

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 14290 - L2 Version 2  
Chandra X-Ray Center

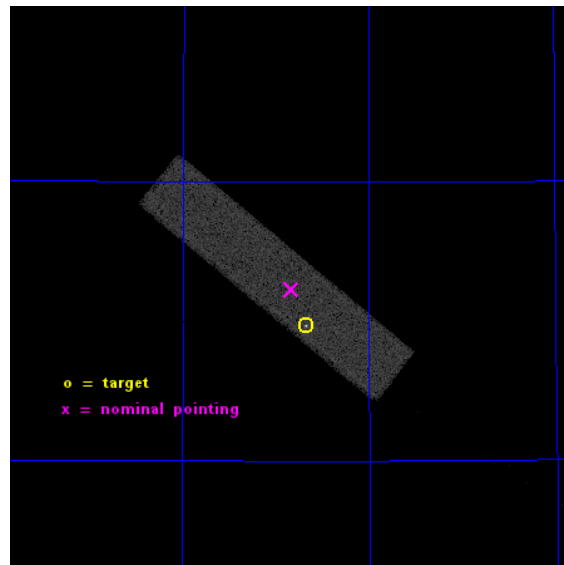
L2 Processing Date : Nov 26 2014

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# 1 Front

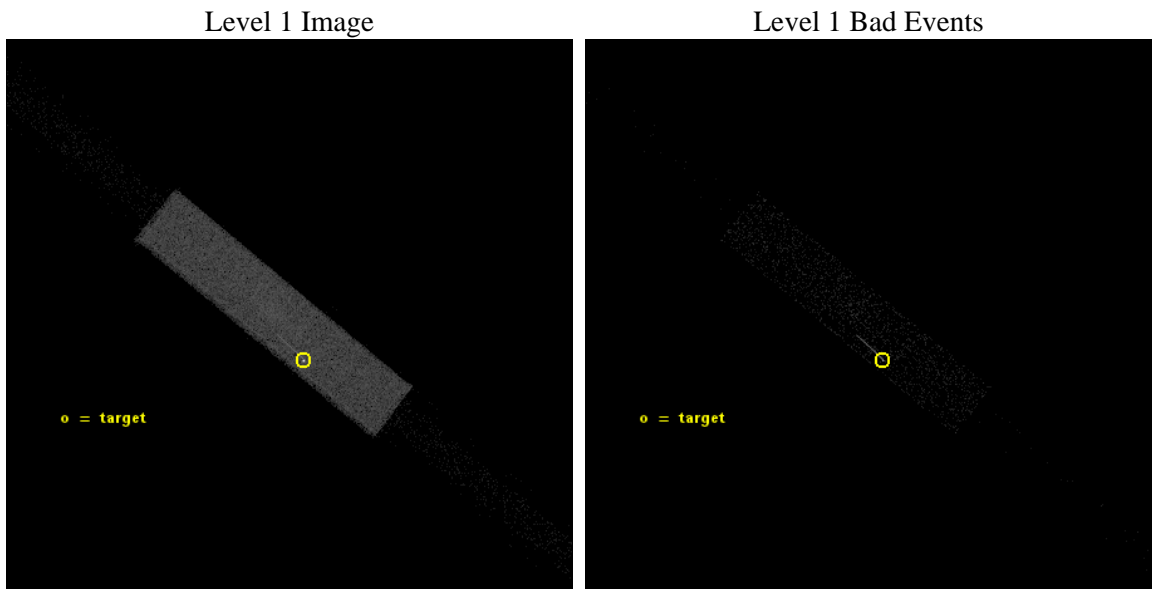
seq_num	291041	Sequence number
obs_id	14290	Observation id
title	AO-13 Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.2081875965	Nominal RA [deg]
dec_nom	45.80738909064	Nominal Dec [deg]
roll_nom	218.70320147825	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1153.3813120723	[s]
livetime	1145.7964246495	Ontime multiplied by DTCOR
l2events	52073	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	1153.3813120723	[s]
caldsver	4.6.4	&#160	l1events	85149	Number of level 1 events
date	2014-11-27T02:25:08	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

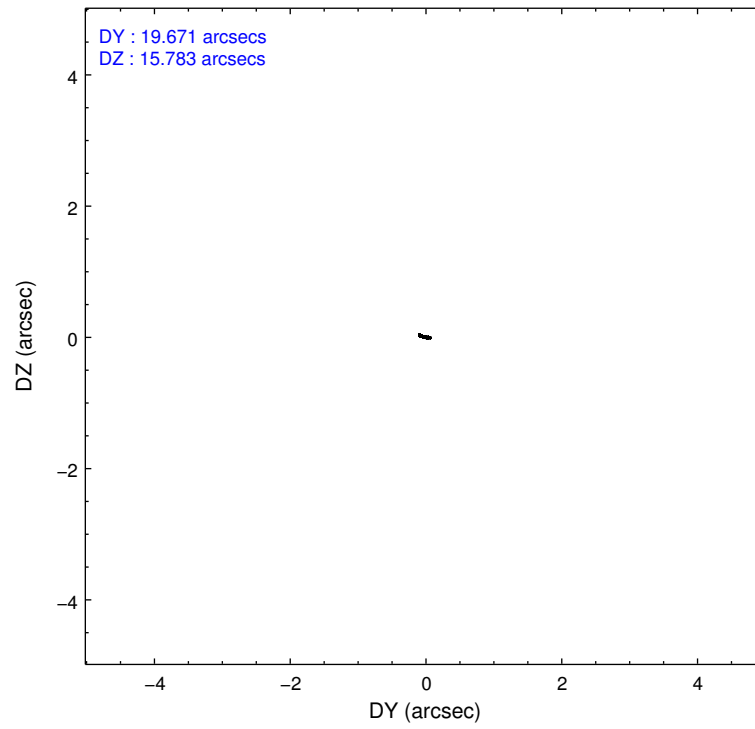
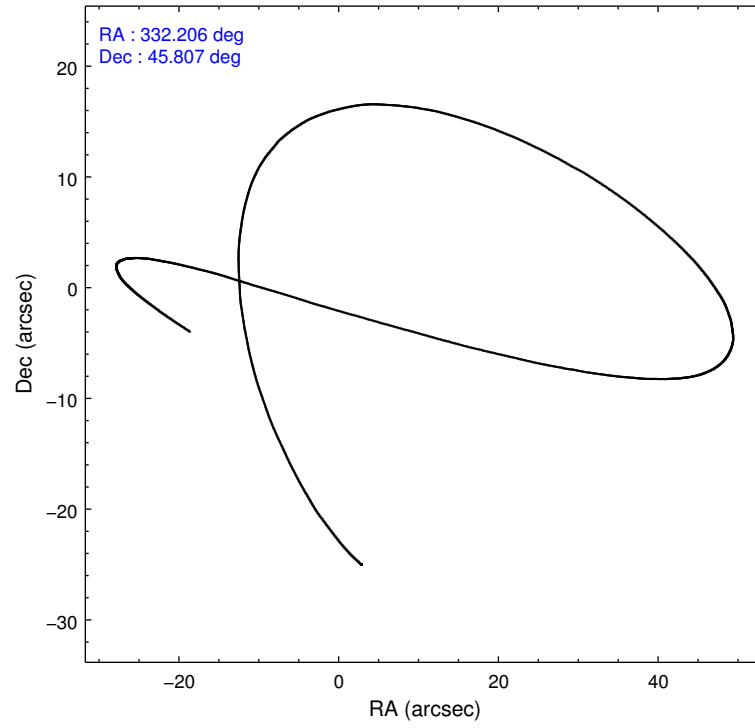
Level 1 Events

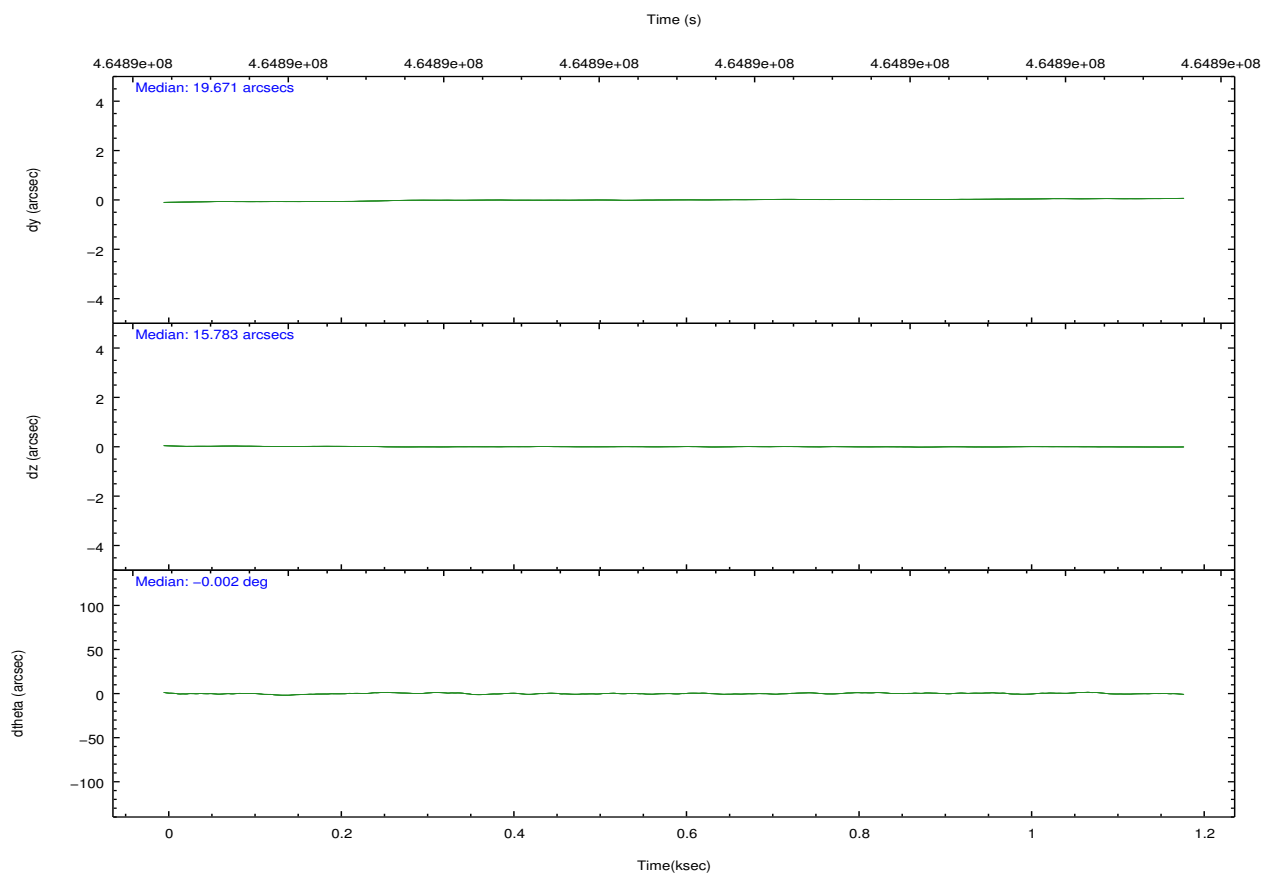
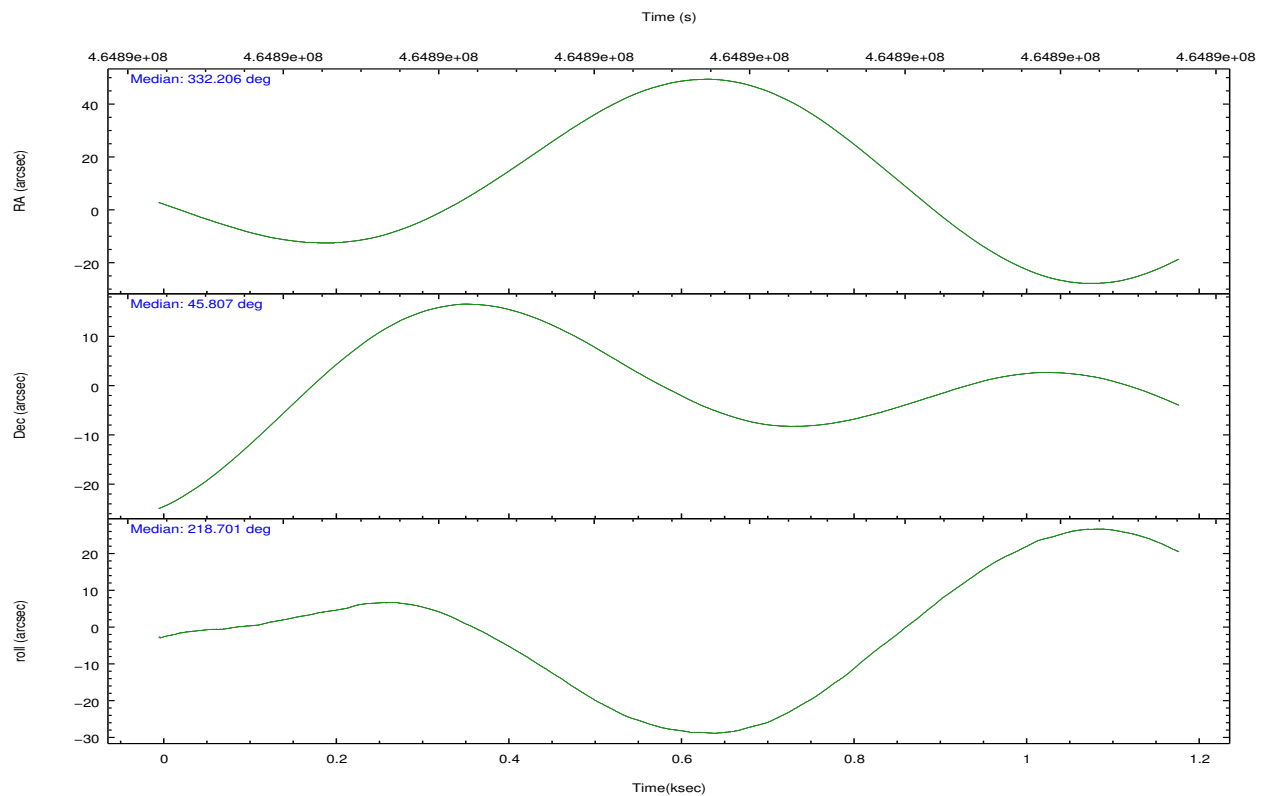
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	723	83696	730
rejected events	723	19203	712
rejected %	100%	22%	97%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	7	7
Detector	HRC-S	HRC-S	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	332.222451	332.2081875965033			
[deg] Pointing Dec	45.834283	45.80738909064037			
[deg] Pointing Roll	218.625657	218.7032014782452			
[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)	464888081.184000	464887704.797			
Observation start date	2012-09-24T15:33:34	2012-09-24T15:28:24			
[s] Observation end time (MET)	464889081.184000	464889215.13458			
Observation end date	2012-09-24T15:50:14	2012-09-24T15:53:35			

## 2.3 Aspect





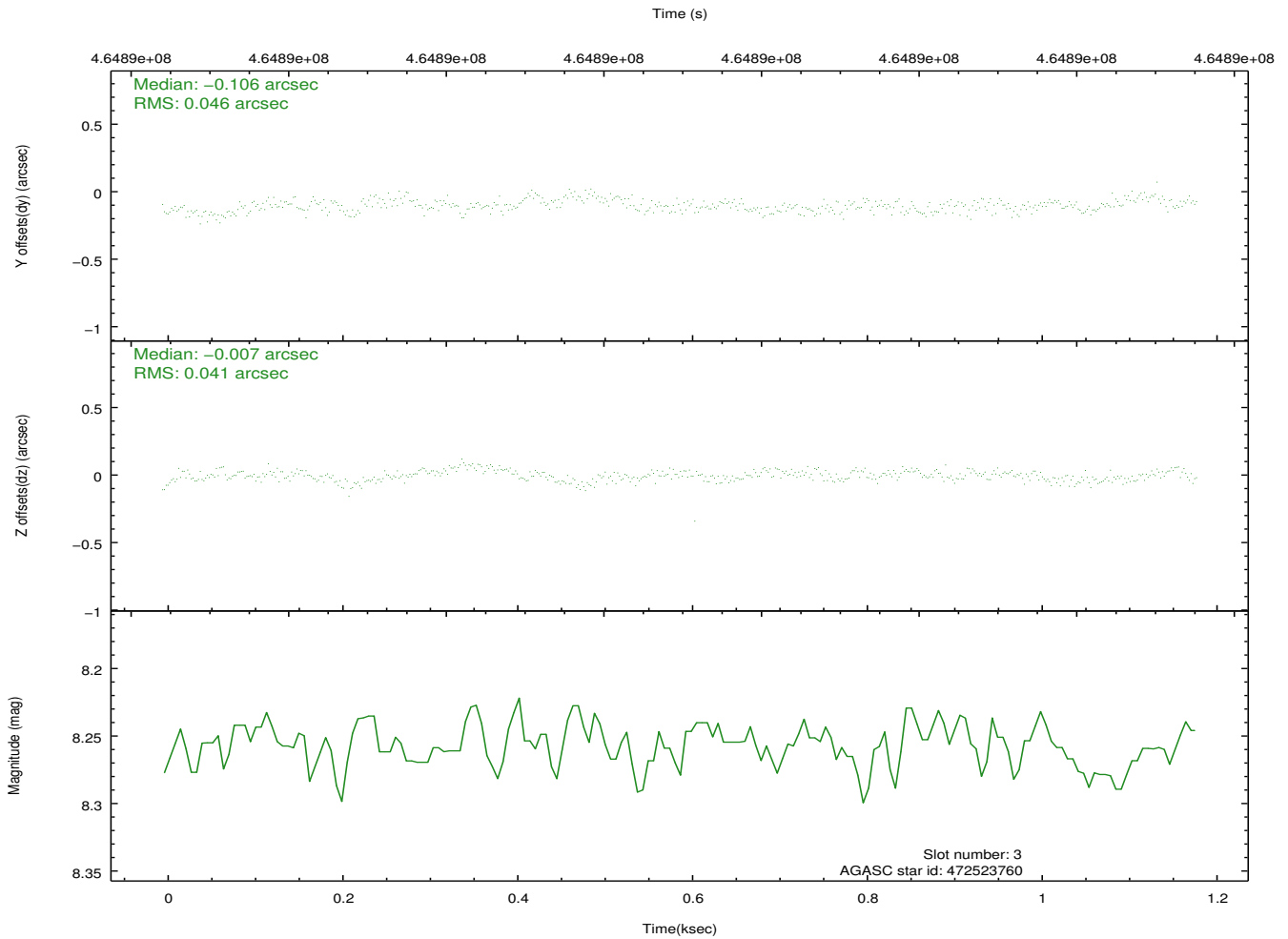
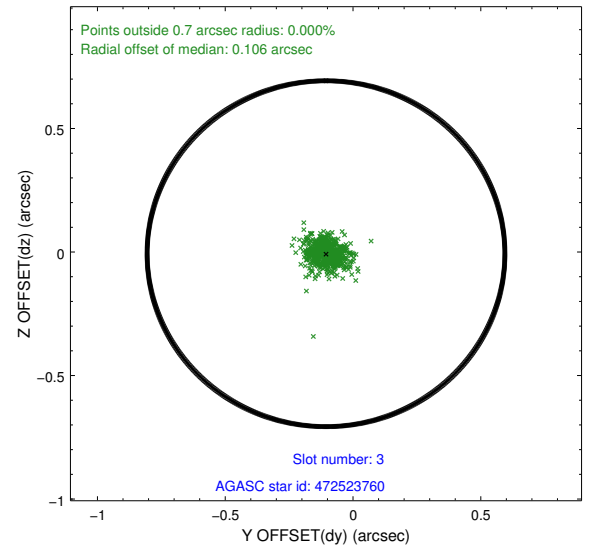
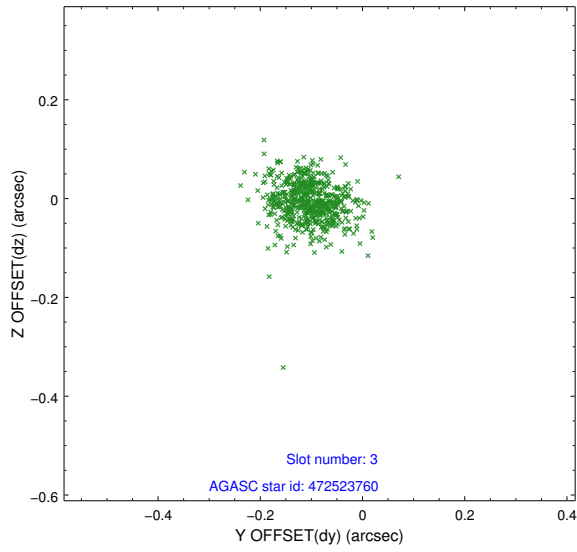
### Slot Statistics

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	0.028	-0.220	0.006	0.010	0.000000	0.000000	-1174.25	-464.71
1	FID		HRC-S-2	7.04	289	0.261	-0.113	0.005	0.009	0.000000	0.000000	1221.58	-458.90
2	FID		HRC-S-3	7.07	289	0.100	0.030	0.007	0.011	0.000000	0.000000	-1172.65	563.47
3	GUIDE	used	472523760	8.26	578	-0.106	-0.007	0.062	0.104	331.645363	45.403260	2103.67	300.88
4	GUIDE	used	472533912	9.15	577	0.219	0.192	0.130	0.207	331.791136	46.368695	-362.97	-2170.25
5	GUIDE	used	472651904	6.12	578	-0.237	-0.281	0.089	0.144	332.170077	45.742257	307.58	174.91
6	GUIDE	used	472655152	9.43	578	0.026	-0.134	0.135	0.231	332.504239	45.862991	-617.88	362.74
7	GUIDE	used	472665256	9.02	574	0.107	0.229	0.109	0.169	332.808125	46.195041	-1956.45	-103.76

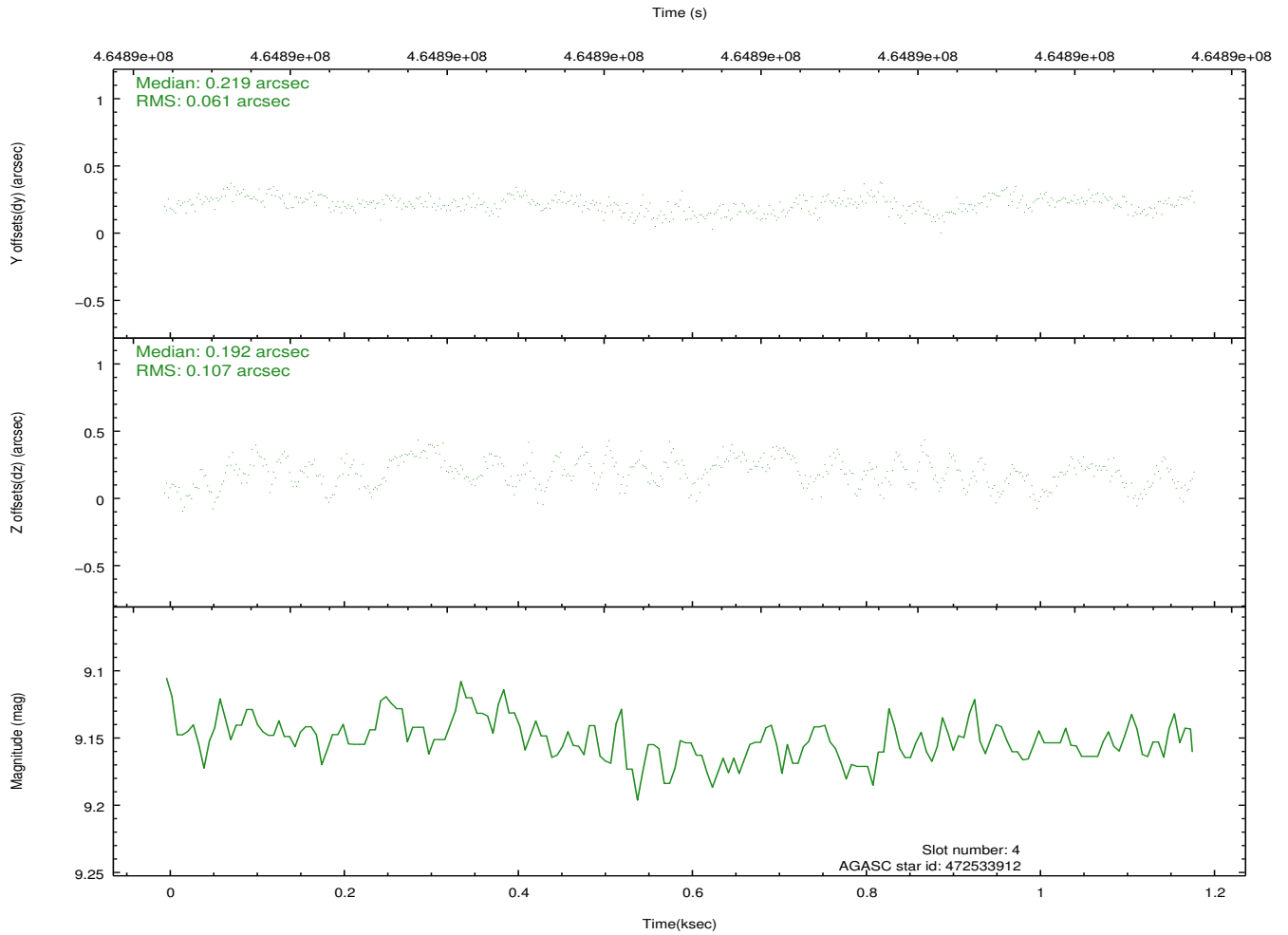
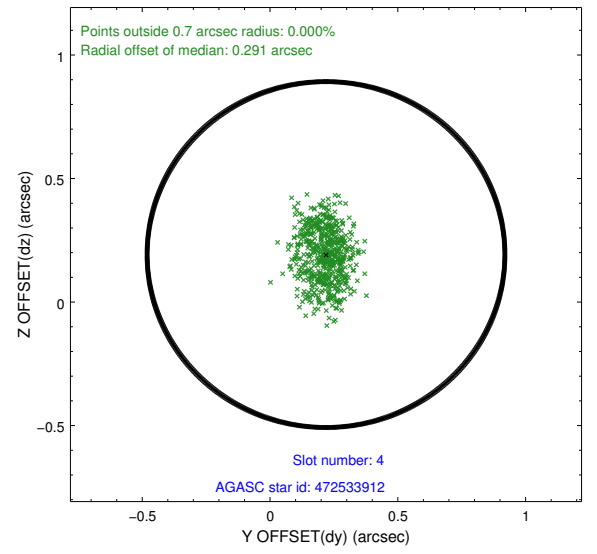
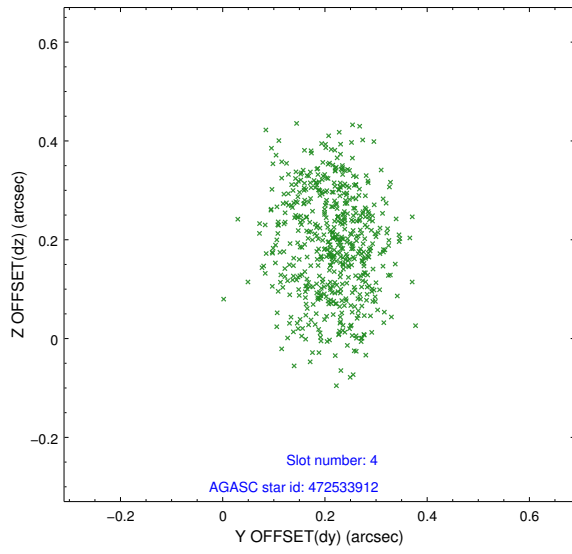


## 2.4 Star Slots

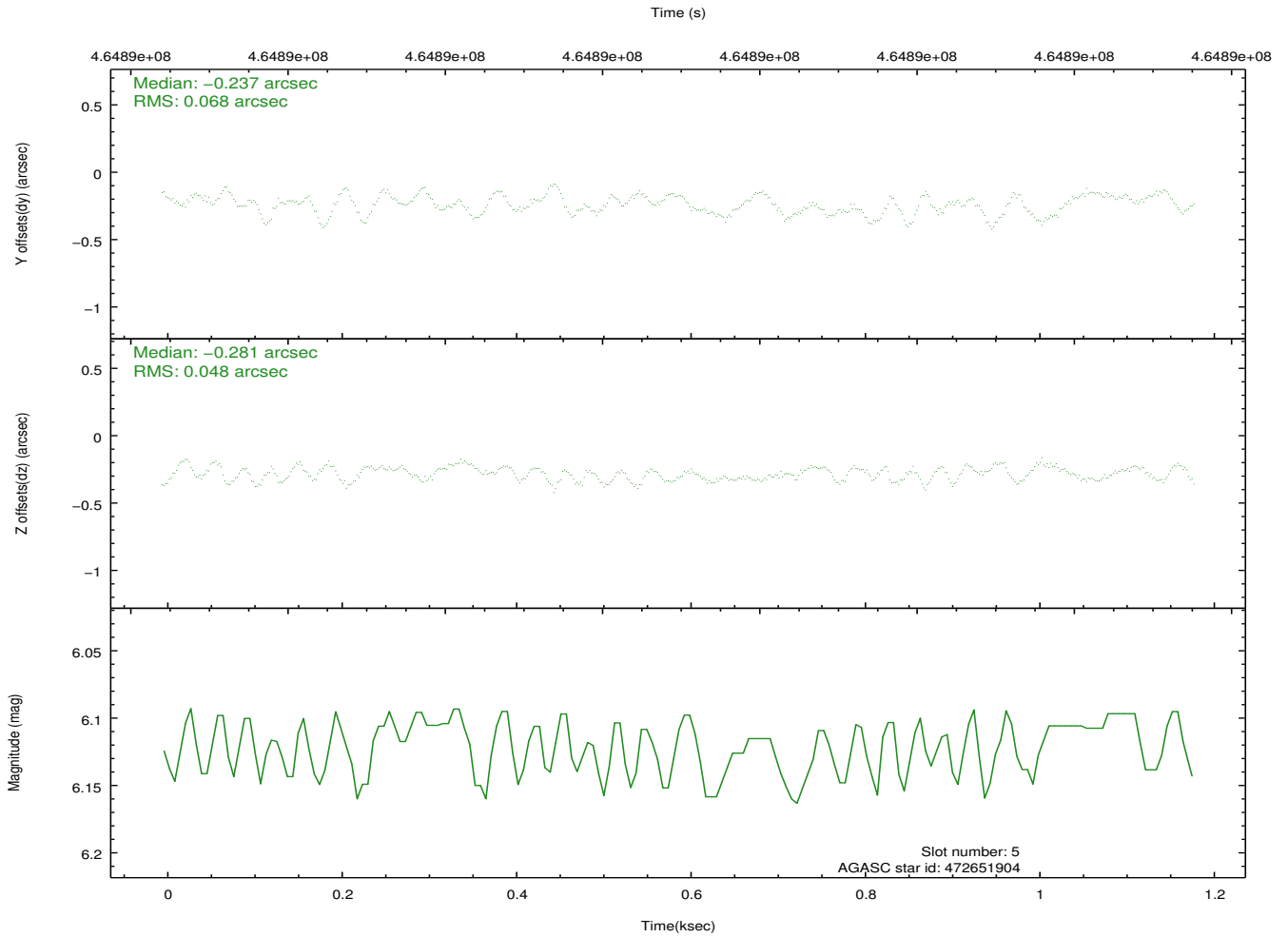
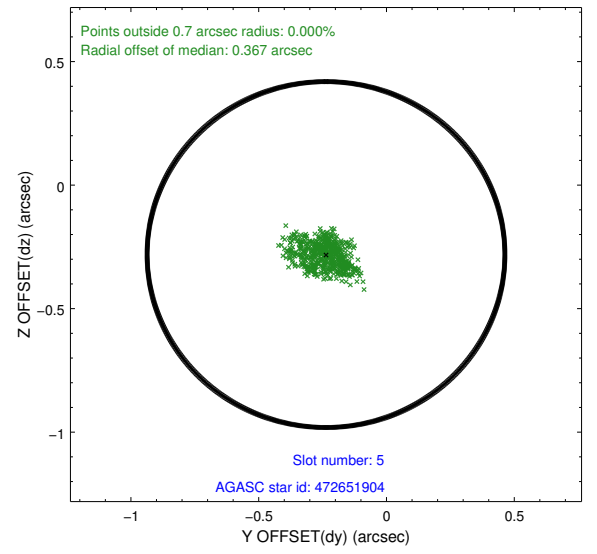
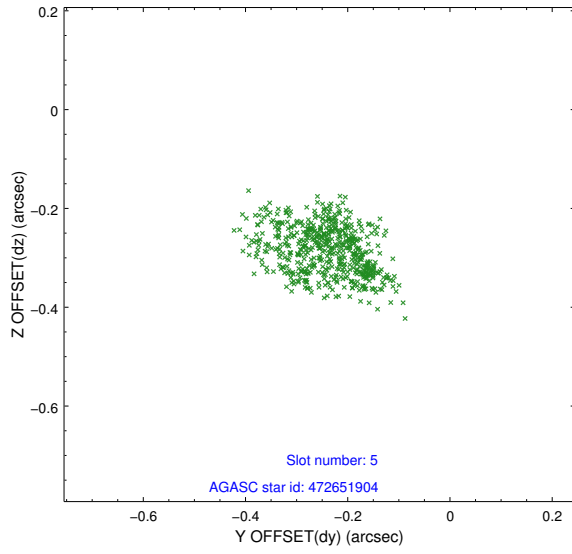
### 2.4.1 Slot 3



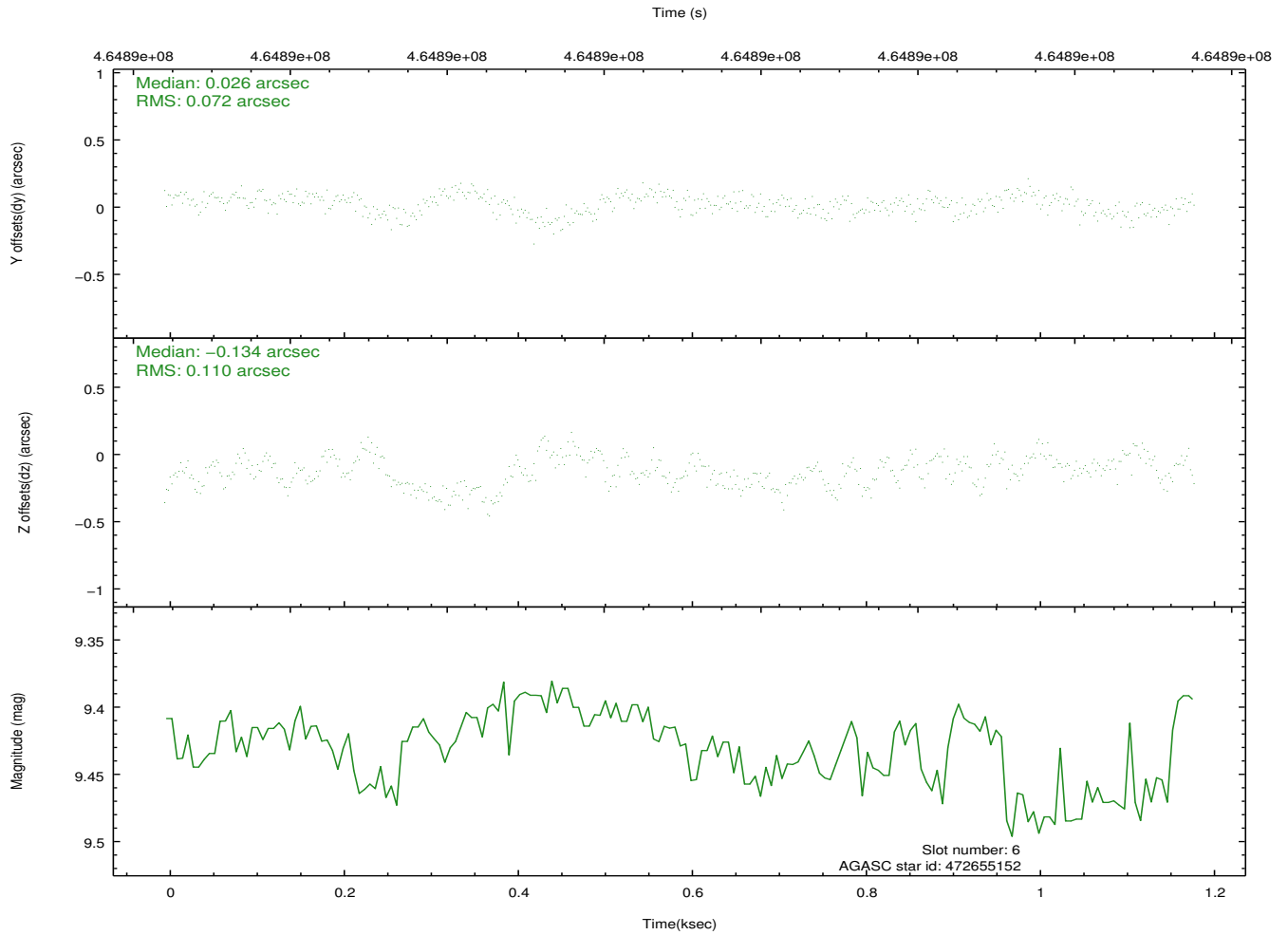
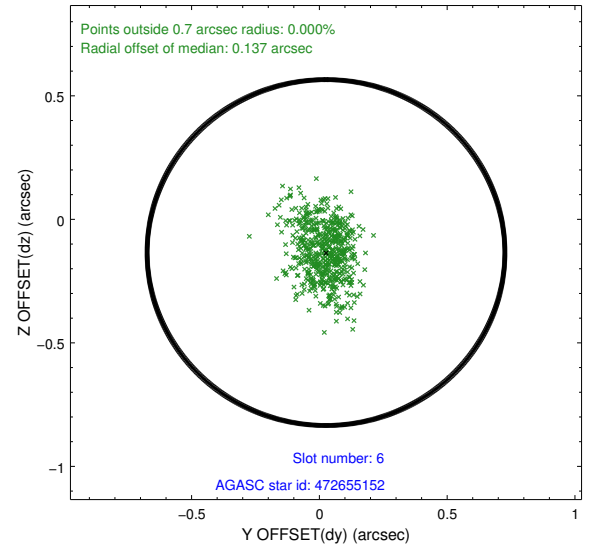
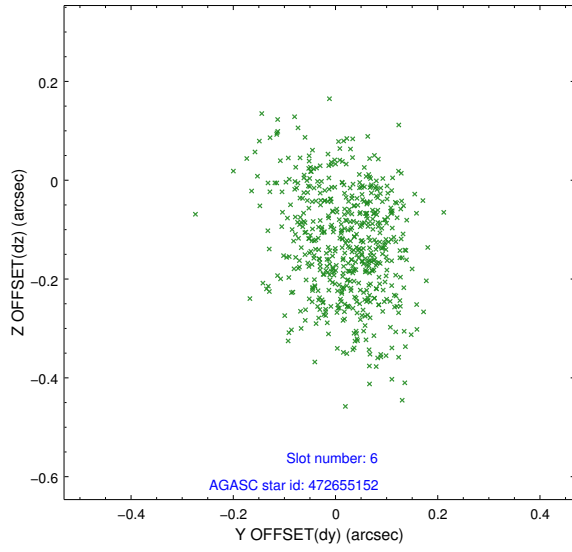
## 2.4.2 Slot 4



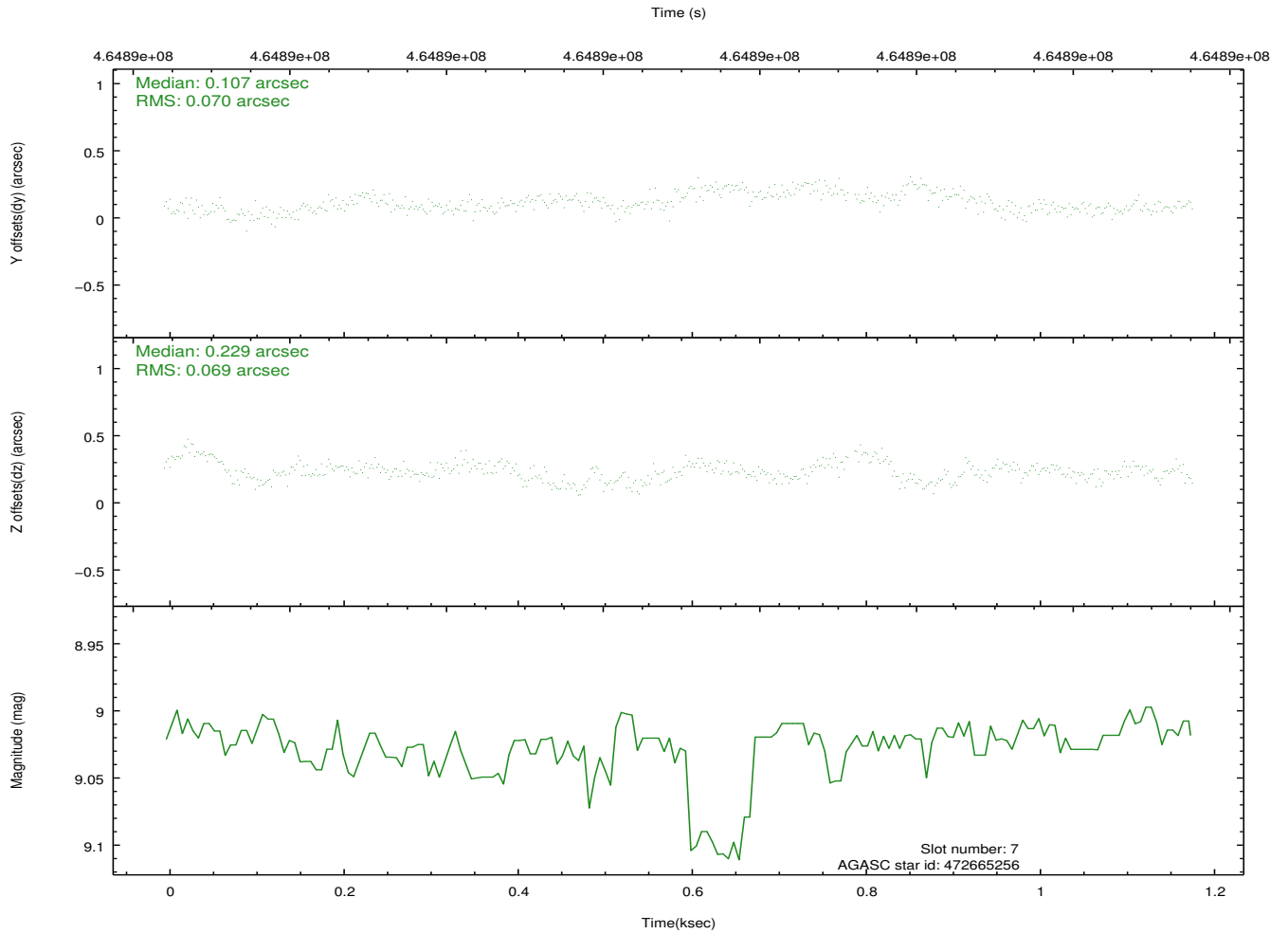
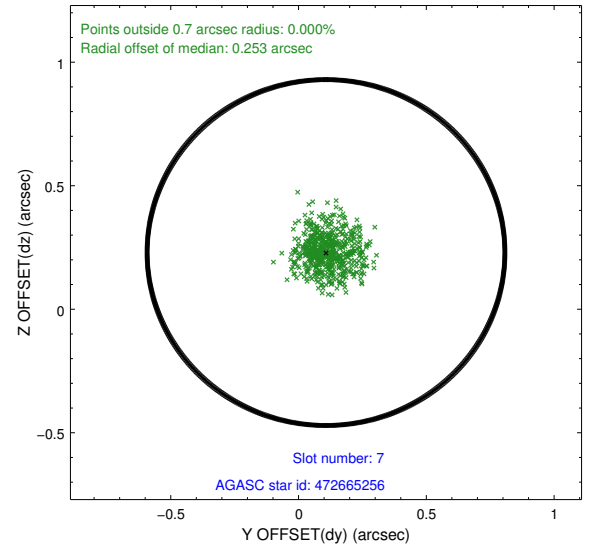
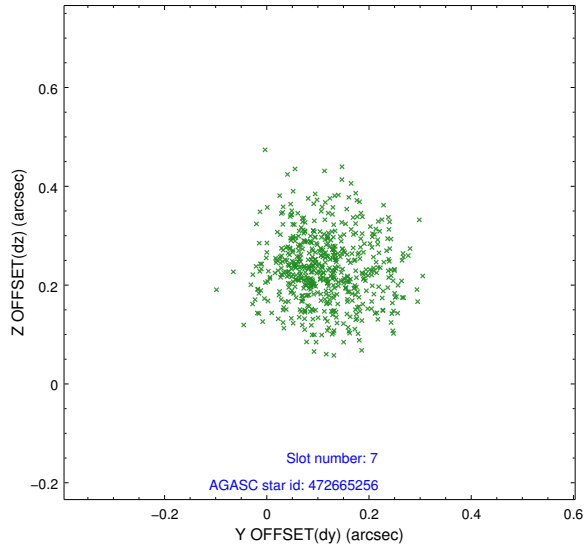
### 2.4.3 Slot 5



## 2.4.4 Slot 6

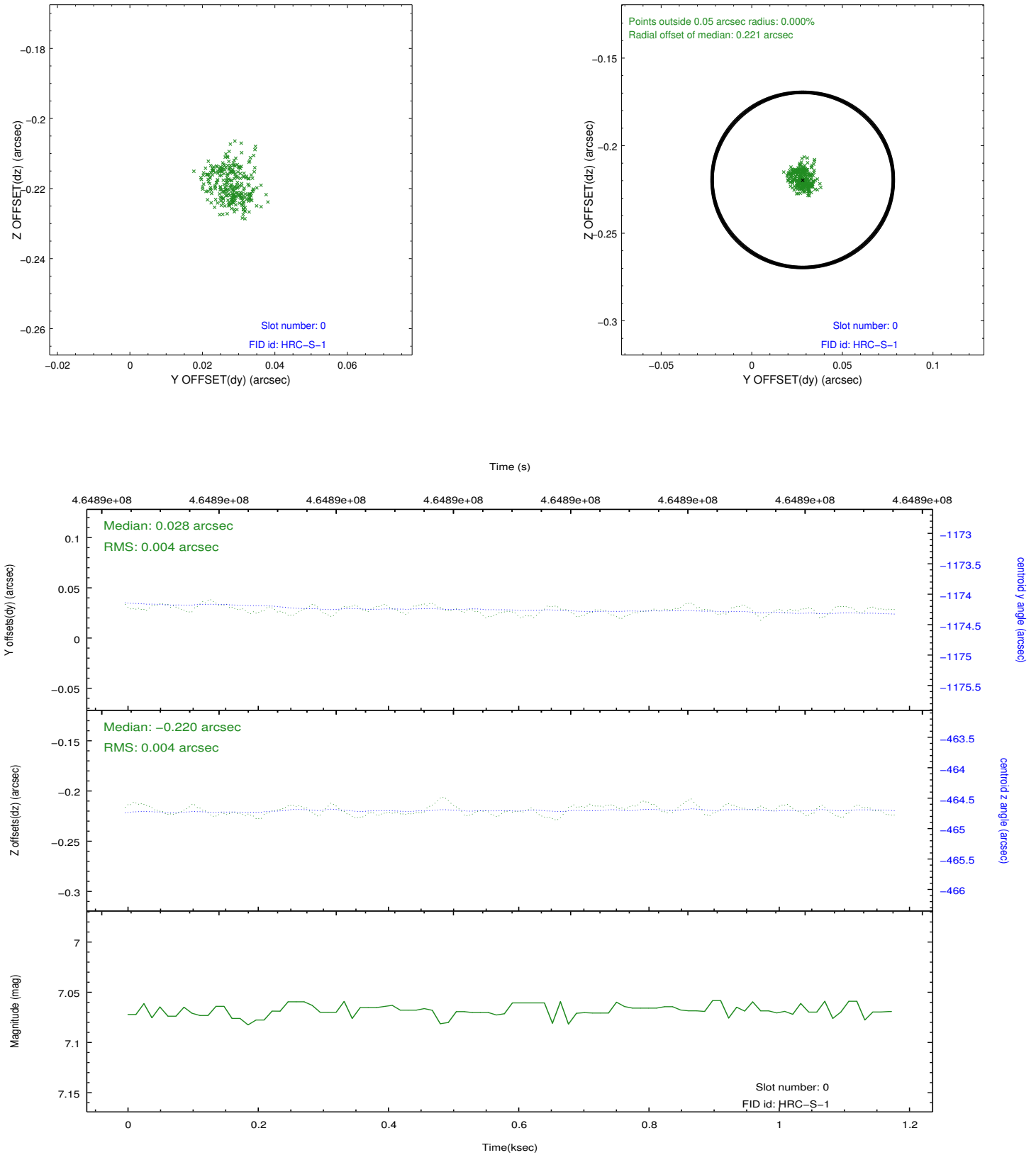


## 2.4.5 Slot 7

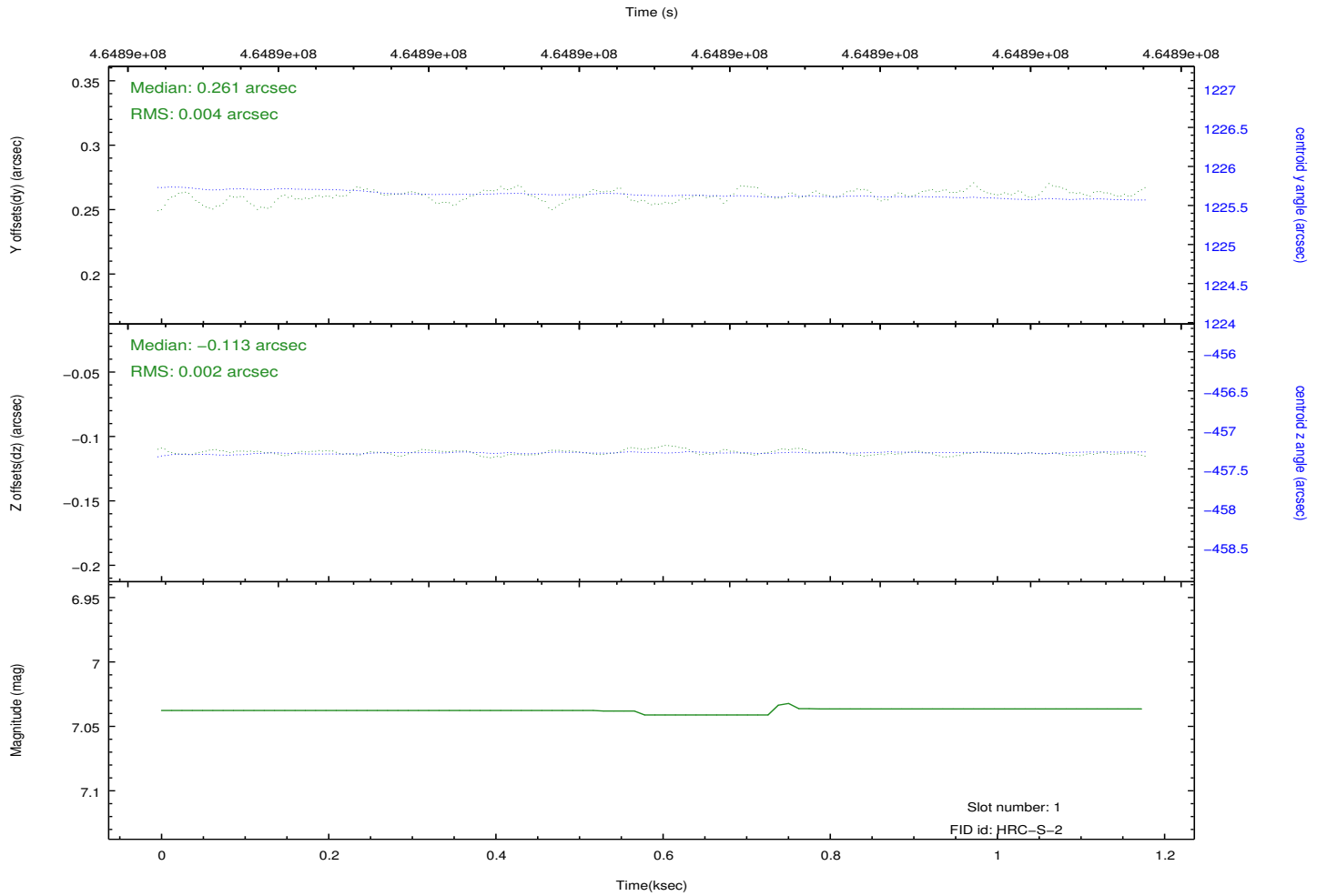
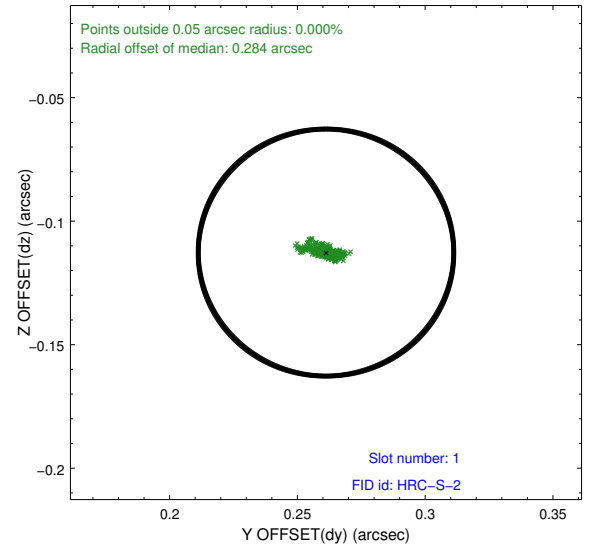
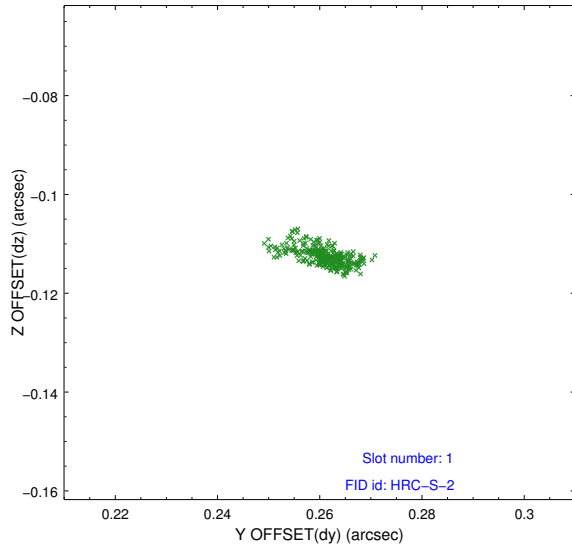


## 2.5 FID Slots

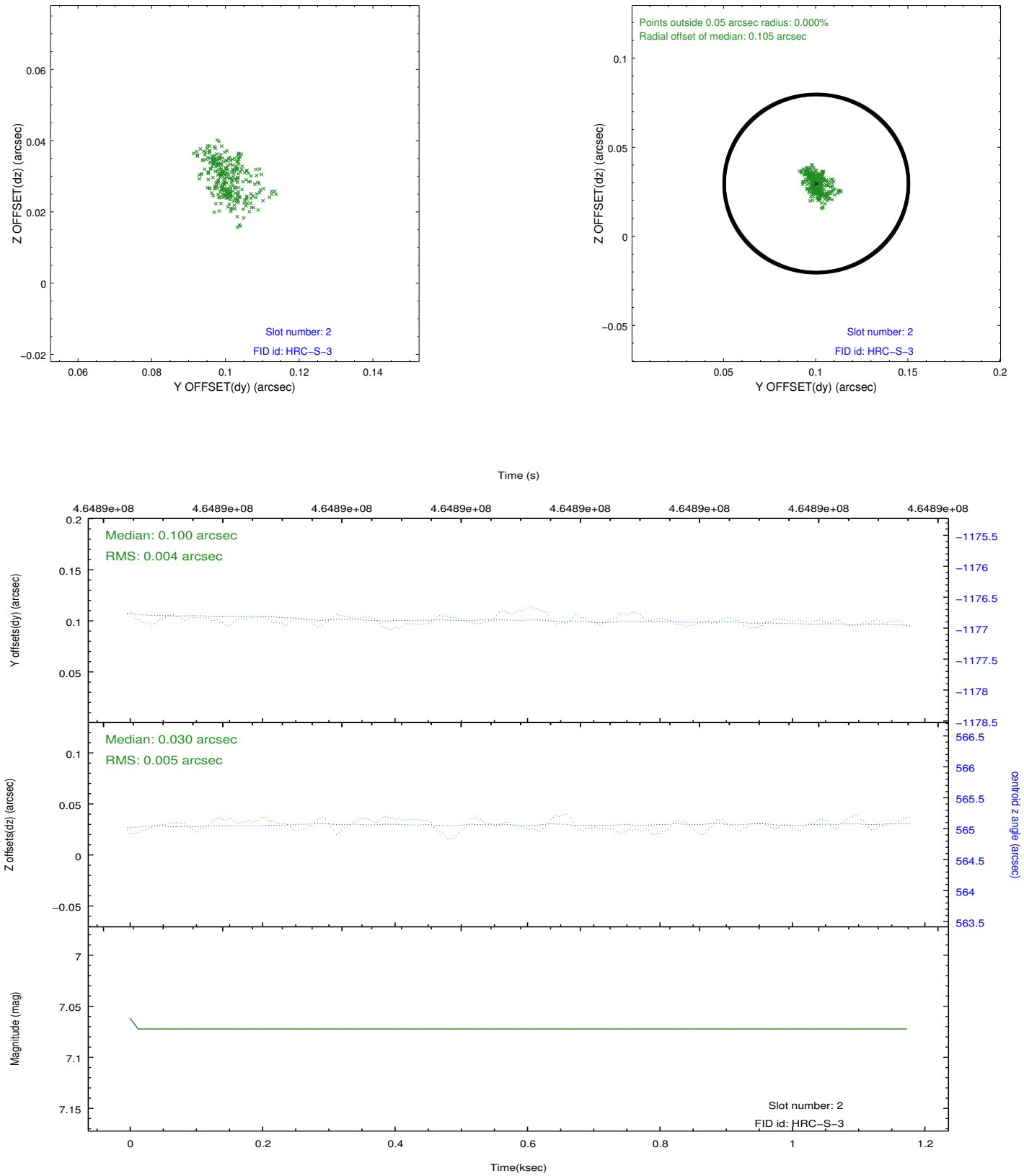
### 2.5.1 Slot 0



## 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	1.1533813120723

## 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.