

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6165 - L2 Version 4  
Chandra X-Ray Center

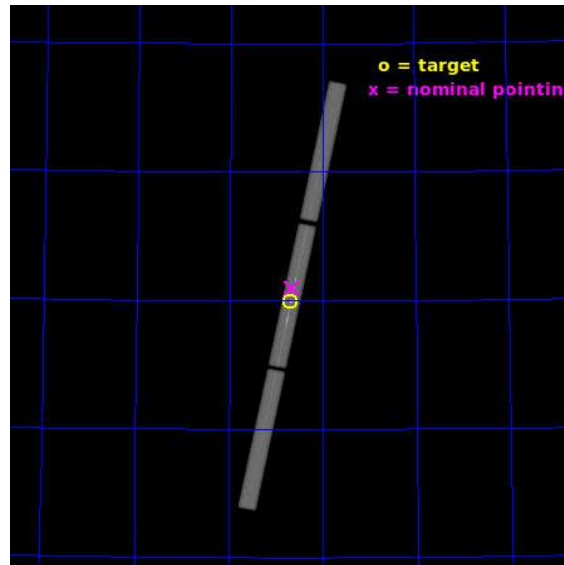
L2 Processing Date : Oct 10 2020

## 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>3</b>	<b>Gratings</b>	<b>17</b>
3.1	LETG Arm . . . . .	17
<b>A</b>	<b>Summary</b>	<b>19</b>
A.1	Status . . . . .	19
A.2	Comments . . . . .	19

# 1 Front

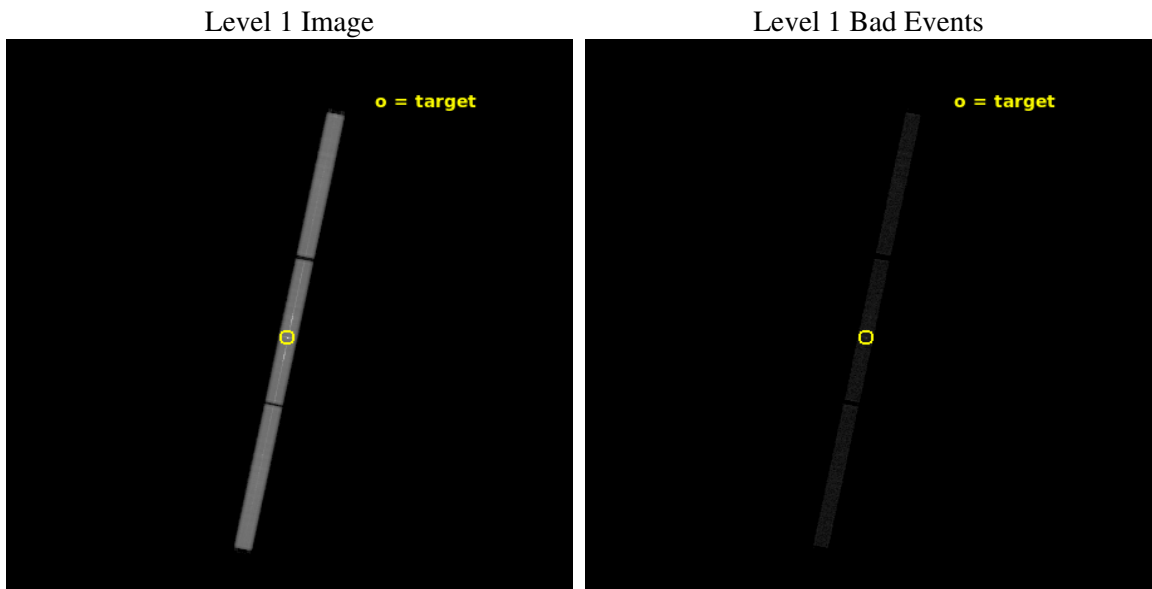
seq_num	290537	Sequence number
obs_id	6165	Observation id
title	AO6 Calibration Observations of Capella	Proposal title
observer	CXC Calibration	Principal investigator
object	Capella	Source name
ra_targ	79.17625	Observer's specified target RA [deg]
dec_targ	45.997889	Observer's specified target Dec [deg]
ra_nom	79.165168418312	Nominal RA [deg]
dec_nom	46.049994097555	Nominal Dec [deg]
roll_nom	101.53055531221	Nominal Roll [deg]
revision	4	Processing version of data
ontime	29172.782592446	[s]
livetime	28936.419901637	Ontime multiplied by DTCOR
l2events	2071152	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	29000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	29172.782592446	[s]
caldsver	4.9.2	&#160	l1events	2794110	Number of level 1 events
date	2020-10-11T00:56:59	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	4	Processing version of data	zo_pos	(32628.49, 31330.86)	src1a sky pixel position

### 2.1.3 Events

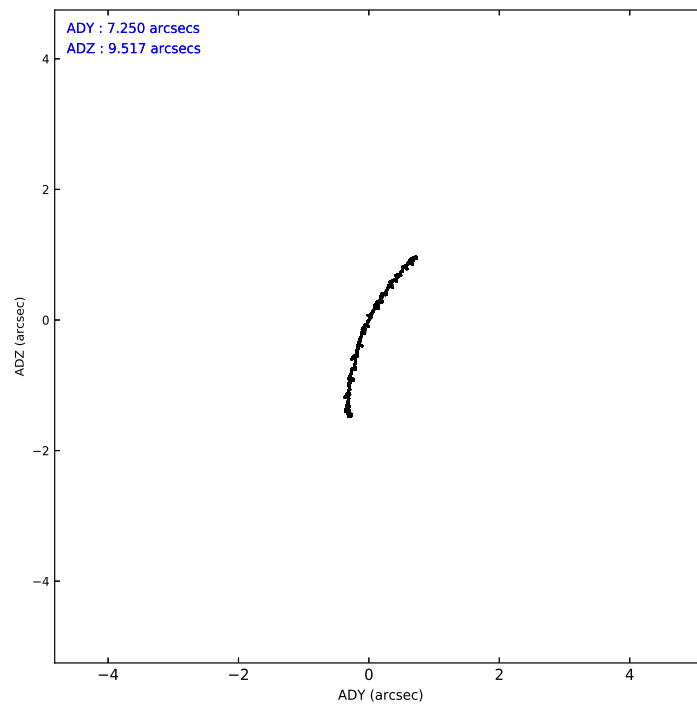
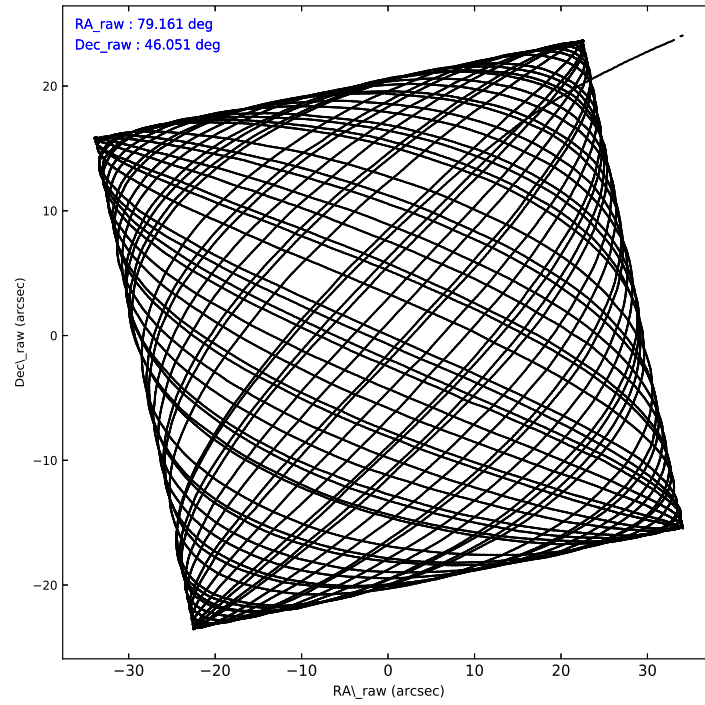
#### Level 1 Events

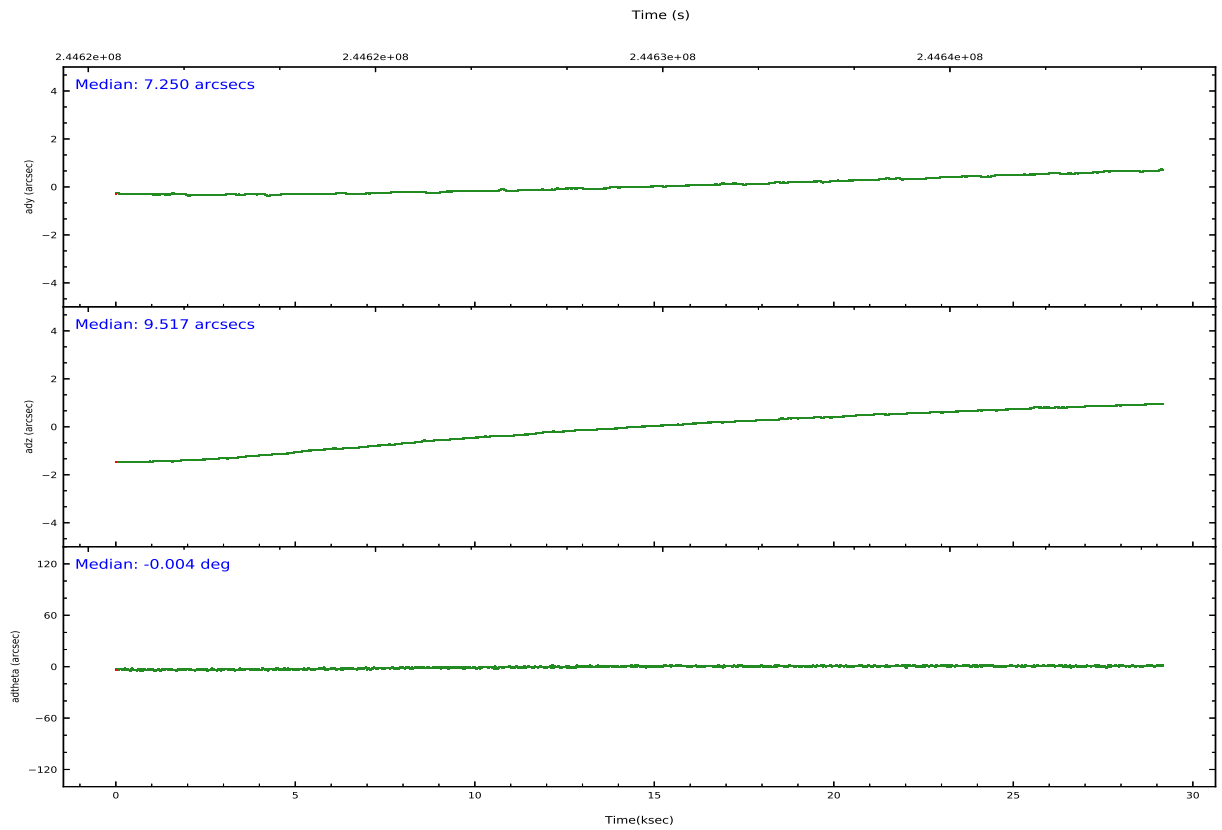
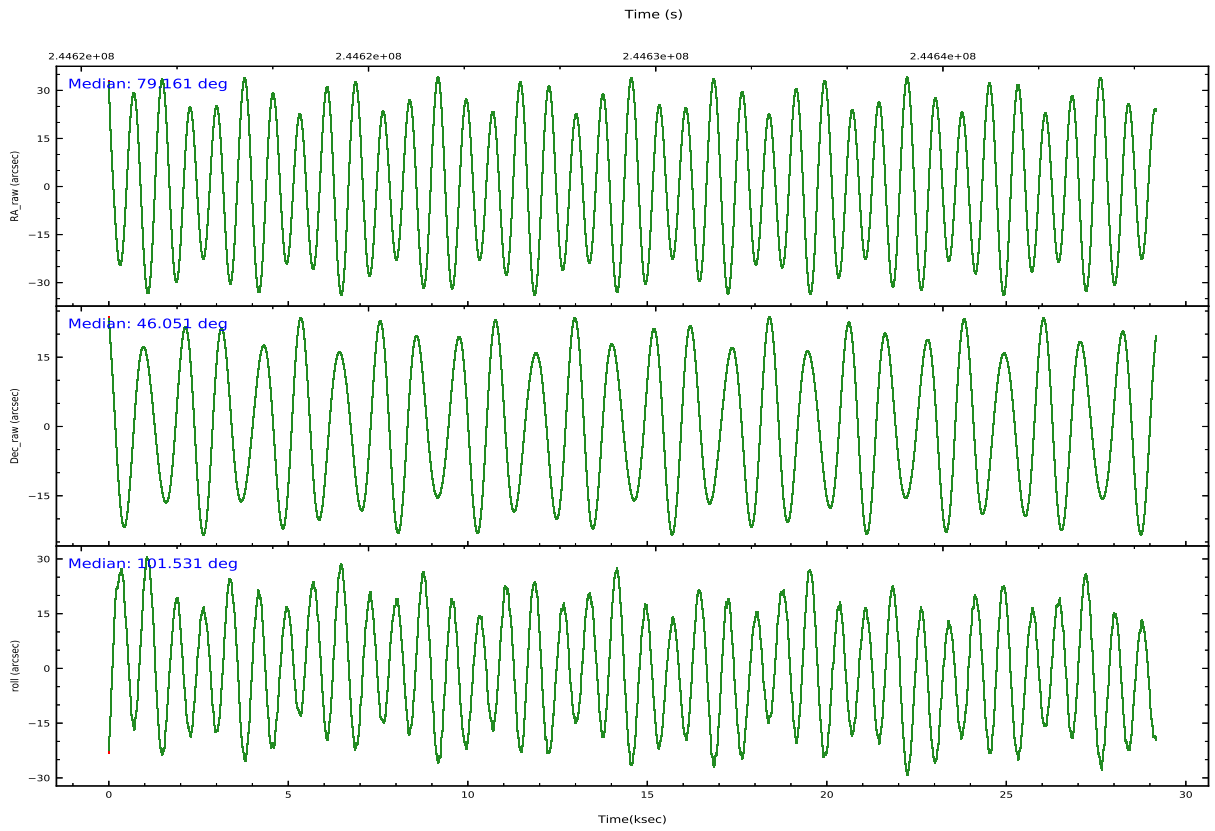
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	883277	1045007	865826
rejected events	37830	38068	37214
rejected %	4%	3%	4%

## 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	79.189603	79.16516841831201			
[deg] Pointing Dec	46.031056	46.049994097555			
[deg] Pointing Roll	101.443171	101.53055531221			
[s] Window start time (MET)	244512064.184000	244512064.184000			
[s] Window stop time (MET)	257472065.184000	257472065.184000			
[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)	244616940.184000	244616046.42878			
Observation start date	2005-10-02T05:07:56	2005-10-02T04:54:06			
[s] Observation end time (MET)	244645940.184000	244646661.64268			
Observation end date	2005-10-02T13:11:16	2005-10-02T13:24:21			

## 2.3 Aspect





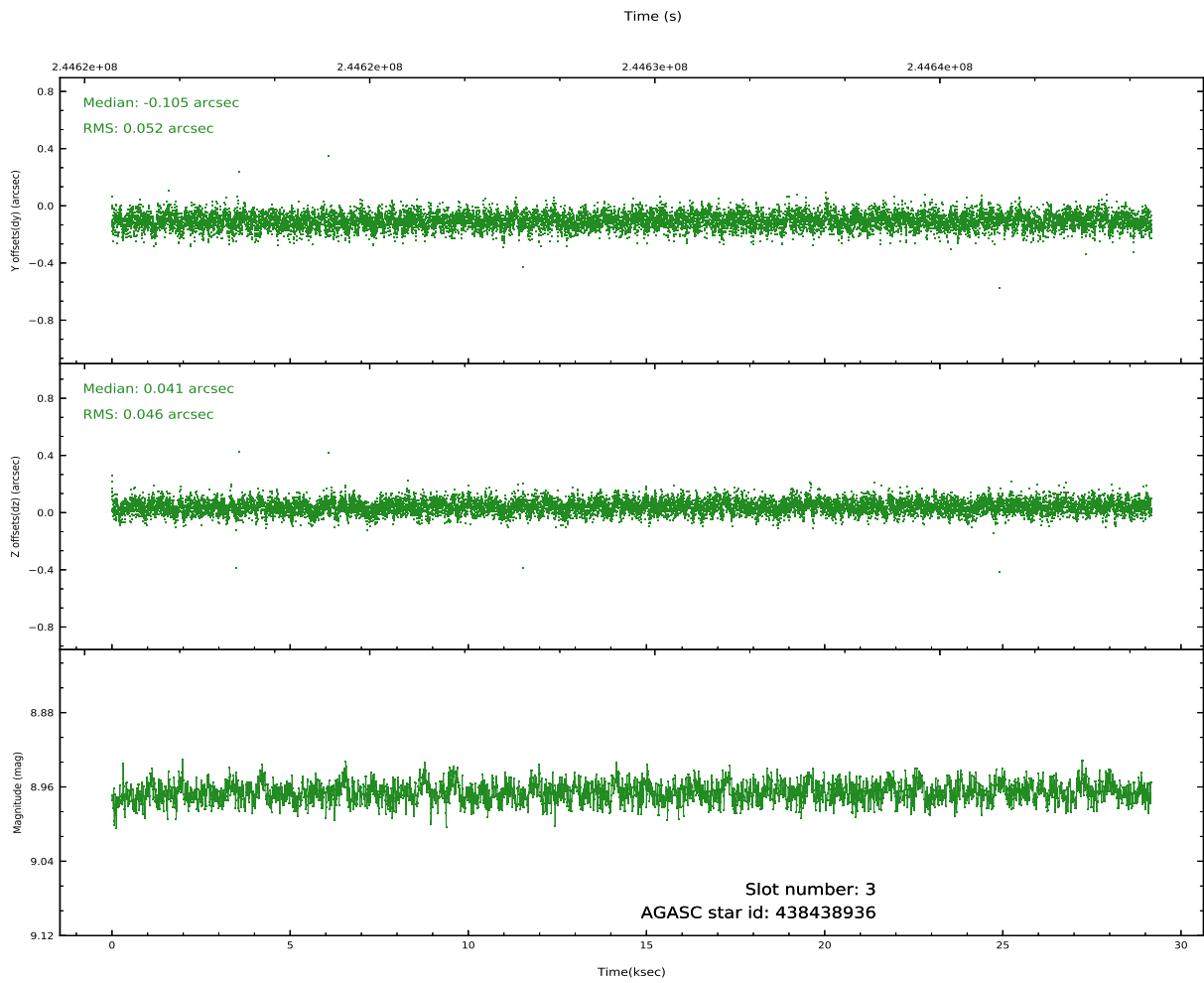
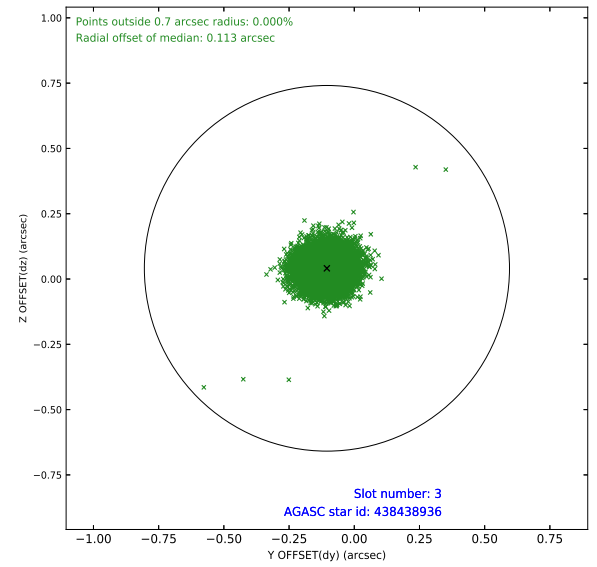
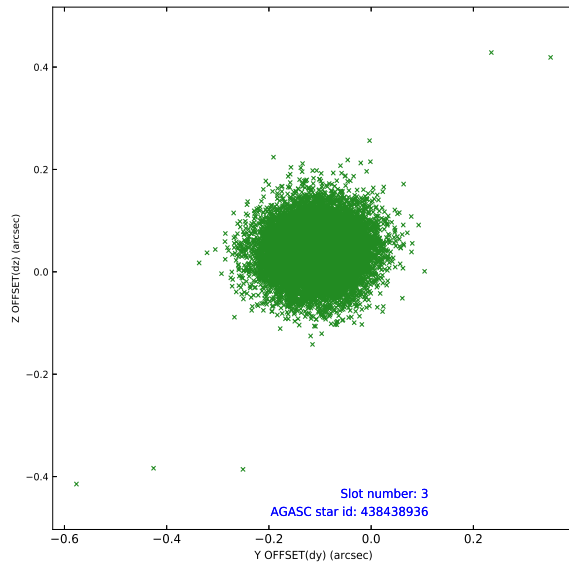
### Slot Statistics

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	7.03	7115	1.000	0.103	-0.198	0.025	0.060	0.000000	0.000000	-1161.49	-458
1	FID		HRC-S-2	7.03	7116	1.000	0.210	-0.123	0.007	0.014	0.000000	0.000000	1238.14	-450
2	FID		HRC-S-3	7.04	7116	1.000	0.076	0.020	0.026	0.065	0.000000	0.000000	-1164.07	571
3	GUIDE	used	438438936	8.97	14230	1.000	-0.105	0.041	0.073	0.119	78.241026	46.550197	2311.51	1928
4	GUIDE	used	438460832	8.99	14224	1.000	0.090	-0.159	0.107	0.170	78.414614	45.554782	-1283.50	2252
5	GUIDE	used	440149808	8.47	14225	1.000	-0.015	-0.039	0.065	0.104	78.873930	46.405955	1479.89	500
6	GUIDE	used	440163960	8.89	14223	1.000	0.028	0.255	0.082	0.137	79.298370	45.827072	-773.22	-121
7	GUIDE	used	440164960	8.29	14192	1.000	-0.004	-0.094	0.070	0.114	79.132526	46.140947	415.96	61

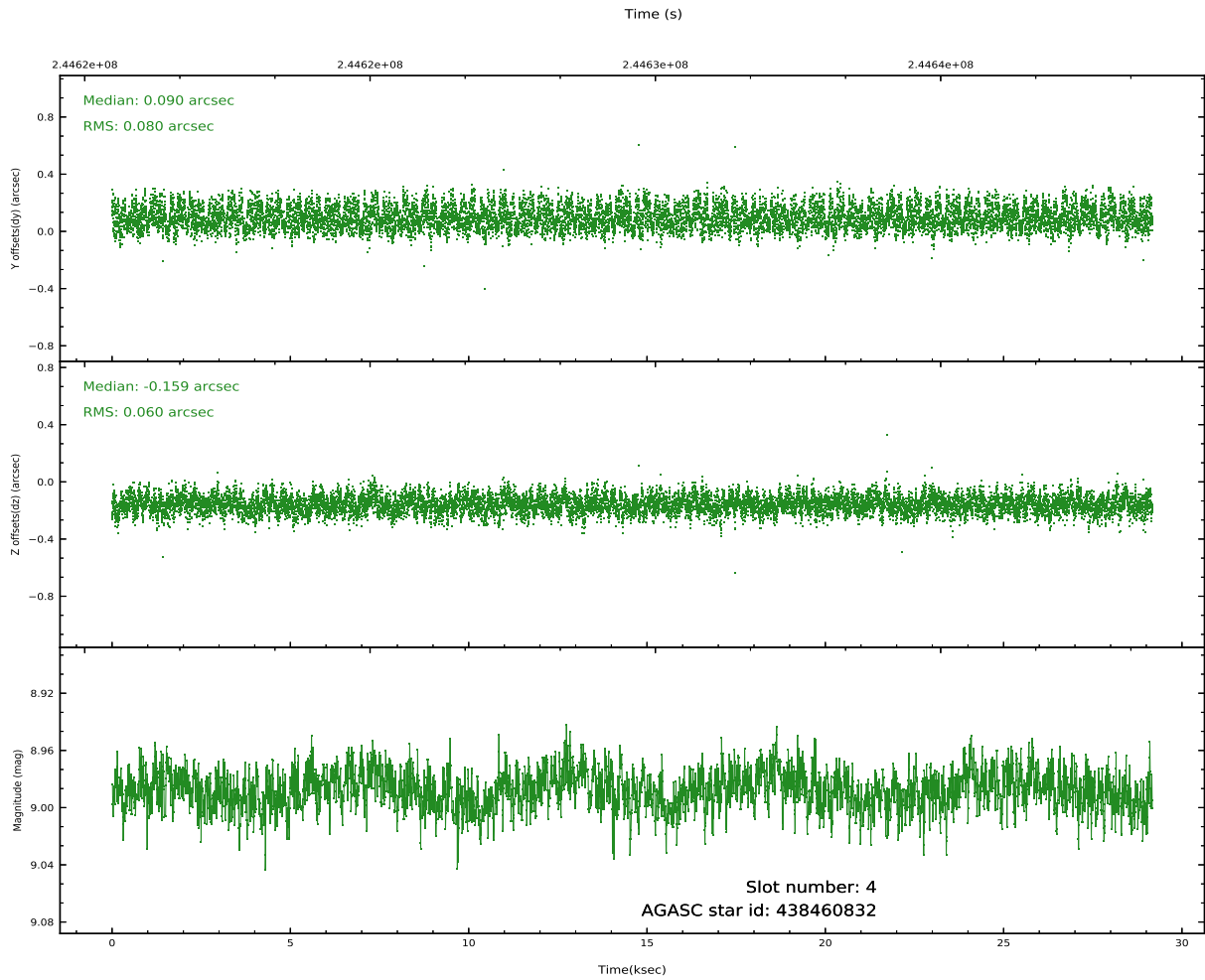
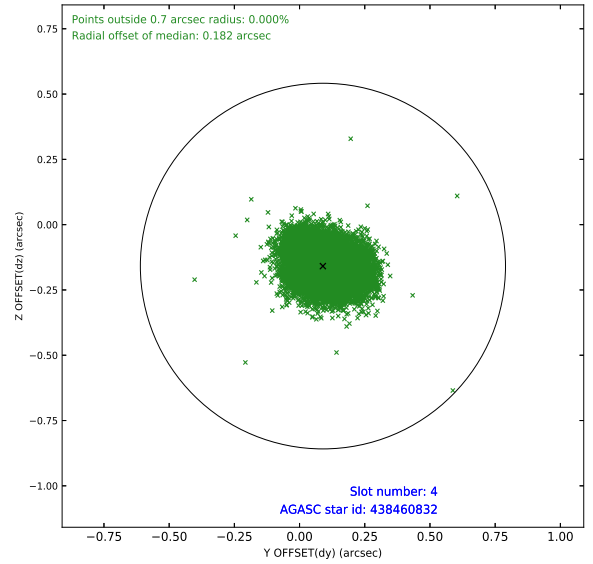
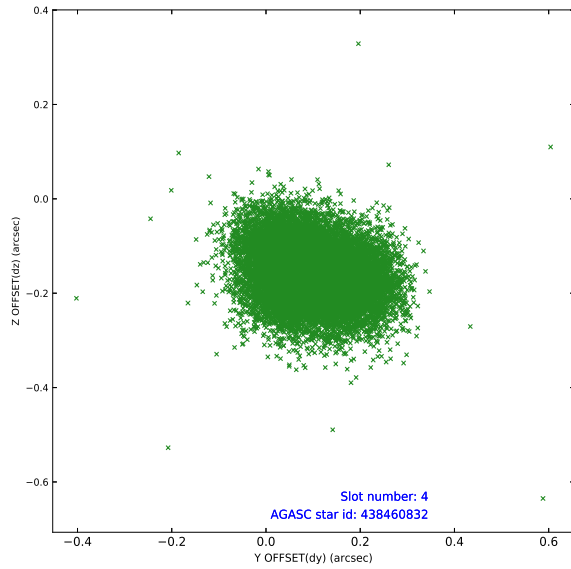
∞

## 2.4 Star Slots

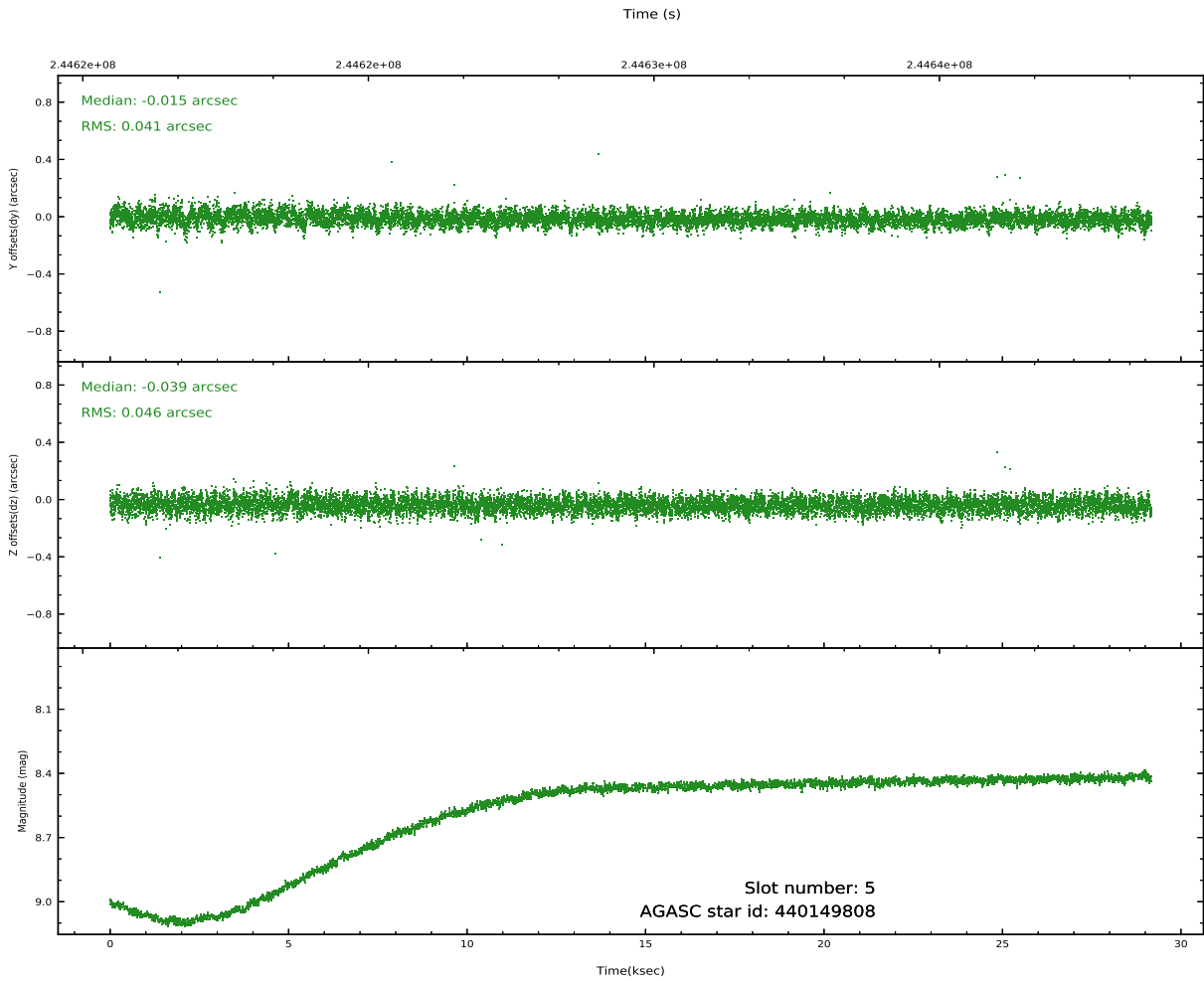
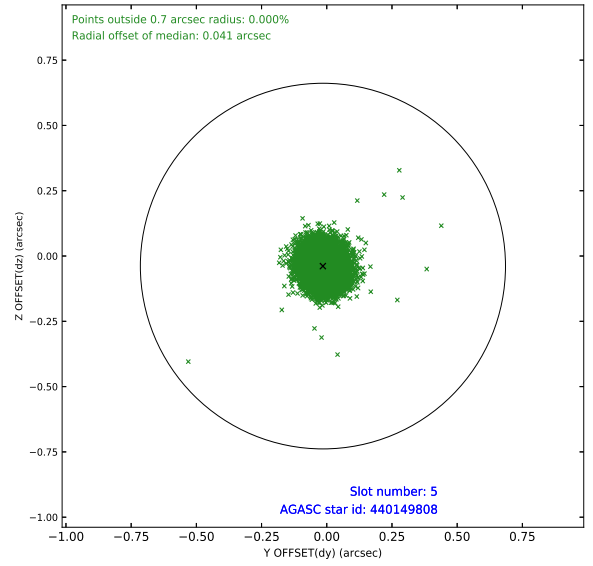
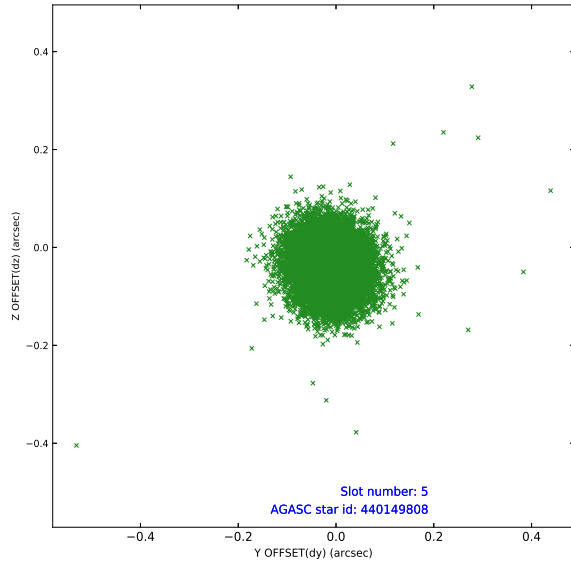
### 2.4.1 Slot 3



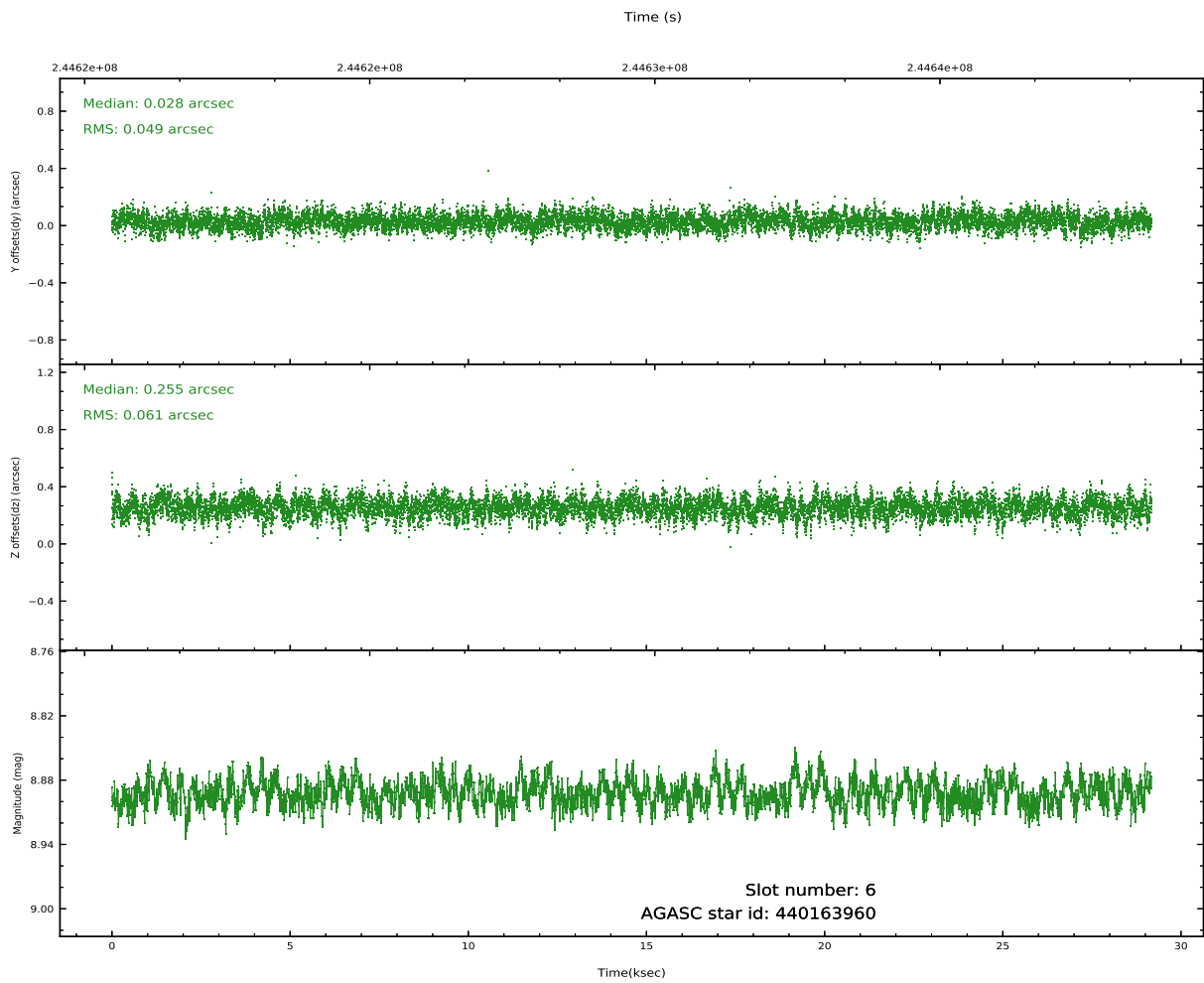
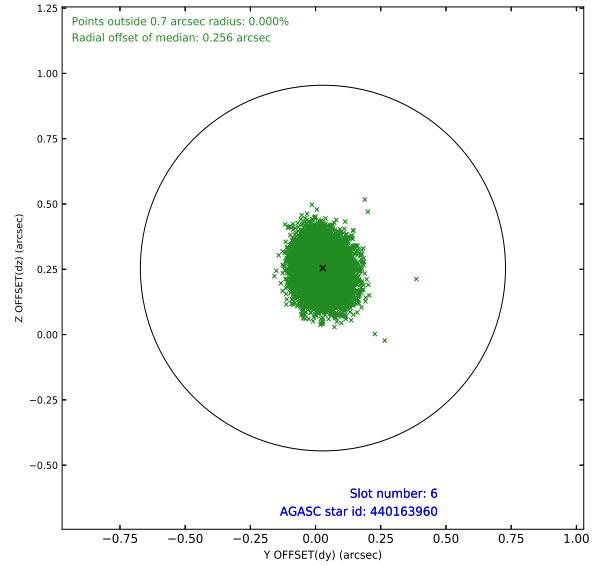
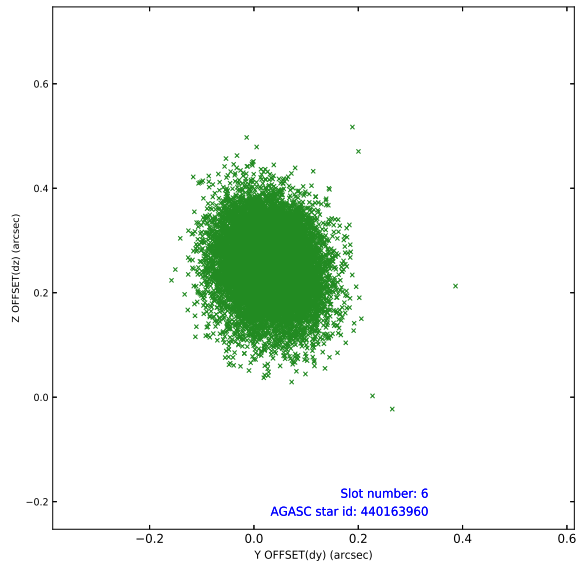
## 2.4.2 Slot 4



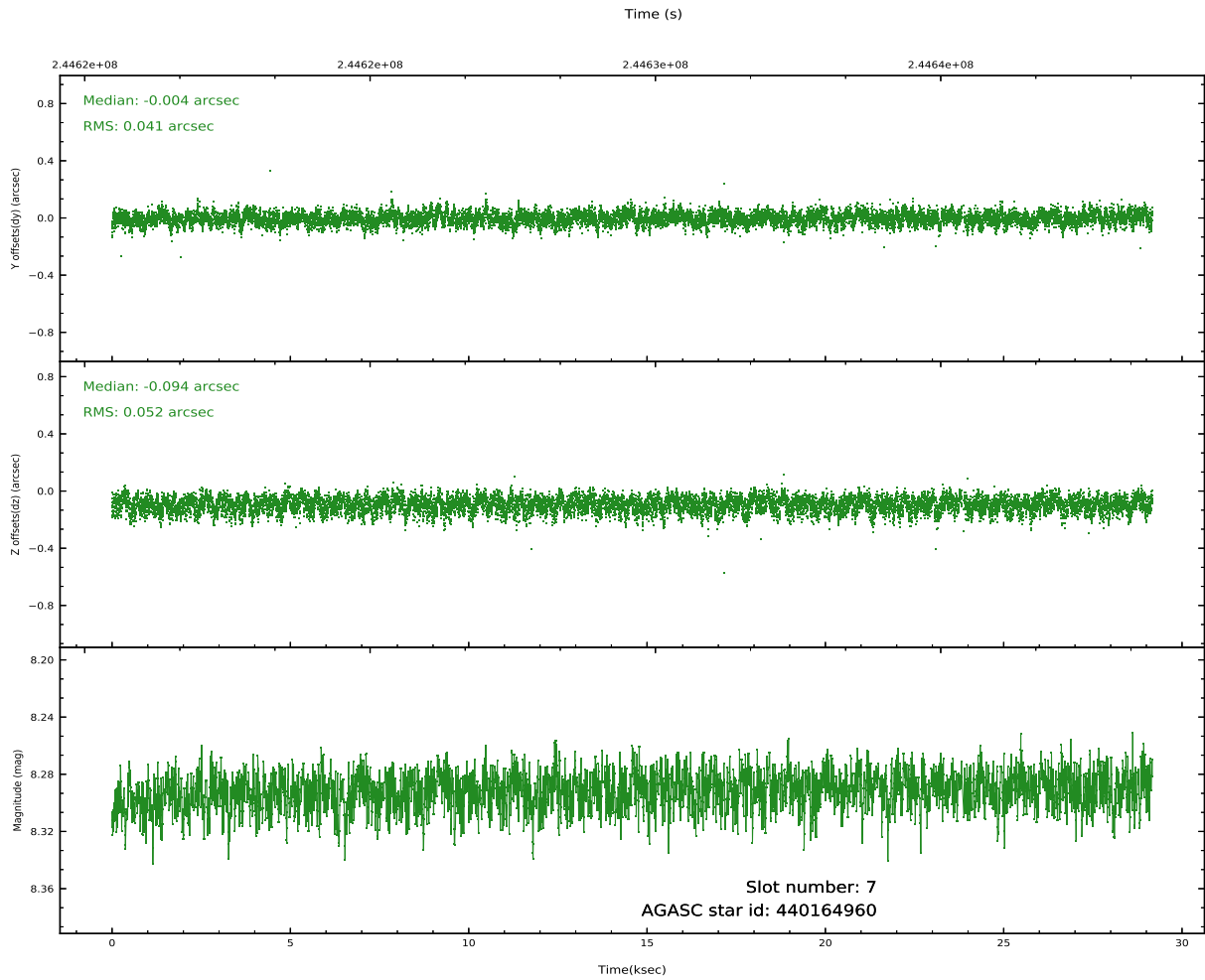
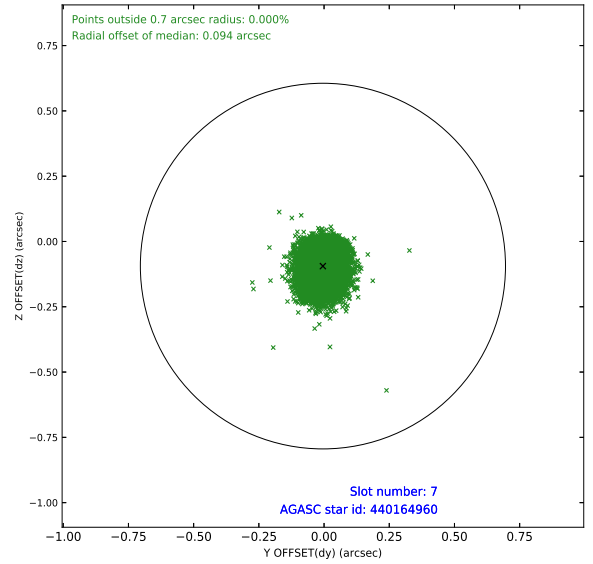
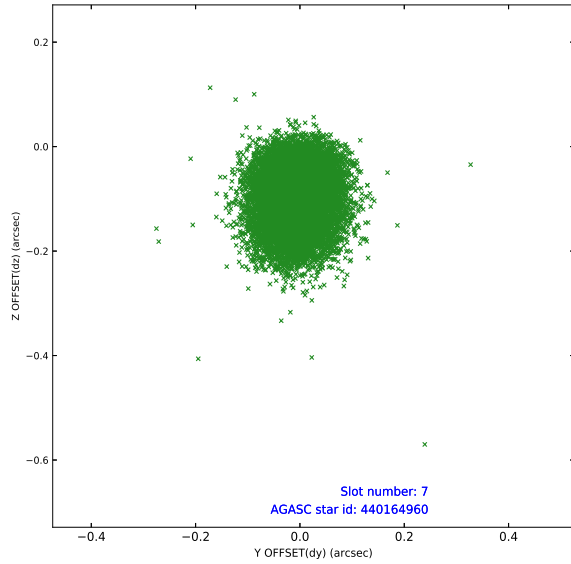
### 2.4.3 Slot 5



## 2.4.4 Slot 6

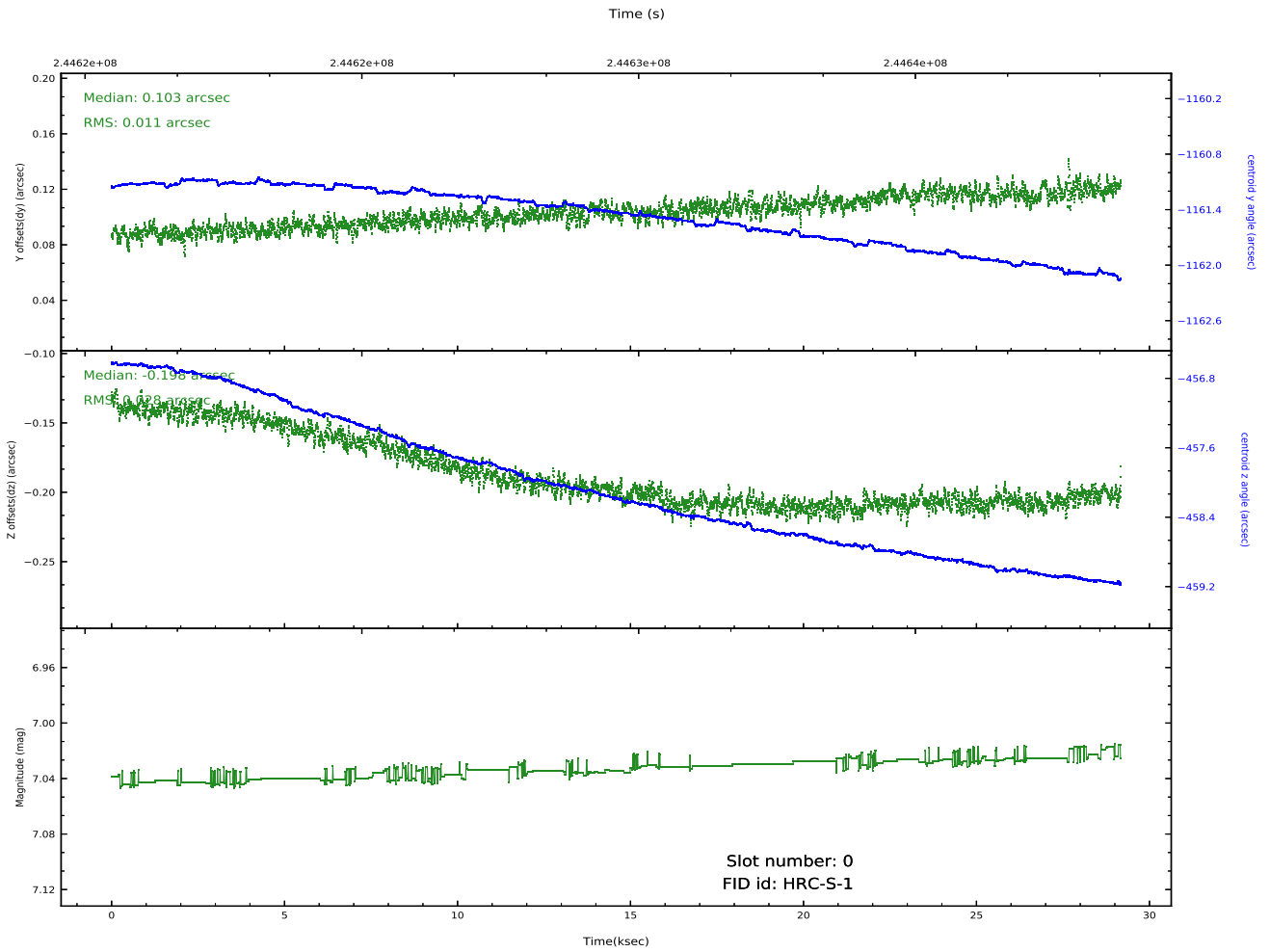
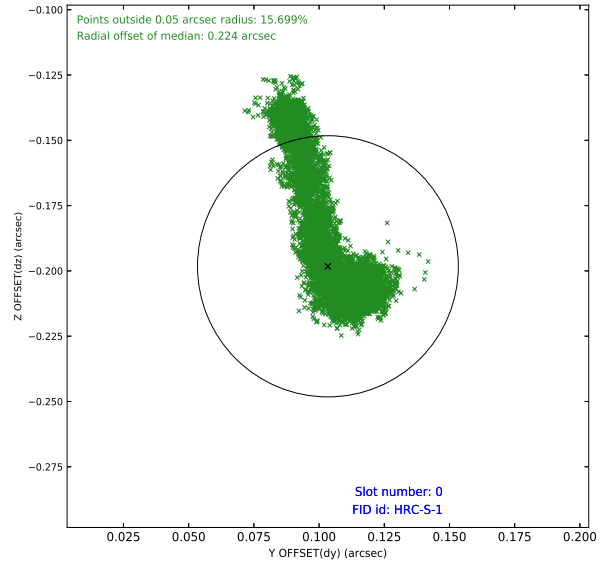
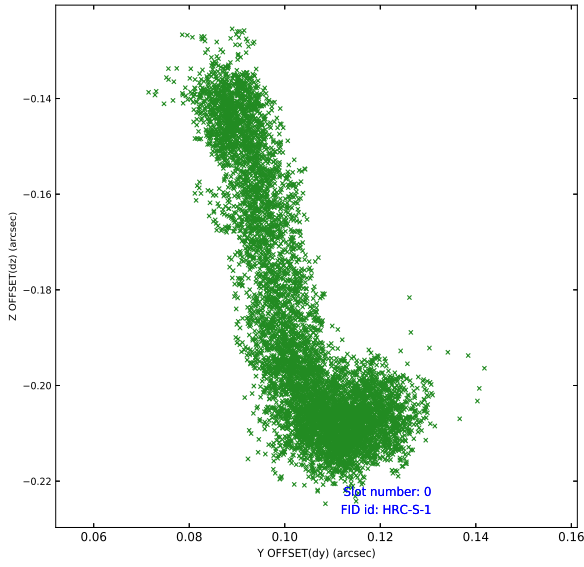


## 2.4.5 Slot 7

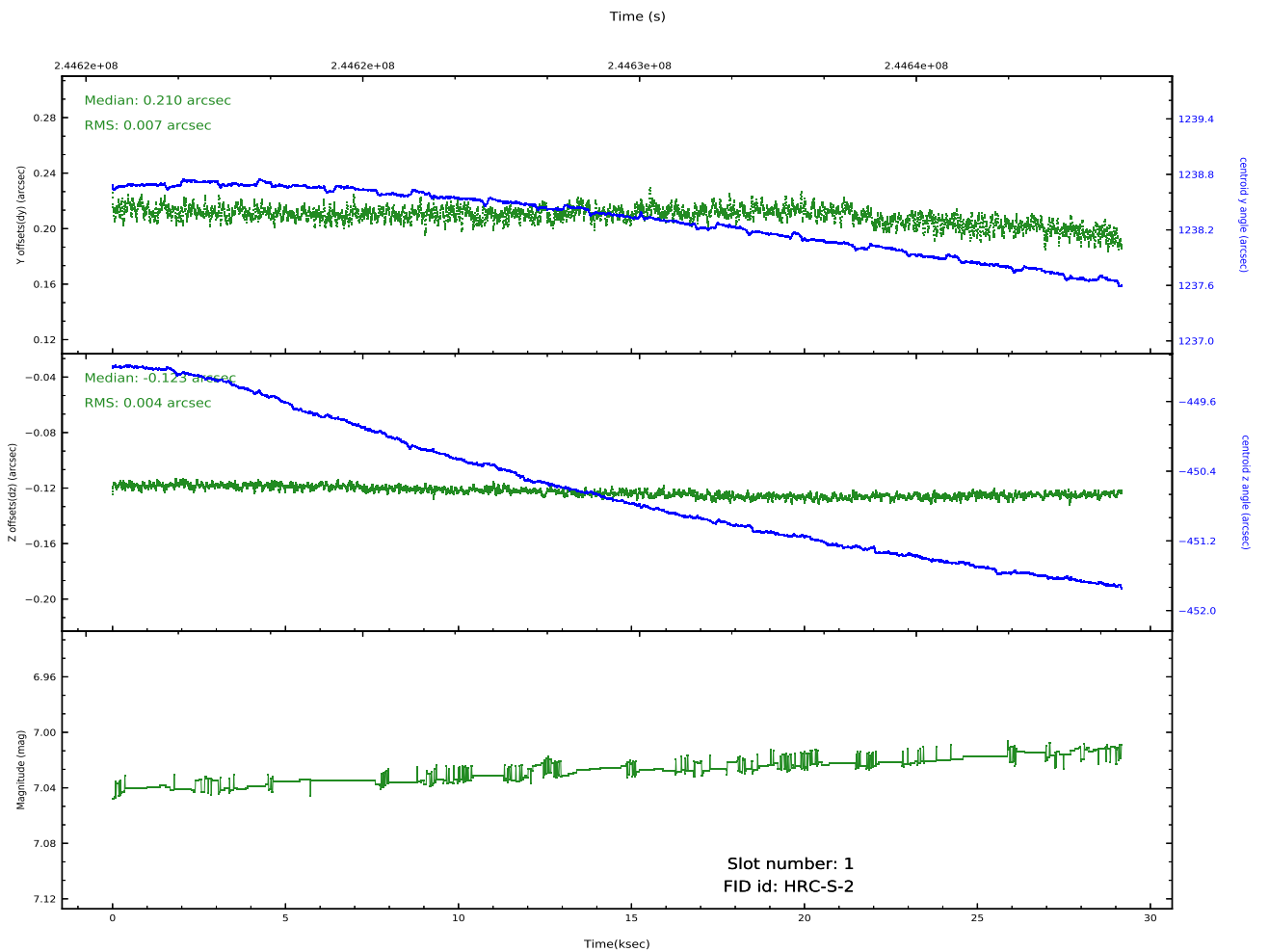
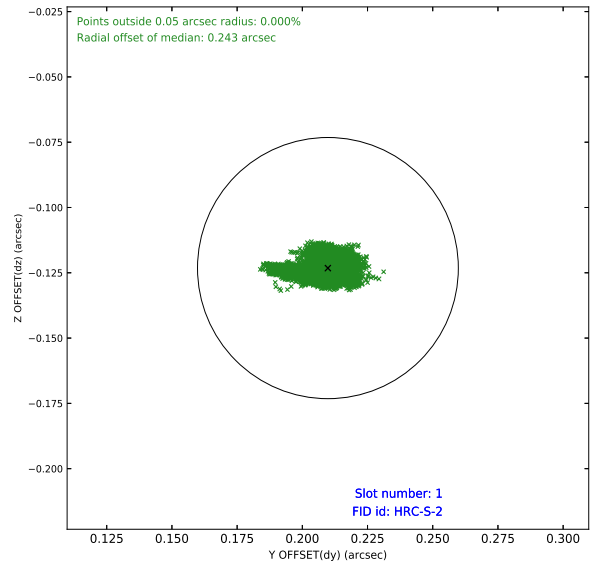
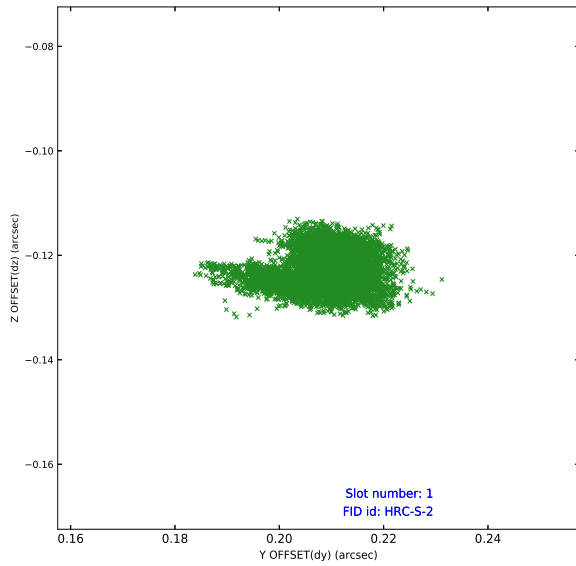


## 2.5 FID Slots

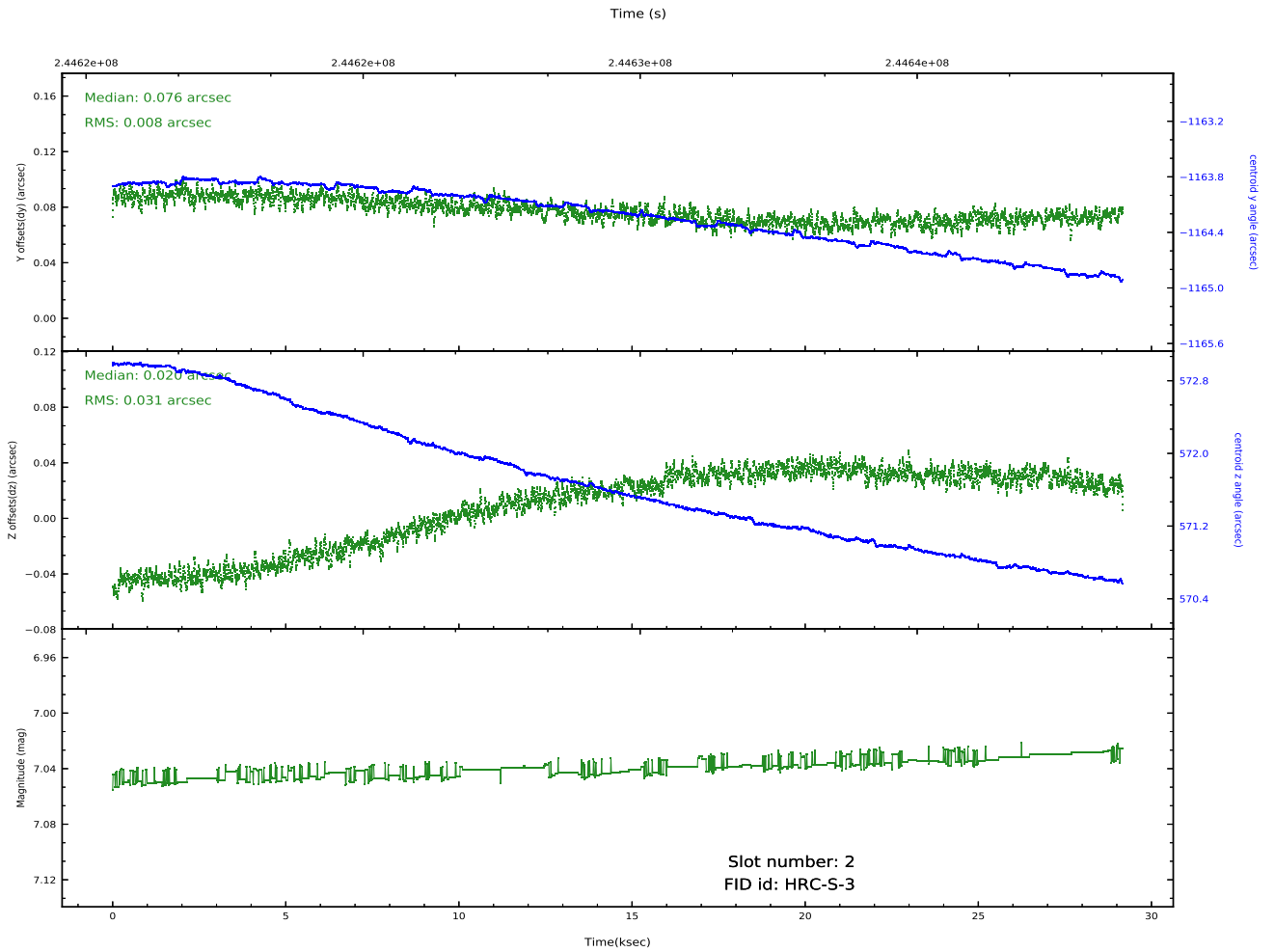
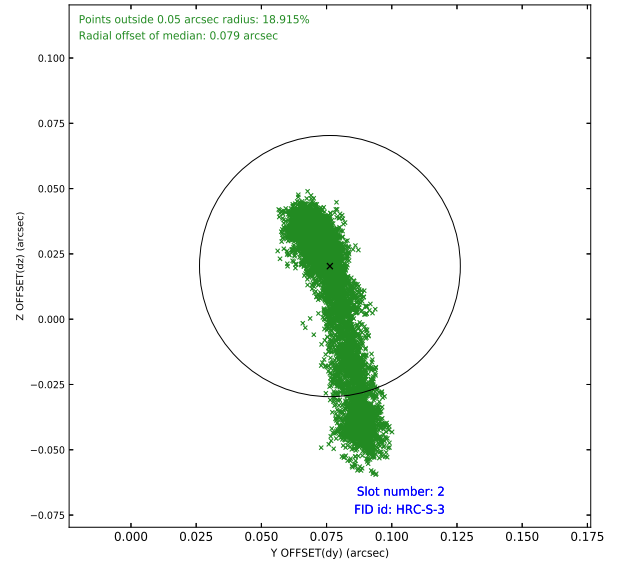
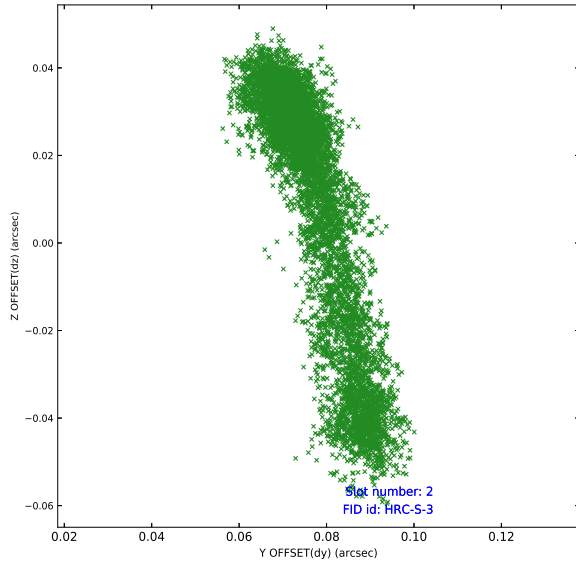
### 2.5.1 Slot 0



## 2.5.2 Slot 1

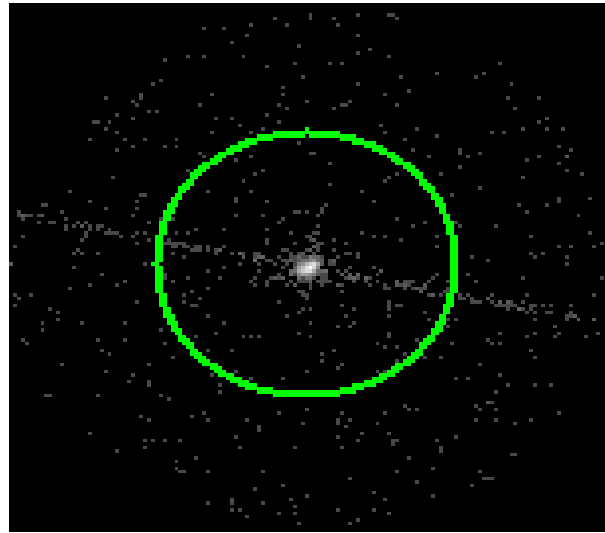


### 2.5.3 Slot 2

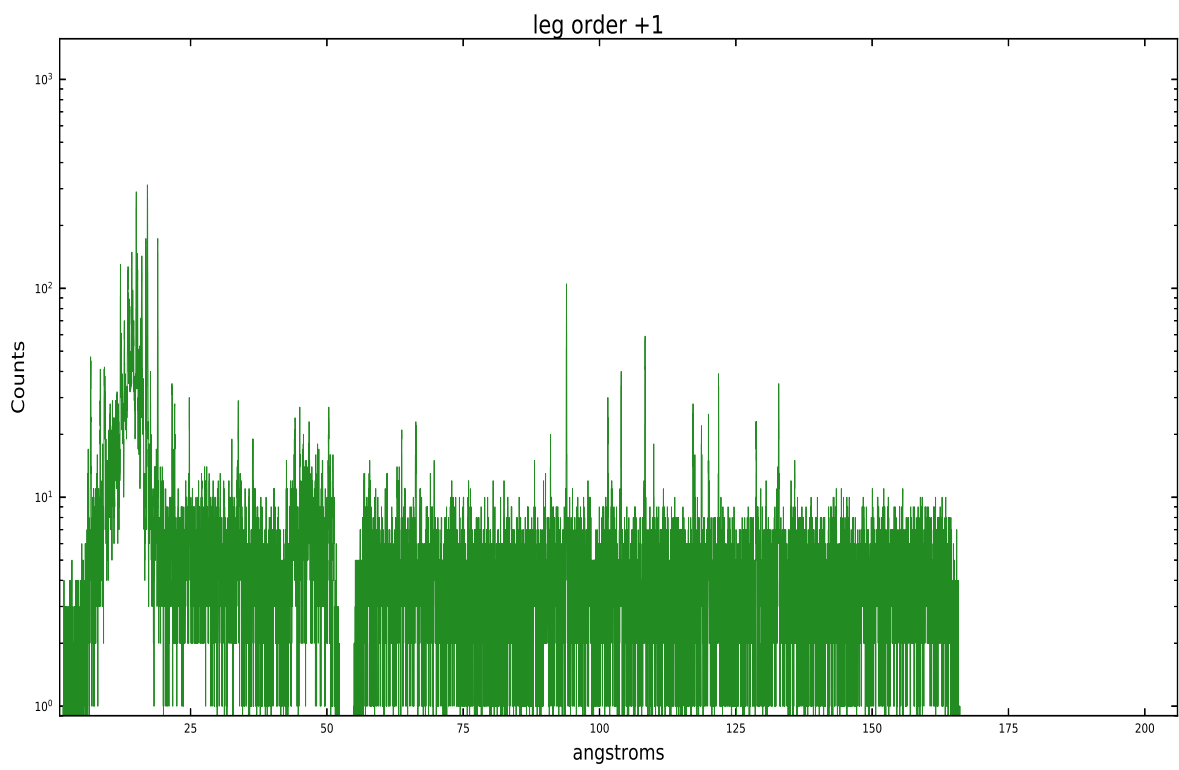
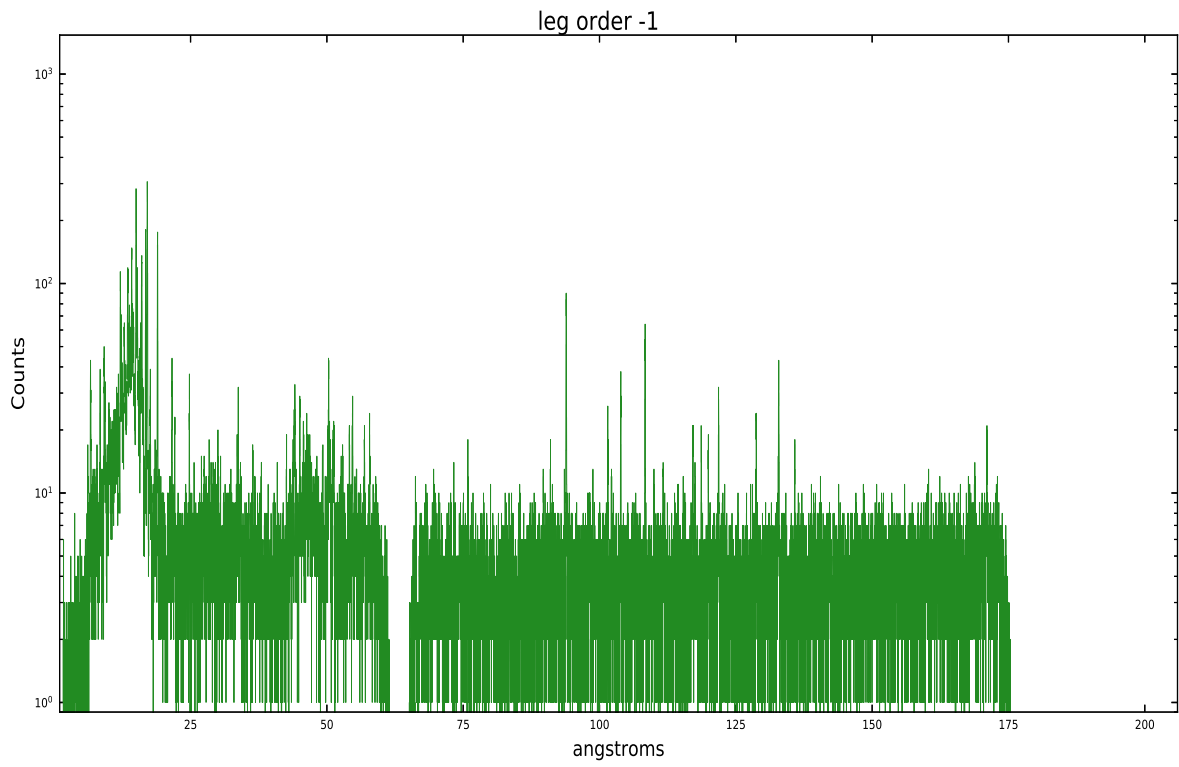


### 3 Gratings

#### 3.1 LETG Arm



LETG Zero Order



# A Summary

## A.1 Status

V&V Scientist	Melania Nynka
V&V Date (YYYY-MM-DD)	2020.10.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.17278

## A.2 Comments