

# V&V Reference Report

## L2 ASCDS Version : 8.5.1

Observation 5829 - L2 Version 4  
Chandra X-Ray Center

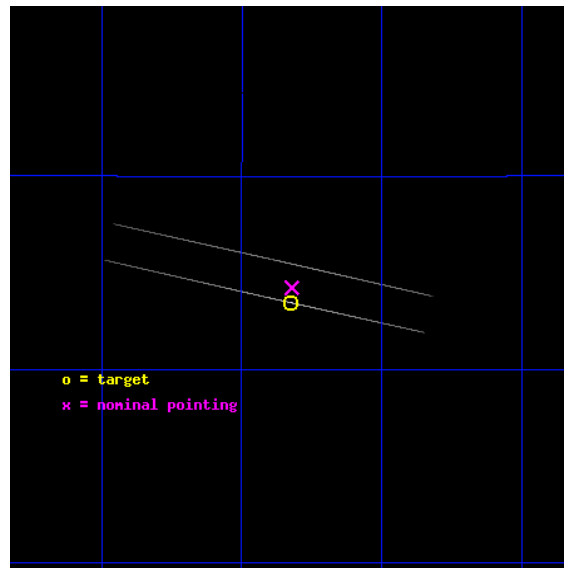
L2 Processing Date : Dec 18 2012

## 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

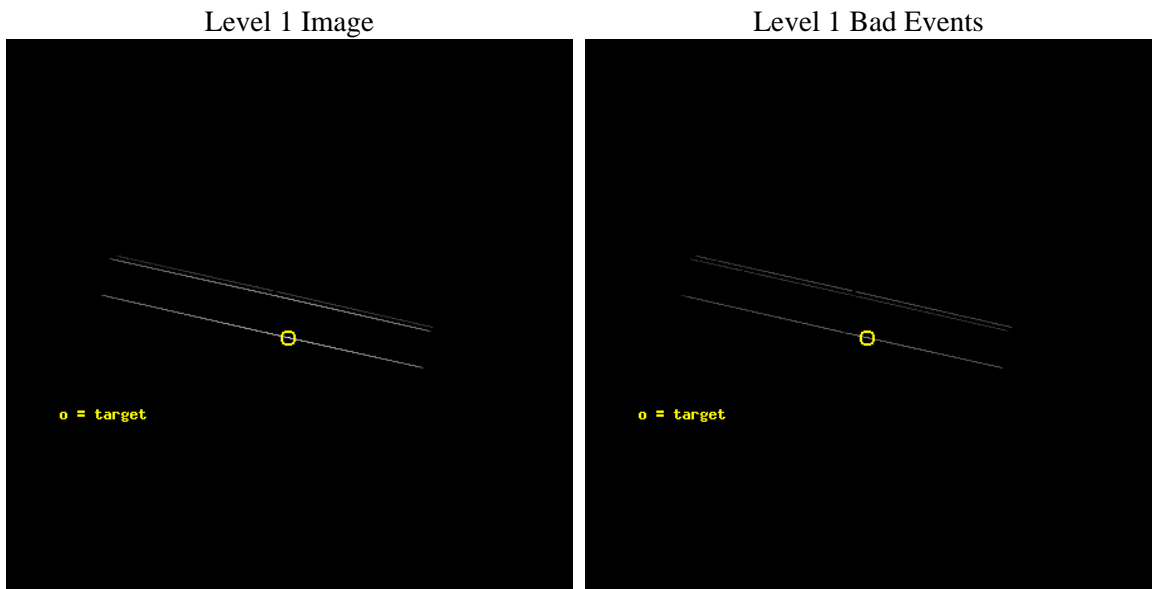
seq_num	800539	Sequence number
obs_id	5829	Observation id
title	The History of AGN Activity in M87 and the Interaction of Nuclear Outbursts with the Surrounding Atmosphere	Proposal title
observer	Dr. william forman	Principal investigator
object	M87	Source name
ra_targ	187.70625	Observer's specified target RA [deg]
dec_targ	12.391111	Observer's specified target Dec [deg]
ra_nom	187.7052643967	Nominal RA [deg]
dec_nom	12.403802525992	Nominal Dec [deg]
roll_nom	102.6089258298	Nominal Roll [deg]
revision	4	Processing version of data
ontime	4131.25	Sum of GTIs [s]
livetime	4115.1123046875	Livetime [s]
ontime0	4131.25	Sum of GTIs [s]
ontime1	4131.25	Sum of GTIs [s]
ontime2	4131.25	Sum of GTIs [s]
ontime3	4131.25	Sum of GTIs [s]
l2events	171156	Number of level 2 events



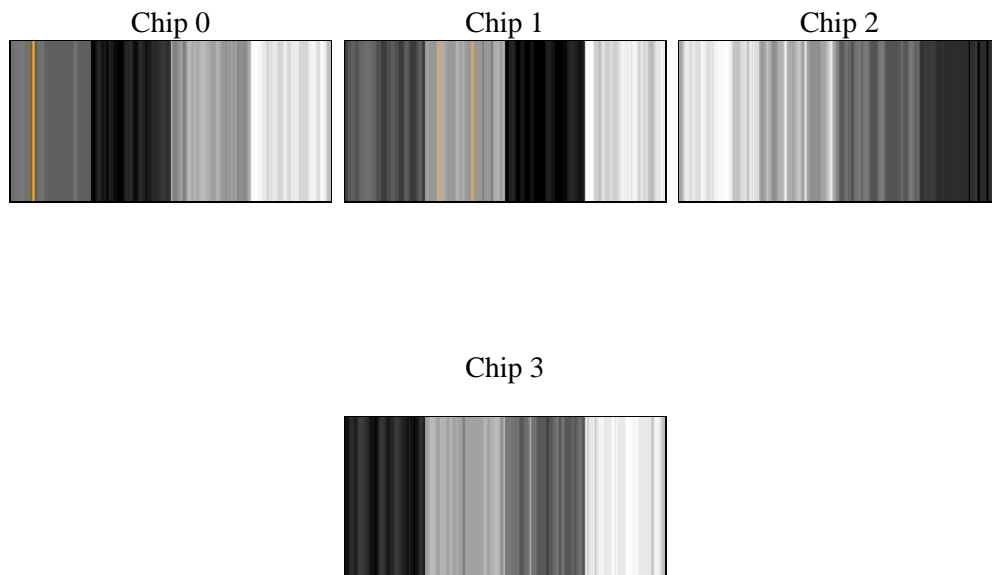
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1	Processing system revision	ontime	4131.25	Sum of GTIs [s]
caldsver	4.5.5	&#160	ontime0	4131.25	Sum of GTIs [s]
date	2012-12-18T05:24:13	Date and time of file creation	ontime1	4131.25	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	4131.25	Sum of GTIs [s]
			ontime3	4131.25	Sum of GTIs [s]
			l1events	197138	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	24793	35207	39189	97949
rejected events	3233	3633	3525	6756
rejected %	13%	10%	8%	6%

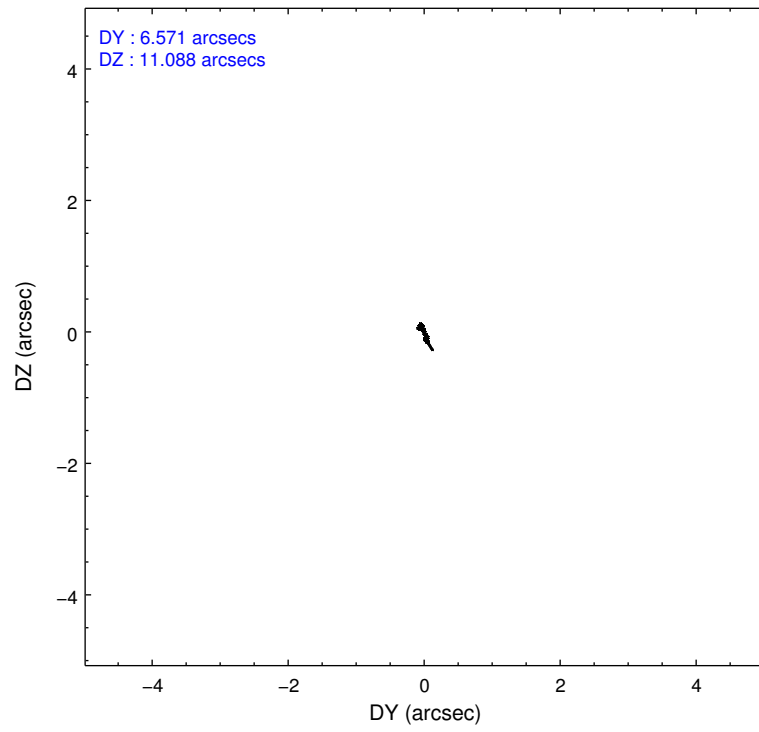
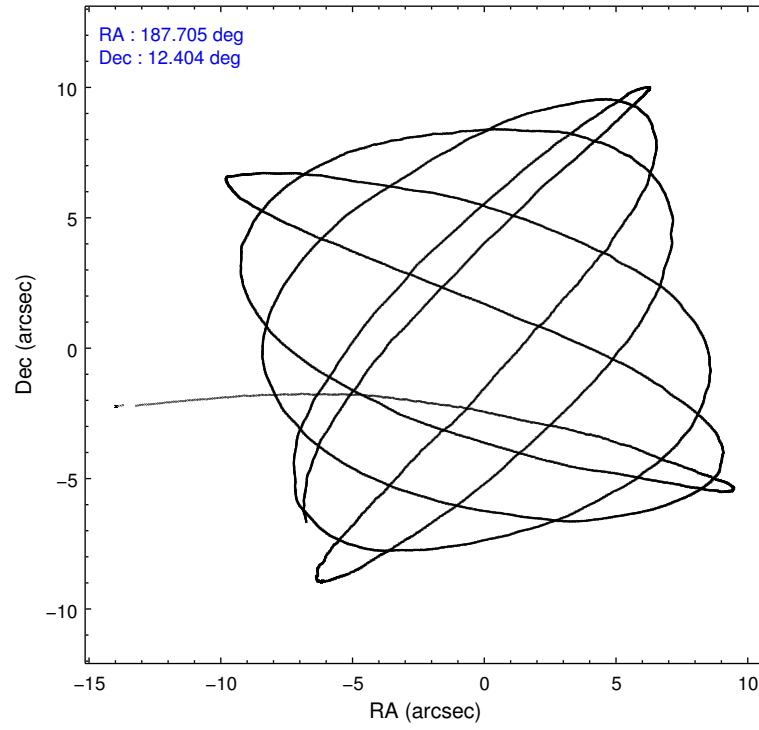
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	4789	6171	5876	7725
	19%	17%	14%	7%
grade 1 events	25	32	42	52
	0%	0%	0%	0%
grade 2 events	14738	23388	27768	80936
	59%	66%	70%	82%
grade 3 events	1023	878	993	1196
	4%	2%	2%	1%
grade 4 events	964	861	941	1040
	3%	2%	2%	1%
grade 5 events	1306	1323	1209	1652
	5%	3%	3%	1%
grade 6 events	1942	2553	2360	5348
	7%	7%	6%	5%
grade 7 events	6	1	0	0
	0%	0%	0%	0%

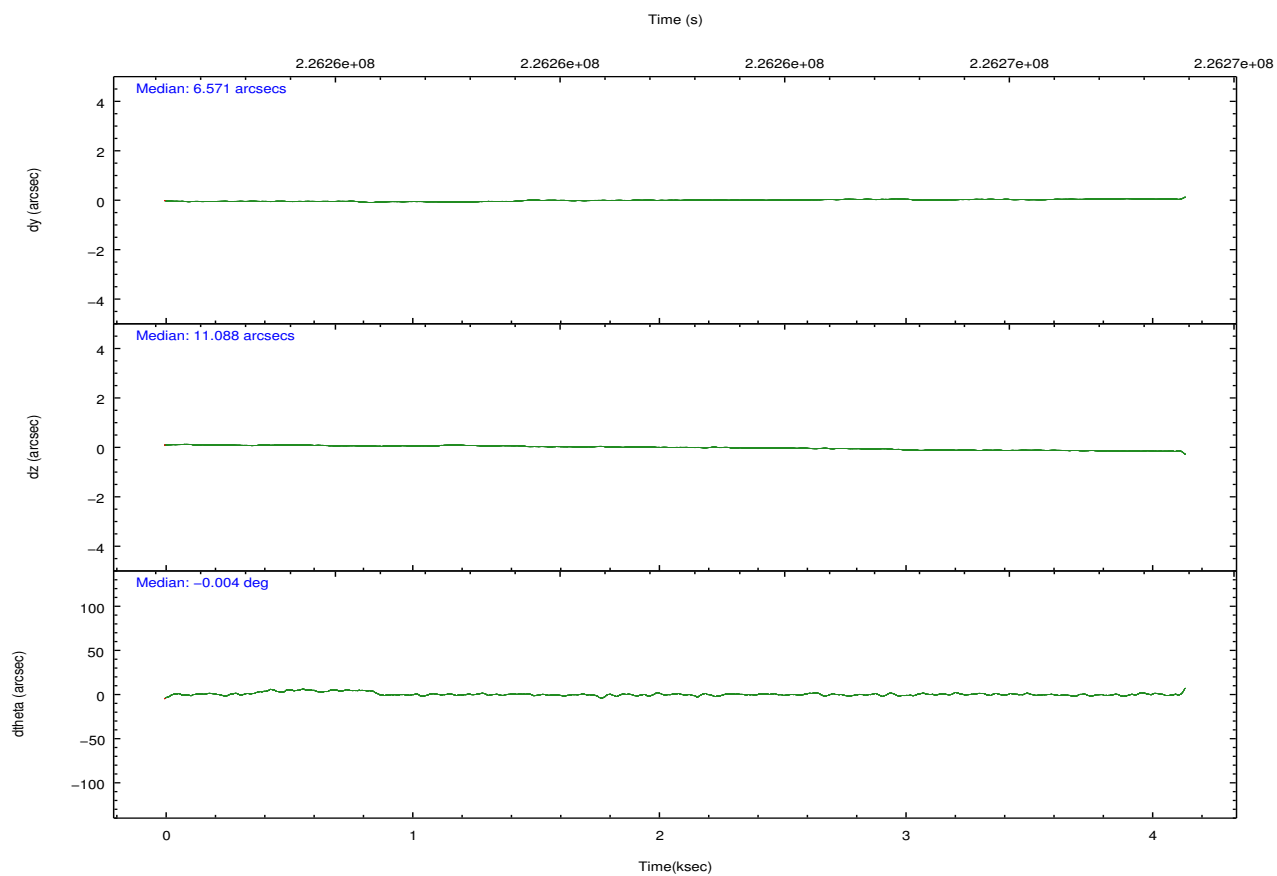
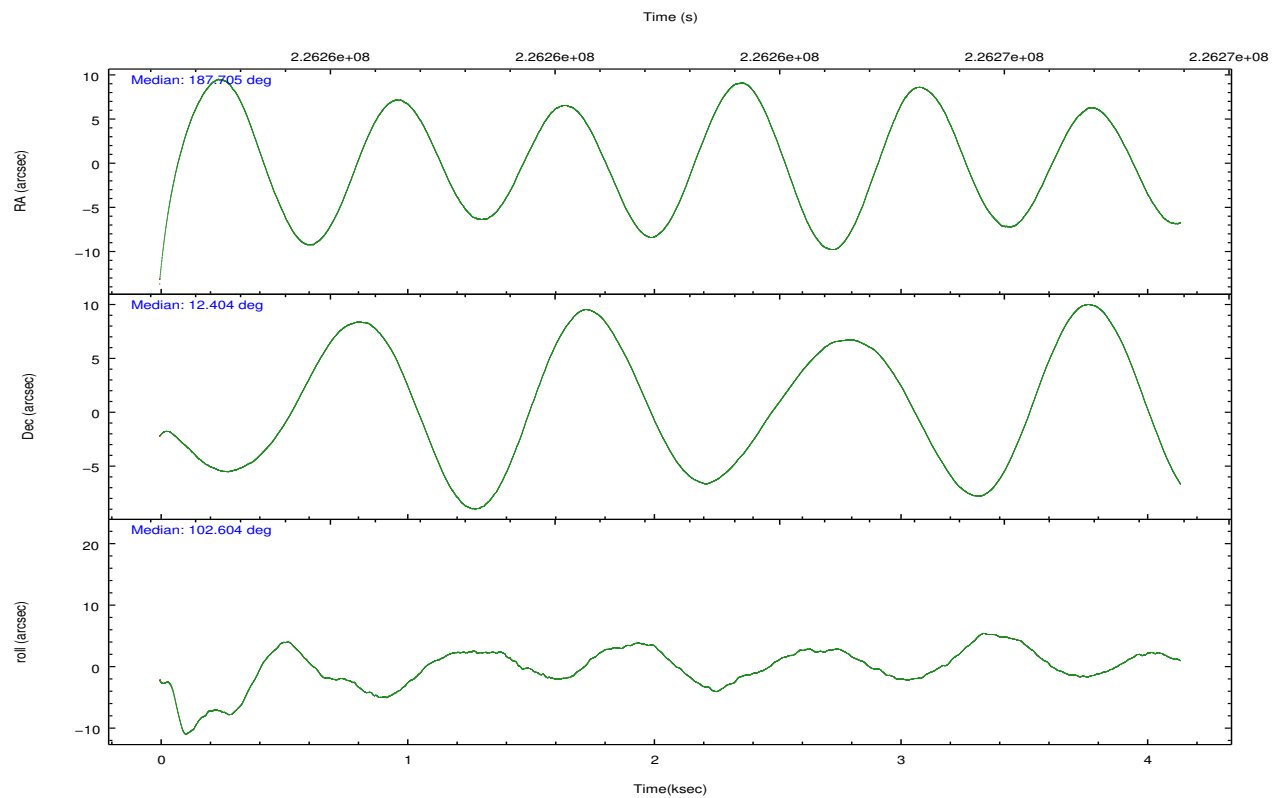


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	CC33_FAINT	CC33_FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	187.724333	187.7052643966954	Subarray requested	NONE	NONE
[deg] Pointing Dec	12.383731	12.40380252599166	Alternating exposures requested	N	N
[deg] Pointing Roll	102.396126	102.6089258297991	[s] Primary exposure time	0.000000	0
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-231.592463	-231.5960967419932			
[mm] SIM translation stage offset	-2	-1.996356260936523			
[s] Observation start time (MET)	226262581.184000	226261496.15314			
Observation start date	2005-03-03T18:41:57	2005-03-03T18:24:56			
[s] Observation end time (MET)	226266581.184000	226266714.94088			
Observation end date	2005-03-03T19:48:37	2005-03-03T19:51:54			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



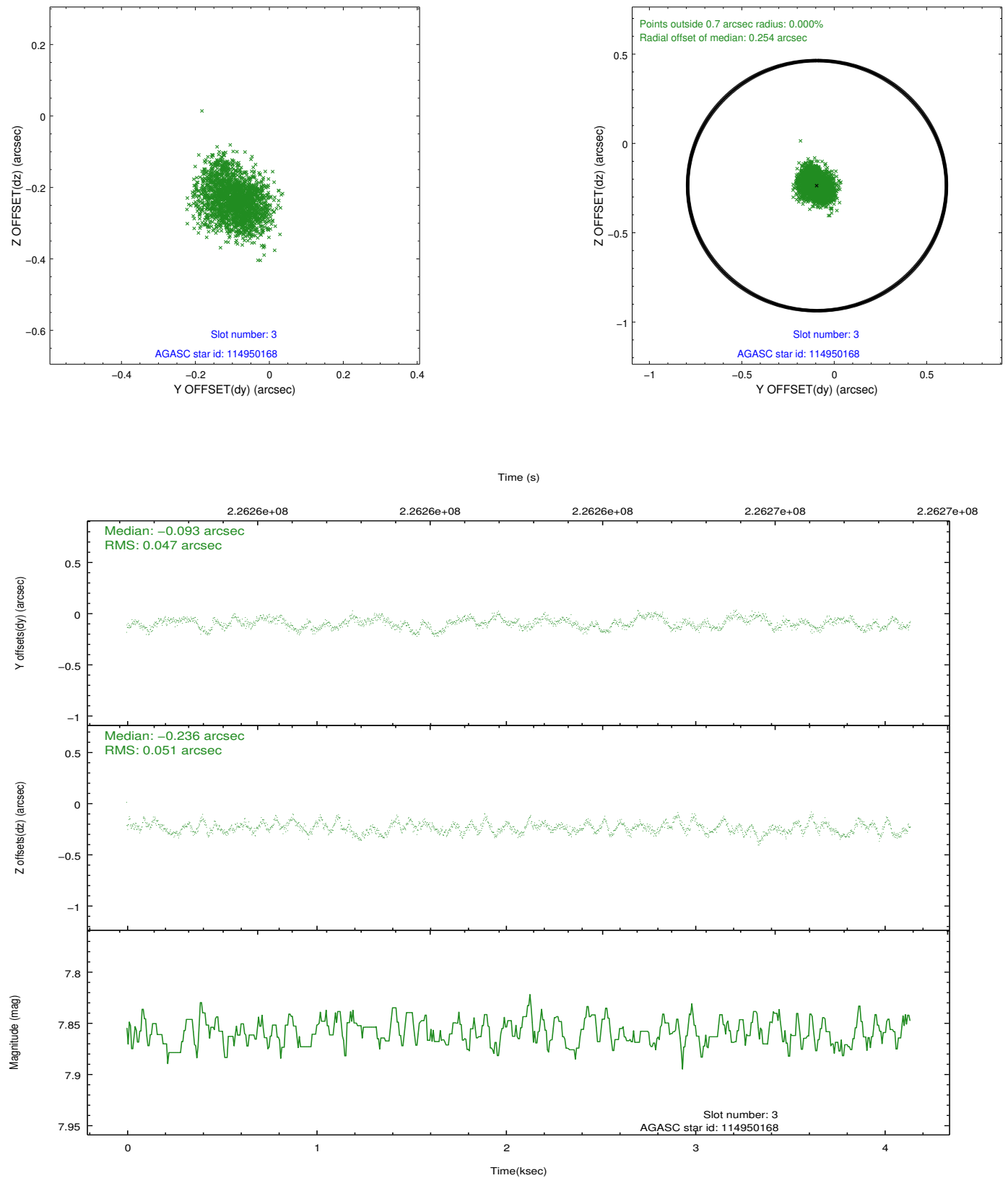


### Slot Statistics

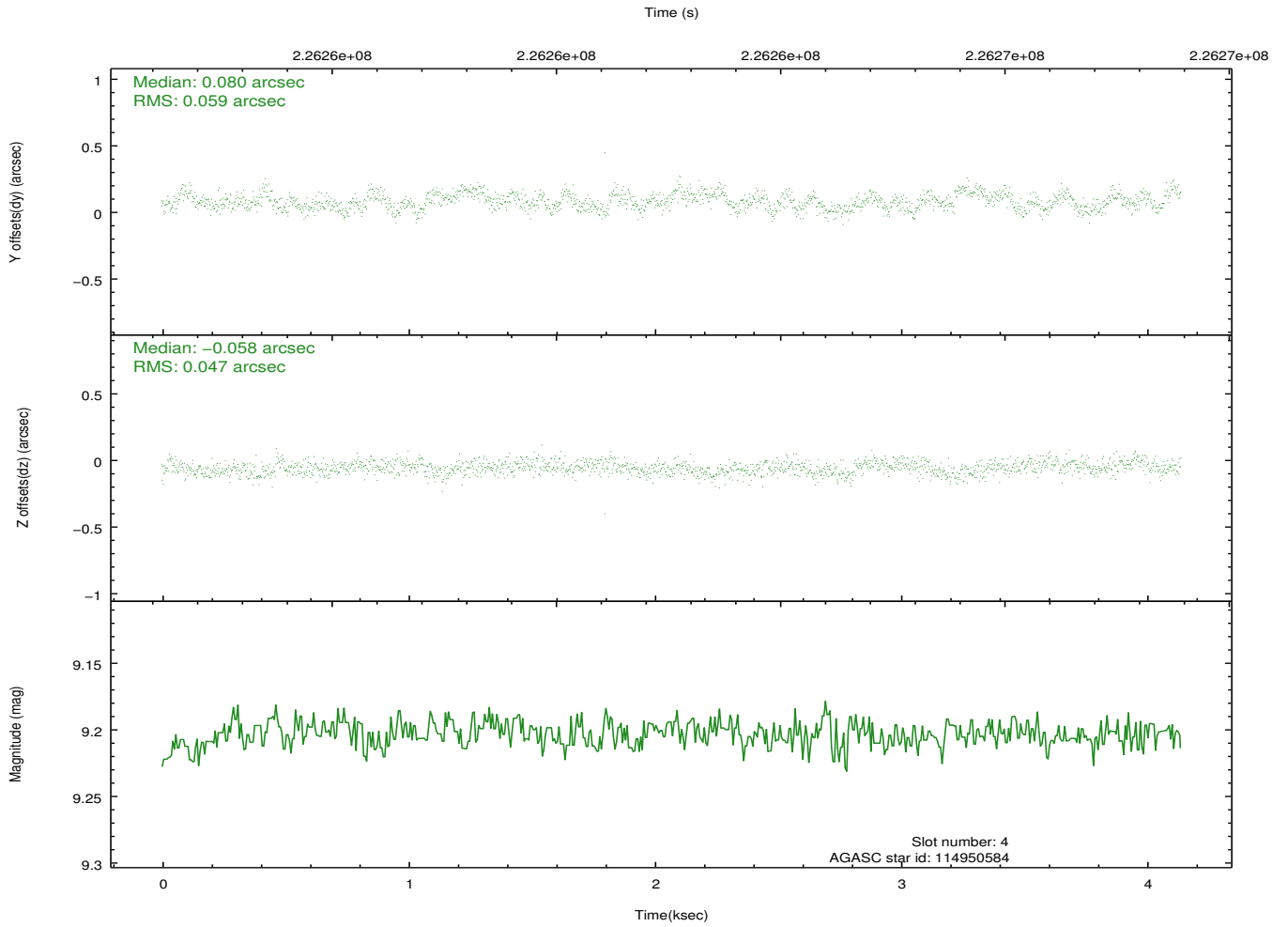
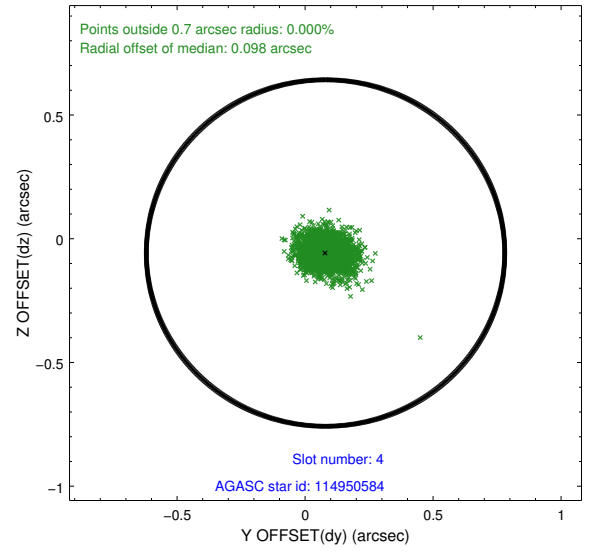
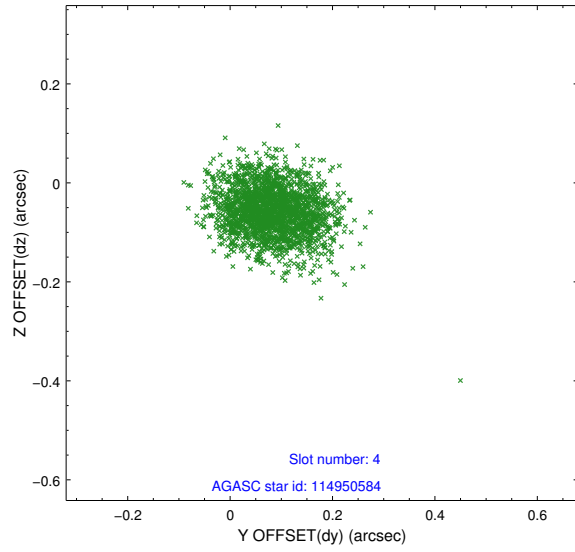
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	1010	-0.045	-0.047	0.011	0.037	0.000000	0.000000	933.07	-875.50
1	FID	ACIS-I-2	7.15	1010	-0.135	-0.027	0.008	0.013	0.000000	0.000000	-760.37	-882.50
2	FID	ACIS-I-4	7.16	1008	0.083	0.141	0.007	0.033	0.000000	0.000000	2152.24	1023.98
3	GUIDE	114950168	7.86	2019	-0.093	-0.236	0.076	0.117	187.143398	12.117441	-495.56	2202.44
4	GUIDE	114950584	9.20	2020	0.080	-0.058	0.081	0.129	187.487323	11.827248	-1777.25	1247.01
5	GUIDE	114955056	8.34	2020	0.073	0.377	0.074	0.116	187.914001	12.127854	-1043.45	-453.06
6	GUIDE	114956608	9.65	2017	0.066	0.055	0.130	0.197	187.452443	11.725979	-2107.15	1444.68
7	GUIDE	114952792	9.51	2015	-0.124	-0.135	0.112	0.180	187.070263	12.344747	358.00	2277.52

## 2.4 Star Slots

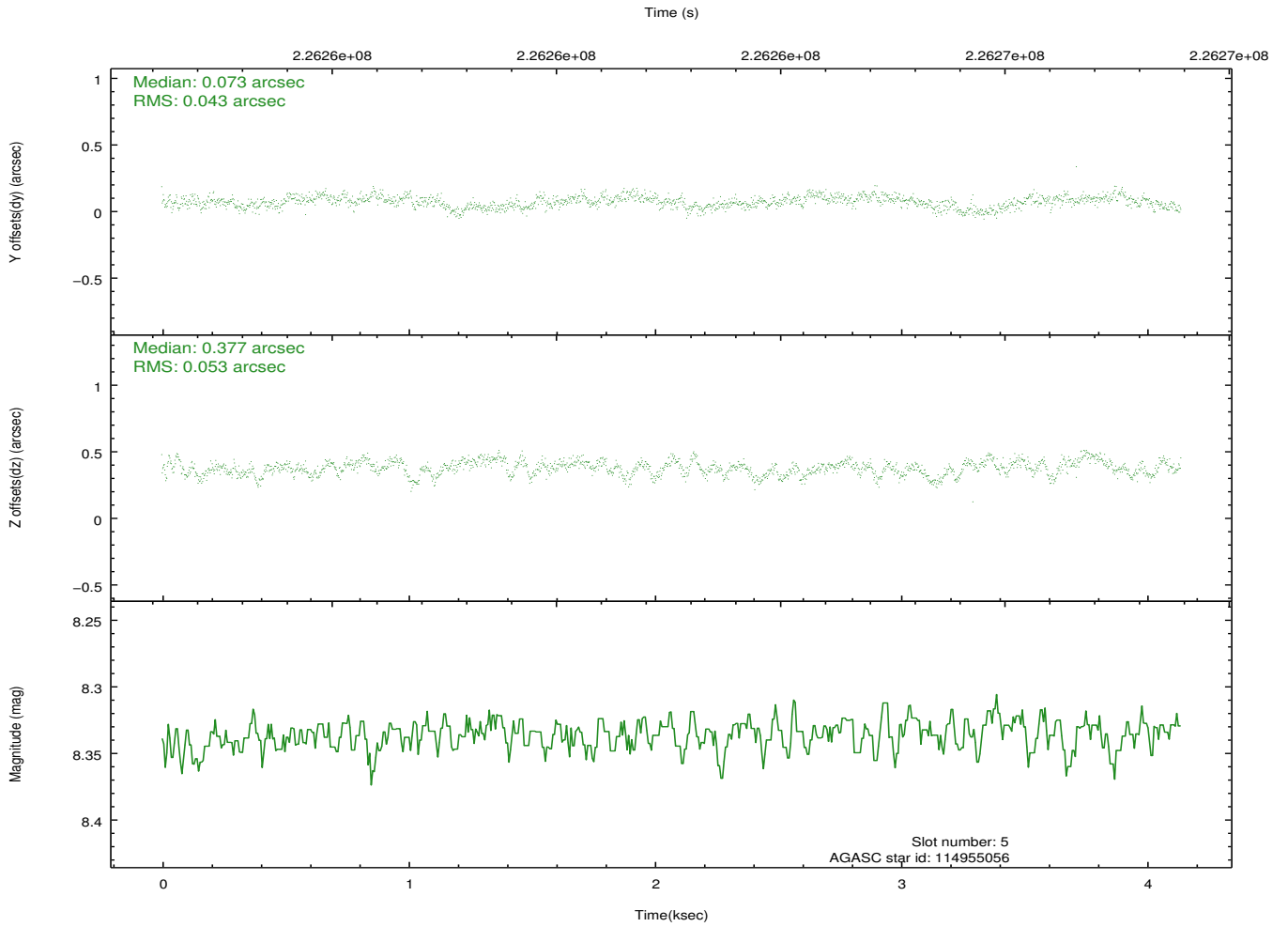
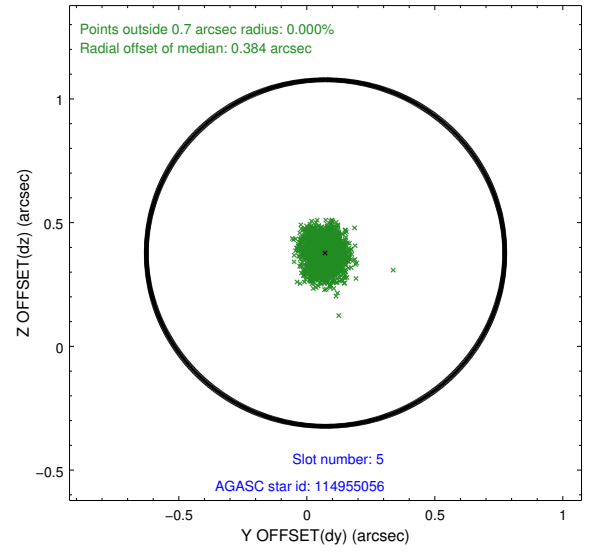
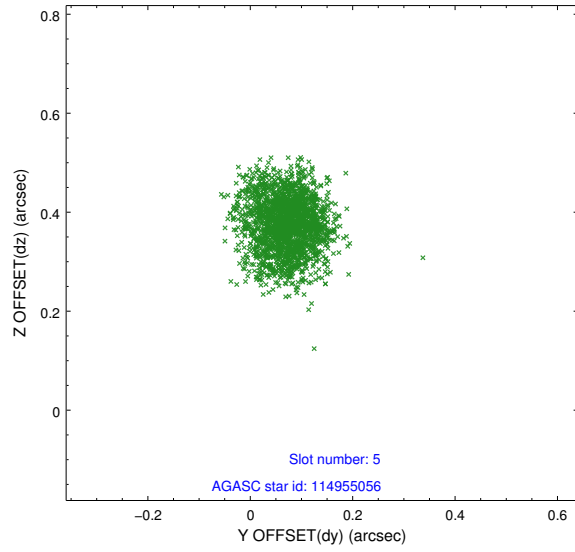
### 2.4.1 Slot 3



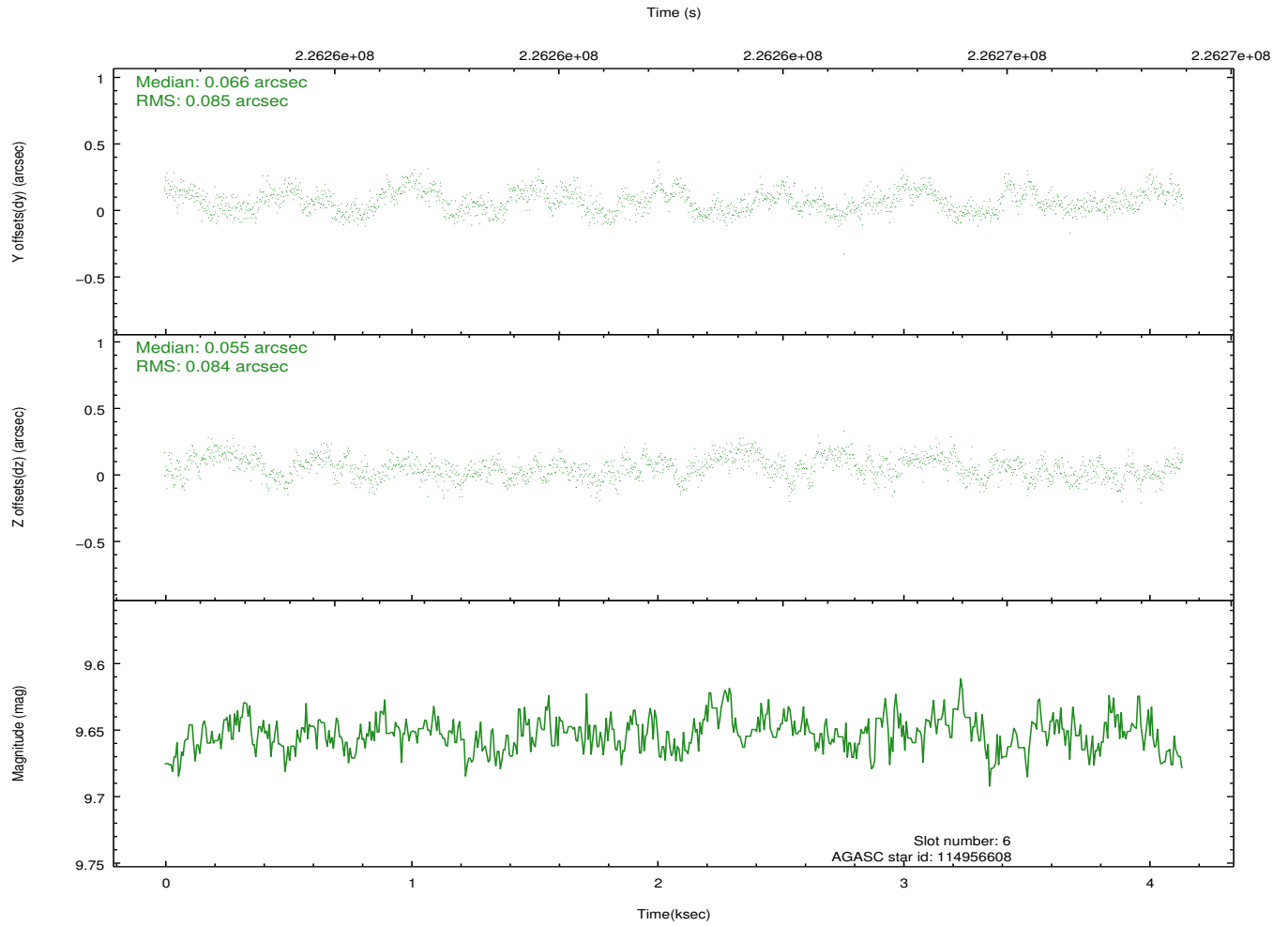
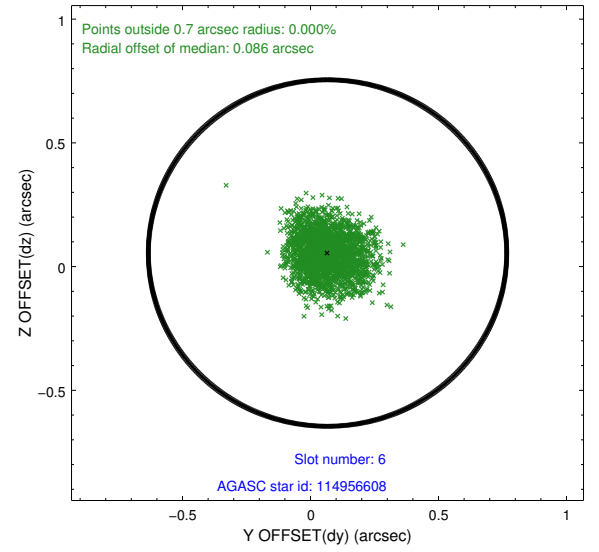
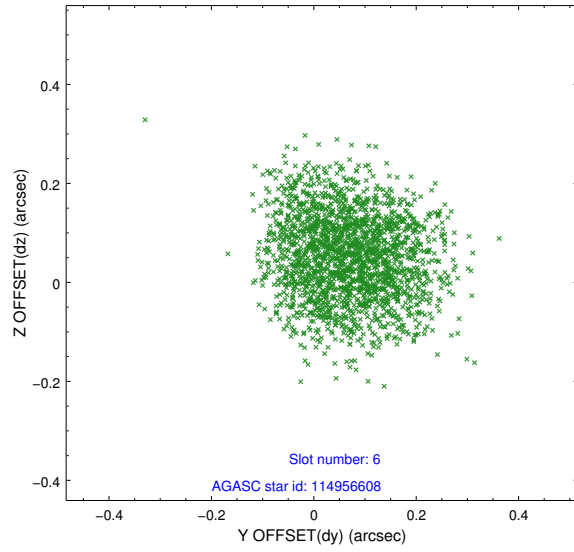
## 2.4.2 Slot 4



### 2.4.3 Slot 5

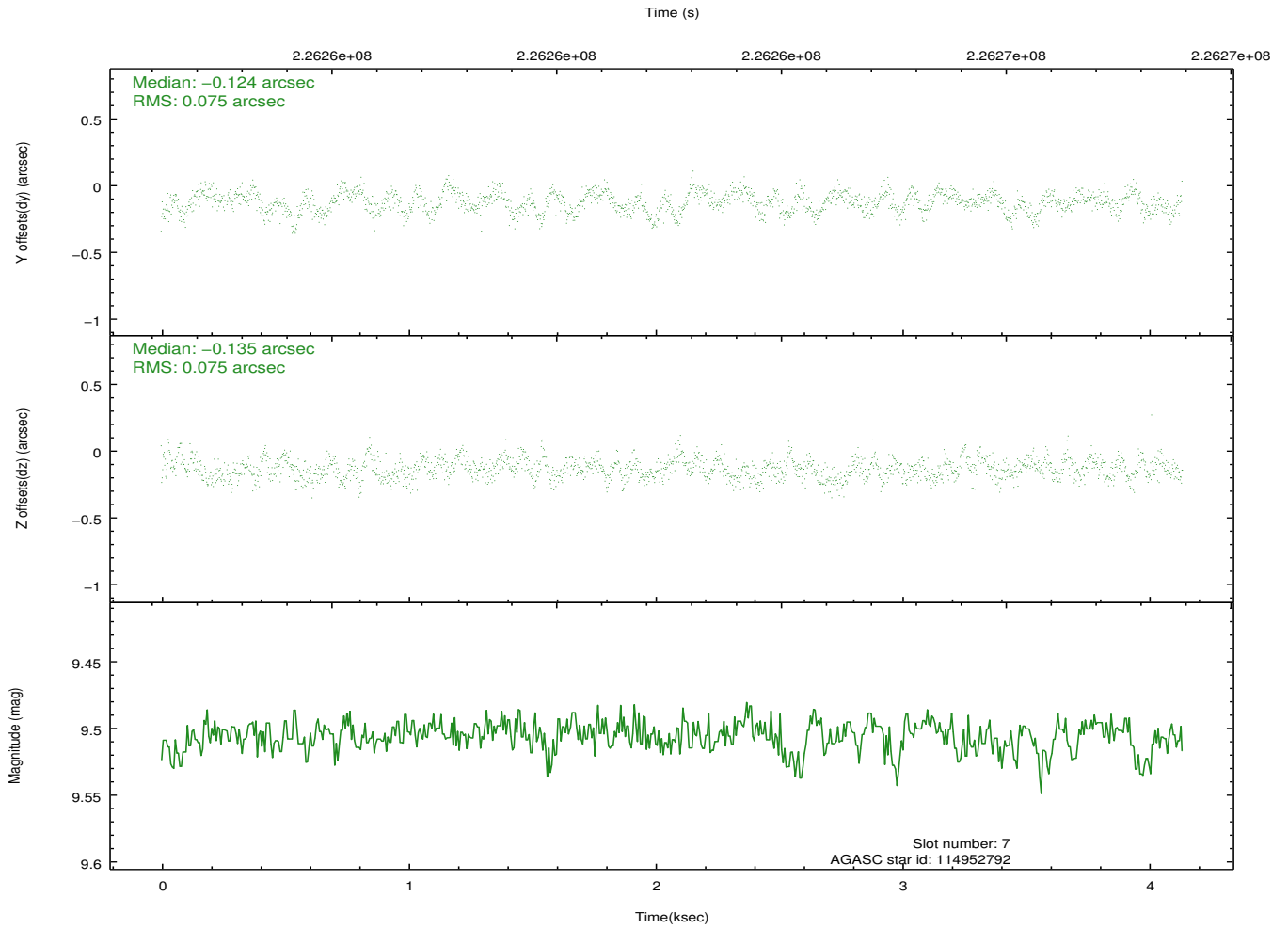
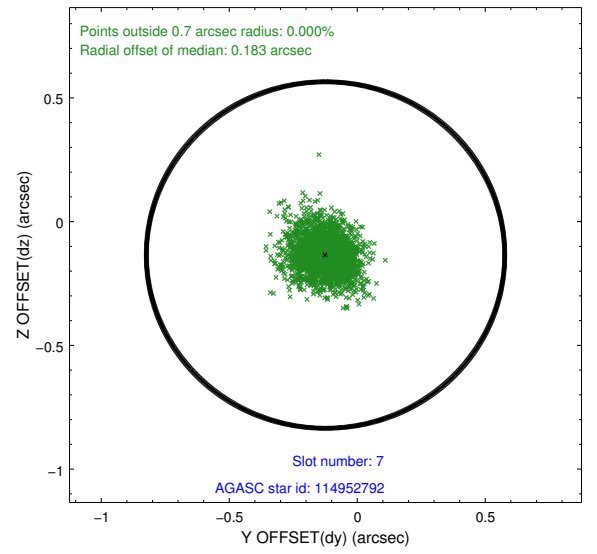
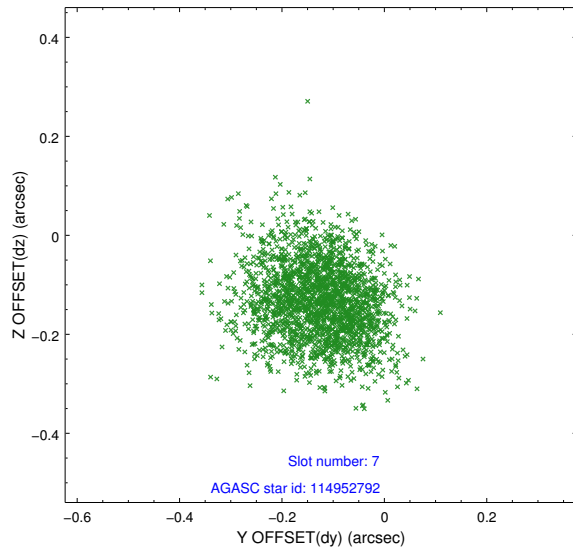


## 2.4.4 Slot 6



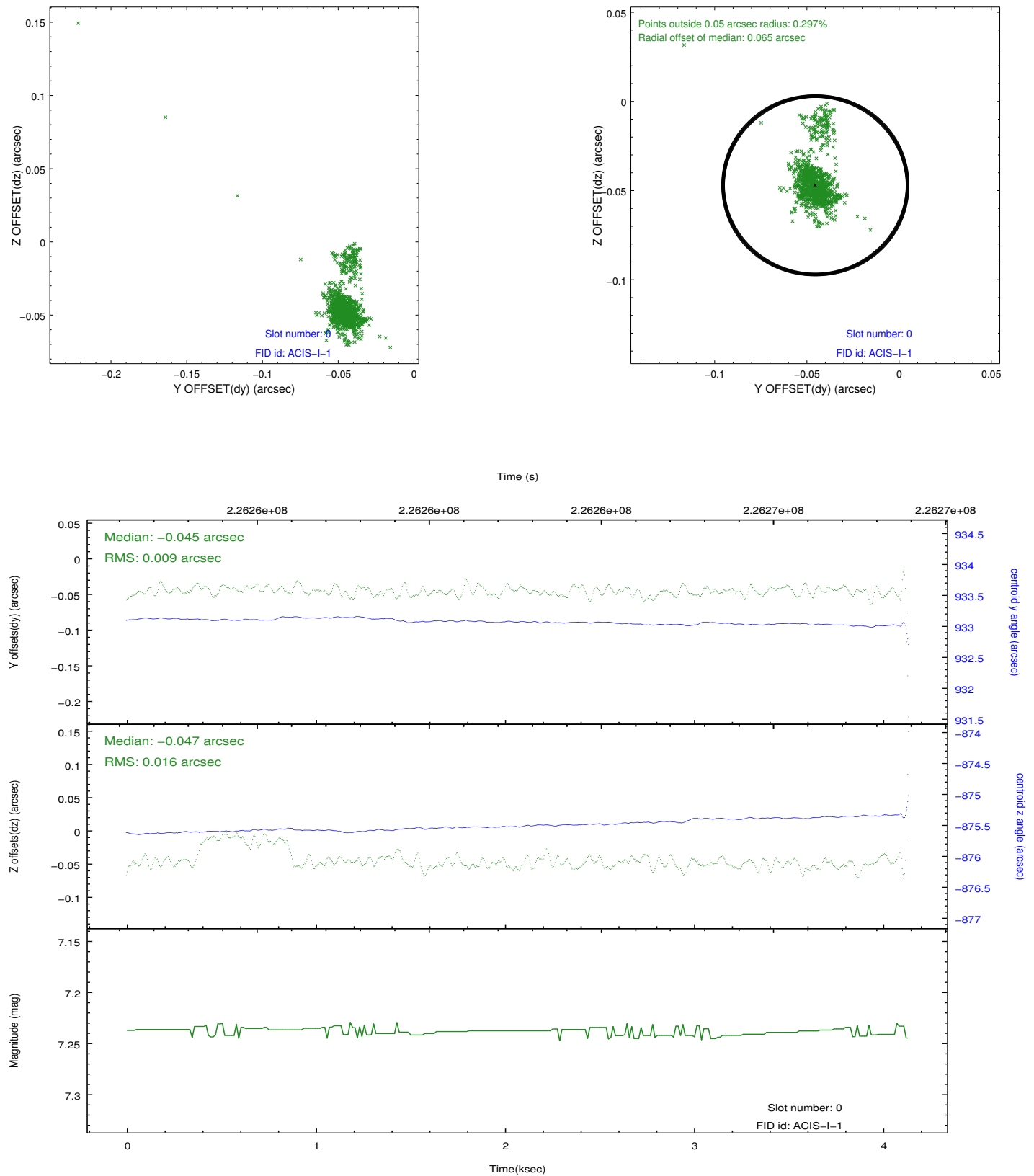


## 2.4.5 Slot 7

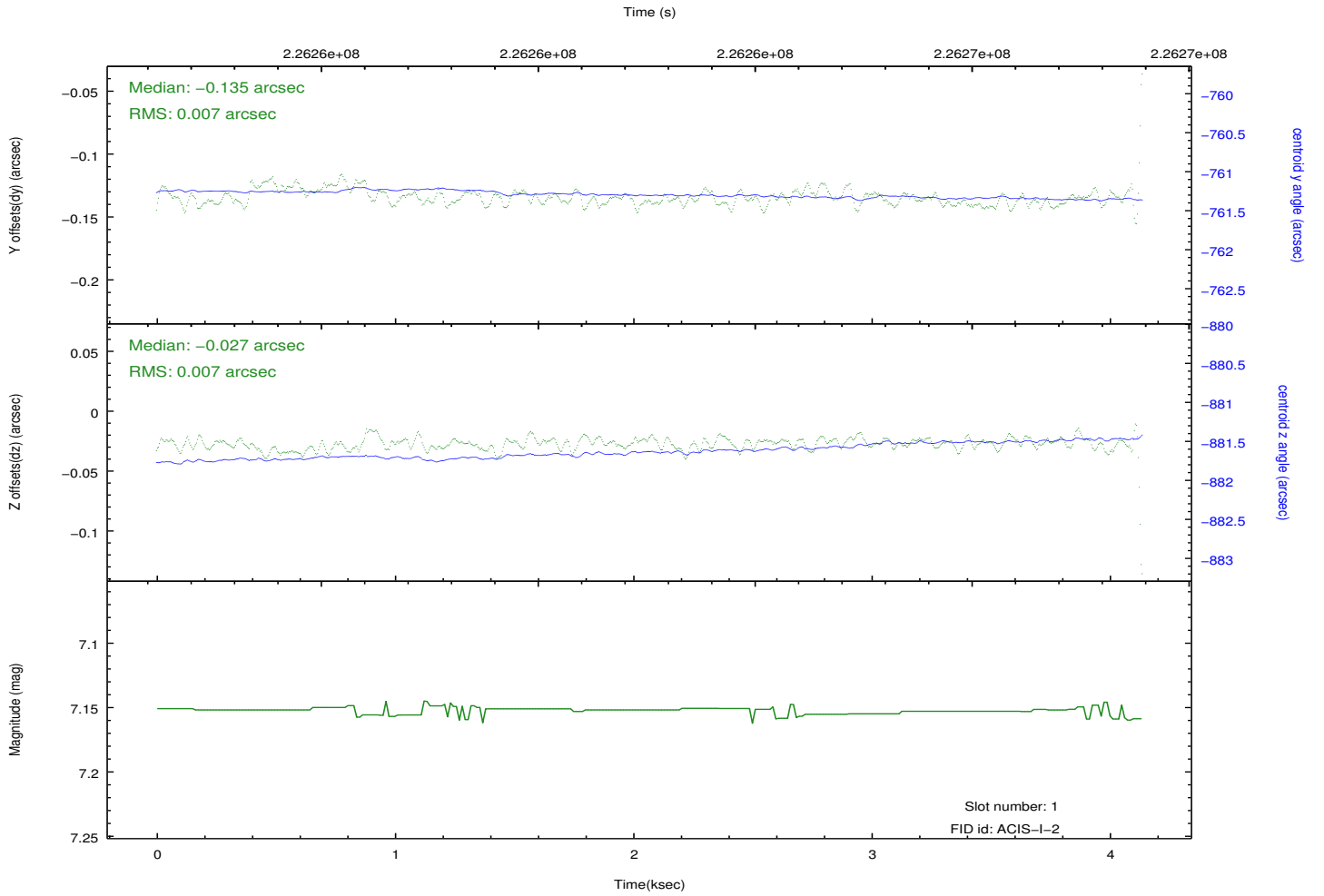
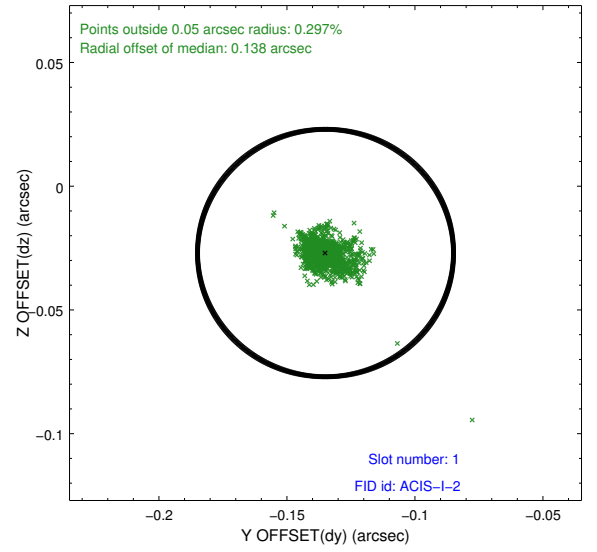
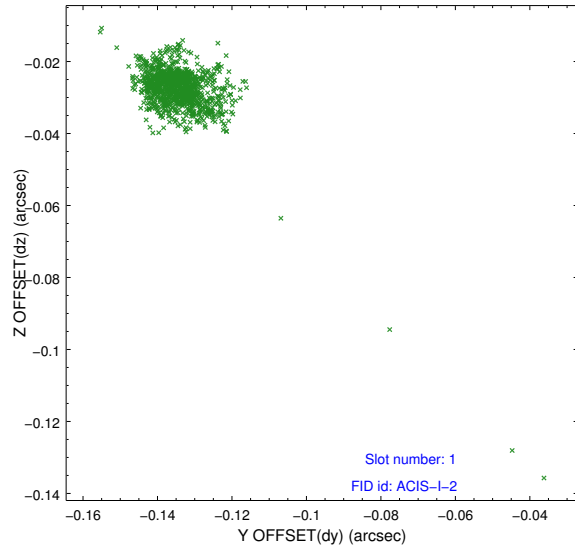


## 2.5 FID Slots

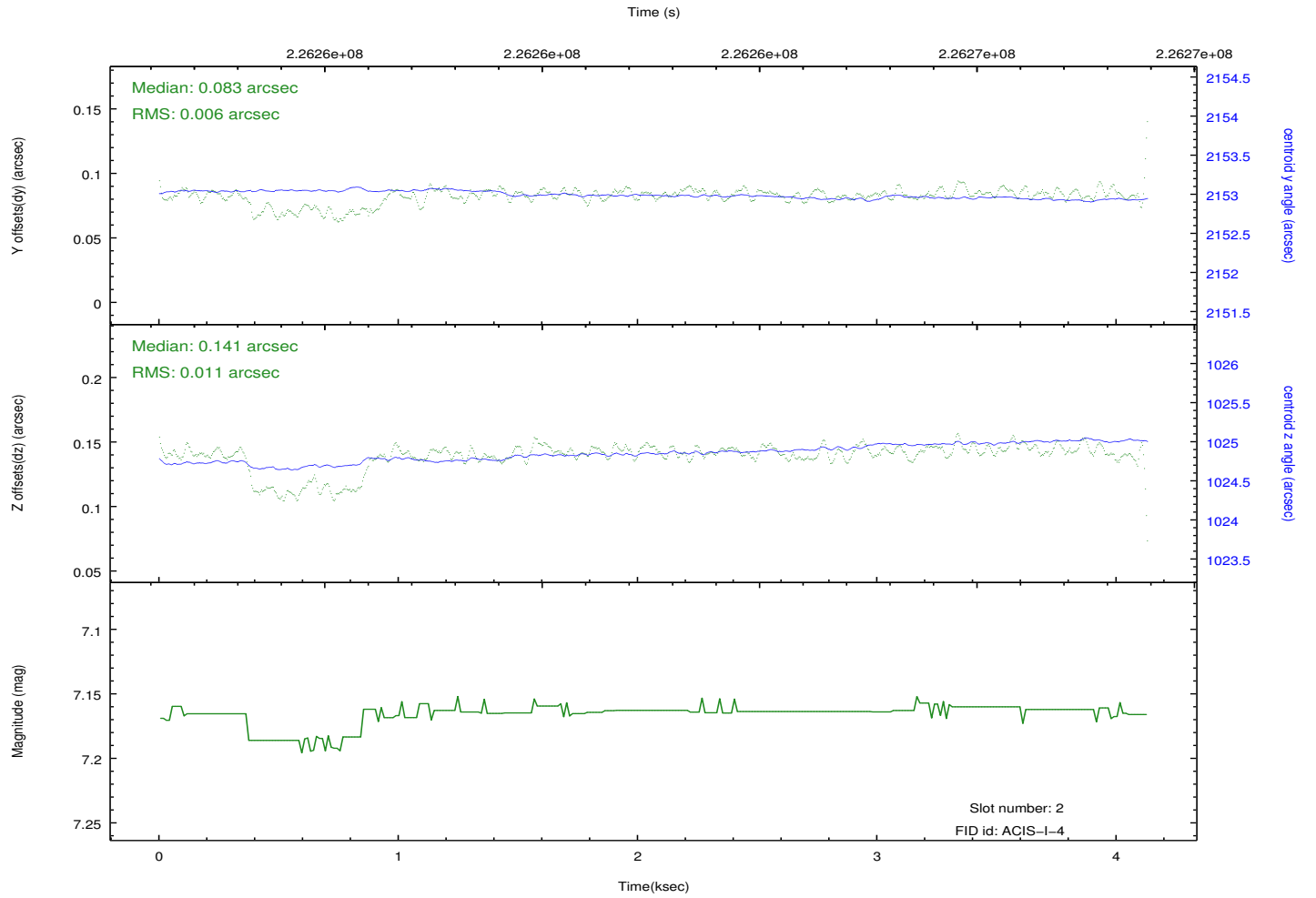
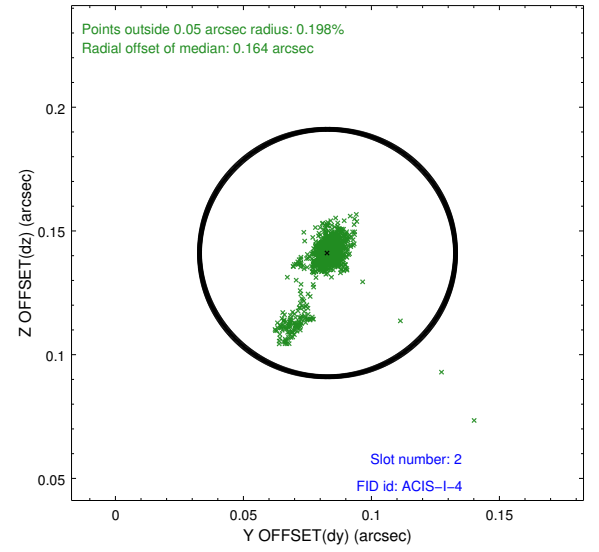
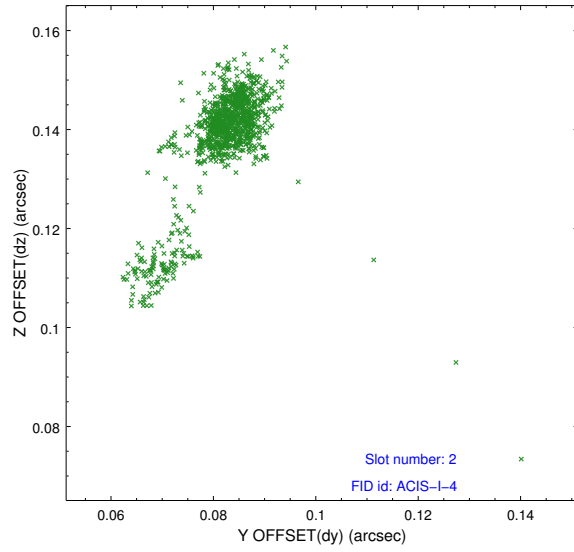
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.136

### A.2 Comments

Charge time for this ObsId remains at previous value of 4.136 ks, although with this processing the charge time would be 4.131 ks.