

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20500 - L2 Version 3
Chandra X-Ray Center

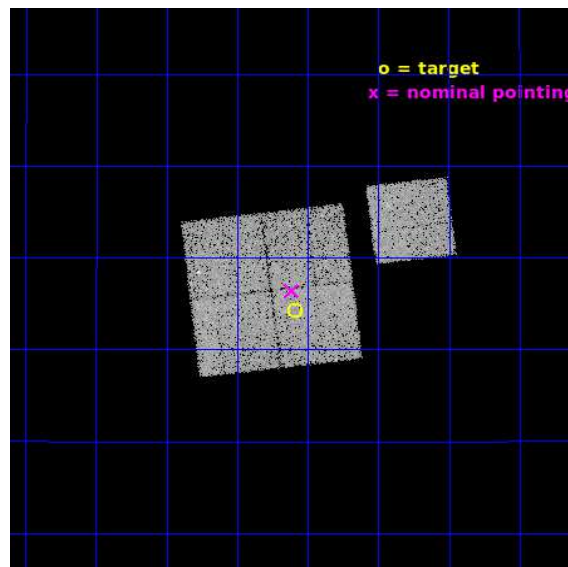
L2 Processing Date : Oct 24 2020

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1 Front

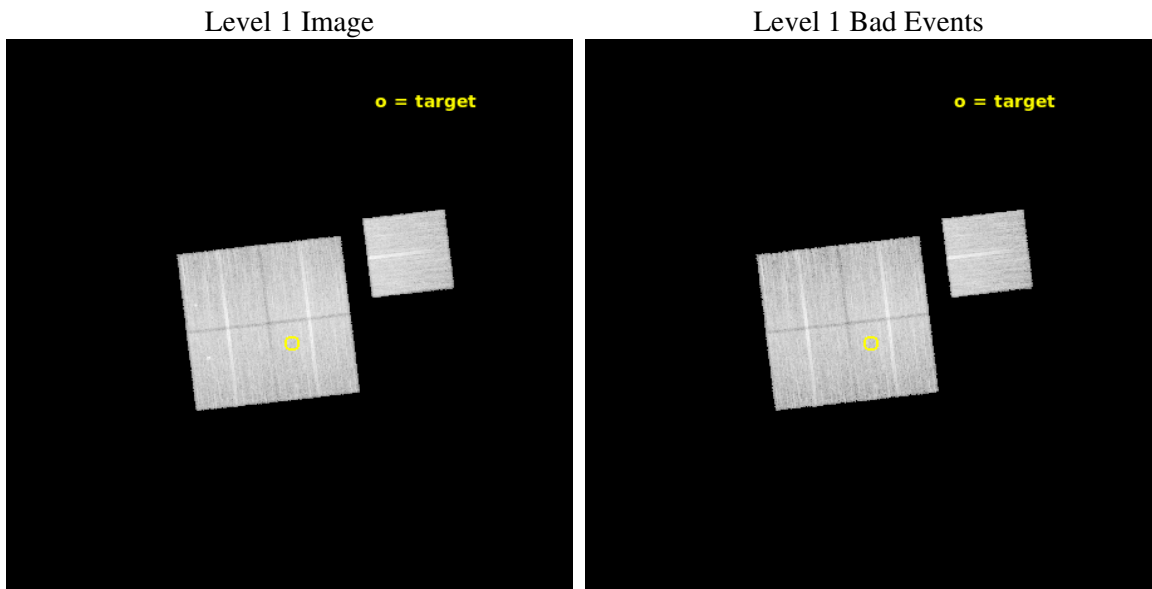
seq_num	801714	Sequence number
obs_id	20500	Observation id
title	Enabling precision cosmology with optically selected galaxy clusters	
observer	Roger Morris	Principal investigator
object	CIG J114043+102443	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	175.147083	Observer's specified target RA [deg]
dec_targ	10.404139	Observer's specified target Dec [deg]
ra_nom	175.15307564992	Nominal RA [deg]
dec_nom	10.440260365238	Nominal Dec [deg]
roll_nom	83.194571700954	Nominal Roll [deg]
revision	3	Processing version of data
ontime	16501.25906682	Sum of GTIs [s]
livetime	16285.657969062	Livetime [s]
ontime0	16504.400127053	Sum of GTIs [s]
ontime1	16504.400127053	Sum of GTIs [s]
ontime2	16491.835795641	Sum of GTIs [s]
ontime3	16501.25906682	Sum of GTIs [s]
ontime6	16501.25903666	Sum of GTIs [s]
l2events	57793	Number of level 2 events



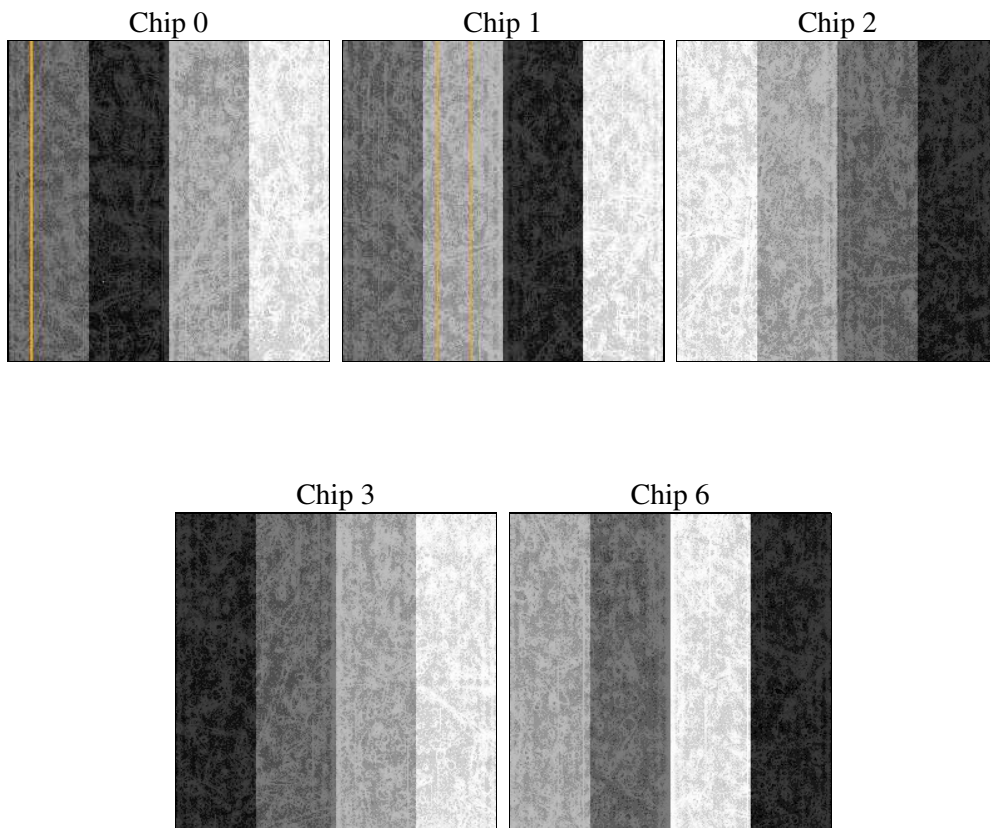
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16446.278000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	16501.25906682	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	16504.400127053	Sum of GTIs [s]
date	2020-10-24T17:26:52	Date and time of file creation	ontime1	16504.400127053	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	16491.835795641	Sum of GTIs [s]
			ontime3	16501.25906682	Sum of GTIs [s]
			ontime6	16501.25903666	Sum of GTIs [s]
			l1events	613051	Number of level 1 events

2.1.4 Events

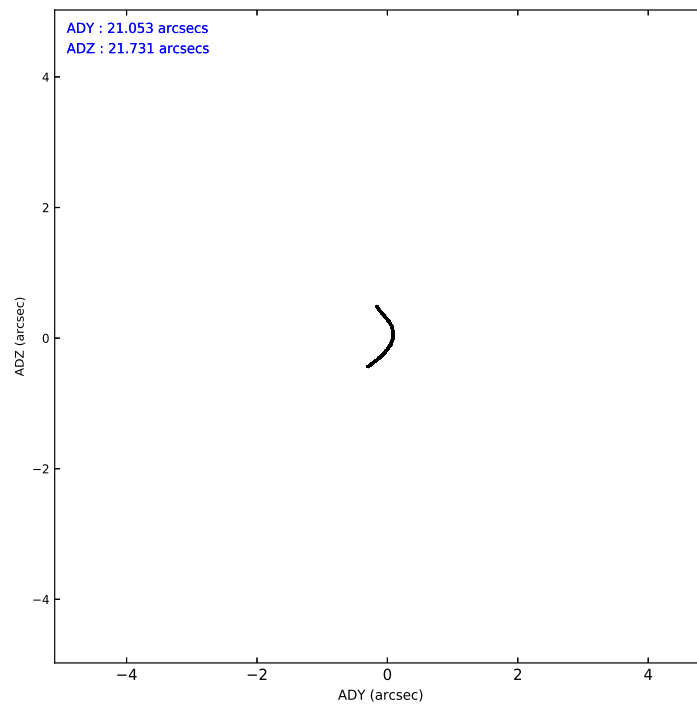
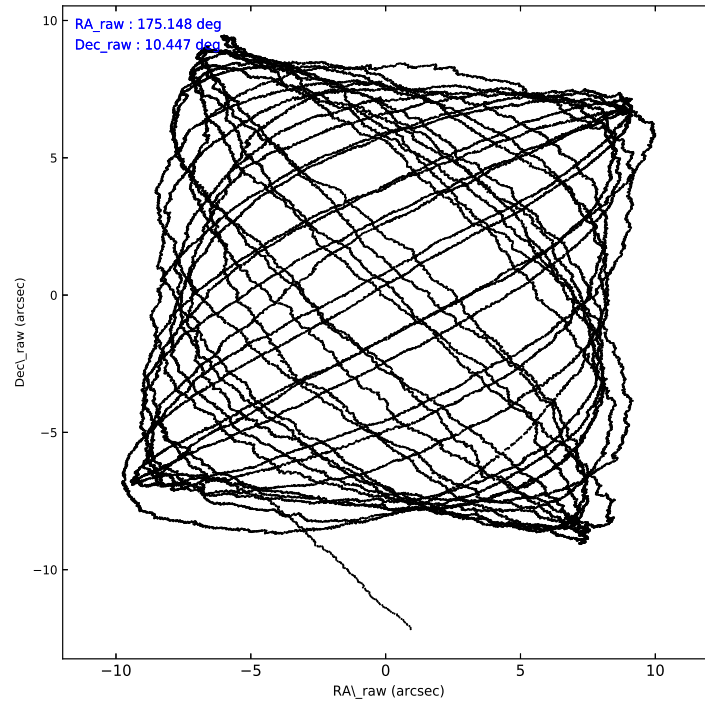
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	116880	117563	127325	118918	132365
rejected events	102816	102230	114105	105806	118748
rejected %	87%	86%	89%	88%	89%

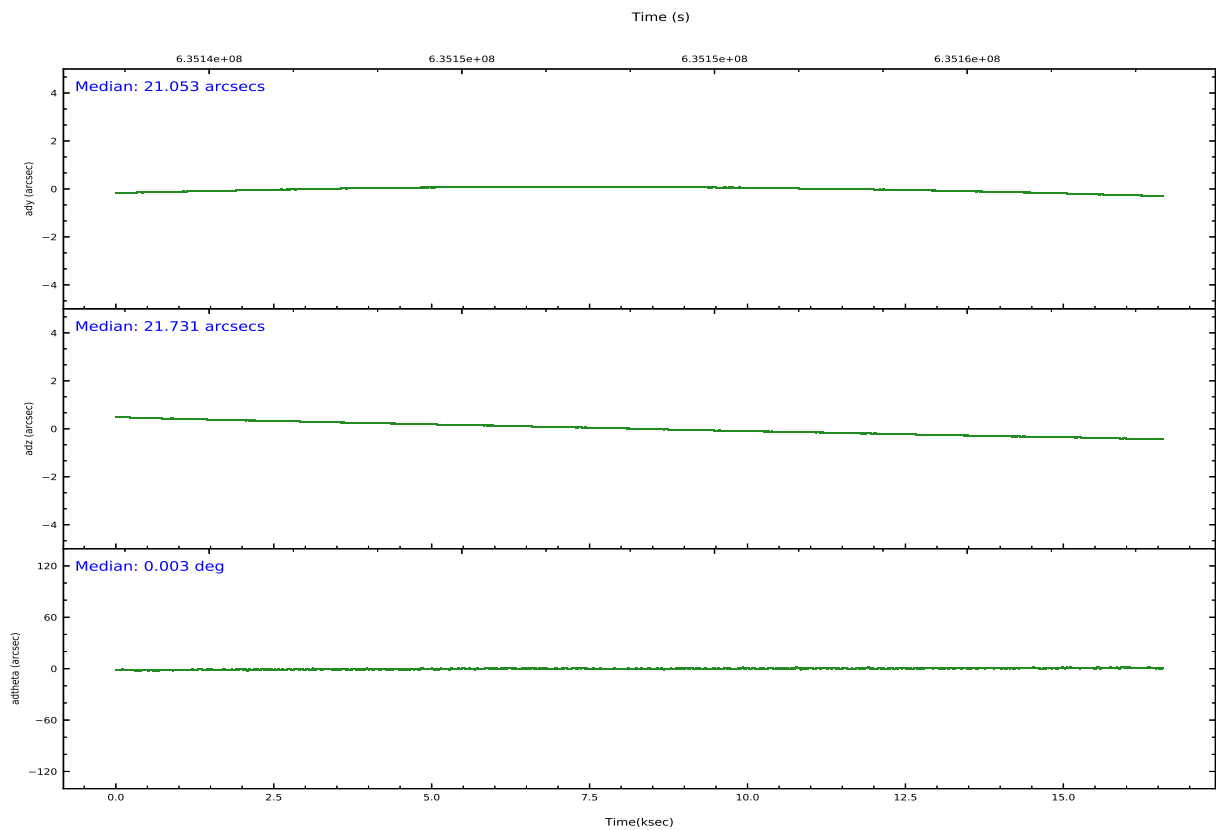
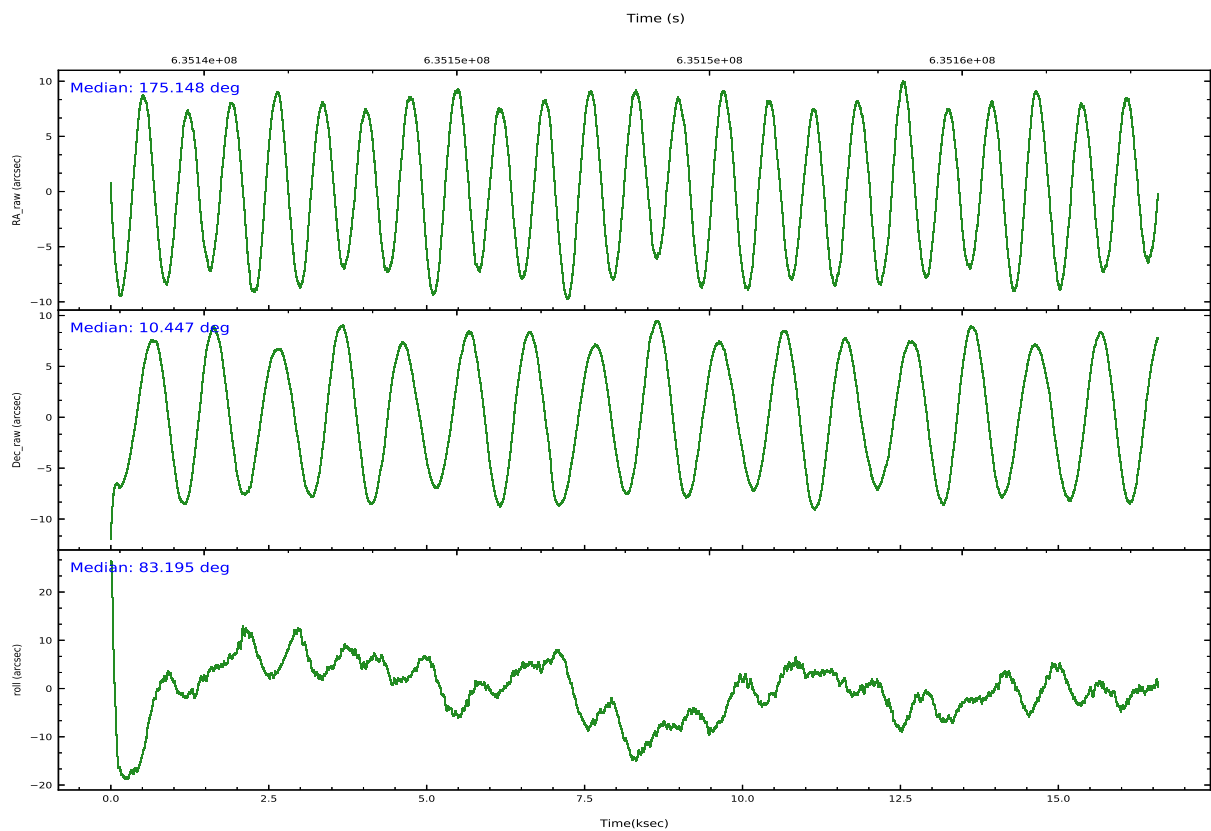
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4793	5409	4764	4522	4437
	4%	4%	3%	3%	3%
grade 1 events	71	75	68	66	50
	0%	0%	0%	0%	0%
grade 2 events	3588	3621	3374	2954	3277
	3%	3%	2%	2%	2%
grade 3 events	1442	1423	1299	1359	1351
	1%	1%	1%	1%	1%
grade 4 events	1337	1504	1272	1362	1372
	1%	1%	0%	1%	1%
grade 5 events	5398	5671	4877	5924	5653
	4%	4%	3%	4%	4%
grade 6 events	2906	3379	2515	2920	3187
	2%	2%	1%	2%	2%
grade 7 events	97345	96481	109156	99811	113038
	83%	82%	85%	83%	85%

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	175.158728	175.15307564992	CCD I2 on	Y	Y
[deg] Pointing Dec	10.421670	10.440260365238	CCD I3 on	Y	Y
[deg] Pointing Roll	82.997891	83.194571700954	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	Y
[mm] SIM translation stage pos	-228.472463	-228.4783457680588	CCD S3 on	N	N
[mm] SIM translation stage offset	-5.12	-5.114107234870914	CCD S4 on	N	N
[s] Observation start time (MET)	635142655.184000	635140932.08684	CCD S5 on	N	N
Observation start date	2018-02-16T04:29:46	2018-02-16T04:02:12	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	635159101.184000	635160144.68797	On-chip summing requested	N	N
Observation end date	2018-02-16T09:03:52	2018-02-16T09:22:24	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



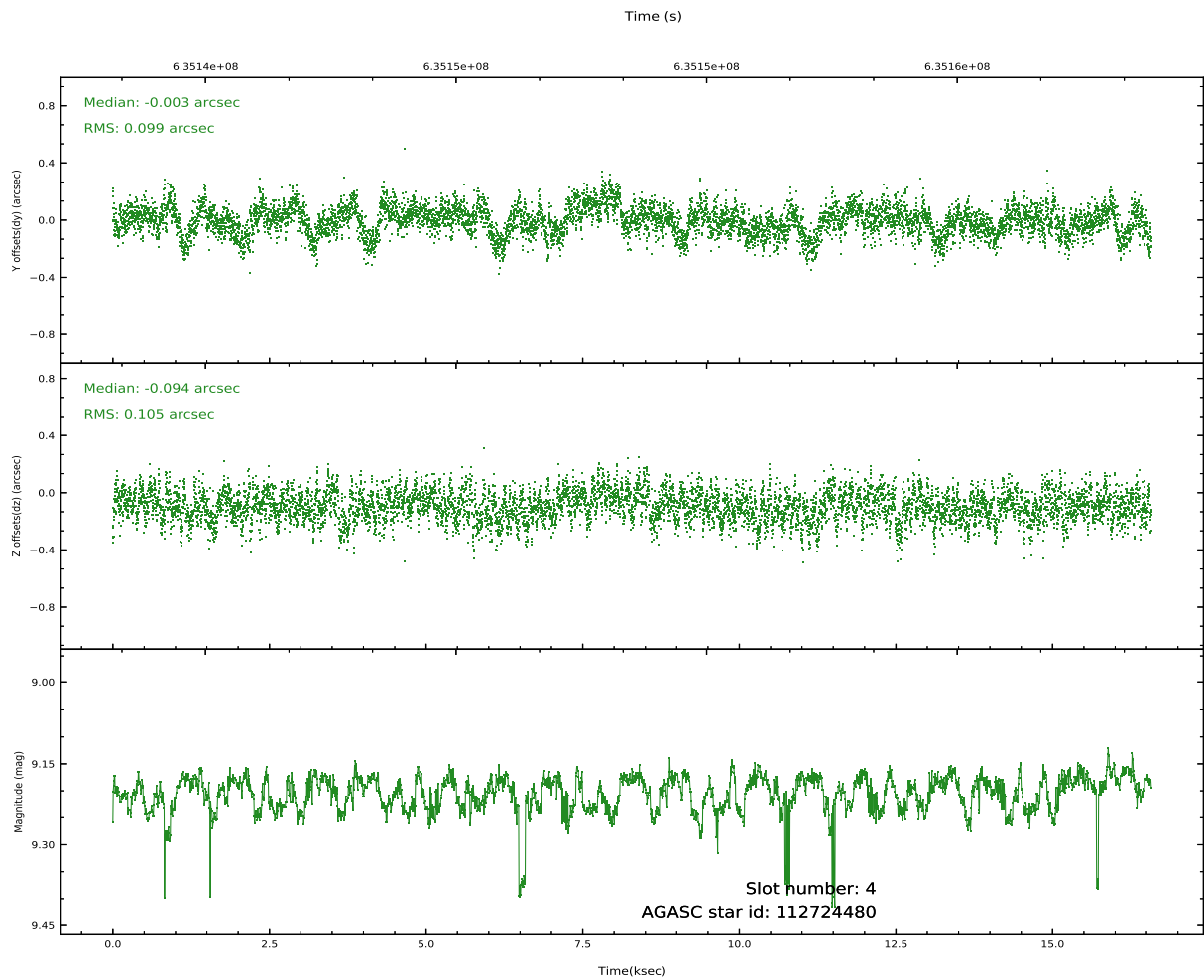
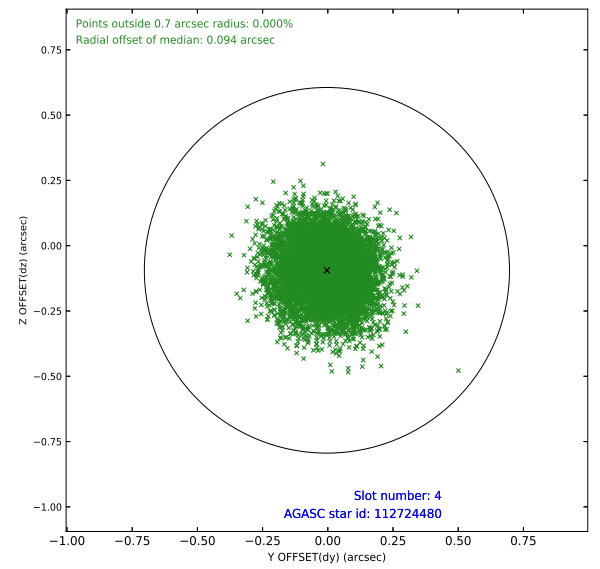
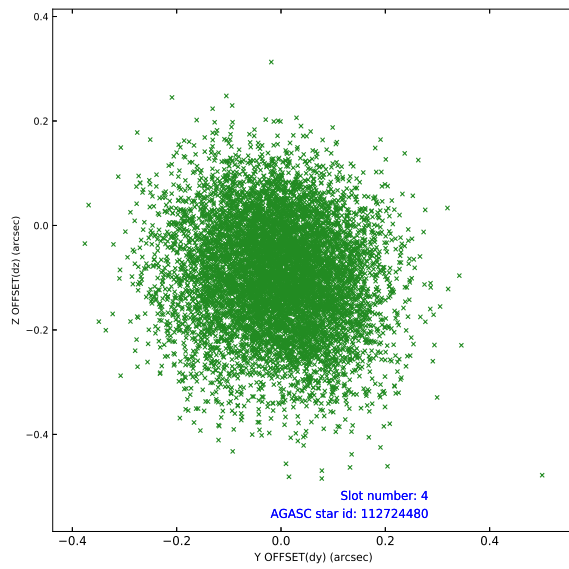


Slot Statistics

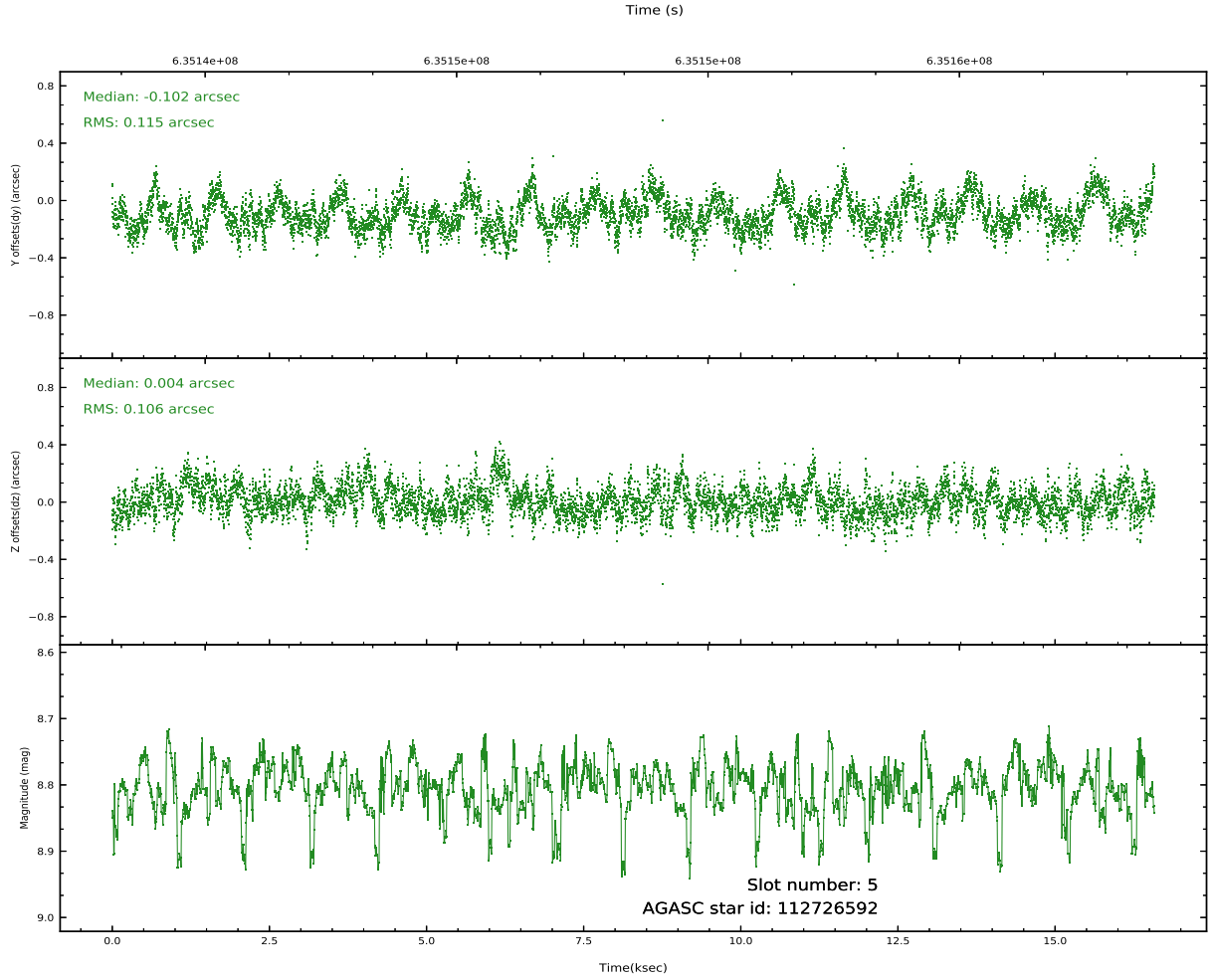
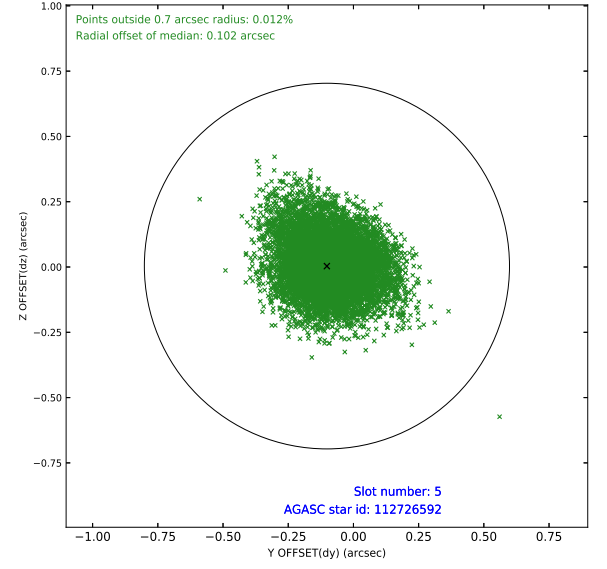
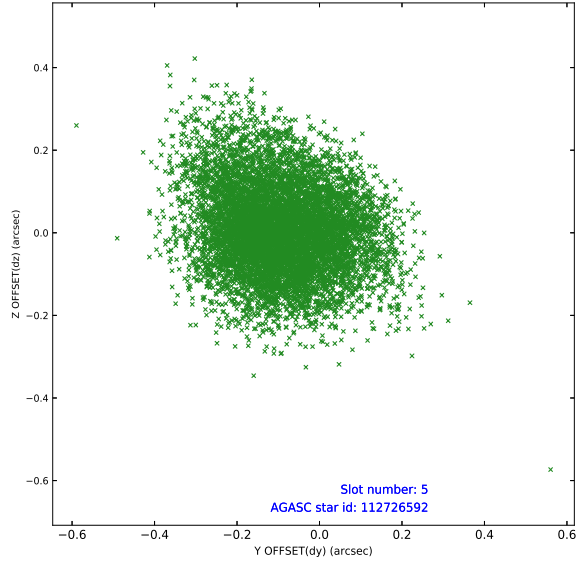
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.19	4044	1.000	0.295	-0.194	0.017	0.027	0.000000	0.000000	918.38	-950
1	FID		ACIS-I-5	7.17	4043	1.000	-0.369	0.247	0.008	0.013	0.000000	0.000000	-1830.09	947
2	FID		ACIS-I-6	7.18	4044	1.000	-0.018	0.018	0.013	0.021	0.000000	0.000000	383.54	1591
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	112724480	9.20	8079	1.000	-0.003	-0.094	0.153	0.249	174.899692	10.328000	-446.11	869
5	GUIDE	used	112726592	8.80	8081	1.000	-0.102	0.004	0.166	0.269	175.274038	10.809053	1434.17	-232
6	GUIDE	used	112728760	8.86	8082	1.000	0.187	-0.137	0.176	0.321	175.851650	10.985149	2315.45	-2182
7	GUIDE	used	112723040	8.59	8081	1.000	-0.100	0.218	0.160	0.259	175.836398	10.423549	302.70	-2380

2.4 Star Slots

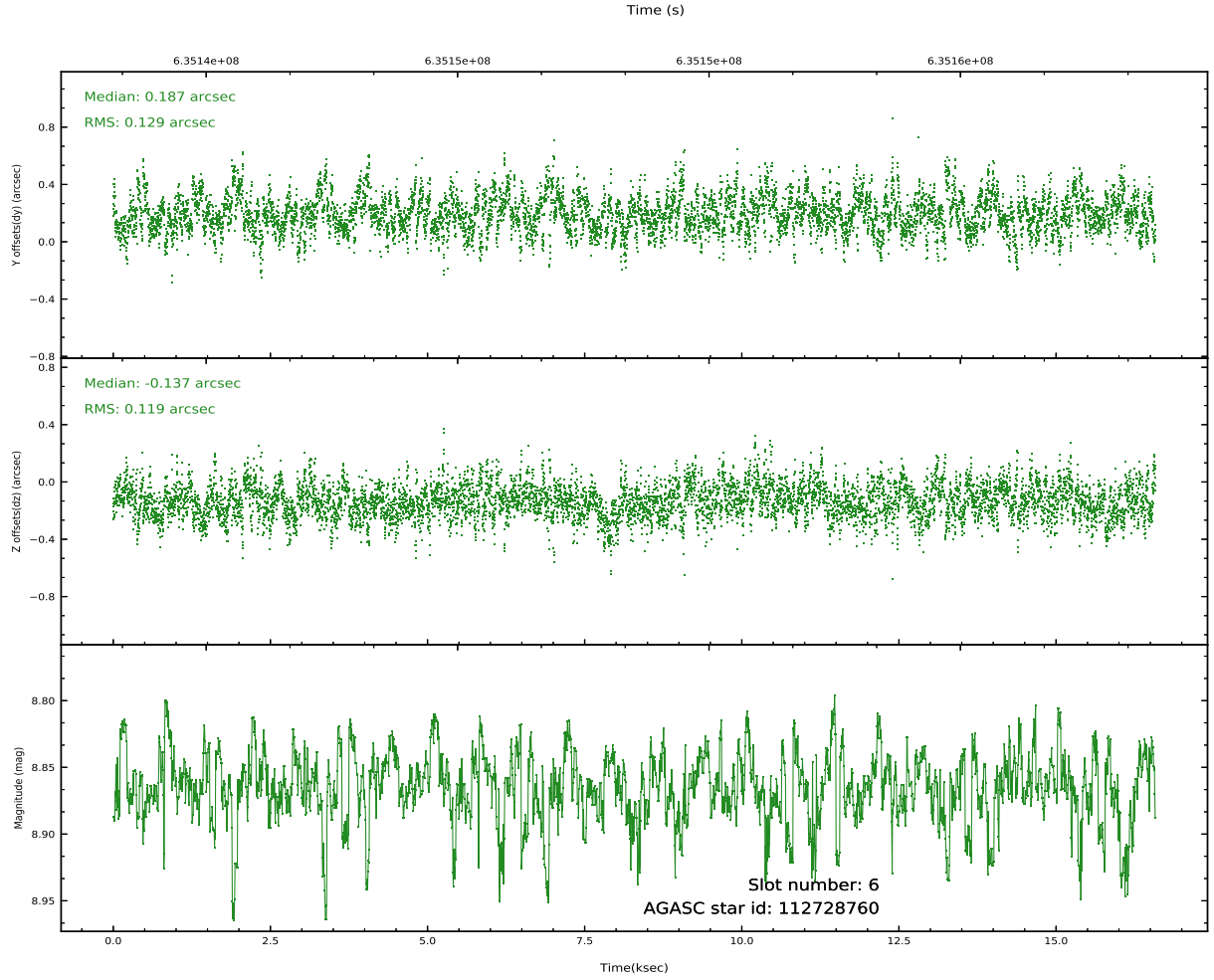
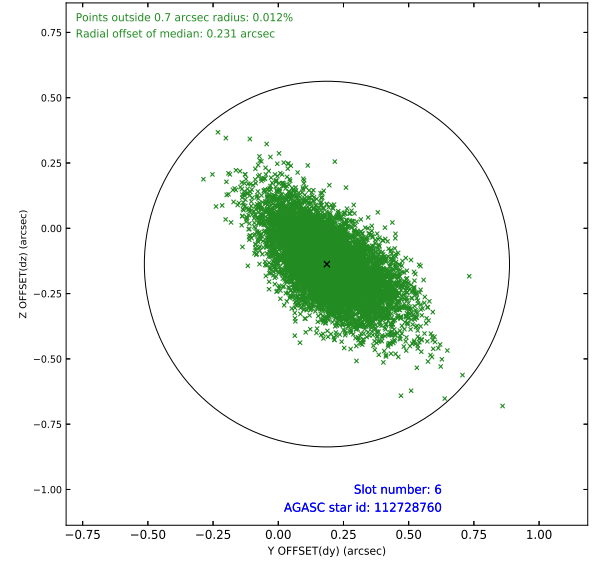
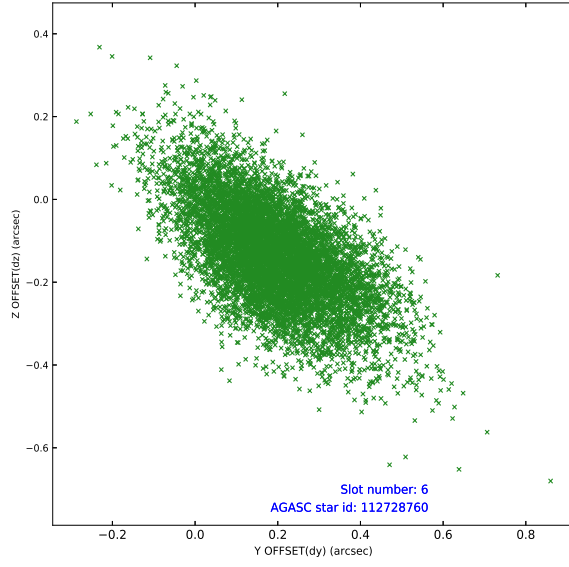
2.4.1 Slot 4



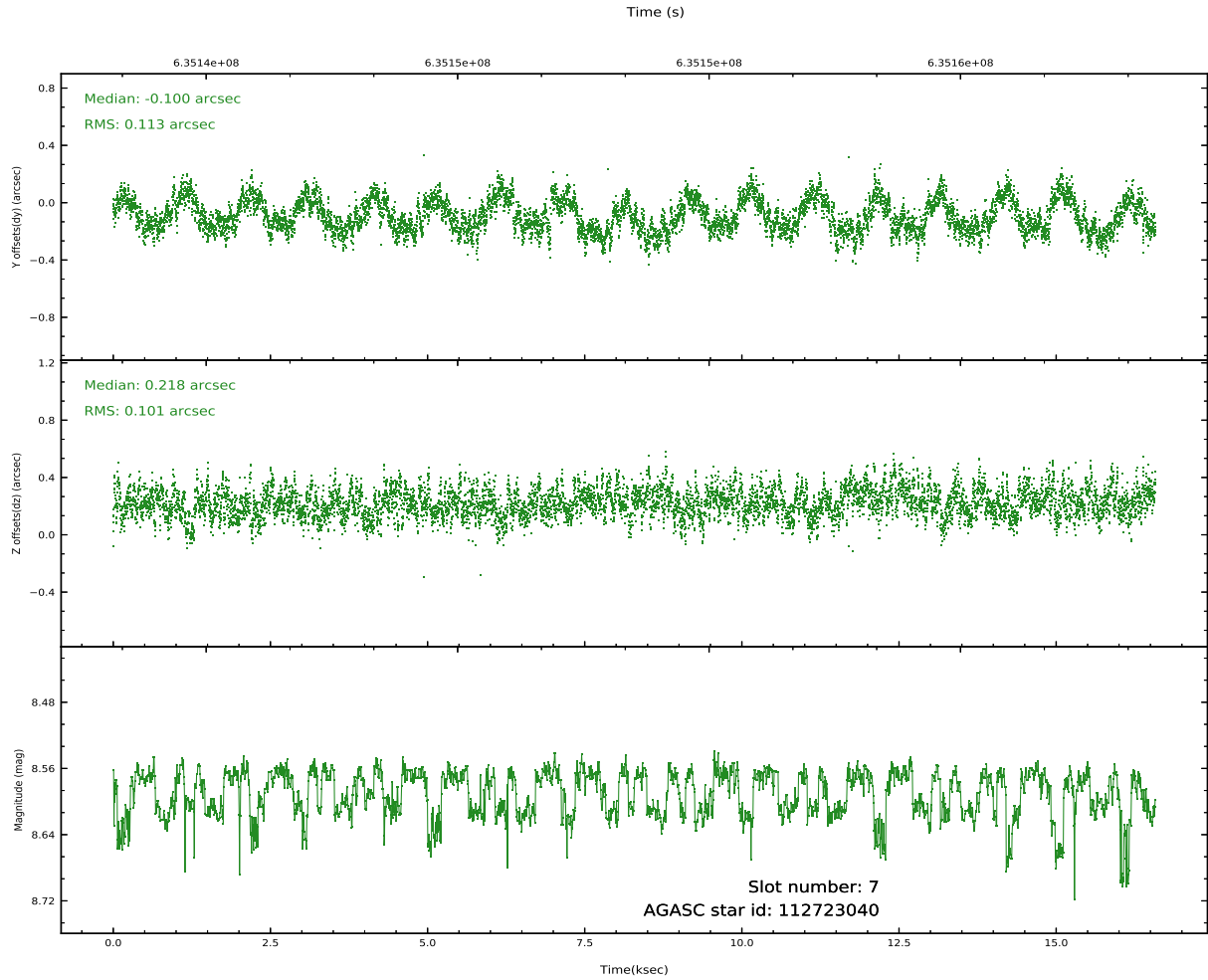
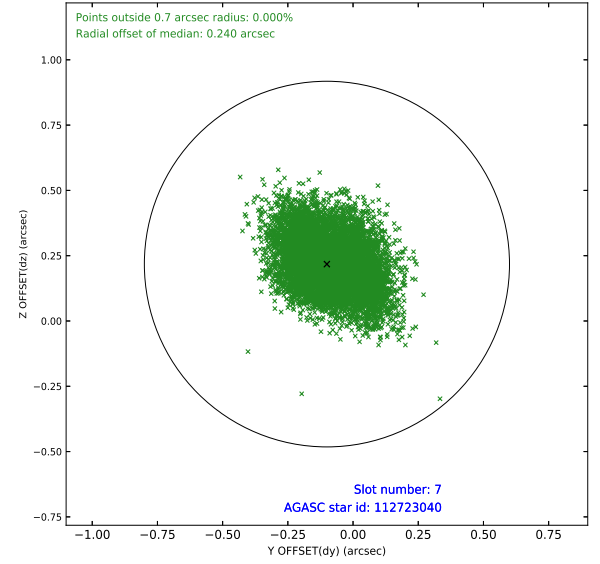
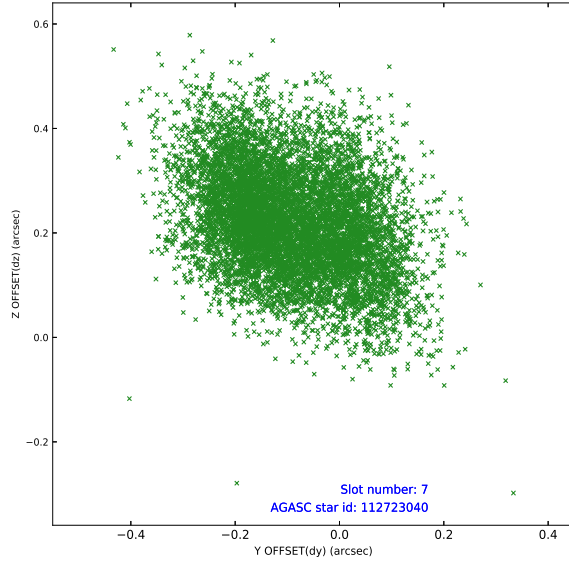
2.4.2 Slot 5



2.4.3 Slot 6

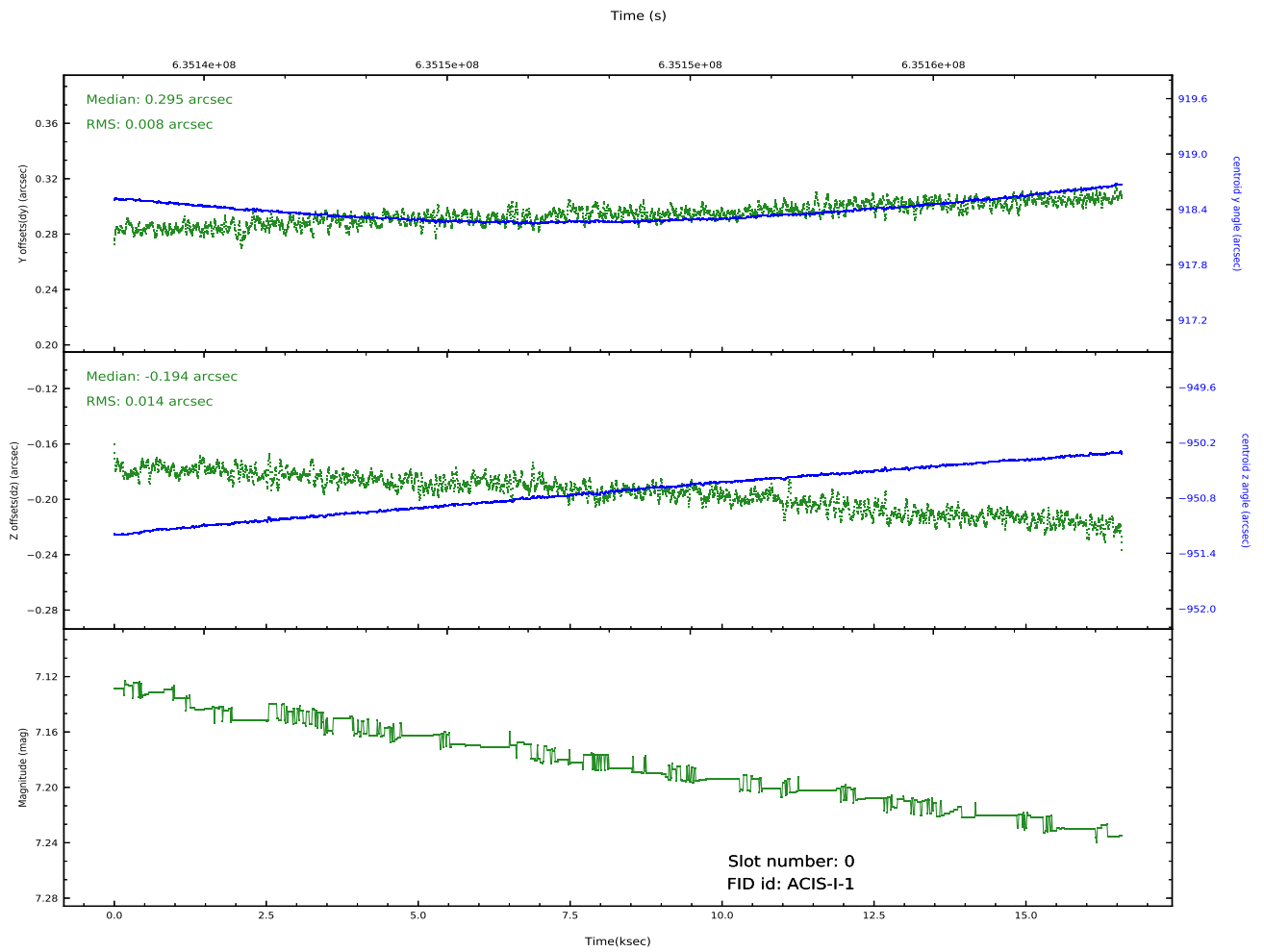
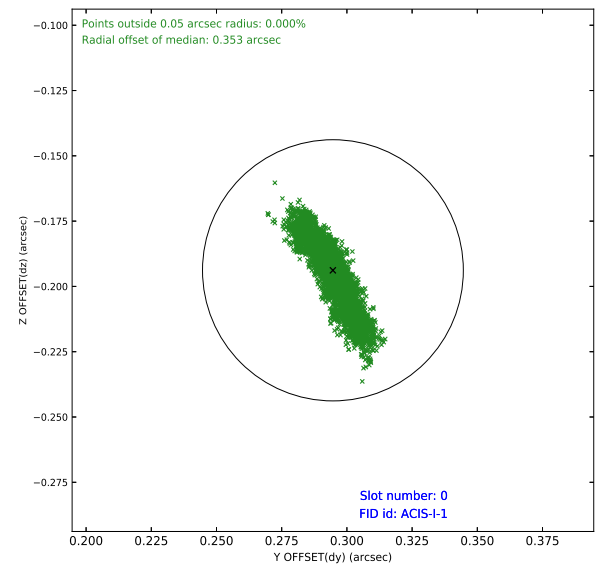
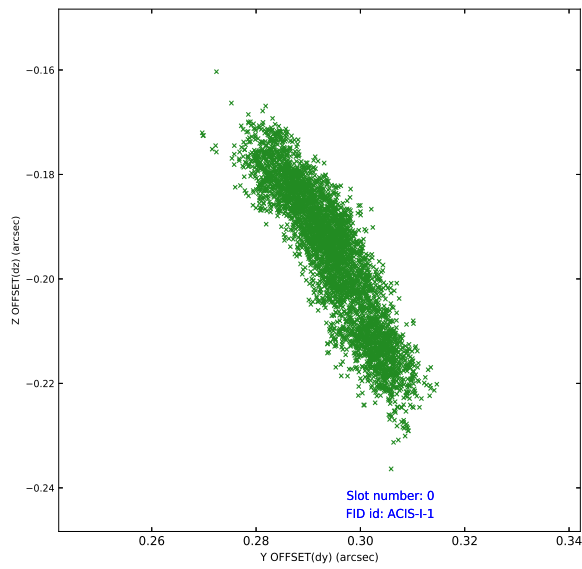


2.4.4 Slot 7

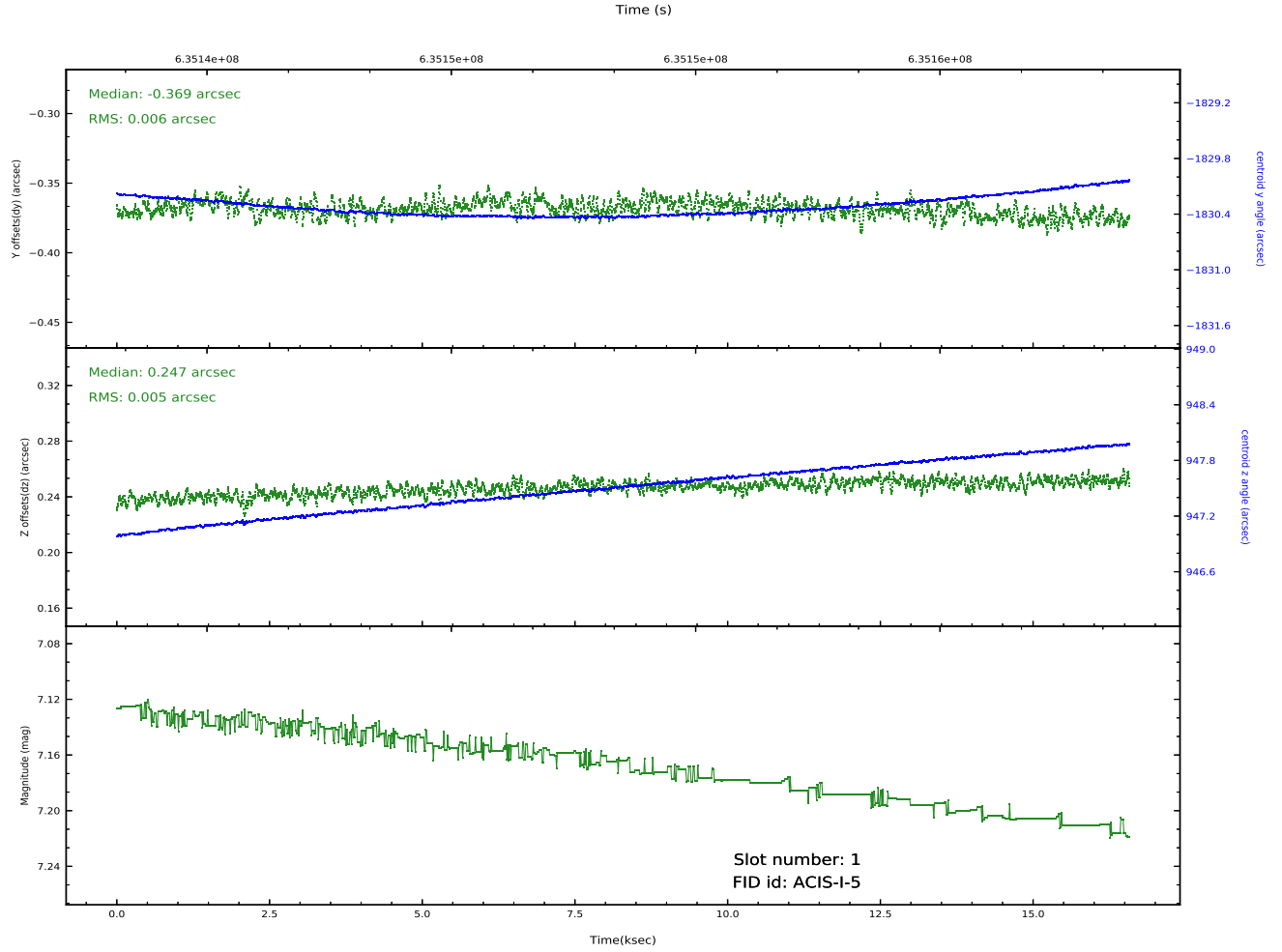
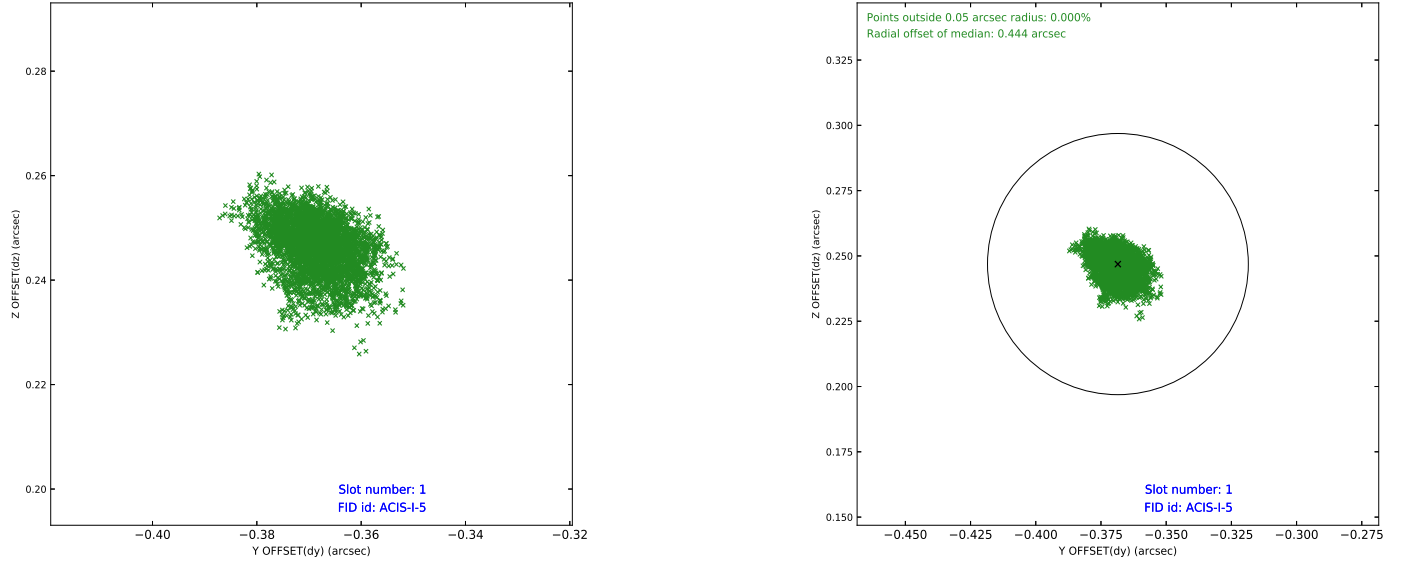


2.5 FID Slots

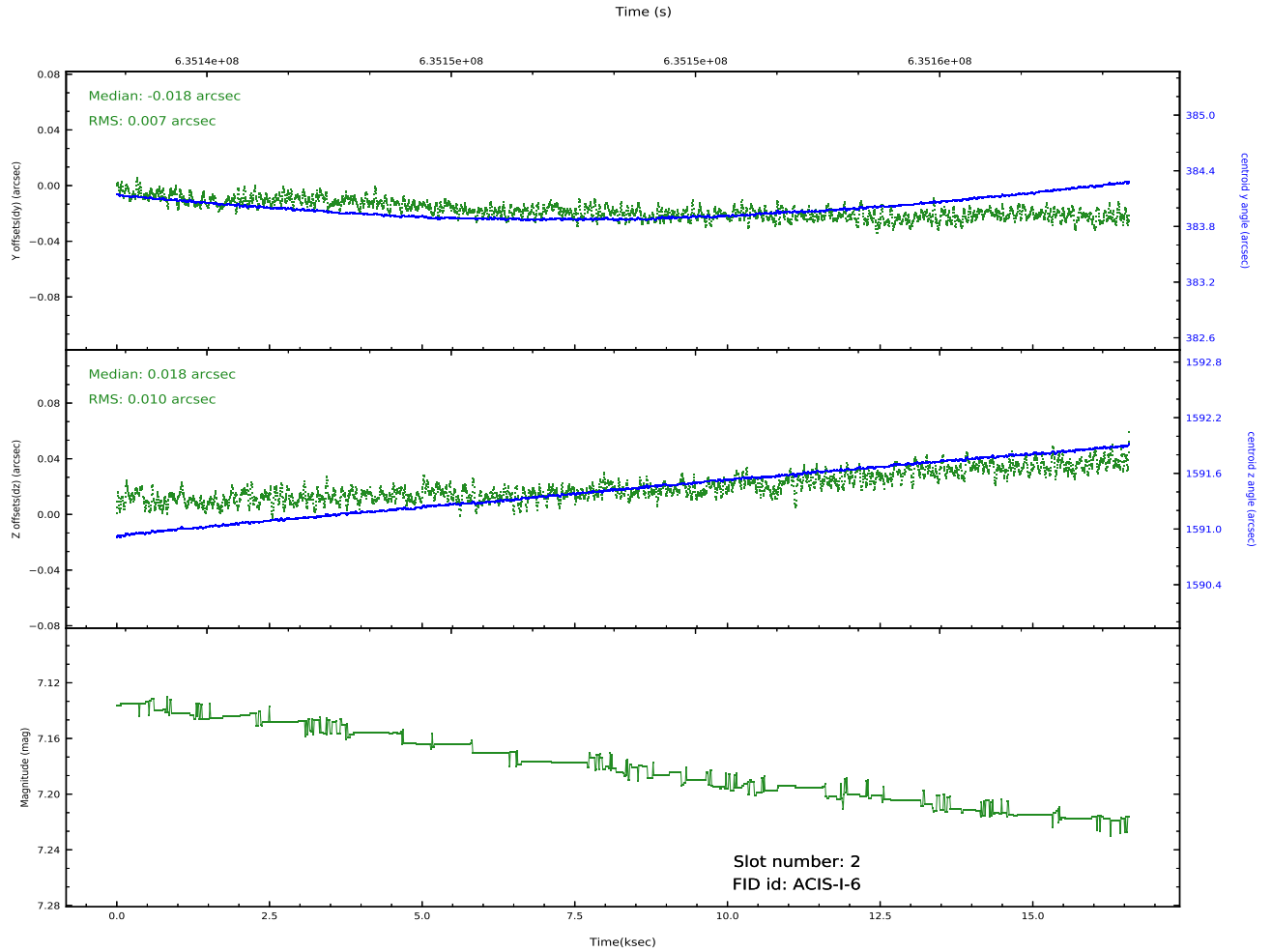
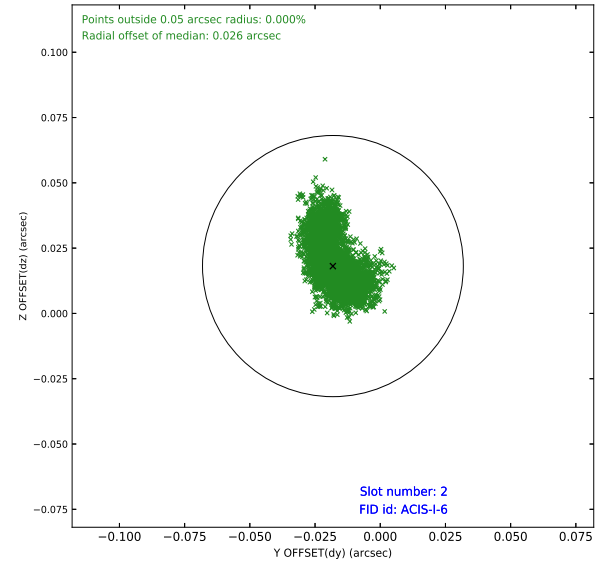
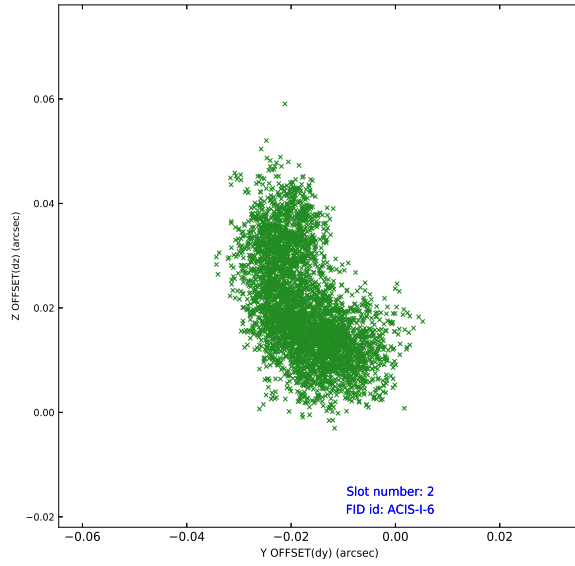
2.5.1 Slot 0



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)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.50125906682

A.2 Comments

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.