

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20661 - L2 Version 2  
Chandra X-Ray Center

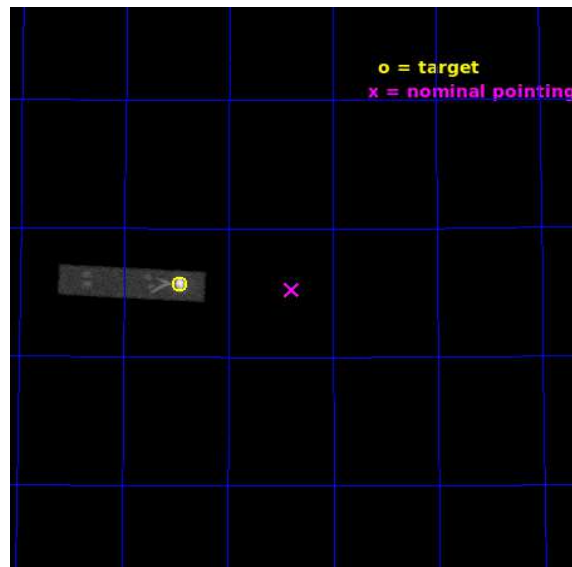
L2 Processing Date : Oct 26 2020

## 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

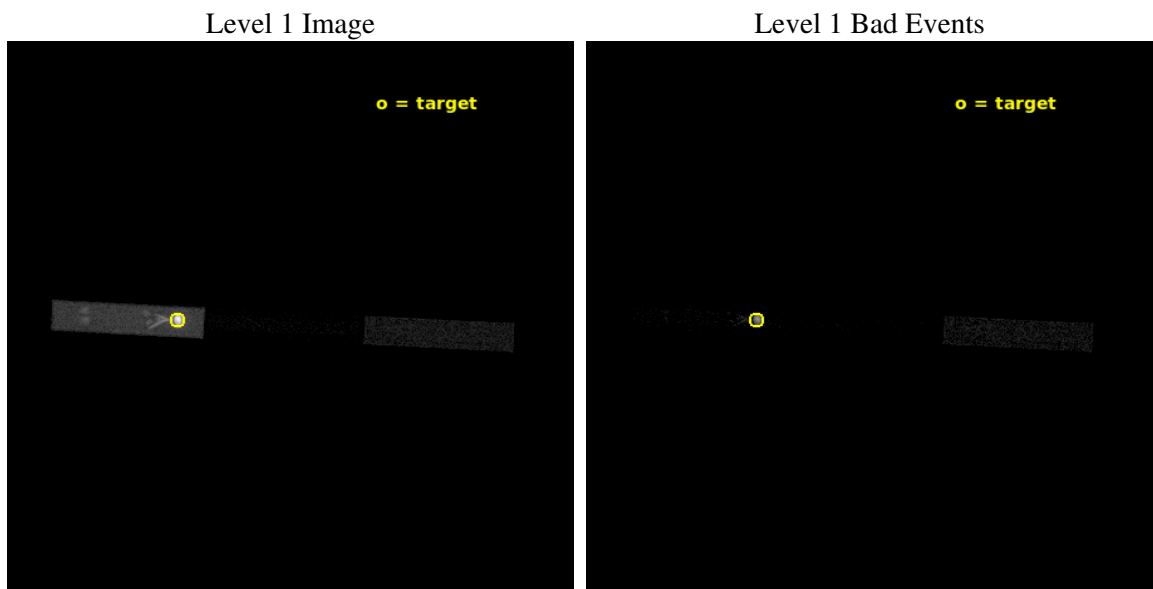
seq_num	291372	Sequence number
obs_id	20661	Observation id
title	AO-19 Measurements of the optical/UV Transmission of the HRC Filters.	Proposal title
observer	CXC Calibration	Principal investigator
object	Vega	Source name
ra_targ	279.235833	Observer's specified target RA [deg]
dec_targ	38.78475	Observer's specified target Dec [deg]
ra_nom	278.69682383732	Nominal RA [deg]
dec_nom	38.76300848834	Nominal Dec [deg]
roll_nom	183.04353610932	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1171.8313192129	[s]
livetime	516.86891670928	Ontime multiplied by DTCOR
l2events	207768	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	1171.8313192129	[s]
caldbver	4.9.3	&#160	l1events	267174	Number of level 1 events
date	2020-10-26T16:20:34	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

Level 1 Events

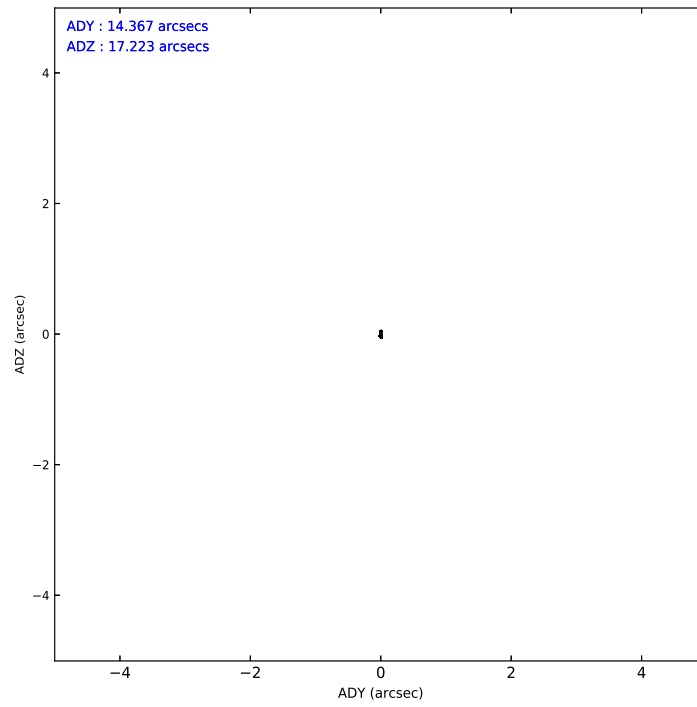
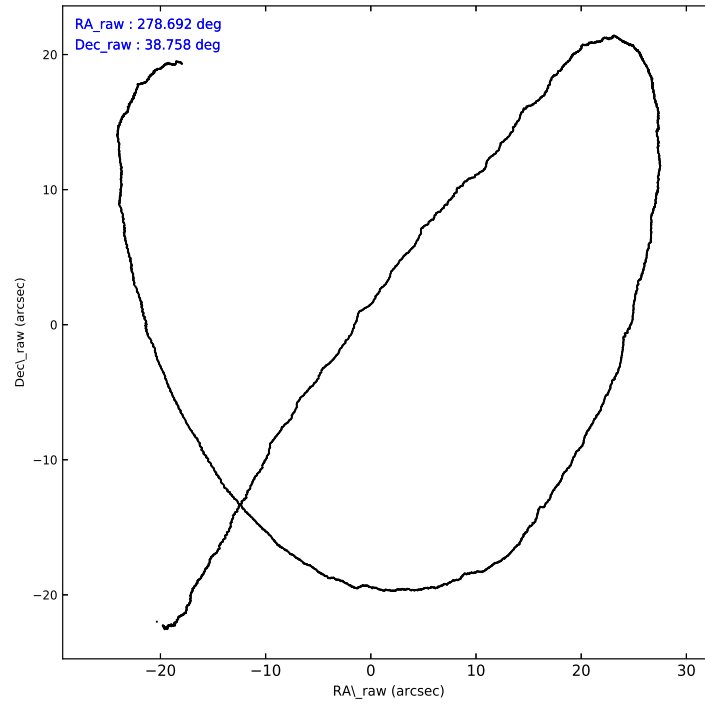
	segment 1	segment 2	segment 3
level 1 events	259417	396	7361
rejected events	43345	396	7275
rejected %	16%	100%	98%

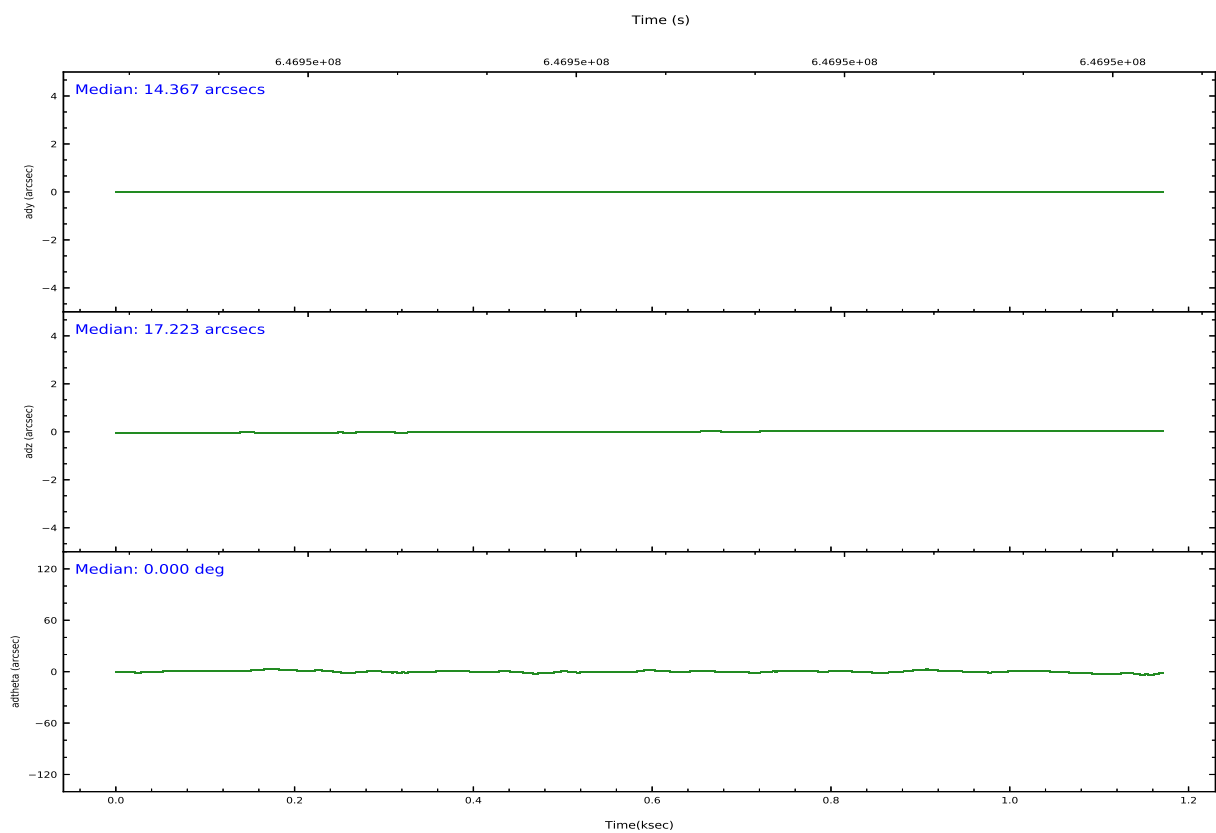
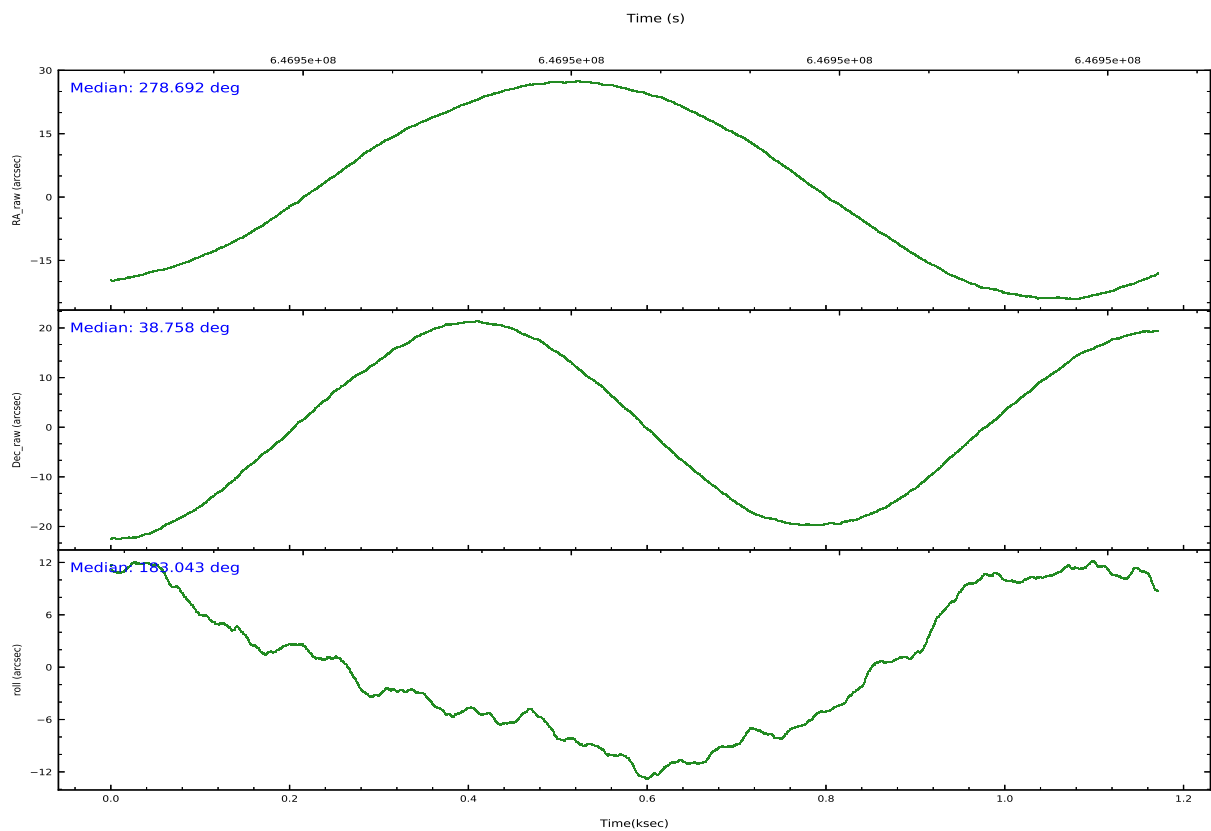
## 2.2 Compared Parameters

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	278.722326	278.69682383732
[deg] Pointing Dec	38.774823	38.76300848834
[deg] Pointing Roll	182.963589	183.04353610932
[s] Window start time (MET)	644198469.184000	644198469.184000
[s] Window stop time (MET)	649382469.184000	649382469.184000
[mm] SIM focus pos	-1.533336	-1.526339935833849
[mm] SIM defocus	7.710433287538843e-07	0.006996703570447904
[mm] SIM translation stage pos	250.455976	250.4635187648994
[mm] SIM translation stage offset	0	-0.007540371344731511
[s] Observation start time (MET)	646947657.184000	646947280.99659
Observation start date	2018-07-02T19:39:48	2018-07-02T19:34:40
[s] Observation end time (MET)	646948657.184000	646948792.87168
Observation end date	2018-07-02T19:56:28	2018-07-02T19:59:52

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

## 2.3 Aspect





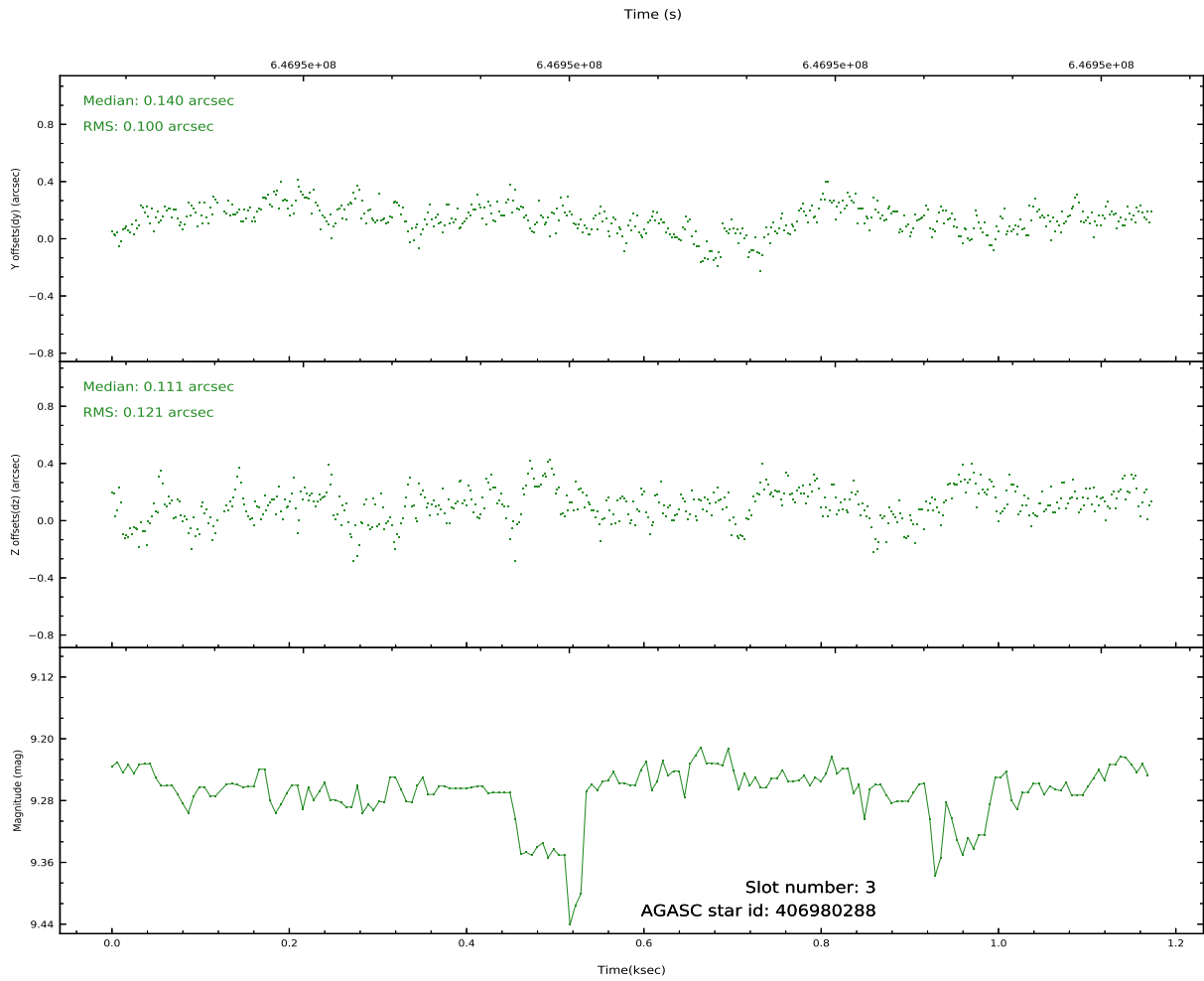
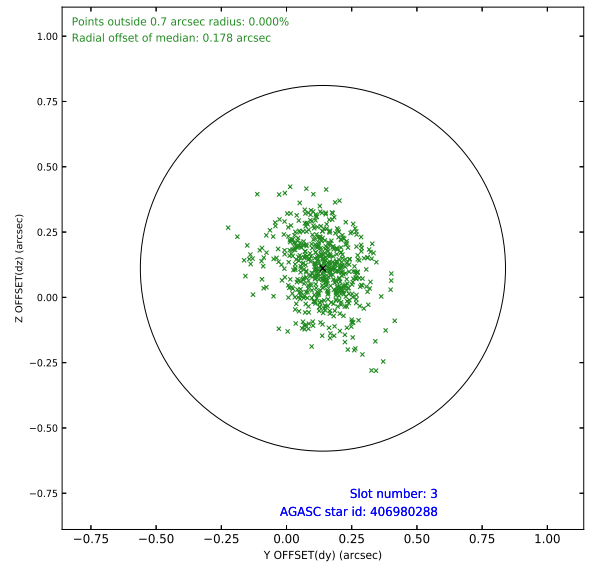
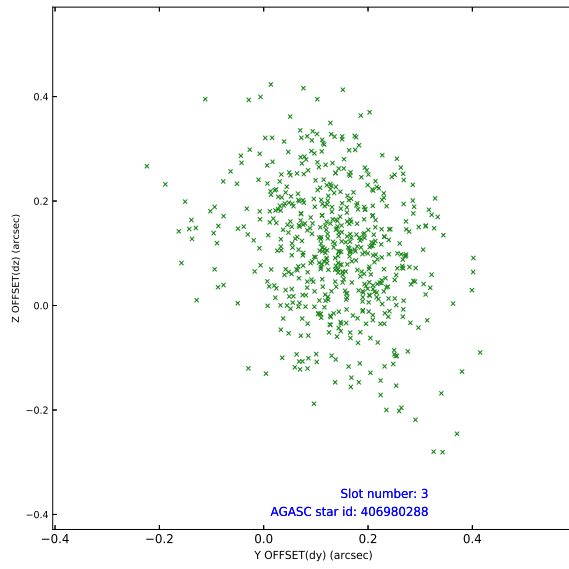
Slot Statistics

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	7.07	286	1.000	0.011	-0.122	0.006	0.009	0.000000	0.000000	-1168.83	-465
1	FID		HRC-S-2	7.04	286	1.000	0.212	-0.157	0.012	0.024	0.000000	0.000000	1226.94	-460
2	FID		HRC-S-4	7.01	286	1.000	0.181	-0.025	0.011	0.021	0.000000	0.000000	1233.93	564
3	GUIDE	used	406980288	9.26	570	1.000	0.140	0.111	0.161	0.283	278.903147	39.061646	-562.14	-1009
4	GUIDE	used	406985120	7.43	573	1.000	0.061	0.205	0.172	0.288	278.839732	38.894839	-352.67	-416
5	GUIDE	used	406987272	6.90	572	1.000	-0.254	-0.219	0.125	0.237	278.536588	38.437504	584.23	1183
6	GUIDE	used	406989616	8.21	573	1.000	-0.074	0.040	0.142	0.247	279.202881	38.520843	-1304.71	981
7	GUIDE	used	406987384	8.93	571	1.000	0.116	-0.124	0.182	0.397	278.815518	38.115336	-144.42	2385

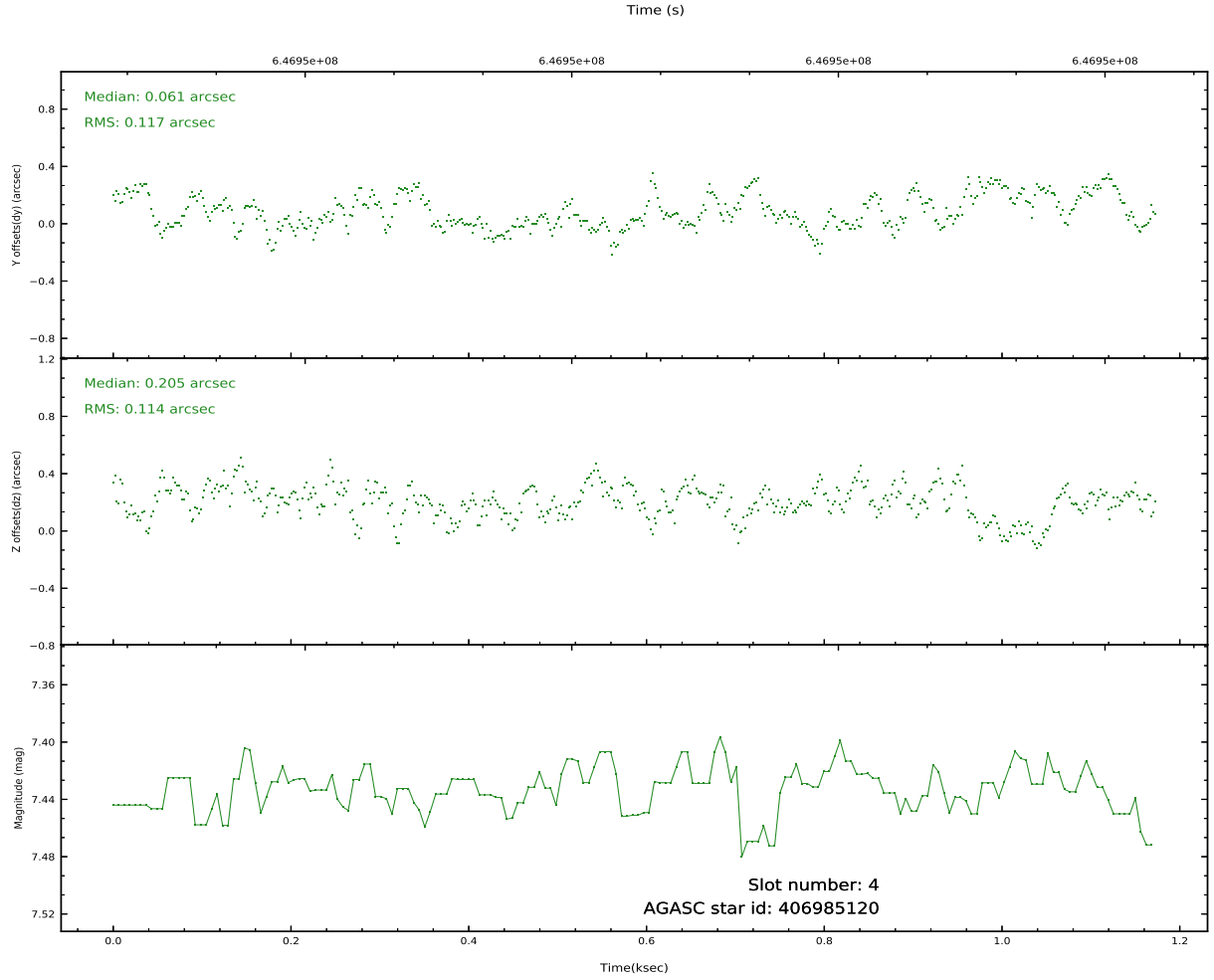
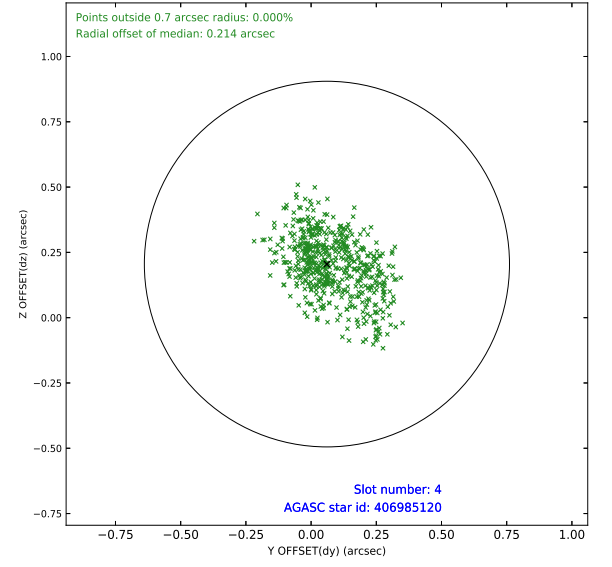
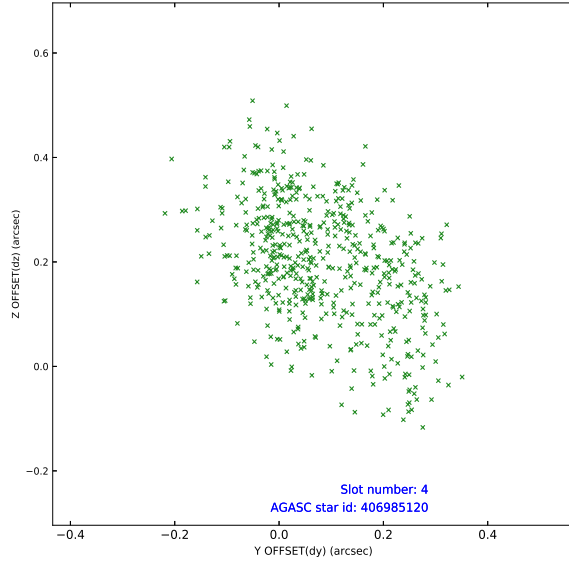


## 2.4 Star Slots

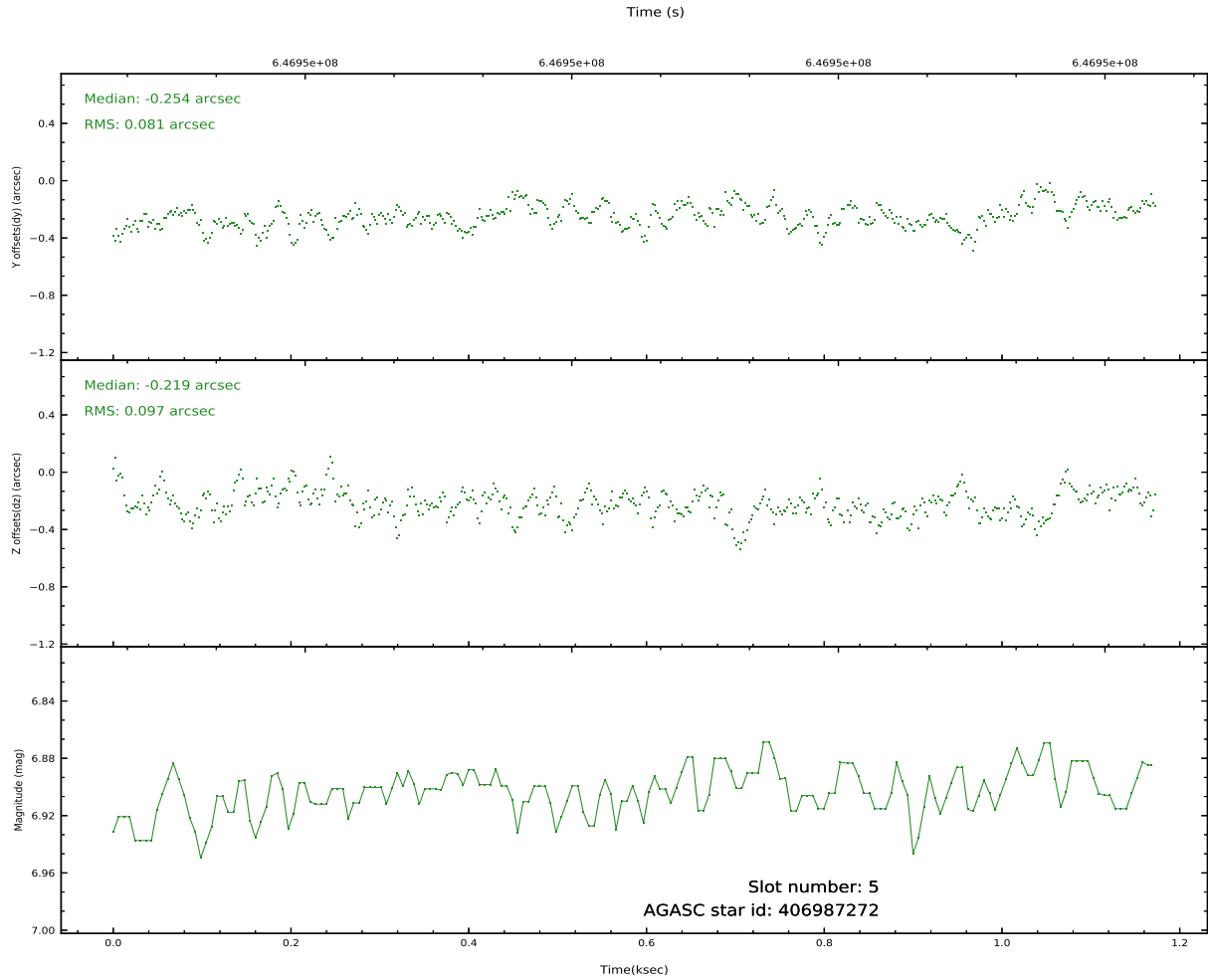
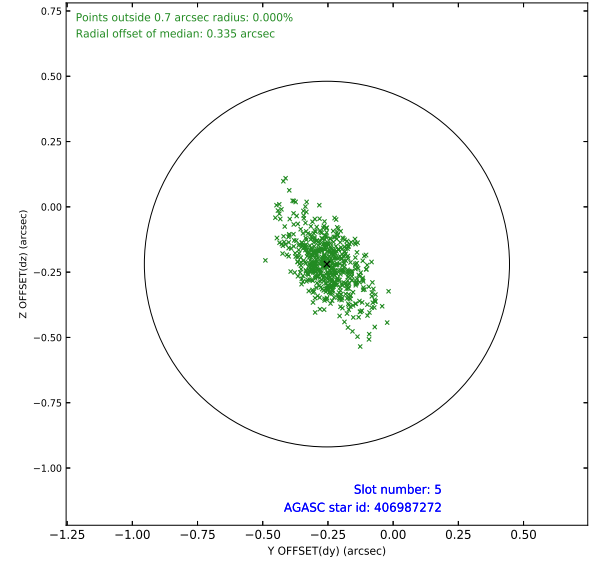
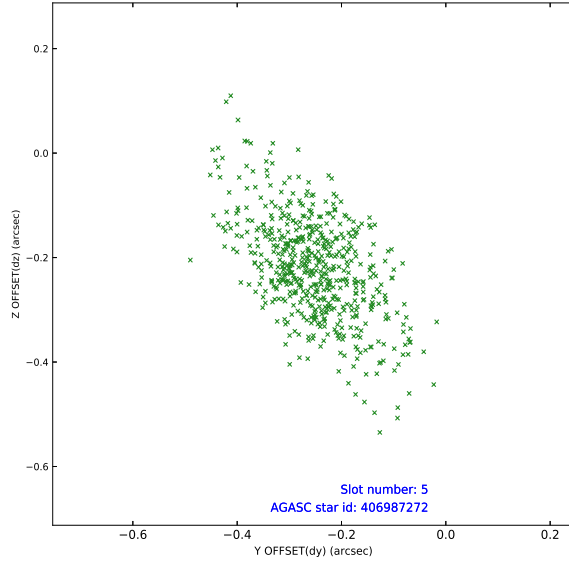
### 2.4.1 Slot 3



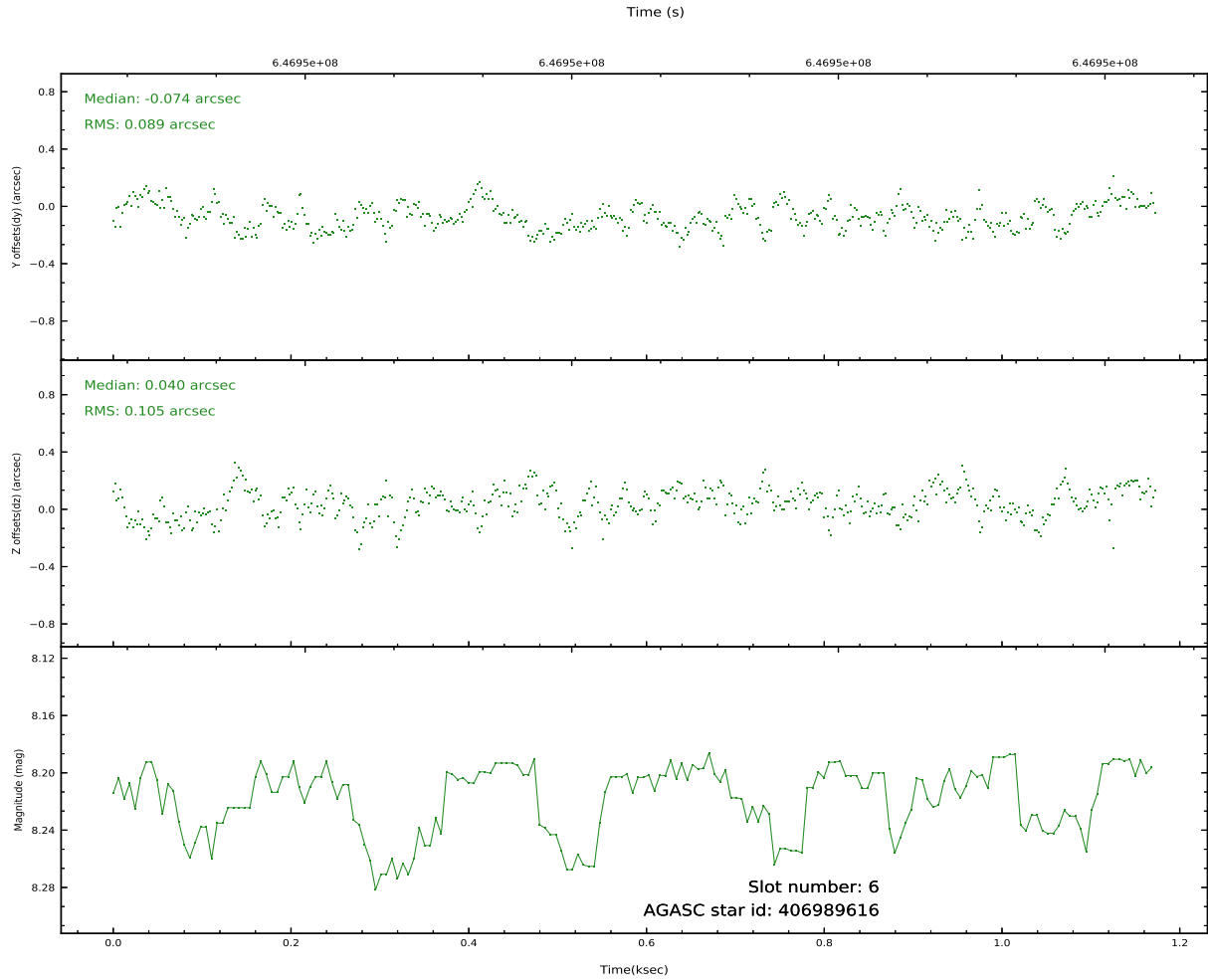
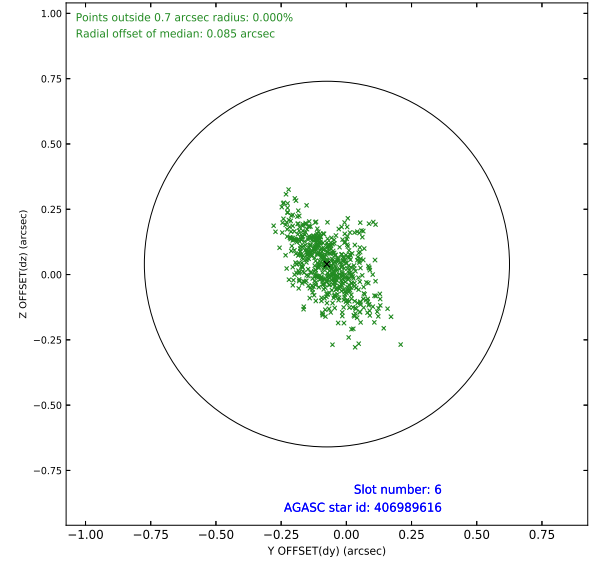
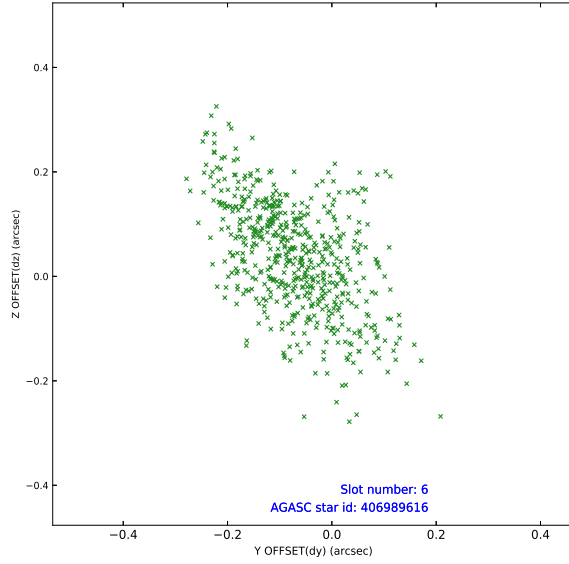
## 2.4.2 Slot 4



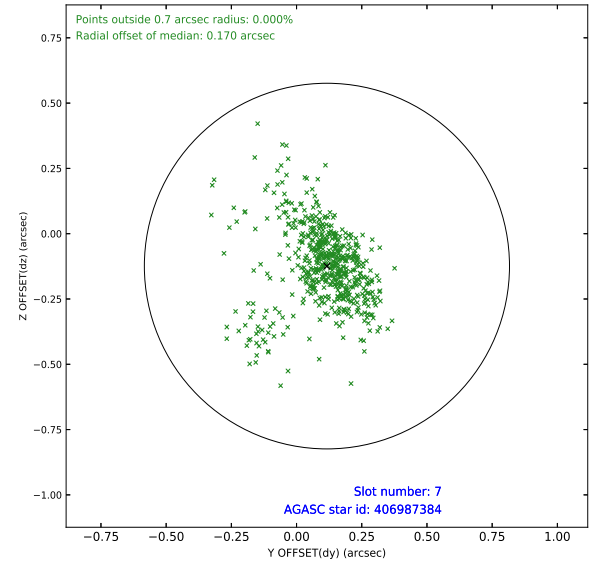
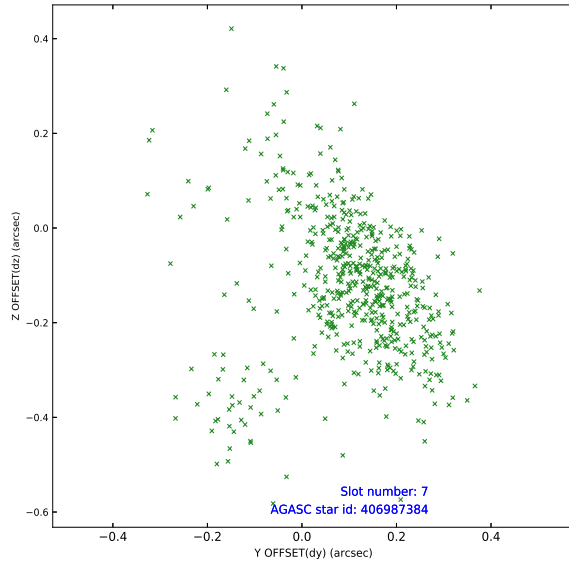
### 2.4.3 Slot 5



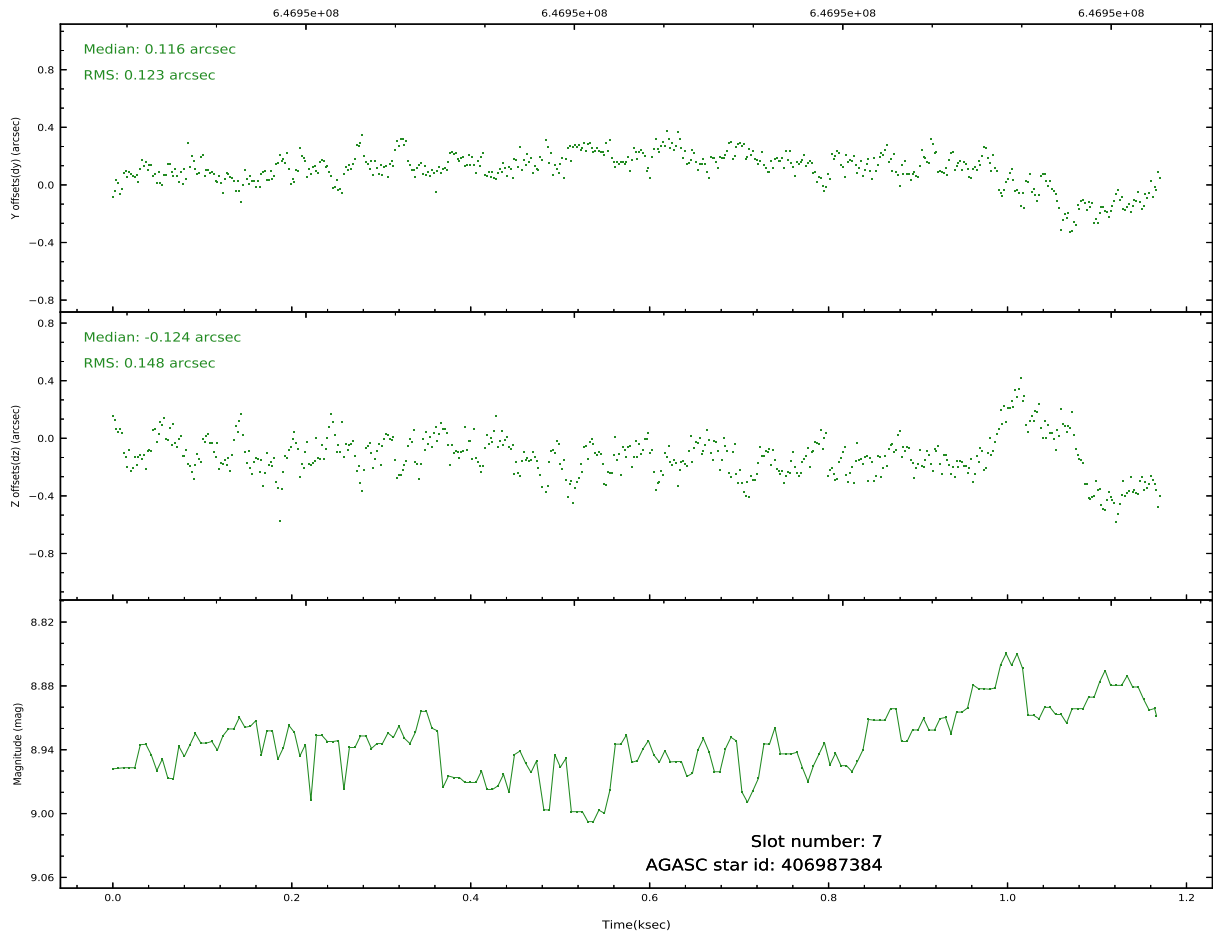
## 2.4.4 Slot 6



## 2.4.5 Slot 7

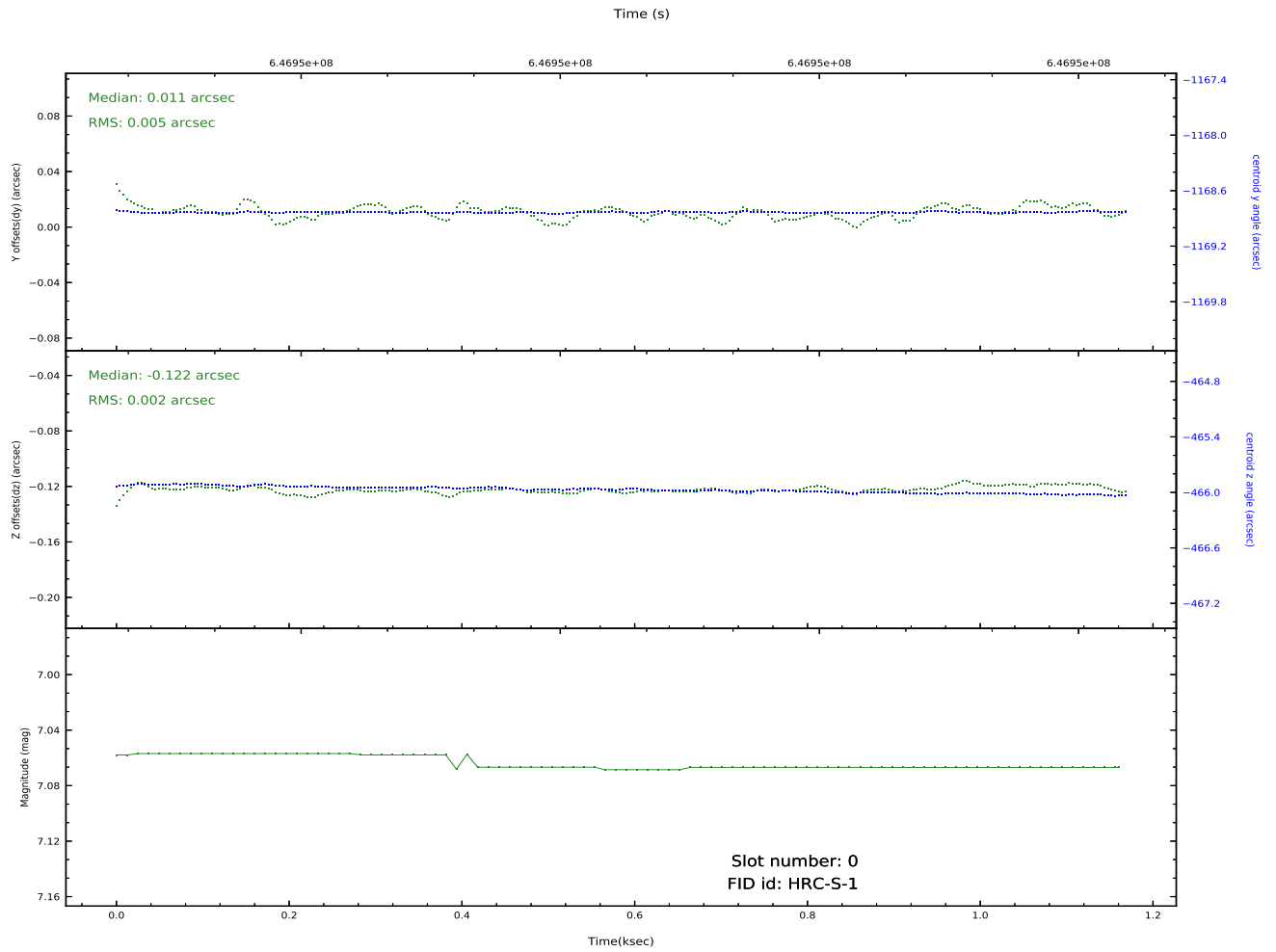
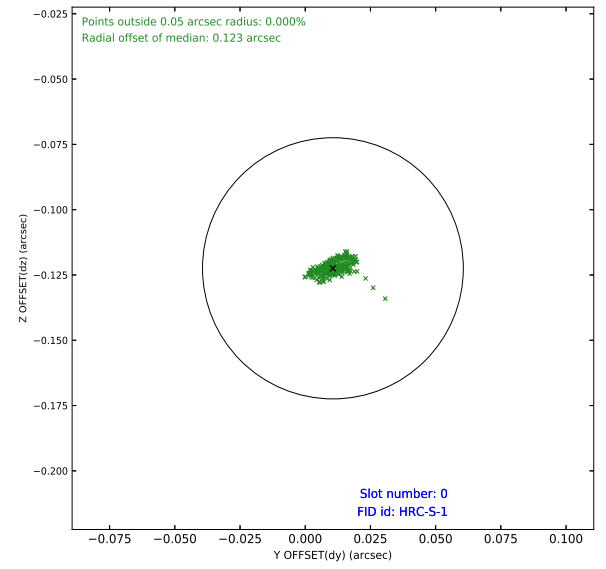
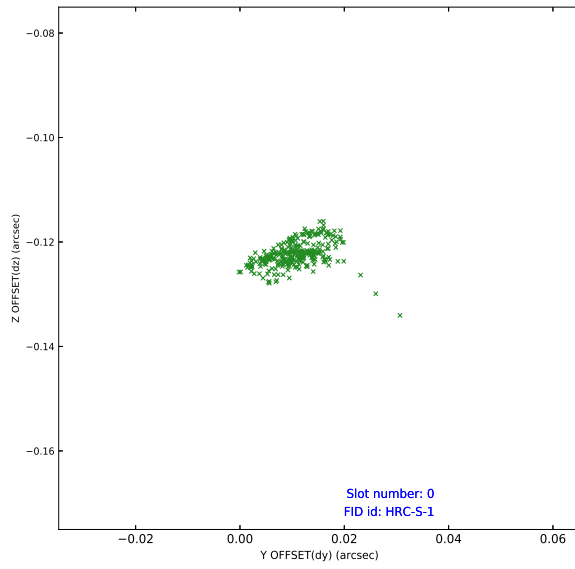


Time (s)

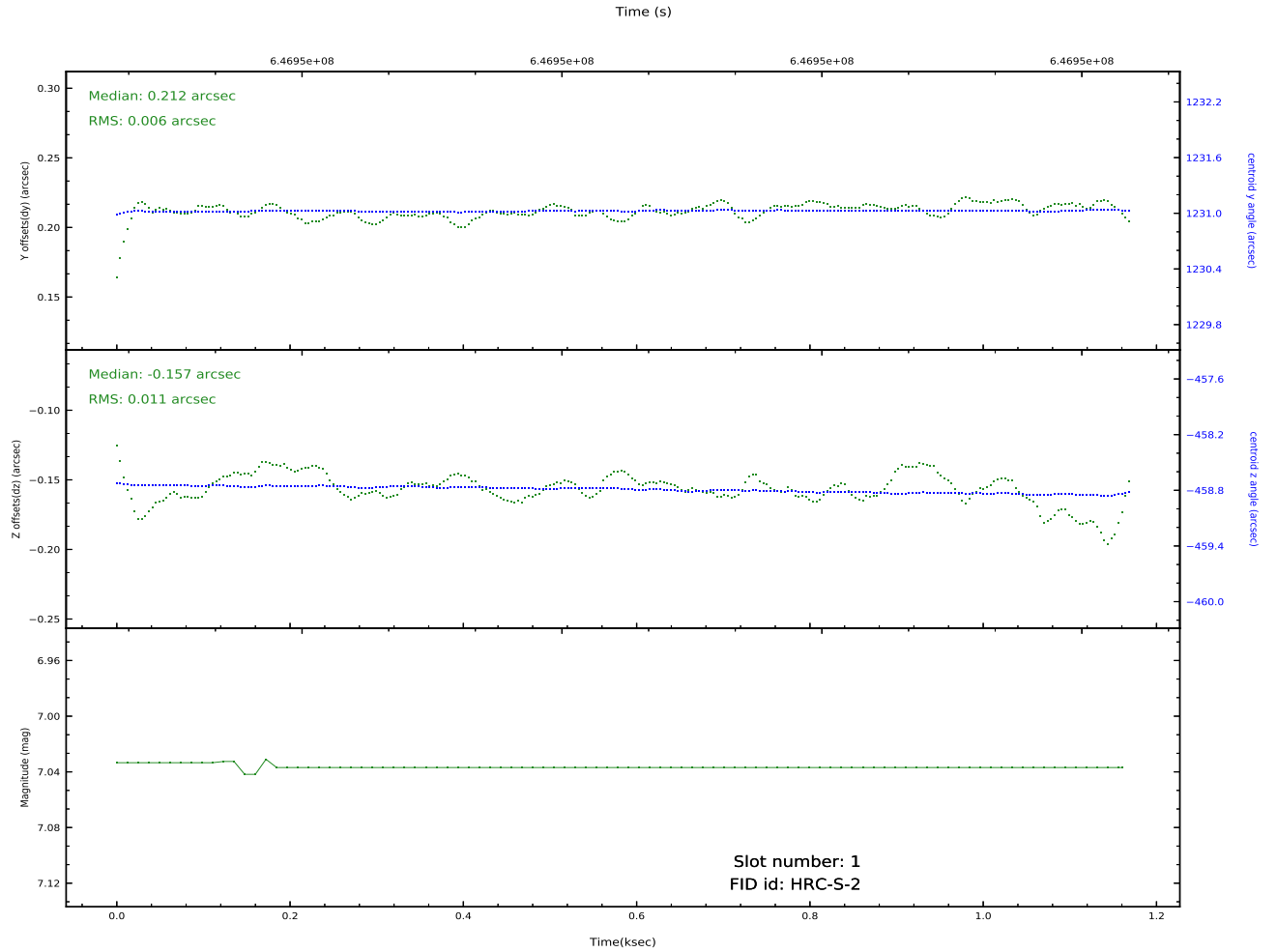
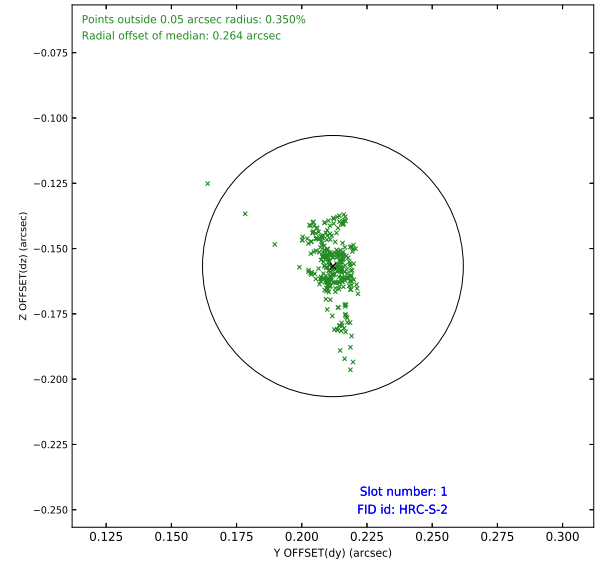
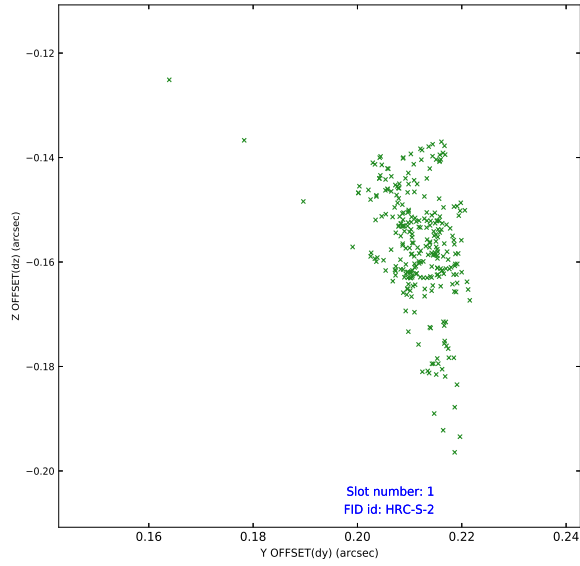


## 2.5 FID Slots

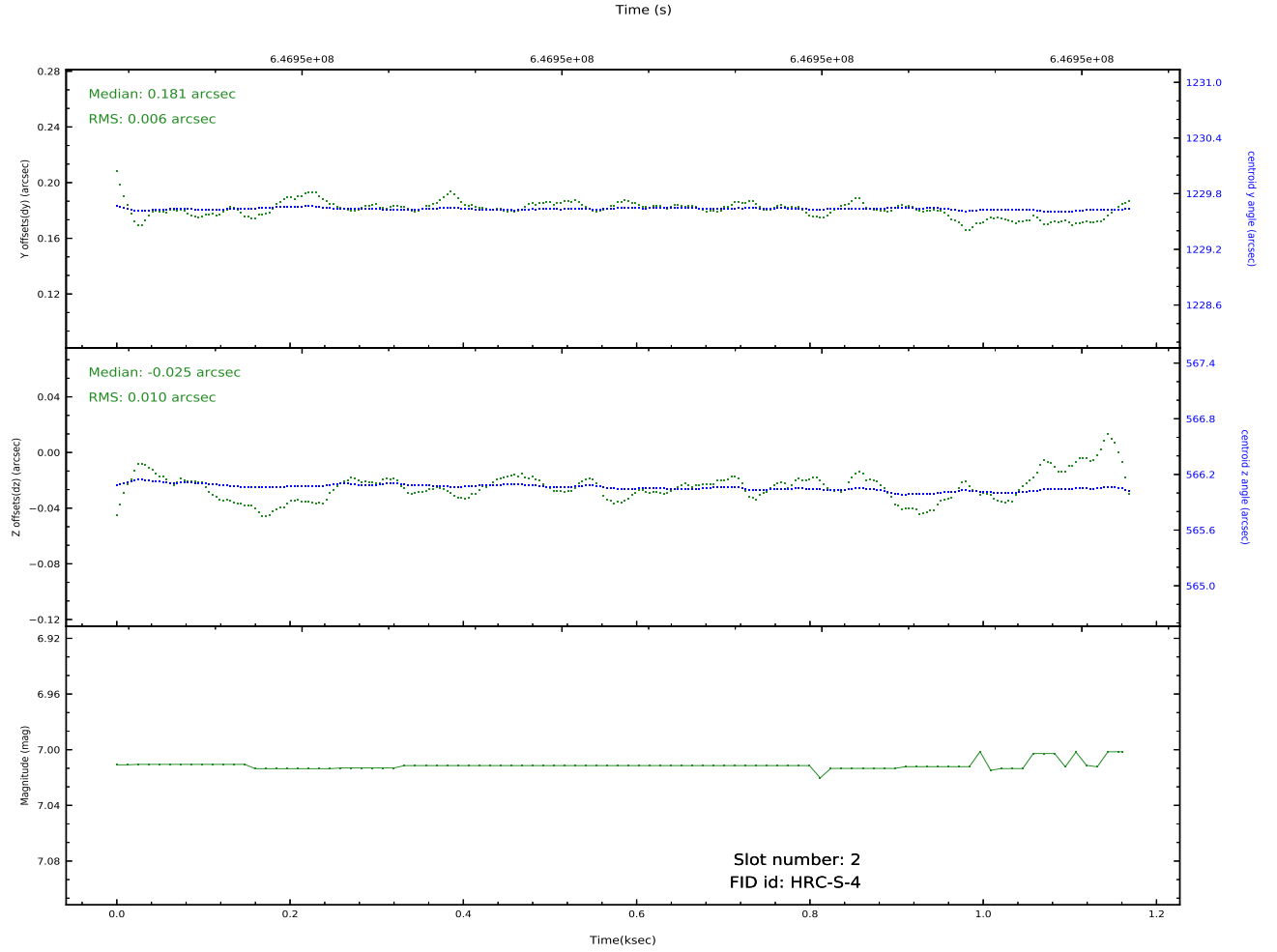
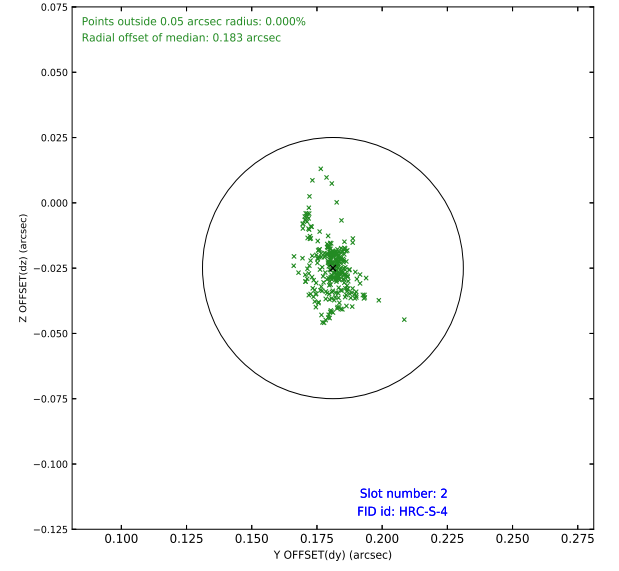
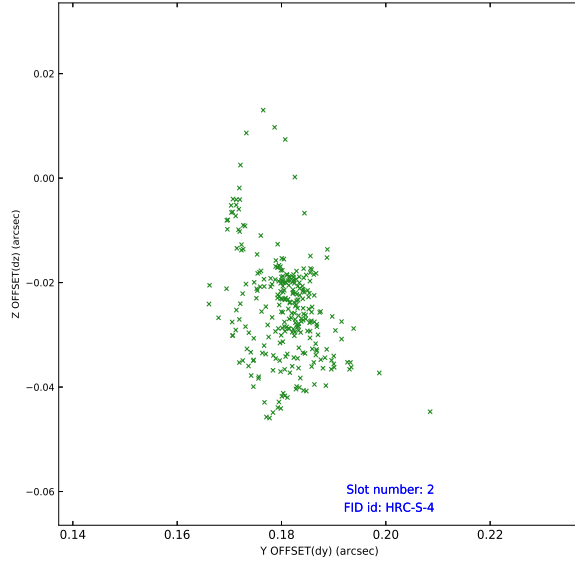
### 2.5.1 Slot 0



## 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	1.1715750695467

### A.2 Comments

Window constraint met.