

# V&V Reference Report

## L2 ASCDS Version : 8.4.3.1

Observation 6958 - L2 Version 2  
Chandra X-Ray Center

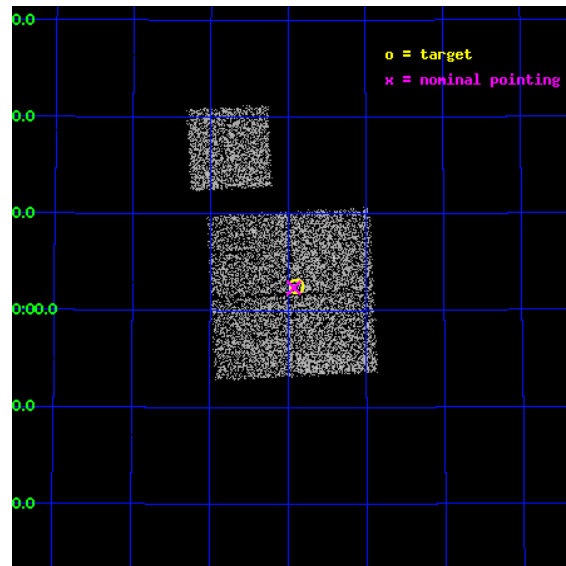
L2 Processing Date : Apr 8 2012

## 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

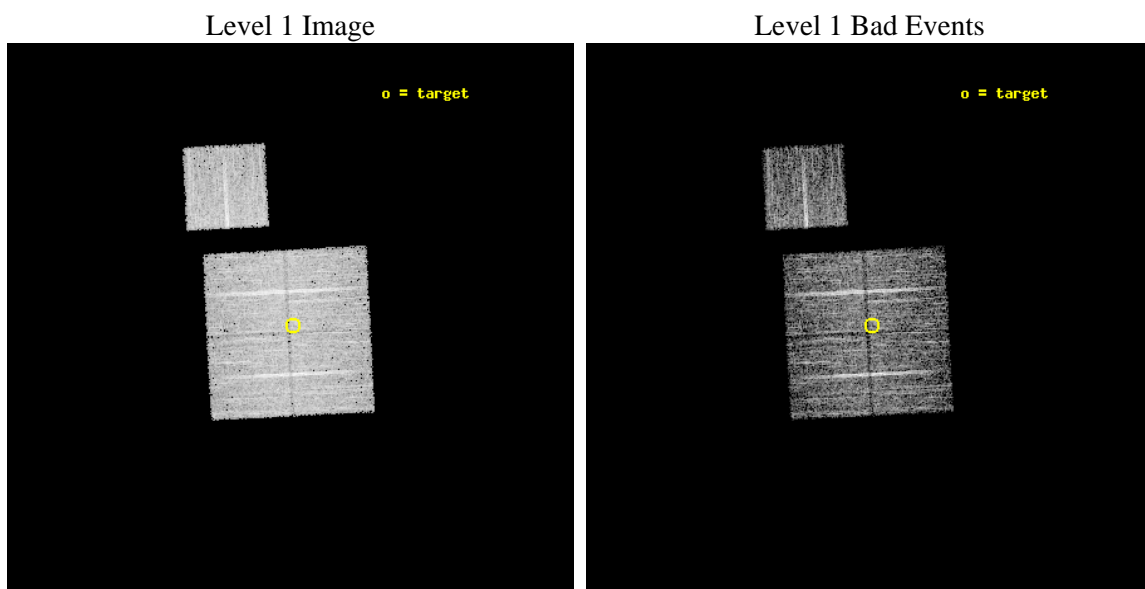
seq_num	800591	Sequence number
obs_id	6958	Observation id
title	A Search for the Origin of Ultrahigh Energy Cosmic Rays	Proposal t
observer	Prof. David Helfand	Principal investigator
object	P2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	170.474	Observer's specified target RA [deg]
dec_targ	57.0417	Observer's specified target Dec [deg]
ra_nom	170.48166114182	Nominal RA [deg]
dec_nom	57.039601844231	Nominal Dec [deg]
roll_nom	357.13054684752	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4776.5791579485	Sum of GTIs [s]
liveltime	4714.1696347835	Livetime [s]
ontime0	4776.4560379386	Sum of GTIs [s]
ontime1	4776.4970779419	Sum of GTIs [s]
ontime2	4776.5381179452	Sum of GTIs [s]
ontime3	4776.5791579485	Sum of GTIs [s]
ontime6	4776.4149979353	Sum of GTIs [s]
l2events	14561	Number of level 2 events



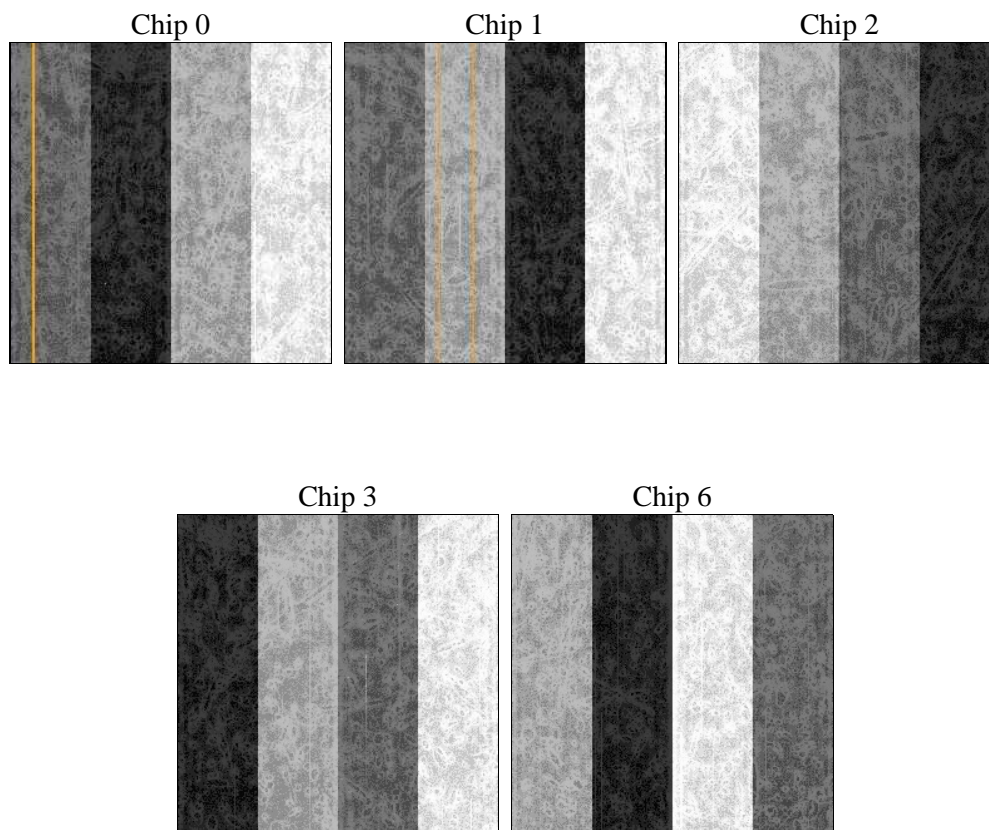
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3.1	Processing system revision	ontime	4776.5791579485	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	4776.4560379386	Sum of GTIs [s]
date	2012-04-08T19:30:38	Date and time of file creation	ontime1	4776.4970779419	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4776.5381179452	Sum of GTIs [s]
			ontime3	4776.5791579485	Sum of GTIs [s]
			ontime6	4776.4149979353	Sum of GTIs [s]
			l1events	176086	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	34648	33729	36912	35376	35421
rejected events	31105	29761	33659	32042	31932
rejected %	89%	88%	91%	90%	90%

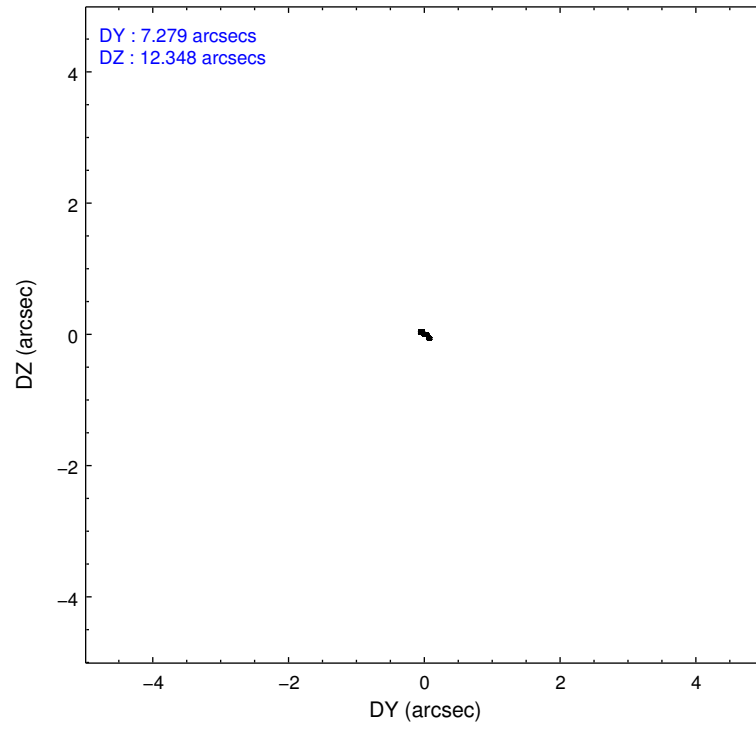
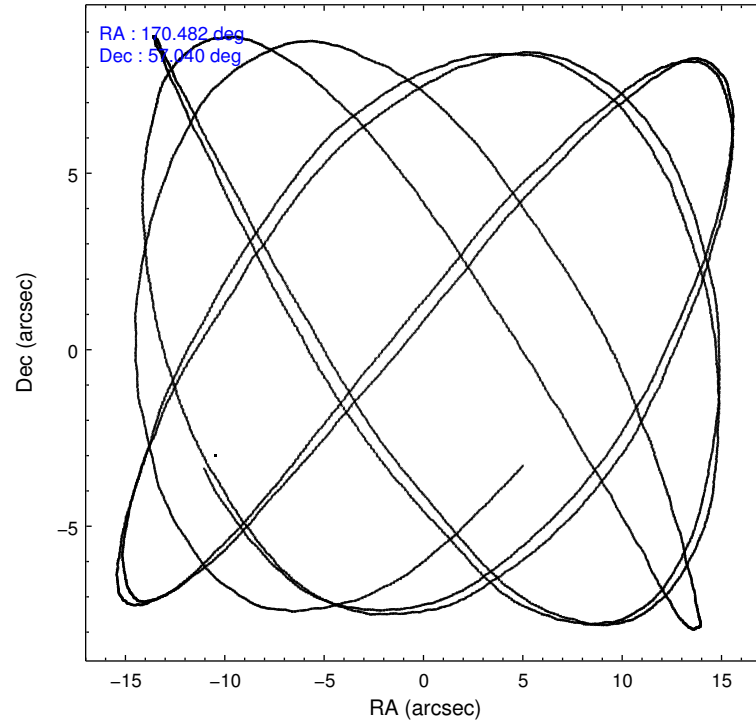
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1231	1383	1109	1186	1206
	3%	4%	3%	3%	3%
grade 1 events	21	18	14	26	18
	0%	0%	0%	0%	0%
grade 2 events	862	880	751	729	732
	2%	2%	2%	2%	2%
grade 3 events	403	441	383	390	375
	1%	1%	1%	1%	1%
grade 4 events	376	439	372	381	409
	1%	1%	1%	1%	1%
grade 5 events	1196	1348	1213	1400	1447
	3%	3%	3%	3%	4%
grade 6 events	675	828	640	650	769
	1%	2%	1%	1%	2%
grade 7 events	29884	28392	32430	30614	30465
	86%	84%	87%	86%	86%

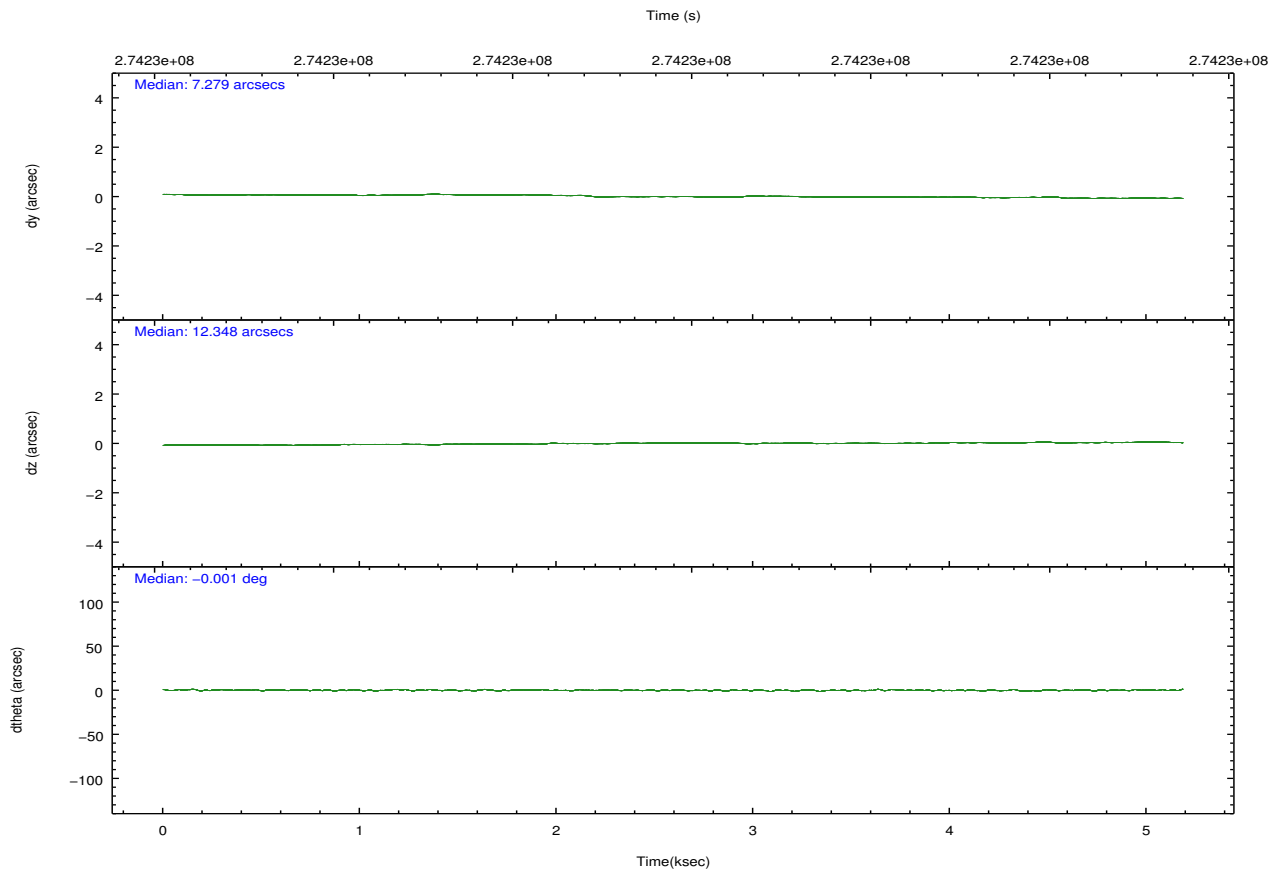
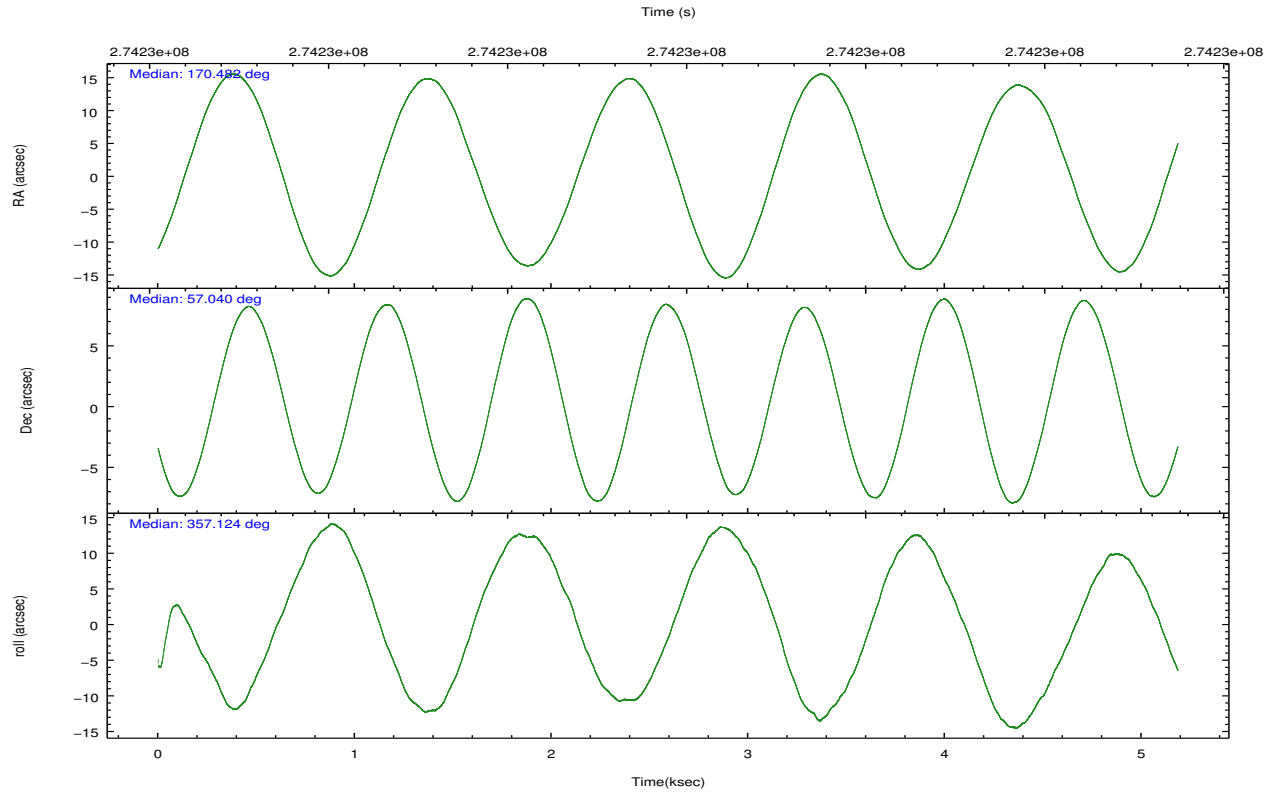


## 2.2 Compared Parameters

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	170.436980	170.4816611418247	Subarray requested	NONE	NONE
[deg] Pointing Dec	57.027094	57.03960184423074	Alternating exposures requested	N	N
[deg] Pointing Roll	356.959356	357.1305468475153	[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	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	274226492.184000	274226115.58147			
Observation start date	2006-09-09T22:00:27	2006-09-09T21:55:15			
[s] Observation end time (MET)	274231492.184000	274231818.16923			
Observation end date	2006-09-09T23:23:47	2006-09-09T23:30:18			
Read mode	TIMED	TIMED			

## 2.3 Aspect



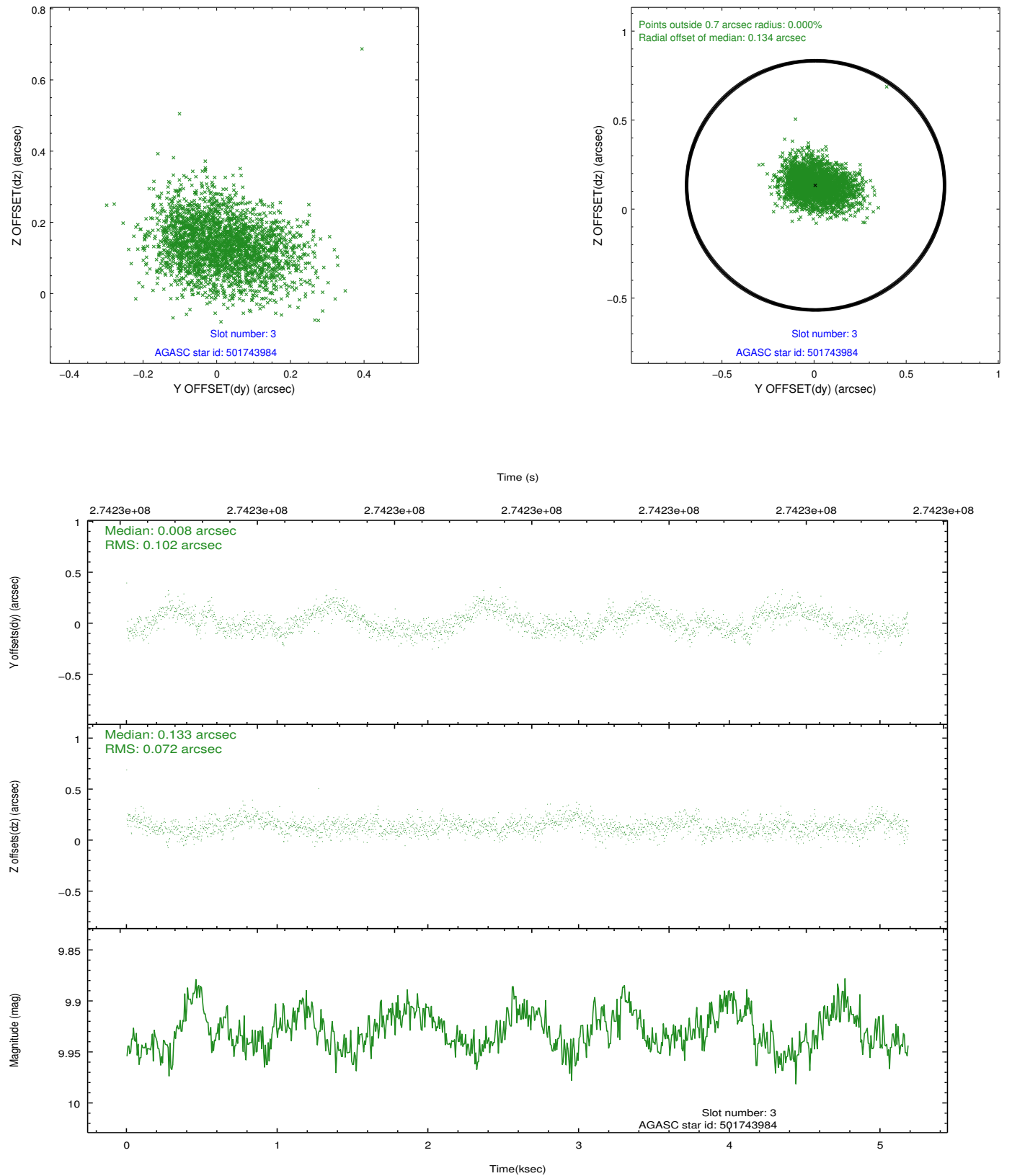


### Slot Statistics

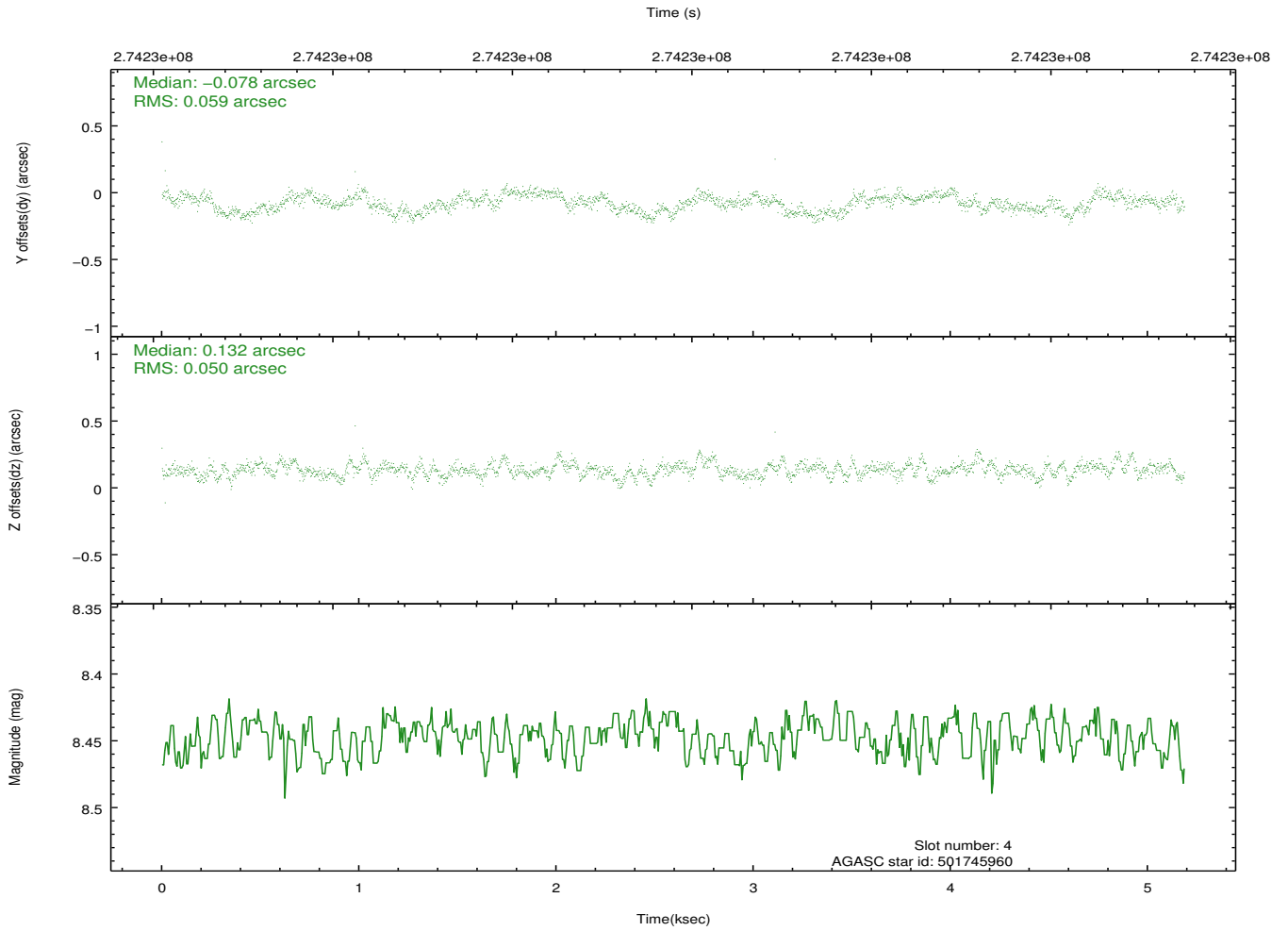
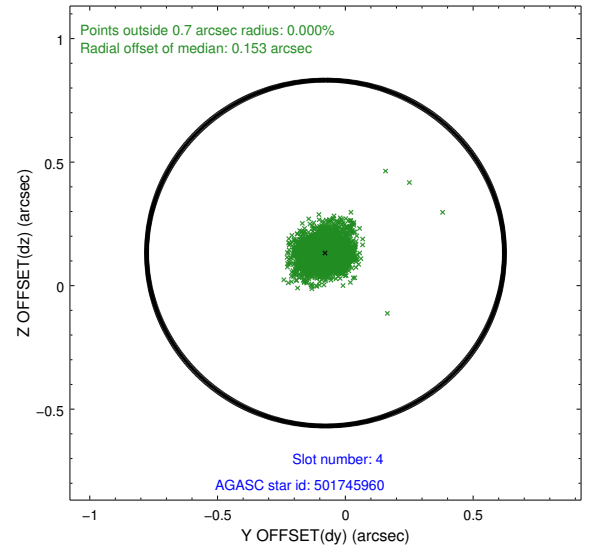
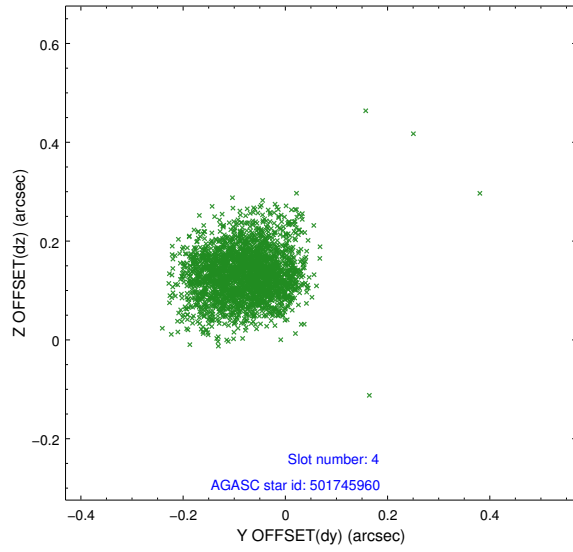
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	1265	0.049	-0.026	0.006	0.011	0.000000	0.000000	932.42	-835.91
1	FID	ACIS-I-5	7.23	1265	-0.164	0.064	0.006	0.011	0.000000	0.000000	-1815.23	1061.13
2	FID	ACIS-I-6	7.24	1265	0.024	0.033	0.006	0.011	0.000000	0.000000	396.71	1706.89
3	GUIDE	501743984	9.93	2529	0.008	0.133	0.132	0.214	171.294983	56.867094	1716.17	-474.37
4	GUIDE	501745960	8.45	2531	-0.078	0.132	0.082	0.131	170.066430	56.606700	-652.01	-1548.01
5	GUIDE	501747432	9.92	2531	0.100	-0.102	0.140	0.221	169.486750	57.497356	-1926.15	1605.34
6	GUIDE	501748320	9.52	2523	0.000	0.007	0.136	0.207	170.966165	57.350324	964.34	1221.45
7	GUIDE	502137280	9.98	2523	-0.045	-0.152	0.207	0.322	170.972433	57.663007	907.92	2345.30

## 2.4 Star Slots

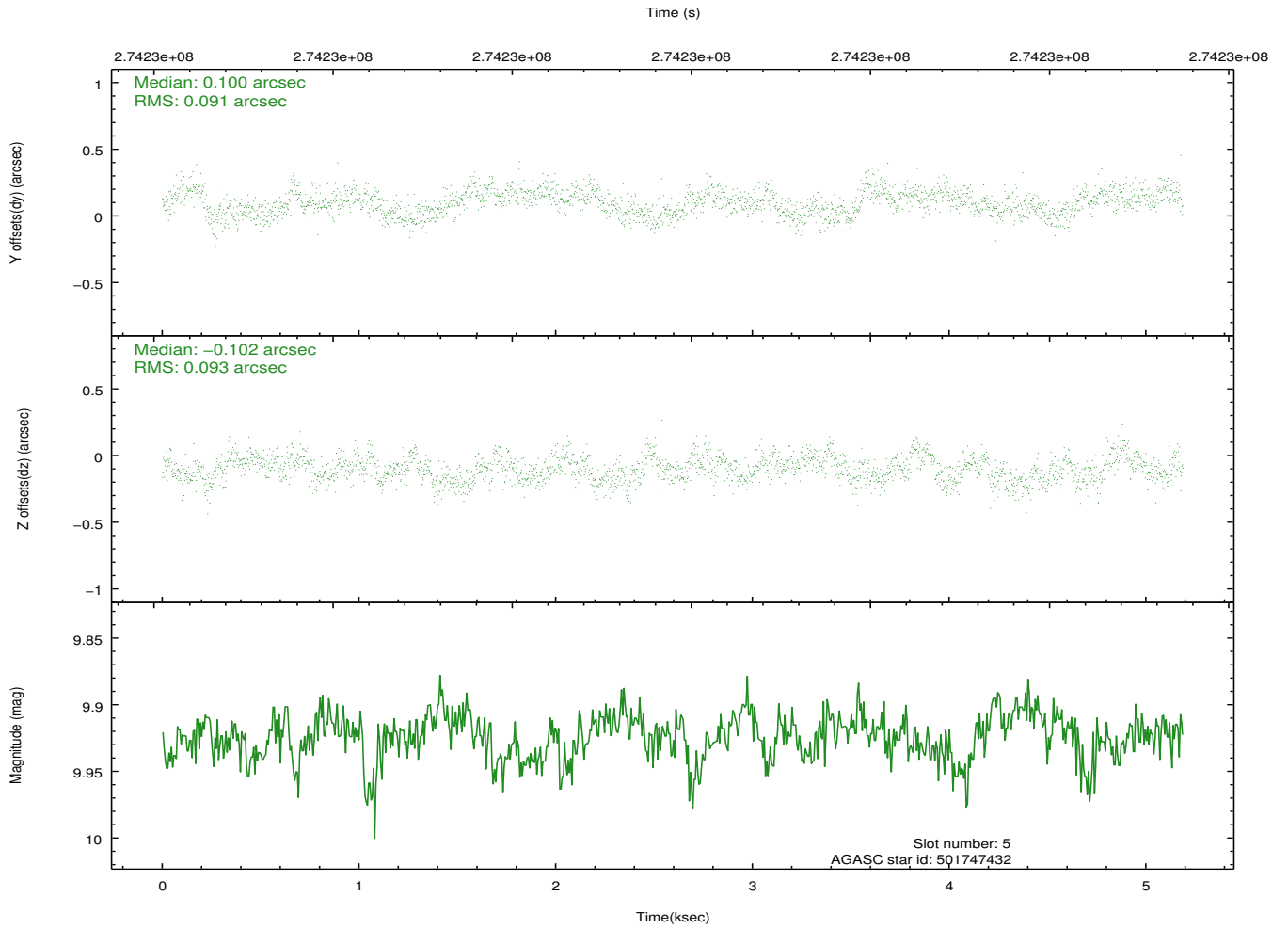
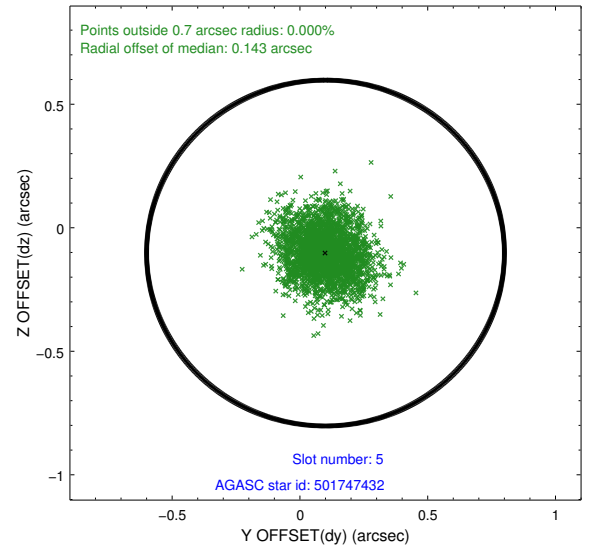
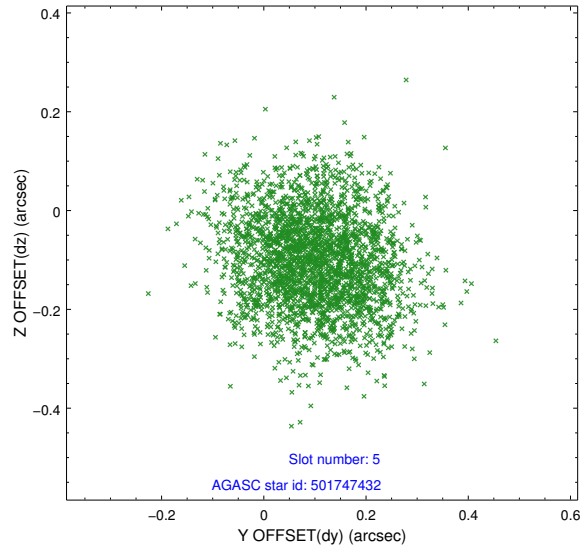
### 2.4.1 Slot 3



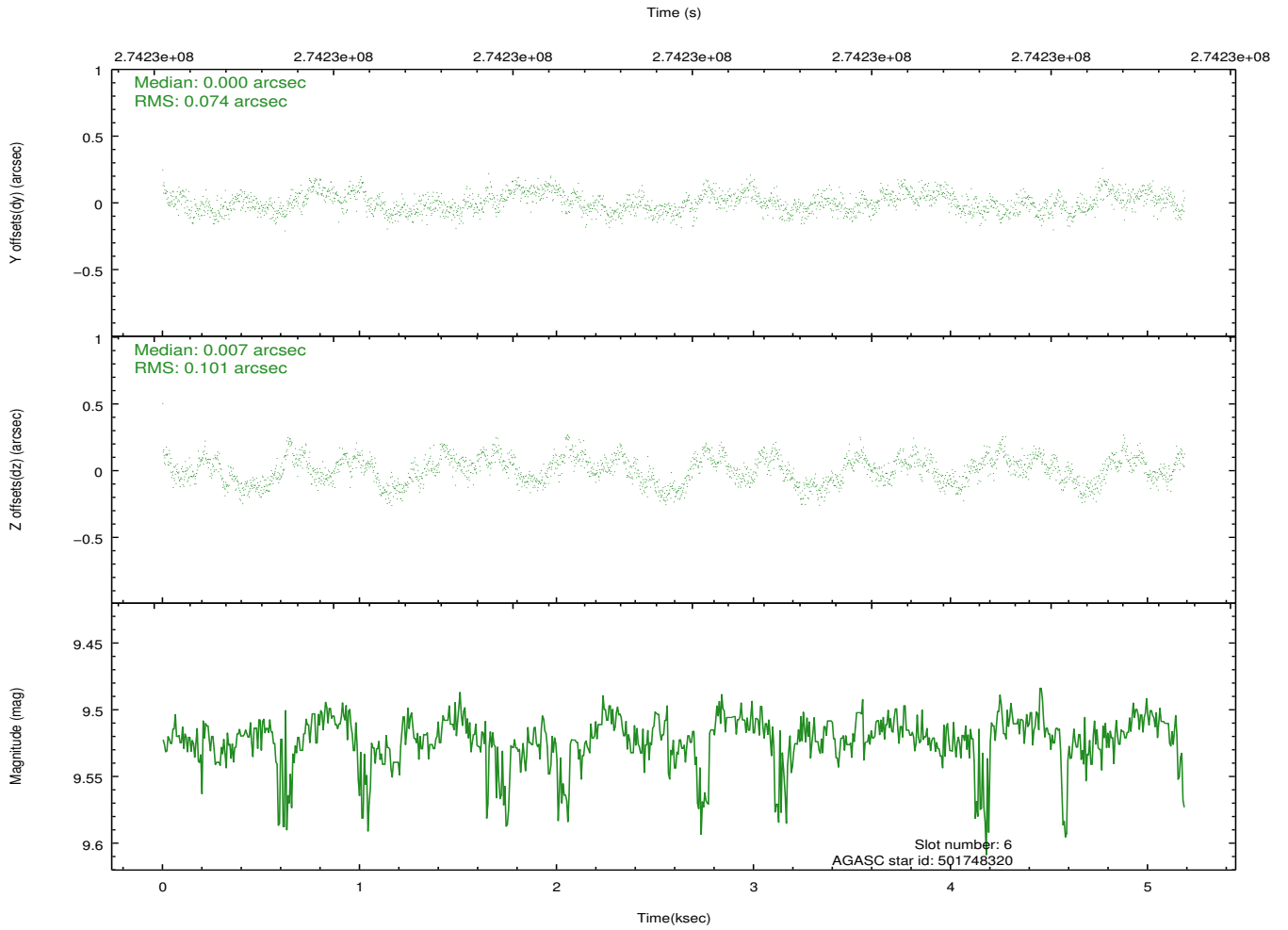
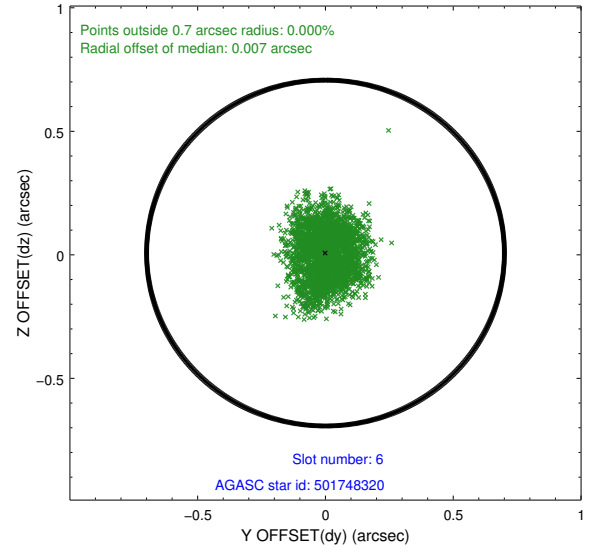
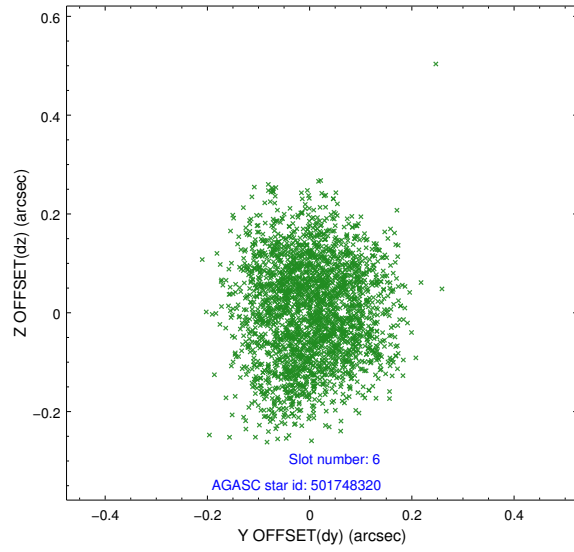
## 2.4.2 Slot 4



### 2.4.3 Slot 5

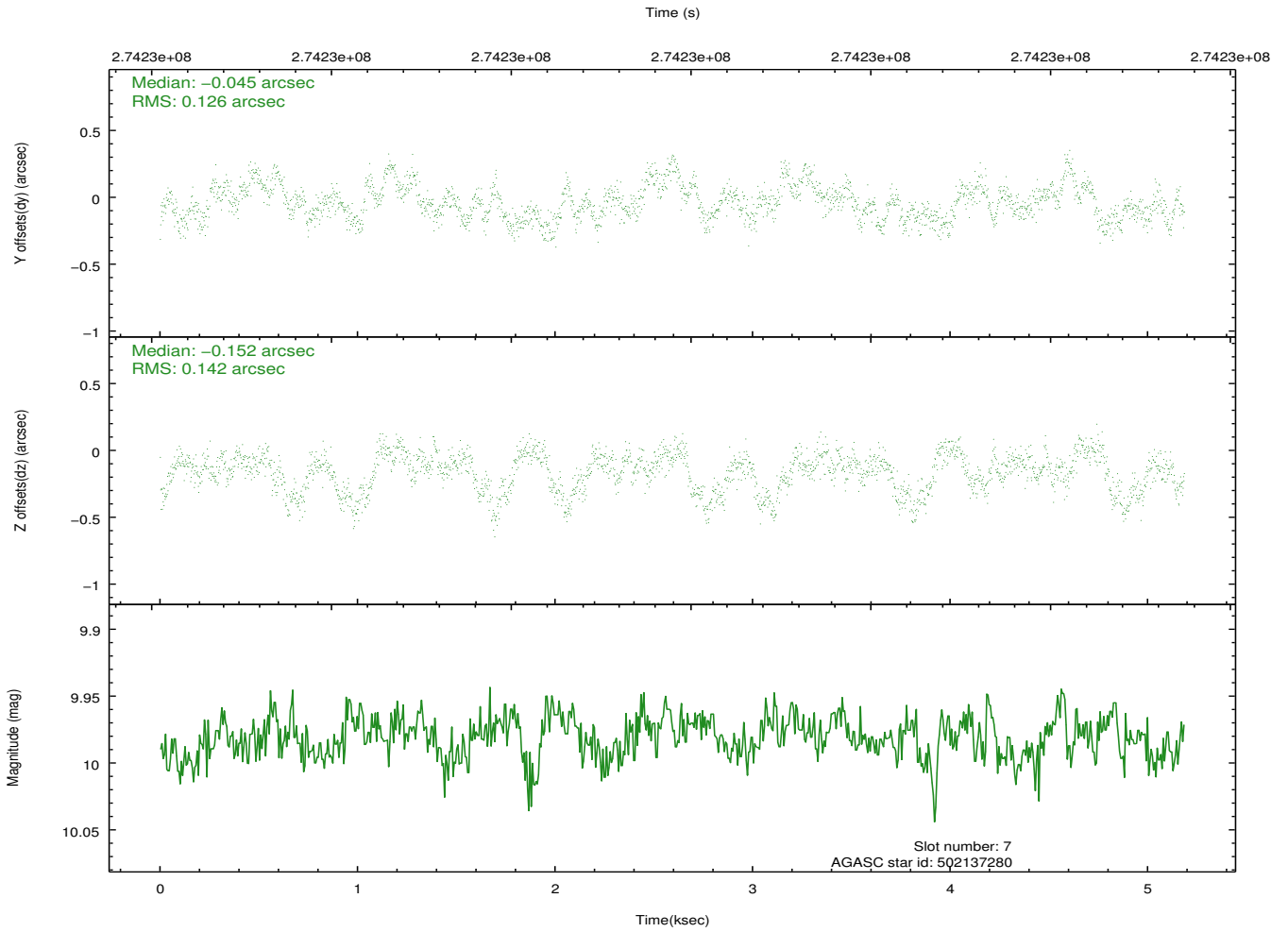
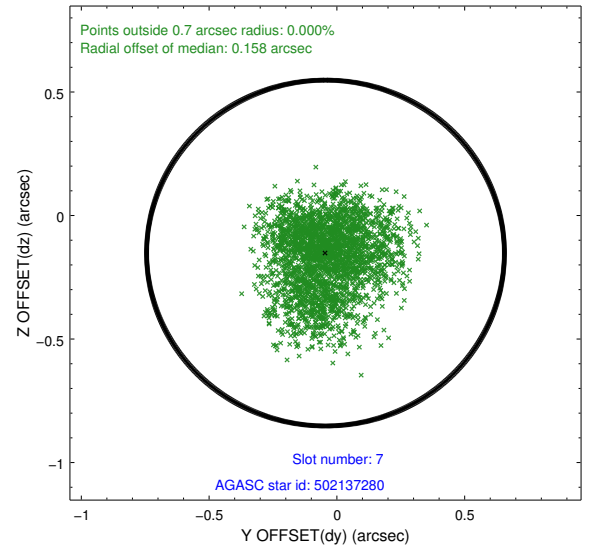
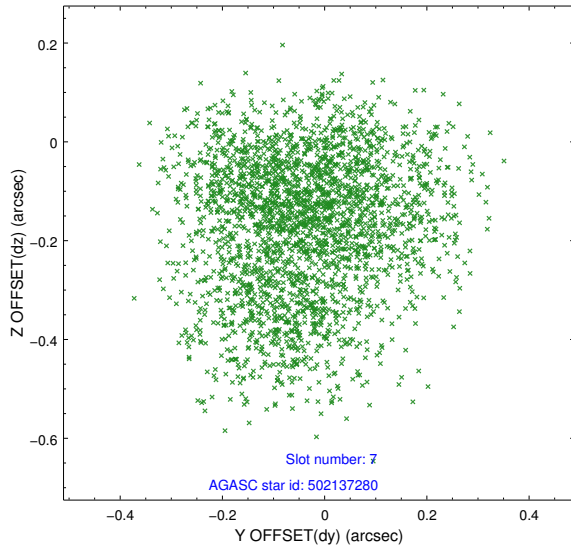


## 2.4.4 Slot 6



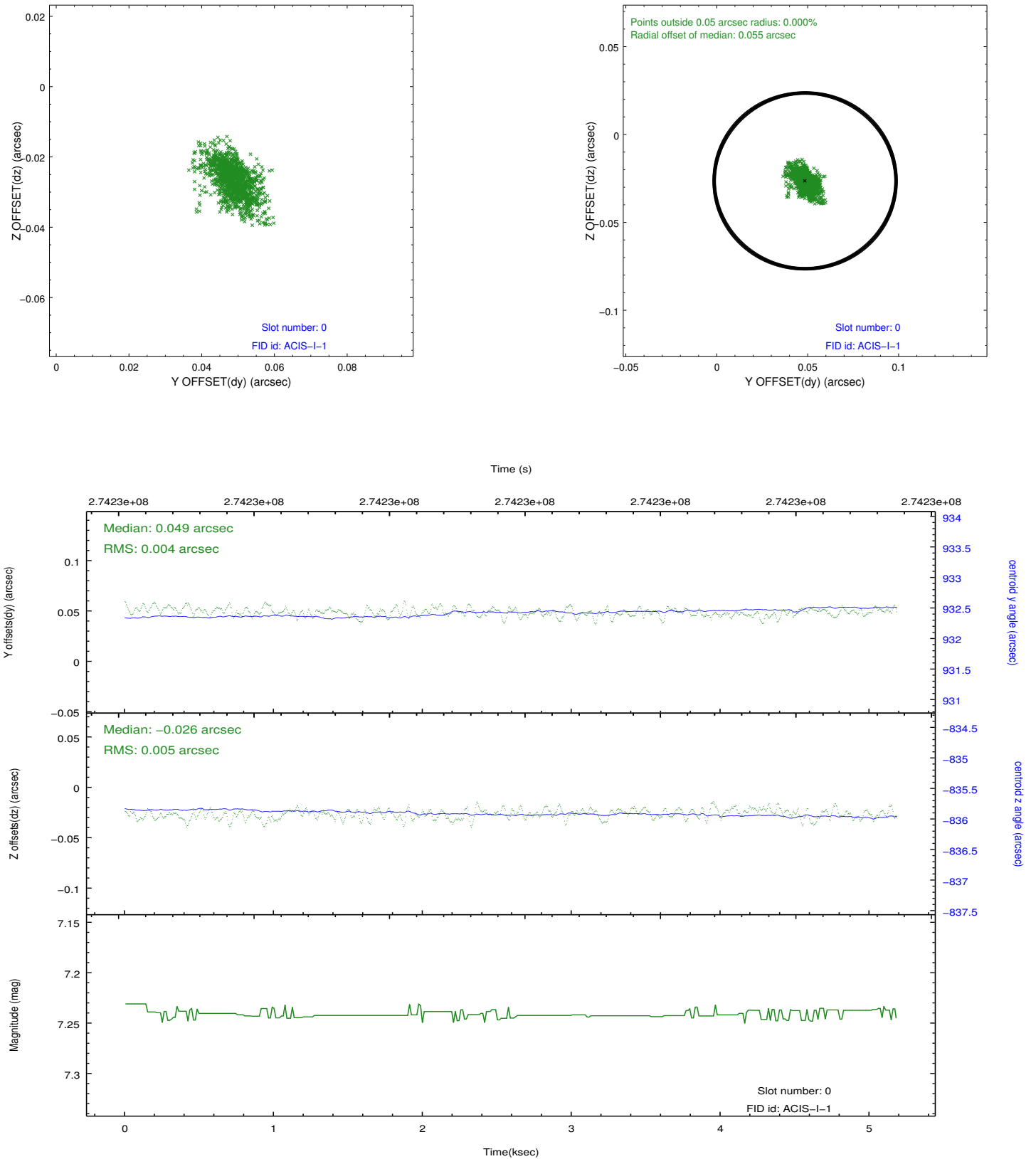


## 2.4.5 Slot 7

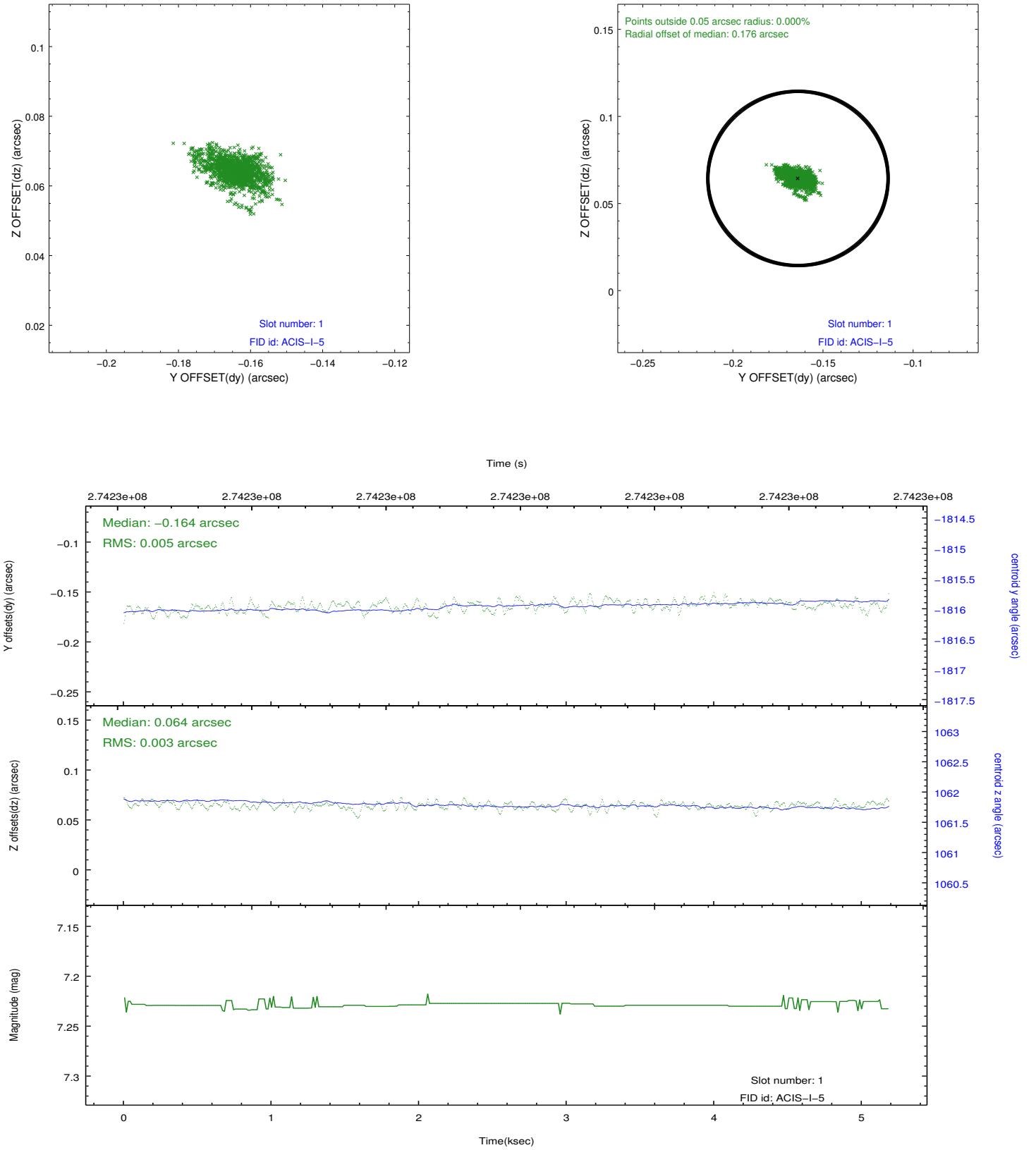


## 2.5 FID Slots

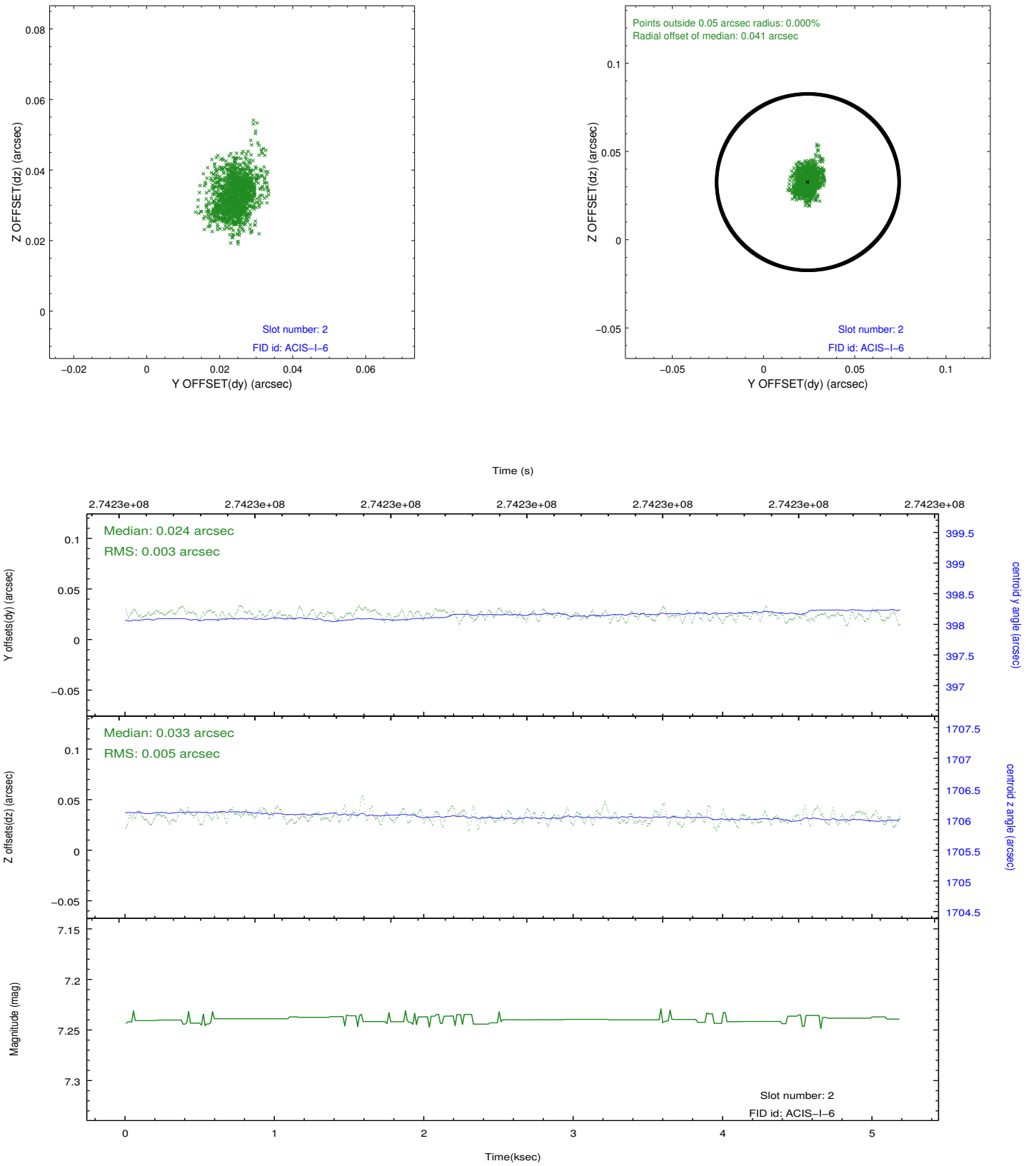
### 2.5.1 Slot 0



## 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)	2012.04.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.77710003

### A.2 Comments