

V&V Reference Report

L2 ASCDS Version : 10.5.4

Observation 20059 - L2 Version 1
Chandra X-Ray Center

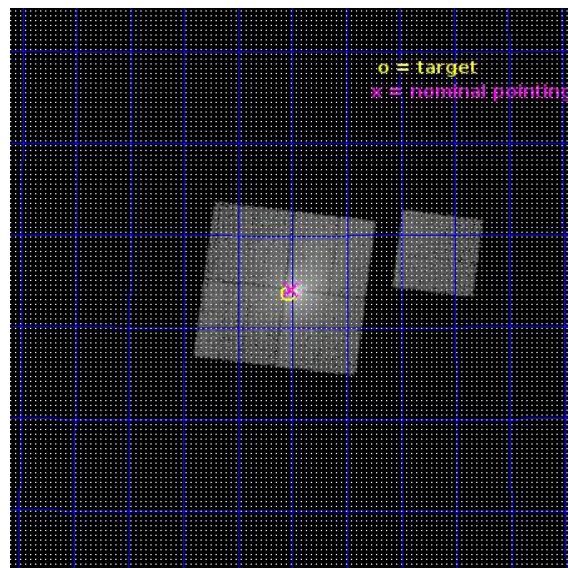
L2 Processing Date : Apr 19 2017

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

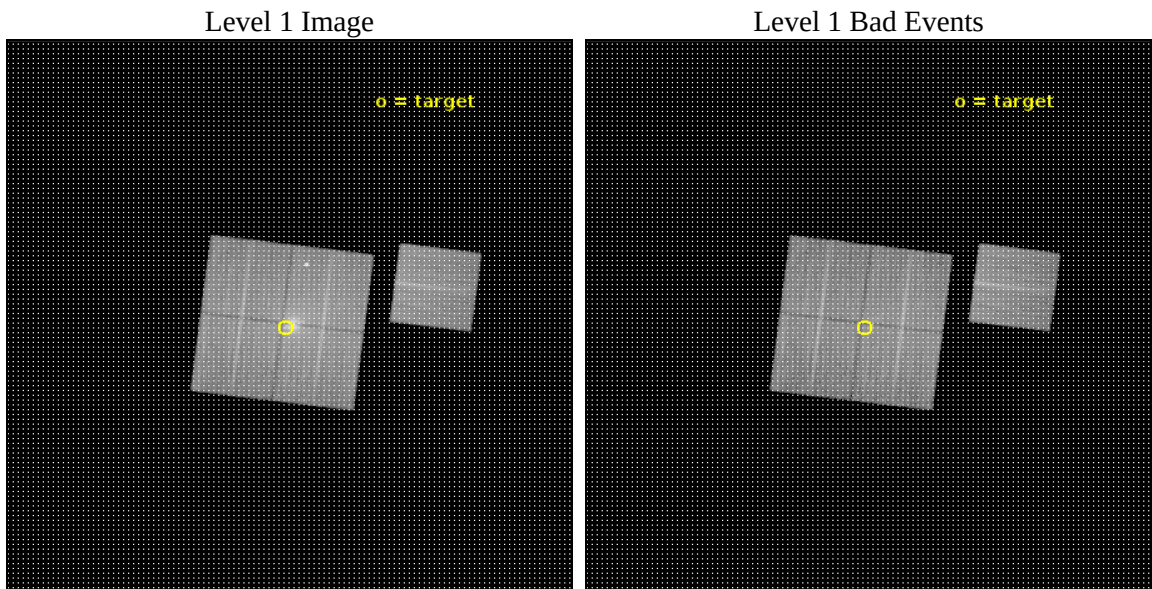
seq_num	703133	Sequence number
obs_id	20059	Observation id
title	The Rise to Power: Half a Billion Years of Intense AGN Activity in the Merging Cluster Cygnus A	Proposal title
observer	Dr. Michael Wise	Principal investigator
object	Cygnus A - E Hotspot	Source name
dtcycle	0	
cycle	P	events from which 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	299.87747632479	Nominal RA [deg]
dec_nom	40.735037684744	Nominal Dec [deg]
roll_nom	97.212517528598	Nominal Roll [deg]
revision	1	Processing version of data
ontime	24062.20018518	Sum of GTIs [s]
livetime	23747.809825426	Livetime [s]
ontime0	24059.059324265	Sum of GTIs [s]
ontime1	24055.918084741	Sum of GTIs [s]
ontime2	24059.059145212	Sum of GTIs [s]
ontime3	24062.20018518	Sum of GTIs [s]
ontime6	24062.20018518	Sum of GTIs [s]
l2events	191867	Number of level 2 events



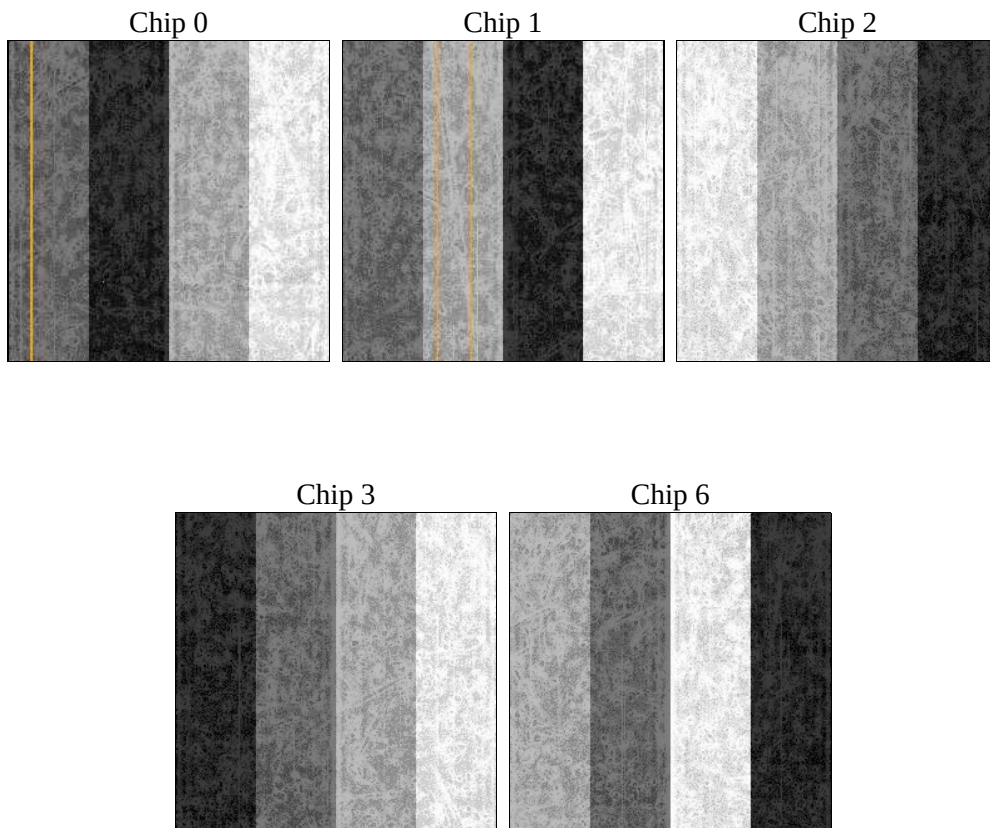
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	24000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.4	Processing system revision	ontime	24062.20018518	Sum of GTIs [s]
caldsver	4.7.3	 	ontime0	24059.059324265	Sum of GTIs [s]
date	2017-04-19T23:35:48	Date and time of file creation	ontime1	24055.918084741	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	24059.059145212	Sum of GTIs [s]
			ontime3	24062.20018518	Sum of GTIs [s]
			ontime6	24062.20018518	Sum of GTIs [s]
			l1events	1012135	Number of level 1 events

2.1.4 Events

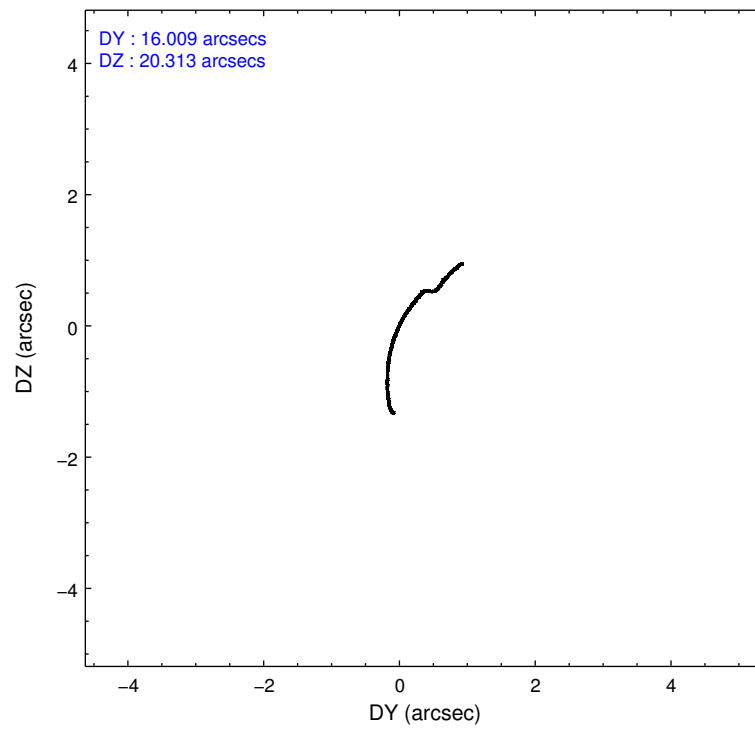
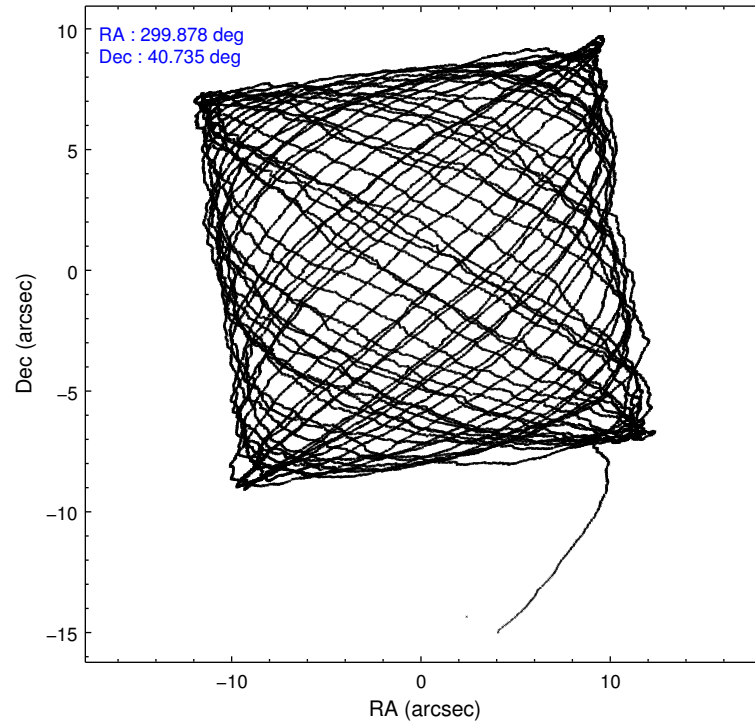
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	177629	179913	242271	225274	187048
rejected events	146908	149243	167803	163039	164689
rejected %	82%	82%	69%	72%	88%

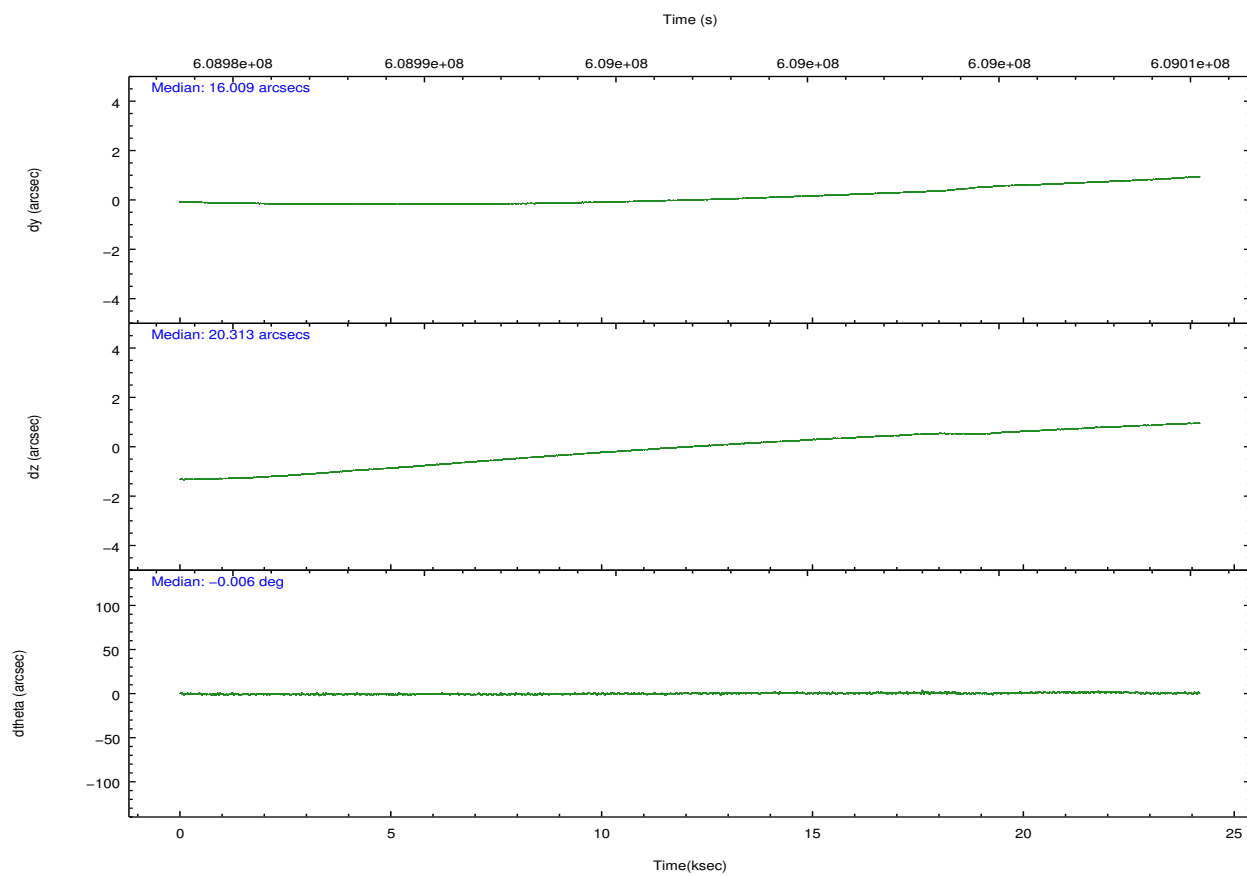
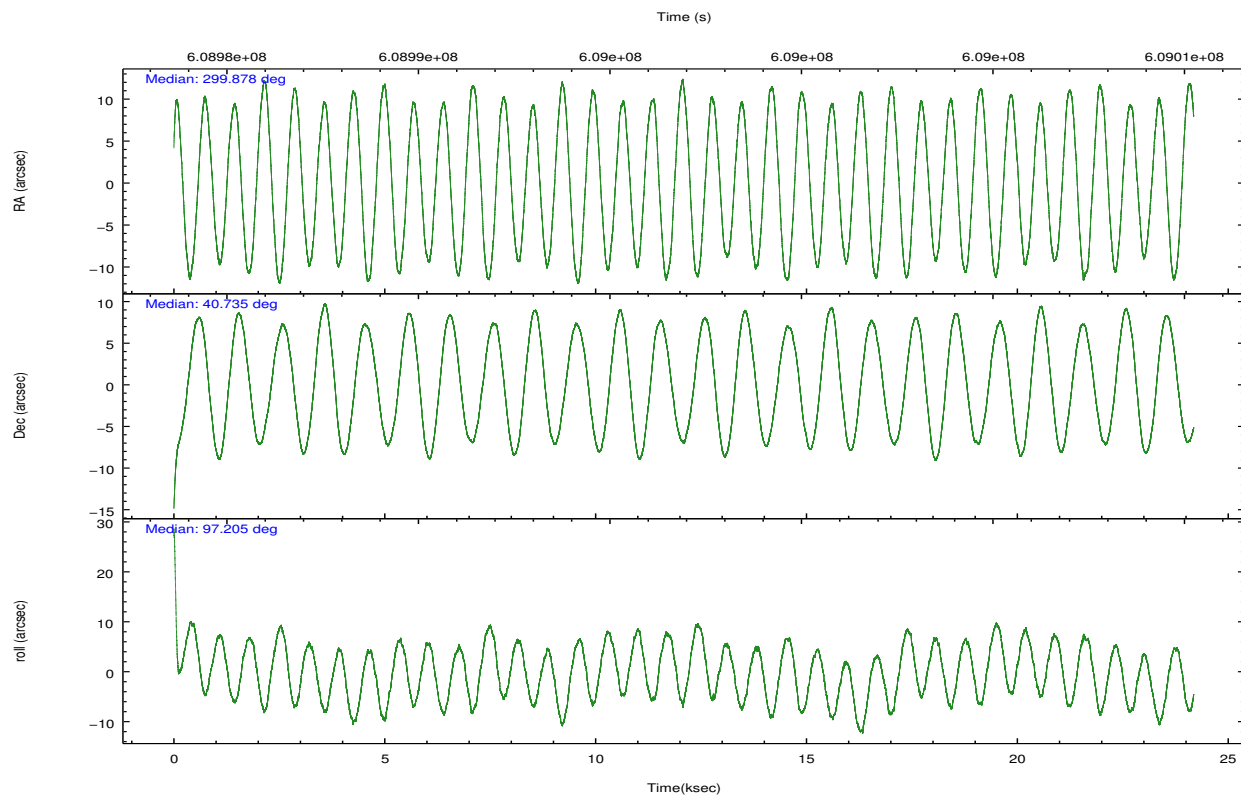
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	15494	13706	51934	40726	8383
	8%	7%	21%	18%	4%
grade 1 events	117	118	392	426	80
	0%	0%	0%	0%	0%
grade 2 events	6258	7064	9907	8747	5232
	3%	3%	4%	3%	2%
grade 3 events	2383	2328	3588	3591	1900
	1%	1%	1%	1%	1%
grade 4 events	2134	2319	3666	3459	1998
	1%	1%	1%	1%	1%
grade 5 events	7081	7487	6741	8641	7817
	3%	4%	2%	3%	4%
grade 6 events	4455	5261	5405	5729	4854
	2%	2%	2%	2%	2%
grade 7 events	139707	141630	160638	153955	156784
	78%	78%	66%	68%	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	299.899591	299.8774763247945	CCD I2 on	Y	Y
[deg] Pointing Dec	40.713123	40.73503768474353	CCD I3 on	Y	Y
[deg] Pointing Roll	96.989395	97.21251752859834	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)	608985030.184000	608983926.85648	CCD S5 on	N	N
Observation start date	2017-04-19T10:29:21	2017-04-19T10:12:06	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	609009030.184000	609010287.80801	On-chip summing requested	N	N
Observation end date	2017-04-19T17:09:21	2017-04-19T17:31:27	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



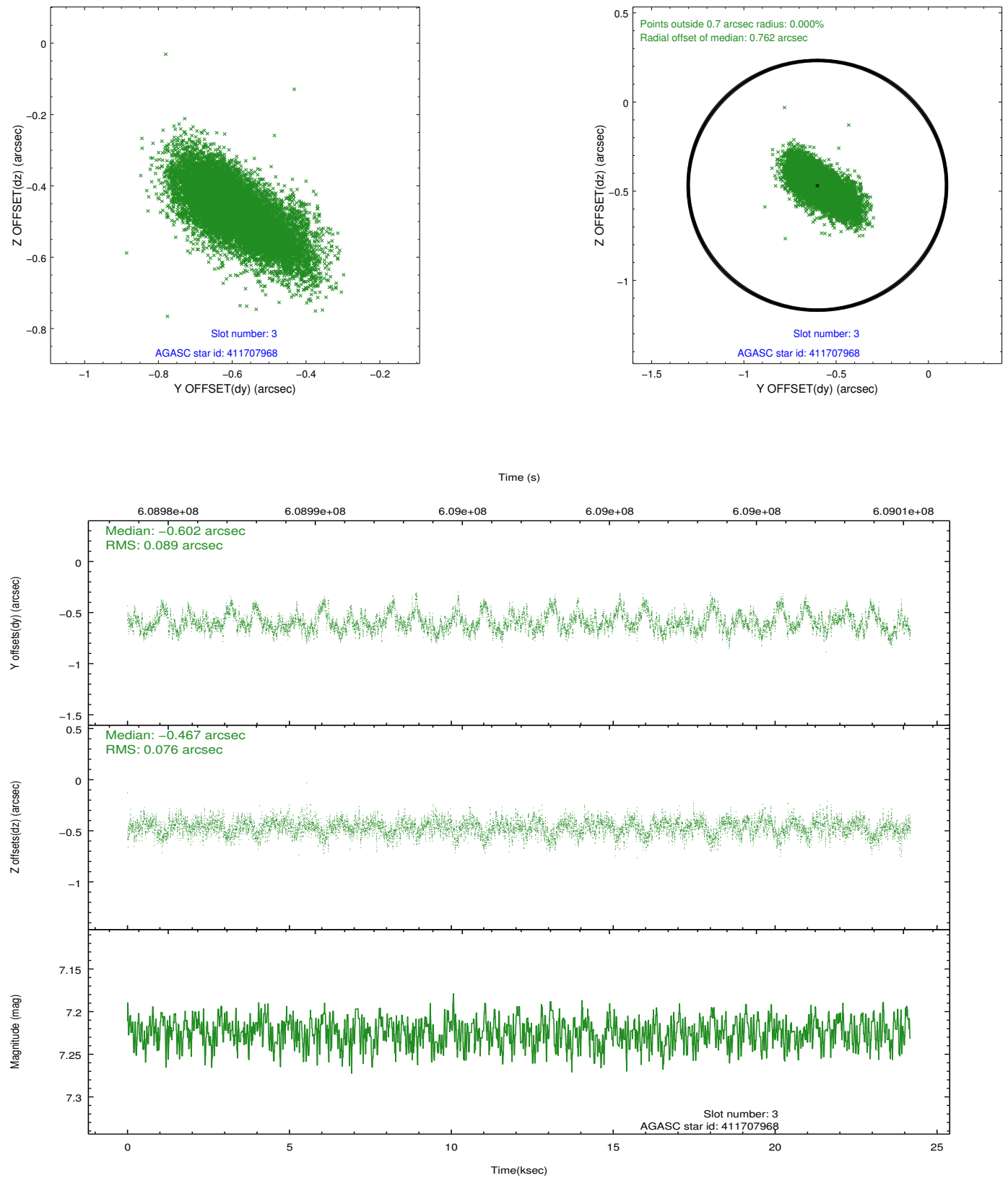


Slot Statistics

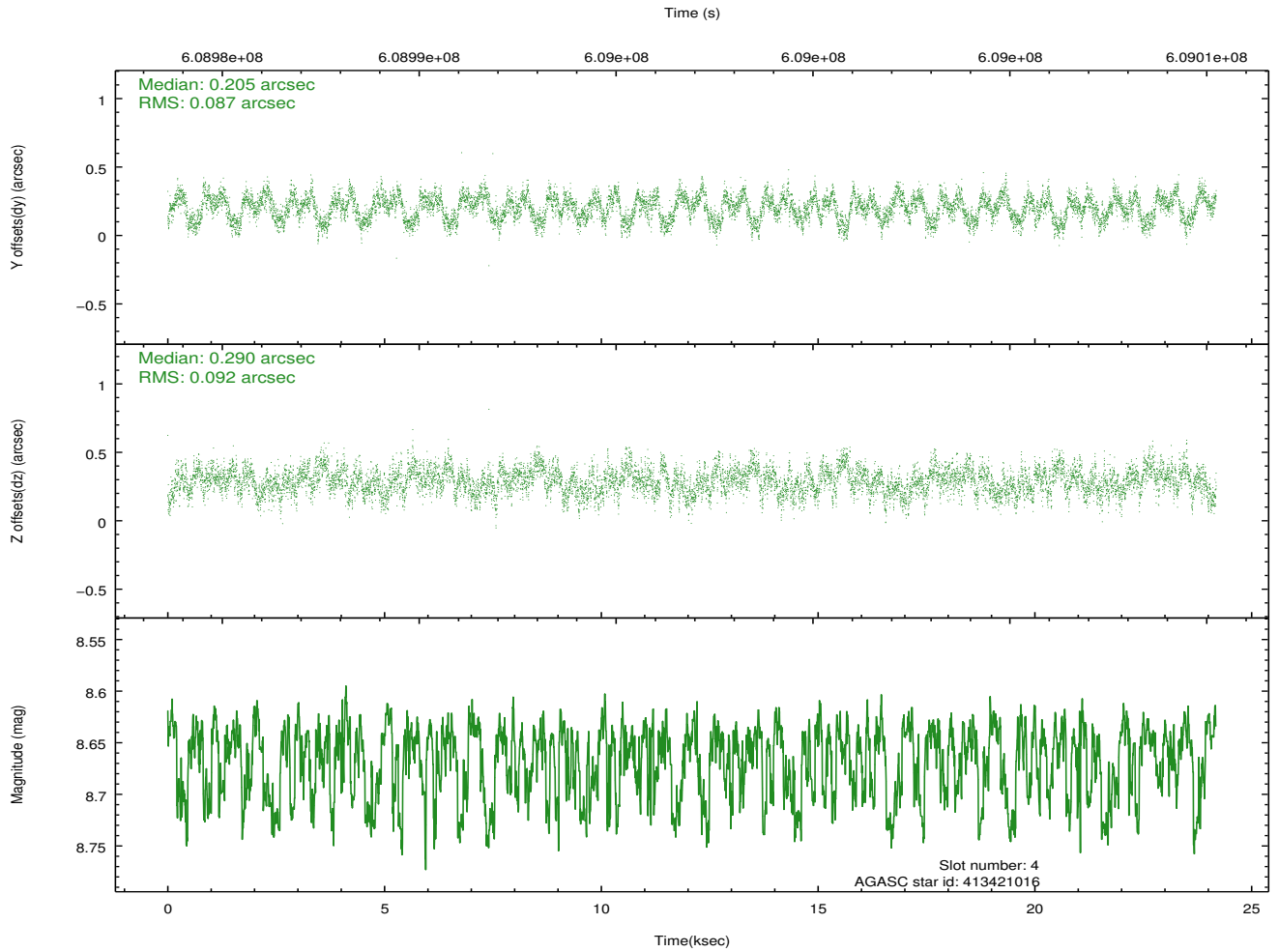
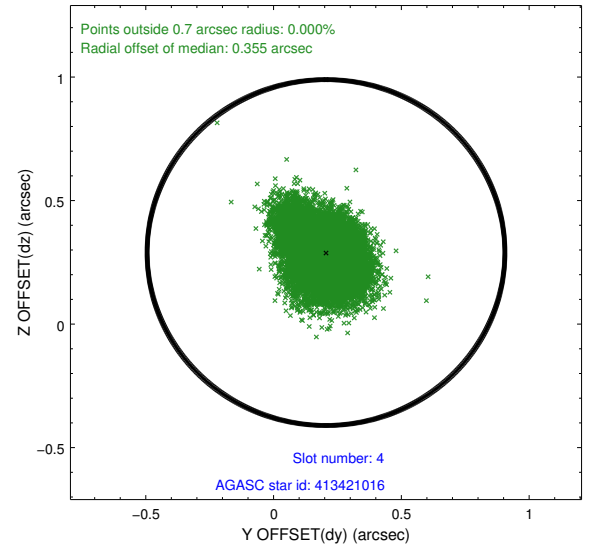
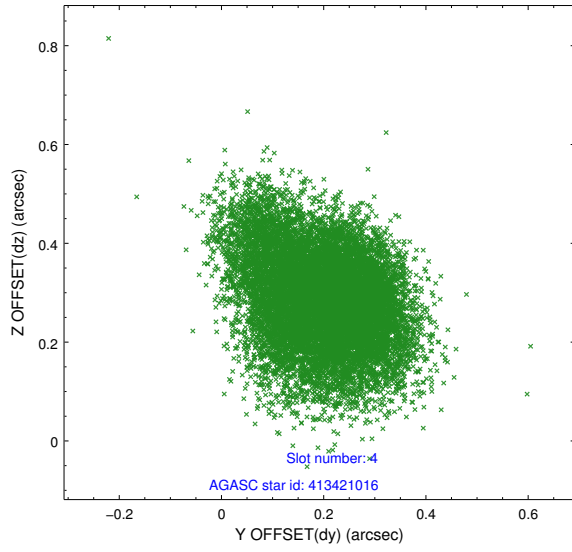
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.25	5897	-0.050	-0.091	0.043	0.066	0.000000	0.000000	923.28	-843.97
1	FID		ACIS-I-4	7.18	5897	0.414	0.110	0.030	0.042	0.000000	0.000000	2143.73	1056.05
2	FID		ACIS-I-5	7.24	5898	-0.461	0.052	0.020	0.028	0.000000	0.000000	-1825.10	1053.72
3	GUIDE	used	411707968	7.22	11795	-0.602	-0.467	0.120	0.219	299.509933	40.926839	894.96	957.84
4	GUIDE	used	413421016	8.66	11788	0.205	0.290	0.135	0.218	300.612426	40.446254	-1182.63	-1821.79
5	GUIDE	used	413425016	7.94	11793	0.118	0.330	0.129	0.200	300.758532	40.173167	-2204.95	-2109.66
6	GUIDE	used	413929808	8.44	11791	0.299	-0.138	0.148	0.259	300.621353	41.348826	2043.07	-2215.39
7	GUIDE	used	413936784	8.69	11780	-0.015	-0.012	0.166	0.277	300.698470	41.281929	1780.27	-2395.26

2.4 Star Slots

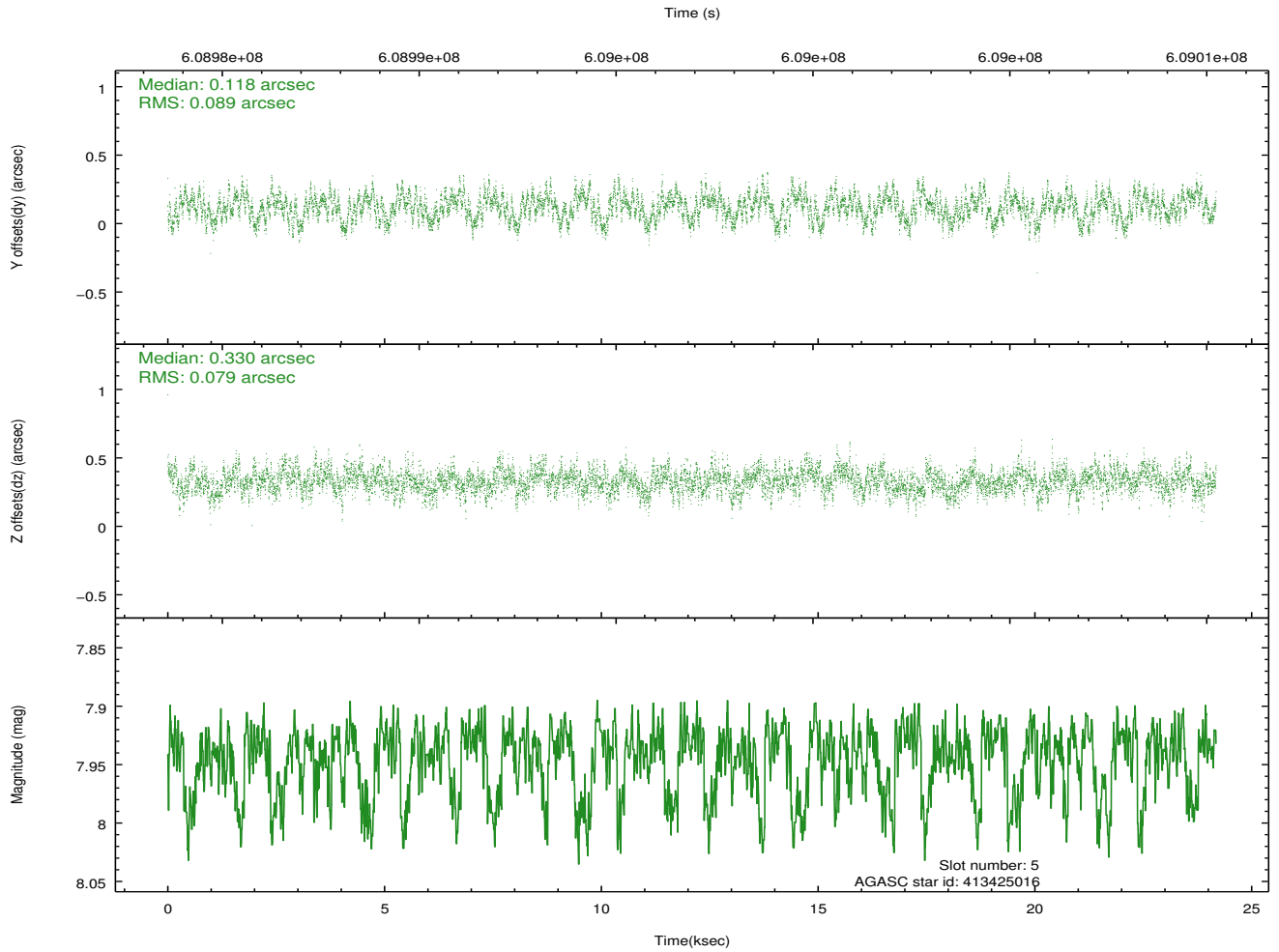
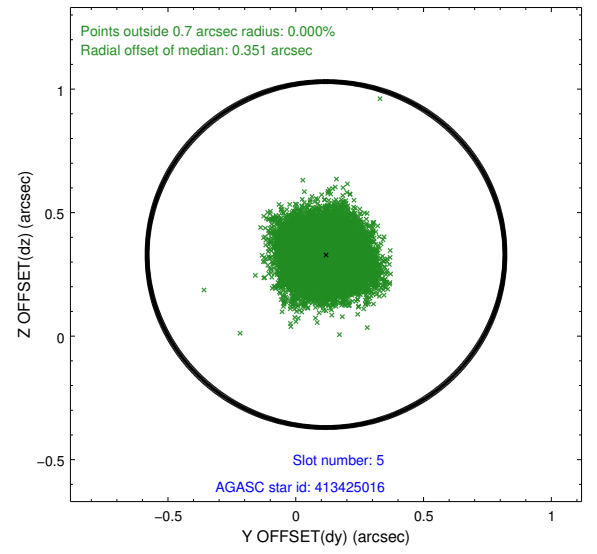
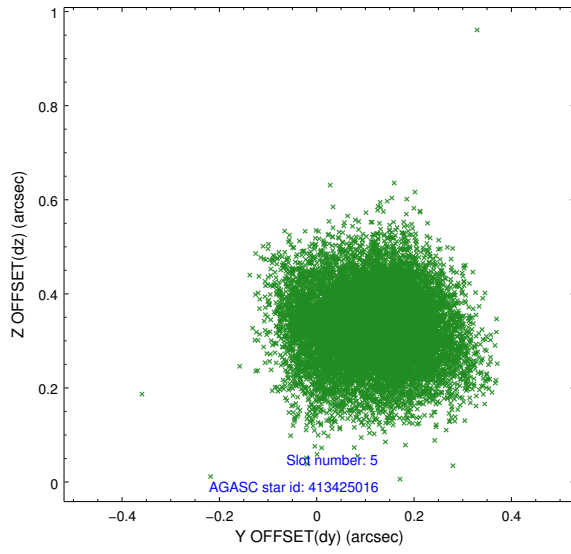
2.4.1 Slot 3



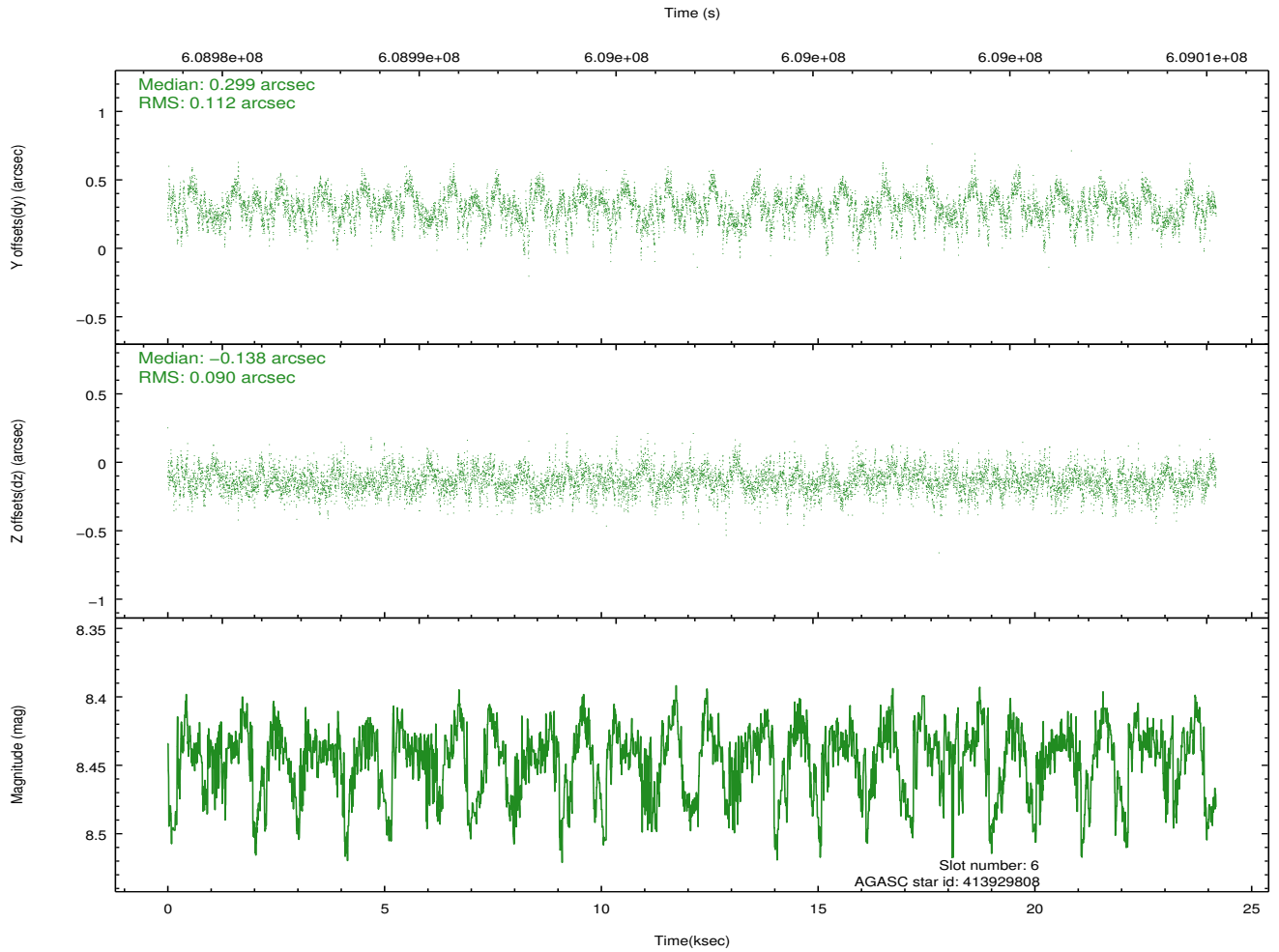
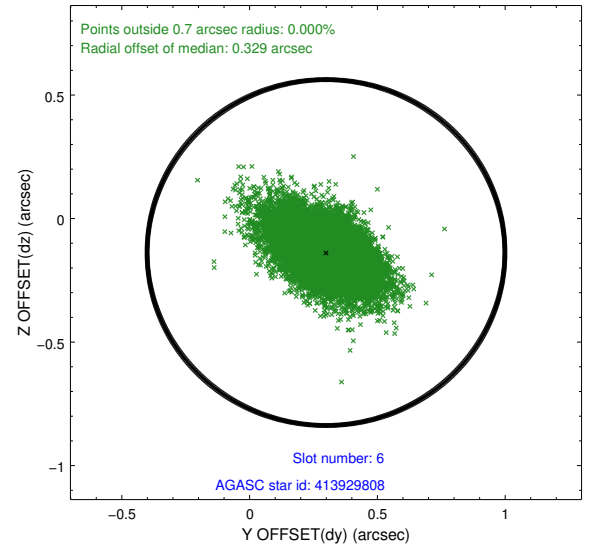
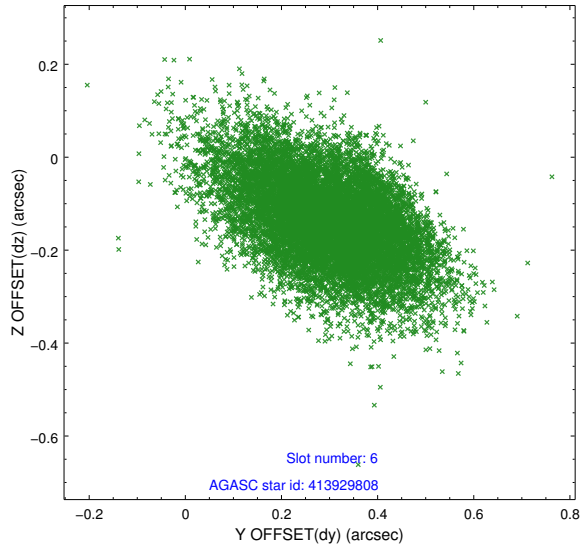
2.4.2 Slot 4



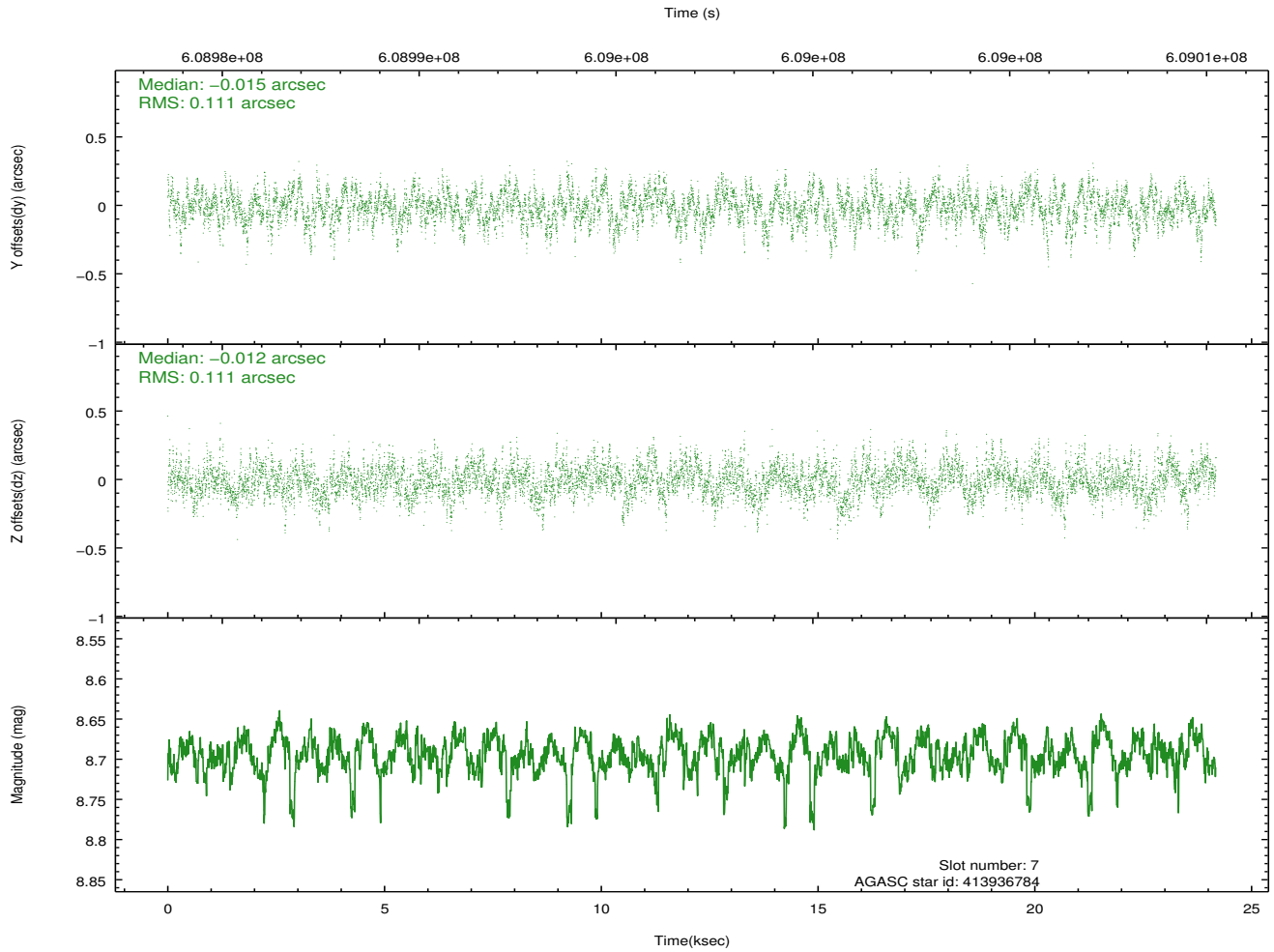
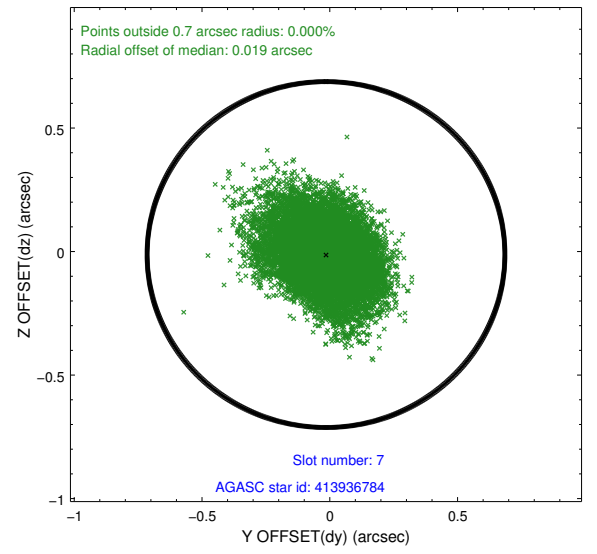
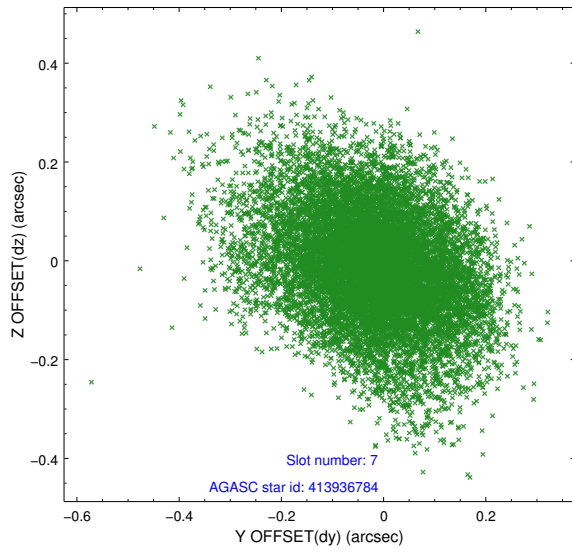
2.4.3 Slot 5



2.4.4 Slot 6

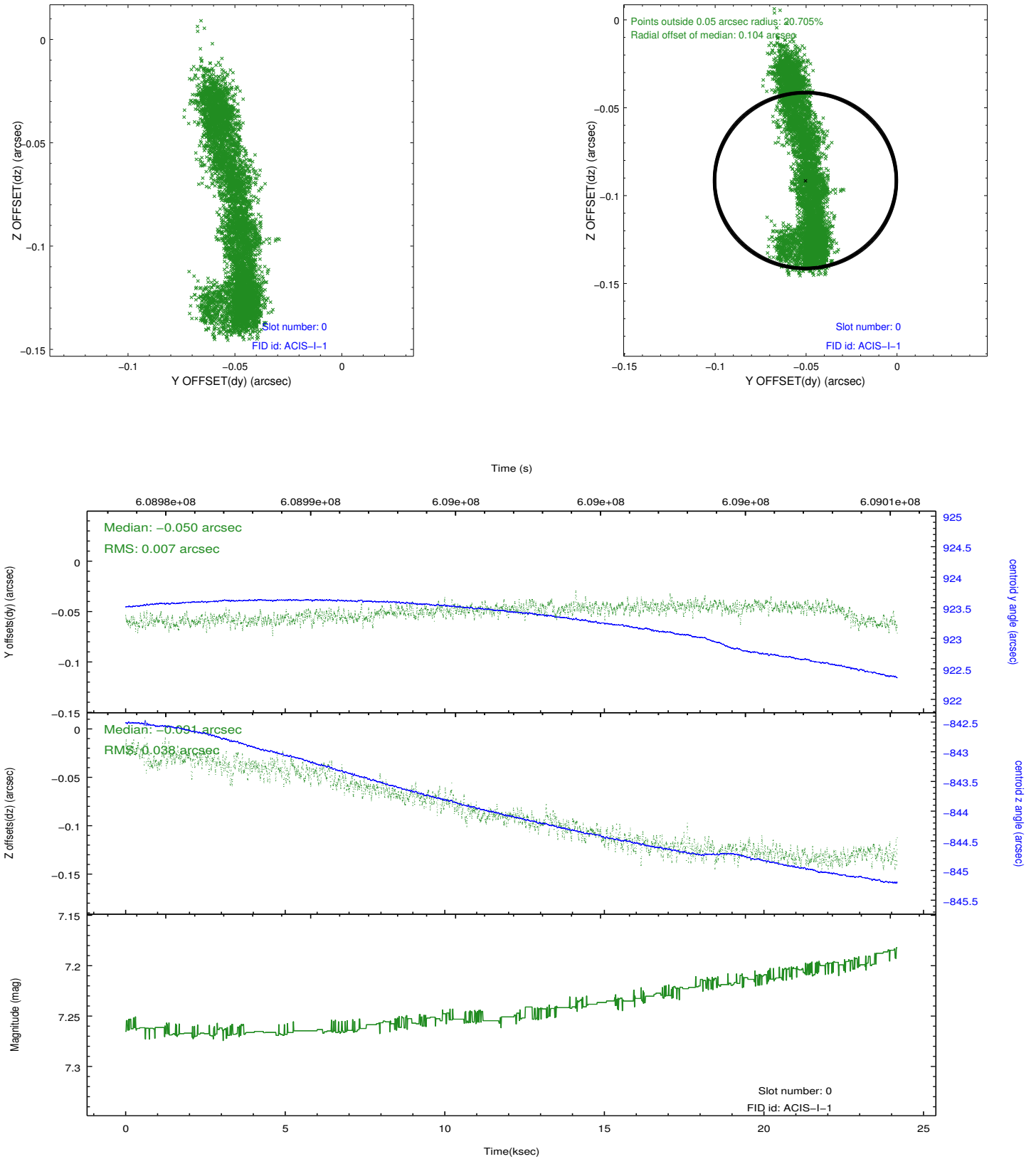


2.4.5 Slot 7

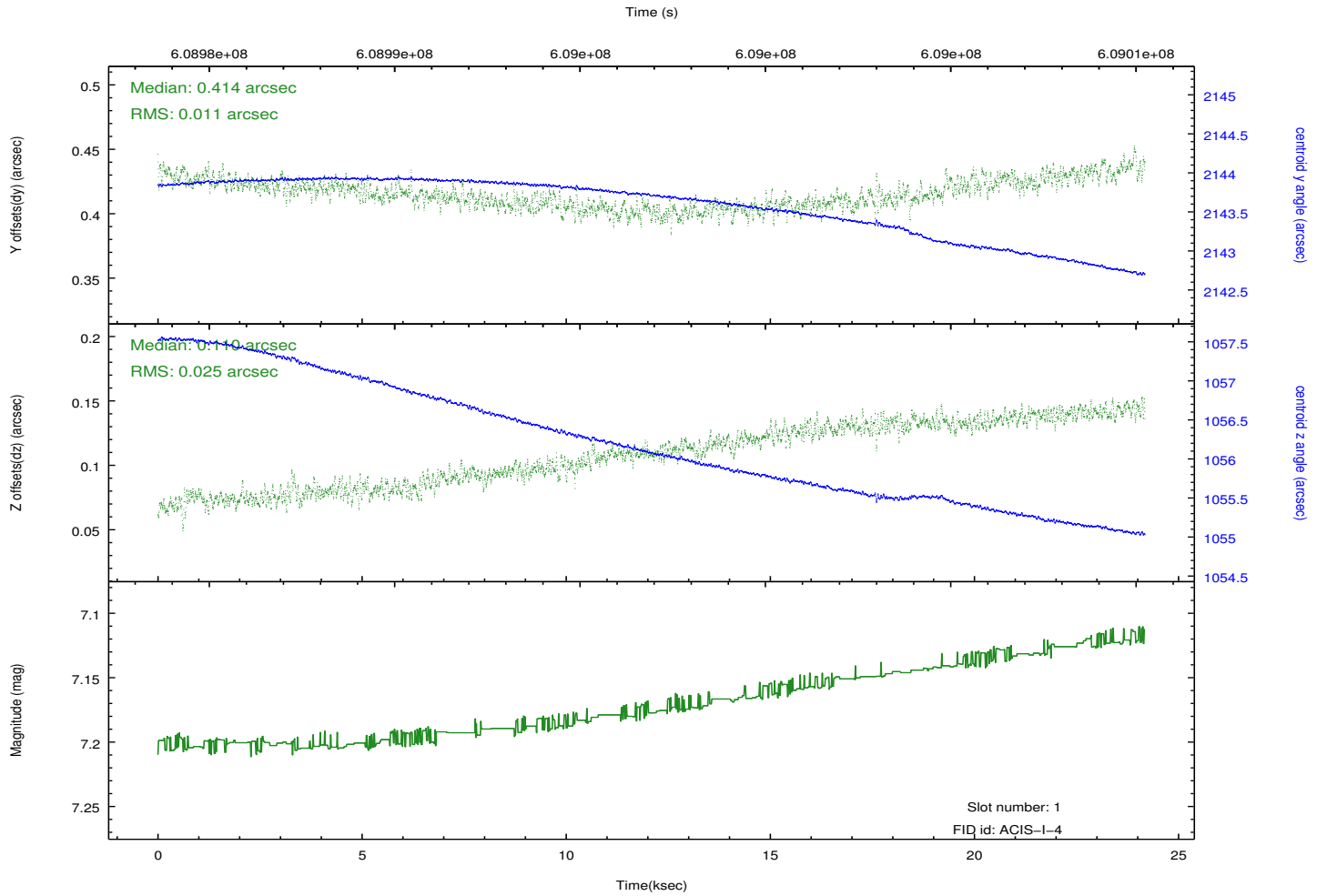
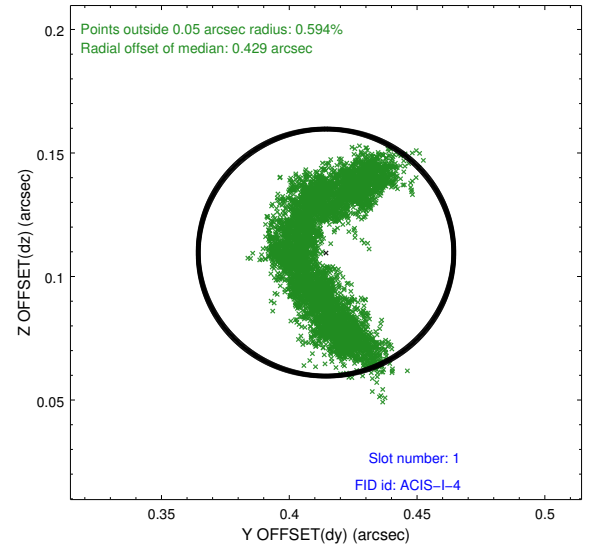
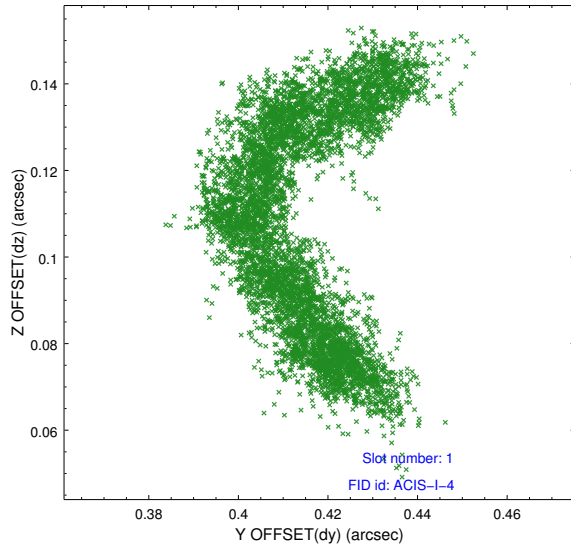


2.5 FID Slots

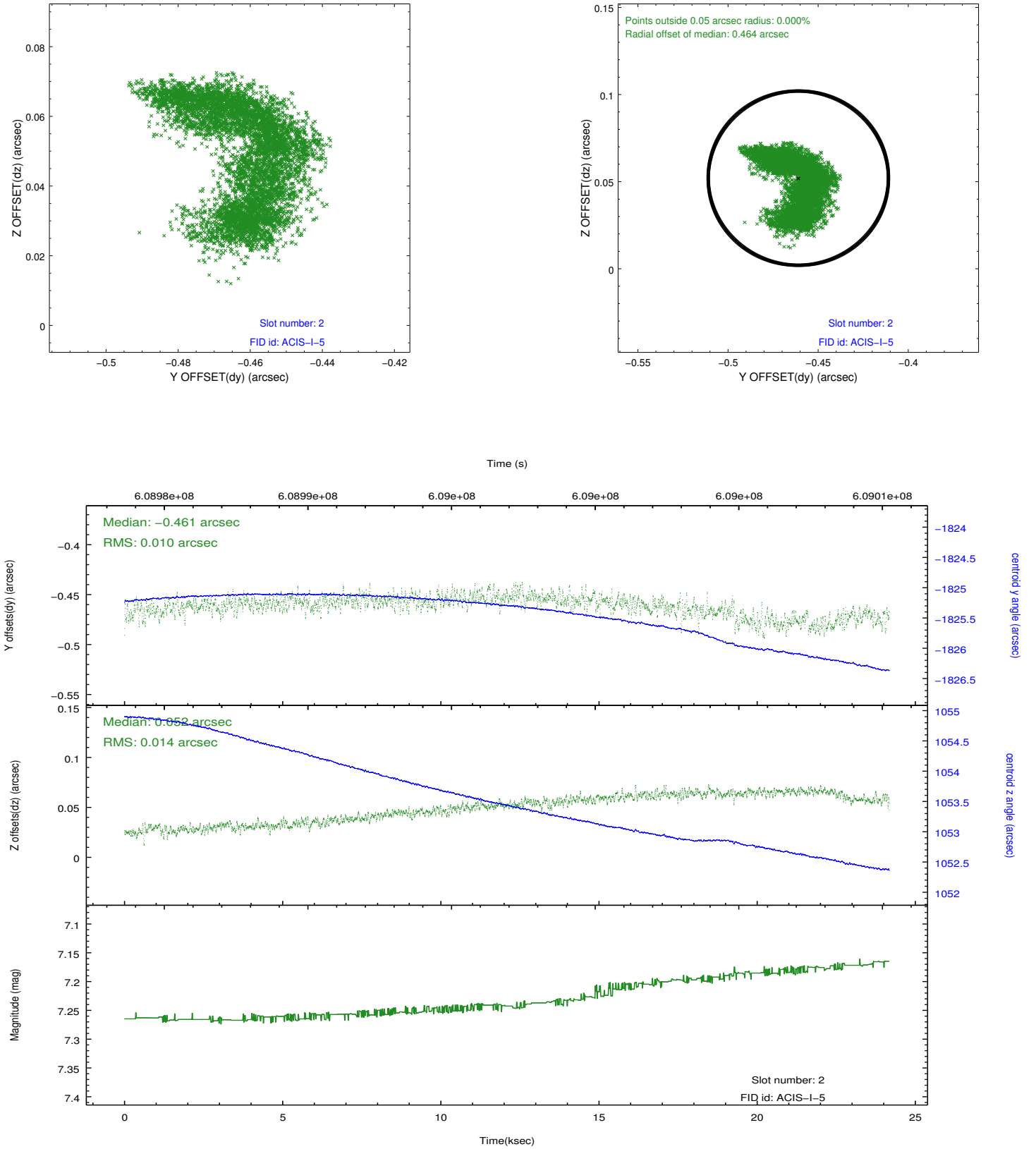
2.5.1 Slot 0



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)	2017.04.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.06220018518

A.2 Comments