

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20667 - L2 Version 2  
Chandra X-Ray Center

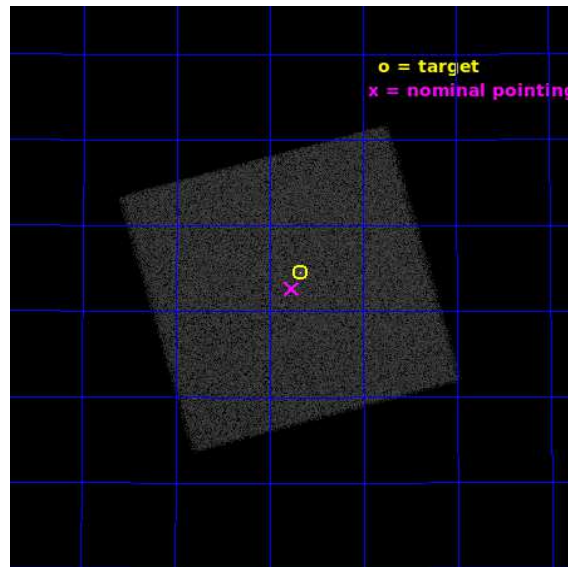
L2 Processing Date : Oct 27 2020

## 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

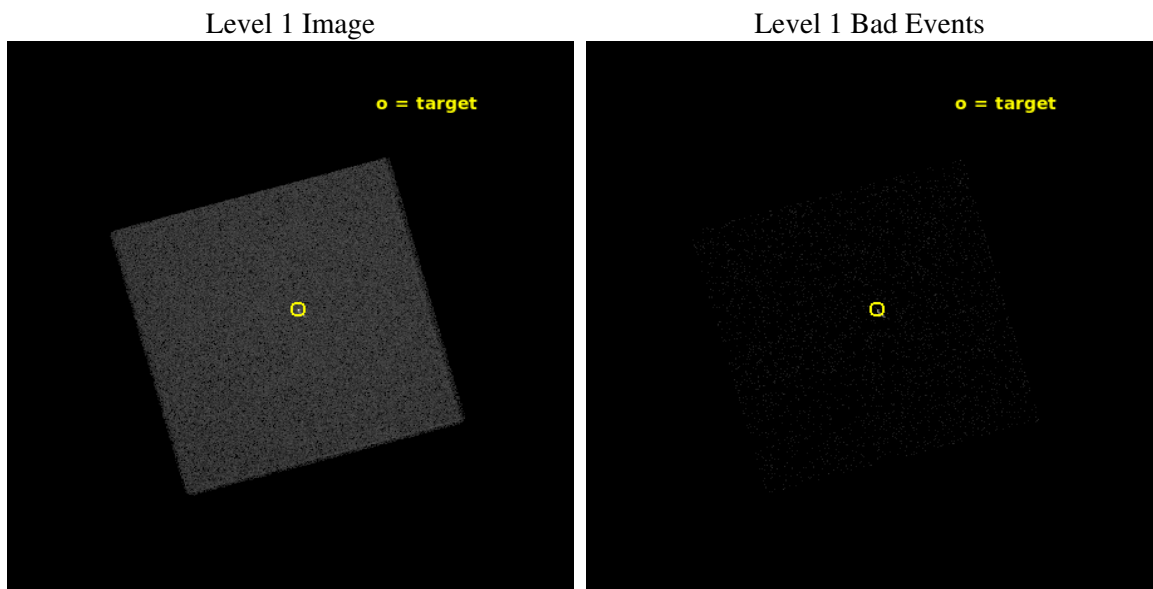
seq_num	291378	Sequence number
obs_id	20667	Observation id
title	AO-19 Calibration Observations to Monitor the Spatial Variations in the HRC-I Gain	Proposal title
observer	CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.19055933626	Nominal RA [deg]
dec_nom	45.711036474444	Nominal Dec [deg]
roll_nom	209.37093490514	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1171.831319809	[s]
livetime	1155.1717914673	Ontime multiplied by DTCOR
l2events	145682	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	10.9.2	Processing system revision	ontime	1171.831319809	[s]
caldsver	4.9.3	&#160	l1events	244992	Number of level 1 events
date	2020-10-27T19:10:43	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

#### Level 1 Events

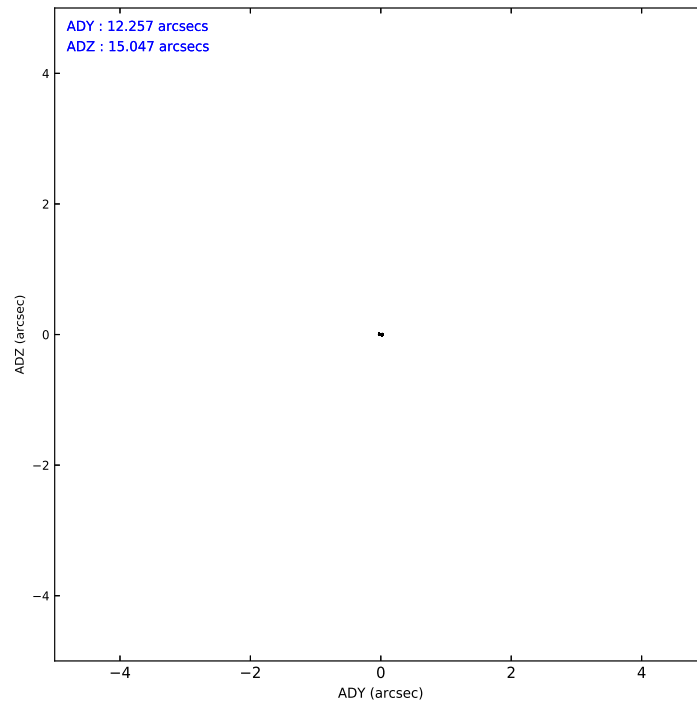
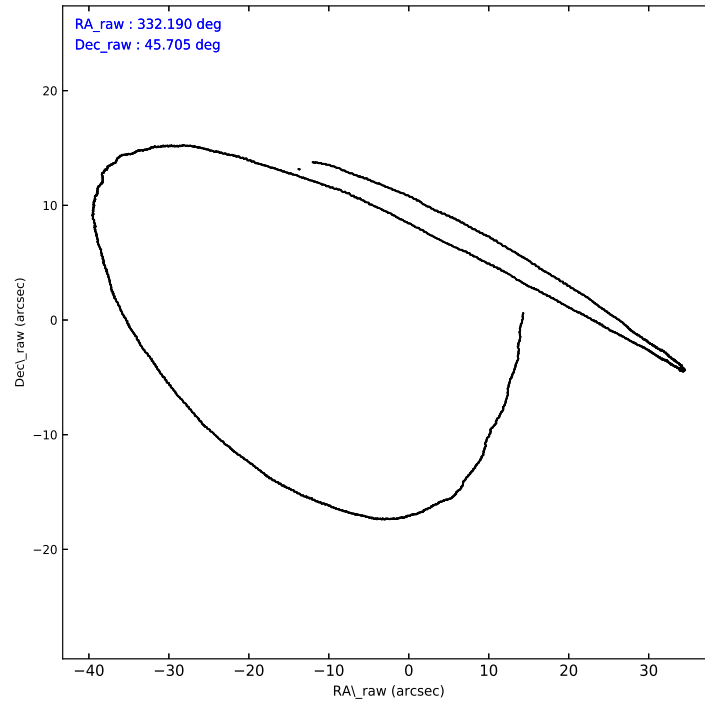
	<b>segment 0</b>
level 1 events	244992
rejected events	54371
rejected %	22%

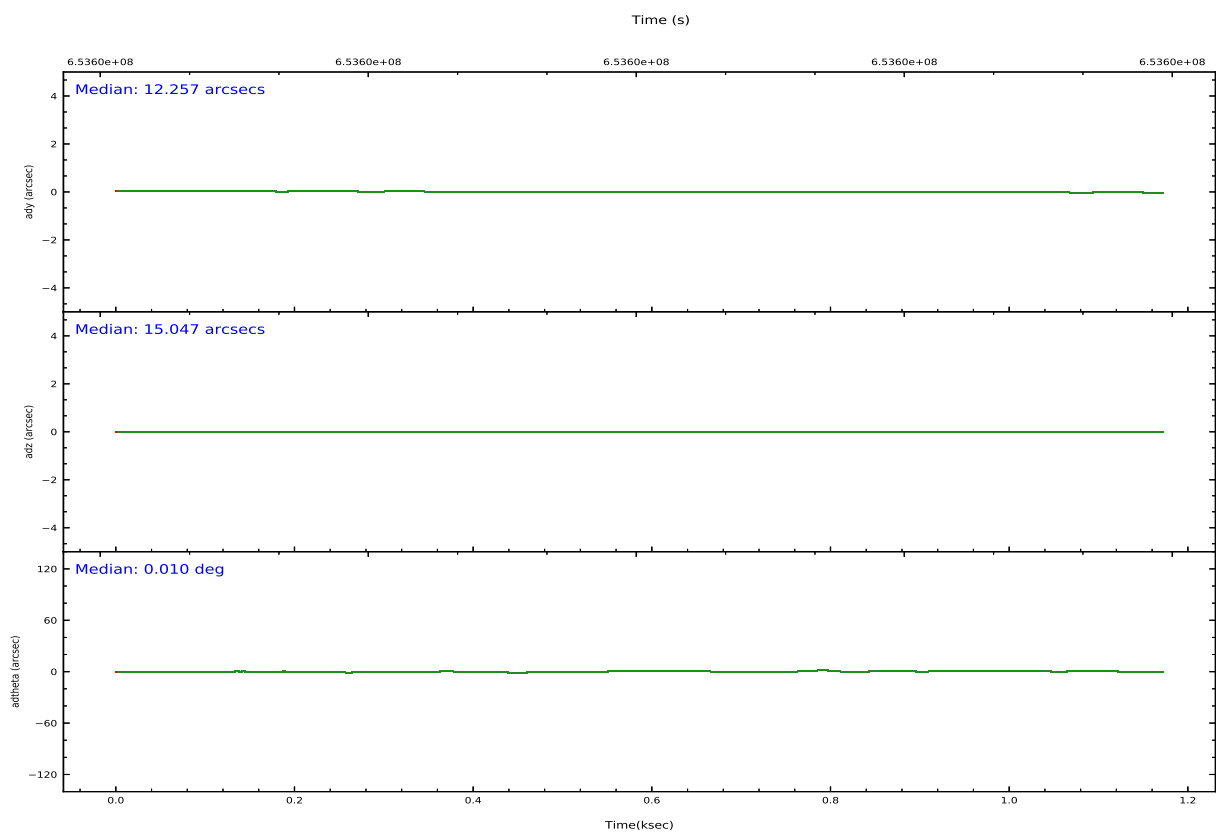
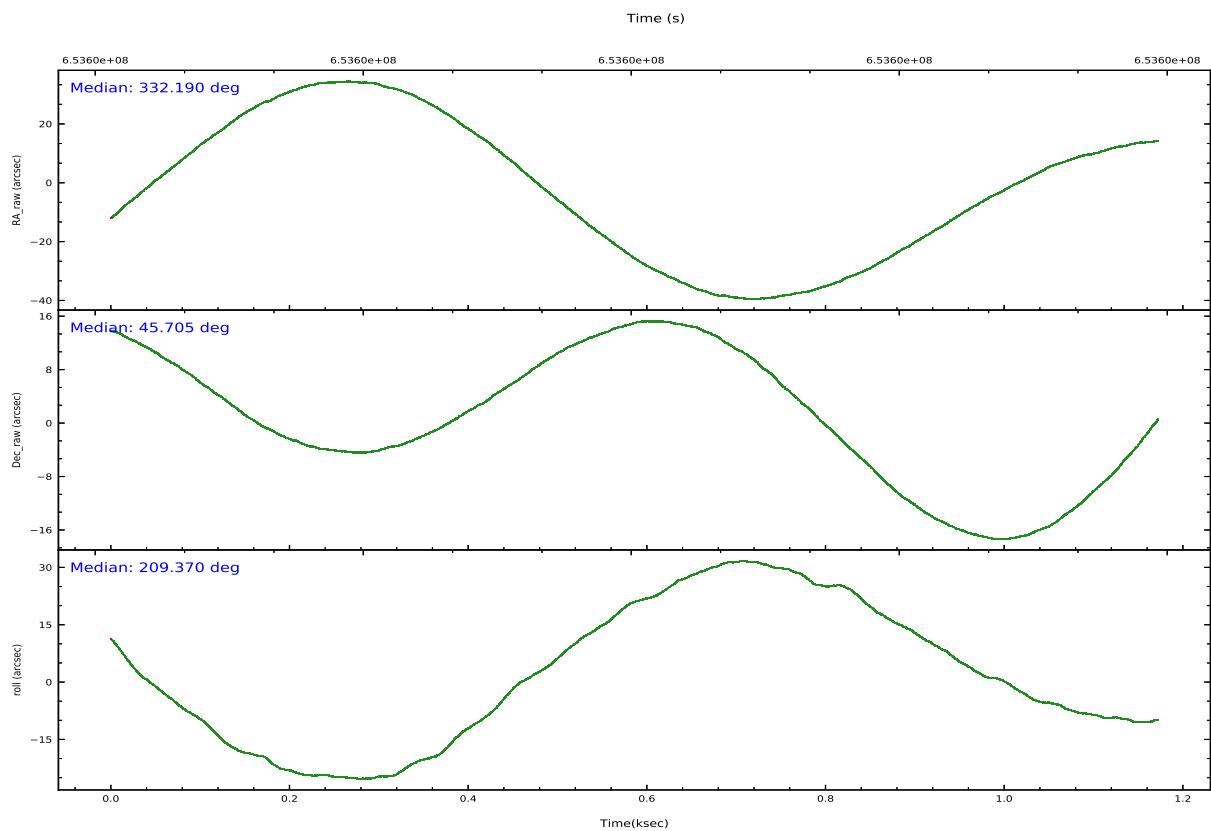
## 2.2 Compared Parameters

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	332.207413	332.19055933626
[deg] Pointing Dec	45.730142	45.711036474444
[deg] Pointing Roll	209.465694	209.37093490514
[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)	653597690.184000	653597313.80357
Observation start date	2018-09-17T18:53:41	2018-09-17T18:48:33
[s] Observation end time (MET)	653598690.184000	653598823.62866
Observation end date	2018-09-17T19:10:21	2018-09-17T19:13:43

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

## 2.3 Aspect





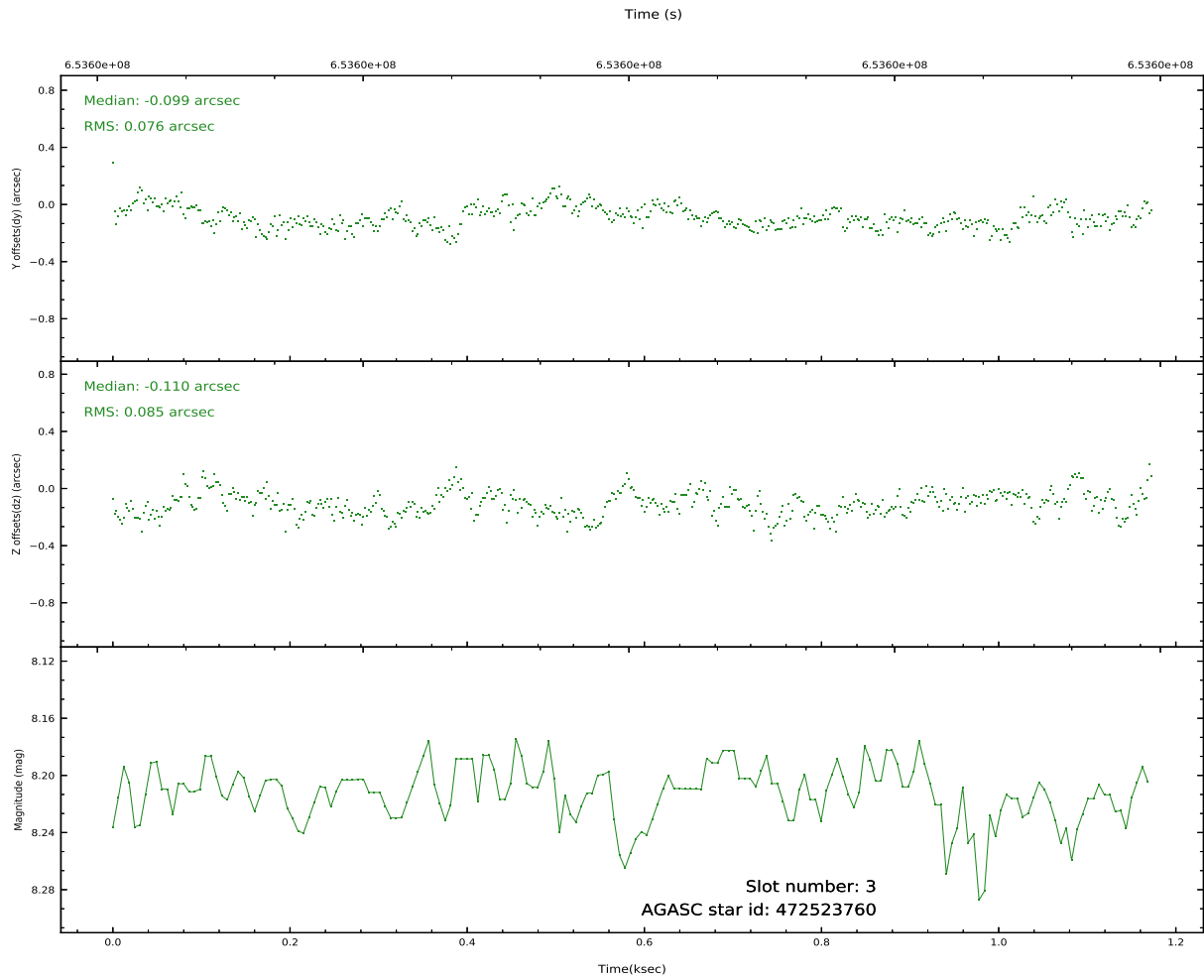
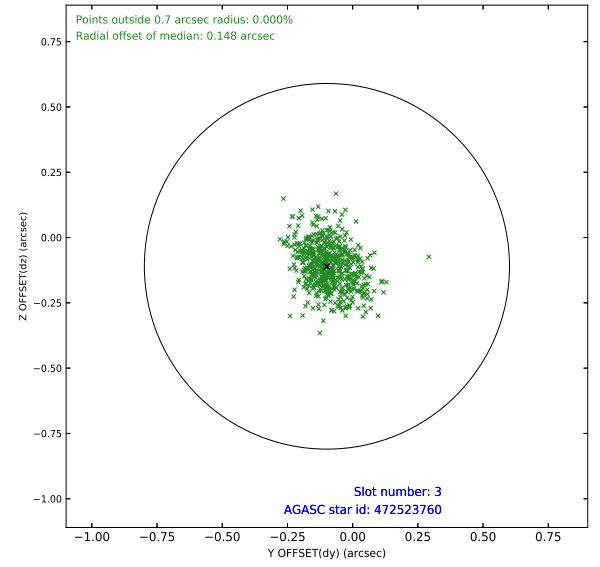
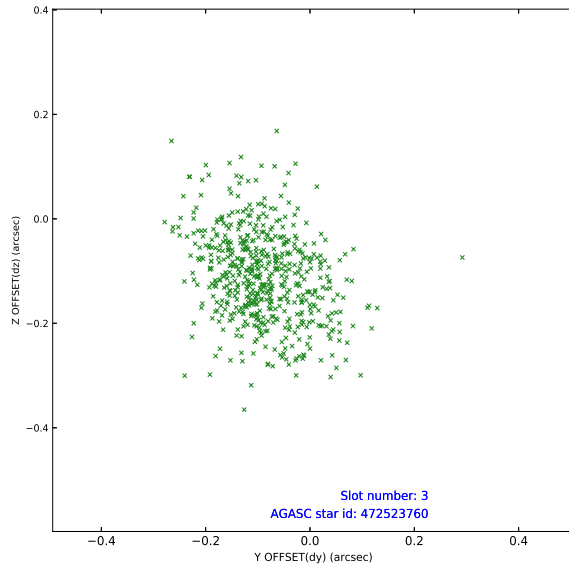
Slot Statistics

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	7.00	287	1.000	-0.083	0.024	0.006	0.011	0.000000	0.000000	-768.10	-1303
1	FID		HRC-I-2	7.03	287	1.000	0.290	-0.186	0.006	0.008	0.000000	0.000000	842.23	-1309
2	FID		HRC-I-3	7.08	287	1.000	-0.087	0.072	0.006	0.010	0.000000	0.000000	-1193.60	996
3	GUIDE	used	472523760	8.21	573	1.000	-0.099	-0.110	0.119	0.207	331.645363	45.403260	1814.21	317
4	GUIDE	used	472655152	9.39	570	1.000	-0.024	0.072	0.179	0.309	332.504239	45.862991	-879.75	-54
5	GUIDE	used	472665256	8.95	573	1.000	0.184	0.071	0.118	0.201	332.808125	46.195041	-2129.87	-729
6	GUIDE	used	472525528	6.64	573	1.000	-0.265	-0.077	0.117	0.195	331.551102	45.248694	2293.92	680
7	GUIDE	used	472663080	9.34	572	1.000	0.194	0.044	0.193	0.286	332.652741	46.473840	-2274.78	-1793

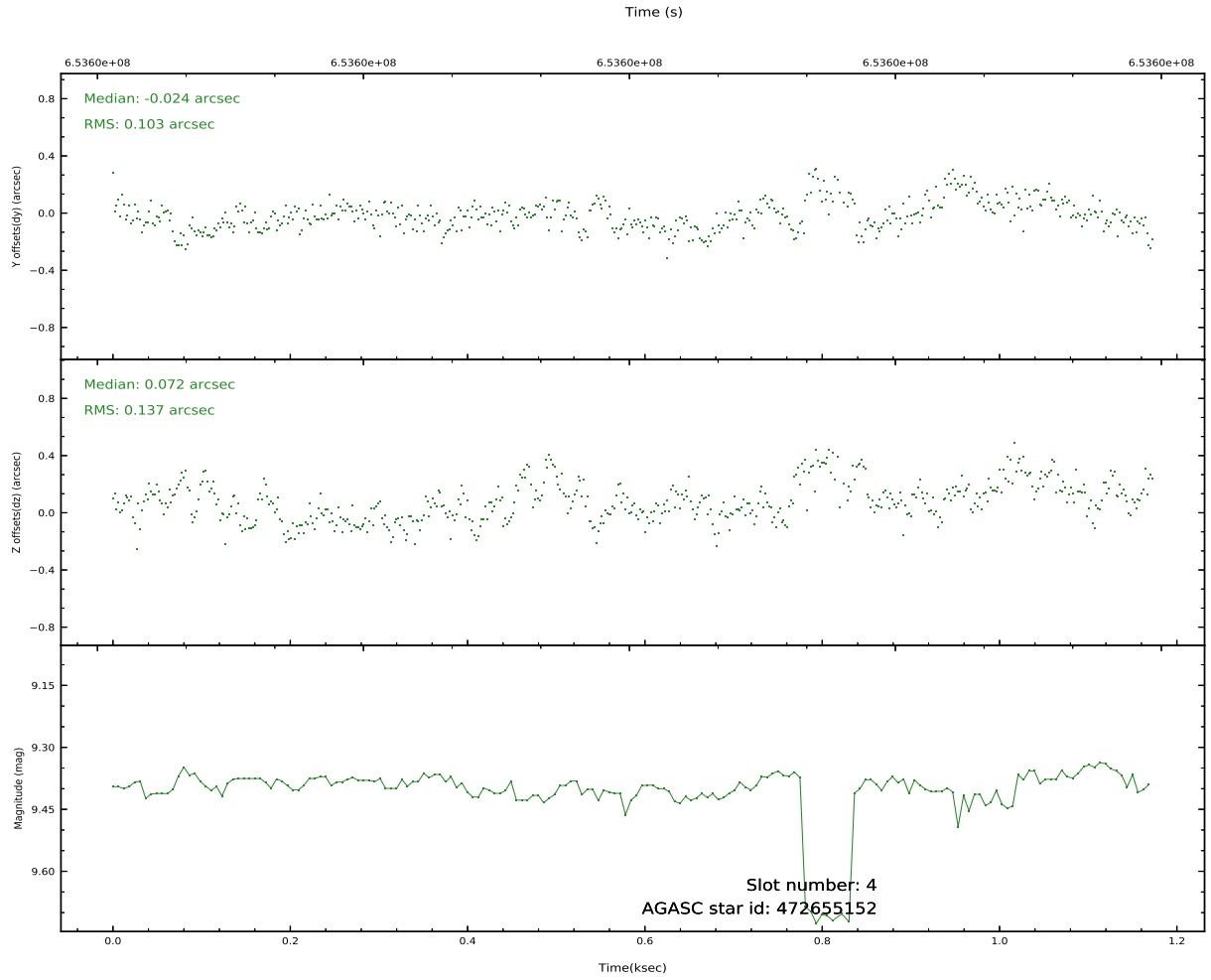
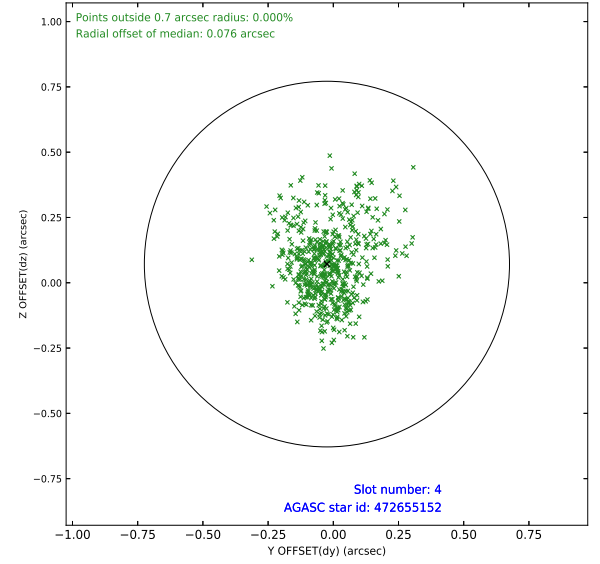
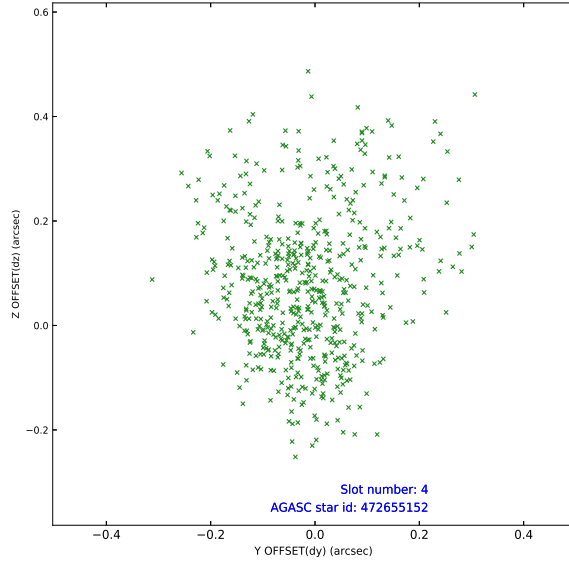


## 2.4 Star Slots

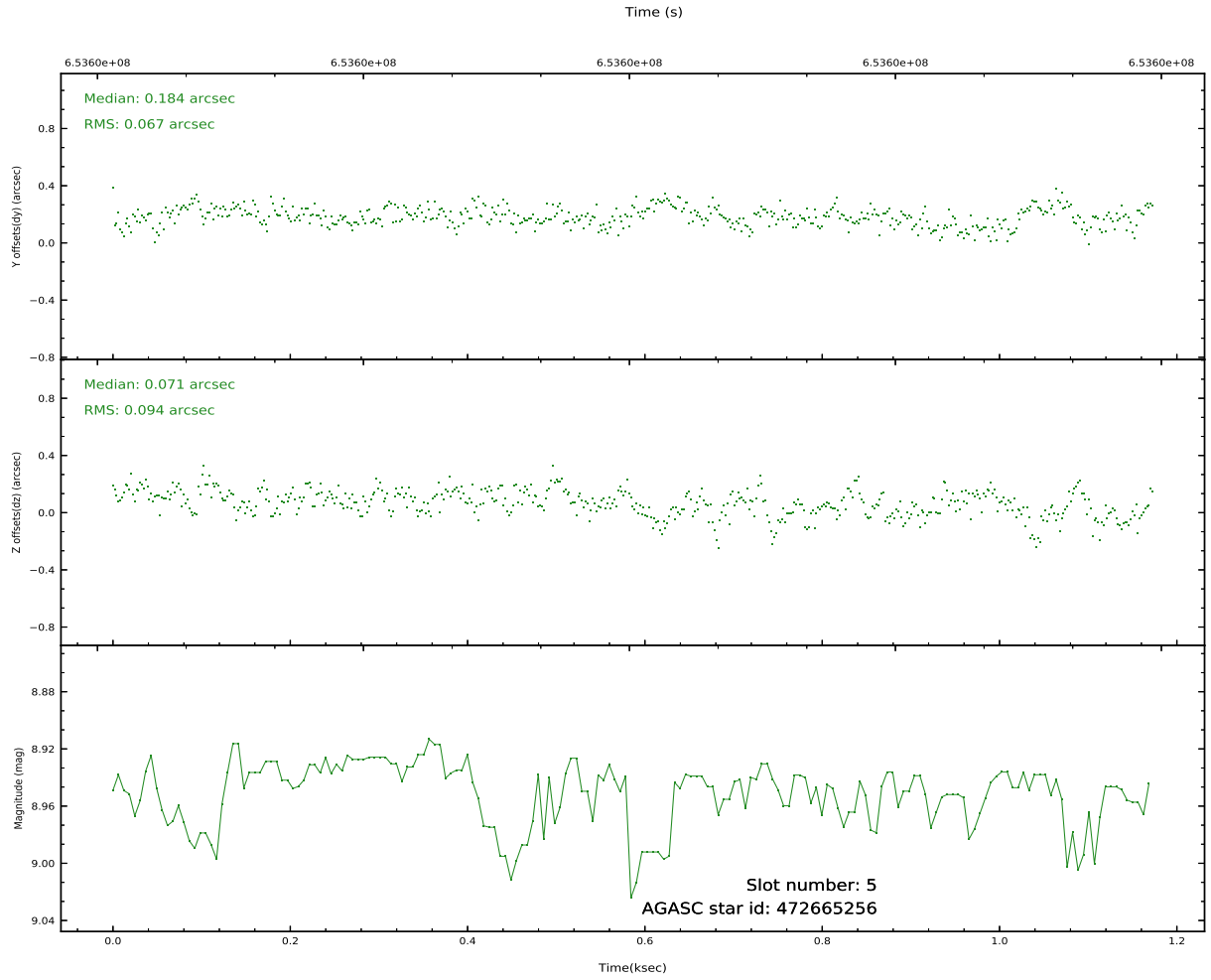
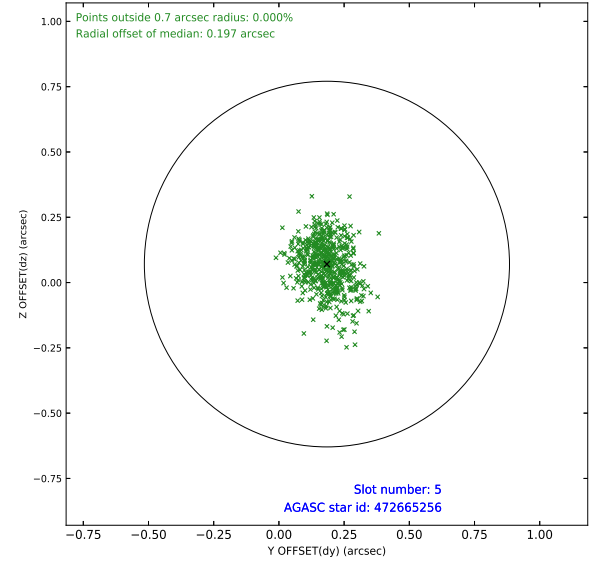
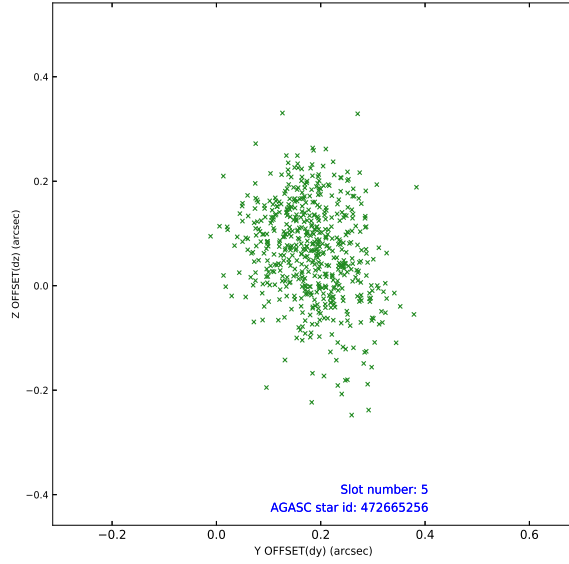
### 2.4.1 Slot 3



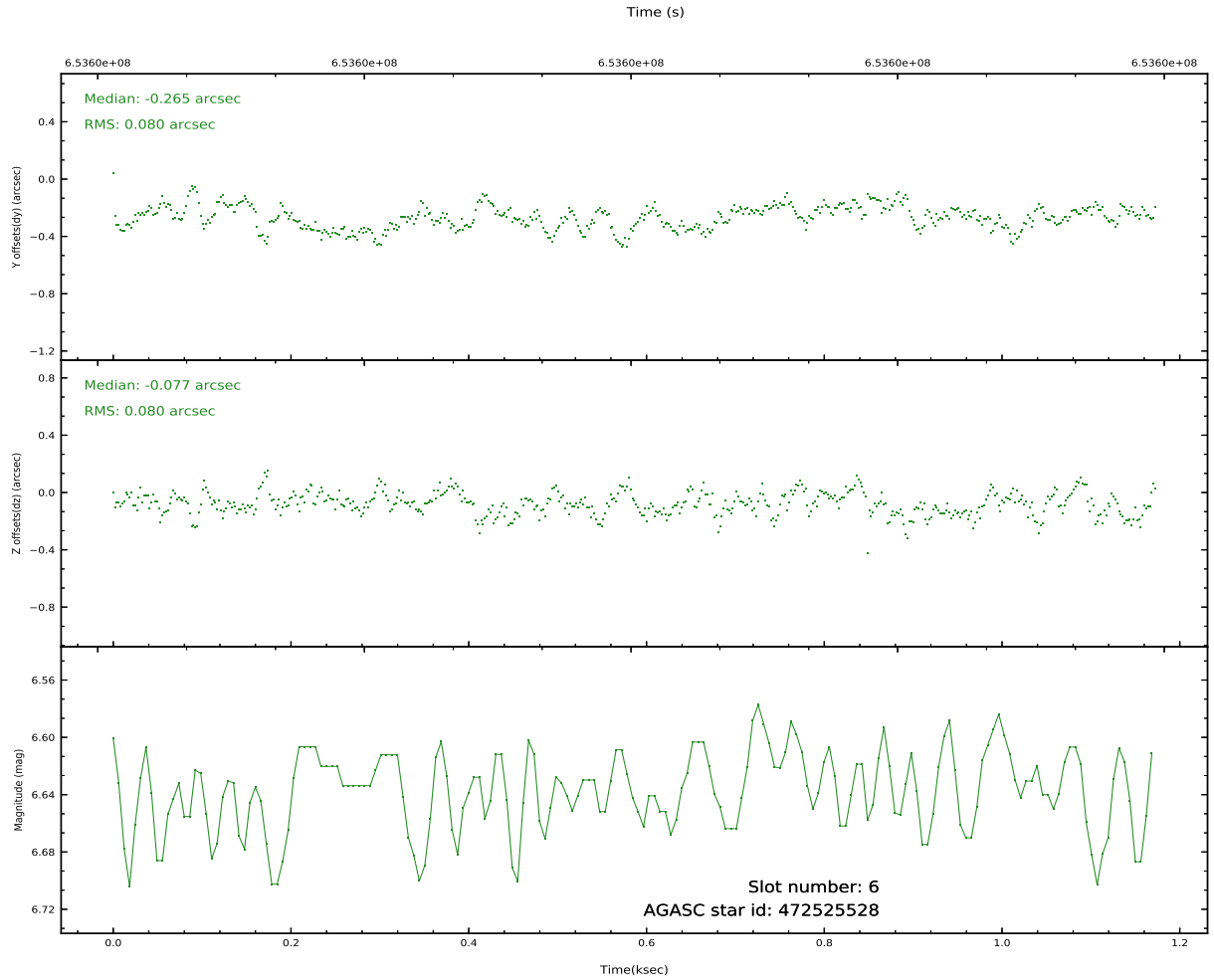
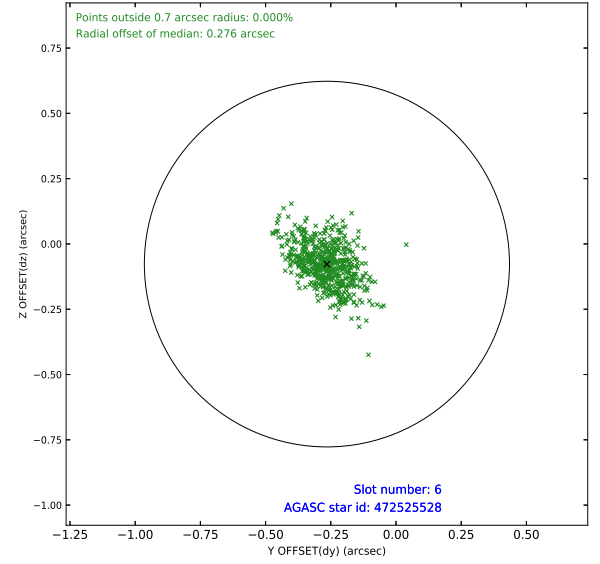
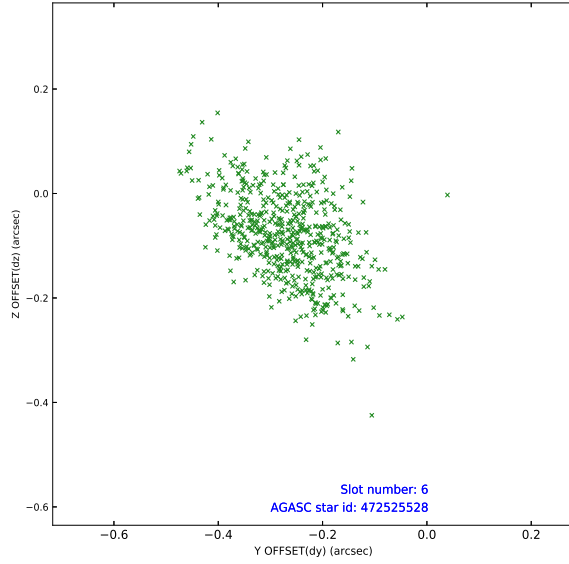
## 2.4.2 Slot 4



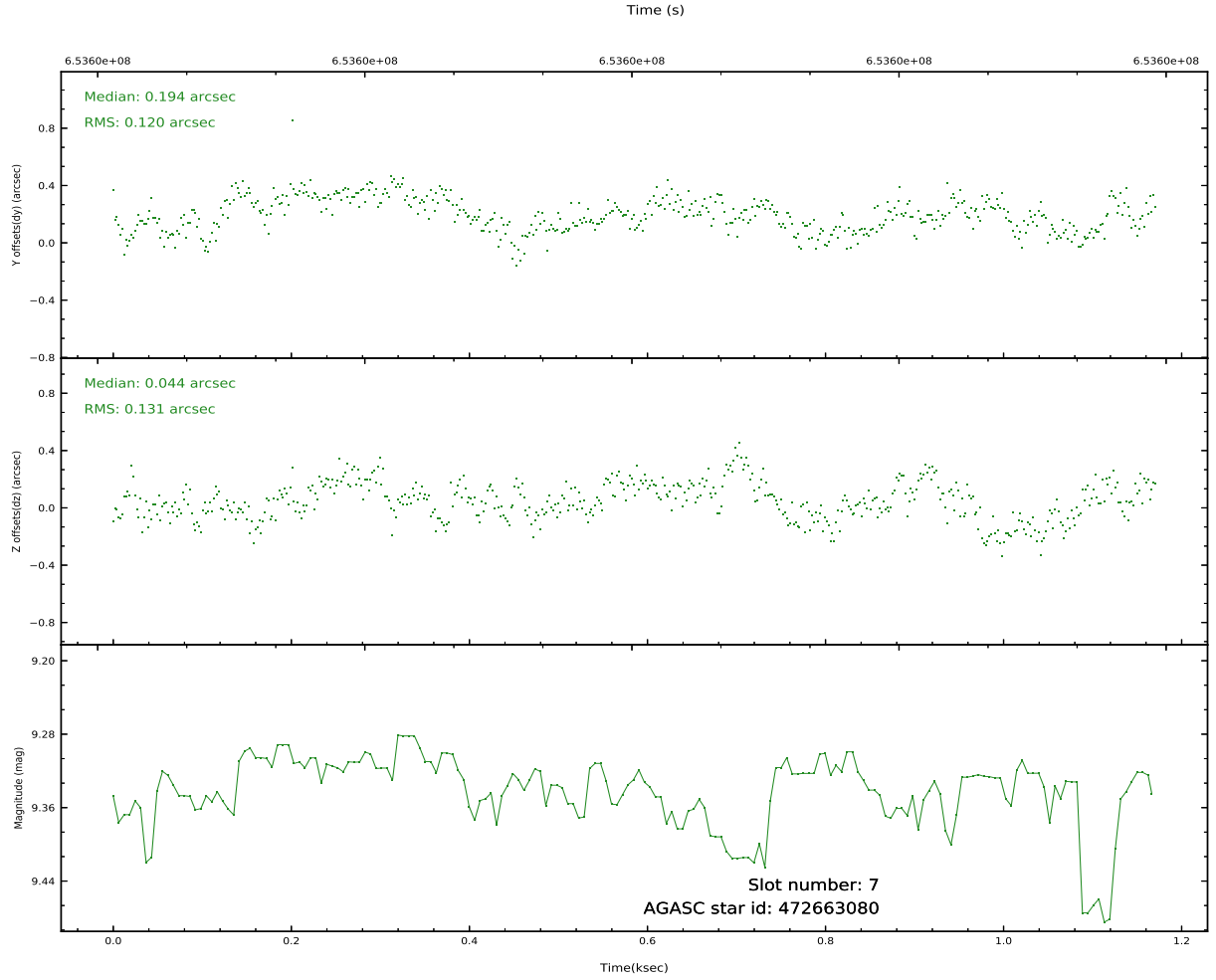
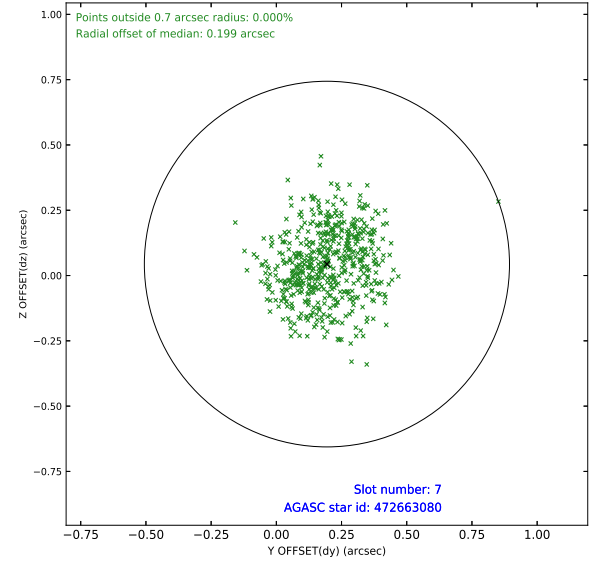
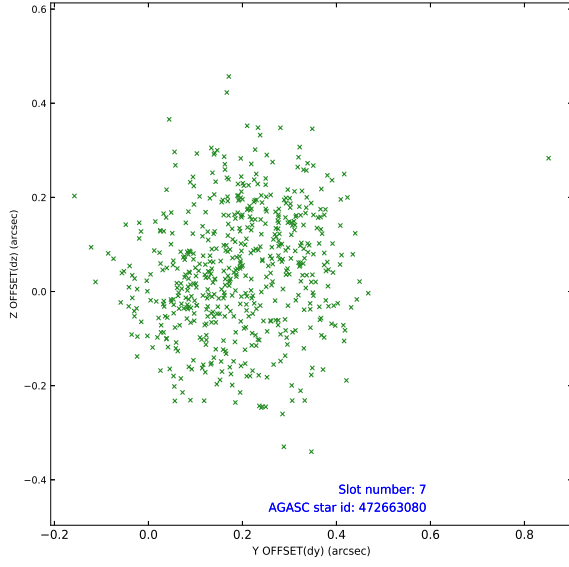
### 2.4.3 Slot 5



## 2.4.4 Slot 6

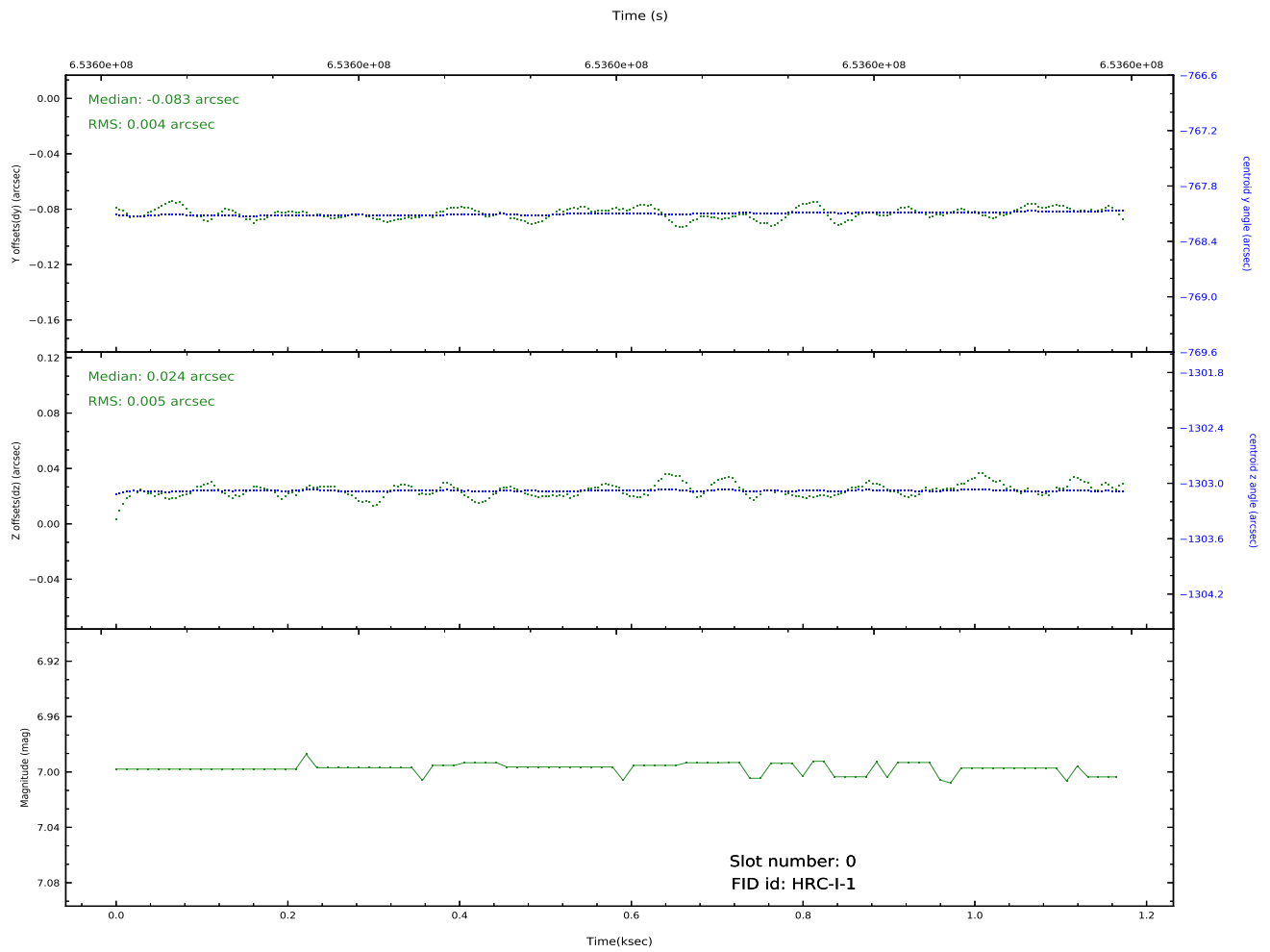
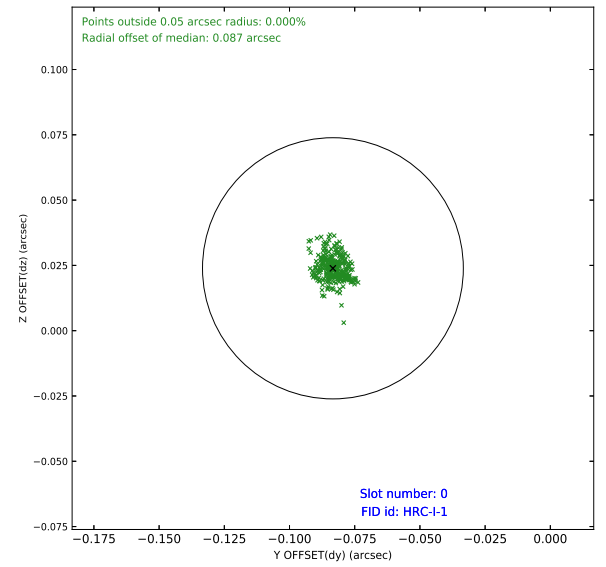
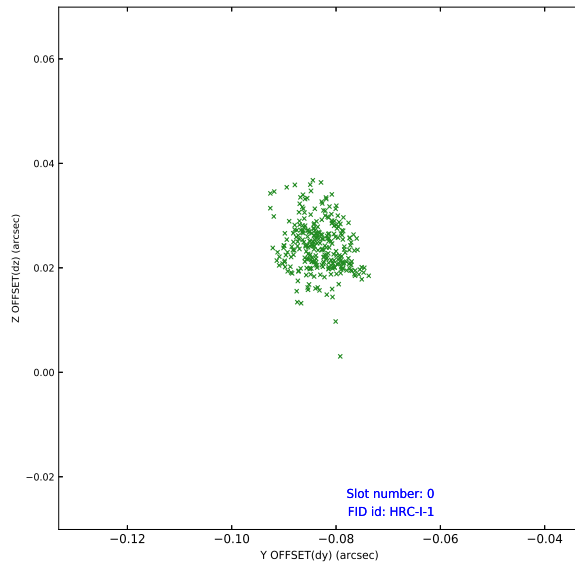


## 2.4.5 Slot 7

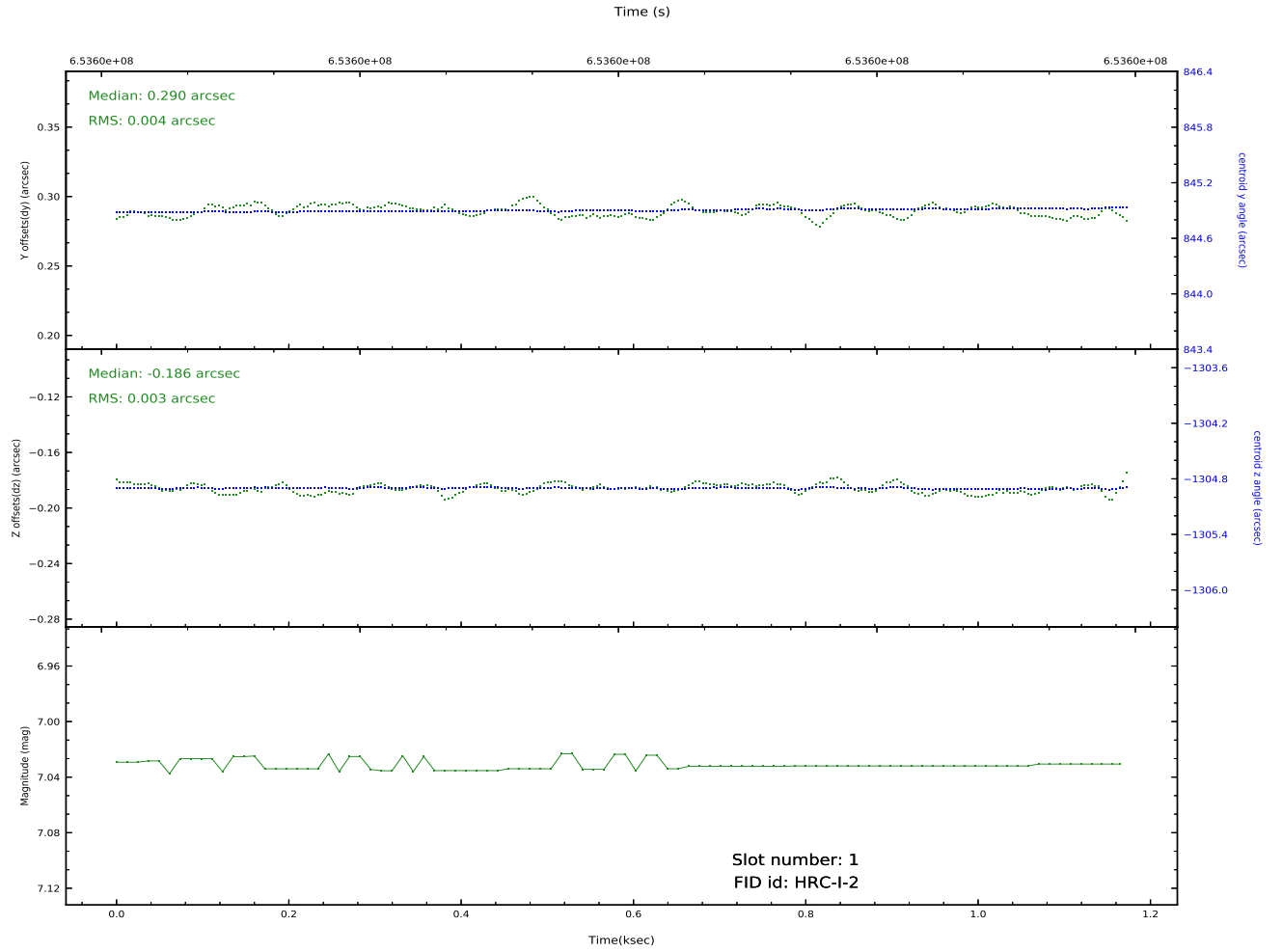
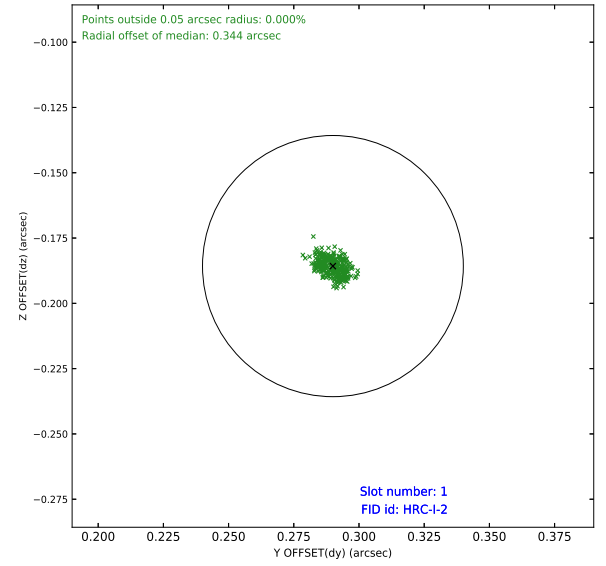
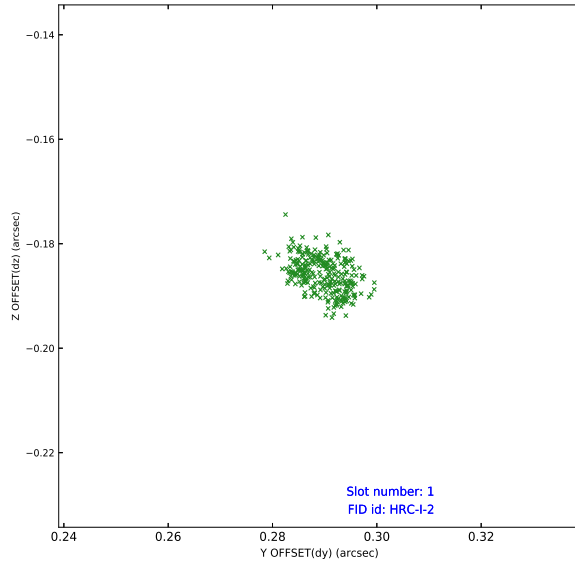


## 2.5 FID Slots

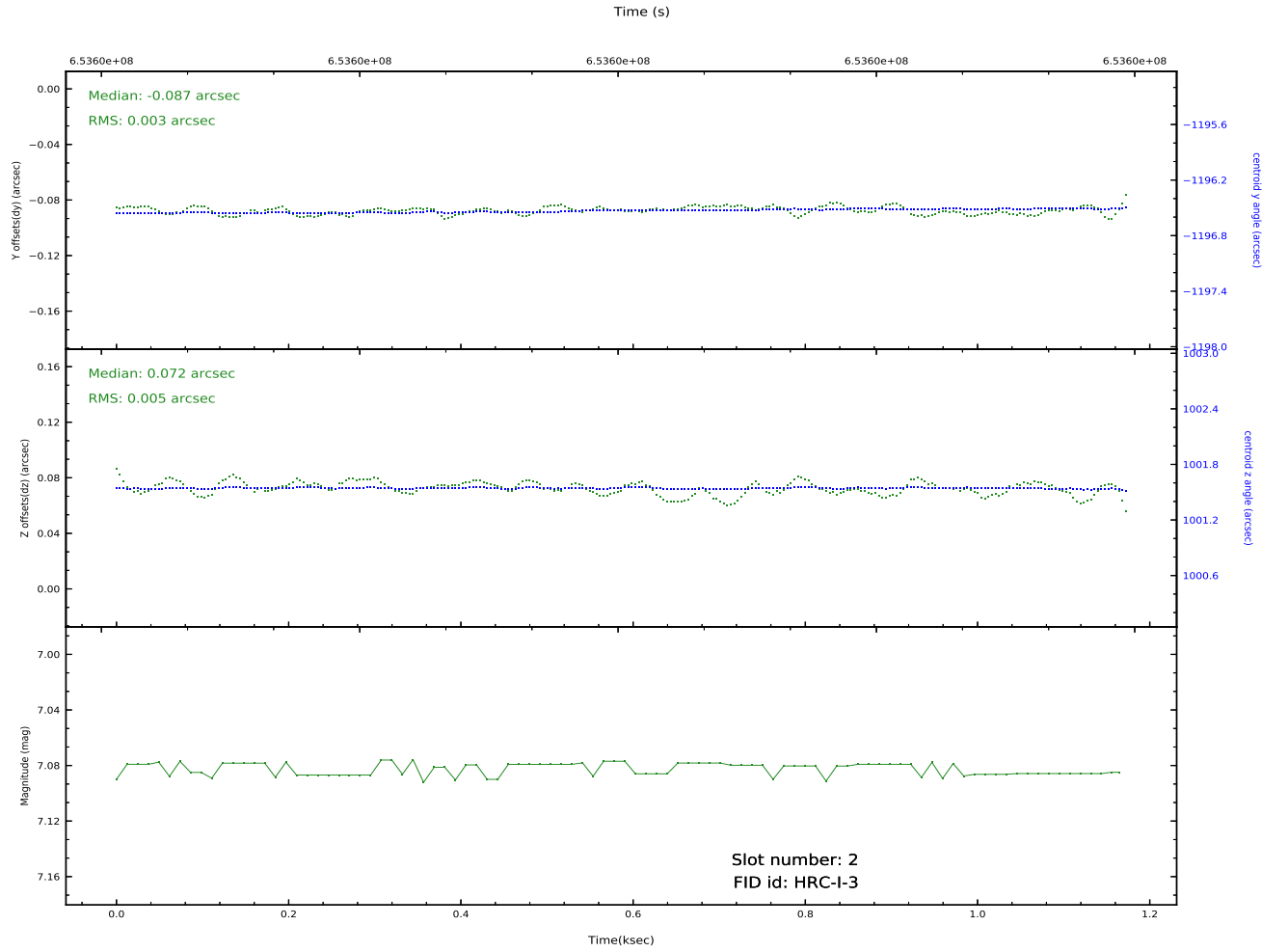
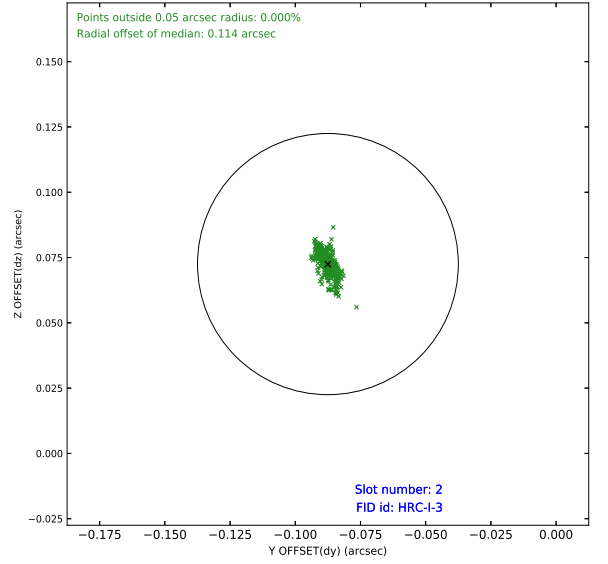
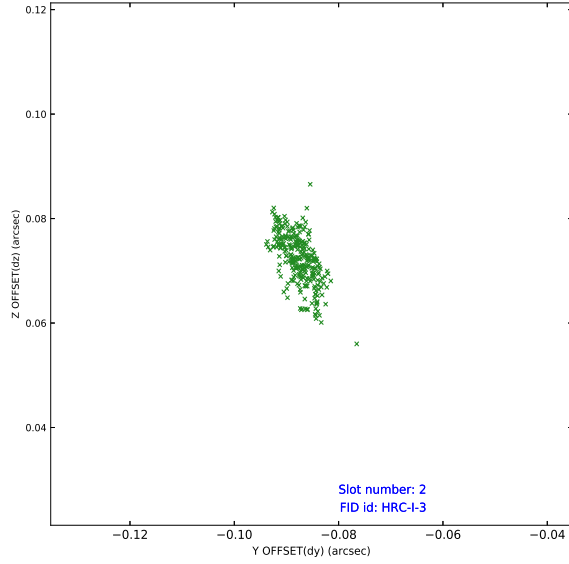
### 2.5.1 Slot 0



## 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	1.1718313196898

### A.2 Comments