

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15348 - L2 Version 2  
Chandra X-Ray Center

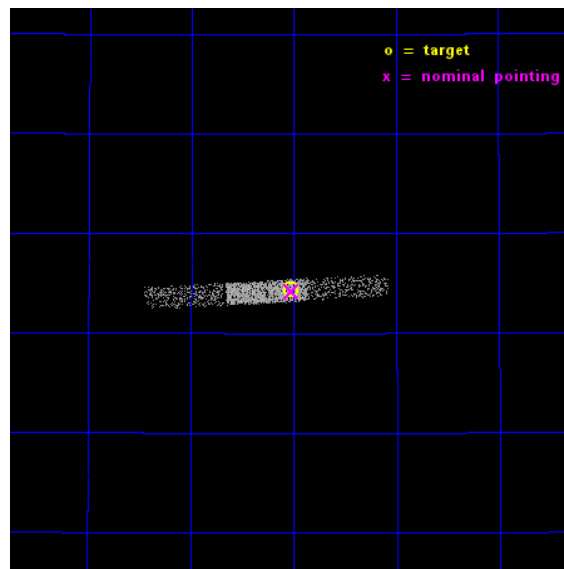
L2 Processing Date : Dec 3 2014

## 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

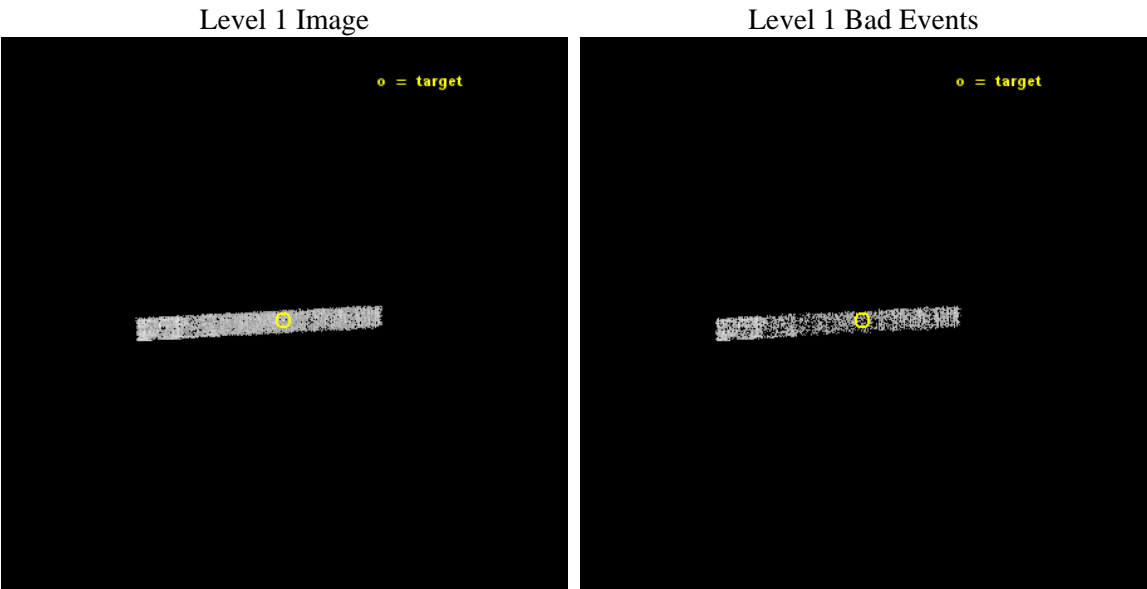
seq_num	702908	Sequence number
obs_id	15348	Observation id
title	Clarifying the Nature of Weak-Line Quasars with Chandra Spectroscopy and Snapshots	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	SDSS J1643+4414	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	250.758333	Observer's specified target RA [deg]
dec_targ	44.239556	Observer's specified target Dec [deg]
ra_nom	250.755706106	Nominal RA [deg]
dec_nom	44.236933565126	Nominal Dec [deg]
roll_nom	177.07741005919	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3093.2999180555	Sum of GTIs [s]
livetime	2958.3970142077	Livetime [s]
ontime6	3093.2999180555	Sum of GTIs [s]
ontime7	3093.2999180555	Sum of GTIs [s]
ontime8	3090.4768774509	Sum of GTIs [s]
l2events	3007	Number of level 2 events



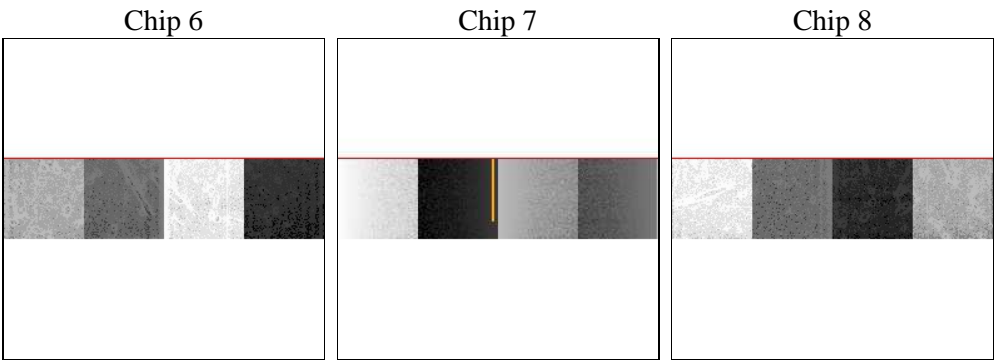
# 2 OBI

## 2.1 OBI

### 2.1.1 Images



### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	3000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	3093.2999180555	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime6	3093.2999180555	Sum of GTIs [s]
date	2014-12-03T09:20:00	Date and time of file creation	ontime7	3093.2999180555	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	3090.4768774509	Sum of GTIs [s]
			l1events	15183	Number of level 1 events

### 2.1.4 Events

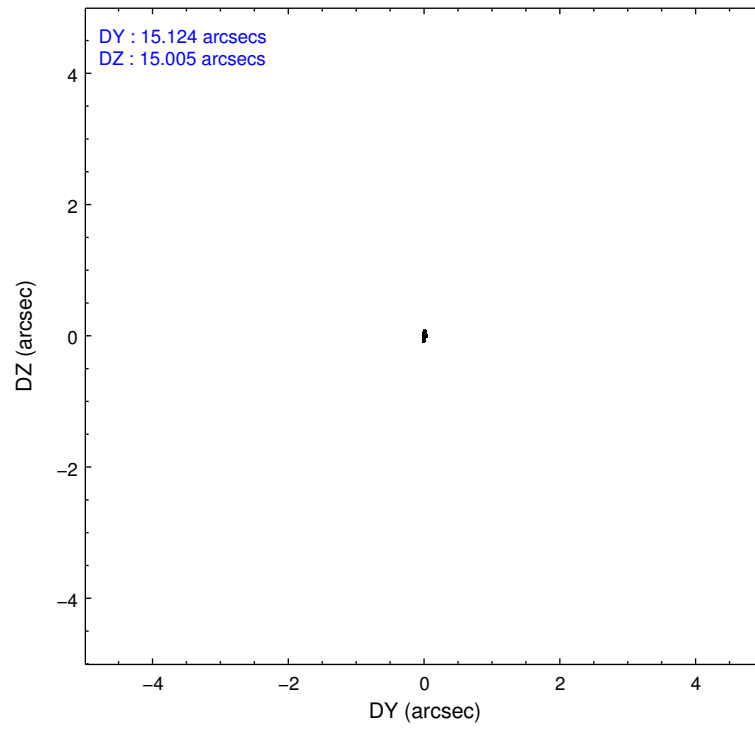
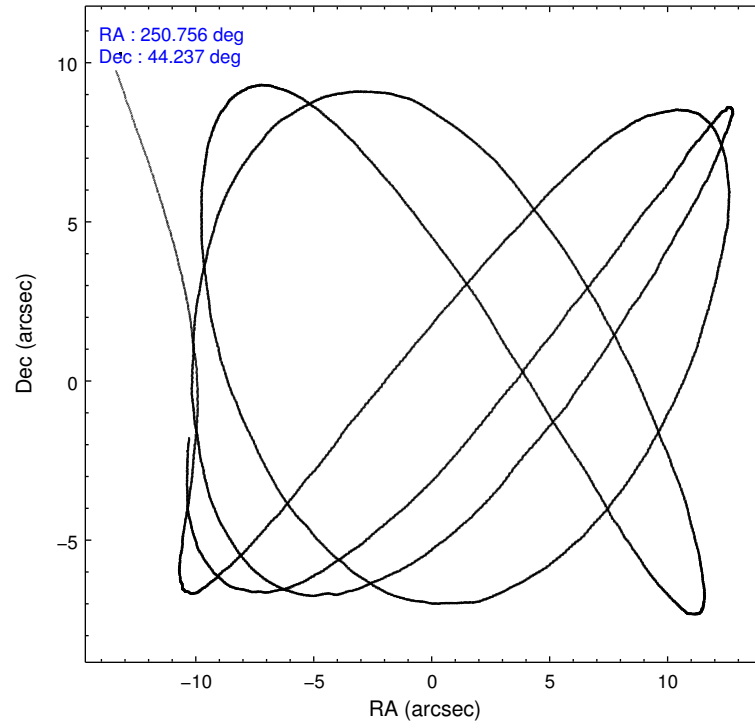
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	4323	4532	6328
rejected events	3831	2269	4997
rejected %	<b>88%</b>	<b>50%</b>	<b>78%</b>

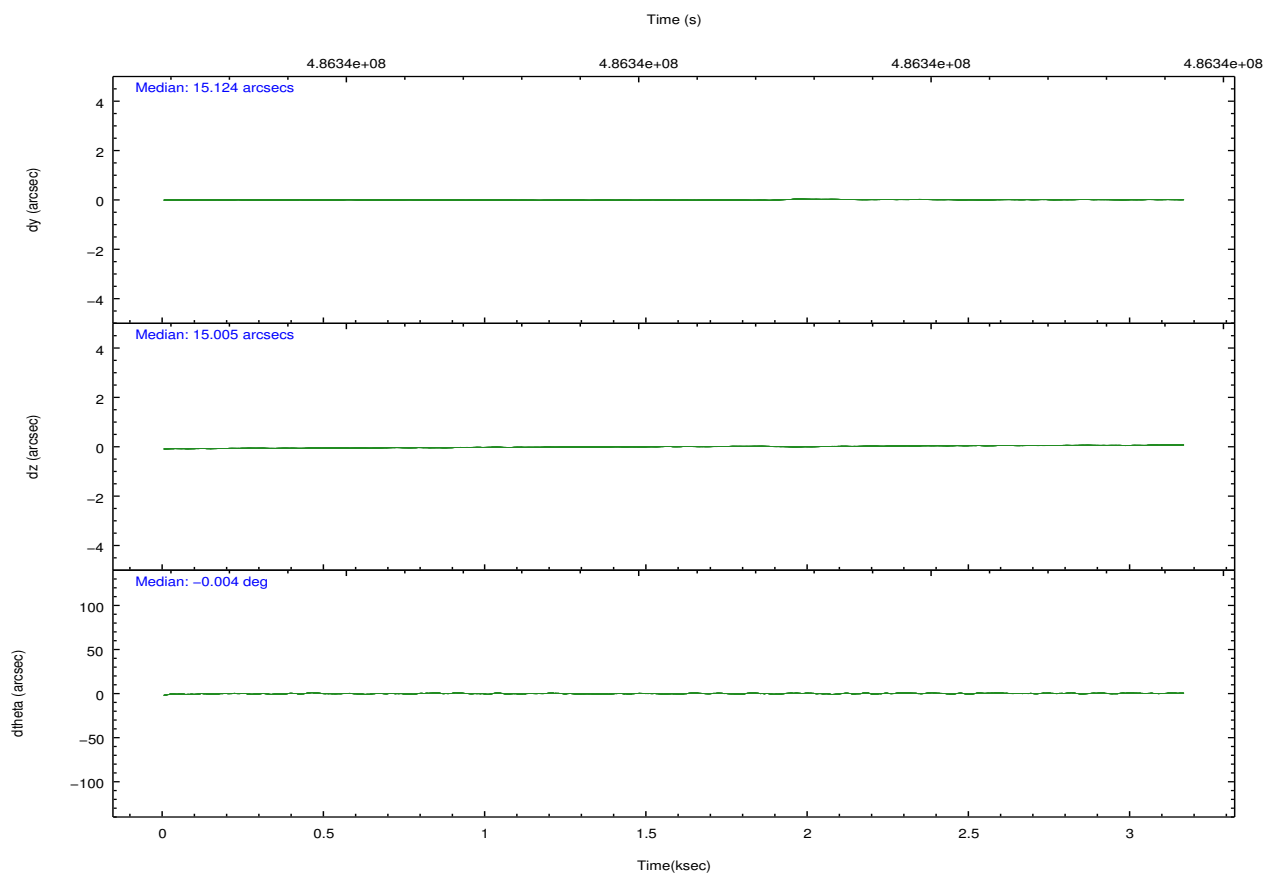
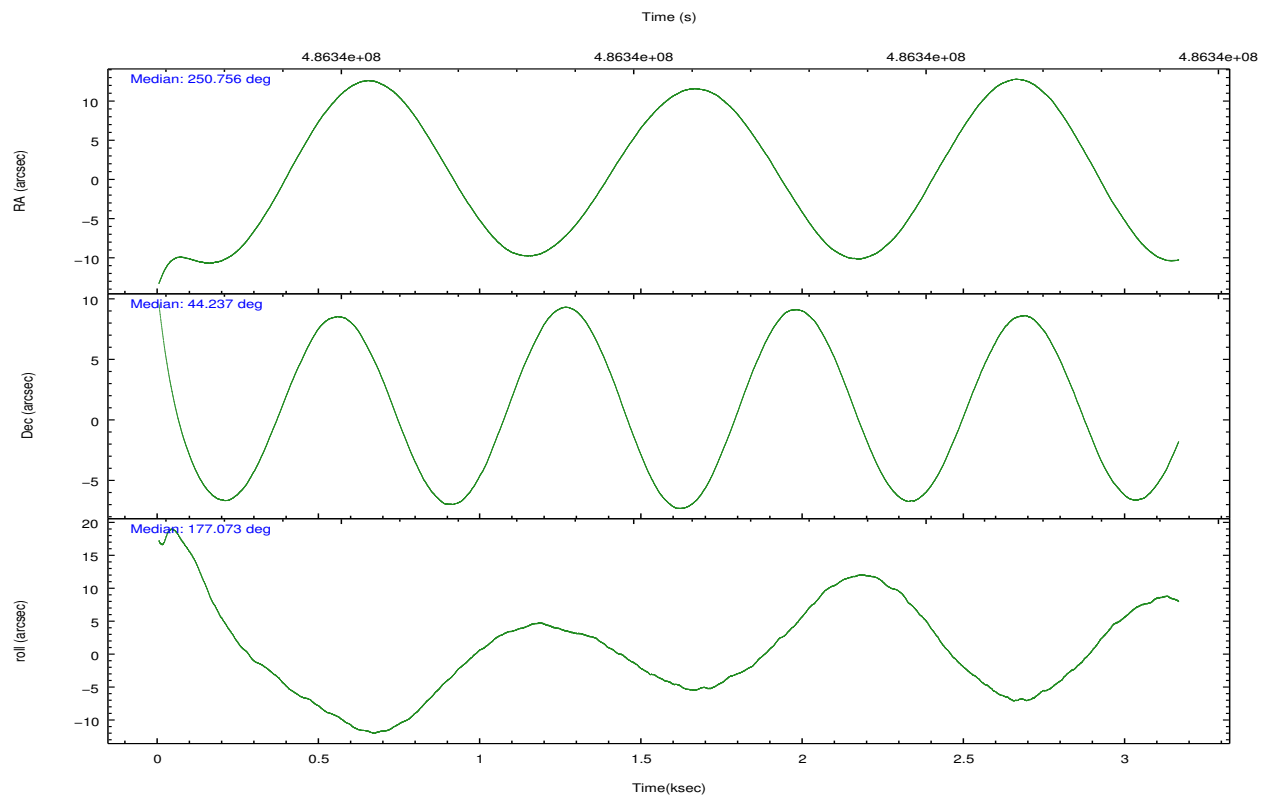
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	143	267	347
	3%	5%	5%
grade 1 events	2	6	2
	0%	0%	0%
grade 2 events	105	453	319
	2%	9%	5%
grade 3 events	81	249	152
	1%	5%	2%
grade 4 events	65	254	135
	1%	5%	2%
grade 5 events	150	487	236
	3%	10%	3%
grade 6 events	98	1040	378
	2%	22%	5%
grade 7 events	3679	1776	4759
	85%	39%	75%

## 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	250.789639	250.7557061060022	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	44.249858	44.23693356512626	Subarray start row	385	385
[deg] Pointing Roll	176.897098	177.0774100591882	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)	486337704.184000	486336692.46671			
Observation start date	2013-05-30T21:47:17	2013-05-30T21:31:32			
[s] Observation end time (MET)	486340704.184000	486341576.59197			
Observation end date	2013-05-30T22:37:17	2013-05-30T22:52:56			
Read mode	TIMED	TIMED			

## 2.3 Aspect





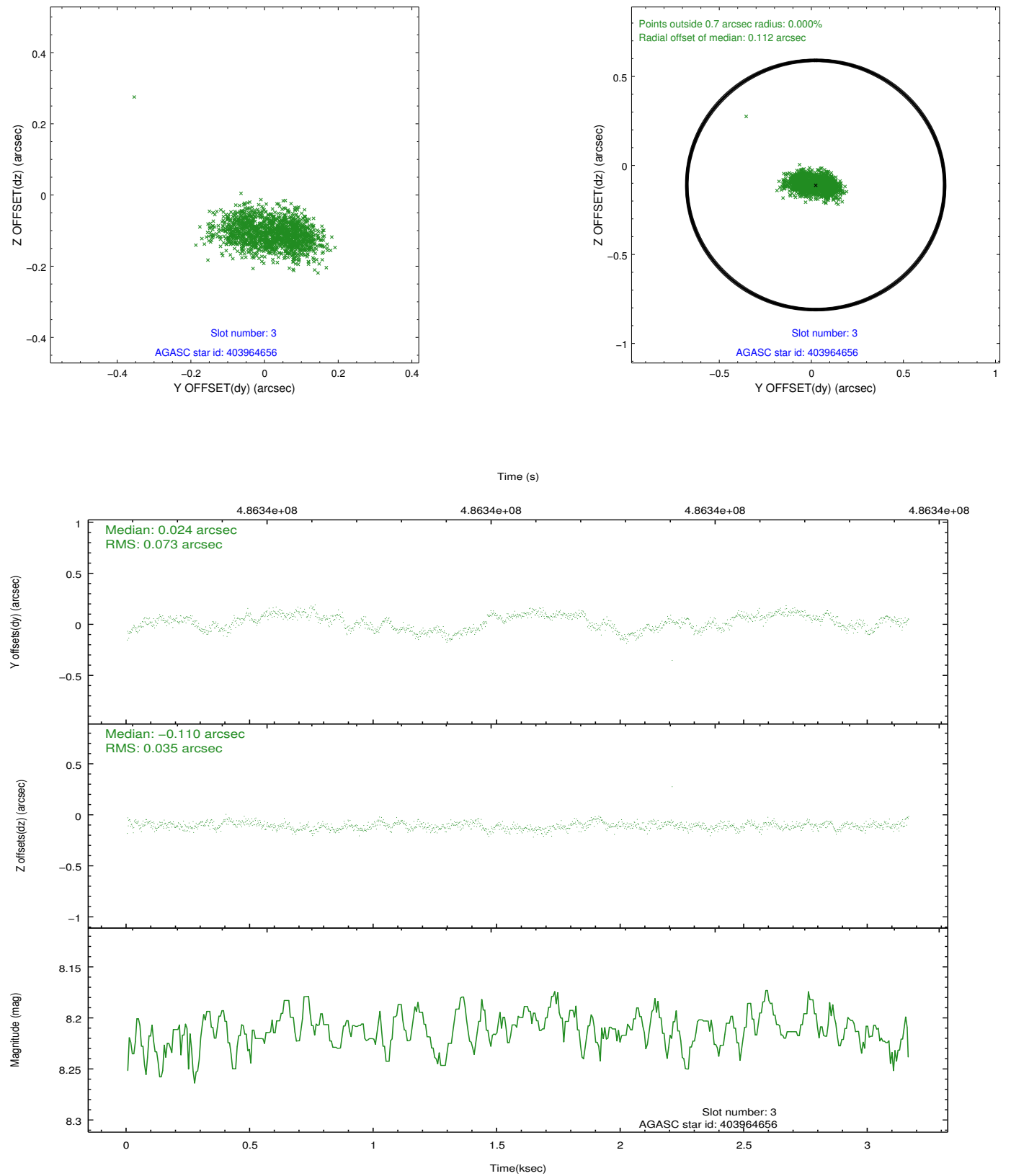
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.01	772	-0.120	-0.010	0.006	0.010	0.000000	0.000000	-768.21	-1736.39
1	FID		ACIS-S-4	7.10	772	0.248	0.061	0.005	0.011	0.000000	0.000000	2144.50	170.08
2	FID		ACIS-S-5	7.13	772	-0.160	-0.042	0.006	0.010	0.000000	0.000000	-1818.52	165.93
3	GUIDE	used	403964656	8.21	1544	0.024	-0.110	0.086	0.136	250.107536	44.028904	1720.21	881.99
4	GUIDE	used	403966904	7.99	1544	-0.110	-0.075	0.062	0.095	250.587592	43.979287	470.88	1000.93
5	GUIDE	used	403967496	8.59	1544	0.167	0.022	0.061	0.103	250.953746	44.214120	-429.44	105.38
6	GUIDE	used	403970336	8.93	1542	-0.093	0.203	0.097	0.172	250.302150	44.732649	1338.80	-1671.75
7	GUIDE	used	403967320	7.76	1543	0.024	-0.048	0.067	0.104	251.285478	44.113335	-1305.43	416.11

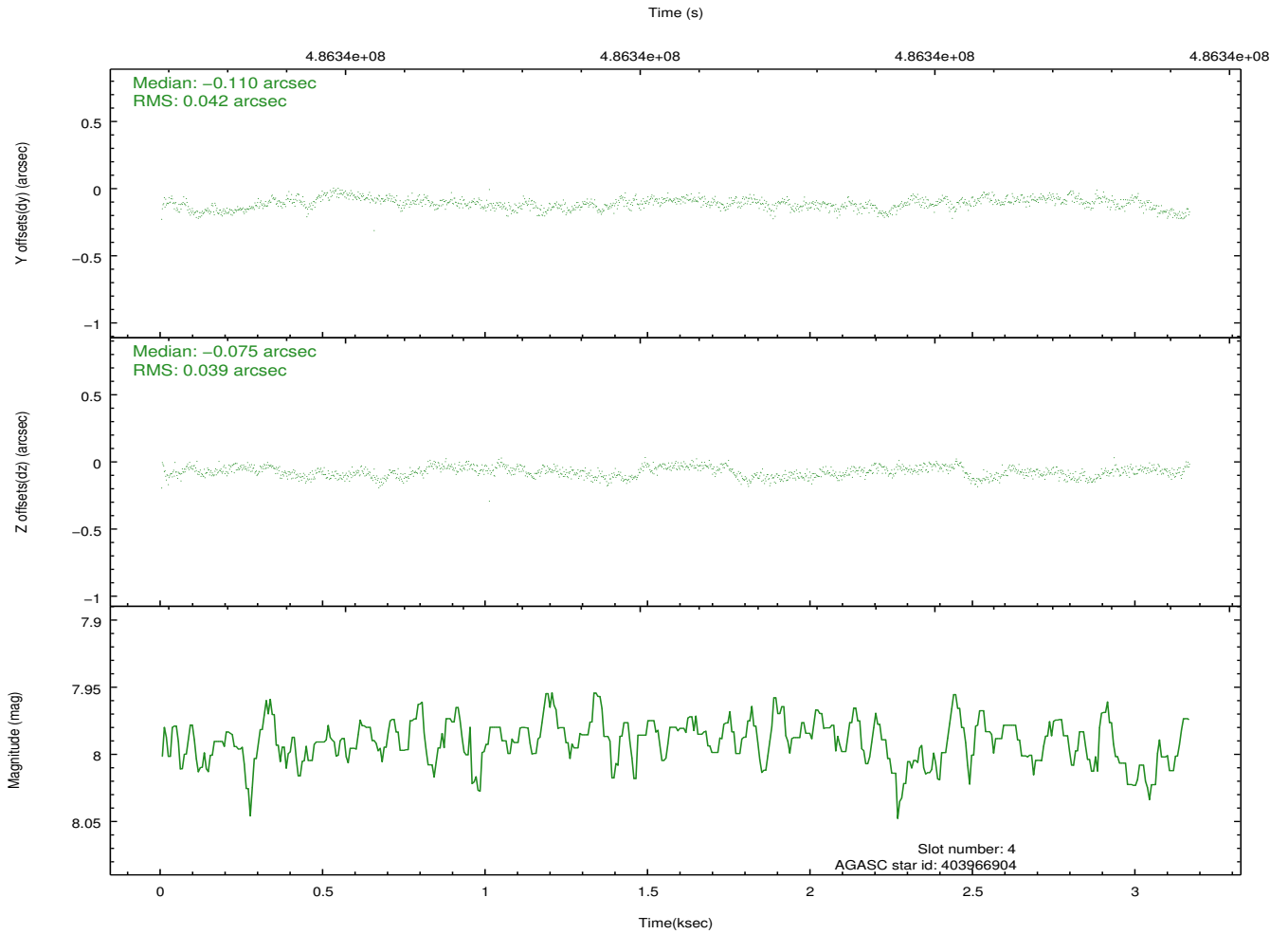
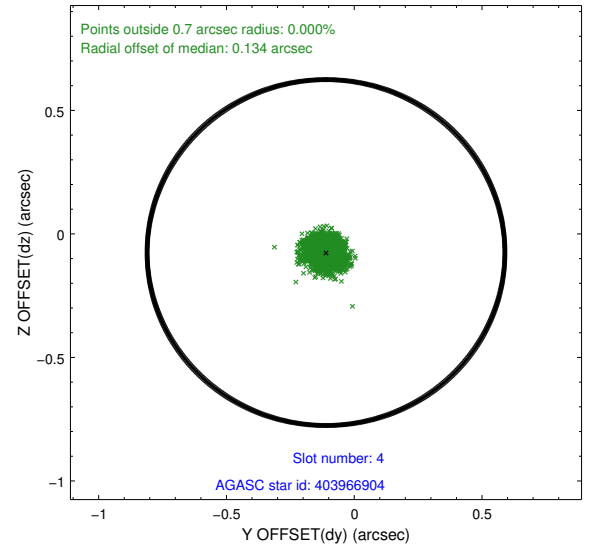
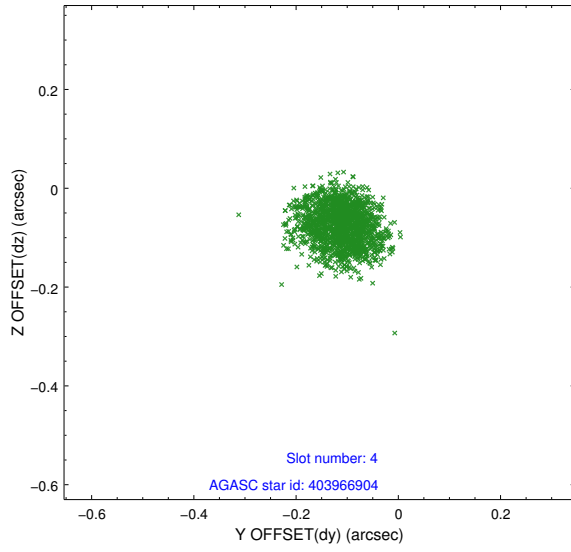


## 2.4 Star Slots

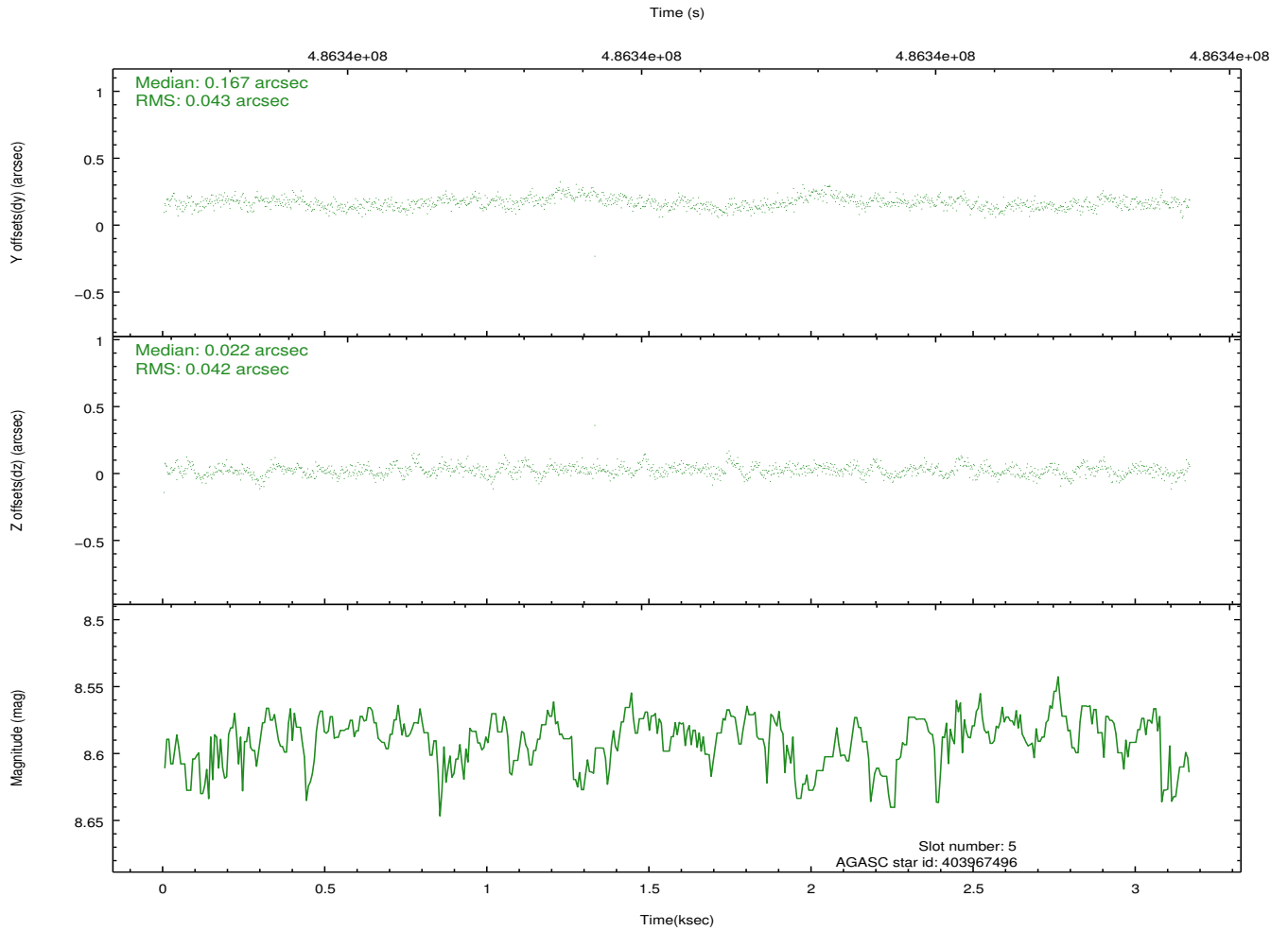
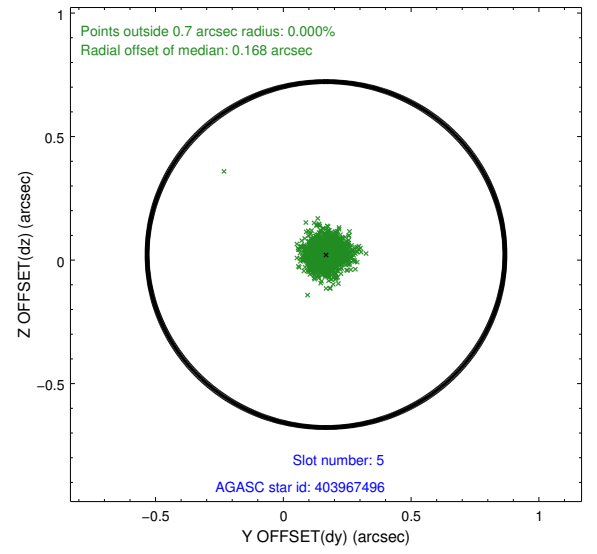
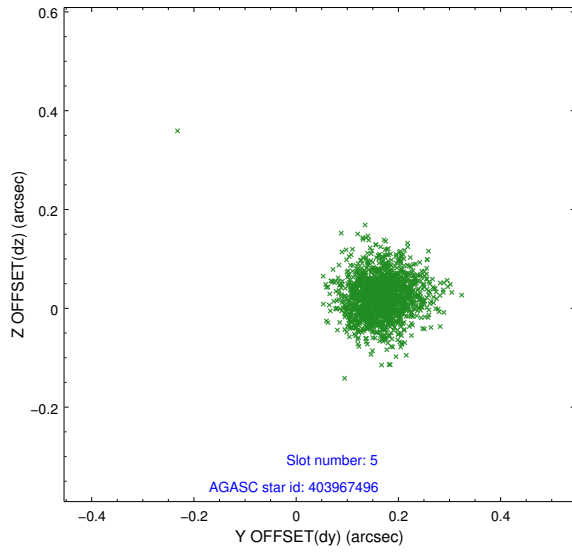
### 2.4.1 Slot 3



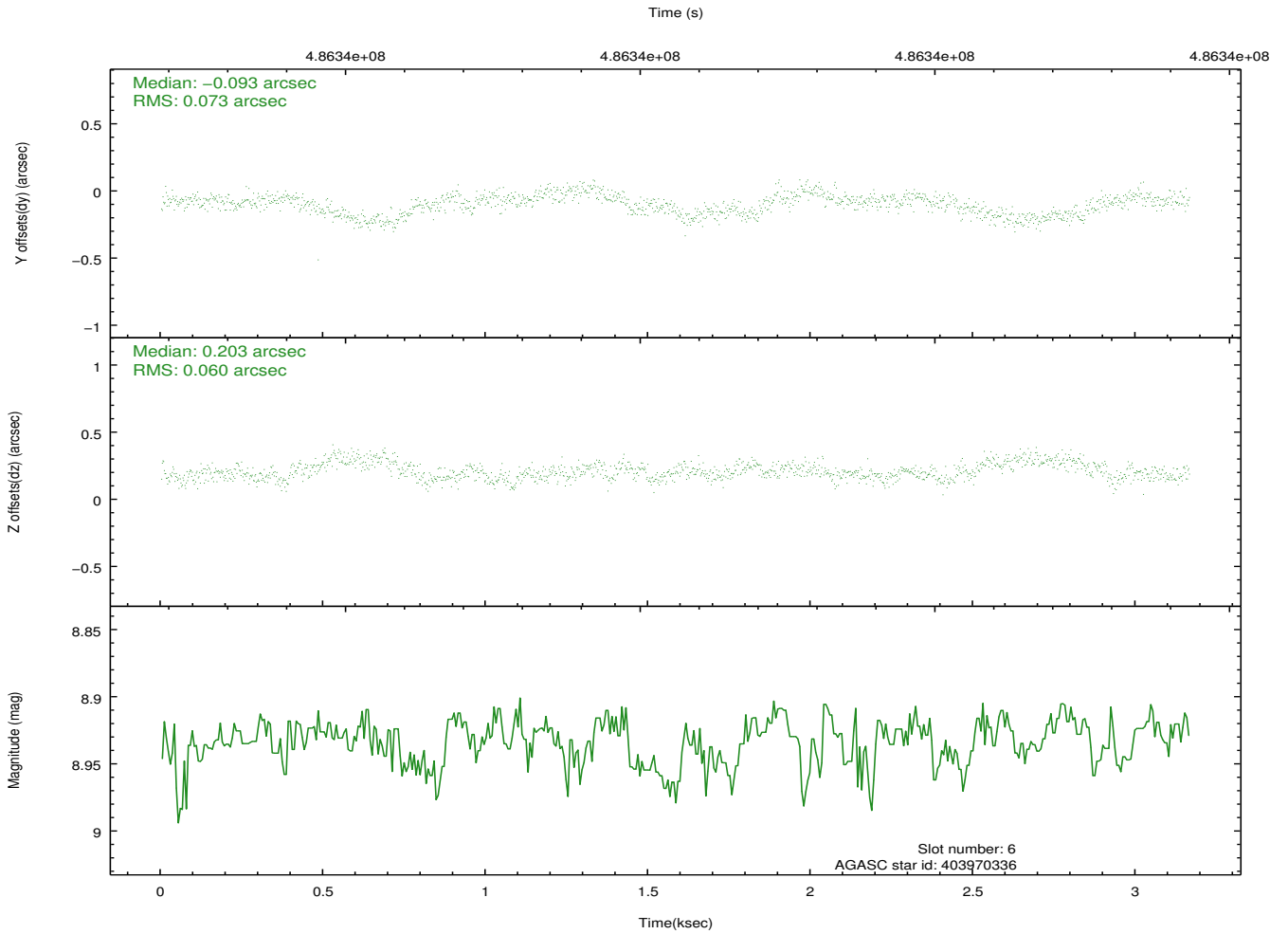
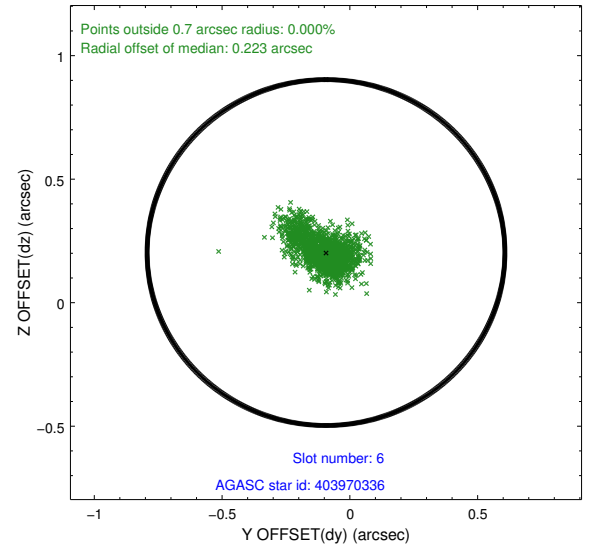
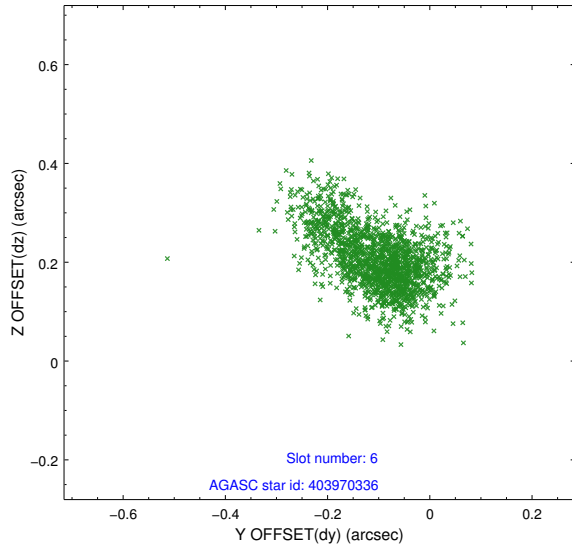
## 2.4.2 Slot 4



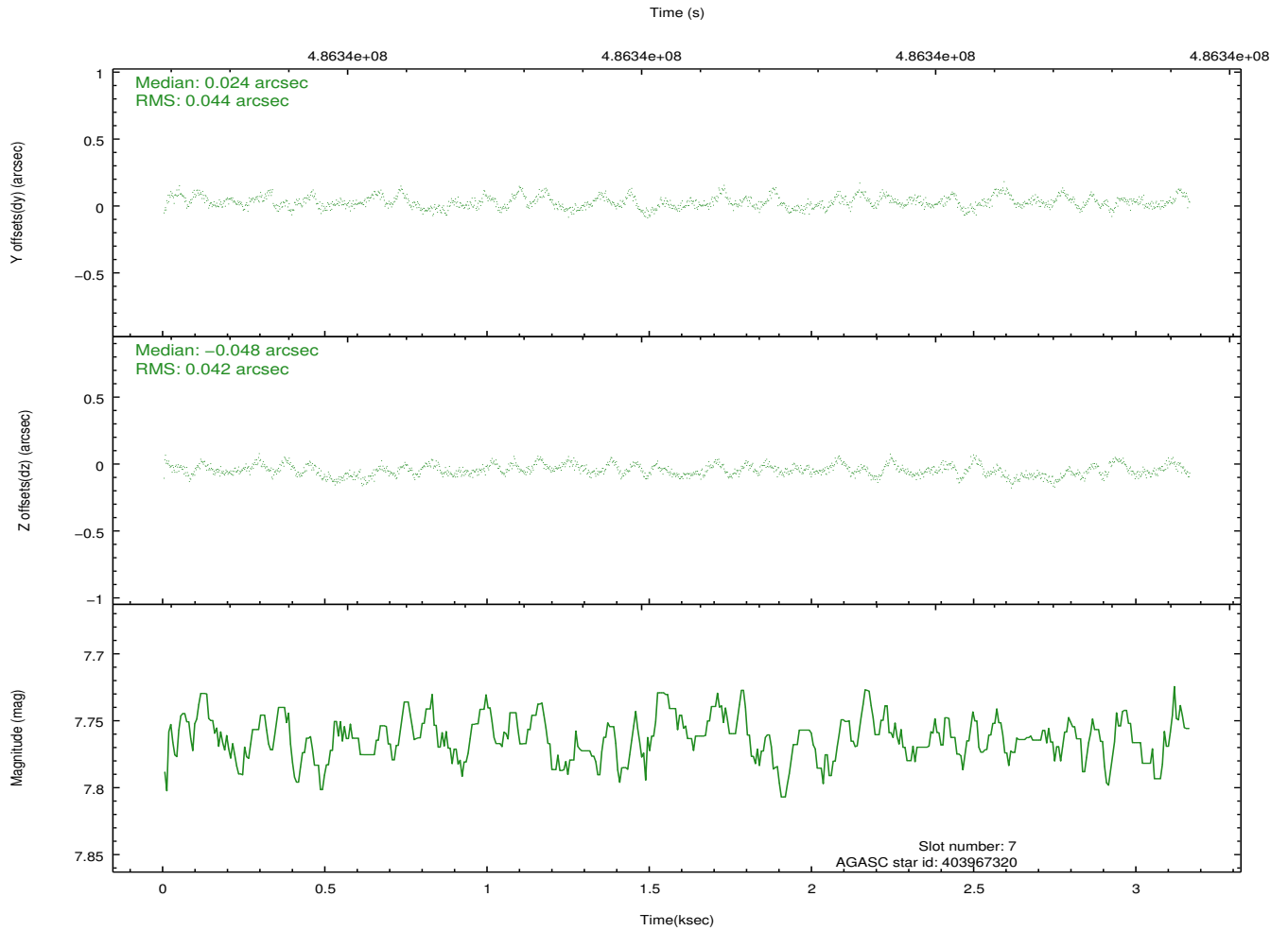
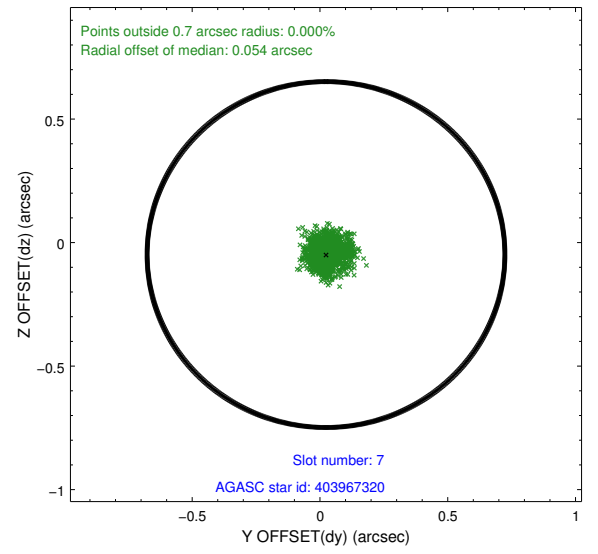
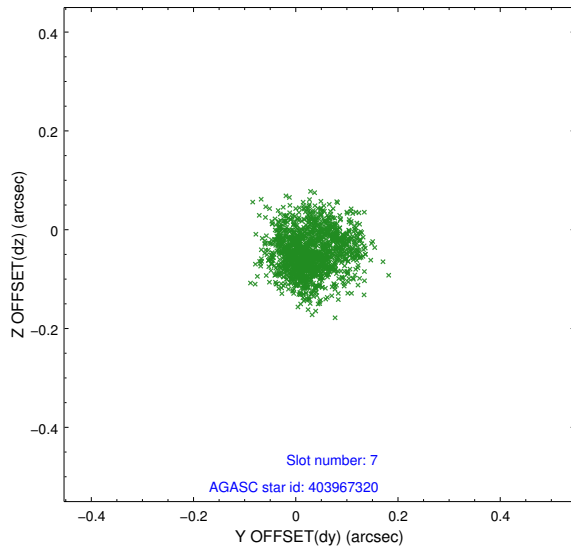
### 2.4.3 Slot 5



## 2.4.4 Slot 6

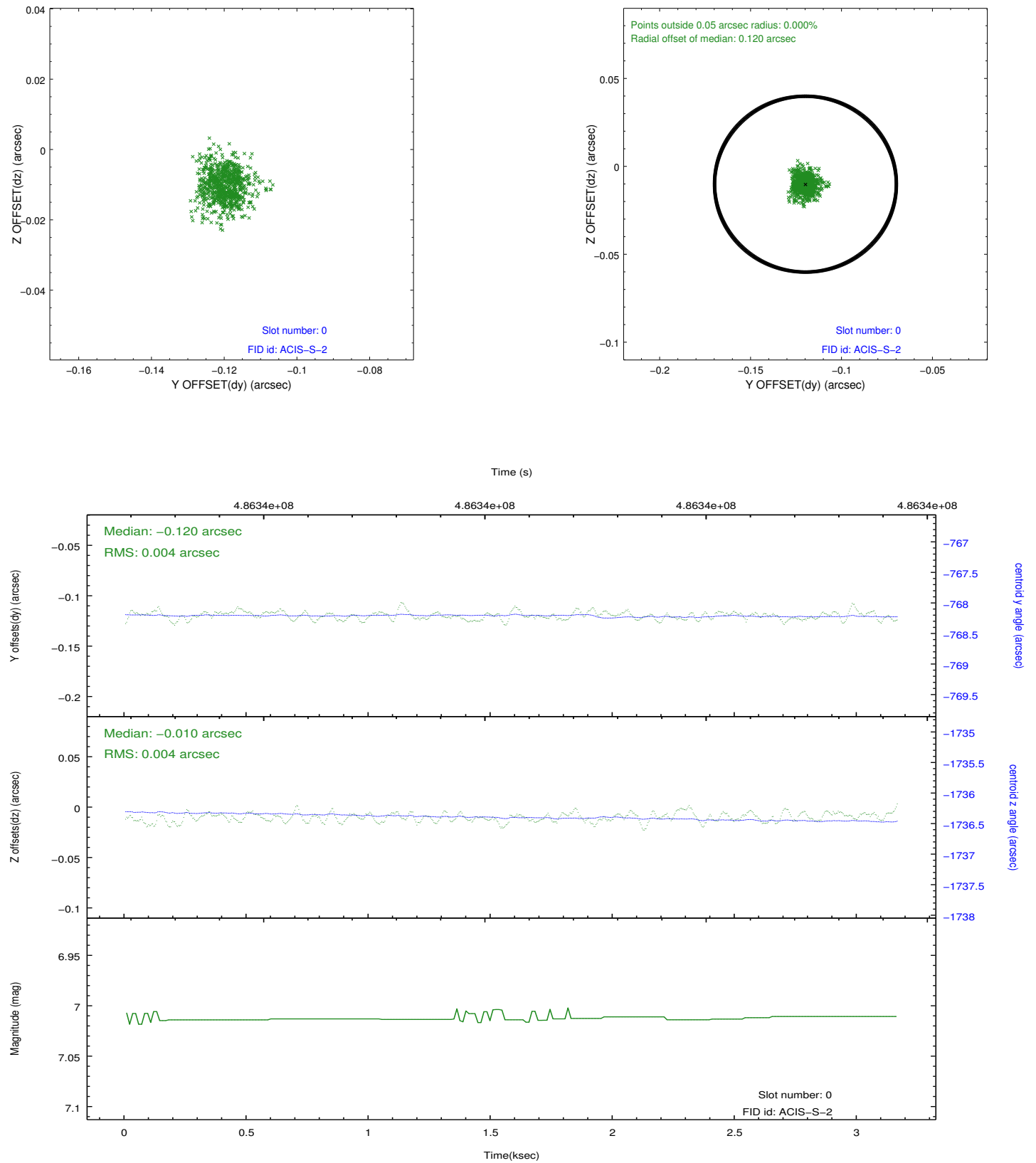


## 2.4.5 Slot 7

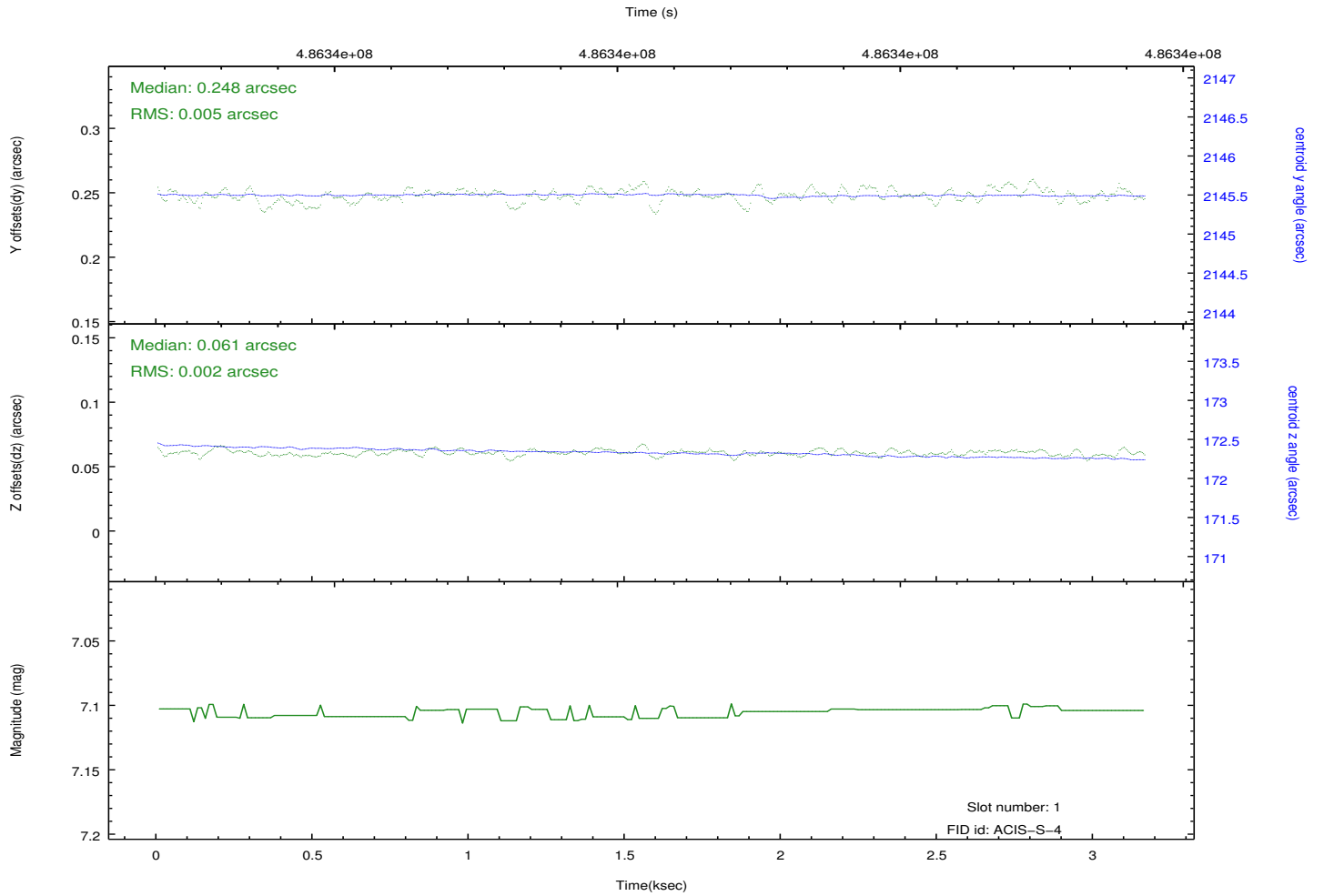
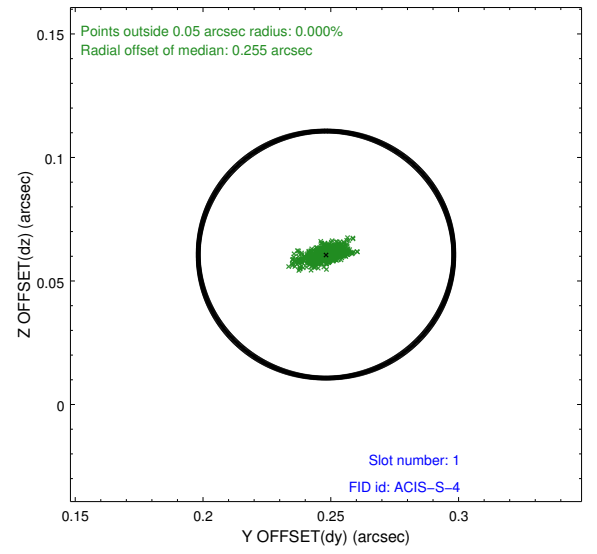
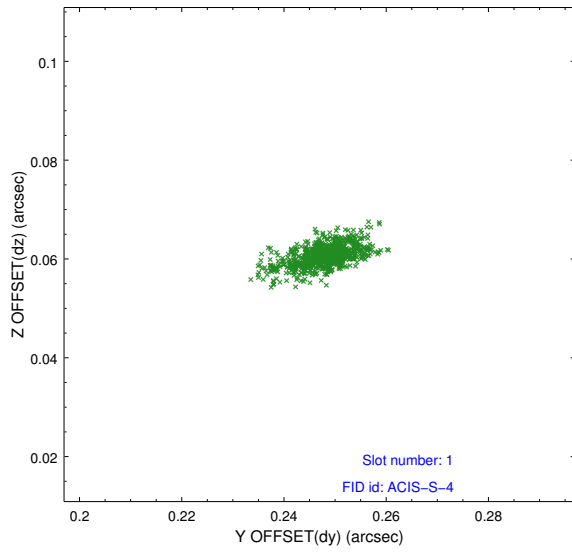


## 2.5 FID Slots

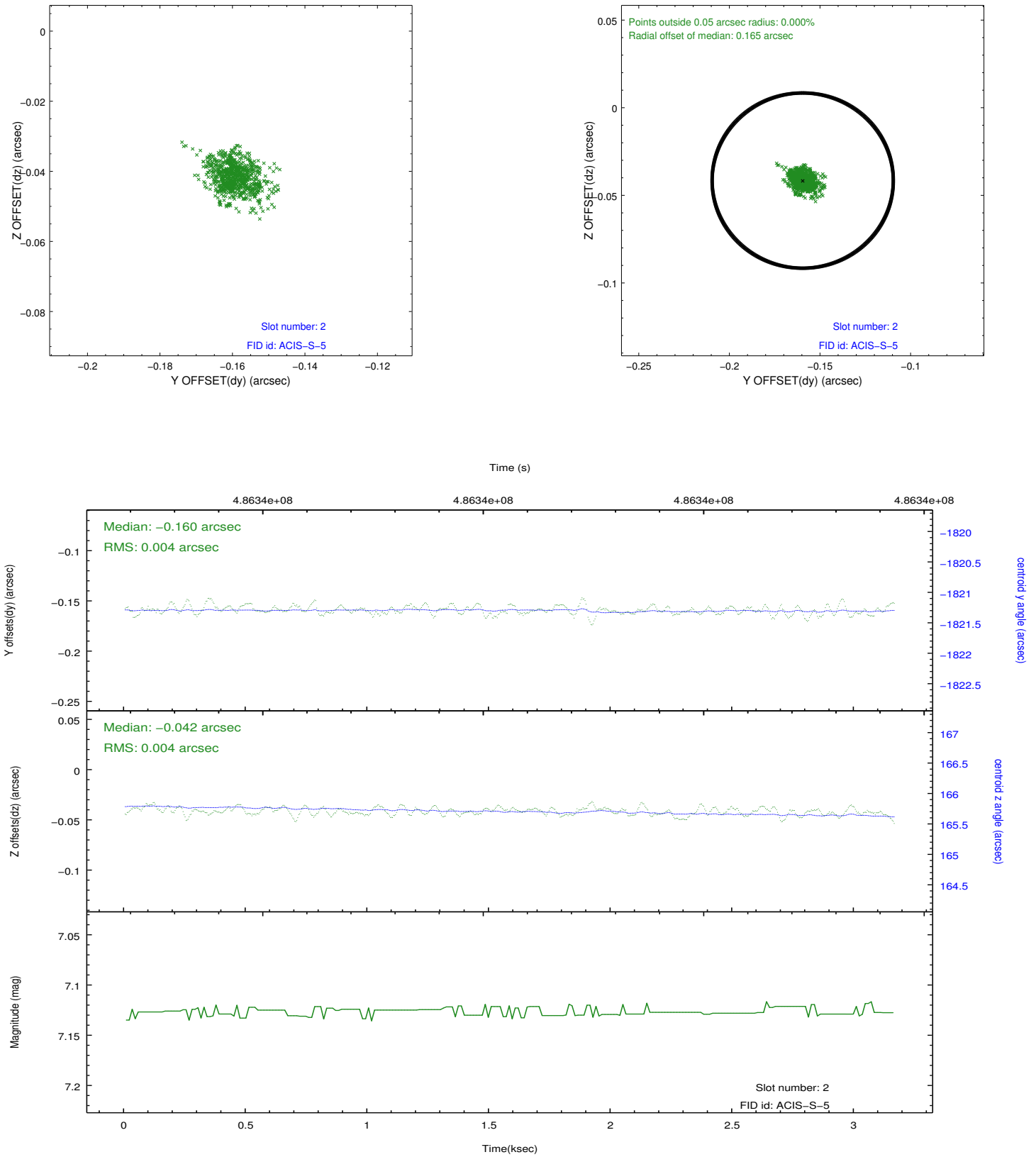
### 2.5.1 Slot 0



## 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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.0932999180555

## 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.