

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6211 - L2 Version 5
Chandra X-Ray Center

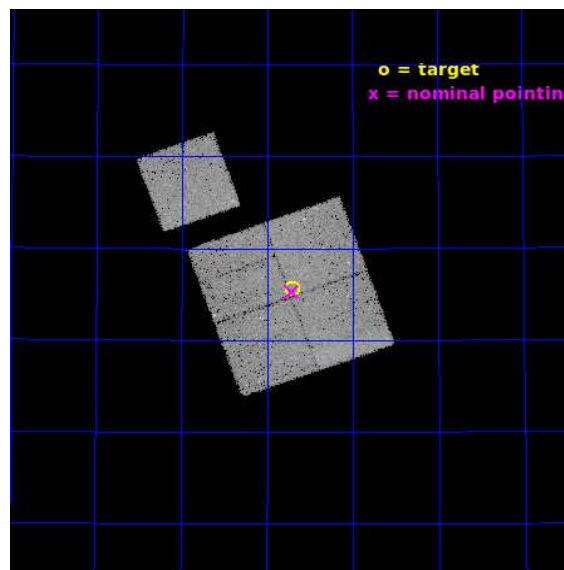
L2 Processing Date : Oct 10 2020

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1 Front

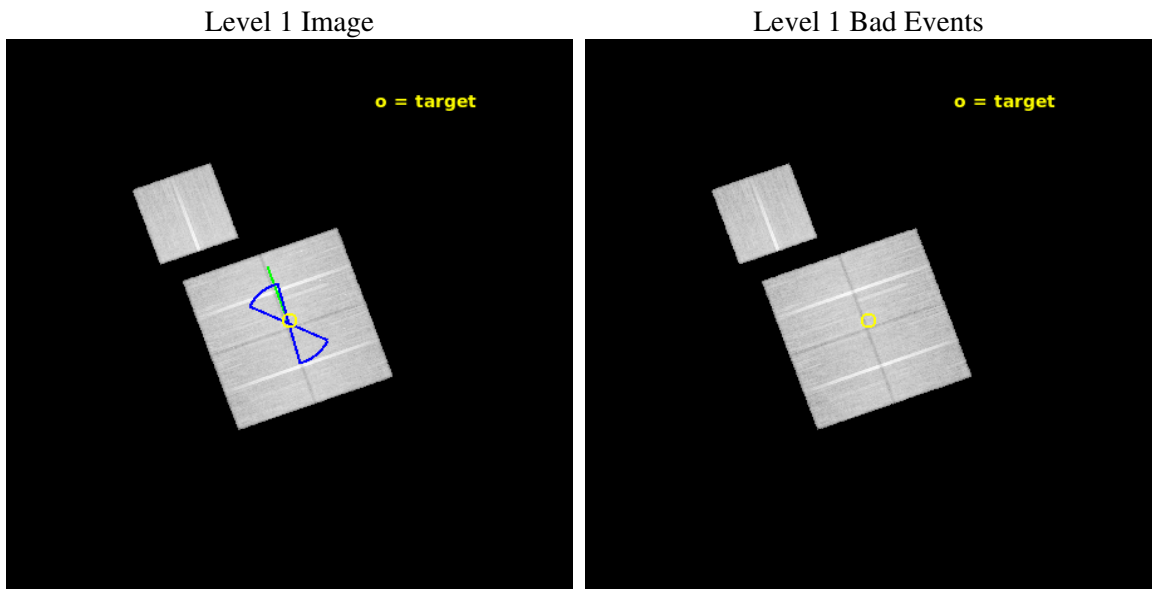
seq_num	900348	Sequence number
obs_id	6211	Observation id
title	Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies	Proposal title
observer	Prof Kirpal Nandra	Principal investigator
object	Extended Groth Strip (EGS)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	215.676254	Observer's specified target RA [deg]
dec_targ	53.427086	Observer's specified target Dec [deg]
ra_nom	215.67730951625	Nominal RA [deg]
dec_nom	53.421584044038	Nominal Dec [deg]
roll_nom	340.19826368147	Nominal Roll [deg]
revision	5	Processing version of data
ontime	36114.877019763	Sum of GTIs [s]
livetime	35643.009564114	Livetime [s]
ontime0	36124.299930513	Sum of GTIs [s]
ontime1	36114.877029717	Sum of GTIs [s]
ontime2	36121.158960283	Sum of GTIs [s]
ontime3	36114.877019763	Sum of GTIs [s]
ontime6	36121.158960283	Sum of GTIs [s]
l2events	94083	Number of level 2 events



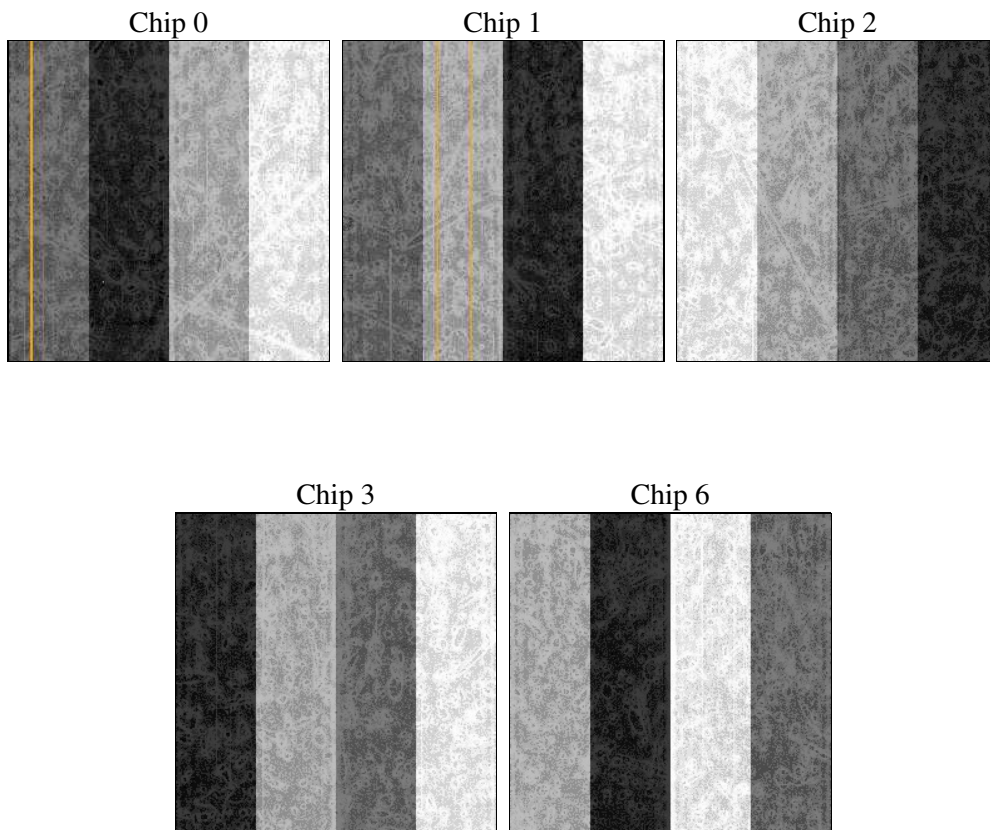
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	36114.877019763	Sum of GTIs [s]
caldbver	4.9.2	 	ontime0	36124.299930513	Sum of GTIs [s]
date	2020-10-11T02:13:26	Date and time of file creation	ontime1	36114.877029717	Sum of GTIs [s]
revision	5	Processing version of data	ontime2	36121.158960283	Sum of GTIs [s]
			ontime3	36114.877019763	Sum of GTIs [s]
			ontime6	36121.158960283	Sum of GTIs [s]
			l1events	1137951	Number of level 1 events

2.1.4 Events

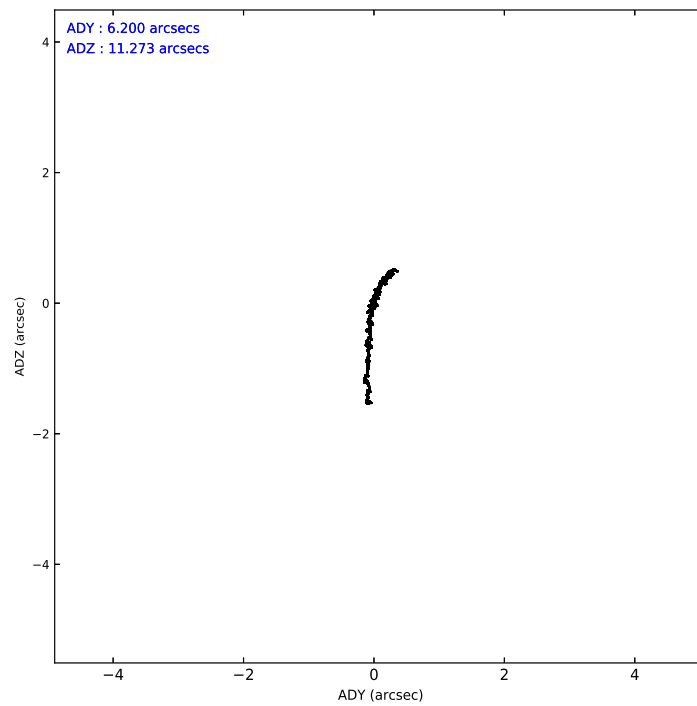
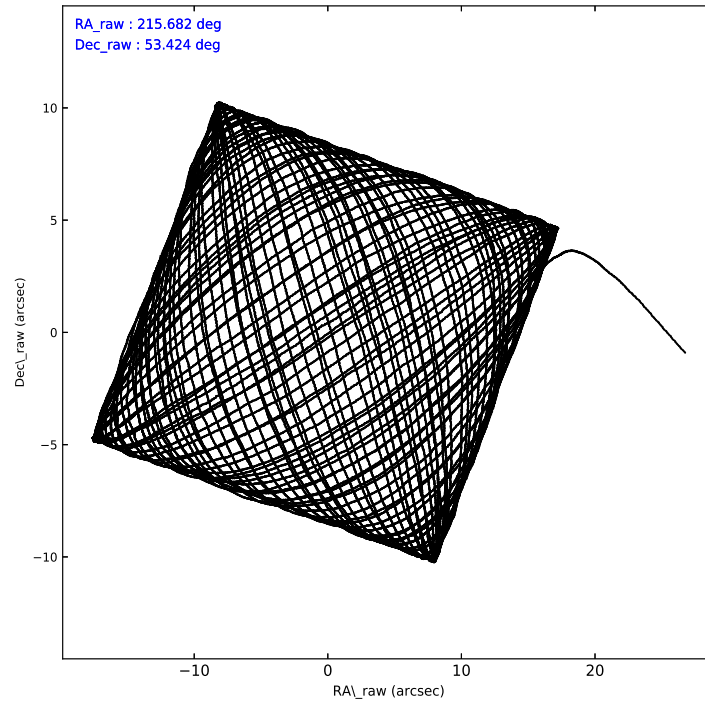
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	217781	216167	241763	231096	231144
rejected events	195390	191028	219818	209357	208279
rejected %	89%	88%	90%	90%	90%

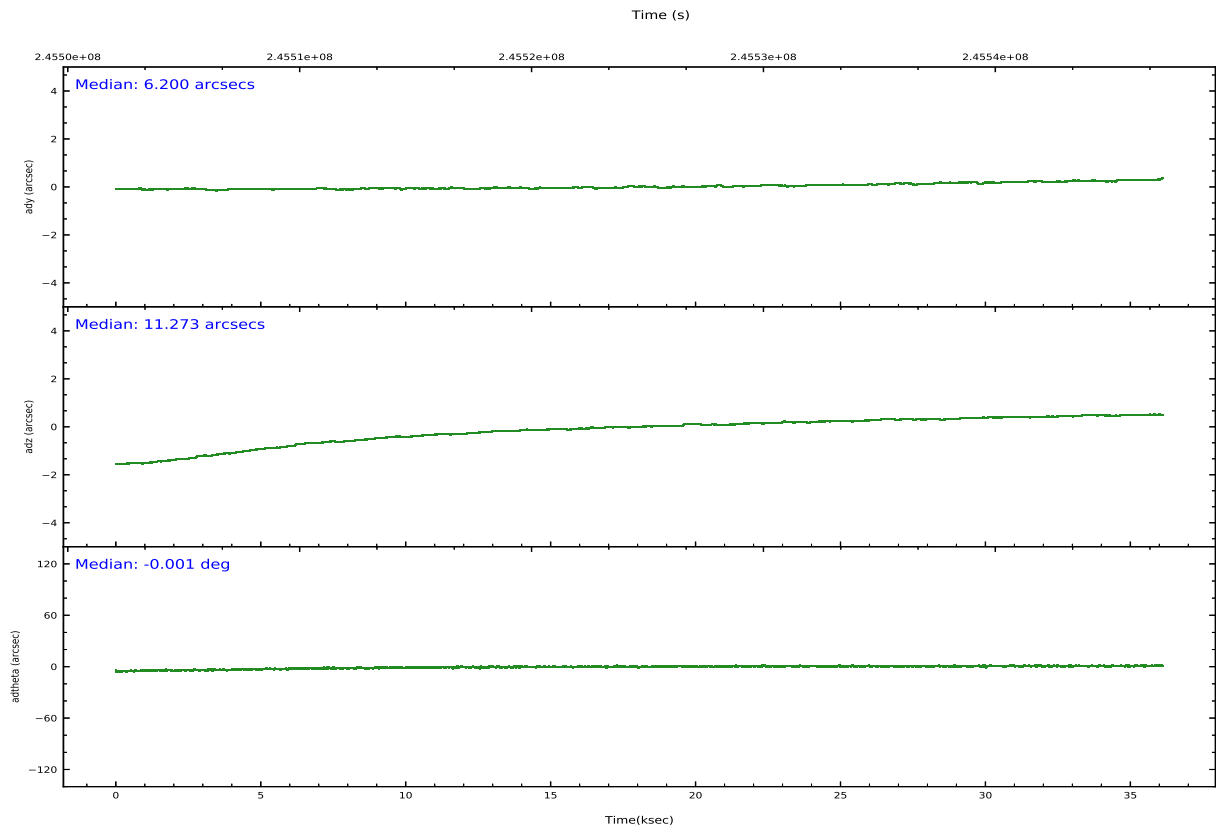
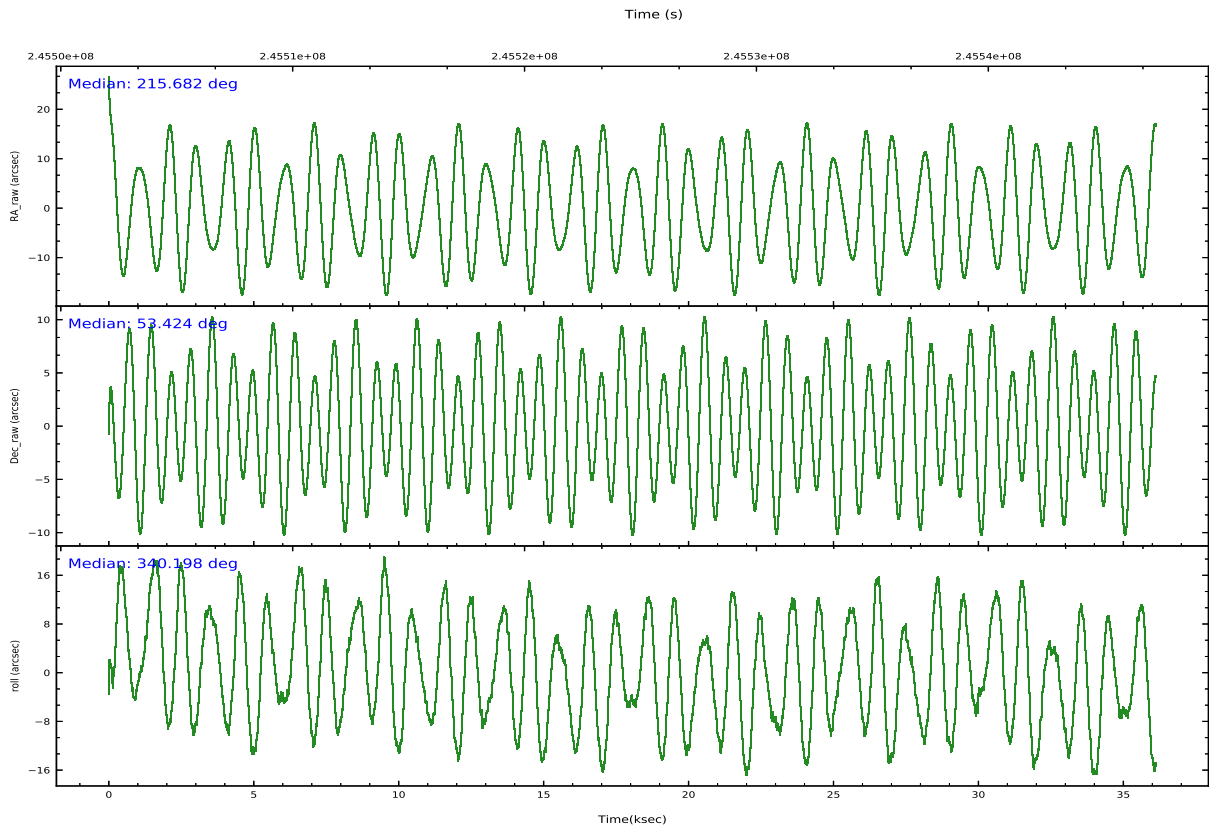
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	7850	8856	7824	7706	7890
	3%	4%	3%	3%	3%
grade 1 events	120	87	120	118	106
	0%	0%	0%	0%	0%
grade 2 events	5455	5727	5328	4838	5026
	2%	2%	2%	2%	2%
grade 3 events	2574	2854	2472	2594	2592
	1%	1%	1%	1%	1%
grade 4 events	2392	2827	2450	2433	2609
	1%	1%	1%	1%	1%
grade 5 events	8026	8714	7540	9436	9217
	3%	4%	3%	4%	3%
grade 6 events	4373	5190	4132	4443	5015
	2%	2%	1%	1%	2%
grade 7 events	186991	181912	211897	199528	198689
	85%	84%	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	215.636785	215.67730951625	Subarray requested	NONE	NONE
[deg] Pointing Dec	53.418971	53.421584044038	Alternating exposures requested	N	N
[deg] Pointing Roll	340.031691	340.19826368147	[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)	245505788.184000	245504608.71967			
Observation start date	2005-10-12T12:02:04	2005-10-12T11:43:28			
[s] Observation end time (MET)	245541788.184000	245542725.39643			
Observation end date	2005-10-12T22:02:04	2005-10-12T22:18:45			
Read mode	TIMED	TIMED			

2.3 Aspect



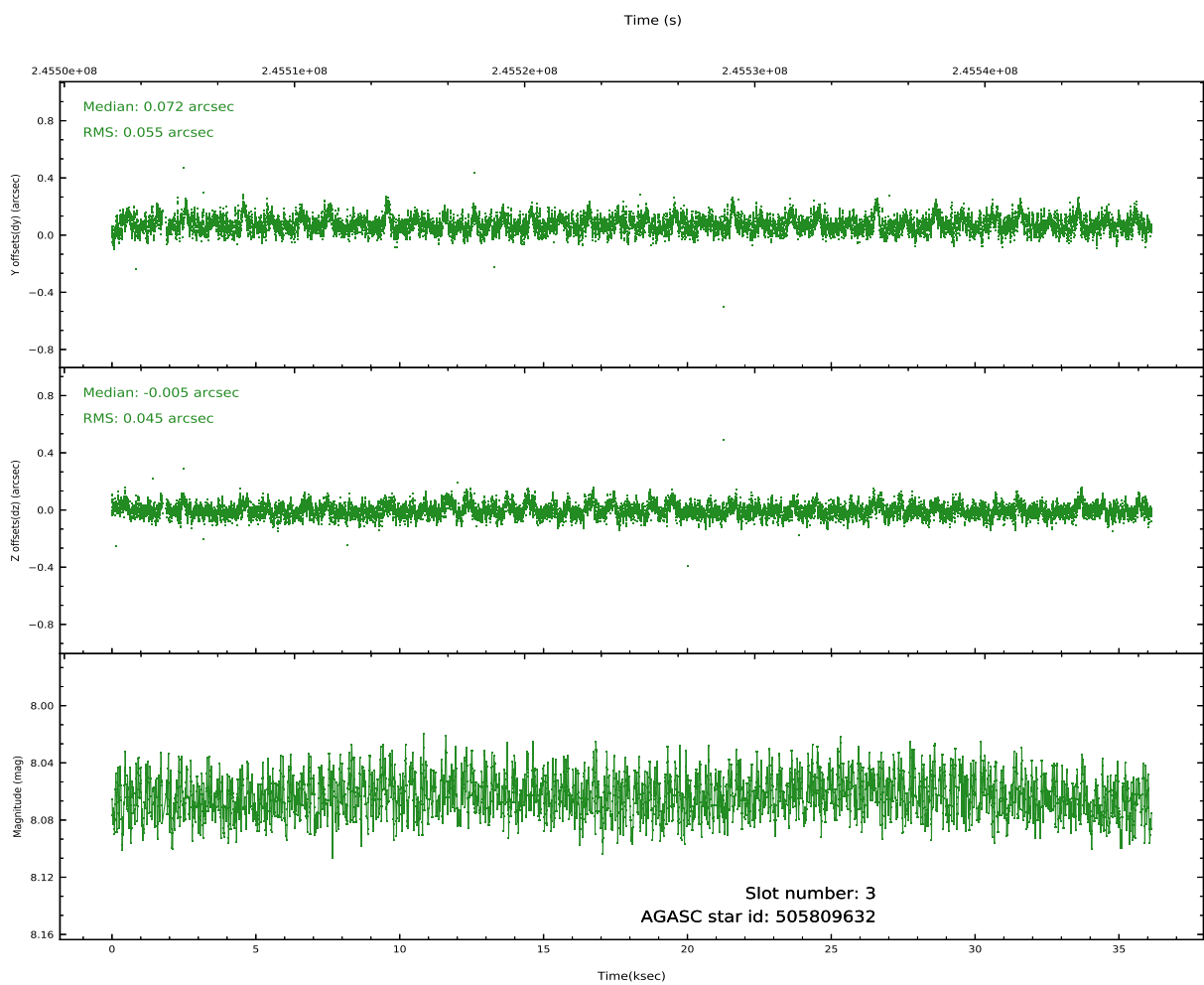
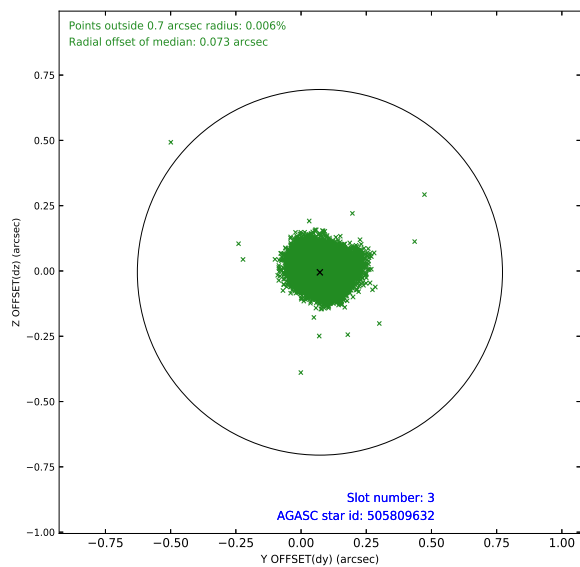
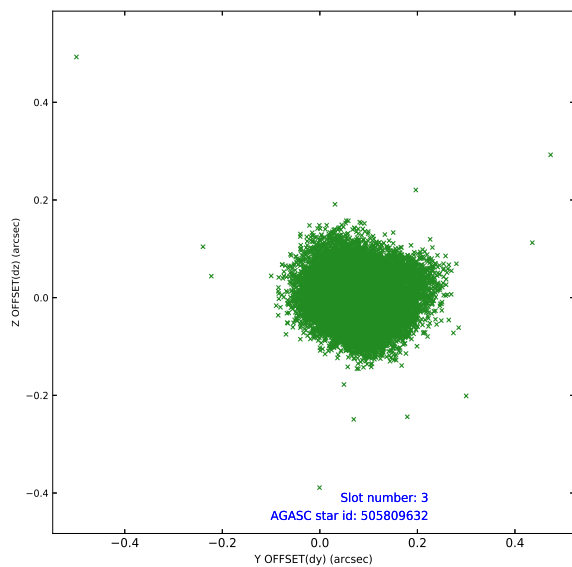


Slot Statistics

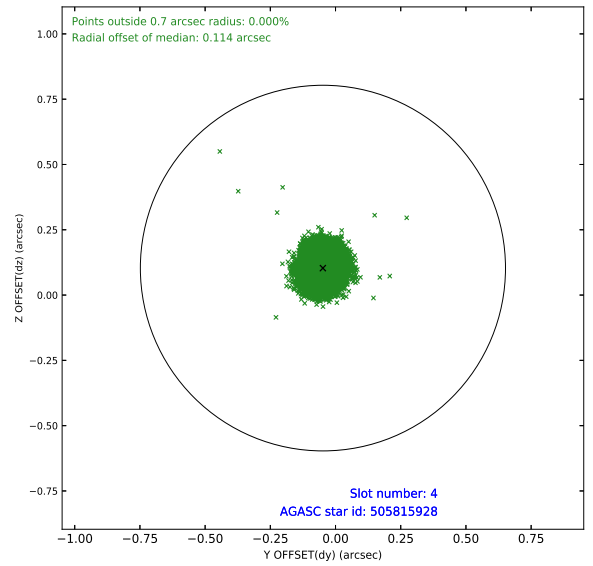
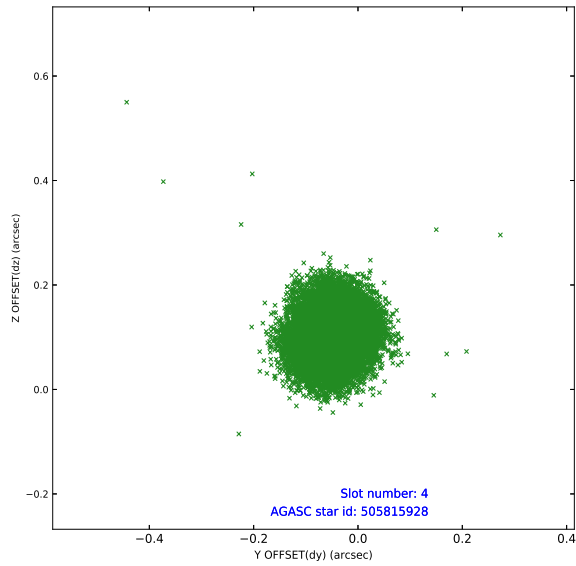
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-I-1	7.24	8811	1.000	0.053	-0.049	0.013	0.053	0.000000	0.000000	933.50	-834
1	FID		ACIS-I-5	7.23	8810	1.000	-0.199	0.053	0.013	0.030	0.000000	0.000000	-1814.80	1062
2	FID		ACIS-I-6	7.25	8813	1.000	0.056	0.067	0.014	0.033	0.000000	0.000000	399.06	1707
3	GUIDE	used	505809632	8.06	17555	1.000	0.072	-0.005	0.075	0.124	215.499426	53.521185	-401.82	245
4	GUIDE	used	505815928	8.34	17618	1.000	-0.048	0.103	0.063	0.098	216.234742	53.074559	1637.30	-718
5	GUIDE	used	505817176	8.25	17623	1.000	-0.044	0.041	0.061	0.101	216.408138	53.717379	1174.41	1579
6	GUIDE	used	505815088	7.28	17622	1.000	-0.017	0.000	0.054	0.090	216.315963	53.584954	1158.51	1063
7	GUIDE	used	505816088	10.41	17606	1.000	0.036	-0.142	0.188	0.333	216.276680	52.548591	2385.28	-2460

2.4 Star Slots

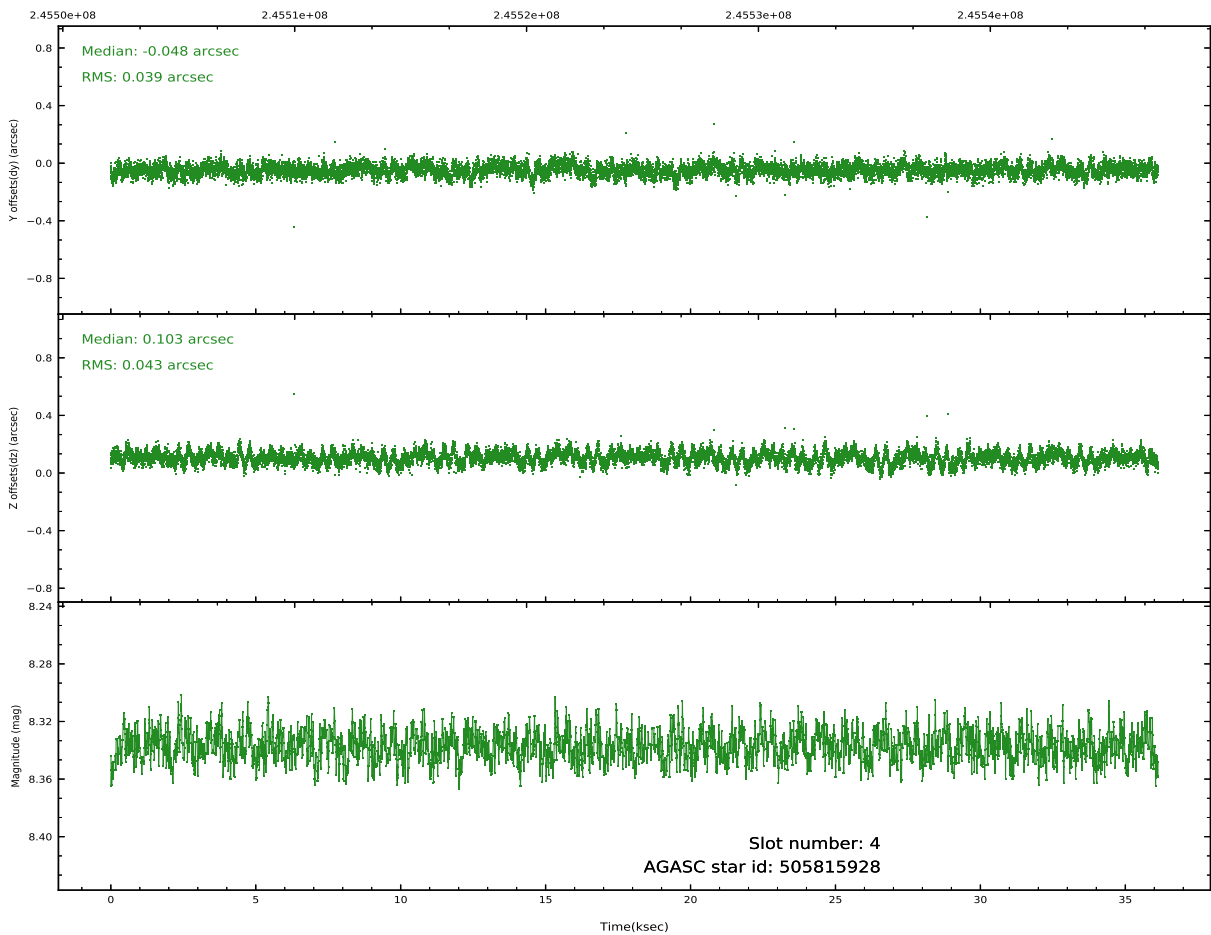
2.4.1 Slot 3



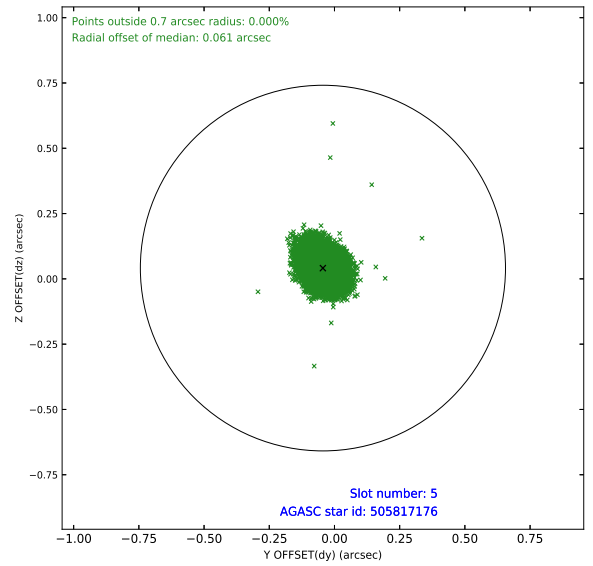
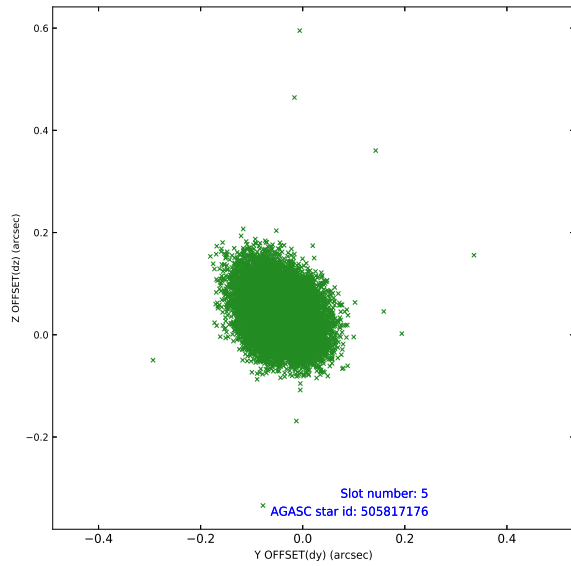
2.4.2 Slot 4



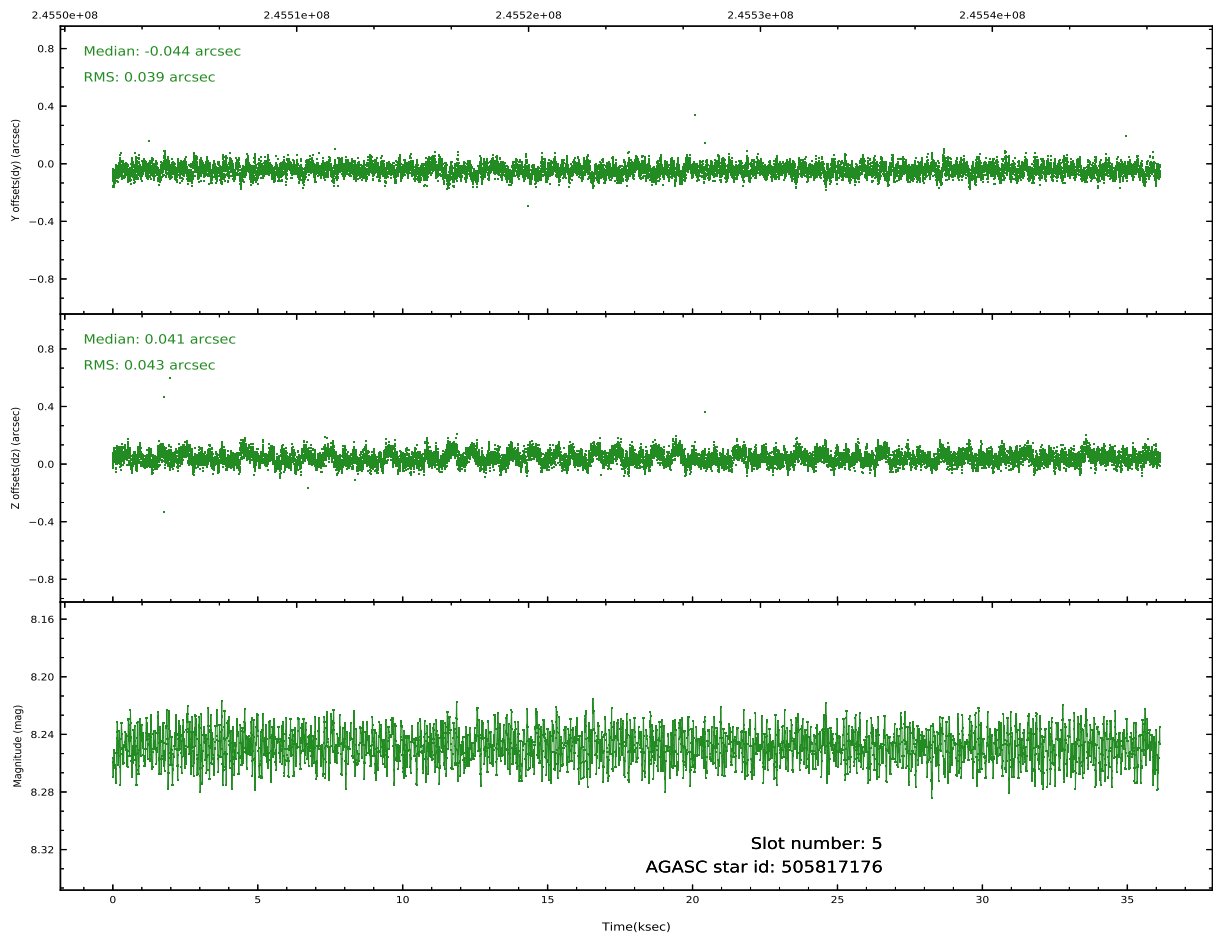
Time (s)



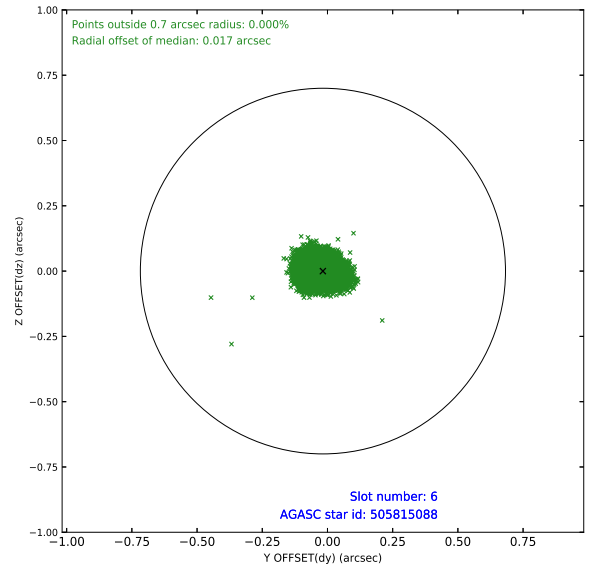
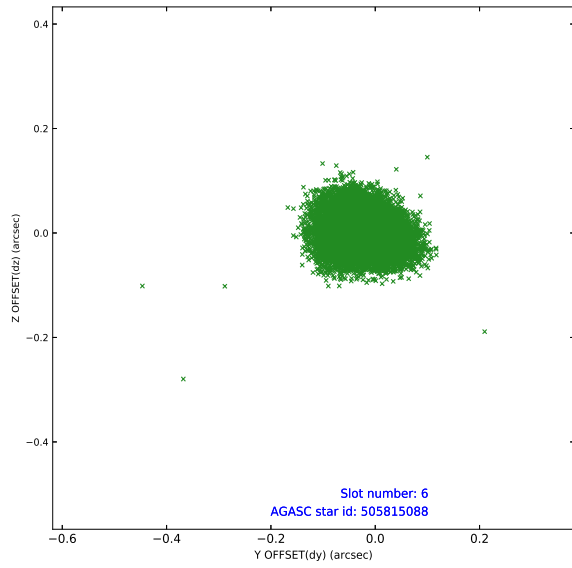
2.4.3 Slot 5



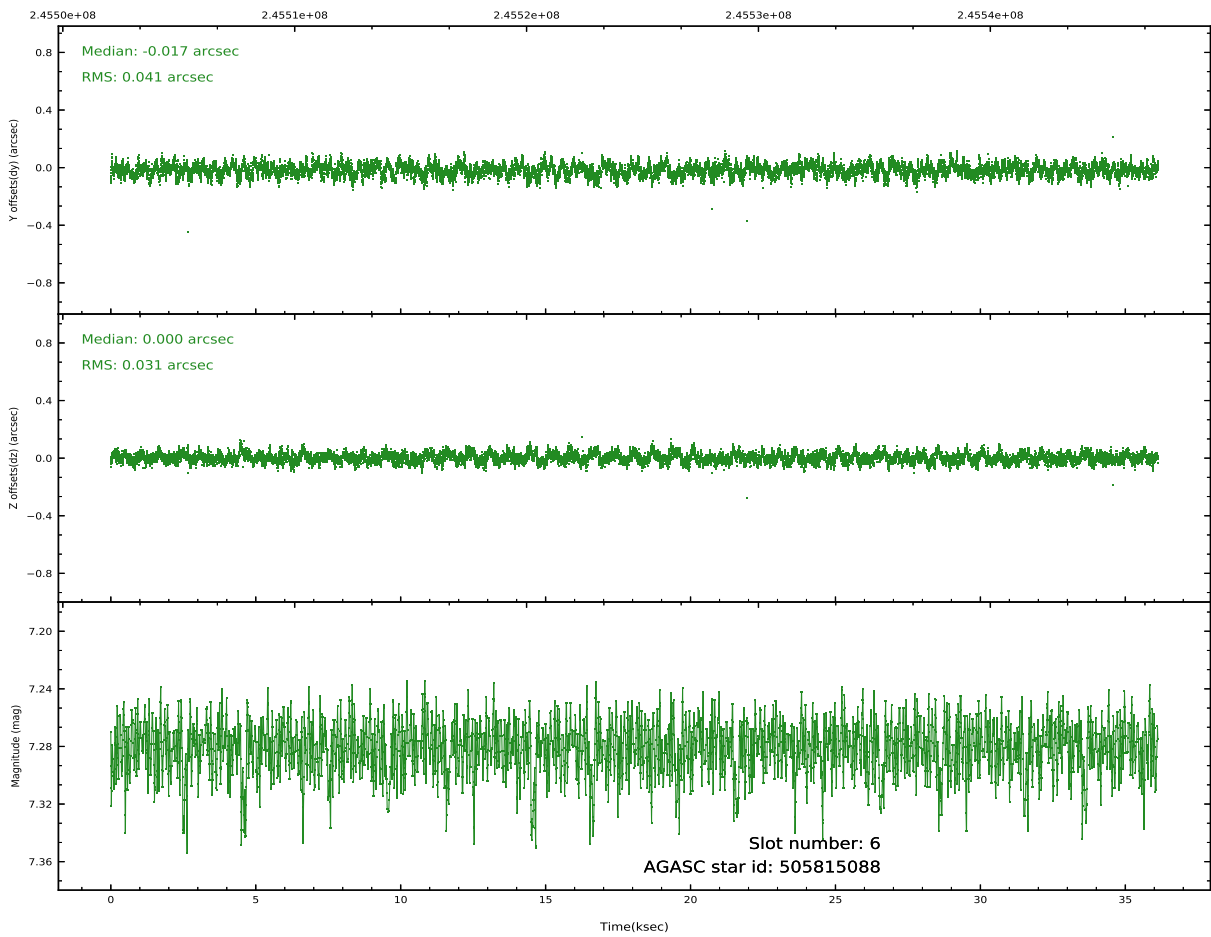
Time (s)



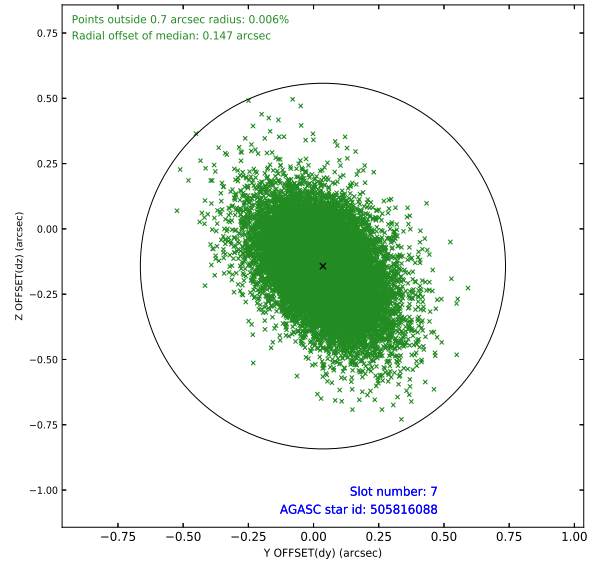
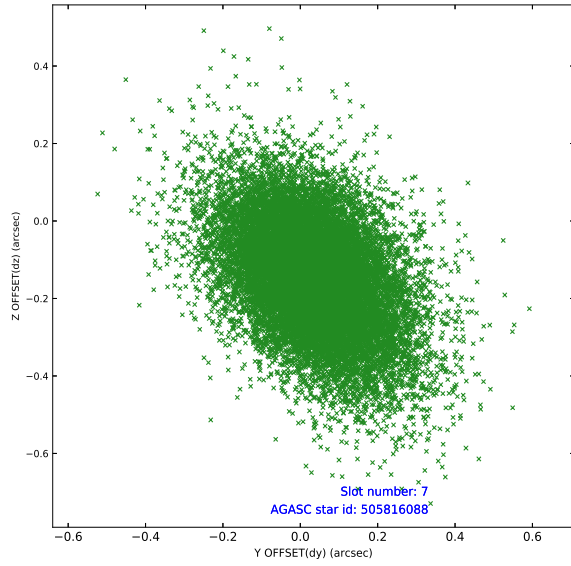
2.4.4 Slot 6



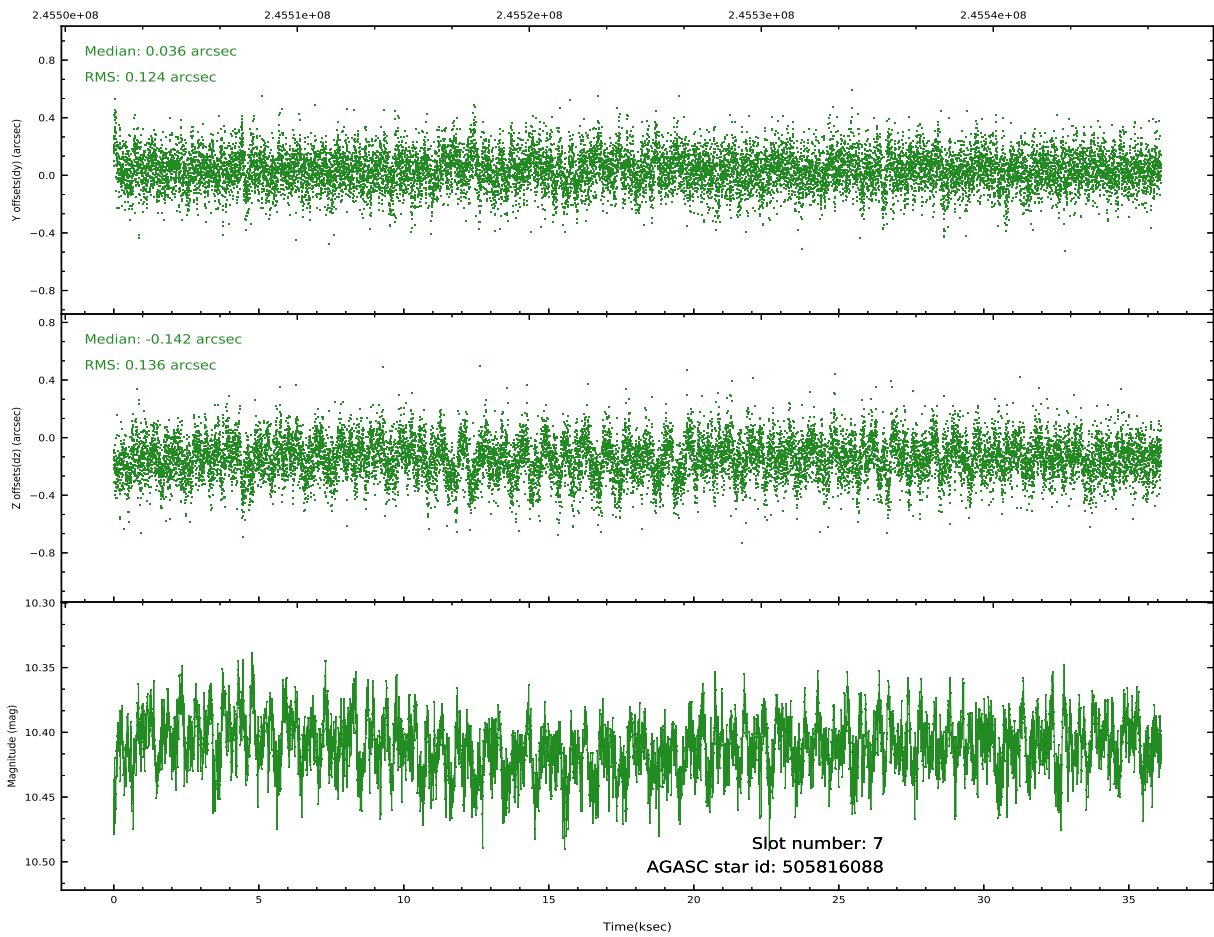
Time (s)



2.4.5 Slot 7

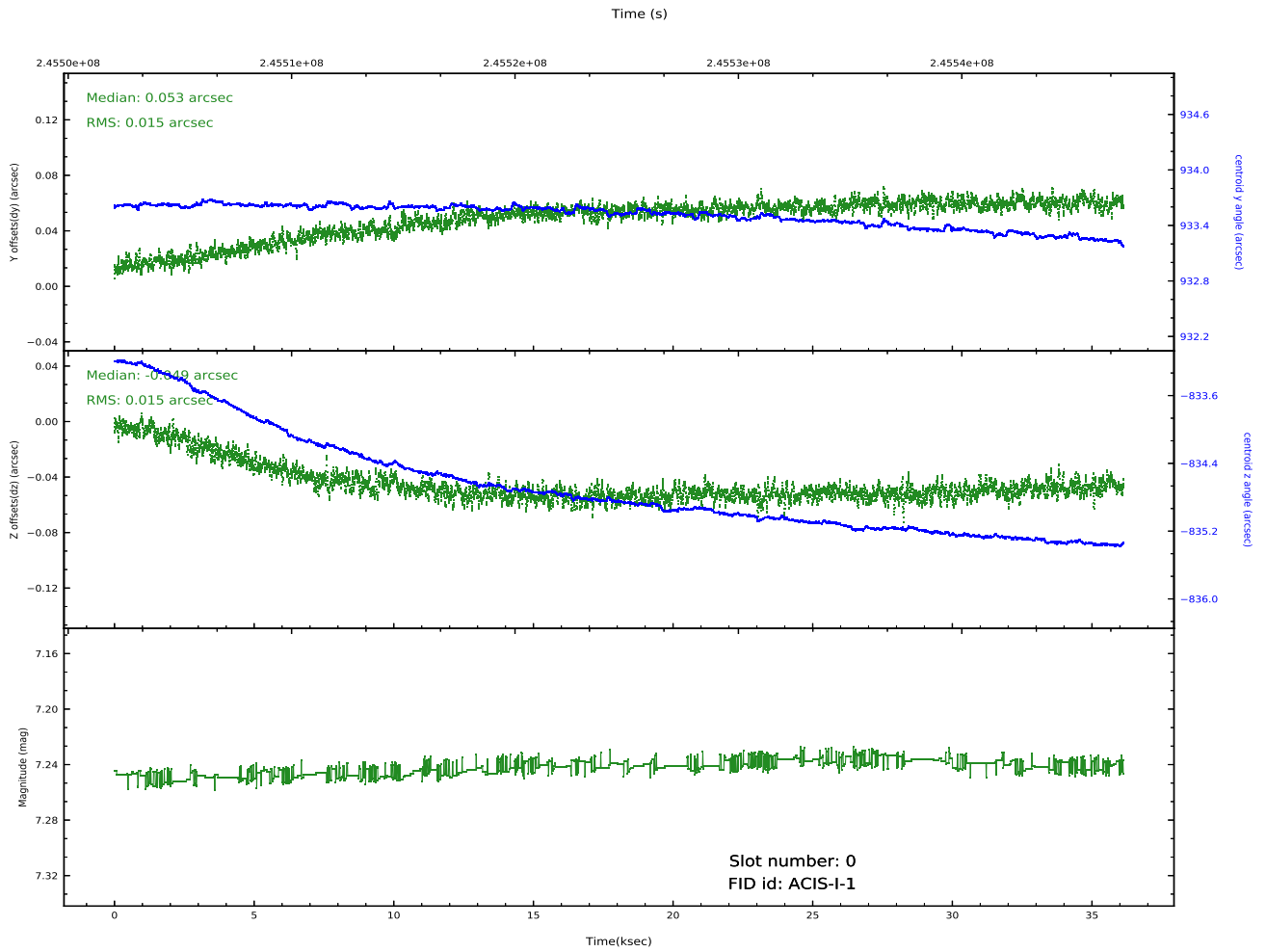
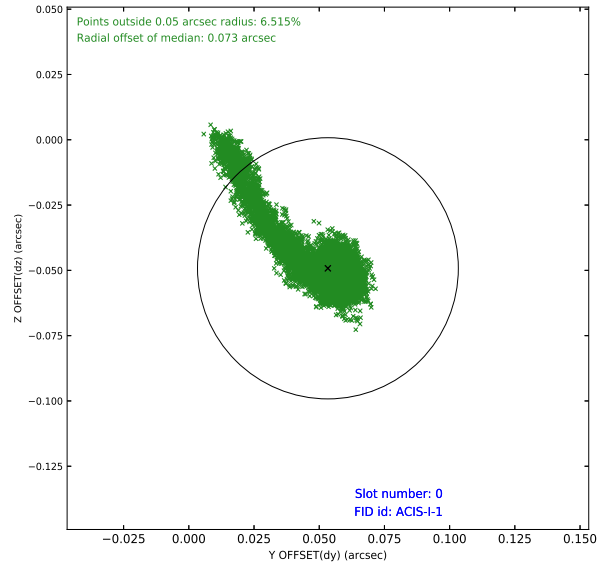
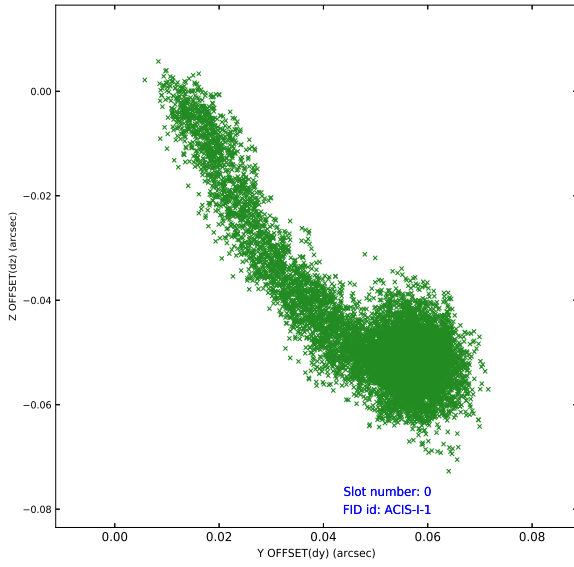


Time (s)

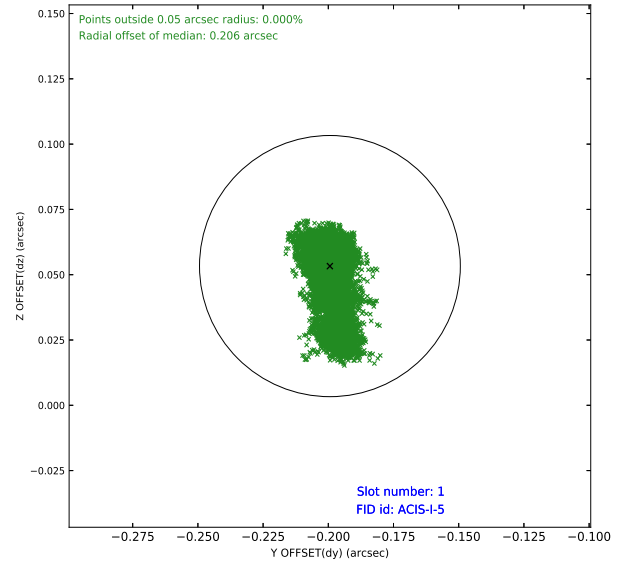
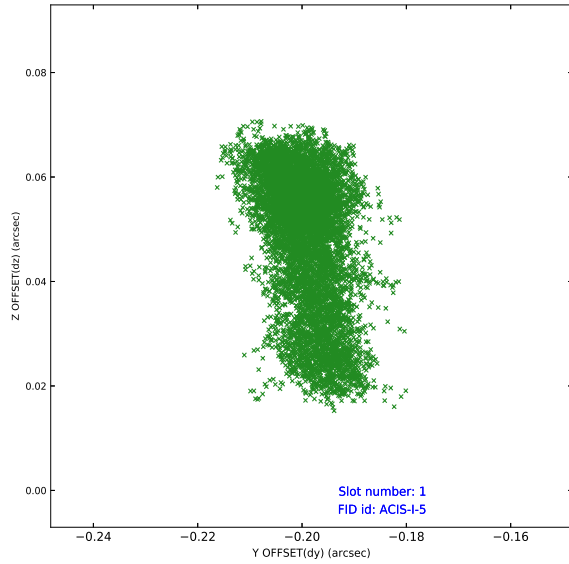


2.5 FID Slots

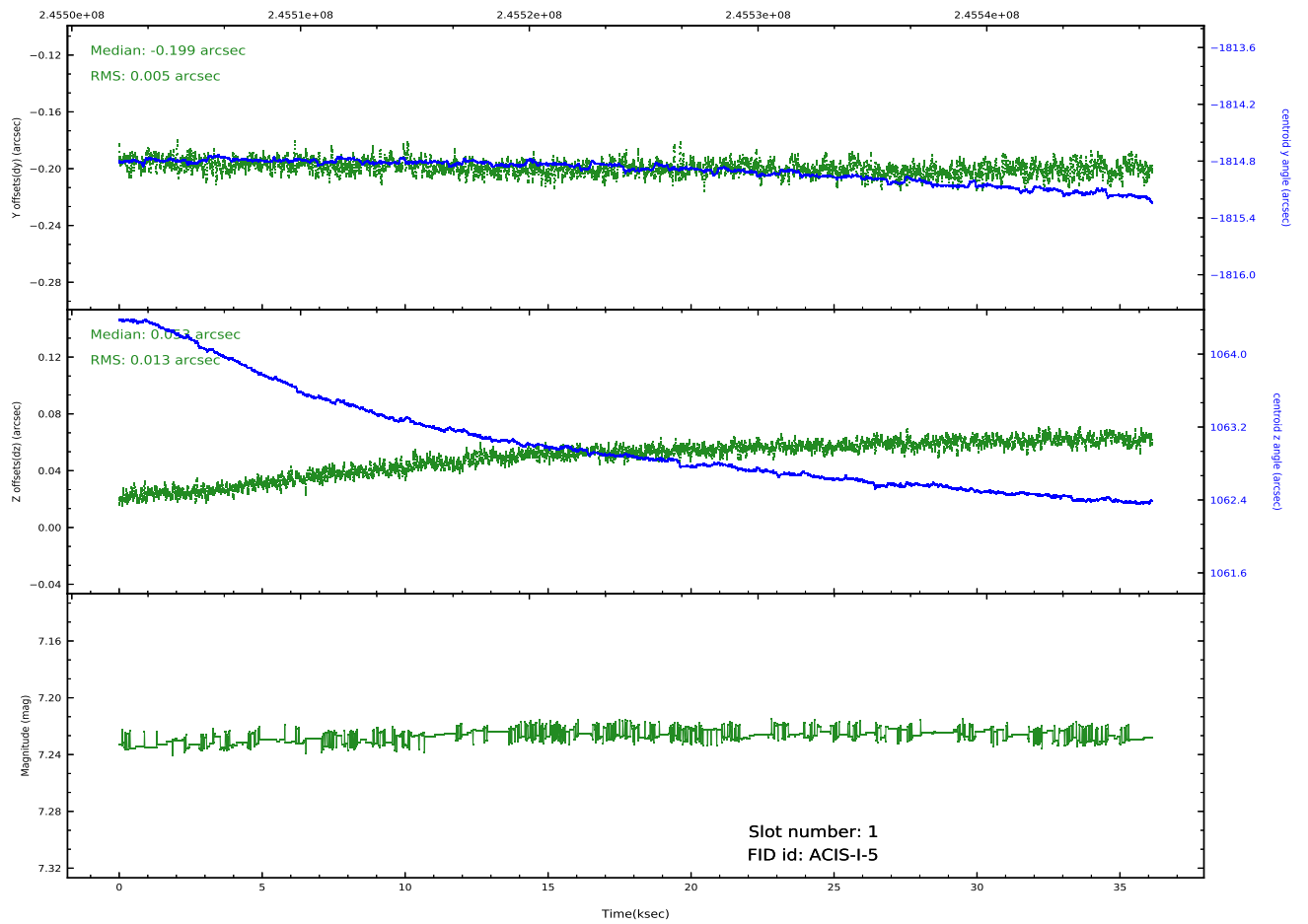
2.5.1 Slot 0



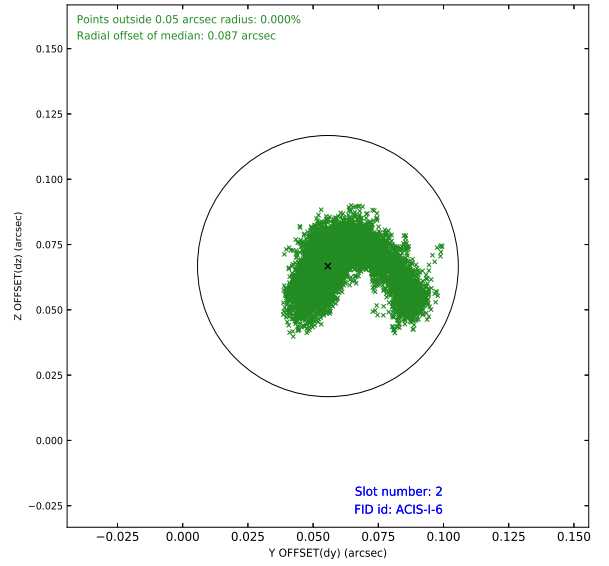
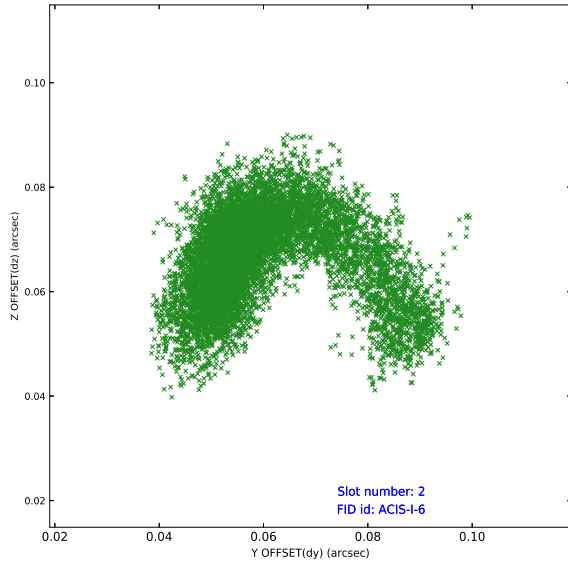
2.5.2 Slot 1



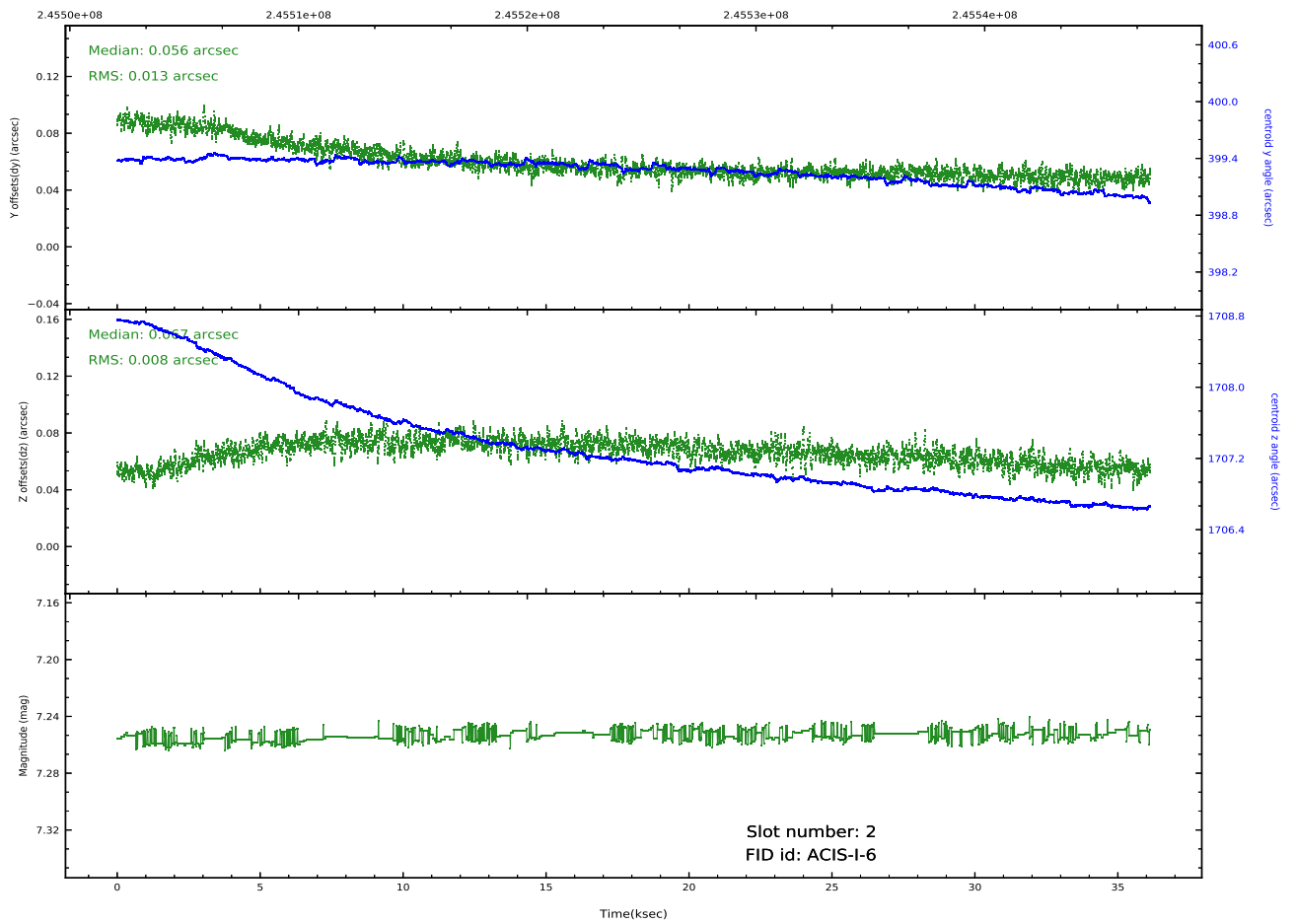
Time (s)



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.11487

A.2 Comments

As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY258), the reported value of the ACIS FP temperature was ~1.3 degrees warmer than the actual temperature. The value for FP temperature reported in the headers of the Level 2 event file and the Mission Timeline files ARE INCORRECT by this amount for this processing. However, the temperature is corrected in the processing in order to obtain the correct temperature for the CTI correction. So the calibrated data are correct.

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Roll constraint was met.