

V&V Reference Report

L2 ASCDS Version : 10.4.2.1

Observation 18682 - L2 Version 1
Chandra X-Ray Center

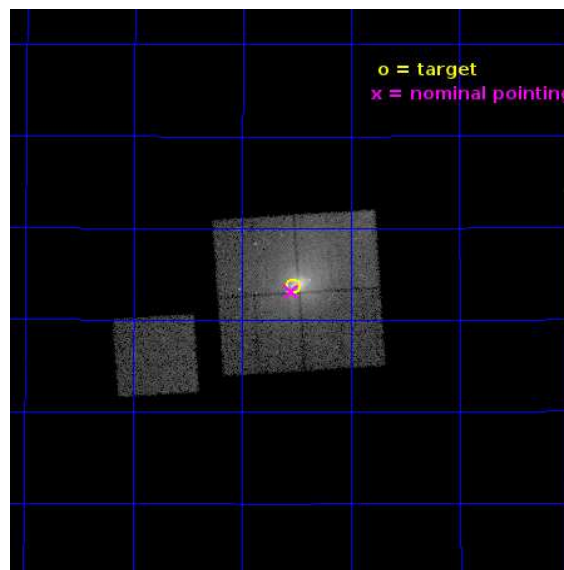
L2 Processing Date : Oct 14 2015

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

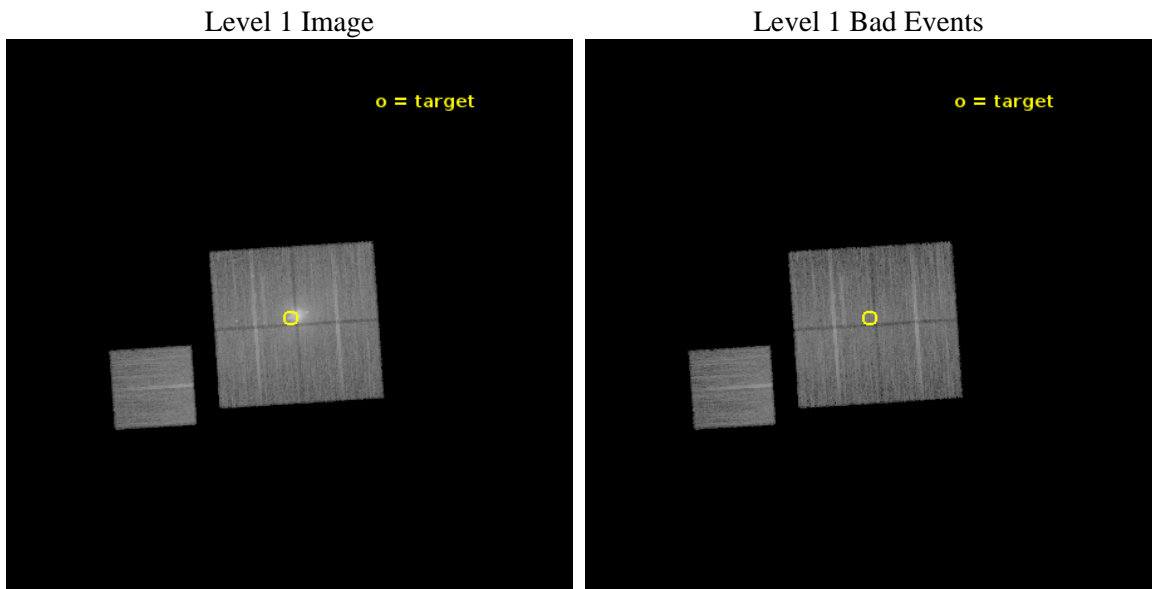
seq_num	703133	Sequence number
obs_id	18682	Observation id
title	The Rise to Power: Half a Billion Years of Intense AGN Activity in the Merging Cluster Cygnus A	Proposal title
observer	Dr. Michael Wise	Principal investigator
object	Cygnus A - E Hotspot	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	299.883333	Observer's specified target RA [deg]
dec_targ	40.727889	Observer's specified target Dec [deg]
ra_nom	299.88683235409	Nominal RA [deg]
dec_nom	40.718214161072	Nominal Dec [deg]
roll_nom	266.20641046207	Nominal Roll [deg]
revision	1	Processing version of data
ontime	23079.054587007	Sum of GTIs [s]
livetime	22777.509748275	Livetime [s]
ontime0	23075.790456772	Sum of GTIs [s]
ontime1	23075.831466913	Sum of GTIs [s]
ontime2	23079.013547063	Sum of GTIs [s]
ontime3	23079.054587007	Sum of GTIs [s]
ontime6	23078.890426993	Sum of GTIs [s]
l2events	168225	Number of level 2 events



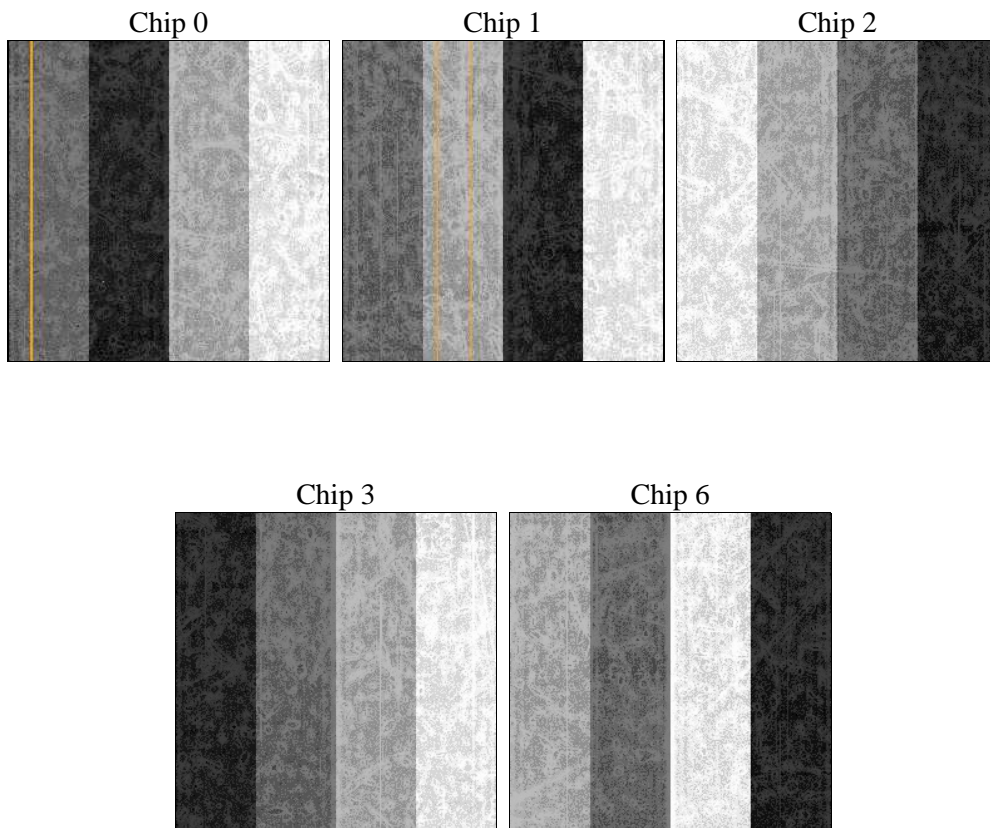
2 OBI

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	10.4.2.1	Processing system revision	ontime	23079.054587007	Sum of GTIs [s]
caldbver	4.6.10a	 	ontime0	23075.790456772	Sum of GTIs [s]
date	2015-10-15T01:37:08	Date and time of file creation	ontime1	23075.831466913	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	23079.013547063	Sum of GTIs [s]
			ontime3	23079.054587007	Sum of GTIs [s]
			ontime6	23078.890426993	Sum of GTIs [s]
			l1events	716451	Number of level 1 events

2.1.4 Events

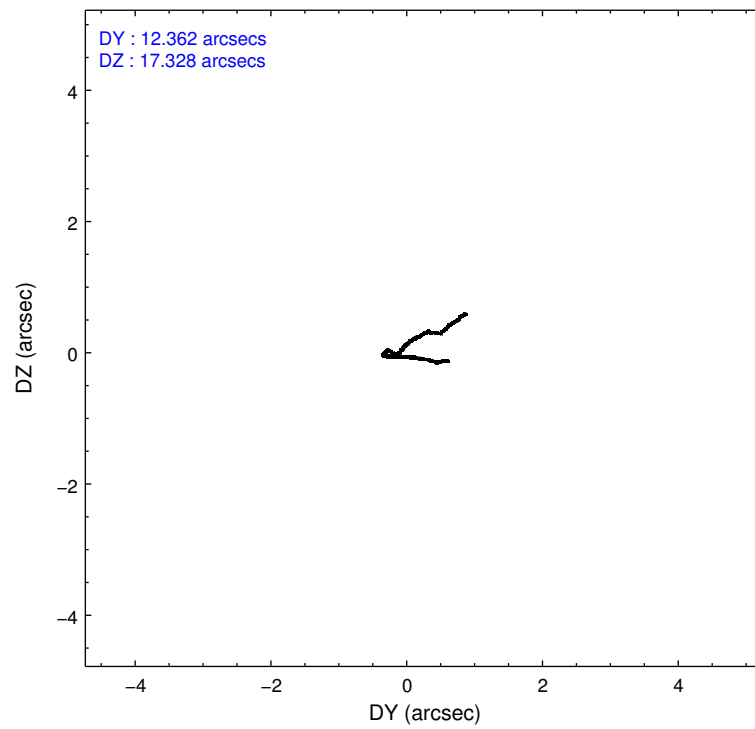
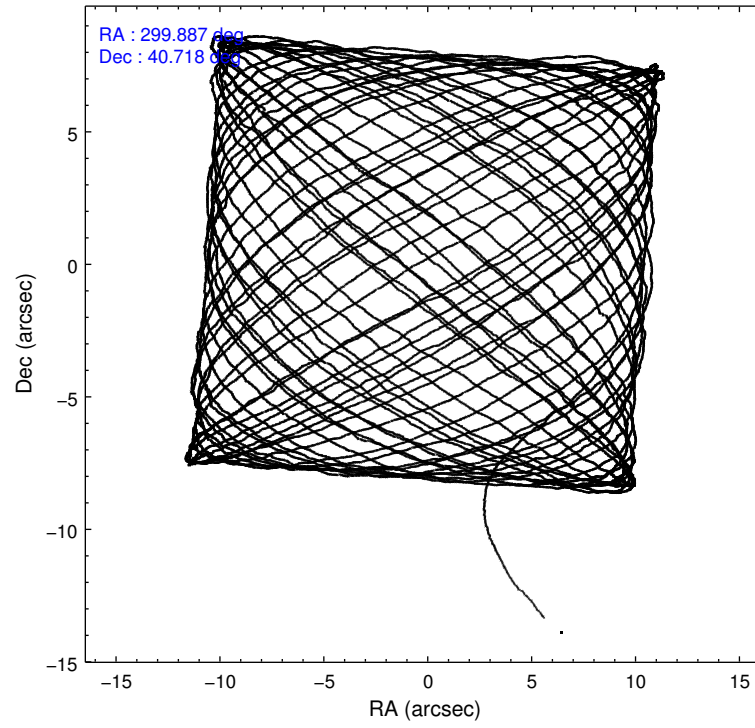
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	121288	178367	133359	156510	126927
rejected events	97472	103505	110495	107545	112034
rejected %	80%	58%	82%	68%	88%

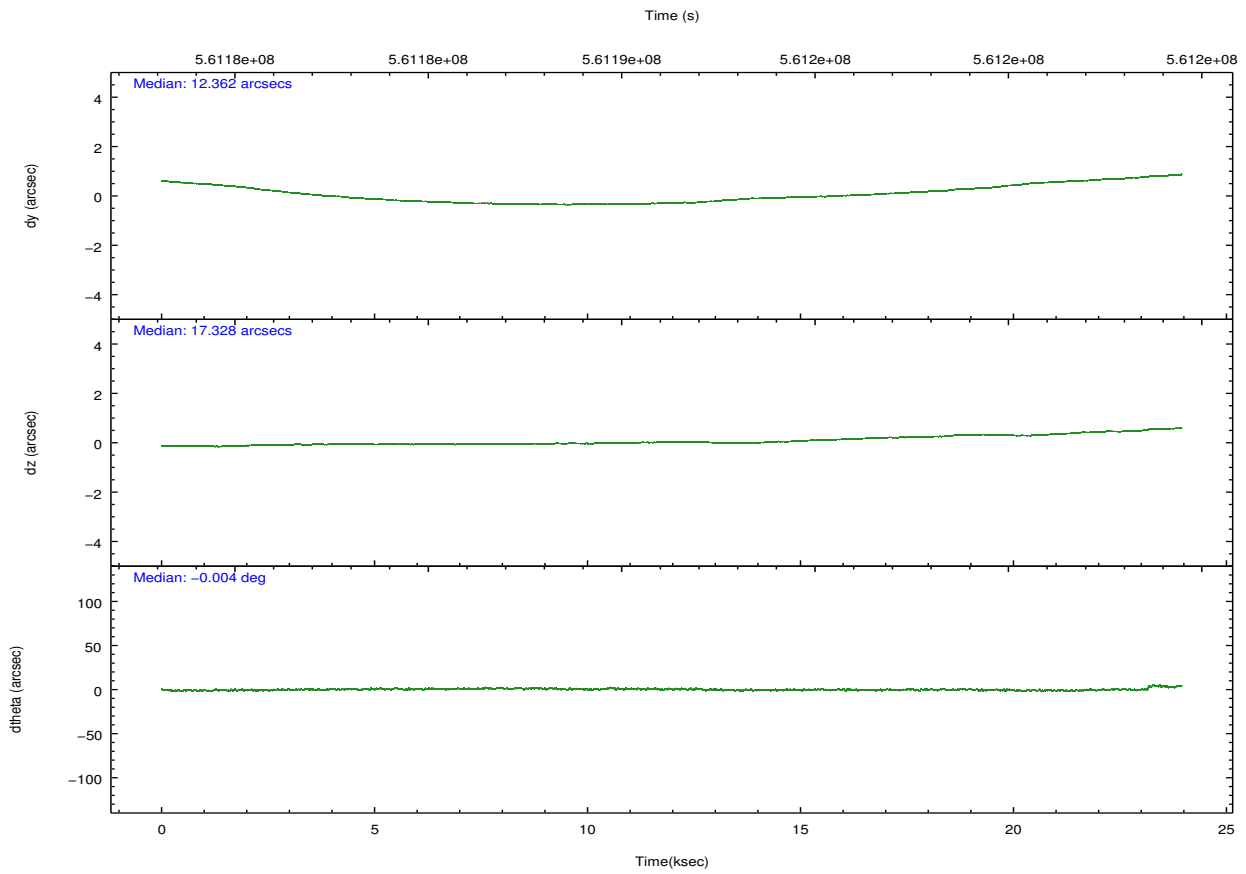
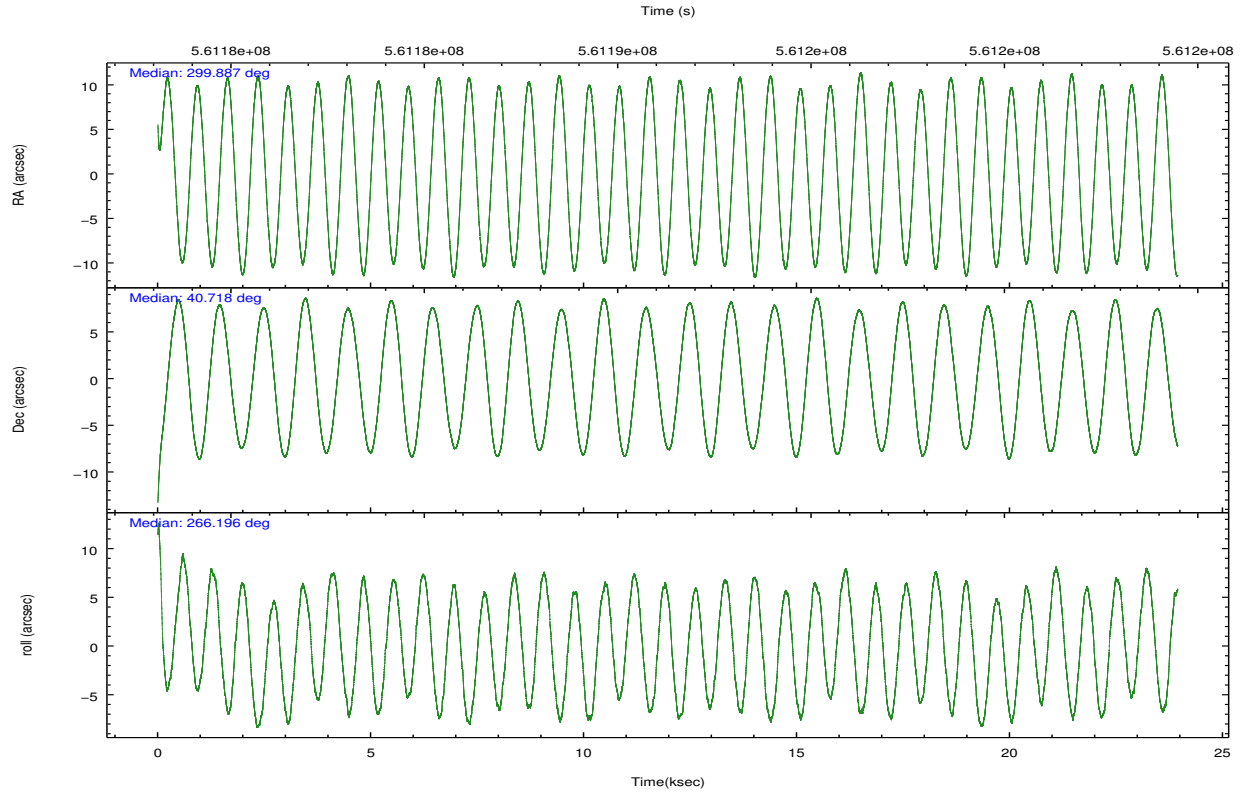
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	12636	48476	12432	32807	5151
	10%	27%	9%	20%	4%
grade 1 events	84	323	99	195	55
	0%	0%	0%	0%	0%
grade 2 events	4569	13264	4083	6789	3391
	3%	7%	3%	4%	2%
grade 3 events	1690	3489	1699	2698	1406
	1%	1%	1%	1%	1%
grade 4 events	1638	3350	1679	2619	1384
	1%	1%	1%	1%	1%
grade 5 events	5376	5985	5019	6405	5850
	4%	3%	3%	4%	4%
grade 6 events	3284	6289	2973	4063	3562
	2%	3%	2%	2%	2%
grade 7 events	92011	97191	105375	100934	106128
	75%	54%	79%	64%	83%

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	299.870603	299.8868323540932	CCD I2 on	Y	Y
[deg] Pointing Dec	40.742930	40.71821416107219	CCD I3 on	Y	Y
[deg] Pointing Roll	266.008314	266.2064104620708	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)	561180276.184000	561178606.82884	CCD S5 on	N	N
Observation start date	2015-10-14T03:23:28	2015-10-14T02:56:46	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	561203276.184000	561203992.49278	On-chip summing requested	N	N
Observation end date	2015-10-14T09:46:48	2015-10-14T09:59:52	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



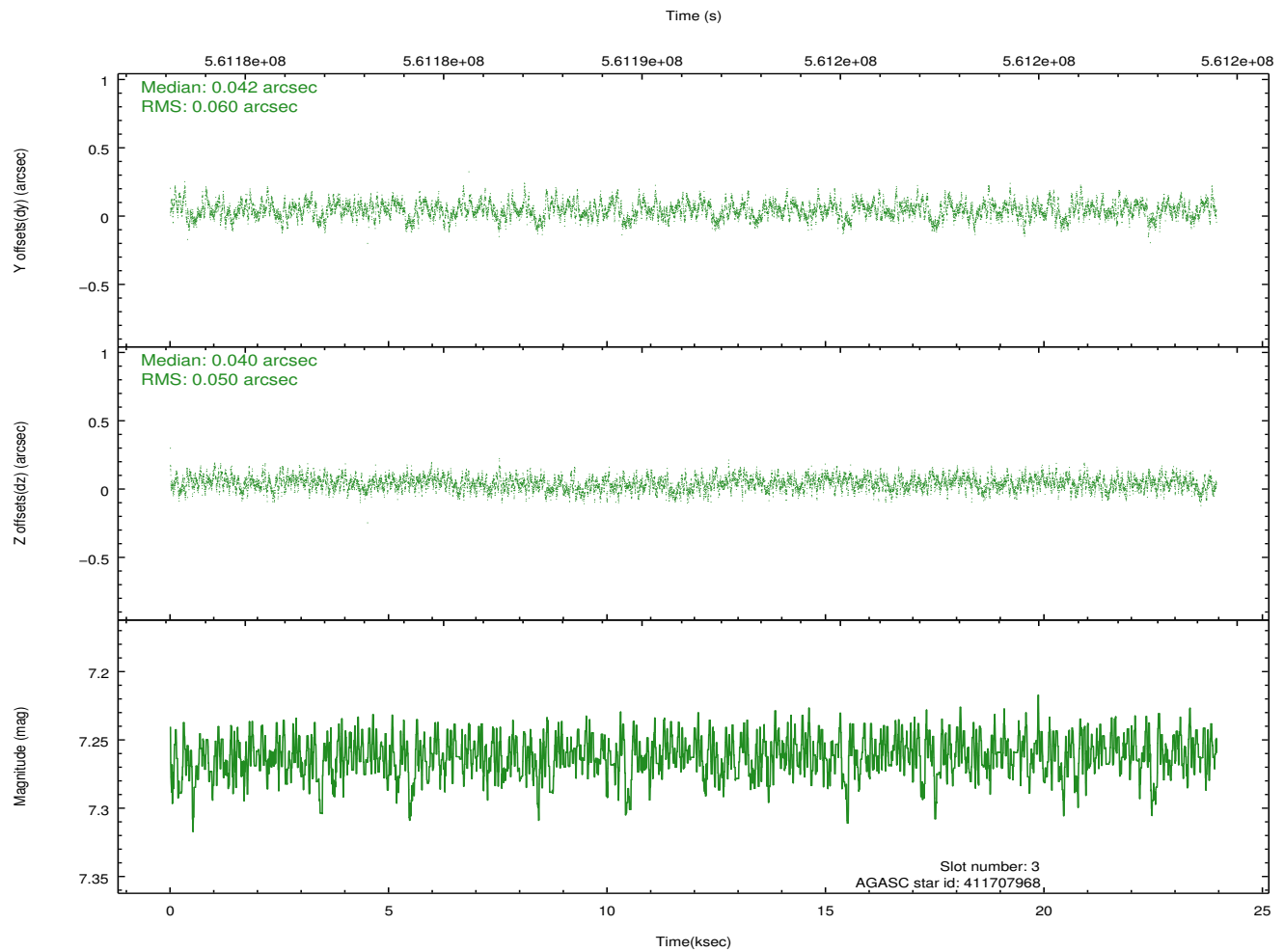
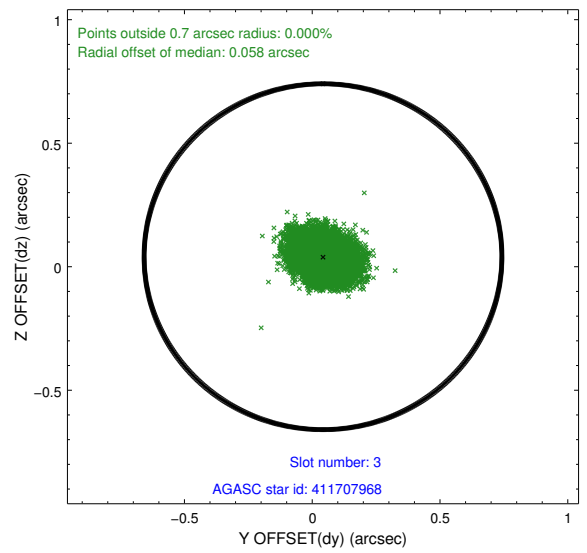
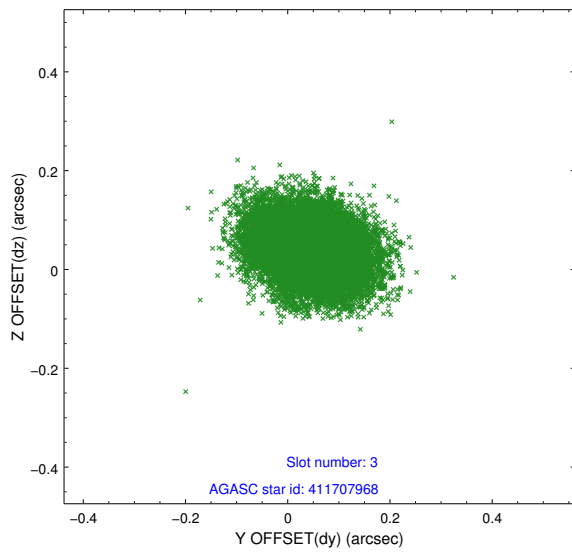


Slot Statistics

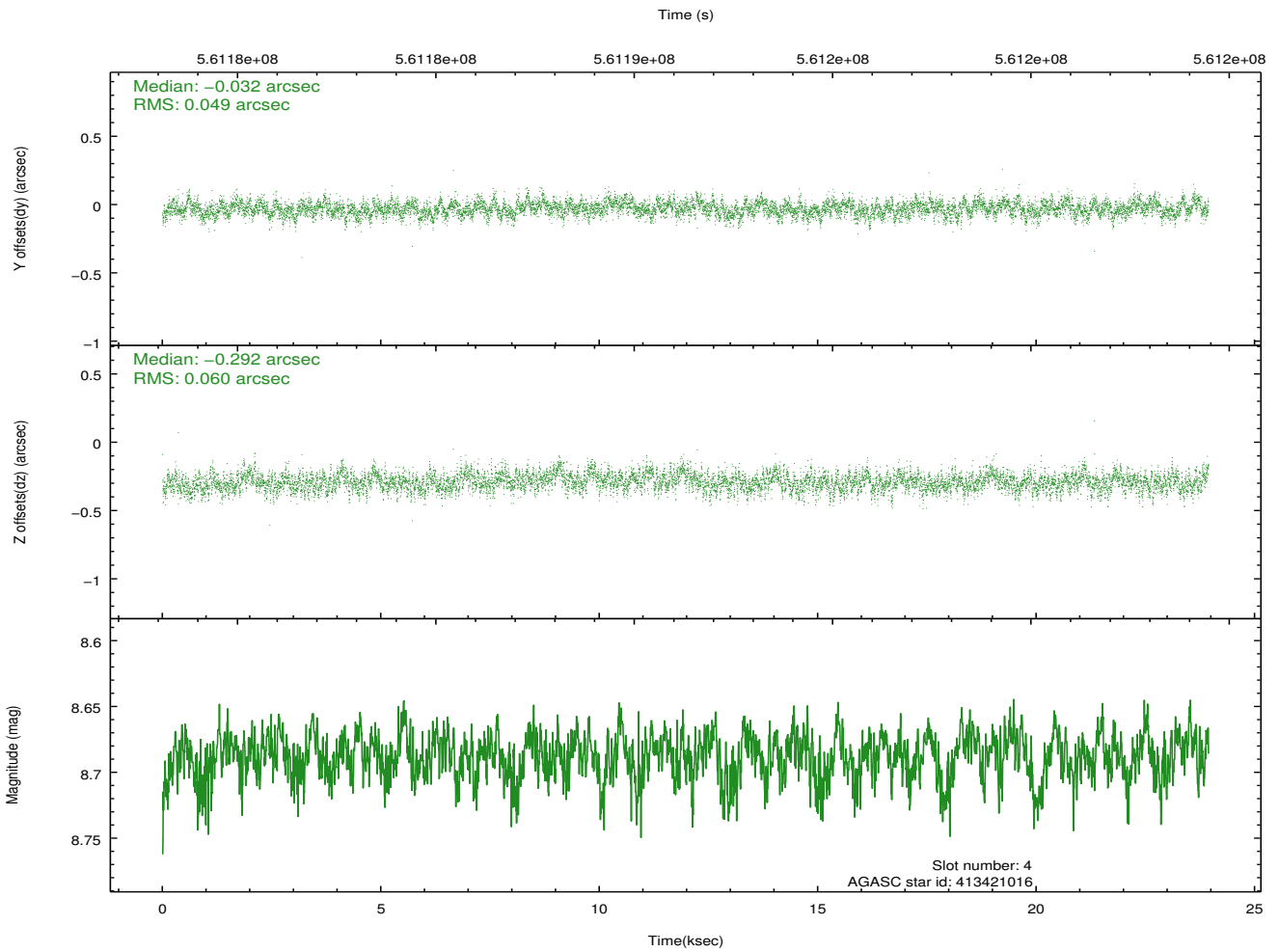
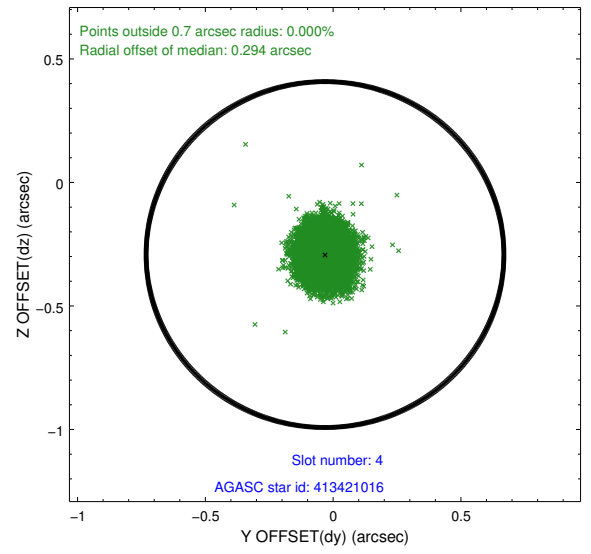
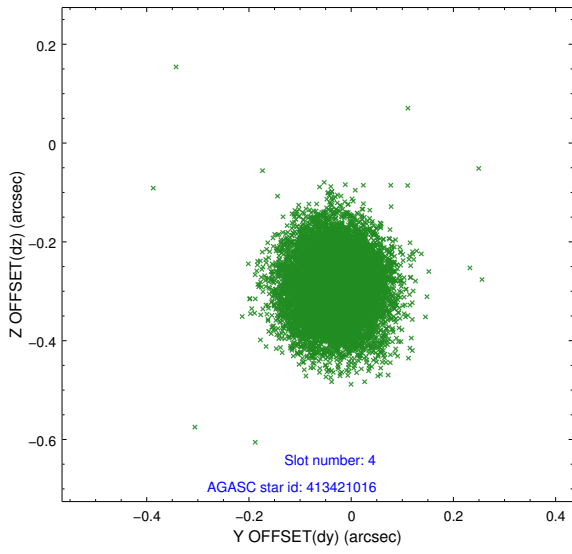
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.25	5840	-0.031	-0.106	0.015	0.030	0.000000	0.000000	927.08	-841.15
1	FID		ACIS-I-4	7.17	5839	0.316	0.112	0.017	0.036	0.000000	0.000000	2147.48	1058.84
2	FID		ACIS-I-5	7.25	5839	-0.385	0.064	0.014	0.027	0.000000	0.000000	-1821.17	1056.66
3	GUIDE	used	411707968	7.26	11678	0.042	0.040	0.083	0.135	299.509933	40.926839	-593.99	-1024.49
4	GUIDE	used	413421016	8.69	11678	-0.032	-0.292	0.082	0.134	300.612426	40.446254	915.38	2101.17
5	GUIDE	used	413937088	7.99	11679	0.029	0.105	0.087	0.151	300.780094	41.277874	-2105.37	2319.97
6	GUIDE	used	411722416	7.82	11679	0.293	-0.141	0.116	0.191	298.936507	40.391736	1426.83	-2467.25
7	GUIDE	used	413929808	8.44	11678	-0.321	0.285	0.087	0.151	300.621353	41.348826	-2326.25	1871.60

2.4 Star Slots

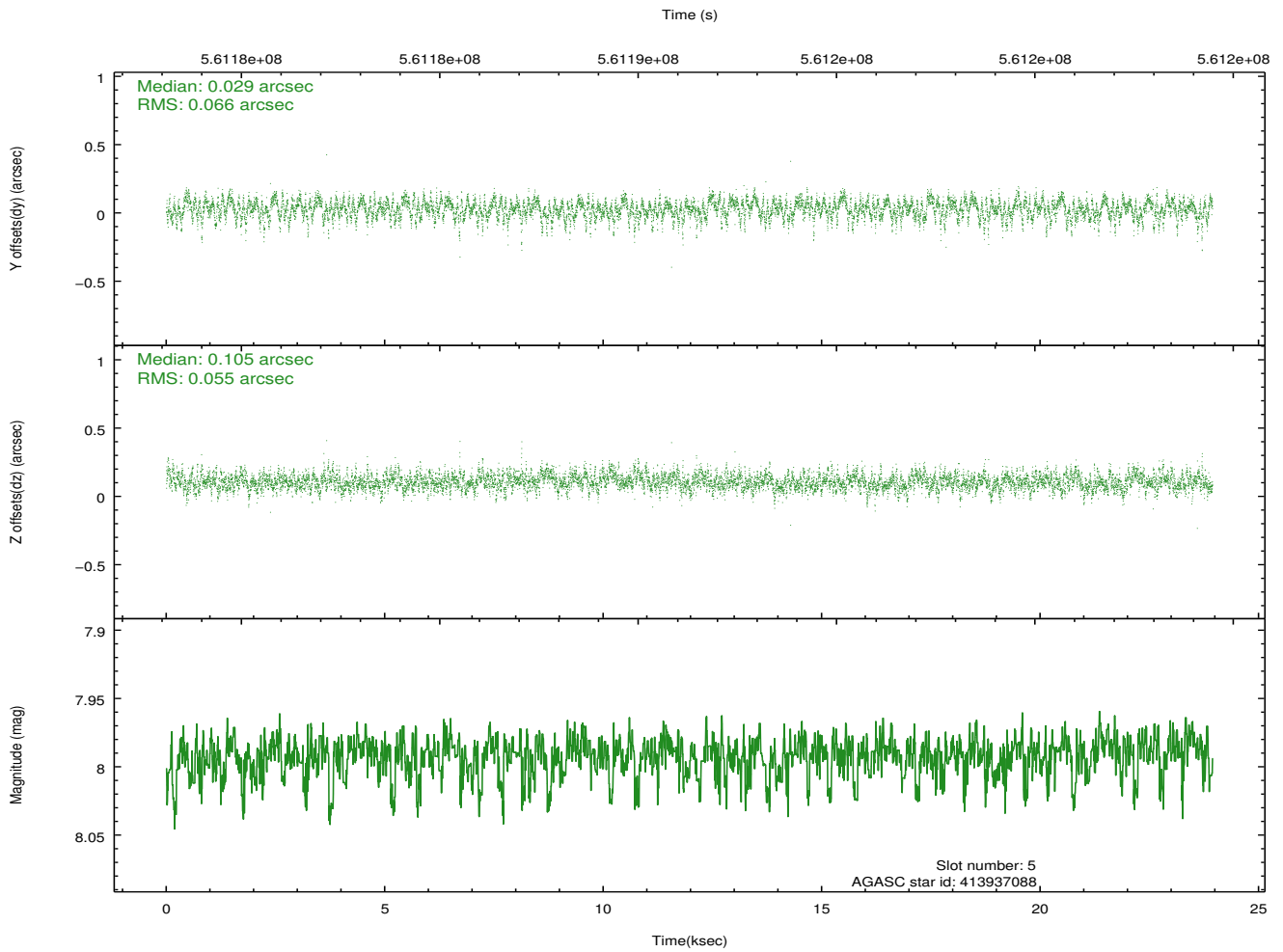
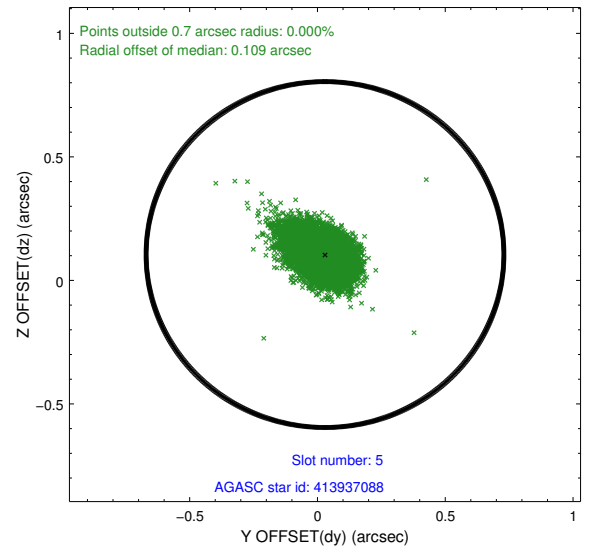
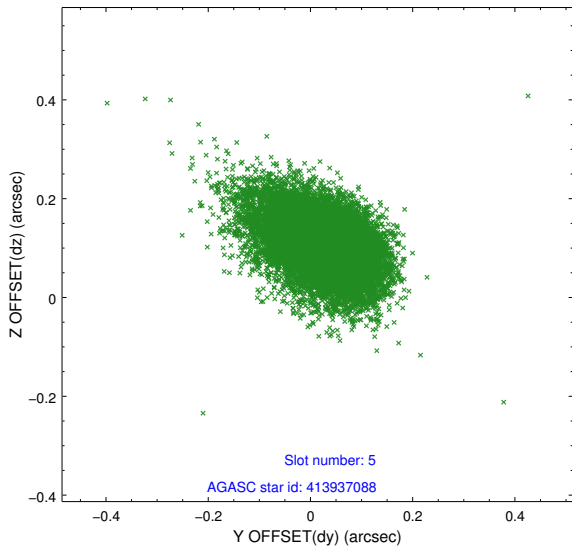
2.4.1 Slot 3



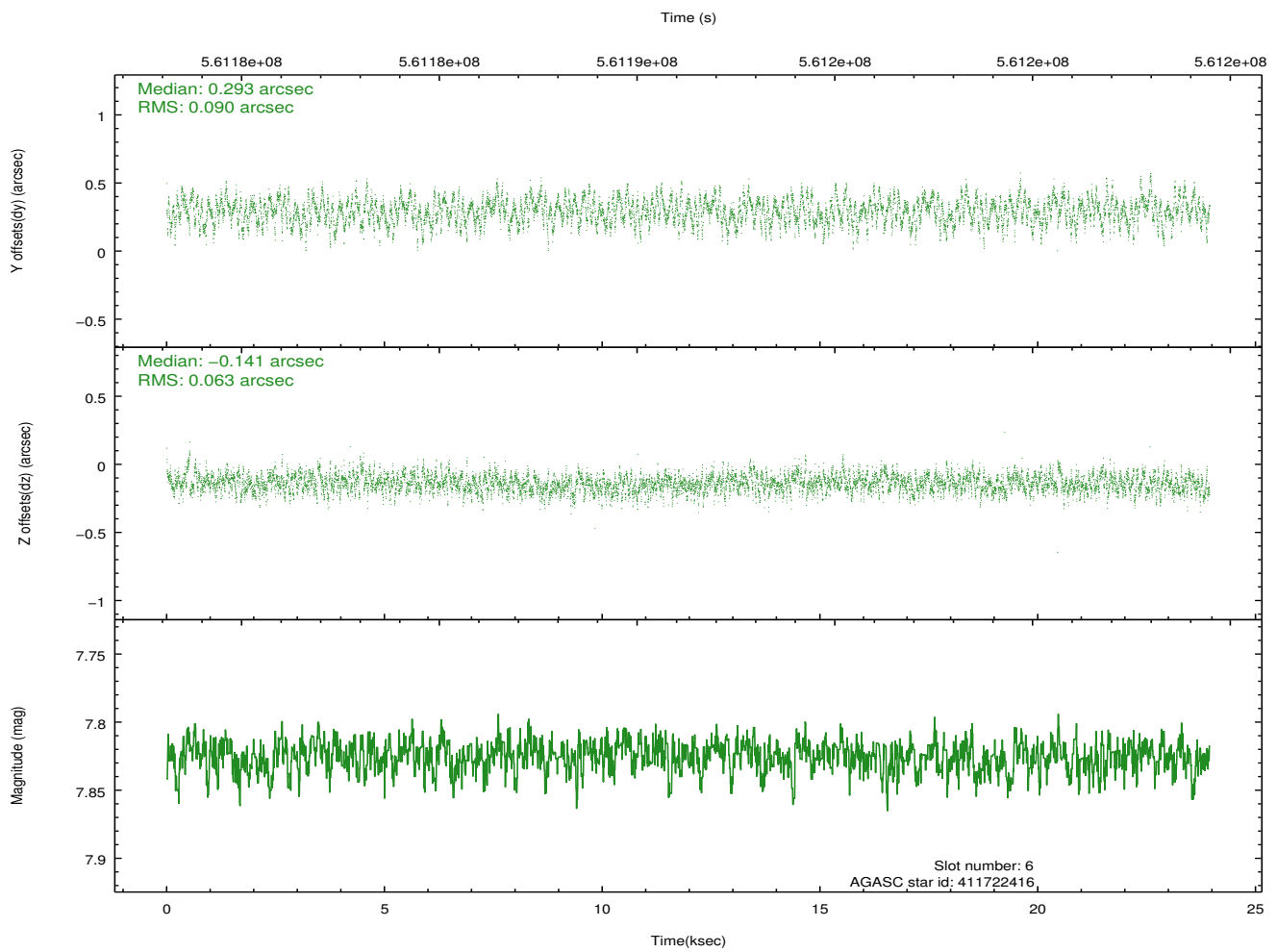
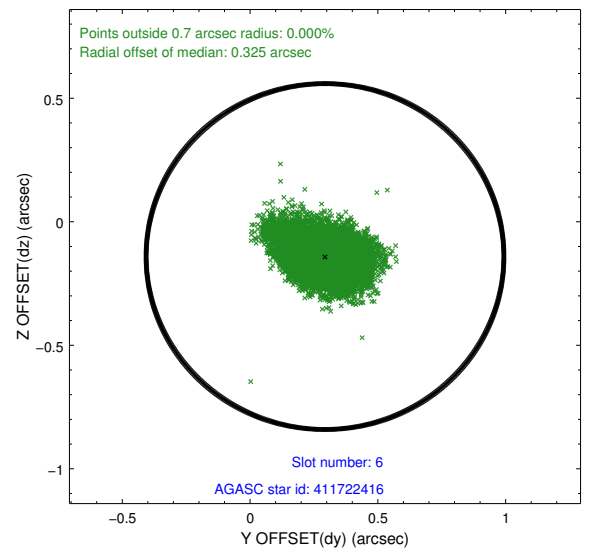
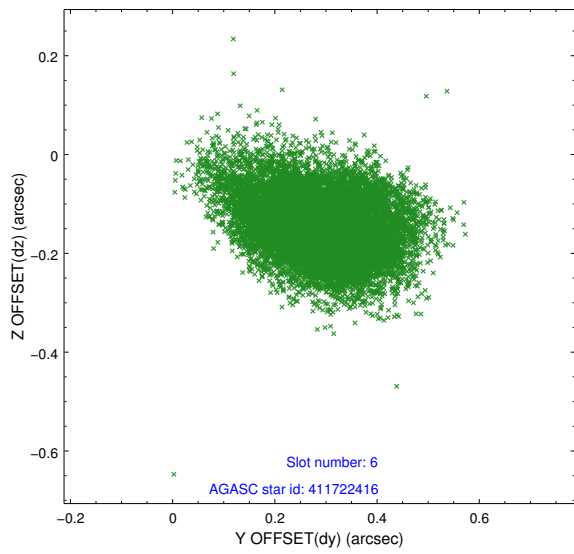
2.4.2 Slot 4



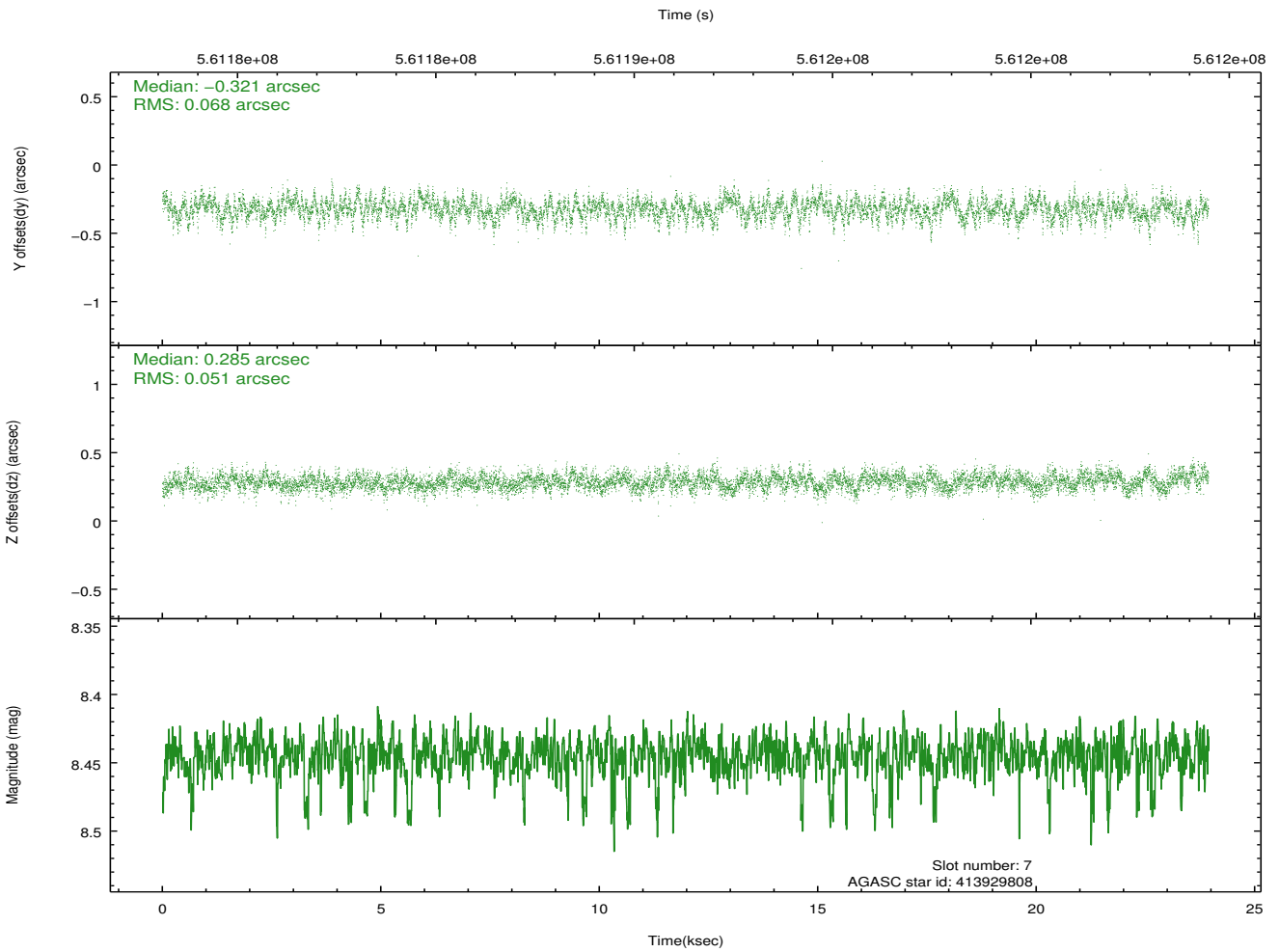
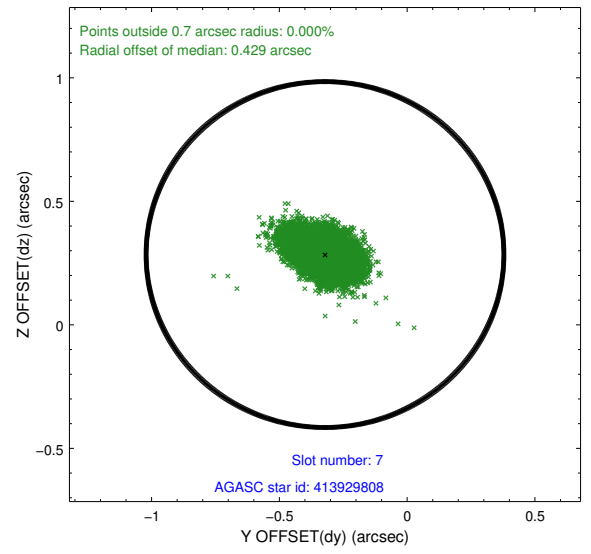
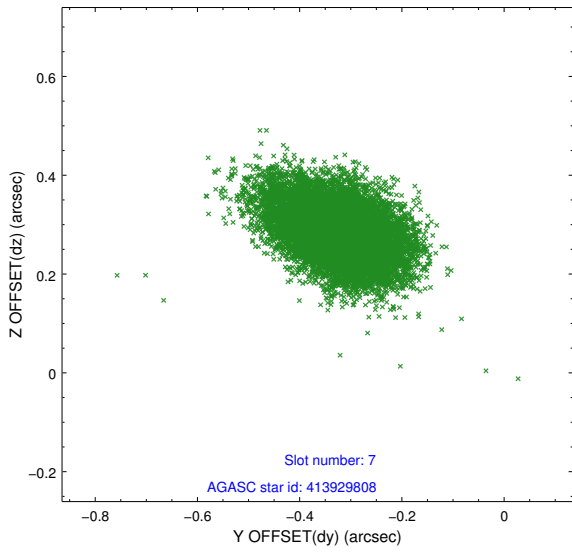
2.4.3 Slot 5



2.4.4 Slot 6

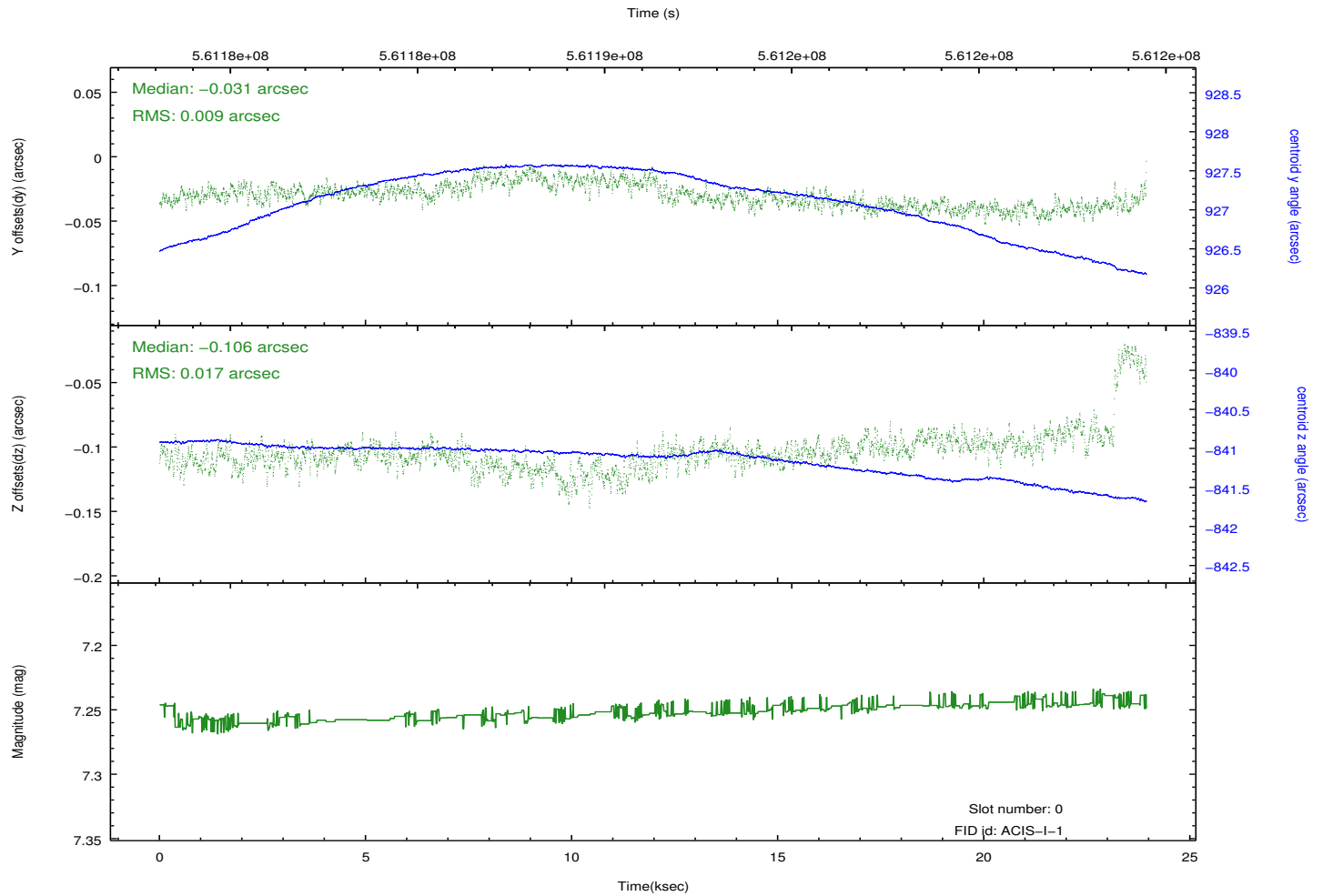
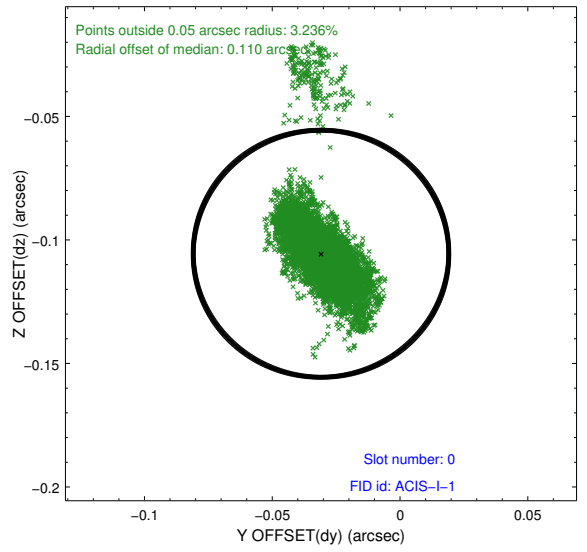
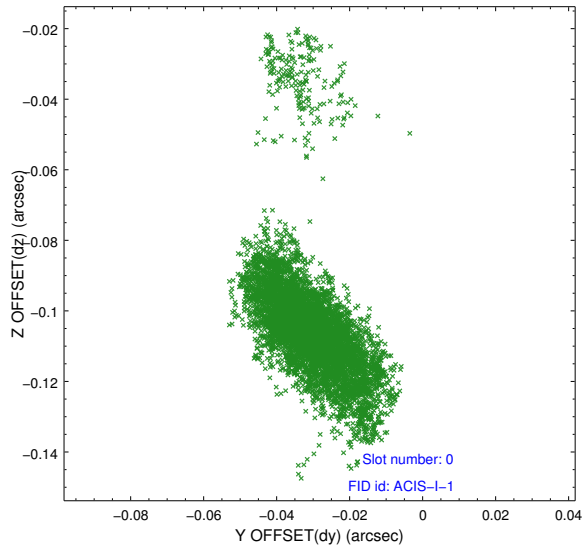


2.4.5 Slot 7

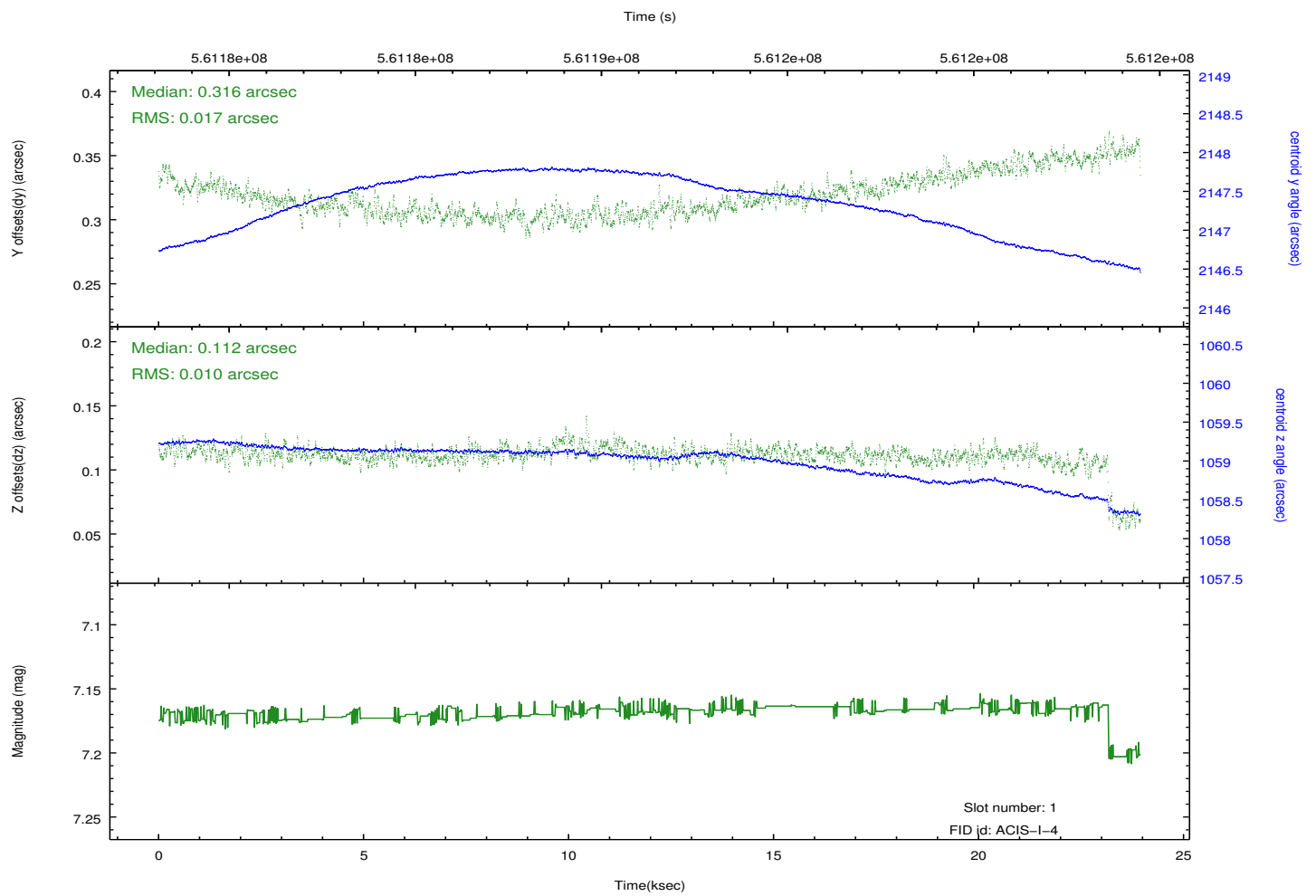
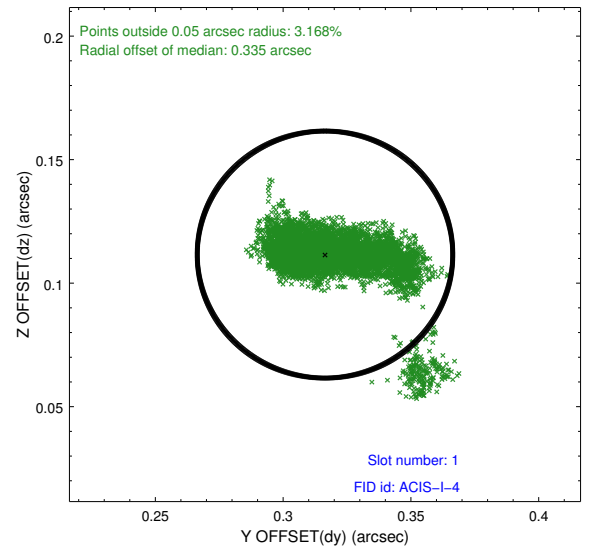
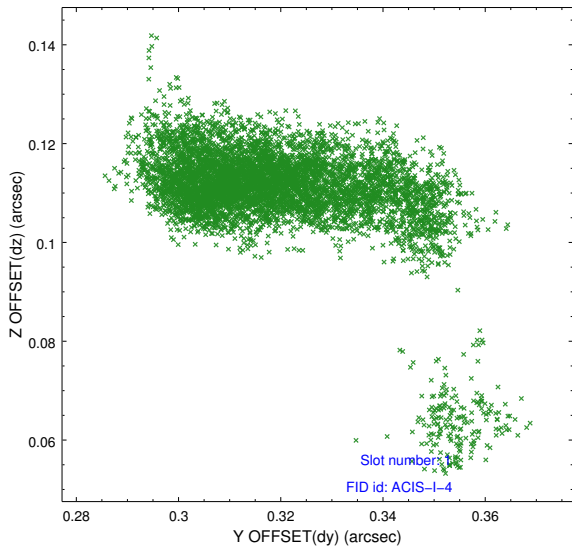


2.5 FID Slots

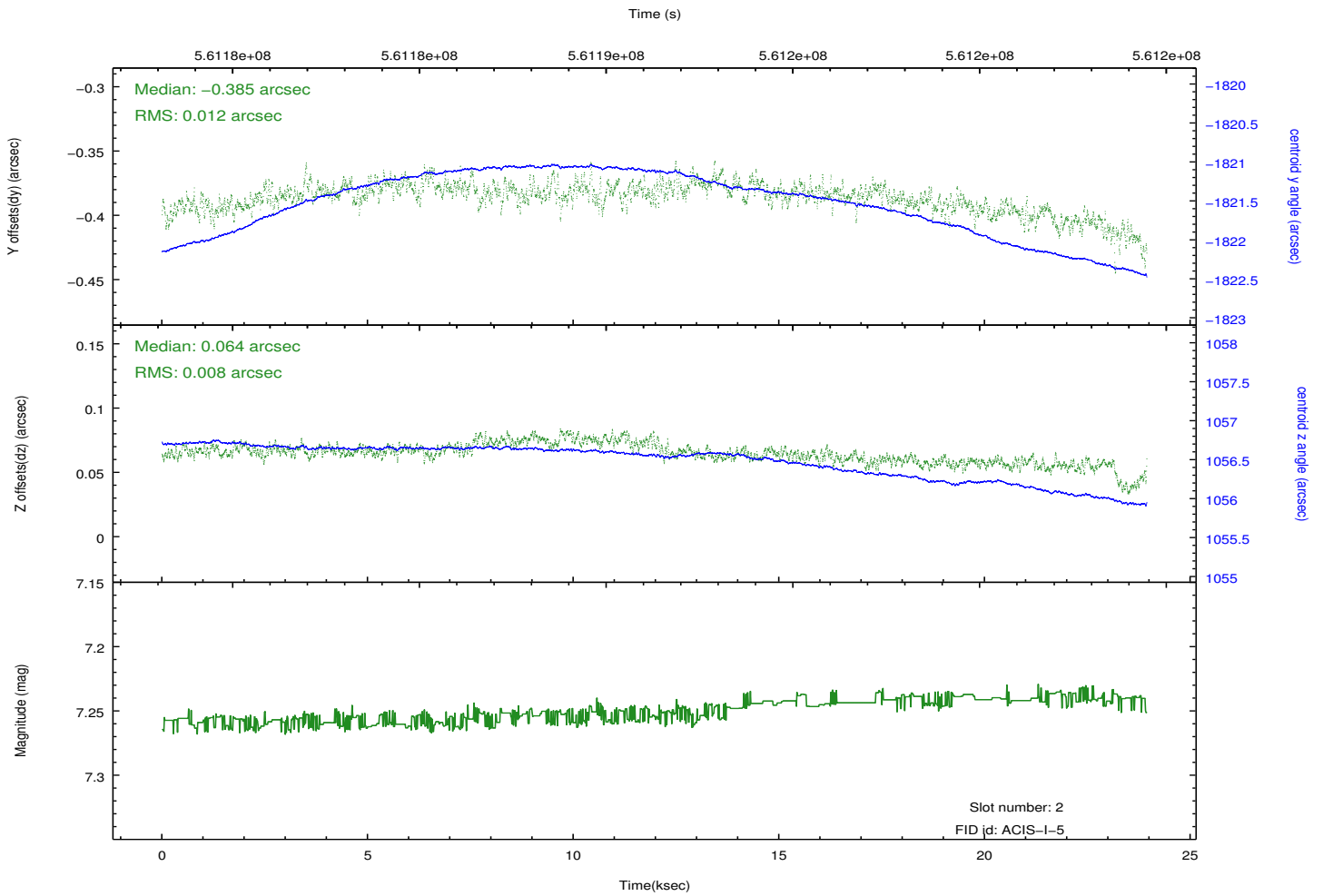
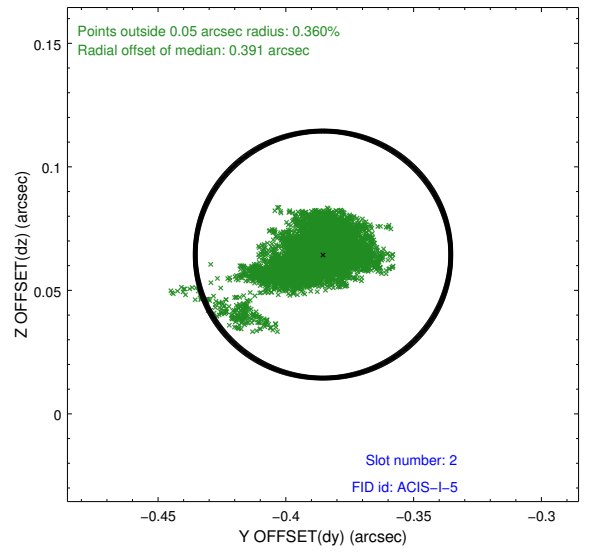
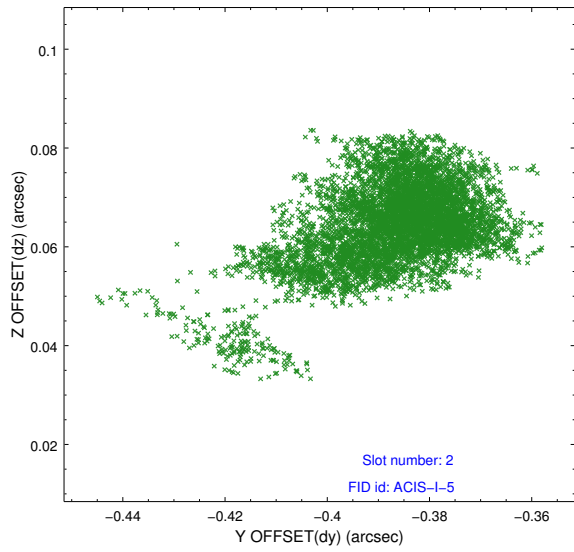
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.10.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.079054587007

A.2 Comments