

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5100 - L2 Version 4  
Chandra X-Ray Center

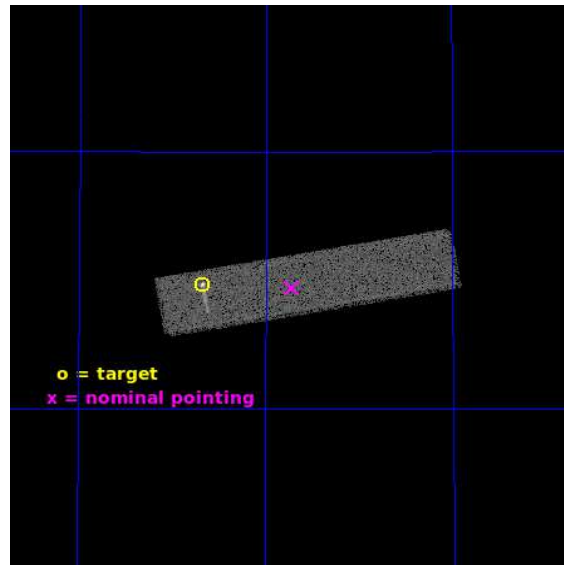
L2 Processing Date : Sep 23 2020

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# 1 Front

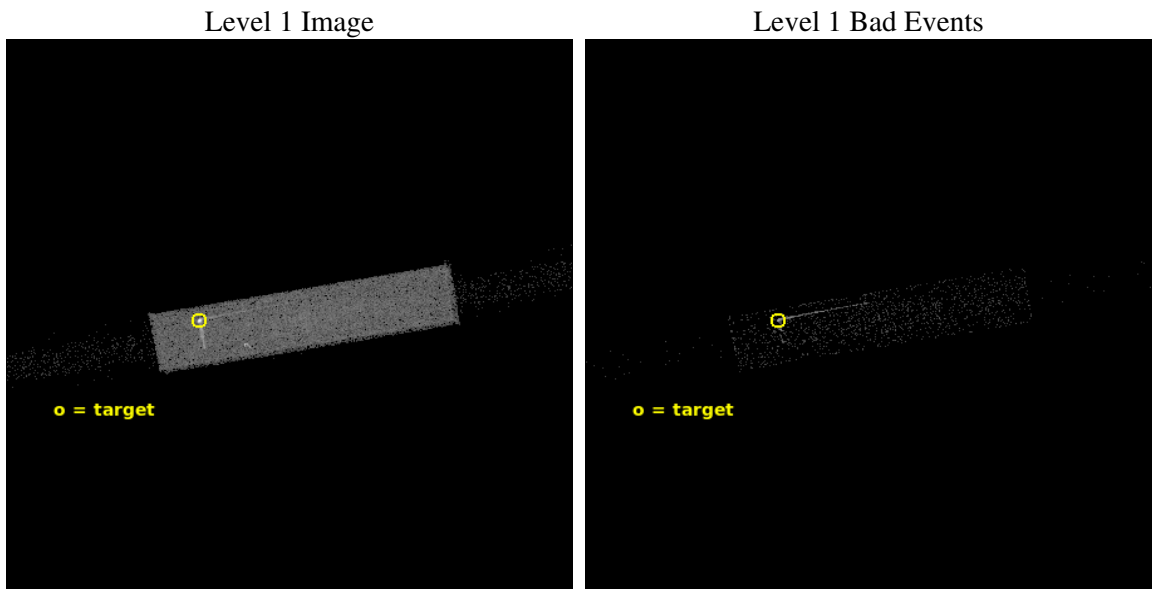
seq_num	290373	Sequence number
obs_id	5100	Observation id
title	AO5A Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain	Proposal title
observer	CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	331.92964739526	Nominal RA [deg]
dec_nom	45.736342320724	Nominal Dec [deg]
roll_nom	350.0009930321	Nominal Roll [deg]
revision	4	Processing version of data
ontime	1088.8062976301	[s]
livetime	1083.1980293261	Ontime multiplied by DTCOR
l2events	38001	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]
caldbver	4.9.2	&#160	l1events	65645	Number of level 1 events
date	2020-09-23T05:36:47	Date and time of file creation			
revision	4	Processing version of data			

### 2.1.3 Events

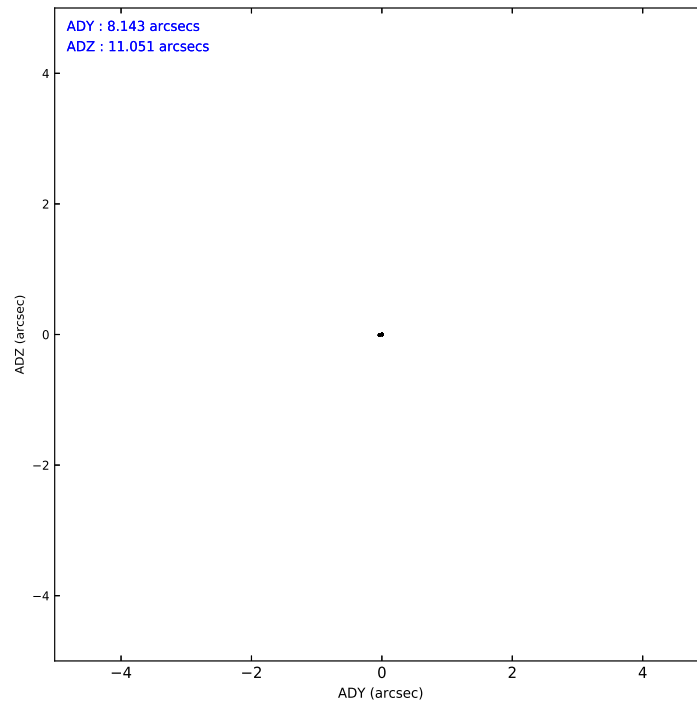
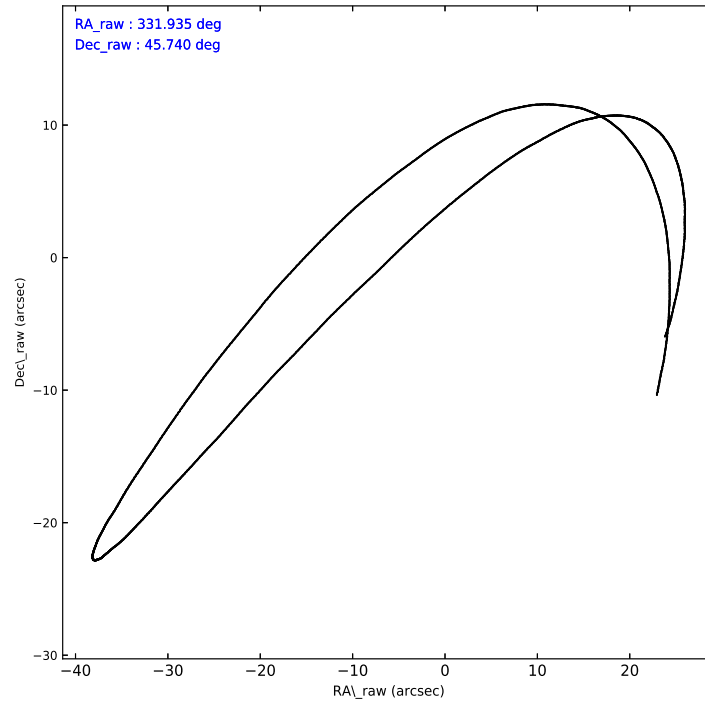
Level 1 Events

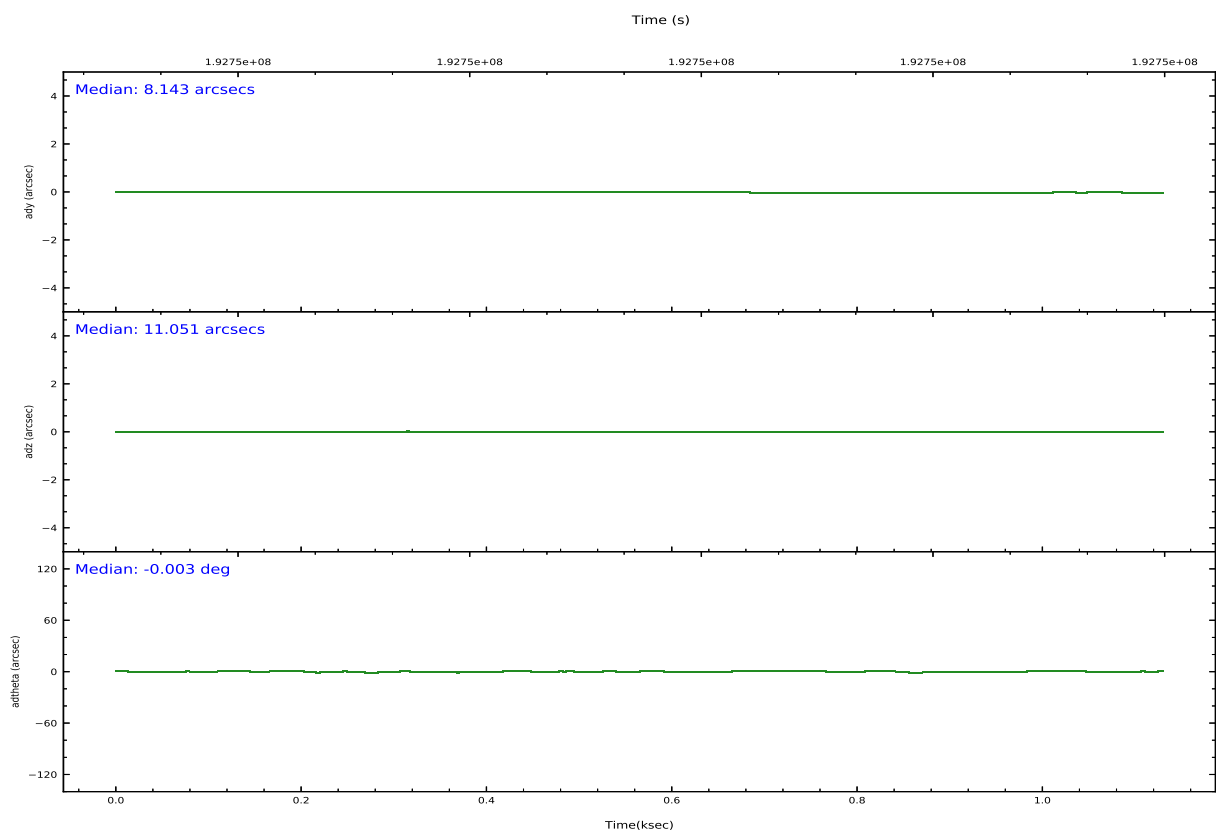
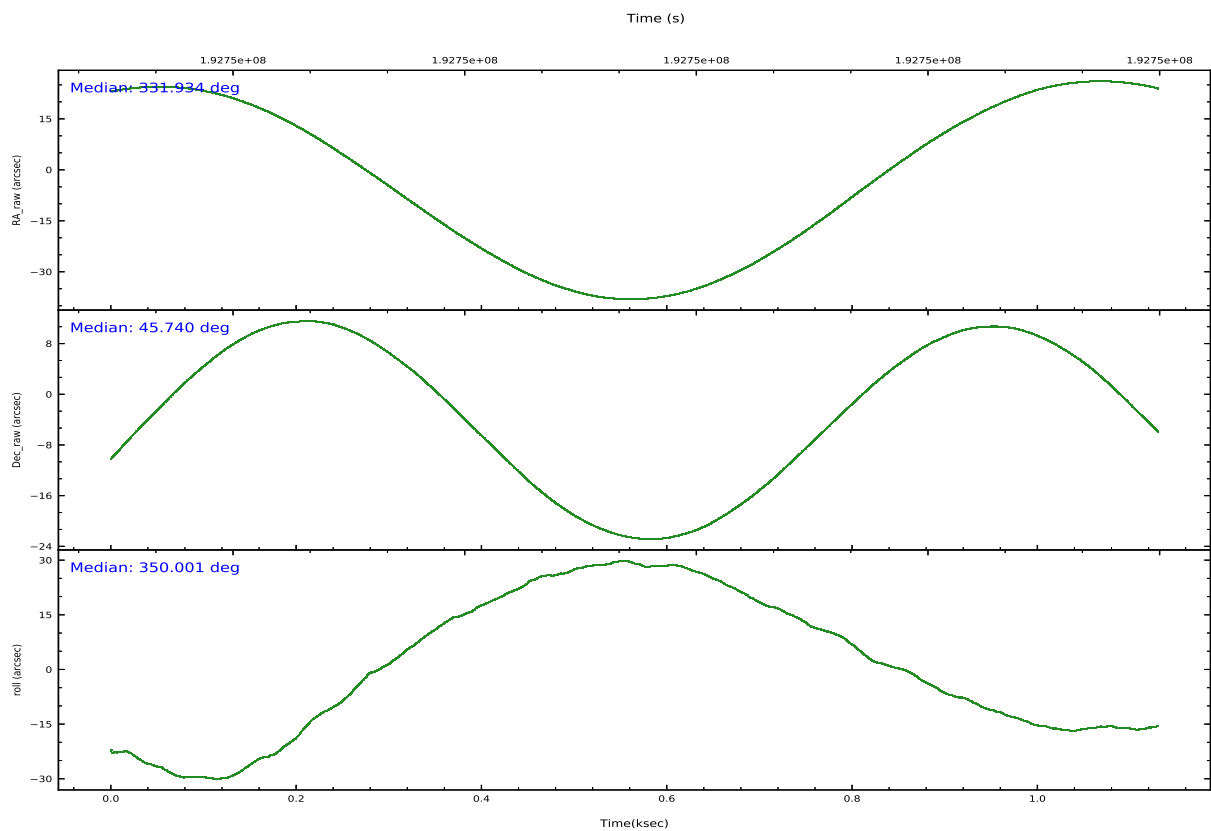
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	1064	63498	1083
rejected events	1064	15198	1083
rejected %	100%	23%	100%

## 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	331.895316	331.92964739526			
[deg] Pointing Dec	45.726791	45.736342320724			
[deg] Pointing Roll	349.965624	350.0009930321			
[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)	192747553.184000	192747176.77321			
Observation start date	2004-02-09T20:58:09	2004-02-09T20:52:56			
[s] Observation end time (MET)	192748499.184000	192748633.29827			
Observation end date	2004-02-09T21:13:55	2004-02-09T21:17:13			

## 2.3 Aspect





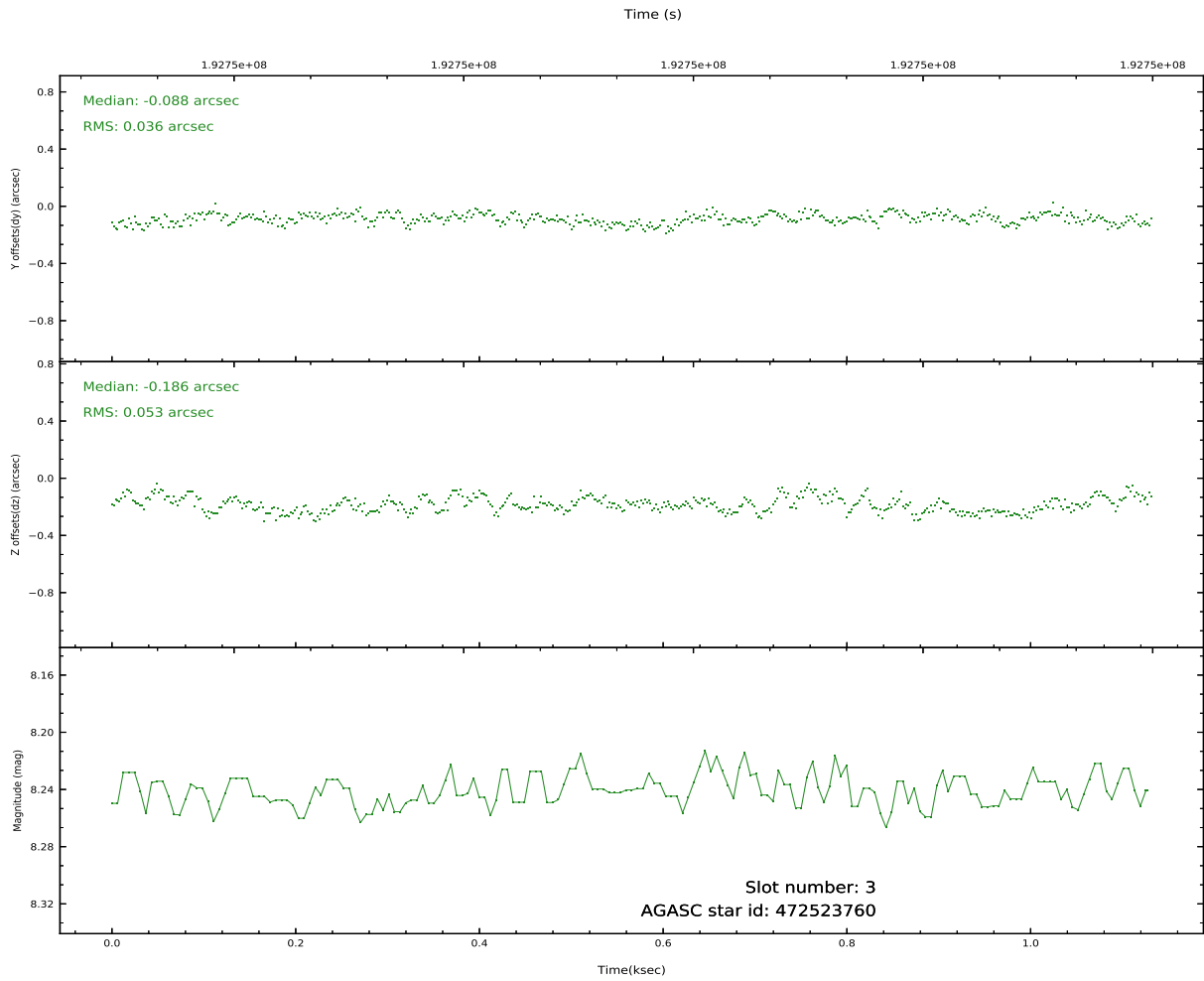
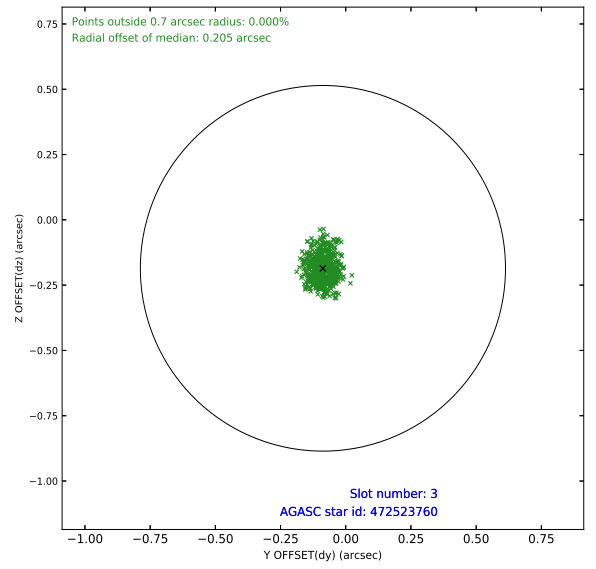
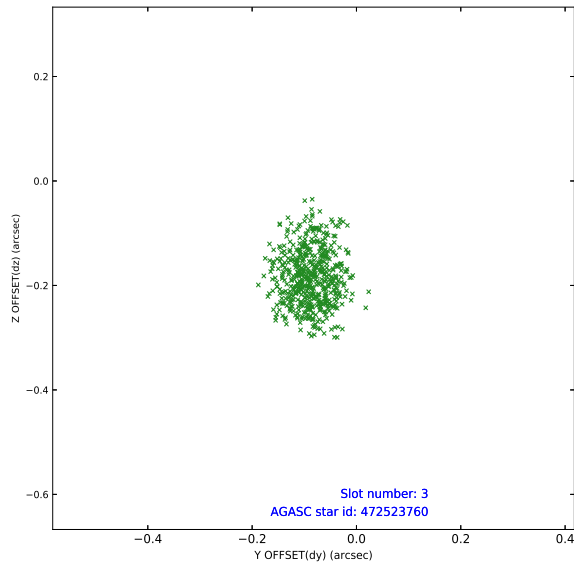
Slot Statistics

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	7.02	276	1.000	0.124	-0.177	0.006	0.011	0.000000	0.000000	-1162.31	-459
1	FID		HRC-S-2	7.01	276	1.000	0.163	-0.113	0.004	0.011	0.000000	0.000000	1233.20	-454
2	FID		HRC-S-3	7.03	276	1.000	0.102	-0.013	0.007	0.013	0.000000	0.000000	-1160.59	568
3	GUIDE	used	472523760	8.24	553	1.000	-0.088	-0.186	0.068	0.109	331.645363	45.403260	-419.91	-1260
4	GUIDE	used	472527720	6.99	553	1.000	-0.114	-0.138	0.060	0.095	331.460205	45.112509	-704.87	-2374
5	GUIDE	used	472533912	9.17	553	1.000	0.008	0.059	0.101	0.165	331.791136	46.368695	-659.72	2222
6	GUIDE	used	472655152	9.43	553	1.000	0.146	0.085	0.096	0.158	332.504239	45.862991	1415.03	754
7	GUIDE	used	472659832	9.47	552	1.000	0.056	0.173	0.102	0.161	332.780399	46.098139	1942.46	1711

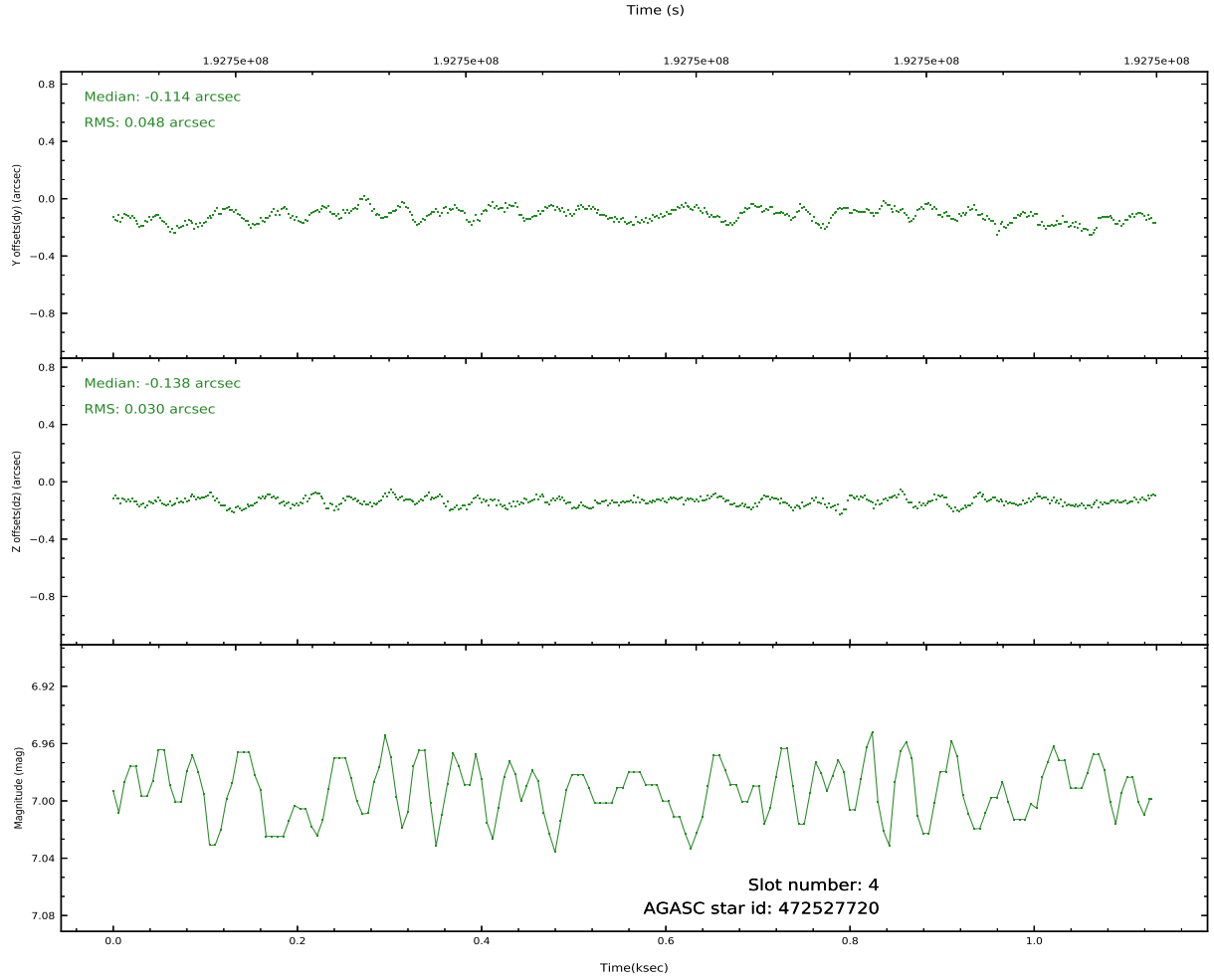
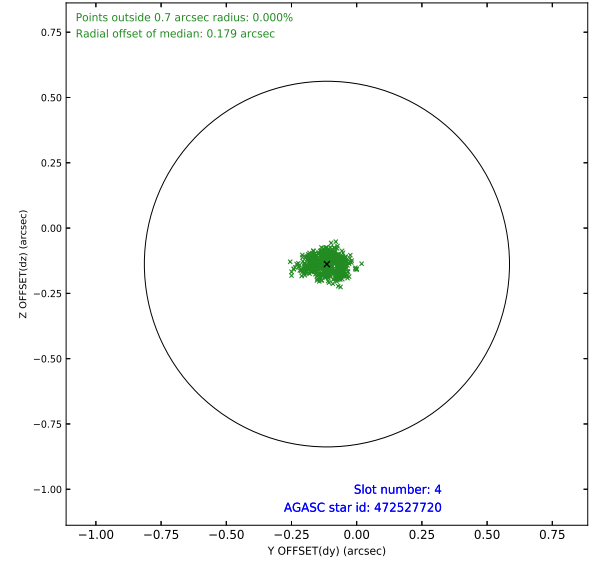
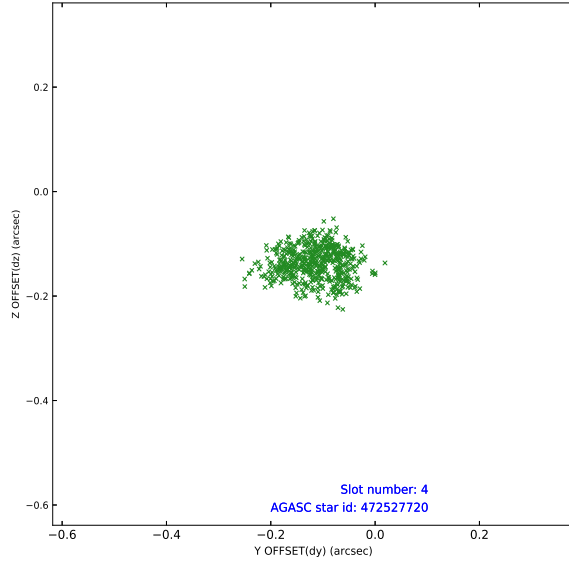


## 2.4 Star Slots

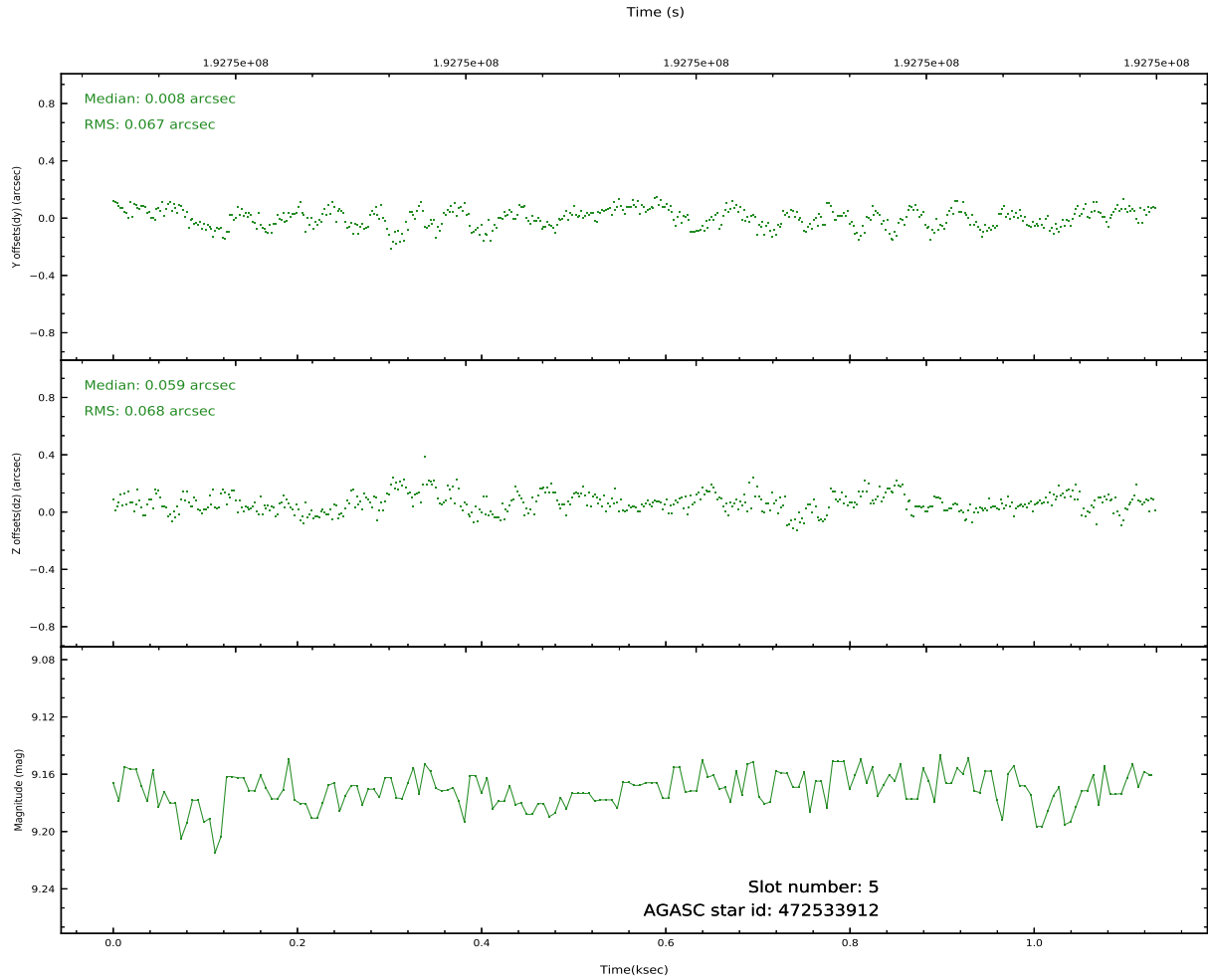
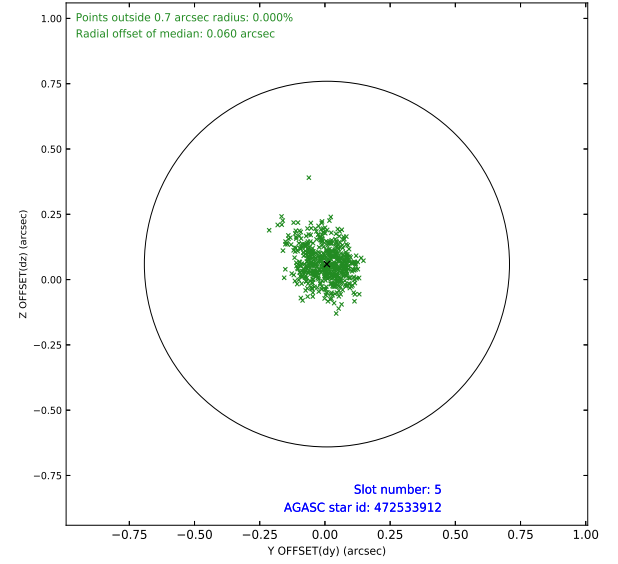
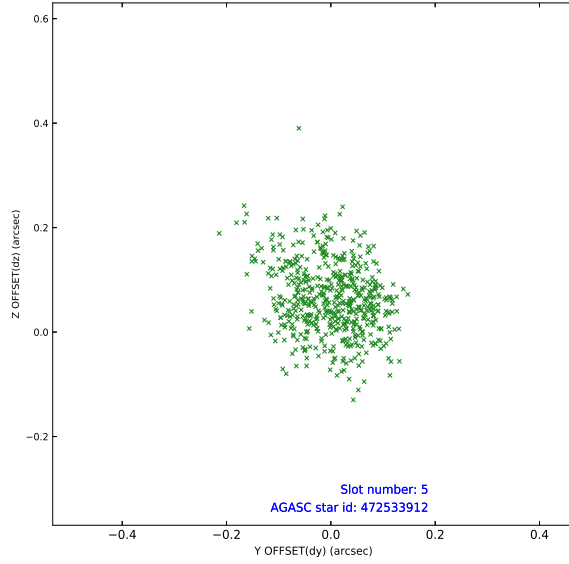
### 2.4.1 Slot 3



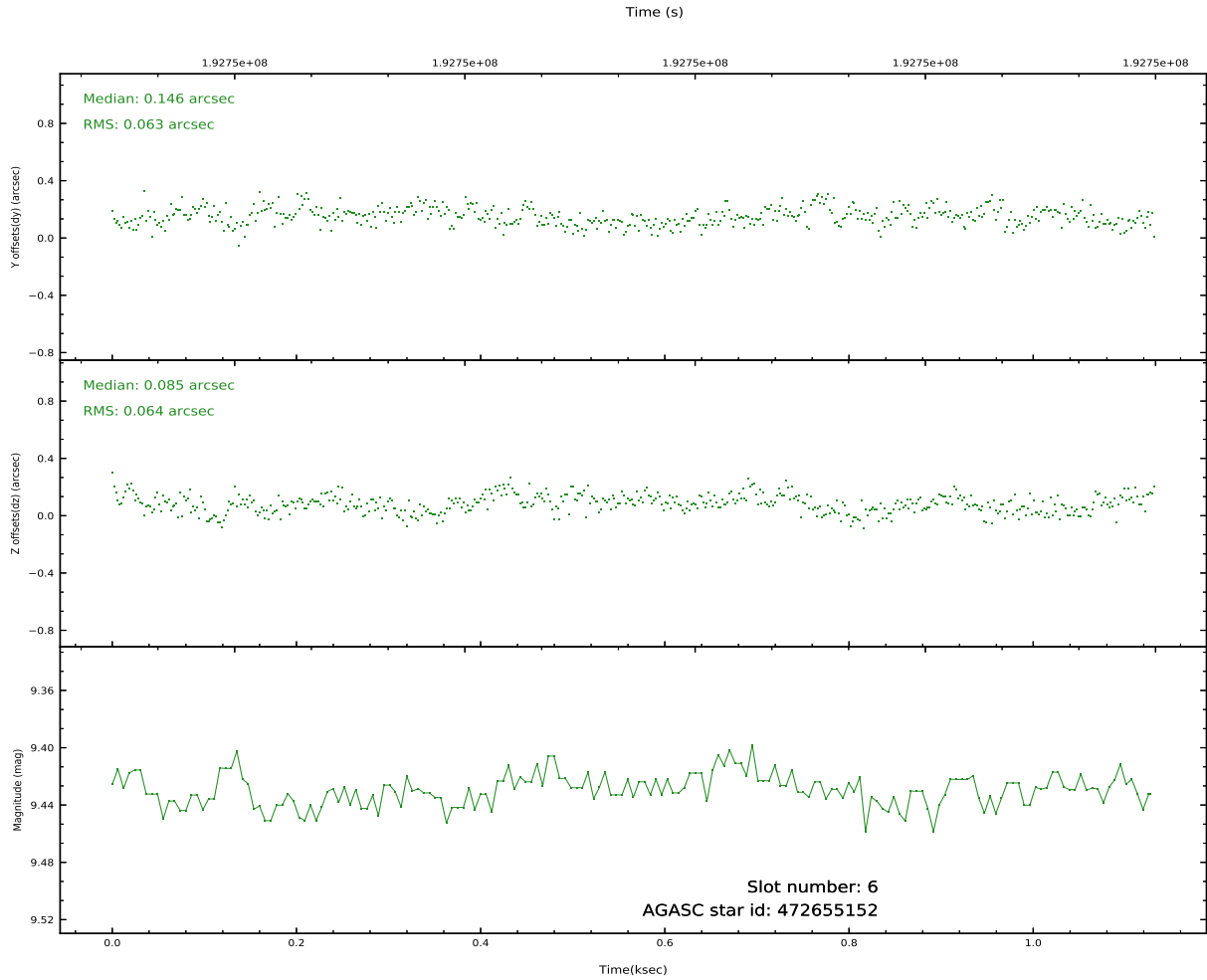
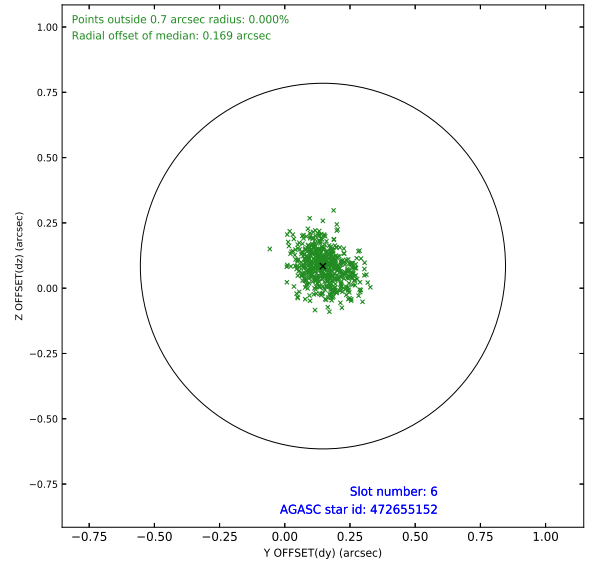
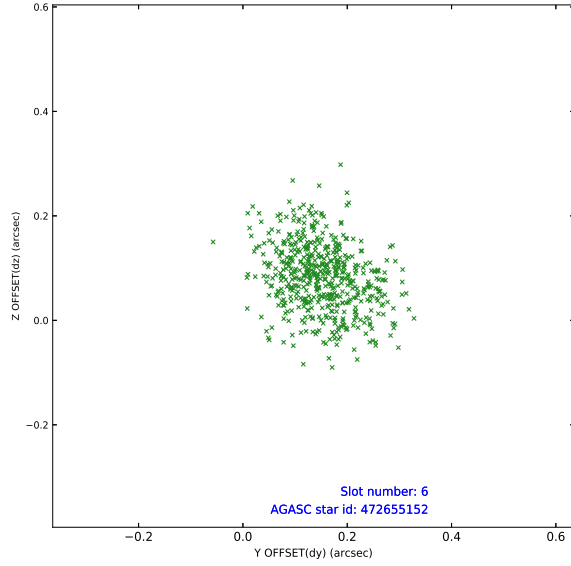
## 2.4.2 Slot 4



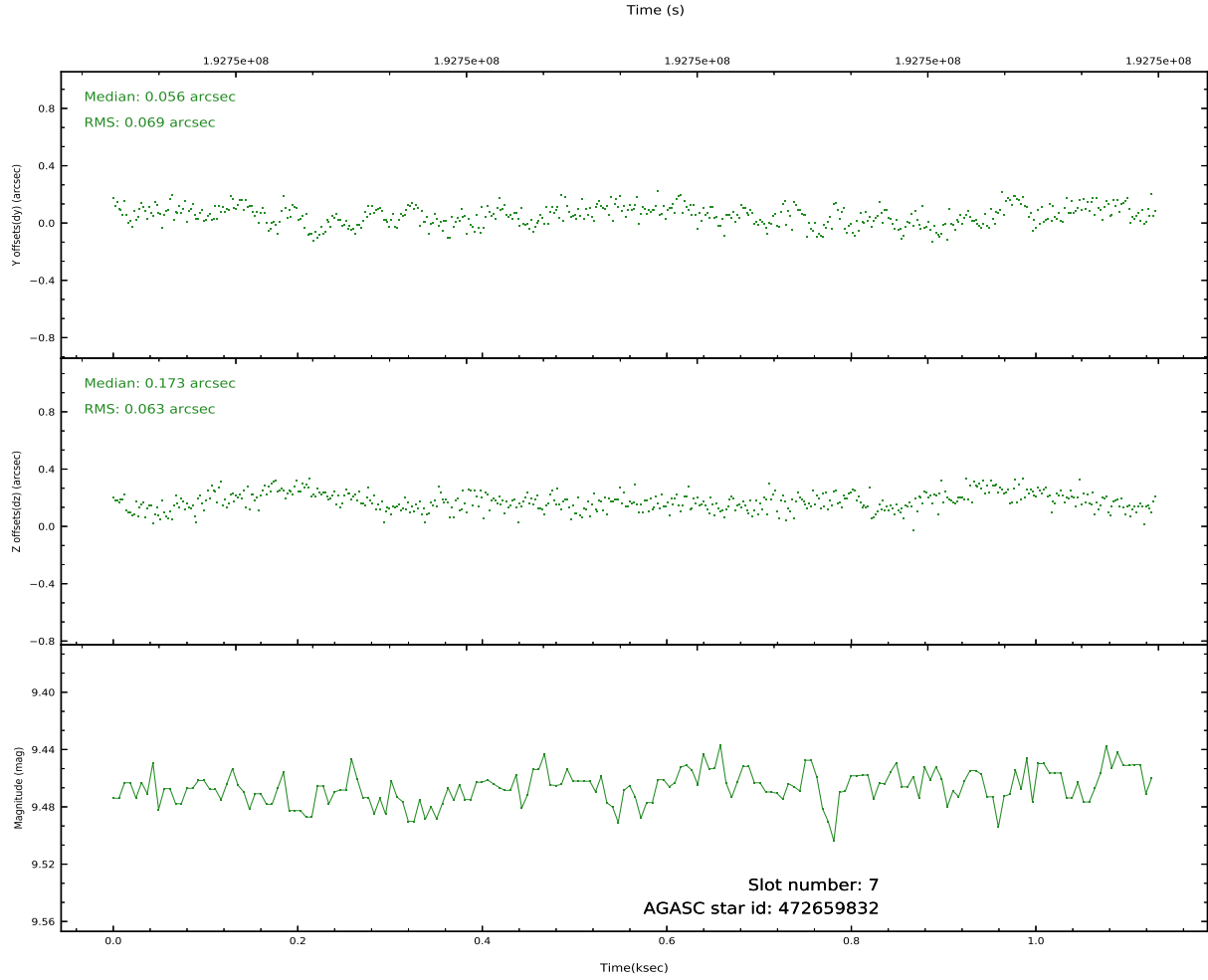
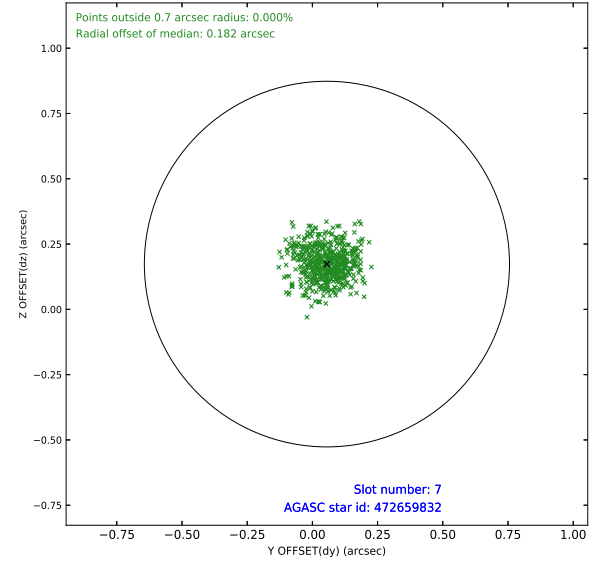
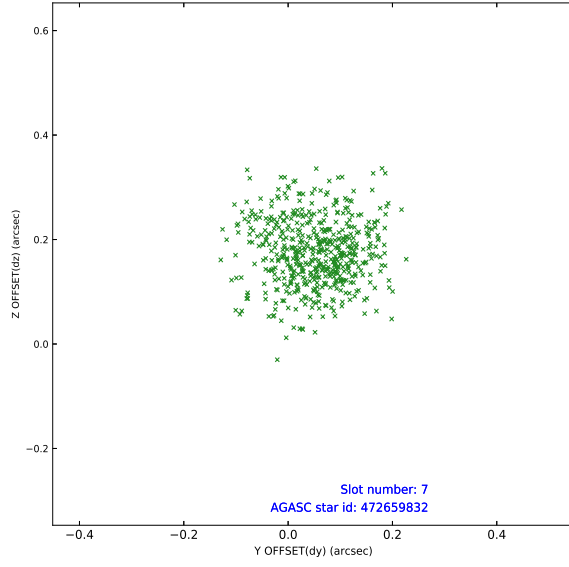
### 2.4.3 Slot 5



## 2.4.4 Slot 6

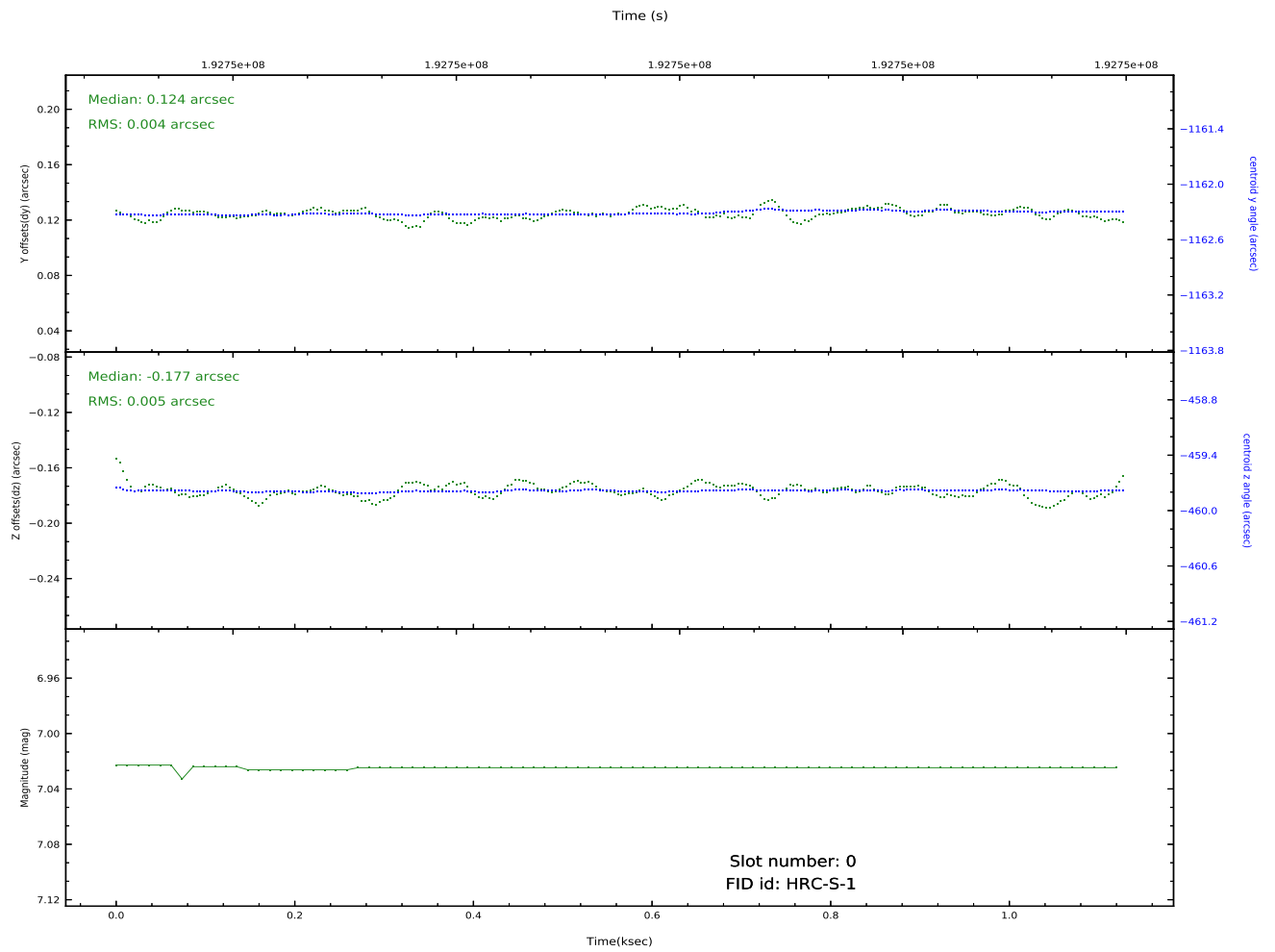
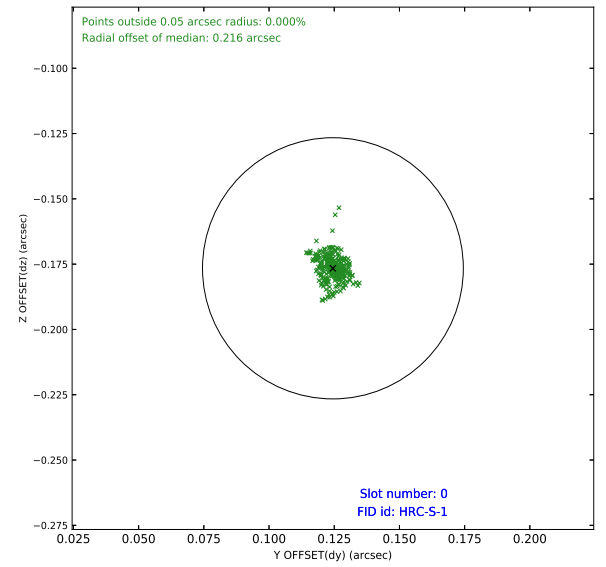
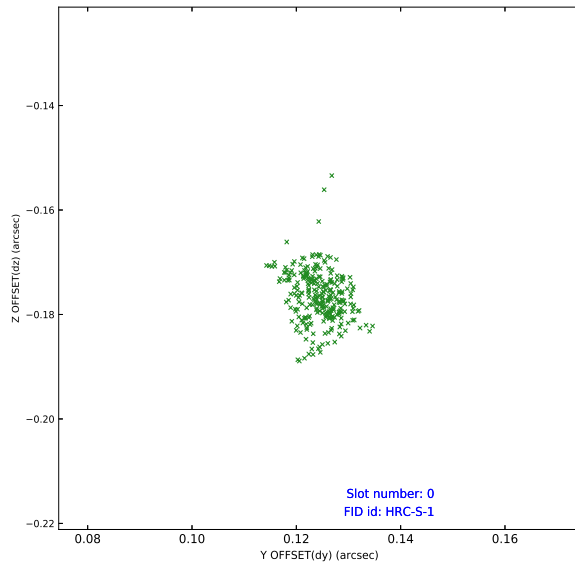


## 2.4.5 Slot 7

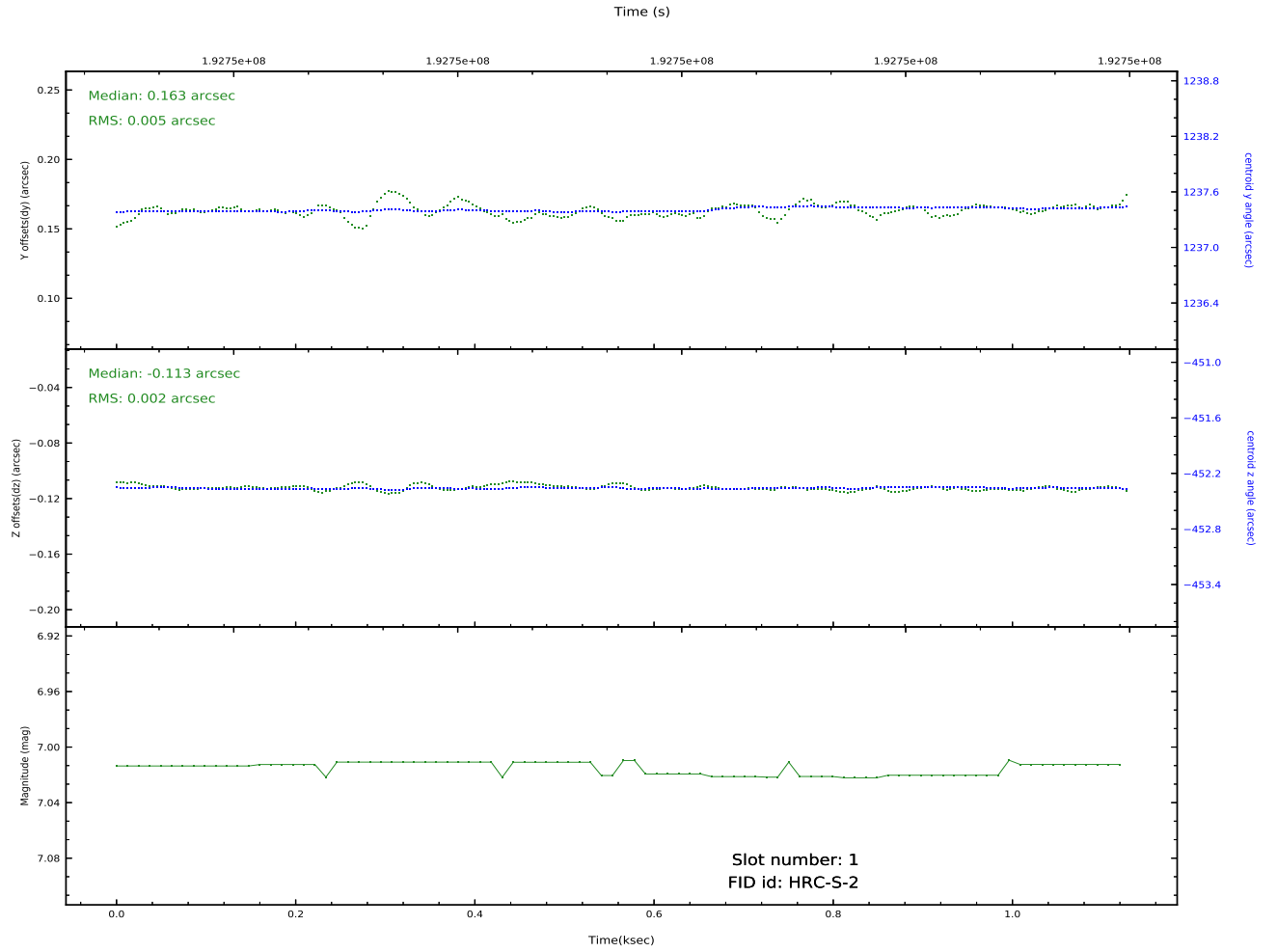
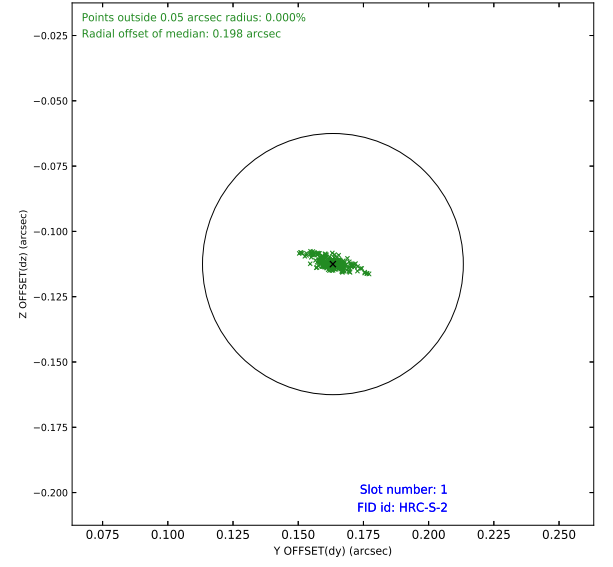
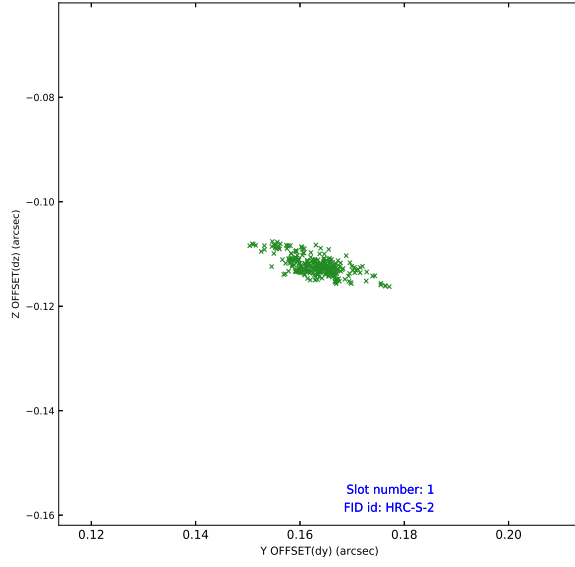


## 2.5 FID Slots

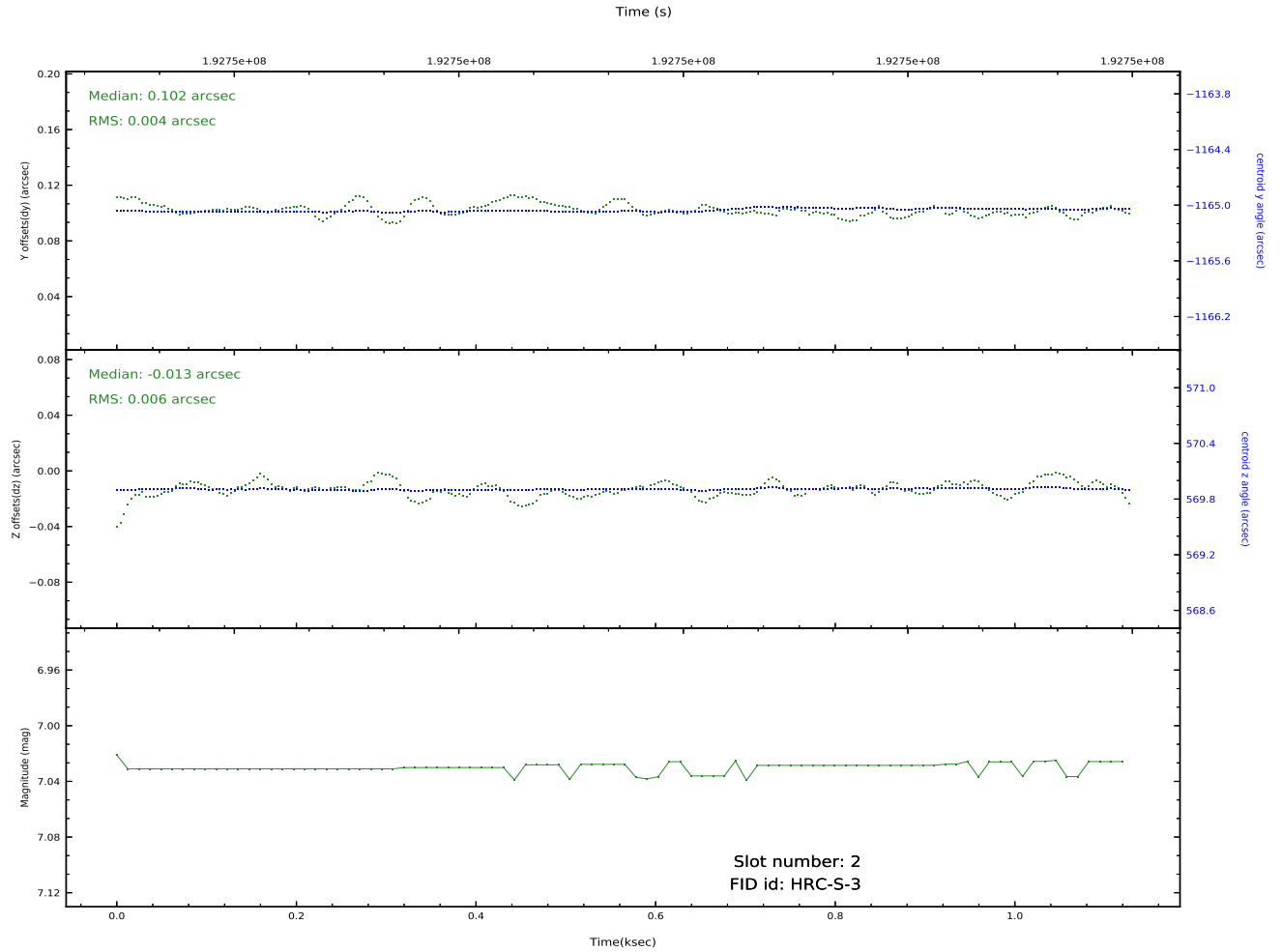
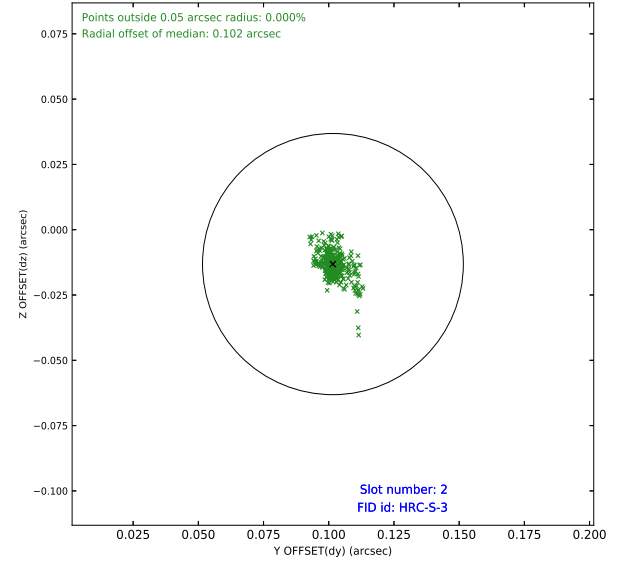
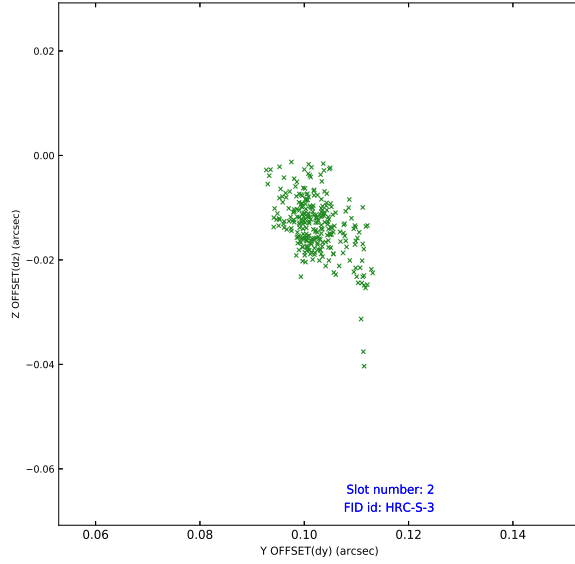
### 2.5.1 Slot 0



## 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)	2020.09.23
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.