

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5120 - L2 Version 4  
Chandra X-Ray Center

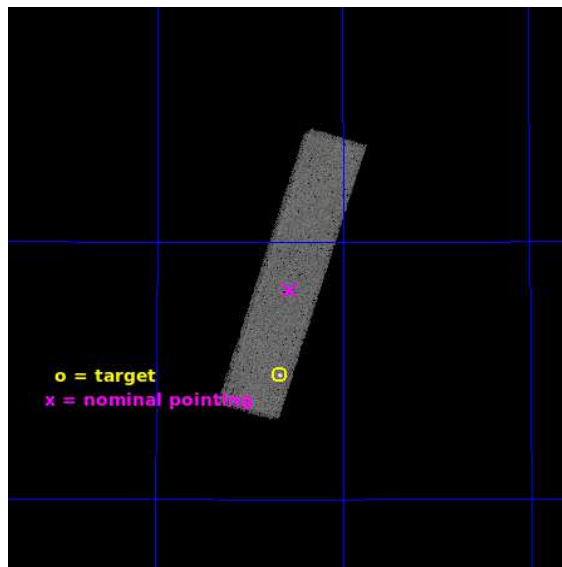
L2 Processing Date : Oct 5 2020

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# 1 Front

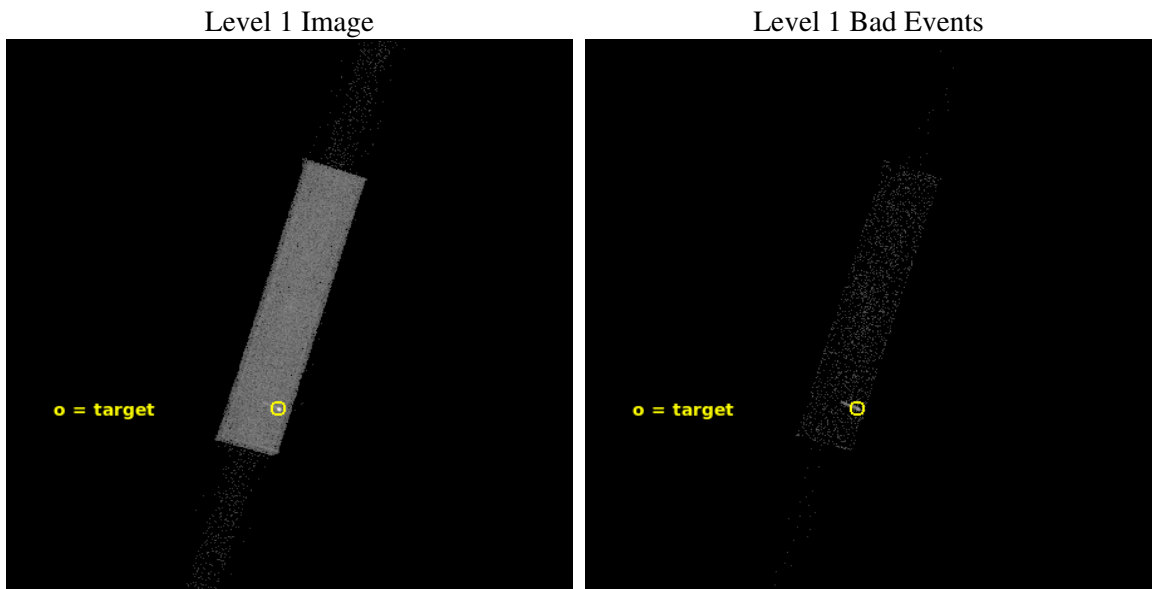
seq_num	290393	Sequence number
obs_id	5120	Observation id
title	AO5B Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain	Proposal title
observer	CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.14227395953	Nominal RA [deg]
dec_nom	45.908101585739	Nominal Dec [deg]
roll_nom	287.07986969397	Nominal Roll [deg]
revision	4	Processing version of data
ontime	1054.9812974334	[s]
livetime	1045.3547875021	Ontime multiplied by DTCOR
l2events	61262	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	1	Obi number	sched_exp_time	900.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	1054.9812974334	[s]
caldbver	4.9.2	&#160	l1events	93545	Number of level 1 events
date	2020-10-05T08:29:53	Date and time of file creation			
revision	4	Processing version of data			

### 2.1.3 Events

Level 1 Events

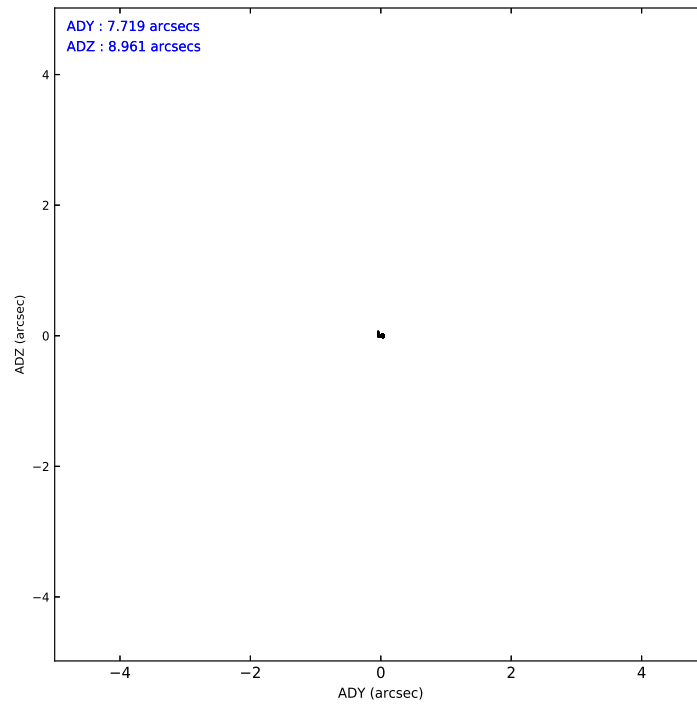
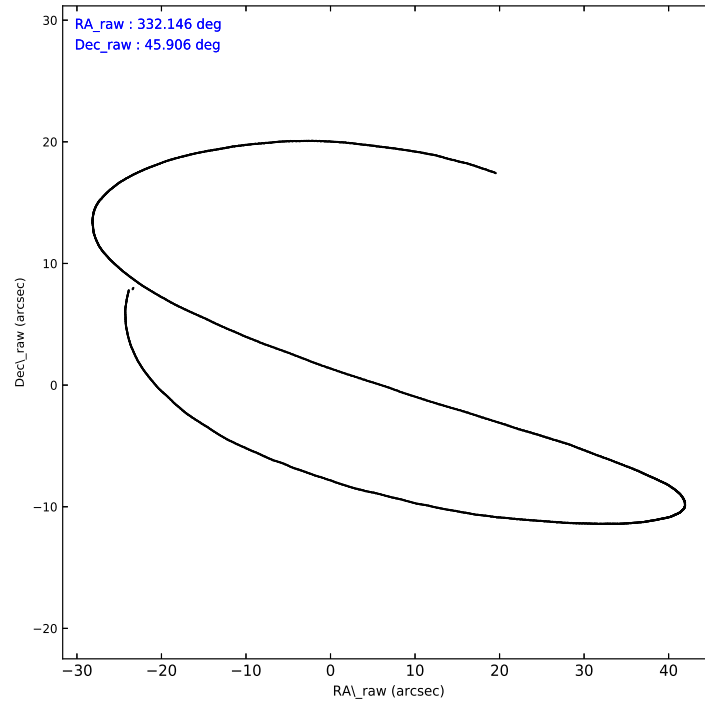
	segment 1	segment 2	segment 3
level 1 events	780	92007	758
rejected events	780	18449	758
rejected %	100%	20%	100%

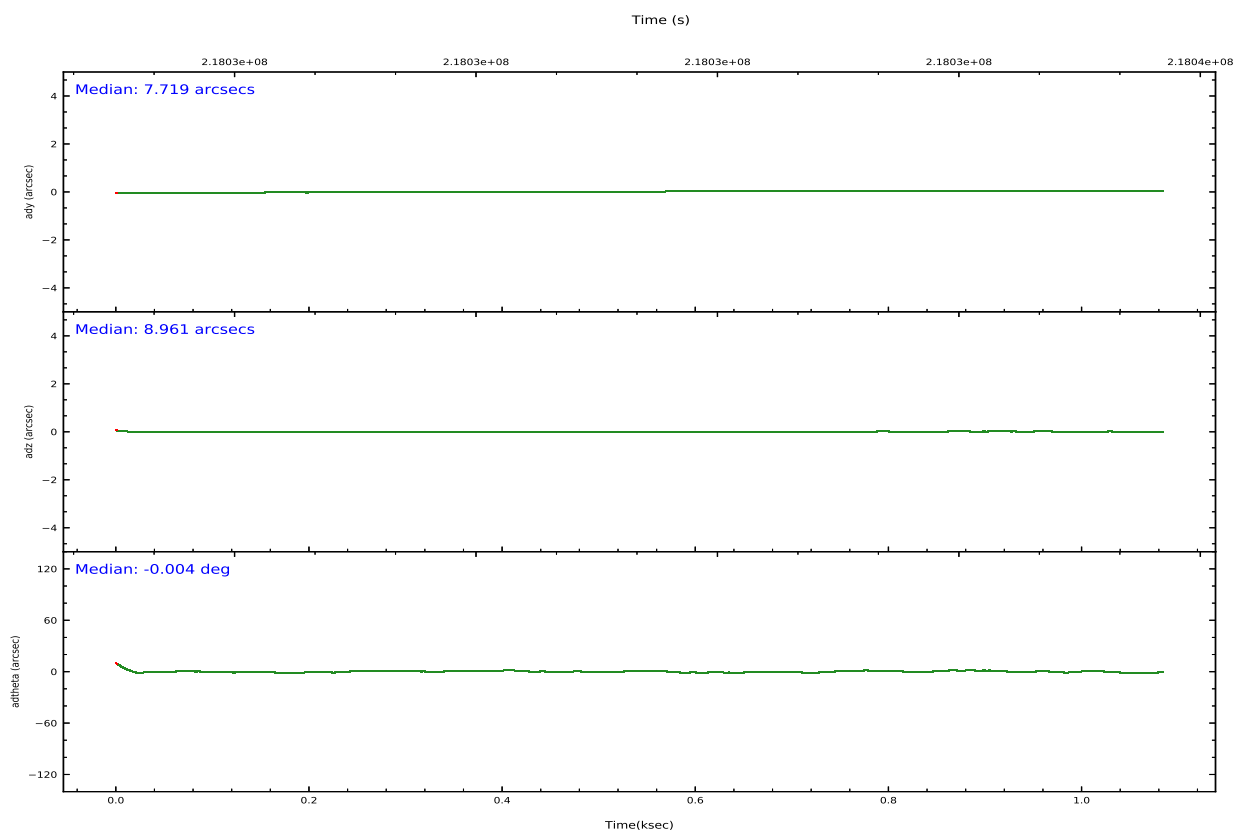
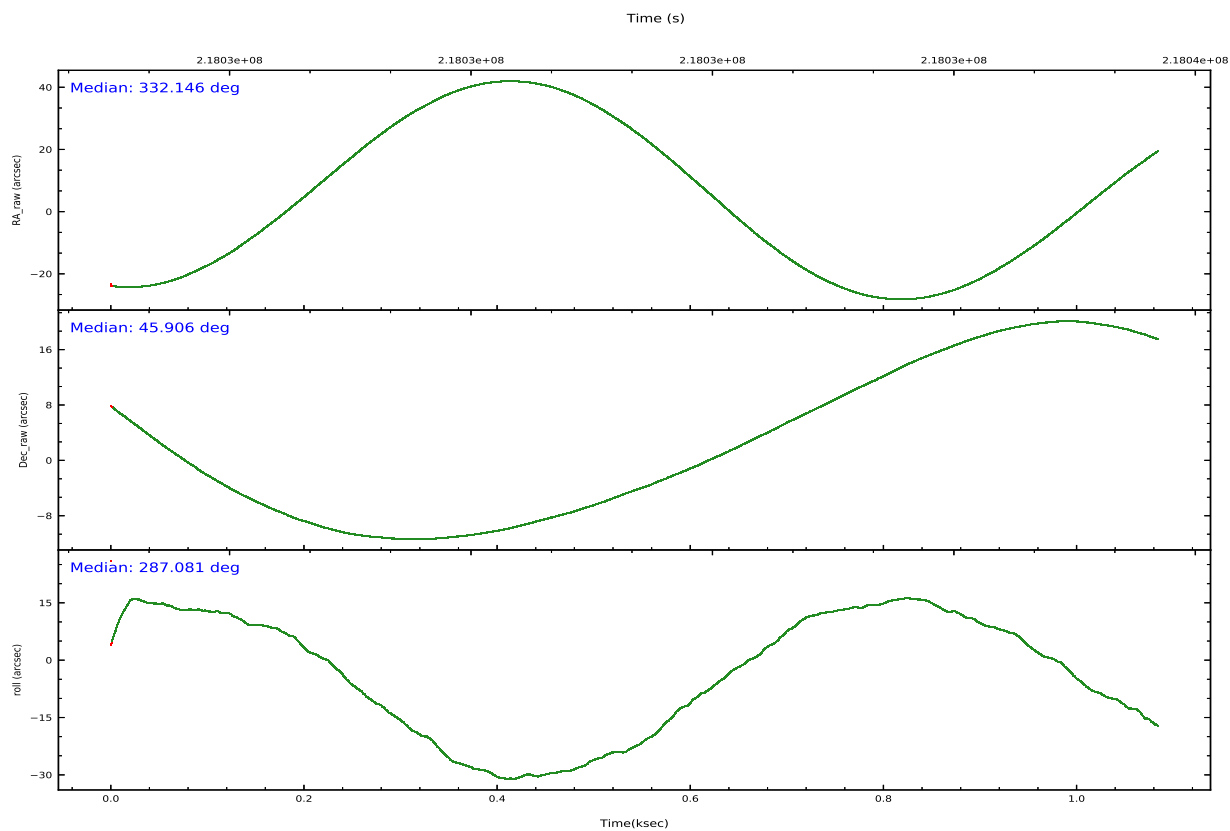
## 2.2 Compared Parameters

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	332.116126	332.14227395953
[deg] Pointing Dec	45.925334	45.908101585739
[deg] Pointing Roll	287.036342	287.07986969397
[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)	218034063.184000	218033687.01937
Observation start date	2004-11-28T12:59:59	2004-11-28T12:54:47
[s] Observation end time (MET)	218034963.184000	218035096.90693
Observation end date	2004-11-28T13:14:59	2004-11-28T13:18:16

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

## 2.3 Aspect





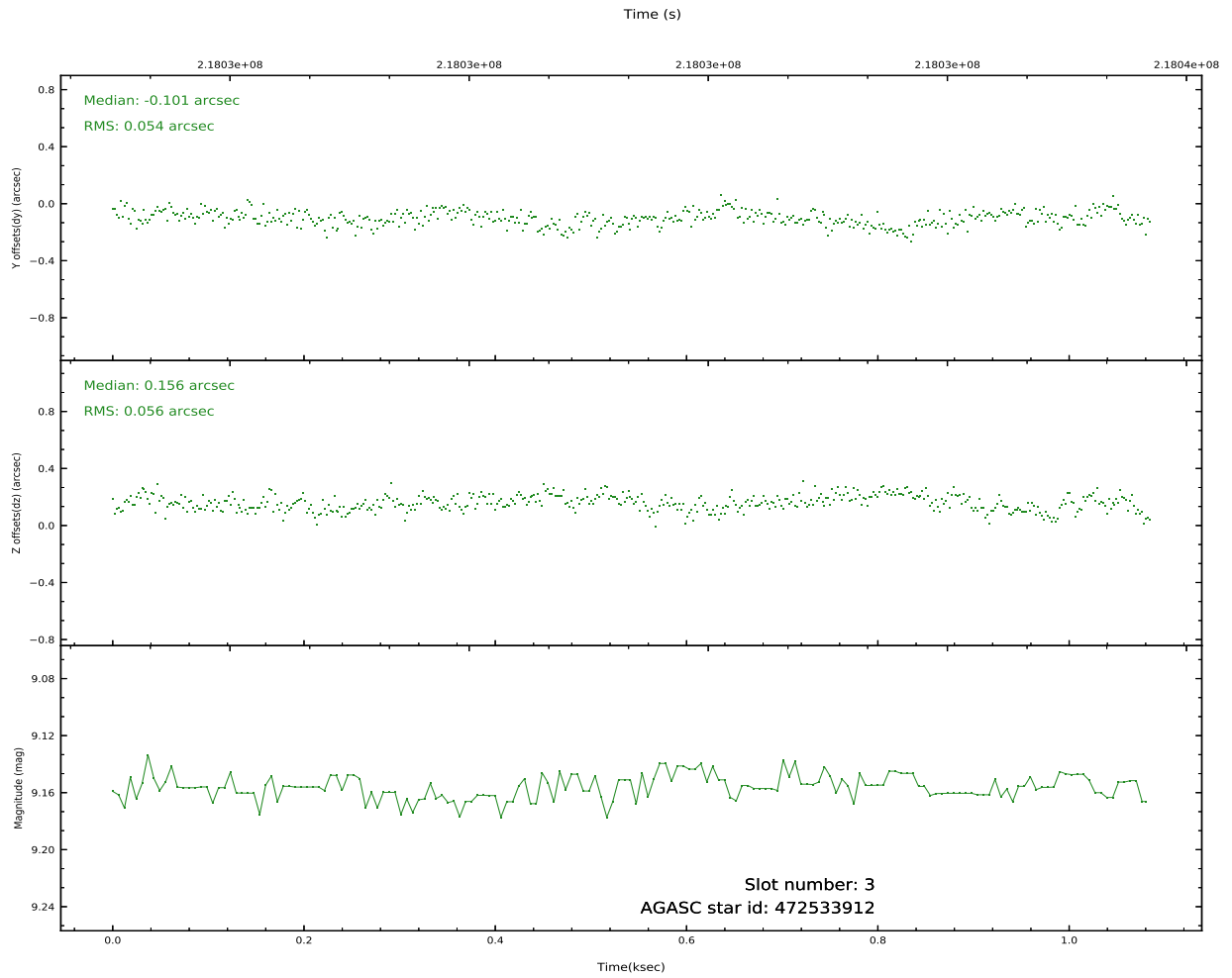
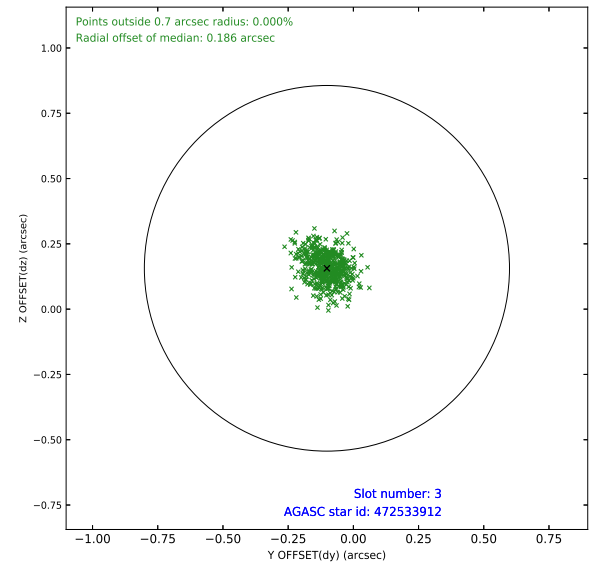
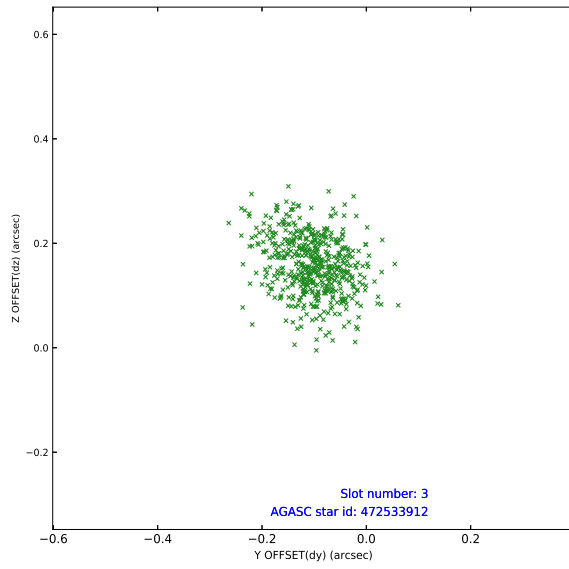
Slot Statistics

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	7.03	265	1.000	0.074	-0.192	0.008	0.012	0.000000	0.000000	-1161.94	-457
1	FID		HRC-S-3	7.04	265	1.000	0.044	-0.029	0.008	0.018	0.000000	0.000000	-1169.09	570
2	FID		HRC-S-4	7.00	265	1.000	0.269	-0.076	0.004	0.007	0.000000	0.000000	1232.08	576
3	GUIDE	used	472533912	9.16	530	1.000	-0.101	0.156	0.082	0.135	331.791136	46.368695	-1763.93	-301
4	GUIDE	used	472535400	8.78	530	1.000	-0.282	-0.195	0.075	0.121	331.047001	46.353888	-2273.55	-2081
5	GUIDE	used	472655152	9.43	530	1.000	0.025	0.120	0.108	0.188	332.504239	45.862991	493.39	863
6	GUIDE	used	472659832	9.47	530	1.000	-0.014	0.137	0.101	0.166	332.780399	46.098139	-114.54	1773
7	GUIDE	used	472527720	7.05	529	1.000	0.371	-0.220	0.099	0.165	331.460205	45.112509	2303.84	-2442

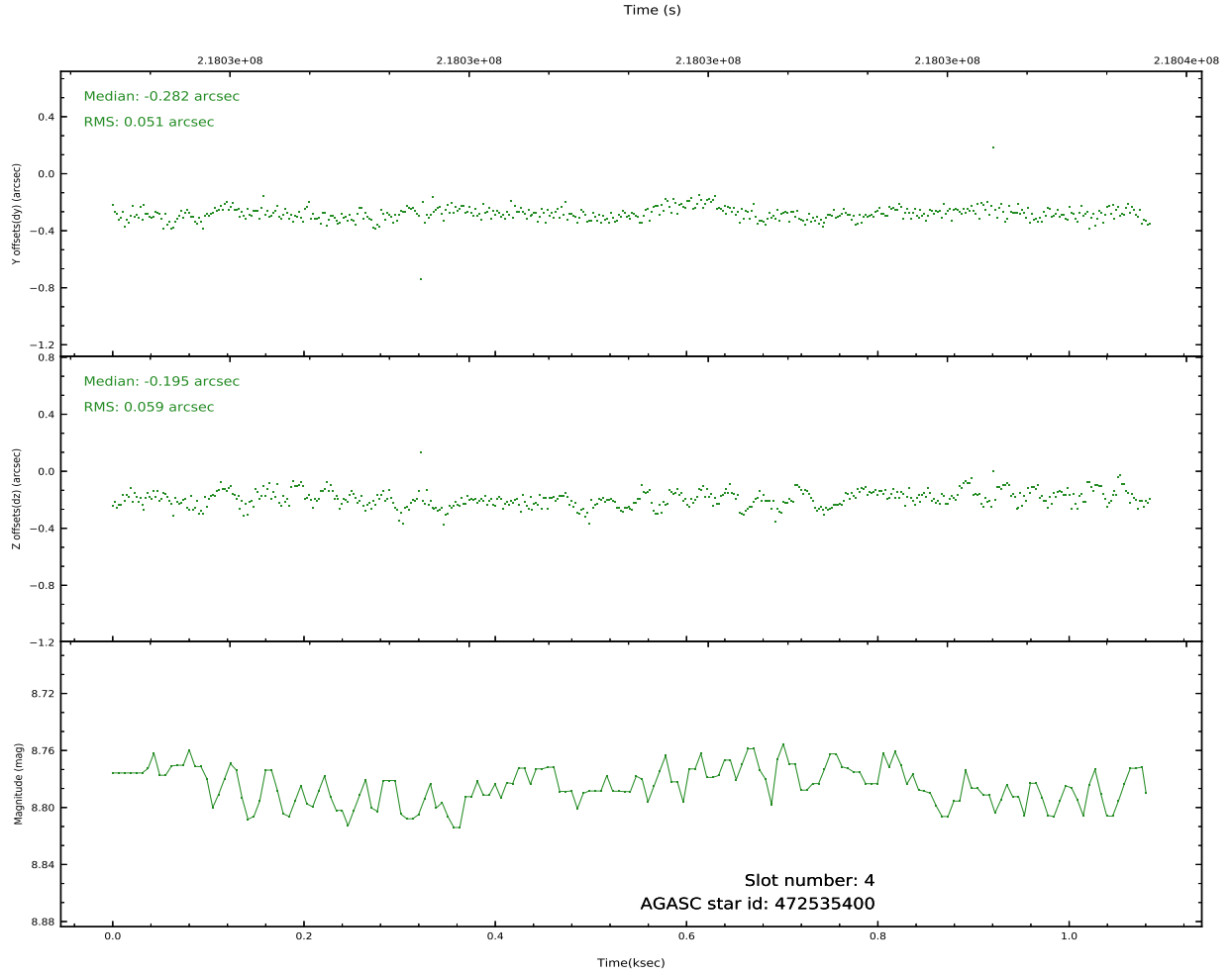
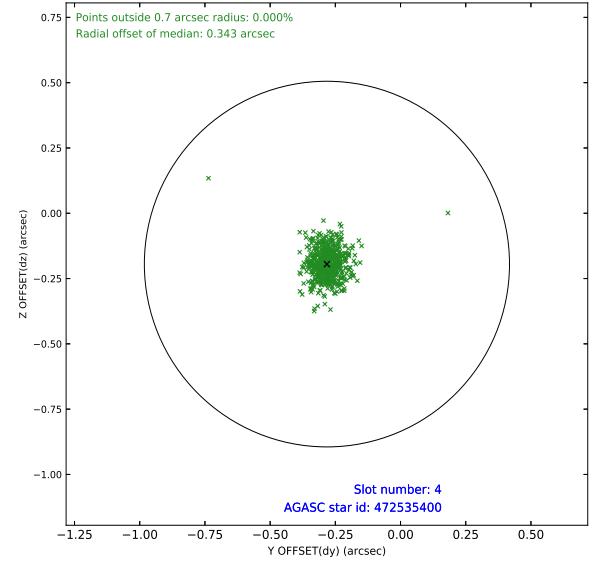
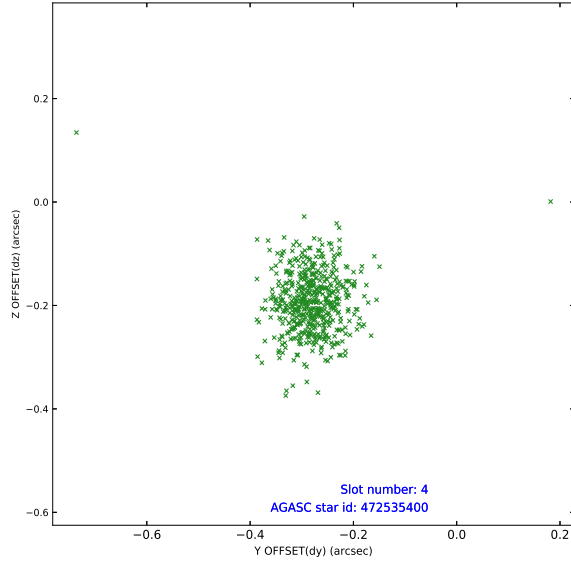


## 2.4 Star Slots

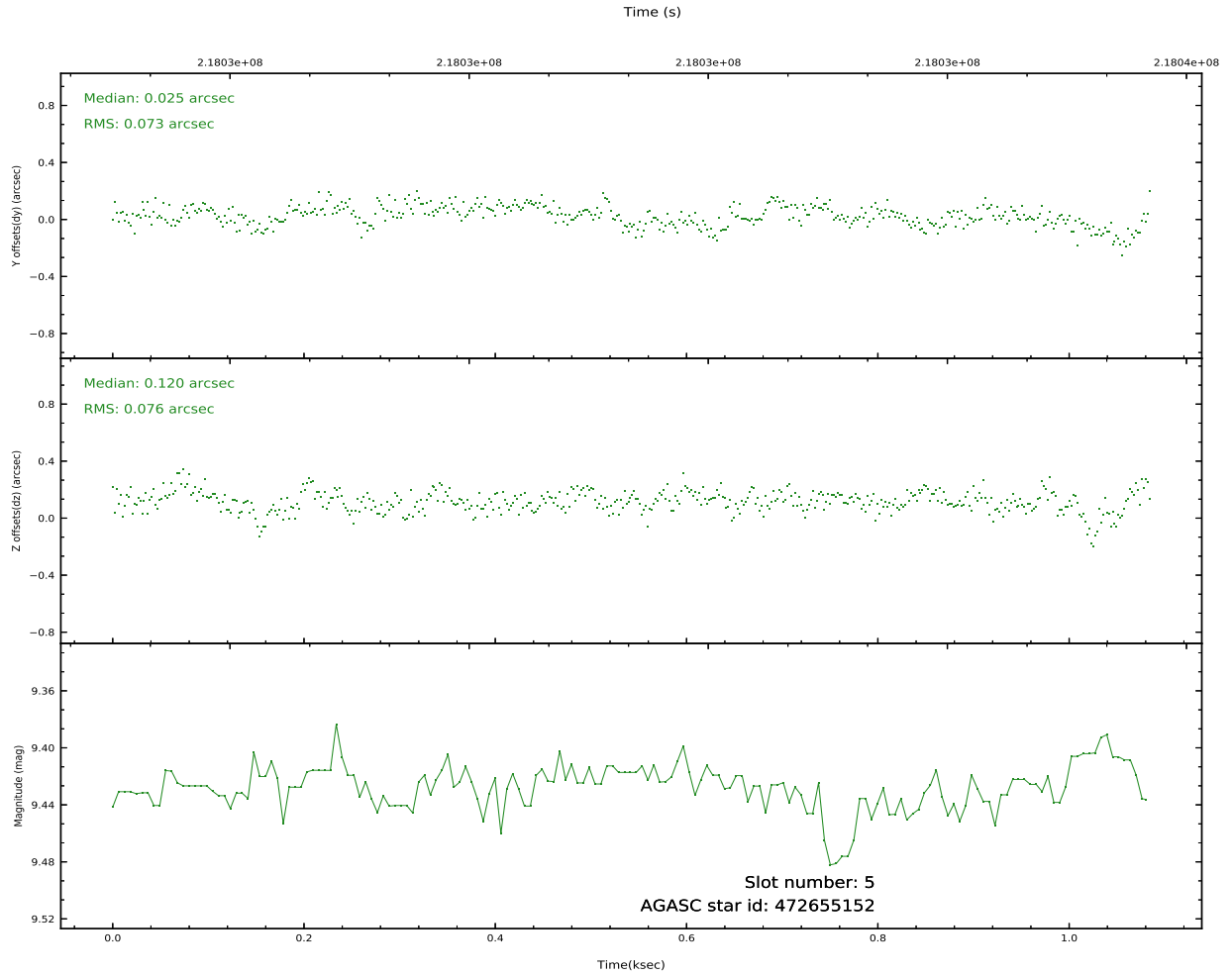
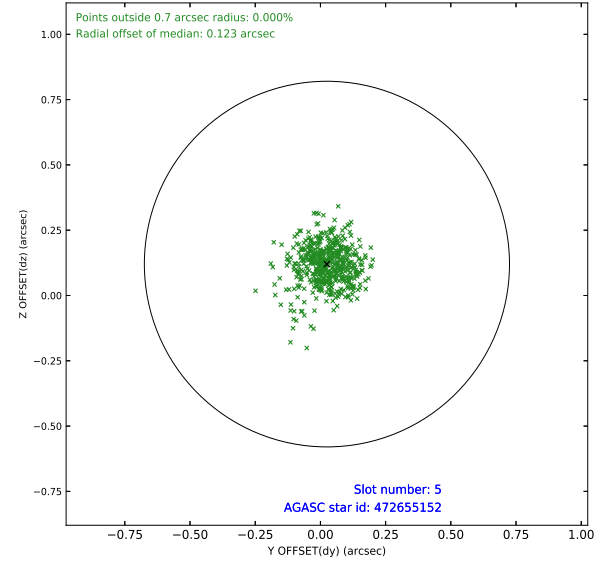
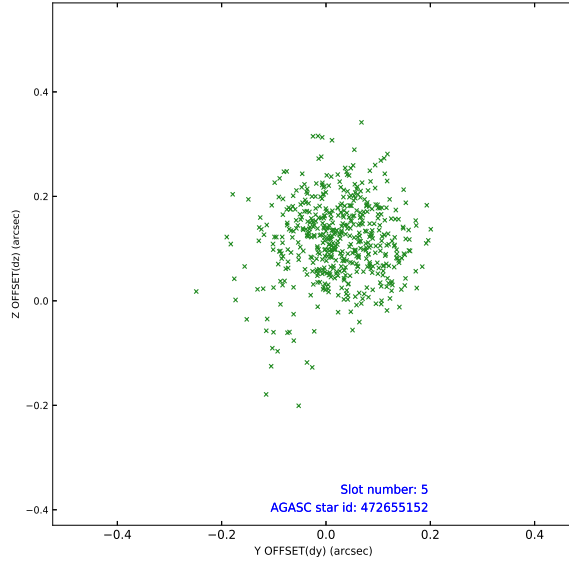
### 2.4.1 Slot 3



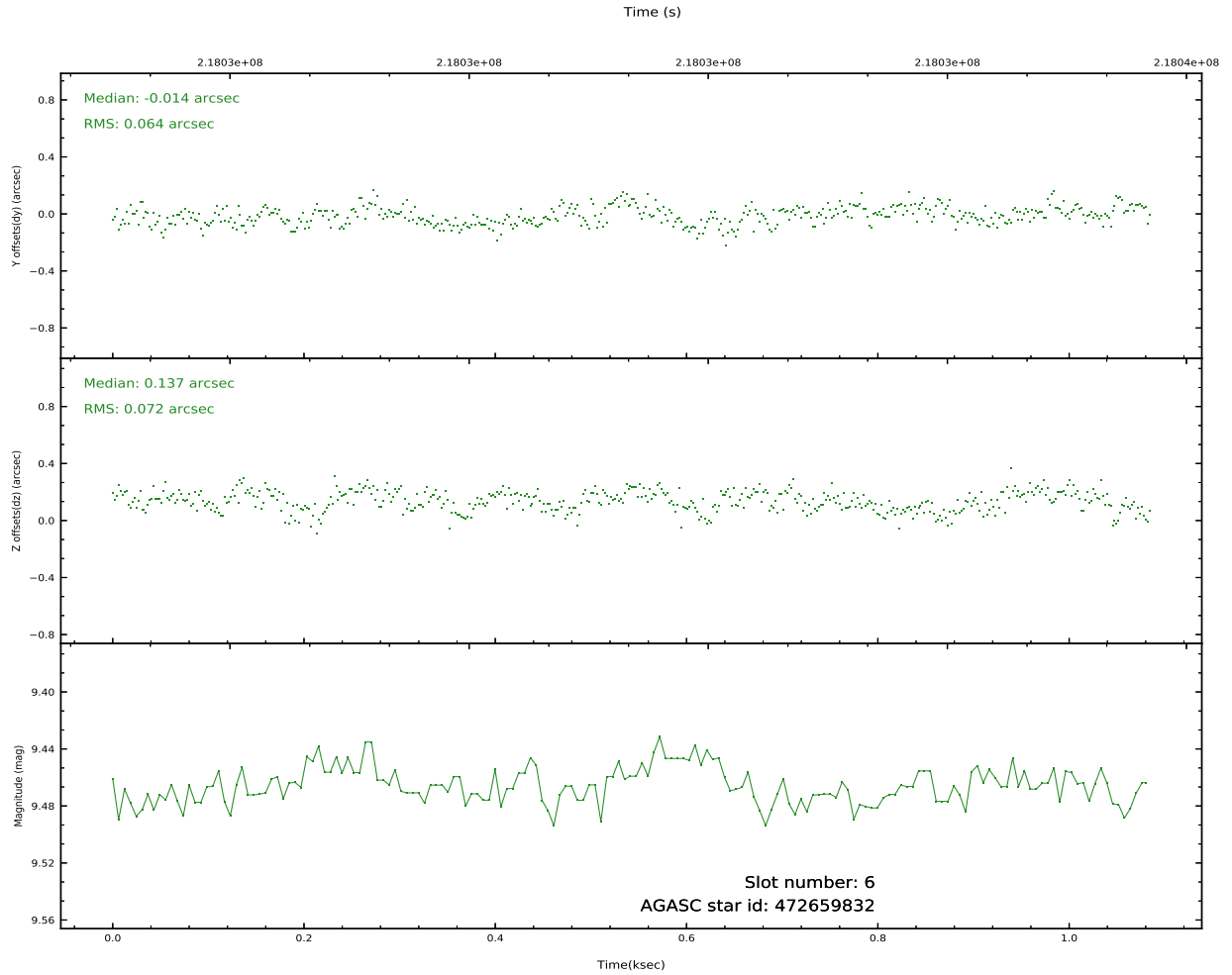
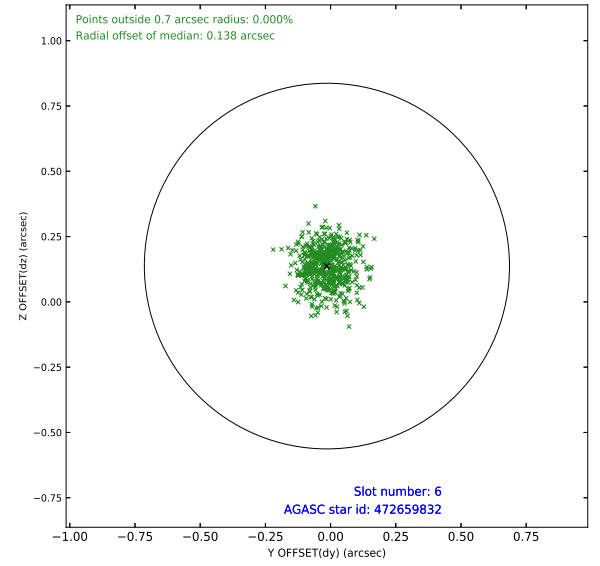
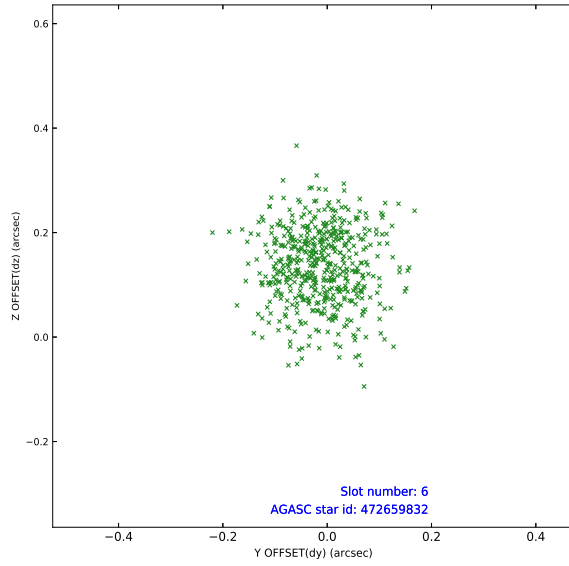
## 2.4.2 Slot 4



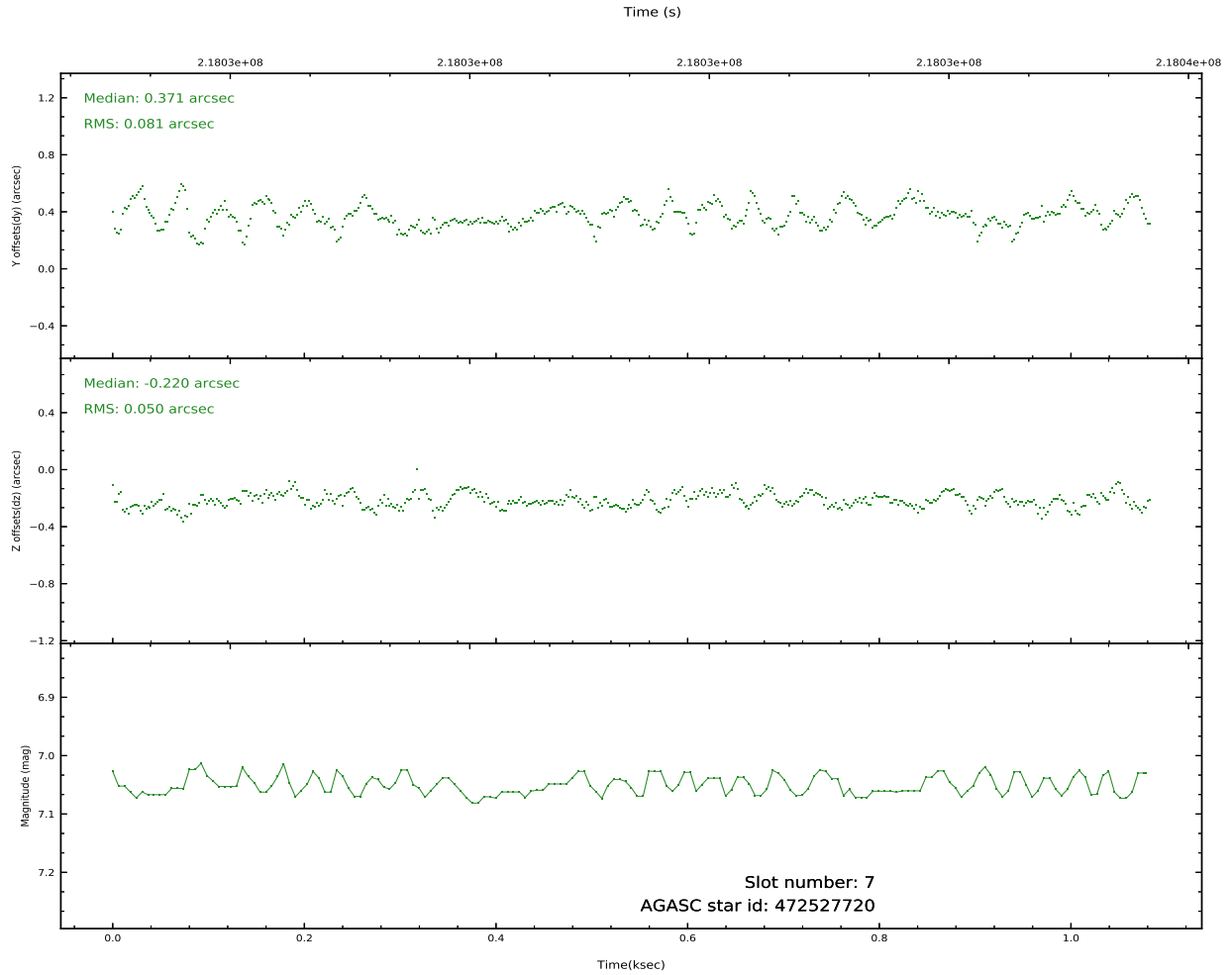
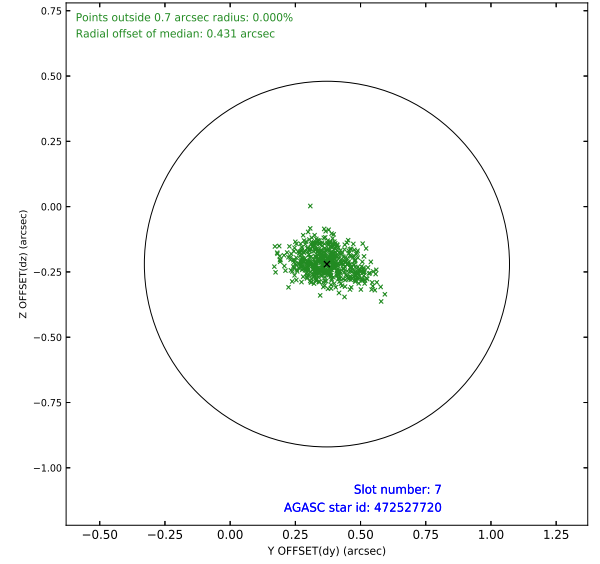
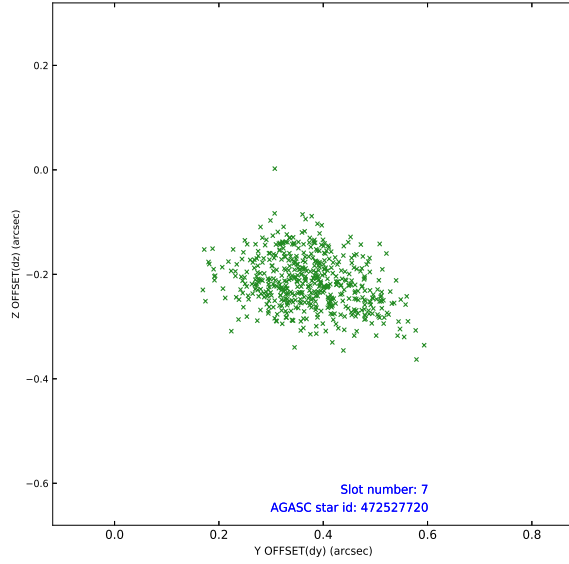
### 2.4.3 Slot 5



## 2.4.4 Slot 6

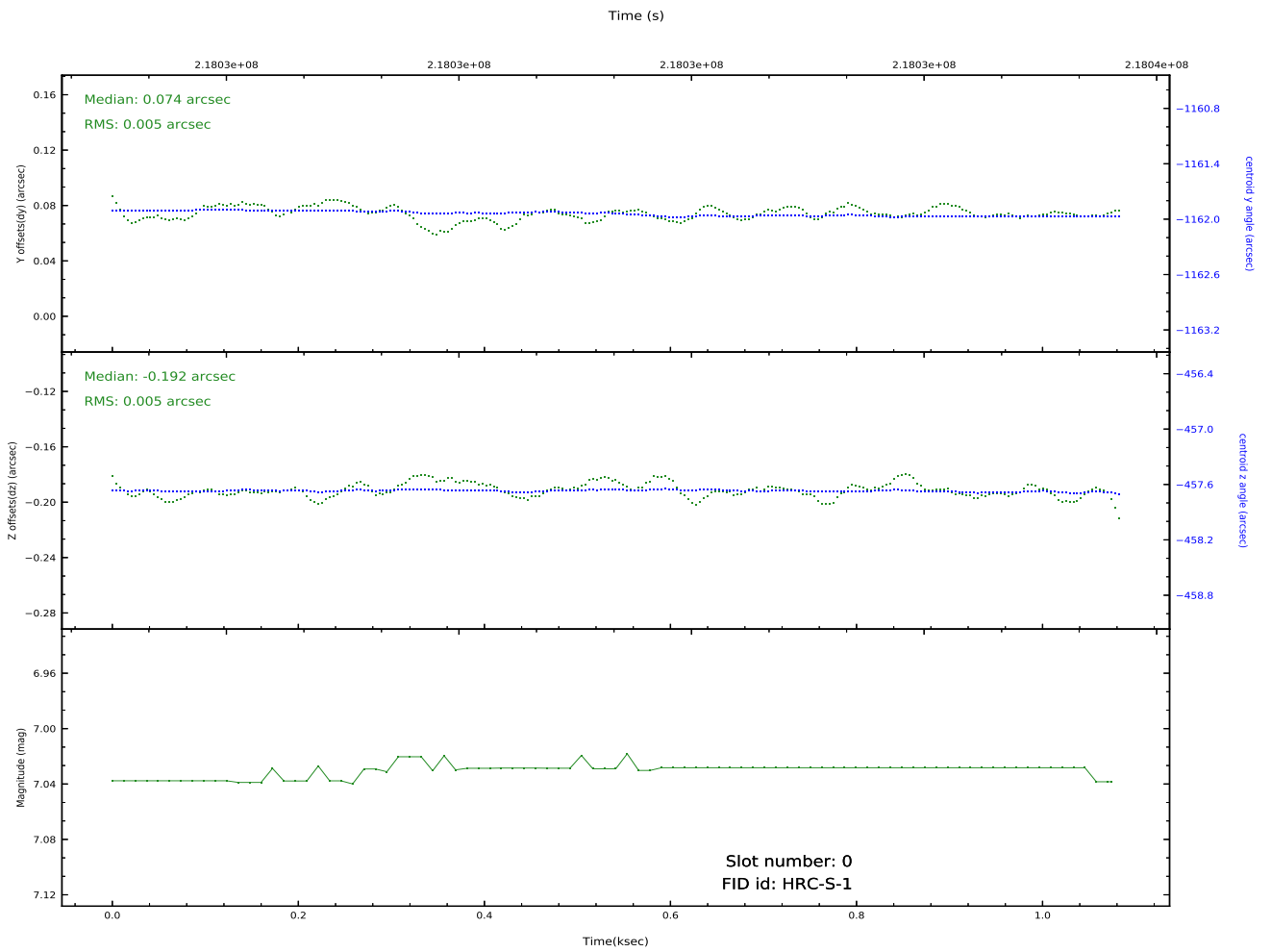
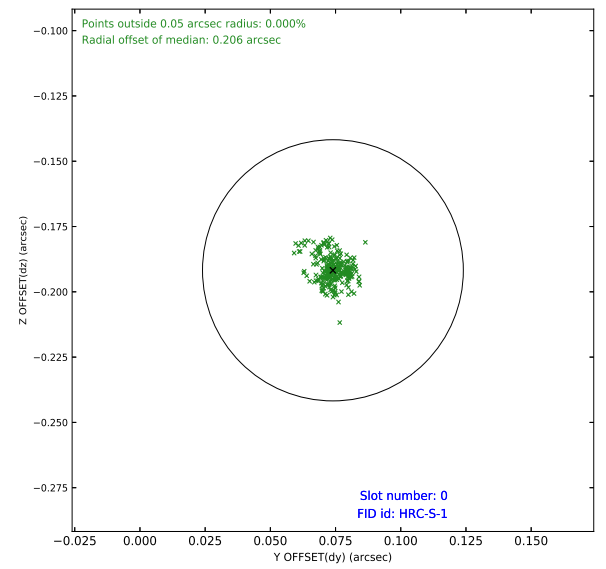
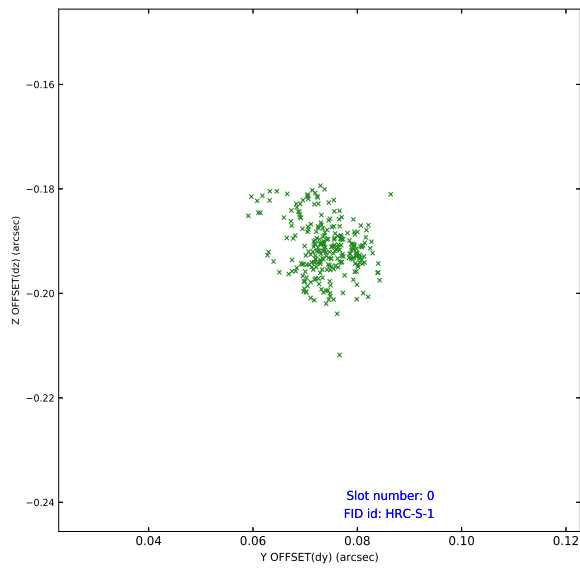


## 2.4.5 Slot 7

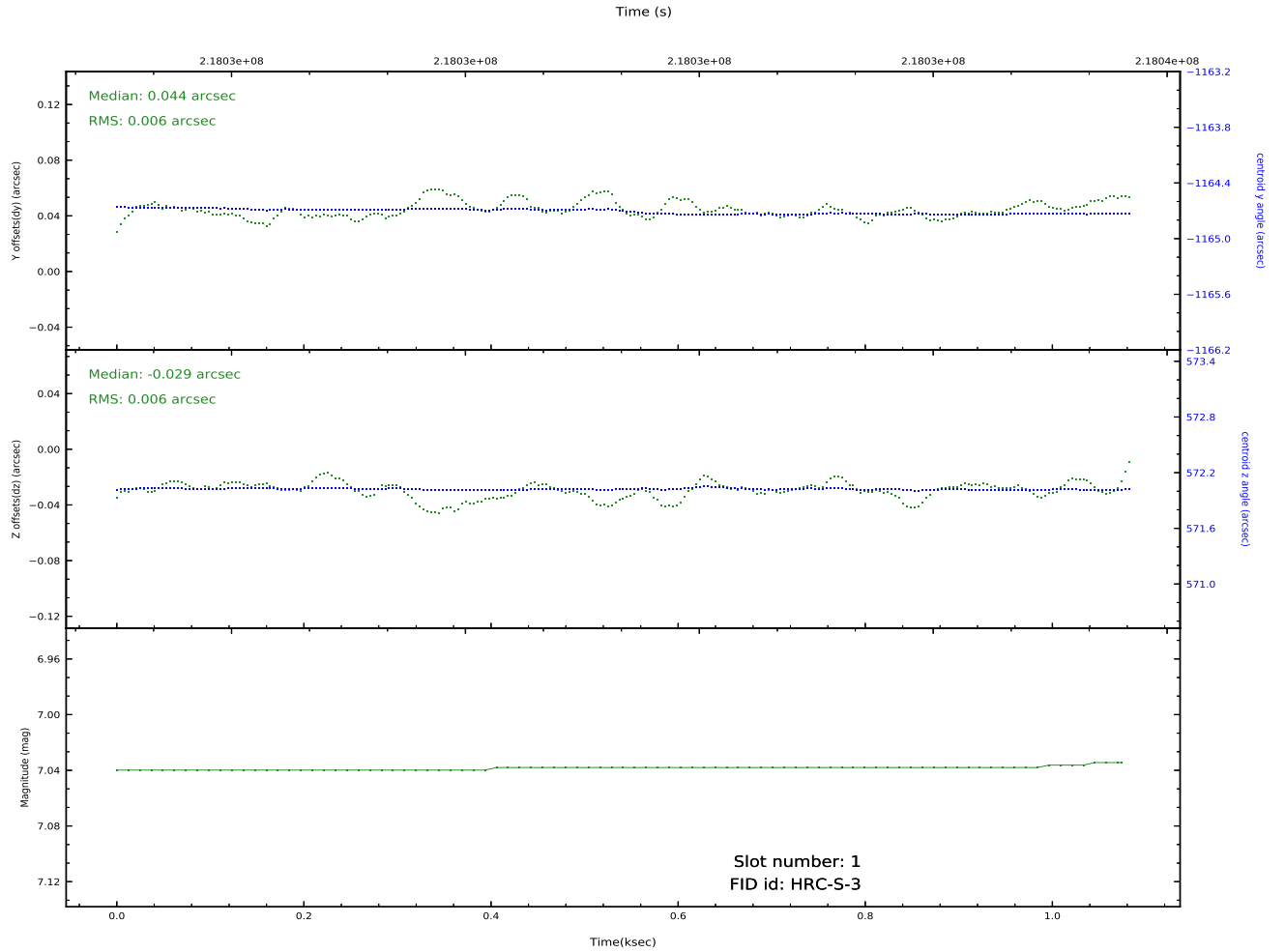
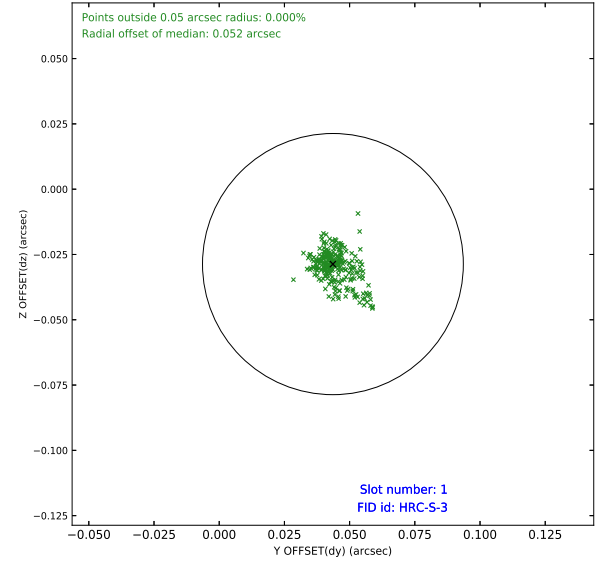
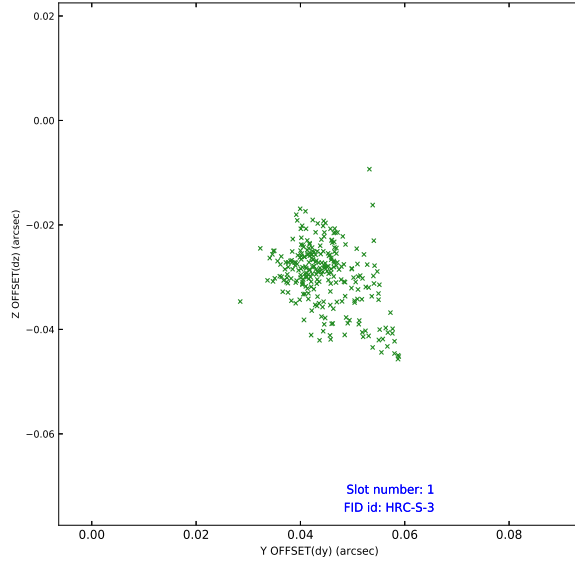


## 2.5 FID Slots

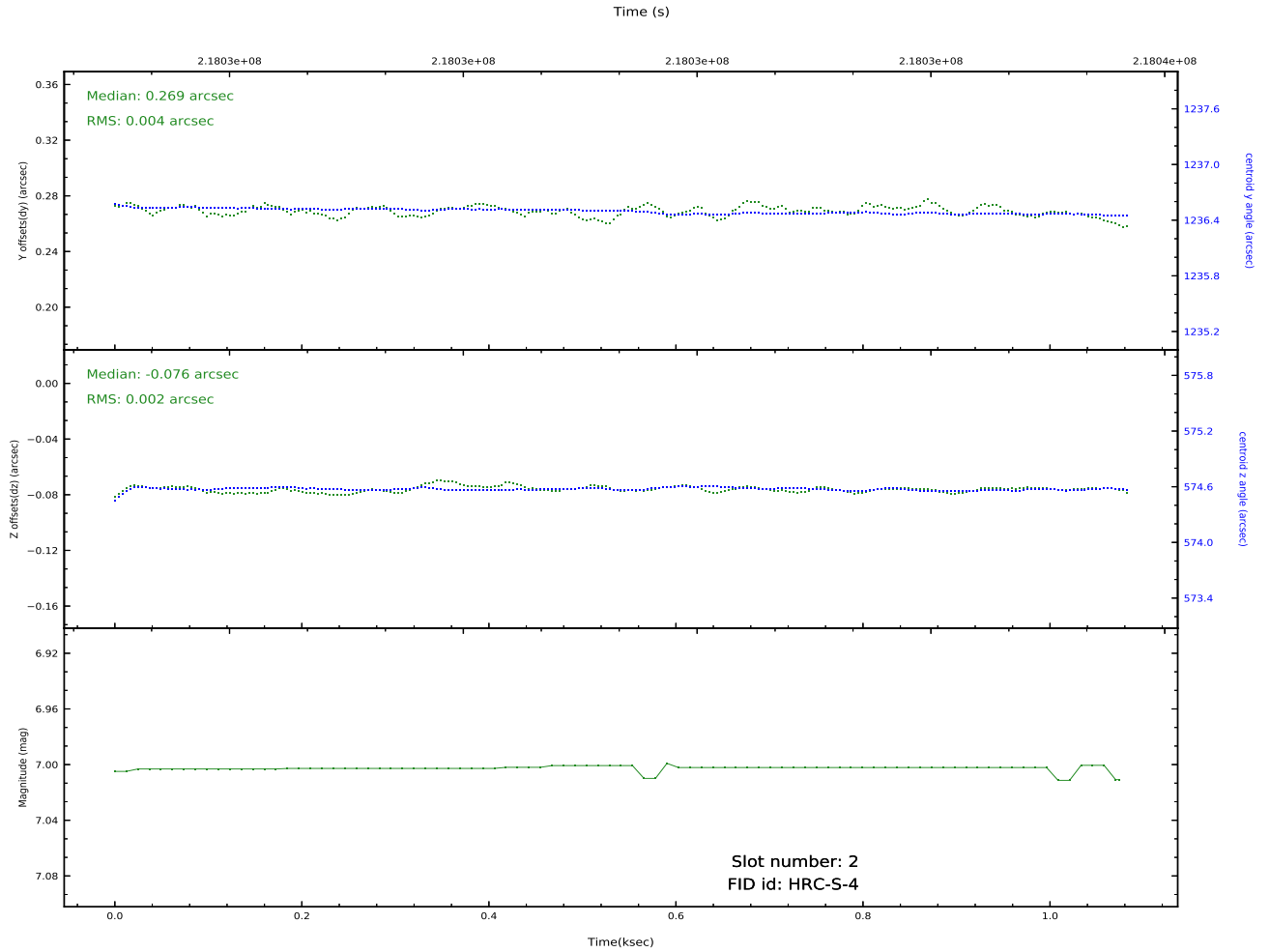
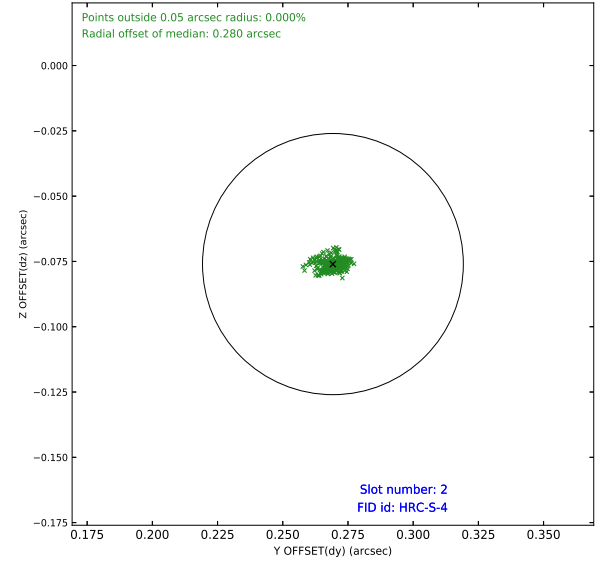
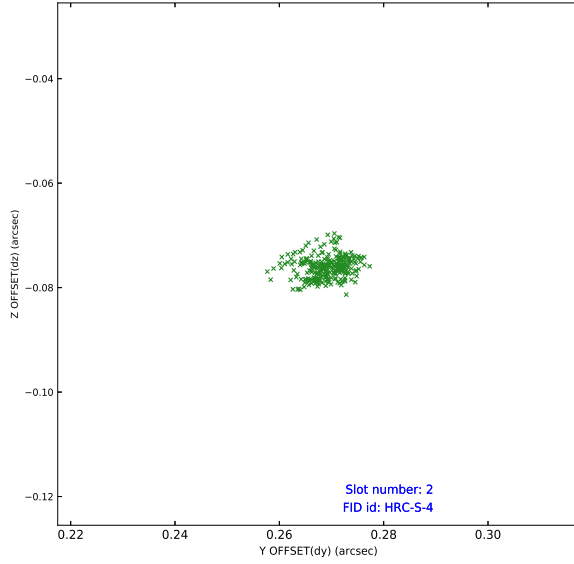
### 2.5.1 Slot 0



## 2.5.2 Slot 1



## 2.5.3 Slot 2





# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.05498129

## 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.