

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 22258 - L2 Version 1
Chandra X-Ray Center

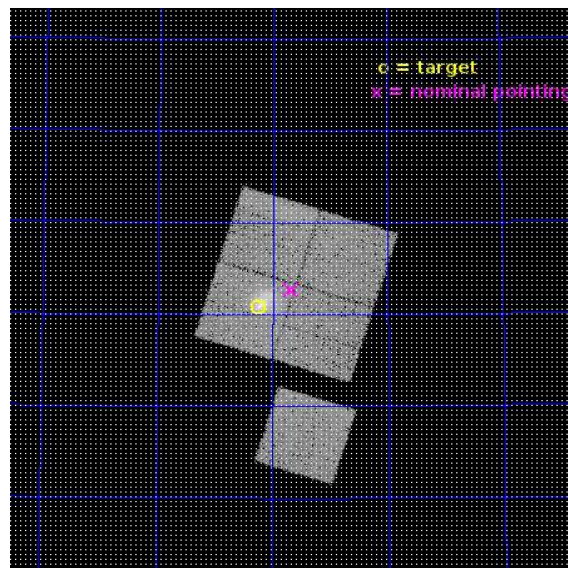
L2 Processing Date : Jun 20 2019

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1 Front

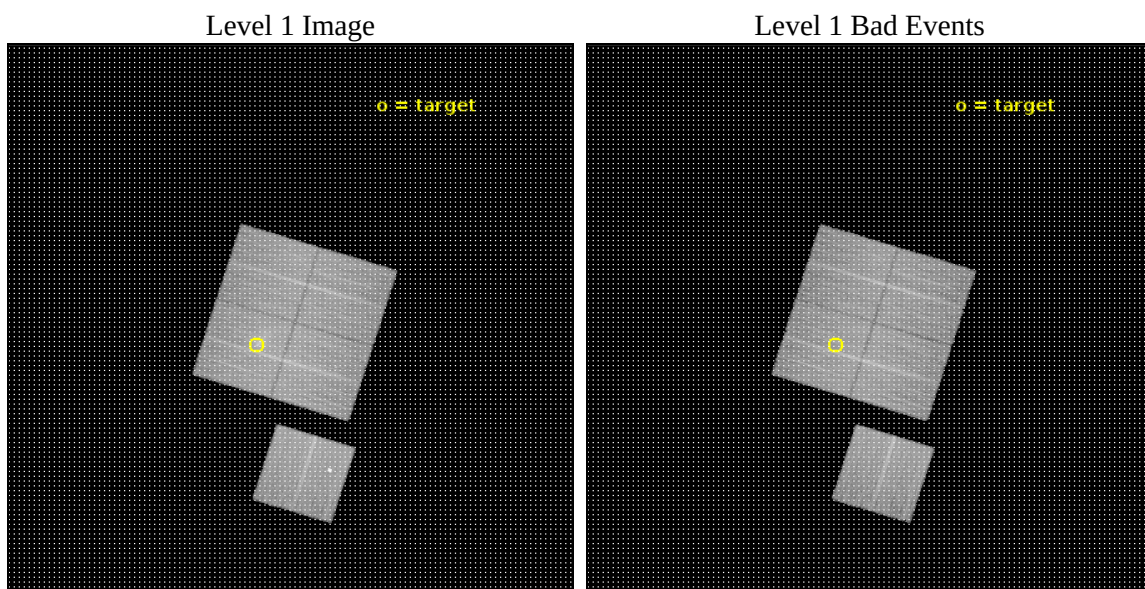
seq_num	801762	Sequence number
obs_id	22258	Observation id
title	Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146	Proposal title
observer	Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.06125	Observer's specified target RA [deg]
dec_targ	66.346917	Observer's specified target Dec [deg]
ra_nom	238.91825863612	Nominal RA [deg]
dec_nom	66.378359687125	Nominal Dec [deg]
roll_nom	197.33968400947	Nominal Roll [deg]
revision	1	Processing version of data
ontime	23051.436256647	Sum of GTIs [s]
livetime	22750.252271734	Livetime [s]
ontime0	23064.000177503	Sum of GTIs [s]
ontime1	23064.000177503	Sum of GTIs [s]
ontime2	23064.000177503	Sum of GTIs [s]
ontime3	23051.436256647	Sum of GTIs [s]
ontime6	23060.859187365	Sum of GTIs [s]
l2events	94660	Number of level 2 events



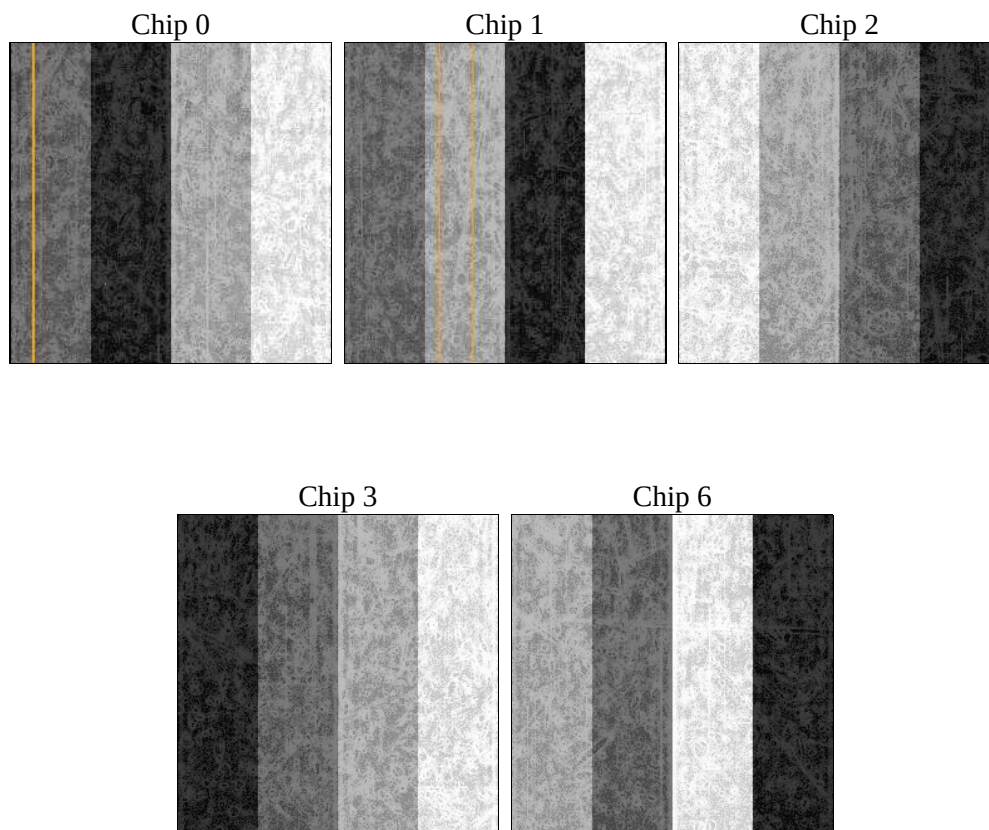
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	23051.436256647	Sum of GTIs [s]
caldsver	4.8.3	 	ontime0	23064.000177503	Sum of GTIs [s]
date	2019-06-20T11:00:41	Date and time of file creation	ontime1	23064.000177503	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	23064.000177503	Sum of GTIs [s]
			ontime3	23051.436256647	Sum of GTIs [s]
			ontime6	23060.859187365	Sum of GTIs [s]
			l1events	881881	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	160722	164351	184731	187635	184442
rejected events	140741	142460	165140	158202	157399
rejected %	87%	86%	89%	84%	85%

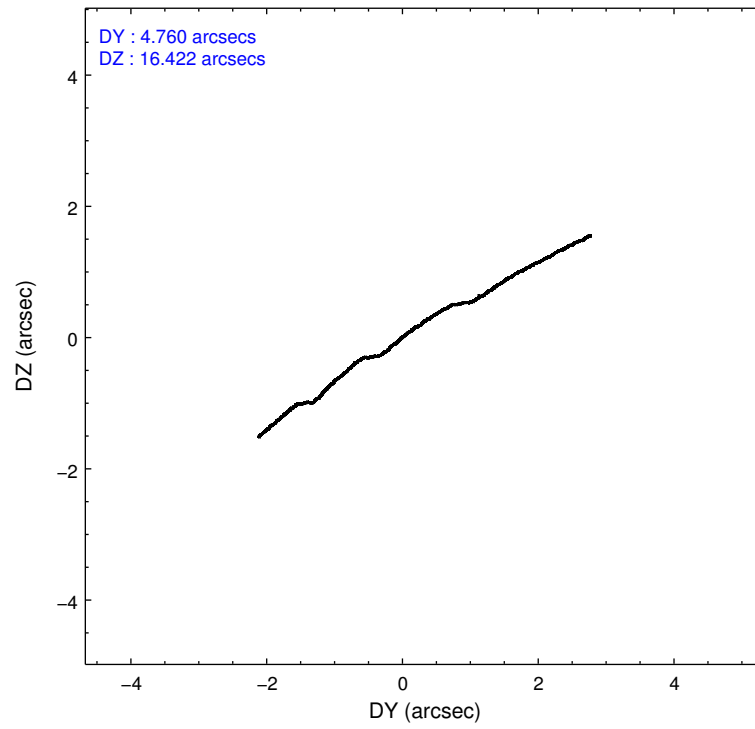
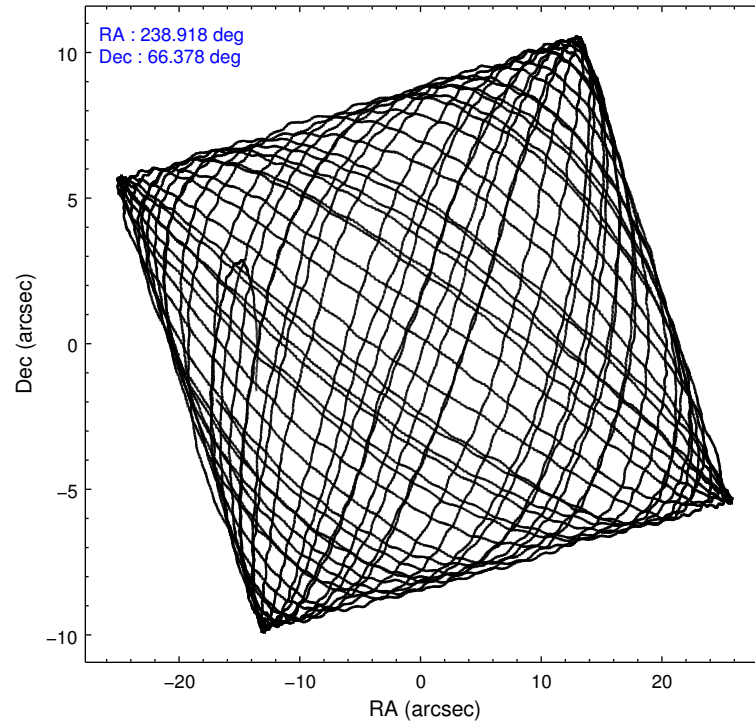
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6690	7226	6982	14963	13549
	4%	4%	3%	7%	7%
grade 1 events	102	90	120	160	140
	0%	0%	0%	0%	0%
grade 2 events	5173	5755	4908	5361	4780
	3%	3%	2%	2%	2%
grade 3 events	2004	2004	1967	2303	2026
	1%	1%	1%	1%	1%
grade 4 events	1894	1986	2011	2441	2023
	1%	1%	1%	1%	1%
grade 5 events	7748	7905	7234	8537	8094
	4%	4%	3%	4%	4%
grade 6 events	4225	4924	3729	4371	4676
	2%	2%	2%	2%	2%
grade 7 events	132886	134461	157780	149499	149154
	82%	81%	85%	79%	80%

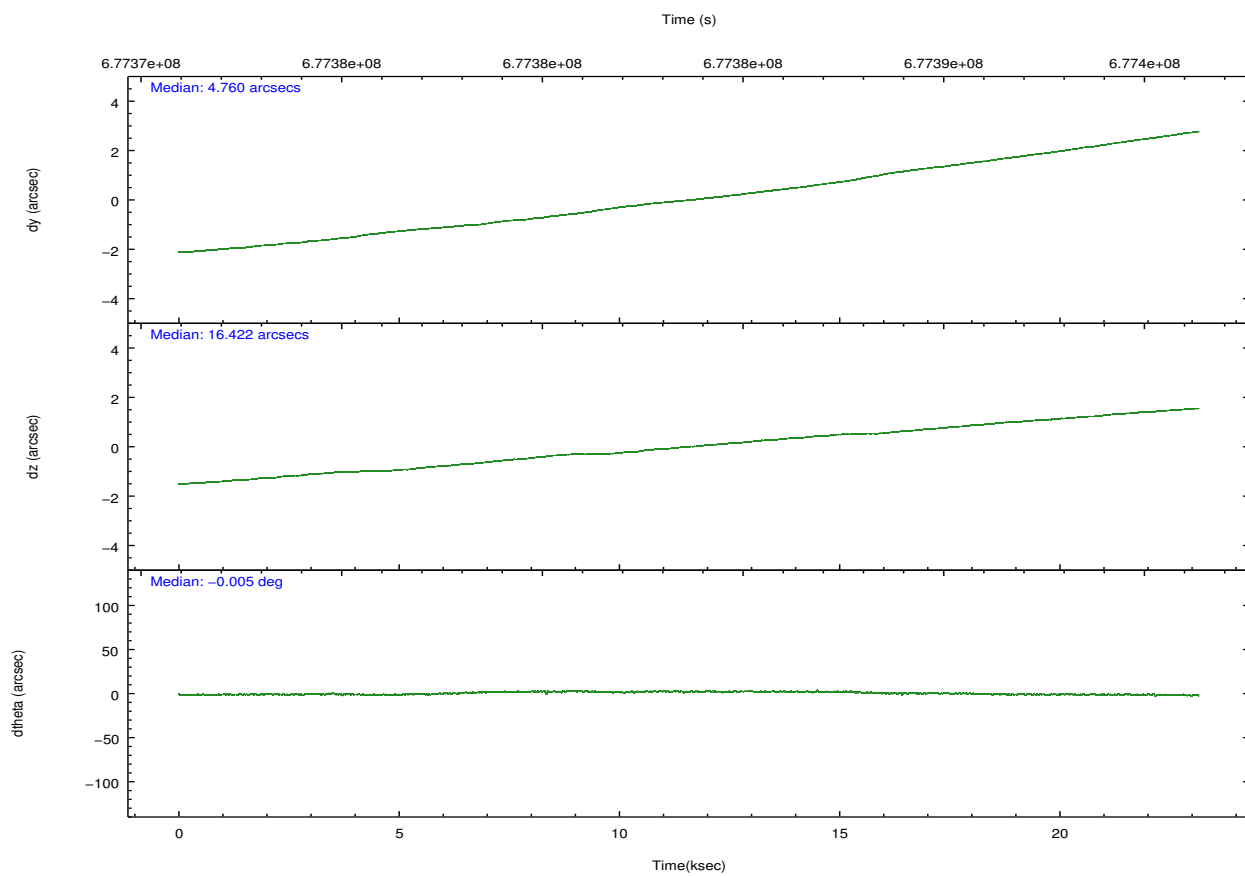
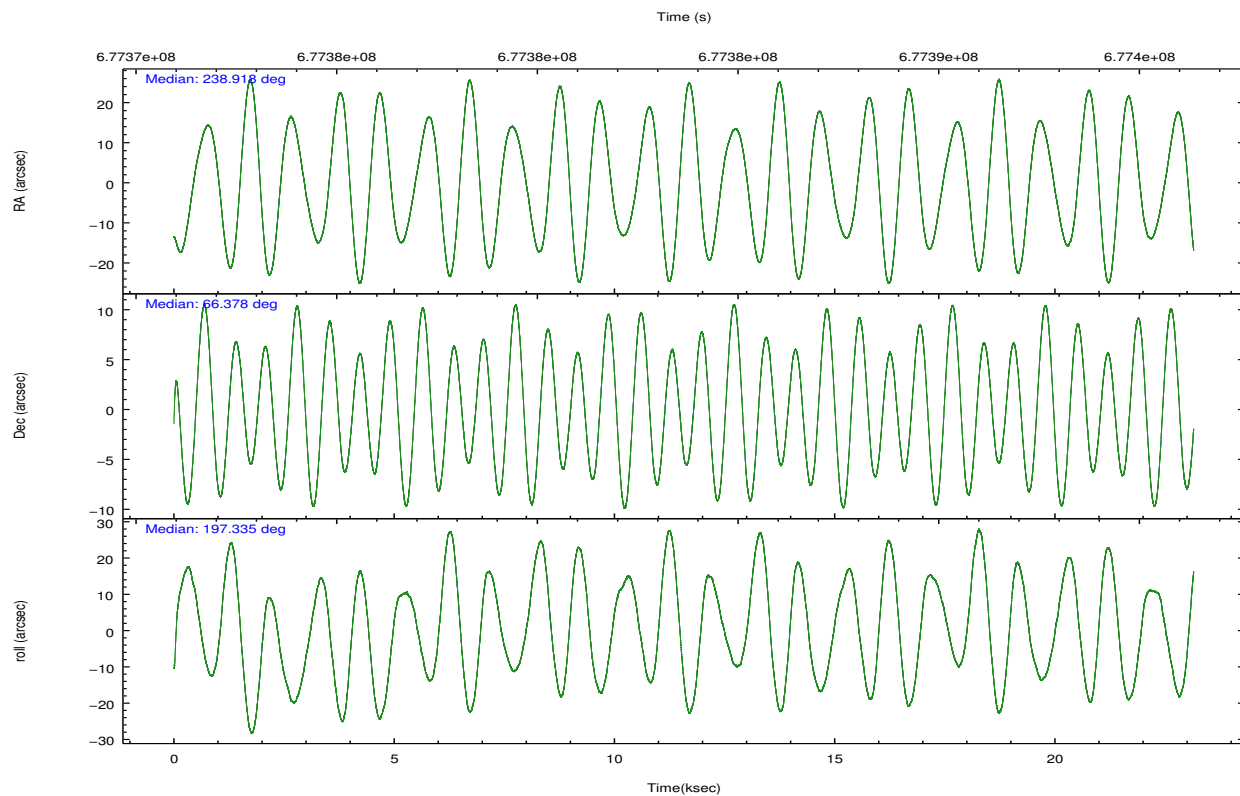
2.2 Compared Parameters

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	238.964792	238.9182586361184
[deg] Pointing Dec	66.398734	66.3783596871254
[deg] Pointing Roll	197.088375	197.3396840094657
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5899487761303
[mm] SIM translation stage offset	0	-0.002504226799430853
[s] Observation start time (MET)	677372220.184000	677371162.2281899
Observation start date	2019-06-19T22:55:51	2019-06-19T22:39:22
[s] Observation end time (MET)	677395220.184000	677396240.9047
Observation end date	2019-06-20T05:19:11	2019-06-20T05:37:20
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



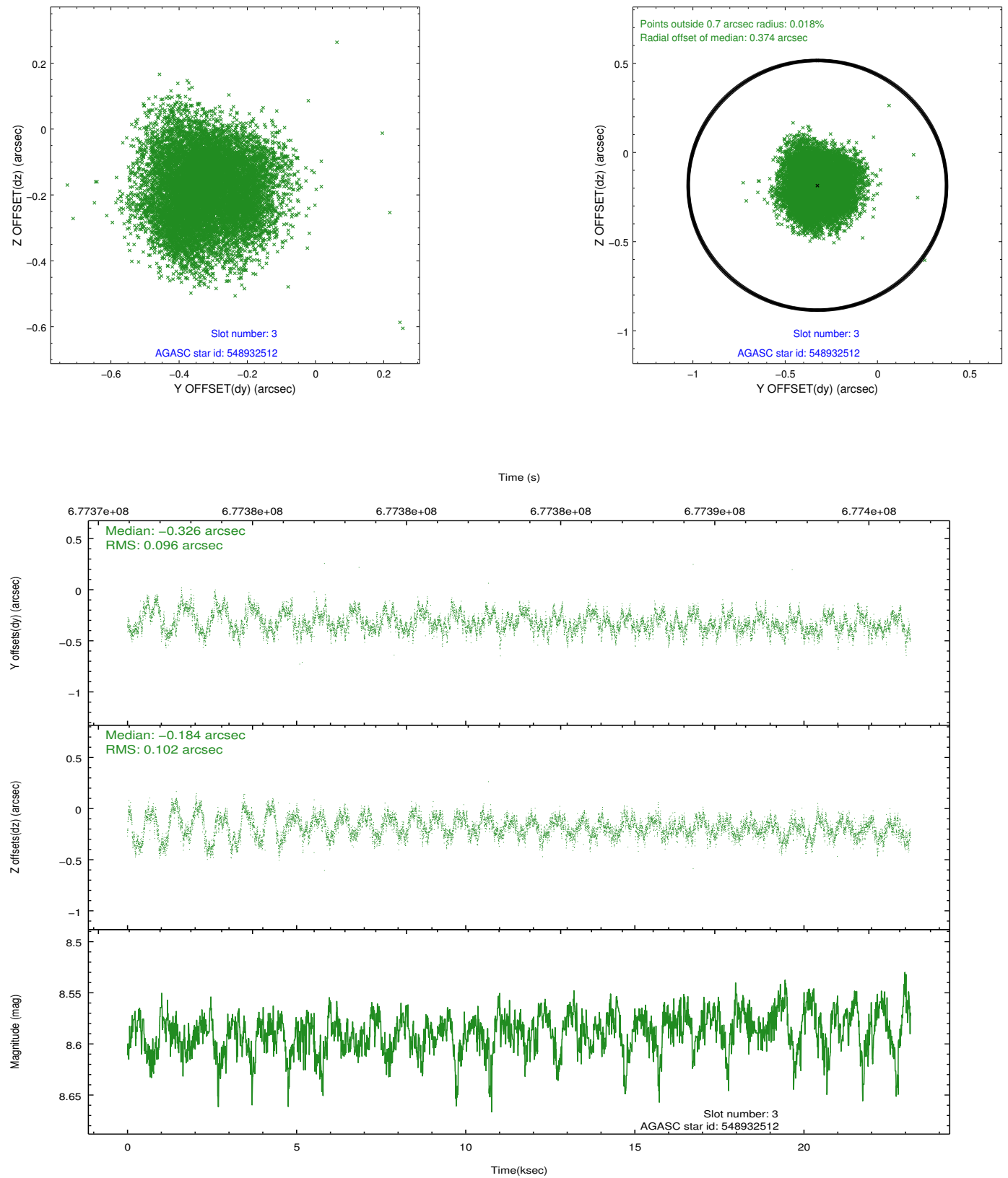


Slot Statistics

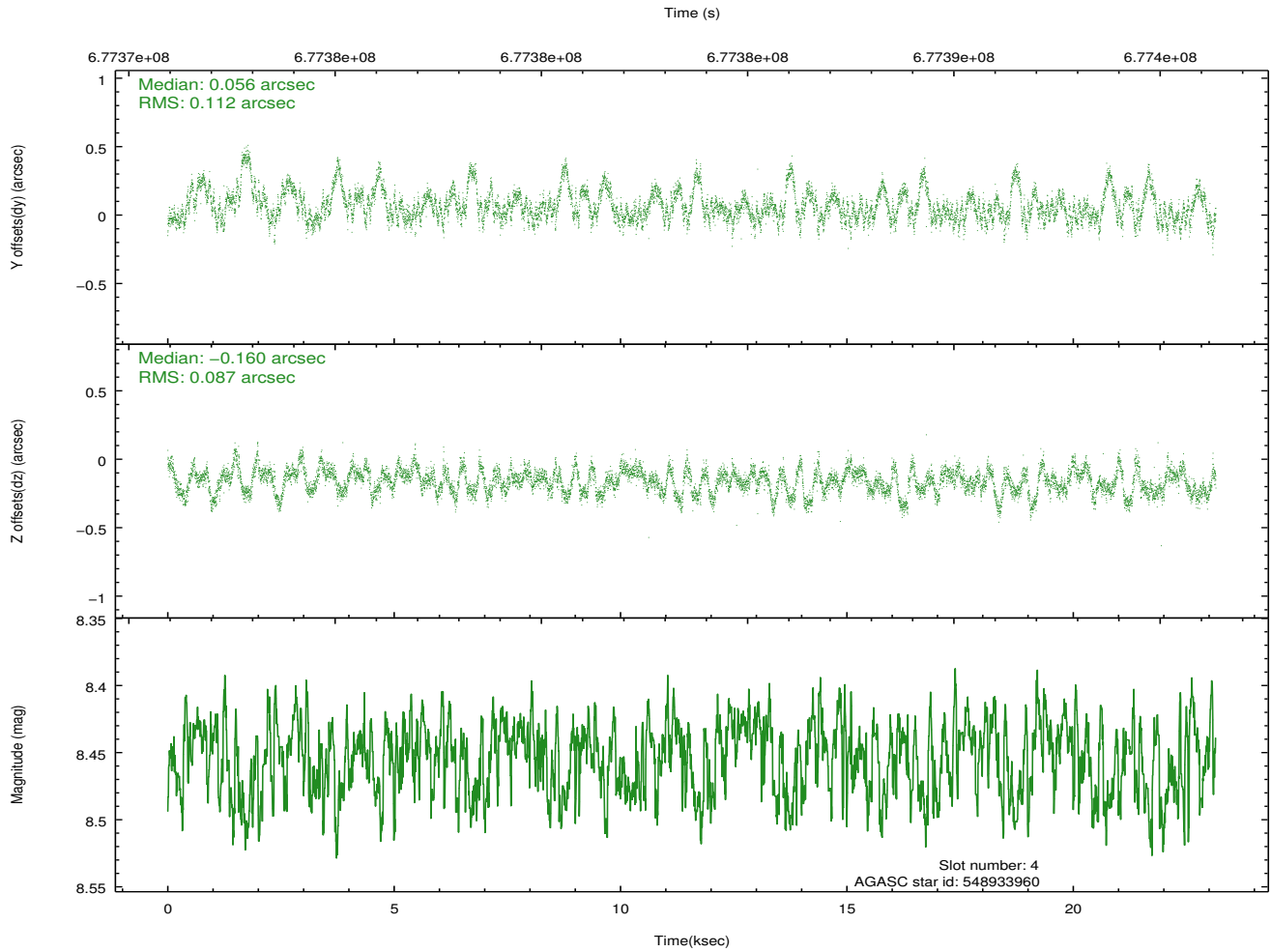
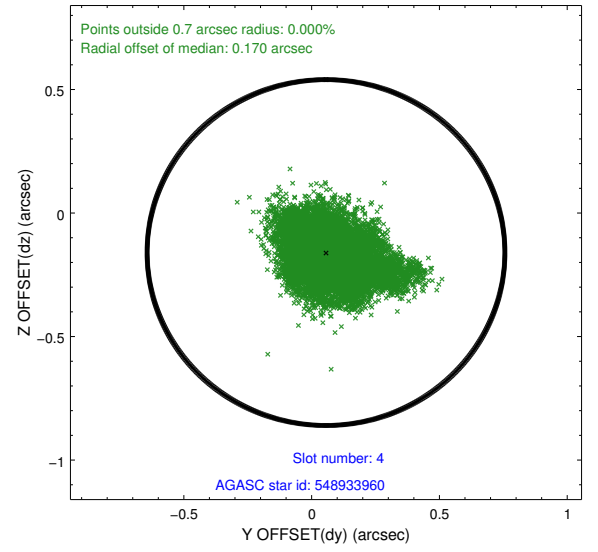
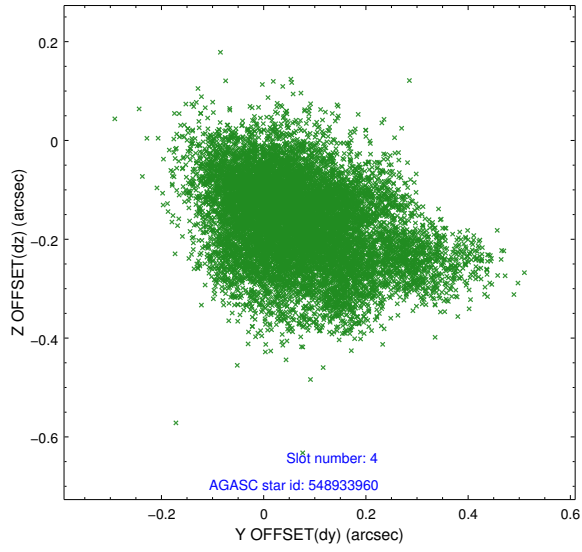
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.21	5647	1.000	0.131	-0.129	0.022	0.053	0.000000	0.000000	935.05	-840
1	FID		ACIS-I-5	7.16	5645	1.000	-0.416	0.062	0.012	0.019	0.000000	0.000000	-1813.64	1057
2	FID		ACIS-I-6	7.16	5646	1.000	0.191	0.137	0.024	0.051	0.000000	0.000000	400.36	1702
3	GUIDE	used	548932512	8.59	11284	1.000	-0.326	-0.184	0.151	0.233	239.727627	66.054972	-704.00	1503
4	GUIDE	used	548933960	8.45	11288	1.000	0.056	-0.160	0.146	0.253	237.671184	66.428675	1743.60	-667
5	GUIDE	used	548937184	9.84	11197	1.000	-0.085	0.091	0.228	0.393	238.771821	66.565432	87.97	-654
6	GUIDE	used	548939872	10.23	11267	1.000	0.317	-0.168	0.332	0.552	238.964867	66.978384	-612.57	-1994
7	GUIDE	used	549849072	9.12	11279	1.000	0.025	0.444	0.153	0.245	240.420863	66.802816	-2407.37	-806

2.4 Star Slots

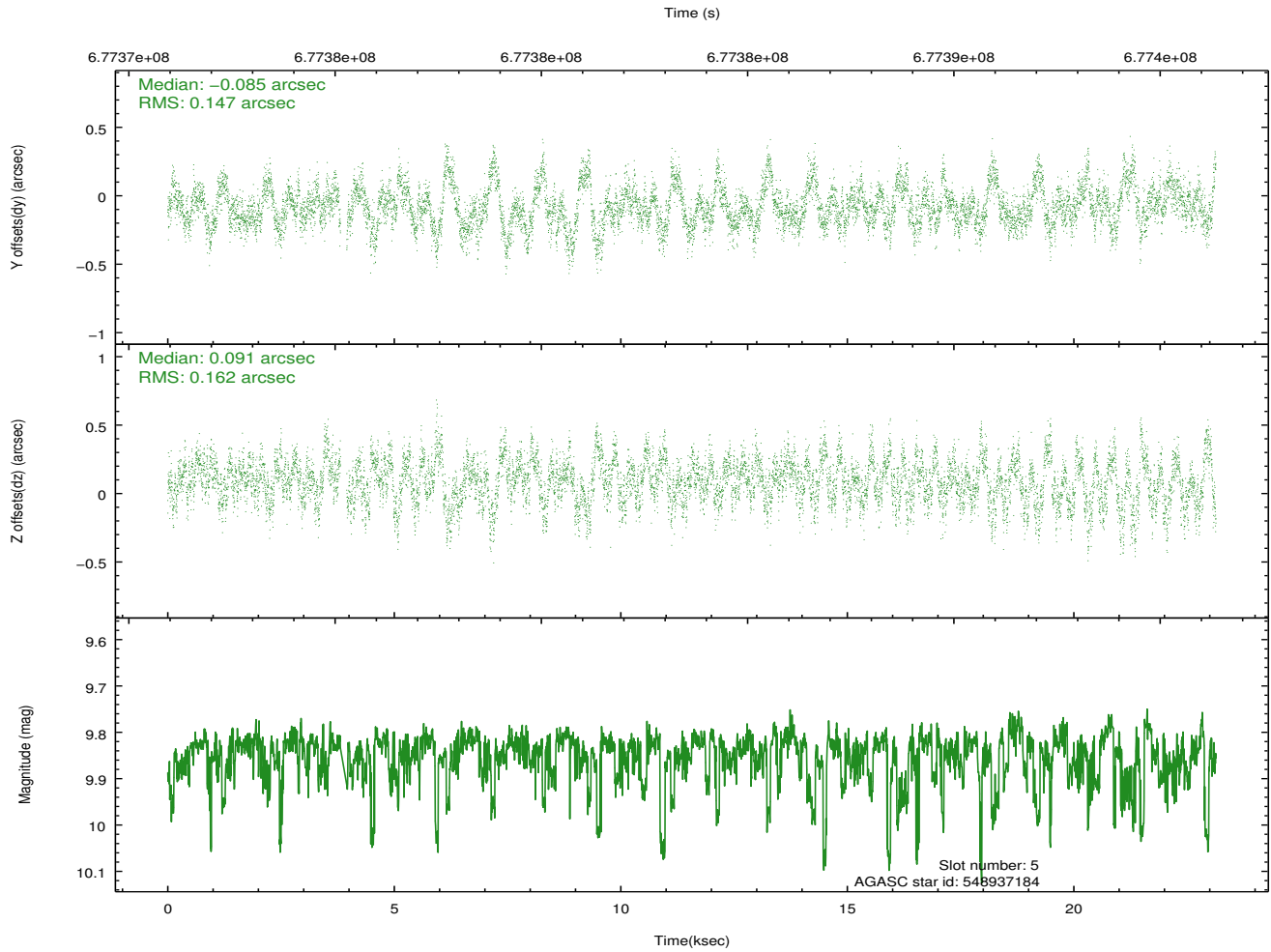
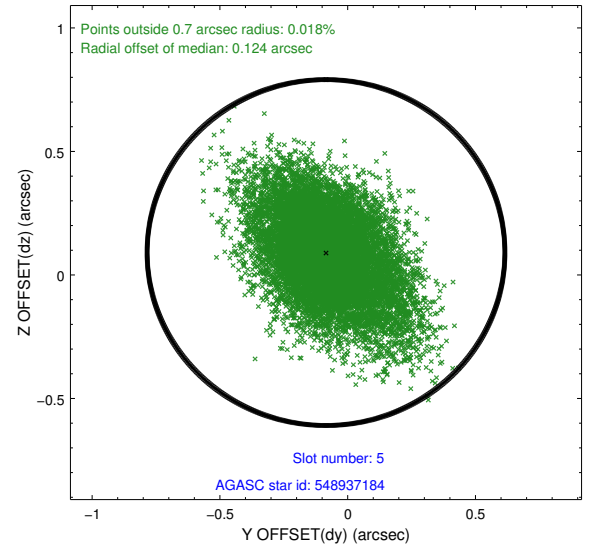
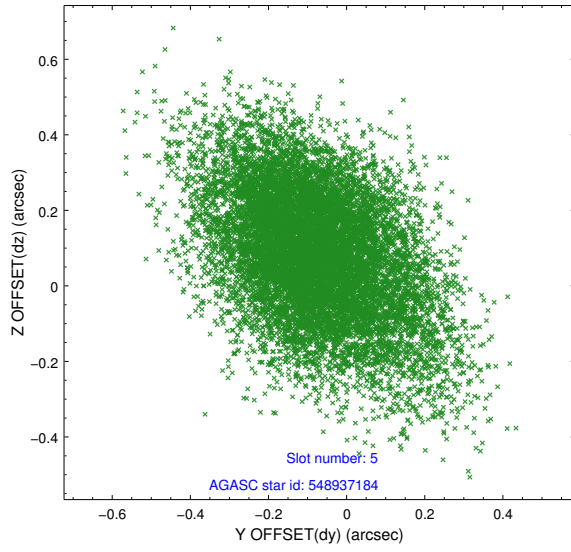
2.4.1 Slot 3



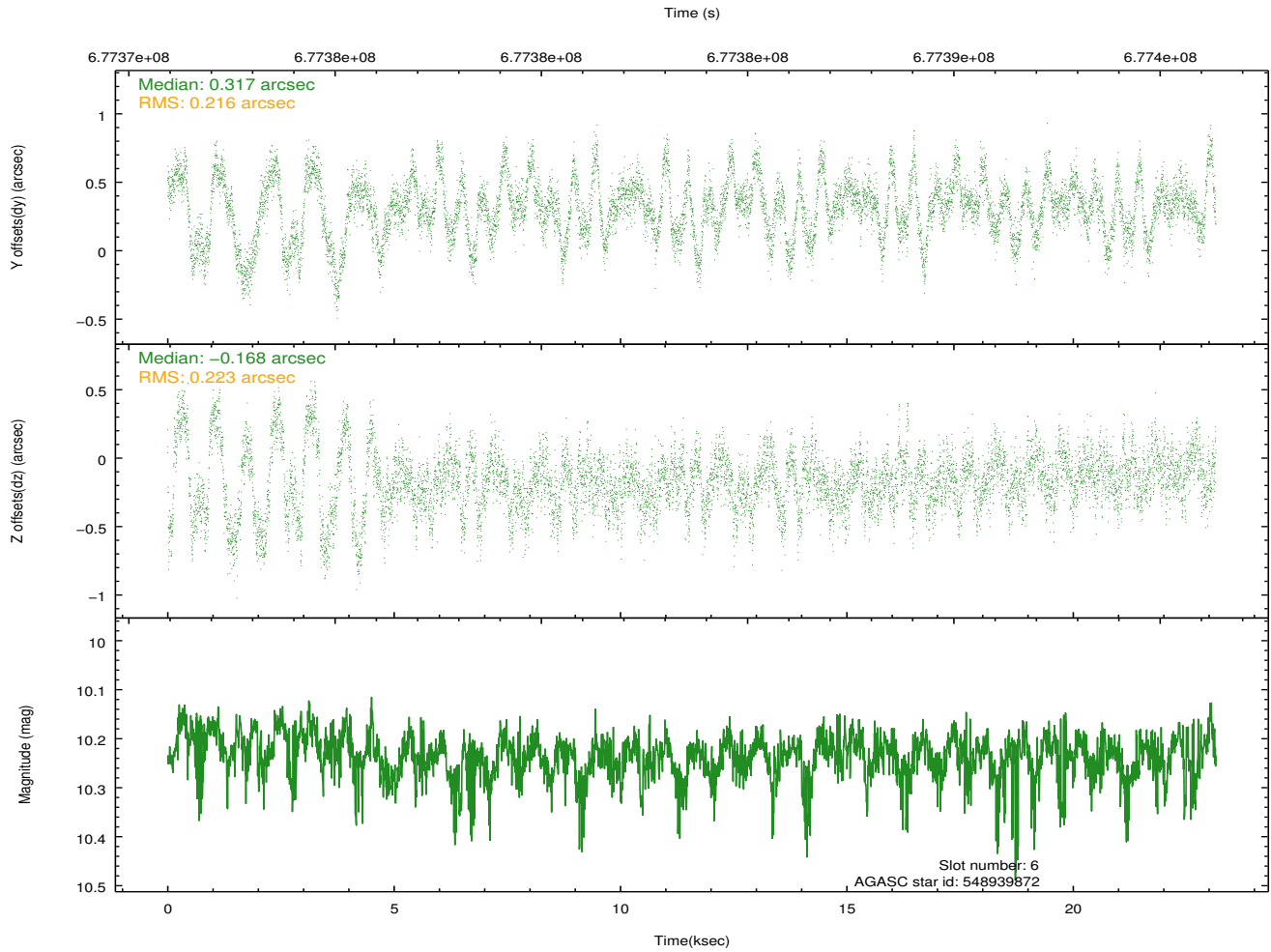
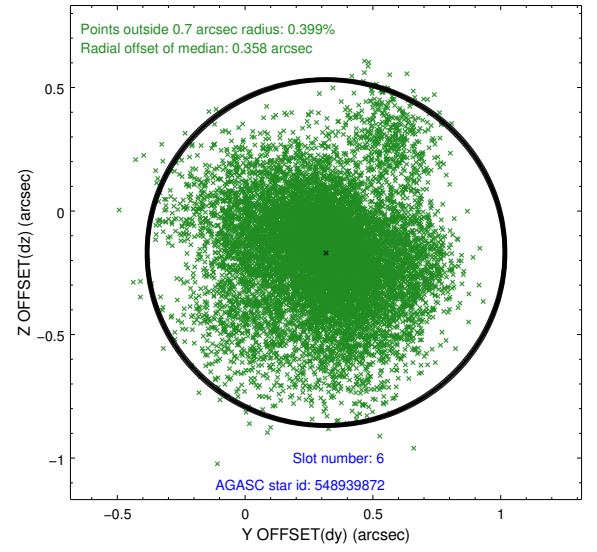
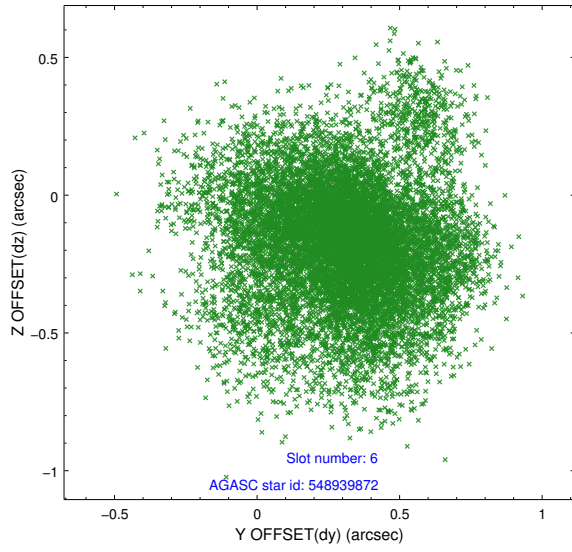
2.4.2 Slot 4



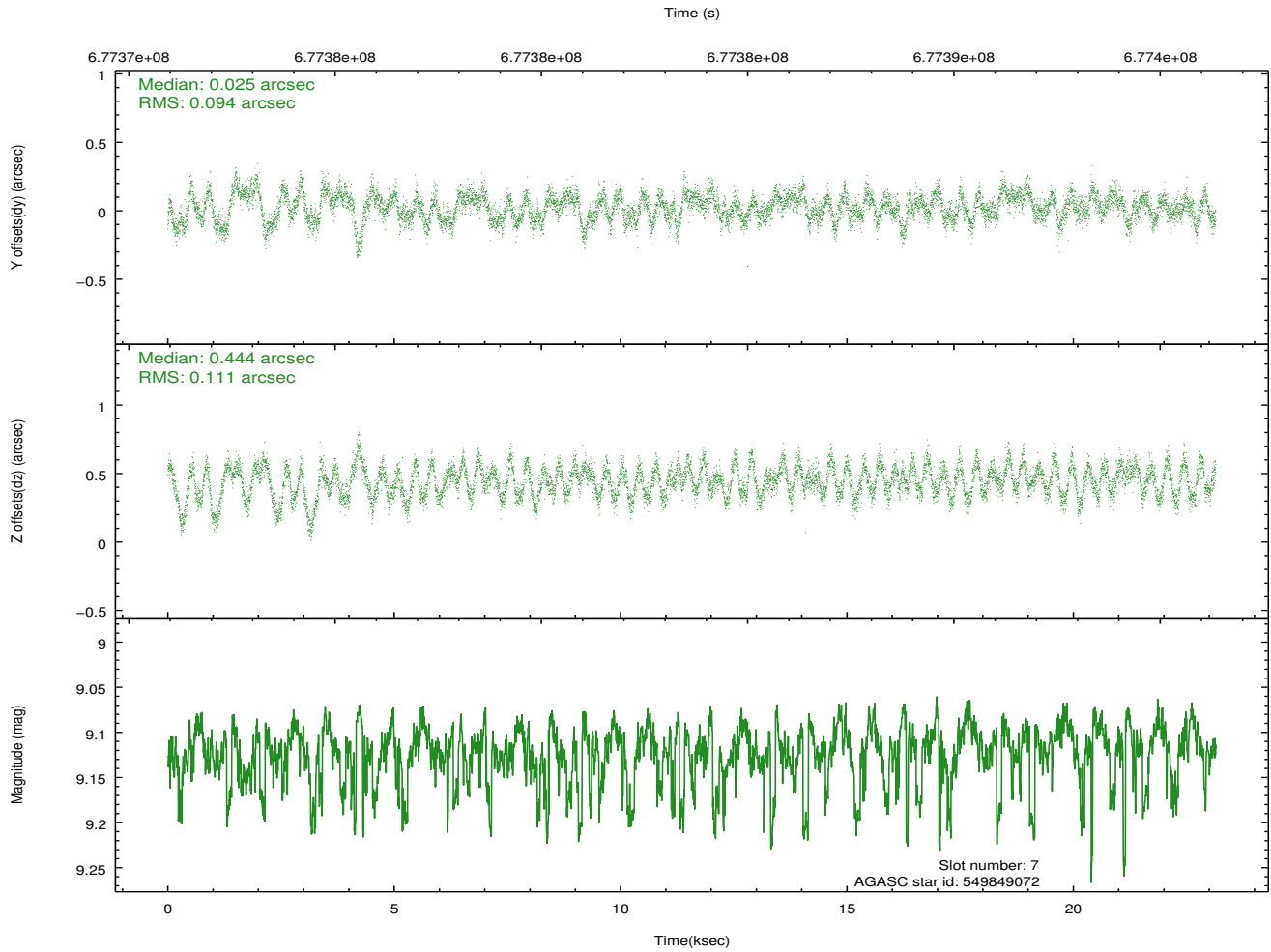
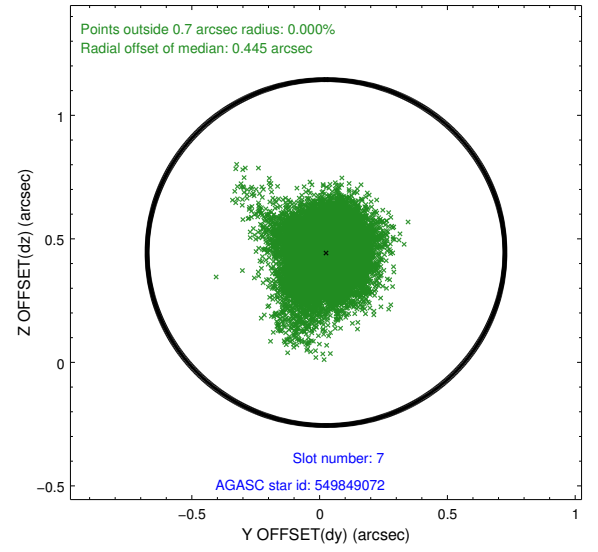
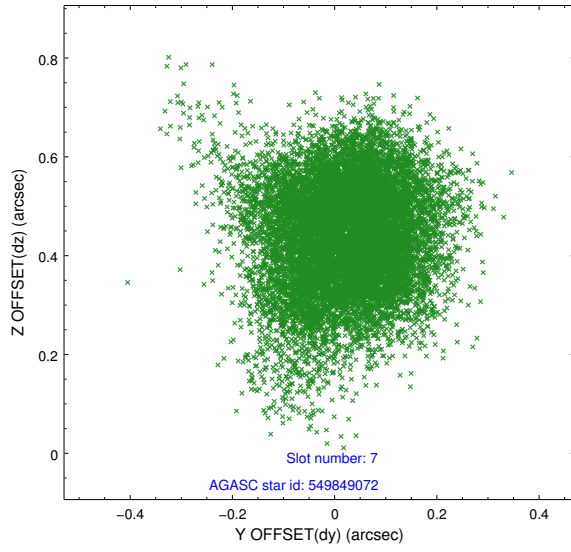
2.4.3 Slot 5



2.4.4 Slot 6

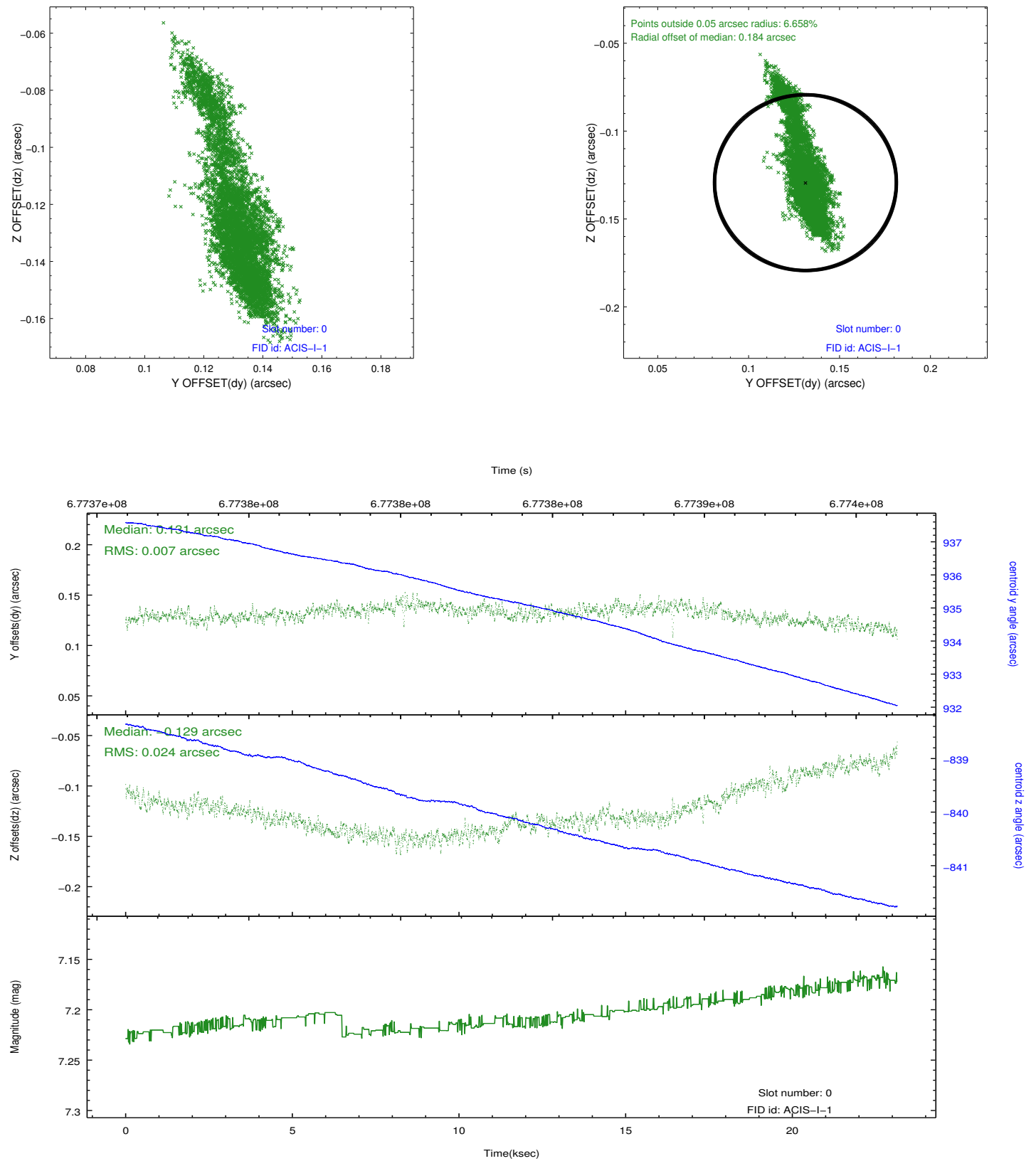


2.4.5 Slot 7

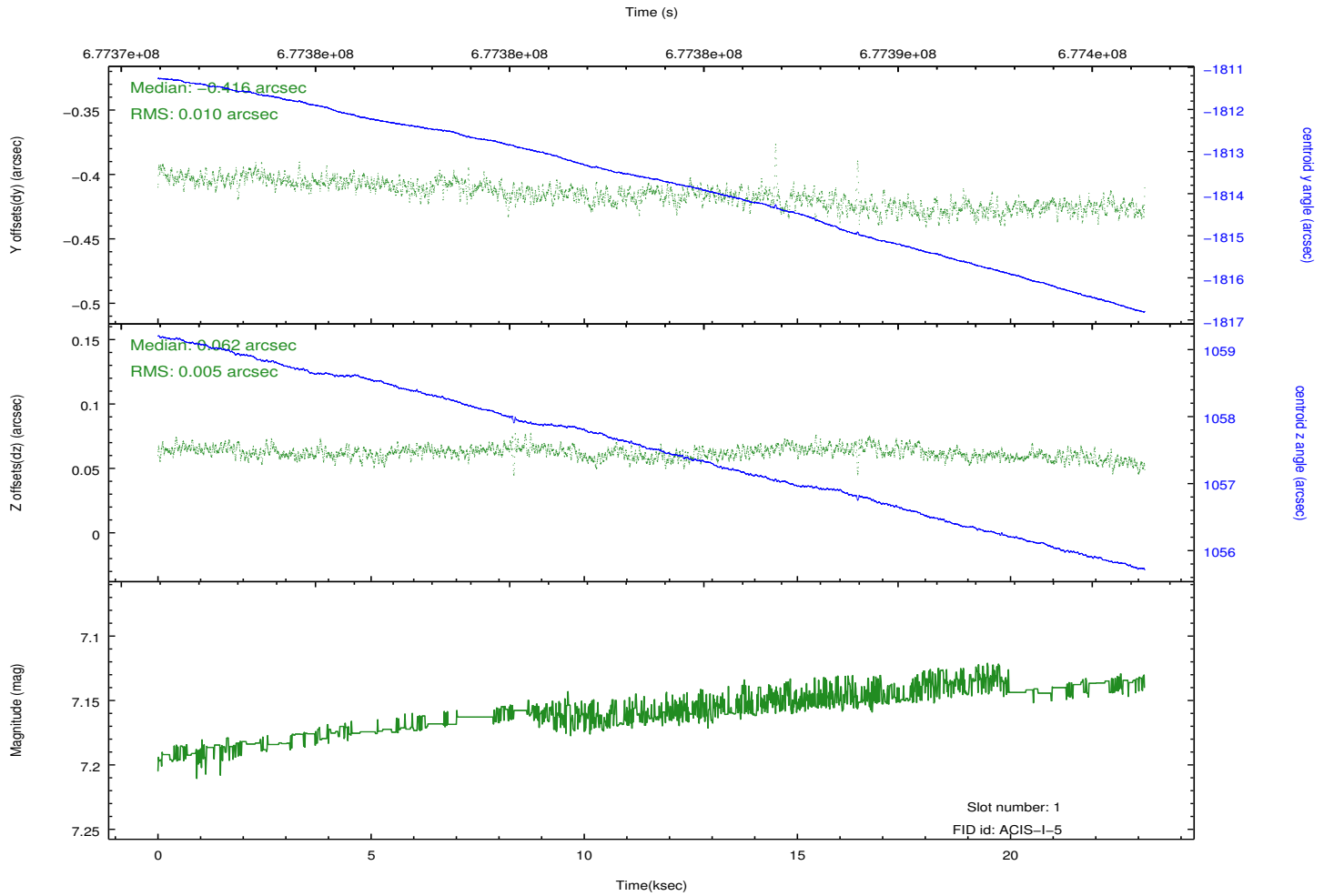
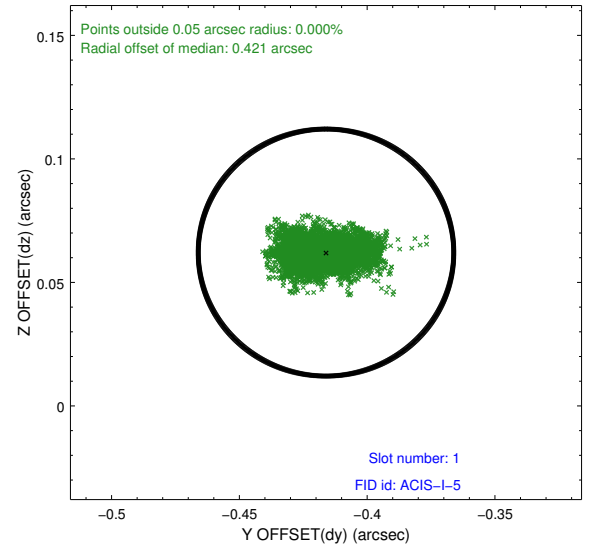
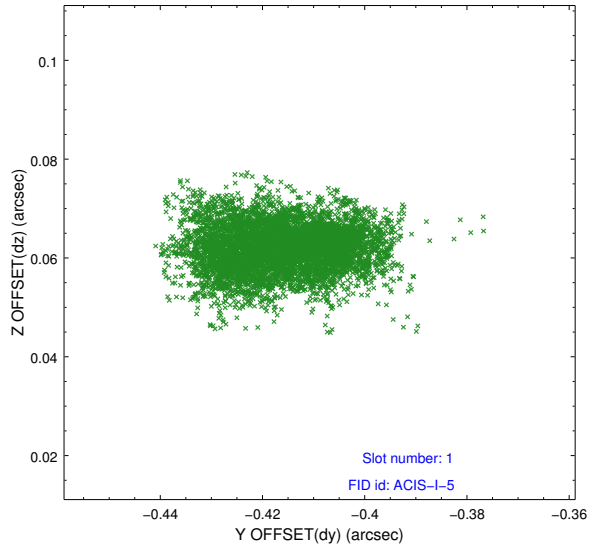


2.5 FID Slots

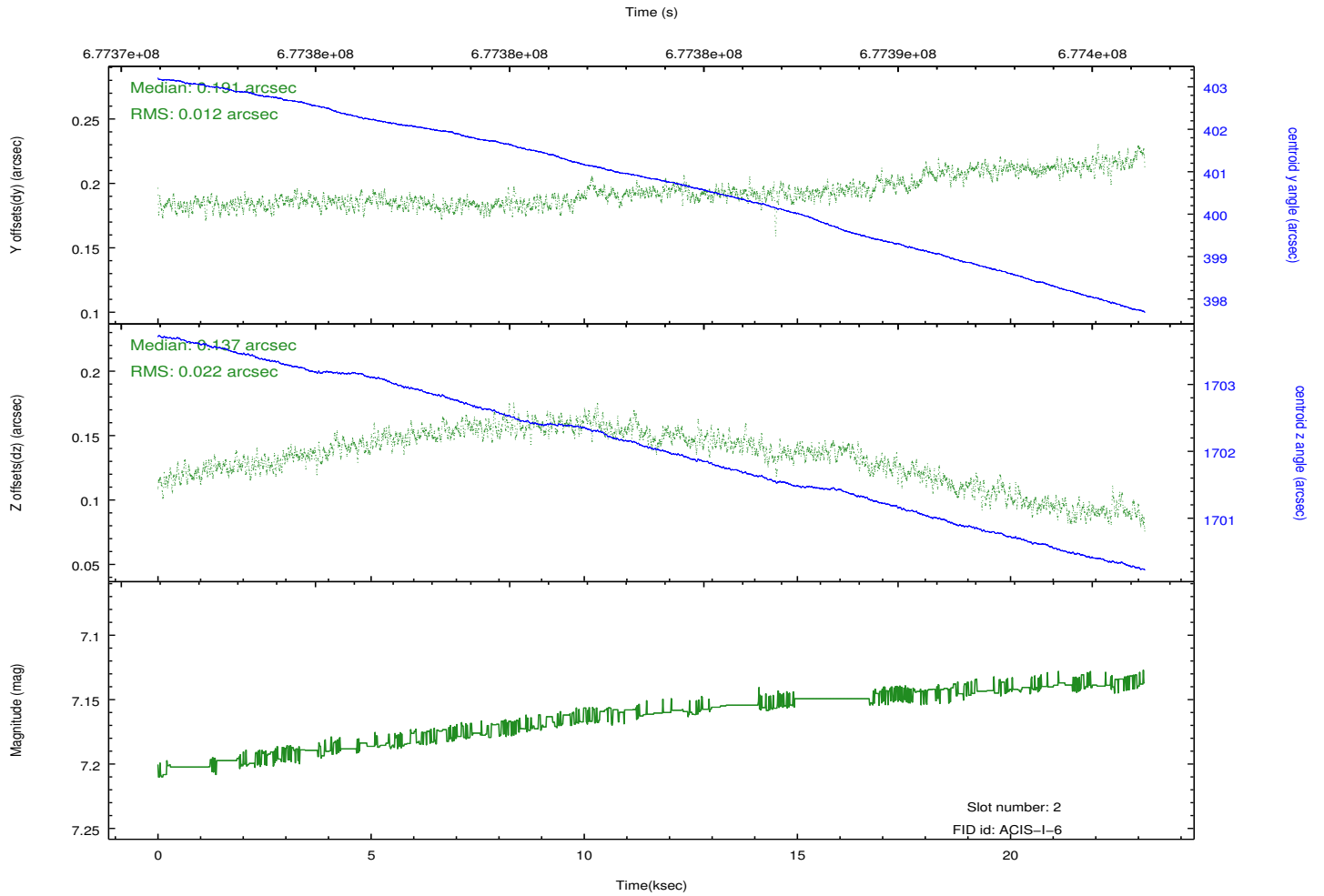
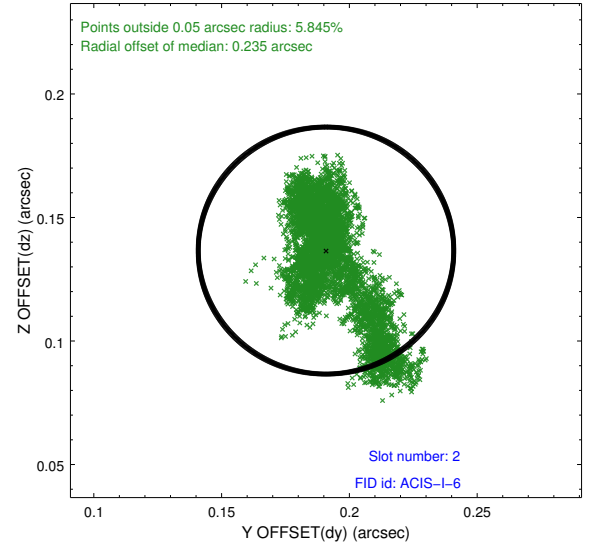
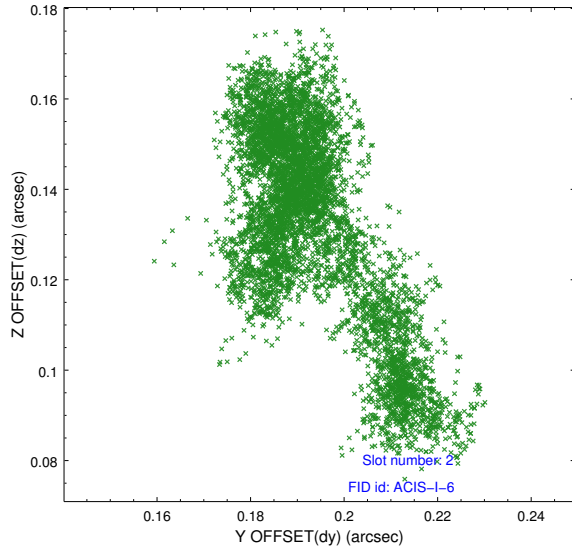
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2019.06.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.051436256647

A.2 Comments