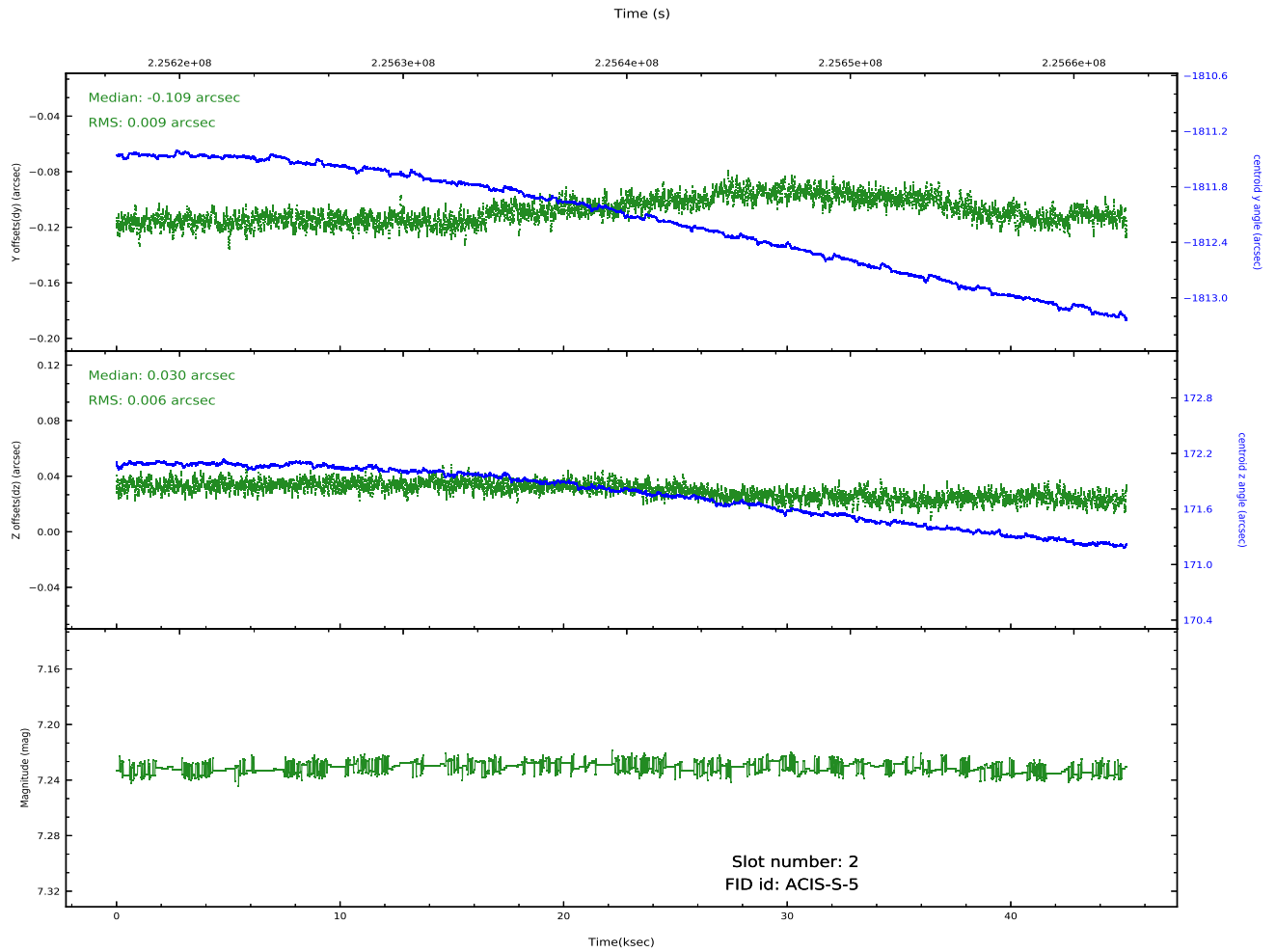
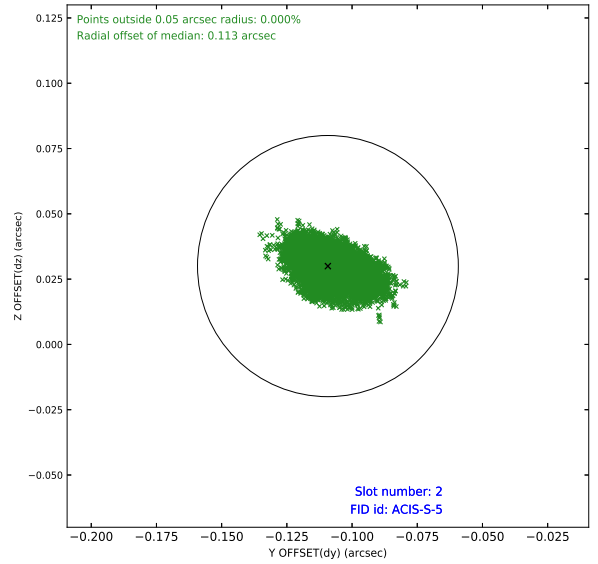
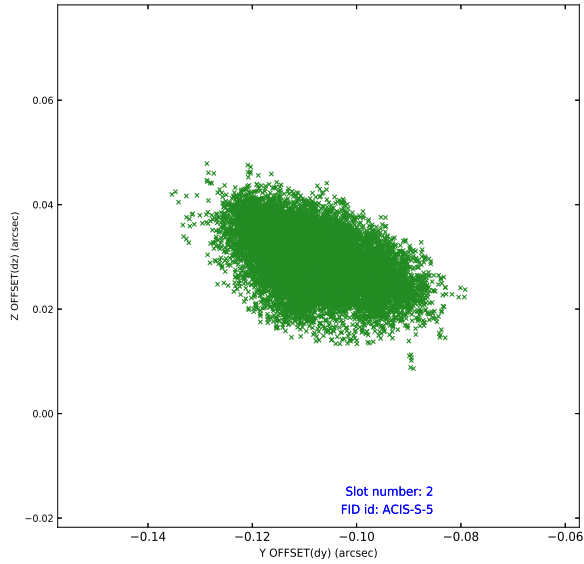
2.5.1 Slot 0



2.5.2 Slot 1

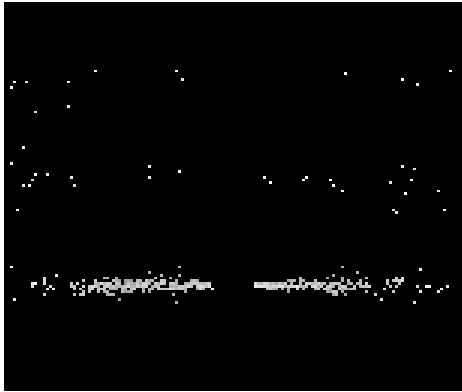


2.5.3 Slot 2

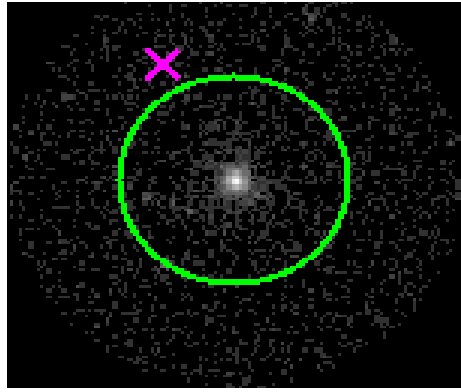


3 Gratings

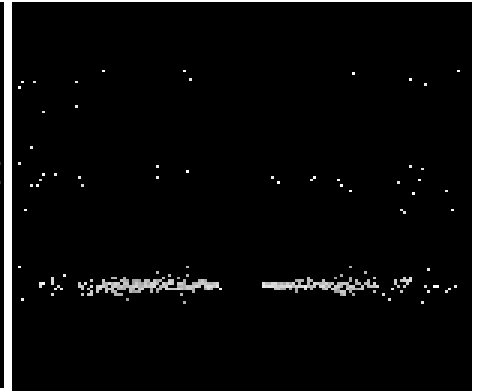
3.1 HEG Arm



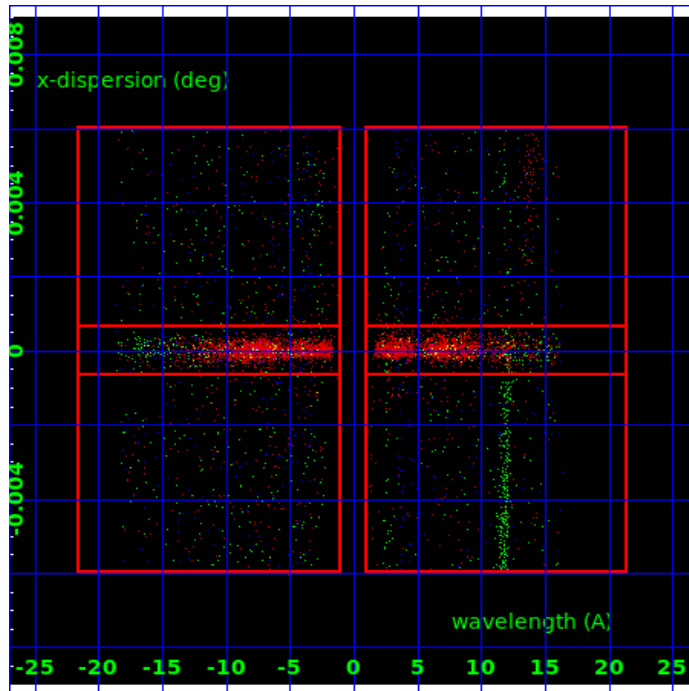
HEG Order Sort 123



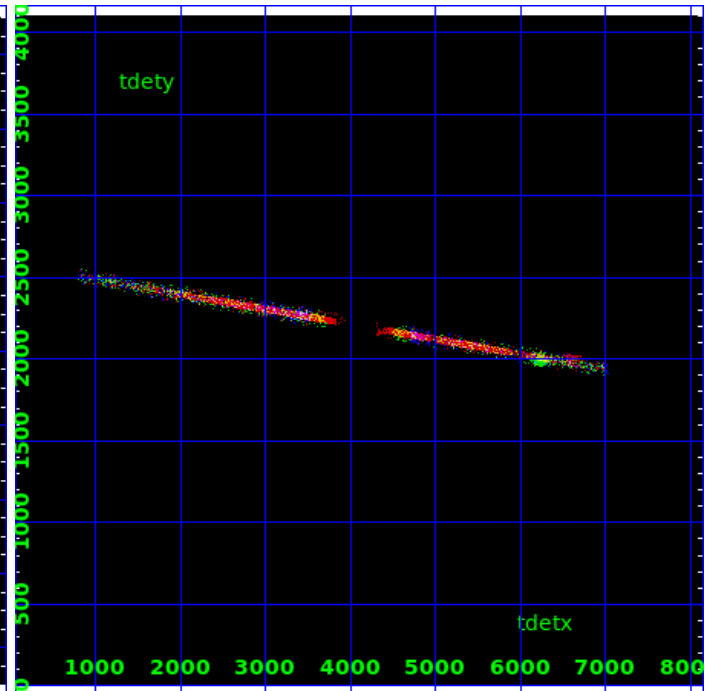
HEG Zero Order



HEG Order Sort ALL

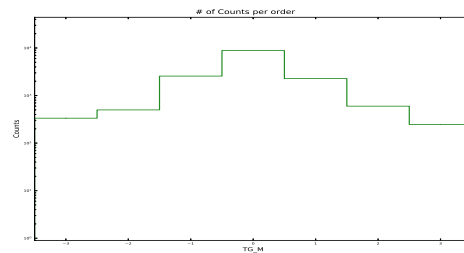


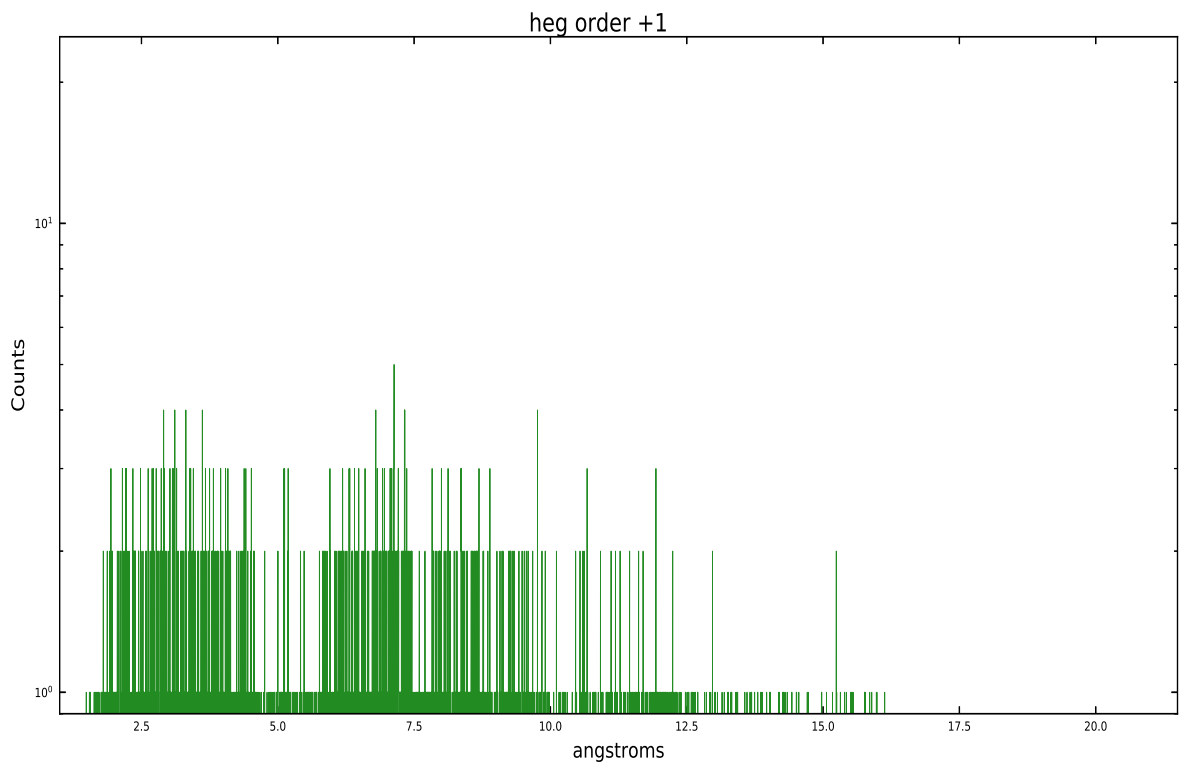
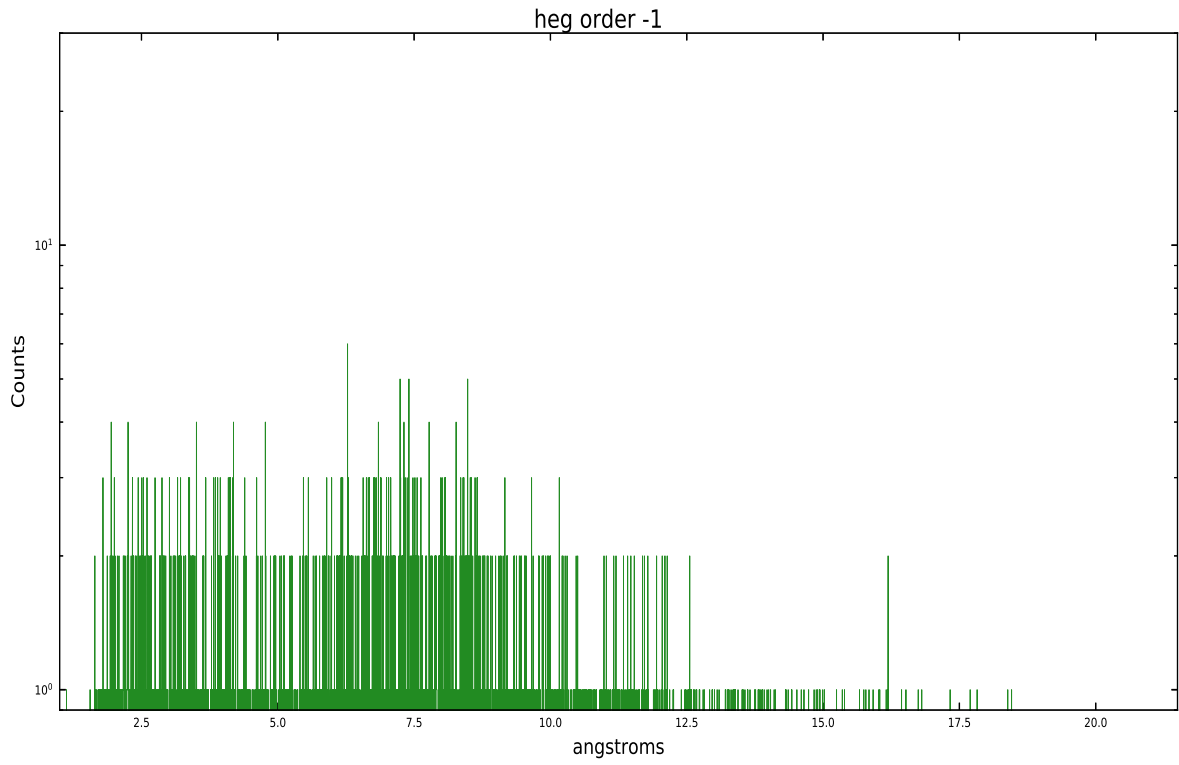
Spot Image HEG



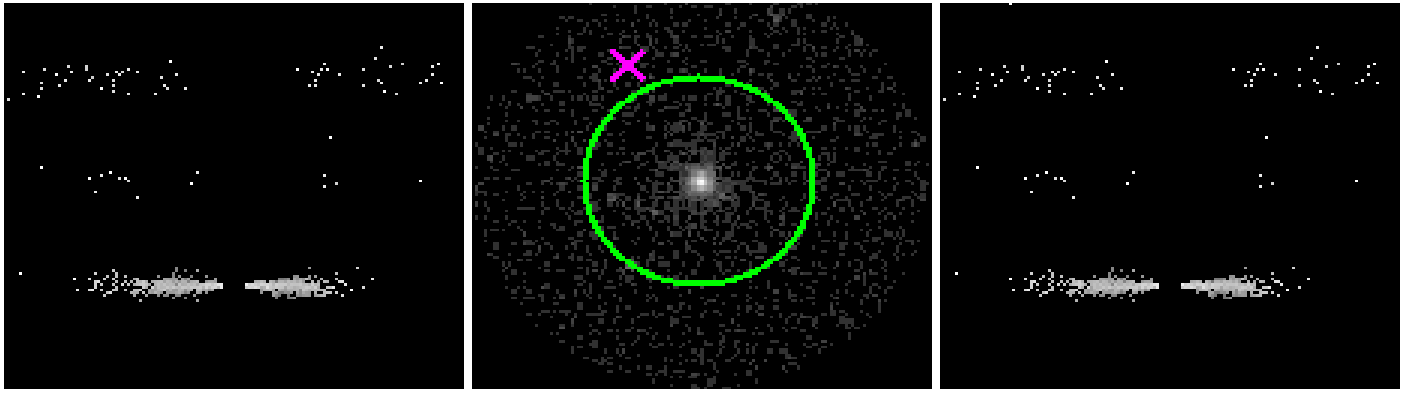
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	334	499	2565	8836	2277	598	247





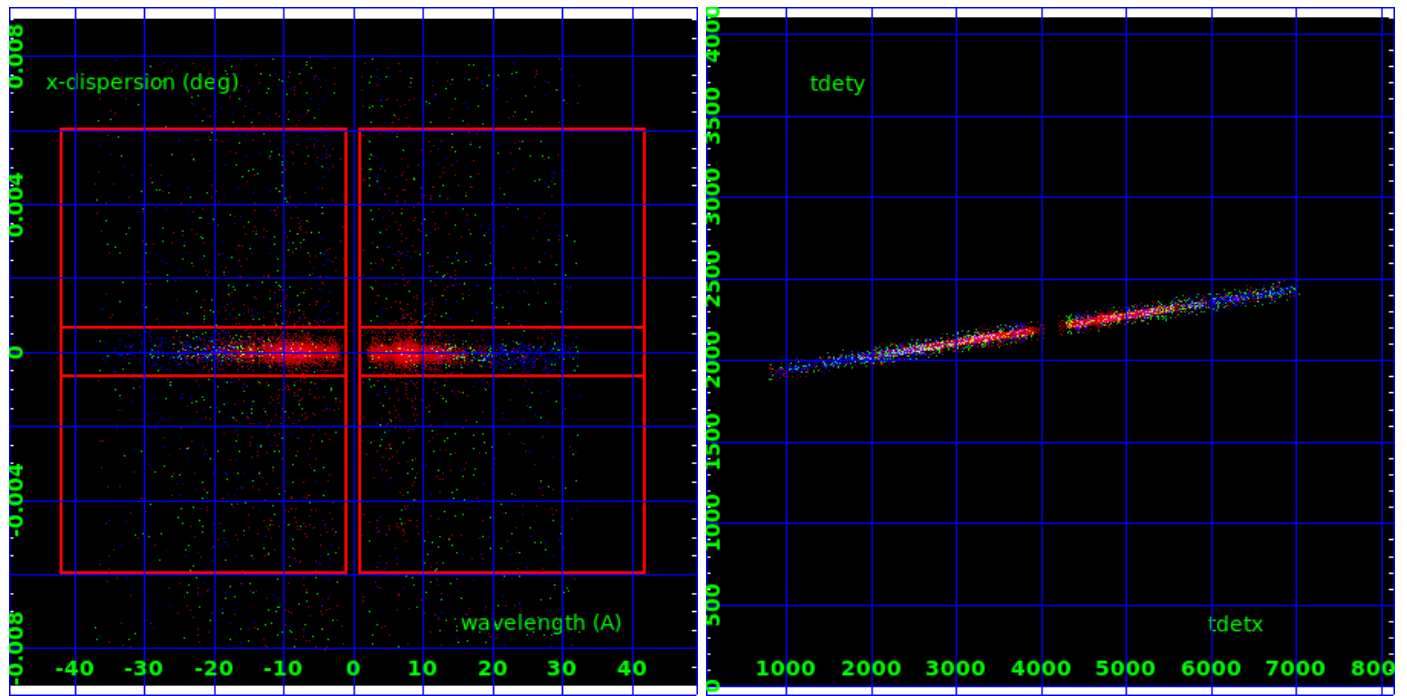
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

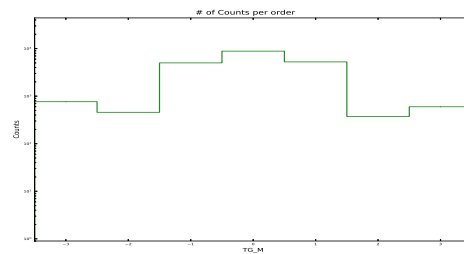
MEG Order Sort ALL

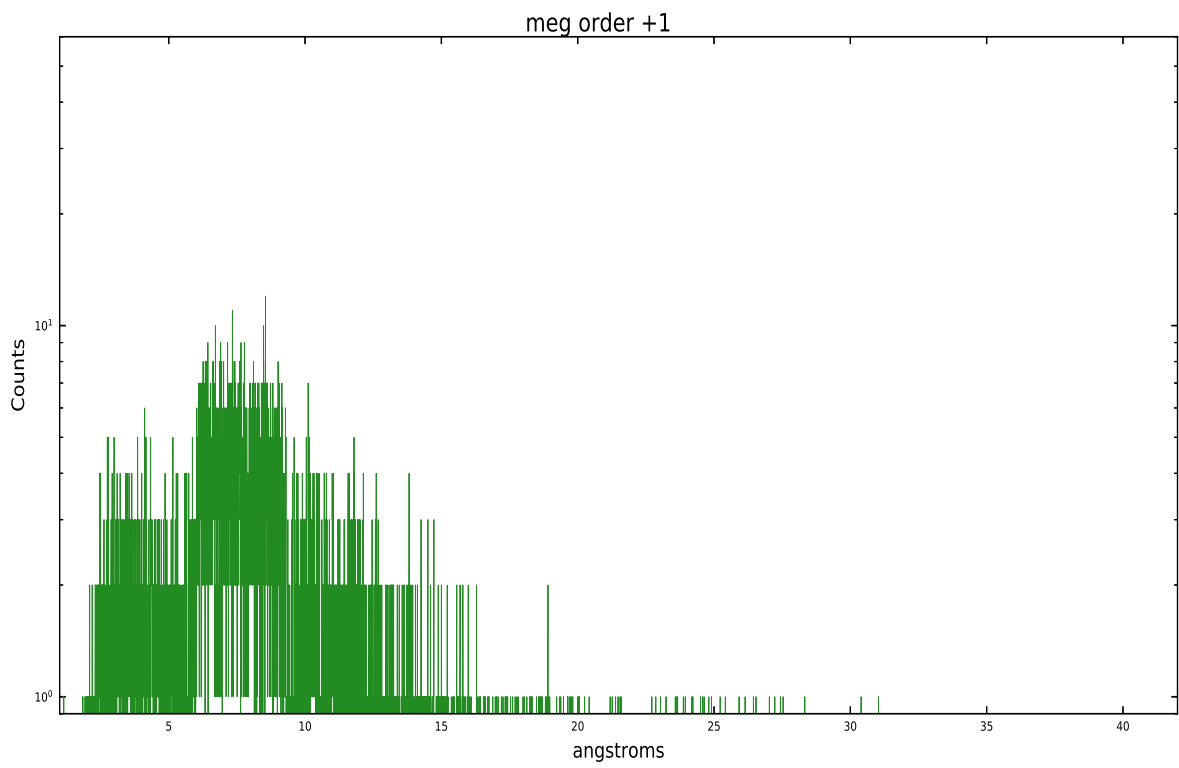
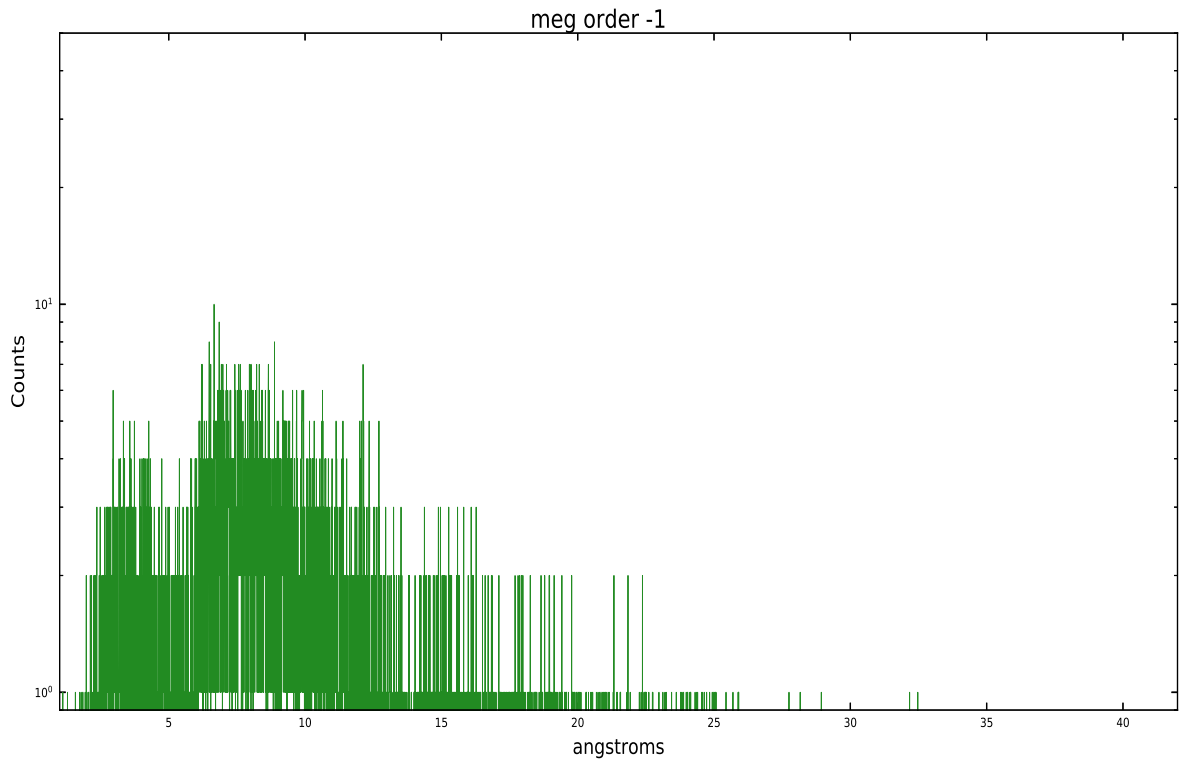


Spot Image MEG

Full Detector MEG

	order	order	order	order	order	order	order
	-3	-2	-1	0	1	2	3
Events	765	457	5007	8836	5252	373	598





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2020.10.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.18079

A.2 Comments

Note: multiple sources; extraction is on the central brightest source; other sources may cause confusion.