

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20660 - L2 Version 2  
Chandra X-Ray Center

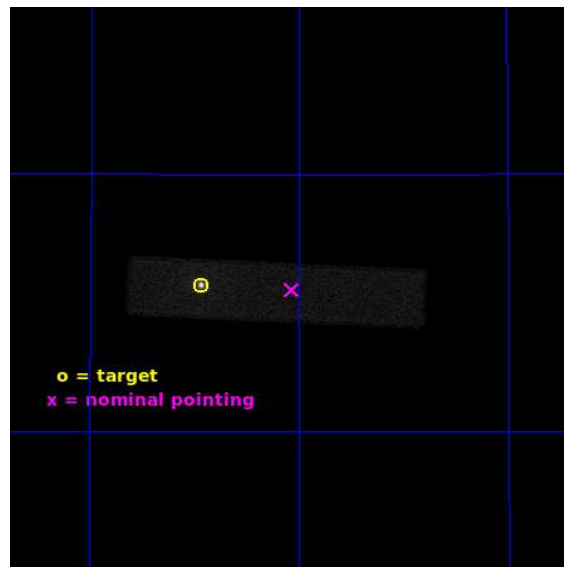
L2 Processing Date : Oct 26 2020

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# 1 Front

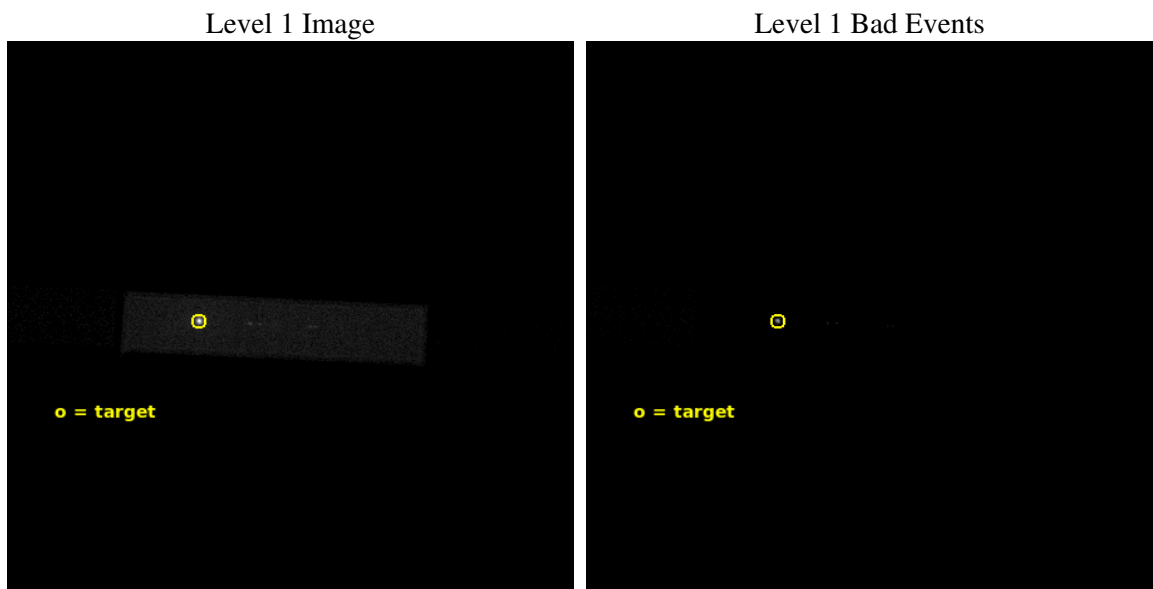
seq_num	291371	Sequence number
obs_id	20660	Observation id
title	AO-19 Measurements of the optical/UV Transmission of the HRC Filters.	Proposal title
observer	CXC Calibration	Principal investigator
object	Vega	Source name
ra_targ	279.235833	Observer's specified target RA [deg]
dec_targ	38.78475	Observer's specified target Dec [deg]
ra_nom	279.01775064155	Nominal RA [deg]
dec_nom	38.77619388094	Nominal Dec [deg]
roll_nom	182.68858667886	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1177.9813197851	[s]
liveltime	1029.1003721137	Ontime multiplied by DTCOR
l2events	205395	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	1177.9813197851	[s]
caldsver	4.9.3	&#160	l1events	267305	Number of level 1 events
date	2020-10-26T16:19:53	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

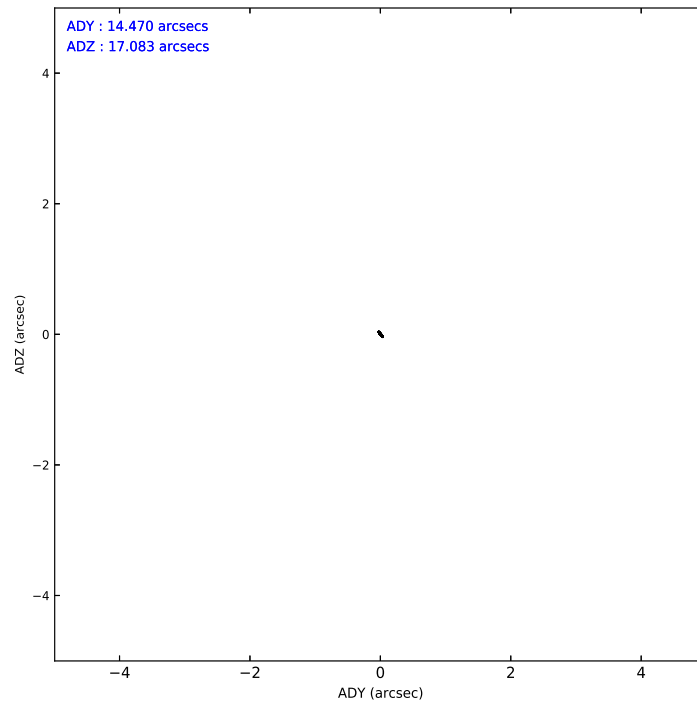
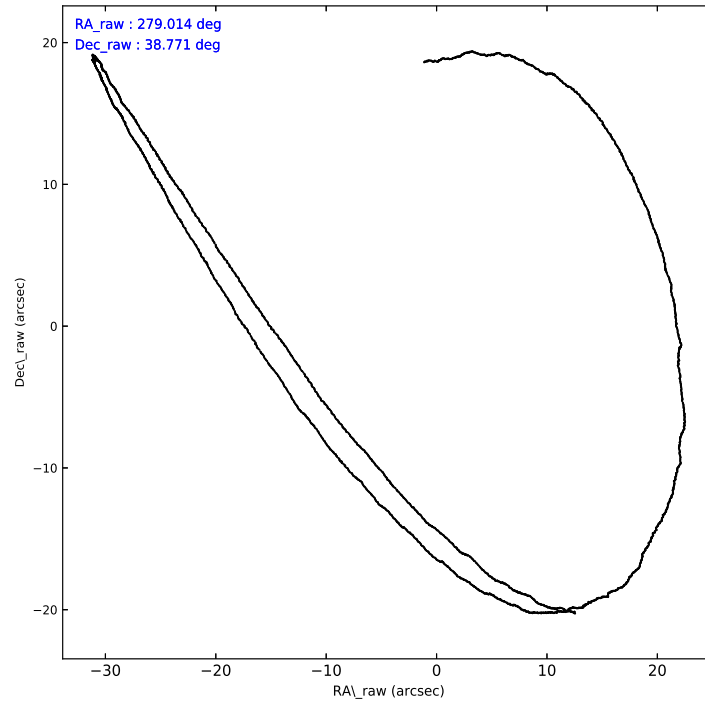
Level 1 Events

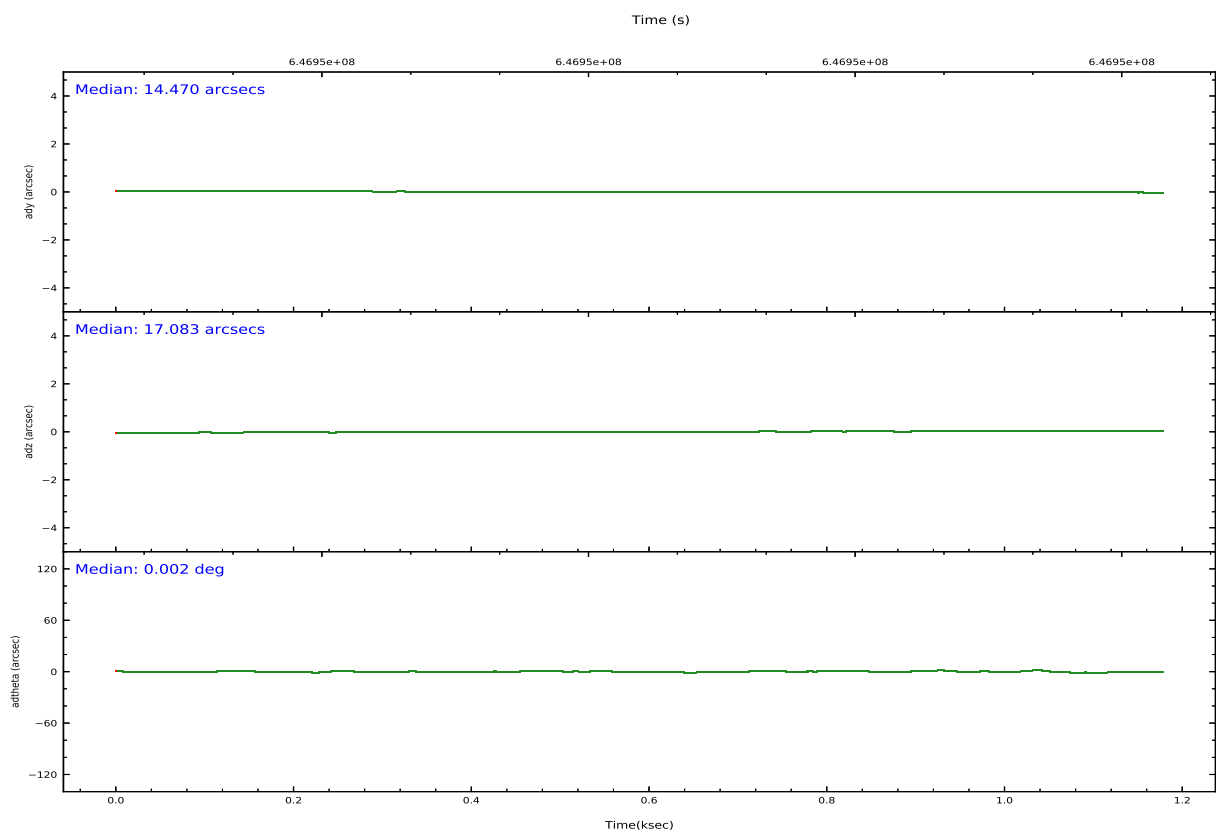
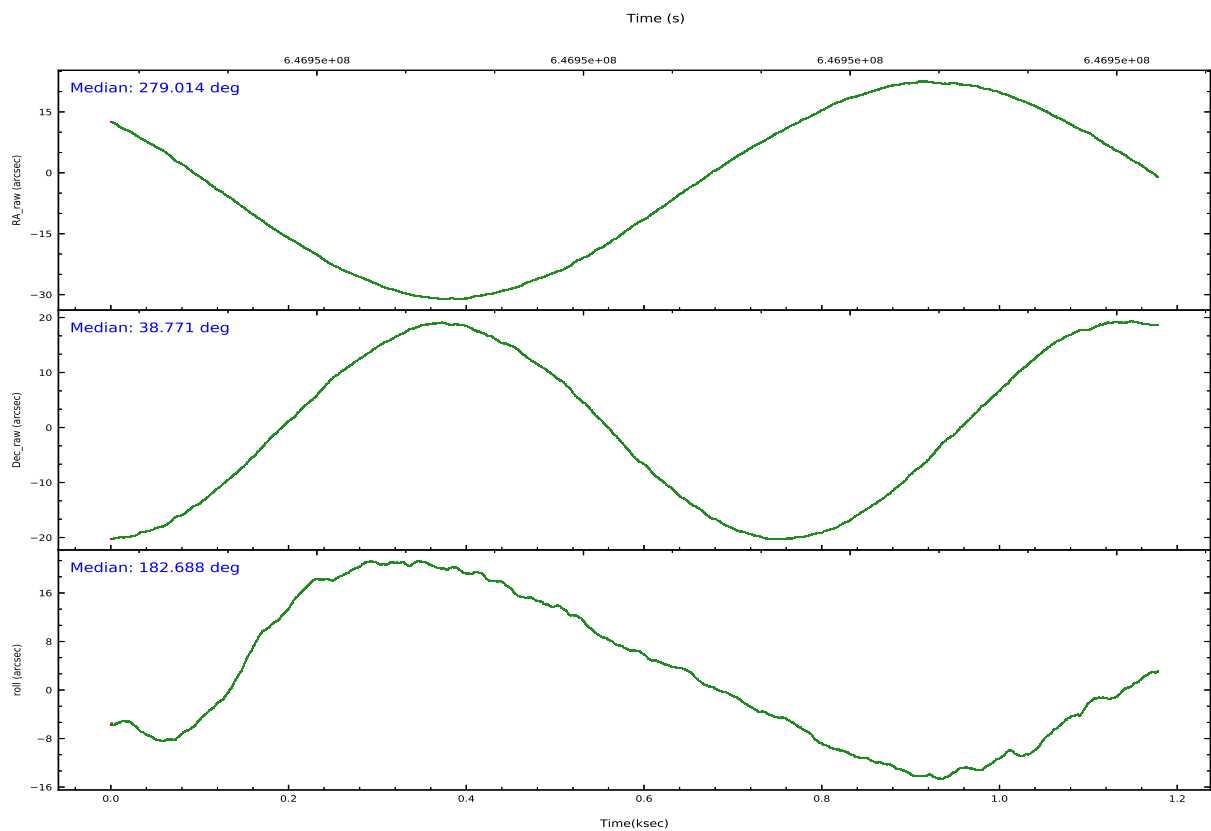
	segment 1	segment 2	segment 3
level 1 events	7575	258927	803
rejected events	7575	41720	803
rejected %	100%	16%	100%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar version number	8	8
Detector	HRC-S	HRC-S	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	279.042608	279.01775064155			
[deg] Pointing Dec	38.787704	38.77619388094			
[deg] Pointing Roll	182.610045	182.68858667886			
[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)	646946147.184000	646945770.659			
Observation start date	2018-07-02T19:14:38	2018-07-02T19:09:30			
[s] Observation end time (MET)	646947147.184000	646947280.99659			
Observation end date	2018-07-02T19:31:18	2018-07-02T19:34:40			

## 2.3 Aspect





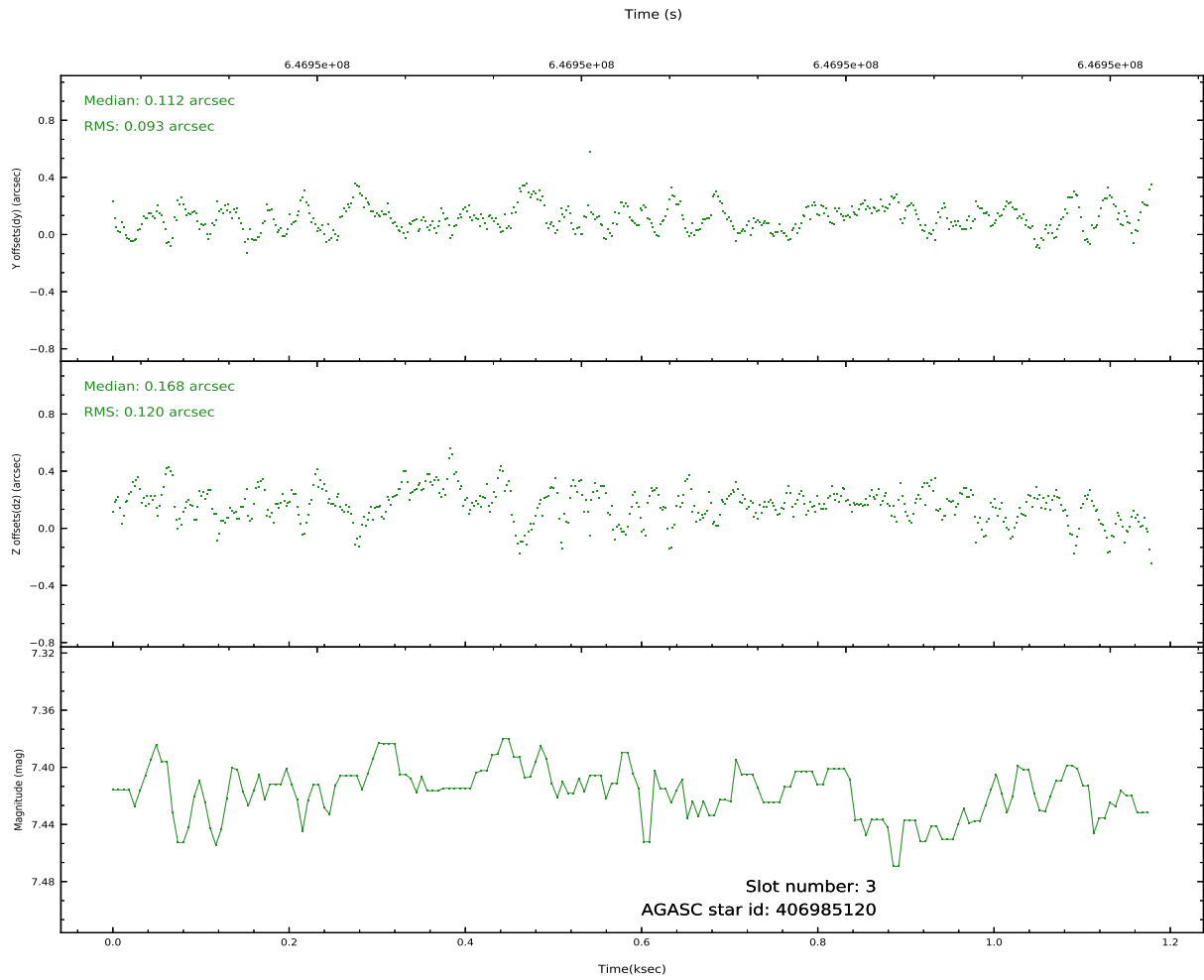
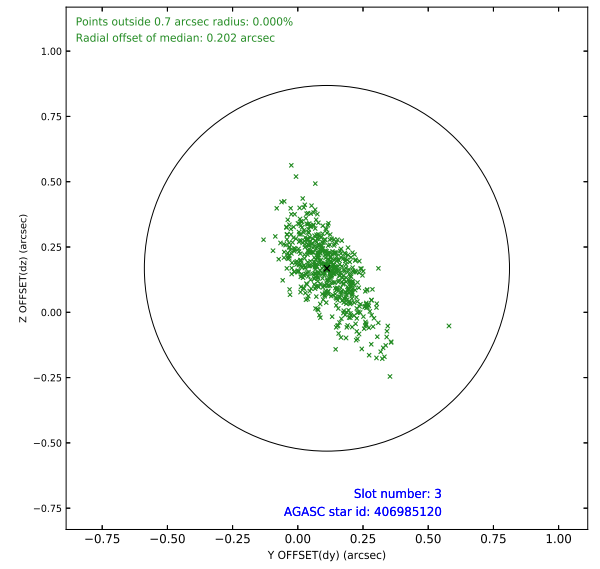
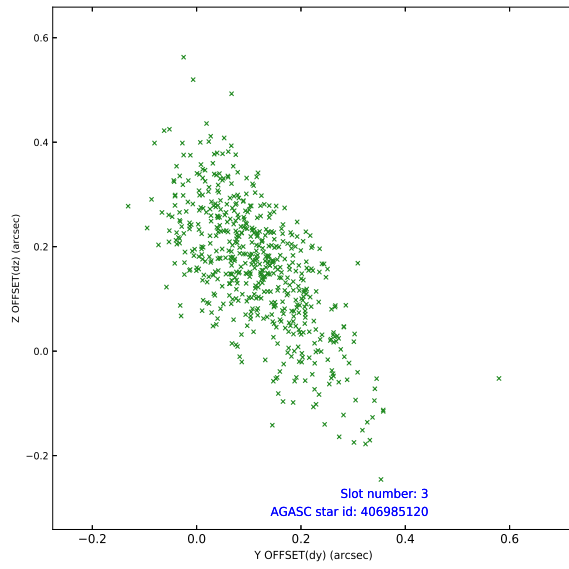
Slot Statistics

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	7.06	288	1.000	0.082	-0.174	0.009	0.015	0.000000	0.000000	-1168.89	-465
1	FID		HRC-S-2	7.04	288	1.000	0.276	-0.142	0.005	0.010	0.000000	0.000000	1226.90	-460
2	FID		HRC-S-3	7.04	288	1.000	0.031	0.014	0.008	0.014	0.000000	0.000000	-1167.30	562
3	GUIDE	used	406985120	7.42	576	1.000	0.112	0.168	0.149	0.283	278.839732	38.894839	551.49	-410
4	GUIDE	used	406989616	8.21	576	1.000	0.011	-0.043	0.155	0.263	279.202881	38.520843	-405.25	979
5	GUIDE	used	407521232	8.60	576	1.000	0.141	0.231	0.160	0.280	279.628883	39.431715	-1733.79	-2244
6	GUIDE	used	406987272	6.91	576	1.000	-0.187	-0.233	0.129	0.244	278.536588	38.437504	1480.78	1186
7	GUIDE	used	406987384	8.93	575	1.000	-0.073	-0.129	0.164	0.276	278.815518	38.115336	755.99	2390

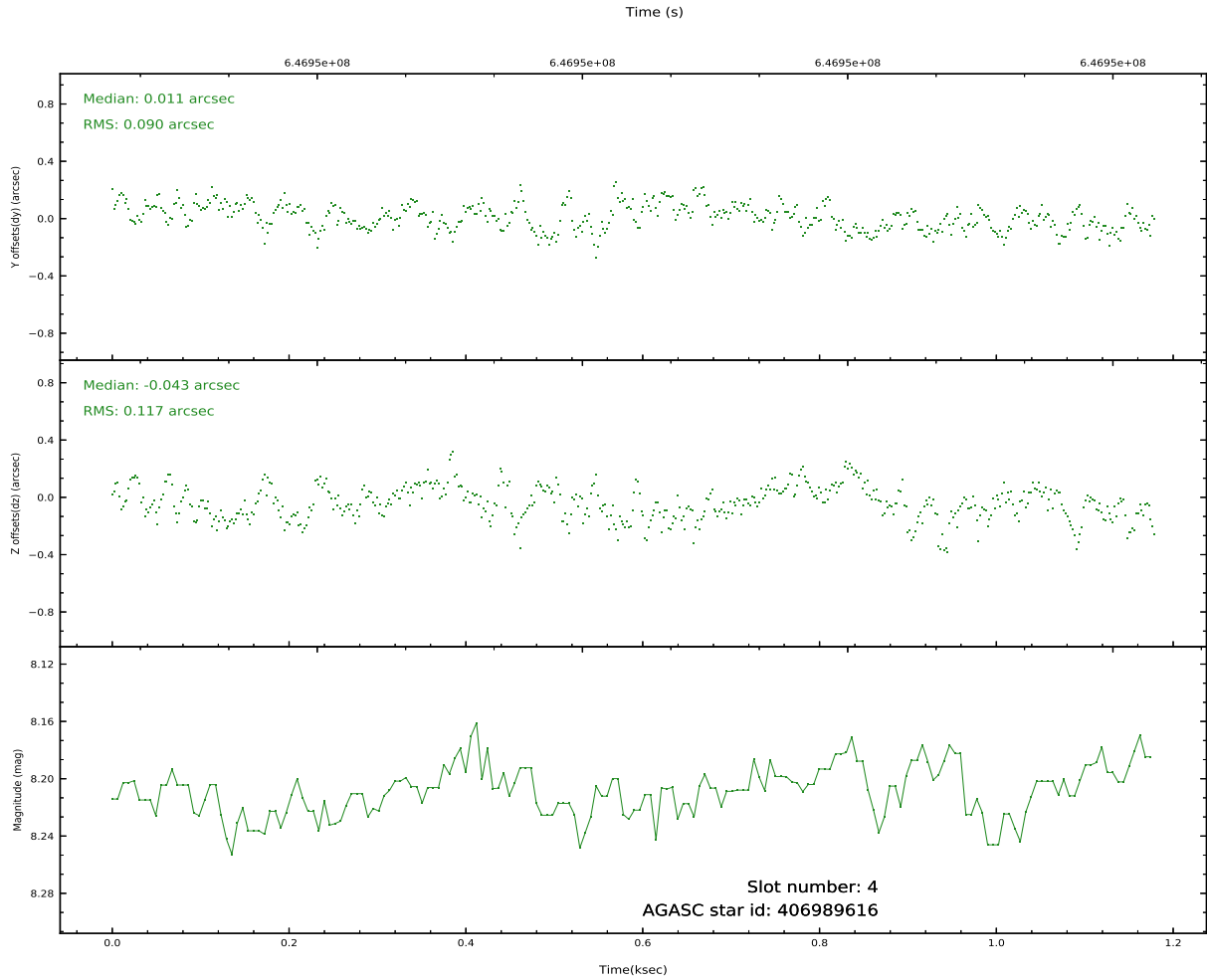
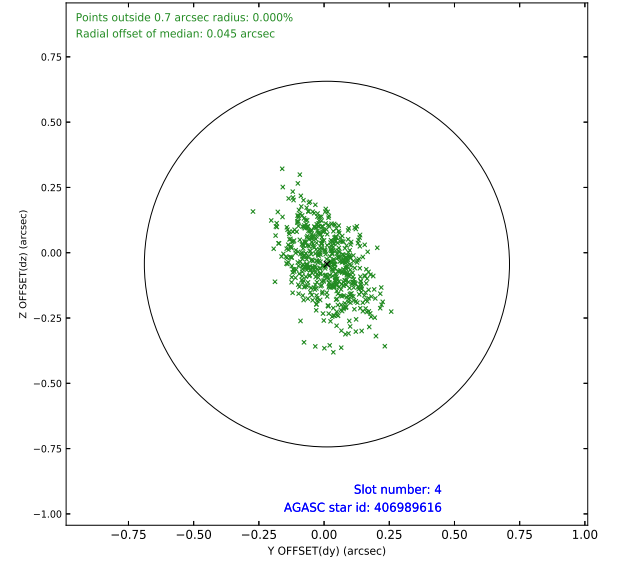
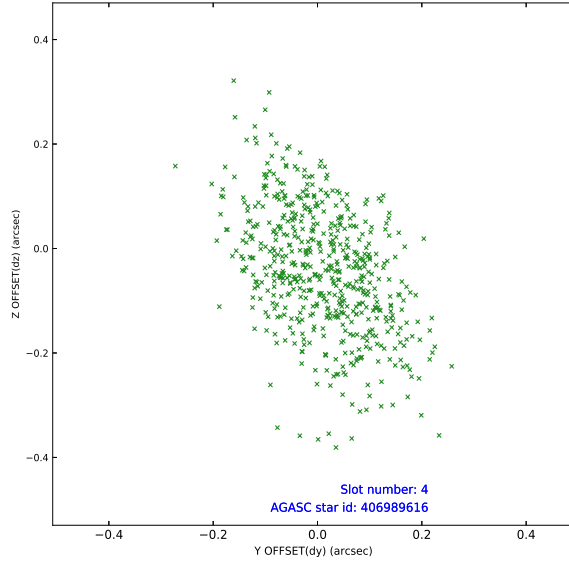


## 2.4 Star Slots

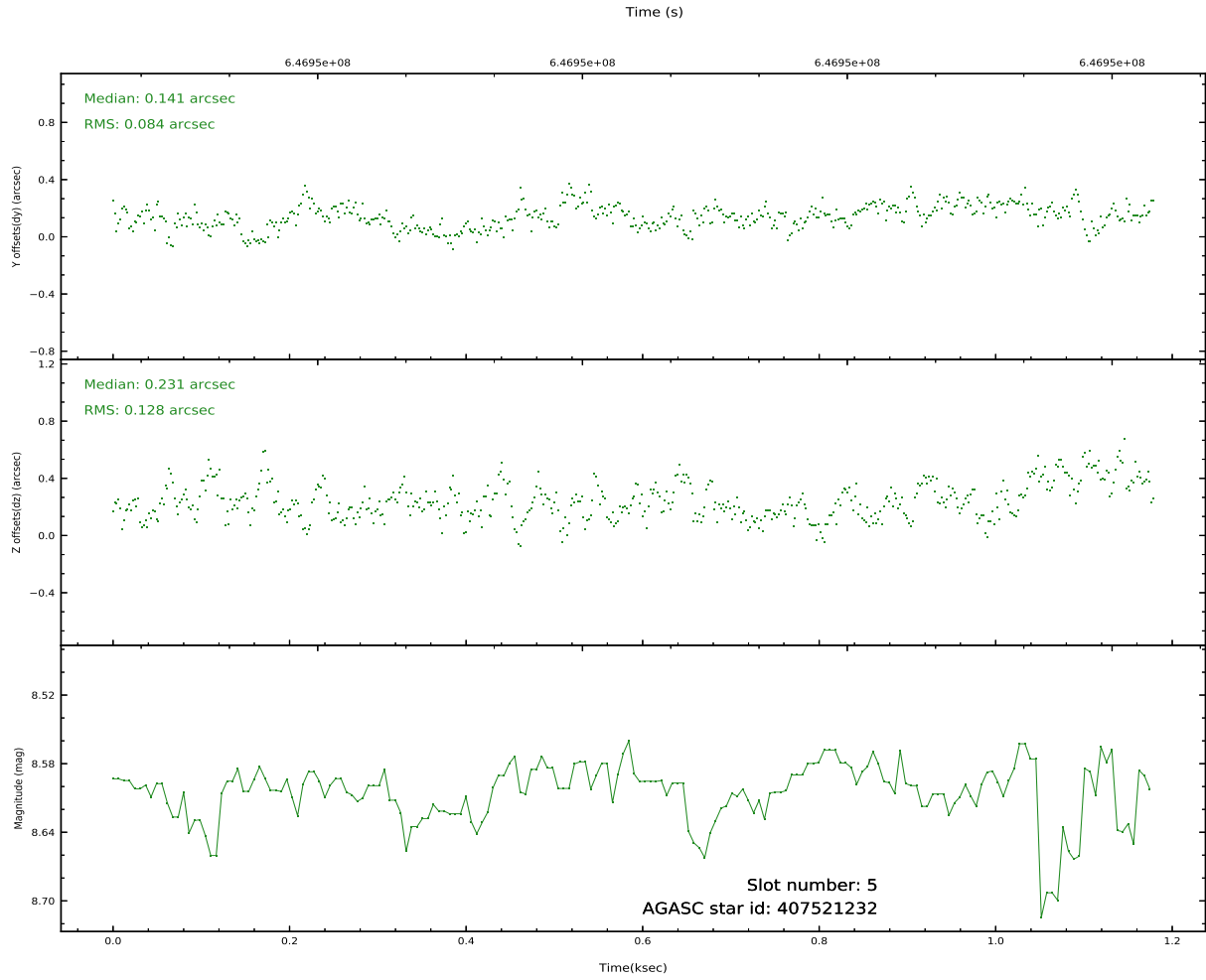
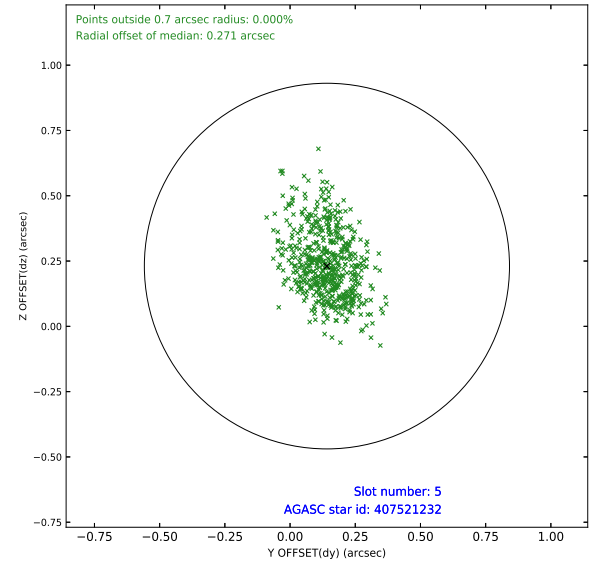
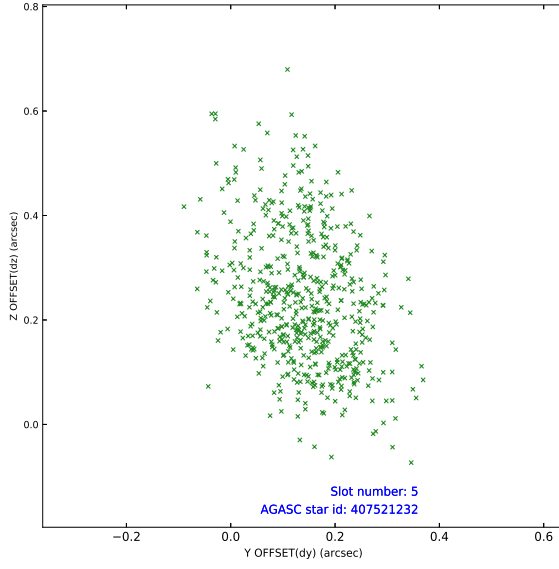
### 2.4.1 Slot 3



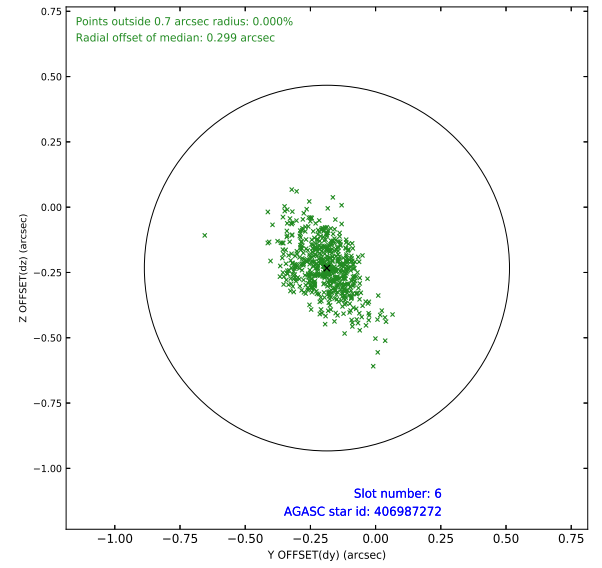
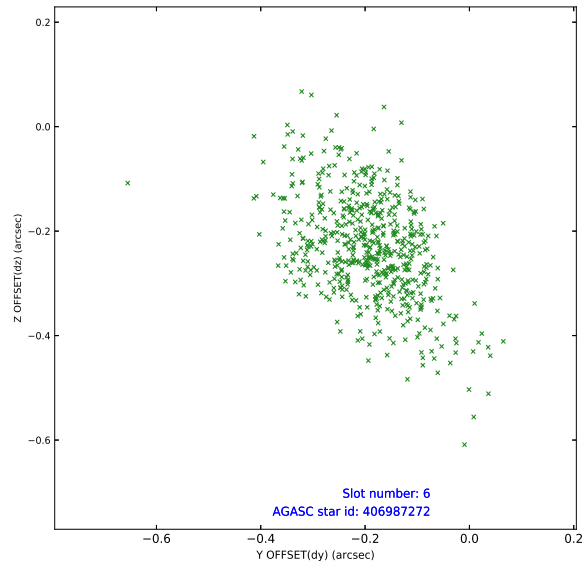
## 2.4.2 Slot 4



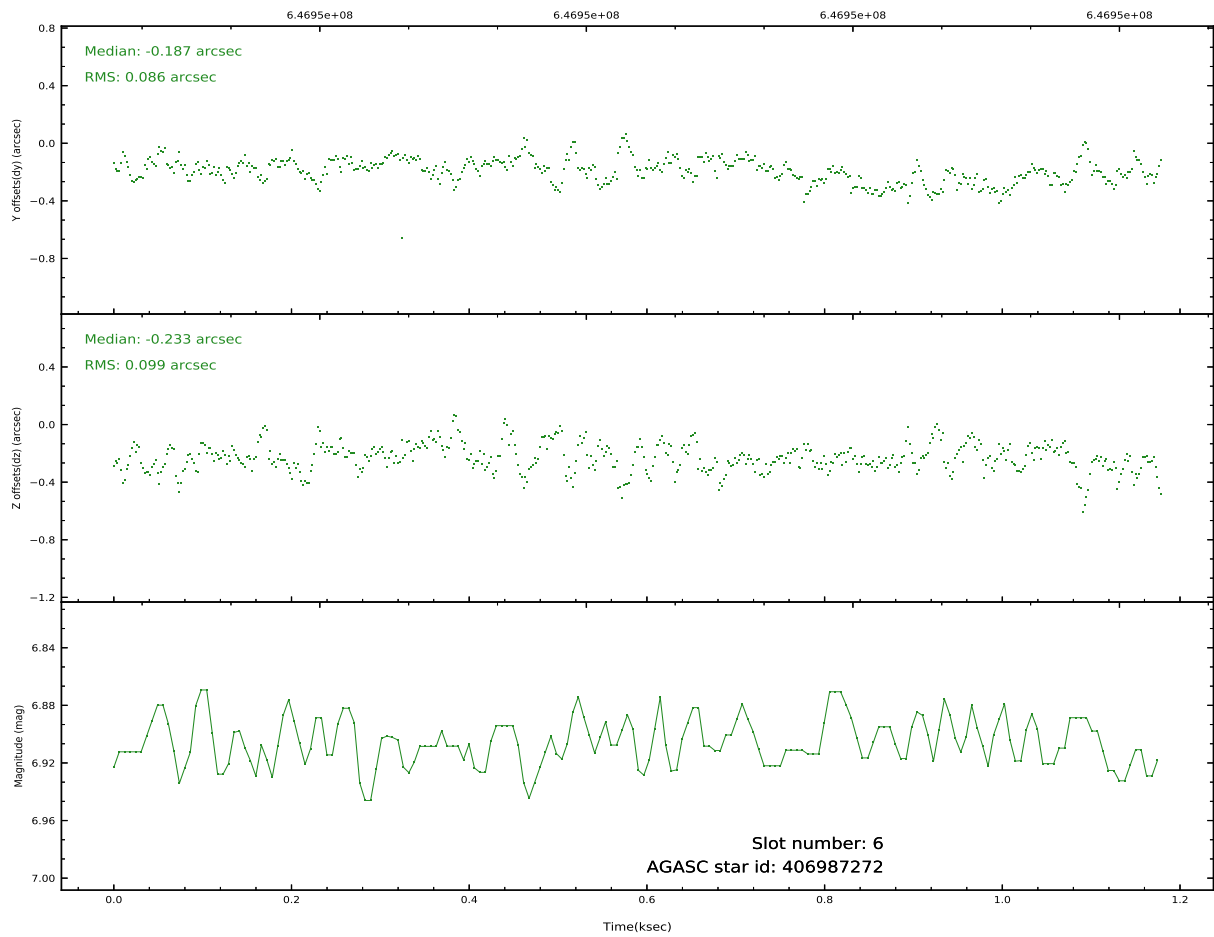
### 2.4.3 Slot 5



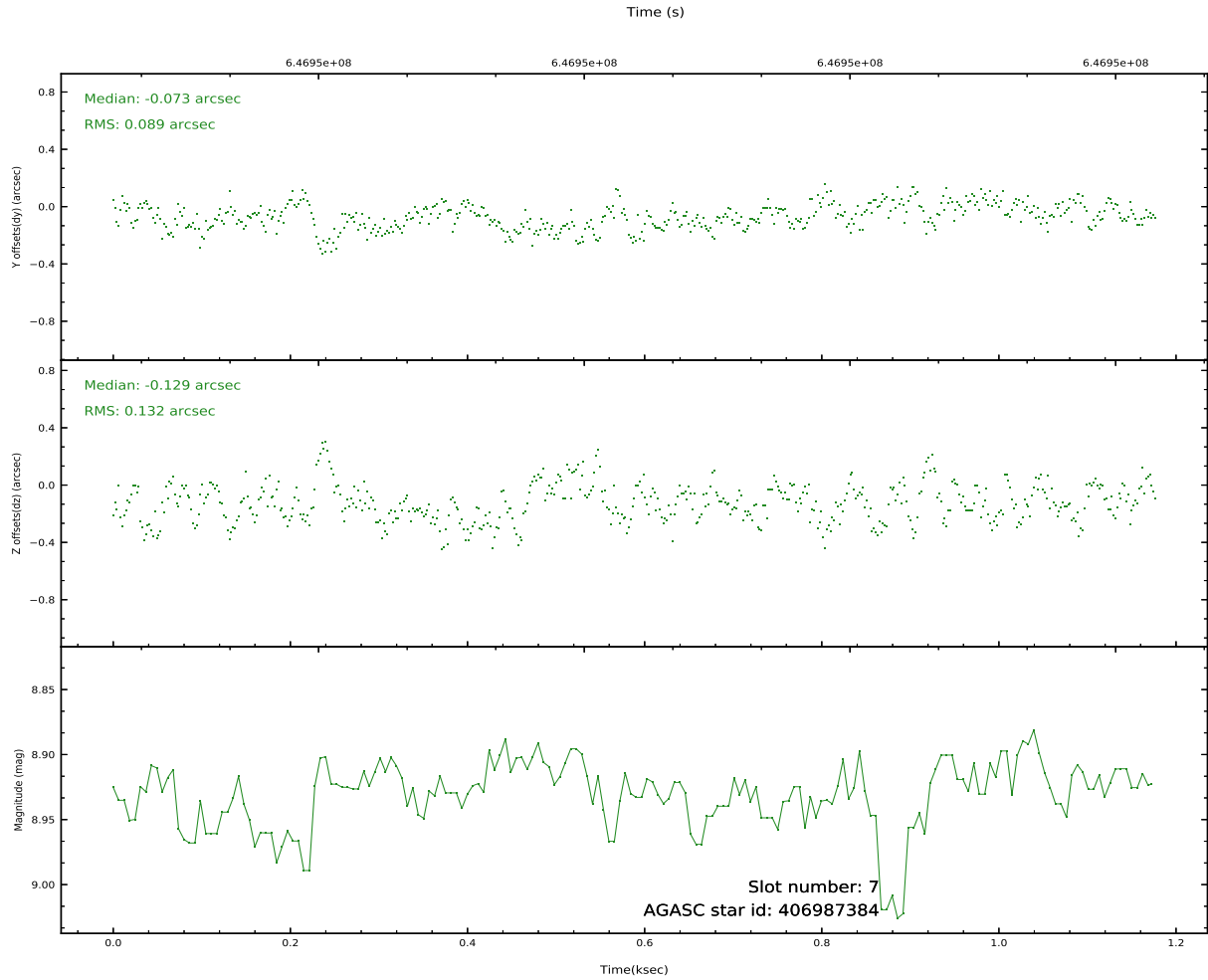
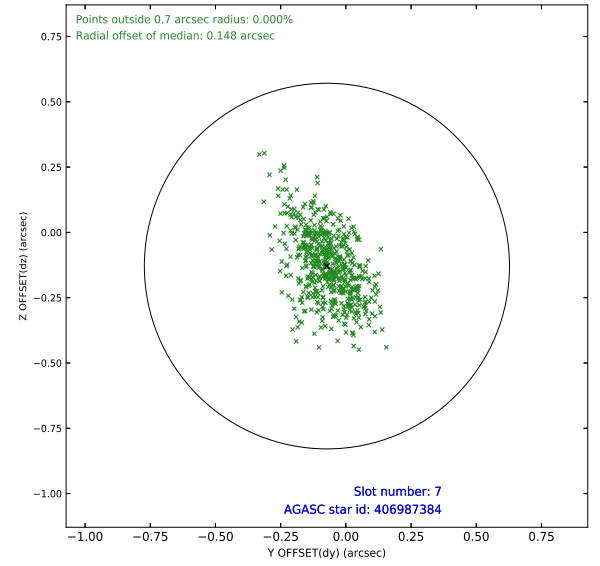
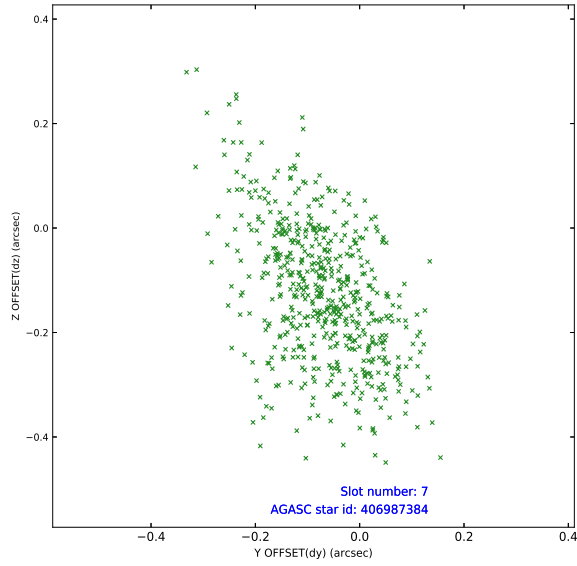
## 2.4.4 Slot 6



Time (s)

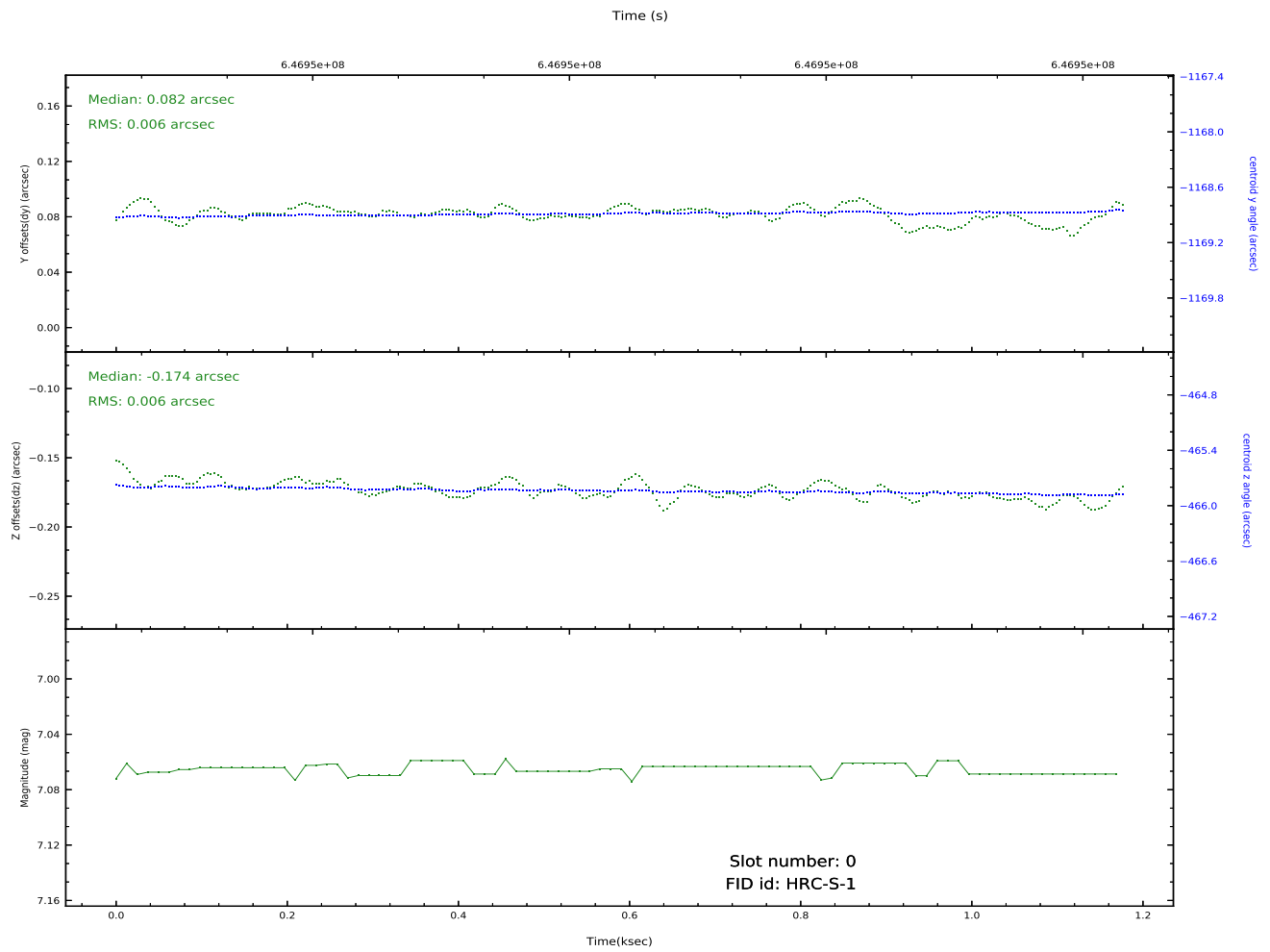
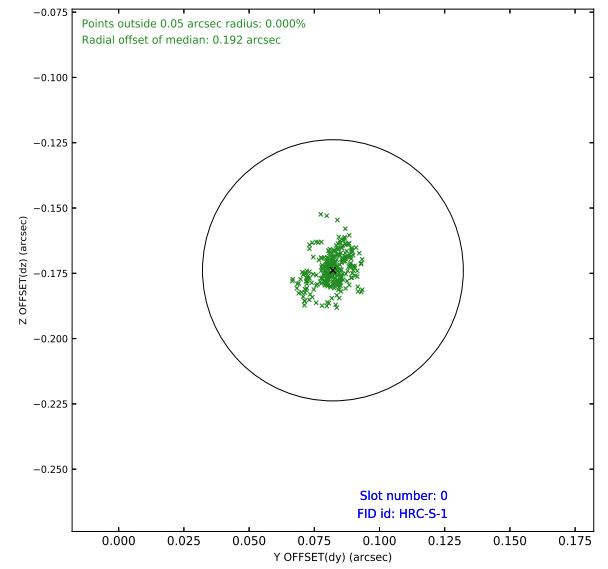
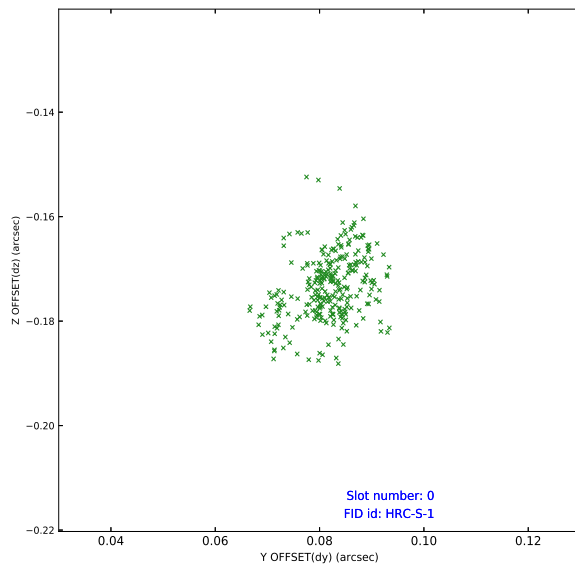


## 2.4.5 Slot 7

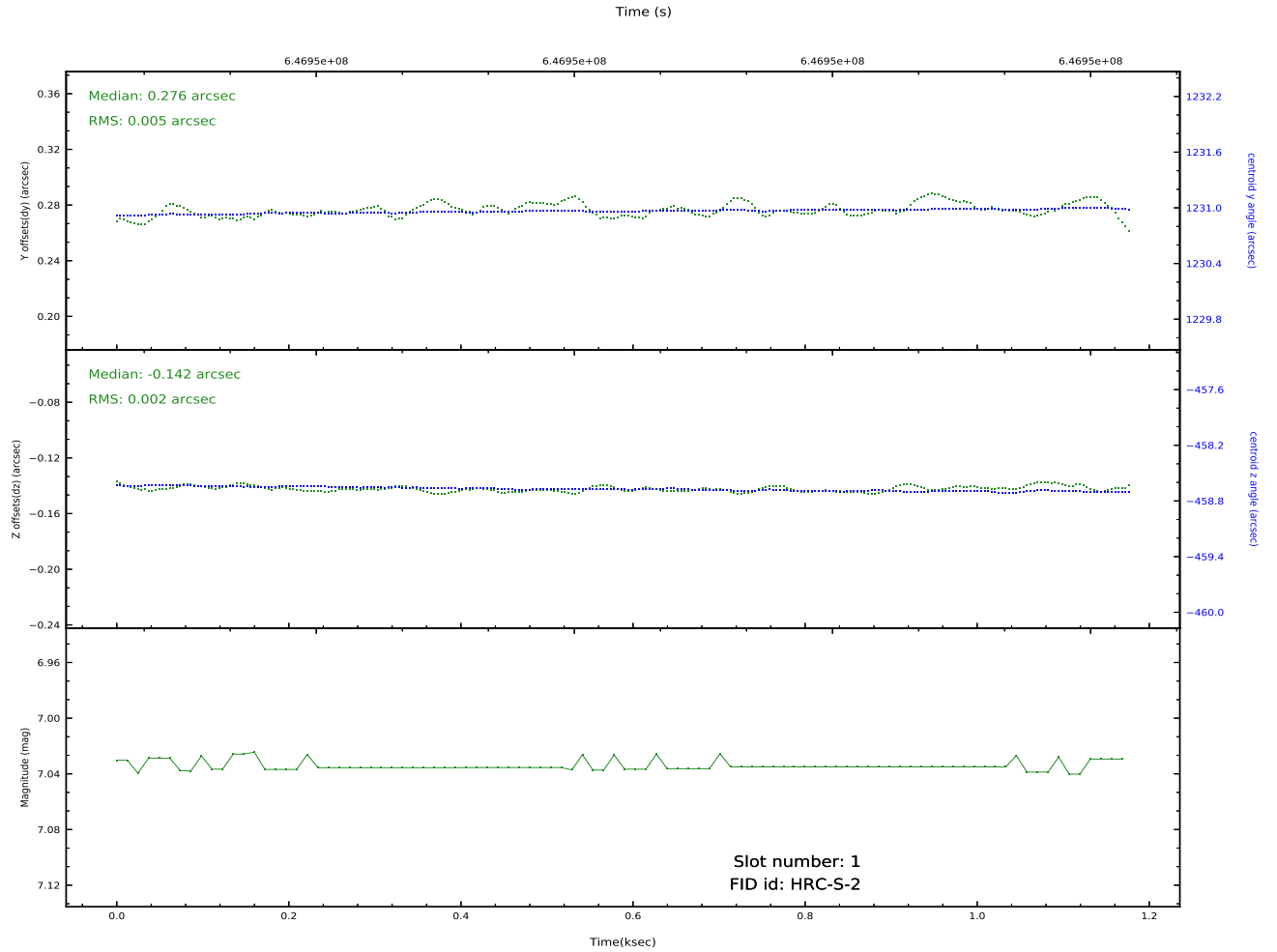
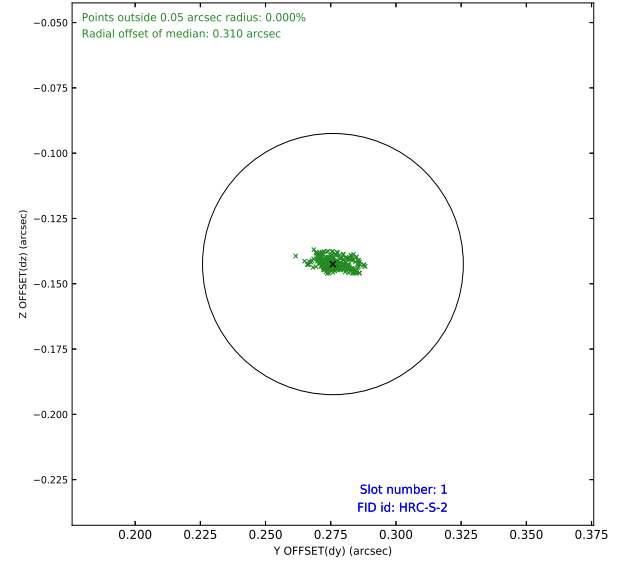
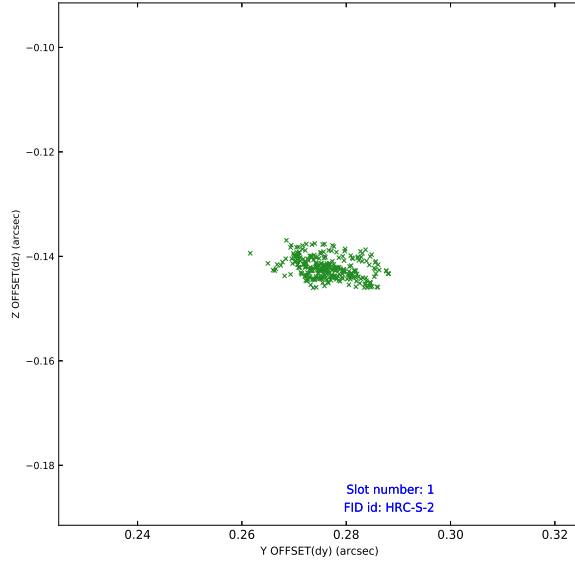


## 2.5 FID Slots

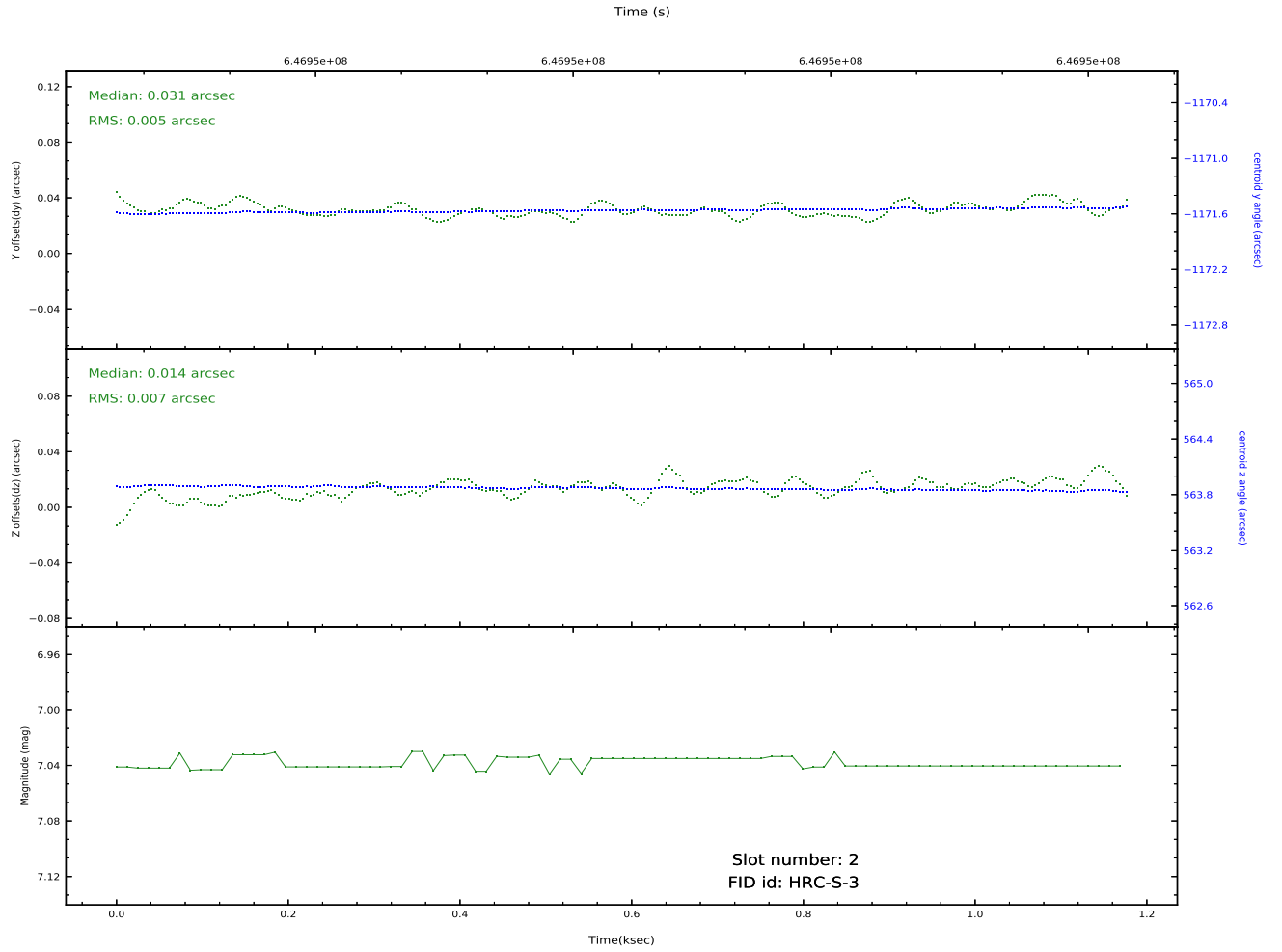
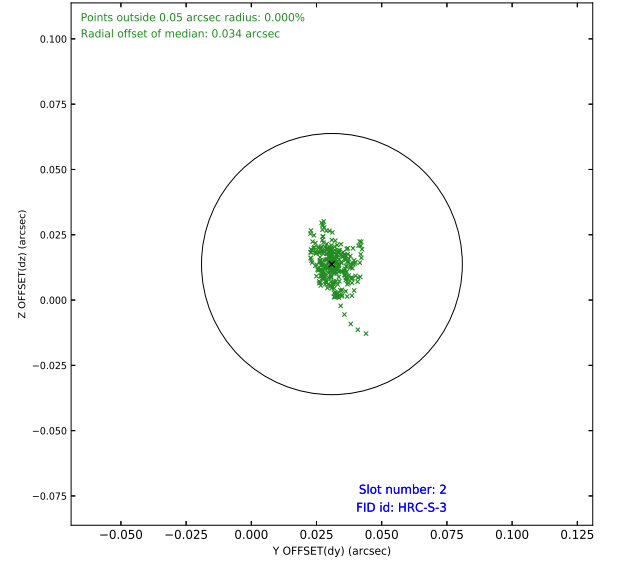
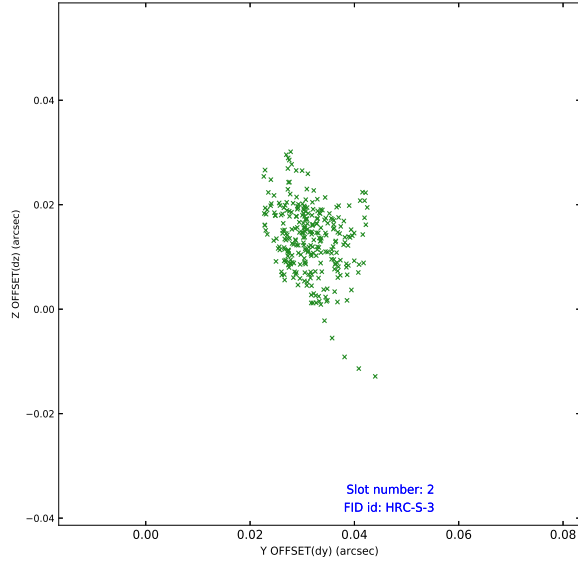
### 2.5.1 Slot 0



## 2.5.2 Slot 1



## 2.5.3 Slot 2





## A Summary

### A.1 Status

V&V Scientist	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	1.1779813199043

### A.2 Comments

Window constraint met.