

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20685 - L2 Version 2  
Chandra X-Ray Center

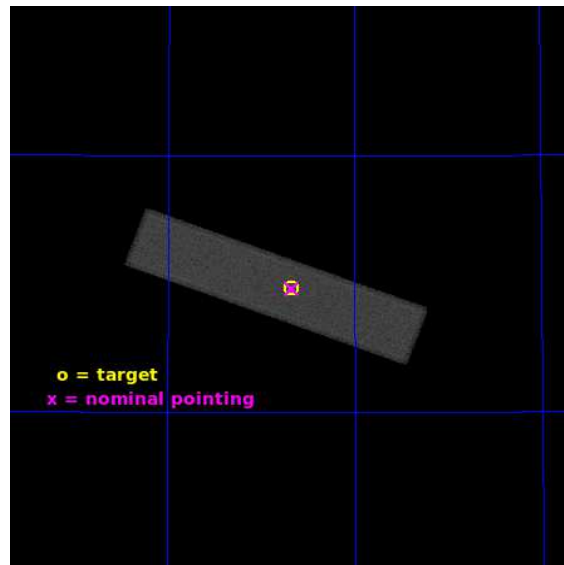
L2 Processing Date : Oct 27 2020

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# 1 Front

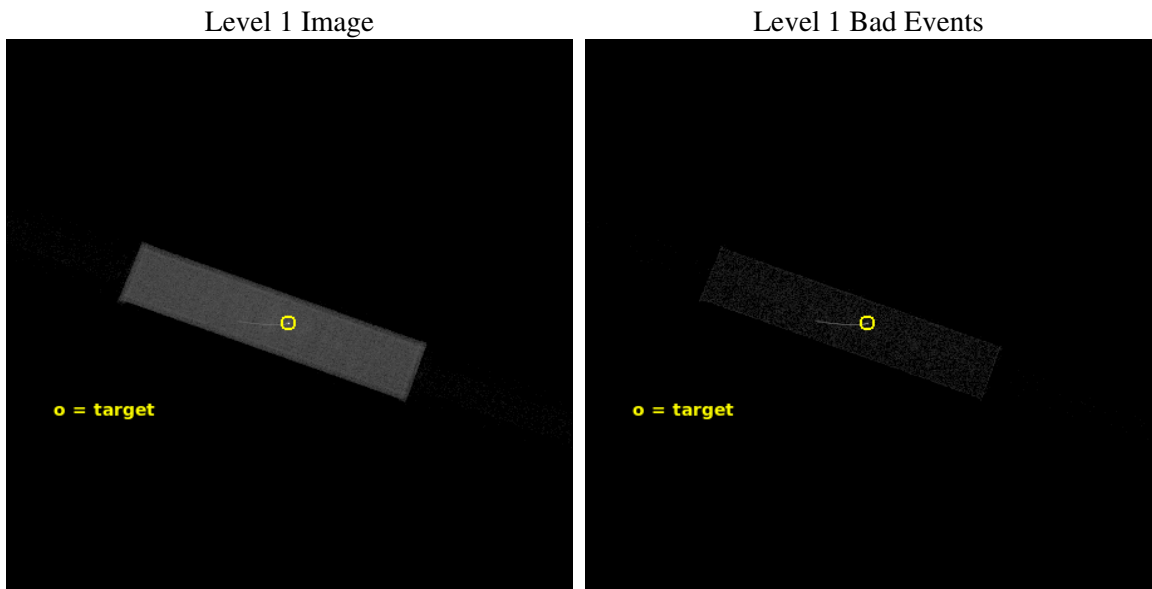
seq_num	291396	Sequence number
obs_id	20685	Observation id
title	AO-19 Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain	Proposal title
observer	CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.16764023799	Nominal RA [deg]
dec_nom	45.741144499757	Nominal Dec [deg]
roll_nom	200.25724763982	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3088.5814340115	[s]
livetime	3027.8722950113	Ontime multiplied by DTCOR
l2events	209109	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	3000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	3088.5814340115	[s]
caldbver	4.9.3	&#160	l1events	347944	Number of level 1 events
date	2020-10-27T17:43:26	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

Level 1 Events

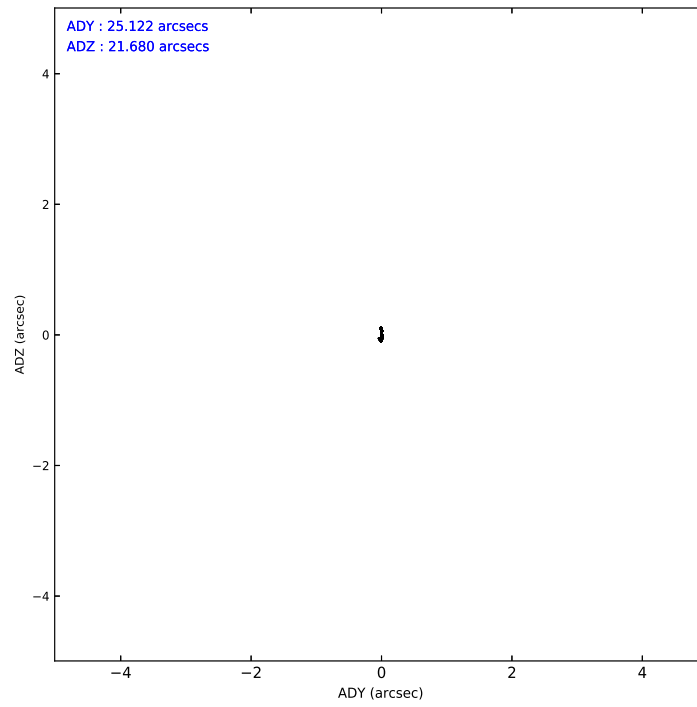
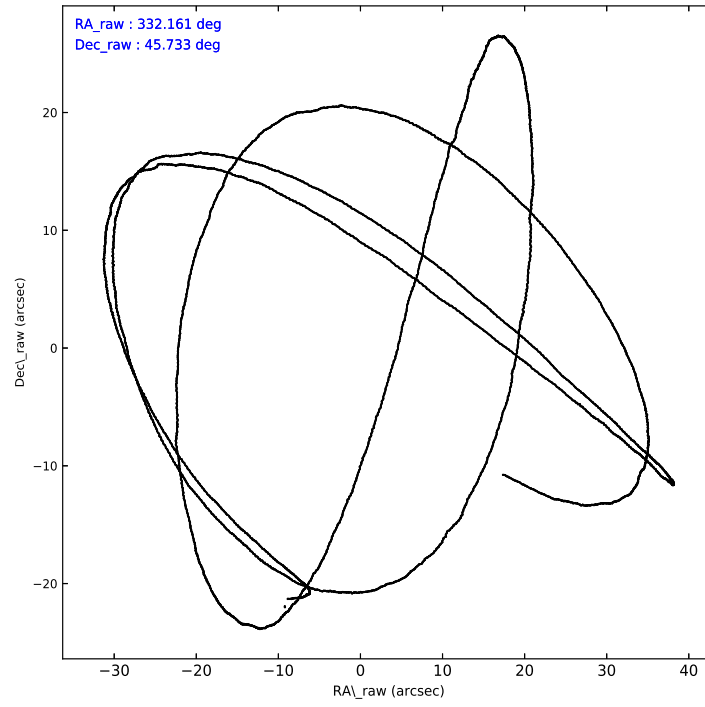
	segment 1	segment 2	segment 3
level 1 events	979	345923	1042
rejected events	979	104011	1042
rejected %	100%	30%	100%

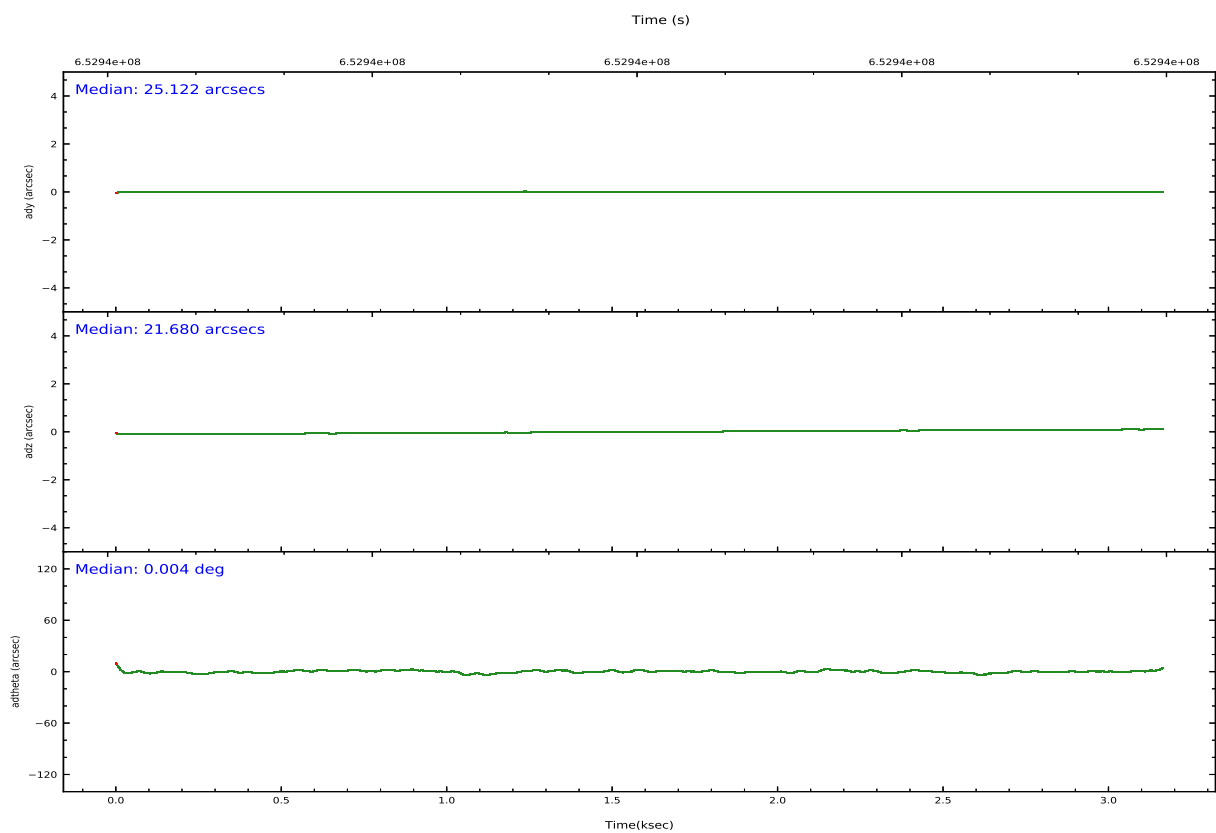
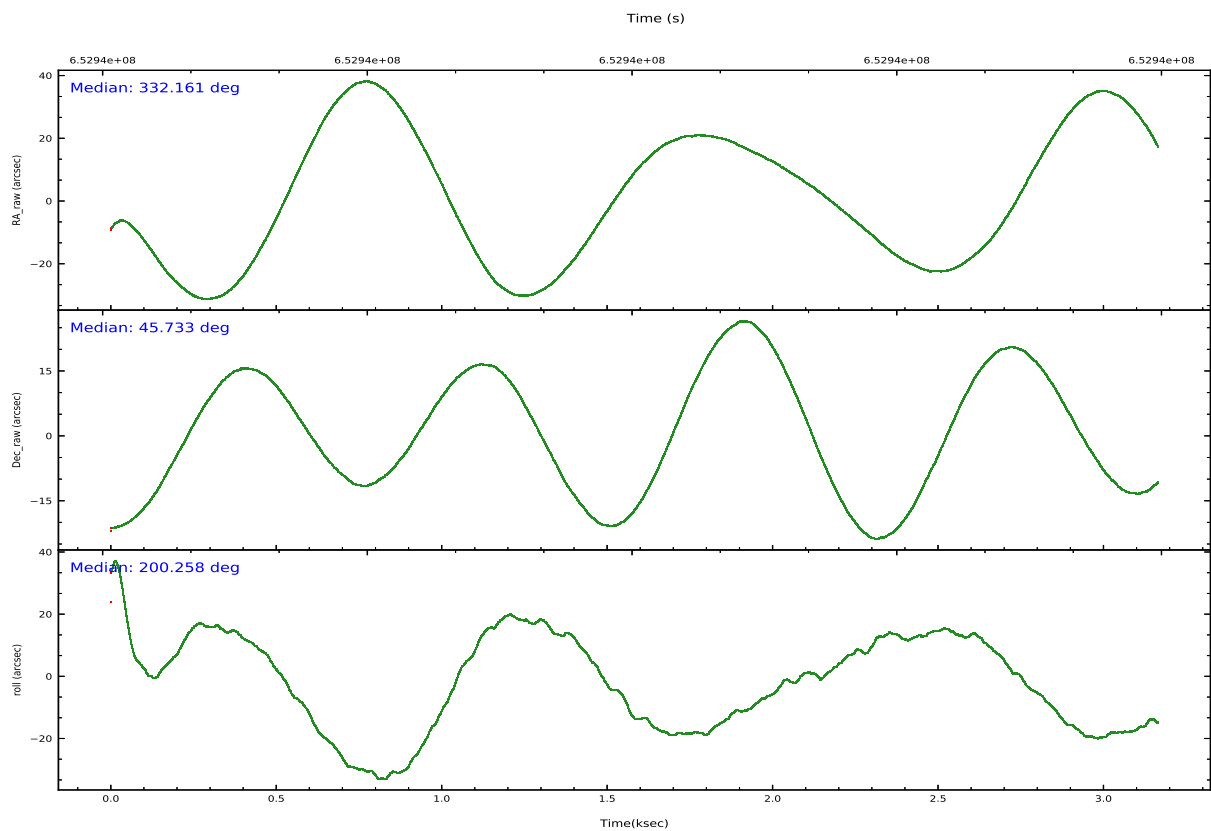
## 2.2 Compared Parameters

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	332.185858	332.16764023799
[deg] Pointing Dec	45.756005	45.741144499757
[deg] Pointing Roll	200.184142	200.25724763982
[s] Window start time (MET)	652147269.184000	652147269.184000
[s] Window stop time (MET)	654652869.184000	654652869.184000
[mm] SIM focus pos	-1.533336	-1.526339935833849
[mm] SIM defocus	7.710433287538843e-07	0.006996703570447904
[mm] SIM translation stage pos	250.455976	250.466033080201
[mm] SIM translation stage offset	0	-0.01005468664627074
[s] Observation start time (MET)	652940189.184000	652939017.76447
Observation start date	2018-09-10T04:15:20	2018-09-10T03:56:57
[s] Observation end time (MET)	652943189.184000	652943521.10224
Observation end date	2018-09-10T05:05:20	2018-09-10T05:12:01

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

## 2.3 Aspect





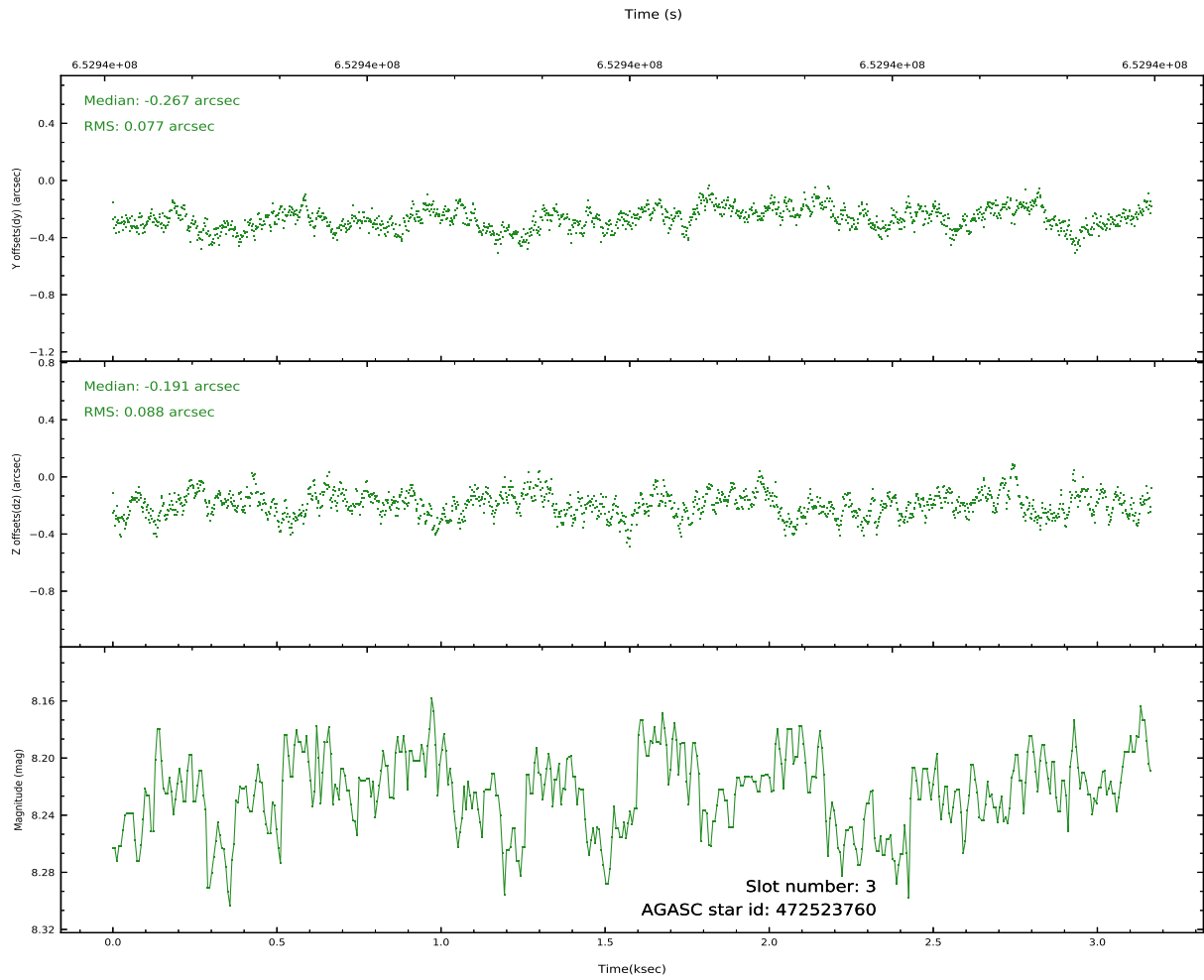
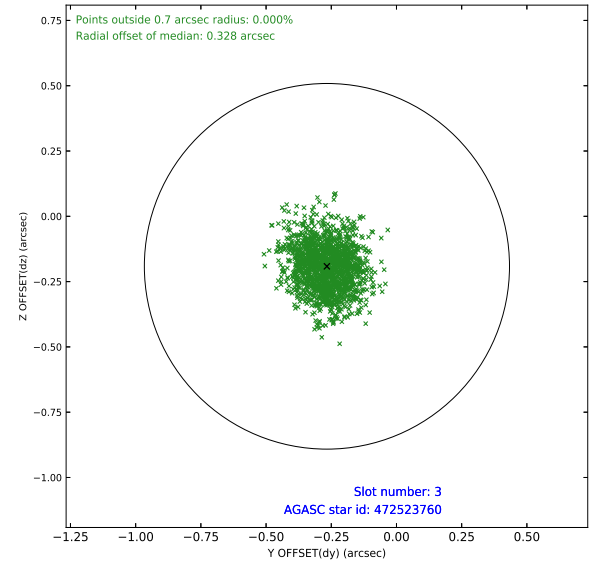
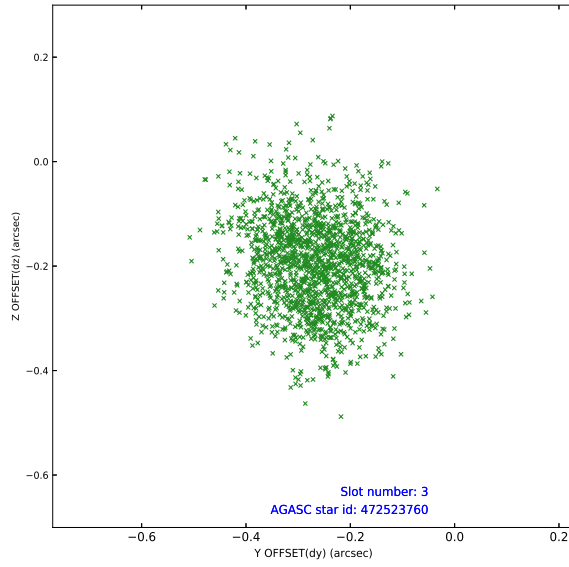
Slot Statistics

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	7.05	772	1.000	0.002	-0.113	0.005	0.010	0.000000	0.000000	-1179.92	-470
1	FID		HRC-S-2	7.06	773	1.000	0.243	-0.200	0.012	0.025	0.000000	0.000000	1218.45	-464
2	FID		HRC-S-4	7.01	773	1.000	0.158	0.008	0.012	0.024	0.000000	0.000000	1220.18	560
3	GUIDE	used	472523760	8.22	1544	1.000	-0.267	-0.191	0.123	0.203	331.645363	45.403260	1718.90	715
4	GUIDE	used	472535576	7.84	1544	1.000	0.026	0.090	0.123	0.207	331.438373	46.291802	1078.37	-2459
5	GUIDE	used	472533912	9.13	1539	1.000	0.048	-0.052	0.246	0.397	331.791136	46.368695	159.73	-2412
6	GUIDE	used	472655152	9.40	1542	1.000	0.058	0.099	0.210	0.386	332.504239	45.862991	-882.28	-89
7	GUIDE	used	472665256	8.95	1542	1.000	0.164	0.065	0.142	0.234	332.808125	46.195041	-2002.94	-954

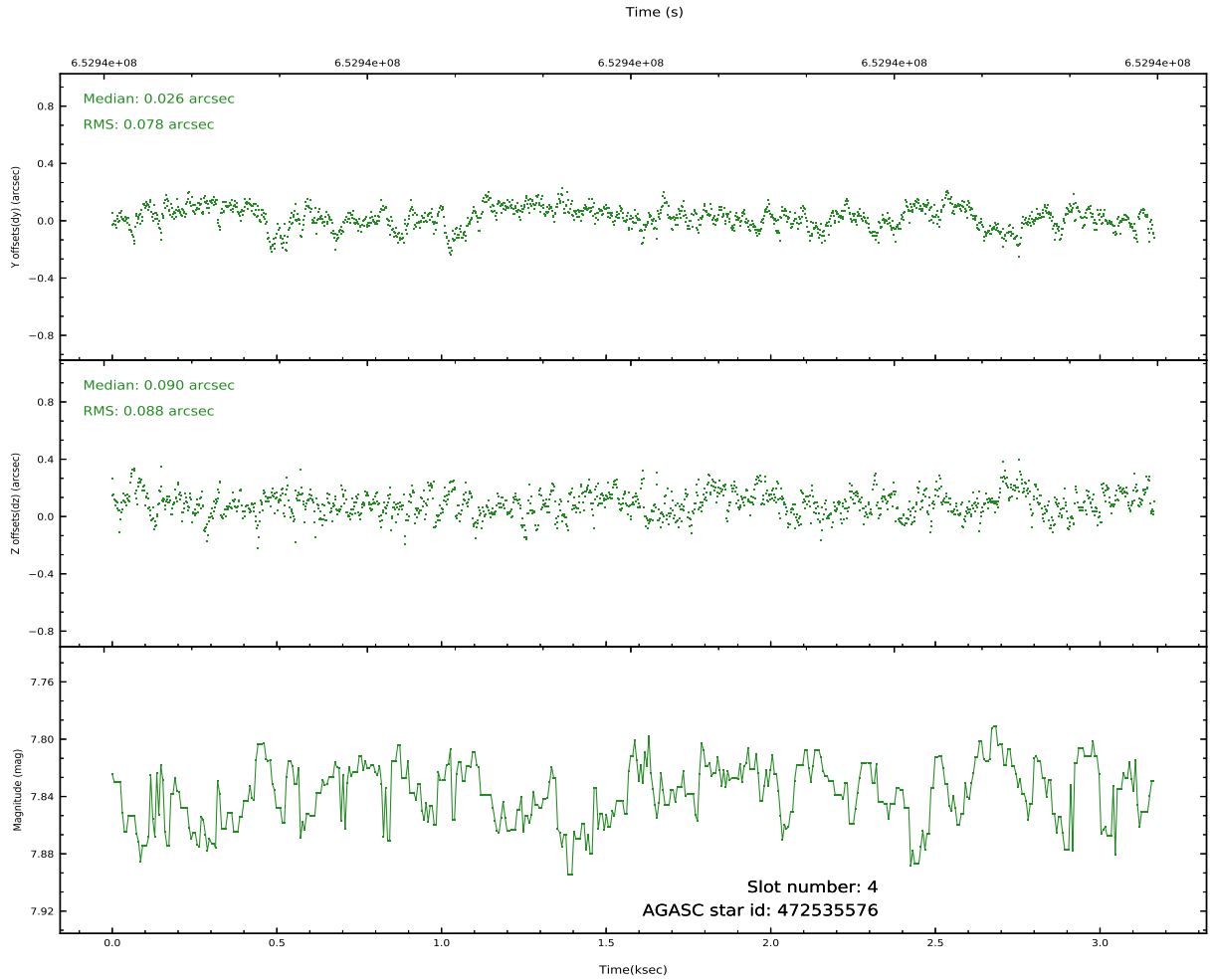
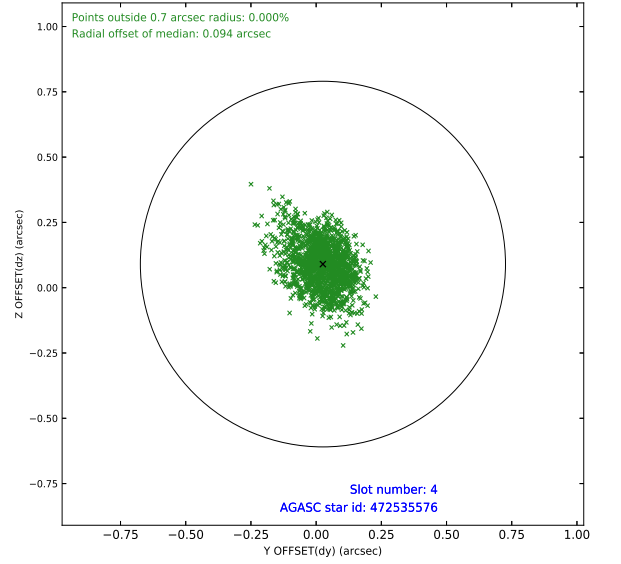
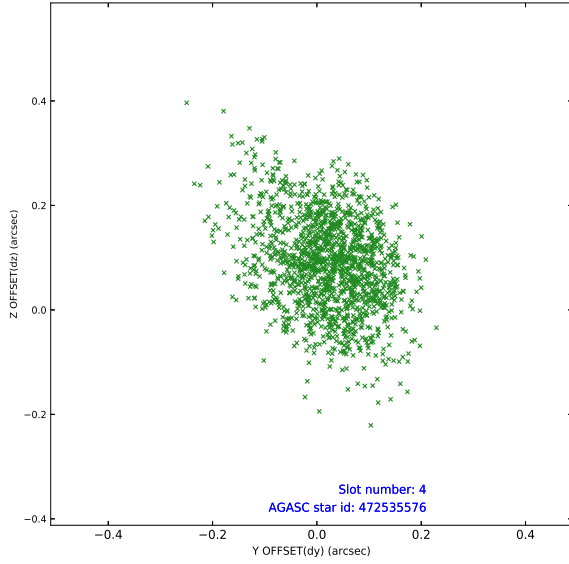


## 2.4 Star Slots

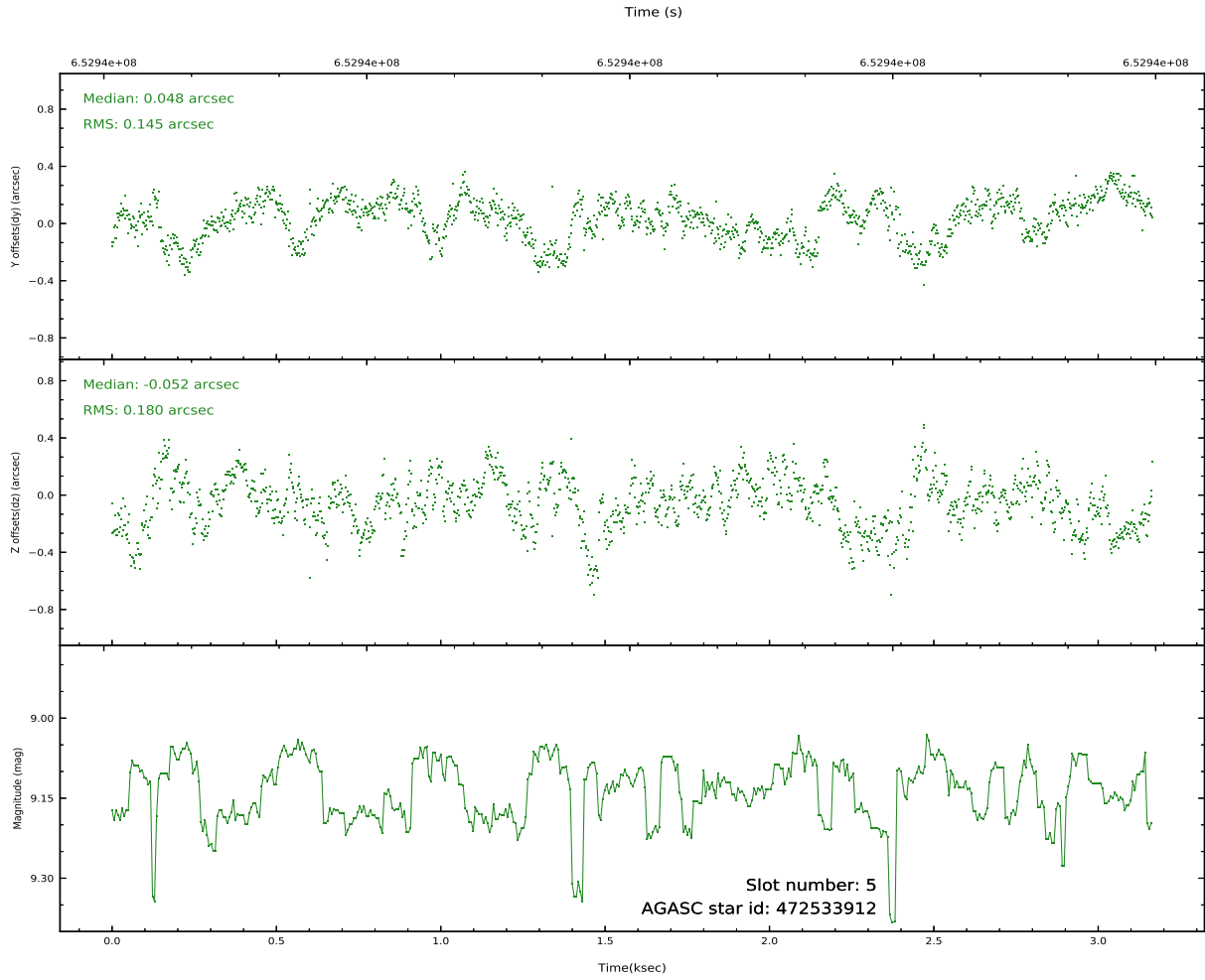
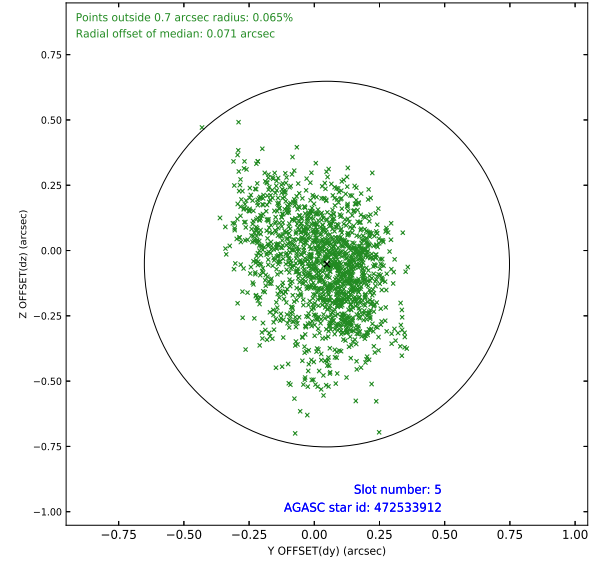
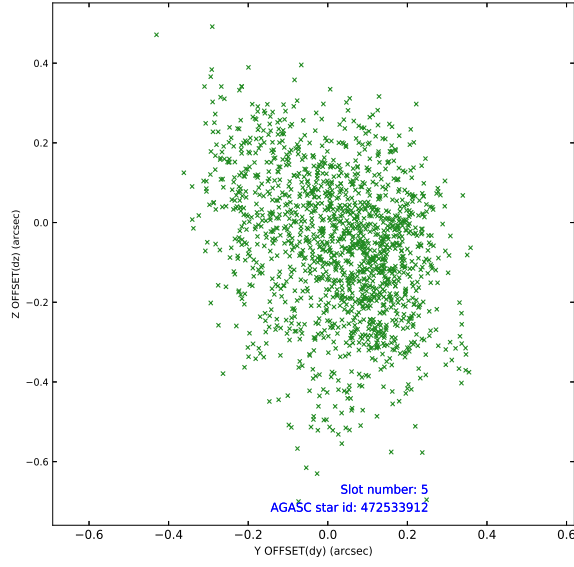
### 2.4.1 Slot 3



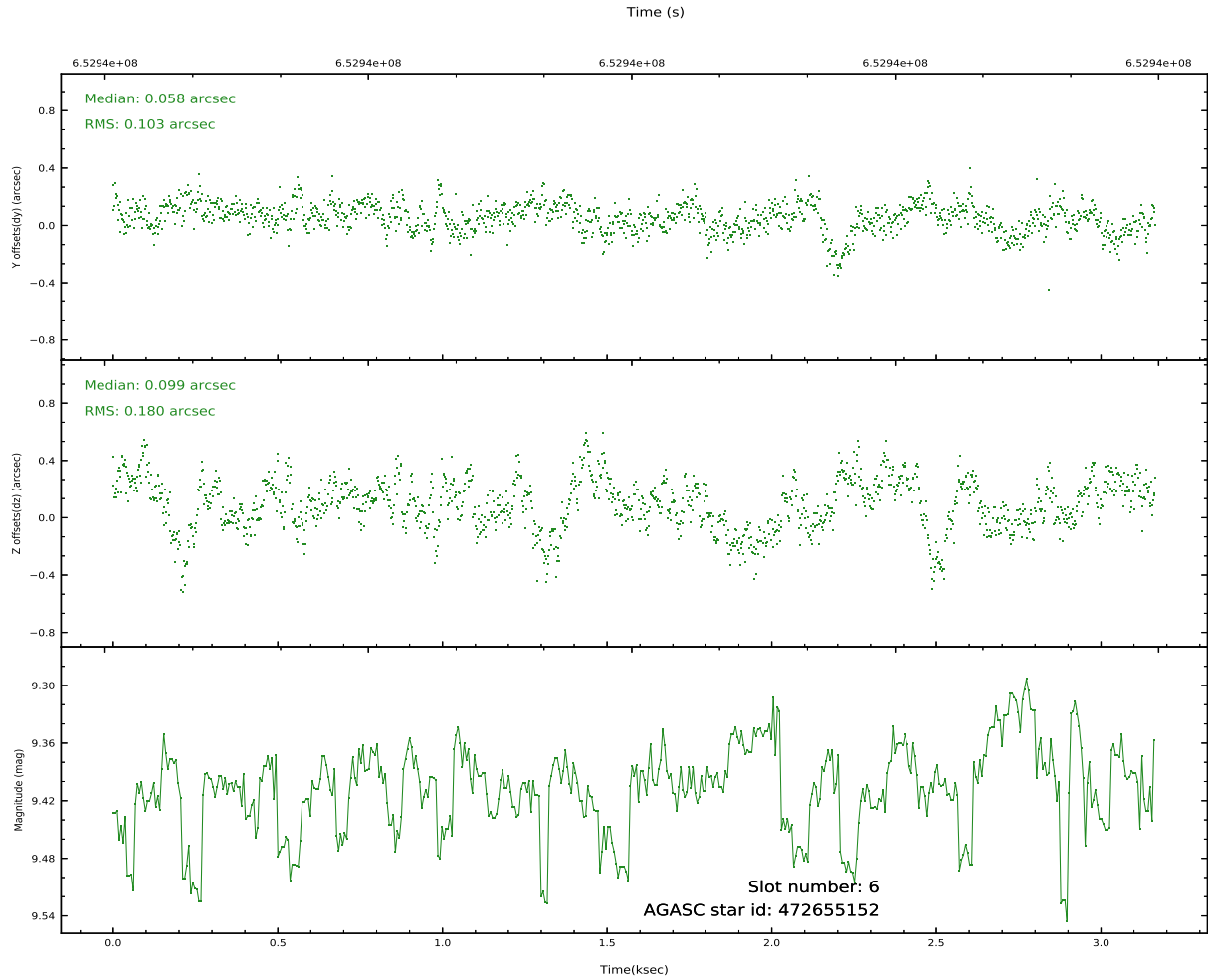
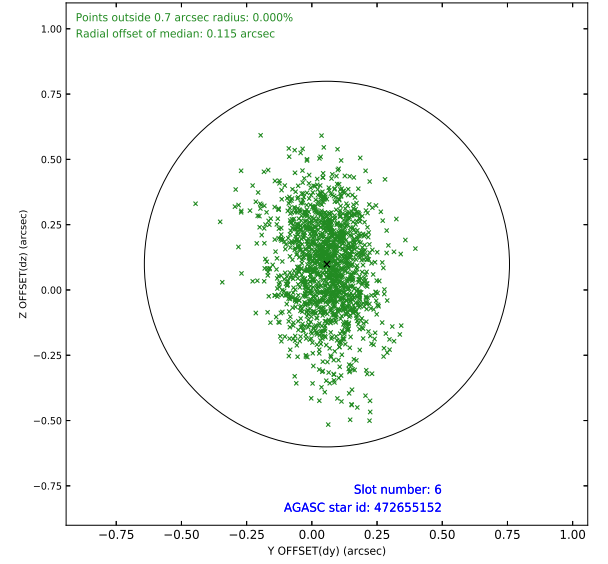
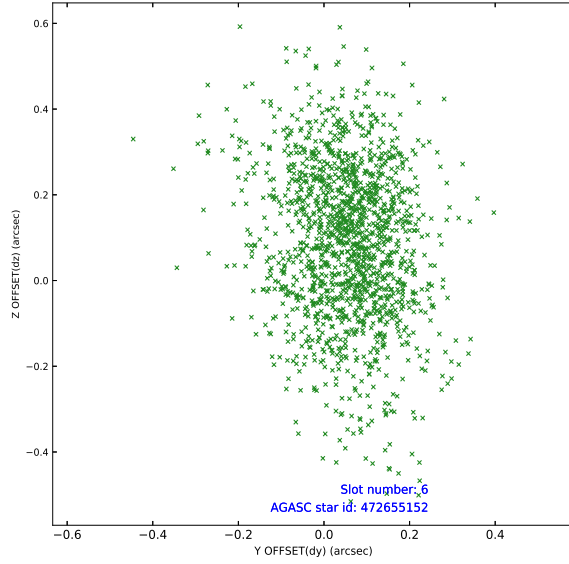
## 2.4.2 Slot 4



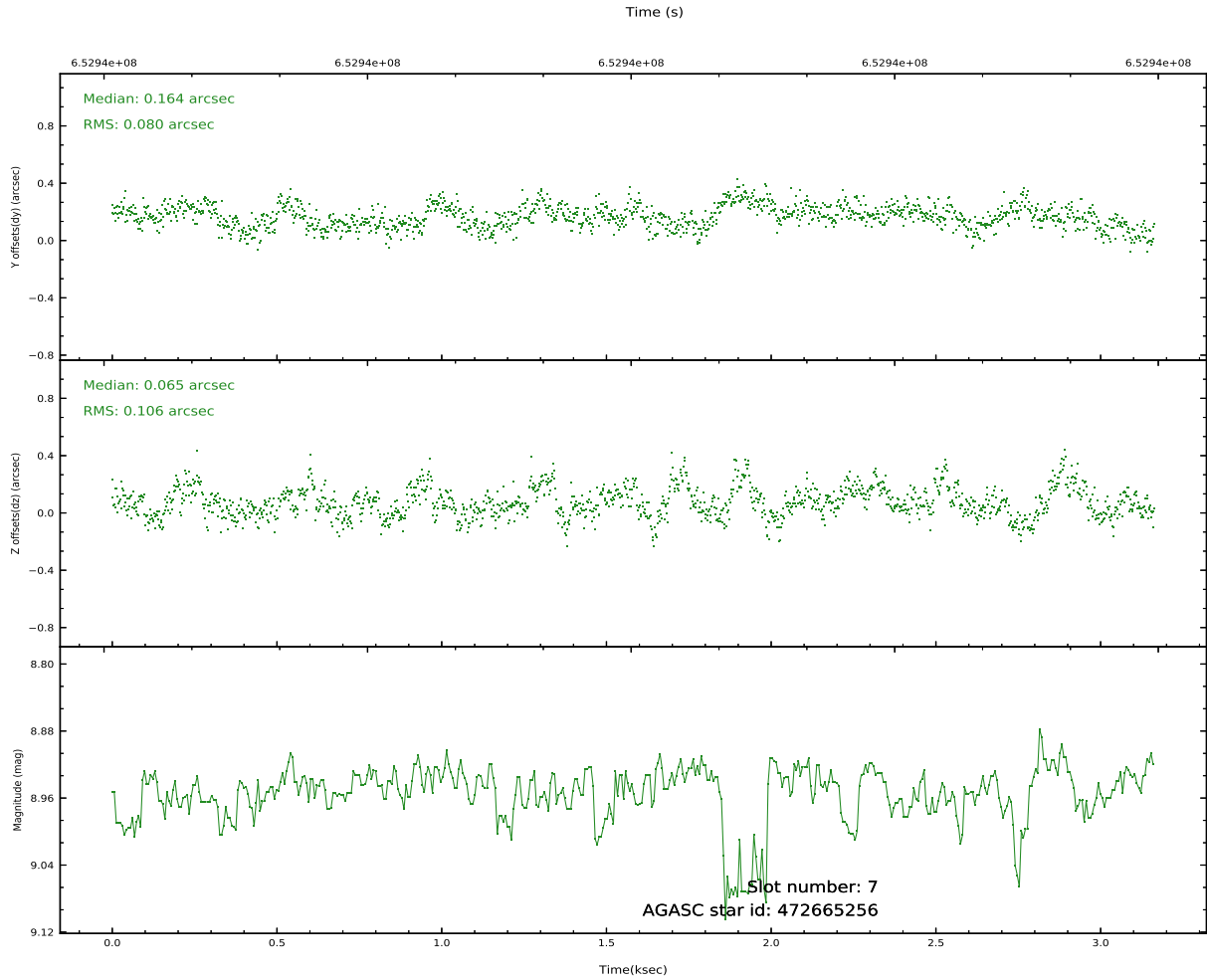
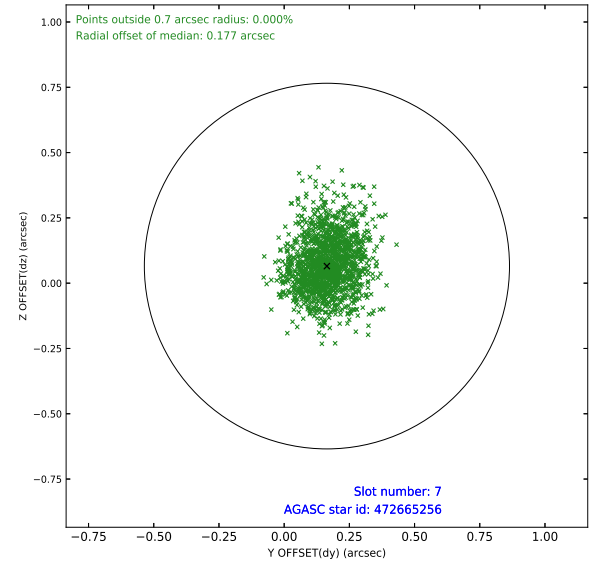
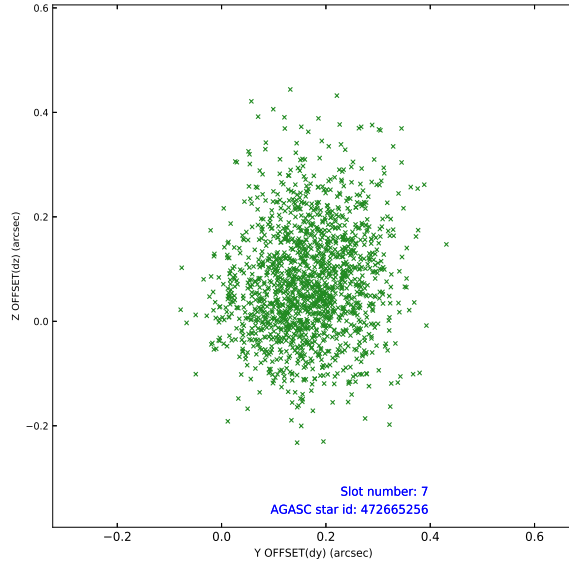
### 2.4.3 Slot 5



## 2.4.4 Slot 6

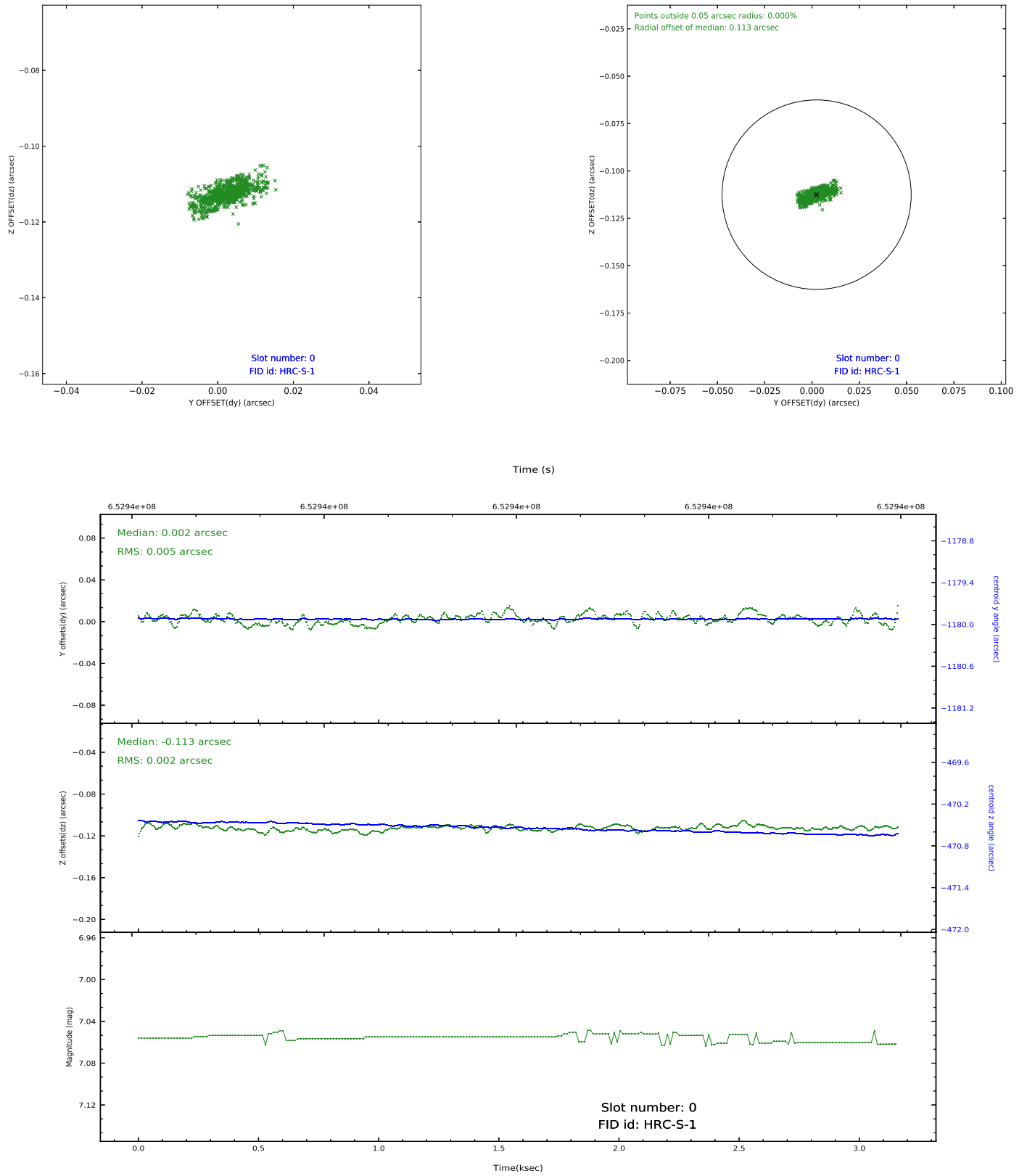


## 2.4.5 Slot 7

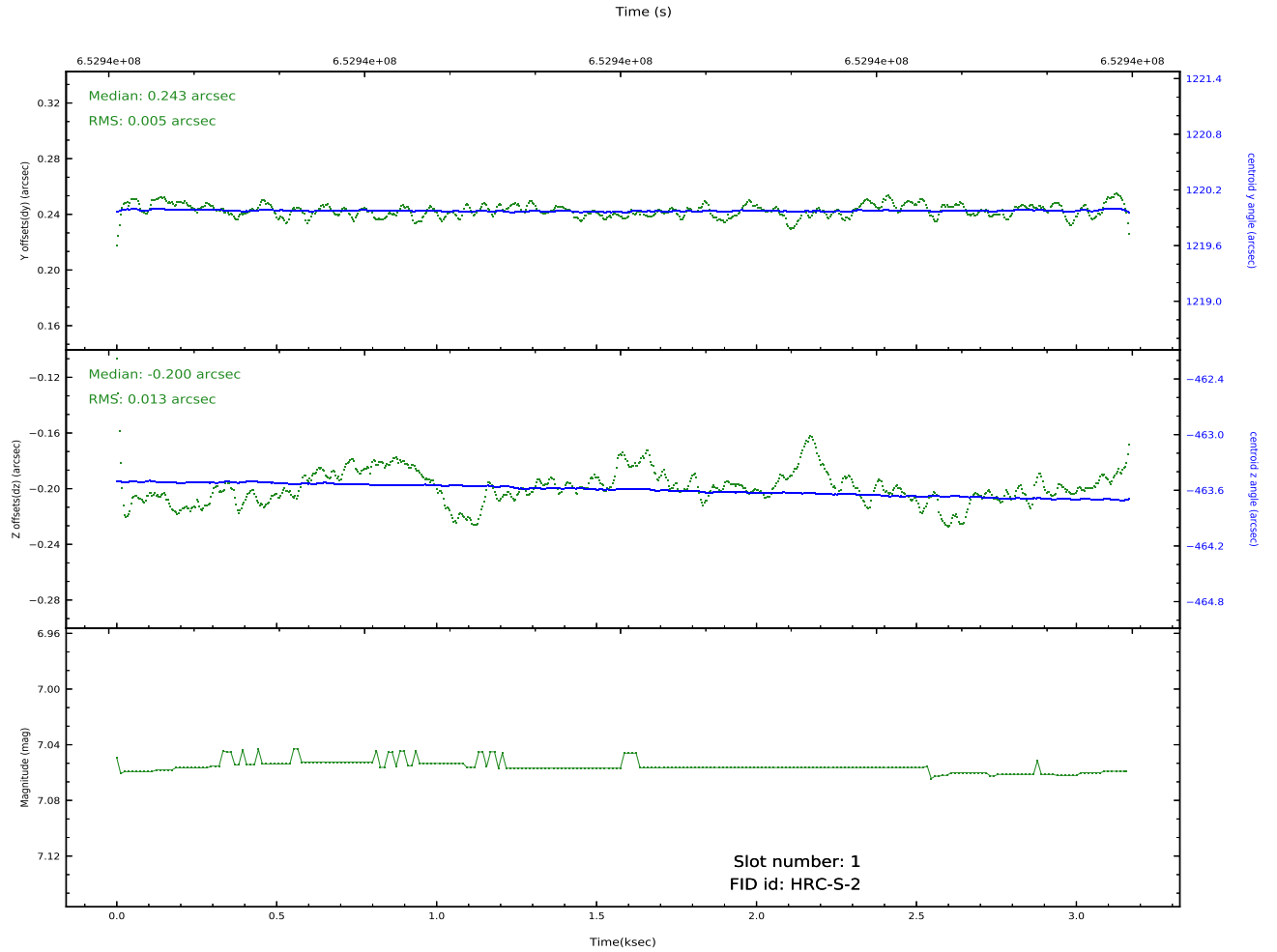
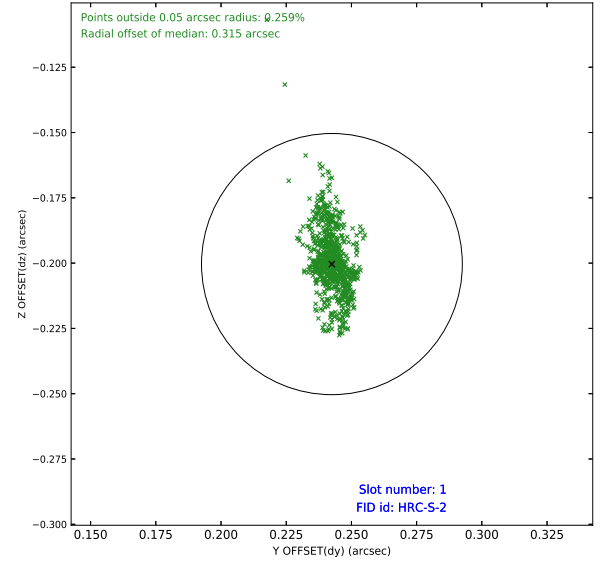
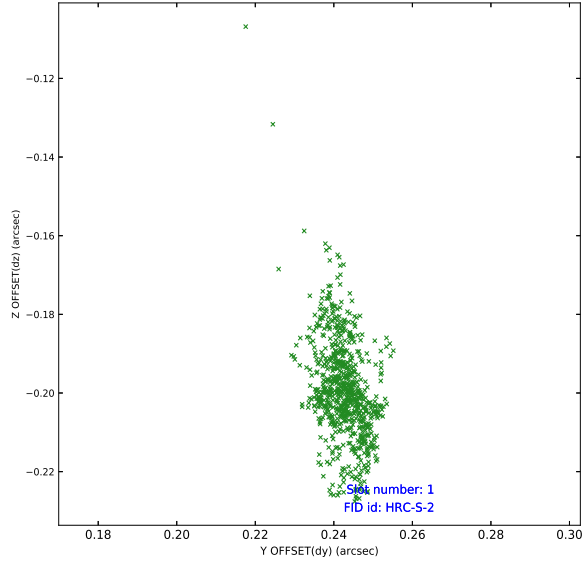


## 2.5 FID Slots

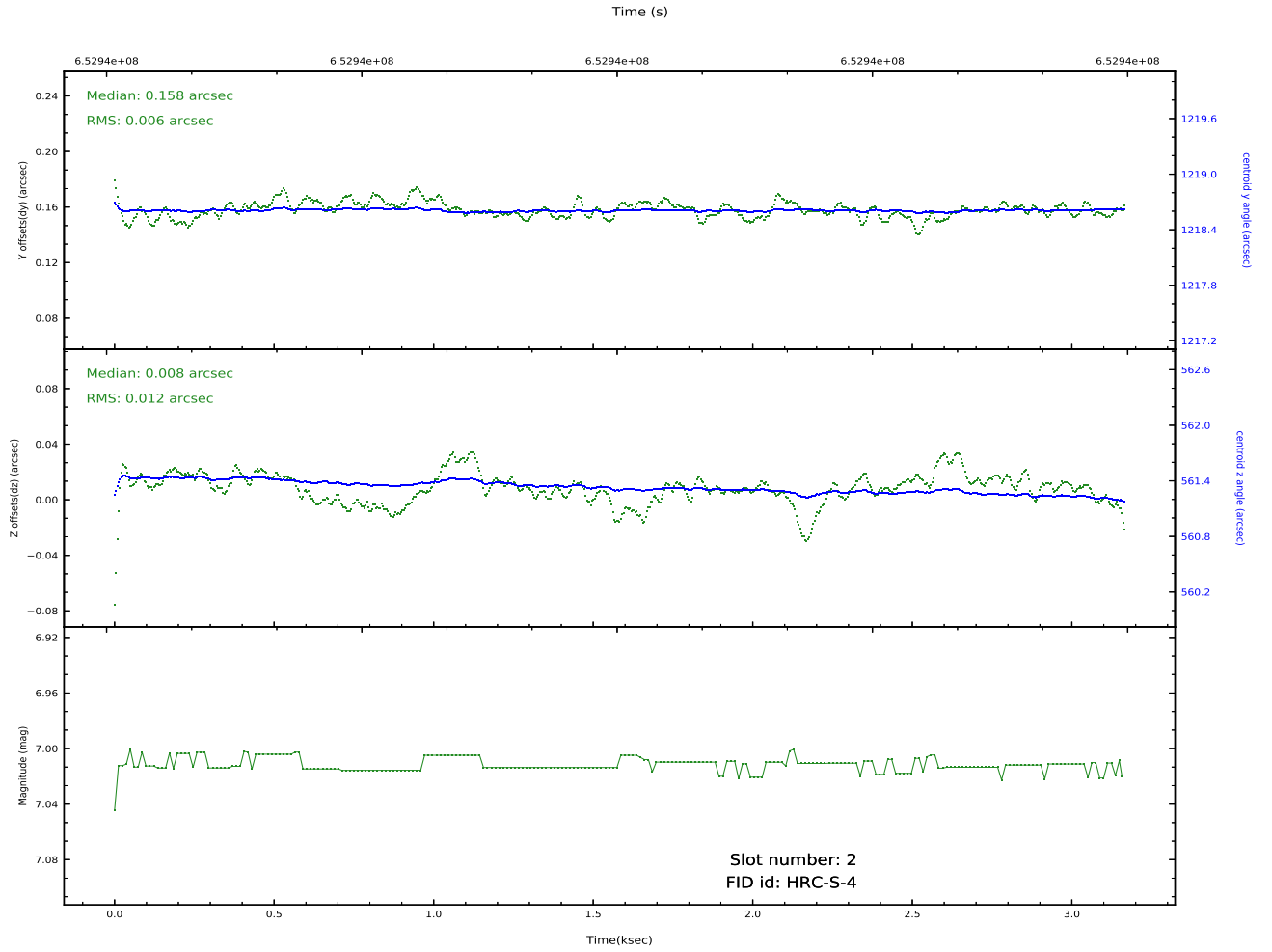
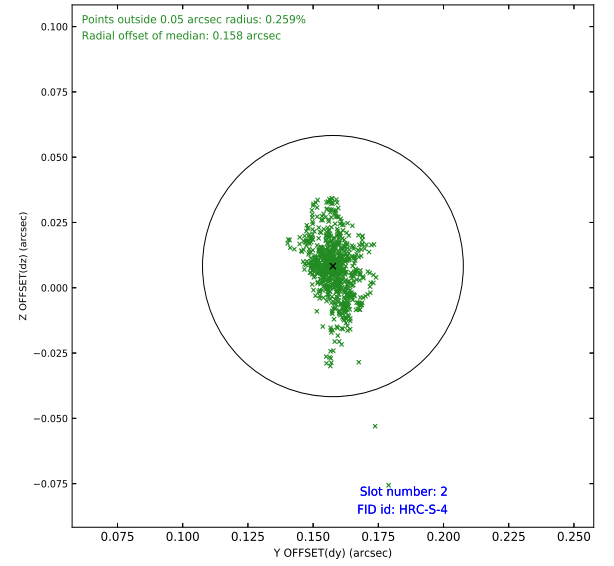
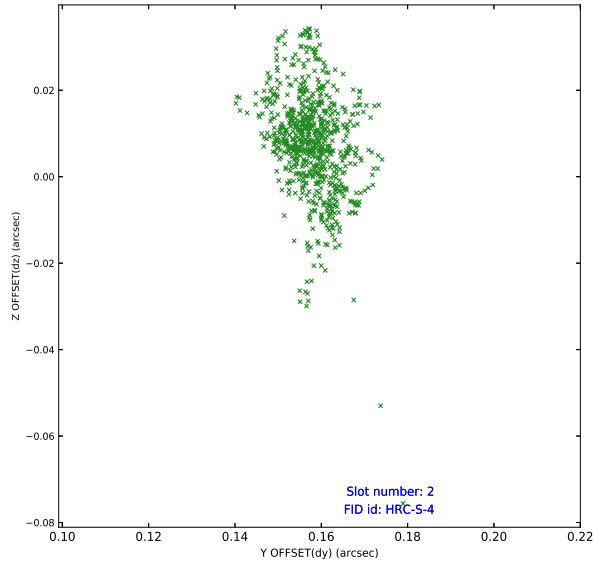
### 2.5.1 Slot 0



## 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	3.0885814334154

## A.2 Comments

Due to corruption of the secondary science data during this observation, some instrument parameters have bogus values. The data in this observation have been inspected by the HRC team. PLEASE NOTE: All the event data in this observation are good. The short gaps in the GTI intervals can be eliminated (i.e., use the first START and last STOP). THE DTF values during this observation can be estimated by dropping all the low values and averaging the remaining values near 1.0.

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Window constraint met.