

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22254 - L2 Version 1
Chandra X-Ray Center

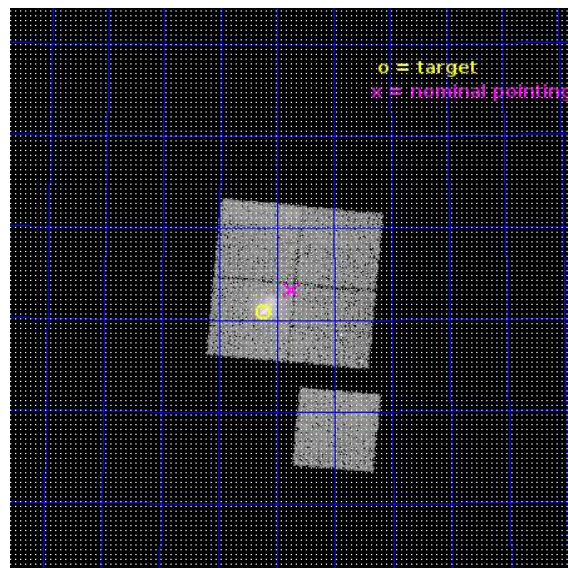
L2 Processing Date : Jun 16 2019

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1 Front

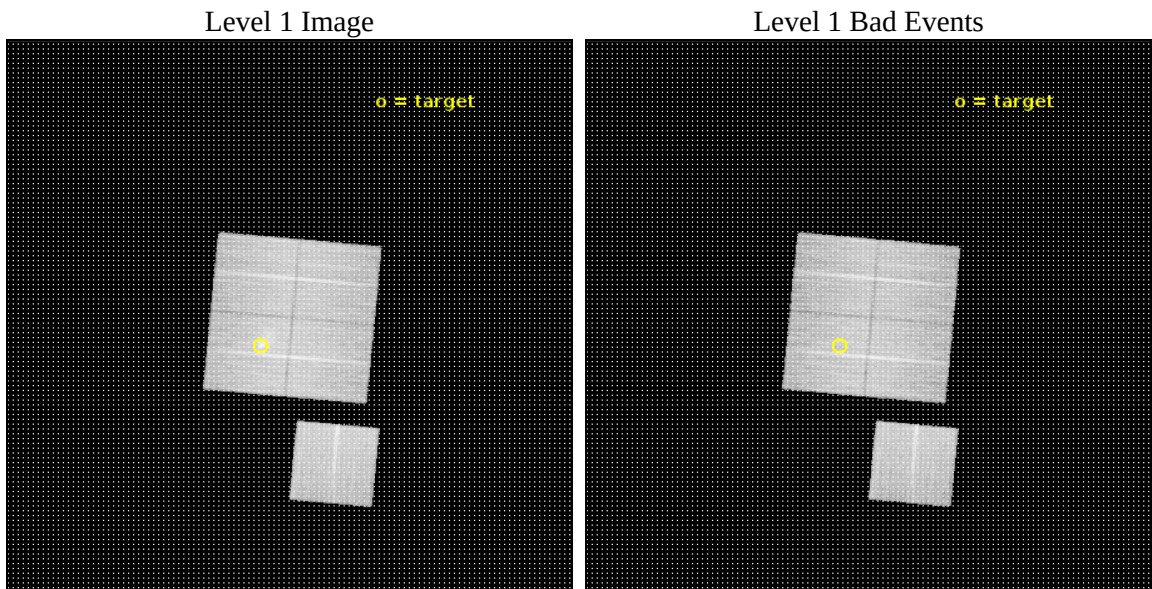
seq_num	801762	Sequence number
obs_id	22254	Observation id
title	Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146	Proposal title
observer	Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.06125	Observer's specified target RA [deg]
dec_targ	66.346917	Observer's specified target Dec [deg]
ra_nom	238.93649169643	Nominal RA [deg]
dec_nom	66.388409098318	Nominal Dec [deg]
roll_nom	185.32301858128	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20065.395128012	Sum of GTIs [s]
livetime	19803.225968735	Livetime [s]
ontime0	20062.130997777	Sum of GTIs [s]
ontime1	20055.890047312	Sum of GTIs [s]
ontime2	20065.354088068	Sum of GTIs [s]
ontime3	20065.395128012	Sum of GTIs [s]
ontime6	20065.230967999	Sum of GTIs [s]
l2events	81005	Number of level 2 events



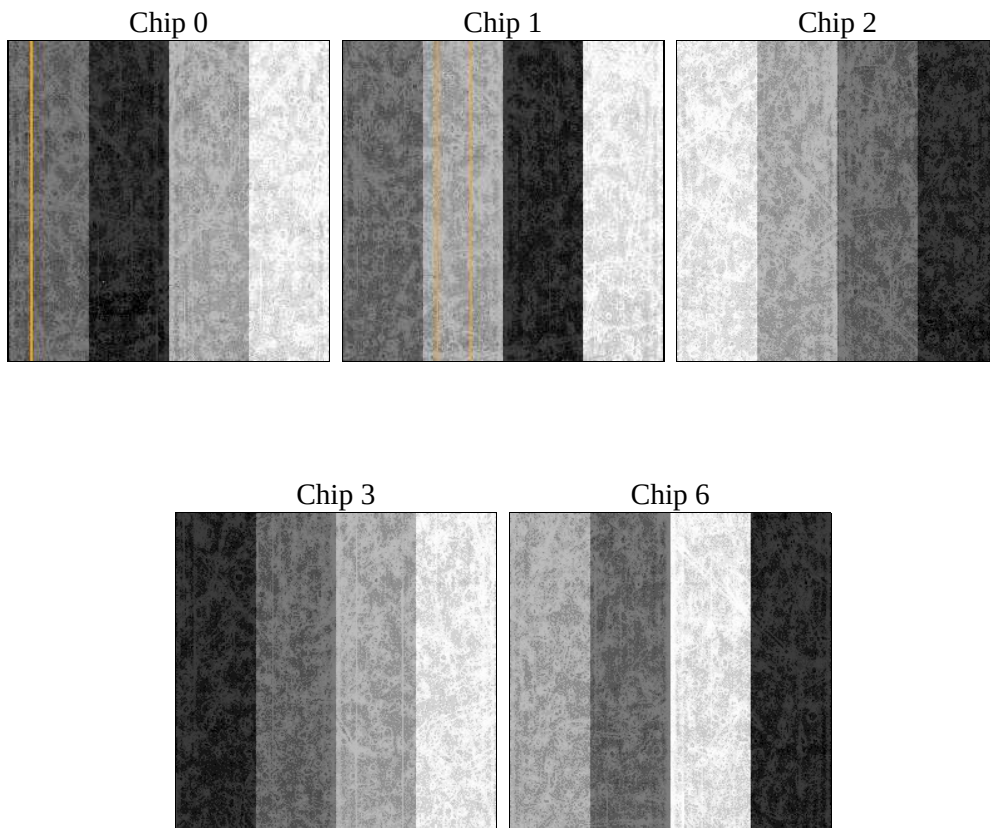
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	20065.395128012	Sum of GTIs [s]
caldsver	4.8.3	 	ontime0	20062.130997777	Sum of GTIs [s]
date	2019-06-16T17:04:33	Date and time of file creation	ontime1	20055.890047312	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	20065.354088068	Sum of GTIs [s]
			ontime3	20065.395128012	Sum of GTIs [s]
			ontime6	20065.230967999	Sum of GTIs [s]
			l1events	755427	Number of level 1 events

2.1.4 Events

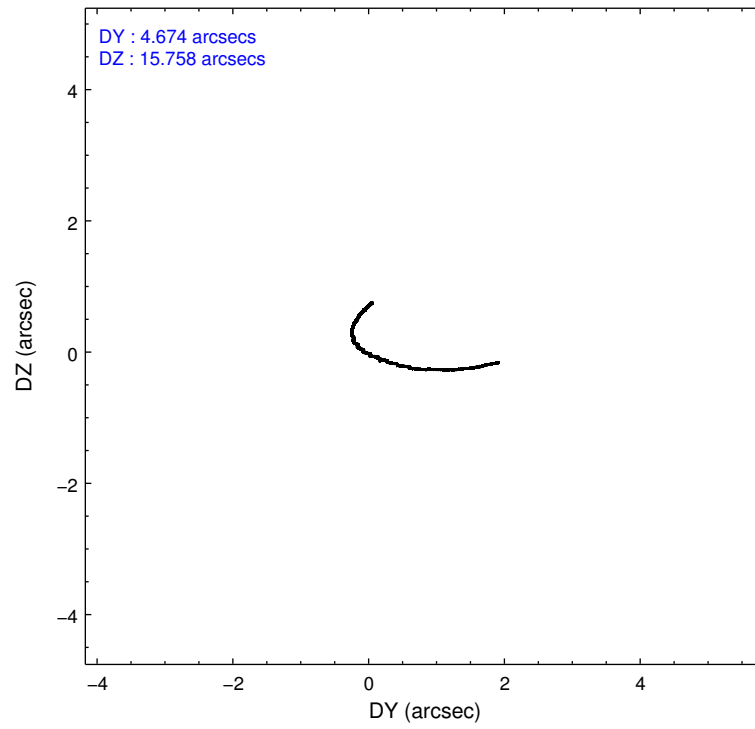
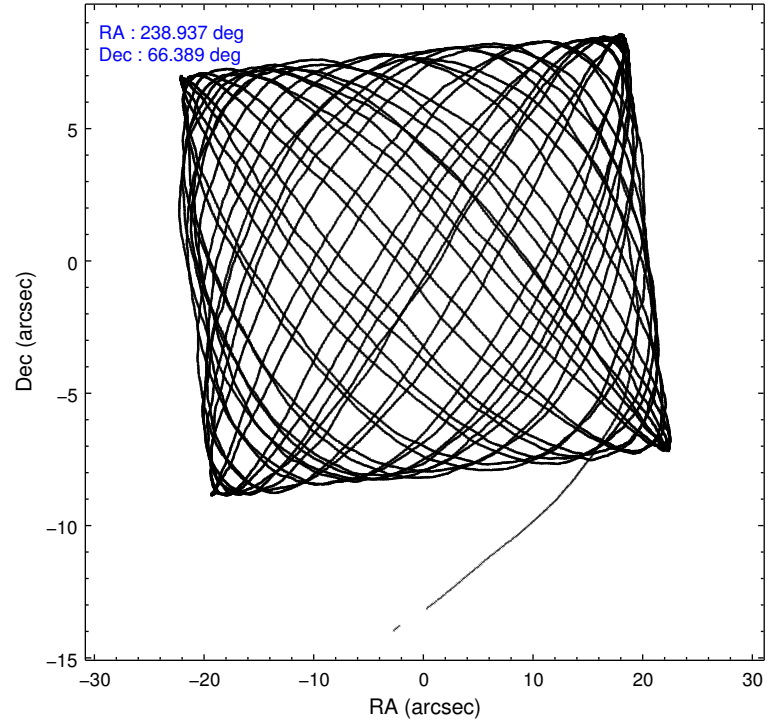
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	140570	145015	151106	162307	156429
rejected events	123513	125775	134495	137394	139369
rejected %	87%	86%	89%	84%	89%

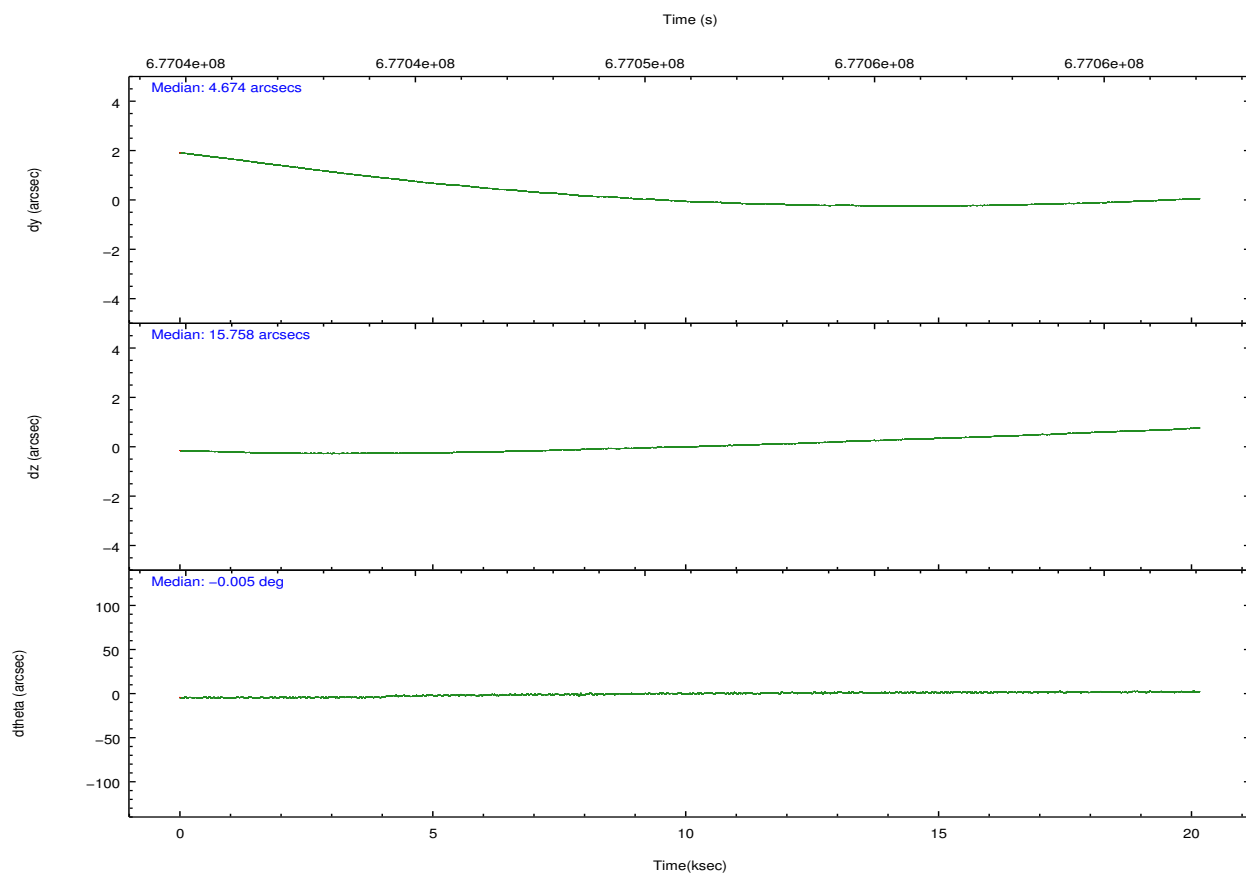
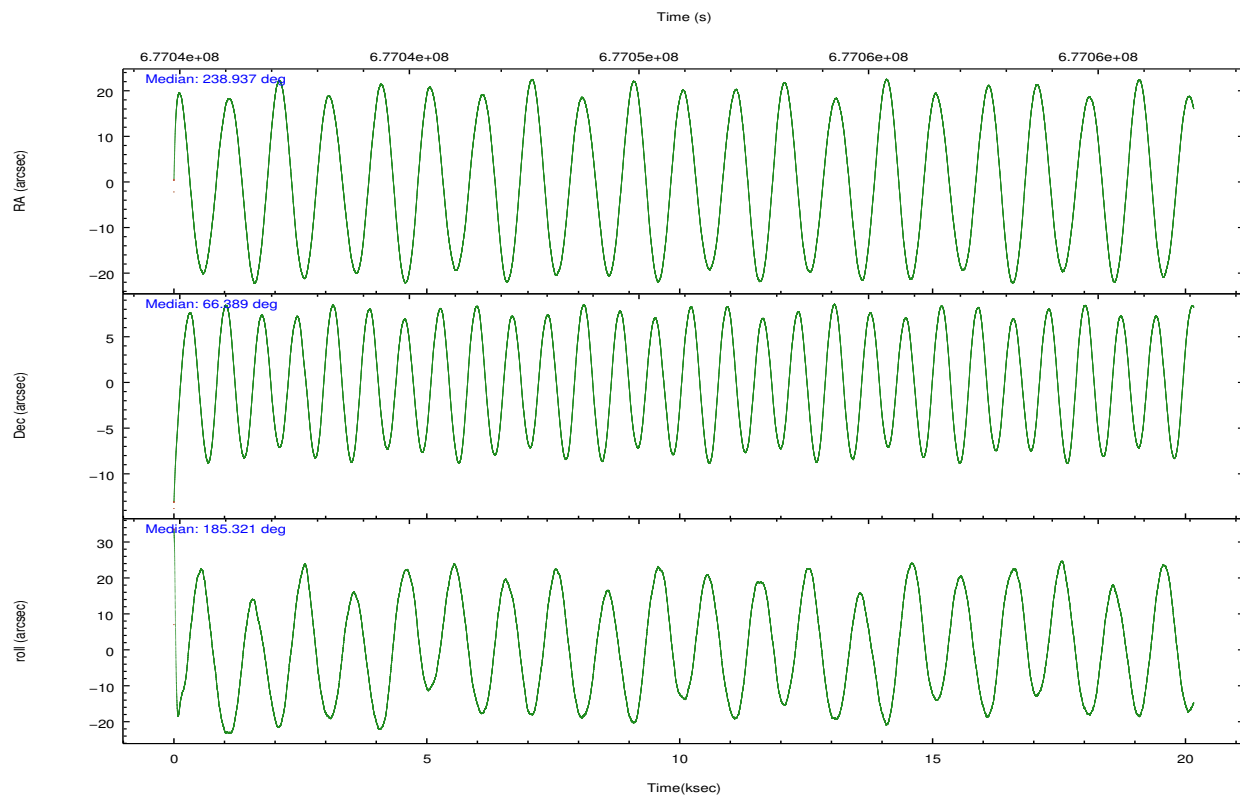
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5540	6228	6066	12474	5373
	3%	4%	4%	7%	3%
grade 1 events	86	67	113	120	88
	0%	0%	0%	0%	0%
grade 2 events	4382	5235	3941	4633	4133
	3%	3%	2%	2%	2%
grade 3 events	1687	1743	1590	2040	1627
	1%	1%	1%	1%	1%
grade 4 events	1609	1674	1730	2016	1614
	1%	1%	1%	1%	1%
grade 5 events	6501	6471	6223	7357	6895
	4%	4%	4%	4%	4%
grade 6 events	3848	4367	3291	3763	4317
	2%	3%	2%	2%	2%
grade 7 events	116917	119230	128152	129904	132382
	83%	82%	84%	80%	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	238.992593	238.936491696434	CCD I2 on	Y	Y
[deg] Pointing Dec	66.404441	66.38840909831806	CCD I3 on	Y	Y
[deg] Pointing Roll	185.062909	185.3230185812819	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)	677041055.184000	677039929.35833	CCD S5 on	N	N
Observation start date	2019-06-16T02:56:26	2019-06-16T02:38:49	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	677061055.184000	677061941.23465	On-chip summing requested	N	N
Observation end date	2019-06-16T08:29:46	2019-06-16T08:45:41	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



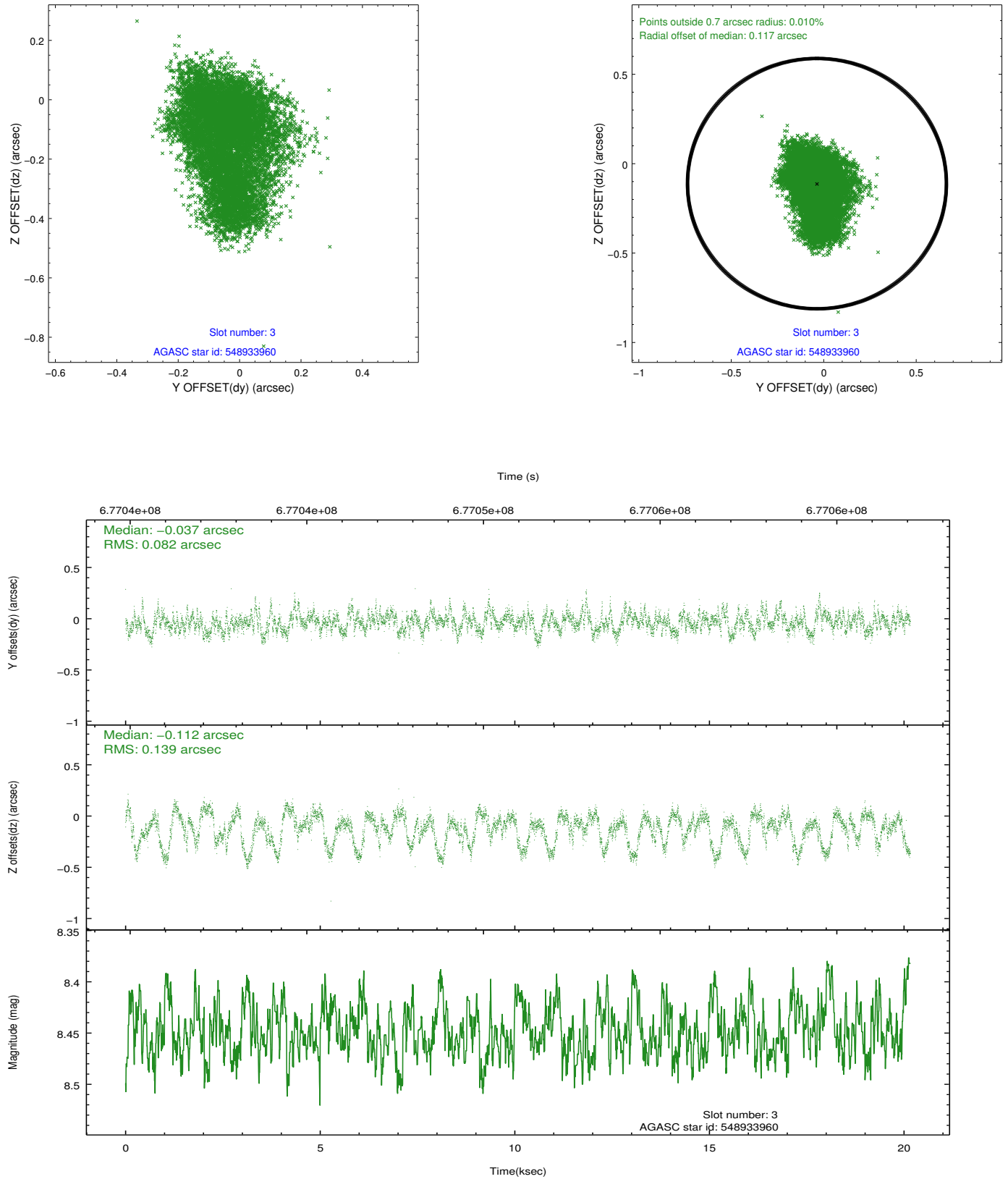


Slot Statistics

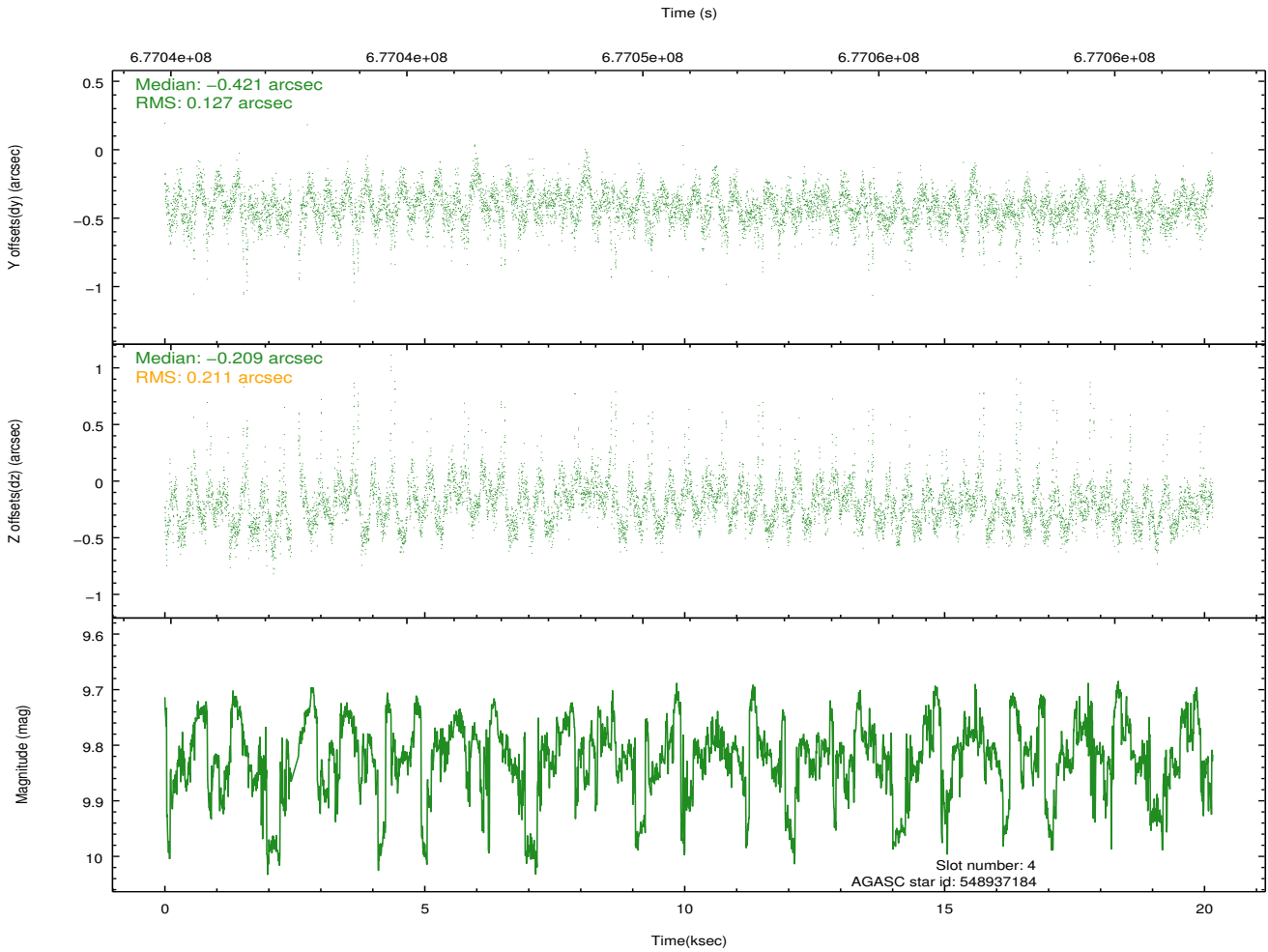
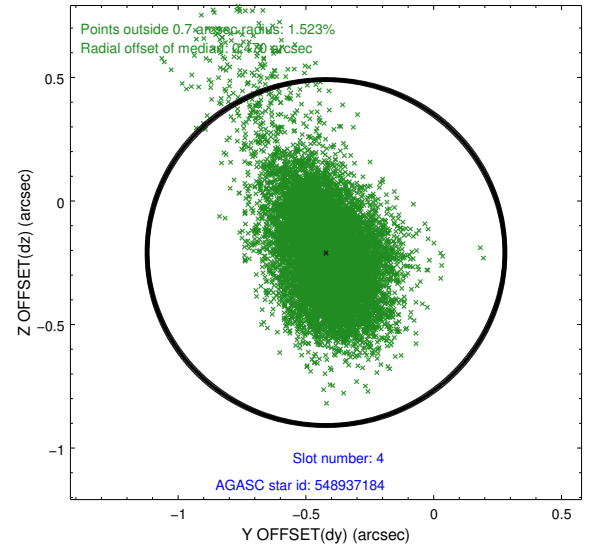
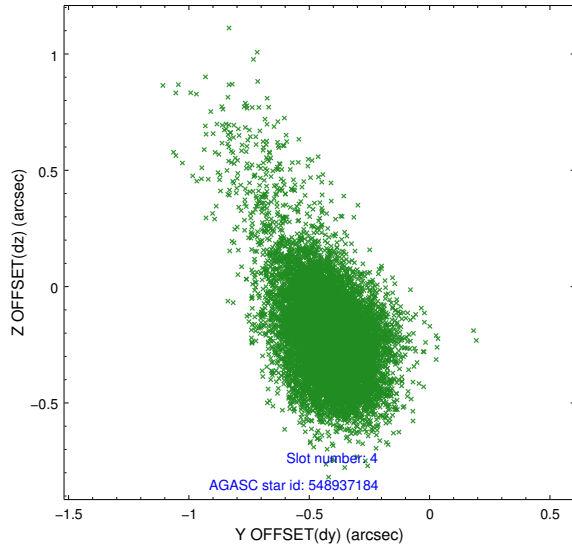
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.18	4918	1.000	0.106	-0.123	0.012	0.019	0.000000	0.000000	934.92	-839
1	FID		ACIS-I-5	7.13	4918	1.000	-0.408	0.035	0.017	0.036	0.000000	0.000000	-1813.73	1057
2	FID		ACIS-I-6	7.14	4917	1.000	0.210	0.157	0.026	0.047	0.000000	0.000000	400.21	1702
3	GUIDE	used	548933960	8.45	9824	1.000	-0.037	-0.112	0.169	0.285	237.671184	66.428675	1886.19	-273
4	GUIDE	used	548937184	9.82	9717	1.000	-0.421	-0.209	0.233	0.419	238.771821	66.565432	264.00	-605
5	GUIDE	used	548939872	10.28	9683	1.000	0.250	0.179	0.320	0.617	238.964867	66.978384	-142.53	-2061
6	GUIDE	used	549848472	8.84	9828	1.000	0.115	0.074	0.169	0.253	240.538609	67.119806	-2384.23	-2400
7	GUIDE	used	549849072	9.13	9819	1.000	0.105	0.045	0.135	0.227	240.420863	66.802816	-2145.16	-1272

2.4 Star Slots

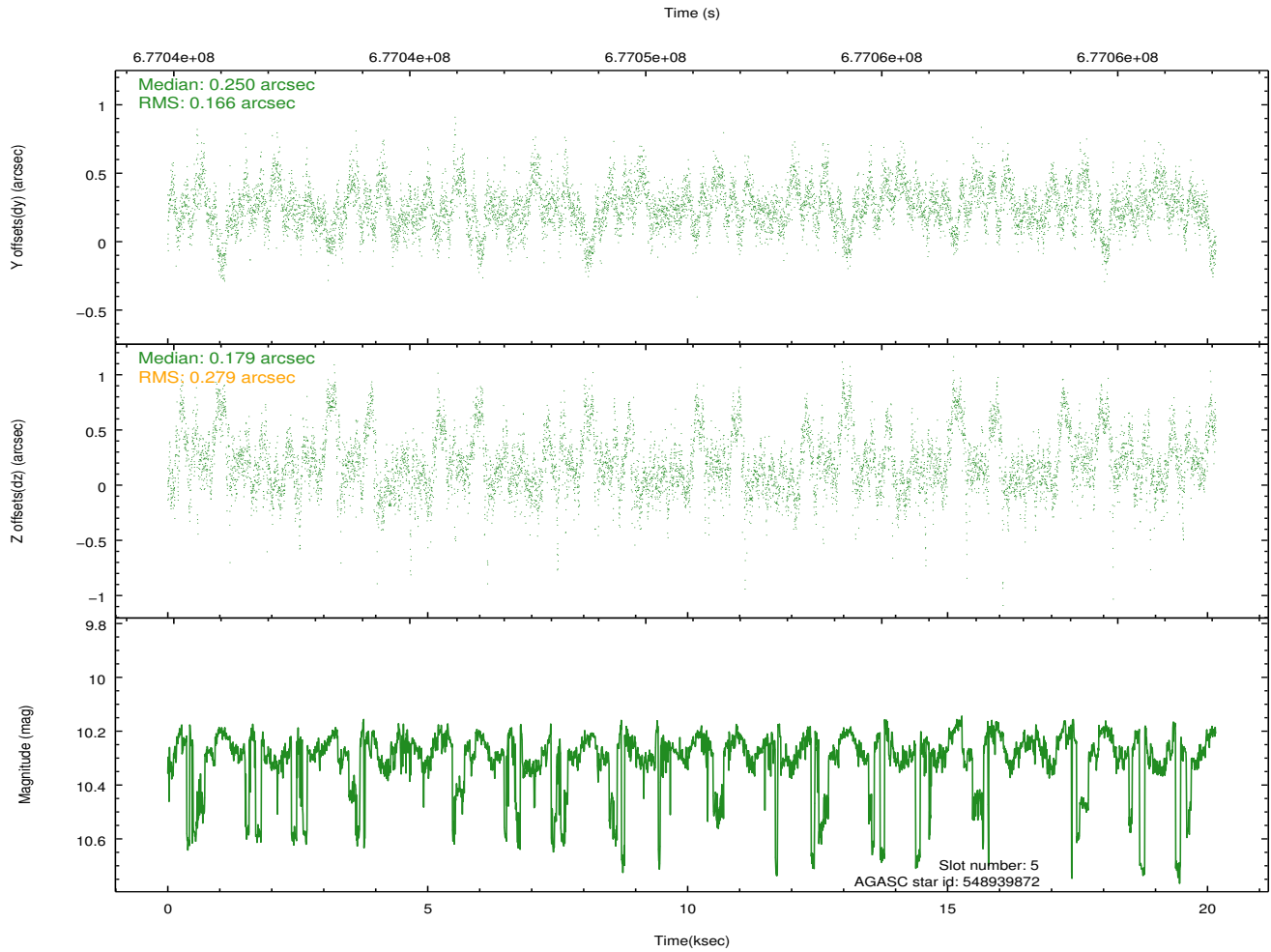
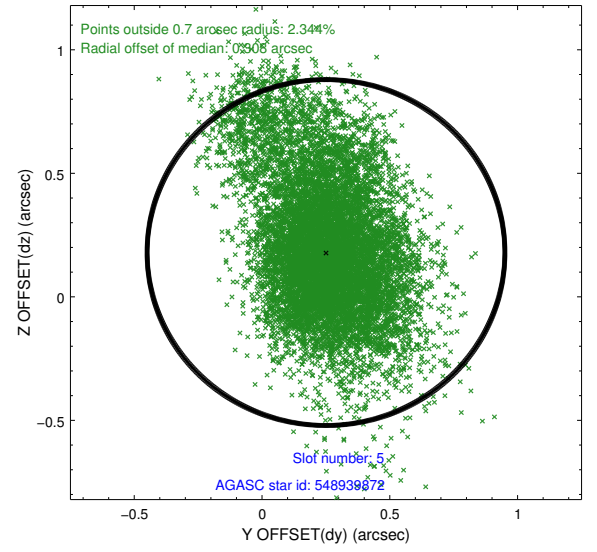
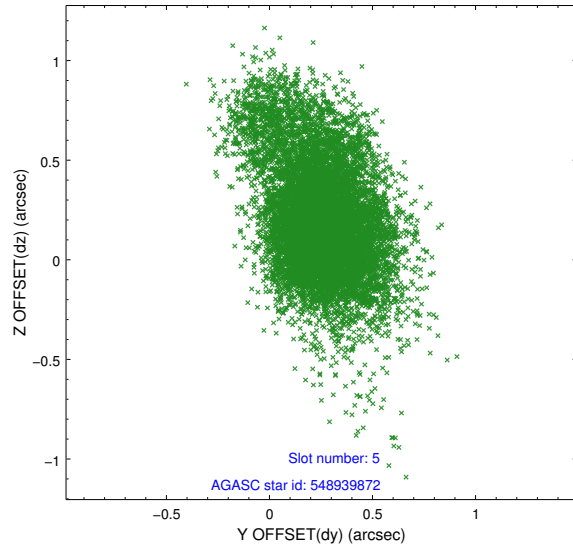
2.4.1 Slot 3



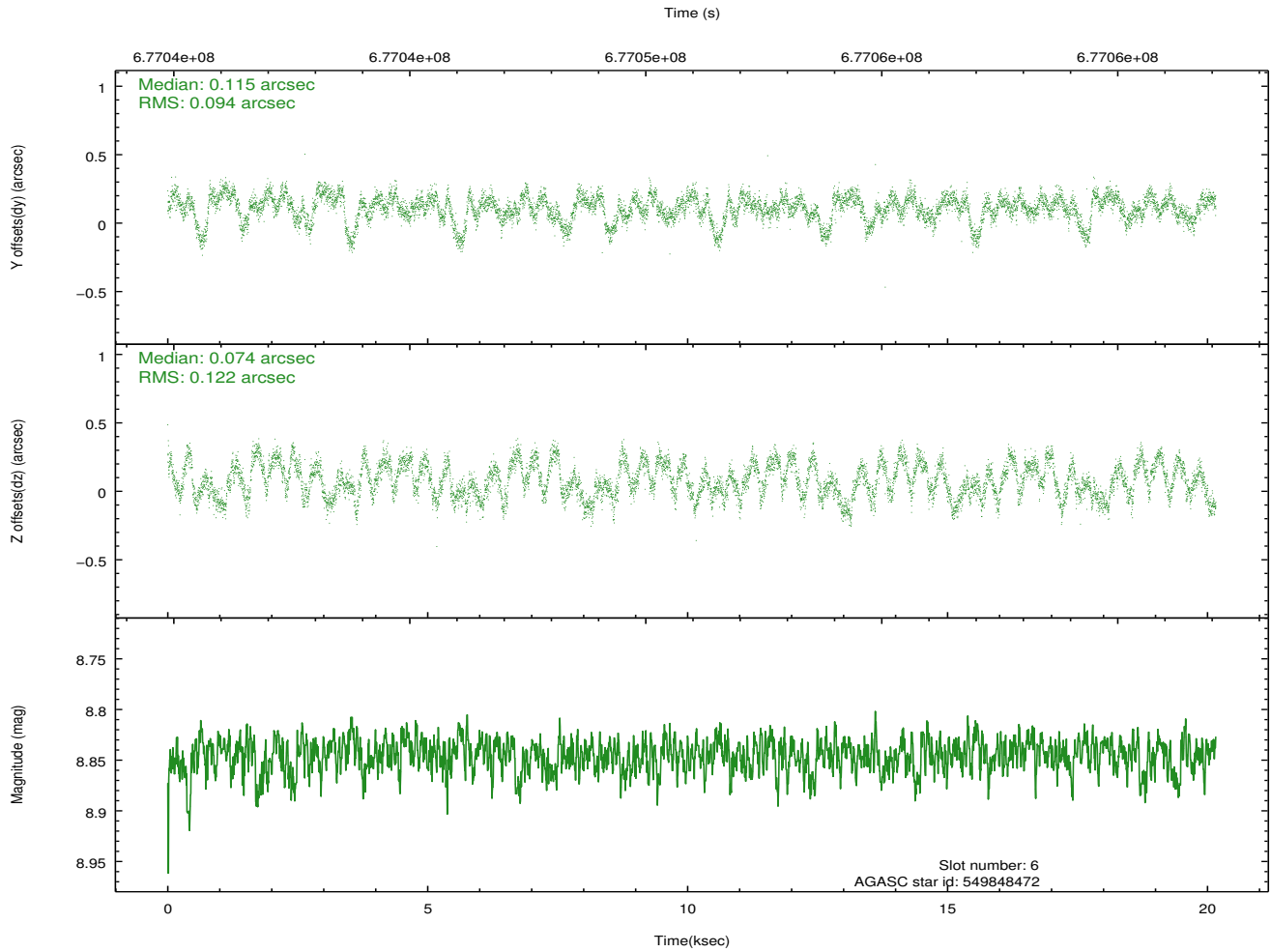
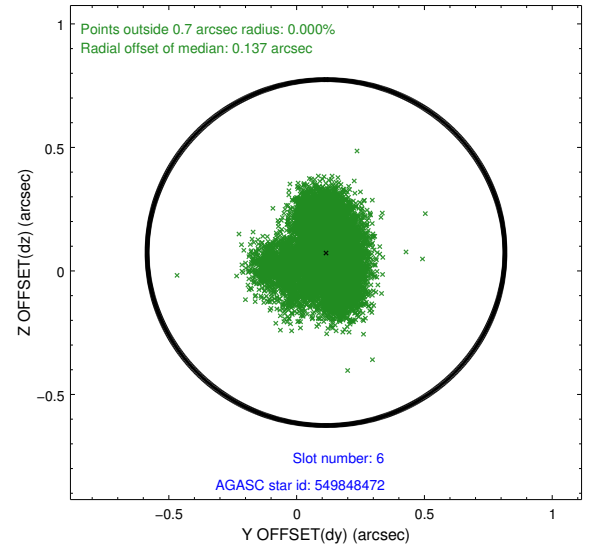
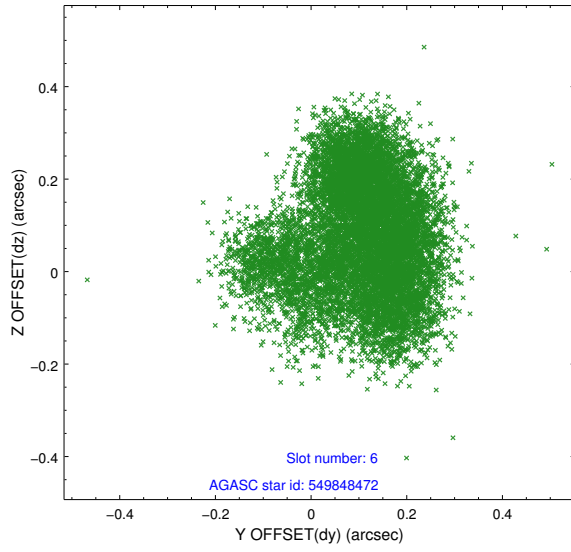
2.4.2 Slot 4



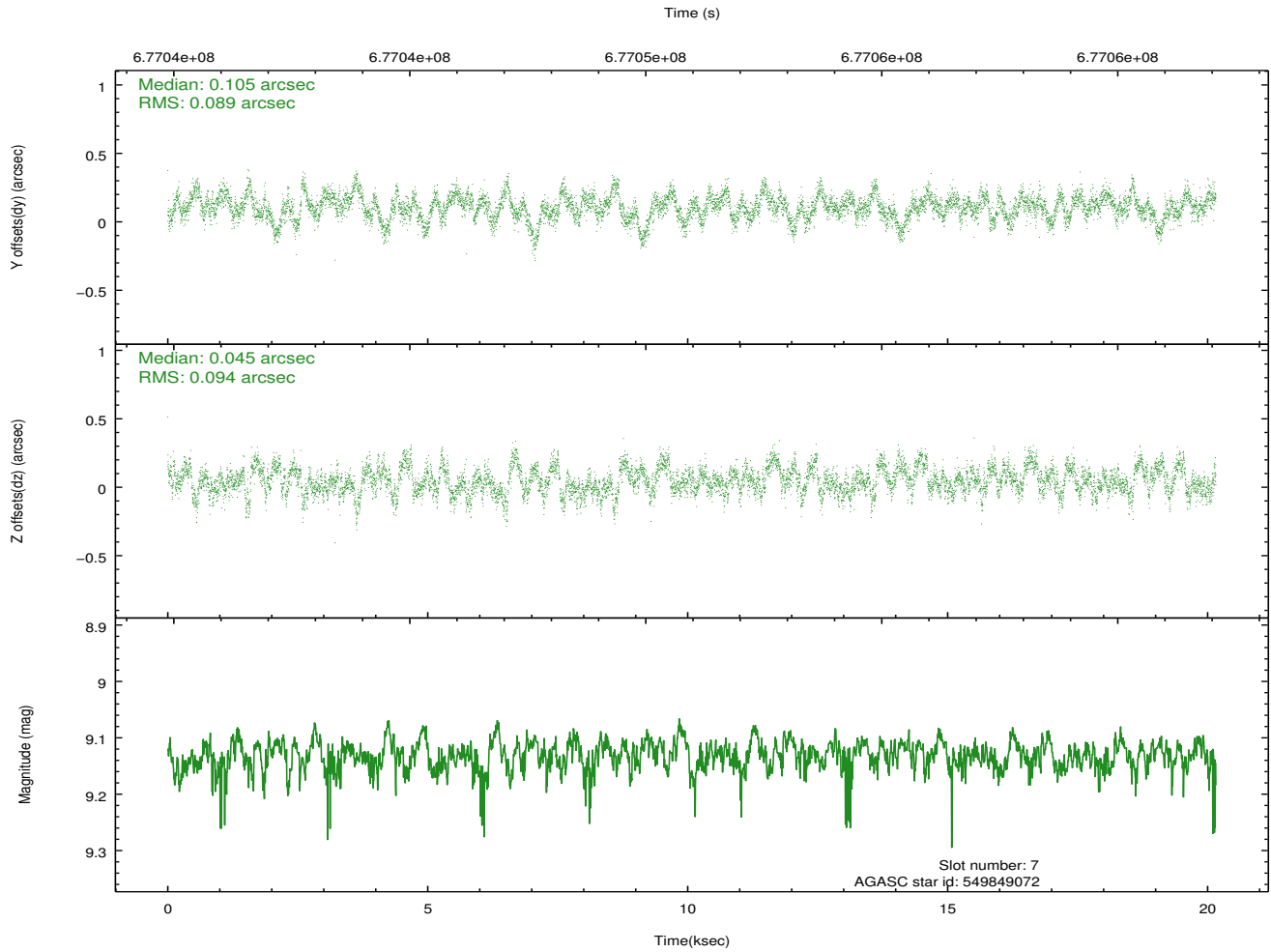
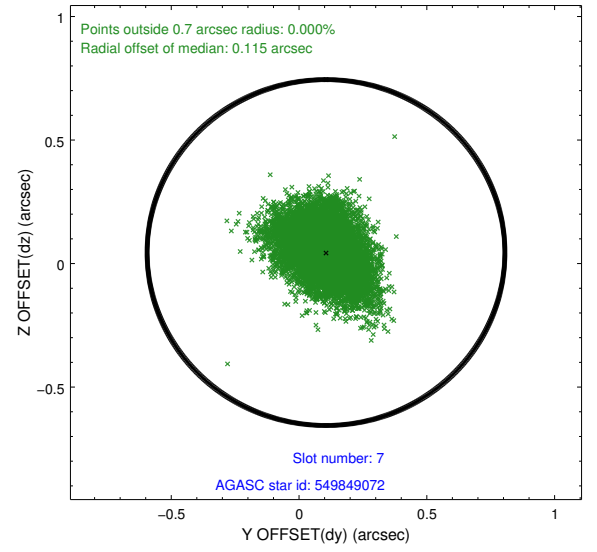
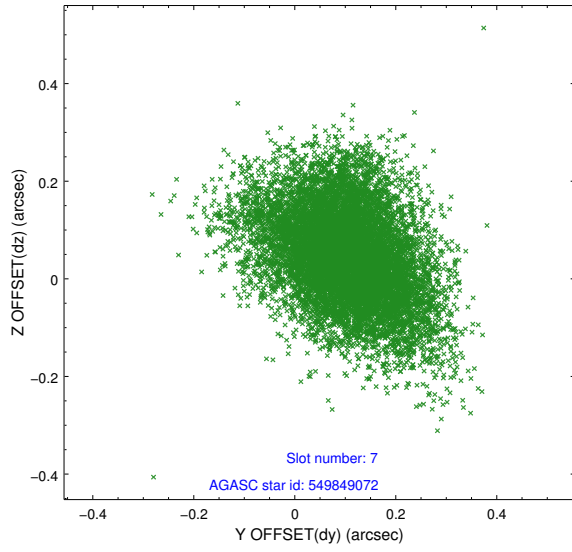
2.4.3 Slot 5



2.4.4 Slot 6

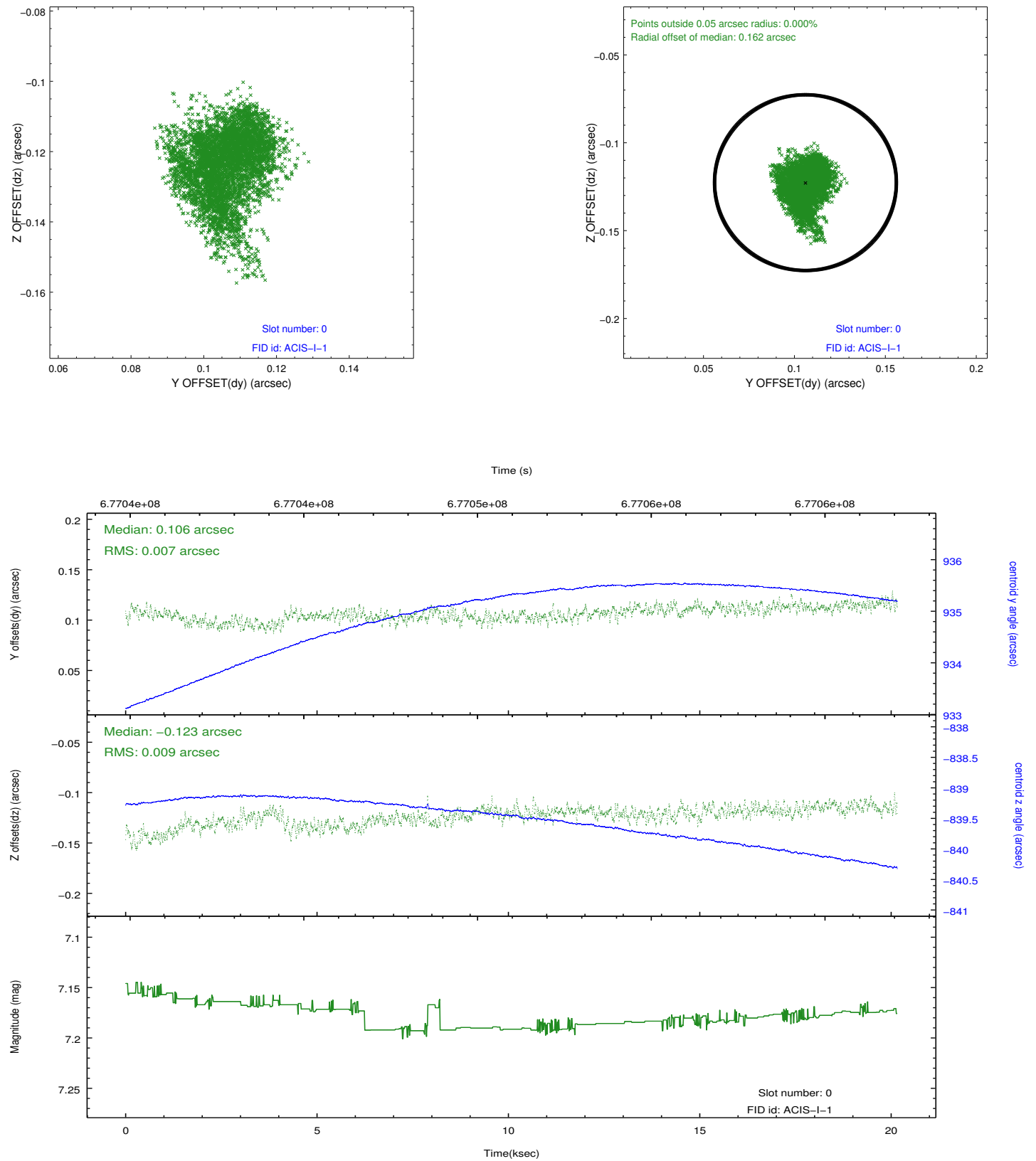


2.4.5 Slot 7

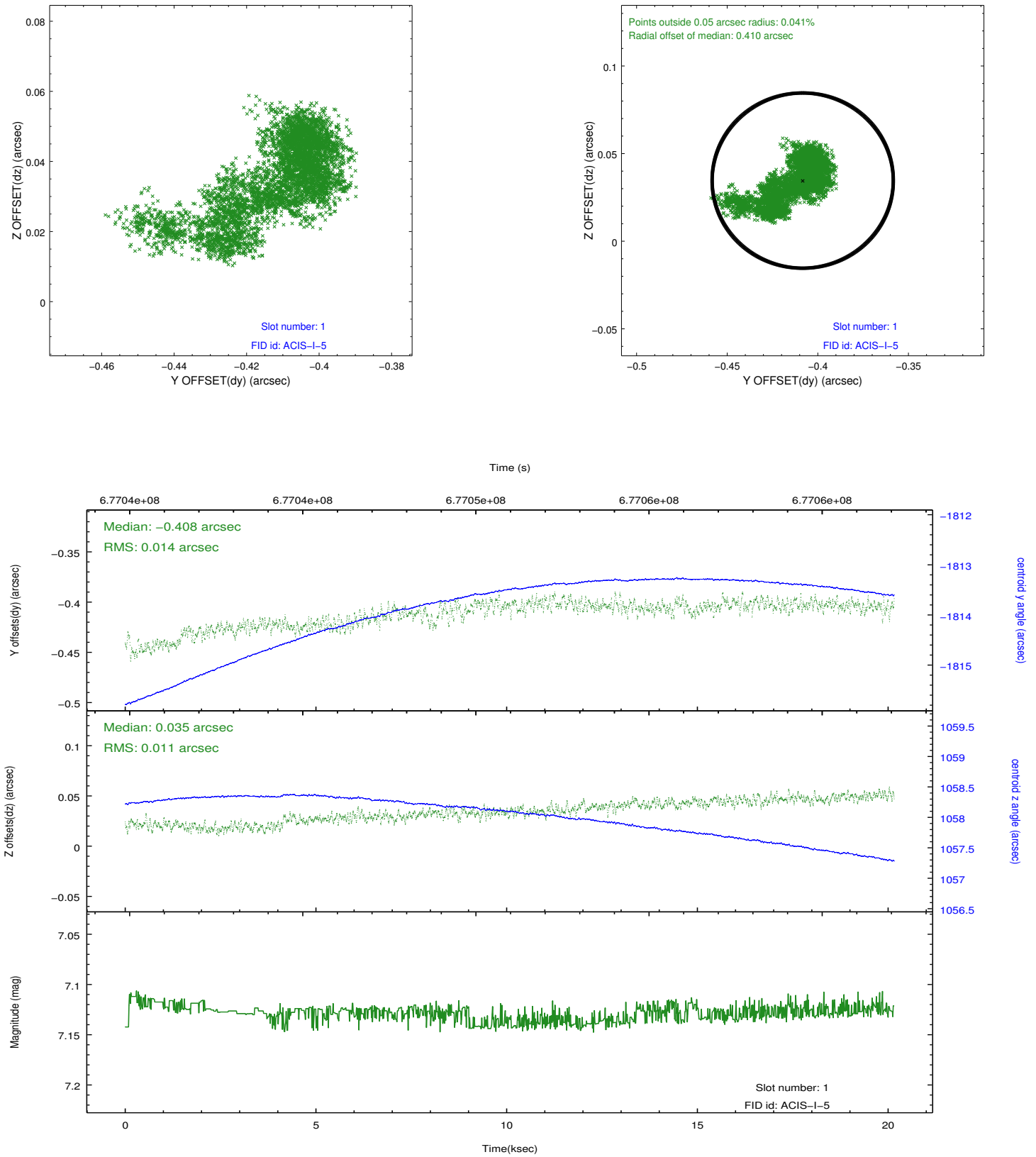


2.5 FID Slots

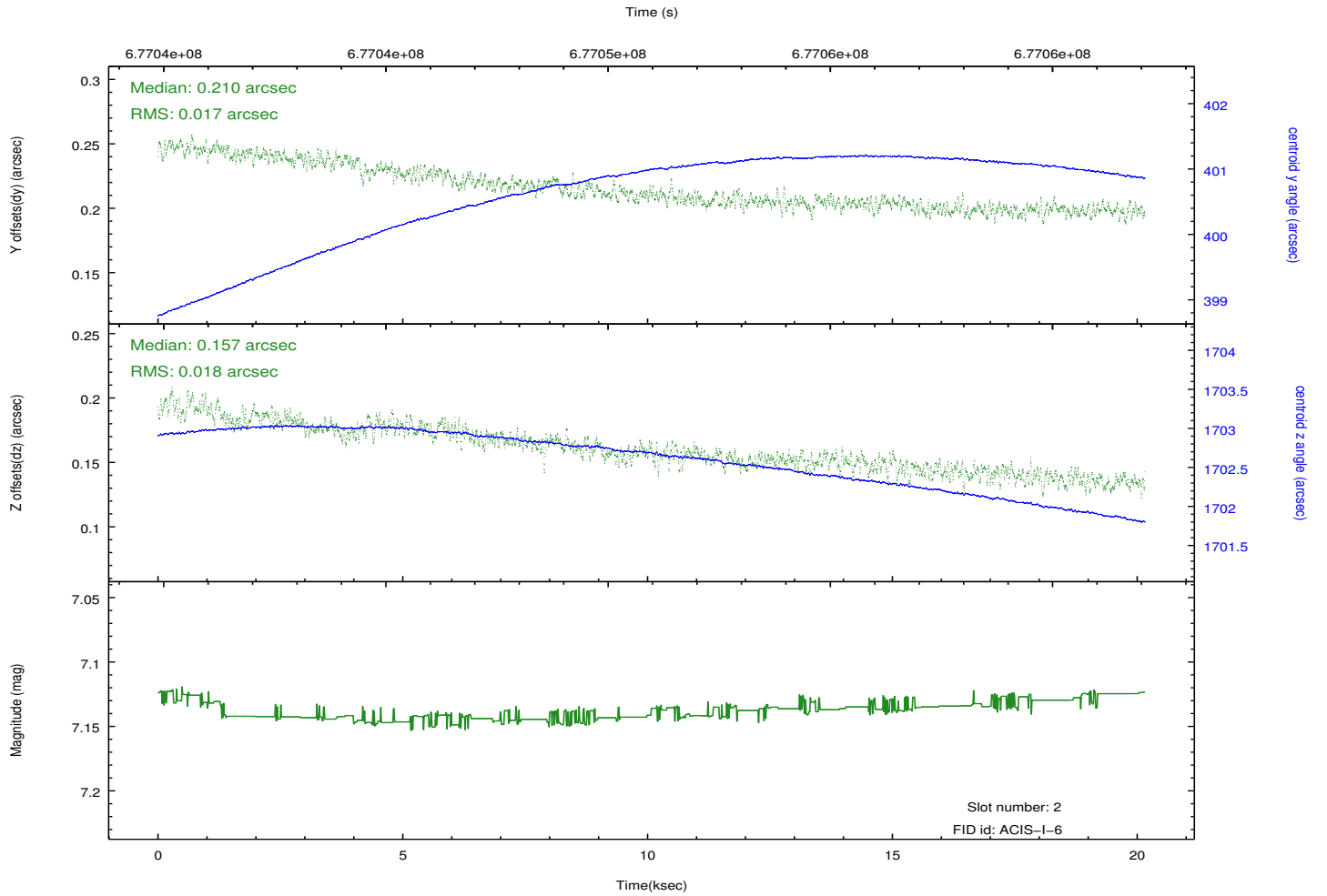
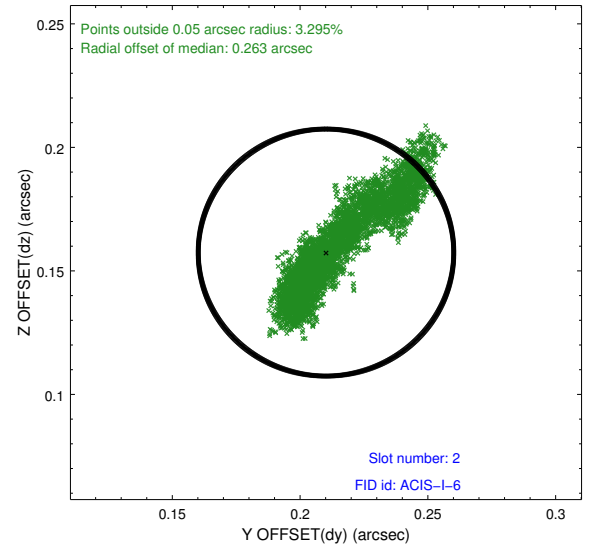
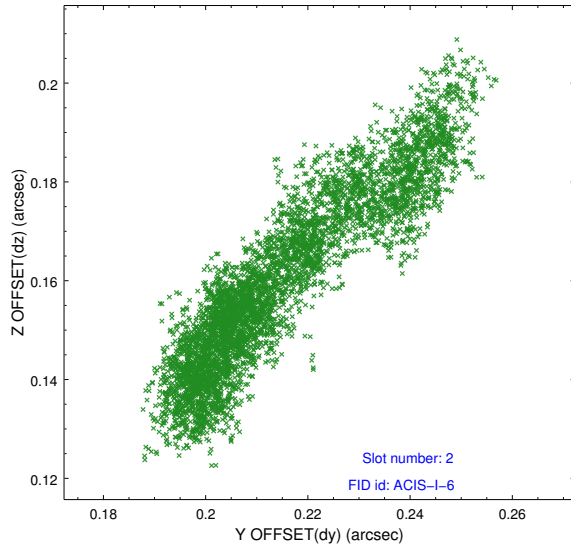
2.5.1 Slot 0



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)	2019.06.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.065395128012

A.2 Comments