

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 13964 - L2 Version 2  
Chandra X-Ray Center

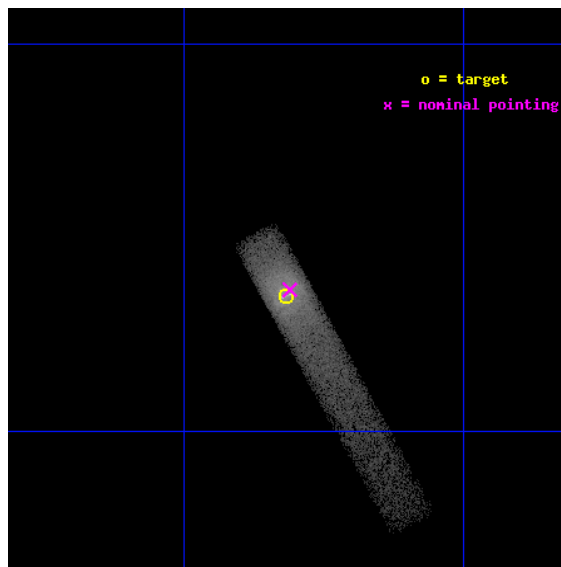
L2 Processing Date : Feb 27 2012

## 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

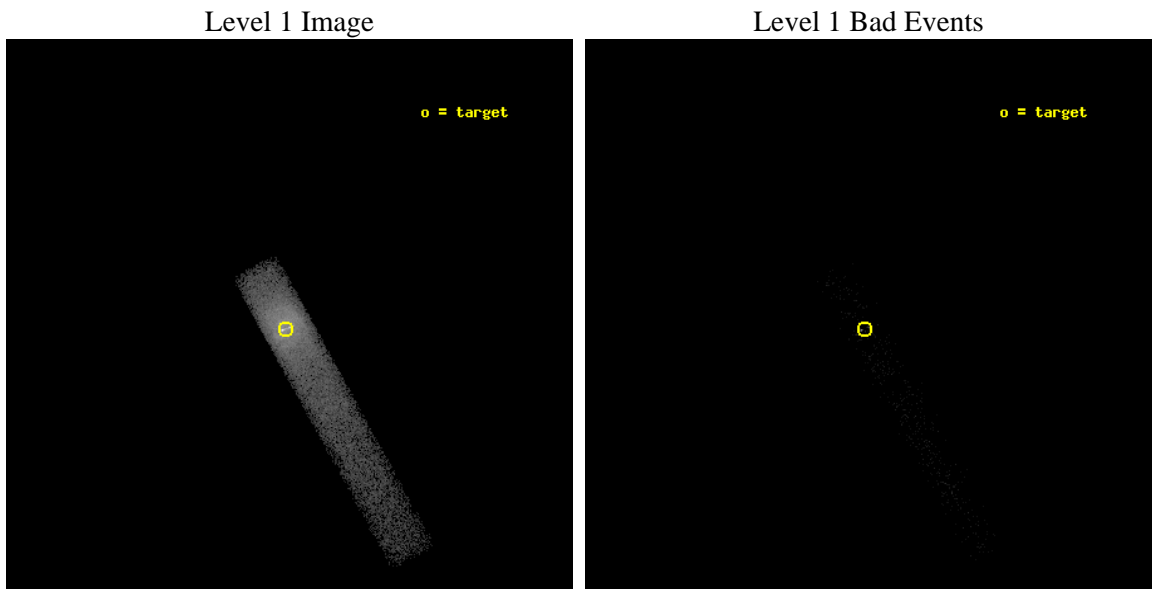
seq_num	702686	Sequence number
obs_id	13964	Observation id
title	Keeping Tabs on the Unique Jet in M87	Proposal title
observer	Dr. Daniel Harris	Principal investigator
object	M87	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.704167	Observer's specified target RA [deg]
dec_targ	12.391667	Observer's specified target Dec [deg]
ra_nom	187.70275991663	Nominal RA [deg]
dec_nom	12.394340185626	Nominal Dec [deg]
roll_nom	61.00826028077	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5009.1393041015	Sum of GTIs [s]
liveltime	4543.0249447683	Livetime [s]
ontime7	5009.1393041015	Sum of GTIs [s]
l2events	45070	Number of level 2 events



## 2 OBI

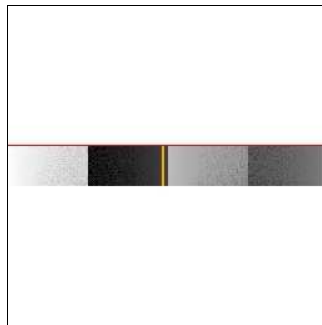
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	5009.1393041015	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime7	5009.1393041015	Sum of GTIs [s]
date	2012-02-28T00:52:44	Date and time of file creation	l1events	48629	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	48629
rejected events	3102
rejected %	6%

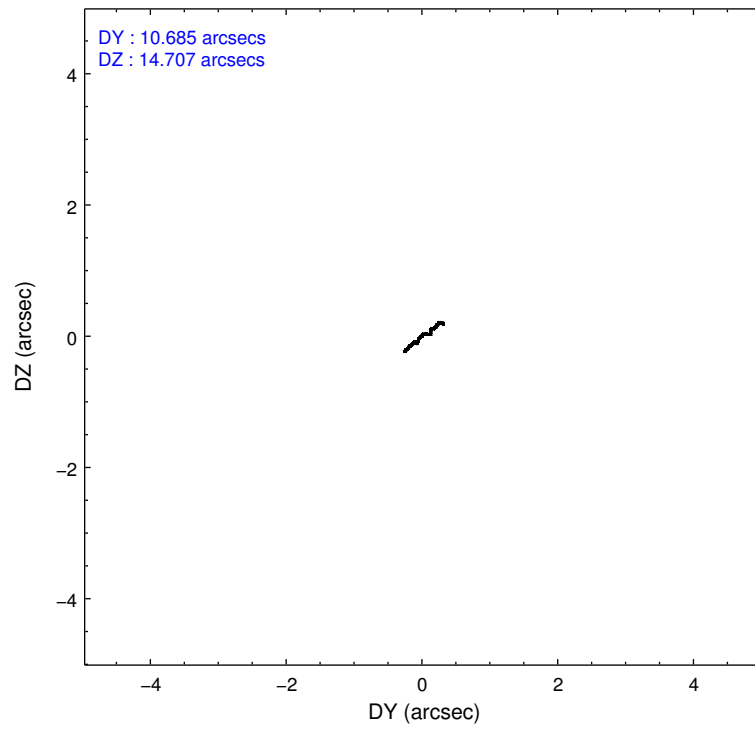
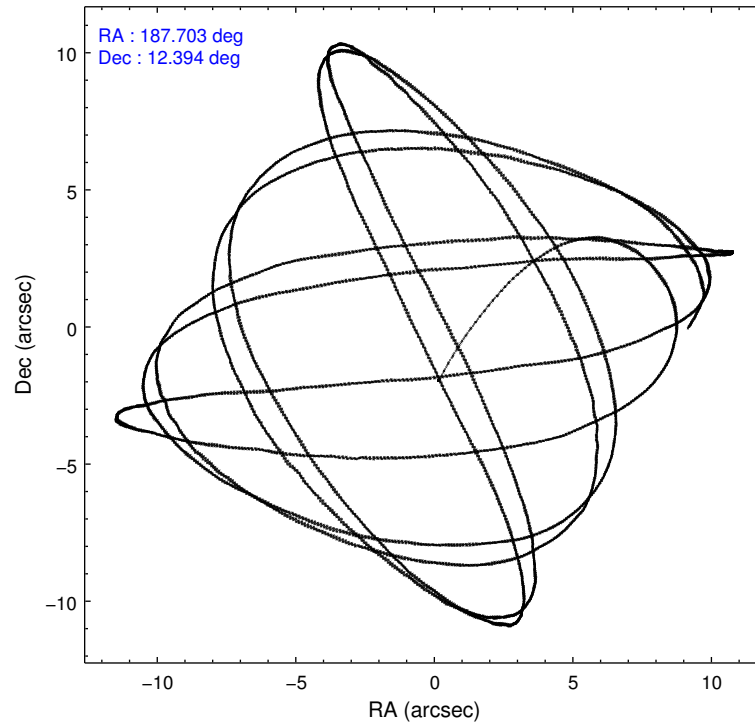
	<b>ccd 7</b>
grade 0 events	13714
	28%
grade 1 events	33
	0%
grade 2 events	11944
	24%
grade 3 events	5357
	11%
grade 4 events	5239
	10%
grade 5 events	834
	1%
grade 6 events	9280
	19%
grade 7 events	2228
	4%

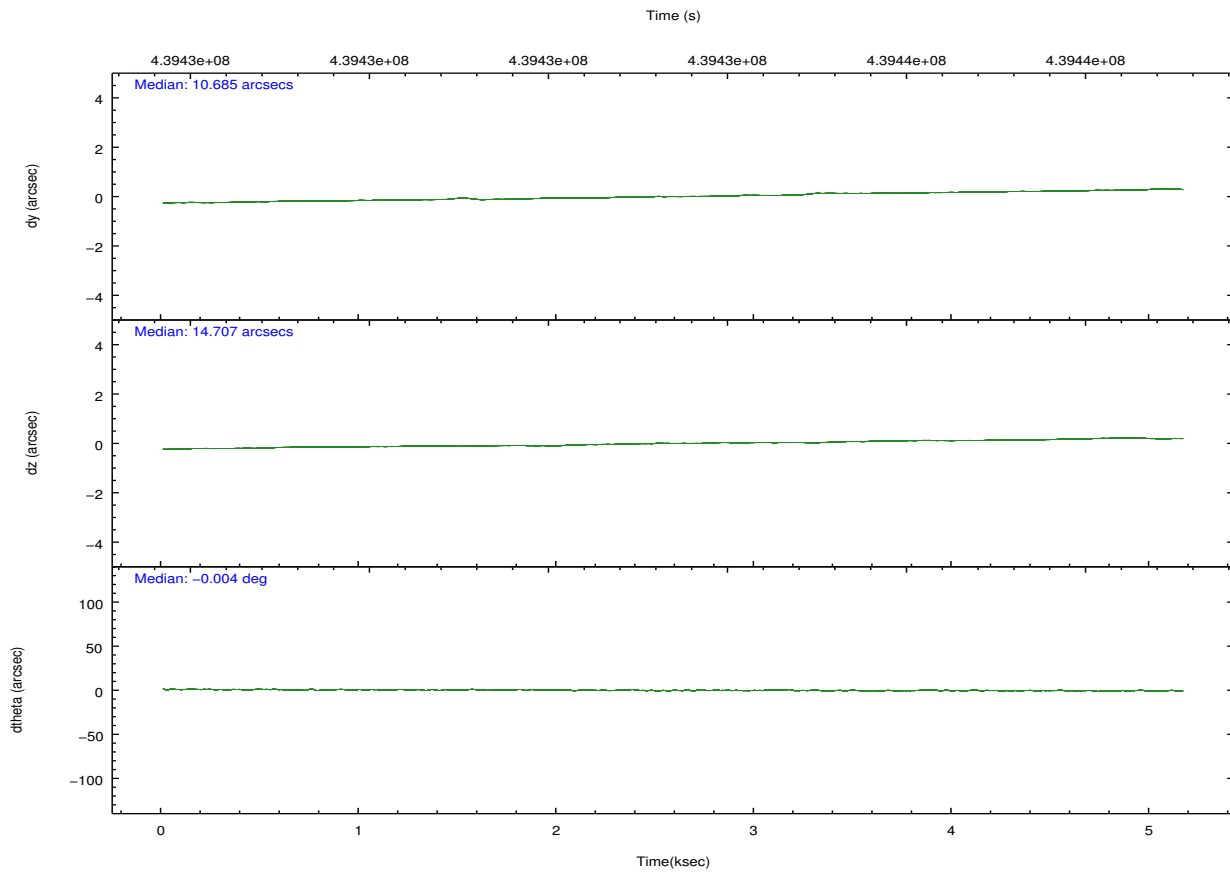
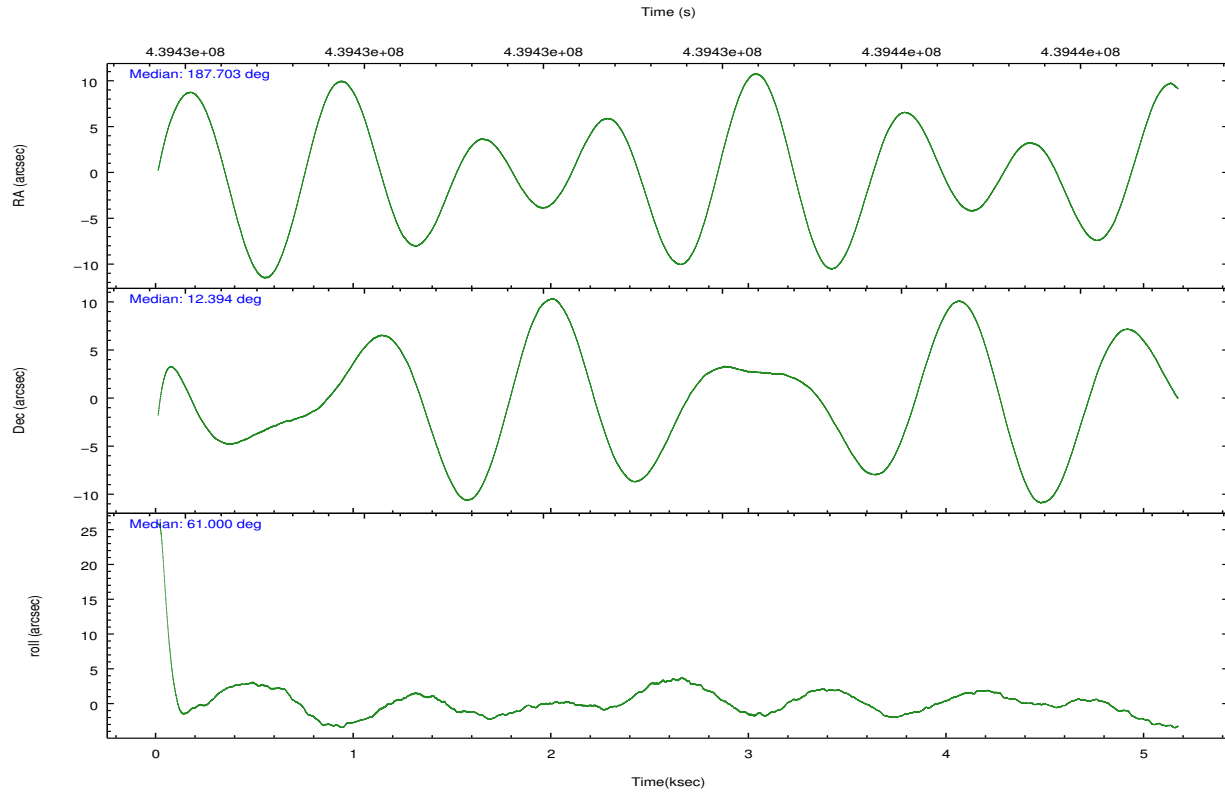


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	187.703558	187.7027599166314	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	12.366996	12.39434018562569	Subarray start row	449	449
[deg] Pointing Roll	60.851408	61.00826028077013	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.4
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	439431279.184000	439430434.96018			
Observation start date	2011-12-05T00:13:33	2011-12-05T00:00:34			
[s] Observation end time (MET)	439436279.184000	439437203.03554			
Observation end date	2011-12-05T01:36:53	2011-12-05T01:53:23			
Read mode	TIMED	TIMED			

## 2.3 Aspect



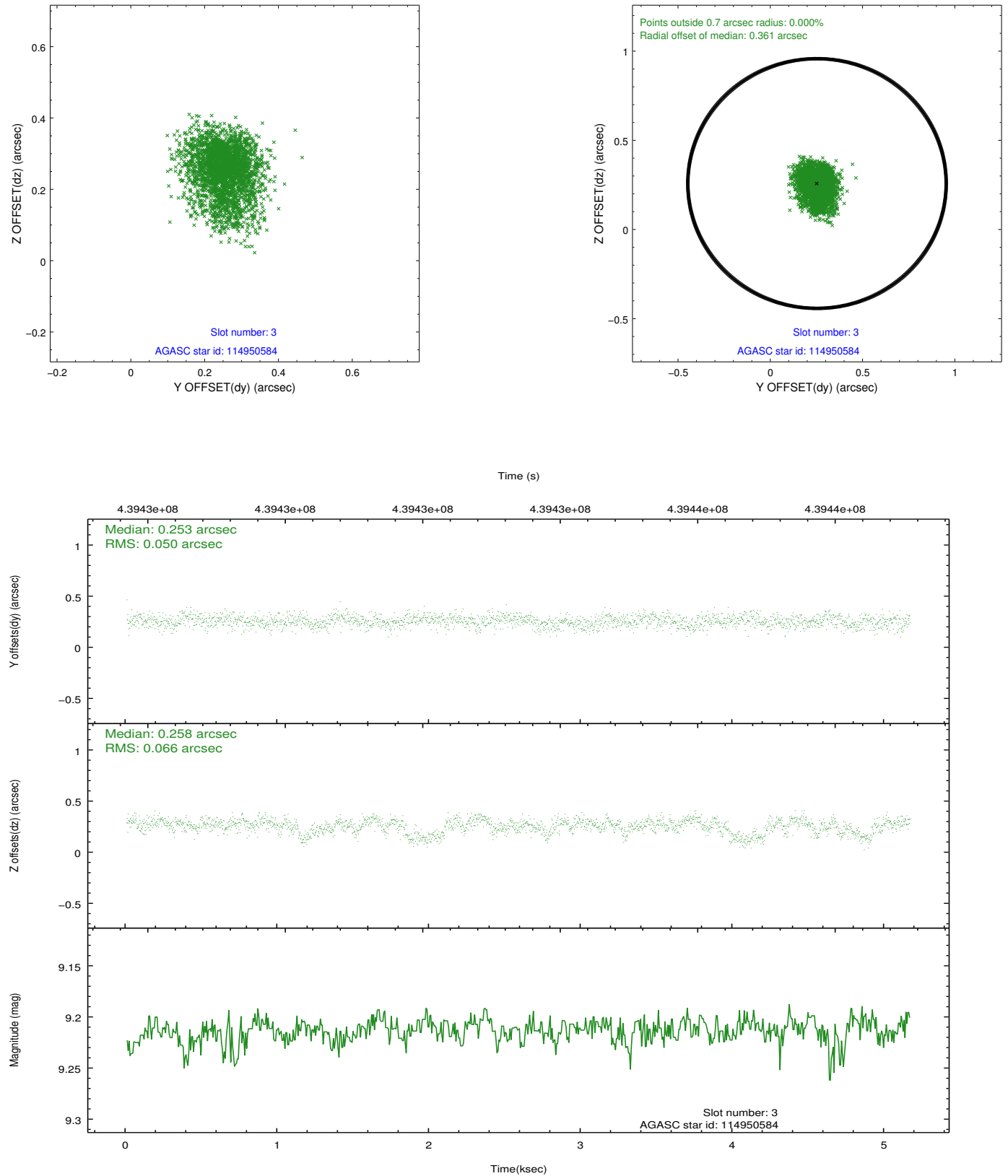


### Slot Statistics

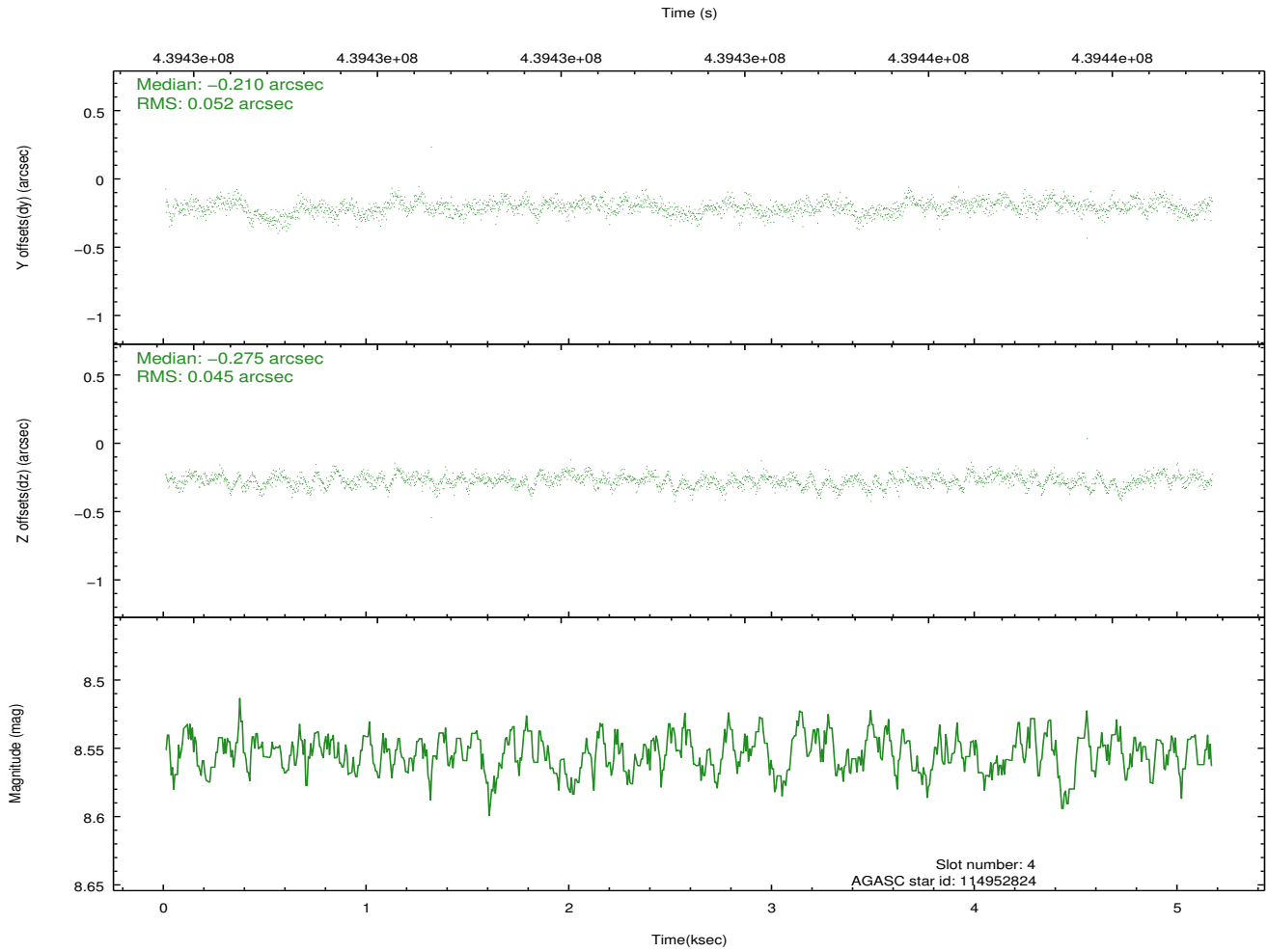
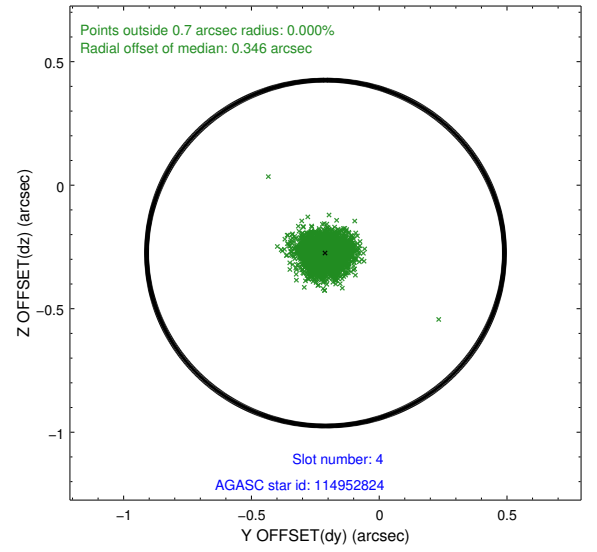
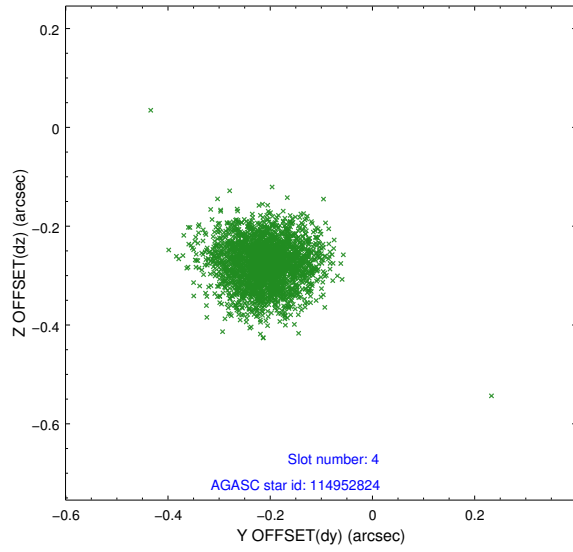
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.90	1259	-0.059	-0.021	0.007	0.011	0.000000	0.000000	-763.61	-1736.04
1	FID	ACIS-S-4	7.00	1259	0.186	0.034	0.006	0.011	0.000000	0.000000	2149.38	171.27
2	FID	ACIS-S-5	7.02	1259	-0.158	-0.004	0.007	0.013	0.000000	0.000000	-1815.04	166.25
3	GUIDE	114950584	9.21	2517	0.253	0.258	0.089	0.150	187.487323	11.827248	-2067.89	-279.99
4	GUIDE	114952824	8.55	2518	-0.210	-0.275	0.073	0.118	187.703904	12.486727	375.63	209.53
5	GUIDE	114954440	9.18	2519	0.066	-0.387	0.091	0.159	186.915066	12.219118	-1812.58	2164.61
6	GUIDE	114955056	8.32	2518	-0.172	0.641	0.070	0.110	187.914001	12.127854	-391.71	-1063.88
7	GUIDE	114957008	8.22	2518	0.067	-0.230	0.076	0.127	186.894794	12.099160	-2226.00	2019.08

## 2.4 Star Slots

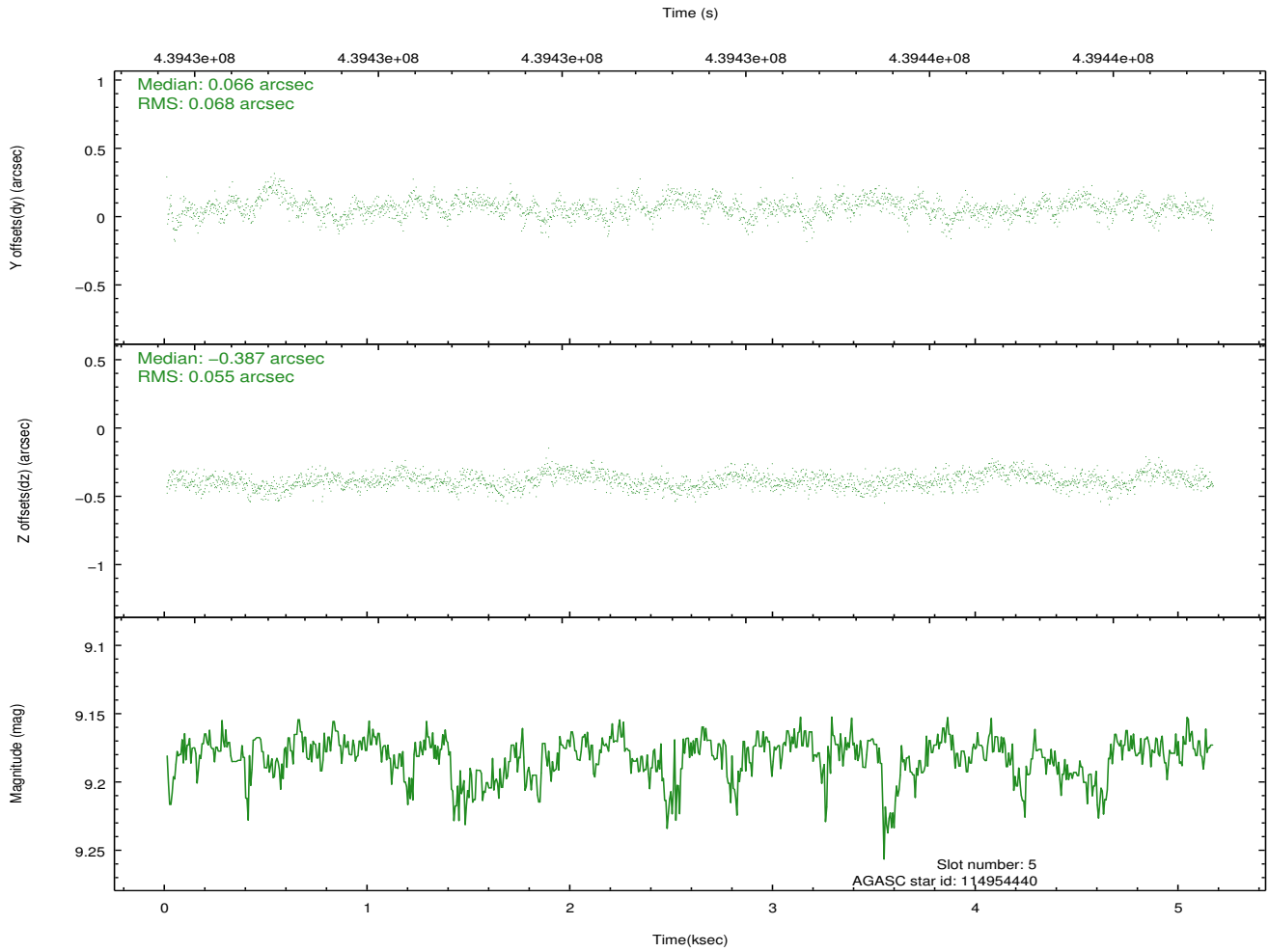
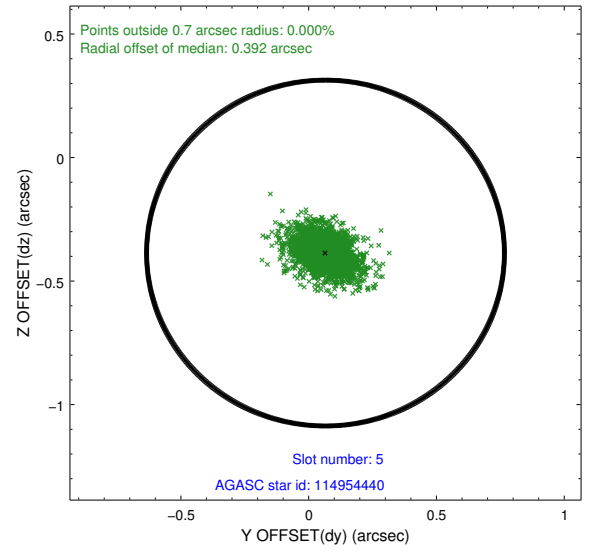
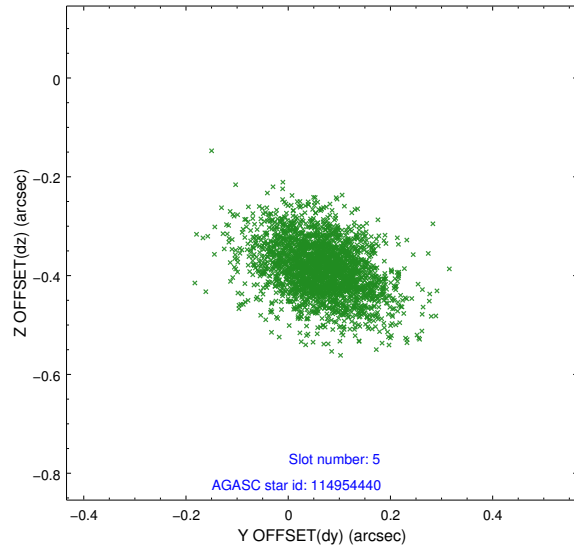
### 2.4.1 Slot 3



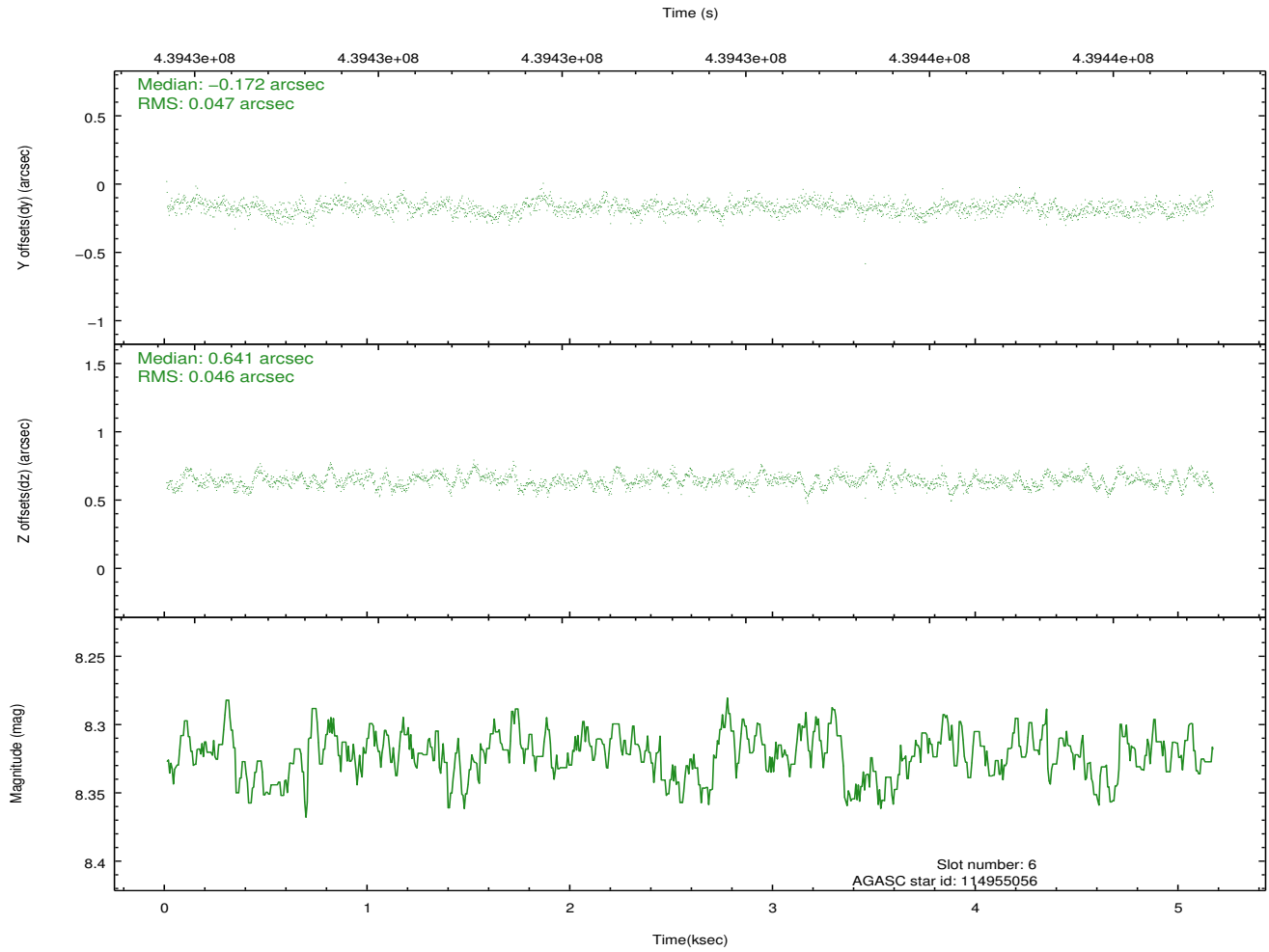
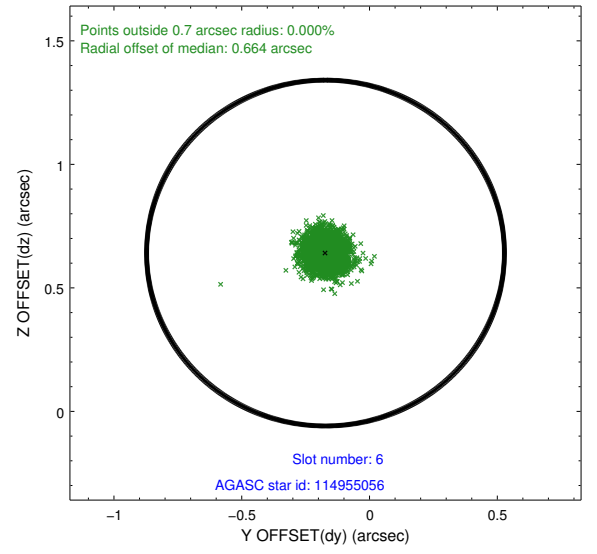
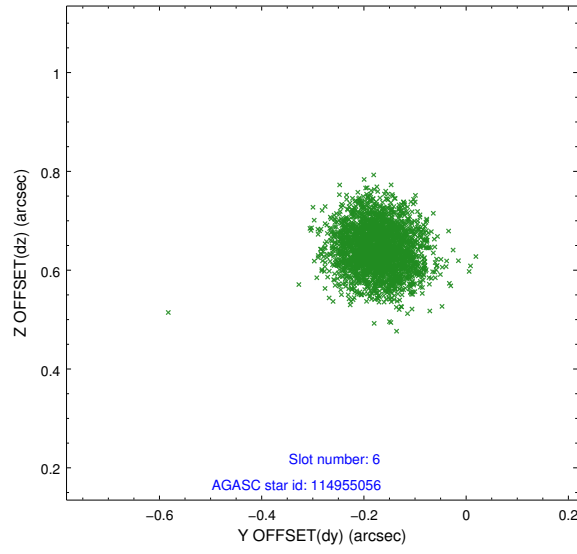
## 2.4.2 Slot 4



### 2.4.3 Slot 5

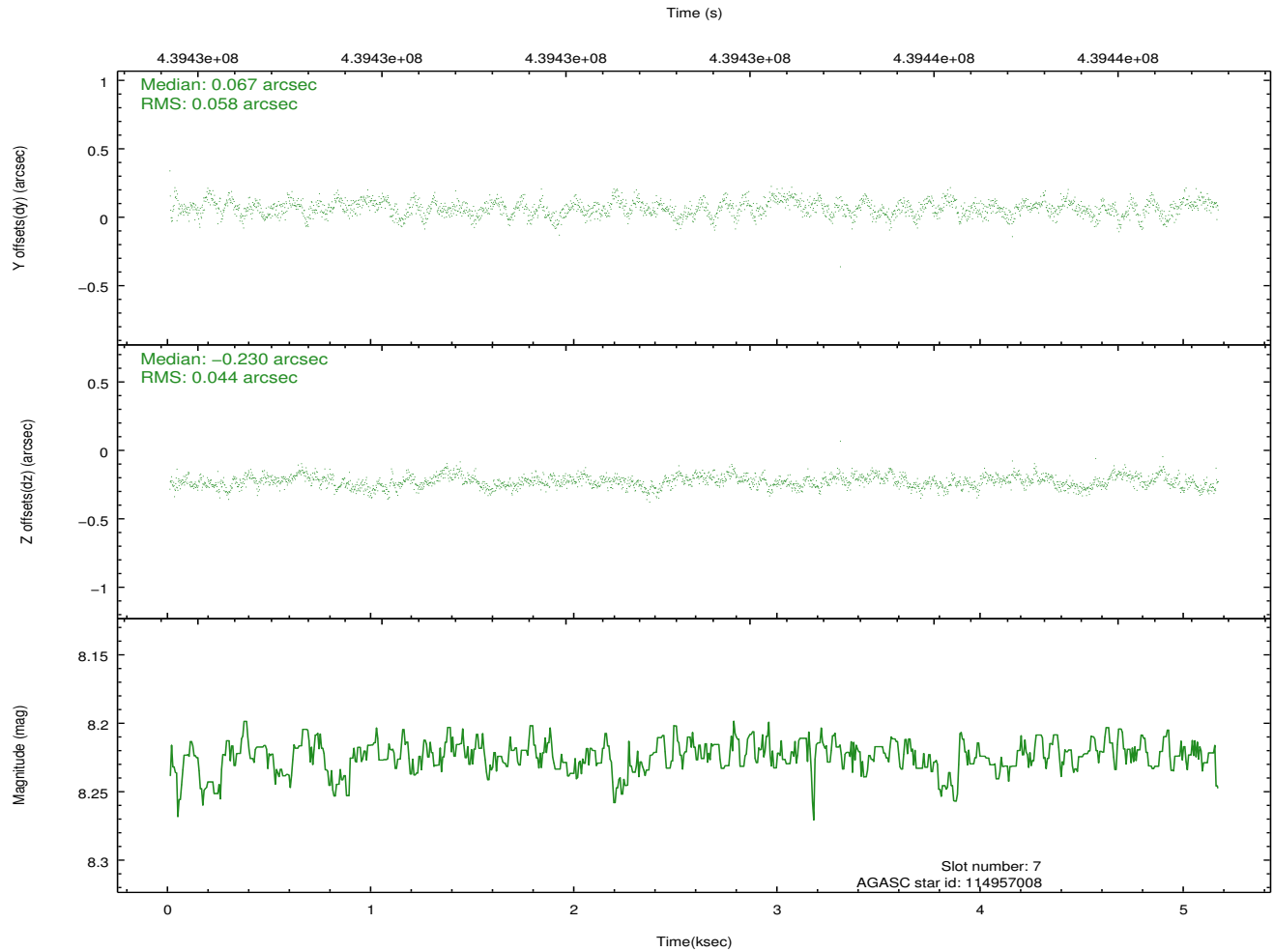
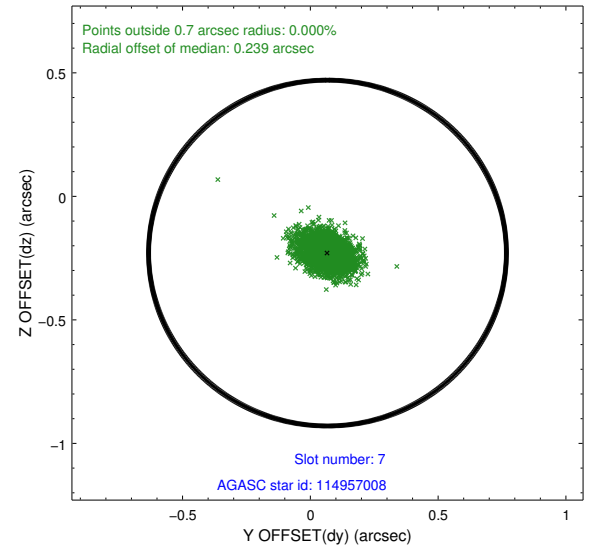
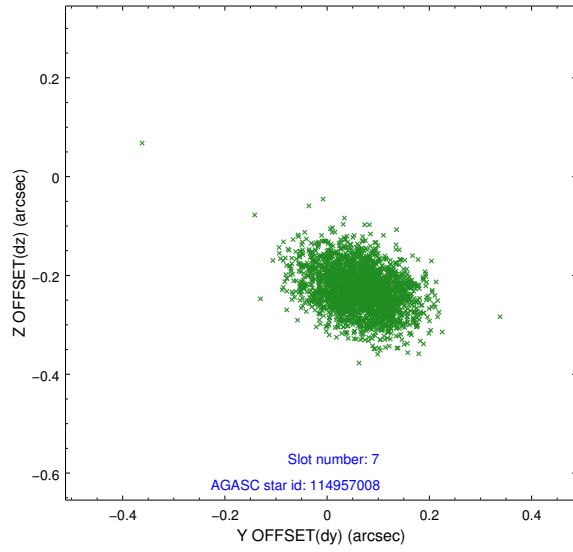


## 2.4.4 Slot 6



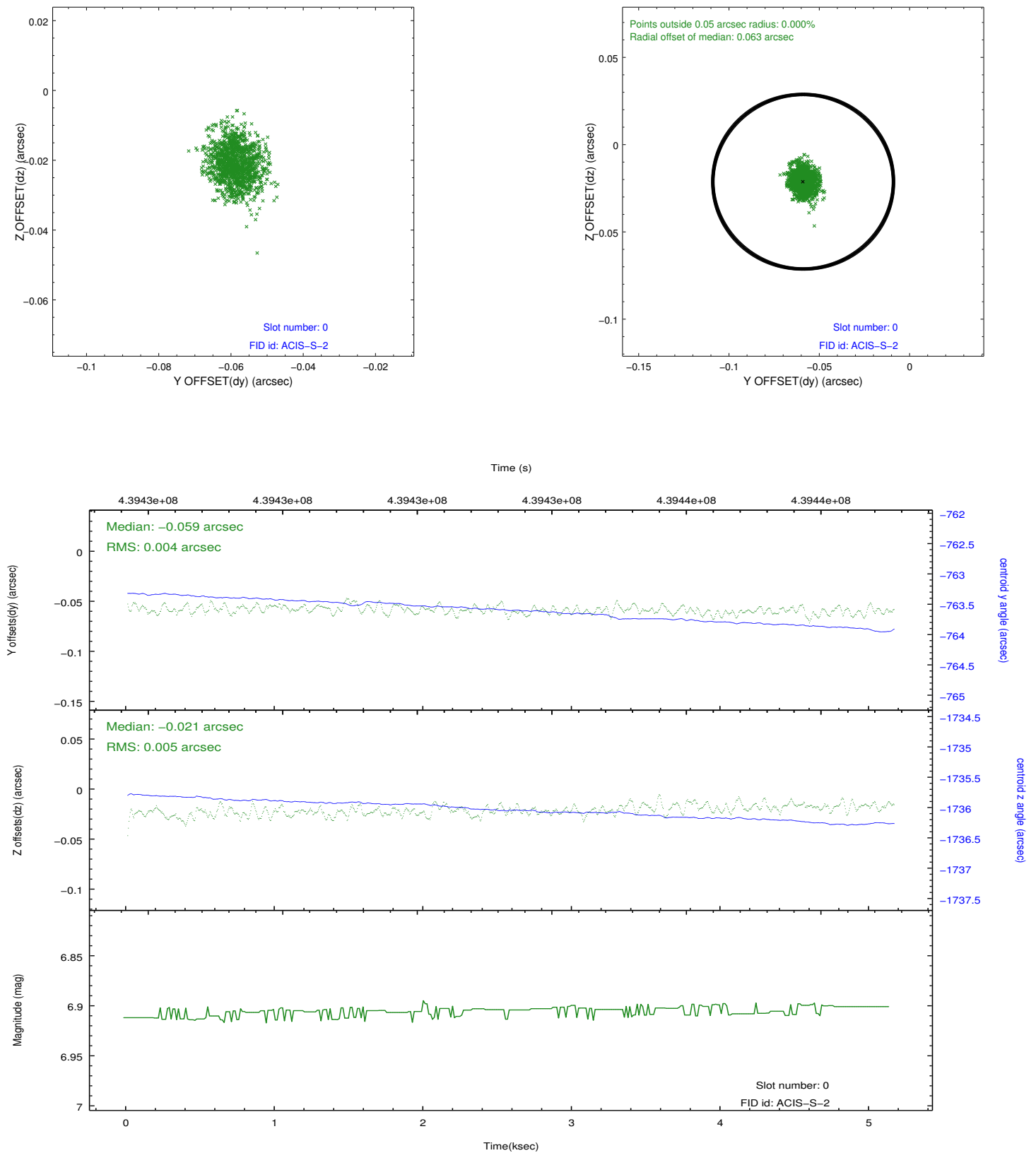


## 2.4.5 Slot 7

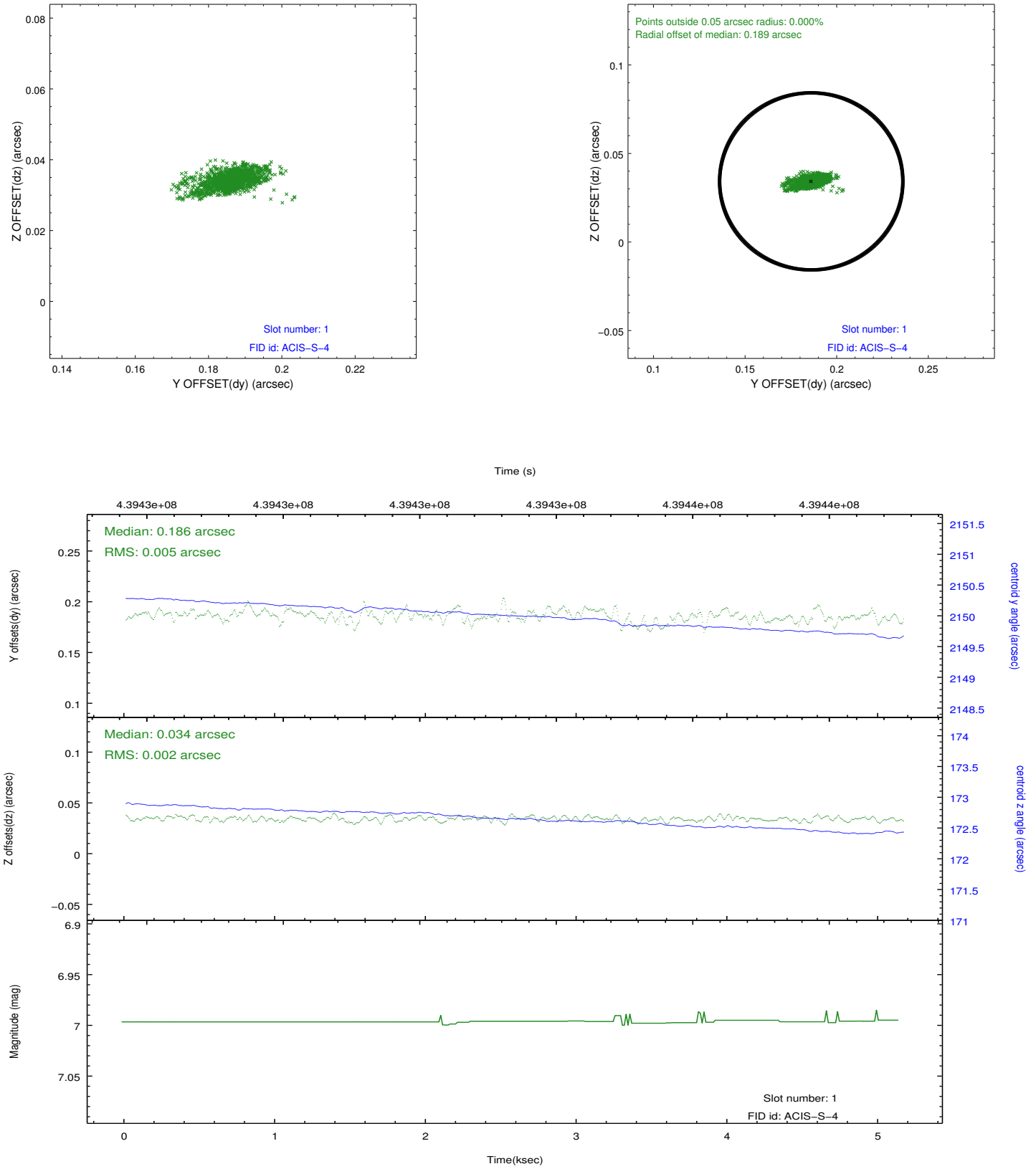


## 2.5 FID Slots

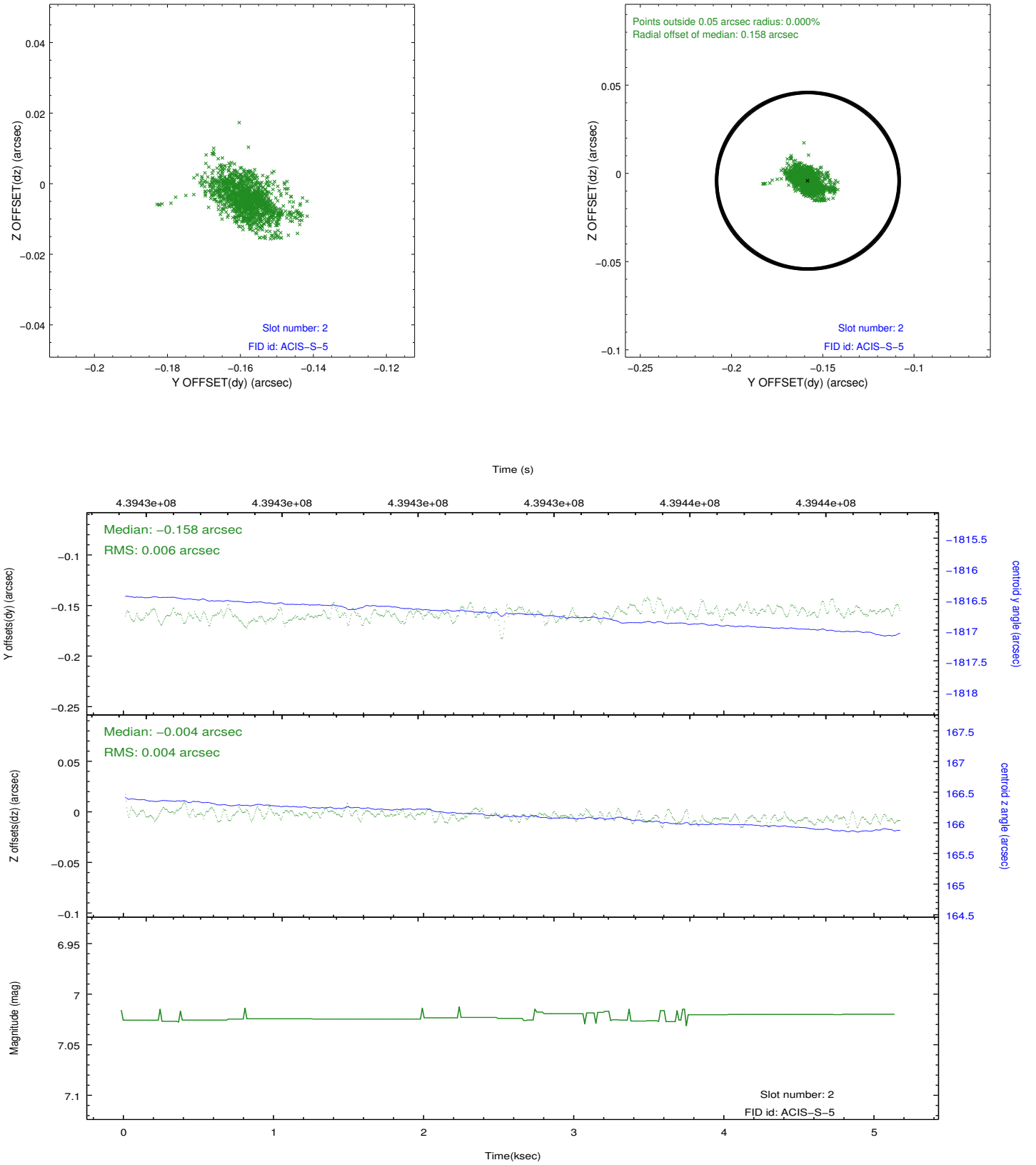
### 2.5.1 Slot 0



## 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)	2012.02.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.0091393091679

### A.2 Comments