

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 7237 - L2 Version 3
Chandra X-Ray Center

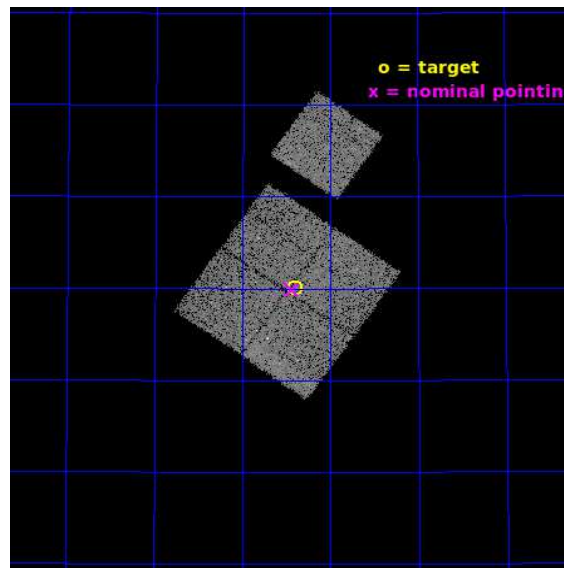
L2 Processing Date : Oct 11 2020

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 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

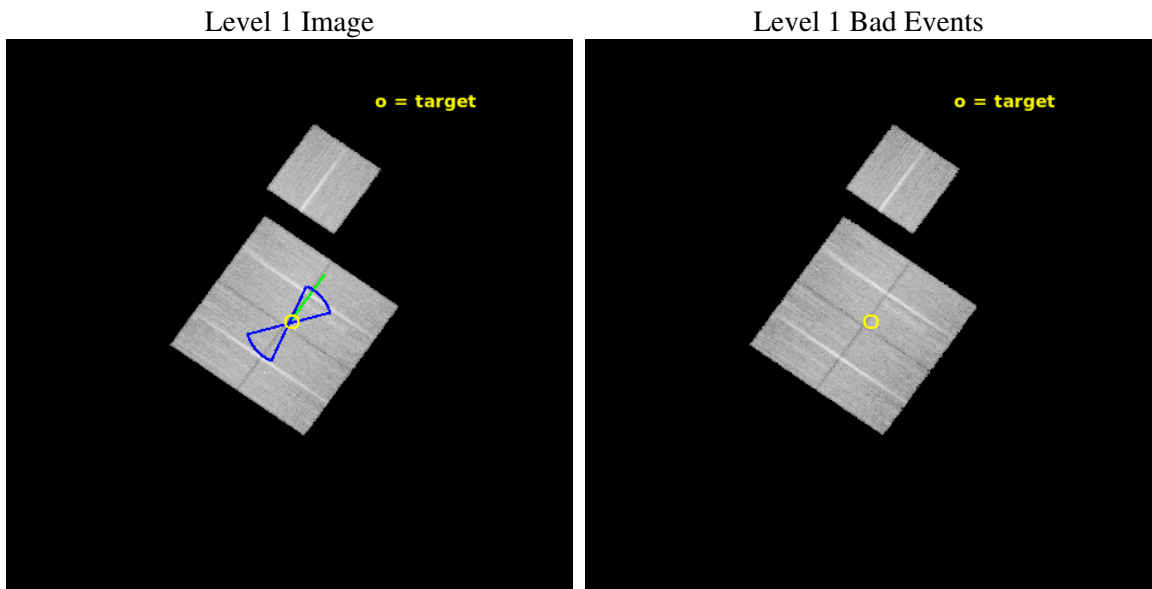
seq_num	900353	Sequence number
obs_id	7237	Observation id
title	Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies	Proposal title
observer	Prof Kirpal Nandra	Principal investigator
object	Extended Groth Strip (EGS)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	214.102081	Observer's specified target RA [deg]
dec_targ	52.334053	Observer's specified target Dec [deg]
ra_nom	214.10972051121	Nominal RA [deg]
dec_nom	52.331375116784	Nominal Dec [deg]
roll_nom	35.192778962119	Nominal Roll [deg]
revision	3	Processing version of data
ontime	17155.318026453	Sum of GTIs [s]
livetime	16931.171166876	Livetime [s]
ontime0	17161.599966973	Sum of GTIs [s]
ontime1	17161.599966973	Sum of GTIs [s]
ontime2	17158.458966792	Sum of GTIs [s]
ontime3	17155.318026453	Sum of GTIs [s]
ontime6	17158.458976716	Sum of GTIs [s]
l2events	48451	Number of level 2 events



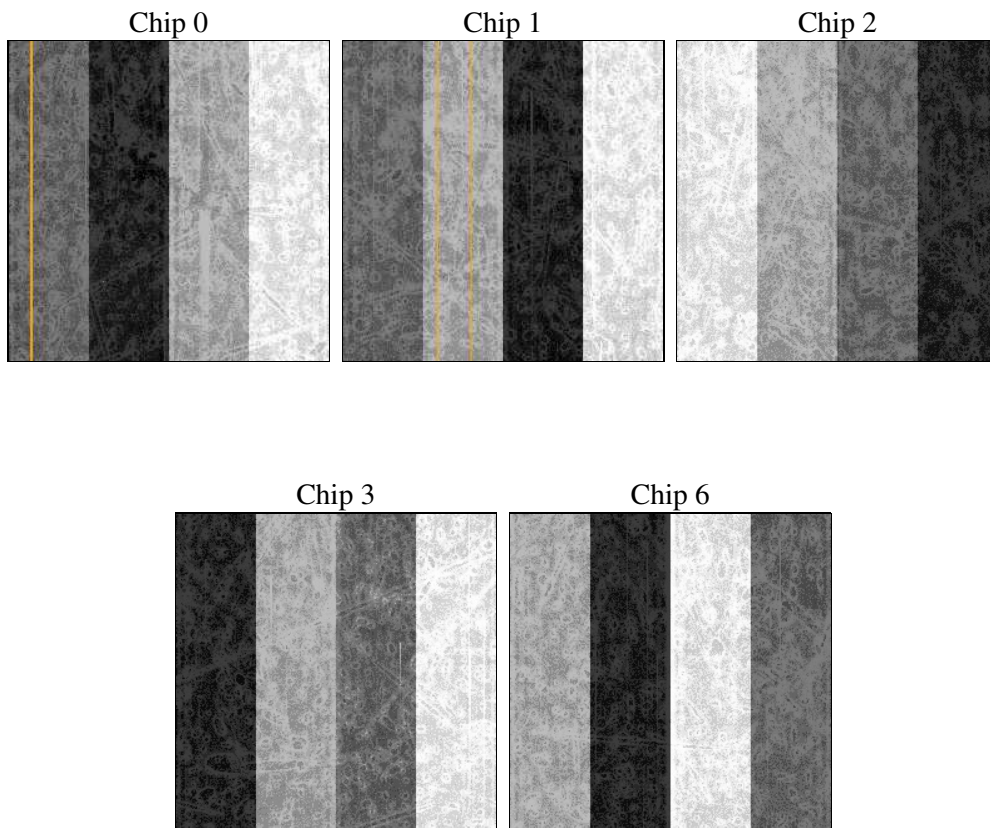
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	17000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	17155.318026453	Sum of GTIs [s]
caldbver	4.9.2	 	ontime0	17161.599966973	Sum of GTIs [s]
date	2020-10-12T02:32:53	Date and time of file creation	ontime1	17161.599966973	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	17158.458966792	Sum of GTIs [s]
			ontime3	17155.318026453	Sum of GTIs [s]
			ontime6	17158.458976716	Sum of GTIs [s]
			l1events	578616	Number of level 1 events

2.1.4 Events

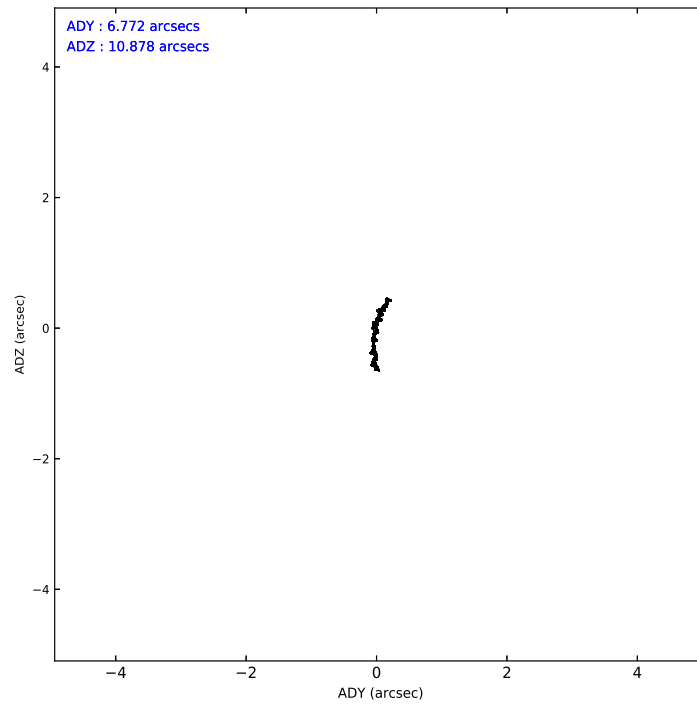
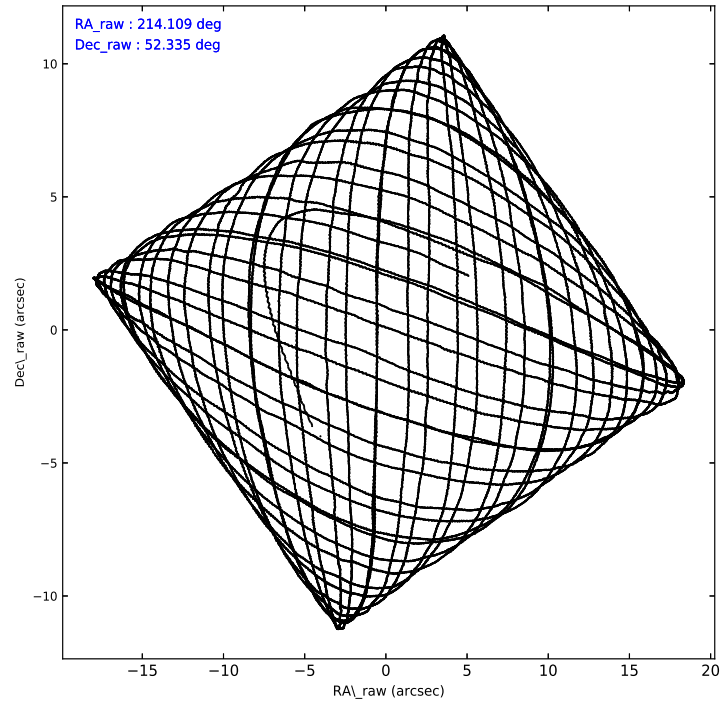
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	110040	109478	125527	116831	116740
rejected events	98559	96378	114275	105909	104987
rejected %	89%	88%	91%	90%	89%

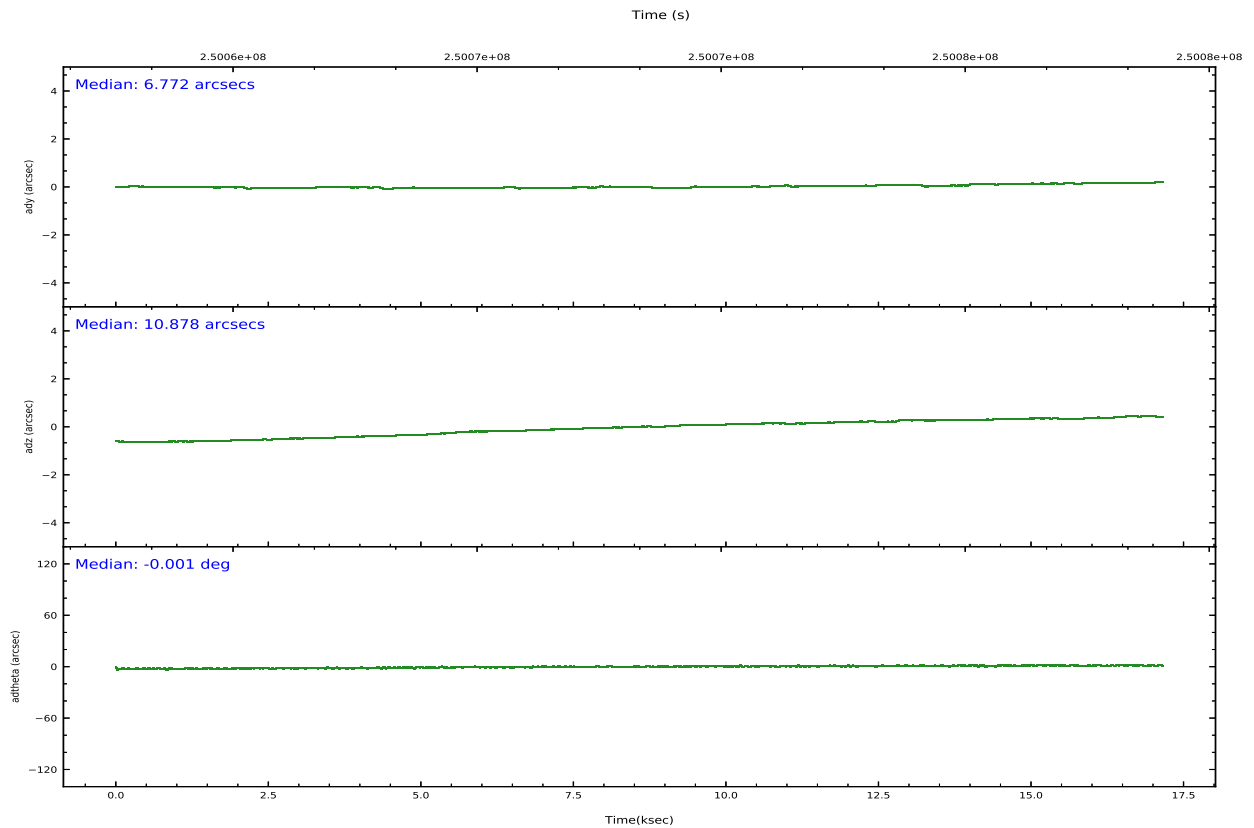
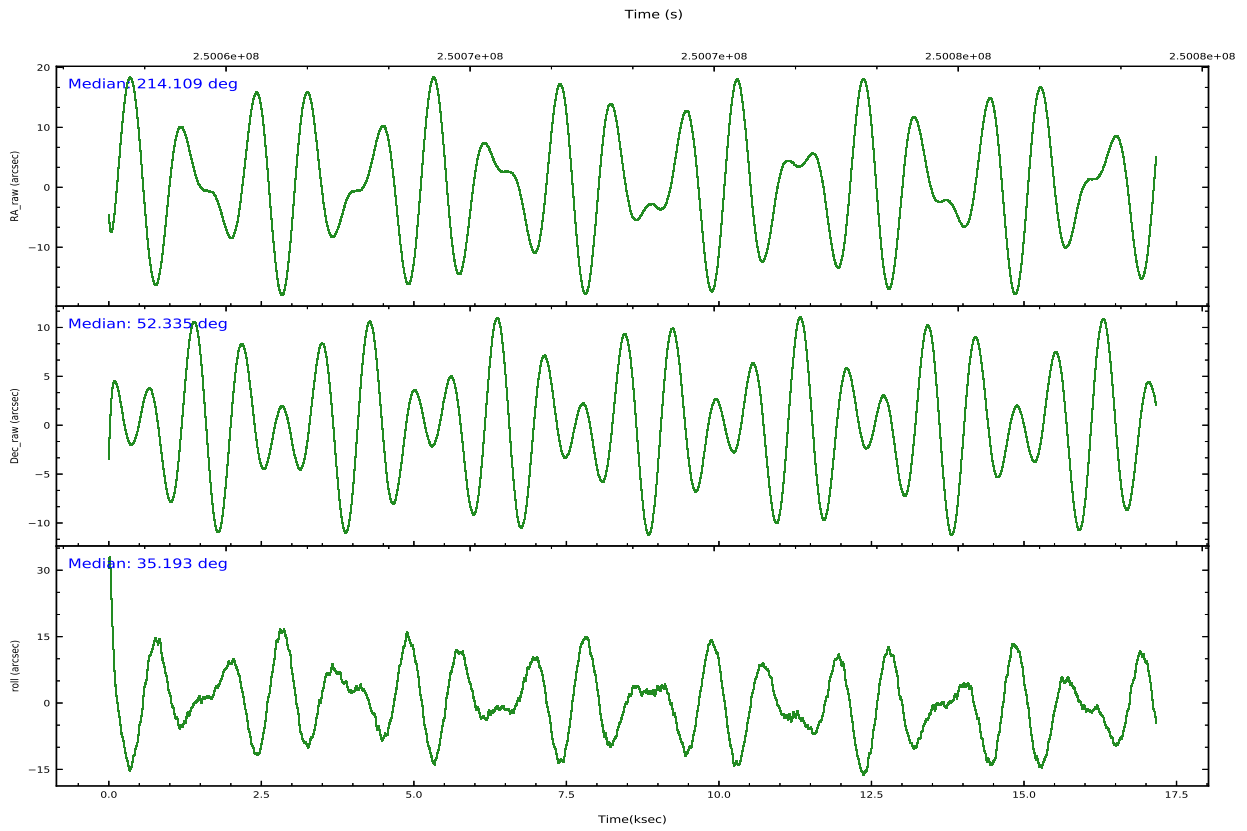
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4189	4876	4161	3973	4170
	3%	4%	3%	3%	3%
grade 1 events	55	64	58	71	44
	0%	0%	0%	0%	0%
grade 2 events	2682	2898	2722	2468	2516
	2%	2%	2%	2%	2%
grade 3 events	1365	1411	1200	1257	1318
	1%	1%	0%	1%	1%
grade 4 events	1244	1429	1263	1181	1316
	1%	1%	1%	1%	1%
grade 5 events	3896	4279	3759	4749	4604
	3%	3%	2%	4%	3%
grade 6 events	2117	2613	2011	2137	2565
	1%	2%	1%	1%	2%
grade 7 events	94492	91908	110353	100995	100207
	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	214.090878	214.10972051121	Subarray requested	NONE	NONE
[deg] Pointing Dec	52.310136	52.331375116784	Alternating exposures requested	N	N
[deg] Pointing Roll	35.008870	35.192778962119	[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)	250062245.184000	250061180.31741			
Observation start date	2005-12-04T05:43:01	2005-12-04T05:26:20			
[s] Observation end time (MET)	250079245.184000	250080134.10579			
Observation end date	2005-12-04T10:26:21	2005-12-04T10:42:14			
Read mode	TIMED	TIMED			

2.3 Aspect





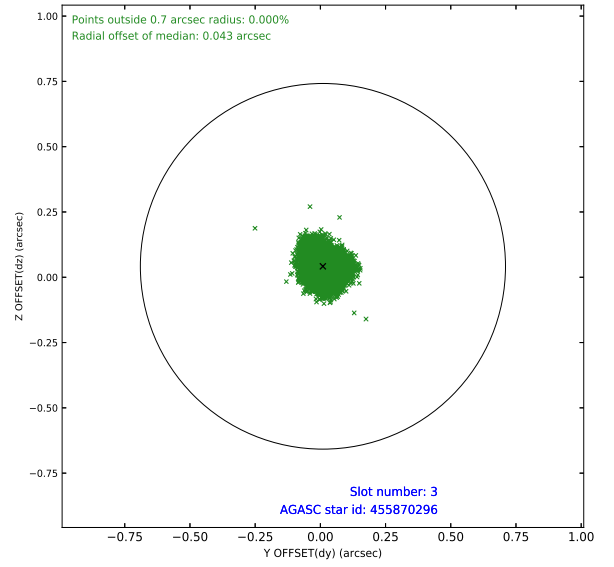
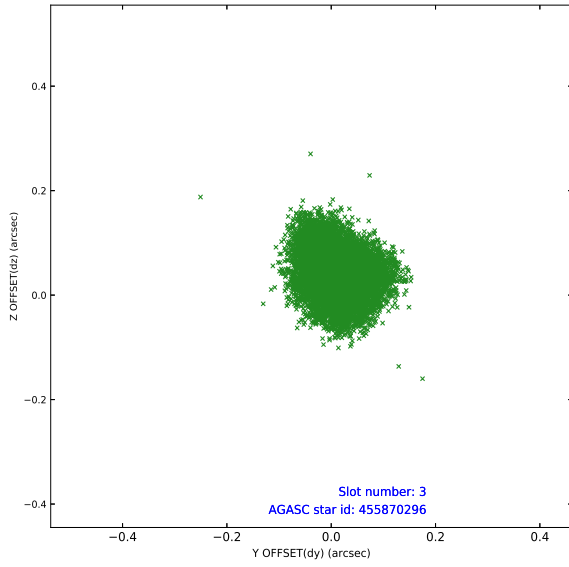
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.25	4186	1.000	0.044	-0.046	0.016	0.031	0.000000	0.000000	932.93	-834
1	FID		ACIS-I-5	7.23	4186	1.000	-0.200	0.043	0.012	0.019	0.000000	0.000000	-1815.27	1063
2	FID		ACIS-I-6	7.25	4187	1.000	0.067	0.073	0.011	0.018	0.000000	0.000000	398.25	1707
3	GUIDE	used	455870296	7.31	8374	1.000	0.010	0.042	0.070	0.104	214.629779	52.033323	408.95	-1497
4	GUIDE	used	455871352	8.12	8372	1.000	-0.094	0.174	0.064	0.102	215.099961	52.172669	1550.32	-1670
5	GUIDE	used	505806936	7.00	8375	1.000	0.061	0.010	0.067	0.112	213.820815	52.535927	-17.12	1005
6	GUIDE	used	505812376	7.57	8374	1.000	-0.128	-0.085	0.058	0.088	214.039537	52.937930	1205.03	1915
7	GUIDE	used	504894728	8.82	8368	1.000	0.140	-0.139	0.082	0.130	213.220892	52.722550	-695.21	2313

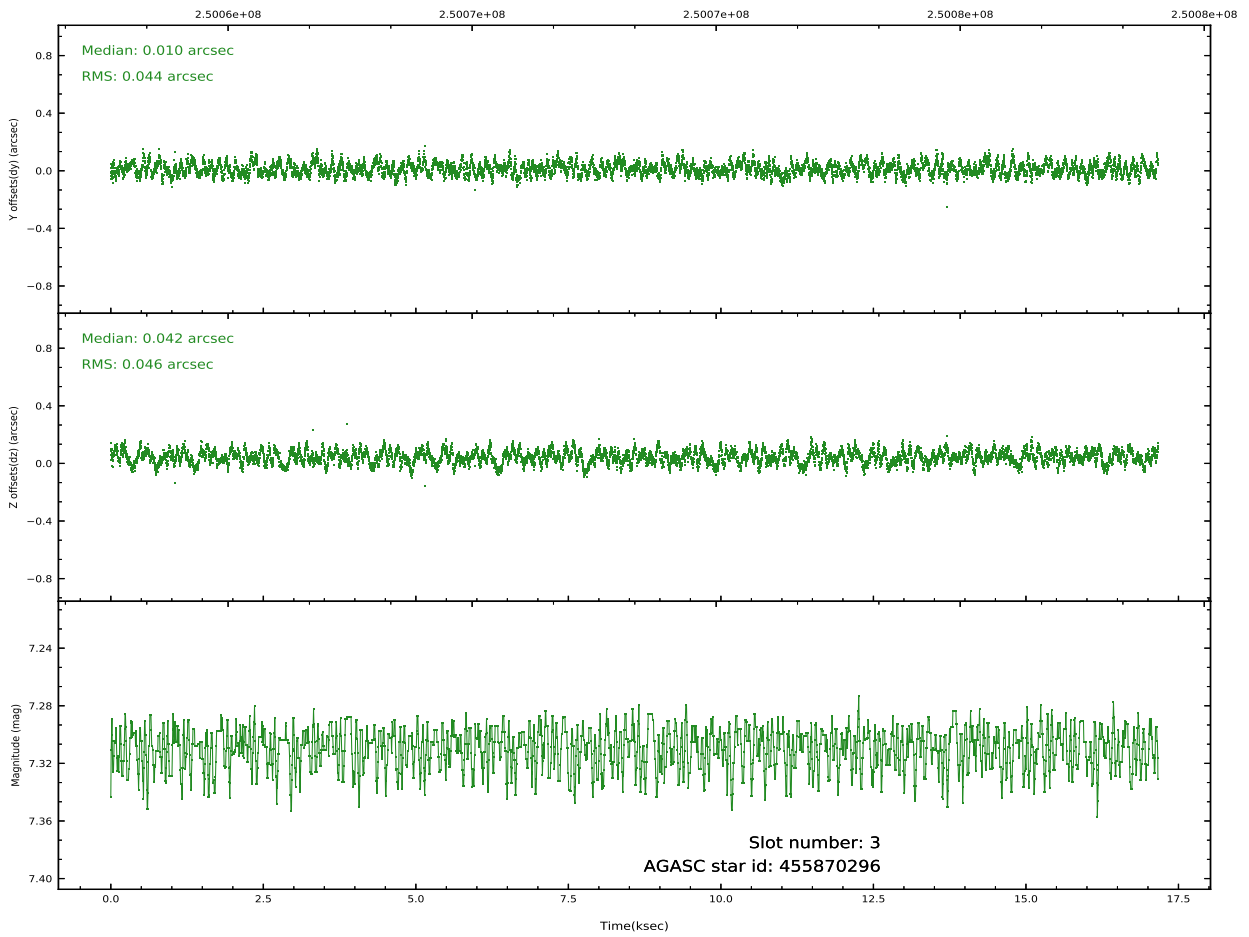
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2.4 Star Slots

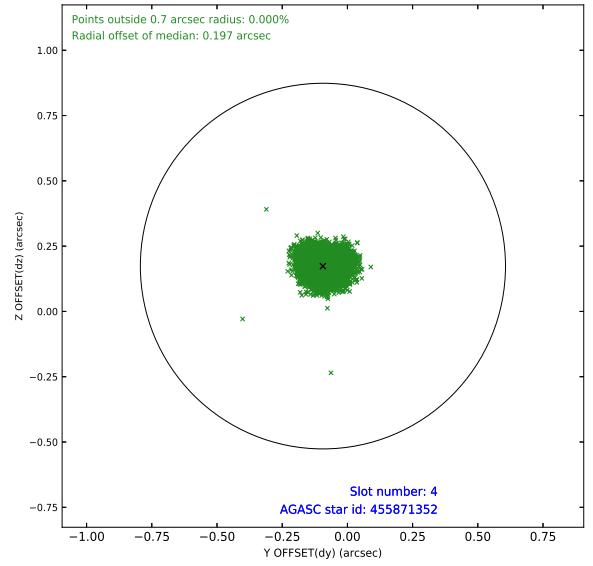
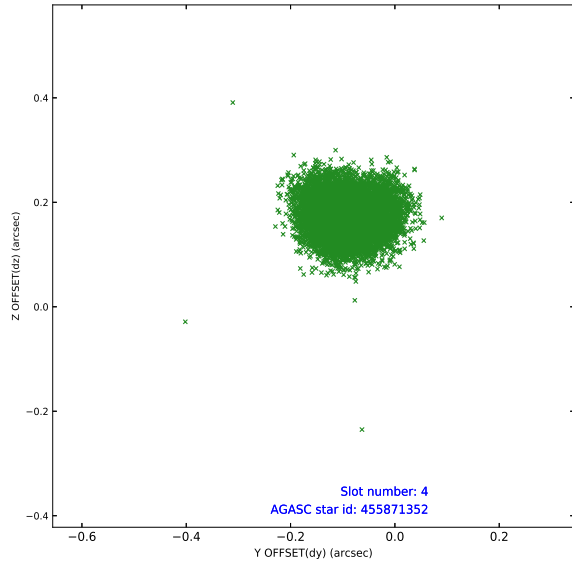
2.4.1 Slot 3



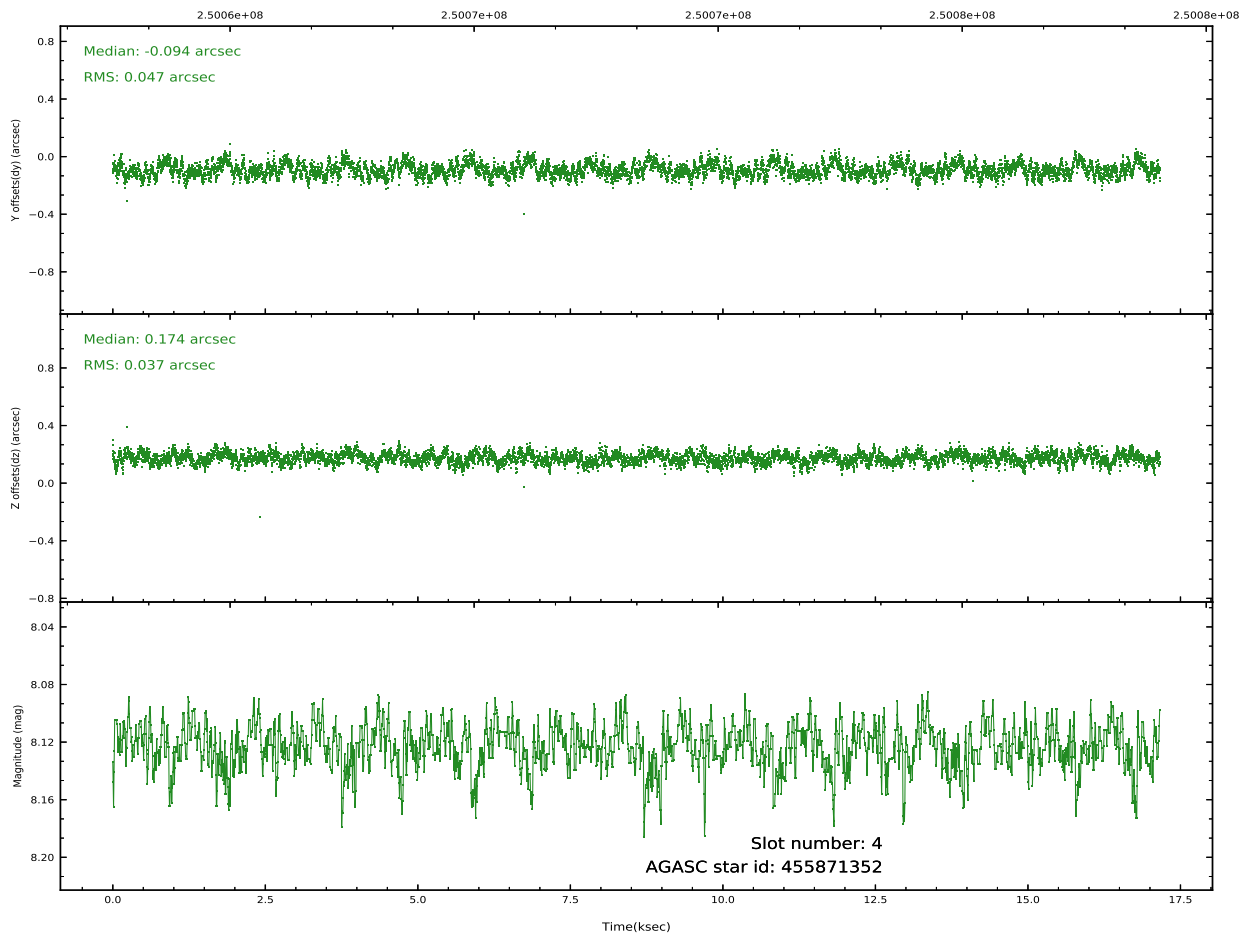
Time (s)



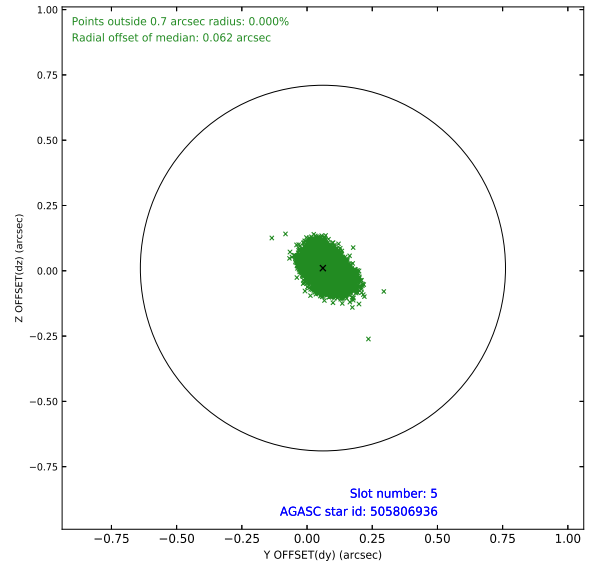
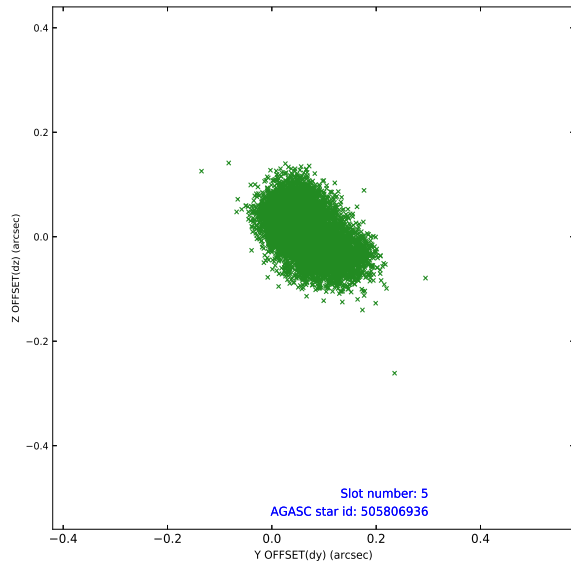
2.4.2 Slot 4



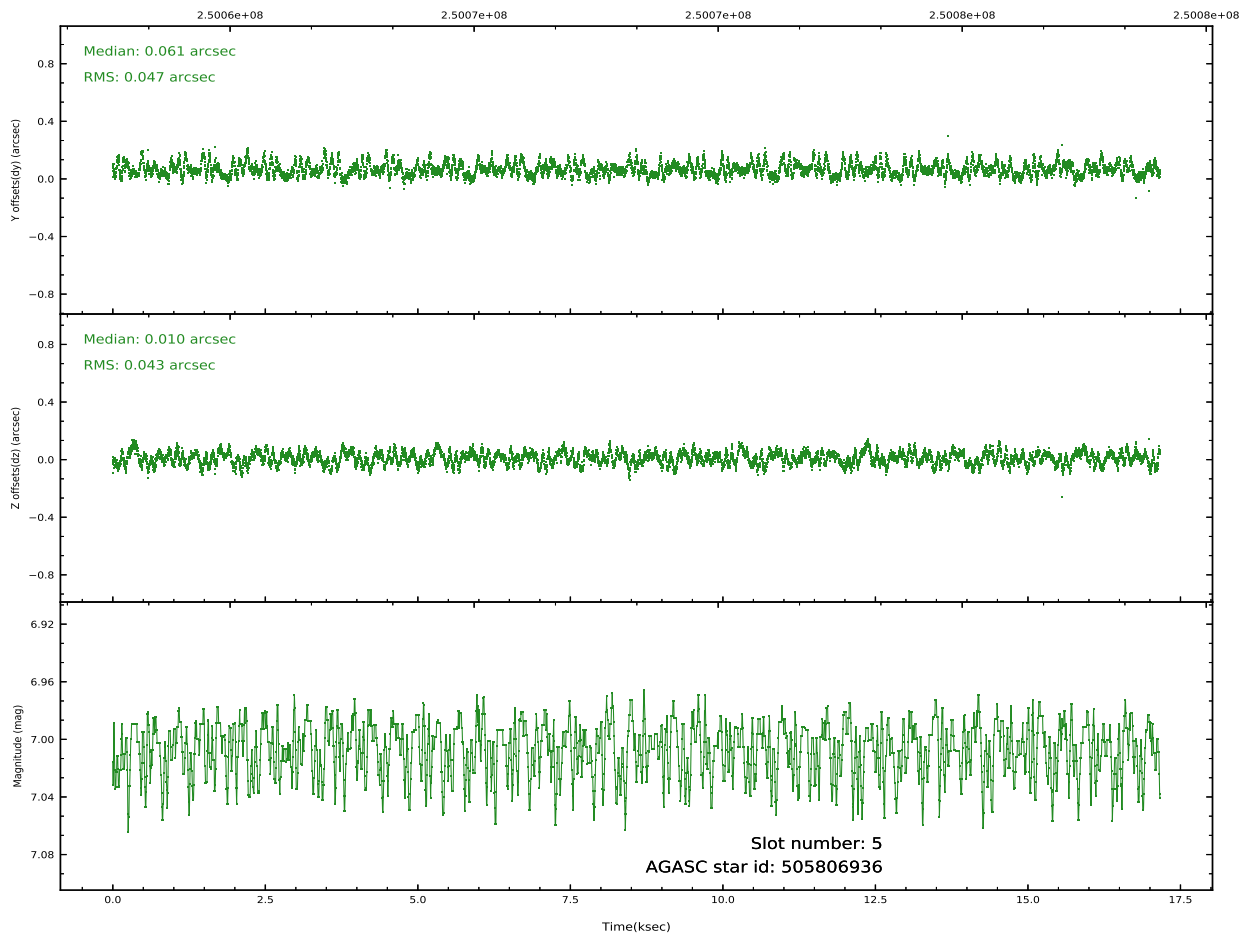
Time (s)



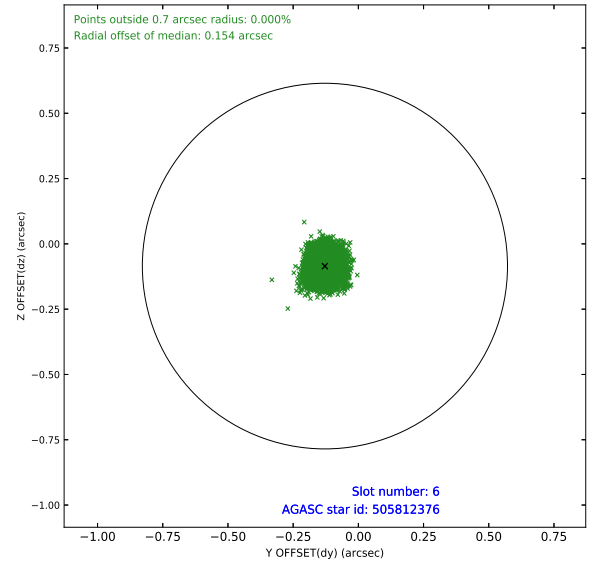
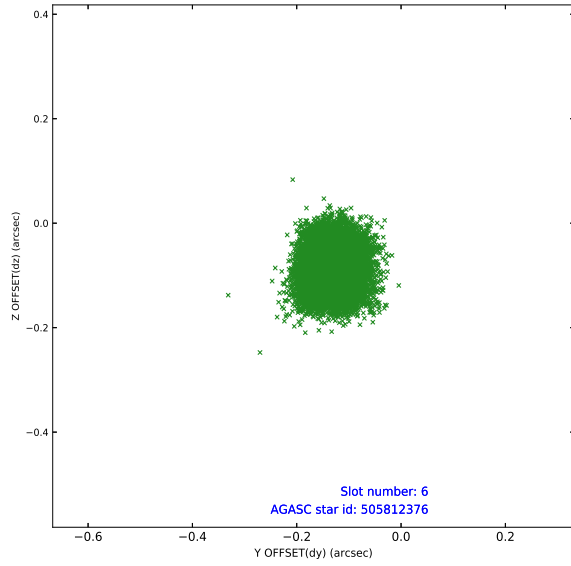
2.4.3 Slot 5



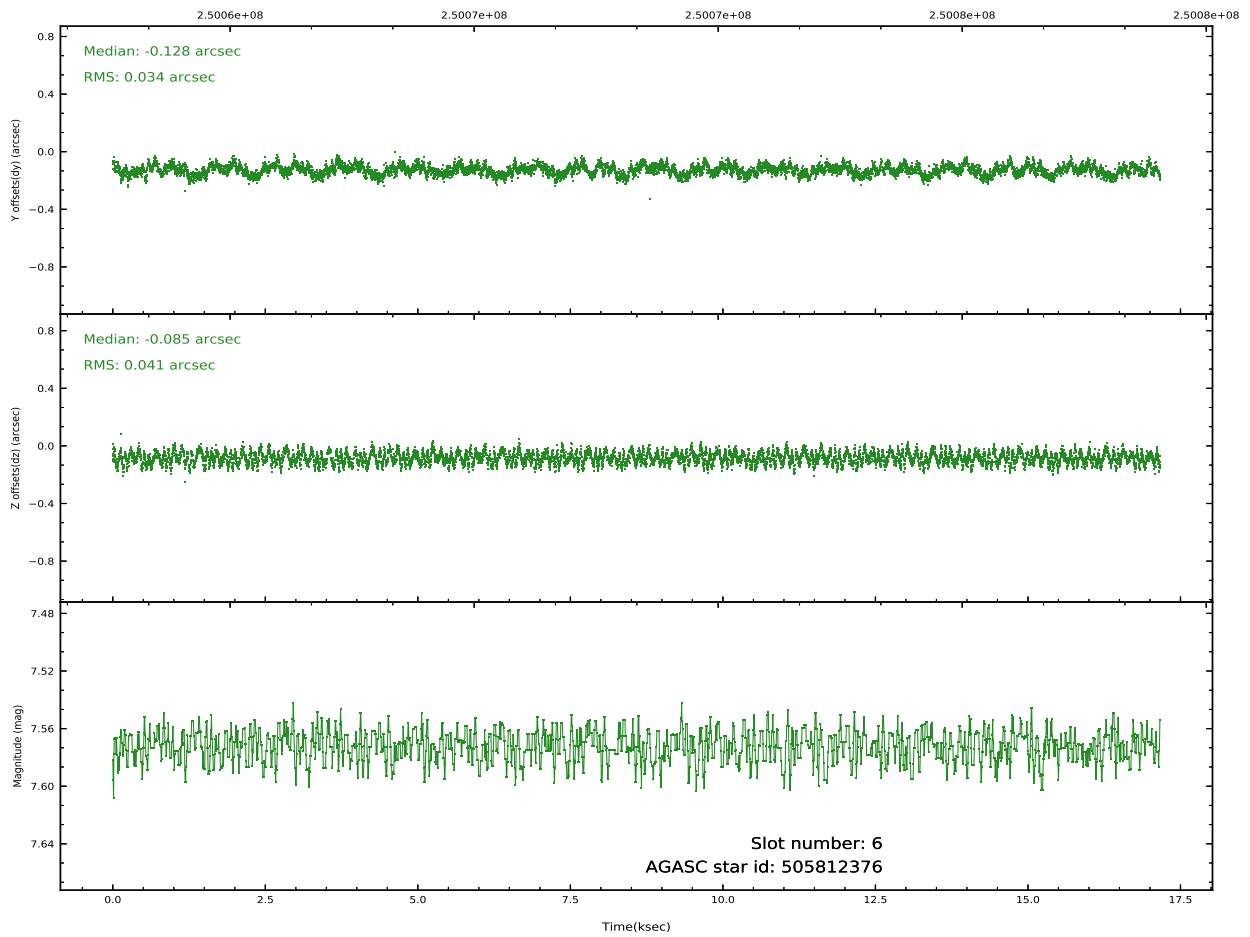
Time (s)



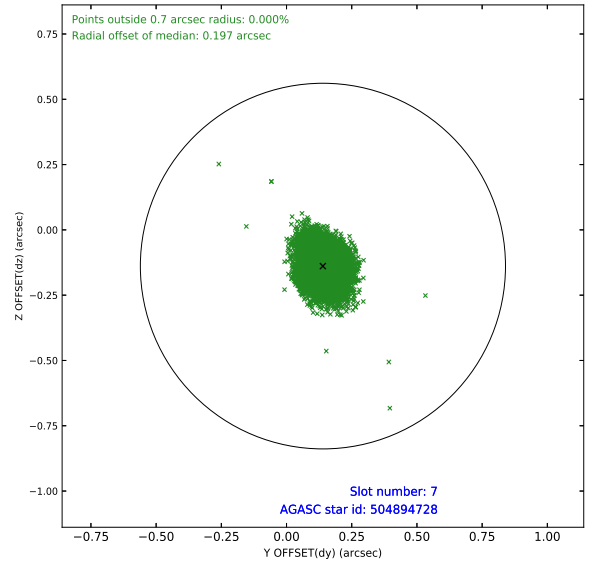
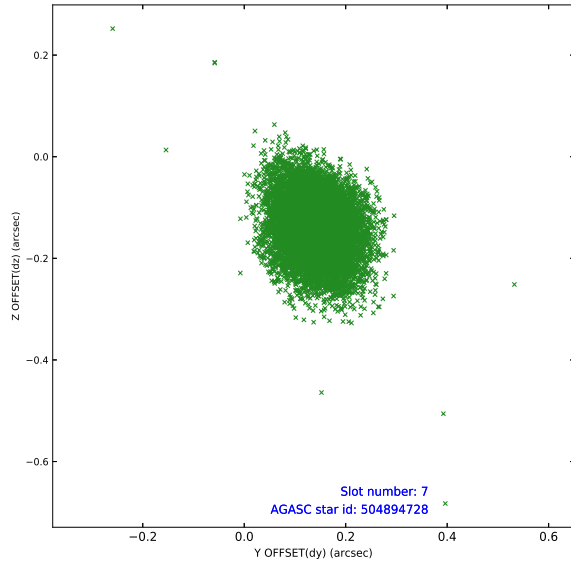
2.4.4 Slot 6



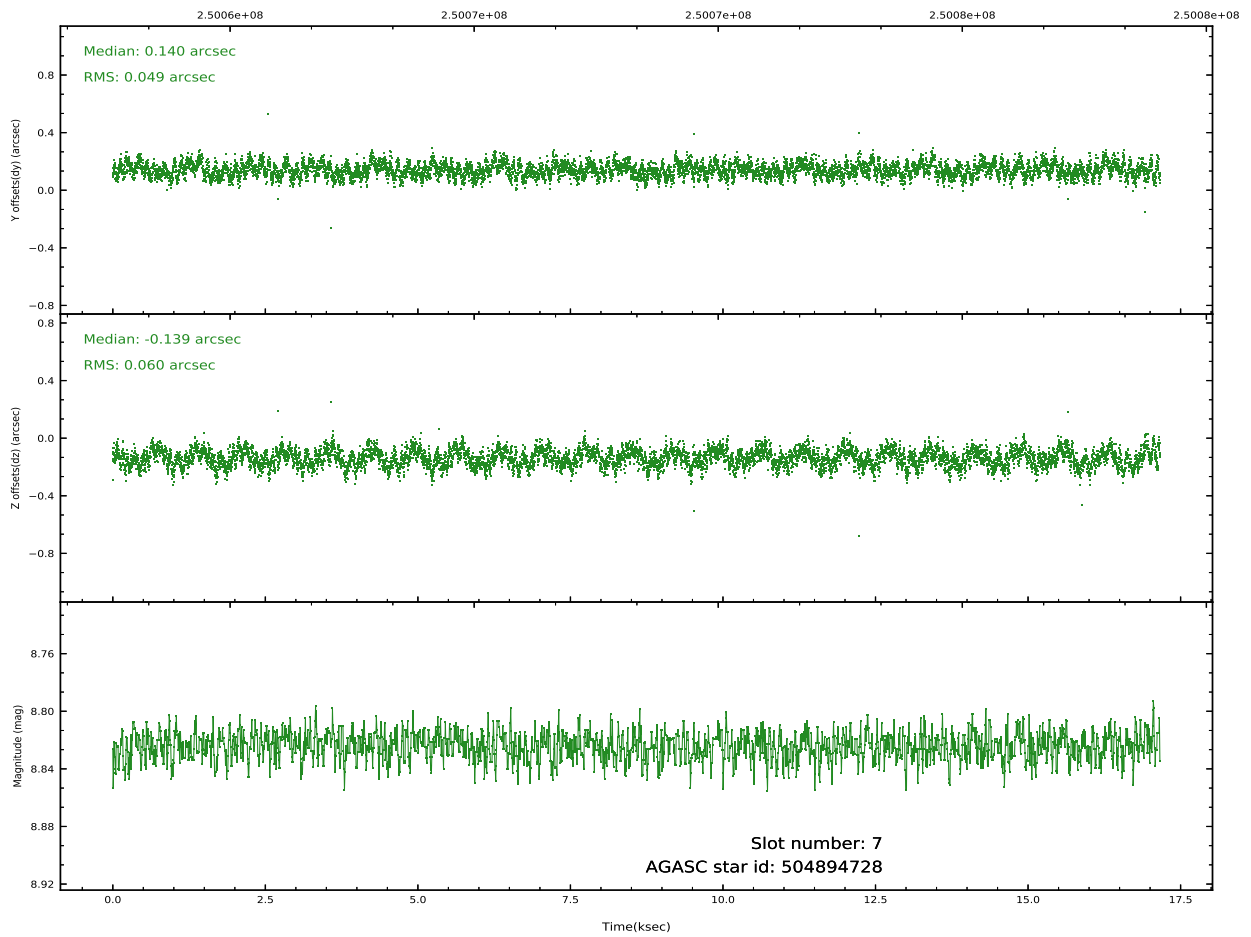
Time (s)



2.4.5 Slot 7

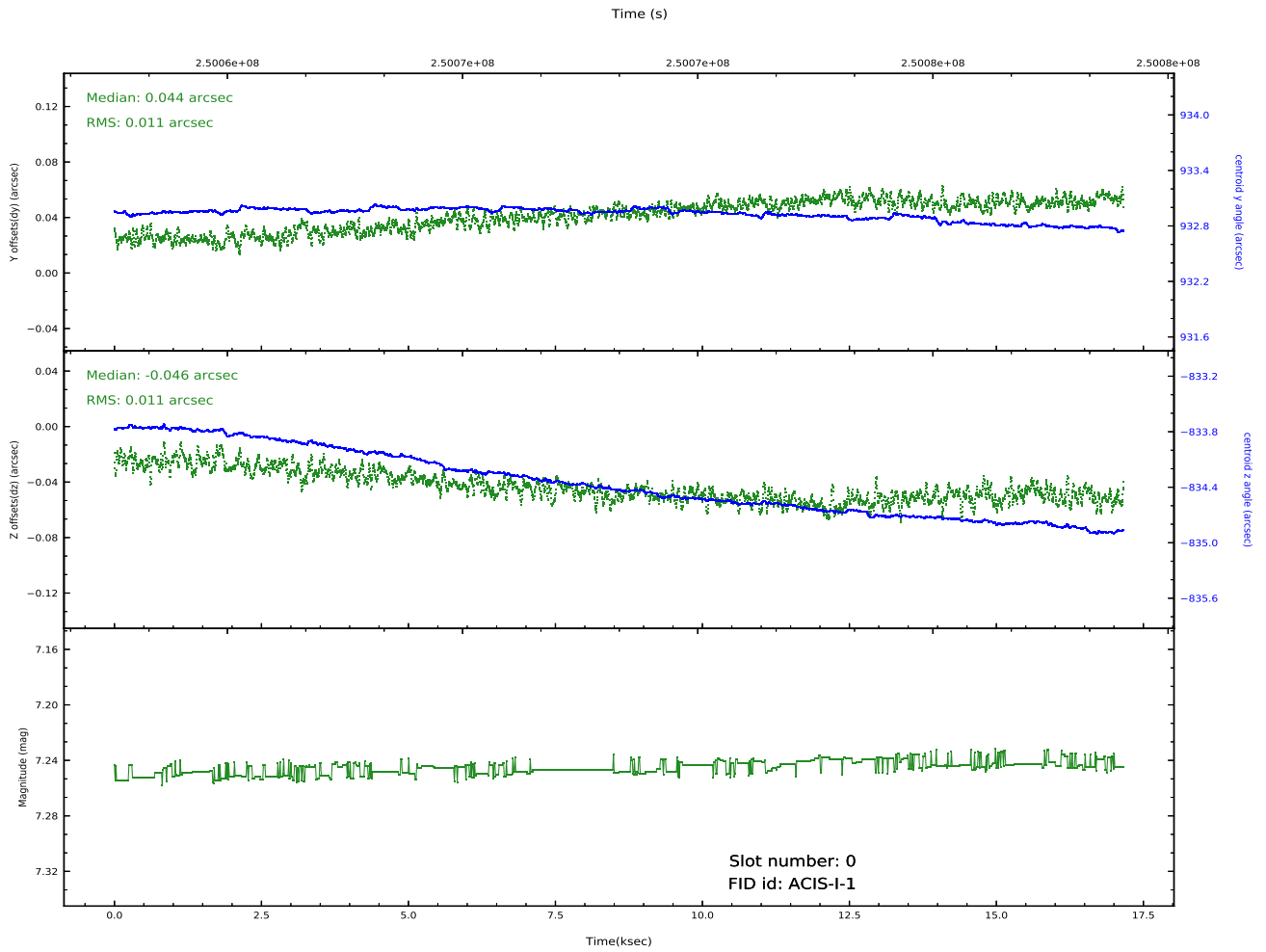
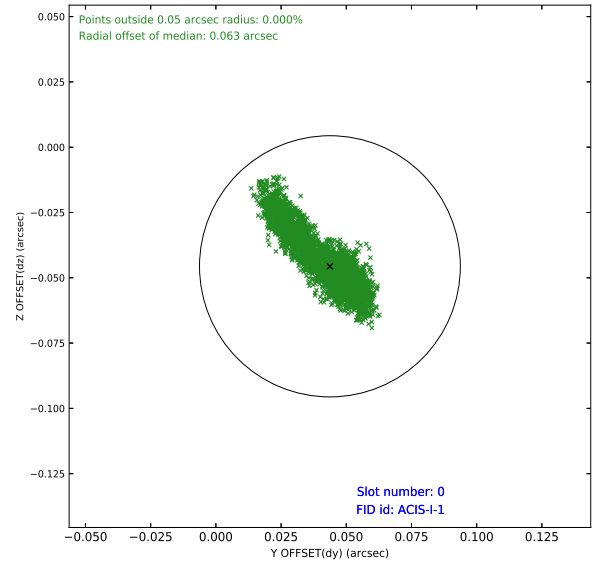
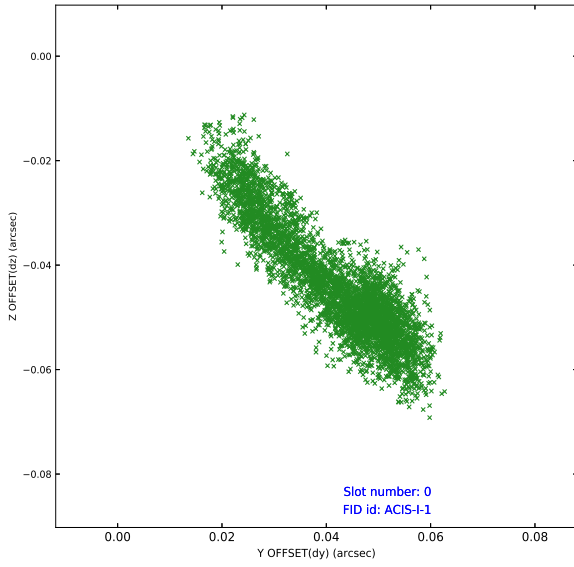


Time (s)

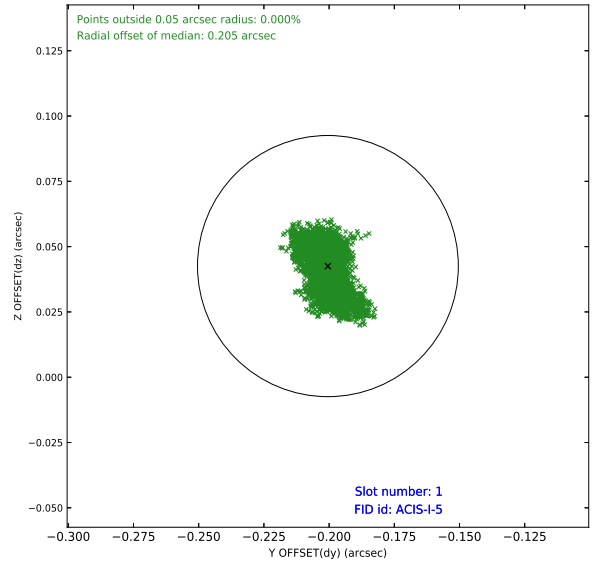
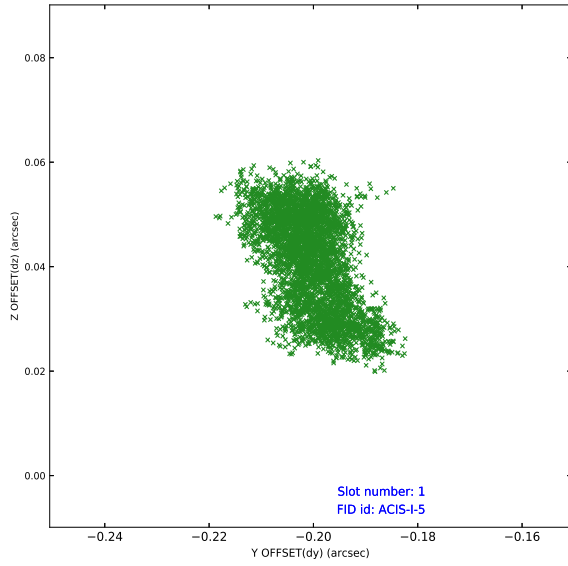


2.5 FID Slots

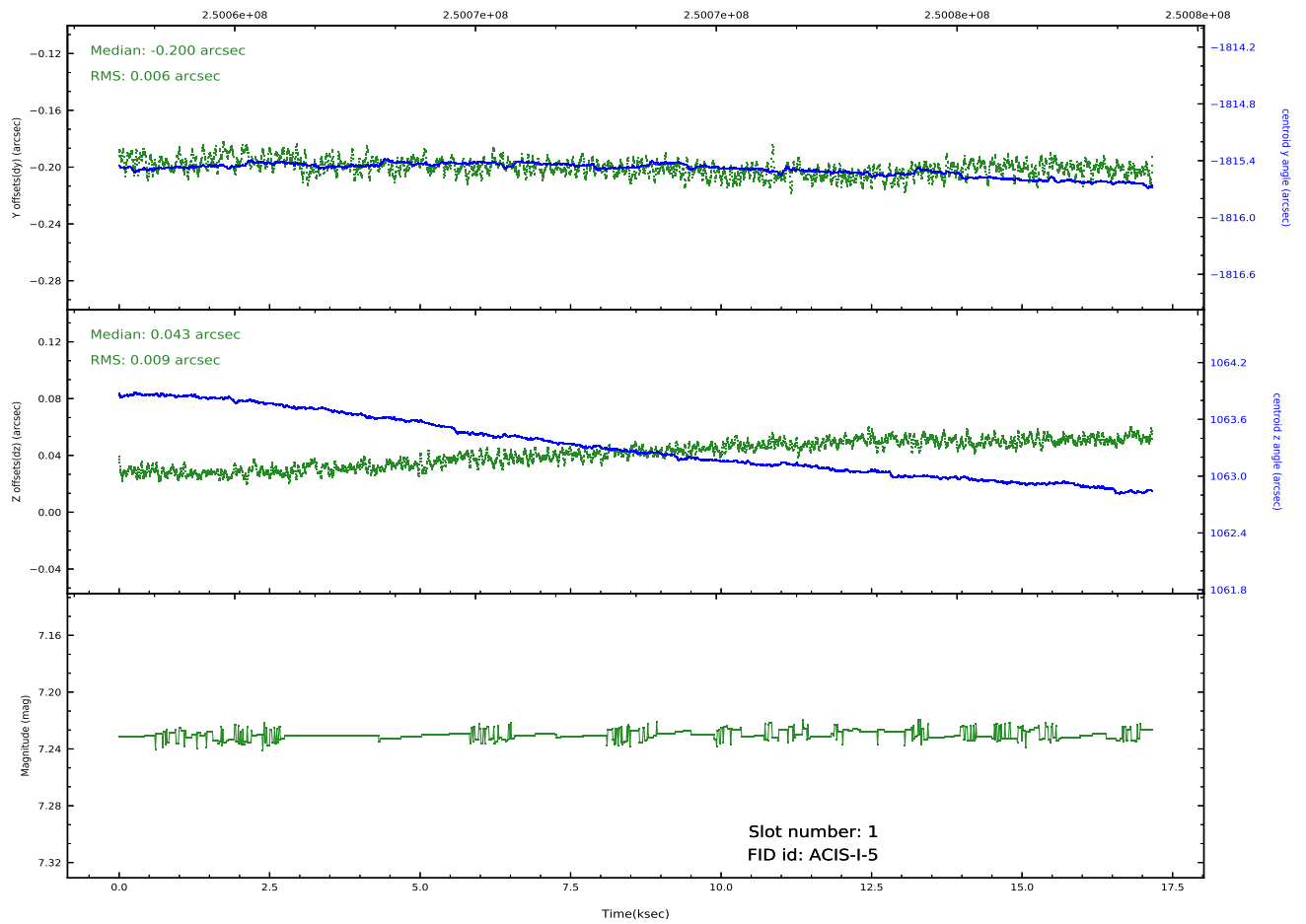
2.5.1 Slot 0



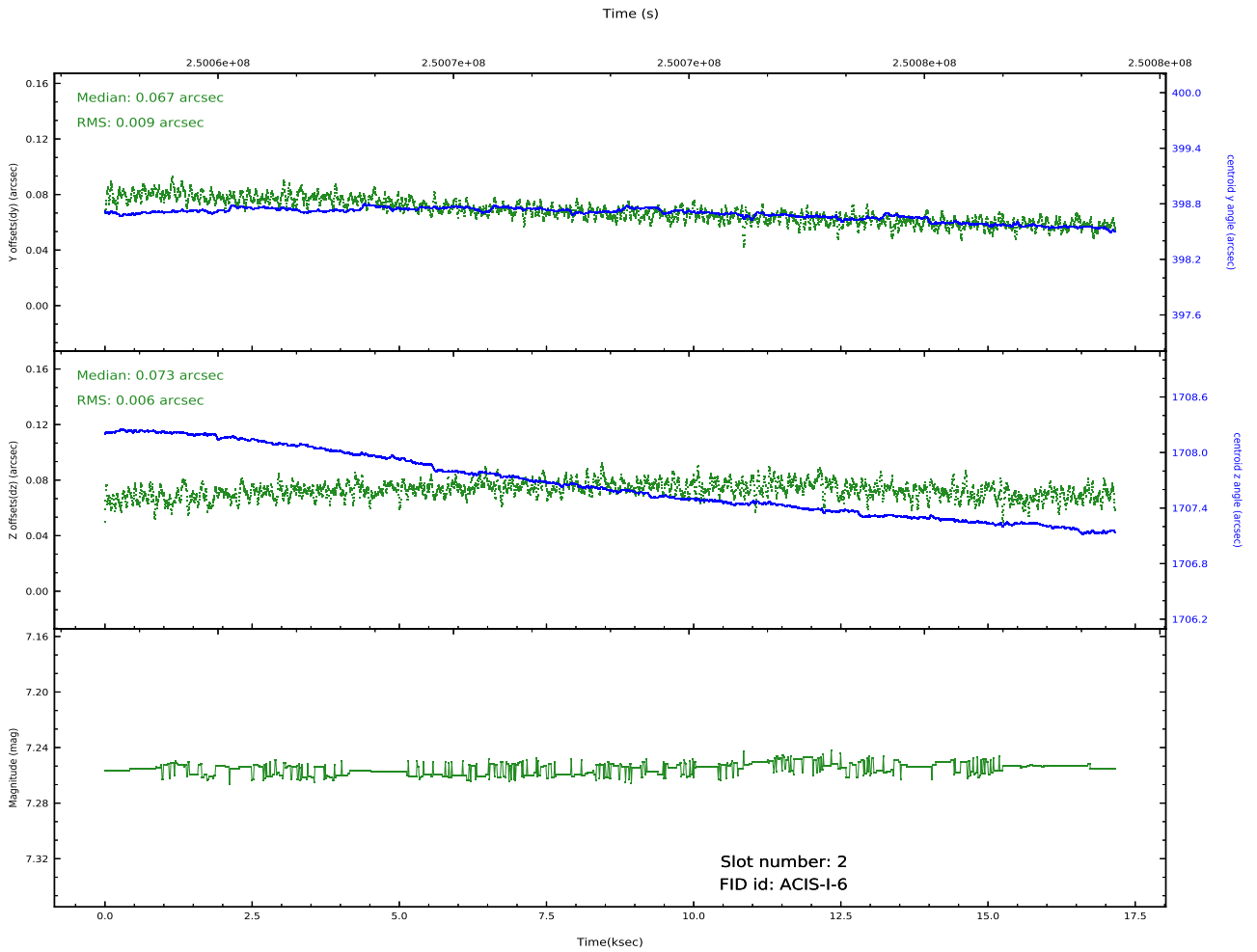
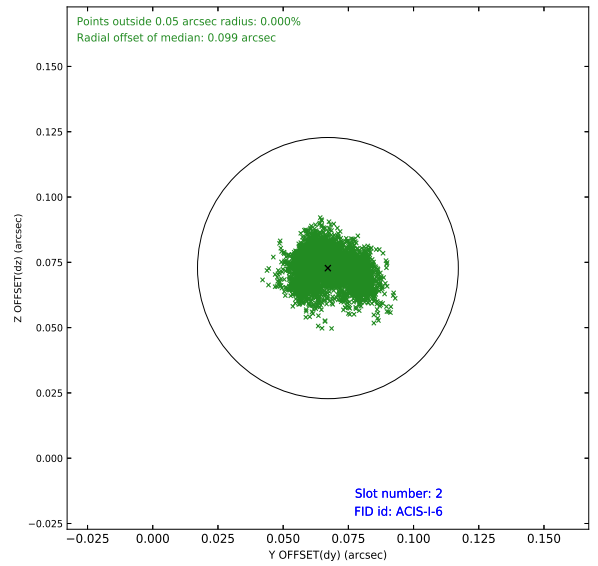
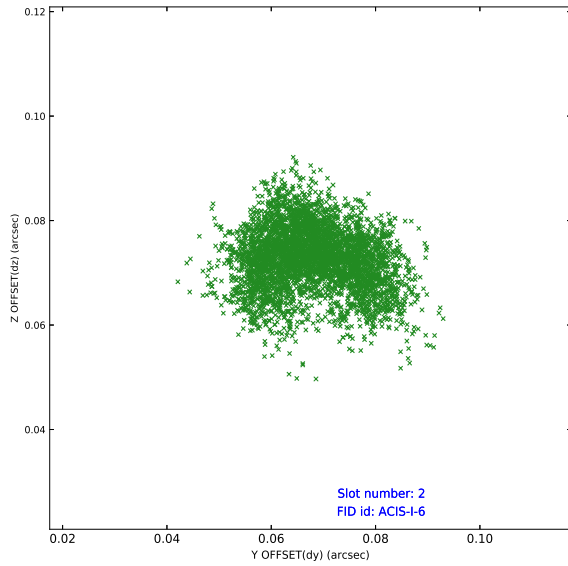
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.15
V&V Edition	1
V&V Disposition and Status	Repr+DD
V&V Charge Time	17.15531

A.2 Comments

Roll constraint met.

=====

The bias map for CCD_ID = 0 suffers from anomalously high bias values in an 'exacto-knife'-shaped area of the bias file. Pixels in the event data that have been bias-corrected by one of the 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_ID = 0 will be recreated to remove this anomaly and the data will be reprocessed.

=====

SAP: please reprocess with the replacement bias for CCD_ID = 0