

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20649 - L2 Version 3
Chandra X-Ray Center

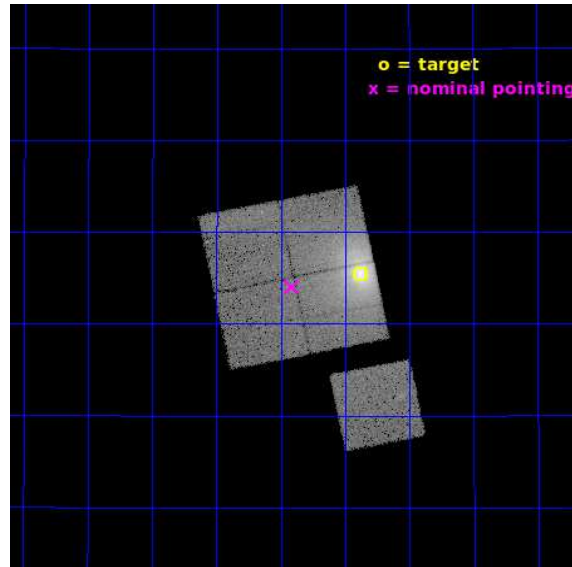
L2 Processing Date : Oct 25 2020

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1 Front

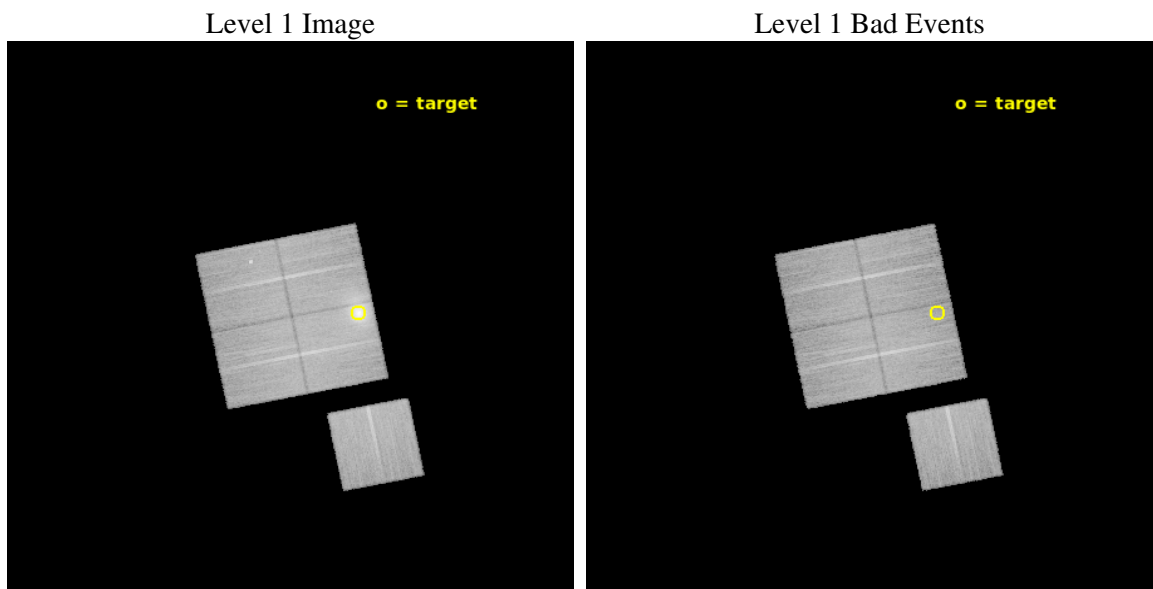
seq_num	890156	Sequence number
obs_id	20649	Observation id
title	AO-19 Calibration Observations of A1795	Proposal title
observer	CXC Calibration	Principal investigator
object	A1795	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	207.219583	Observer's specified target RA [deg]
dec_targ	26.590833	Observer's specified target Dec [deg]
ra_nom	207.35321120278	Nominal RA [deg]
dec_nom	26.567734925815	Nominal Dec [deg]
roll_nom	168.54367705301	Nominal Roll [deg]
revision	3	Processing version of data
ontime	23066.685335994	Sum of GTIs [s]
livetime	22765.302110632	Livetime [s]
ontime0	23069.744326234	Sum of GTIs [s]
ontime1	23066.644335985	Sum of GTIs [s]
ontime2	23066.685335994	Sum of GTIs [s]
ontime3	23069.867446184	Sum of GTIs [s]
ontime6	23063.421195745	Sum of GTIs [s]
l2events	171698	Number of level 2 events



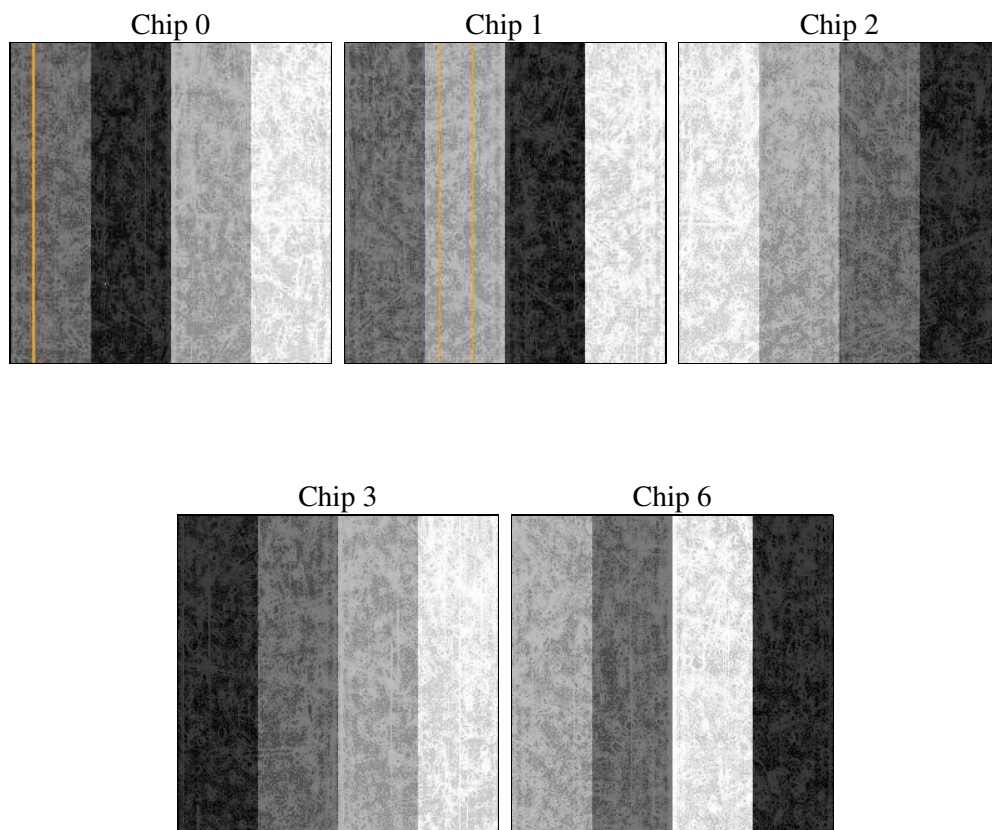
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	23066.685335994	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	23069.744326234	Sum of GTIs [s]
date	2020-10-25T11:56:30	Date and time of file creation	ontime1	23066.644335985	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	23066.685335994	Sum of GTIs [s]
			ontime3	23069.867446184	Sum of GTIs [s]
			ontime6	23063.421195745	Sum of GTIs [s]
			l1events	963329	Number of level 1 events

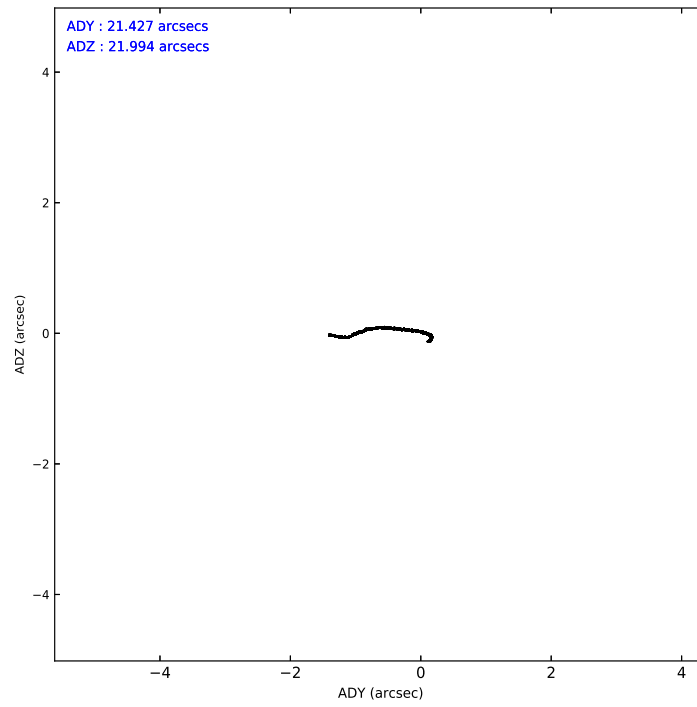
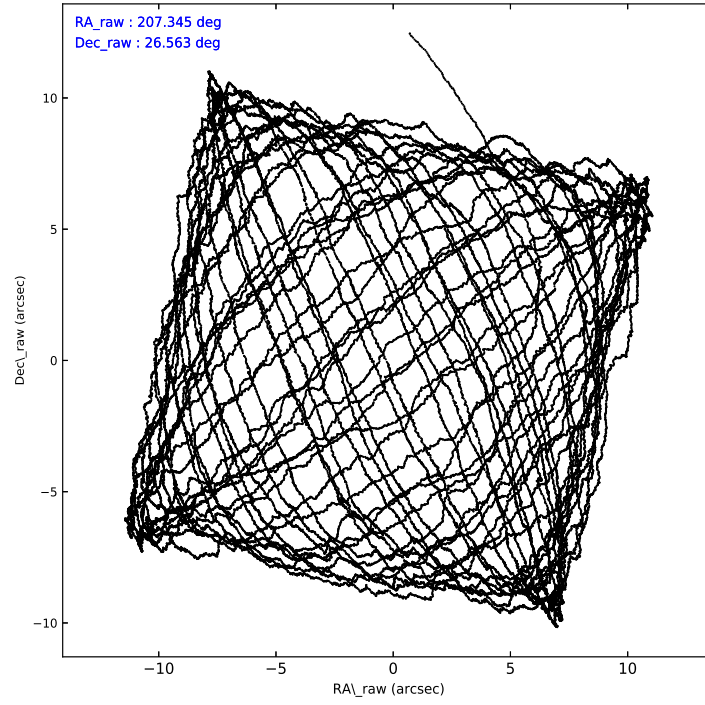
2.1.4 Events

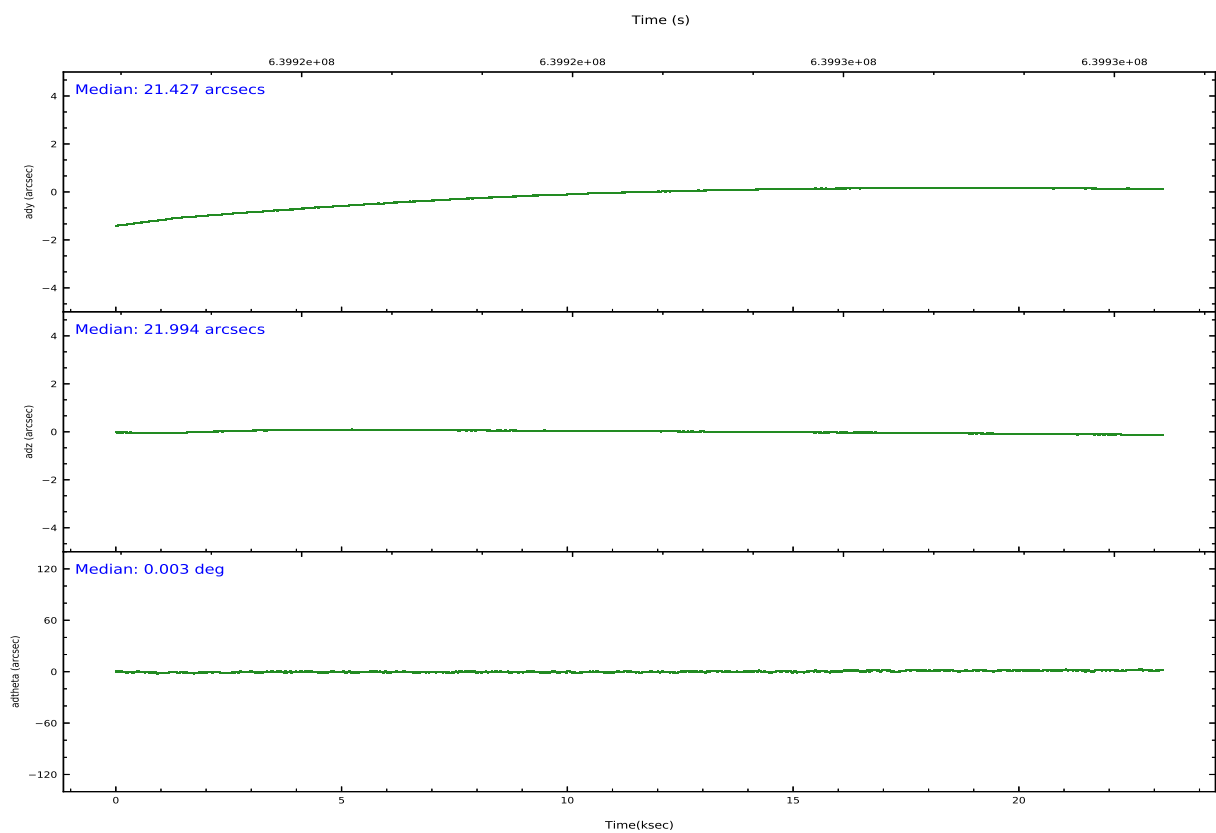
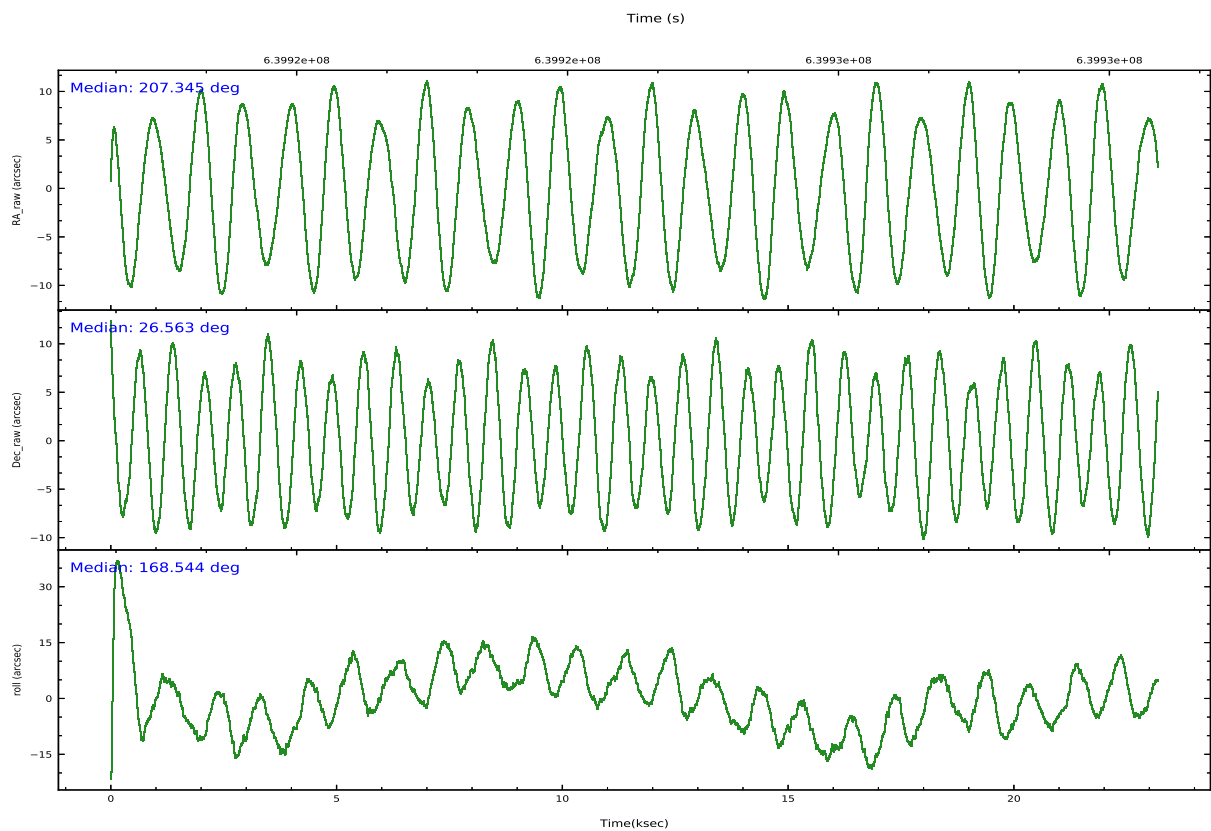
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	189115	166164	251487	175329	181234	grade 0 events	26790	8916	61466	6984	6775
rejected events	143774	142811	162972	156364	161243		14%	5%	24%	3%	3%
rejected %	76%	85%	64%	89%	88%	grade 1 events	157	103	346	90	78
							0%	0%	0%	0%	0%
						grade 2 events	7918	5590	12346	4063	4802
							4%	3%	4%	2%	2%
						grade 3 events	2785	1973	4367	1965	1958
							1%	1%	1%	1%	1%
						grade 4 events	2861	1945	4355	1959	1902
							1%	1%	1%	1%	1%
						grade 5 events	7096	7441	6845	8090	7690
							3%	4%	2%	4%	4%
						grade 6 events	4991	4935	5991	3995	4555
							2%	2%	2%	2%	2%
						grade 7 events	136517	135261	155771	148183	153474
							72%	81%	61%	84%	84%

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	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	207.374241	207.35321120278	CCD I2 on	Y	Y
[deg] Pointing Dec	26.571654	26.567734925815	CCD I3 on	Y	Y
[deg] Pointing Roll	168.327481	168.54367705301	CCD S0 on	N	N
[s] Window start time (MET)	638928069.184000	638928069.184000	CCD S1 on	N	N
[s] Window stop time (MET)	641433669.184000	641433669.184000	CCD S2 on	O1	Y
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S3 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S4 on	N	N
[mm] SIM translation stage pos	-231.837463	-231.8399853262445	CCD S5 on	N	N
[mm] SIM translation stage offset	-1.755	-1.7524676766852	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	639912080.184000	639911130.15564	On-chip summing requested	N	N
Observation start date	2018-04-12T09:20:11	2018-04-12T09:05:30	Subarray requested	NONE	NONE
[s] Observation end time (MET)	639935080.184000	639935684.54459	Alternating exposures requested	N	N
Observation end date	2018-04-12T15:43:31	2018-04-12T15:54:44	[s] Primary exposure time	0.000000	3.1
Read mode	TIMED	TIMED			

2.3 Aspect



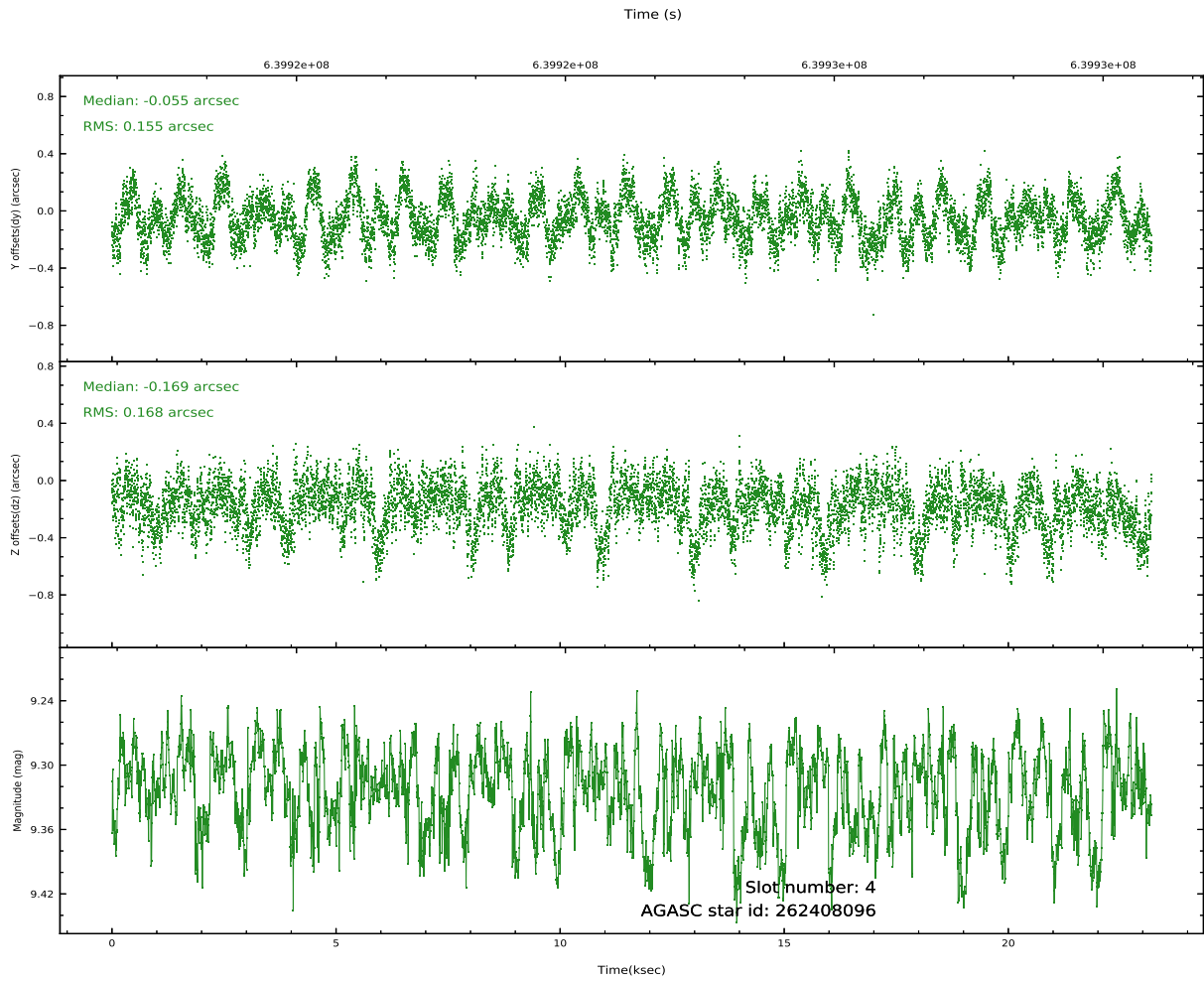
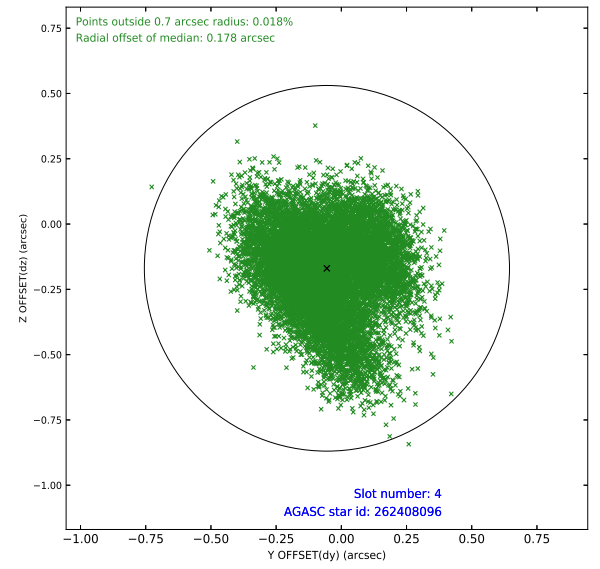
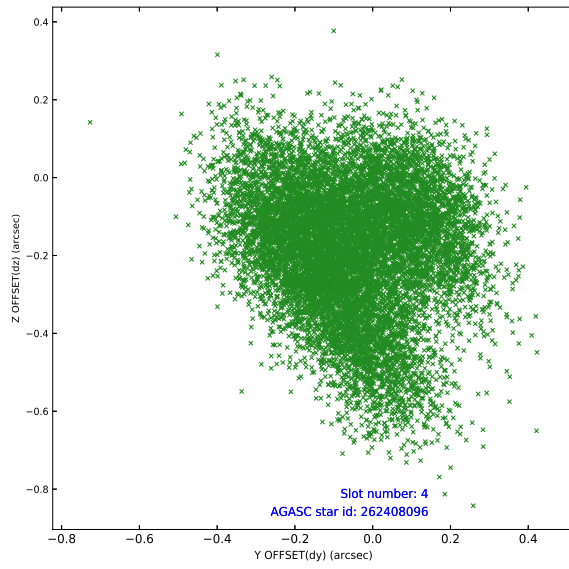


Slot Statistics

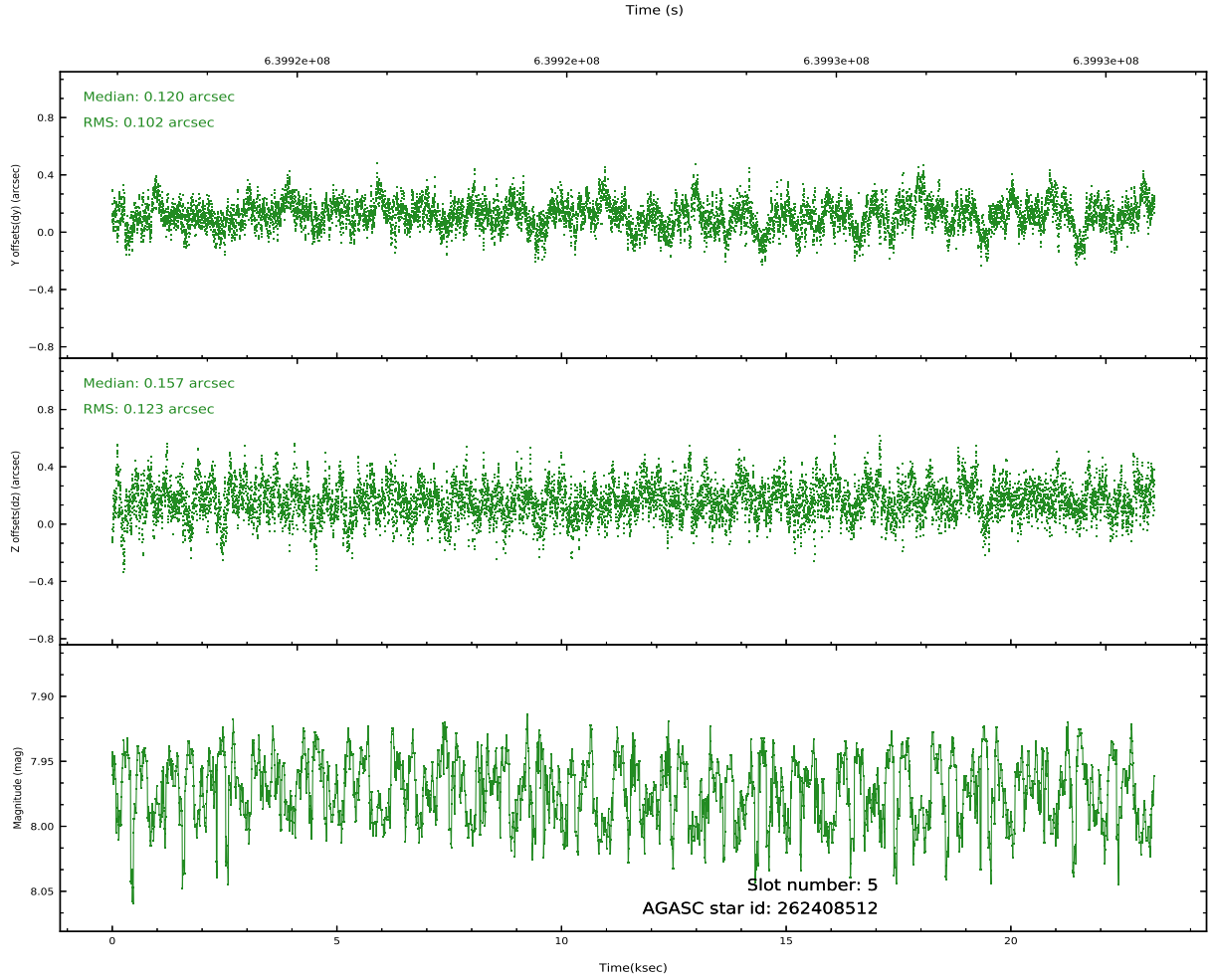
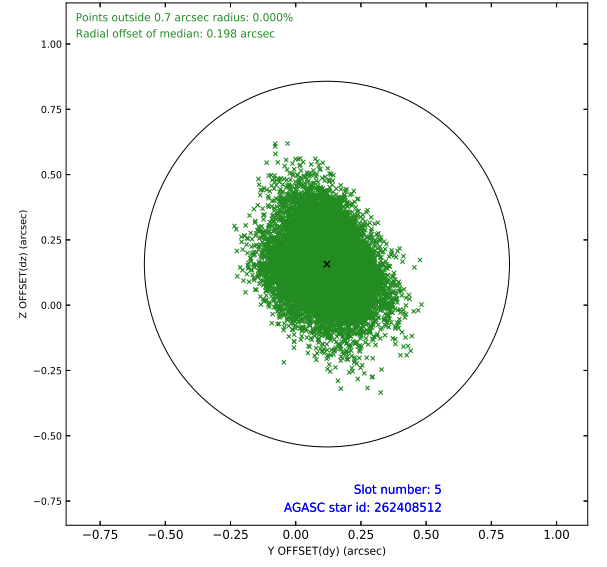
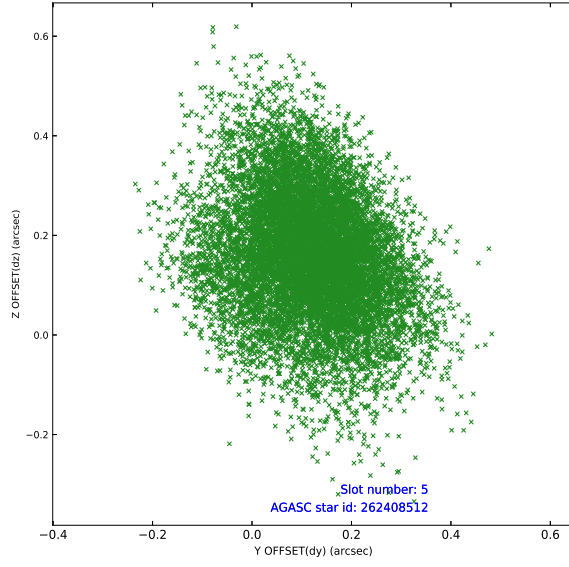
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.21	5657	1.000	0.227	-0.116	0.011	0.020	0.000000	0.000000	918.19	-881
1	FID		ACIS-I-5	7.19	5658	1.000	-0.321	0.201	0.011	0.019	0.000000	0.000000	-1830.23	1016
2	FID		ACIS-I-6	7.23	5657	1.000	0.004	-0.015	0.010	0.016	0.000000	0.000000	383.56	1660
3	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
4	GUIDE	used	262408096	9.32	11296	1.000	-0.055	-0.169	0.244	0.386	207.011678	26.515421	1104.33	432
5	GUIDE	used	262408512	7.97	11316	1.000	0.120	0.157	0.169	0.280	207.800210	27.128796	-929.43	-2242
6	GUIDE	used	262408936	9.61	11289	1.000	0.089	0.112	0.285	0.433	207.154731	26.726554	804.38	-403
7	GUIDE	used	262409384	10.03	11188	1.000	-0.145	-0.110	0.335	0.571	207.200509	26.614398	578.82	-37

2.4 Star Slots

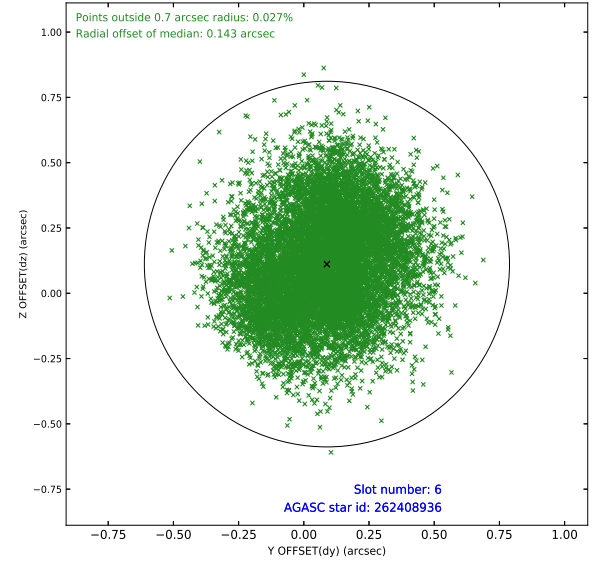
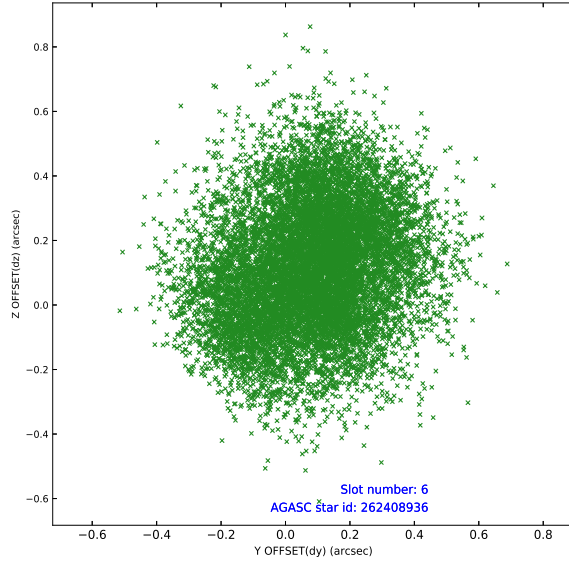
2.4.1 Slot 4



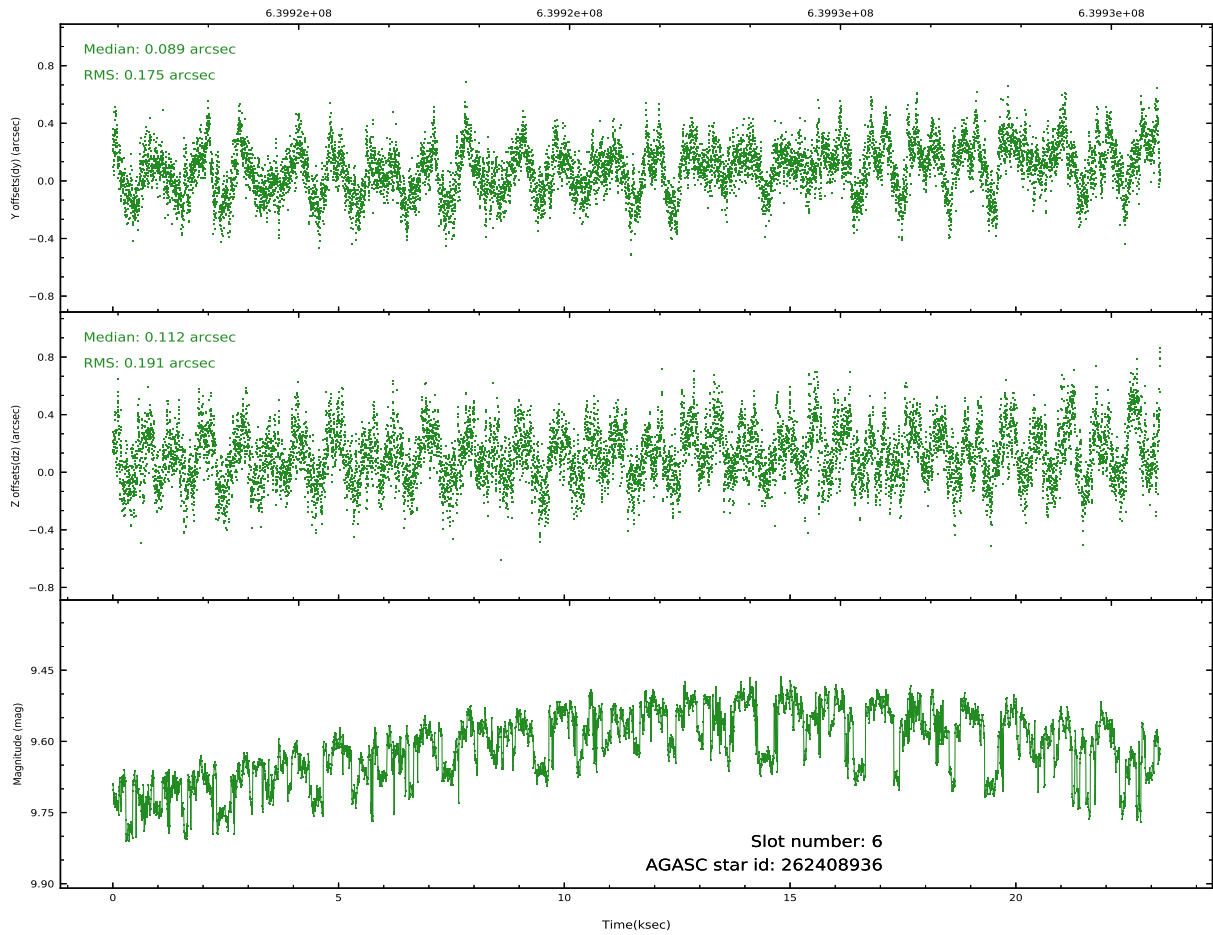
2.4.2 Slot 5



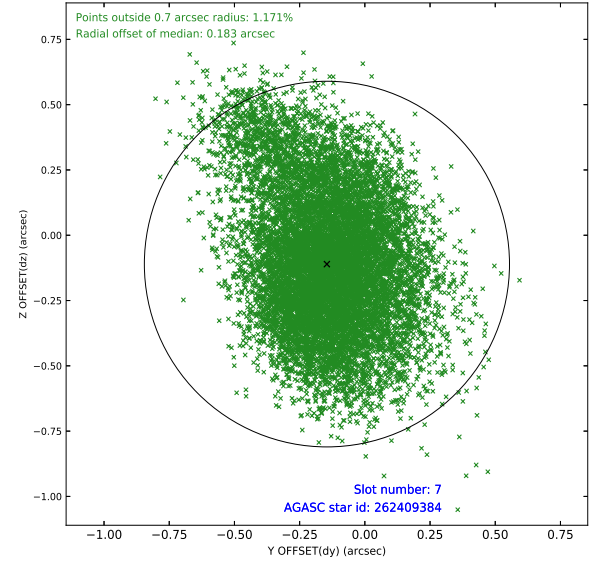
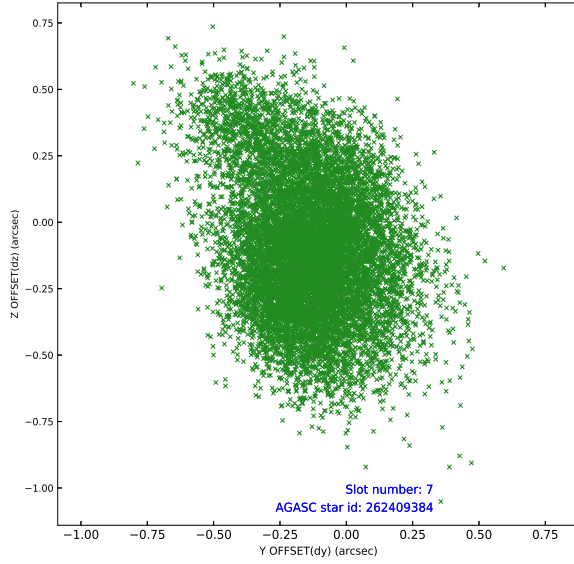
2.4.3 Slot 6



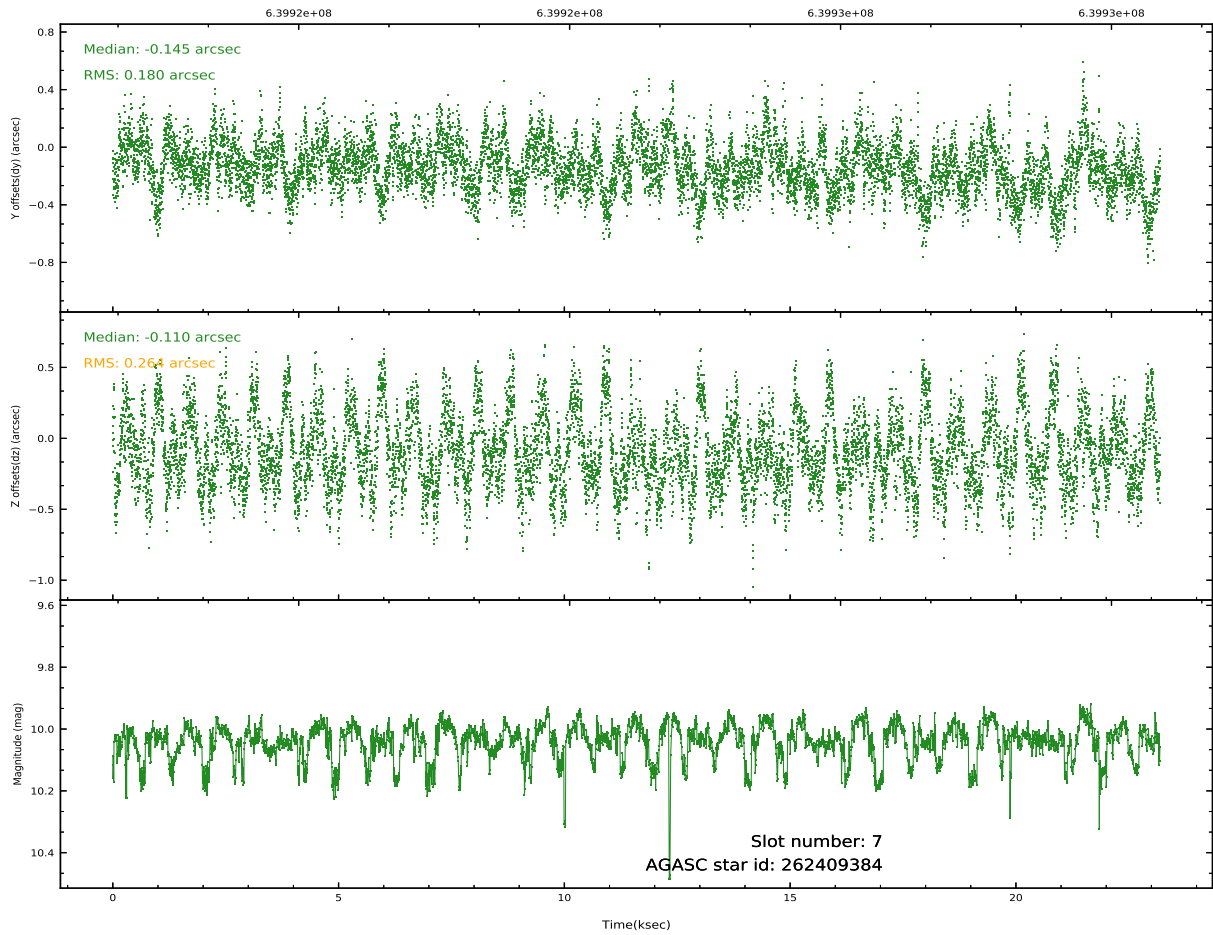
Time (s)



2.4.4 Slot 7

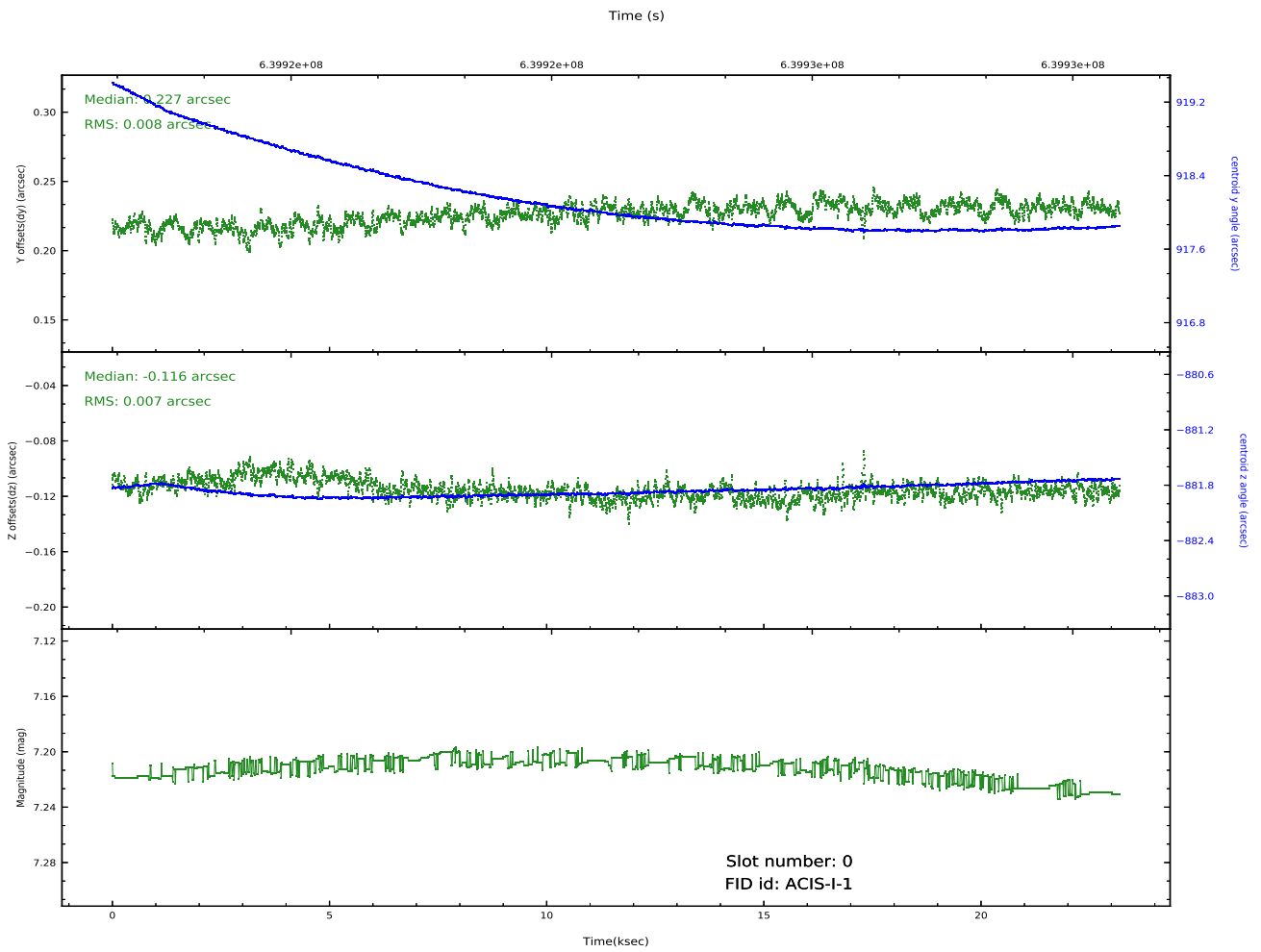
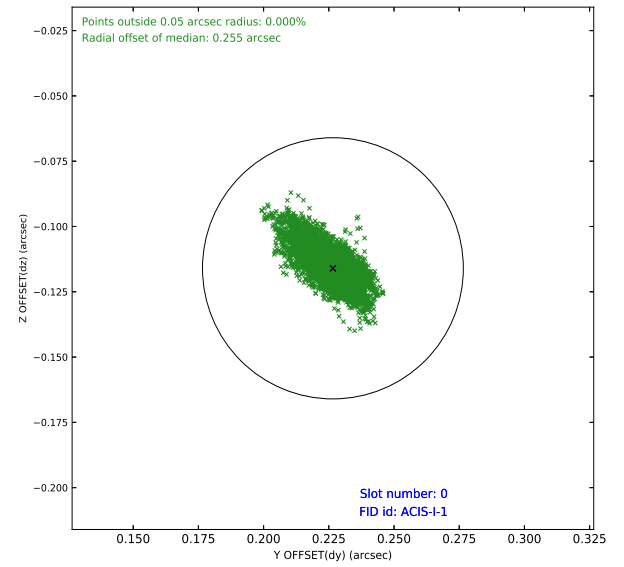
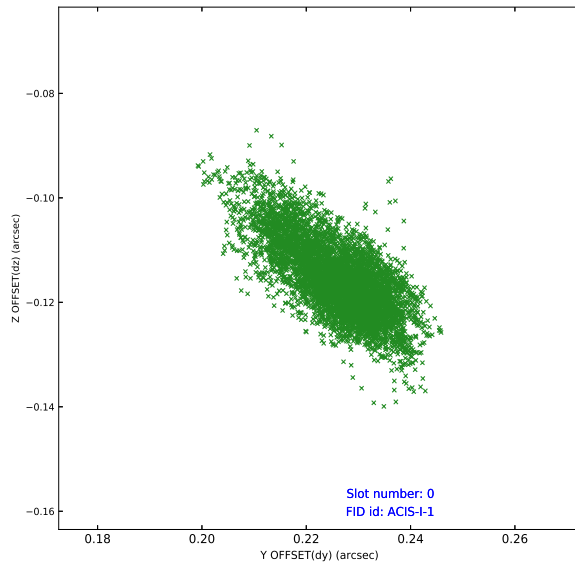


Time (s)

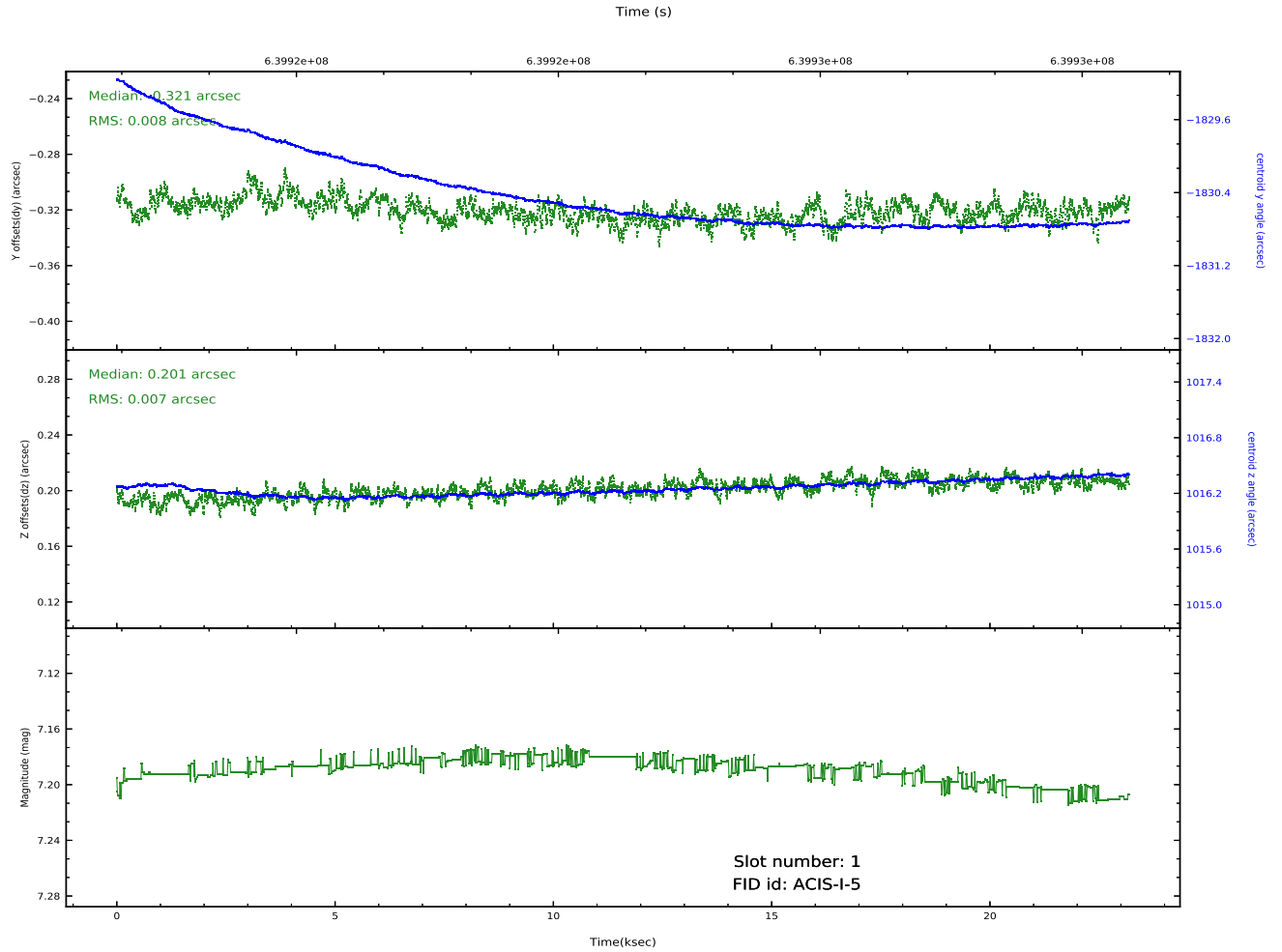
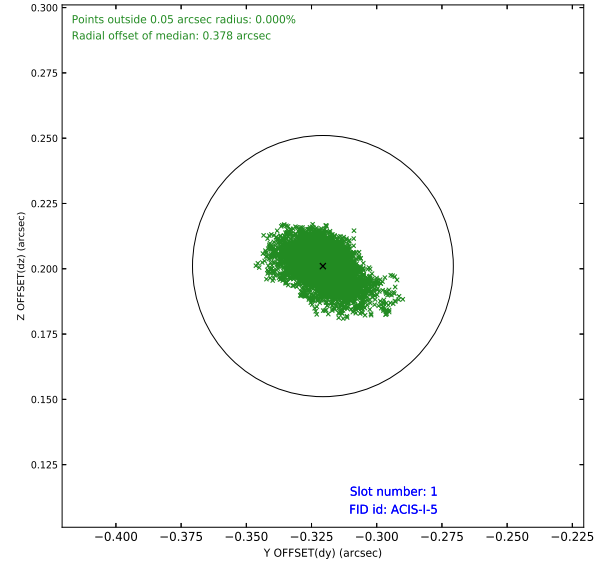
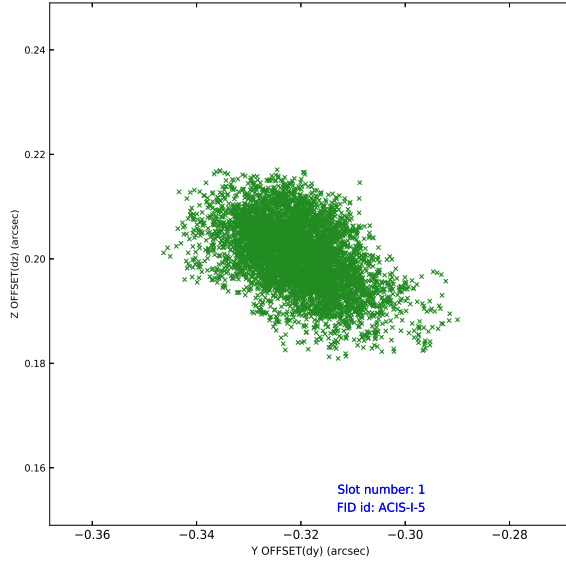


2.5 FID Slots

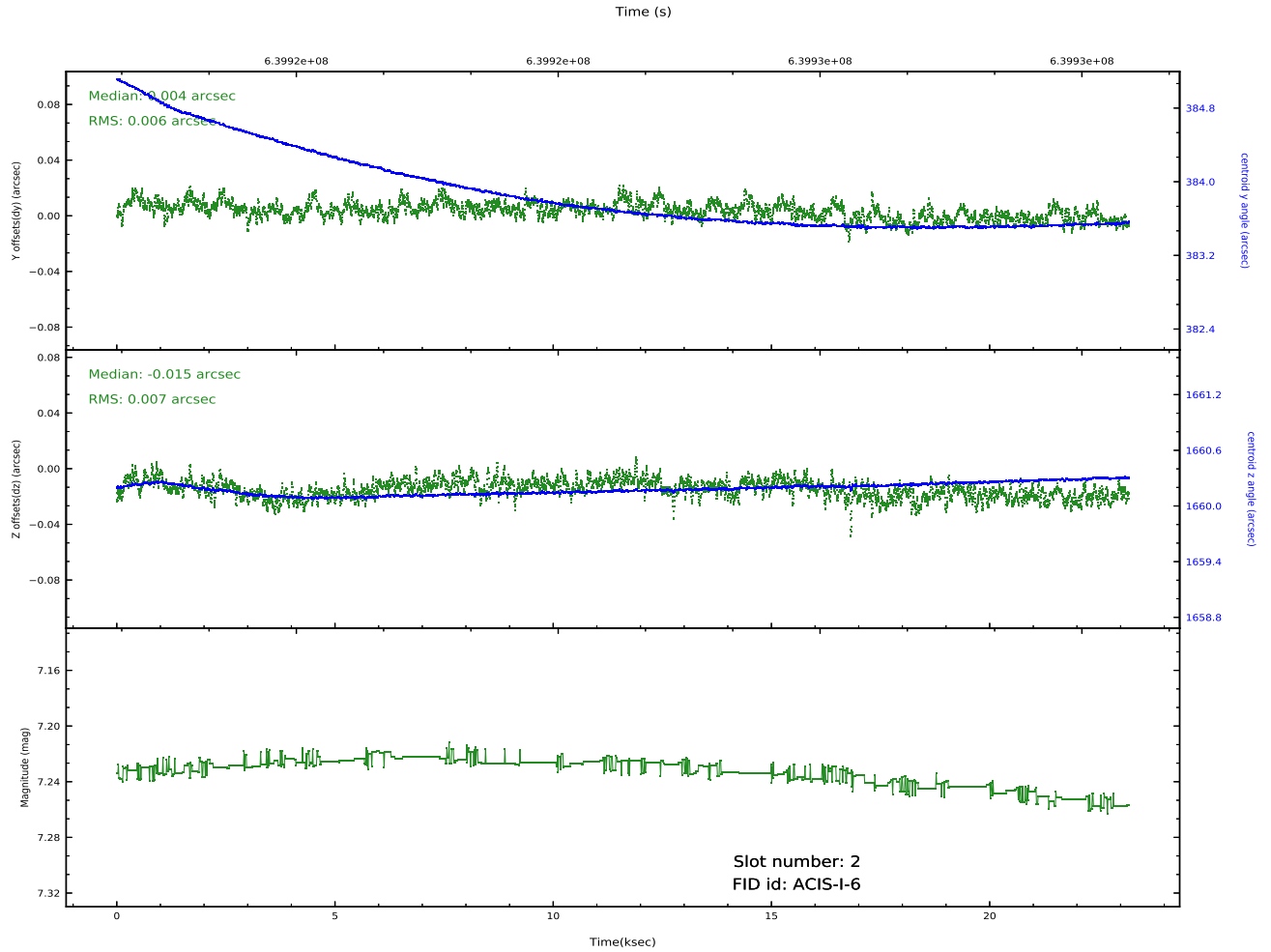
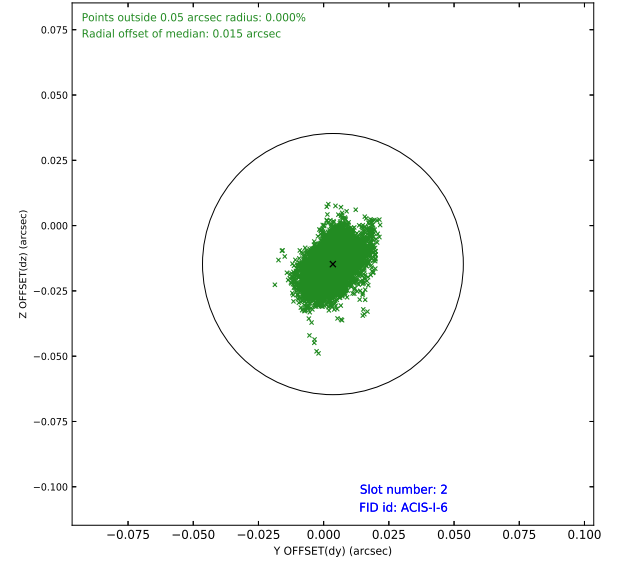
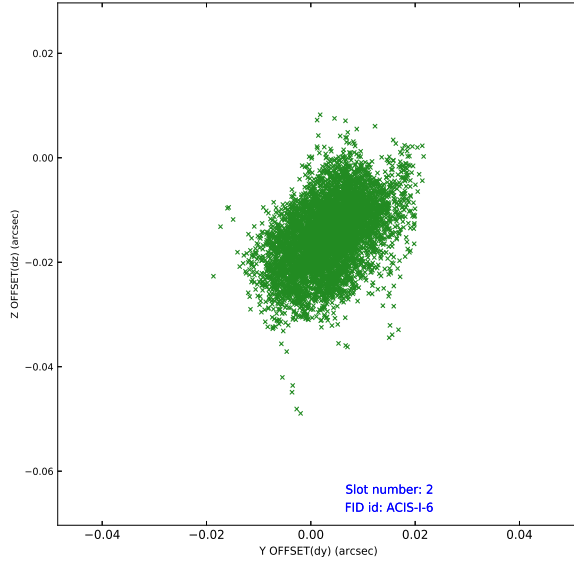
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	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	23.066685335875

A.2 Comments

Window constraint was met.

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The guide star in slot 3 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.