

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20429 - L2 Version 3
Chandra X-Ray Center

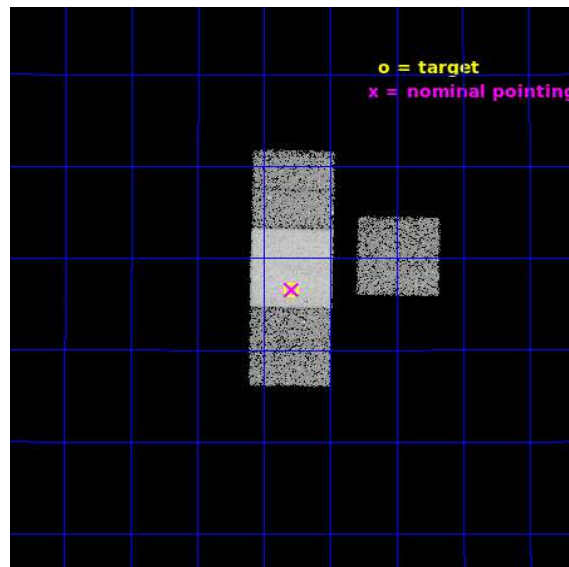
L2 Processing Date : Oct 26 2020

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1 Front

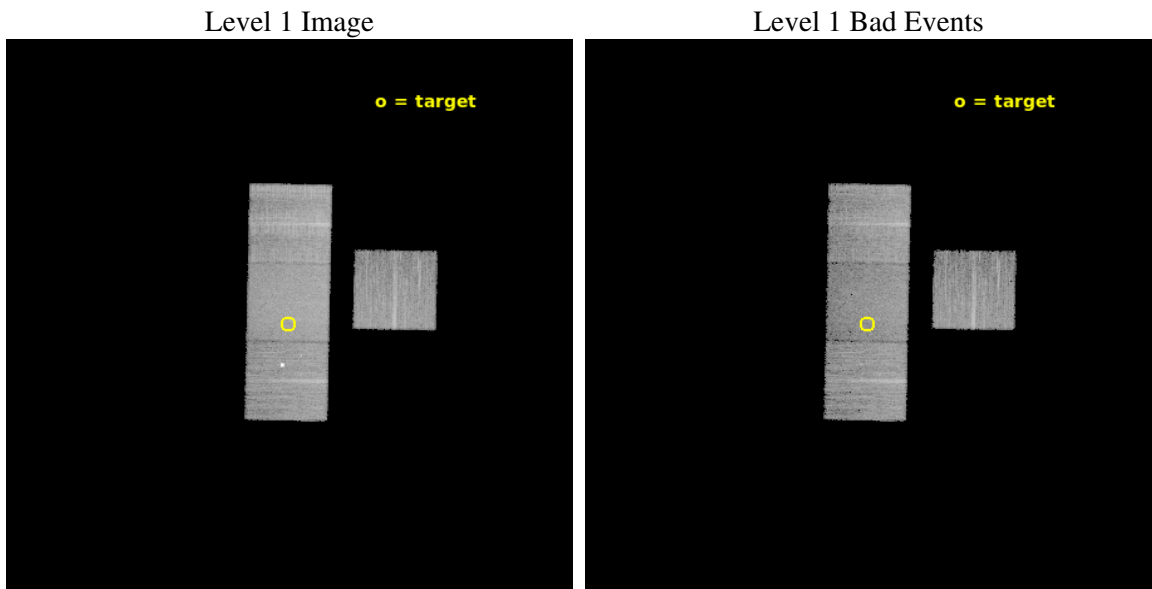
seq_num	703534	Sequence number
obs_id	20429	Observation id
title	X-Ray properties of Post-Merger Spheroidal Galaxies: The Missing Link in Understanding the Merger-AGN connection	Proposal title
observer	Preethi Nair	Principal investigator
object	SDSS J091417.69+221631.5	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	138.57375	Observer's specified target RA [deg]
dec_targ	22.2755	Observer's specified target Dec [deg]
ra_nom	138.57246033309	Nominal RA [deg]
dec_nom	22.276169155846	Nominal Dec [deg]
roll_nom	271.14774410175	Nominal Roll [deg]
revision	3	Processing version of data
ontime	11565.364058018	Sum of GTIs [s]
livetime	11414.254062303	Livetime [s]
ontime3	11565.281978011	Sum of GTIs [s]
ontime6	11565.323018074	Sum of GTIs [s]
ontime7	11565.364058018	Sum of GTIs [s]
ontime8	11562.09993732	Sum of GTIs [s]
l2events	72246	Number of level 2 events



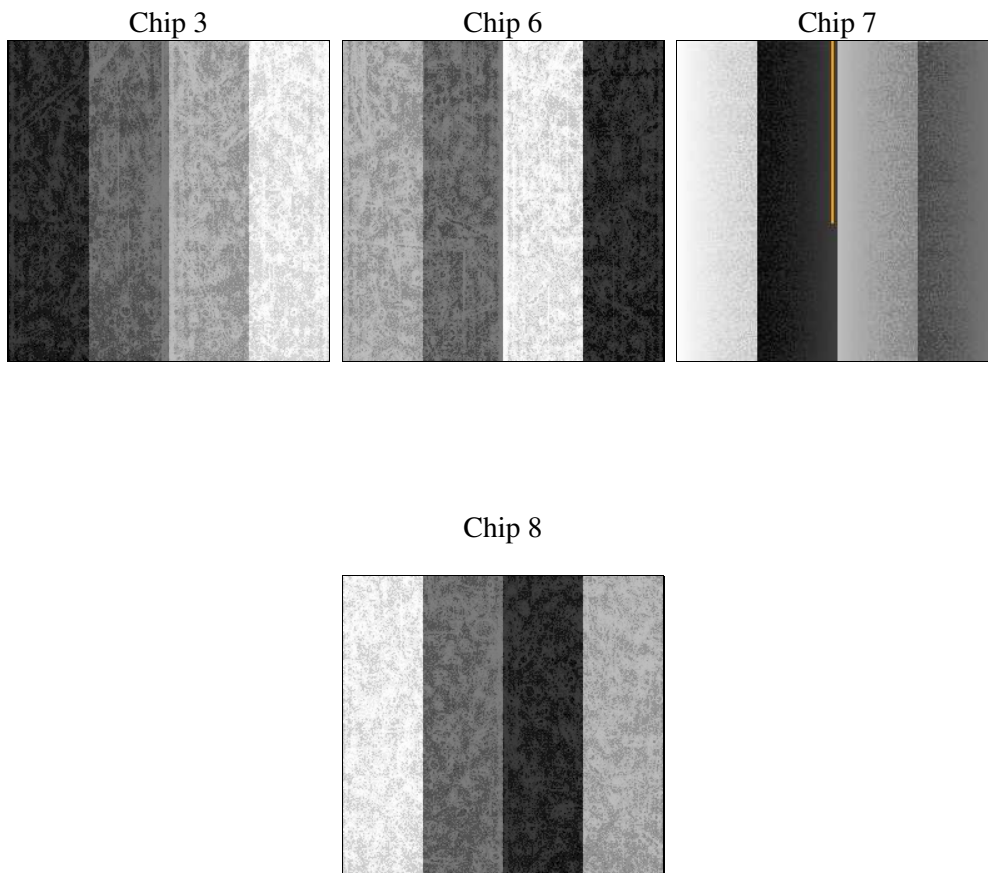
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	11500.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	11565.364058018	Sum of GTIs [s]
caldbver	4.9.3	 	ontime3	11565.281978011	Sum of GTIs [s]
date	2020-10-27T00:49:57	Date and time of file creation	ontime6	11565.323018074	Sum of GTIs [s]
revision	3	Processing version of data	ontime7	11565.364058018	Sum of GTIs [s]
			ontime8	11562.09993732	Sum of GTIs [s]
			l1events	400134	Number of level 1 events

2.1.4 Events

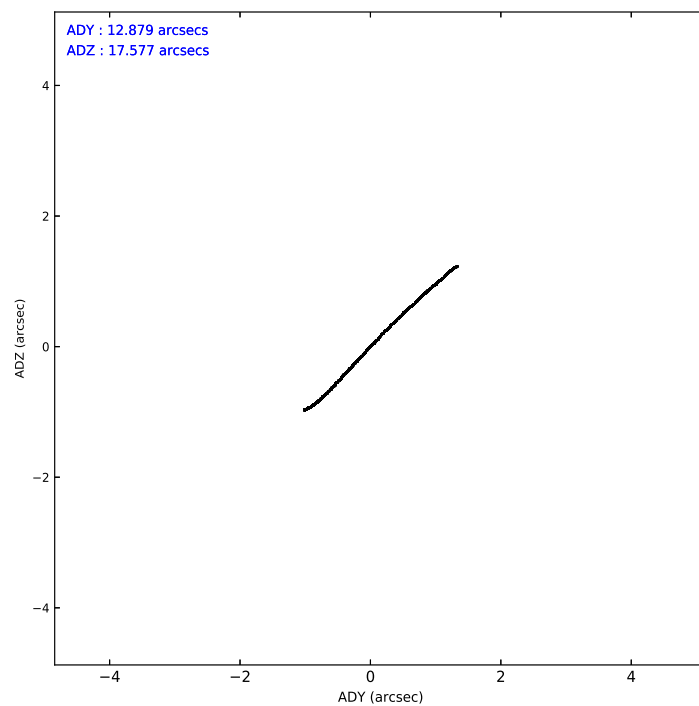
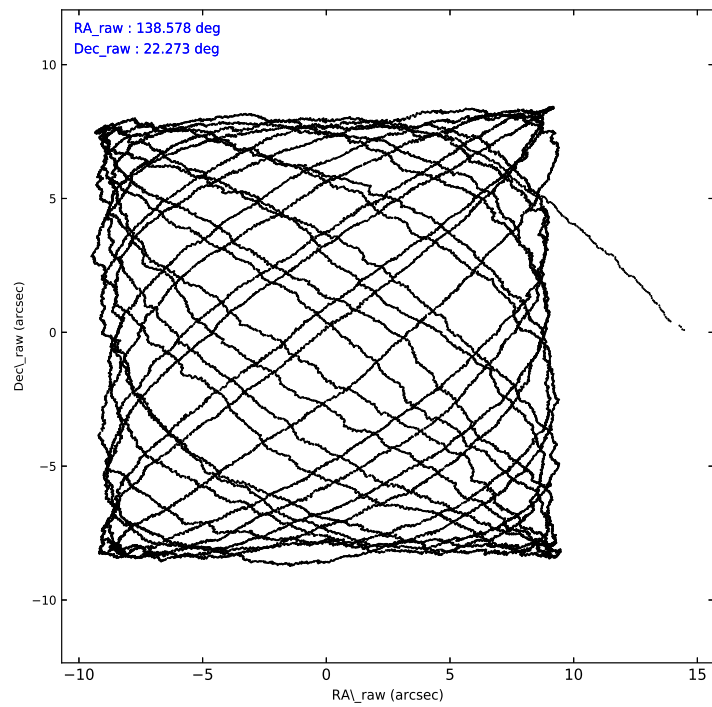
	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	83318	93710	108770	114336
rejected events	74528	80267	61460	84660
rejected %	89%	85%	56%	74%

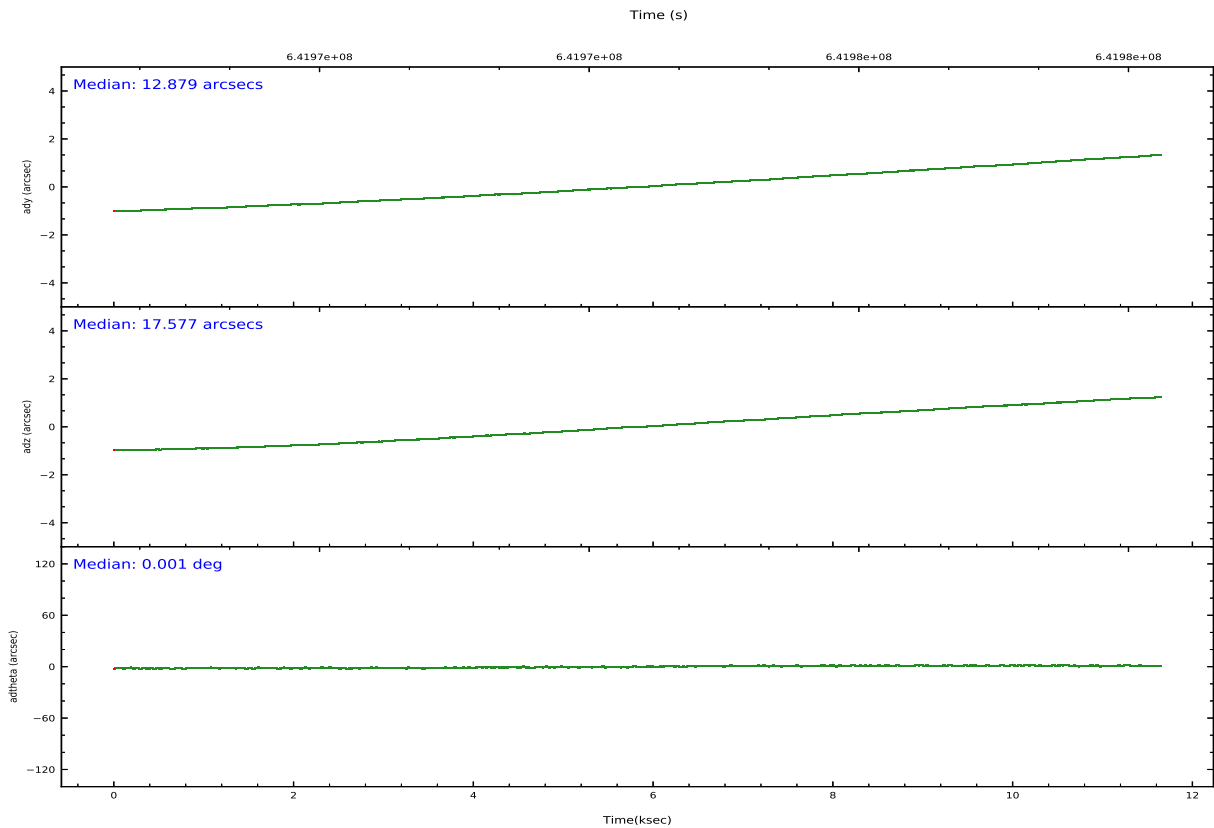
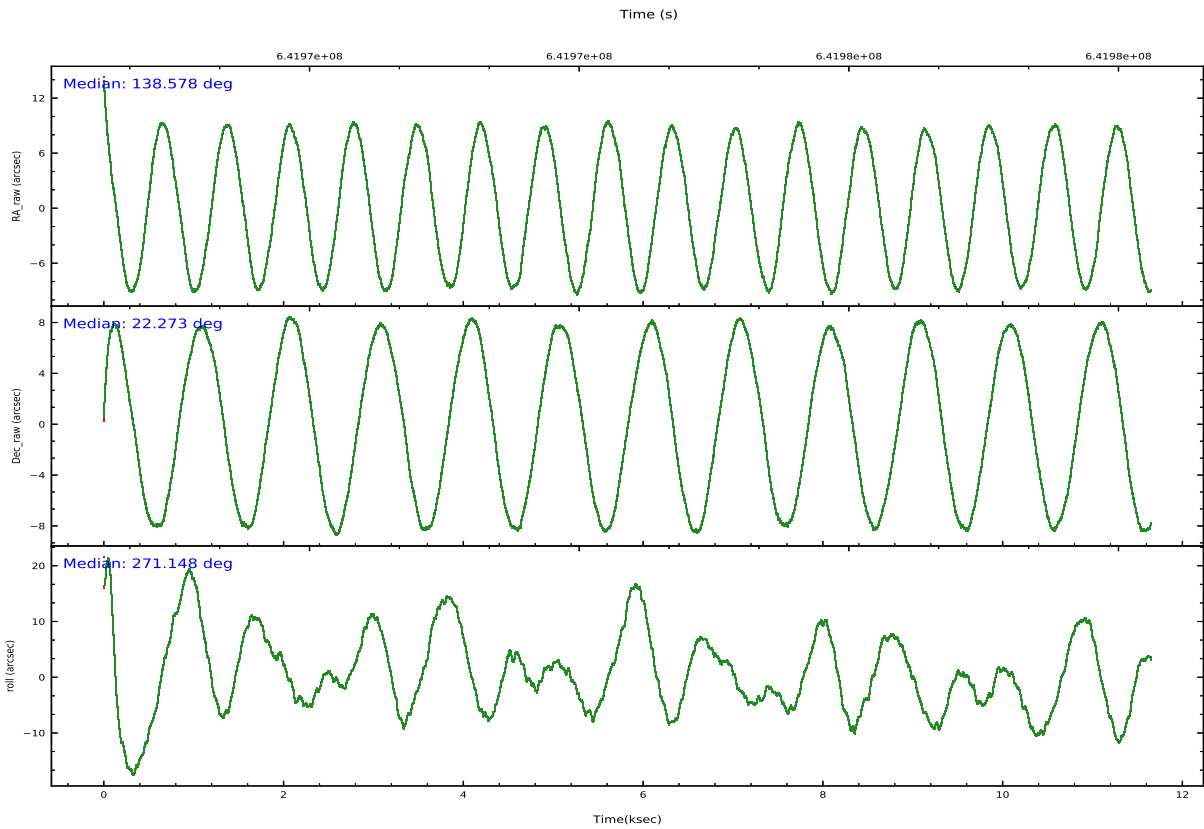
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3121	6579	4068	8373
	3%	7%	3%	7%
grade 1 events	37	72	125	86
	0%	0%	0%	0%
grade 2 events	1933	2479	9990	7326
	2%	2%	9%	6%
grade 3 events	933	984	3691	3052
	1%	1%	3%	2%
grade 4 events	955	901	3697	2752
	1%	0%	3%	2%
grade 5 events	3809	3883	10701	5948
	4%	4%	9%	5%
grade 6 events	1850	2504	25885	8201
	2%	2%	23%	7%
grade 7 events	70680	76308	50613	78598
	84%	81%	46%	68%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-3678	ACIS-3678	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	138.562453	138.57246033309	Subarray requested	NONE	NONE
[deg] Pointing Dec	22.295814	22.276169155846	Alternating exposures requested	N	N
[deg] Pointing Roll	271.004286	271.14774410175	[s] Primary exposure time	0.000000	3.1
[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)	641968864.184000	641967925.5146			
Observation start date	2018-05-06T04:39:55	2018-05-06T04:25:25			
[s] Observation end time (MET)	641980364.184000	641981411.95289			
Observation end date	2018-05-06T07:51:35	2018-05-06T08:10:11			
Read mode	TIMED	TIMED			

2.3 Aspect





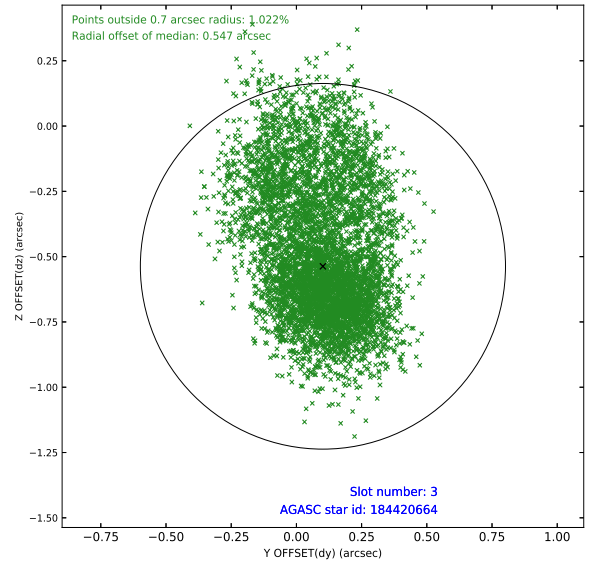
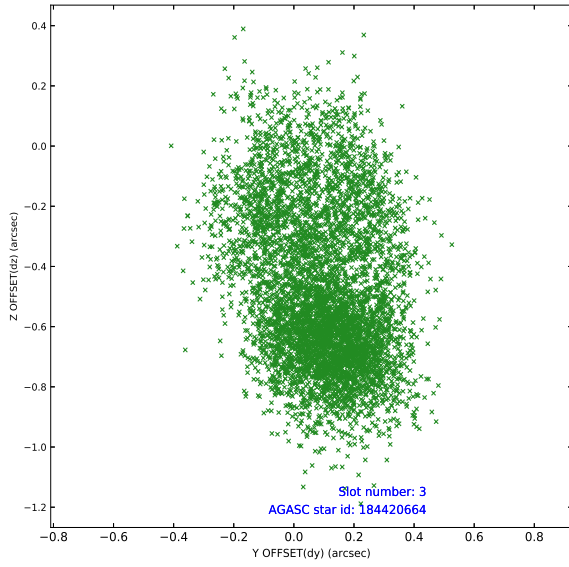
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.09	2843	1.000	0.106	-0.117	0.026	0.043	0.000000	0.000000	-765.88	-1739
1	FID		ACIS-S-4	7.22	2843	1.000	0.141	-0.023	0.020	0.056	0.000000	0.000000	2147.39	168
2	FID		ACIS-S-5	7.21	2843	1.000	-0.291	0.144	0.024	0.057	0.000000	0.000000	-1818.40	163
3	GUIDE	used	184420664	9.66	5674	1.000	0.102	-0.537	0.314	0.557	138.026502	22.278344	29.40	-1786
4	GUIDE	used	184559256	9.18	5677	1.000	-0.014	0.094	0.161	0.274	138.901333	22.216168	305.26	1124
5	GUIDE	used	255735704	8.71	5684	1.000	-0.162	0.248	0.230	0.346	139.165679	22.910686	-2181.80	2039
6	GUIDE	used	255736000	8.20	5682	1.000	-0.069	0.183	0.185	0.285	138.861548	22.808055	-1827.39	1025
7	GUIDE	used	255735464	9.62	5675	1.000	0.136	-0.038	0.226	0.460	138.058610	22.802553	-1855.58	-1639

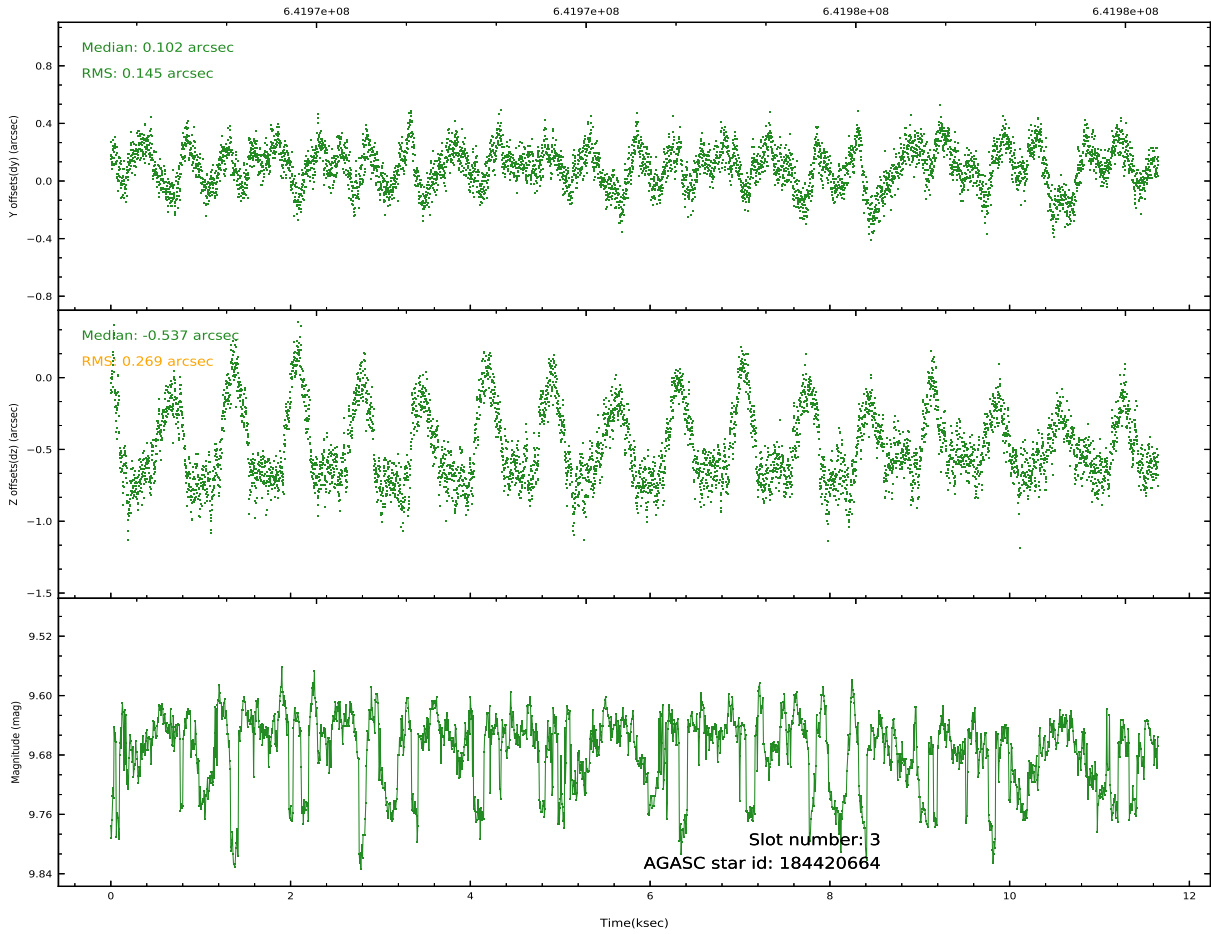
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2.4 Star Slots

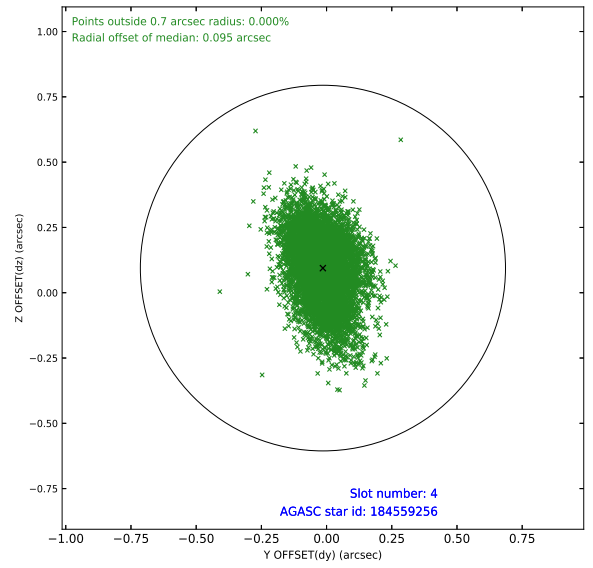
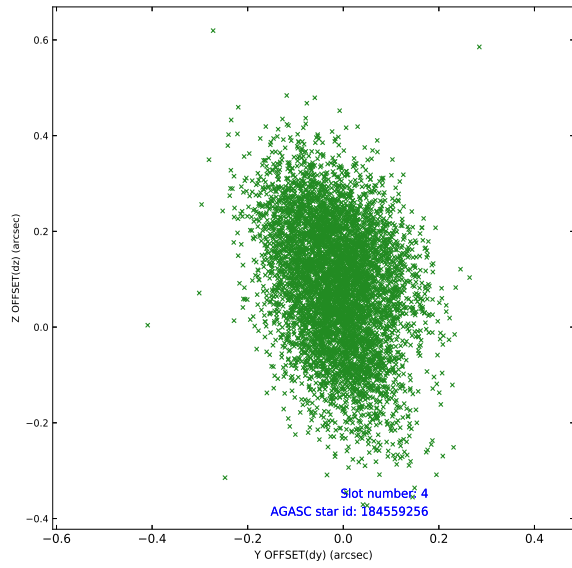
2.4.1 Slot 3



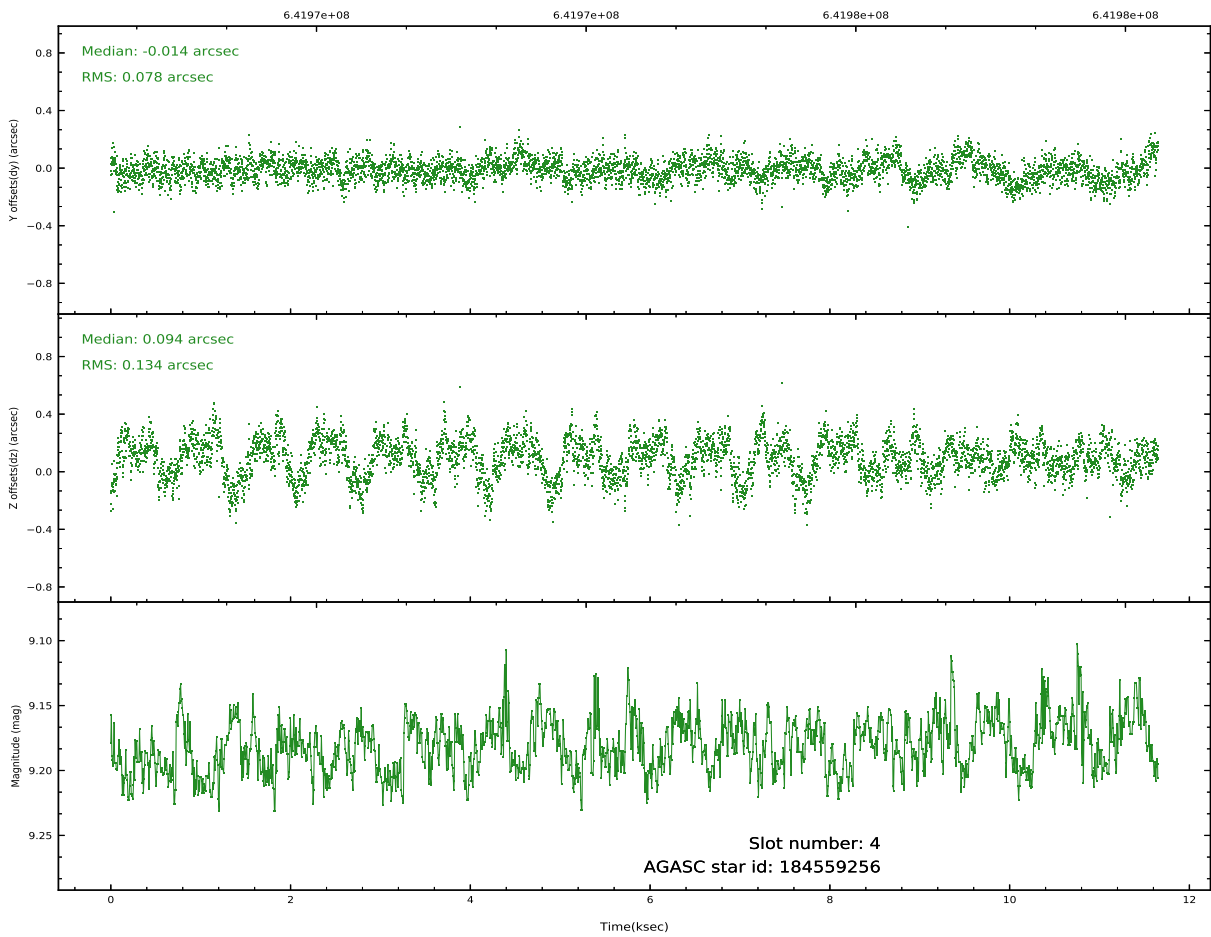
Time (s)



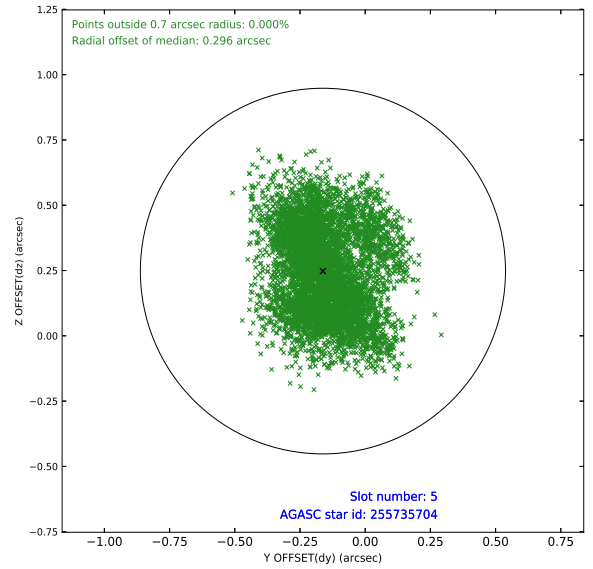
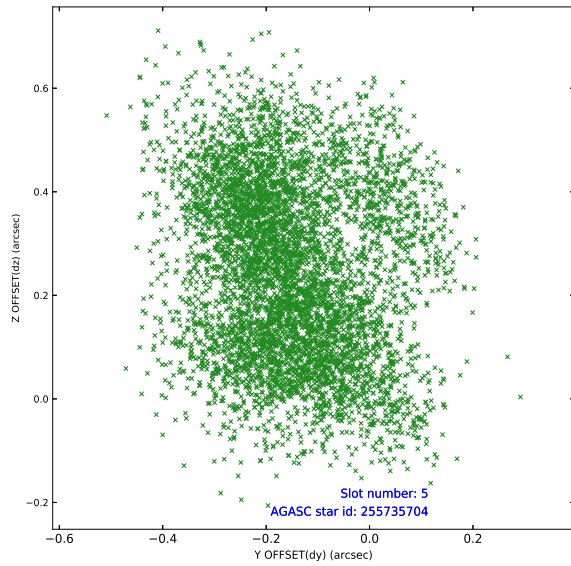
2.4.2 Slot 4



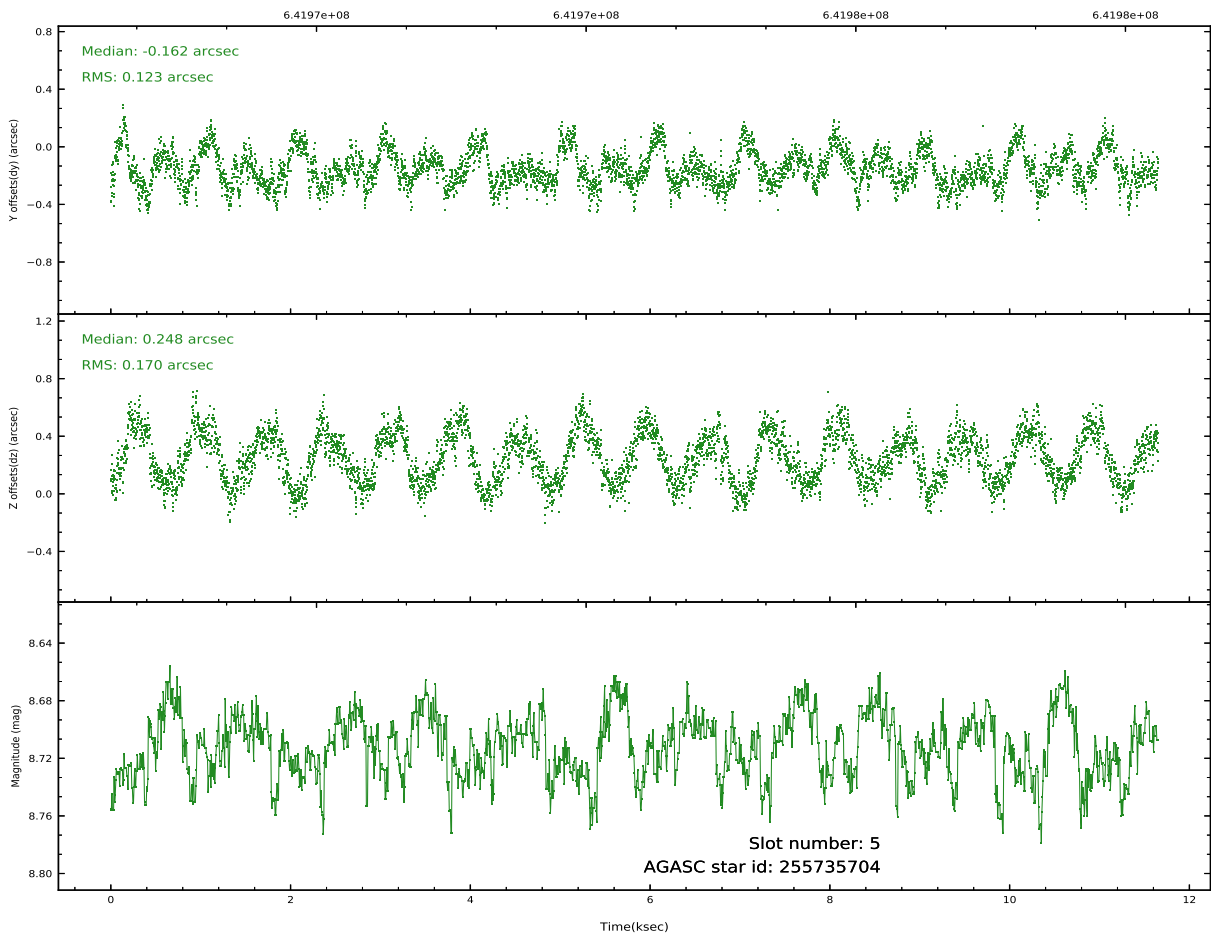
Time (s)



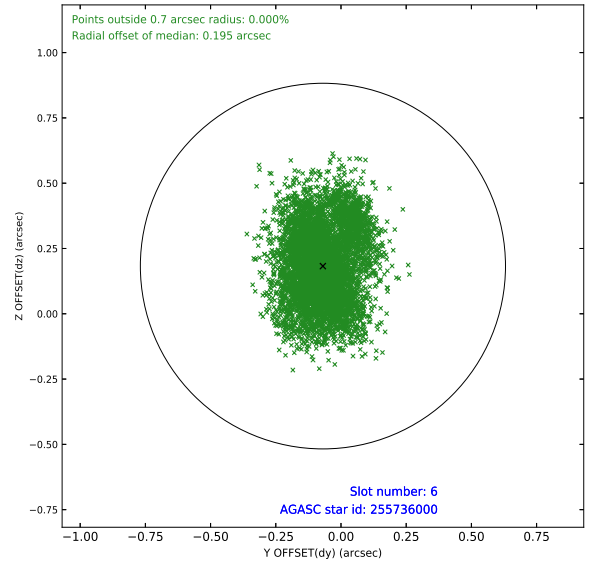
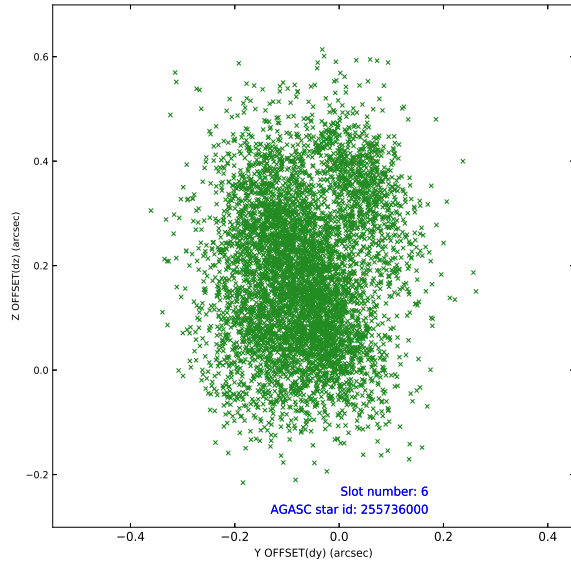
2.4.3 Slot 5



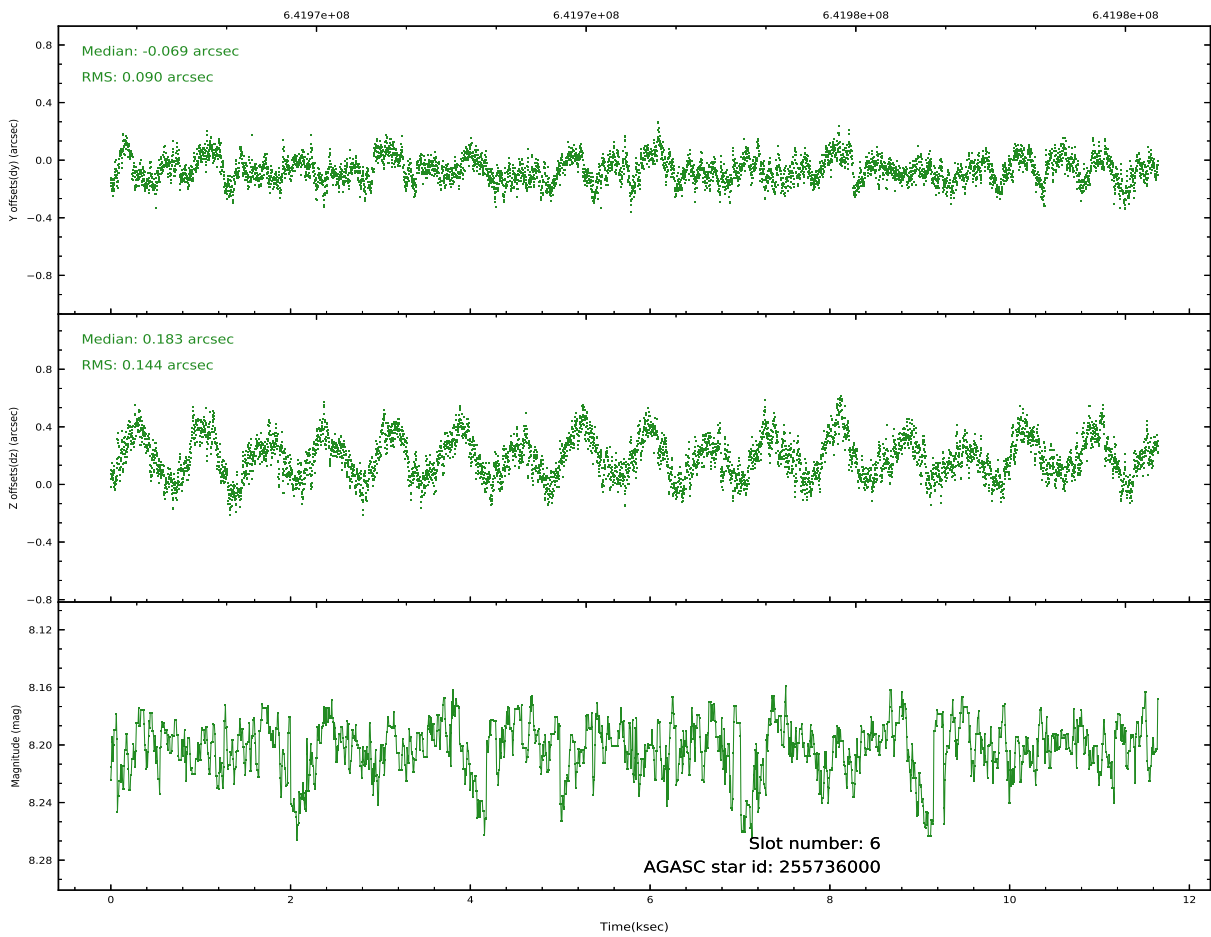
Time (s)



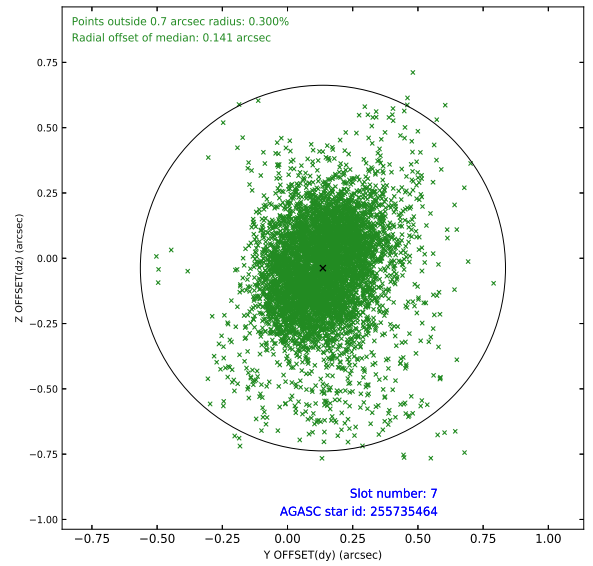
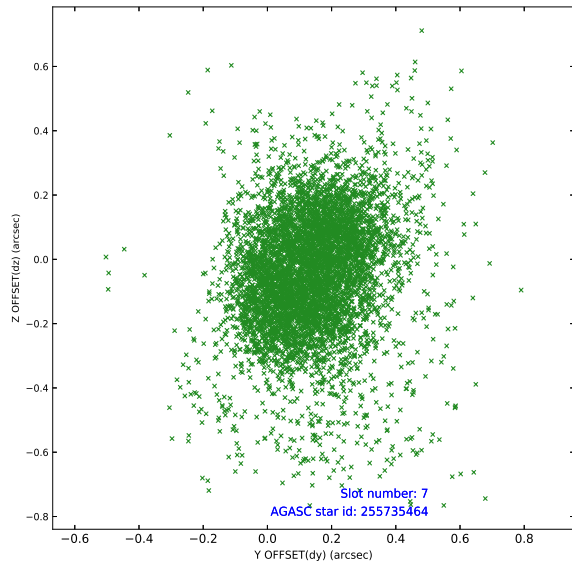
2.4.4 Slot 6



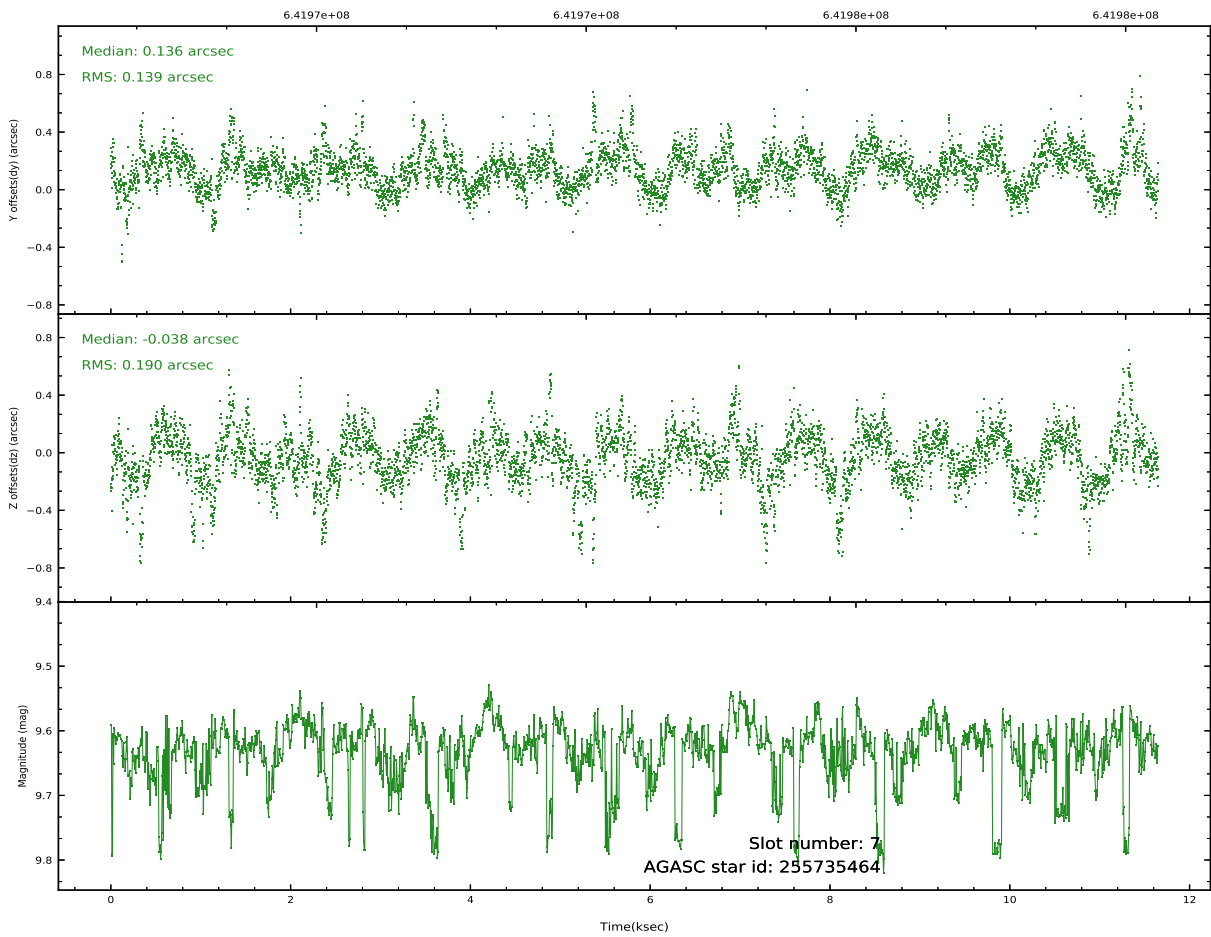
Time (s)



2.4.5 Slot 7

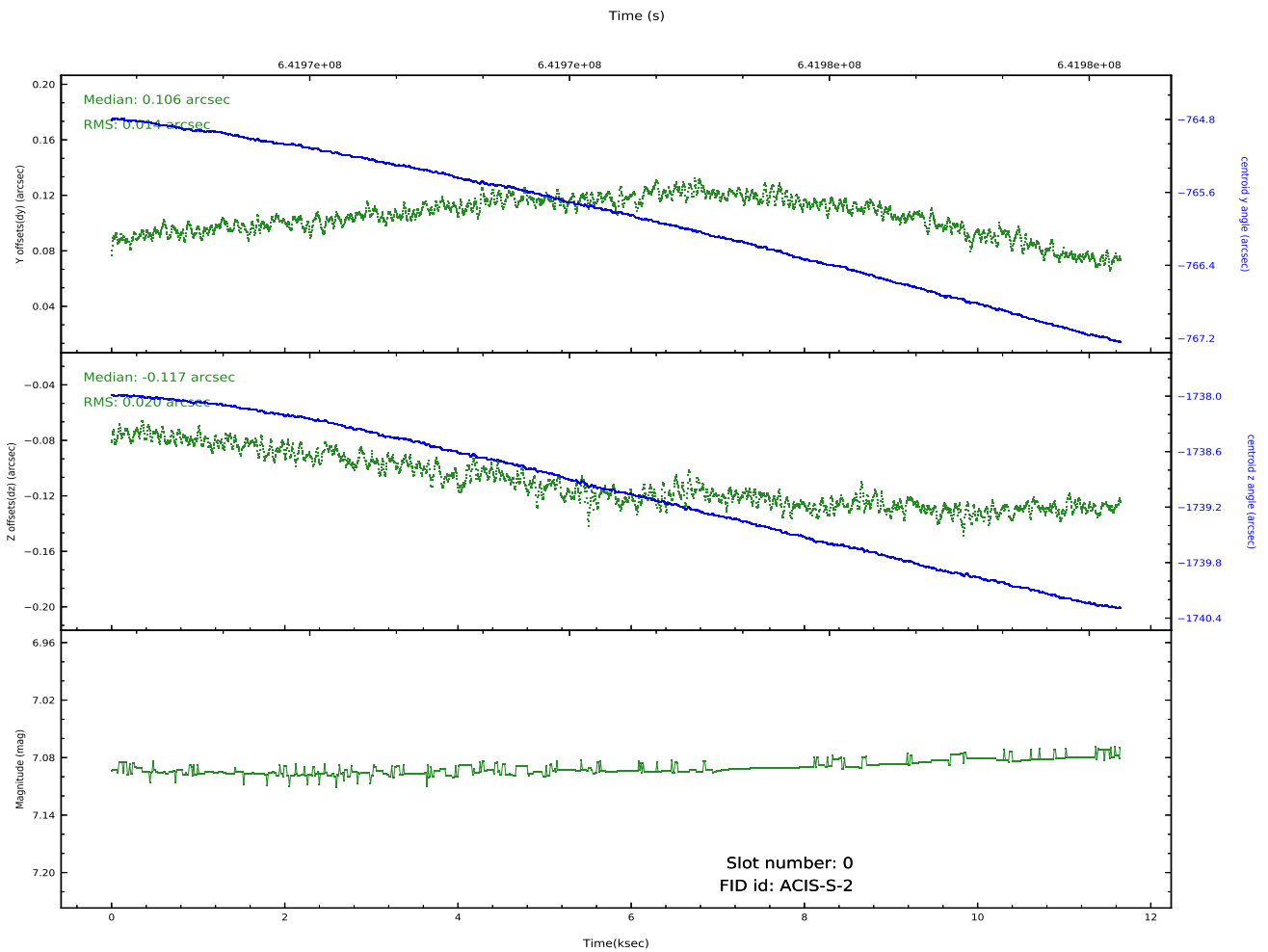
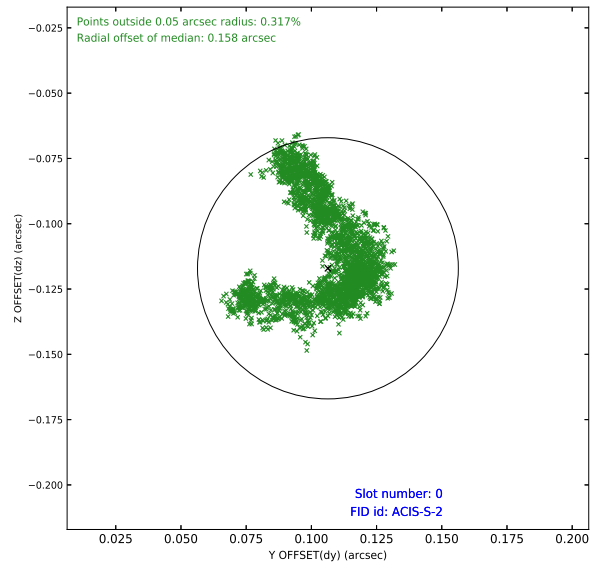
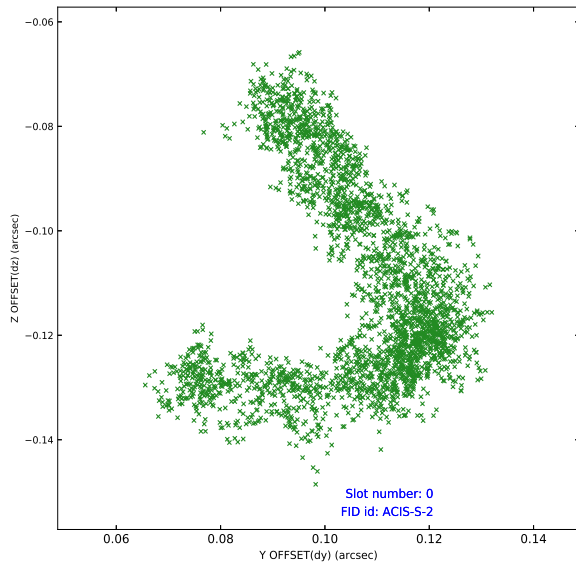


Time (s)

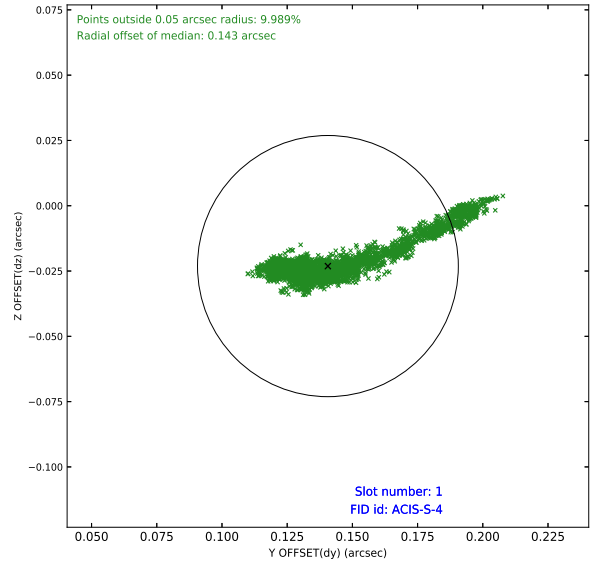
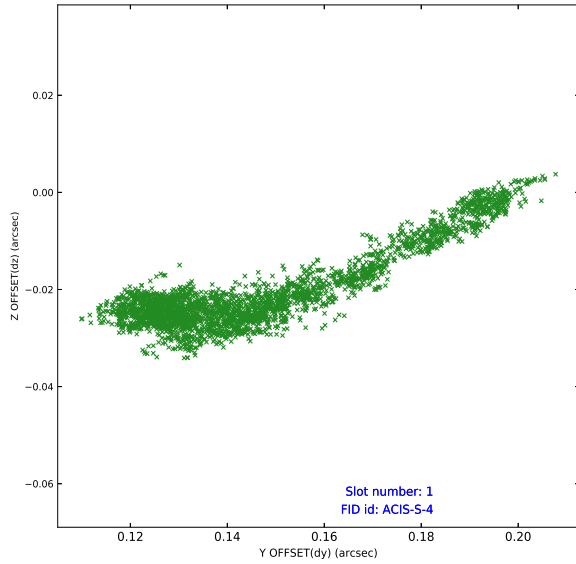


2.5 FID Slots

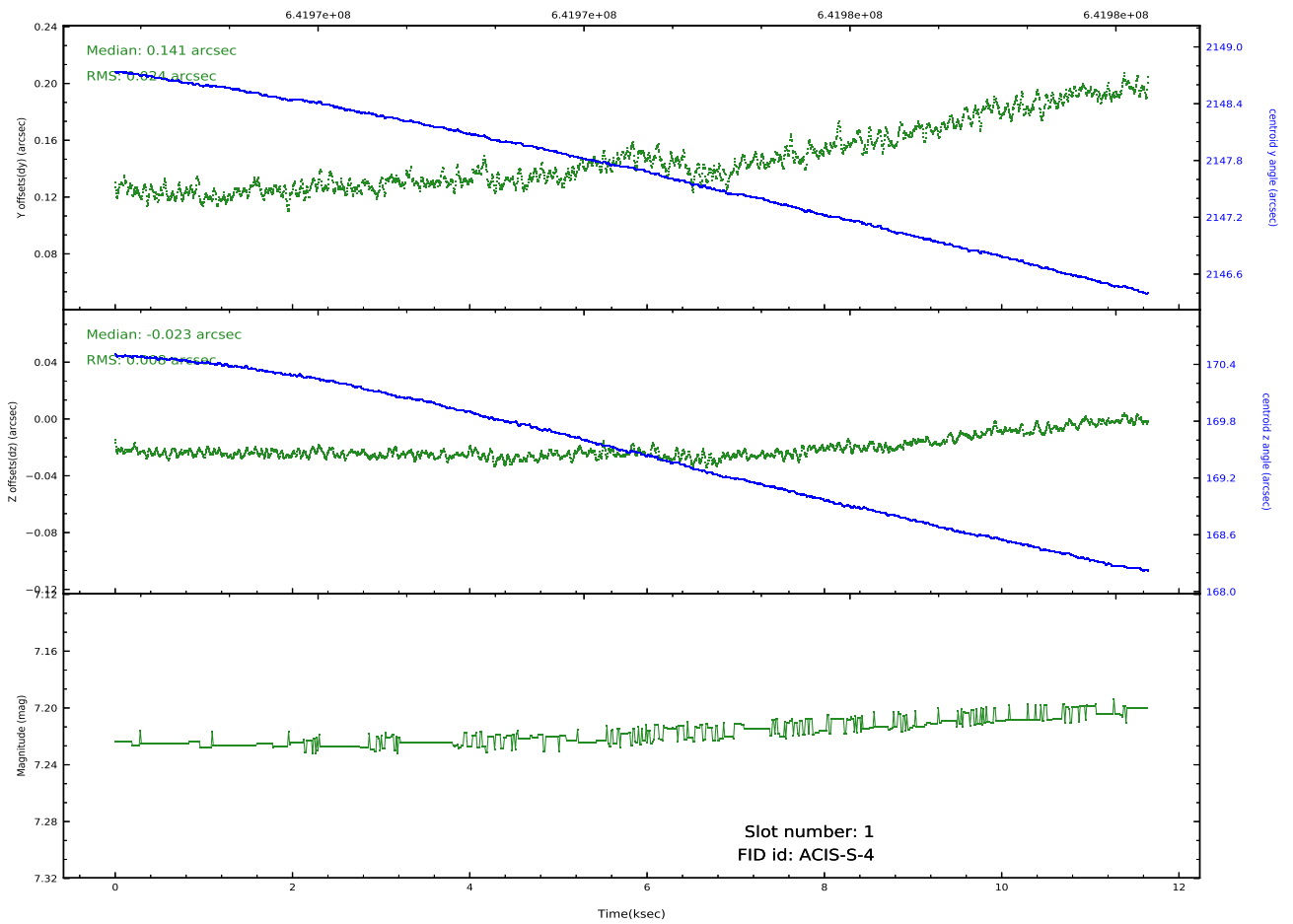
2.5.1 Slot 0



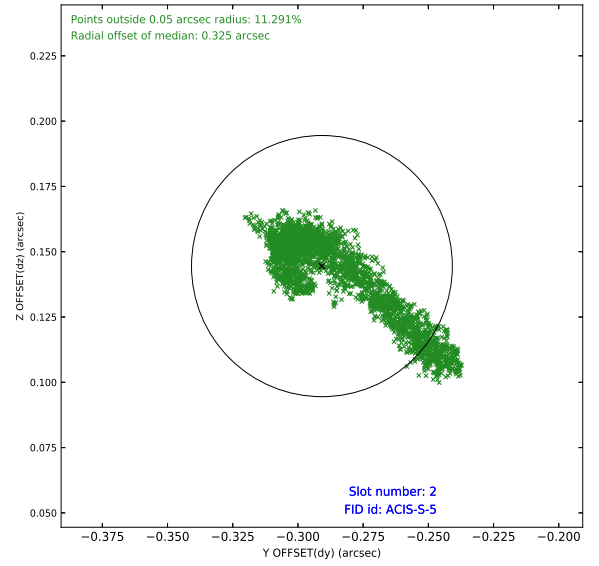
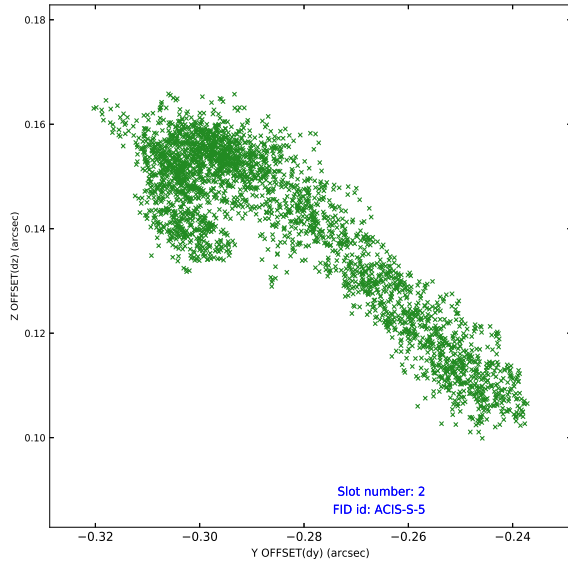
2.5.2 Slot 1



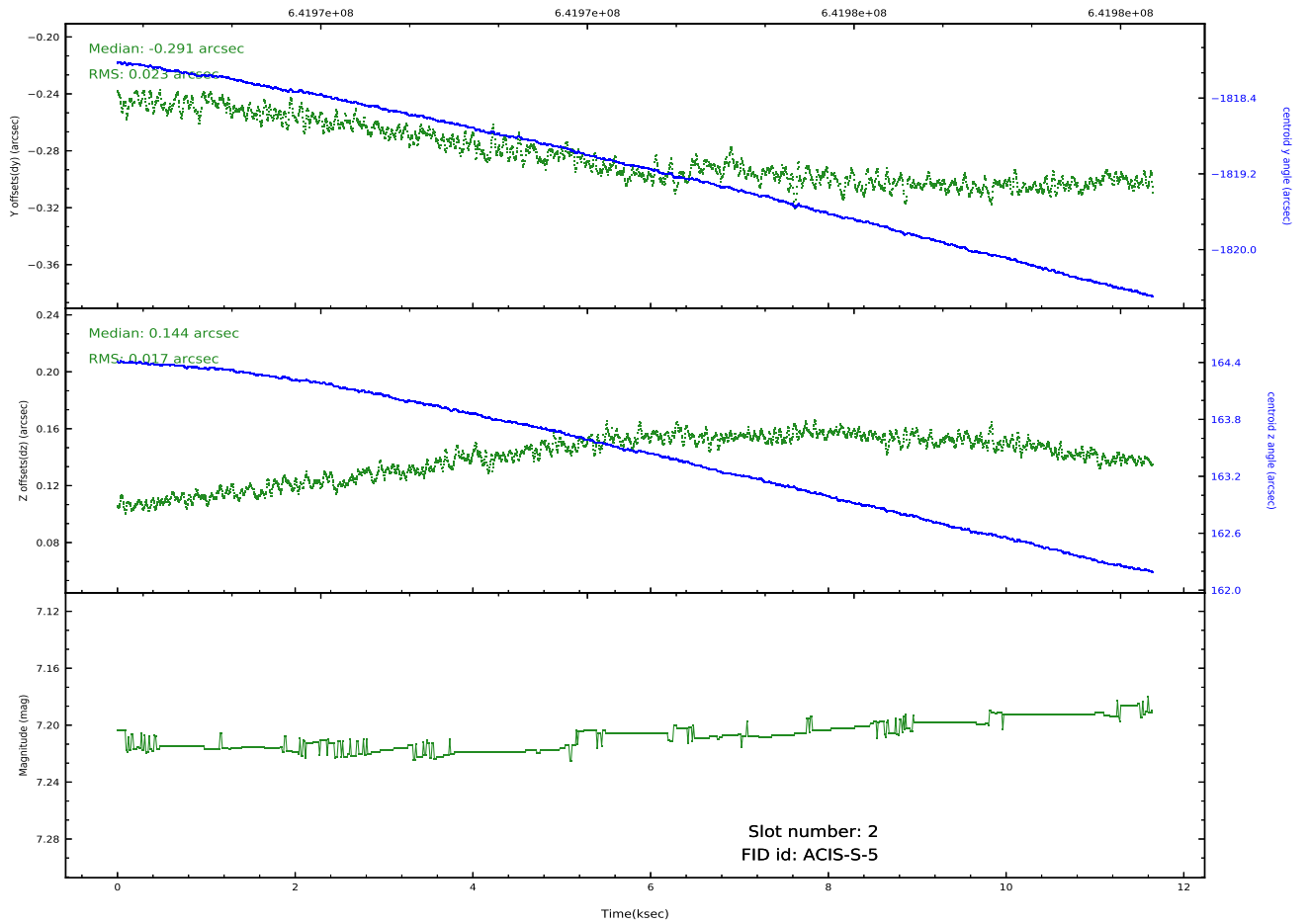
Time (s)



2.5.3 Slot 2



Time (s)



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	11.565364055037

A.2 Comments

A spatial region of the original bias map for CCD = 3 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 3 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords: (138.31499,22.37056), (138.30969,22.37046), (138.31217,22.26702), (138.31747,22.26711).