

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5343 - L2 Version 4  
Chandra X-Ray Center

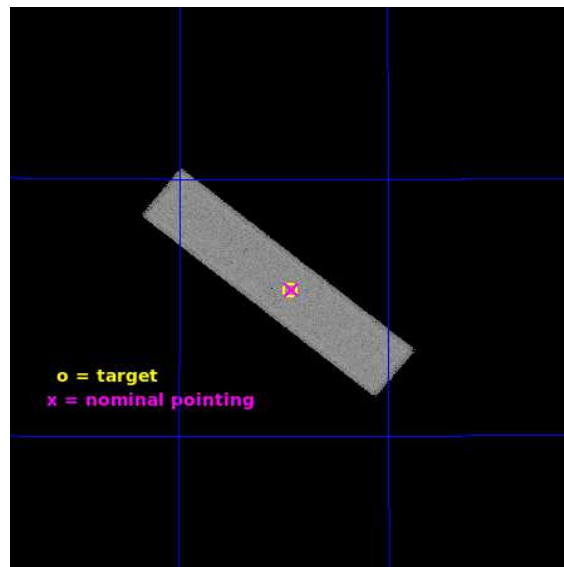
L2 Processing Date : Sep 28 2020

## 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

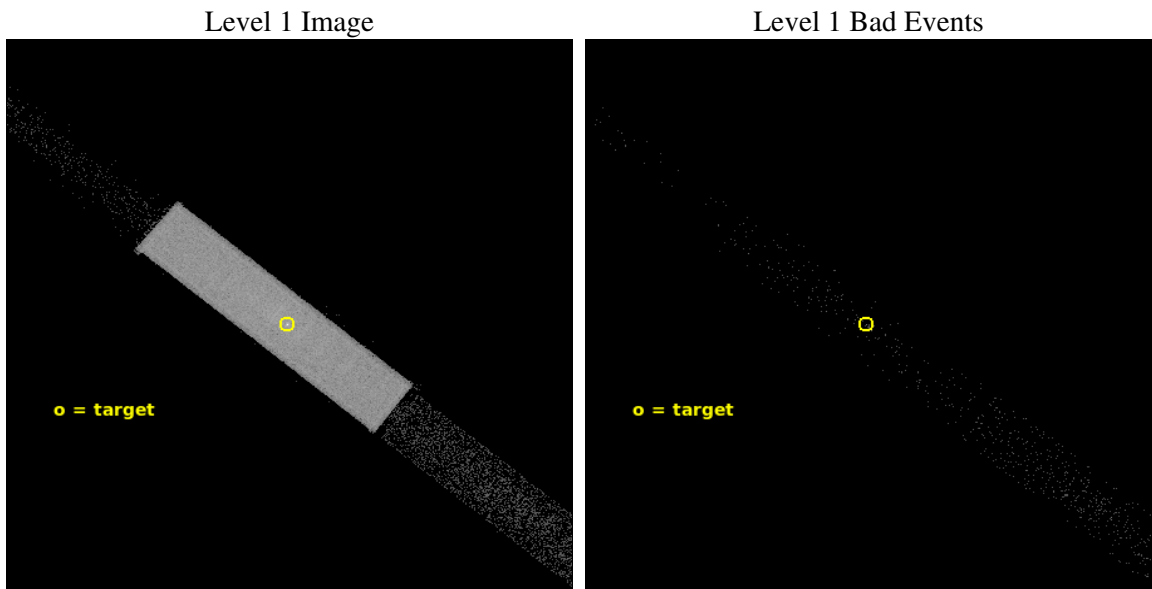
seq_num	290440	Sequence number
obs_id	5343	Observation id
title	Monitoring the health of the HRC UV Ion shield	Proposal title
observer	CXC Calibration	Principal investigator
object	Vega	Source name
ra_targ	279.235	Observer's specified target RA [deg]
dec_targ	38.783778	Observer's specified target Dec [deg]
ra_nom	279.2297910901	Nominal RA [deg]
dec_nom	38.784779097355	Nominal Dec [deg]
roll_nom	218.90215024782	Nominal Roll [deg]
revision	4	Processing version of data
ontime	3287.4313961864	[s]
livetime	3269.7566761393	Ontime multiplied by DTCOR
l2events	114031	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	2	Obi number	sched_exp_time	3100.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	3287.4313961864	[s]
caldbver	4.9.2	&#160	l1events	188946	Number of level 1 events
date	2020-09-28T06:01:17	Date and time of file creation			
revision	4	Processing version of data			

### 2.1.3 Events

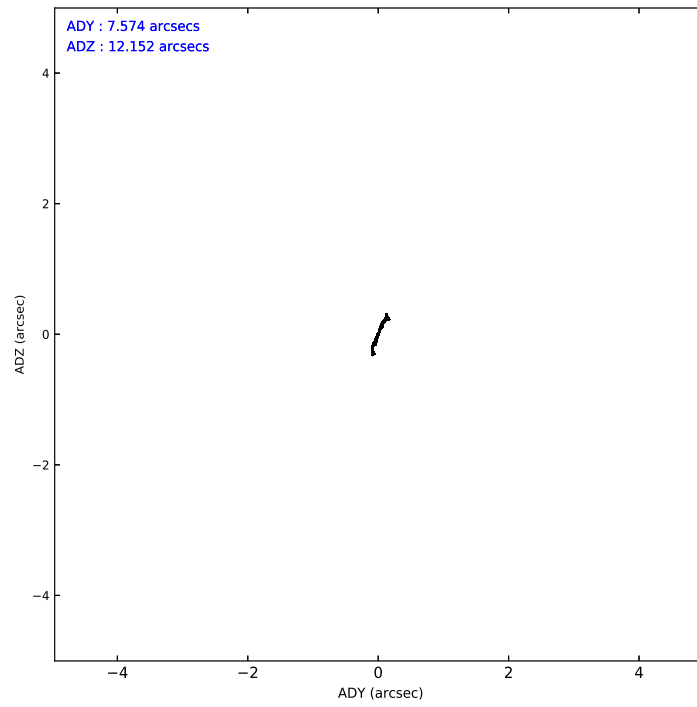
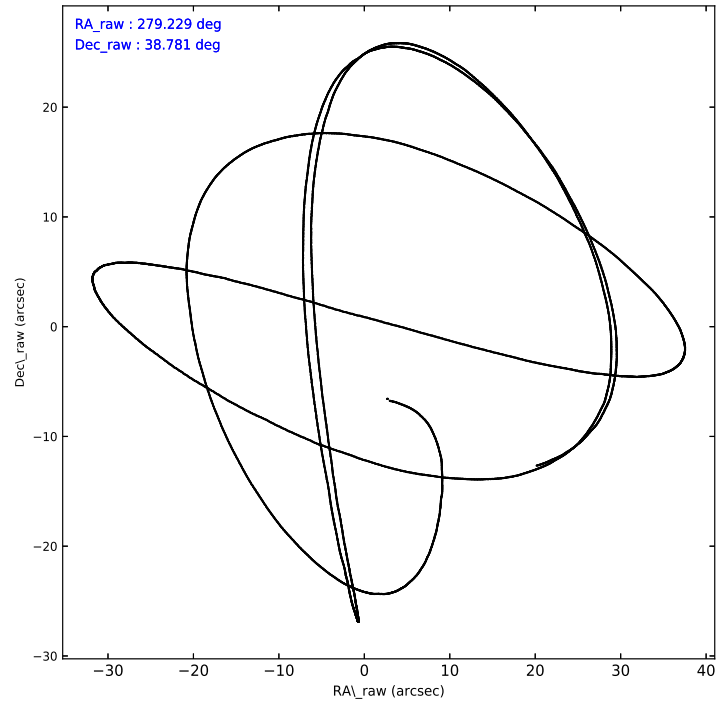
Level 1 Events

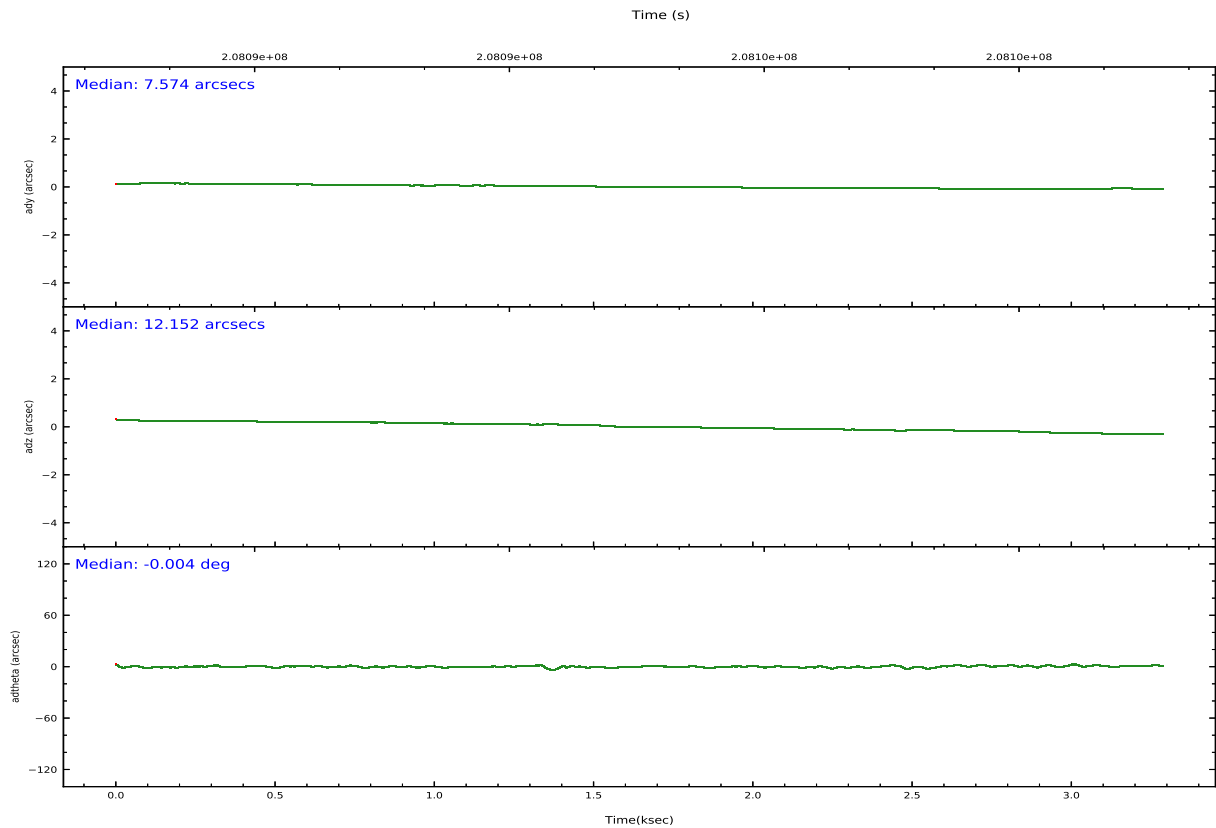
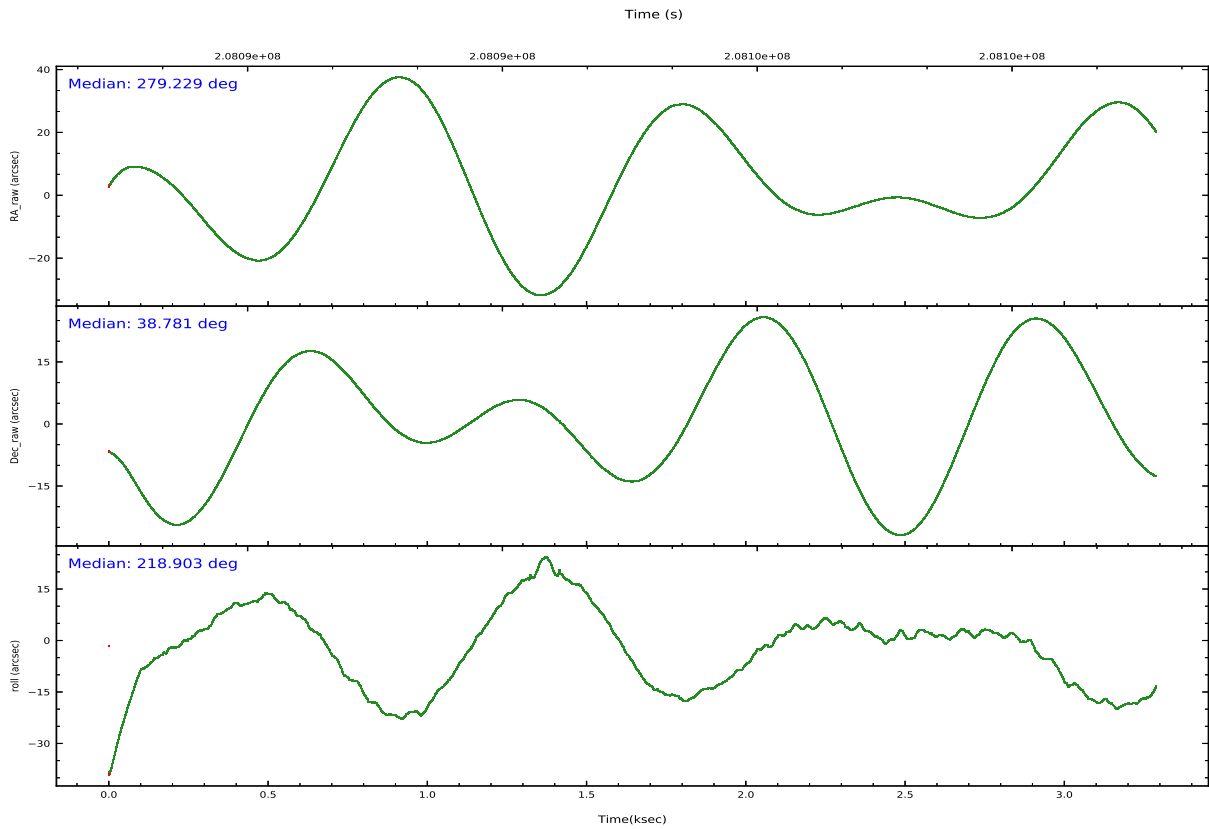
	segment 1	segment 2	segment 3
level 1 events	654	184362	3930
rejected events	654	37965	3930
rejected %	100%	20%	100%

## 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	279.241726	279.2297910901			
[deg] Pointing Dec	38.808109	38.784779097355			
[deg] Pointing Roll	218.825833	218.90215024782			
[s] Window start time (MET)	207705664.184000	207705664.184000			
[s] Window stop time (MET)	210384004.184000	210384004.184000			
[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)	208093353.184000	208092343.28756			
Observation start date	2004-08-05T11:41:29	2004-08-05T11:25:43			
[s] Observation end time (MET)	208096453.184000	208096587.30025			
Observation end date	2004-08-05T12:33:09	2004-08-05T12:36:27			

## 2.3 Aspect





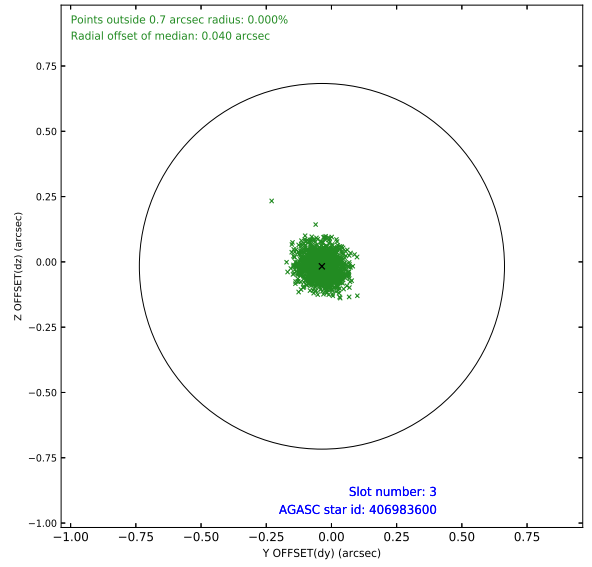
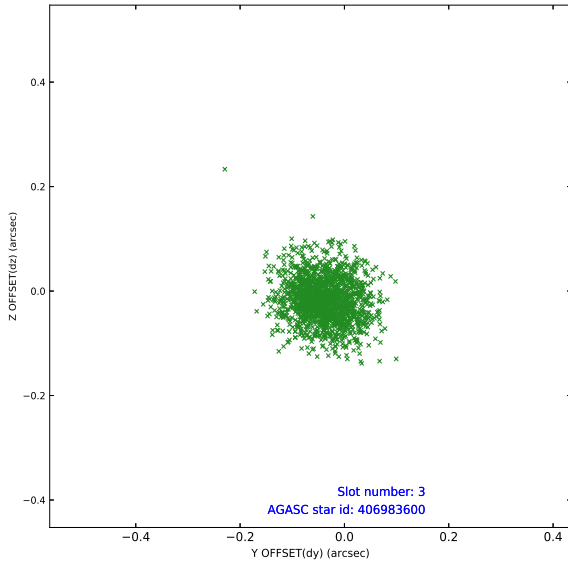
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-S-1	7.00	803	1.000	0.049	-0.147	0.005	0.009	0.000000	0.000000	-1161.82	-460
1	FID		HRC-S-2	7.00	803	1.000	0.116	-0.074	0.009	0.016	0.000000	0.000000	1236.48	-454
2	FID		HRC-S-4	6.99	803	1.000	0.239	-0.083	0.007	0.014	0.000000	0.000000	1238.16	570
3	GUIDE	used	406983600	8.91	1602	1.000	-0.037	-0.017	0.064	0.107	279.940957	39.020708	-2008.07	623
4	GUIDE	used	406990192	9.01	1604	1.000	0.109	0.071	0.083	0.135	278.510952	38.533654	2216.59	-527
5	GUIDE	used	406993992	7.63	1604	1.000	0.007	0.005	0.054	0.090	279.053714	38.034587	2162.33	1833
6	GUIDE	used	407521232	8.63	1602	1.000	-0.137	0.045	0.066	0.111	279.628883	39.431715	-2246.15	-1075
7	GUIDE	used	406985120	7.42	1604	1.000	0.054	-0.106	0.061	0.104	278.839732	38.894839	679.07	-953

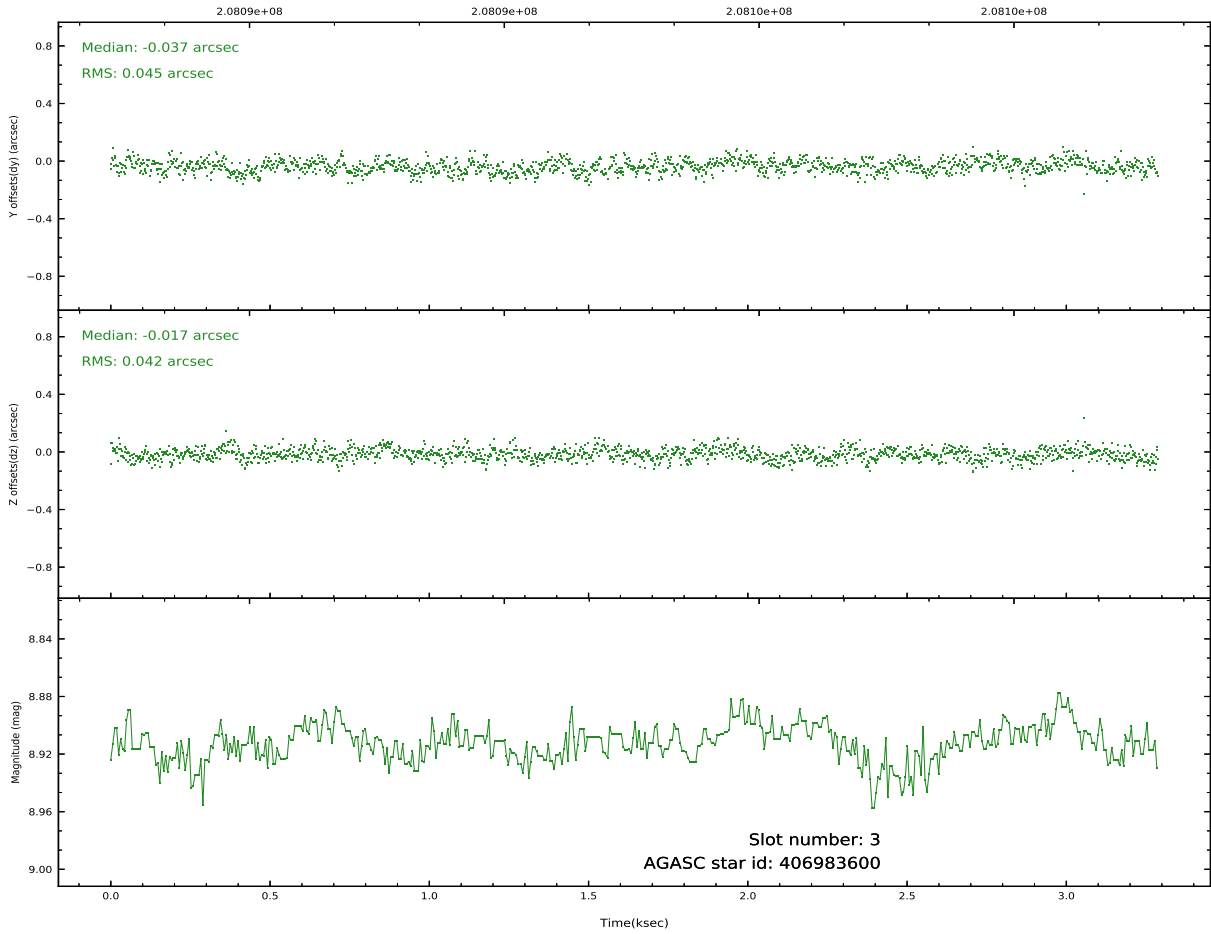
∞

## 2.4 Star Slots

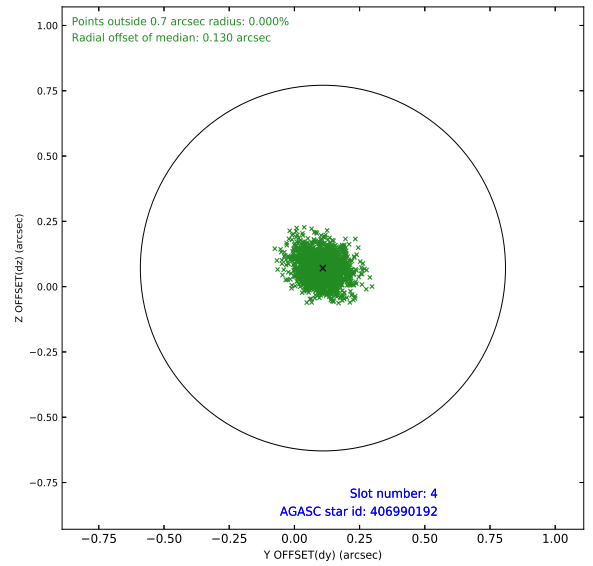
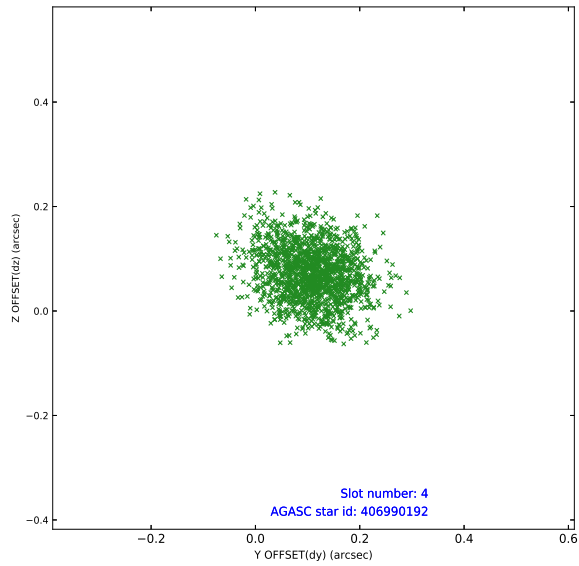
### 2.4.1 Slot 3



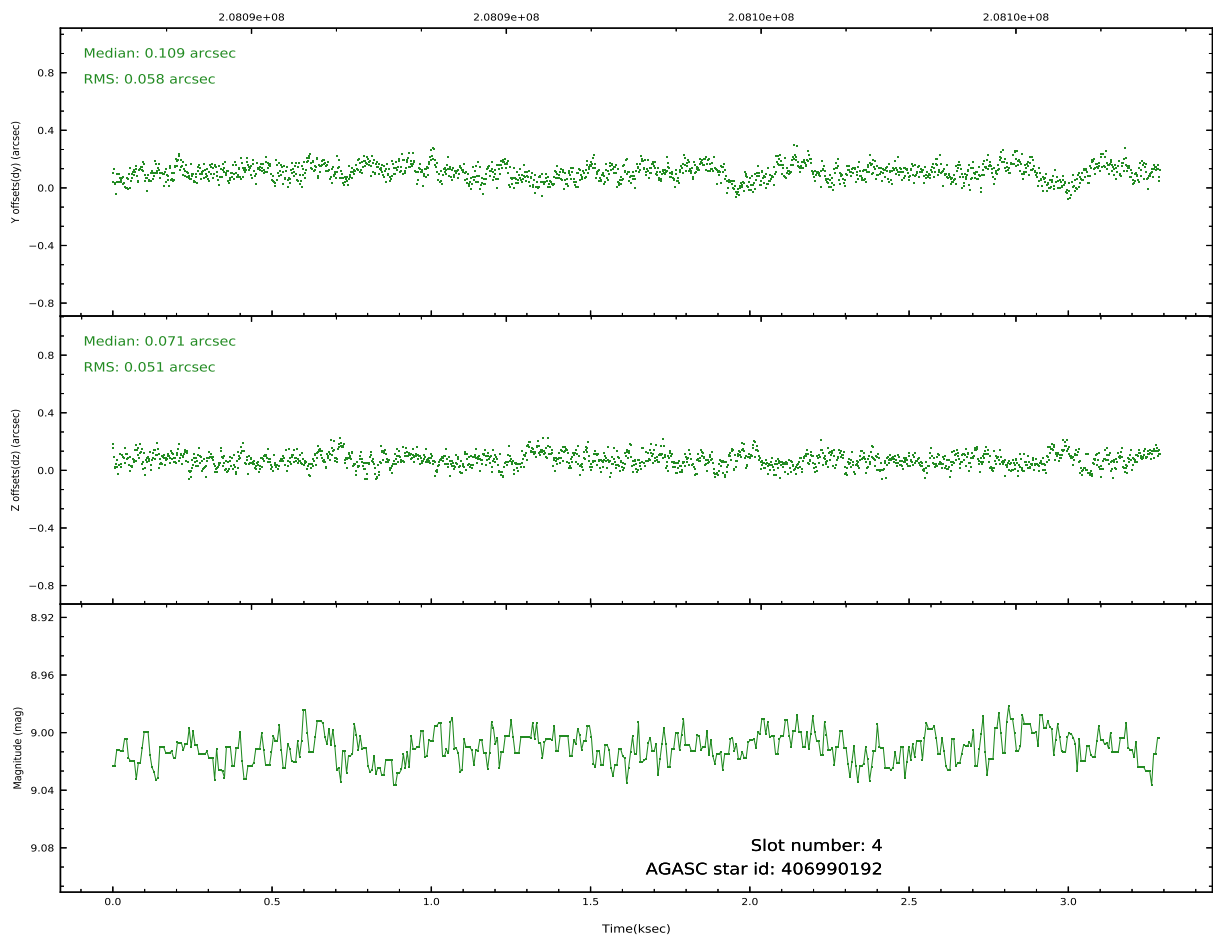
Time (s)



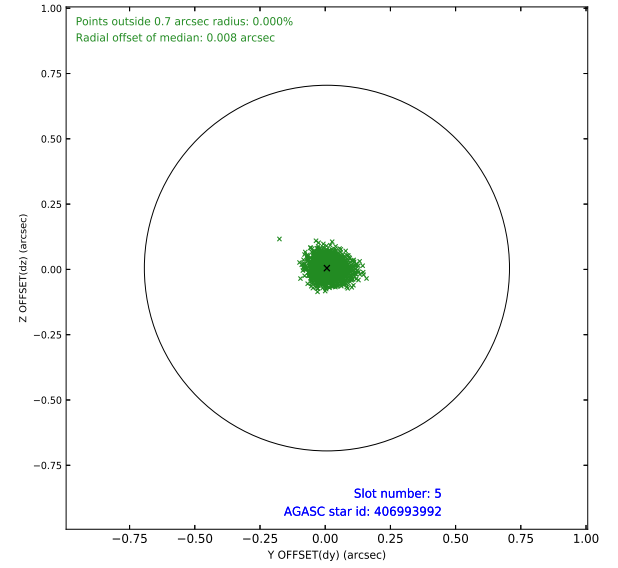
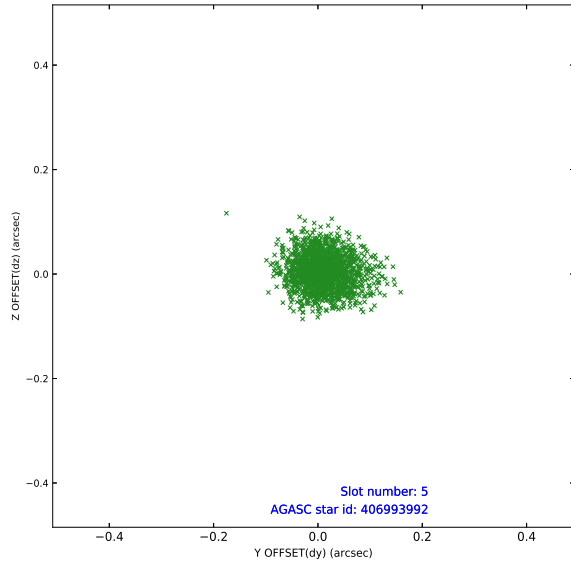
## 2.4.2 Slot 4



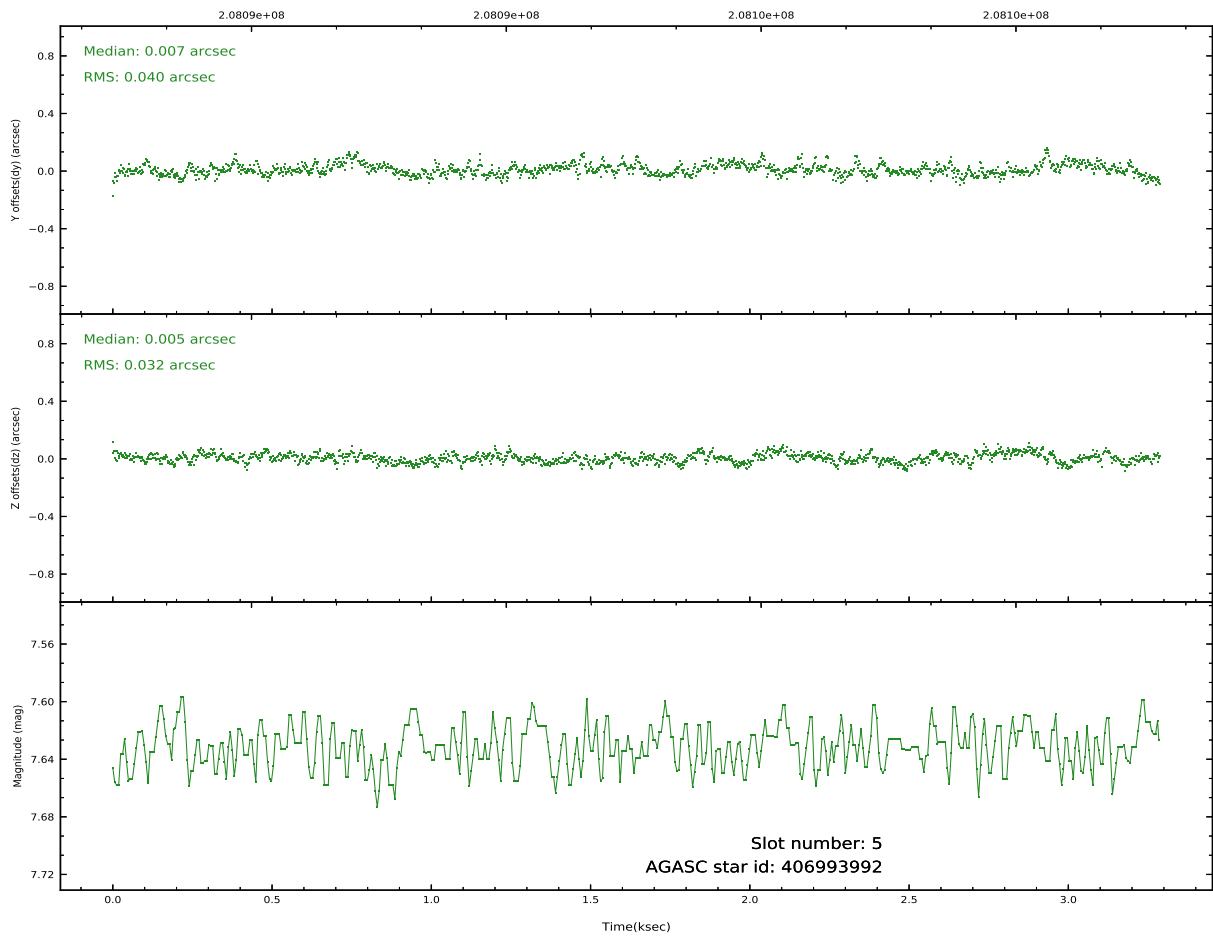
Time (s)



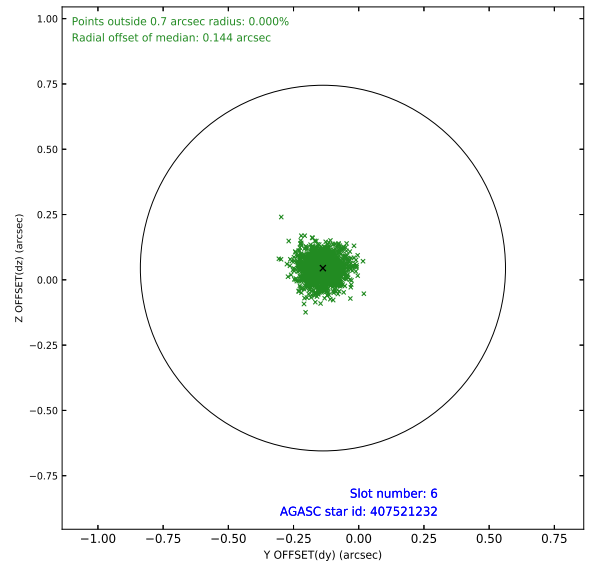
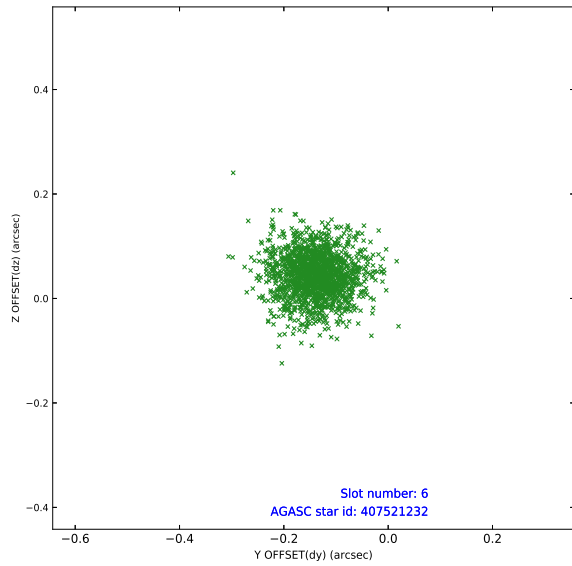
### 2.4.3 Slot 5



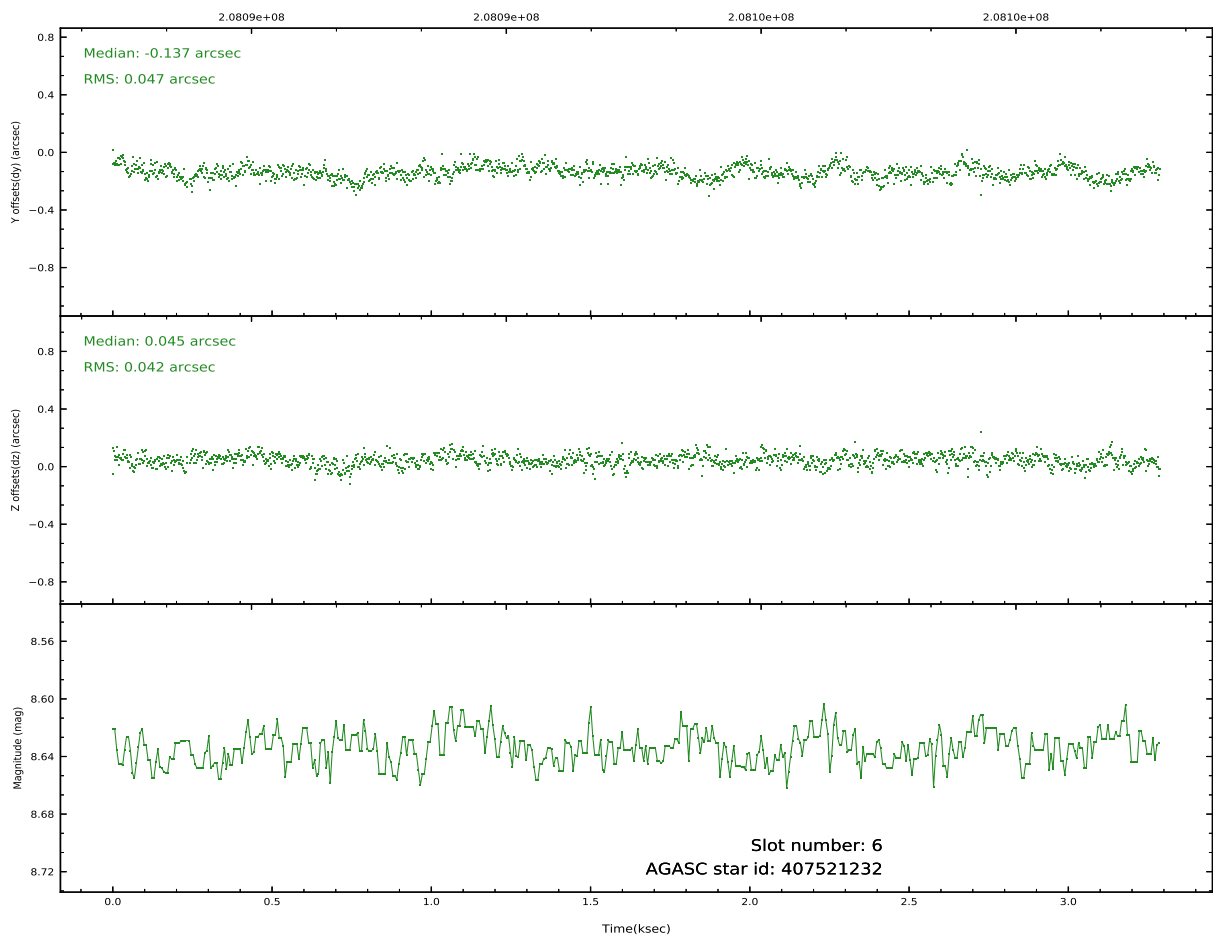
Time (s)



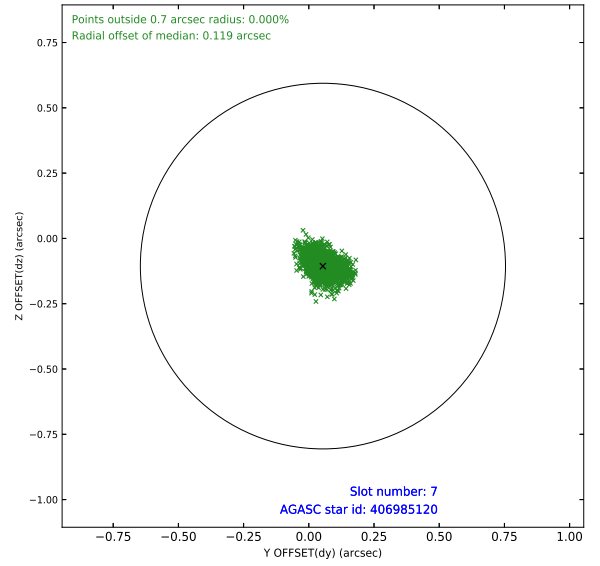
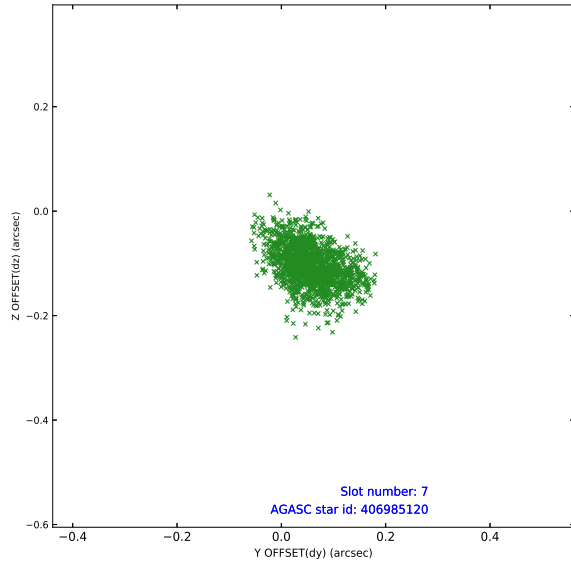
## 2.4.4 Slot 6



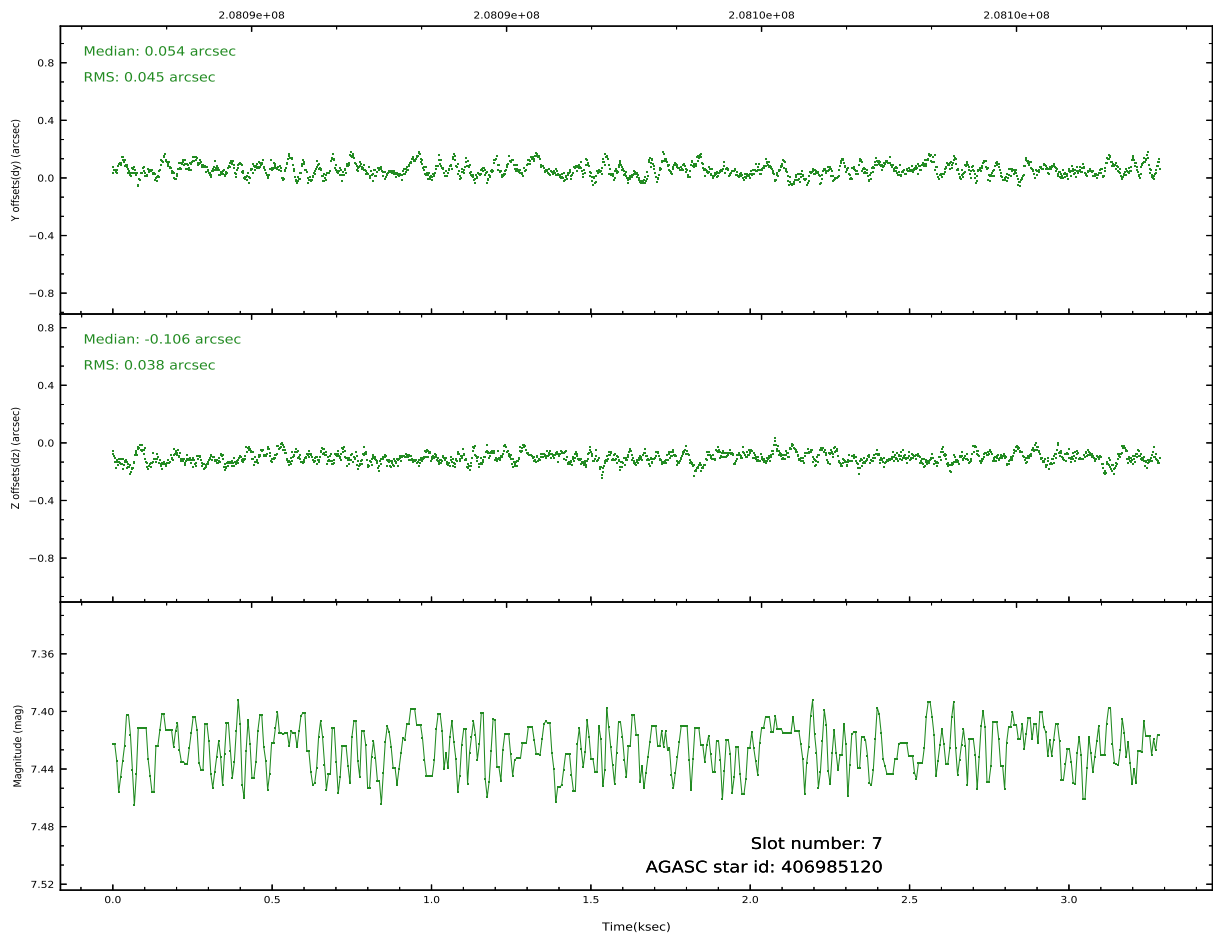
Time (s)



## 2.4.5 Slot 7

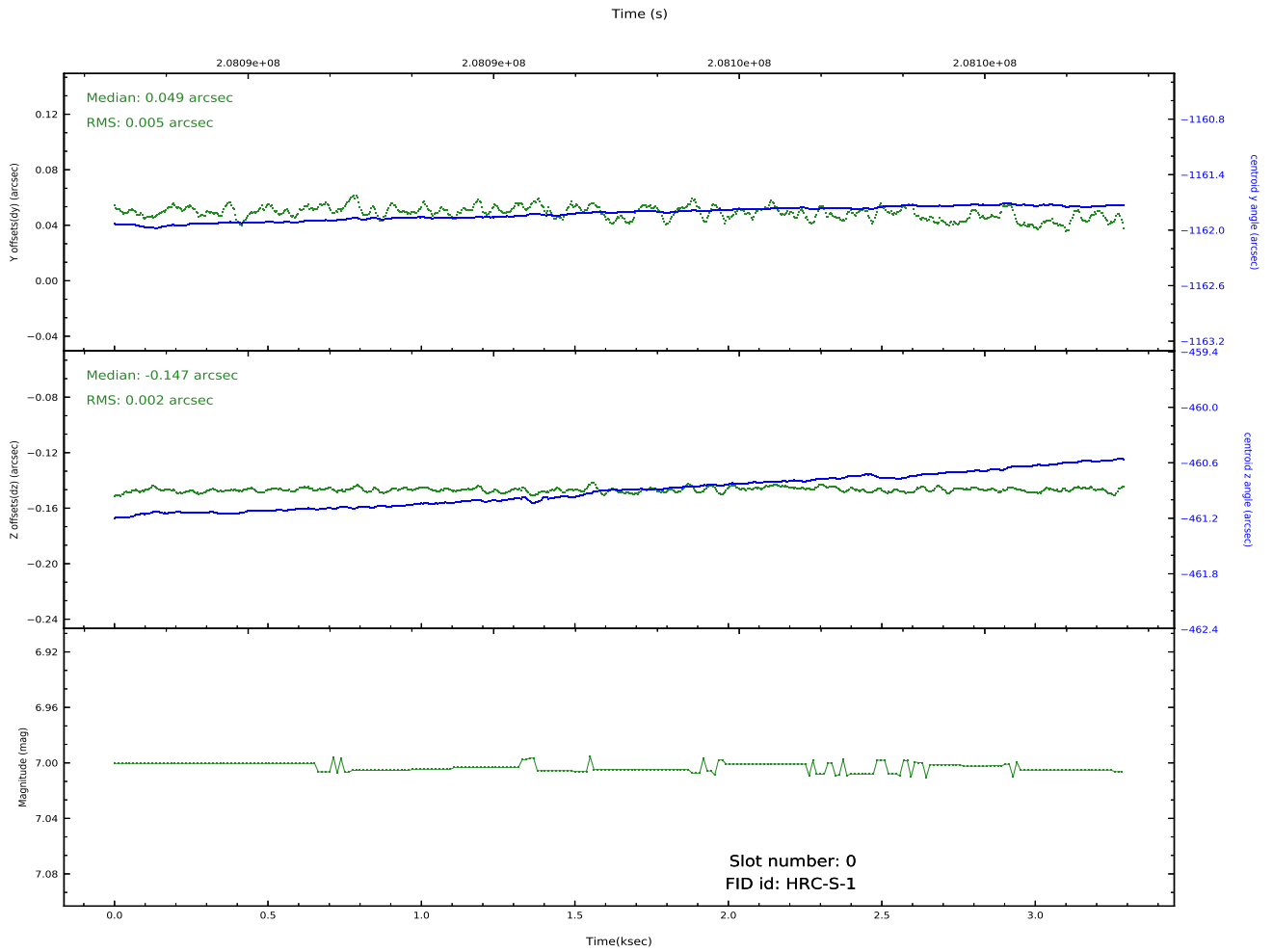
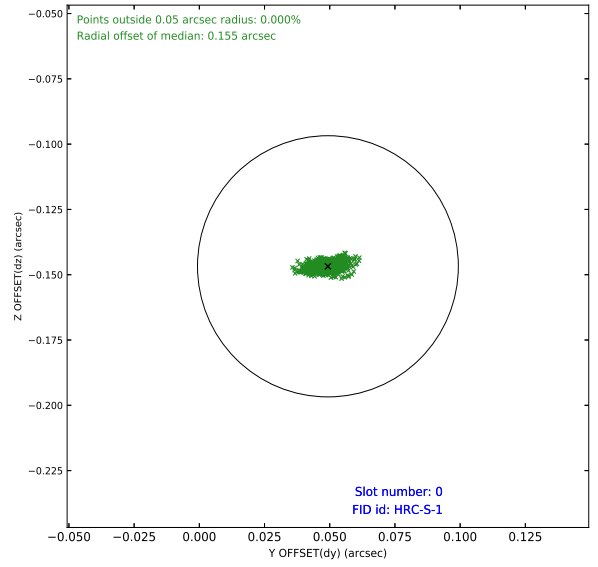
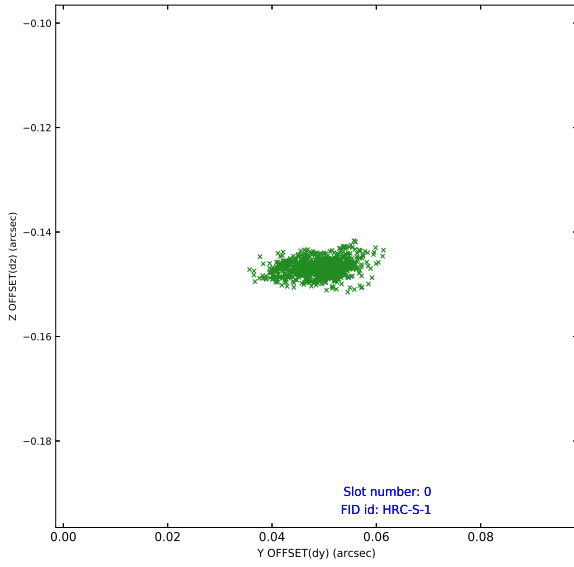


Time (s)

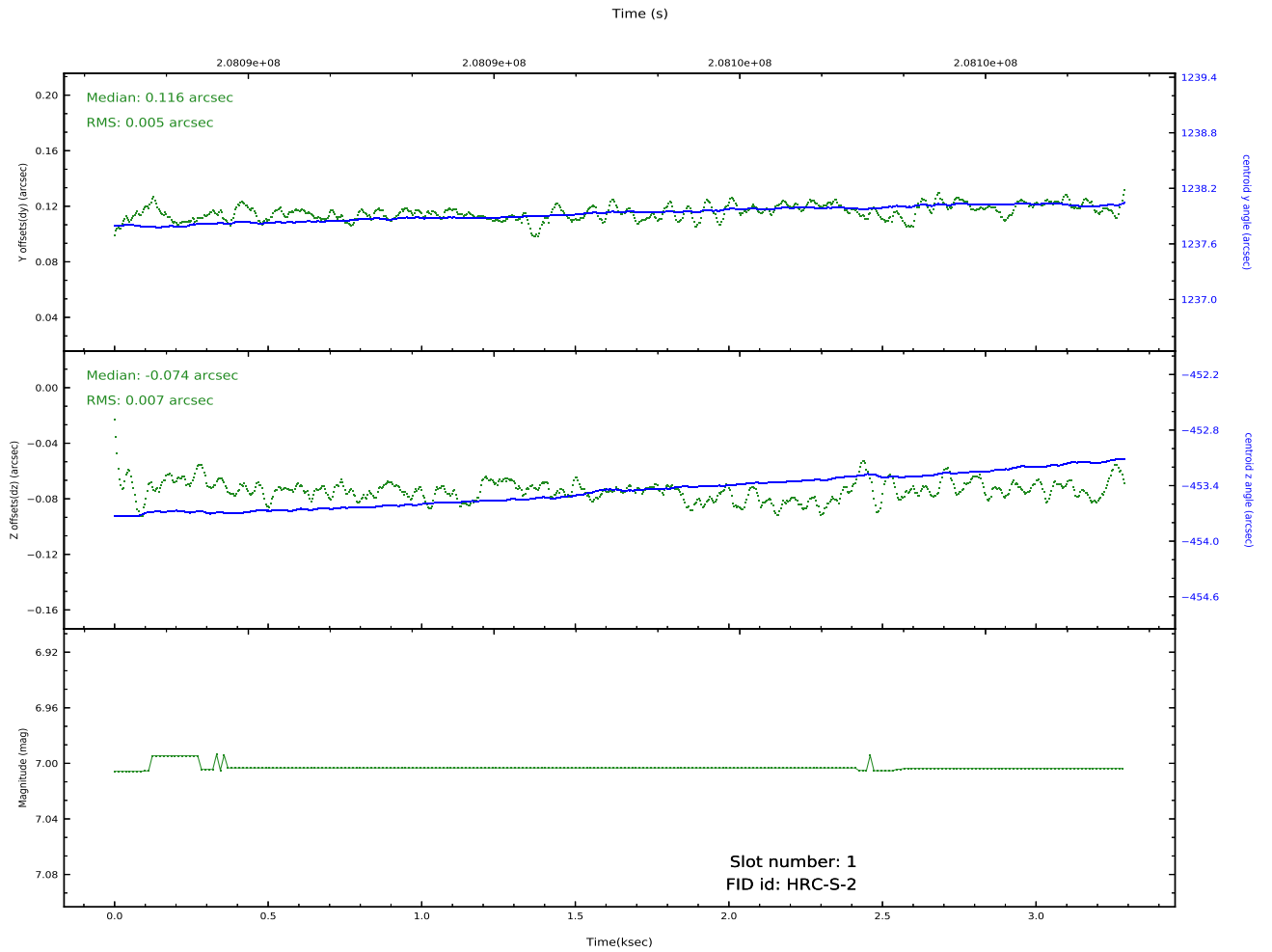
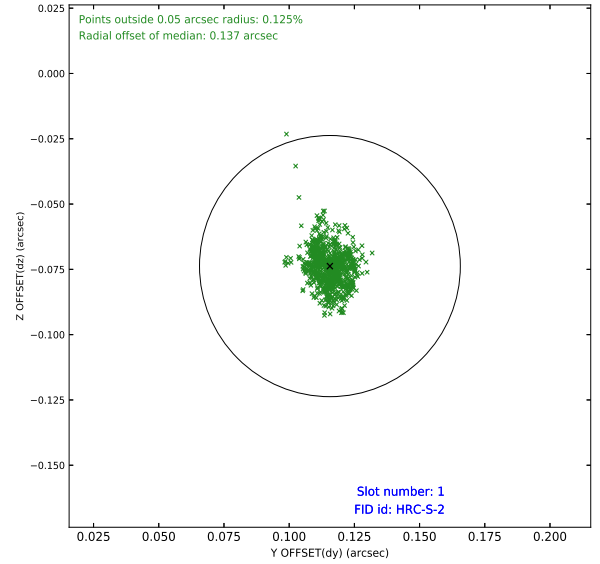
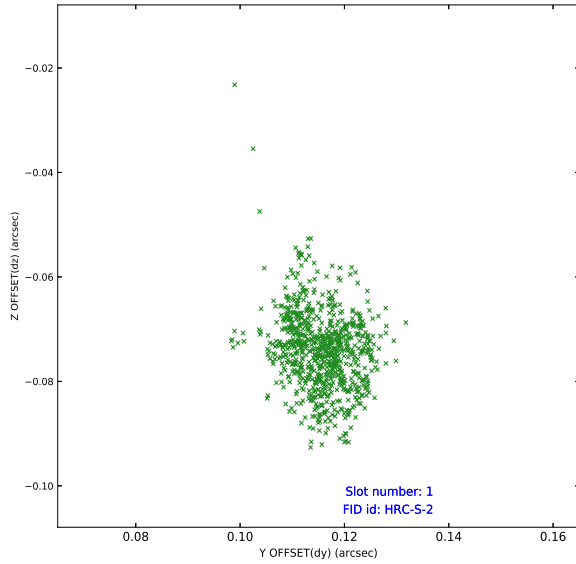


## 2.5 FID Slots

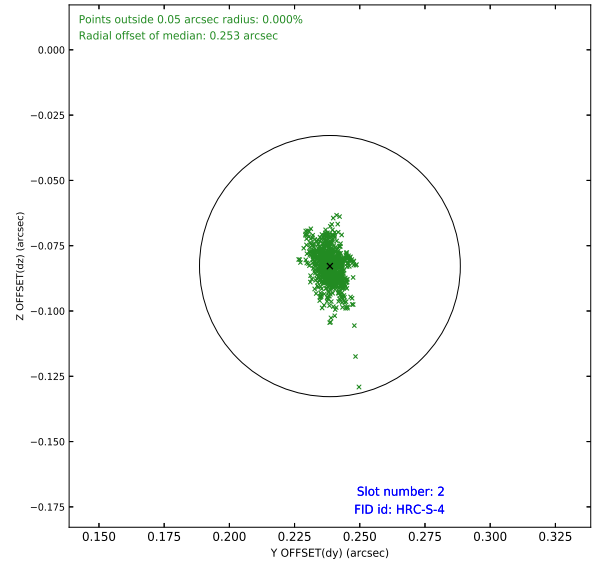
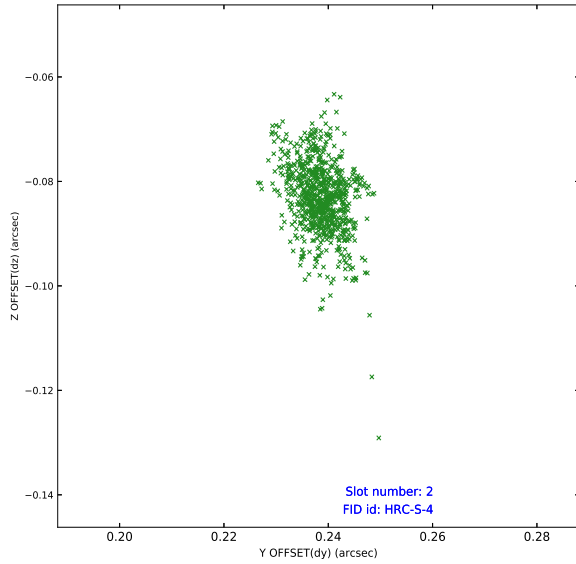
### 2.5.1 Slot 0



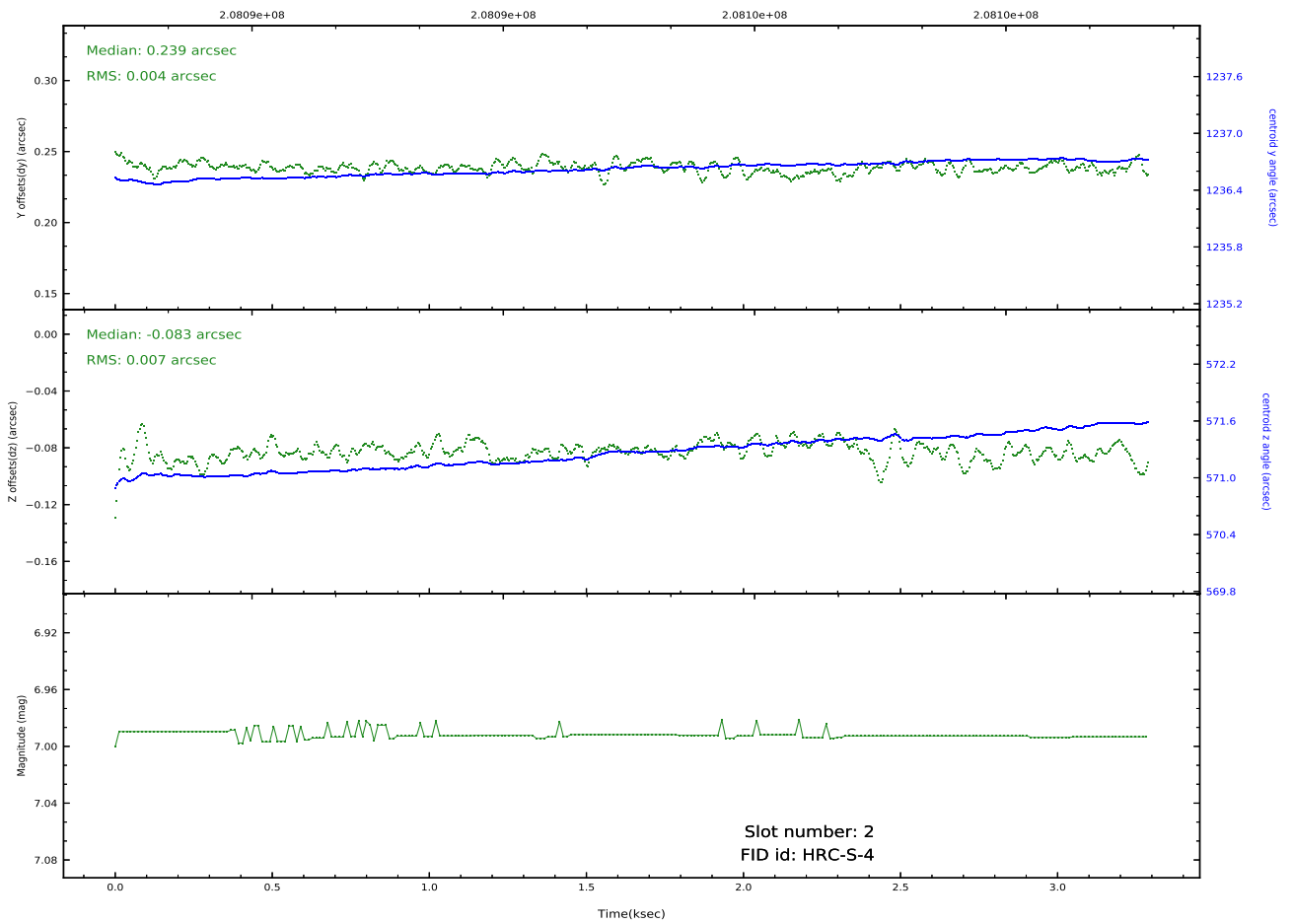
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.09.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.287

## A.2 Comments

Window constraint met.