

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 11327 - L2 Version 2  
Chandra X-Ray Center

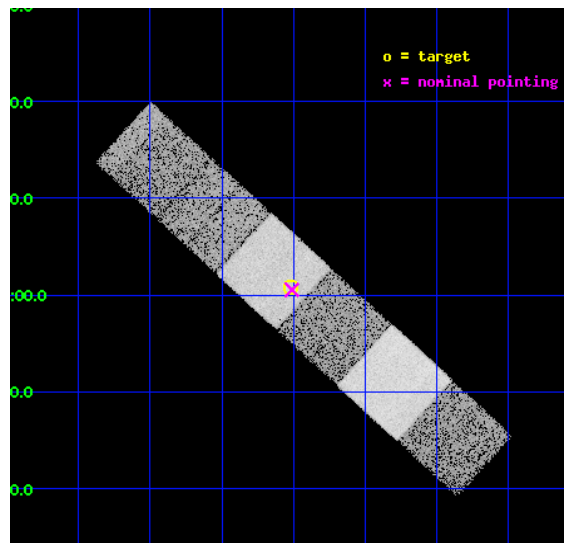
L2 Processing Date : Feb 11 2012

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# 1 Front

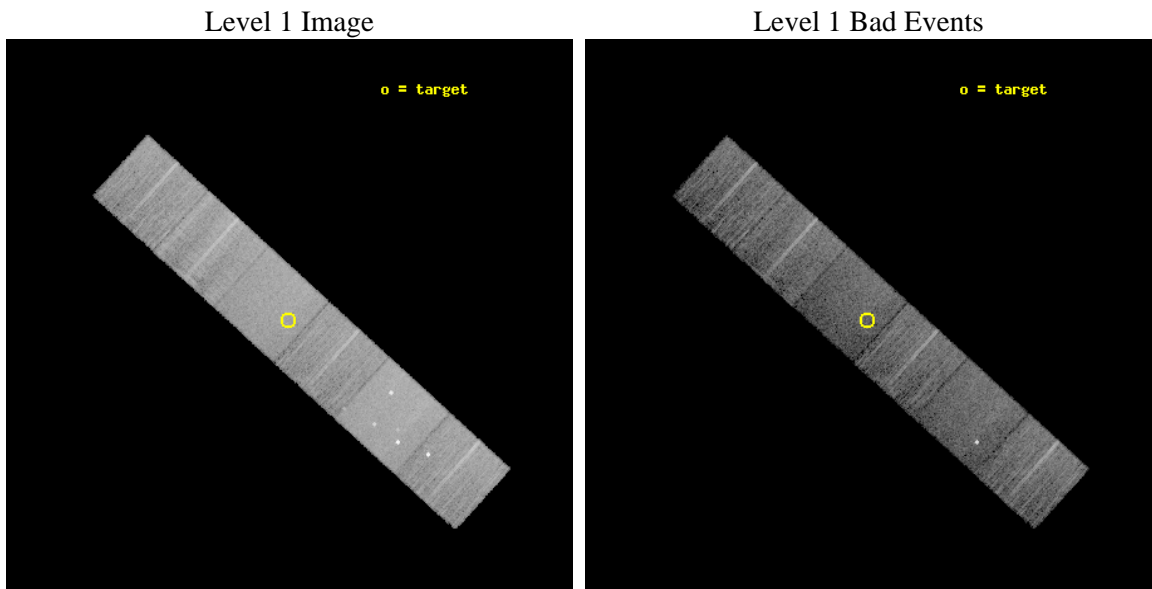
seq_num	600846	Sequence number
obs_id	11327	Observation id
title	Accretion onto nuclear black holes in early type galaxies: comparing field vs. clusters	Proposal title
observer	Elena Gallo	Principal investigator
object	SDSSJ150100.85+010049.8	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	225.254	Observer's specified target RA [deg]
dec_targ	1.0138	Observer's specified target Dec [deg]
ra_nom	225.25274308256	Nominal RA [deg]
dec_nom	1.009145269812	Nominal Dec [deg]
roll_nom	222.28896717511	Nominal Roll [deg]
revision	2	Processing version of data
ontime	11452.799957395	Sum of GTIs [s]
livetime	11307.777708286	Livetime [s]
ontime4	11452.799957395	Sum of GTIs [s]
ontime5	11452.799957395	Sum of GTIs [s]
ontime6	11452.799957395	Sum of GTIs [s]
ontime7	11452.799957395	Sum of GTIs [s]
ontime8	11452.799957395	Sum of GTIs [s]
ontime9	11452.799957395	Sum of GTIs [s]
l2events	122855	Number of level 2 events



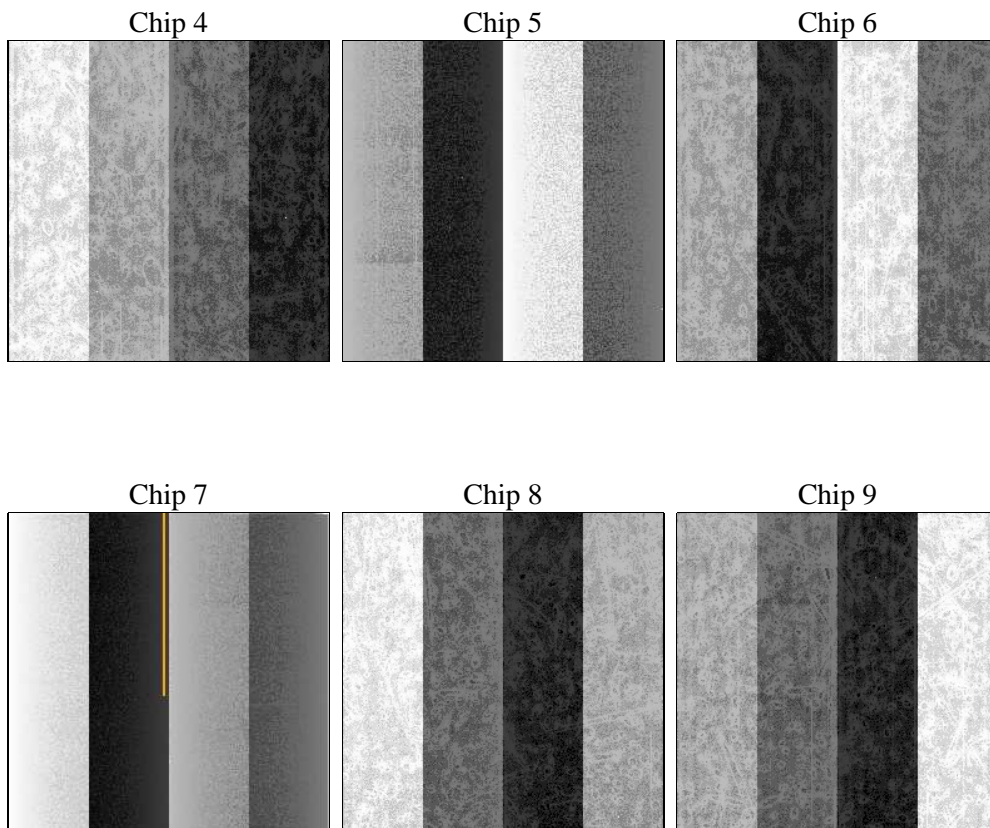
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	11400.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	11452.799957395	Sum of GTIs [s]
caldbver	4.4.7	&#160	ontime4	11452.799957395	Sum of GTIs [s]
date	2012-02-11T03:03:32	Date and time of file creation	ontime5	11452.799957395	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	11452.799957395	Sum of GTIs [s]
			ontime7	11452.799957395	Sum of GTIs [s]
			ontime8	11452.799957395	Sum of GTIs [s]
			ontime9	11452.799957395	Sum of GTIs [s]
			l1events	527614	Number of level 1 events

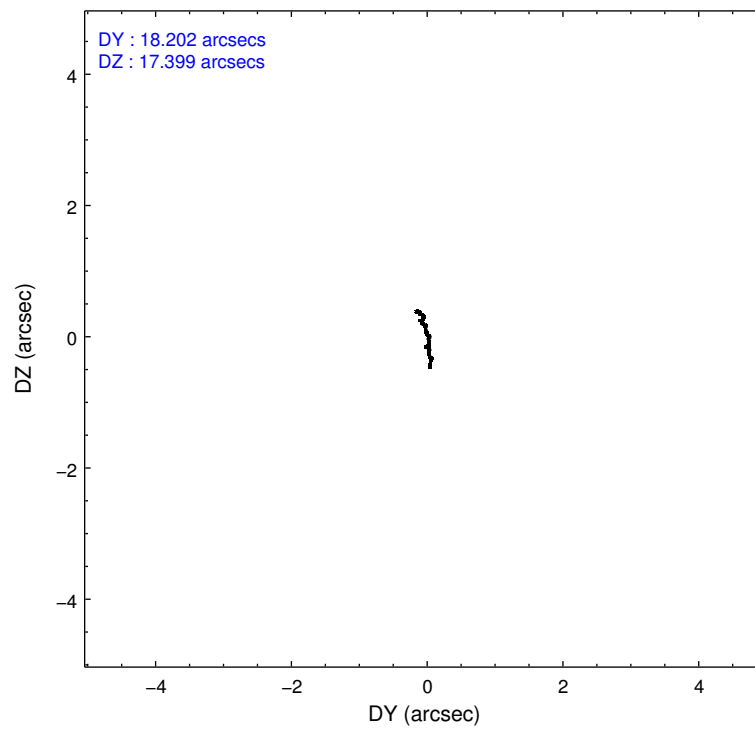
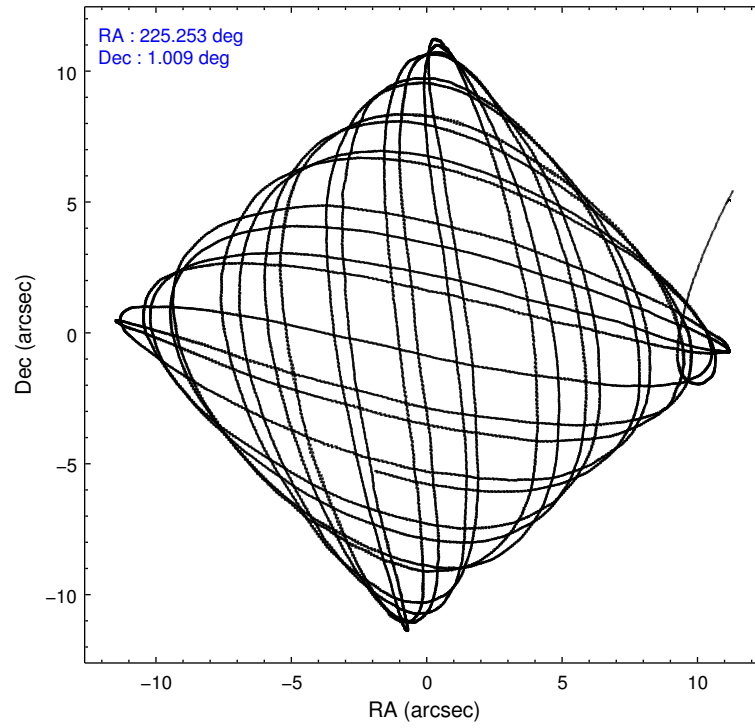
### 2.1.4 Events

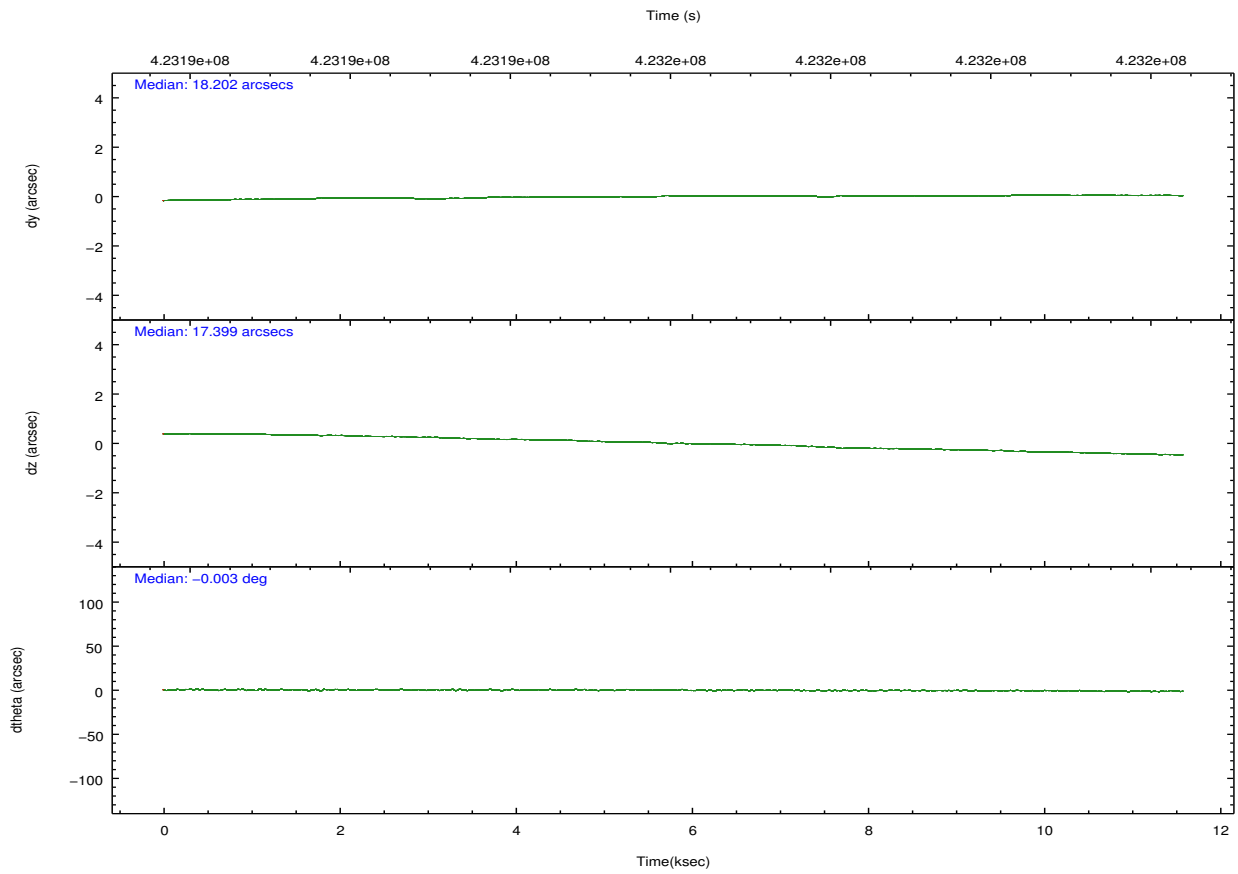
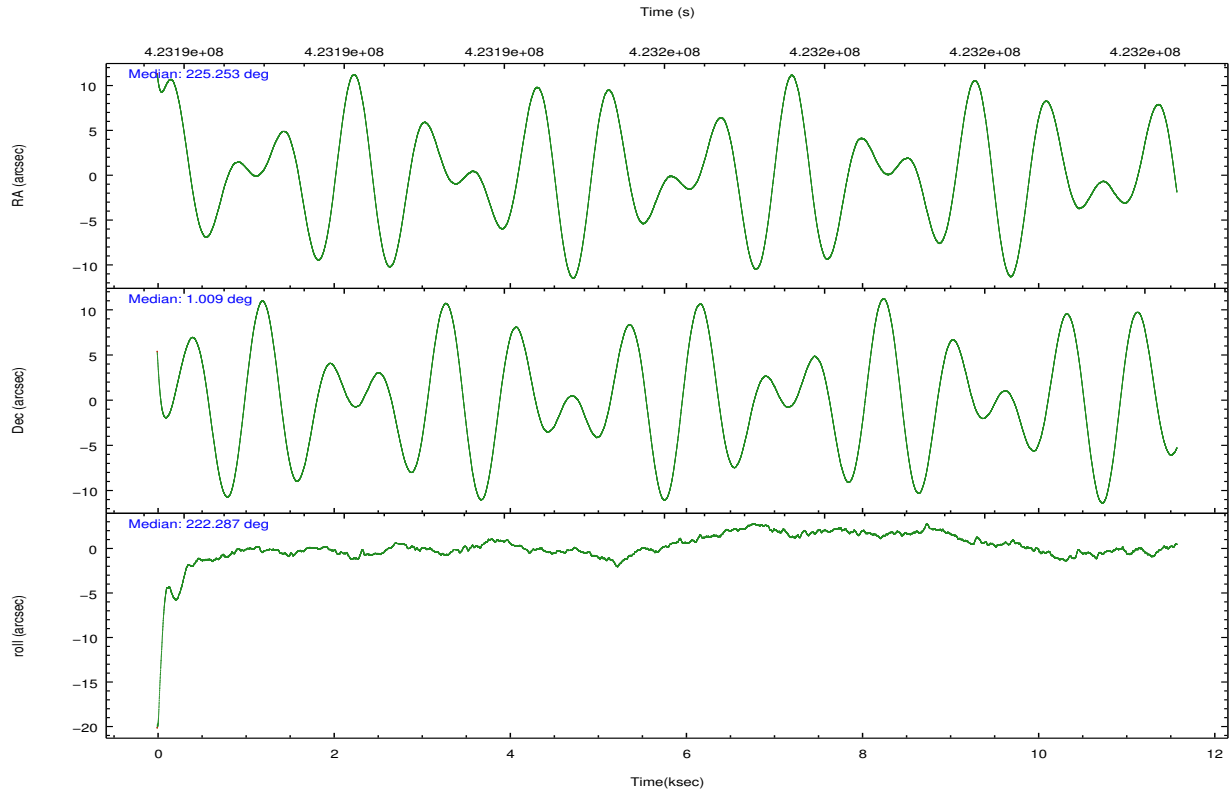
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	82977	116634	72441	91129	93312	71121	grade 0 events	6277	6757	2921	3682	7320	3192
rejected events	71202	58372	64138	50291	68529	62320		7%	5%	4%	4%	7%	4%
rejected %	85%	50%	88%	55%	73%	87%	grade 1 events	90	211	34	122	67	46
								0%	0%	0%	0%	0%	0%
							grade 2 events	2180	17653	1821	8367	5763	1889
								2%	15%	2%	9%	6%	2%
							grade 3 events	970	2173	879	3670	2628	934
								1%	1%	1%	4%	2%	1%
							grade 4 events	864	2031	896	3616	2464	879
								1%	1%	1%	3%	2%	1%
							grade 5 events	3412	9301	3428	9602	4939	3725
								4%	7%	4%	10%	5%	5%
							grade 6 events	1485	29665	1788	21509	6622	1912
								1%	25%	2%	23%	7%	2%
							grade 7 events	67699	48843	60674	40561	63509	58544
								81%	41%	83%	44%	68%	82%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	225.260622	225.2527430825579	CCD I2 on	N	N
[deg] Pointing Dec	1.035301	1.009145269812018	CCD I3 on	N	N
[deg] Pointing Roll	222.132212	222.2889671751099	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	423190411.184000	423189312.76922	CCD S5 on	O2	Y
Observation start date	2011-05-31T00:52:25	2011-05-31T00:35:12	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	423201811.184000	423202557.30741	On-chip summing requested	N	N
Observation end date	2011-05-31T04:02:25	2011-05-31T04:15:57	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



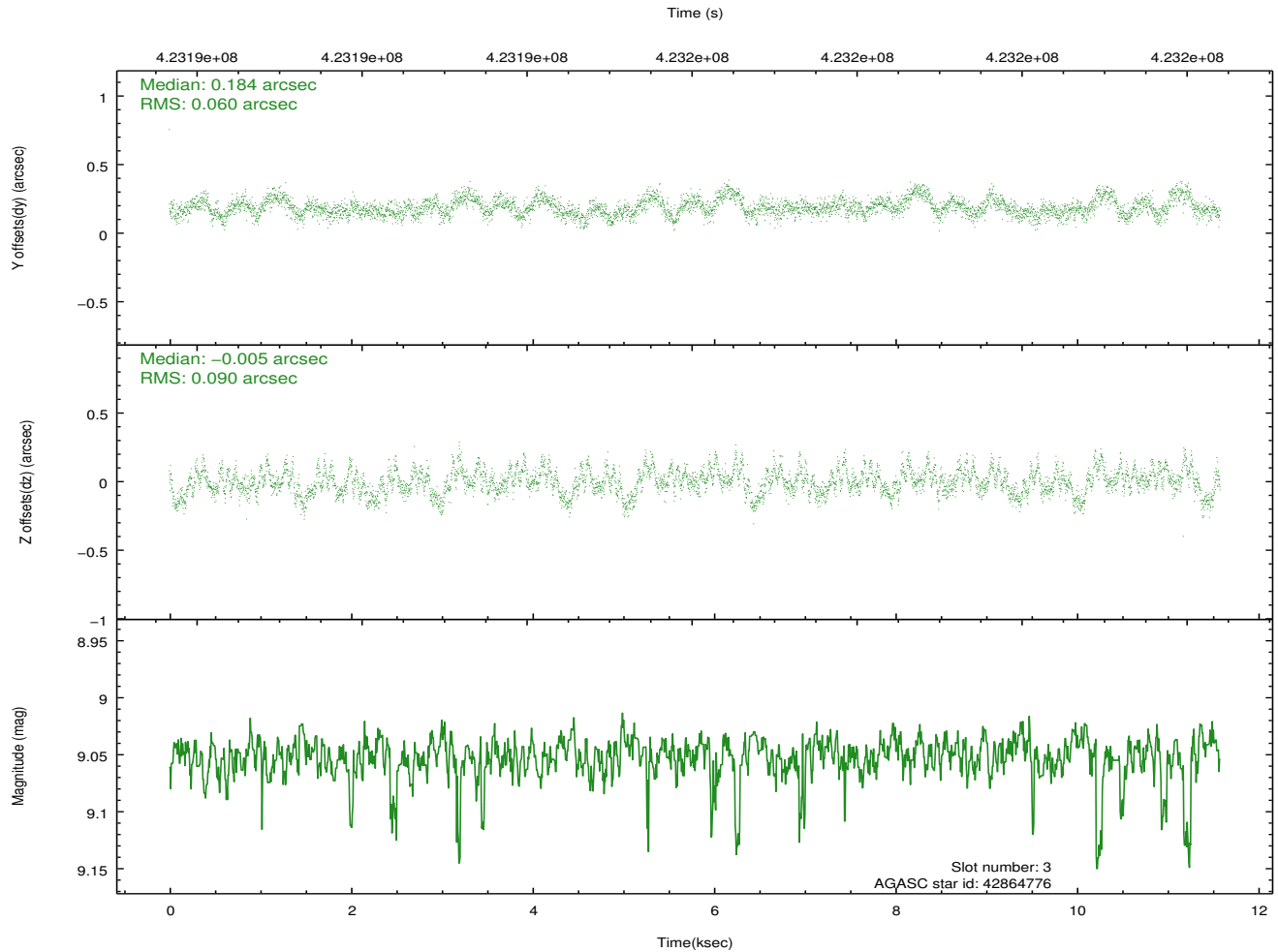
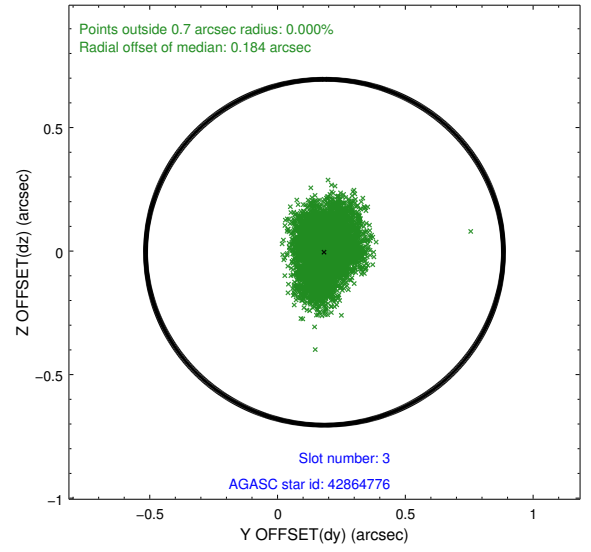
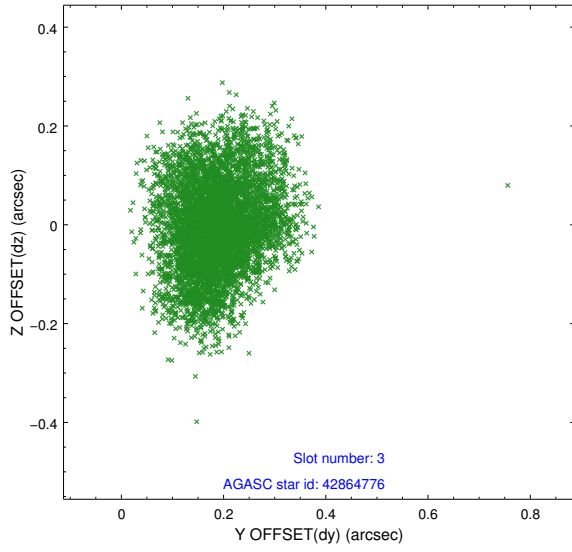


### Slot Statistics

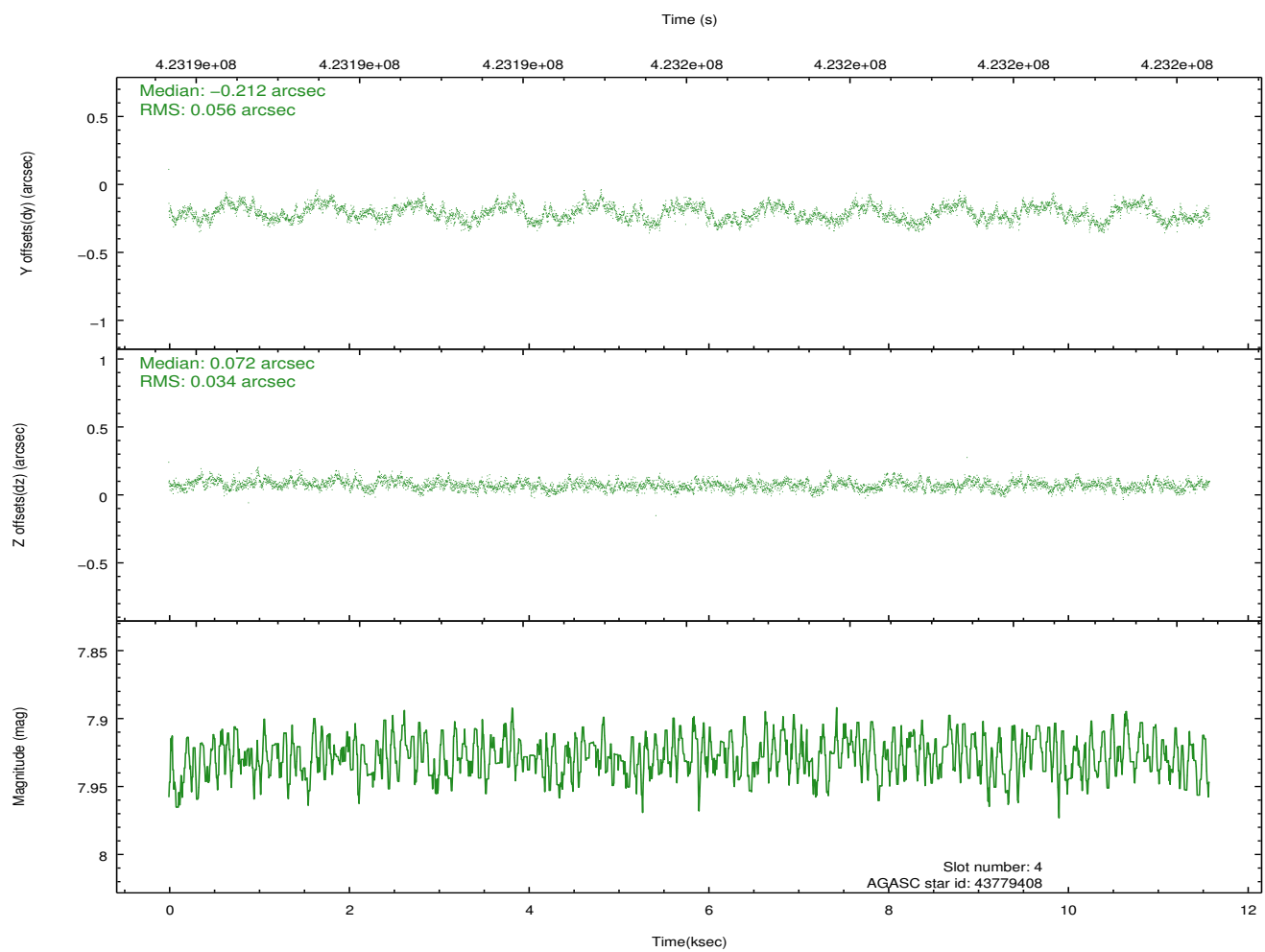
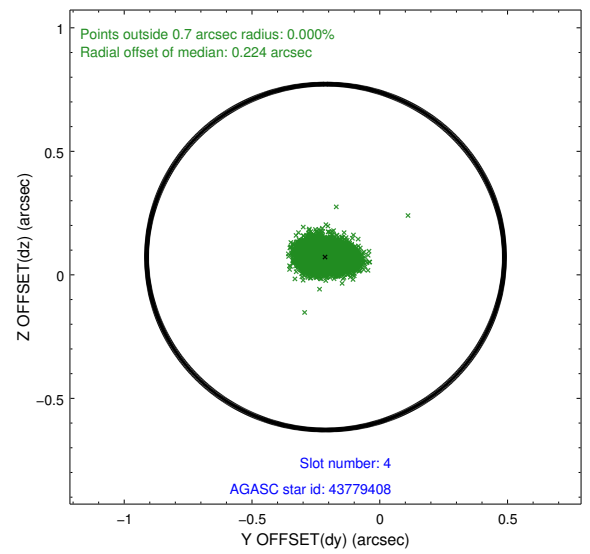
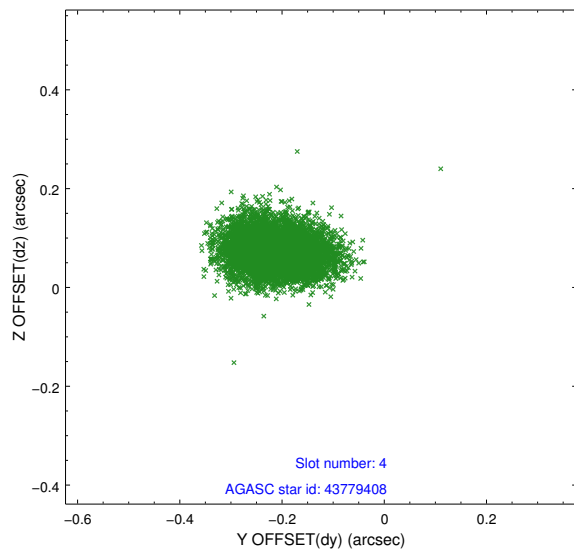
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.90	2825	-0.065	-0.030	0.012	0.025	0.000000	0.000000	-771.34	-1738.81
1	FID	ACIS-S-4	6.98	2825	0.209	0.040	0.007	0.015	0.000000	0.000000	2142.05	169.23
2	FID	ACIS-S-5	7.01	2825	-0.176	-0.001	0.011	0.023	0.000000	0.000000	-1823.70	163.44
3	GUIDE	42864776	9.05	5621	0.184	-0.005	0.116	0.190	224.993302	1.618488	-693.15	-2201.94
4	GUIDE	43779408	7.93	5649	-0.212	0.072	0.070	0.111	225.433092	0.714839	313.65	1271.39
5	GUIDE	43782432	8.06	5645	-0.080	0.152	0.067	0.107	225.298629	1.853875	-2077.75	-2093.51
6	GUIDE	43783448	8.49	5649	0.220	-0.135	0.086	0.137	225.065092	0.537217	1725.30	857.03
7	GUIDE	43785352	8.52	5647	-0.116	-0.090	0.070	0.110	225.635562	1.031222	-990.26	915.95

## 2.4 Star Slots

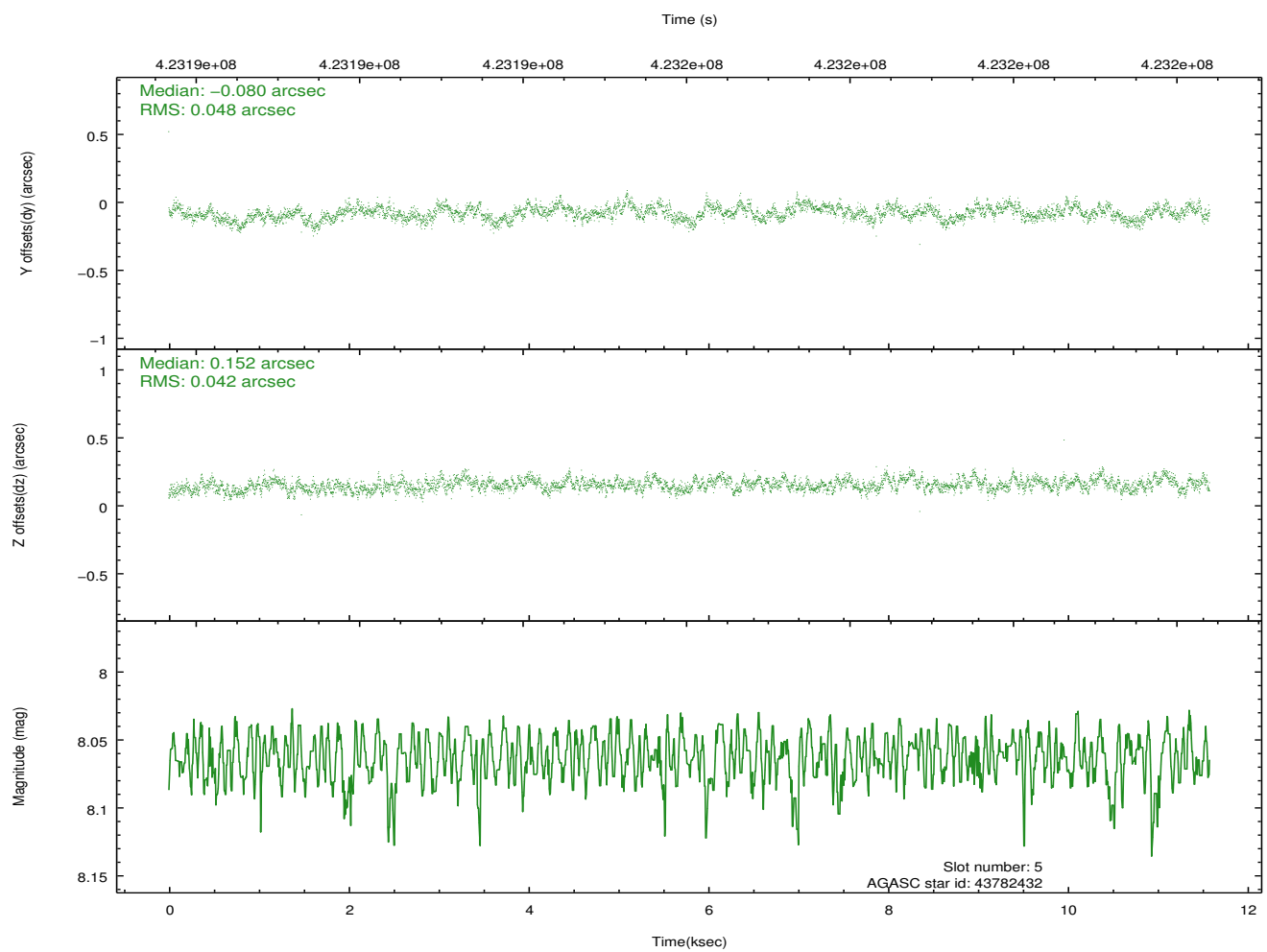
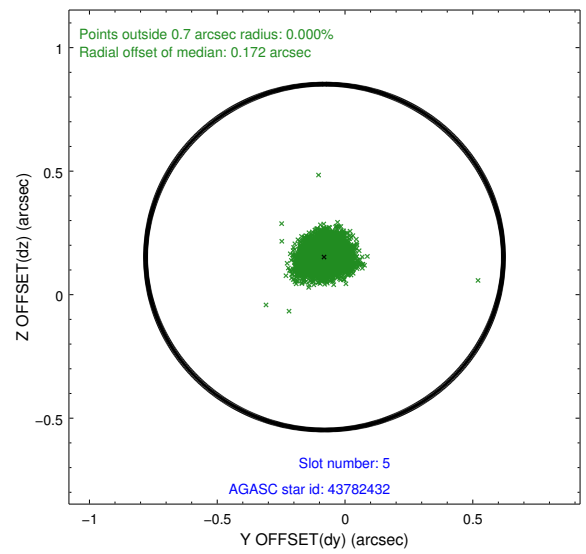
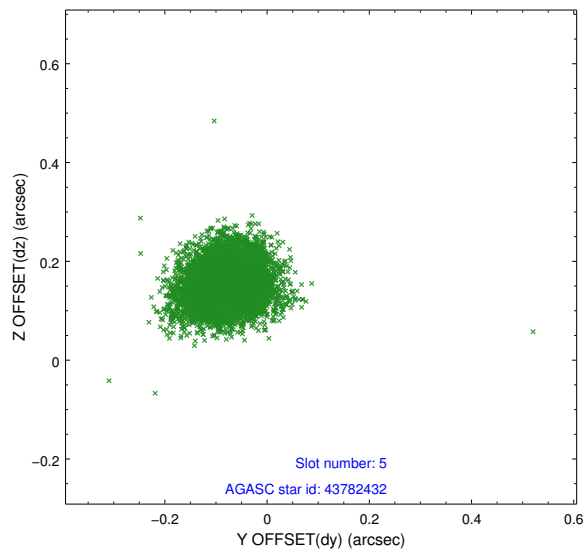
### 2.4.1 Slot 3



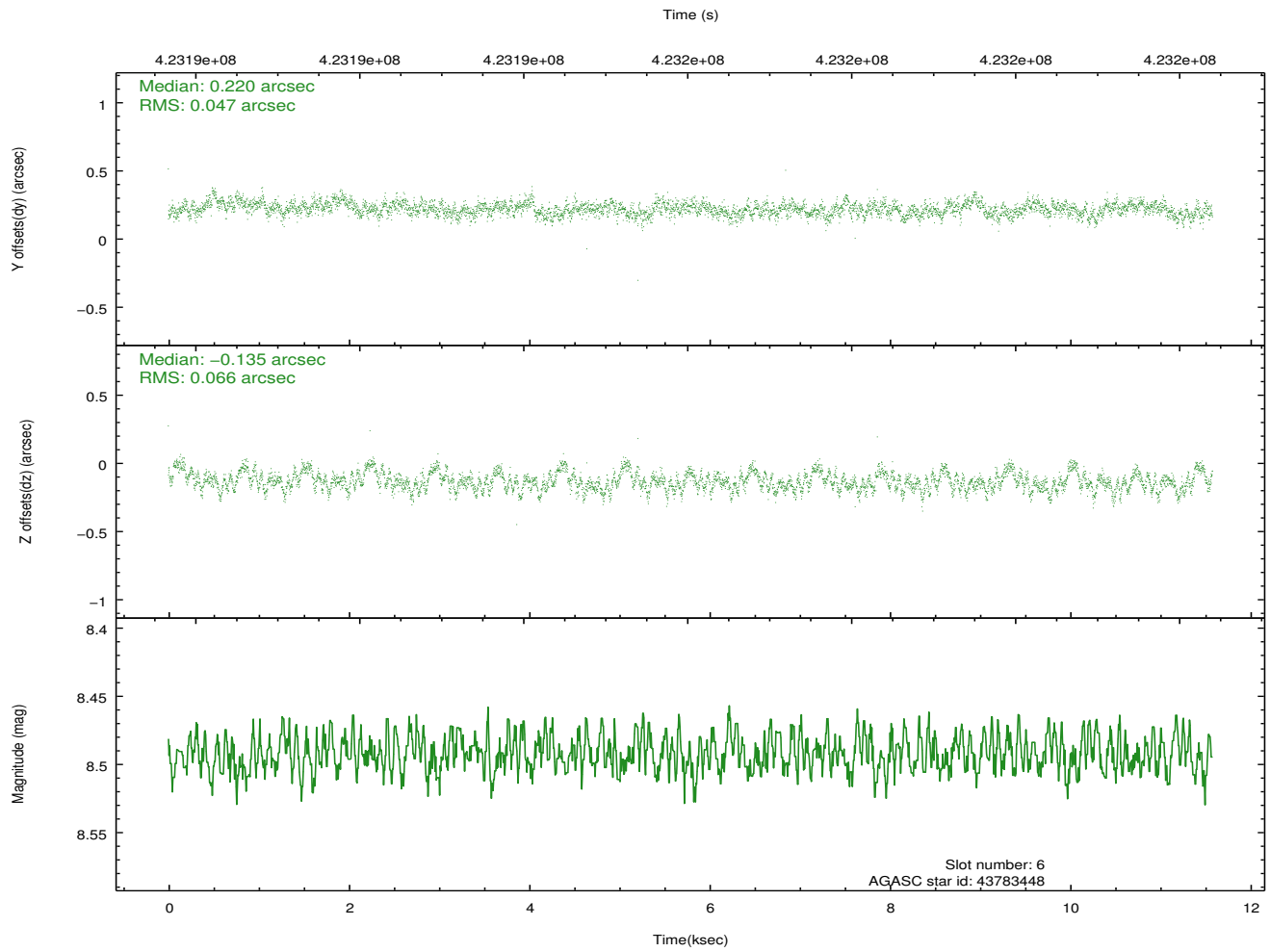
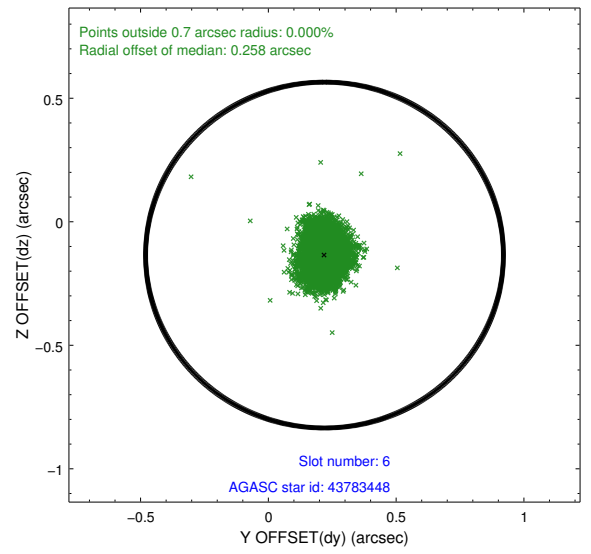
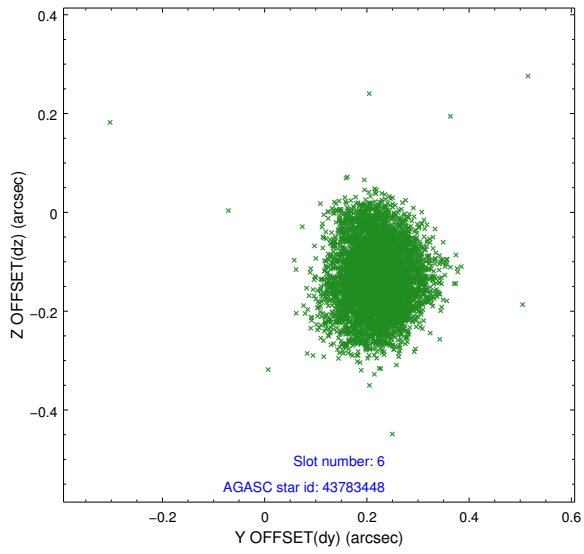
## 2.4.2 Slot 4



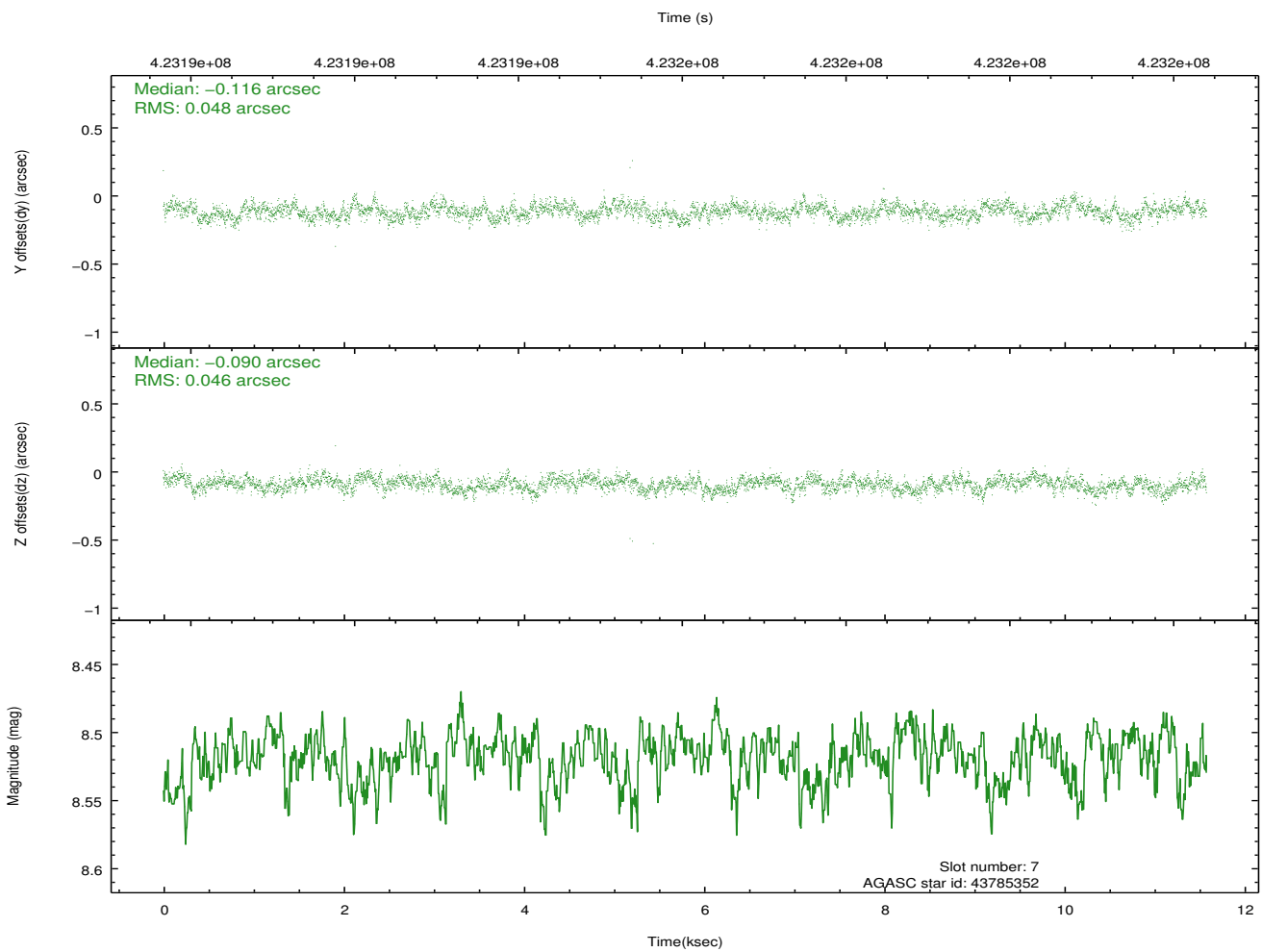
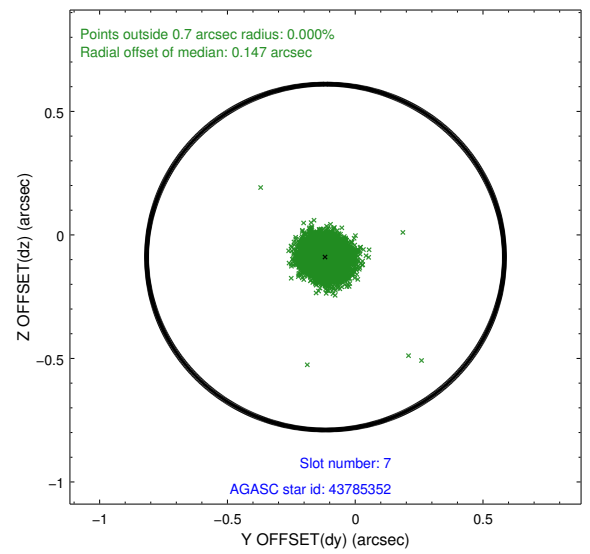
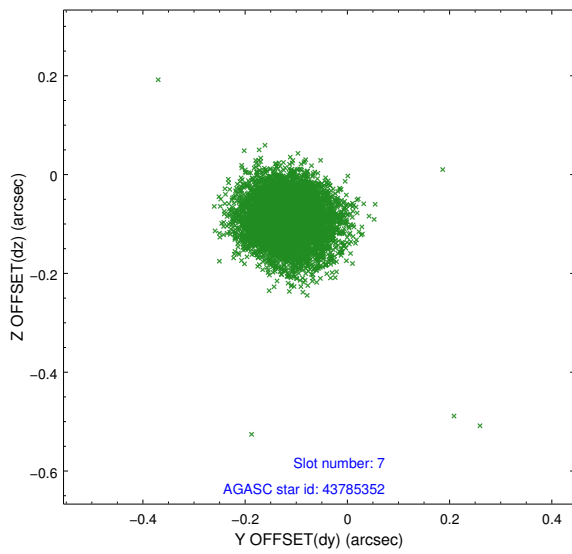
### 2.4.3 Slot 5



### 2.4.4 Slot 6

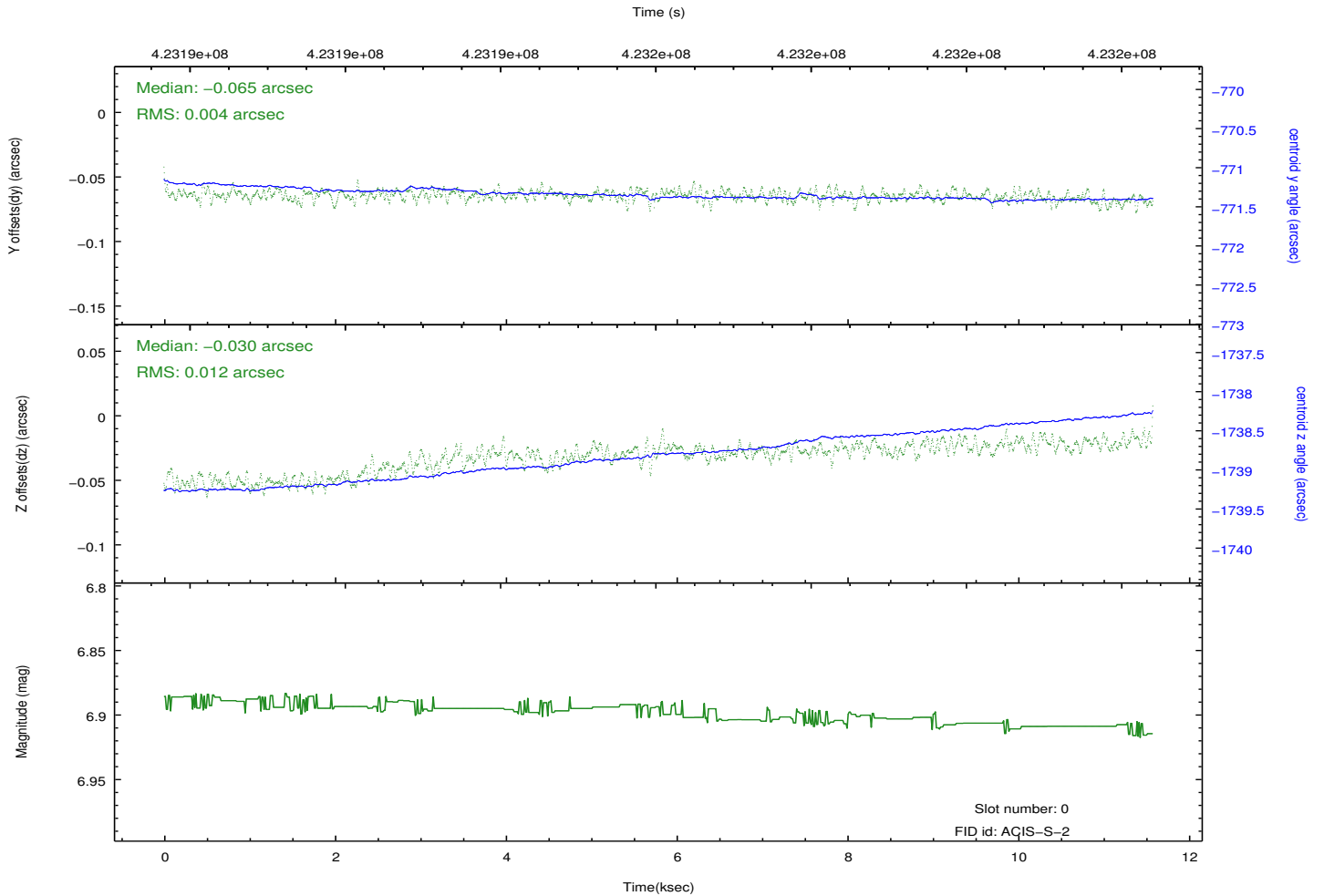
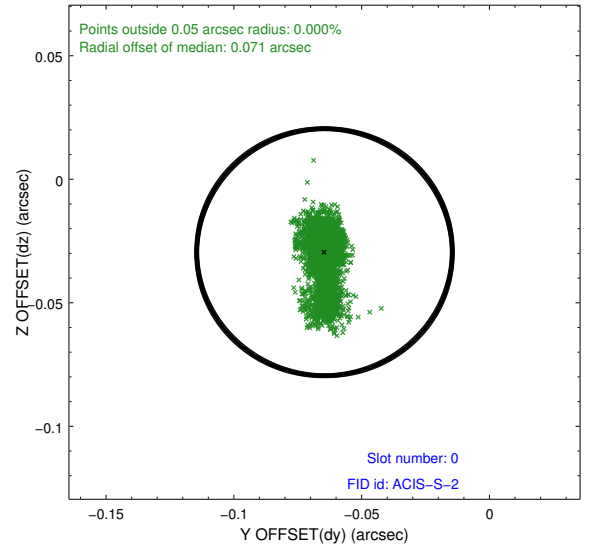
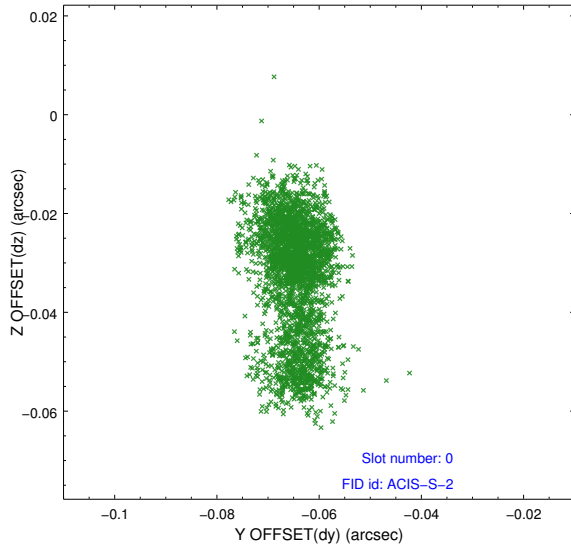


## 2.4.5 Slot 7

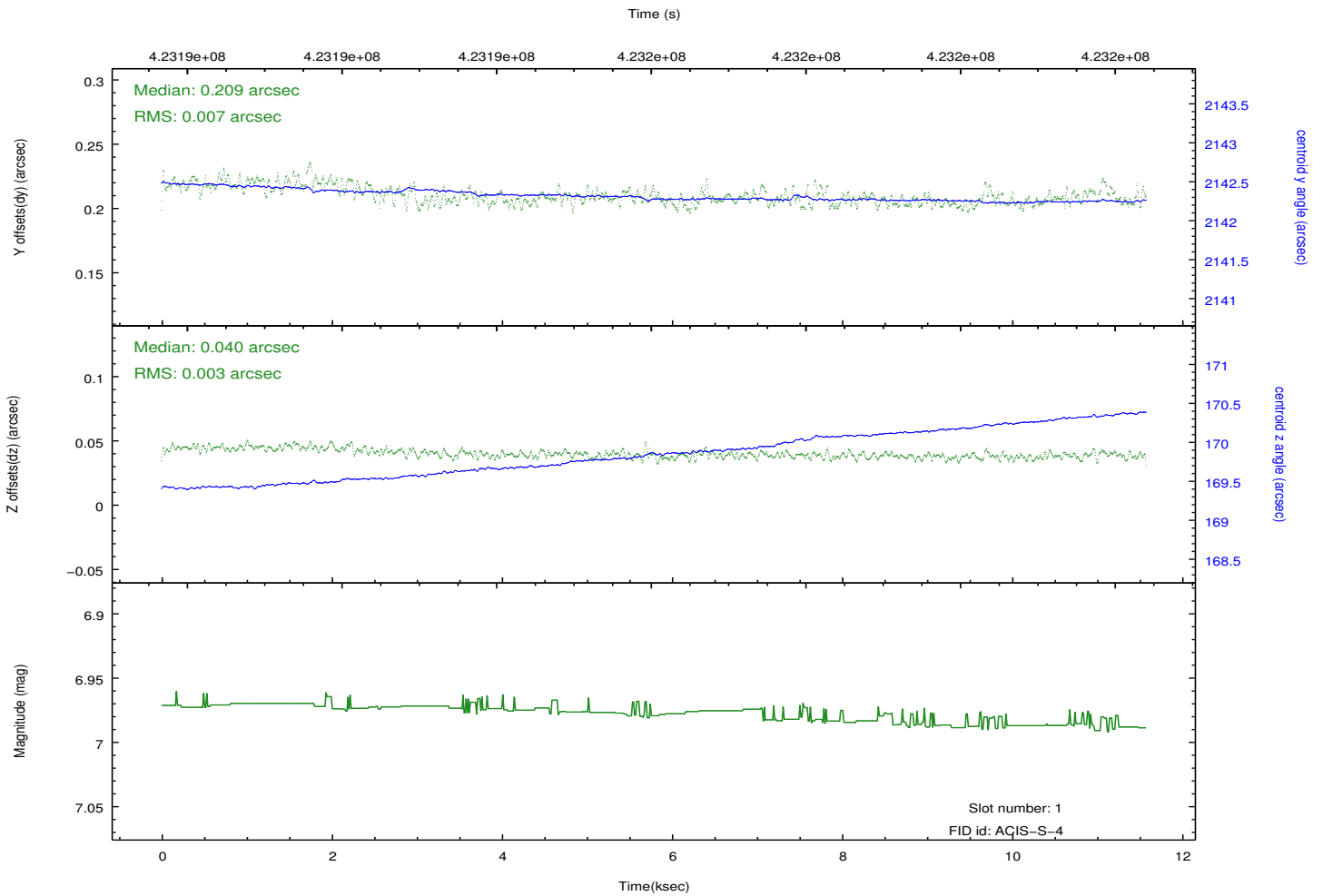
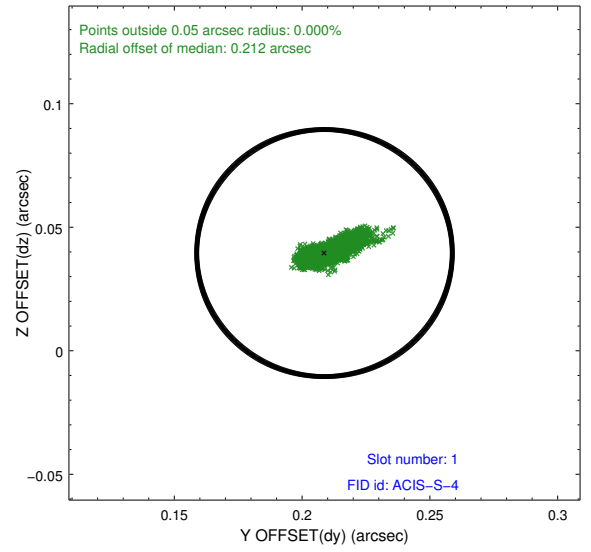
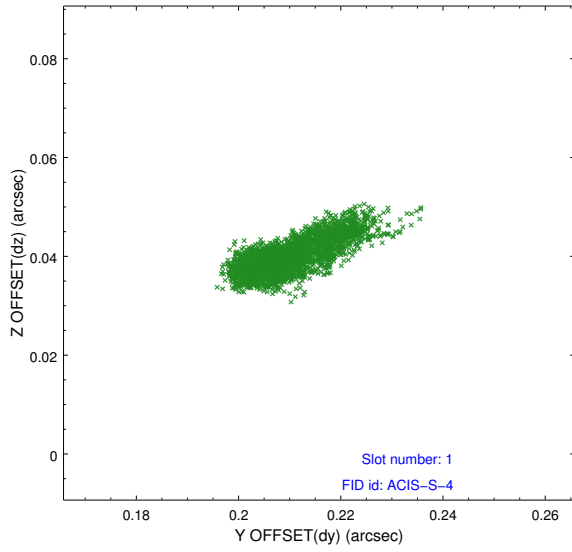


## 2.5 FID Slots

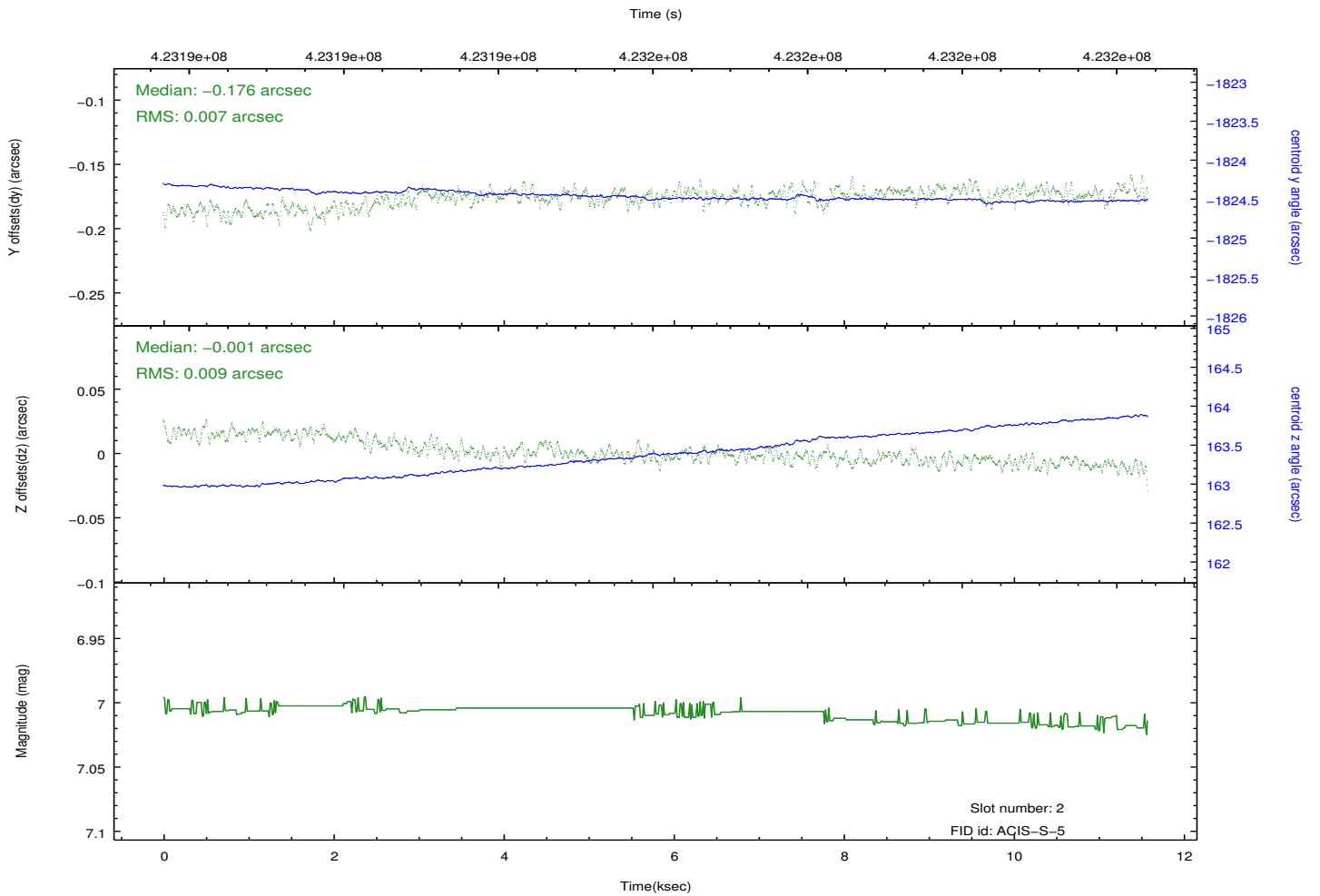
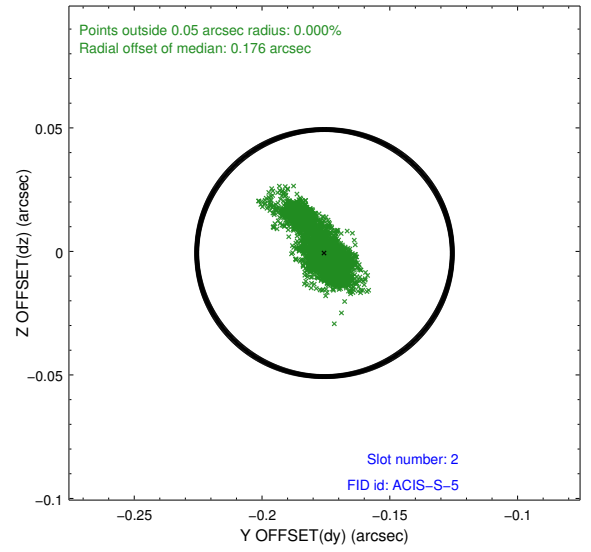
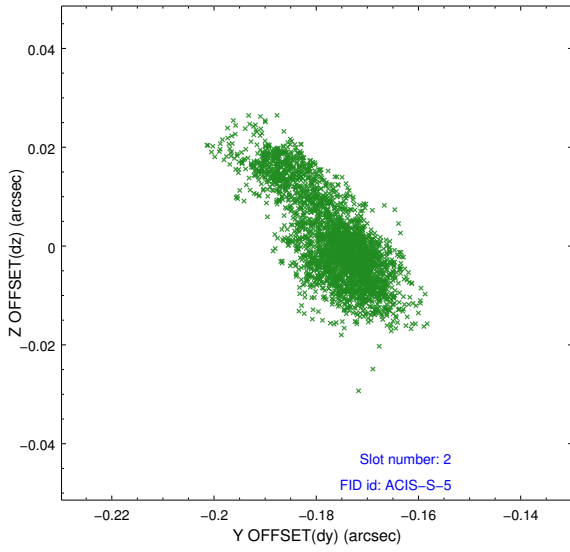
### 2.5.1 Slot 0



## 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)	2012.02.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	11.452799957395

## A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSEr algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.