

# V&V Reference Report

## L2 ASCDS Version : 8.5

Observation 5014 - L2 Version 4  
Chandra X-Ray Center

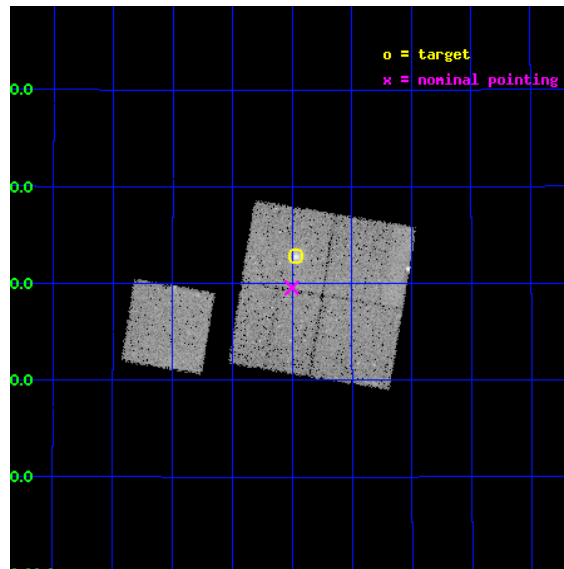
L2 Processing Date : Dec 6 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
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
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

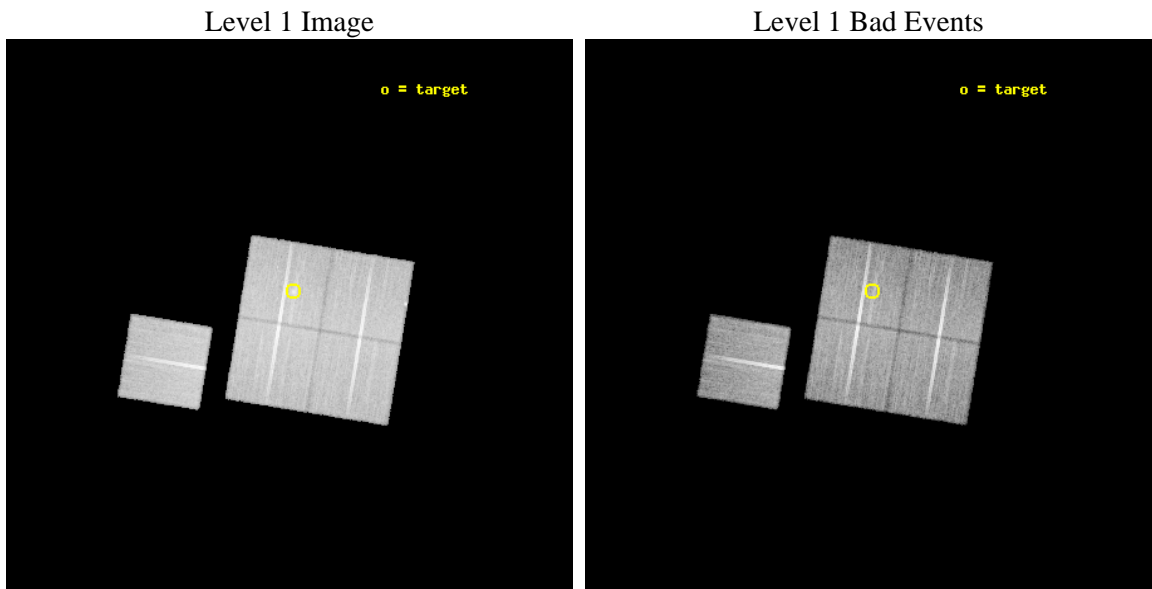
seq_num	800457	Sequence number
obs_id	5014	Observation id
title	Cluster studies: Determination of H0/q0	Proposal title
observer	DR. LEON VANSPEYBROECK	Principal investigator
object	cl1226+33	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.7425	Observer's specified target RA [deg]
dec_targ	33.546667	Observer's specified target Dec [deg]
ra_nom	186.75068553903	Nominal RA [deg]
dec_nom	33.492770246944	Nominal Dec [deg]
roll_nom	279.31821332492	Nominal Roll [deg]
revision	4	Processing version of data
ontime	33145.158975989	Sum of GTIs [s]
livetime	32712.093072856	Livetime [s]
ontime0	33148.299936235	Sum of GTIs [s]
ontime1	33142.017995834	Sum of GTIs [s]
ontime2	33142.018005729	Sum of GTIs [s]
ontime3	33145.158975989	Sum of GTIs [s]
ontime6	33135.736055315	Sum of GTIs [s]
l2events	85318	Number of level 2 events



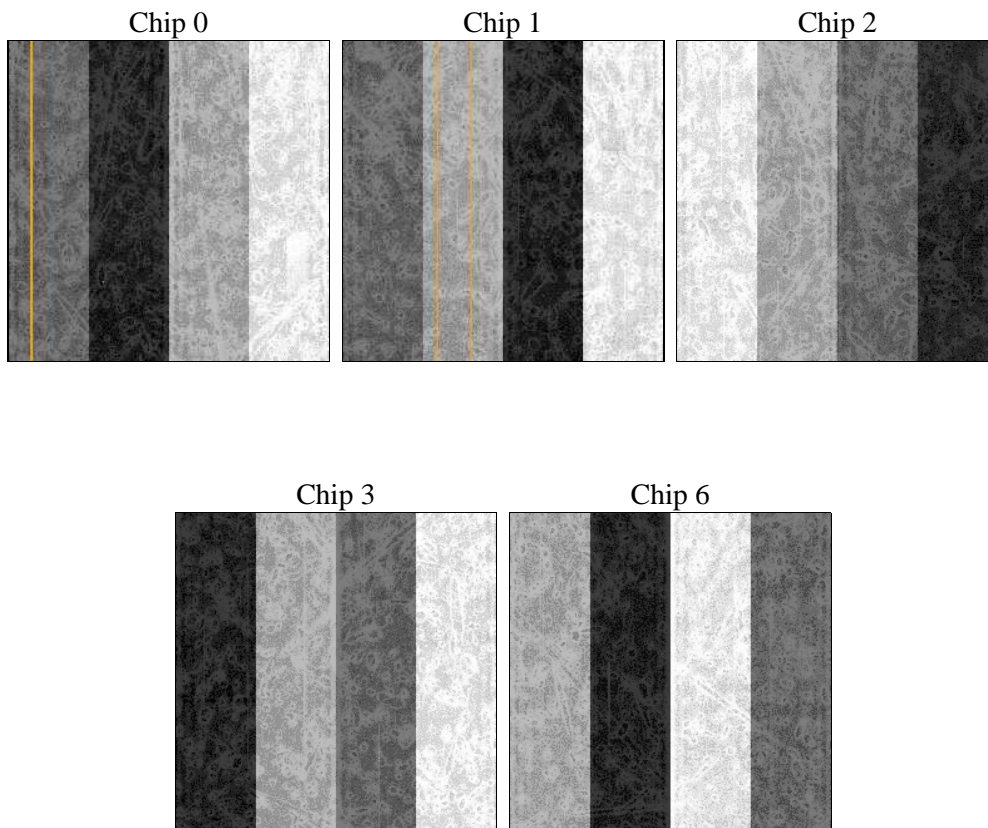
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	33000.000000	[s] Scheduled observation exposure time
ascdsver	8.5	Processing system revision	ontime	33145.158975989	Sum of GTIs [s]
caldbver	4.5.4	&#160	ontime0	33148.299936235	Sum of GTIs [s]
date	2012-12-07T00:51:03	Date and time of file creation	ontime1	33142.017995834	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	33142.018005729	Sum of GTIs [s]
			ontime3	33145.158975989	Sum of GTIs [s]
			ontime6	33135.736055315	Sum of GTIs [s]
			l1events	988712	Number of level 1 events

### 2.1.4 Events

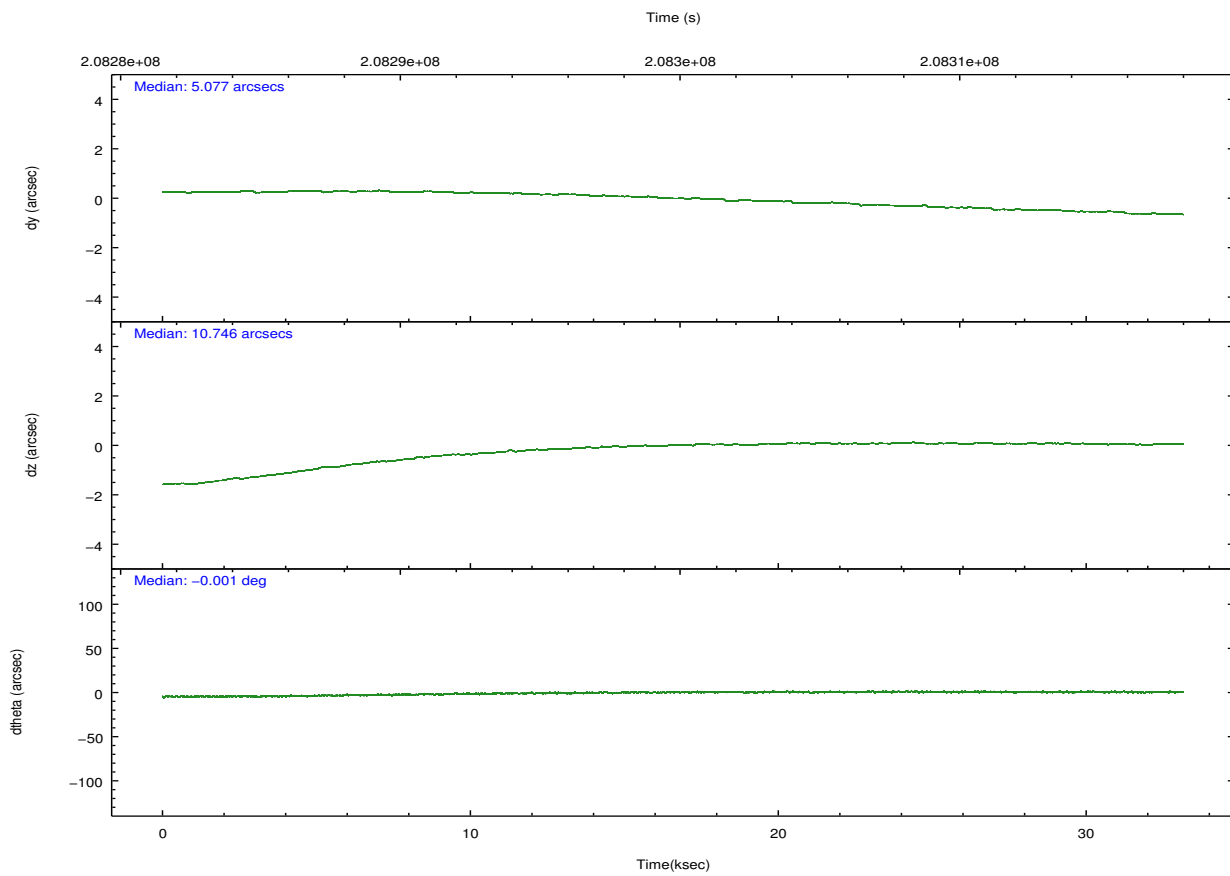
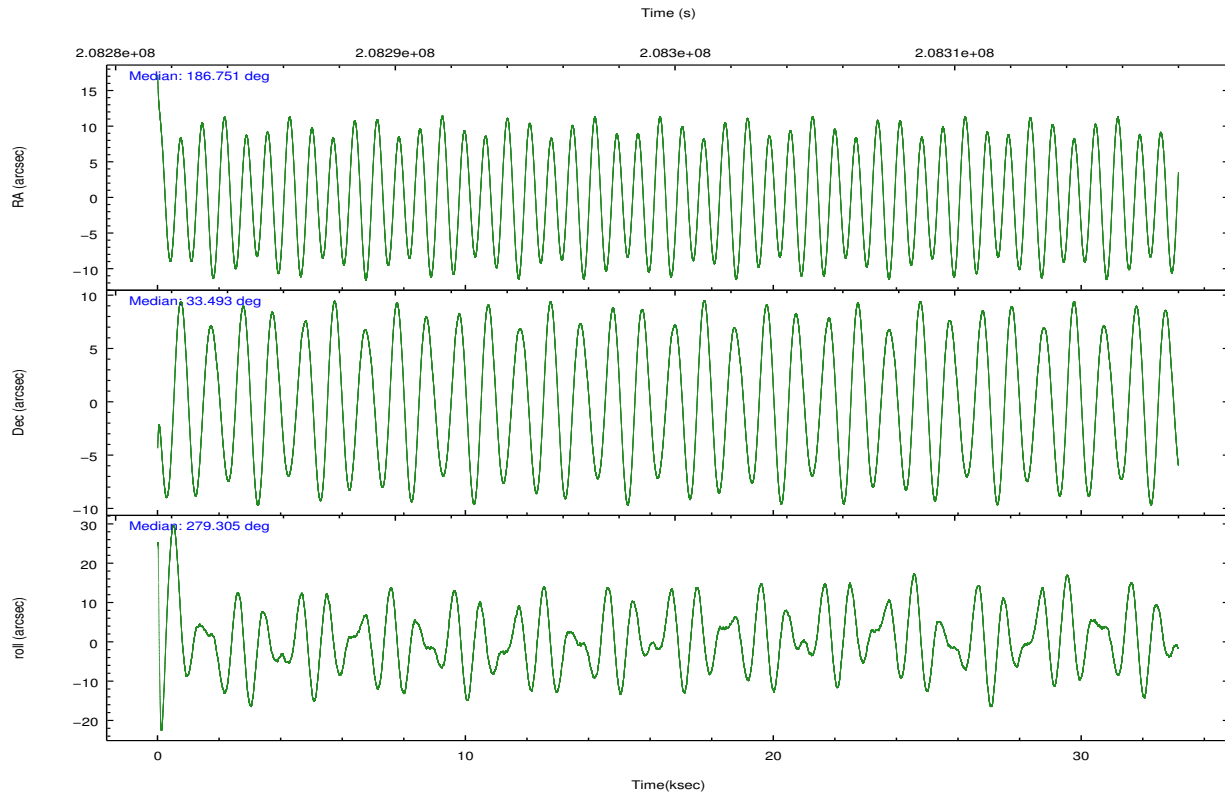
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	189186	189295	209304	200440	200487
rejected events	169788	166592	190041	179164	180233
rejected %	89%	88%	90%	89%	89%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6636	8644	7033	8917	7021
	3%	4%	3%	4%	3%
grade 1 events	95	99	94	107	86
	0%	0%	0%	0%	0%
grade 2 events	4570	4776	4557	4260	4422
	2%	2%	2%	2%	2%
grade 3 events	2312	2581	2146	2254	2341
	1%	1%	1%	1%	1%
grade 4 events	2215	2476	2172	2261	2244
	1%	1%	1%	1%	1%
grade 5 events	7023	7318	6719	7882	7908
	3%	3%	3%	3%	3%
grade 6 events	3861	4440	3548	3774	4388
	2%	2%	1%	1%	2%
grade 7 events	162474	158961	183035	170985	172077
	85%	83%	87%	85%	85%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	186.729773	186.7506855390348	Subarray requested	NONE	NONE
[deg] Pointing Dec	33.513900	33.49277024694442	Alternating exposures requested	N	N
[deg] Pointing Roll	279.121048	279.3182133249201	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-225.840463	-225.8433433320239			
[mm] SIM translation stage offset	-7.752	-7.749109670905796			
[s] Observation start time (MET)	208283329.184000	208282051.83349			
Observation start date	2004-08-07T16:27:45	2004-08-07T16:07:31			
[s] Observation end time (MET)	208316329.184000	208317401.01006			
Observation end date	2004-08-08T01:37:45	2004-08-08T01:56:41			
Read mode	TIMED	TIMED			

## 2.3 Aspect

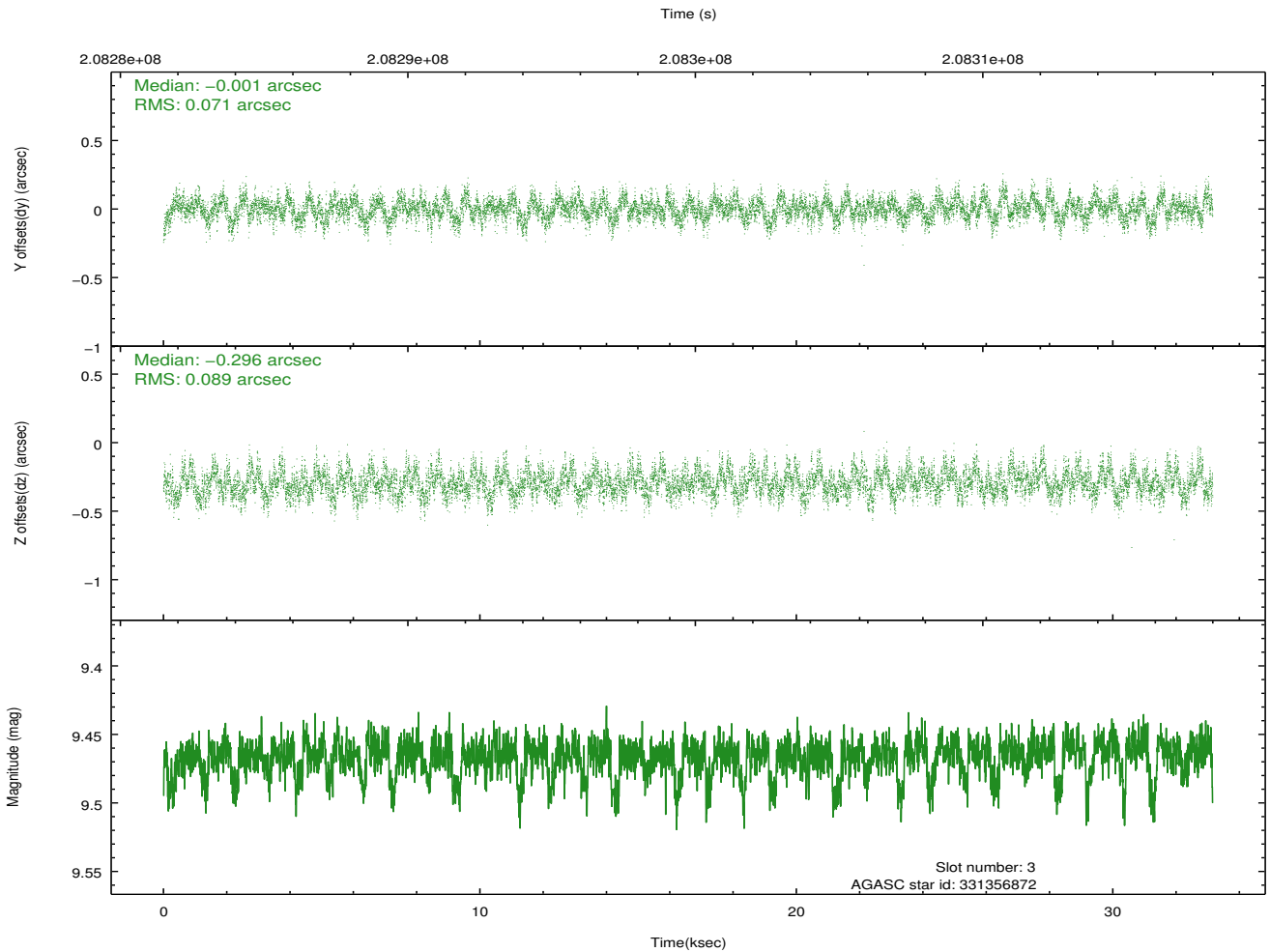
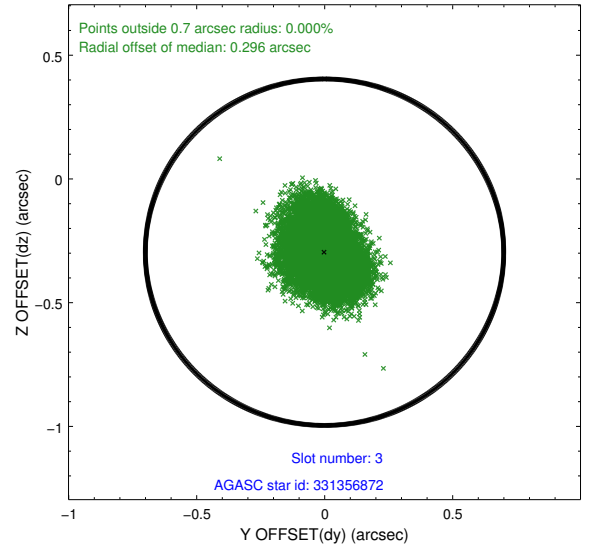
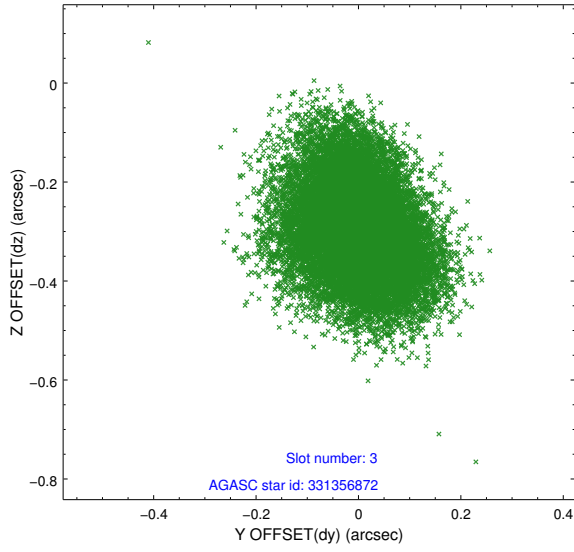


### Slot Statistics

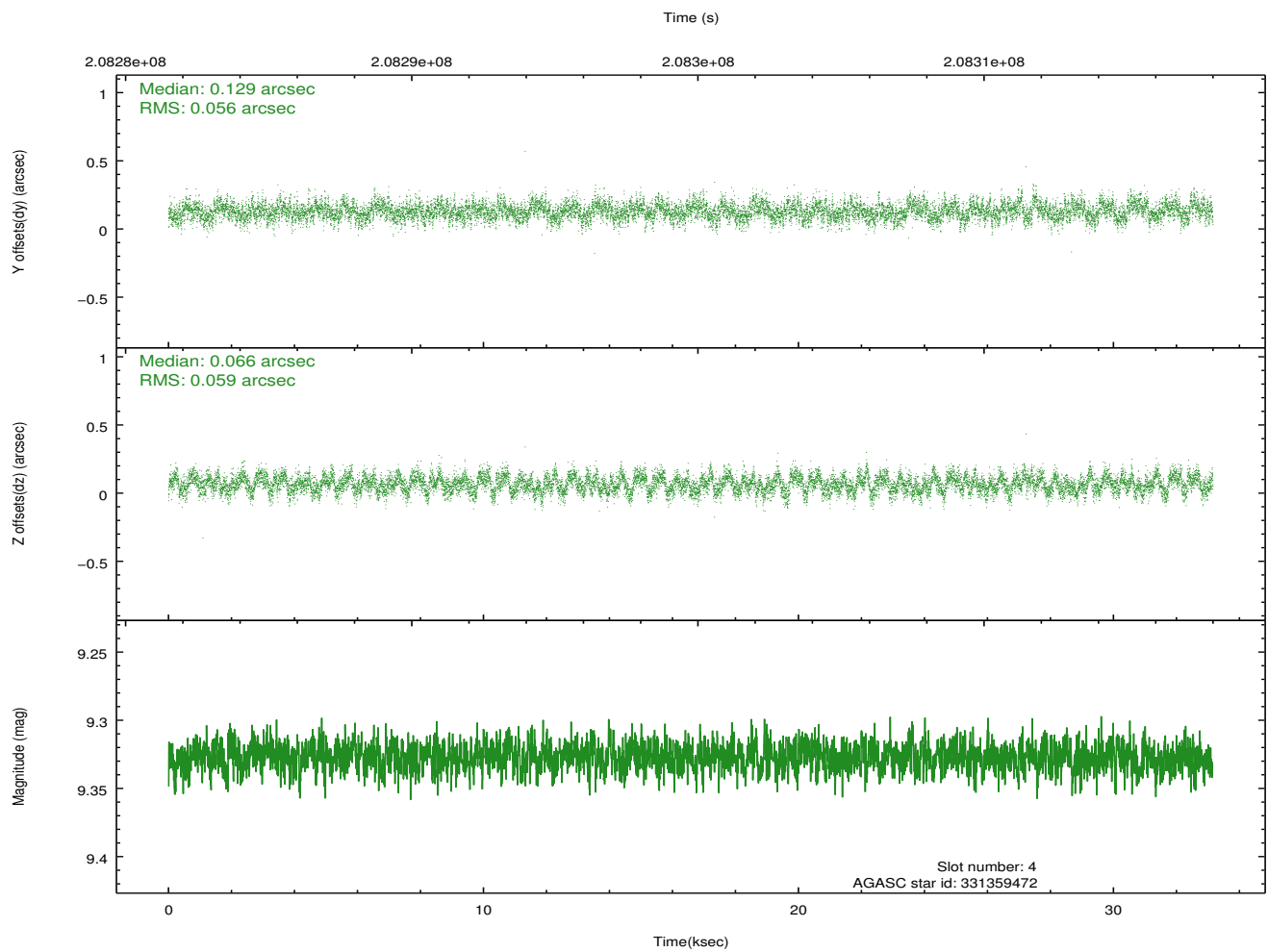
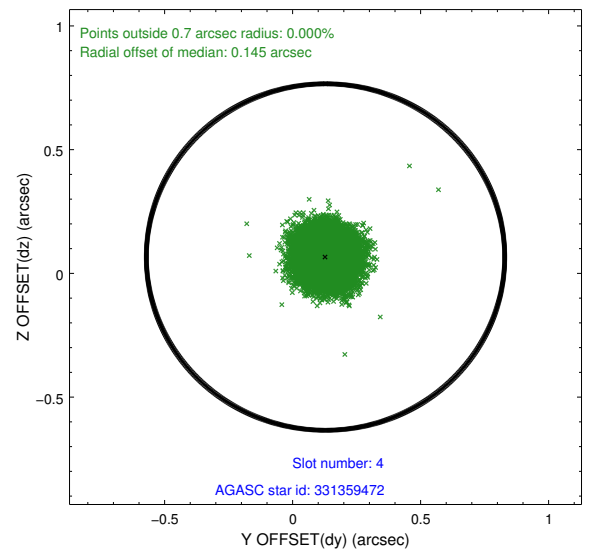
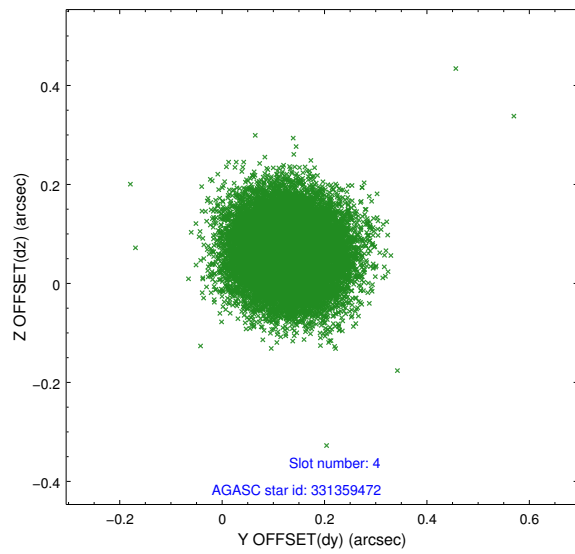
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.23	8087	0.111	-0.091	0.012	0.026	0.000000	0.000000	934.67	-993.12
1	FID	ACIS-I-5	7.22	8087	-0.257	0.093	0.012	0.022	0.000000	0.000000	-1813.75	904.54
2	FID	ACIS-I-6	7.25	8087	0.054	0.071	0.012	0.025	0.000000	0.000000	400.14	1549.06
3	GUIDE	331356872	9.47	16167	-0.001	-0.296	0.122	0.197	186.232000	33.528992	-293.09	-1466.17
4	GUIDE	331359472	9.33	16136	0.129	0.066	0.087	0.137	187.224794	33.172746	1446.07	1278.84
5	GUIDE	331359840	9.63	16161	-0.034	0.068	0.111	0.178	187.405317	33.549371	188.88	2022.58
6	GUIDE	331625408	10.77	16081	-0.121	0.058	0.231	0.367	186.109257	33.951847	-1854.99	-1579.28
7	GUIDE	331362384	8.81	16165	0.021	0.094	0.077	0.122	187.227369	32.923477	2333.94	1148.71

## 2.4 Star Slots

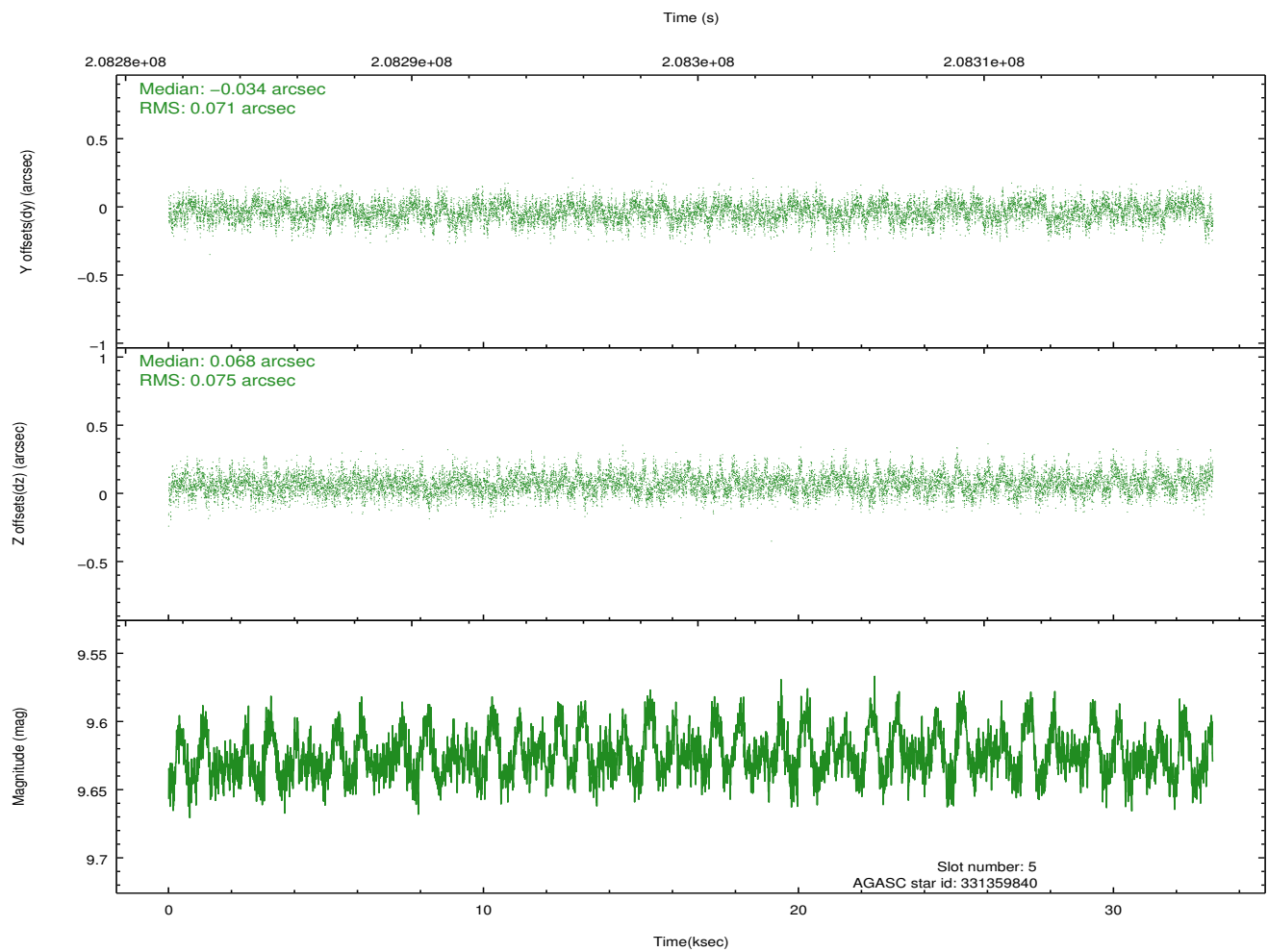
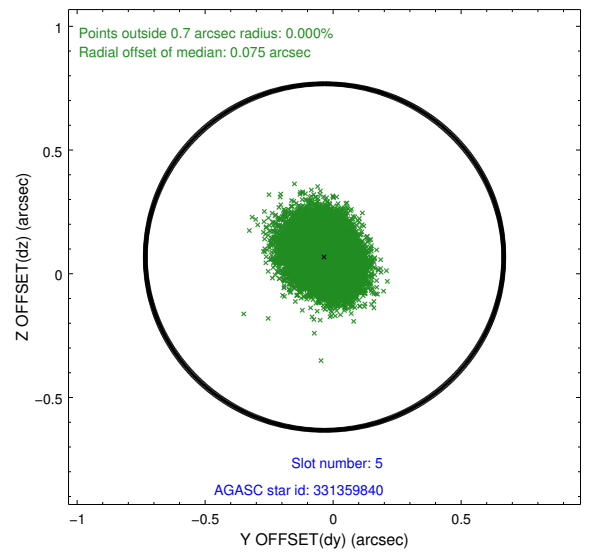
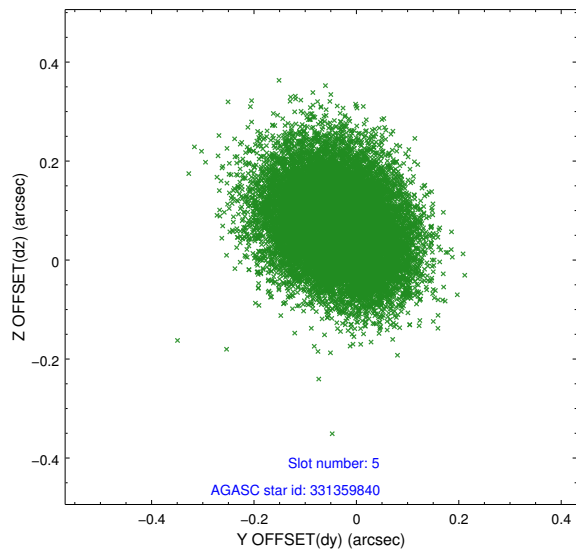
### 2.4.1 Slot 3



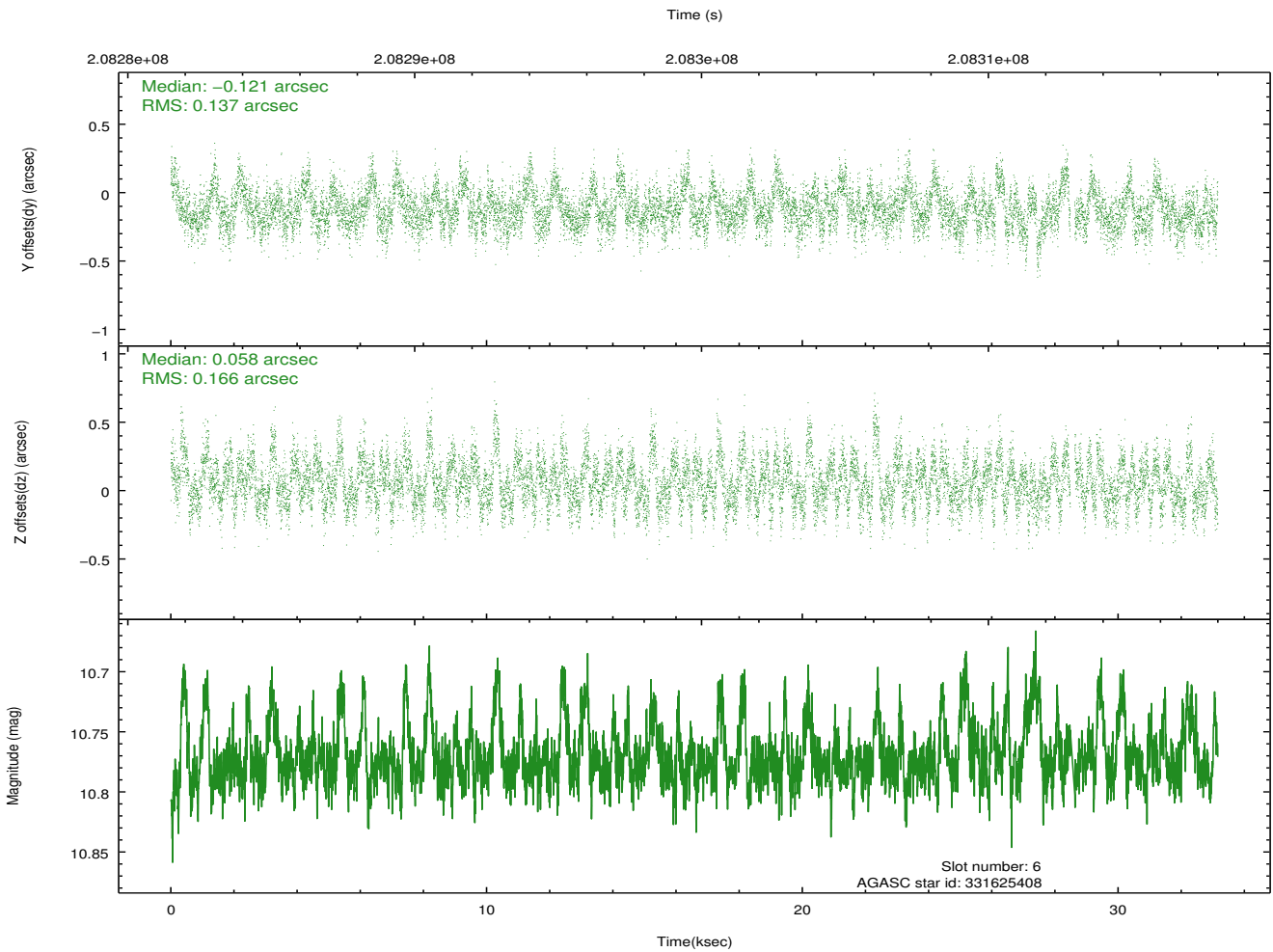
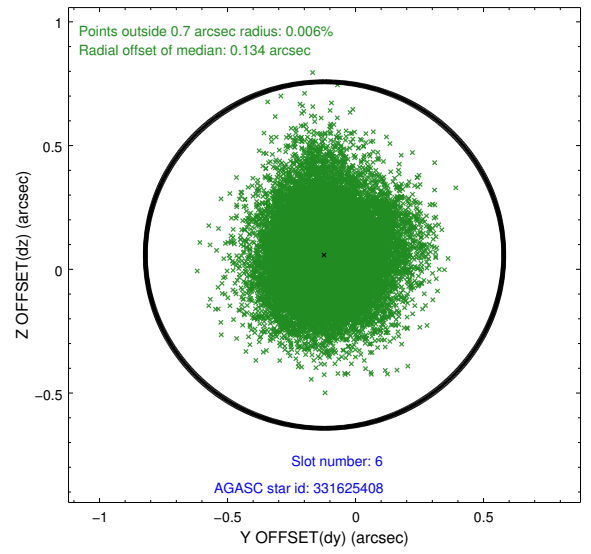
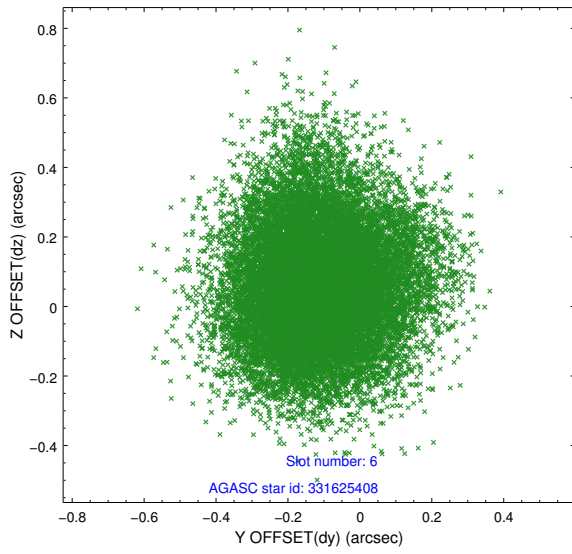
## 2.4.2 Slot 4



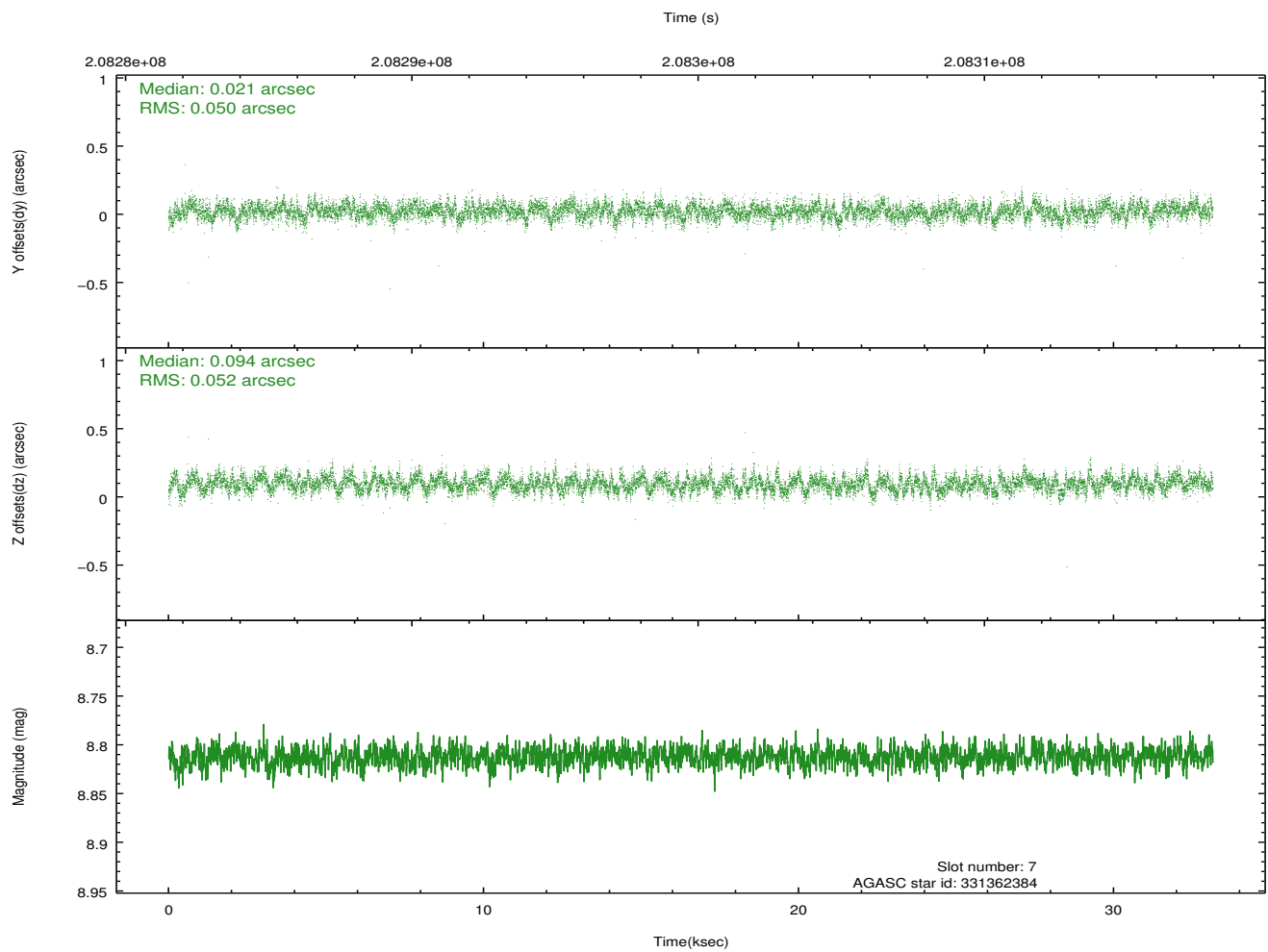
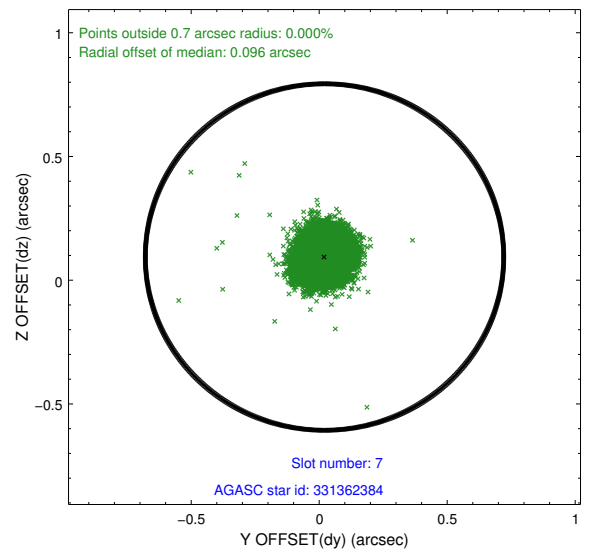
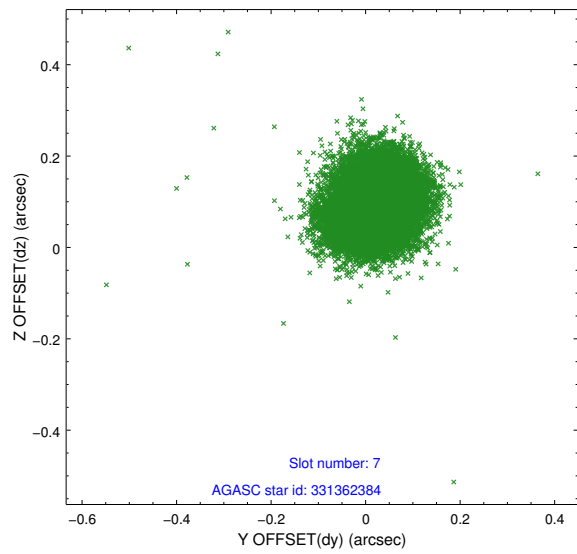
### 2.4.3 Slot 5



## 2.4.4 Slot 6

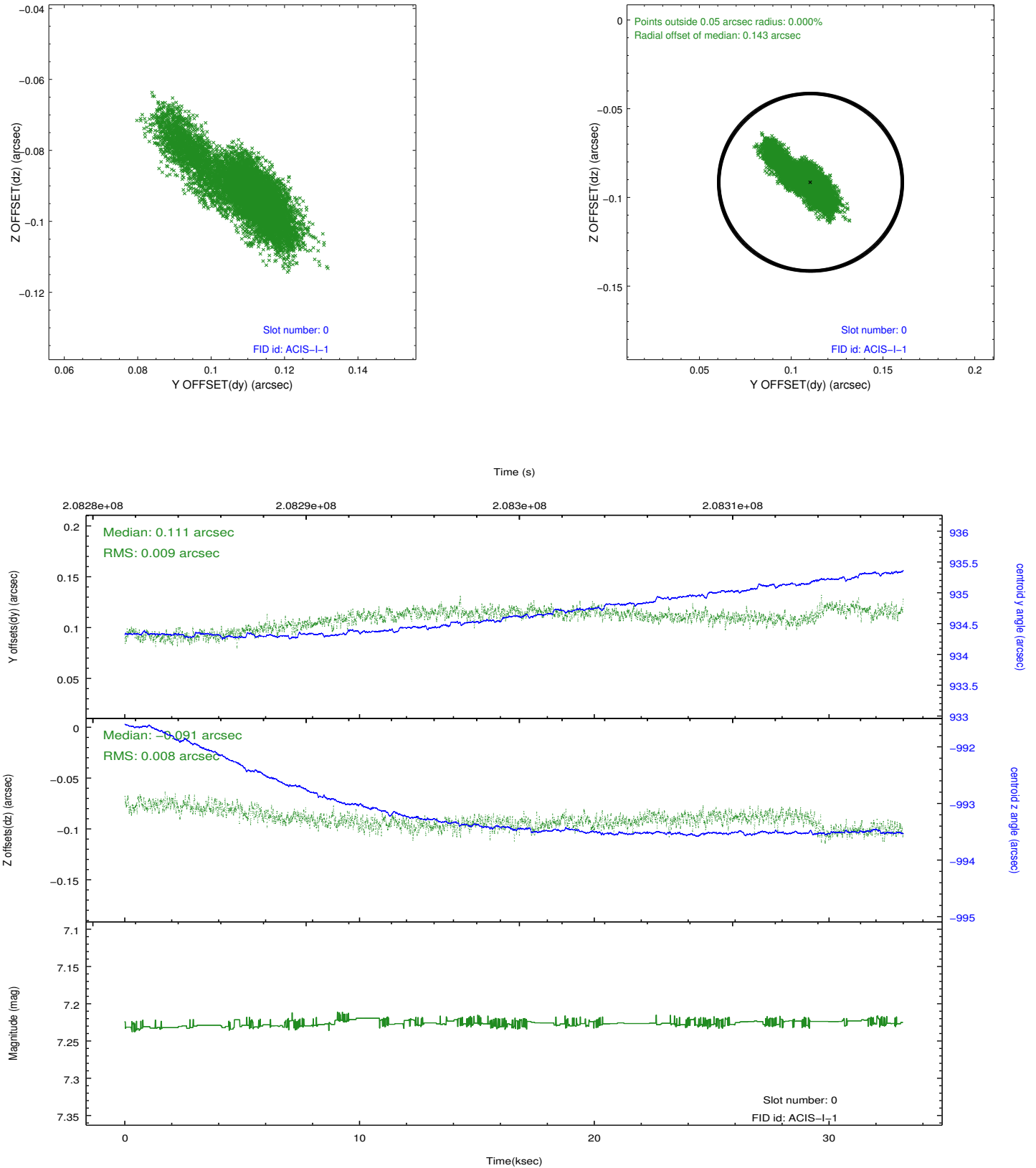


### 2.4.5 Slot 7

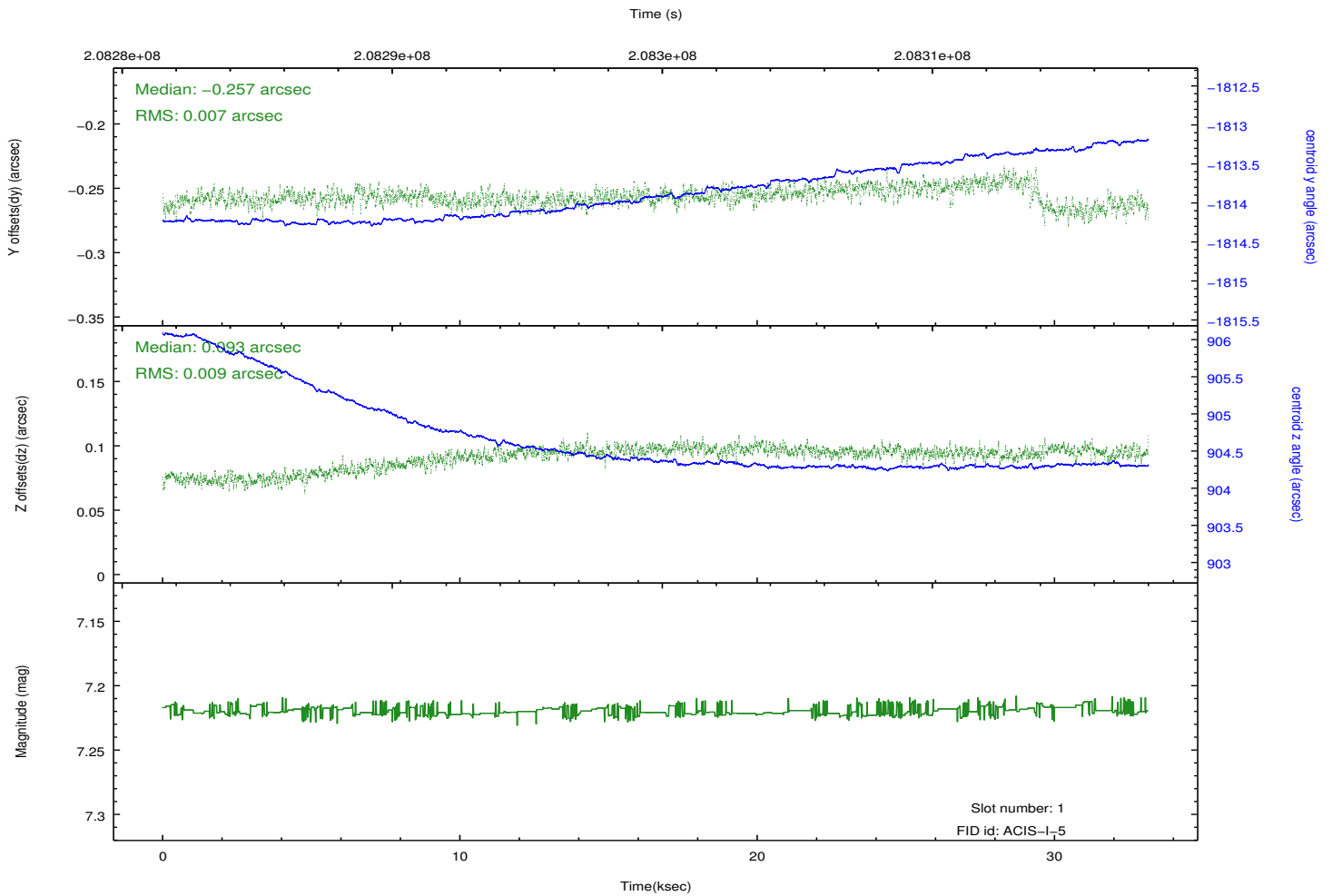
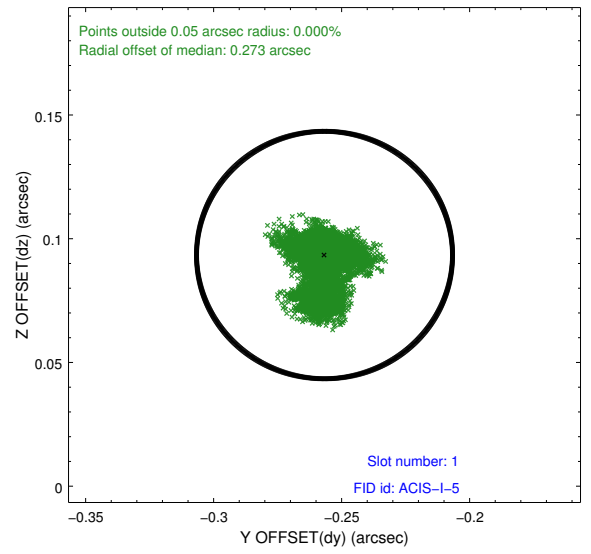
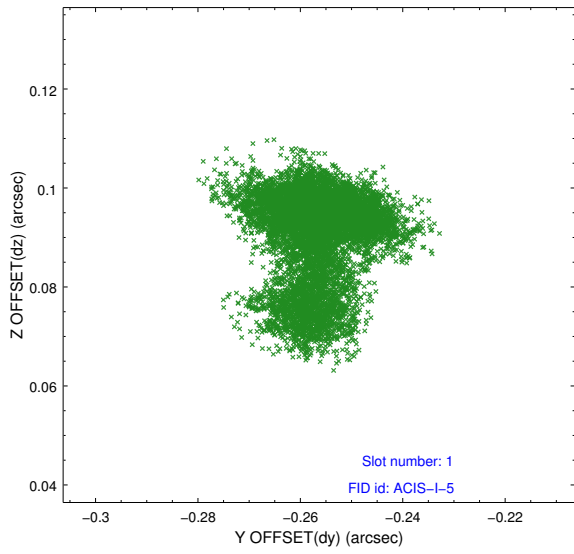


## 2.5 FID Slots

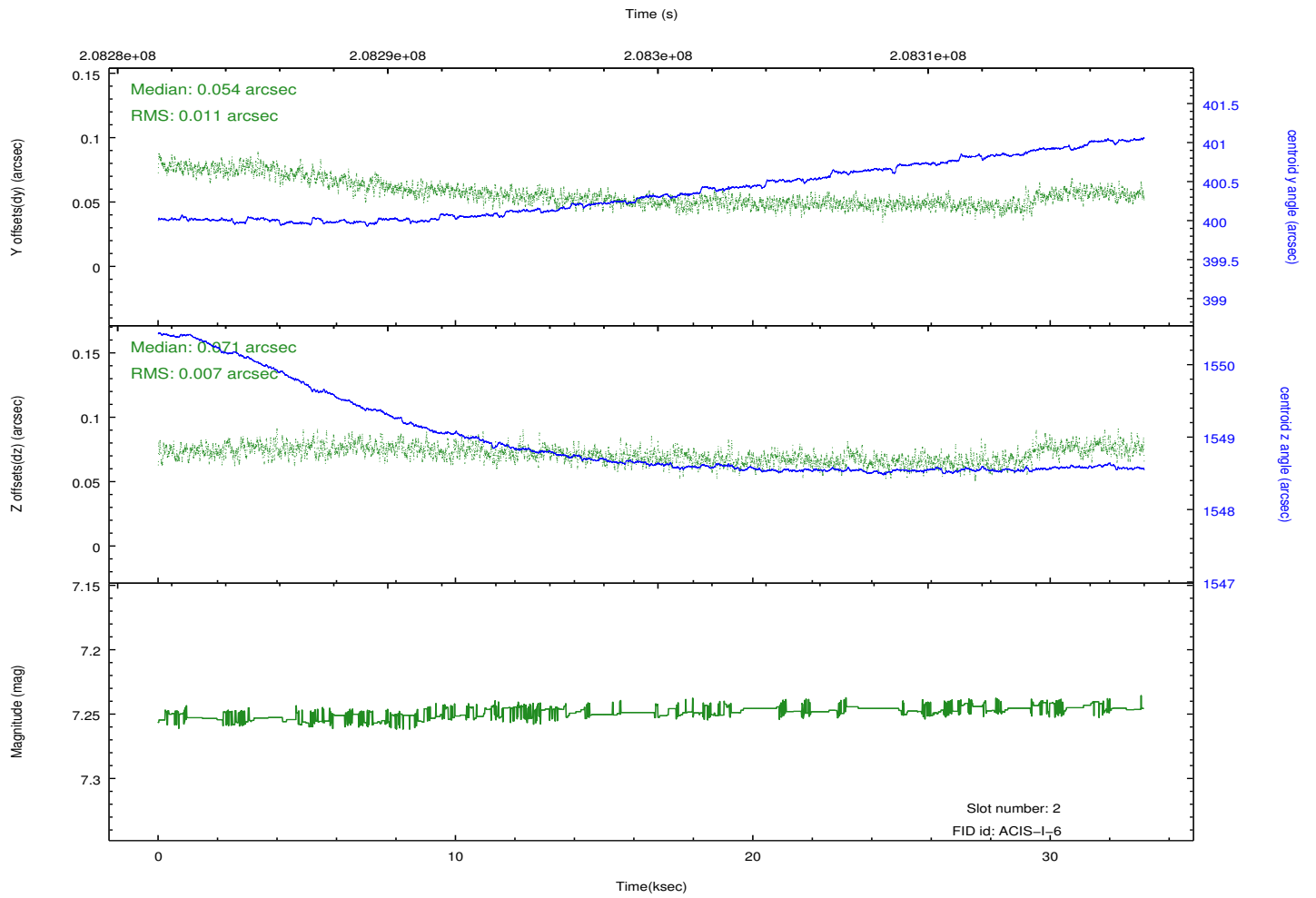
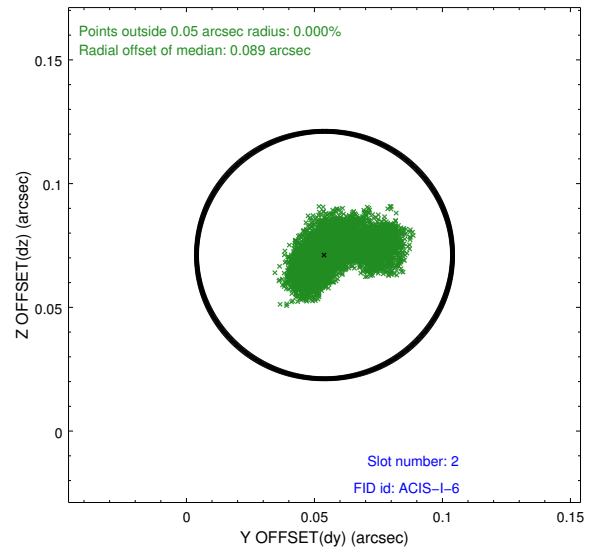
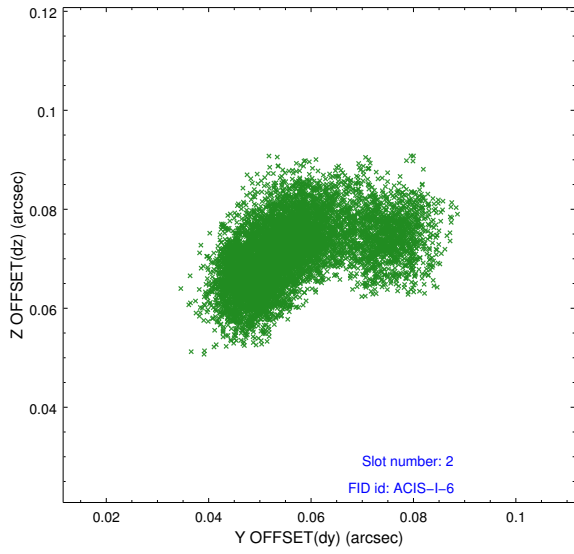
### 2.5.1 Slot 0



## 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)	2012.12.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.145

### A.2 Comments