

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3248 - L2 Version 3  
Chandra X-Ray Center

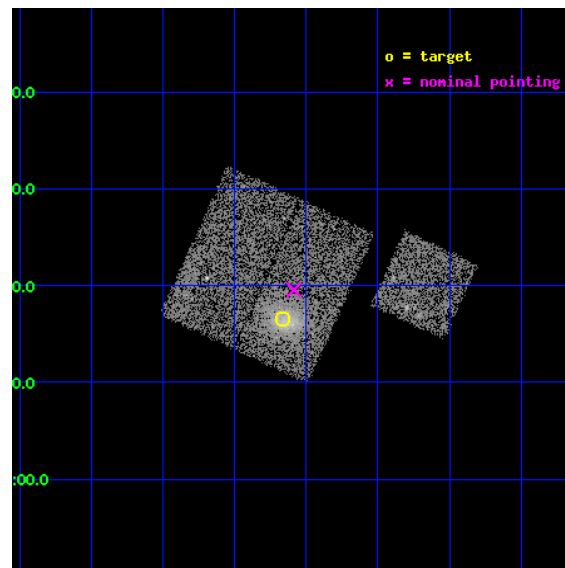
L2 Processing Date : Oct 11 2012

## 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

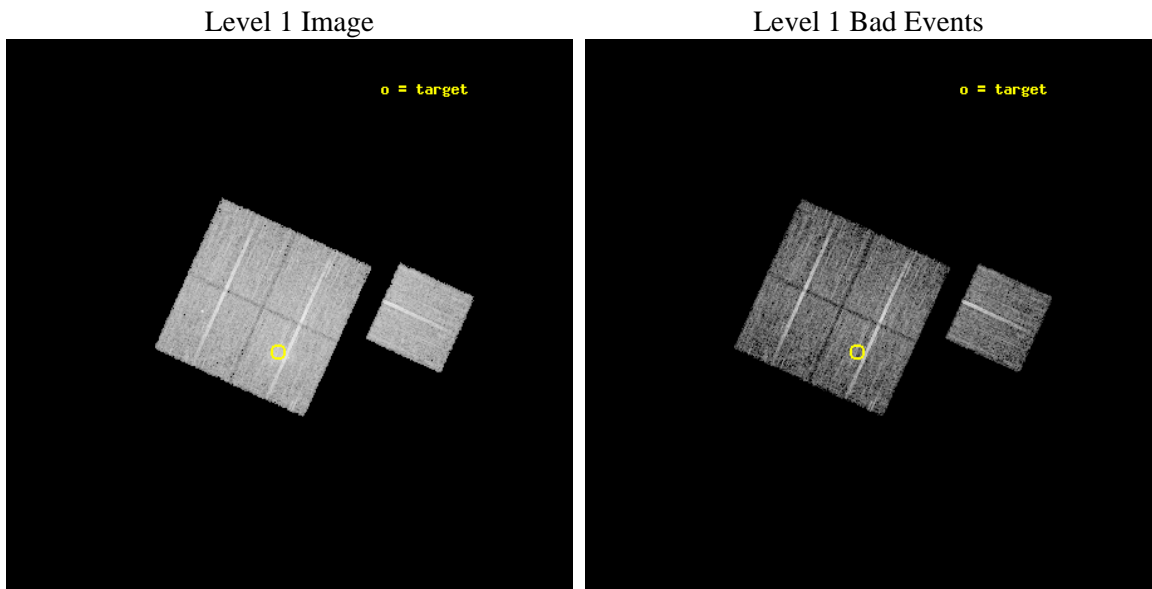
seq_num	800248	Sequence number
obs_id	3248	Observation id
title	OBSERVATION OF BCS CLUSTERS, SECOND SET	Proposal title
observer	DR. LEON VANSPEYBROECK	Principal investigator
object	A2631	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	354.417083	Observer's specified target RA [deg]
dec_targ	0.275833	Observer's specified target Dec [deg]
ra_nom	354.39638771372	Nominal RA [deg]
dec_nom	0.32607817039628	Nominal Dec [deg]
roll_nom	114.48520685596	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9312.3590118289	Sum of GTIs [s]
livetime	9190.6861856804	Livetime [s]
ontime0	9315.499982059	Sum of GTIs [s]
ontime1	9315.499982059	Sum of GTIs [s]
ontime2	9312.3590317369	Sum of GTIs [s]
ontime3	9312.3590118289	Sum of GTIs [s]
ontime6	9312.3590118289	Sum of GTIs [s]
l2events	27565	Number of level 2 events



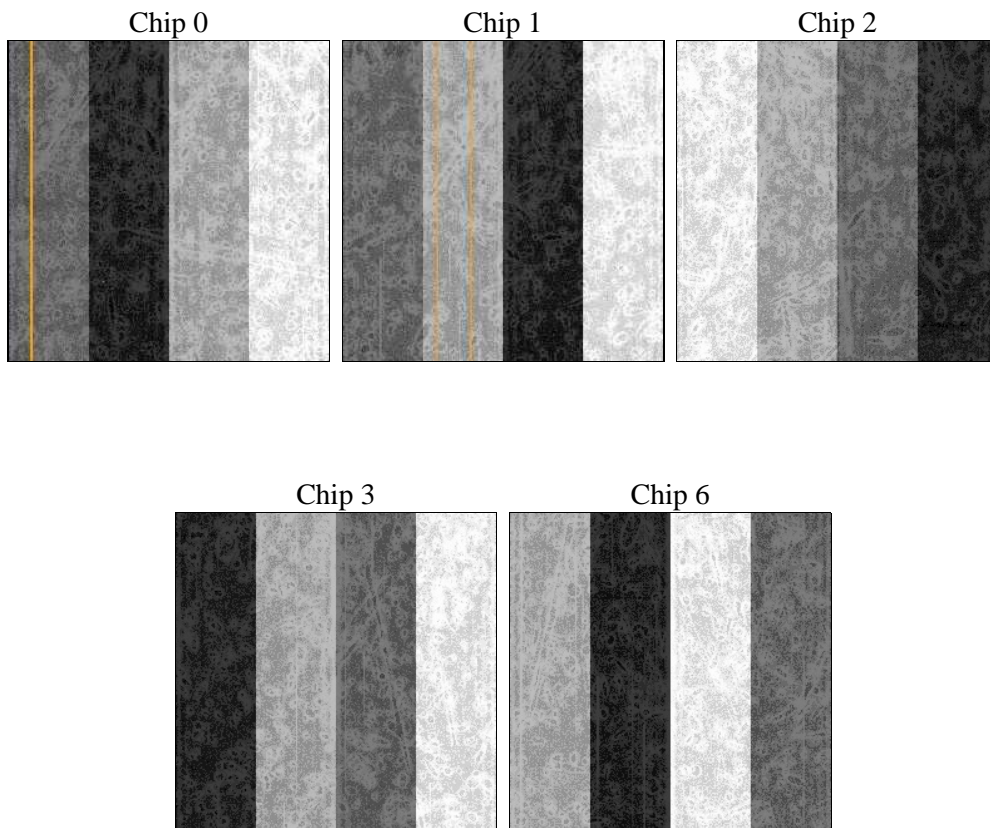
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9200.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9312.3590118289	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime0	9315.499982059	Sum of GTIs [s]
date	2012-10-11T12:30:34	Date and time of file creation	ontime1	9315.499982059	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	9312.3590317369	Sum of GTIs [s]
			ontime3	9312.3590118289	Sum of GTIs [s]
			ontime6	9312.3590118289	Sum of GTIs [s]
			l1events	262296	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	48853	48323	55441	57187	52492
rejected events	43615	42206	50004	47072	46861
rejected %	89%	87%	90%	82%	89%

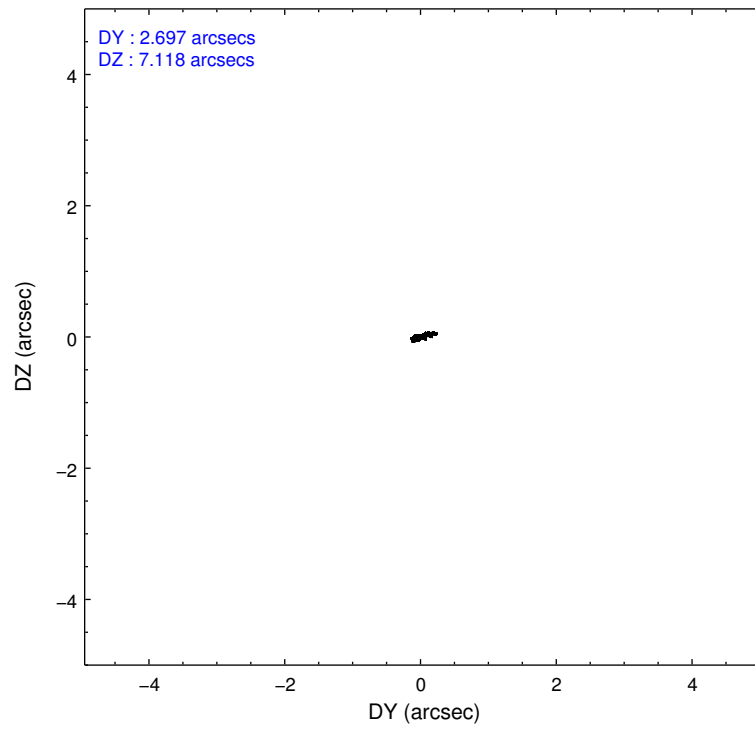
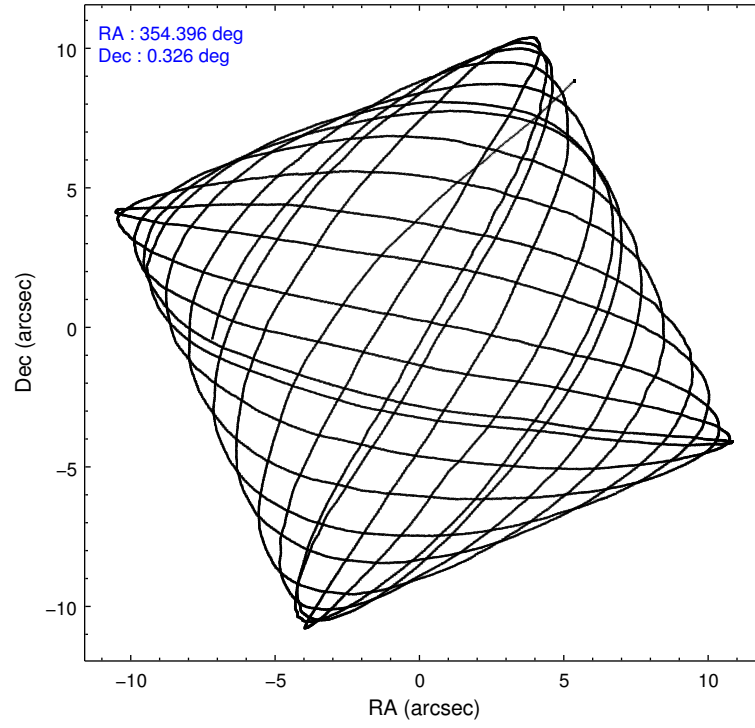
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1943	2410	2064	6054	2127
	3%	4%	3%	10%	4%
grade 1 events	22	31	25	29	21
	0%	0%	0%	0%	0%
grade 2 events	1189	1241	1257	1577	1162
	2%	2%	2%	2%	2%
grade 3 events	597	665	588	719	611
	1%	1%	1%	1%	1%
grade 4 events	554	652	528	650	590
	1%	1%	0%	1%	1%
grade 5 events	1690	1804	1642	1811	1962
	3%	3%	2%	3%	3%
grade 6 events	961	1154	1003	1121	1143
	1%	2%	1%	1%	2%
grade 7 events	41897	40366	48334	45226	44876
	85%	83%	87%	79%	85%

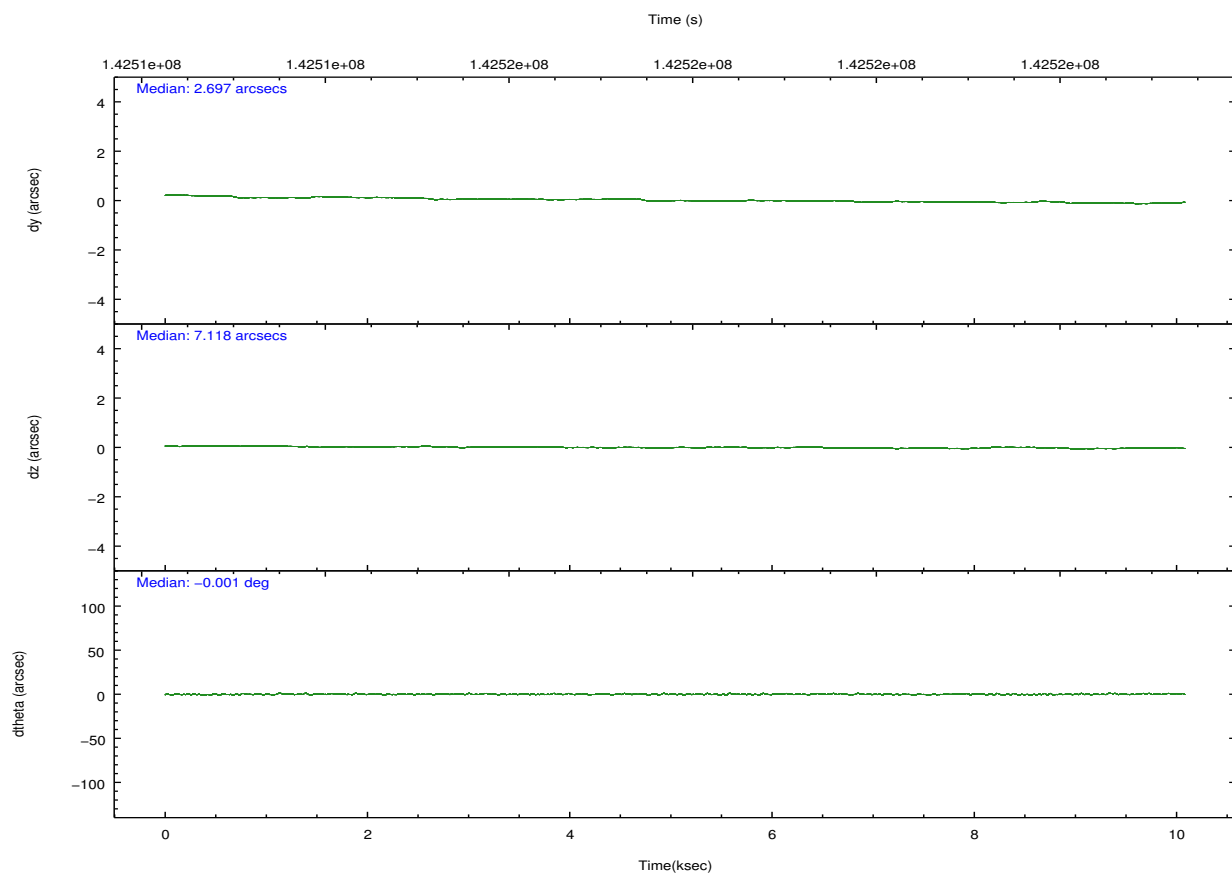
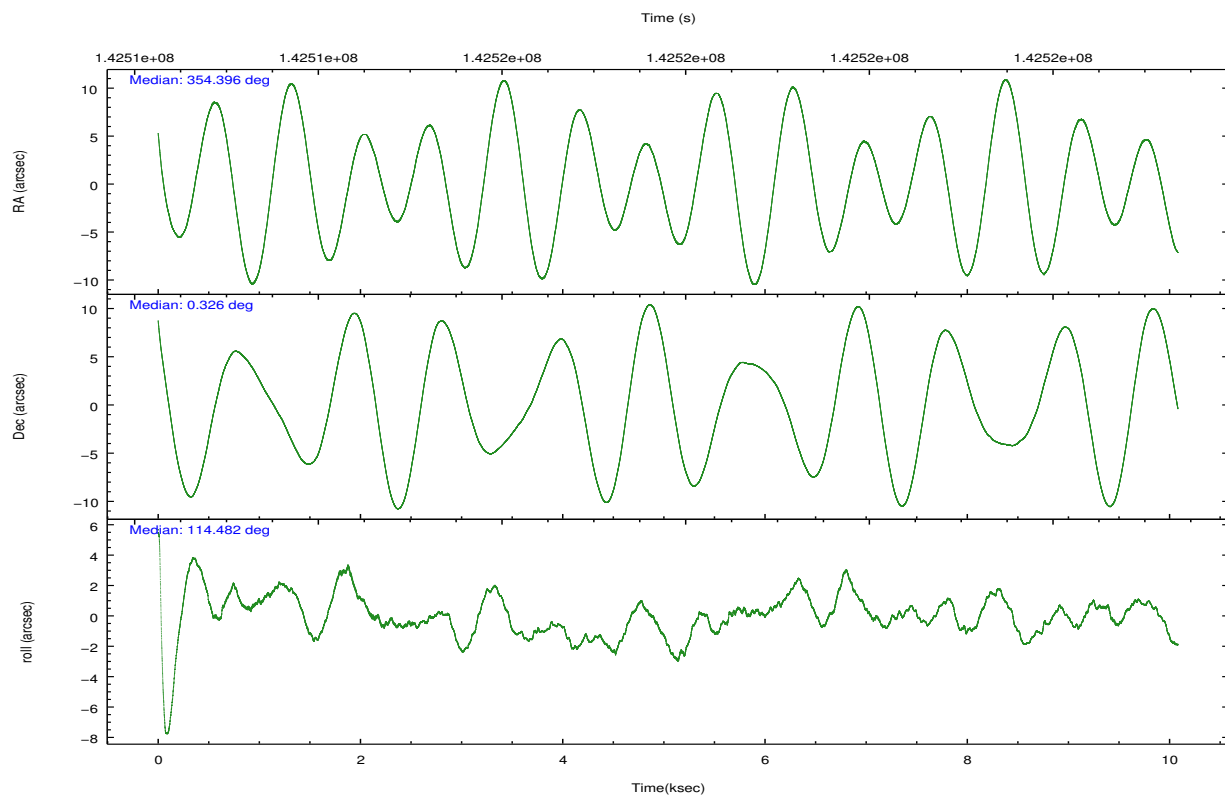


## 2.2 Compared Parameters

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	354.418759	354.3963877137215	Subarray requested	NONE	NONE
[deg] Pointing Dec	0.310234	0.3260781703962775	Alternating exposures requested	N	N
[deg] Pointing Roll	114.276374	114.4852068559638	[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	-225.840463	-225.8458576473255			
[mm] SIM translation stage offset	-7.752	-7.746595355604228			
[s] Observation start time (MET)	142513651.184000	142512338.74787			
Observation start date	2002-07-08T11:06:27	2002-07-08T10:45:38			
[s] Observation end time (MET)	142522851.184000	142523260.63581			
Observation end date	2002-07-08T13:39:47	2002-07-08T13:47:40			
Read mode	TIMED	TIMED			

## 2.3 Aspect



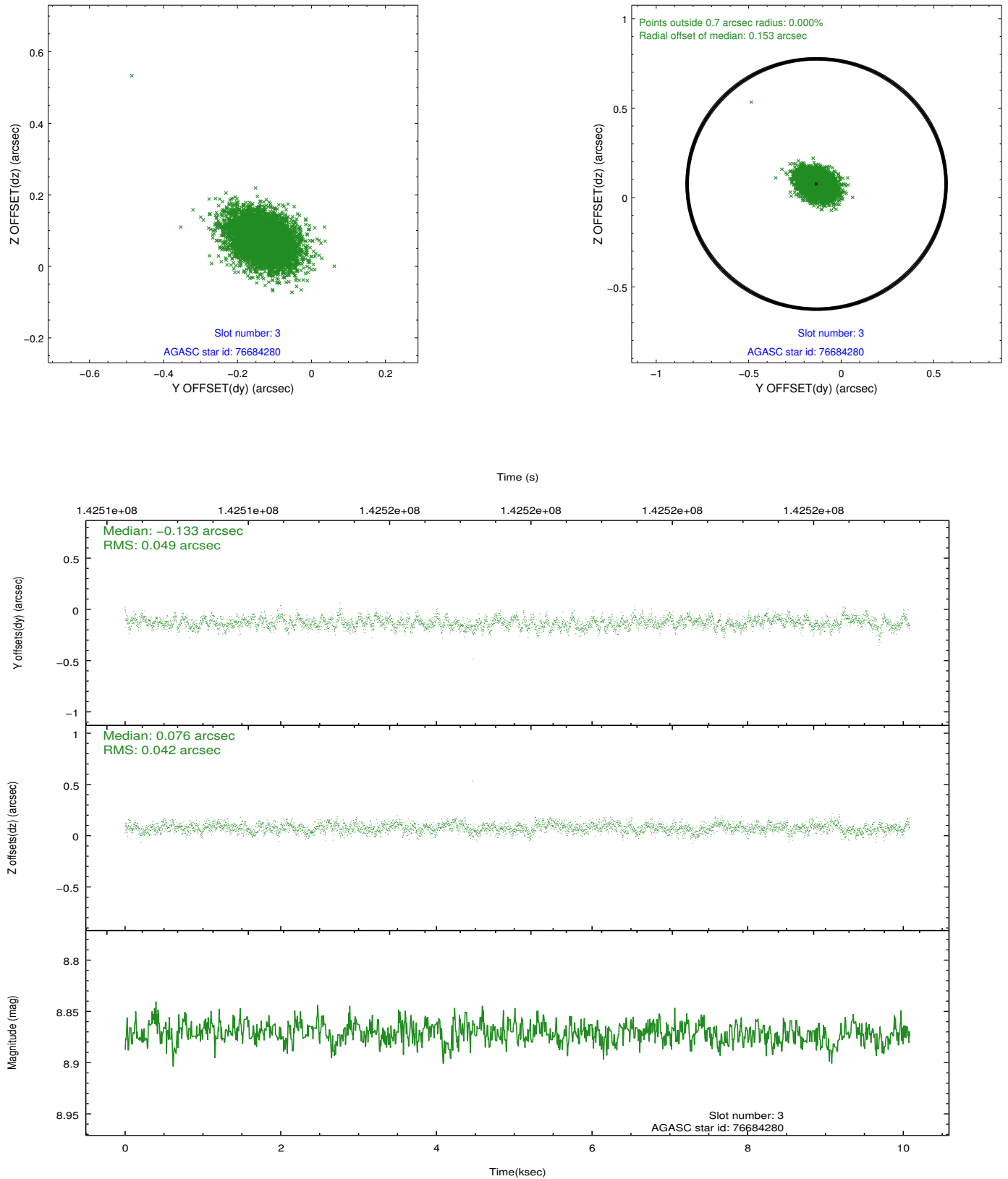


### Slot Statistics

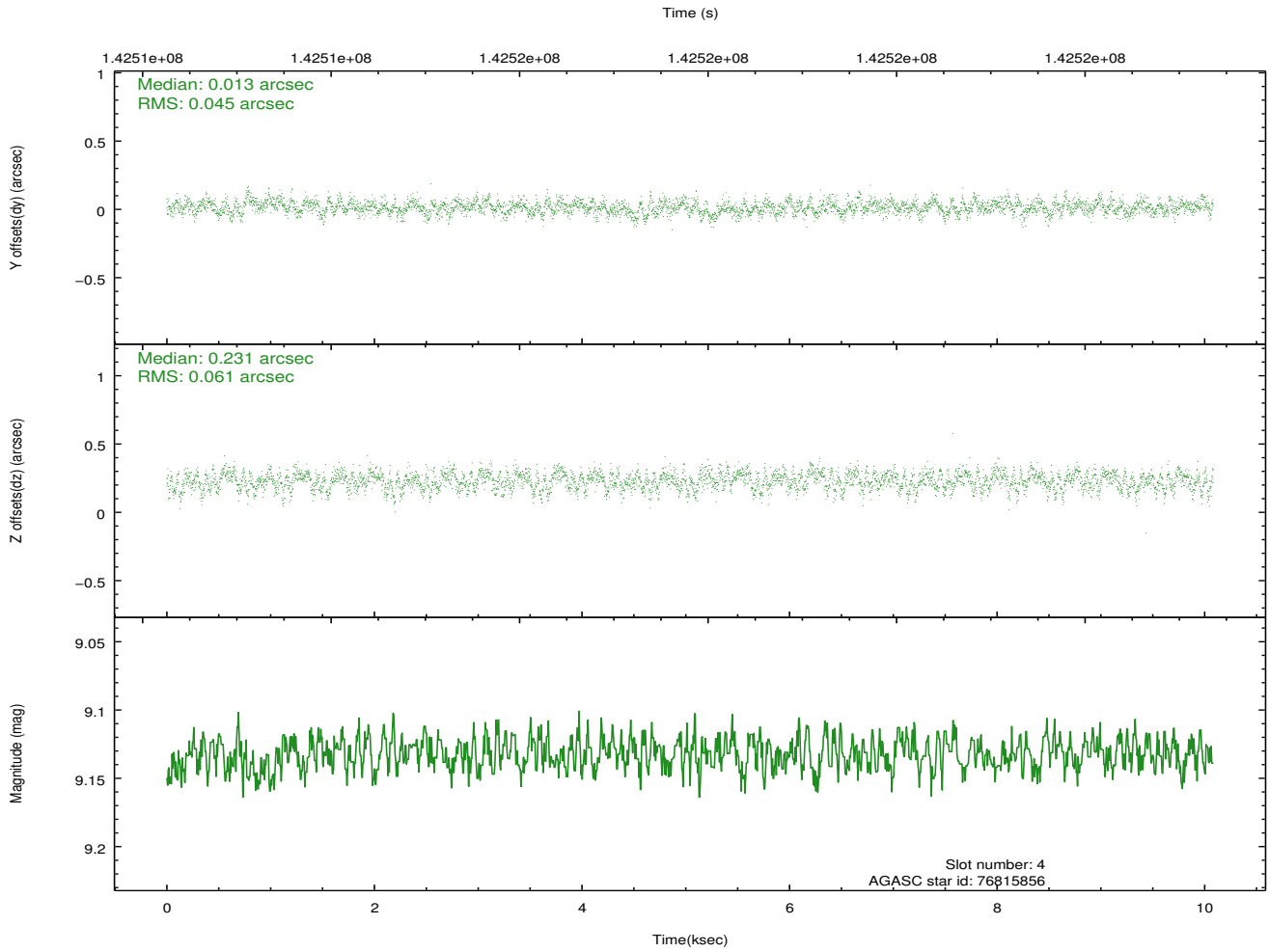
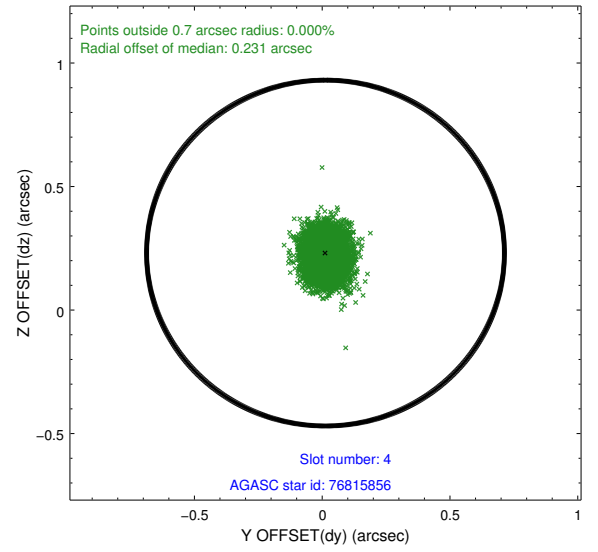
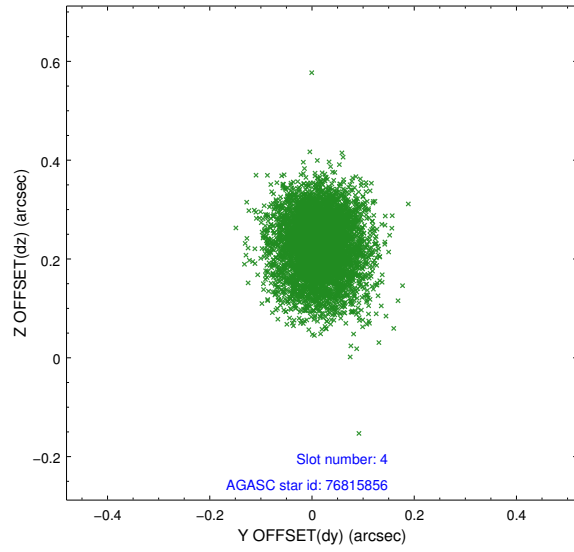
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.23	2460	0.093	-0.057	0.007	0.012	0.000000	0.000000	937.01	-989.62
1	FID	ACIS-I-5	7.23	2460	-0.158	0.110	0.007	0.012	0.000000	0.000000	-1811.01	907.77
2	FID	ACIS-I-6	7.26	2460	-0.026	0.018	0.007	0.013	0.000000	0.000000	401.92	1552.73
3	GUIDE	76684280	8.87	4919	-0.133	0.076	0.068	0.112	354.578237	0.780972	1308.11	-1219.87
4	GUIDE	76815856	9.13	4917	0.013	0.231	0.081	0.131	355.105256	0.393799	-741.91	-2376.47
5	GUIDE	76678520	8.97	4919	0.060	0.080	0.069	0.112	354.768103	0.123630	-1130.02	-870.59
6	GUIDE	76813568	9.71	4904	0.212	0.117	0.101	0.168	355.056632	0.054605	-1783.48	-1715.02
7	GUIDE	76677544	9.36	4913	-0.146	-0.500	0.092	0.150	353.780973	0.190917	551.30	2268.89

## 2.4 Star Slots

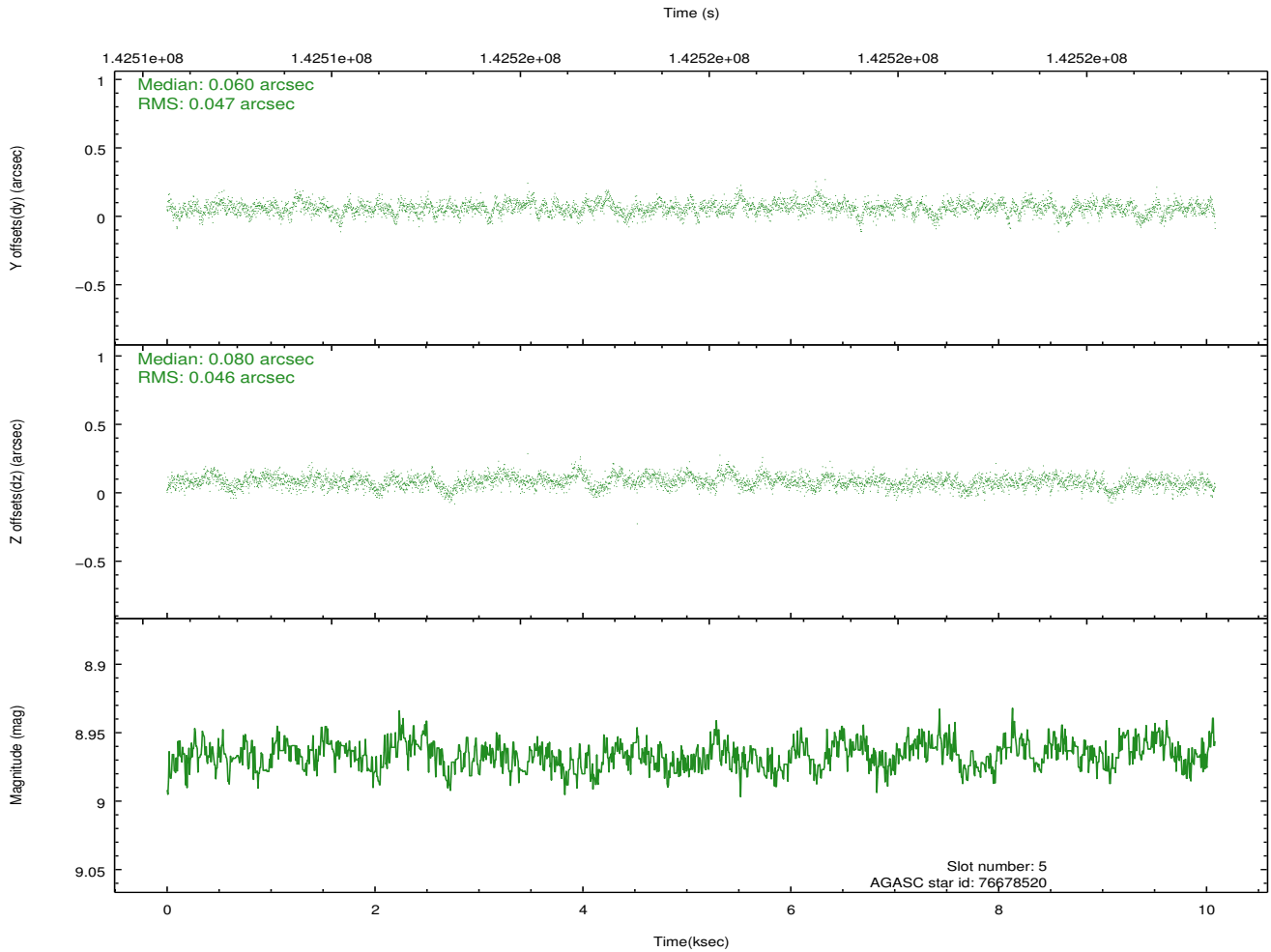
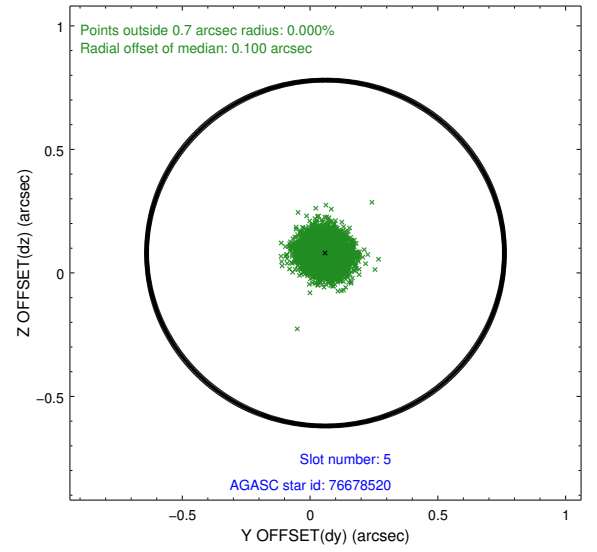
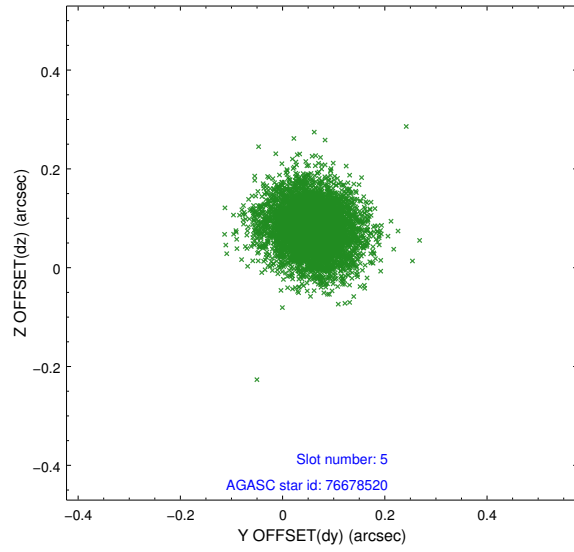
### 2.4.1 Slot 3



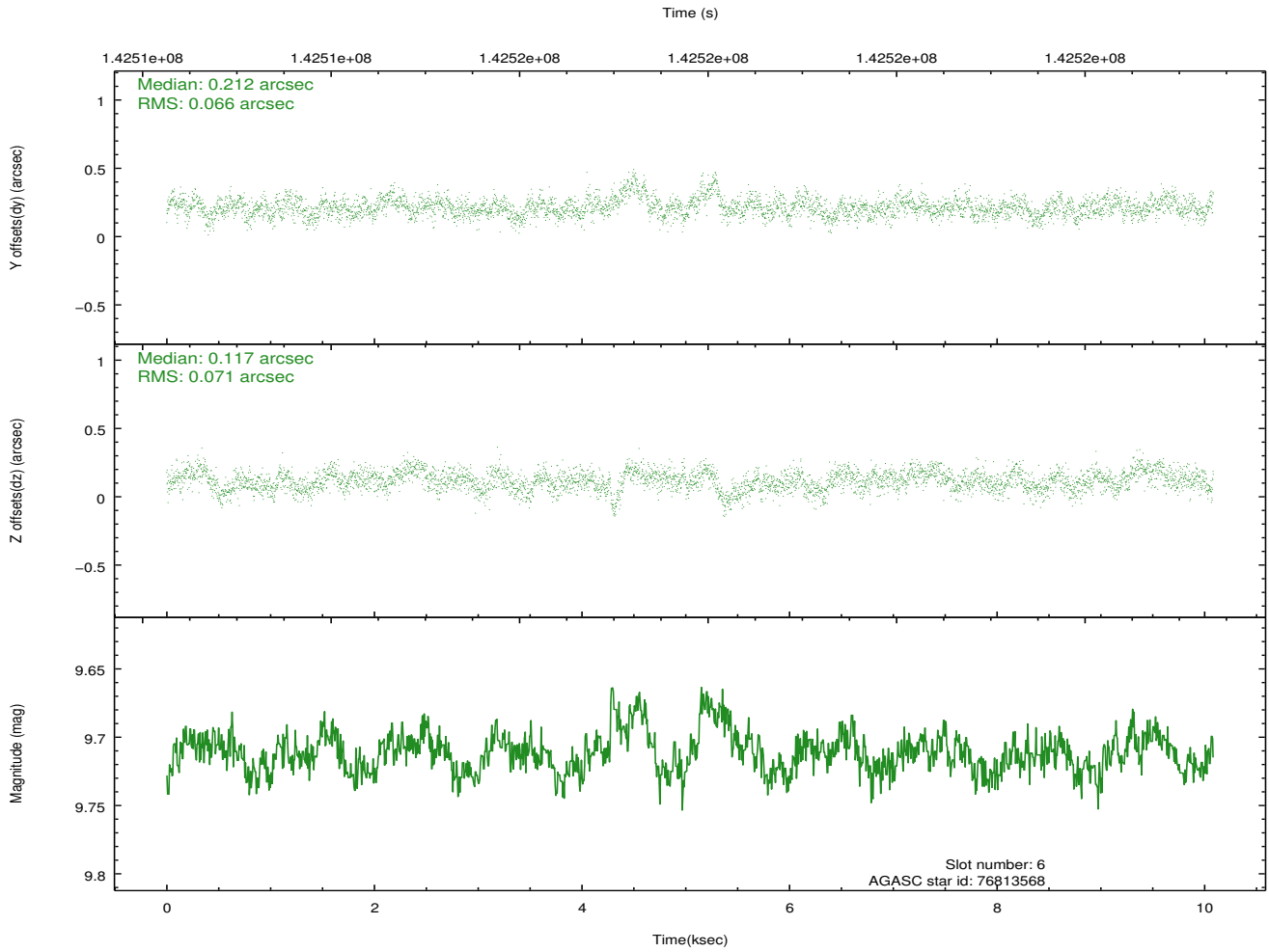
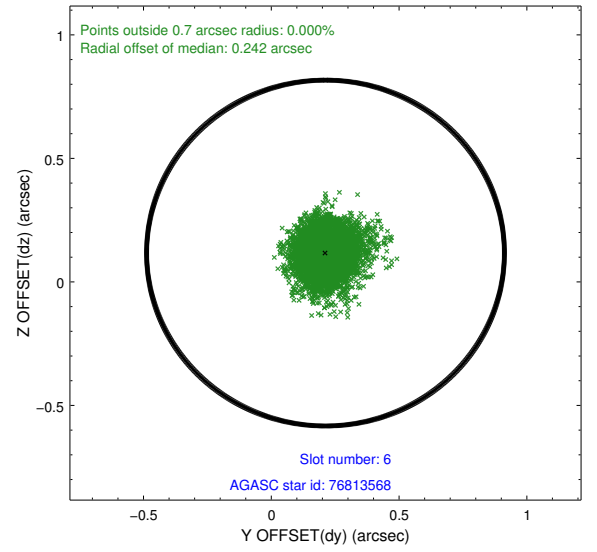
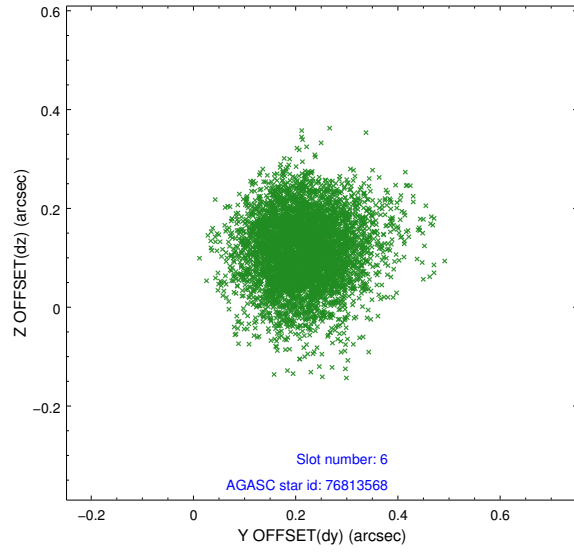
## 2.4.2 Slot 4



### 2.4.3 Slot 5

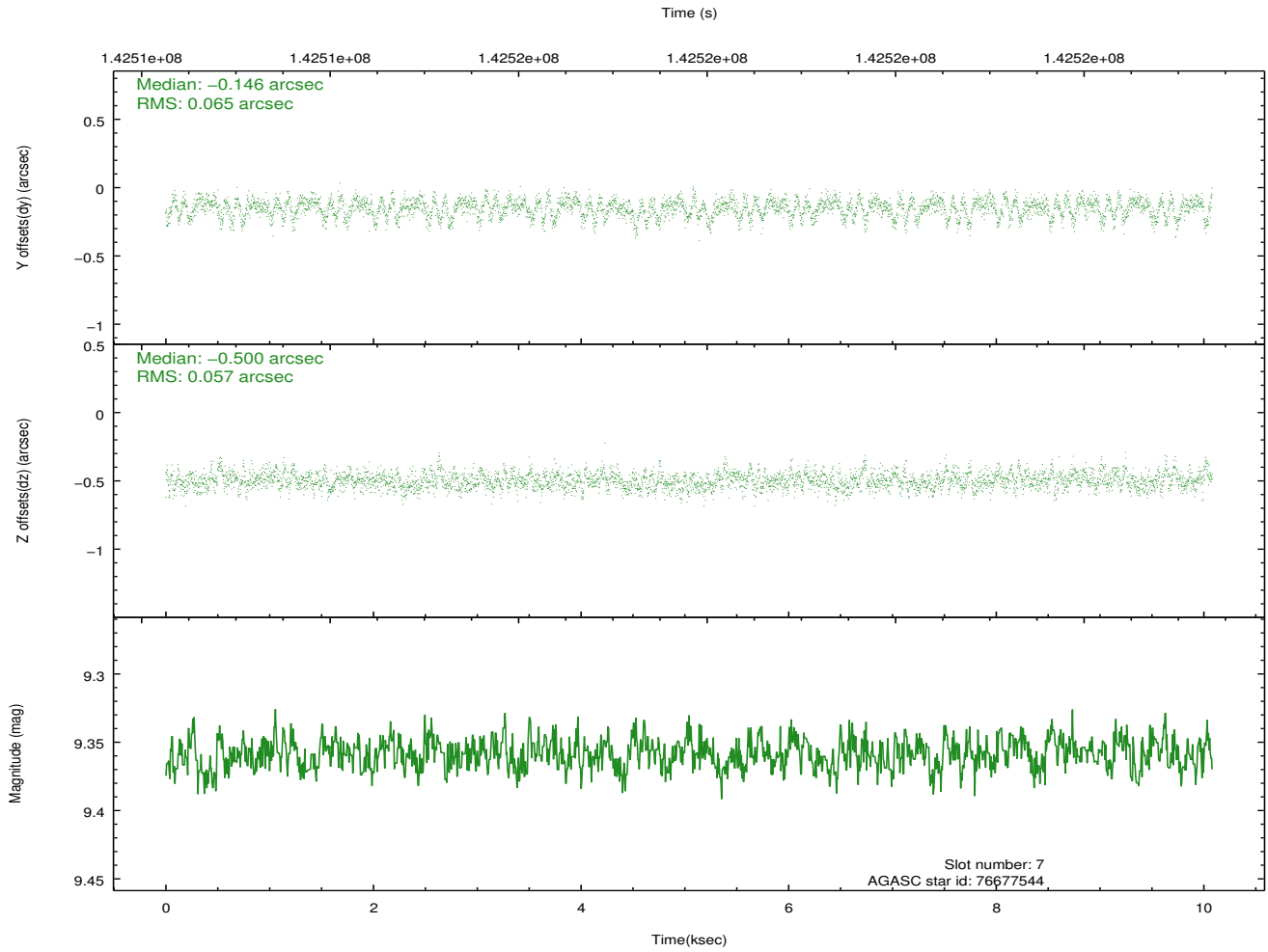
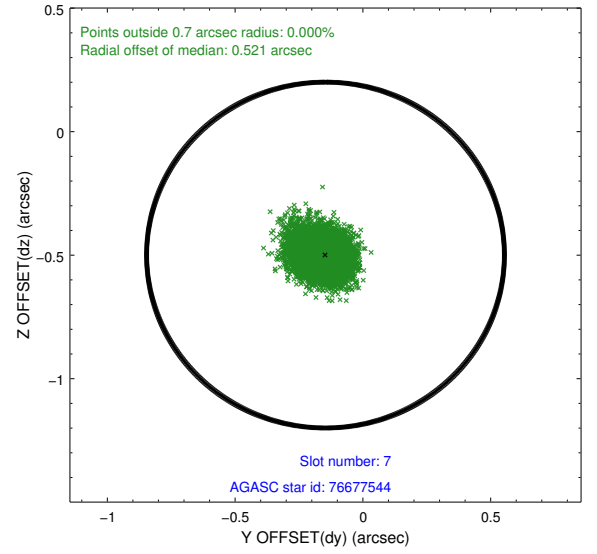
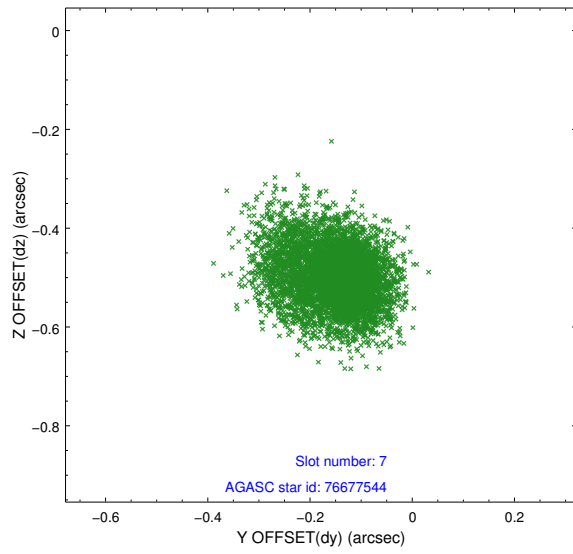


## 2.4.4 Slot 6



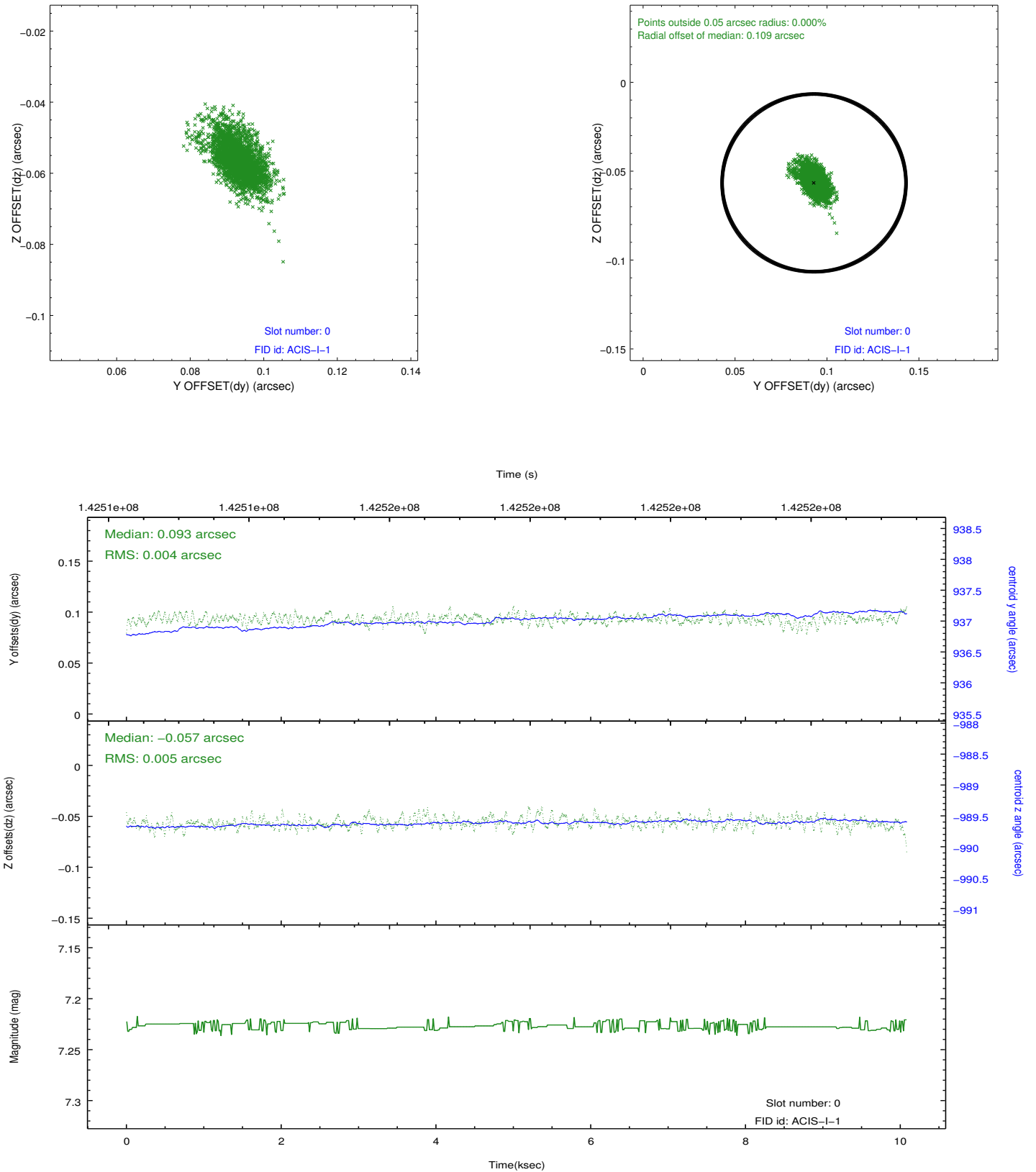


## 2.4.5 Slot 7

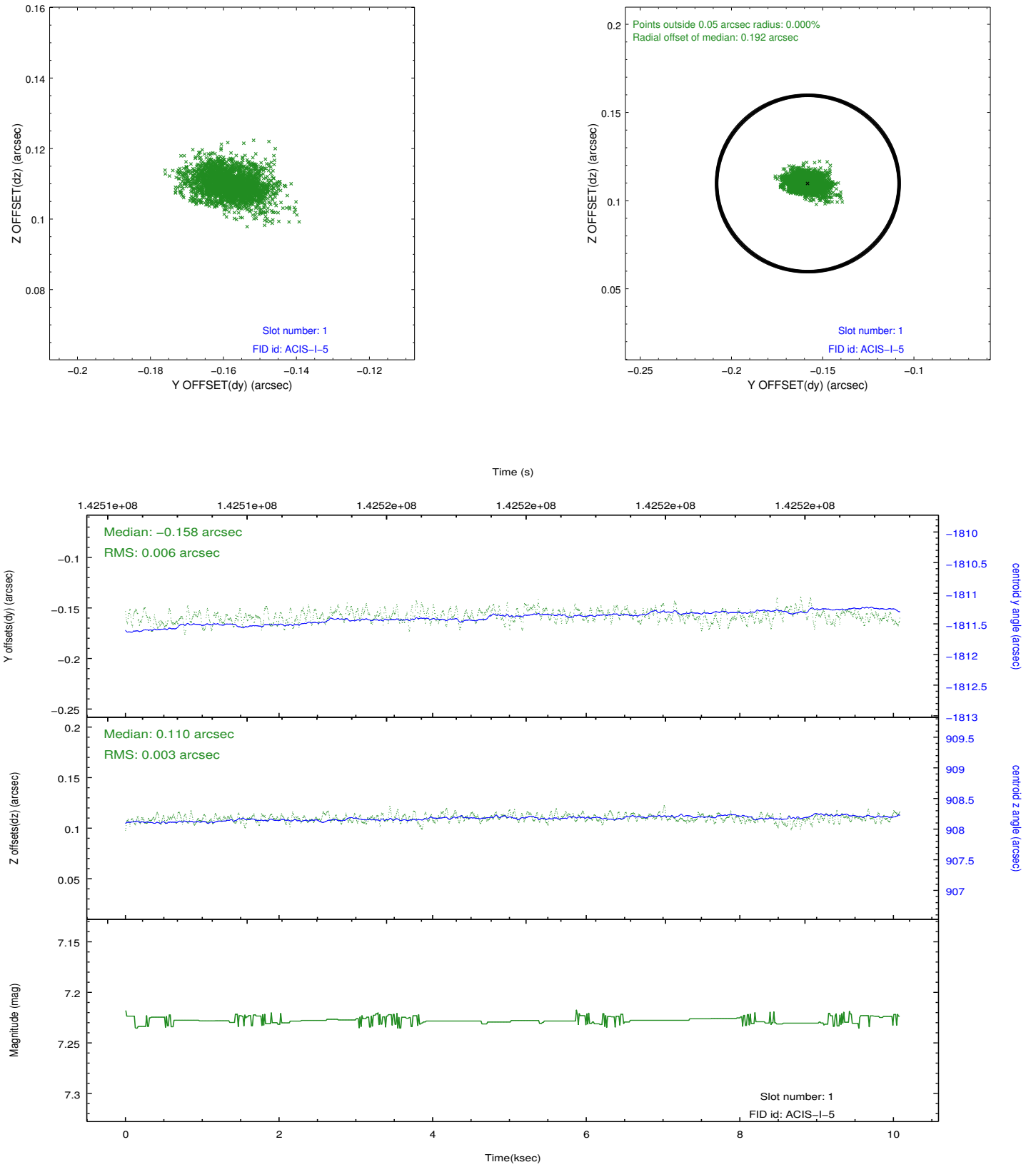


## 2.5 FID Slots

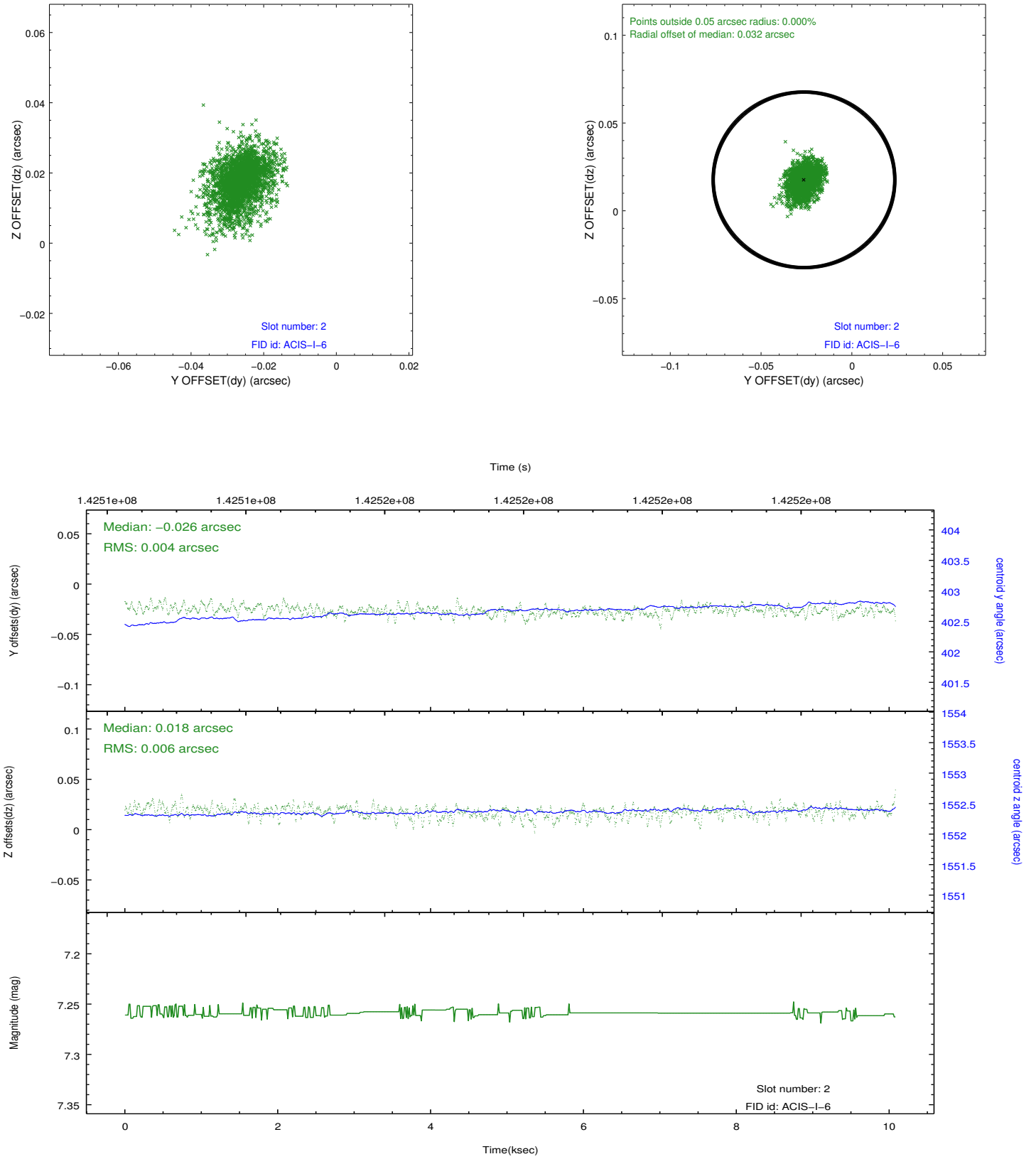
### 2.5.1 Slot 0



## 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)	2012.10.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.315

### A.2 Comments