

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19037 - L2 Version 2
Chandra X-Ray Center

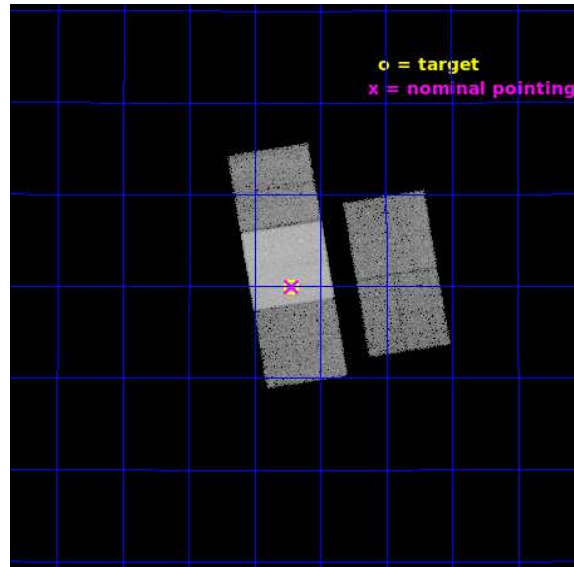
L2 Processing Date : Oct 26 2020

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1 Front

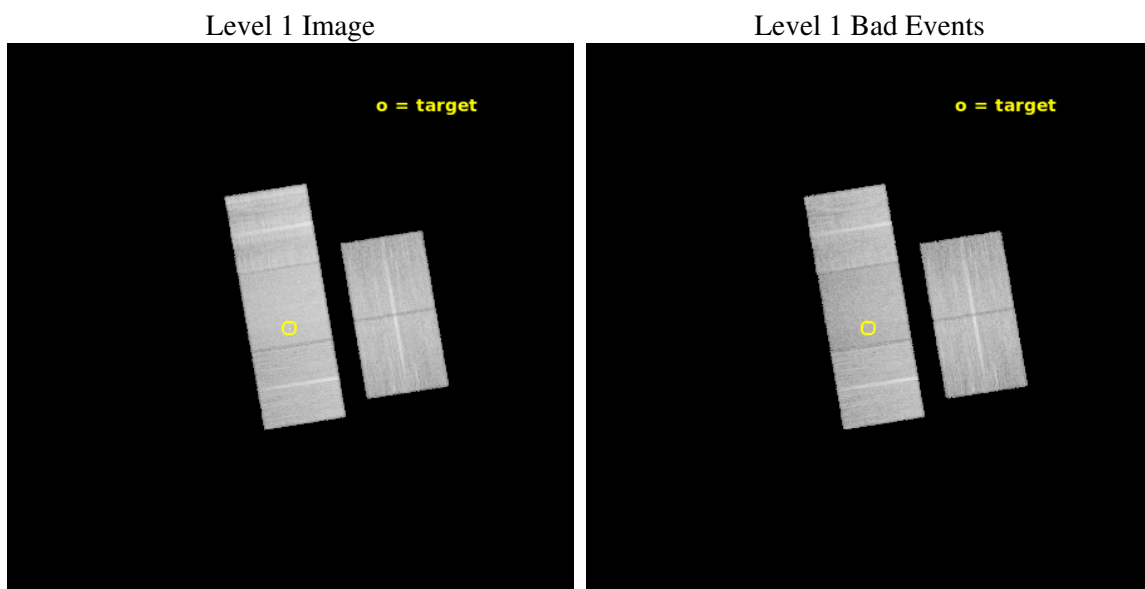
seq_num	502687	Sequence number
obs_id	19037	Observation id
title	A Redback Millisecond Pulsar with Variable Heating	Proposal title
observer	Jules Halpern	Principal investigator
object	PSR J1048+2339	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	162.180833	Observer's specified target RA [deg]
dec_targ	23.664833	Observer's specified target Dec [deg]
ra_nom	162.17918161829	Nominal RA [deg]
dec_nom	23.665951203285	Nominal Dec [deg]
roll_nom	260.65711755334	Nominal Roll [deg]
revision	2	Processing version of data
ontime	23054.700177431	Sum of GTIs [s]
livetime	22753.47354699	Livetime [s]
ontime2	23051.559216976	Sum of GTIs [s]
ontime3	23045.277326345	Sum of GTIs [s]
ontime6	23054.700177431	Sum of GTIs [s]
ontime7	23054.700177431	Sum of GTIs [s]
ontime8	23051.559206963	Sum of GTIs [s]
l2events	165889	Number of level 2 events



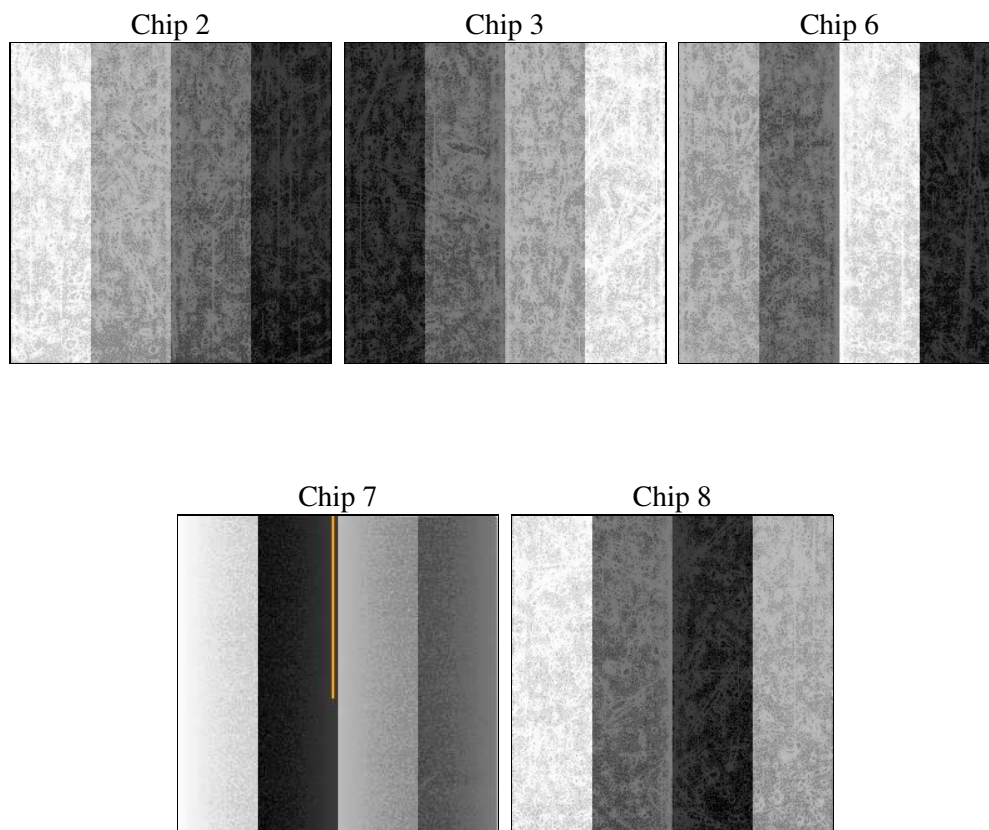
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	23054.700177431	Sum of GTIs [s]
caldsver	4.9.3	 	ontime2	23051.559216976	Sum of GTIs [s]
date	2020-10-26T18:08:02	Date and time of file creation	ontime3	23045.277326345	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	23054.700177431	Sum of GTIs [s]
			ontime7	23054.700177431	Sum of GTIs [s]
			ontime8	23051.559206963	Sum of GTIs [s]
			l1events	985543	Number of level 1 events

2.1.4 Events

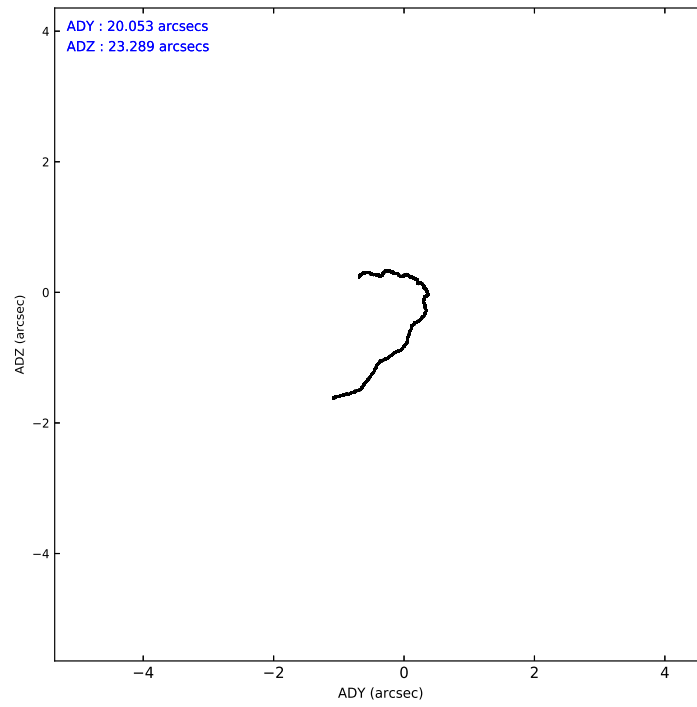
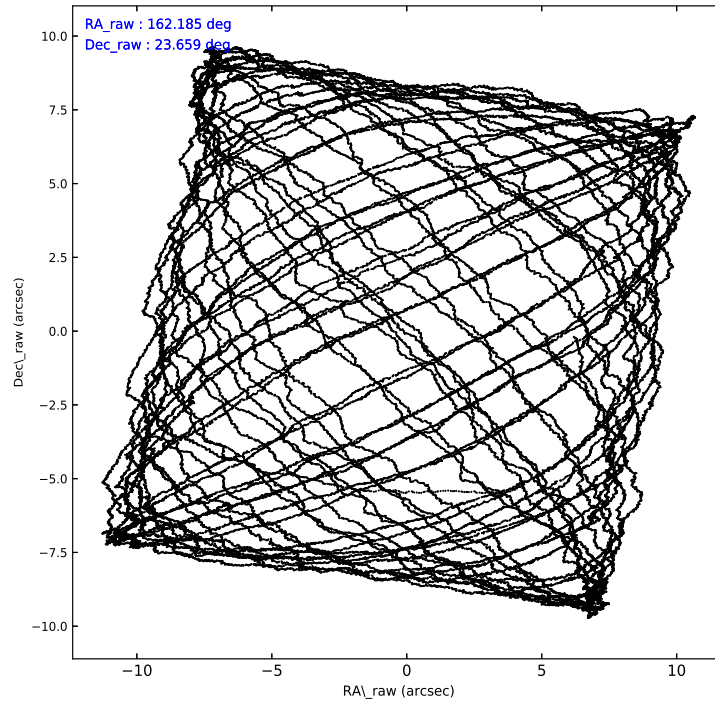
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	171763	167519	180619	225889	239753
rejected events	152771	148299	160405	127371	172511
rejected %	88%	88%	88%	56%	71%

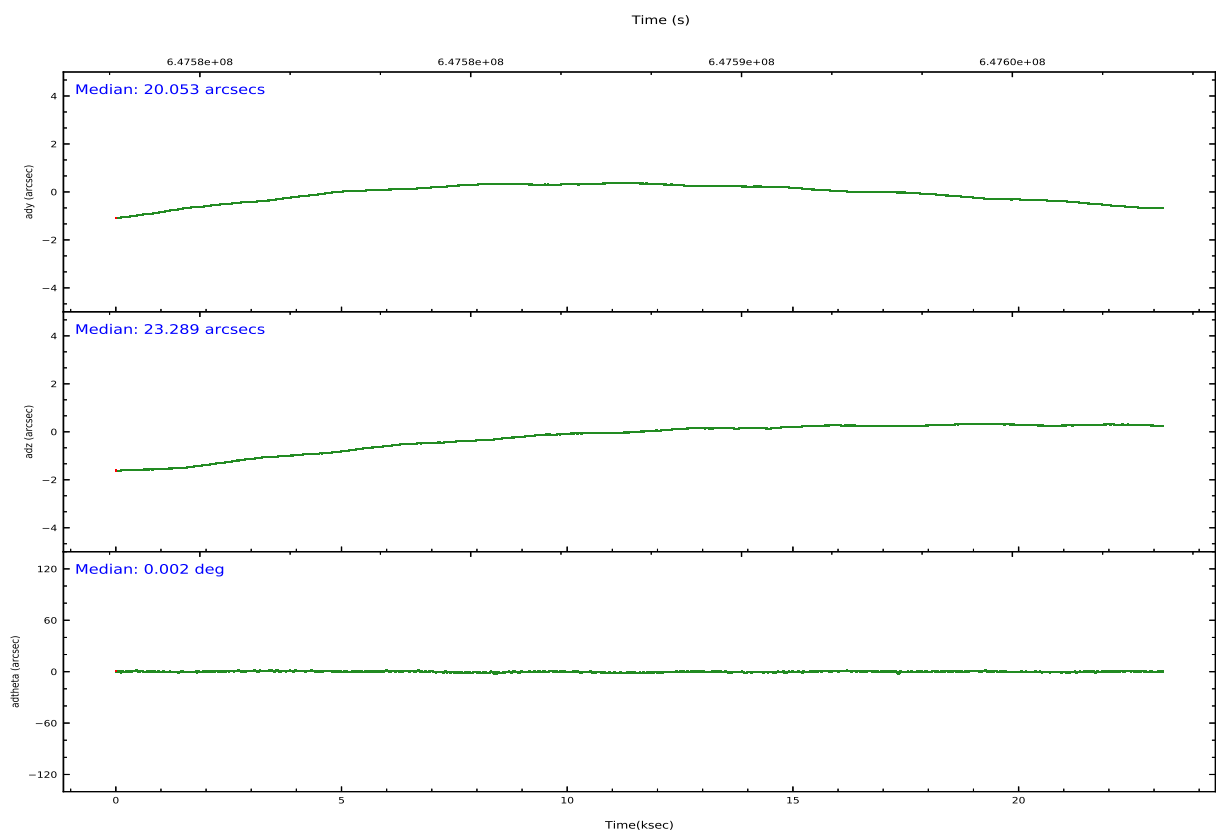
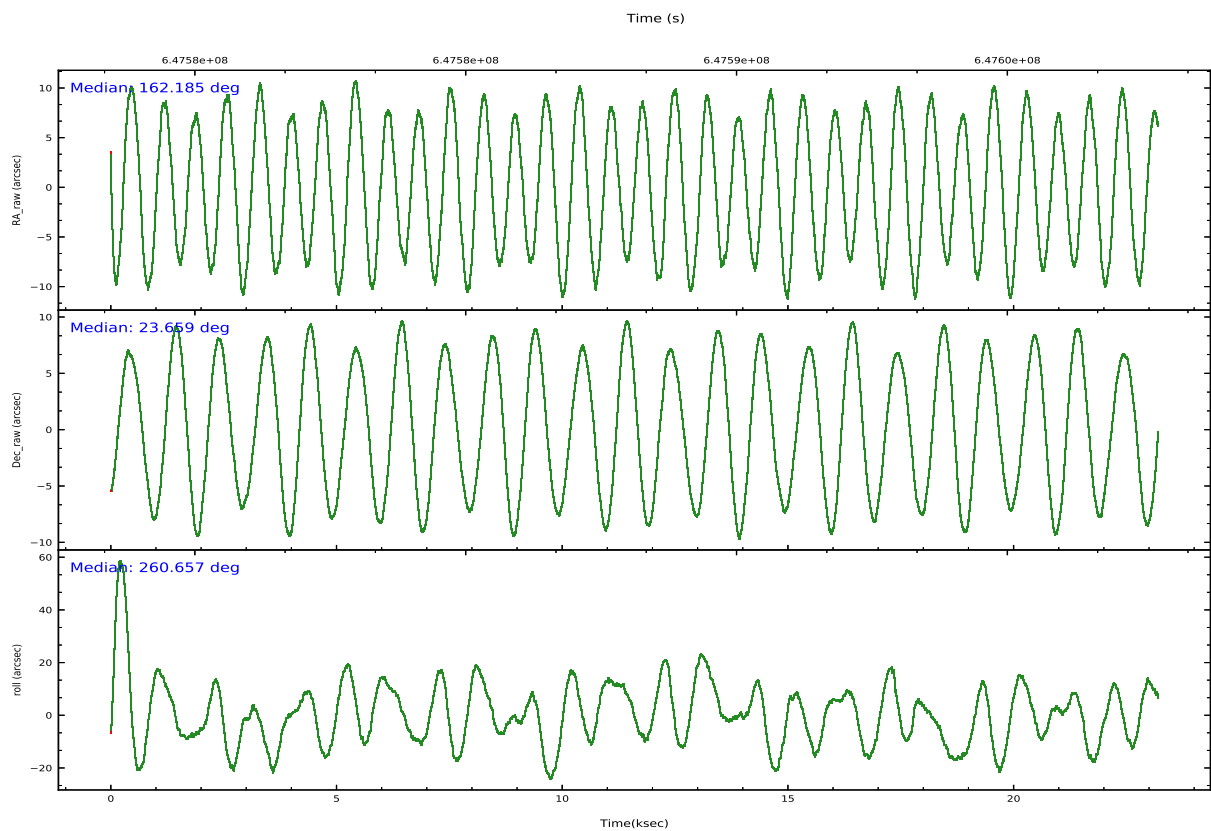
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	6597	7347	6715	8720	19548
	3%	4%	3%	3%	8%
grade 1 events	102	86	71	366	186
	0%	0%	0%	0%	0%
grade 2 events	4926	4237	4698	21206	16318
	2%	2%	2%	9%	6%
grade 3 events	1875	1944	2042	8044	7026
	1%	1%	1%	3%	2%
grade 4 events	1917	1929	2033	7786	6576
	1%	1%	1%	3%	2%
grade 5 events	7046	8366	8507	22363	12888
	4%	4%	4%	9%	5%
grade 6 events	3684	3769	4737	52792	17782
	2%	2%	2%	23%	7%
grade 7 events	145616	139841	151816	104612	159429
	84%	83%	84%	46%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	162.174289	162.17918161829	CCD I2 on	O1	Y
[deg] Pointing Dec	23.684777	23.665951203285	CCD I3 on	O2	Y
[deg] Pointing Roll	260.508737	260.65711755334	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	647576341.184000	647575378.48379	CCD S5 on	N	N
Observation start date	2018-07-10T02:17:52	2018-07-10T02:02:58	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	647599341.184000	647600317.76027	On-chip summing requested	N	N
Observation end date	2018-07-10T08:41:12	2018-07-10T08:58:37	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



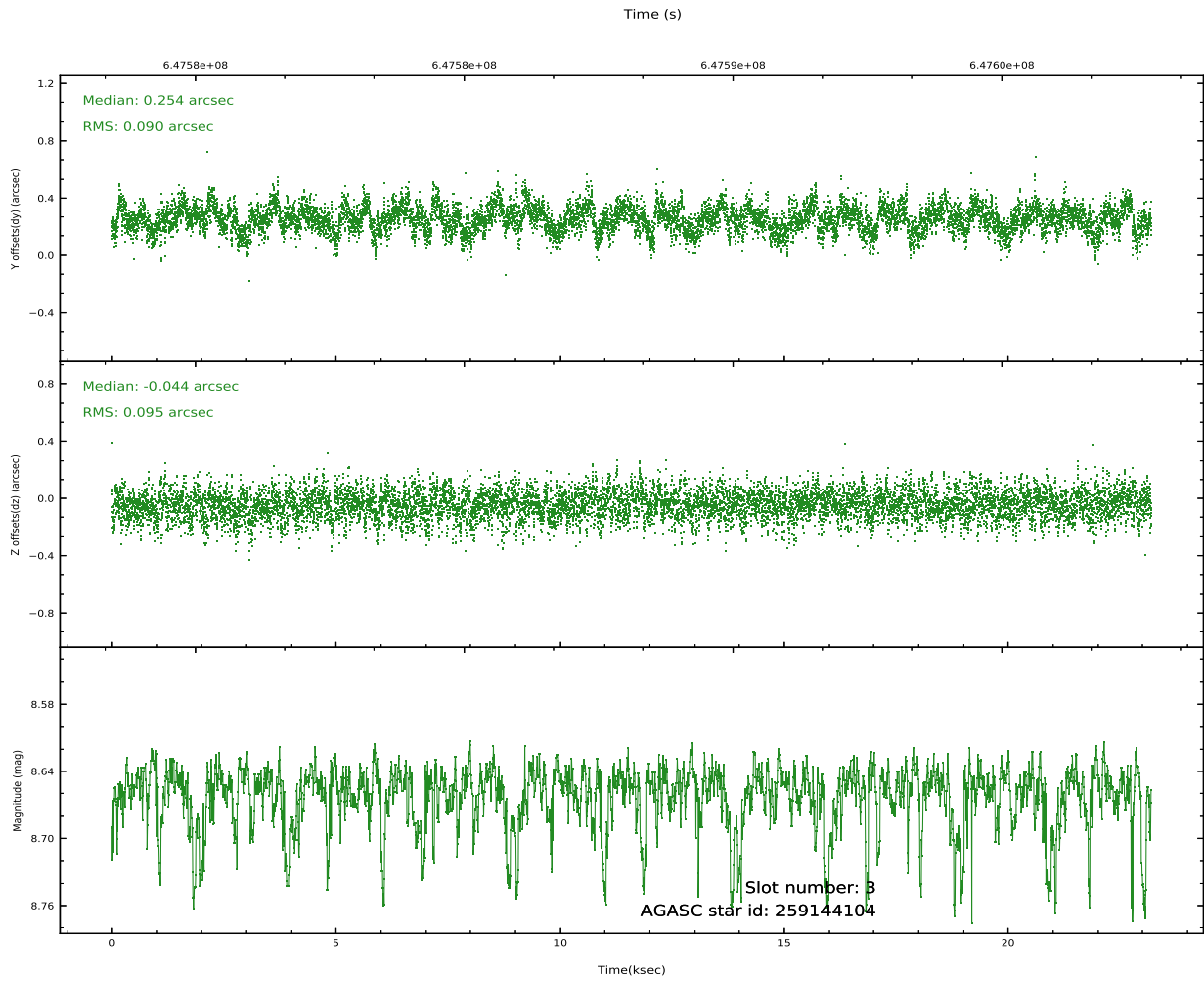
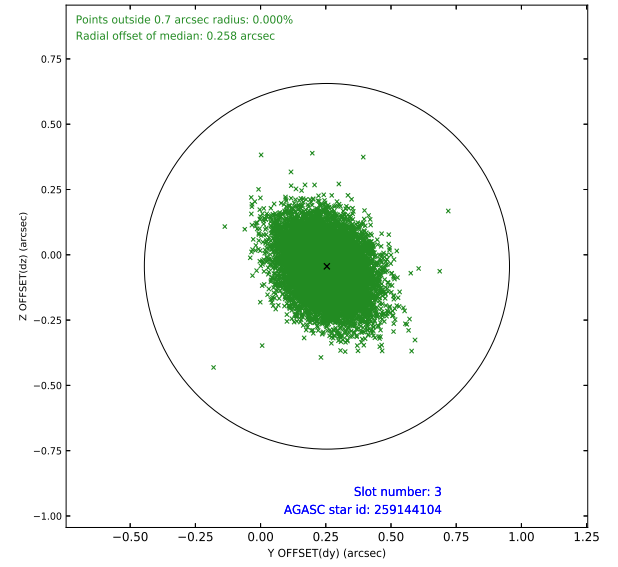
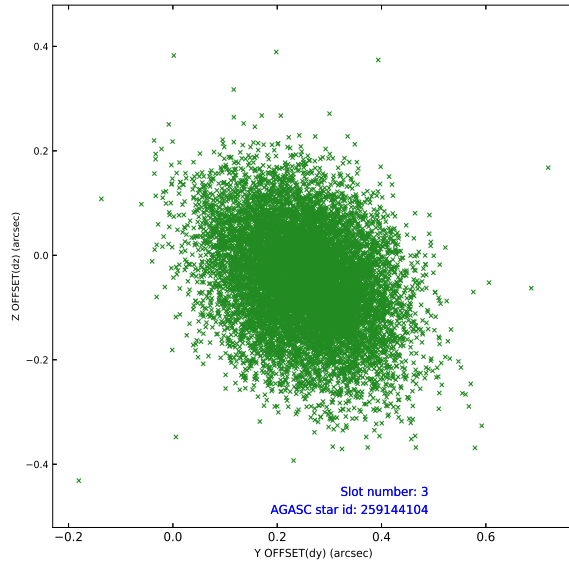


Slot Statistics

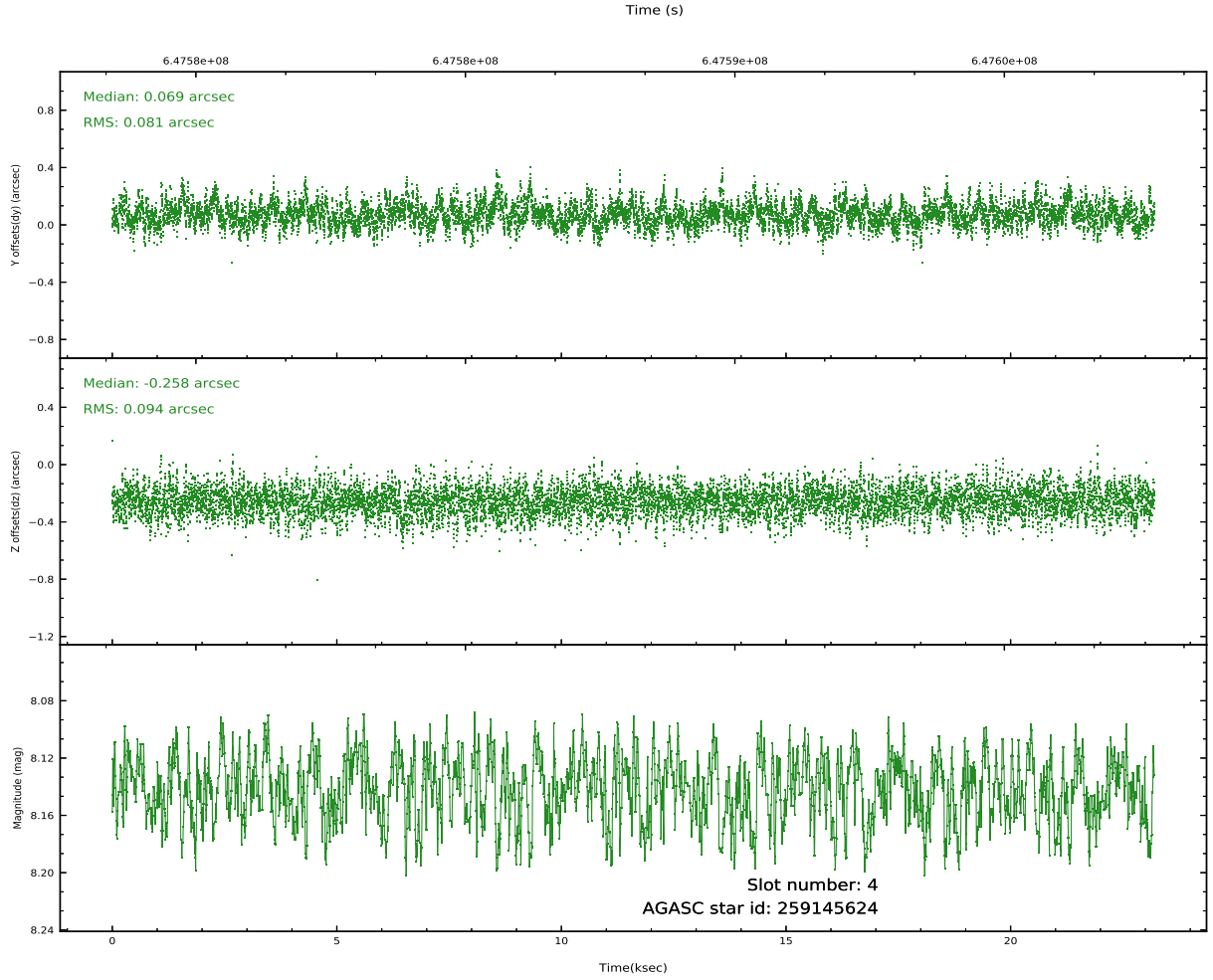
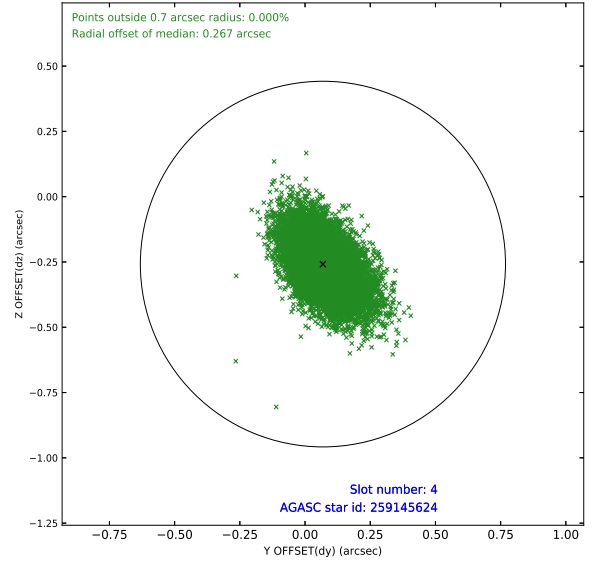
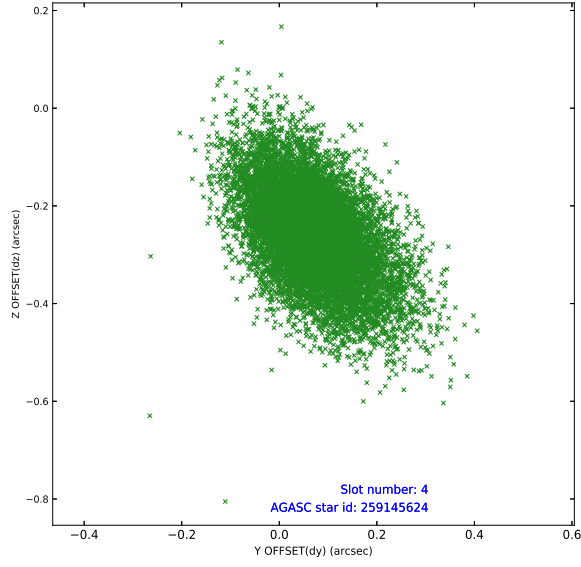
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.97	5660	1.000	0.021	0.016	0.019	0.032	0.000000	0.000000	-773.23	-1744
1	FID		ACIS-S-4	7.08	5657	1.000	0.061	-0.050	0.015	0.024	0.000000	0.000000	2140.22	163
2	FID		ACIS-S-6	7.24	5658	1.000	-0.108	0.039	0.016	0.029	0.000000	0.000000	389.06	801
3	GUIDE	used	259144104	8.66	11314	1.000	0.254	-0.044	0.138	0.229	161.981388	23.335280	1347.48	-420
4	GUIDE	used	259145624	8.14	11315	1.000	0.069	-0.258	0.127	0.223	162.462213	23.162648	1697.60	1249
5	GUIDE	used	259147056	9.64	11296	1.000	0.086	0.240	0.223	0.340	161.941289	24.264166	-1930.41	-1098
6	GUIDE	used	259149584	9.17	11303	1.000	-0.302	0.121	0.173	0.301	162.805234	23.528365	206.86	2146
7	GUIDE	used	259150008	6.88	11315	1.000	-0.110	-0.054	0.176	0.264	162.652357	23.406288	725.72	1721

2.4 Star Slots

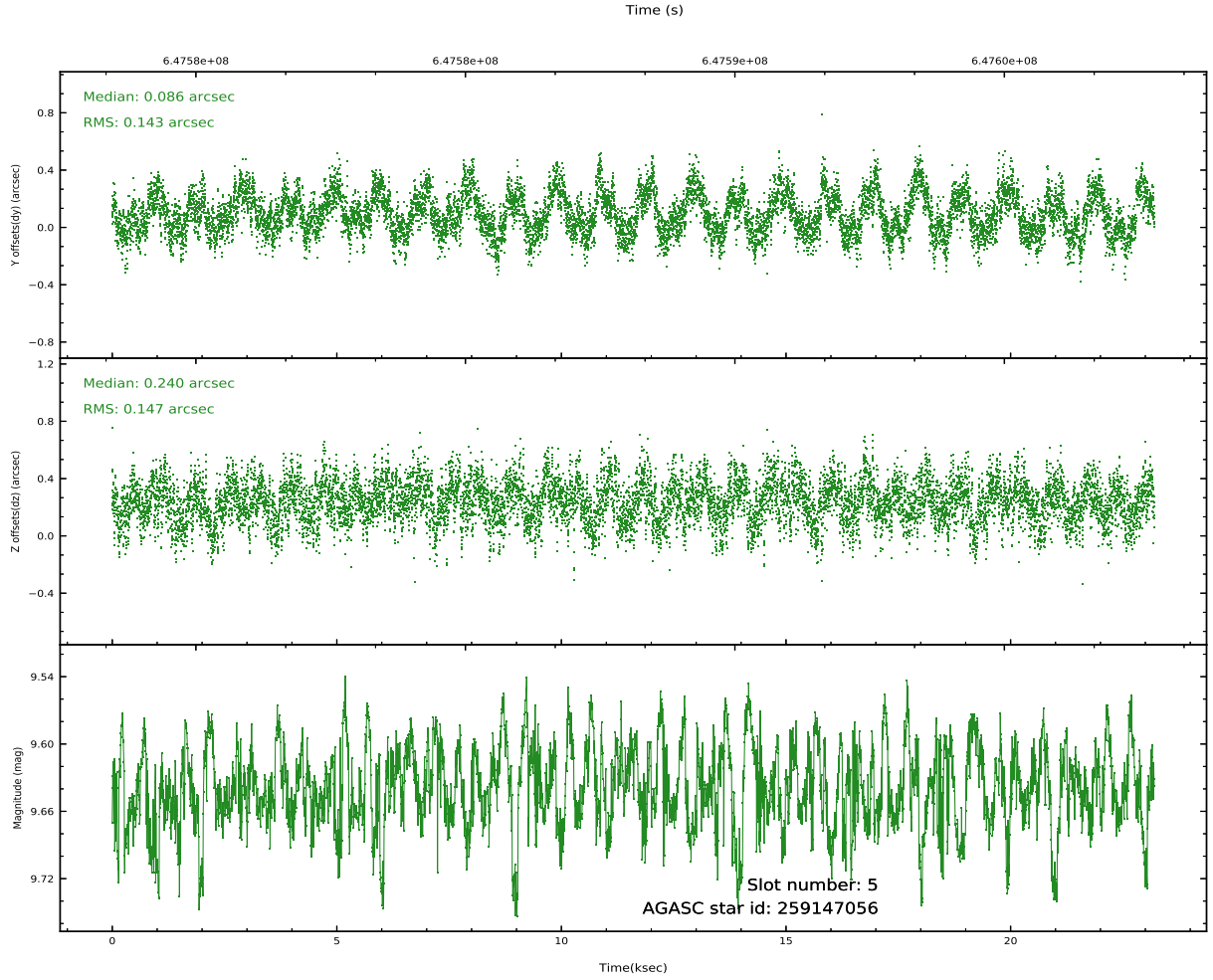
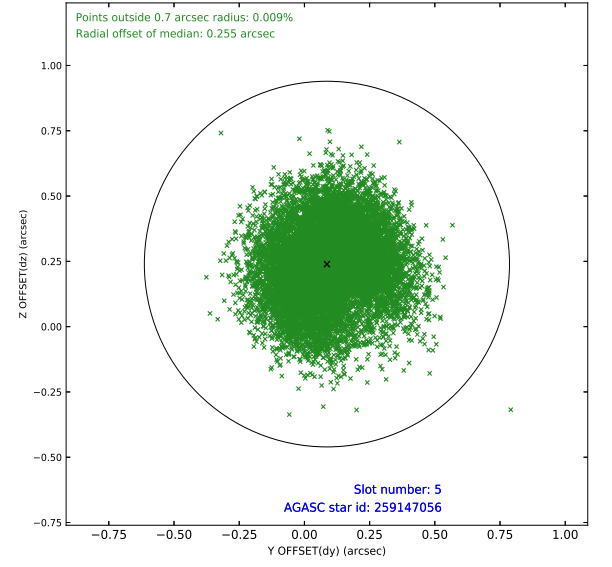
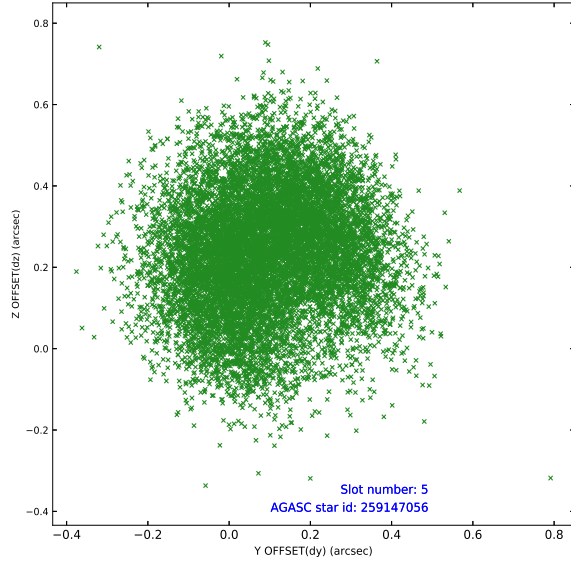
2.4.1 Slot 3



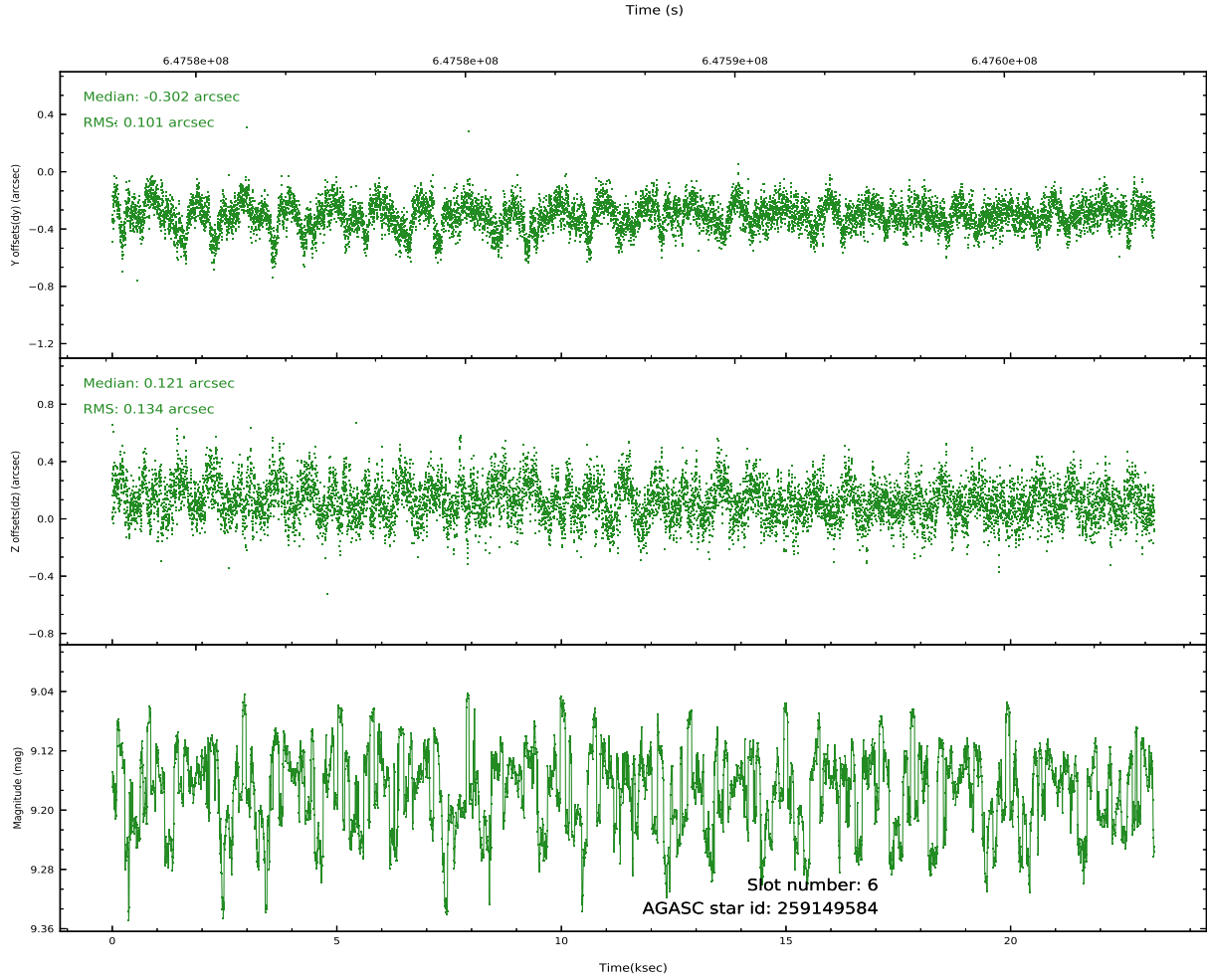
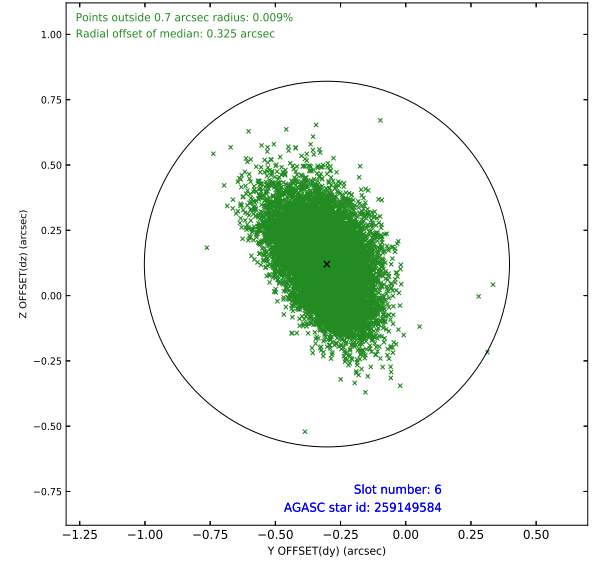
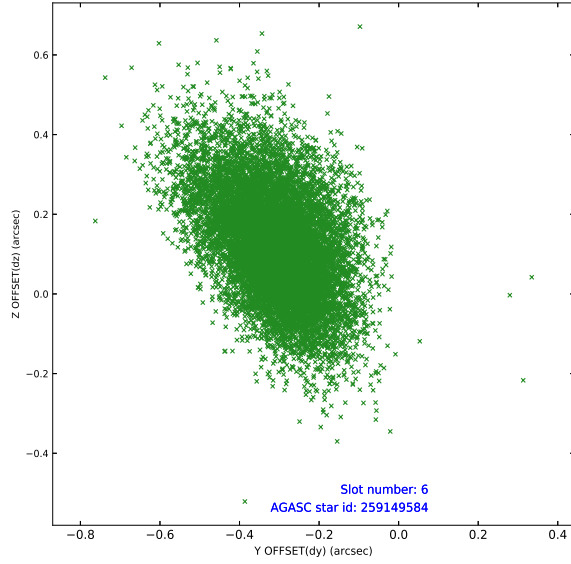
2.4.2 Slot 4



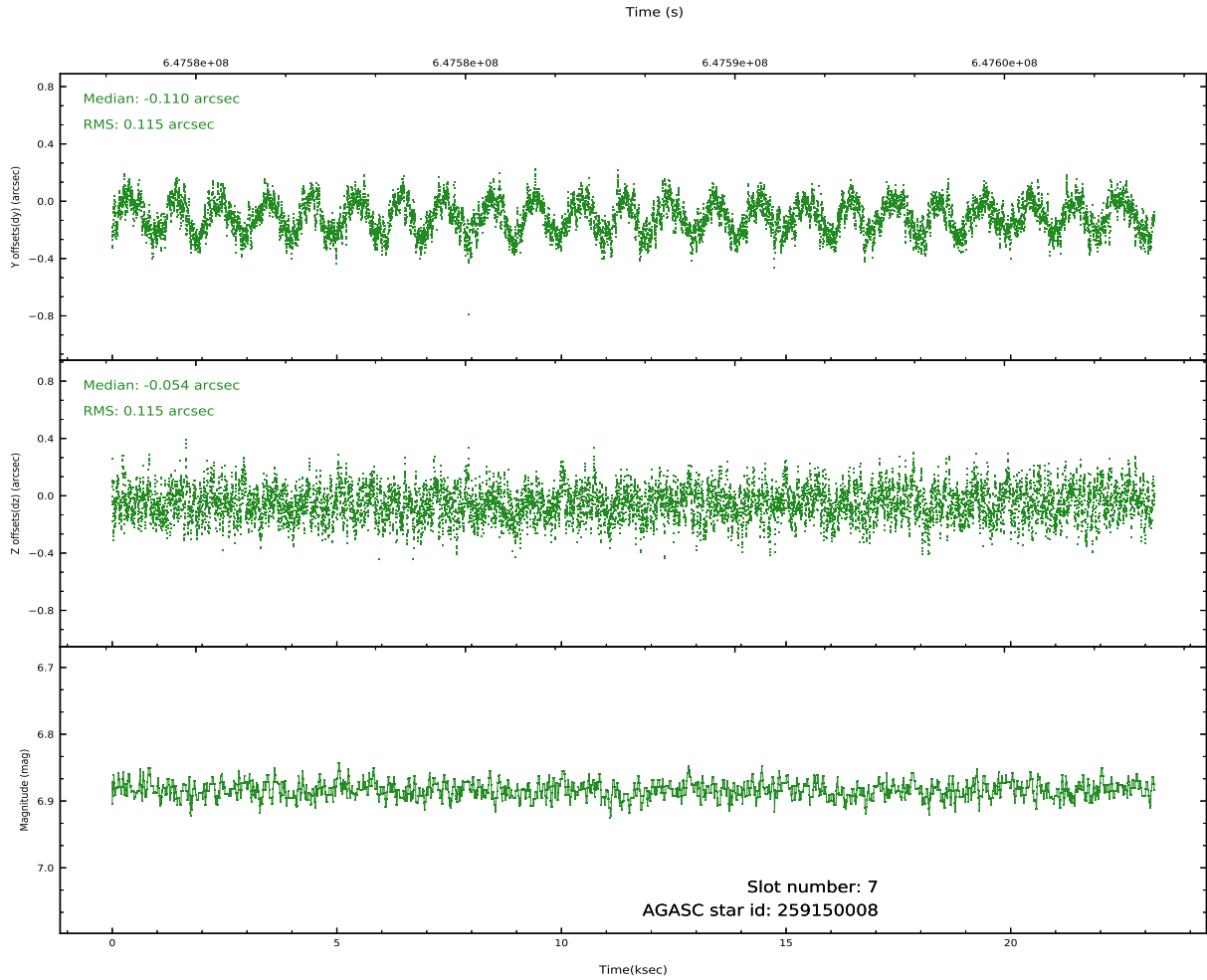
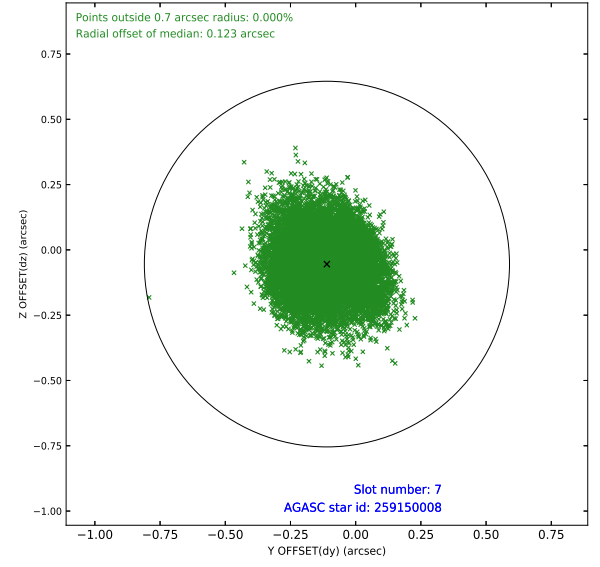
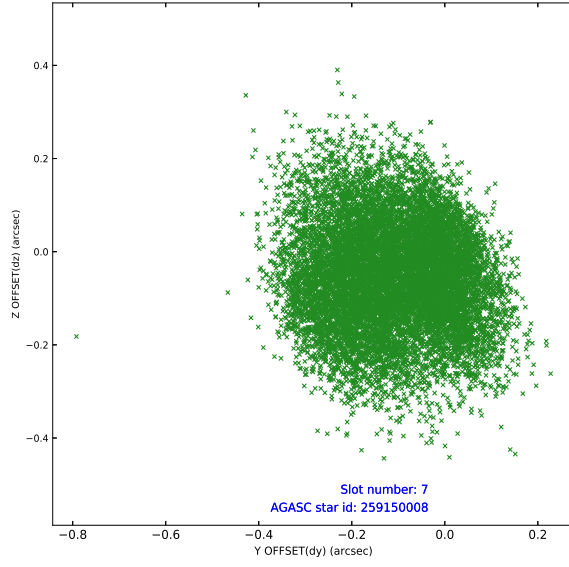
2.4.3 Slot 5



2.4.4 Slot 6

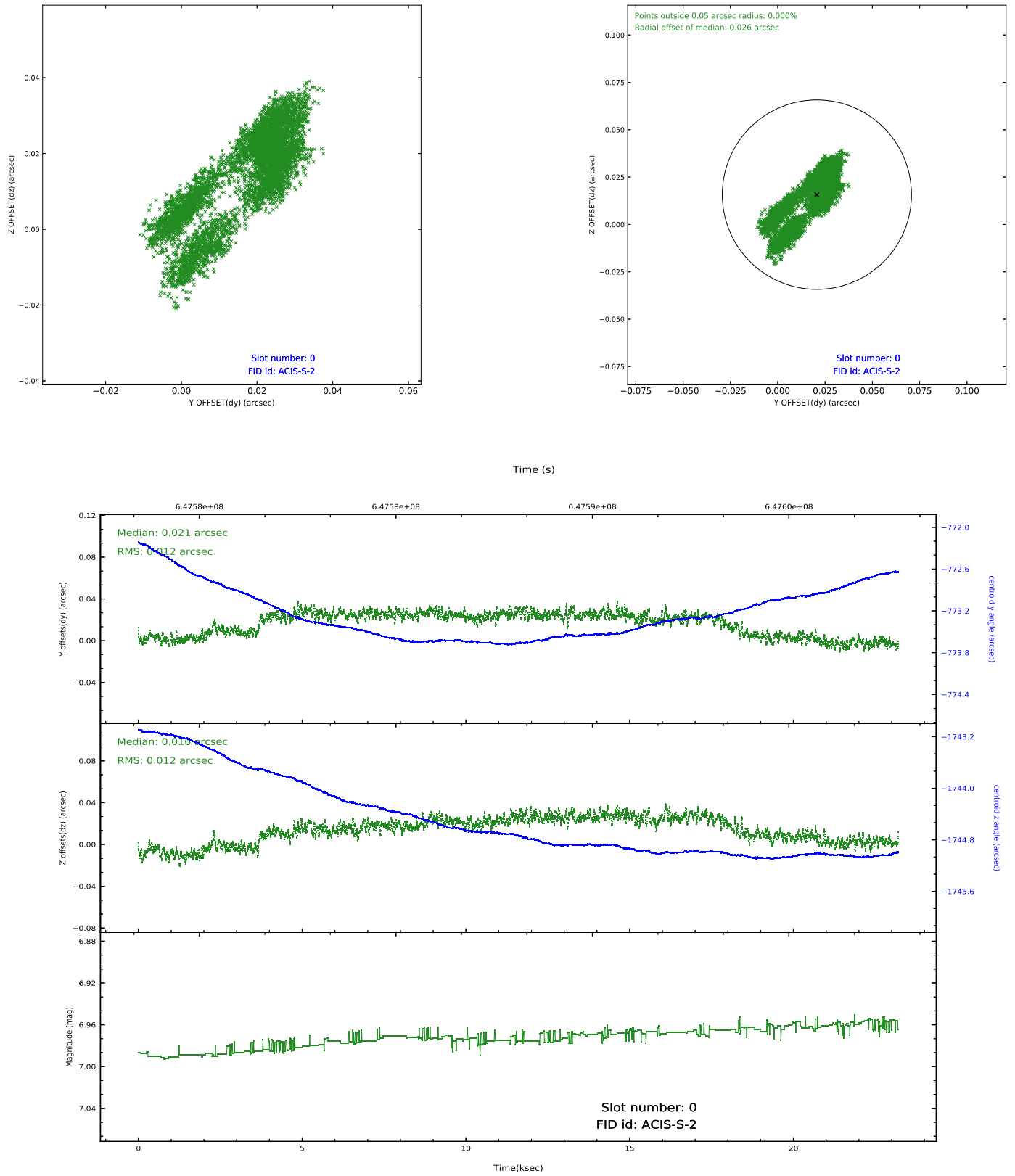


2.4.5 Slot 7

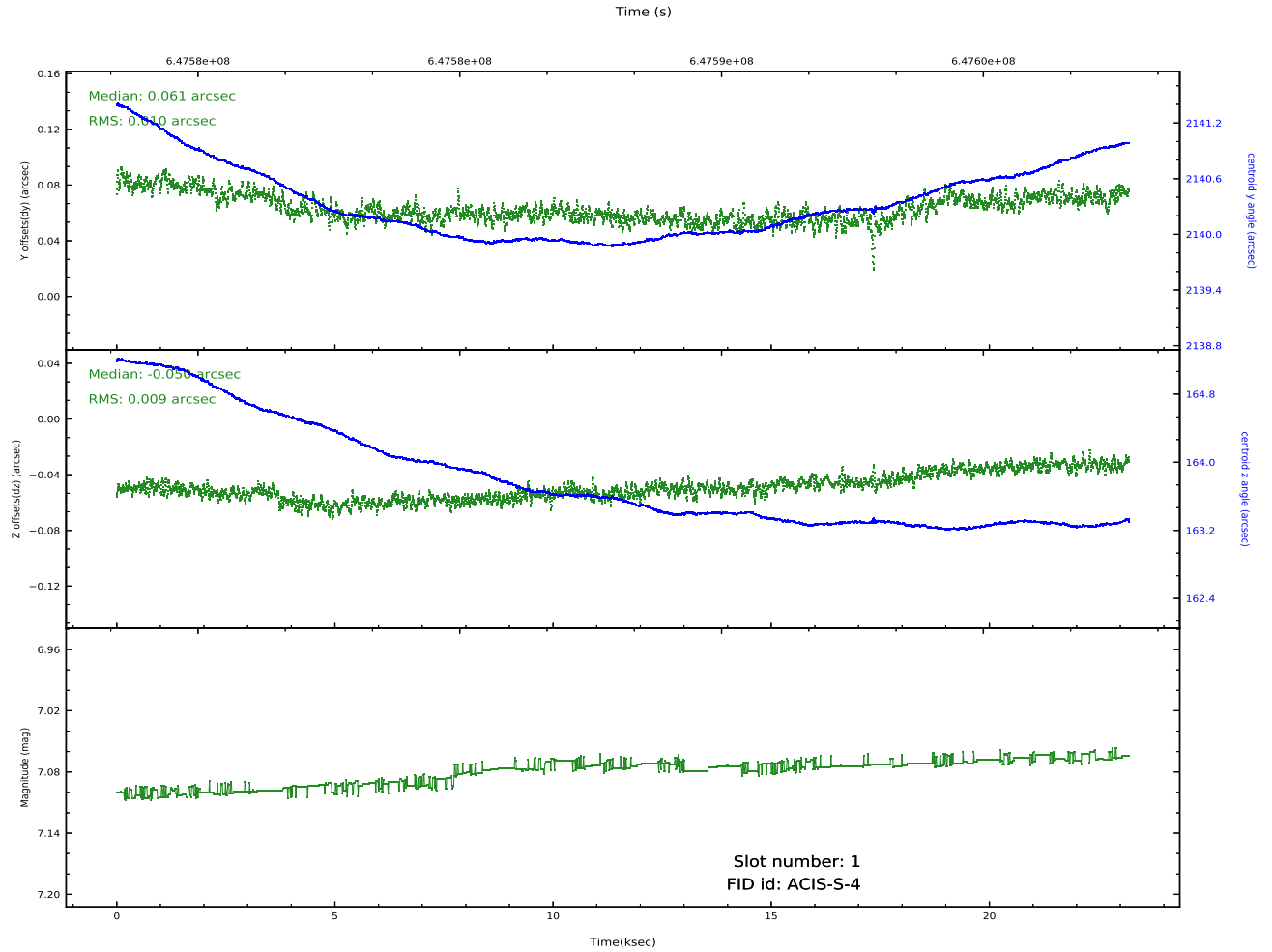
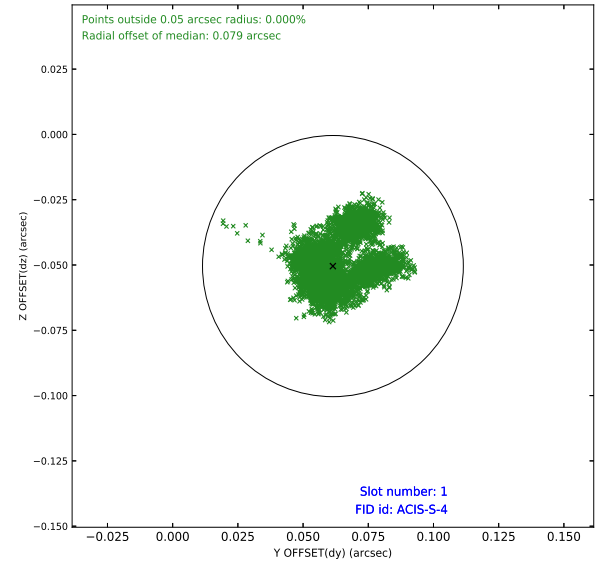
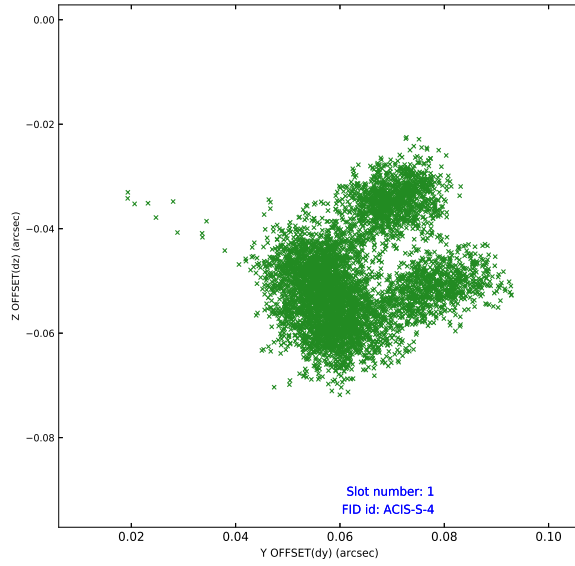


2.5 FID Slots

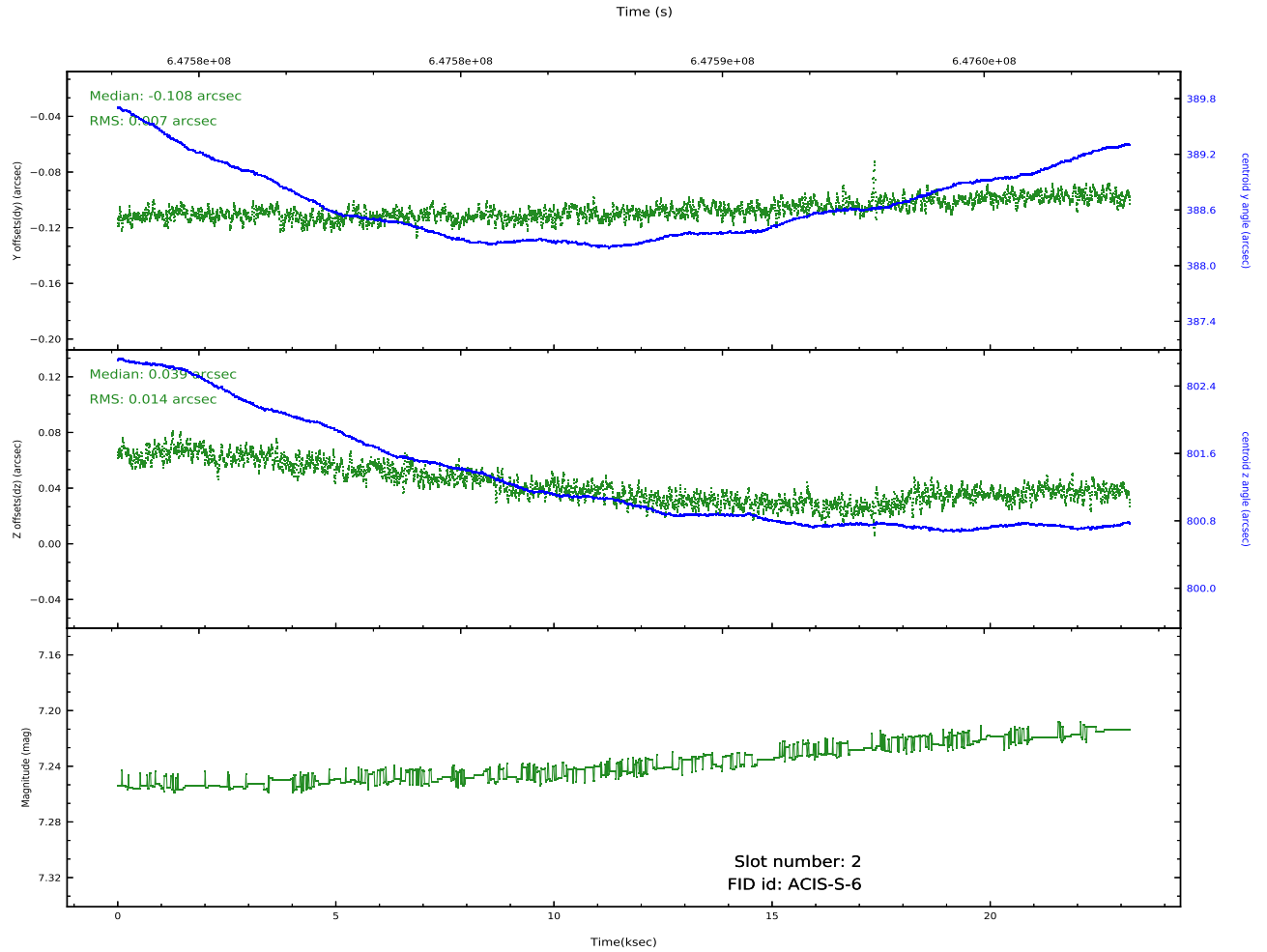
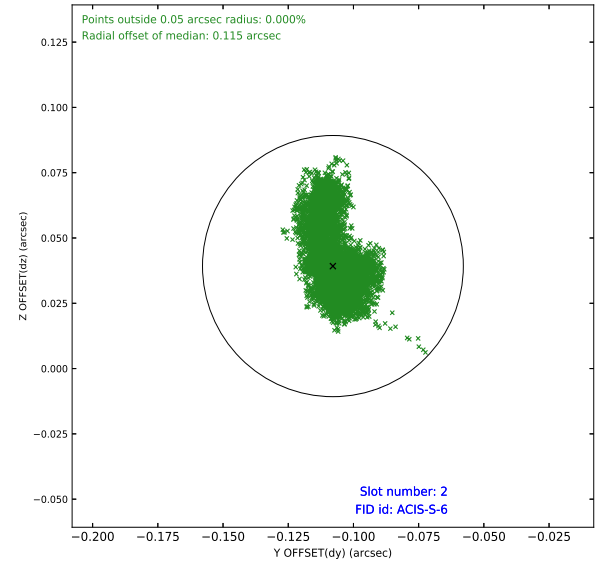
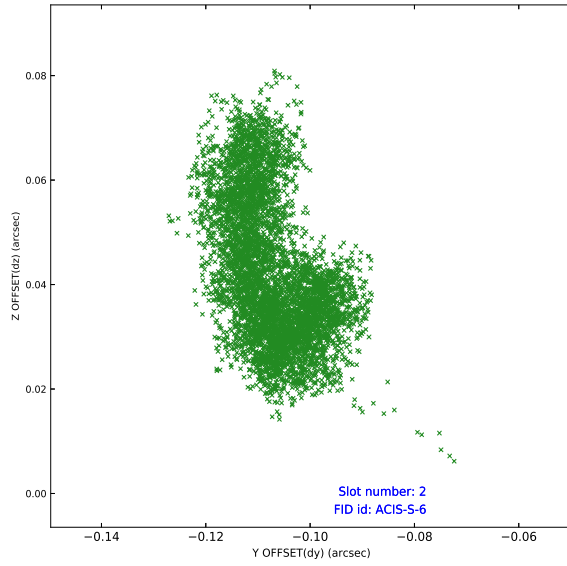
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.054700177431

A.2 Comments