

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6035 - L2 Version 4  
Chandra X-Ray Center

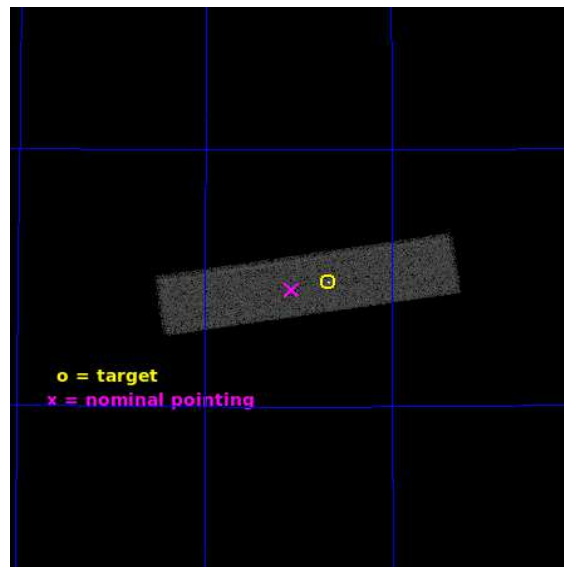
L2 Processing Date : Oct 6 2020

## 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

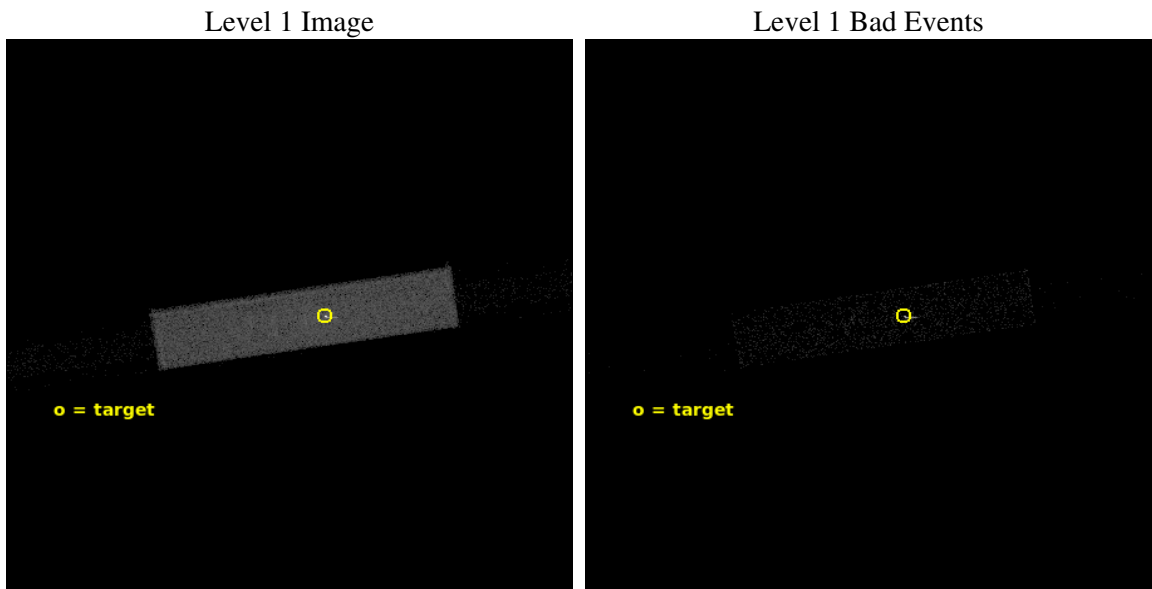
seq_num	290527	Sequence number
obs_id	6035	Observation id
title	AO6A Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain	Proposal title
observer	CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.26720733997	Nominal RA [deg]
dec_nom	45.727424677752	Nominal Dec [deg]
roll_nom	351.28703327226	Nominal Roll [deg]
revision	4	Processing version of data
ontime	1153.1250521541	[s]
livetime	1146.0403846564	Ontime multiplied by DTCOR
l2events	48789	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	10.9.1	Processing system revision	ontime	1153.1250521541	[s]
caldbver	4.9.2	&#160	l1events	80279	Number of level 1 events
date	2020-10-06T16:09:39	Date and time of file creation			
revision	4	Processing version of data			

### 2.1.3 Events

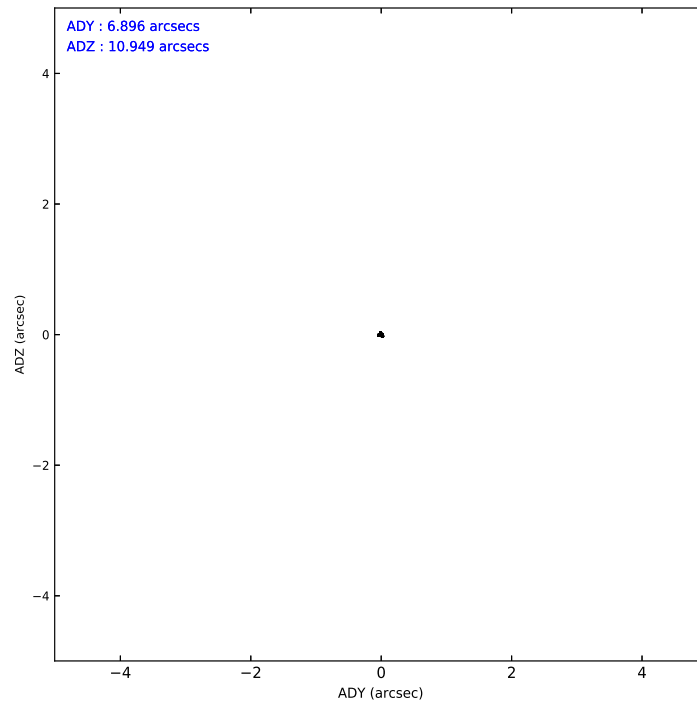
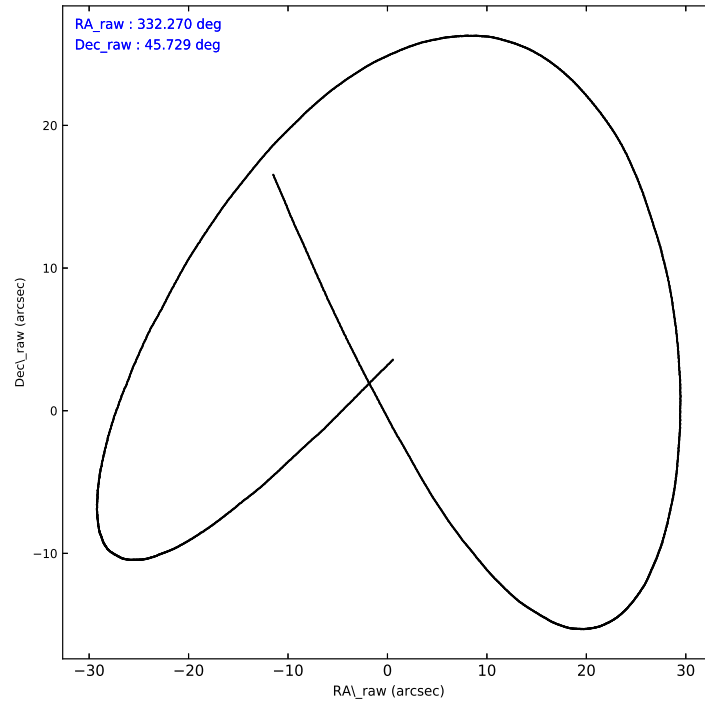
Level 1 Events

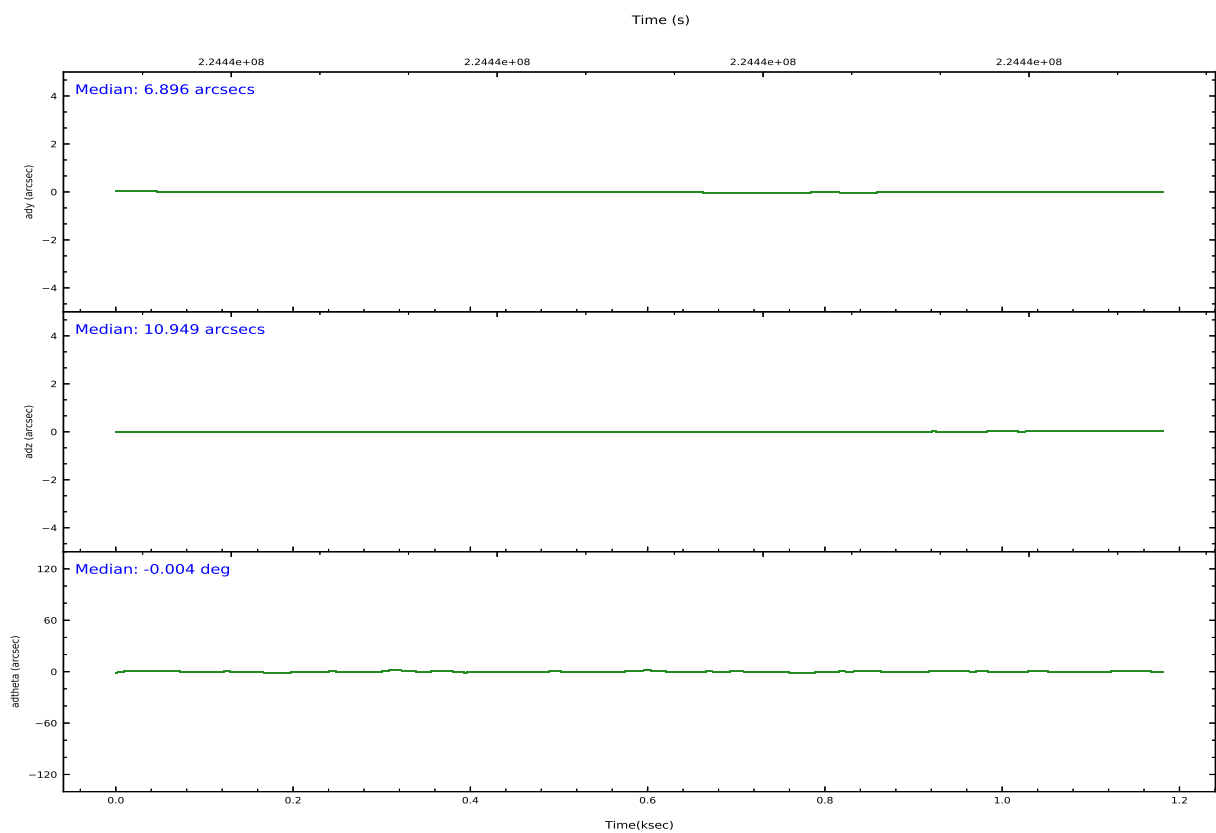
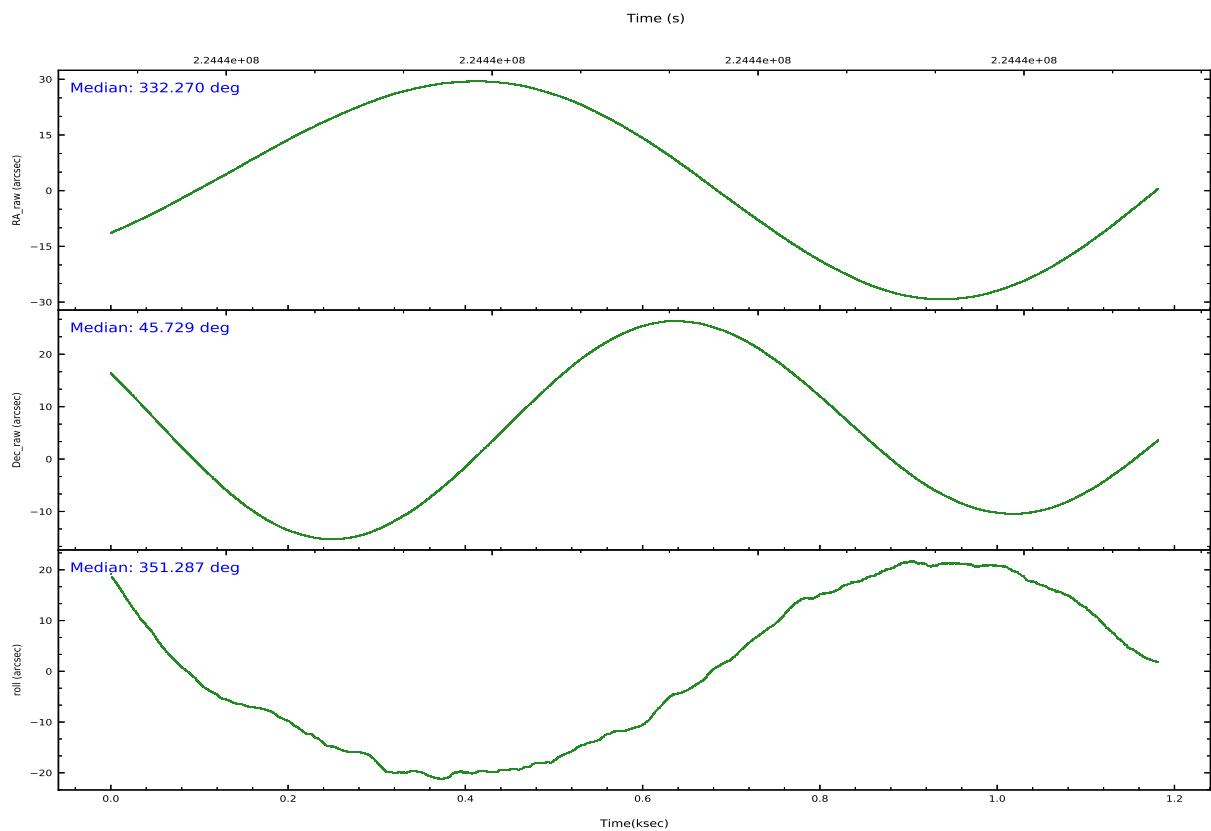
	segment 1	segment 2	segment 3
level 1 events	724	78824	731
rejected events	724	18136	731
rejected %	100%	23%	100%

## 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	332.233619	332.26720733997			
[deg] Pointing Dec	45.719640	45.727424677752			
[deg] Pointing Roll	351.249488	351.28703327226			
[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)	224443353.184000	224442976.43333			
Observation start date	2005-02-10T17:21:29	2005-02-10T17:16:16			
[s] Observation end time (MET)	224444353.184000	224444486.77089			
Observation end date	2005-02-10T17:38:09	2005-02-10T17:41:26			

## 2.3 Aspect





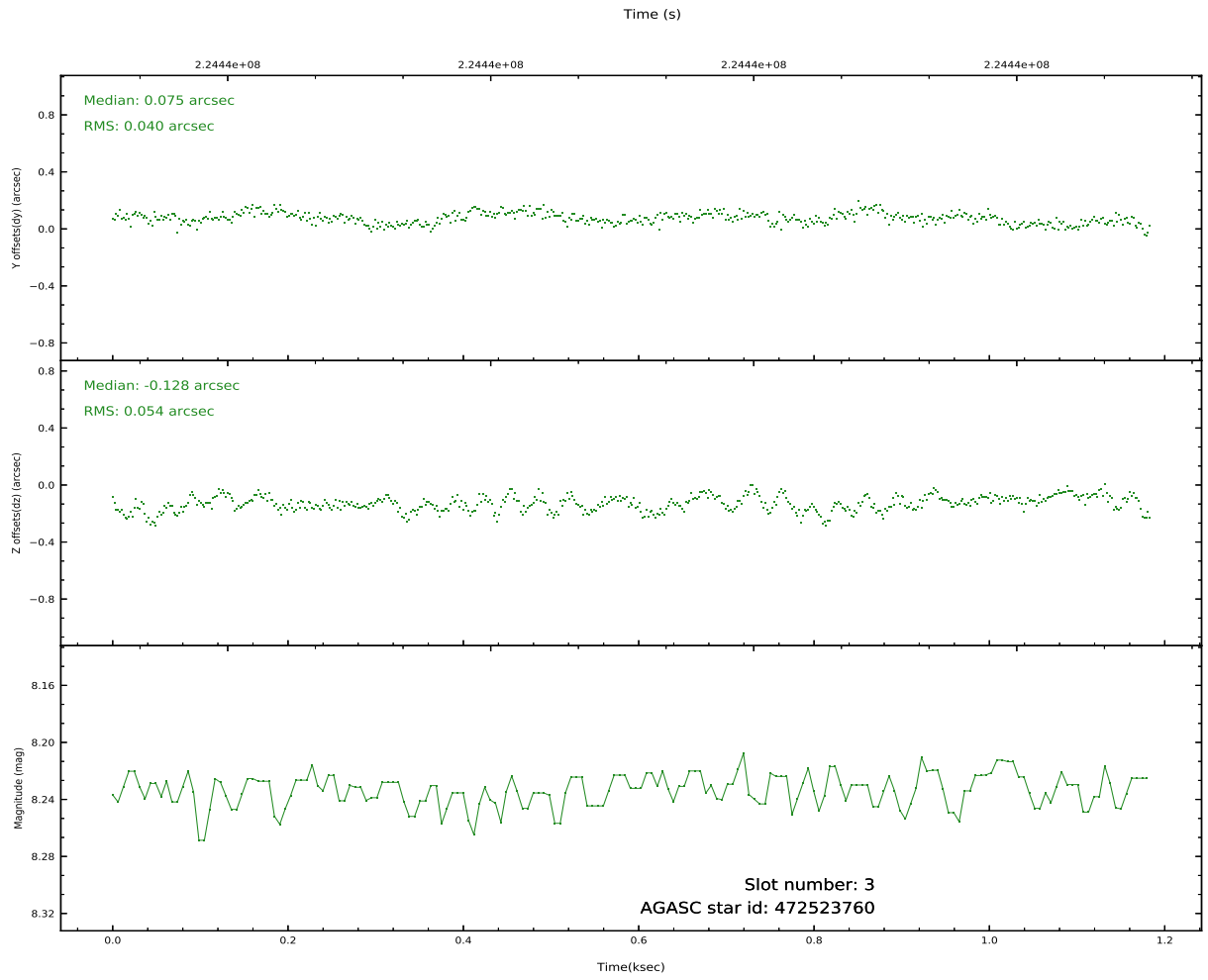
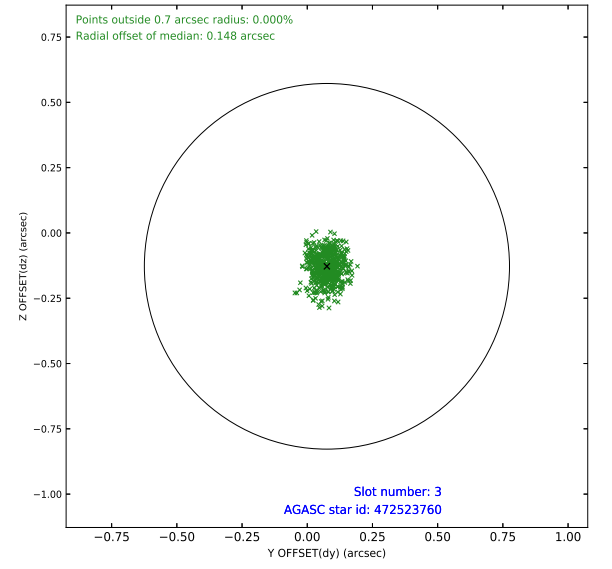
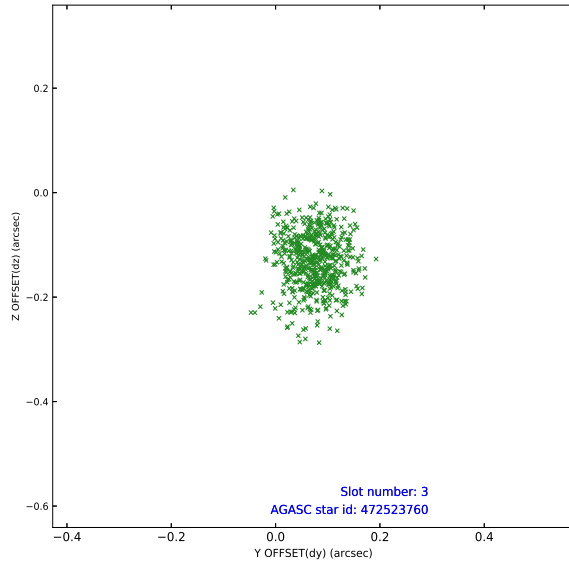
Slot Statistics

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	289	1.000	0.093	-0.174	0.007	0.012	0.000000	0.000000	-1161.07	-459
1	FID		HRC-S-2	7.02	289	1.000	0.208	-0.117	0.005	0.009	0.000000	0.000000	1234.71	-453
2	FID		HRC-S-3	7.03	289	1.000	0.090	-0.010	0.007	0.012	0.000000	0.000000	-1159.52	568
3	GUIDE	used	472523760	8.23	578	1.000	0.075	-0.128	0.071	0.116	331.645363	45.403260	-1296.46	-1342
4	GUIDE	used	472535576	7.85	578	1.000	0.008	0.078	0.061	0.113	331.438373	46.291802	-2272.05	1746
5	GUIDE	used	472536328	8.14	578	1.000	-0.028	0.100	0.071	0.113	331.496671	46.454831	-2214.26	2353
6	GUIDE	used	472665256	9.01	578	1.000	0.015	0.080	0.085	0.132	332.808125	46.195041	1150.30	1922
7	GUIDE	used	472527720	6.99	577	1.000	-0.078	-0.116	0.062	0.105	331.460205	45.112509	-1608.29	-2442

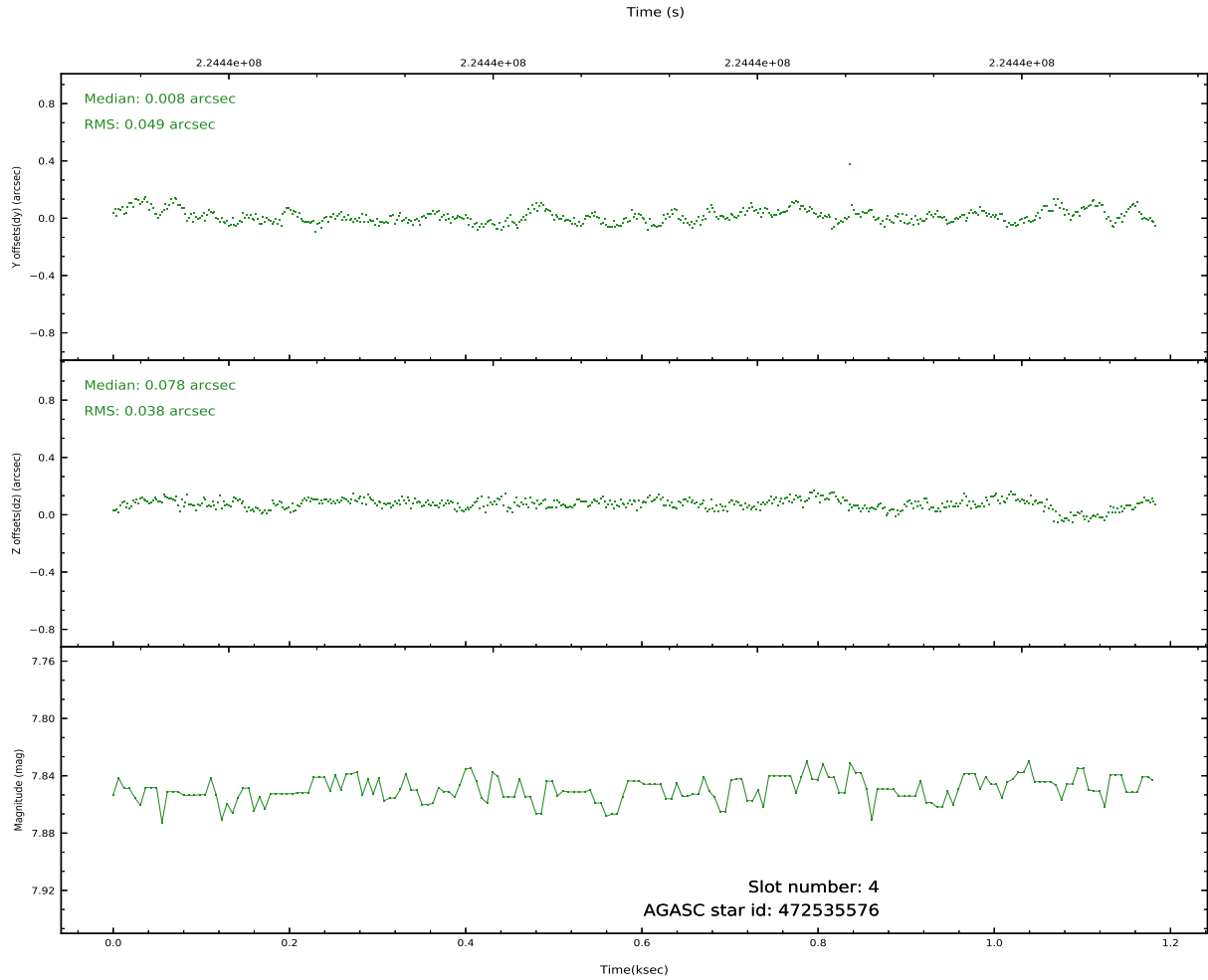
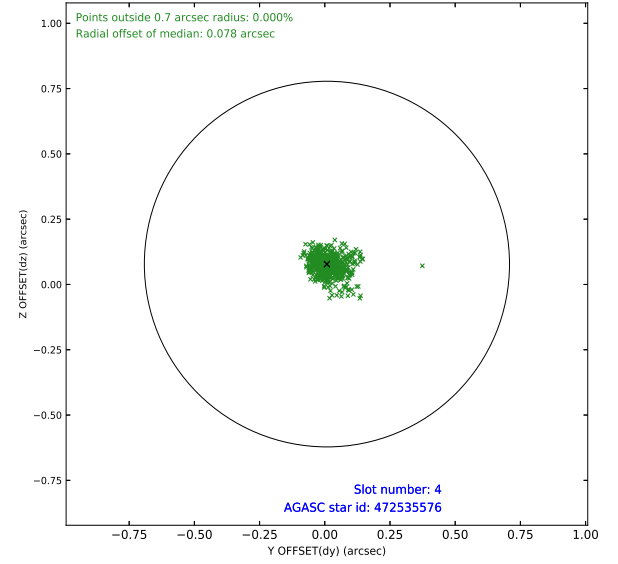
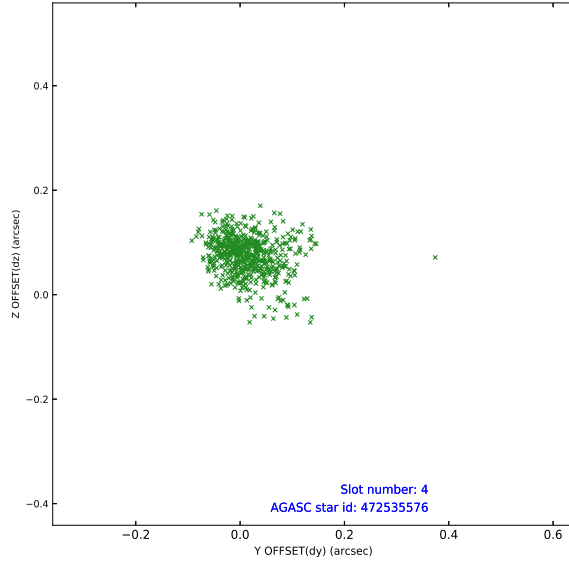


## 2.4 Star Slots

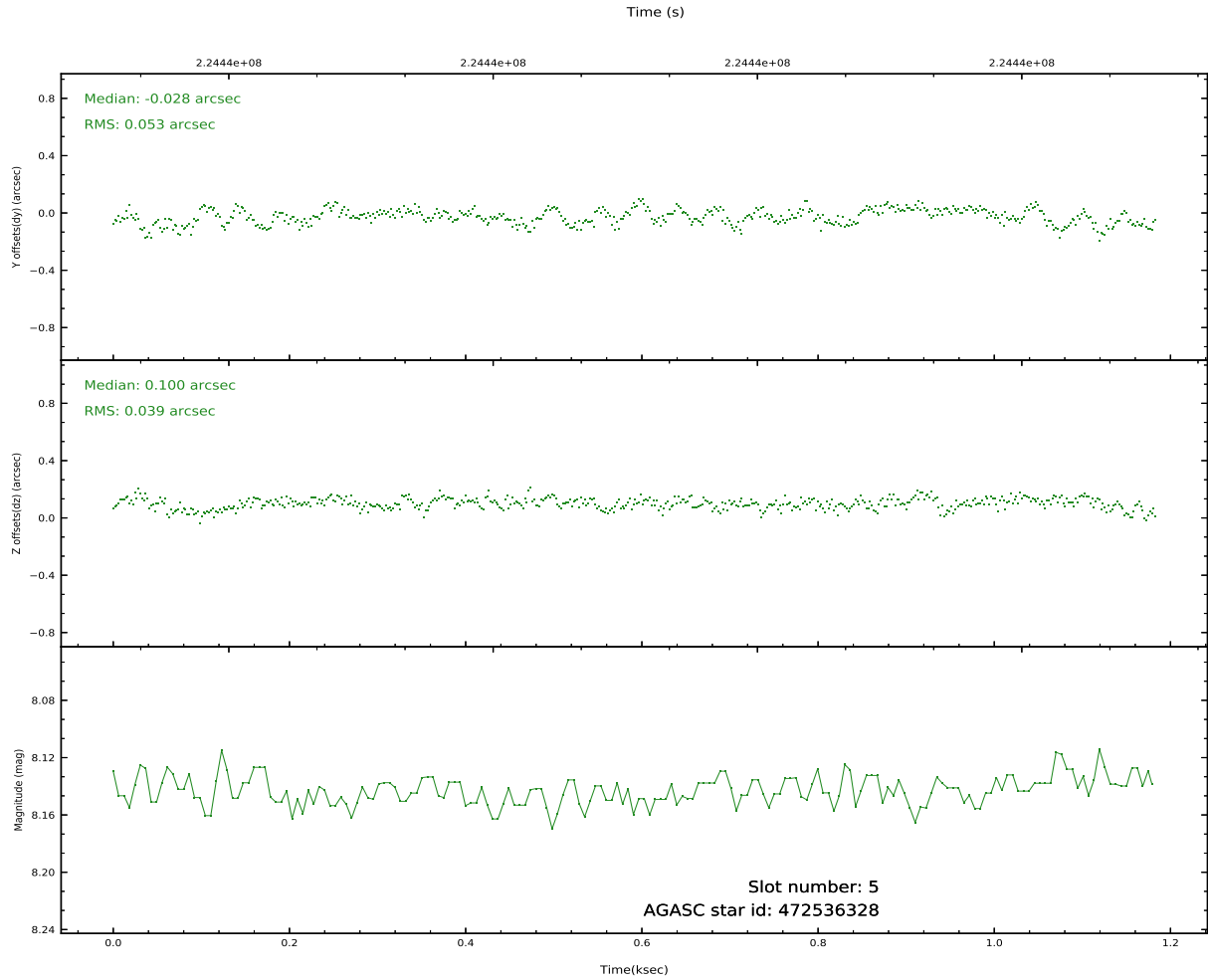
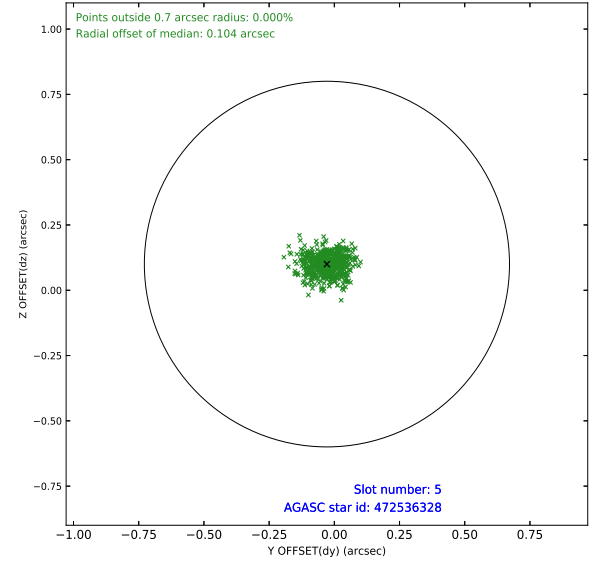
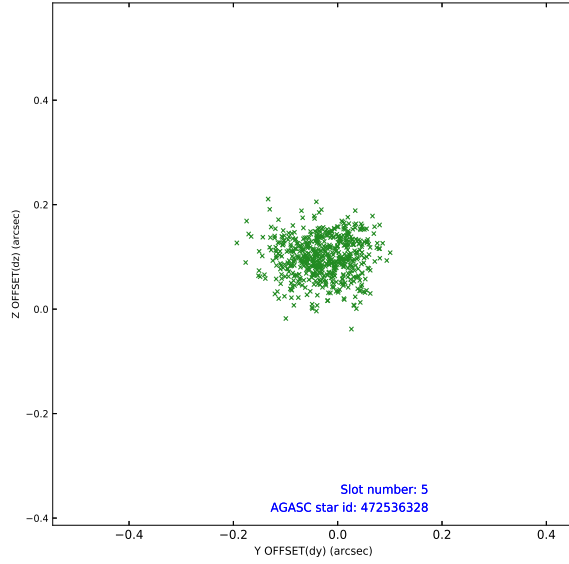
### 2.4.1 Slot 3



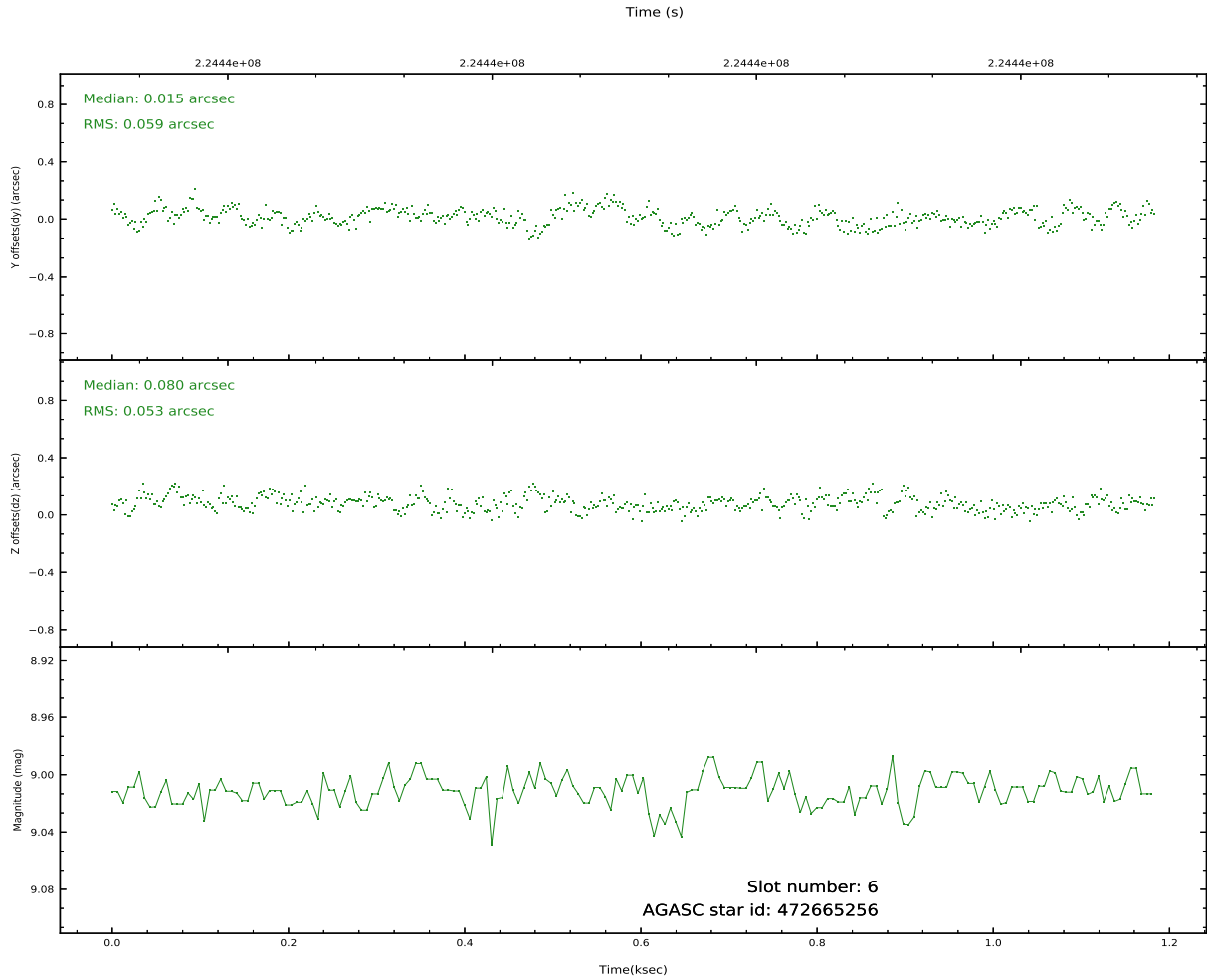
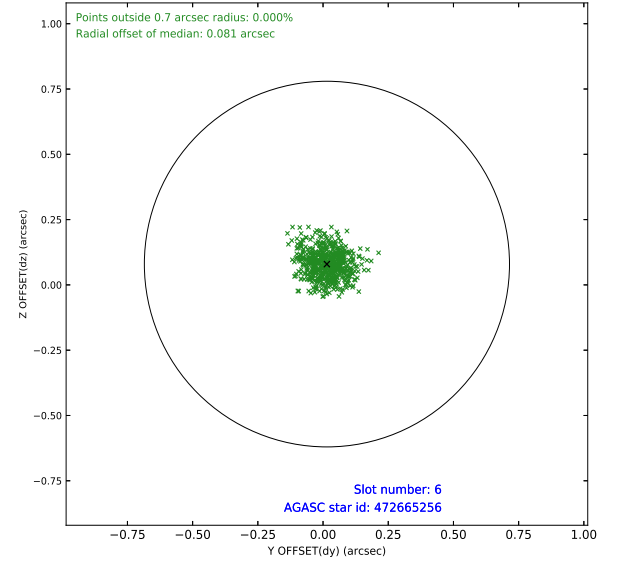
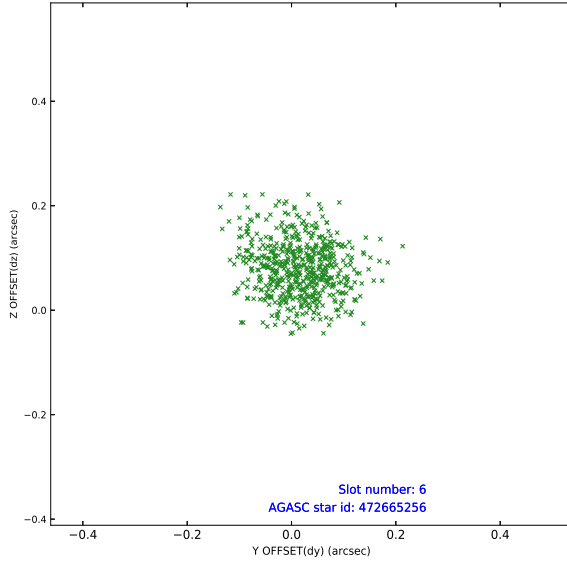
## 2.4.2 Slot 4



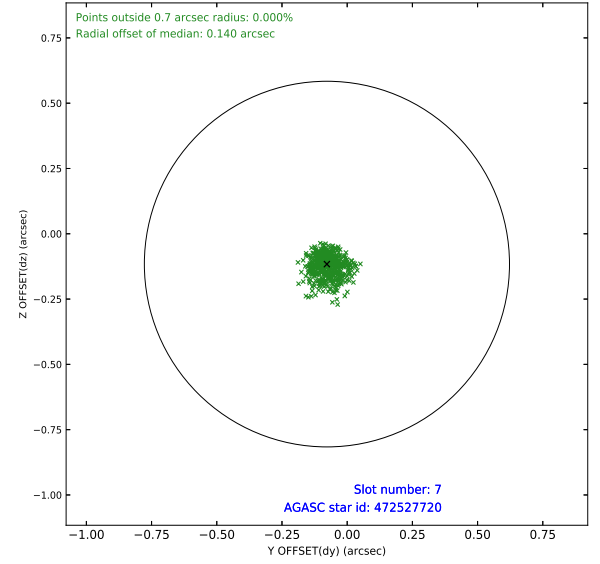
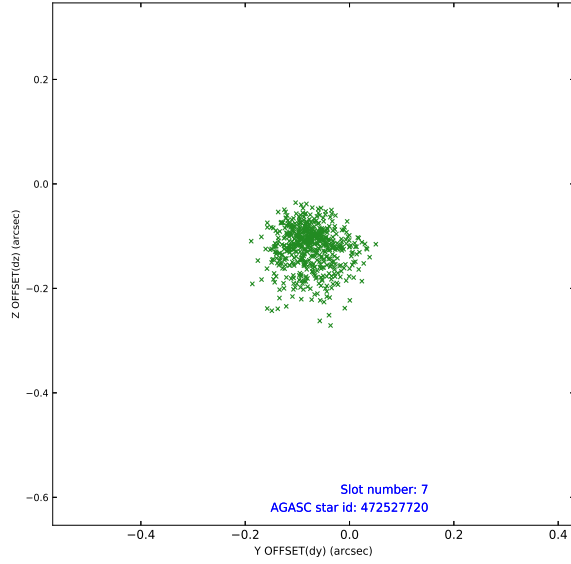
### 2.4.3 Slot 5



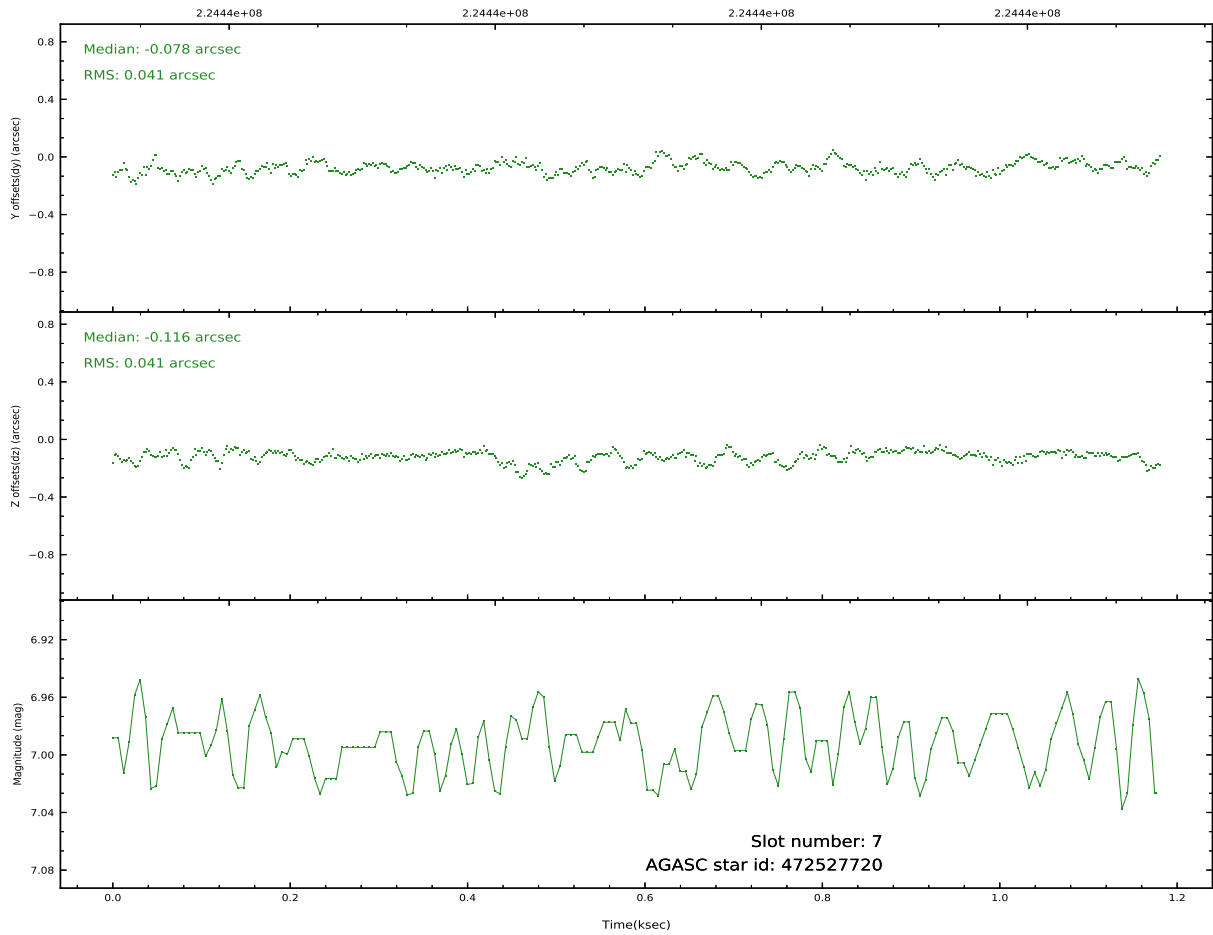
## 2.4.4 Slot 6



## 2.4.5 Slot 7

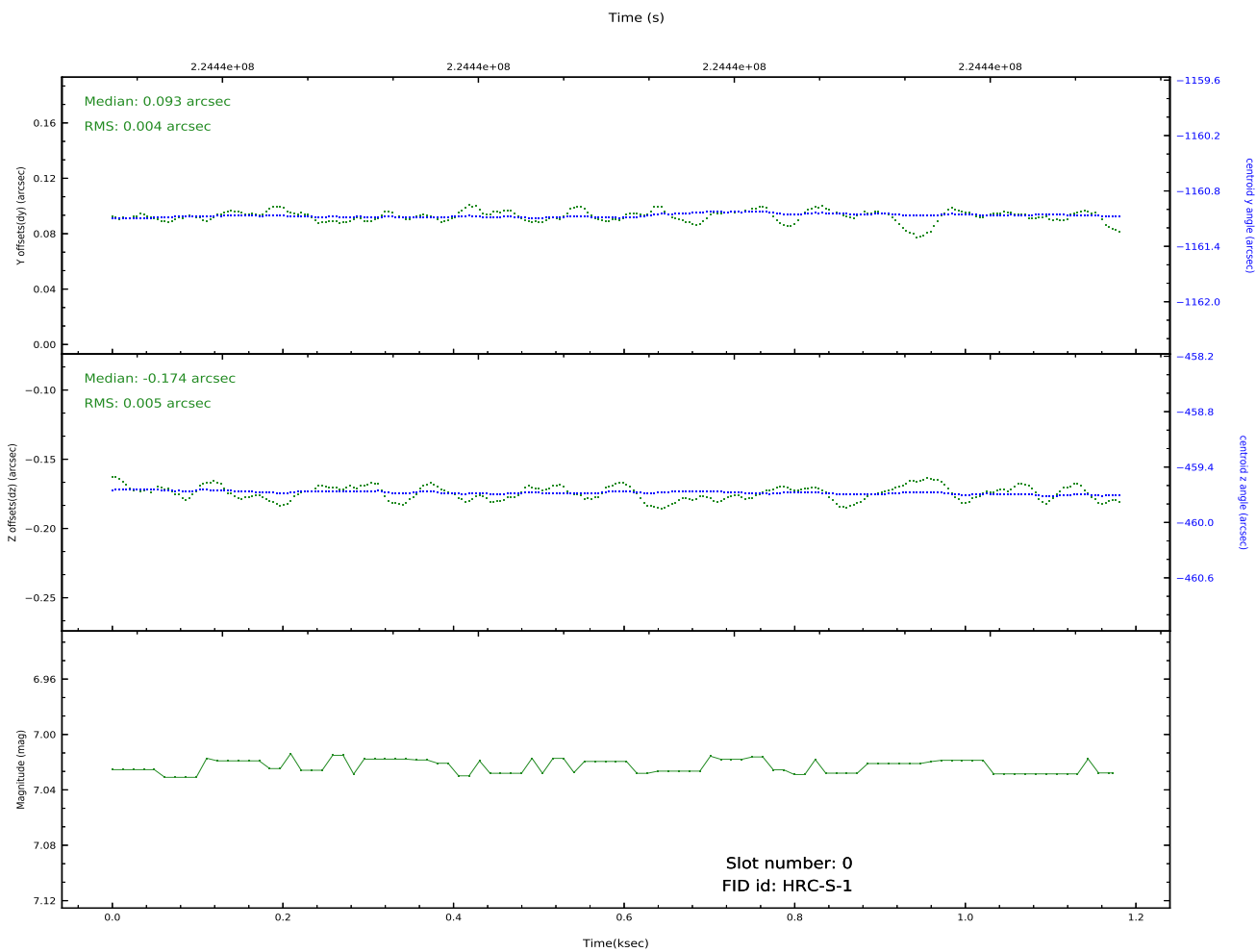
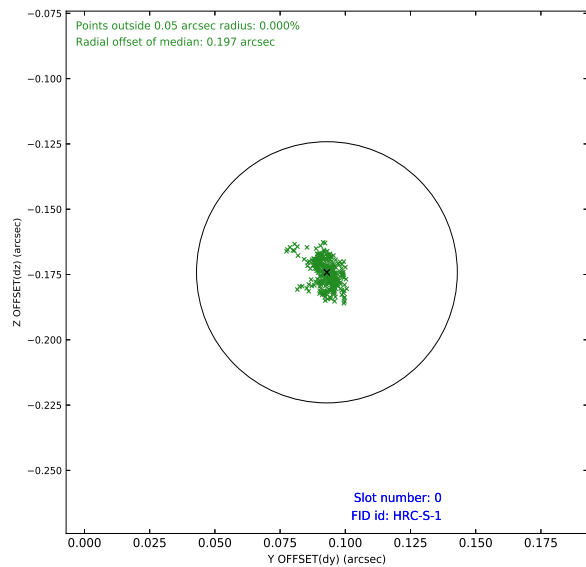
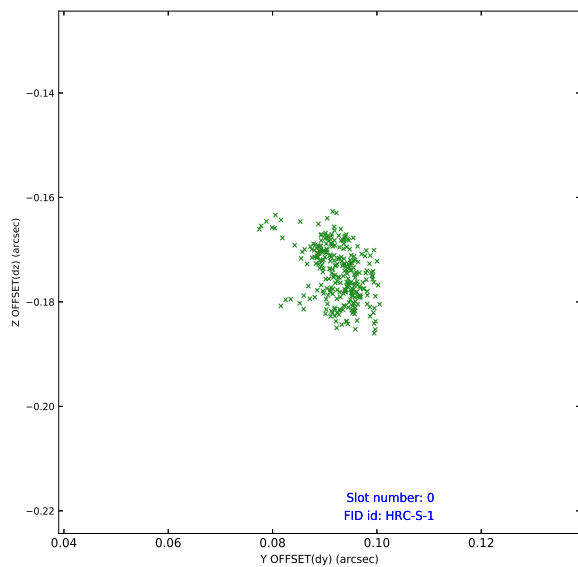


Time (s)

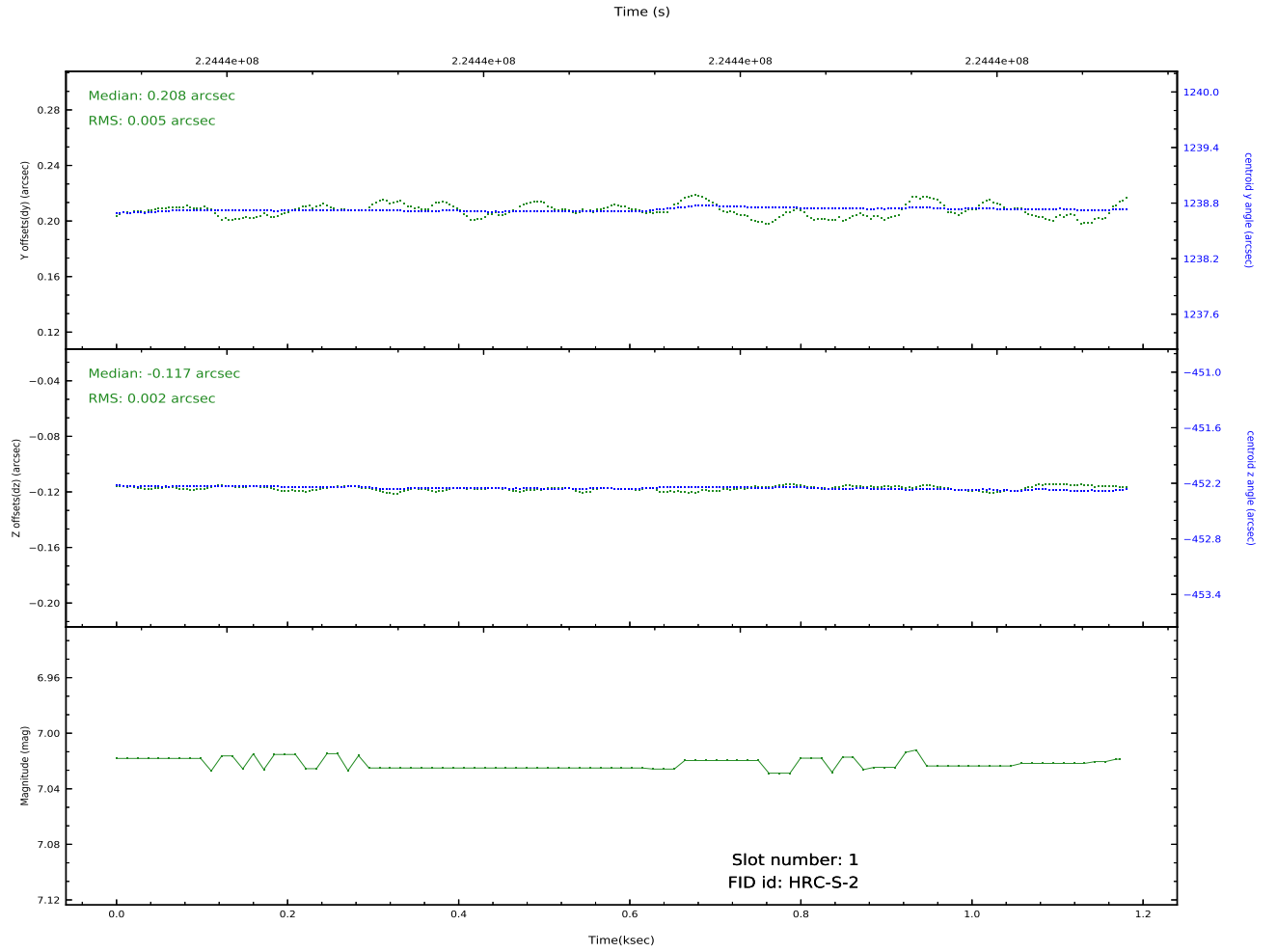
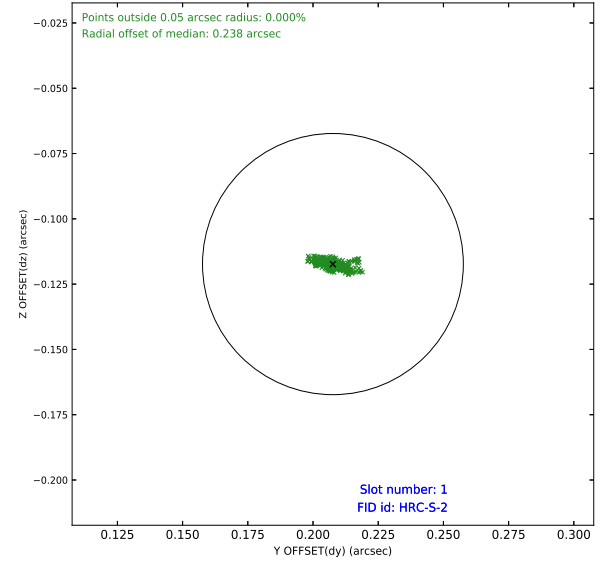
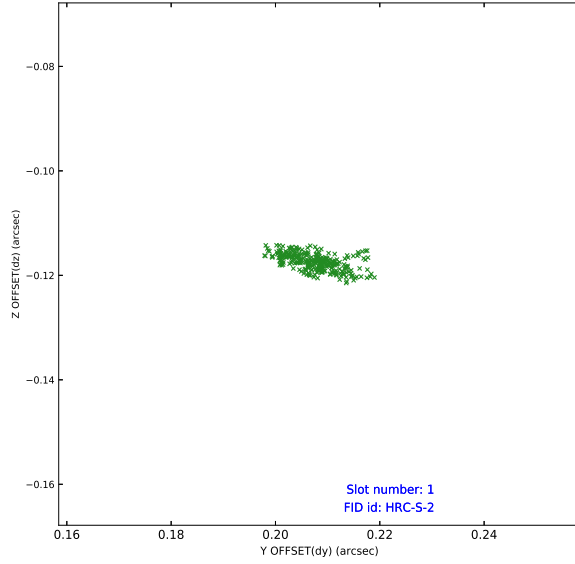


## 2.5 FID Slots

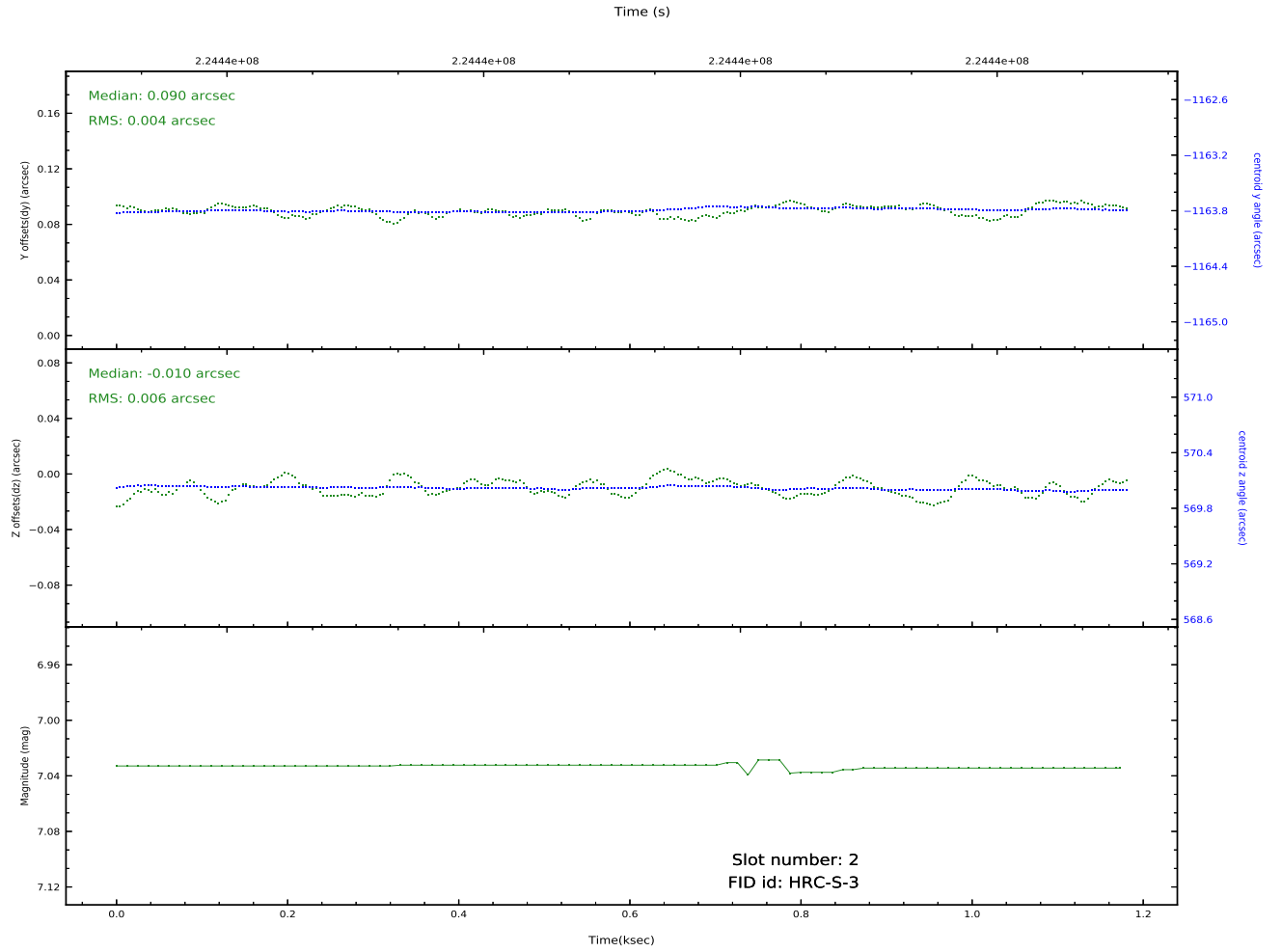
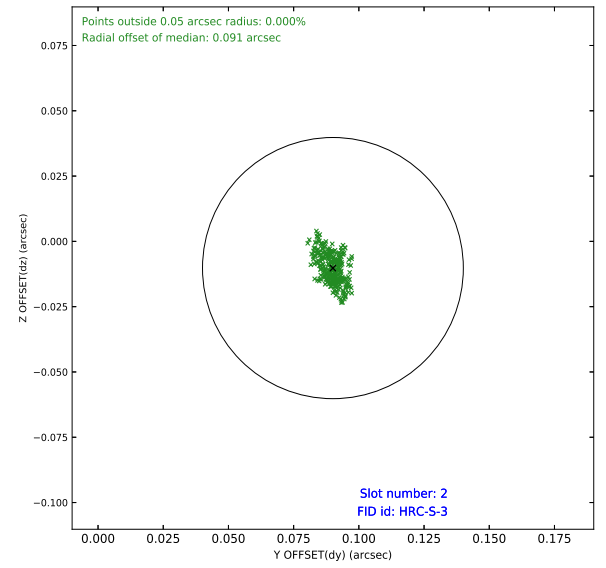
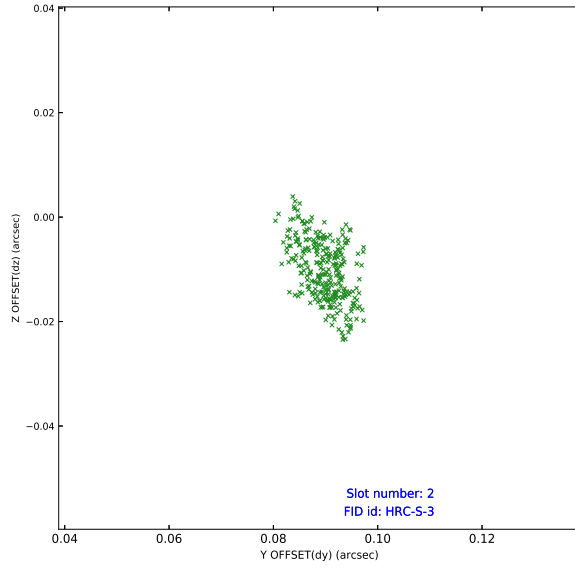
### 2.5.1 Slot 0



## 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)	2020.10.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.153381

## 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.