

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5815 - L2 Version 4
Chandra X-Ray Center

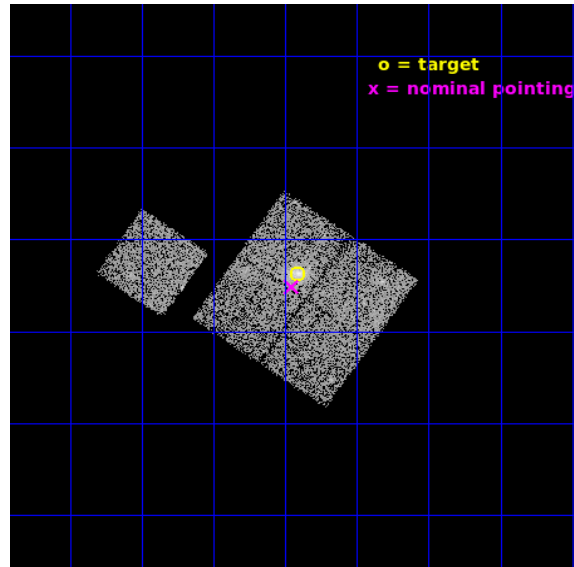
L2 Processing Date : Oct 5 2020

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1 Front

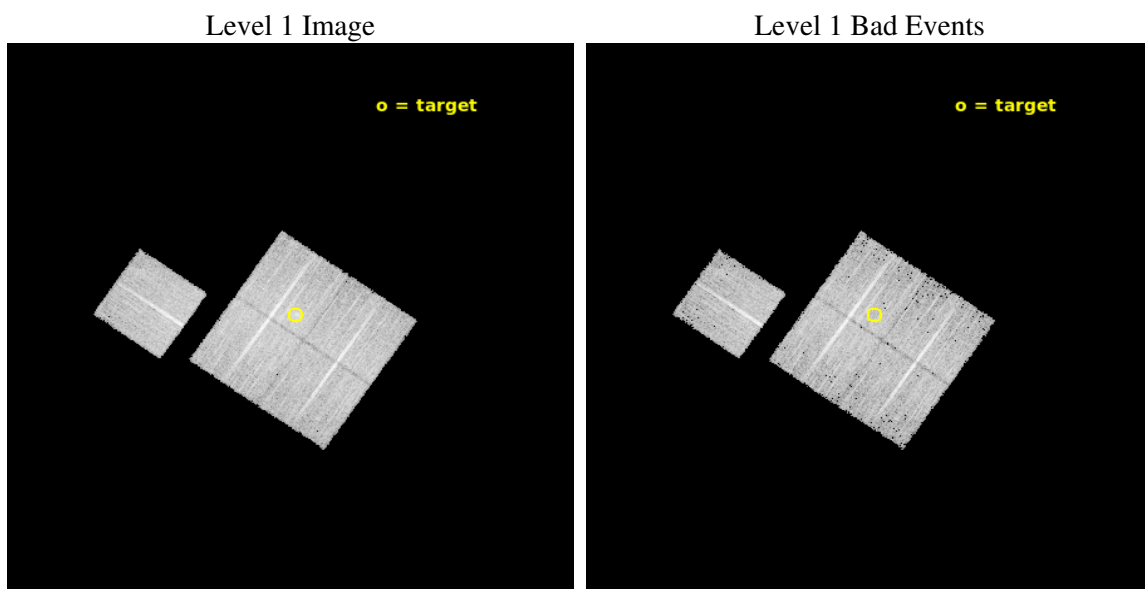
seq_num	800528	Sequence number
obs_id	5815	Observation id
title	MACS: The most massive galaxy clusters at $z>0.3$	Proposal title
observer	Harald Ebeling	Principal investigator
object	MACSJ0451.9+0006	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	72.977083	Observer's specified target RA [deg]
dec_targ	0.104806	Observer's specified target Dec [deg]
ra_nom	72.988060438756	Nominal RA [deg]
dec_nom	0.081023331738642	Nominal Dec [deg]
roll_nom	304.61489828454	Nominal Roll [deg]
revision	4	Processing version of data
ontime	10350.158769846	Sum of GTIs [s]
livetime	10214.926325842	Livetime [s]
ontime0	10350.035649836	Sum of GTIs [s]
ontime1	10346.935699582	Sum of GTIs [s]
ontime2	10350.117729843	Sum of GTIs [s]
ontime3	10350.158769846	Sum of GTIs [s]
ontime6	10349.994609833	Sum of GTIs [s]
l2events	28955	Number of level 2 events



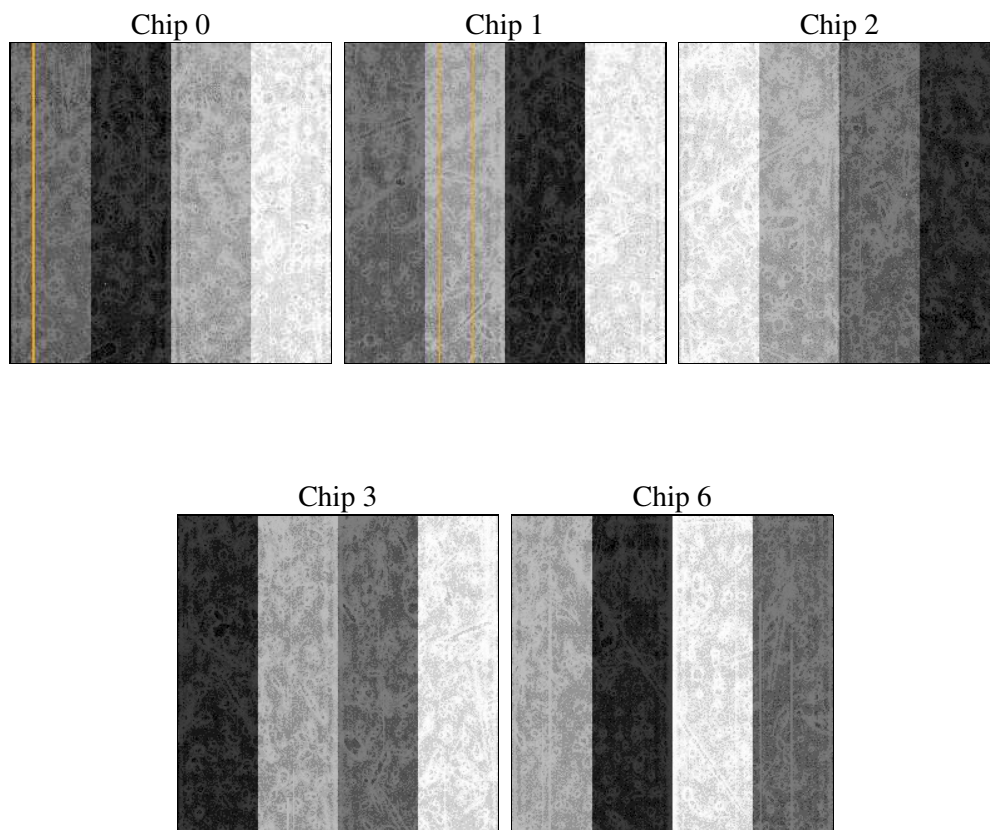
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10300.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	10350.158769846	Sum of GTIs [s]
caldsver	4.9.2	 	ontime0	10350.035649836	Sum of GTIs [s]
date	2020-10-06T03:09:30	Date and time of file creation	ontime1	10346.935699582	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	10350.117729843	Sum of GTIs [s]
			ontime3	10350.158769846	Sum of GTIs [s]
			ontime6	10349.994609833	Sum of GTIs [s]
			l1events	301564	Number of level 1 events

2.1.4 Events

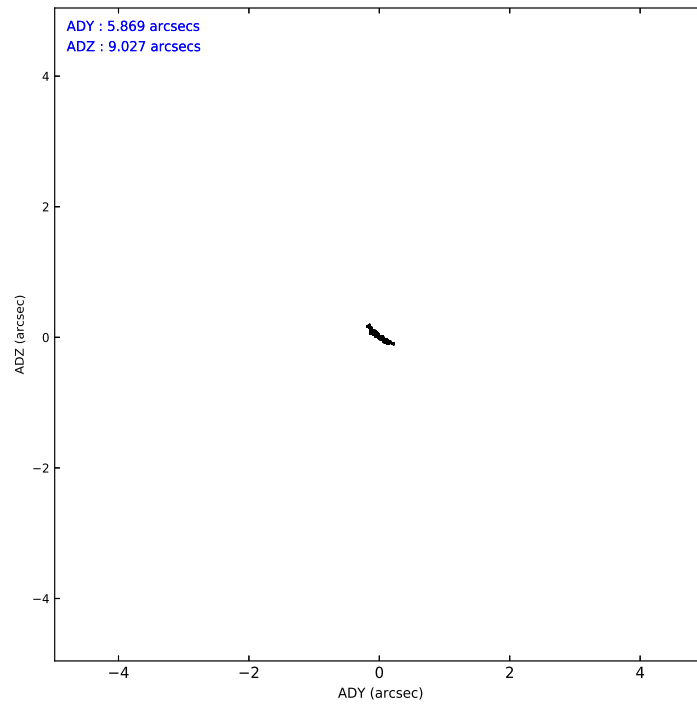
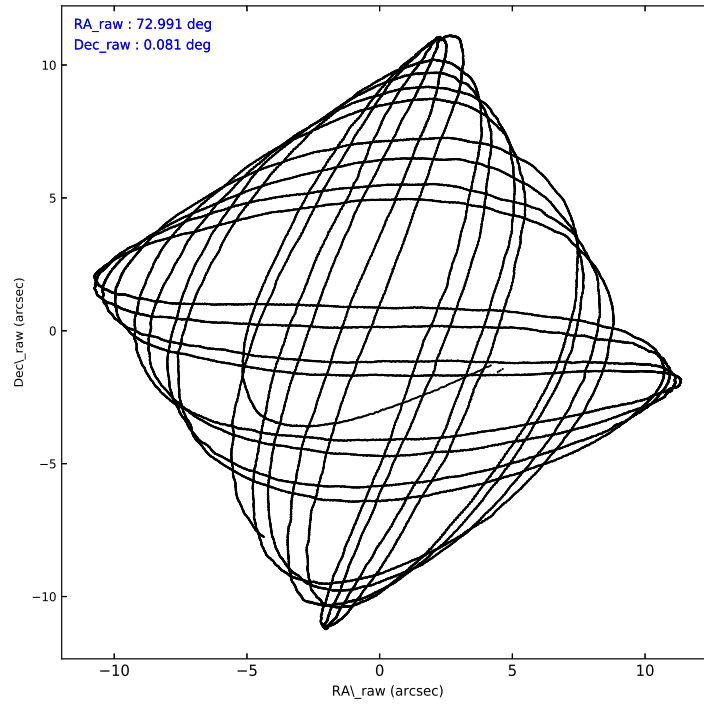
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	55074	58407	64654	63597	59832
rejected events	48923	50974	58259	55824	53154
rejected %	88%	87%	90%	87%	88%

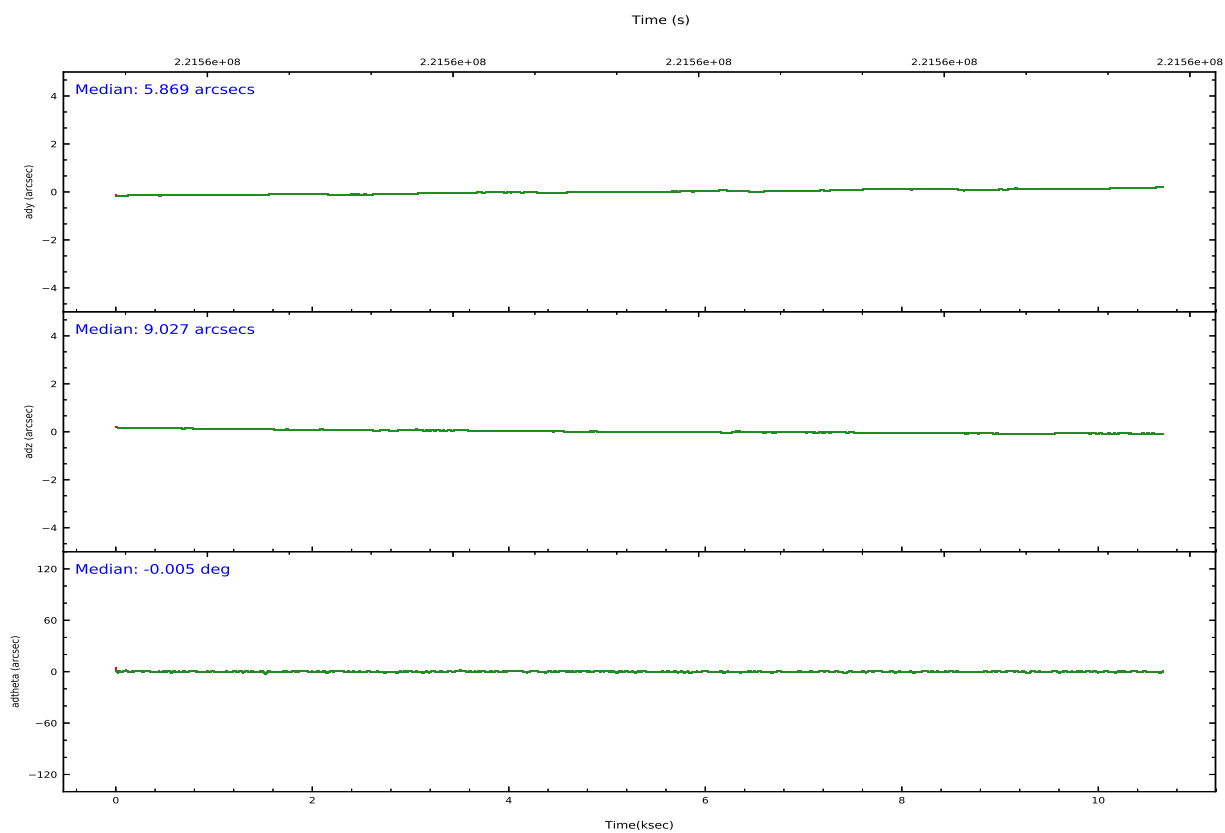
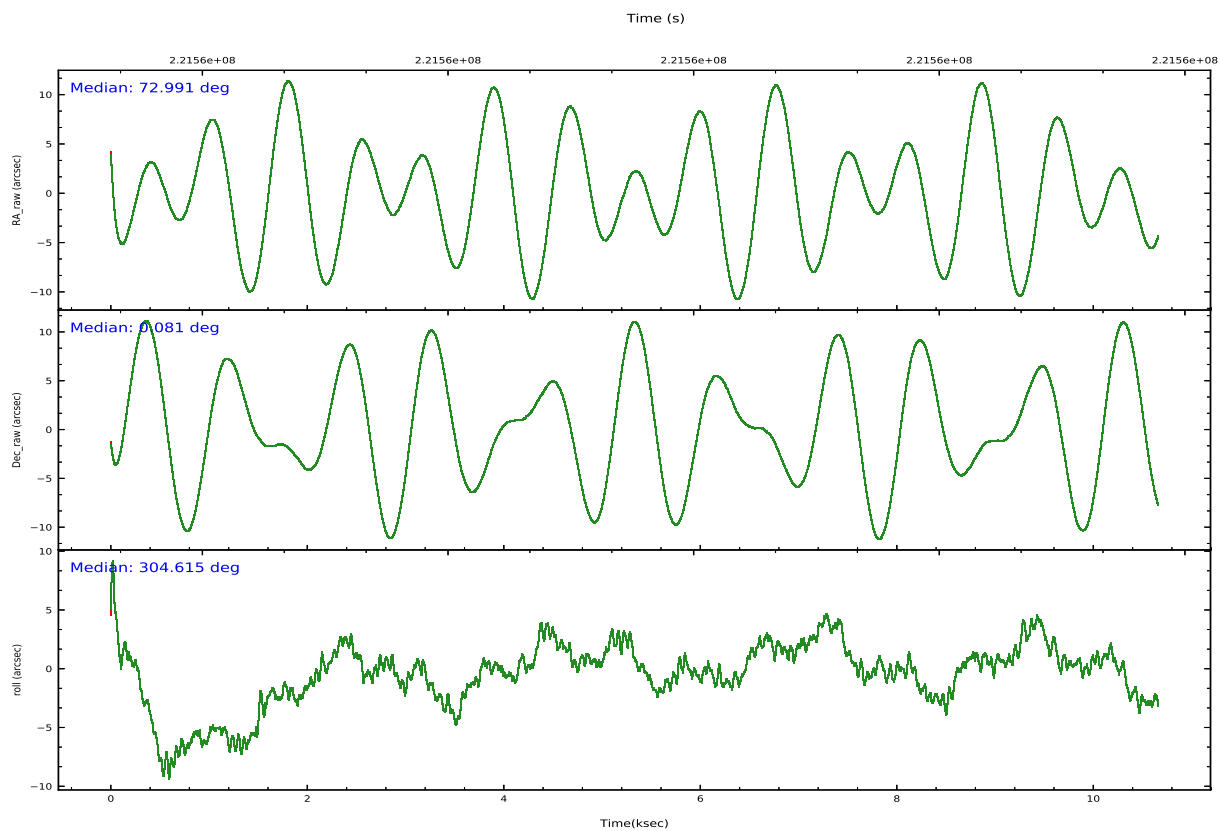
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2153	3019	2463	3851	2628
	3%	5%	3%	6%	4%
grade 1 events	39	25	32	41	25
	0%	0%	0%	0%	0%
grade 2 events	1471	1539	1470	1393	1340
	2%	2%	2%	2%	2%
grade 3 events	721	762	665	700	744
	1%	1%	1%	1%	1%
grade 4 events	641	746	709	662	664
	1%	1%	1%	1%	1%
grade 5 events	2046	2284	2020	2471	2310
	3%	3%	3%	3%	3%
grade 6 events	1169	1370	1091	1173	1303
	2%	2%	1%	1%	2%
grade 7 events	46834	48662	56204	53306	50818
	85%	83%	86%	83%	84%

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	72.966421	72.98806043875599	Subarray requested	NONE	NONE
[deg] Pointing Dec	0.092654	0.081023331738642	Alternating exposures requested	N	N
[deg] Pointing Roll	304.408679	304.61489828454	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-229.442463	-229.4438428438578			
[mm] SIM translation stage offset	-4.15	-4.148610159071865			
[s] Observation start time (MET)	221554428.184000	221553413.66534			
Observation start date	2005-01-08T06:52:44	2005-01-08T06:36:53			
[s] Observation end time (MET)	221564728.184000	221565051.00336			
Observation end date	2005-01-08T09:44:24	2005-01-08T09:50:51			
Read mode	TIMED	TIMED			

2.3 Aspect



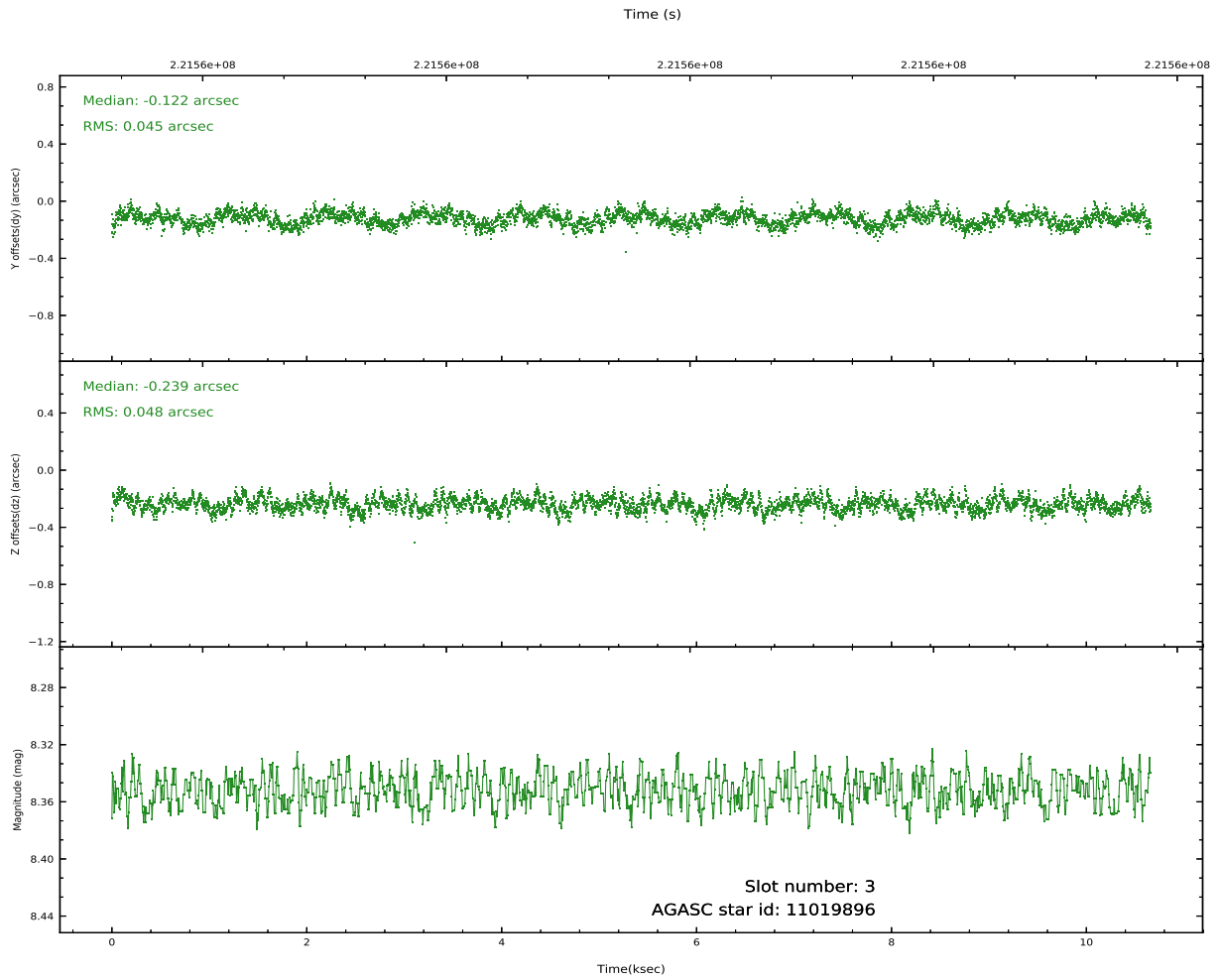
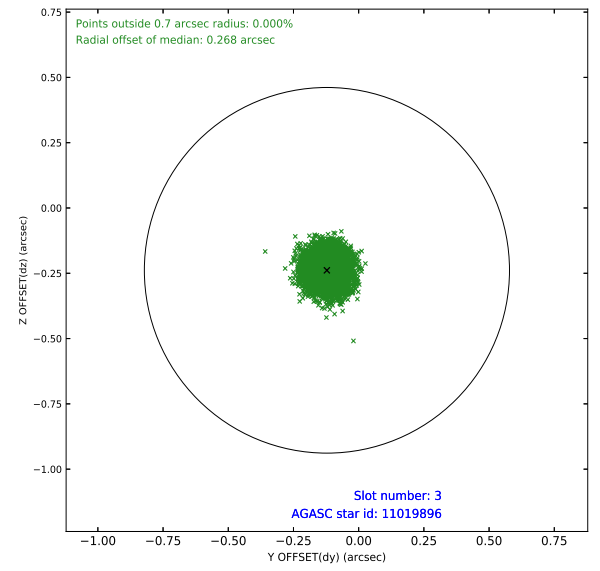
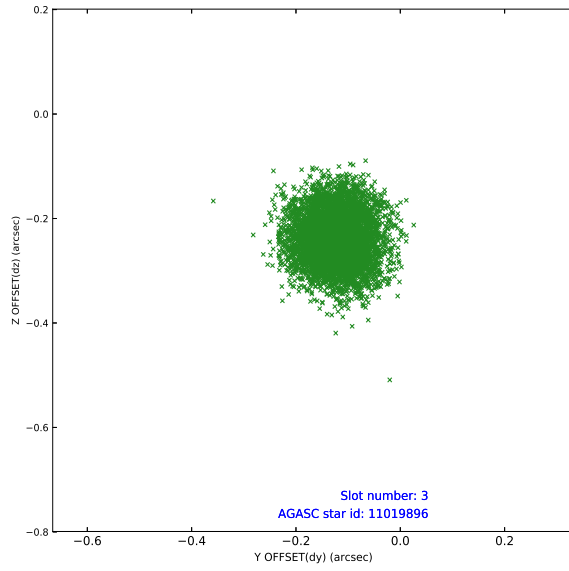


Slot Statistics

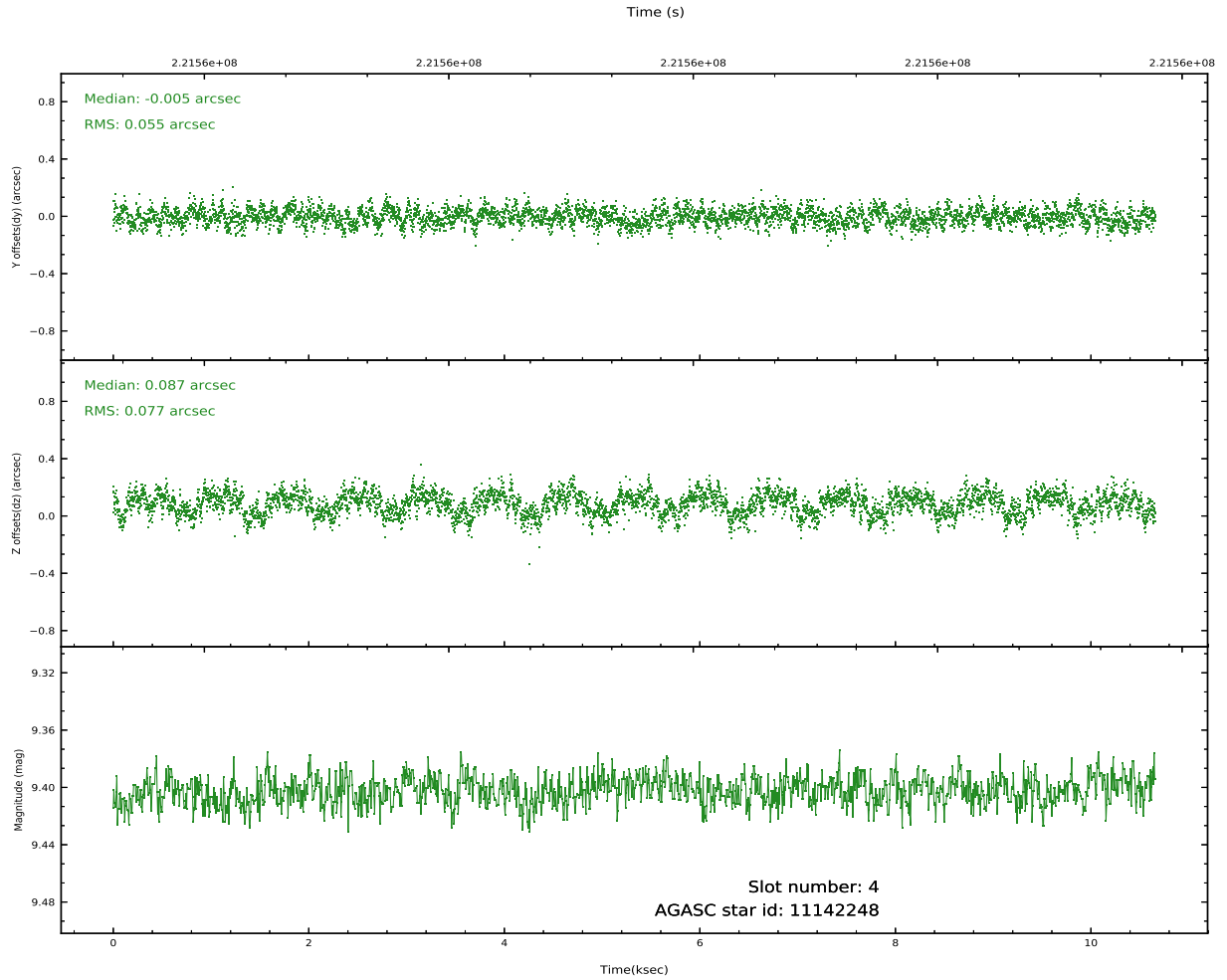
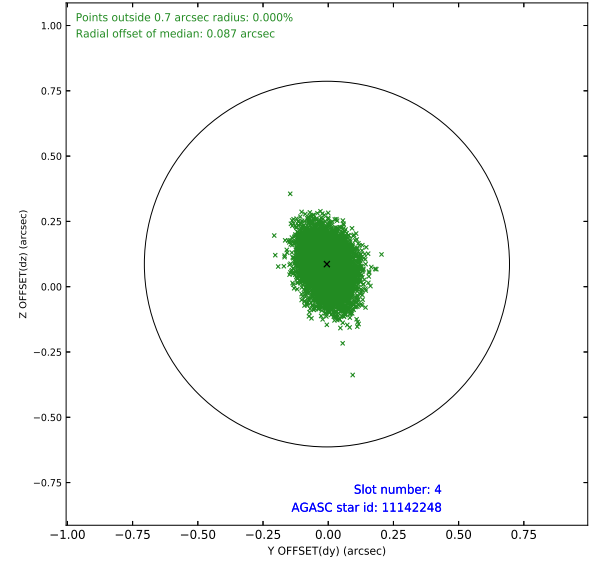
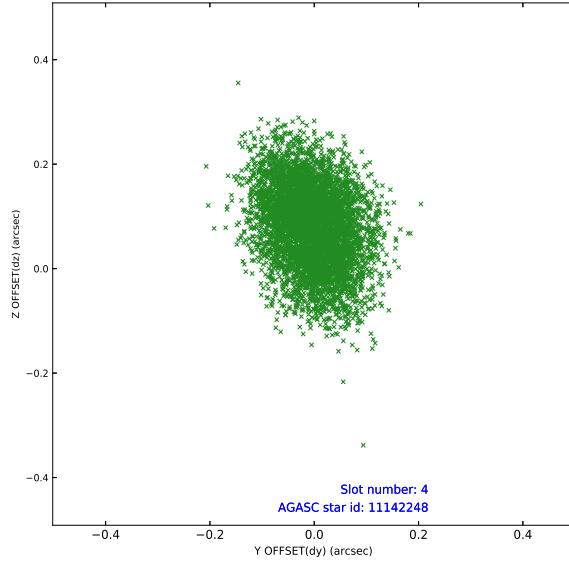
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.25	2601	1.000	0.015	-0.081	0.009	0.015	0.000000	0.000000	933.82	-917
1	FID		ACIS-I-4	7.16	2601	1.000	0.095	0.073	0.008	0.013	0.000000	0.000000	2153.90	982
2	FID		ACIS-I-5	7.22	2601	1.000	-0.208	0.079	0.007	0.014	0.000000	0.000000	-1813.86	980
3	GUIDE	used	11019896	8.35	5200	1.000	-0.122	-0.239	0.071	0.111	73.037984	0.047559	279.96	120
4	GUIDE	used	11142248	9.40	5198	1.000	-0.005	0.087	0.100	0.165	73.305083	0.415306	-269.07	1662
5	GUIDE	used	11142264	9.19	5198	1.000	-0.052	0.004	0.089	0.144	73.396604	0.253700	397.01	1605
6	GUIDE	used	620764456	8.78	5198	1.000	-0.018	-0.033	0.066	0.108	72.919857	-0.086986	439.47	-503
7	GUIDE	used	620895584	9.08	5195	1.000	0.199	0.187	0.076	0.122	73.838744	-0.099511	2345.97	2200

2.4 Star Slots

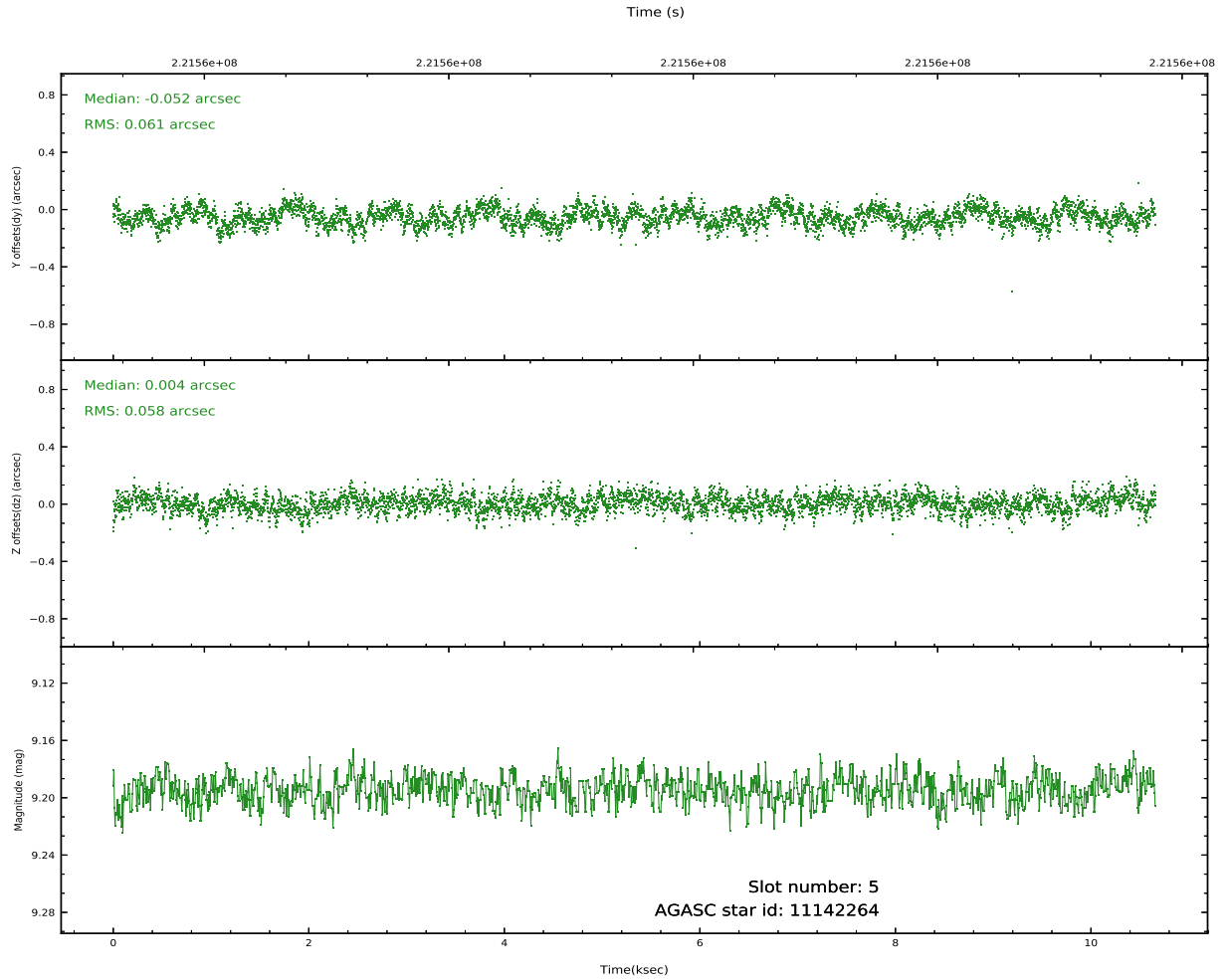
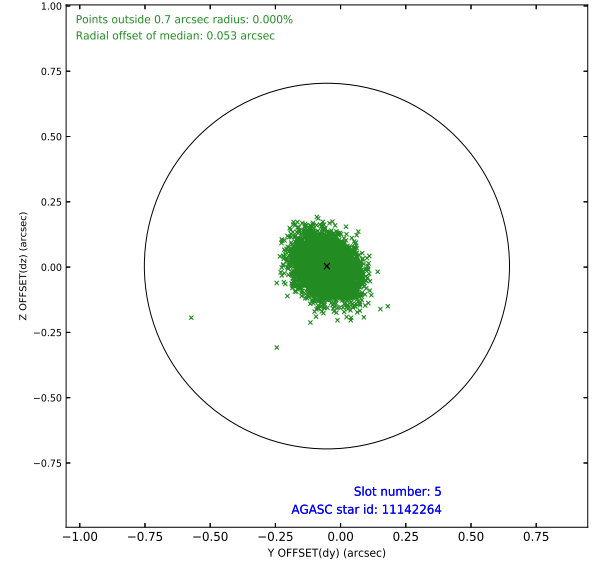
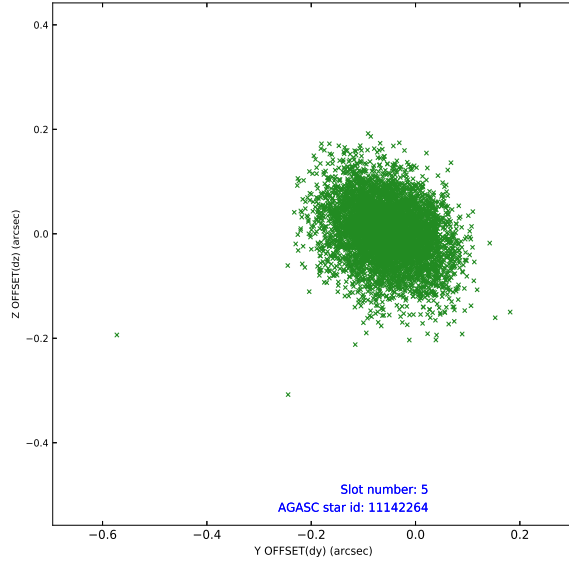
2.4.1 Slot 3



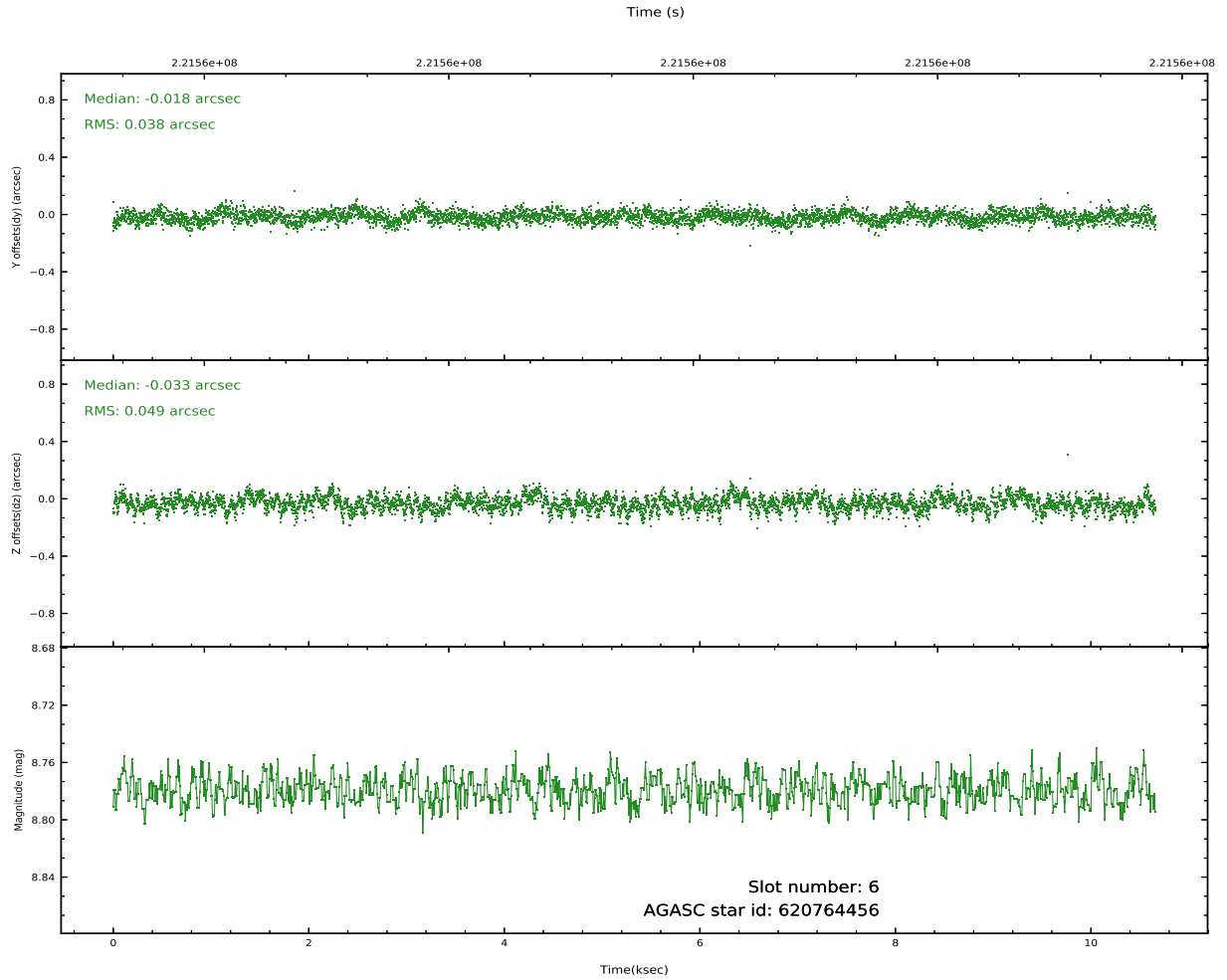
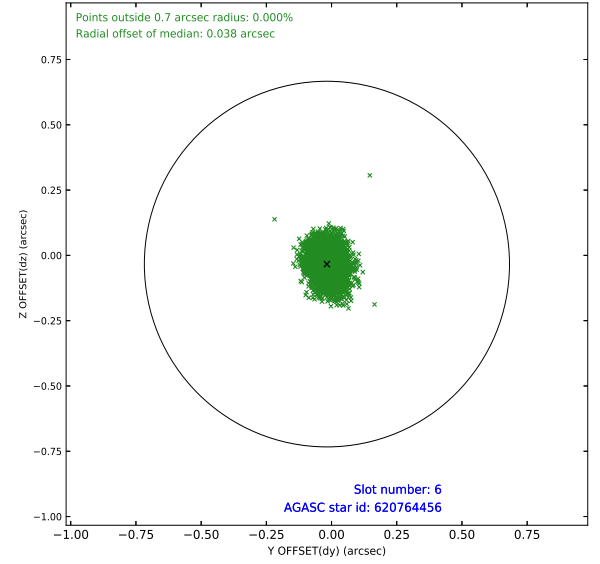
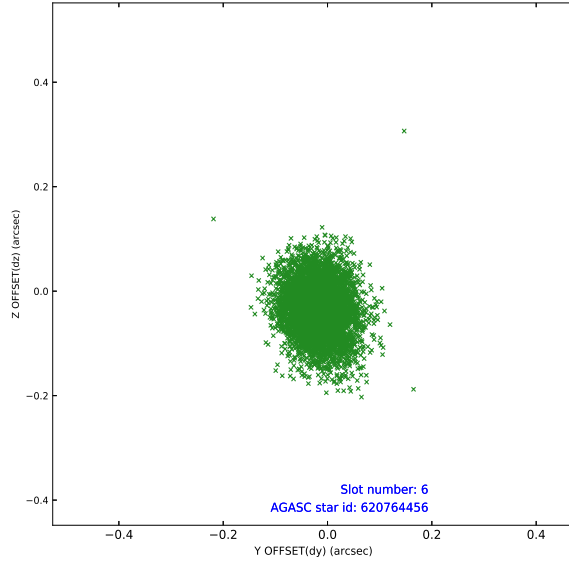
2.4.2 Slot 4



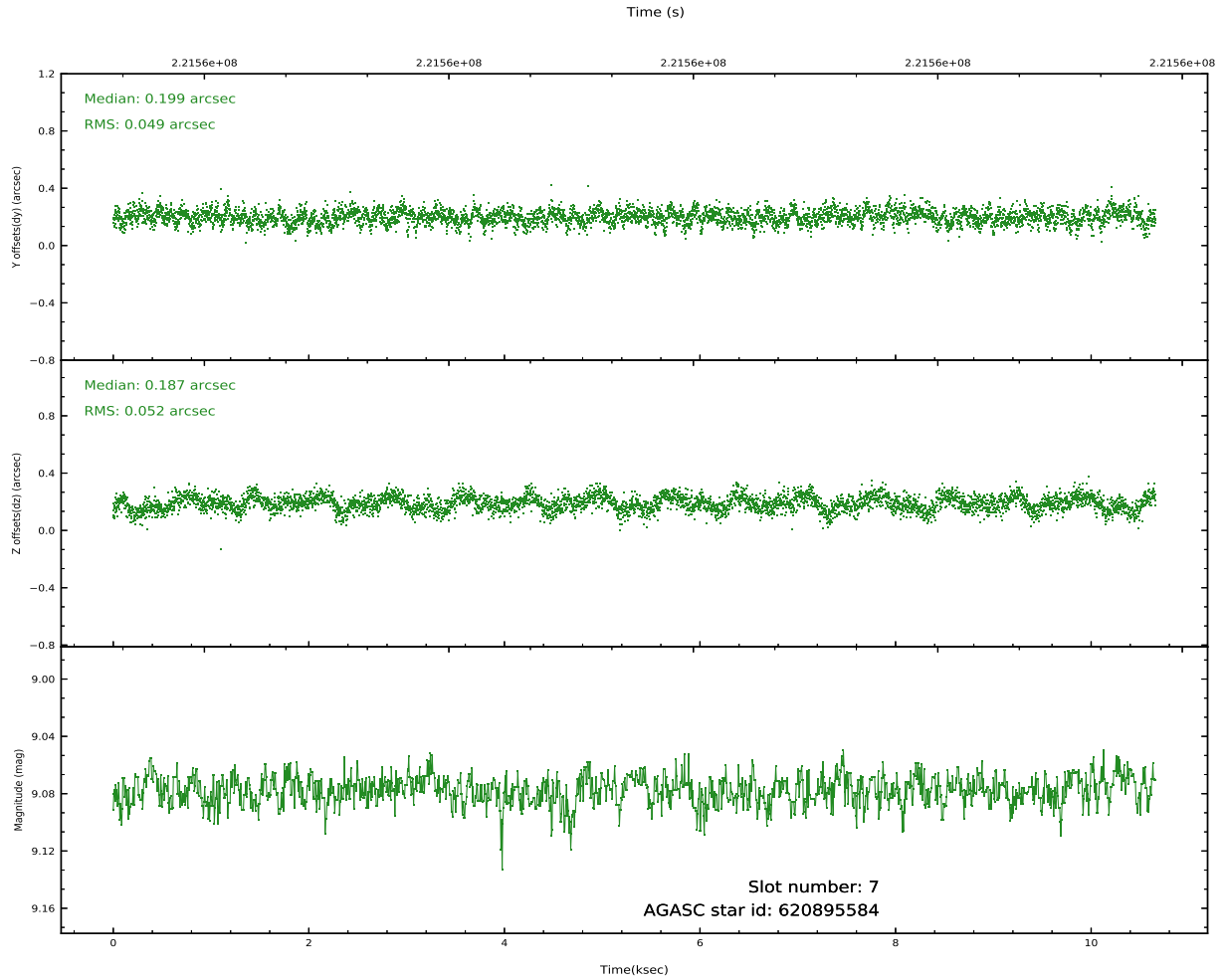
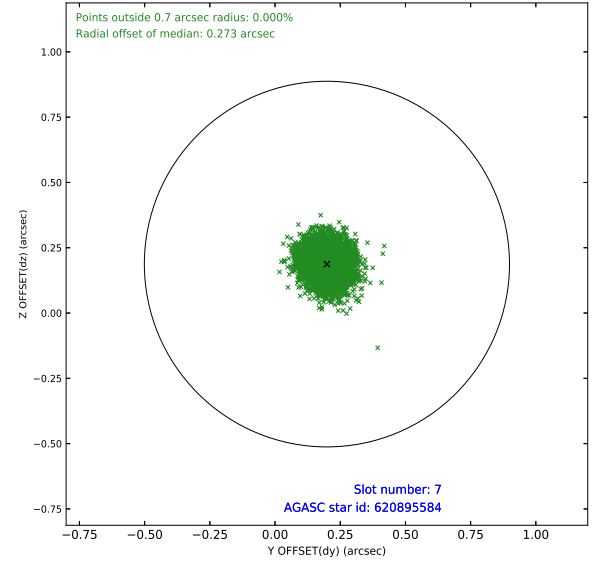
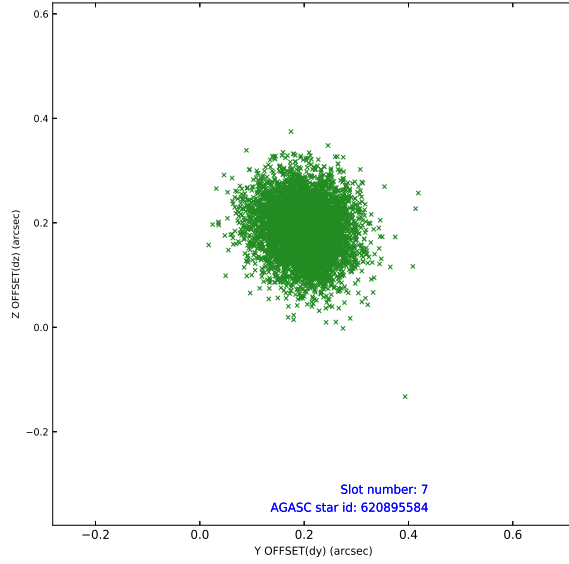
2.4.3 Slot 5



2.4.4 Slot 6

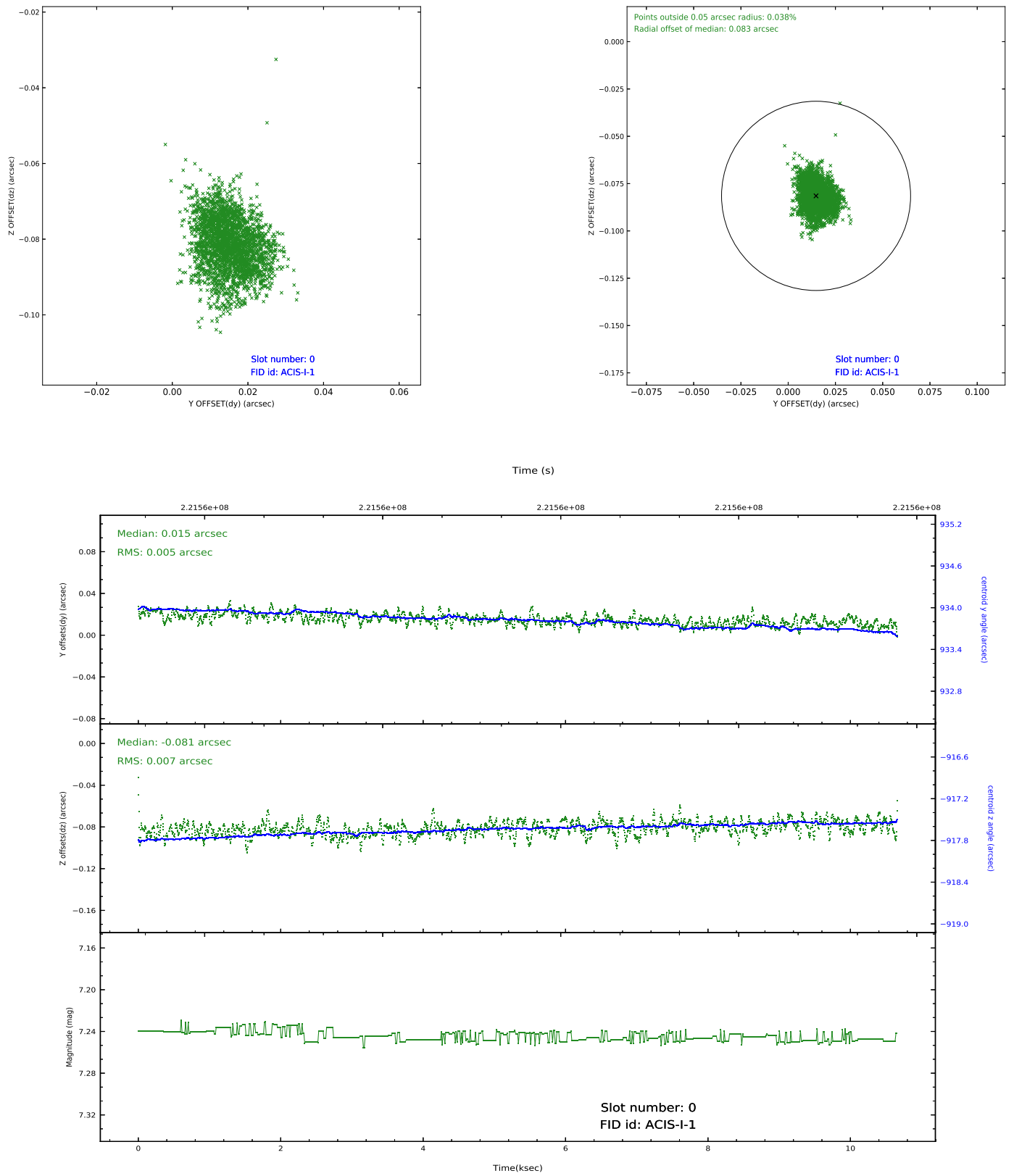


2.4.5 Slot 7

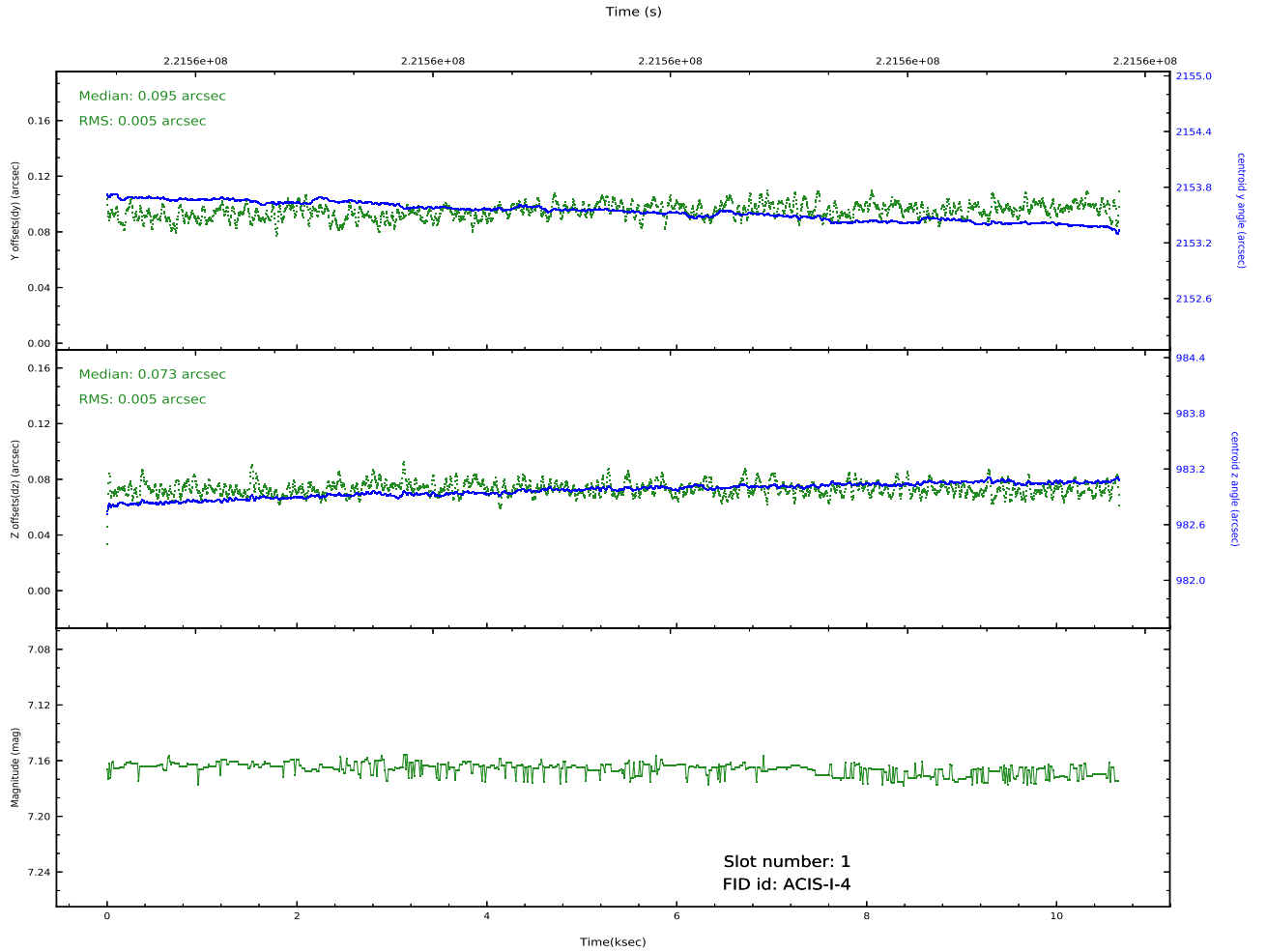
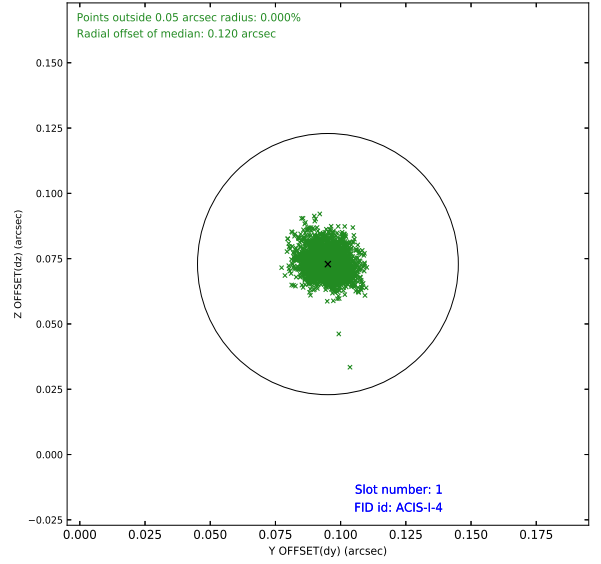
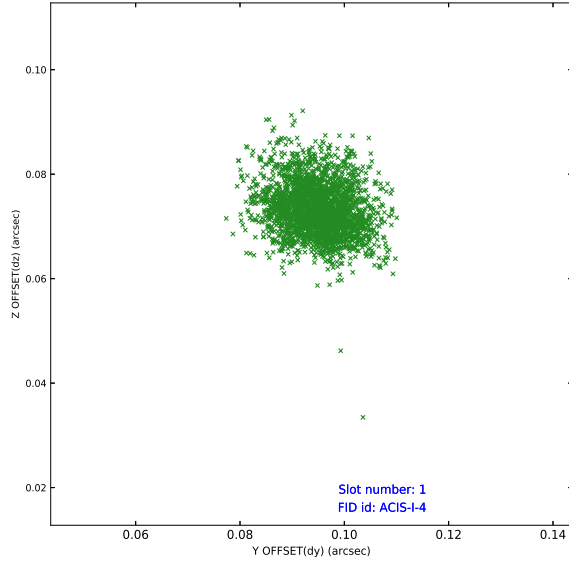


2.5 FID Slots

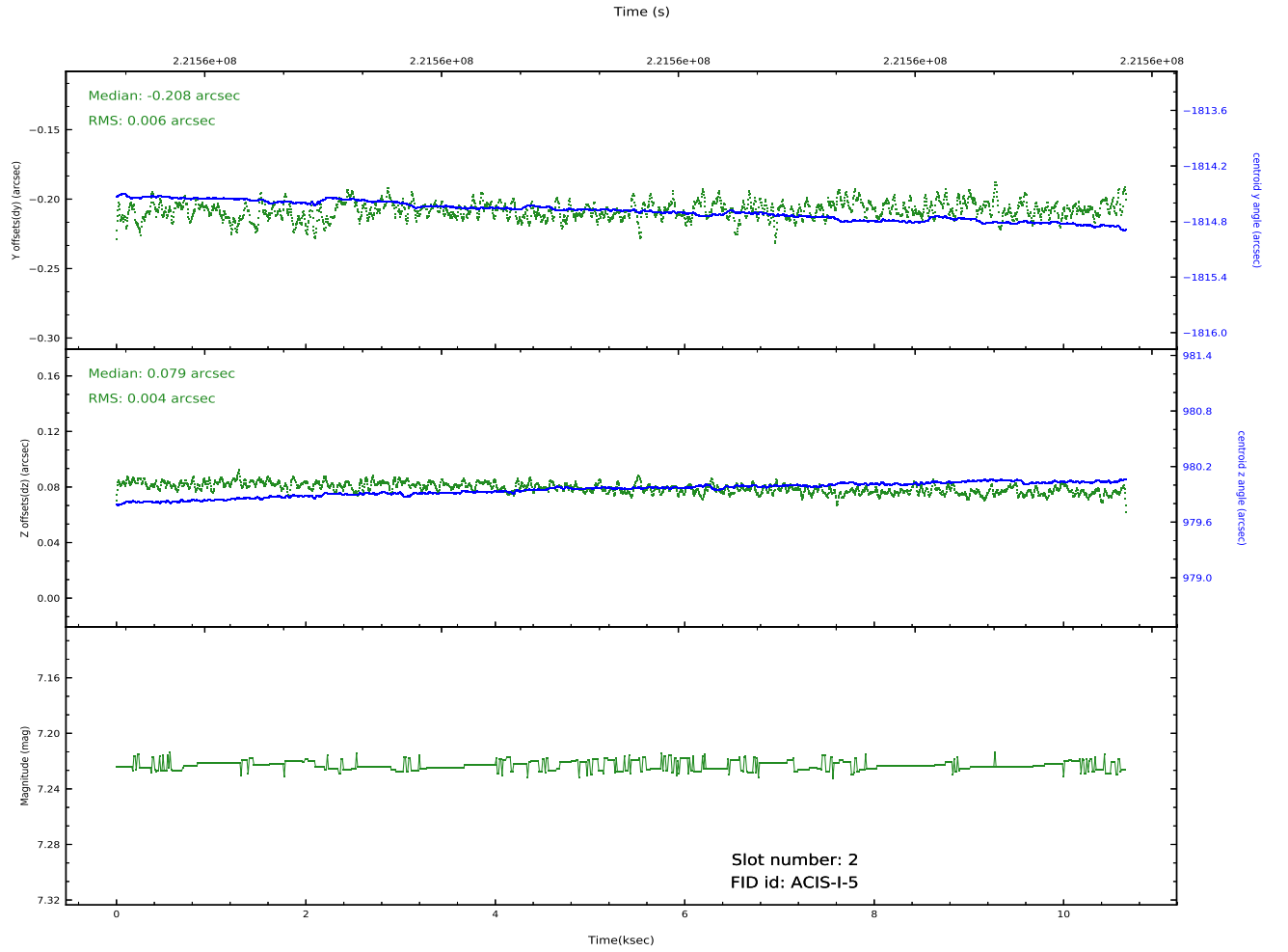
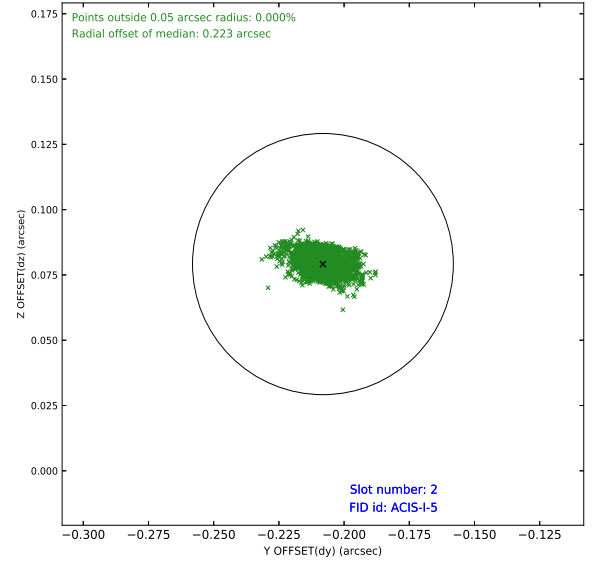
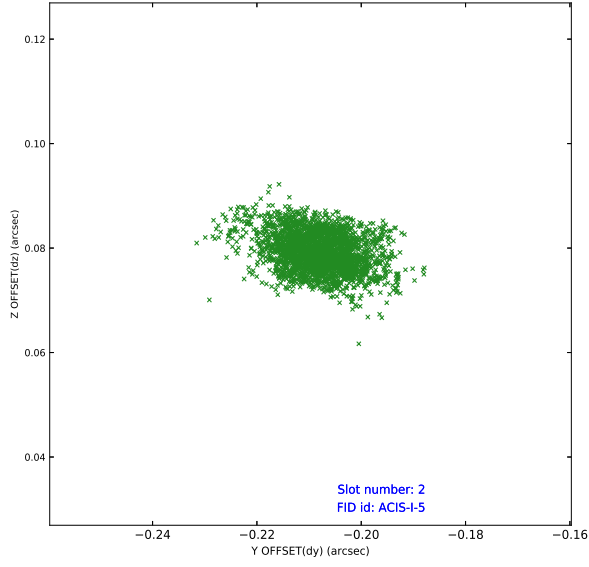
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.35089

A.2 Comments