

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5983 - L2 Version 5  
Chandra X-Ray Center

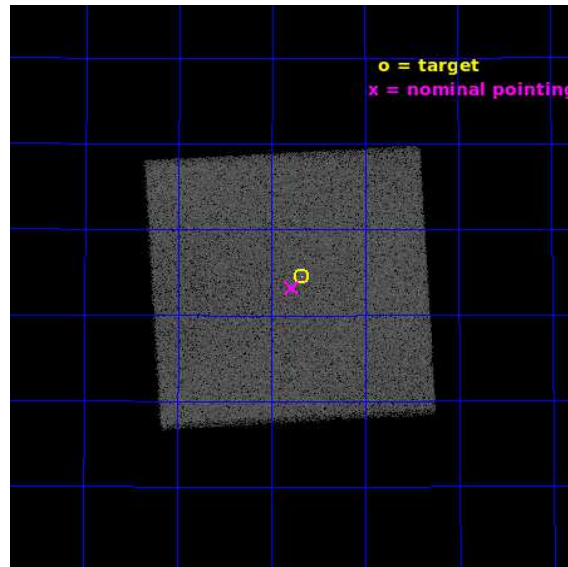
L2 Processing Date : Oct 10 2020

## 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

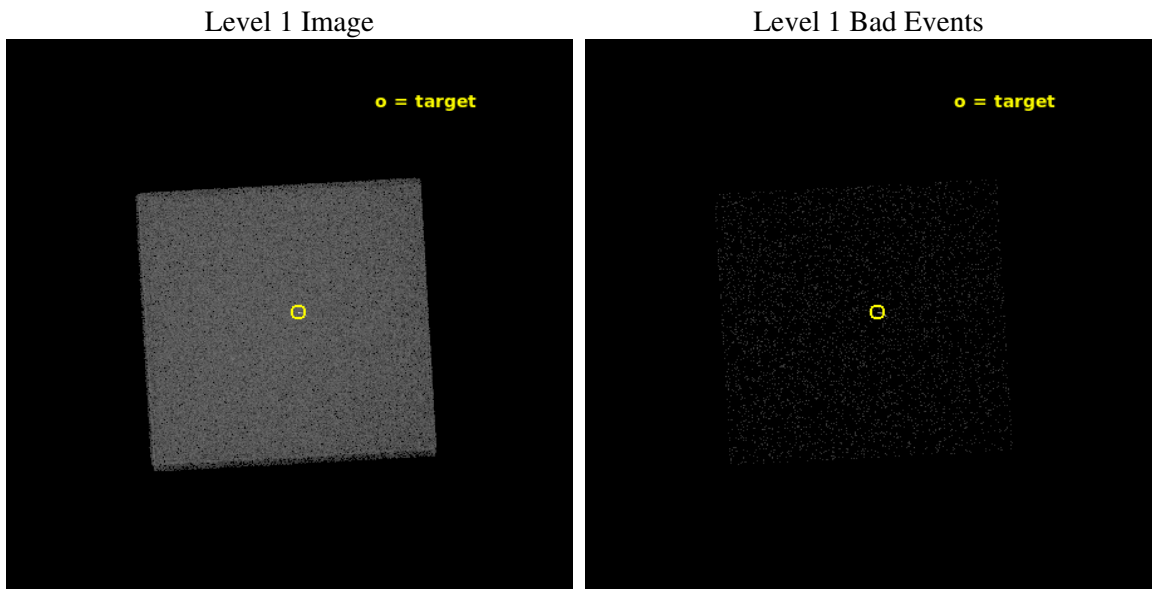
seq_num	290475	Sequence number
obs_id	5983	Observation id
title	AO6 Calibration Observations to Monitor the Spatial Variations in the HRC-I Gain	Proposal title
observer	CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.19601852918	Nominal RA [deg]
dec_nom	45.720733590034	Nominal Dec [deg]
roll_nom	221.73208226862	Nominal Roll [deg]
revision	5	Processing version of data
ontime	1177.9813041985	[s]
livetime	351.07757064102	Ontime multiplied by DTCOR
l2events	168399	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	10.9.1	Processing system revision	ontime	1177.9813041985	[s]
caldbver	4.9.2	&#160	l1events	278208	Number of level 1 events
date	2020-10-10T13:58:11	Date and time of file creation			
revision	5	Processing version of data			

### 2.1.3 Events

#### Level 1 Events

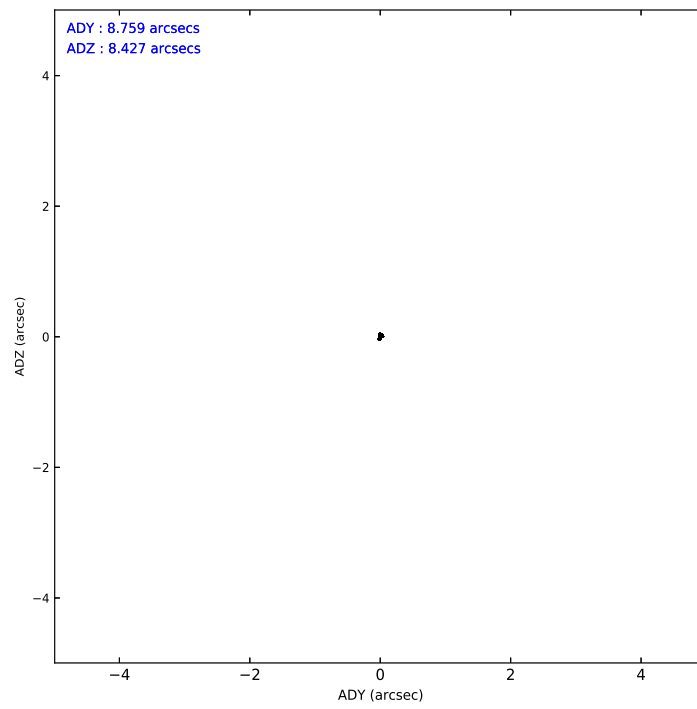
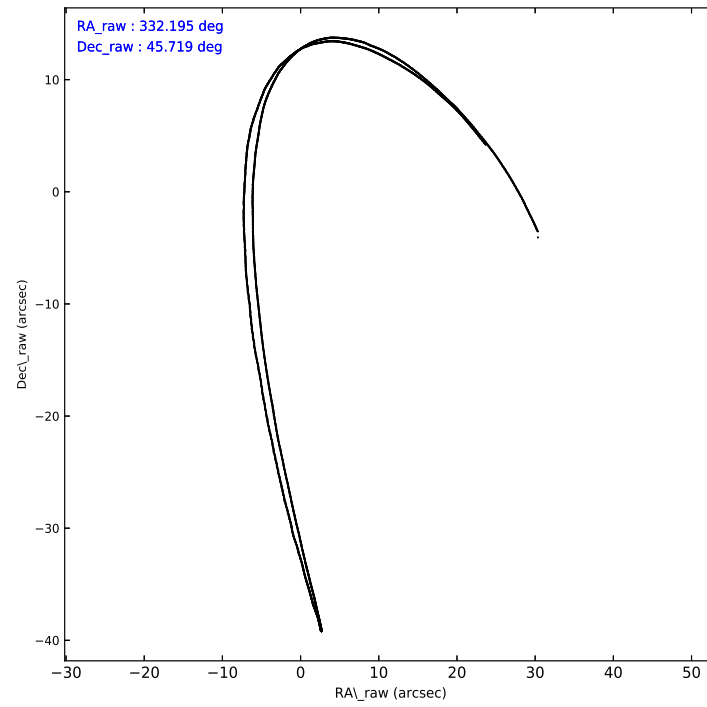
	<b>segment 0</b>
level 1 events	278208
rejected events	61002
rejected %	21%

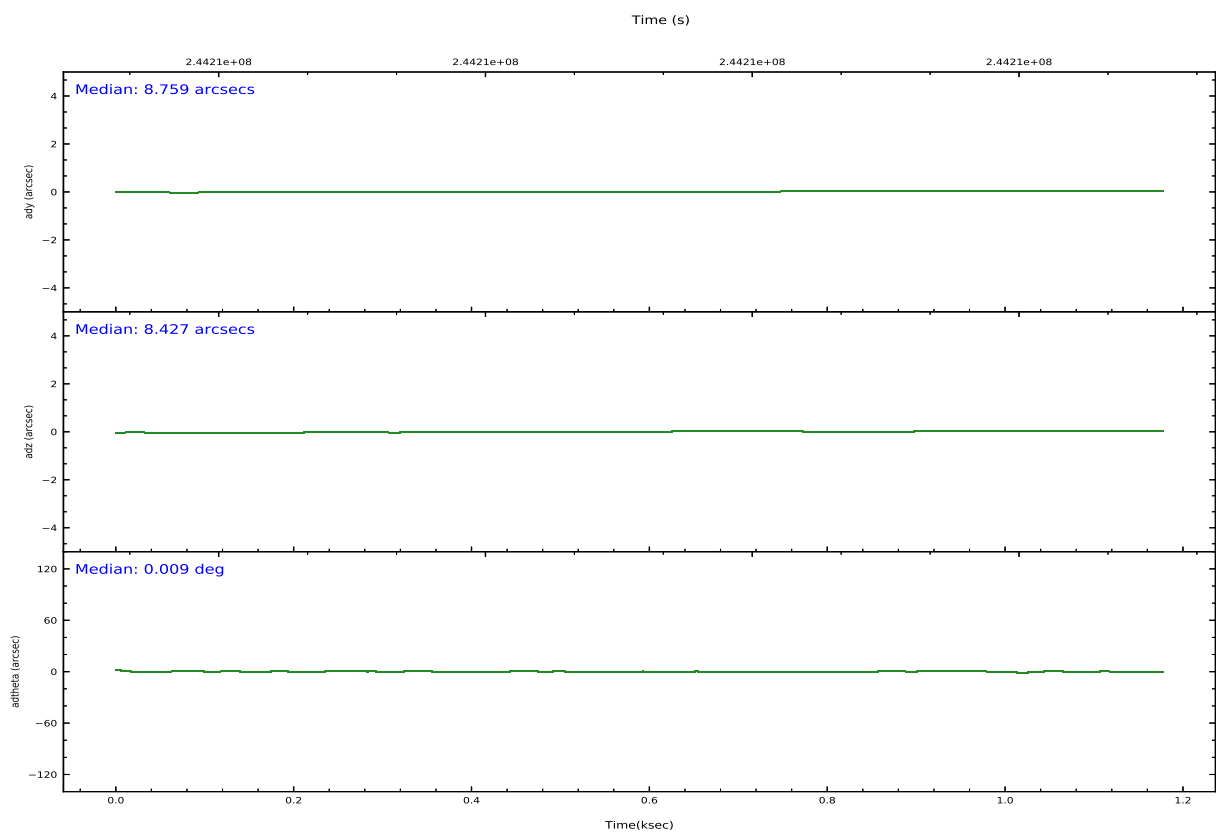
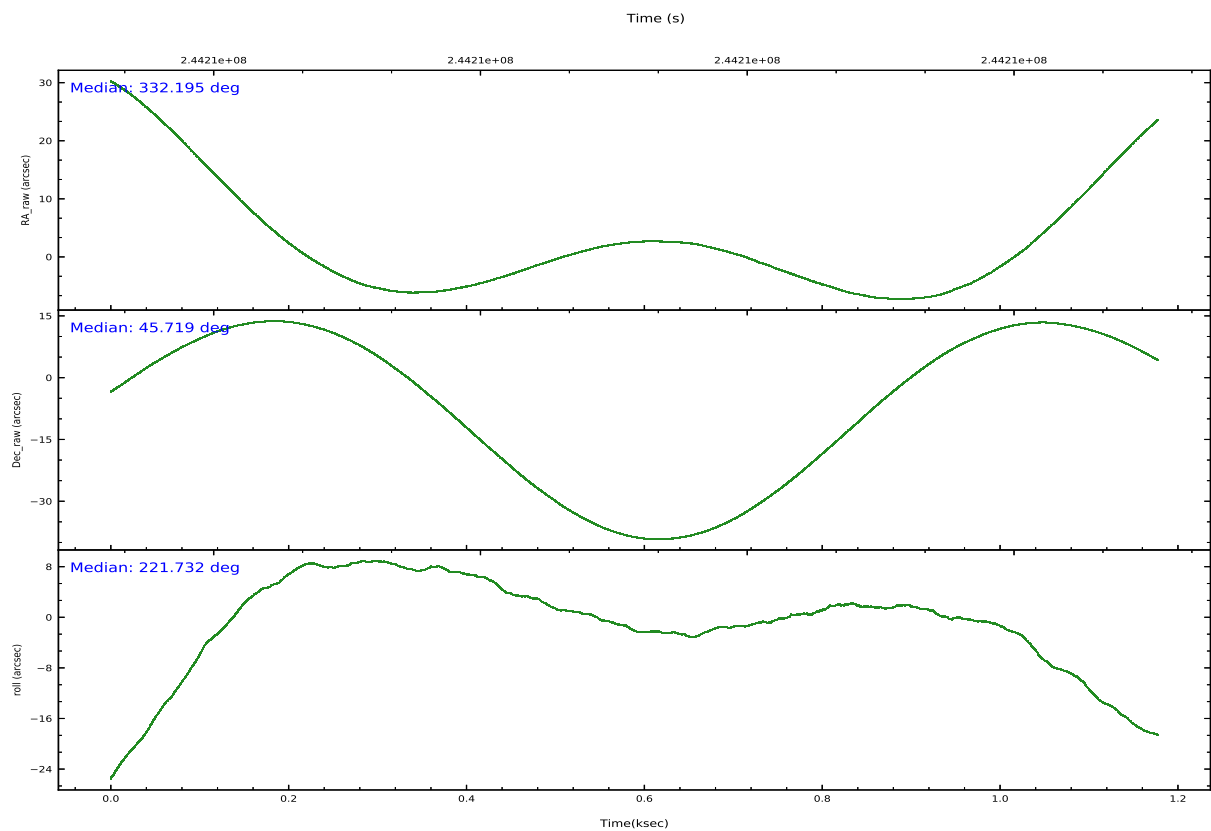
## 2.2 Compared Parameters

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	332.207530	332.19601852918
[deg] Pointing Dec	45.742044	45.720733590034
[deg] Pointing Roll	221.830355	221.73208226862
[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)	244205262.184000	244204886.10986
Observation start date	2005-09-27T10:46:38	2005-09-27T10:41:26
[s] Observation end time (MET)	244206262.184000	244206395.93493
Observation end date	2005-09-27T11:03:18	2005-09-27T11:06:35

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

## 2.3 Aspect



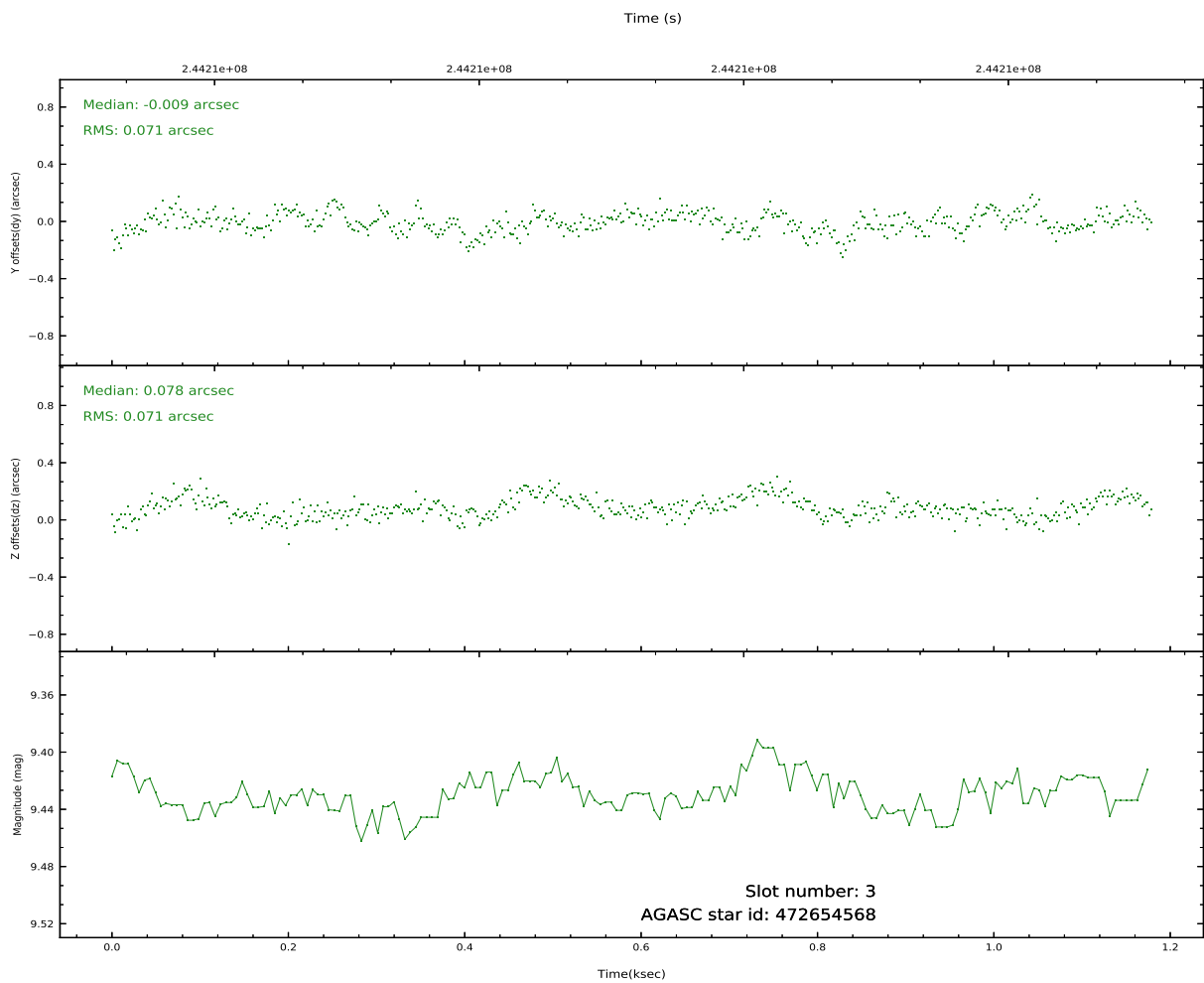
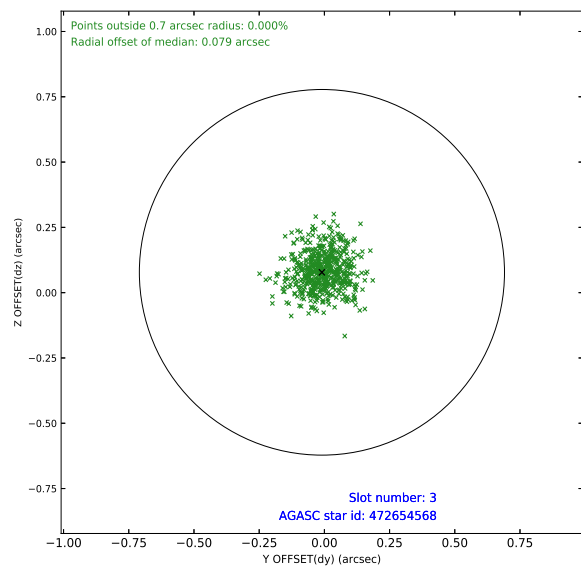
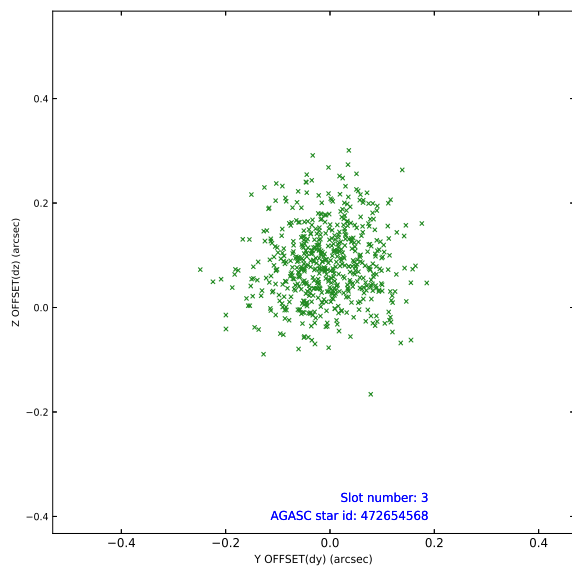


Slot Statistics

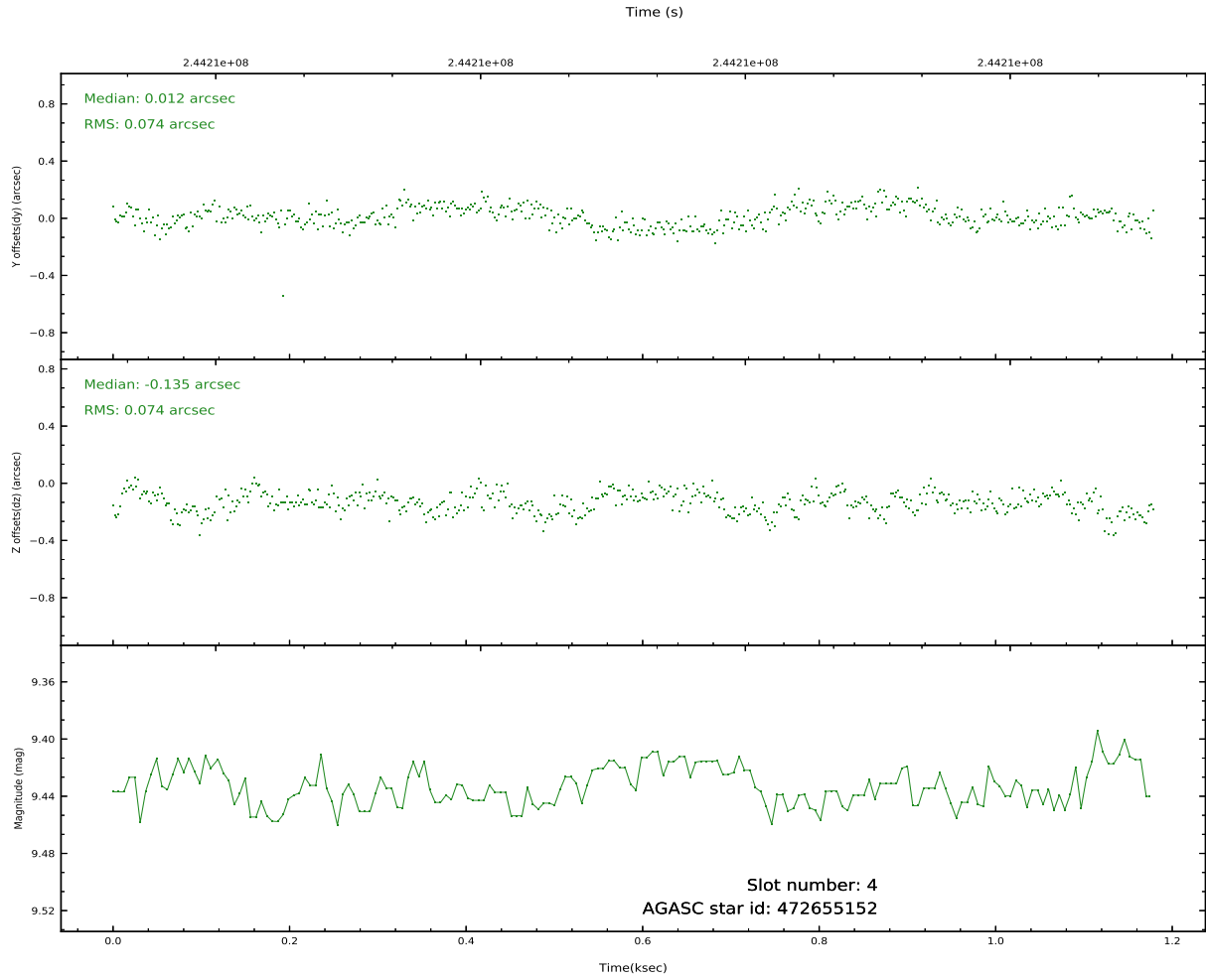
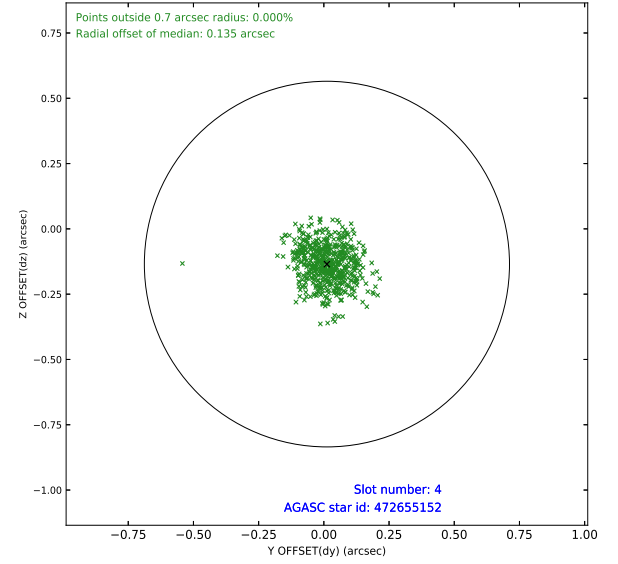
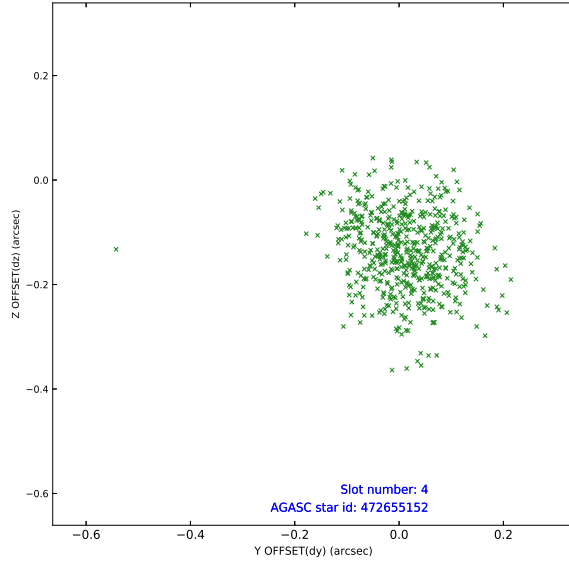
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-I-1	6.98	288	1.000	-0.029	0.039	0.006	0.010	0.000000	0.000000	-764.43	-1296
1	FID		HRC-I-2	7.02	288	1.000	0.184	-0.130	0.006	0.011	0.000000	0.000000	845.76	-1302
2	FID		HRC-I-3	7.07	288	1.000	-0.036	0.002	0.005	0.011	0.000000	0.000000	-1189.98	1003
3	GUIDE	used	472654568	9.43	576	1.000	-0.009	0.078	0.105	0.174	332.194449	45.063576	1655.55	1802
4	GUIDE	used	472655152	9.43	575	1.000	0.012	-0.135	0.111	0.176	332.504239	45.862991	-840.92	177
5	GUIDE	used	472665256	9.02	576	1.000	0.088	0.088	0.066	0.105	332.808125	46.195041	-2206.15	-216
6	GUIDE	used	472533912	9.16	576	1.000	-0.003	0.011	0.123	0.191	331.791136	46.368695	-737.61	-2369
7	GUIDE	used	472525528	6.66	575	1.000	-0.098	-0.046	0.081	0.135	331.551102	45.248694	2419.90	208

## 2.4 Star Slots

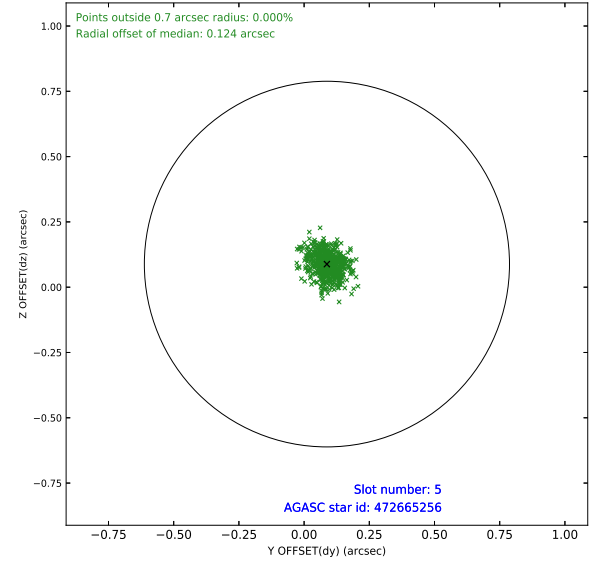
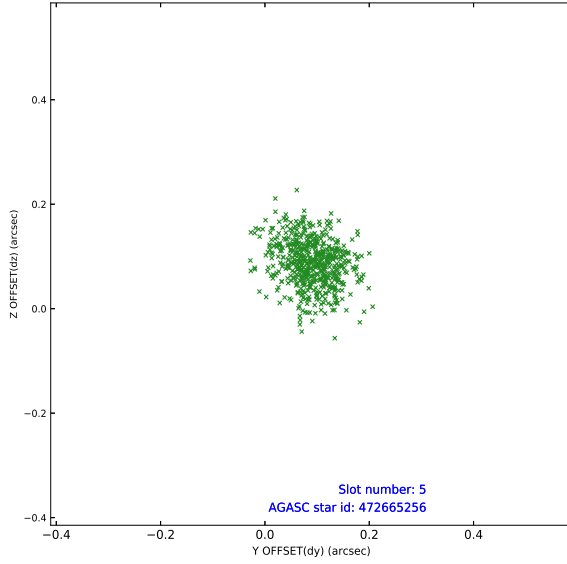
### 2.4.1 Slot 3



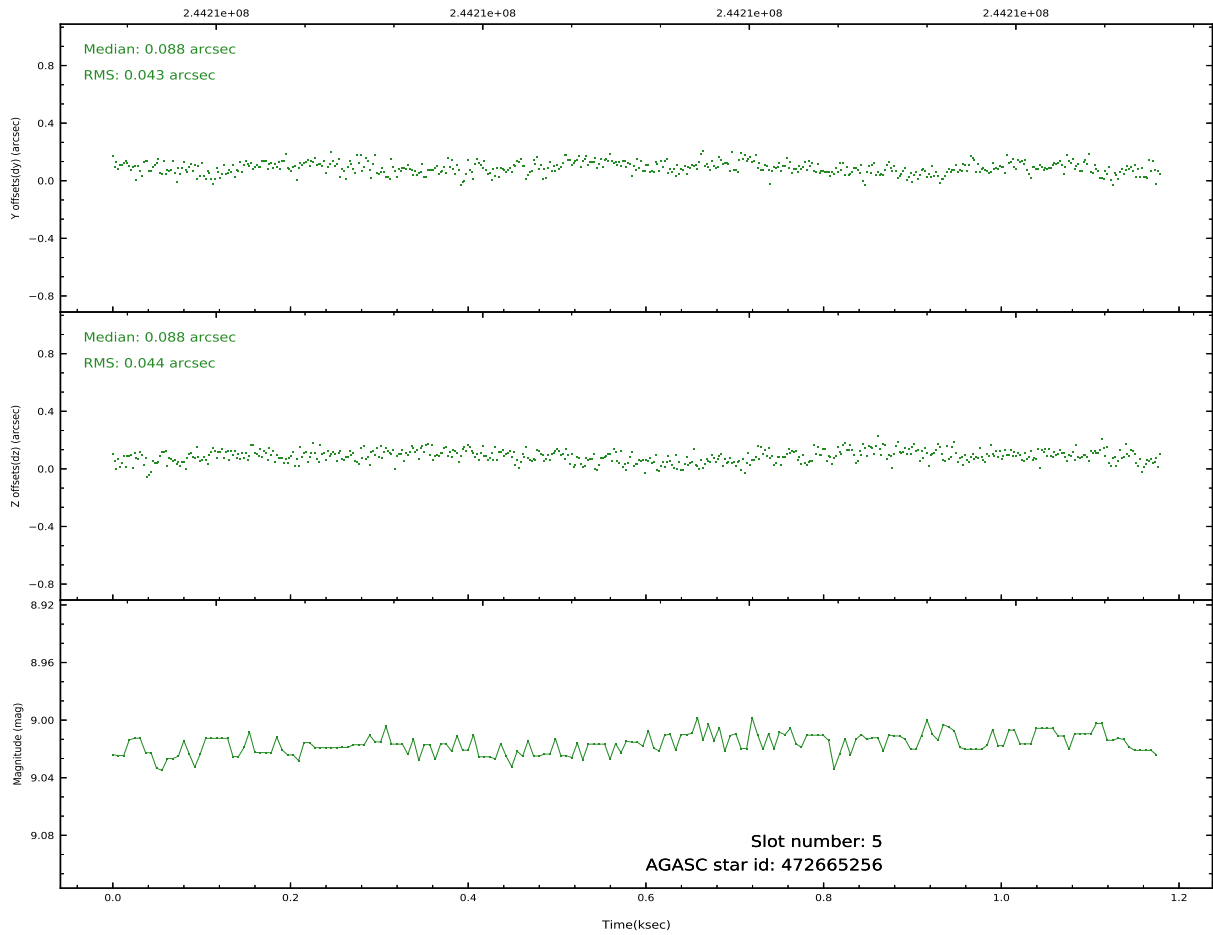
## 2.4.2 Slot 4



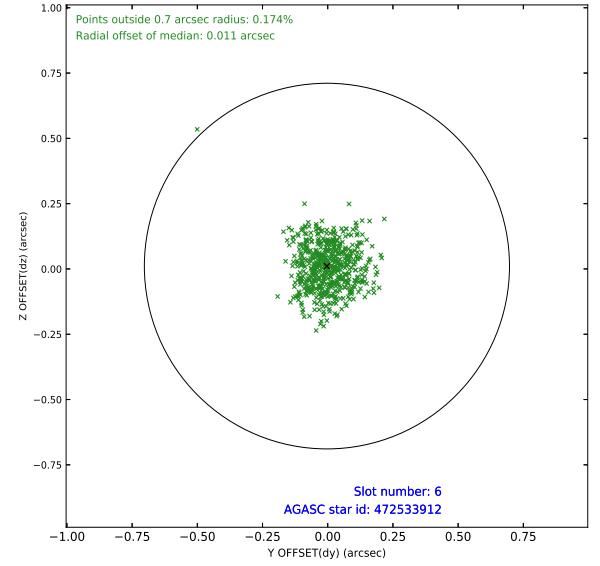
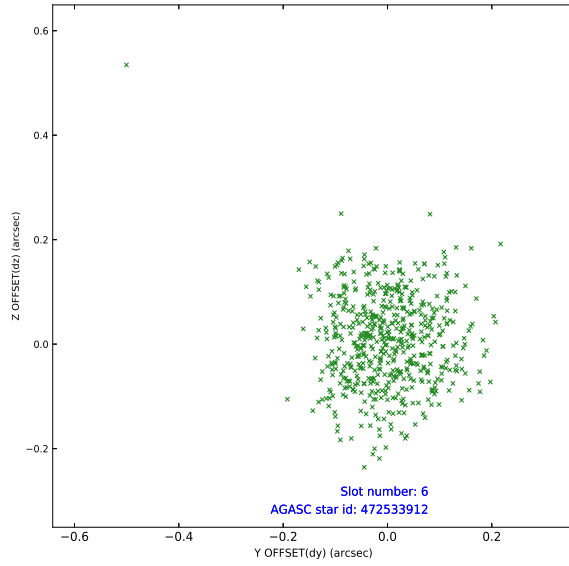
### 2.4.3 Slot 5



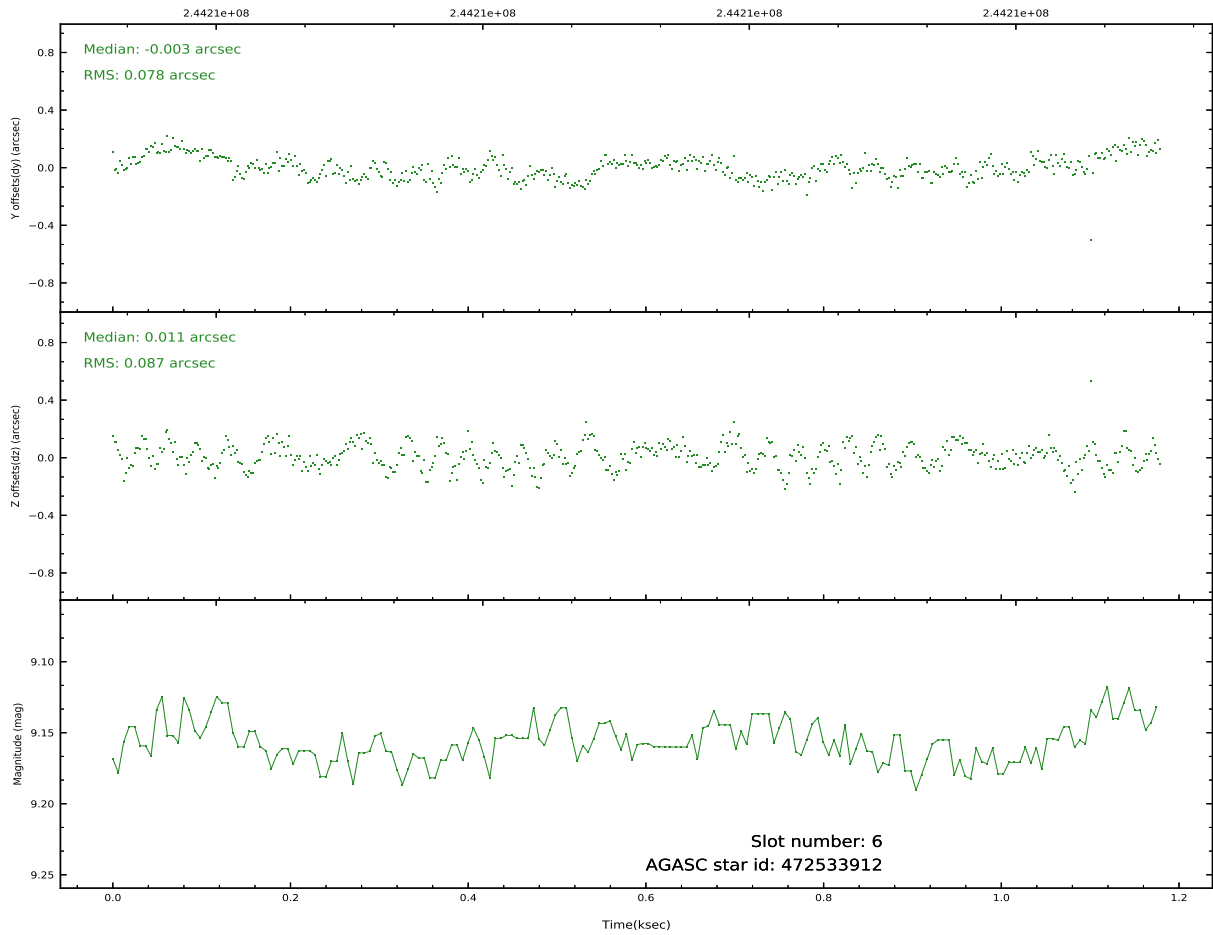
Time (s)



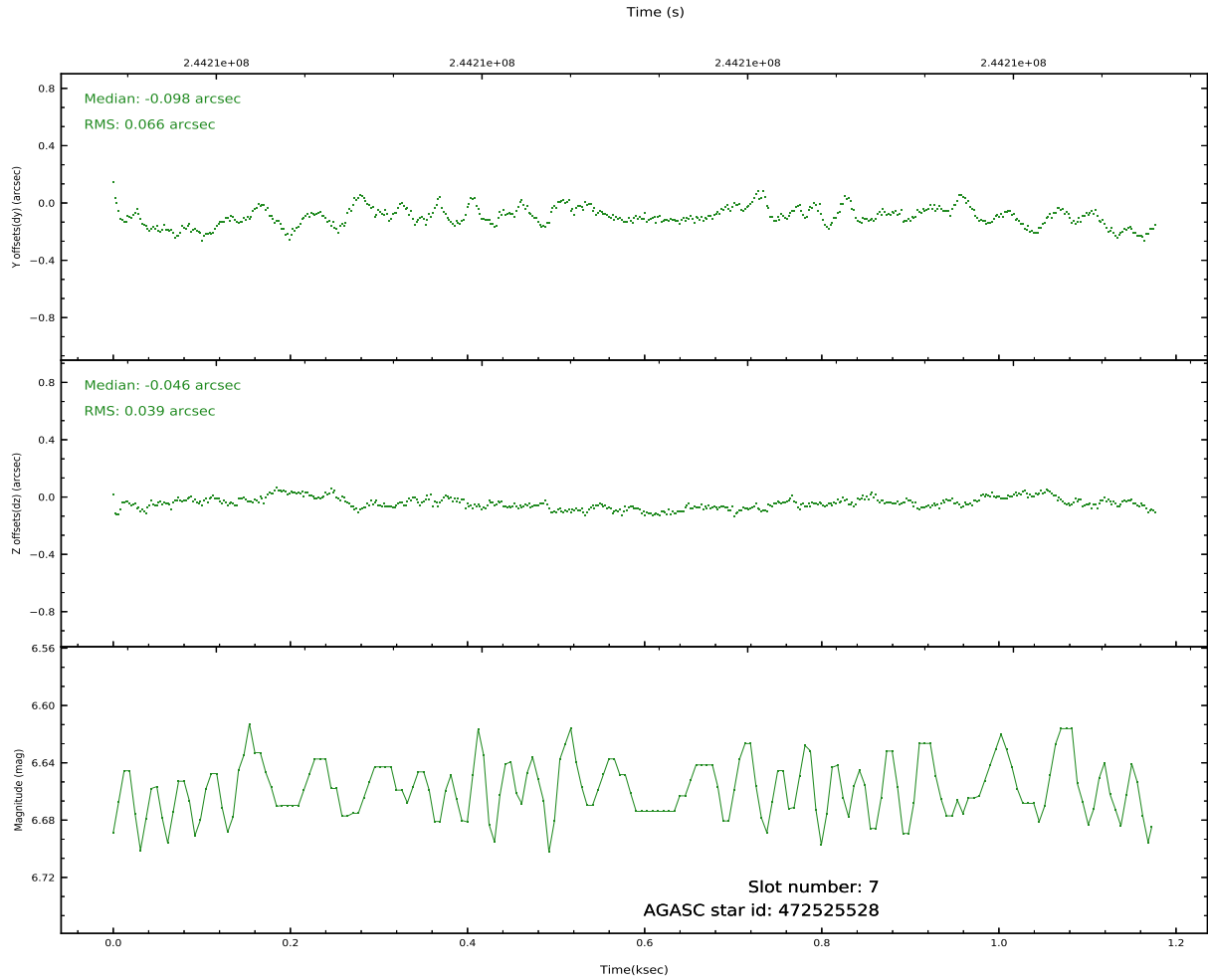
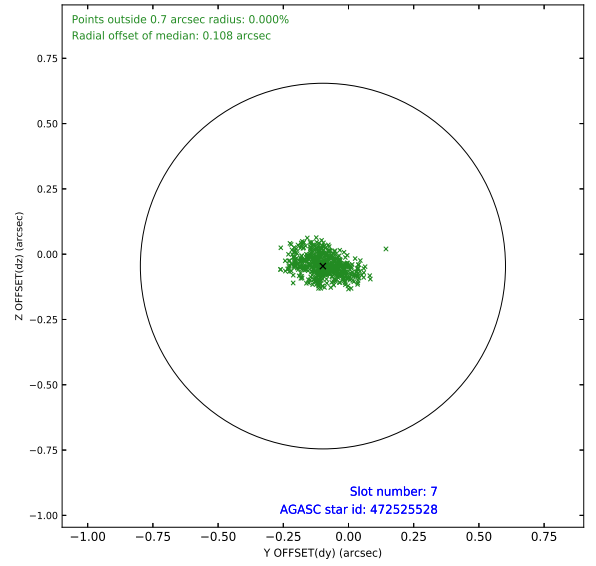
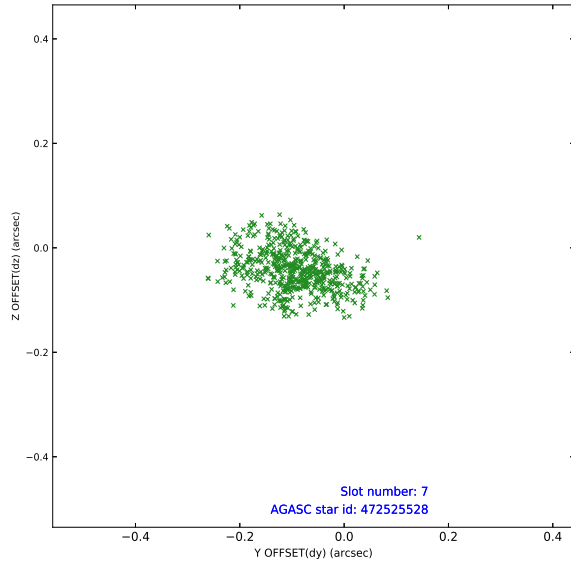
## 2.4.4 Slot 6



Time (s)

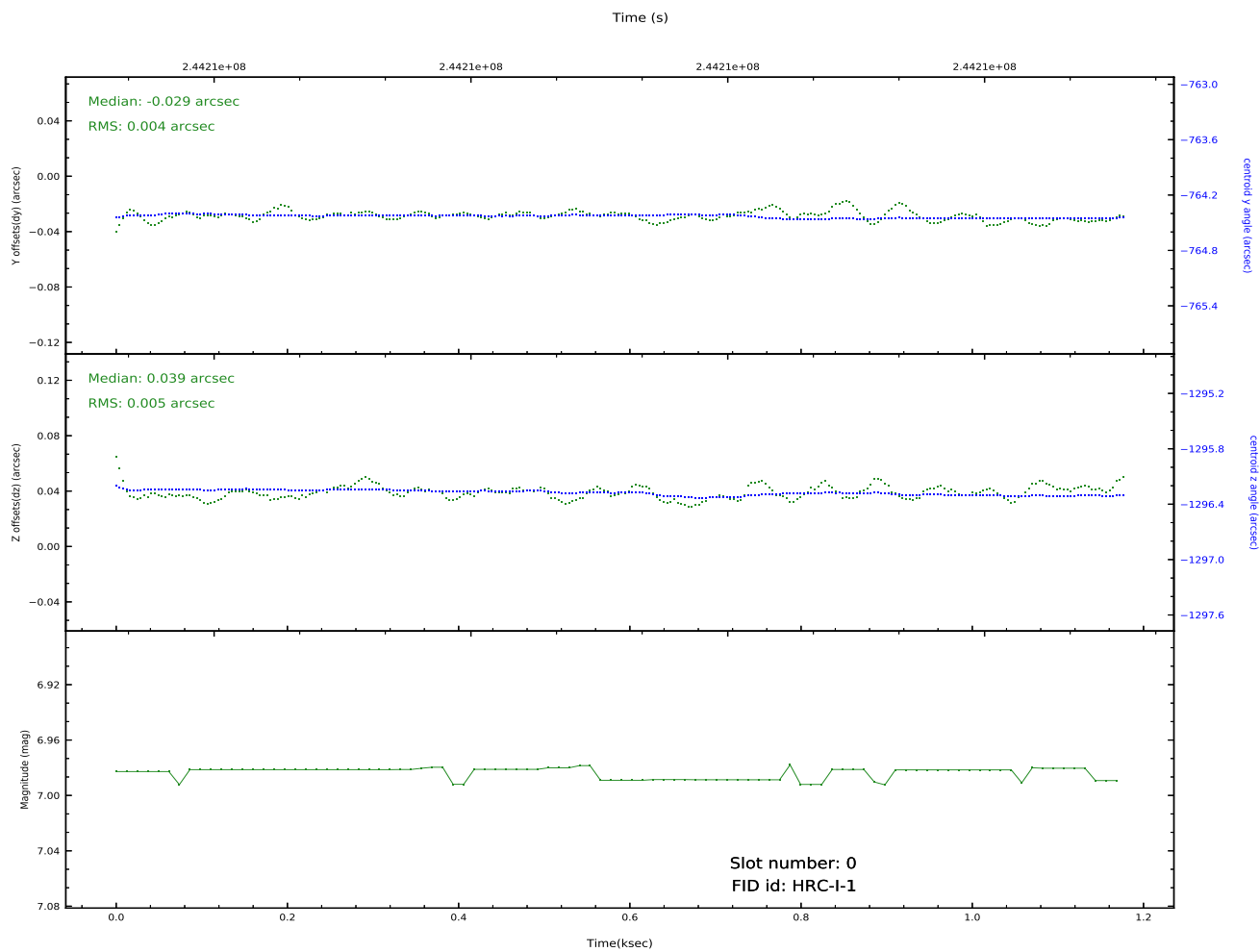
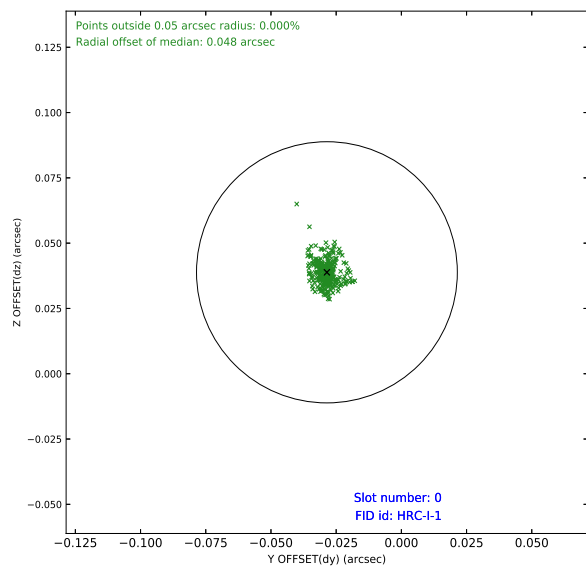
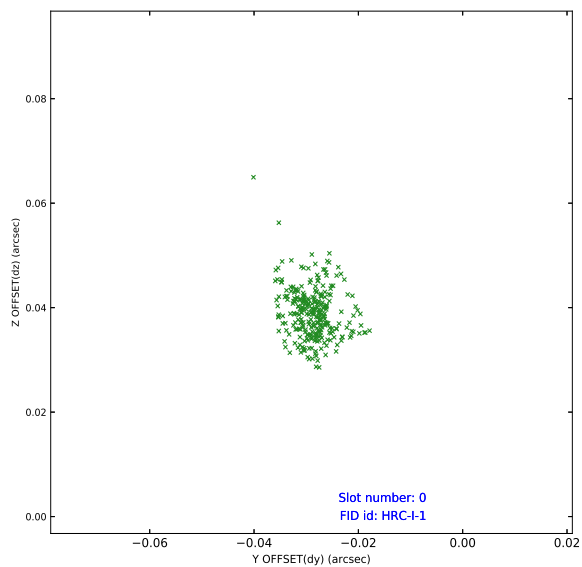


## 2.4.5 Slot 7

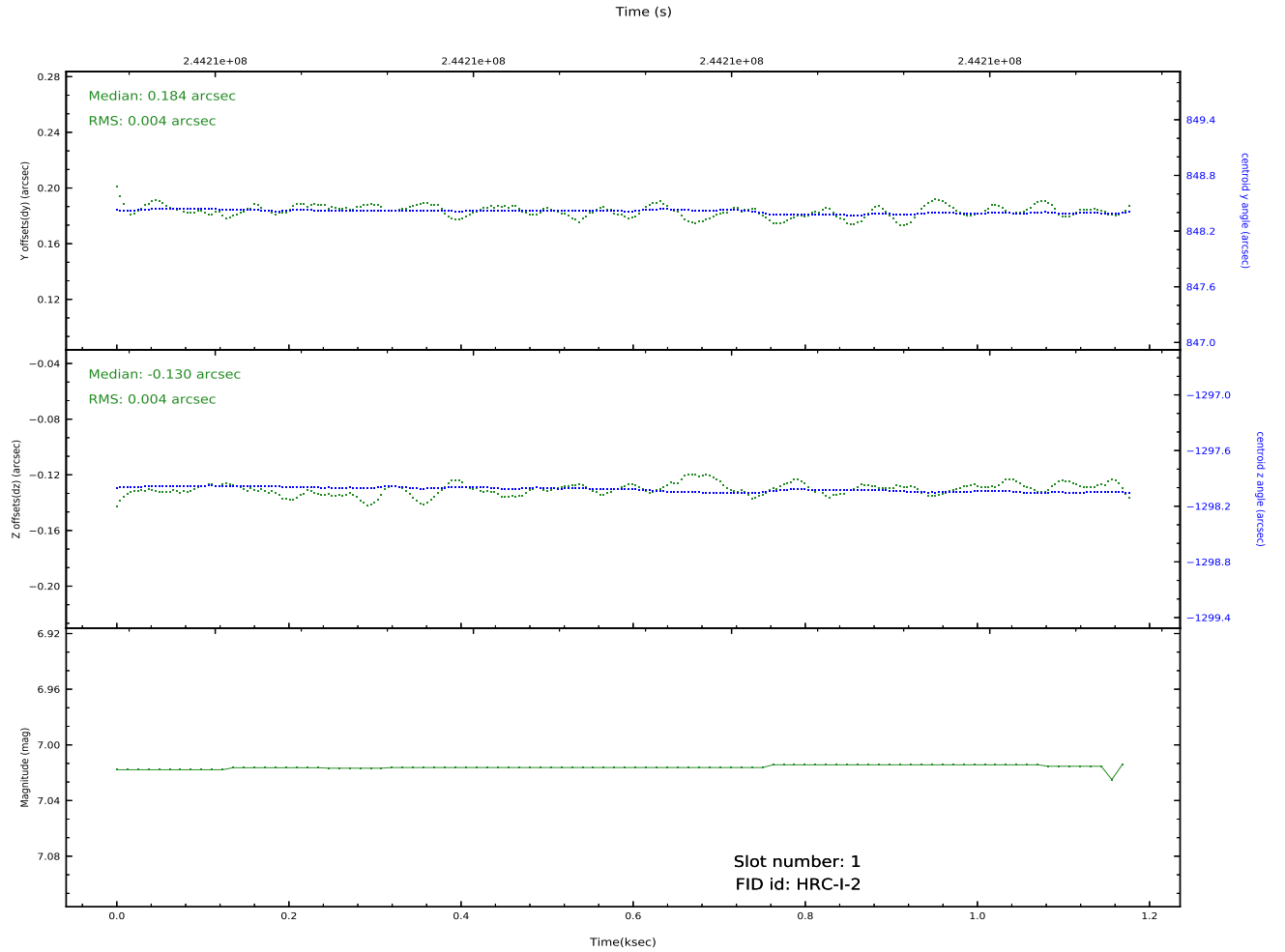
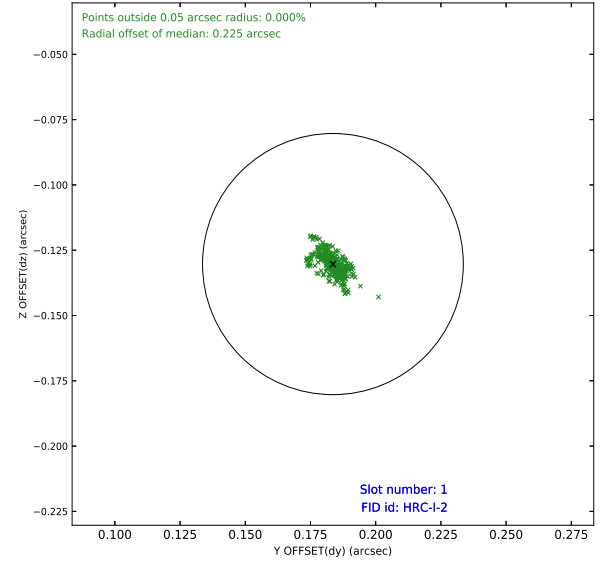
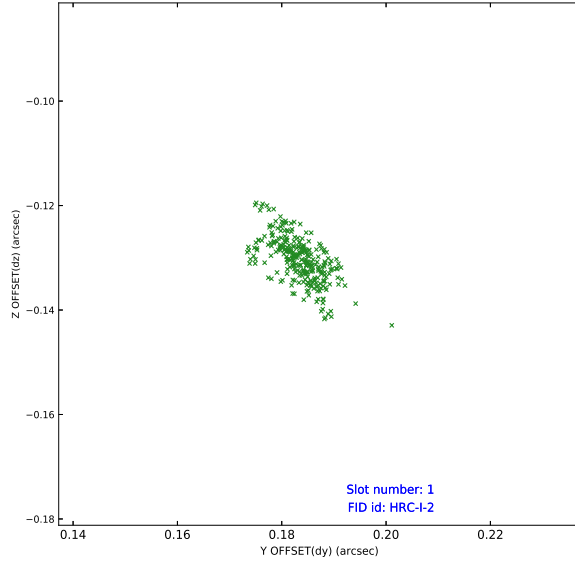


## 2.5 FID Slots

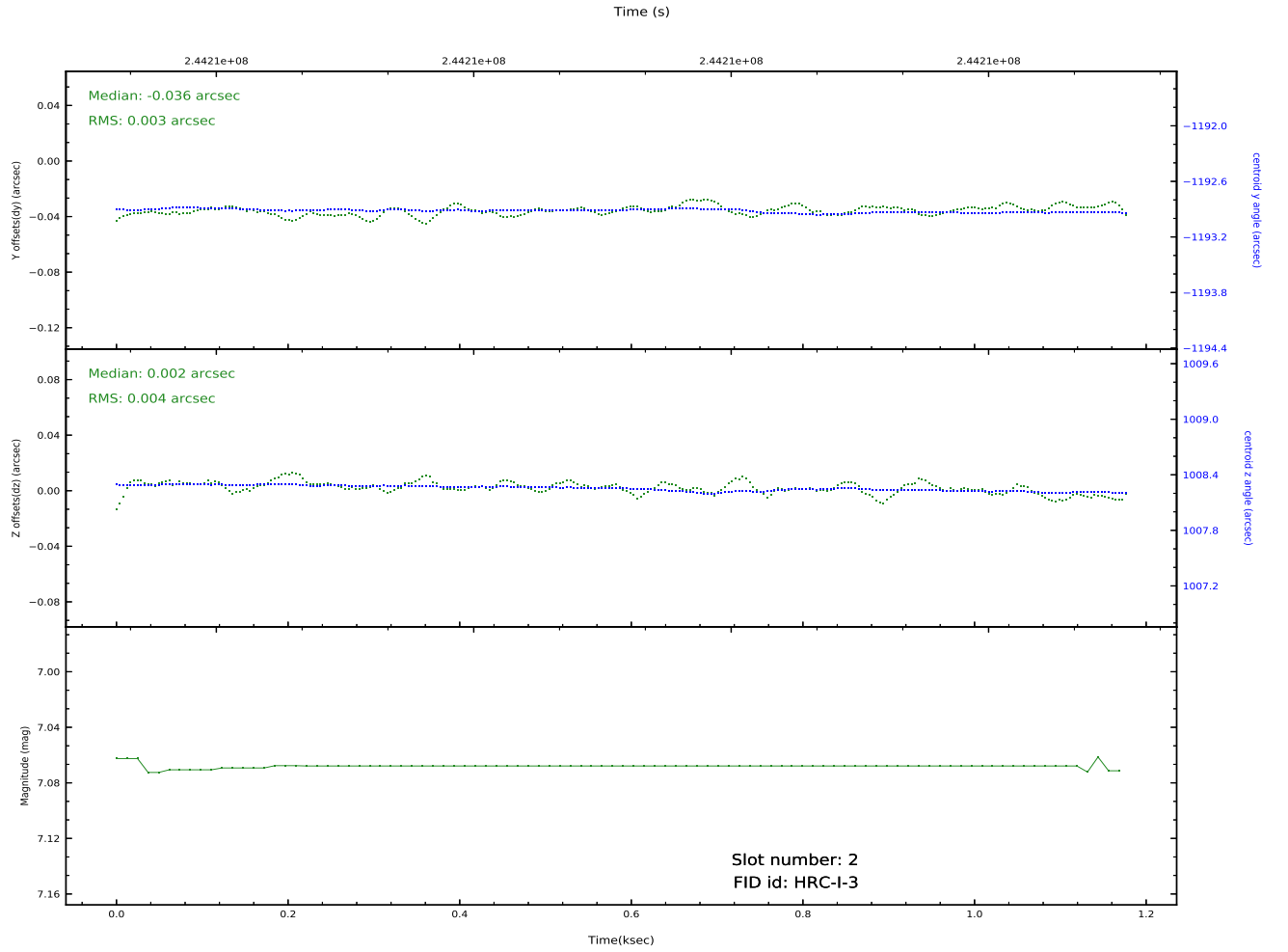
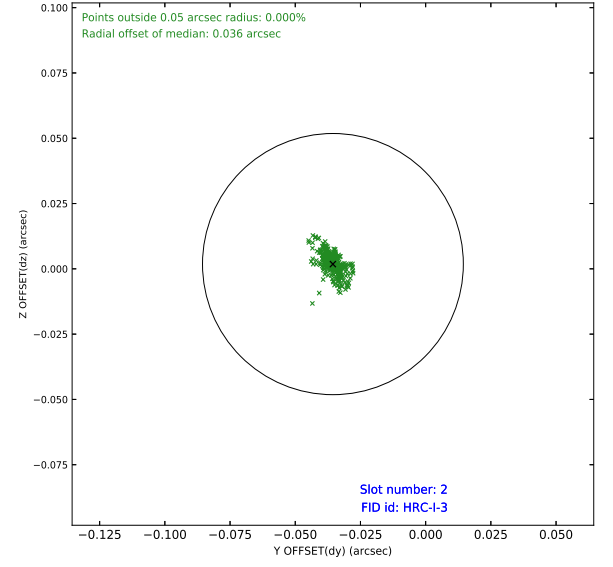
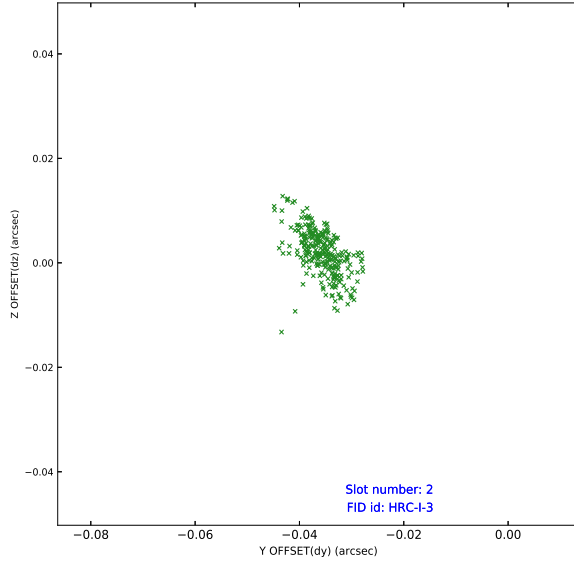
### 2.5.1 Slot 0



## 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)	2020.10.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.177725

### A.2 Comments