

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20461 - L2 Version 3
Chandra X-Ray Center

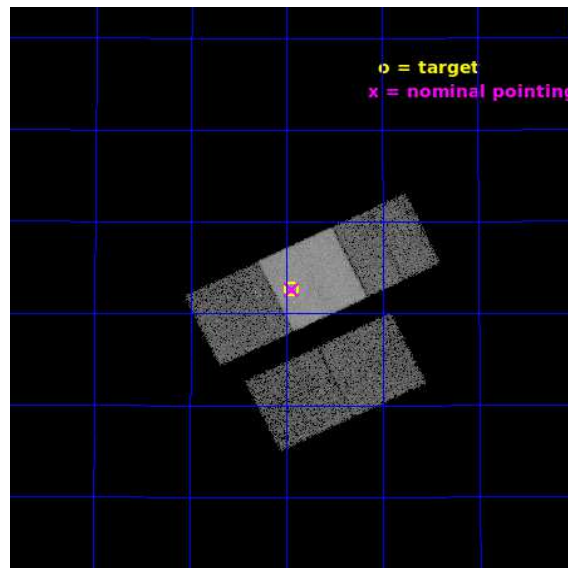
L2 Processing Date : Oct 27 2020

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1 Front

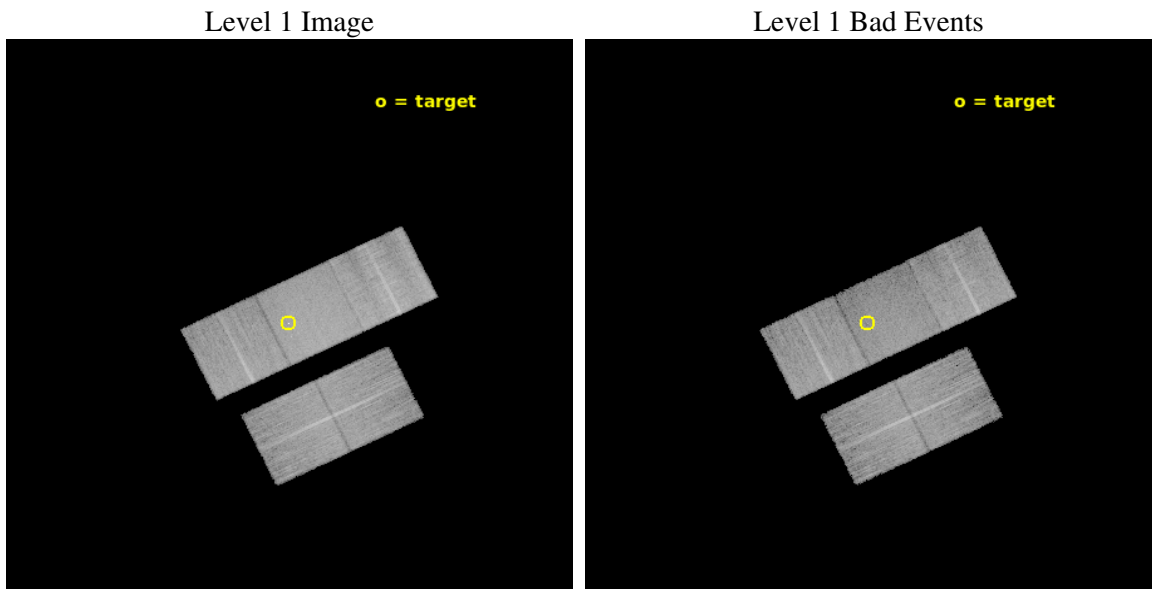
seq_num	703564	Sequence number
obs_id	20461	Observation id
title	Understanding AGN Accretion State Transitions with a Statistical Sample of Changing-Look Quasars	Proposal title
observer	John Ruan	Principal investigator
object	SDSS J132457.29+480241.2	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	201.23875	Observer's specified target RA [deg]
dec_targ	48.044778	Observer's specified target Dec [deg]
ra_nom	201.23617278615	Nominal RA [deg]
dec_nom	48.043713888095	Nominal Dec [deg]
roll_nom	334.01523677867	Nominal Roll [deg]
revision	3	Processing version of data
ontime	14049.200108171	Sum of GTIs [s]
livetime	13865.636965887	Livetime [s]
ontime2	14049.200108171	Sum of GTIs [s]
ontime3	14049.200108171	Sum of GTIs [s]
ontime6	14049.200108171	Sum of GTIs [s]
ontime7	14049.200108171	Sum of GTIs [s]
ontime8	14049.200108171	Sum of GTIs [s]
l2events	98313	Number of level 2 events



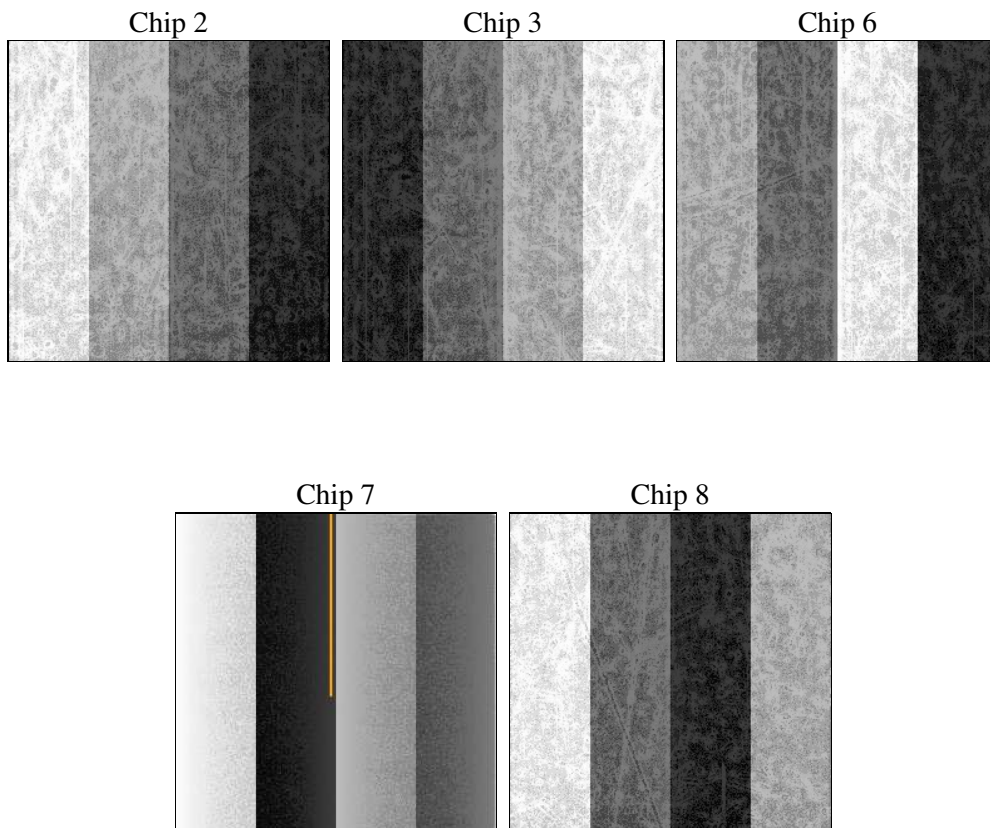
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	14049.200108171	Sum of GTIs [s]
caldsver	4.9.3	 	ontime2	14049.200108171	Sum of GTIs [s]
date	2020-10-27T20:31:54	Date and time of file creation	ontime3	14049.200108171	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	14049.200108171	Sum of GTIs [s]
			ontime7	14049.200108171	Sum of GTIs [s]
			ontime8	14049.200108171	Sum of GTIs [s]
			l1events	590162	Number of level 1 events

2.1.4 Events

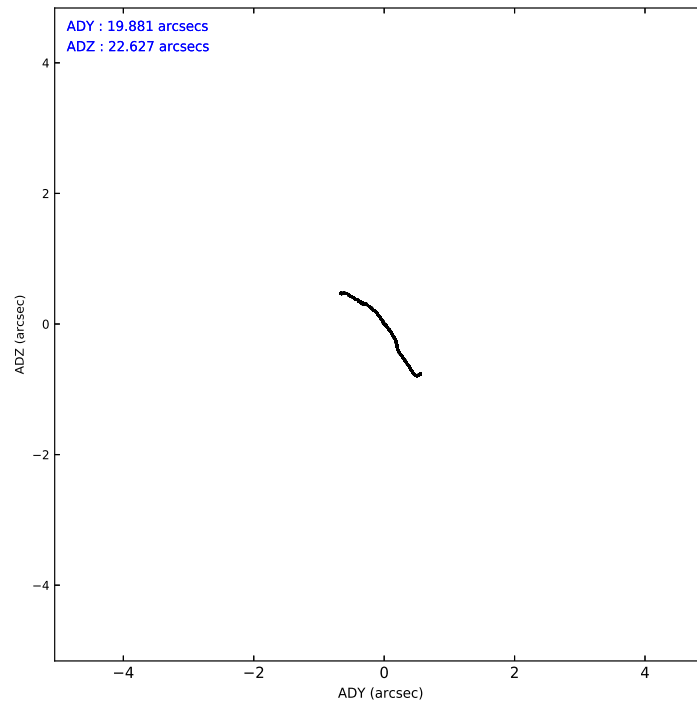
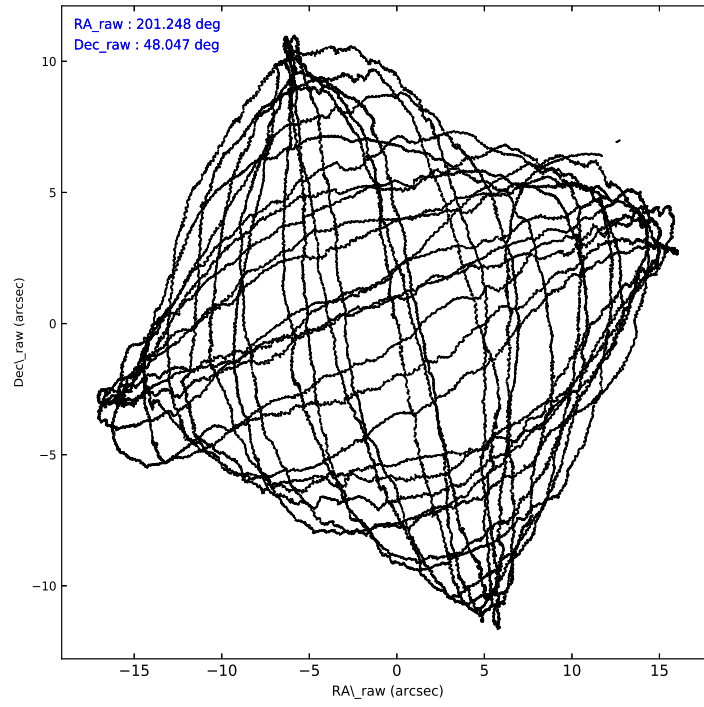
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	105789	103095	108842	135172	137264
rejected events	94859	92205	96949	75913	100440
rejected %	89%	89%	89%	56%	73%

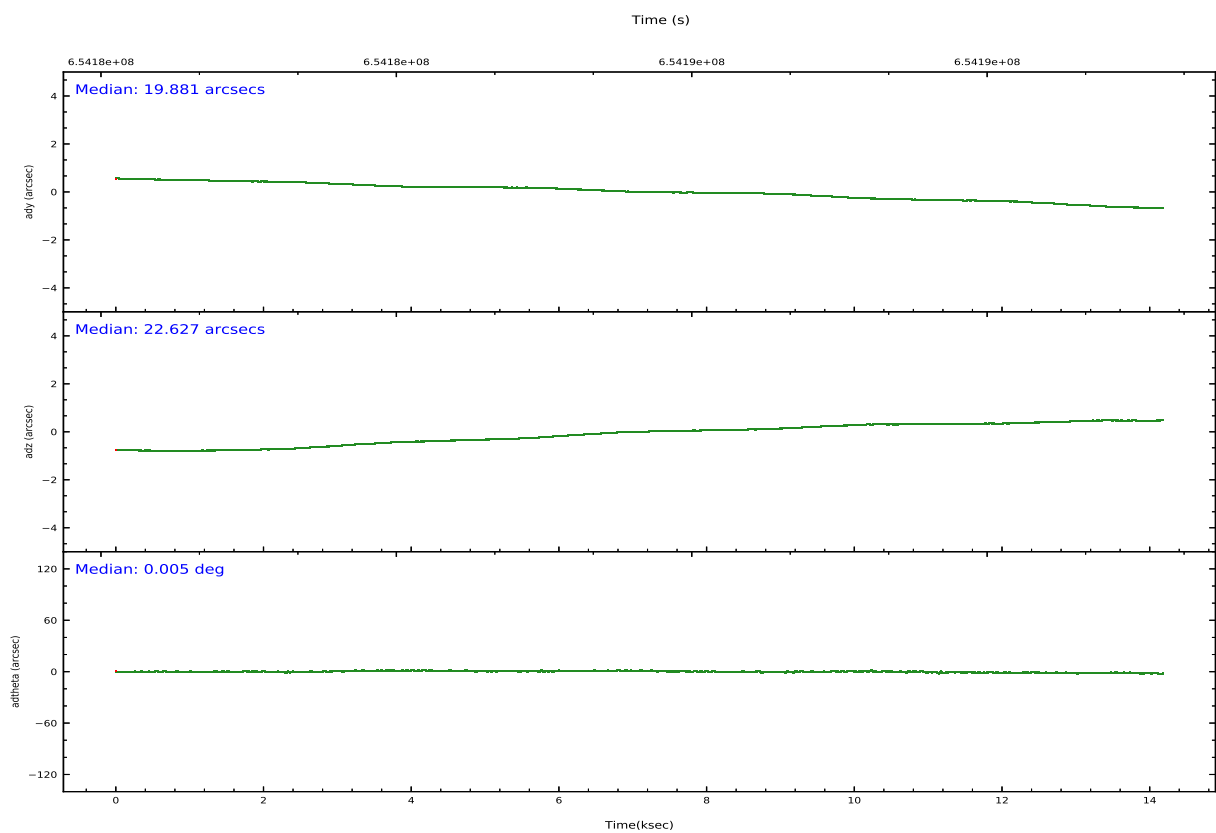
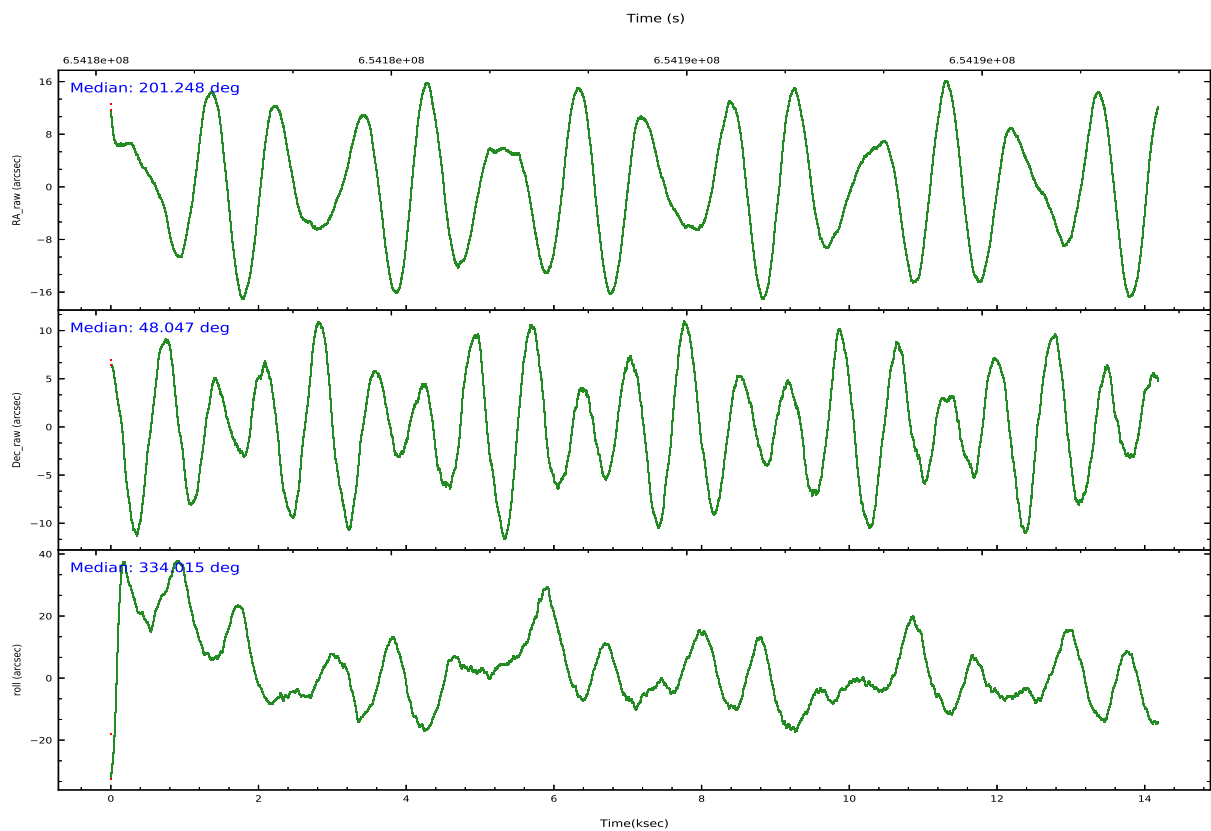
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3787	3890	3886	5165	10356
	3%	3%	3%	3%	7%
grade 1 events	45	164	52	204	122
	0%	0%	0%	0%	0%
grade 2 events	2708	2401	2908	12645	9090
	2%	2%	2%	9%	6%
grade 3 events	1128	1212	1146	4719	3685
	1%	1%	1%	3%	2%
grade 4 events	1103	1114	1107	4636	3488
	1%	1%	1%	3%	2%
grade 5 events	4057	4846	4786	13346	7492
	3%	4%	4%	9%	5%
grade 6 events	2209	2275	2851	32118	10209
	2%	2%	2%	23%	7%
grade 7 events	90752	87193	92106	62339	92822
	85%	84%	84%	46%	67%

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	201.207394	201.23617278615	CCD I2 on	O1	Y
[deg] Pointing Dec	48.044754	48.043713888095	CCD I3 on	O2	Y
[deg] Pointing Roll	333.891221	334.01523677867	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	654180384.184000	654179107.42564	CCD S5 on	N	N
Observation start date	2018-09-24T12:45:15	2018-09-24T12:25:07	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	654194384.184000	654194921.12658	On-chip summing requested	N	N
Observation end date	2018-09-24T16:38:35	2018-09-24T16:48:41	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



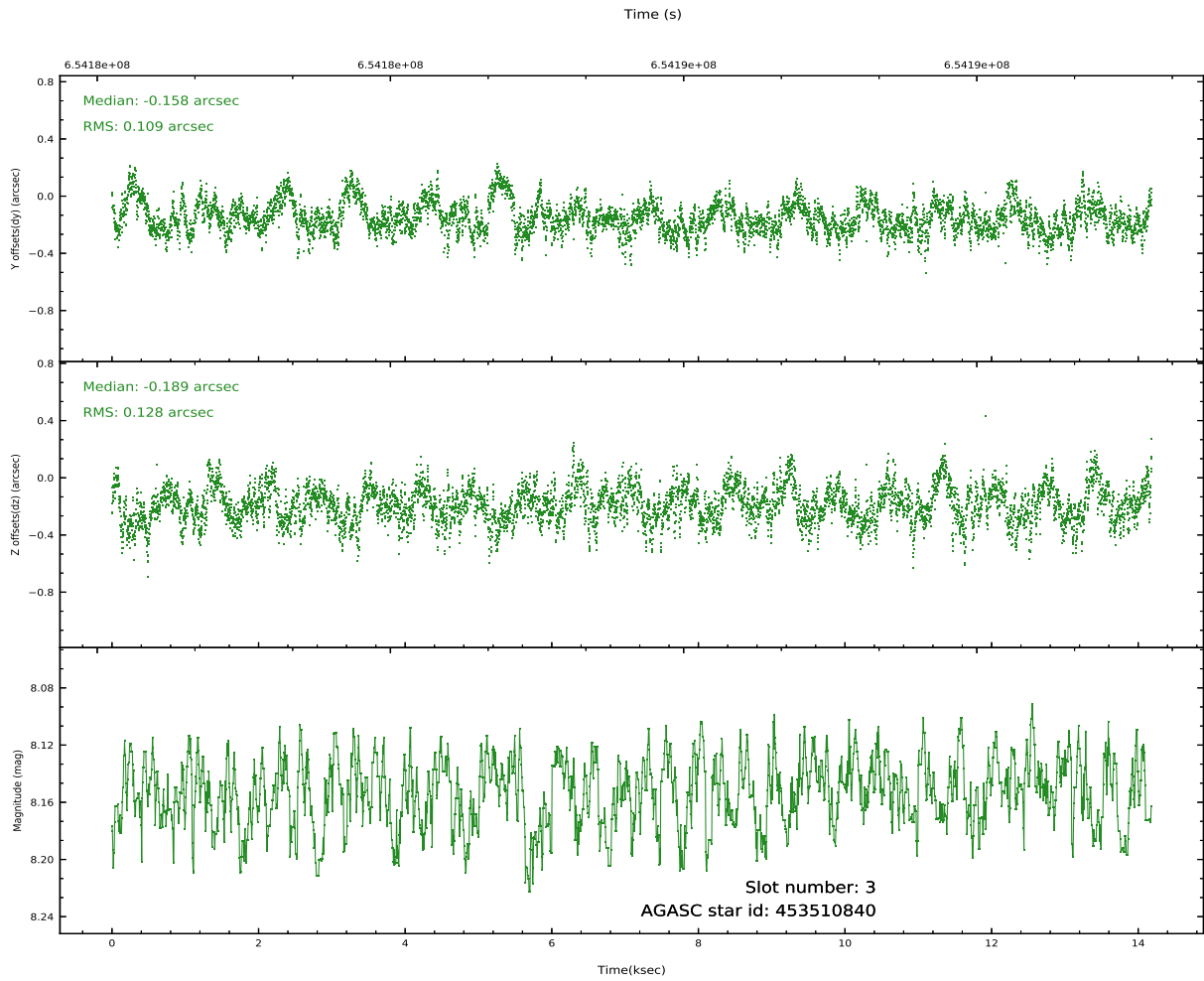
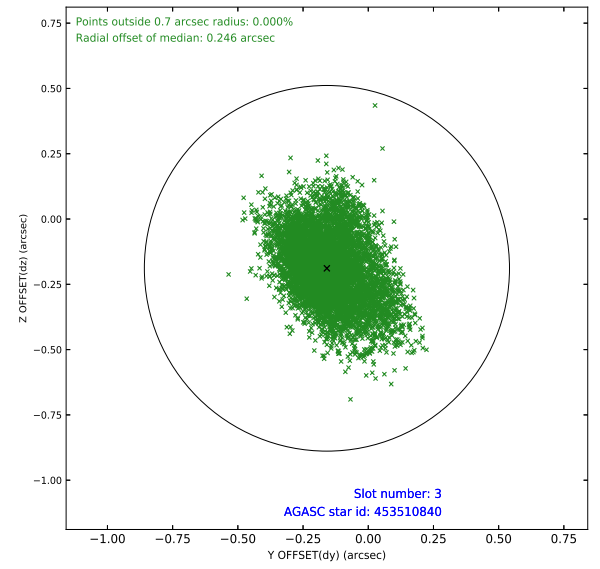
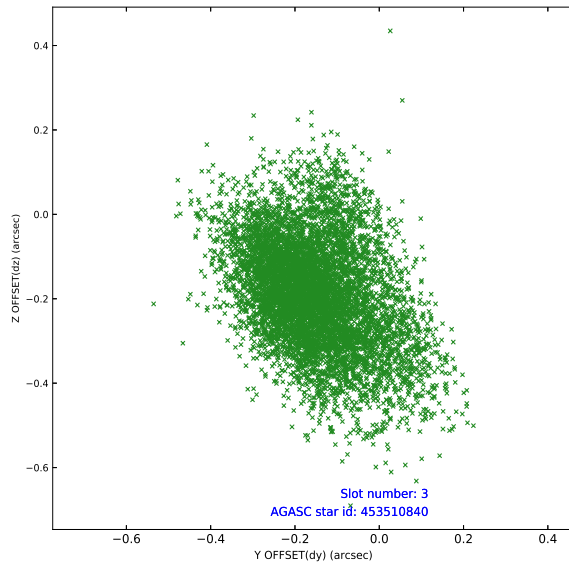


Slot Statistics

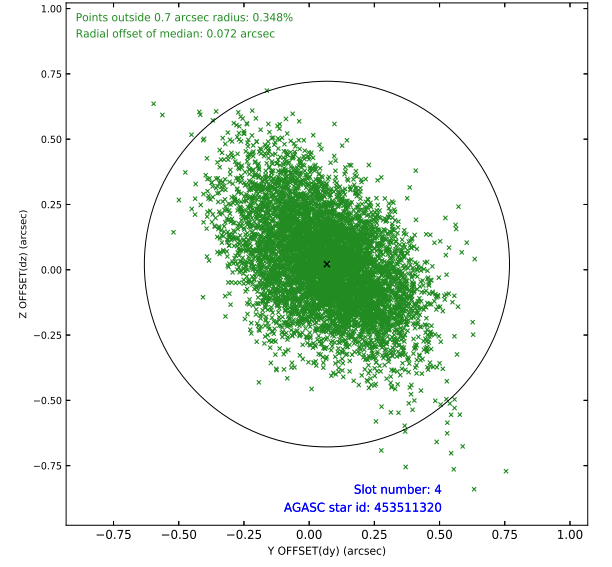
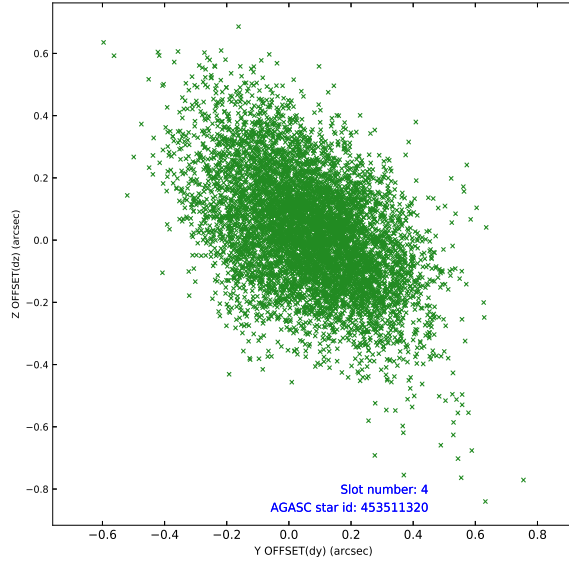
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.02	3460	1.000	0.119	-0.121	0.009	0.017	0.000000	0.000000	-773.15	-1744
1	FID		ACIS-S-4	7.14	3460	1.000	0.096	-0.025	0.009	0.021	0.000000	0.000000	2140.26	163
2	FID		ACIS-S-5	7.14	3460	1.000	-0.247	0.154	0.008	0.013	0.000000	0.000000	-1825.64	158
3	GUIDE	used	453510840	8.15	6916	1.000	-0.158	-0.189	0.175	0.300	201.807787	48.001649	1365.23	501
4	GUIDE	used	453511320	9.68	6892	1.000	0.068	0.022	0.261	0.448	201.652270	47.423457	1957.48	-1528
5	GUIDE	used	453511464	9.43	6902	1.000	0.051	0.032	0.237	0.409	201.989467	48.191071	1449.63	1307
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
7	GUIDE	used	453513656	9.70	6906	1.000	0.053	0.105	0.306	0.576	201.125461	47.854002	124.73	-702

2.4 Star Slots

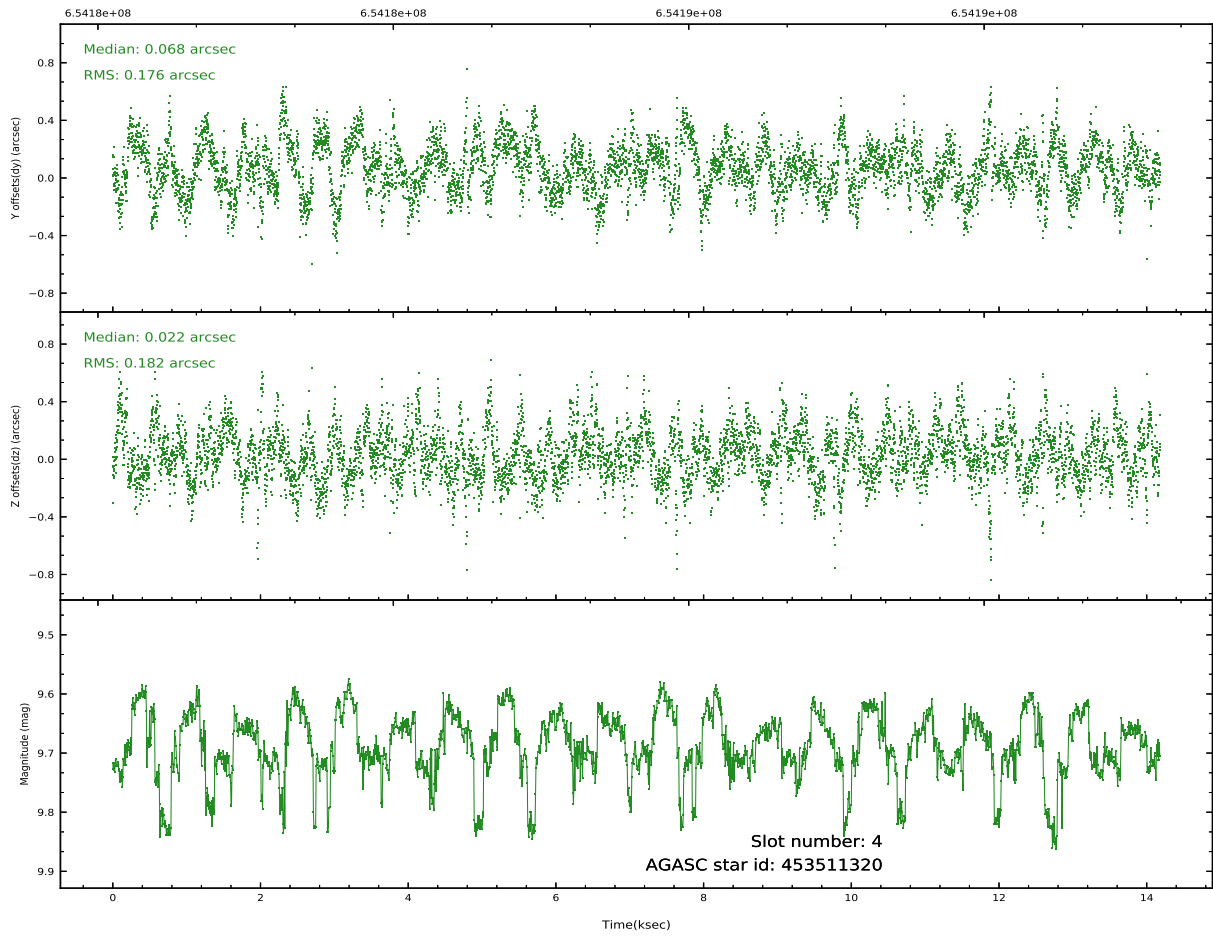
2.4.1 Slot 3



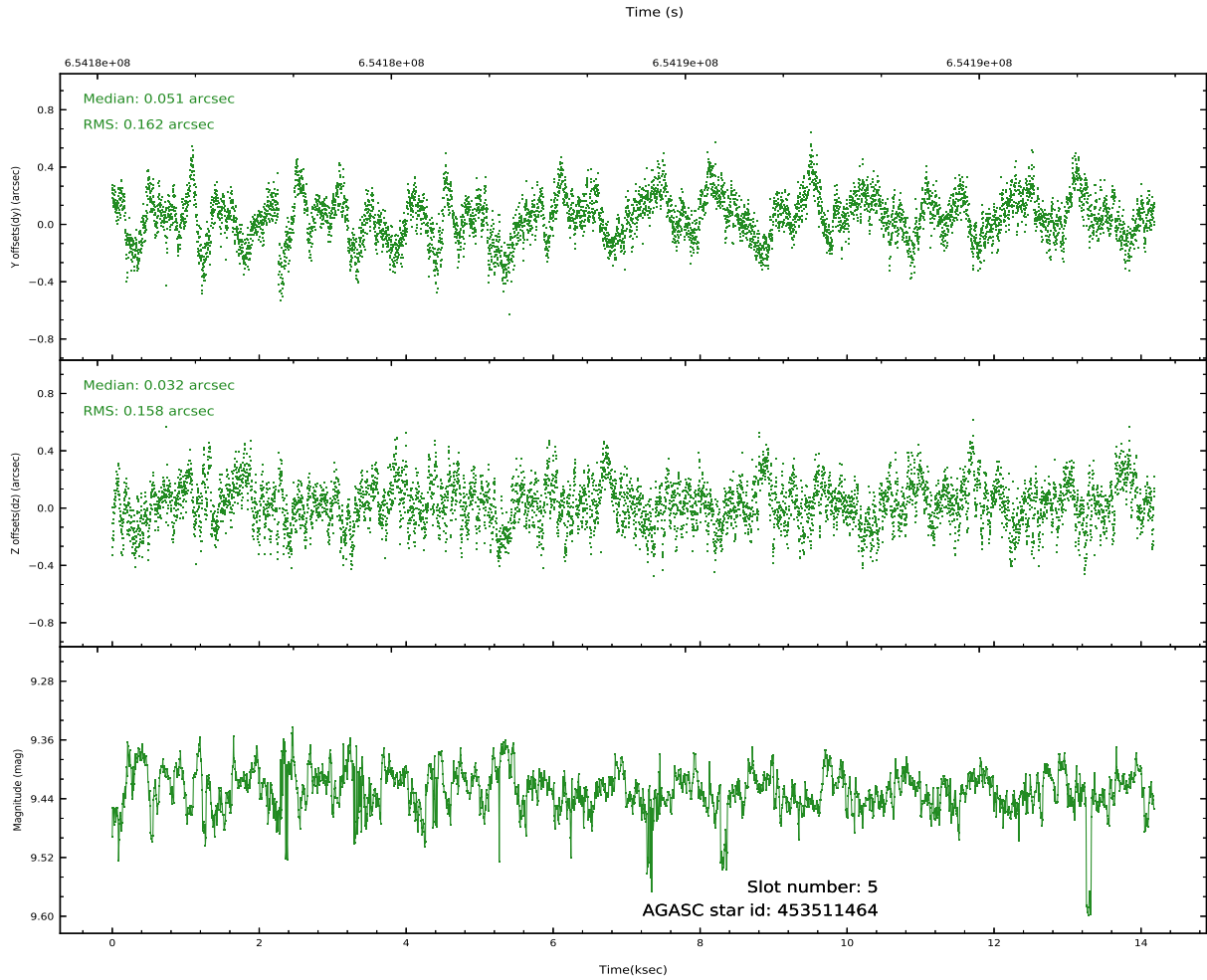
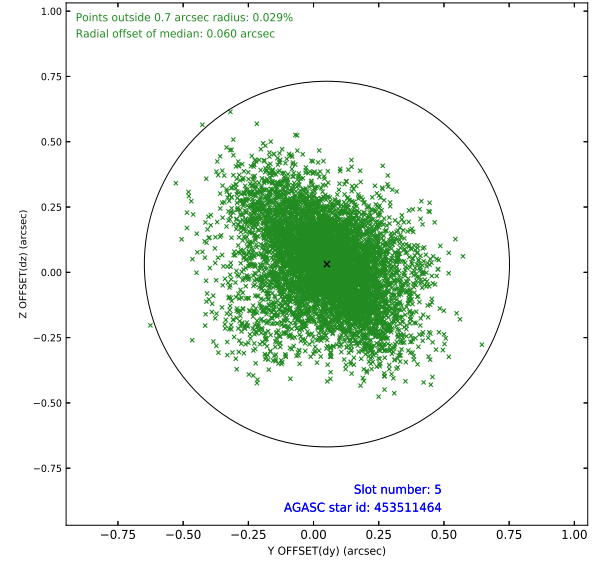
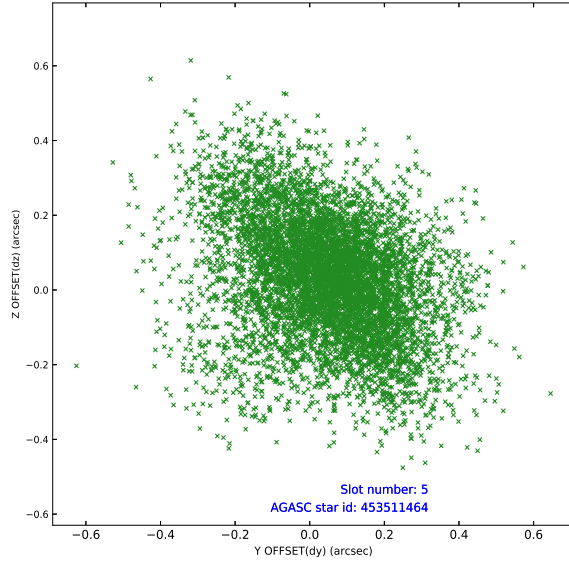
2.4.2 Slot 4



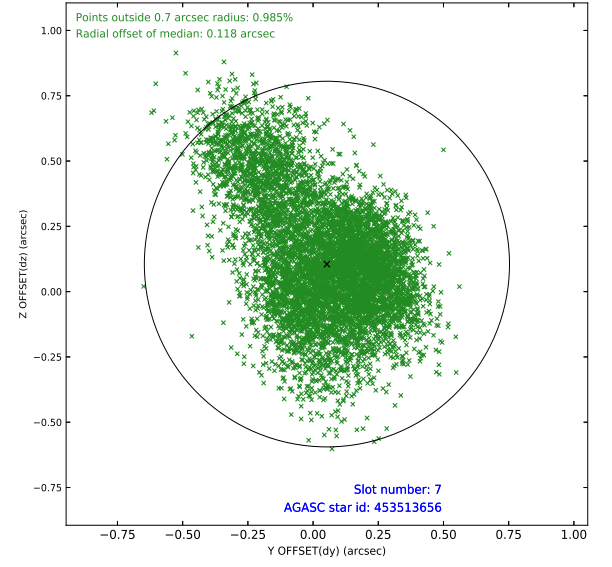
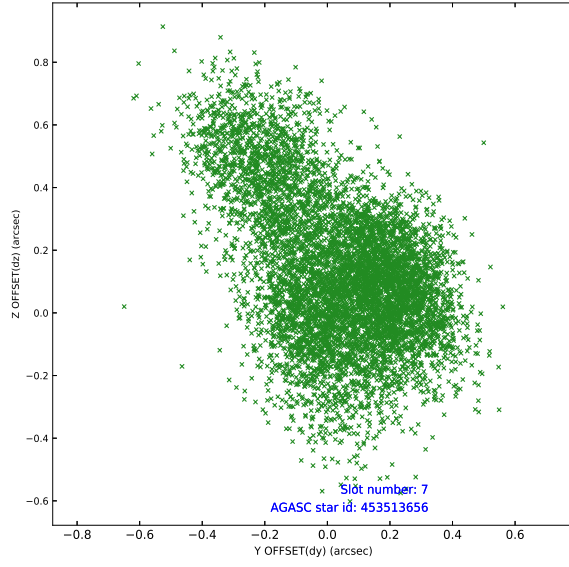
Time (s)



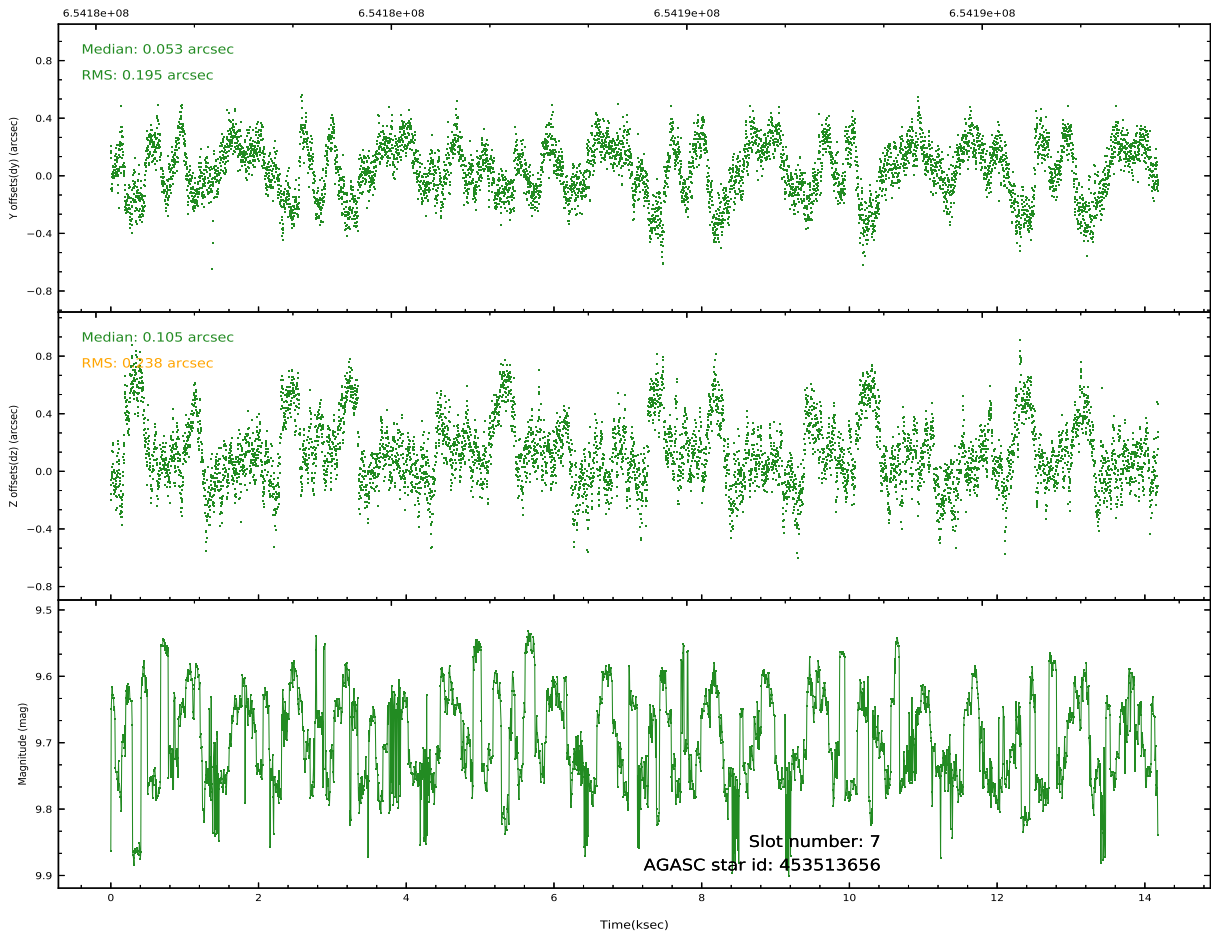
2.4.3 Slot 5



2.4.4 Slot 7

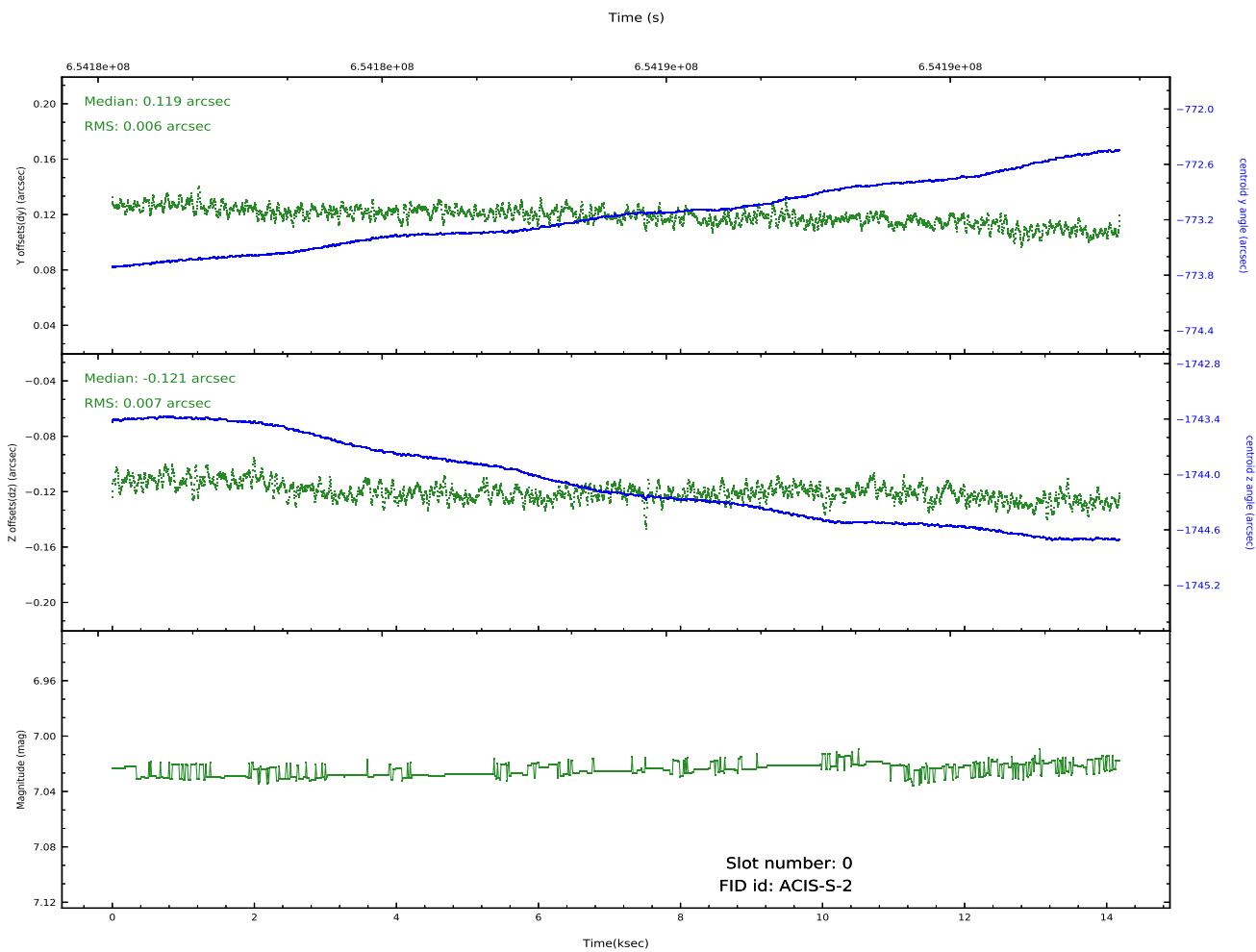
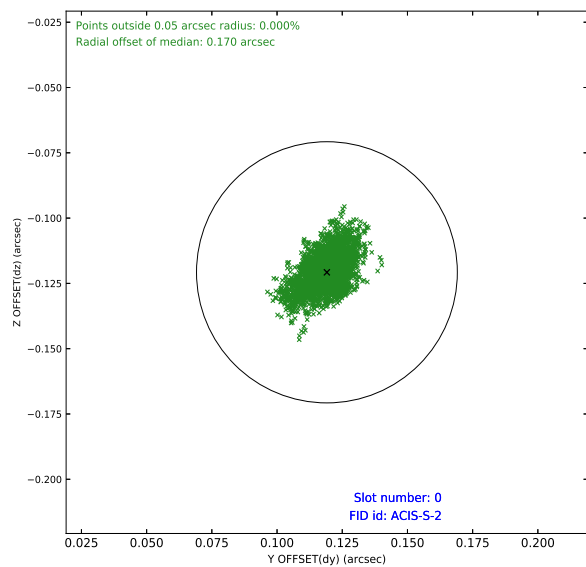
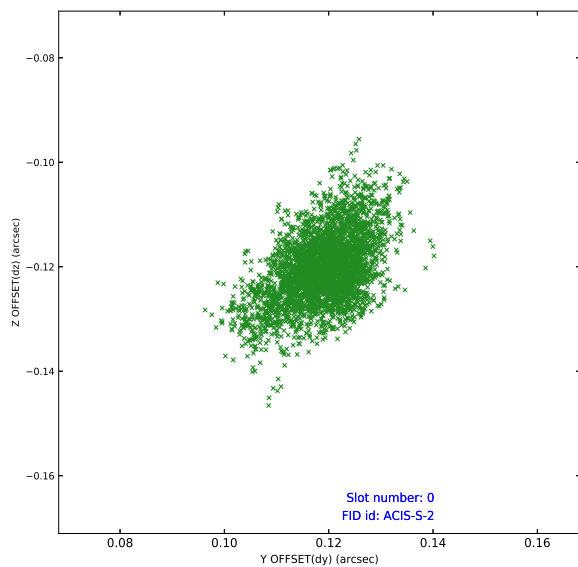


Time (s)

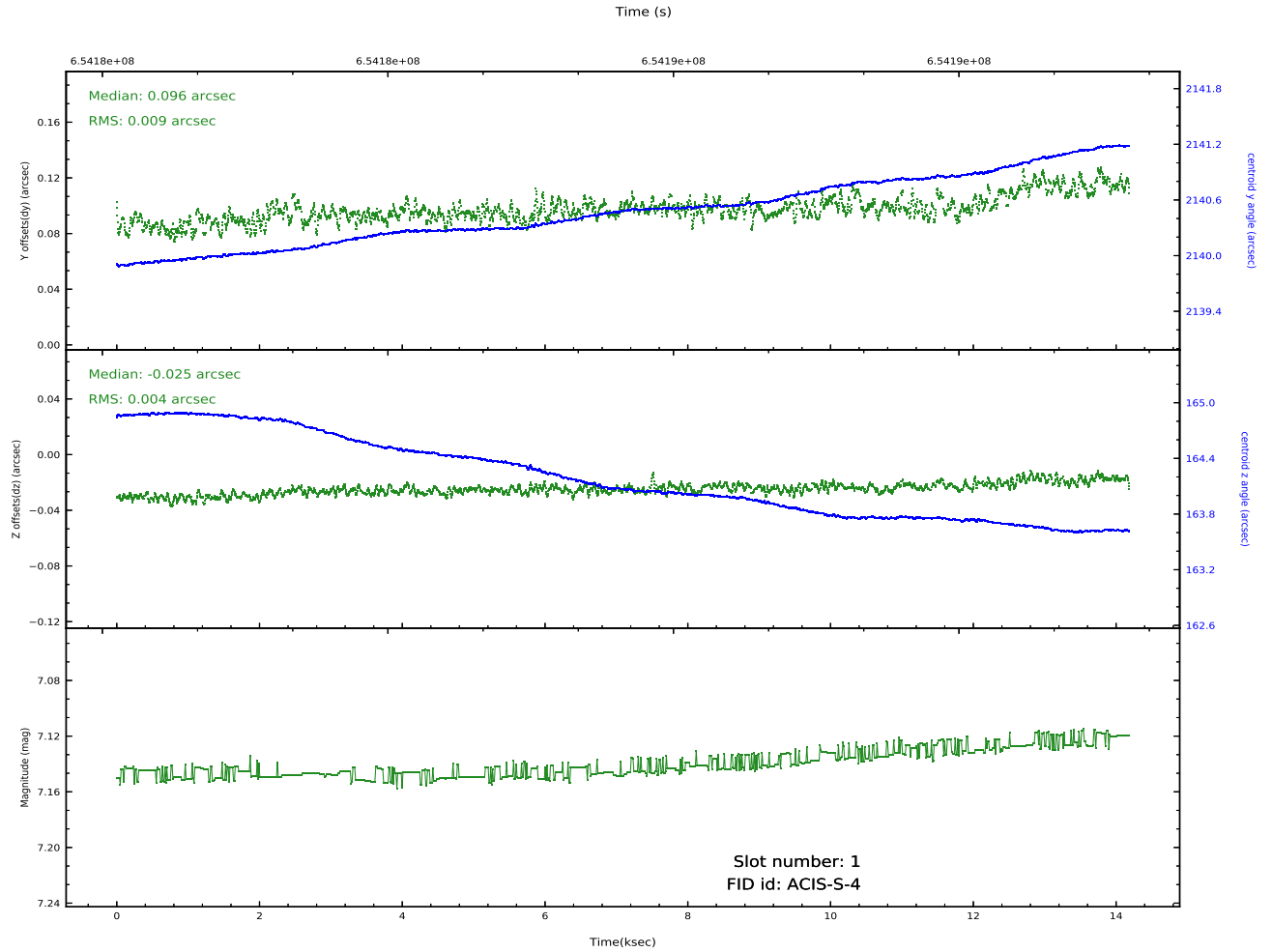
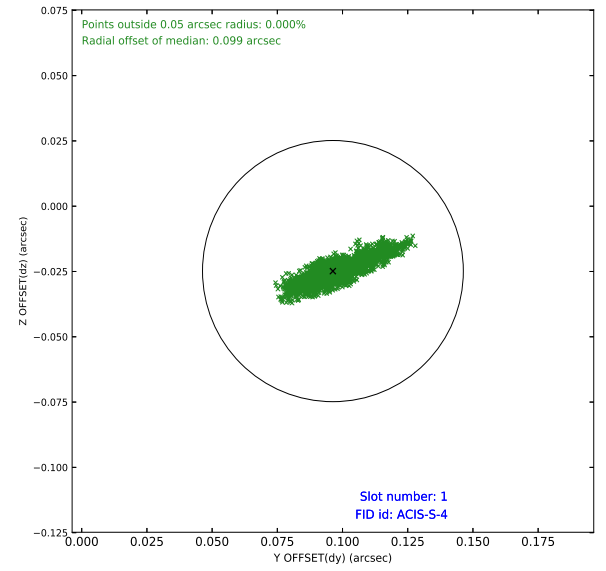
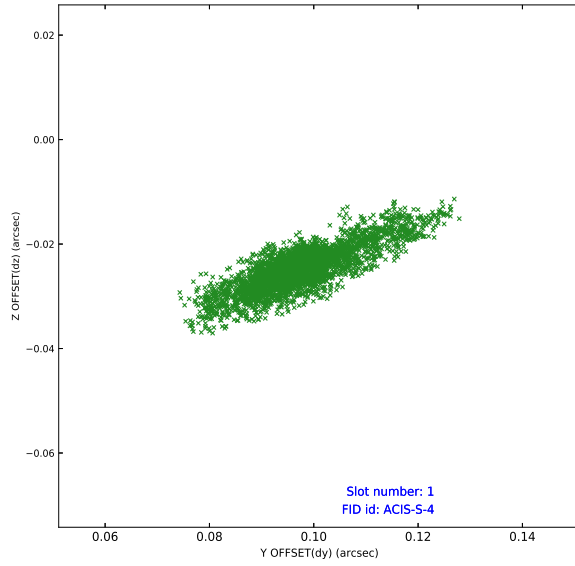


2.5 FID Slots

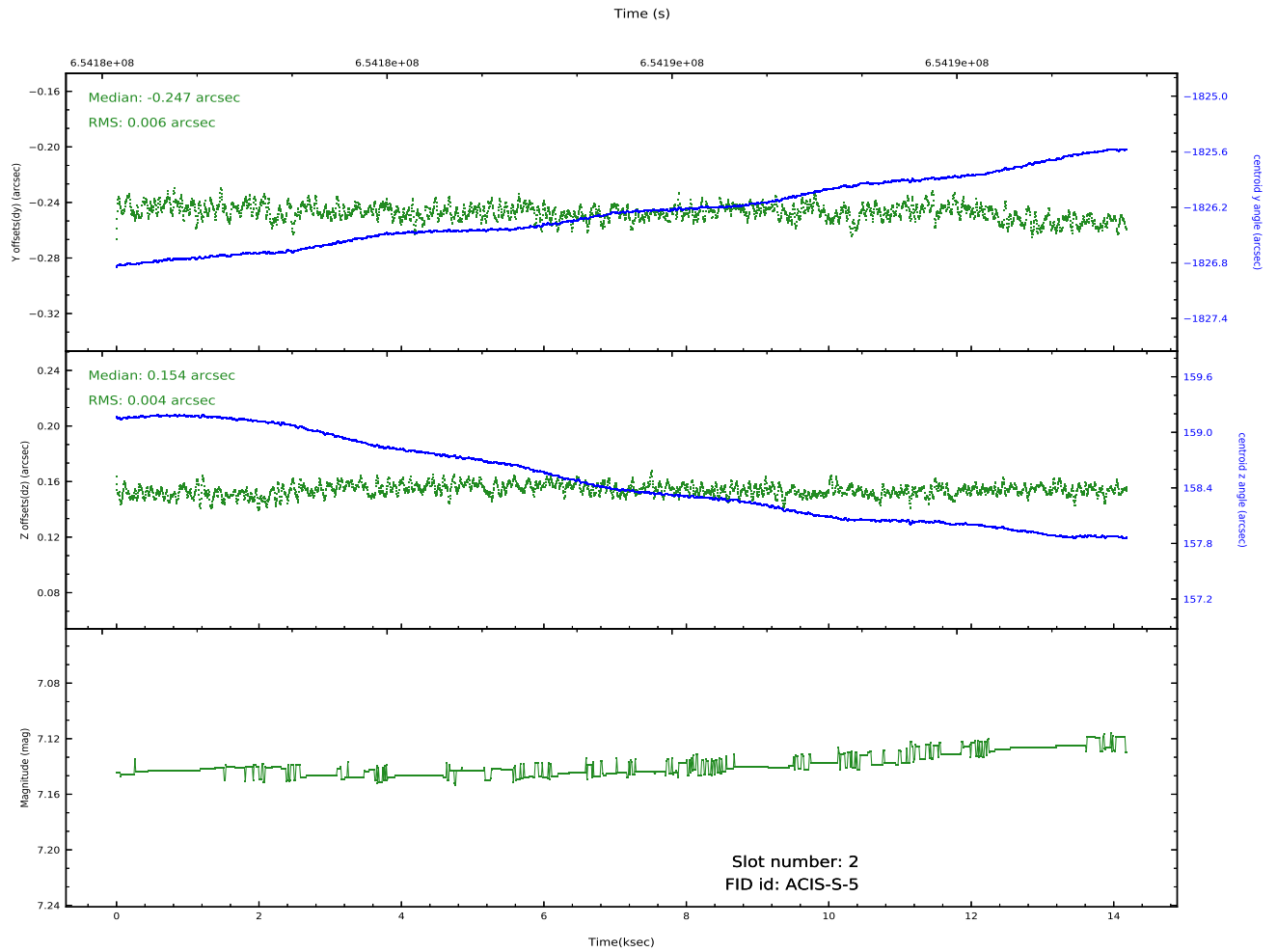
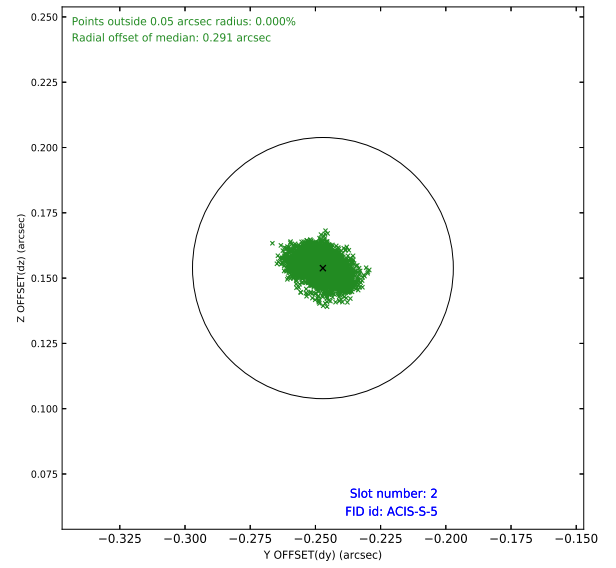
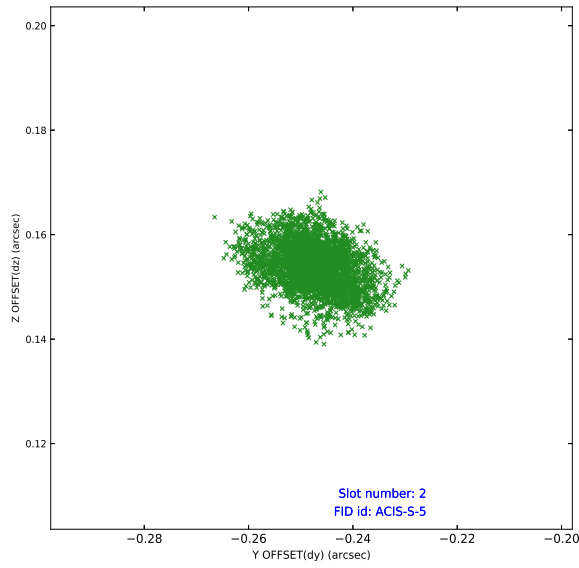
2.5.1 Slot 0



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)	2020.10.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.049200108171

A.2 Comments

The guide star in slot 6 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.