

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15352 - L2 Version 2  
Chandra X-Ray Center

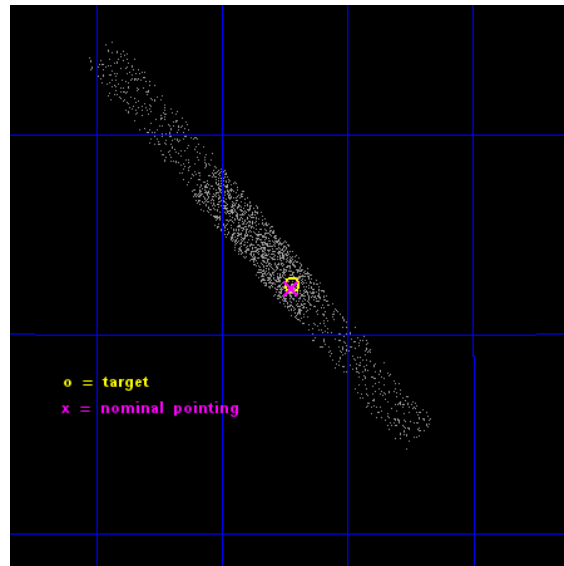
L2 Processing Date : Dec 1 2014

## 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

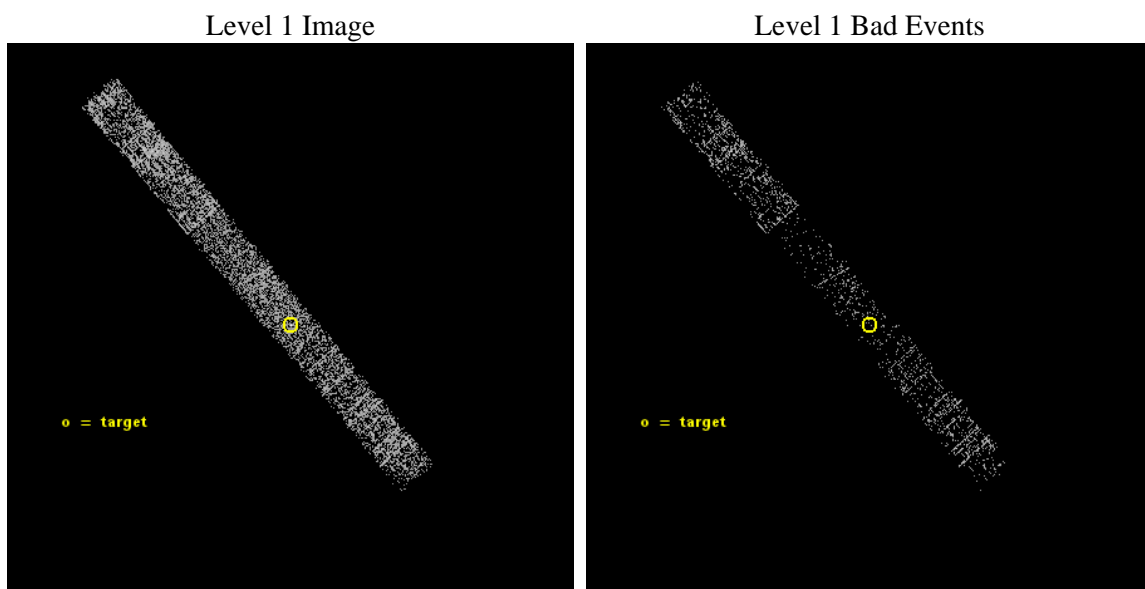
seq_num	702912	Sequence number
obs_id	15352	Observation id
title	Clarifying the Nature of Weak-Line Quasars with Chandra Spectroscopy and Snapshots	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	SDSS J0908+2852	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	137.18	Observer's specified target RA [deg]
dec_targ	28.874944	Observer's specified target Dec [deg]
ra_nom	137.18090080996	Nominal RA [deg]
dec_nom	28.871924516828	Nominal Dec [deg]
roll_nom	229.26677326068	Nominal Roll [deg]
revision	2	Processing version of data
ontime	2094.2720884681	Sum of GTIs [s]
livetime	2002.9381106236	Livetime [s]
ontime6	2094.2310484648	Sum of GTIs [s]
ontime7	2094.2720884681	Sum of GTIs [s]
ontime8	2094.1900084615	Sum of GTIs [s]
l2events	2237	Number of level 2 events



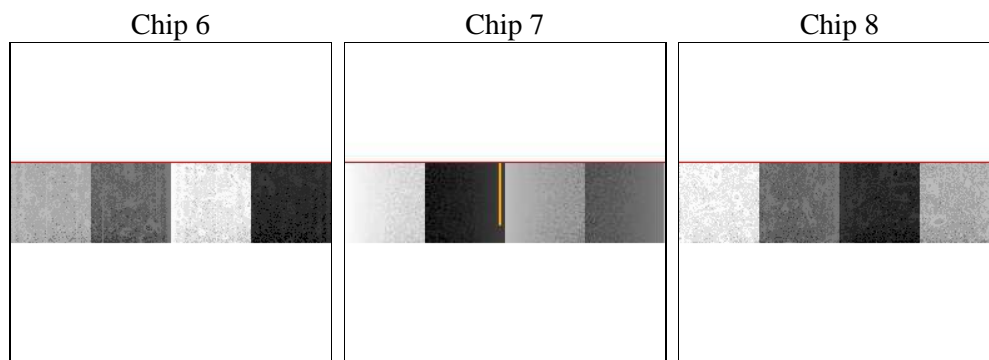
## 2 OBI

### 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	10.3	Processing system revision	ontime	2094.2720884681	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime6	2094.2310484648	Sum of GTIs [s]
date	2014-12-01T22:01:26	Date and time of file creation	ontime7	2094.2720884681	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	2094.1900084615	Sum of GTIs [s]
			l1events	11442	Number of level 1 events

### 2.1.4 Events

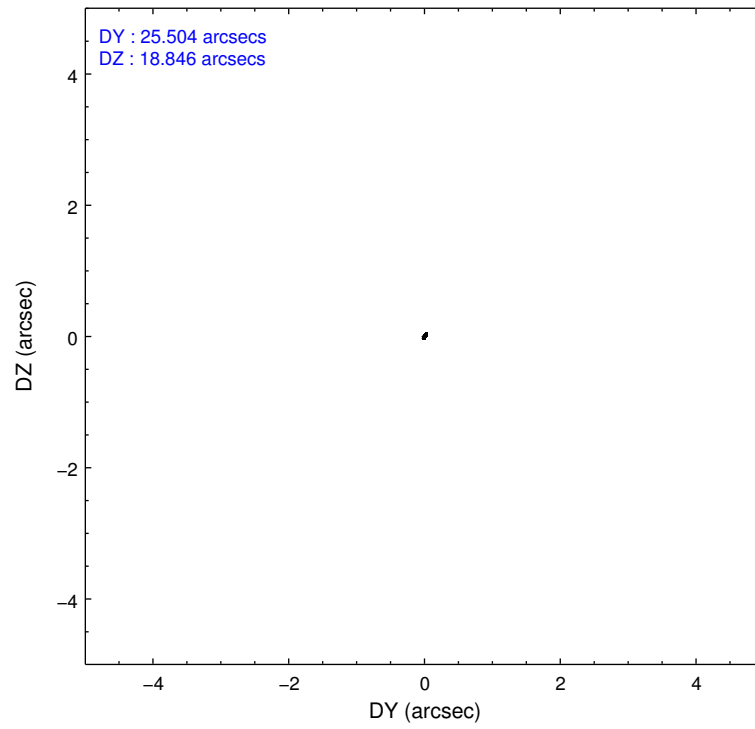
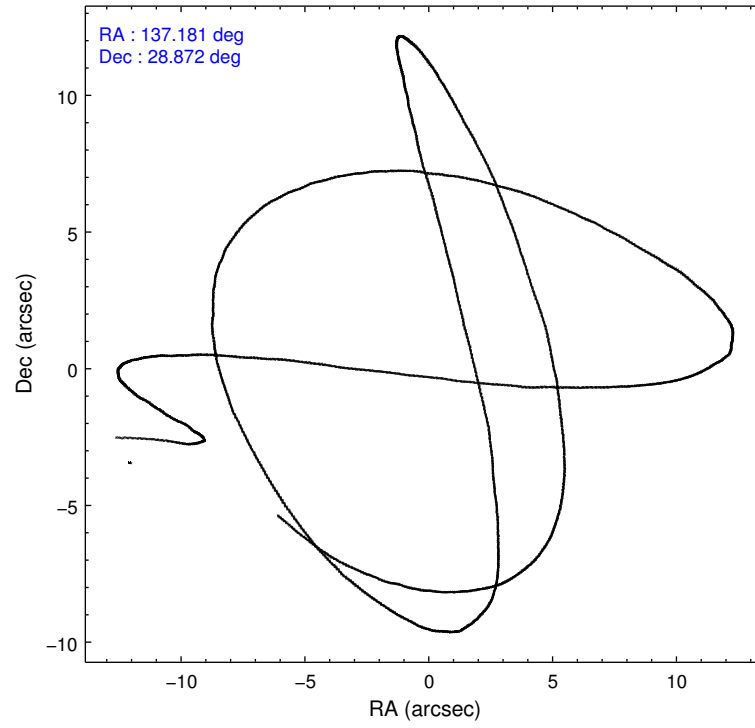
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	3336	3317	4789
rejected events	2914	1670	3687
rejected %	87%	50%	76%

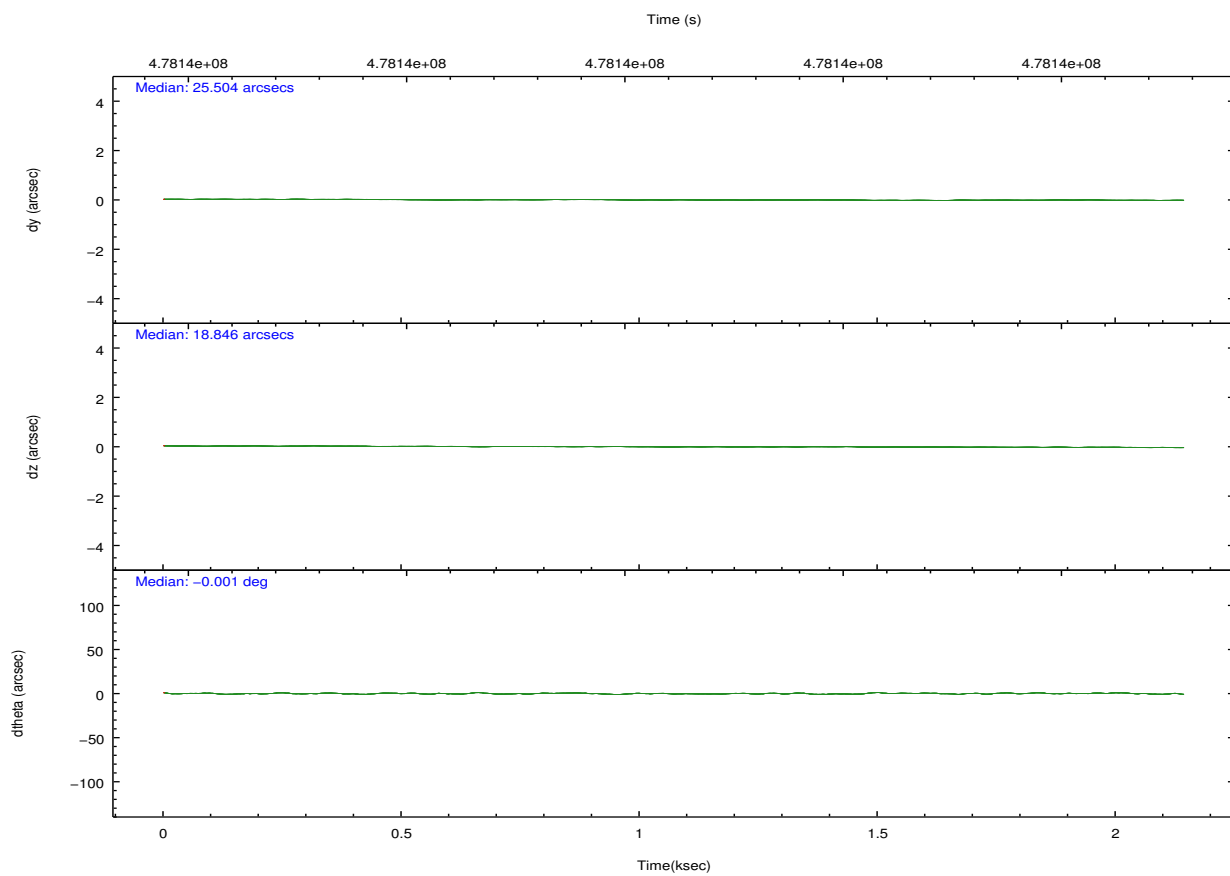
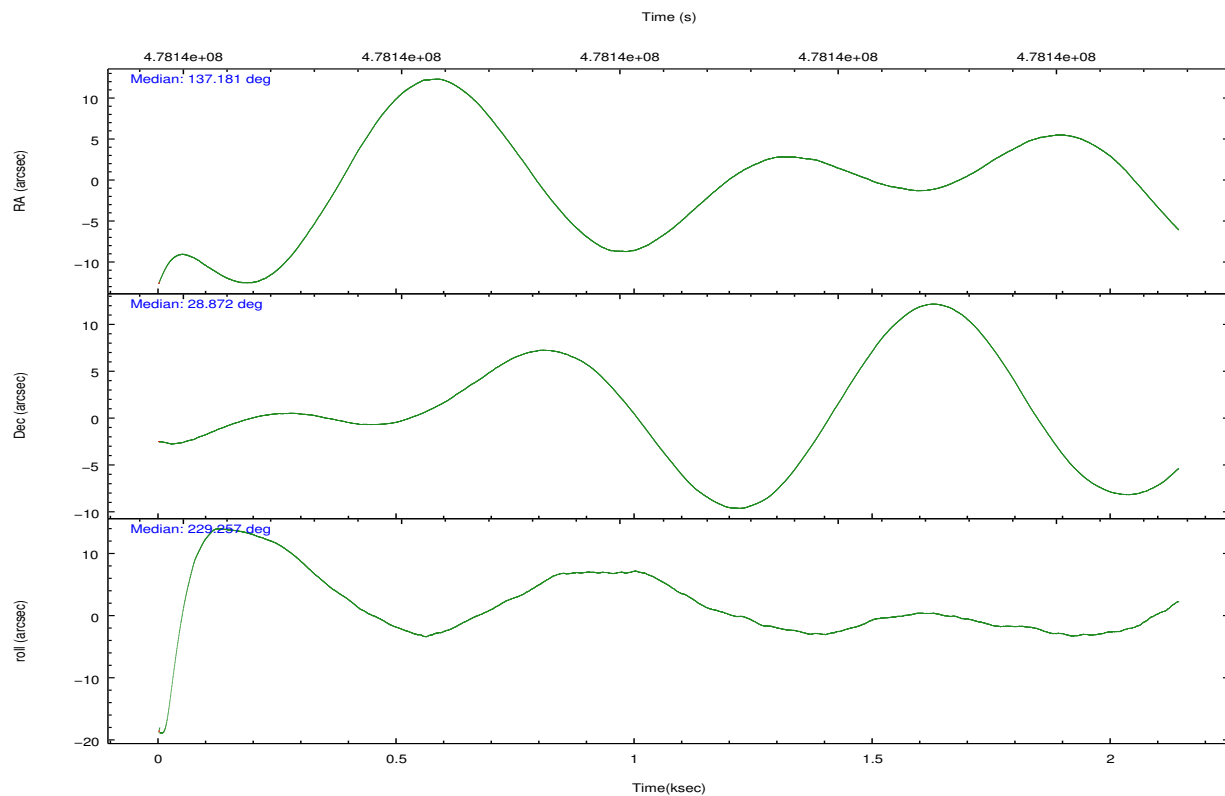
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	113	202	278
	3%	6%	5%
grade 1 events	1	3	1
	0%	0%	0%
grade 2 events	87	337	251
	2%	10%	5%
grade 3 events	75	189	129
	2%	5%	2%
grade 4 events	65	182	111
	1%	5%	2%
grade 5 events	132	378	215
	3%	11%	4%
grade 6 events	82	738	334
	2%	22%	6%
grade 7 events	2781	1288	3470
	83%	38%	72%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-678	ACIS-678	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	137.186394	137.1809008099632	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	28.898984	28.87192451682761	Subarray start row	385	385
[deg] Pointing Roll	229.107677	229.2667732606758	Subarray row count	256	256
[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	0.9
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	478139184.184000	478138262.32275			
Observation start date	2013-02-25T00:25:17	2013-02-25T00:11:02			
[s] Observation end time (MET)	478141184.184000	478141874.42294			
Observation end date	2013-02-25T00:58:37	2013-02-25T01:11:14			
Read mode	TIMED	TIMED			

## 2.3 Aspect





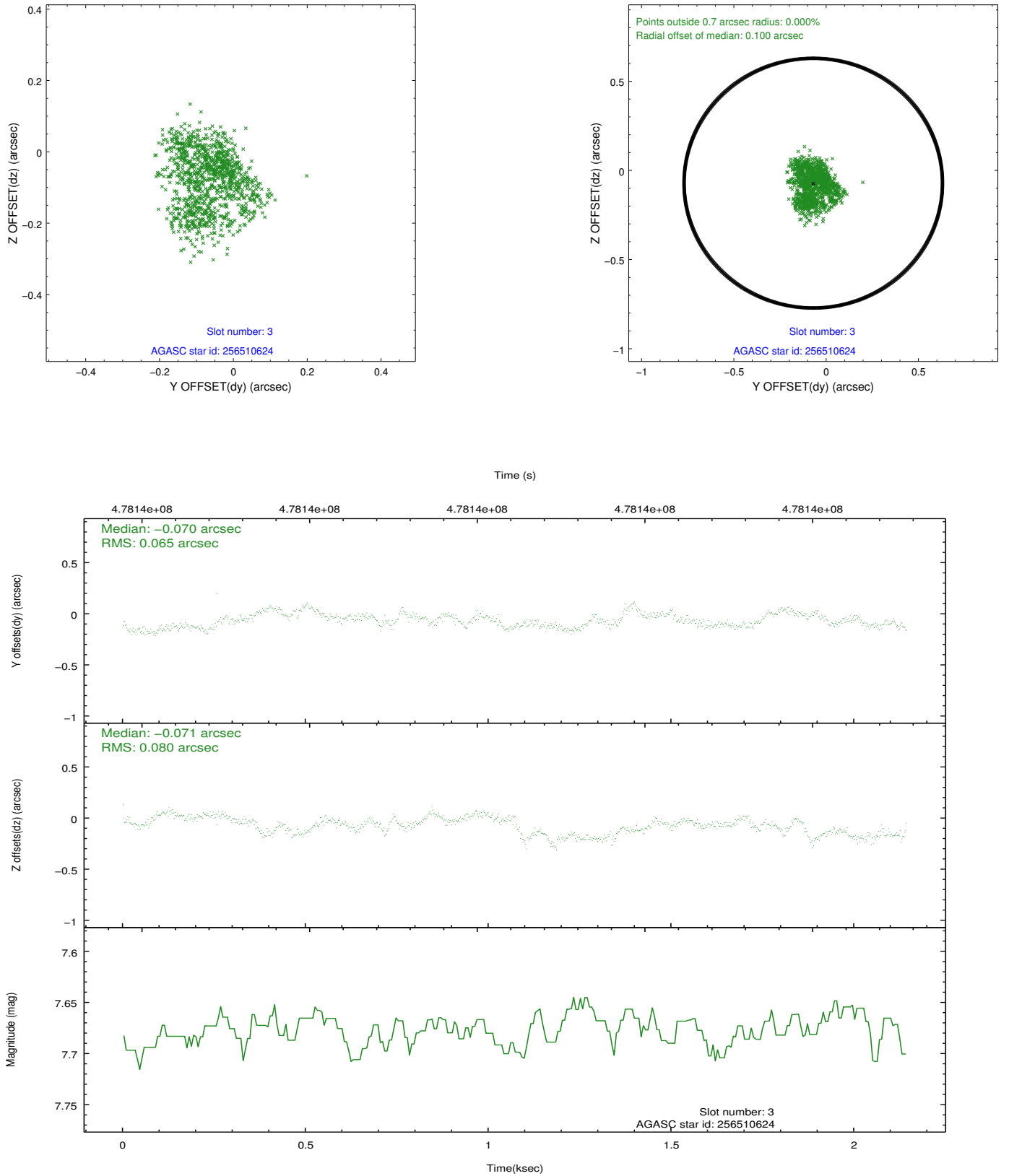
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.99	523	-0.224	-0.130	0.005	0.010	0.000000	0.000000	-779.07	-1740.42
1	FID		ACIS-S-4	7.09	523	0.245	0.138	0.006	0.011	0.000000	0.000000	2133.35	165.03
2	FID		ACIS-S-6	7.21	523	-0.048	-0.000	0.007	0.013	0.000000	0.000000	387.09	805.83
3	GUIDE	used	256510624	7.68	1046	-0.070	-0.071	0.114	0.167	137.989271	28.871576	-1589.67	1972.17
4	GUIDE	used	256510672	9.73	1045	0.147	-0.068	0.236	0.410	137.585588	28.742229	-401.58	1322.28
5	GUIDE	used	256512272	9.12	1037	-0.286	-0.252	0.203	0.293	137.676245	28.489812	95.20	2135.01
6	GUIDE	used	256513168	9.86	1042	0.167	-0.000	0.164	0.274	137.671743	28.749915	-599.91	1509.39
7	GUIDE	used	256514352	8.95	1037	0.046	0.409	0.137	0.213	136.907462	29.601138	-1340.62	-2313.72

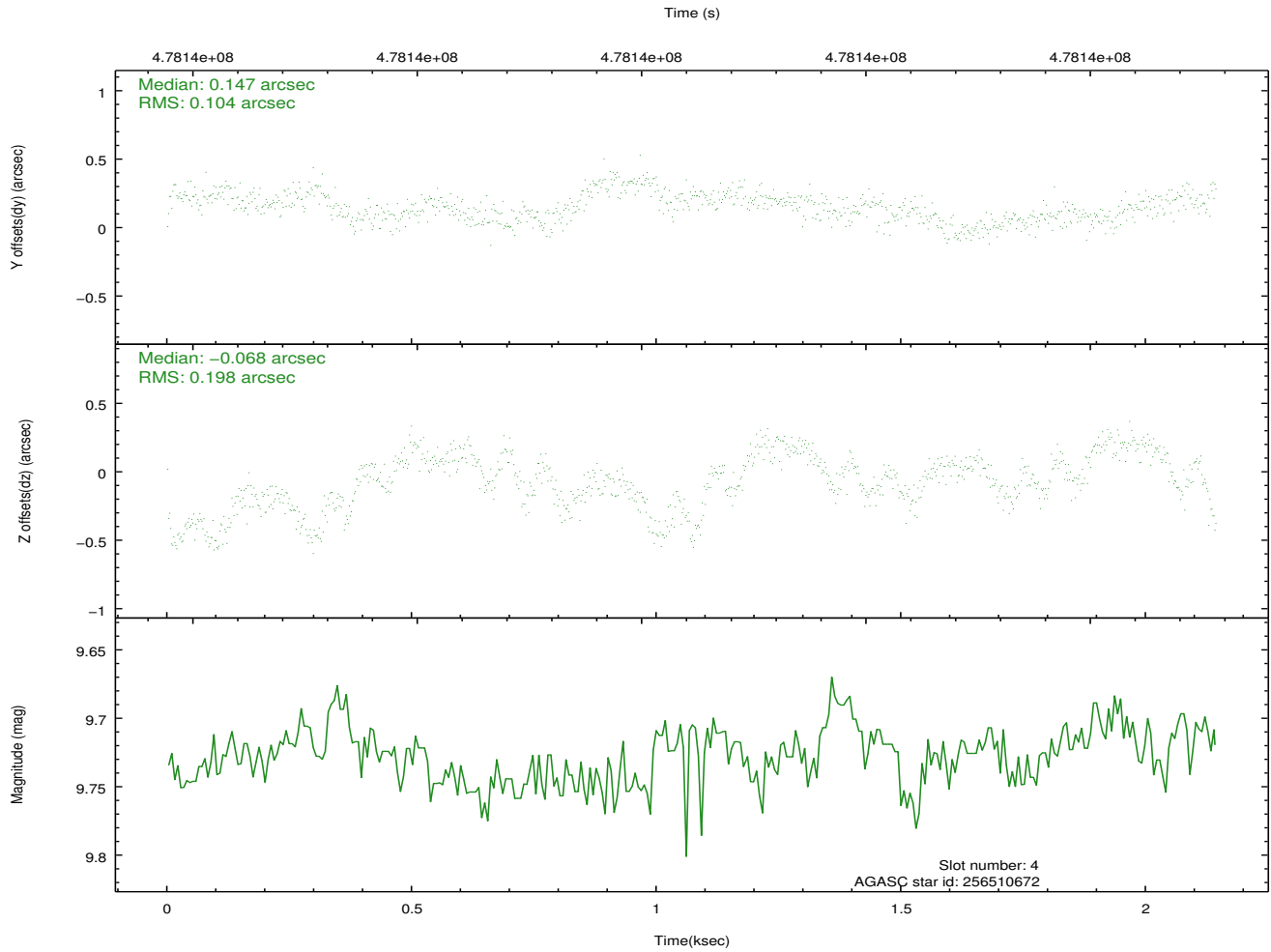
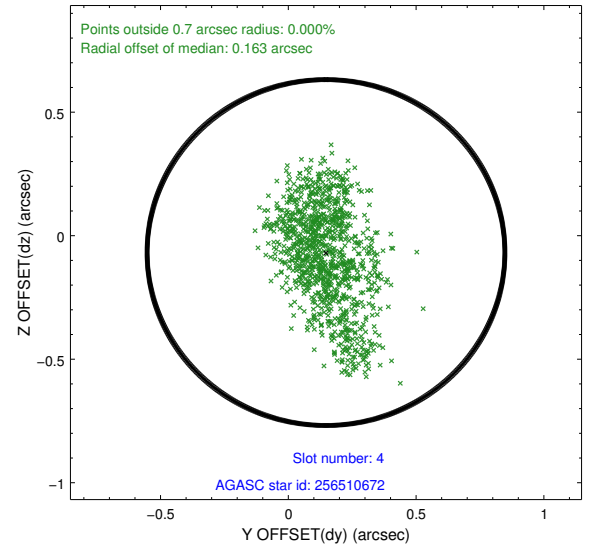
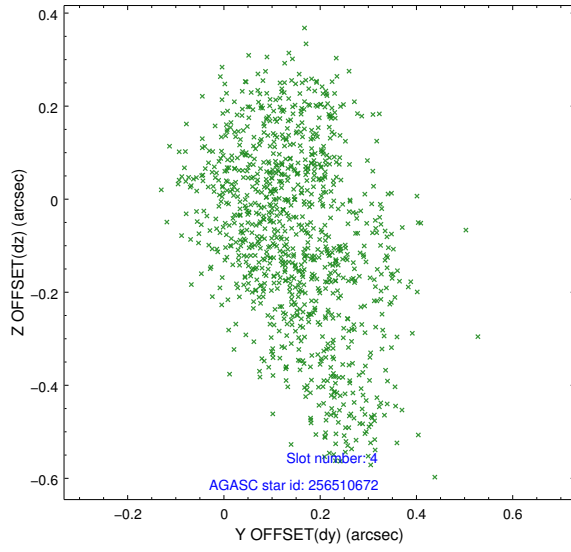


## 2.4 Star Slots

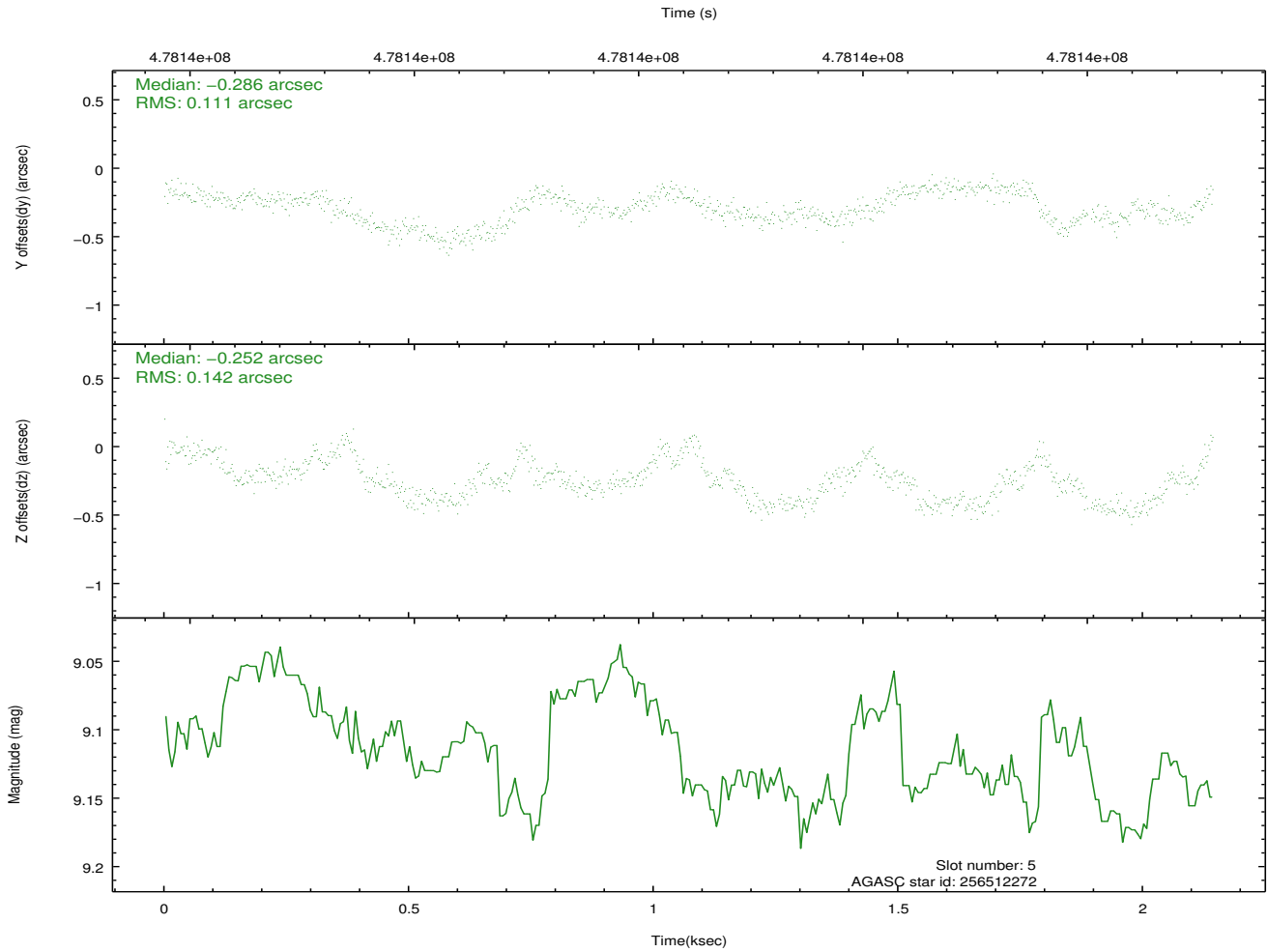
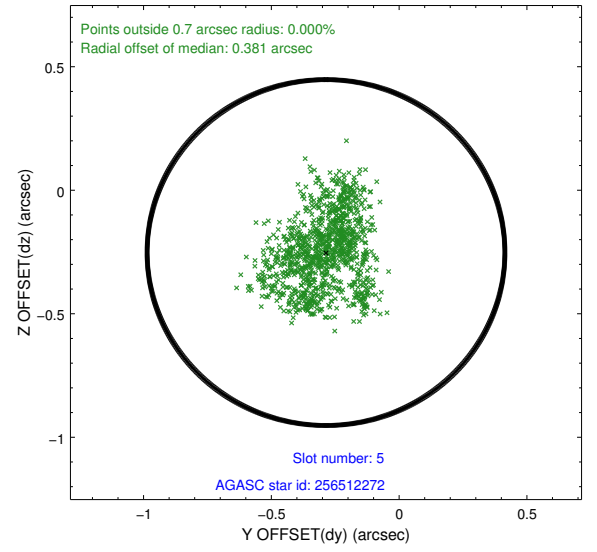
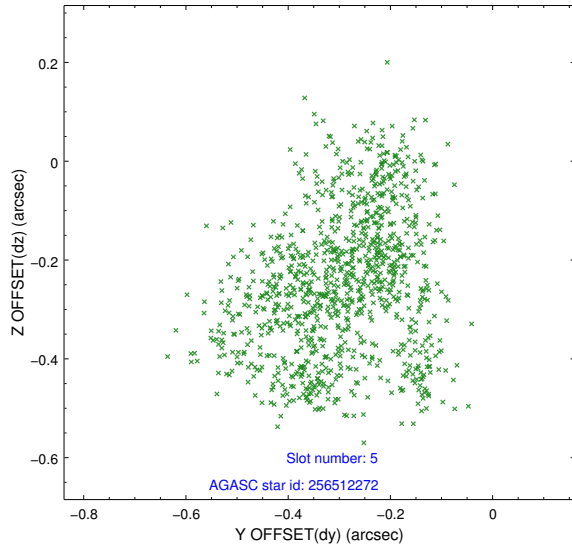
### 2.4.1 Slot 3



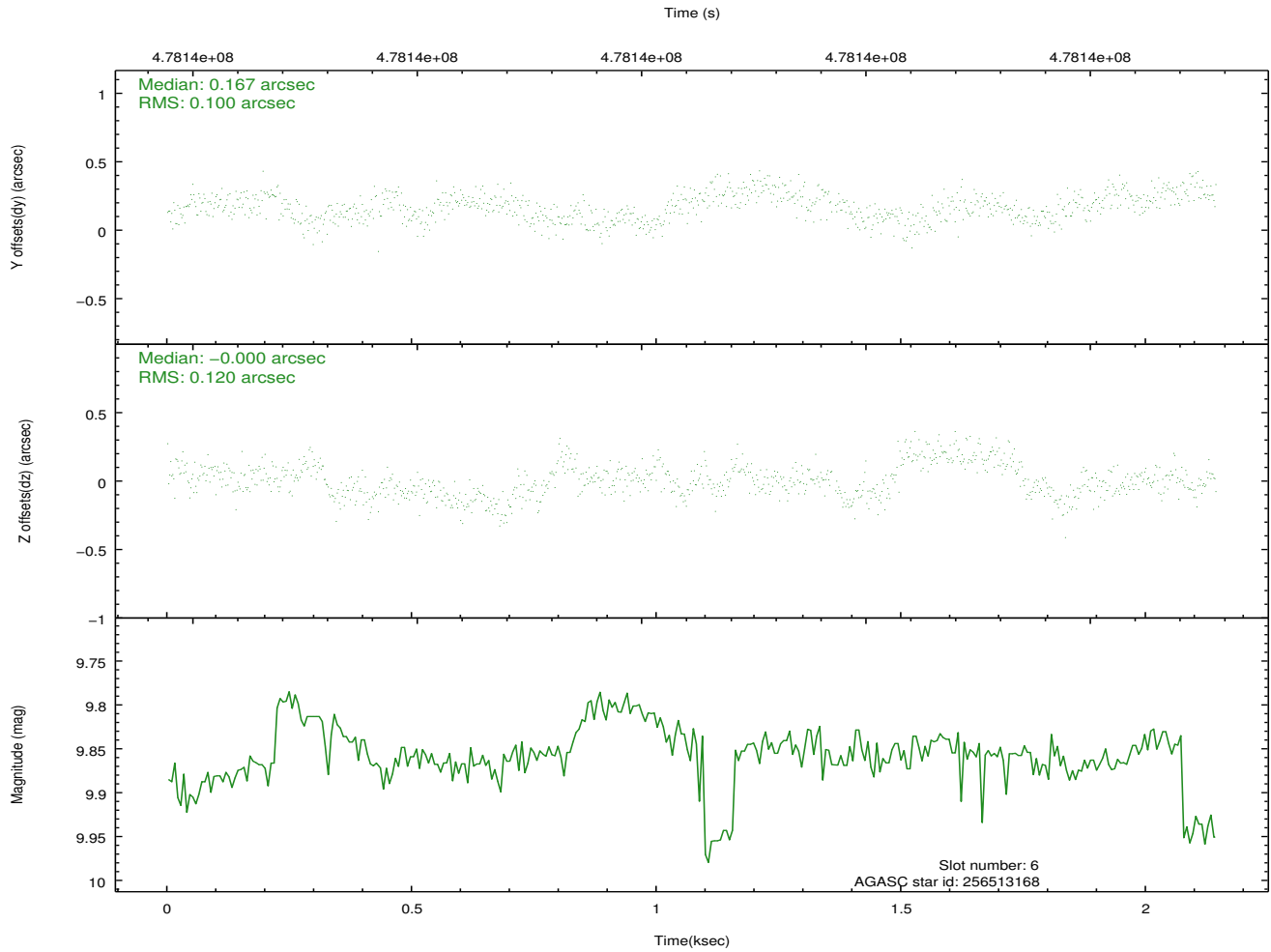
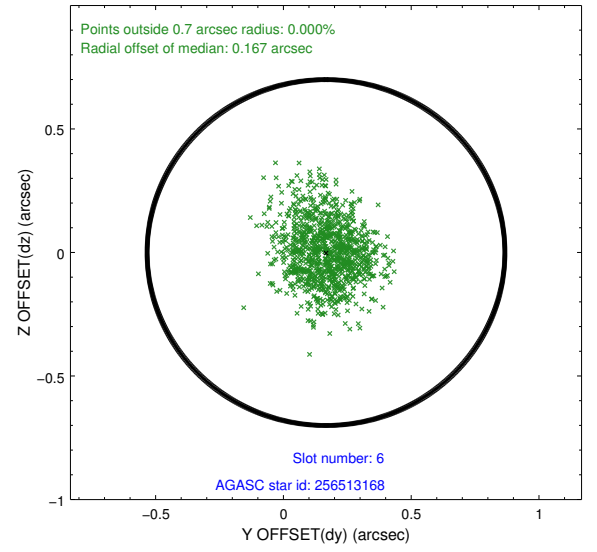
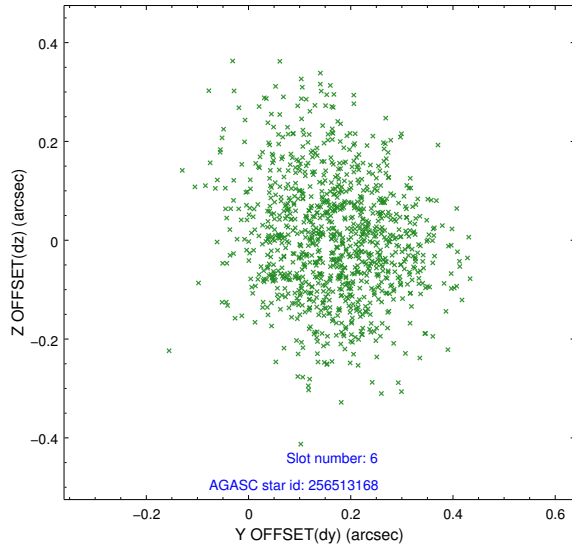
## 2.4.2 Slot 4



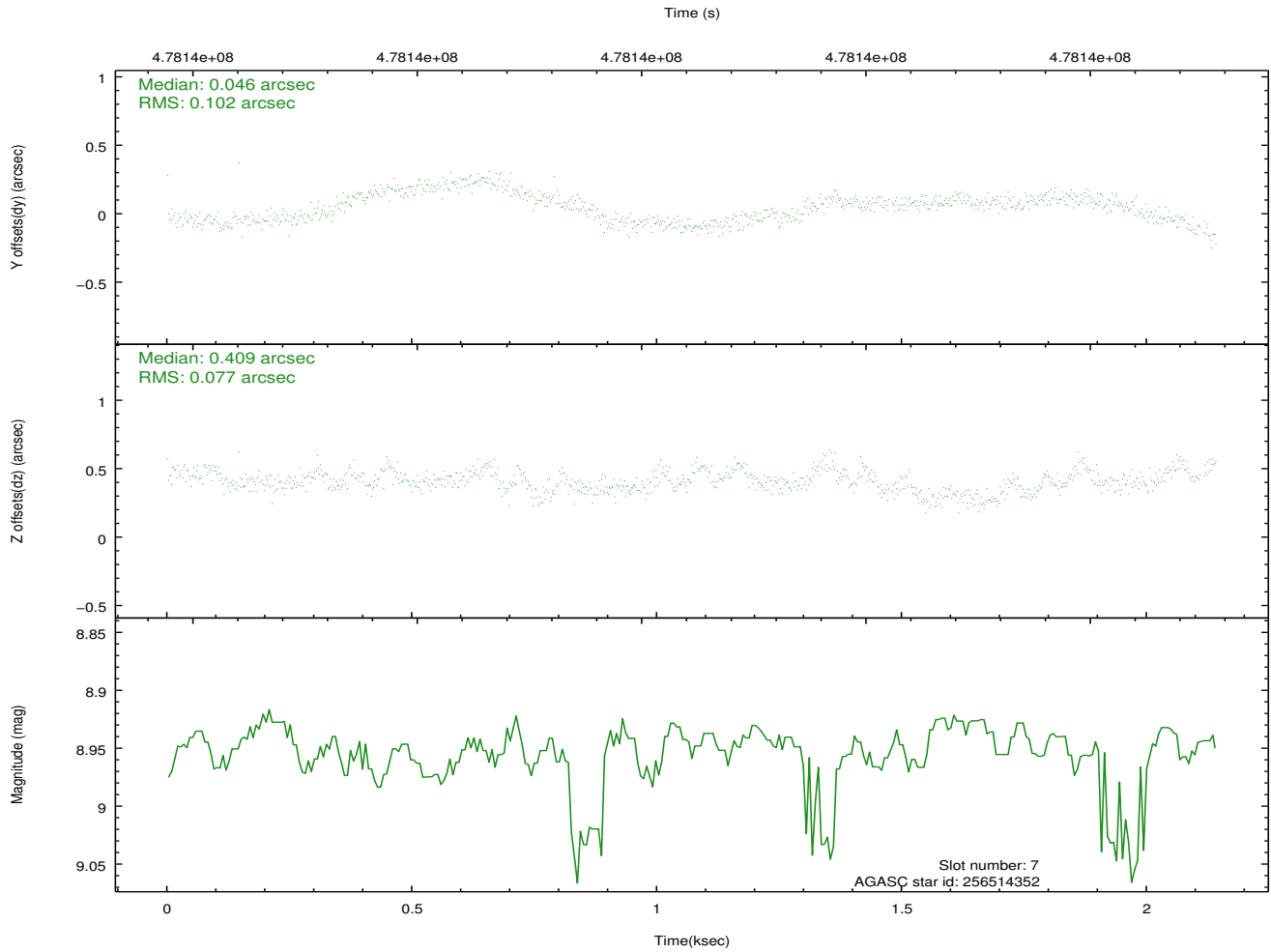
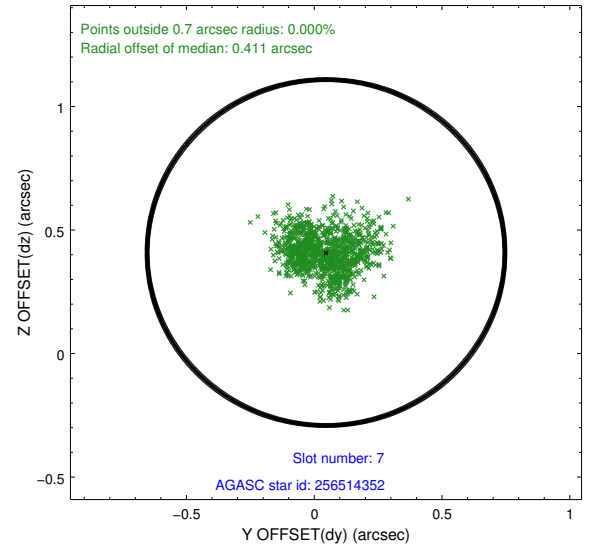
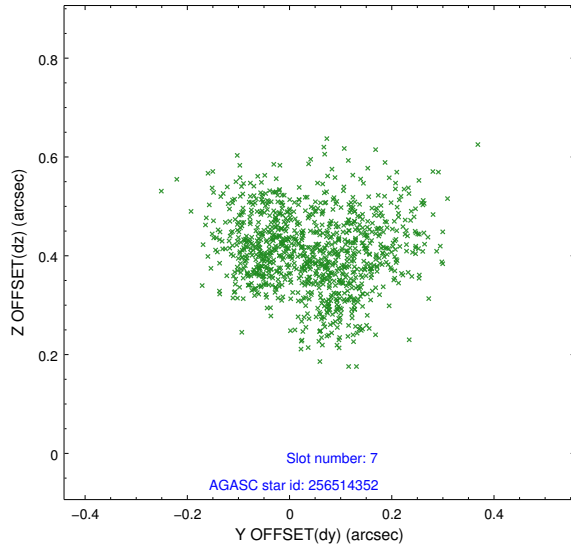
### 2.4.3 Slot 5



## 2.4.4 Slot 6

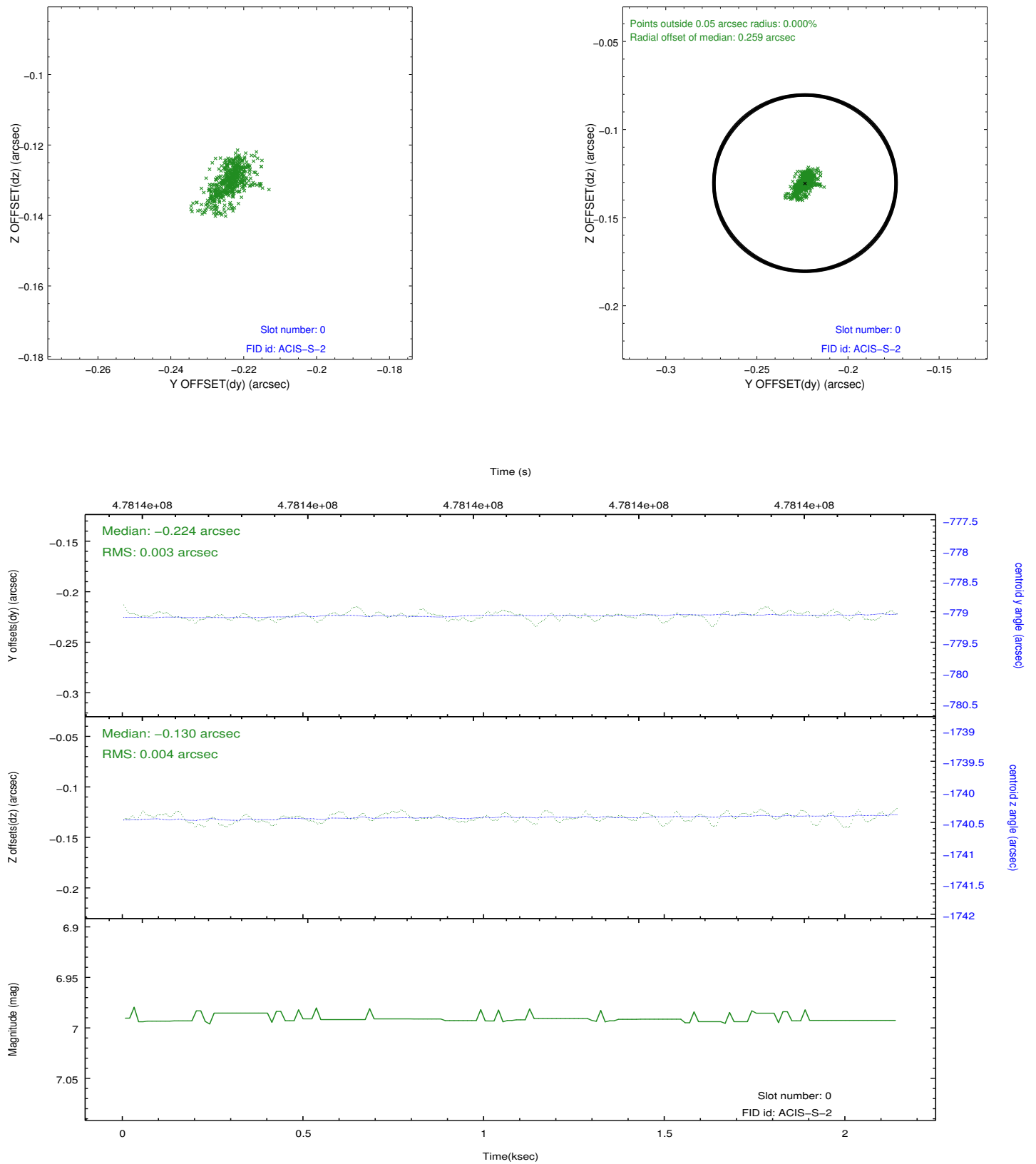


## 2.4.5 Slot 7

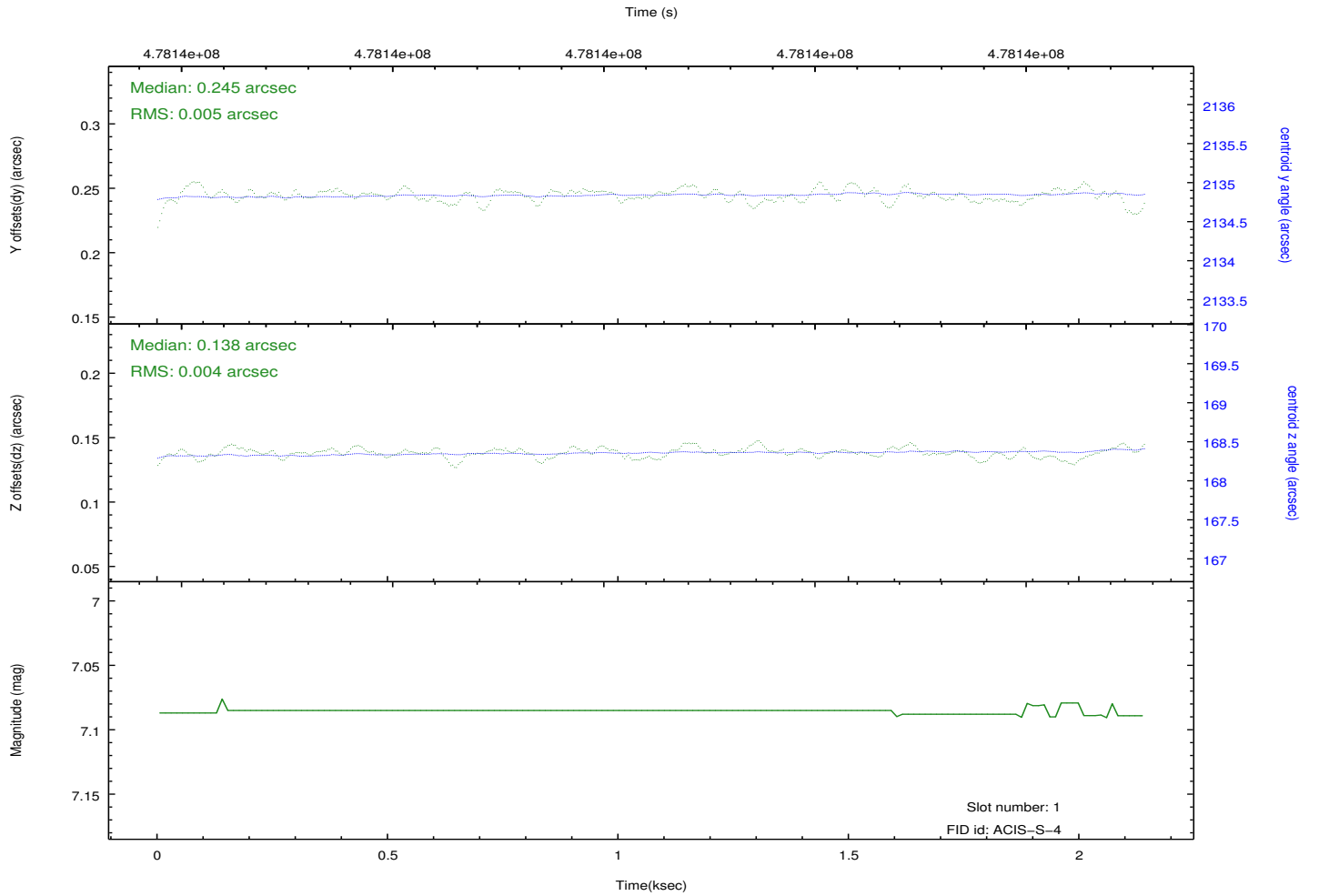
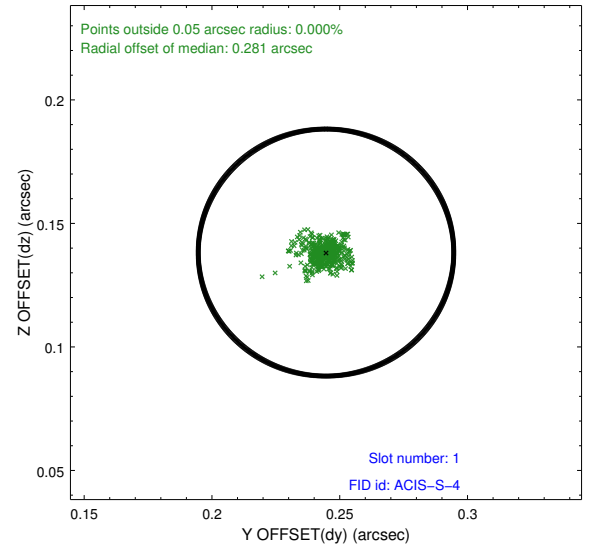
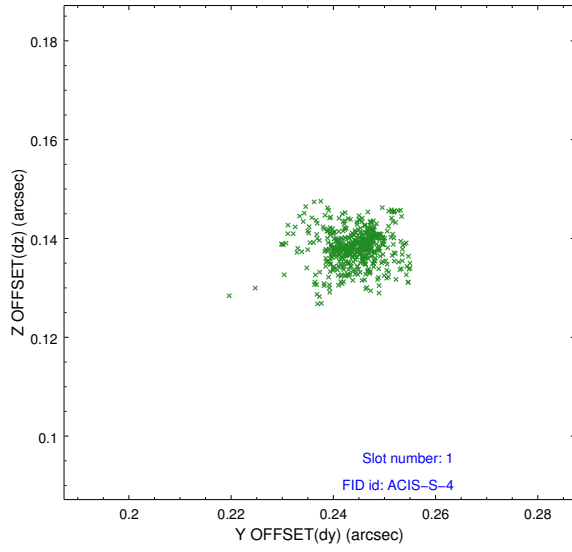


## 2.5 FID Slots

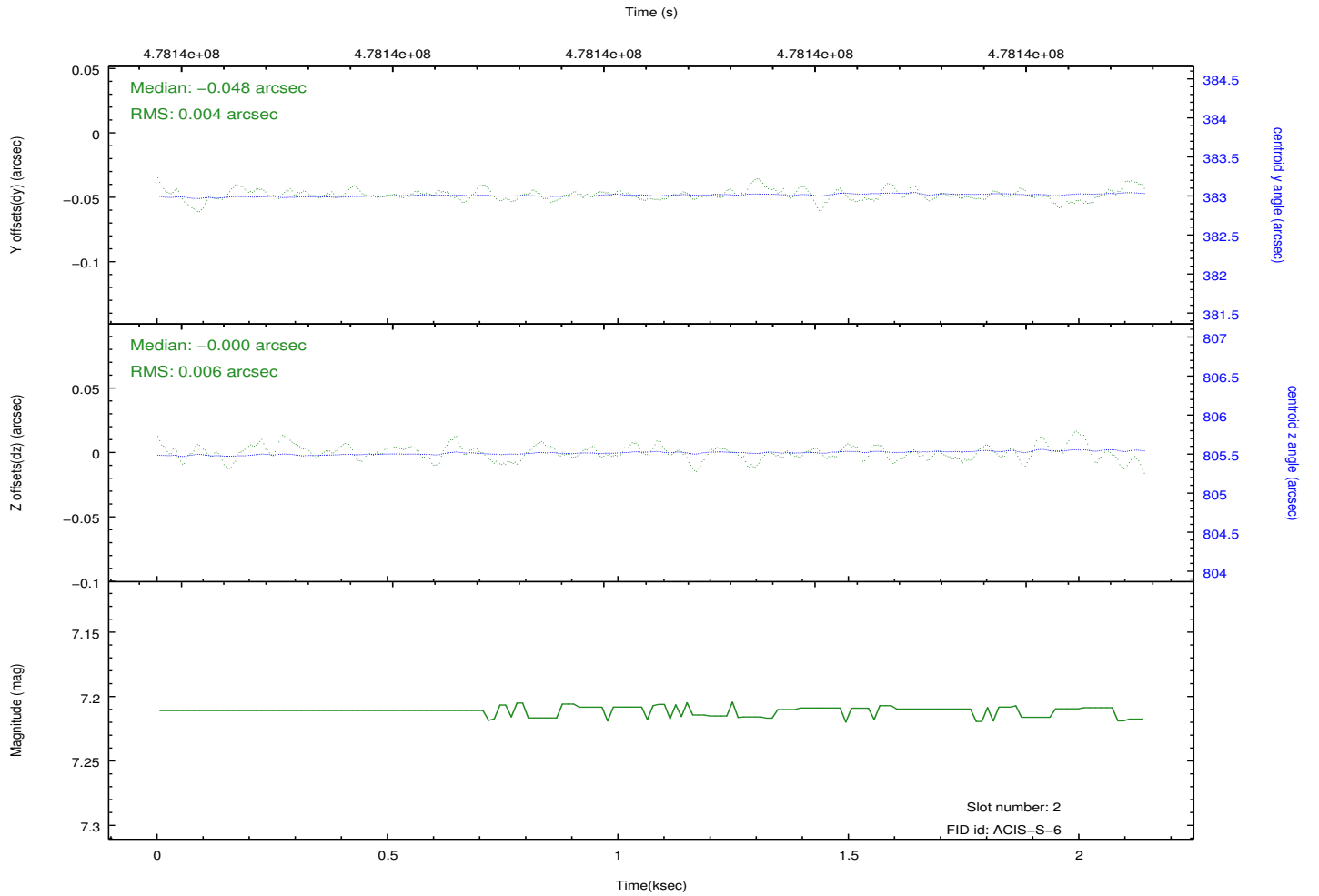
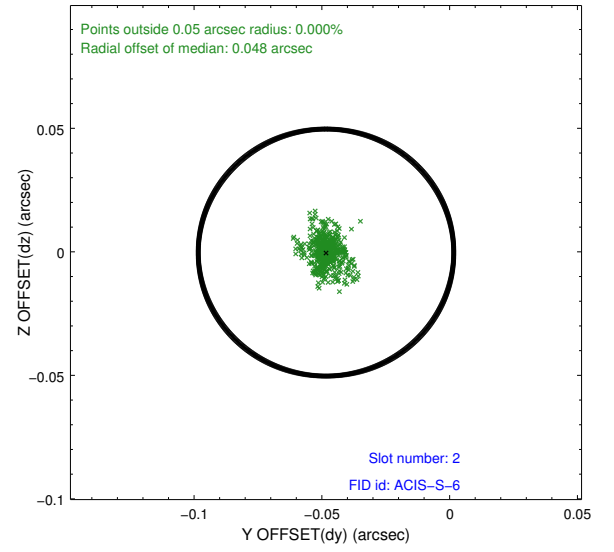
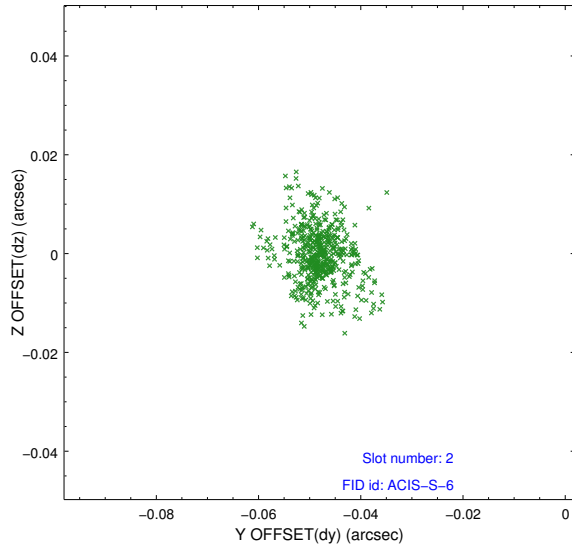
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2





# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.0942720884681

## A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.