

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15451 - L2 Version 2  
Chandra X-Ray Center

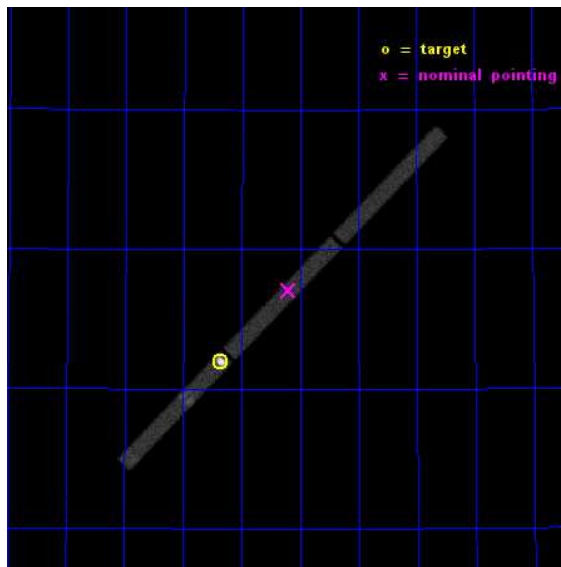
L2 Processing Date : Dec 1 2014

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# 1 Front

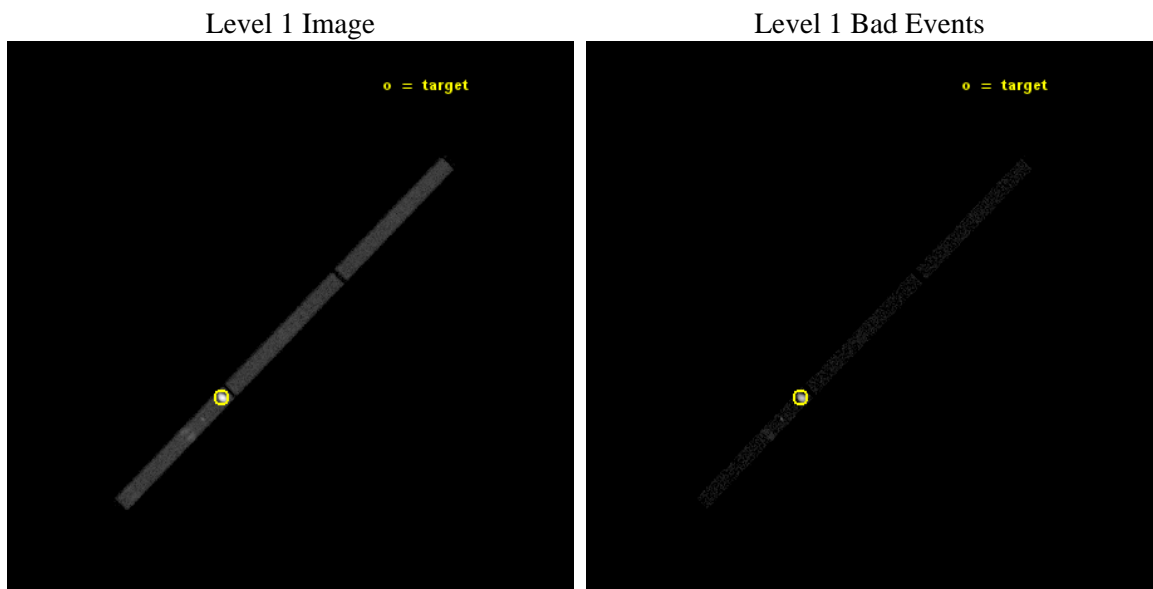
seq_num	291130	Sequence number
obs_id	15451	Observation id
title	AO-14 Calibration Observations of HZ43 to measure the gain accross the HRC-S plate gaps	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	HZ43	Source name
ra_targ	199.090417	Observer's specified target RA [deg]
dec_targ	29.098306	Observer's specified target Dec [deg]
ra_nom	198.80012317442	Nominal RA [deg]
dec_nom	29.353619731383	Nominal Dec [deg]
roll_nom	134.82022868832	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1006.8063044548	[s]
livetime	643.53819379283	Ontime multiplied by DTCOR
l2events	170477	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	1100.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	1006.8063044548	[s]
caldsver	4.6.4	&#160	l1events	218661	Number of level 1 events
date	2014-12-02T03:04:59	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

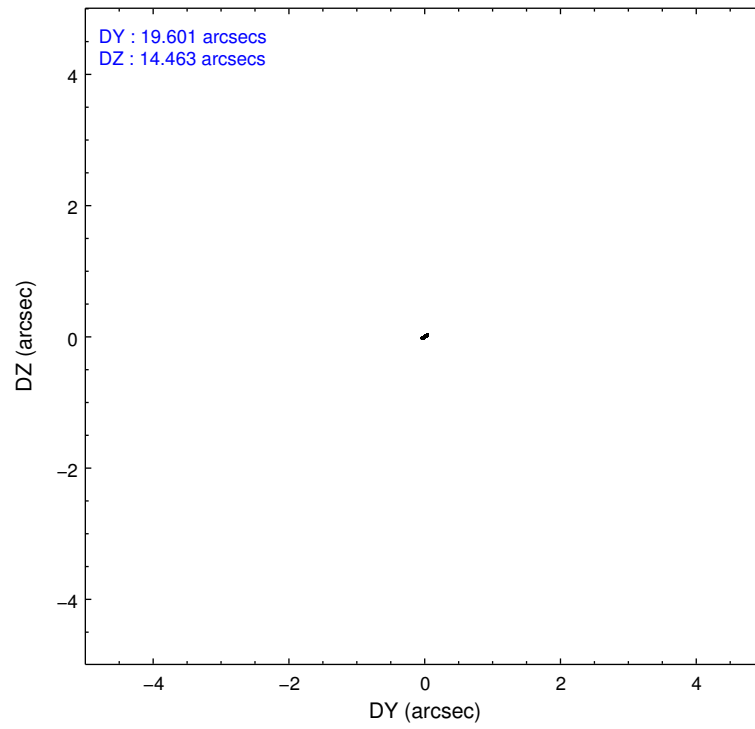
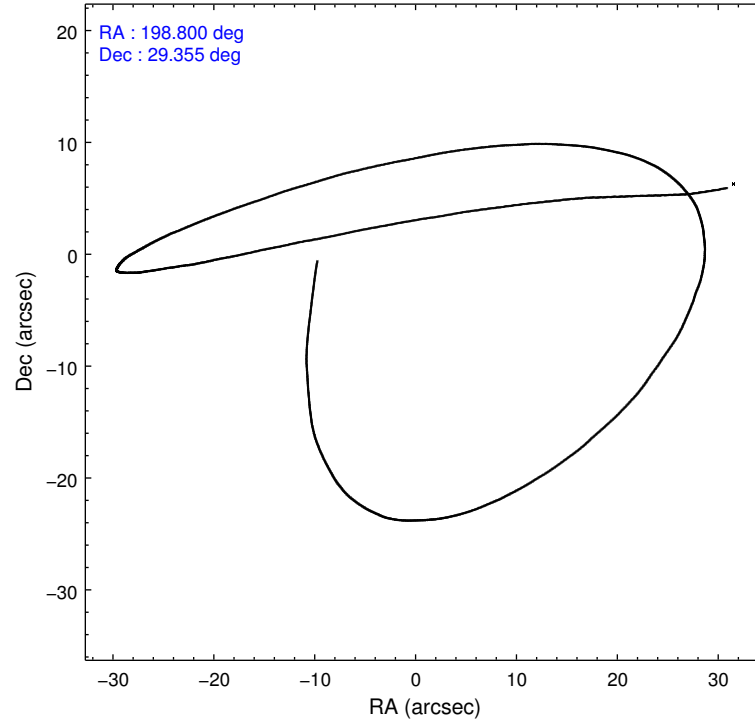
Level 1 Events

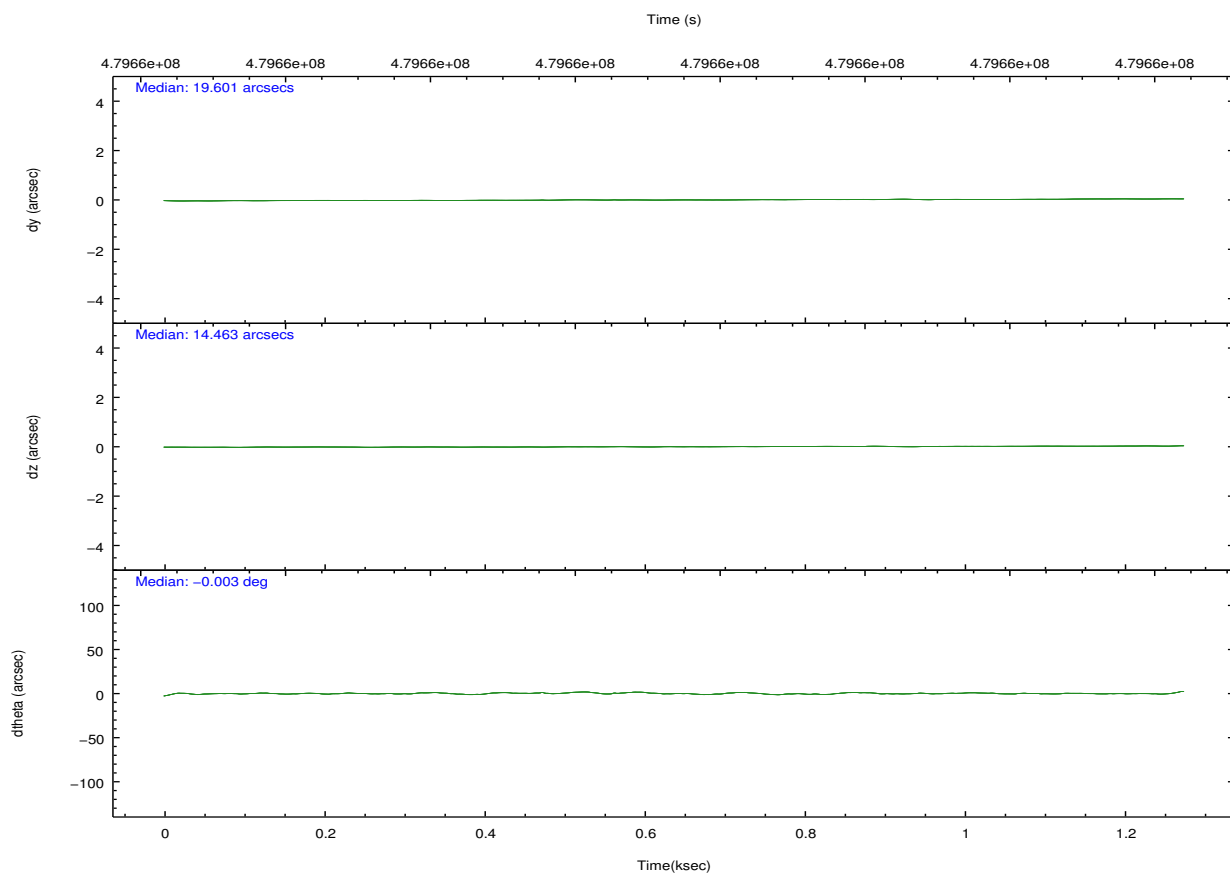
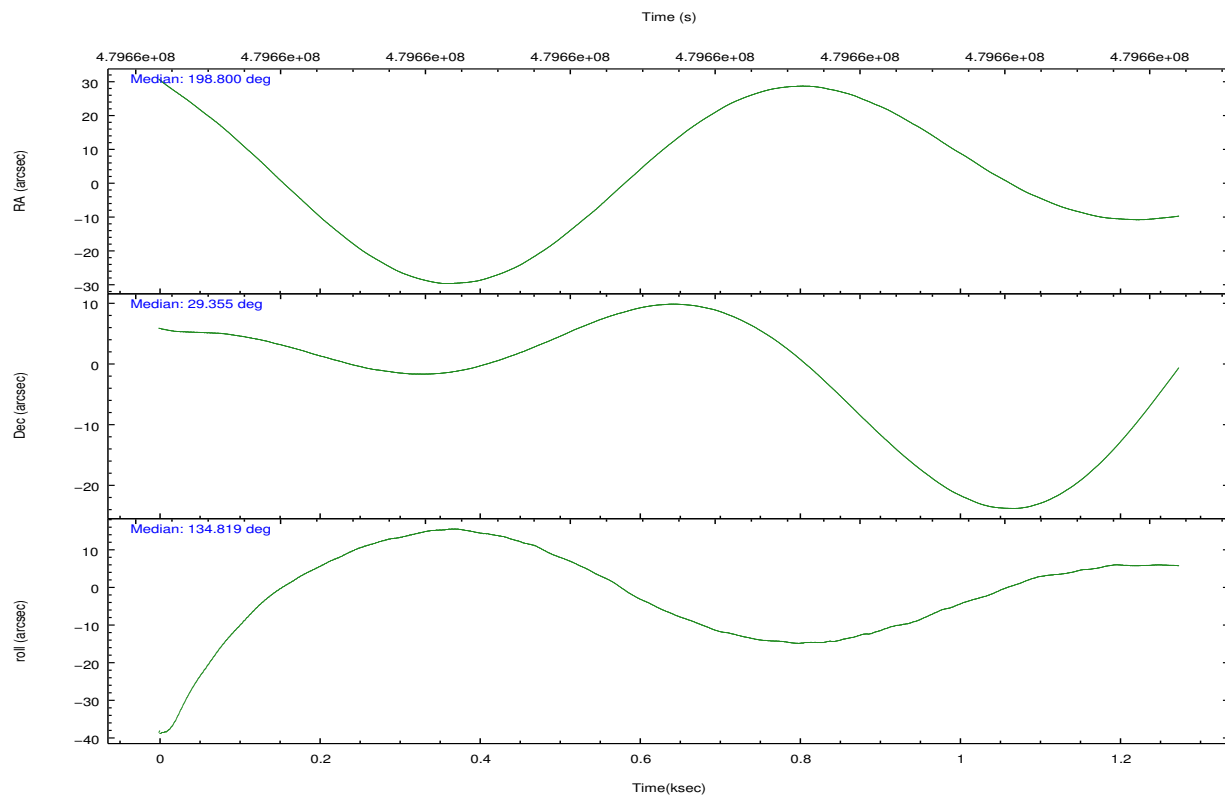
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	175539	21445	21677
rejected events	25870	3645	3411
rejected %	14%	16%	15%

## 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	198.832771	198.8001231744227			
[deg] Pointing Dec	29.348023	29.35361973138258			
[deg] Pointing Roll	134.737082	134.8202286883238			
[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)	479657069.184000	479656699.4549			
Observation start date	2013-03-14T14:03:22	2013-03-14T13:58:19			
[s] Observation end time (MET)	479658169.184000	479658303.57999			
Observation end date	2013-03-14T14:21:42	2013-03-14T14:25:03			

## 2.3 Aspect





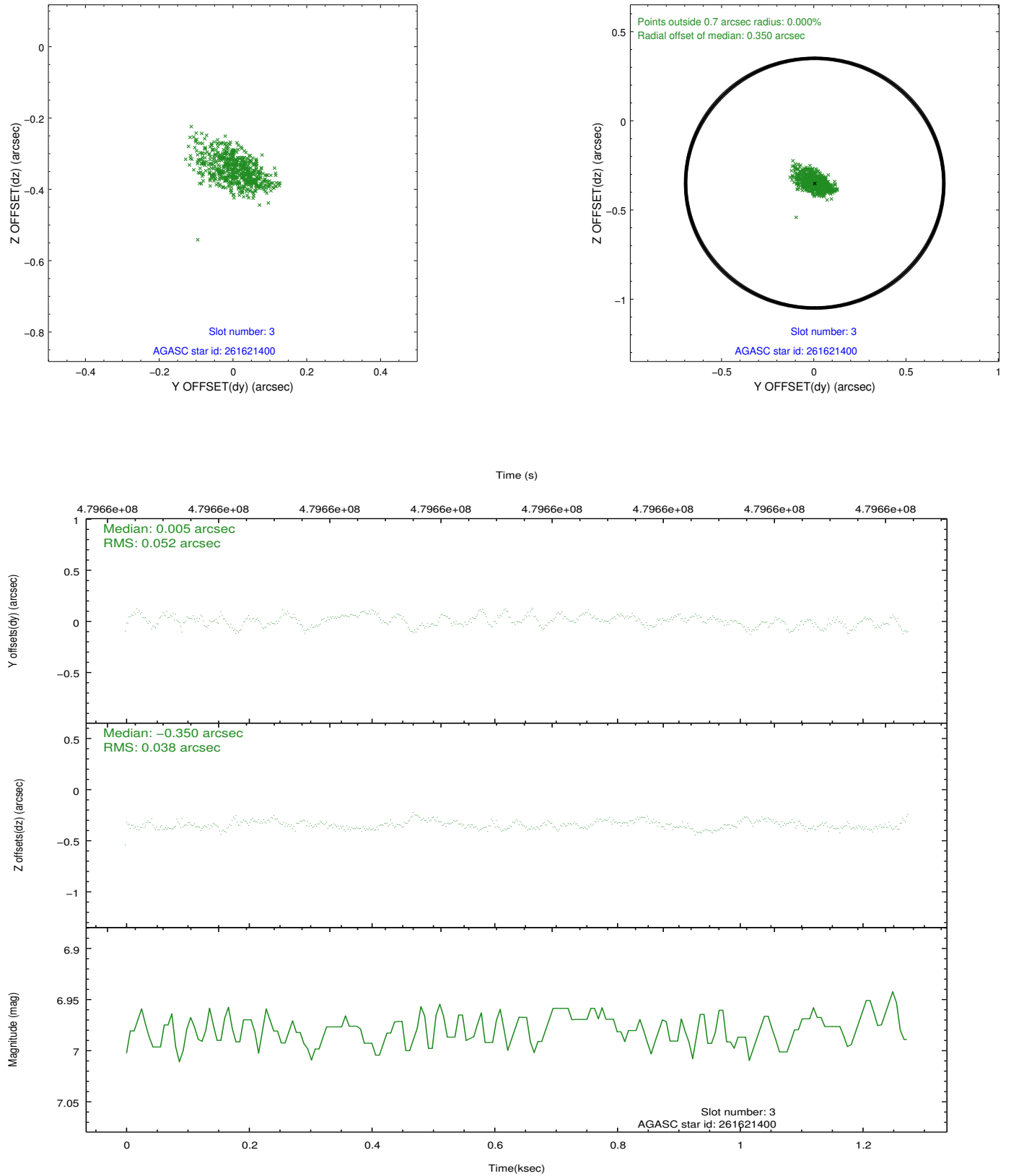
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	6.97	311	0.034	-0.207	0.007	0.015	0.000000	0.000000	-1174.17	-463.36
1	FID		HRC-S-2	6.95	311	0.246	-0.109	0.005	0.010	0.000000	0.000000	1221.92	-457.40
2	FID		HRC-S-3	6.99	311	0.109	0.014	0.007	0.015	0.000000	0.000000	-1172.89	564.91
3	GUIDE	used	261621400	6.98	623	0.005	-0.350	0.065	0.112	198.901600	28.741982	-1701.82	1379.06
4	GUIDE	used	261623040	9.12	623	-0.154	0.087	0.112	0.184	198.792686	29.757643	1133.38	-948.73
5	GUIDE	used	261624080	7.11	623	-0.075	0.001	0.063	0.103	198.424651	29.817768	2102.33	-289.64
6	GUIDE	used	261626352	8.62	620	-0.028	-0.028	0.087	0.151	198.417097	29.781420	2029.98	-179.29
7	GUIDE	used	261629720	8.12	620	0.244	0.289	0.081	0.129	199.236176	29.044452	-1664.26	-136.31

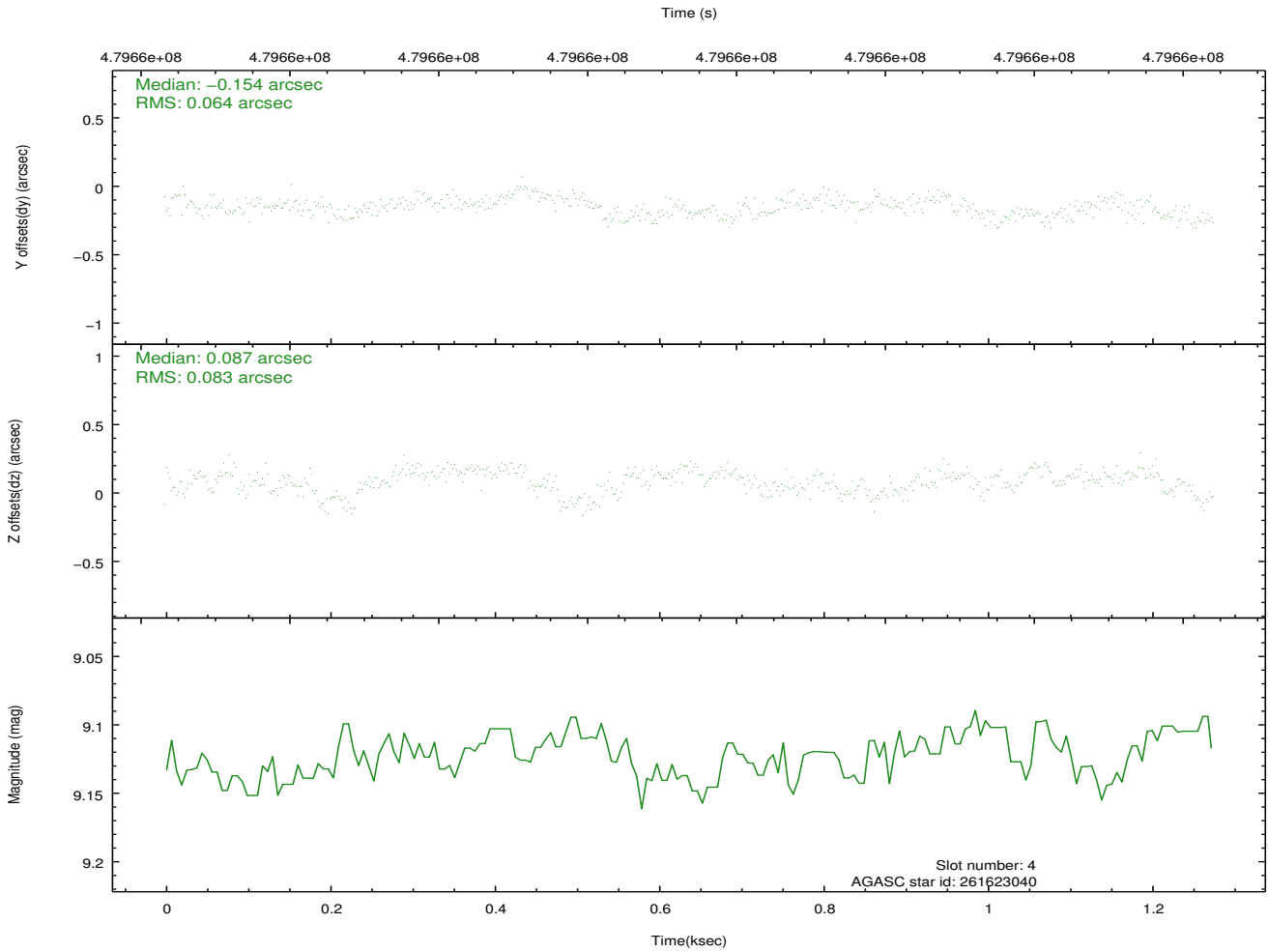
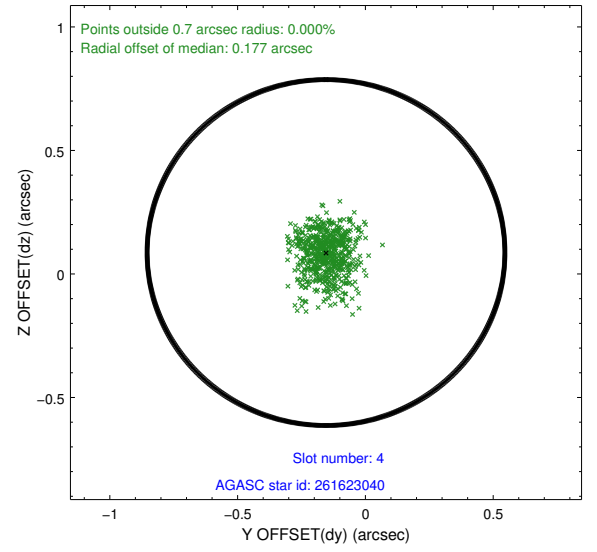
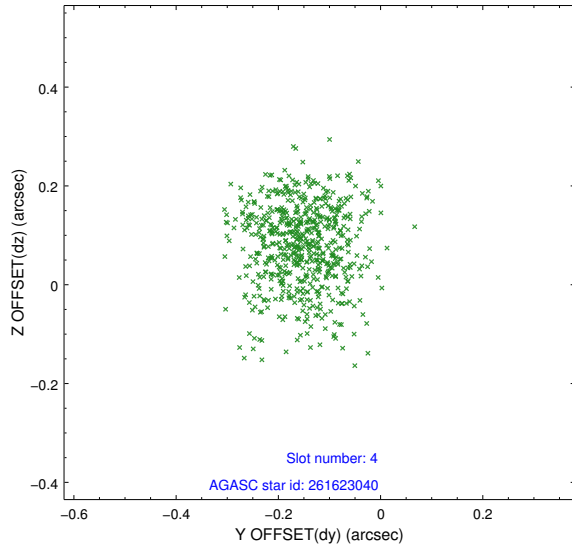


## 2.4 Star Slots

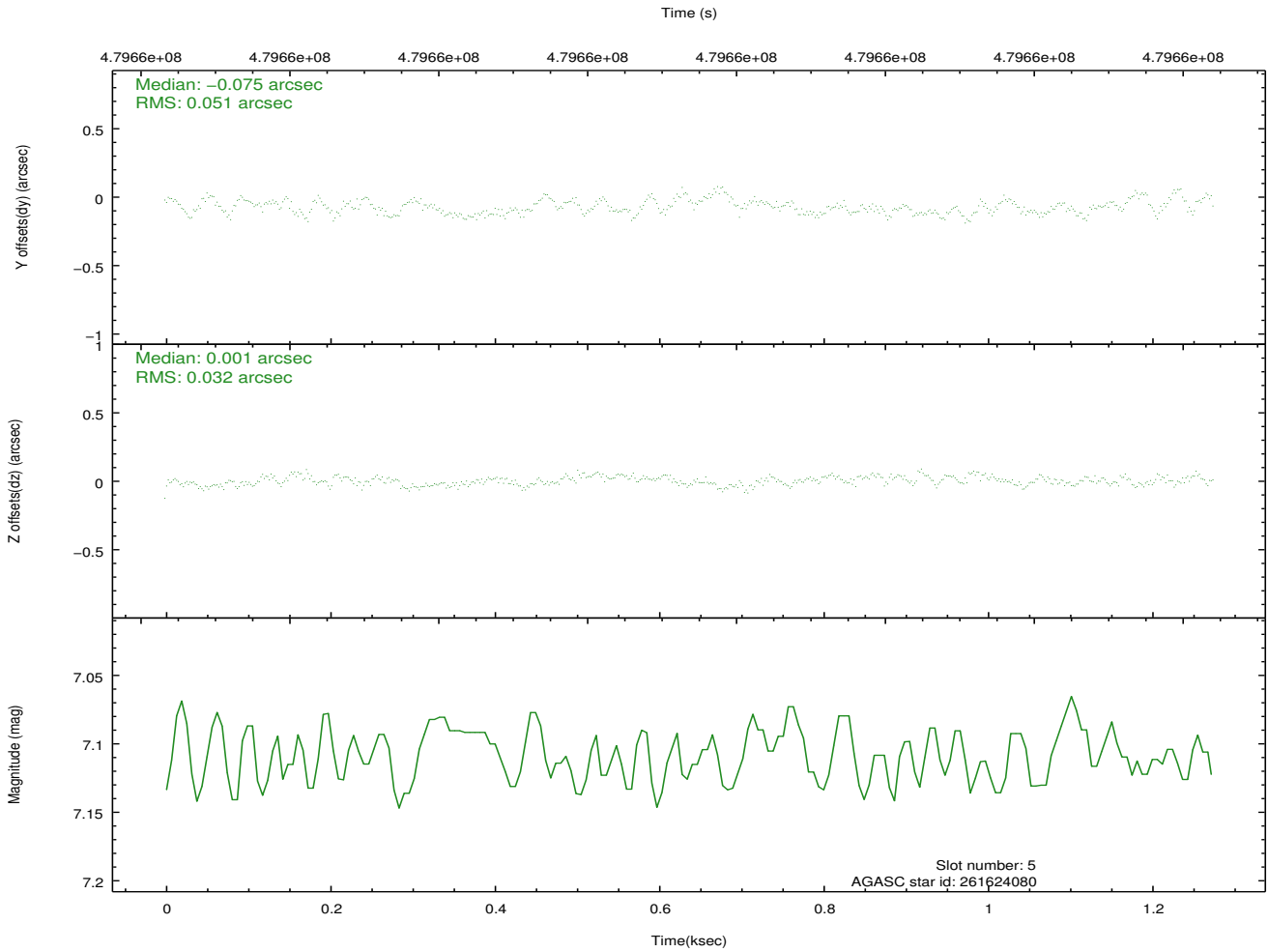
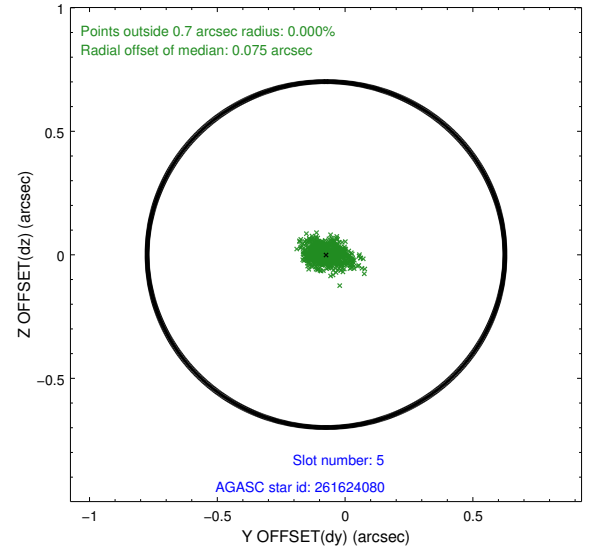
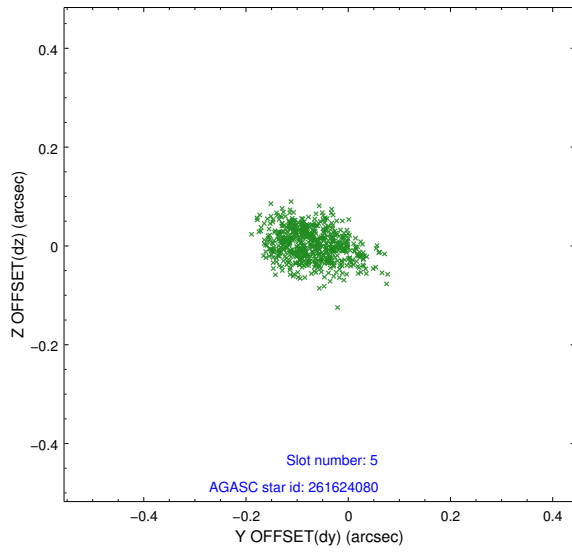
### 2.4.1 Slot 3



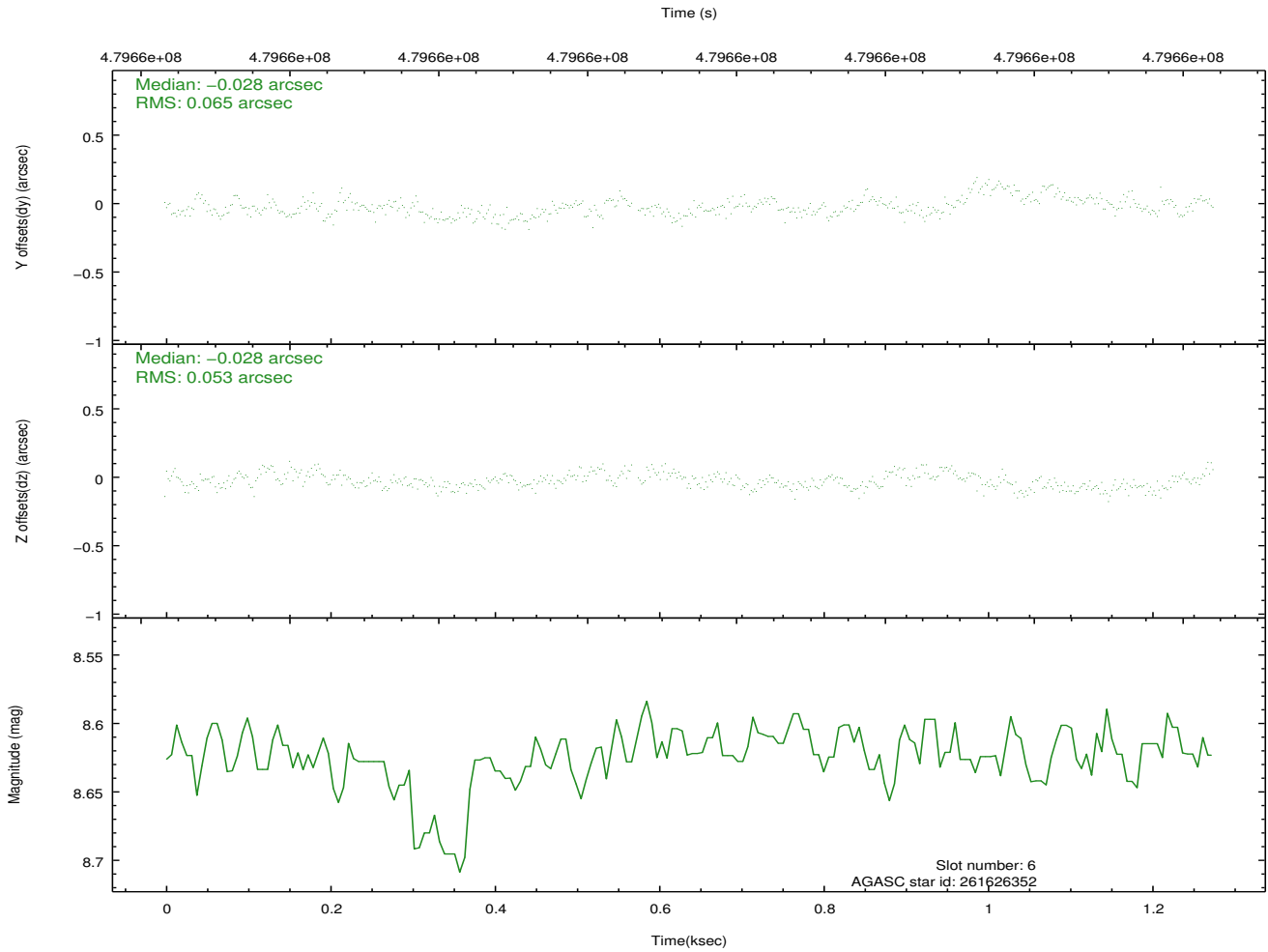
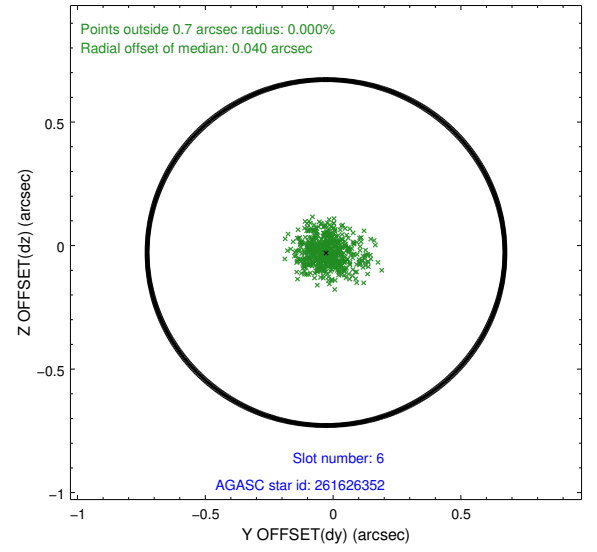
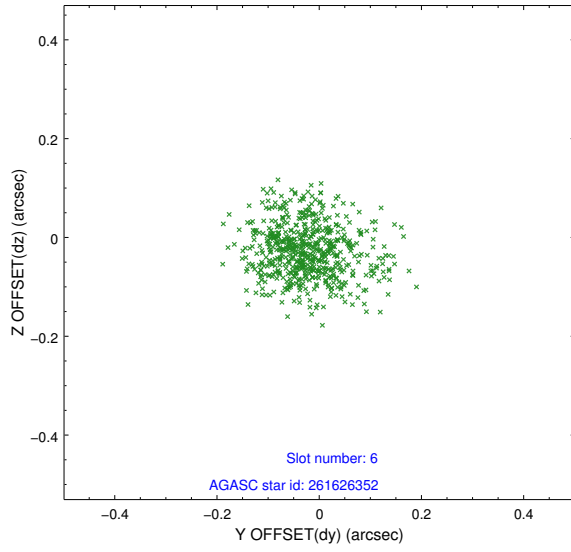
## 2.4.2 Slot 4



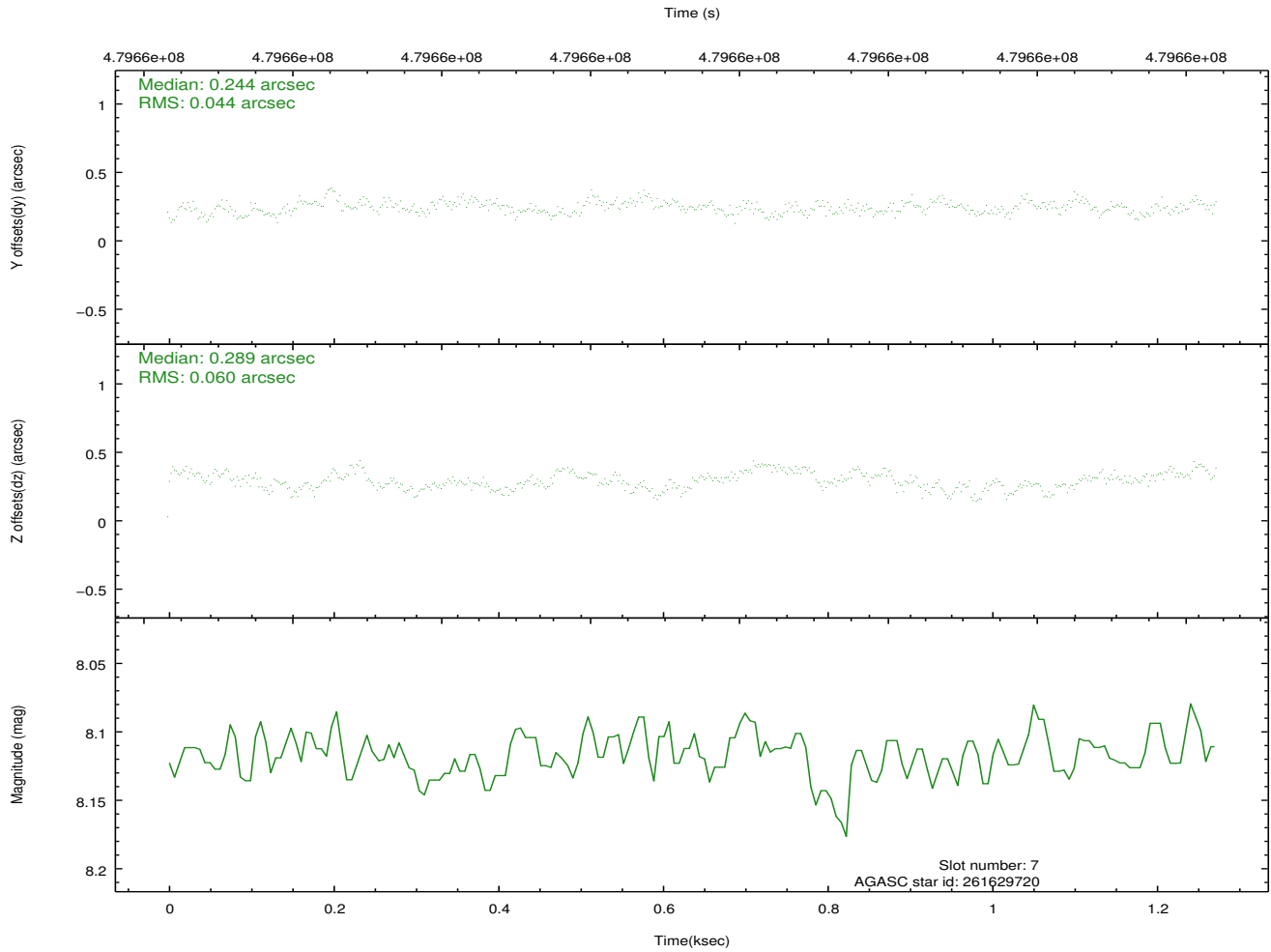
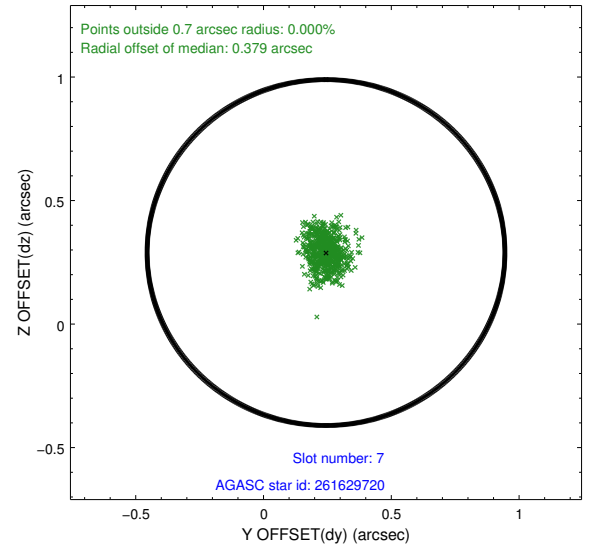
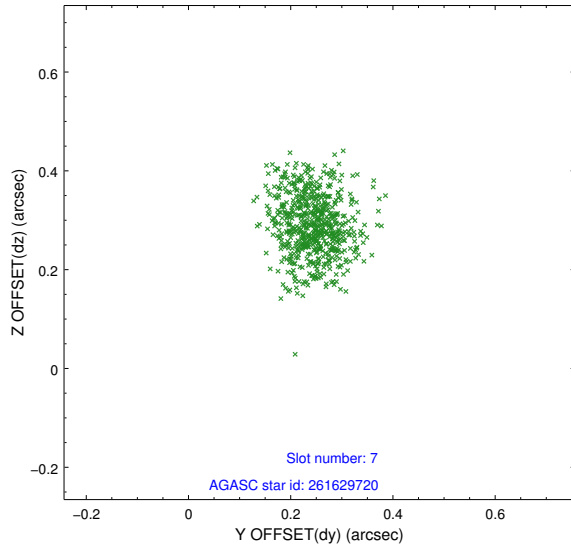
### 2.4.3 Slot 5



## 2.4.4 Slot 6

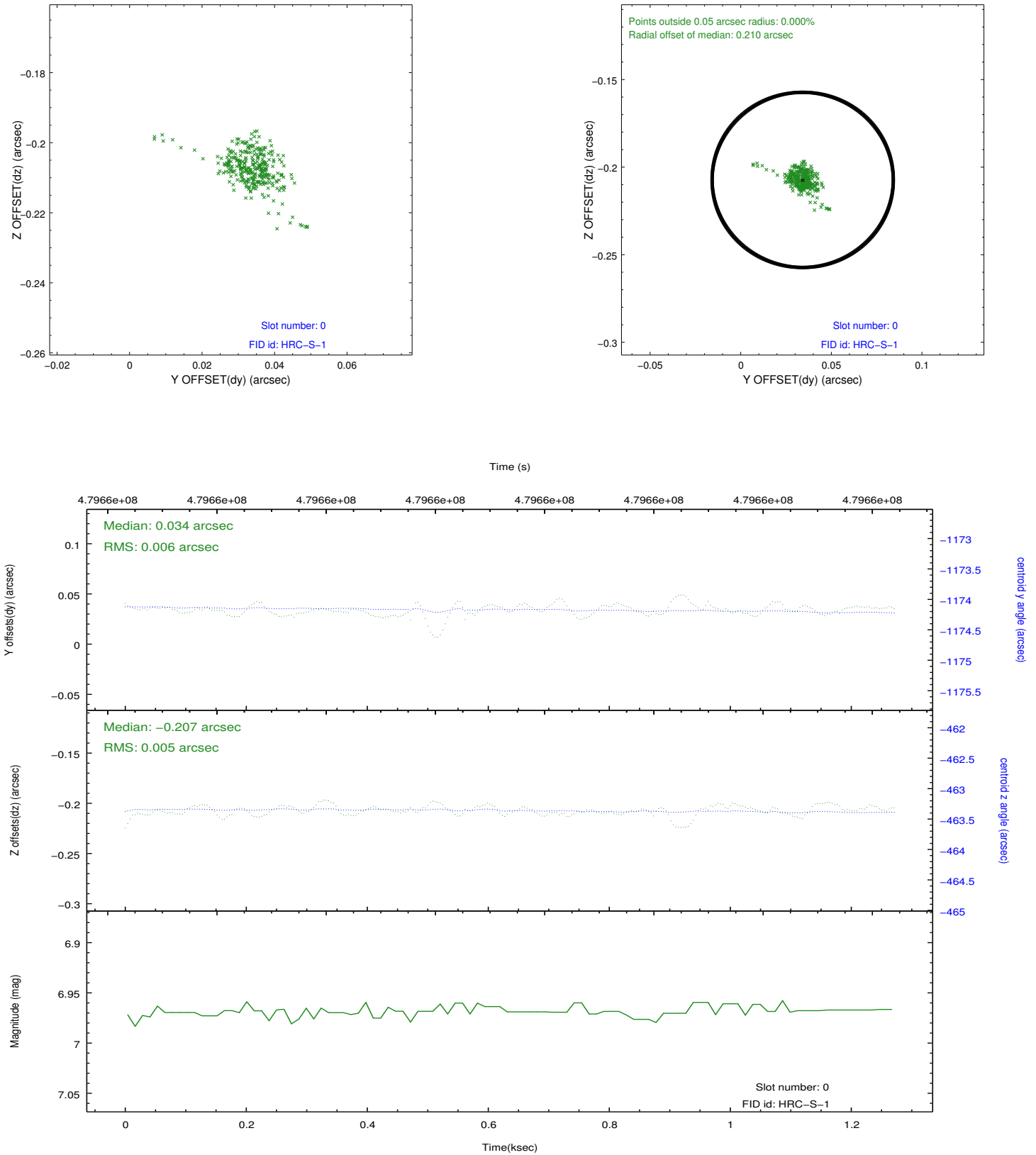


## 2.4.5 Slot 7

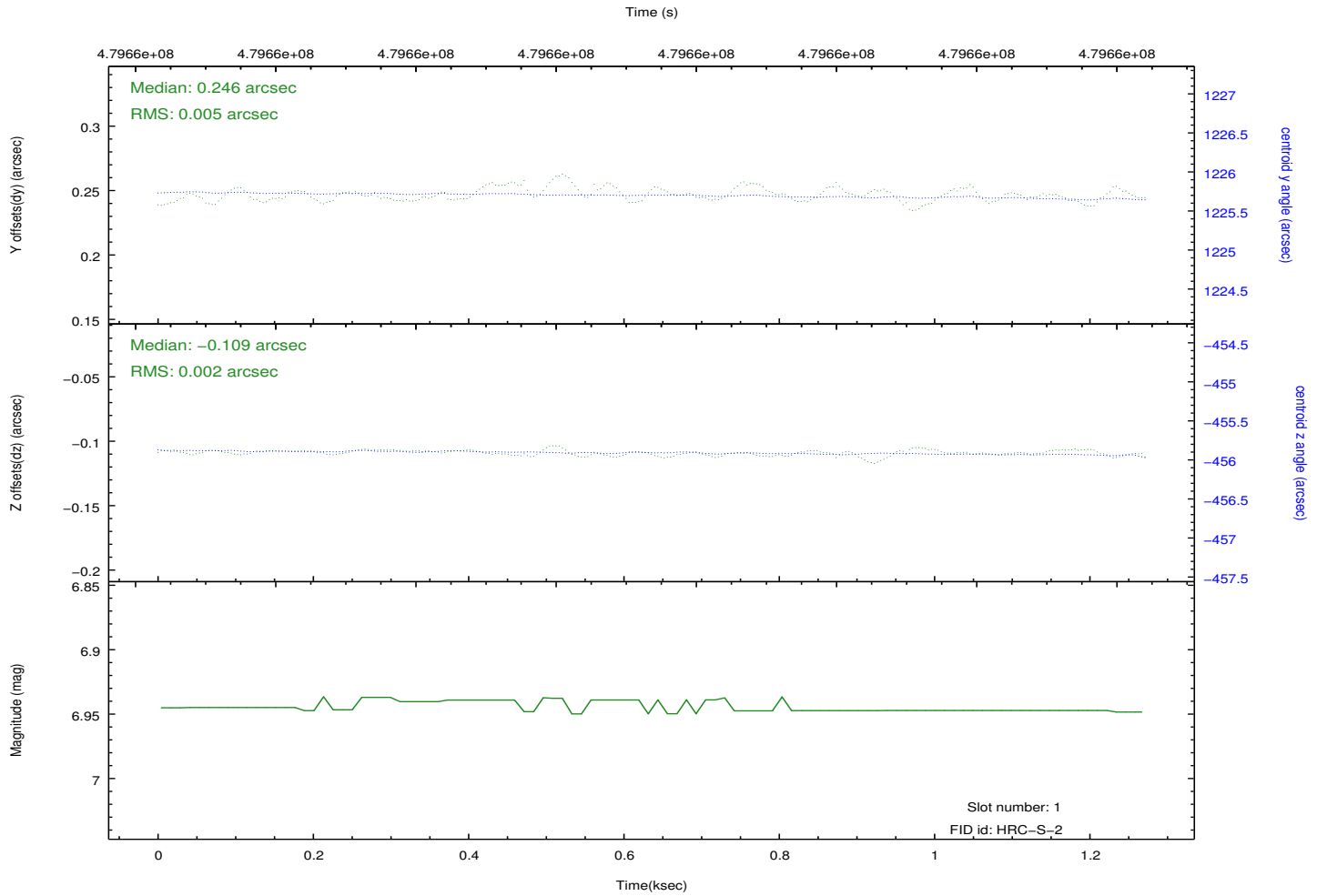
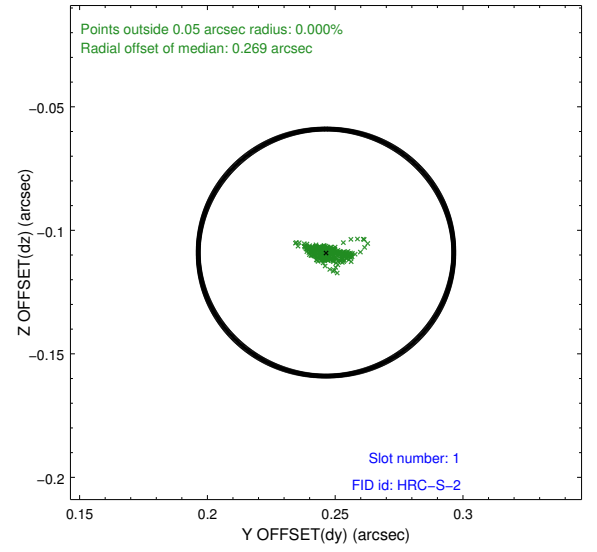
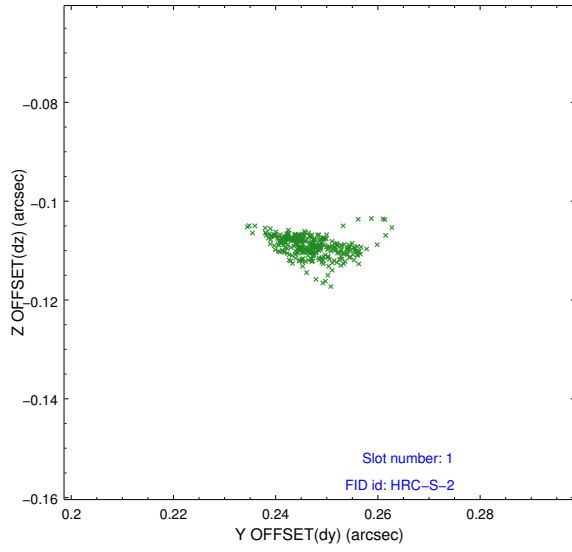


## 2.5 FID Slots

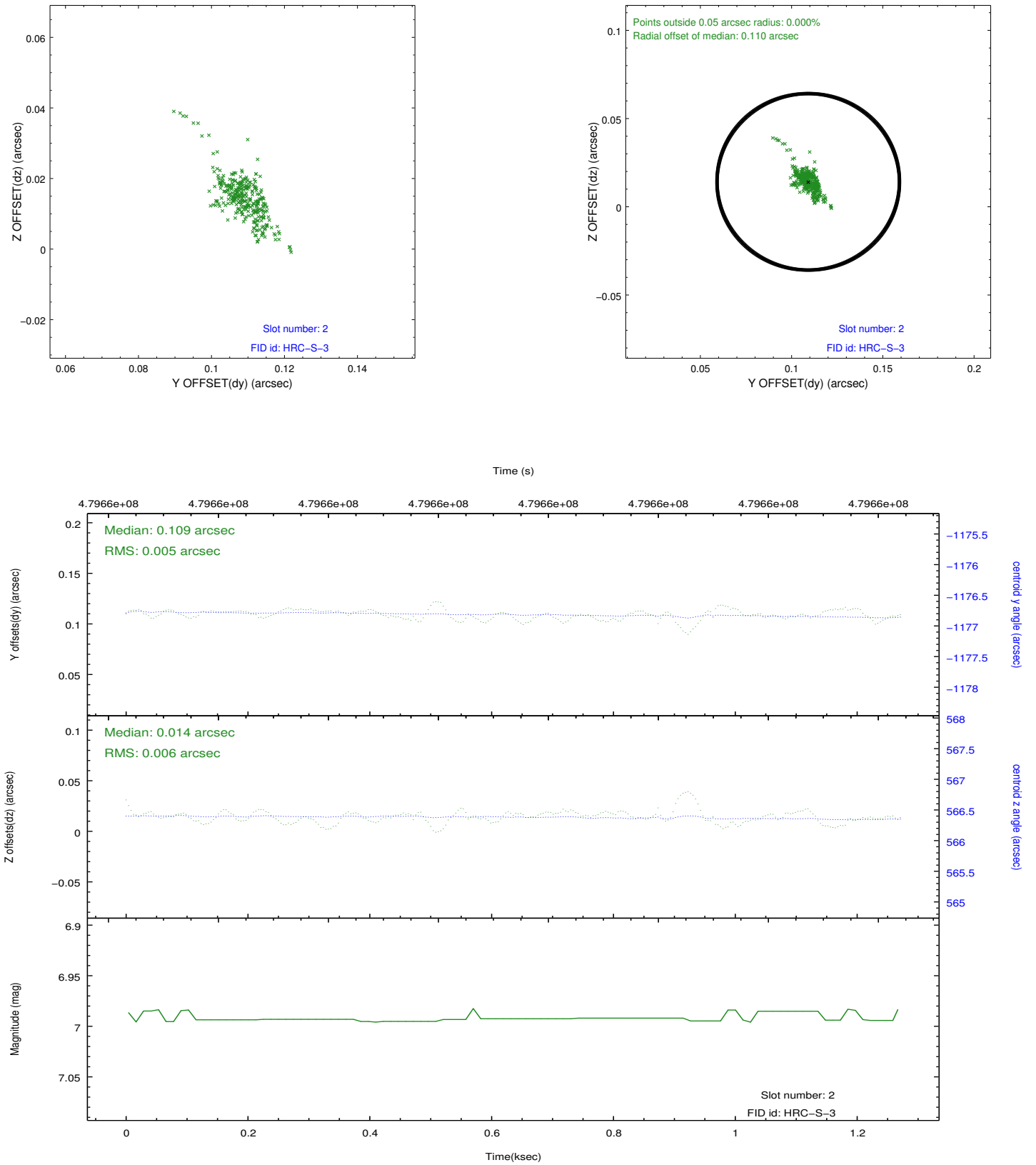
### 2.5.1 Slot 0



## 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)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.0068063044548

## 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.