

V&V Reference Report

L2 ASCDS Version : 10.6.4

Observation 20913 - L2 Version 1
Chandra X-Ray Center

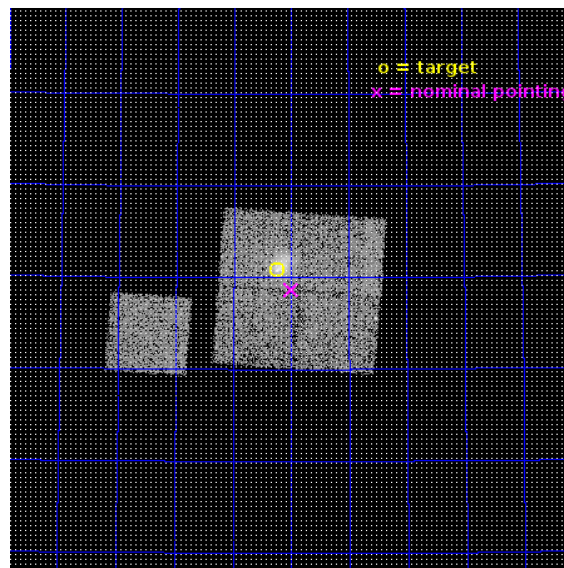
L2 Processing Date : Sep 8 2018

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1 Front

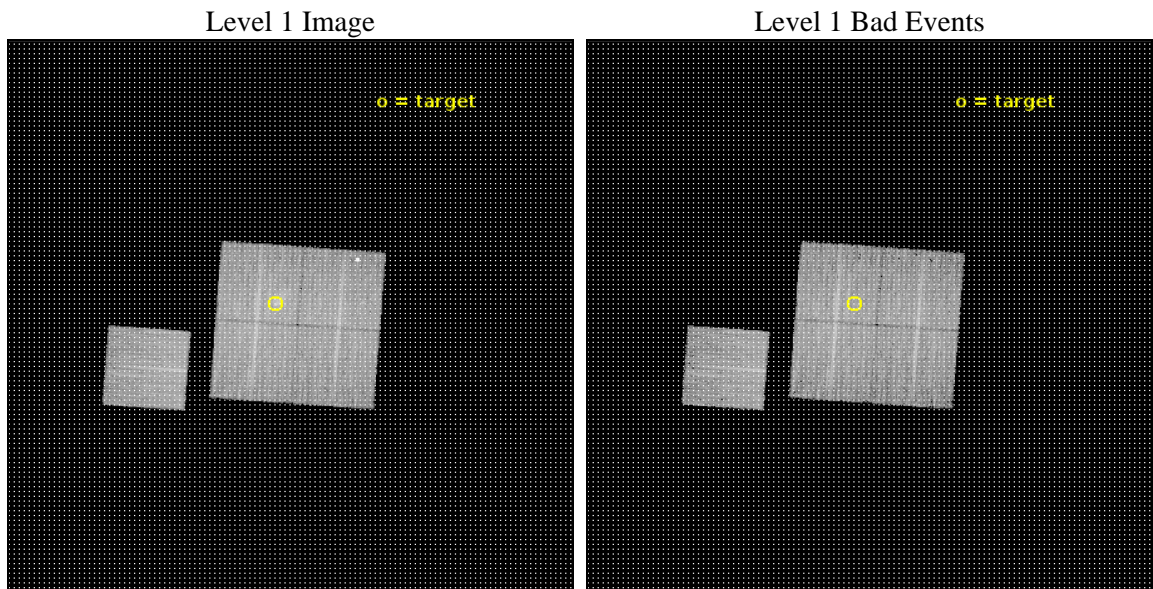
seq_num	801762	Sequence number
obs_id	20913	Observation id
title	Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146	Proposal title
observer	Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.06125	Observer's specified target RA [deg]
dec_targ	66.346917	Observer's specified target Dec [deg]
ra_nom	238.99945649588	Nominal RA [deg]
dec_nom	66.311472973715	Nominal Dec [deg]
roll_nom	274.26528213281	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10918.118033528	Sum of GTIs [s]
livetime	10775.464783619	Livetime [s]
ontime0	10921.259053826	Sum of GTIs [s]
ontime1	10921.259043932	Sum of GTIs [s]
ontime2	10924.400084138	Sum of GTIs [s]
ontime3	10918.118033528	Sum of GTIs [s]
ontime6	10921.259033799	Sum of GTIs [s]
l2events	43328	Number of level 2 events



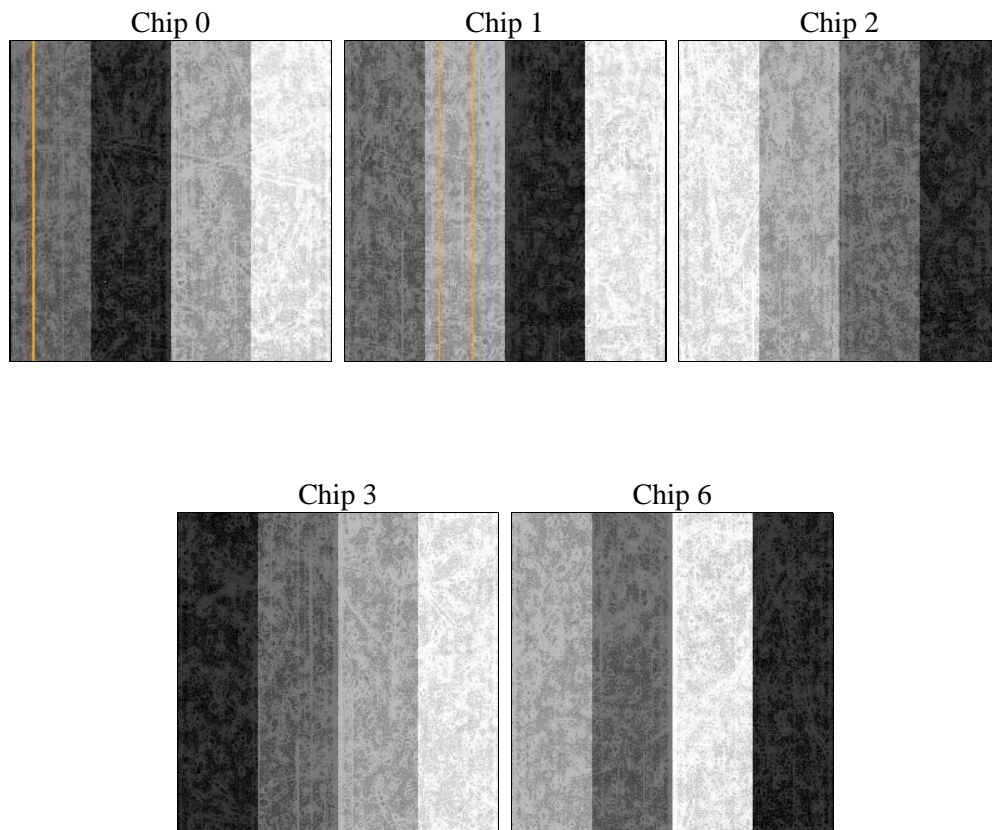
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10856.627000	[s] Scheduled observation exposure time
ascdsver	10.6.4	Processing system revision	ontime	10918.118033528	Sum of GTIs [s]
caldbver	4.7.8	 	ontime0	10921.259053826	Sum of GTIs [s]
date	2018-09-08T06:01:47	Date and time of file creation	ontime1	10921.259043932	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	10924.400084138	Sum of GTIs [s]
			ontime3	10918.118033528	Sum of GTIs [s]
			ontime6	10921.259033799	Sum of GTIs [s]
			l1events	413280	Number of level 1 events

2.1.4 Events

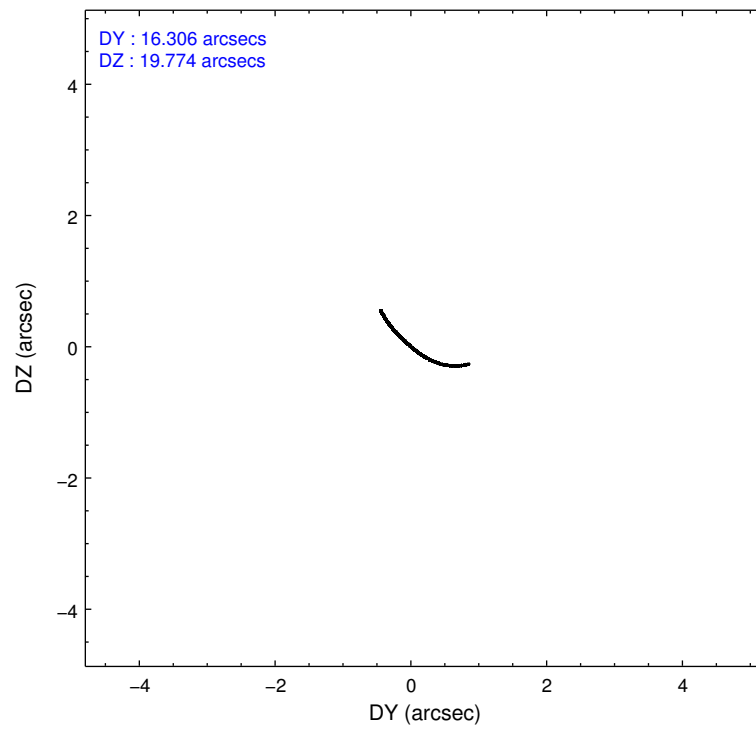
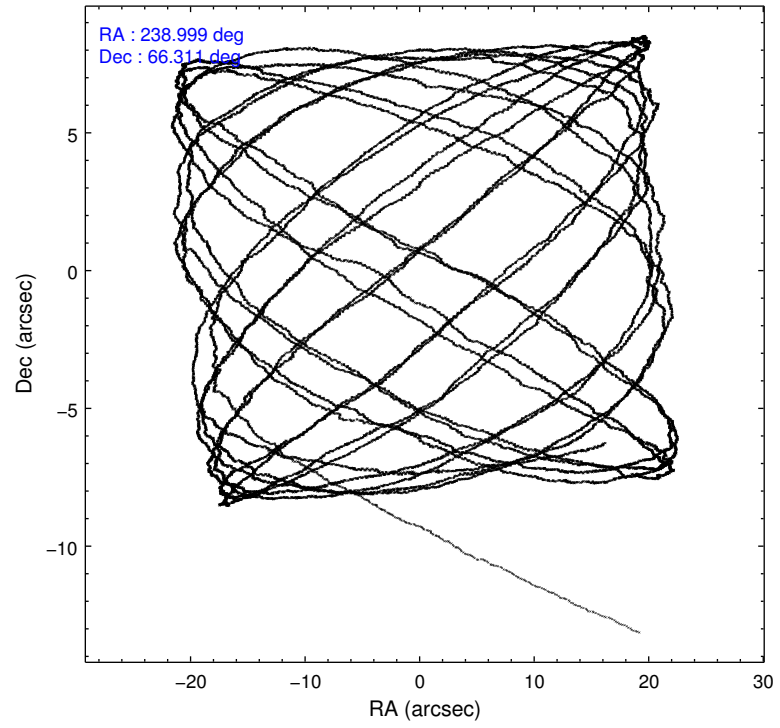
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	73806	82660	84016	89003	83795
rejected events	64692	68958	75463	75456	74849
rejected %	87%	83%	89%	84%	89%

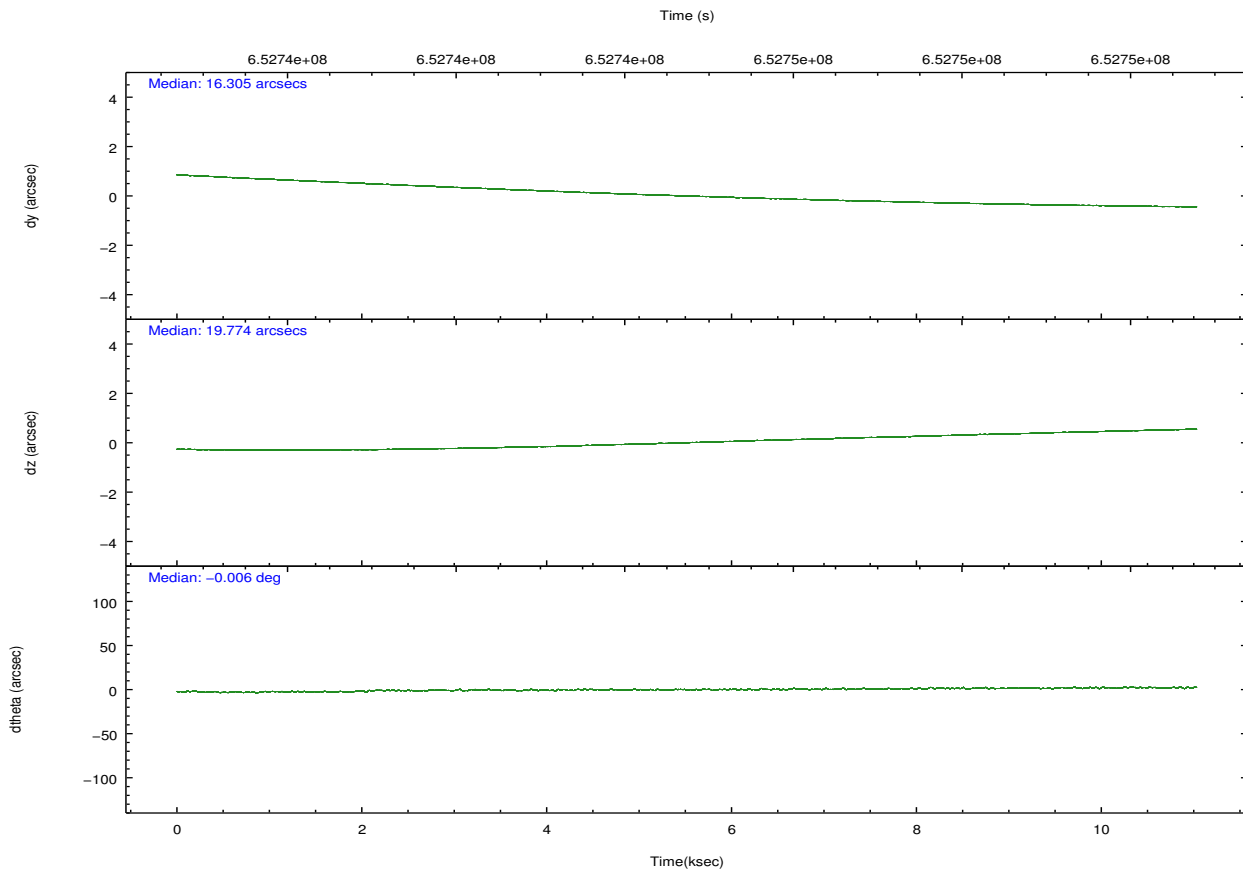
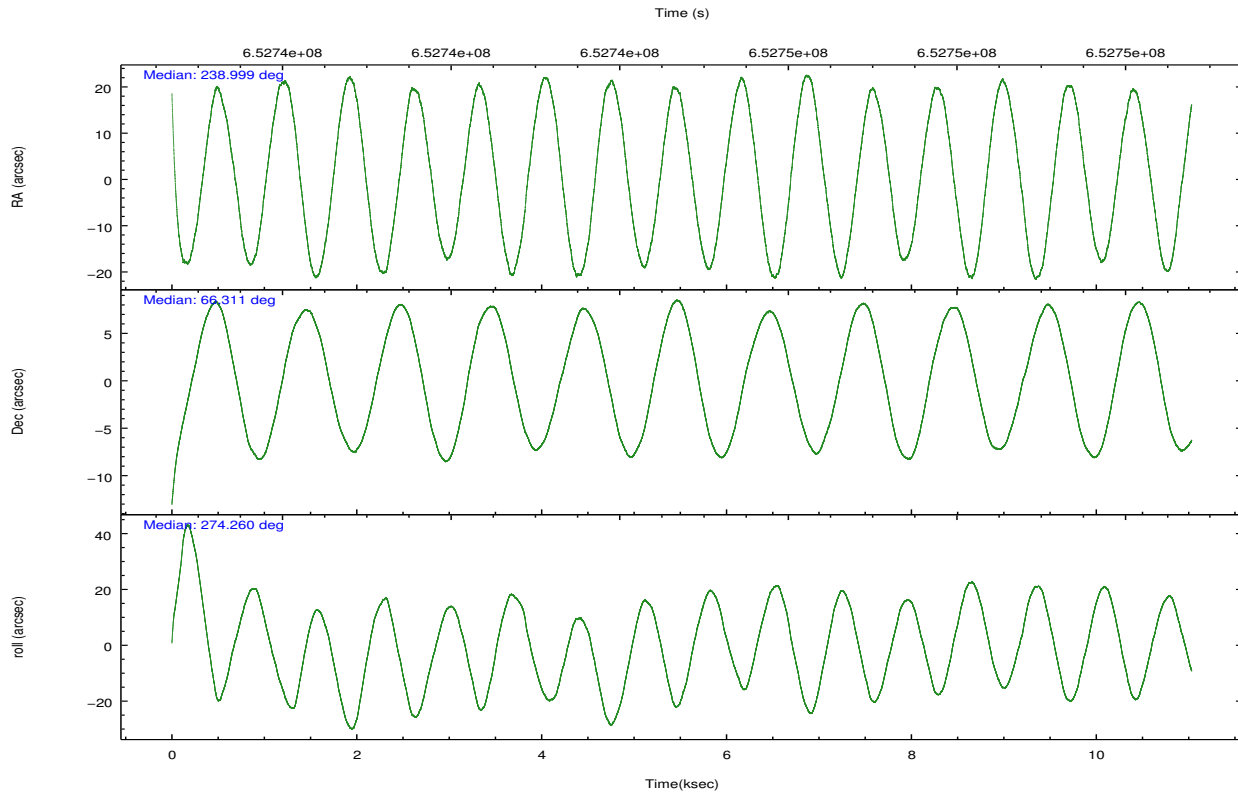
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3181	6809	2956	6996	2759
	4%	8%	3%	7%	3%
grade 1 events	36	61	50	74	48
	0%	0%	0%	0%	0%
grade 2 events	2219	2724	2138	2484	2233
	3%	3%	2%	2%	2%
grade 3 events	935	934	862	1012	844
	1%	1%	1%	1%	1%
grade 4 events	880	919	905	1088	855
	1%	1%	1%	1%	1%
grade 5 events	3486	3617	3216	3890	3550
	4%	4%	3%	4%	4%
grade 6 events	1906	2324	1706	1974	2259
	2%	2%	2%	2%	2%
grade 7 events	61163	65272	72183	71485	71247
	82%	78%	85%	80%	85%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
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	238.960617	238.9994564958774	CCD I2 on	Y	Y
[deg] Pointing Dec	66.334241	66.31147297371501	CCD I3 on	Y	Y
[deg] Pointing Roll	274.092180	274.2652821328093	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	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	652739404.184000	652738259.71505	CCD S5 on	N	N
Observation start date	2018-09-07T20:28:55	2018-09-07T20:10:59	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	652750260.184000	652751133.20331	On-chip summing requested	N	N
Observation end date	2018-09-07T23:29:51	2018-09-07T23:45:33	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





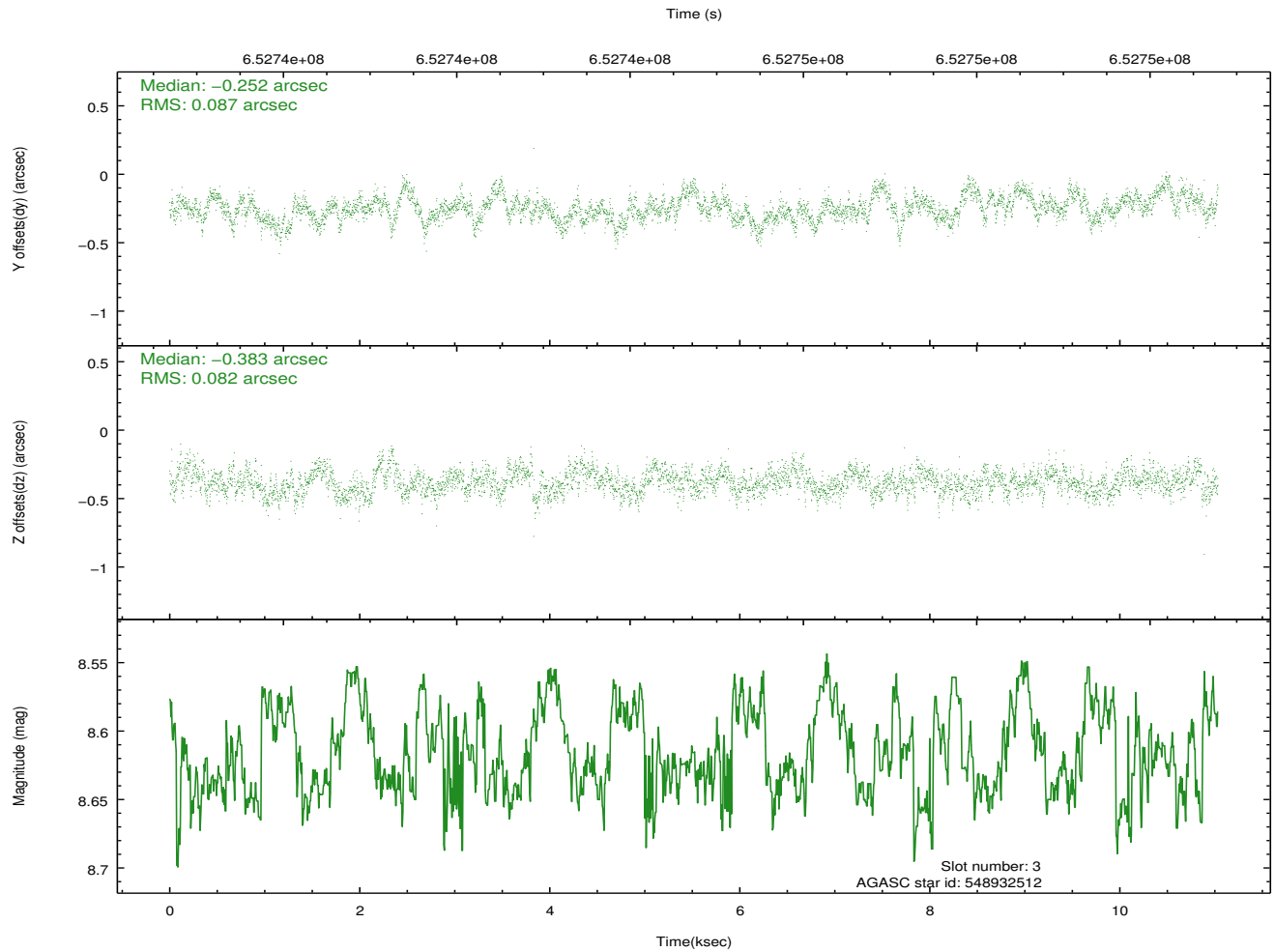
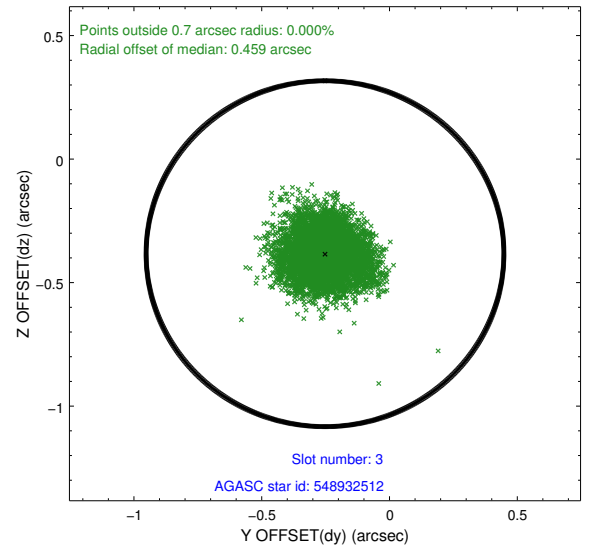
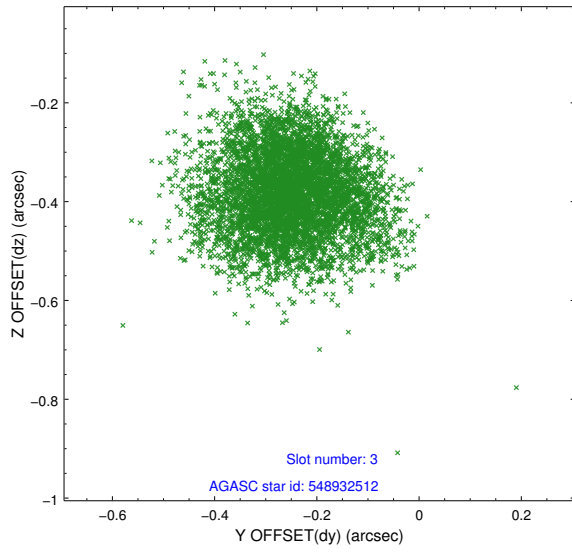
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.18	2691	1.000	0.059	-0.038	0.013	0.027	0.000000	0.000000	923.16	-843
1	FID		ACIS-I-5	7.17	2691	1.000	-0.385	0.009	0.011	0.018	0.000000	0.000000	-1825.26	1053
2	FID		ACIS-I-6	7.19	2690	1.000	0.236	0.099	0.015	0.024	0.000000	0.000000	388.20	1698
3	GUIDE	used	548932512	8.62	5381	1.000	-0.252	-0.383	0.128	0.204	239.727627	66.054972	1075.17	1046
4	GUIDE	used	548933960	8.45	5382	1.000	0.182	0.129	0.149	0.241	237.671184	66.428675	-488.87	-1825
5	GUIDE	used	548937184	9.85	5370	1.000	0.276	0.281	0.223	0.392	238.771821	66.565432	-849.66	-209
6	GUIDE	used	549849072	9.15	5371	1.000	-0.092	-0.280	0.155	0.271	240.420863	66.802816	-1559.38	2187
7	GUIDE	used	548939872	10.24	5346	1.000	-0.122	0.269	0.293	0.633	238.964867	66.978384	-2313.01	172

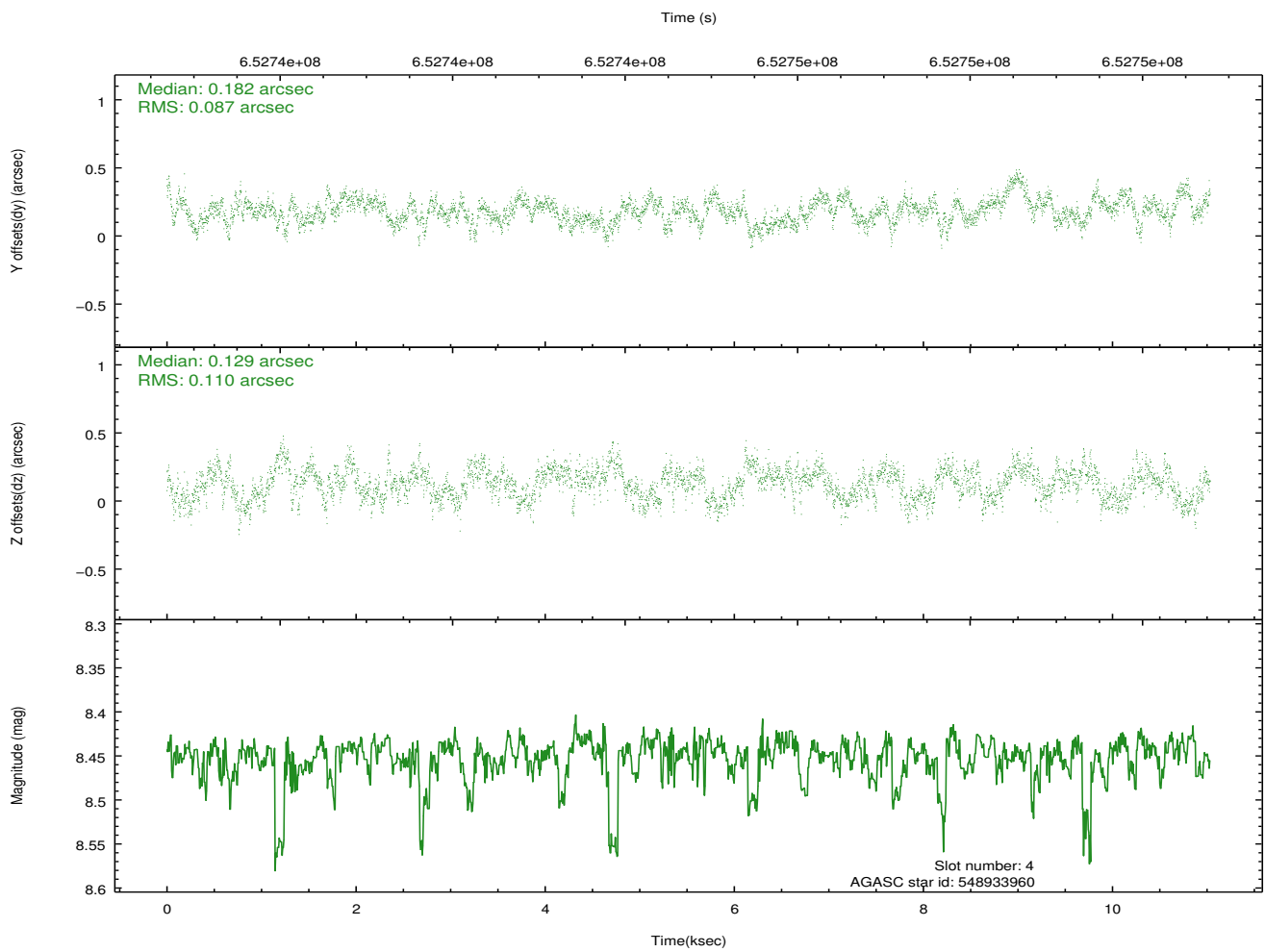
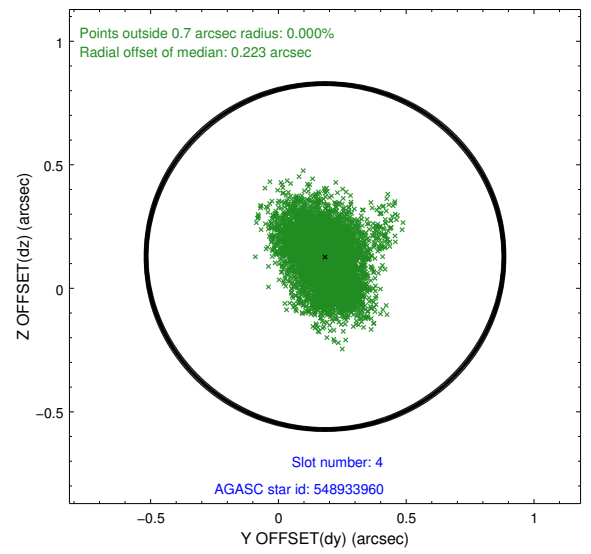
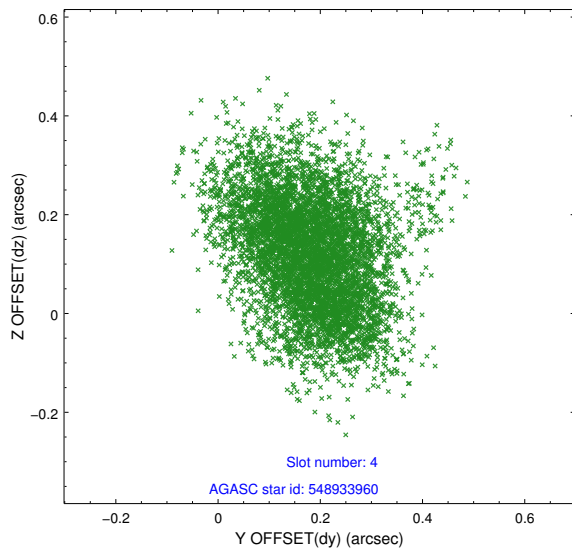
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2.4 Star Slots

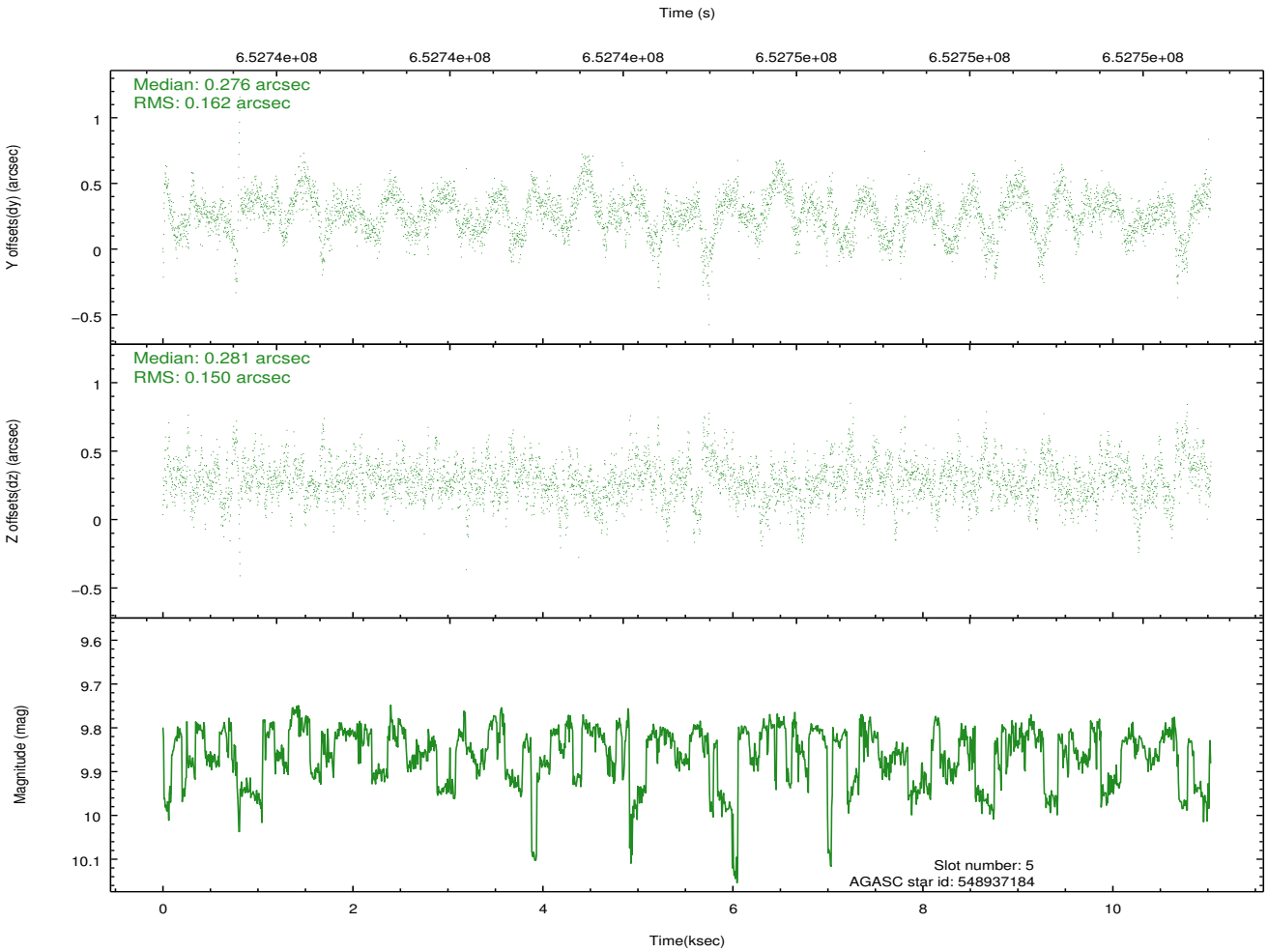
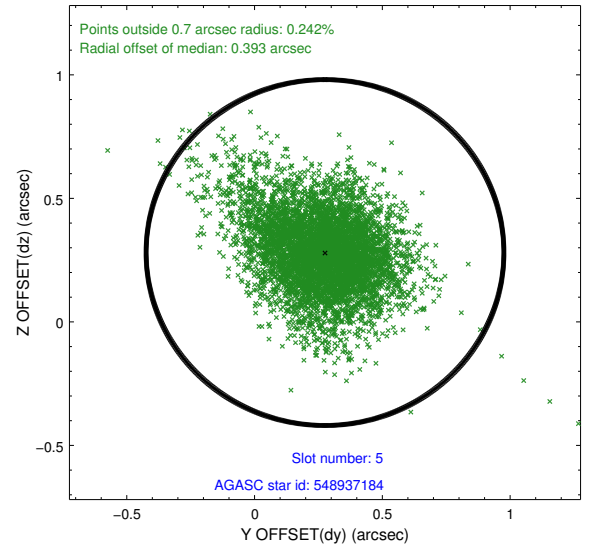
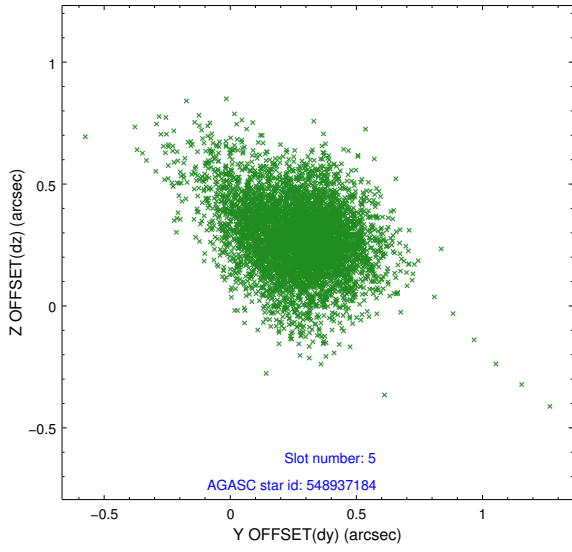
2.4.1 Slot 3



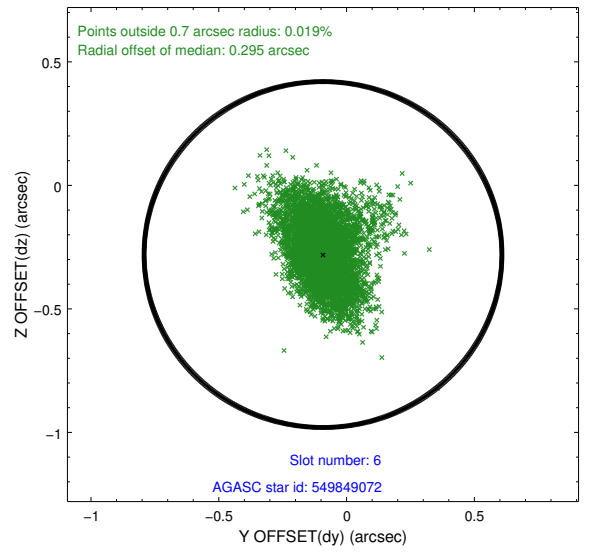
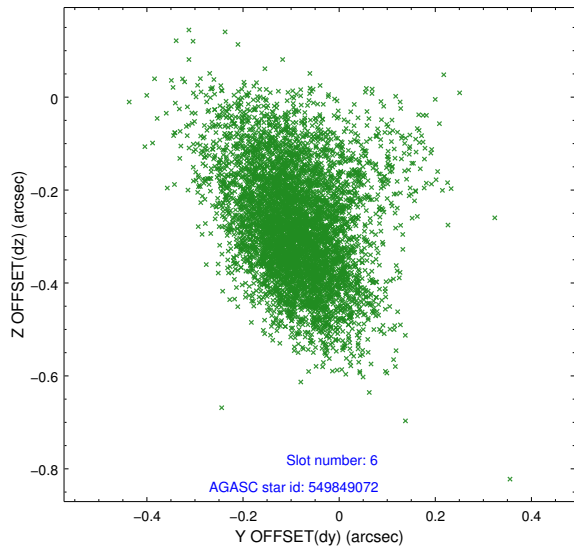
2.4.2 Slot 4



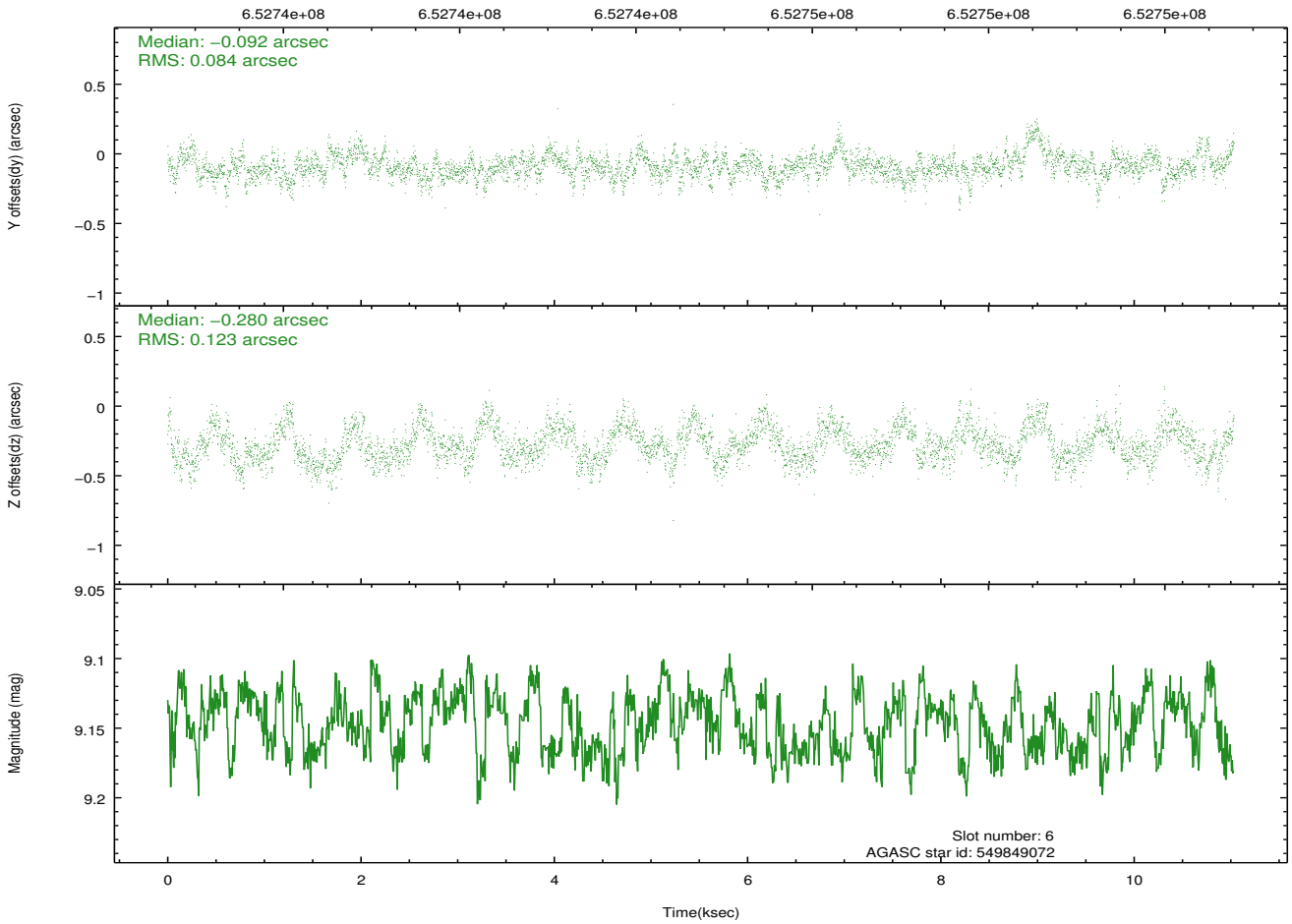
2.4.3 Slot 5



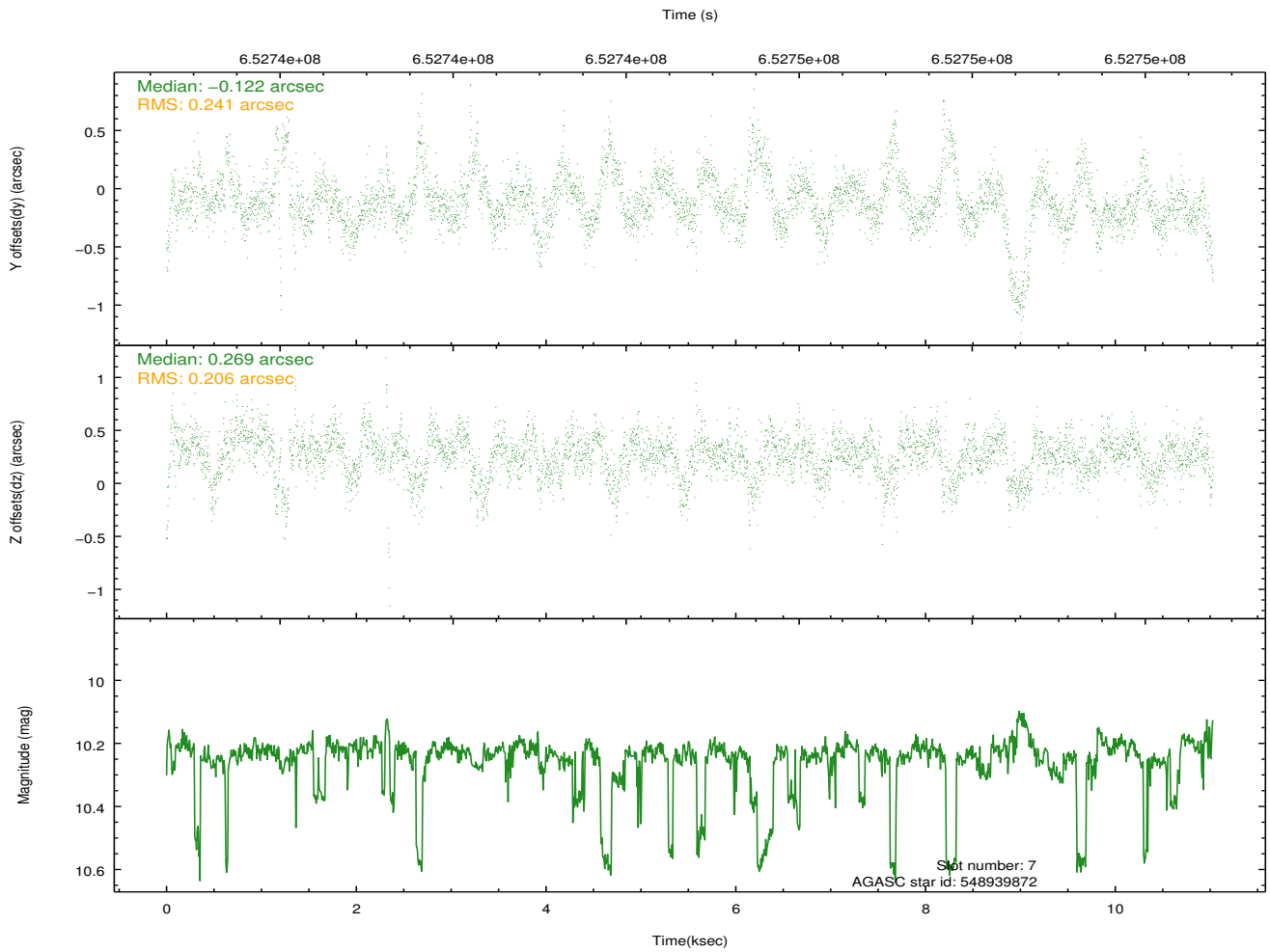
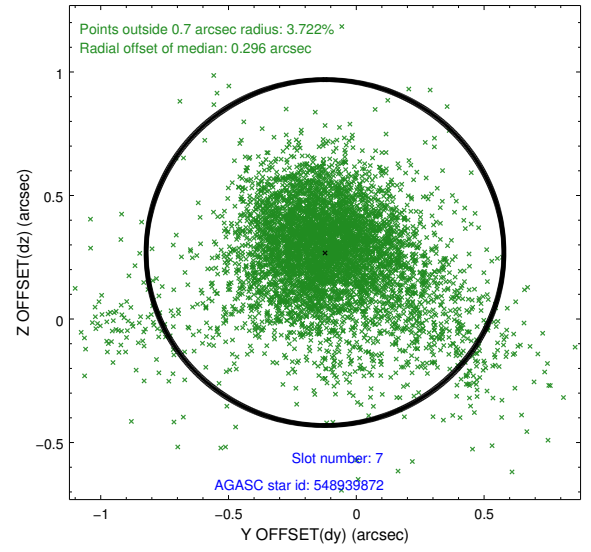
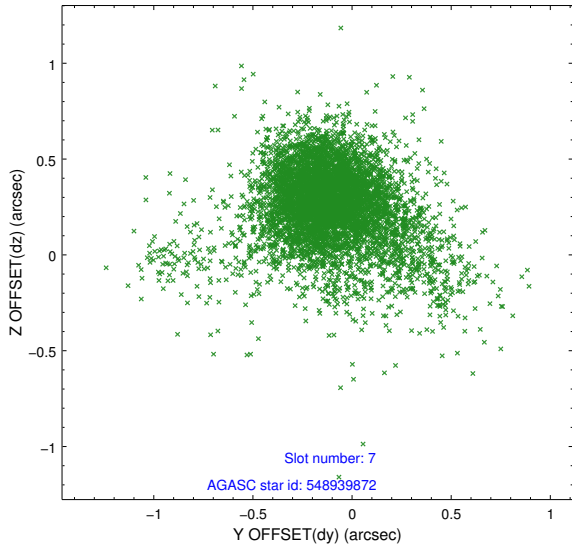
2.4.4 Slot 6



Time (s)

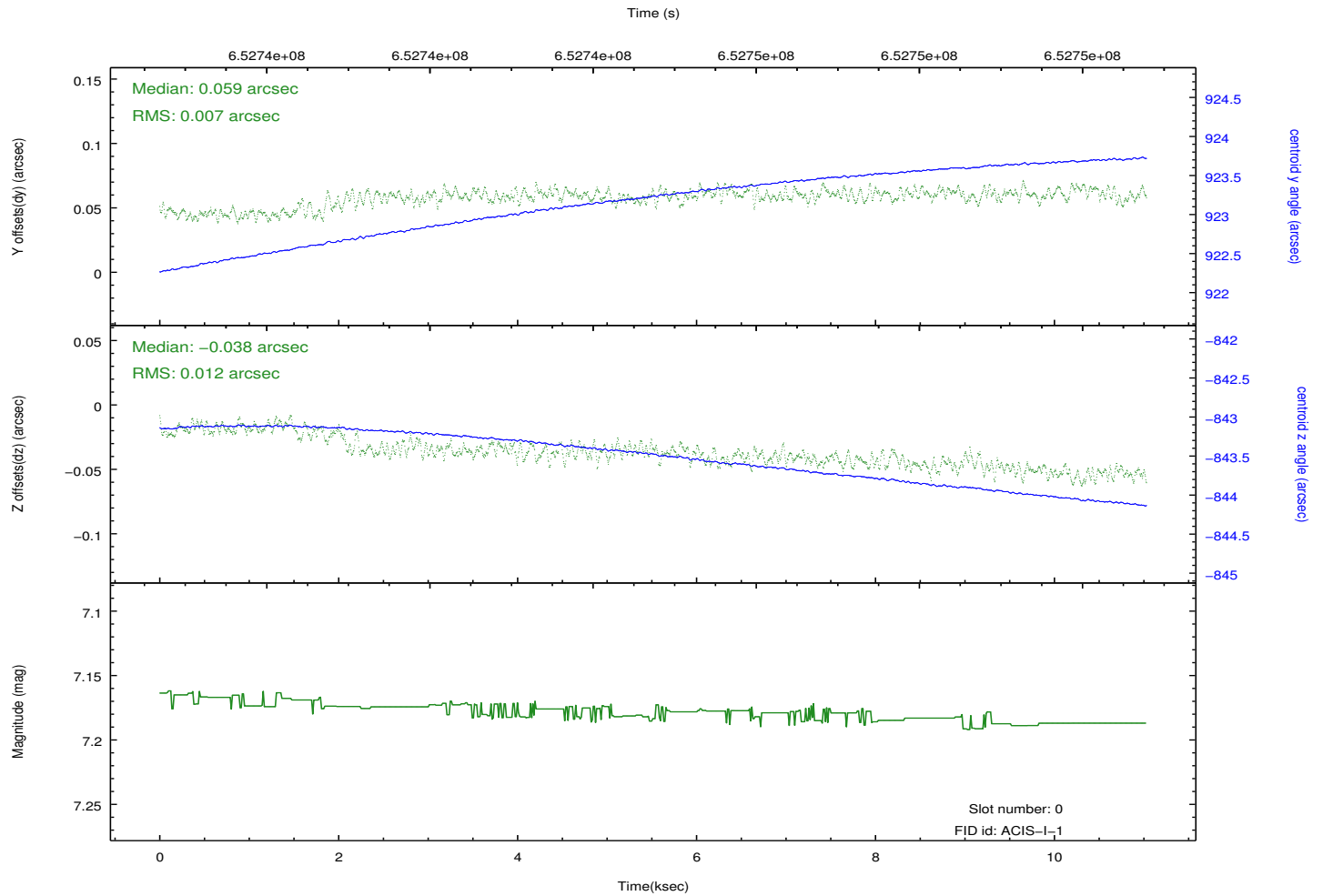
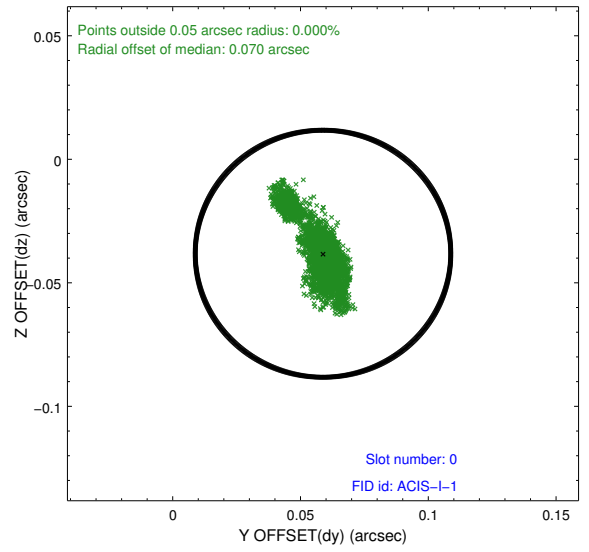
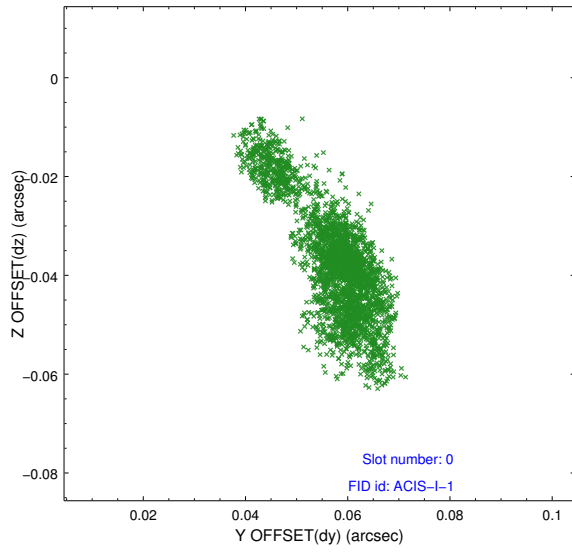


2.4.5 Slot 7

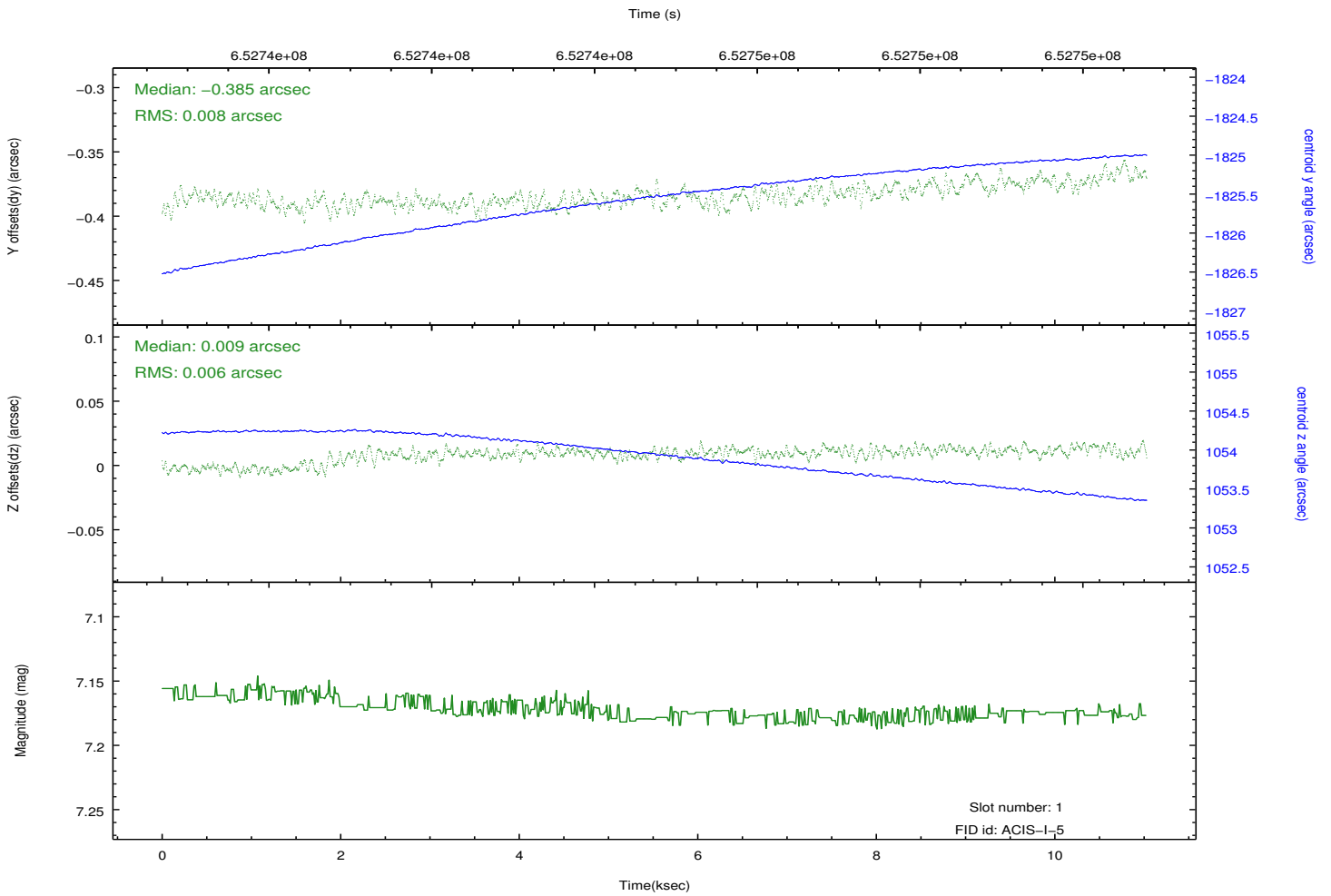
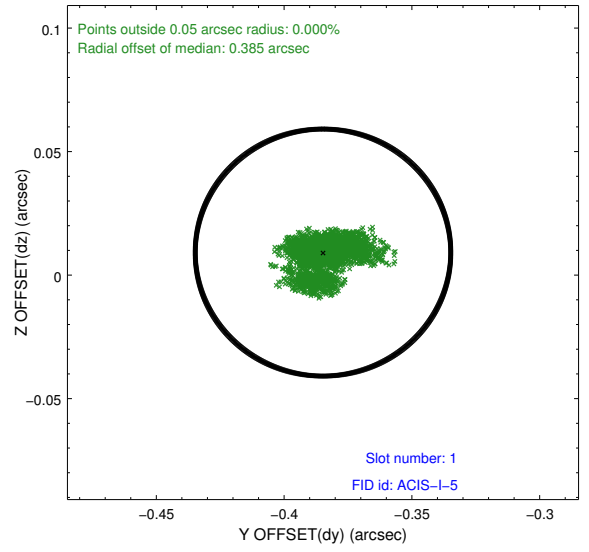
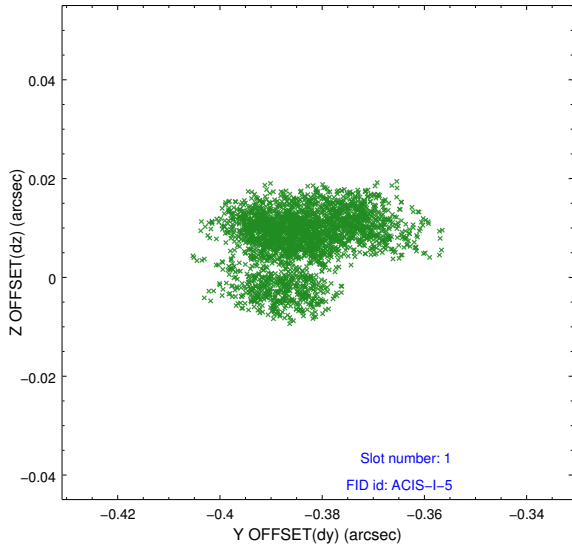


2.5 FID Slots

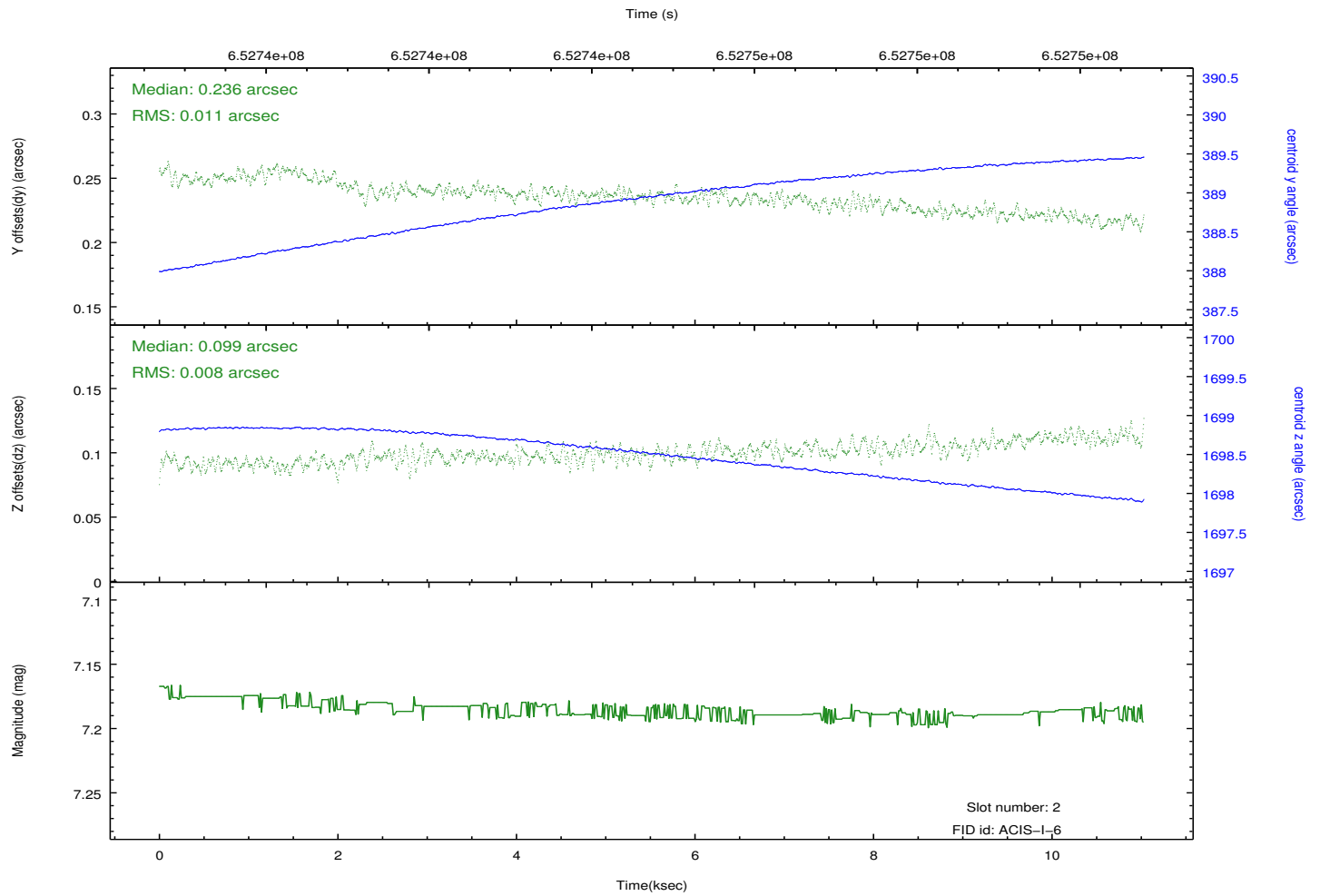
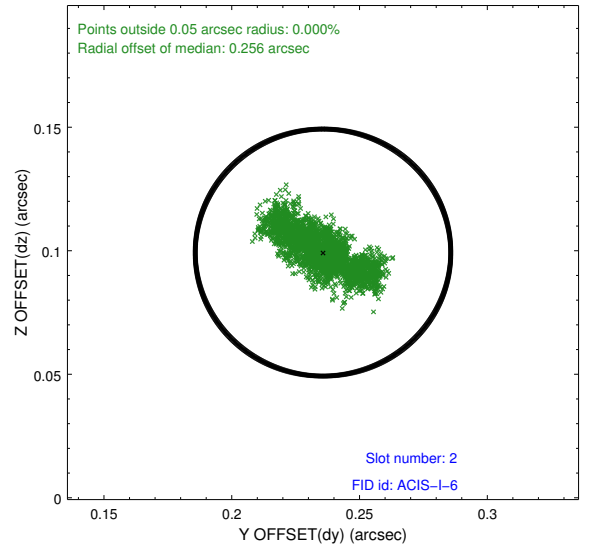
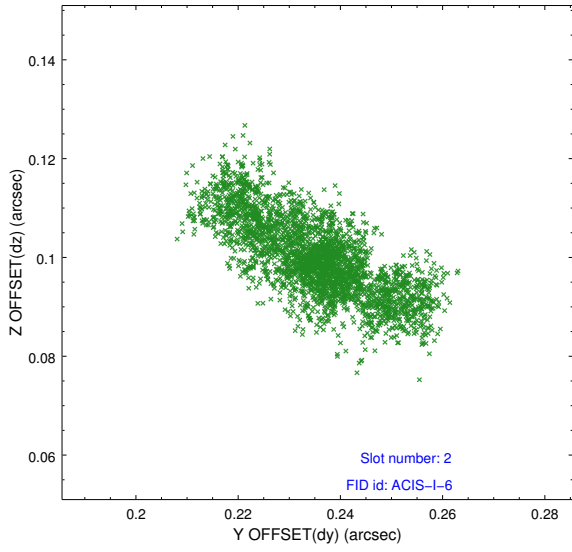
2.5.1 Slot 0



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)	2018.09.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.918118033528

A.2 Comments