

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 15690 - L2 Version 2  
Chandra X-Ray Center

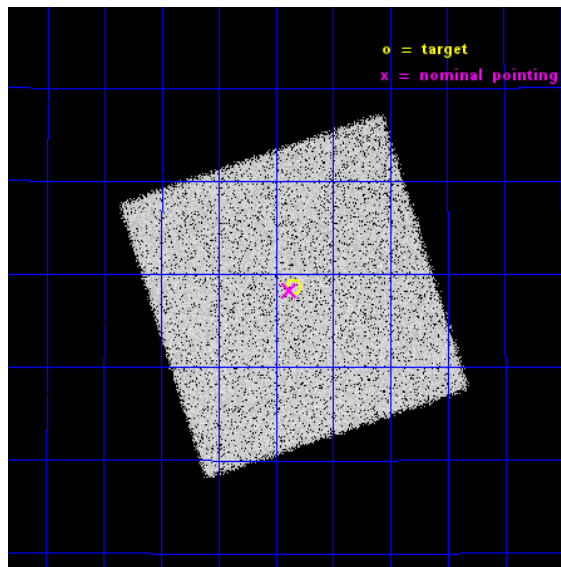
L2 Processing Date : Dec 8 2014

## 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

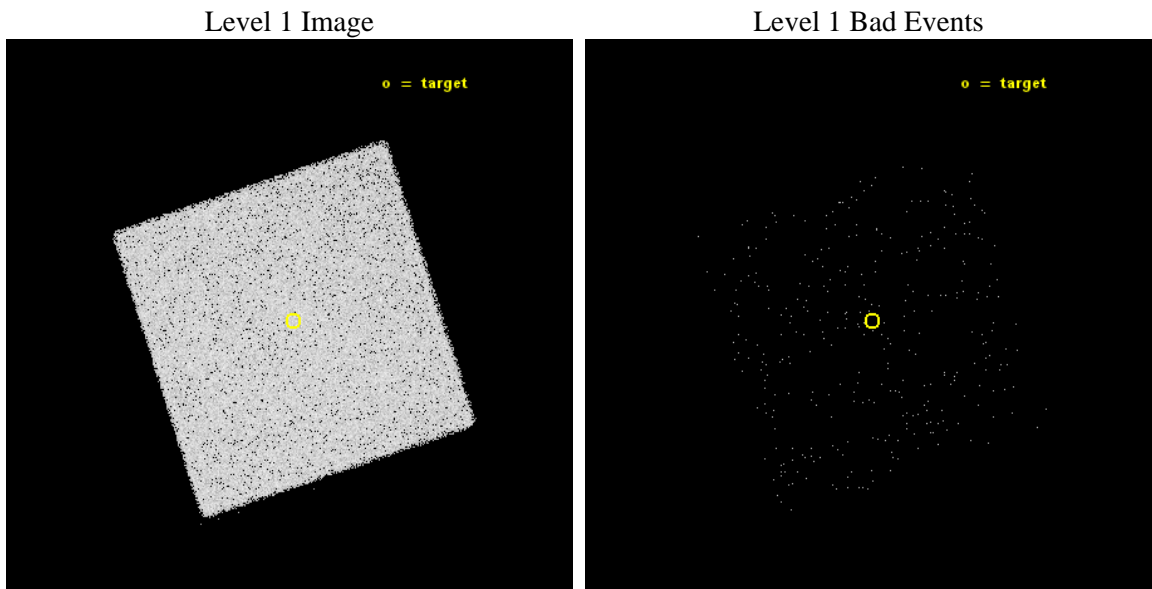
seq_num	100119	Sequence number
obs_id	15690	Observation id
title	Plumbing the Heights of the Solar Wind With Comet ISON	Proposal ti
observer	Dr. Carey Lisse	Principal investigator
object	Comet C/2012 S1 (ISON)	Source name
ra_targ	243.46024	Observer's specified target RA [deg]
dec_targ	31.14446	Observer's specified target Dec [deg]
ra_nom	243.47031000638	Nominal RA [deg]
dec_nom	31.138078085822	Nominal Dec [deg]
roll_nom	26.813732968179	Nominal Roll [deg]
revision	2	Processing version of data
ontime	2178.3813694715	[s]
livedtime	2162.5575782377	Ontime multiplied by DTCOR
l2events	120903	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	2000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	2178.3813694715	[s]
caldbver	4.6.4	&#160	l1events	176588	Number of level 1 events
date	2014-12-08T09:46:18	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

#### Level 1 Events

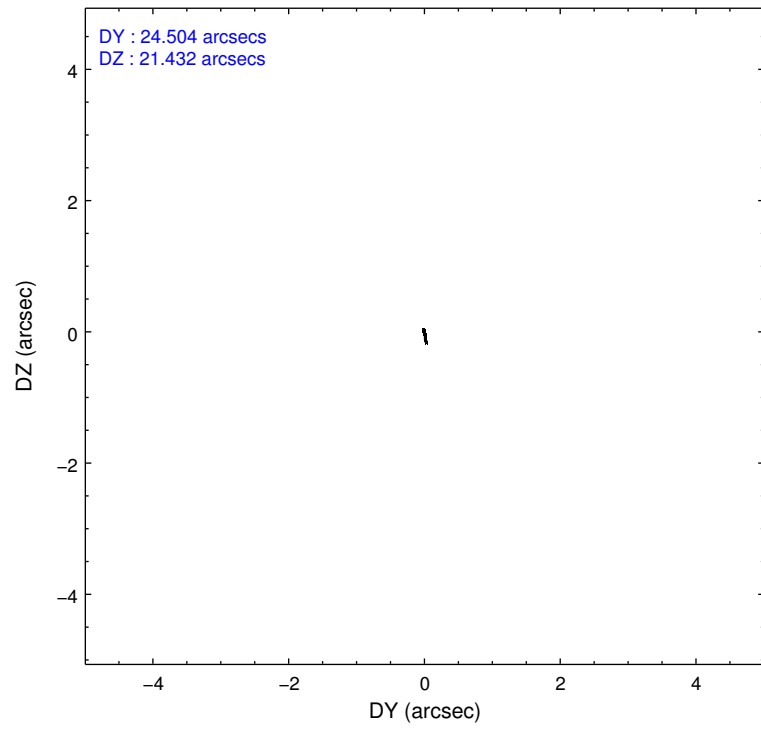
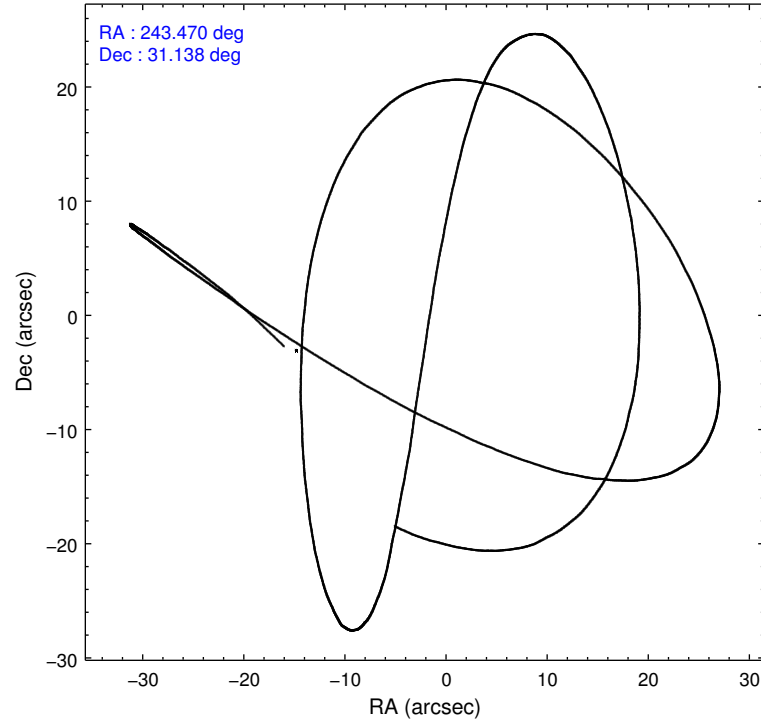
	<b>segment 0</b>
level 1 events	176588
rejected events	12565
rejected %	7%

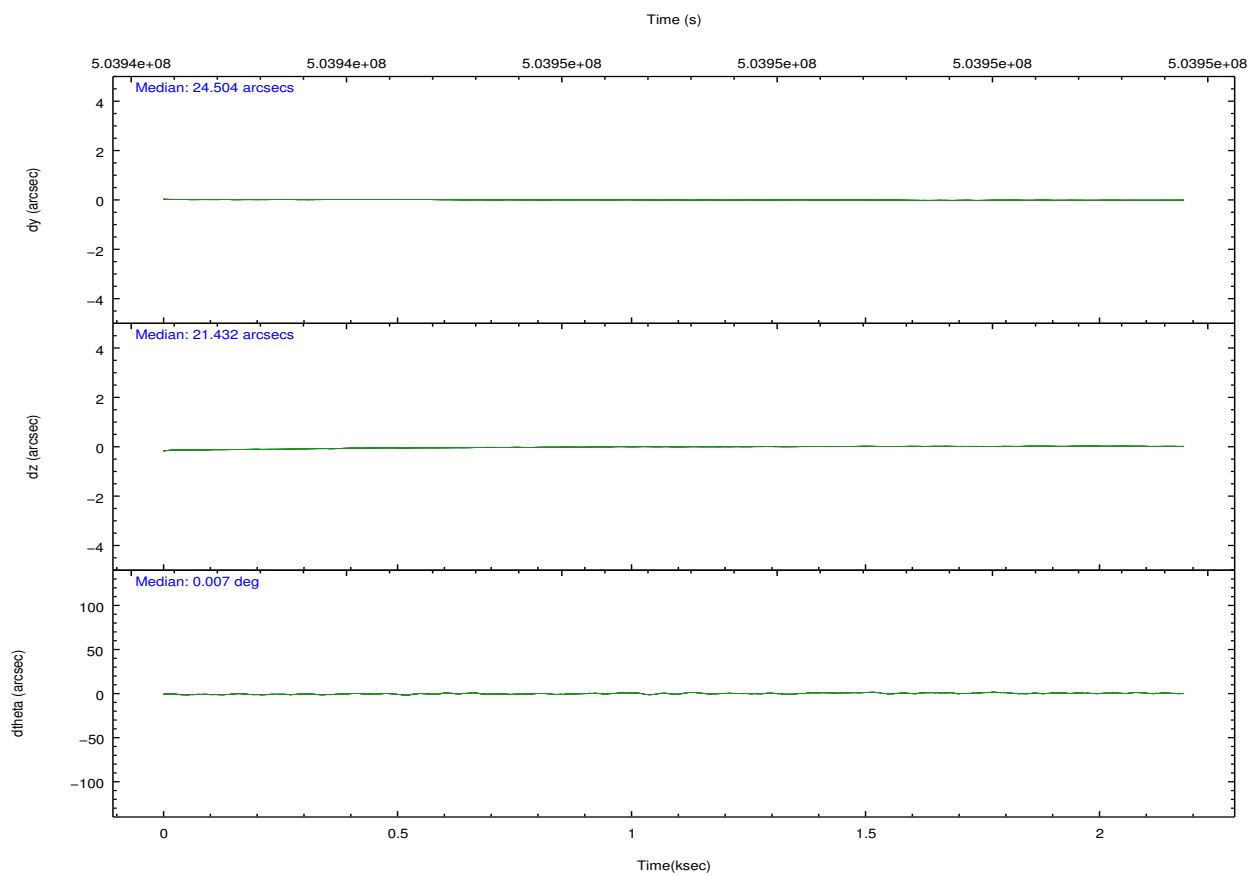
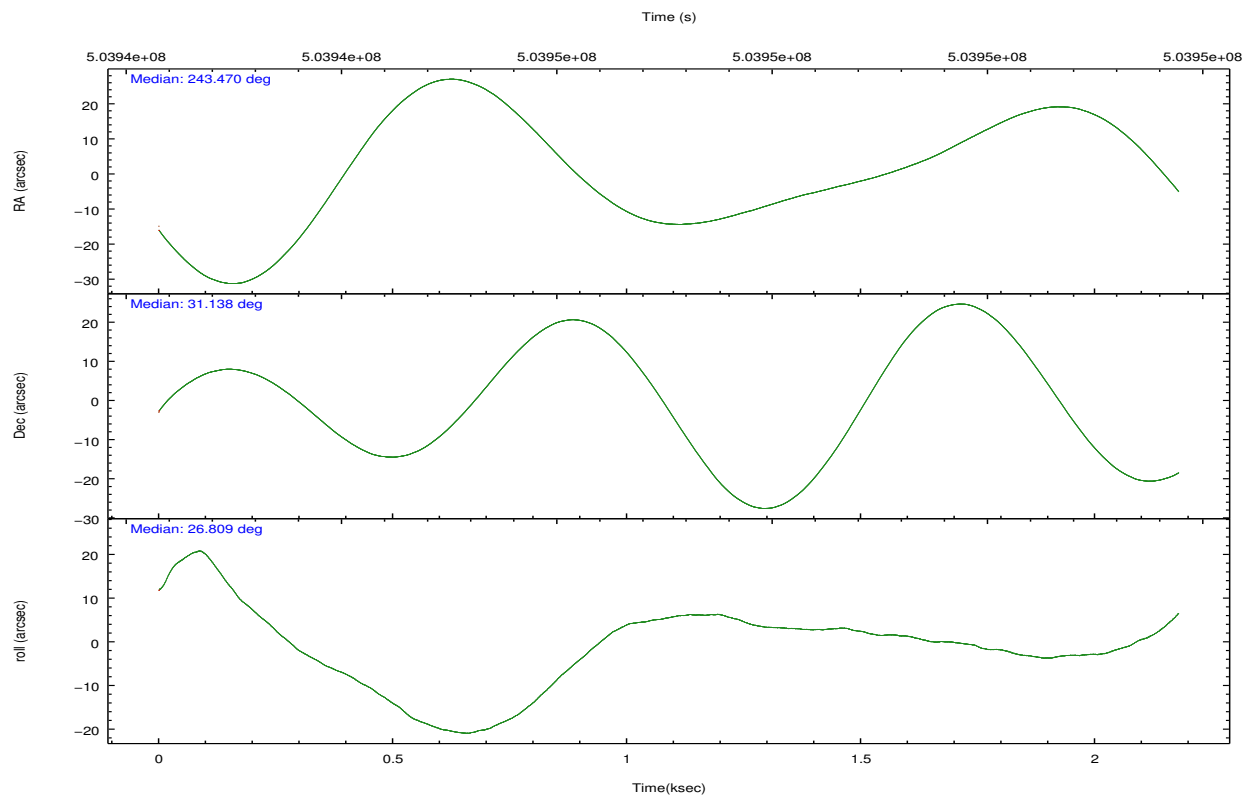
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	243.453594	243.4703100063755
[deg] Pointing Dec	31.114910	31.13807808582178
[deg] Pointing Roll	26.917894	26.81373296817925
[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)	503944852.184000	503944425.81532
Observation start date	2013-12-20T16:39:45	2013-12-20T16:33:45
[s] Observation end time (MET)	503946852.184000	503948314.66554
Observation end date	2013-12-20T17:13:05	2013-12-20T17:38:34

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

## 2.3 Aspect





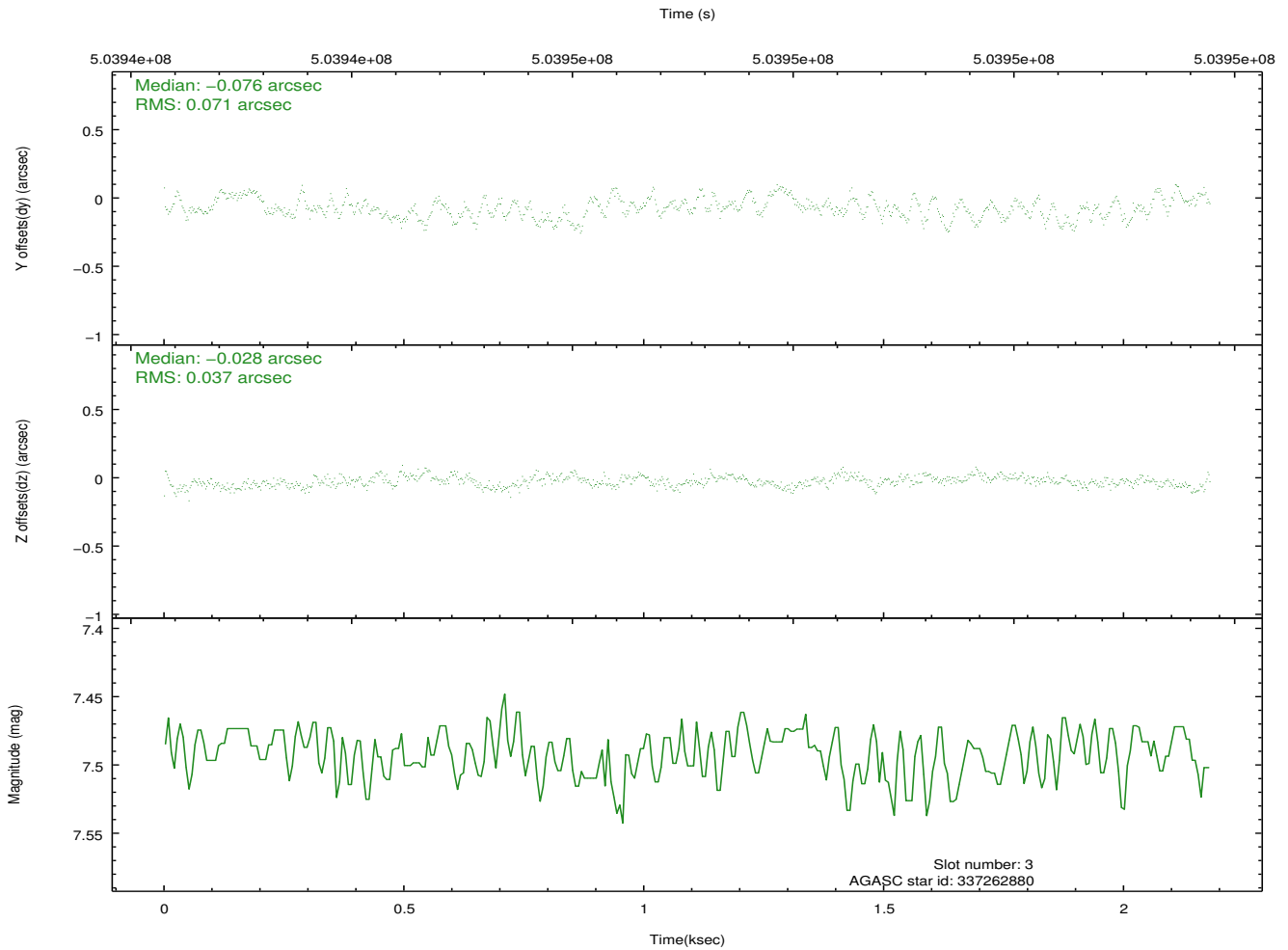
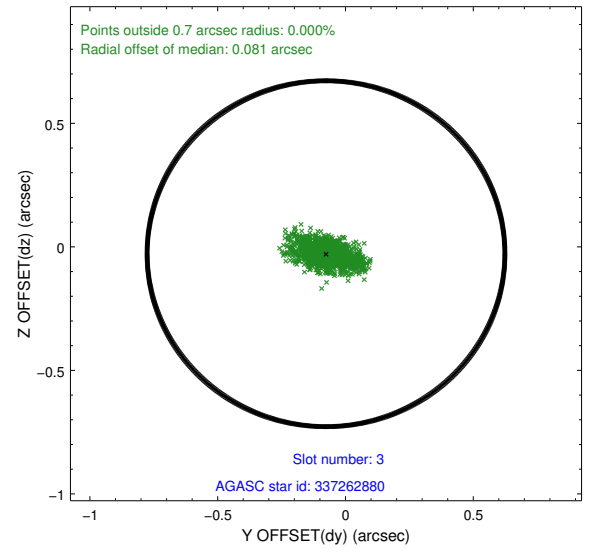
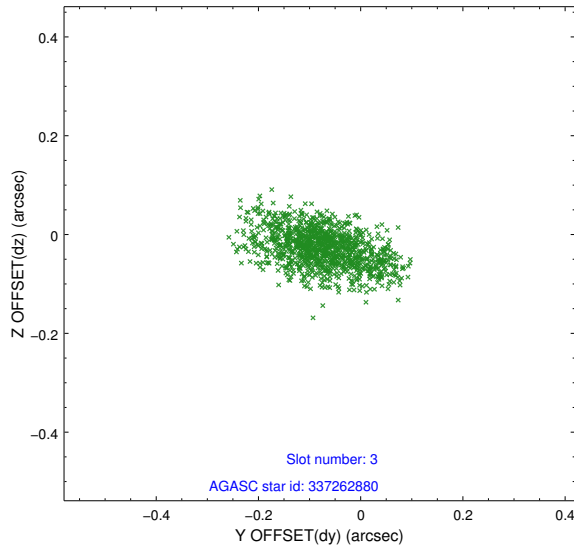
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-I-1	6.99	532	-0.119	0.037	0.007	0.011	0.000000	0.000000	-780.65	-1309.67
1	FID		HRC-I-2	7.03	532	0.260	-0.115	0.006	0.011	0.000000	0.000000	830.90	-1313.80
2	FID		HRC-I-3	7.08	532	-0.022	-0.012	0.007	0.011	0.000000	0.000000	-1207.54	992.37
3	GUIDE	used	337262880	7.49	1064	-0.076	-0.028	0.084	0.148	242.725099	30.985399	-2214.31	606.76
4	GUIDE	used	338176888	8.52	1062	-0.103	-0.348	0.086	0.144	243.086660	31.476302	-417.23	1672.64
5	GUIDE	used	338179656	8.71	1063	-0.015	-0.167	0.091	0.158	243.346722	31.229324	-106.83	517.66
6	GUIDE	used	338181368	8.64	1064	0.068	0.069	0.088	0.136	243.086649	30.848731	-1443.97	-339.26
7	GUIDE	used	338184744	9.12	1062	0.129	0.468	0.112	0.183	243.359501	30.458792	-1330.26	-1973.94

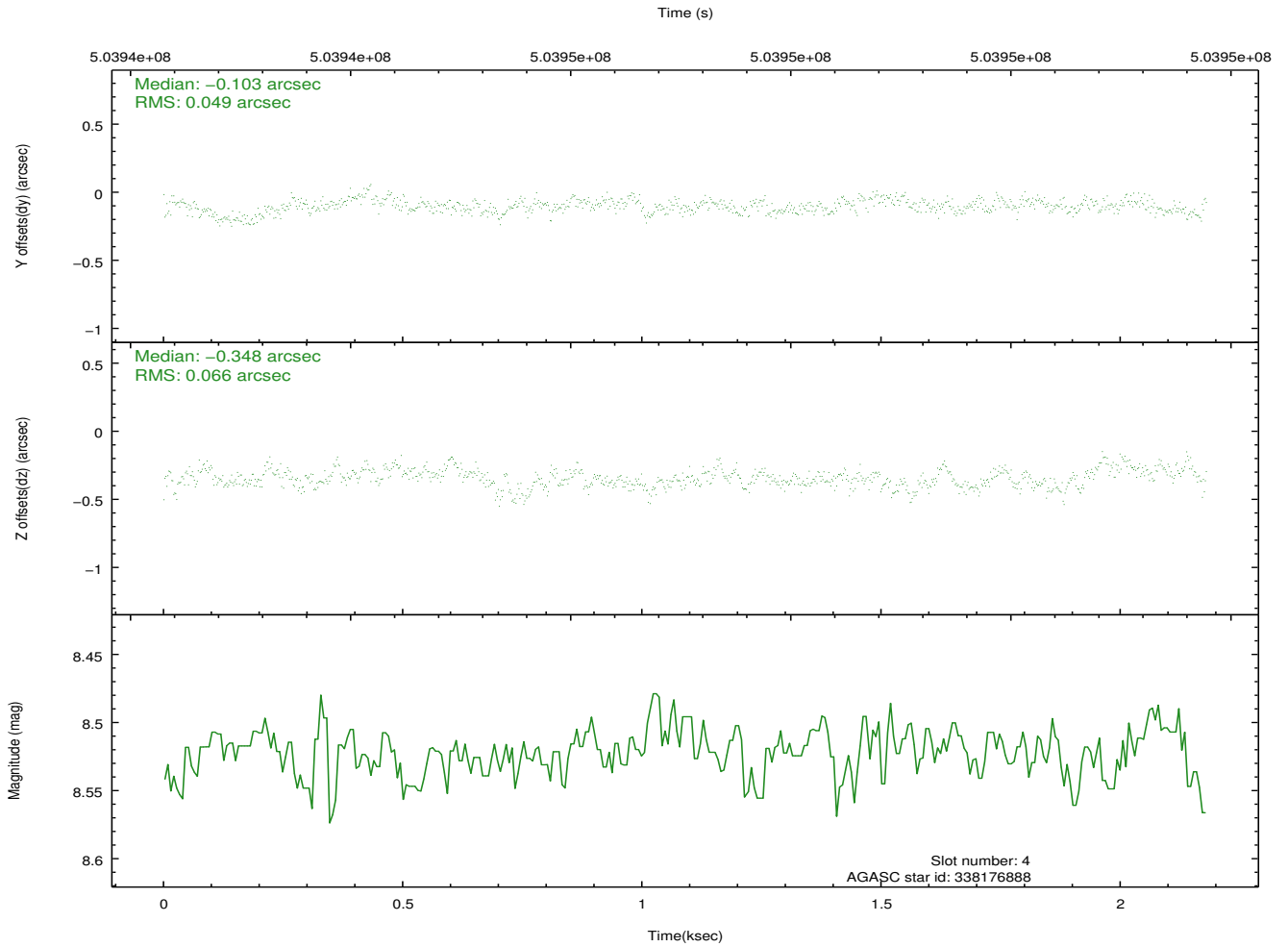
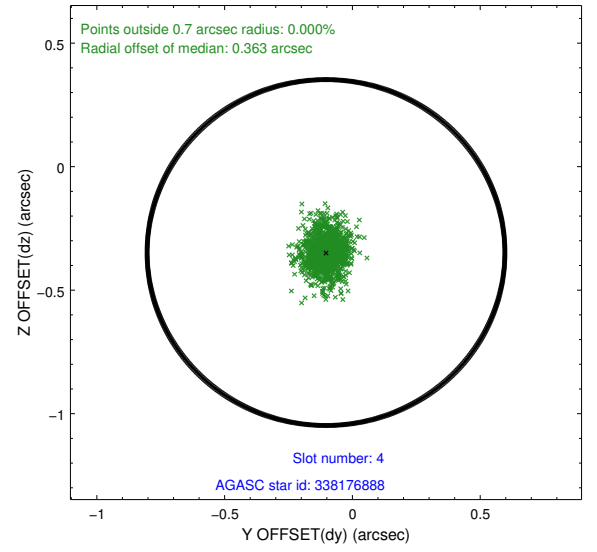
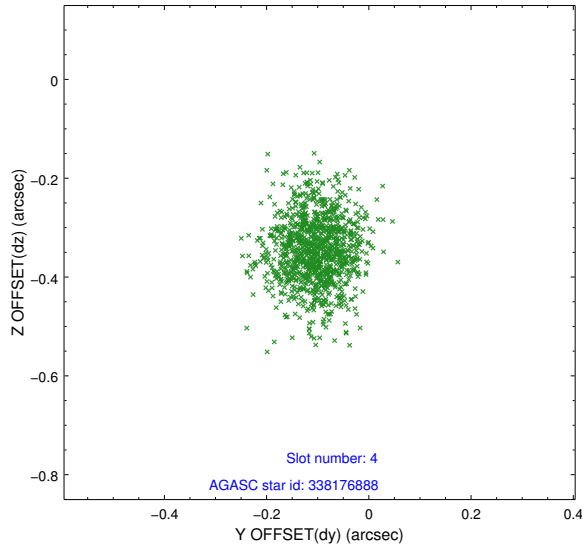


## 2.4 Star Slots

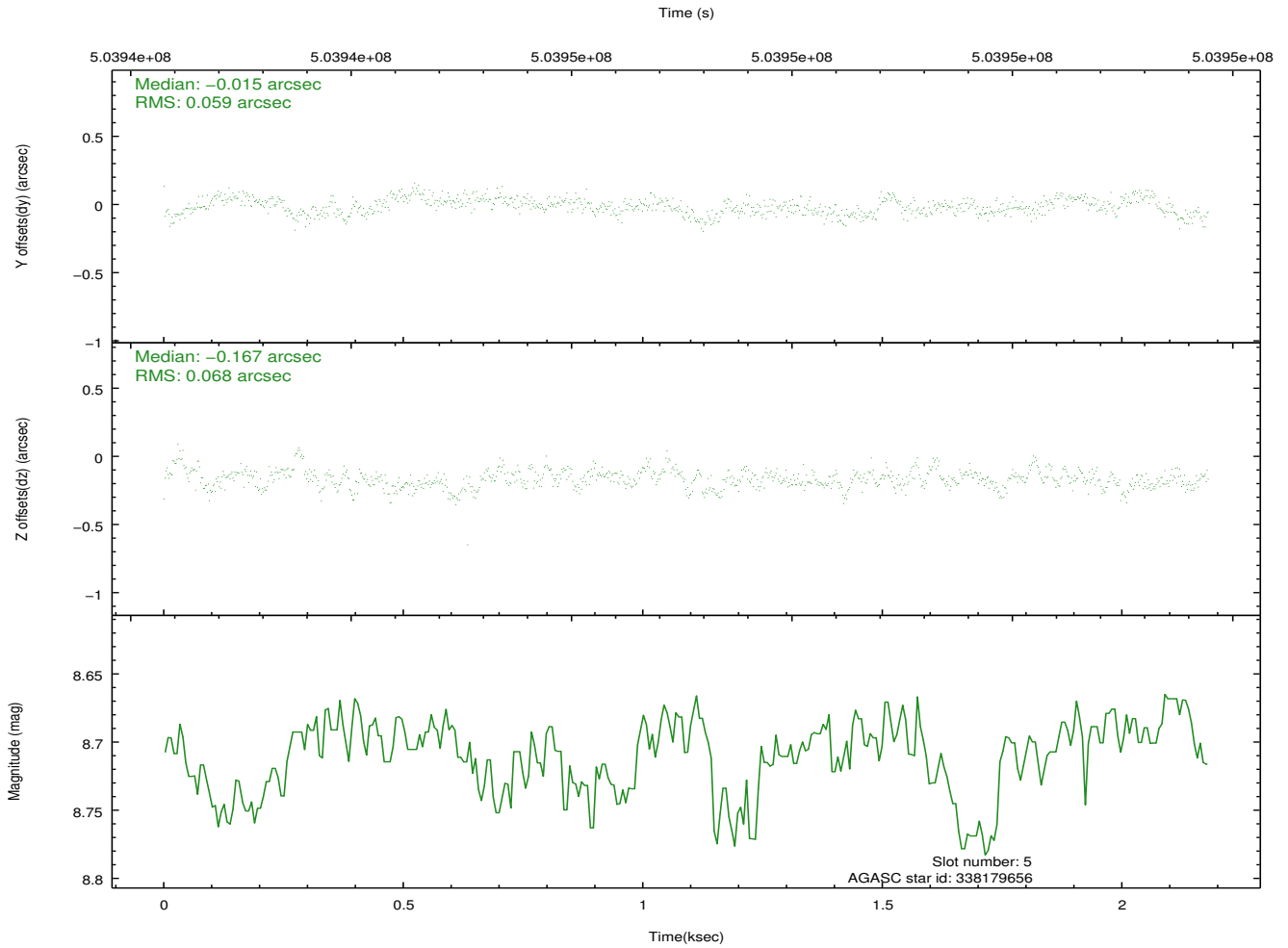
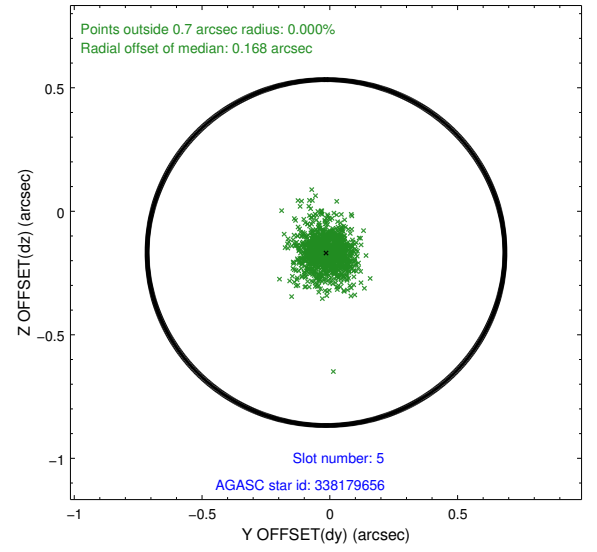
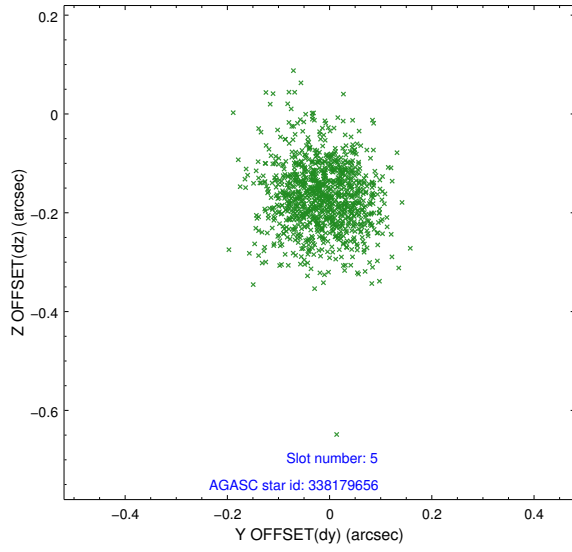
### 2.4.1 Slot 3



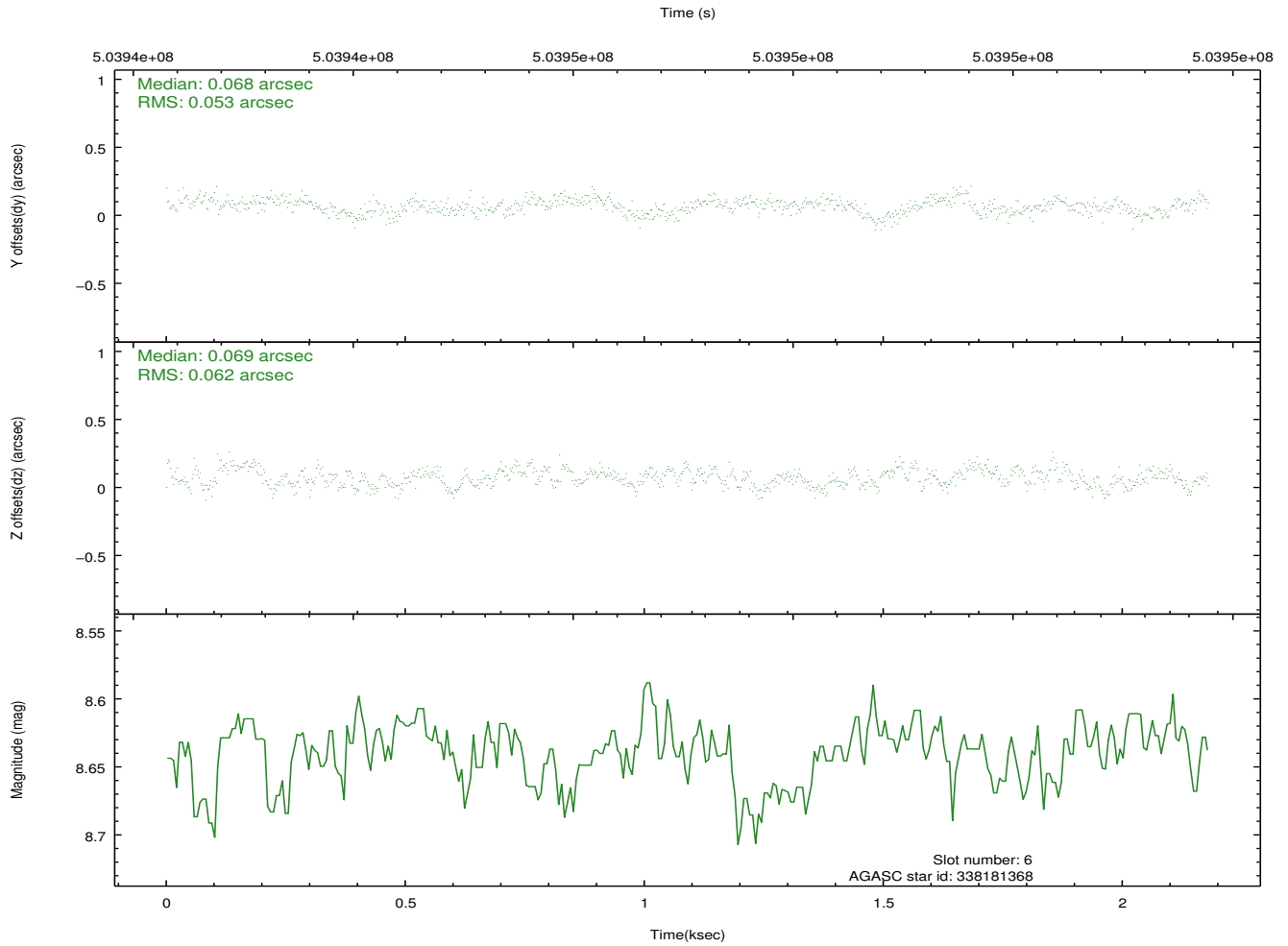
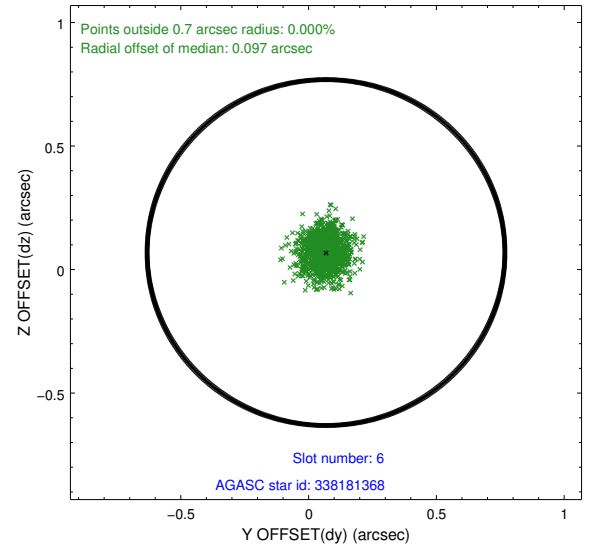
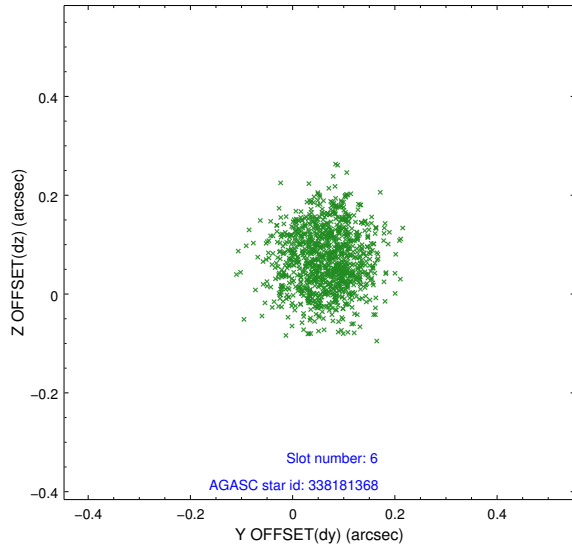
## 2.4.2 Slot 4



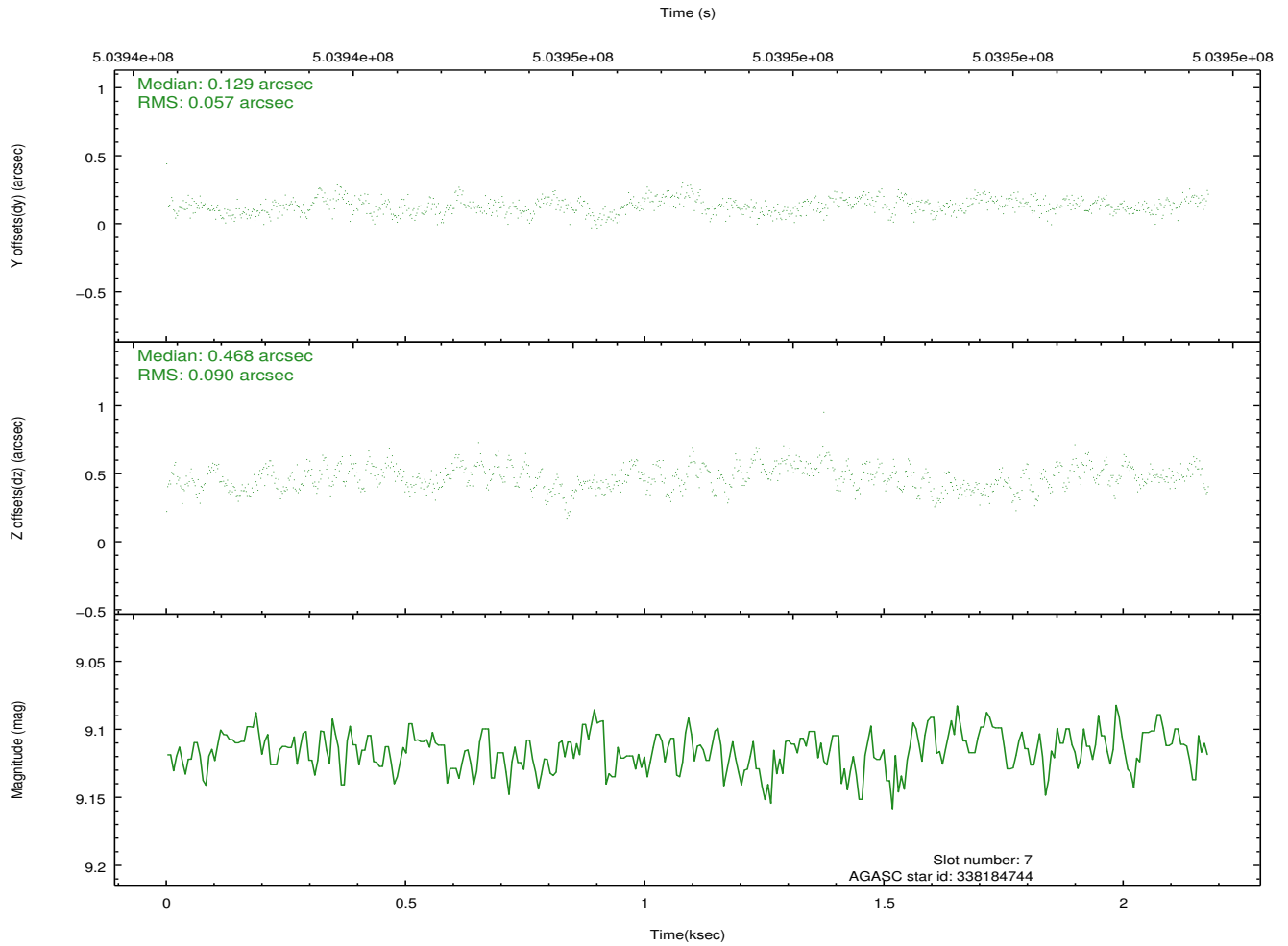
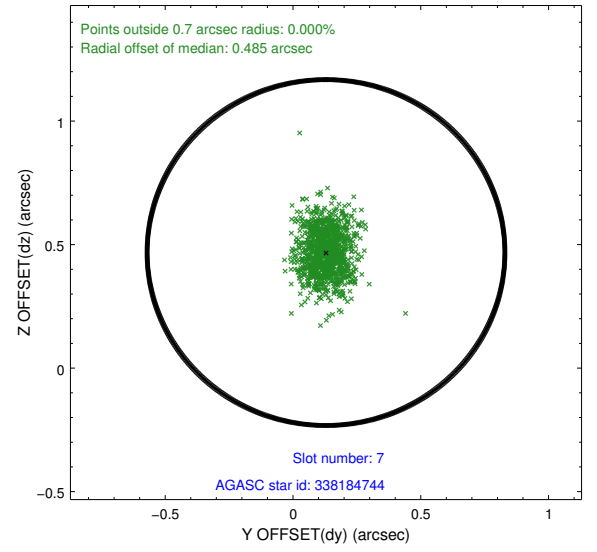
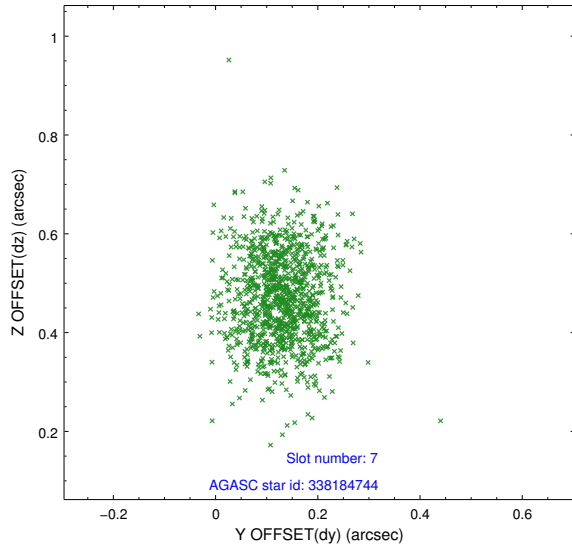
### 2.4.3 Slot 5



## 2.4.4 Slot 6

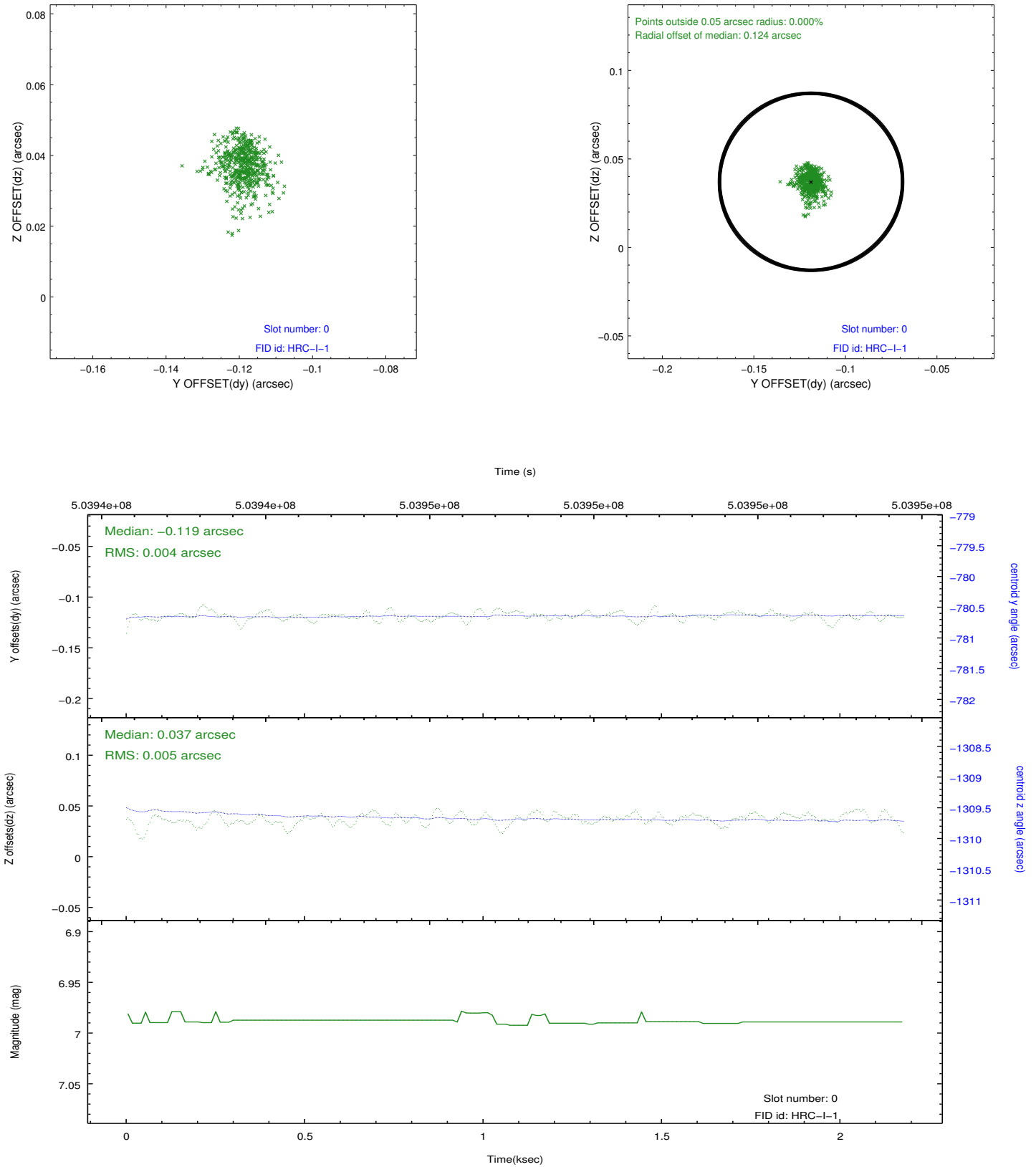


## 2.4.5 Slot 7

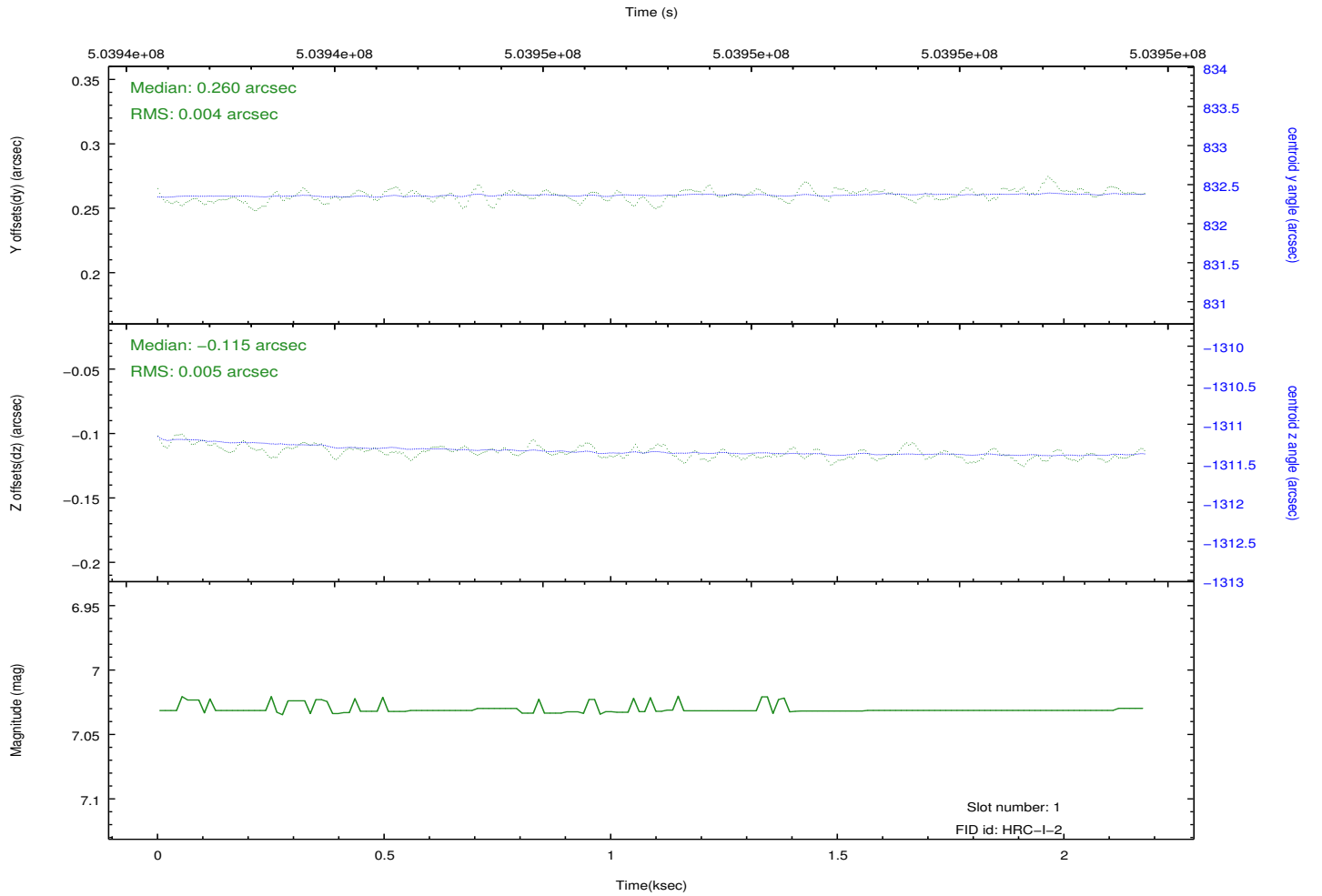
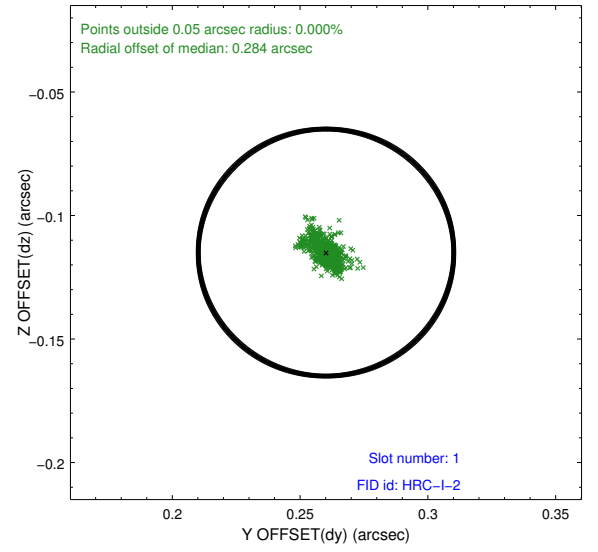
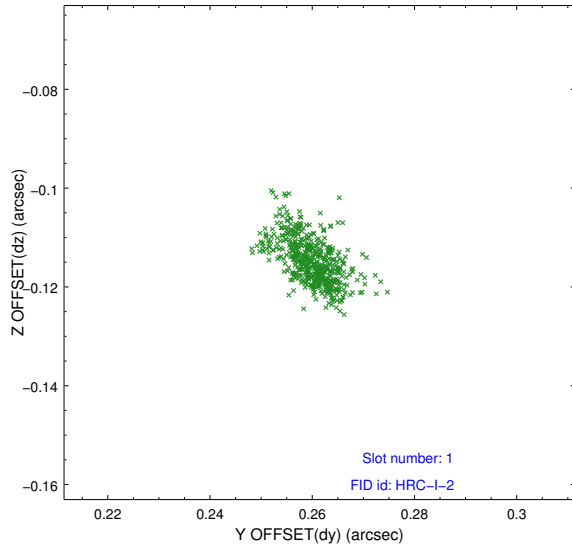


## 2.5 FID Slots

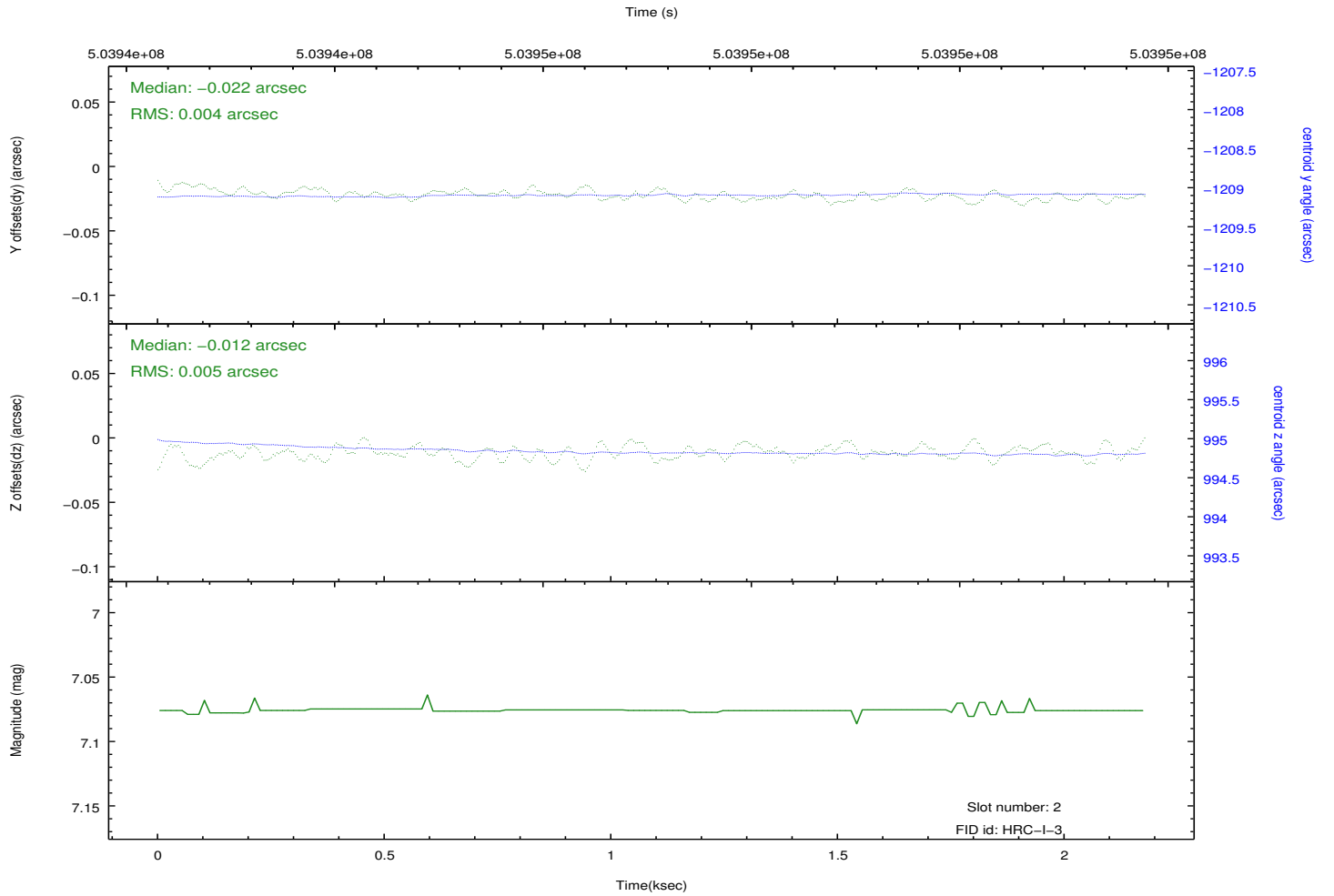
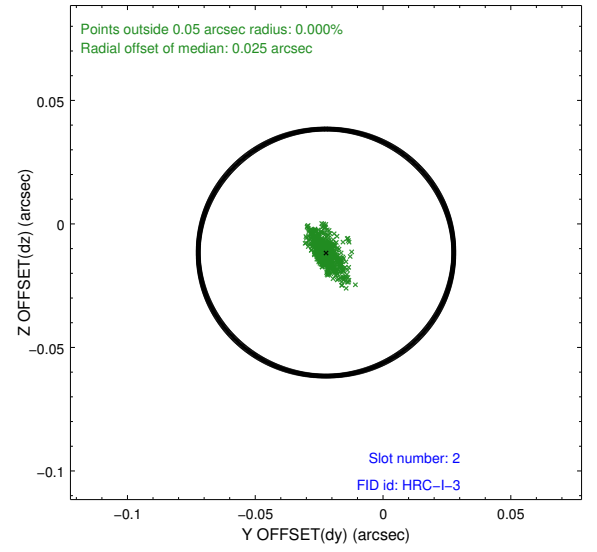
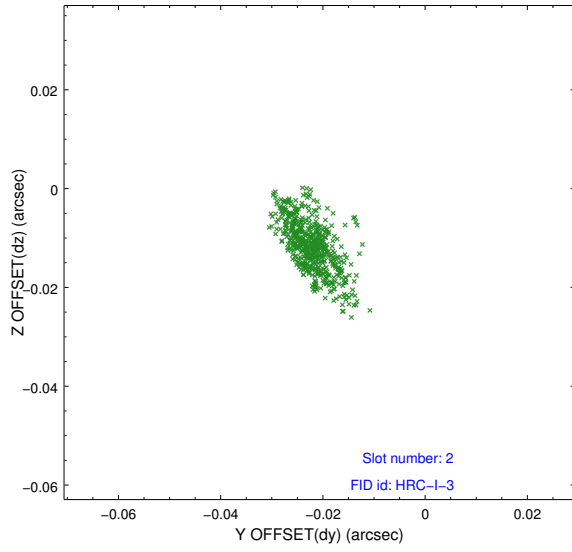
### 2.5.1 Slot 0



## 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)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.1783813694715

## A.2 Comments

This is a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the target.

=====

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.