

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 4726 - L2 Version 4
Chandra X-Ray Center

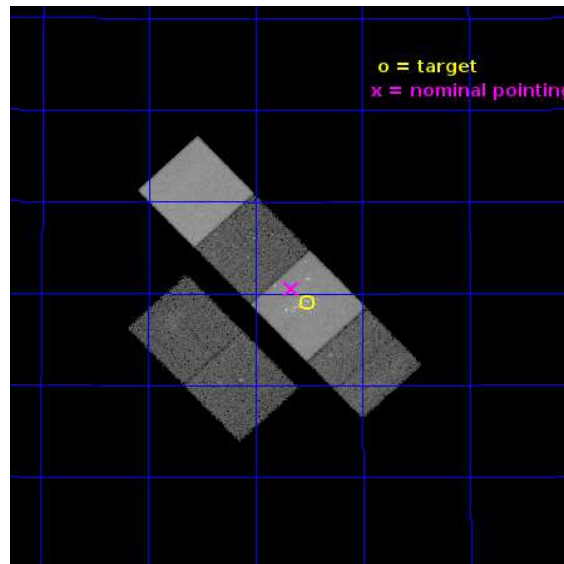
L2 Processing Date : Jul 23 2015

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

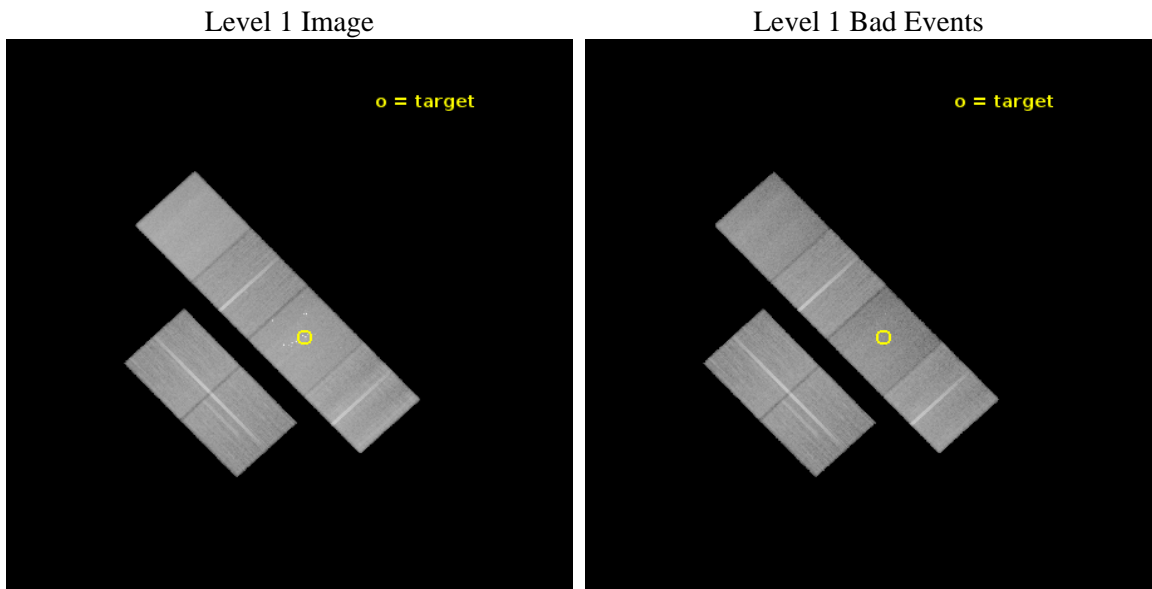
seq_num	600381	Sequence number
obs_id	4726	Observation id
title	The ultraluminous X-ray sources of NGC 4485/4490	Proposal title
observer	Dr Timothy Roberts	Principal investigator
object	NGC 4485/4490	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.63	Observer's specified target RA [deg]
dec_targ	41.65	Observer's specified target Dec [deg]
ra_nom	187.66609513114	Nominal RA [deg]
dec_nom	41.675917652992	Nominal Dec [deg]
roll_nom	46.579703027098	Nominal Roll [deg]
revision	4	Processing version of data
ontime	40140.462299973	Sum of GTIs [s]
livetime	39632.179596646	Livetime [s]
ontime2	40140.462299973	Sum of GTIs [s]
ontime3	40137.221339673	Sum of GTIs [s]
ontime5	40140.462299973	Sum of GTIs [s]
ontime6	40140.462299973	Sum of GTIs [s]
ontime7	40140.462299973	Sum of GTIs [s]
ontime8	40137.221329689	Sum of GTIs [s]
l2events	394199	Number of level 2 events



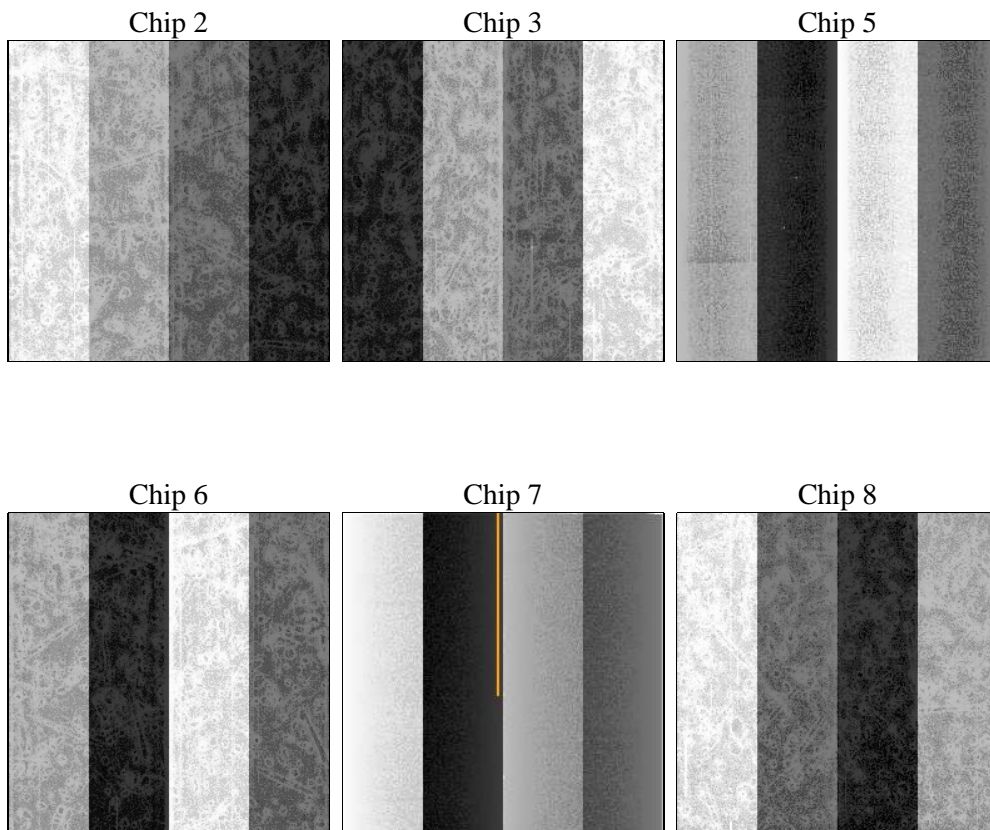
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.1	Processing system revision	ontime	40140.462299973	Sum of GTIs [s]
caldbver	4.6.8	 	ontime2	40140.462299973	Sum of GTIs [s]
date	2015-07-23T16:17:24	Date and time of file creation	ontime3	40137.221339673	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	40140.462299973	Sum of GTIs [s]
			ontime6	40140.462299973	Sum of GTIs [s]
			ontime7	40140.462299973	Sum of GTIs [s]
			ontime8	40137.221329689	Sum of GTIs [s]
			l1events	1750433	Number of level 1 events

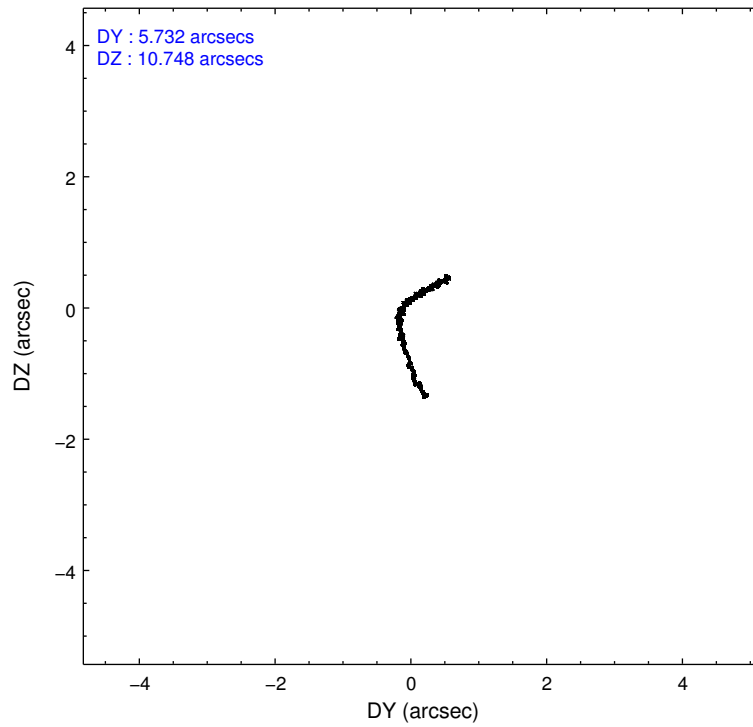
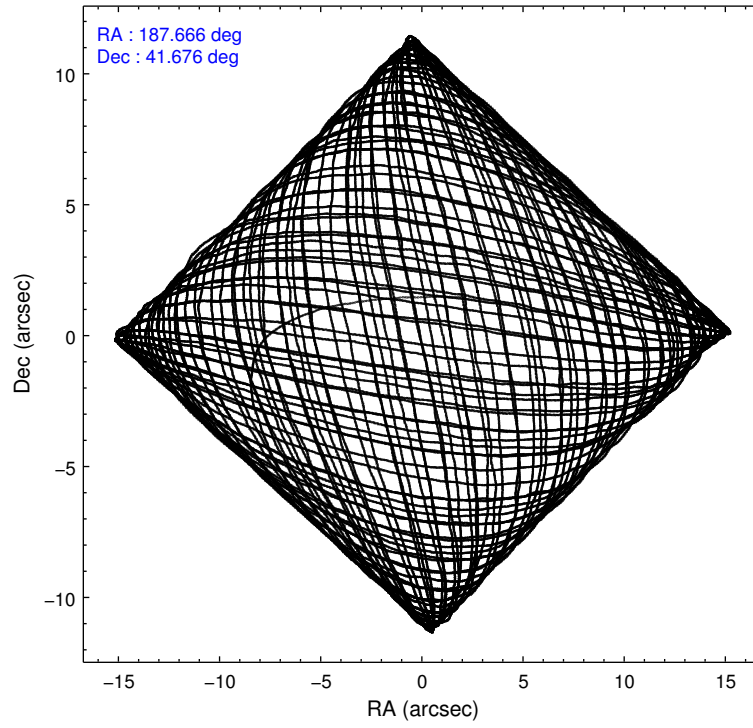
2.1.4 Events

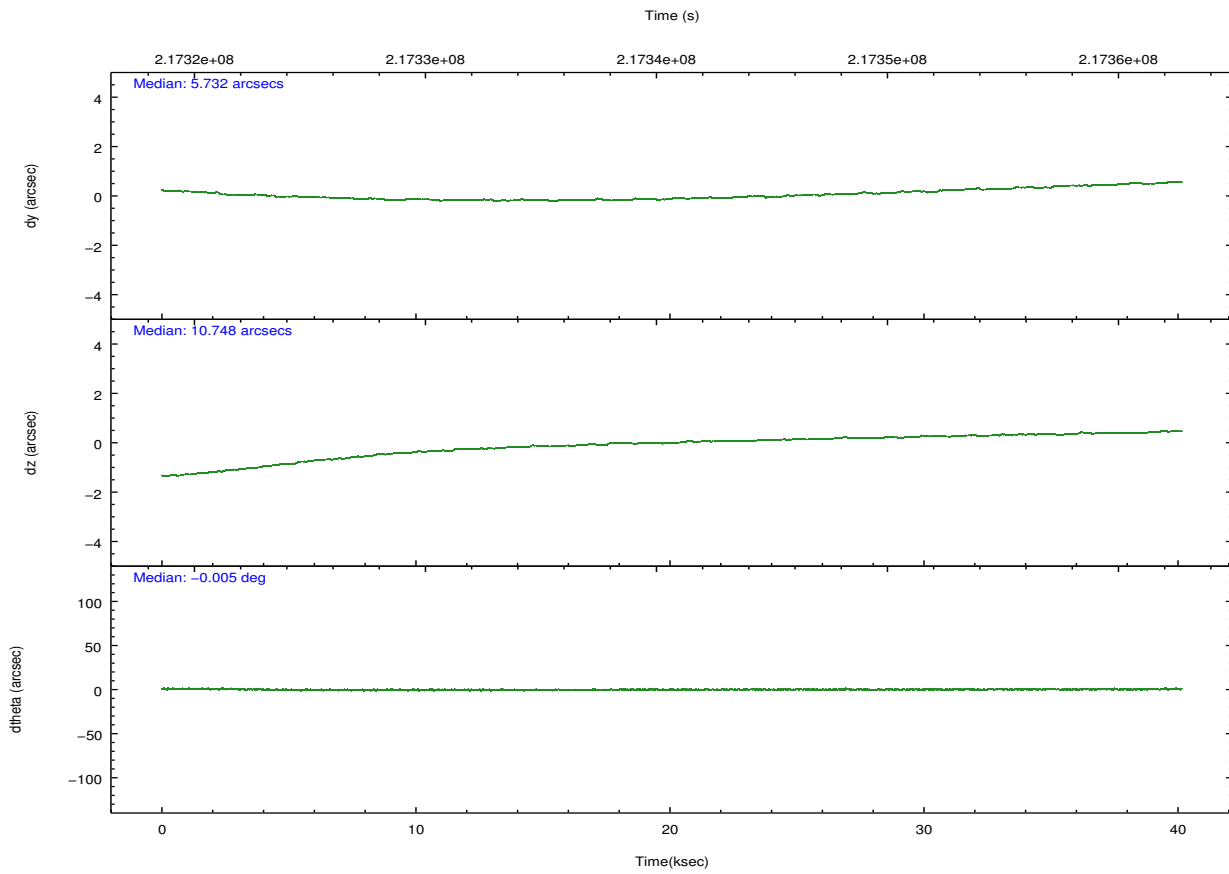
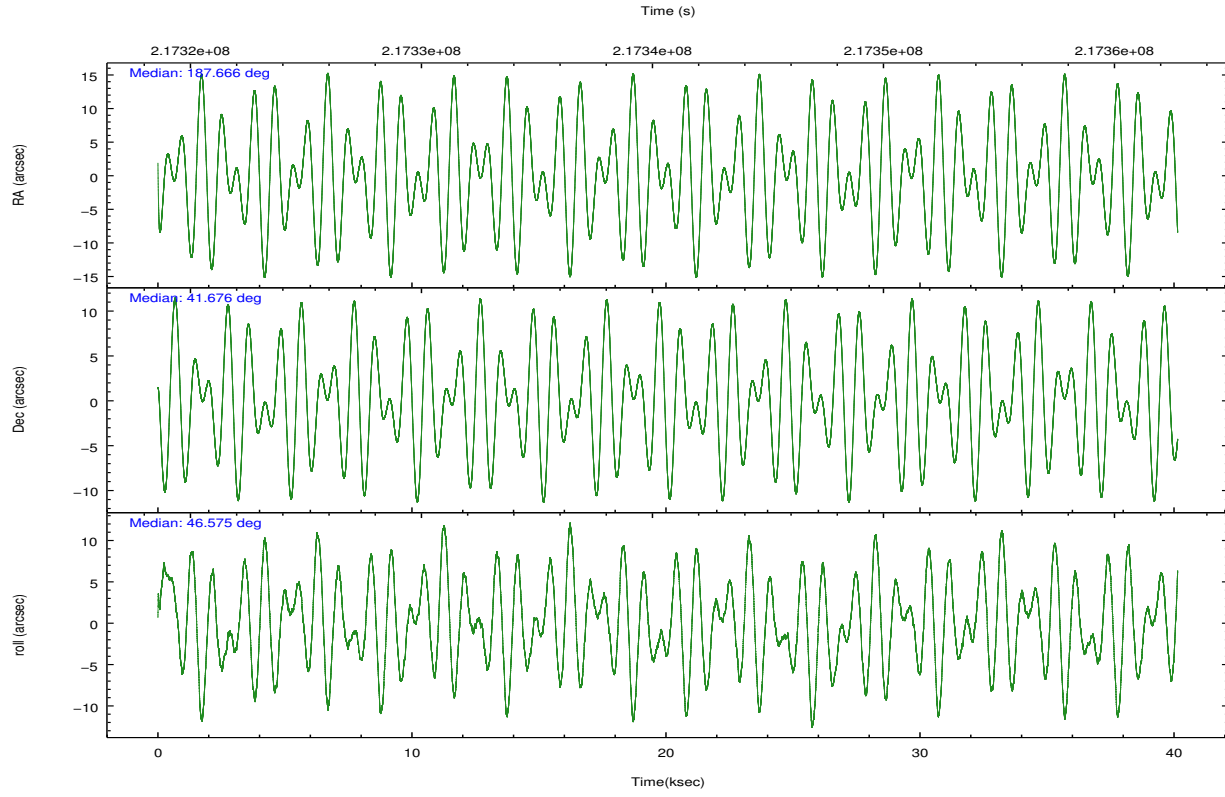
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	268833	254703	339924	262962	302178	321833	grade 0 events	10017	8326	10572	9000	17056	22087
rejected events	242687	231191	176109	236681	155387	249692		3%	3%	3%	3%	5%	6%
rejected %	90%	90%	51%	90%	51%	77%	grade 1 events	125	135	286	120	261	201
								0%	0%	0%	0%	0%	0%
							grade 2 events	5880	5030	49544	5737	30695	16034
								2%	1%	14%	2%	10%	4%
							grade 3 events	2828	2766	7688	2954	14339	7901
								1%	1%	2%	1%	4%	2%
							grade 4 events	2879	2763	7289	3055	14252	7339
								1%	1%	2%	1%	4%	2%
							grade 5 events	8643	9833	27835	10229	30234	14290
								3%	3%	8%	3%	10%	4%
							grade 6 events	4741	4830	90090	5782	71640	19376
								1%	1%	26%	2%	23%	6%
							grade 7 events	233720	221020	146620	226085	123701	234605
								86%	86%	43%	85%	40%	72%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	187.658109	187.6660951311392	Subarray requested	NONE	NONE
[deg] Pointing Dec	41.649349	41.67591765299183	Alternating exposures requested	N	N
[deg] Pointing Roll	46.428387	46.57970302709752	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	217320737.184000	217319523.36229			
Observation start date	2004-11-20T06:51:13	2004-11-20T06:32:03			
[s] Observation end time (MET)	217360737.184000	217361364.37667			
Observation end date	2004-11-20T17:57:53	2004-11-20T18:09:24			
Read mode	TIMED	TIMED			

2.3 Aspect



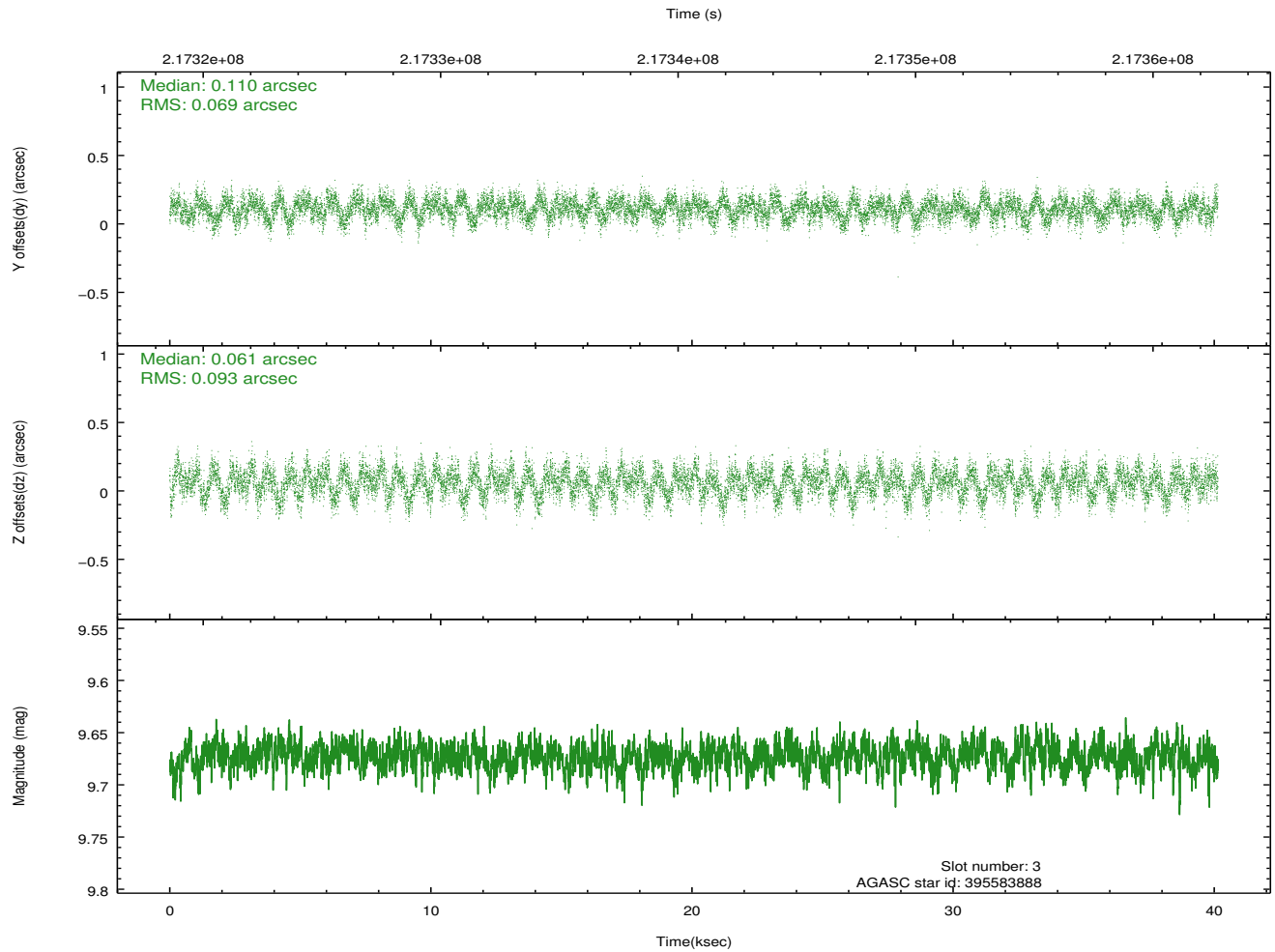
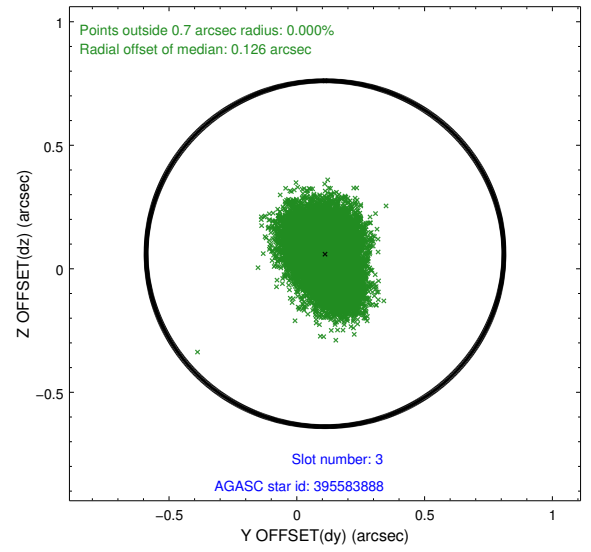
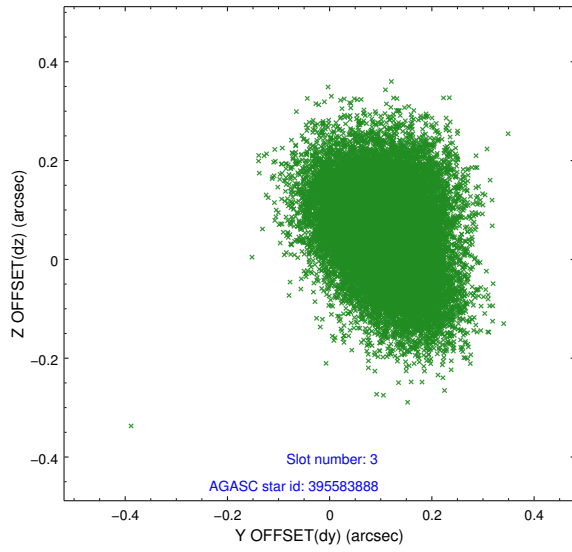


Slot Statistics

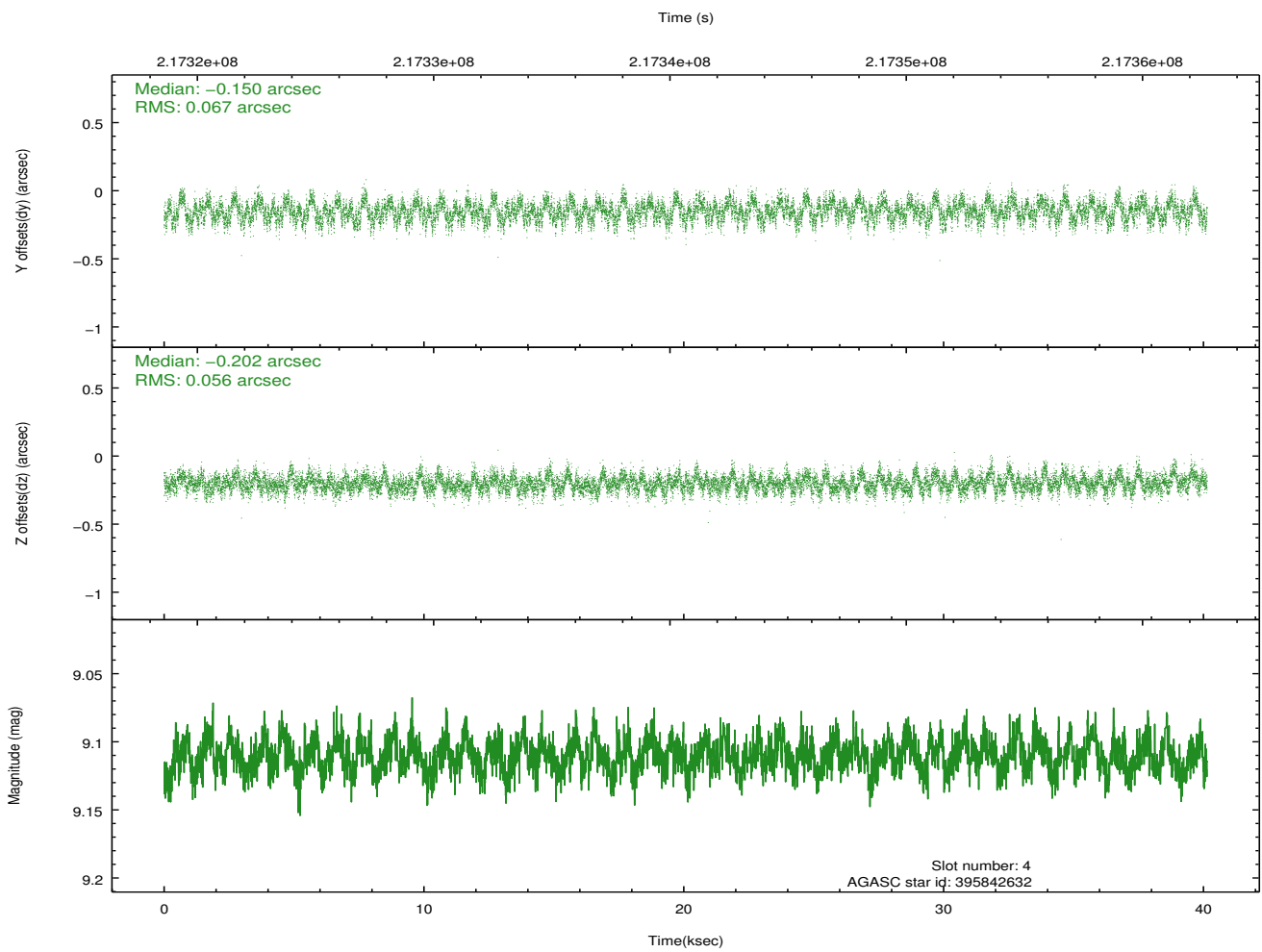
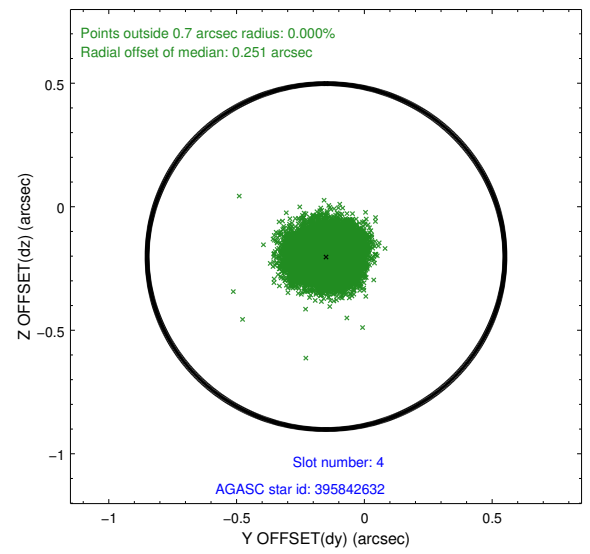
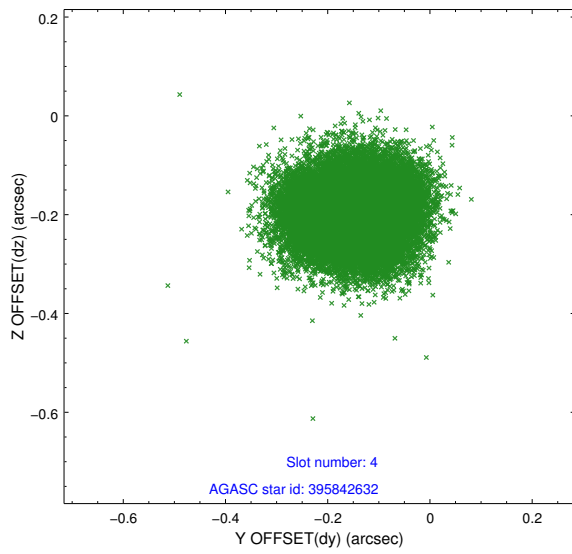
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.10	9791	-0.071	-0.024	0.012	0.023	0.000000	0.000000	-758.55	-1731.92
1	FID		ACIS-S-4	7.21	9791	0.111	0.041	0.017	0.023	0.000000	0.000000	2154.87	176.66
2	FID		ACIS-S-5	7.23	9792	-0.069	-0.007	0.010	0.019	0.000000	0.000000	-1811.40	170.24
3	GUIDE	used	395583888	9.67	19567	0.110	0.061	0.123	0.201	187.778753	41.111279	-1177.19	-1571.69
4	GUIDE	used	395842632	9.11	19569	-0.150	-0.202	0.094	0.147	187.414657	41.992279	446.15	1323.45
5	GUIDE	used	395846904	9.51	19574	-0.184	0.033	0.110	0.179	188.630312	41.670367	1867.70	-1831.41
6	GUIDE	used	395847744	9.56	19563	0.146	0.028	0.085	0.138	187.588656	41.269628	-1119.22	-806.10
7	GUIDE	used	395578096	8.45	19581	0.081	0.082	0.063	0.101	187.586419	40.830440	-2270.11	-1890.32

2.4 Star Slots

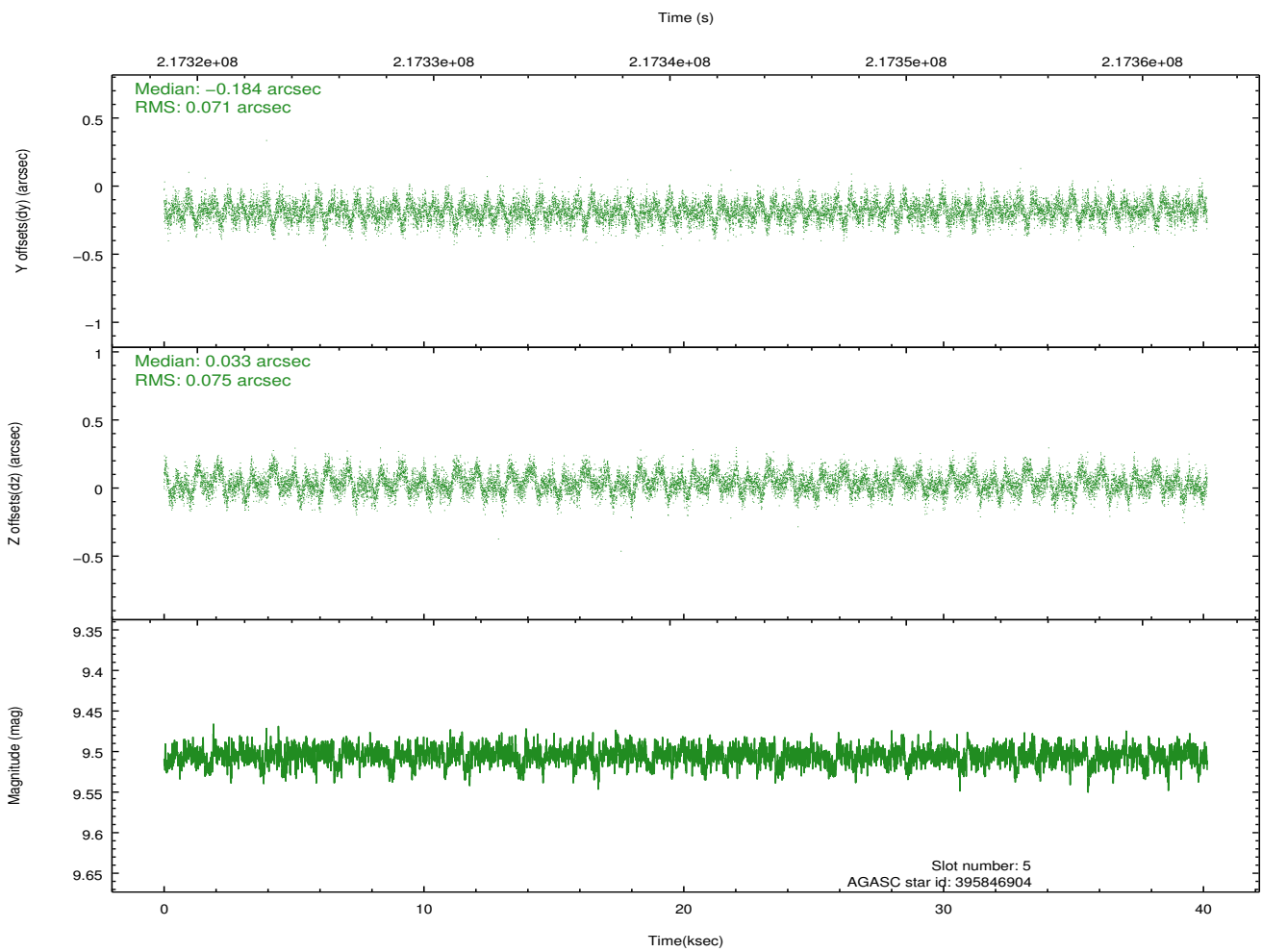
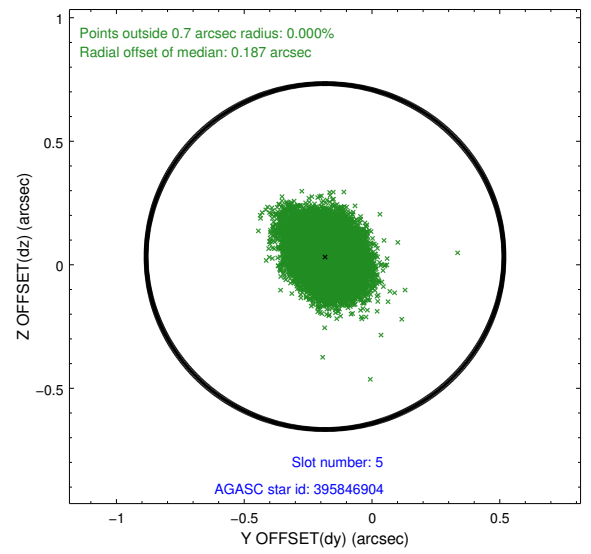
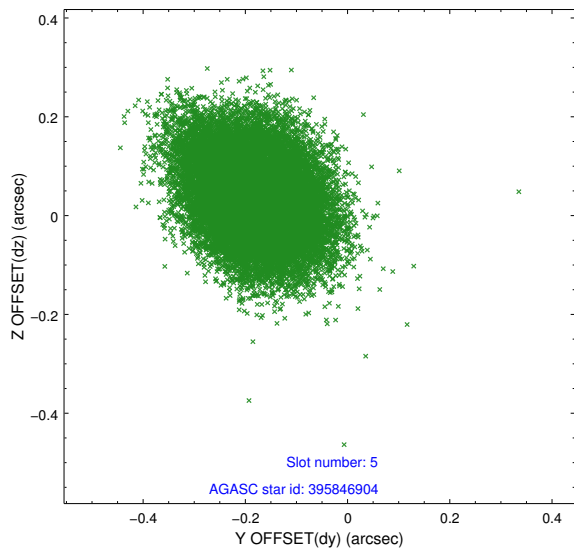
2.4.1 Slot 3



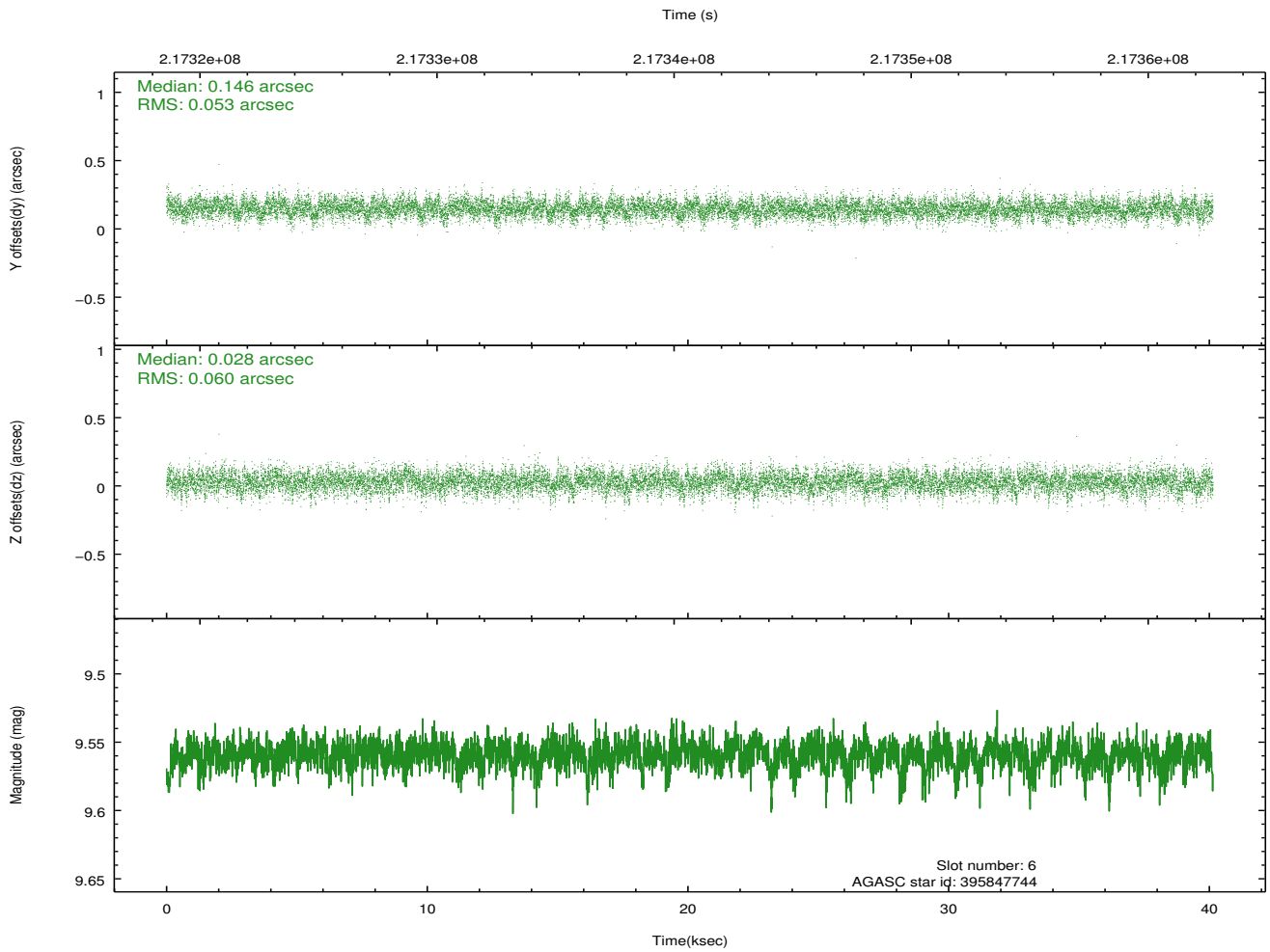
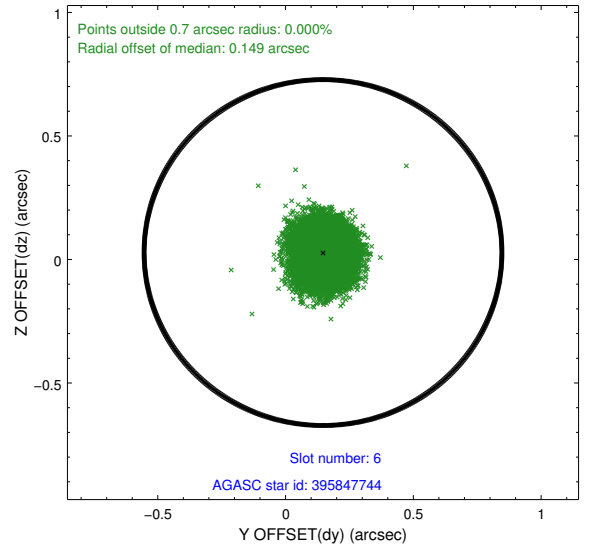
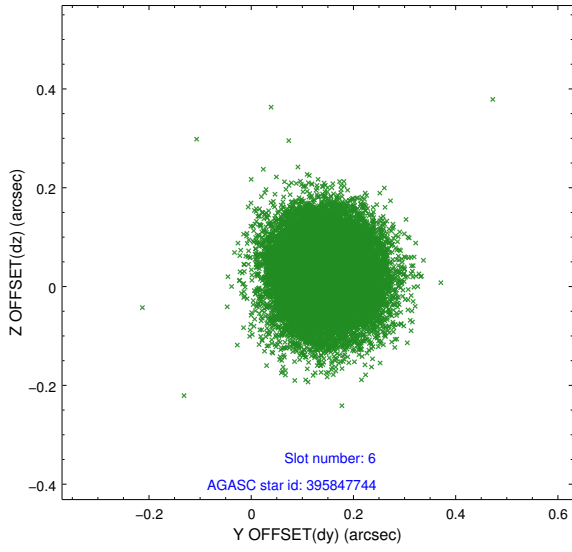
2.4.2 Slot 4



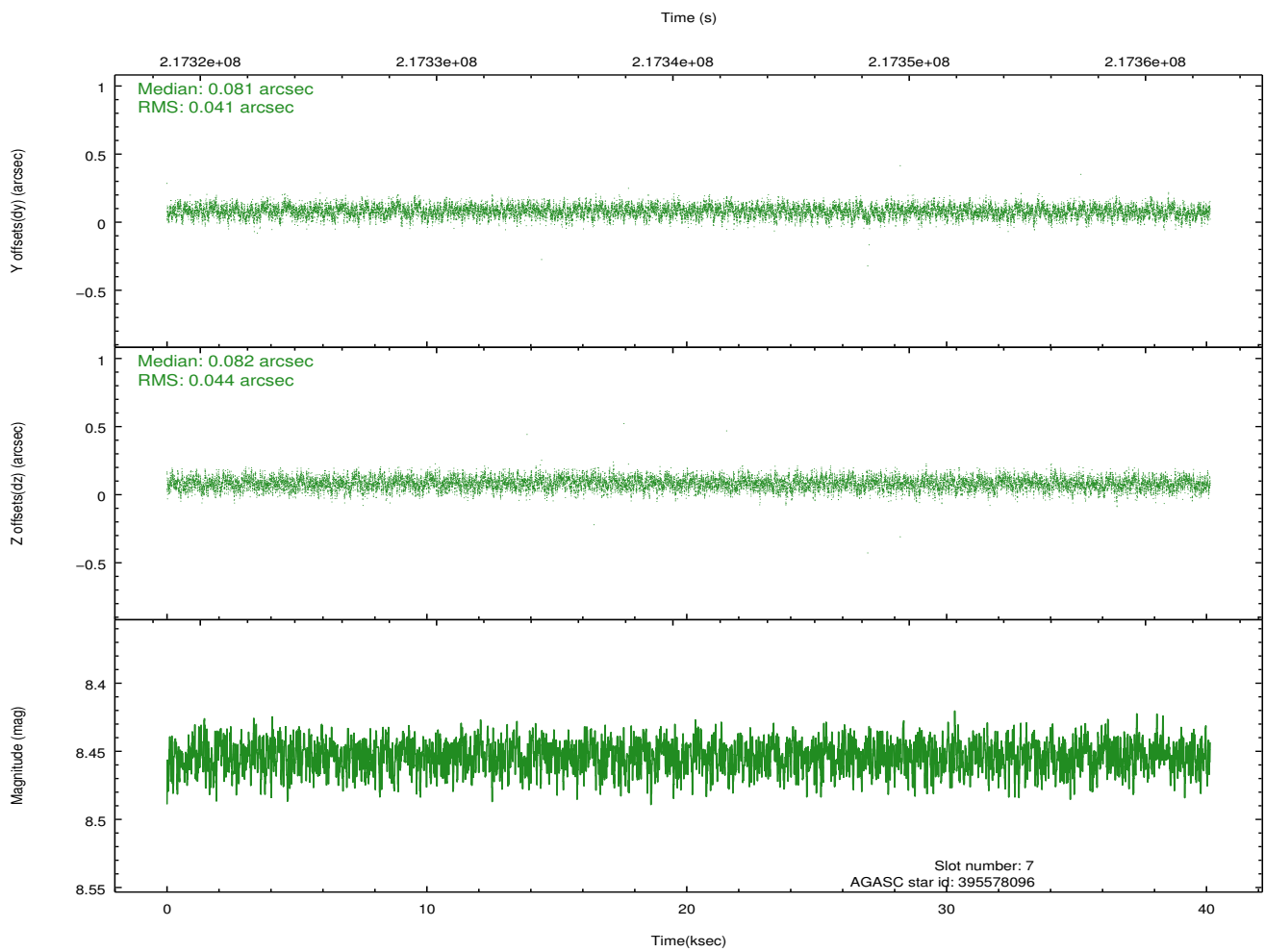
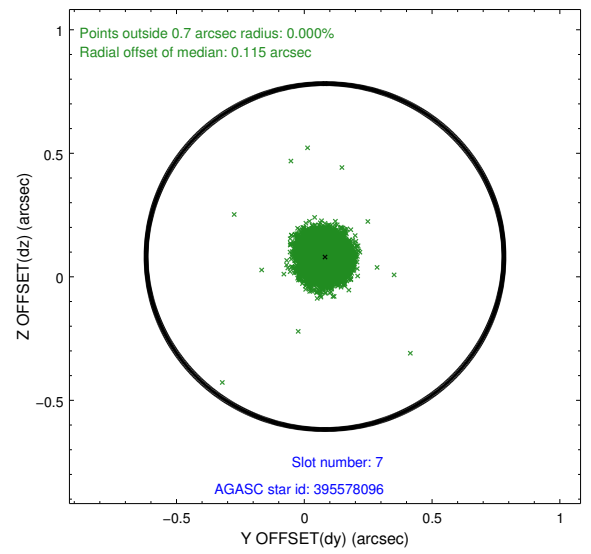
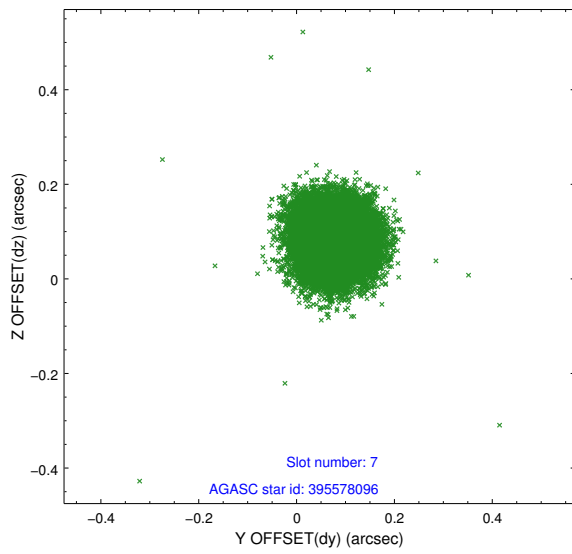
2.4.3 Slot 5



2.4.4 Slot 6

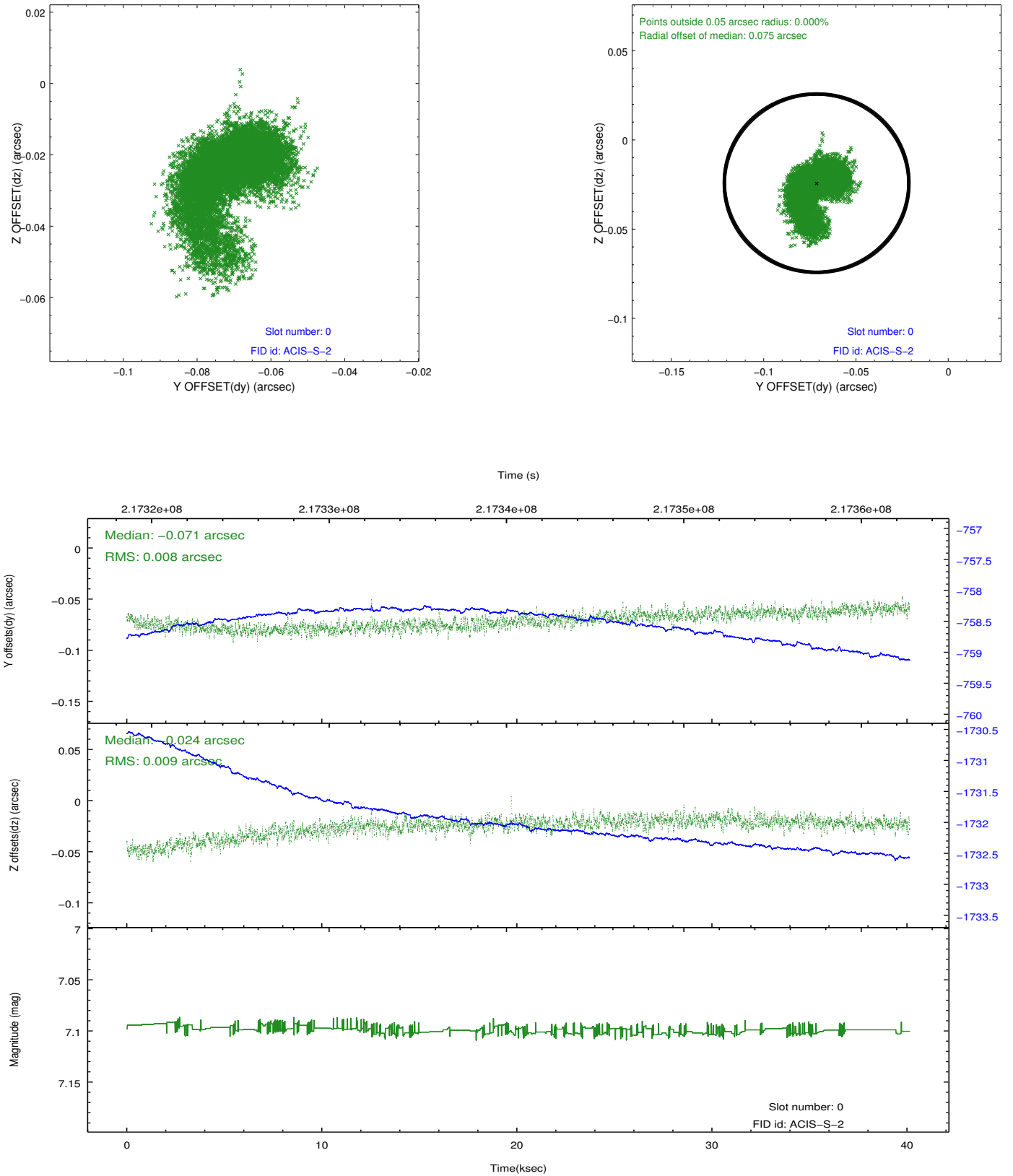


2.4.5 Slot 7

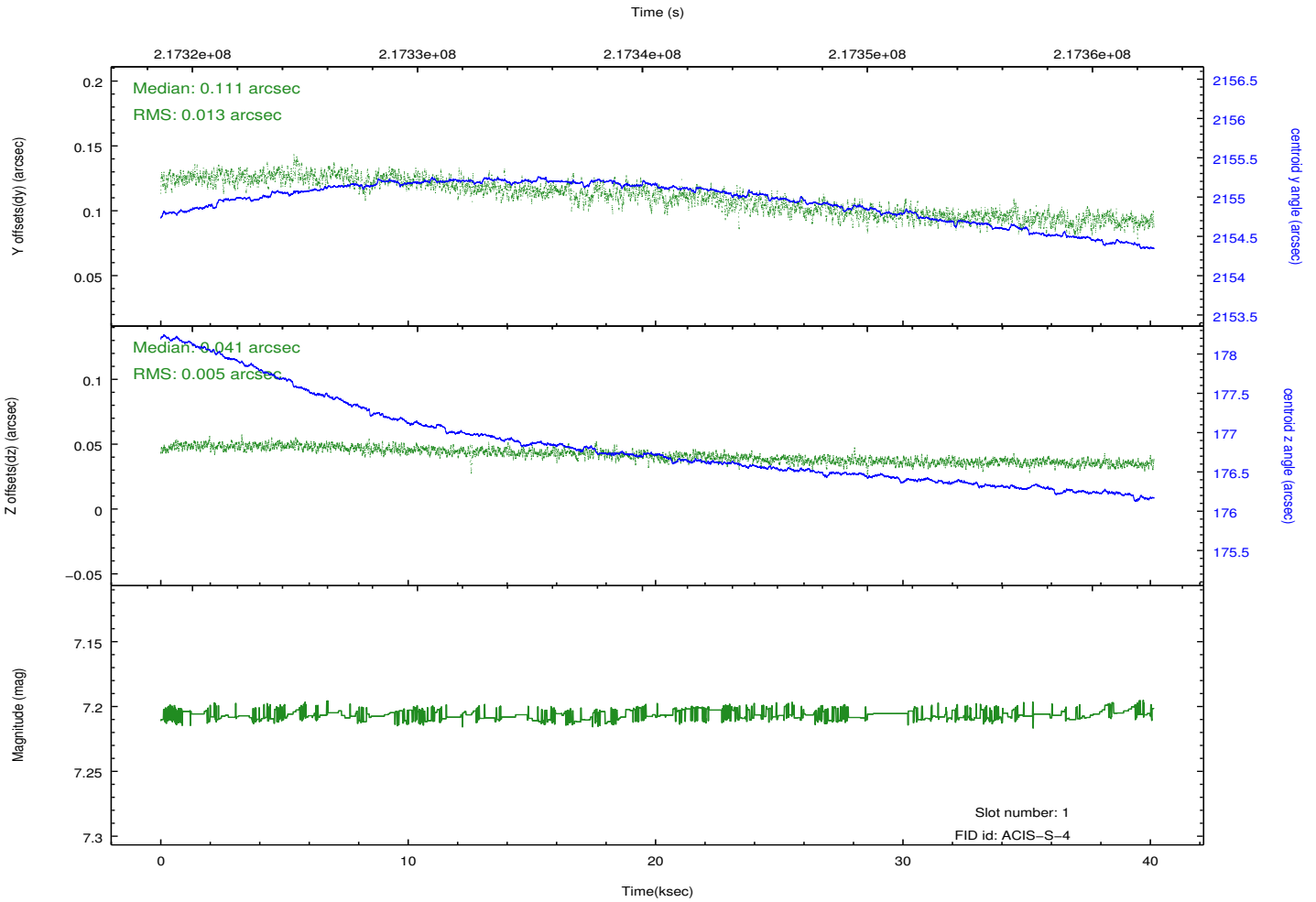
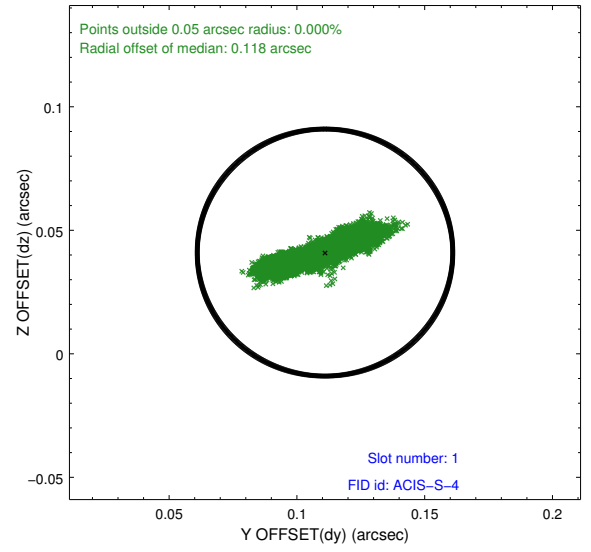
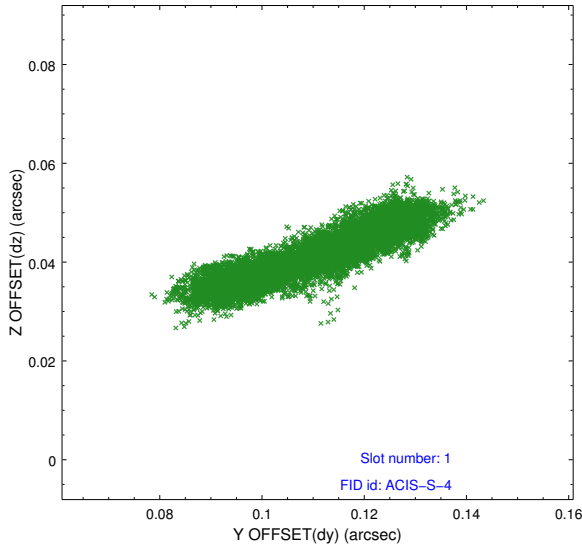


2.5 FID Slots

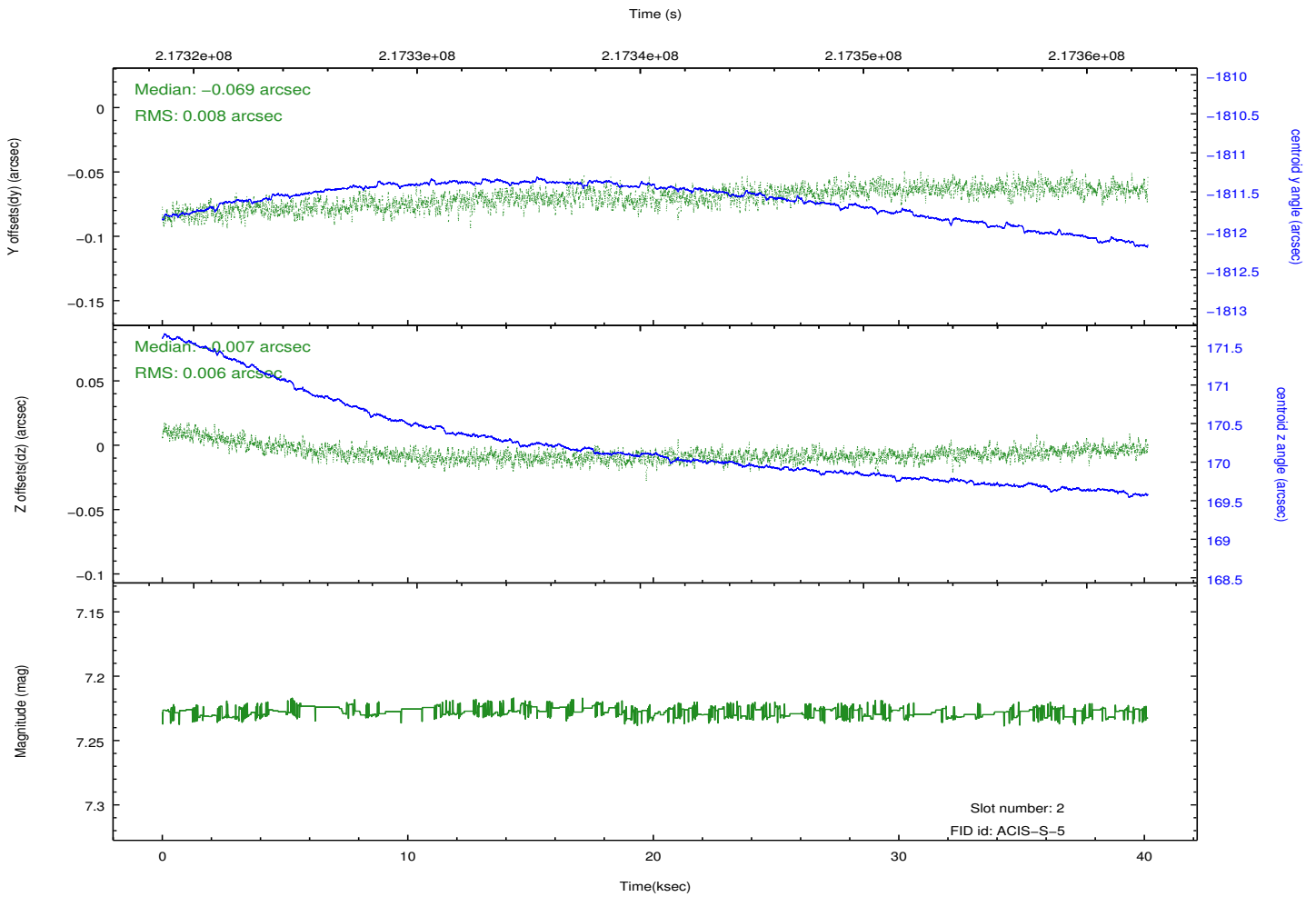
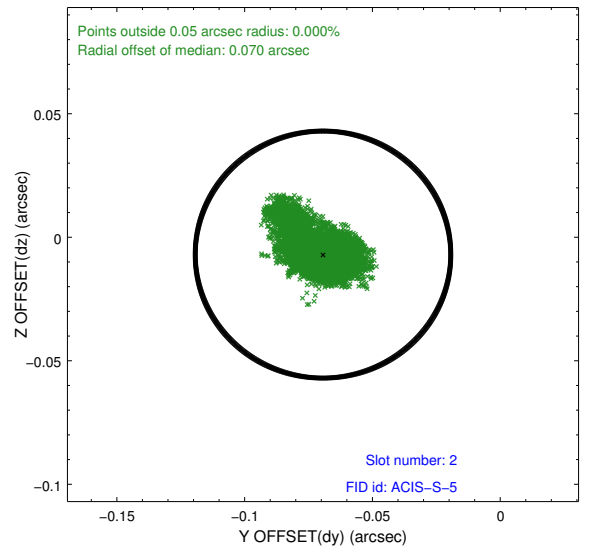
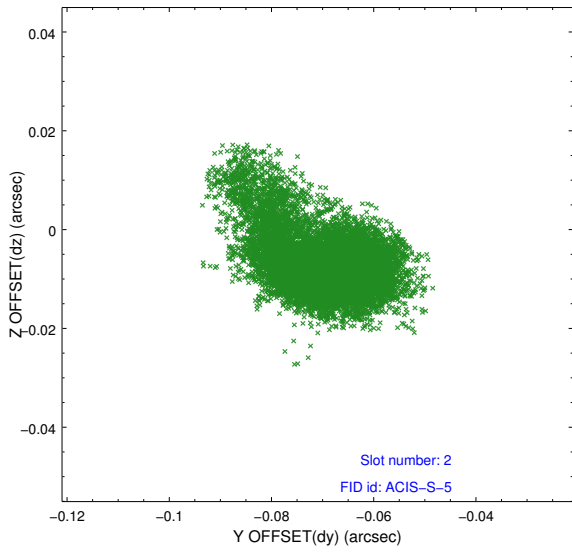
2.5.1 Slot 0



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)	2015.07.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.14

A.2 Comments

Because an aspect solution is determined in a finite time interval, a small number of events registered within the delta time before the first aspect solution do not have proper sky coordinates. We apply a manual workaround to exclude those events with incorrect sky positions until the complete s/w resolution is obtained.