

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5118 - L2 Version 4  
Chandra X-Ray Center

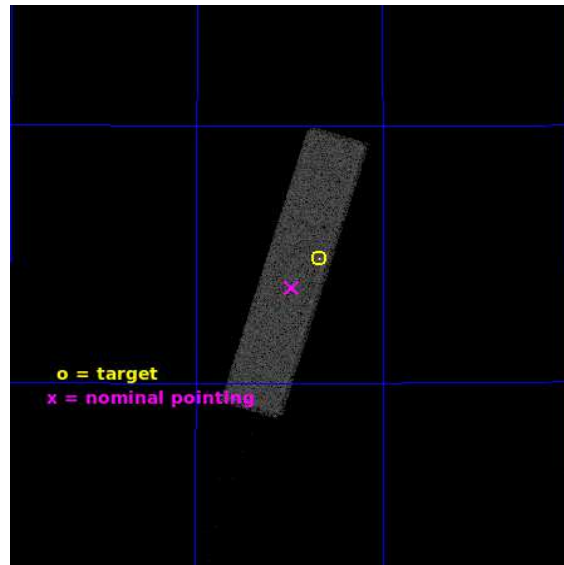
L2 Processing Date : Oct 5 2020

## 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

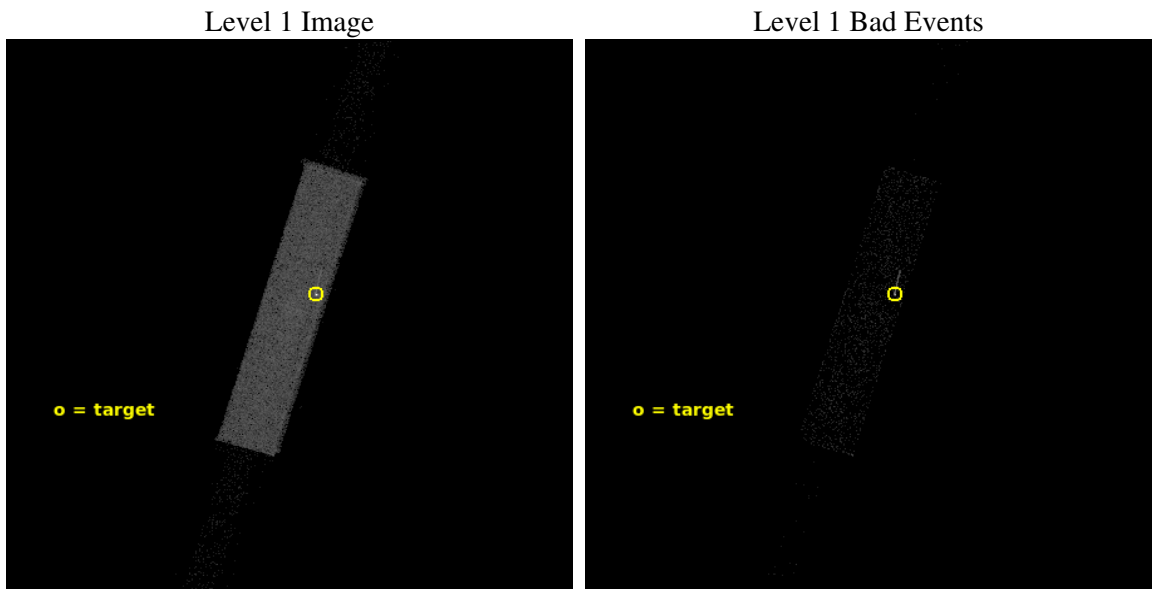
seq_num	290391	Sequence number
obs_id	5118	Observation id
title	AO5B Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain	Proposal title
observer	CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.24265759634	Nominal RA [deg]
dec_nom	45.685525671314	Nominal Dec [deg]
roll_nom	287.03207049255	Nominal Roll [deg]
revision	4	Processing version of data
ontime	1052.931297332	[s]
livetime	1046.1029396398	Ontime multiplied by DTCOR
l2events	45747	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	1052.931297332	[s]
caldbver	4.9.2	&#160	l1events	78222	Number of level 1 events
date	2020-10-05T08:05:24	Date and time of file creation			
revision	4	Processing version of data			

### 2.1.3 Events

Level 1 Events

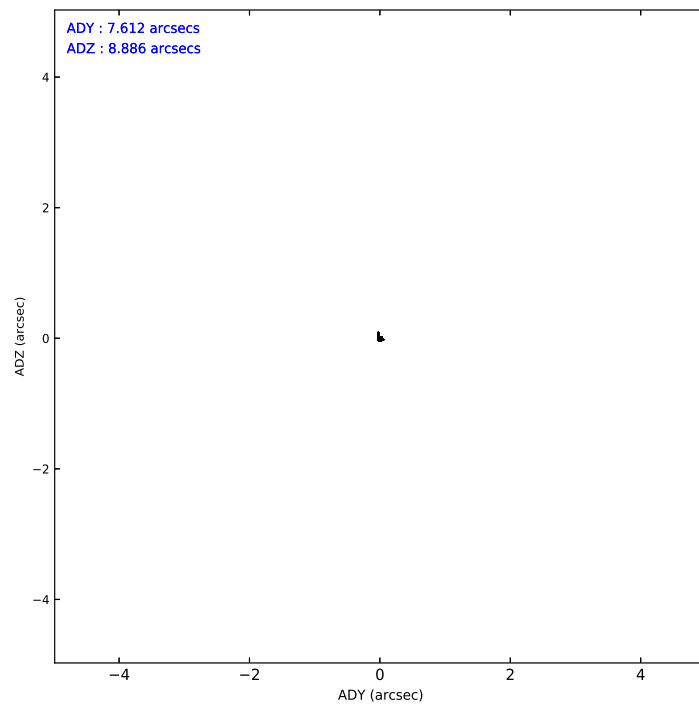
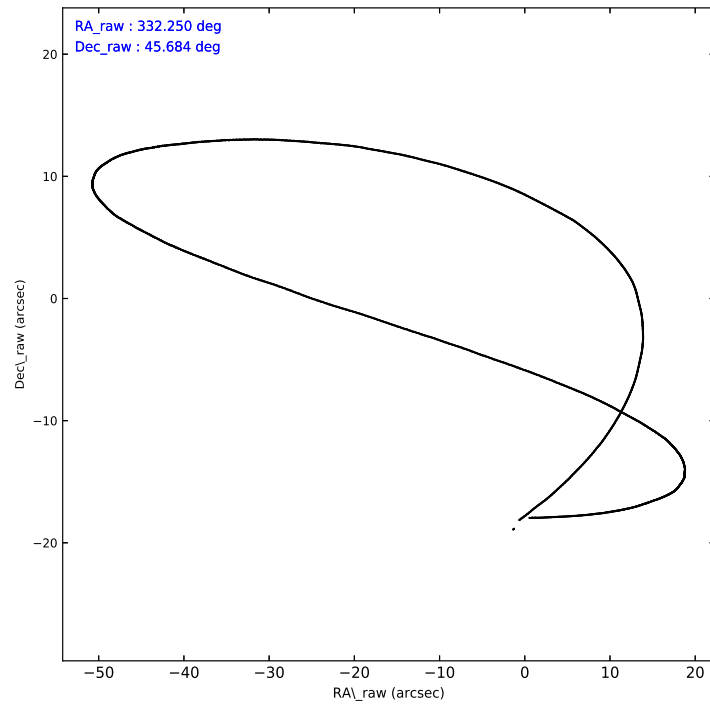
	segment 1	segment 2	segment 3
level 1 events	689	76798	735
rejected events	689	19096	717
rejected %	100%	24%	97%

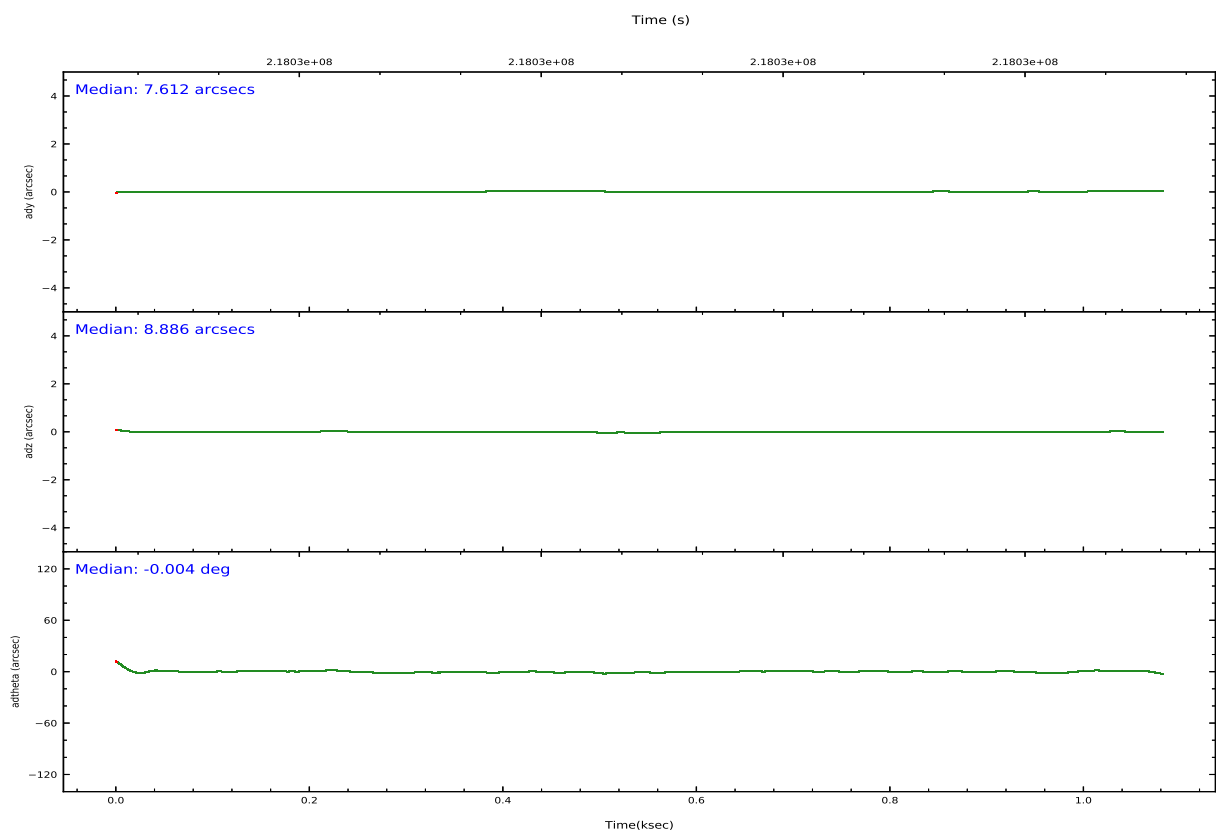
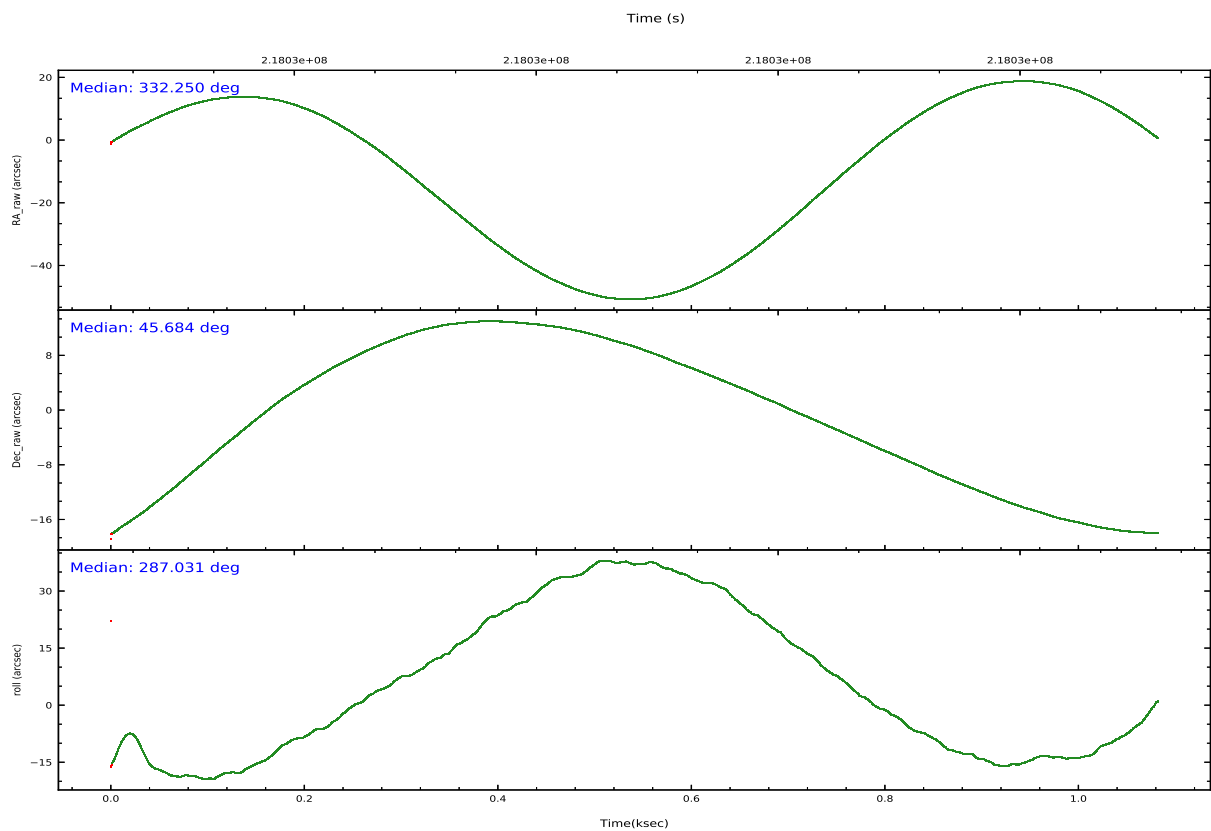
## 2.2 Compared Parameters

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	332.214036	332.24265759634
[deg] Pointing Dec	45.702214	45.685525671314
[deg] Pointing Roll	286.993912	287.03207049255
[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)	218031243.184000	218030866.73174
Observation start date	2004-11-28T12:12:59	2004-11-28T12:07:46
[s] Observation end time (MET)	218032143.184000	218032276.61931
Observation end date	2004-11-28T12:27:59	2004-11-28T12:31:16

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

## 2.3 Aspect





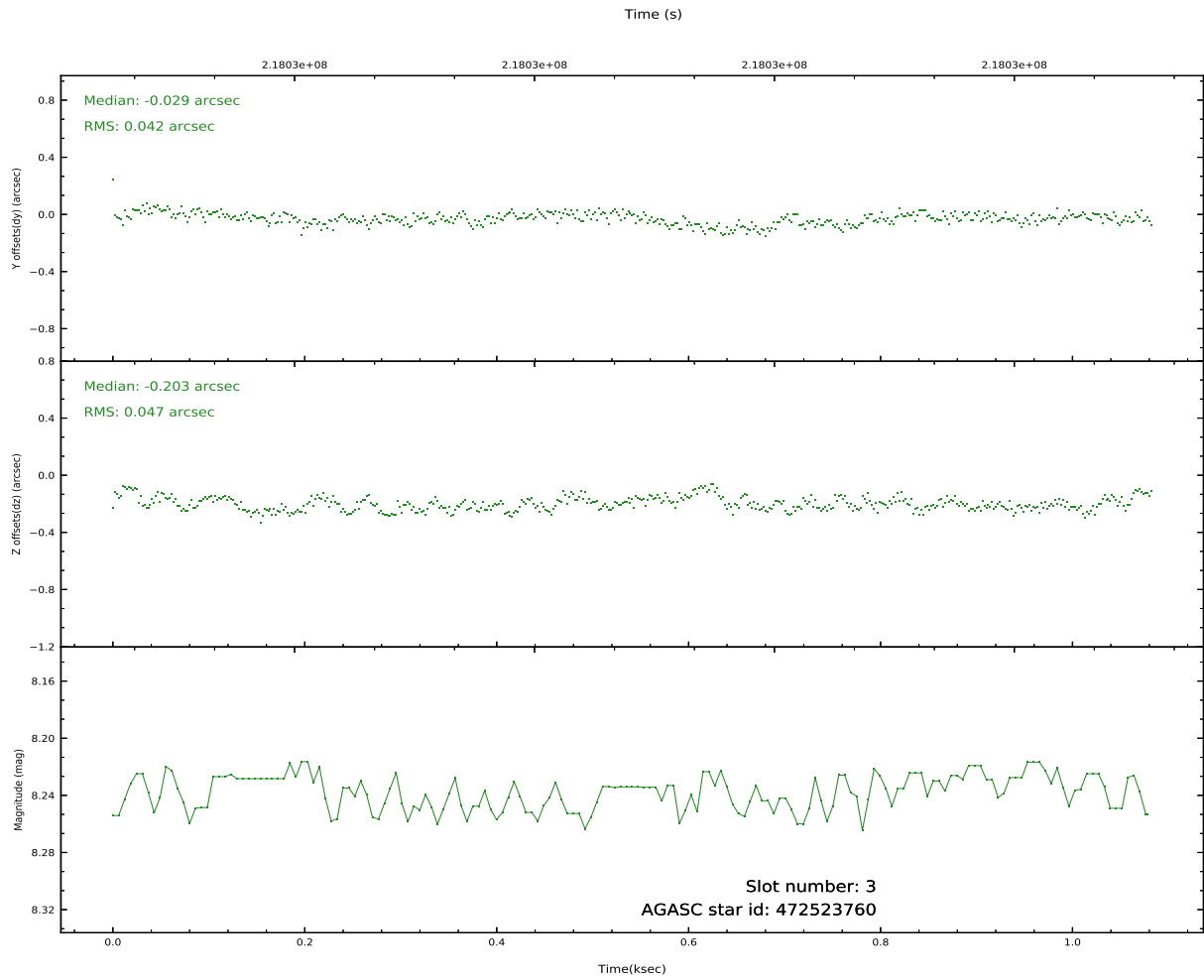
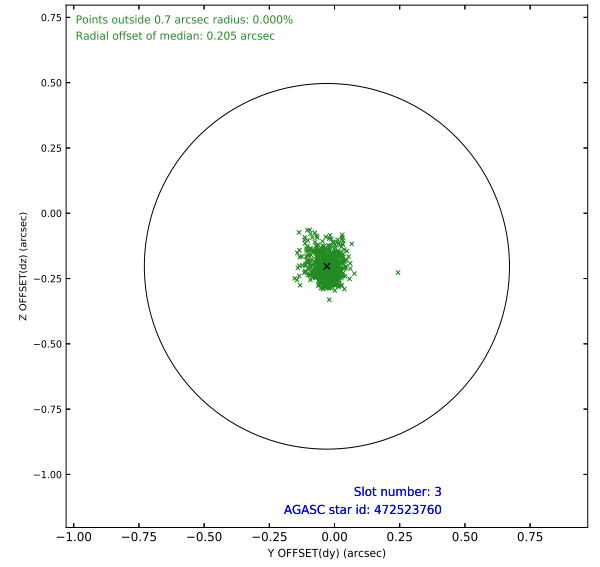
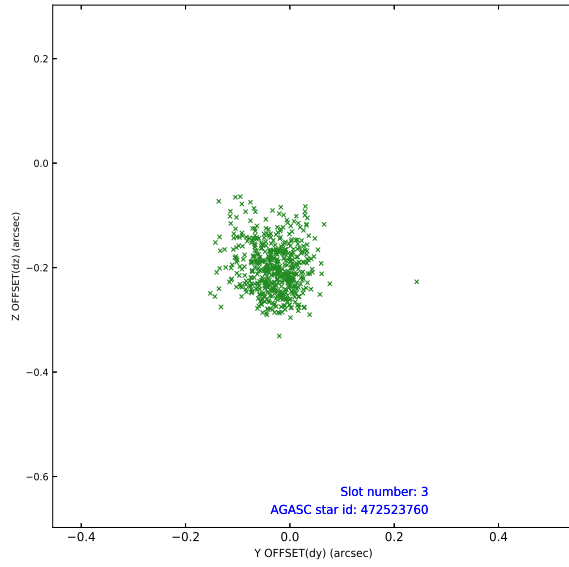
Slot Statistics

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	7.04	264	1.000	0.076	-0.190	0.006	0.008	0.000000	0.000000	-1161.83	-457
1	FID		HRC-S-3	7.04	264	1.000	0.043	-0.031	0.007	0.012	0.000000	0.000000	-1169.00	570
2	FID		HRC-S-4	7.01	265	1.000	0.268	-0.077	0.005	0.008	0.000000	0.000000	1232.19	576
3	GUIDE	used	472523760	8.24	529	1.000	-0.029	-0.203	0.066	0.113	331.645363	45.403260	604.97	-1692
4	GUIDE	used	472654568	9.43	526	1.000	0.033	0.055	0.142	0.231	332.194449	45.063576	2186.07	-726
5	GUIDE	used	472655152	9.44	529	1.000	0.031	0.114	0.102	0.160	332.504239	45.862991	-337.67	859
6	GUIDE	used	472659832	9.46	529	1.000	-0.086	0.089	0.103	0.178	332.780399	46.098139	-955.29	1767
7	GUIDE	used	472527720	7.00	528	1.000	0.044	-0.056	0.116	0.181	331.460205	45.112509	1461.10	-2450

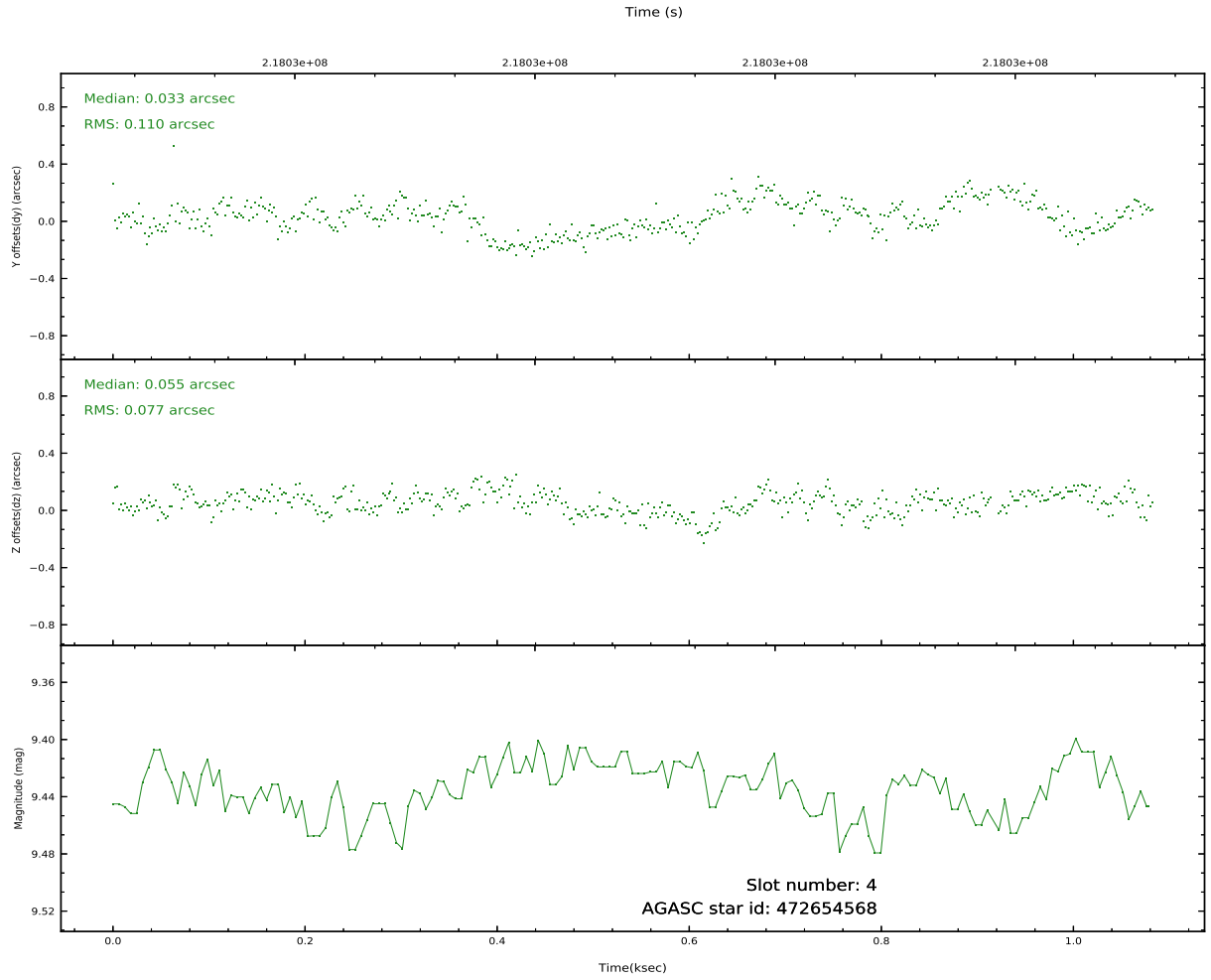
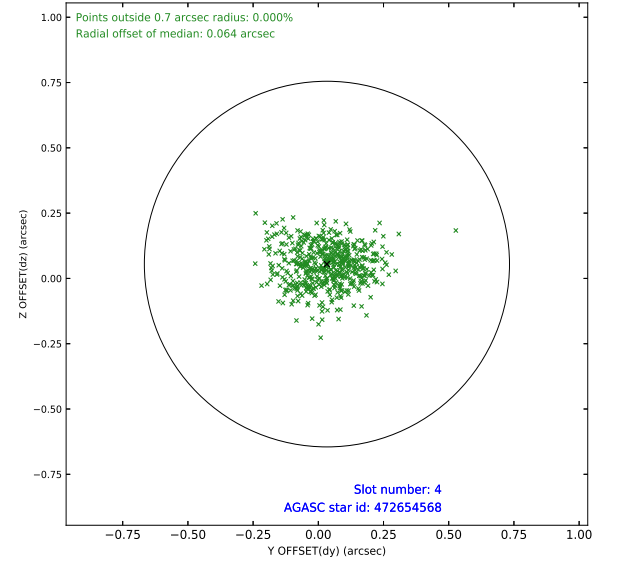
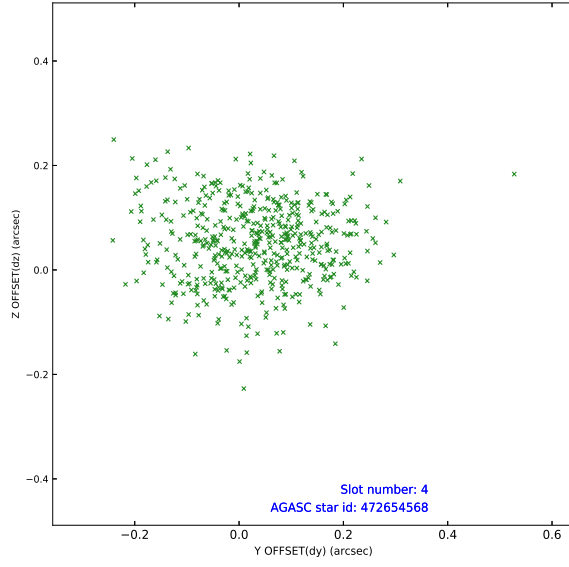


## 2.4 Star Slots

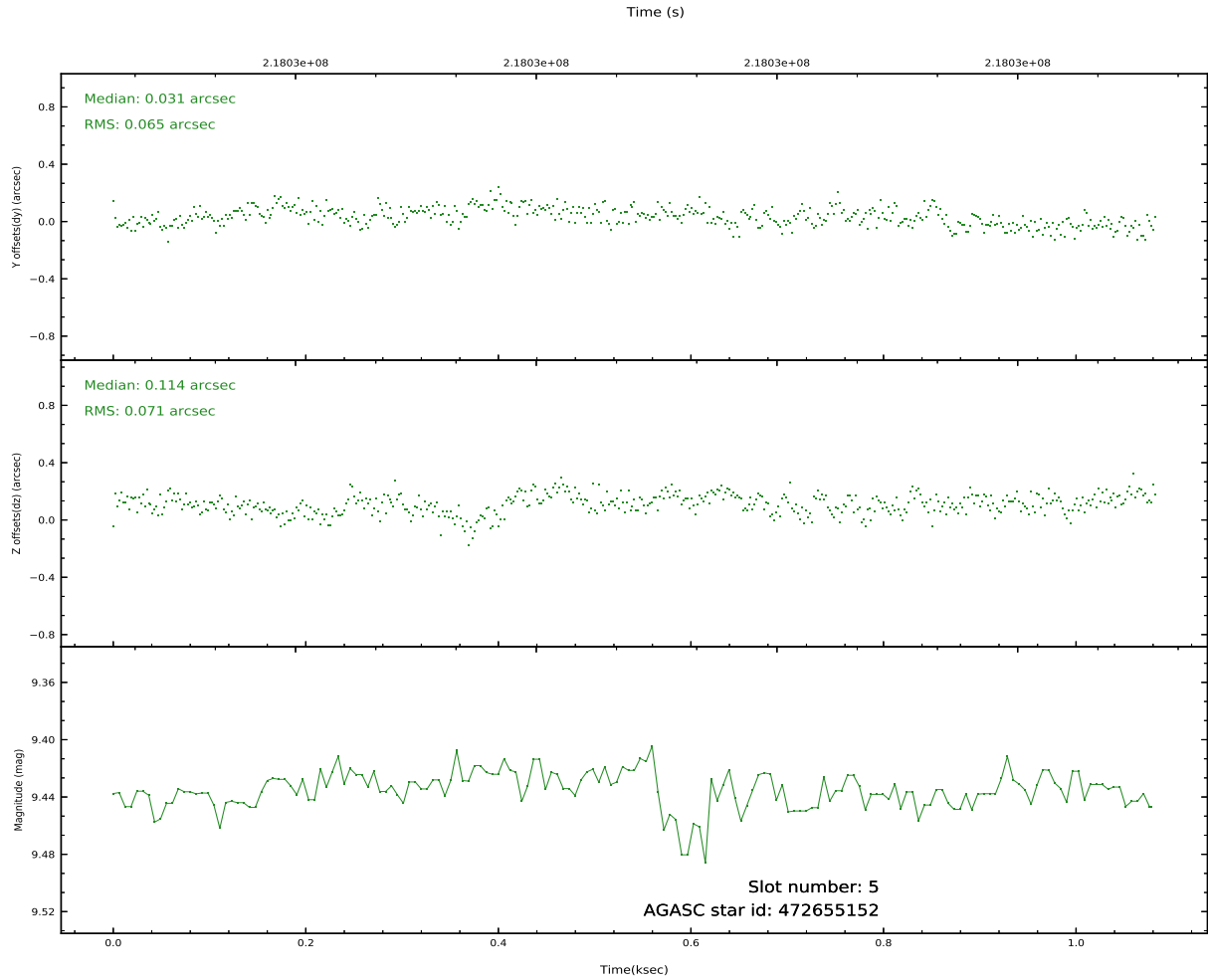
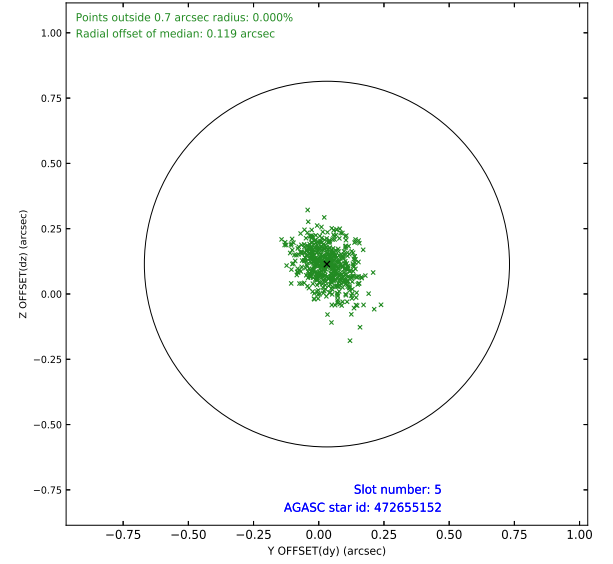
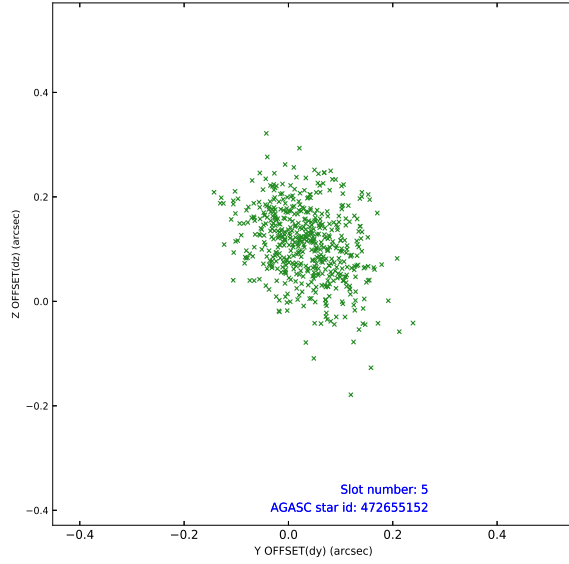
### 2.4.1 Slot 3



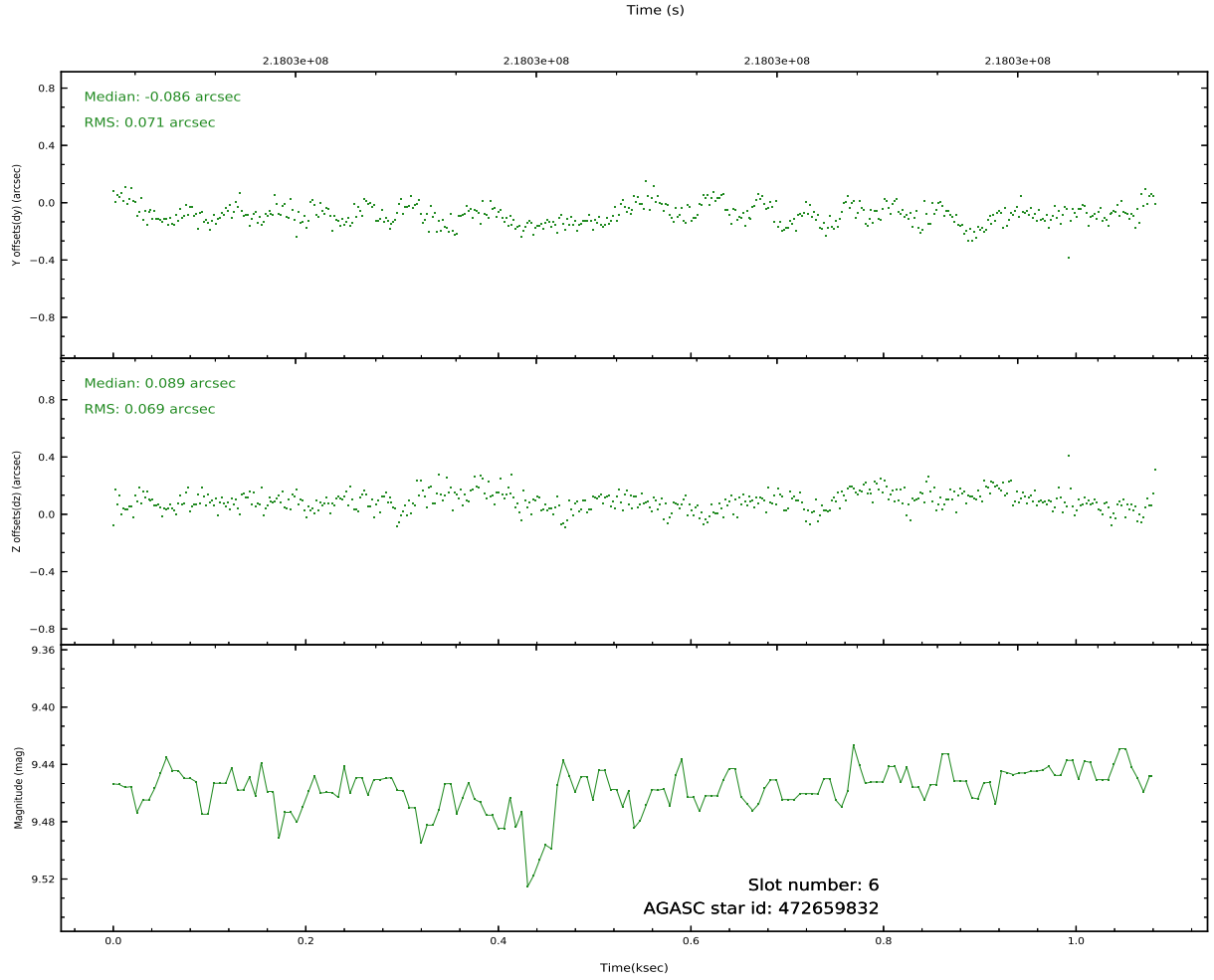
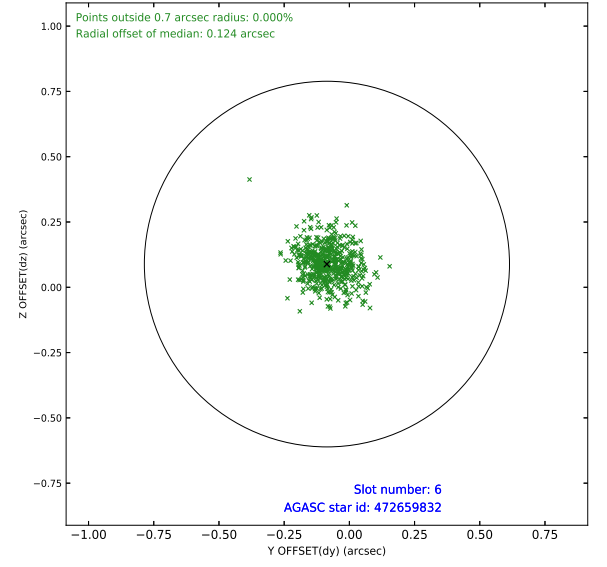
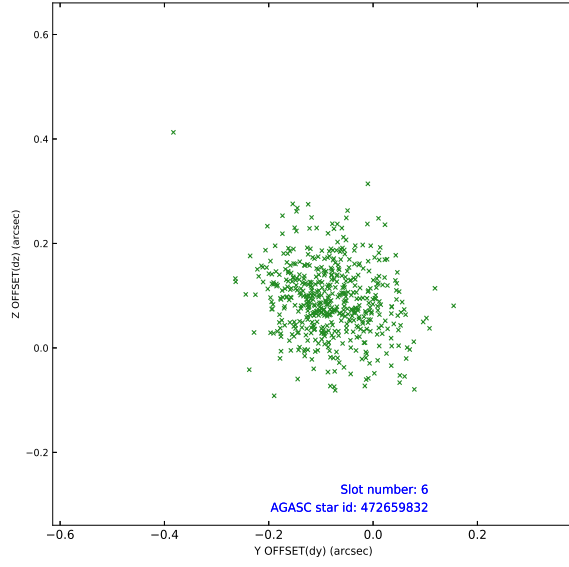
## 2.4.2 Slot 4



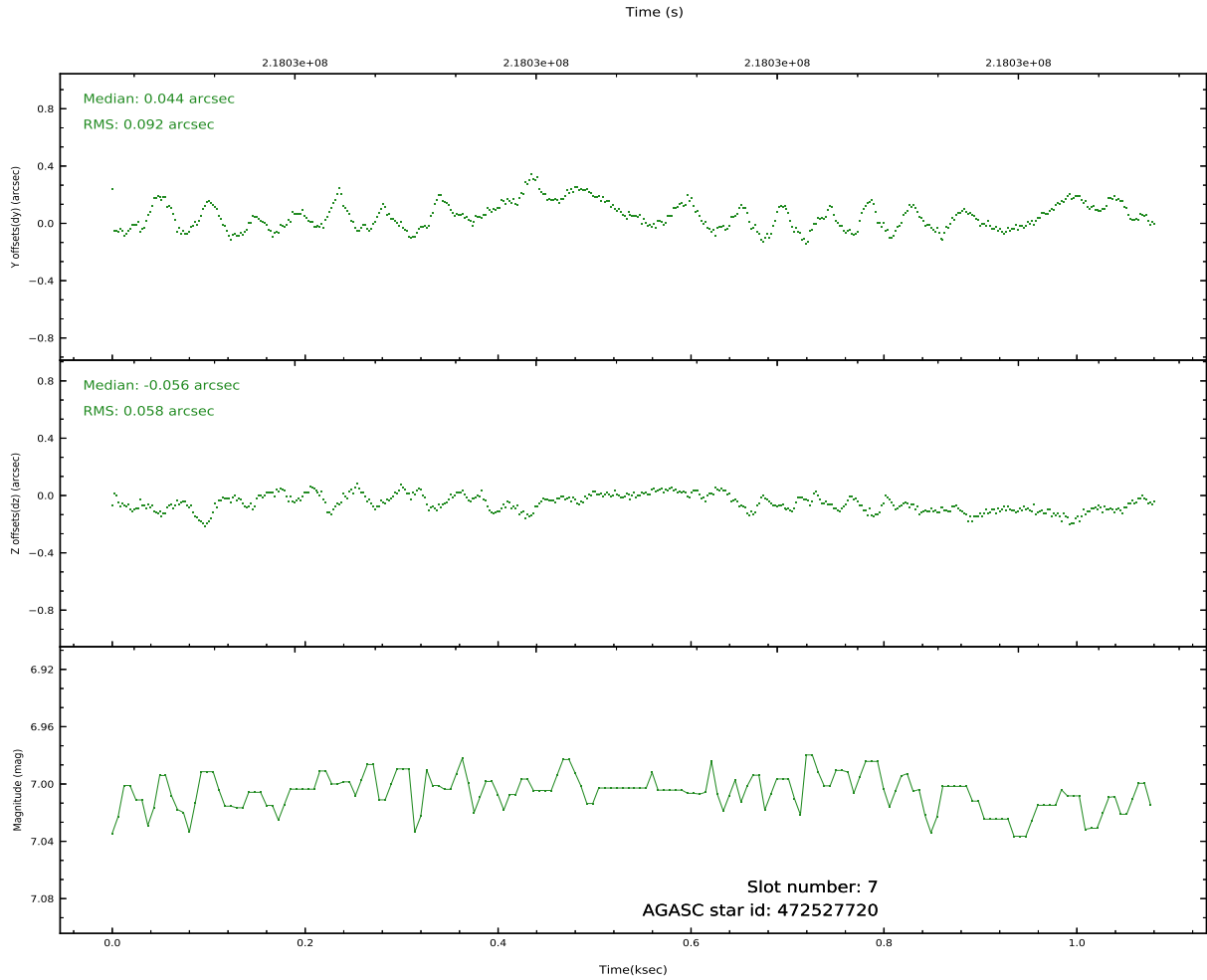
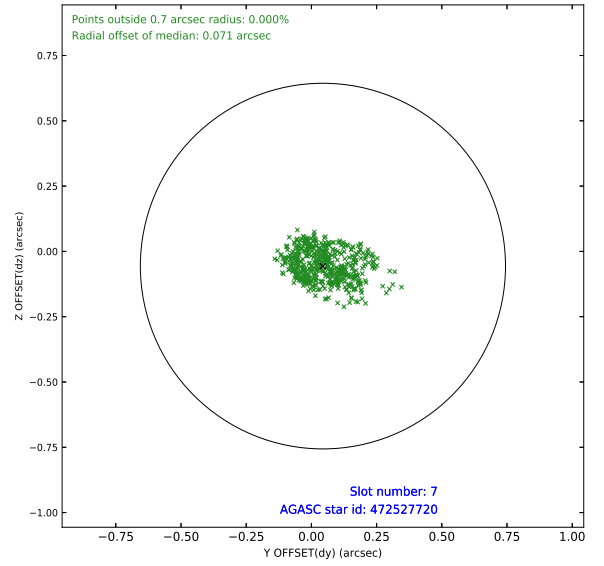
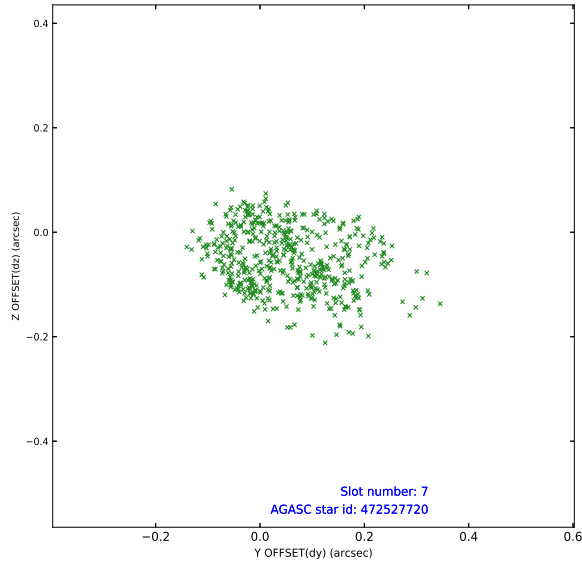
### 2.4.3 Slot 5



## 2.4.4 Slot 6

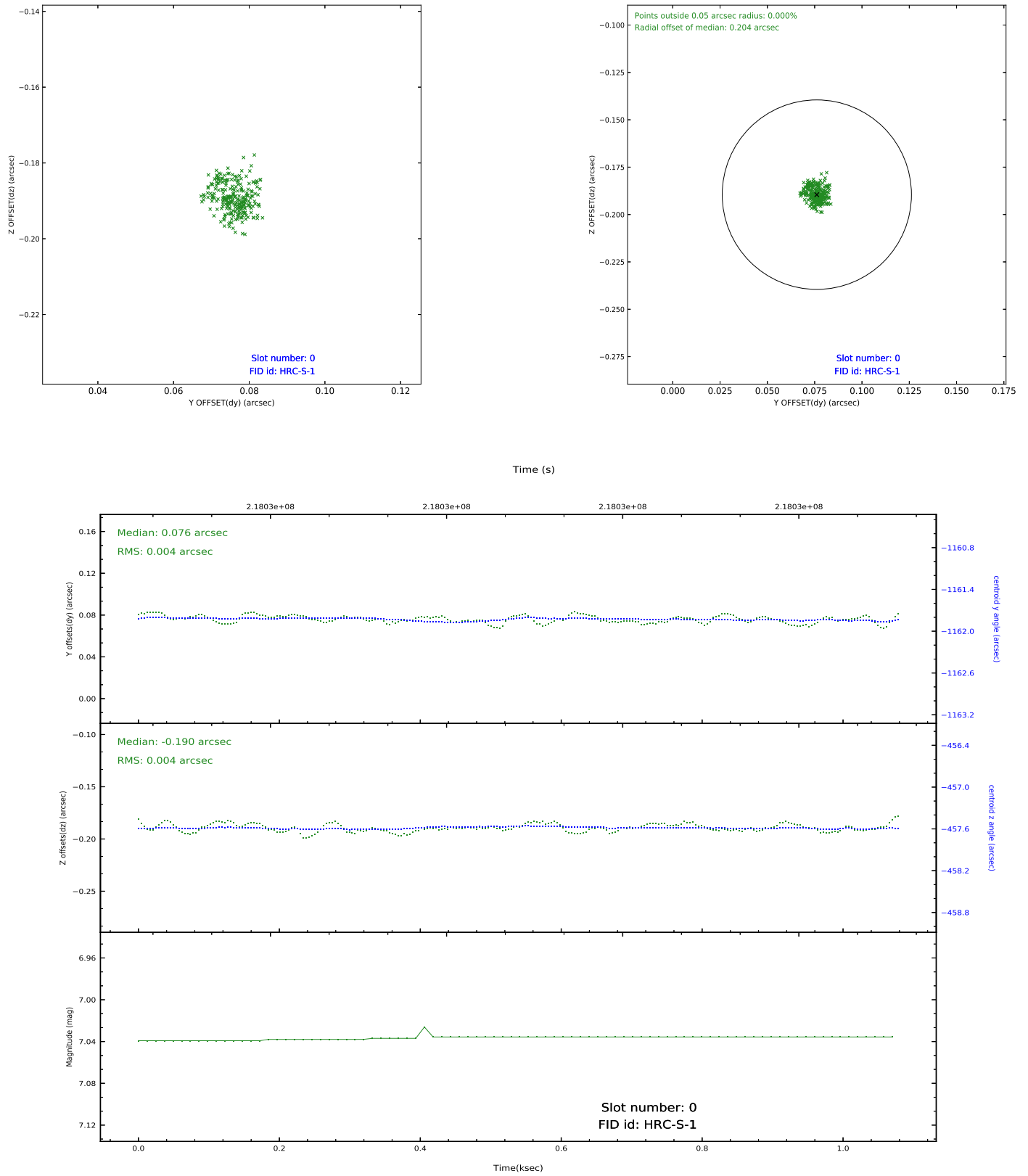


## 2.4.5 Slot 7

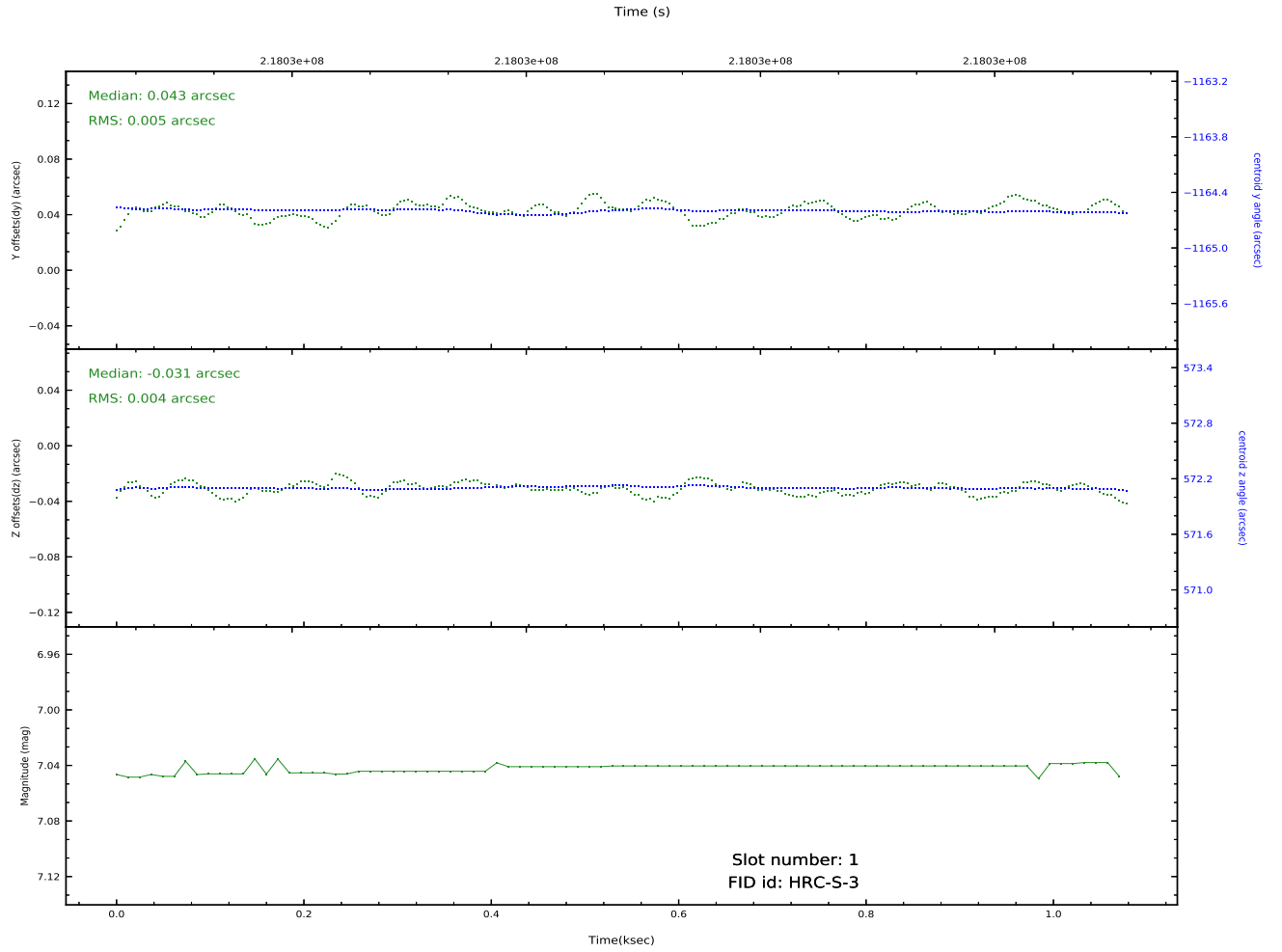
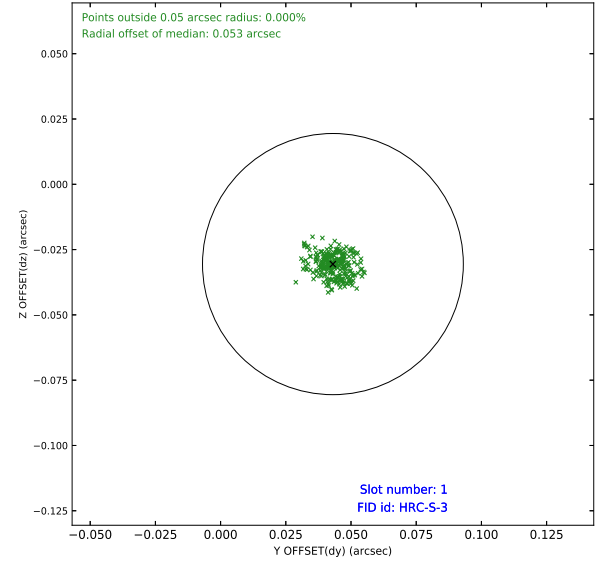
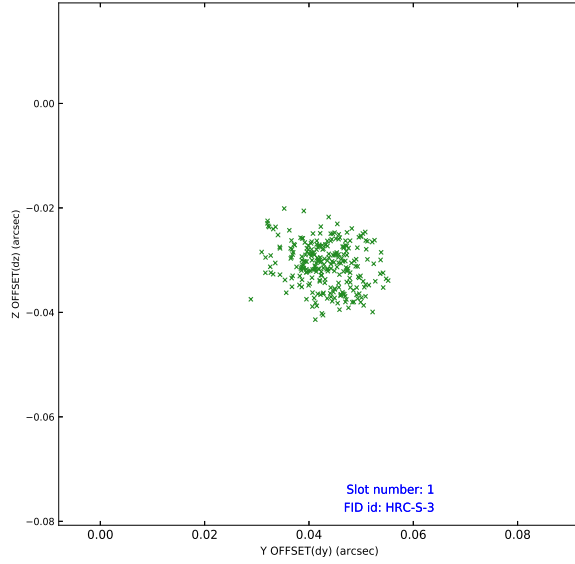


## 2.5 FID Slots

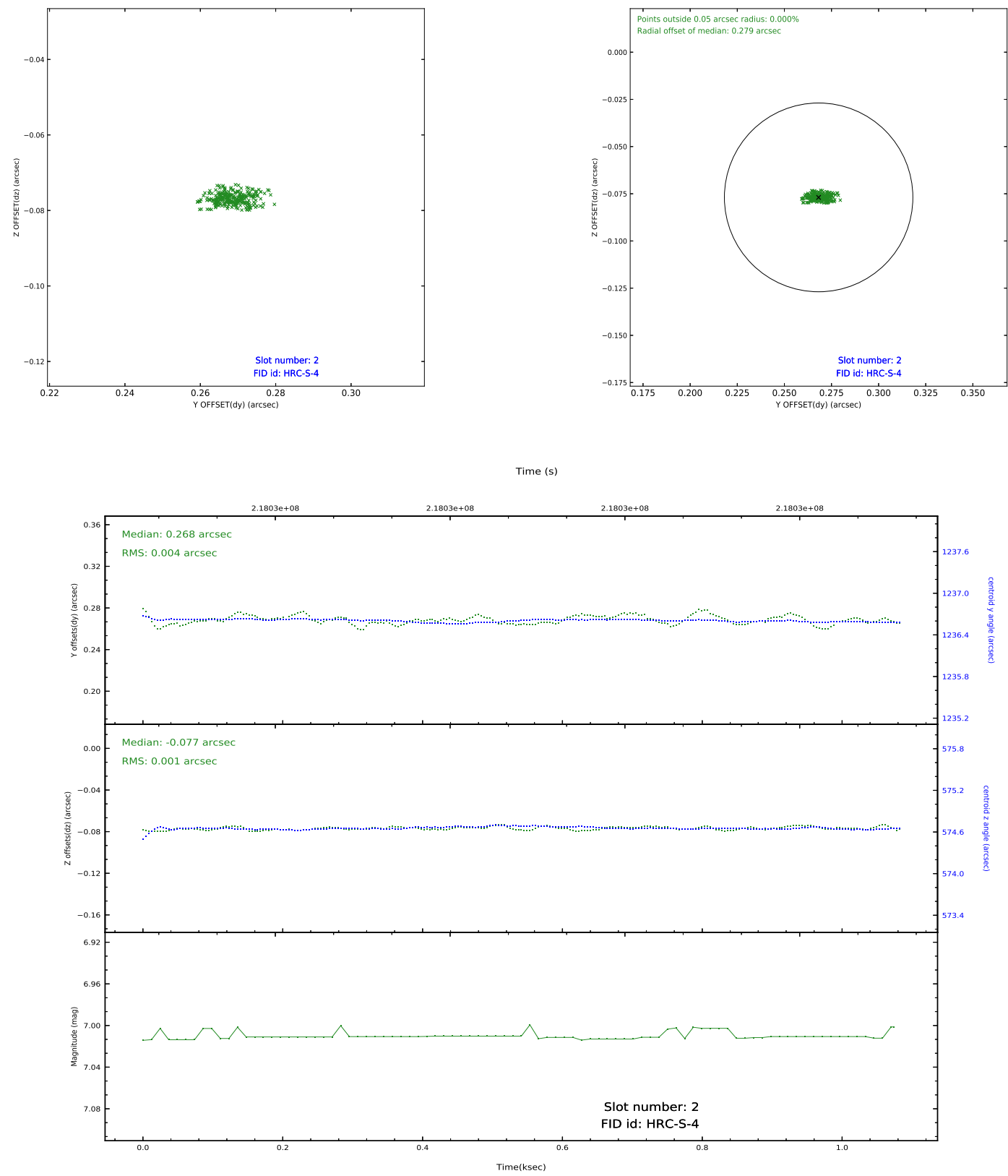
### 2.5.1 Slot 0



## 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	1.052931

## 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.