

# V&V Reference Report

## L2 ASCDS Version : 10.8

Observation 21757 - L2 Version 1  
Chandra X-Ray Center

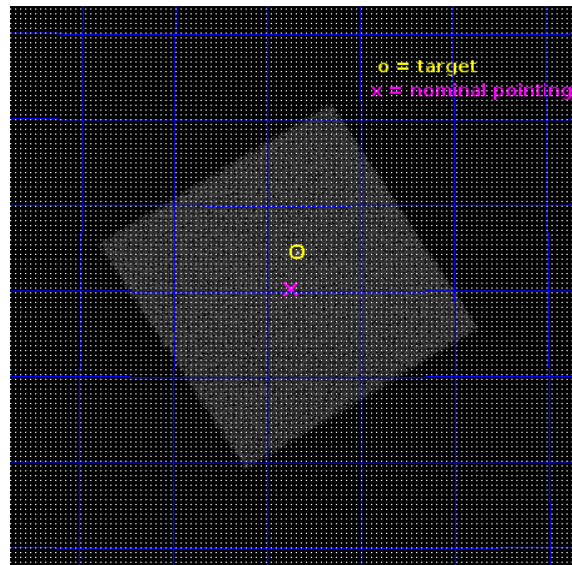
L2 Processing Date : Sep 4 2019

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# 1 Front

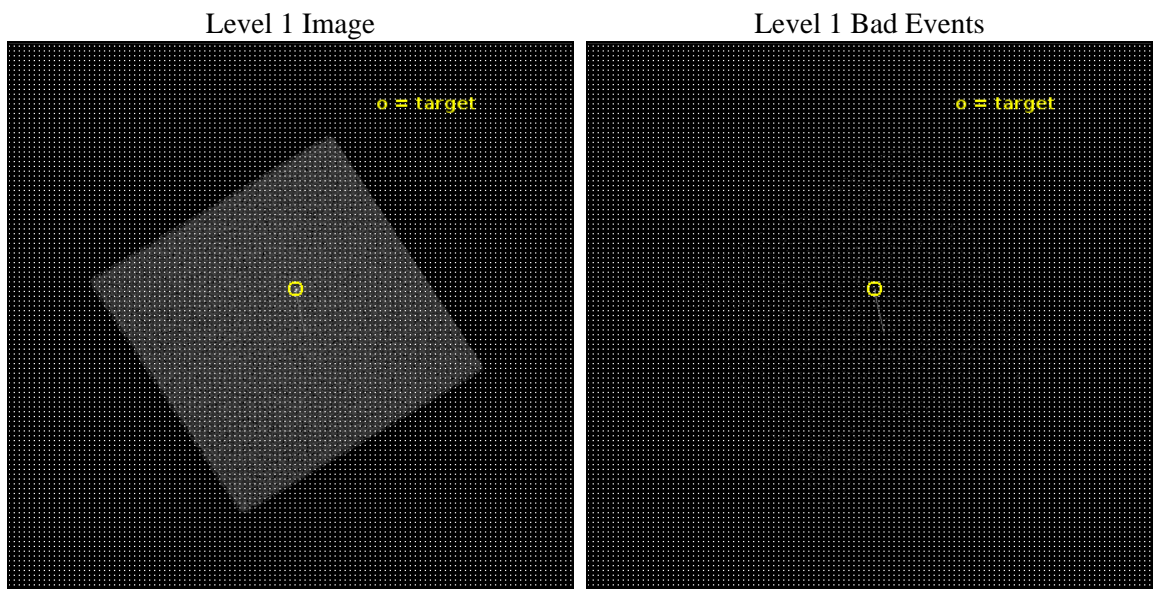
seq_num	291443	Sequence number
obs_id	21757	Observation id
title	AO-20 Calibration Observations to Monitor the Spatial Variations in the HRC-I Gain	Proposal title
observer	CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.169666	Observer's specified target RA [deg]
dec_targ	45.742509	Observer's specified target Dec [deg]
ra_nom	332.18549067359	Nominal RA [deg]
dec_nom	45.671850754389	Nominal Dec [deg]
roll_nom	192.82875194915	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1198.4813222885	[s]
livetime	1181.3824820796	Ontime multiplied by DTCOR
l2events	150350	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	10.8	Processing system revision	ontime	1198.4813222885	[s]
caldbver	4.8.4	&#160	l1events	246351	Number of level 1 events
date	2019-09-04T15:35:56	Date and time of file creation			
revision	1	Processing version of data			

### 2.1.3 Events

#### Level 1 Events

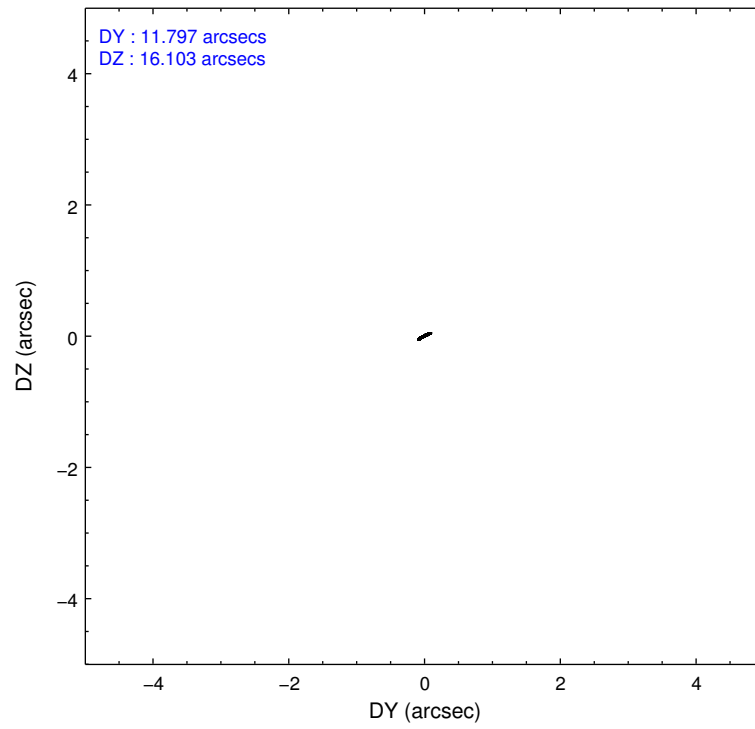
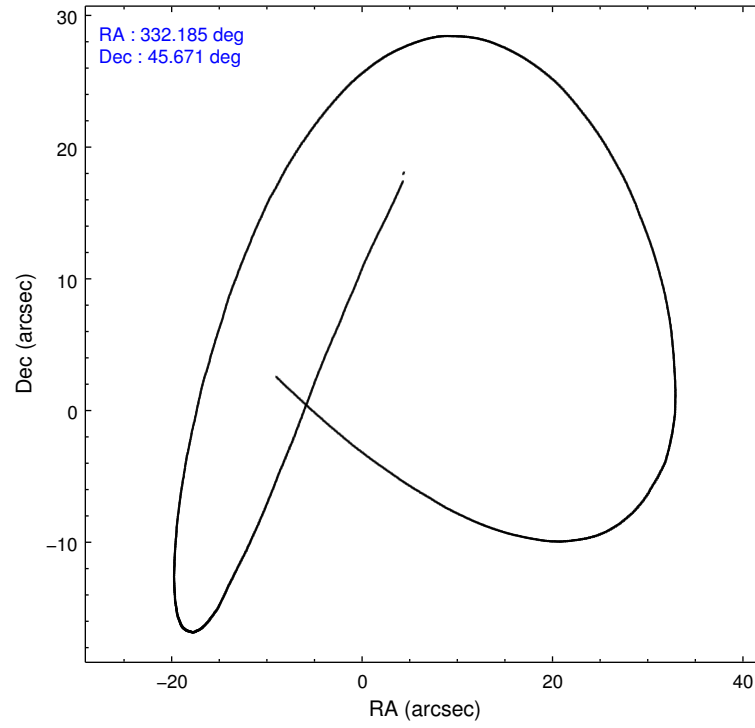
	<b>segment 0</b>
level 1 events	246351
rejected events	50352
rejected %	20%

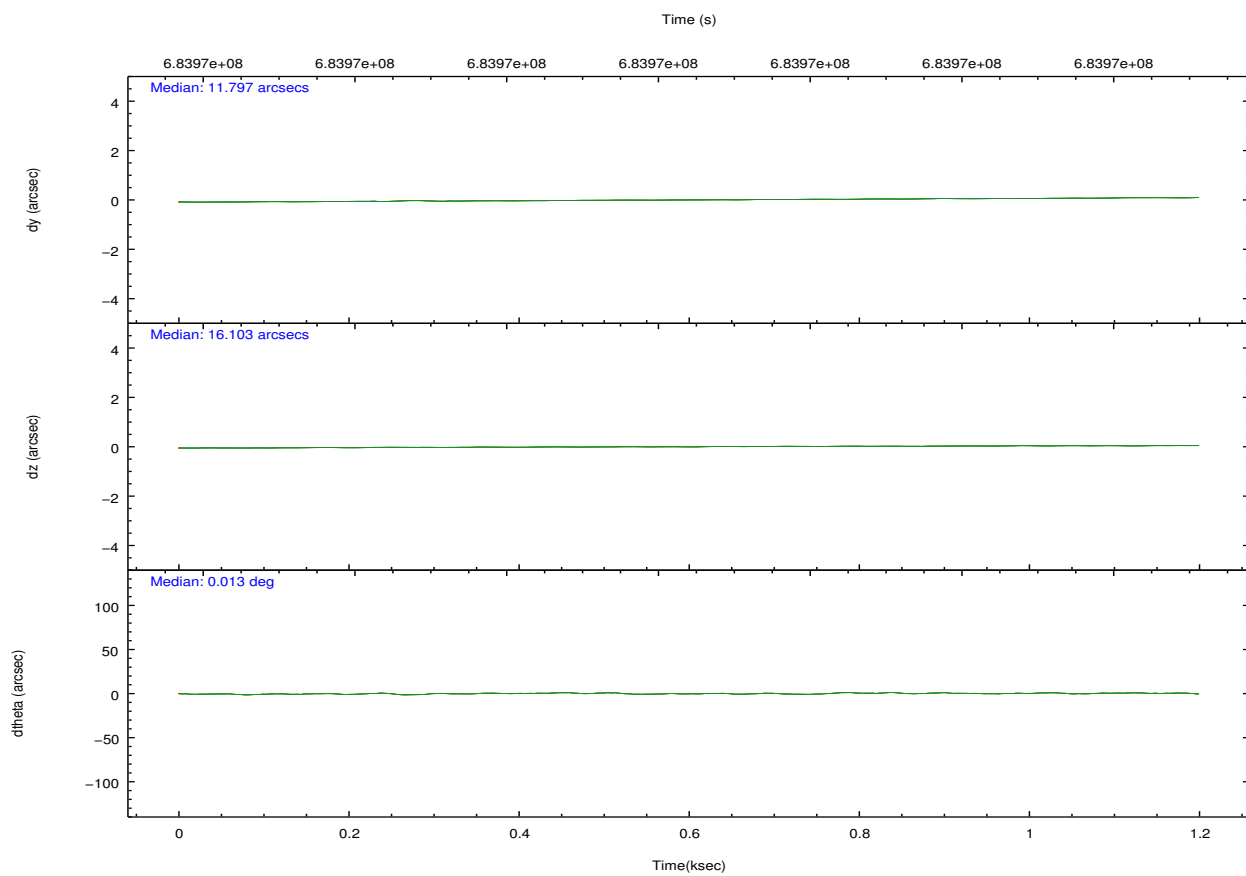
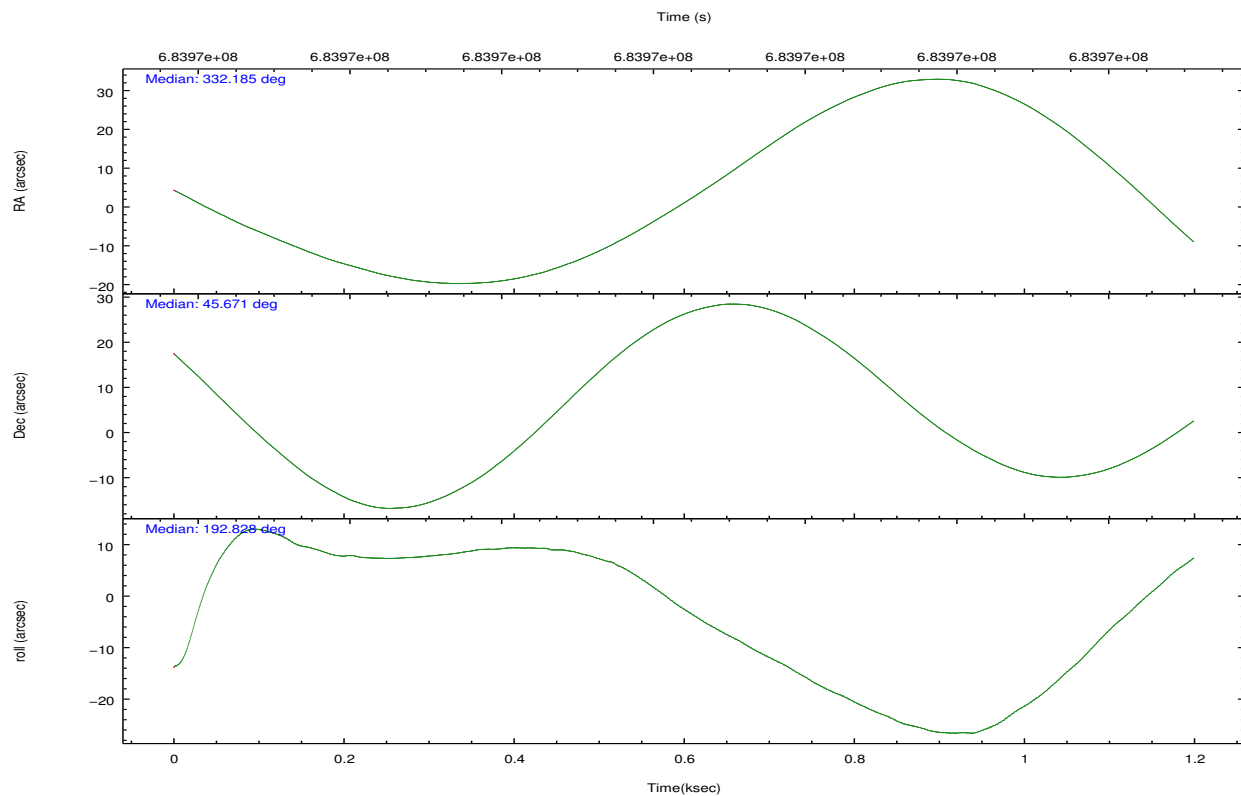
## 2.2 Compared Parameters

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	332.213307	332.1854906735883
[deg] Pointing Dec	45.691943	45.67185075438898
[deg] Pointing Roll	192.904561	192.8287519491475
[mm] SIM focus pos	-1.040293	-1.038866356238299
[mm] SIM defocus	0	0.001426264420575141
[mm] SIM translation stage pos	126.985494	126.9854943052878
[mm] SIM translation stage offset	0	-5.413686238853188e-06
[s] Observation start time (MET)	683972233.184000	683971857.17485
Observation start date	2019-09-04T08:16:04	2019-09-04T08:10:57
[s] Observation end time (MET)	683973233.184000	683973366.99994
Observation end date	2019-09-04T08:32:44	2019-09-04T08:36:06

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

## 2.3 Aspect





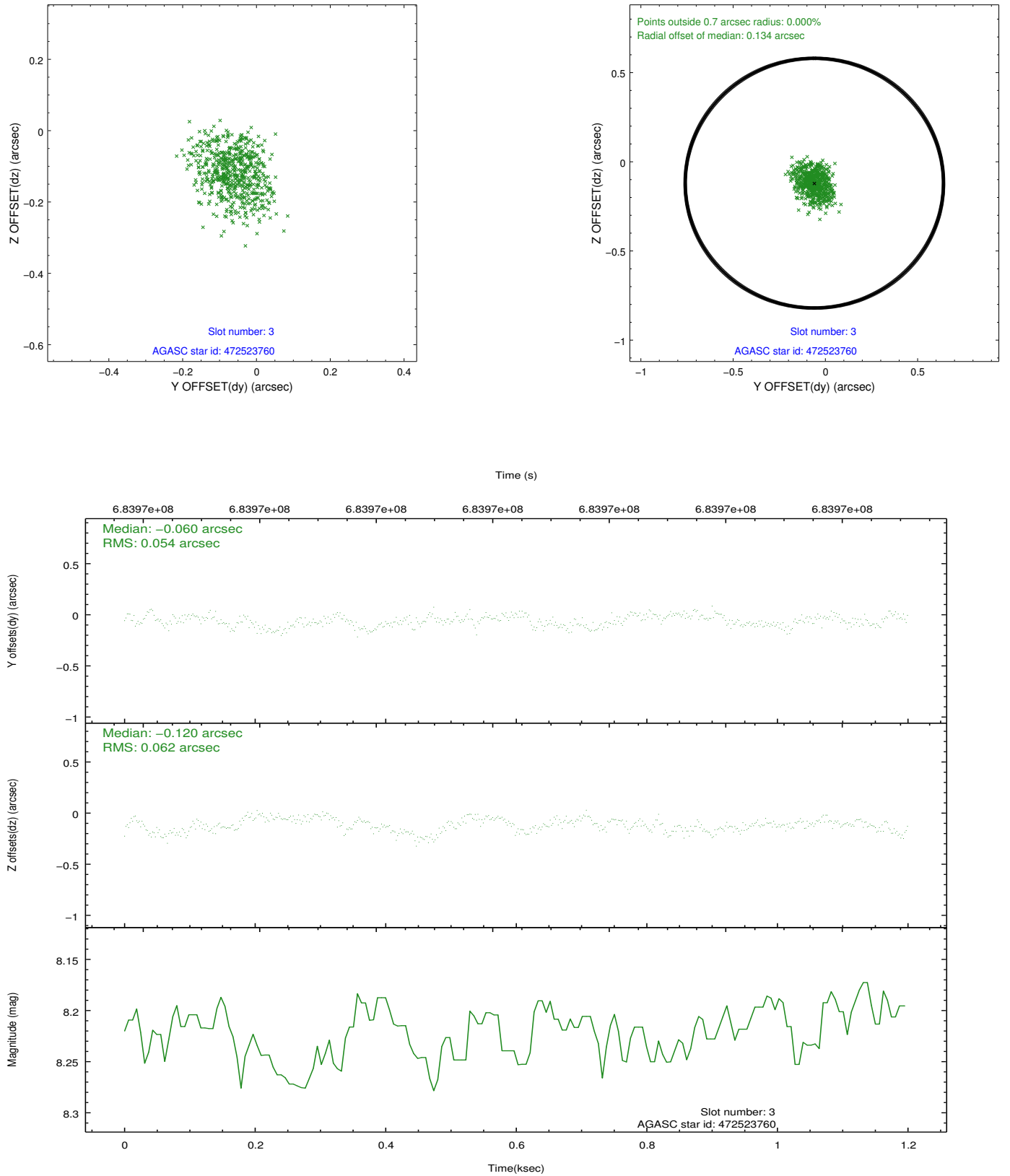
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-I-1	7.07	293	1.000	-0.190	-0.184	0.006	0.012	0.000000	0.000000	-767.80	-1304
1	FID		HRC-I-3	7.13	293	1.000	-0.265	-0.114	0.006	0.012	0.000000	0.000000	-1198.80	995
2	FID		HRC-I-4	7.07	293	1.000	0.569	0.208	0.006	0.013	0.000000	0.000000	1271.84	1001
3	GUIDE	used	472523760	8.22	586	1.000	-0.060	-0.120	0.091	0.135	331.645363	45.403260	1630.25	683
4	GUIDE	used	472525528	6.63	586	1.000	-0.346	-0.208	0.094	0.141	331.551102	45.248694	1992.65	1171
5	GUIDE	used	472527720	6.99	586	1.000	-0.397	-0.243	0.102	0.152	331.460205	45.112509	2331.46	1595
6	GUIDE	used	472665256	8.96	586	1.000	0.800	0.567	0.104	0.170	332.808125	46.195041	-1845.87	-1440
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

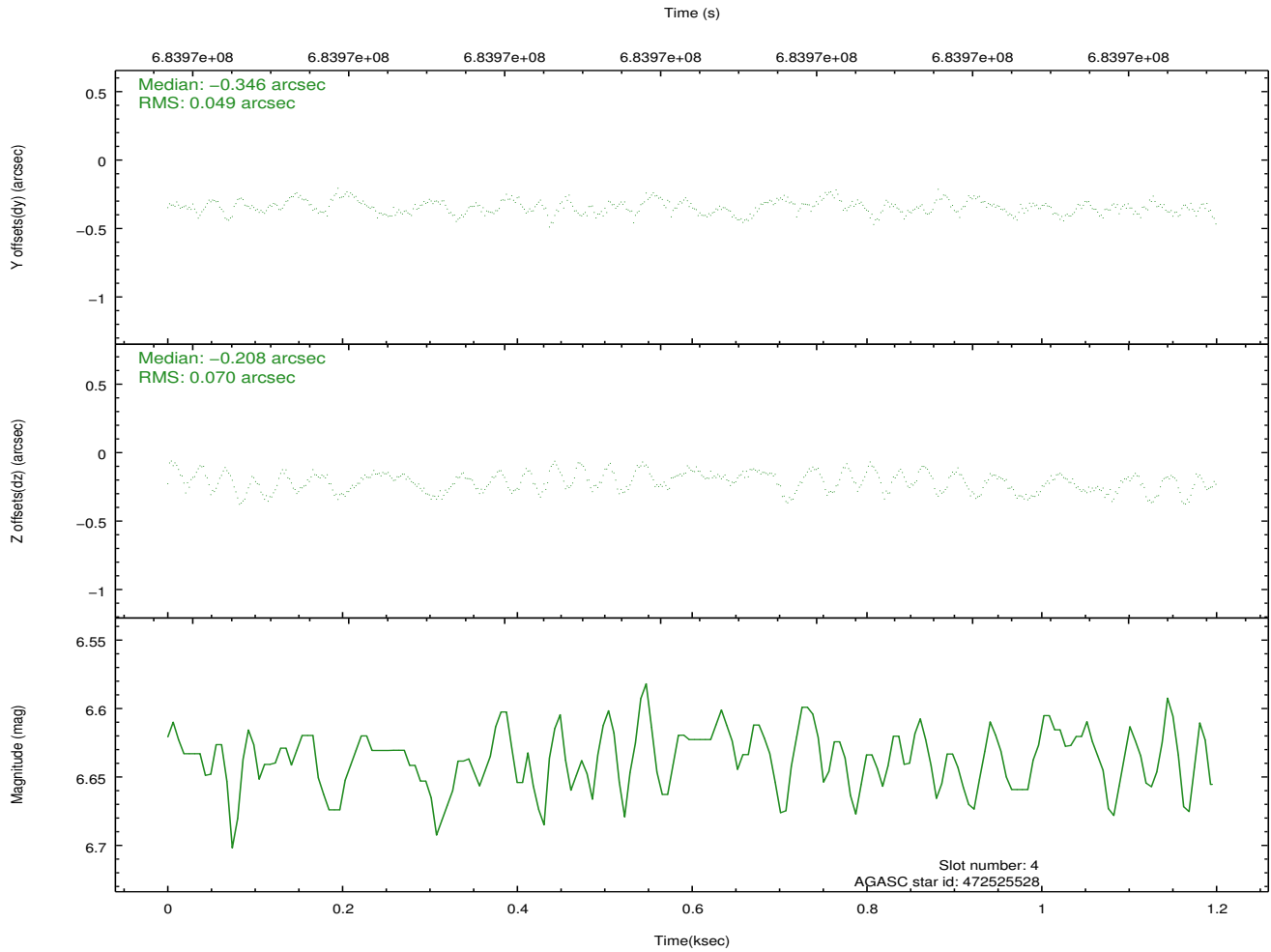
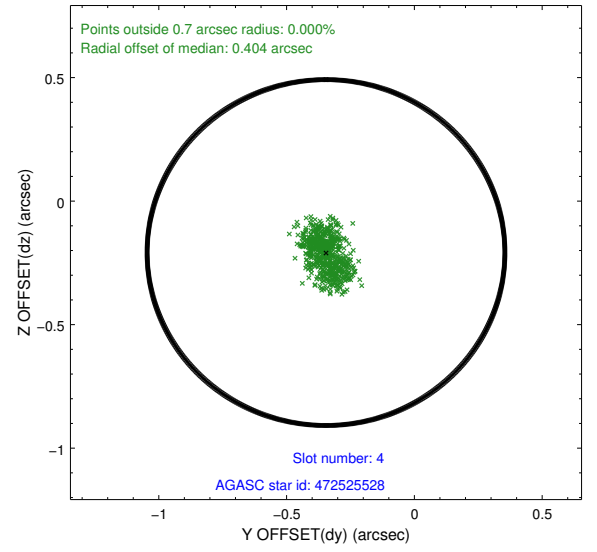
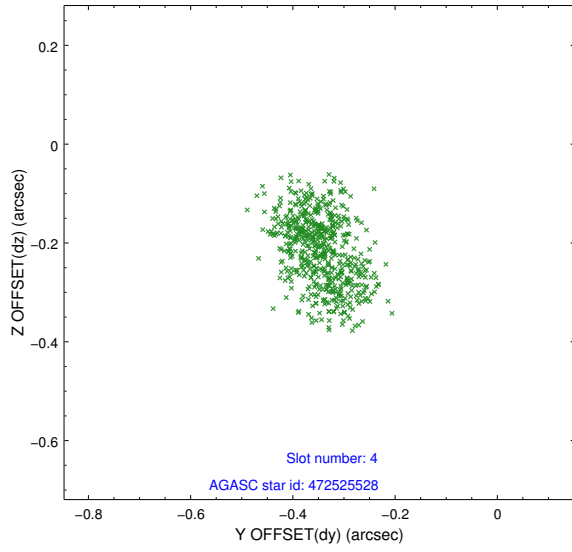


## 2.4 Star Slots

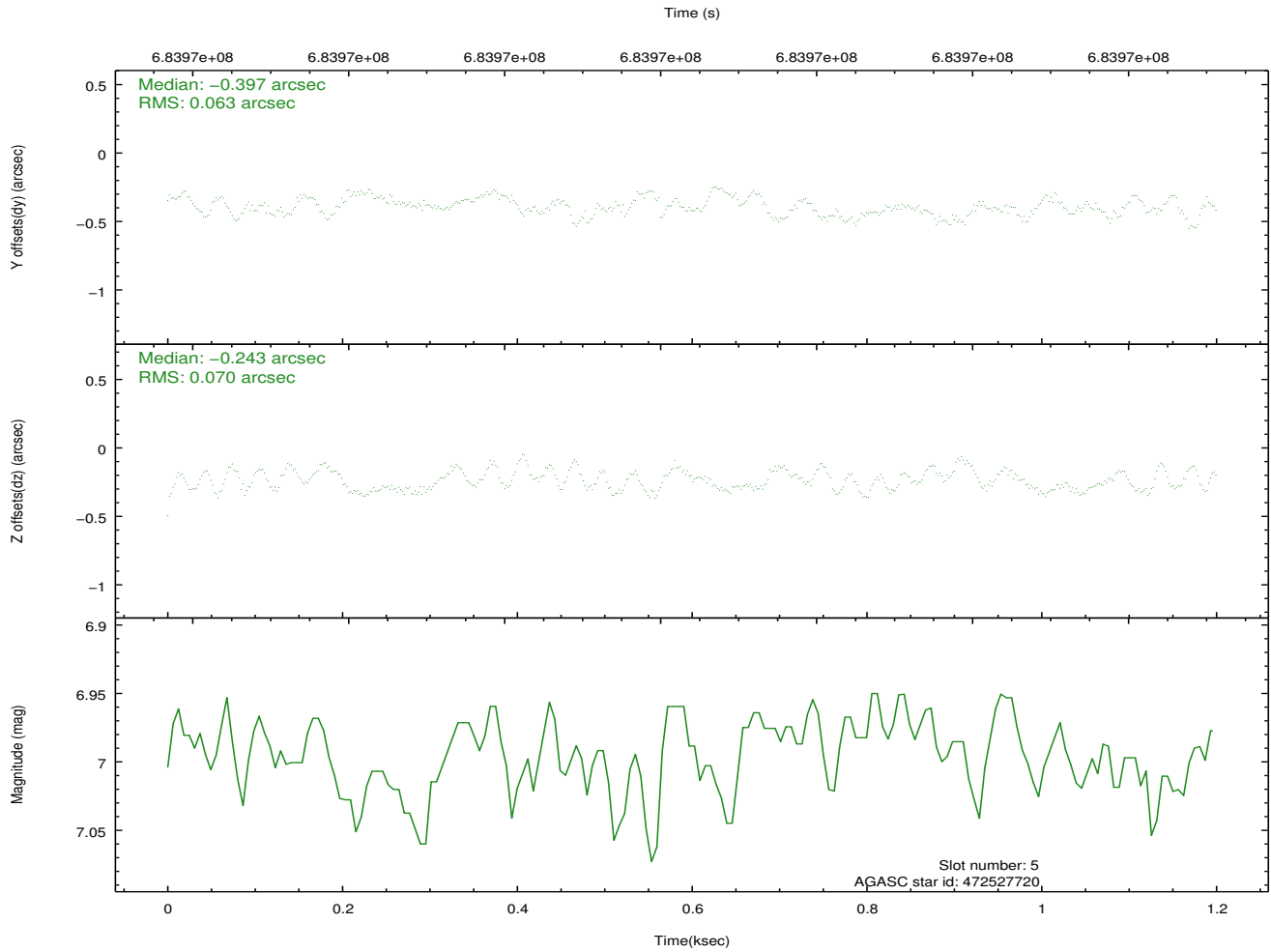
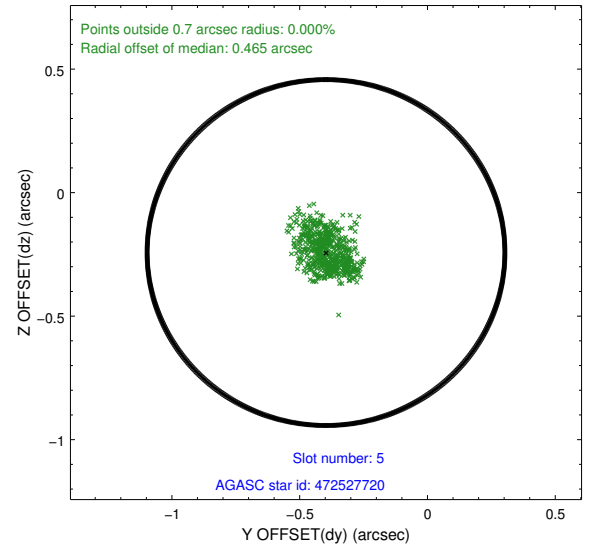
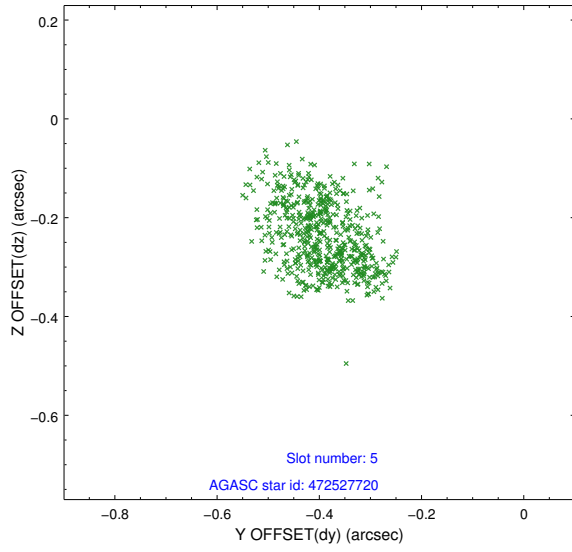
### 2.4.1 Slot 3



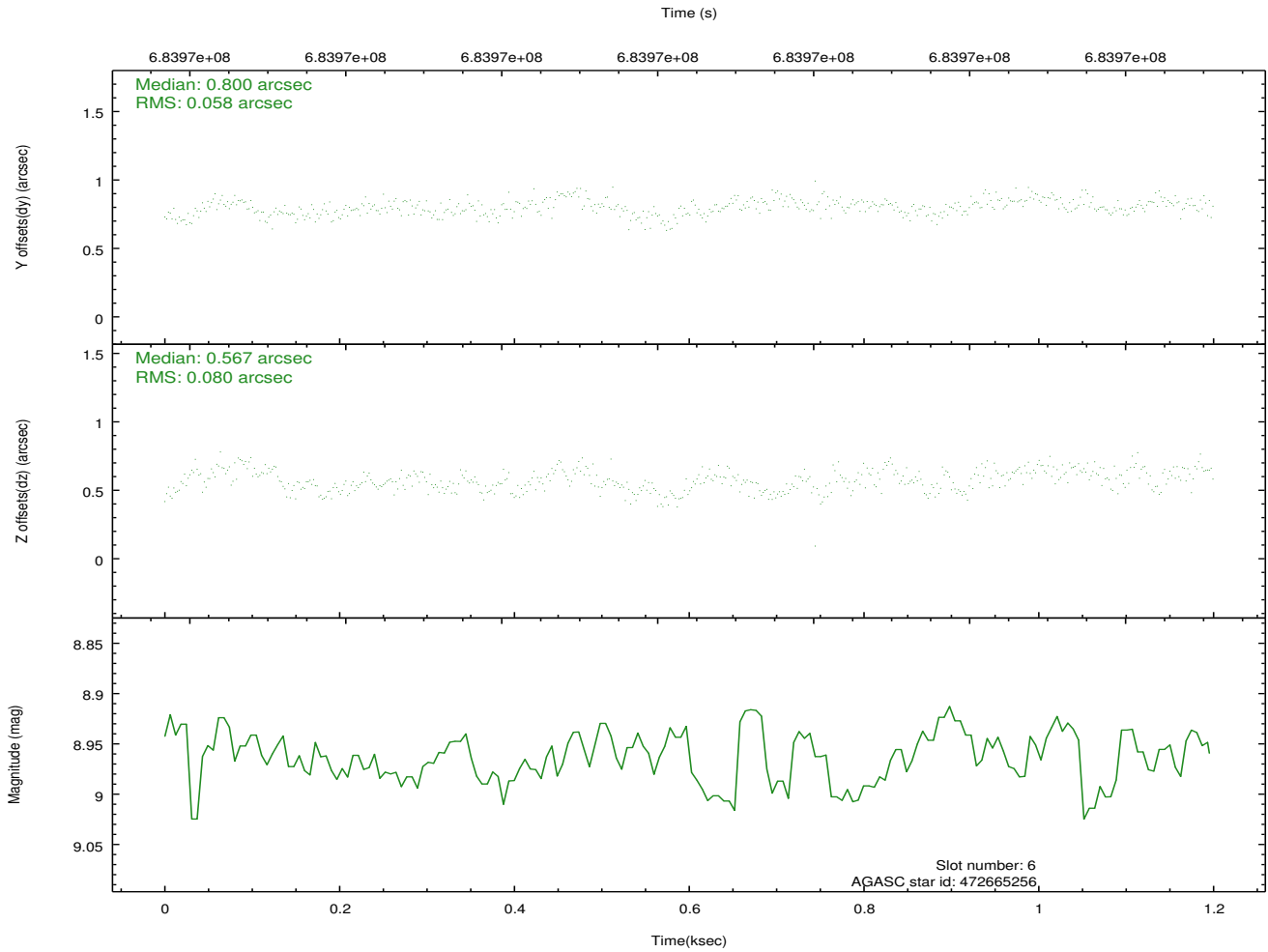
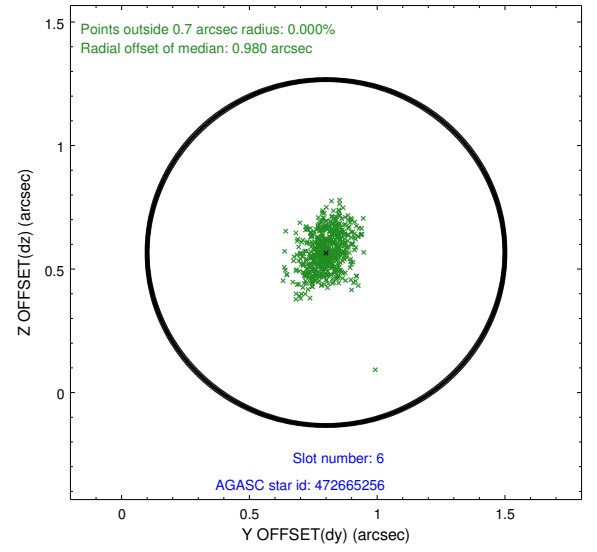
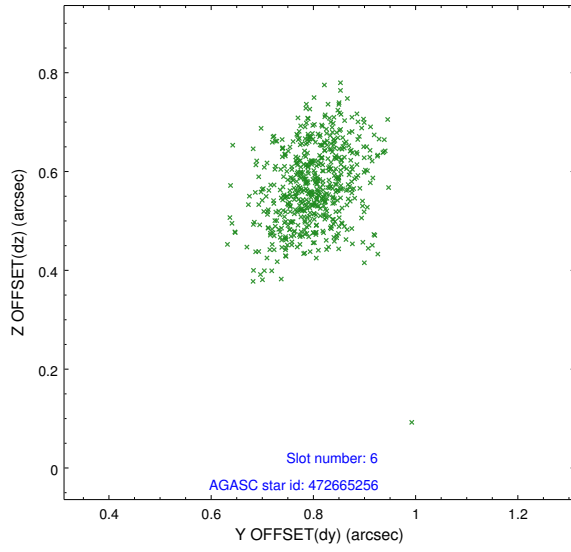
## 2.4.2 Slot 4



### 2.4.3 Slot 5

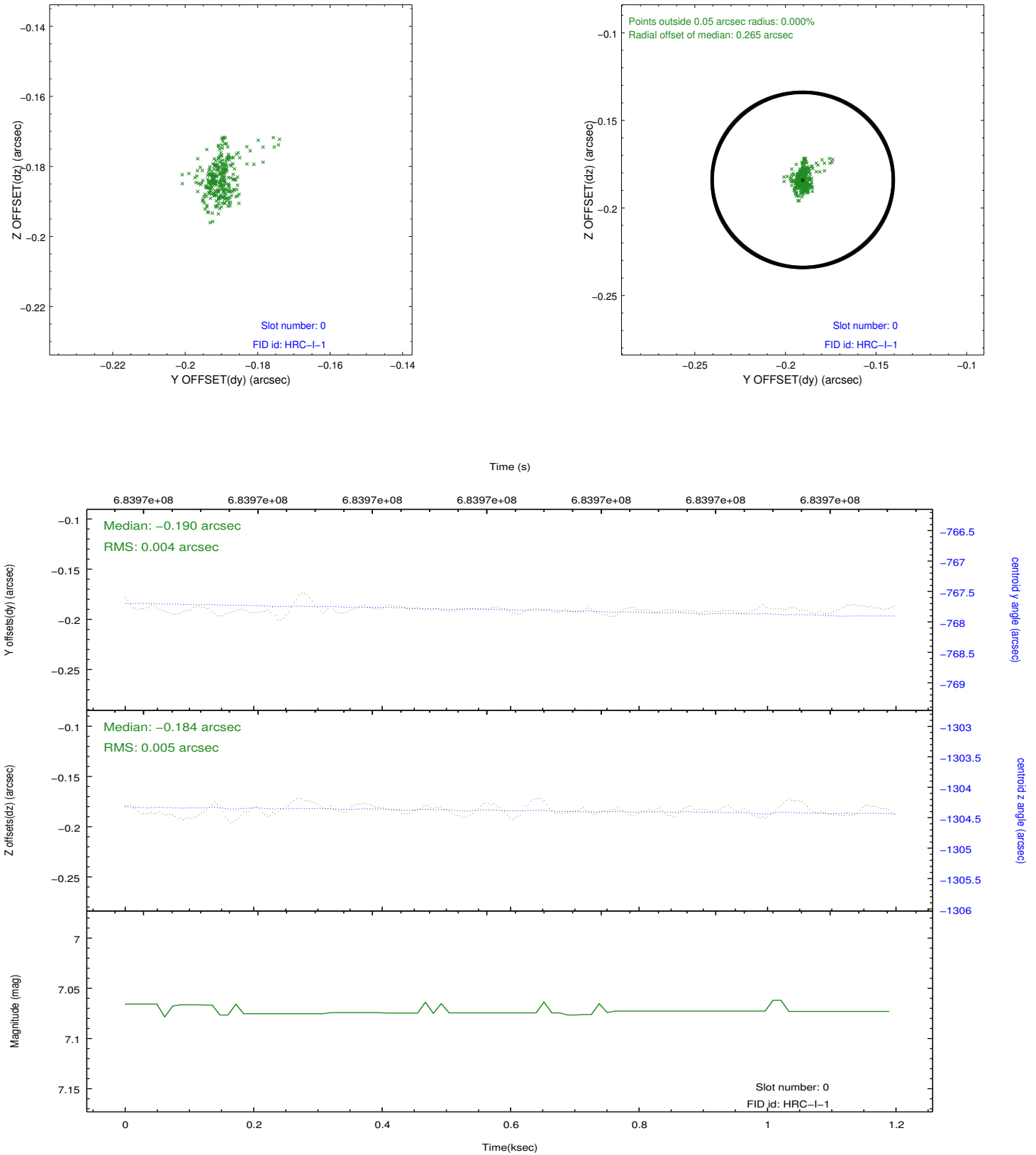


## 2.4.4 Slot 6

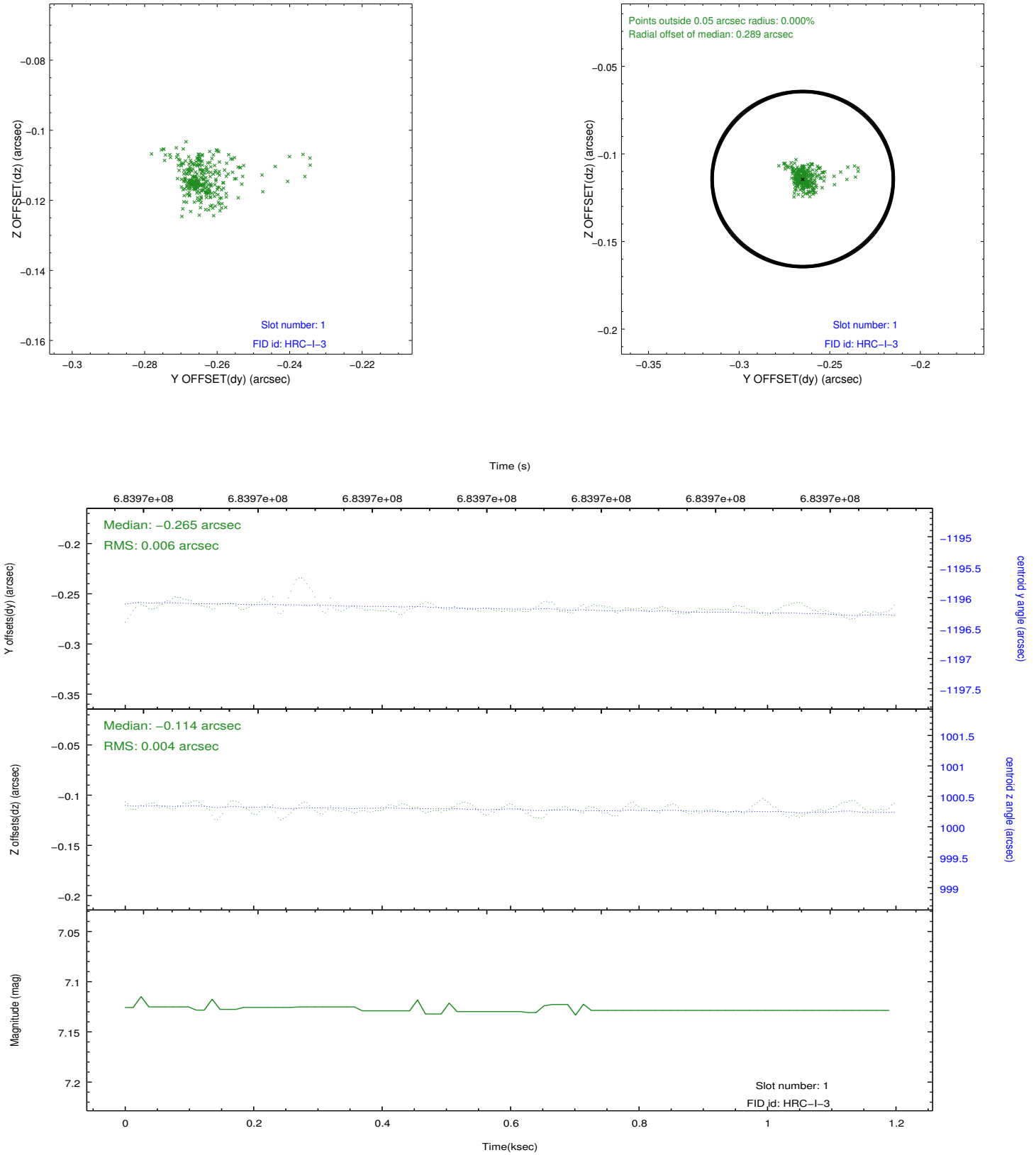


## 2.5 FID Slots

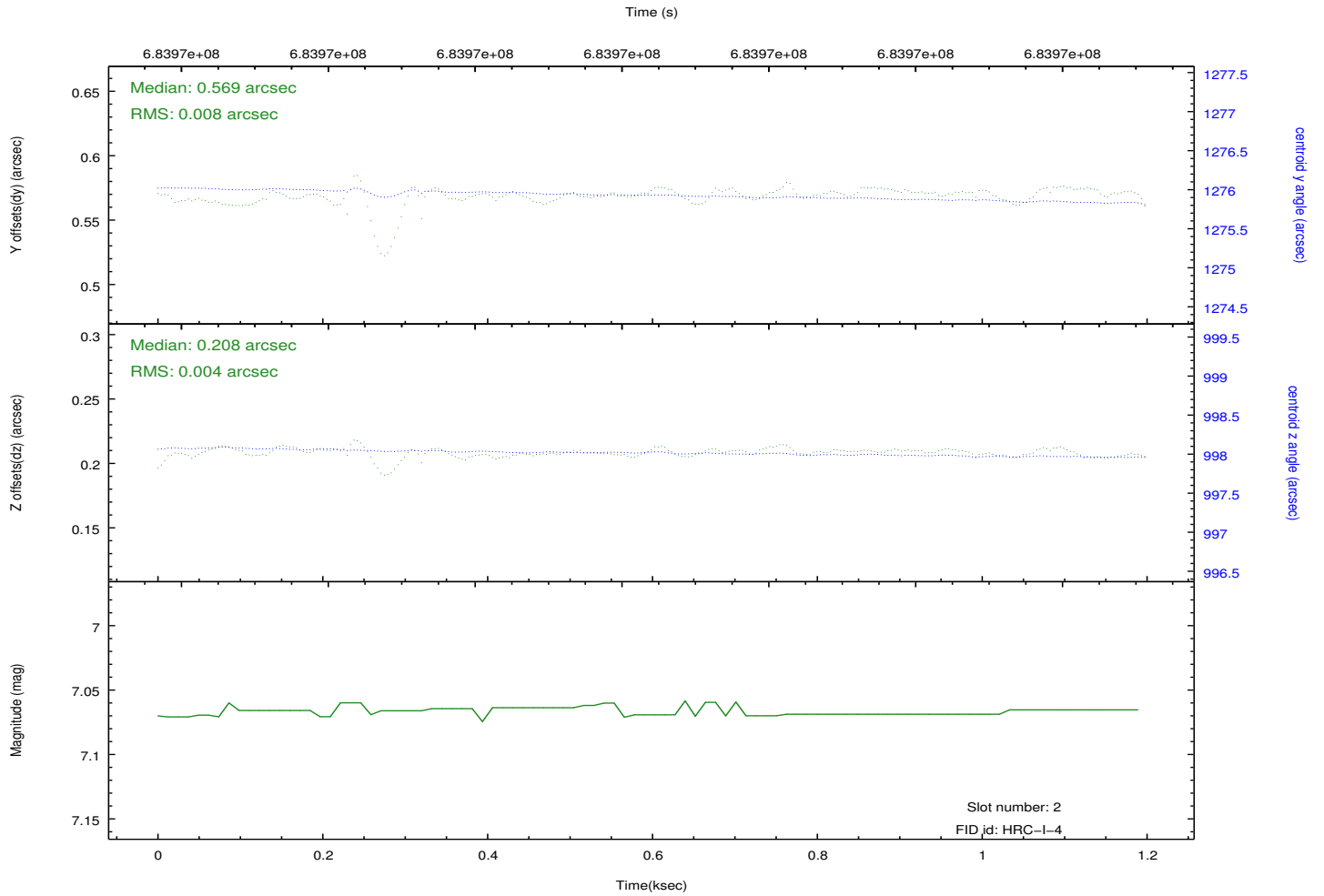
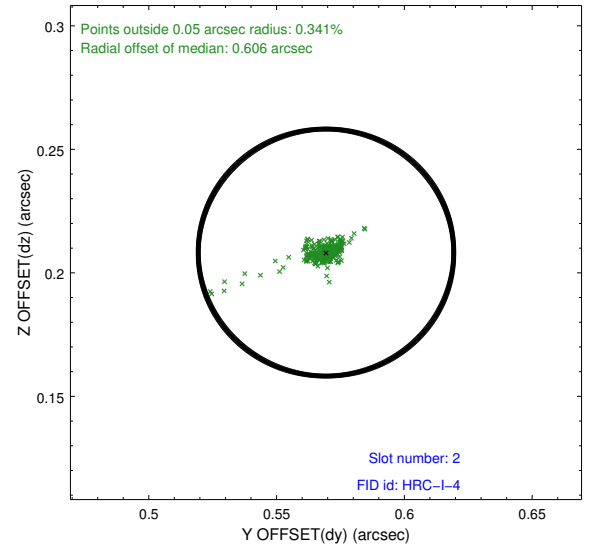
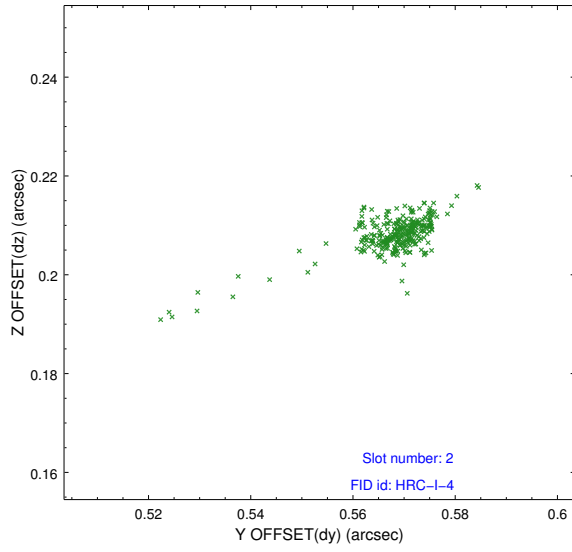
### 2.5.1 Slot 0



## 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)	2019.09.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.1984813222885

### A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.