

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 8183 - L2 Version 3  
Chandra X-Ray Center

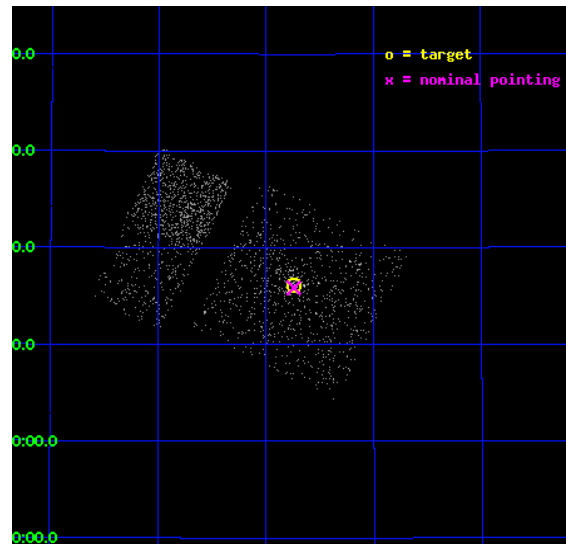
L2 Processing Date : Apr 18 2012

## 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

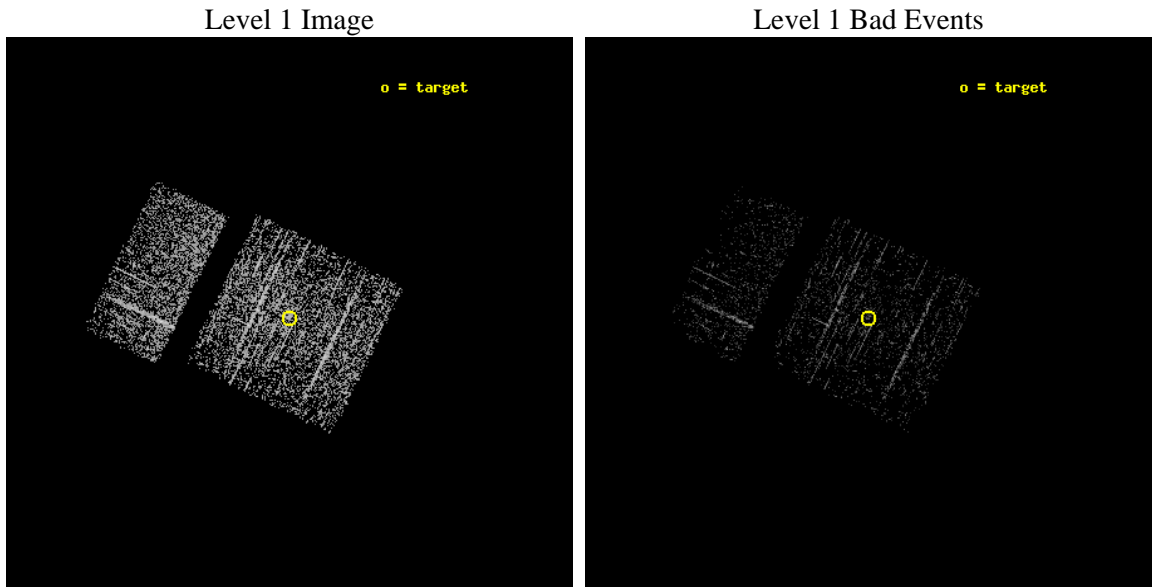
seq_num	600620	Sequence number
obs_id	8183	Observation id
title	Continued M31 Monitoring for Black Hole X-ray Nova	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	M31	Source name
dtcycle	0	&#160
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.685521747434	Nominal RA [deg]
dec_nom	41.26435153346	Nominal Dec [deg]
roll_nom	296.11670388657	Nominal Roll [deg]
revision	3	Processing version of data
ontime	937.77668267488	Sum of GTIs [s]
livetime	147.62867050211	Livetime [s]
ontime0	937.77665275335	Sum of GTIs [s]
ontime1	937.77665275335	Sum of GTIs [s]
ontime2	937.77665275335	Sum of GTIs [s]
ontime3	937.77668267488	Sum of GTIs [s]
ontime6	937.74332261086	Sum of GTIs [s]
ontime7	937.77668267488	Sum of GTIs [s]
l2events	2362	Number of level 2 events



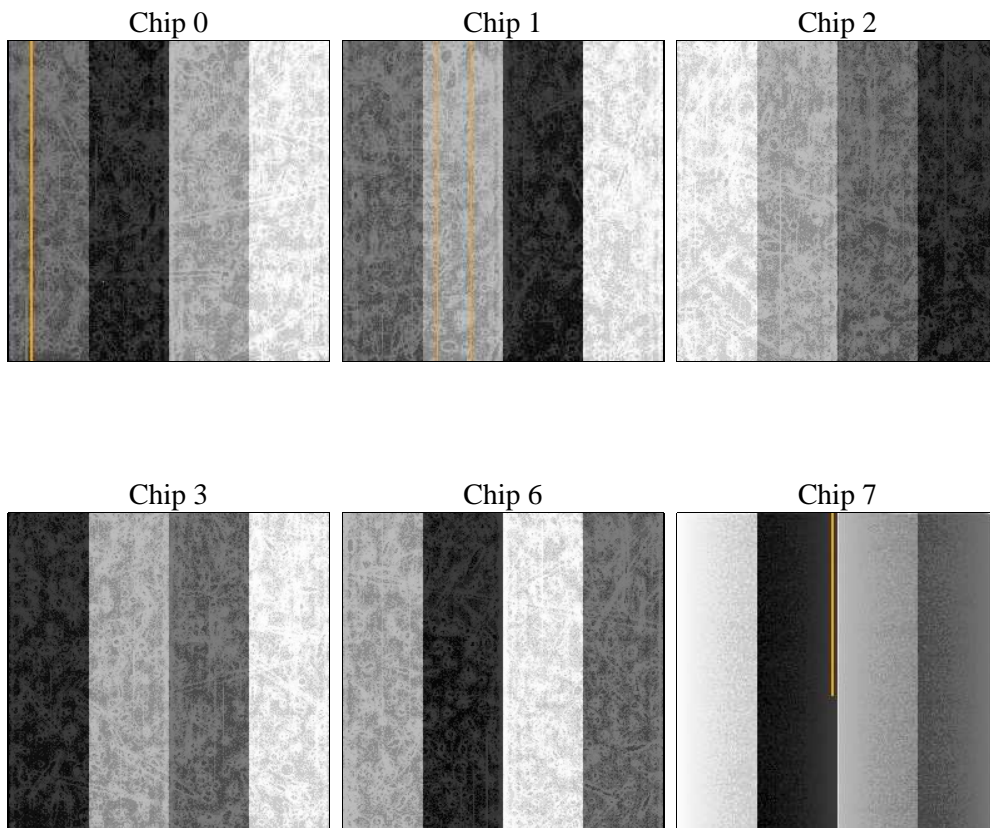
## 2 OBI Primary

### 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	937.77668267488	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	937.77665275335	Sum of GTIs [s]
date	2012-04-18T12:18:18	Date and time of file creation	ontime1	937.77665275335	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	937.77665275335	Sum of GTIs [s]
			ontime3	937.77668267488	Sum of GTIs [s]
			ontime6	937.74332261086	Sum of GTIs [s]
			ontime7	937.77668267488	Sum of GTIs [s]
			l1events	21015	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	3063	3527	3830	3927	3616	3052
rejected events	2729	3107	3442	3529	3326	2140
rejected %	89%	88%	89%	89%	91%	70%

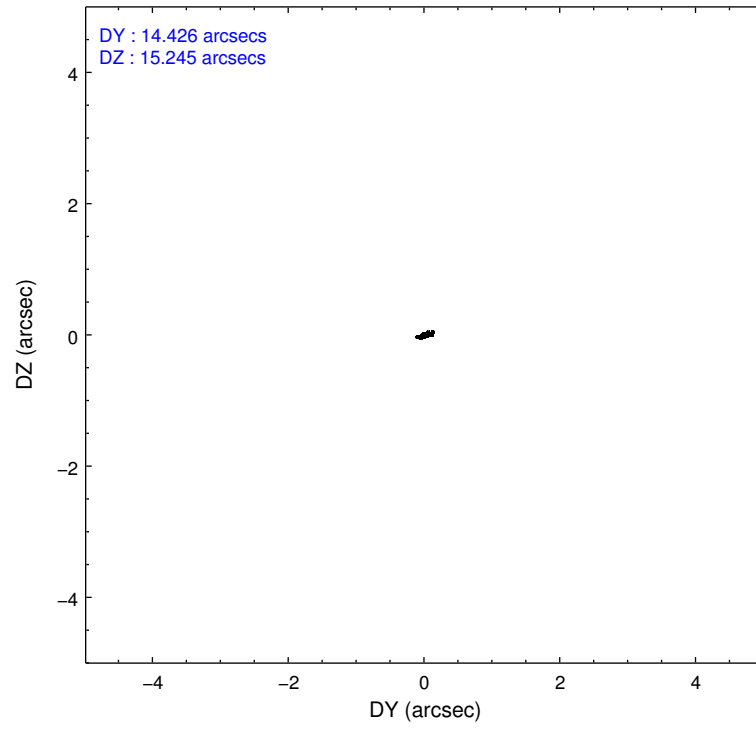
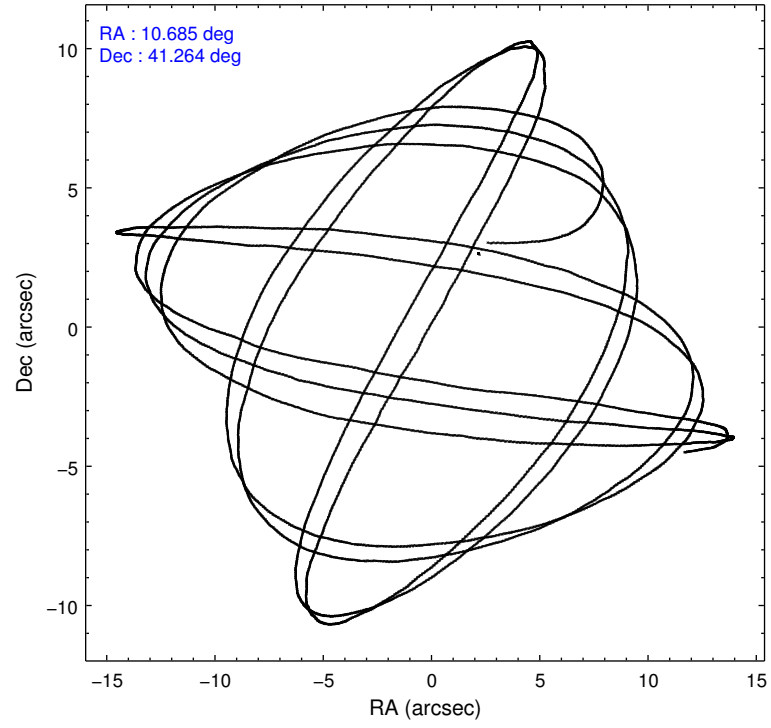
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	118	182	175	162	70	79
	3%	5%	4%	4%	1%	2%
grade 1 events	0	1	1	1	1	1
	0%	0%	0%	0%	0%	0%
grade 2 events	79	77	82	93	66	201
	2%	2%	2%	2%	1%	6%
grade 3 events	38	49	35	43	46	98
	1%	1%	0%	1%	1%	3%
grade 4 events	43	53	47	43	40	74
	1%	1%	1%	1%	1%	2%
grade 5 events	106	116	101	119	140	277
	3%	3%	2%	3%	3%	9%
grade 6 events	57	60	52	62	69	470
	1%	1%	1%	1%	1%	15%
grade 7 events	2622	2989	3337	3404	3184	1852
	85%	84%	87%	86%	88%	60%

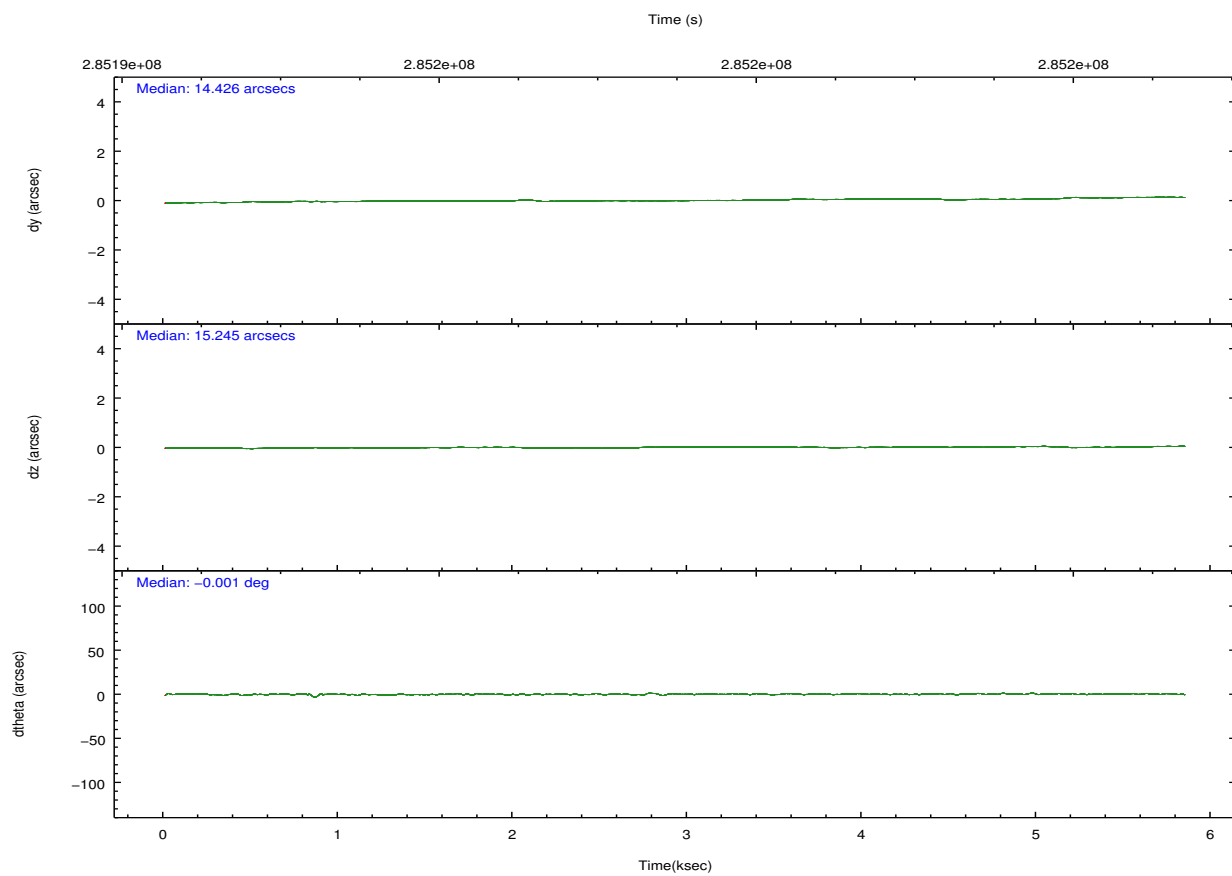
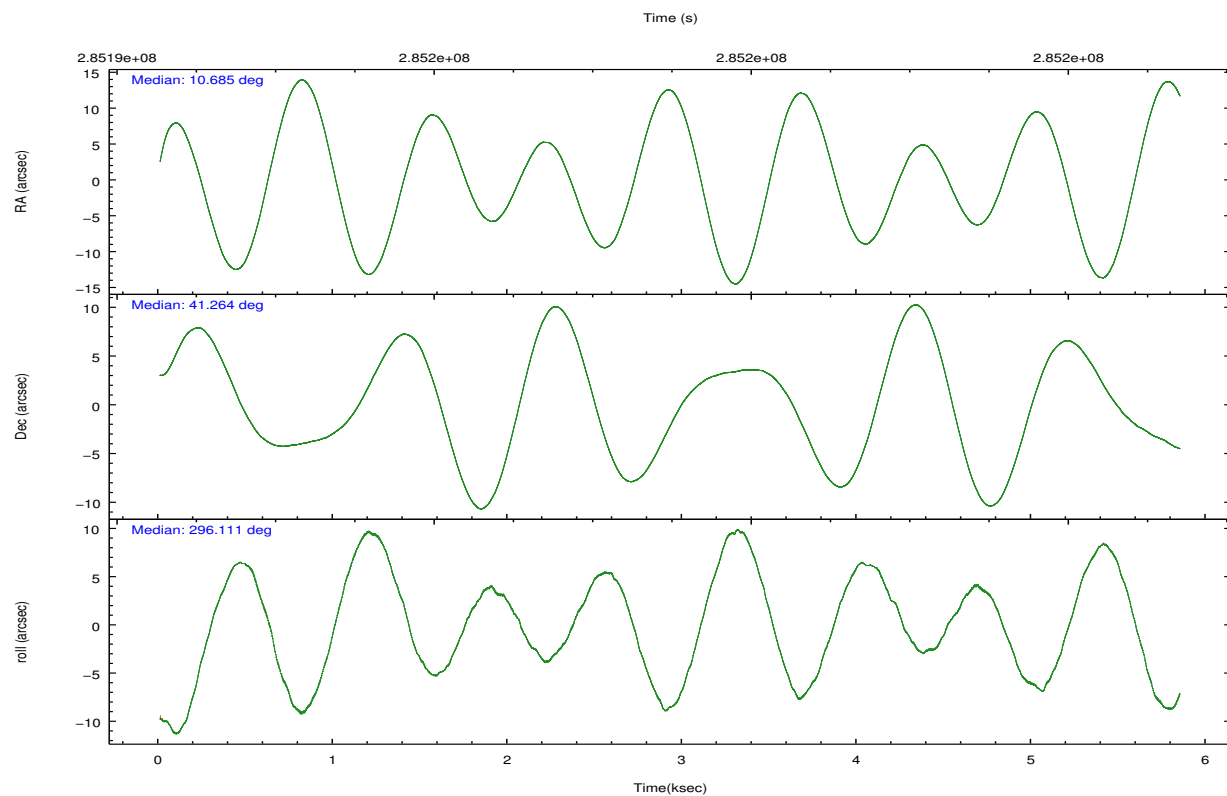


## 2.2 Compared Parameters

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	10.655002	10.68552174743445	Subarray requested	NONE	NONE
[deg] Pointing Dec	41.279518	41.2643515334596	Alternating exposures requested	Y	Y
[deg] Pointing Roll	295.928152	296.1167038865749	[s] Primary exposure time	0.600000	0.6
[s] Window start time (MET)	284774465.184000	284774465.184000	[s] Secondary exposure time	0.000000	3.2
[s] Window stop time (MET)	285465665.184000	285465665.184000	Duty cycle	5	5
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	285195416.184000	285194082.47431			
Observation start date	2007-01-14T20:55:51	2007-01-14T20:34:42			
[s] Observation end time (MET)	285200416.184000	285201075.53714			
Observation end date	2007-01-14T22:19:11	2007-01-14T22:31:15			
Read mode	TIMED	TIMED			

## 2.3 Aspect



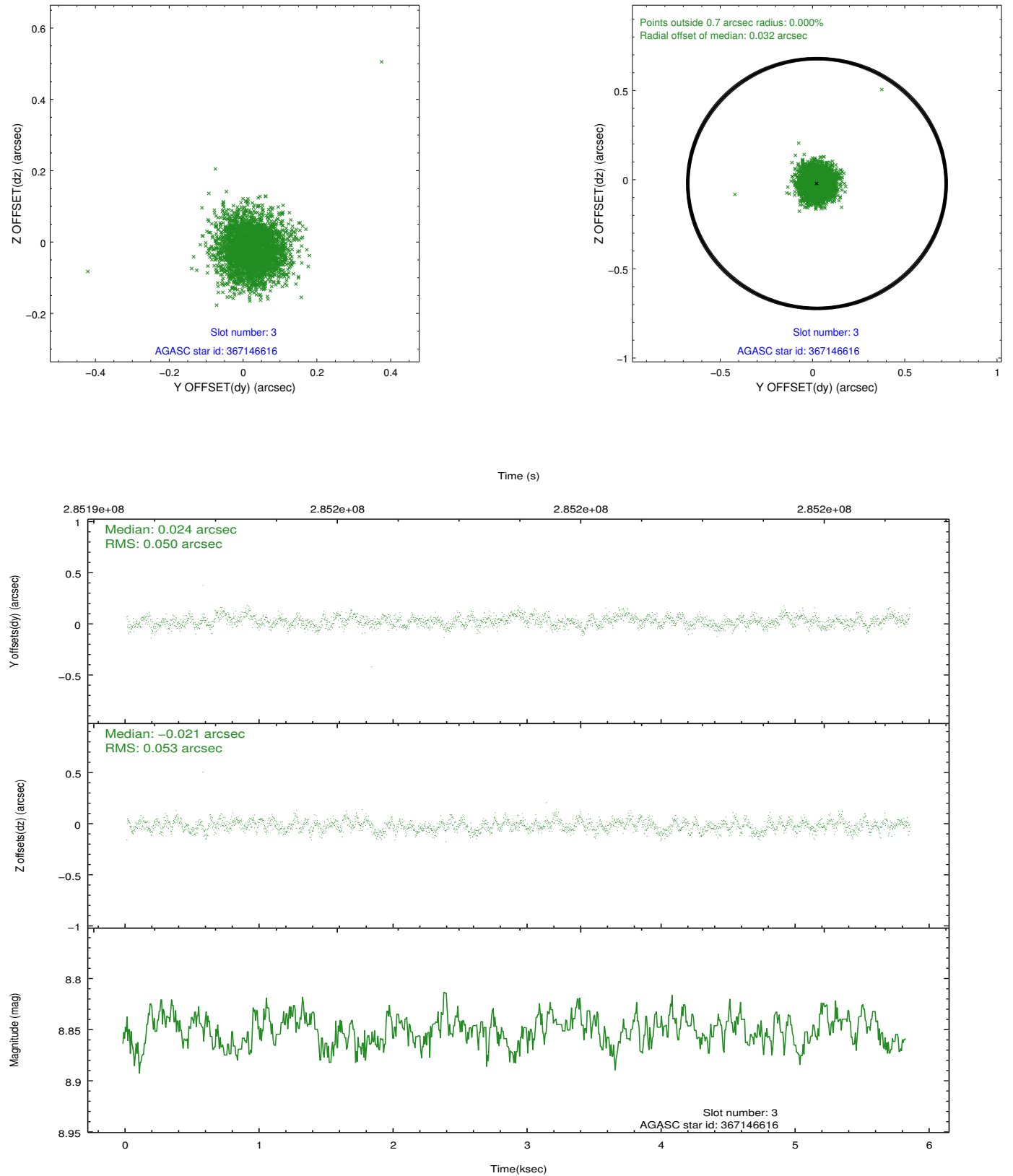


### Slot Statistics

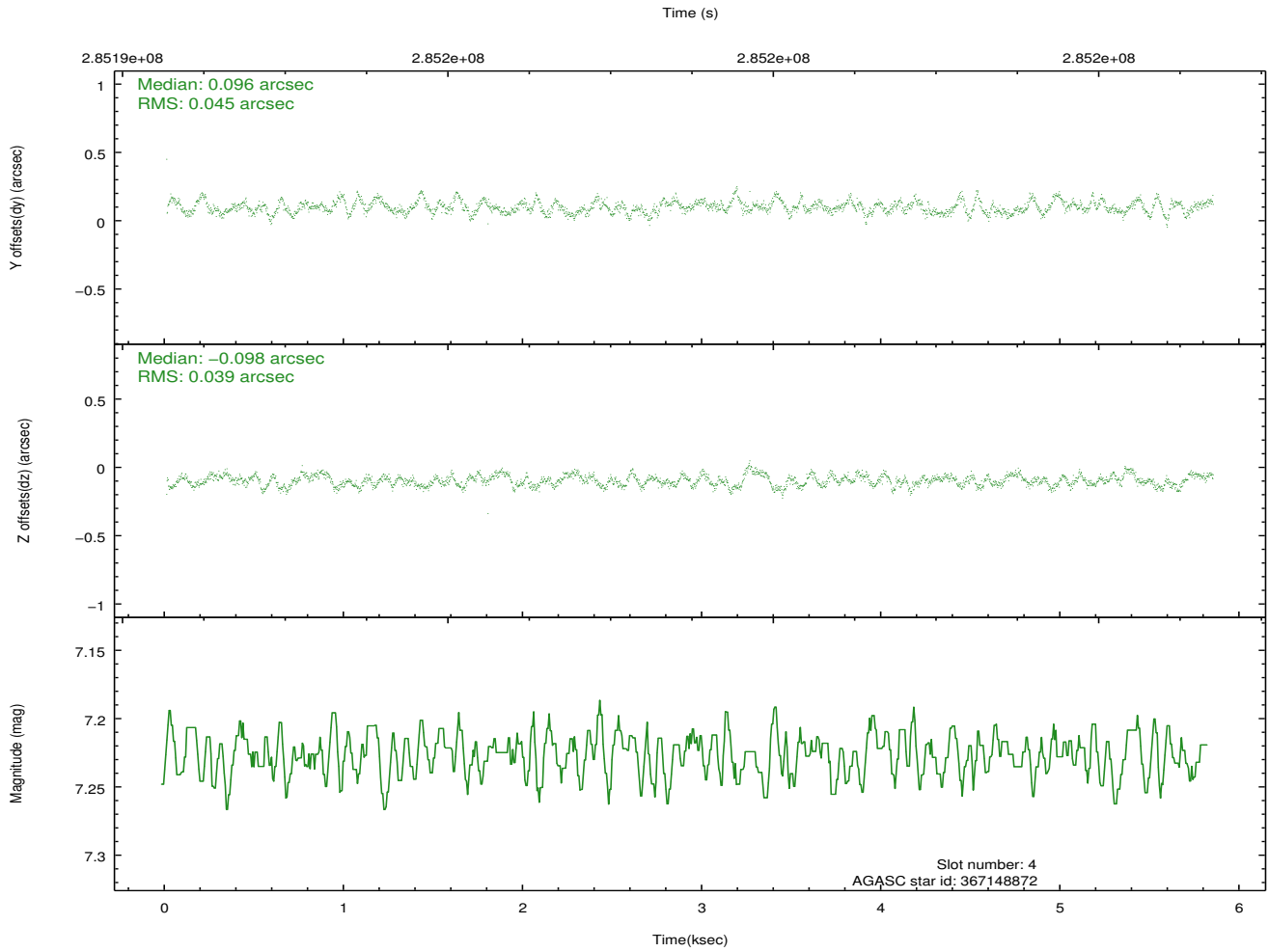
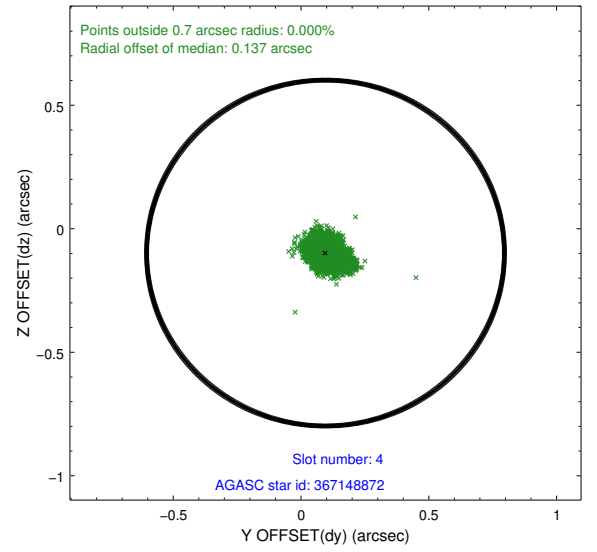
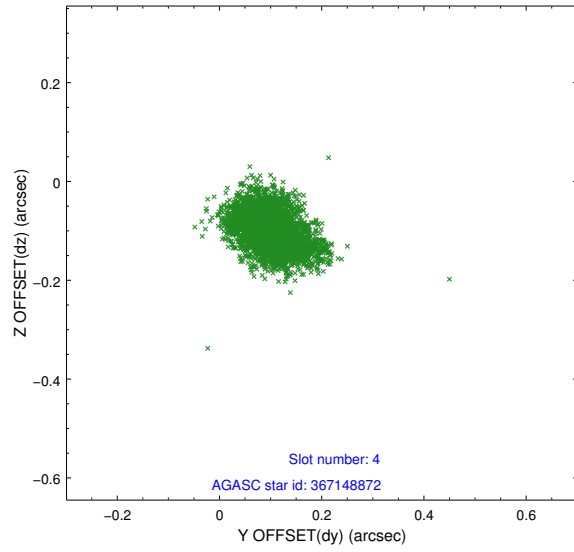
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.23	1426	0.060	-0.049	0.006	0.011	0.000000	0.000000	925.09	-838.90
1	FID	ACIS-I-5	7.22	1424	-0.244	0.048	0.006	0.011	0.000000	0.000000	-1822.75	1058.19
2	FID	ACIS-I-6	7.24	1426	0.093	0.071	0.007	0.011	0.000000	0.000000	389.58	1703.86
3	GUIDE	367146616	8.85	2846	0.024	-0.021	0.076	0.121	11.418645	41.190163	1185.92	1723.82
4	GUIDE	367148872	7.23	2850	0.096	-0.098	0.063	0.100	10.505940	40.688258	1737.46	-1296.26
5	GUIDE	367657896	9.00	2847	0.002	0.087	0.083	0.133	11.197765	41.313576	528.15	1375.04
6	GUIDE	367663272	9.28	2849	-0.122	0.006	0.082	0.129	10.656279	41.699429	-1357.66	663.62
7	GUIDE	367674552	8.85	2850	-0.003	0.026	0.064	0.103	11.016238	41.570845	-519.79	1334.53

## 2.4 Star Slots

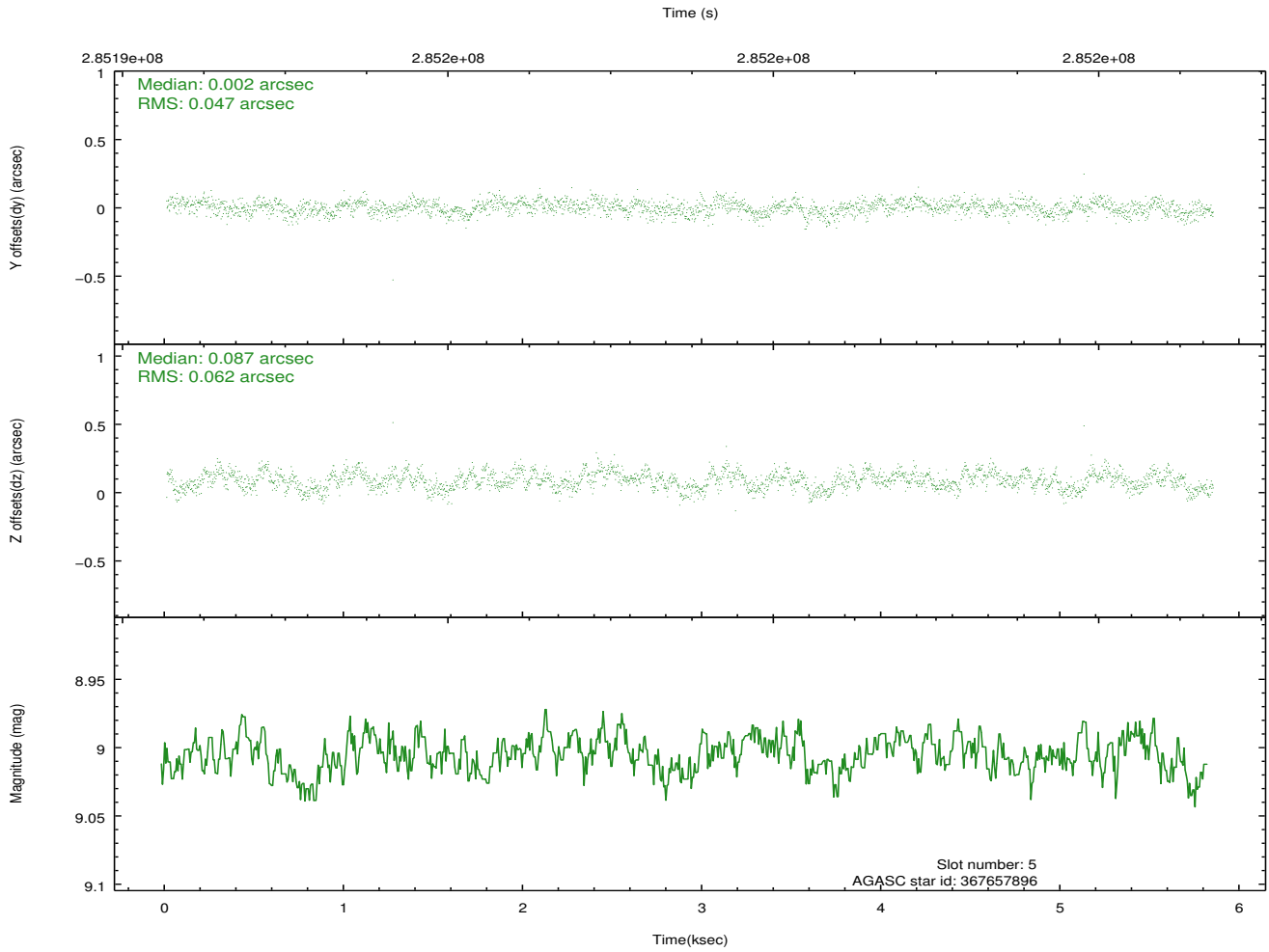
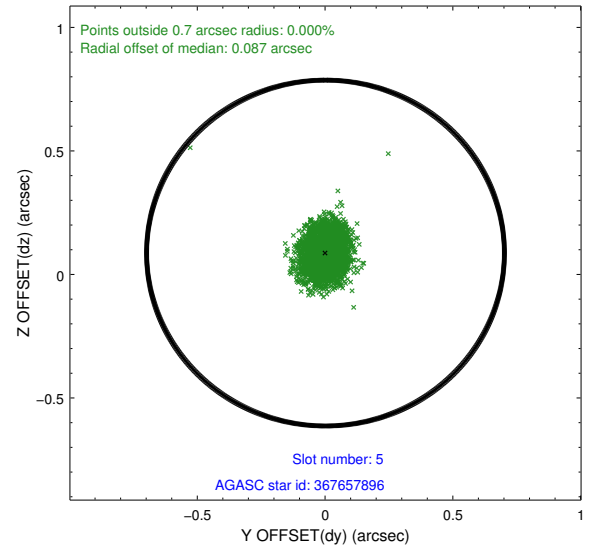
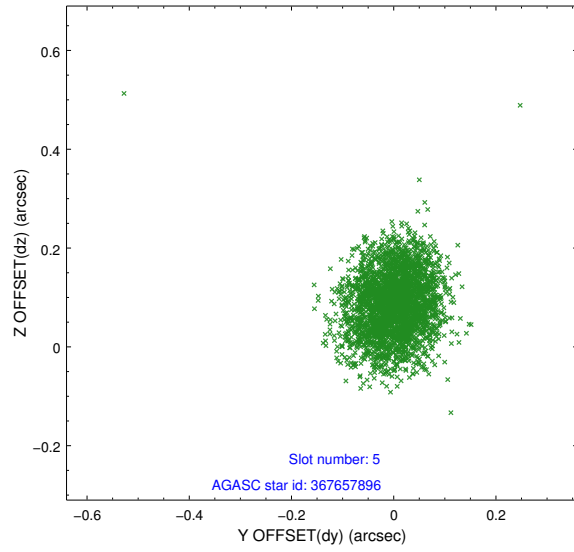
### 2.4.1 Slot 3



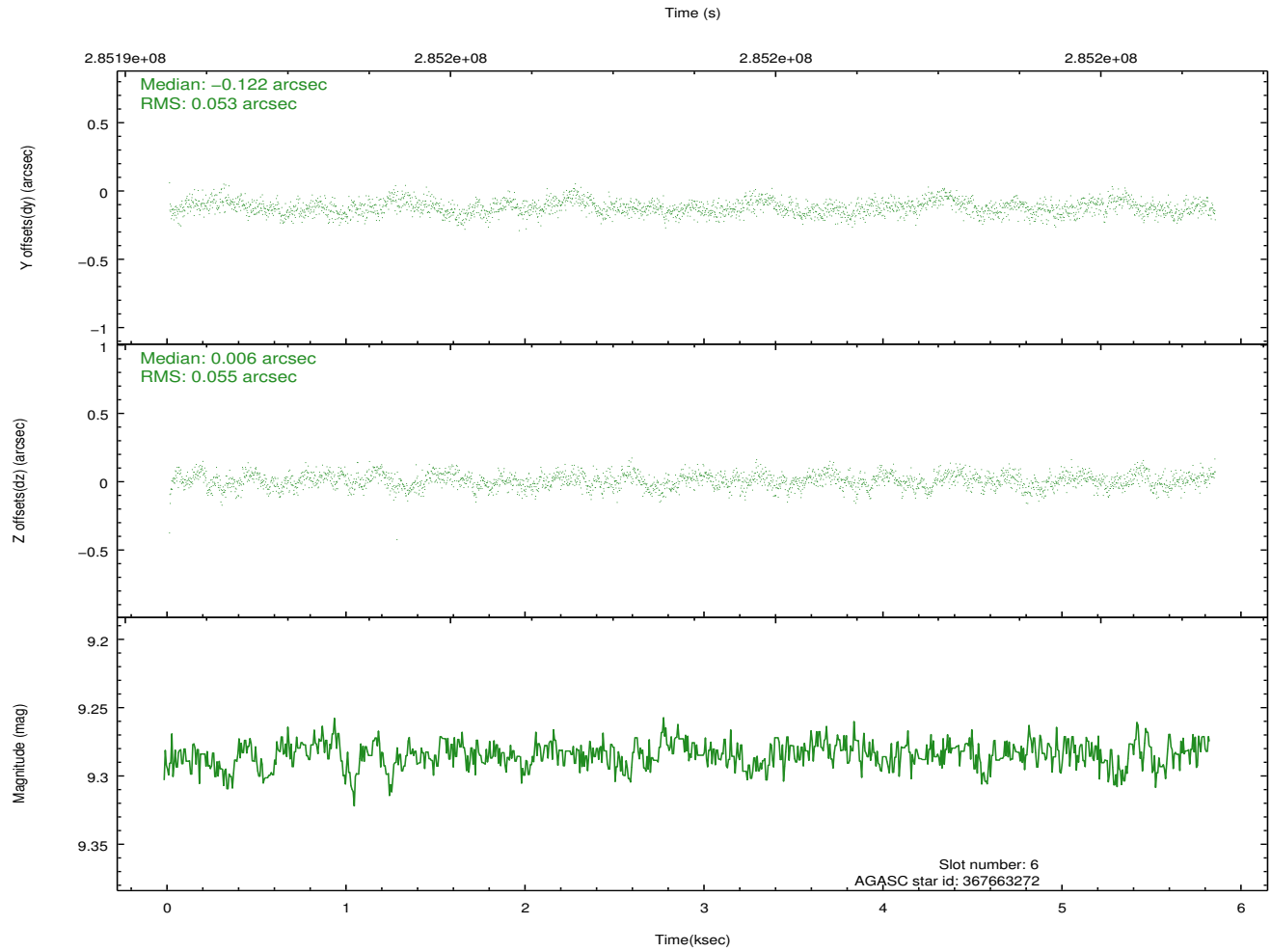
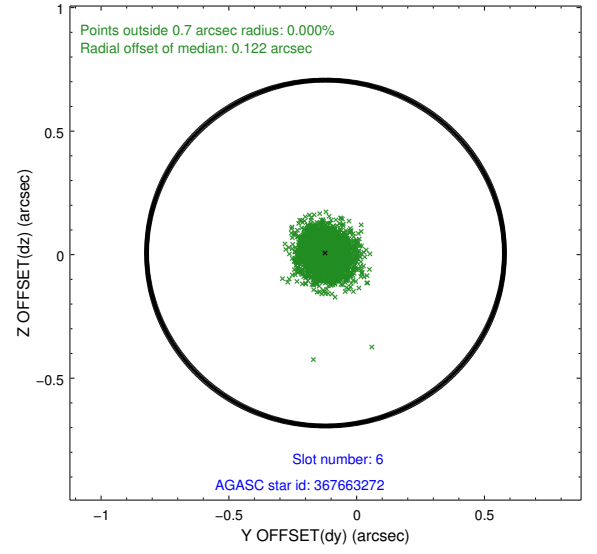
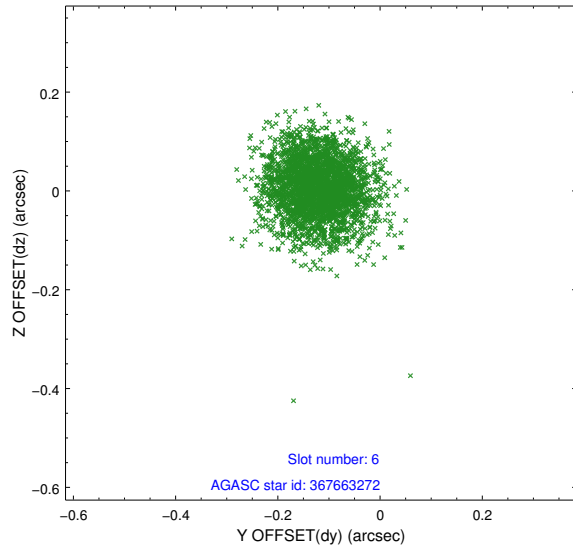
## 2.4.2 Slot 4



### 2.4.3 Slot 5

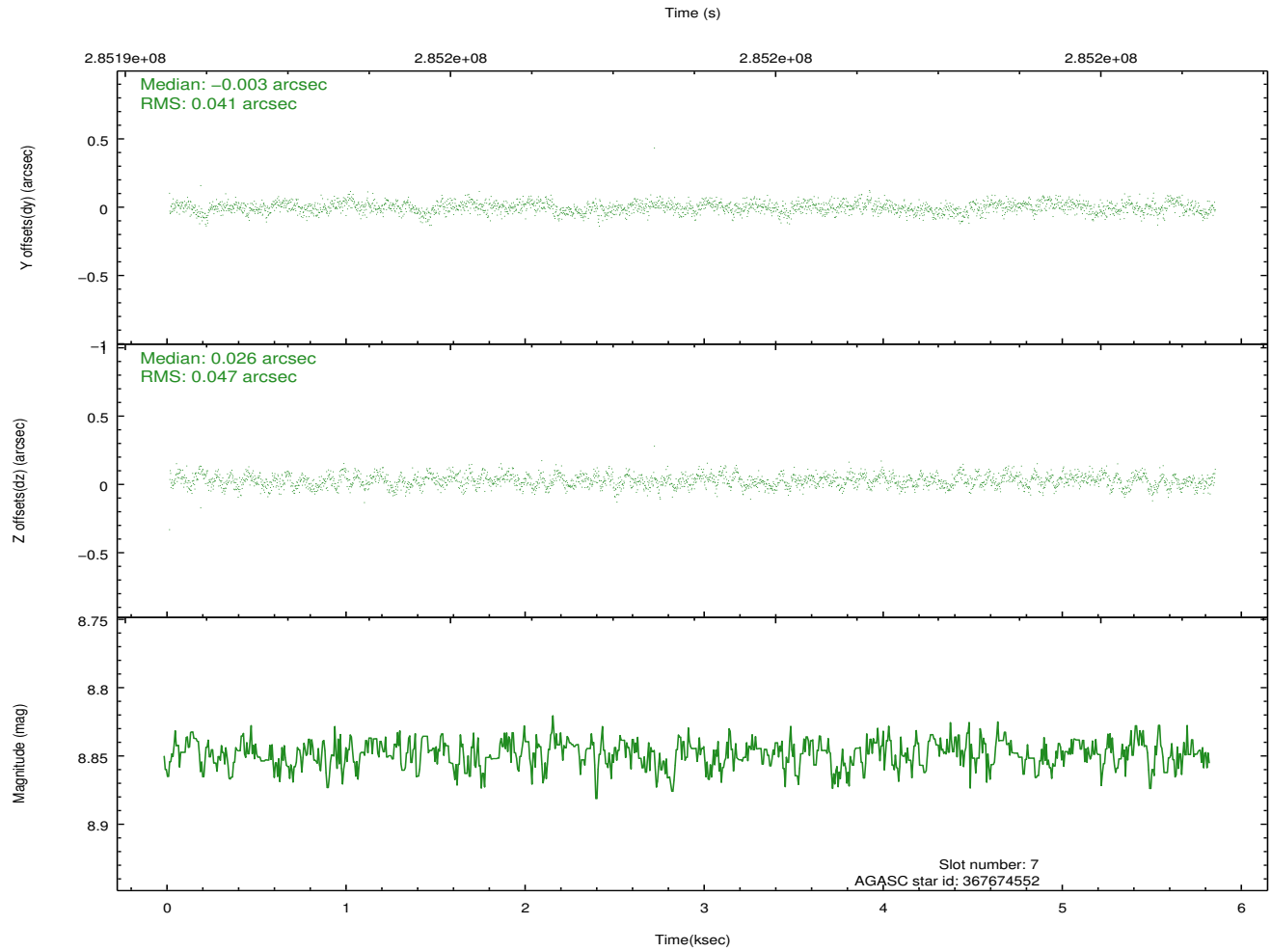
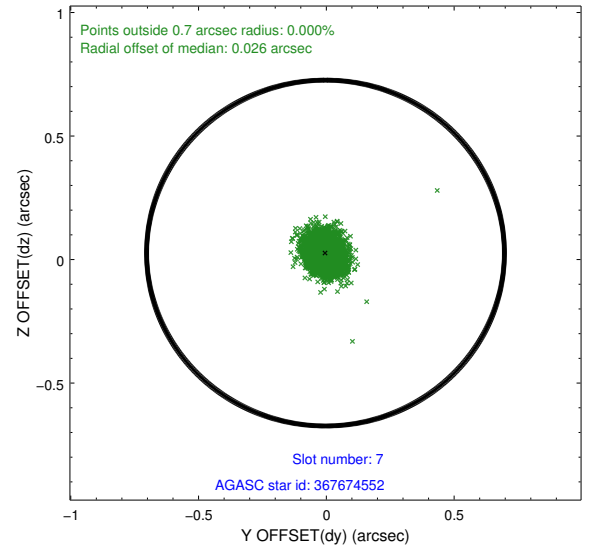
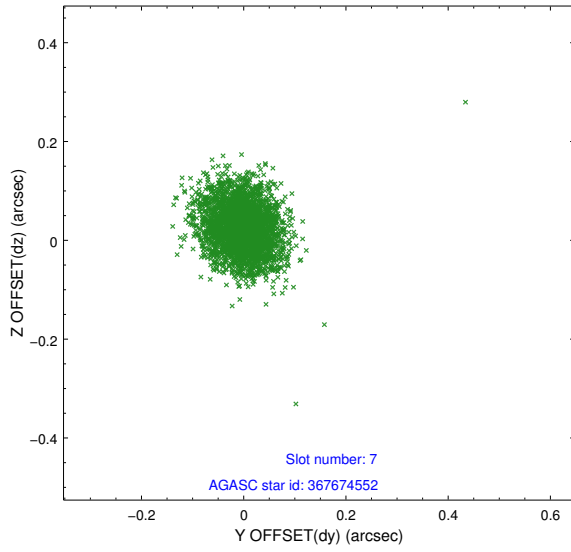


## 2.4.4 Slot 6



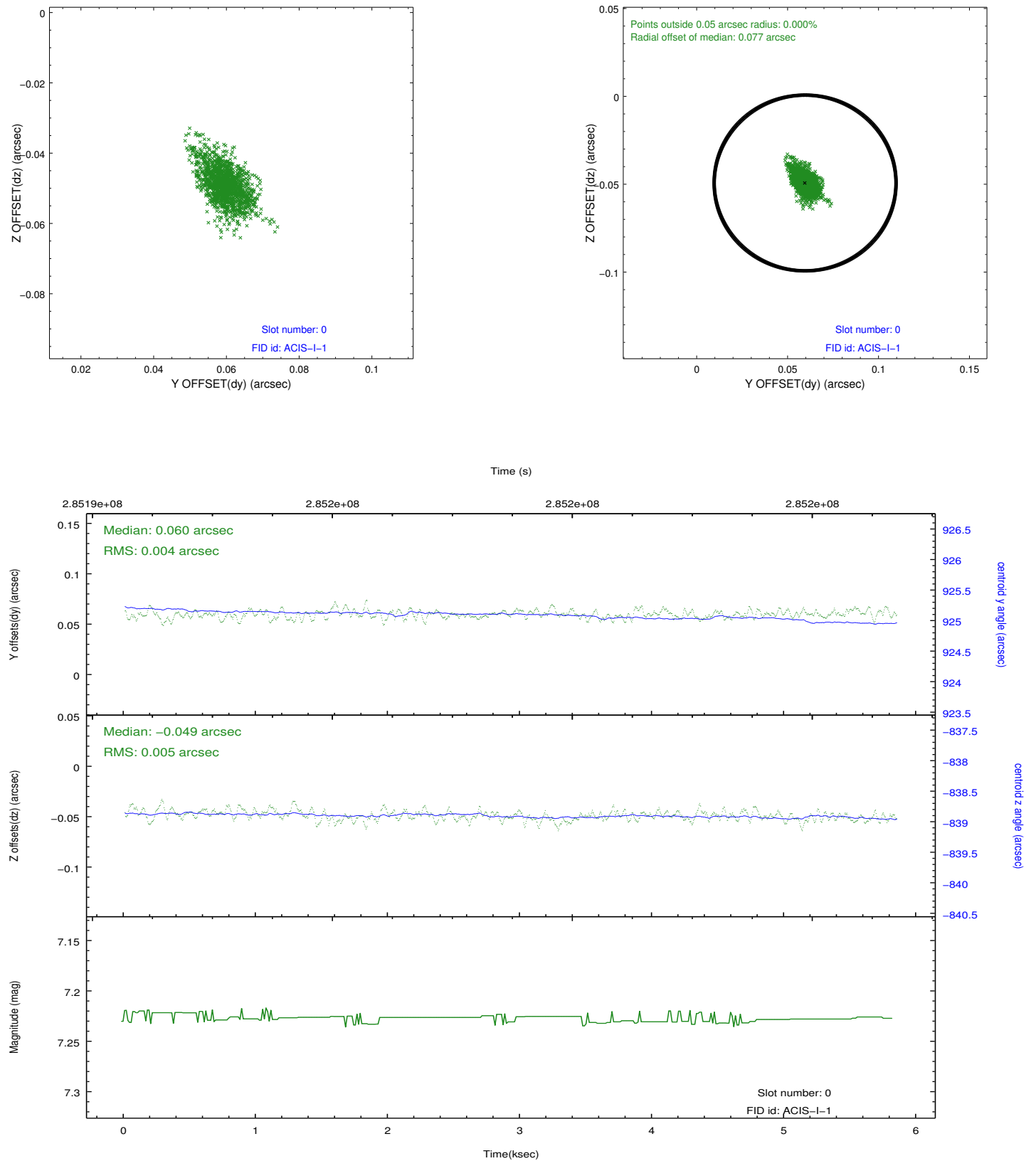


## 2.4.5 Slot 7

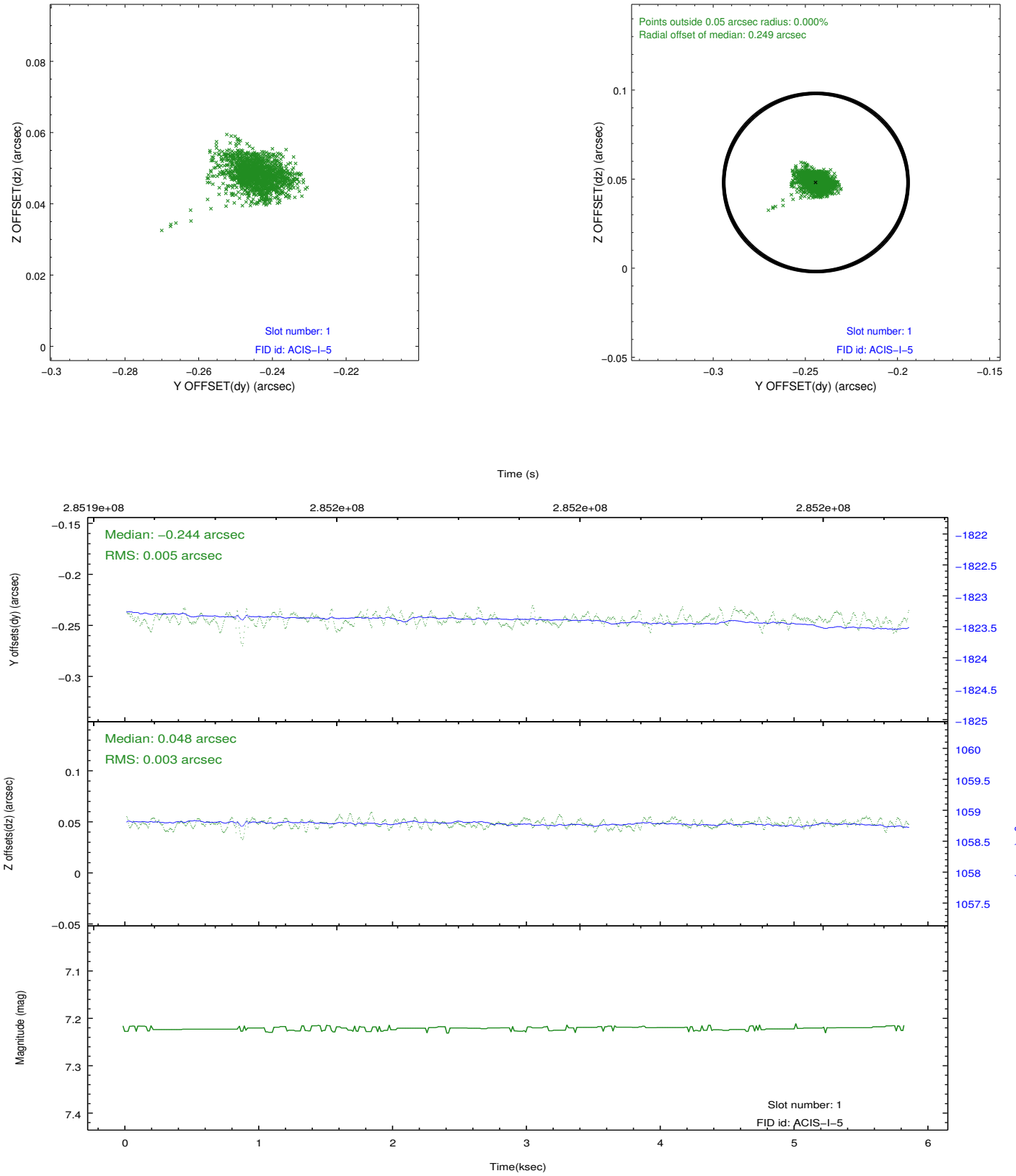


## 2.5 FID Slots

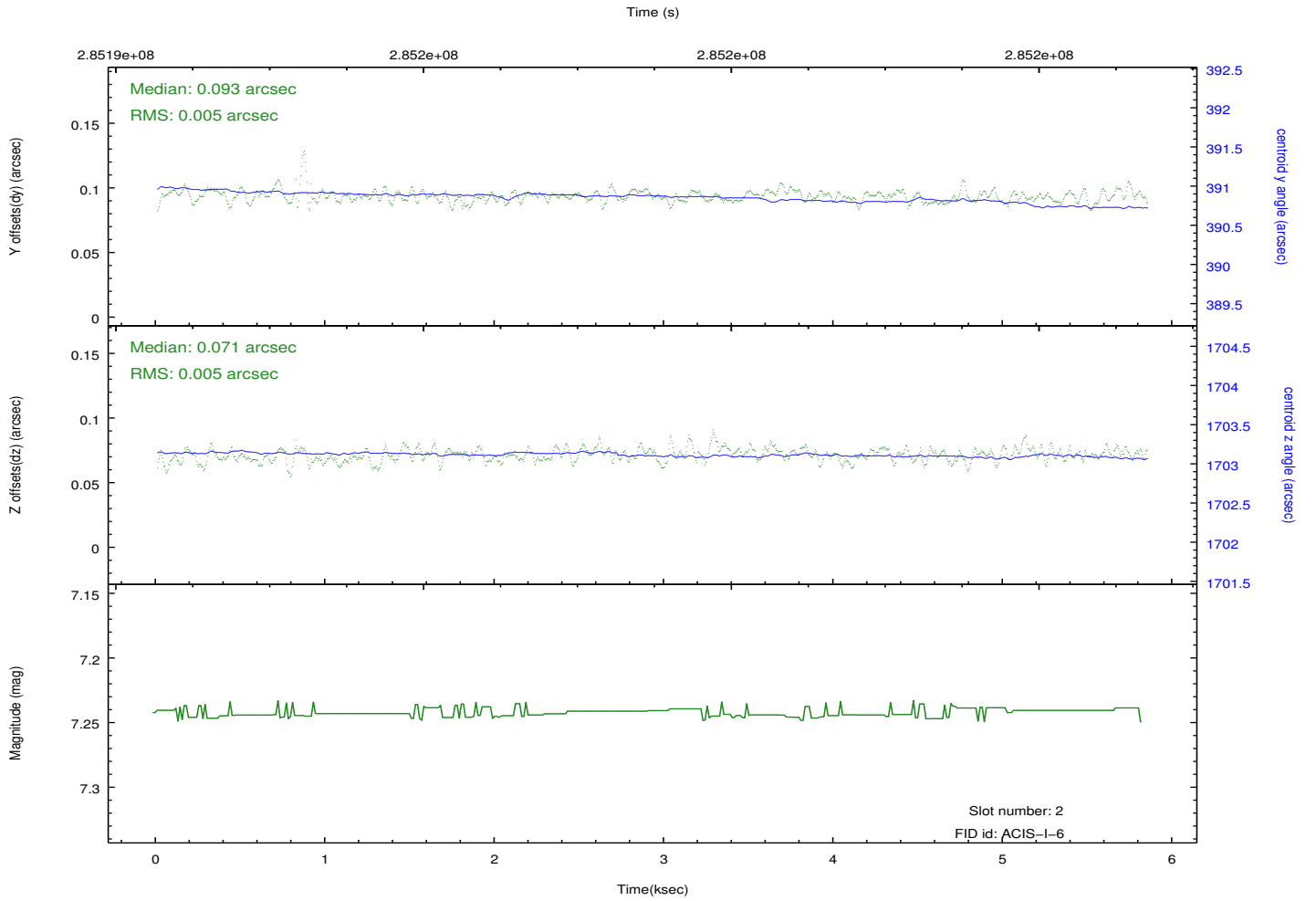
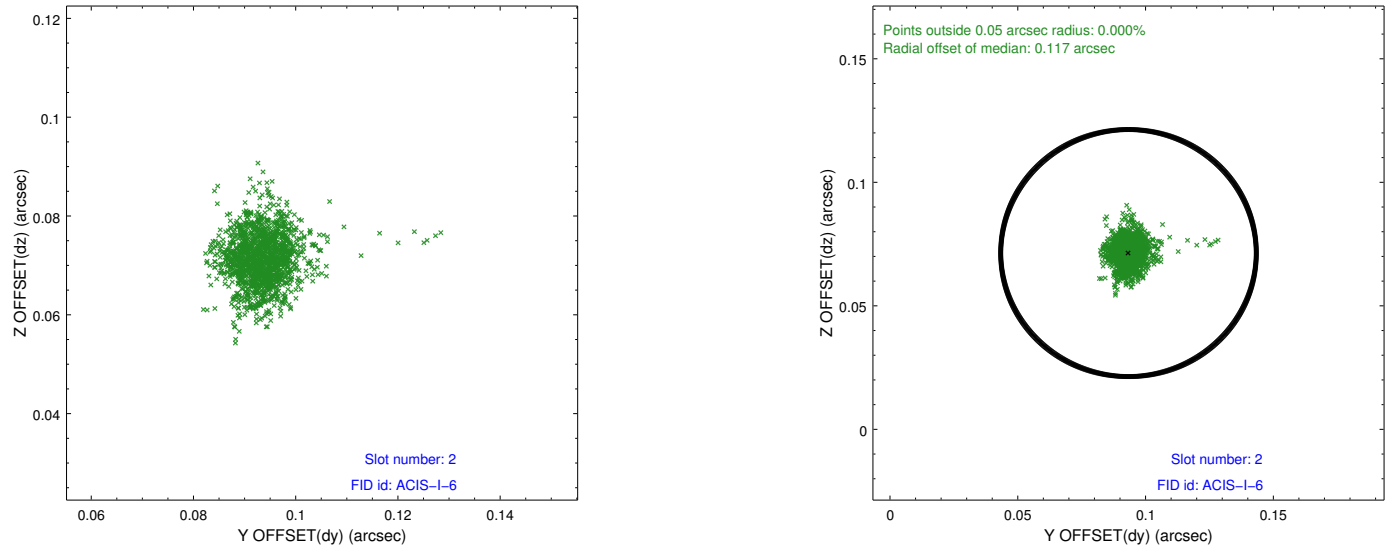
### 2.5.1 Slot 0



## 2.5.2 Slot 1



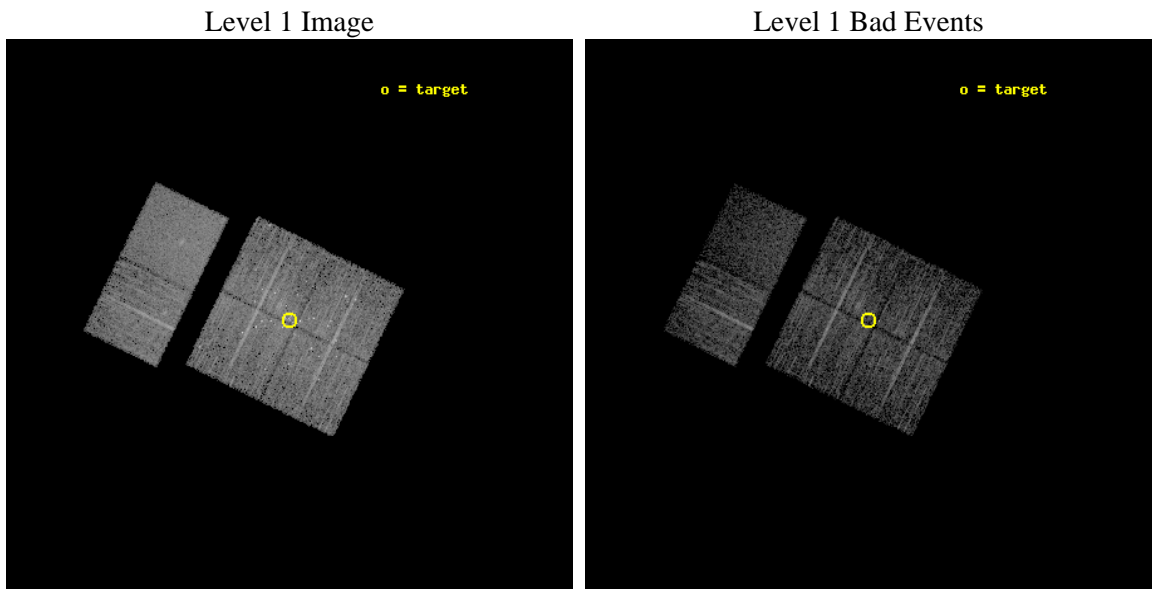
### 2.5.3 Slot 2



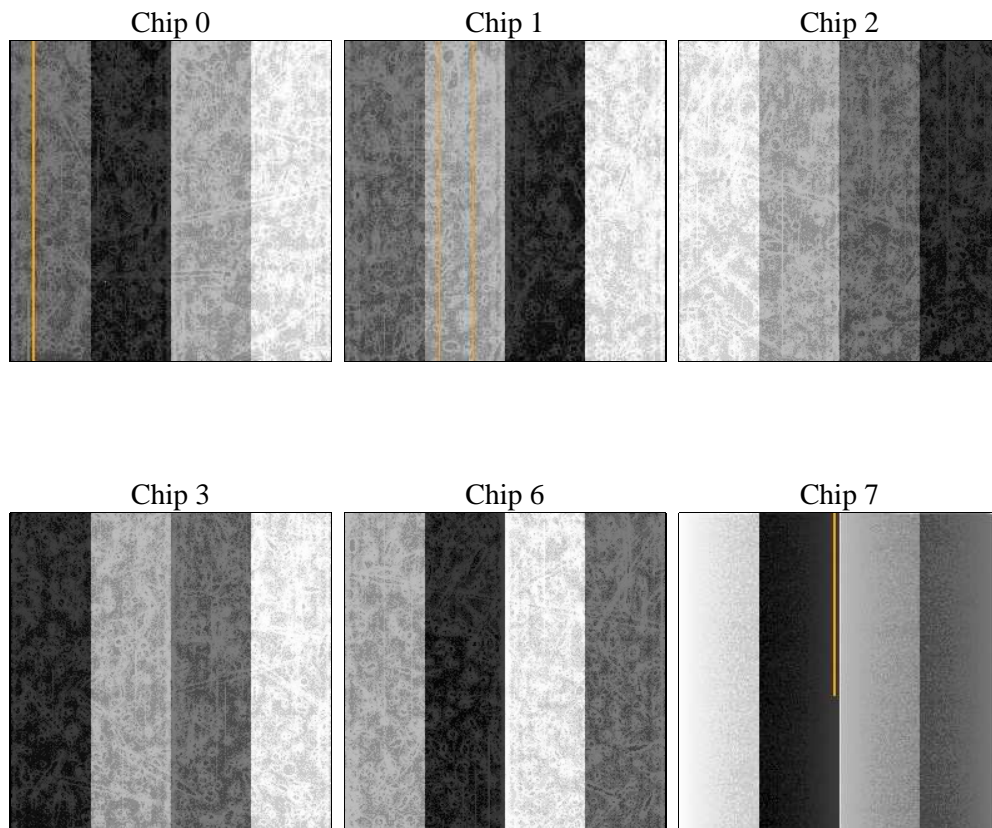
## 3 OBI Secondary

### 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	4015.9615330696	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	4019.202911377	Sum of GTIs [s]
date	2012-04-18T12:24:46	Date and time of file creation	ontime1	4019.2028023601	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	4019.2028711438	Sum of GTIs [s]
			ontime3	4015.9615330696	Sum of GTIs [s]
			ontime6	4019.2027924657	Sum of GTIs [s]
			ontime7	4019.2023738623	Sum of GTIs [s]
			l1events	196096	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	30882	32059	33716	33854	30957	34628	grade 0 events	2264	3509	3388	3963	1278	1531
rejected events	26369	25578	27885	27406	27592	18636		7%	10%	10%	11%	4%	4%
rejected %	85%	79%	82%	80%	89%	53%	grade 1 events	25	114	72	46	21	47
								0%	0%	0%	0%	0%	0%
							grade 2 events	922	1177	996	920	752	3331
								2%	3%	2%	2%	2%	9%
							grade 3 events	397	538	417	483	338	1487
								1%	1%	1%	1%	1%	4%
							grade 4 events	356	472	428	460	310	1476
								1%	1%	1%	1%	1%	4%
							grade 5 events	1061	1204	1077	1205	1223	3684
								3%	3%	3%	3%	3%	10%
							grade 6 events	578	800	607	631	689	8185
								1%	2%	1%	1%	2%	23%
							grade 7 events	25279	24245	26731	26146	26346	14887
								81%	75%	79%	77%	85%	42%

## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.04.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.95355609

### A.2 Comments