

# V&V Reference Report

## L2 ASCDS Version : 8.5.1

Observation 6226 - L2 Version 3  
Chandra X-Ray Center

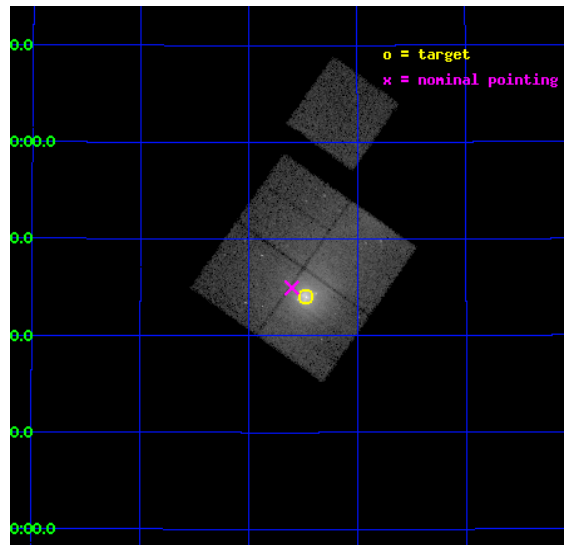
L2 Processing Date : Dec 18 2012

## 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	800540	Sequence number
obs_id	6226	Observation id
title	Cygnus A --- Shock Heating of the Intra-Cluster Medium	Proposal ti
observer	Dr Andrew Young	Principal investigator
object	Cygnus A	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	299.867917	Observer's specified target RA [deg]
dec_targ	40.733889	Observer's specified target Dec [deg]
ra_nom	299.90096093116	Nominal RA [deg]
dec_nom	40.749221948478	Nominal Dec [deg]
roll_nom	35.187127484882	Nominal Roll [deg]
revision	3	Processing version of data
ontime	24148.877012938	Sum of GTIs [s]
livetime	23833.35415662	Livetime [s]
ontime0	24158.29995352	Sum of GTIs [s]
ontime1	24148.877012938	Sum of GTIs [s]
ontime2	24158.29995352	Sum of GTIs [s]
ontime3	24158.29995352	Sum of GTIs [s]
ontime6	24158.29995352	Sum of GTIs [s]
l2events	220716	Number of level 2 events

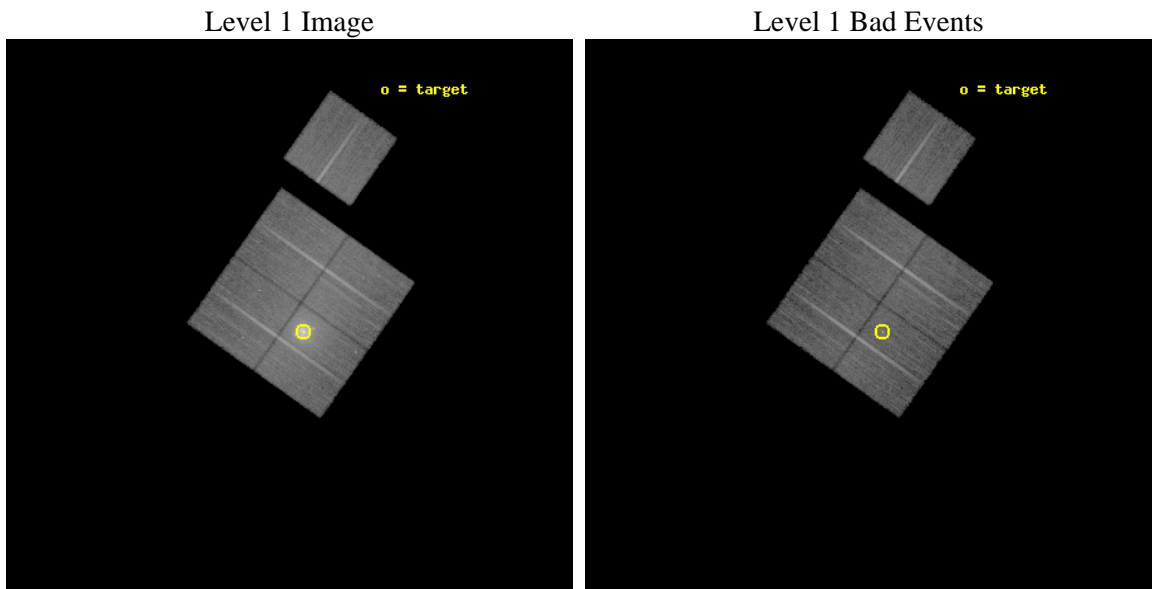




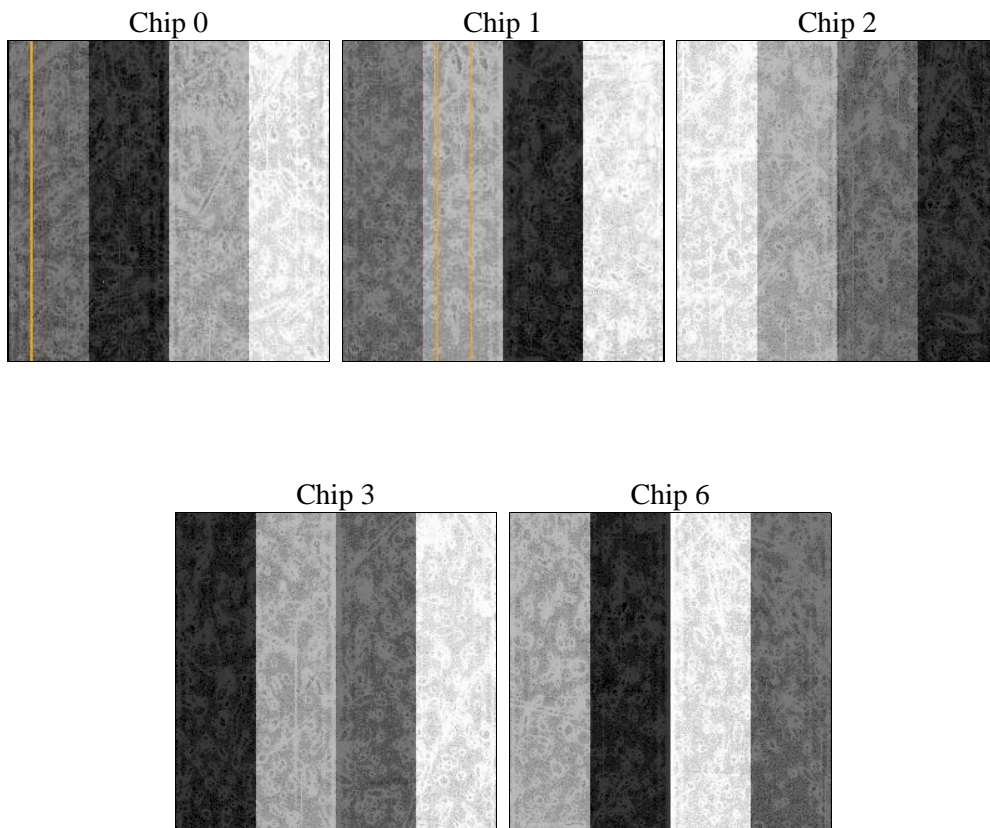
## 2 OBI

### 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	8.5.1	Processing system revision	ontime	24148.877012938	Sum of GTIs [s]
caldsver	4.5.5	&#160	ontime0	24158.29995352	Sum of GTIs [s]
date	2012-12-17T17:30:07	Date and time of file creation	ontime1	24148.877012938	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	24158.29995352	Sum of GTIs [s]
			ontime3	24158.29995352	Sum of GTIs [s]
			ontime6	24158.29995352	Sum of GTIs [s]
			l1events	937513	Number of level 1 events

### 2.1.4 Events

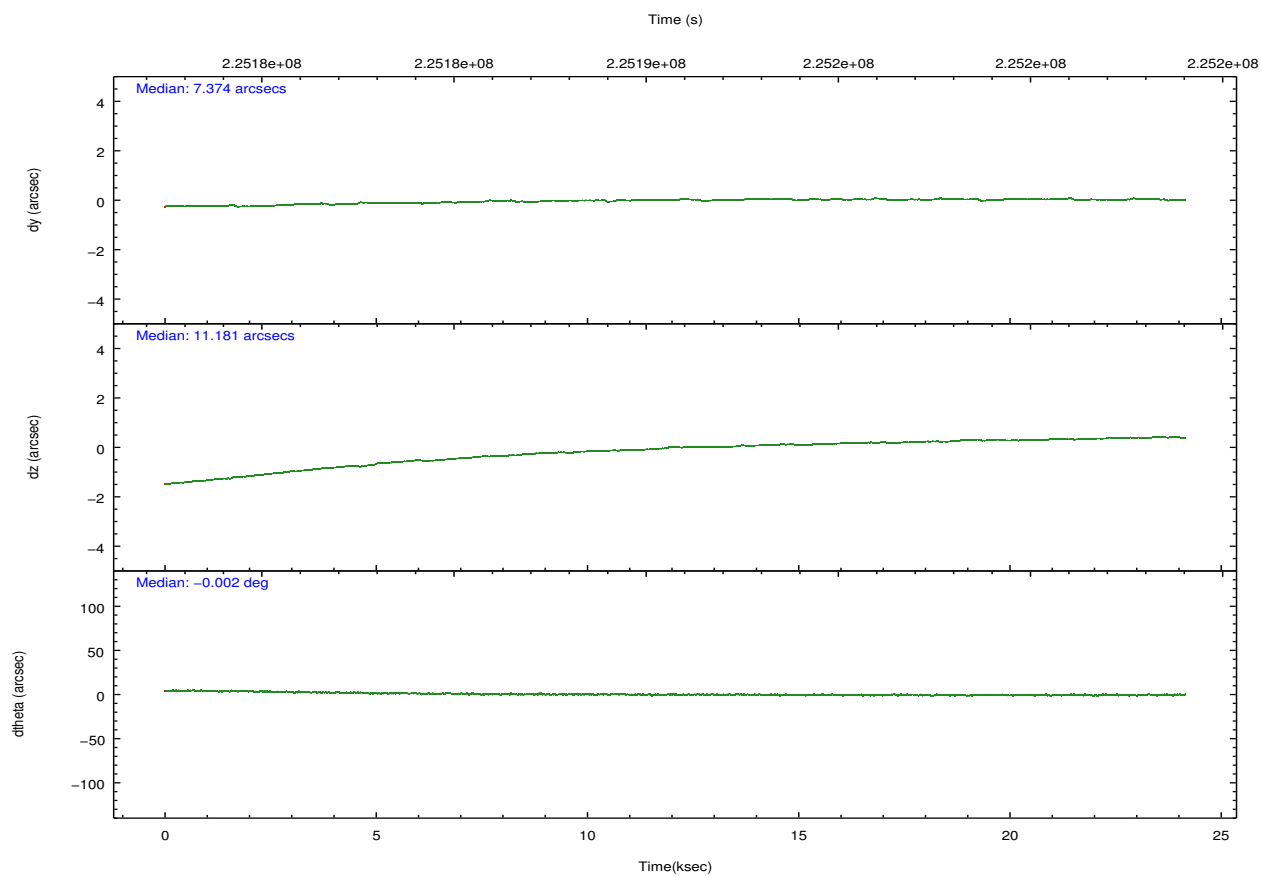
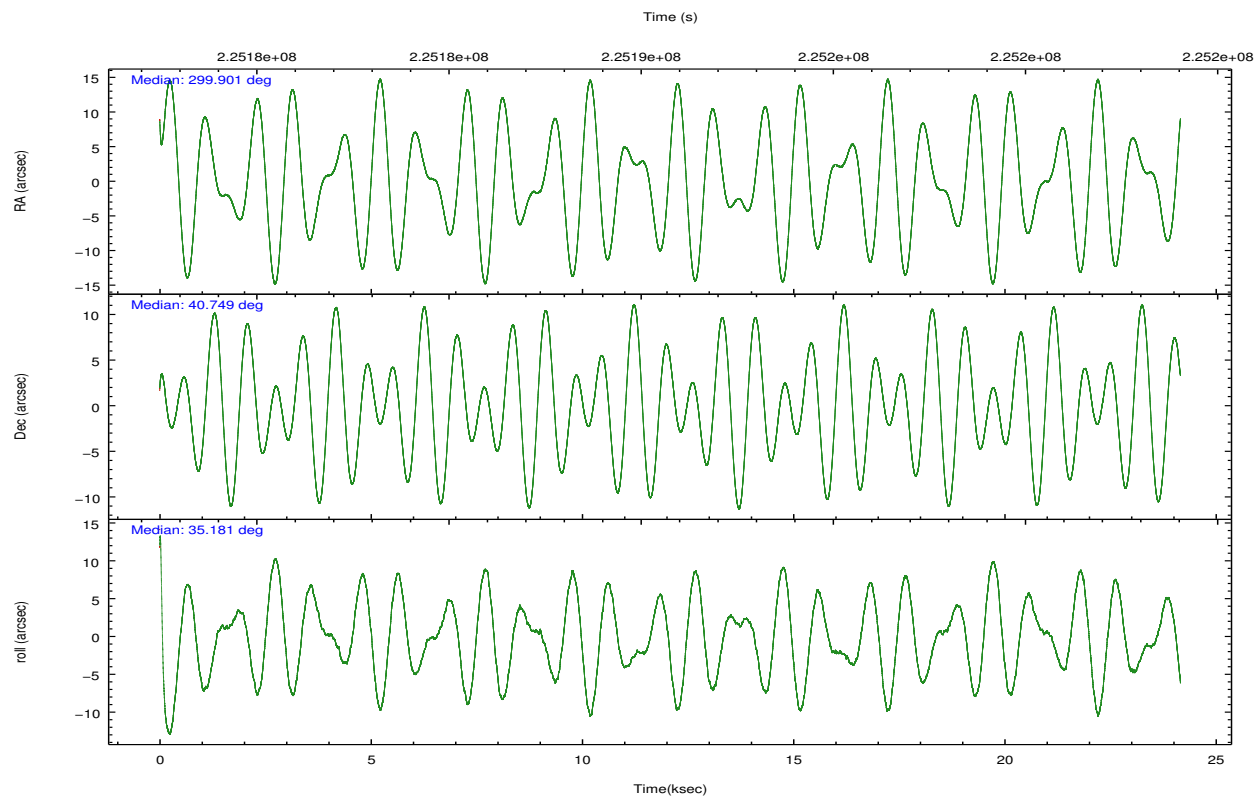
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	159470	263938	173530	183376	157199
rejected events	130285	137039	144900	141942	140018
rejected %	81%	51%	83%	77%	89%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	17252	92910	16850	27546	7490
	10%	35%	9%	15%	4%
grade 1 events	134	818	133	207	75
	0%	0%	0%	0%	0%
grade 2 events	5368	16627	5279	6017	3671
	3%	6%	3%	3%	2%
grade 3 events	2363	5804	2129	2573	1821
	1%	2%	1%	1%	1%
grade 4 events	2133	5702	2211	2687	1759
	1%	2%	1%	1%	1%
grade 5 events	5561	6694	5195	6213	5993
	3%	2%	2%	3%	3%
grade 6 events	3422	7681	3361	3751	3508
	2%	2%	1%	2%	2%
grade 7 events	123237	127702	138372	134382	132882
	77%	48%	79%	73%	84%

## 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	299.885900	299.9009609311551	Subarray requested	NONE	NONE
[deg] Pointing Dec	40.724309	40.74922194847762	Alternating exposures requested	N	N
[deg] Pointing Roll	34.988265	35.18712748488191	[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	-242.392463	-242.3975952774949			
[mm] SIM translation stage offset	8.800000000000001	8.805142274565242			
[s] Observation start time (MET)	225178827.184000	225177032.77904			
Observation start date	2005-02-19T05:39:23	2005-02-19T05:10:32			
[s] Observation end time (MET)	225202827.184000	225203764.26775			
Observation end date	2005-02-19T12:19:23	2005-02-19T12:36:04			
Read mode	TIMED	TIMED			

## 2.3 Aspect

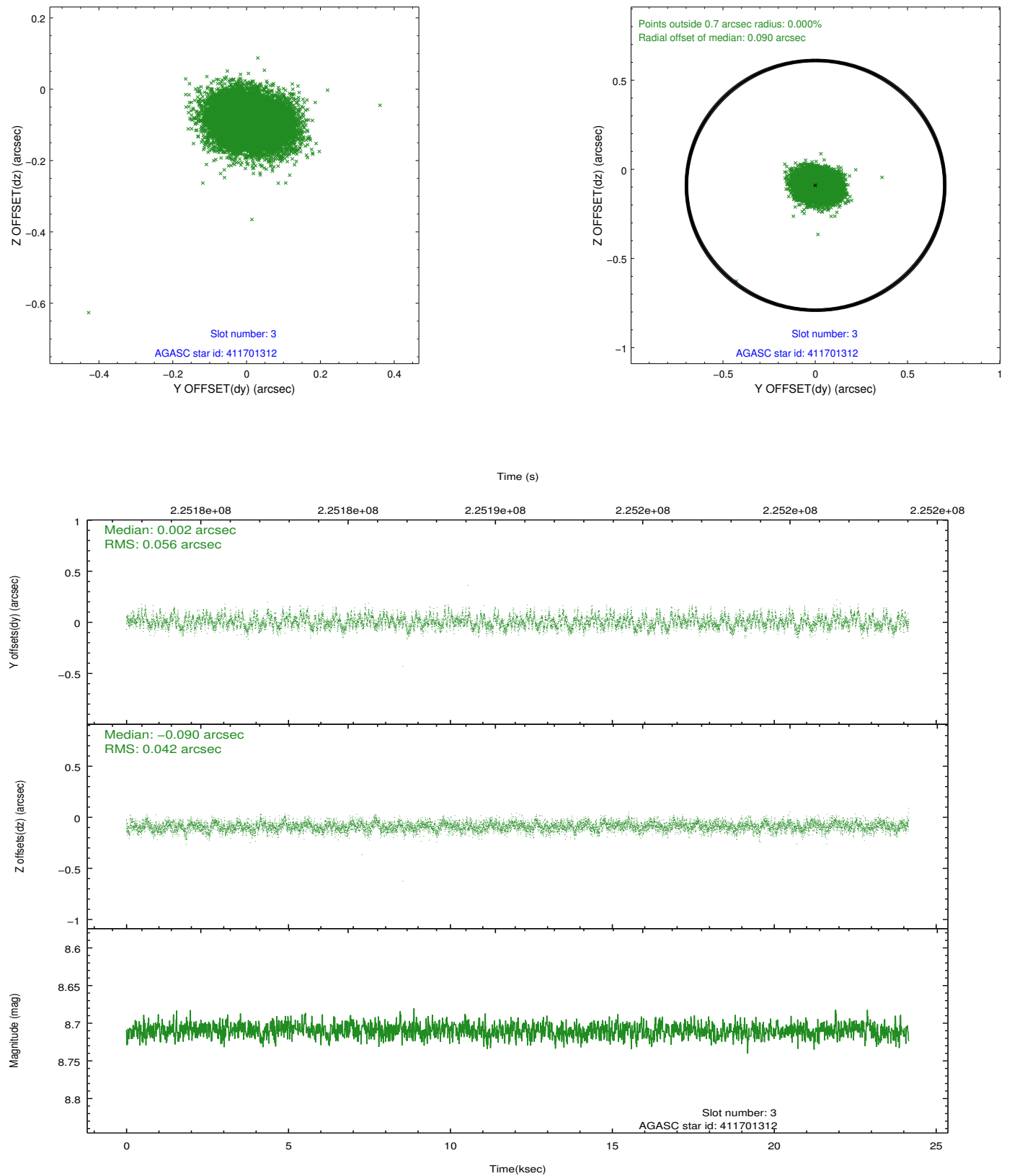


### Slot Statistics

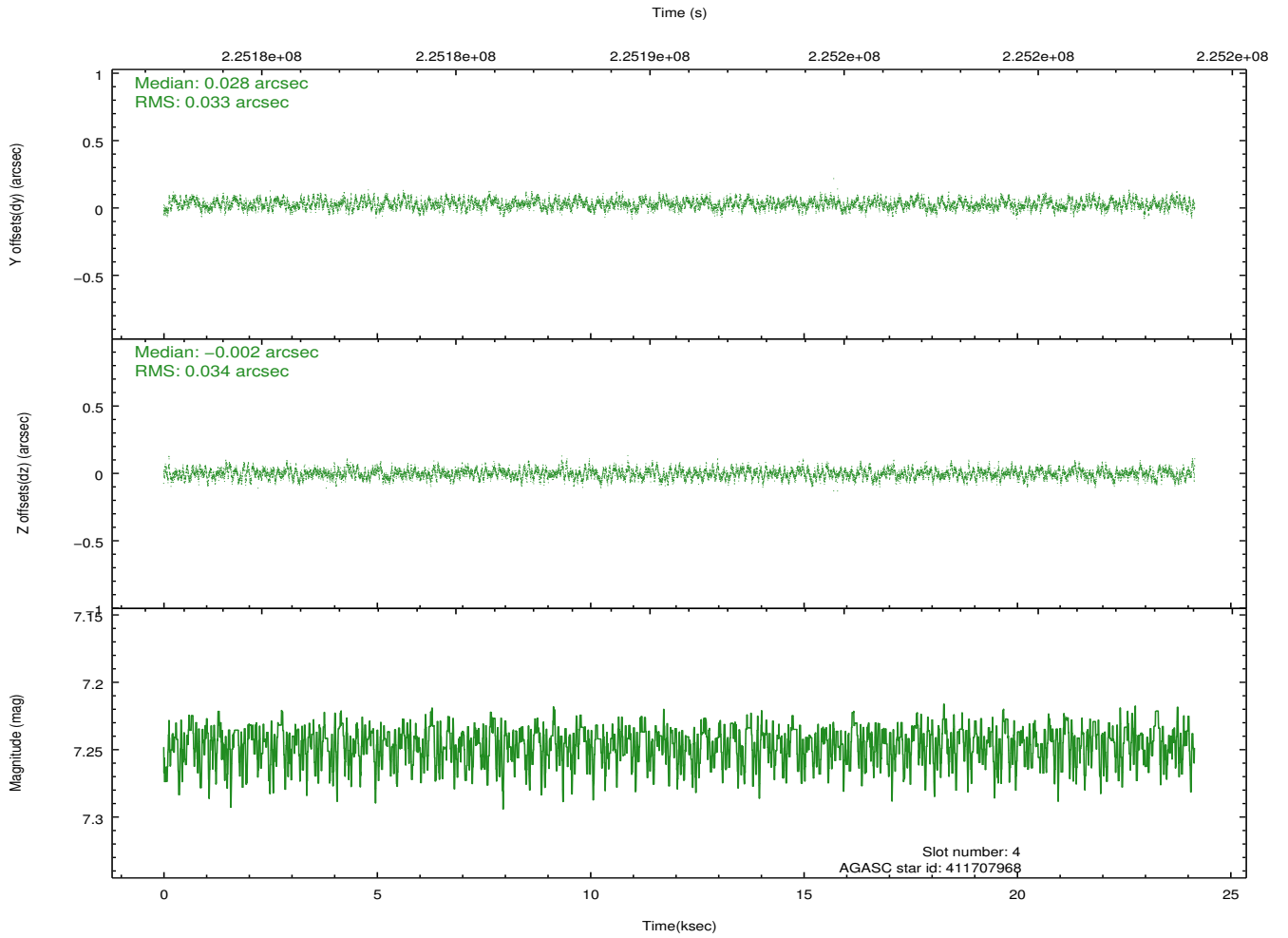
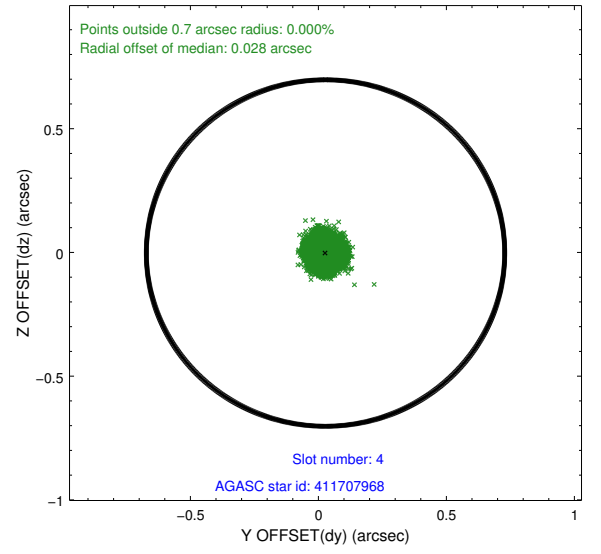
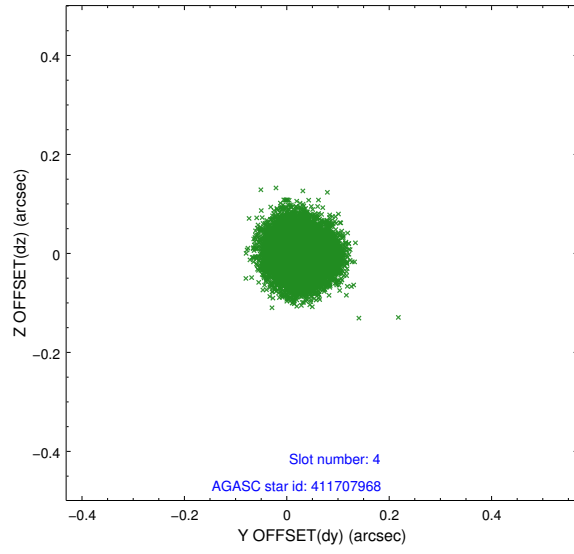
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.28	5894	-0.045	0.111	0.011	0.042	0.000000	0.000000	932.46	-653.38
1	FID	ACIS-I-5	7.24	5893	-0.102	0.009	0.008	0.014	0.000000	0.000000	-1815.64	1243.96
2	FID	ACIS-I-6	7.23	5893	0.055	-0.049	0.009	0.033	0.000000	0.000000	397.95	1888.55
3	GUIDE	411701312	8.71	11780	0.002	-0.090	0.074	0.121	298.889956	40.820220	-2016.05	1851.25
4	GUIDE	411707968	7.25	11787	0.028	-0.002	0.052	0.079	299.509933	40.926839	-418.48	1185.84
5	GUIDE	413421016	8.71	11778	-0.092	0.142	0.065	0.108	300.612426	40.446254	1061.63	-1954.19
6	GUIDE	413405352	8.36	11783	0.040	-0.141	0.063	0.100	300.290830	41.091941	1660.69	456.40
7	GUIDE	413421624	8.71	11782	0.019	0.092	0.065	0.107	300.399768	40.893051	1496.79	-300.36

## 2.4 Star Slots

### 2.4.1 Slot 3

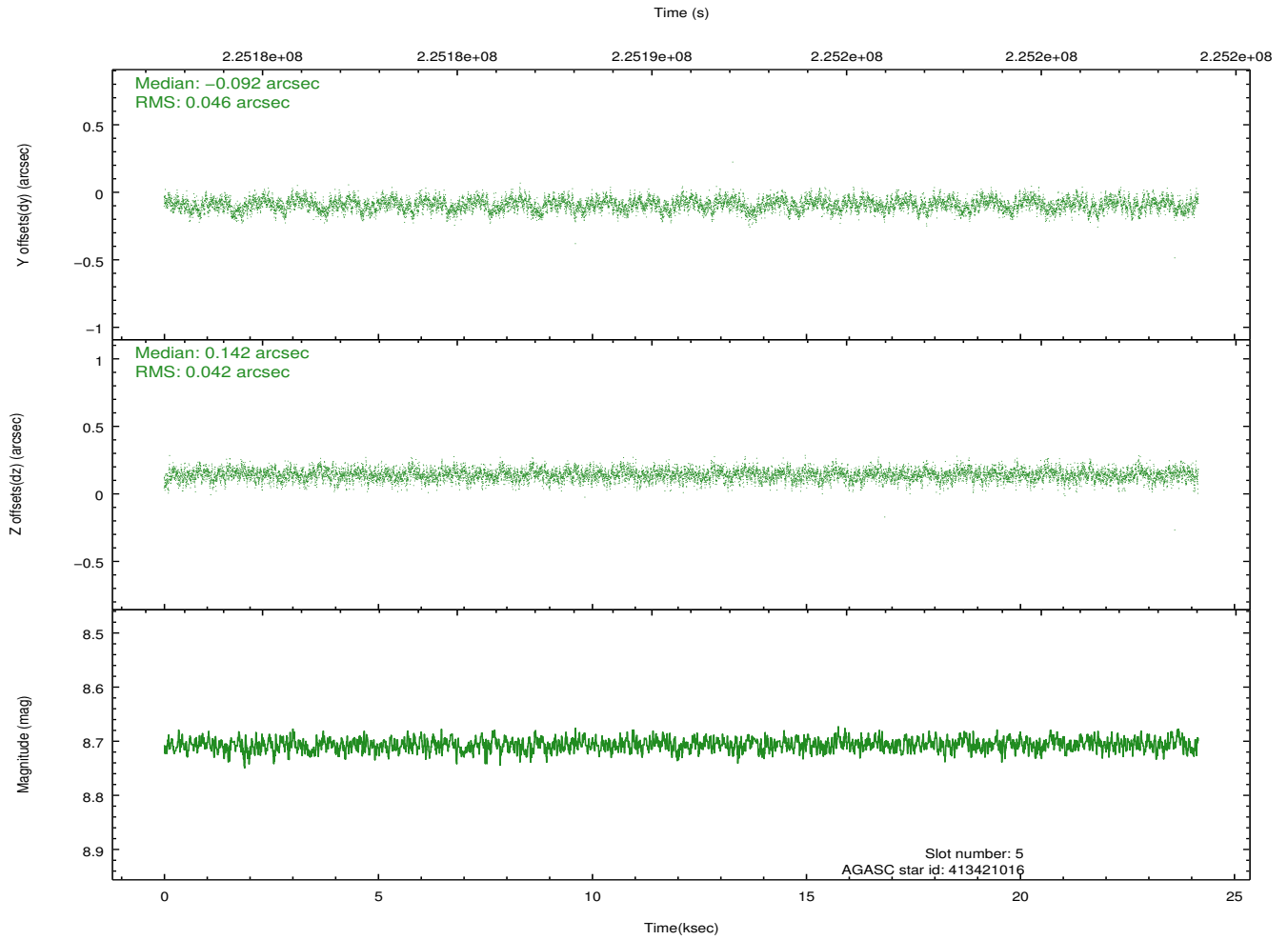
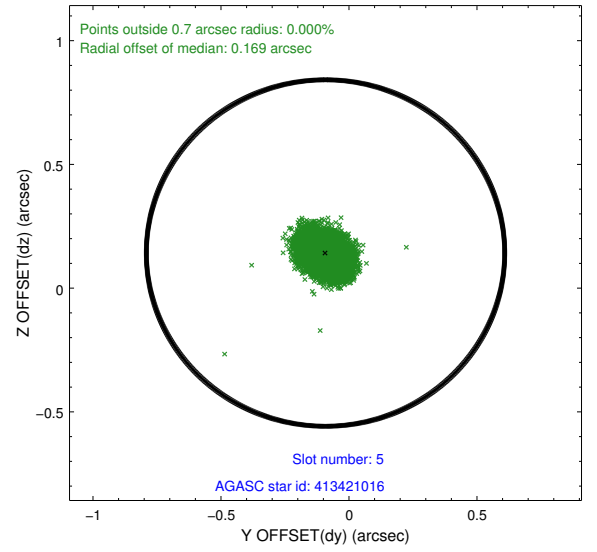
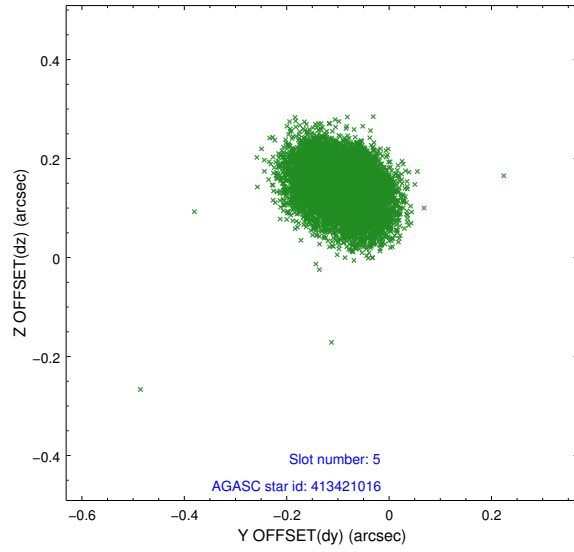


## 2.4.2 Slot 4

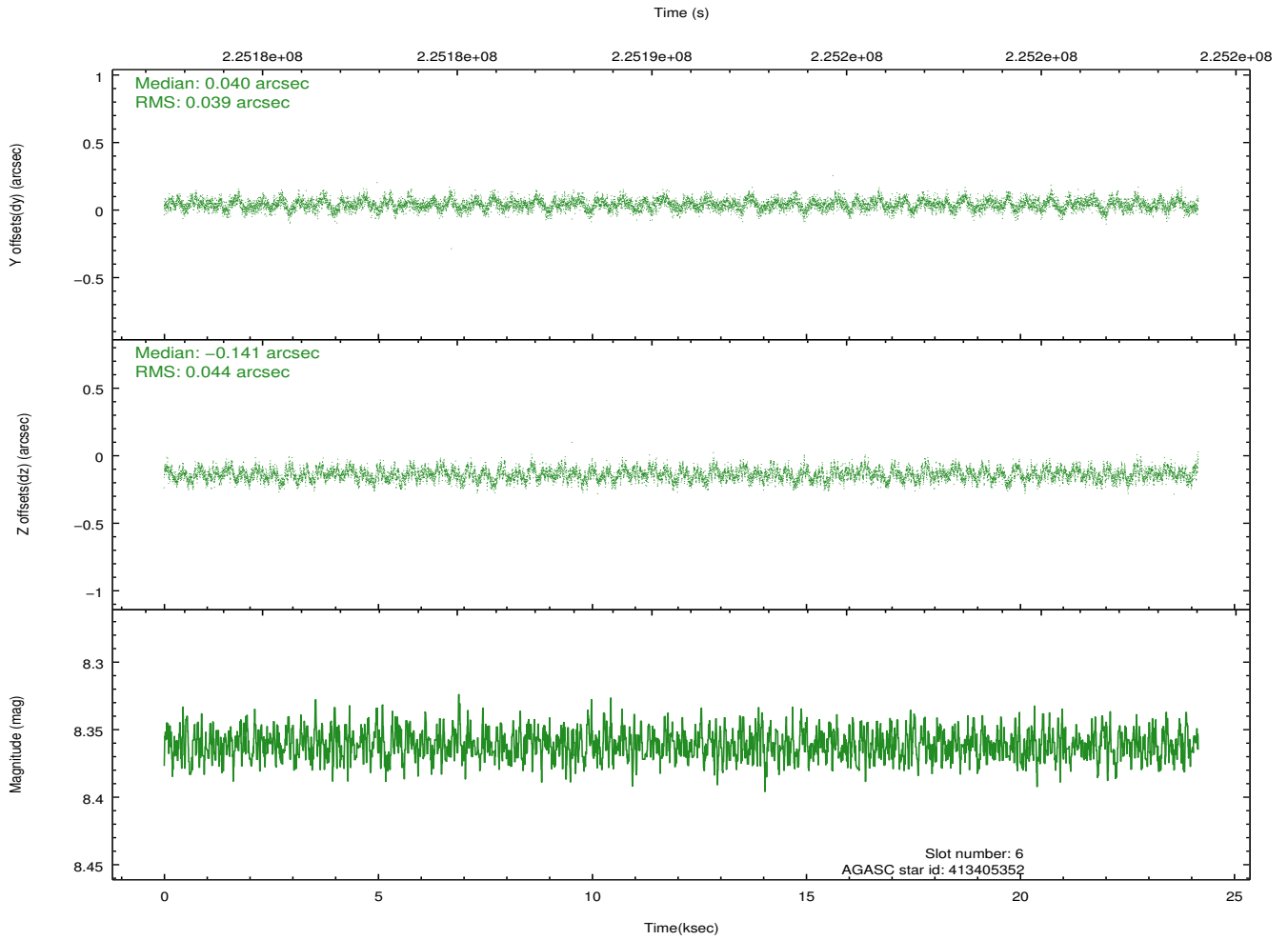
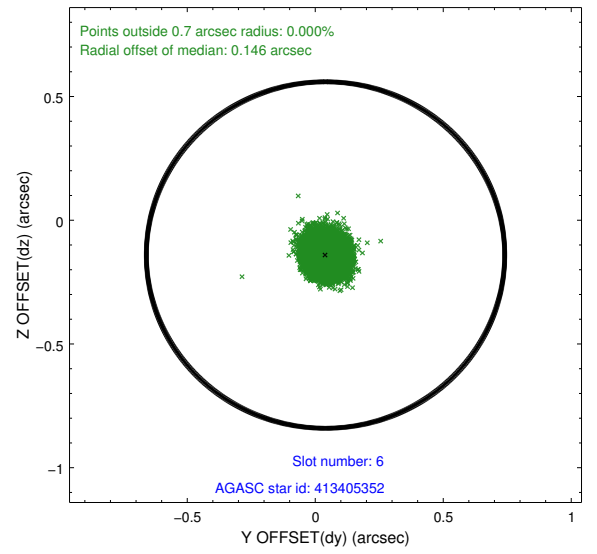
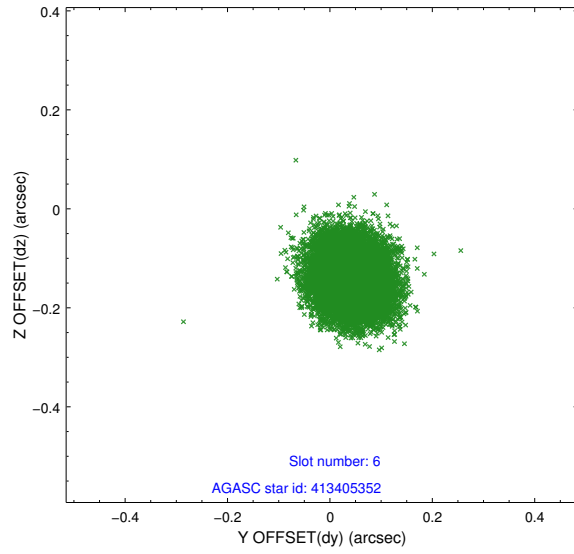




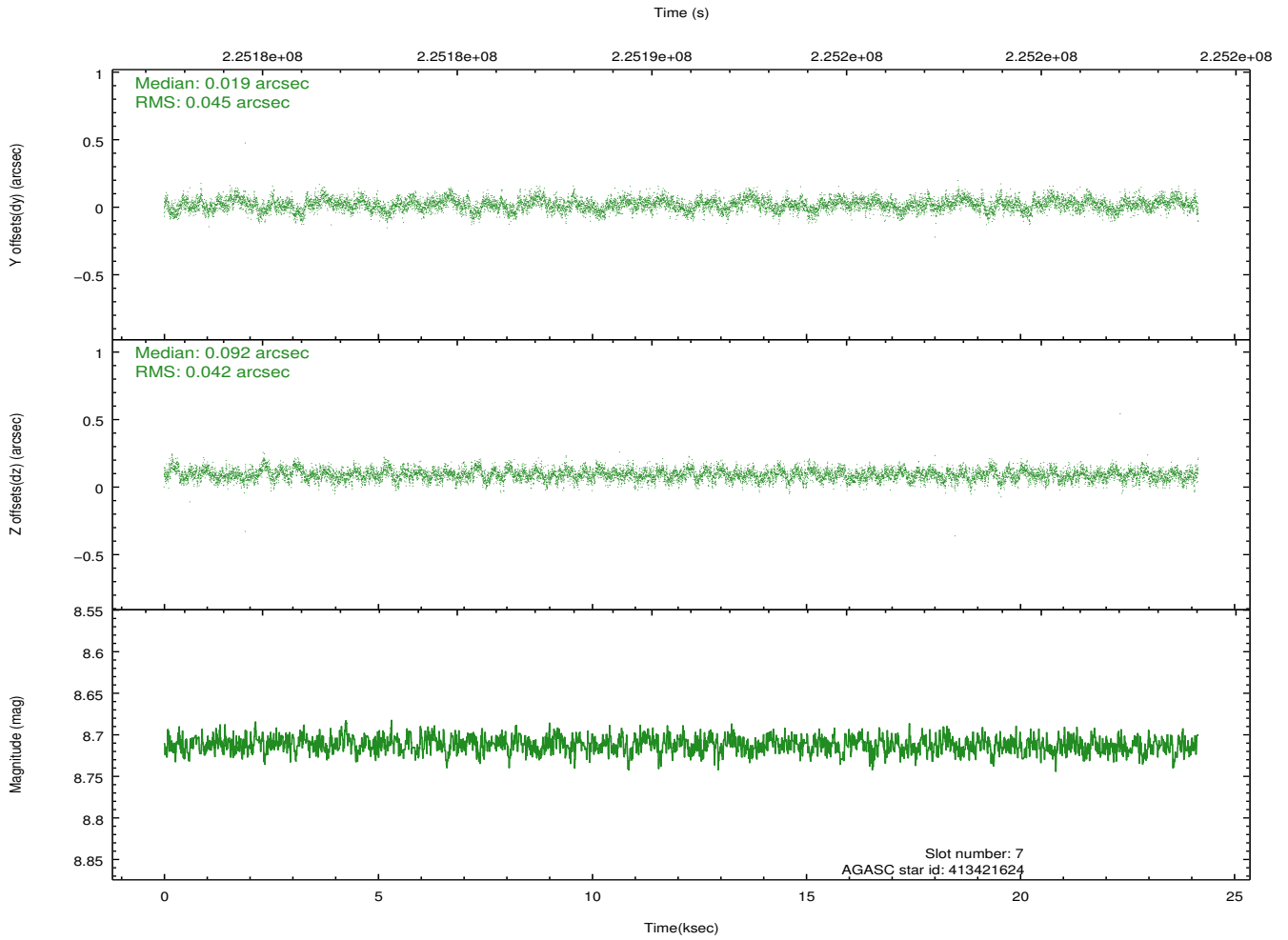
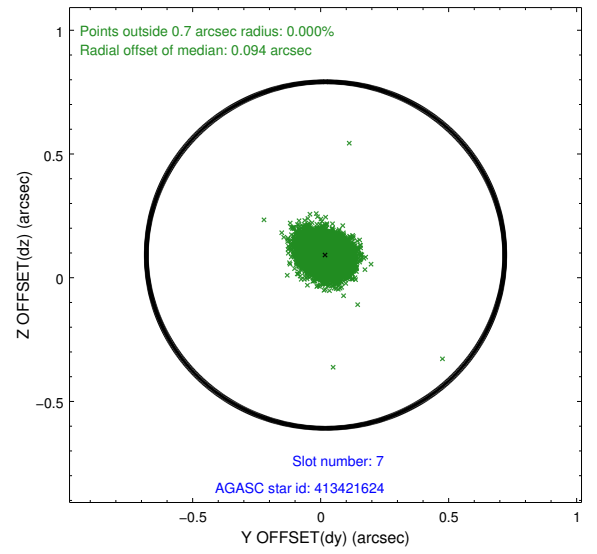
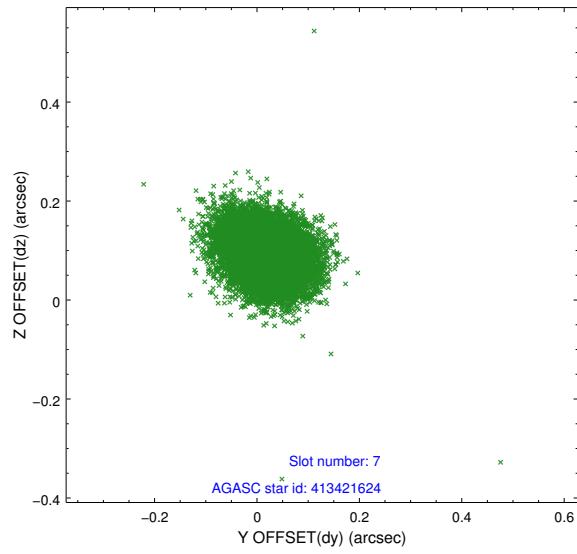
### 2.4.3 Slot 5



## 2.4.4 Slot 6

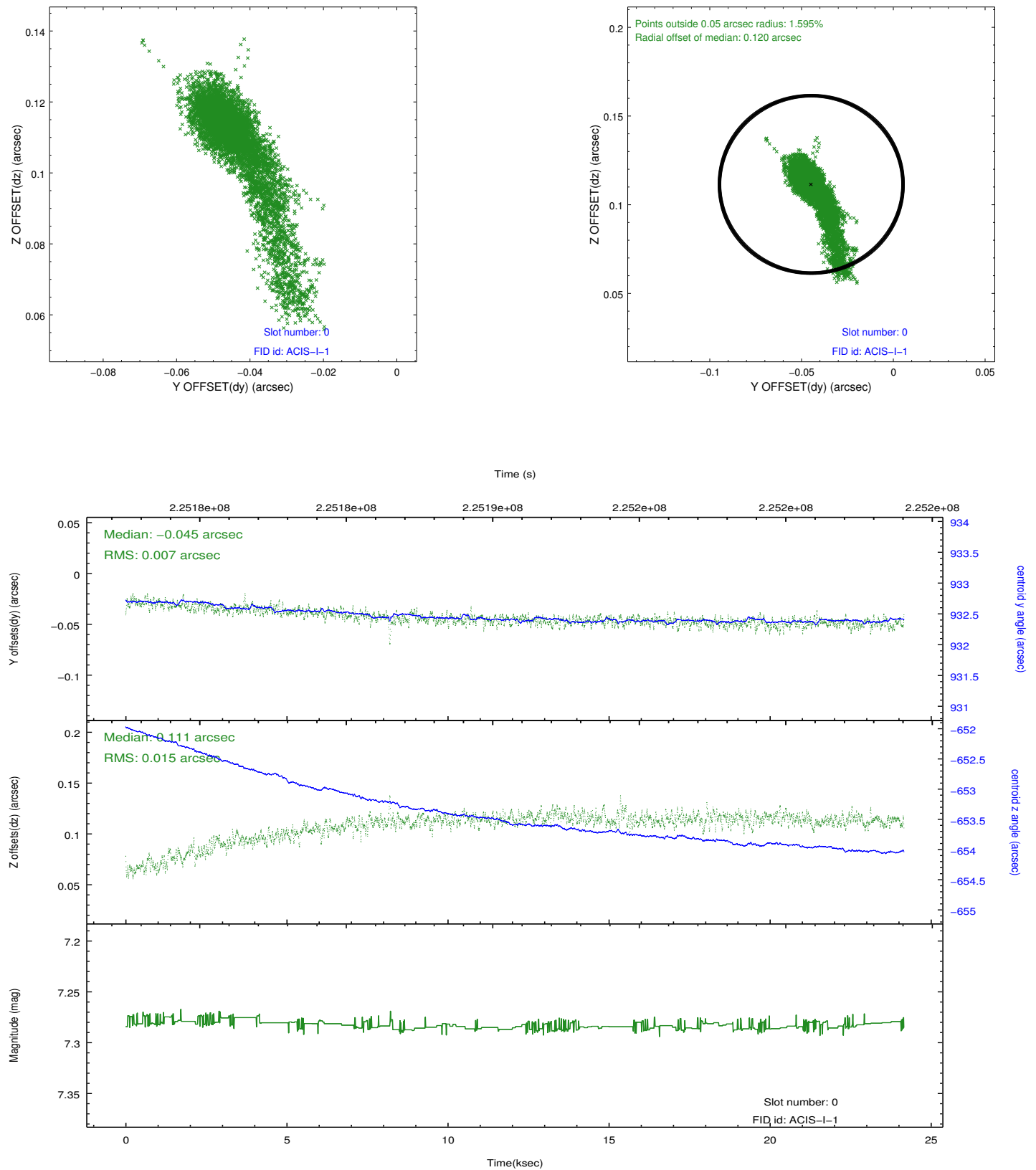


## 2.4.5 Slot 7

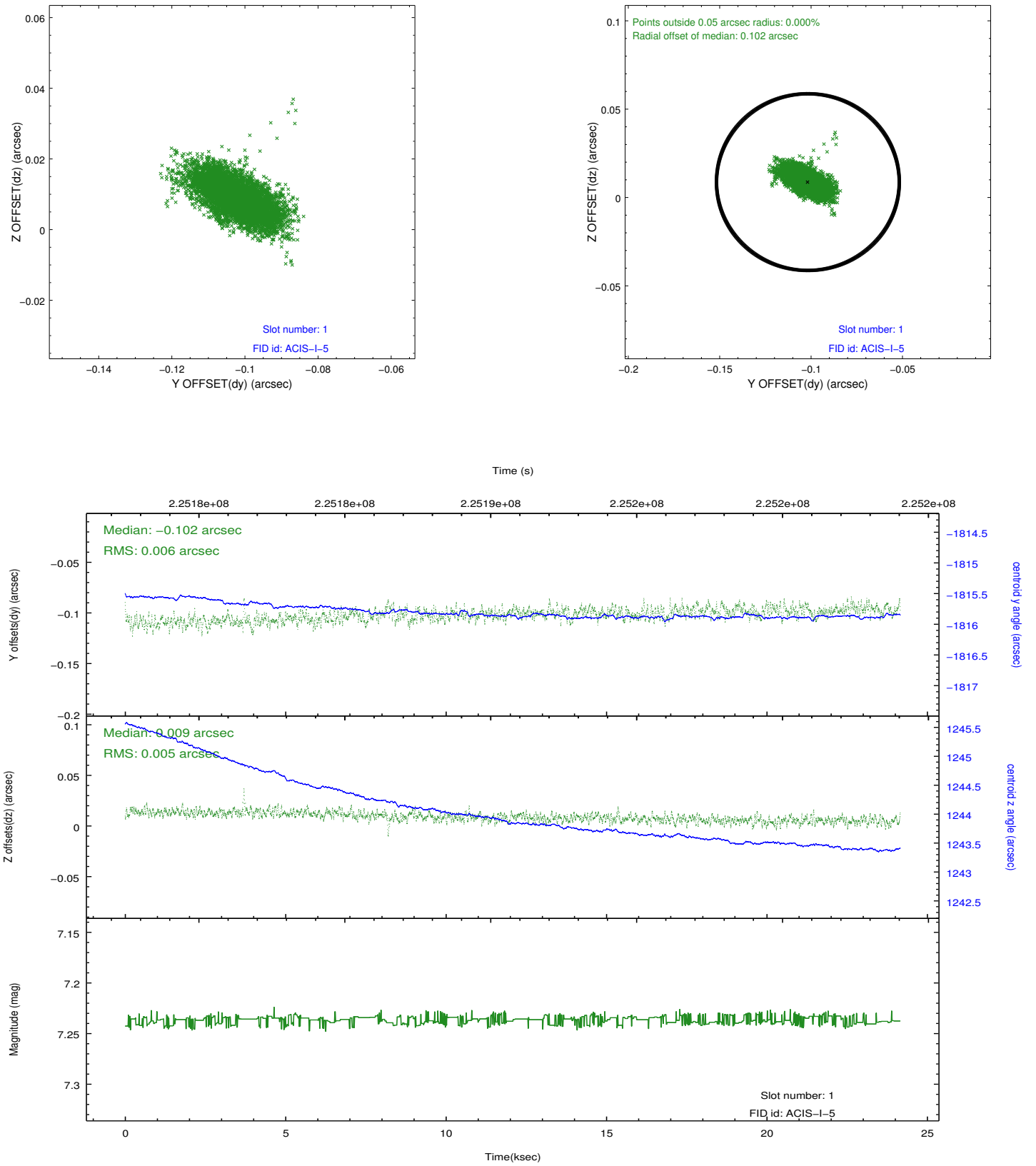


## 2.5 FID Slots

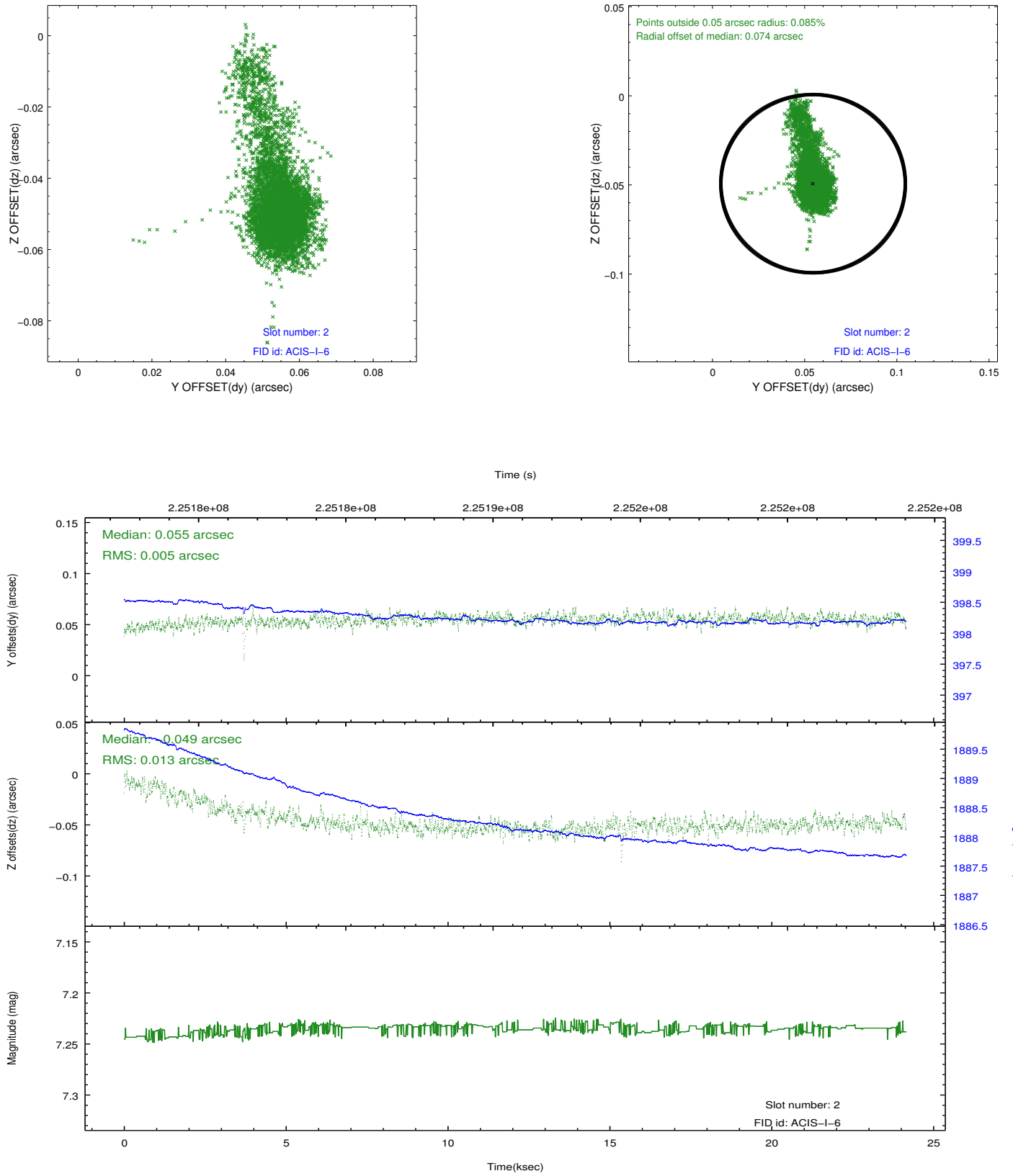
### 2.5.1 Slot 0



## 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)	2013.01.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.14887

### A.2 Comments