

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5045 - L2 Version 5  
Chandra X-Ray Center

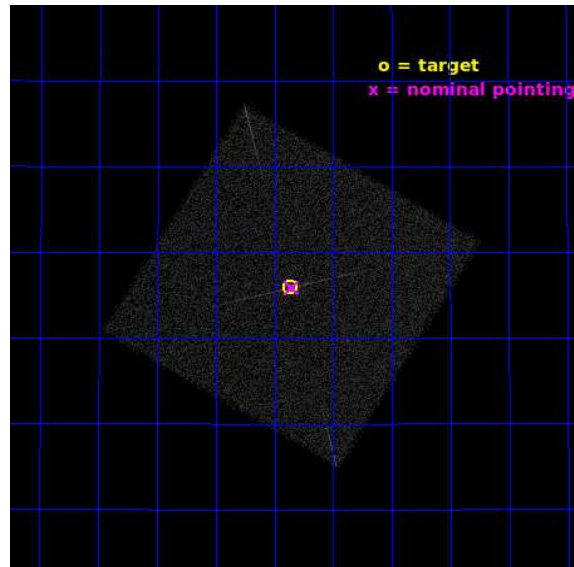
L2 Processing Date : Sep 27 2020

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# 1 Front

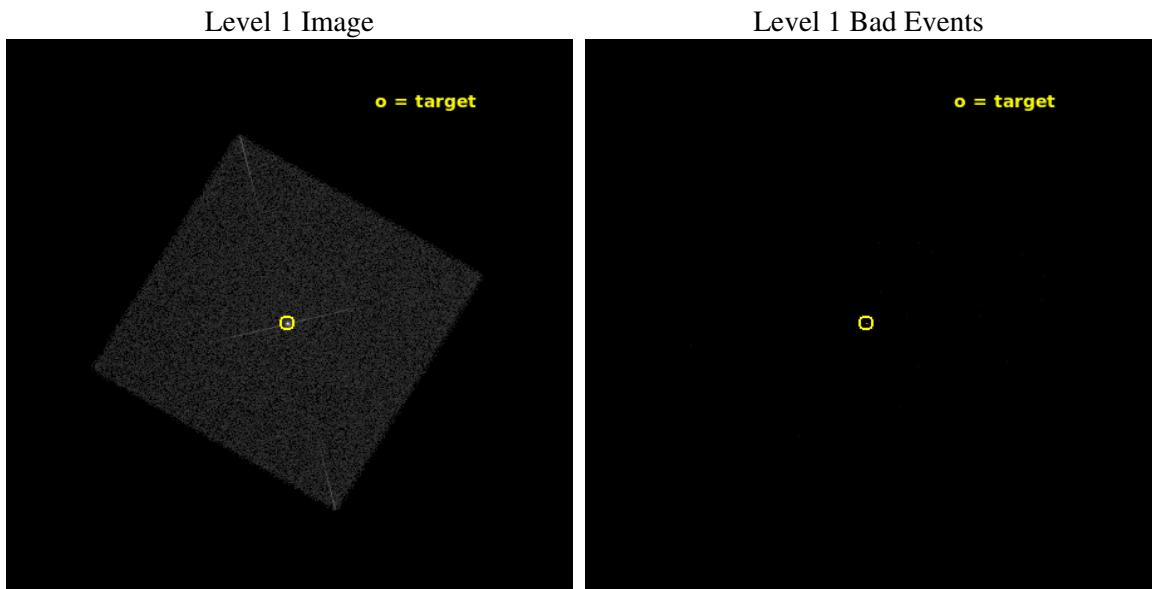
seq_num	290318	Sequence number
obs_id	5045	Observation id
title	AO5 Calibration Observations of HZ43	Proposal title
observer	CXC Calibration	Principal investigator
object	HZ43	Source name
ra_targ	199.092083	Observer's specified target RA [deg]
dec_targ	29.099	Observer's specified target Dec [deg]
ra_nom	199.08787422163	Nominal RA [deg]
dec_nom	29.09821975787	Nominal Dec [deg]
roll_nom	255.98944420661	Nominal Roll [deg]
revision	5	Processing version of data
ontime	2147.3750953674	[s]
livetime	2133.0842702412	Ontime multiplied by DTCOR
l2events	79988	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	1969.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	2147.3750953674	[s]
caldbver	4.9.2	&#160	l1events	164246	Number of level 1 events
date	2020-09-27T12:57:33	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	5	Processing version of data	zo_pos	(16313.99, 16394.13)	src1a sky pixel position

### 2.1.3 Events

#### Level 1 Events

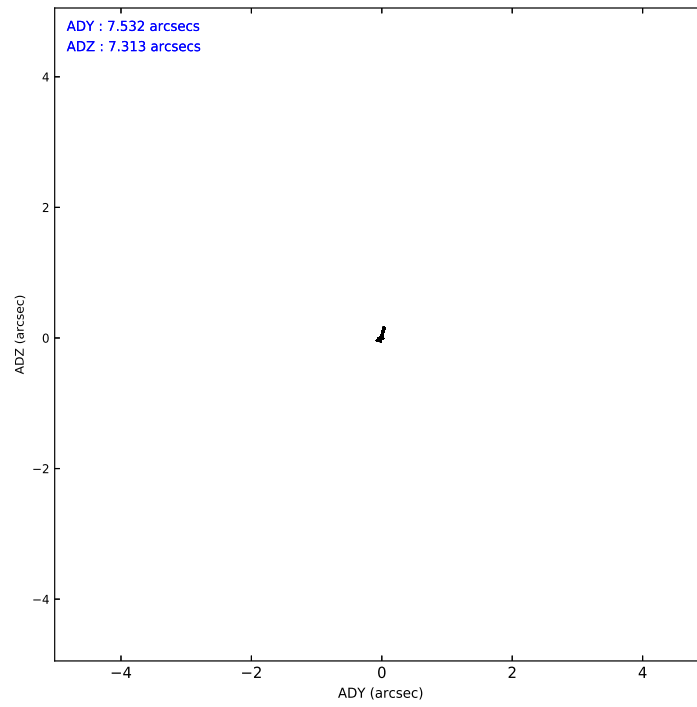
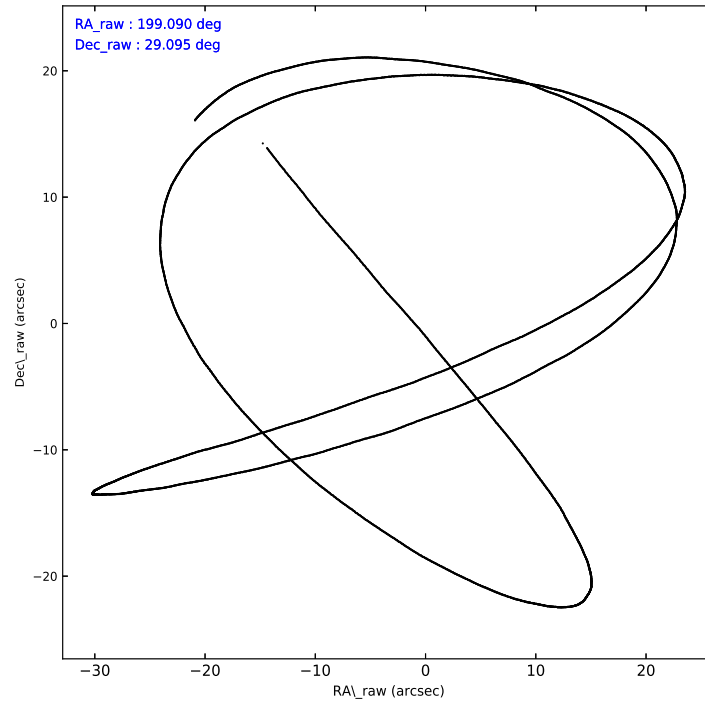
	<b>segment 0</b>
level 1 events	164246
rejected events	48819
rejected %	29%

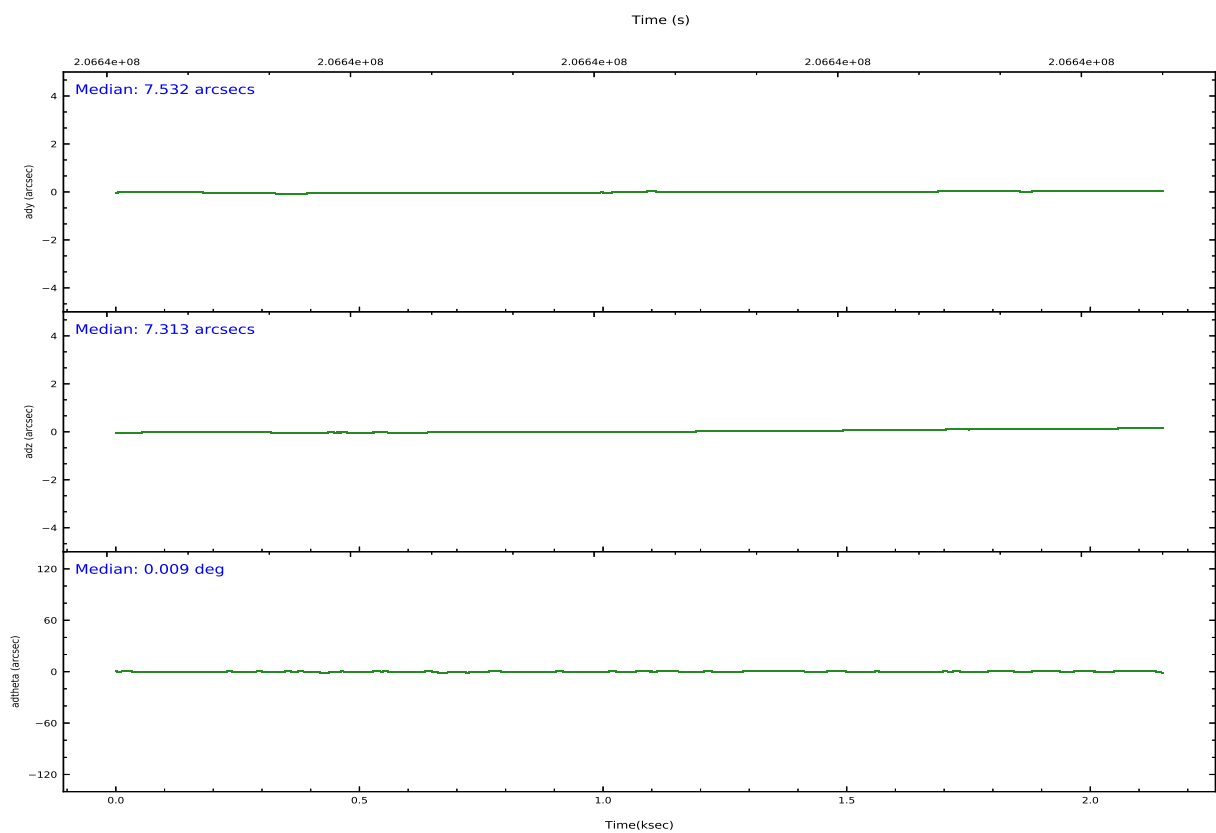
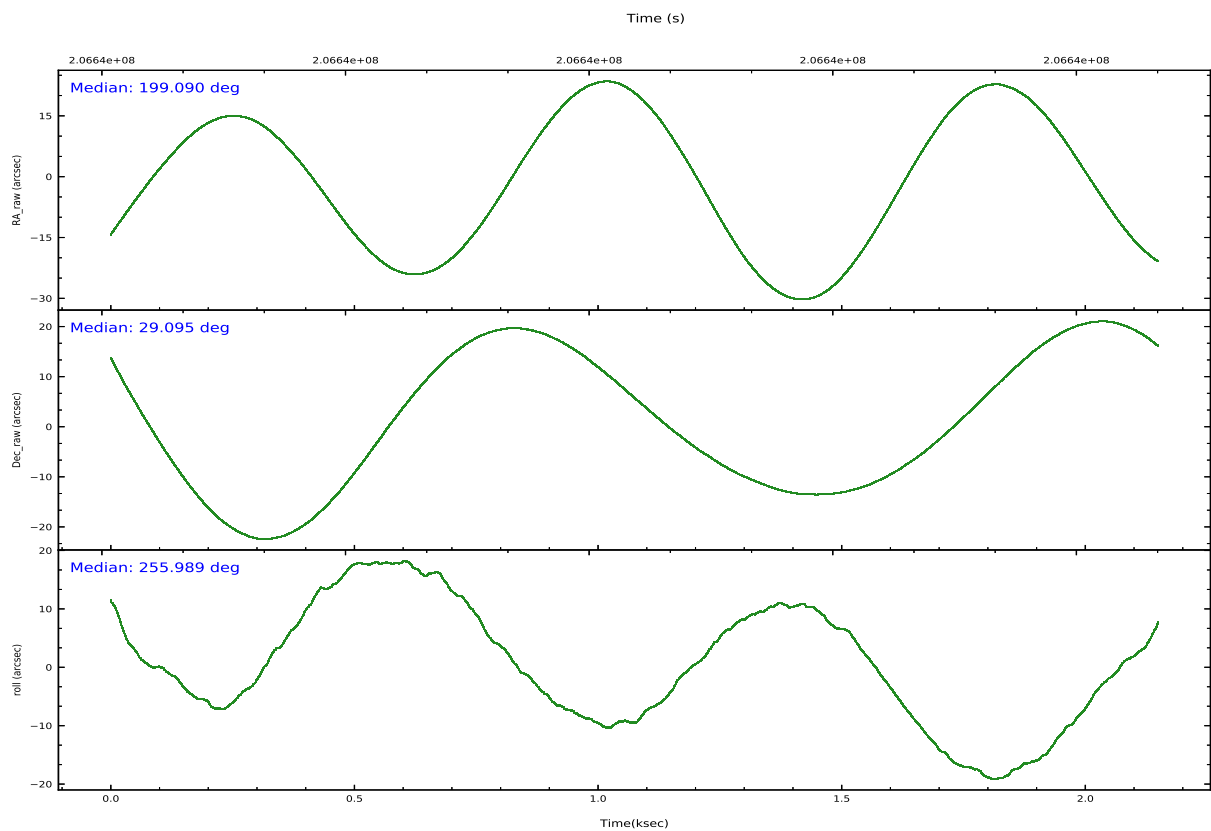
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	LETG	LETG
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	199.079994	199.08787422163
[deg] Pointing Dec	29.121530	29.09821975787
[deg] Pointing Roll	256.103858	255.98944420661
[s] Window start time (MET)	202435264.184000	202435264.184000
[s] Window stop time (MET)	207619264.184000	207619264.184000
[mm] SIM focus pos	-1.040293	-1.038866356238299
[mm] SIM defocus	0	0.001426264420575141
[mm] SIM translation stage pos	126.985494	126.9829799899862
[mm] SIM translation stage offset	0	0.002508901615314585
[s] Observation start time (MET)	206642199.184000	206641053.41055
Observation start date	2004-07-19T16:35:35	2004-07-19T16:17:33
[s] Observation end time (MET)	206644168.184000	206644303.1732
Observation end date	2004-07-19T17:08:24	2004-07-19T17:11:43

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

## 2.3 Aspect





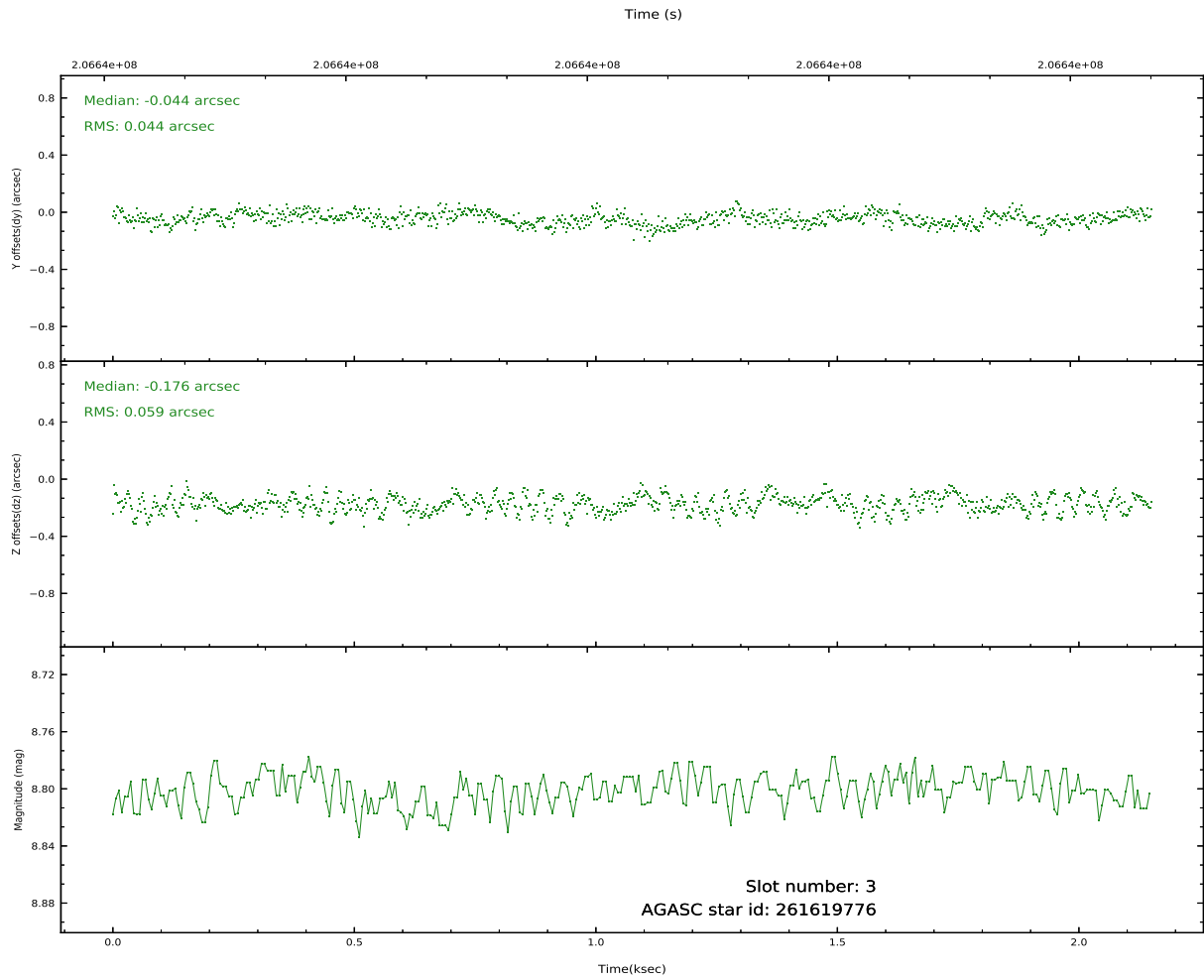
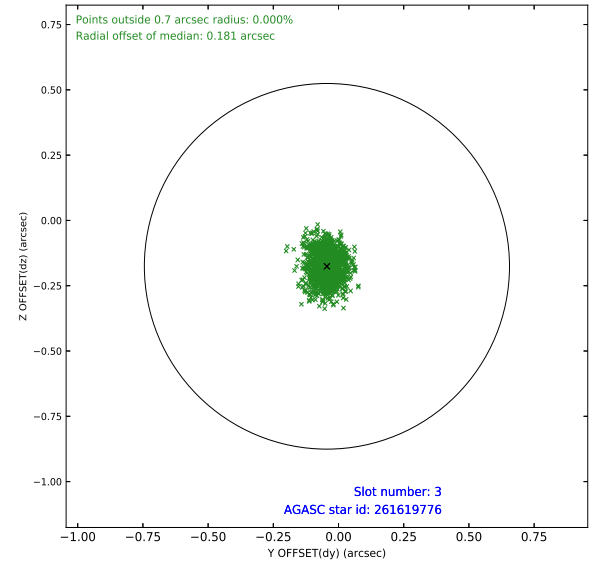
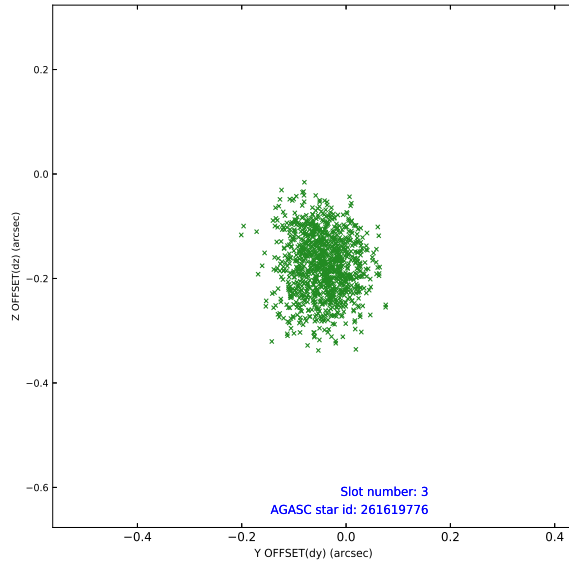
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-I-2	7.00	525	1.000	0.069	-0.066	0.007	0.012	0.000000	0.000000	849.57	-1296
1	FID		HRC-I-3	7.04	525	1.000	-0.080	0.004	0.007	0.011	0.000000	0.000000	-1190.06	1006
2	FID		HRC-I-4	6.99	525	1.000	0.130	-0.026	0.006	0.010	0.000000	0.000000	1277.54	1008
3	GUIDE	used	261619776	8.80	1050	1.000	-0.044	-0.176	0.079	0.126	198.654383	29.401174	-658.56	-1539
4	GUIDE	used	261619992	9.33	1050	1.000	0.134	-0.065	0.099	0.163	198.395553	28.647634	2169.36	-1693
5	GUIDE	used	261623040	9.12	1050	1.000	-0.228	-0.043	0.068	0.113	198.792686	29.757643	-2006.13	-1424
6	GUIDE	used	261623624	9.12	1048	1.000	0.202	0.268	0.073	0.119	199.611555	28.454113	1923.10	2207
7	GUIDE	used	261629720	8.10	1049	1.000	-0.057	0.012	0.054	0.092	199.236176	29.044452	152.98	544

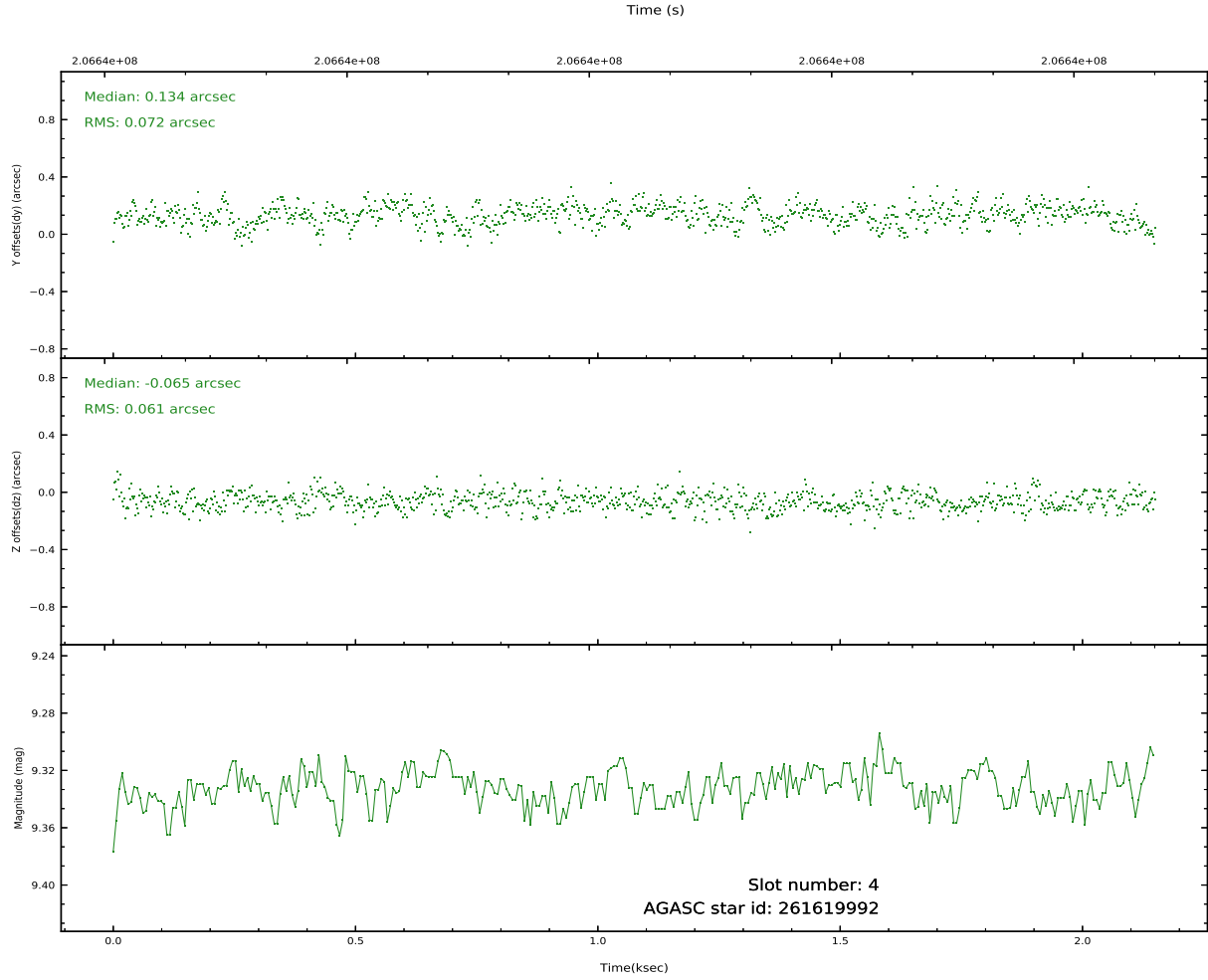
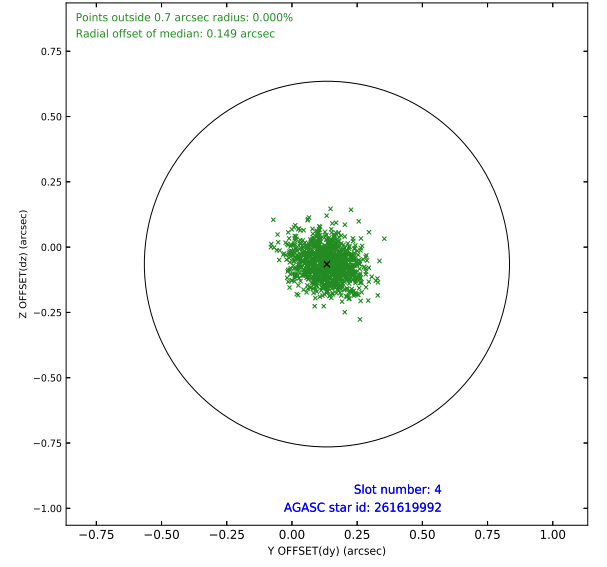
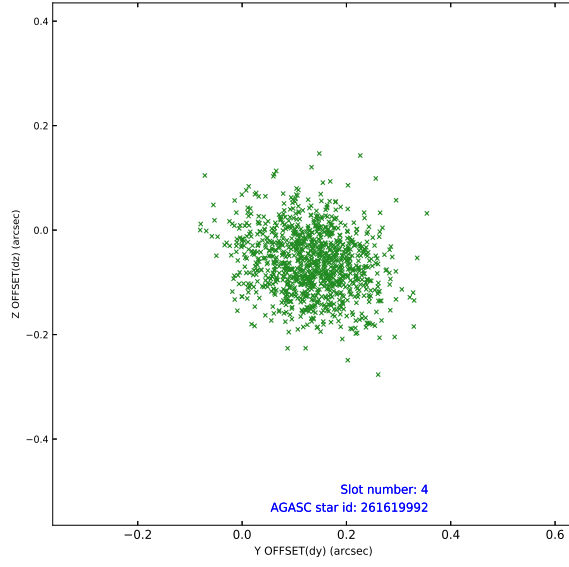


## 2.4 Star Slots

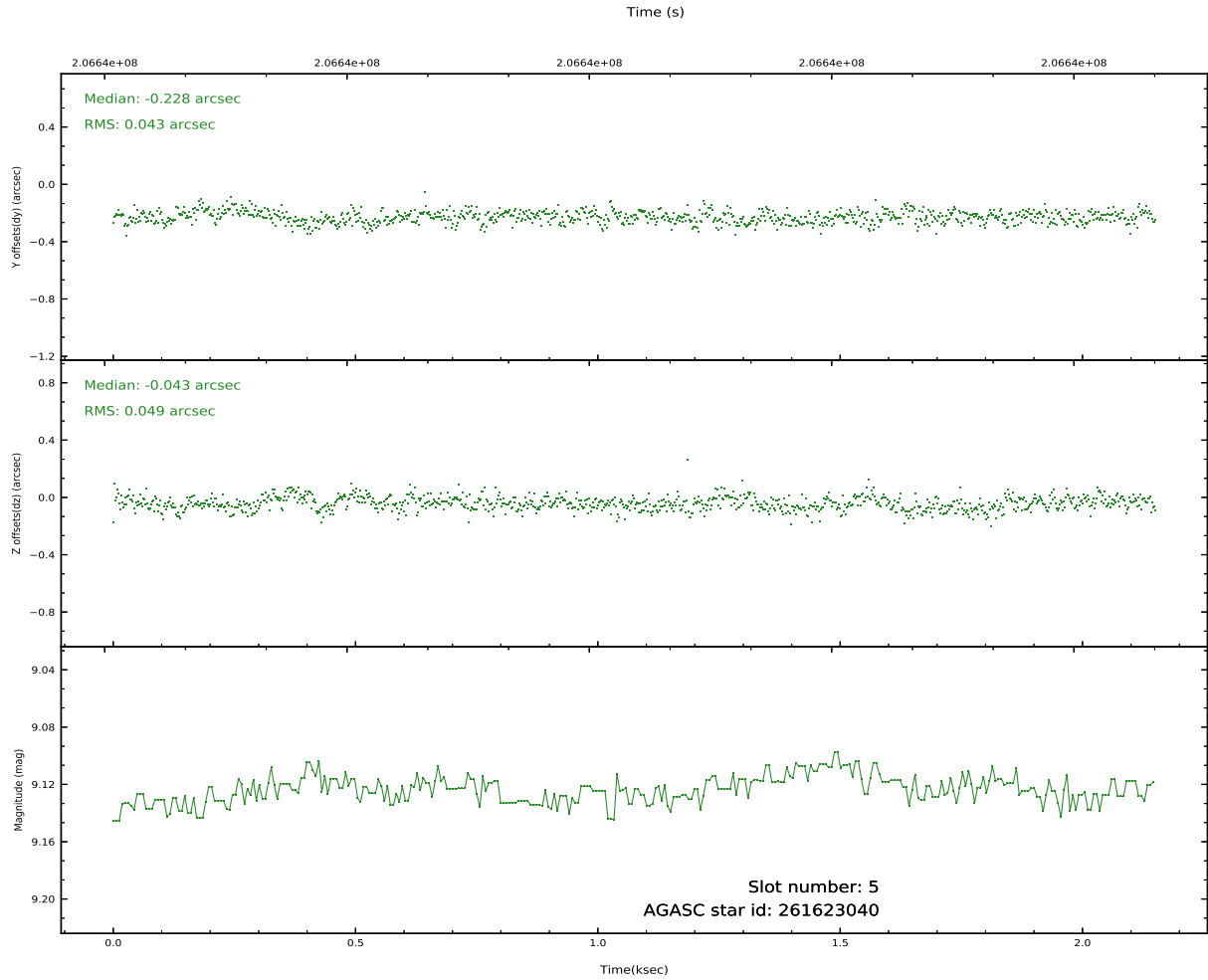
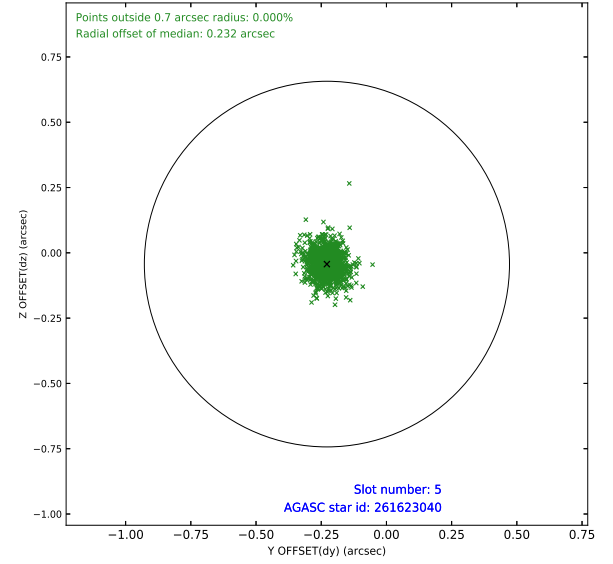
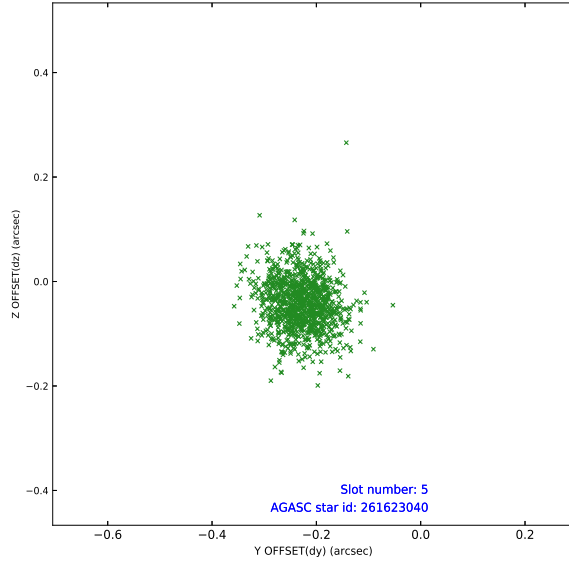
### 2.4.1 Slot 3



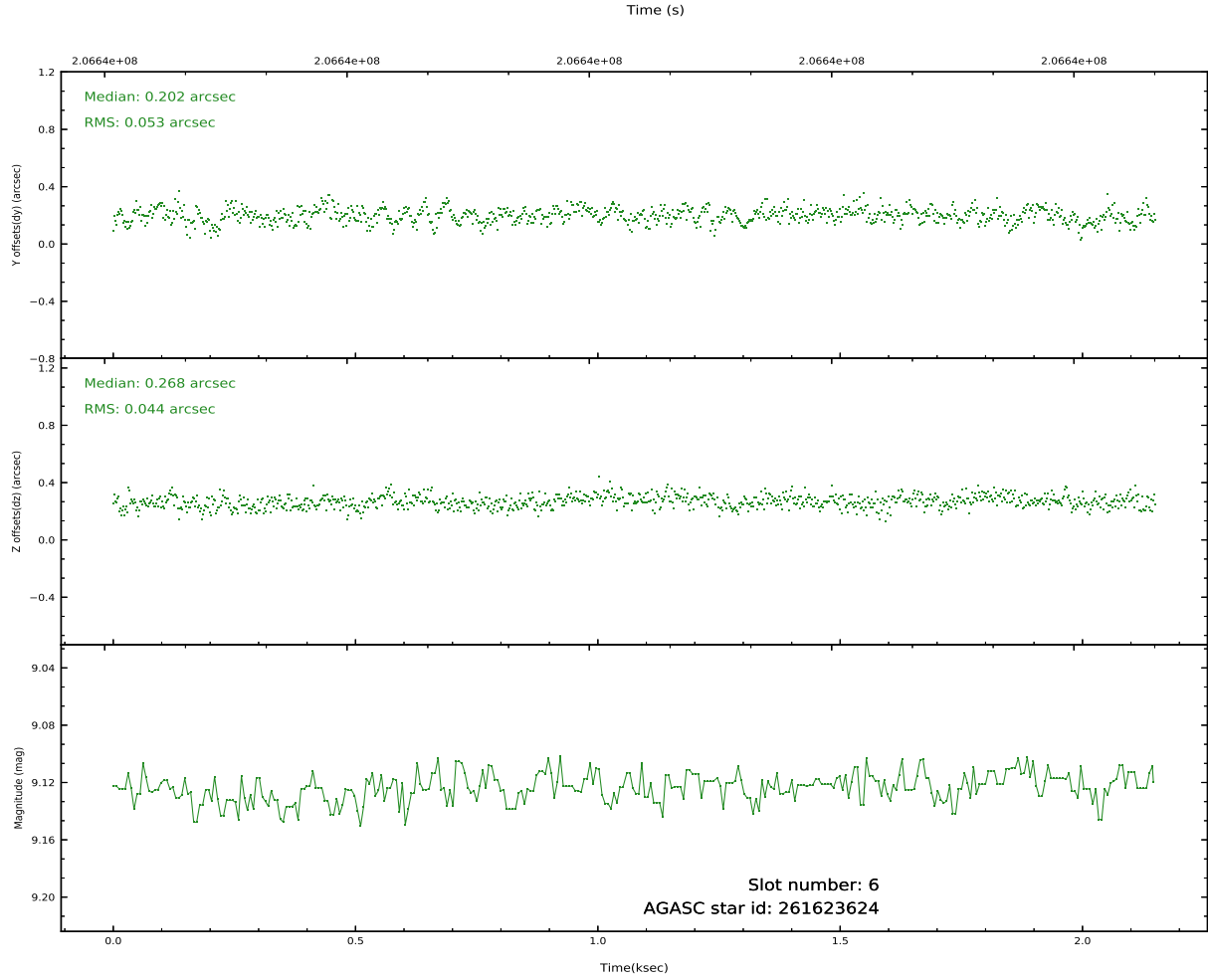
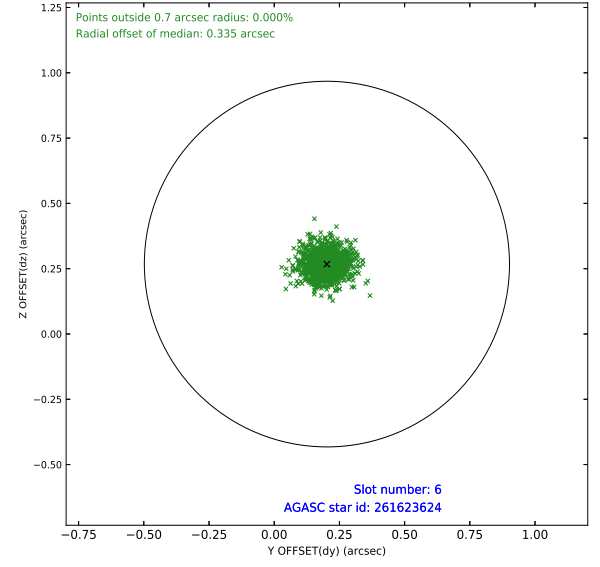
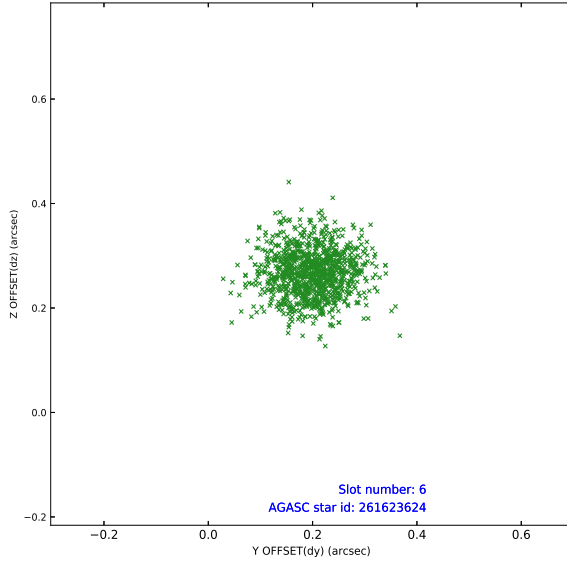
## 2.4.2 Slot 4



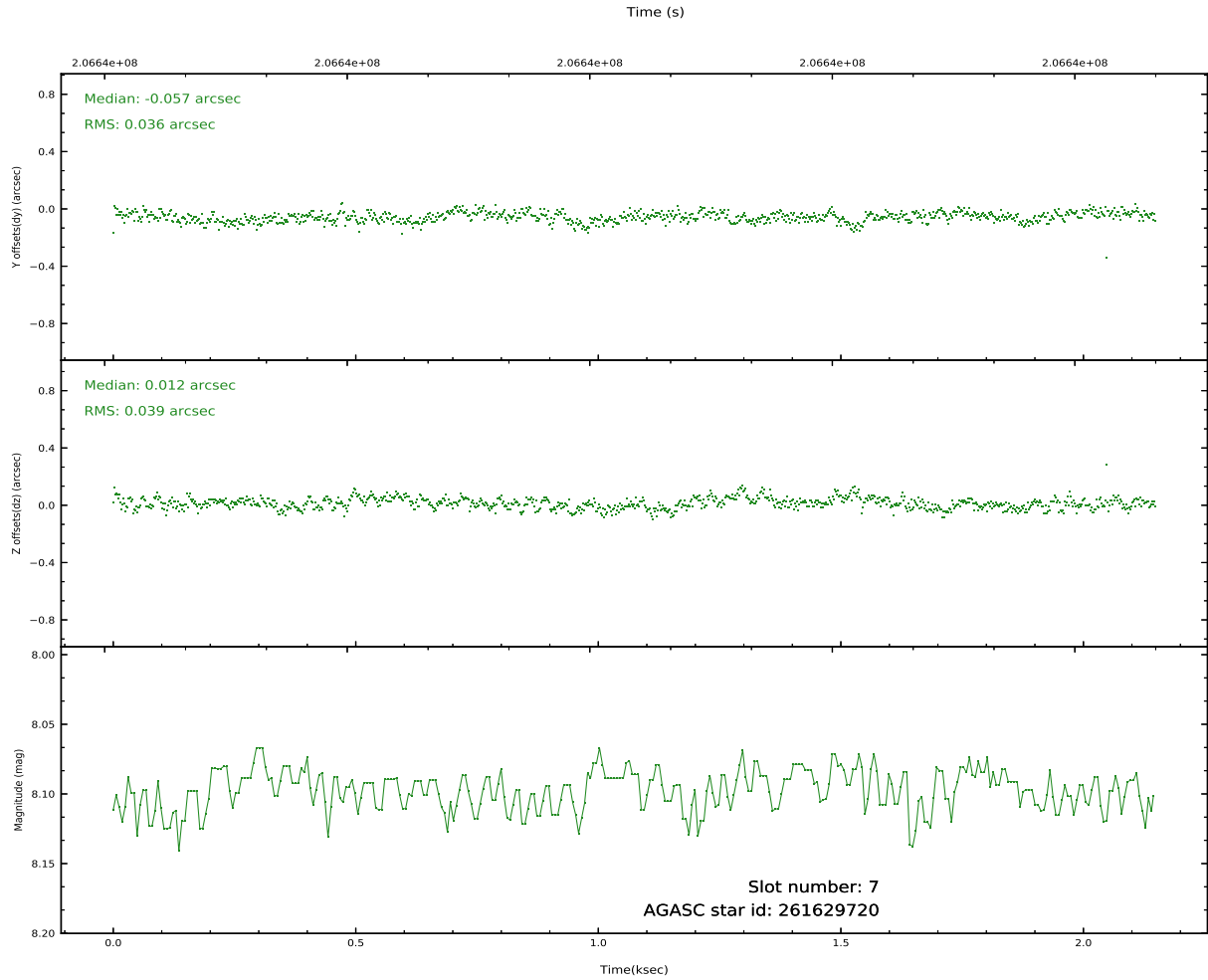
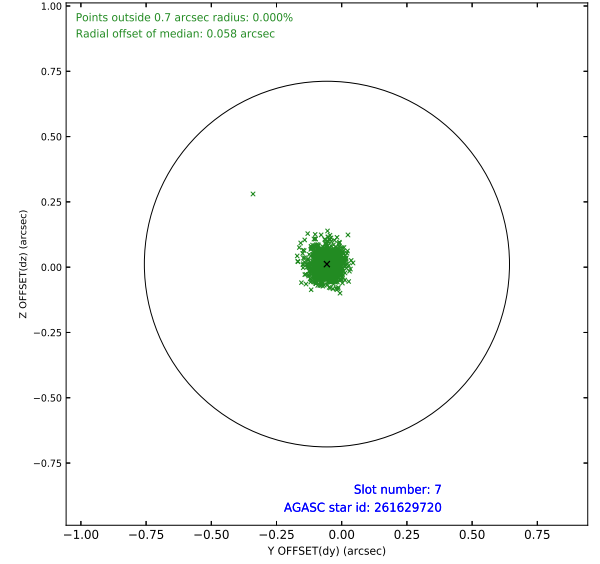
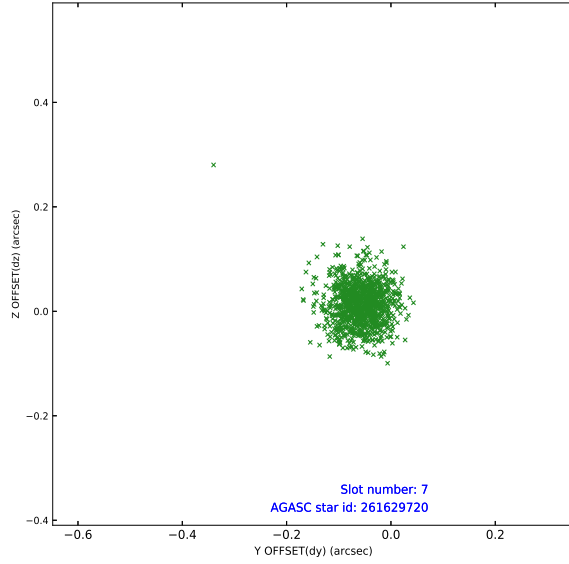
### 2.4.3 Slot 5



## 2.4.4 Slot 6

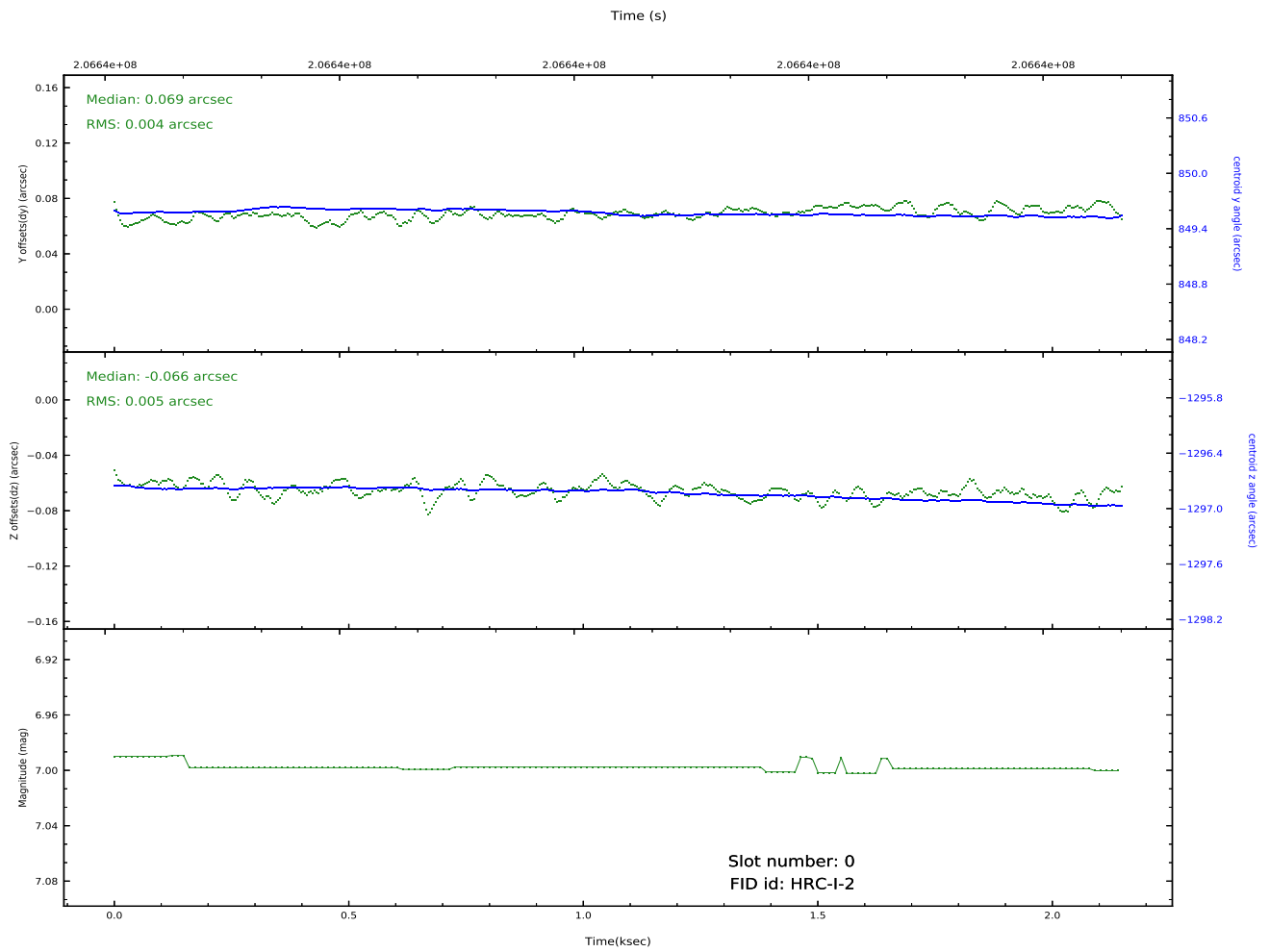
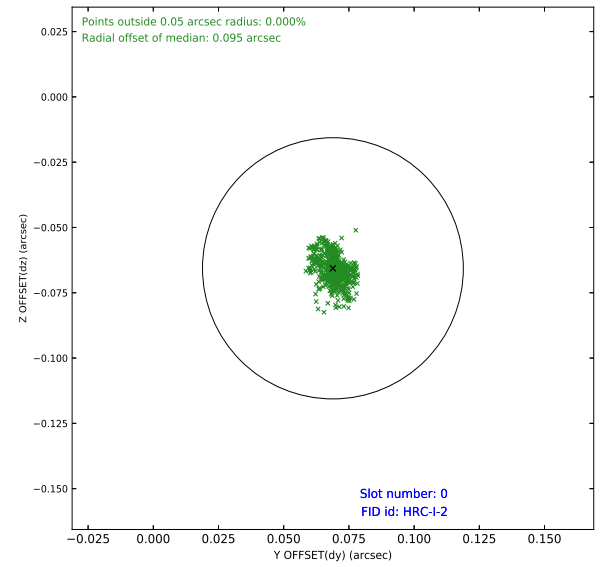
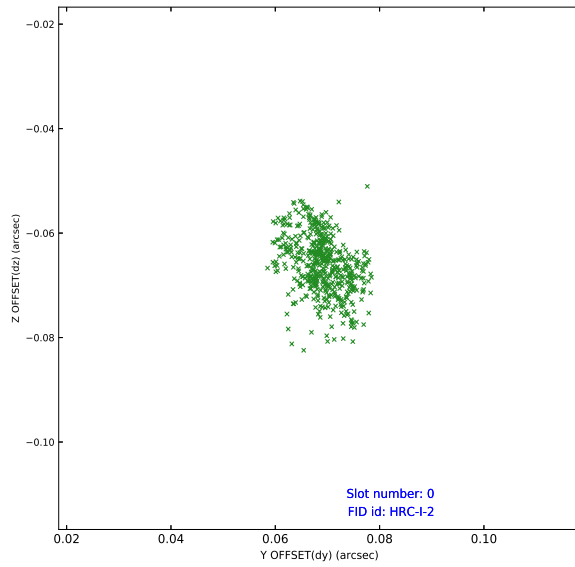


## 2.4.5 Slot 7

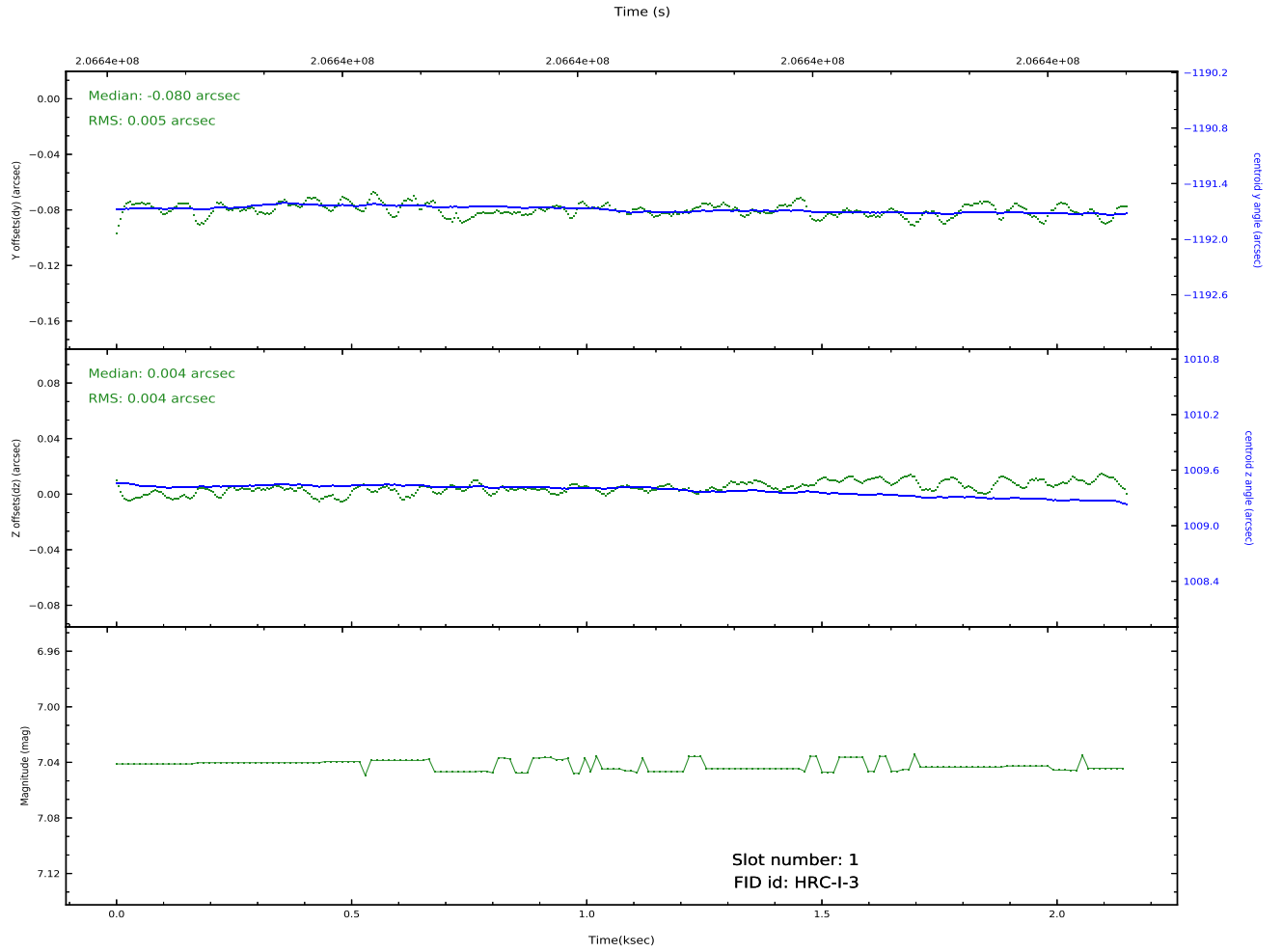
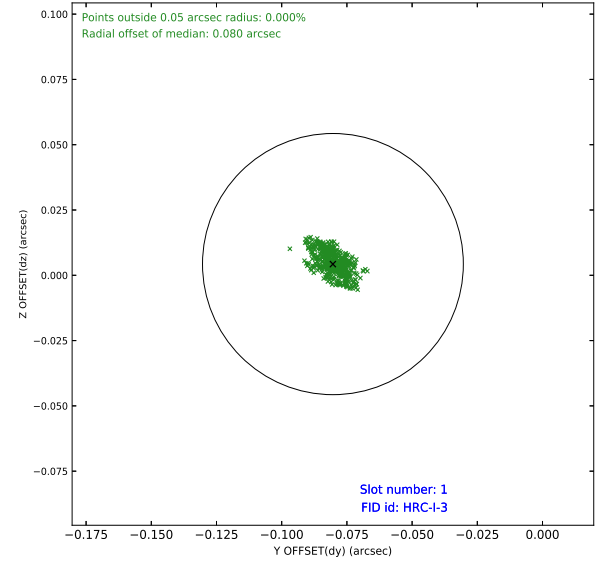
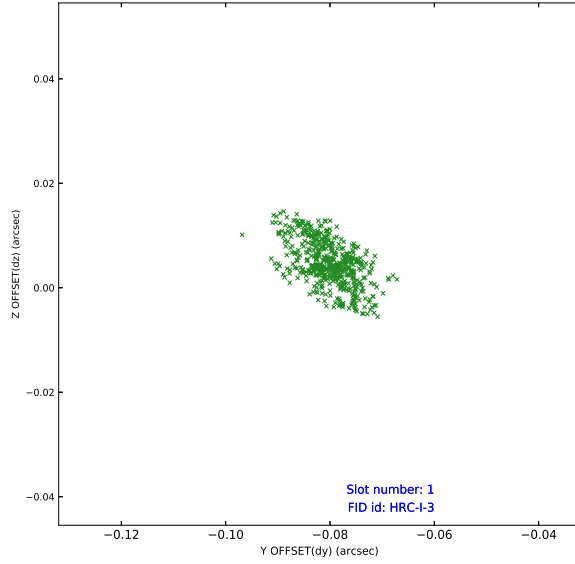


## 2.5 FID Slots

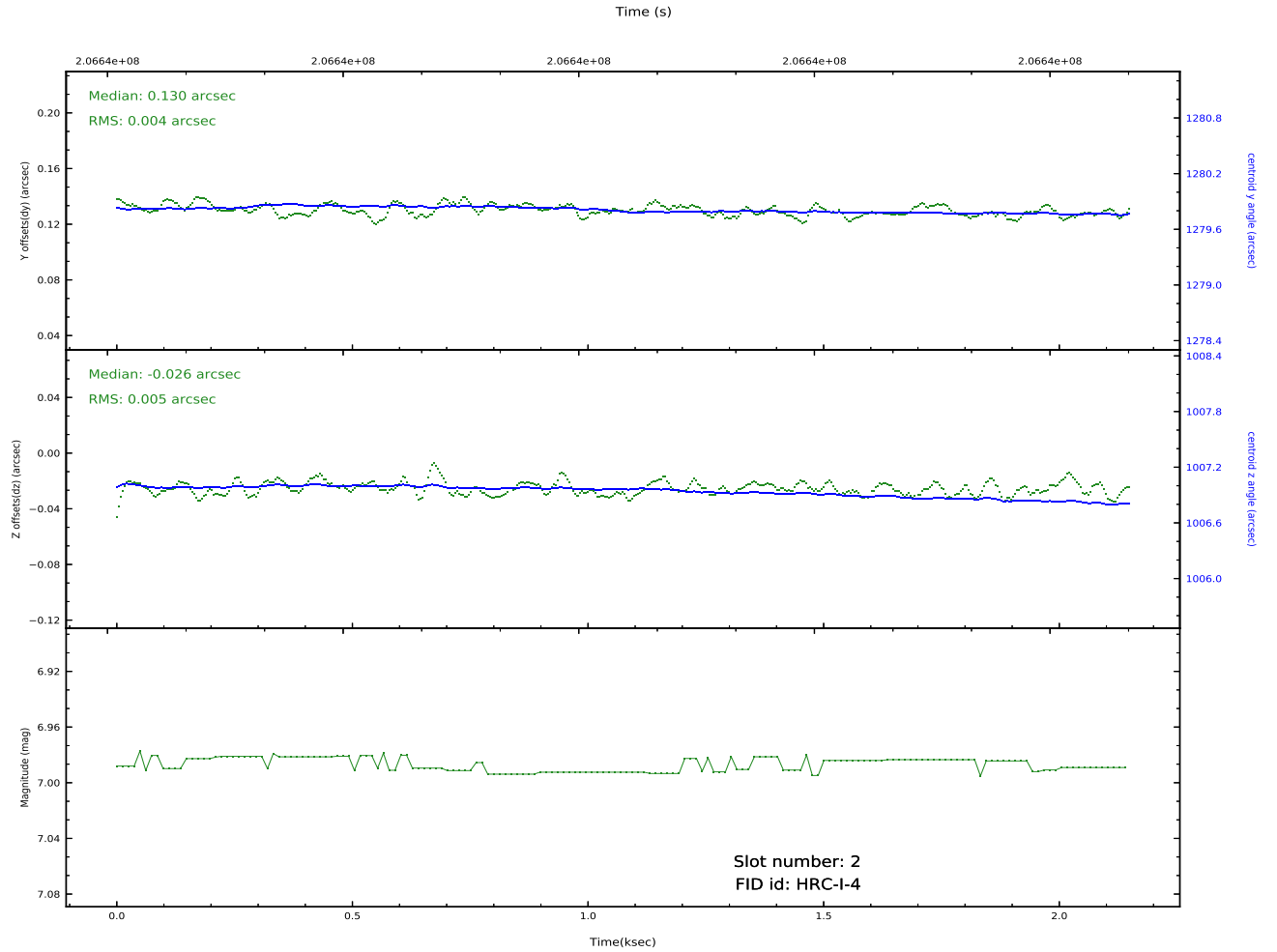
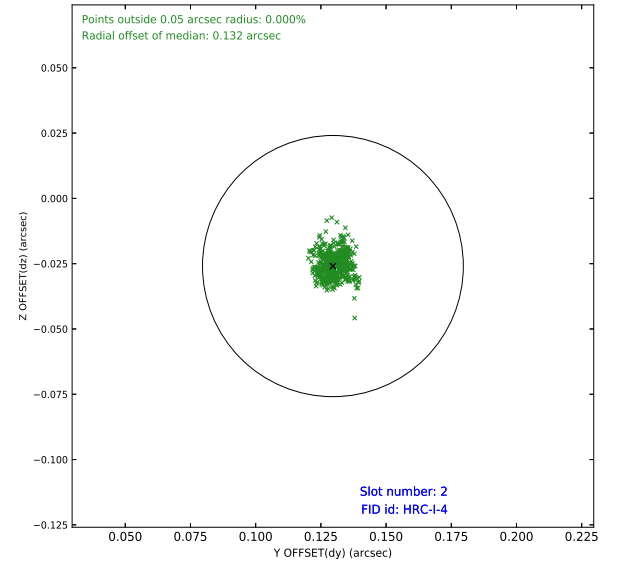
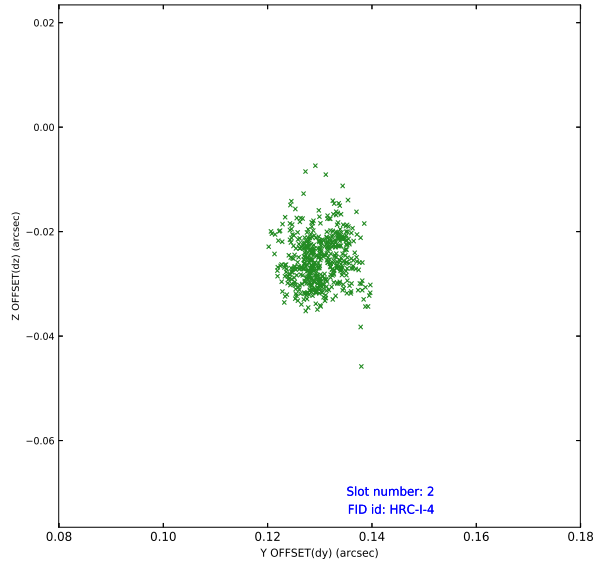
### 2.5.1 Slot 0



## 2.5.2 Slot 1



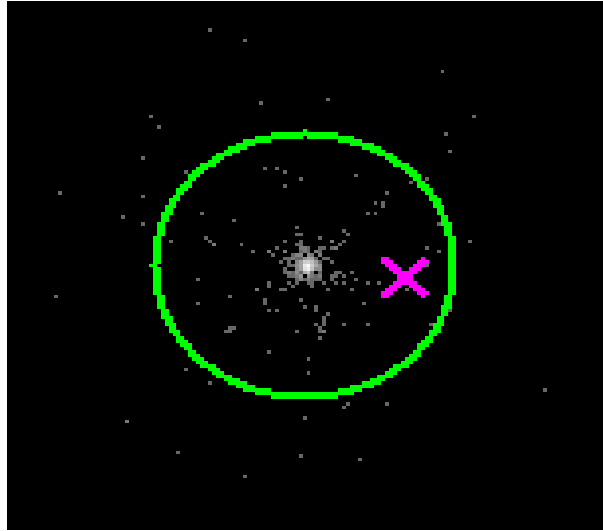
## 2.5.3 Slot 2



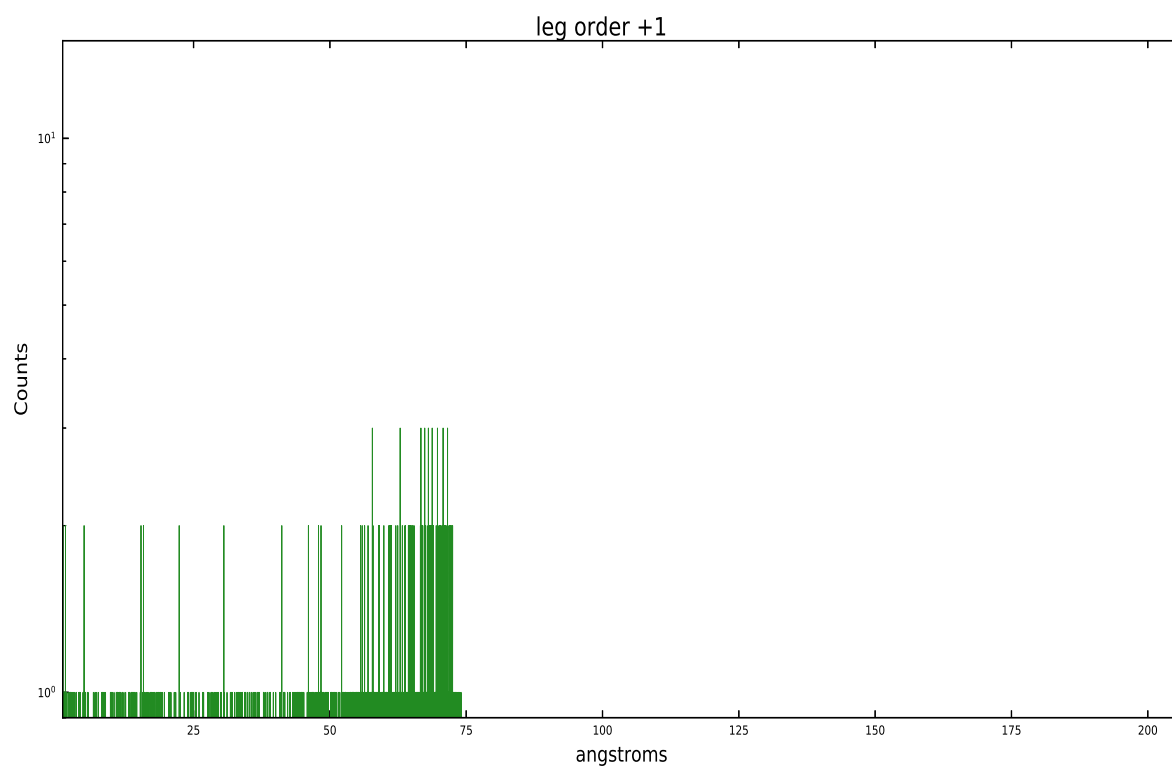
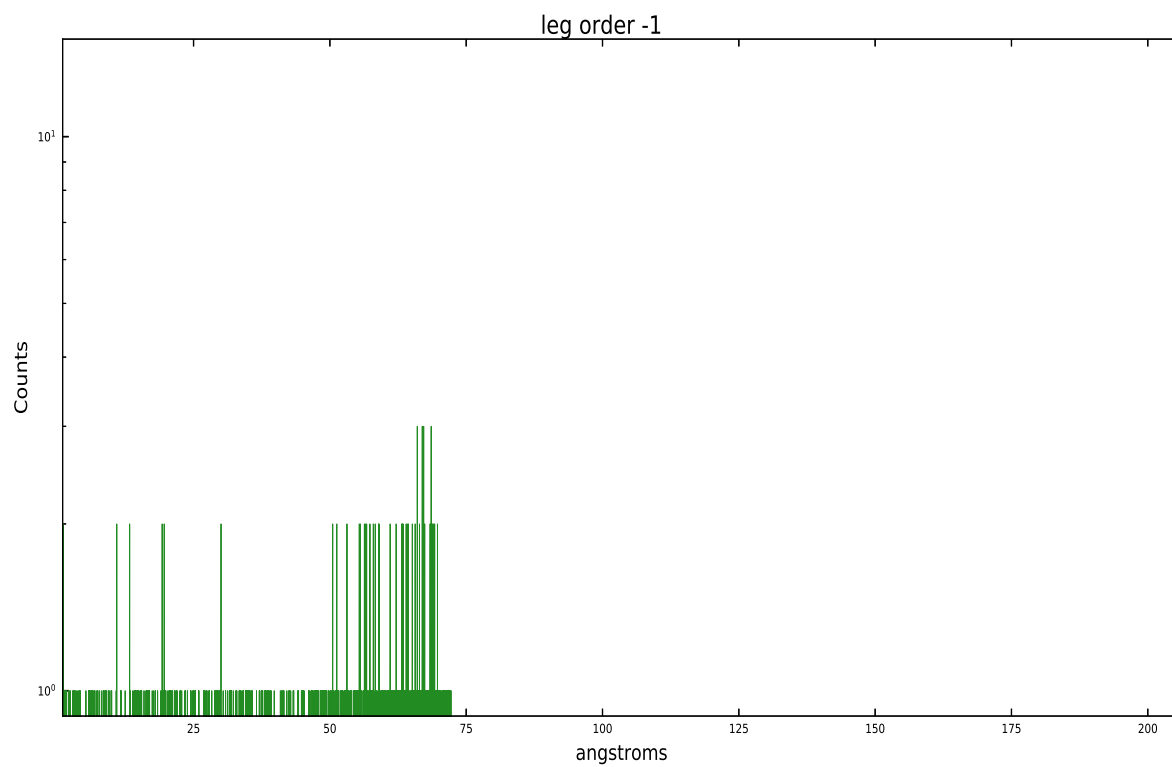


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order



## **A Summary**

### **A.1 Status**

V&V Scientist	Melania Nynka
V&V Date (YYYY-MM-DD)	2020.10.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.147

### **A.2 Comments**