

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5172 - L2 Version 4  
Chandra X-Ray Center

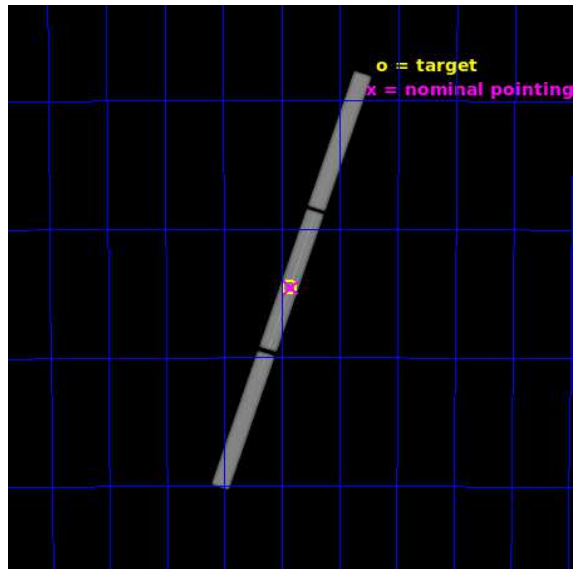
L2 Processing Date : Oct 5 2020

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# 1 Front

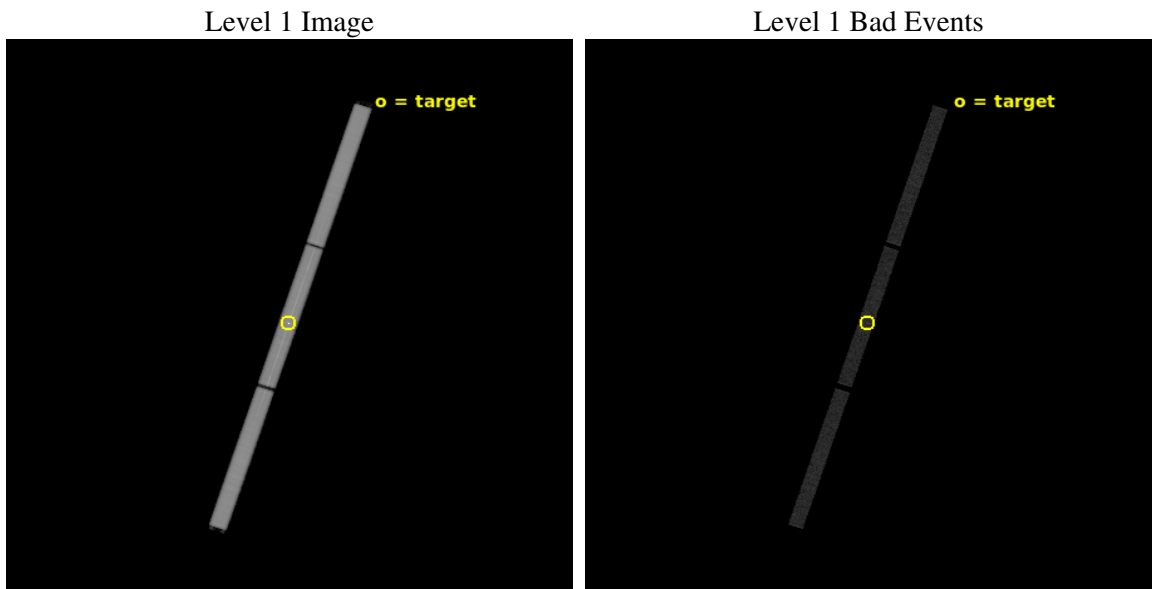
seq_num	790092	Sequence number
obs_id	5172	Observation id
title	AO5 Calibration Observations of PKS2155-304	Proposal title
observer	CXC Calibration	Principal investigator
object	PKS2155-304	Source name
ra_targ	329.716667	Observer's specified target RA [deg]
dec_targ	-30.225556	Observer's specified target Dec [deg]
ra_nom	329.71413490108	Nominal RA [deg]
dec_nom	-30.228965327178	Nominal Dec [deg]
roll_nom	288.26474256746	Nominal Roll [deg]
revision	4	Processing version of data
ontime	27165.576219827	[s]
livetime	26927.837848175	Ontime multiplied by DTCOR
l2events	2075037	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	27000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	27165.576219827	[s]
caldsver	4.9.2	&#160	l1events	2830519	Number of level 1 events
date	2020-10-05T06:21:11	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	4	Processing version of data	zo_pos	(32701.73, 32858.96)	src1a sky pixel position

### 2.1.3 Events

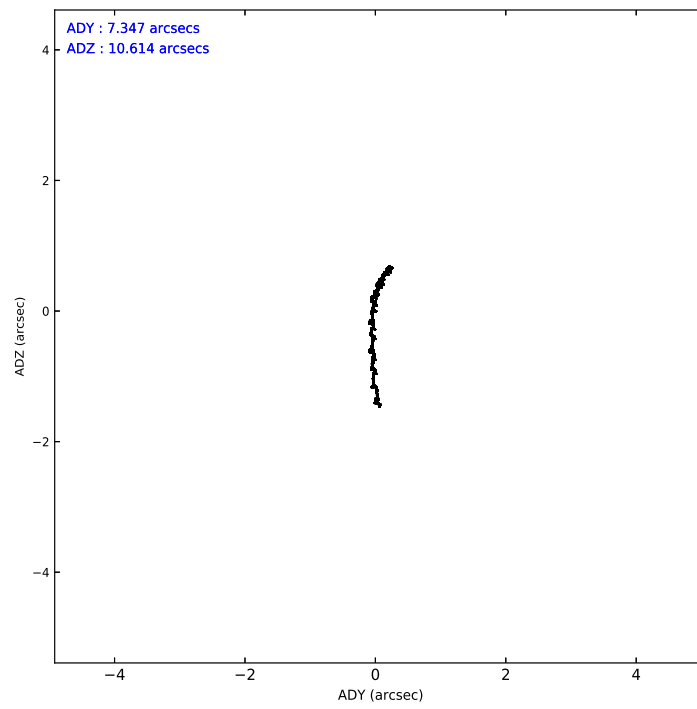
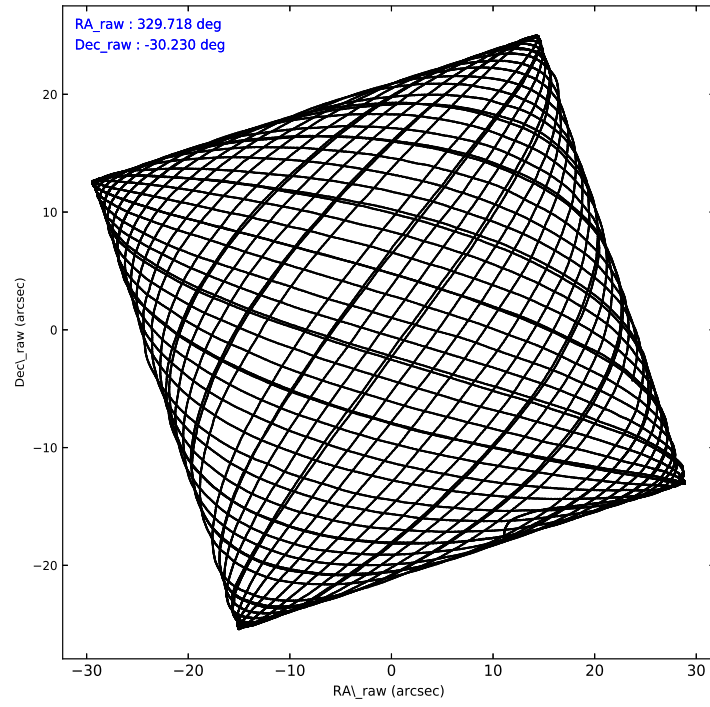
Level 1 Events

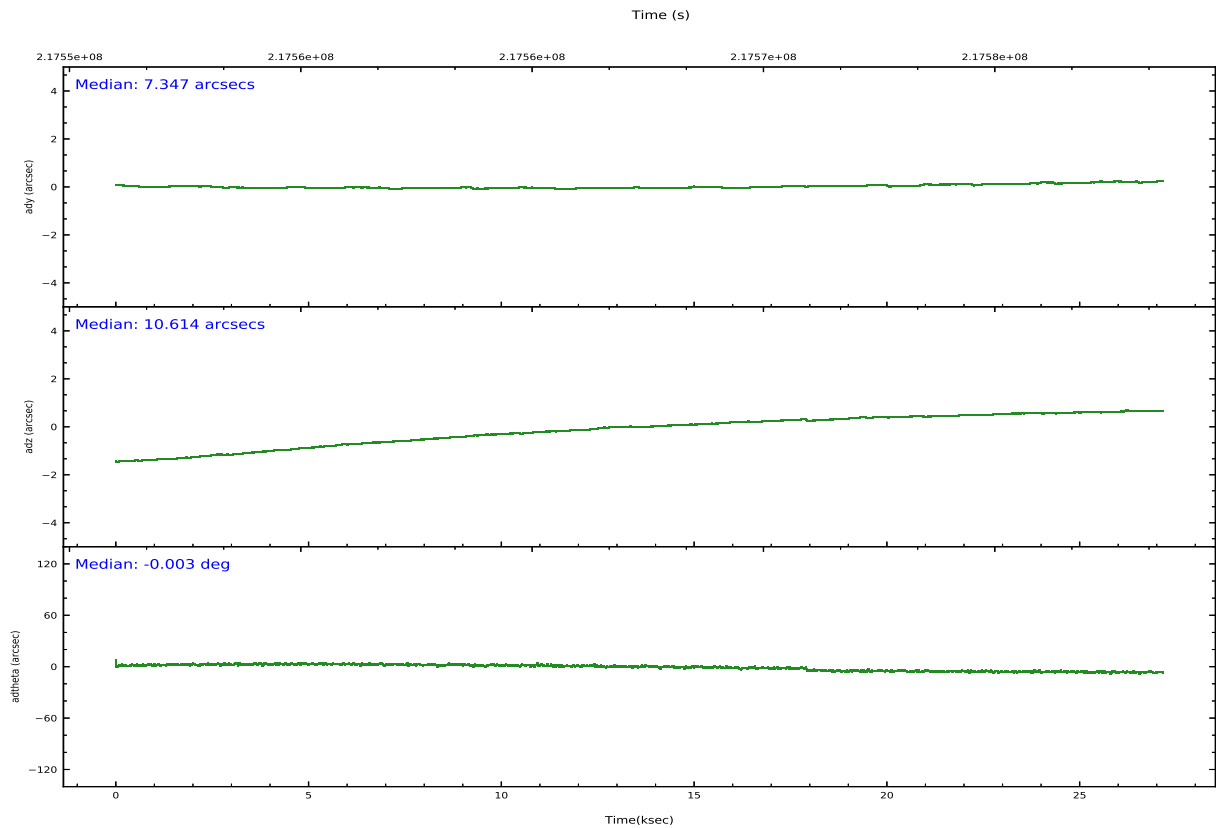
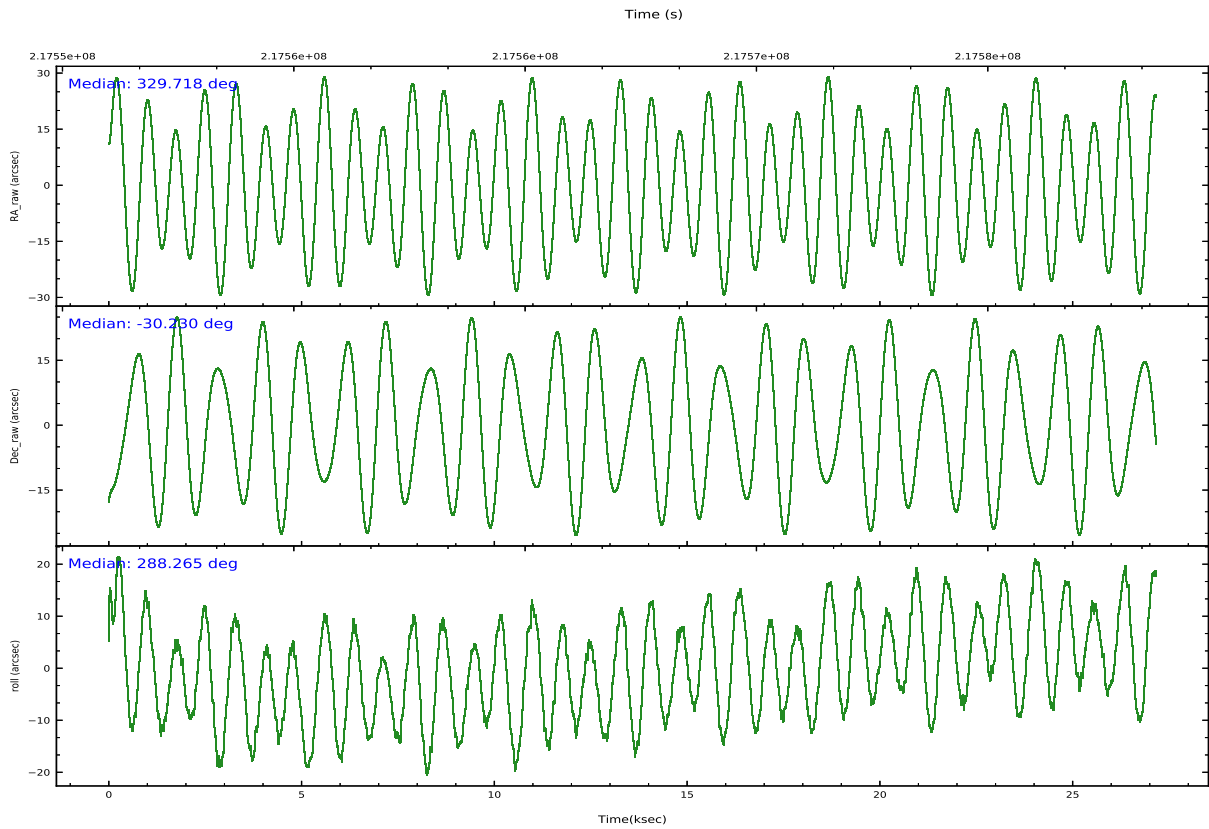
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	949330	956072	925117
rejected events	48078	46838	49045
rejected %	5%	4%	5%

## 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	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	329.692456	329.71413490108			
[deg] Pointing Dec	-30.212083	-30.228965327178			
[deg] Pointing Roll	288.186822	288.26474256746			
[s] Window start time (MET)	215654464.184000	215654464.184000			
[s] Window stop time (MET)	220838464.184000	220838464.184000			
[mm] SIM focus pos	-1.429586	-1.428180813131781			
[mm] SIM defocus	0.1037507710433287	0.1051558262725154			
[mm] SIM translation stage pos	250.455976	250.4635187648994			
[mm] SIM translation stage offset	0	-0.007540371344731511			
[s] Observation start time (MET)	217553368.184000	217552274.22274			
Observation start date	2004-11-22T23:28:24	2004-11-22T23:11:14			
[s] Observation end time (MET)	217580368.184000	217581176.14903			
Observation end date	2004-11-23T06:58:24	2004-11-23T07:12:56			

## 2.3 Aspect





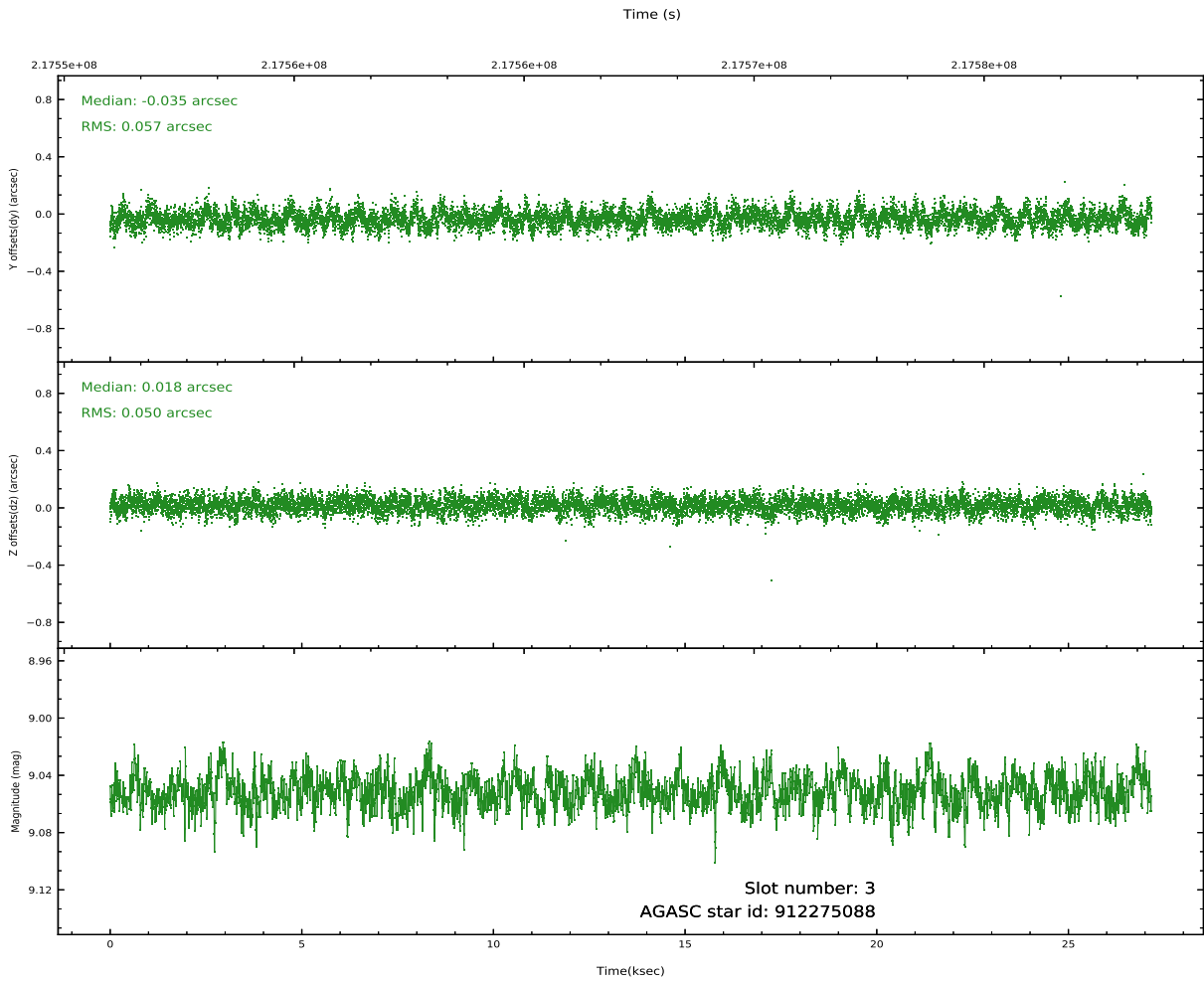
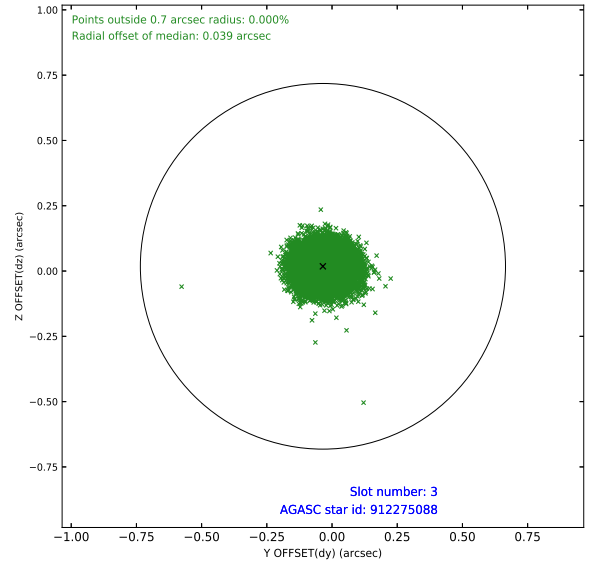
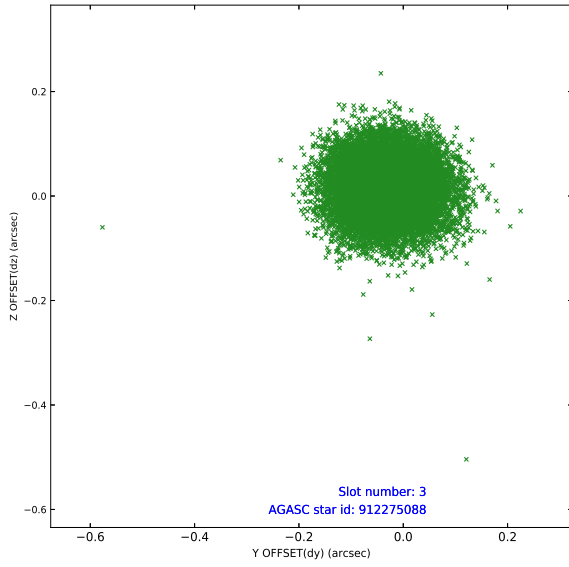
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-S-2	7.00	6626	1.000	0.158	-0.155	0.039	0.051	0.000000	0.000000	1238.17	-451
1	FID		HRC-S-3	7.01	6626	1.000	0.030	-0.089	0.011	0.018	0.000000	0.000000	-1164.16	570
2	FID		HRC-S-4	6.96	6626	1.000	0.219	-0.053	0.043	0.053	0.000000	0.000000	1236.65	573
3	GUIDE	used	912275088	9.05	13244	1.000	-0.035	0.018	0.080	0.130	329.619228	-29.738698	-1690.13	314
4	GUIDE	used	981468016	8.98	13249	1.000	0.039	-0.106	0.113	0.175	328.842457	-30.034984	-1422.67	-2320
5	GUIDE	used	981468128	9.37	13241	1.000	0.091	0.052	0.099	0.162	329.756350	-30.158334	-121.28	249
6	GUIDE	used	981478152	9.42	13240	1.000	0.030	0.171	0.095	0.154	329.415589	-30.057192	-797.57	-645
7	GUIDE	used	912131856	9.76	13229	1.000	-0.126	-0.121	0.131	0.213	328.758728	-29.933690	-1849.49	-2458

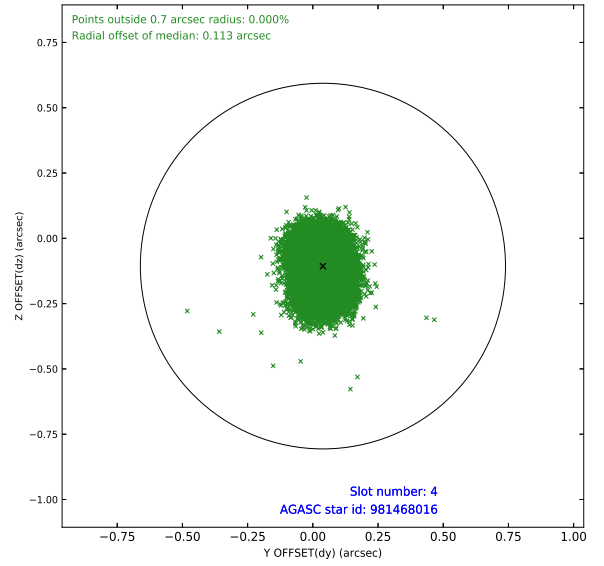
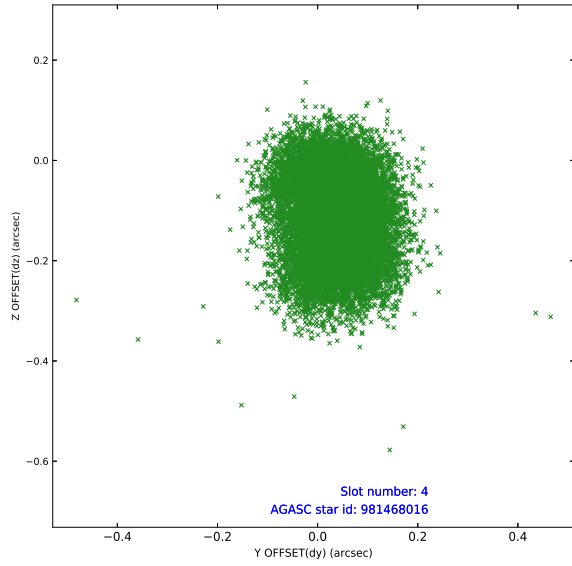
∞

## 2.4 Star Slots

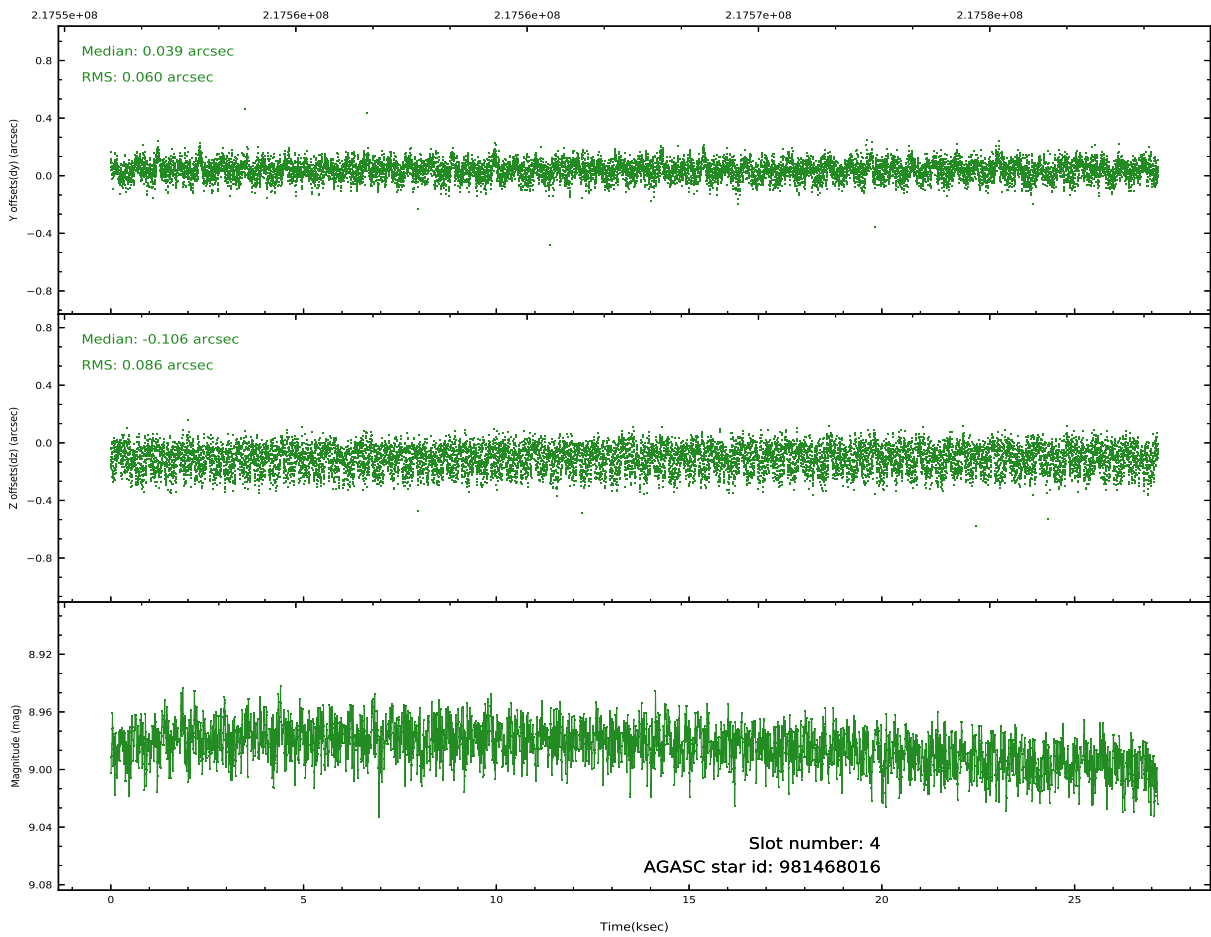
### 2.4.1 Slot 3



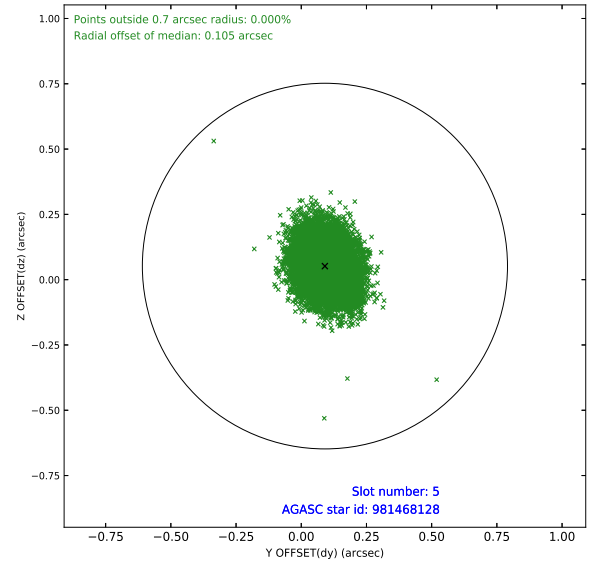
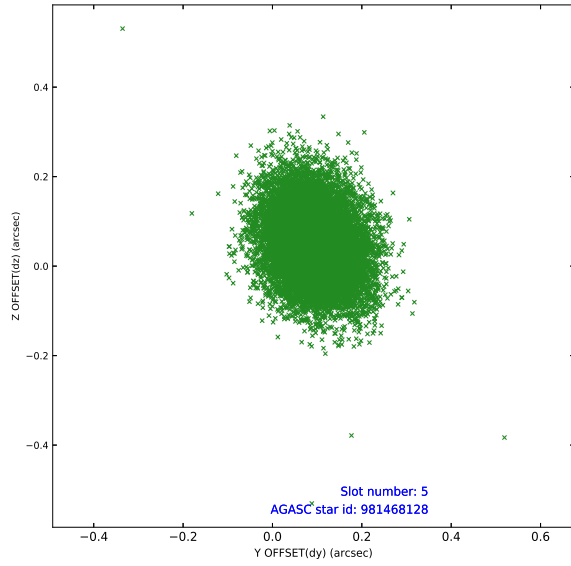
## 2.4.2 Slot 4



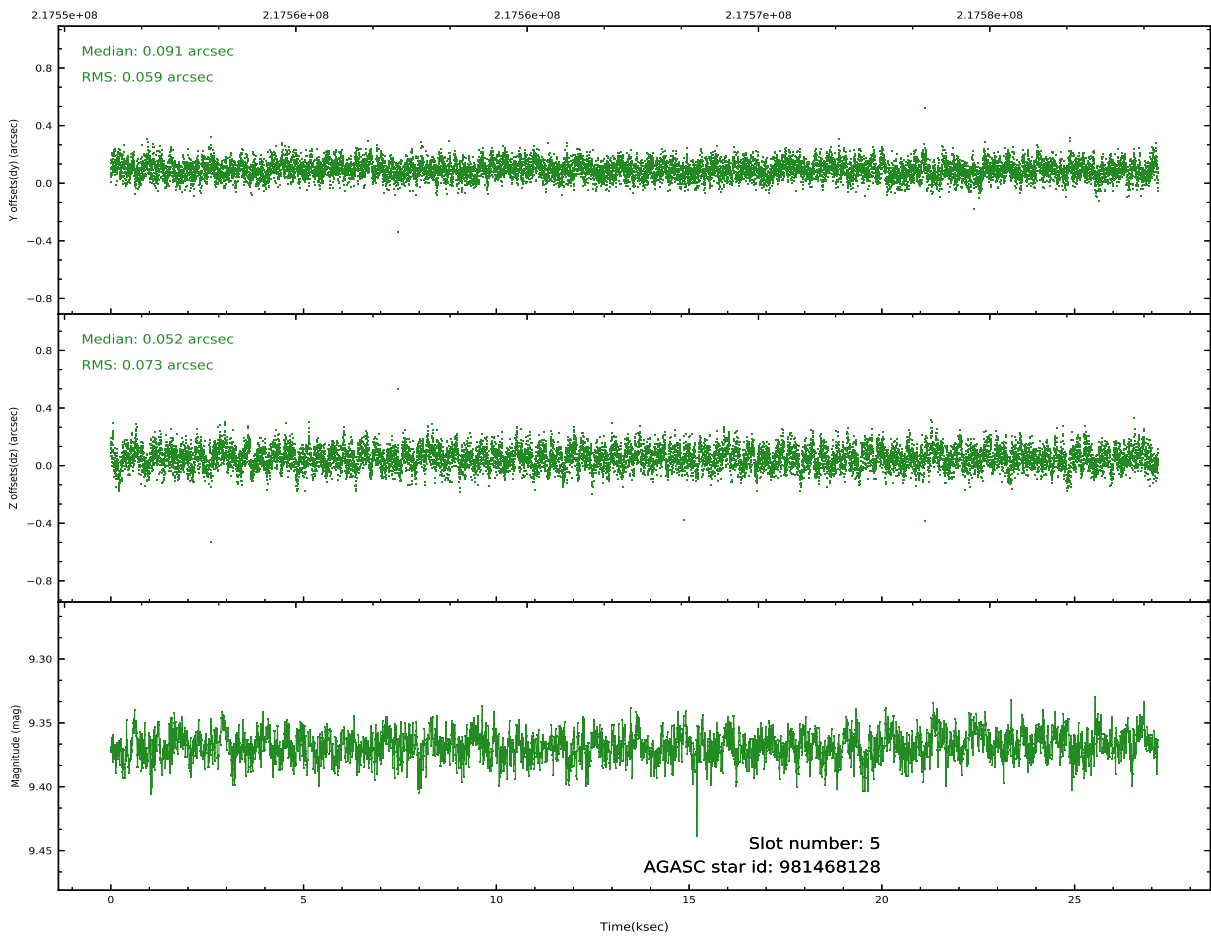
Time (s)



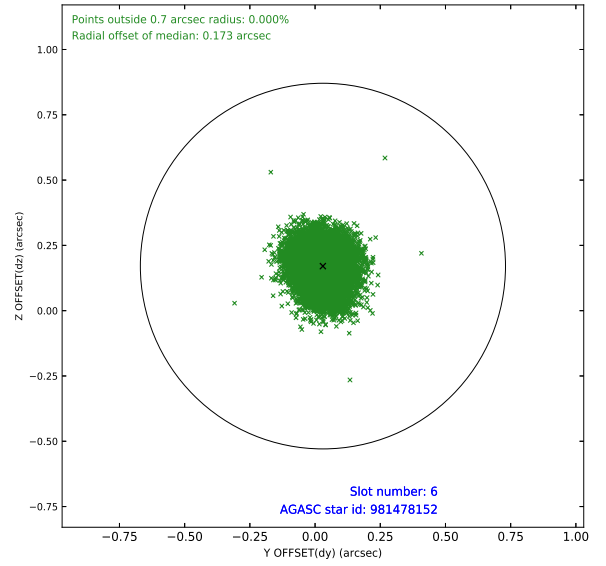
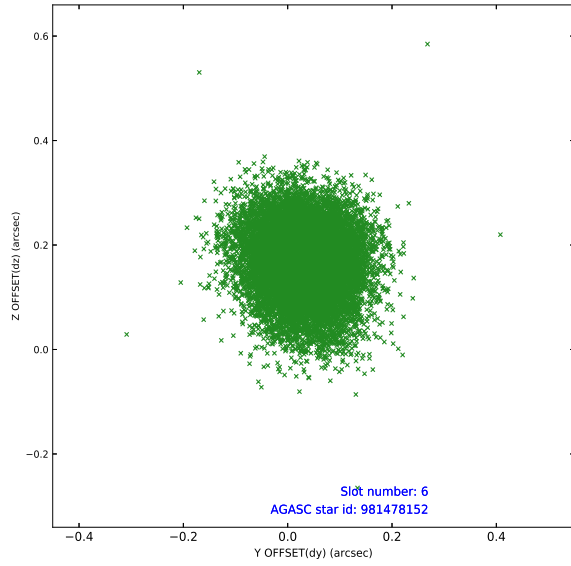
### 2.4.3 Slot 5



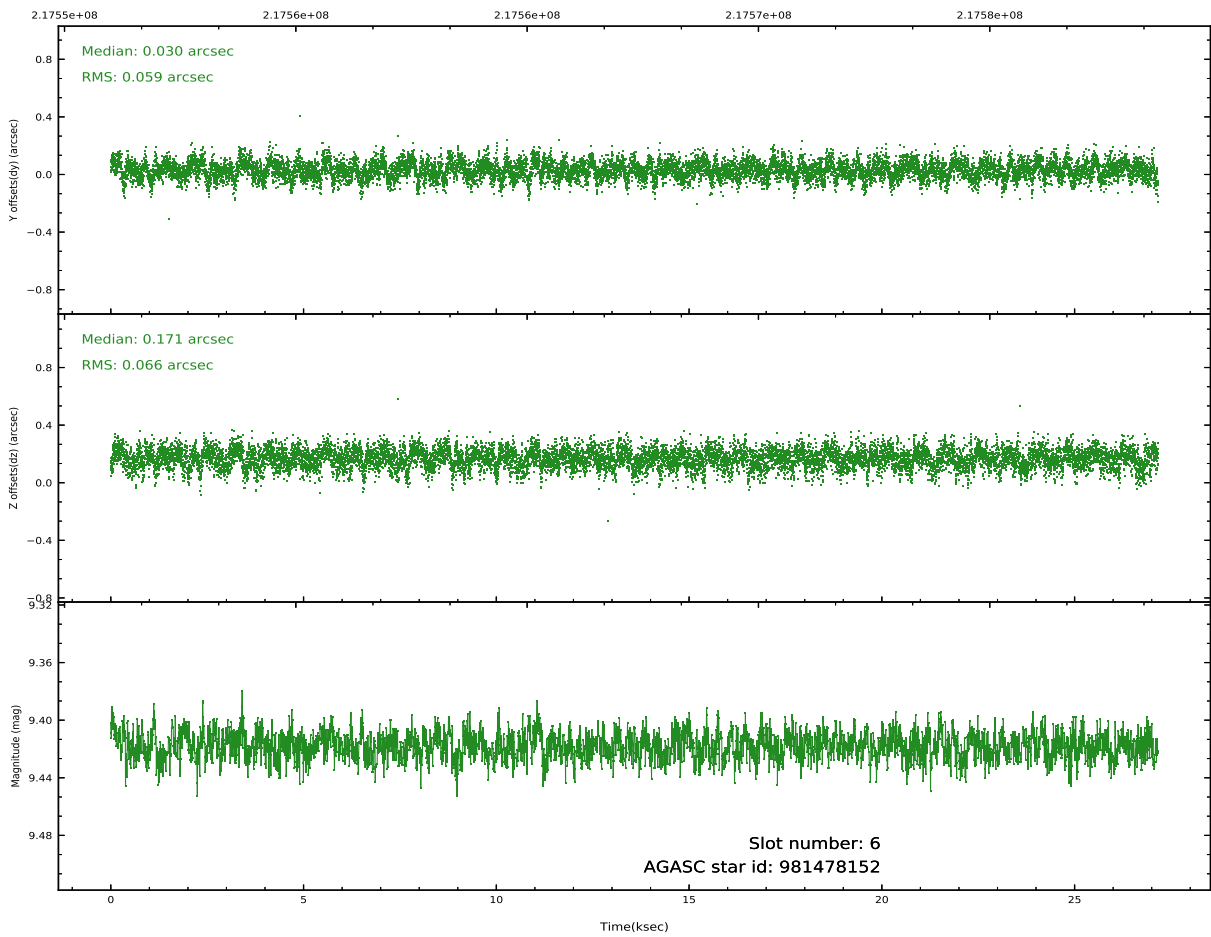
Time (s)



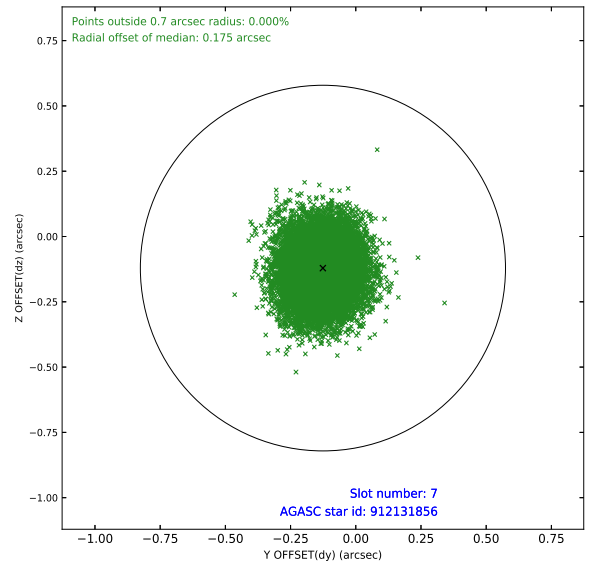
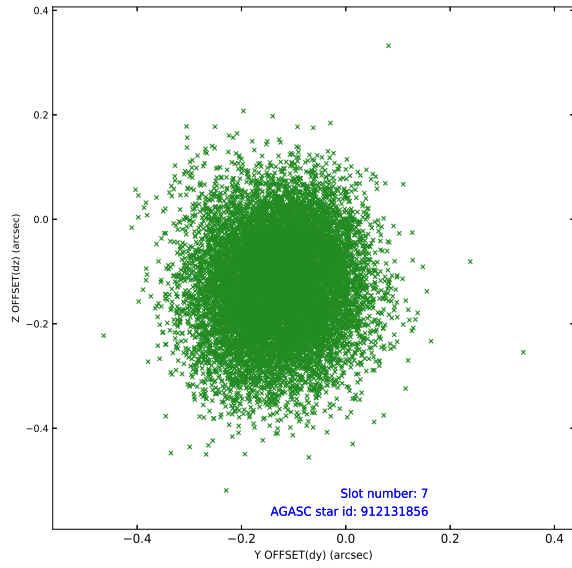
## 2.4.4 Slot 6



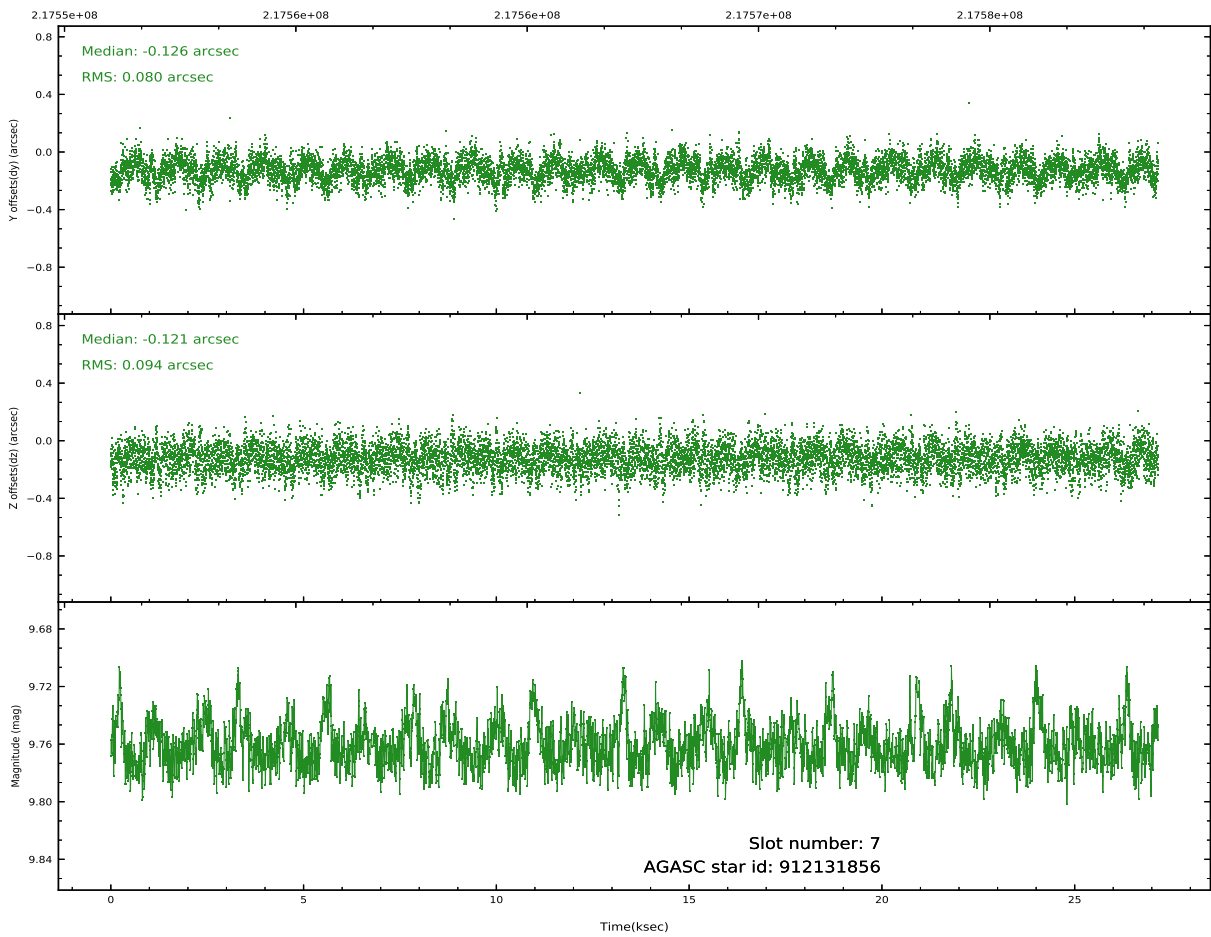
Time (s)



## 2.4.5 Slot 7

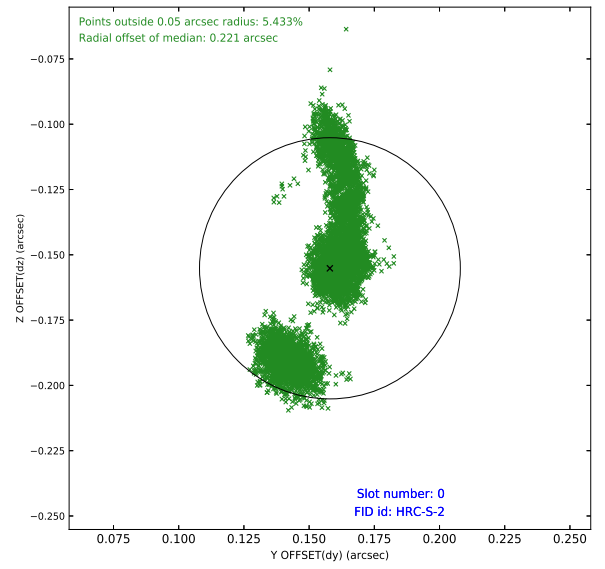
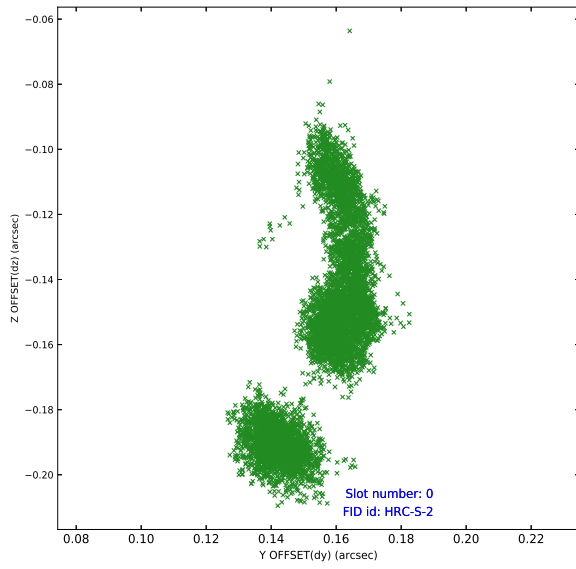


Time (s)

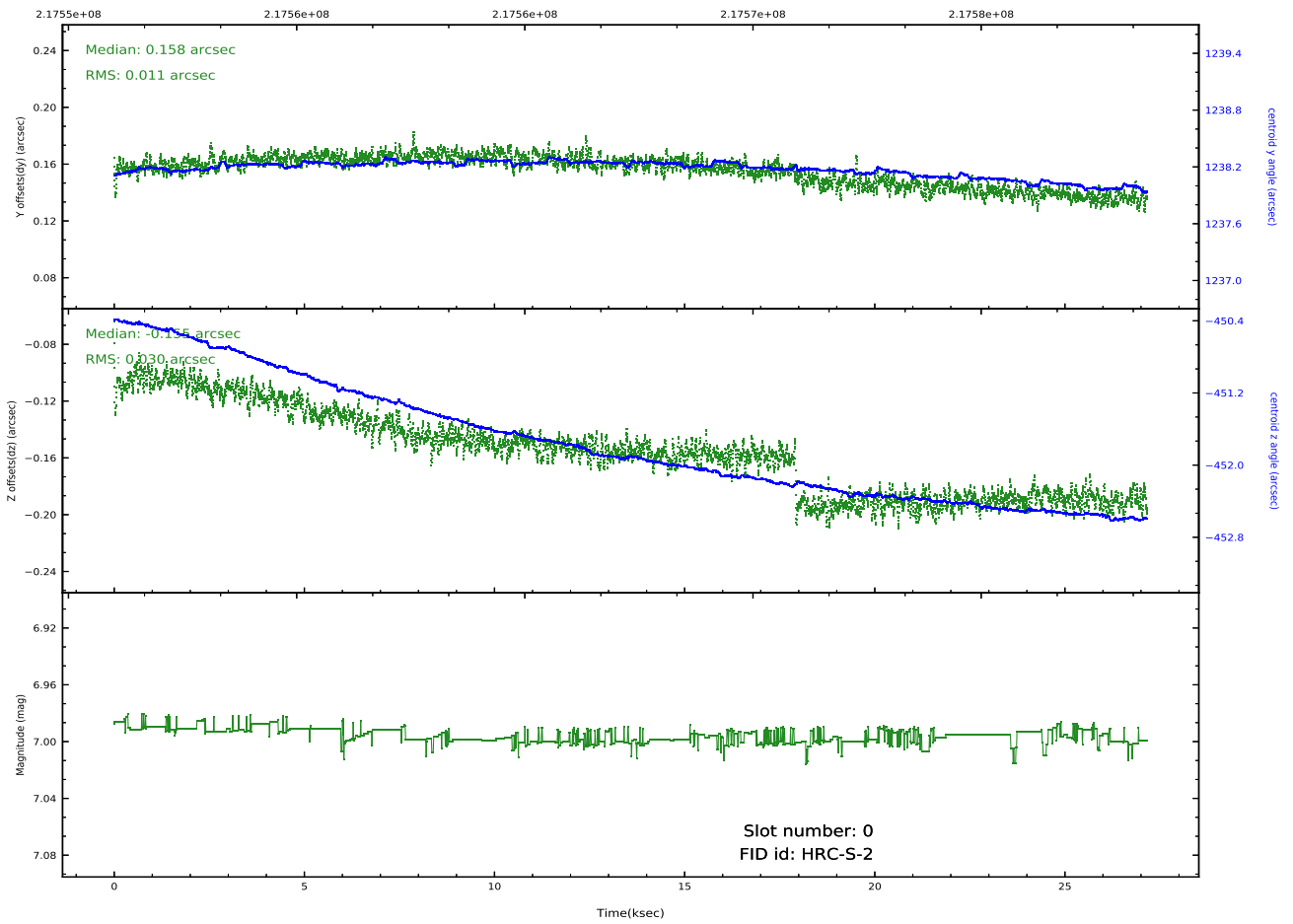


## 2.5 FID Slots

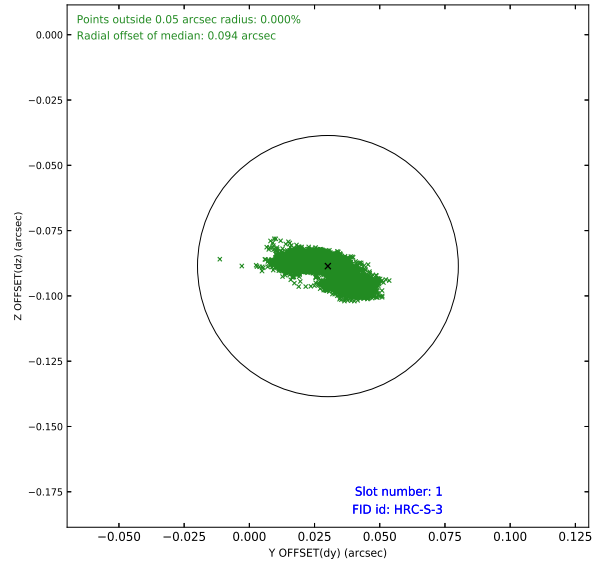
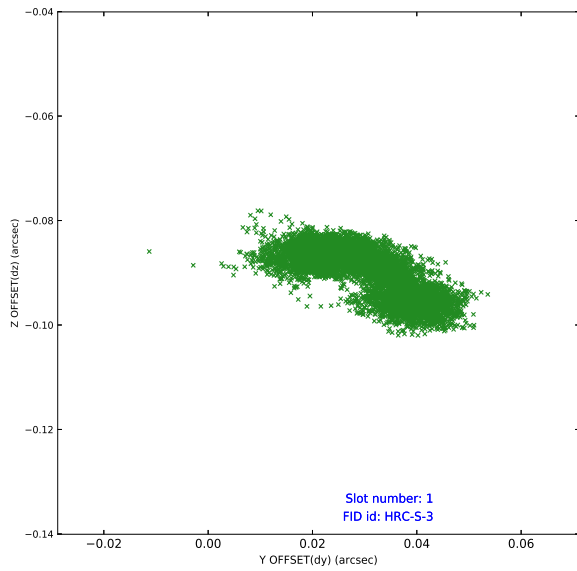
### 2.5.1 Slot 0



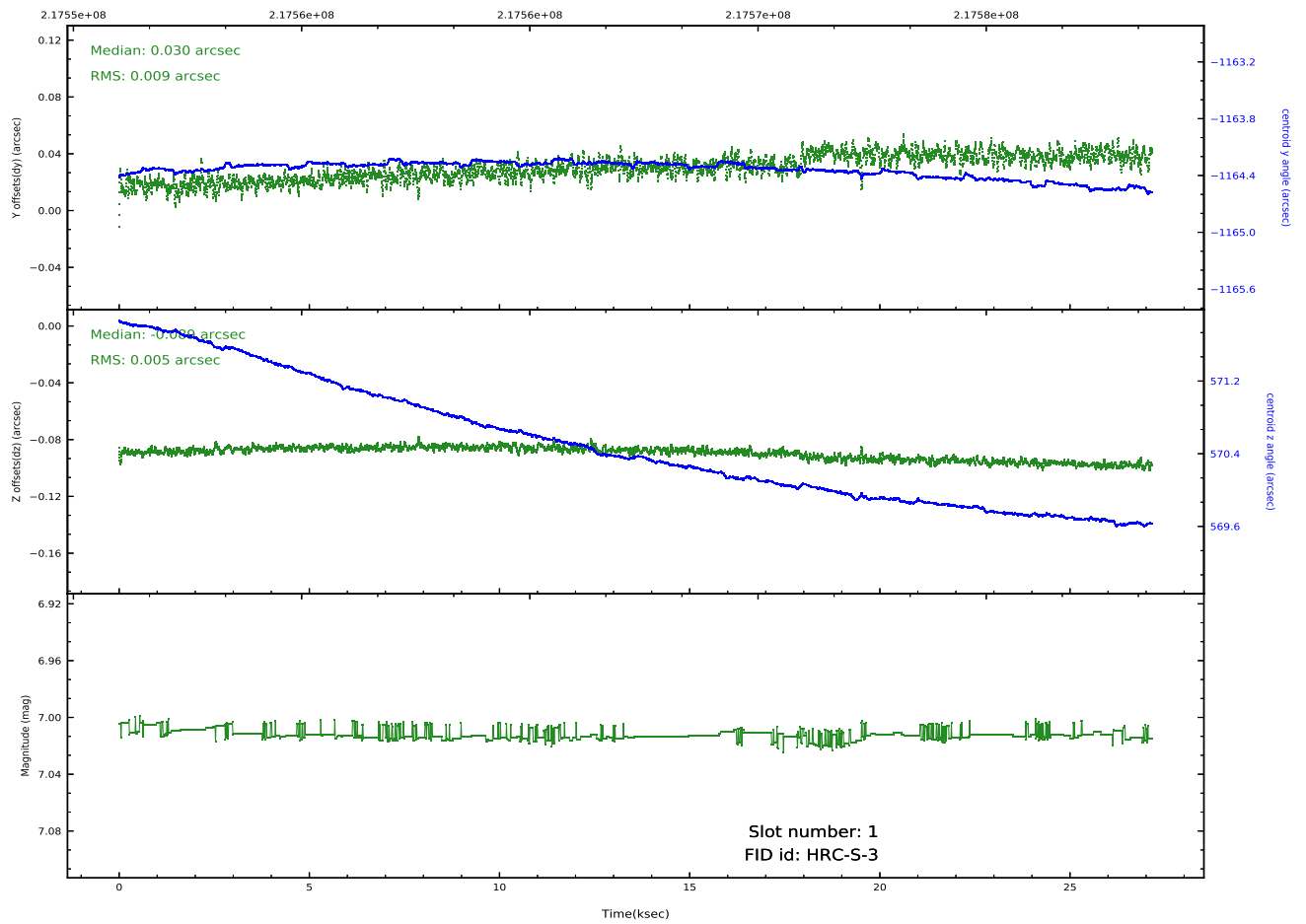
Time (s)



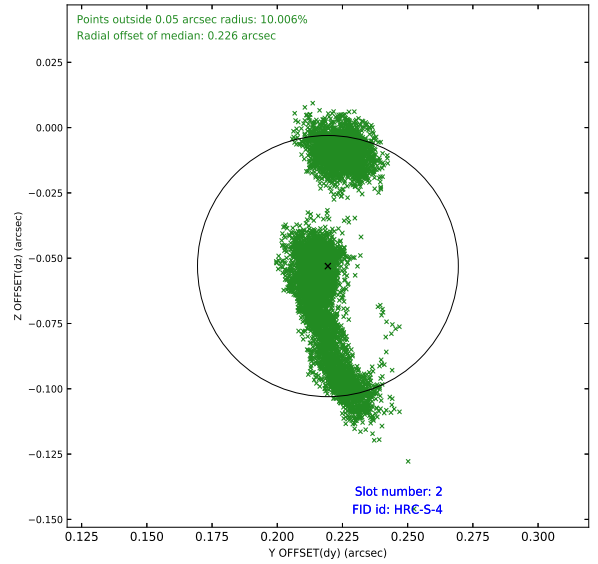
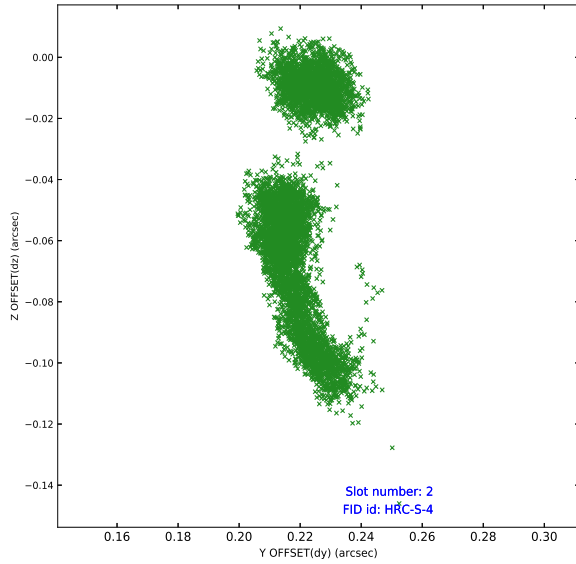
## 2.5.2 Slot 1



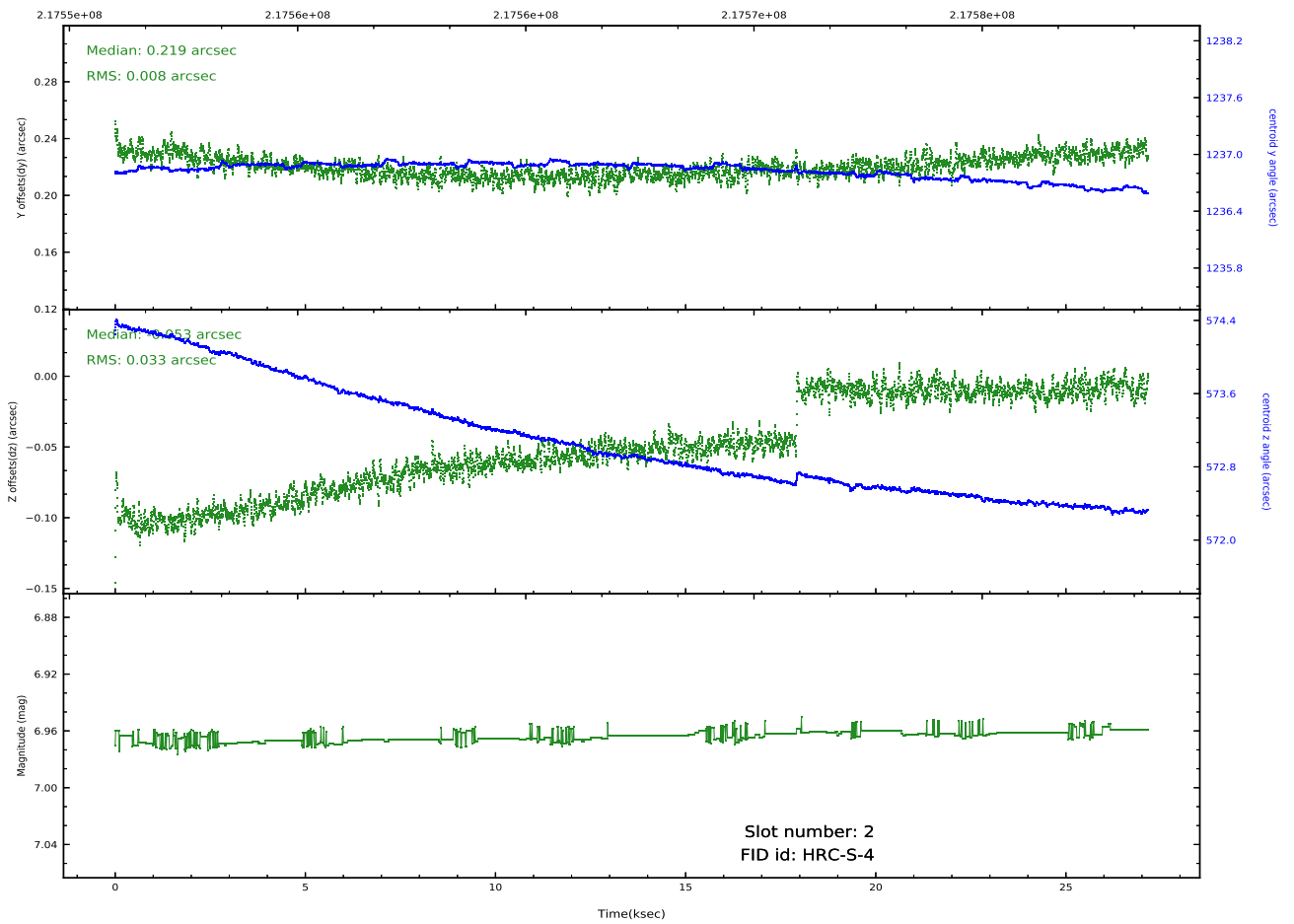
Time (s)



### 2.5.3 Slot 2

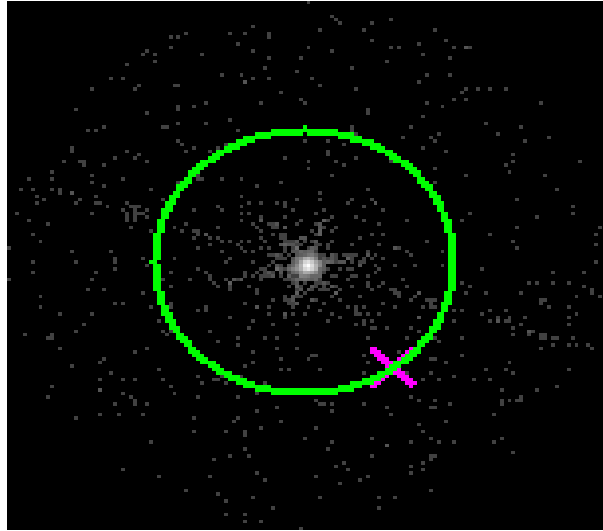


Time (s)

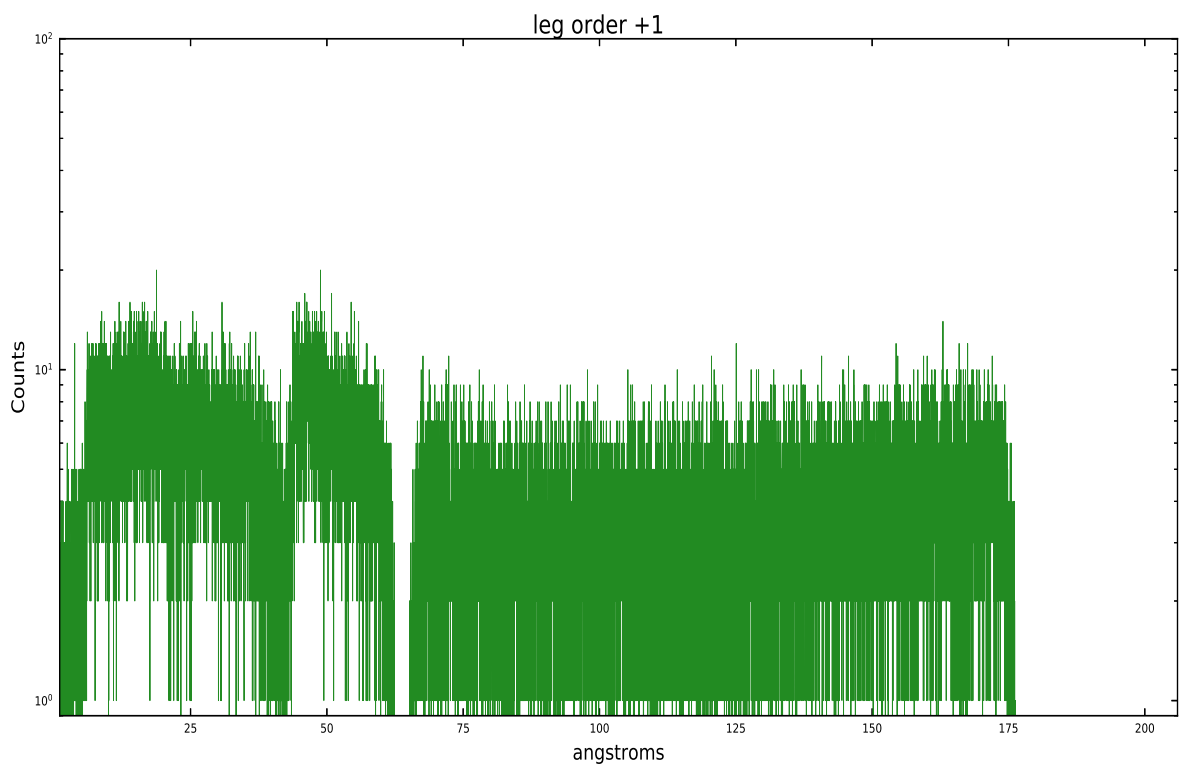
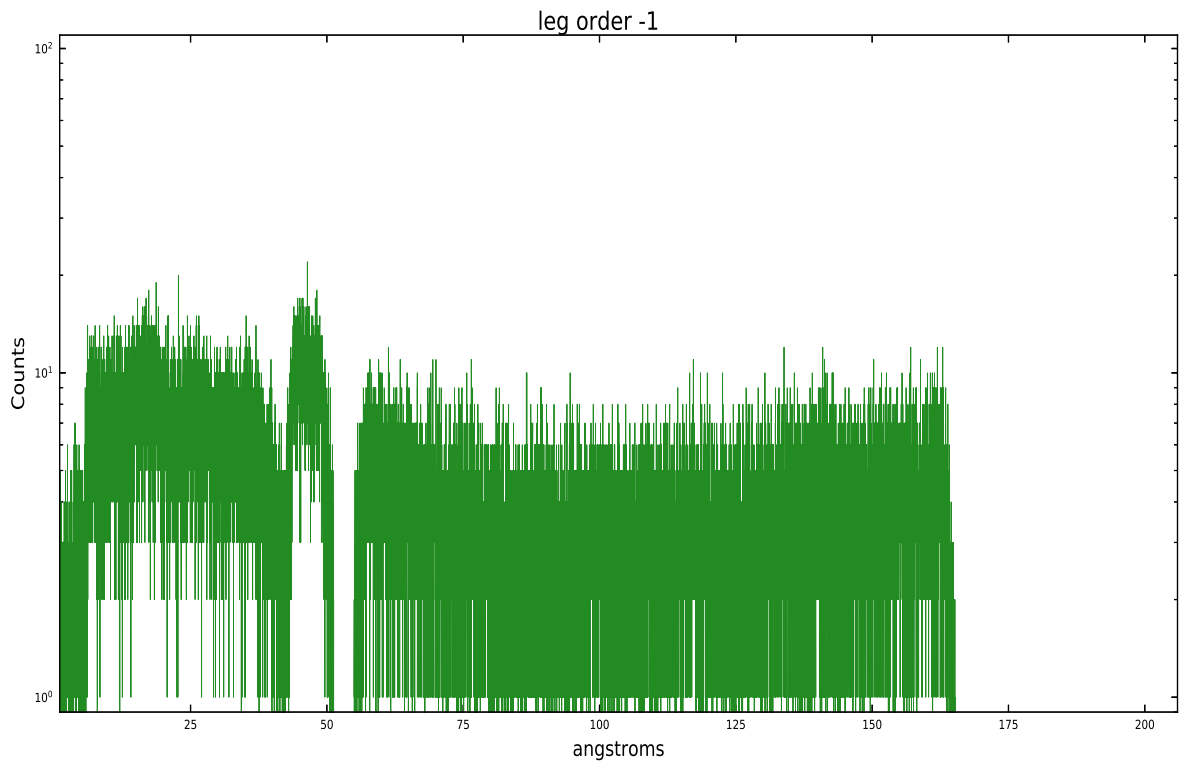


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order



# A Summary

## A.1 Status

V&V Scientist	Melania Nynka
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	27.165

## A.2 Comments