

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20656 - L2 Version 2  
Chandra X-Ray Center

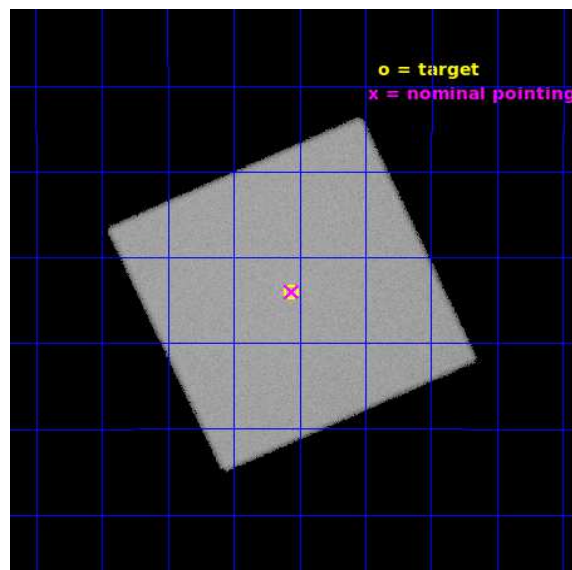
L2 Processing Date : Oct 25 2020

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# 1 Front

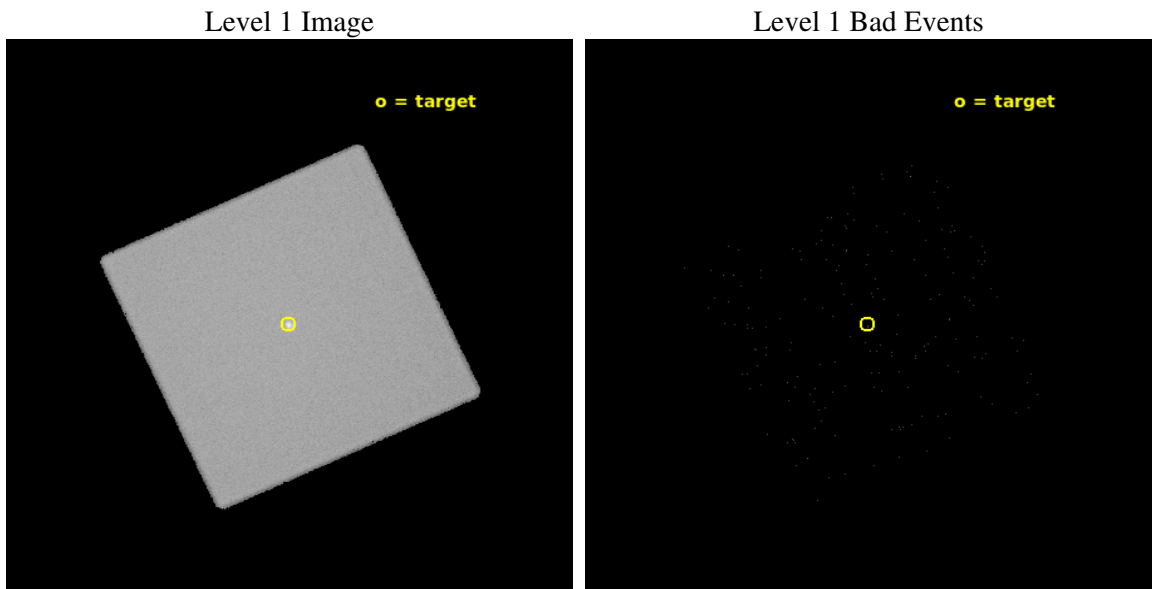
seq_num	590560	Sequence number
obs_id	20656	Observation id
title	AO-18 Calibration Observations of G21.5-09	Proposal title
observer	CXC Calibration	Principal investigator
object	G21.5-09	Source name
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.38931955051	Nominal RA [deg]
dec_nom	-10.566361101486	Nominal Dec [deg]
roll_nom	110.36934478095	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10153.650600076	[s]
livetime	10020.136190277	Ontime multiplied by DTCOR
l2events	1151327	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	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	10153.650600076	[s]
caldsver	4.9.3	&#160	l1events	1664089	Number of level 1 events
date	2020-10-26T00:25:01	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

#### Level 1 Events

	<b>segment 0</b>
level 1 events	1664089
rejected events	144187
rejected %	8%

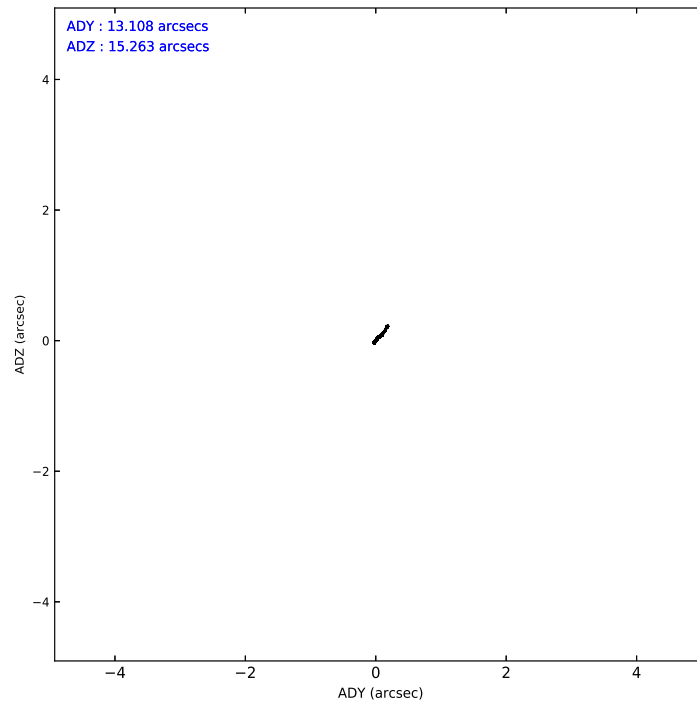
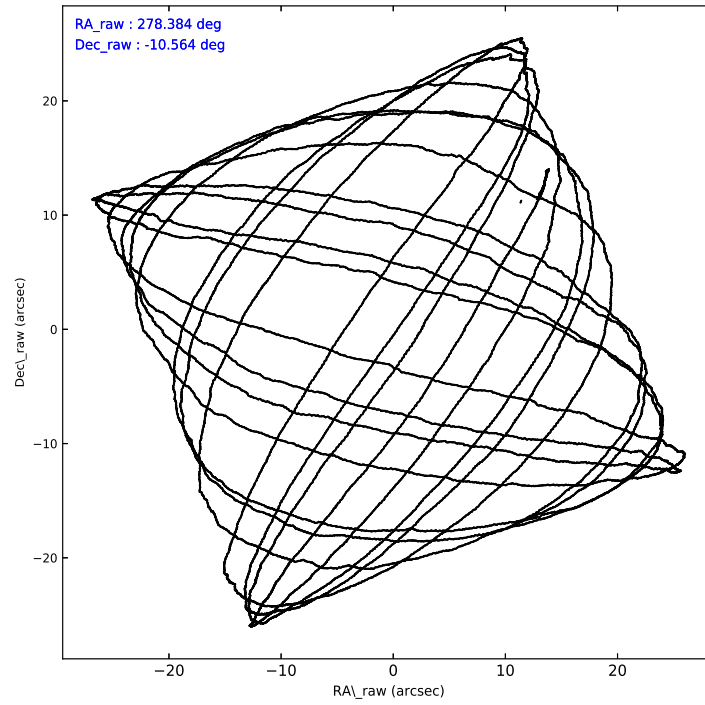


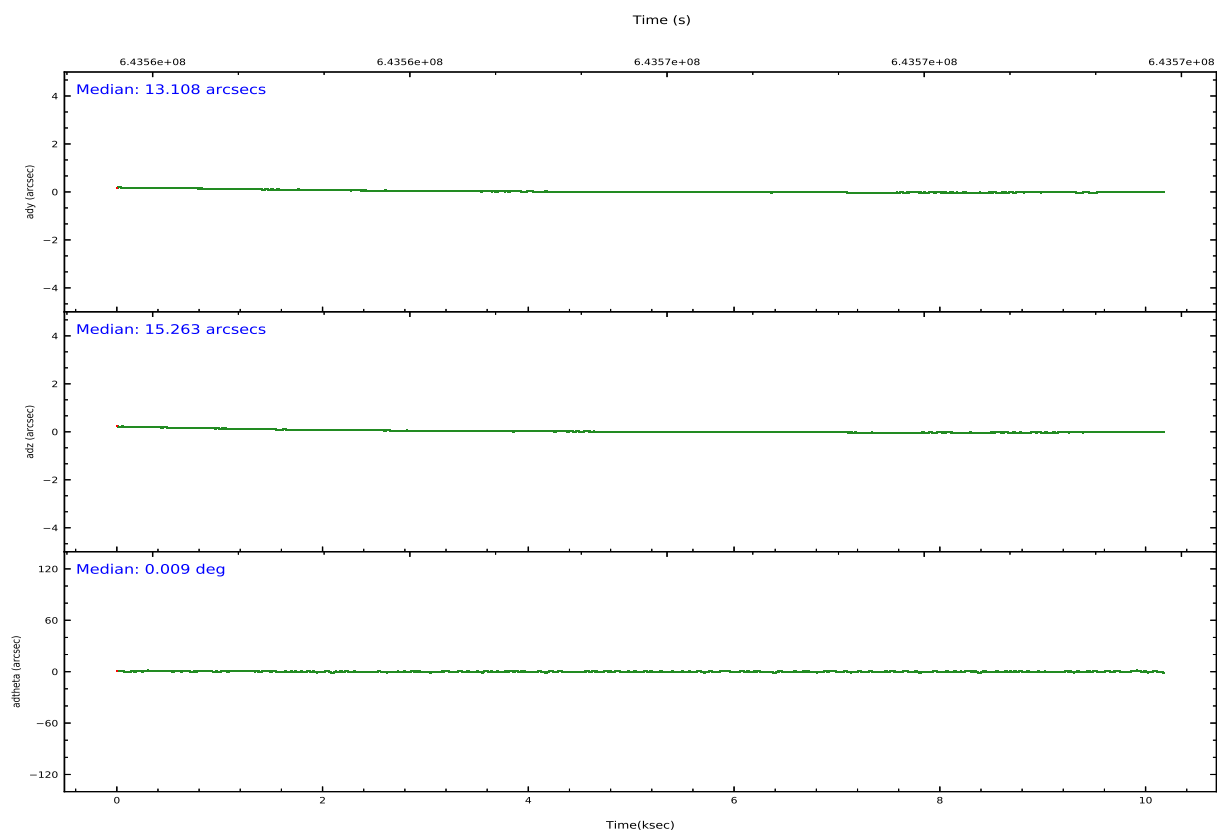
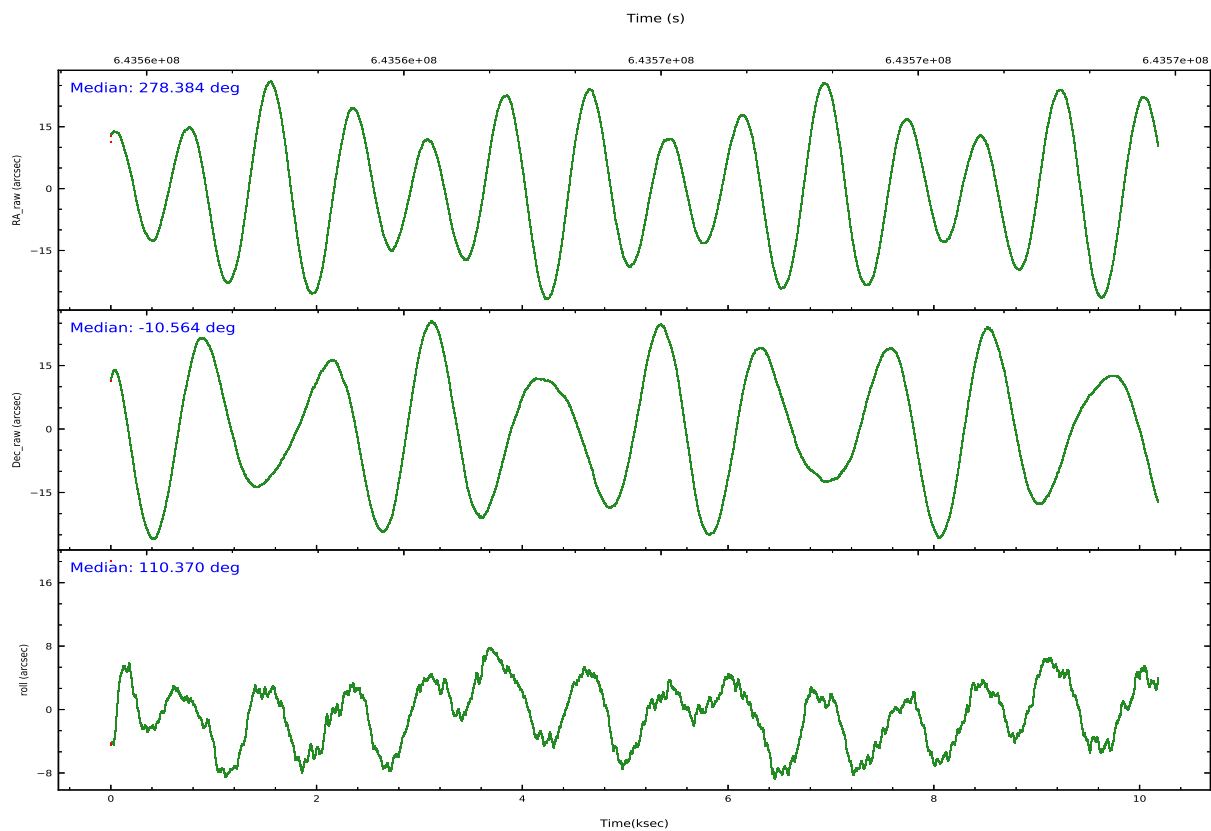
## 2.2 Compared Parameters

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	278.405478	278.38931955051
[deg] Pointing Dec	-10.581190	-10.566361101486
[deg] Pointing Roll	110.483511	110.36934478095
[s] Window start time (MET)	638928069.184000	638928069.184000
[s] Window stop time (MET)	644112069.184000	644112069.184000
[mm] SIM focus pos	-1.040293	-1.038866356238299
[mm] SIM defocus	0	0.001426264420575141
[mm] SIM translation stage pos	126.985494	126.9829799899862
[mm] SIM translation stage offset	0	0.002508901615314585
[s] Observation start time (MET)	643562331.184000	643561227.12126
Observation start date	2018-05-24T15:17:42	2018-05-24T15:00:27
[s] Observation end time (MET)	643572331.184000	643572468.80942
Observation end date	2018-05-24T18:04:22	2018-05-24T18:07:48

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

## 2.3 Aspect



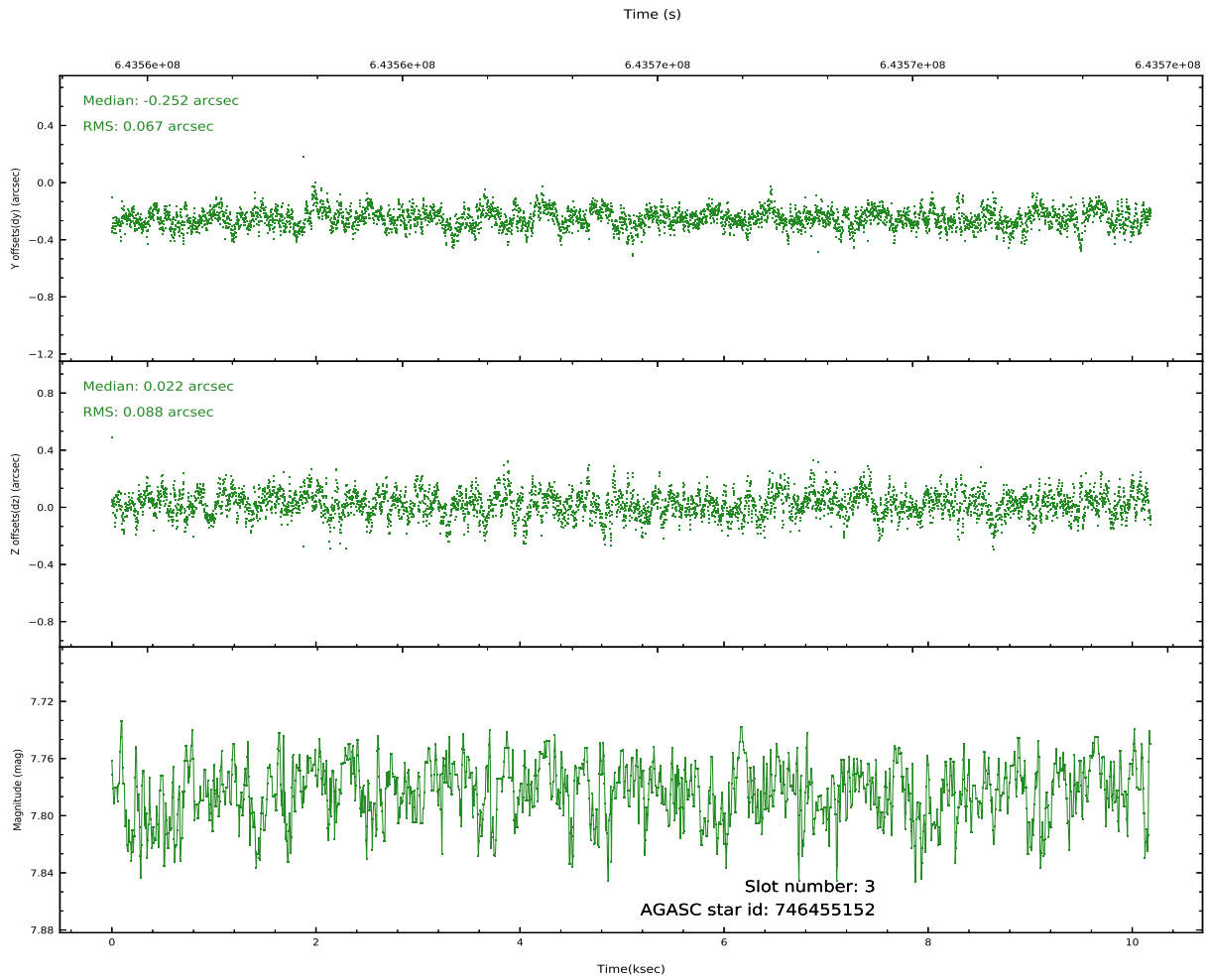
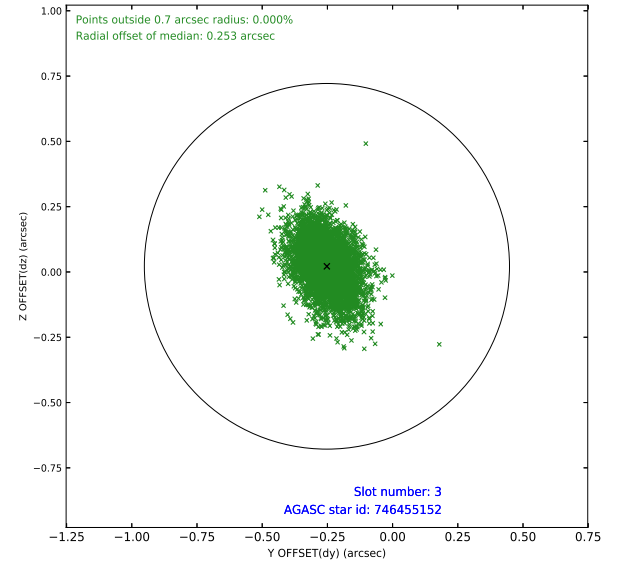
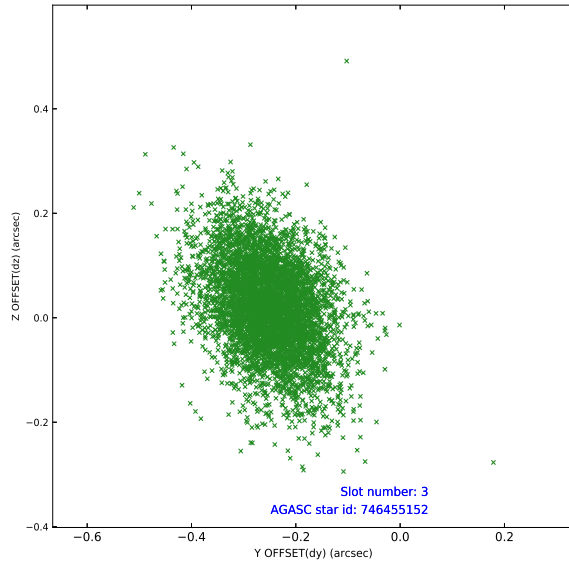


Slot Statistics

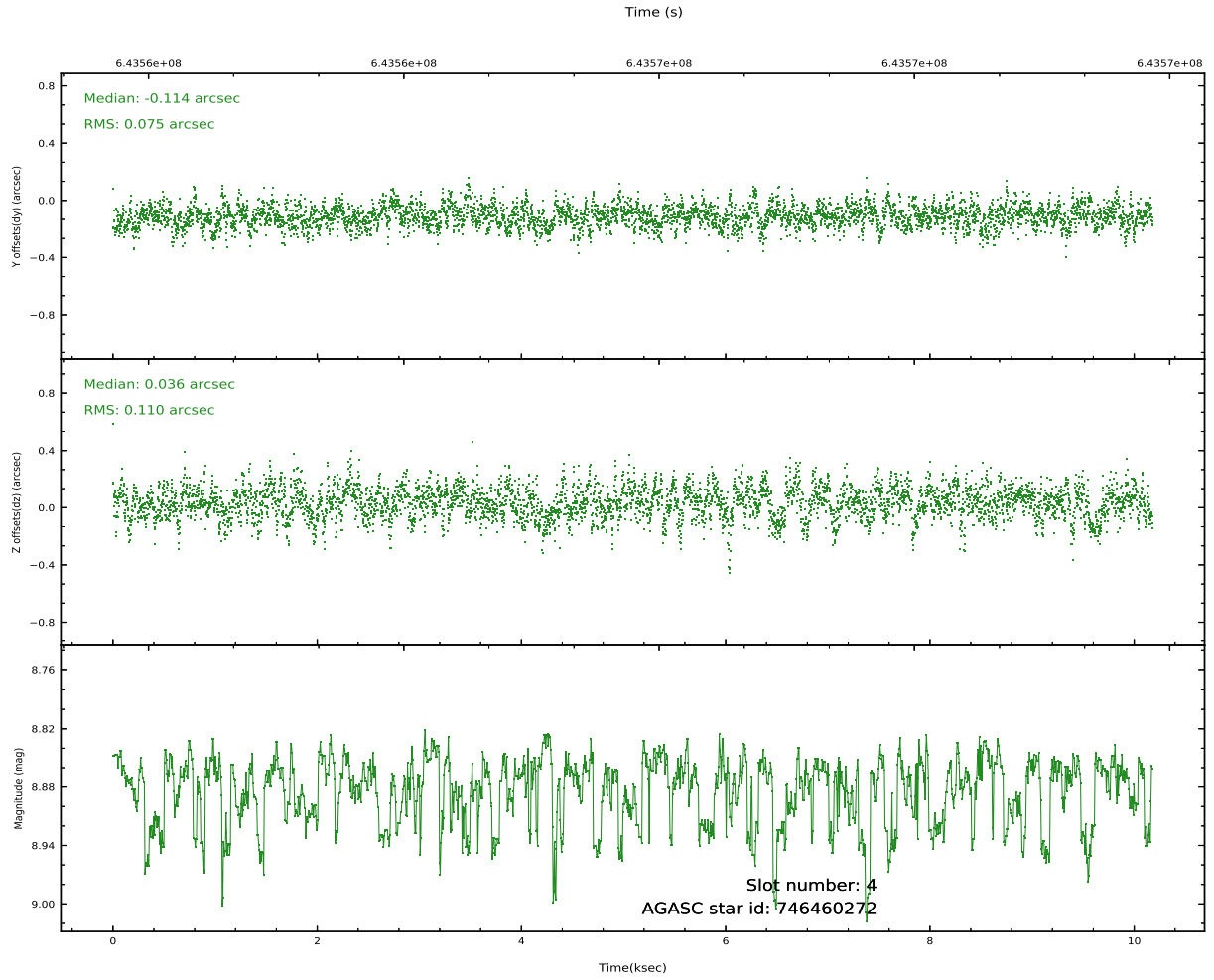
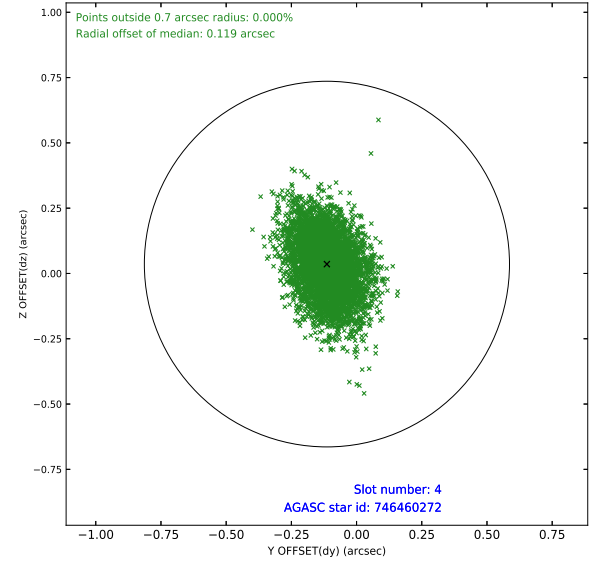
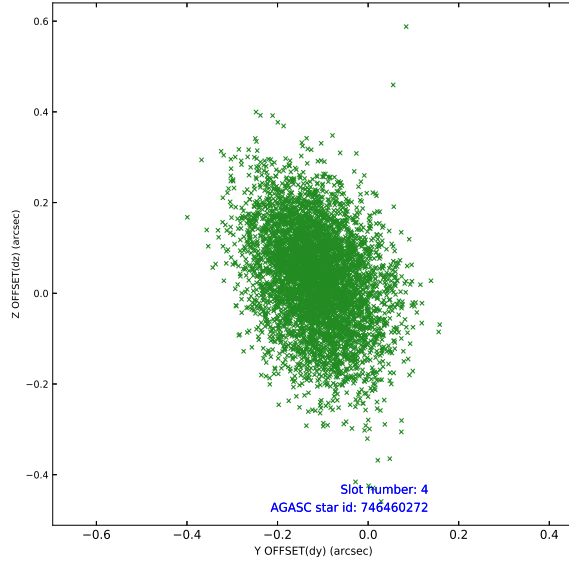
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-I-1	7.04	2484	1.000	-0.092	0.009	0.008	0.014	0.000000	0.000000	-768.99	-1303
1	FID		HRC-I-2	7.07	2484	1.000	0.331	-0.220	0.008	0.014	0.000000	0.000000	843.75	-1305
2	FID		HRC-I-3	7.13	2484	1.000	-0.120	0.121	0.006	0.010	0.000000	0.000000	-1197.13	1000
3	GUIDE	used	746455152	7.78	4966	1.000	-0.252	0.022	0.114	0.200	278.447893	-9.976732	1986.12	-901
4	GUIDE	used	746460272	8.88	4965	1.000	-0.114	0.036	0.140	0.233	278.847488	-10.152127	898.92	-2007
5	GUIDE	used	746462456	8.37	4963	1.000	0.159	-0.094	0.134	0.218	278.652171	-10.530173	-135.30	-881
6	GUIDE	used	746462680	8.98	4960	1.000	0.078	0.034	0.144	0.232	278.660755	-10.782756	-995.31	-591
7	GUIDE	used	746462392	8.49	4964	1.000	0.133	0.004	0.123	0.209	279.038421	-10.890715	-1832.49	-1706

## 2.4 Star Slots

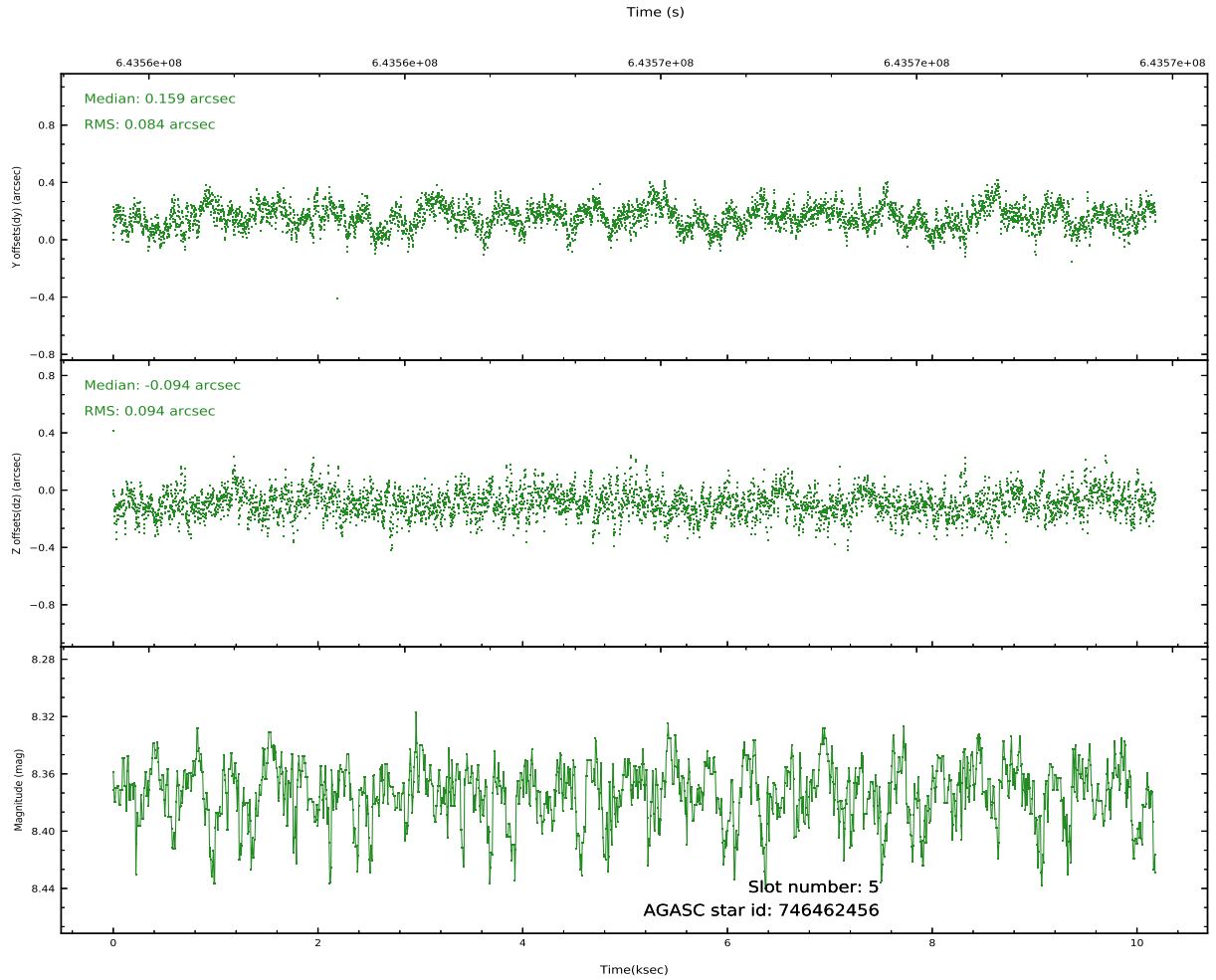
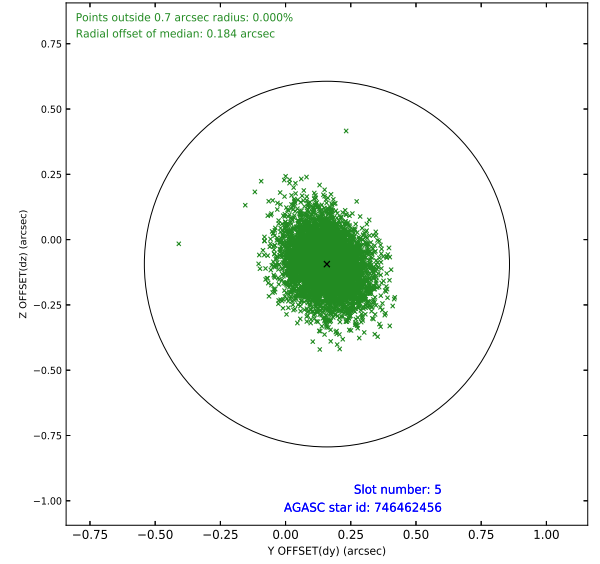
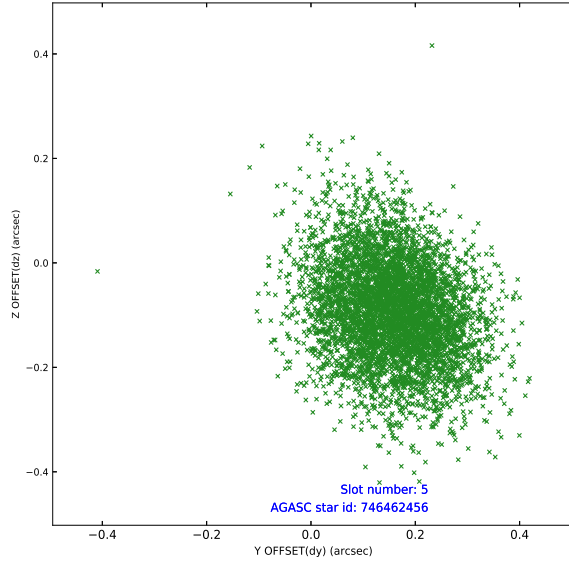
### 2.4.1 Slot 3



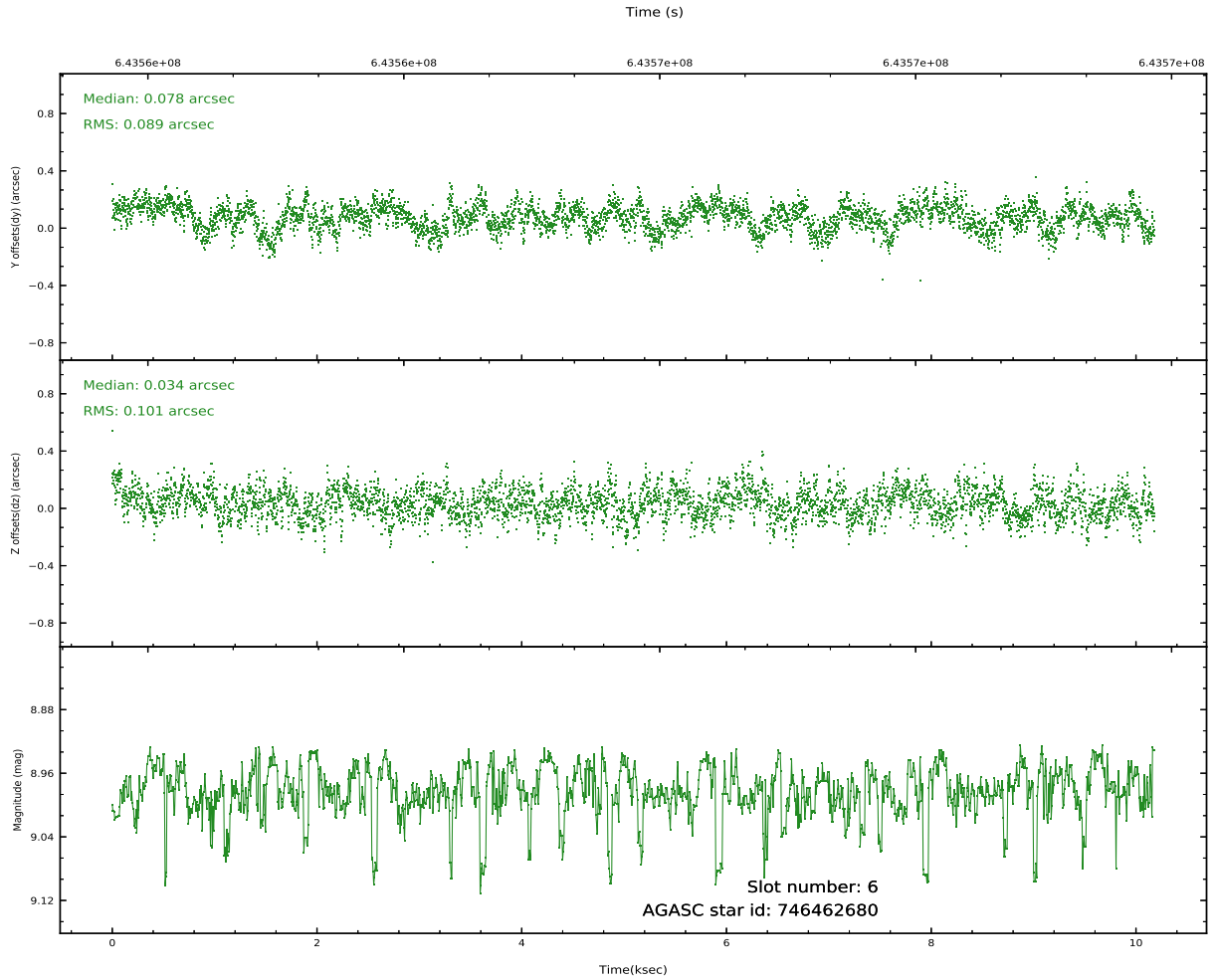
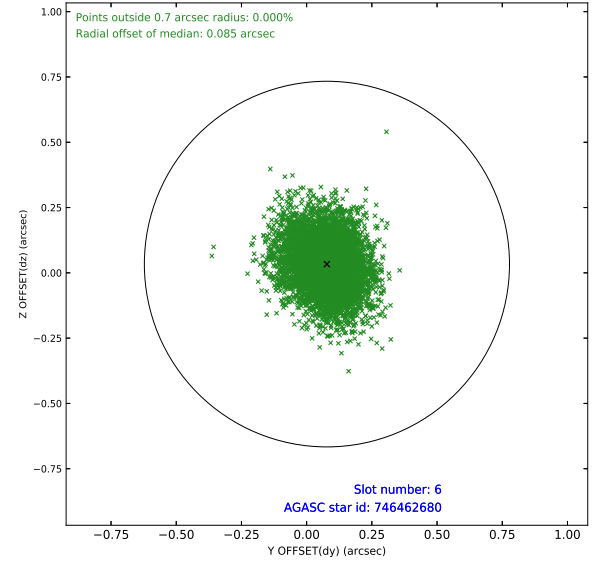
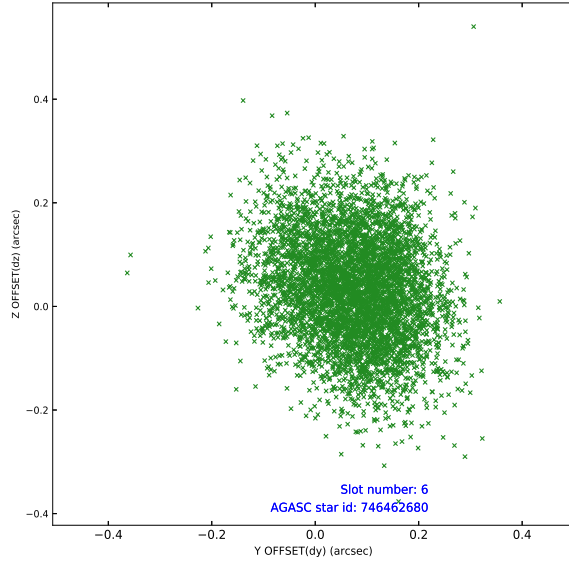
## 2.4.2 Slot 4



### 2.4.3 Slot 5

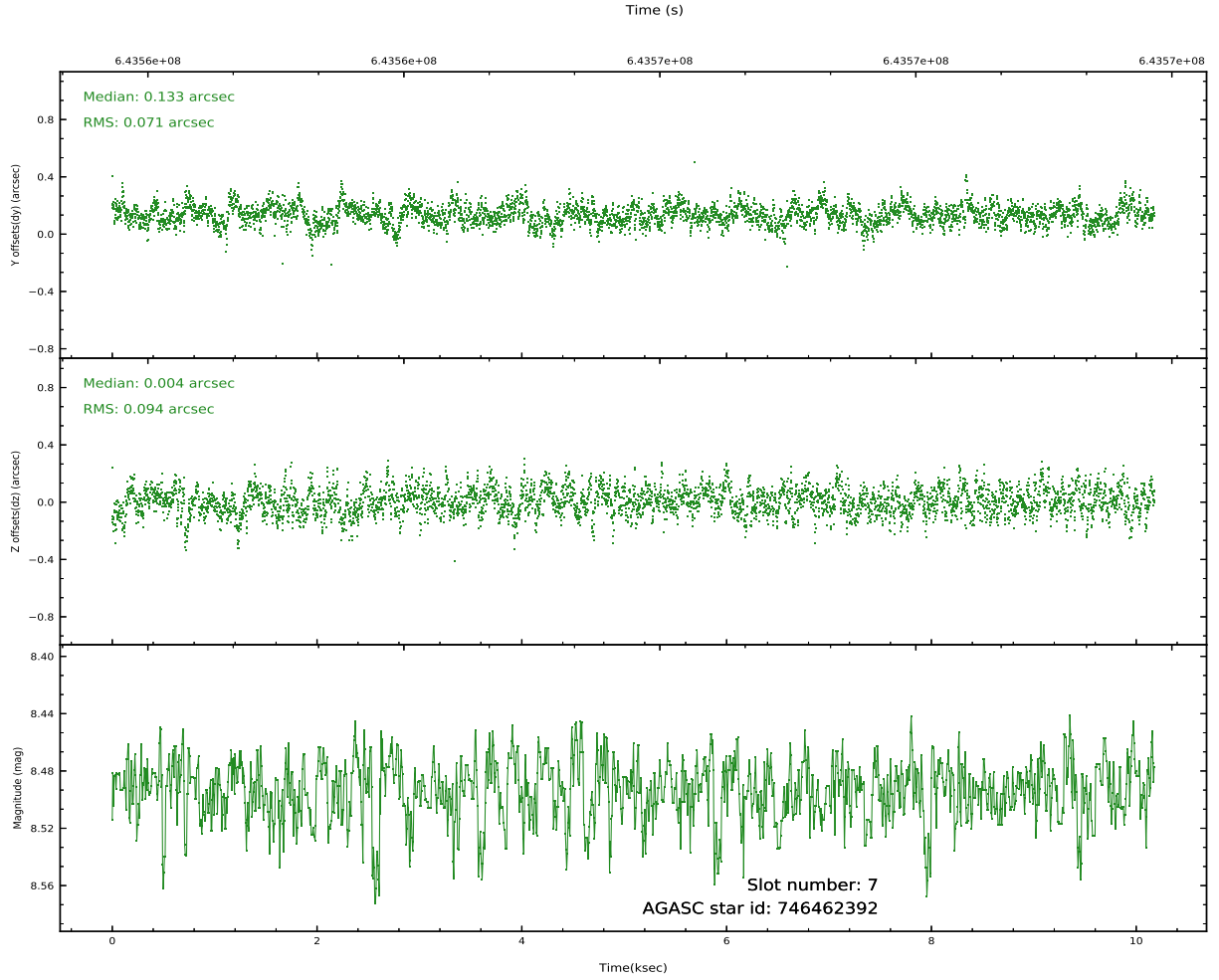
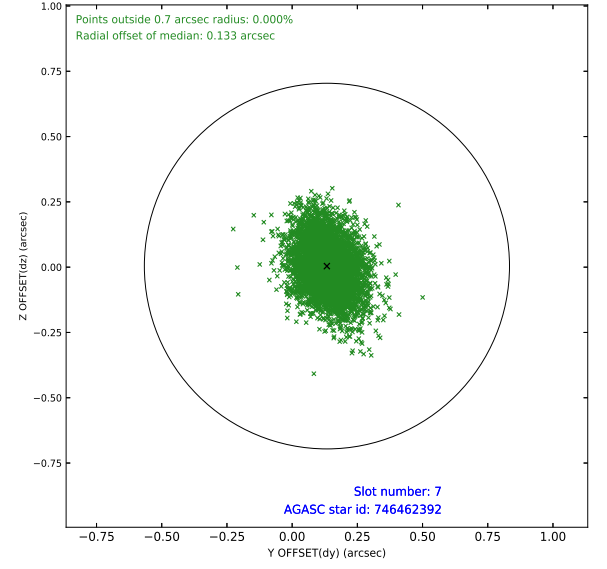
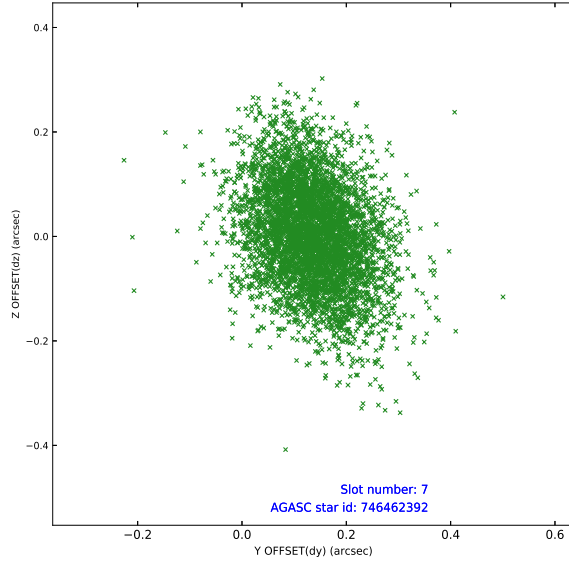


## 2.4.4 Slot 6



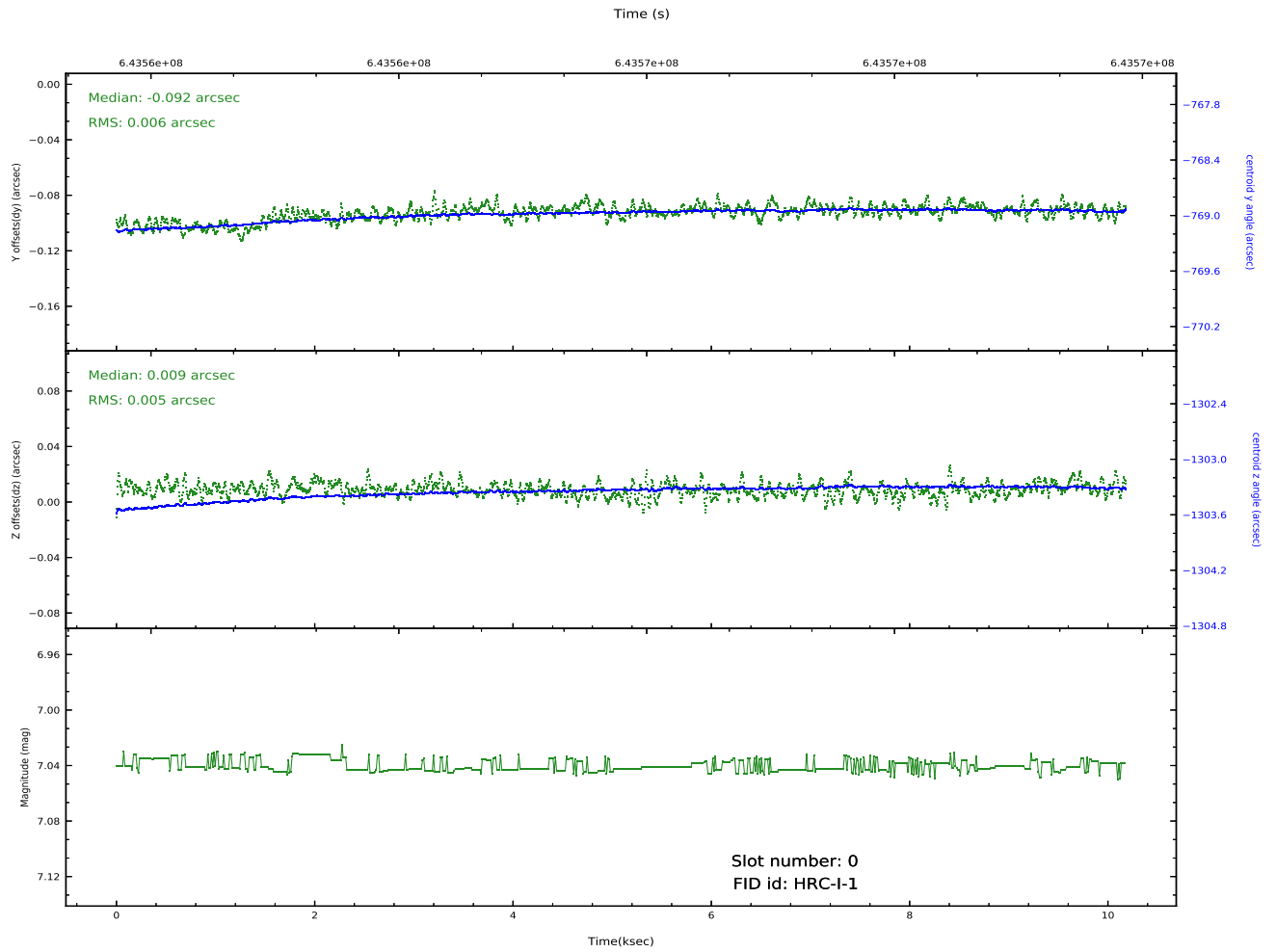
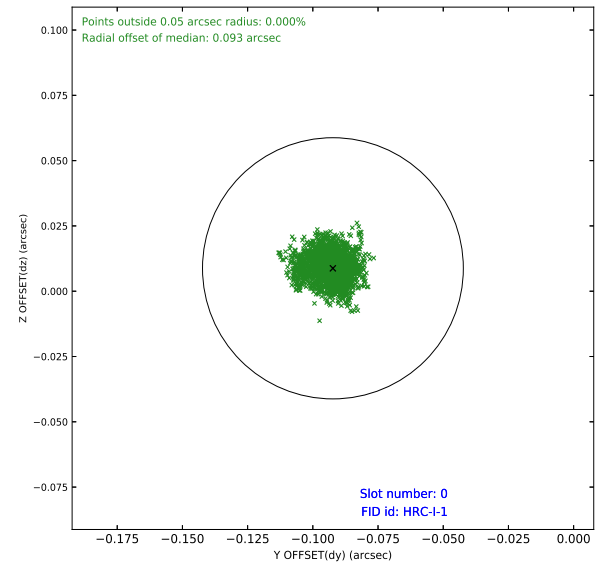
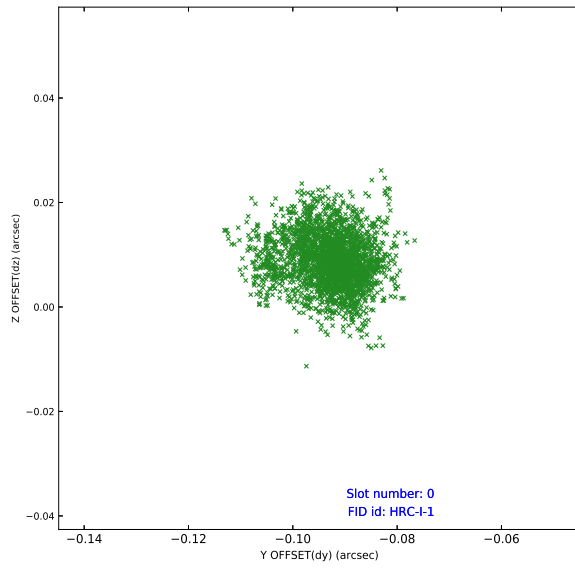


## 2.4.5 Slot 7

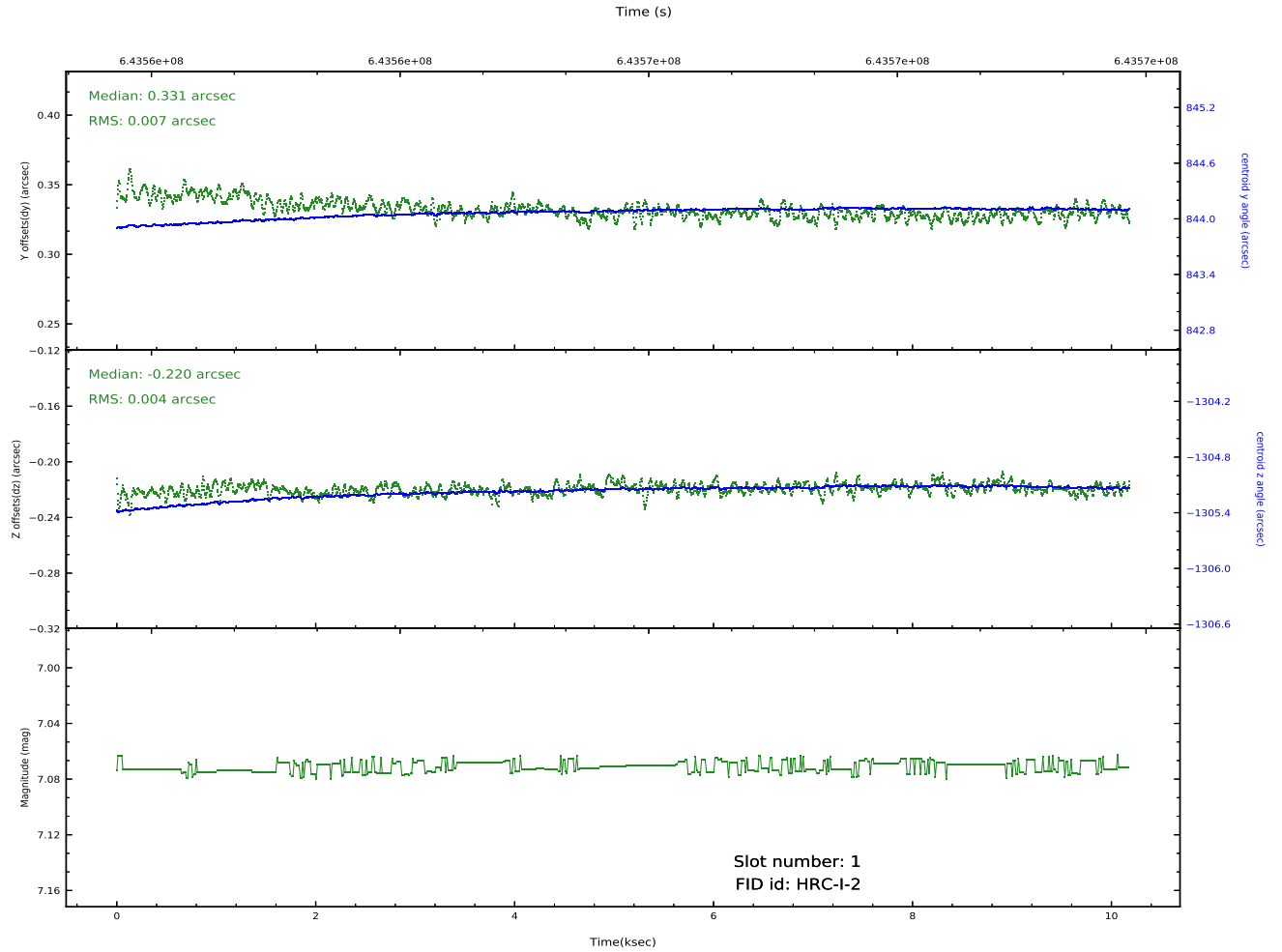
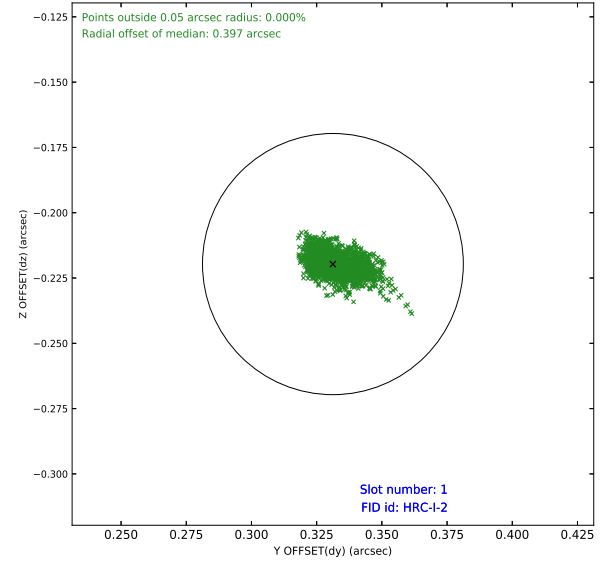
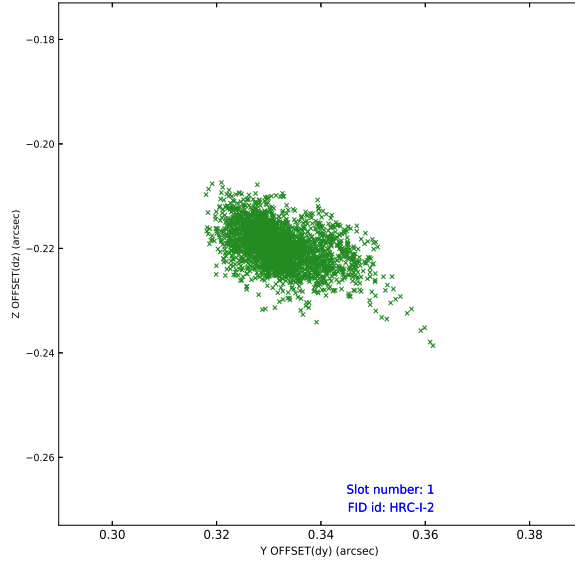


## 2.5 FID Slots

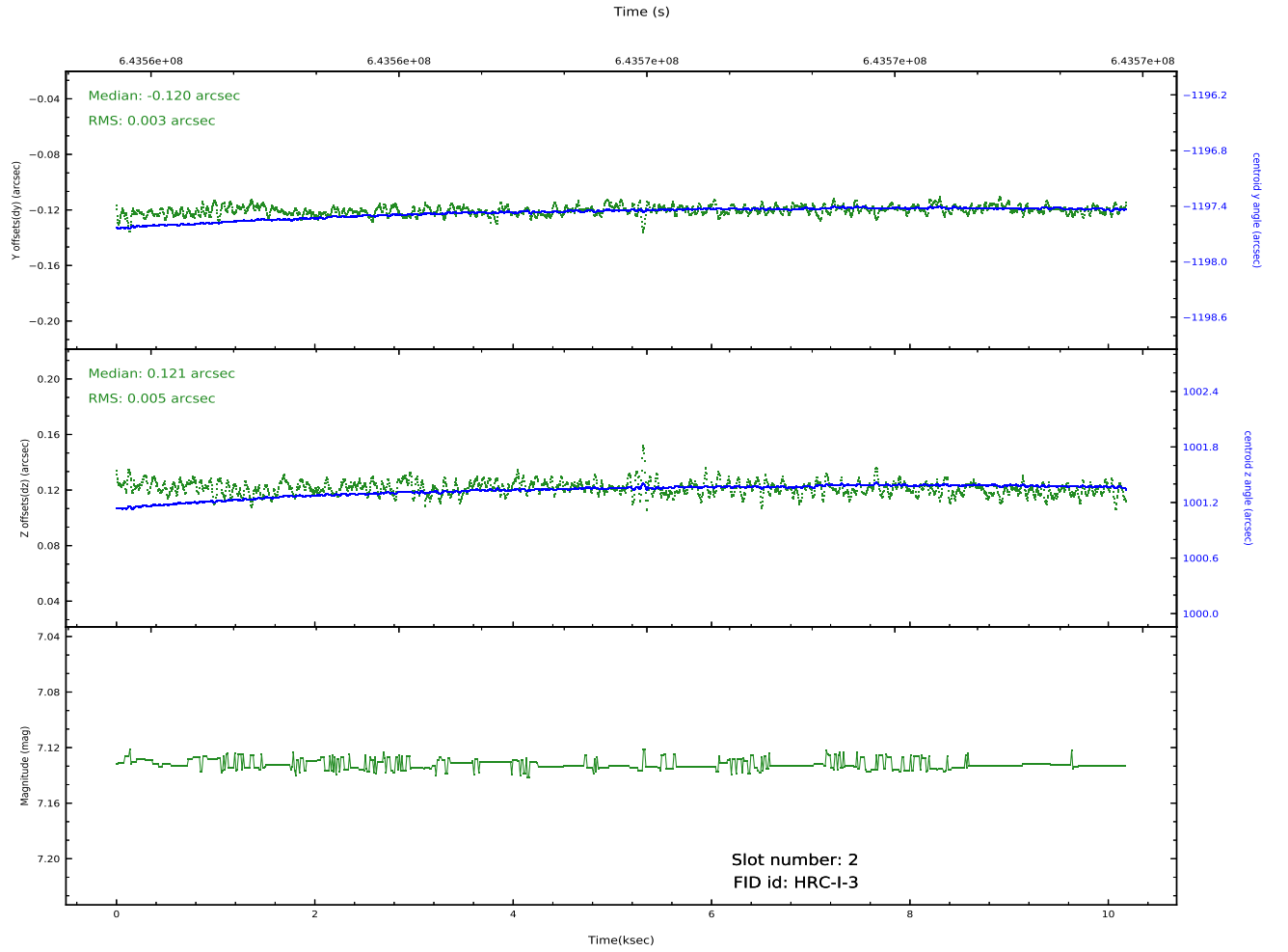
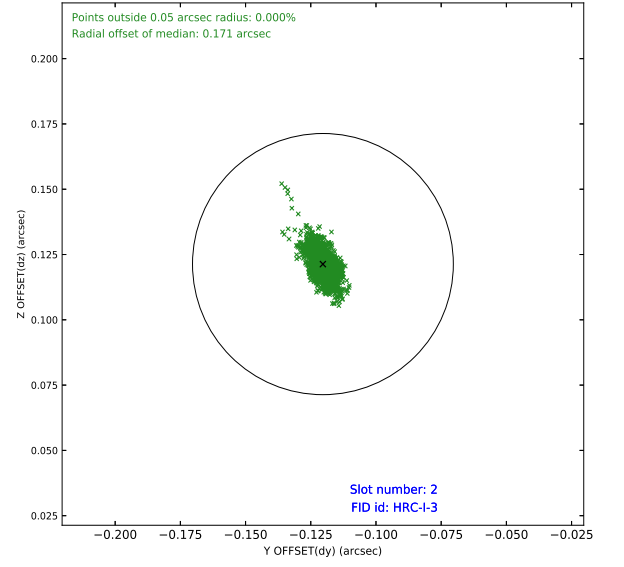
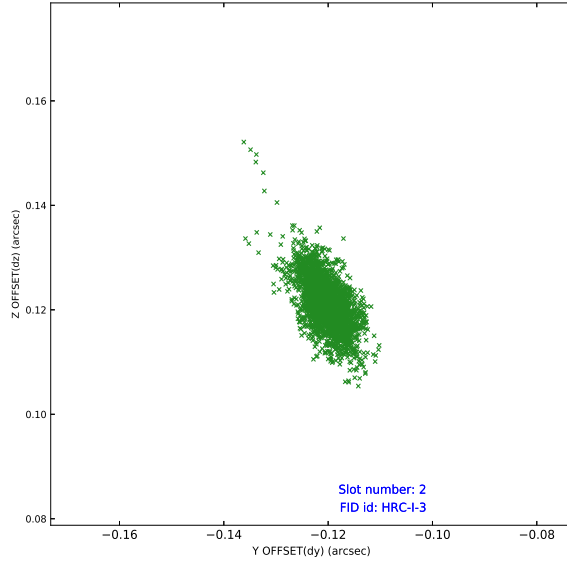
### 2.5.1 Slot 0



## 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)	2020.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.153650600433

### A.2 Comments

Window constraint met.