

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5058 - L2 Version 4  
Chandra X-Ray Center

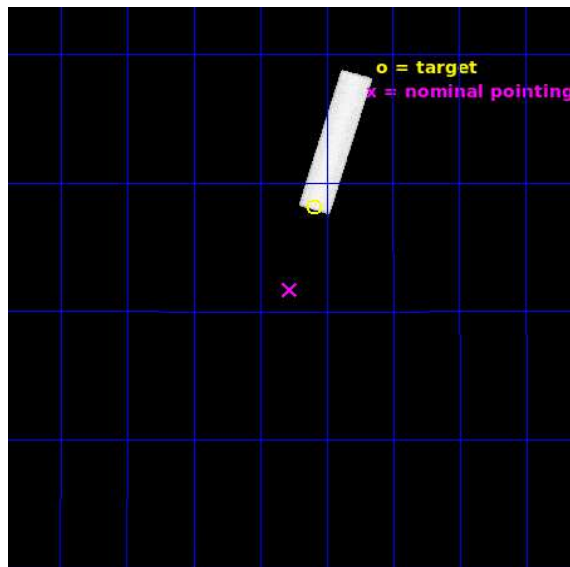
L2 Processing Date : Sep 22 2020

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# 1 Front

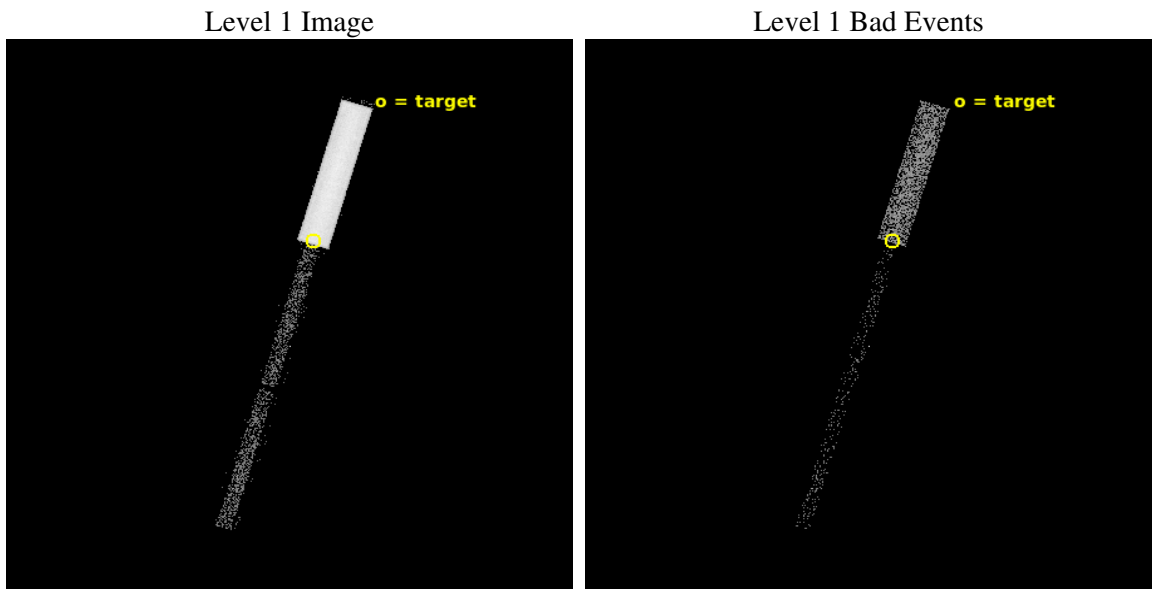
seq_num	290331	Sequence number
obs_id	5058	Observation id
title	AO5 Measurements of the optical/UV Transmission of the HRC and ACIS Filters.	Proposal title
observer	CXC Calibration	Principal investigator
object	Betelgeuse	Source name
ra_targ	88.792917	Observer's specified target RA [deg]
dec_targ	7.407056	Observer's specified target Dec [deg]
ra_nom	88.887315827474	Nominal RA [deg]
dec_nom	7.0847446097756	Nominal Dec [deg]
roll_nom	286.73323740083	Nominal Roll [deg]
revision	4	Processing version of data
ontime	2245.0063481331	[s]
livetime	2222.8302268504	Ontime multiplied by DTCOR
l2events	102809	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	2102.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	2245.0063481331	[s]
caldbver	4.9.2	&#160	l1events	142808	Number of level 1 events
date	2020-09-23T01:32:03	Date and time of file creation			
revision	4	Processing version of data			

### 2.1.3 Events

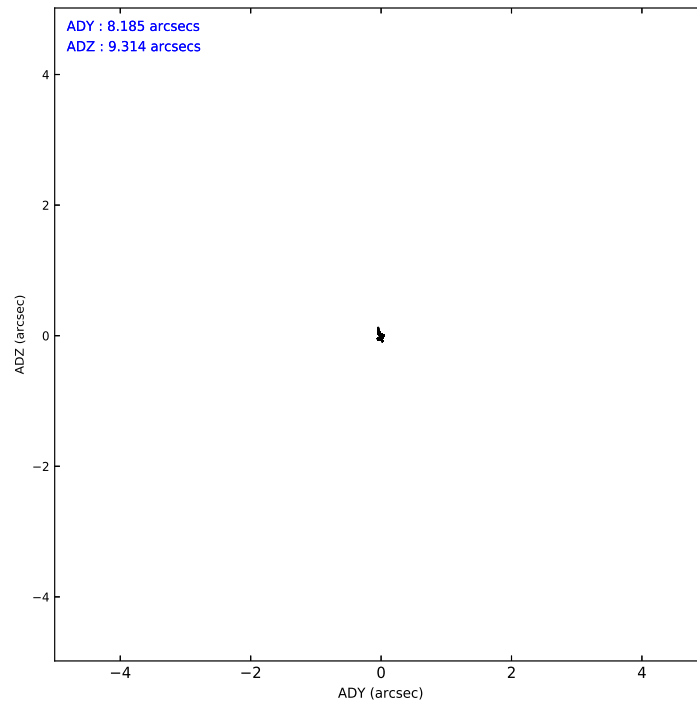
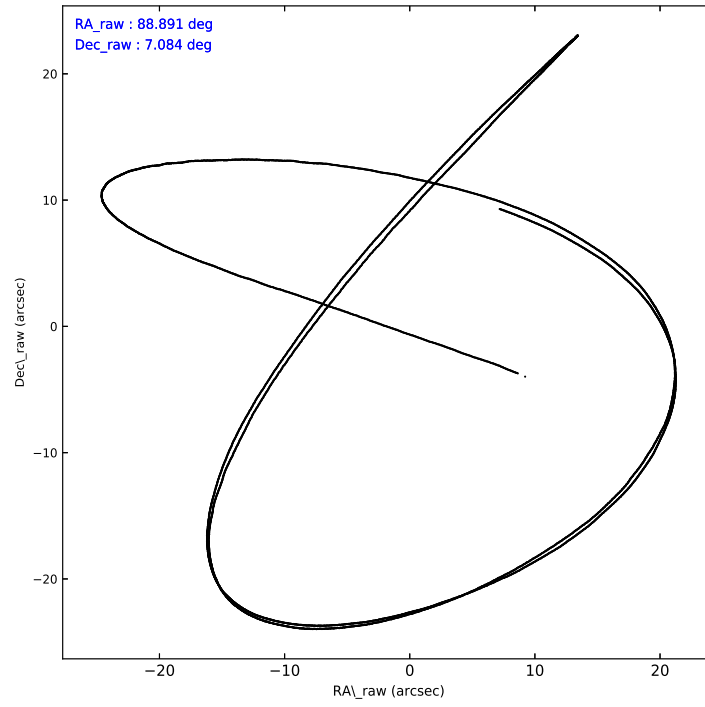
Level 1 Events

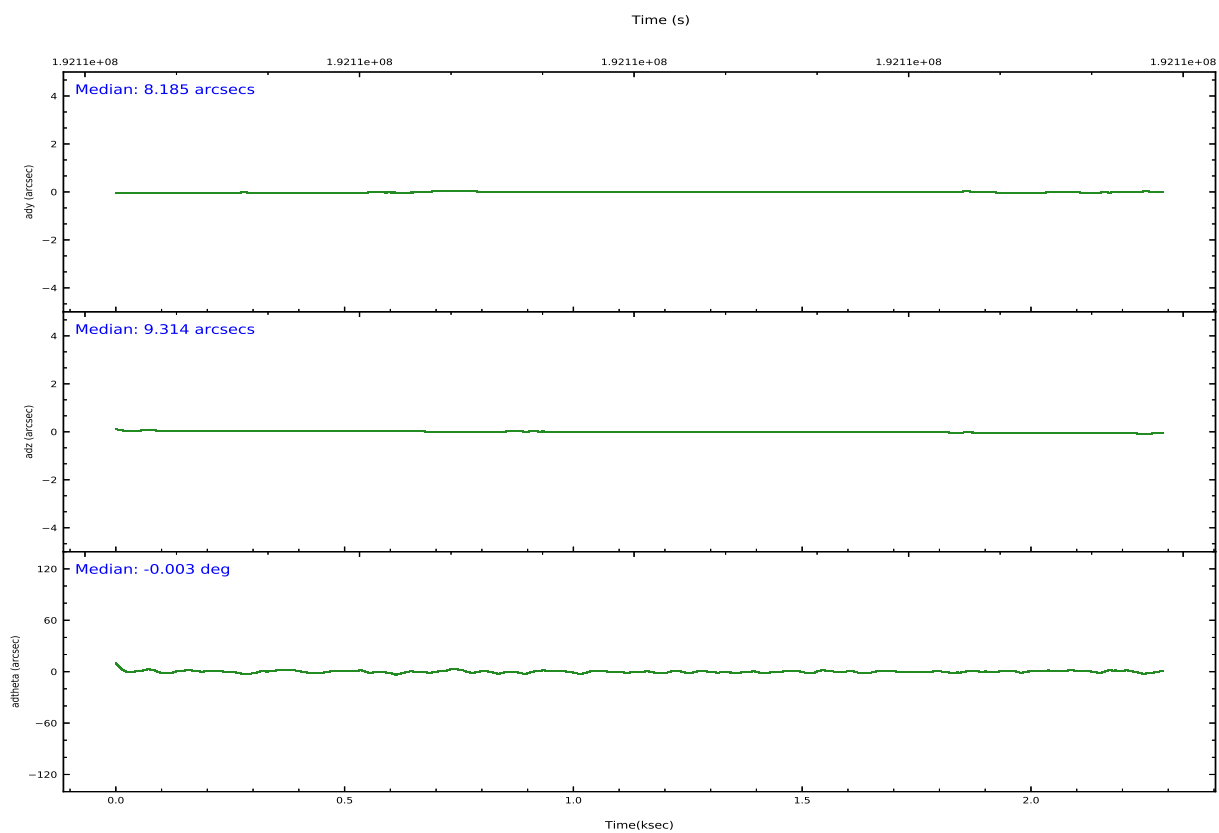
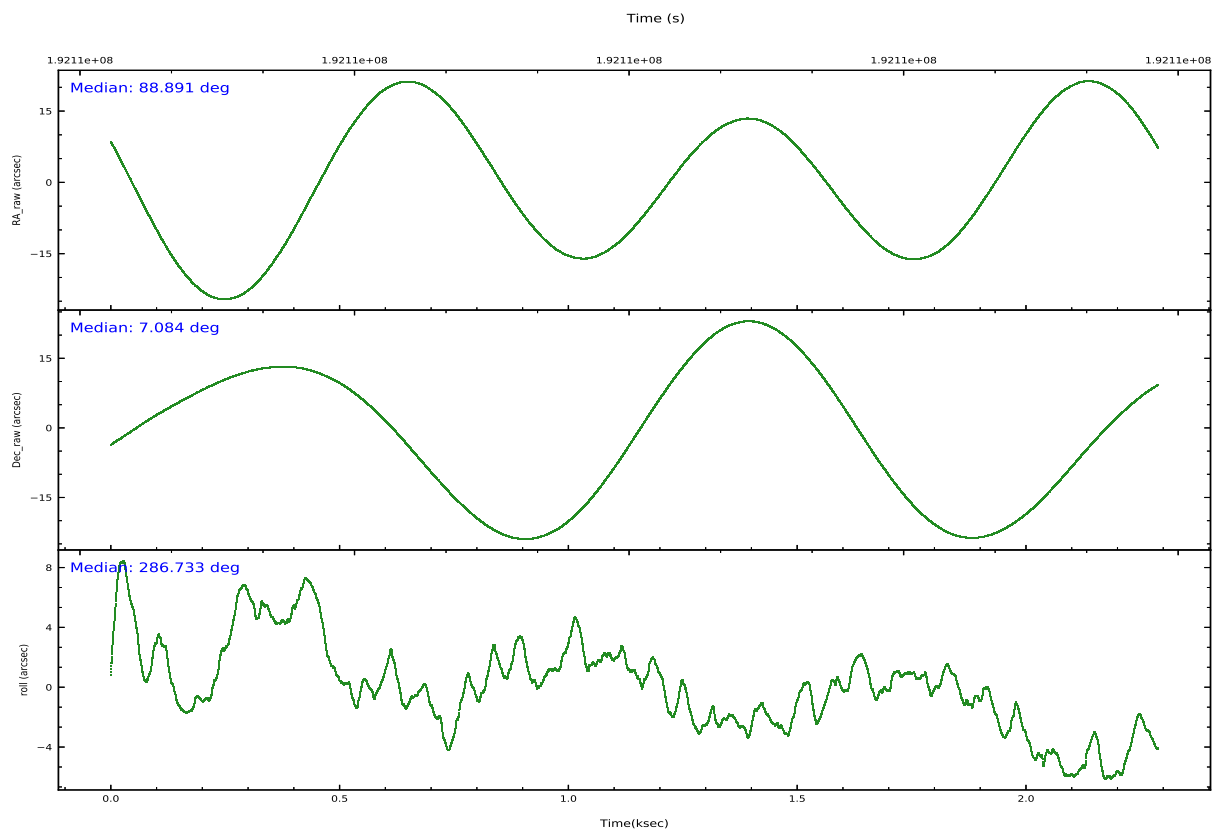
	segment 1	segment 2	segment 3
level 1 events	131484	10274	1050
rejected events	6576	10274	1050
rejected %	5%	100%	100%

## 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	88.868622	88.887315827474			
[deg] Pointing Dec	7.101770	7.0847446097756			
[deg] Pointing Roll	286.672179	286.73323740083			
[s] Window start time (MET)	191980864.184000	191980864.184000			
[s] Window stop time (MET)	197078464.184000	197078464.184000			
[mm] SIM focus pos	-1.429586	-1.428180813131781			
[mm] SIM defocus	0.1037507710433287	0.1051558262725154			
[mm] SIM translation stage pos	250.455976	250.466033080201			
[mm] SIM translation stage offset	0	-0.01005468664627074			
[s] Observation start time (MET)	192111055.184000	192110678.39539			
Observation start date	2004-02-02T12:09:51	2004-02-02T12:04:38			
[s] Observation end time (MET)	192113157.184000	192113291.1205			
Observation end date	2004-02-02T12:44:53	2004-02-02T12:48:11			

## 2.3 Aspect





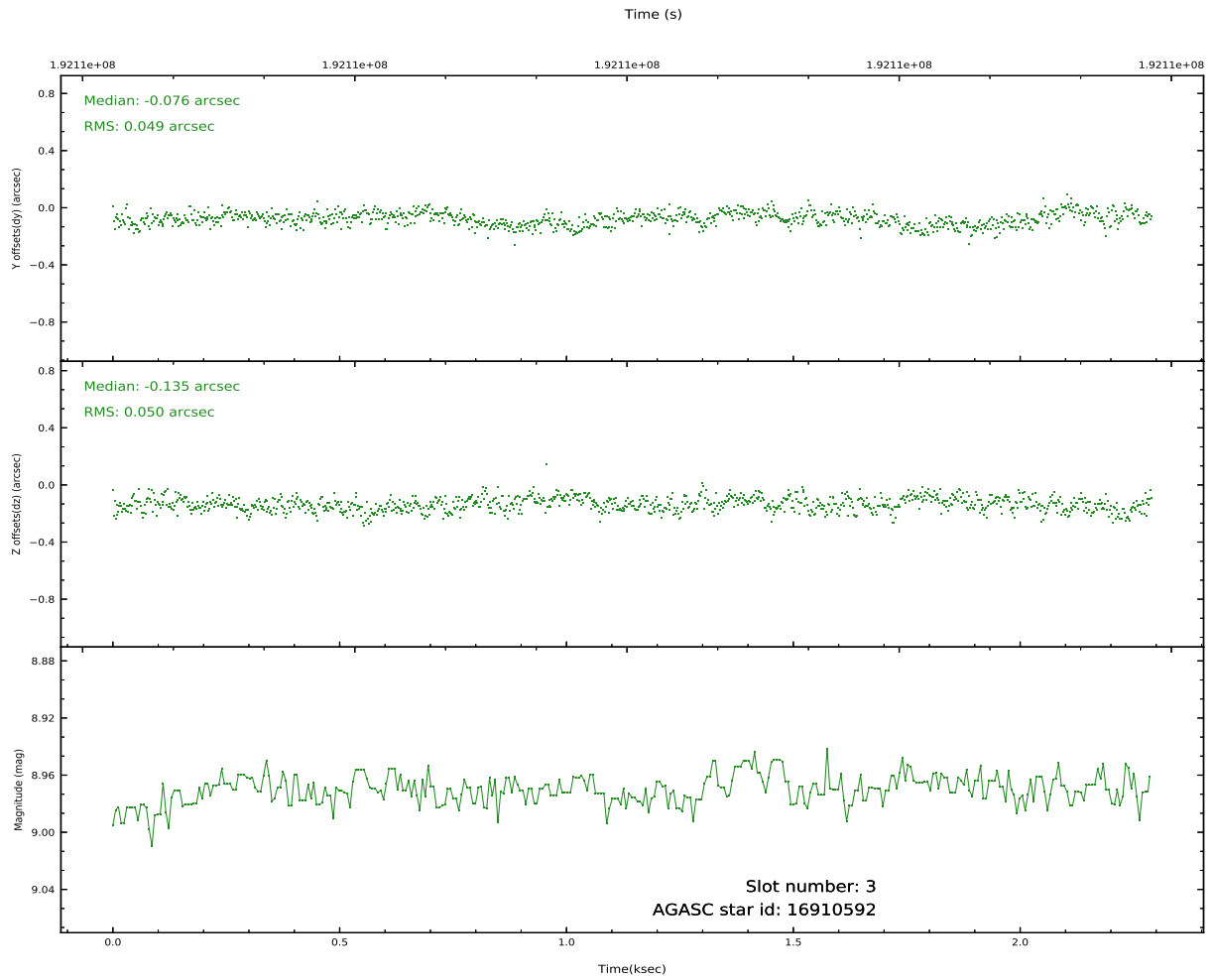
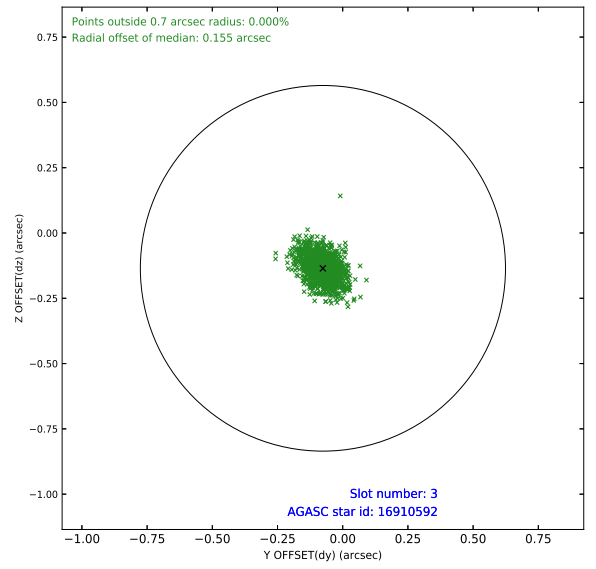
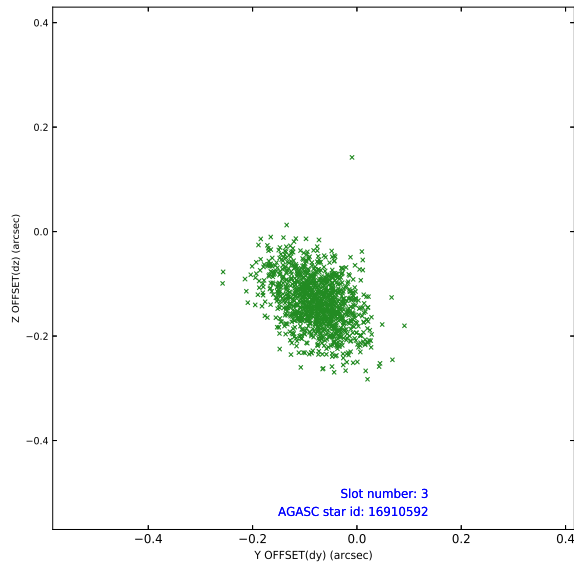
Slot Statistics

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	7.08	558	1.000	0.094	-0.235	0.009	0.016	0.000000	0.000000	-1162.39	-458
1	FID		HRC-S-3	7.08	559	1.000	0.056	0.022	0.009	0.019	0.000000	0.000000	-1167.23	570
2	FID		HRC-S-4	7.06	559	1.000	0.238	-0.084	0.005	0.009	0.000000	0.000000	1233.92	575
3	GUIDE	used	16910592	8.97	1118	1.000	-0.076	-0.135	0.073	0.122	88.532936	6.726769	949.14	-1536
4	GUIDE	used	16910760	9.08	1116	1.000	-0.081	0.038	0.081	0.128	89.059695	7.486642	-1130.69	1049
5	GUIDE	used	16912728	9.10	1118	1.000	0.198	-0.032	0.090	0.142	88.844647	6.730340	1256.07	-464
6	GUIDE	used	16913360	8.35	1118	1.000	-0.114	0.057	0.057	0.094	89.178373	7.247125	-182.89	1209
7	GUIDE	used	16917248	8.71	1117	1.000	0.076	0.071	0.058	0.096	89.306967	6.774731	1576.95	1165

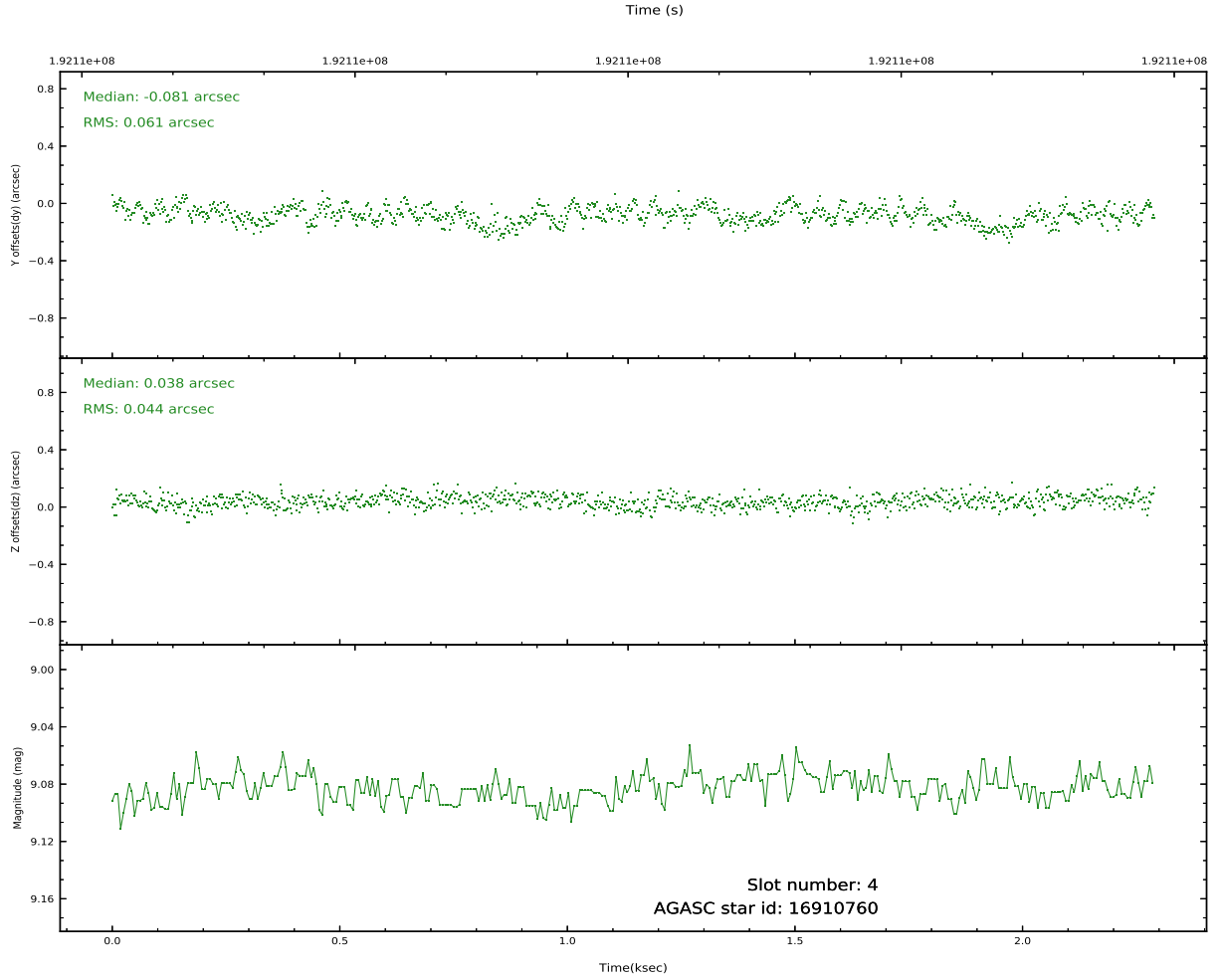
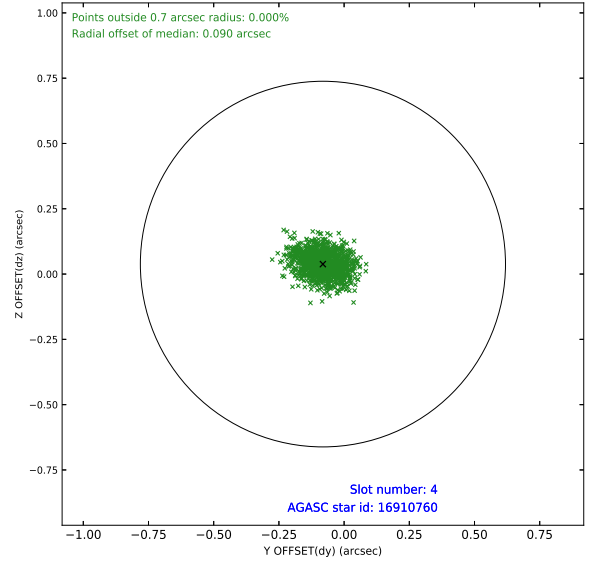
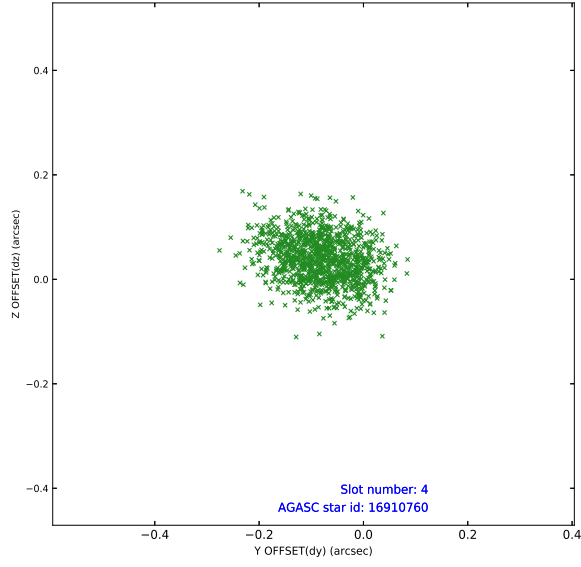


## 2.4 Star Slots

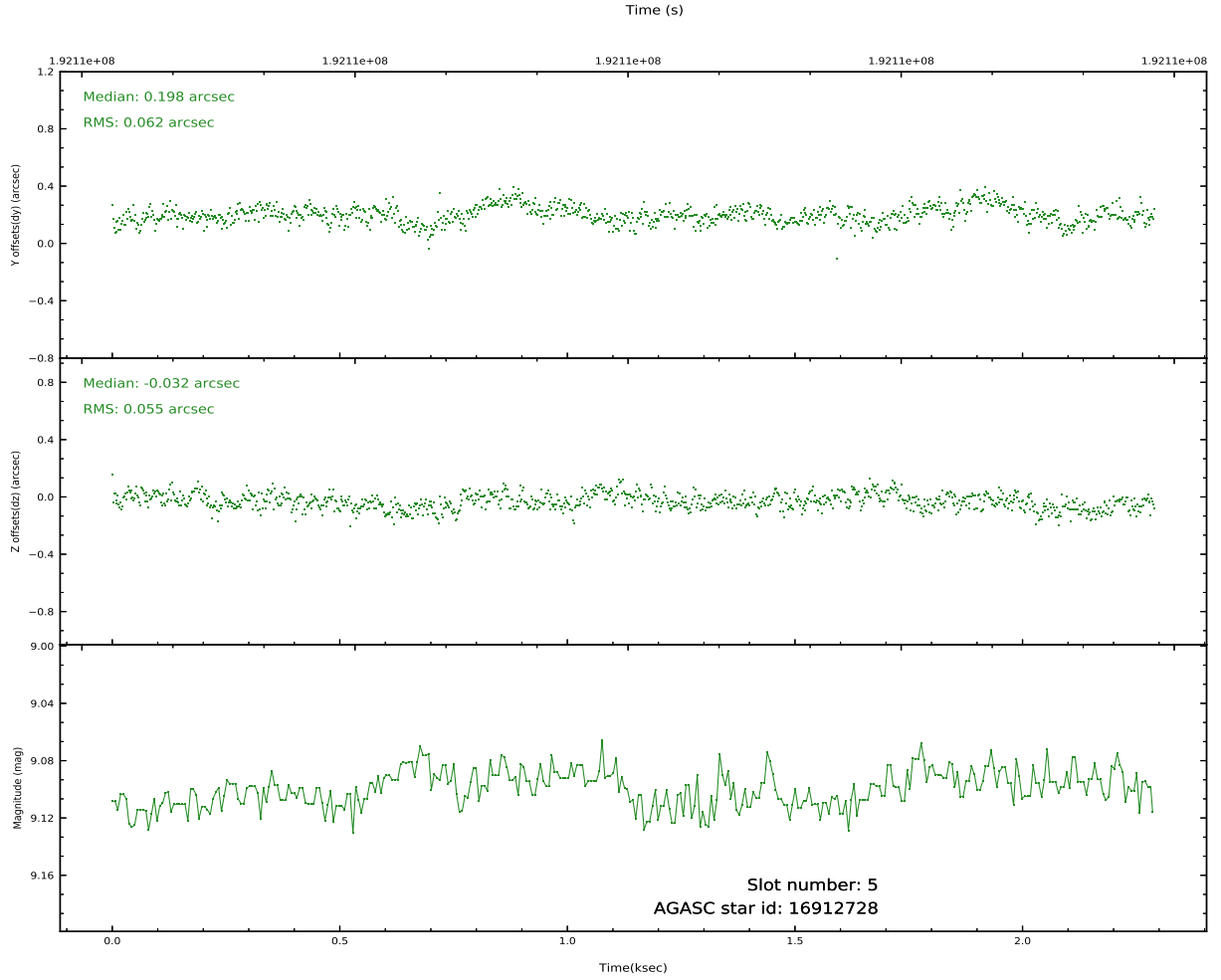
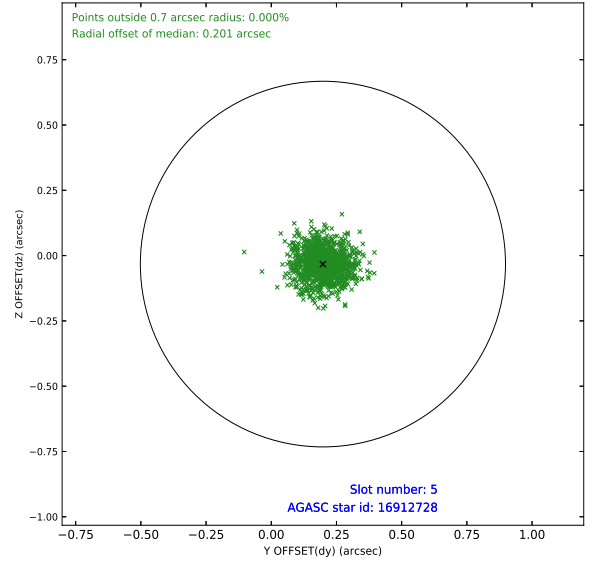
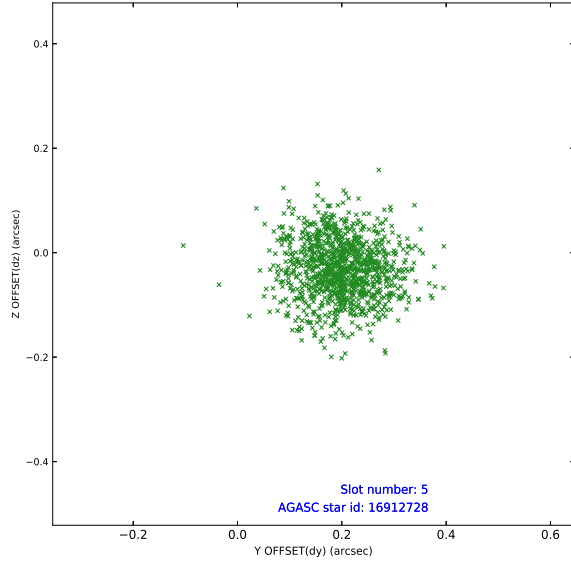
### 2.4.1 Slot 3



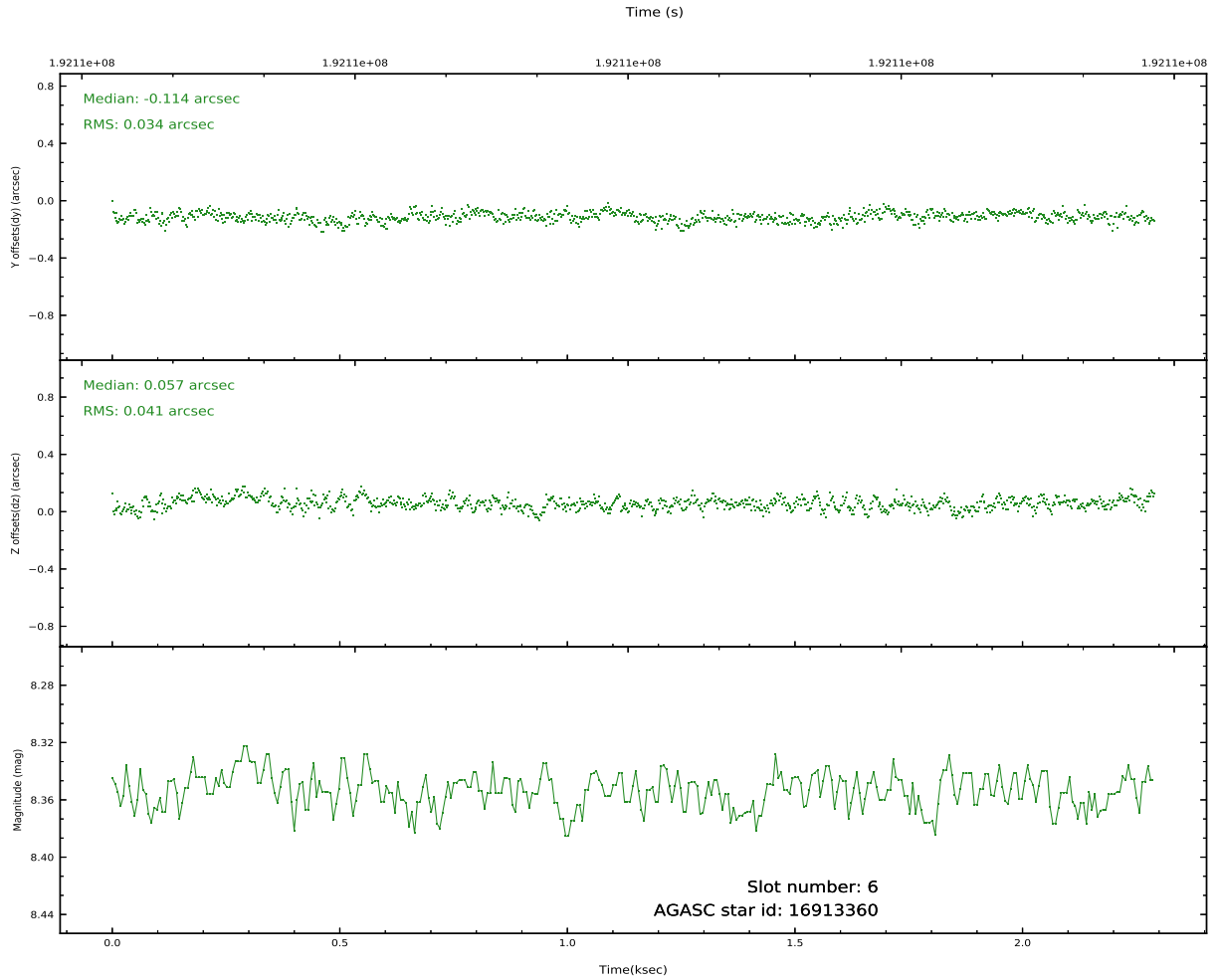
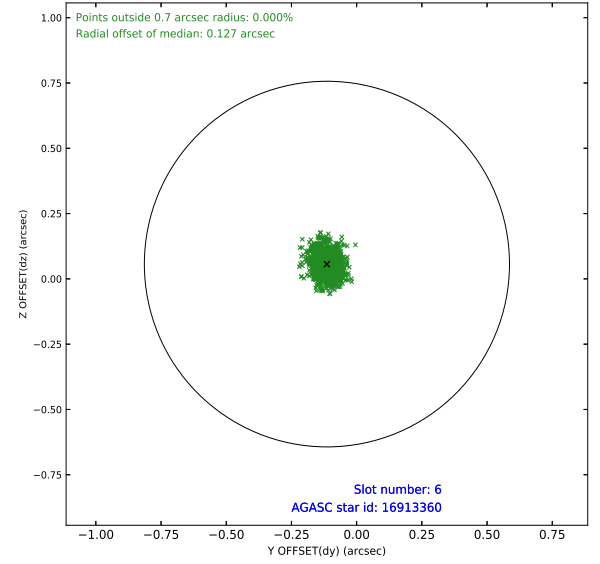
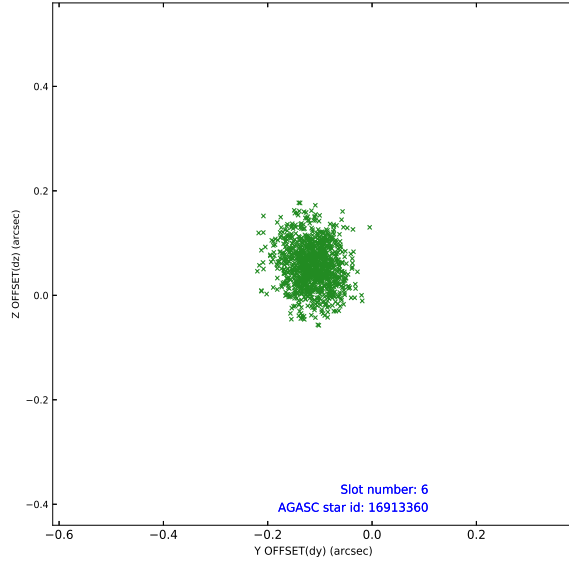
## 2.4.2 Slot 4



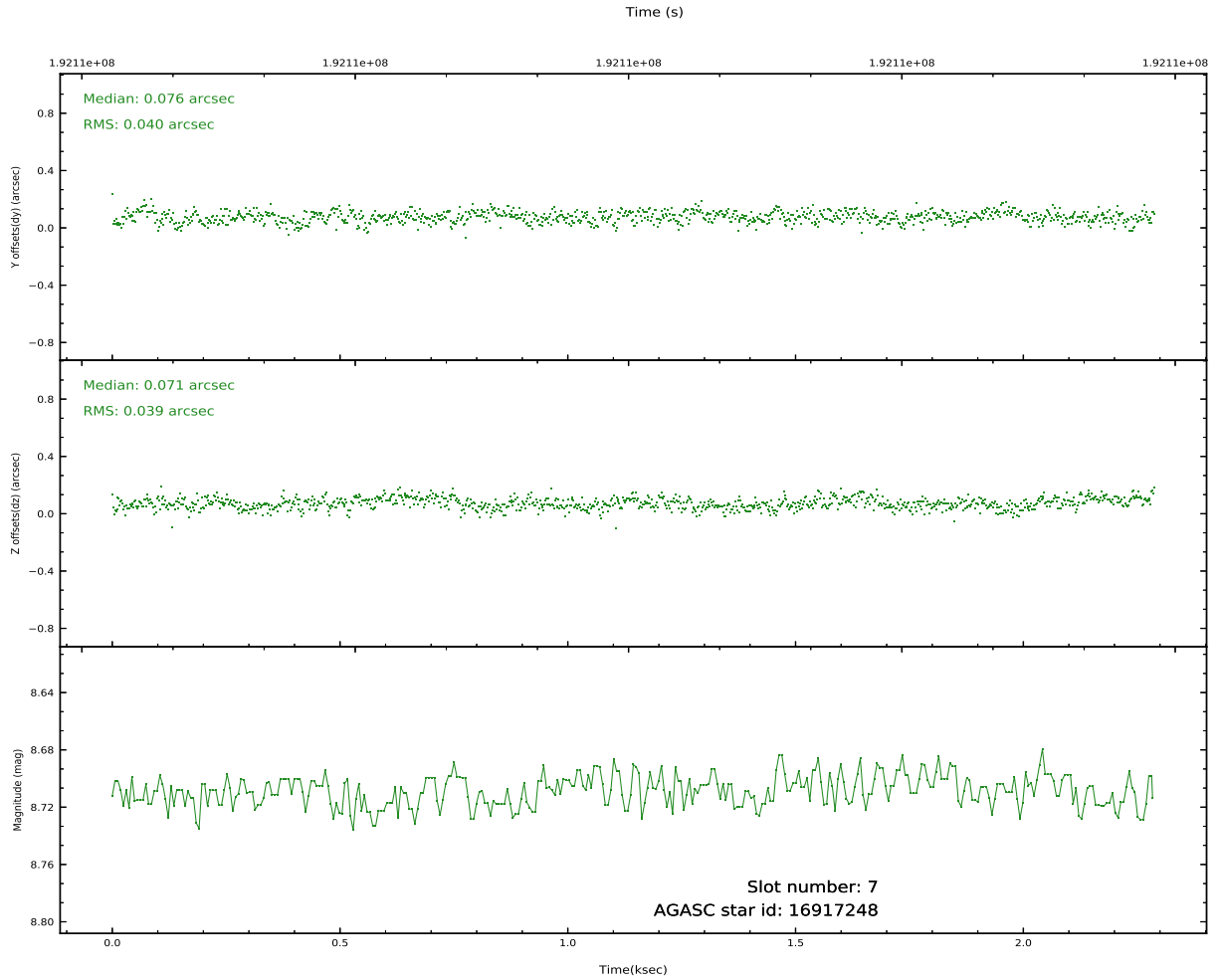
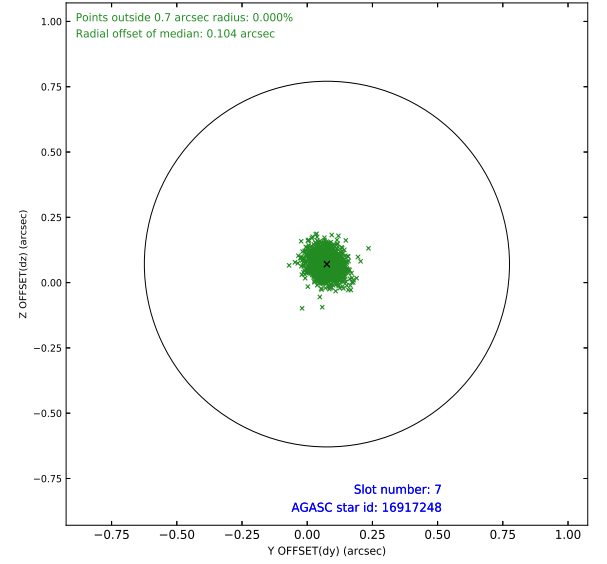
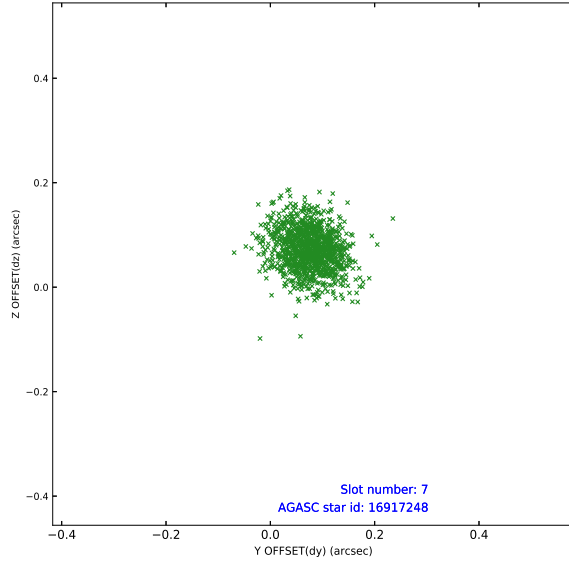
### 2.4.3 Slot 5



## 2.4.4 Slot 6

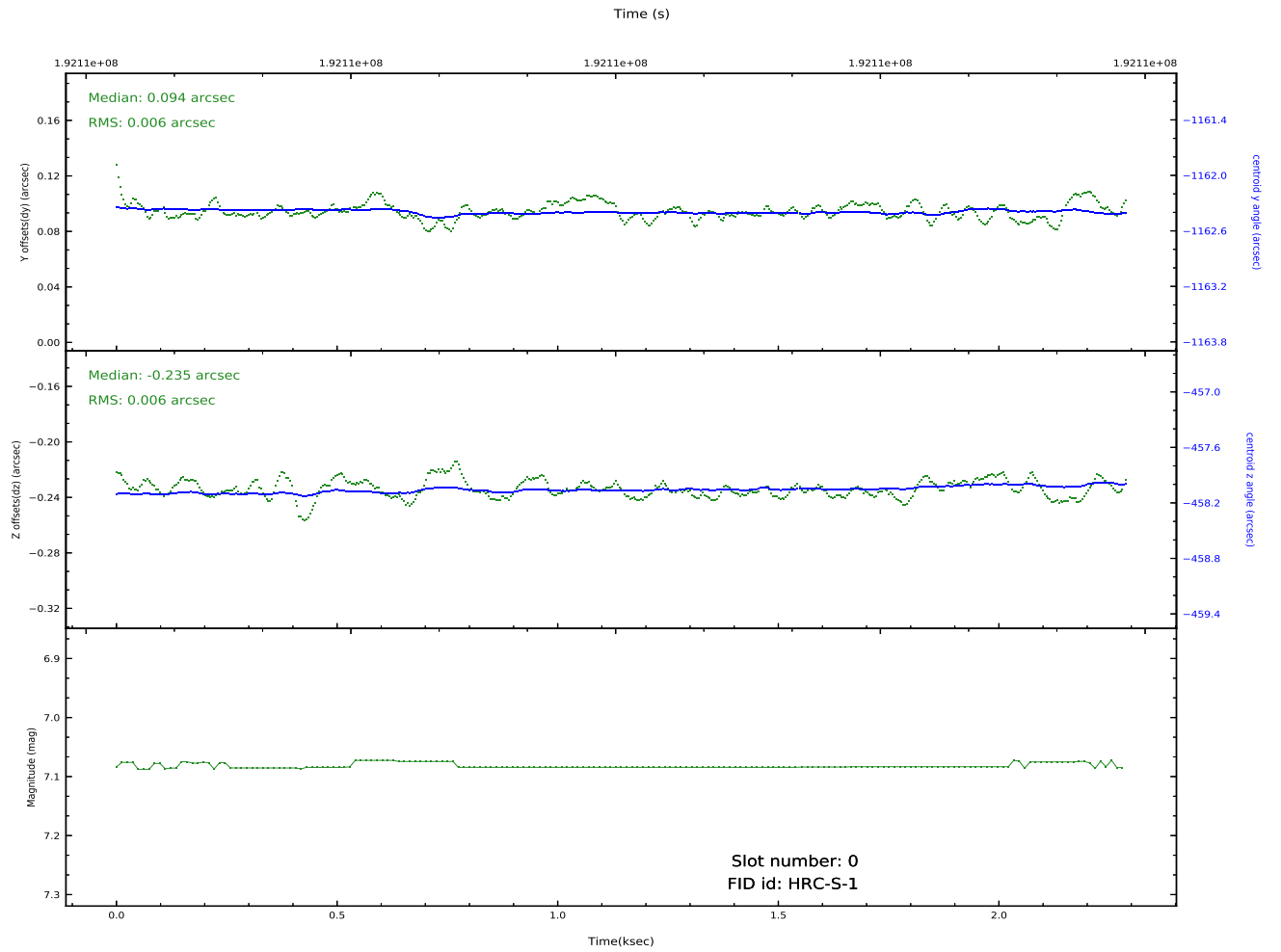
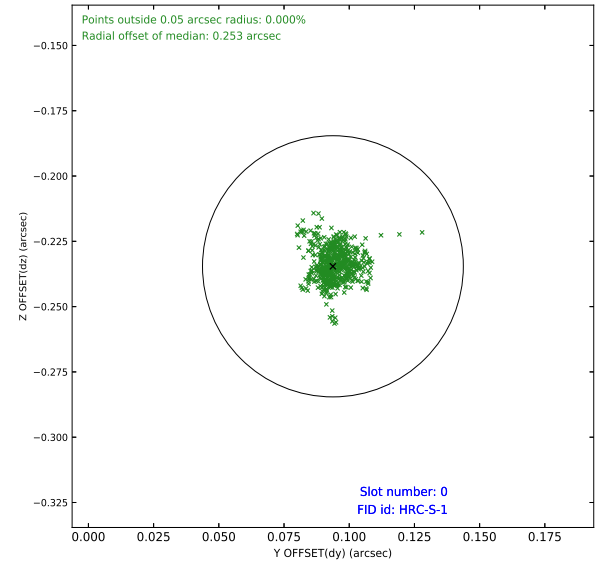
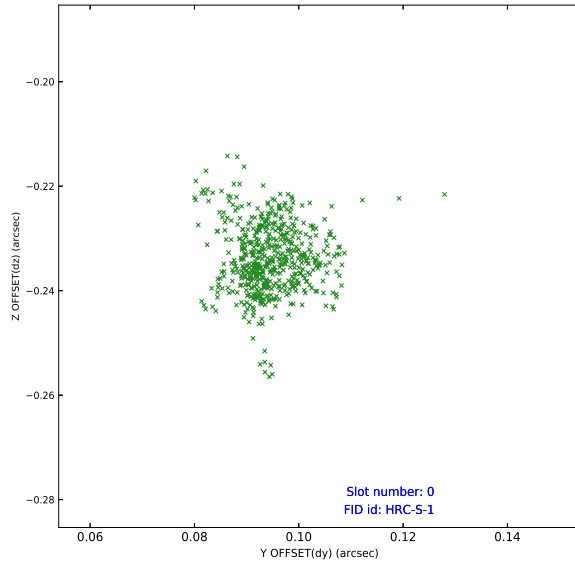


## 2.4.5 Slot 7

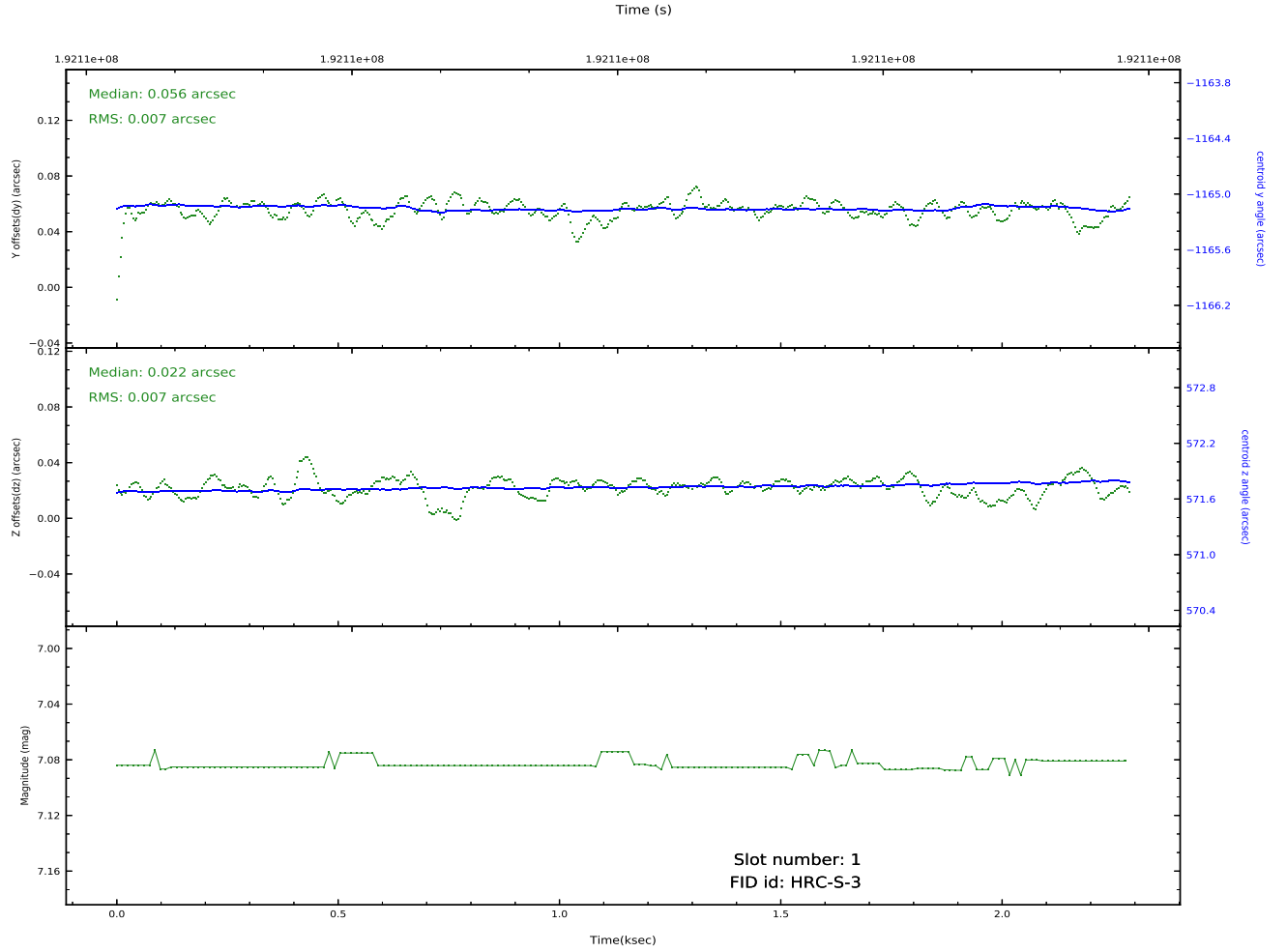
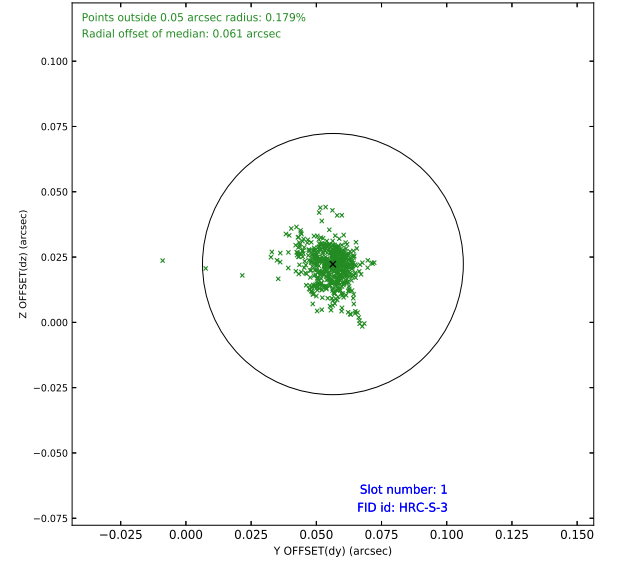
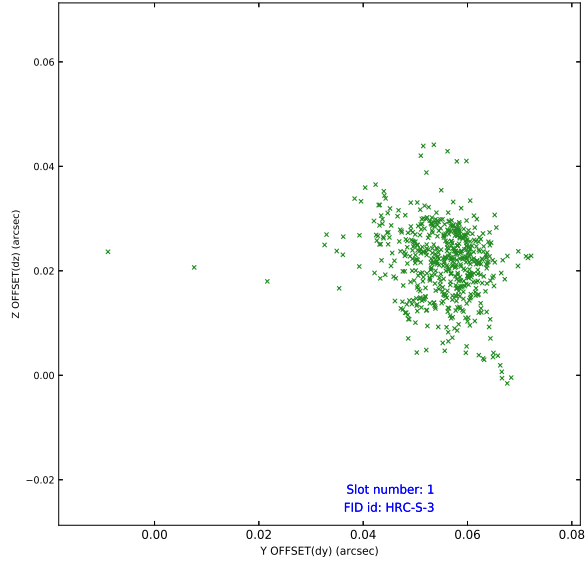


## 2.5 FID Slots

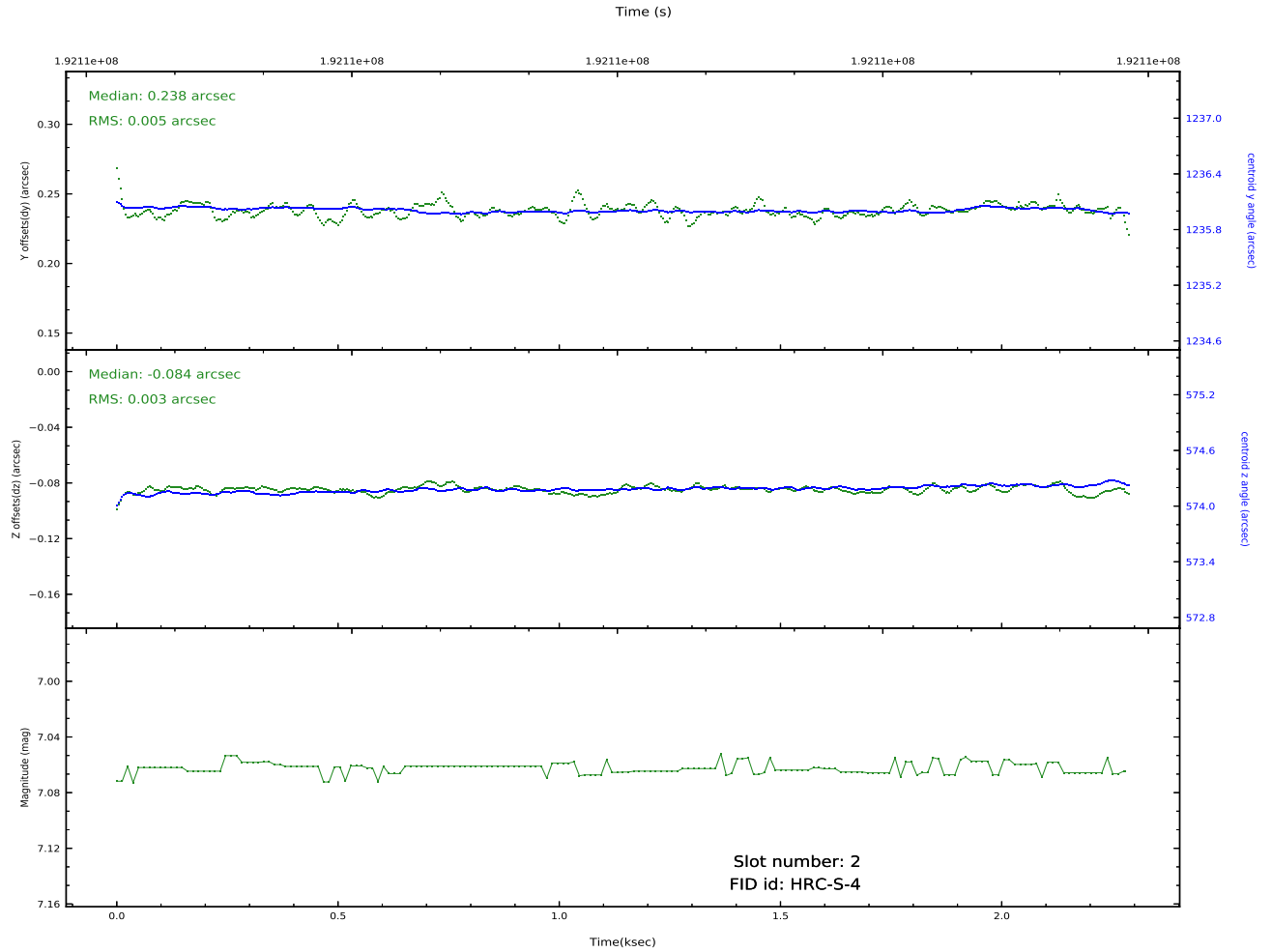
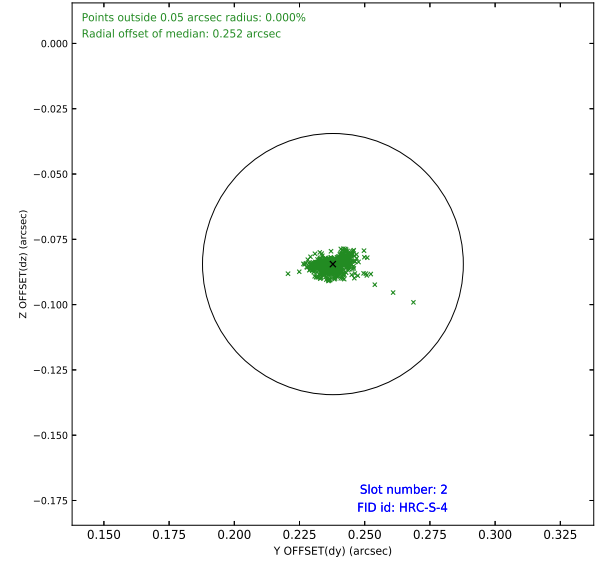
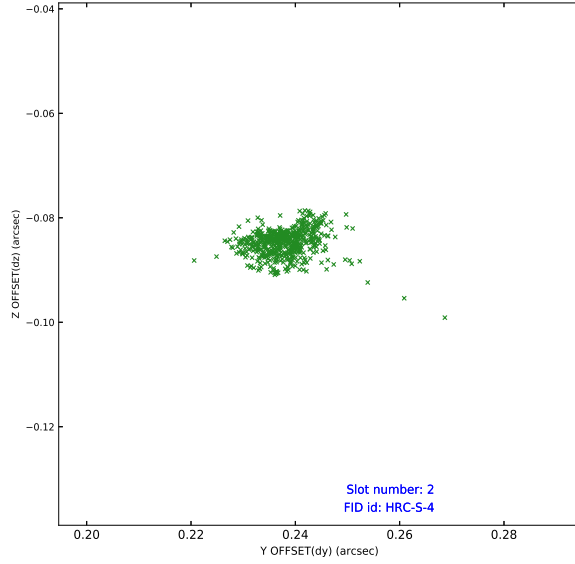
### 2.5.1 Slot 0



## 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)	2020.09.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.245

### A.2 Comments

Window constraint satisfied.