

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5853 - L2 Version 4
Chandra X-Ray Center

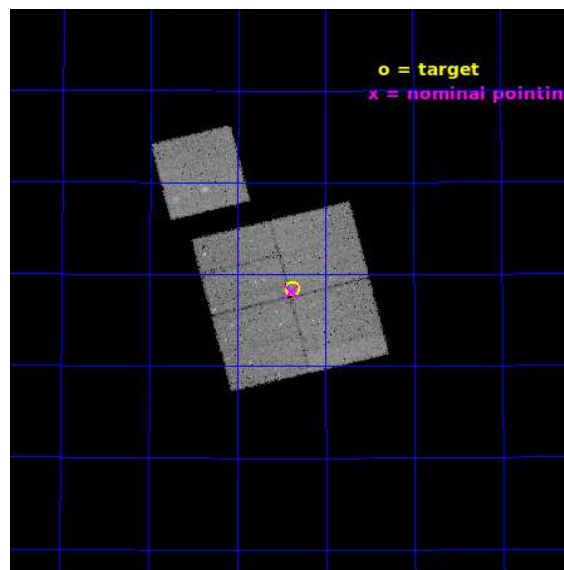
L2 Processing Date : Oct 10 2020

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1 Front

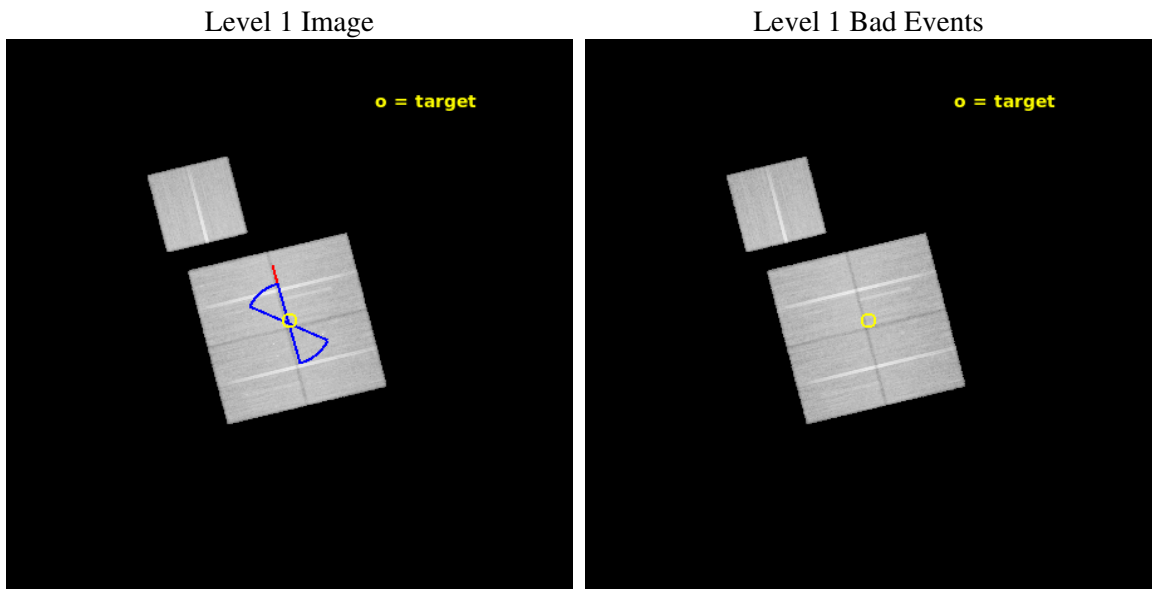
seq_num	900354	Sequence number
obs_id	5853	Observation id
title	Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies	Proposal title
observer	Prof Kirpal Nandra	Principal investigator
object	Extended Groth Strip (EGS)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	213.843735	Observer's specified target RA [deg]
dec_targ	52.140667	Observer's specified target Dec [deg]
ra_nom	213.84563659478	Nominal RA [deg]
dec_nom	52.135181780951	Nominal Dec [deg]
roll_nom	345.95868082809	Nominal Roll [deg]
revision	4	Processing version of data
ontime	43133.318106025	Sum of GTIs [s]
livetime	42569.749550683	Livetime [s]
ontime0	43133.318056226	Sum of GTIs [s]
ontime1	43136.458926857	Sum of GTIs [s]
ontime2	43139.599917024	Sum of GTIs [s]
ontime3	43133.318106025	Sum of GTIs [s]
ontime6	43133.317926705	Sum of GTIs [s]
l2events	119812	Number of level 2 events



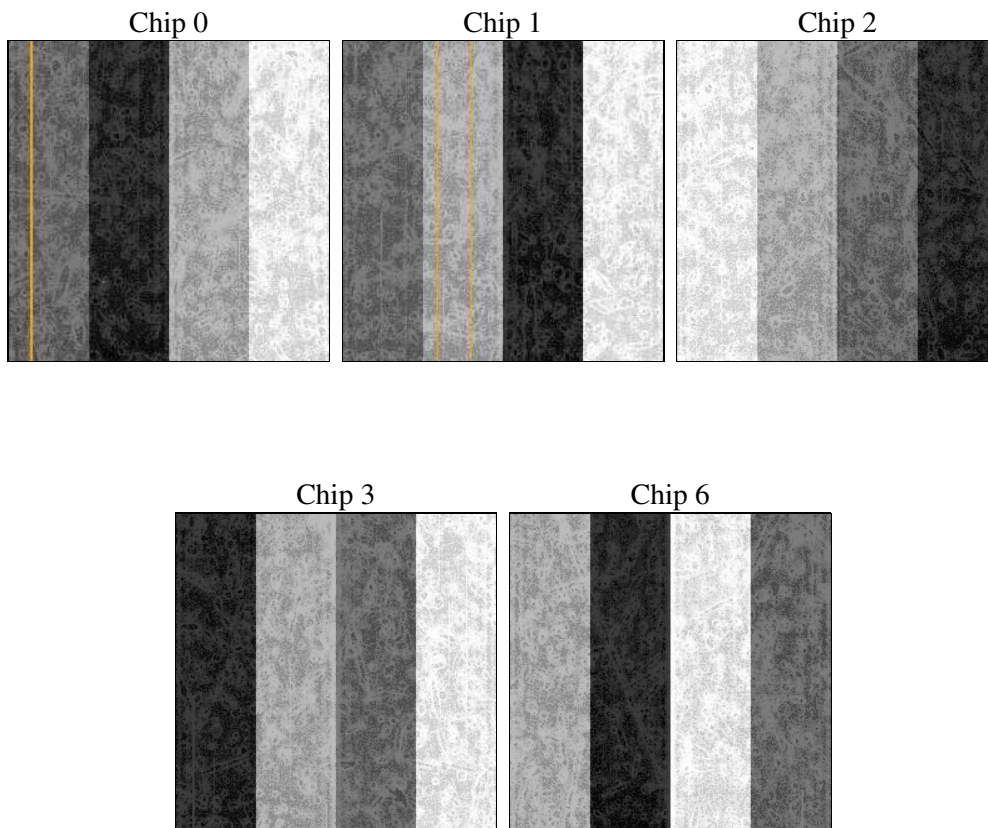
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	43000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	43133.318106025	Sum of GTIs [s]
caldbver	4.9.2	 	ontime0	43133.318056226	Sum of GTIs [s]
date	2020-10-11T02:51:44	Date and time of file creation	ontime1	43136.458926857	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	43139.599917024	Sum of GTIs [s]
			ontime3	43133.318106025	Sum of GTIs [s]
			ontime6	43133.317926705	Sum of GTIs [s]
			l1events	1431632	Number of level 1 events

2.1.4 Events

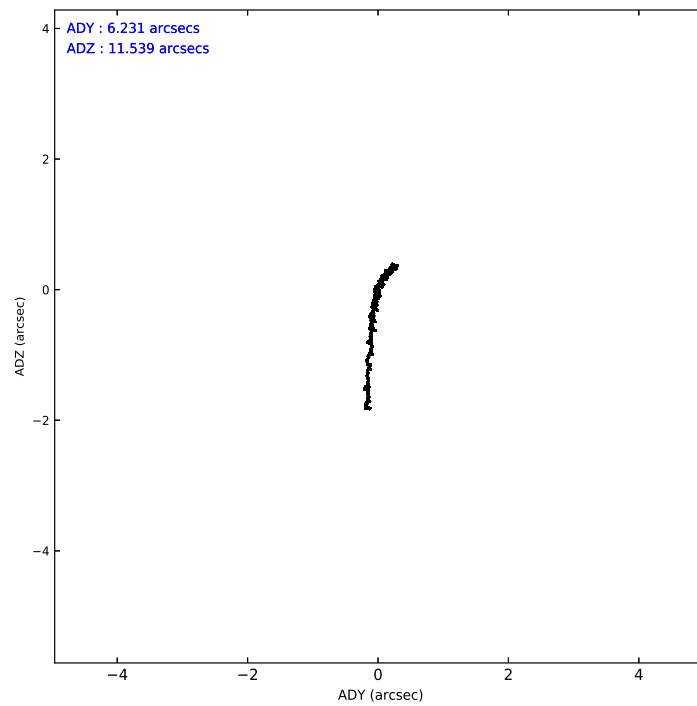
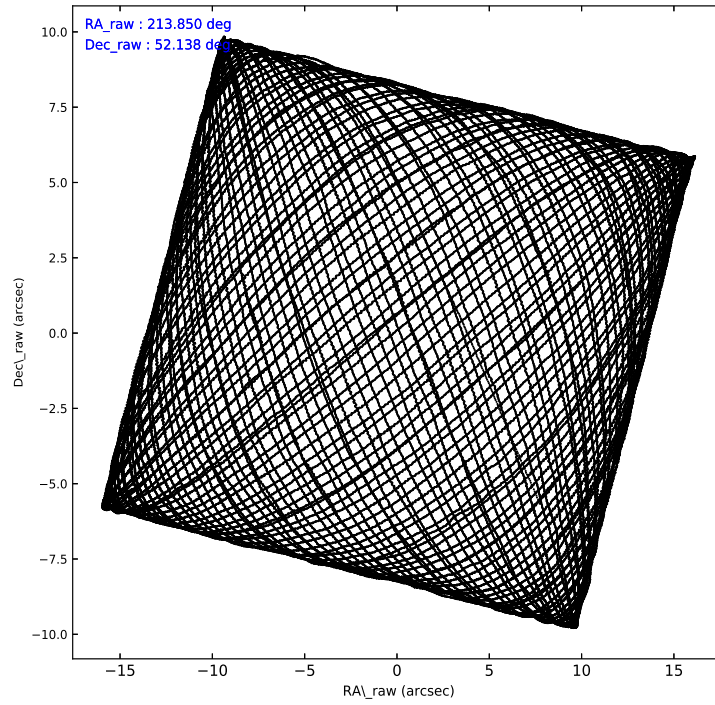
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	276645	268380	310001	285374	291232
rejected events	248034	235838	282200	258833	261757
rejected %	89%	87%	91%	90%	89%

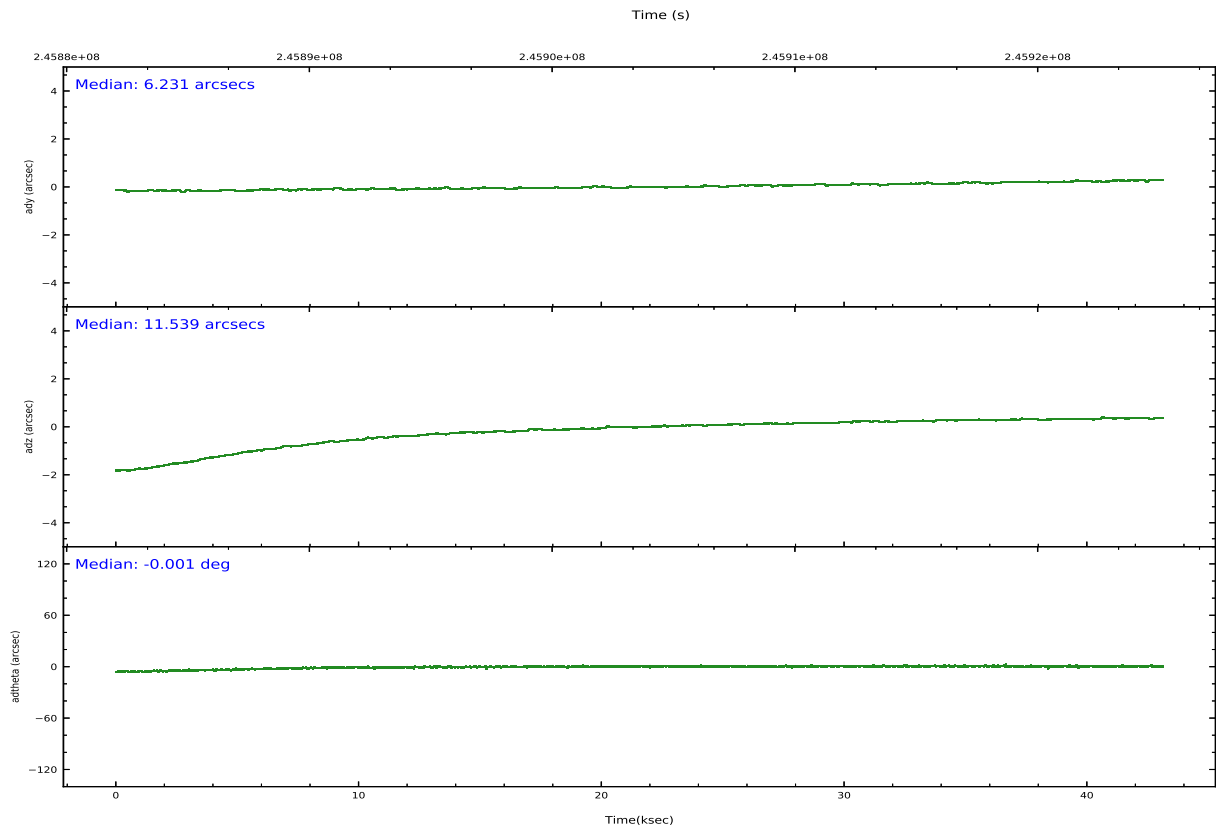
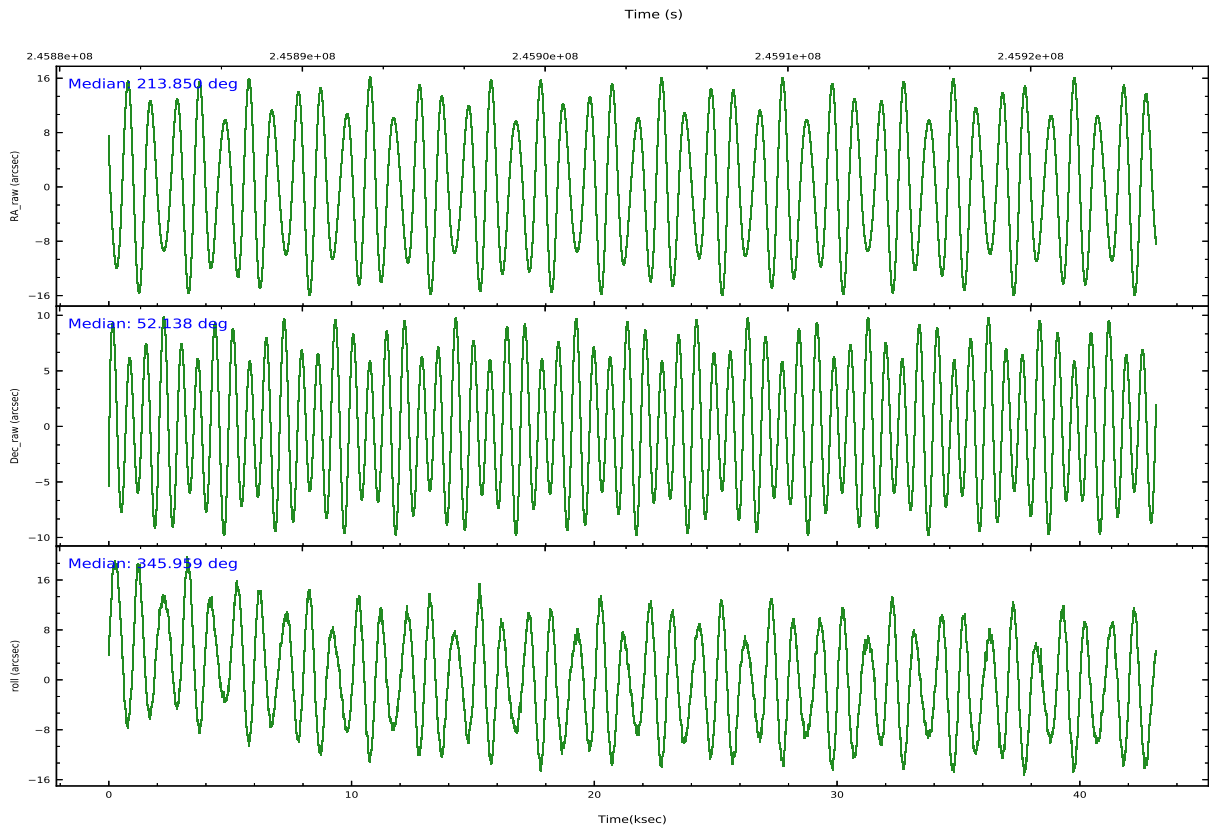
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	10134	12144	10081	9401	10614
	3%	4%	3%	3%	3%
grade 1 events	132	136	134	130	123
	0%	0%	0%	0%	0%
grade 2 events	7077	7241	6638	5915	6408
	2%	2%	2%	2%	2%
grade 3 events	3298	3591	3050	3090	3316
	1%	1%	0%	1%	1%
grade 4 events	2955	3561	3116	3058	3284
	1%	1%	1%	1%	1%
grade 5 events	9920	11304	9245	11475	11601
	3%	4%	2%	4%	3%
grade 6 events	5509	6383	5264	5438	6253
	1%	2%	1%	1%	2%
grade 7 events	237620	224020	272473	246867	249633
	85%	83%	87%	86%	85%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	213.806935	213.84563659478	Subarray requested	NONE	NONE
[deg] Pointing Dec	52.130227	52.135181780951	Alternating exposures requested	N	N
[deg] Pointing Roll	345.785047	345.95868082809	[s] Primary exposure time	0.000000	3.1
[deg] Roll angle	50.756000	50.756000			
[deg] Roll tolerance	25.000000	25.000000			
Roll constraint allows 180D rotation	Y	Y			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	245882169.184000	245880984.12451			
Observation start date	2005-10-16T20:35:05	2005-10-16T20:16:24			
[s] Observation end time (MET)	245925169.184000	245926116.41409			
Observation end date	2005-10-17T08:31:45	2005-10-17T08:48:36			
Read mode	TIMED	TIMED			

2.3 Aspect





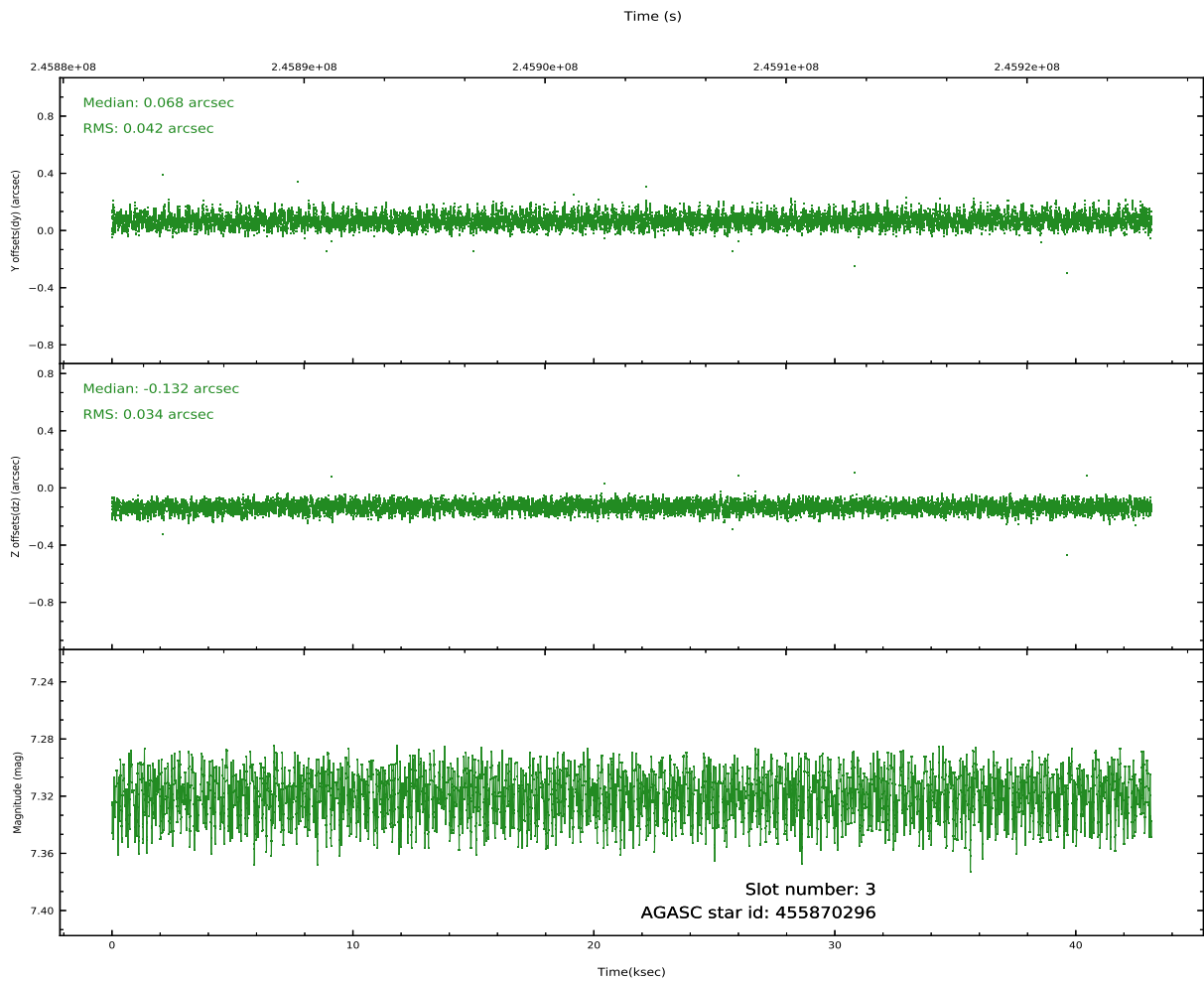
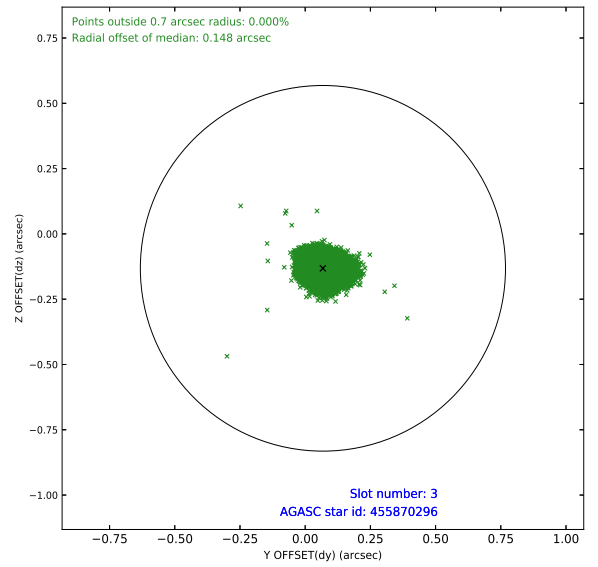
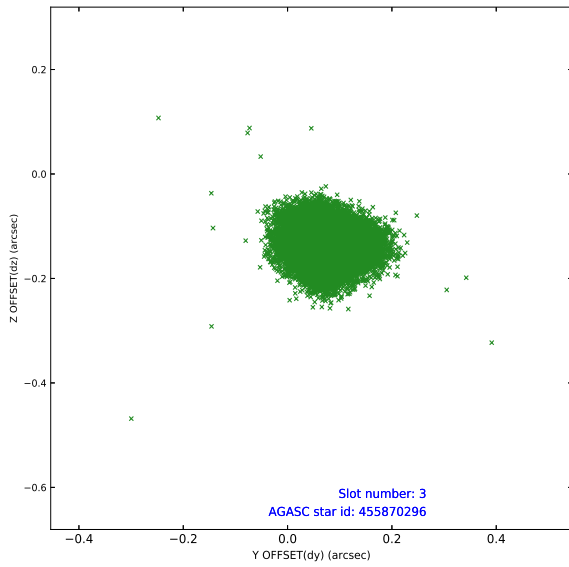
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-I-1	7.24	10521	1.000	0.057	-0.047	0.010	0.050	0.000000	0.000000	933.49	-834
1	FID		ACIS-I-5	7.23	10522	1.000	-0.203	0.058	0.011	0.034	0.000000	0.000000	-1814.84	1062
2	FID		ACIS-I-6	7.25	10522	1.000	0.055	0.060	0.014	0.031	0.000000	0.000000	399.07	1707
3	GUIDE	used	455870296	7.32	21045	1.000	0.068	-0.132	0.058	0.091	214.629779	52.033323	1849.82	119
4	GUIDE	used	455870320	8.39	21045	1.000	-0.158	0.094	0.062	0.102	214.874440	52.401638	2028.82	1539
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
6	GUIDE	used	504894728	8.82	21036	1.000	0.084	0.012	0.077	0.126	213.220892	52.722550	-1763.38	1758
7	GUIDE	used	505806936	7.00	21046	1.000	0.001	0.021	0.056	0.091	213.820815	52.535927	-329.26	1423

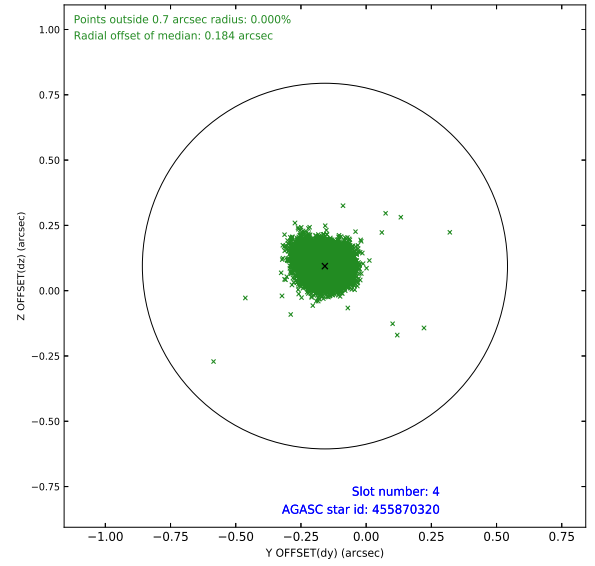
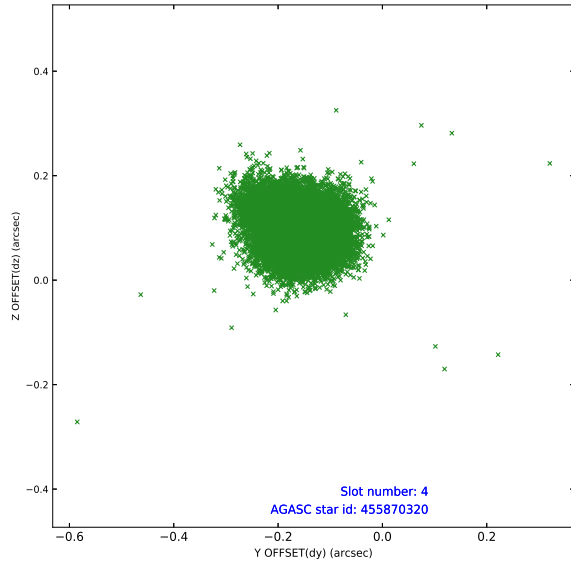
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2.4 Star Slots

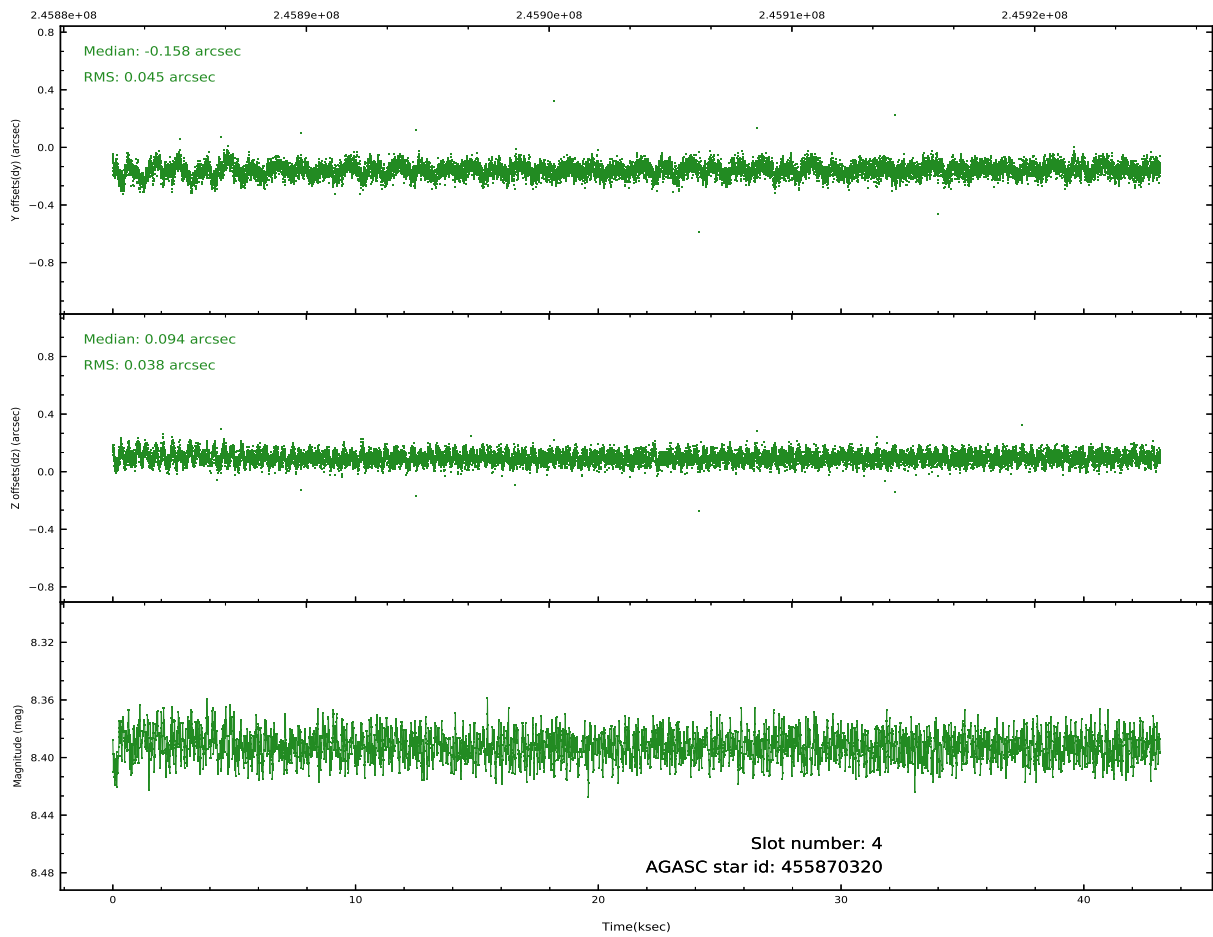
2.4.1 Slot 3



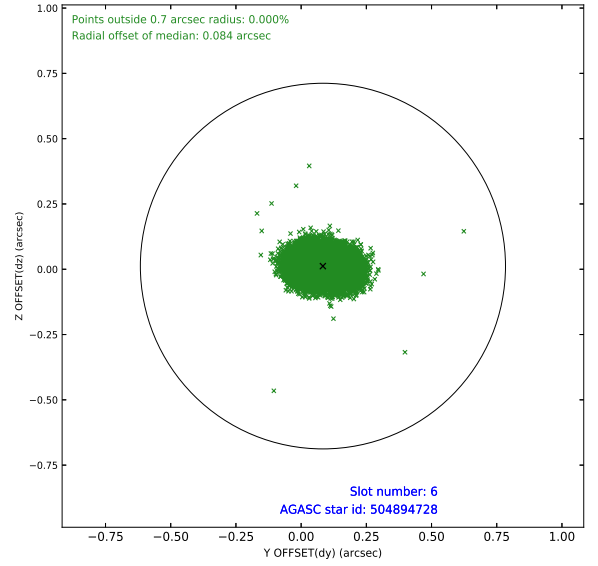
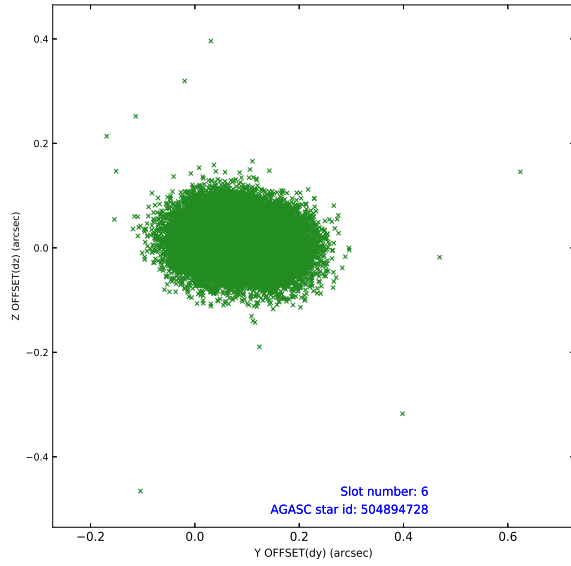
2.4.2 Slot 4



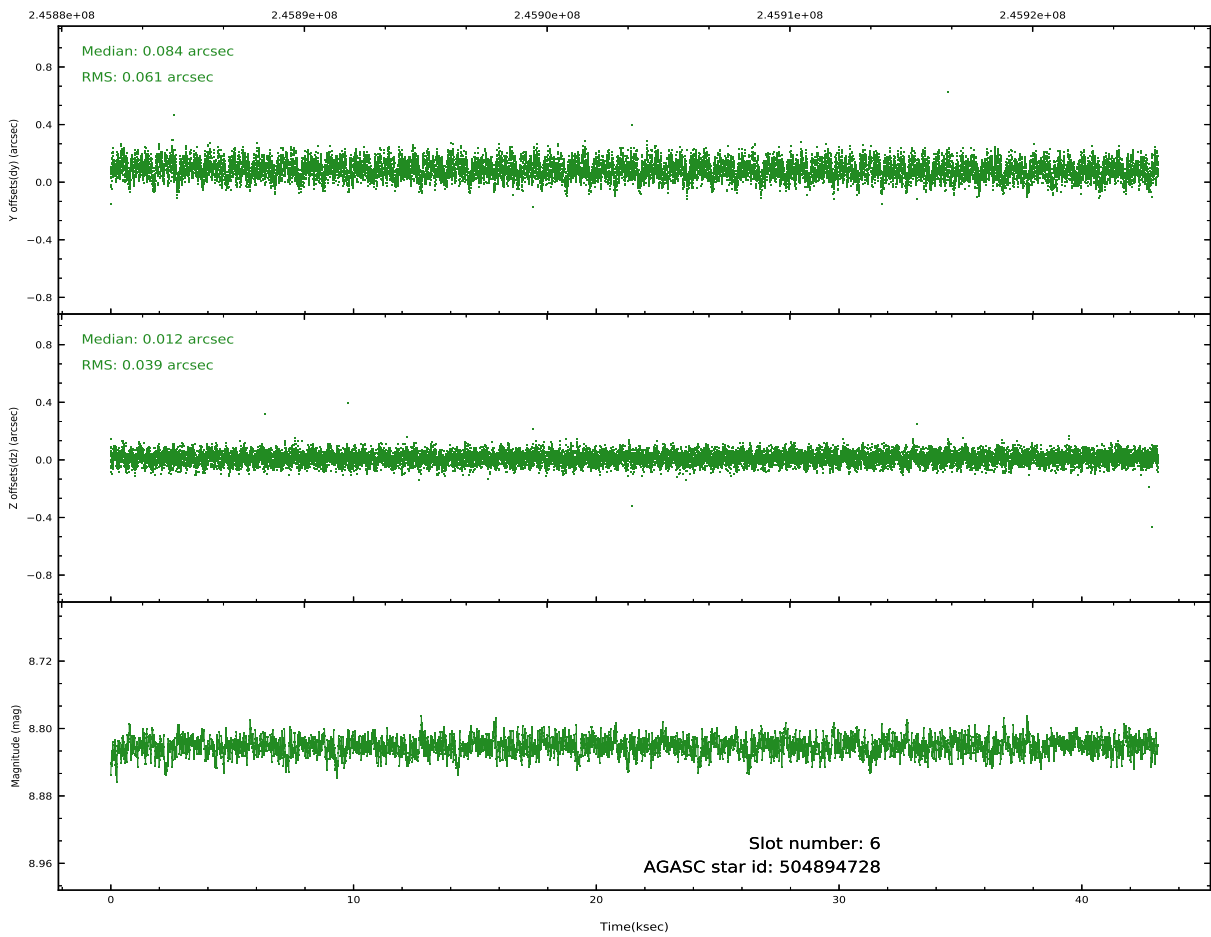
Time (s)



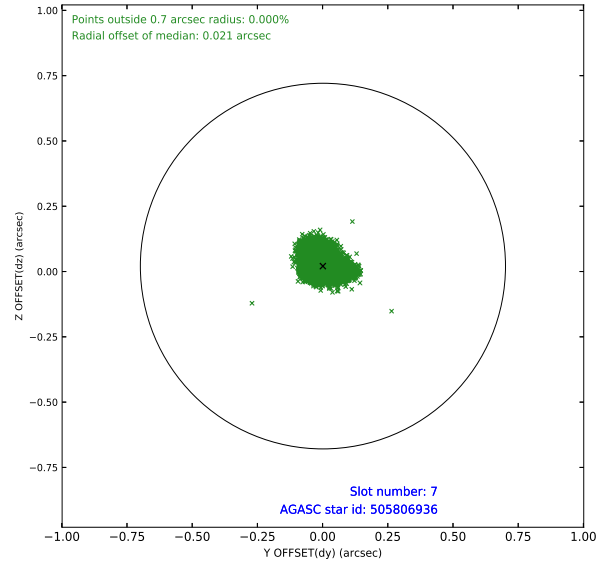
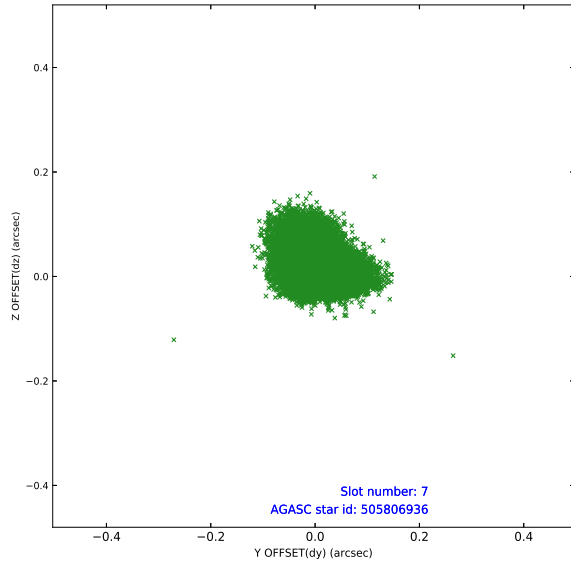
2.4.3 Slot 6



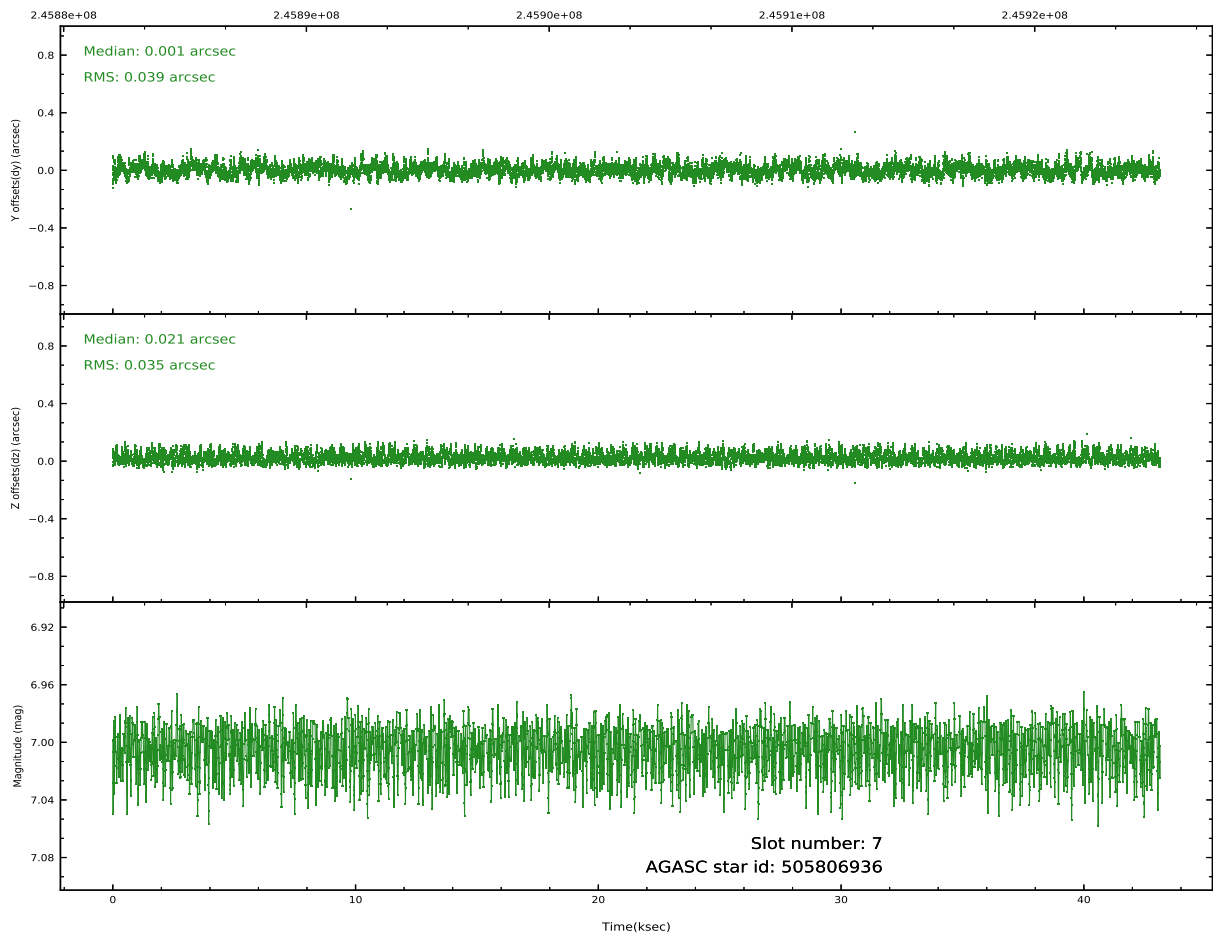
Time (s)



2.4.4 Slot 7

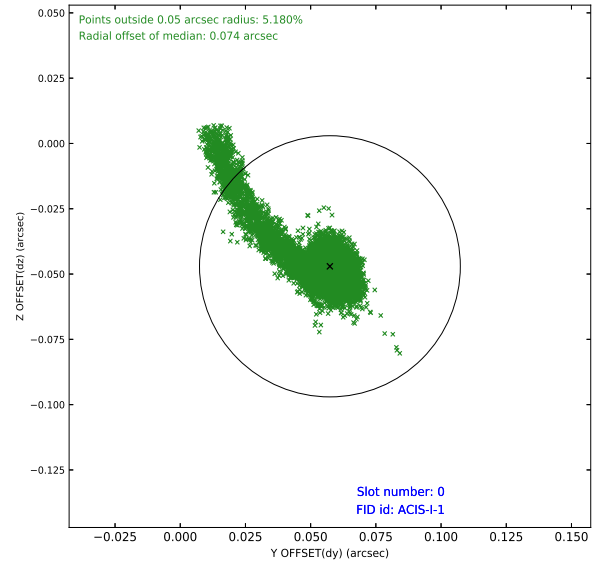
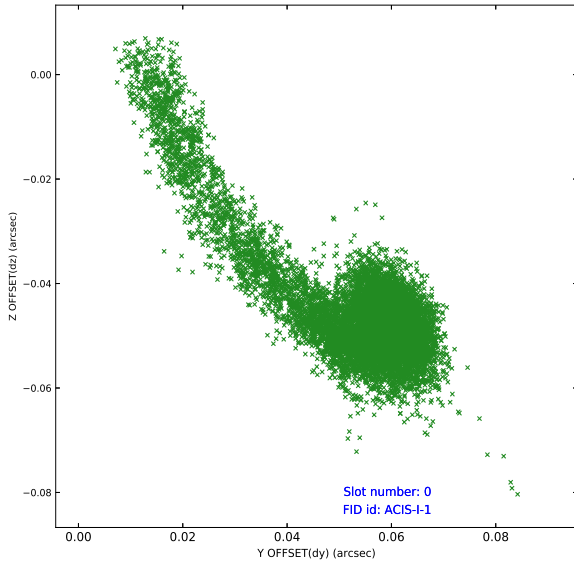


Time (s)

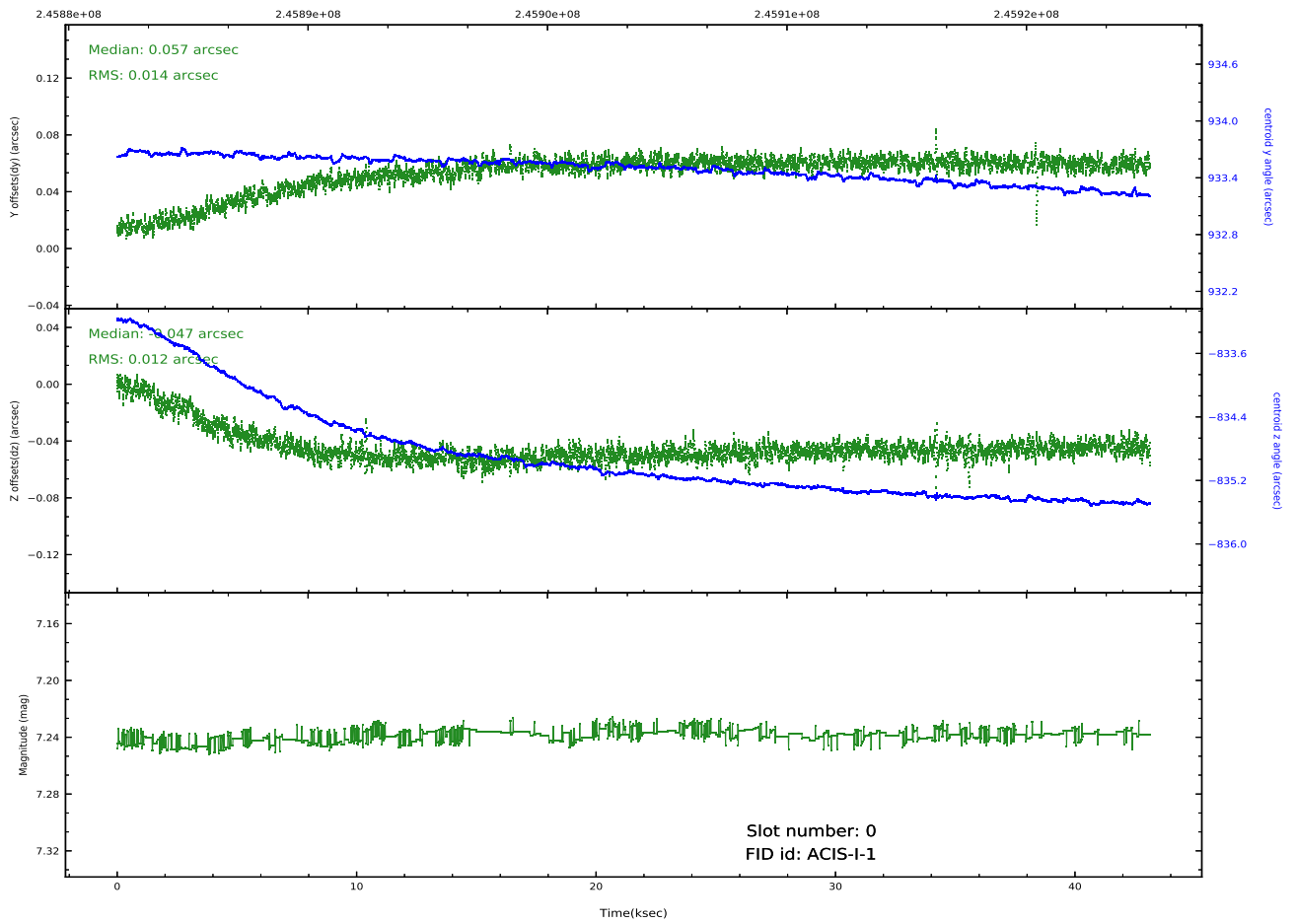


2.5 FID Slots

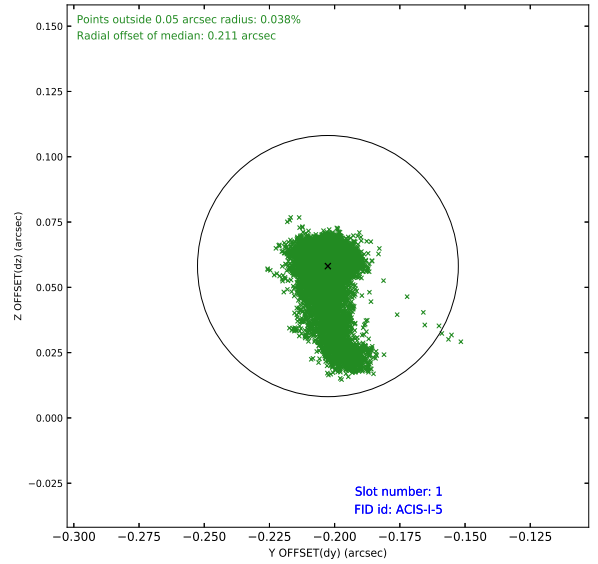
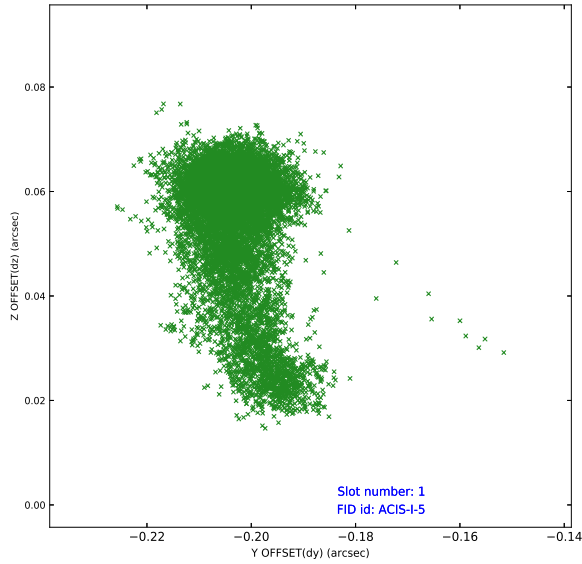
2.5.1 Slot 0



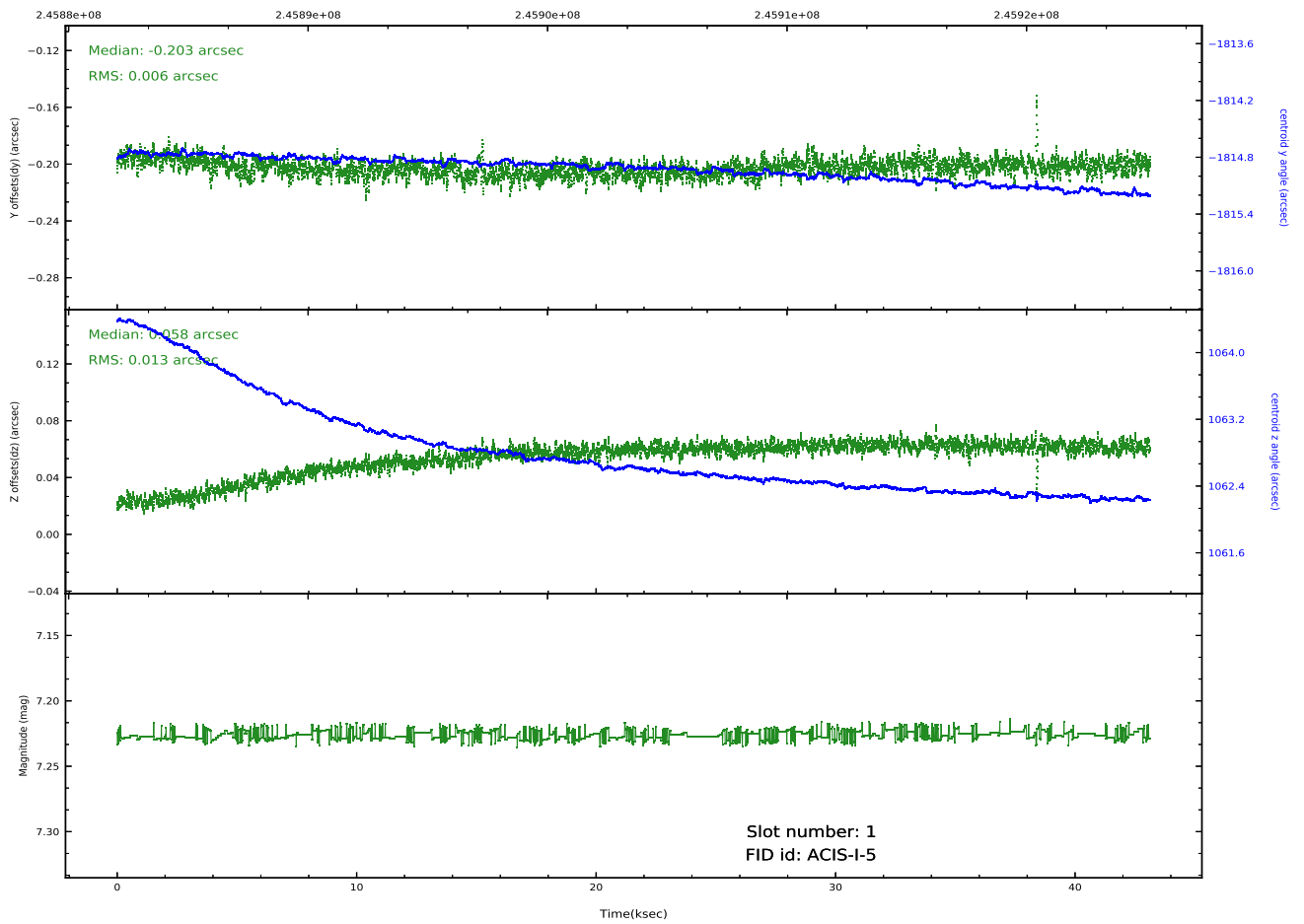
Time (s)



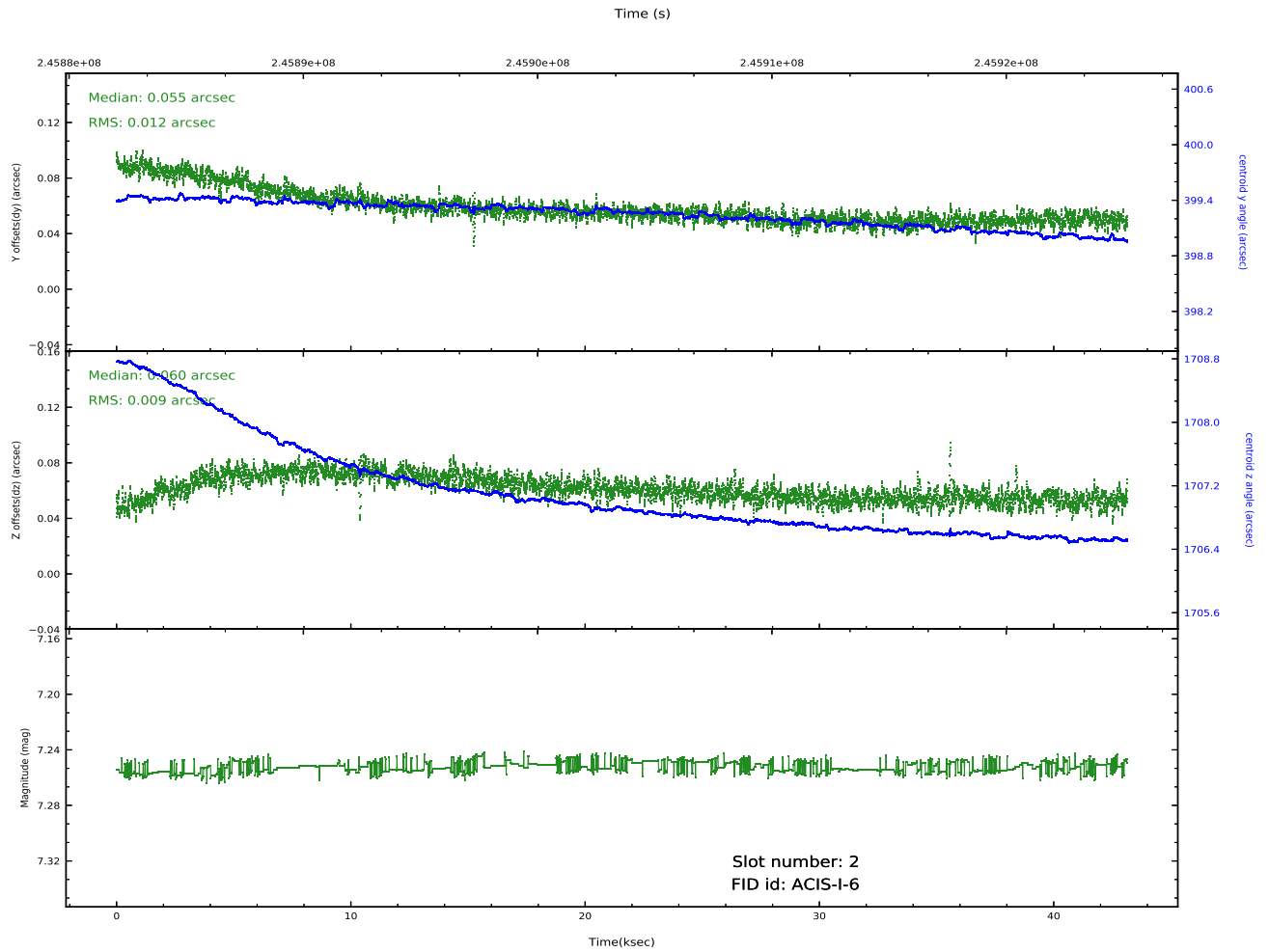
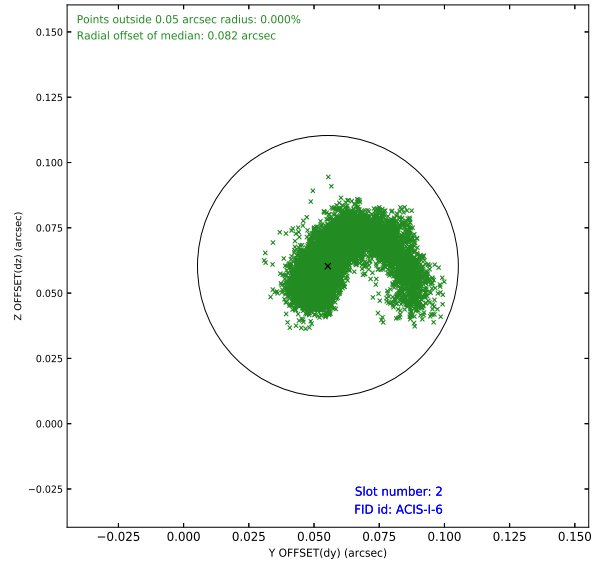
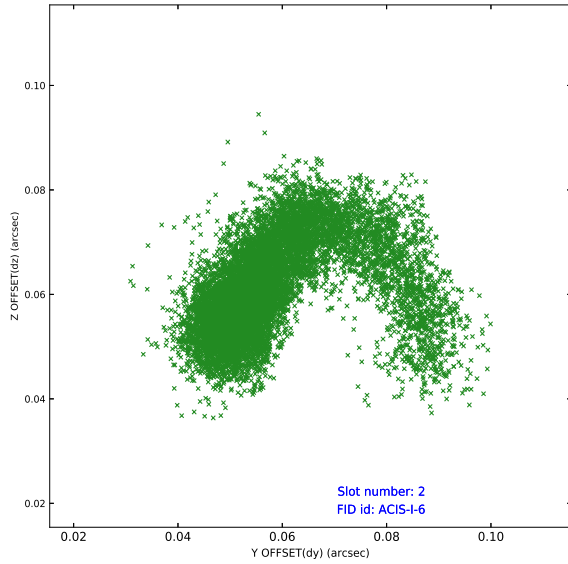
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	43.13331

A.2 Comments

Roll constraint was not met.

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The guide star in slot 5 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.