

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 21069 - L2 Version 4
Chandra X-Ray Center

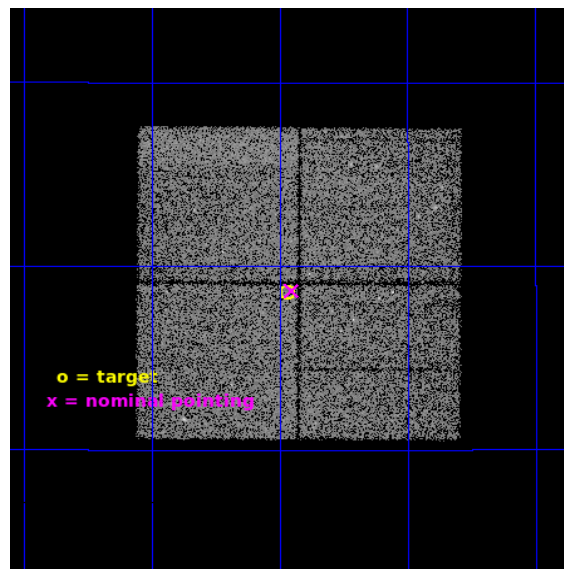
L2 Processing Date : Oct 25 2020

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 5	10
2.4.3	Slot 7	11
2.5	FID Slots	12
2.5.1	Slot 0	12
2.5.2	Slot 1	13
2.5.3	Slot 2	14
A	Summary	15
A.1	Status	15
A.2	Comments	15

1 Front

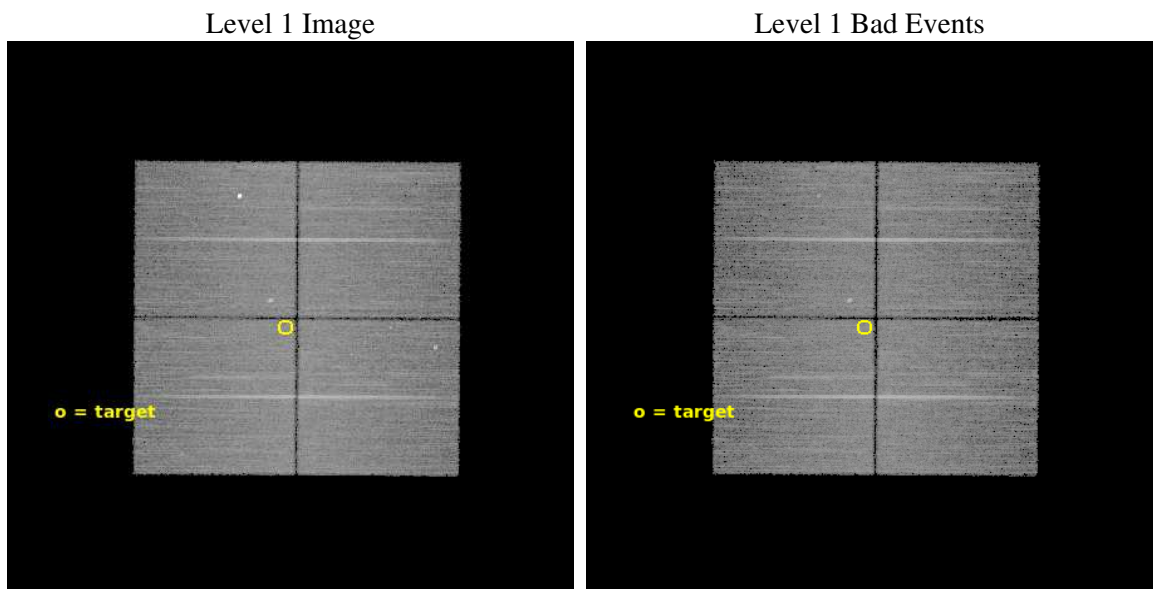
seq_num	601423	Sequence number
obs_id	21069	Observation id
title	Revealing the Formation Mechanism of Ultra-Diffuse Galaxies	Propos
observer	Gordon Garmire	Principal investigator
object	Dragonfly 44	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	195.241667	Observer's specified target RA [deg]
dec_targ	26.976389	Observer's specified target Dec [deg]
ra_nom	195.23793285936	Nominal RA [deg]
dec_nom	26.977755359496	Nominal Dec [deg]
roll_nom	180.30950006446	Nominal Roll [deg]
revision	4	Processing version of data
ontime	33077.000254512	Sum of GTIs [s]
livetime	32644.824895253	Livetime [s]
ontime0	33073.859274268	Sum of GTIs [s]
ontime1	33073.859234333	Sum of GTIs [s]
ontime2	33077.000254512	Sum of GTIs [s]
ontime3	33077.000254512	Sum of GTIs [s]
l2events	92460	Number of level 2 events



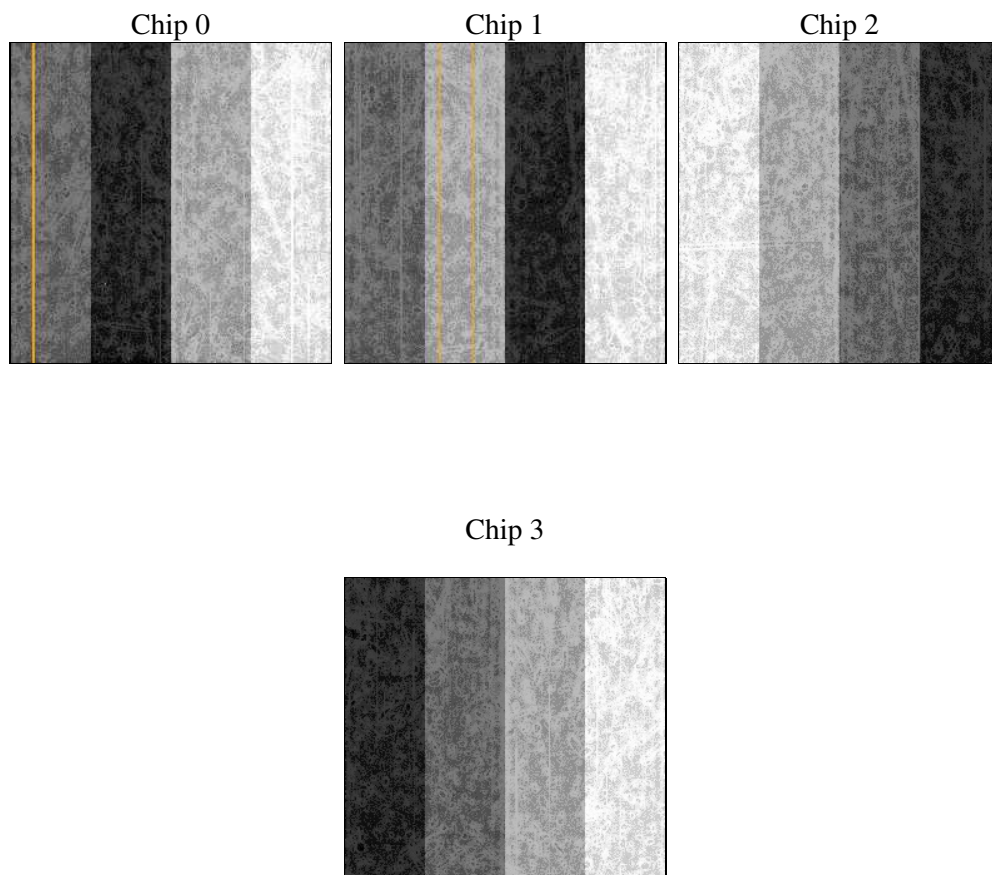
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	33000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	33077.000254512	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	33073.859274268	Sum of GTIs [s]
date	2020-10-25T11:11:05	Date and time of file creation	ontime1	33073.859234333	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	33077.000254512	Sum of GTIs [s]
			ontime3	33077.000254512	Sum of GTIs [s]
			l1events	938383	Number of level 1 events

2.1.4 Events

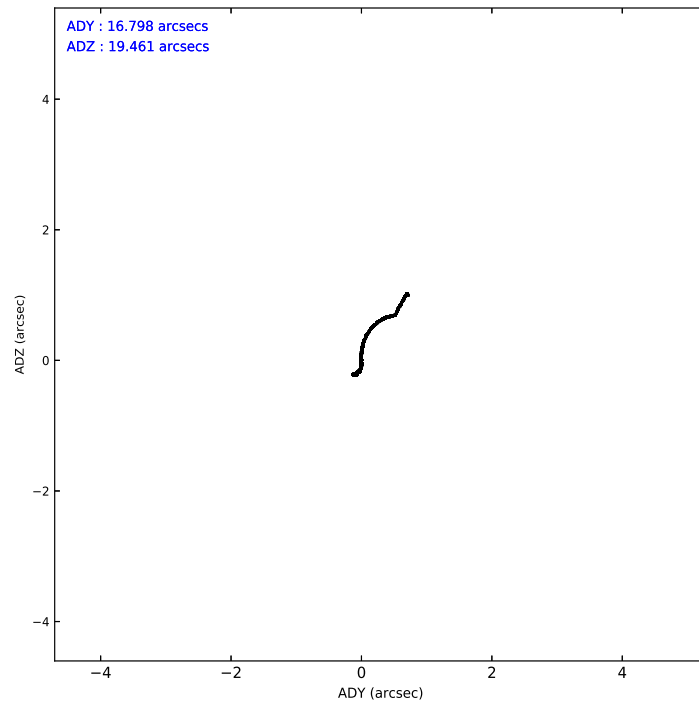
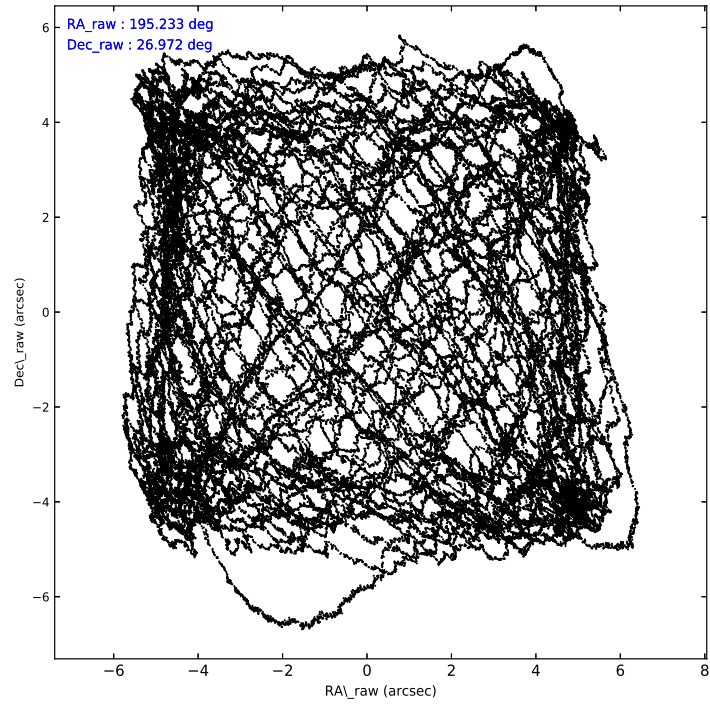
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	224617	227785	242918	243063
rejected events	196674	191492	215617	217423
rejected %	87%	84%	88%	89%

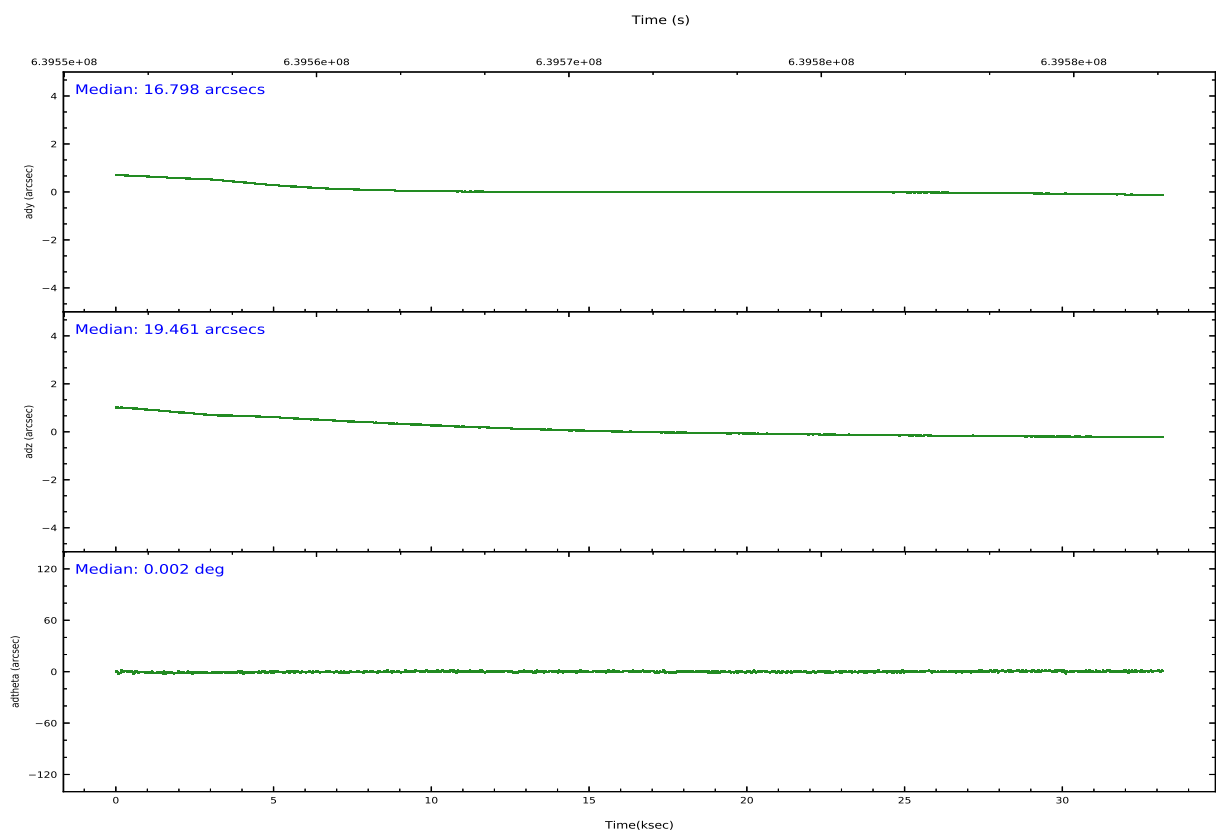
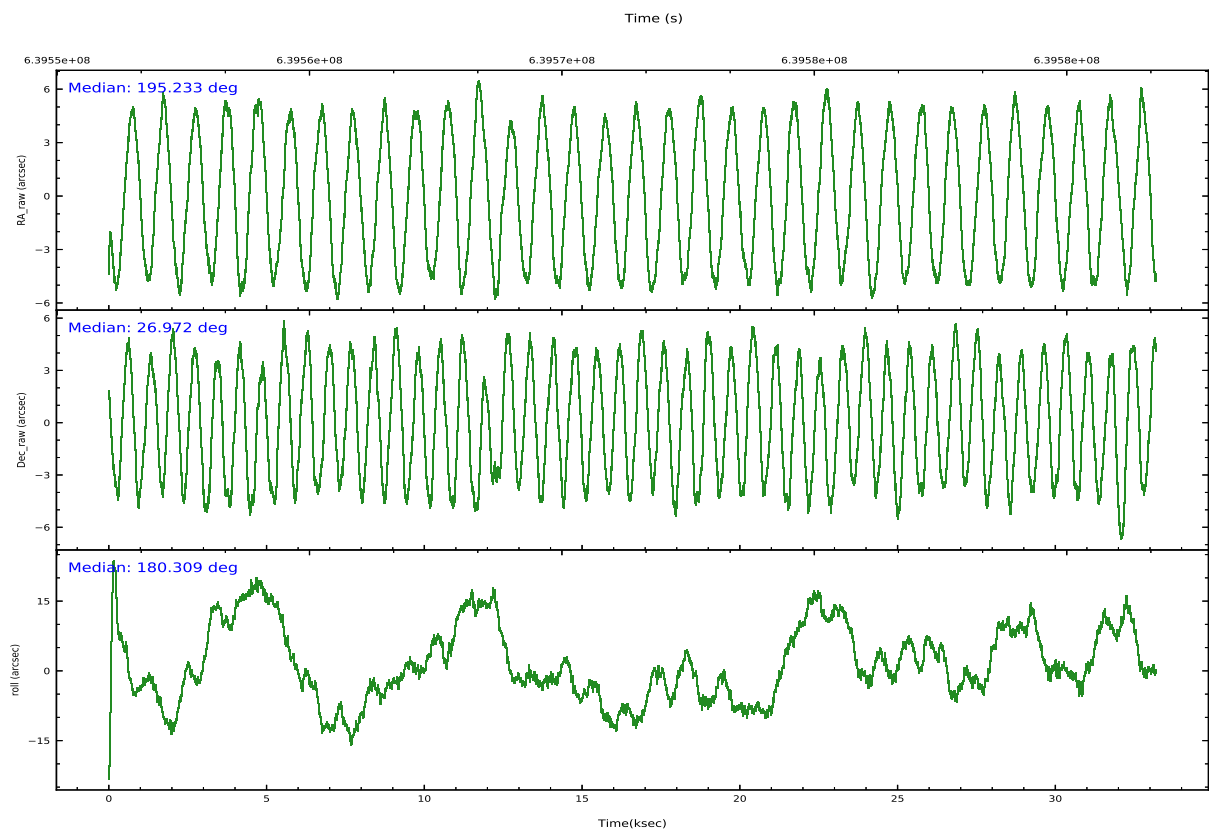
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	9675	16147	10342	9197
	4%	7%	4%	3%
grade 1 events	132	230	152	145
	0%	0%	0%	0%
grade 2 events	6911	7542	6423	5596
	3%	3%	2%	2%
grade 3 events	2870	2885	2646	2667
	1%	1%	1%	1%
grade 4 events	2728	2846	2653	2612
	1%	1%	1%	1%
grade 5 events	10606	10900	9618	11566
	4%	4%	3%	4%
grade 6 events	5768	6880	5242	5572
	2%	3%	2%	2%
grade 7 events	185927	180355	205842	205708
	82%	79%	84%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-0123	ACIS-0123	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	195.259278	195.23793285936	Subarray requested	NONE	NONE
[deg] Pointing Dec	26.986205	26.977755359496	Alternating exposures requested	N	N
[deg] Pointing Roll	180.092016	180.30950006446	[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	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	639553833.184000	639553043.822			
Observation start date	2018-04-08T05:49:24	2018-04-08T05:37:23			
[s] Observation end time (MET)	639586833.184000	639587067.16151			
Observation end date	2018-04-08T14:59:24	2018-04-08T15:04:27			
Read mode	TIMED	TIMED			

2.3 Aspect



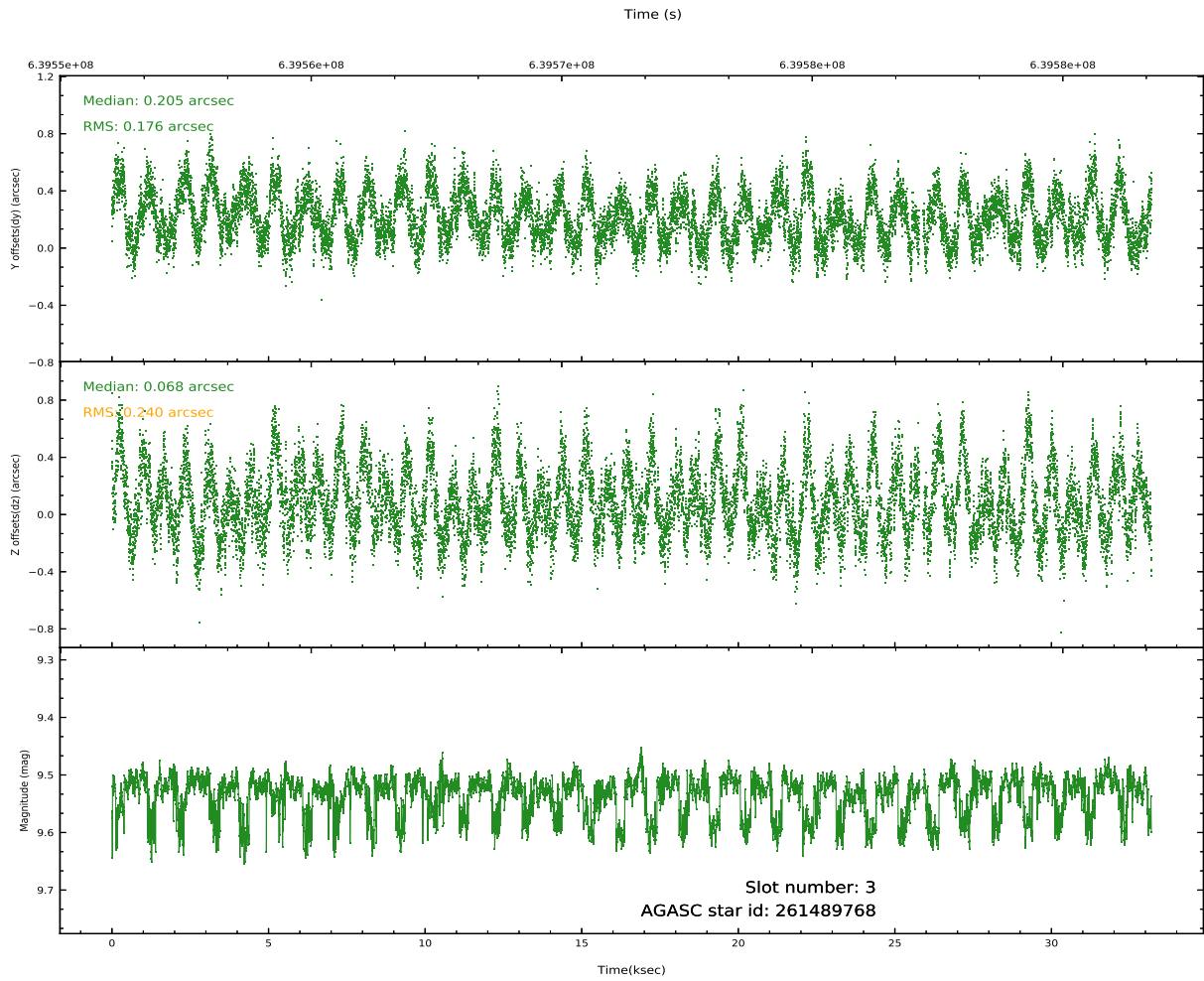
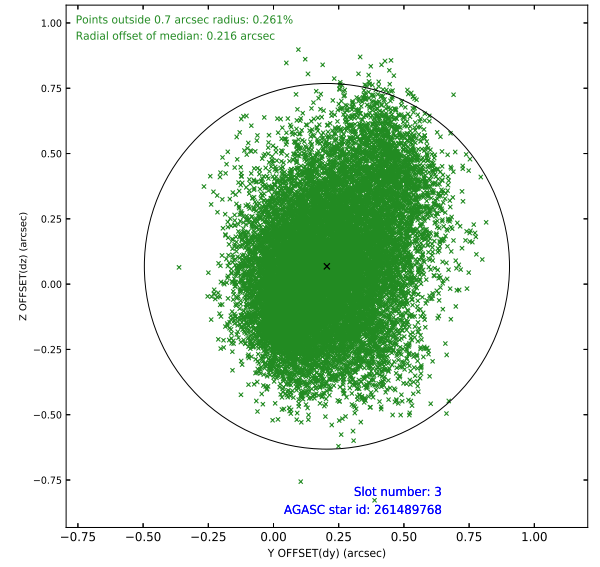
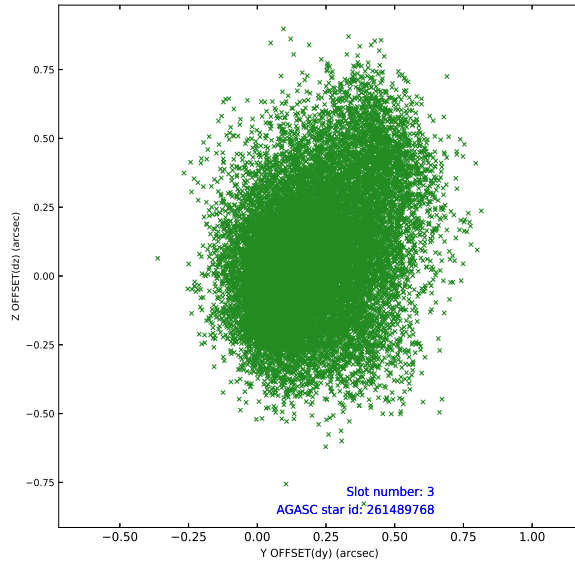


Slot Statistics

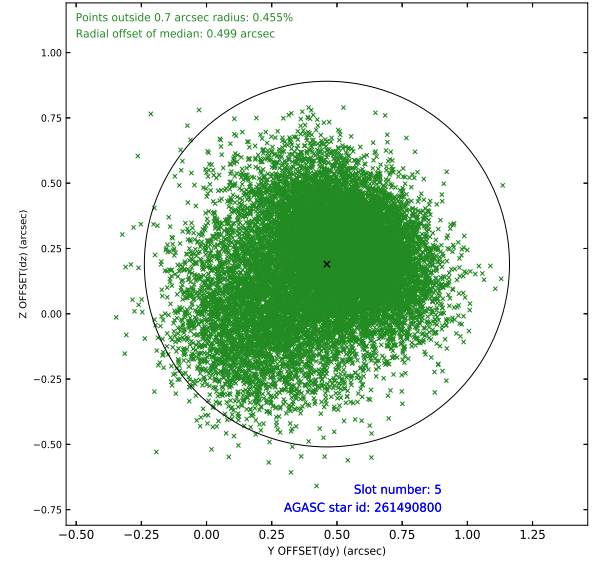
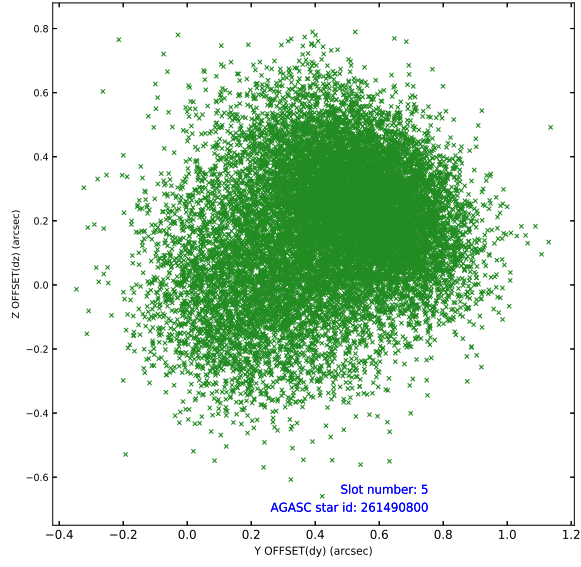
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-2	7.02	8097	1.000	0.084	-0.001	0.013	0.026	0.000000	0.000000	-771.63	-849
1	FID		ACIS-I-4	7.06	8095	1.000	0.145	-0.029	0.008	0.025	0.000000	0.000000	2142.60	1056
2	FID		ACIS-I-5	7.10	8096	1.000	-0.331	0.099	0.011	0.021	0.000000	0.000000	-1825.67	1054
3	GUIDE	used	261489768	9.53	16102	1.000	0.205	0.068	0.315	0.517	195.906248	27.591842	-2067.39	-2182
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
5	GUIDE	used	261490800	10.19	16032	1.000	0.462	0.190	0.315	0.528	195.029641	27.224508	734.58	-860
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
7	GUIDE	used	261490008	8.61	16180	1.000	-0.657	-0.257	0.217	0.379	194.679481	27.119494	1856.36	-487

2.4 Star Slots

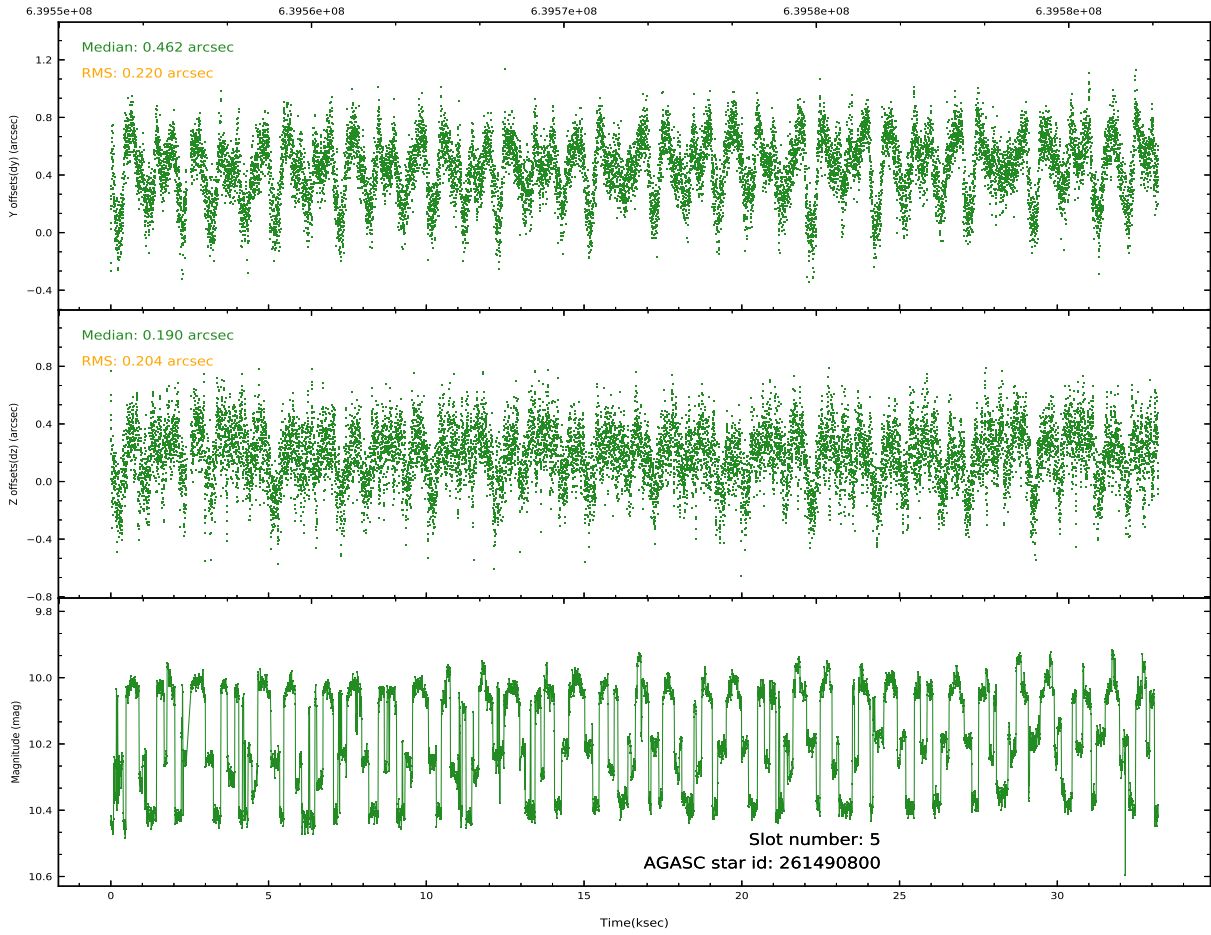
2.4.1 Slot 3



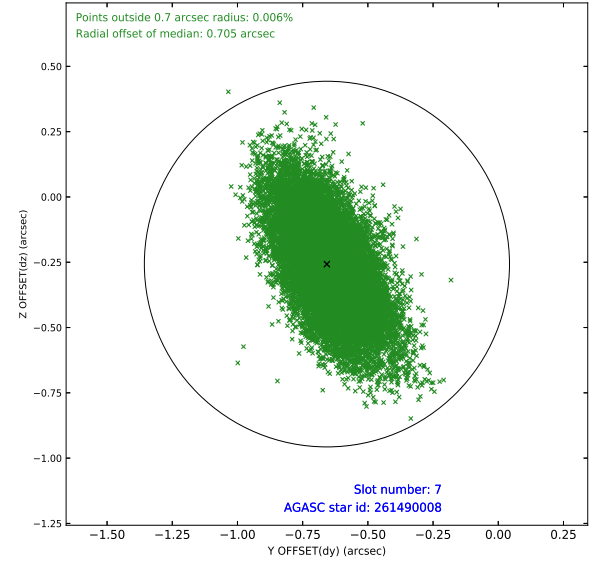
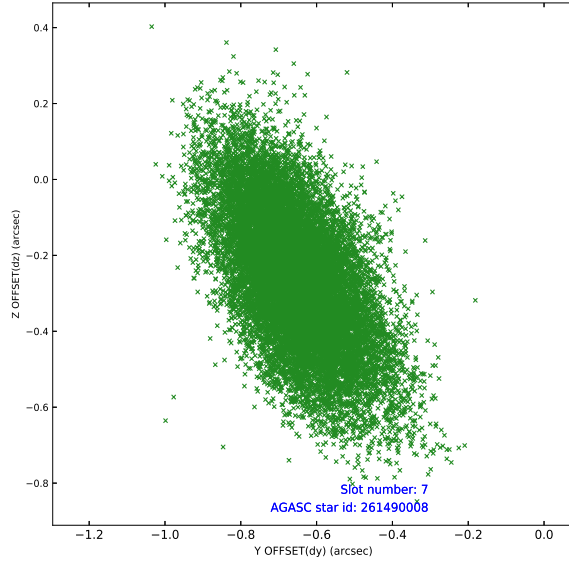
2.4.2 Slot 5



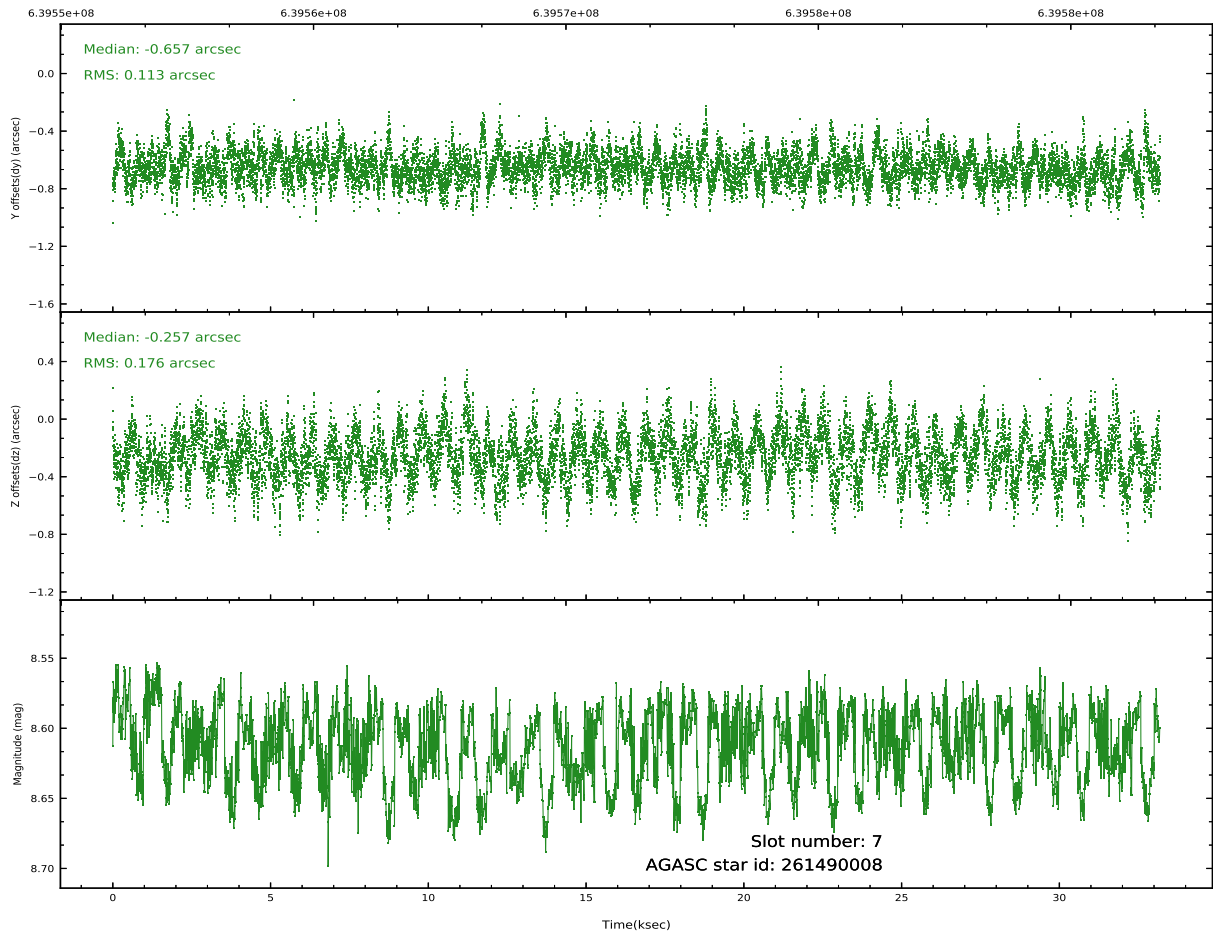
Time (s)



2.4.3 Slot 7

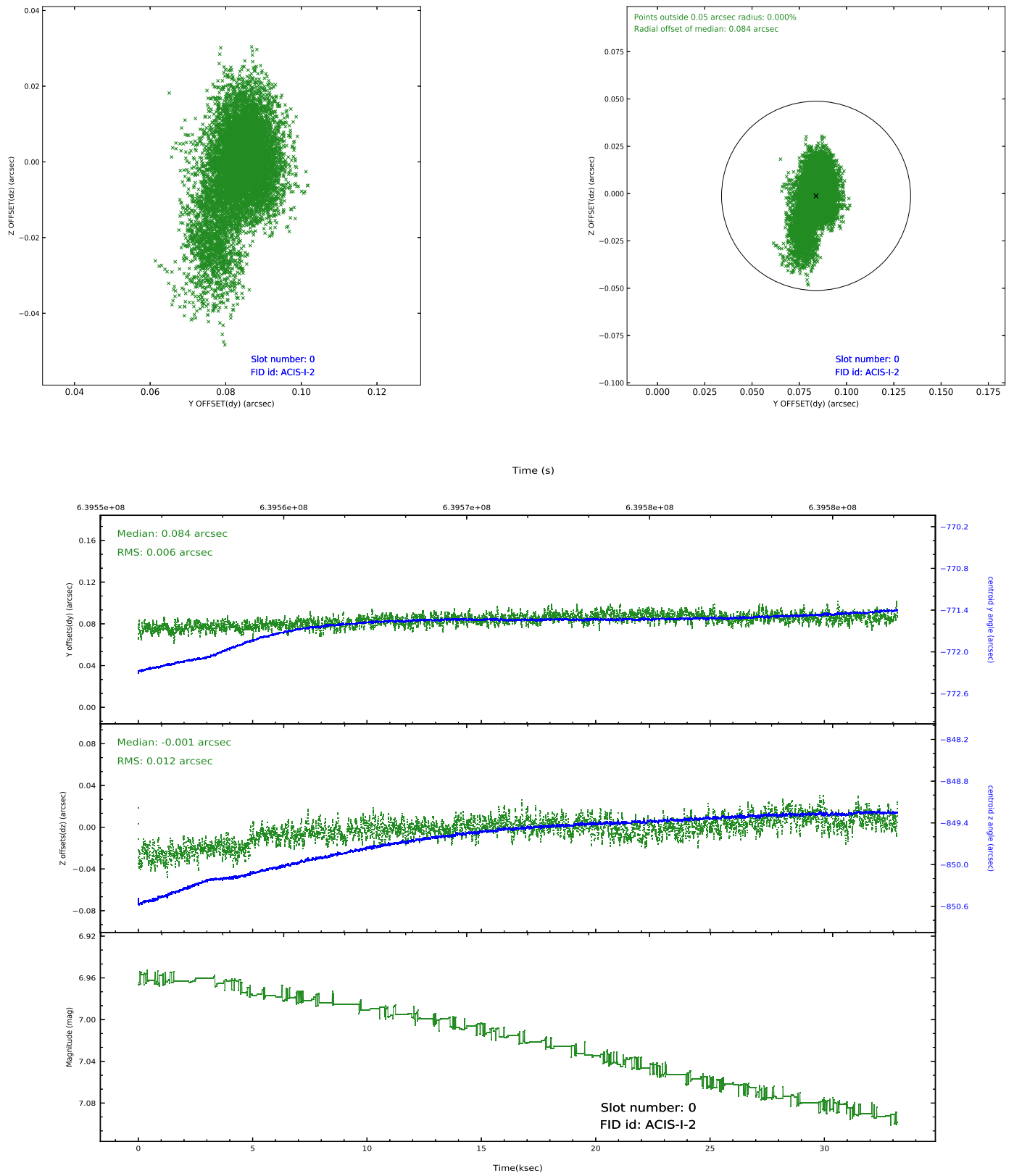


Time (s)

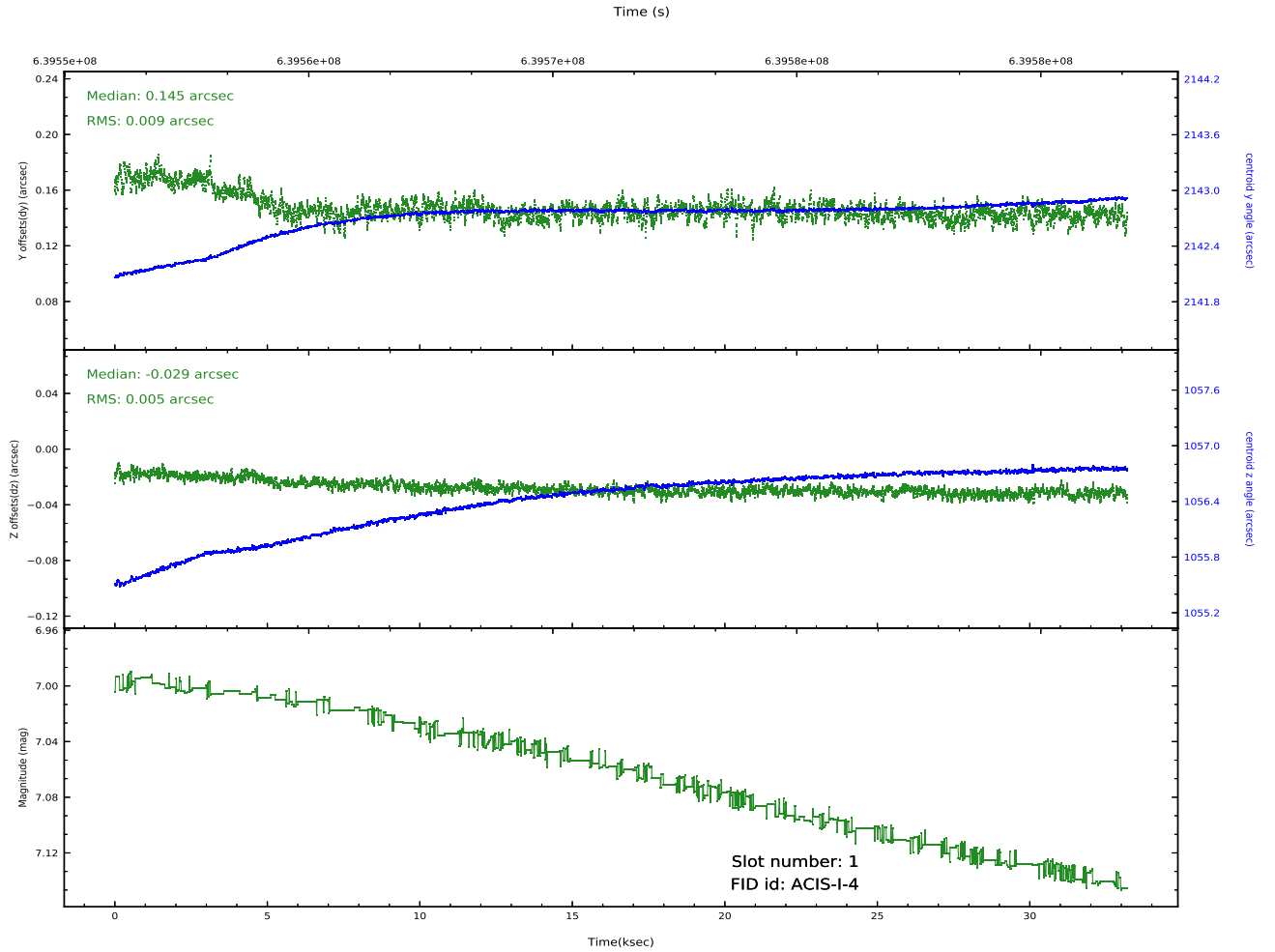
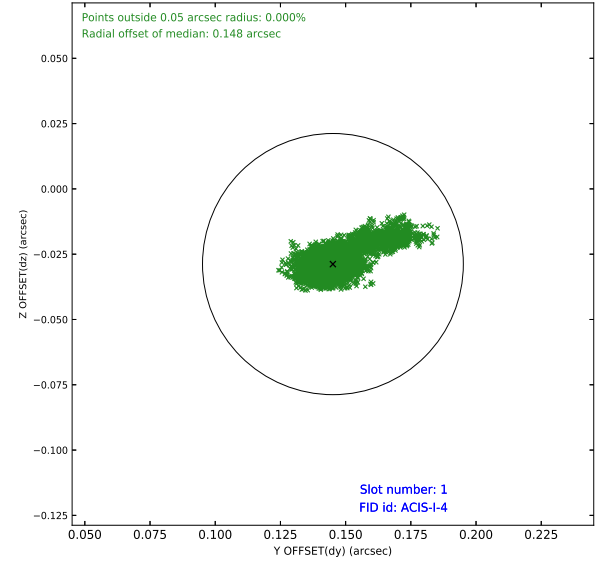
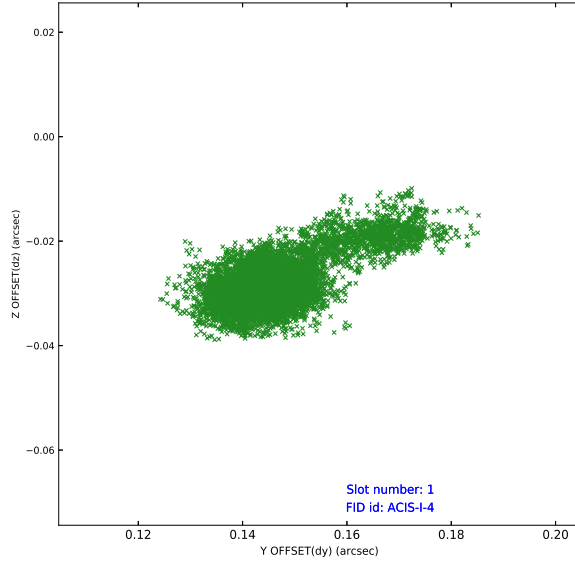


2.5 FID Slots

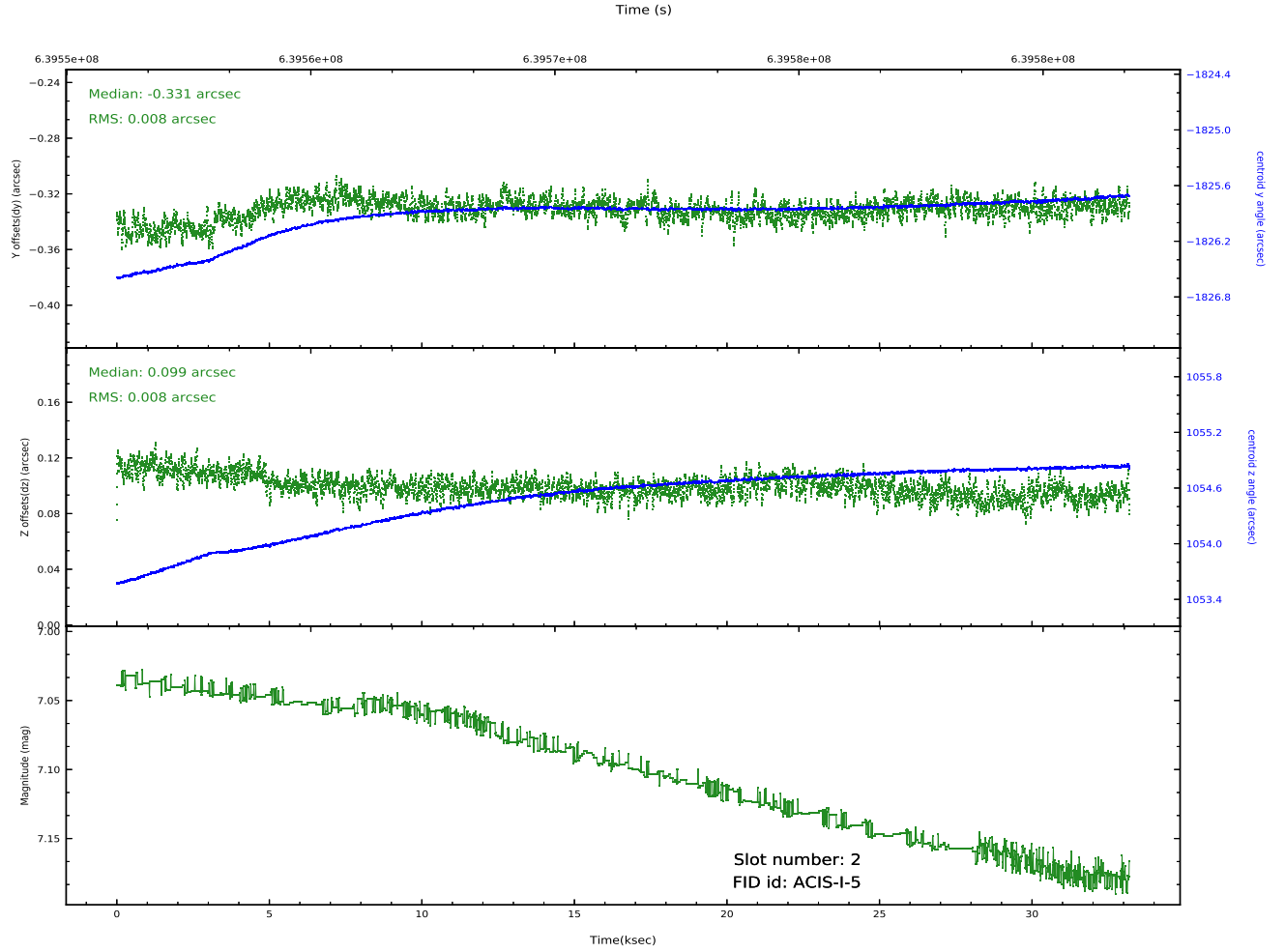
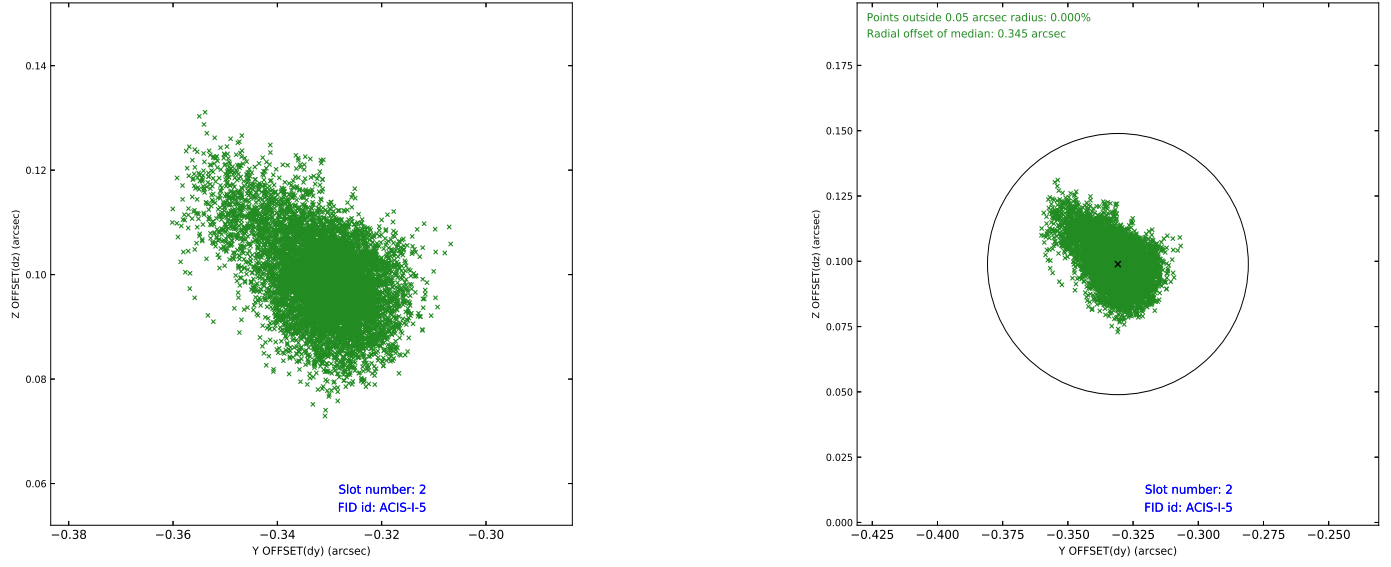
2.5.1 Slot 0



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)	2020.10.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.077000254512

A.2 Comments

The guide stars in slots 4 and 6 were removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of these slots from the solution.