

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 14280 - L2 Version 2  
Chandra X-Ray Center

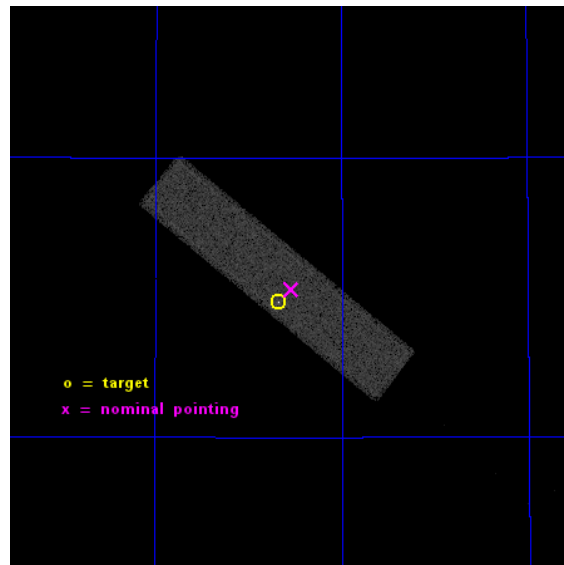
L2 Processing Date : Nov 26 2014

## 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

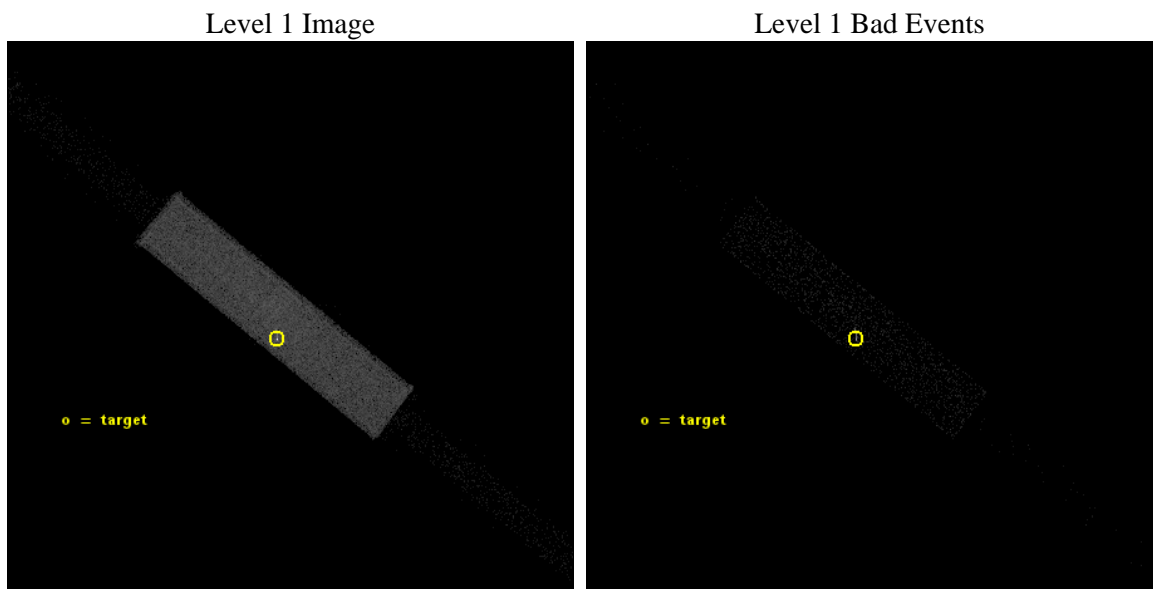
seq_num	291031	Sequence number
obs_id	14280	Observation id
title	AO-13 Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.1345710806	Nominal RA [deg]
dec_nom	45.765224552554	Nominal Dec [deg]
roll_nom	218.59435878735	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1153.3813120127	[s]
livetime	1145.8438523991	Ontime multiplied by DTCOR
l2events	51561	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	84514	Number of level 1 events
date	2014-11-27T02:27:36	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

Level 1 Events

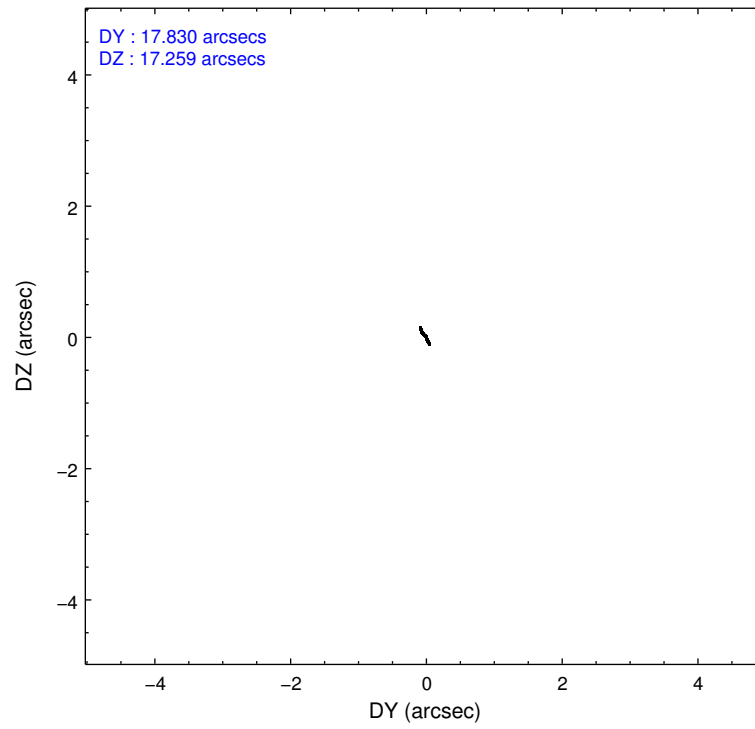
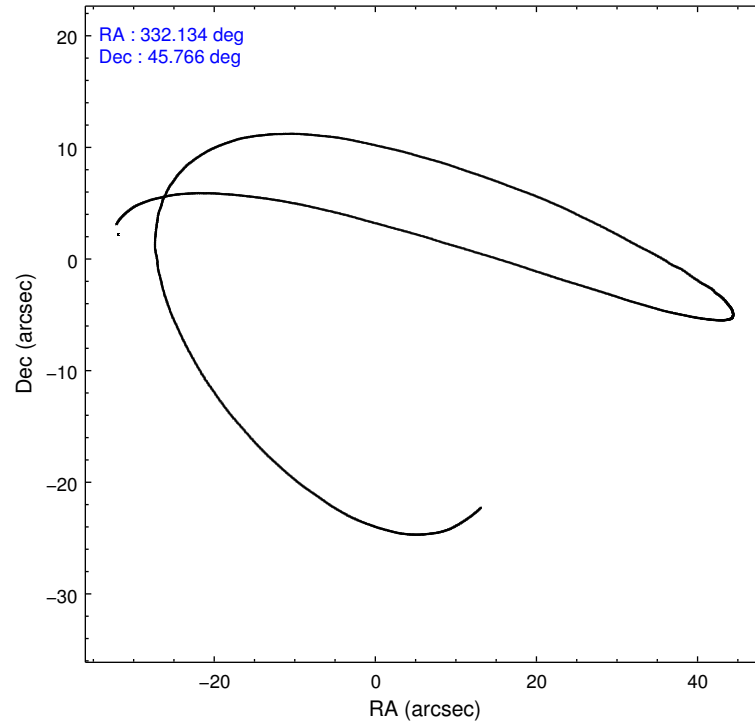
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	723	83059	732
rejected events	723	19029	724
rejected %	100%	22%	98%

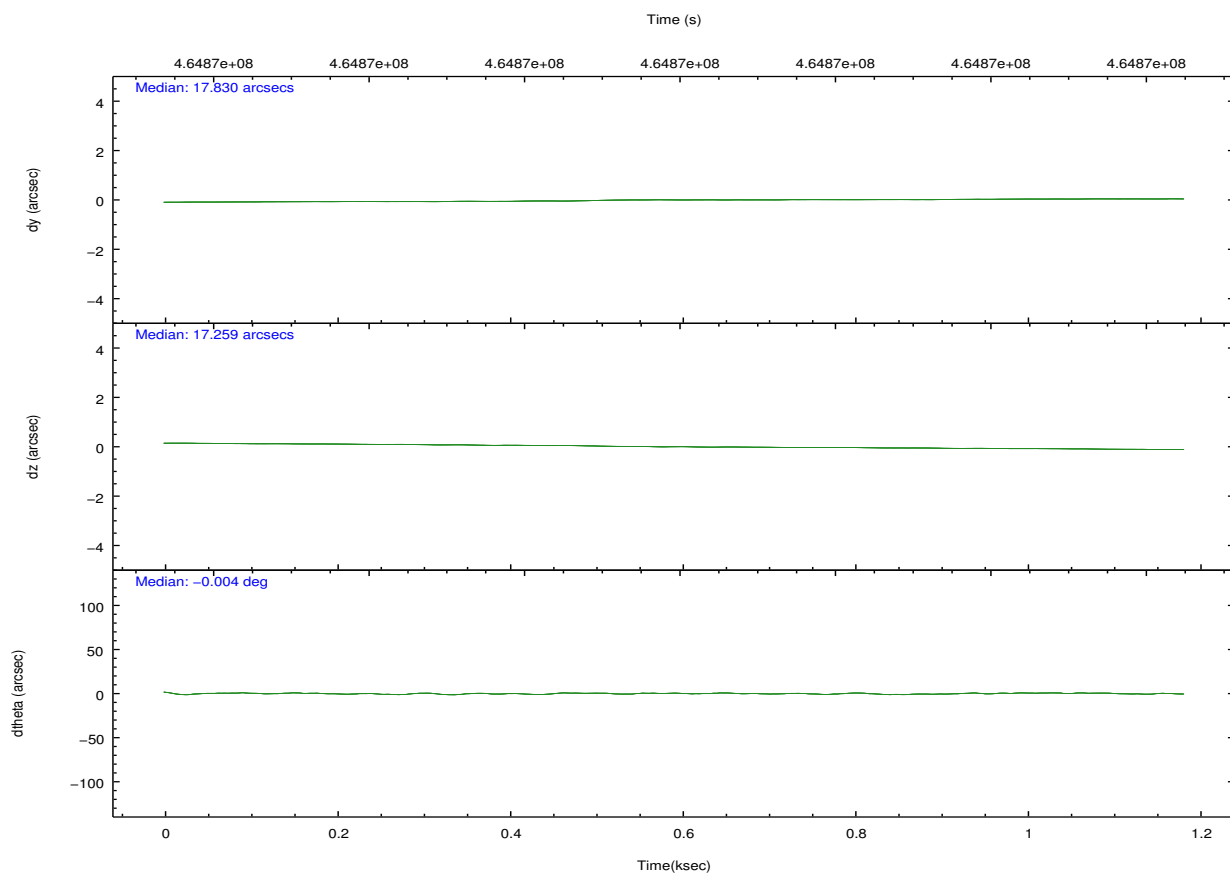
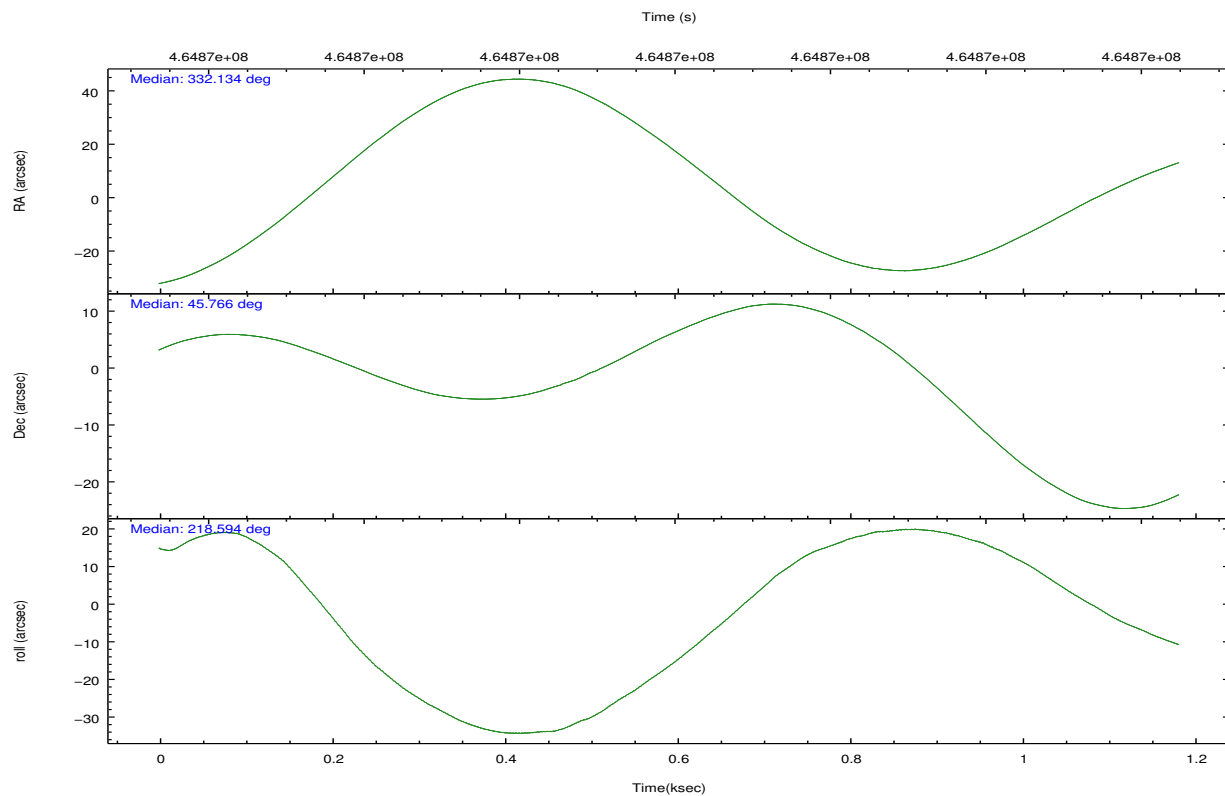
## 2.2 Compared Parameters

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	332.147950	332.1345710806008
[deg] Pointing Dec	45.792681	45.76522455255417
[deg] Pointing Roll	218.517406	218.5943587873502
[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)	464872981.184000	464872605.00869
Observation start date	2012-09-24T11:21:54	2012-09-24T11:16:45
[s] Observation end time (MET)	464873981.184000	464874114.83377
Observation end date	2012-09-24T11:38:34	2012-09-24T11:41:54

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

## 2.3 Aspect





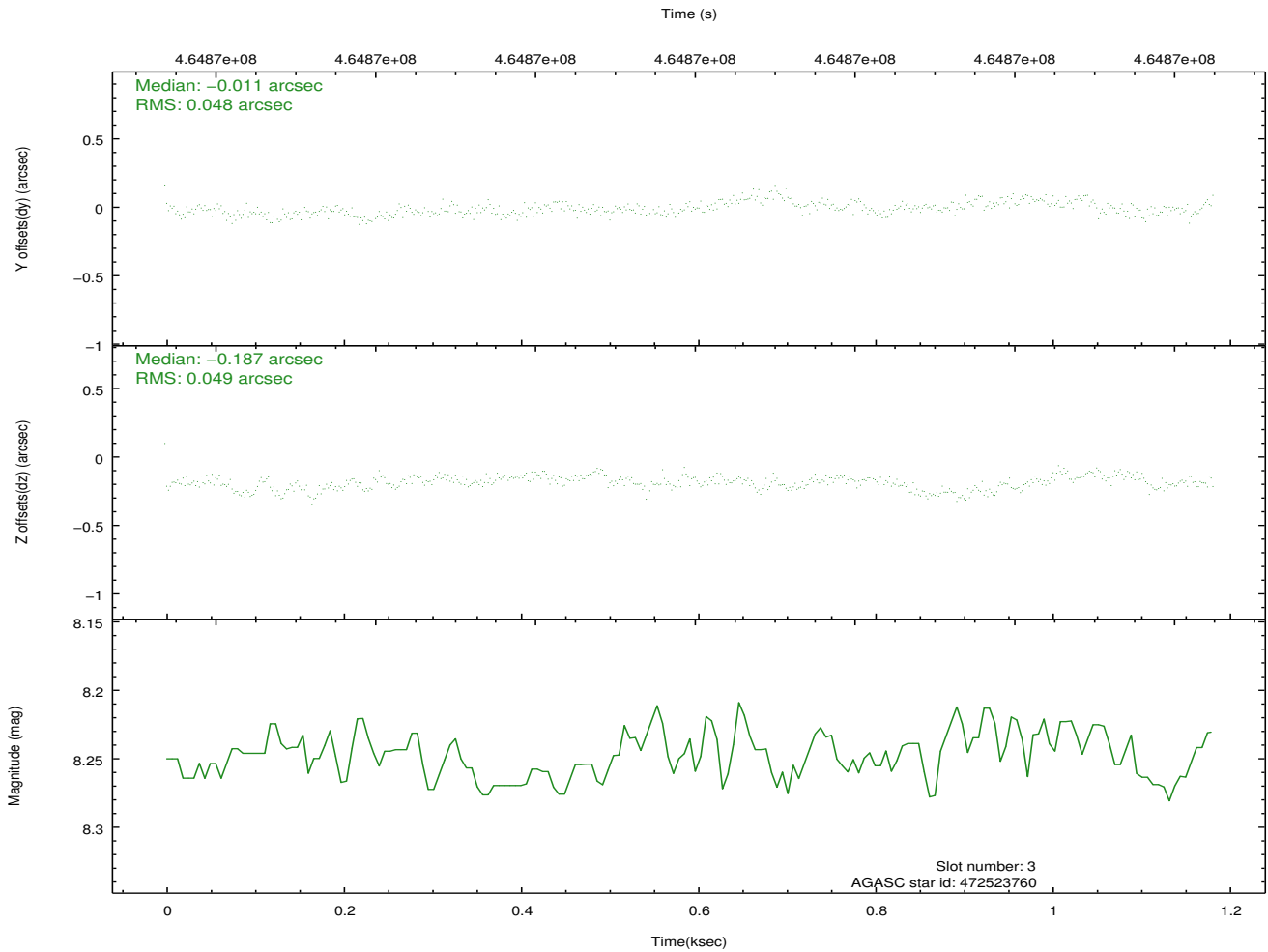
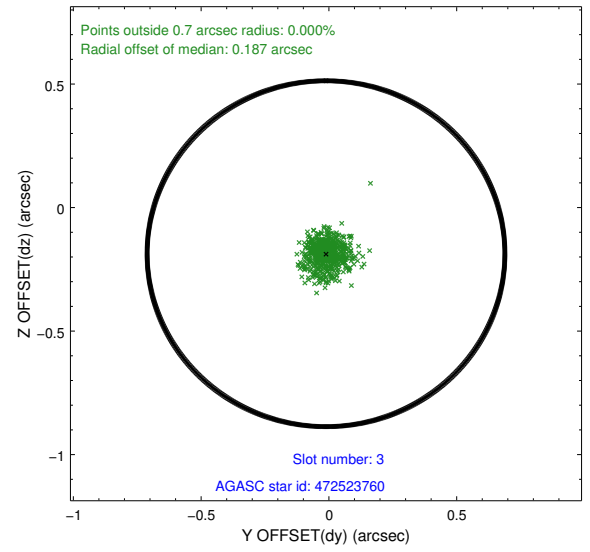
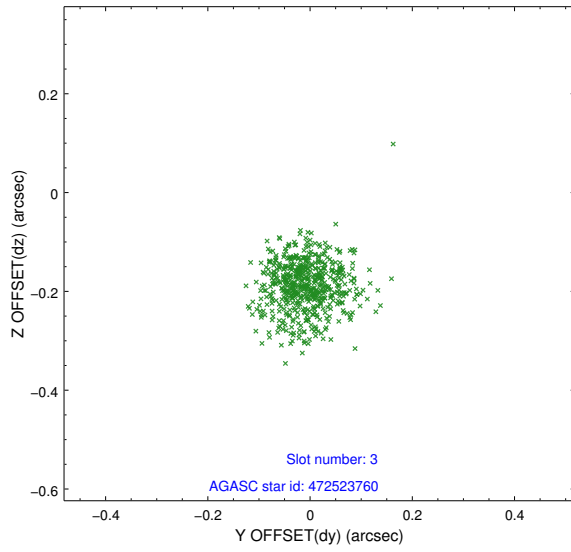
### Slot Statistics

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	0.055	-0.156	0.007	0.011	0.000000	0.000000	-1172.30	-466.20
1	FID		HRC-S-2	7.05	289	0.253	-0.121	0.005	0.009	0.000000	0.000000	1223.50	-460.40
2	FID		HRC-S-3	7.07	289	0.082	-0.025	0.006	0.012	0.000000	0.000000	-1170.76	561.86
3	GUIDE	used	472523760	8.25	578	-0.011	-0.187	0.073	0.116	331.645363	45.403260	1863.81	302.58
4	GUIDE	used	472533912	9.15	578	0.180	0.079	0.131	0.216	331.791136	46.368695	-596.51	-2175.32
5	GUIDE	used	472655152	9.42	578	0.114	-0.136	0.180	0.280	332.504239	45.862991	-859.48	352.98
6	GUIDE	used	472665256	9.02	578	0.181	0.201	0.107	0.224	332.808125	46.195041	-2195.59	-113.30
7	GUIDE	used	472525528	6.66	577	-0.468	0.035	0.073	0.137	331.551102	45.248694	2394.56	585.83

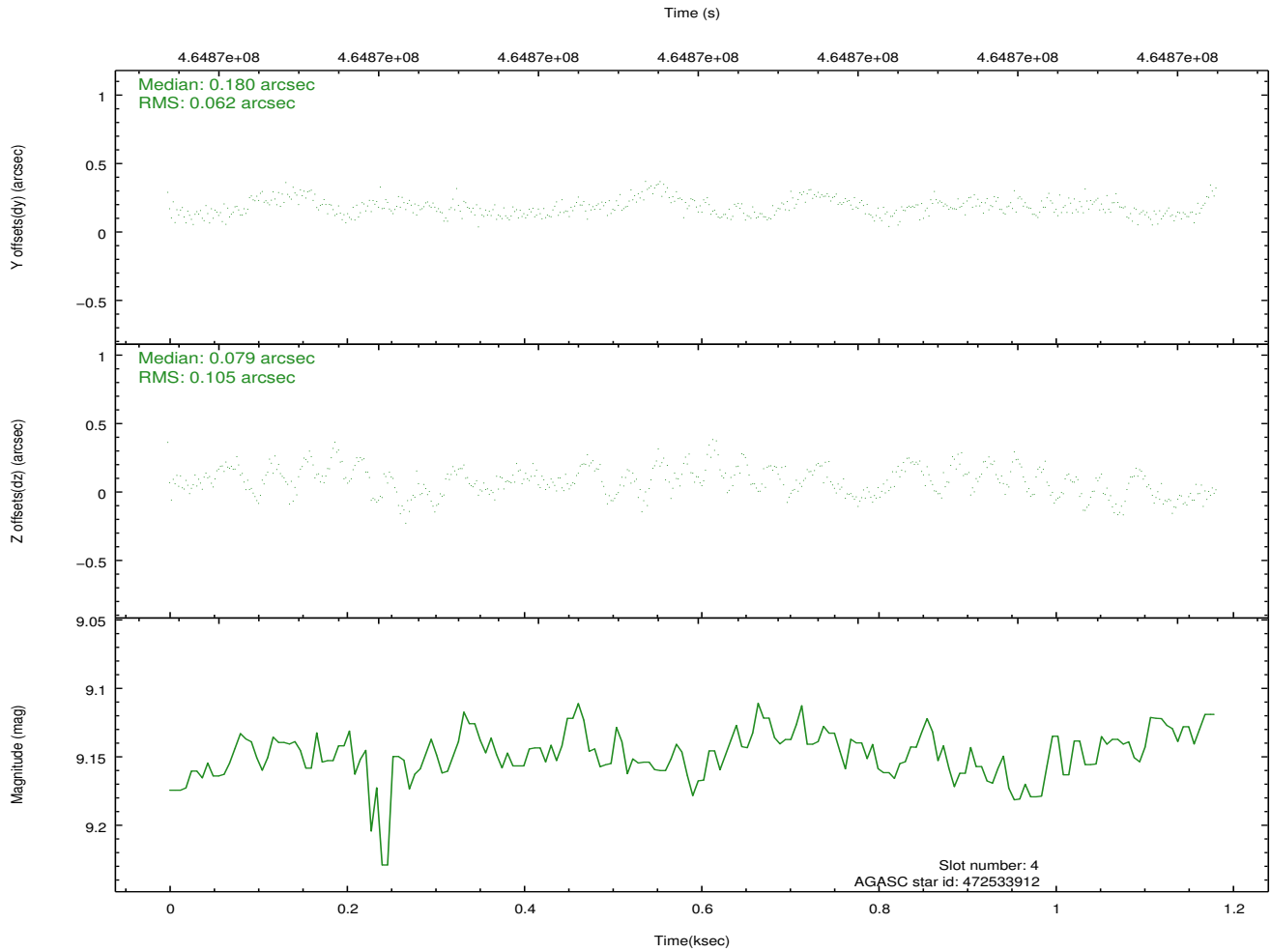
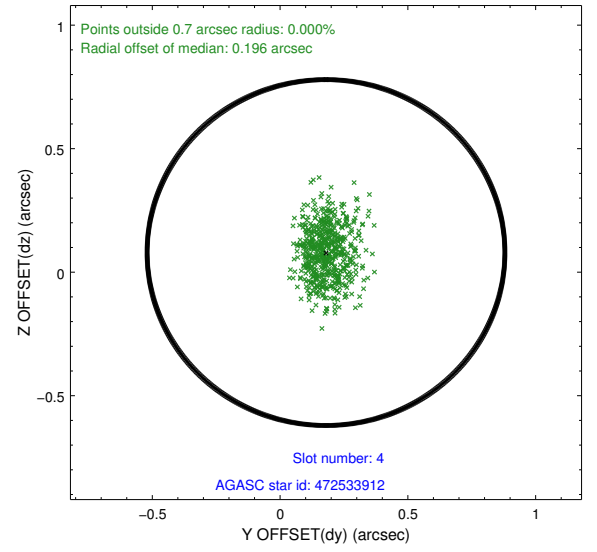
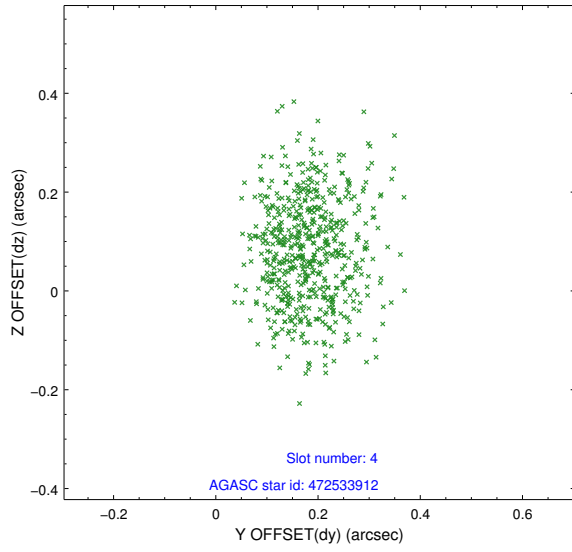


## 2.4 Star Slots

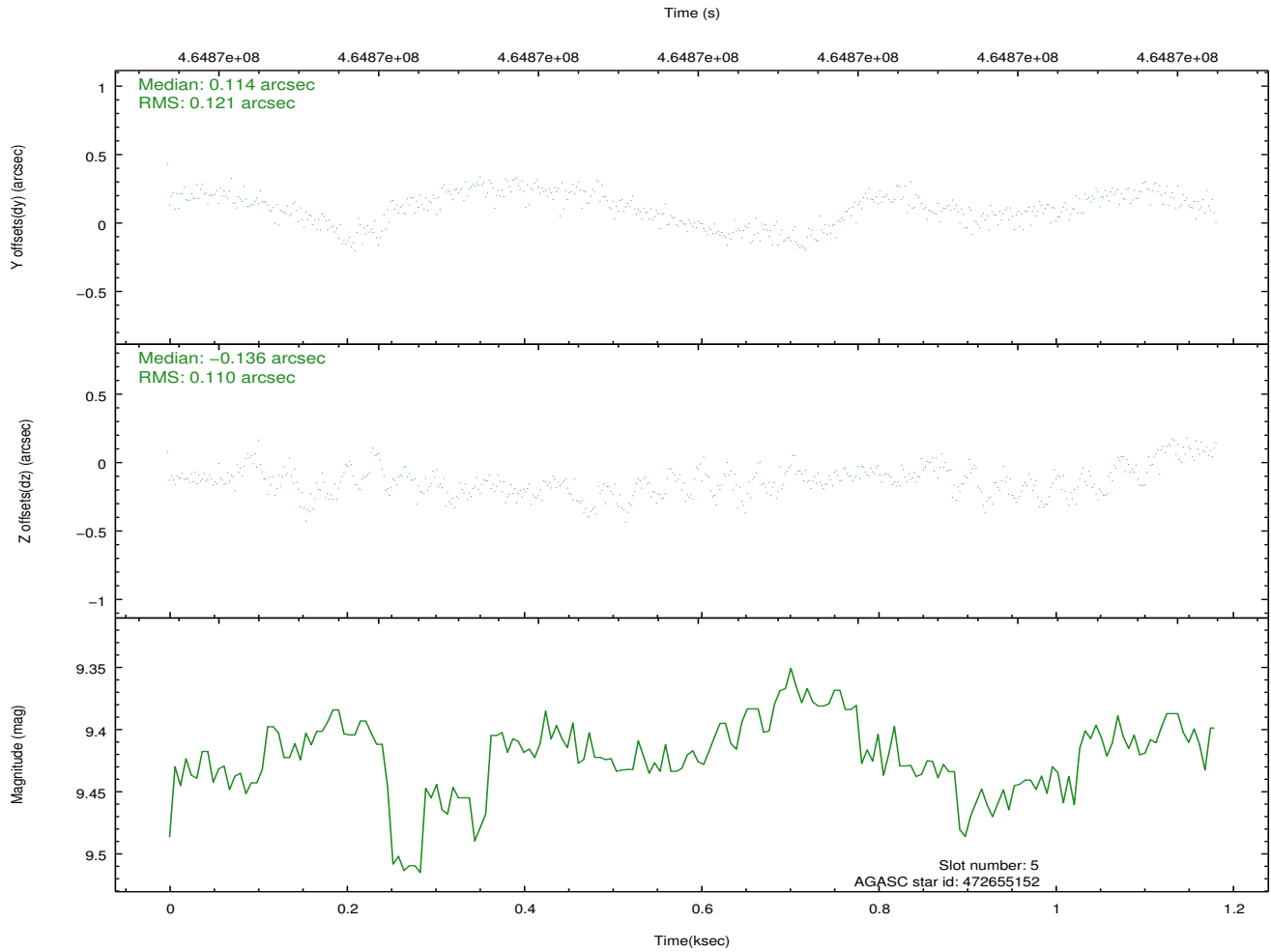
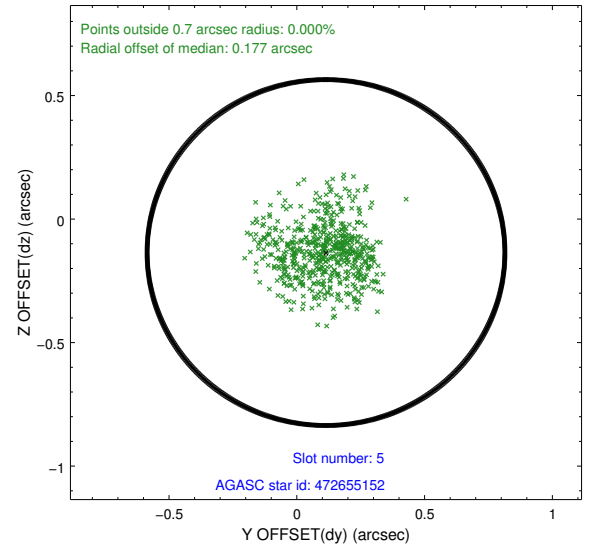
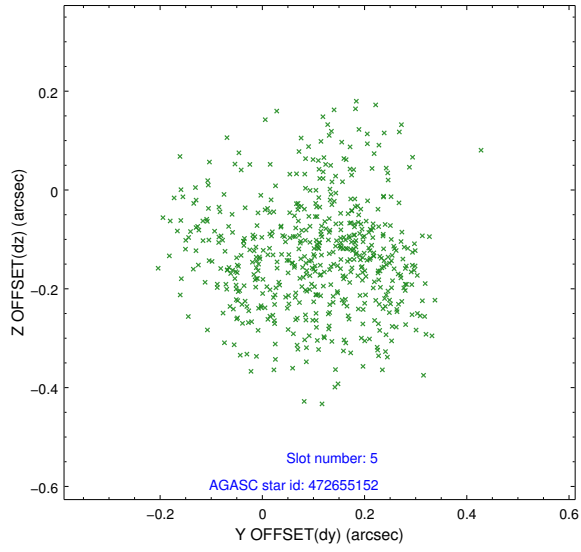
### 2.4.1 Slot 3



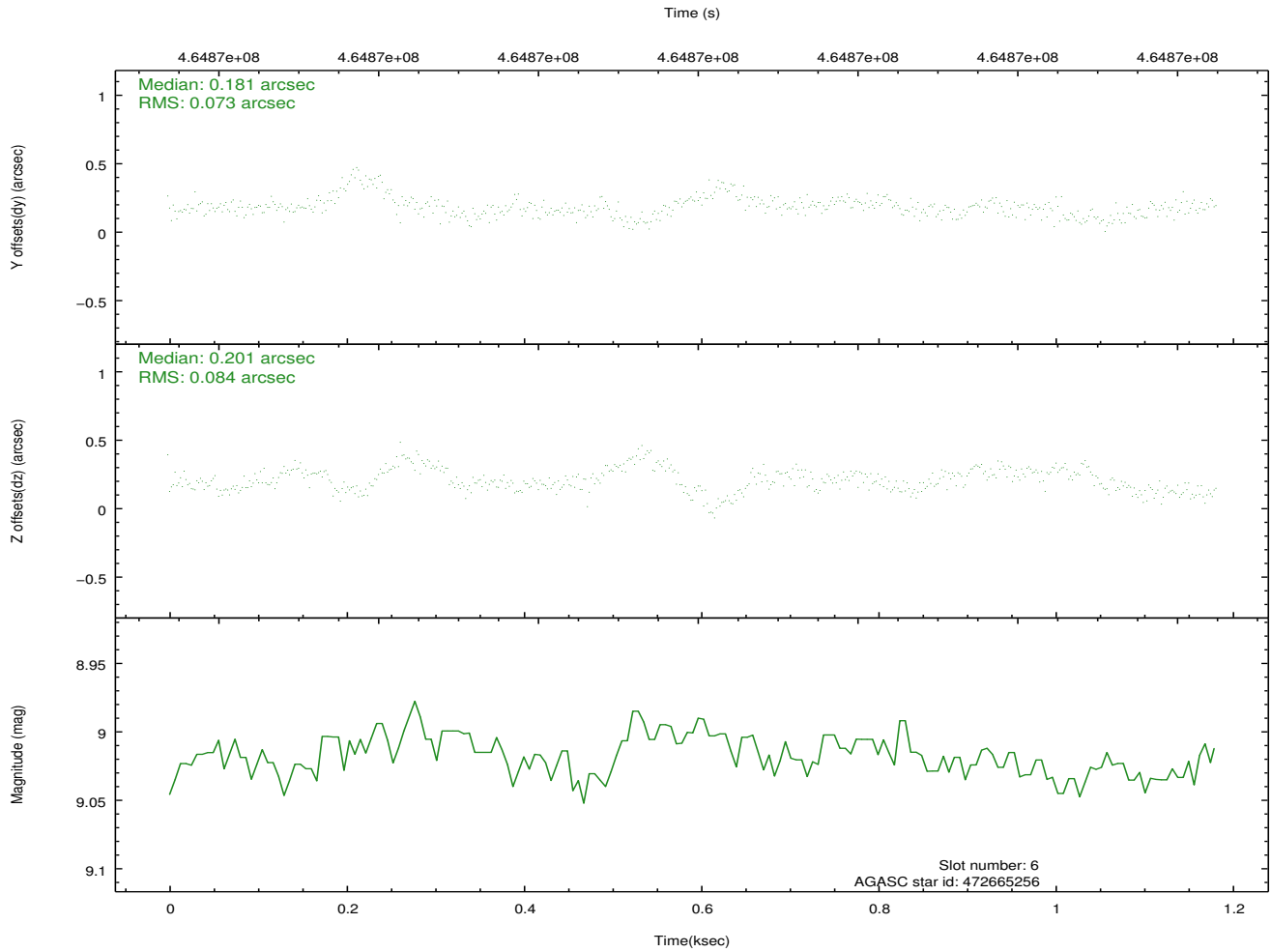
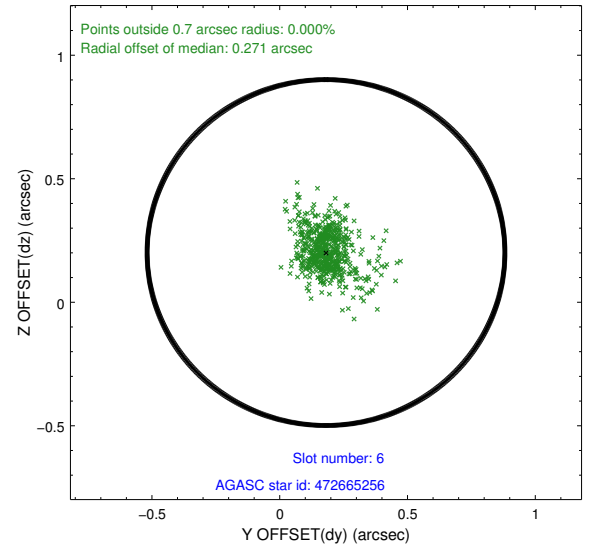
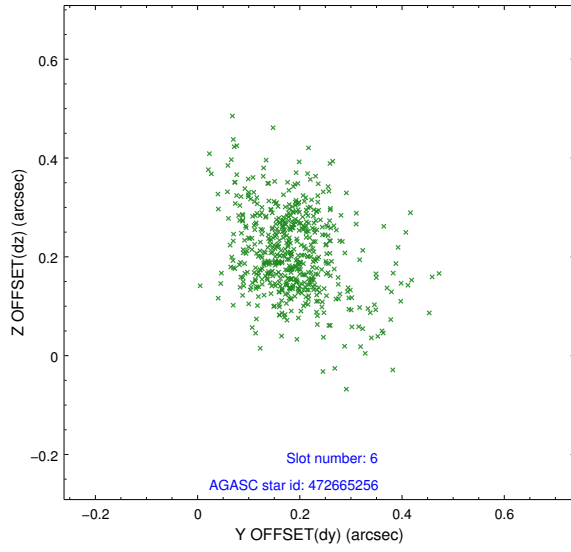
## 2.4.2 Slot 4



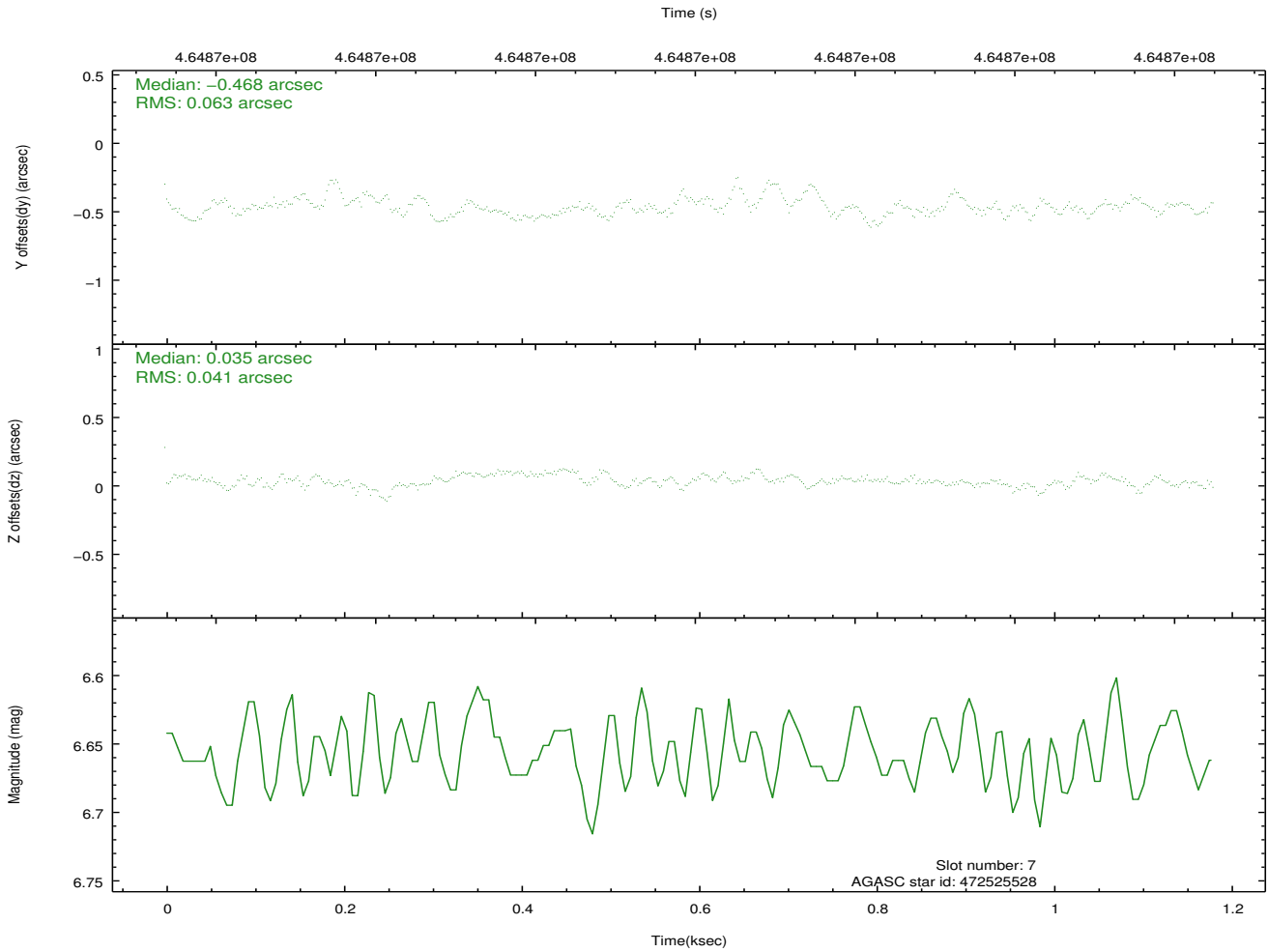
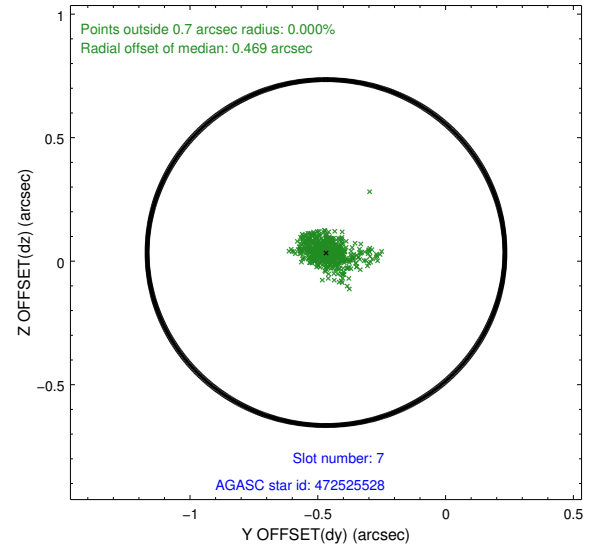
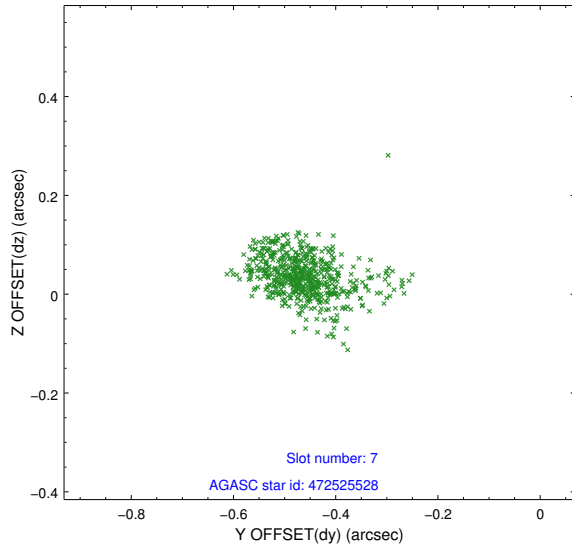
### 2.4.3 Slot 5



## 2.4.4 Slot 6

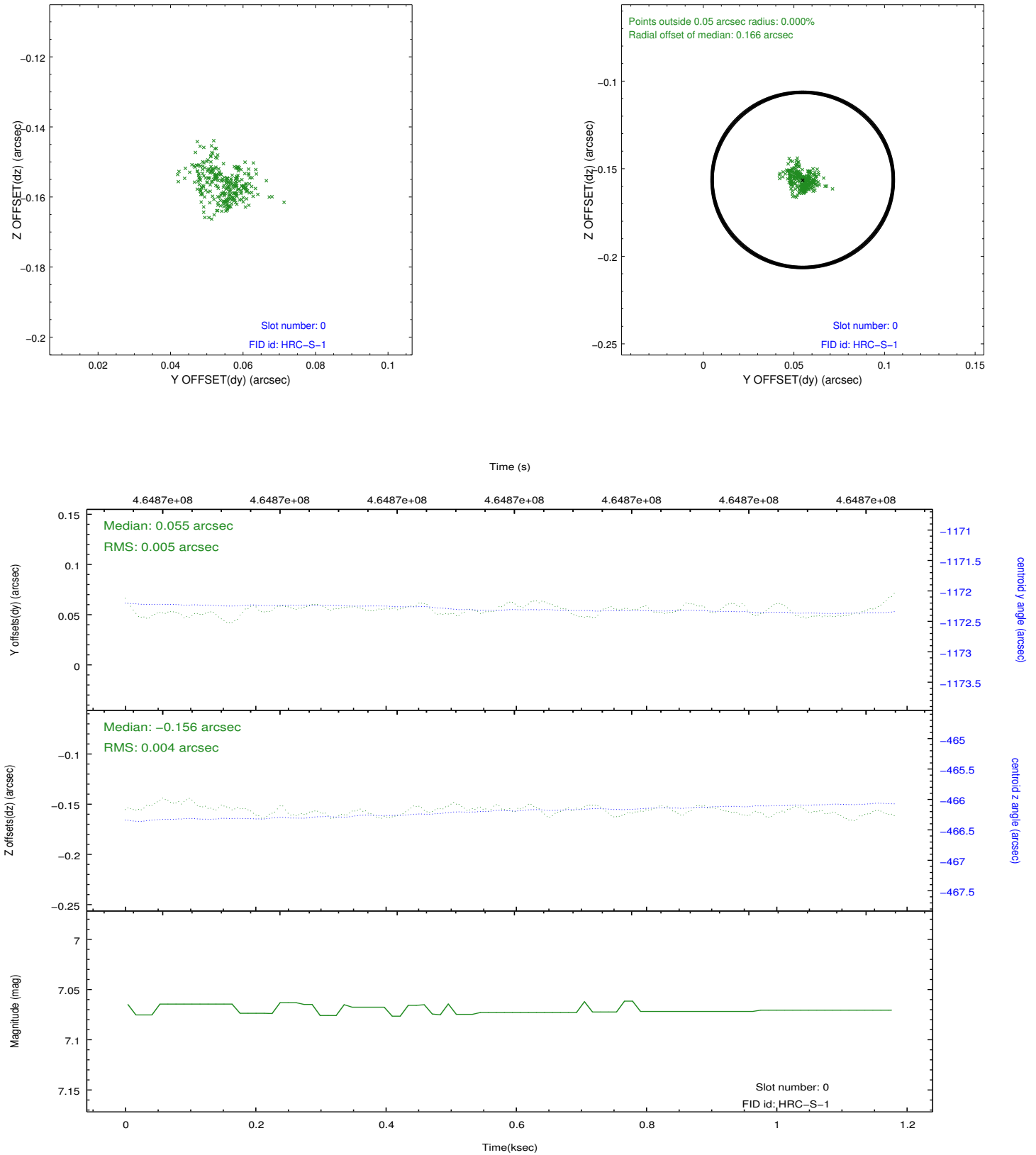


## 2.4.5 Slot 7

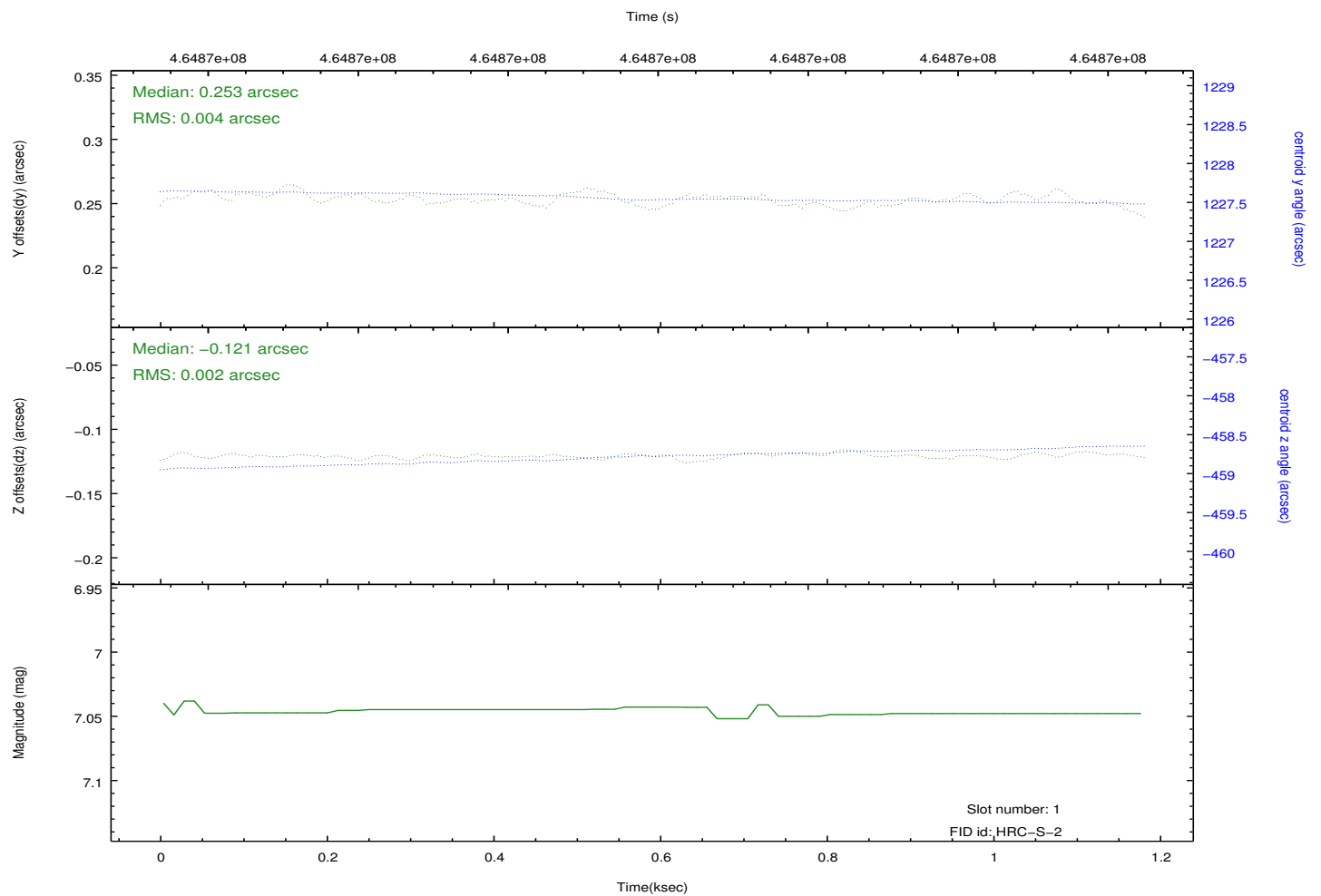
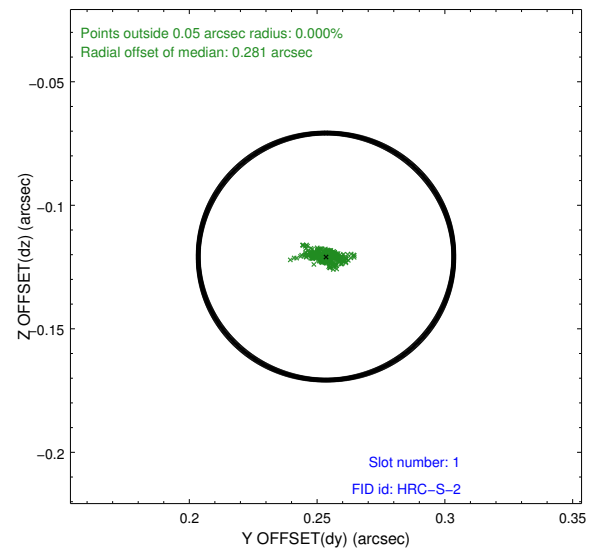
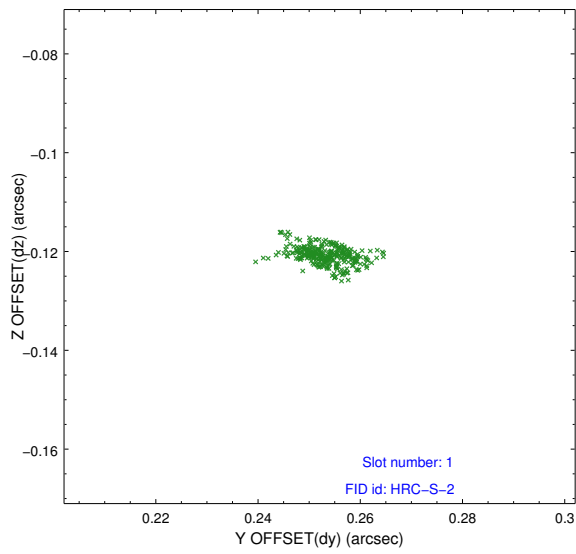


## 2.5 FID Slots

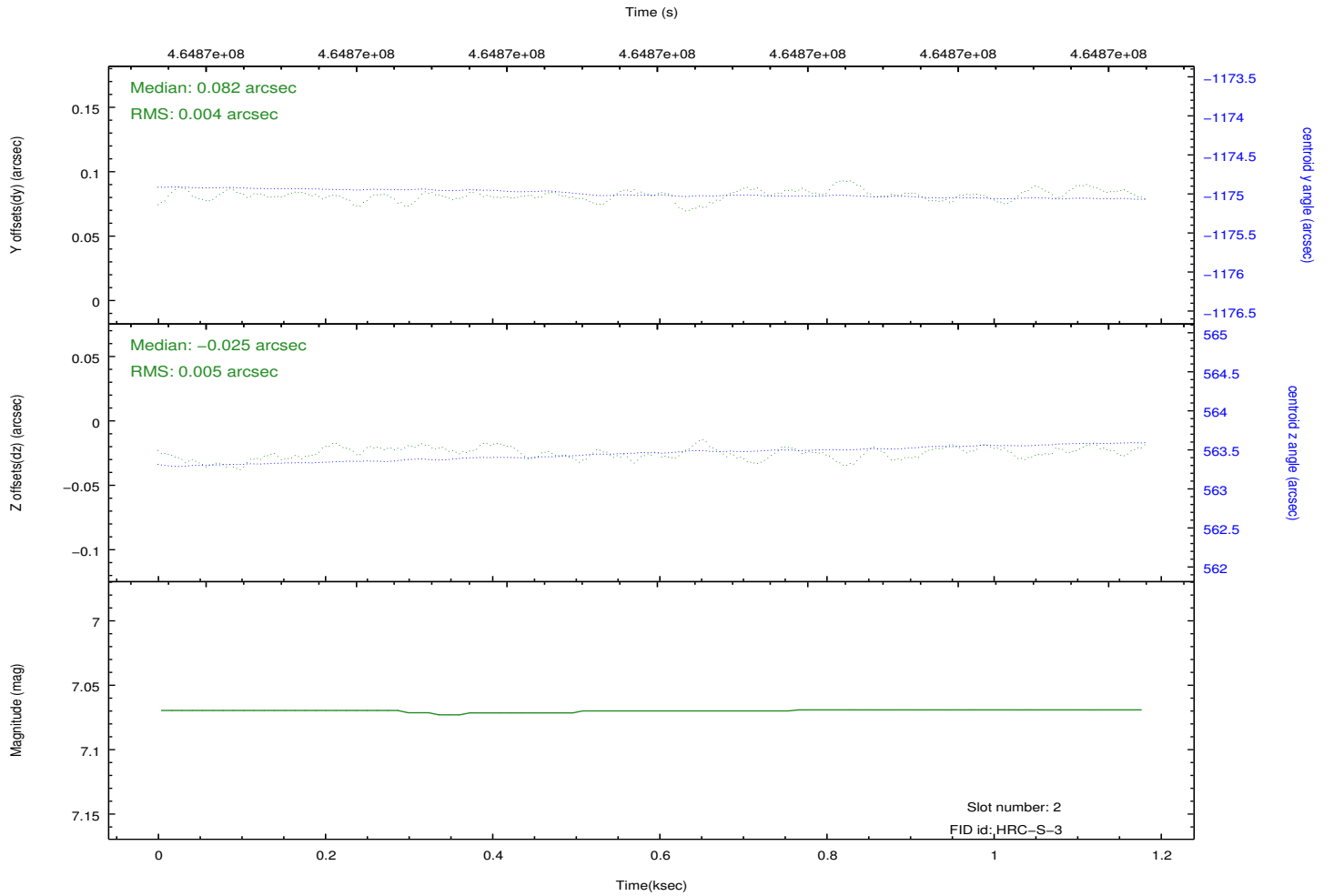
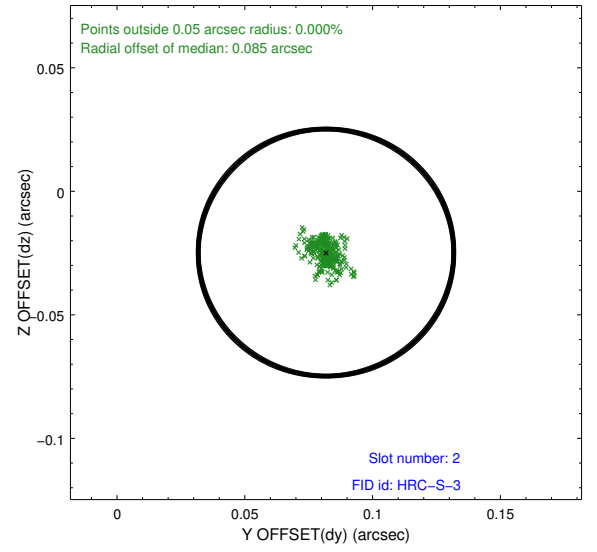
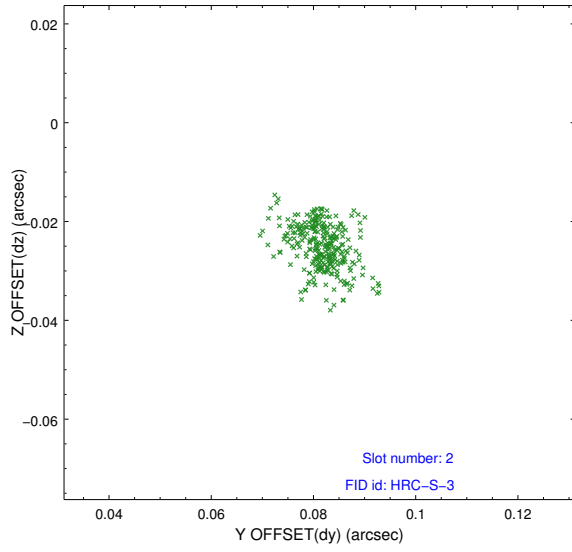
### 2.5.1 Slot 0



### 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)	2014.12.02
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.