

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5092 - L2 Version 4  
Chandra X-Ray Center

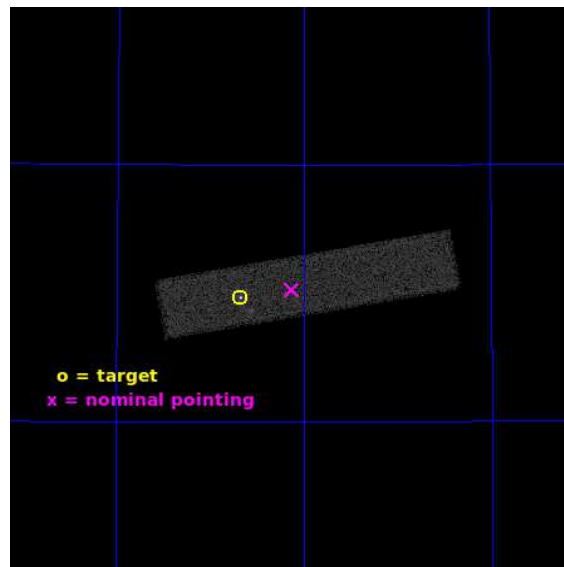
L2 Processing Date : Sep 23 2020

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# 1 Front

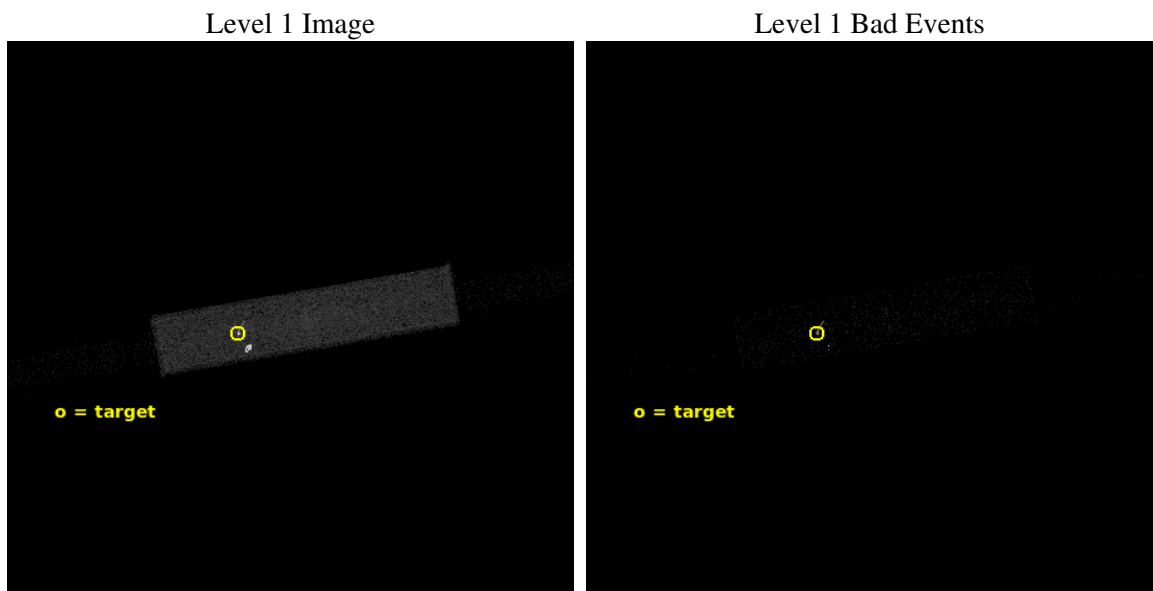
seq_num	290365	Sequence number
obs_id	5092	Observation id
title	AO5A Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain	Proposal title
observer	CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.03160918728	Nominal RA [deg]
dec_nom	45.757253606836	Nominal Dec [deg]
roll_nom	349.74931794947	Nominal Roll [deg]
revision	4	Processing version of data
ontime	1088.8062976301	[s]
livetime	1074.4170340745	Ontime multiplied by DTCOR
l2events	41708	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	946.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	1088.8062976301	[s]
caldsver	4.9.2	&#160	l1events	112370	Number of level 1 events
date	2020-09-23T05:08:17	Date and time of file creation			
revision	4	Processing version of data			

### 2.1.3 Events

Level 1 Events

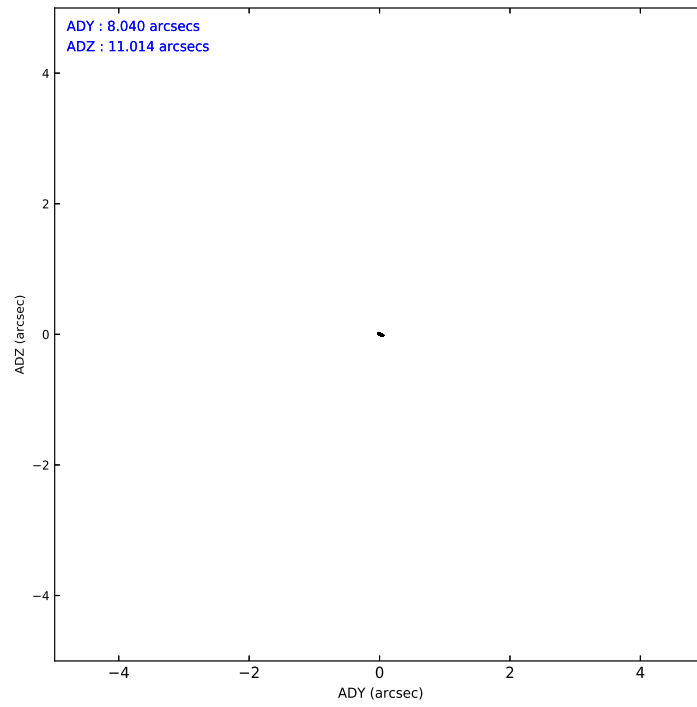
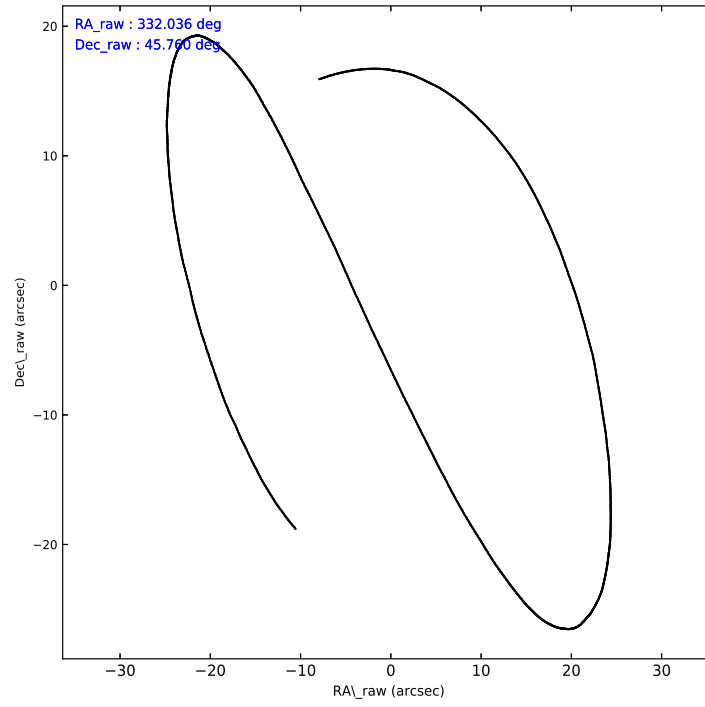
	segment 1	segment 2	segment 3
level 1 events	1158	110040	1172
rejected events	1158	21684	1172
rejected %	100%	19%	100%

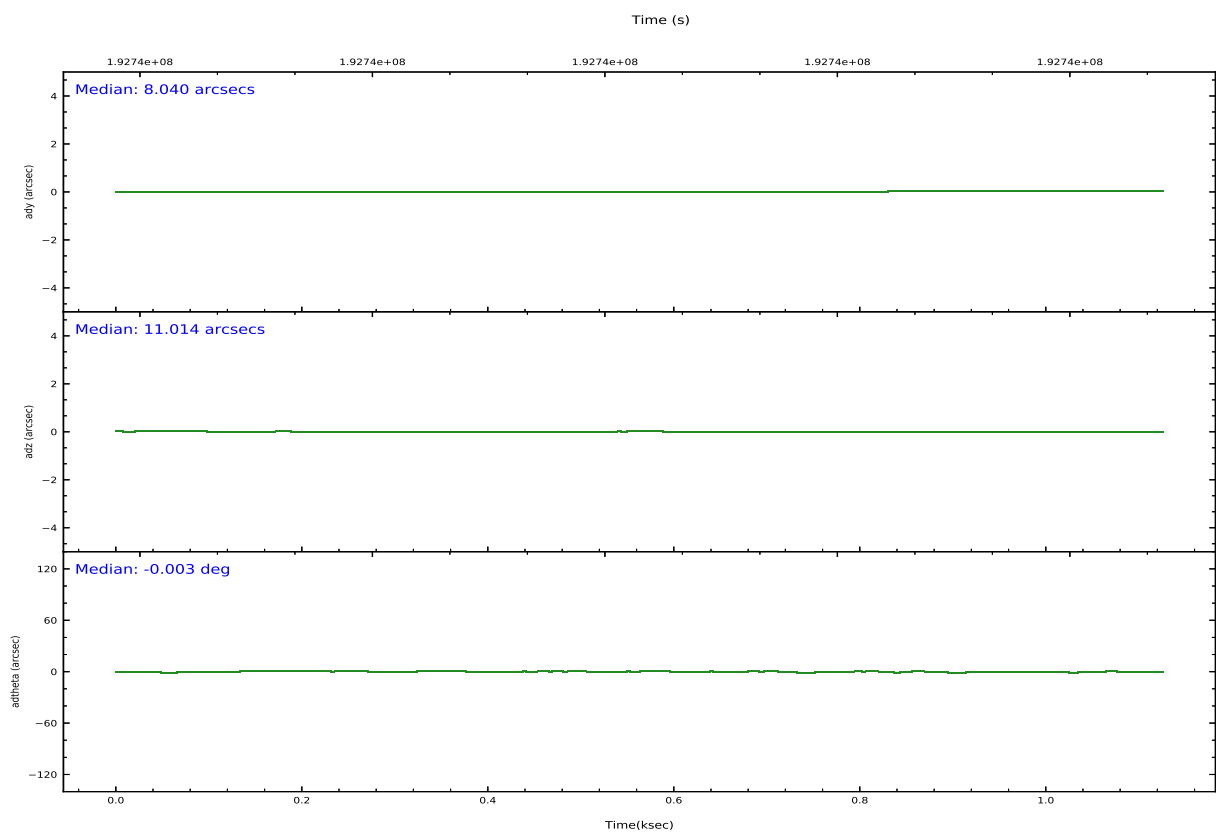
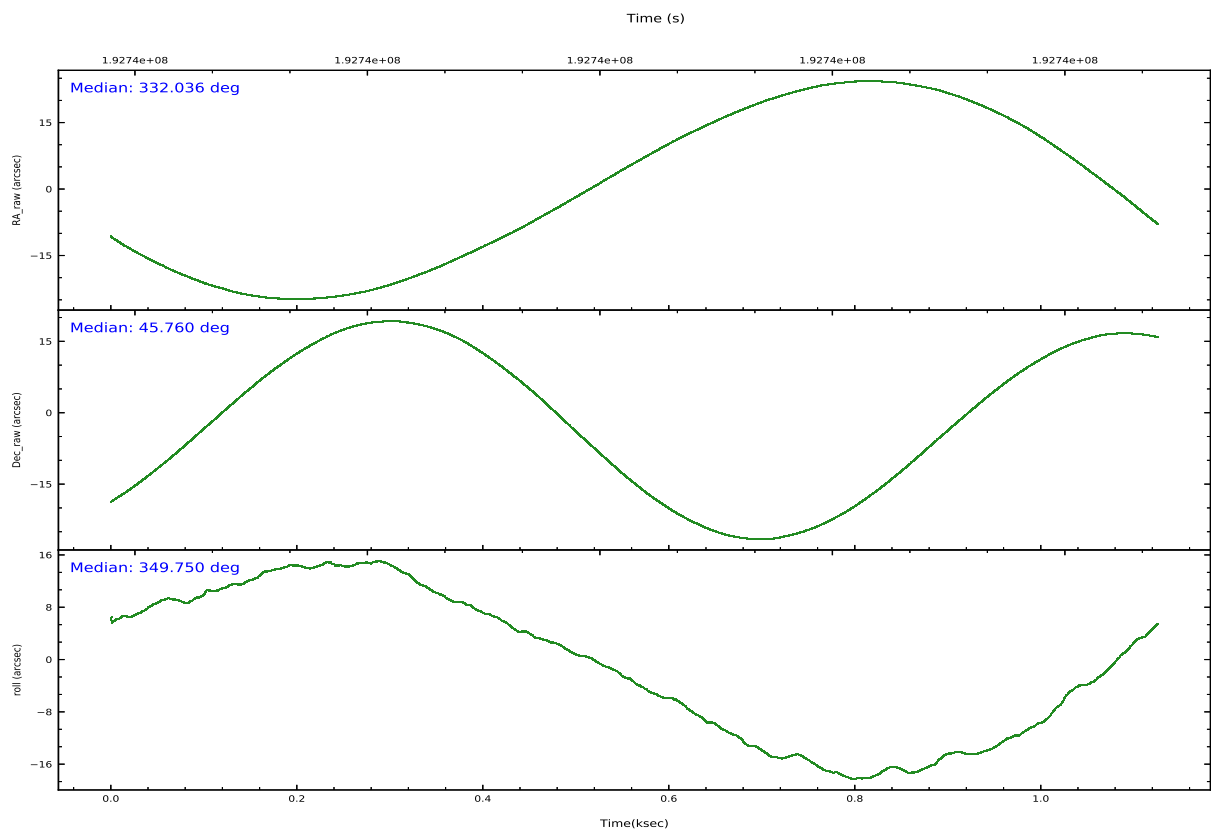
## 2.2 Compared Parameters

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	331.997745	332.03160918728
[deg] Pointing Dec	45.748334	45.757253606836
[deg] Pointing Roll	349.715625	349.74931794947
[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)	192735905.184000	192735528.6727
Observation start date	2004-02-09T17:44:01	2004-02-09T17:38:48
[s] Observation end time (MET)	192736851.184000	192736985.19776
Observation end date	2004-02-09T17:59:47	2004-02-09T18:03:05

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

## 2.3 Aspect





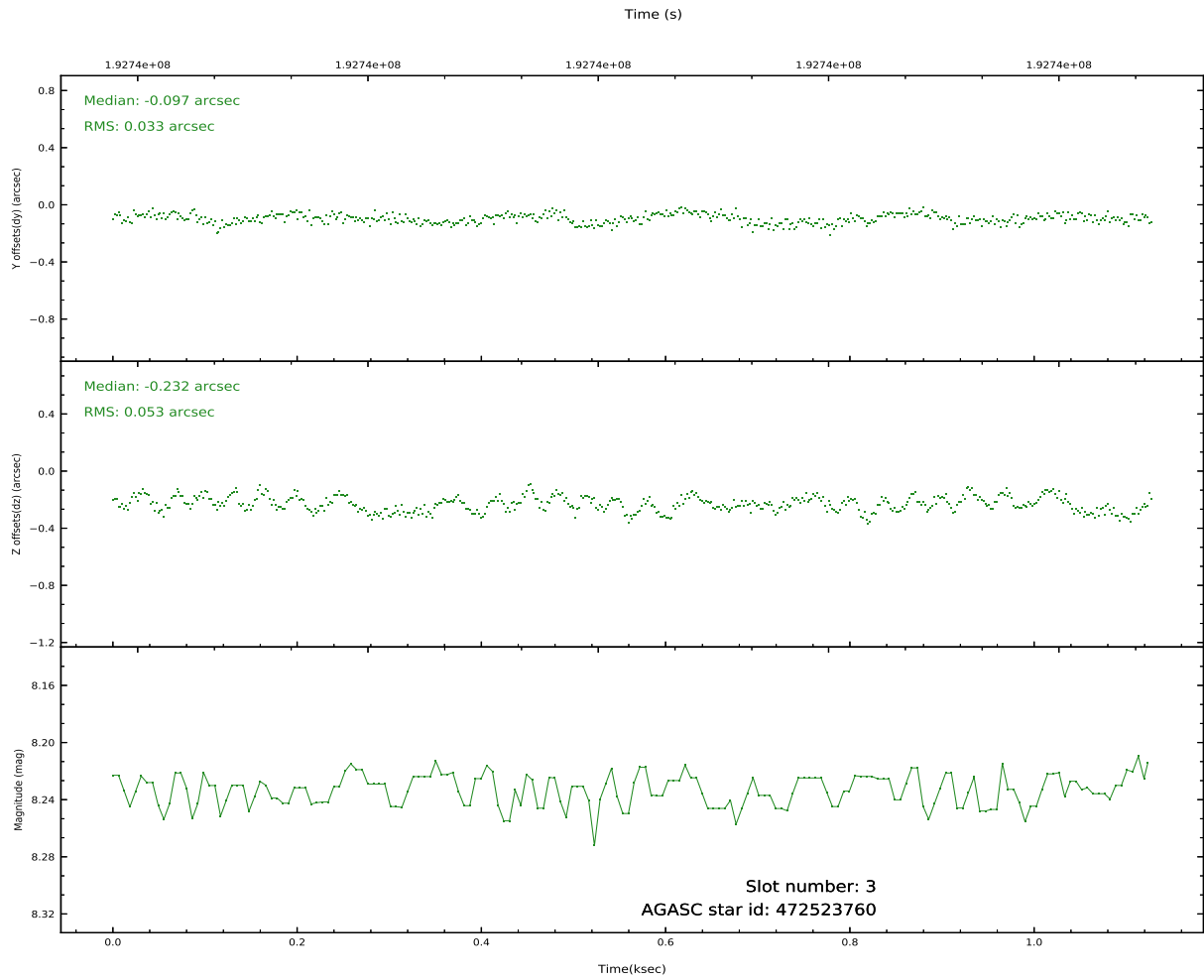
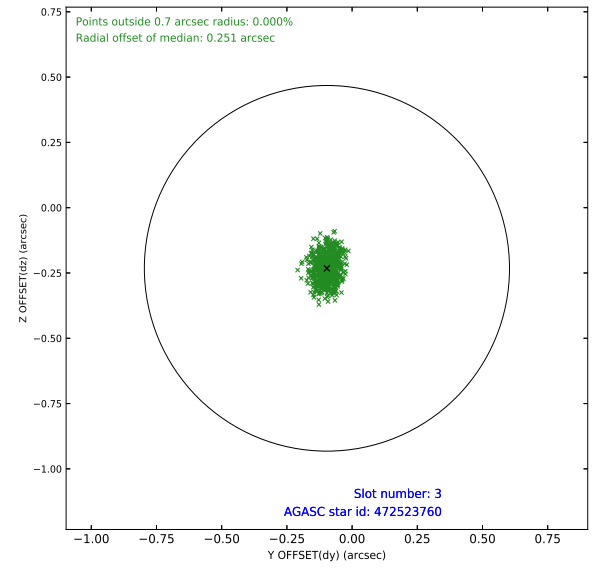
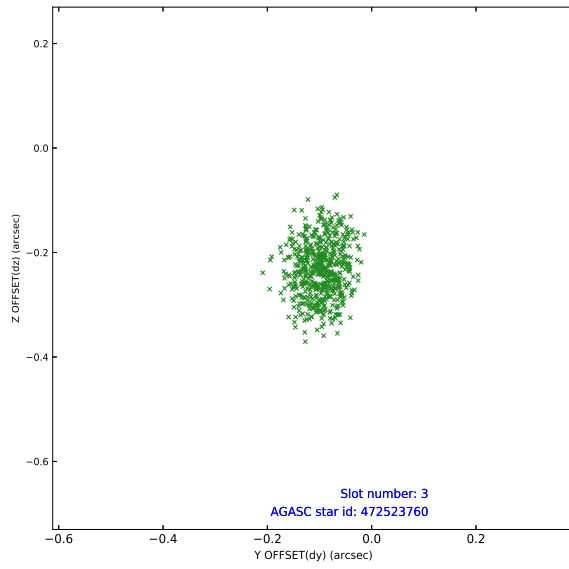
Slot Statistics

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	275	1.000	0.125	-0.178	0.007	0.011	0.000000	0.000000	-1162.22	-459
1	FID		HRC-S-2	7.03	275	1.000	0.163	-0.112	0.005	0.009	0.000000	0.000000	1233.27	-453
2	FID		HRC-S-3	7.04	275	1.000	0.103	-0.011	0.008	0.014	0.000000	0.000000	-1160.48	568
3	GUIDE	used	472523760	8.23	551	1.000	-0.097	-0.232	0.070	0.105	331.645363	45.403260	-654.32	-1381
4	GUIDE	used	472533912	9.17	550	1.000	-0.033	0.074	0.108	0.167	331.791136	46.368695	-904.89	2101
5	GUIDE	used	472654568	9.43	551	1.000	-0.045	0.020	0.113	0.183	332.194449	45.063576	931.44	-2333
6	GUIDE	used	472655152	9.43	551	1.000	0.126	0.025	0.089	0.144	332.504239	45.862991	1177.20	630
7	GUIDE	used	472659832	9.46	550	1.000	0.044	0.109	0.097	0.157	332.780399	46.098139	1698.30	1596

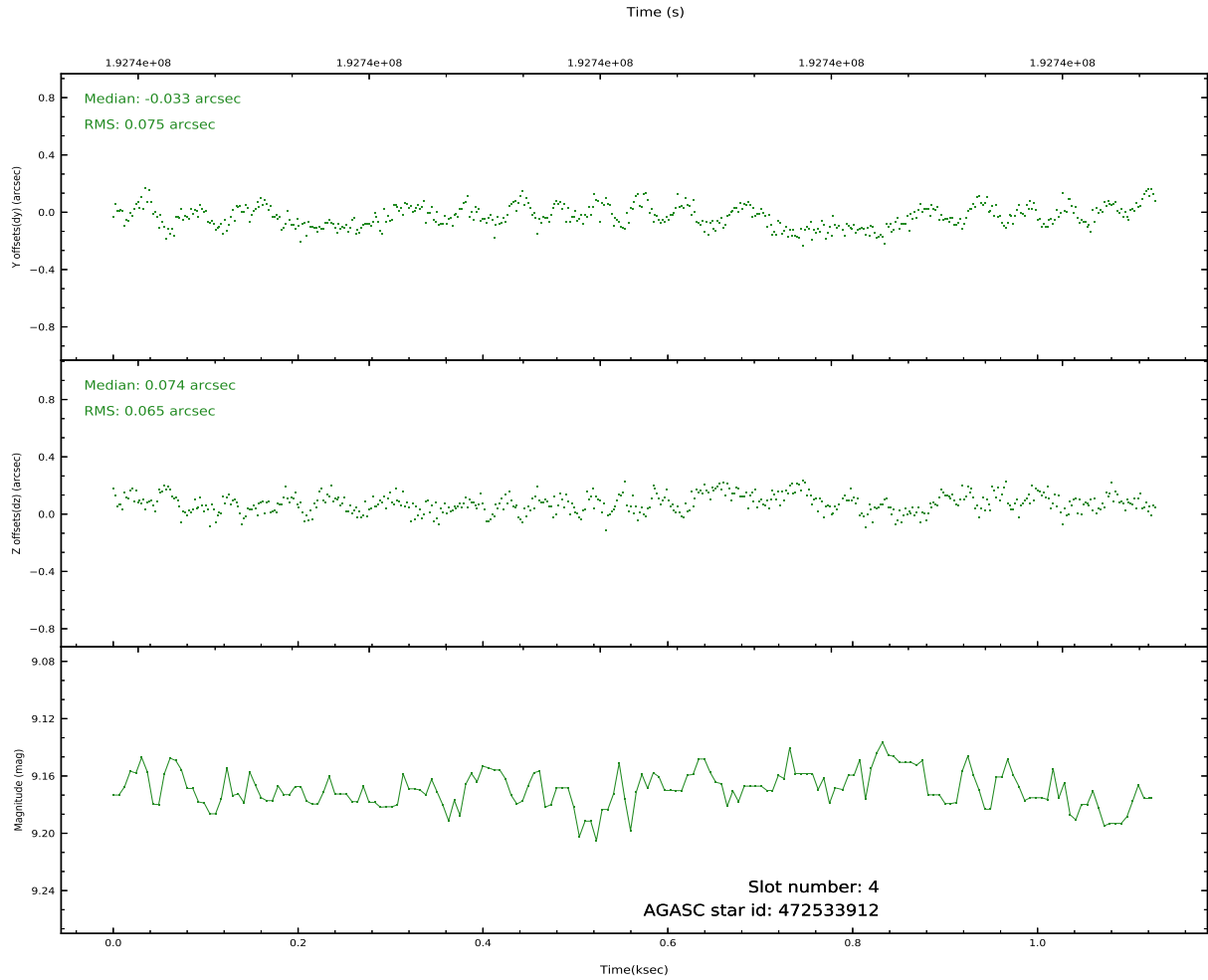
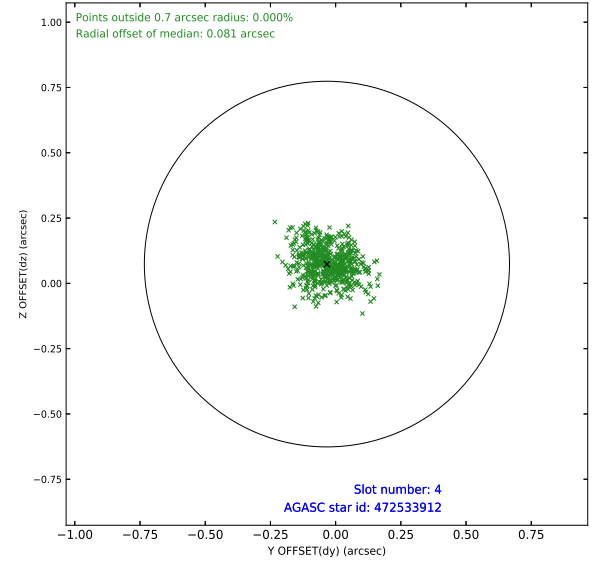
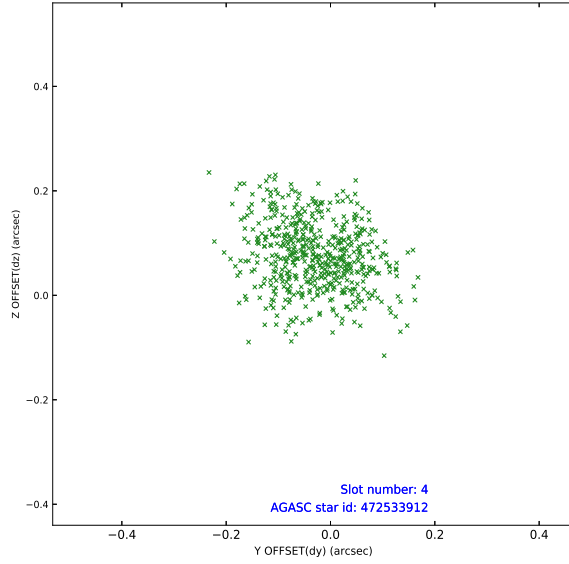


## 2.4 Star Slots

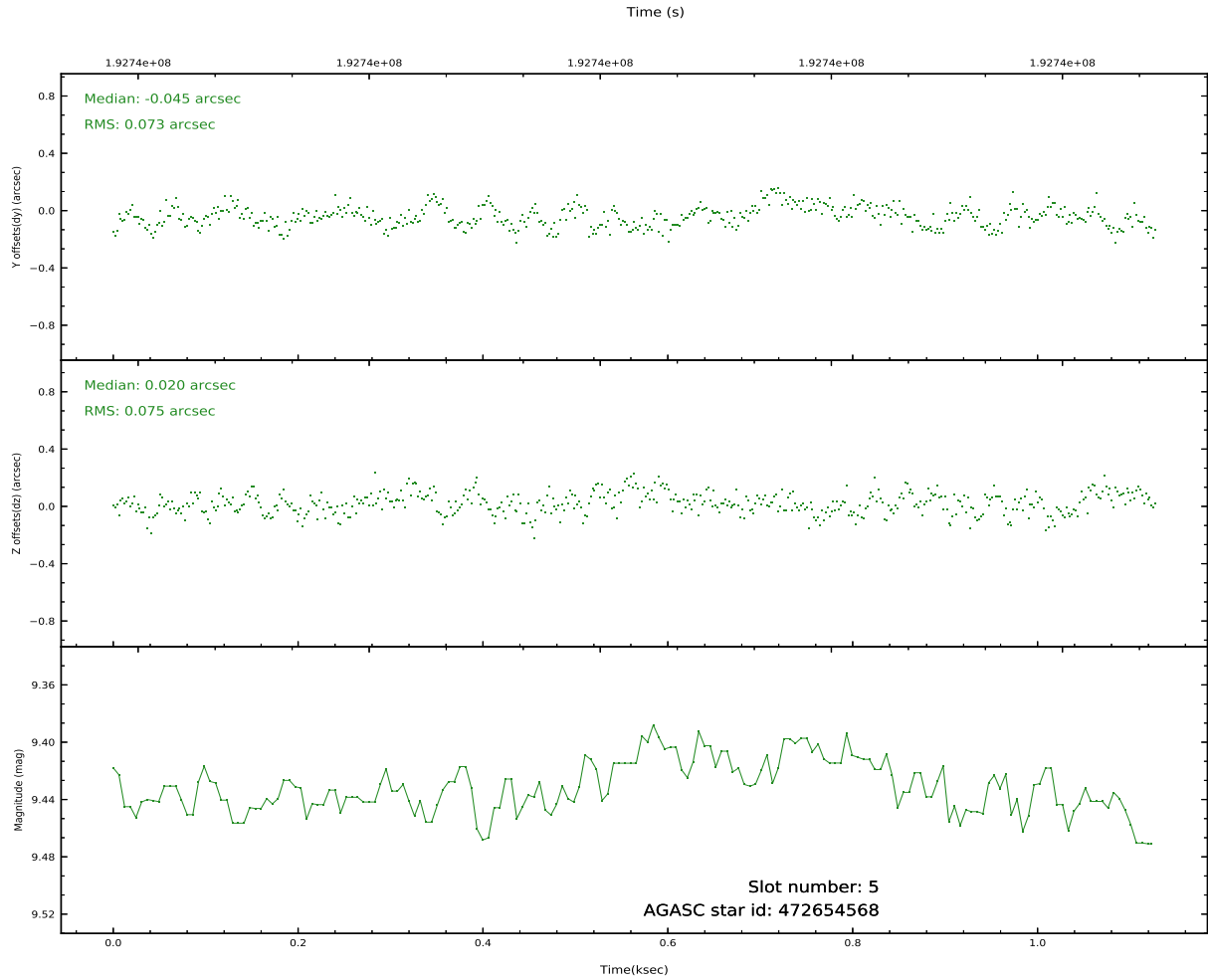
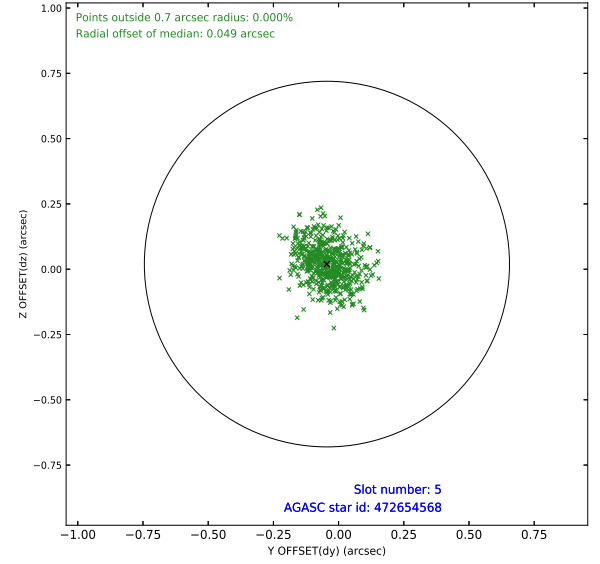
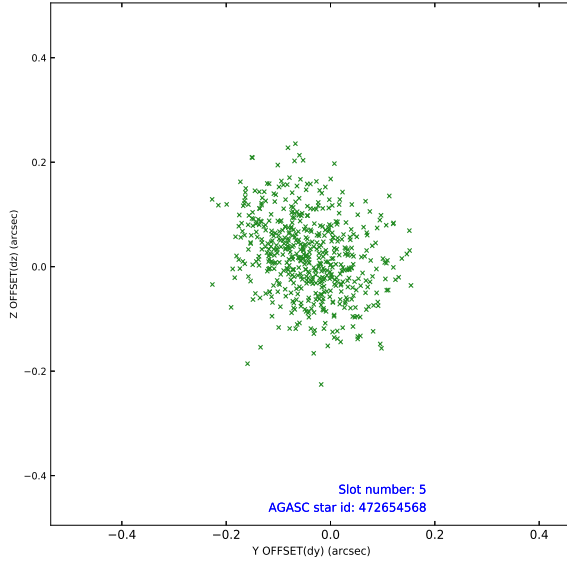
### 2.4.1 Slot 3



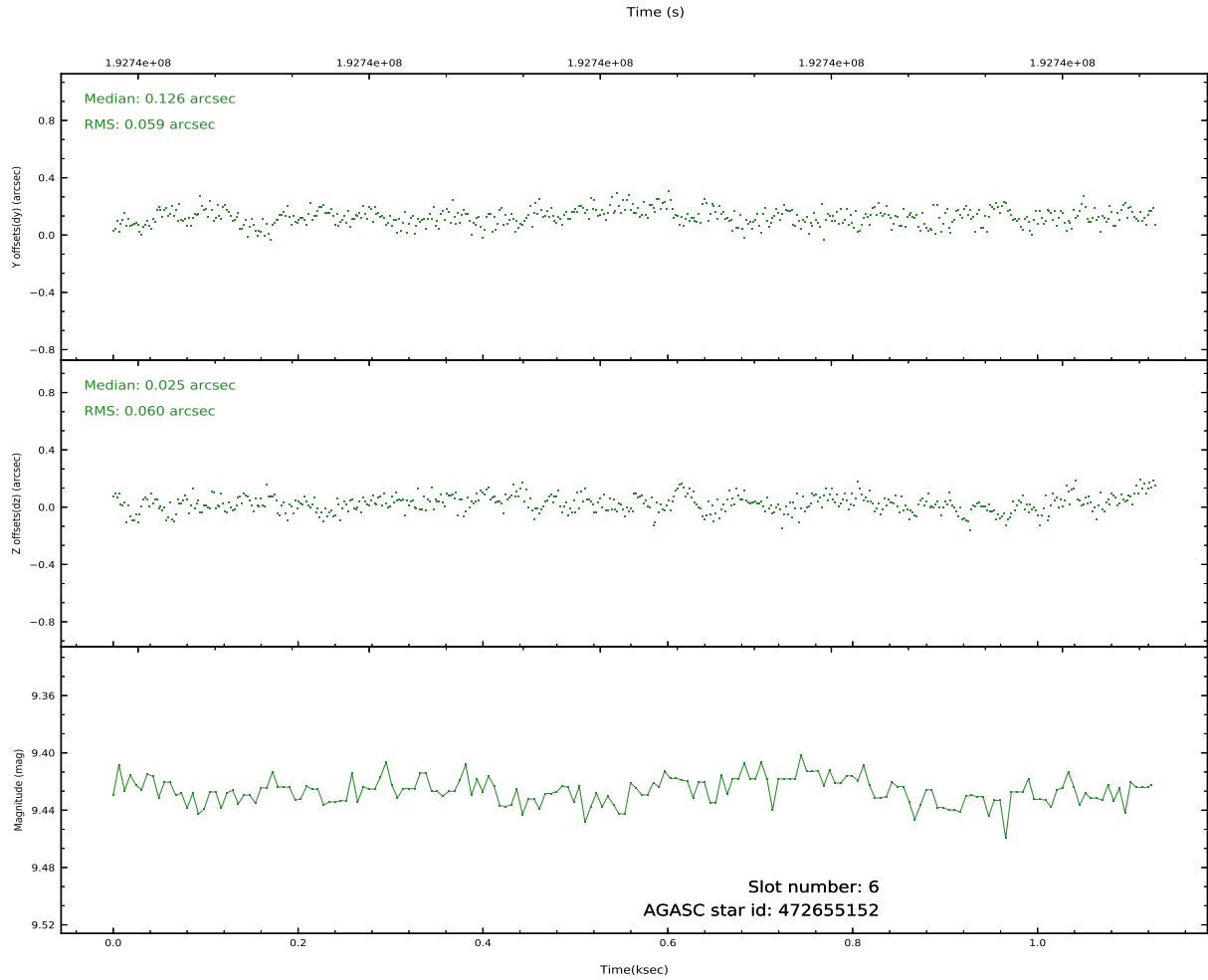
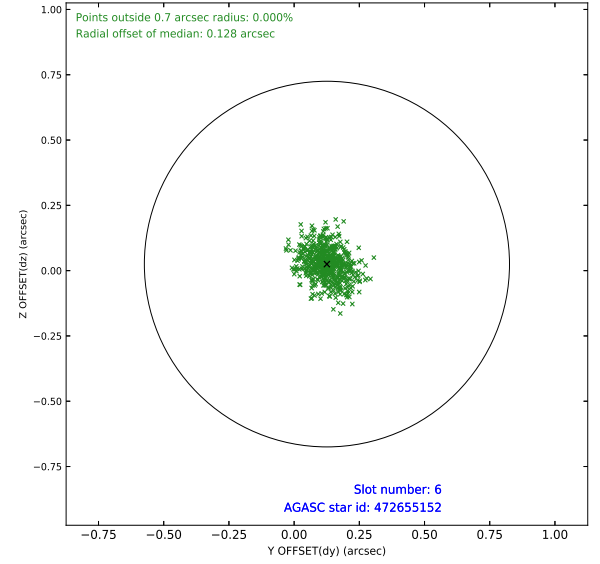
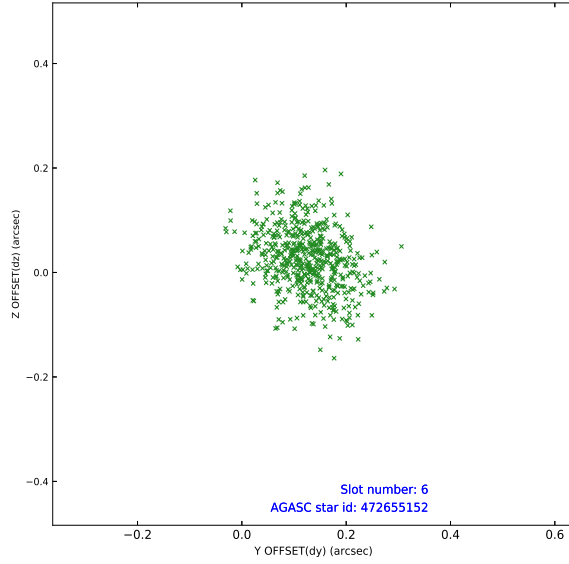
## 2.4.2 Slot 4



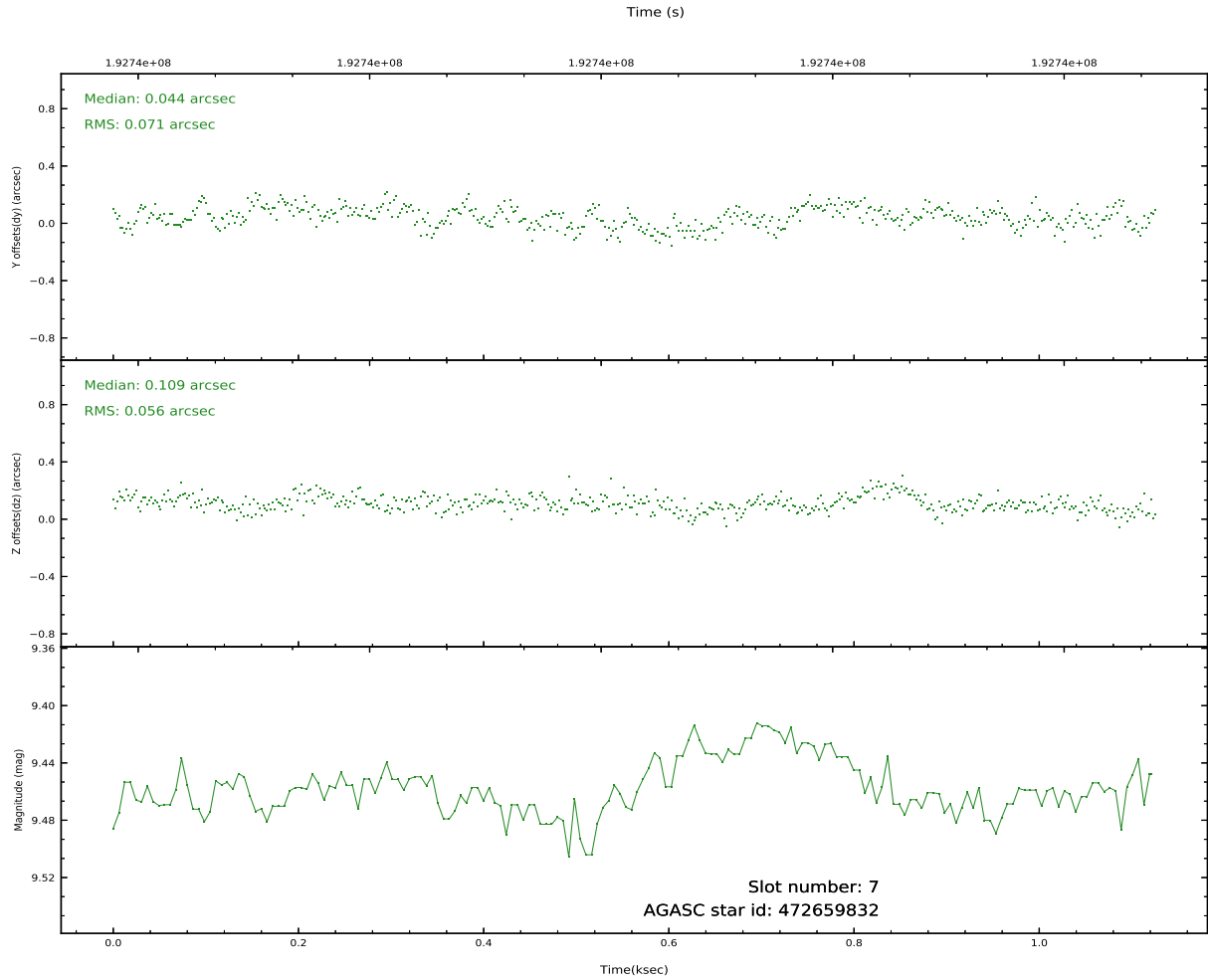
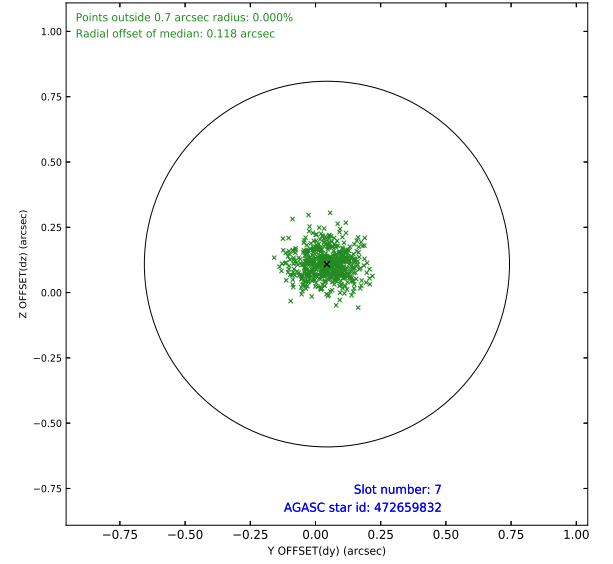
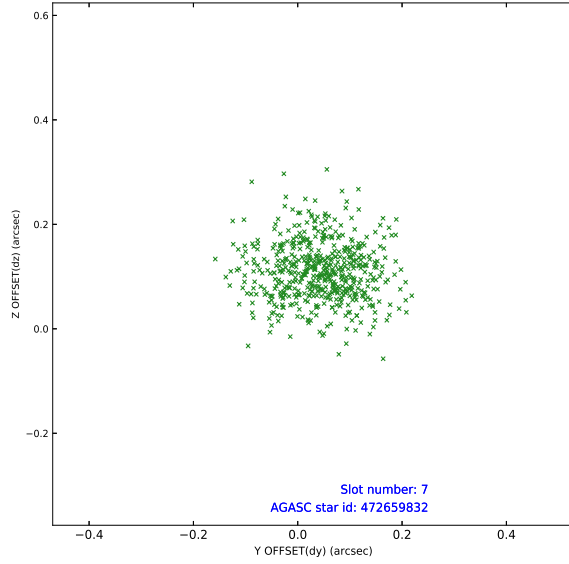
### 2.4.3 Slot 5



## 2.4.4 Slot 6

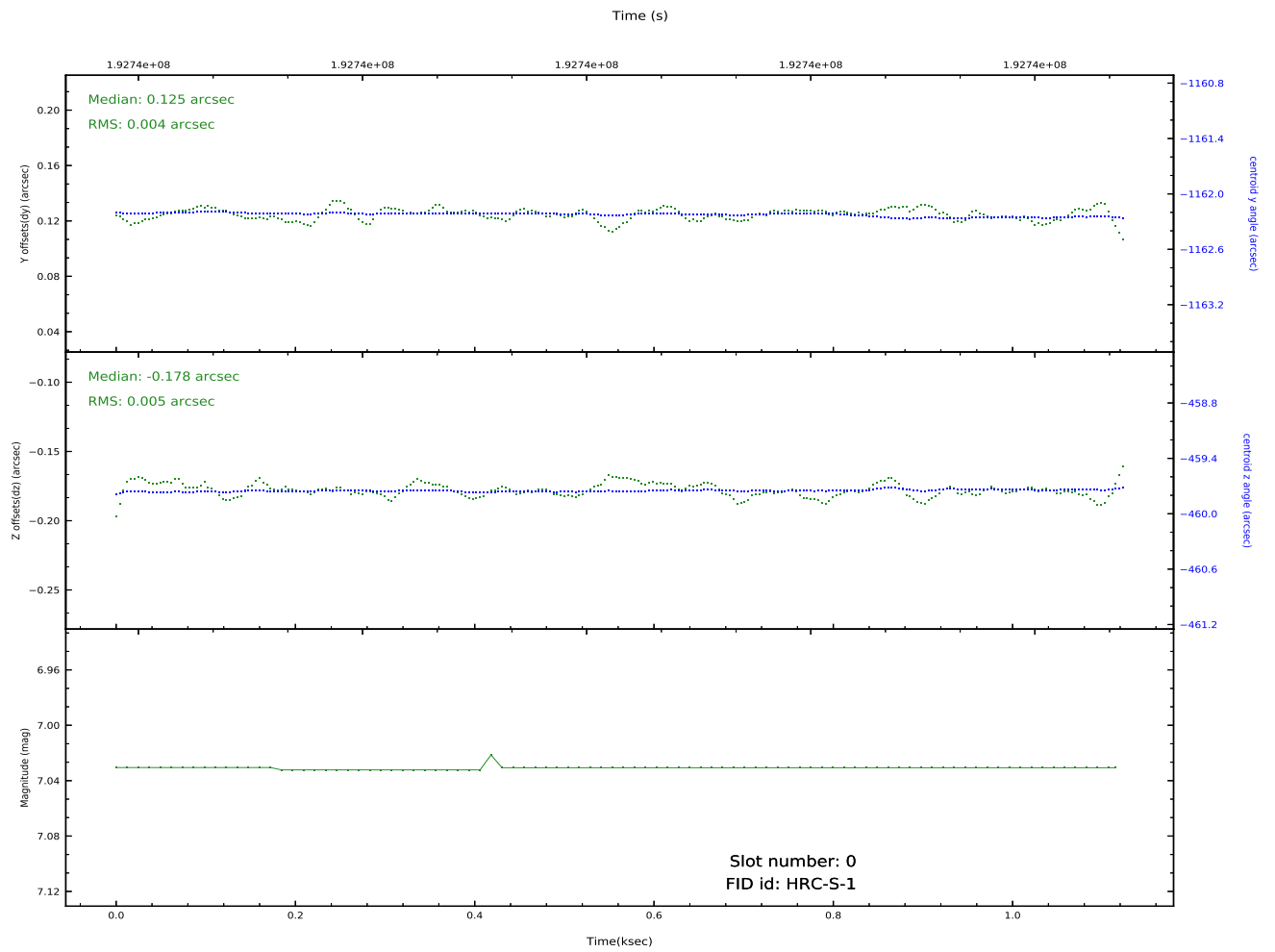
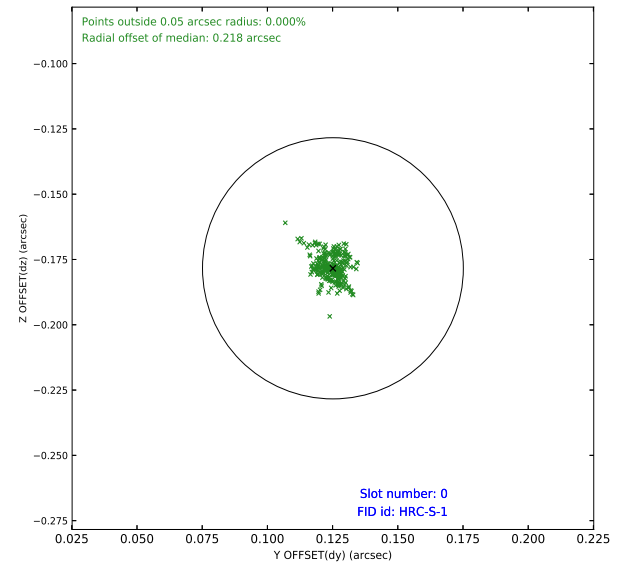
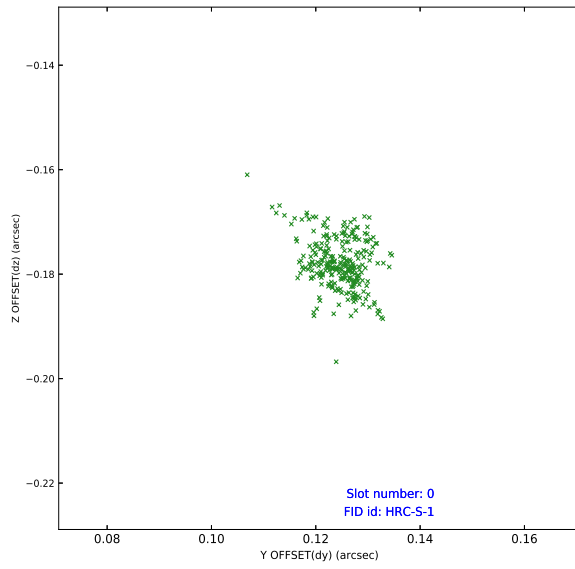


## 2.4.5 Slot 7

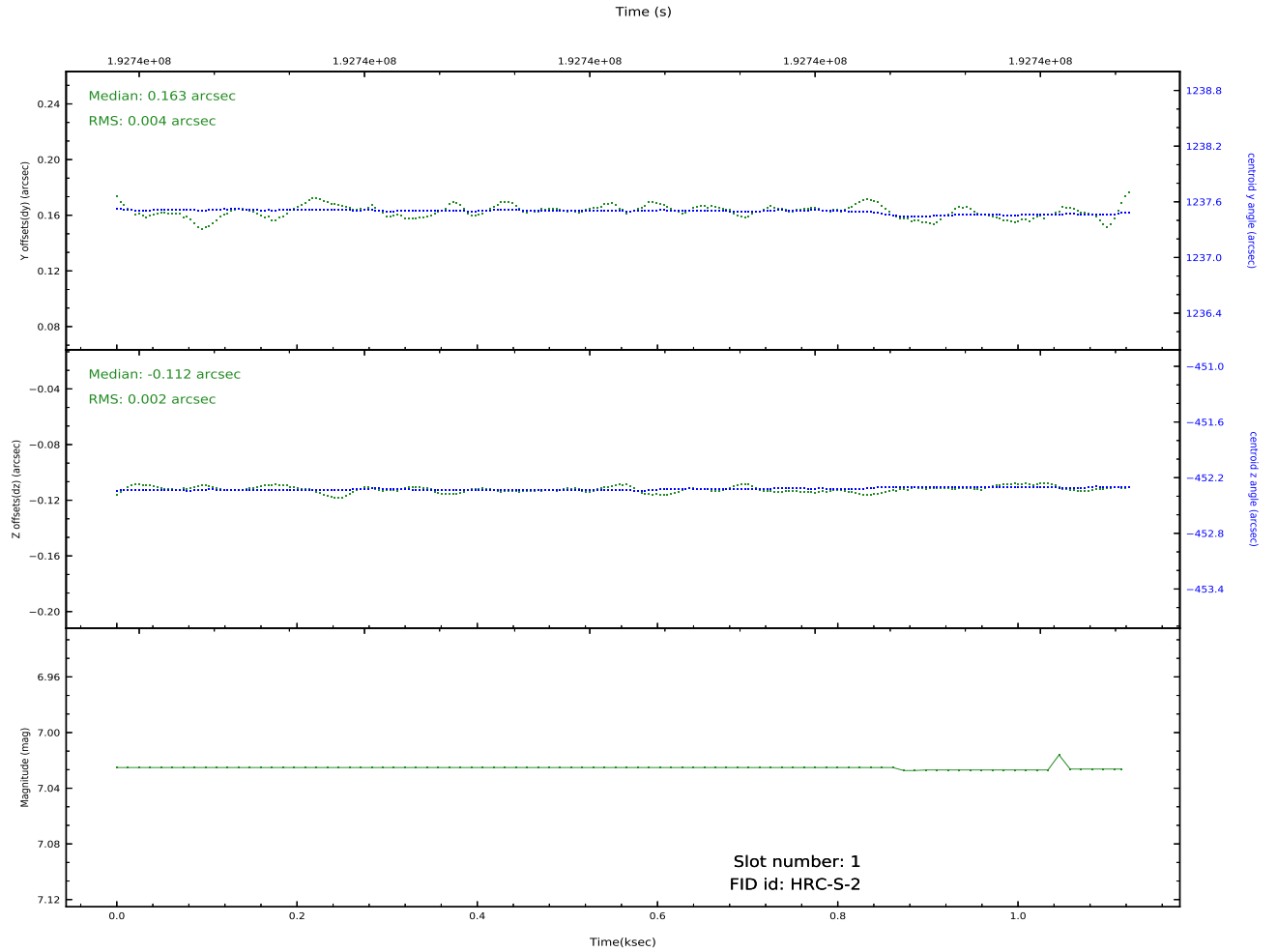
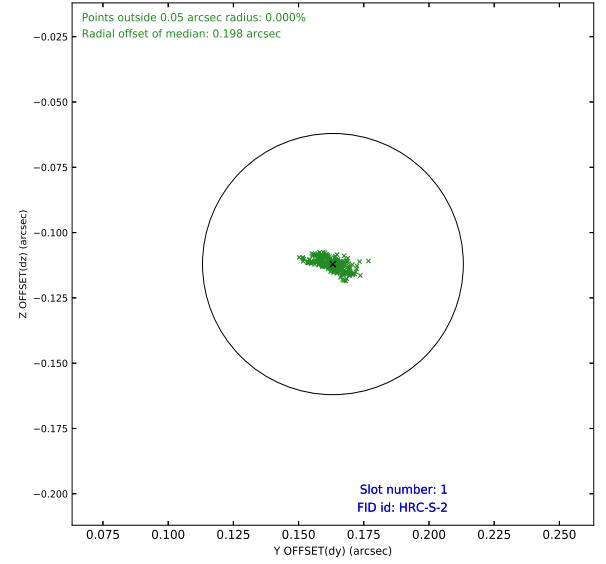
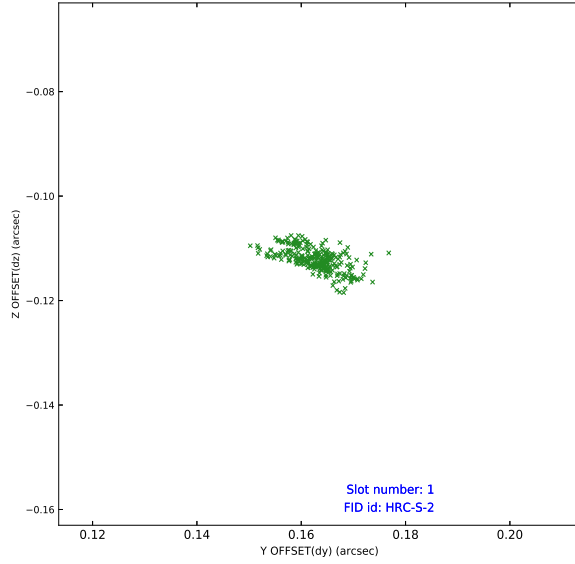


## 2.5 FID Slots

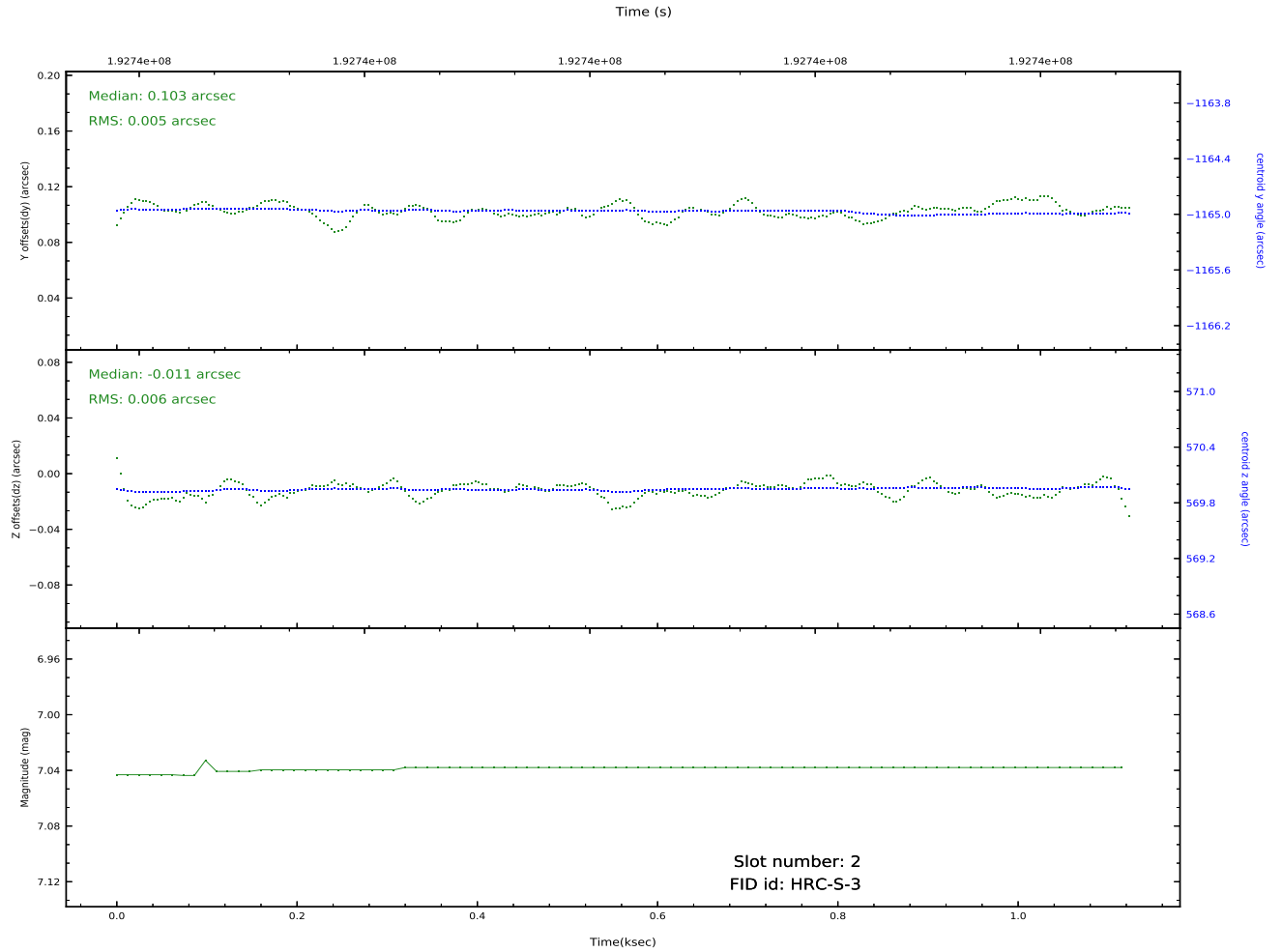
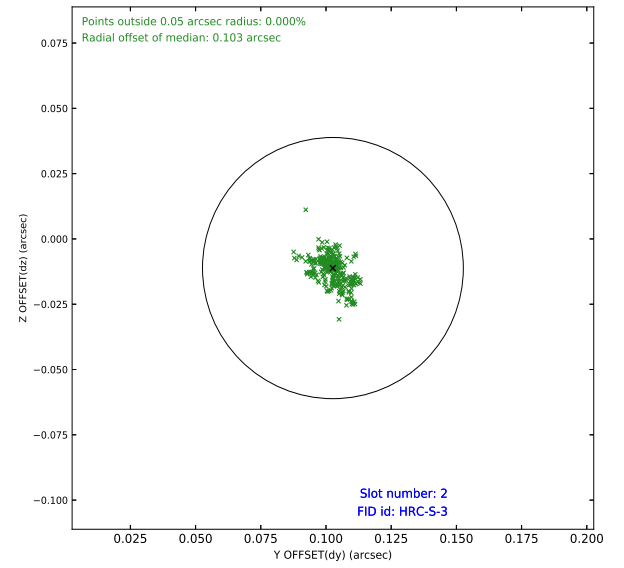
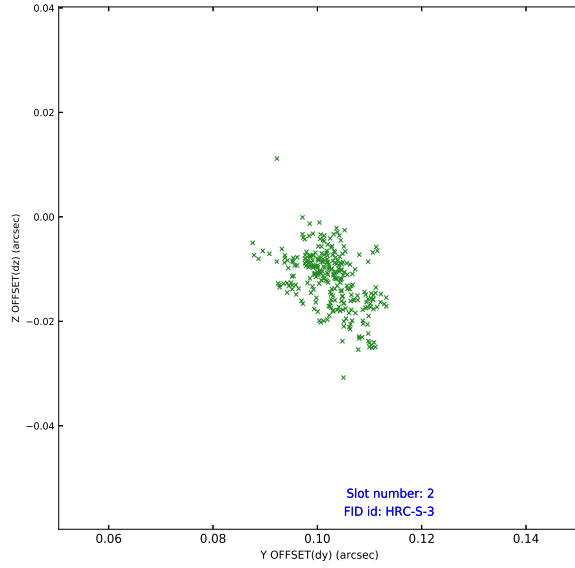
### 2.5.1 Slot 0



## 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)	2020.09.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.088

## 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.