

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 14296 - L2 Version 2  
Chandra X-Ray Center

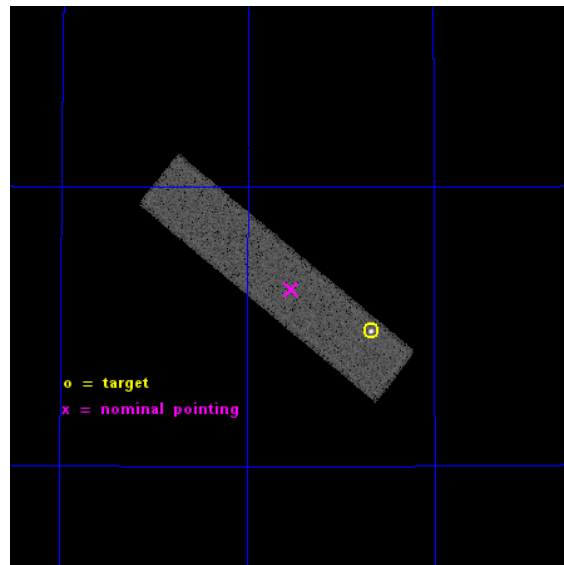
L2 Processing Date : Nov 26 2014

## 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

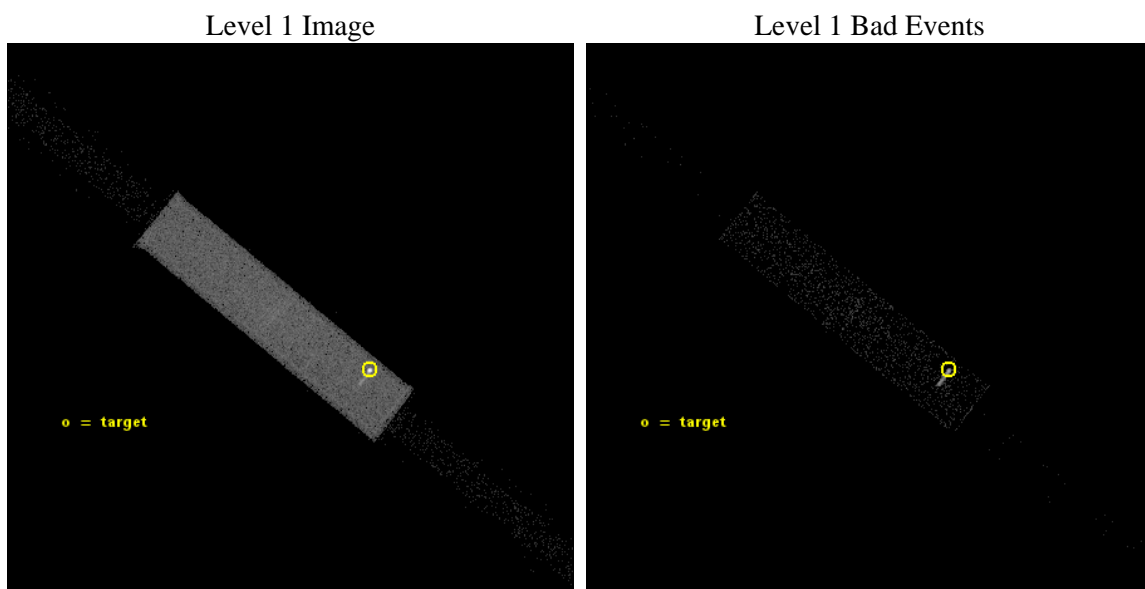
seq_num	291047	Sequence number
obs_id	14296	Observation id
title	AO-13 Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.38193653277	Nominal RA [deg]
dec_nom	45.817135476242	Nominal Dec [deg]
roll_nom	218.6277537184	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1153.3813120127	[s]
livetime	1145.6987724323	Ontime multiplied by DTCOR
l2events	53649	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	Processing system revision	ontime	1153.3813120127	[s]
caldsver	4.6.4	&#160	l1events	87226	Number of level 1 events
date	2014-11-27T02:27:34	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

Level 1 Events

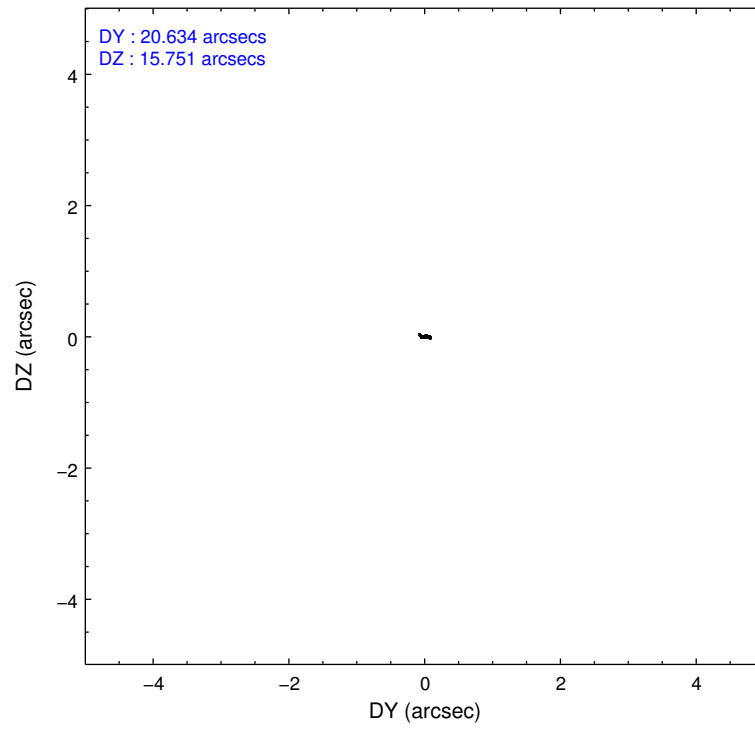
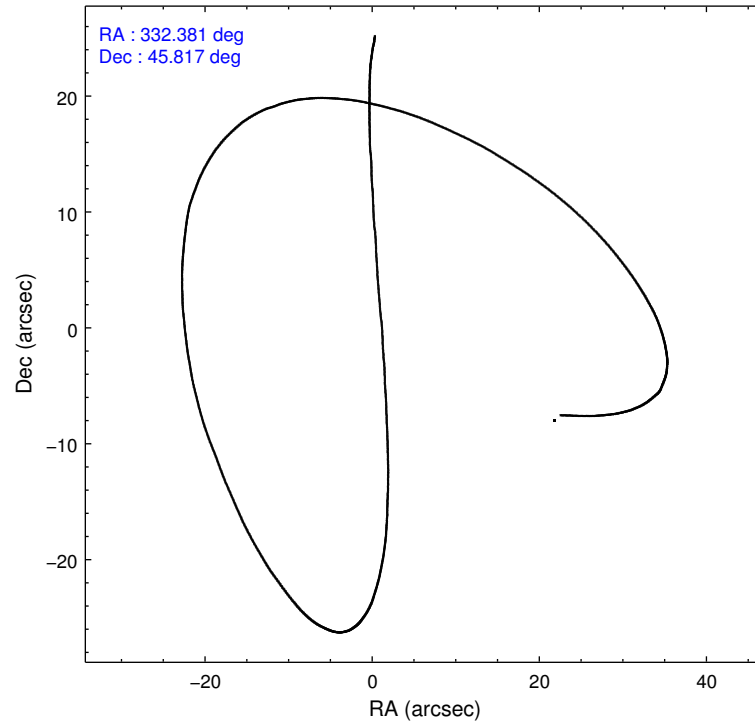
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	774	85722	730
rejected events	774	19644	730
rejected %	100%	22%	100%

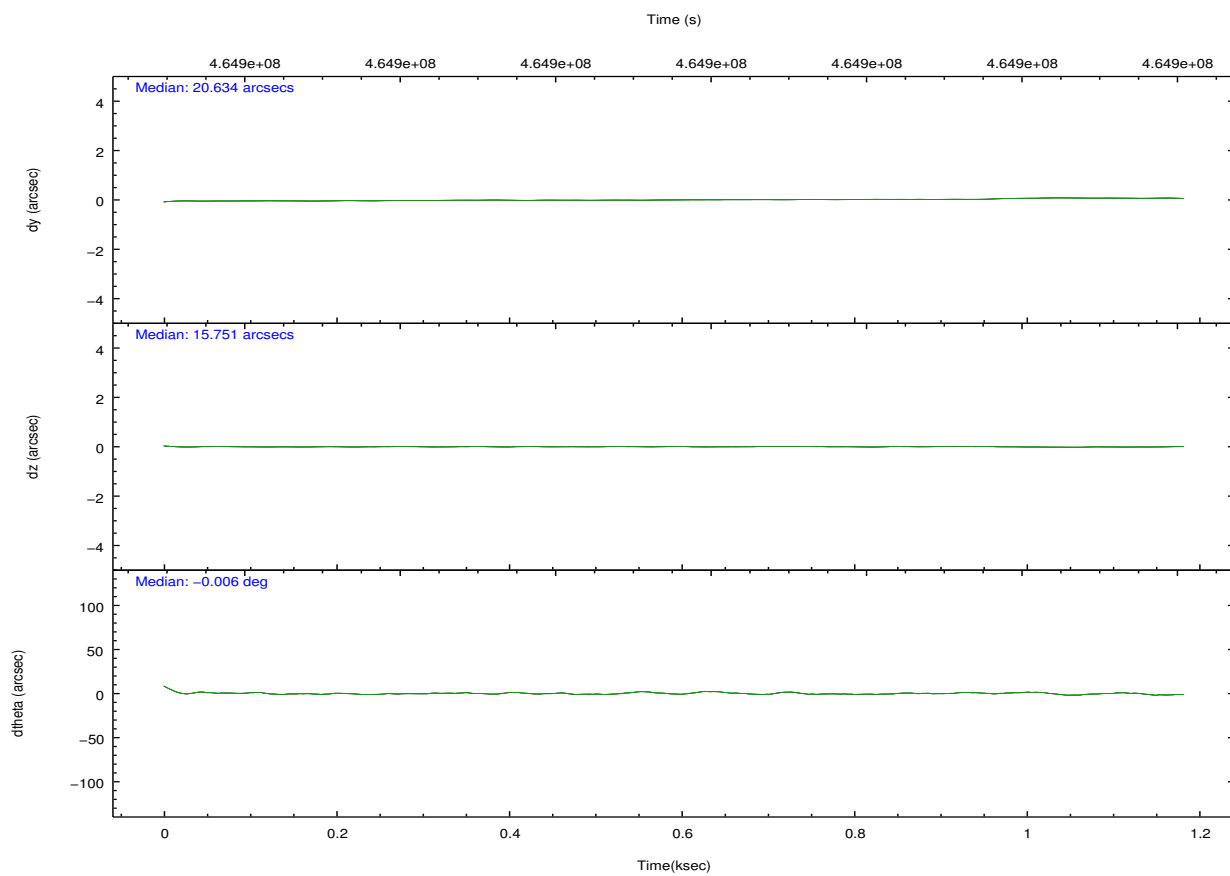
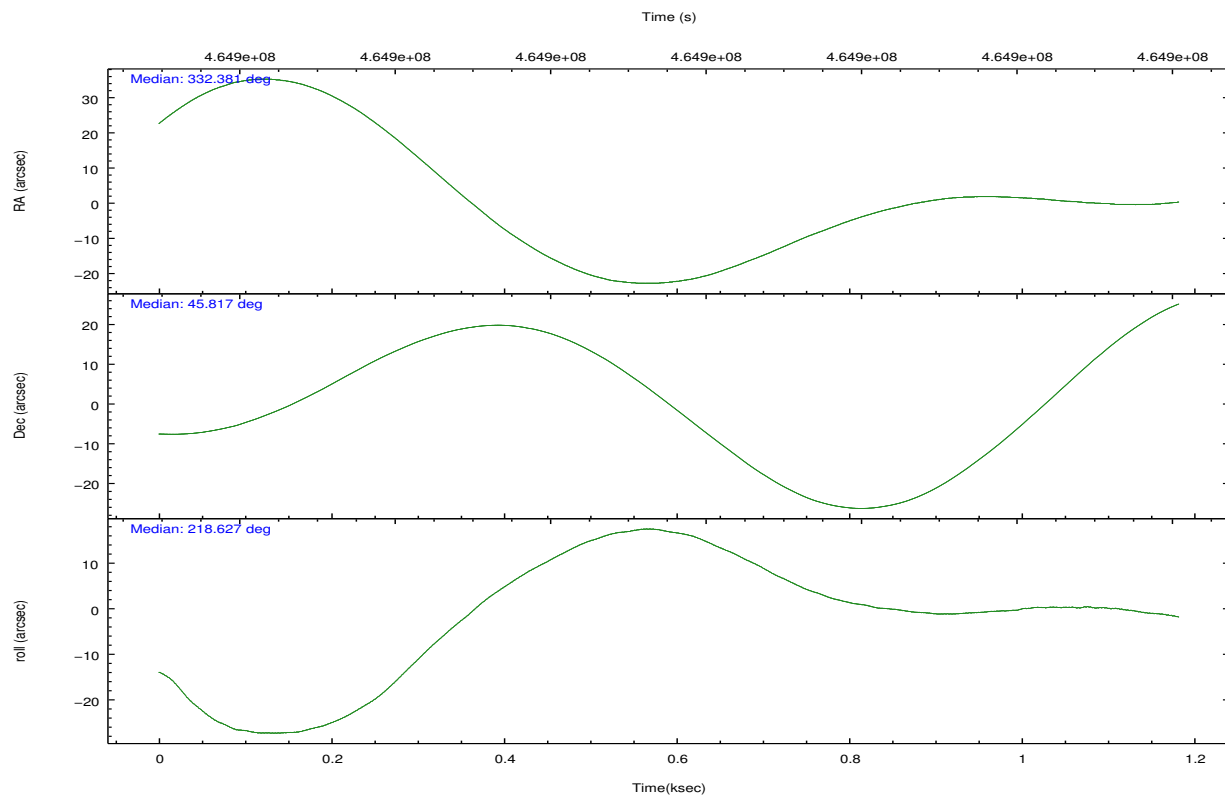
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-S	HRC-S
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	332.394214	332.3819365327748
[deg] Pointing Dec	45.844627	45.81713547624165
[deg] Pointing Roll	218.551672	218.6277537183973
[mm] SIM focus pos	-1.533336	-1.526339935833849
[mm] SIM defocus	7.710433287538843e-07	0.006996703570447904
[mm] SIM translation stage pos	250.455976	250.466033080201
[mm] SIM translation stage offset	0	-0.01005468664627074
[s] Observation start time (MET)	464897141.184000	464896764.77249
Observation start date	2012-09-24T18:04:34	2012-09-24T17:59:24
[s] Observation end time (MET)	464898141.184000	464898275.11007
Observation end date	2012-09-24T18:21:14	2012-09-24T18:24:35

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

## 2.3 Aspect





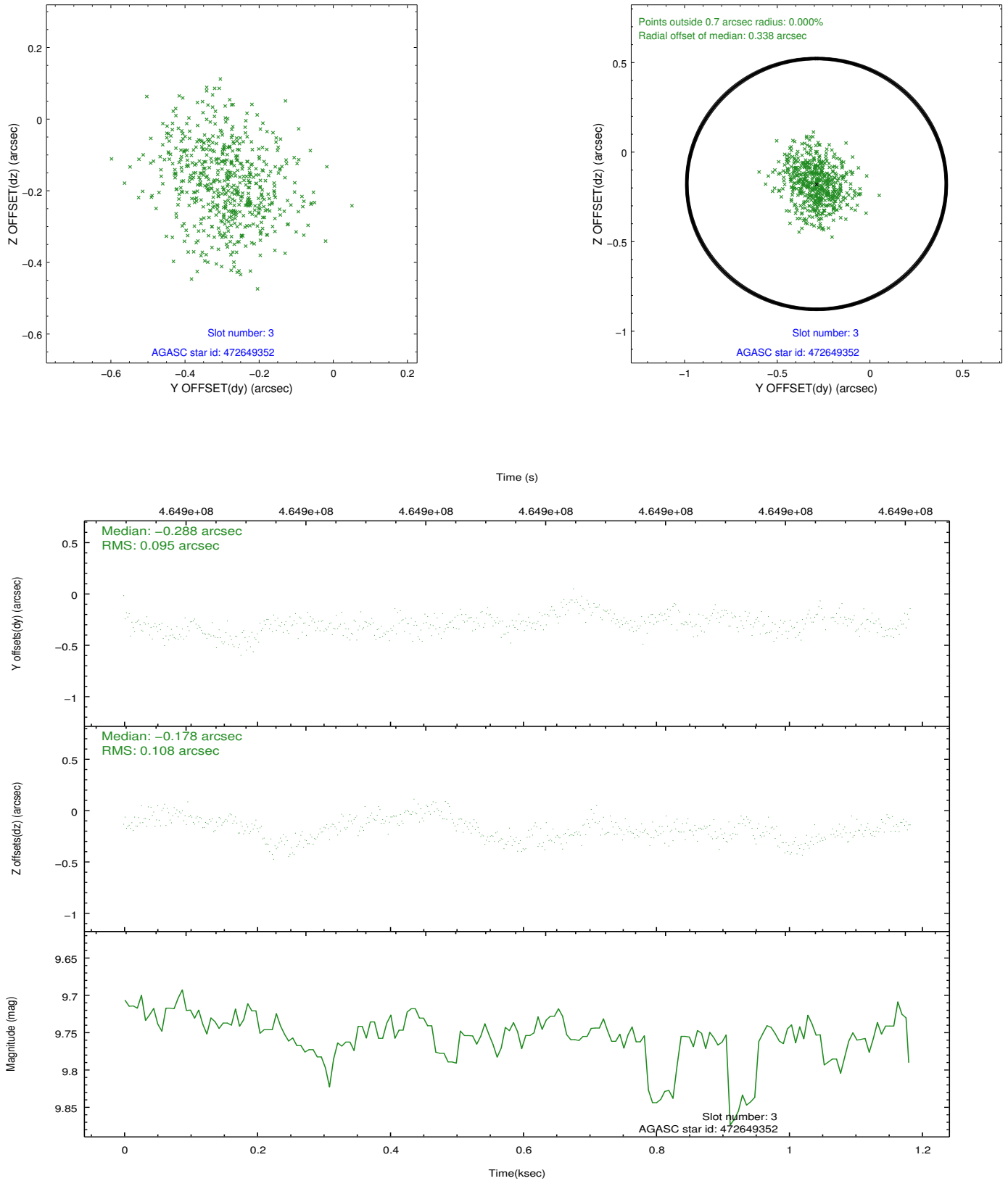
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.07	289	-0.074	-0.156	0.005	0.010	0.000000	0.000000	-1175.32	-464.69
1	FID		HRC-S-2	7.04	289	0.219	-0.201	0.008	0.014	0.000000	0.000000	1220.56	-458.88
2	FID		HRC-S-4	7.00	289	0.259	0.053	0.007	0.013	0.000000	0.000000	1227.43	566.11
3	GUIDE	used	472649352	9.75	575	-0.288	-0.178	0.155	0.246	332.034169	45.325407	1877.40	890.33
4	GUIDE	used	472654568	9.41	578	-0.101	0.064	0.132	0.217	332.194449	45.063576	2153.77	1881.82
5	GUIDE	used	472655152	9.42	578	0.115	-0.225	0.164	0.277	332.504239	45.862991	-251.81	121.47
6	GUIDE	used	472663080	9.39	578	0.180	0.186	0.124	0.207	332.652741	46.473840	-1912.49	-1374.26
7	GUIDE	used	472665256	9.02	576	0.105	0.147	0.095	0.149	332.808125	46.195041	-1596.39	-349.91

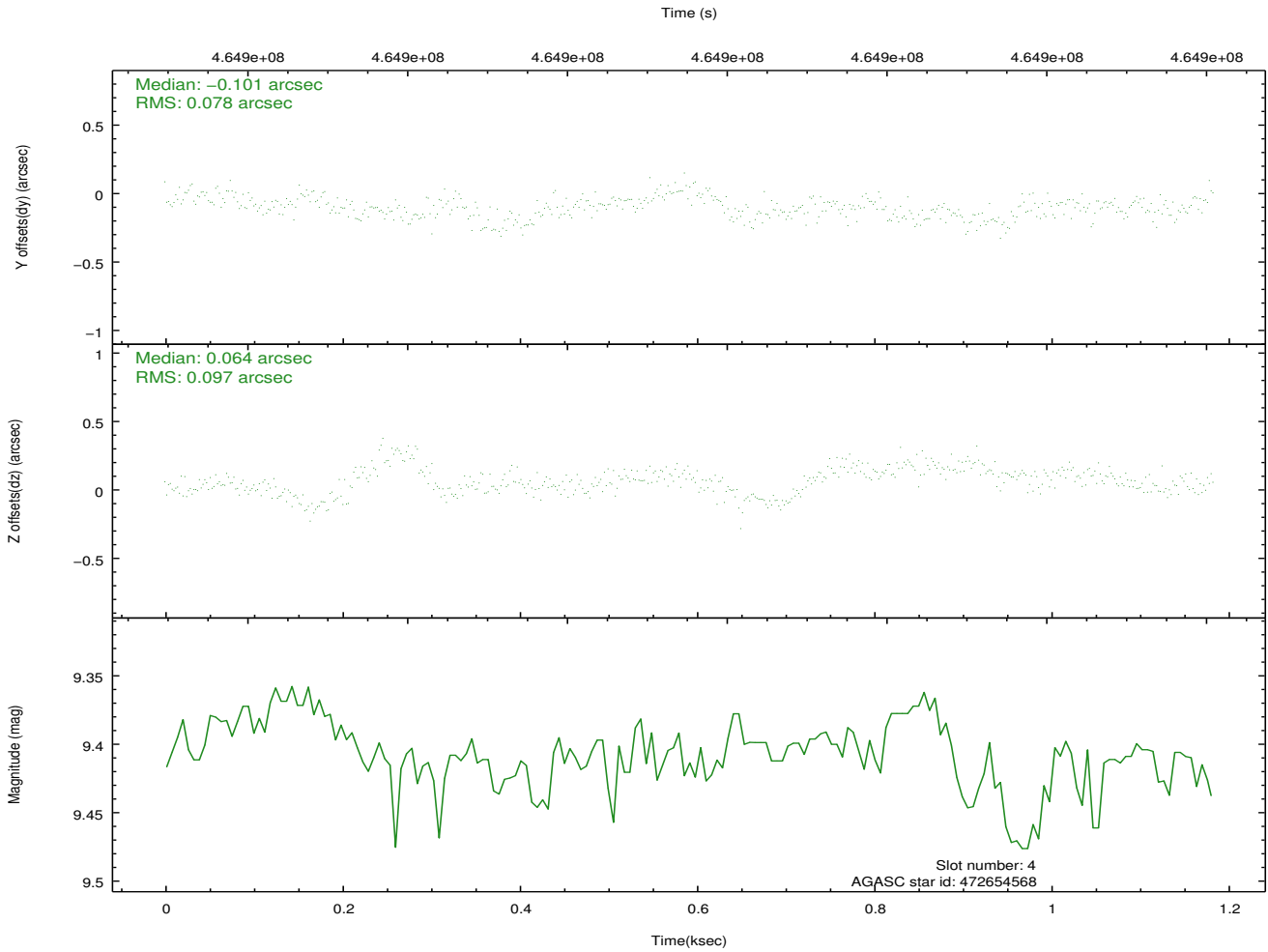
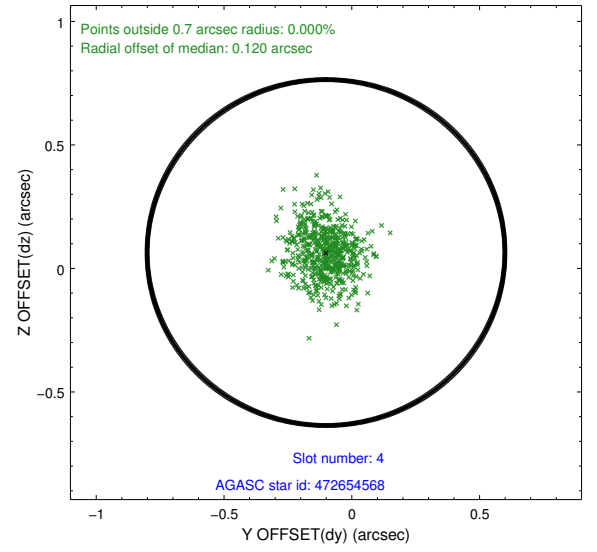
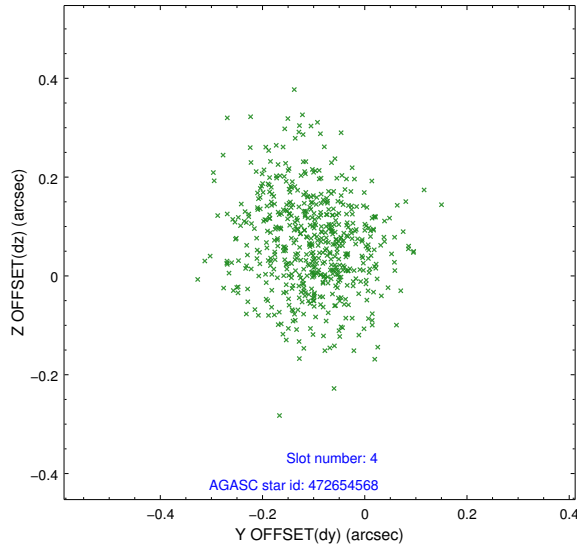


## 2.4 Star Slots

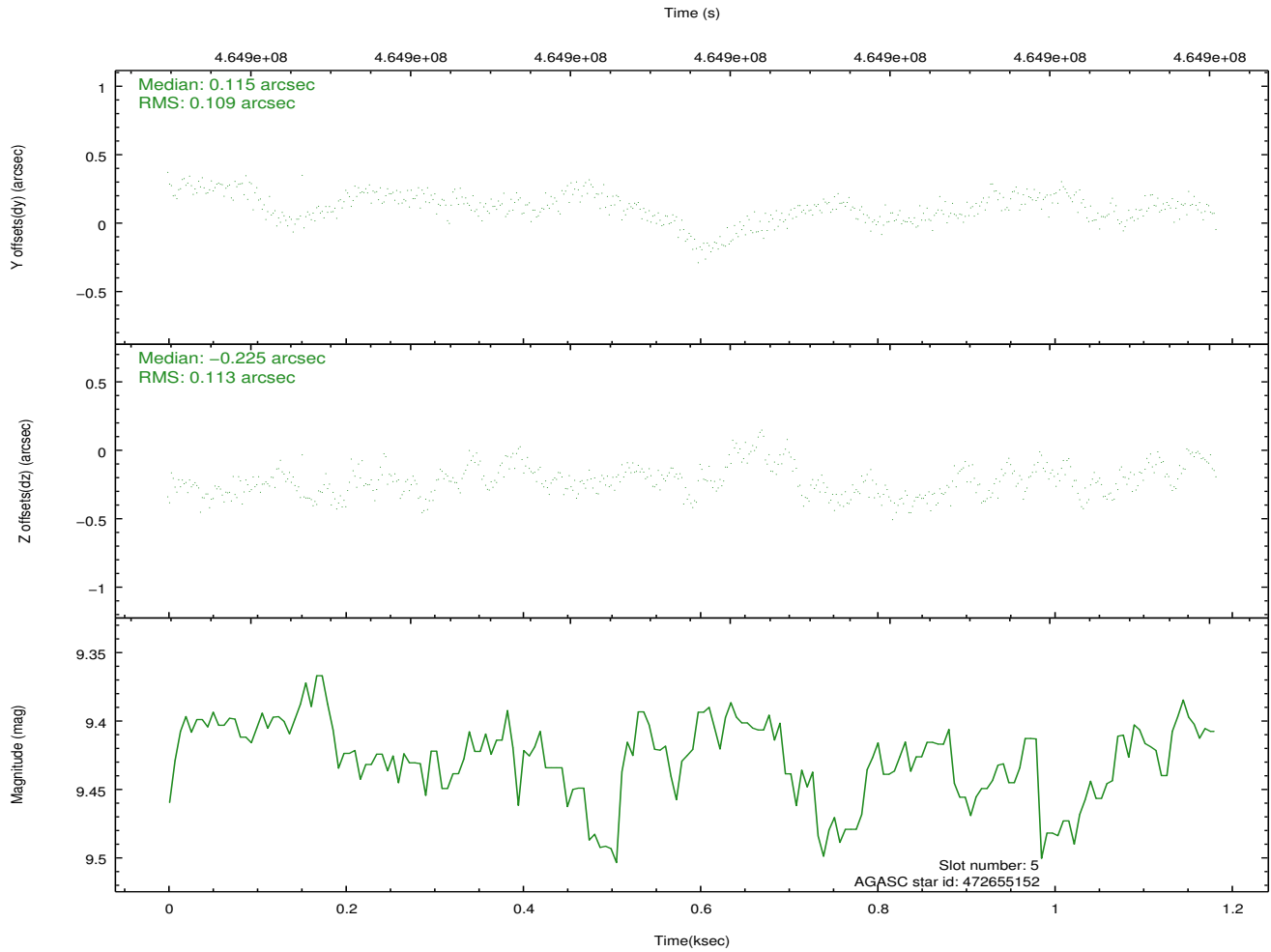
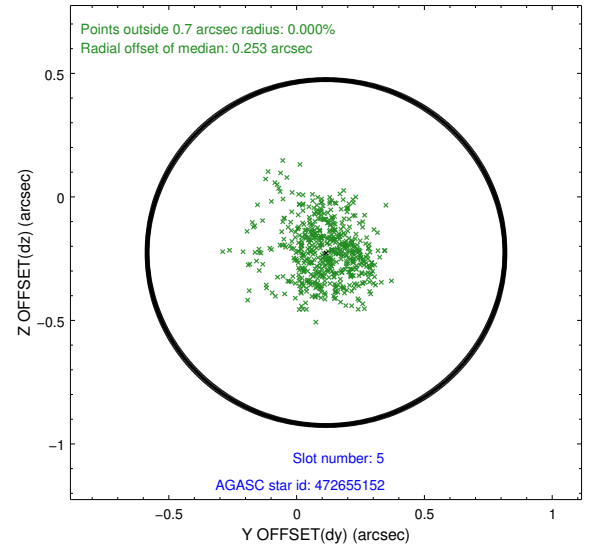
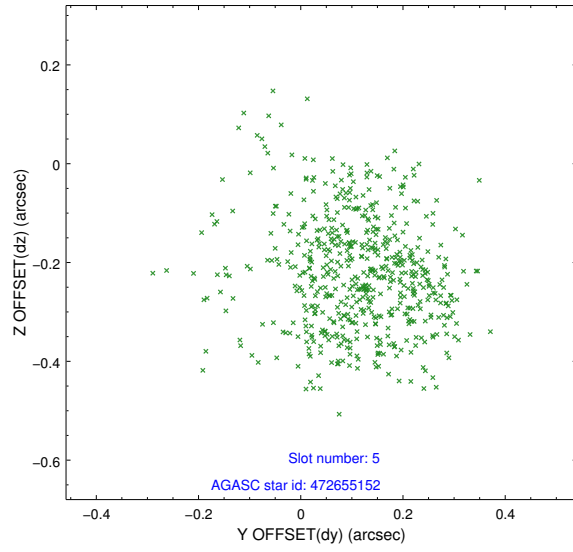
### 2.4.1 Slot 3



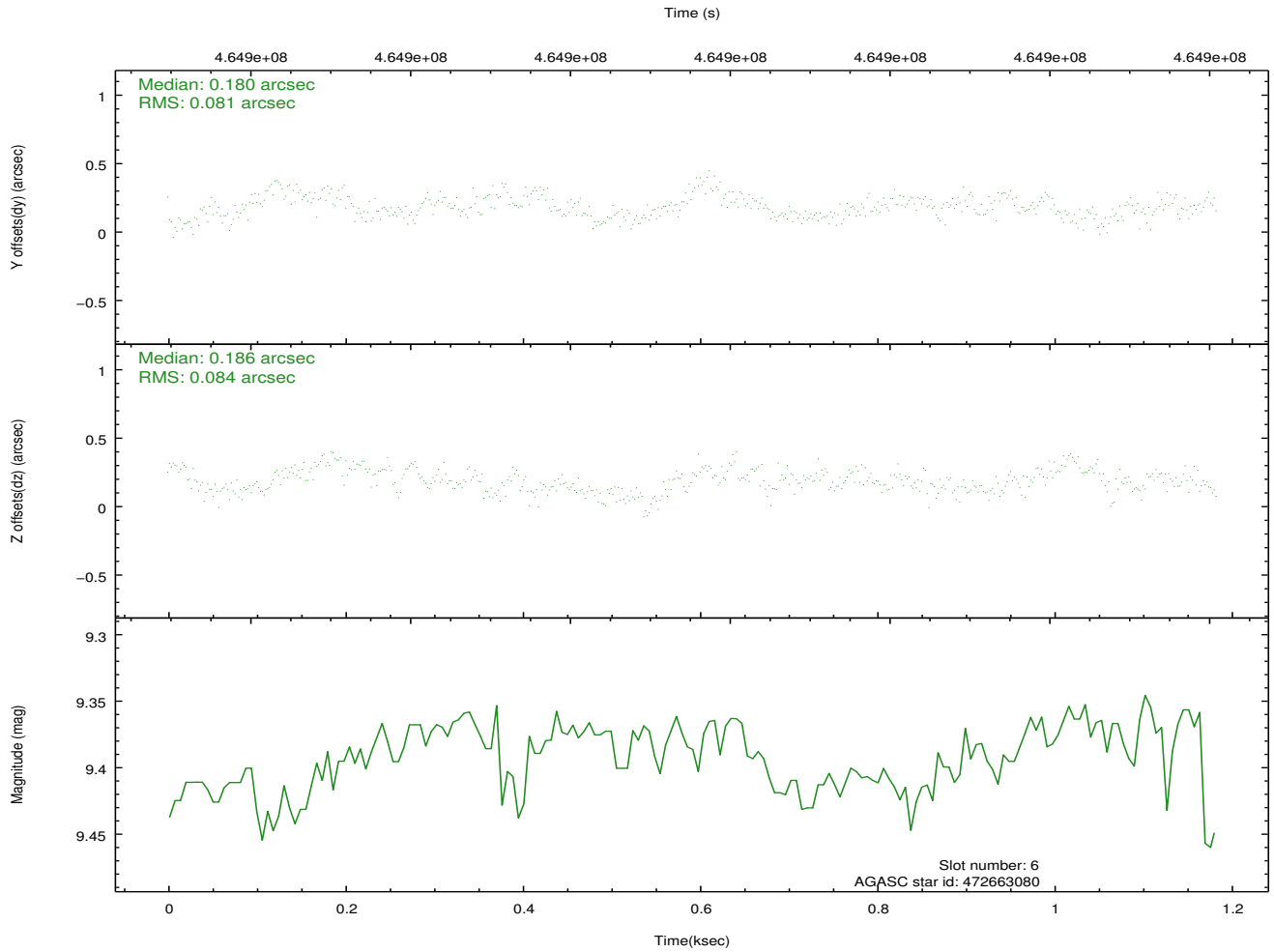
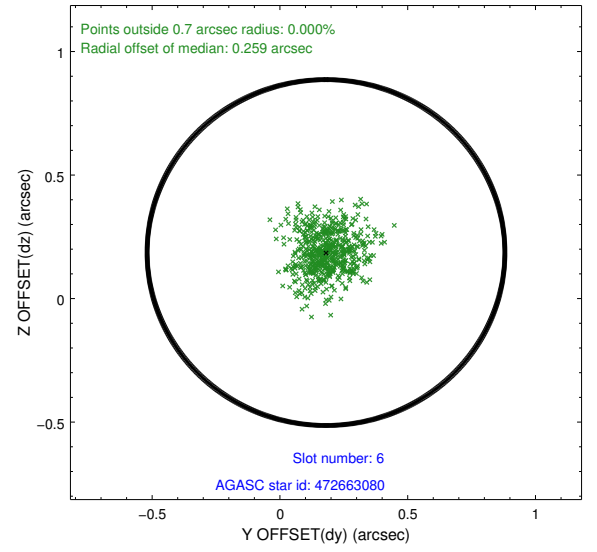
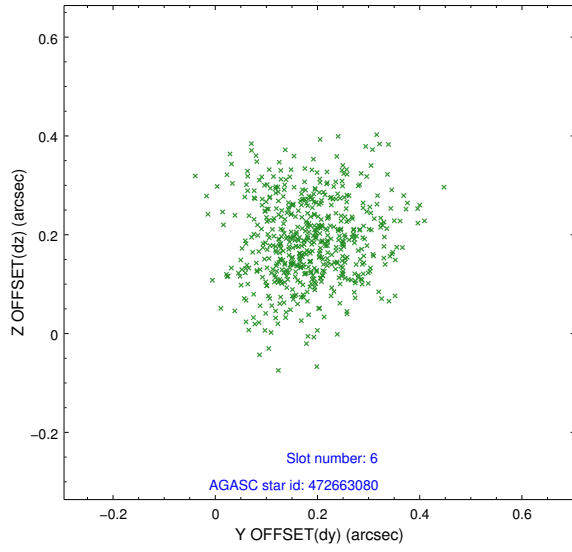
## 2.4.2 Slot 4



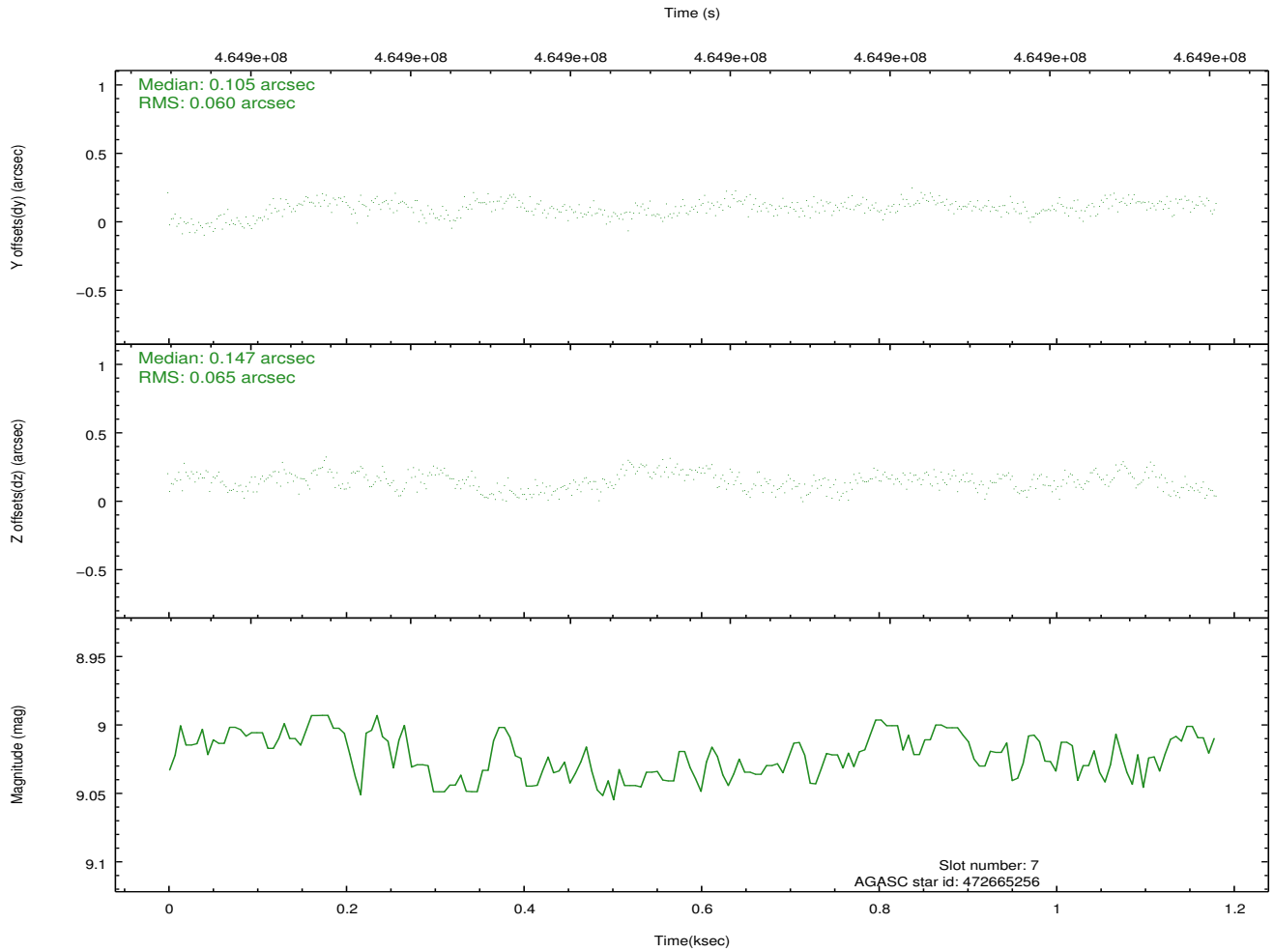
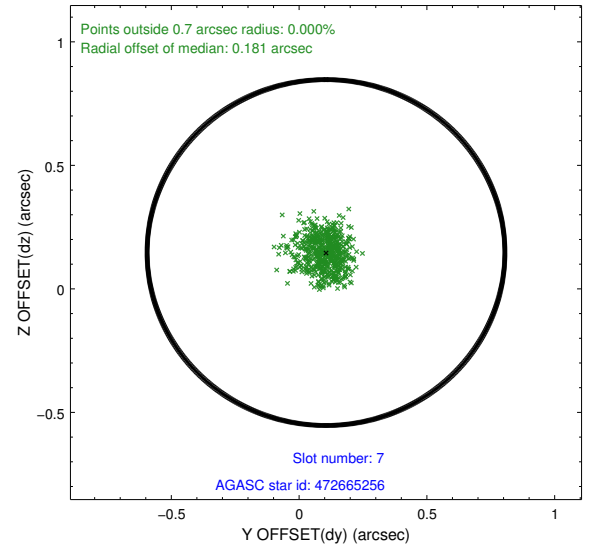
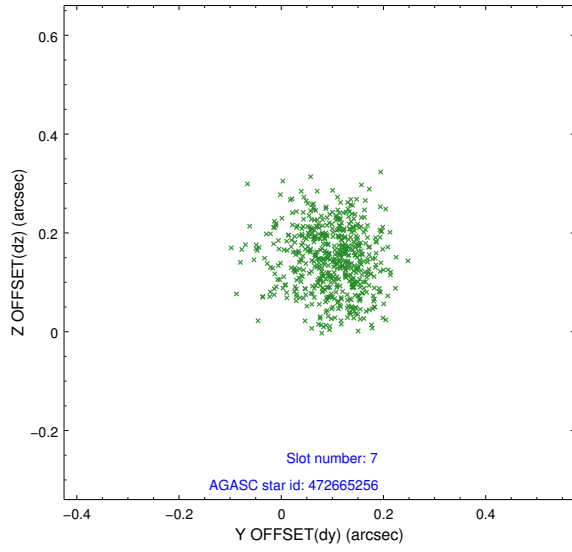
### 2.4.3 Slot 5



## 2.4.4 Slot 6

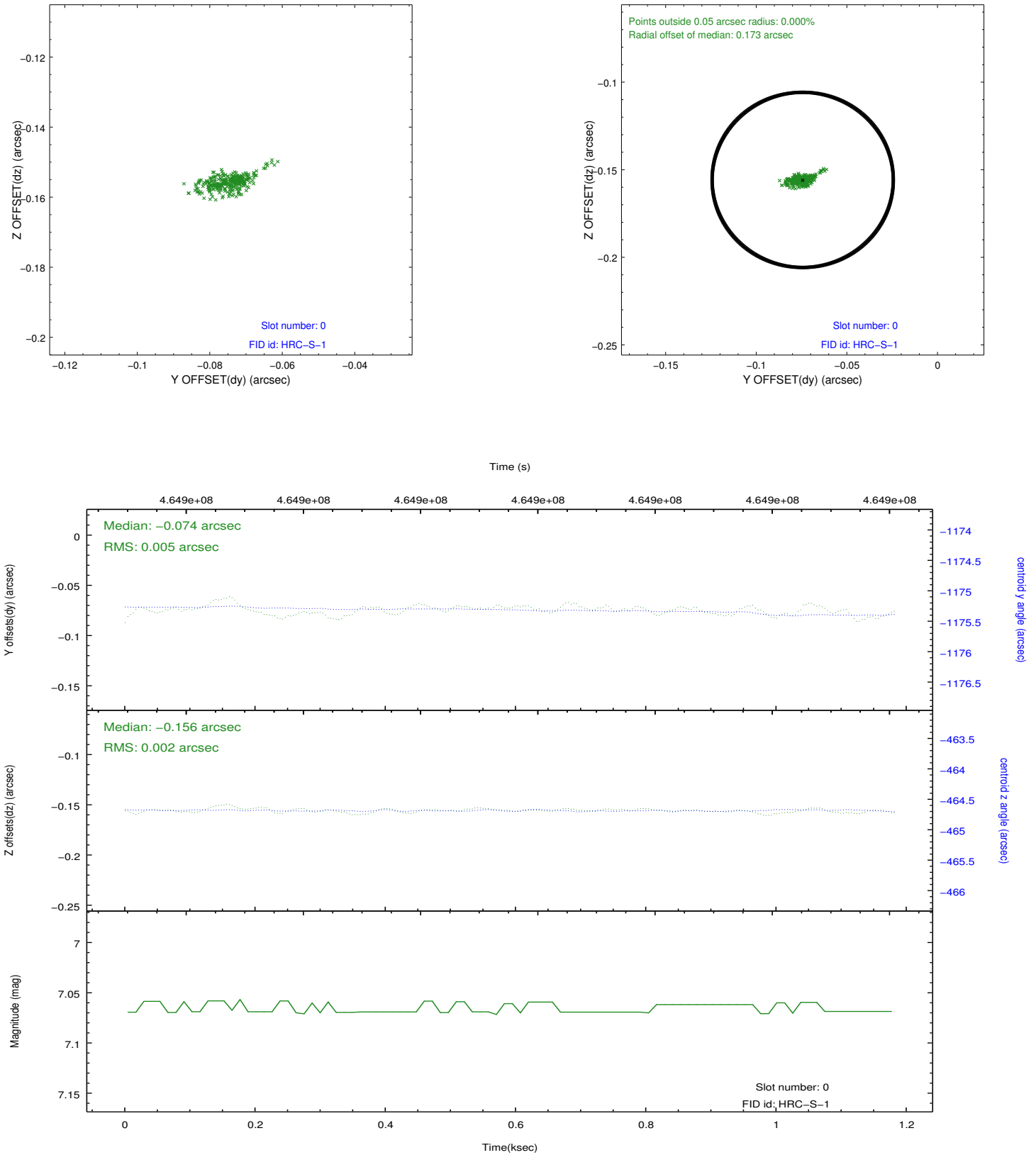


## 2.4.5 Slot 7

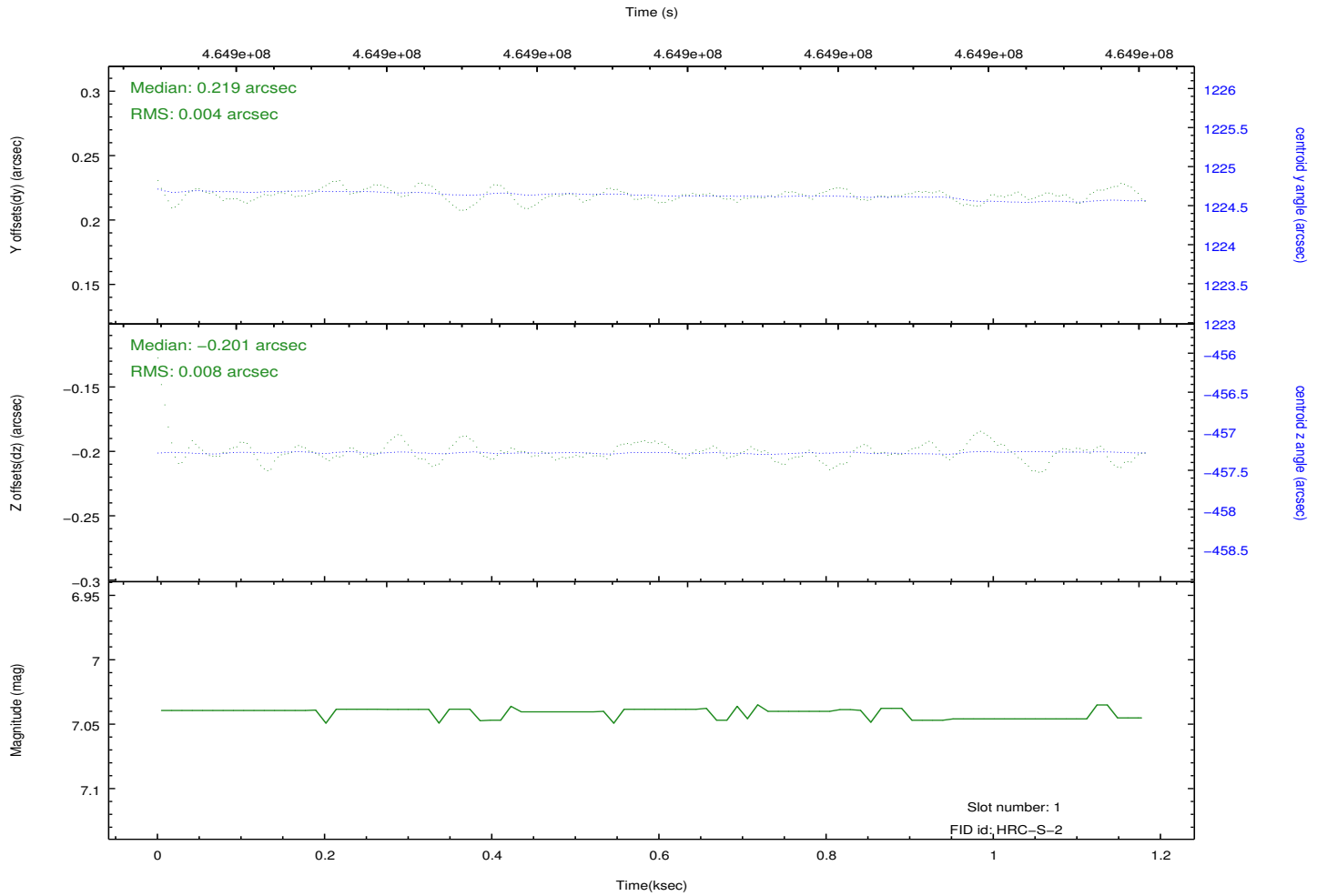
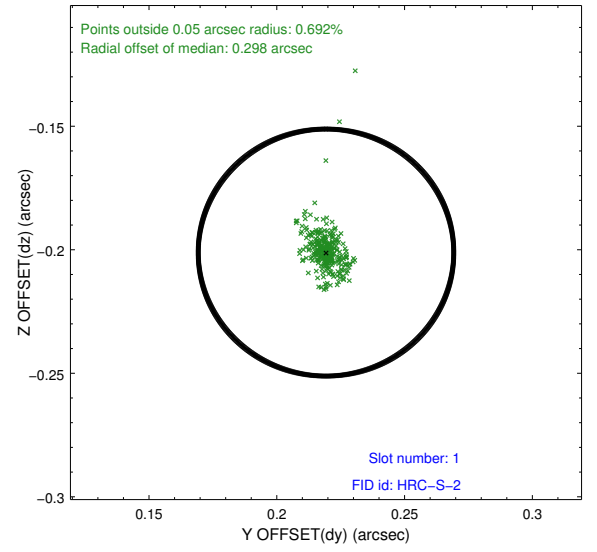
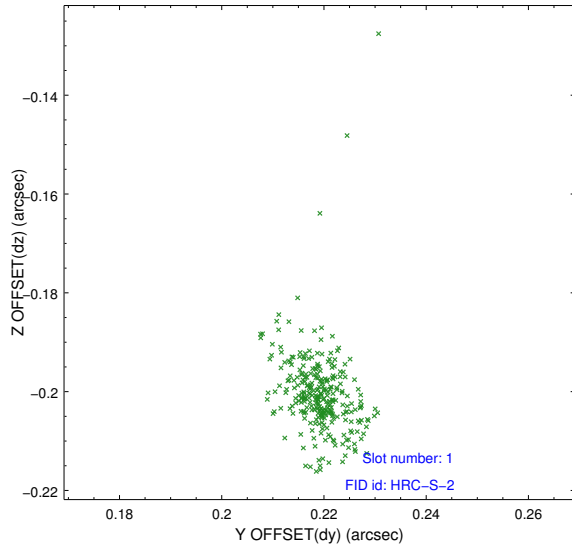


## 2.5 FID Slots

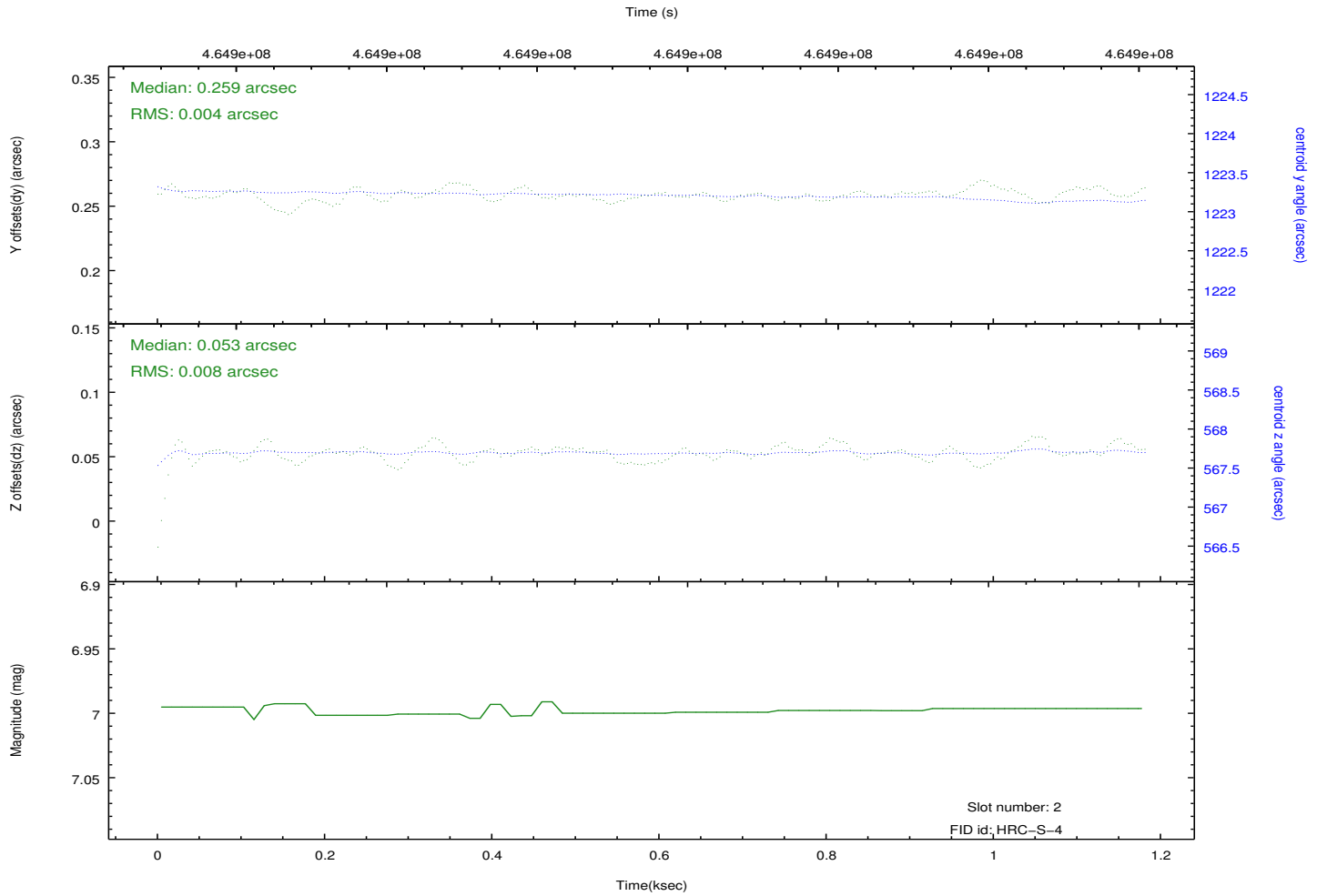
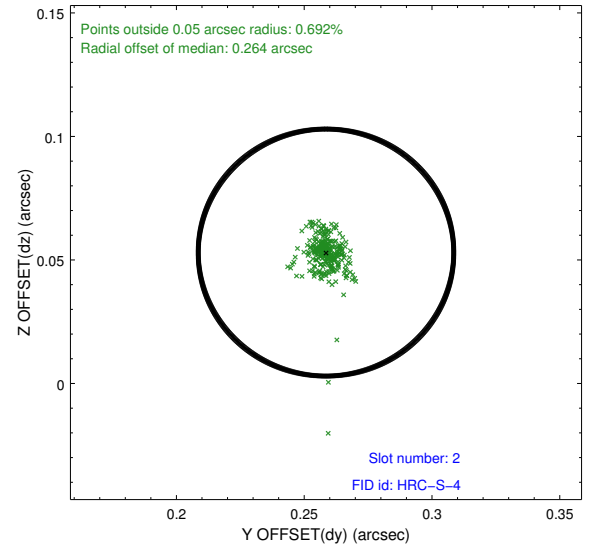
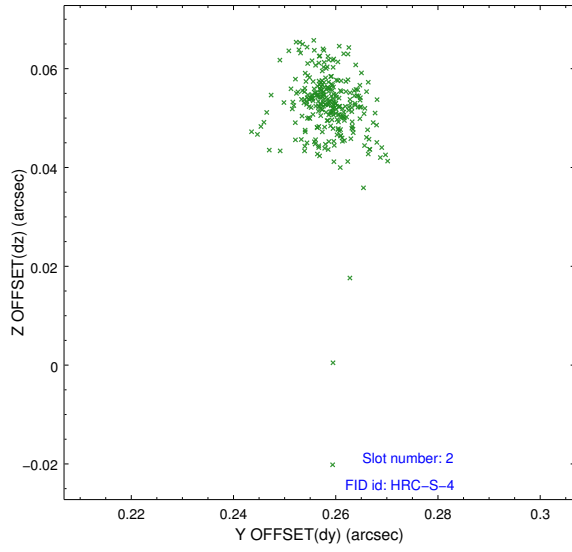
### 2.5.1 Slot 0



## 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)	2014.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.1533813120127

## 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.