

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20690 - L2 Version 2  
Chandra X-Ray Center

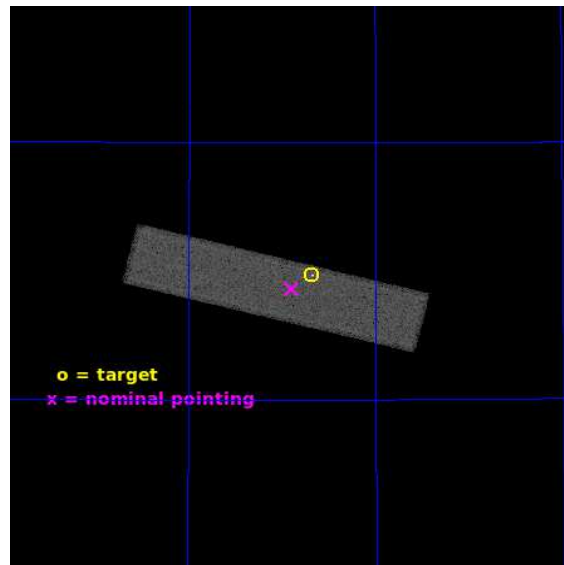
L2 Processing Date : Oct 27 2020

## 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

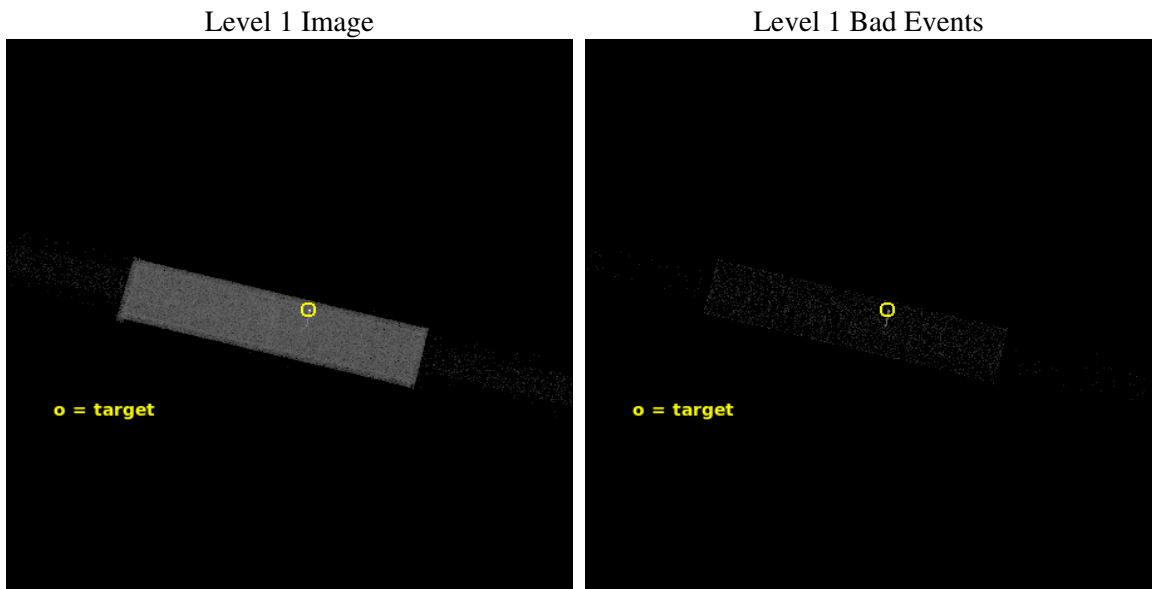
seq_num	291401	Sequence number
obs_id	20690	Observation id
title	AO-19 Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain	Proposal title
observer	CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.2233709267	Nominal RA [deg]
dec_nom	45.716256112613	Nominal Dec [deg]
roll_nom	193.94959457531	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1175.931319952	[s]
livetime	1165.9951533412	Ontime multiplied by DTCOR
l2events	76325	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	1175.931319952	[s]
caldbver	4.9.3	&#160	l1events	115291	Number of level 1 events
date	2020-10-27T16:37:14	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

Level 1 Events

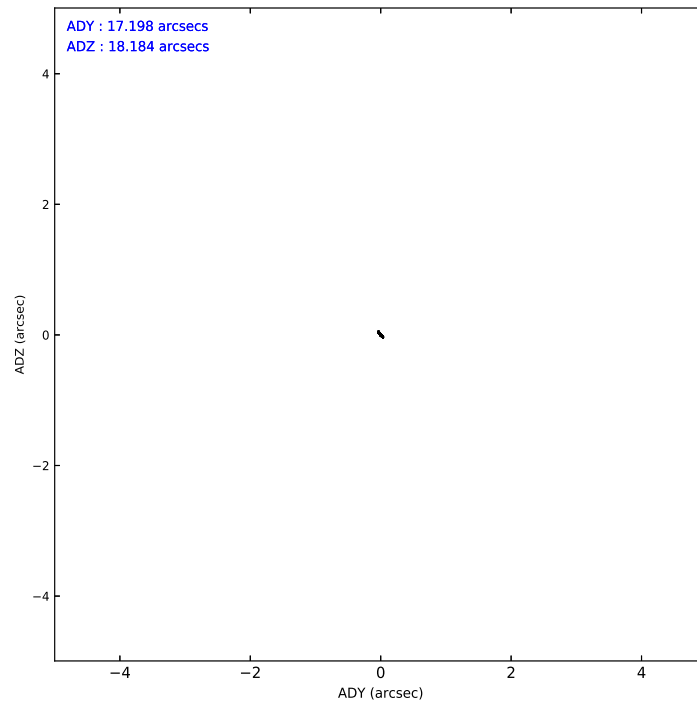
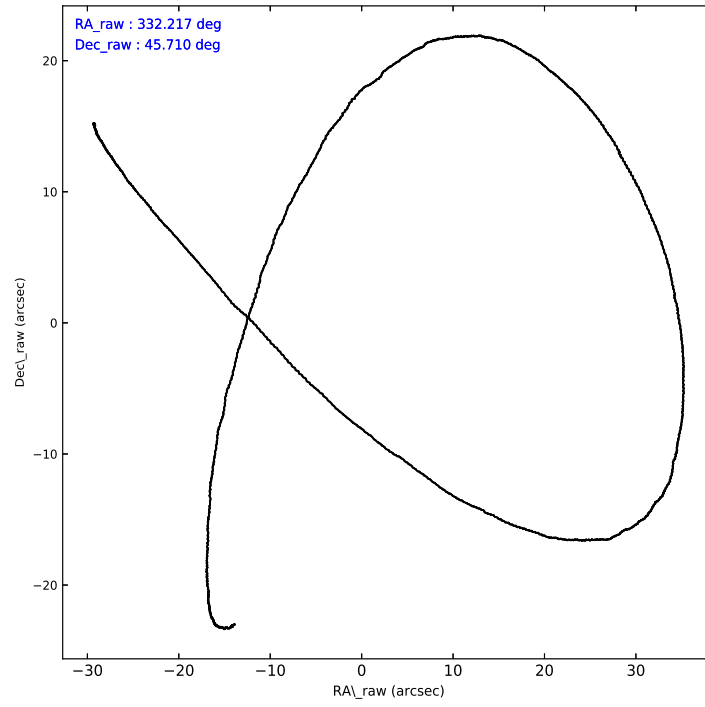
	segment 1	segment 2	segment 3
level 1 events	1051	113191	1049
rejected events	1051	24324	1049
rejected %	100%	21%	100%

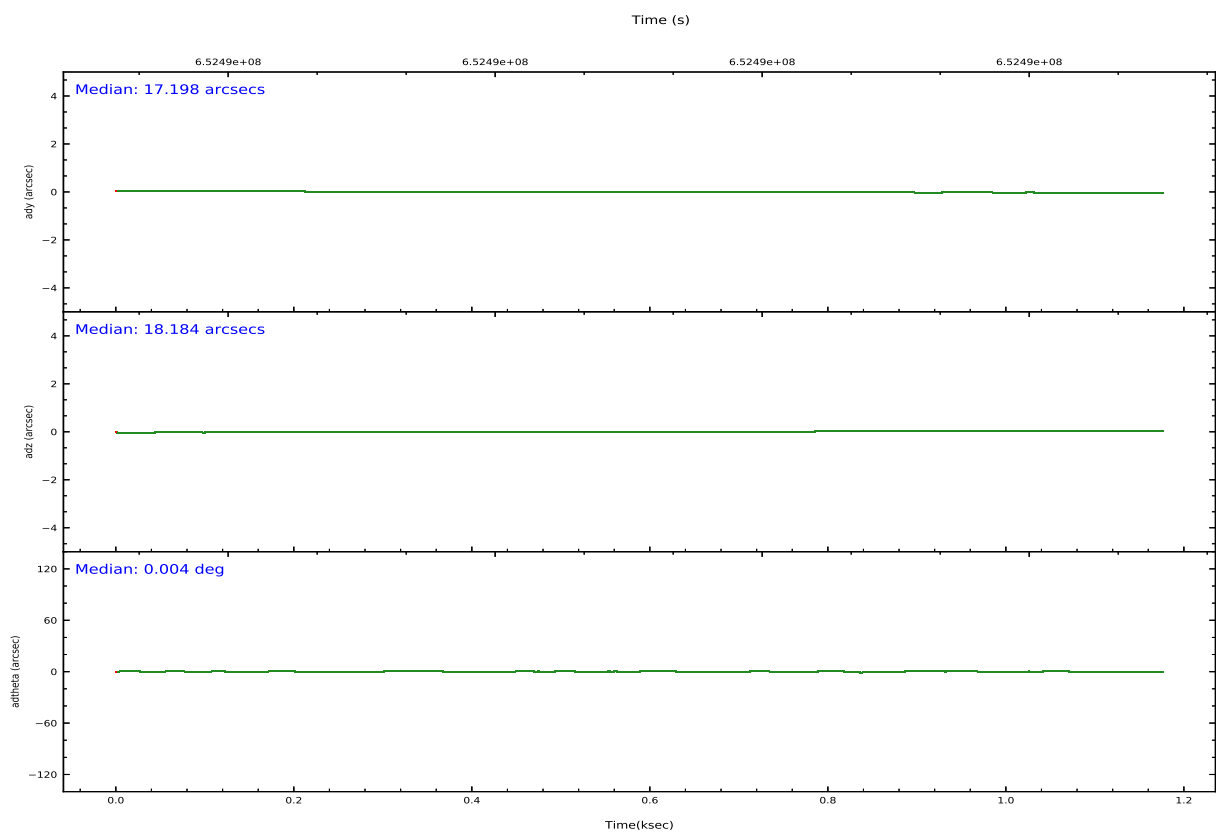
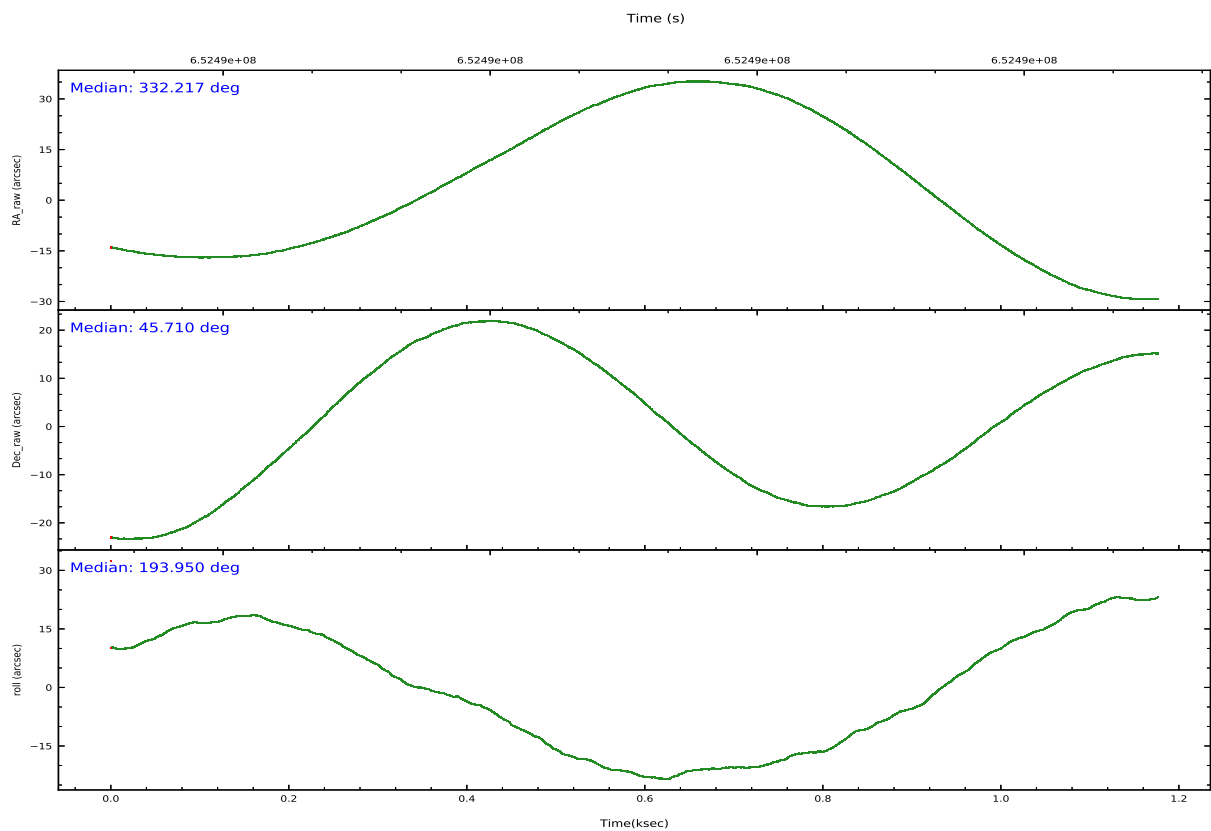
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-S	HRC-S
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	332.247133	332.2233709267
[deg] Pointing Dec	45.731187	45.716256112613
[deg] Pointing Roll	193.870796	193.94959457531
[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)	652486951.184000	652486575.5626
Observation start date	2018-09-04T22:21:22	2018-09-04T22:16:15
[s] Observation end time (MET)	652487951.184000	652488085.3876899
Observation end date	2018-09-04T22:38:02	2018-09-04T22:41:25

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

## 2.3 Aspect





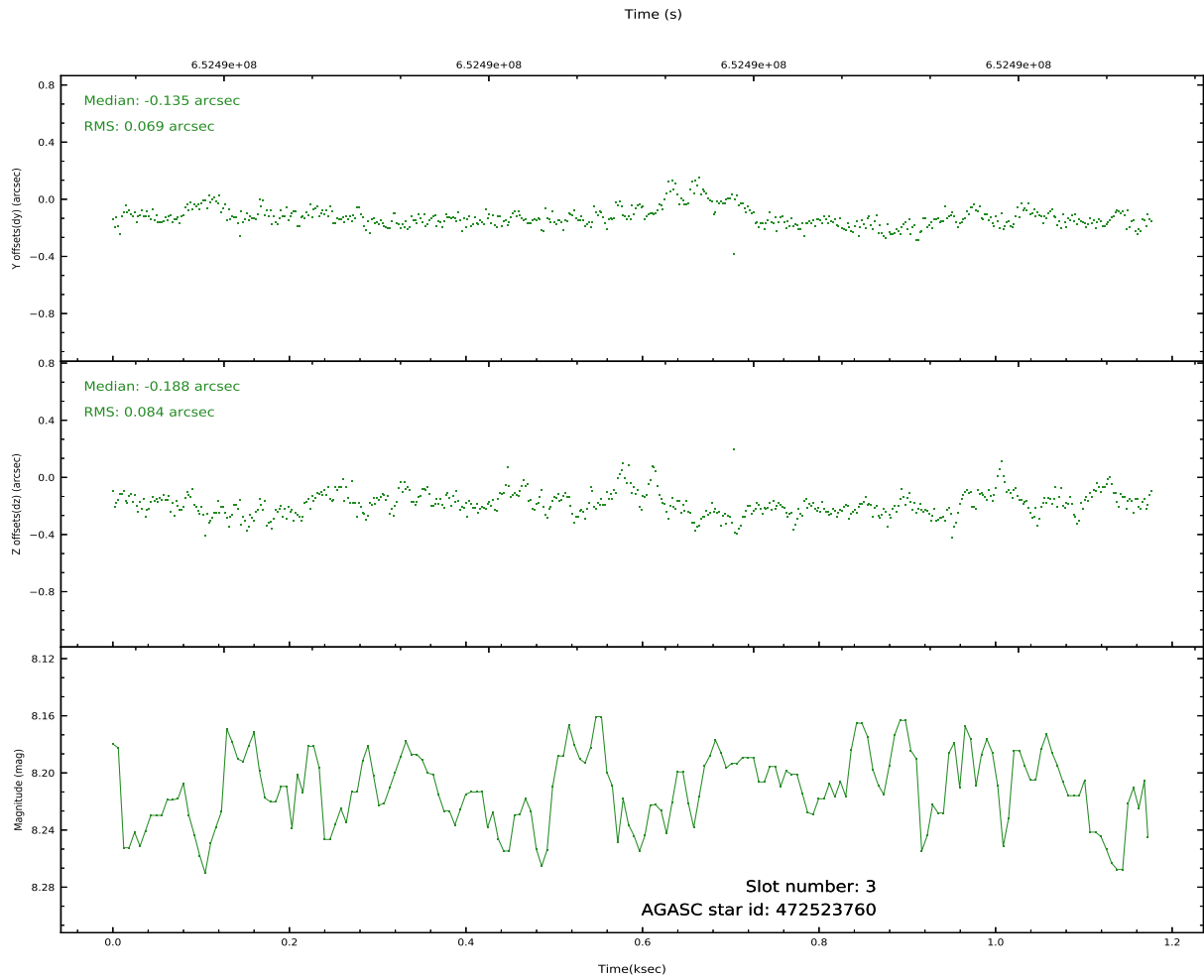
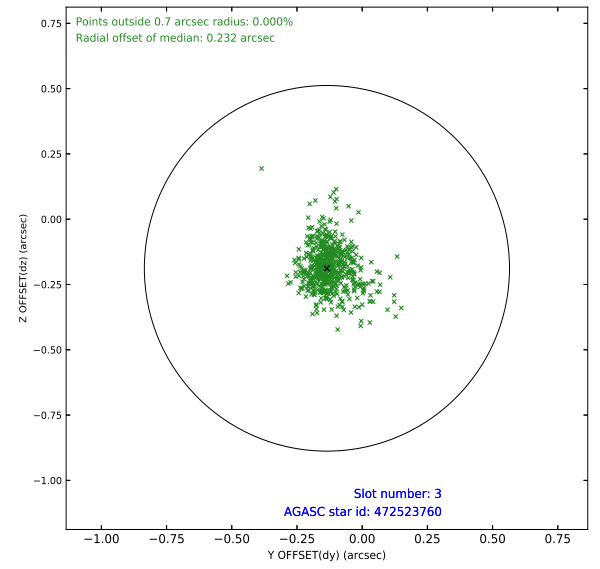
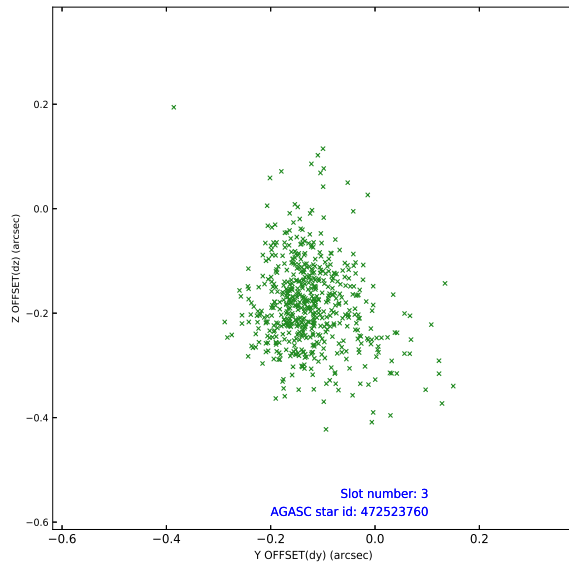
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-S-1	7.01	288	1.000	0.087	-0.189	0.007	0.009	0.000000	0.000000	-1171.70	-467
1	FID		HRC-S-2	7.00	288	1.000	0.299	-0.154	0.005	0.011	0.000000	0.000000	1224.10	-461
2	FID		HRC-S-3	7.01	288	1.000	0.004	0.041	0.006	0.010	0.000000	0.000000	-1170.12	561
3	GUIDE	used	472523760	8.21	575	1.000	-0.135	-0.188	0.106	0.206	331.645363	45.403260	1757.20	775
4	GUIDE	used	472525528	6.63	575	1.000	-0.291	-0.150	0.123	0.206	331.551102	45.248694	2128.34	1257
5	GUIDE	used	472655152	9.39	574	1.000	0.154	0.124	0.266	0.453	332.504239	45.862991	-737.07	-304
6	GUIDE	used	472665256	8.95	575	1.000	0.261	0.154	0.141	0.230	332.808125	46.195041	-1760.76	-1291
7	GUIDE	used	472535576	7.83	574	1.000	0.019	0.066	0.135	0.217	331.438373	46.291802	1463.00	-2453

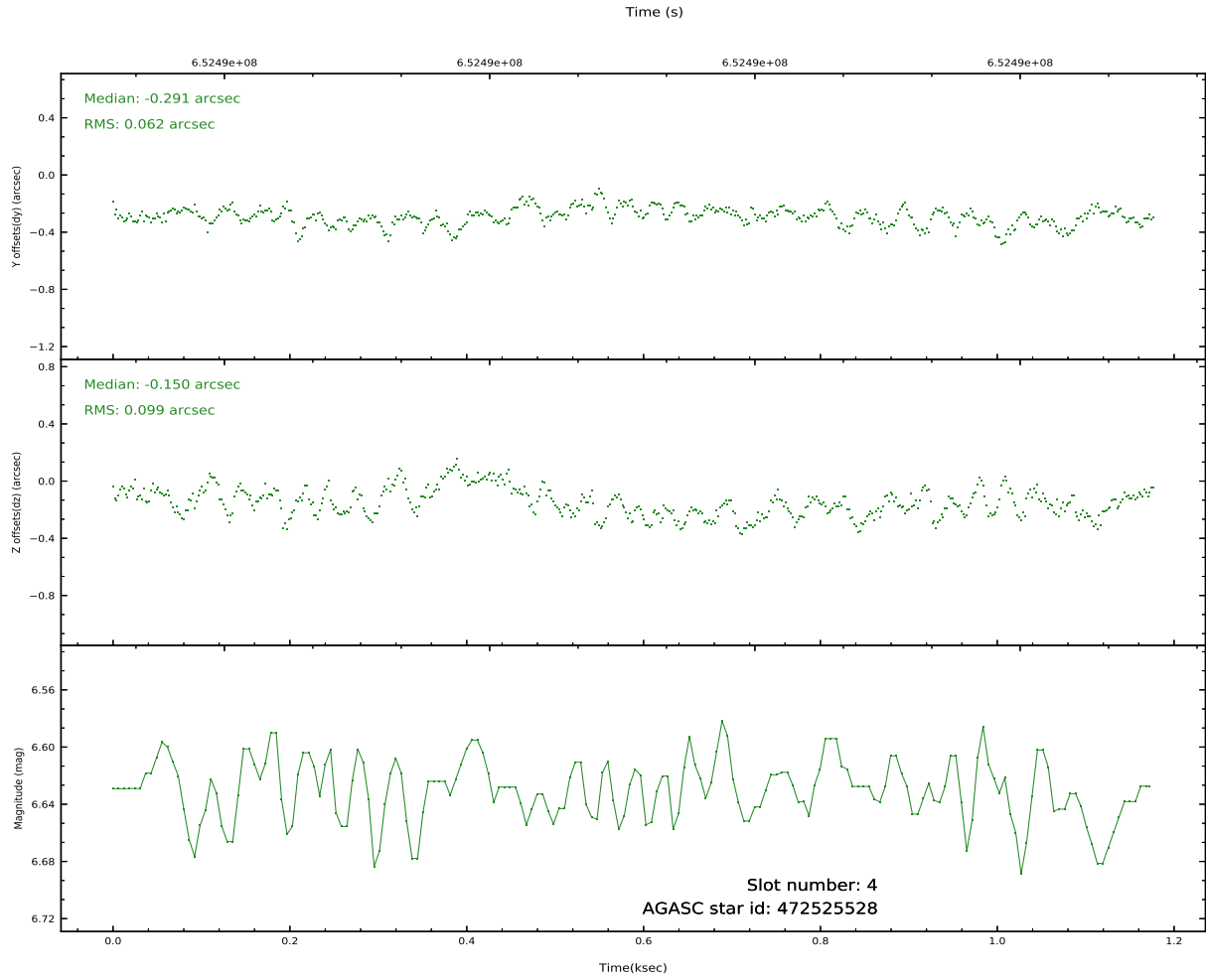
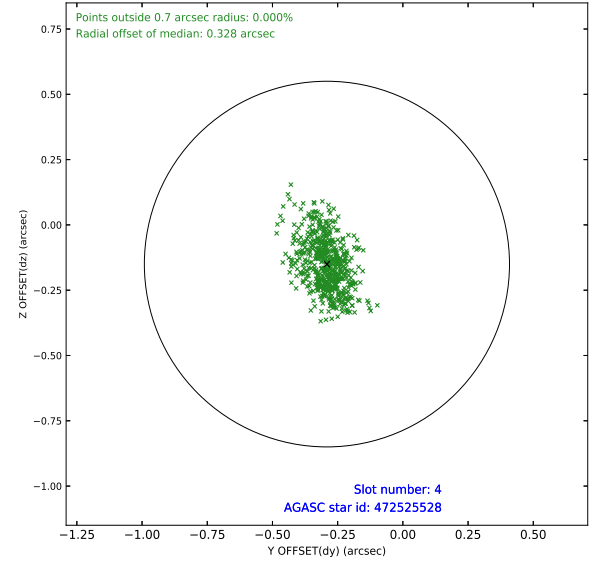
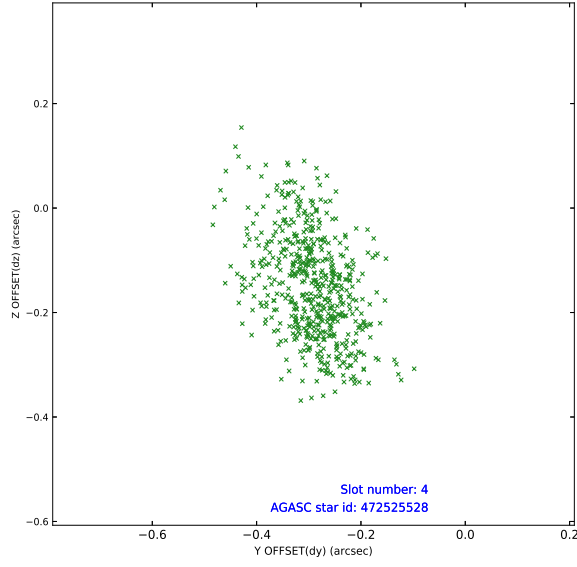


## 2.4 Star Slots

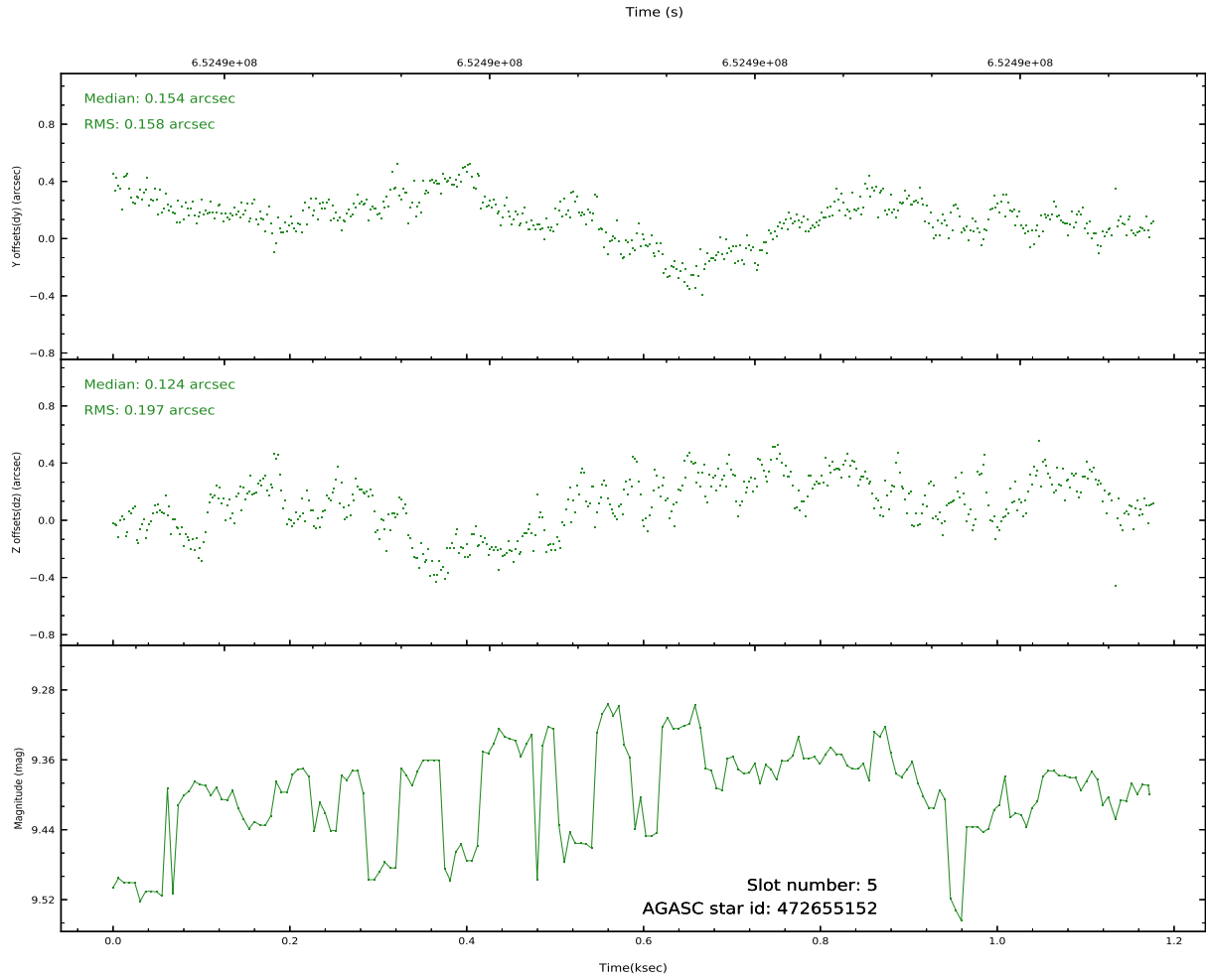
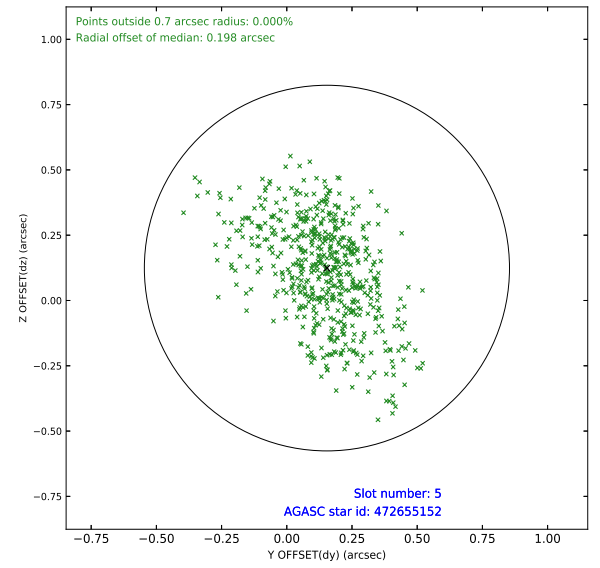
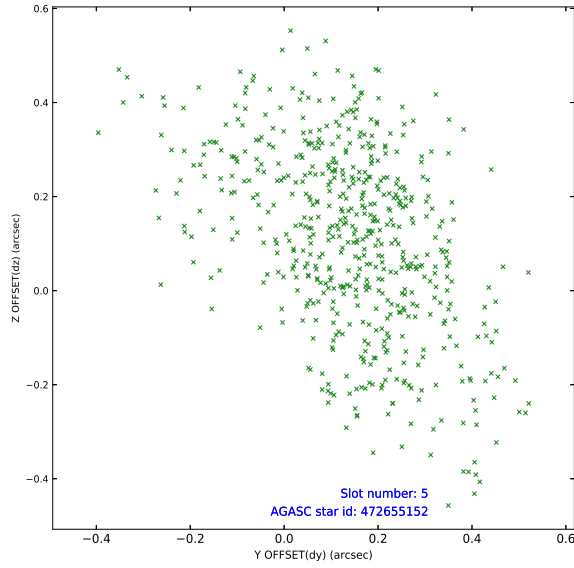
### 2.4.1 Slot 3



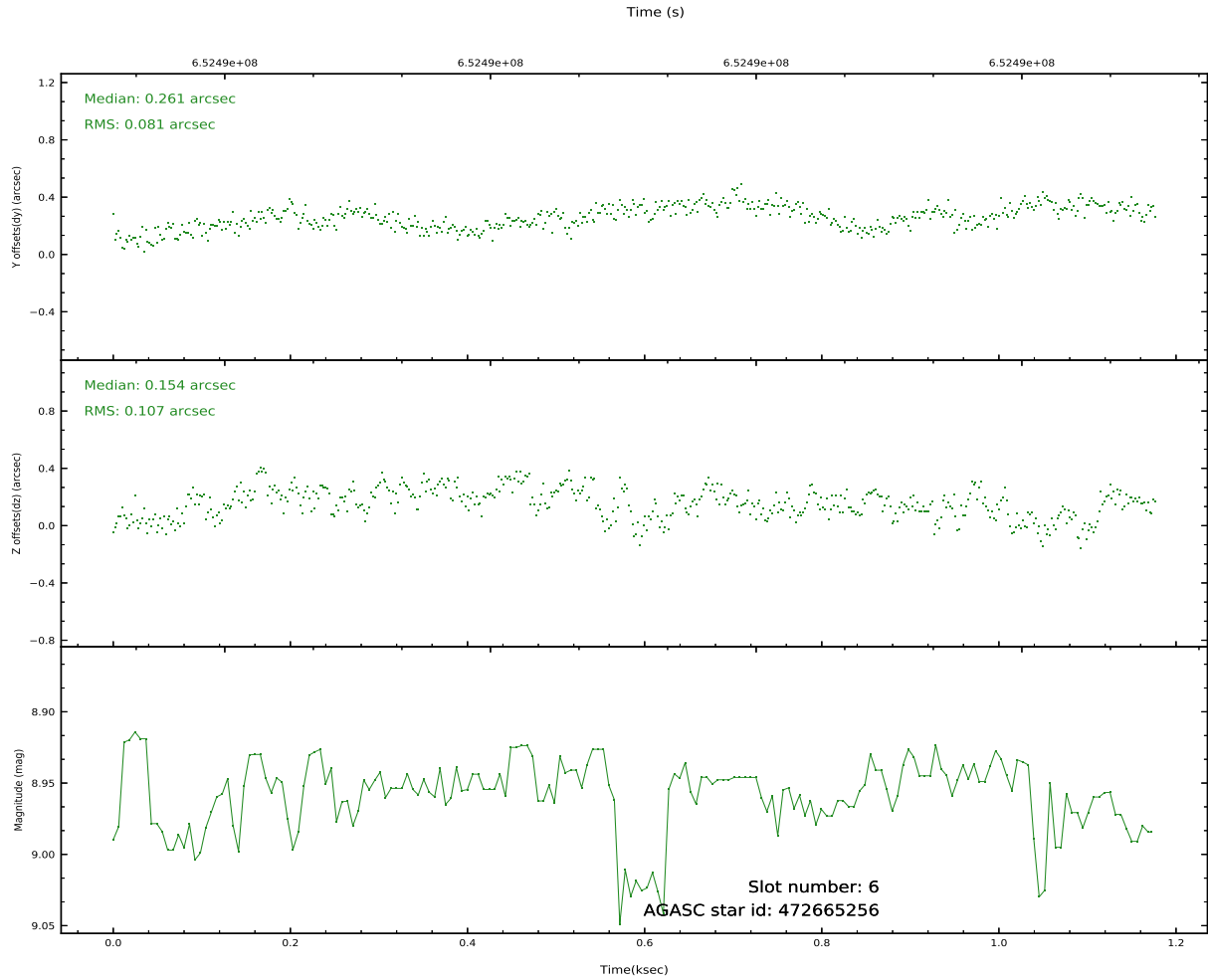
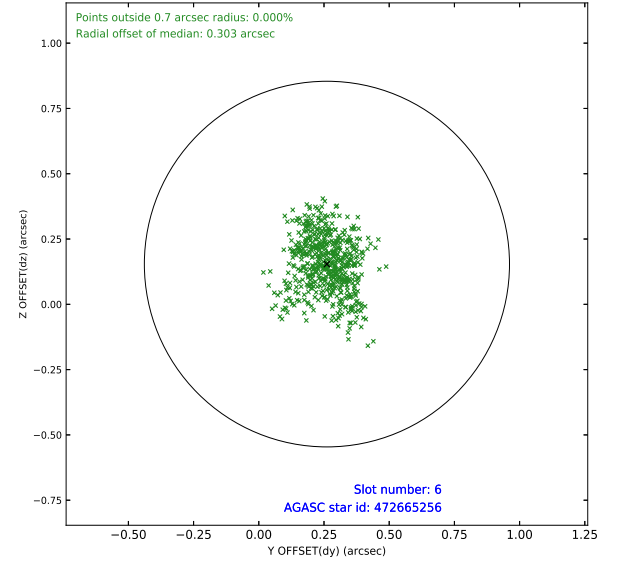
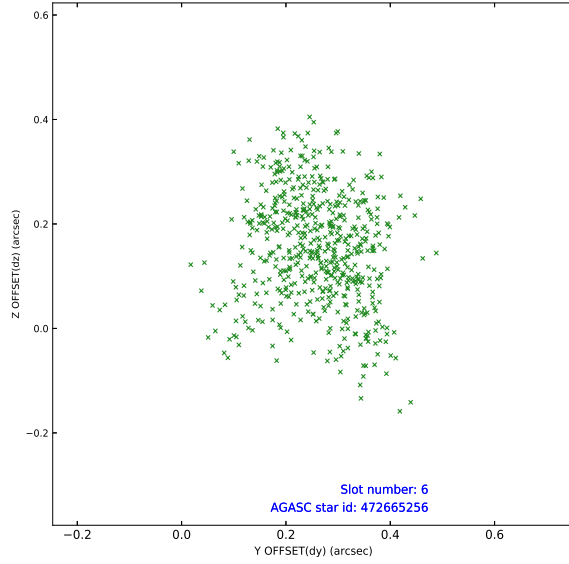
## 2.4.2 Slot 4



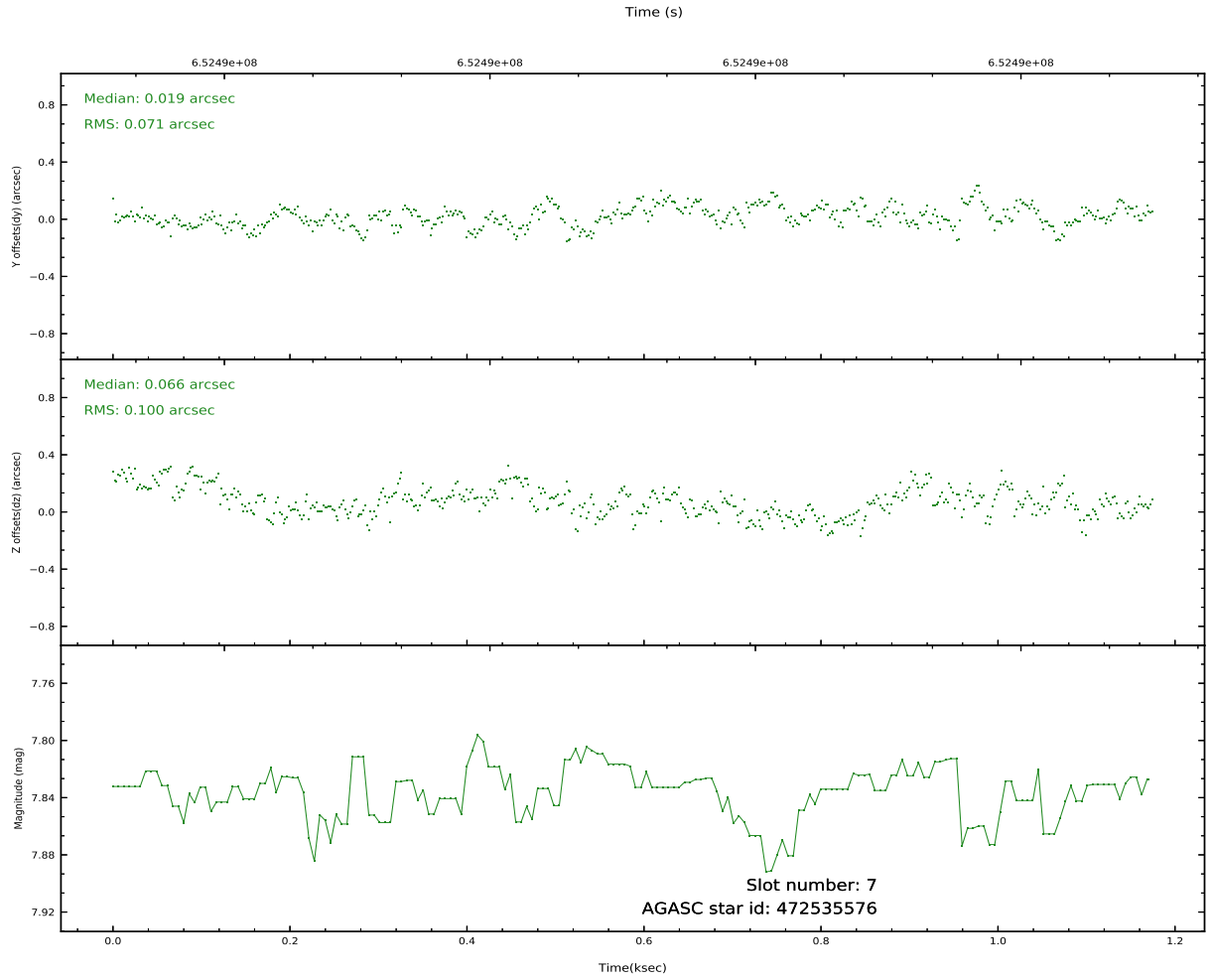
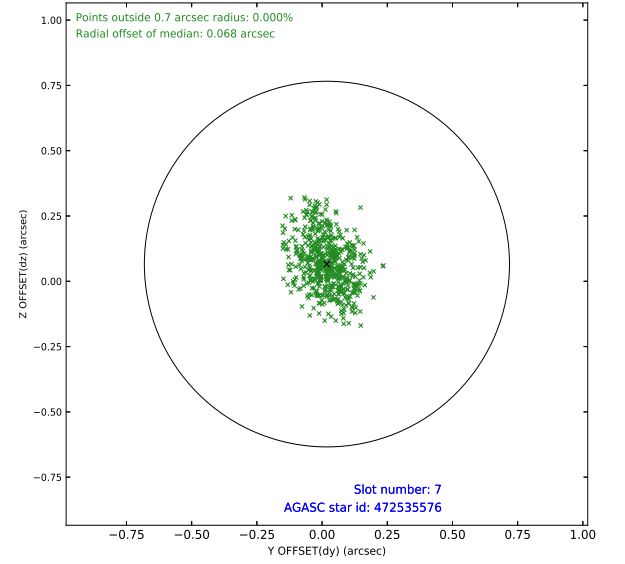
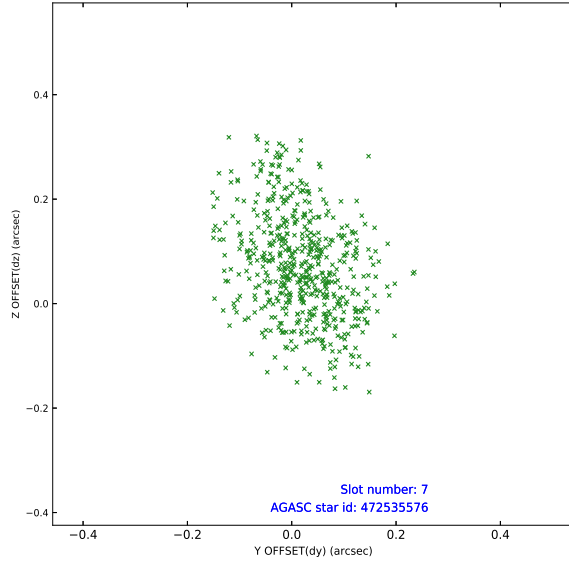
### 2.4.3 Slot 5



## 2.4.4 Slot 6

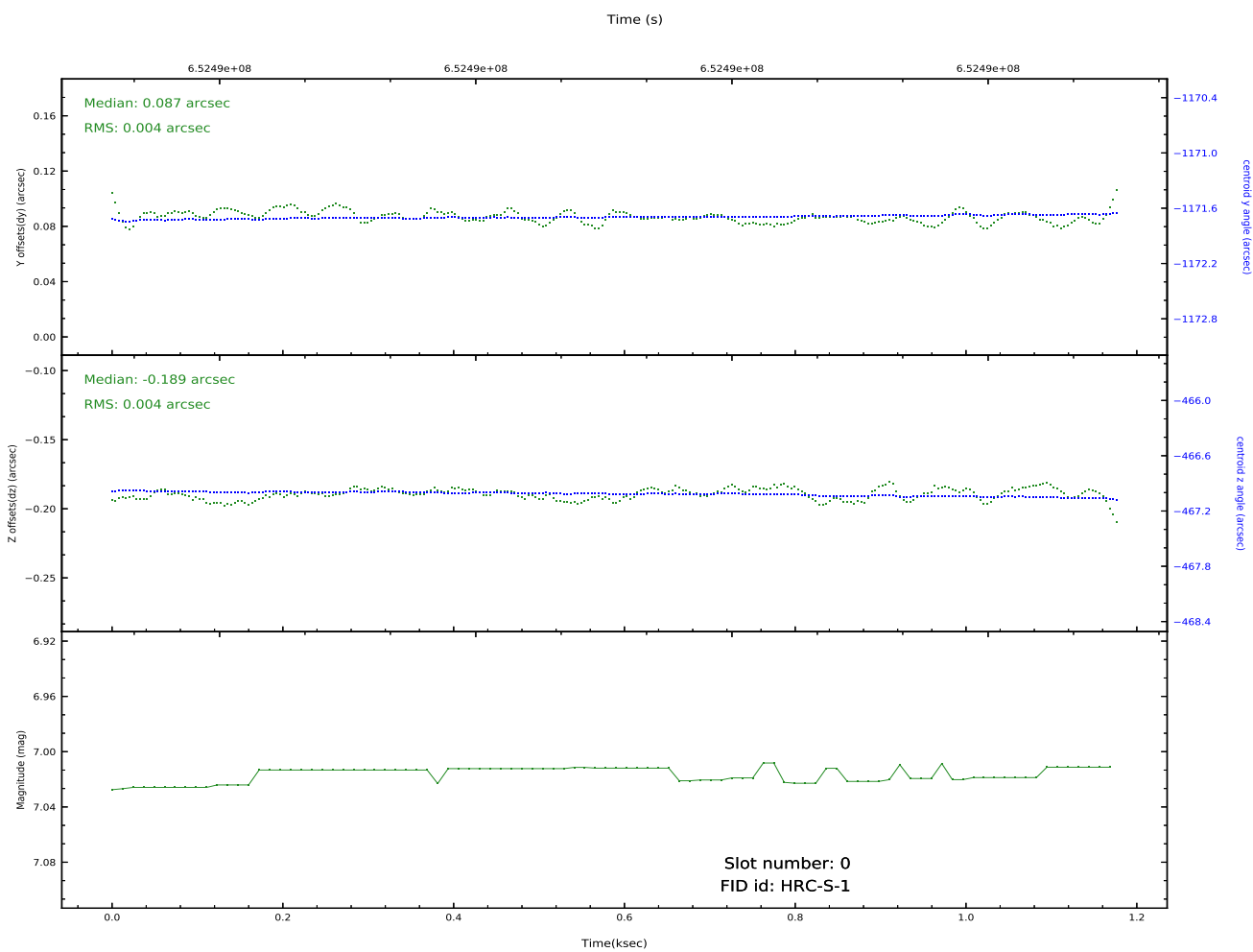
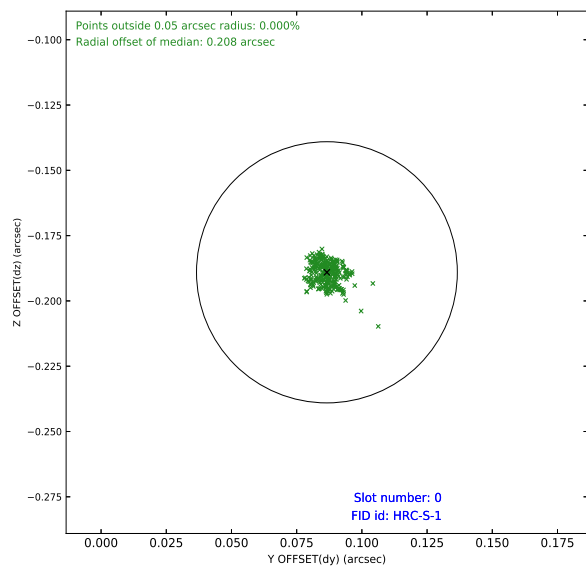
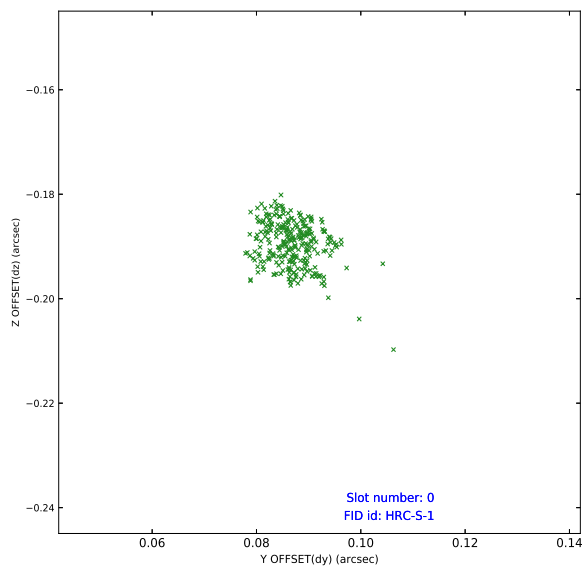


## 2.4.5 Slot 7

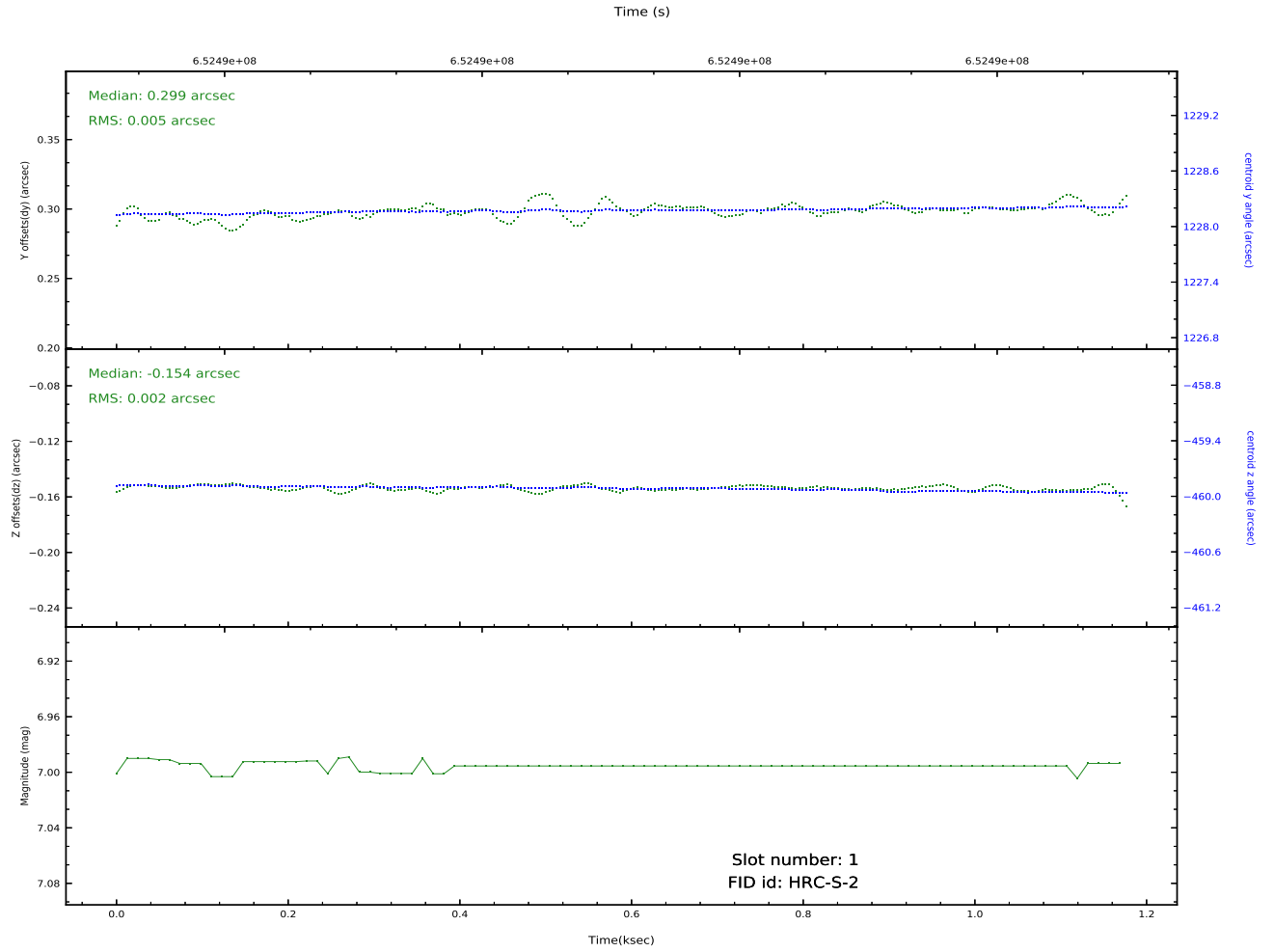
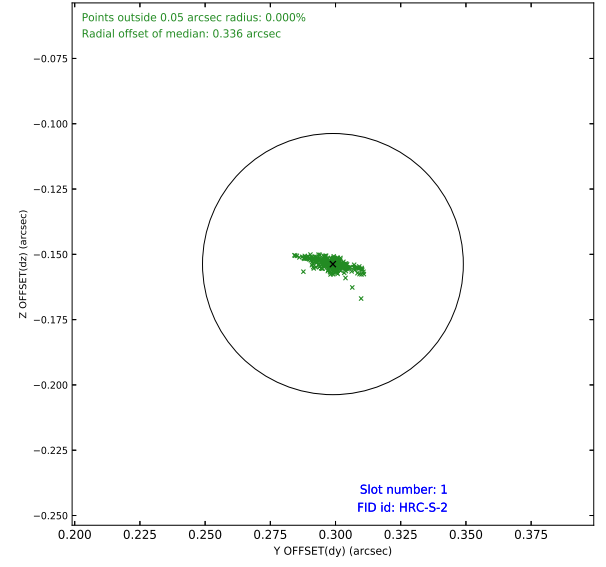
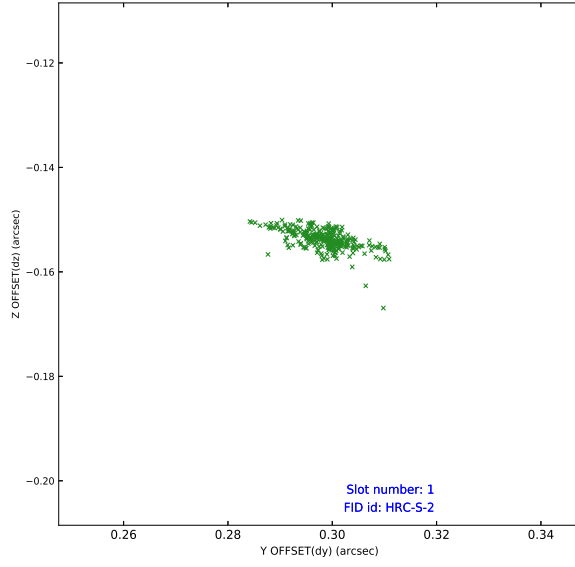


## 2.5 FID Slots

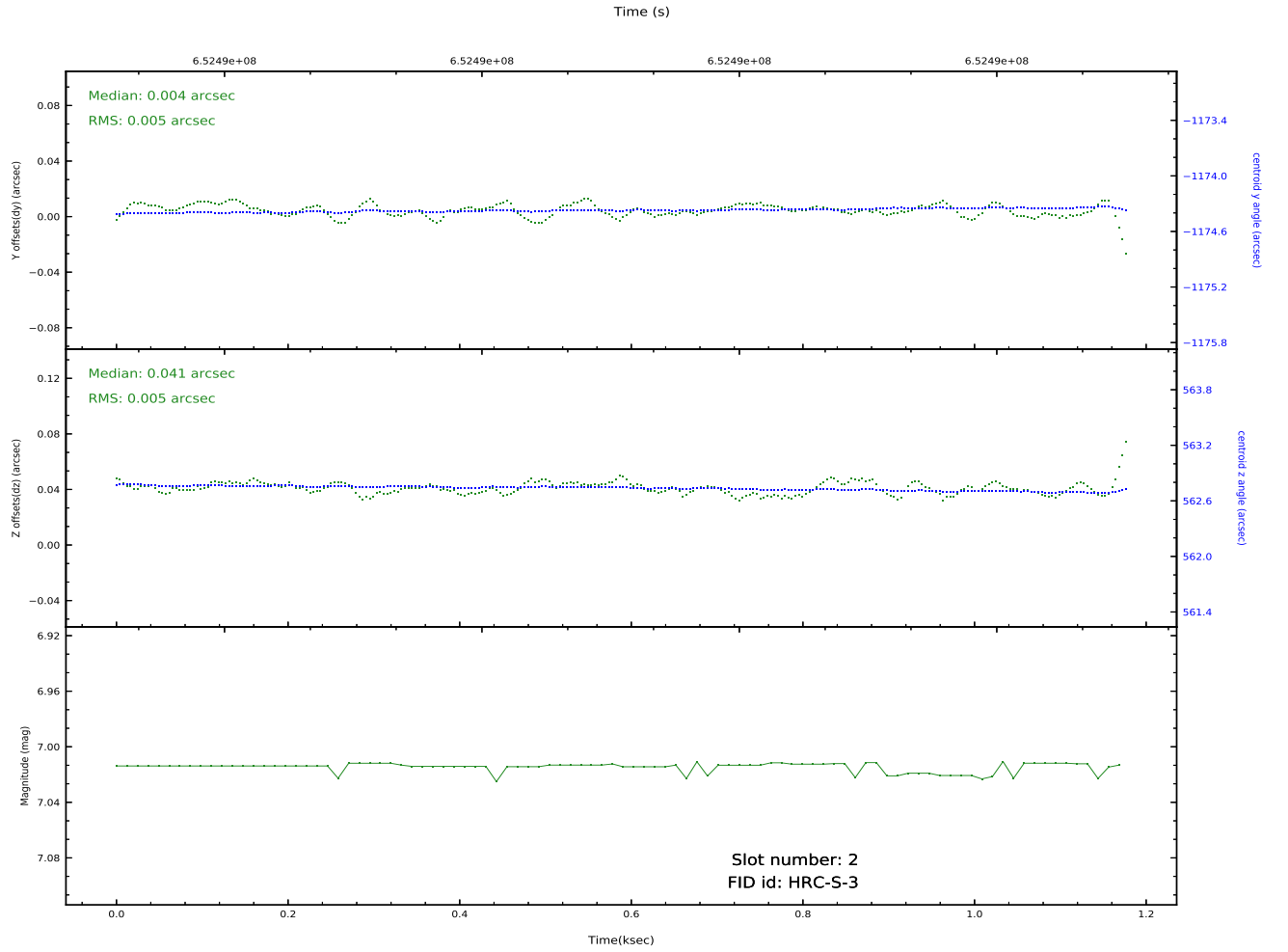
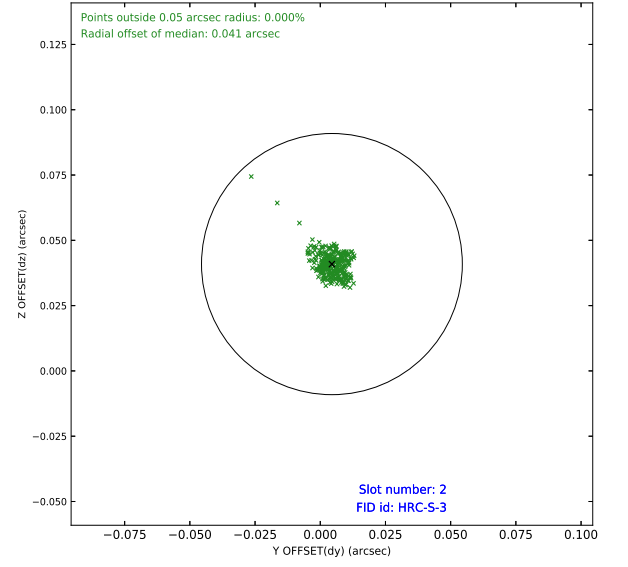
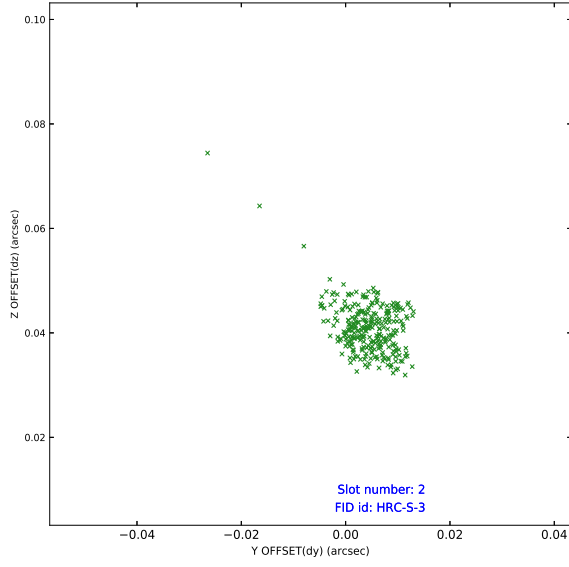
### 2.5.1 Slot 0



## 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	1.175931319952

### A.2 Comments