

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 7225 - L2 Version 2  
Chandra X-Ray Center

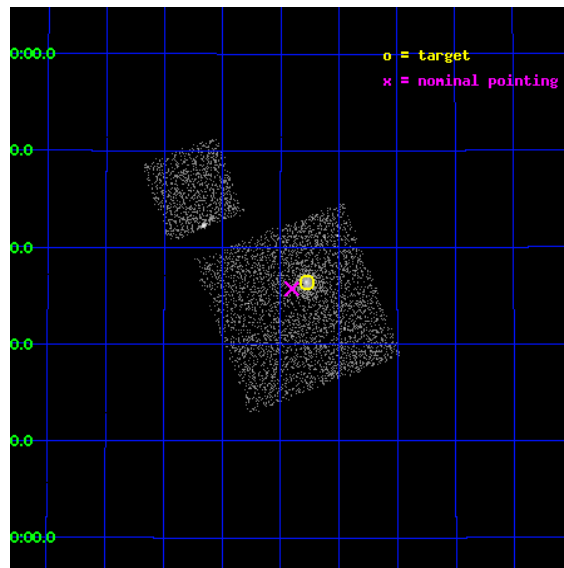
L2 Processing Date : Mar 17 2012

## 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

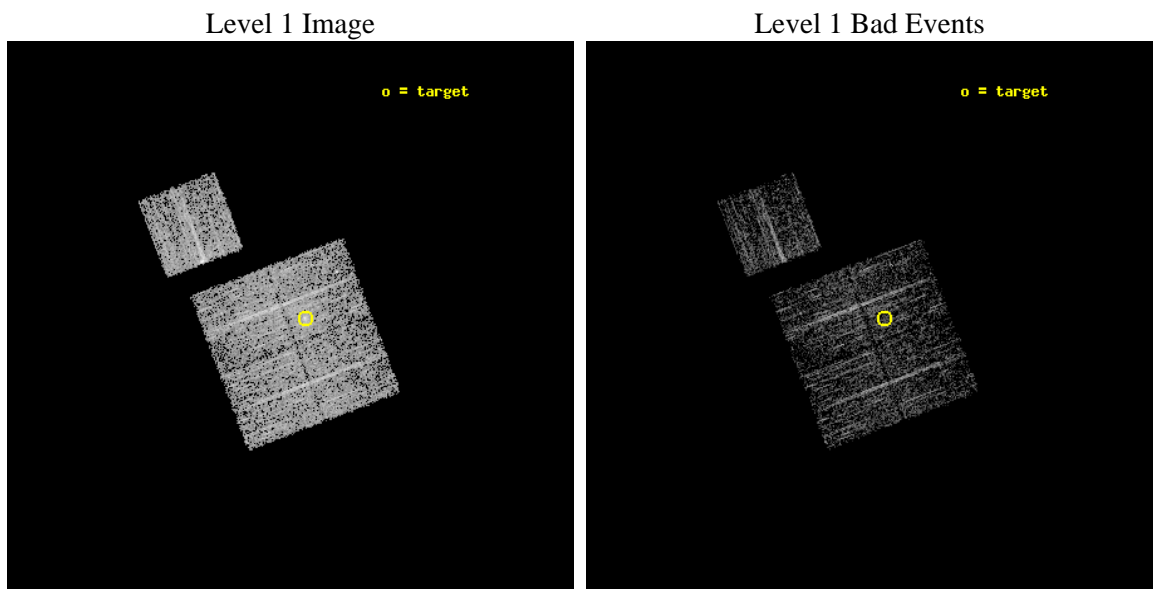
seq_num	800555	Sequence number
obs_id	7225	Observation id
title	Probing dark energy using the X-ray gas mass fraction in dynamically relaxed galaxy clusters	Proposal title
observer	Dr Steven Allen	Principal investigator
object	MACS1720.3+3536	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	260.069583	Observer's specified target RA [deg]
dec_targ	35.607222	Observer's specified target Dec [deg]
ra_nom	260.10082065891	Nominal RA [deg]
dec_nom	35.595600078219	Nominal Dec [deg]
roll_nom	339.19043980789	Nominal Roll [deg]
revision	2	Processing version of data
ontime	2045.6513597667	Sum of GTIs [s]
livetime	2018.9234187647	Livetime [s]
ontime0	2048.6692100465	Sum of GTIs [s]
ontime1	2048.7102500498	Sum of GTIs [s]
ontime2	2048.7512900531	Sum of GTIs [s]
ontime3	2045.6513597667	Sum of GTIs [s]
ontime6	2048.6281700432	Sum of GTIs [s]
l2events	7010	Number of level 2 events



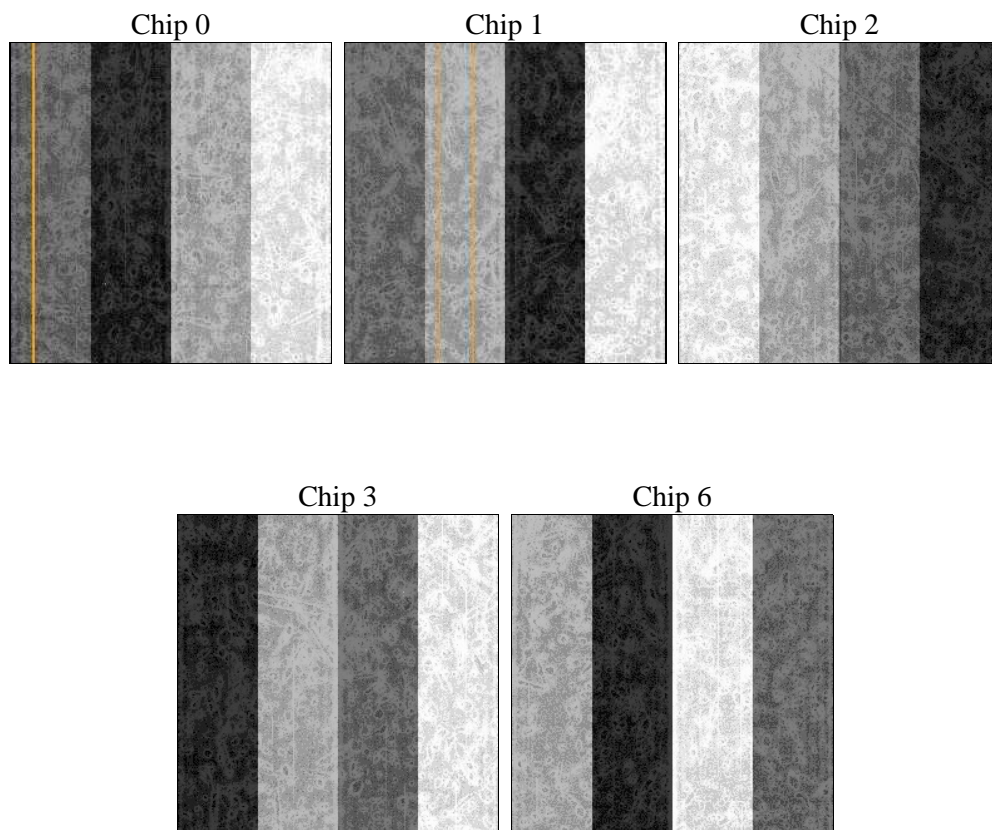
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	2045.6513597667	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime0	2048.6692100465	Sum of GTIs [s]
date	2012-03-17T15:36:04	Date and time of file creation	ontime1	2048.7102500498	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	2048.7512900531	Sum of GTIs [s]
			ontime3	2045.6513597667	Sum of GTIs [s]
			ontime6	2048.6281700432	Sum of GTIs [s]
			l1events	68634	Number of level 1 events

### 2.1.4 Events

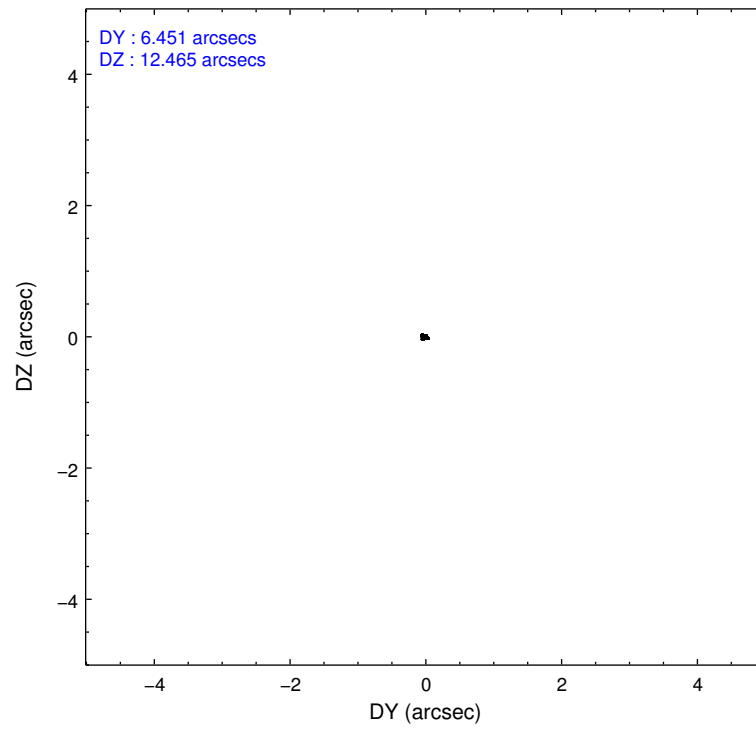
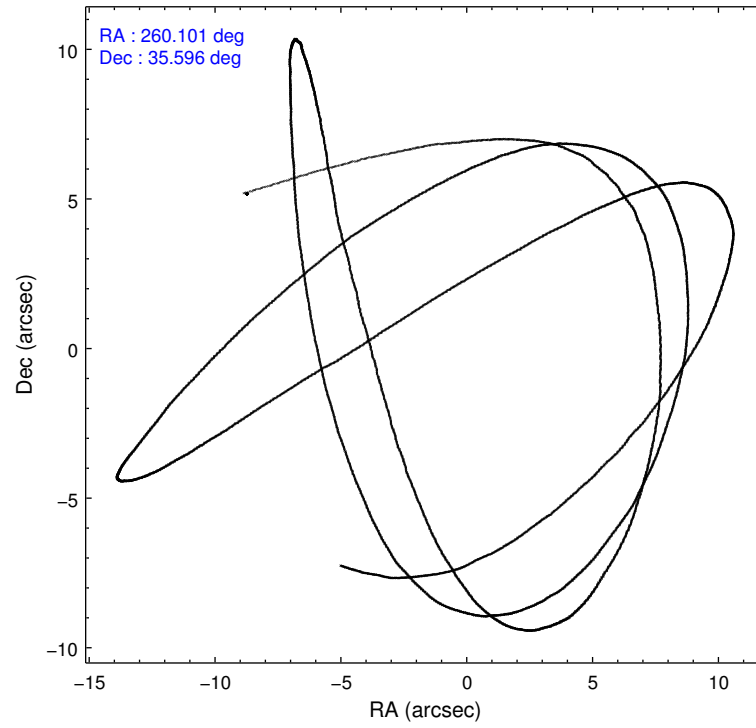
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	13945	12288	14072	13857	14472
rejected events	12576	10773	12780	11693	12655
rejected %	90%	87%	90%	84%	87%

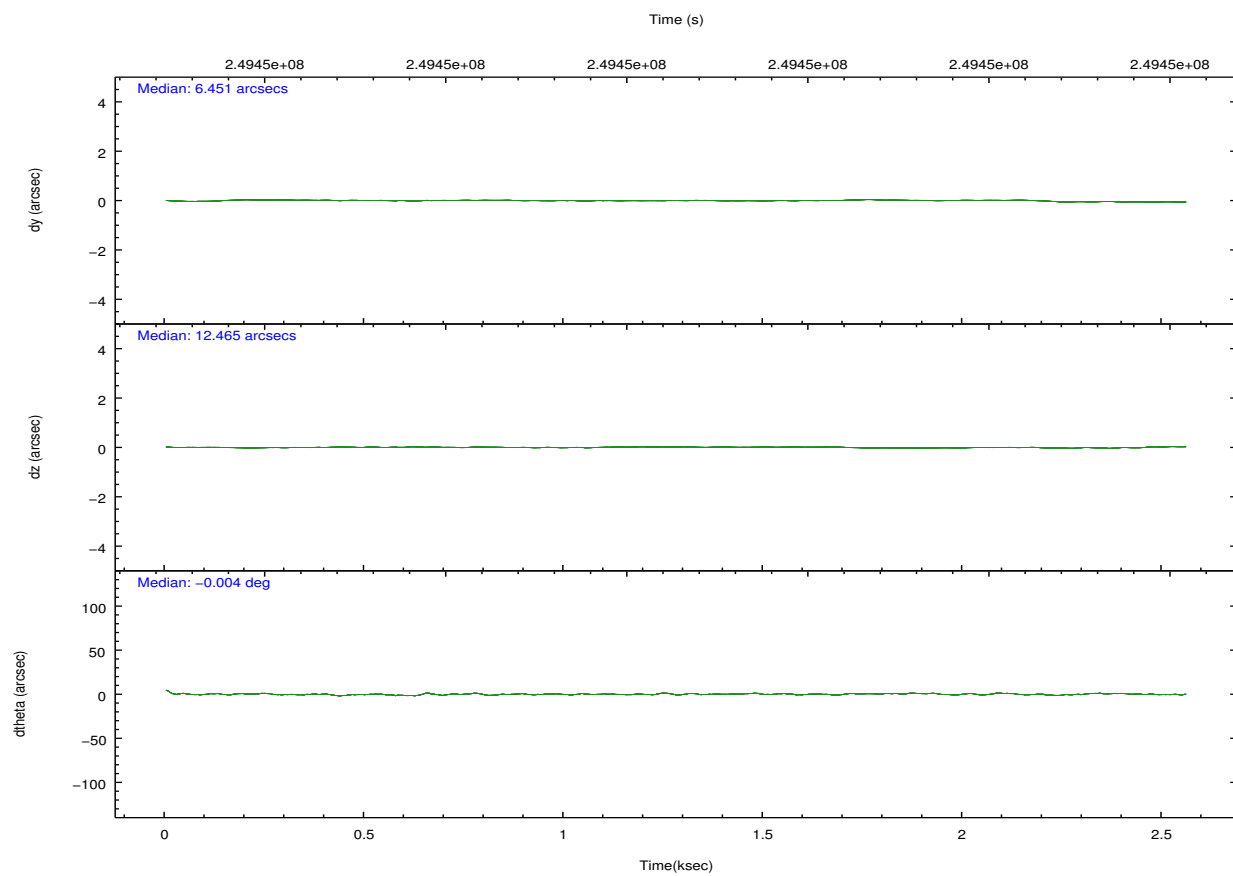
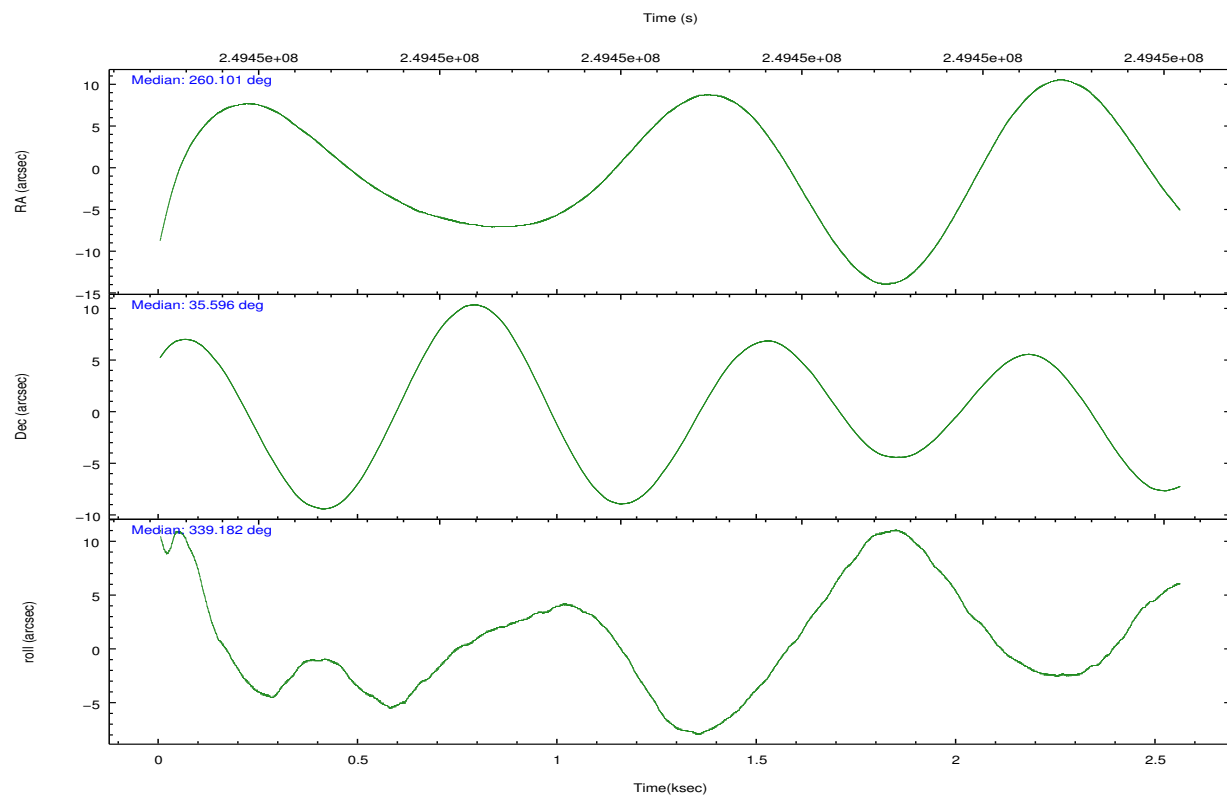
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	483	601	474	1167	830
	3%	4%	3%	8%	5%
grade 1 events	7	4	6	16	8
	0%	0%	0%	0%	0%
grade 2 events	329	334	306	344	361
	2%	2%	2%	2%	2%
grade 3 events	159	153	134	177	156
	1%	1%	0%	1%	1%
grade 4 events	142	164	152	185	161
	1%	1%	1%	1%	1%
grade 5 events	493	504	418	607	567
	3%	4%	2%	4%	3%
grade 6 events	260	270	228	295	312
	1%	2%	1%	2%	2%
grade 7 events	12072	10258	12354	11066	12077
	86%	83%	87%	79%	83%

## 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	260.067269	260.1008206589125	Subarray requested	NONE	NONE
[deg] Pointing Dec	35.591168	35.59560007821855	Alternating exposures requested	N	N
[deg] Pointing Roll	339.001347	339.1904398078902	[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	-229.442463	-229.4438428438578			
[mm] SIM translation stage offset	-4.15	-4.148610159071865			
[s] Observation start time (MET)	249448420.184000	249447156.60153			
Observation start date	2005-11-27T03:12:36	2005-11-27T02:52:36			
[s] Observation end time (MET)	249450420.184000	249451466.21423			
Observation end date	2005-11-27T03:45:56	2005-11-27T04:04:26			
Read mode	TIMED	TIMED			

## 2.3 Aspect





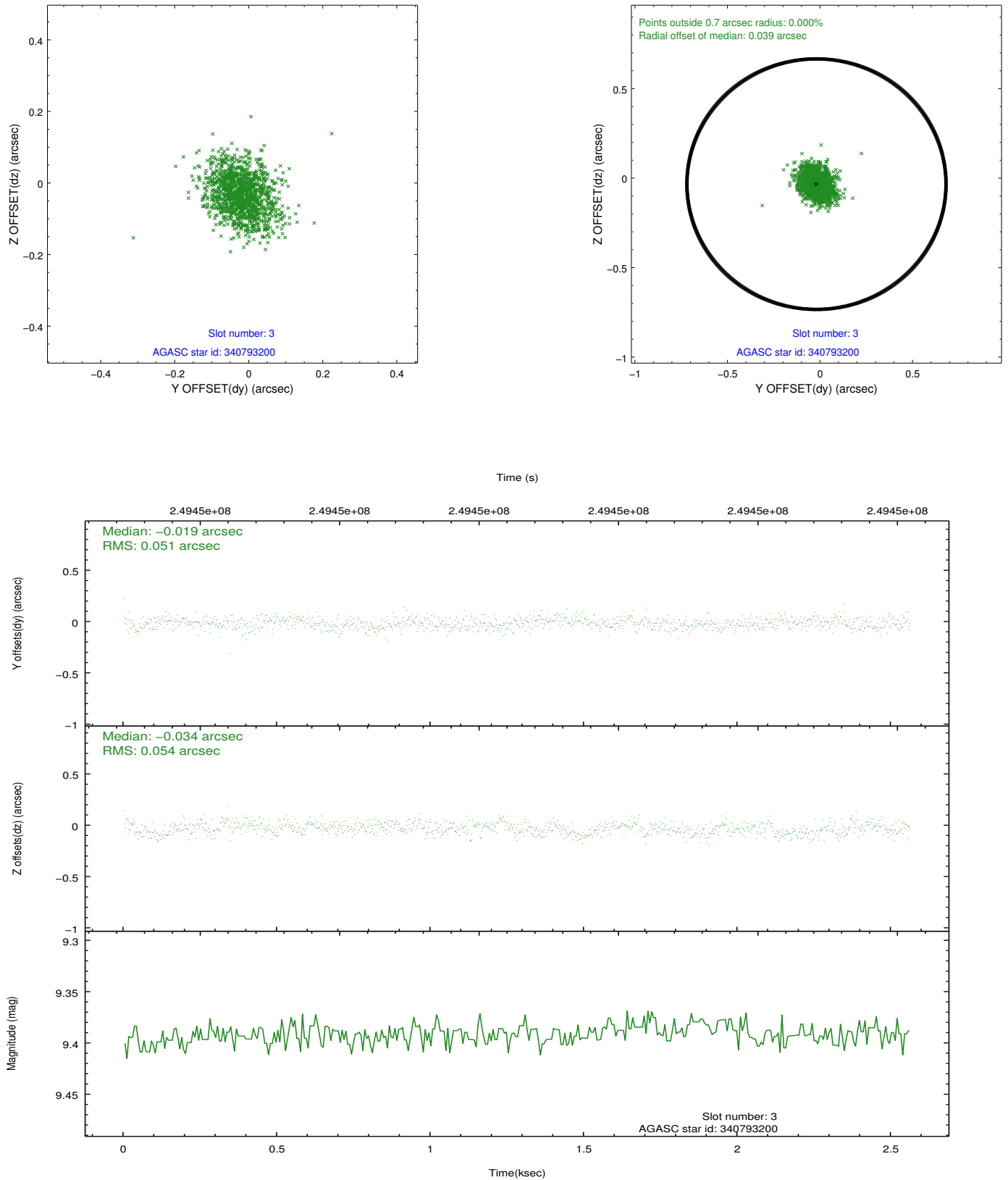
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.15	624	-0.072	-0.120	0.009	0.019	0.000000	0.000000	-761.26	-927.07
1	FID	ACIS-I-4	7.15	624	0.097	0.078	0.006	0.011	0.000000	0.000000	2151.74	977.94
2	FID	ACIS-I-5	7.22	624	-0.127	0.111	0.008	0.018	0.000000	0.000000	-1811.73	978.07
3	GUIDE	340793200	9.39	1249	-0.019	-0.034	0.078	0.128	260.300981	35.203623	1140.98	-1055.17
4	GUIDE	340795168	7.94	1249	-0.015	0.027	0.057	0.094	260.116328	35.370994	418.97	-689.18
5	GUIDE	341325128	8.48	1249	0.029	-0.049	0.057	0.092	260.031346	35.684277	-218.35	274.75
6	GUIDE	341325224	8.86	1242	-0.016	0.058	0.077	0.128	260.448683	35.800602	768.06	1105.18
7	GUIDE	341321368	9.27	1248	0.017	0.003	0.077	0.127	260.000972	35.687029	-304.54	253.68

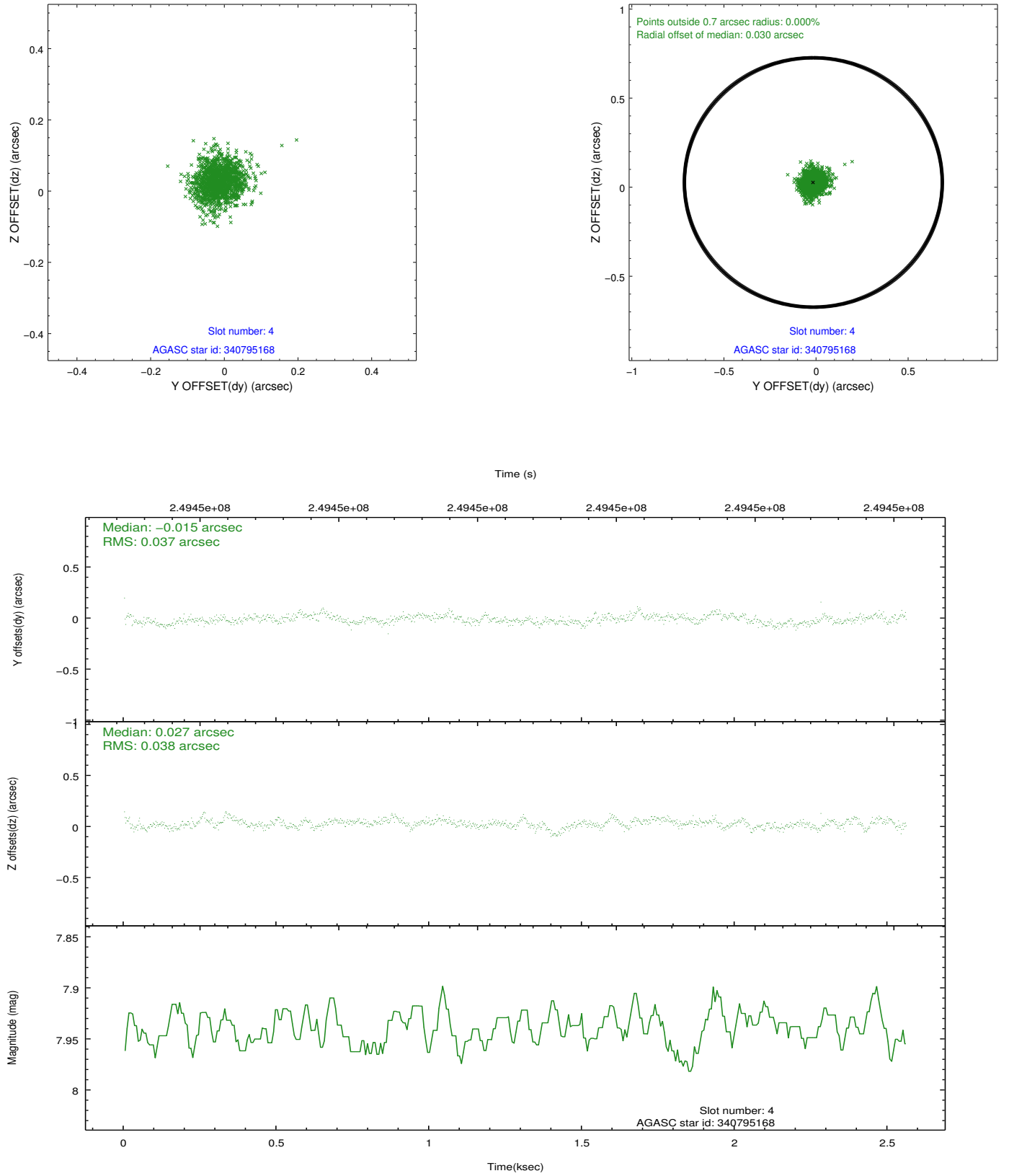


## 2.4 Star Slots

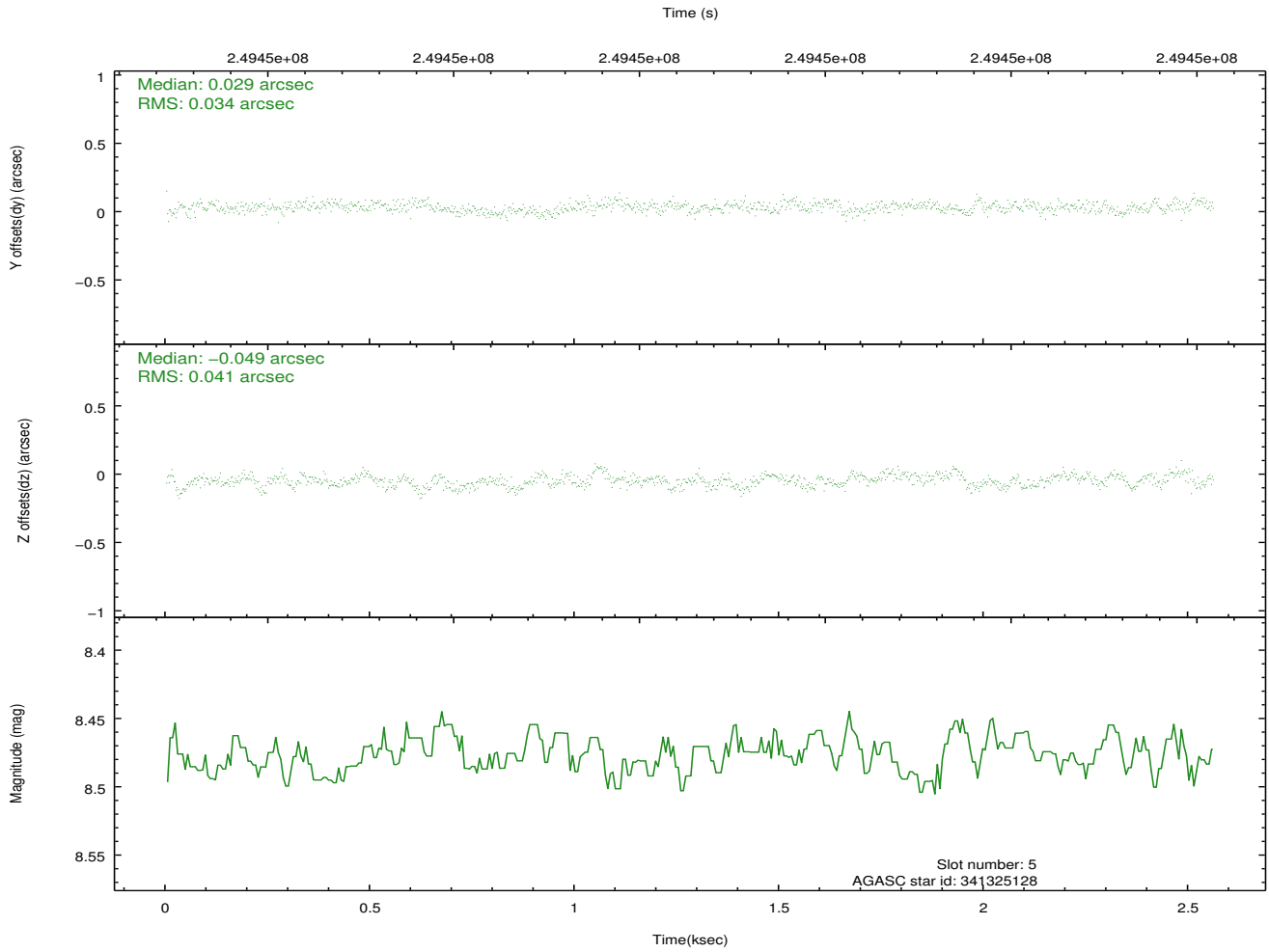
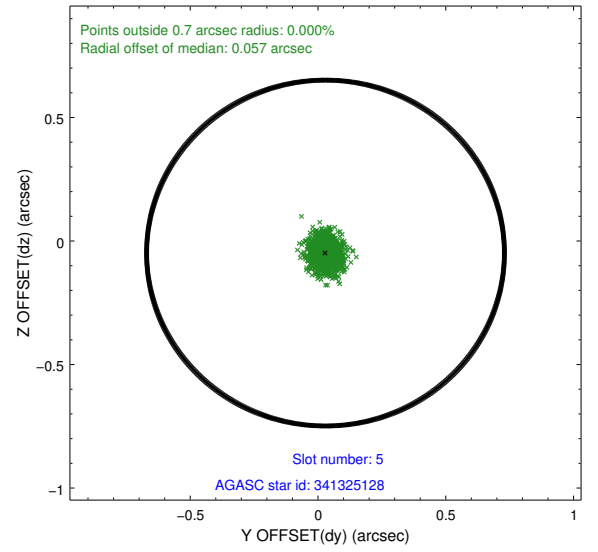
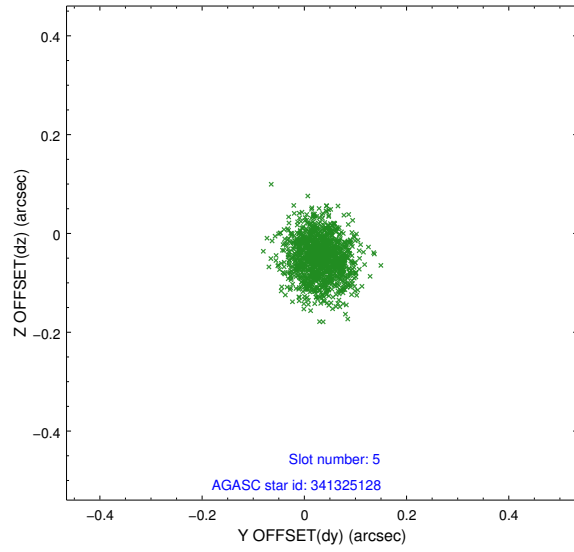
### 2.4.1 Slot 3



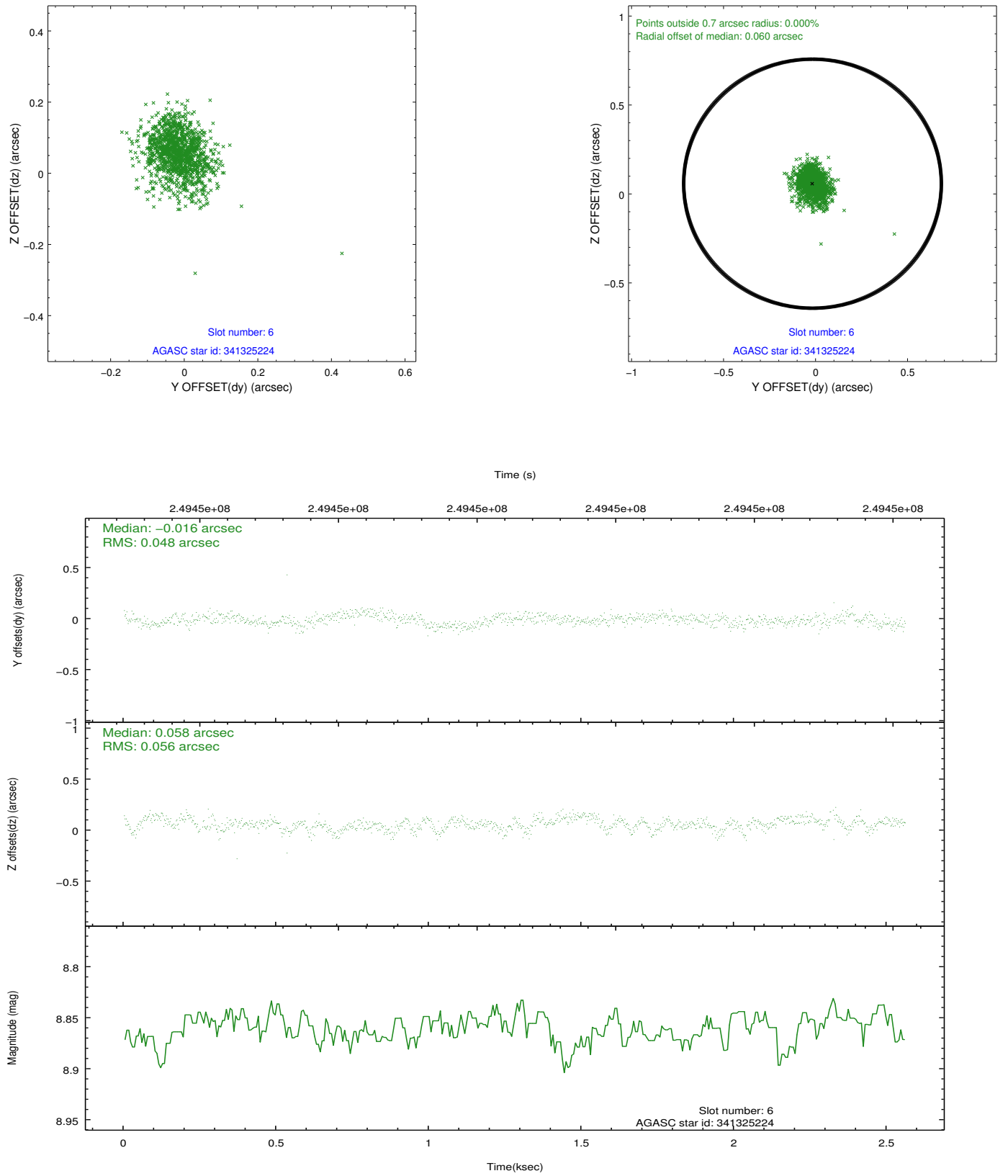
## 2.4.2 Slot 4



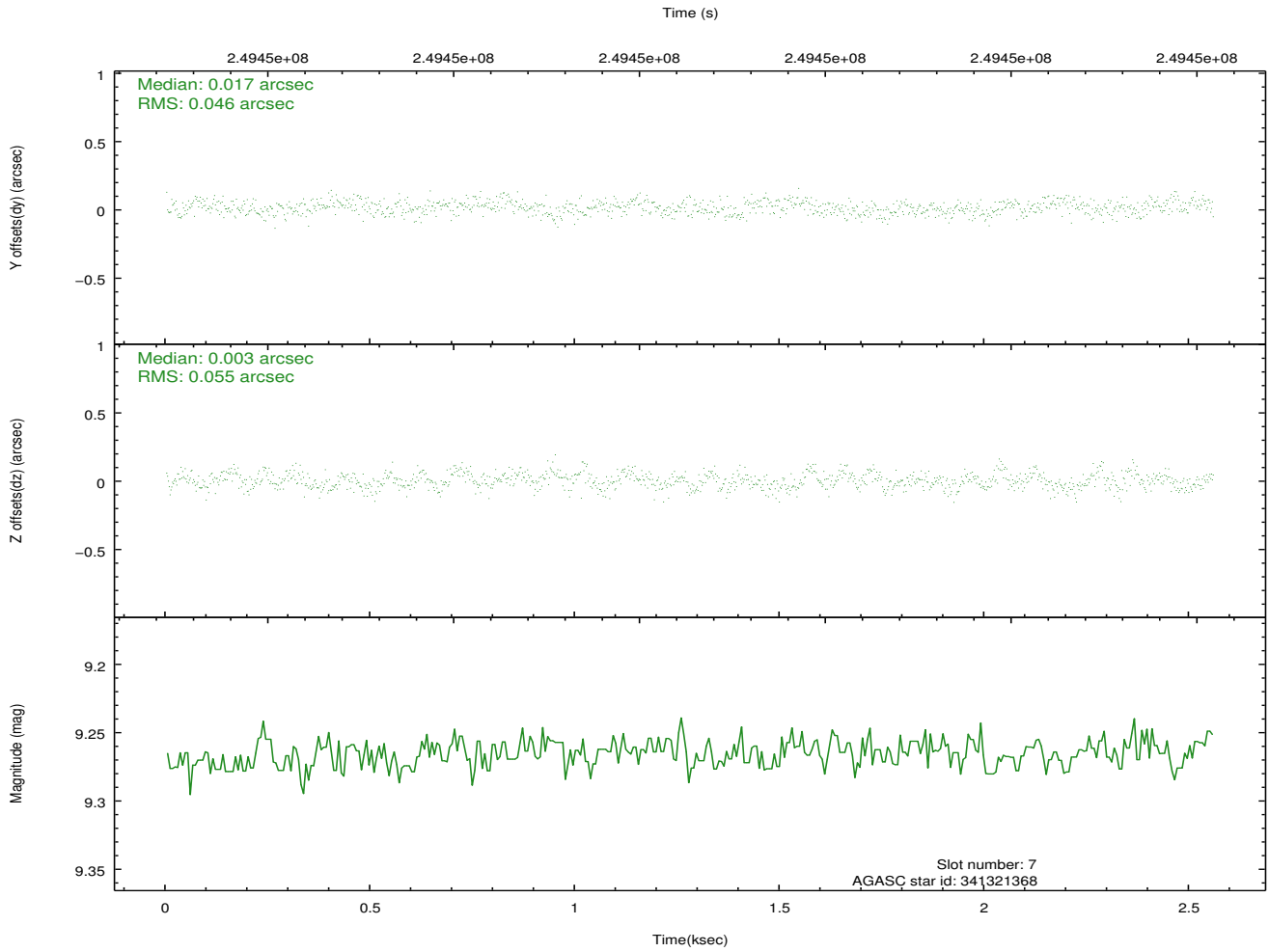
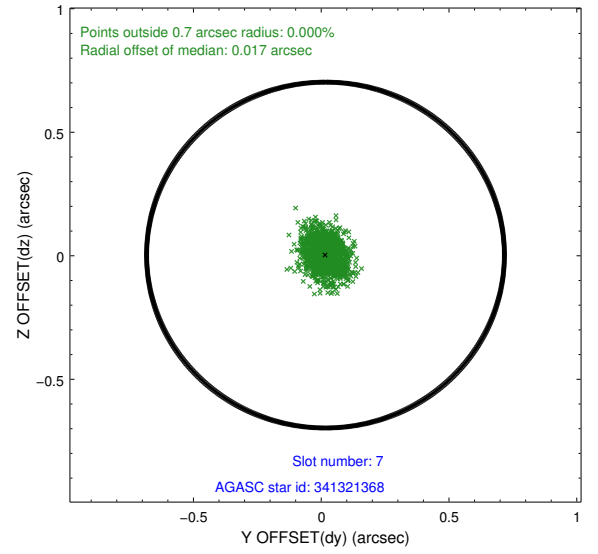
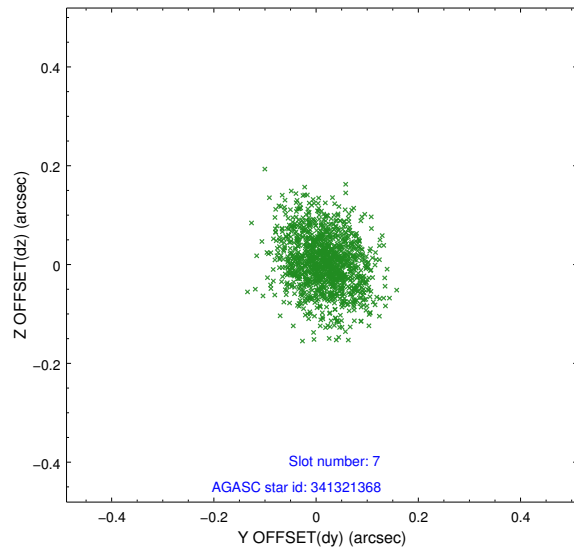
### 2.4.3 Slot 5



## 2.4.4 Slot 6

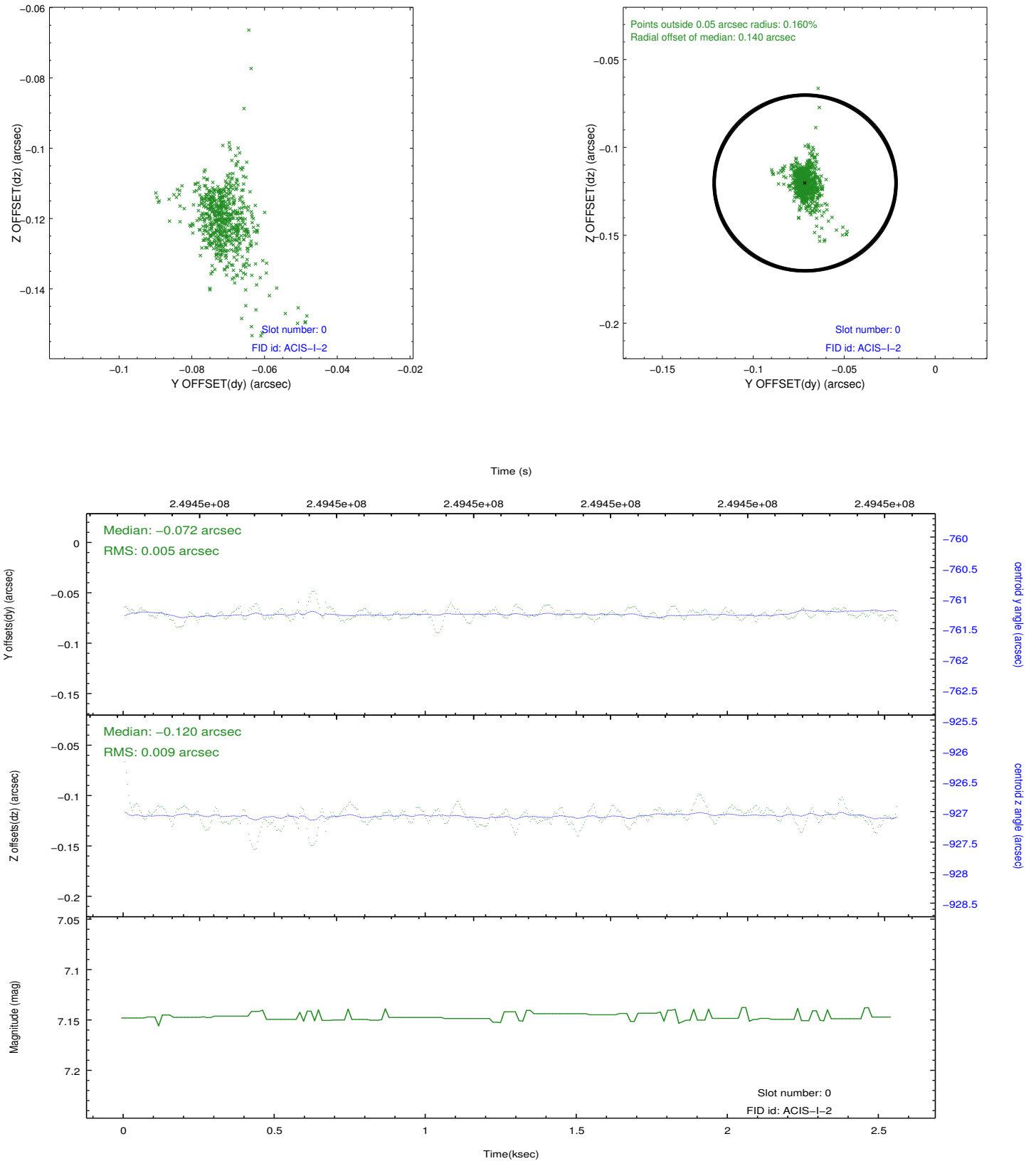


## 2.4.5 Slot 7

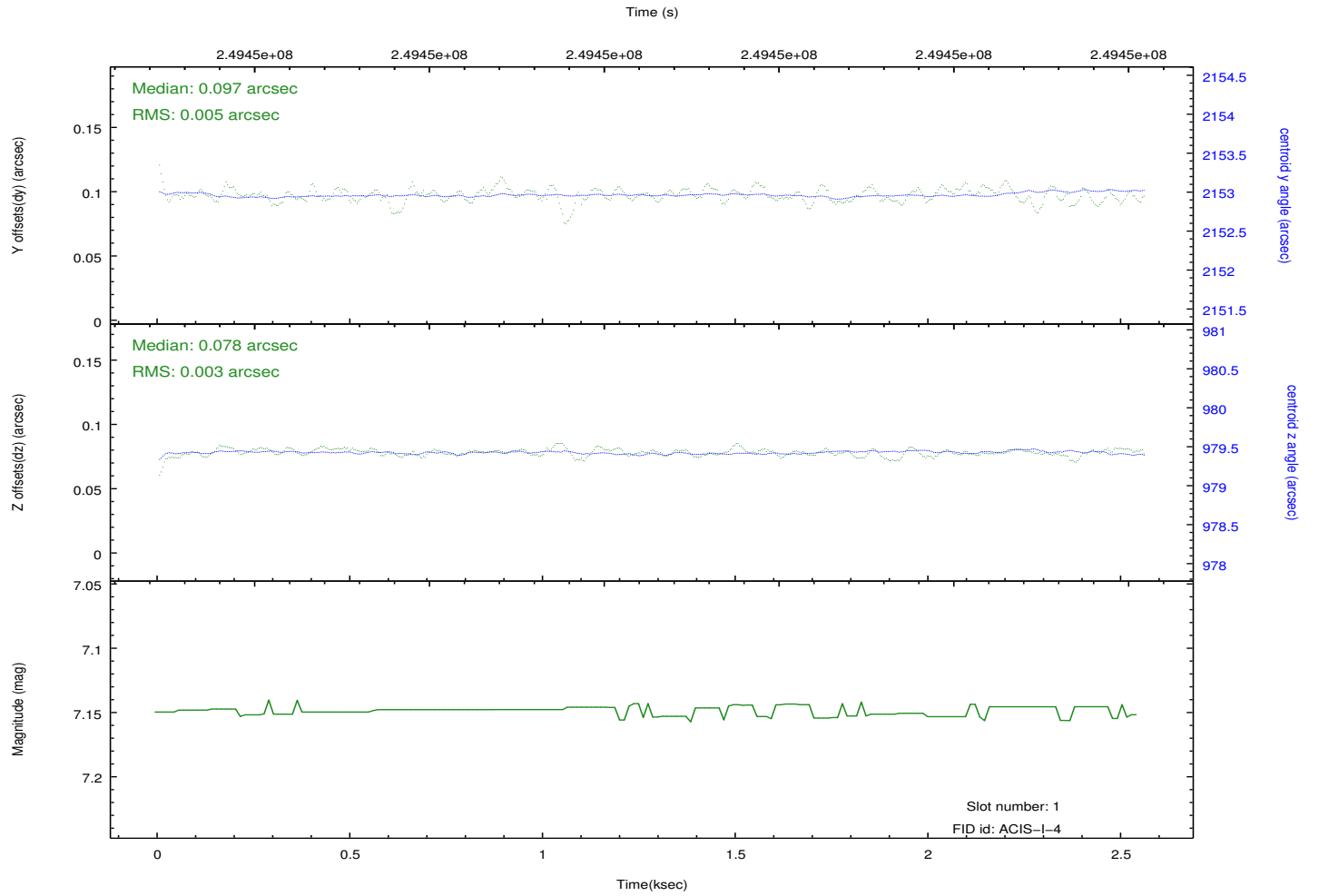
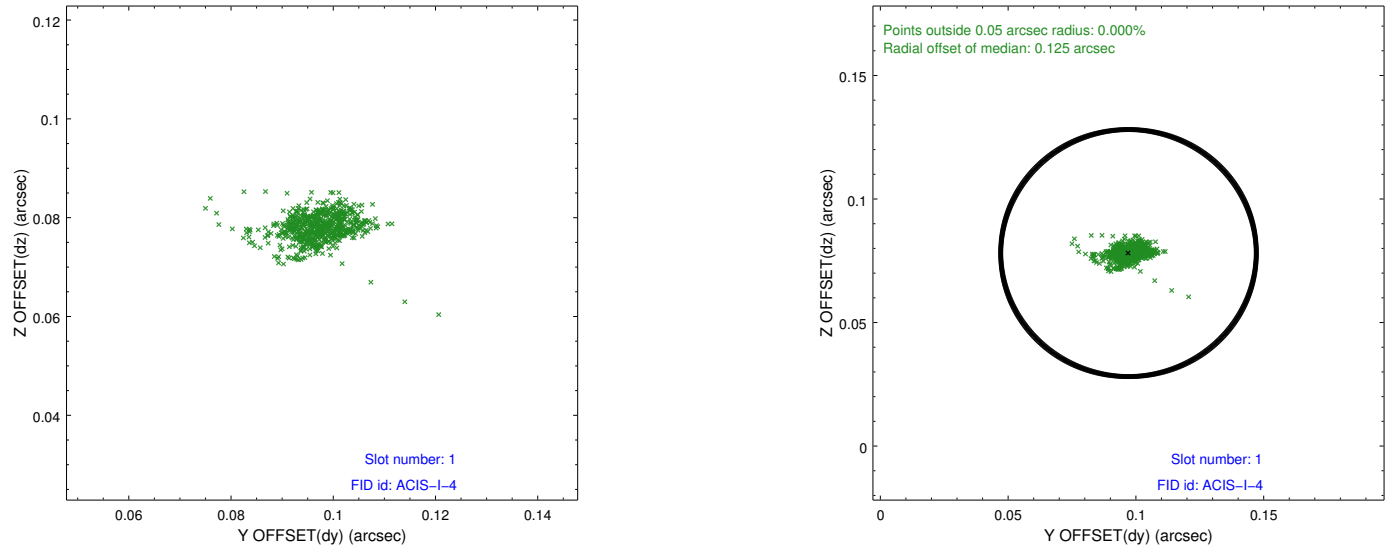


## 2.5 FID Slots

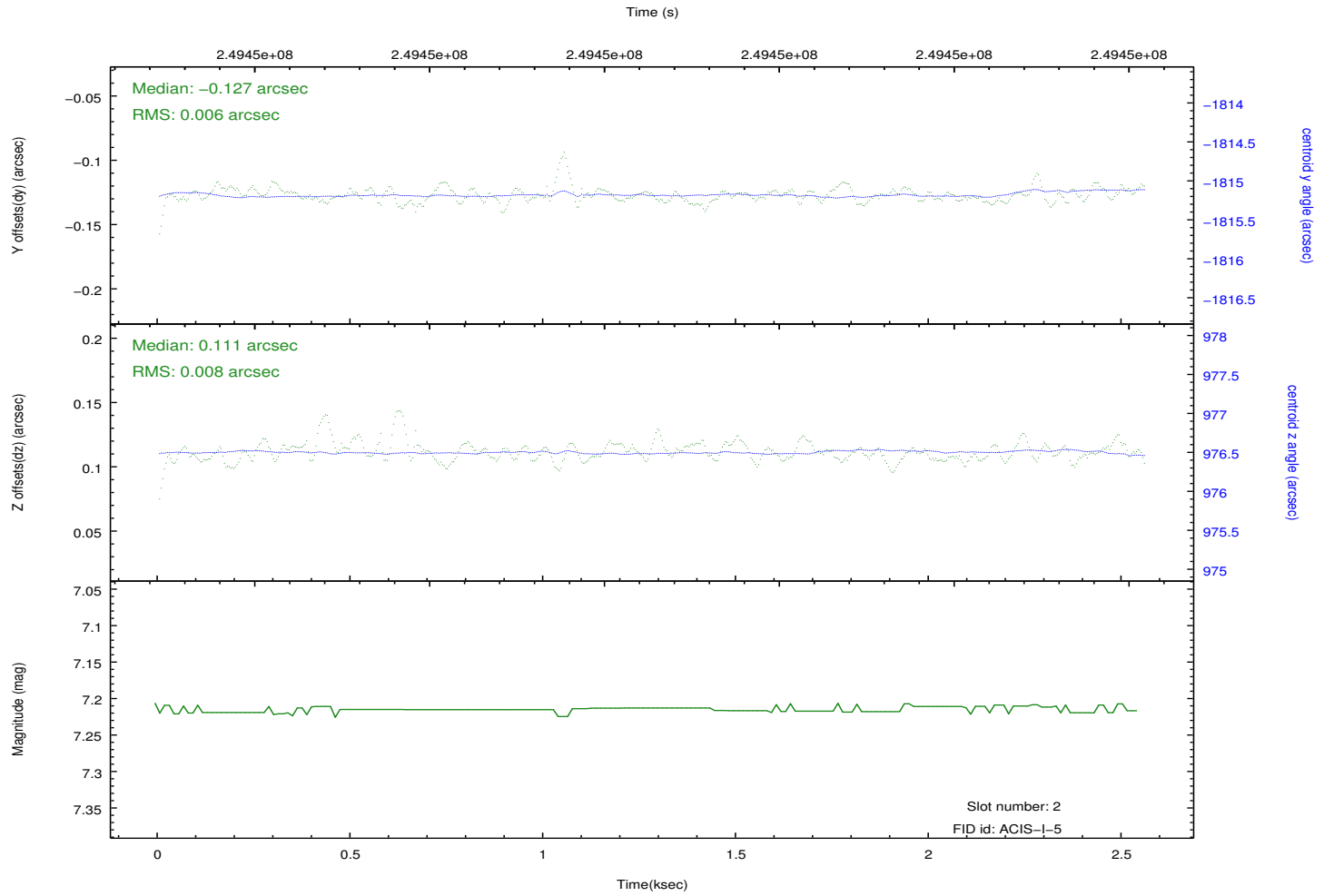
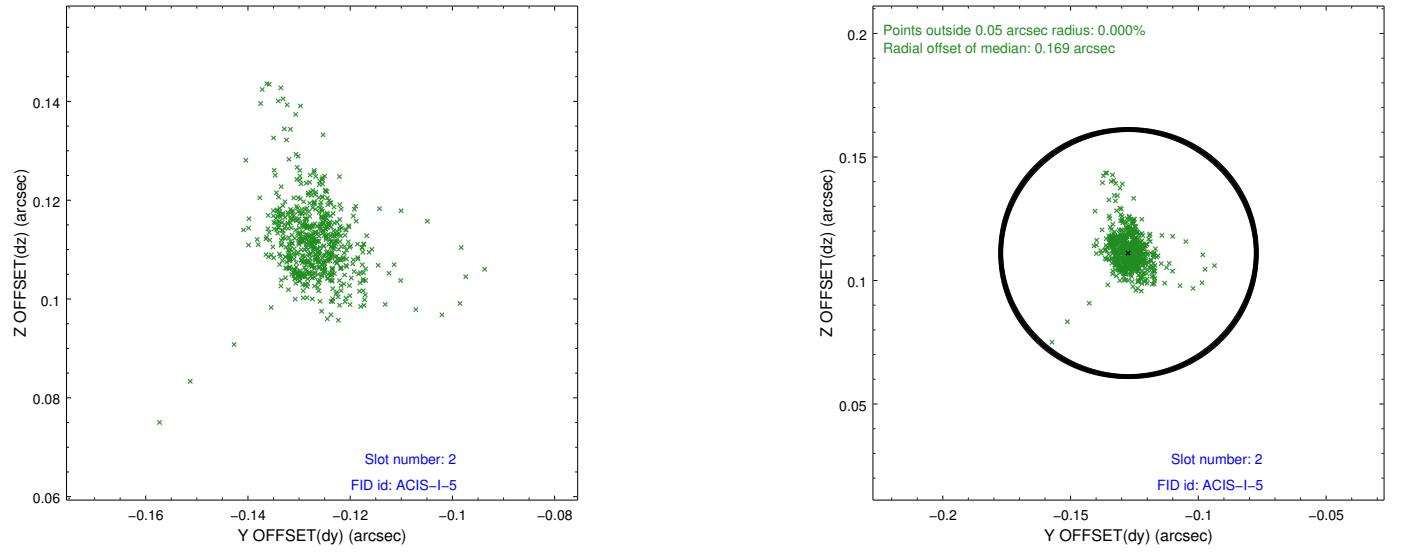
### 2.5.1 Slot 0



## 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)	2012.03.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.045959

### A.2 Comments