

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 8192 - L2 Version 2  
Chandra X-Ray Center

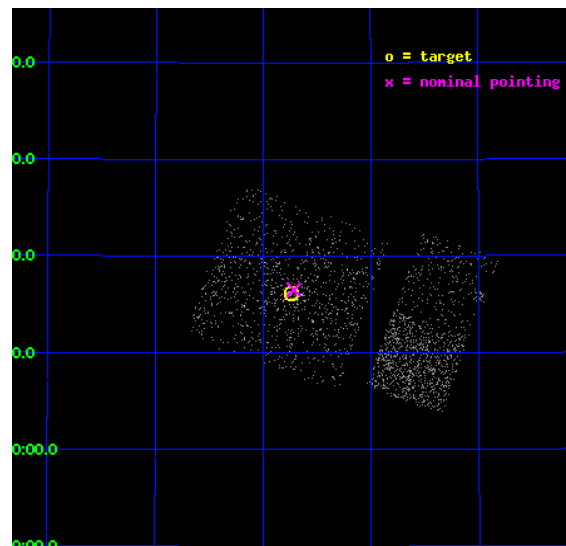
L2 Processing Date : Apr 27 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI Primary</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>3</b>	<b>OBI Secondary</b>	<b>17</b>
3.1	OBI . . . . .	17
3.1.1	Images . . . . .	17
3.1.2	Bias . . . . .	17
3.1.3	Parameters . . . . .	18
3.1.4	Events . . . . .	18
<b>A</b>	<b>Summary</b>	<b>19</b>
A.1	Status . . . . .	19
A.2	Comments . . . . .	19

# 1 Front

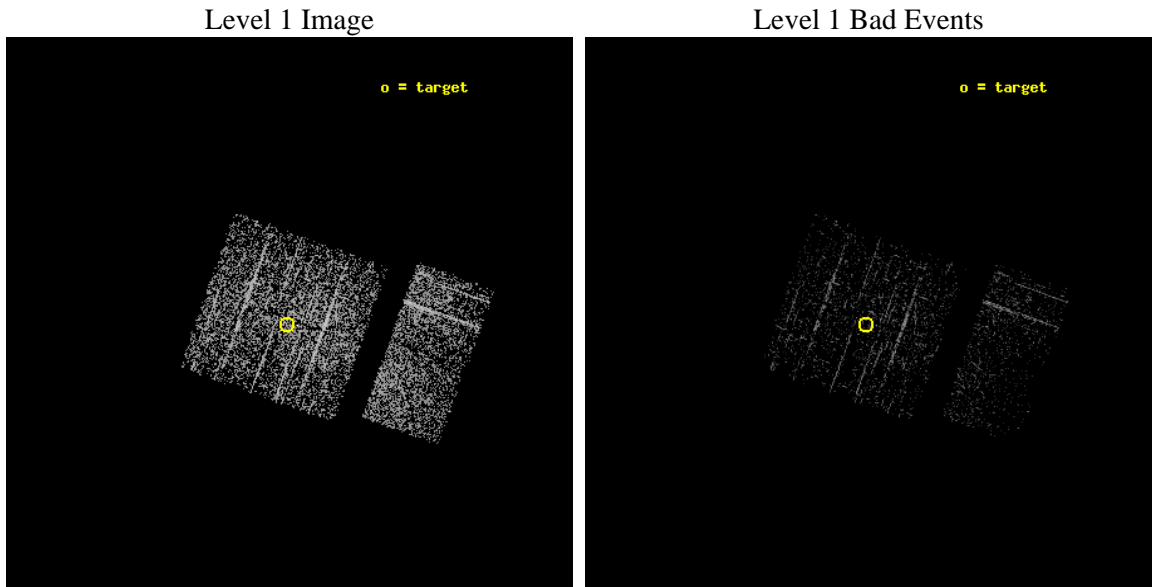
seq_num	600629	Sequence number
obs_id	8192	Observation id
title	Continued M31 Monitoring for Black Hole X-ray Nova	Proposal title
observer	Dr. Michael Garcia	Principal investigator
object	M31	Source name
dtcycle	0	&#160
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.678637118961	Nominal RA [deg]
dec_nom	41.275402464886	Nominal Dec [deg]
roll_nom	109.83314230206	Nominal Roll [deg]
revision	2	Processing version of data
ontime	964.13172930479	Sum of GTIs [s]
livetime	151.77759056685	Livetime [s]
ontime0	964.13172930479	Sum of GTIs [s]
ontime1	964.13172930479	Sum of GTIs [s]
ontime2	964.13172930479	Sum of GTIs [s]
ontime3	964.13172930479	Sum of GTIs [s]
ontime6	964.16112846136	Sum of GTIs [s]
ontime7	964.13172930479	Sum of GTIs [s]
l2events	2579	Number of level 2 events



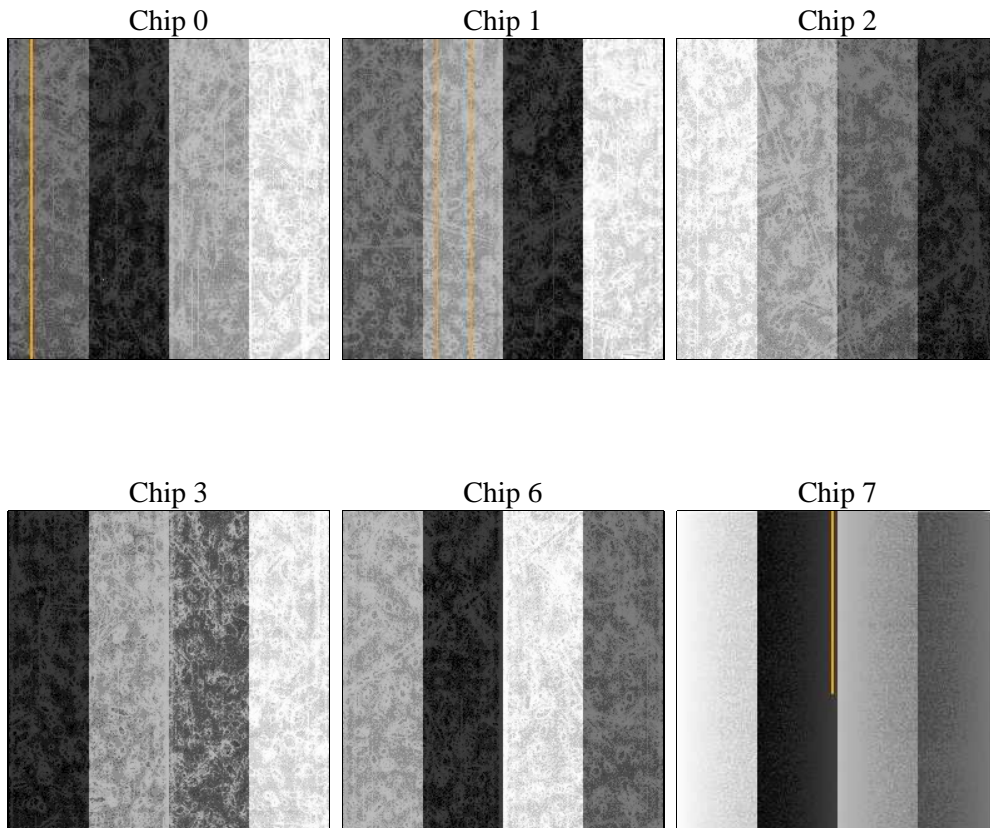
## 2 OBI Primary

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	964.13172930479	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	964.13172930479	Sum of GTIs [s]
date	2012-04-27T13:27:22	Date and time of file creation	ontime1	964.13172930479	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	964.13172930479	Sum of GTIs [s]
			ontime3	964.13172930479	Sum of GTIs [s]
			ontime6	964.16112846136	Sum of GTIs [s]
			ontime7	964.13172930479	Sum of GTIs [s]
			l1events	22368	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	3389	3670	4064	4077	3982	3186
rejected events	3064	3237	3708	3558	3681	2175
rejected %	90%	88%	91%	87%	92%	68%

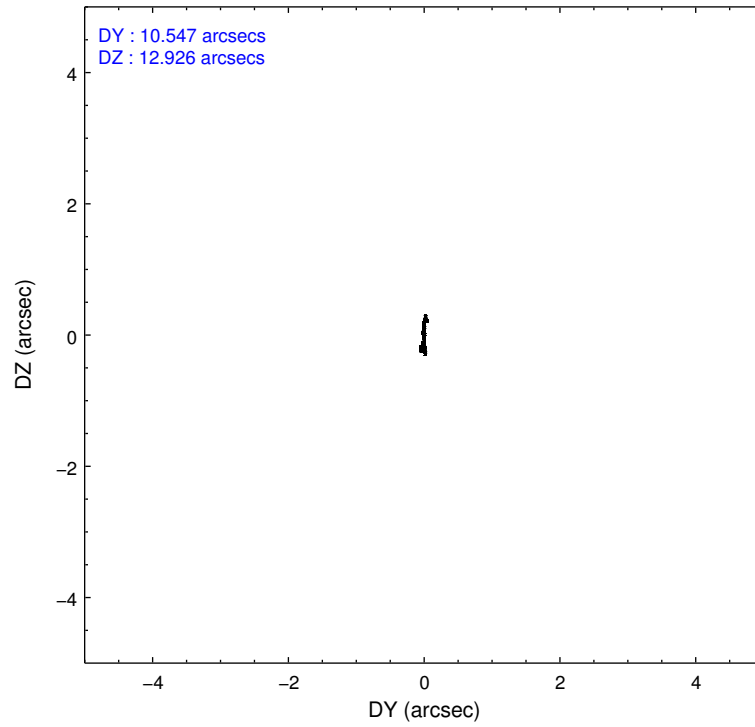
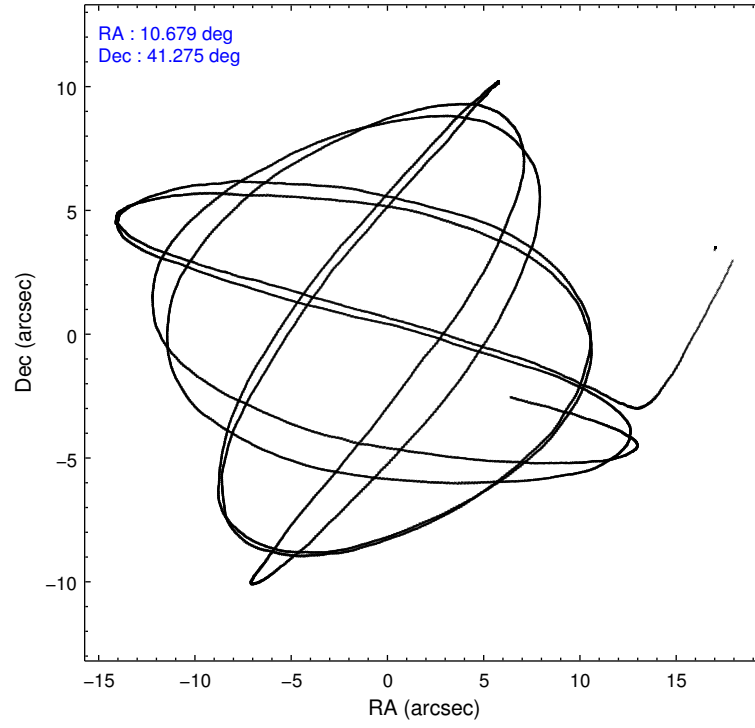
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	99	190	133	256	88	97
	2%	5%	3%	6%	2%	3%
grade 1 events	1	2	1	8	0	2
	0%	0%	0%	0%	0%	0%
grade 2 events	77	81	87	101	79	242
	2%	2%	2%	2%	1%	7%
grade 3 events	38	57	43	55	39	97
	1%	1%	1%	1%	0%	3%
grade 4 events	48	51	51	50	48	90
	1%	1%	1%	1%	1%	2%
grade 5 events	99	126	118	135	122	290
	2%	3%	2%	3%	3%	9%
grade 6 events	66	56	43	60	50	492
	1%	1%	1%	1%	1%	15%
grade 7 events	2961	3107	3588	3412	3556	1876
	87%	84%	88%	83%	89%	58%

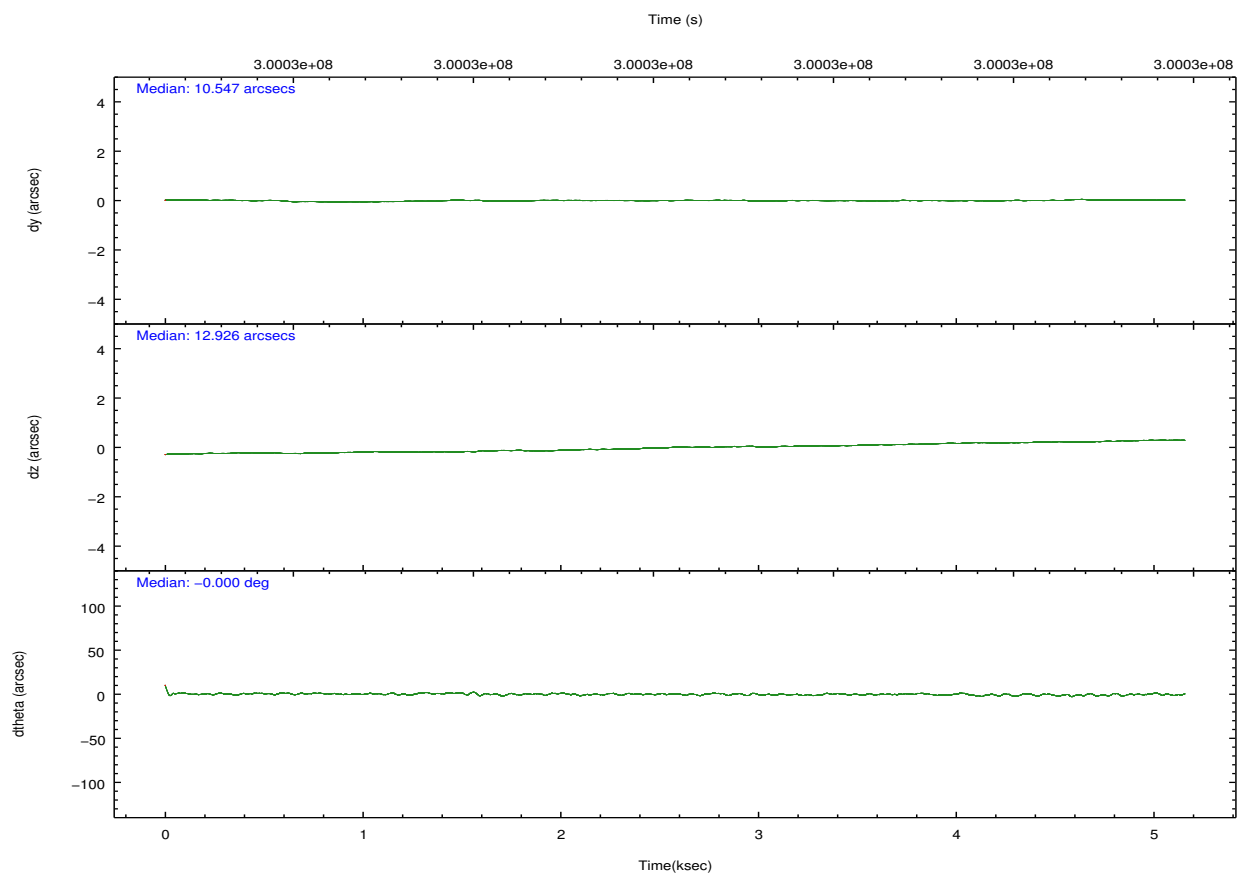
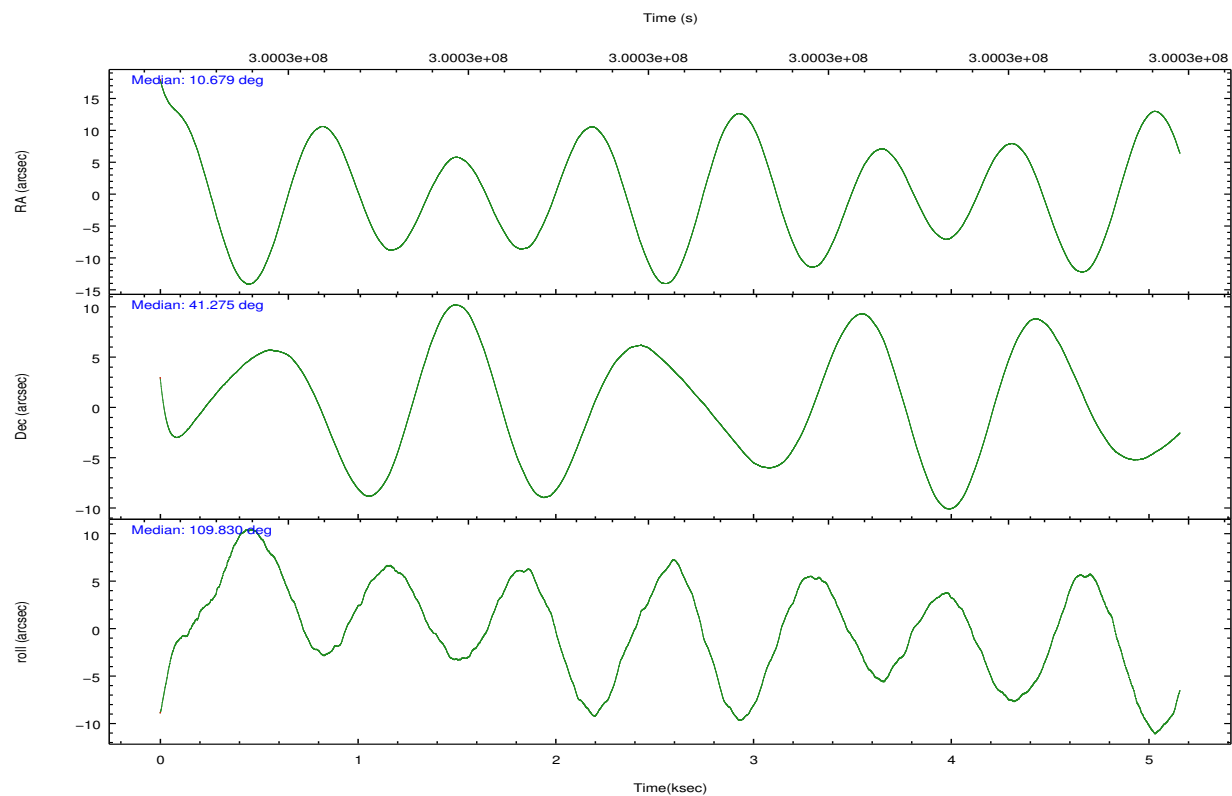


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	10.706556	10.67863711896115	Subarray requested	NONE	NONE
[deg] Pointing Dec	41.257770	41.27540246488626	Alternating exposures requested	Y	Y
[deg] Pointing Roll	109.606061	109.833142302065	[s] Primary exposure time	0.600000	0.6
[mm] SIM focus pos	-0.782348	-0.7809083437167272	[s] Secondary exposure time	0.000000	3.2
[mm] SIM defocus	0	0.001439871863259334	Duty cycle	5	5
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	300028700.184000	300027624.3686			
Observation start date	2007-07-05T13:17:15	2007-07-05T13:00:24			
[s] Observation end time (MET)	300033700.184000	300034474.95643			
Observation end date	2007-07-05T14:40:35	2007-07-05T14:54:34			
Read mode	TIMED	TIMED			

## 2.3 Aspect



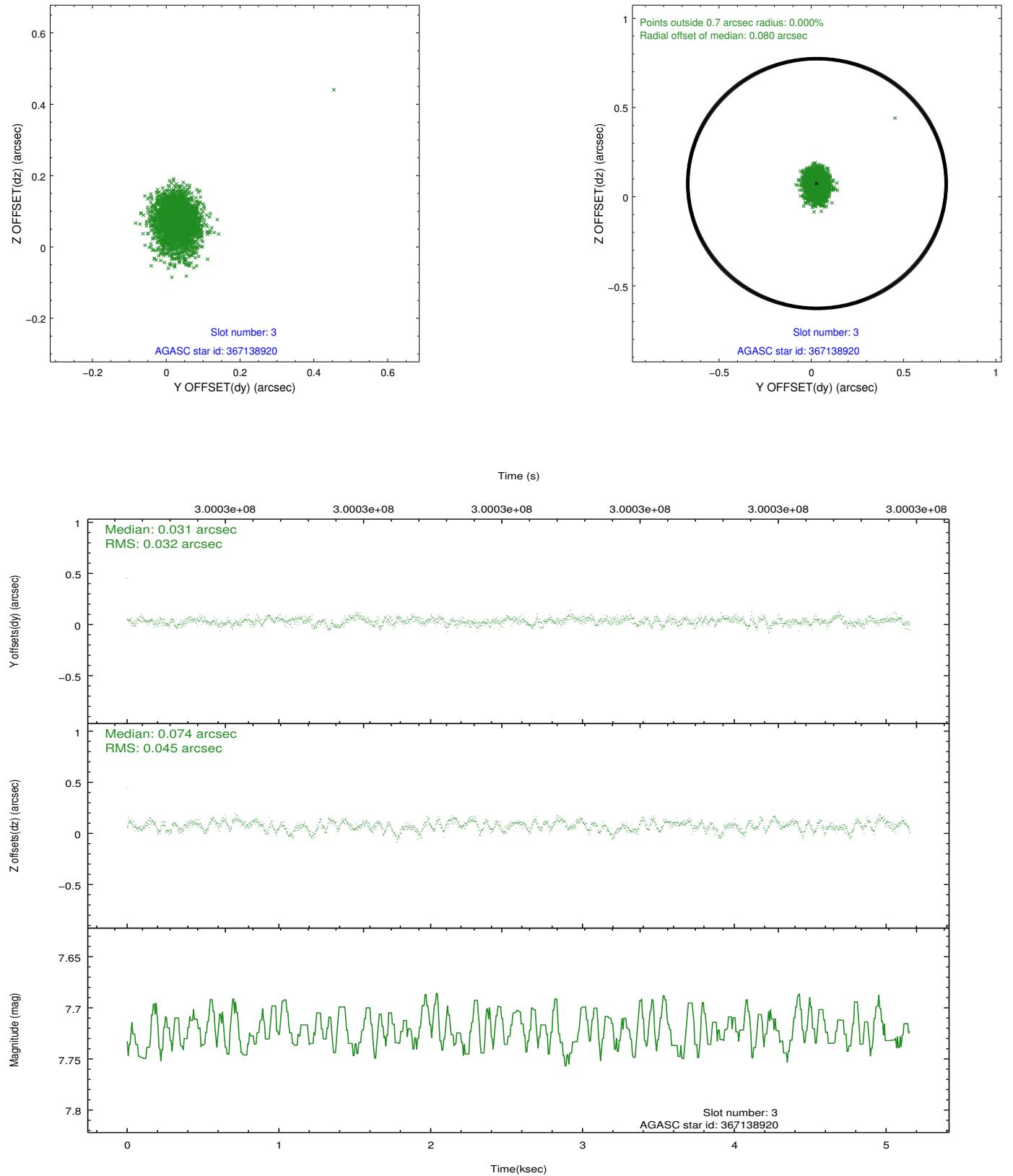


### Slot Statistics

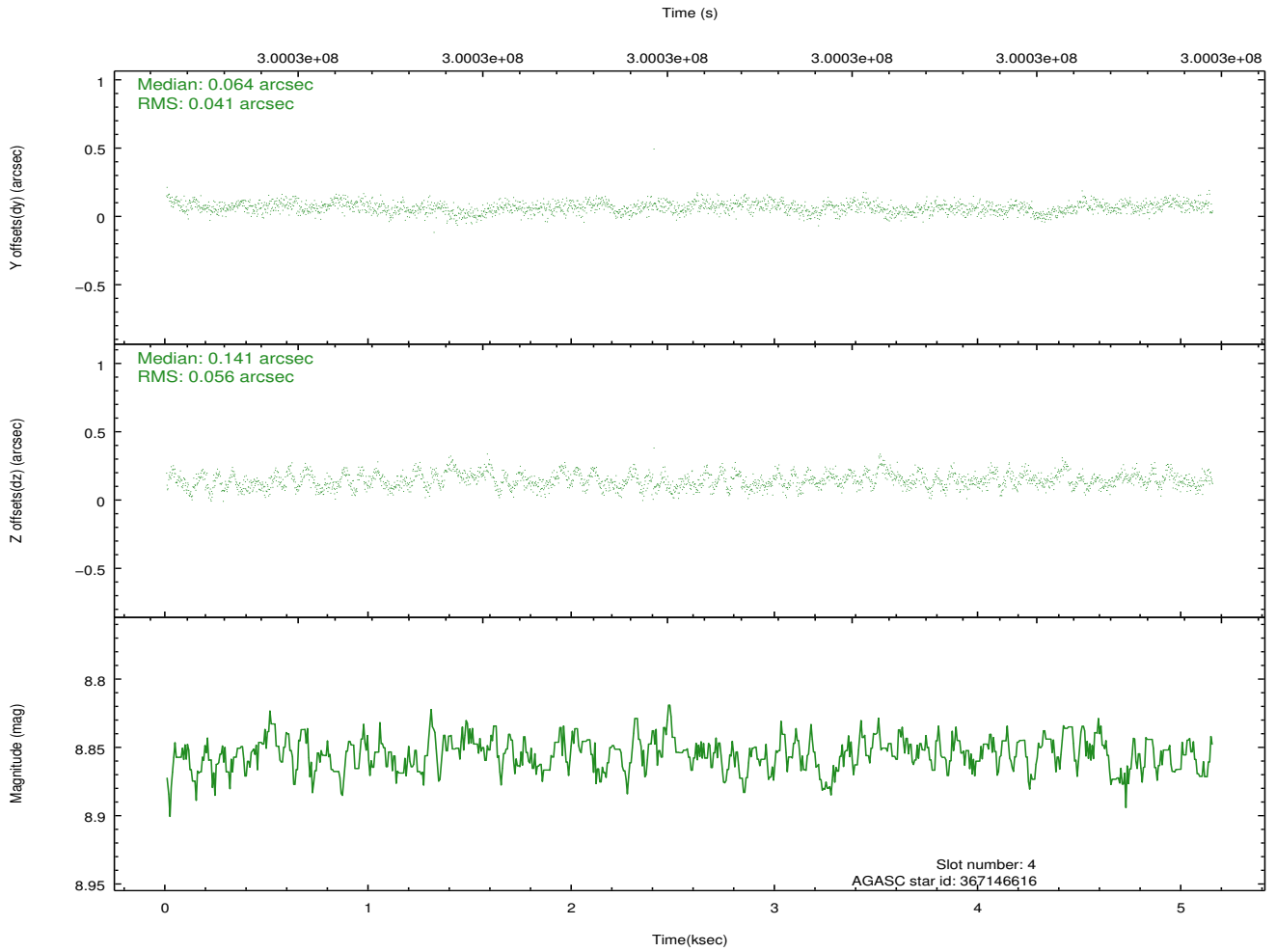
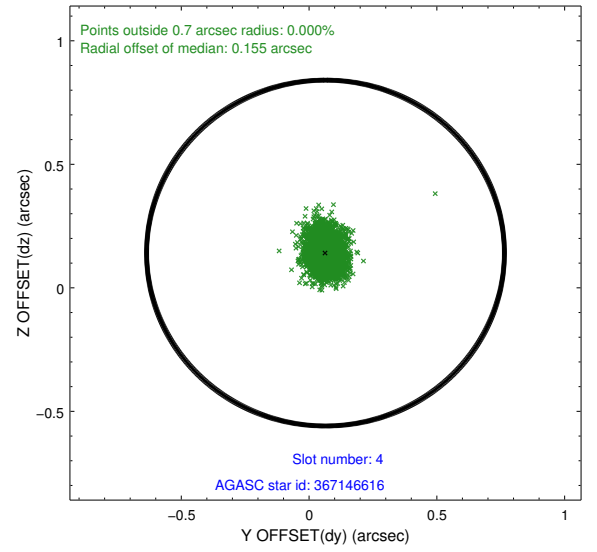
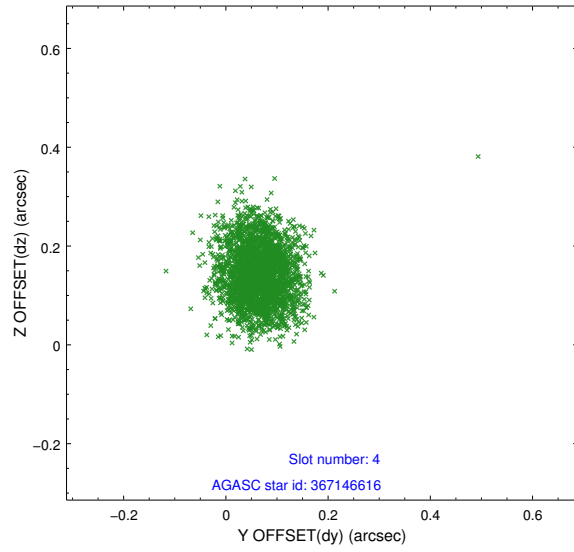
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.23	1259	-0.022	0.071	0.009	0.015	0.000000	0.000000	928.99	-836.41
1	FID	ACIS-I-2	7.13	1258	-0.180	-0.090	0.007	0.012	0.000000	0.000000	-764.61	-843.55
2	FID	ACIS-I-4	7.18	1259	0.105	0.087	0.007	0.012	0.000000	0.000000	2148.53	1062.78
3	GUIDE	367138920	7.72	2517	0.031	0.074	0.057	0.094	11.513485	40.808909	-2250.41	-1532.51
4	GUIDE	367146616	8.85	2511	0.064	0.141	0.073	0.119	11.418645	41.190163	-869.35	-1738.25
5	GUIDE	367148872	7.20	2516	0.077	-0.232	0.059	0.099	10.505940	40.688258	-1747.24	1203.44
6	GUIDE	367663272	9.28	2514	-0.046	-0.035	0.087	0.137	10.656279	41.699429	1542.94	-404.48
7	GUIDE	367674552	8.83	2514	-0.130	0.055	0.074	0.117	11.016238	41.570845	784.27	-1163.97

## 2.4 Star Slots

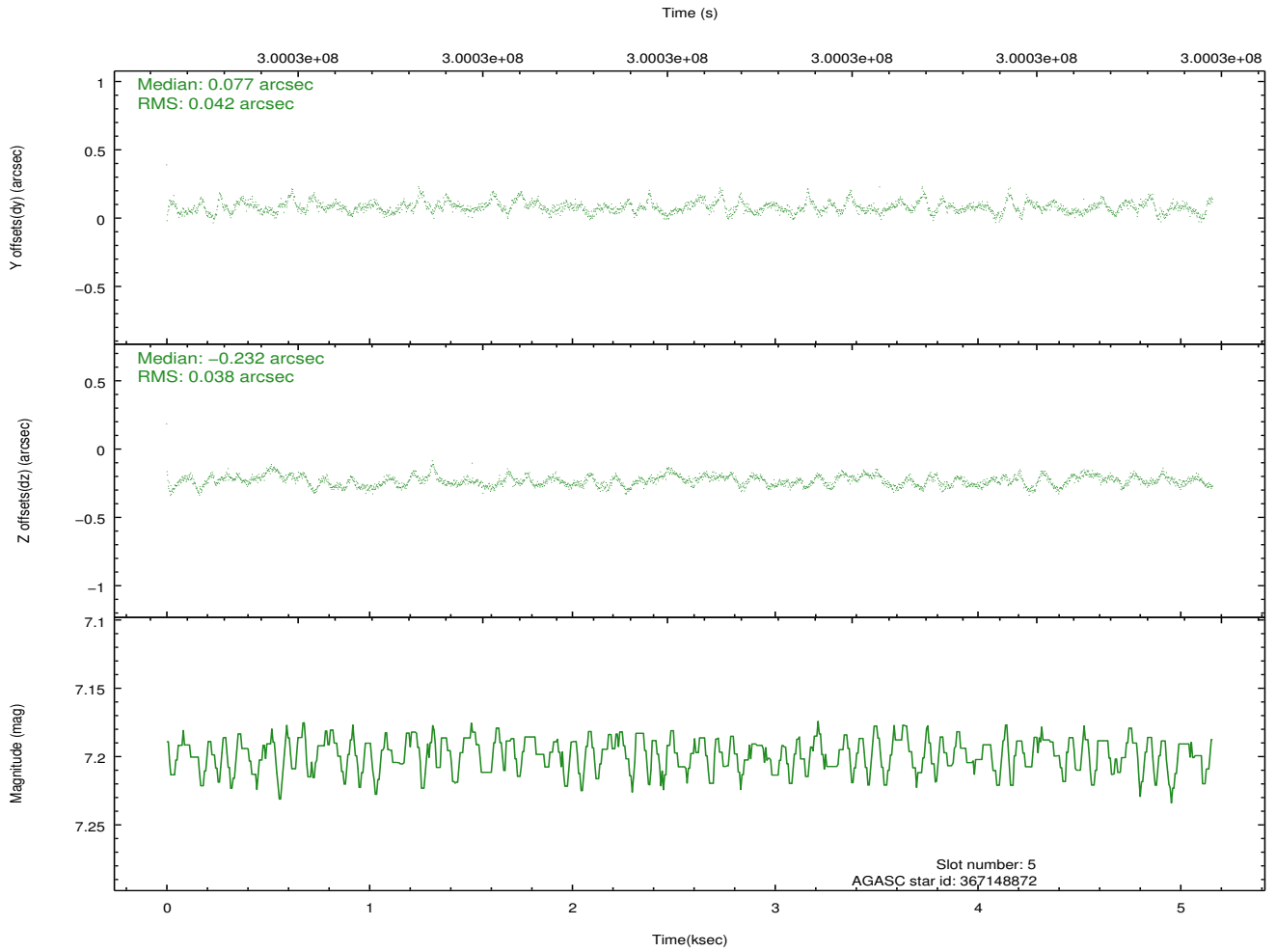
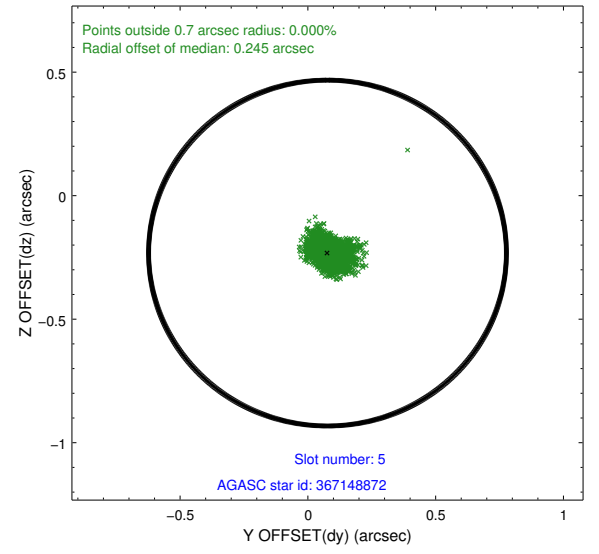
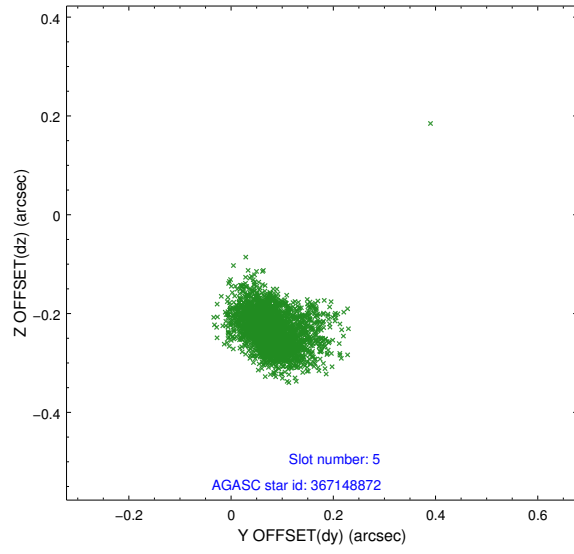
### 2.4.1 Slot 3



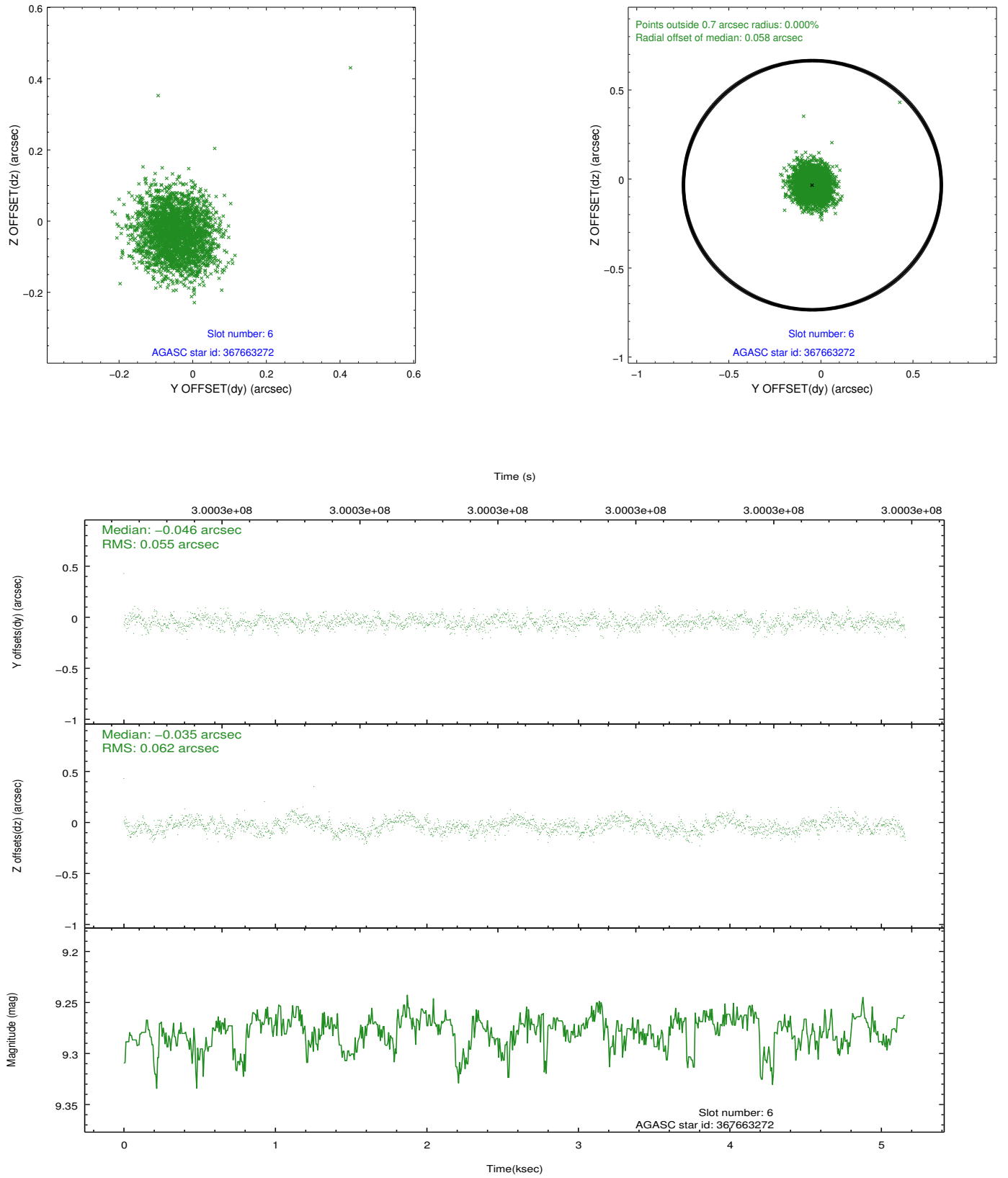
## 2.4.2 Slot 4



### 2.4.3 Slot 5

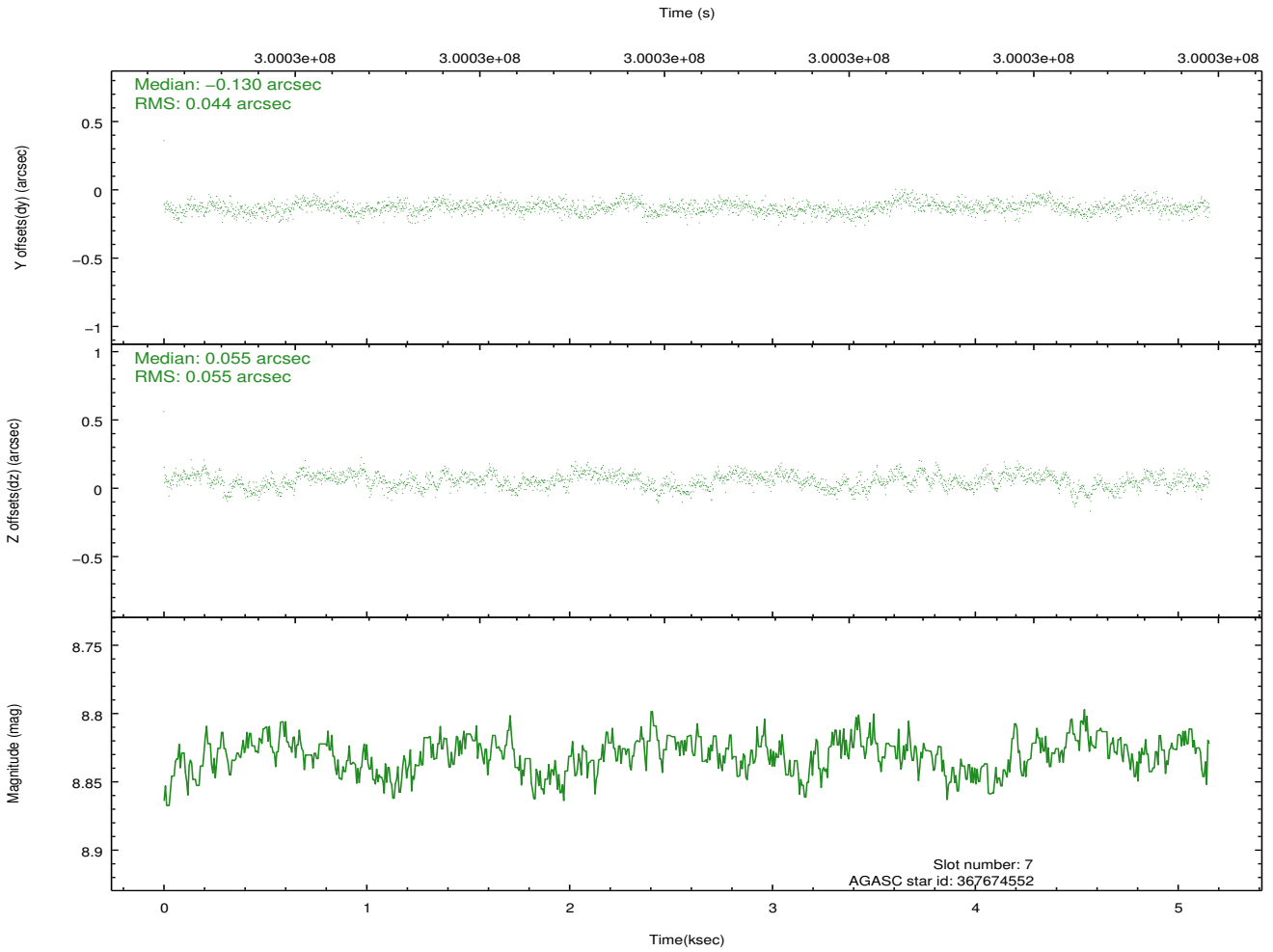
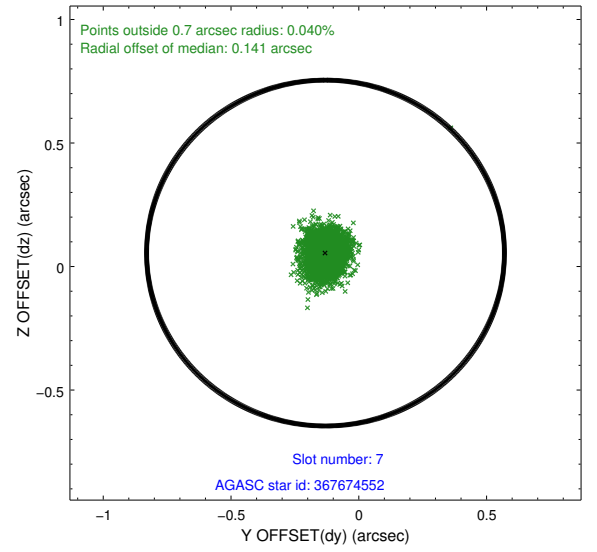
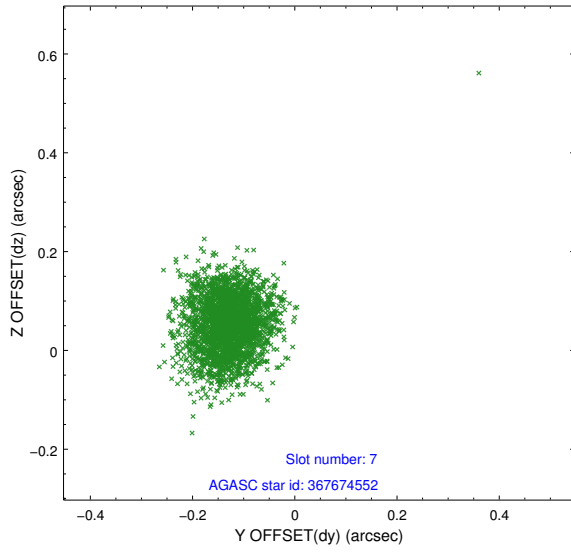


## 2.4.4 Slot 6



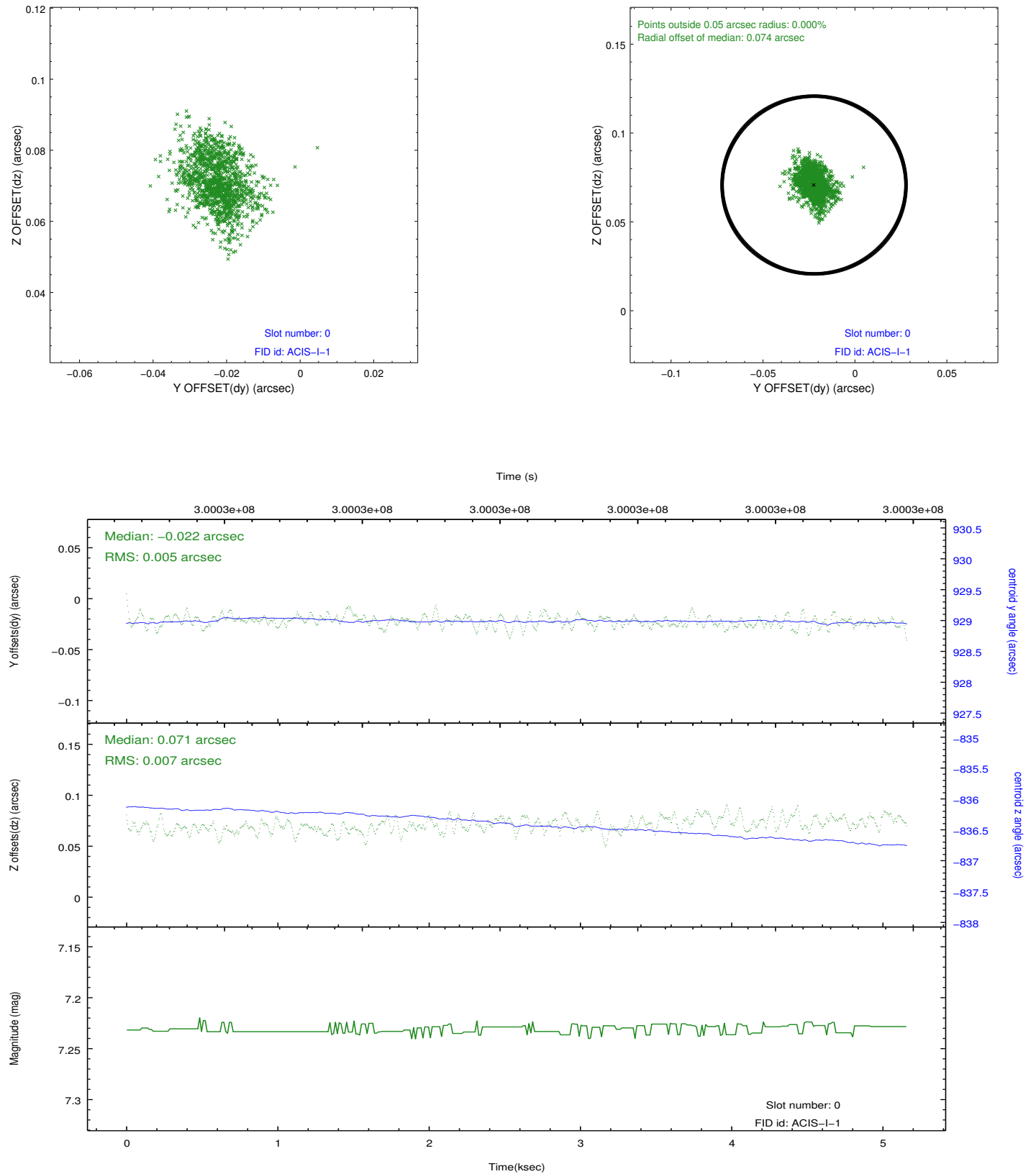


## 2.4.5 Slot 7

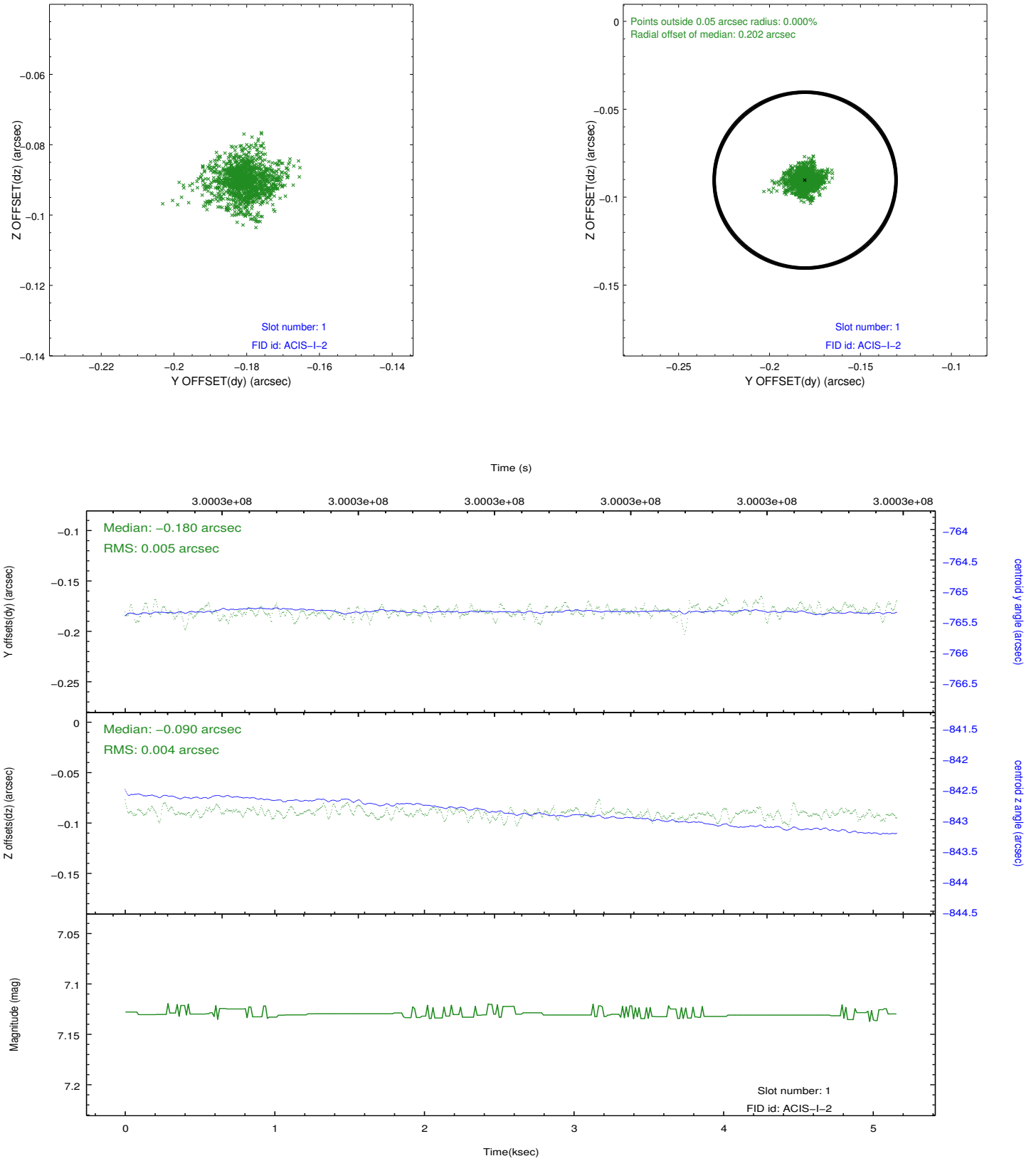


## 2.5 FID Slots

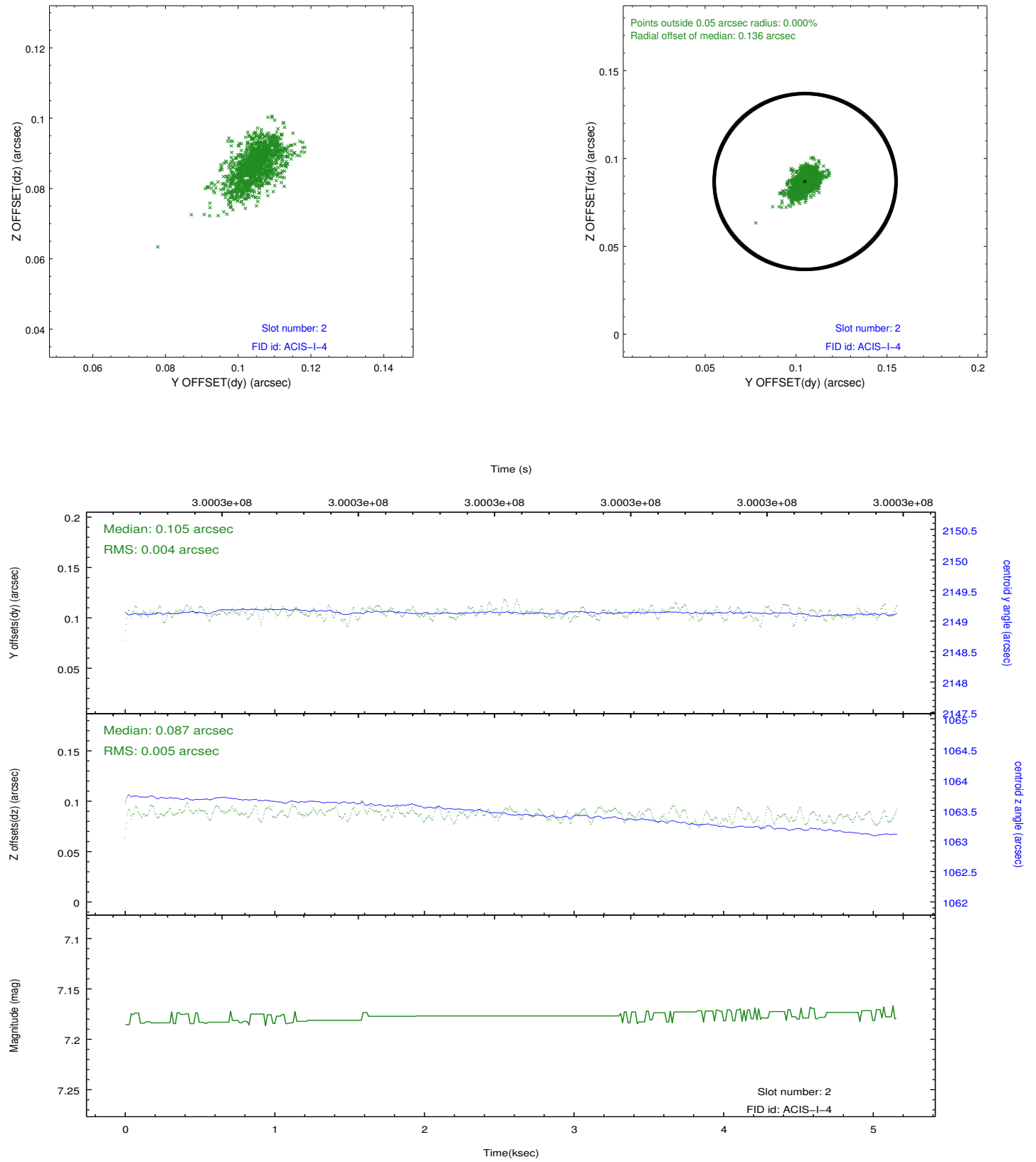
### 2.5.1 Slot 0



## 2.5.2 Slot 1



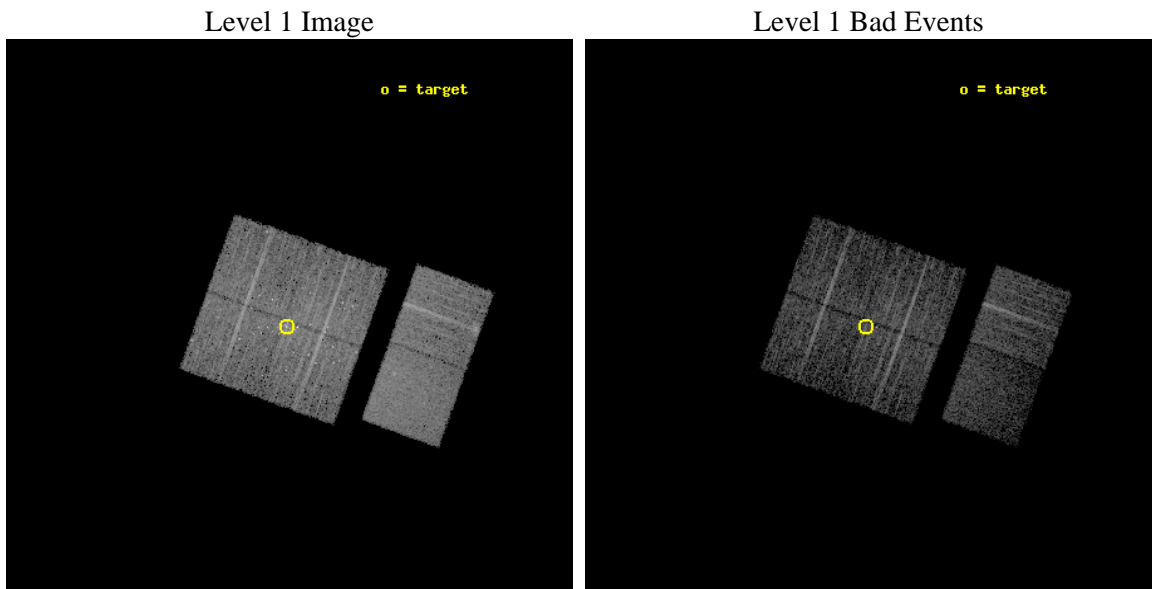
### 2.5.3 Slot 2



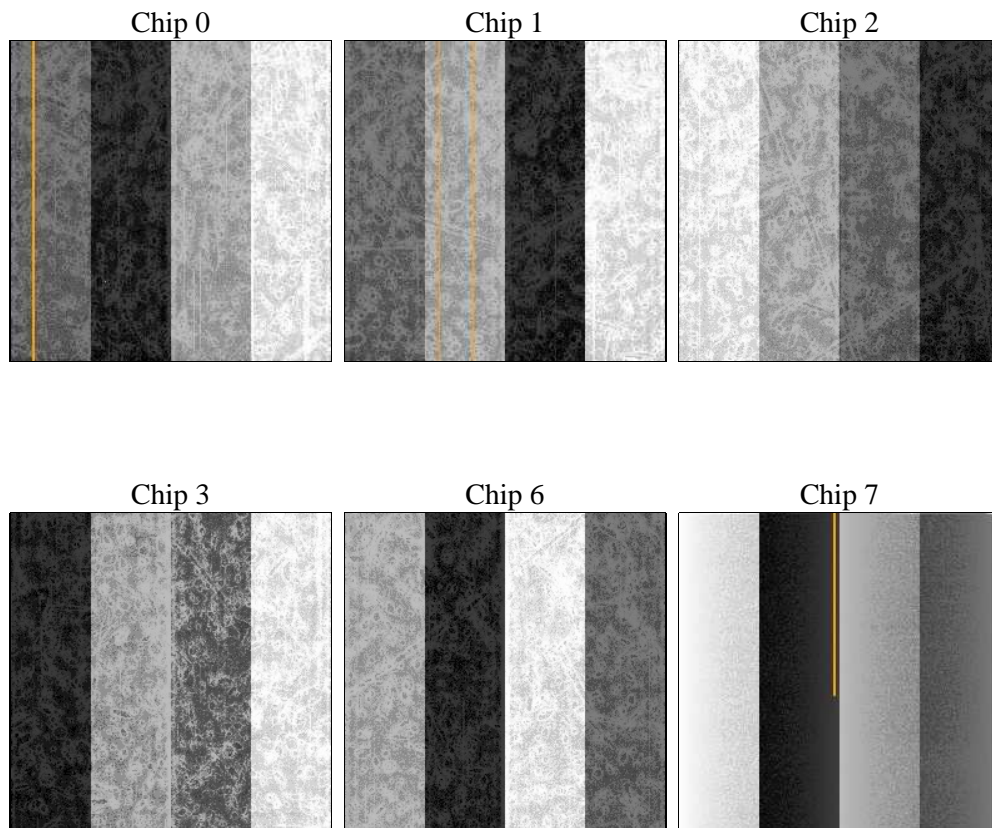
## 3 OBI Secondary

### 3.1 OBI

#### 3.1.1 Images



#### 3.1.2 Bias



### 3.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	4125.7199339867	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime0	4125.7198946476	Sum of GTIs [s]
date	2012-04-27T13:28:55	Date and time of file creation	ontime1	4125.7202534676	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4122.4792533517	Sum of GTIs [s]
			ontime3	4125.7199339867	Sum of GTIs [s]
			ontime6	4125.7199554443	Sum of GTIs [s]
			ontime7	4125.7200741172	Sum of GTIs [s]
			l1events	213793	Number of level 1 events

### 3.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	32712	33391	37568	38215	34952	36955	grade 0 events	2294	3530	2899	4904	1667	1678
rejected events	28001	27026	32240	30225	31012	20134		7%	10%	7%	12%	4%	4%
rejected %	85%	80%	85%	79%	88%	54%	grade 1 events	20	44	45	160	19	34
								0%	0%	0%	0%	0%	0%
							grade 2 events	879	1123	925	1112	785	3370
								2%	3%	2%	2%	2%	9%
							grade 3 events	434	468	422	554	361	1509
								1%	1%	1%	1%	1%	4%
							grade 4 events	415	470	424	600	375	1468
								1%	1%	1%	1%	1%	3%
							grade 5 events	1050	1216	1097	1399	1340	3701
								3%	3%	2%	3%	3%	10%
							grade 6 events	695	785	669	830	758	8824
								2%	2%	1%	2%	2%	23%
							grade 7 events	26925	25755	31087	28656	29647	16371
								82%	77%	82%	74%	84%	44%

## **A Summary**

### **A.1 Status**

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.04.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.08999401

### **A.2 Comments**