

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22243 - L2 Version 1
Chandra X-Ray Center

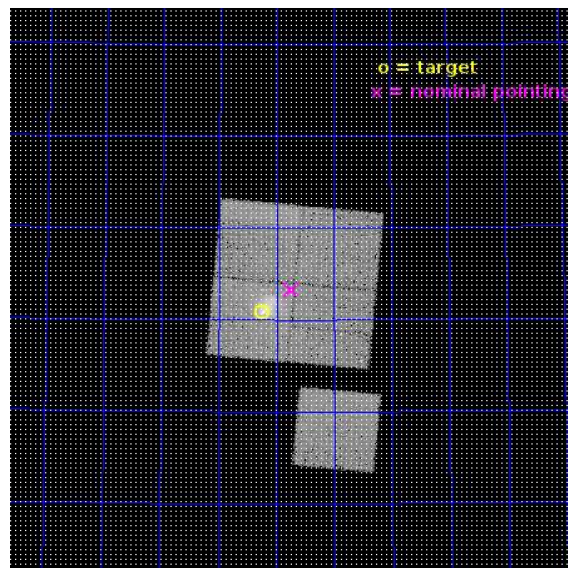
L2 Processing Date : Jun 9 2019

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

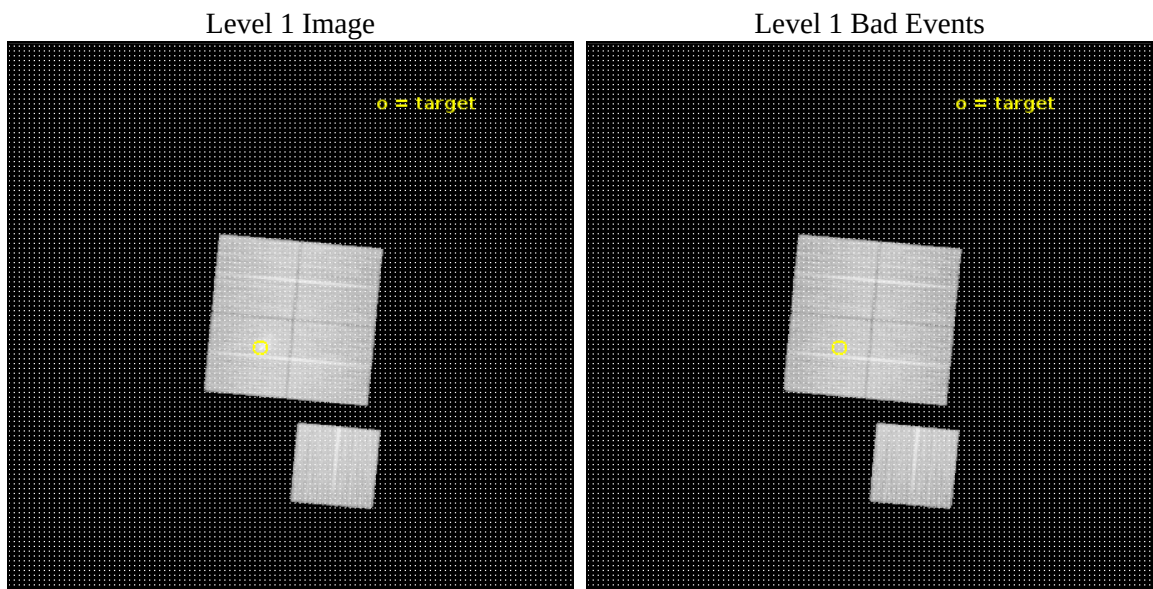
seq_num	801762	Sequence number
obs_id	22243	Observation id
title	Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146	Proposal title
observer	Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.06125	Observer's specified target RA [deg]
dec_targ	66.346917	Observer's specified target Dec [deg]
ra_nom	238.93485543806	Nominal RA [deg]
dec_nom	66.388021288681	Nominal Dec [deg]
roll_nom	185.32450813513	Nominal Roll [deg]
revision	1	Processing version of data
ontime	29065.60022366	Sum of GTIs [s]
livetime	28685.836758955	Livetime [s]
ontime0	29056.177432299	Sum of GTIs [s]
ontime1	29062.459253311	Sum of GTIs [s]
ontime2	29046.754421711	Sum of GTIs [s]
ontime3	29065.60022366	Sum of GTIs [s]
ontime6	29065.60022366	Sum of GTIs [s]
l2events	119085	Number of level 2 events



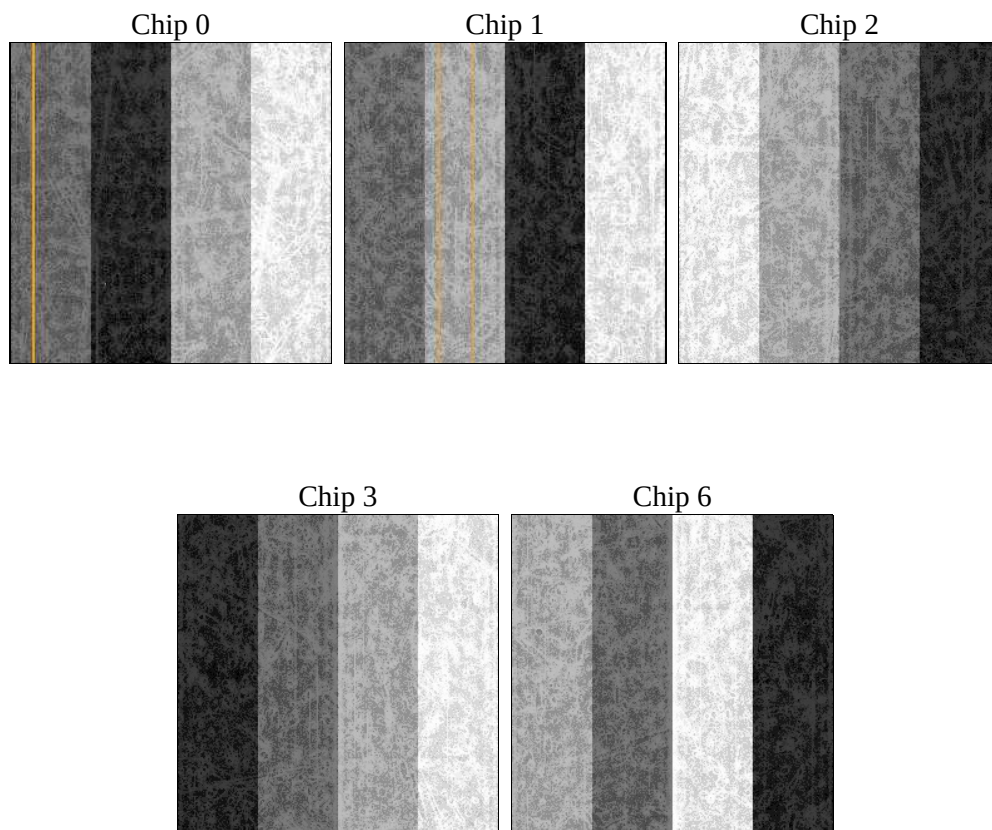
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	29065.60022366	Sum of GTIs [s]
caldsver	4.8.3	 	ontime0	29056.177432299	Sum of GTIs [s]
date	2019-06-09T20:25:31	Date and time of file creation	ontime1	29062.459253311	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	29046.754421711	Sum of GTIs [s]
			ontime3	29065.60022366	Sum of GTIs [s]
			ontime6	29065.60022366	Sum of GTIs [s]
			l1events	1083688	Number of level 1 events

2.1.4 Events

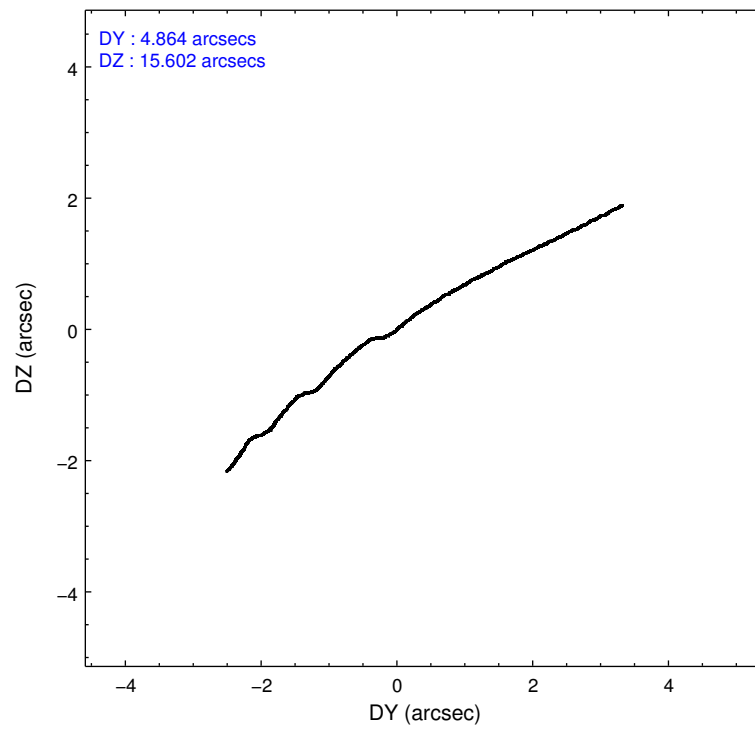
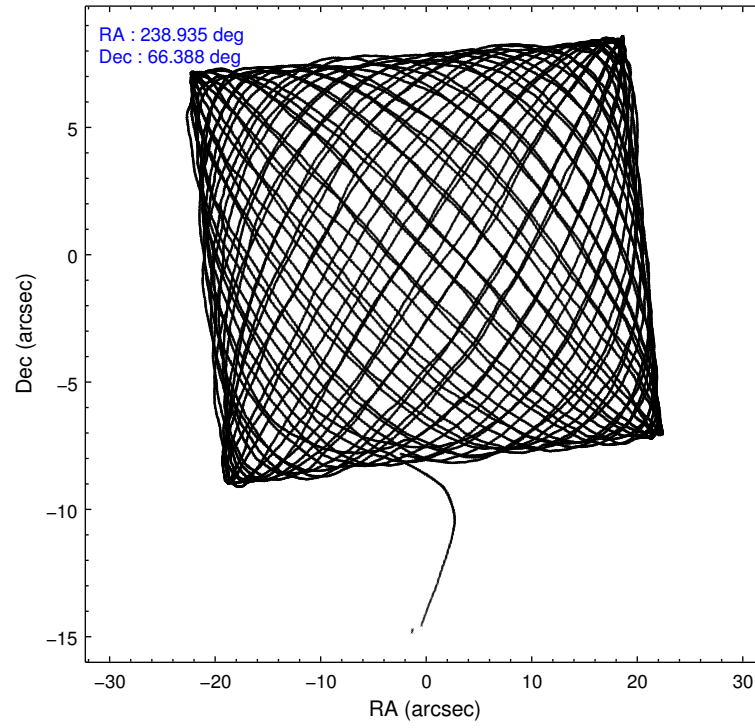
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	201766	206273	223167	231131	221351
rejected events	176812	178537	198517	193946	196698
rejected %	87%	86%	88%	83%	88%

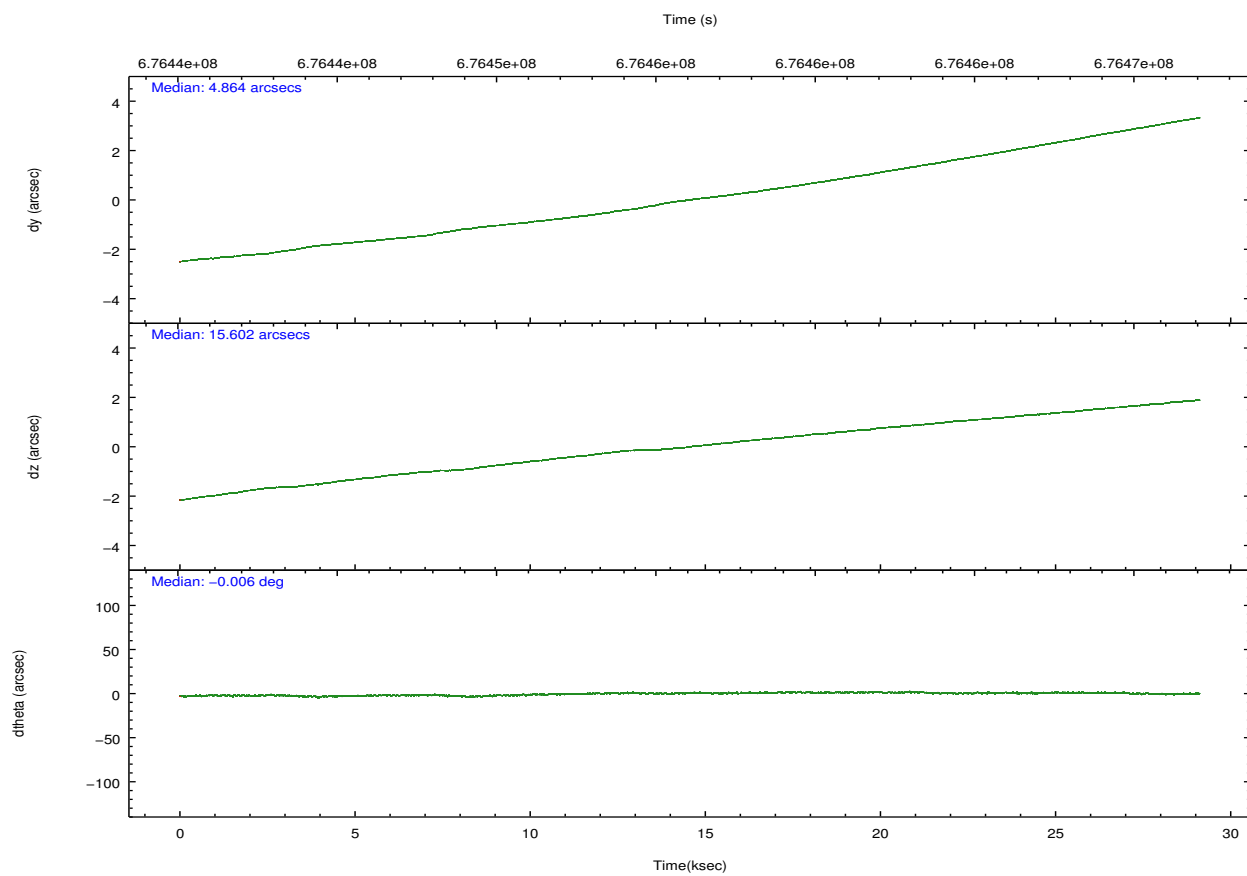
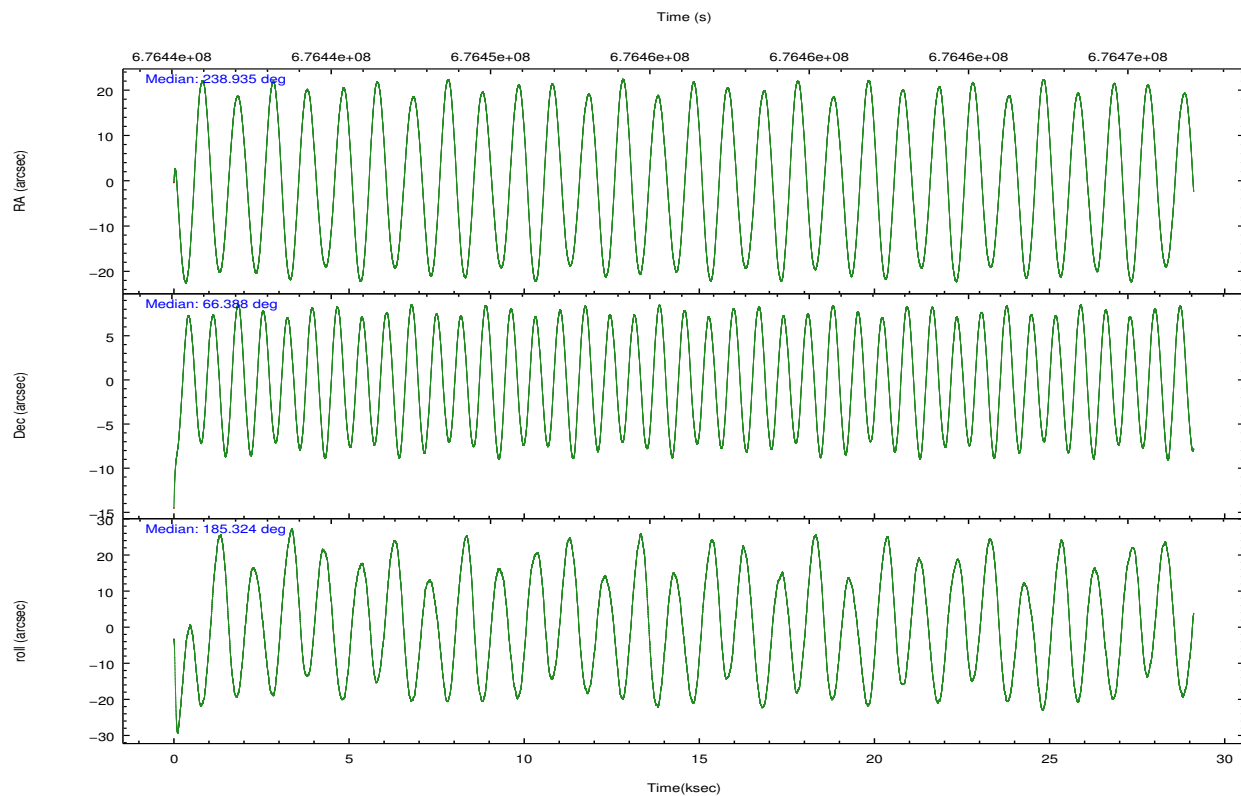
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	8325	8990	8651	19185	8044
	4%	4%	3%	8%	3%
grade 1 events	113	117	135	180	90
	0%	0%	0%	0%	0%
grade 2 events	6353	7458	6070	6805	5984
	3%	3%	2%	2%	2%
grade 3 events	2625	2550	2417	2787	2324
	1%	1%	1%	1%	1%
grade 4 events	2321	2583	2564	2882	2388
	1%	1%	1%	1%	1%
grade 5 events	9536	9946	9163	10840	9924
	4%	4%	4%	4%	4%
grade 6 events	5332	6157	4950	5528	5915
	2%	2%	2%	2%	2%
grade 7 events	167161	168472	189217	182924	186682
	82%	81%	84%	79%	84%

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	238.990978	238.9348554380579	CCD I2 on	Y	Y
[deg] Pointing Dec	66.404053	66.38802128868093	CCD I3 on	Y	Y
[deg] Pointing Roll	185.064390	185.3245081351322	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)	676441628.184000	676439961.45983	CCD S5 on	N	N
Observation start date	2019-06-09T04:25:59	2019-06-09T03:59:21	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	676470628.184000	676471396.67422	On-chip summing requested	N	N
Observation end date	2019-06-09T12:29:19	2019-06-09T12:43:16	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



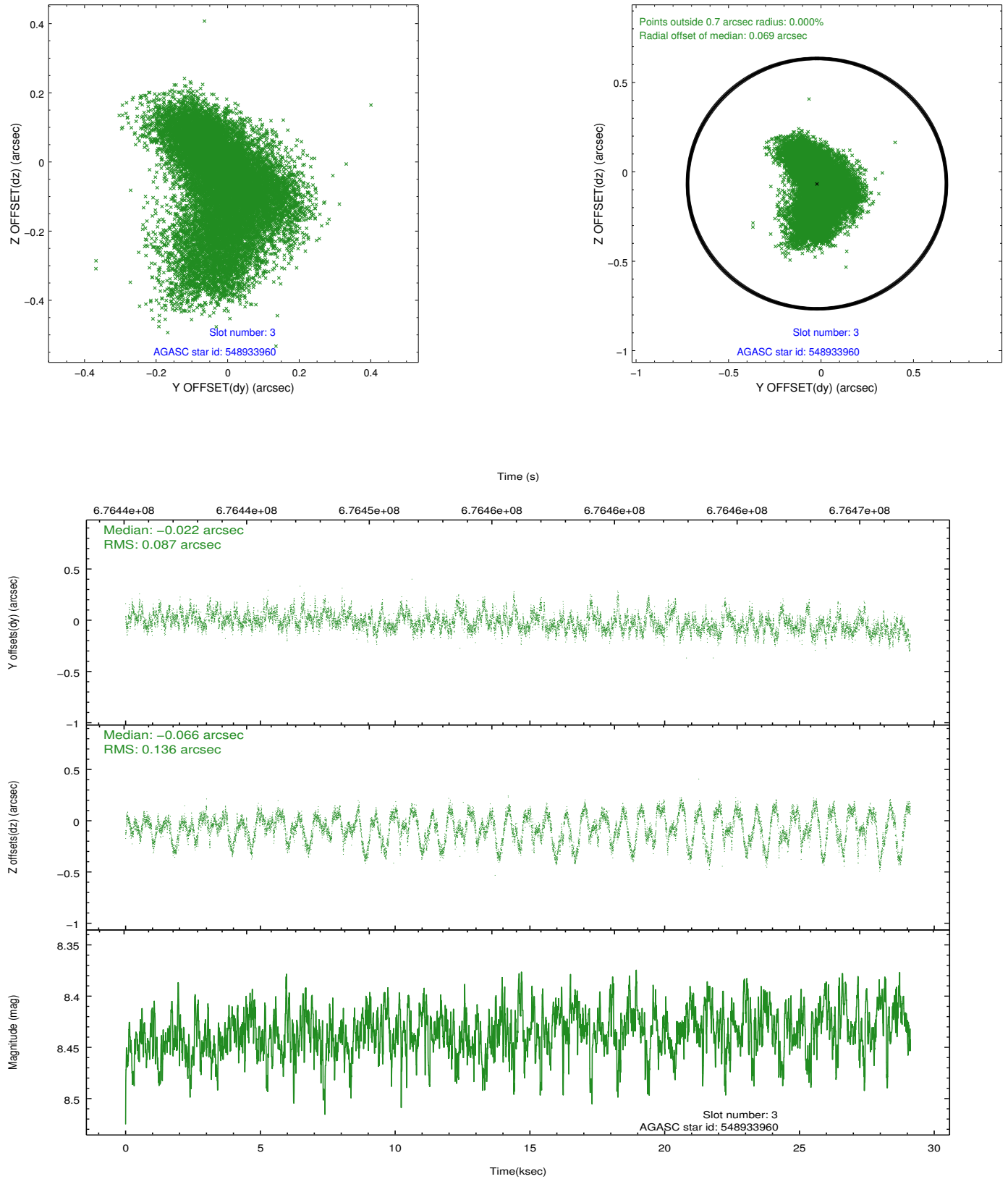


Slot Statistics

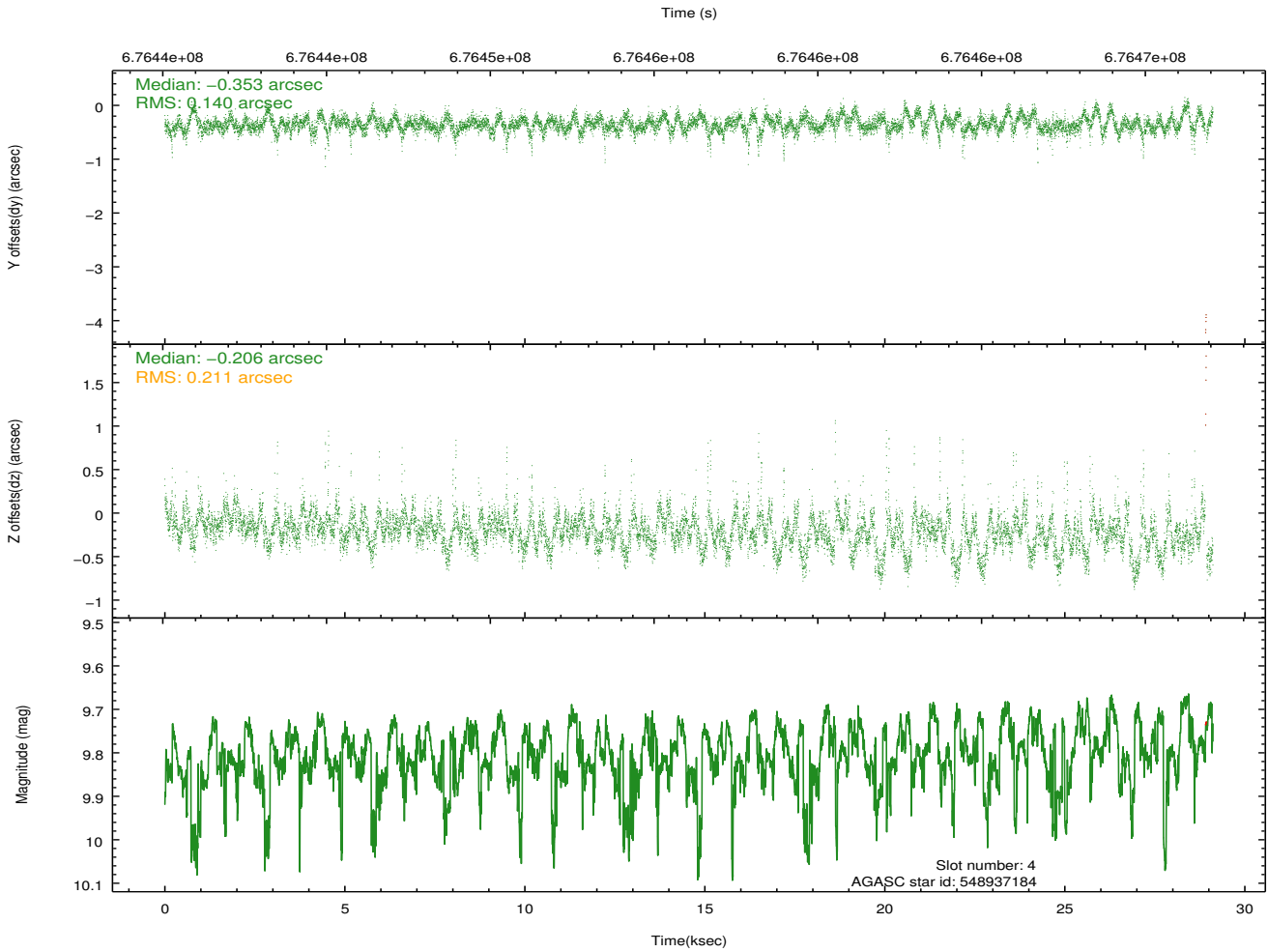
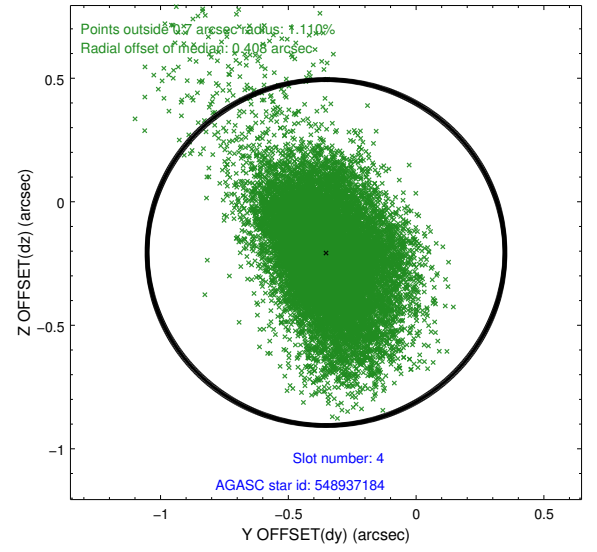
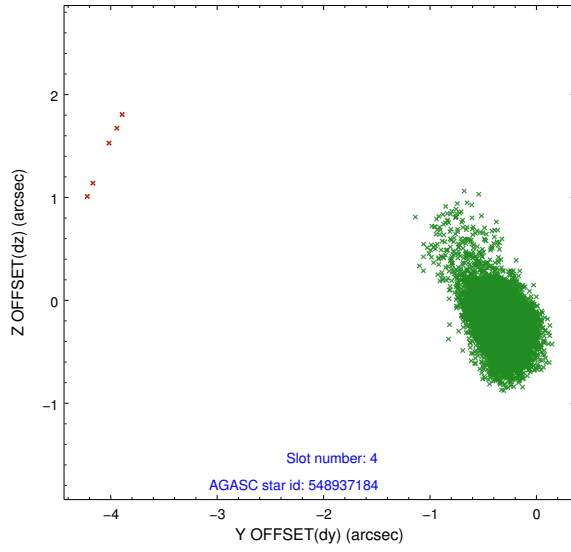
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.20	7099	1.000	0.107	-0.106	0.030	0.055	0.000000	0.000000	934.91	-839
1	FID		ACIS-I-5	7.15	7101	1.000	-0.409	0.044	0.022	0.046	0.000000	0.000000	-1813.80	1058
2	FID		ACIS-I-6	7.17	7102	1.000	0.208	0.132	0.029	0.075	0.000000	0.000000	400.29	1702
3	GUIDE	used	548933960	8.44	14192	1.000	-0.022	-0.066	0.174	0.277	237.671184	66.428675	1883.65	-274
4	GUIDE	used	548937184	9.80	14134	1.000	-0.353	-0.206	0.245	0.452	238.771821	66.565432	261.38	-606
5	GUIDE	used	548939872	10.30	14022	1.000	0.224	0.145	0.282	0.523	238.964867	66.978384	-145.19	-2062
6	GUIDE	used	549848472	8.84	14191	1.000	0.083	0.083	0.143	0.224	240.538609	67.119806	-2386.87	-2401
7	GUIDE	used	549849072	9.12	14190	1.000	0.065	0.047	0.153	0.249	240.420863	66.802816	-2147.71	-1273

2.4 Star Slots

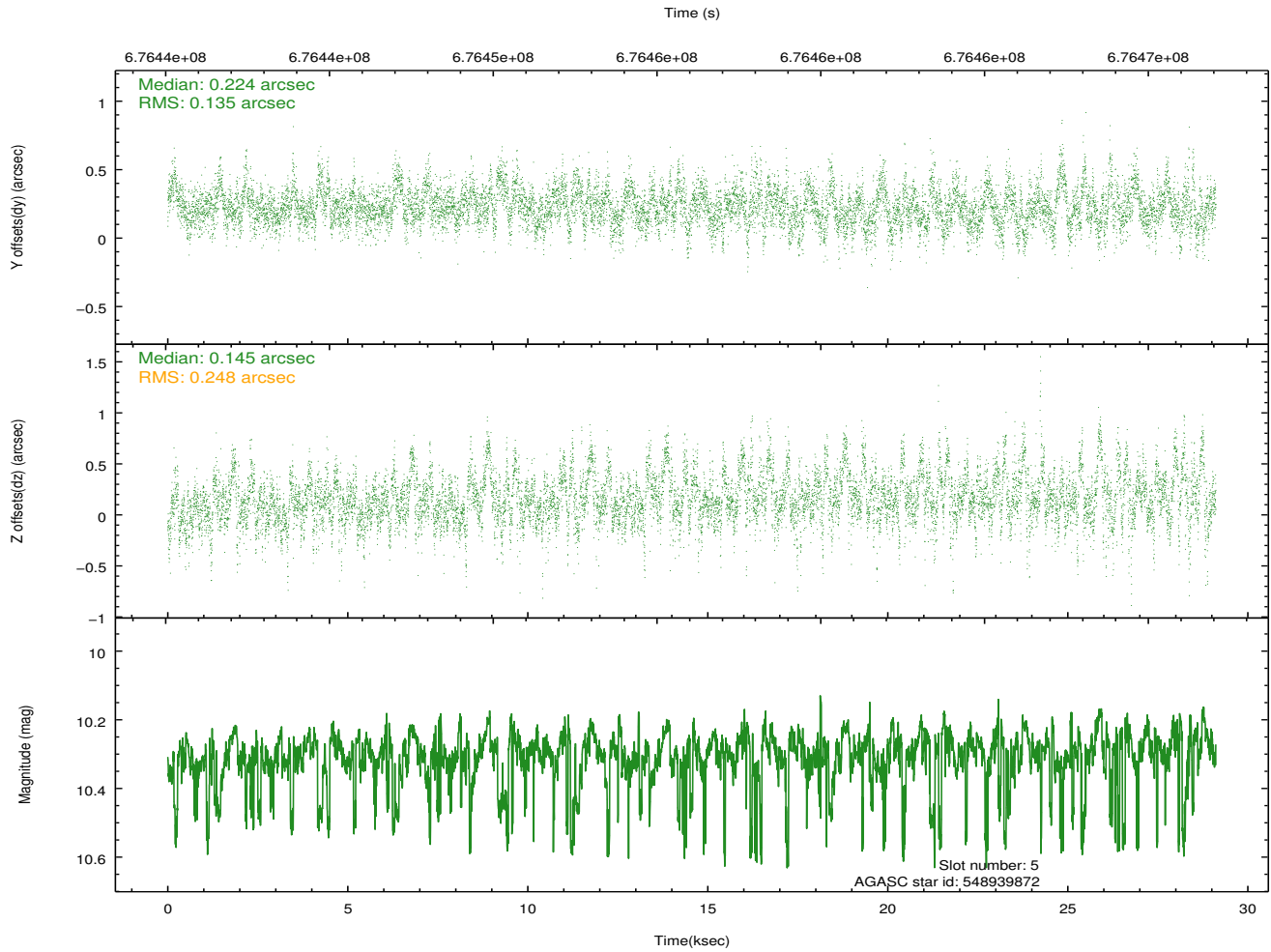
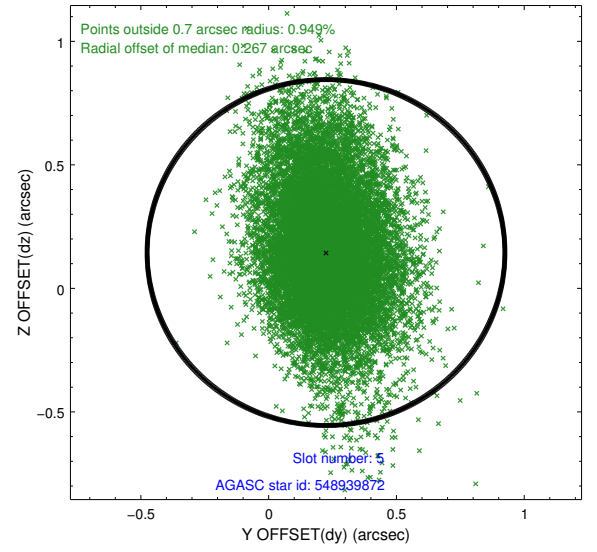
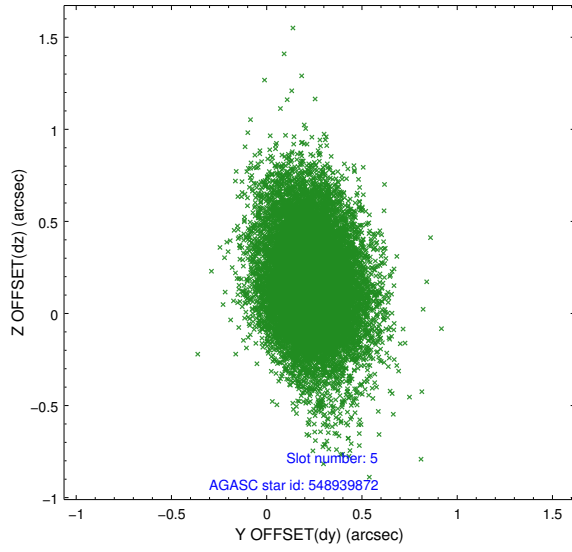
2.4.1 Slot 3



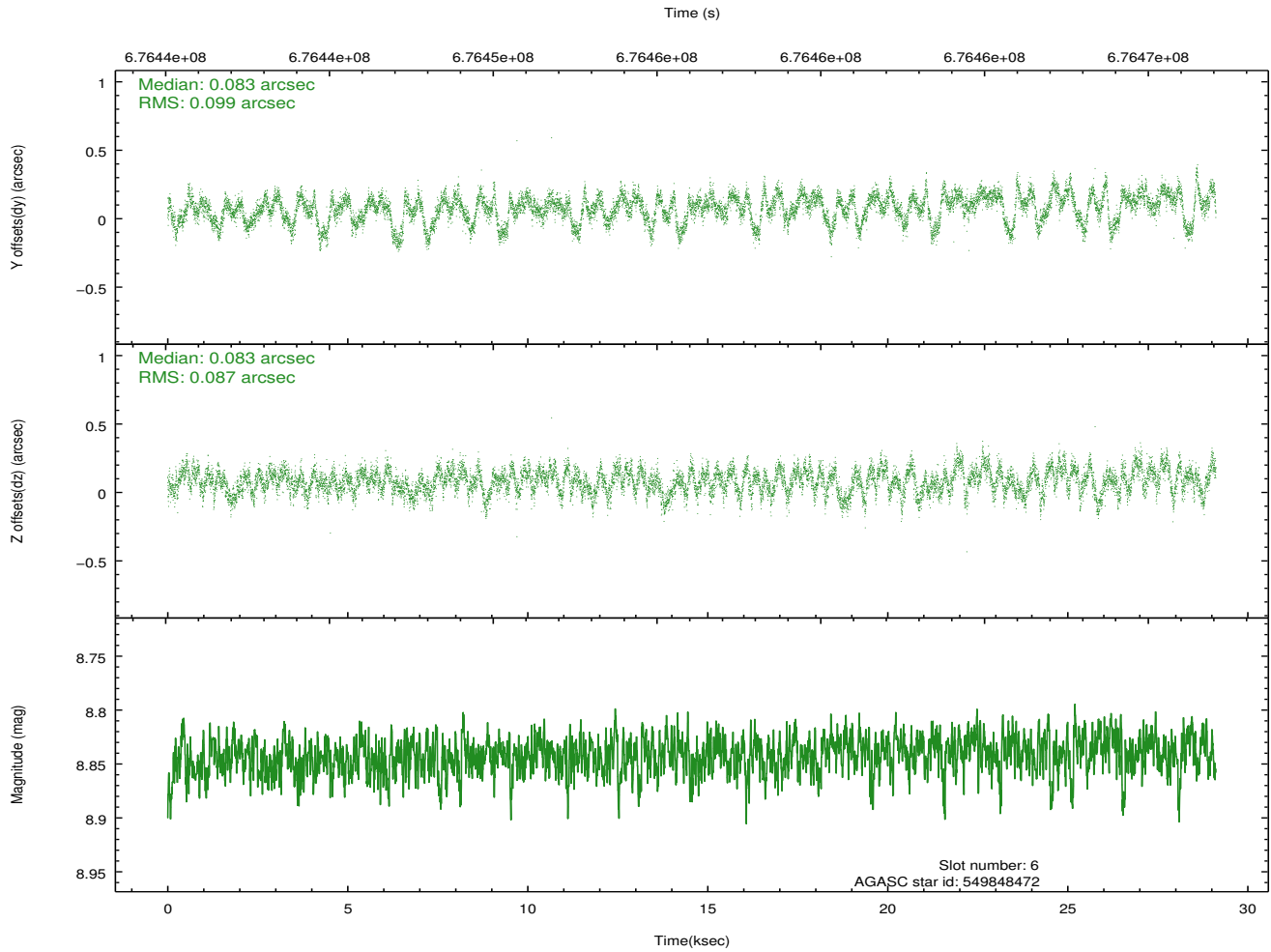
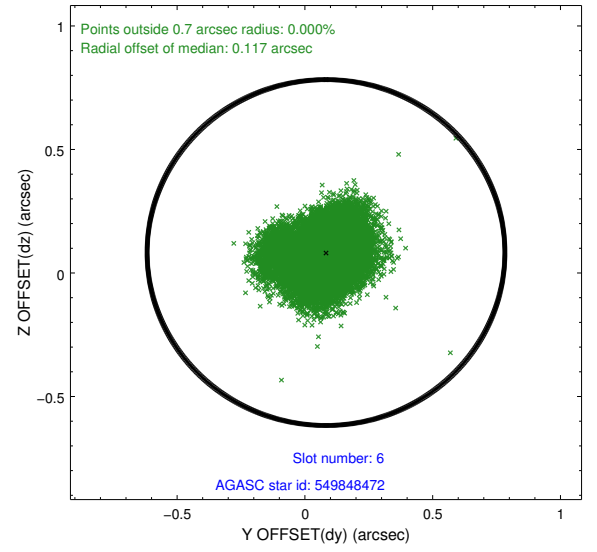
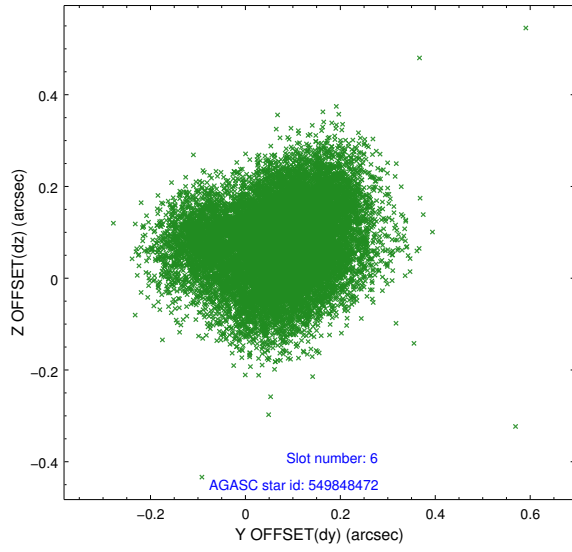
2.4.2 Slot 4



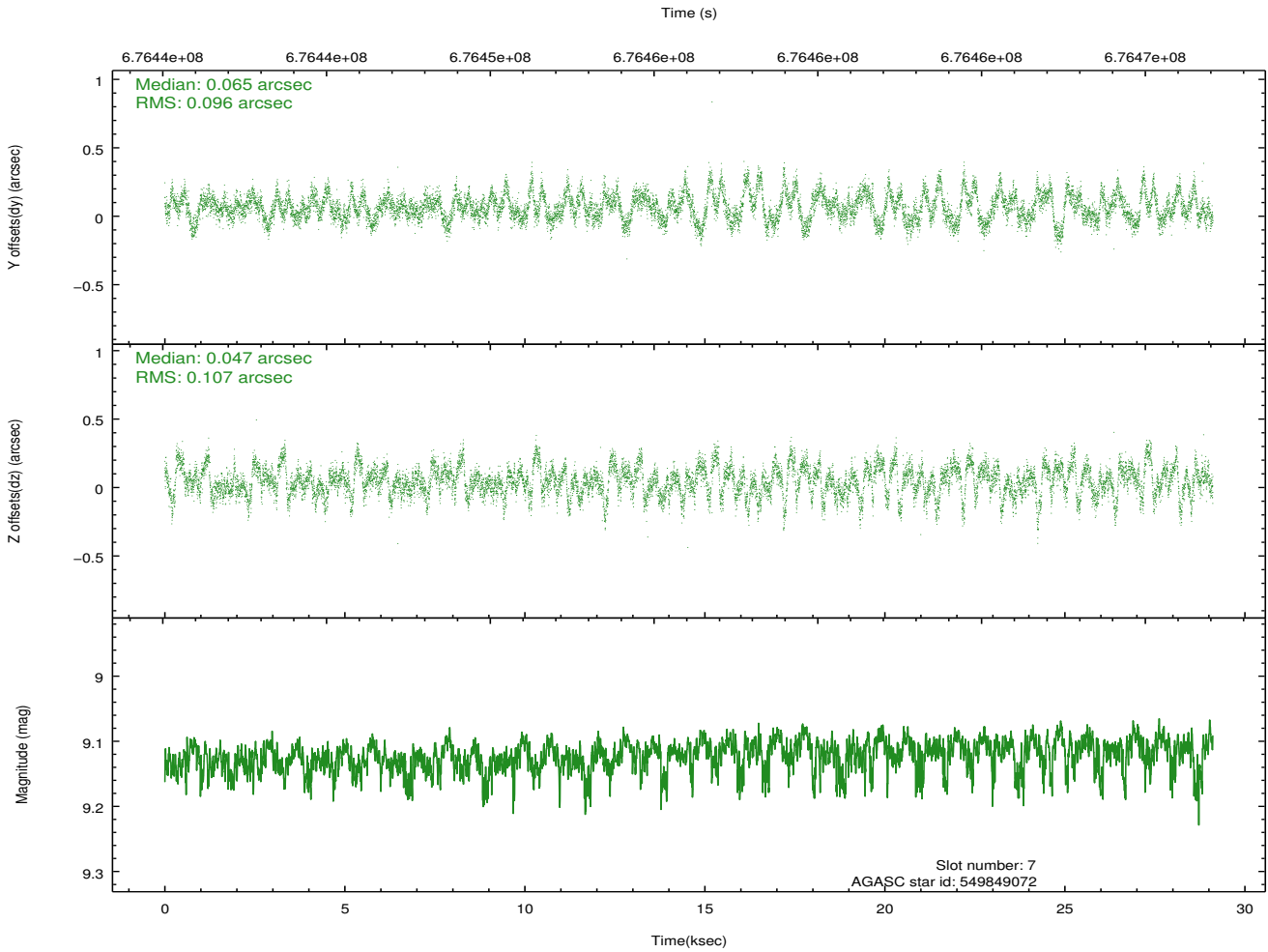
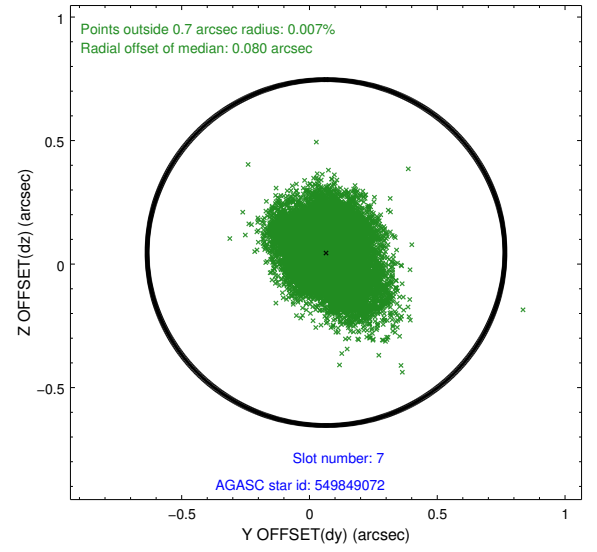
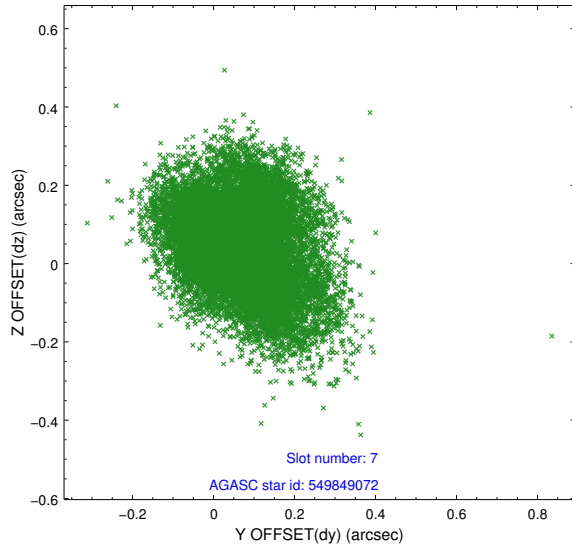
2.4.3 Slot 5



2.4.4 Slot 6

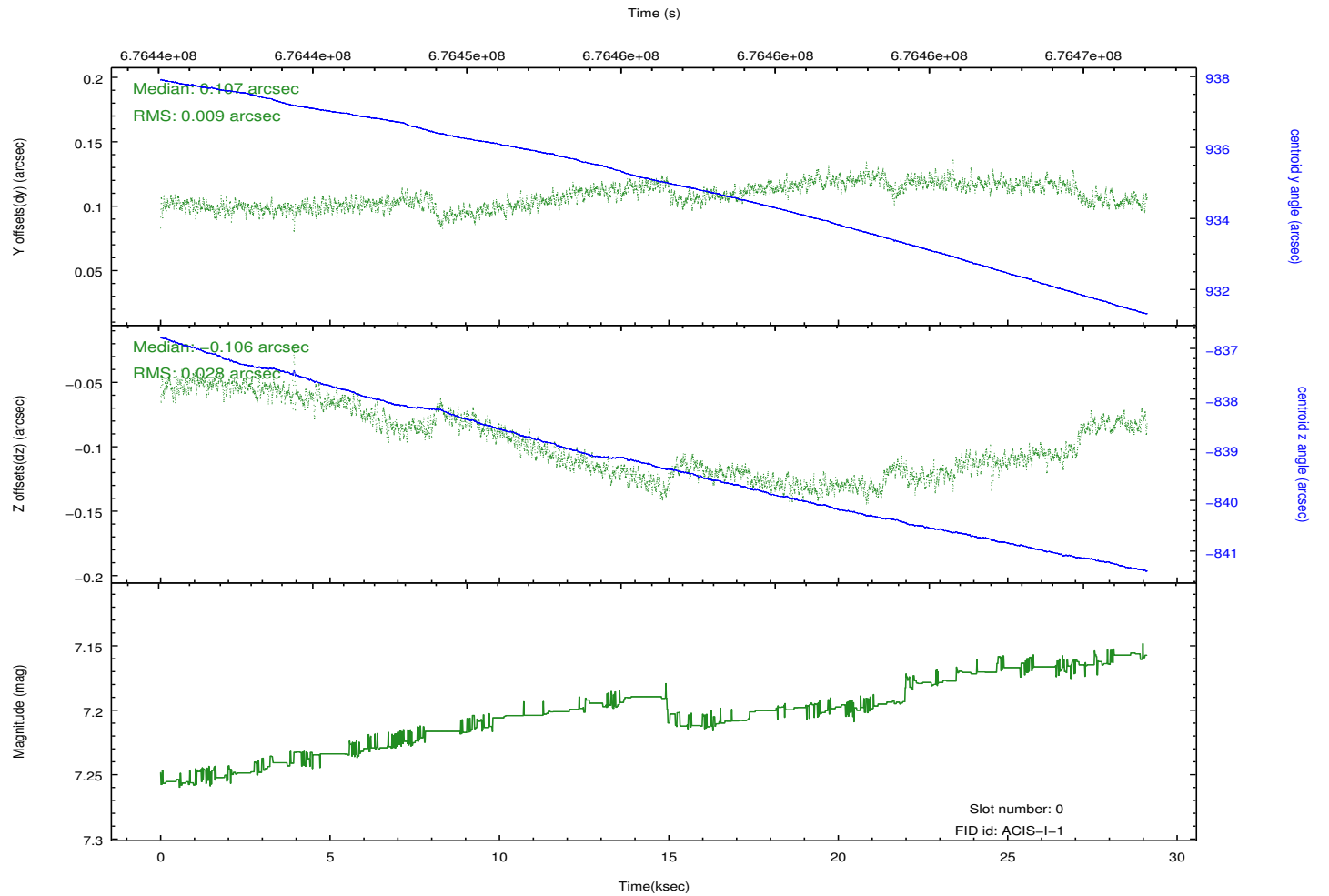
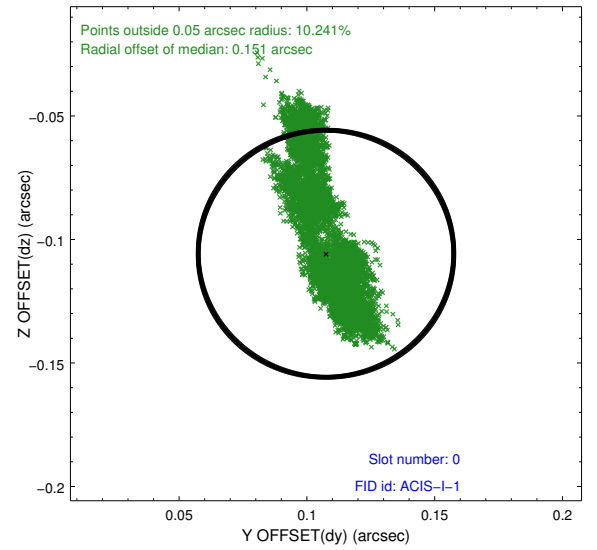
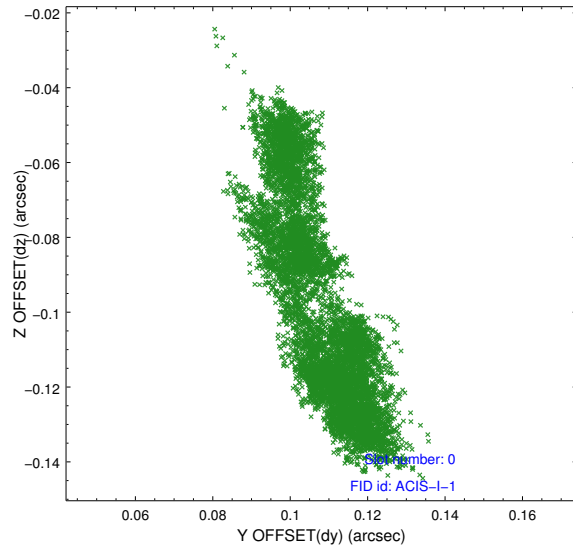


2.4.5 Slot 7

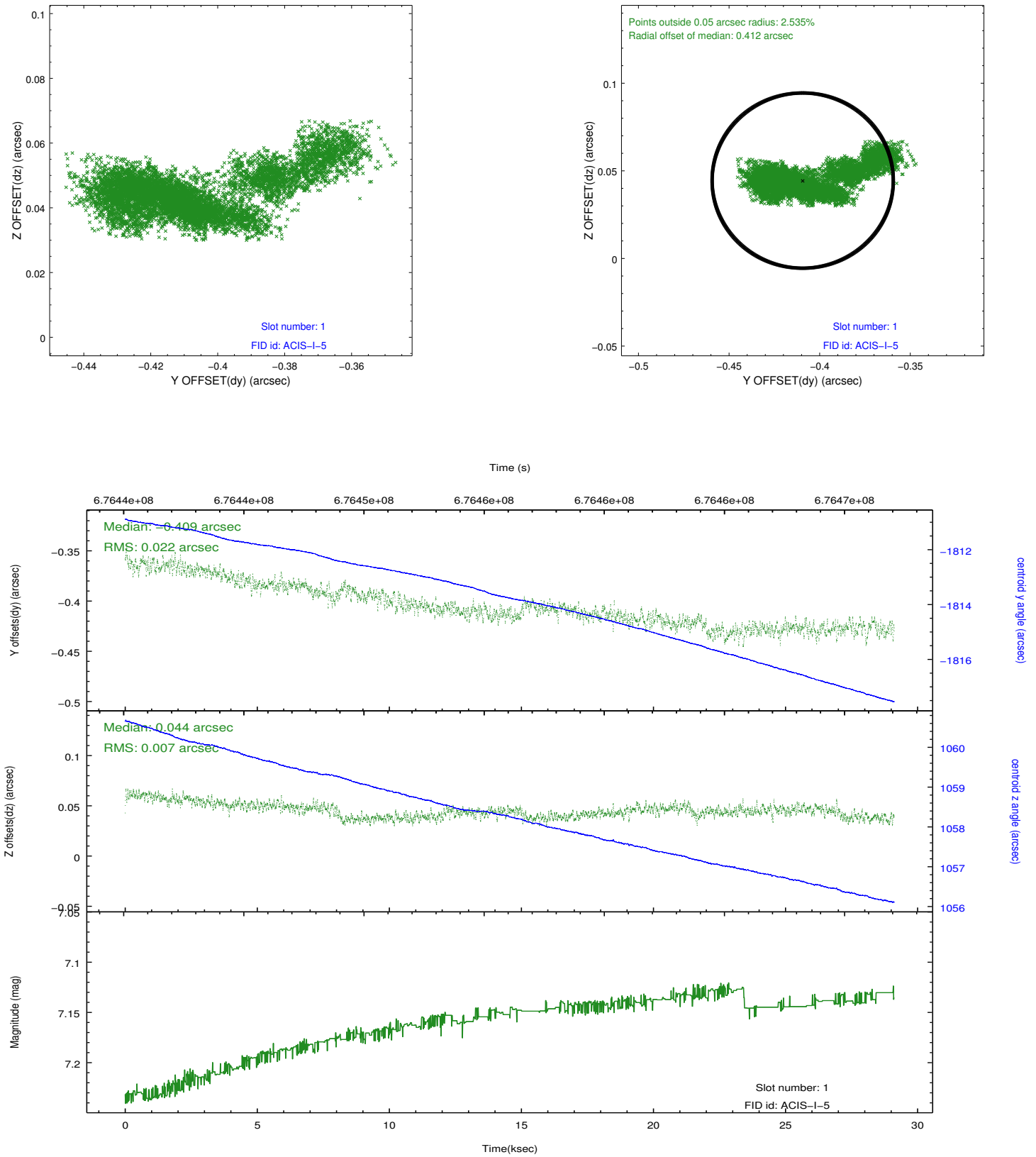


2.5 FID Slots

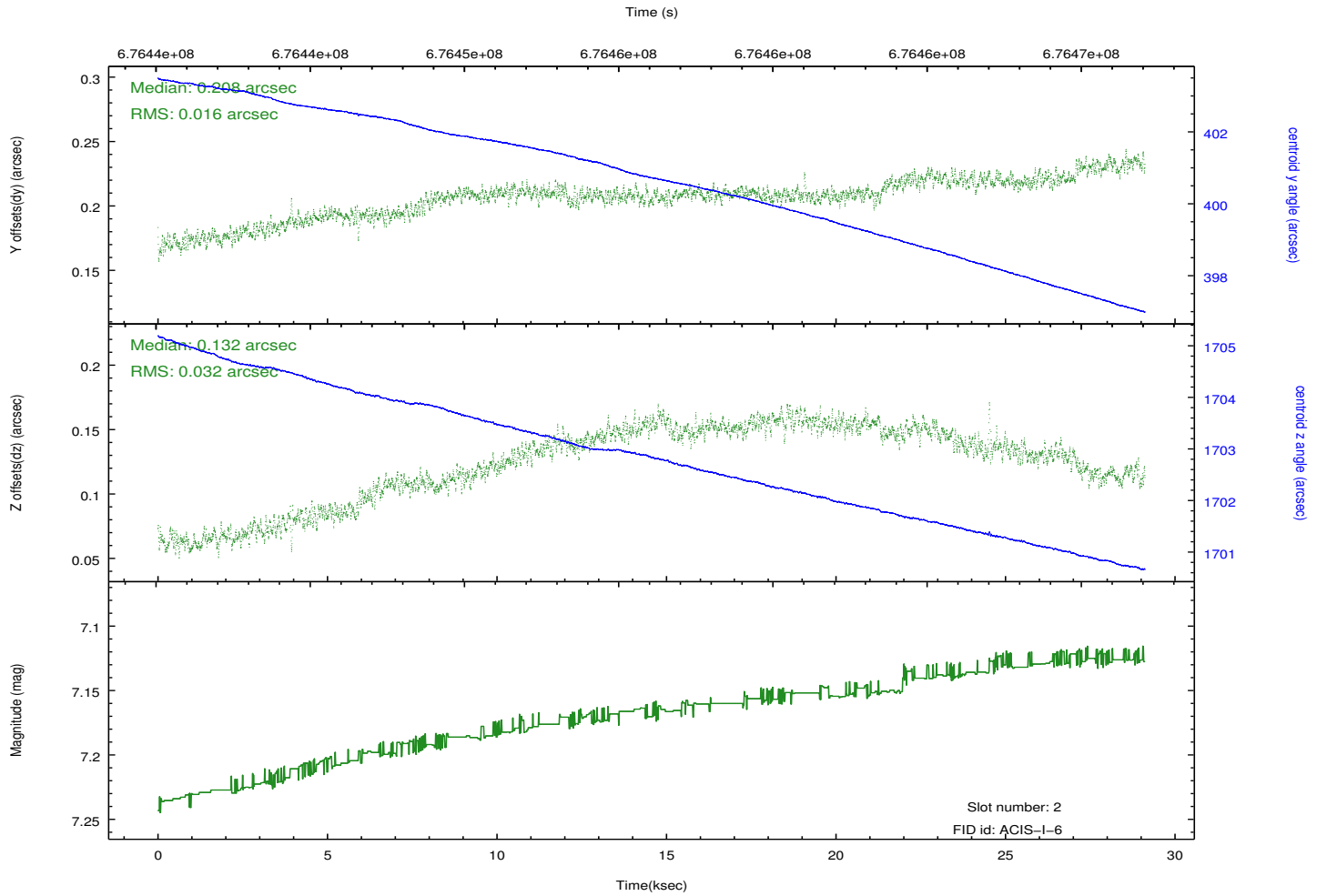
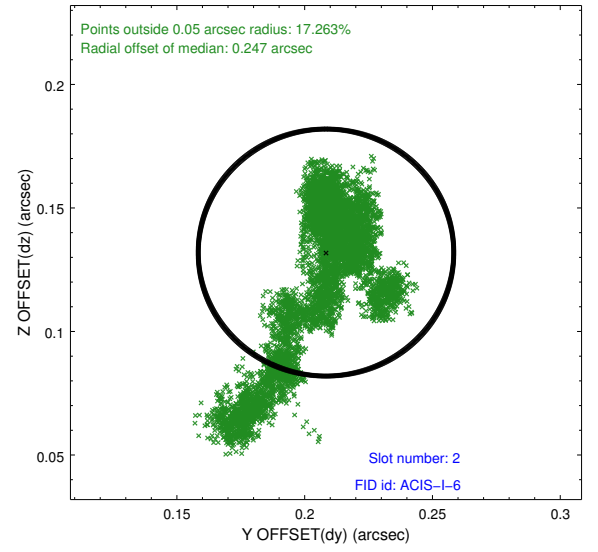
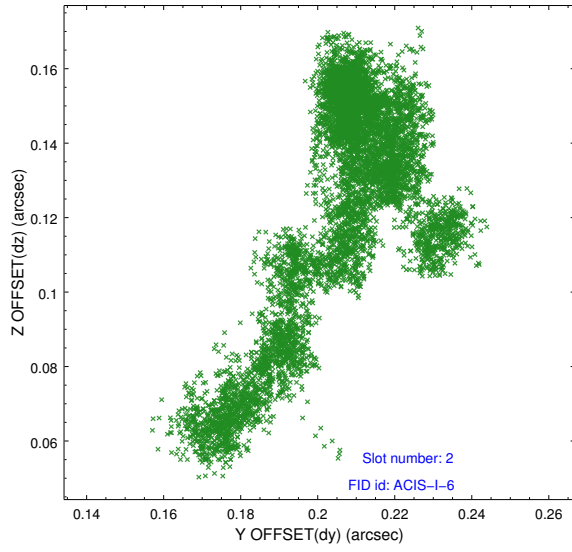
2.5.1 Slot 0



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)	2019.06.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.06560022366

A.2 Comments