

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 15413 - L2 Version 2  
Chandra X-Ray Center

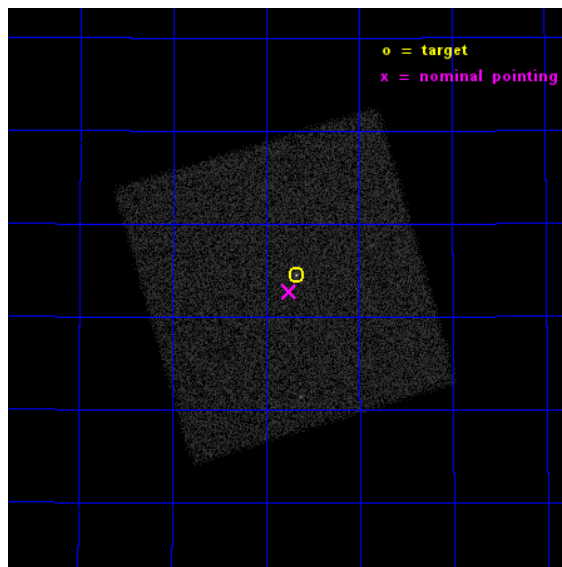
L2 Processing Date : Dec 6 2014

## 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	Parameters . . . . .	4
2.1.3	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

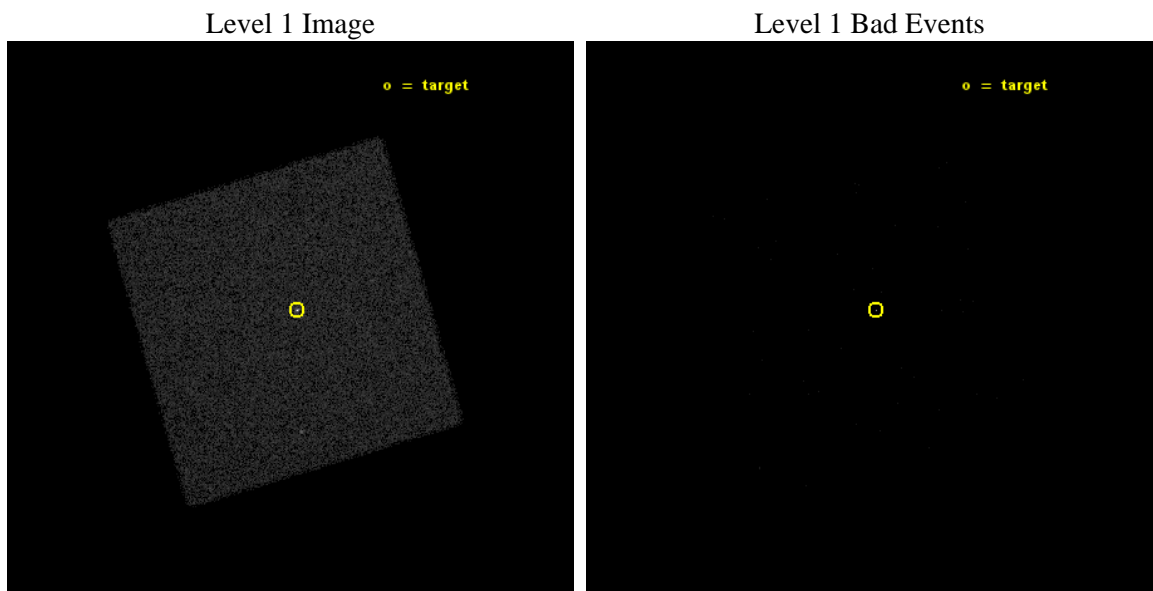
seq_num	291092	Sequence number
obs_id	15413	Observation id
title	AO-14 Calibration Observations to Monitor the Spatial Variations in the HRC-I Gain	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.18724875666	Nominal RA [deg]
dec_nom	45.712794467253	Nominal Dec [deg]
roll_nom	208.47413016556	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1175.9313141108	[s]
livetime	1166.7819233041	Ontime multiplied by DTCOR
l2events	72326	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	1000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	1175.9313141108	[s]
caldbver	4.6.4	&#160	l1events	114994	Number of level 1 events
date	2014-12-06T15:43:20	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

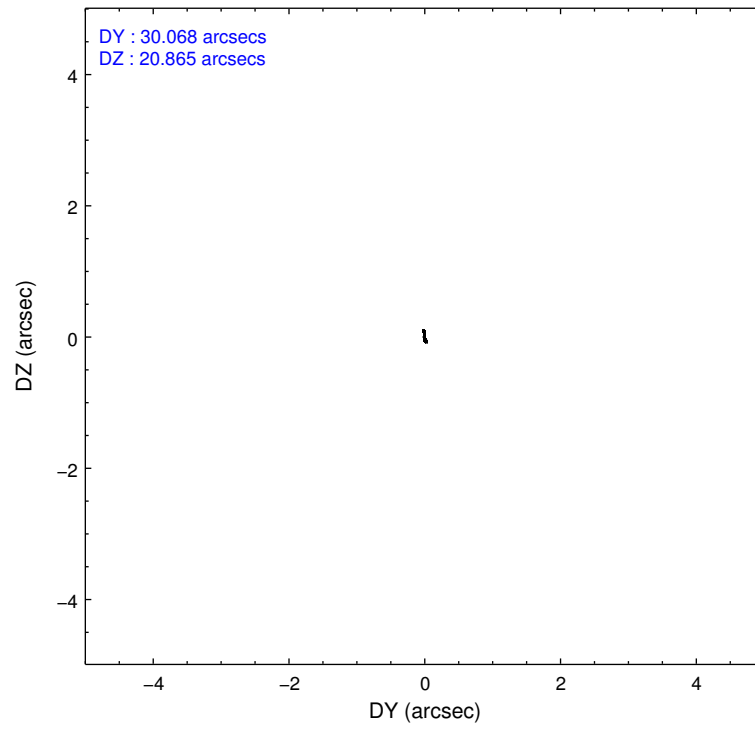
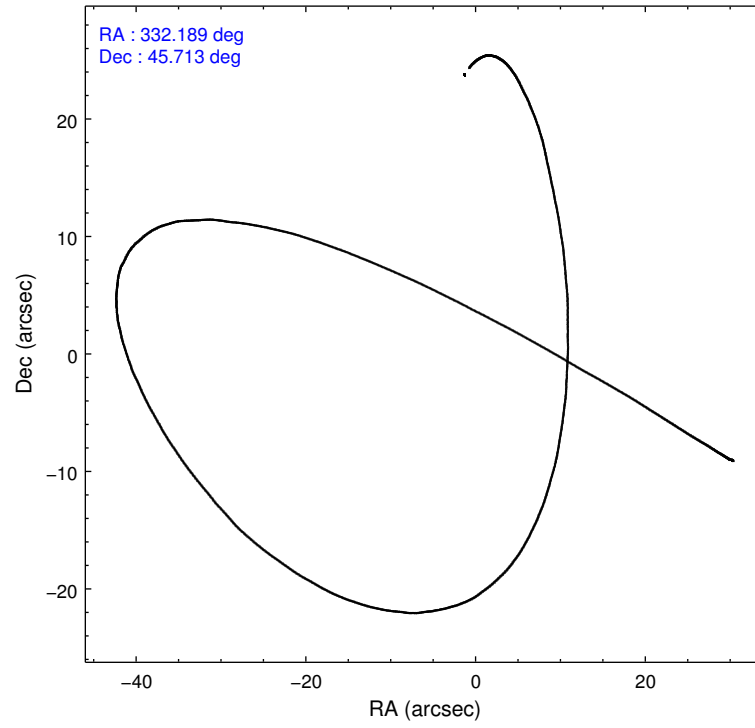
#### Level 1 Events

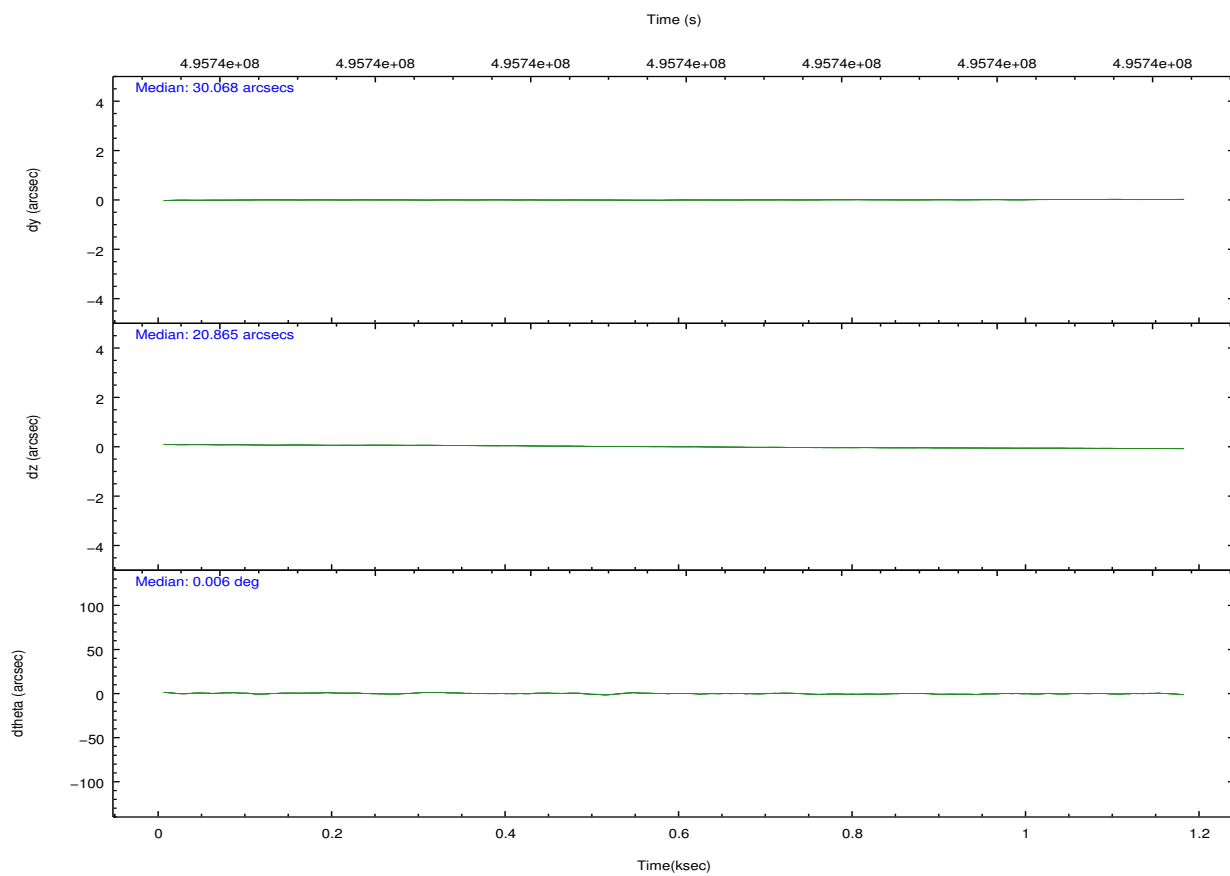
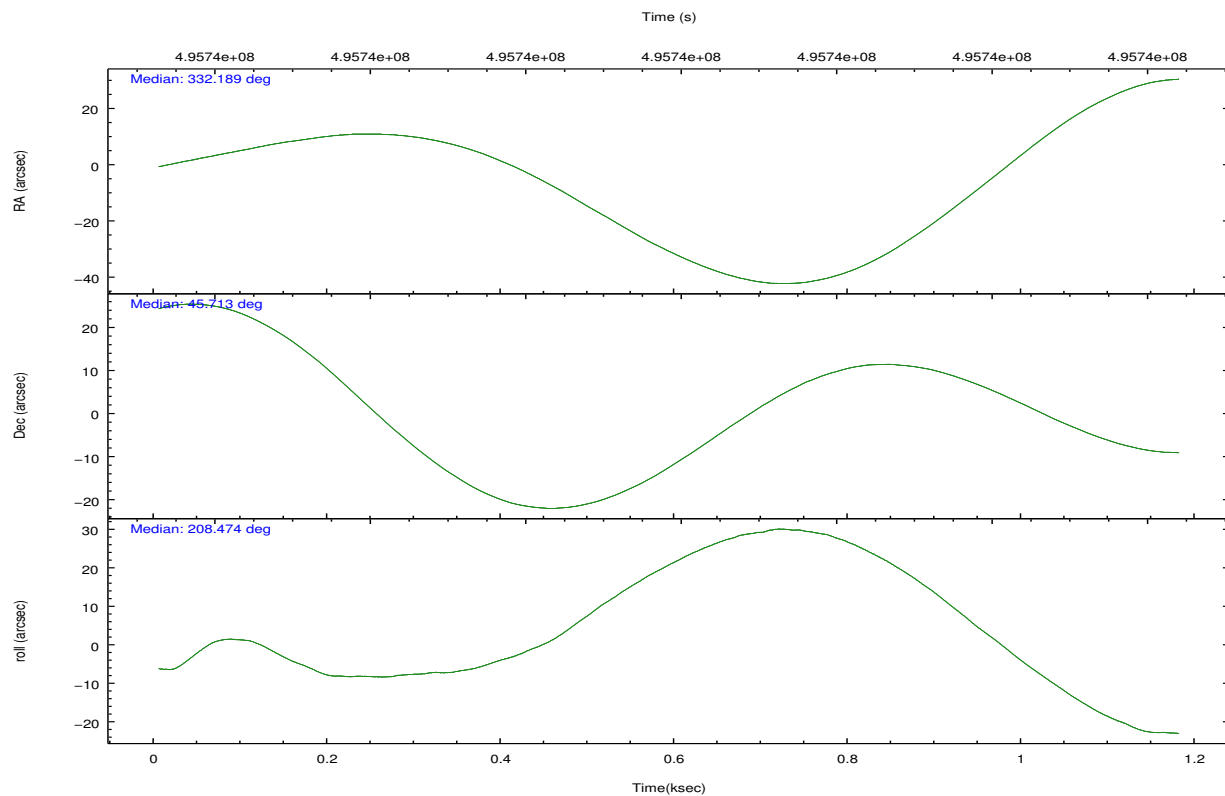
	<b>segment 0</b>
level 1 events	114994
rejected events	18408
rejected %	16%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	7	7
Detector	HRC-I	HRC-I	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	332.206429	332.1872487566569			
[deg] Pointing Dec	45.736038	45.71279446725282			
[deg] Pointing Roll	208.555857	208.4741301655636			
[mm] SIM focus pos	-1.040293	-1.038866356238299			
[mm] SIM defocus	0	0.001426264420575141			
[mm] SIM translation stage pos	126.985494	126.9829799899862			
[mm] SIM translation stage offset	0	0.002508901615314585			
[s] Observation start time (MET)	495741174.184000	495740798.40364			
Observation start date	2013-09-16T17:51:47	2013-09-16T17:46:38			
[s] Observation end time (MET)	495742174.184000	495742311.30372			
Observation end date	2013-09-16T18:08:27	2013-09-16T18:11:51			

## 2.3 Aspect





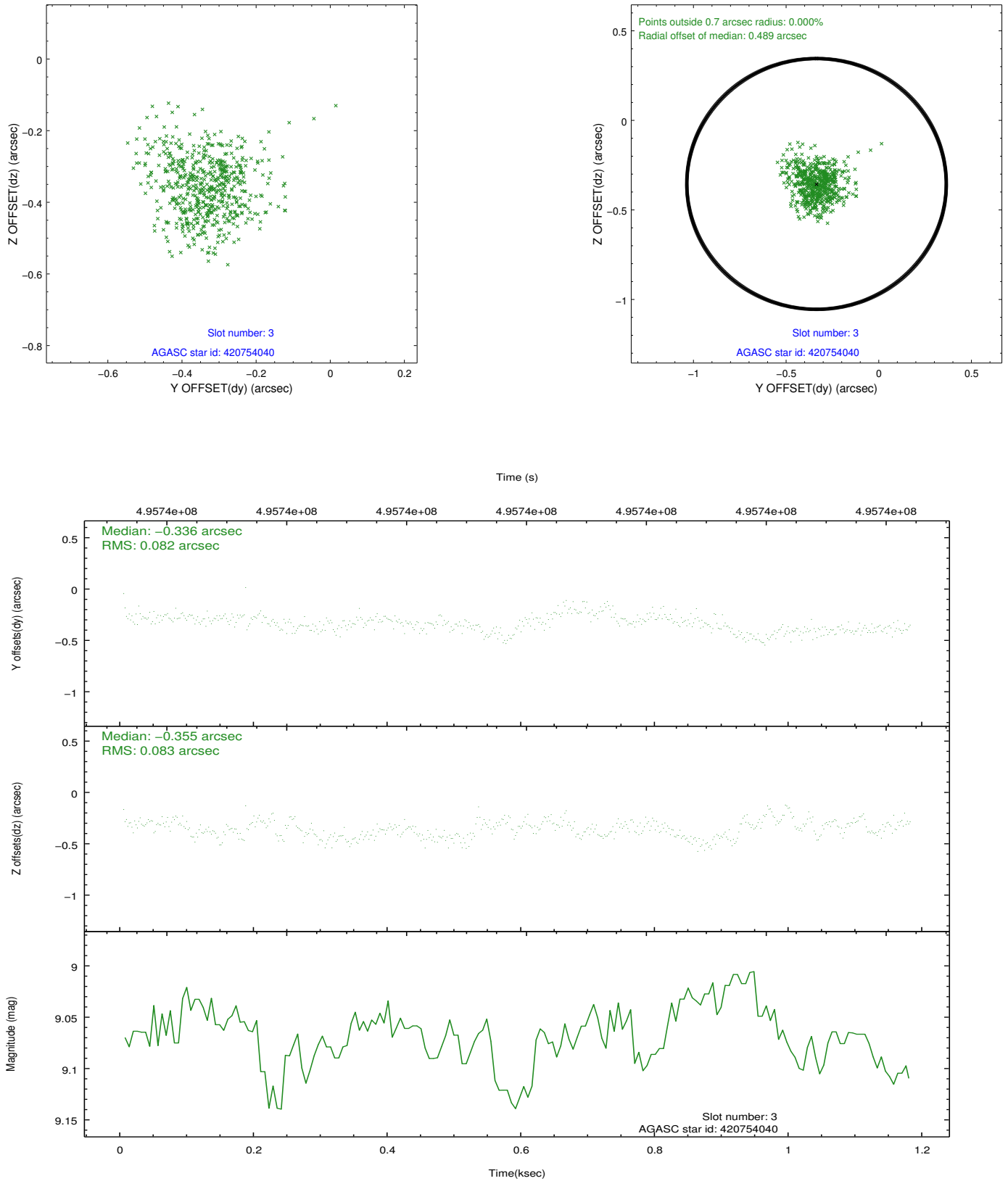
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-I-1	7.01	287	-0.126	0.007	0.007	0.011	0.000000	0.000000	-786.35	-1309.16
1	FID		HRC-I-2	7.05	287	0.229	-0.065	0.006	0.011	0.000000	0.000000	823.90	-1315.29
2	FID		HRC-I-3	7.11	288	0.016	-0.032	0.005	0.009	0.000000	0.000000	-1211.94	990.78
3	GUIDE	used	420754040	9.07	575	-0.336	-0.355	0.122	0.202	331.917939	44.882543	2114.37	2346.38
4	GUIDE	used	472523760	8.24	571	-0.101	-0.196	0.119	0.203	331.645363	45.403260	1821.33	374.50
5	GUIDE	used	472525528	6.65	575	-0.639	-0.099	0.105	0.159	331.551102	45.248694	2298.55	742.17
6	GUIDE	used	472665256	9.00	575	0.492	0.232	0.095	0.147	332.808125	46.195041	-2103.40	-737.58
7	GUIDE	used	472663080	9.39	574	0.578	0.417	0.179	0.370	332.652741	46.473840	-2244.55	-1807.11

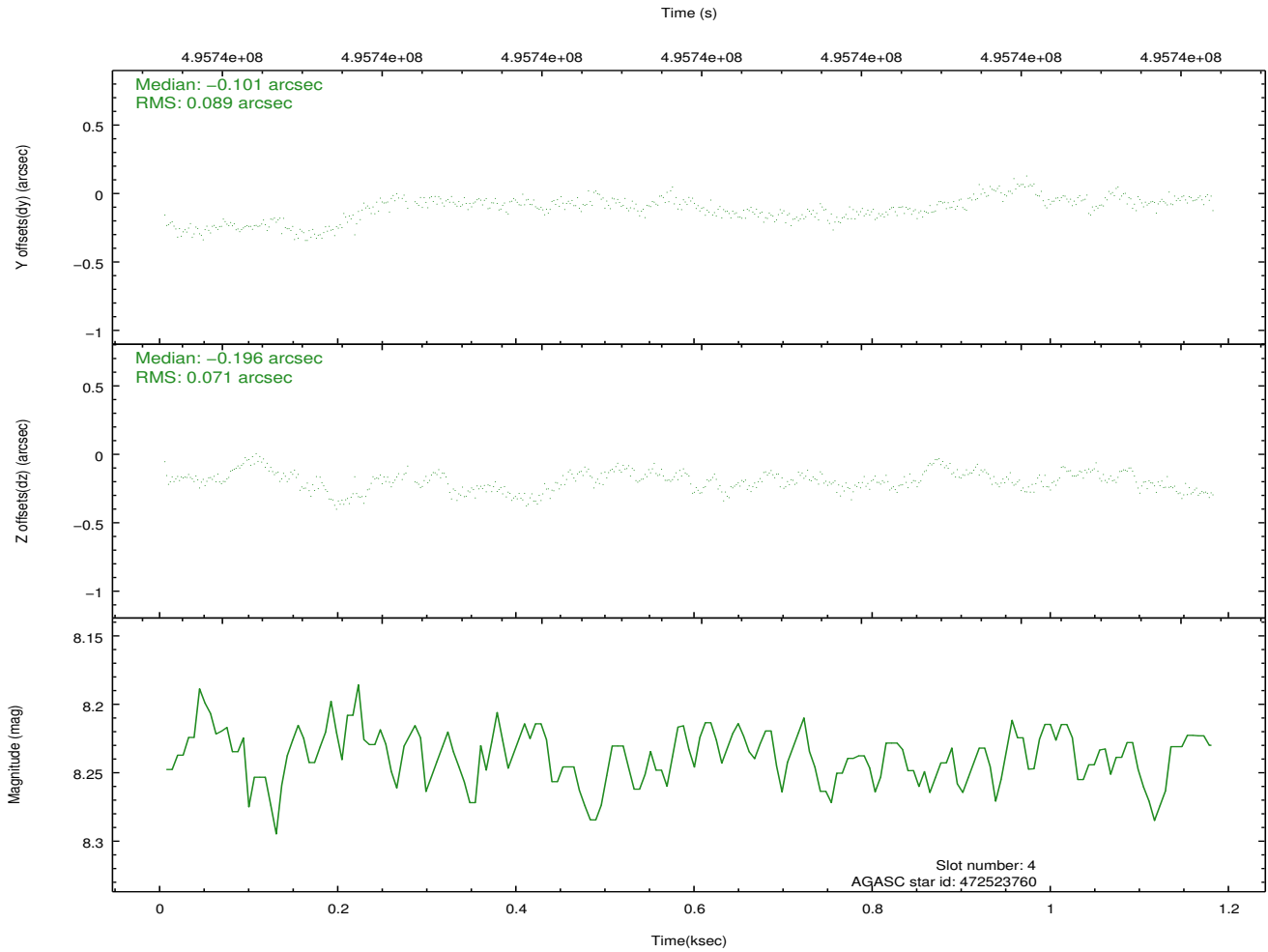
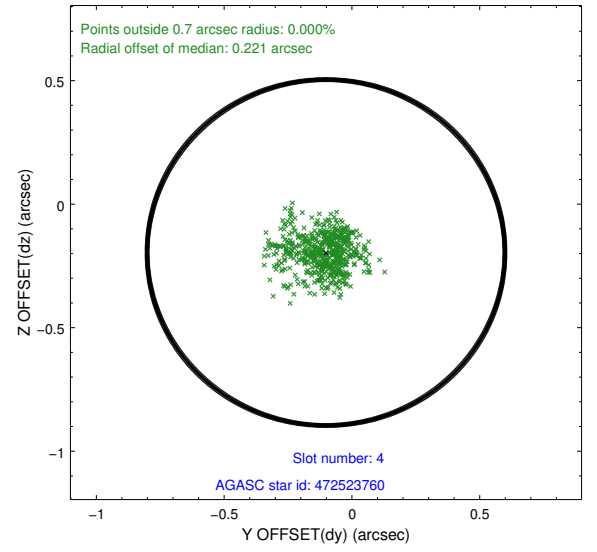
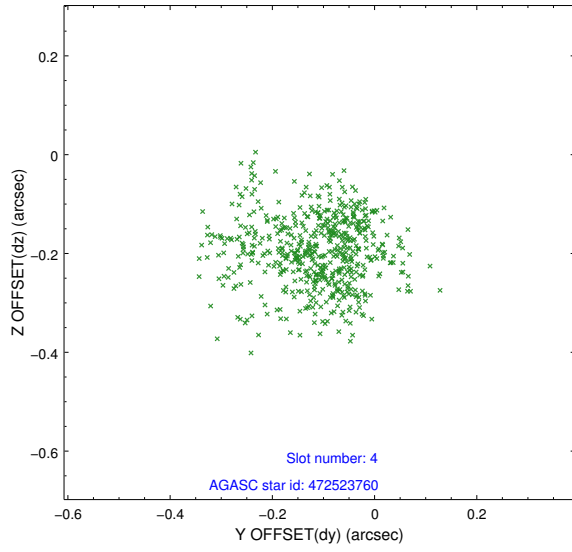


## 2.4 Star Slots

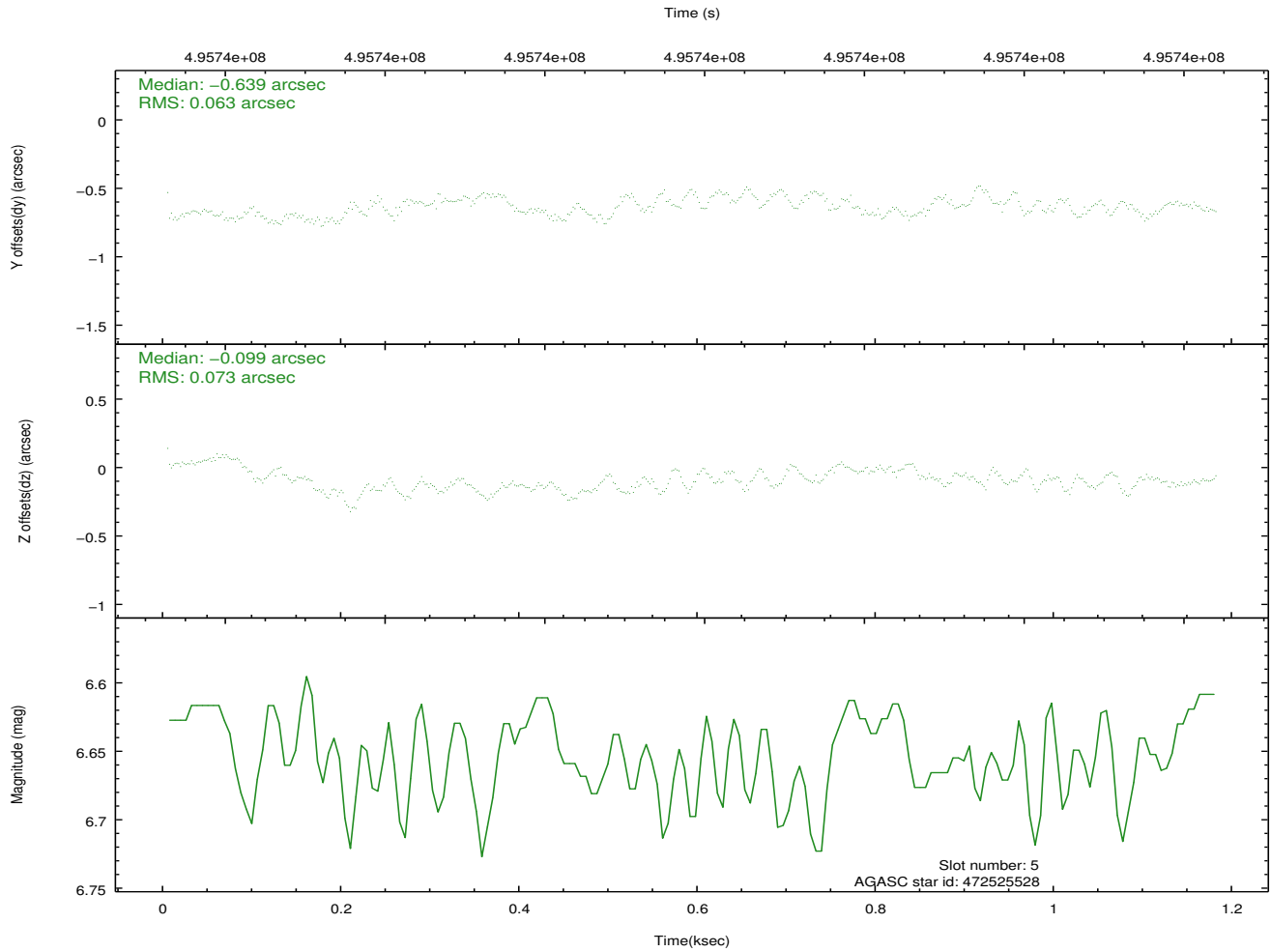
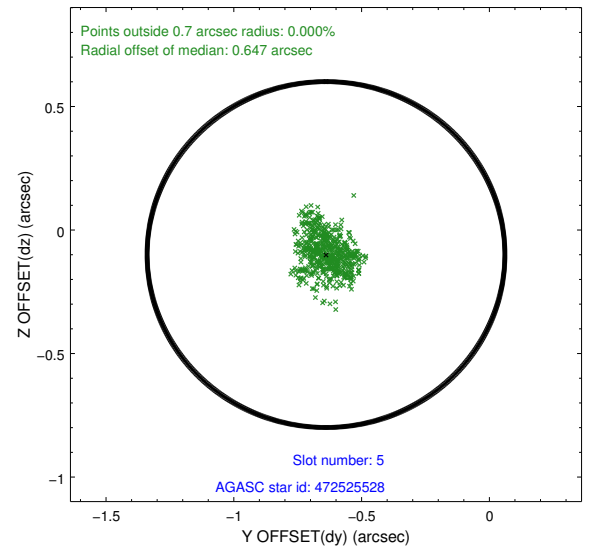
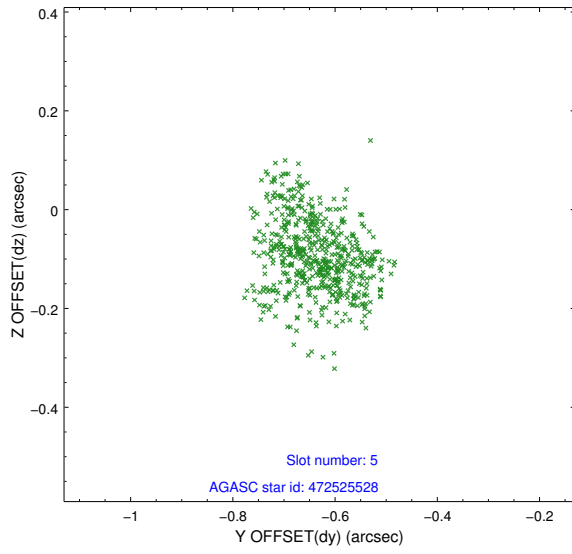
### 2.4.1 Slot 3



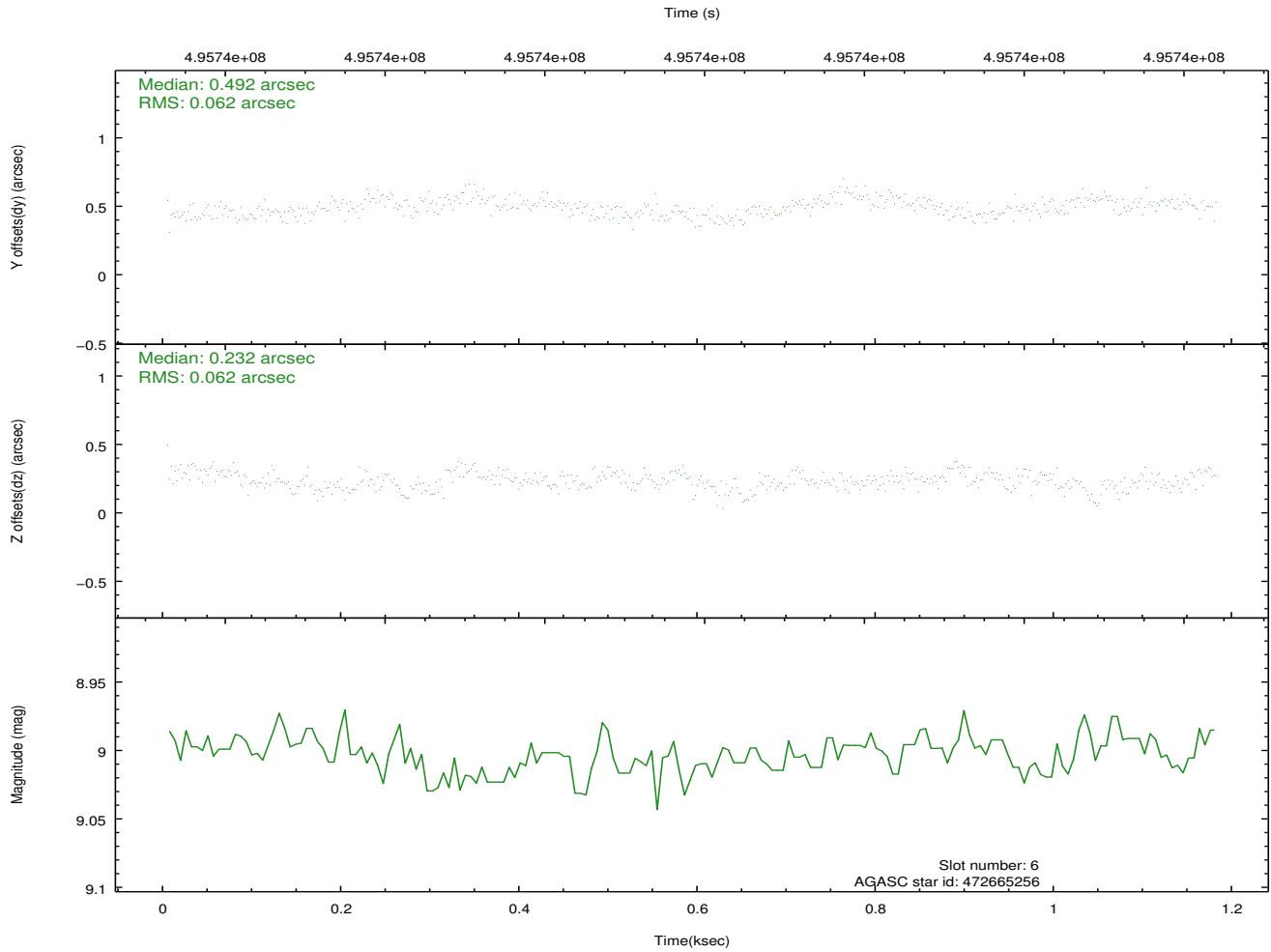
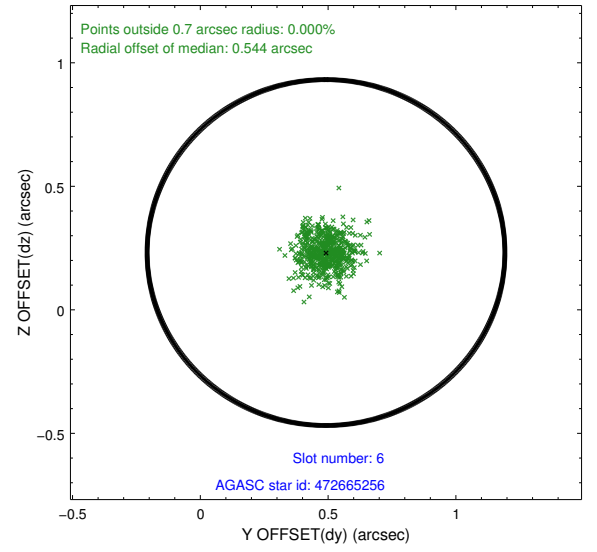
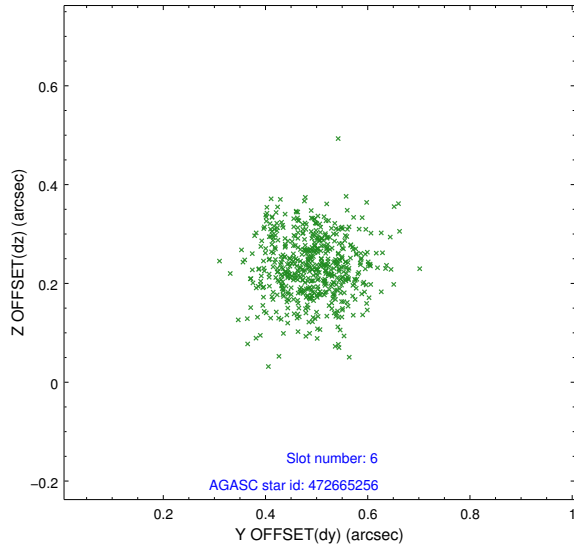
## 2.4.2 Slot 4



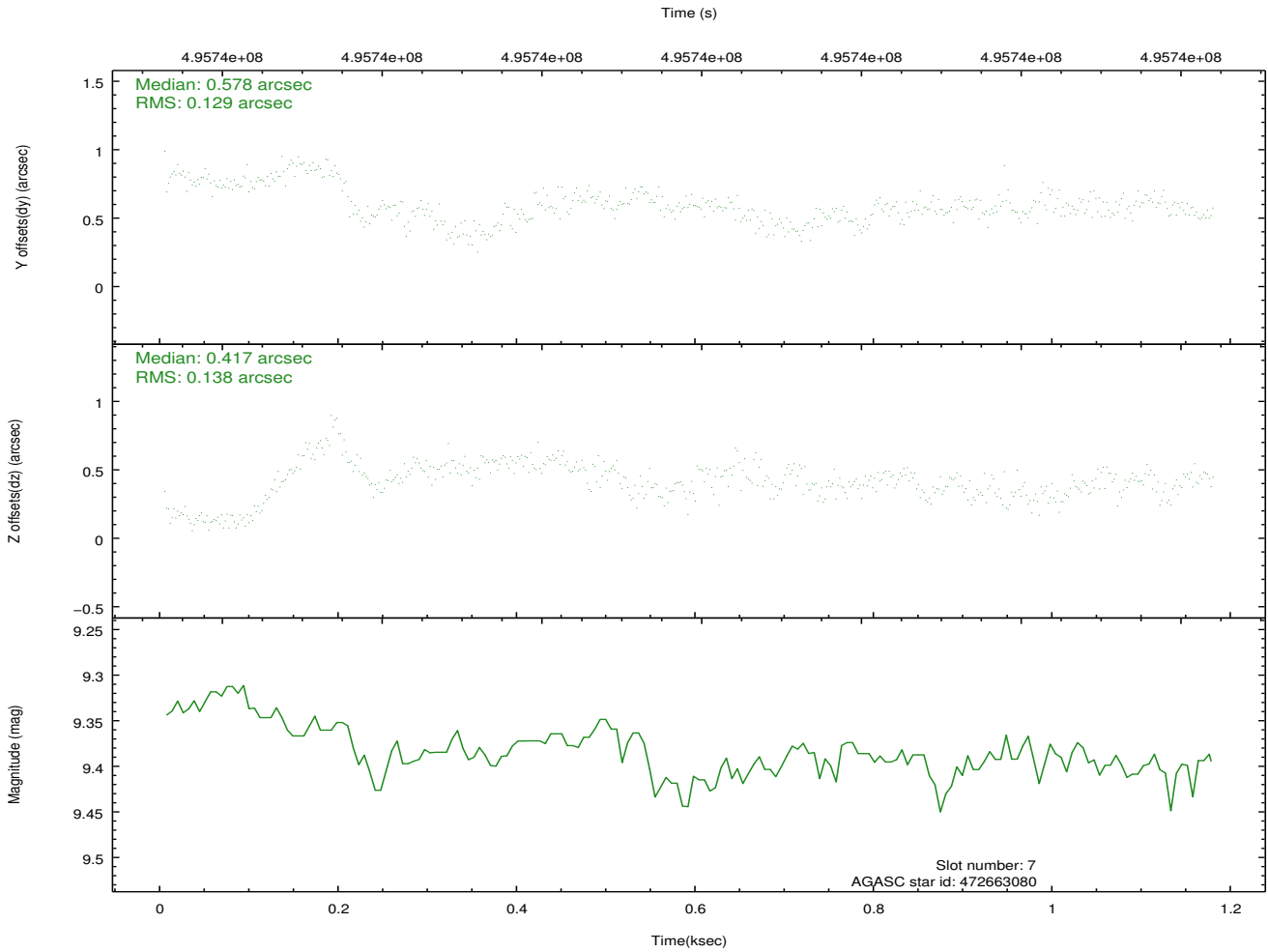
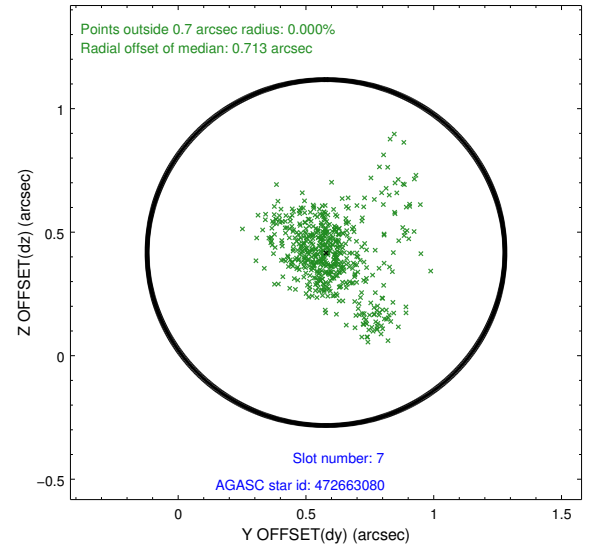
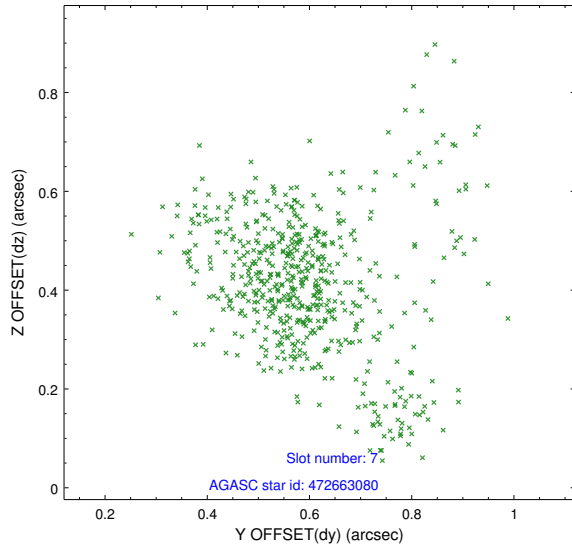
### 2.4.3 Slot 5



## 2.4.4 Slot 6

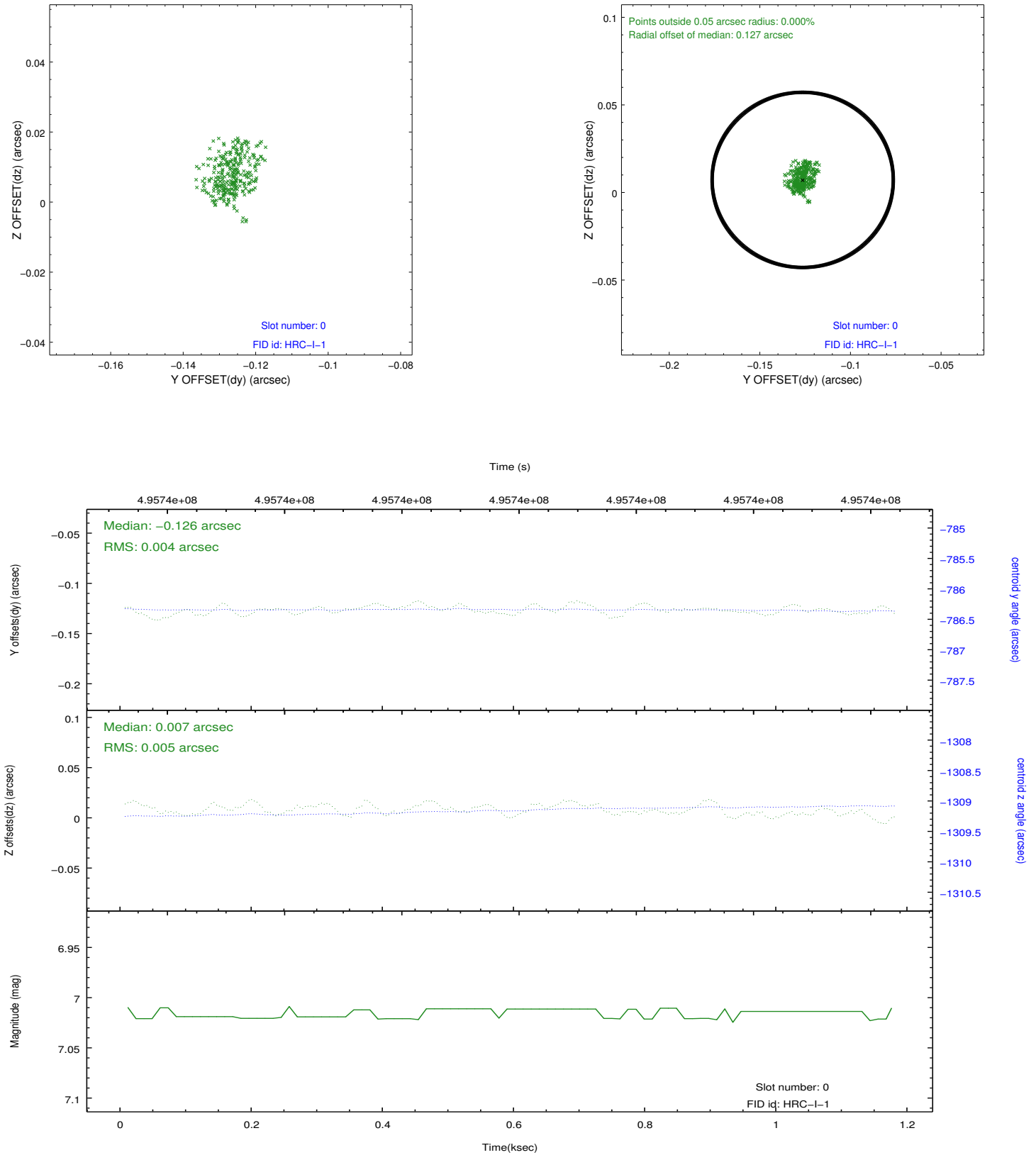


## 2.4.5 Slot 7

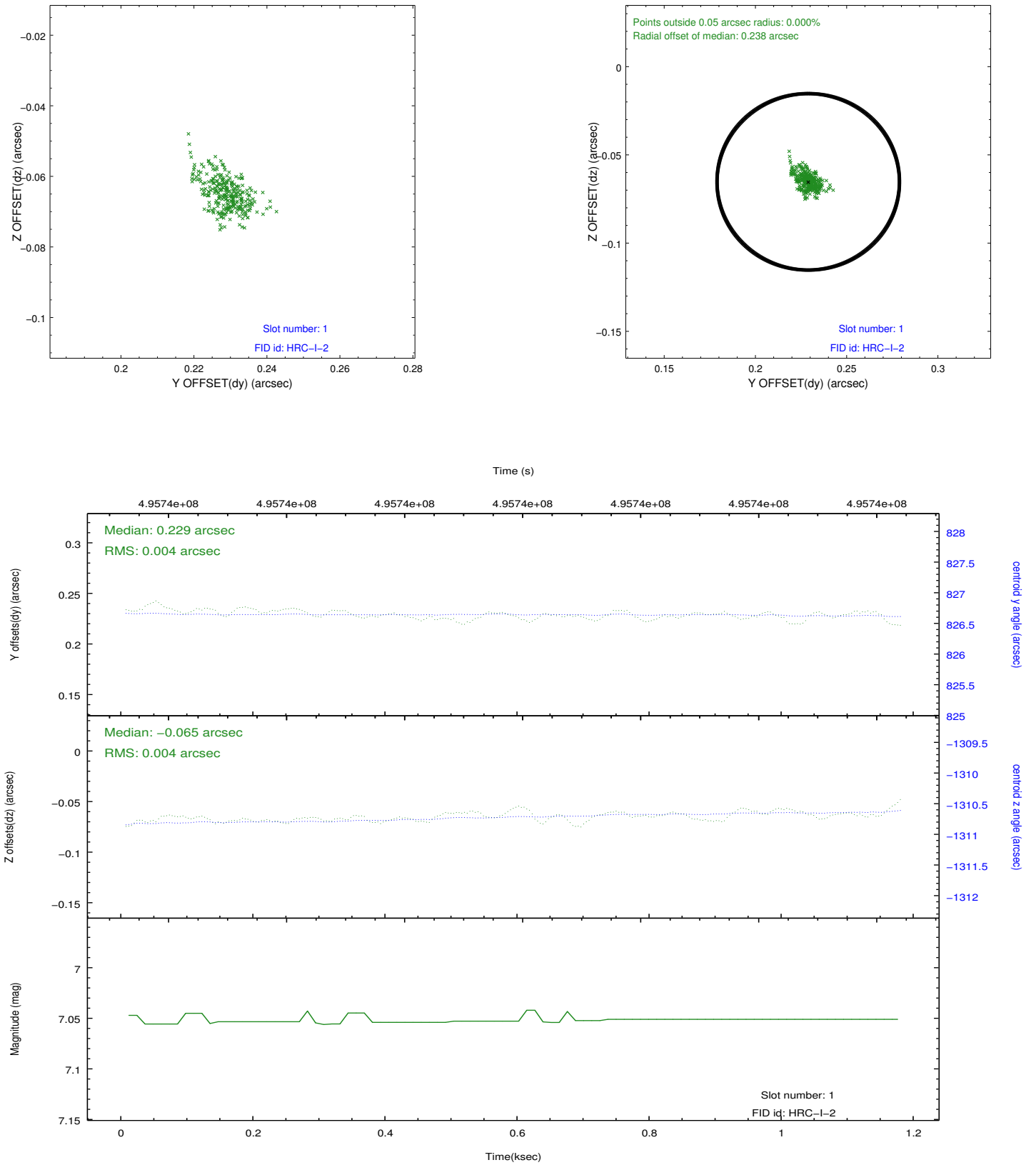


## 2.5 FID Slots

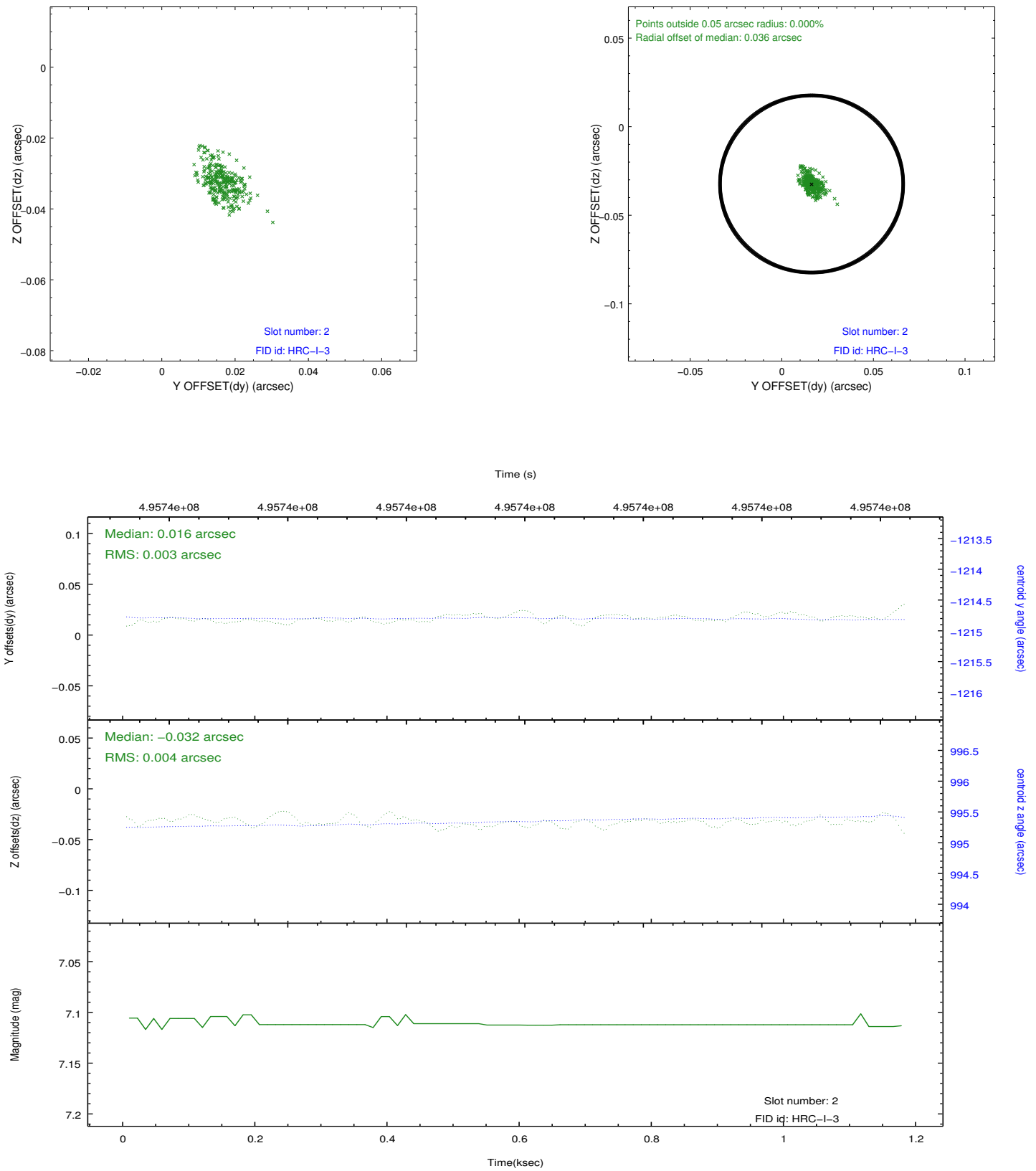
### 2.5.1 Slot 0



## 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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.1759313141108

## 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.