

V&V Reference Report

L2 ASCDS Version : 10.6.4

Observation 21130 - L2 Version 1
Chandra X-Ray Center

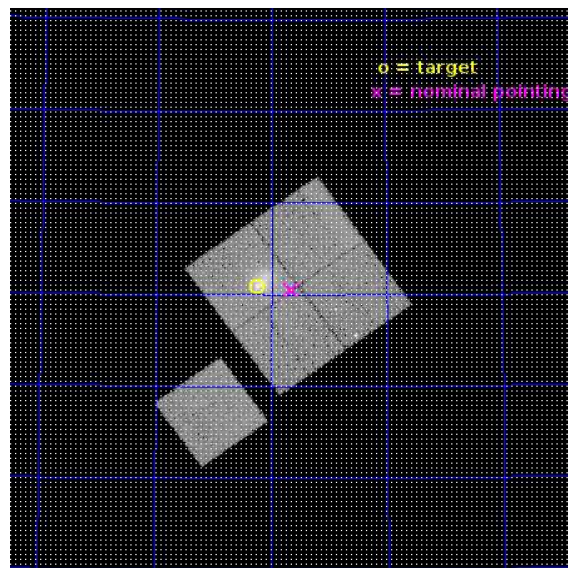
L2 Processing Date : Jul 19 2018

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1 Front

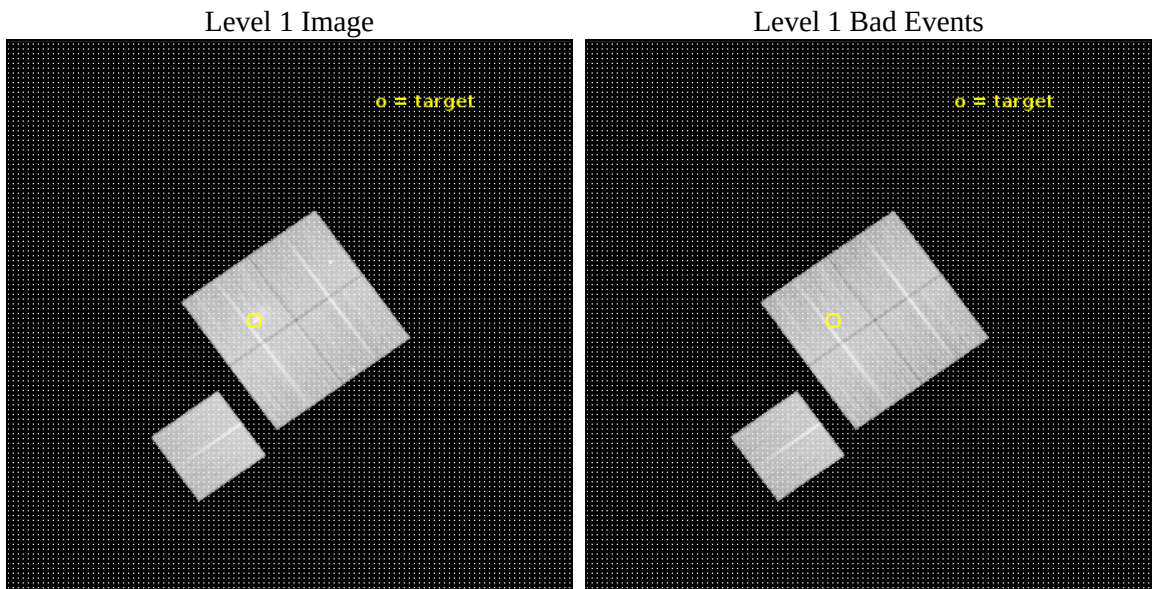
seq_num	801762	Sequence number
obs_id	21130	Observation id
title	Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146	Proposal title
observer	Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.06125	Observer's specified target RA [deg]
dec_targ	66.346917	Observer's specified target Dec [deg]
ra_nom	238.91284589756	Nominal RA [deg]
dec_nom	66.34228852243	Nominal Dec [deg]
roll_nom	234.34465440201	Nominal Roll [deg]
revision	1	Processing version of data
ontime	33067.70025444	Sum of GTIs [s]
livetime	32635.646406529	Livetime [s]
ontime0	33064.559284091	Sum of GTIs [s]
ontime1	33058.277043104	Sum of GTIs [s]
ontime2	33064.559254169	Sum of GTIs [s]
ontime3	33067.70025444	Sum of GTIs [s]
ontime6	33058.277053356	Sum of GTIs [s]
l2events	133121	Number of level 2 events



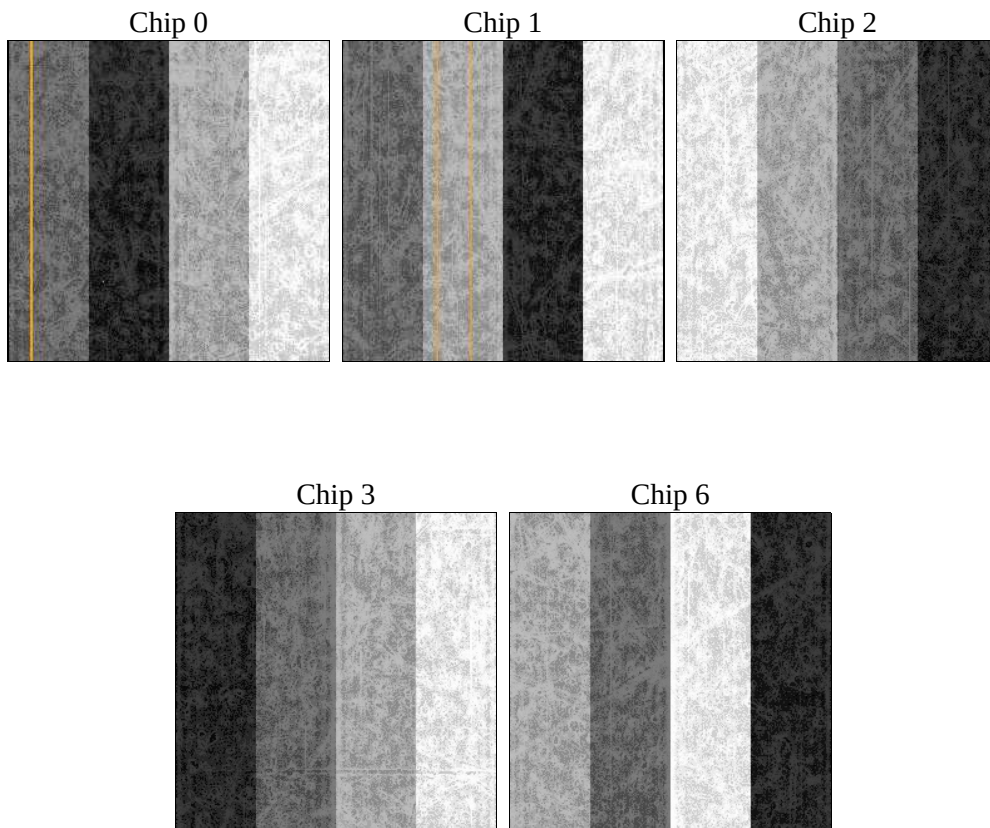
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	33000.000000	[s] Scheduled observation exposure time
ascdsver	10.6.4	Processing system revision	ontime	33067.70025444	Sum of GTIs [s]
caldsver	4.7.8	 	ontime0	33064.559284091	Sum of GTIs [s]
date	2018-07-19T16:16:59	Date and time of file creation	ontime1	33058.277043104	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	33064.559254169	Sum of GTIs [s]
			ontime3	33067.70025444	Sum of GTIs [s]
			ontime6	33058.277053356	Sum of GTIs [s]
			l1events	1238605	Number of level 1 events

2.1.4 Events

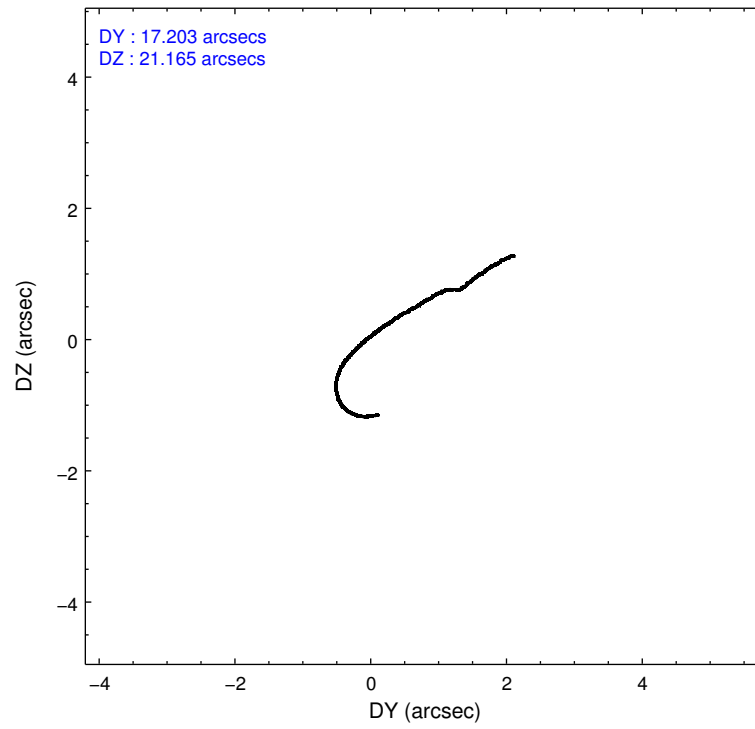
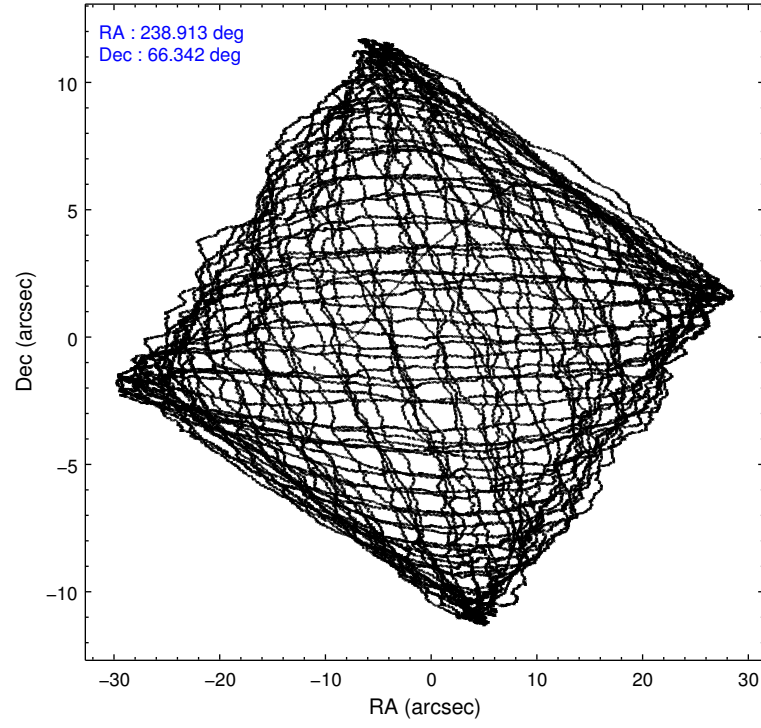
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	230531	232051	255487	263693	256843	grade 0 events	10228	10863	9386	22176	8877
rejected events	201768	200985	228702	221504	229111		4%	4%	3%	8%	3%
rejected %	87%	86%	89%	84%	89%	grade 1 events	150	138	129	249	127
							0%	0%	0%	0%	0%
						grade 2 events	7338	7805	6758	7381	6587
							3%	3%	2%	2%	2%
						grade 3 events	2883	2803	2594	3307	2630
							1%	1%	1%	1%	1%
						grade 4 events	2646	2706	2747	3242	2677
							1%	1%	1%	1%	1%
						grade 5 events	10341	10889	9761	11715	11136
							4%	4%	3%	4%	4%
						grade 6 events	5669	6892	5301	6085	6965
							2%	2%	2%	2%	2%
						grade 7 events	191276	189955	218811	209538	217844
							82%	81%	85%	79%	84%

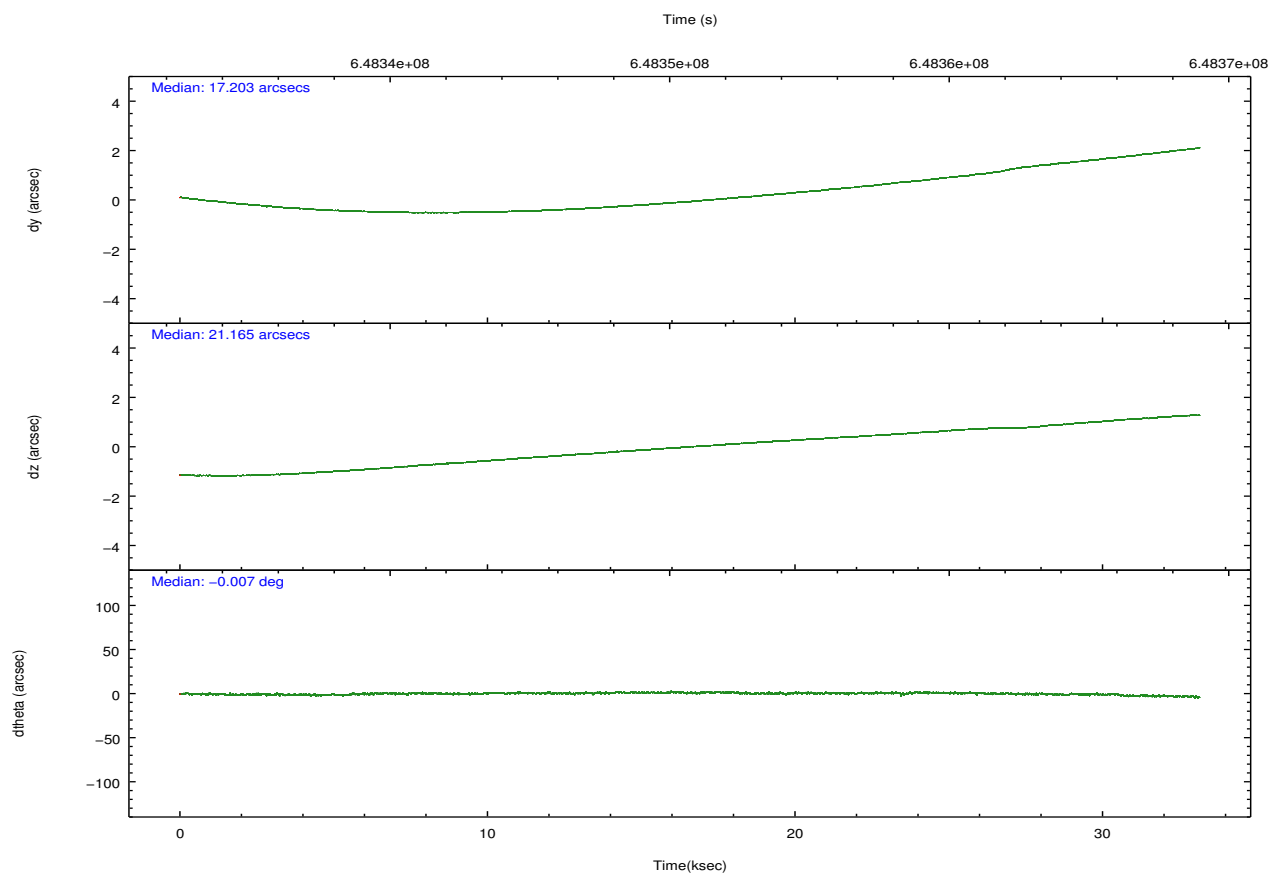
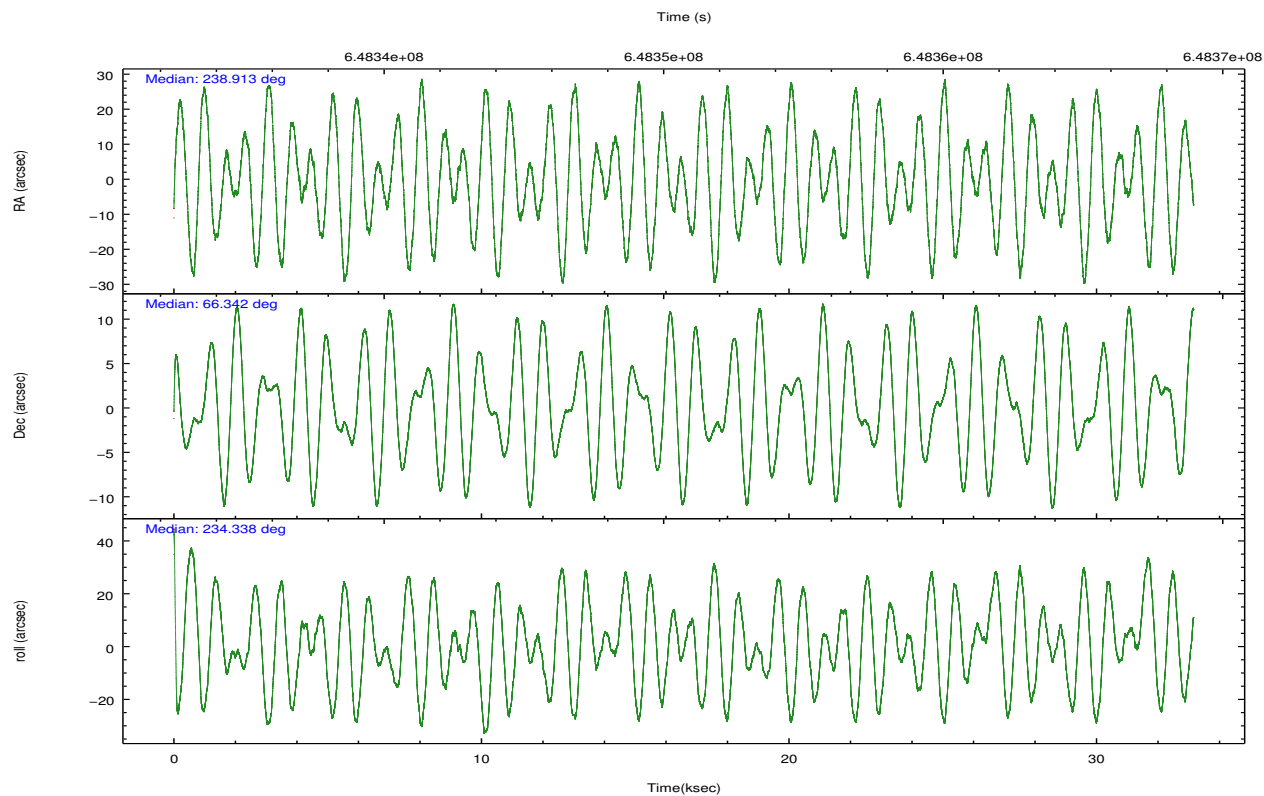
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01236	ACIS-01236
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	238.919348	238.912845897561
[deg] Pointing Dec	66.369760	66.34228852243005
[deg] Pointing Roll	234.129995	234.3446544020109
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	648334301.184000	648333084.66617
Observation start date	2018-07-18T20:50:32	2018-07-18T20:31:24
[s] Observation end time (MET)	648367301.184000	648368276.5057499
Observation end date	2018-07-19T06:00:32	2018-07-19T06:17:56
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O1	Y
CCD S3 on	N	N
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



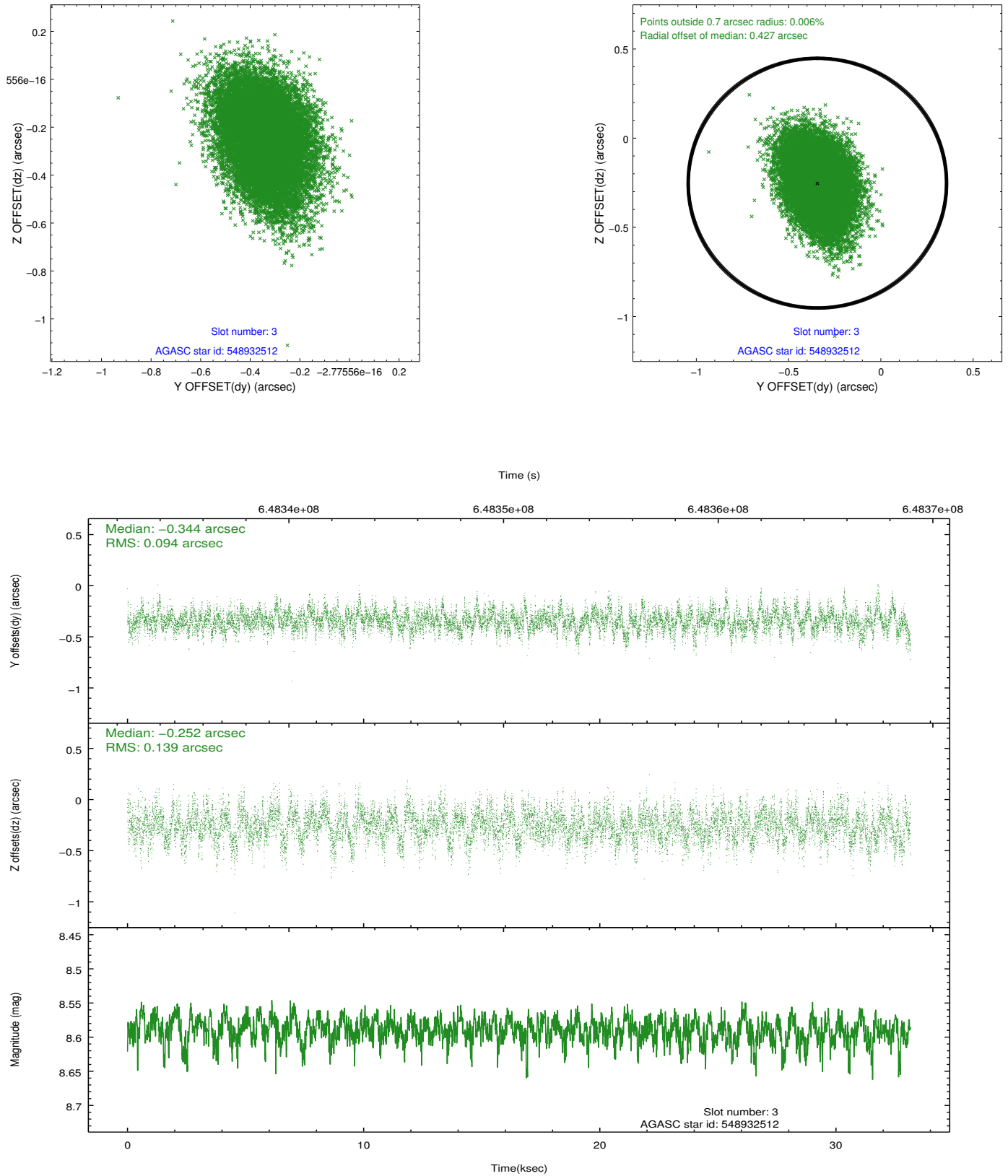


Slot Statistics

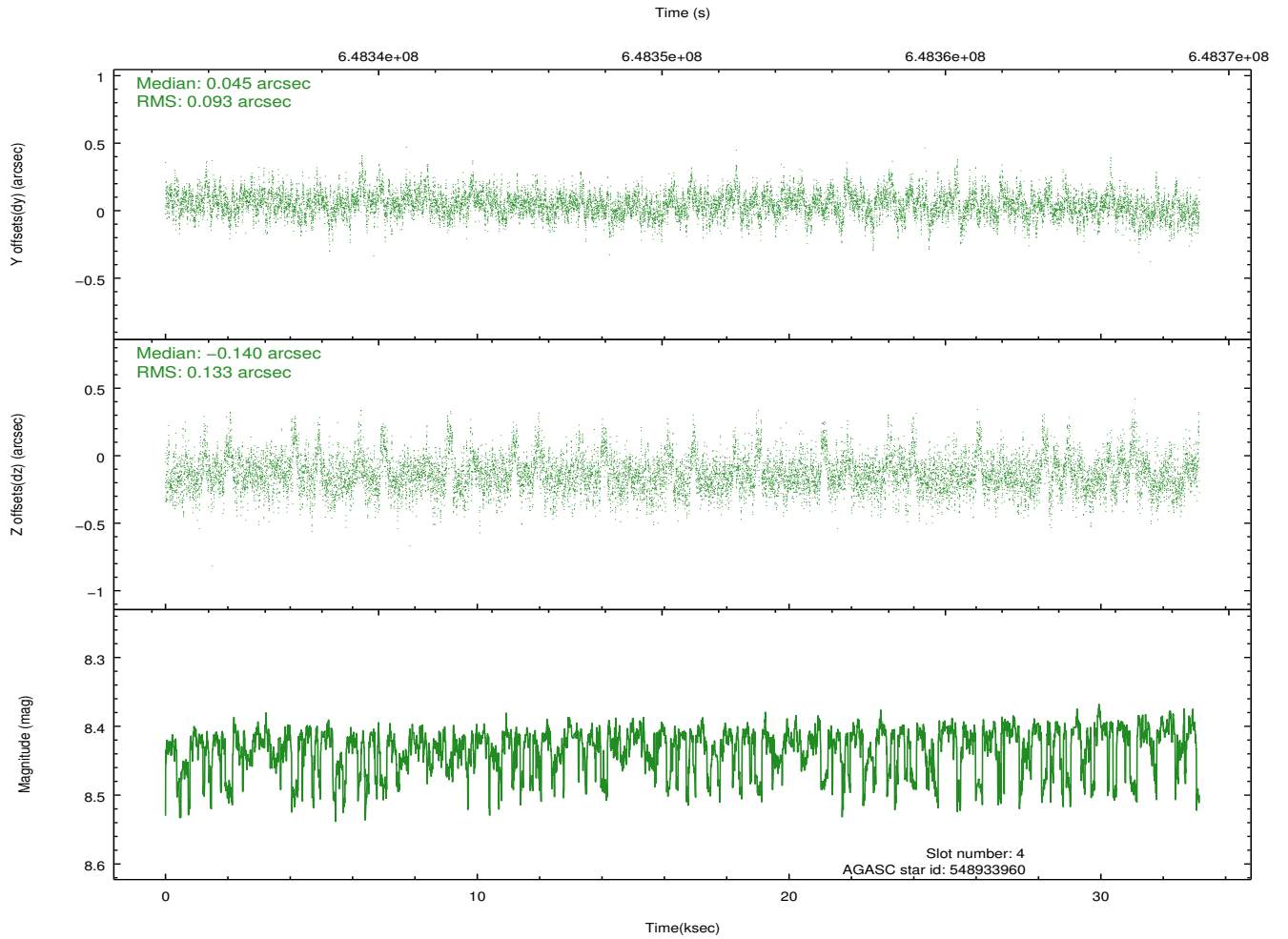
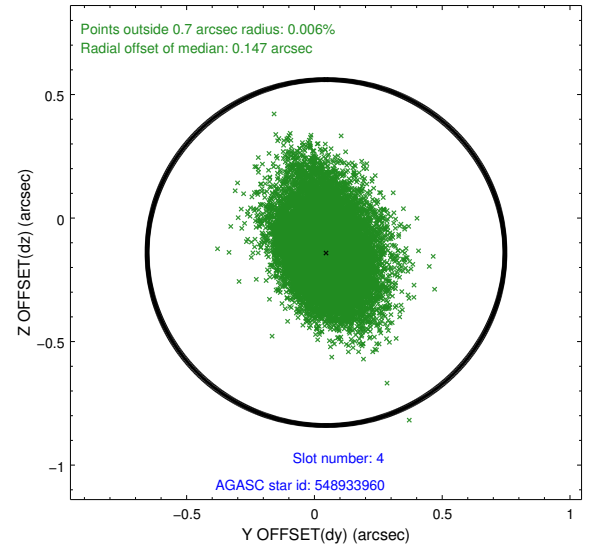
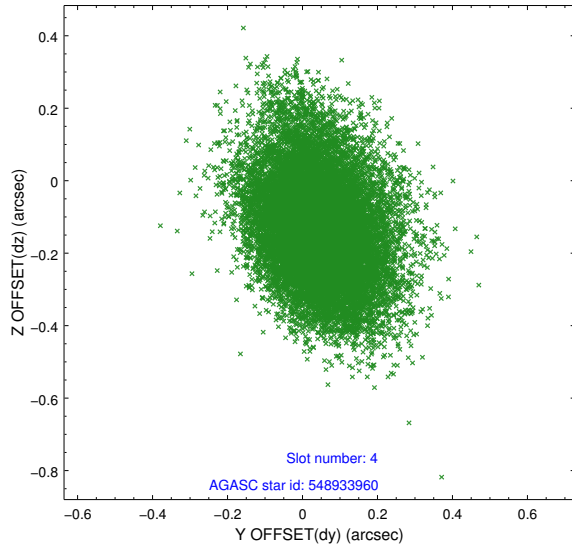
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.23	8088	1.000	-0.078	-0.131	0.026	0.045	0.000000	0.000000	921.87	-844
1	FID		ACIS-I-4	7.15	8088	1.000	0.474	0.150	0.023	0.034	0.000000	0.000000	2142.34	1055
2	FID		ACIS-I-5	7.21	8087	1.000	-0.493	0.048	0.015	0.022	0.000000	0.000000	-1826.63	1052
3	GUIDE	used	548932512	8.59	16157	1.000	-0.344	-0.252	0.176	0.299	239.727627	66.054972	219.54	1616
4	GUIDE	used	548933960	8.43	16167	1.000	0.045	-0.140	0.167	0.294	237.671184	66.428675	868.07	-1589
5	GUIDE	used	548937184	9.83	15954	1.000	0.371	0.029	0.292	0.496	238.771821	66.565432	-446.57	-583
6	GUIDE	used	549850840	9.30	16157	1.000	-0.004	-0.203	0.199	0.335	241.038865	66.468628	-2114.87	2230
7	GUIDE	used	548939872	10.15	16014	1.000	-0.058	0.540	0.391	0.616	238.964867	66.978384	-1812.89	-1231

2.4 Star Slots

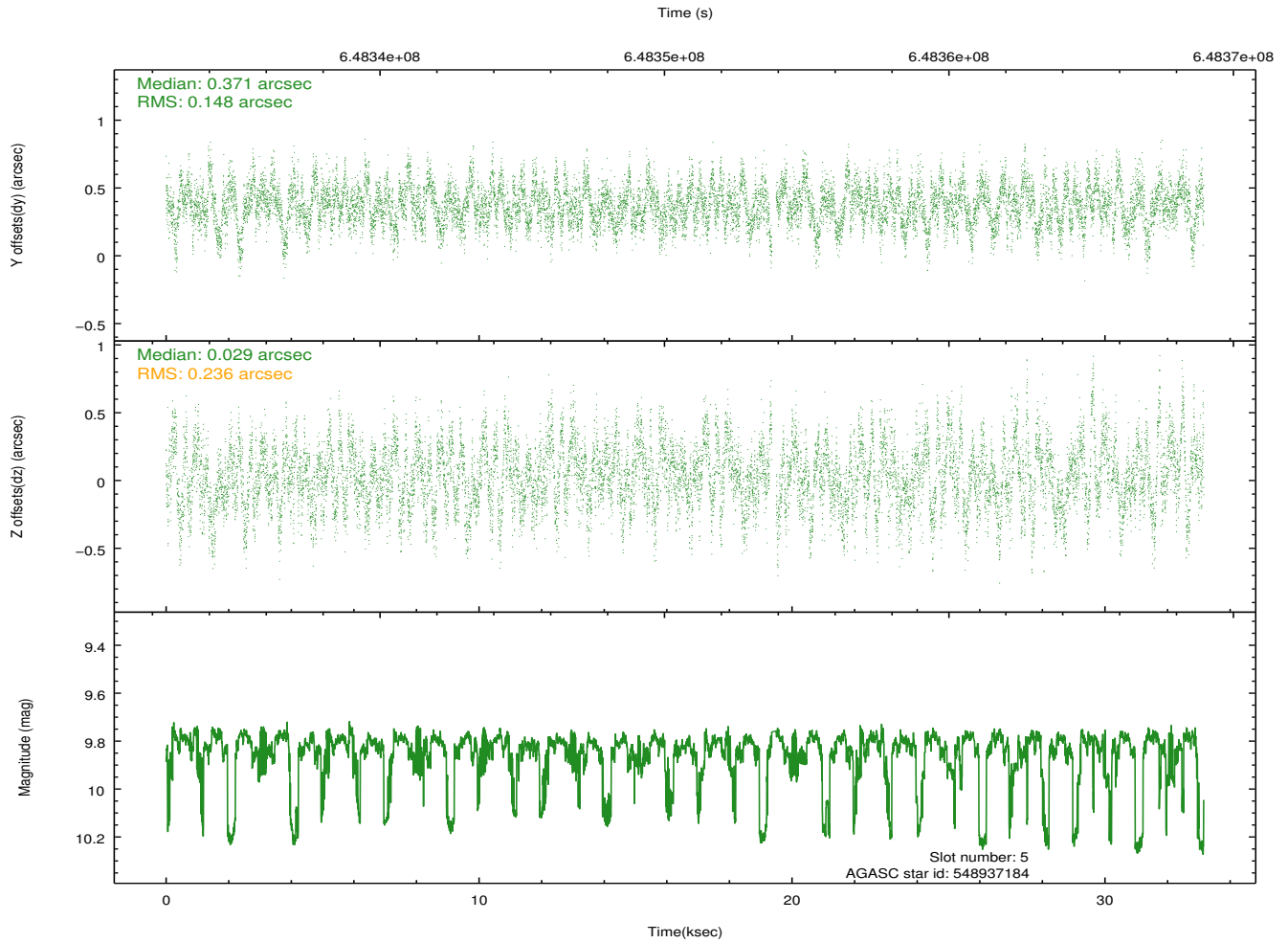
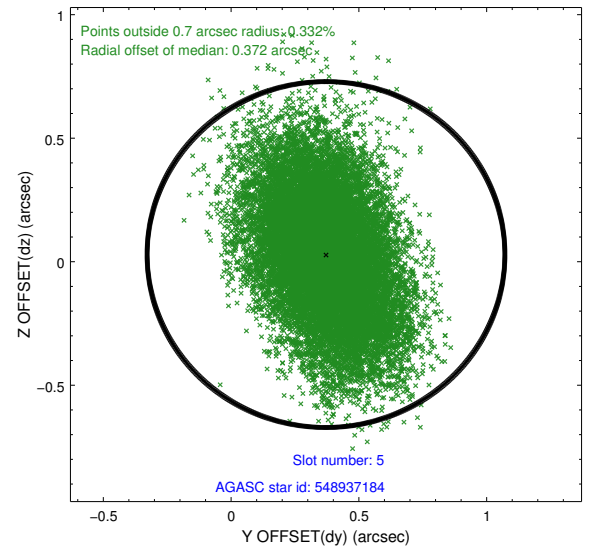
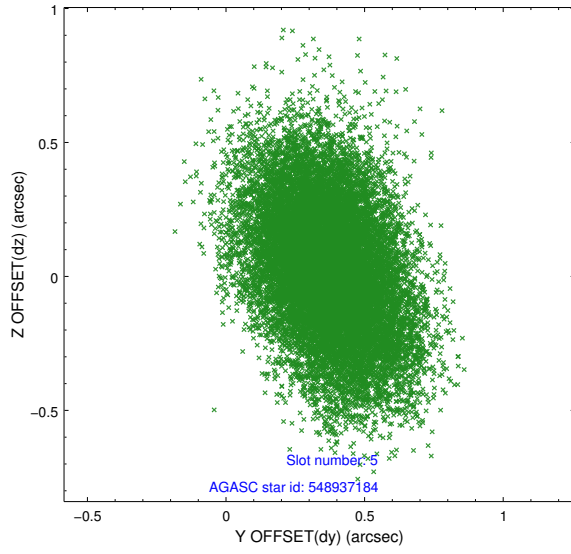
2.4.1 Slot 3



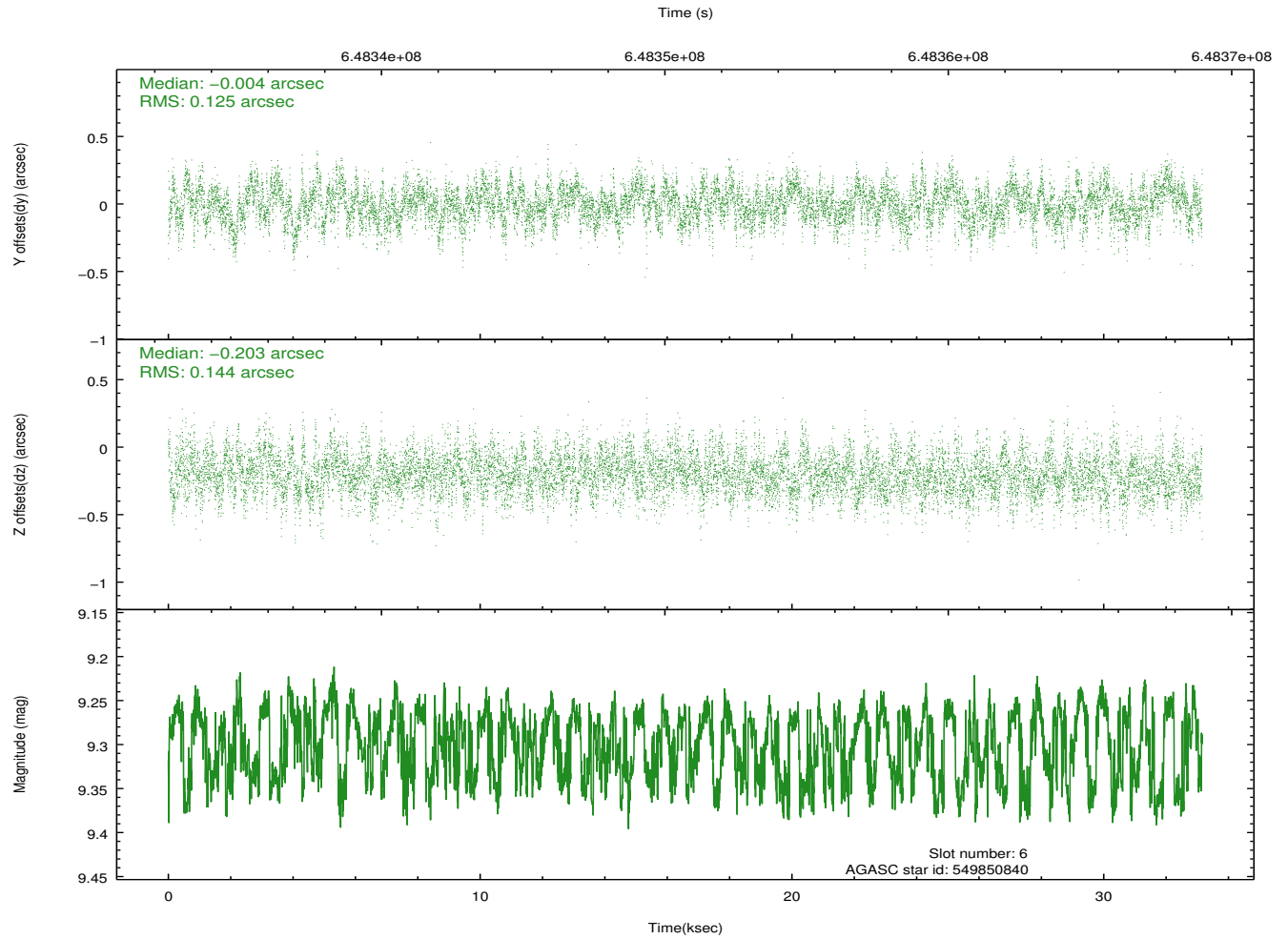
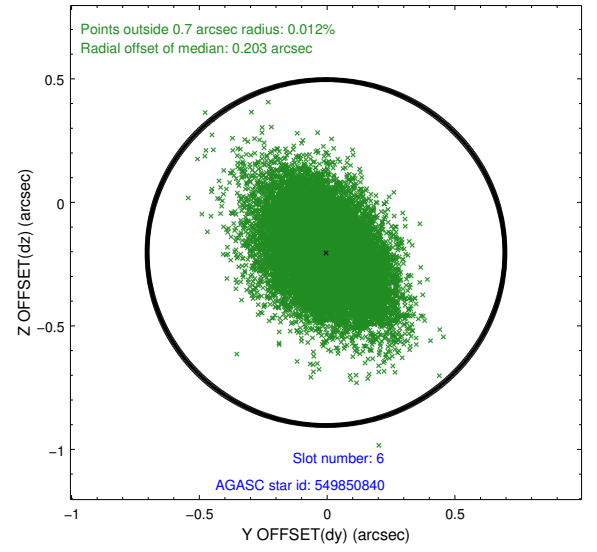
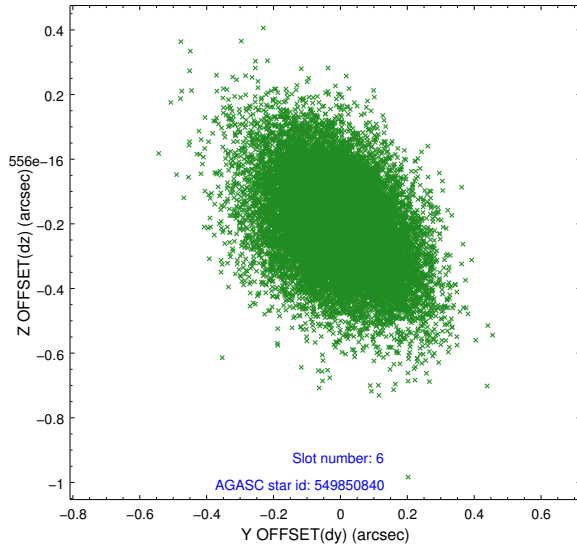
2.4.2 Slot 4



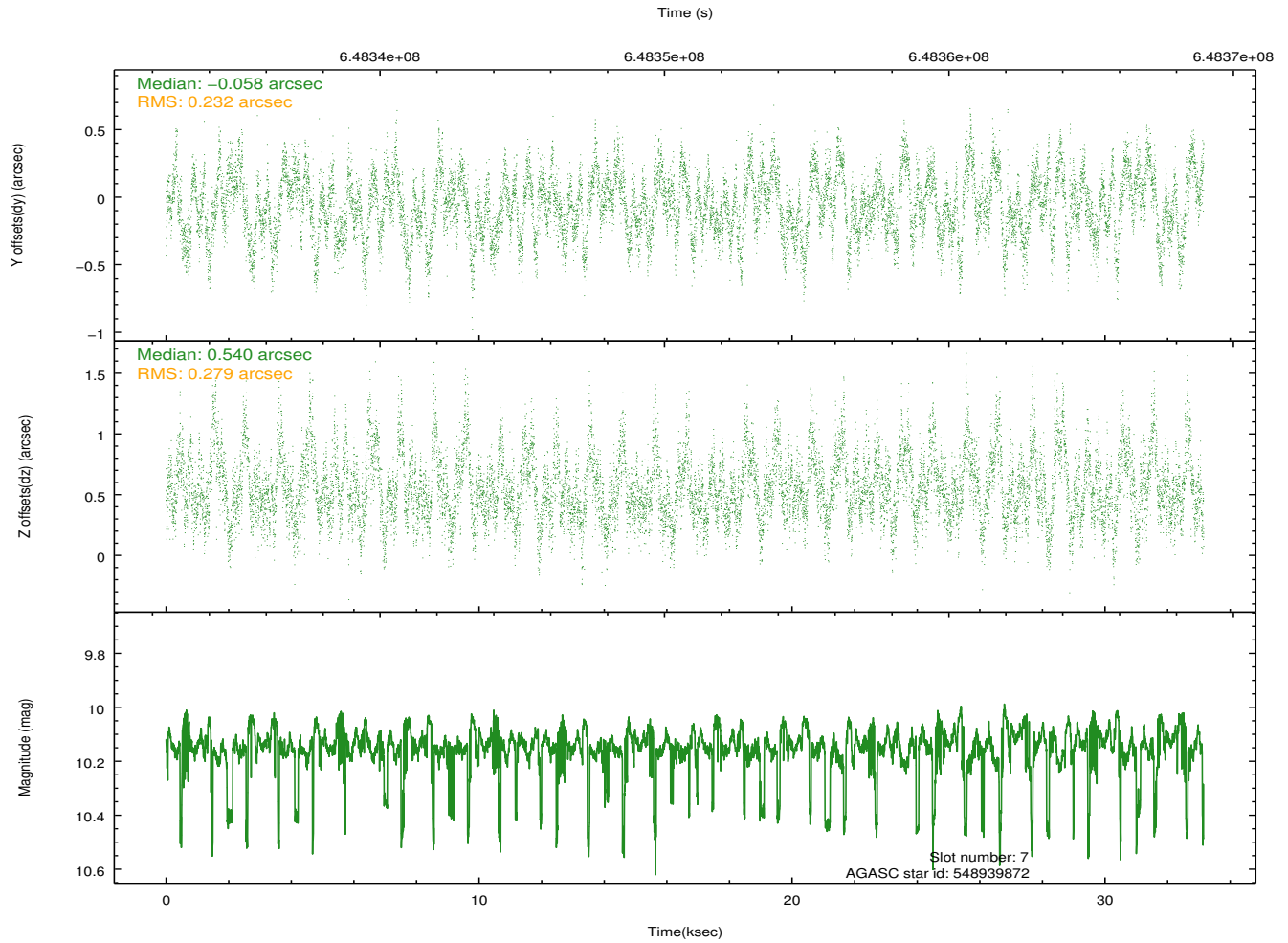
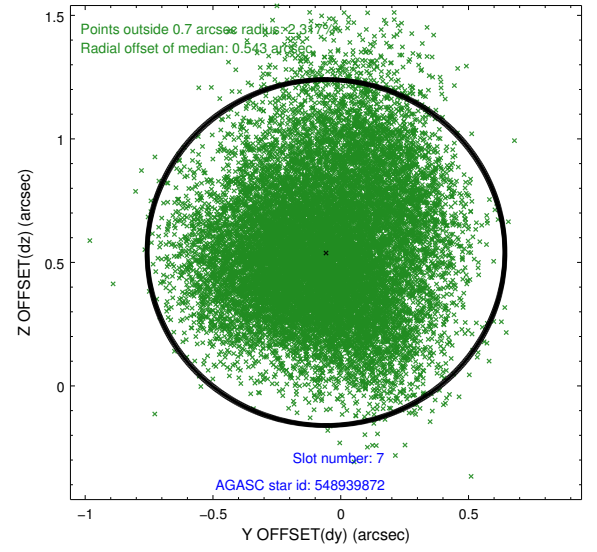
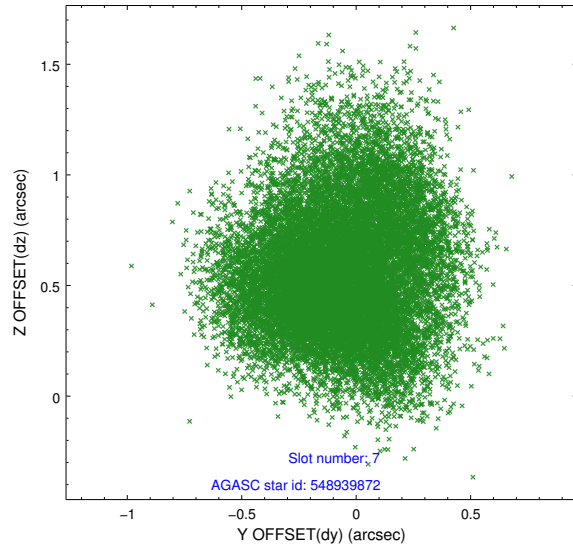
2.4.3 Slot 5



2.4.4 Slot 6

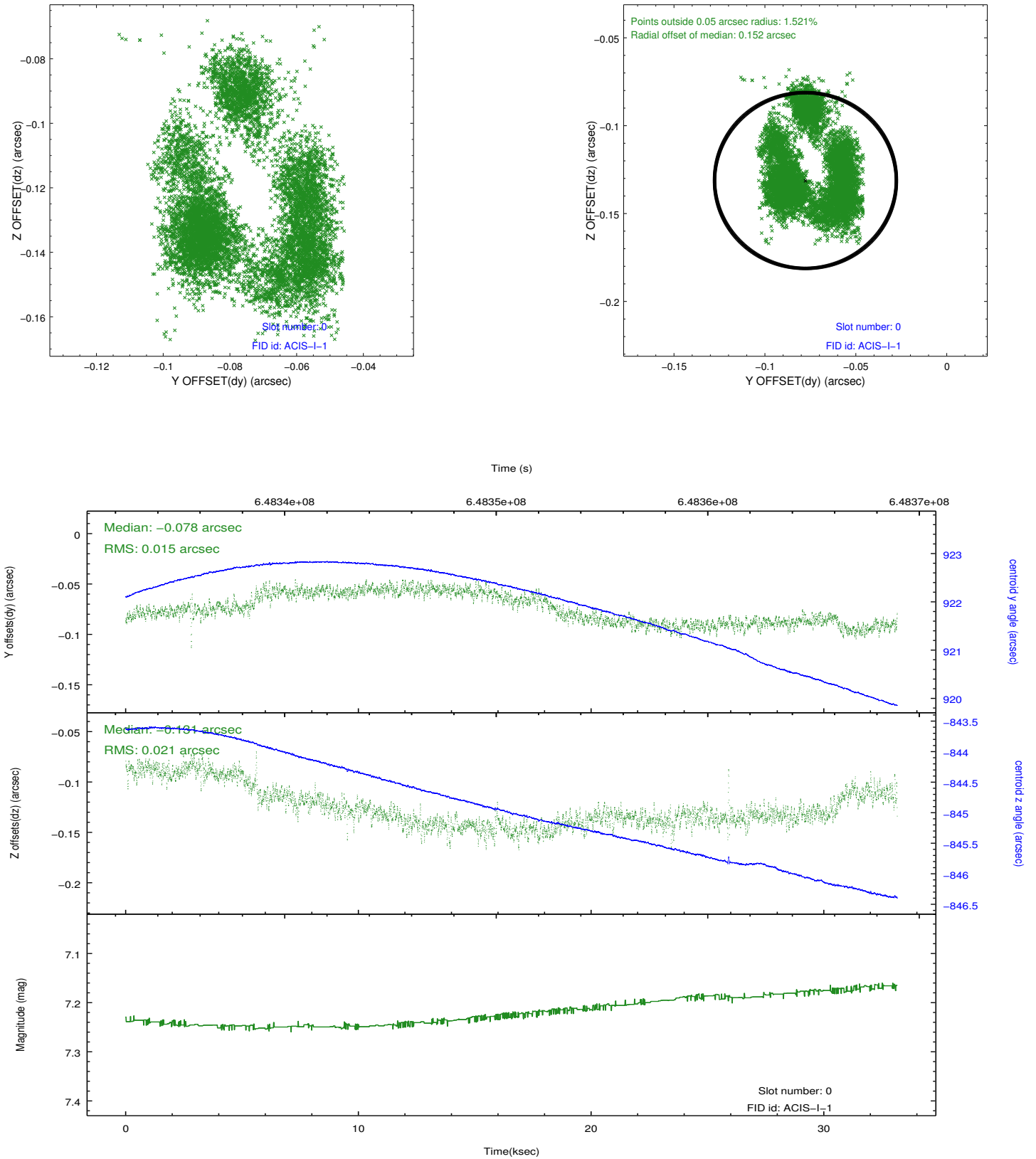


2.4.5 Slot 7

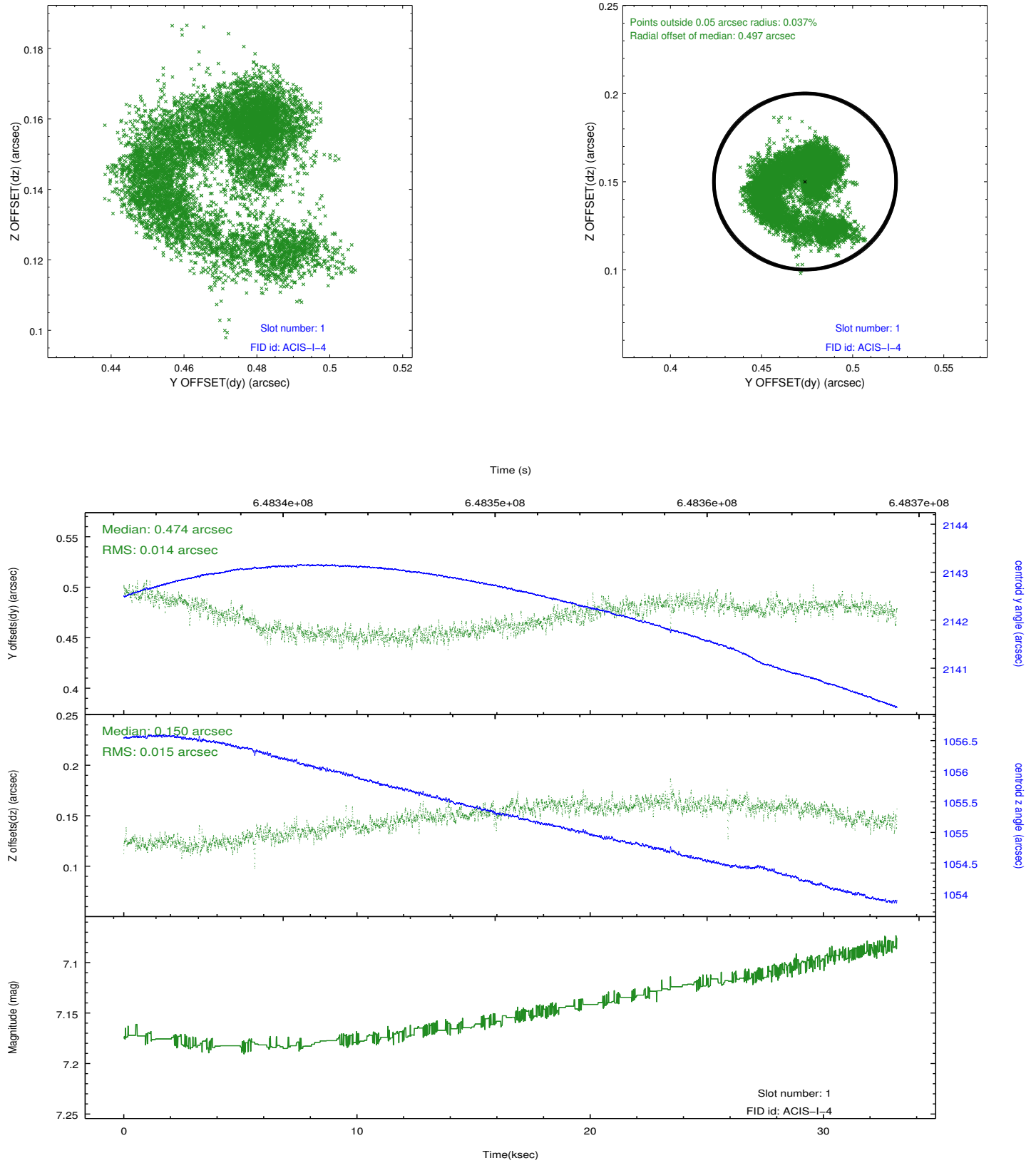


2.5 FID Slots

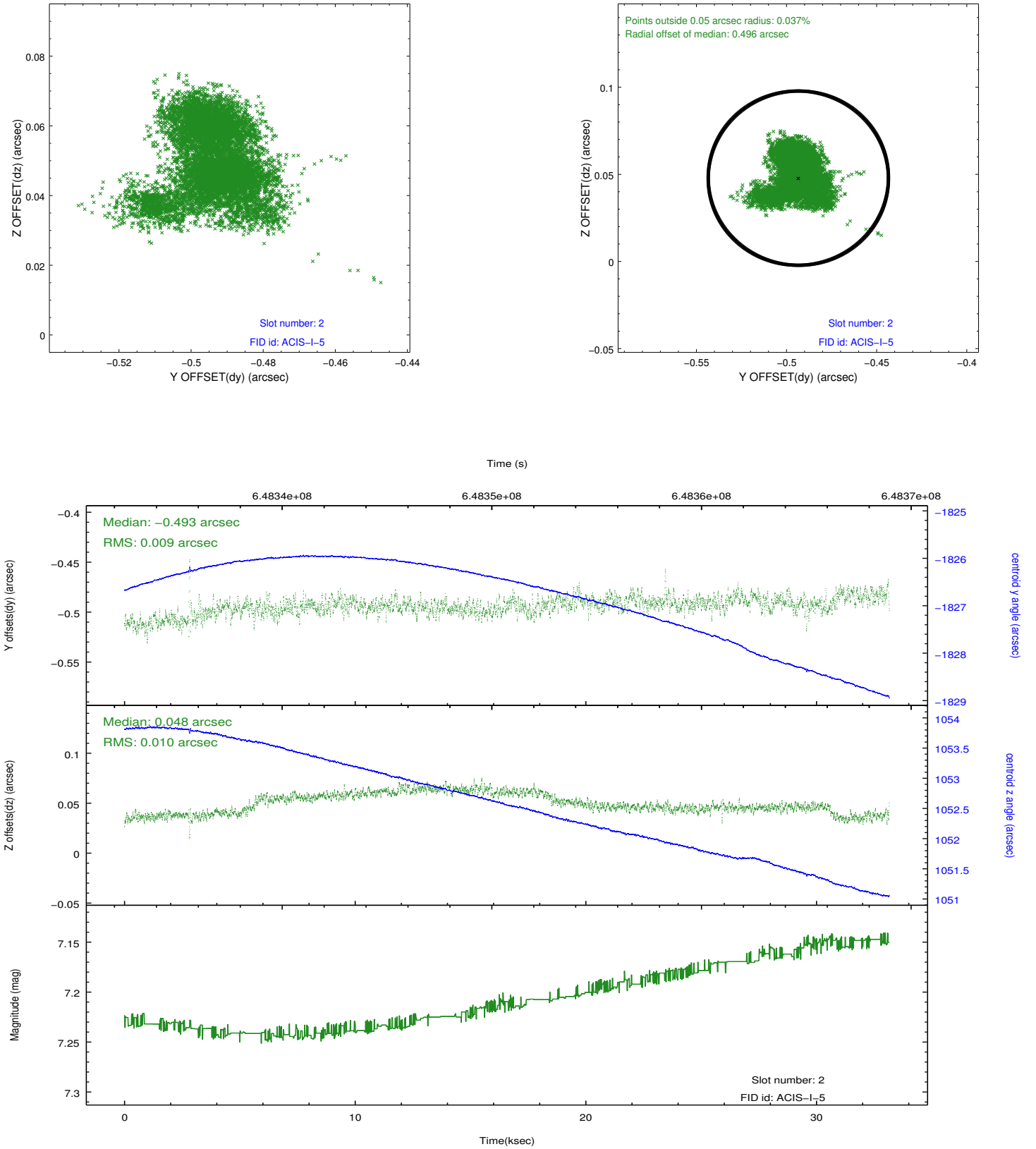
2.5.1 Slot 0



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)	2018.07.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.06770025444

A.2 Comments