

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20533 - L2 Version 2
Chandra X-Ray Center

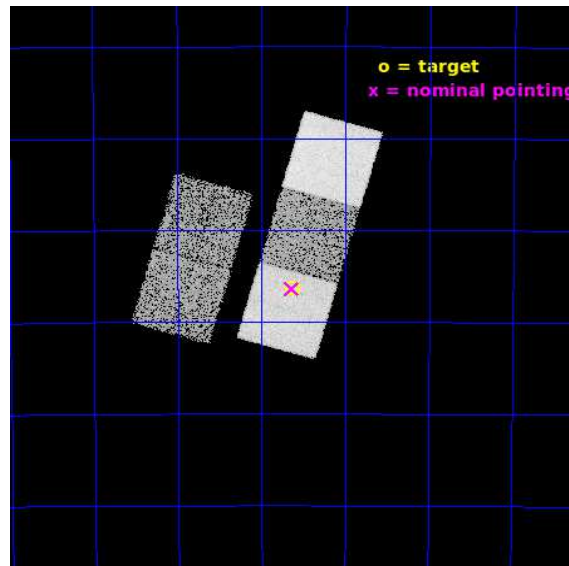
L2 Processing Date : Oct 26 2020

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

1 Front

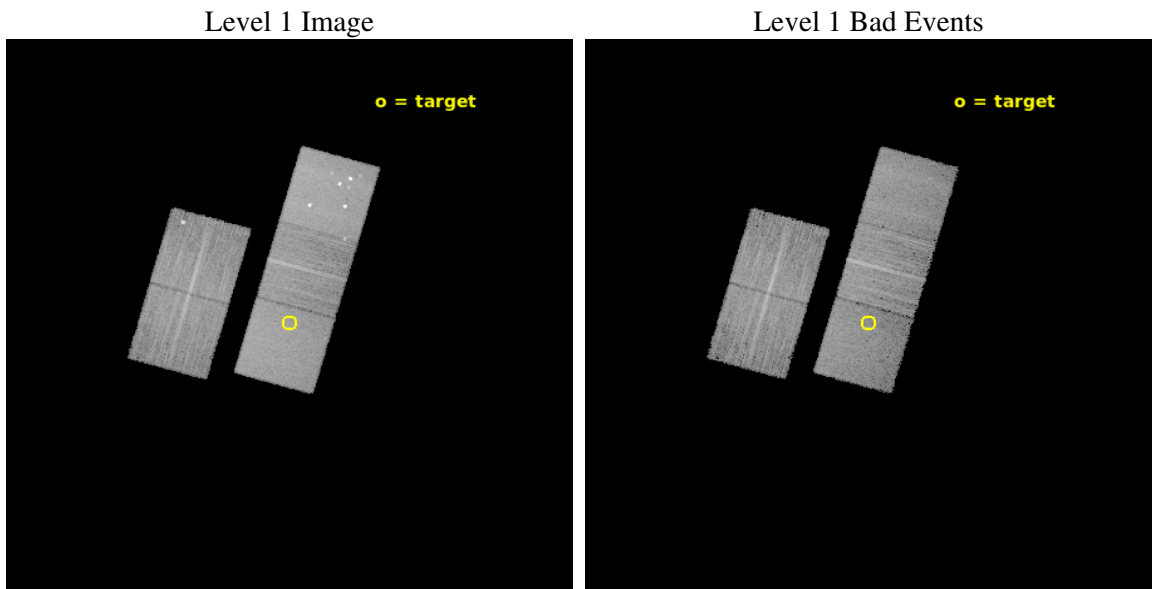
seq_num	801747	Sequence number
obs_id	20533	Observation id
title	Building a complete sample of z>1 XXL galaxy clusters	Proposal tit
observer	Ben Maughan	Principal investigator
object	XXL-S0128	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	351.905833	Observer's specified target RA [deg]
dec_targ	-54.272	Observer's specified target Dec [deg]
ra_nom	351.90918845677	Nominal RA [deg]
dec_nom	-54.273140121599	Nominal Dec [deg]
roll_nom	105.91225344555	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10050.200077415	Sum of GTIs [s]
liveltime	9918.8868145534	Livetime [s]
ontime2	10050.108020306	Sum of GTIs [s]
ontime3	10050.149060369	Sum of GTIs [s]
ontime5	10050.200077415	Sum of GTIs [s]
ontime6	10050.190100312	Sum of GTIs [s]
ontime7	10050.200077415	Sum of GTIs [s]
l2events	118954	Number of level 2 events



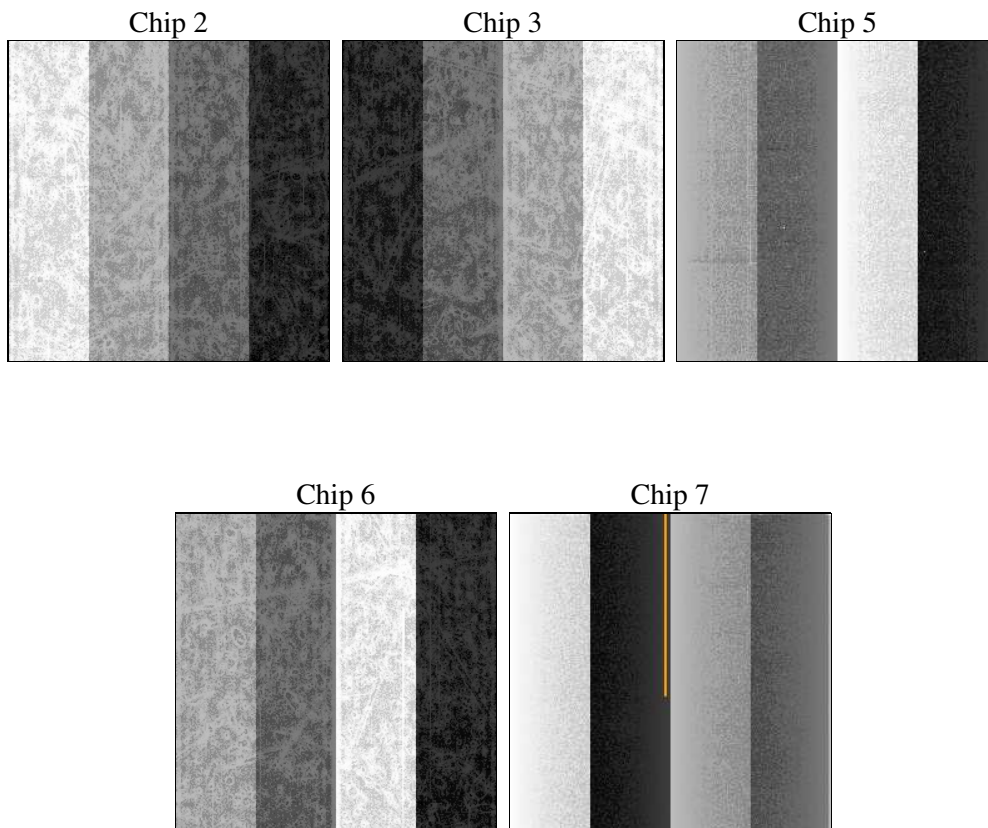
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	10050.200077415	Sum of GTIs [s]
caldbver	4.9.3	 	ontime2	10050.108020306	Sum of GTIs [s]
date	2020-10-26T07:55:02	Date and time of file creation	ontime3	10050.149060369	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	10050.200077415	Sum of GTIs [s]
			ontime6	10050.190100312	Sum of GTIs [s]
			ontime7	10050.200077415	Sum of GTIs [s]
			l1events	483032	Number of level 1 events

2.1.4 Events

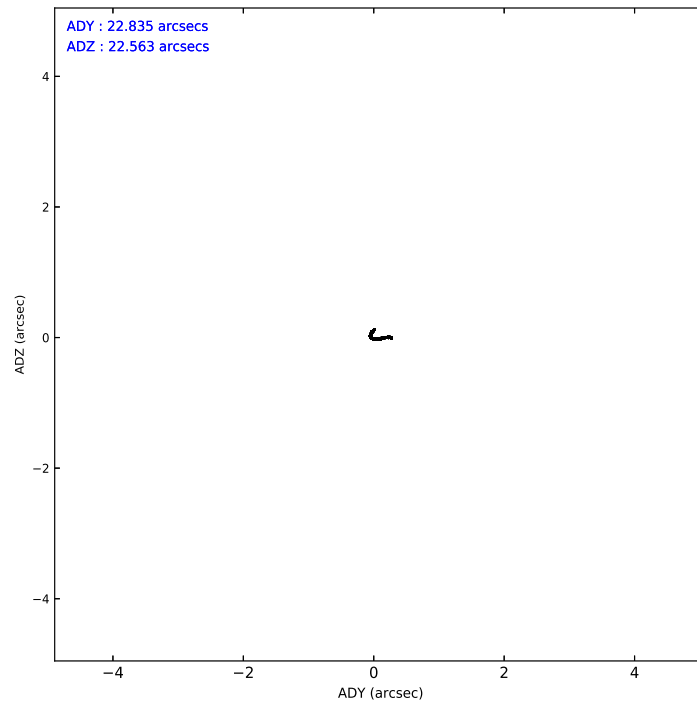
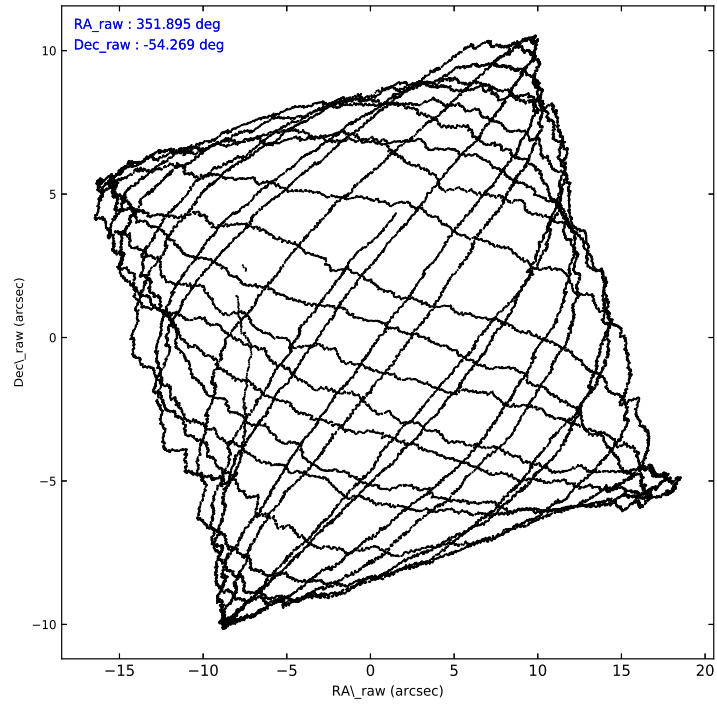
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	84305	76416	137799	83294	101218
rejected events	74993	68723	65783	74582	57895
rejected %	88%	89%	47%	89%	57%

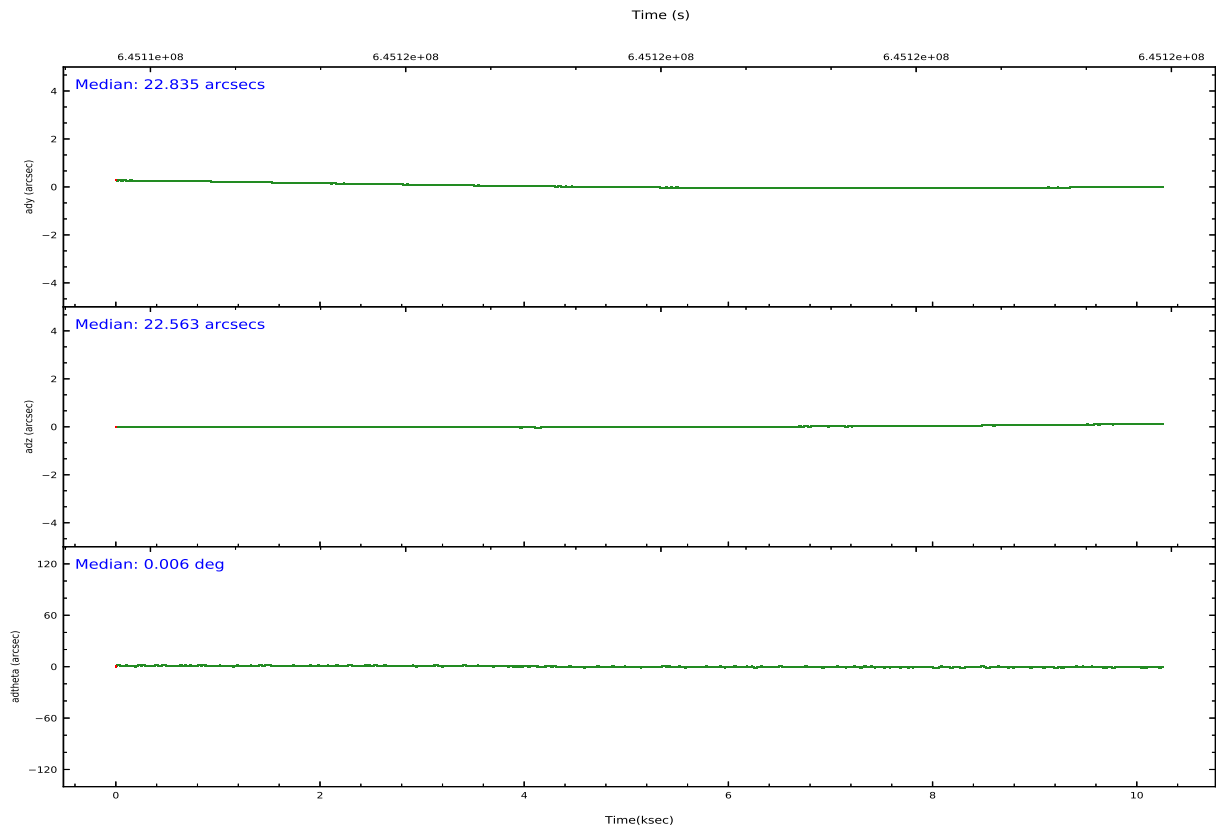
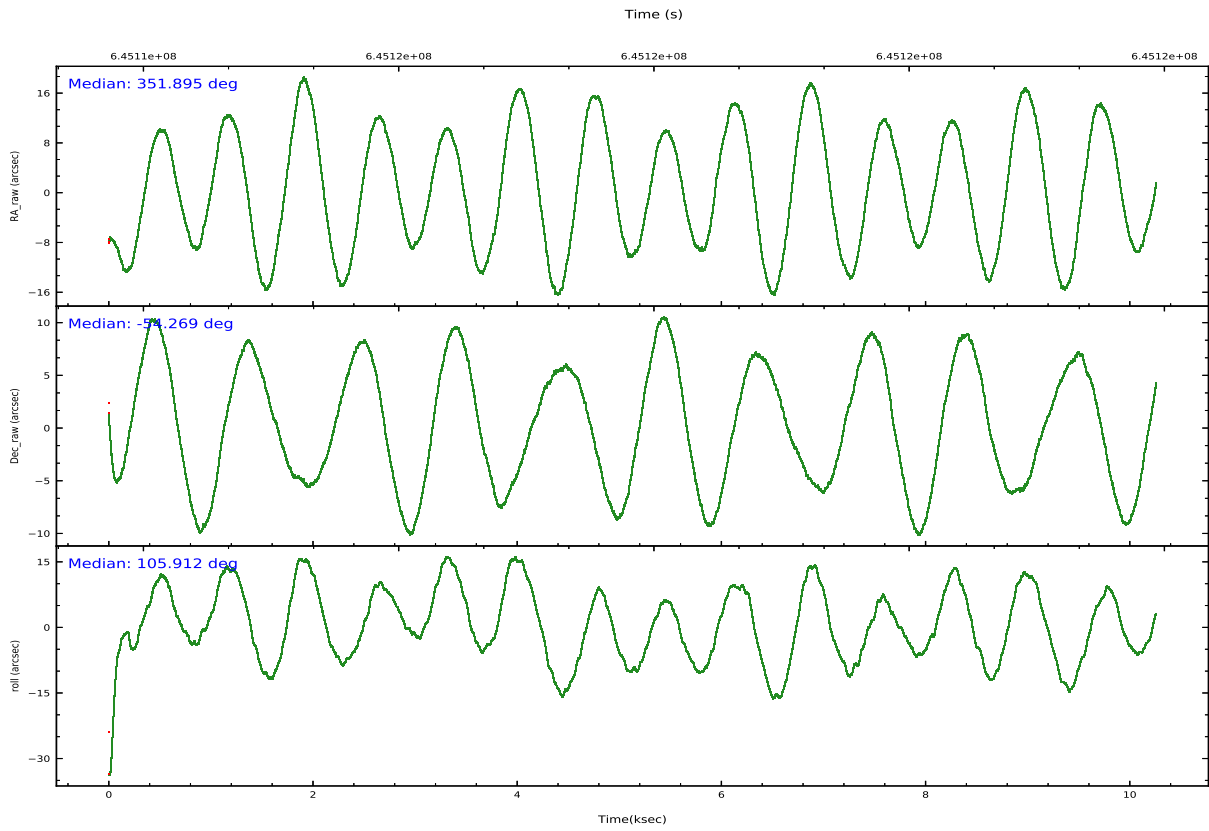
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	4253	2597	13847	2714	3681
	5%	3%	10%	3%	3%
grade 1 events	54	50	456	41	152
	0%	0%	0%	0%	0%
grade 2 events	1892	1676	21431	2189	9040
	2%	2%	15%	2%	8%
grade 3 events	753	810	1781	761	3383
	0%	1%	1%	0%	3%
grade 4 events	797	814	1741	776	3359
	0%	1%	1%	0%	3%
grade 5 events	2836	3540	7972	3346	9852
	3%	4%	5%	4%	9%
grade 6 events	1617	1800	33231	2273	23874
	1%	2%	24%	2%	23%
grade 7 events	72103	65129	57340	71194	47877
	85%	85%	41%	85%	47%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-23567	ACIS-23567	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	351.929606	351.90918845677	CCD I2 on	O1	Y
[deg] Pointing Dec	-54.287425	-54.273140121599	CCD I3 on	Y	Y
[deg] Pointing Roll	105.784292	105.91225344555	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	N	N
[s] Observation start time (MET)	645112420.184000	645111292.68793	CCD S5 on	N	N
Observation start date	2018-06-11T13:52:31	2018-06-11T13:34:52	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	645122420.184000	645123171.41363	On-chip summing requested	N	N
Observation end date	2018-06-11T16:39:11	2018-06-11T16:52:51	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





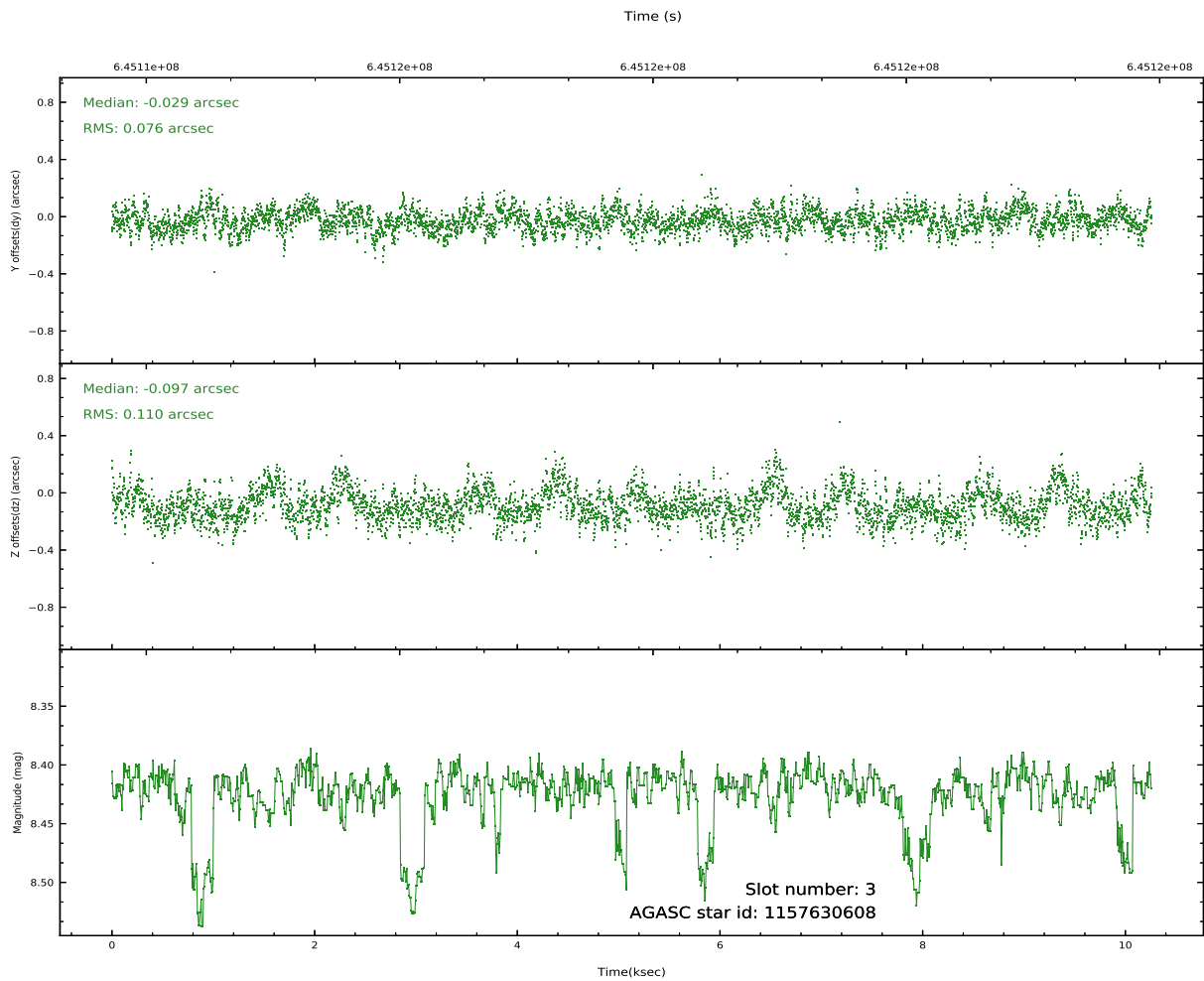
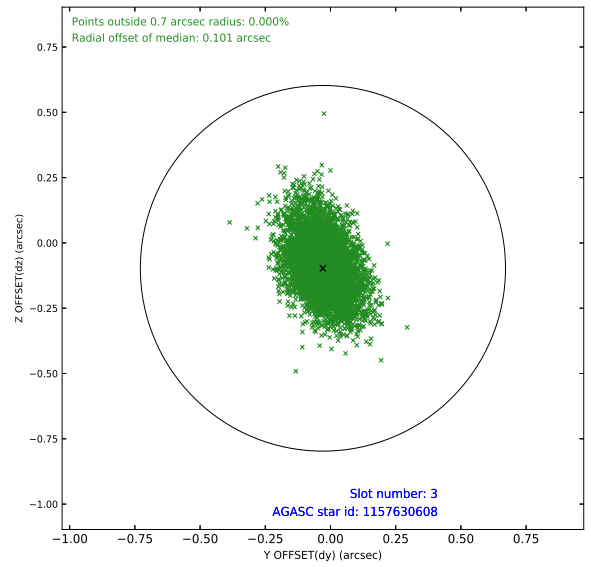
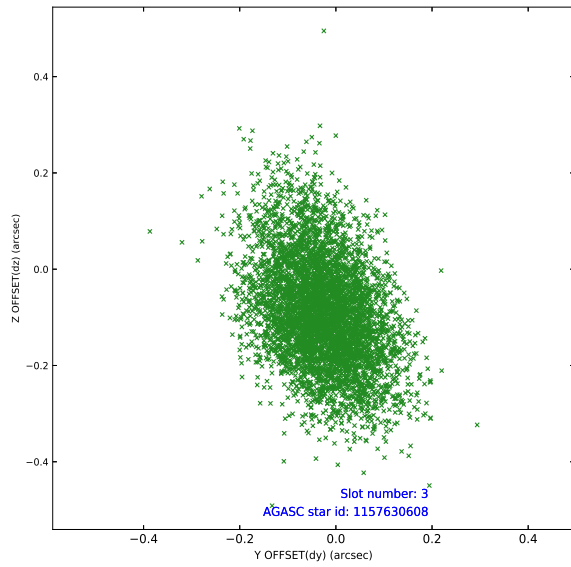
Slot Statistics

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	7.12	2503	1.000	0.196	-0.113	0.011	0.017	0.000000	0.000000	-776.17	-1744
1	FID		ACIS-S-4	7.21	2503	1.000	0.045	-0.064	0.010	0.016	0.000000	0.000000	2137.04	163
2	FID		ACIS-S-5	7.23	2503	1.000	-0.271	0.185	0.008	0.013	0.000000	0.000000	-1828.50	158
3	GUIDE	used	1157630608	8.42	5001	1.000	-0.029	-0.097	0.138	0.240	351.299519	-54.612812	-775.64	1584
4	GUIDE	used	1157630960	8.52	5000	1.000	-0.264	-0.122	0.134	0.230	351.182079	-53.746104	2299.77	1003
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
6	GUIDE	used	1157632480	8.92	4999	1.000	0.076	-0.106	0.148	0.270	351.345933	-54.970769	-2043.22	1831
7	GUIDE	used	1157632712	8.72	4997	1.000	0.217	0.322	0.129	0.217	352.239335	-54.471579	-815.84	-442

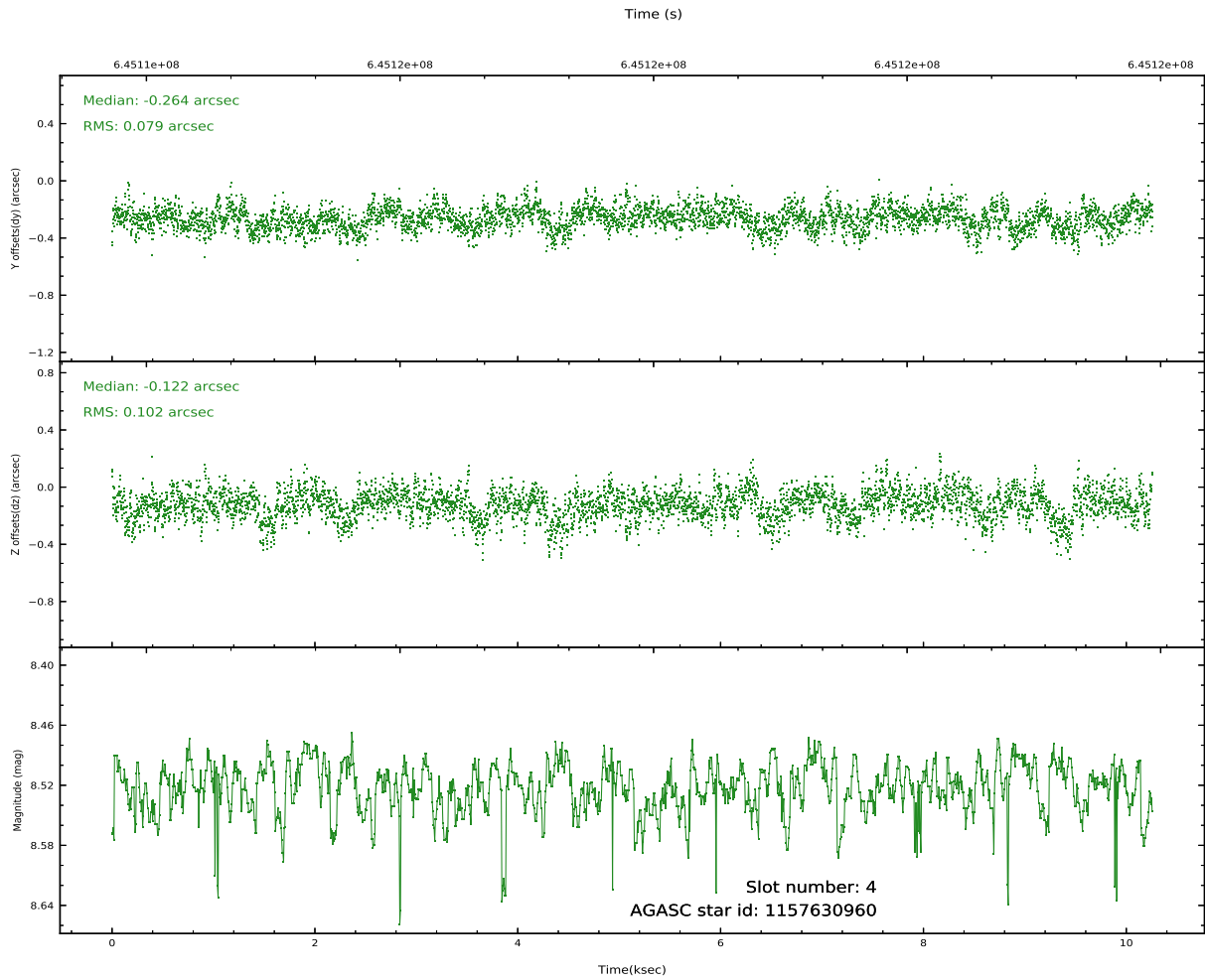
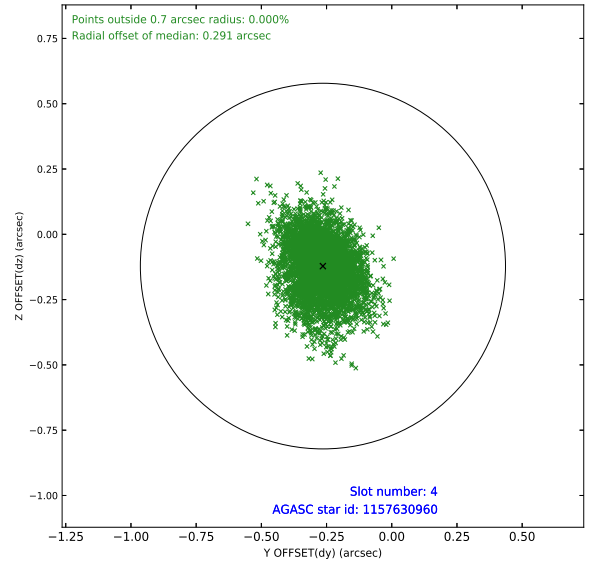
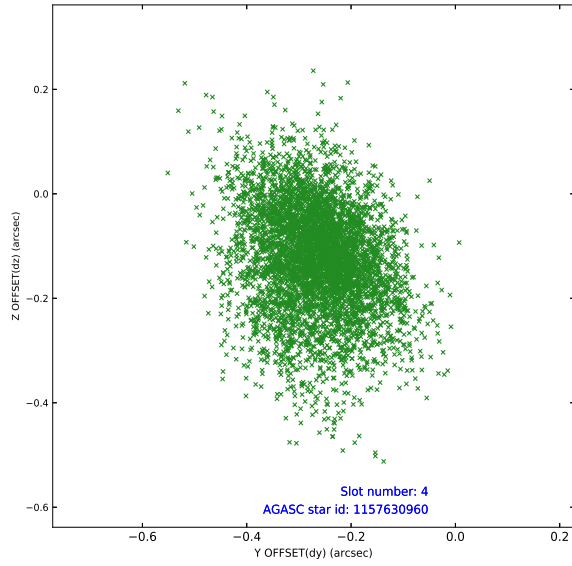
∞

2.4 Star Slots

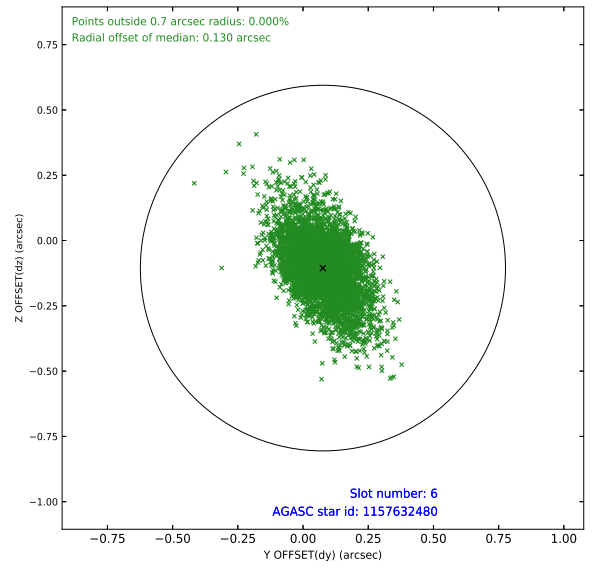
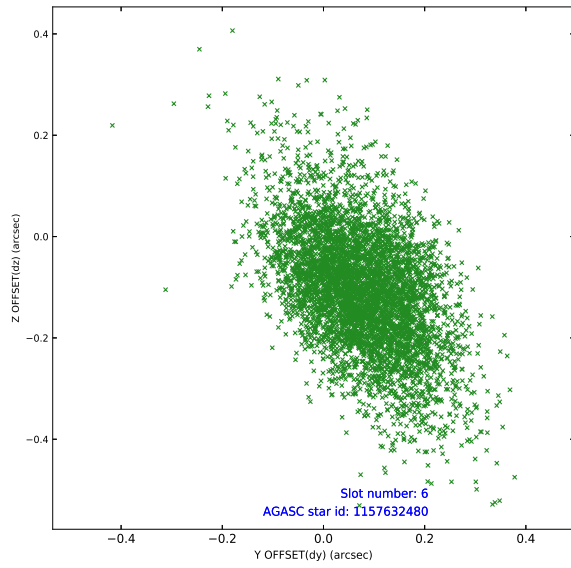
2.4.1 Slot 3



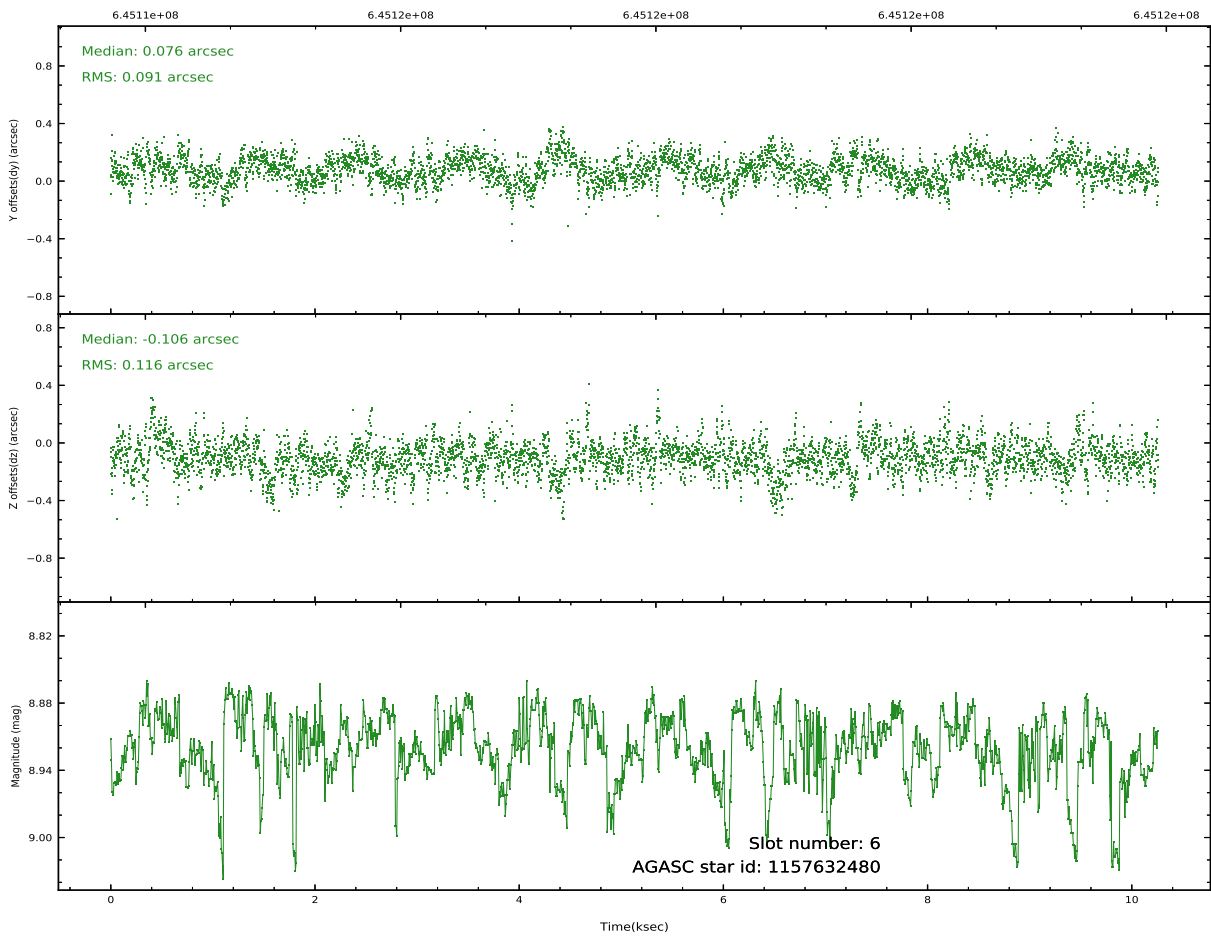
2.4.2 Slot 4



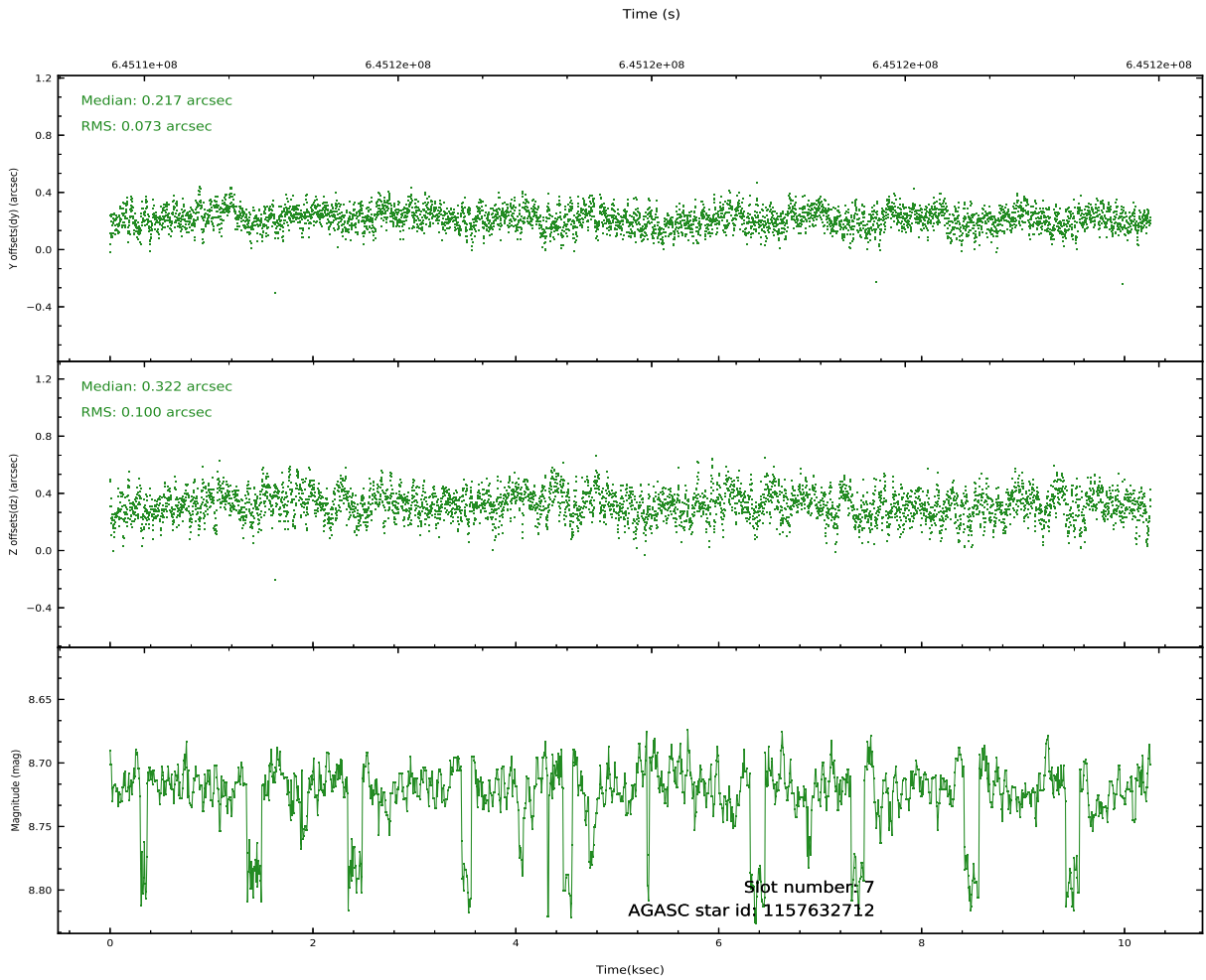
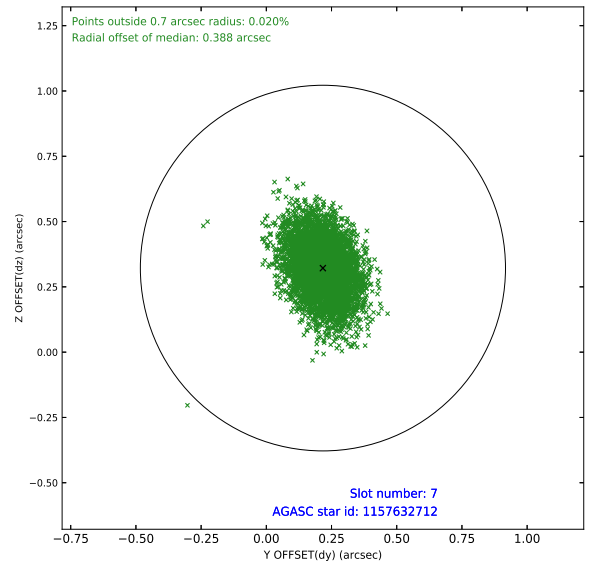
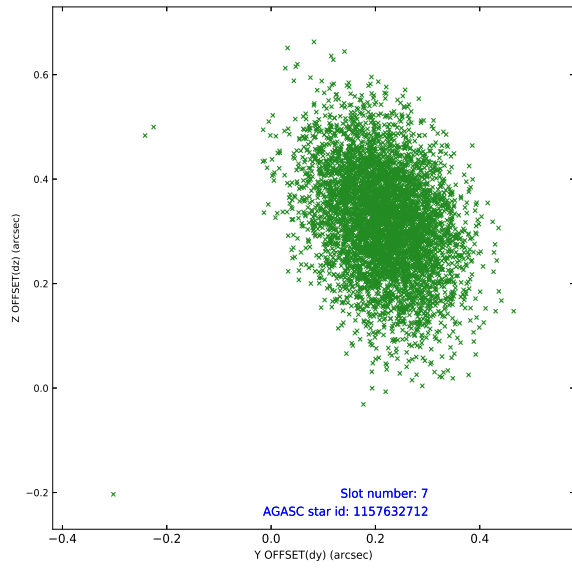
2.4.3 Slot 6



Time (s)

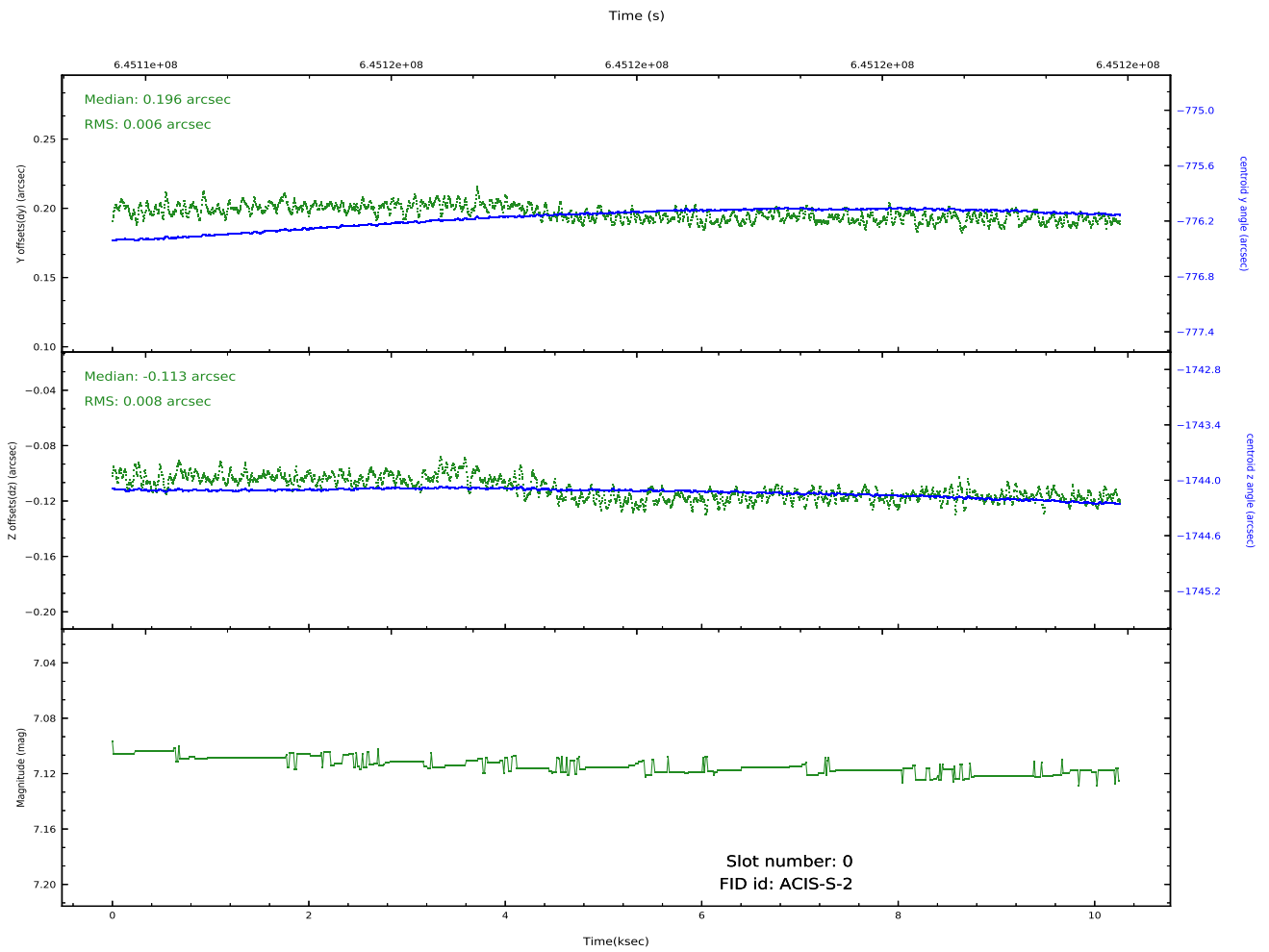
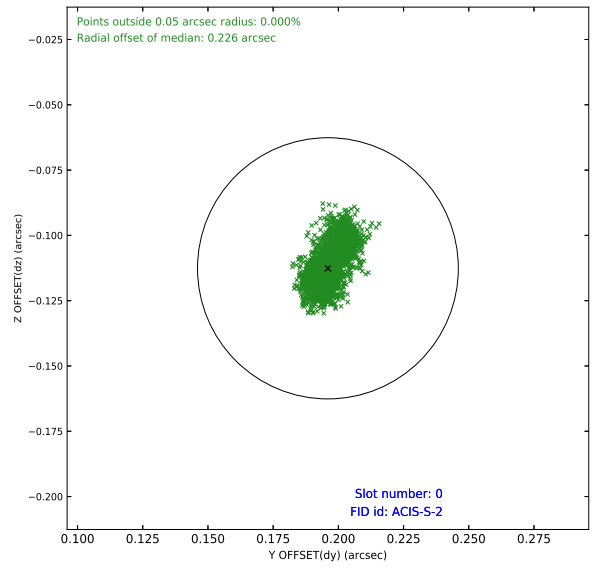
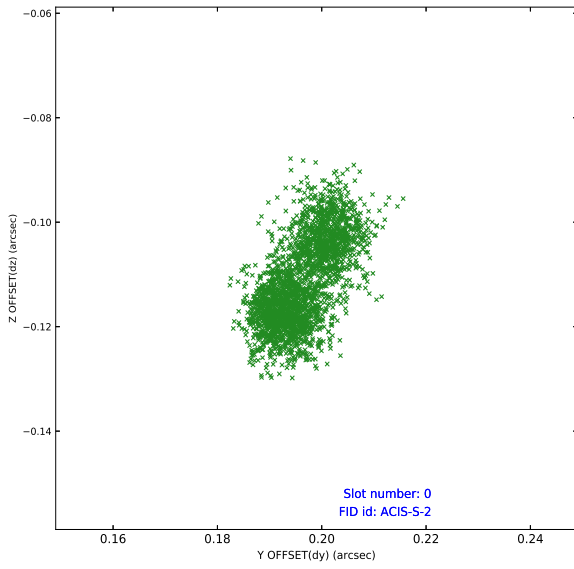


2.4.4 Slot 7

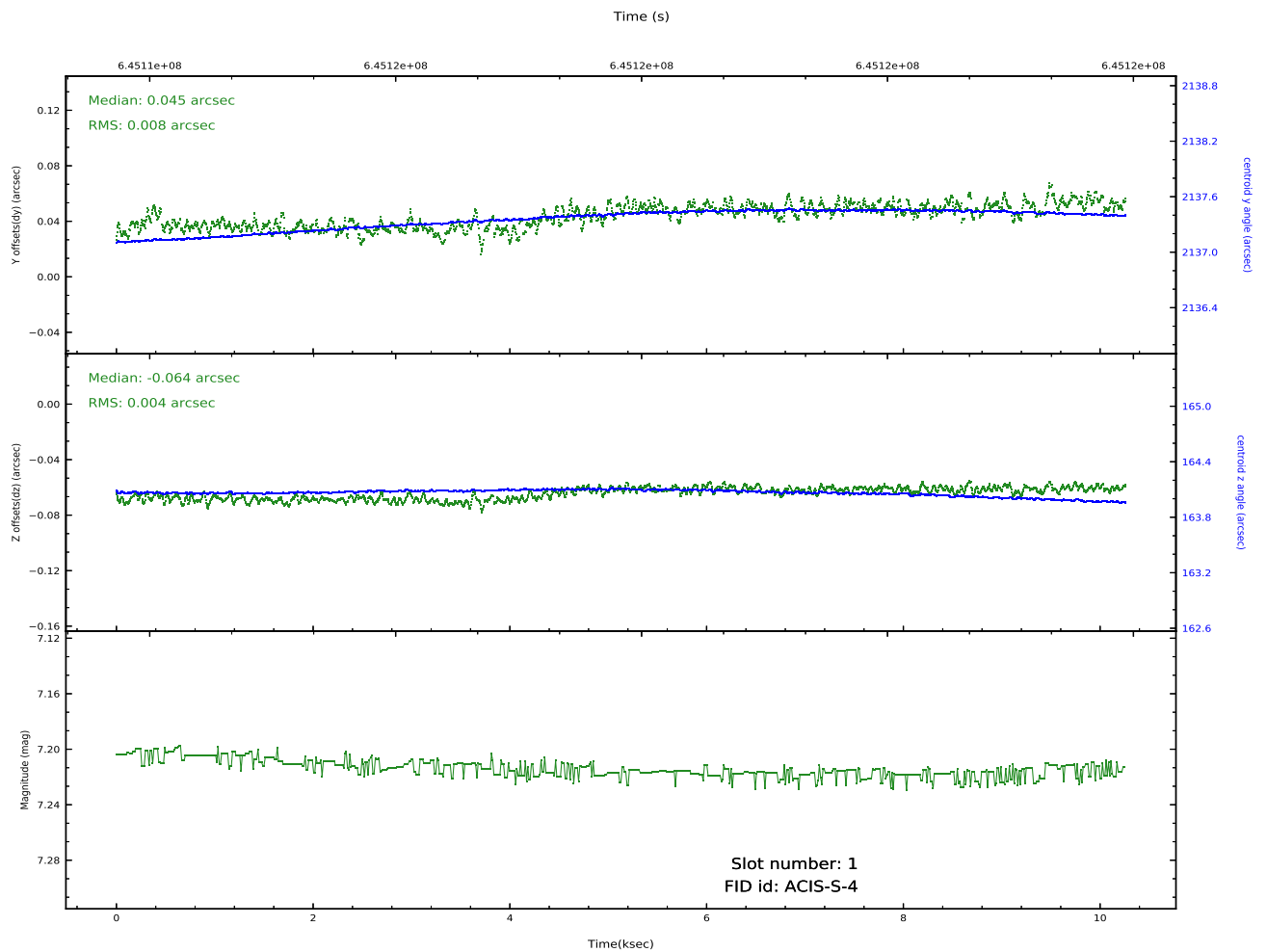
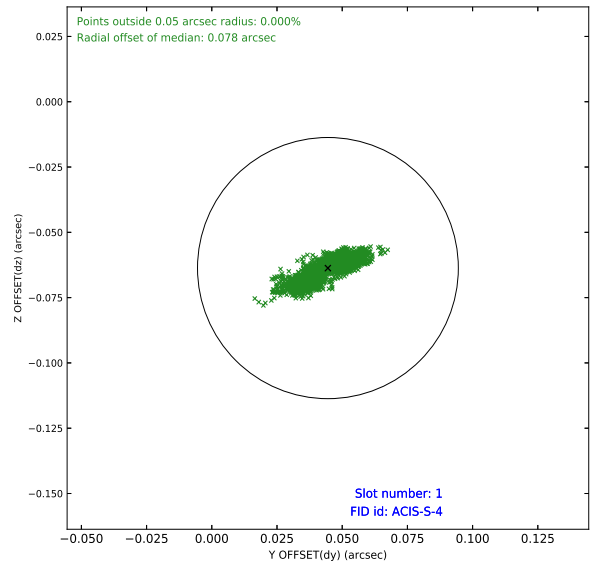
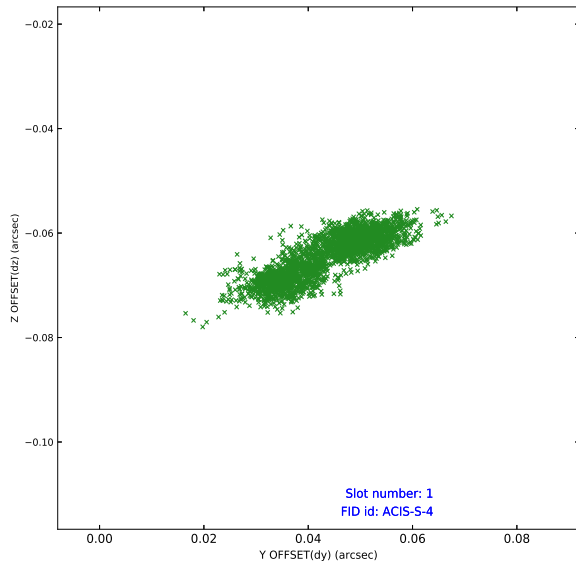


2.5 FID Slots

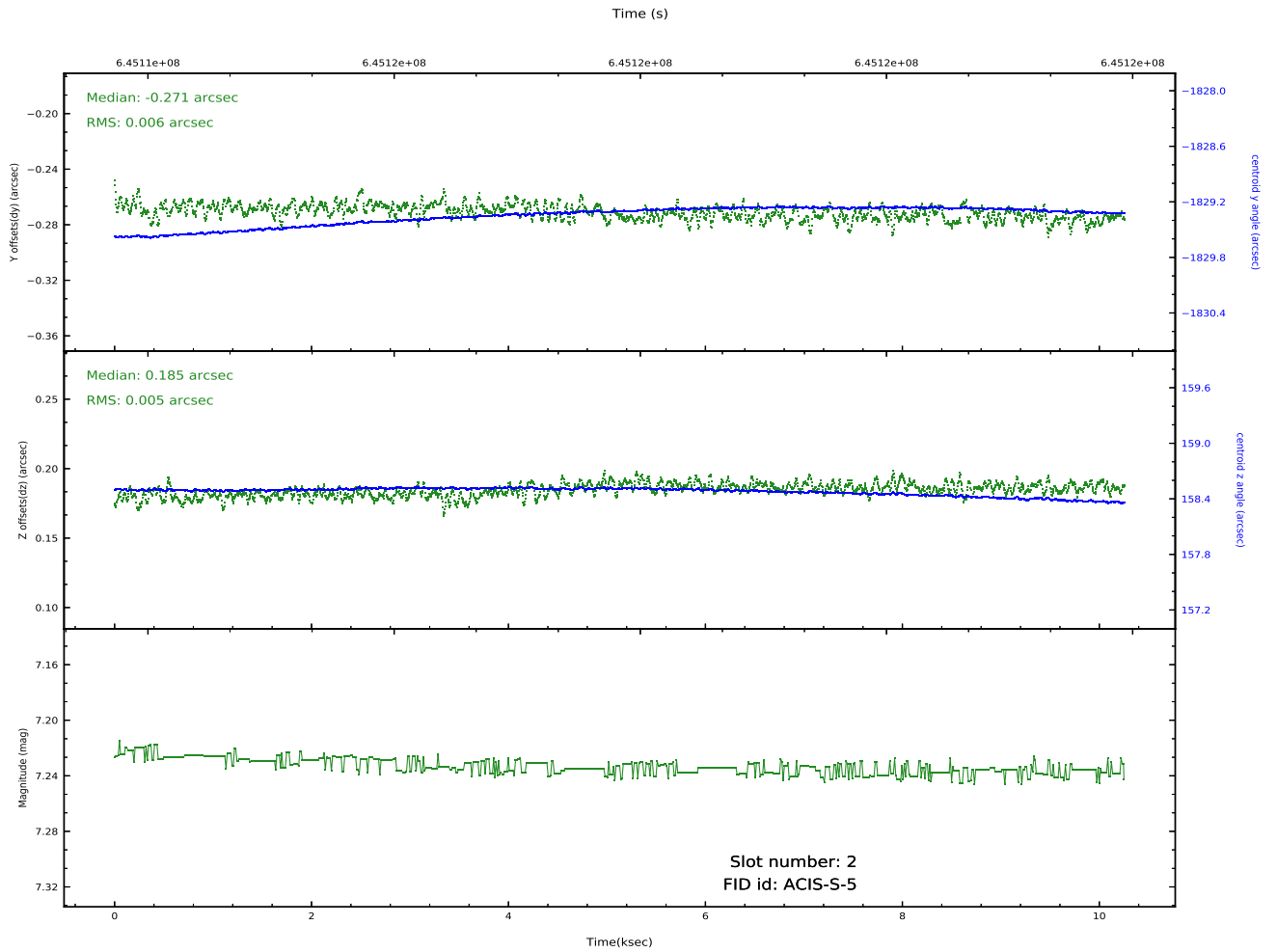
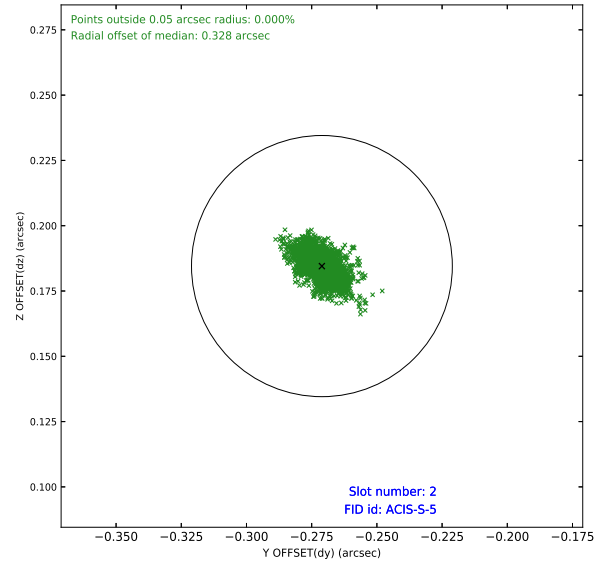
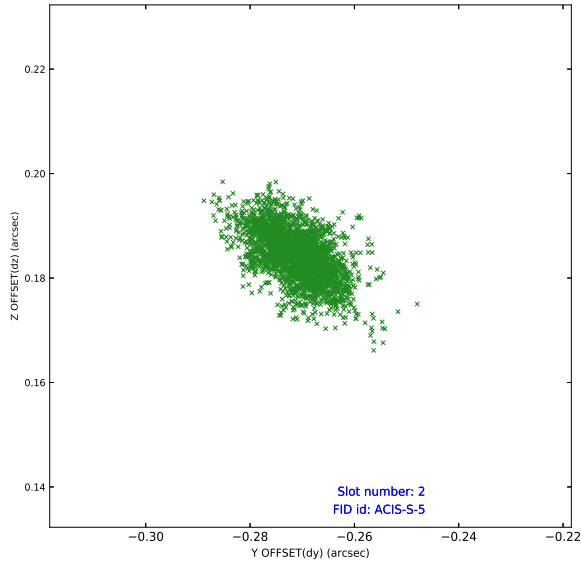
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.050200077415

A.2 Comments

The guide star in slot 5 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.