

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20574 - L2 Version 3
Chandra X-Ray Center

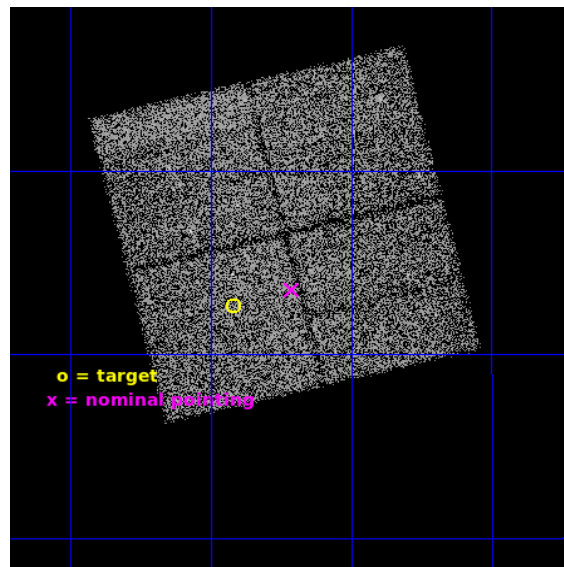
L2 Processing Date : Oct 30 2020

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1 Front

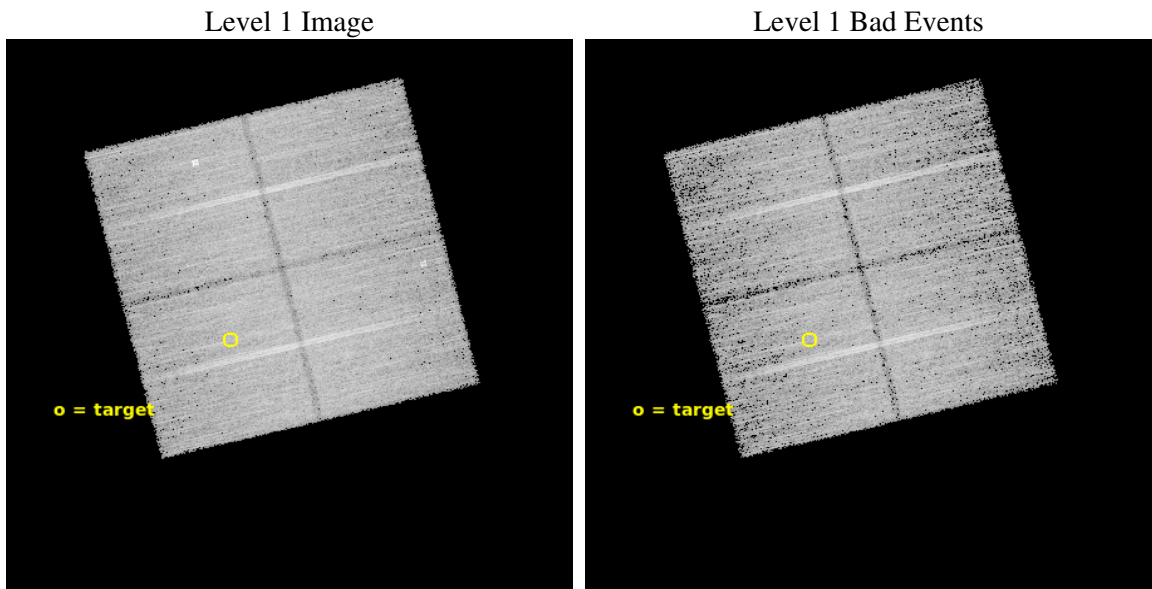
seq_num	801773	Sequence number
obs_id	20574	Observation id
title	The Chandra Strong Lens Sample: Revealing Baryonic Physics In Strong Lensing Selected Clusters	Proposal title
observer	Matthew Bayliss	Principal investigator
object	SDSSJ1429+1202	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	217.479167	Observer's specified target RA [deg]
dec_targ	12.043889	Observer's specified target Dec [deg]
ra_nom	217.42771341289	Nominal RA [deg]
dec_nom	12.058711549179	Nominal Dec [deg]
roll_nom	166.22016363273	Nominal Roll [deg]
revision	3	Processing version of data
ontime	19278.900148392	Sum of GTIs [s]
livetime	19027.007125033	Livetime [s]
ontime0	19278.900148392	Sum of GTIs [s]
ontime1	19278.900148392	Sum of GTIs [s]
ontime2	19275.759128213	Sum of GTIs [s]
ontime3	19278.900148392	Sum of GTIs [s]
l2events	55968	Number of level 2 events



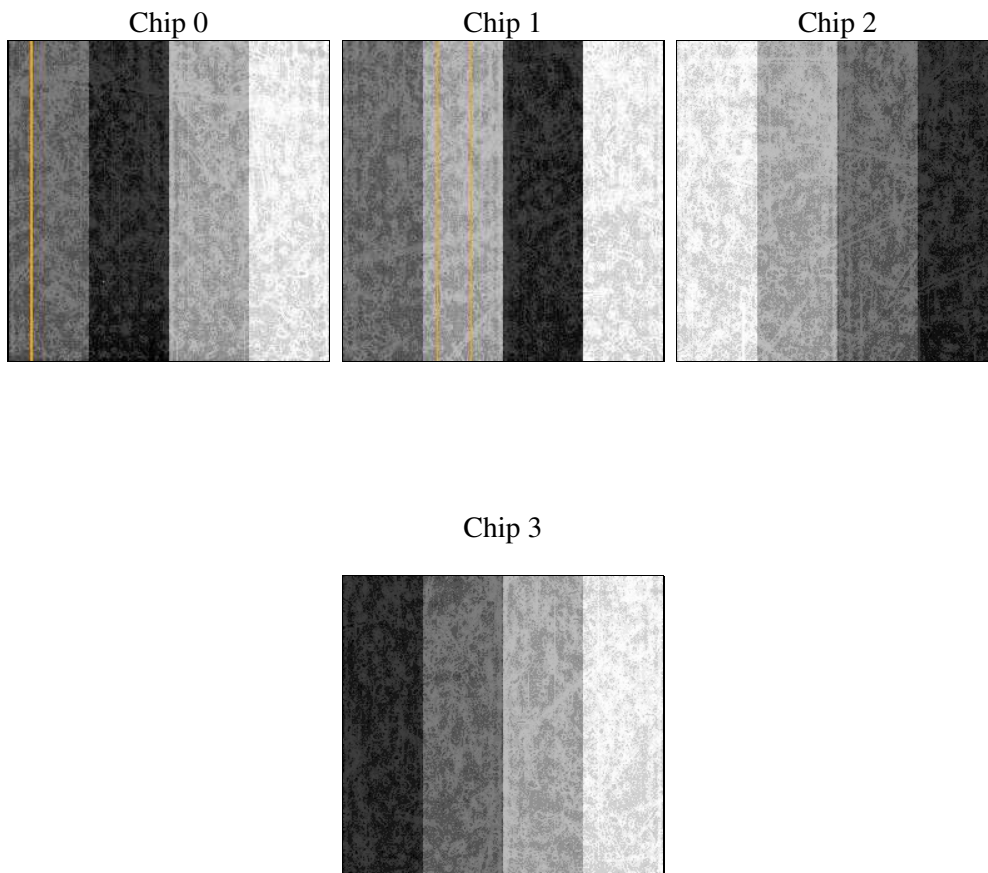
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19200.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	19278.900148392	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	19278.900148392	Sum of GTIs [s]
date	2020-10-30T11:39:10	Date and time of file creation	ontime1	19278.900148392	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	19275.759128213	Sum of GTIs [s]
			ontime3	19278.900148392	Sum of GTIs [s]
			l1events	576635	Number of level 1 events

2.1.4 Events

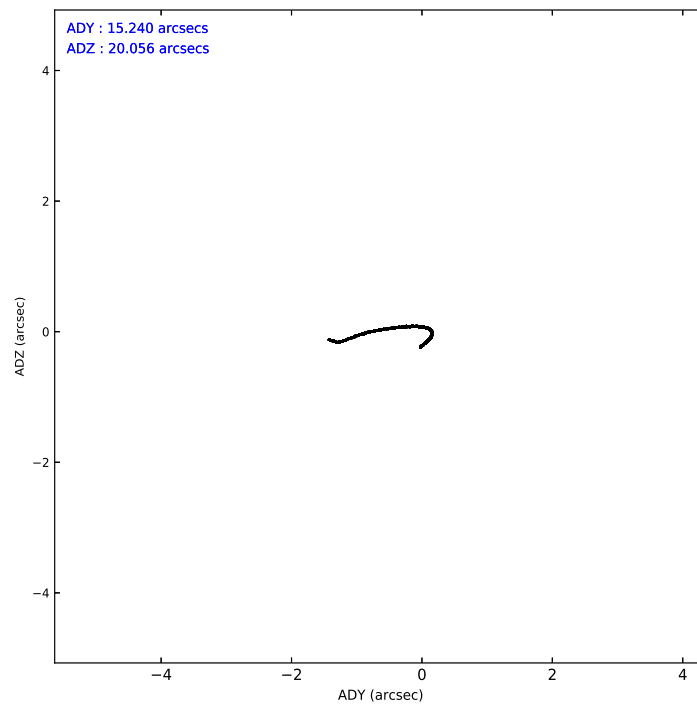
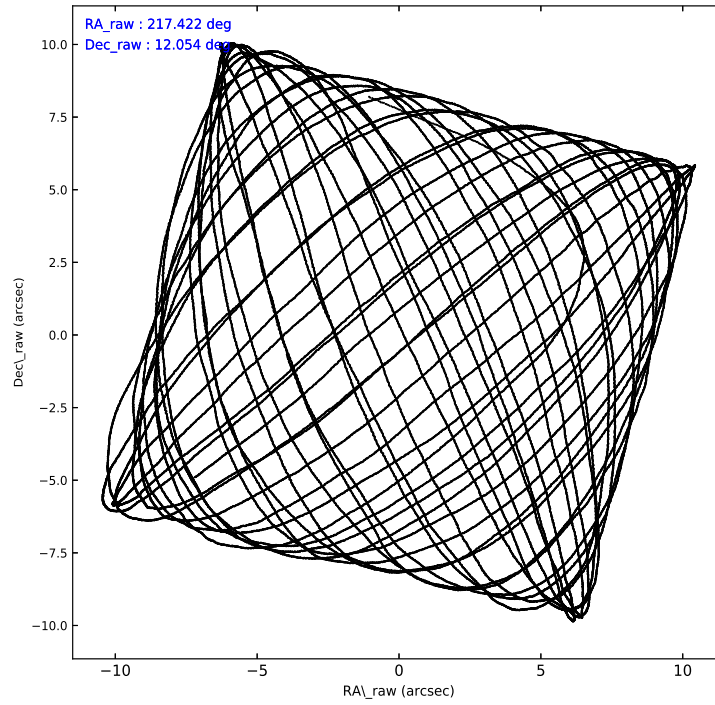
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	136671	141049	150176	148739
rejected events	119735	121544	133346	133230
rejected %	87%	86%	88%	89%

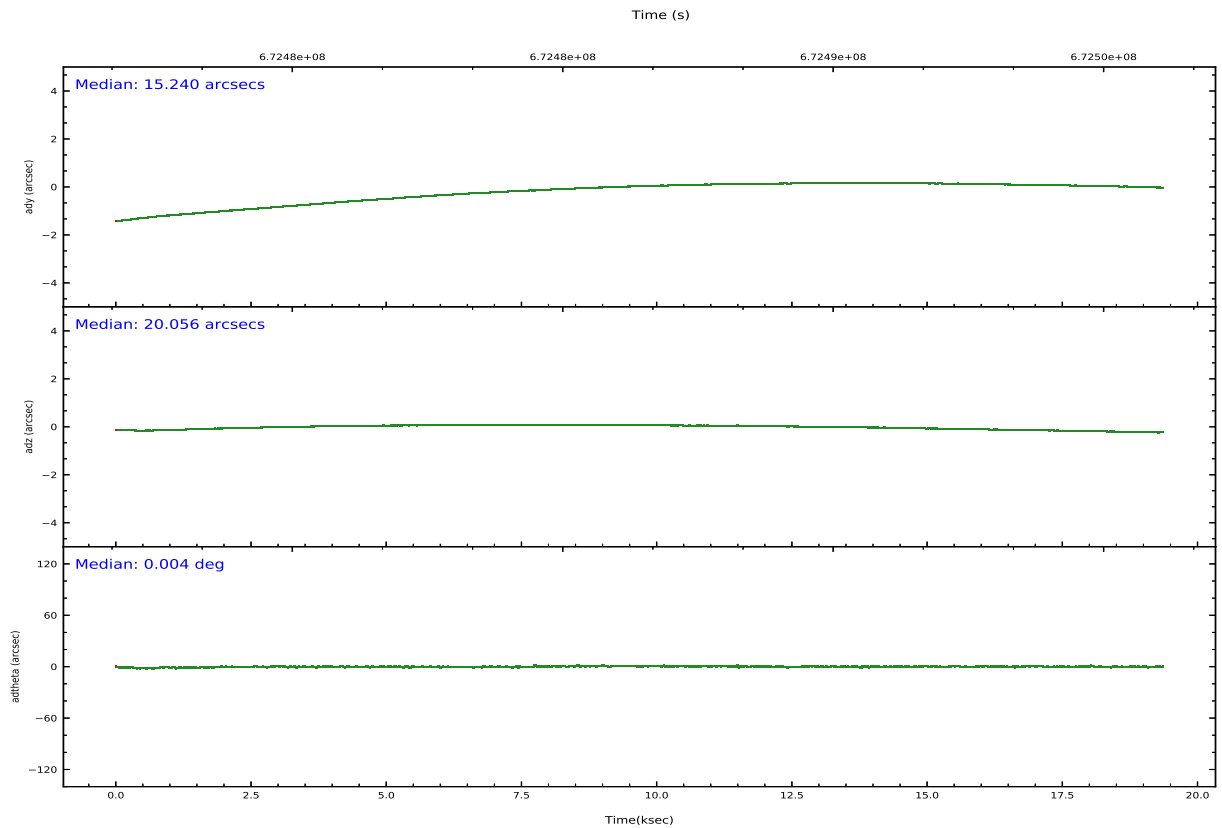
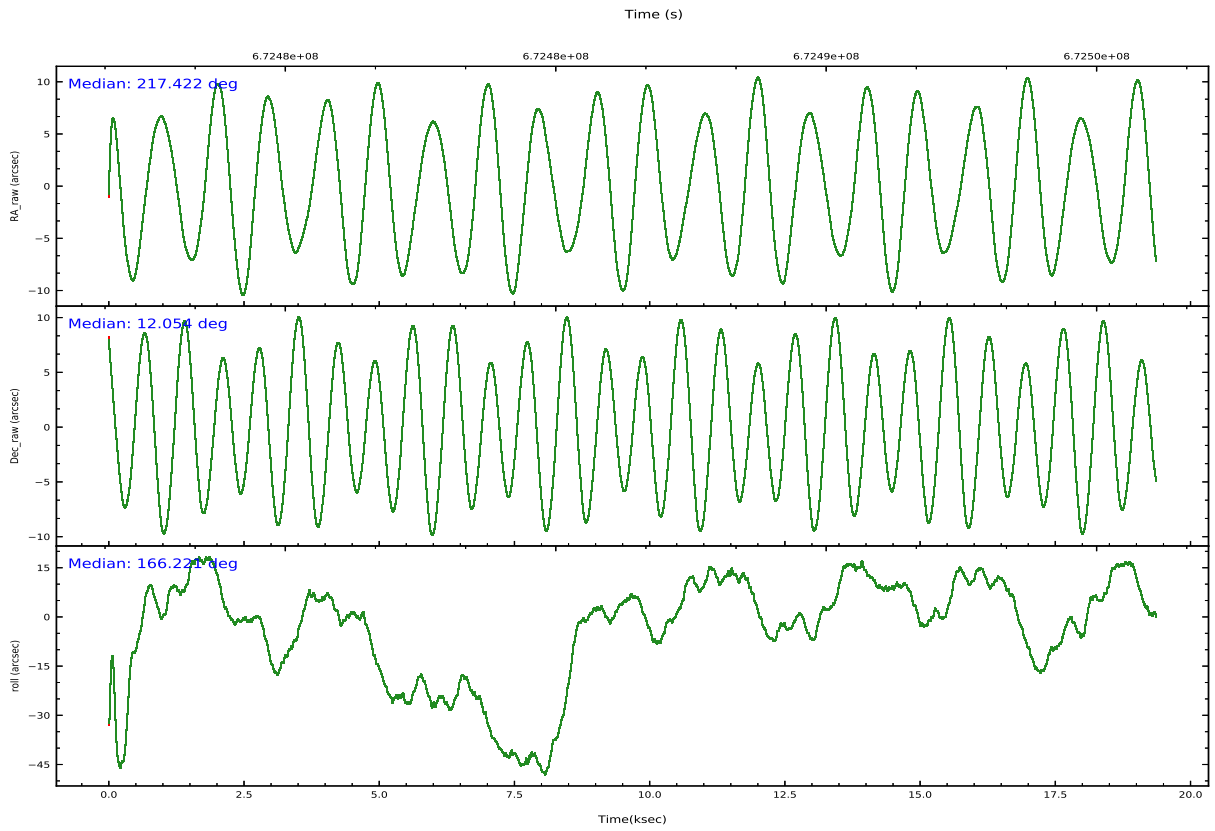
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	5740	7110	6392	5495
	4%	5%	4%	3%
grade 1 events	72	79	97	73
	0%	0%	0%	0%
grade 2 events	4343	4837	4030	3461
	3%	3%	2%	2%
grade 3 events	1682	1708	1601	1585
	1%	1%	1%	1%
grade 4 events	1643	1744	1590	1570
	1%	1%	1%	1%
grade 5 events	6351	6760	6063	6924
	4%	4%	4%	4%
grade 6 events	3532	4115	3225	3405
	2%	2%	2%	2%
grade 7 events	113308	114696	127178	126226
	82%	81%	84%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-0123	ACIS-0123	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	217.449132	217.42771341289	CCD I2 on	Y	Y
[deg] Pointing Dec	12.061909	12.058711549179	CCD I3 on	Y	Y
[deg] Pointing Roll	166.006264	166.22016363273	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	N
[mm] SIM translation stage pos	-225.840463	-225.8458576473255	CCD S3 on	O2	N
[mm] SIM translation stage offset	-7.752	-7.746595355604228	CCD S4 on	N	N
[s] Observation start time (MET)	672476900.184000	672475939.25976	CCD S5 on	N	N
Observation start date	2019-04-24T07:07:11	2019-04-24T06:52:19	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	672496100.184000	672497637.48606	On-chip summing requested	N	N
Observation end date	2019-04-24T12:27:11	2019-04-24T12:53:57	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





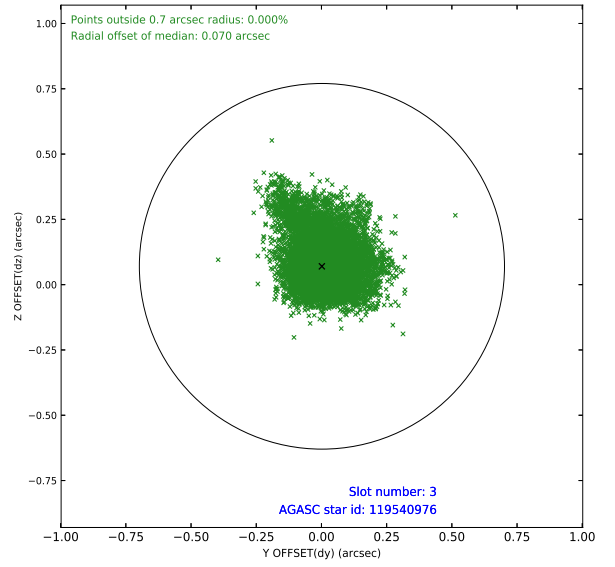
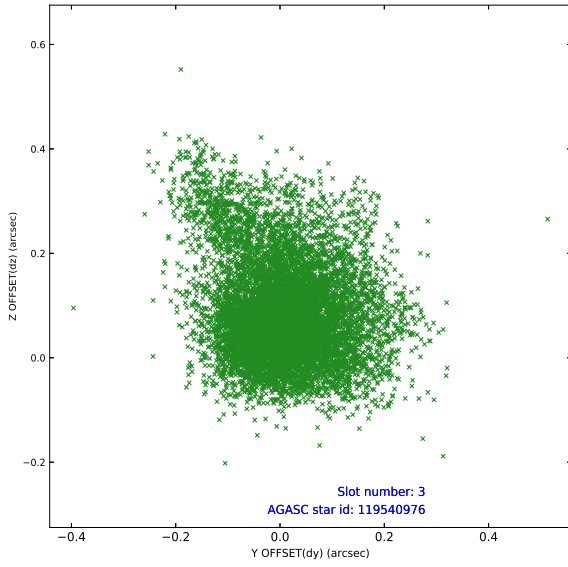
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.15	4724	1.000	0.332	-0.262	0.011	0.017	0.000000	0.000000	924.53	-1003
1	FID		ACIS-I-5	7.15	4724	1.000	-0.381	0.270	0.013	0.019	0.000000	0.000000	-1823.98	895
2	FID		ACIS-I-6	7.18	4724	1.000	-0.044	0.062	0.017	0.026	0.000000	0.000000	389.75	1539
3	GUIDE	used	119540976	8.23	9442	1.000	0.002	0.070	0.125	0.244	216.809810	12.382412	2460.38	-578
4	GUIDE	used	119542624	9.52	9381	1.000	0.139	-0.217	0.213	0.368	216.953656	12.106695	1731.43	263
5	GUIDE	used	119670784	8.40	9441	1.000	-0.218	0.018	0.146	0.244	217.254918	12.122292	718.22	-46
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	120071528	9.10	9421	1.000	0.077	0.118	0.148	0.256	217.495625	12.606201	315.83	-1940

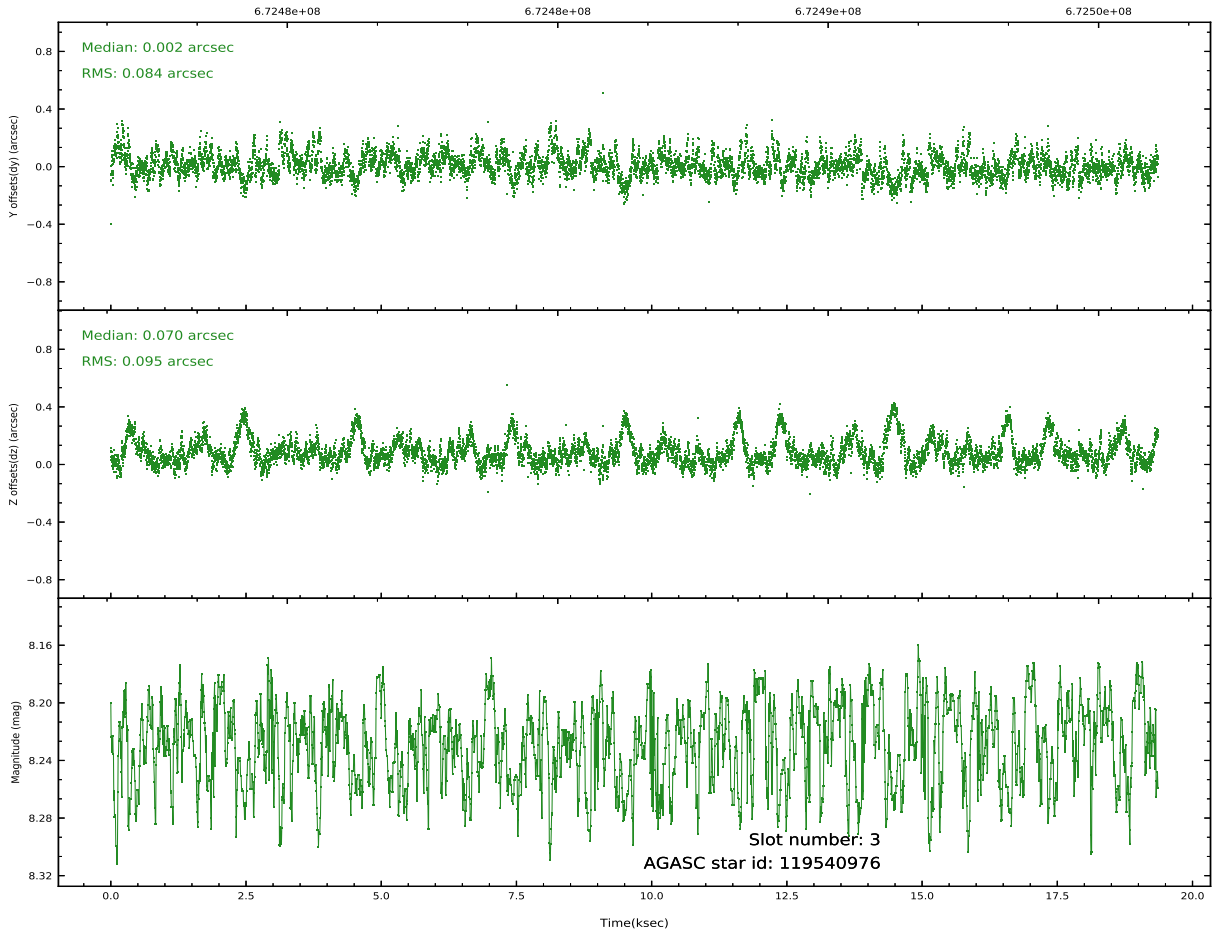
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2.4 Star Slots

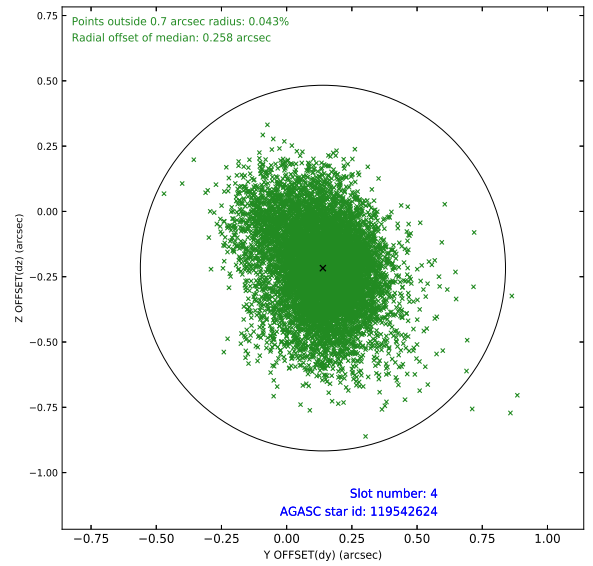
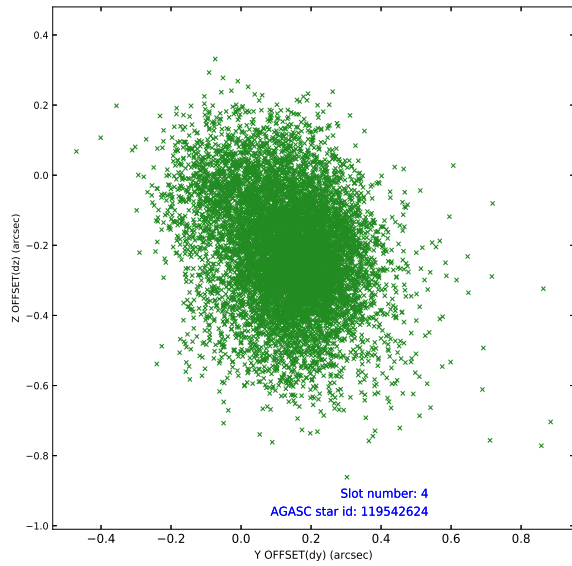
2.4.1 Slot 3



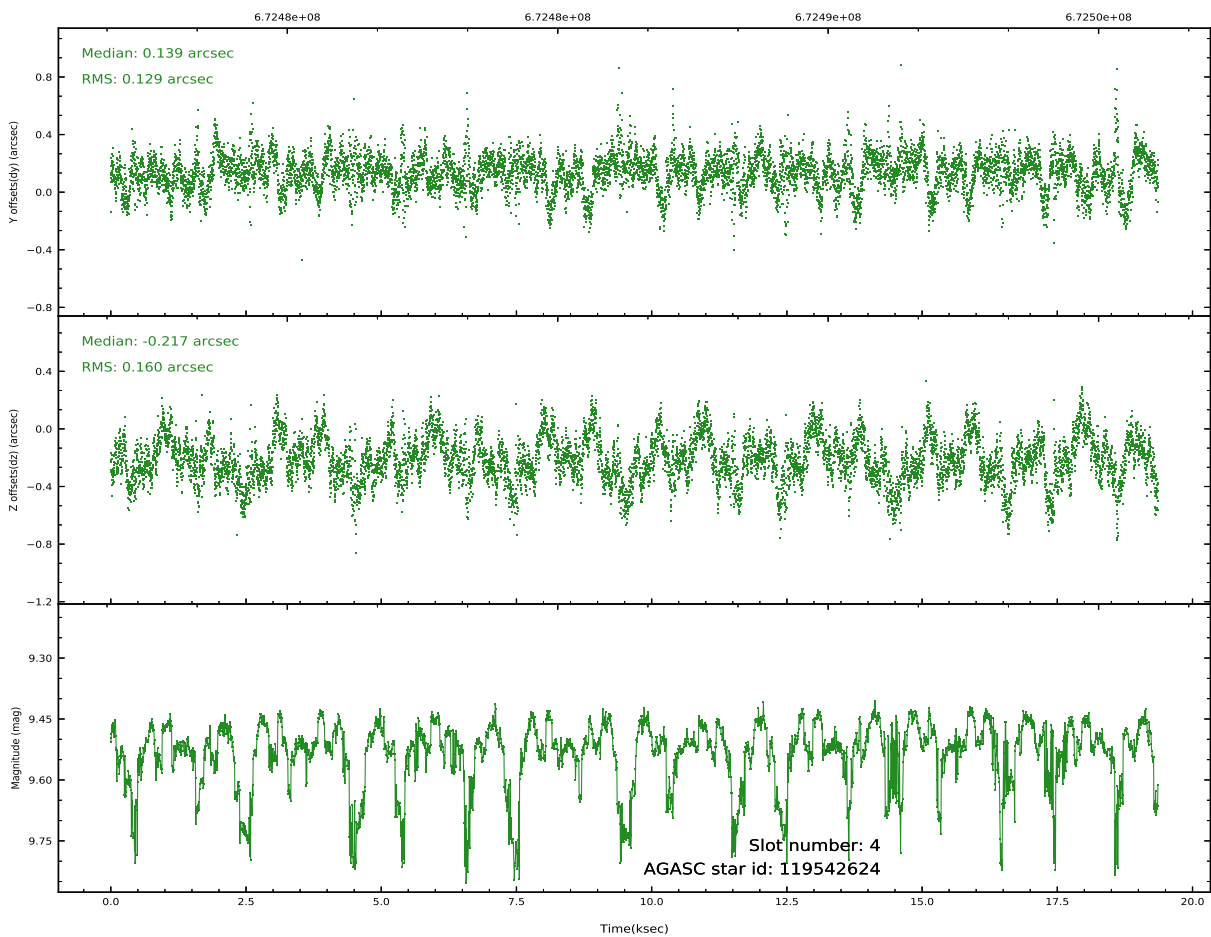
Time (s)



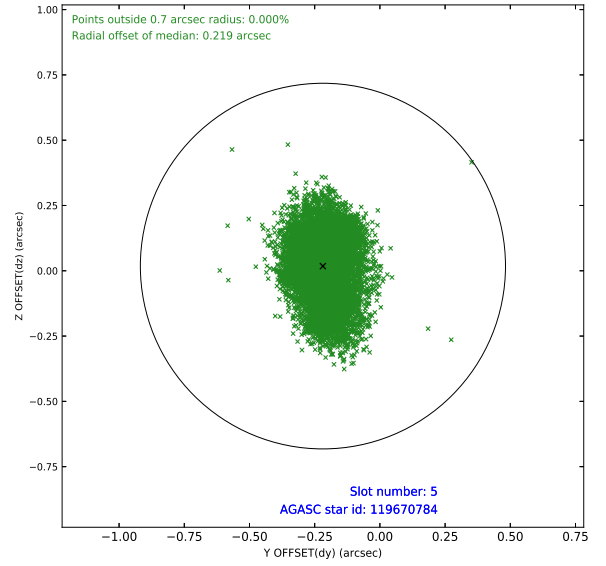
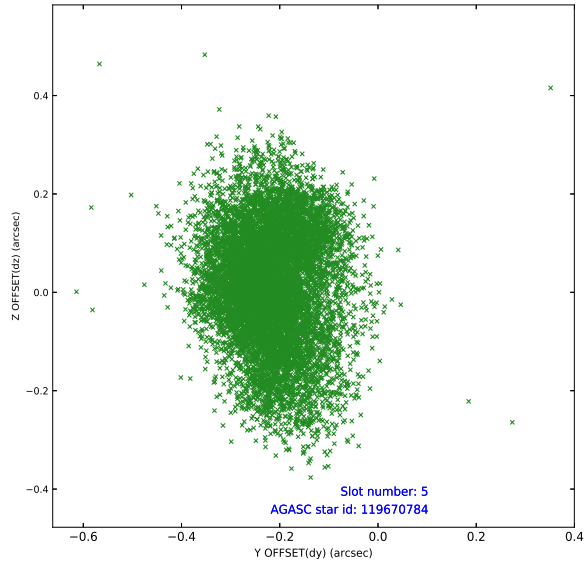
2.4.2 Slot 4



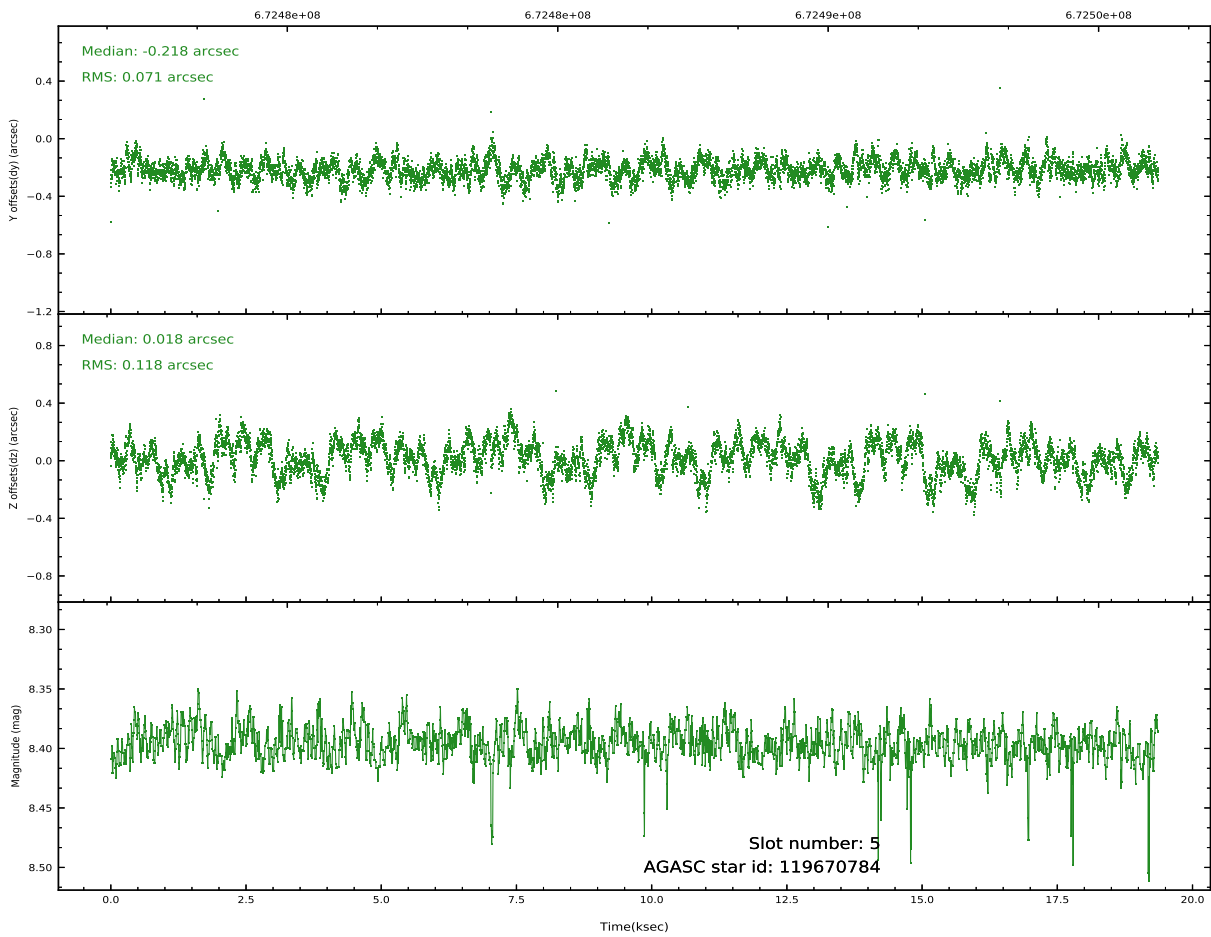
Time (s)



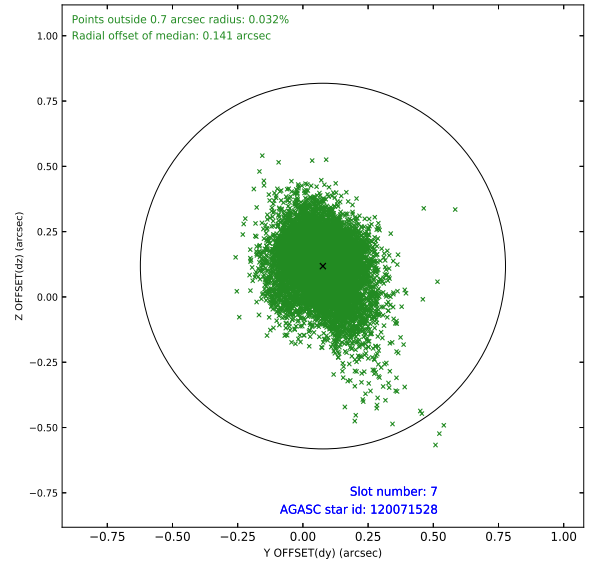
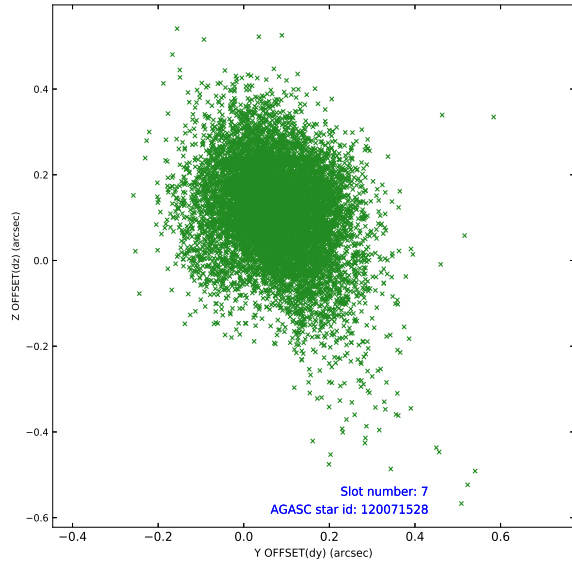
2.4.3 Slot 5



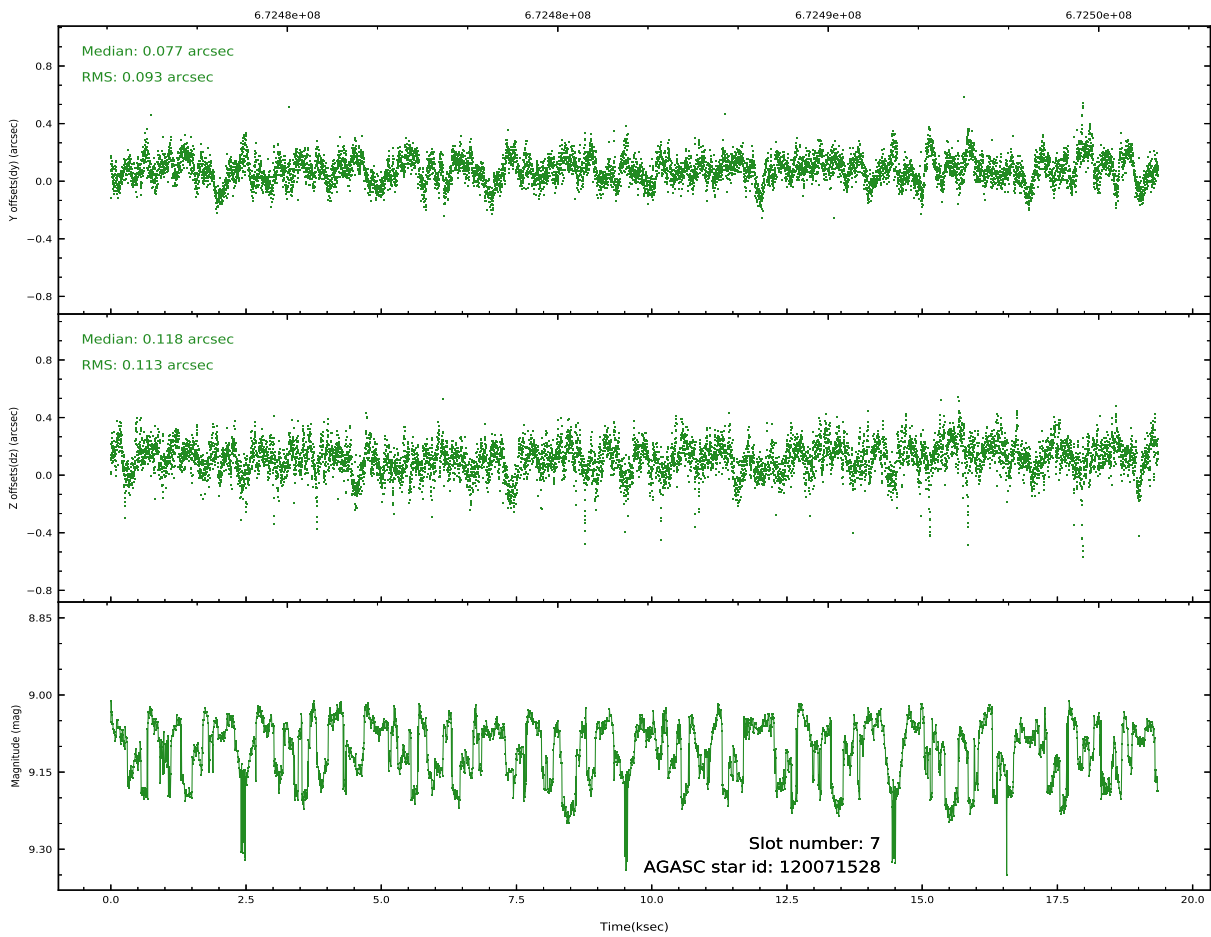
Time (s)



2.4.4 Slot 7

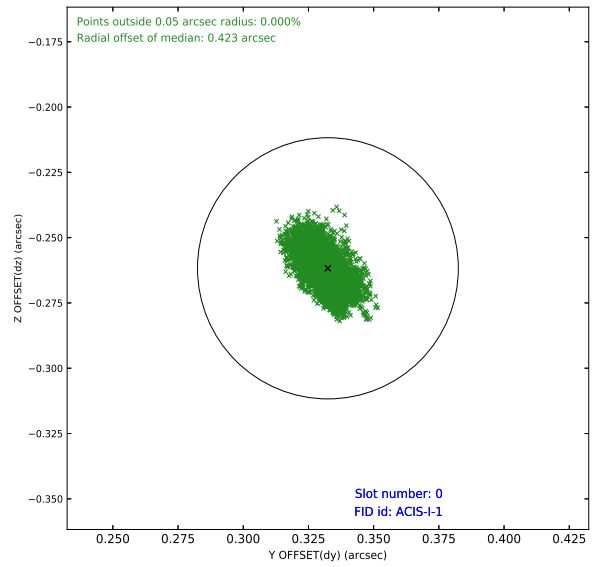
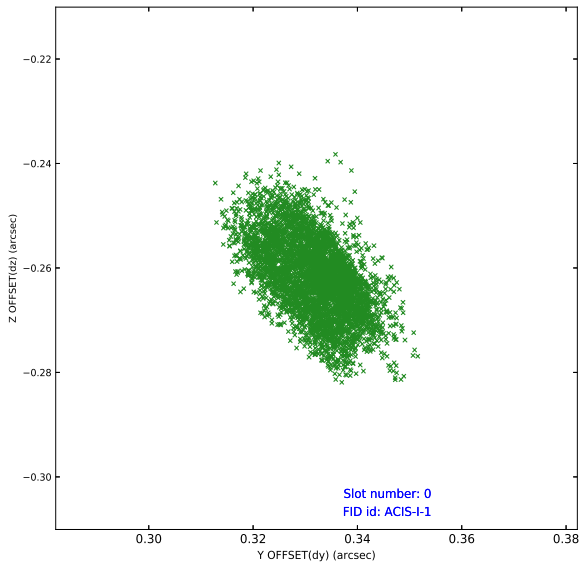


Time (s)

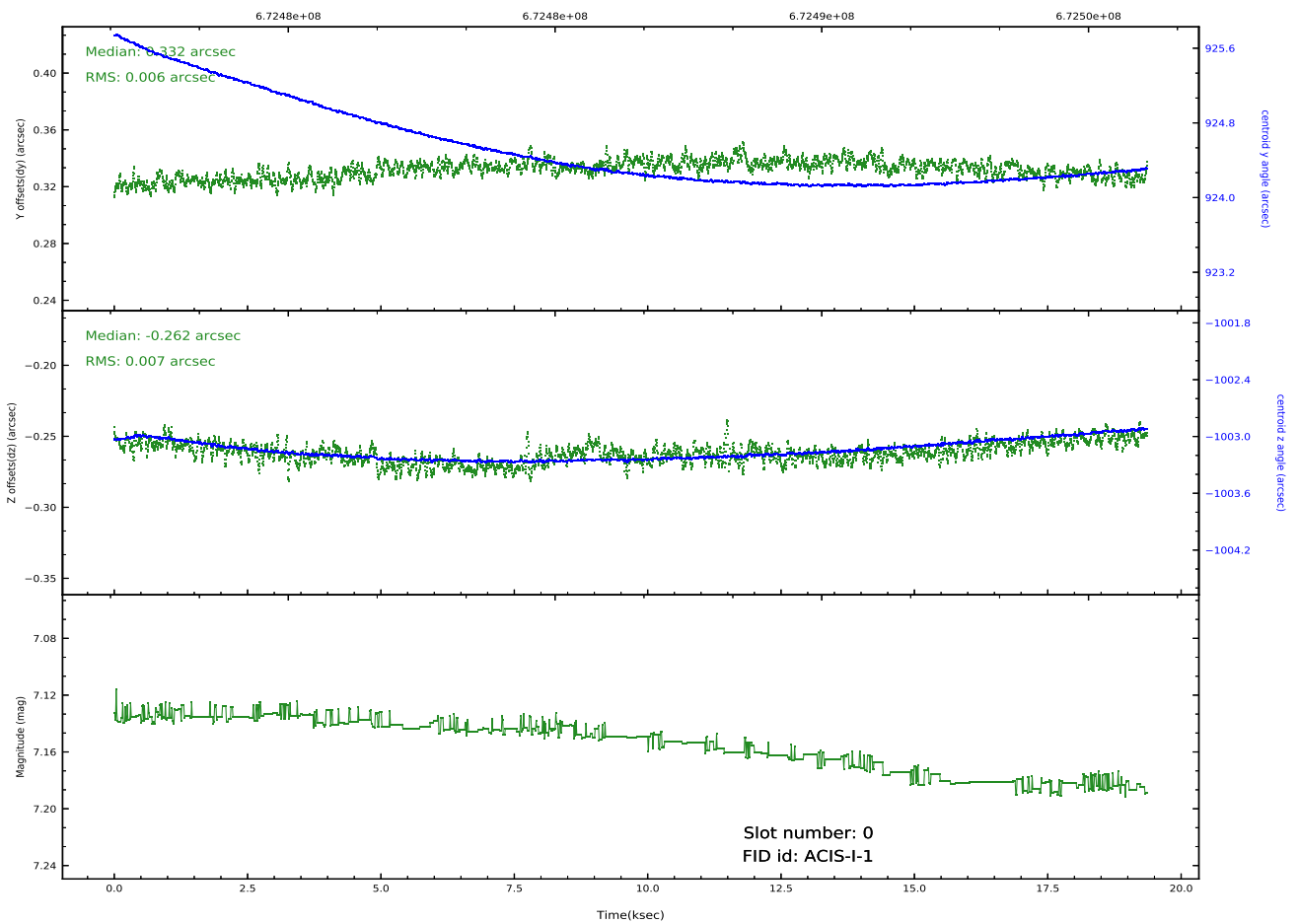


2.5 FID Slots

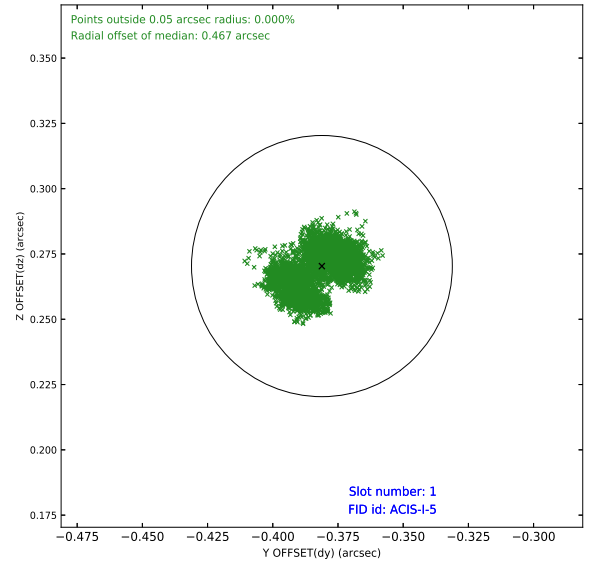
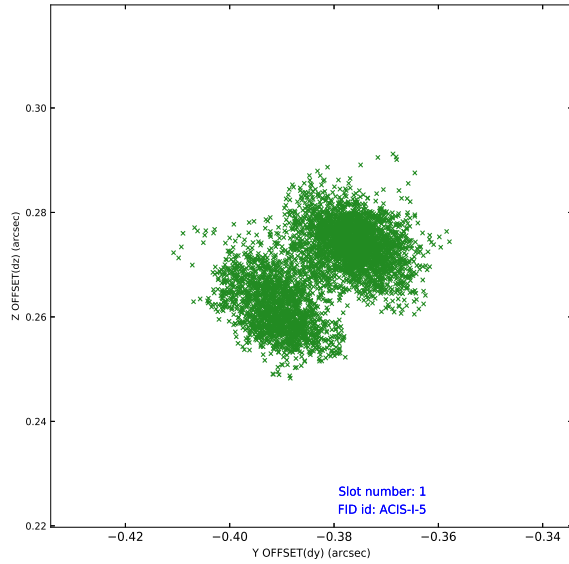
2.5.1 Slot 0



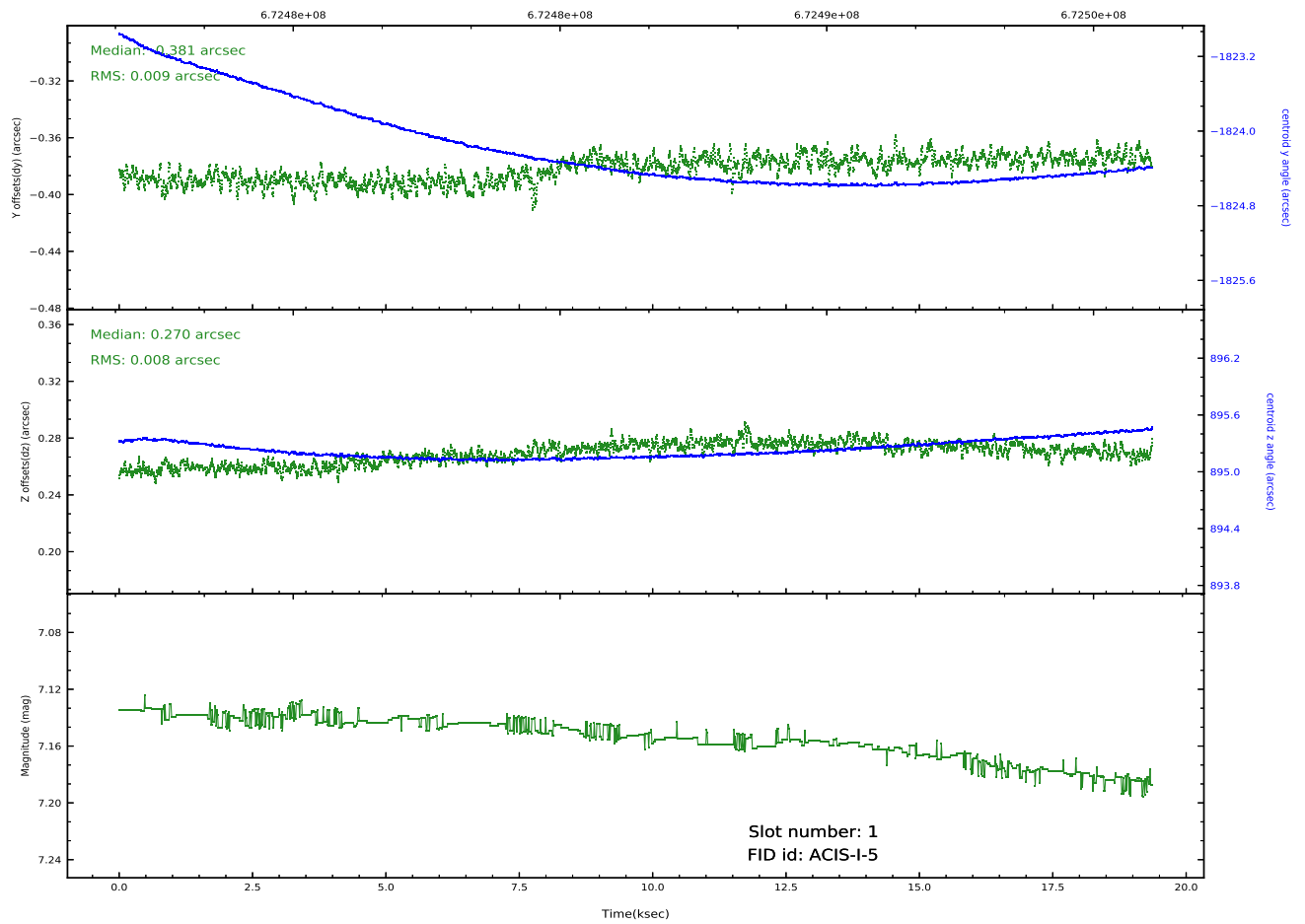
Time (s)



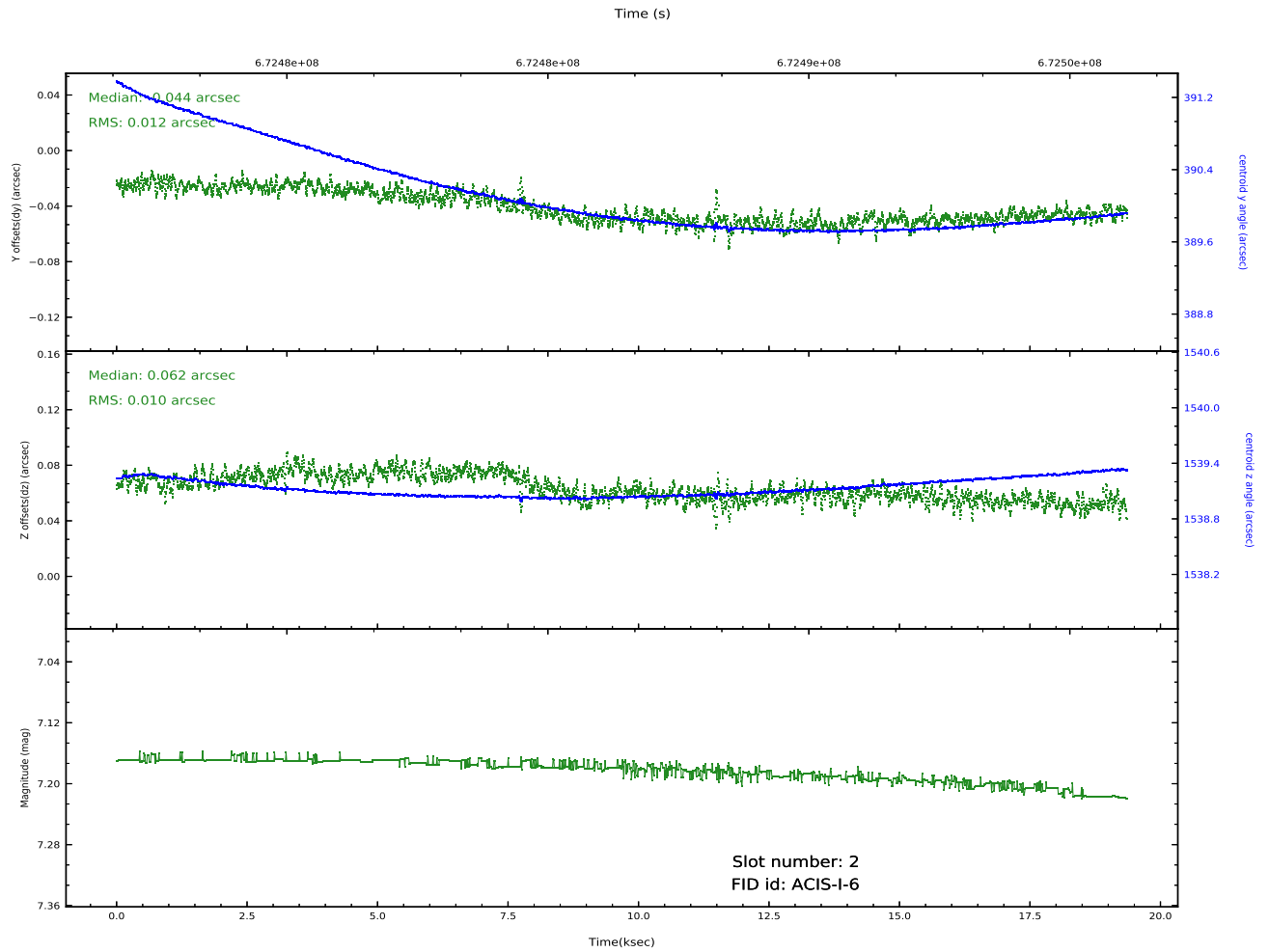
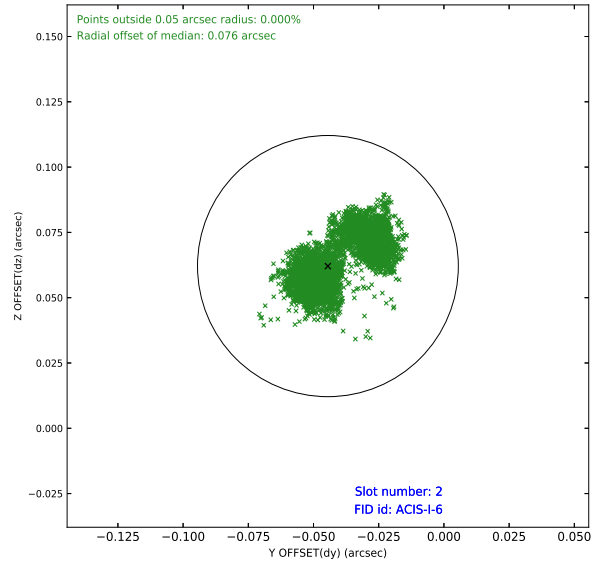
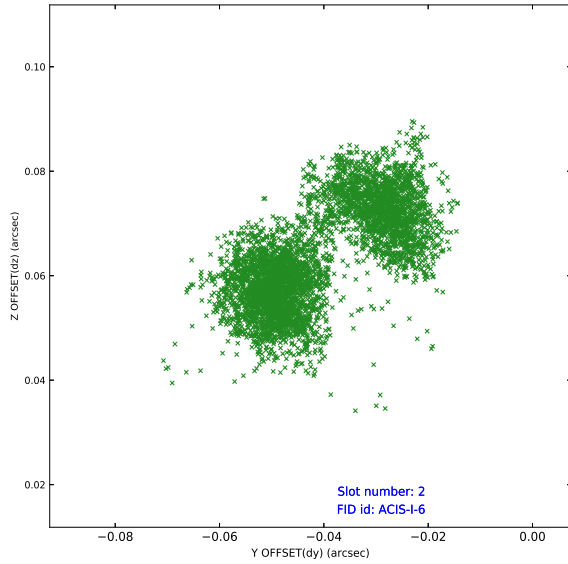
2.5.2 Slot 1



Time (s)



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	19.278900148392

A.2 Comments

Two optional chips were dropped.

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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.

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Joint proposal with HST.