

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 7243 - L2 Version 4  
Chandra X-Ray Center

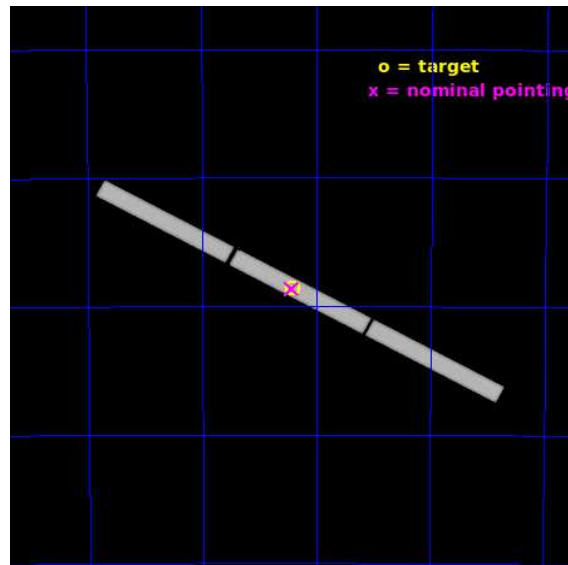
L2 Processing Date : Oct 12 2020

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# 1 Front

seq_num	500573	Sequence number
obs_id	7243	Observation id
title	Spectra of Neutron Stars with Strongly Magnetized Hydrogen Atmospheres	Proposal title
observer	Prof. Marten van Kerkwijk	Principal investigator
object	RX J0720.4-3125	Source name
ra_targ	110.104167	Observer's specified target RA [deg]
dec_targ	-31.430611	Observer's specified target Dec [deg]
ra_nom	110.10807528164	Nominal RA [deg]
dec_nom	-31.432068983821	Nominal Dec [deg]
roll_nom	28.270627933285	Nominal Roll [deg]
revision	4	Processing version of data
ontime	17184.382045001	[s]
livetime	17050.382955979	Ontime multiplied by DTCOR
l2events	1092658	Number of level 2 events

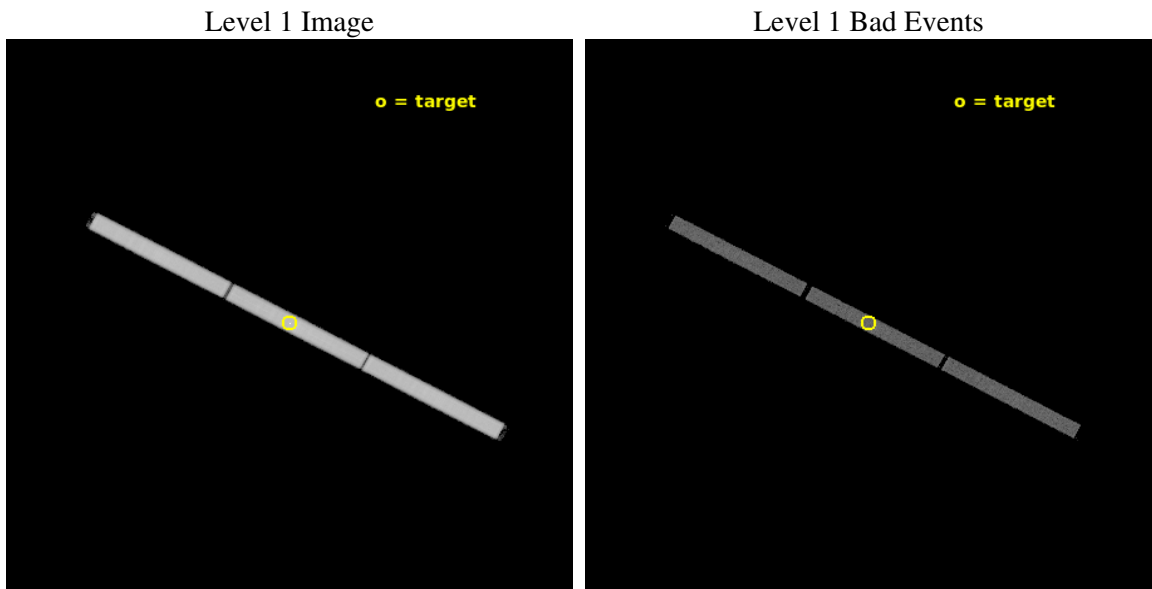




## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	17000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	17184.382045001	[s]
caldbver	4.9.2	&#160	l1events	1578330	Number of level 1 events
date	2020-10-12T04:40:48	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	4	Processing version of data	zo_pos	(32865.15, 32808.27)	src1a sky pixel position

### 2.1.3 Events

Level 1 Events

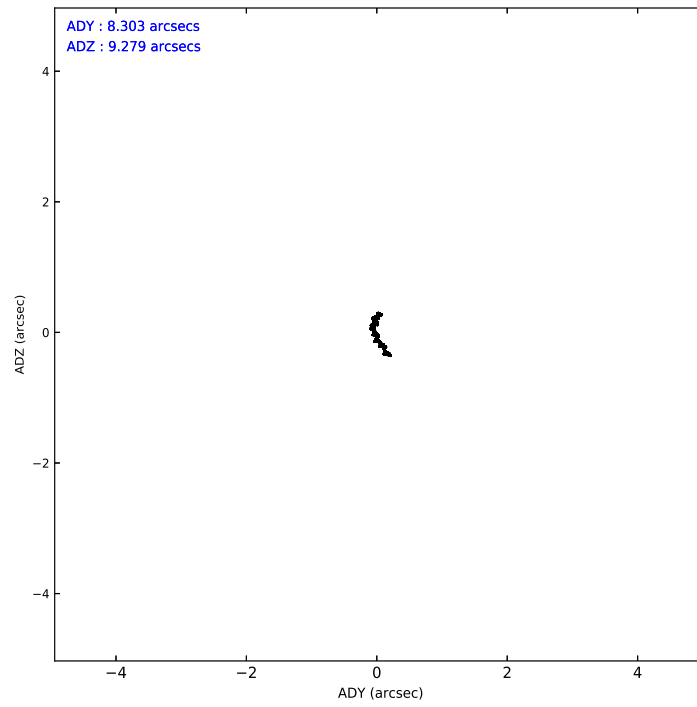
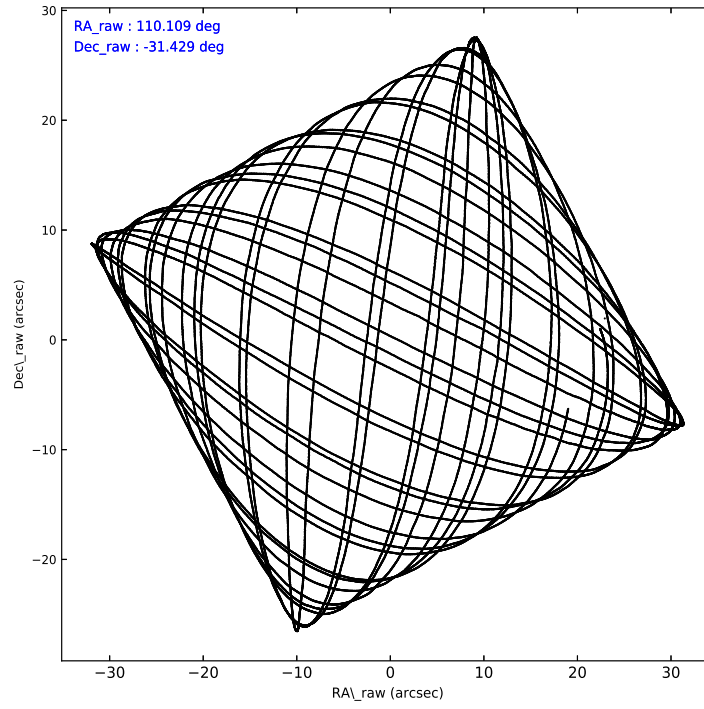
	segment 1	segment 2	segment 3
level 1 events	527430	521702	529198
rejected events	32780	32271	33109
rejected %	6%	6%	6%

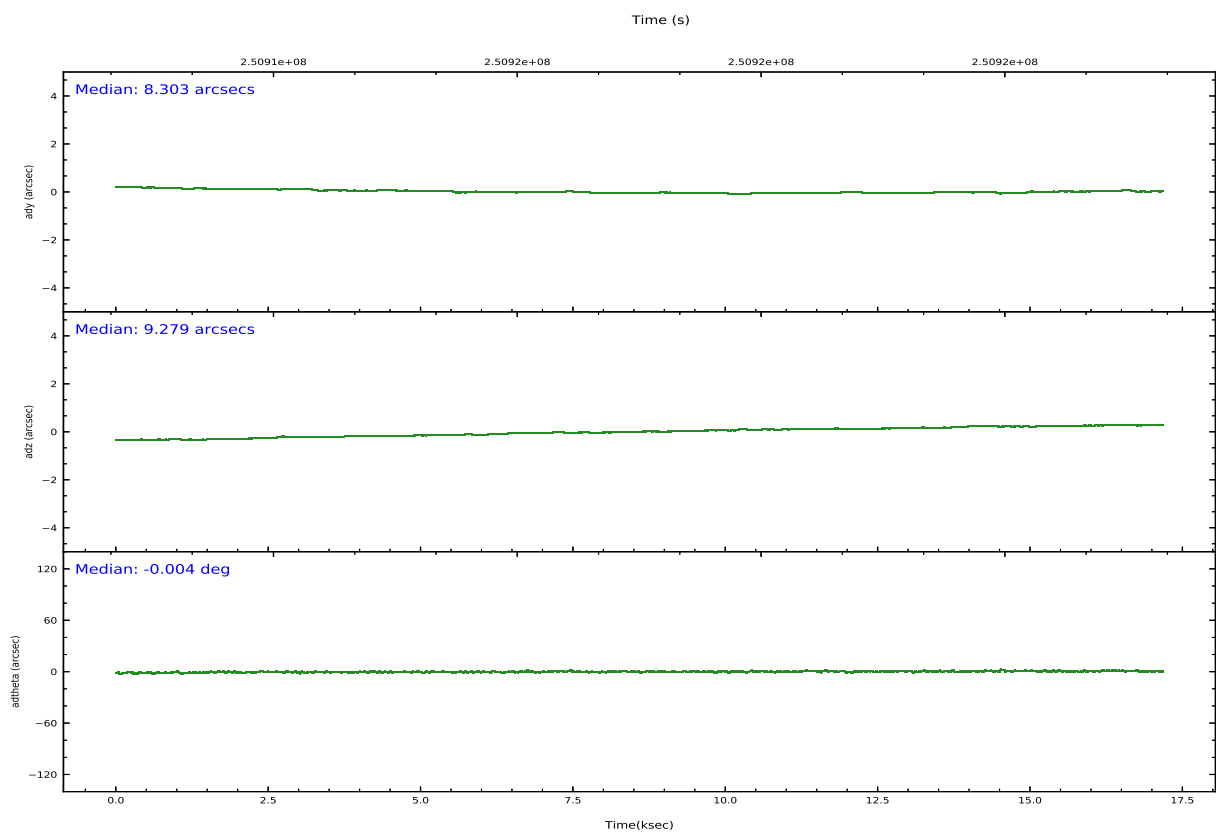
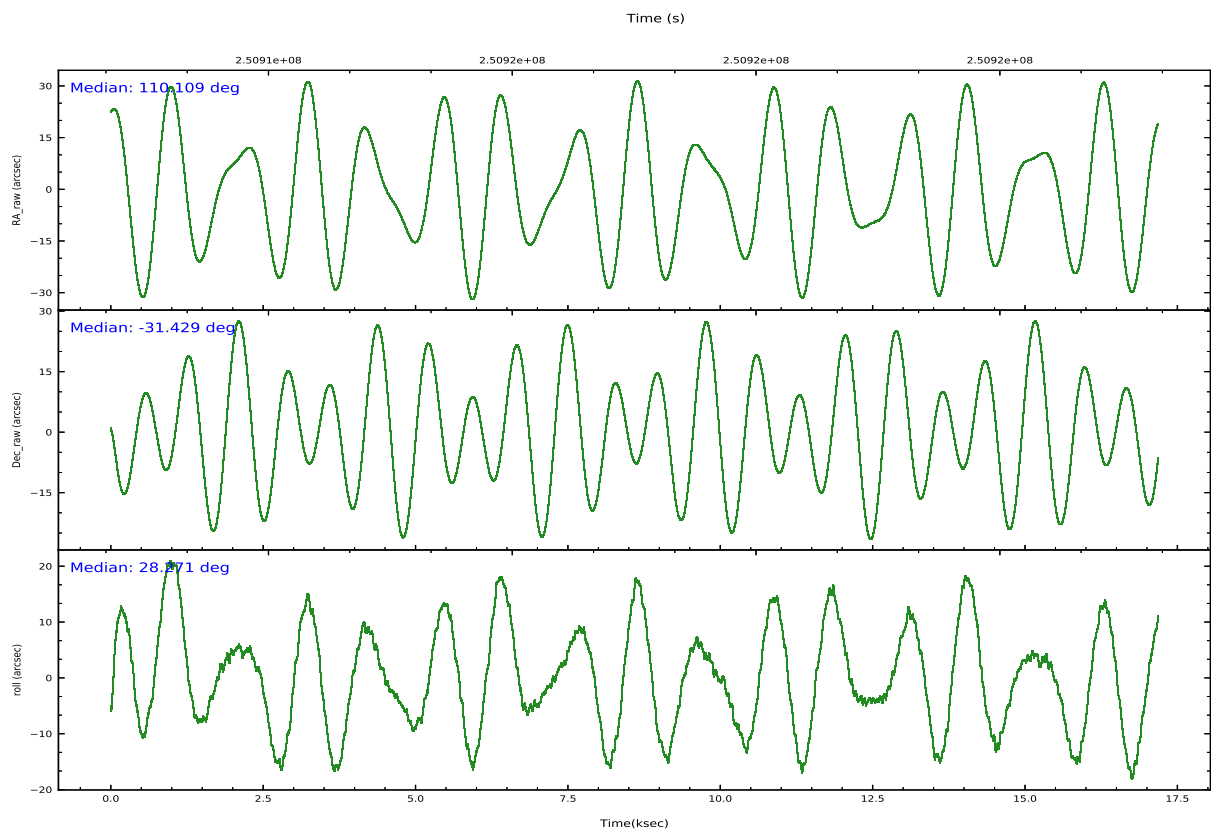
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-S	HRC-S
Grating	LETG	LETG
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	110.092878	110.10807528164
[deg] Pointing Dec	-31.453548	-31.432068983821
[deg] Pointing Roll	28.194106	28.270627933285
[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)	250909598.184000	250908797.95661
Observation start date	2005-12-14T01:05:34	2005-12-14T00:53:17
[s] Observation end time (MET)	250926598.184000	250927405.80747
Observation end date	2005-12-14T05:48:54	2005-12-14T06:03:25

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

## 2.3 Aspect



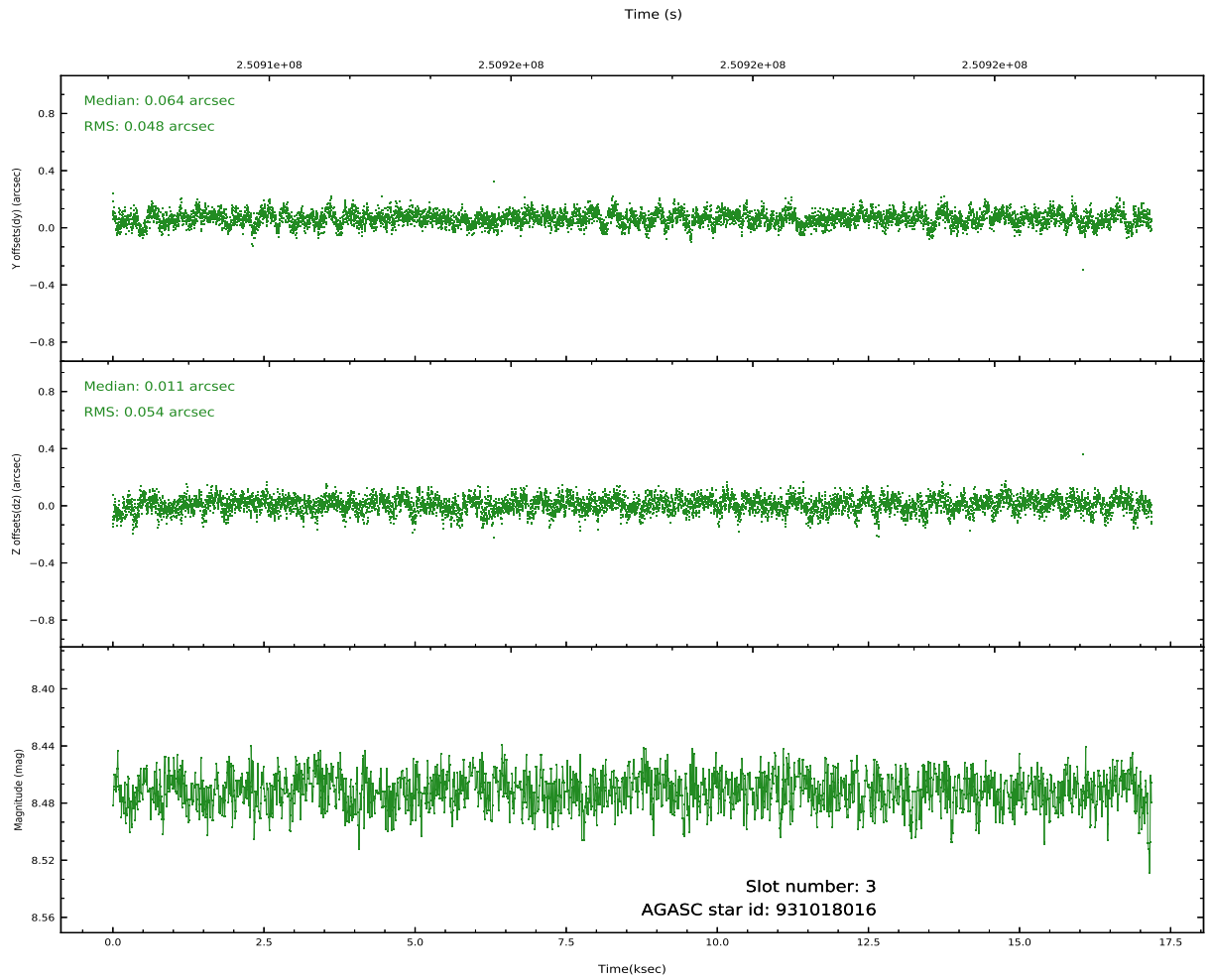
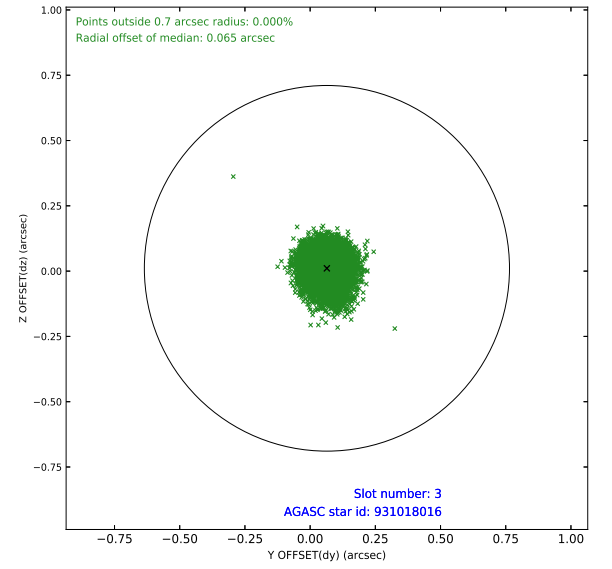
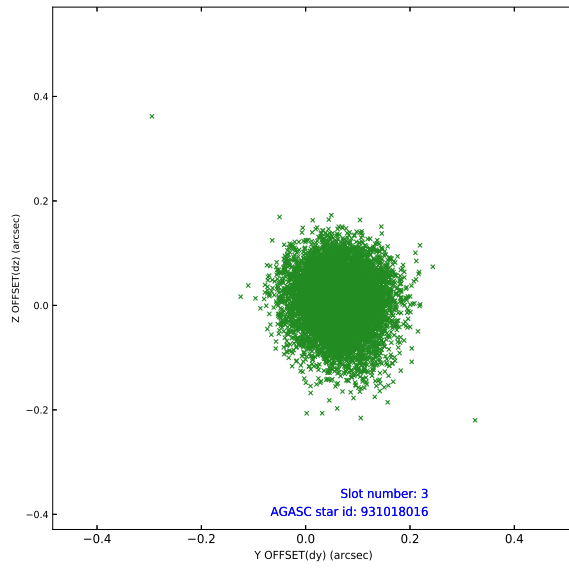


Slot Statistics

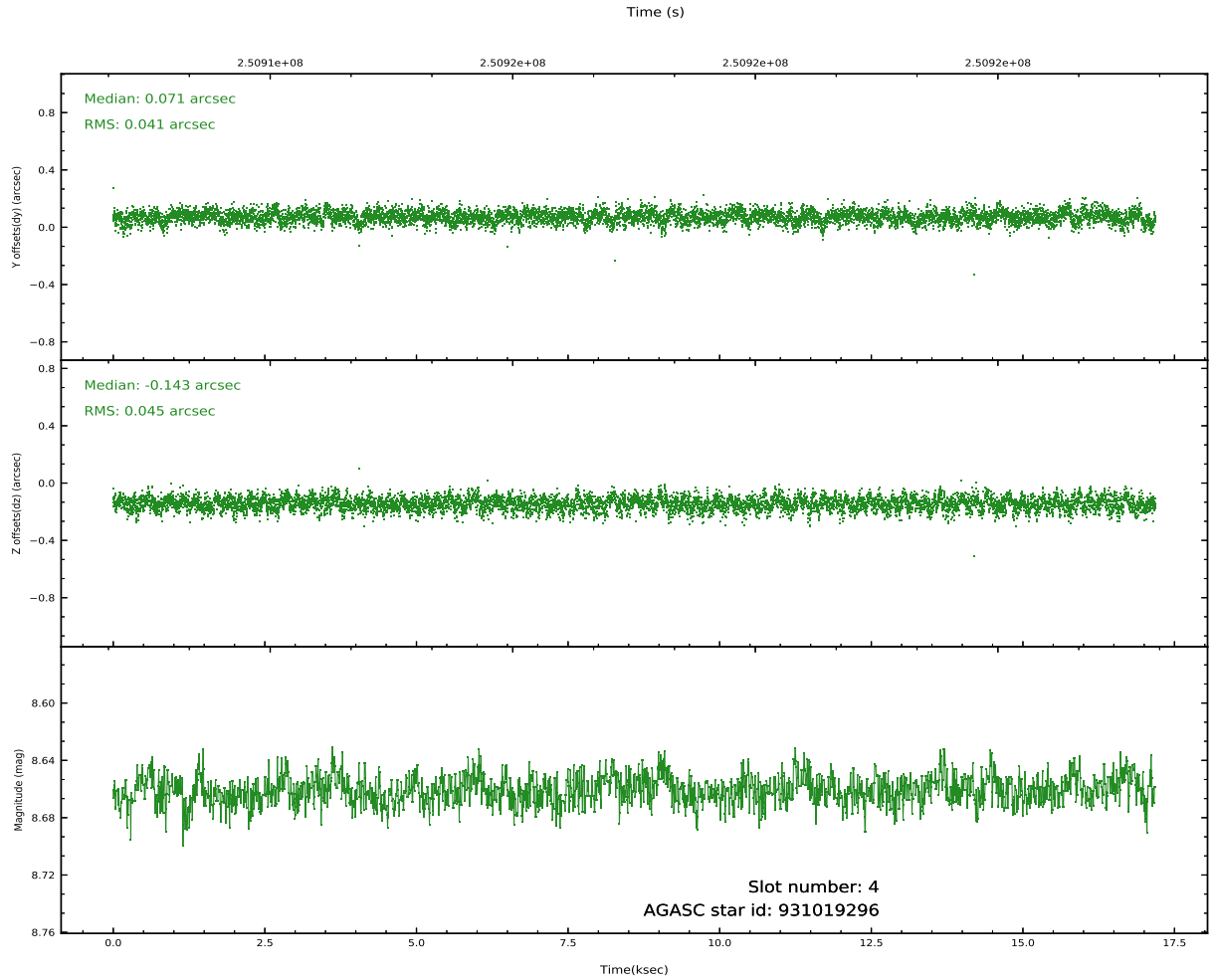
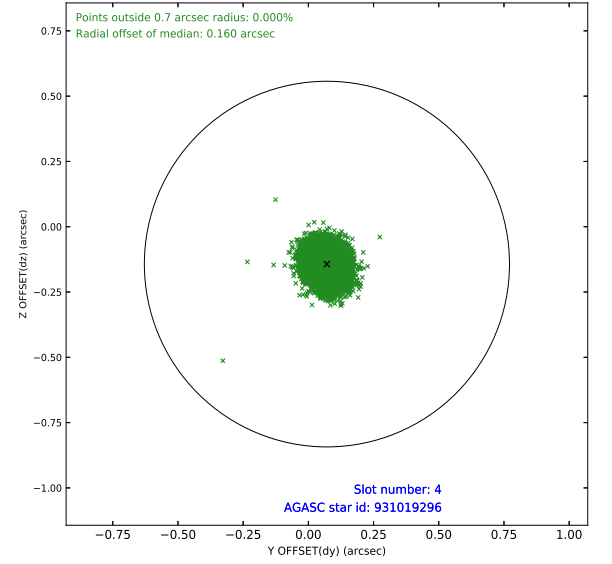
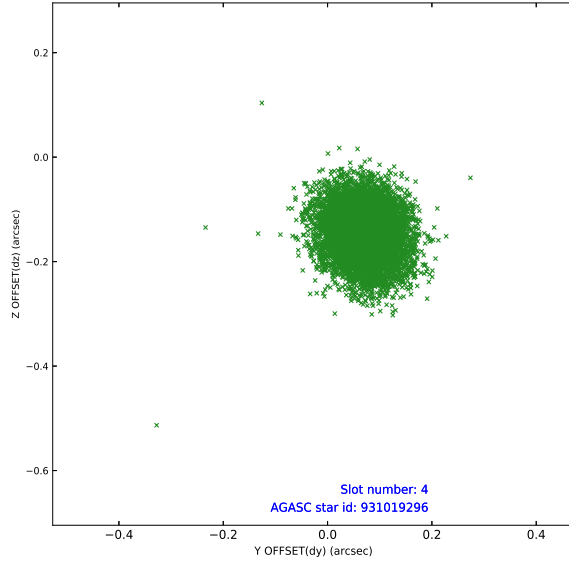
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-S-1	7.04	4190	1.000	0.130	-0.200	0.011	0.018	0.000000	0.000000	-1162.50	-458
1	FID		HRC-S-2	7.03	4192	1.000	0.176	-0.120	0.006	0.011	0.000000	0.000000	1236.95	-450
2	FID		HRC-S-3	7.05	4192	1.000	0.084	0.018	0.012	0.020	0.000000	0.000000	-1164.99	571
3	GUIDE	used	931018016	8.47	8363	1.000	0.064	0.011	0.077	0.123	109.684535	-31.226562	-722.52	1312
4	GUIDE	used	931019296	8.66	8379	1.000	0.071	-0.143	0.065	0.107	109.471771	-31.694370	-2088.79	130
5	GUIDE	used	931022960	8.95	8383	1.000	0.042	0.095	0.073	0.117	109.733092	-31.864448	-1668.89	-785
6	GUIDE	used	931146200	8.97	8378	1.000	-0.136	0.059	0.072	0.118	110.586199	-31.643611	1007.91	-1319
7	GUIDE	used	931160352	8.63	8382	1.000	-0.041	-0.018	0.070	0.112	110.268138	-30.864891	1478.83	1611

## 2.4 Star Slots

### 2.4.1 Slot 3

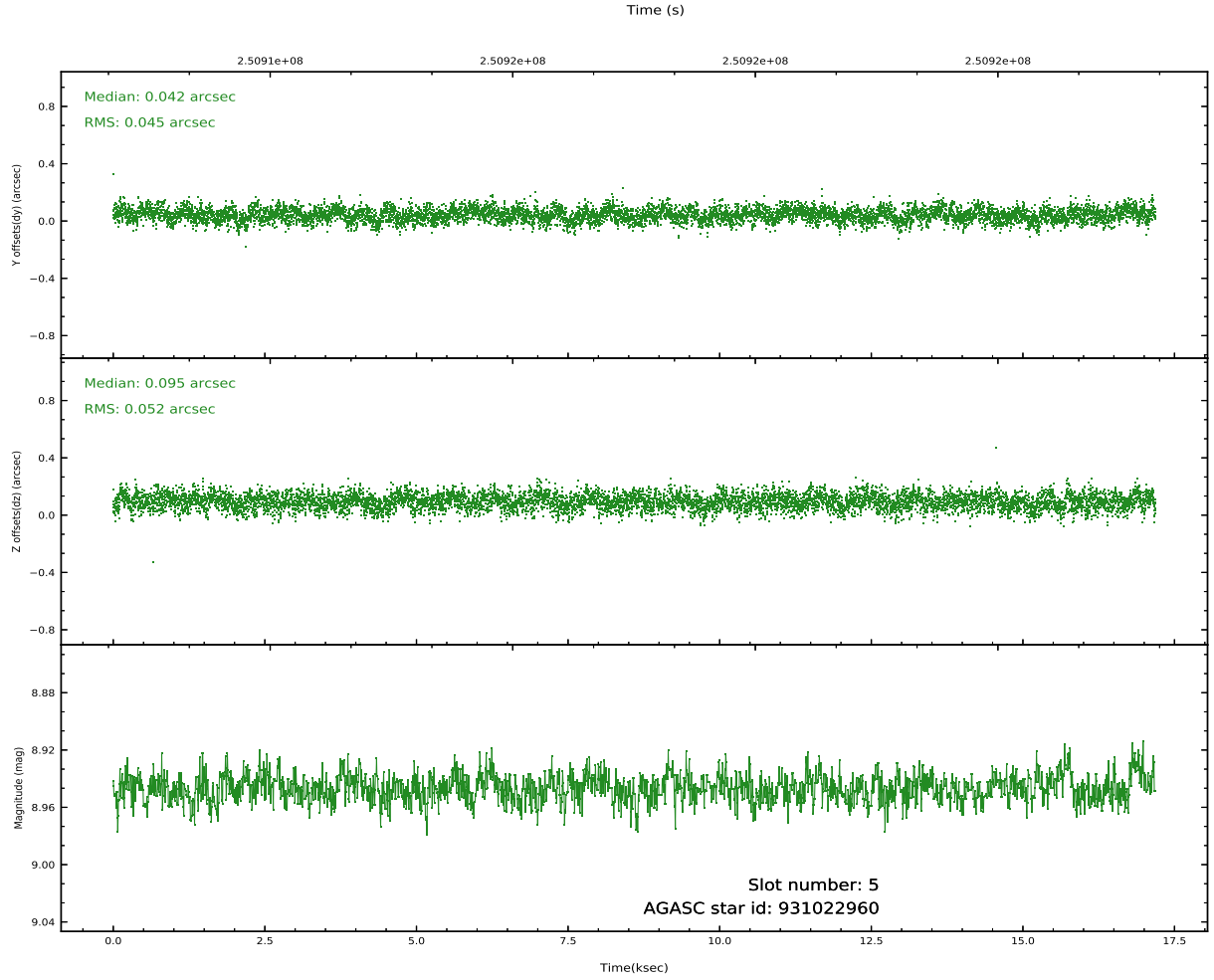
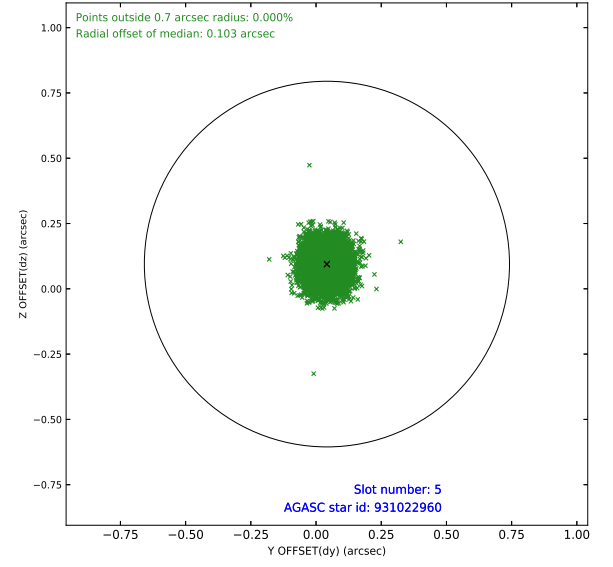
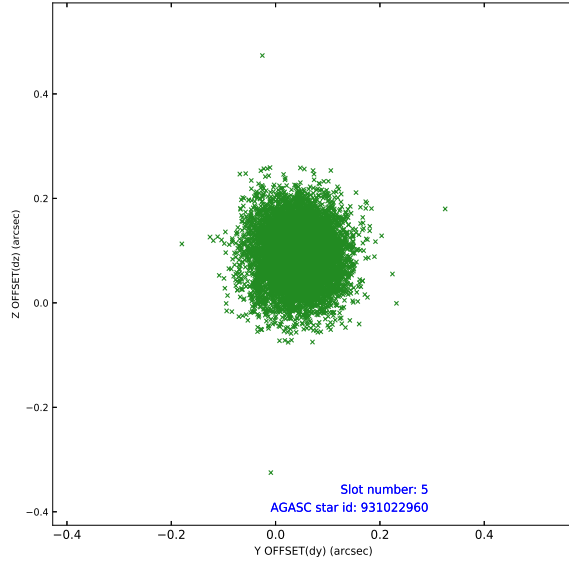


## 2.4.2 Slot 4

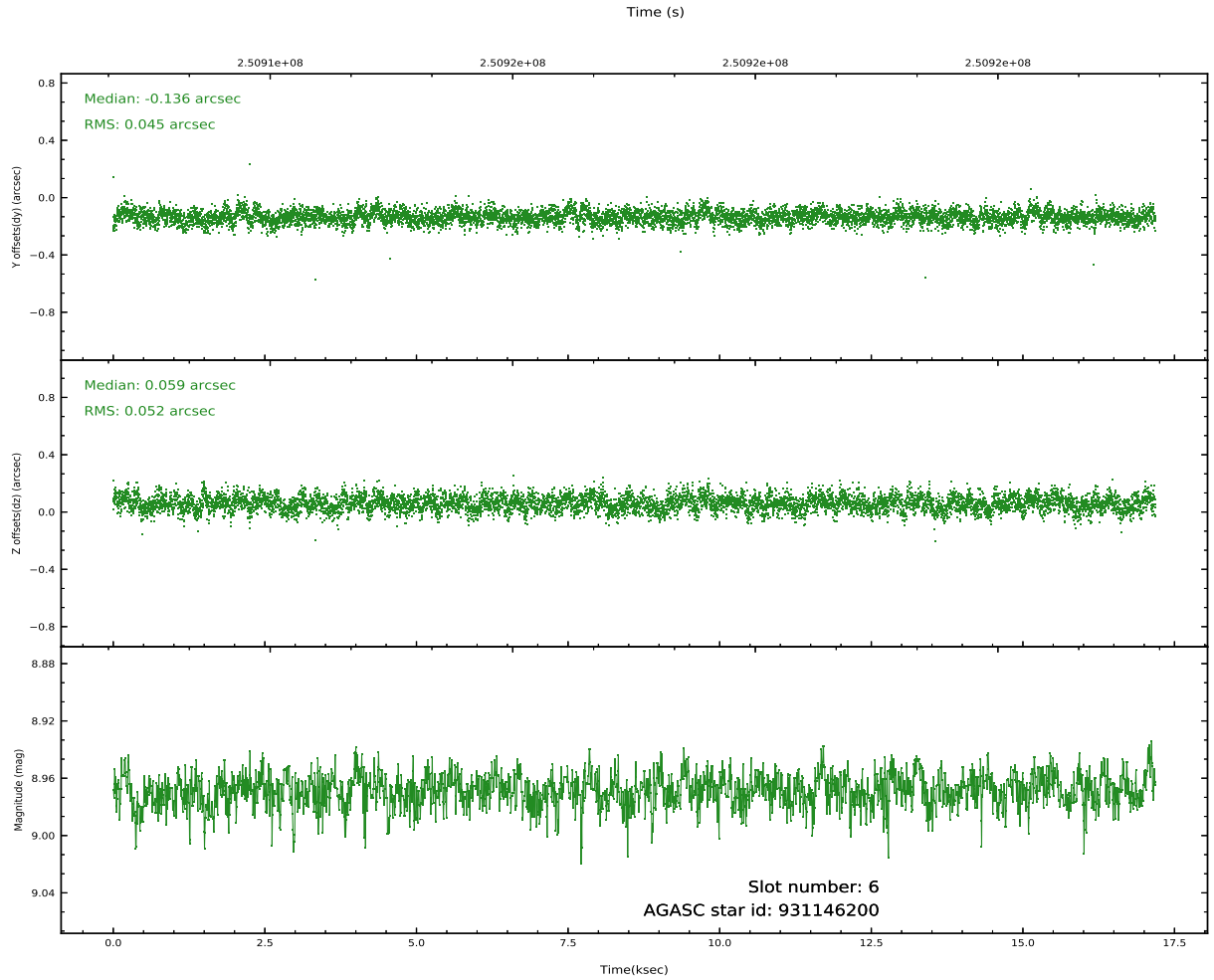
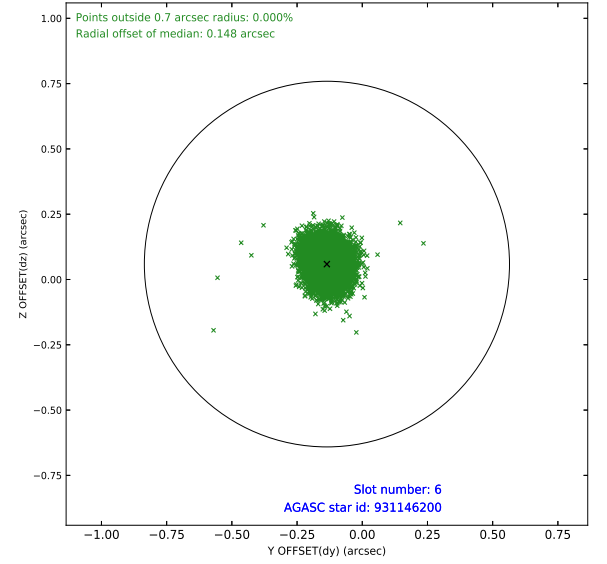
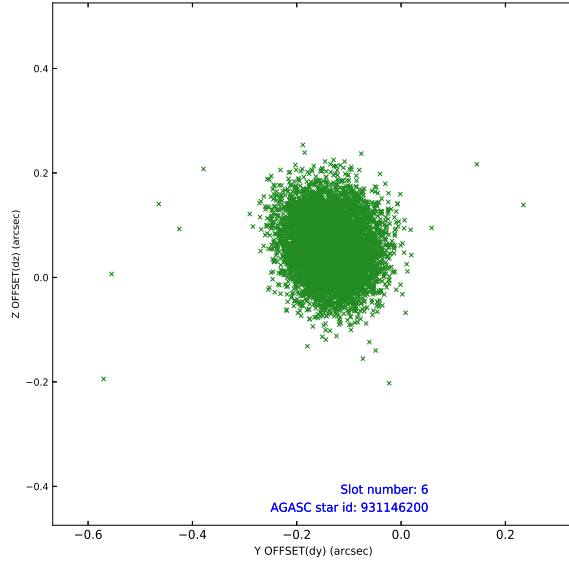




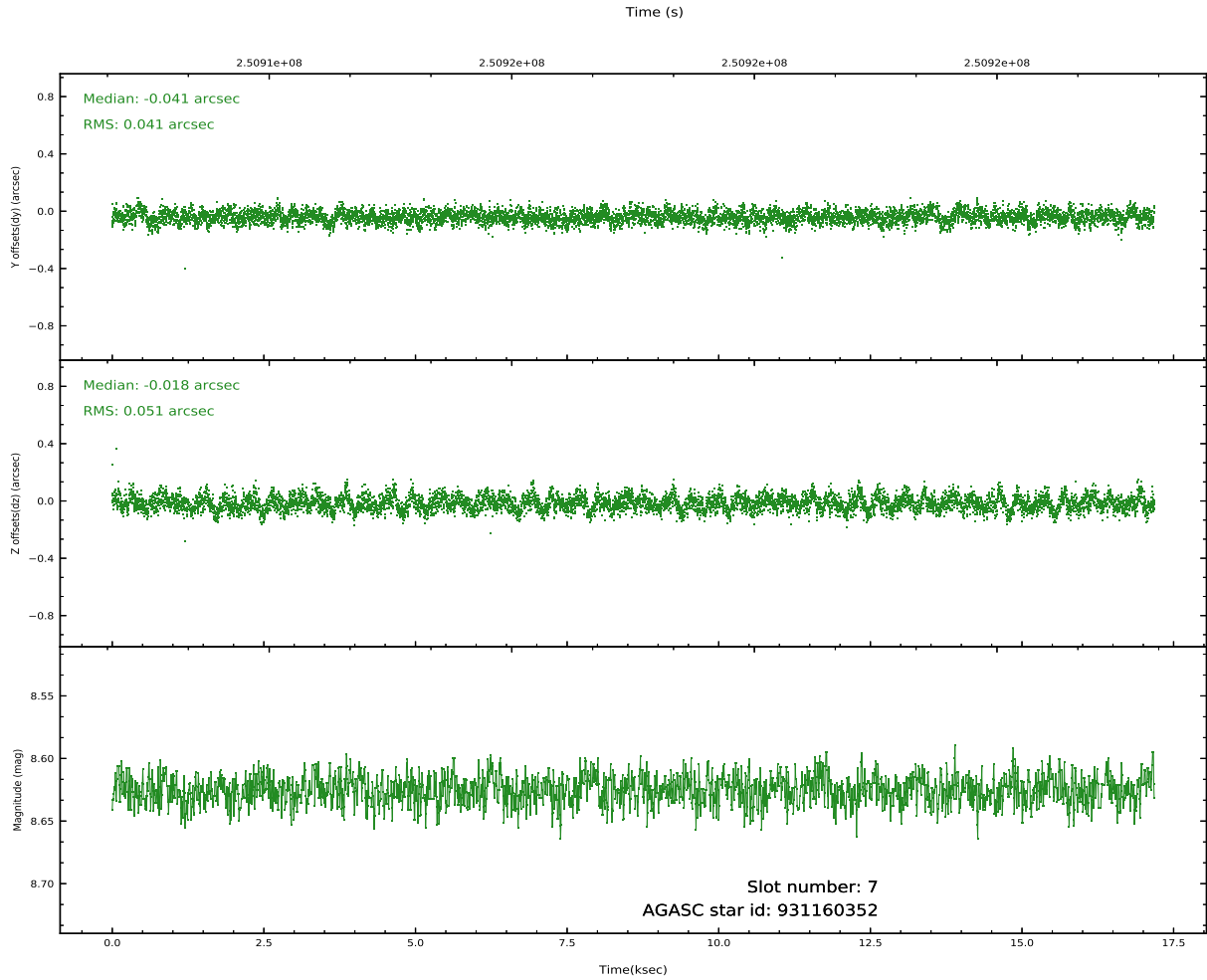
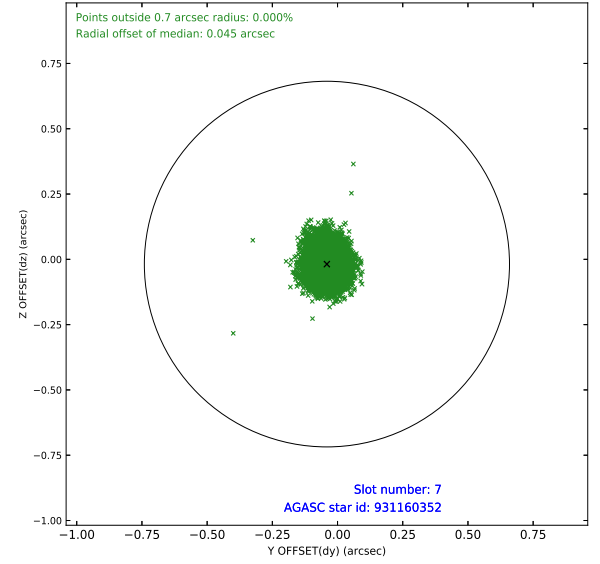
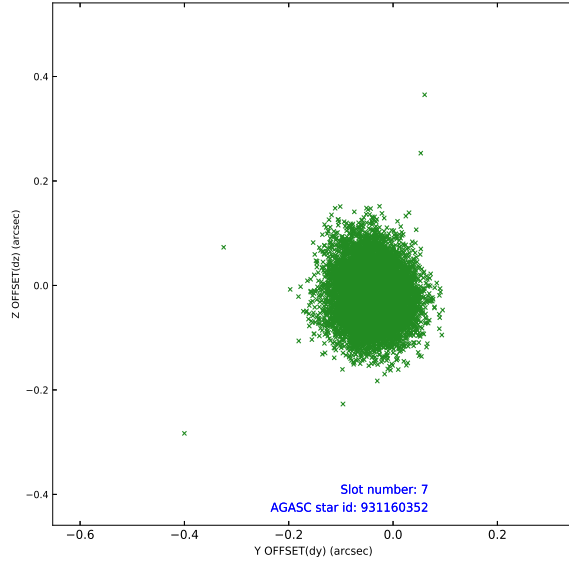
### 2.4.3 Slot 5



## 2.4.4 Slot 6

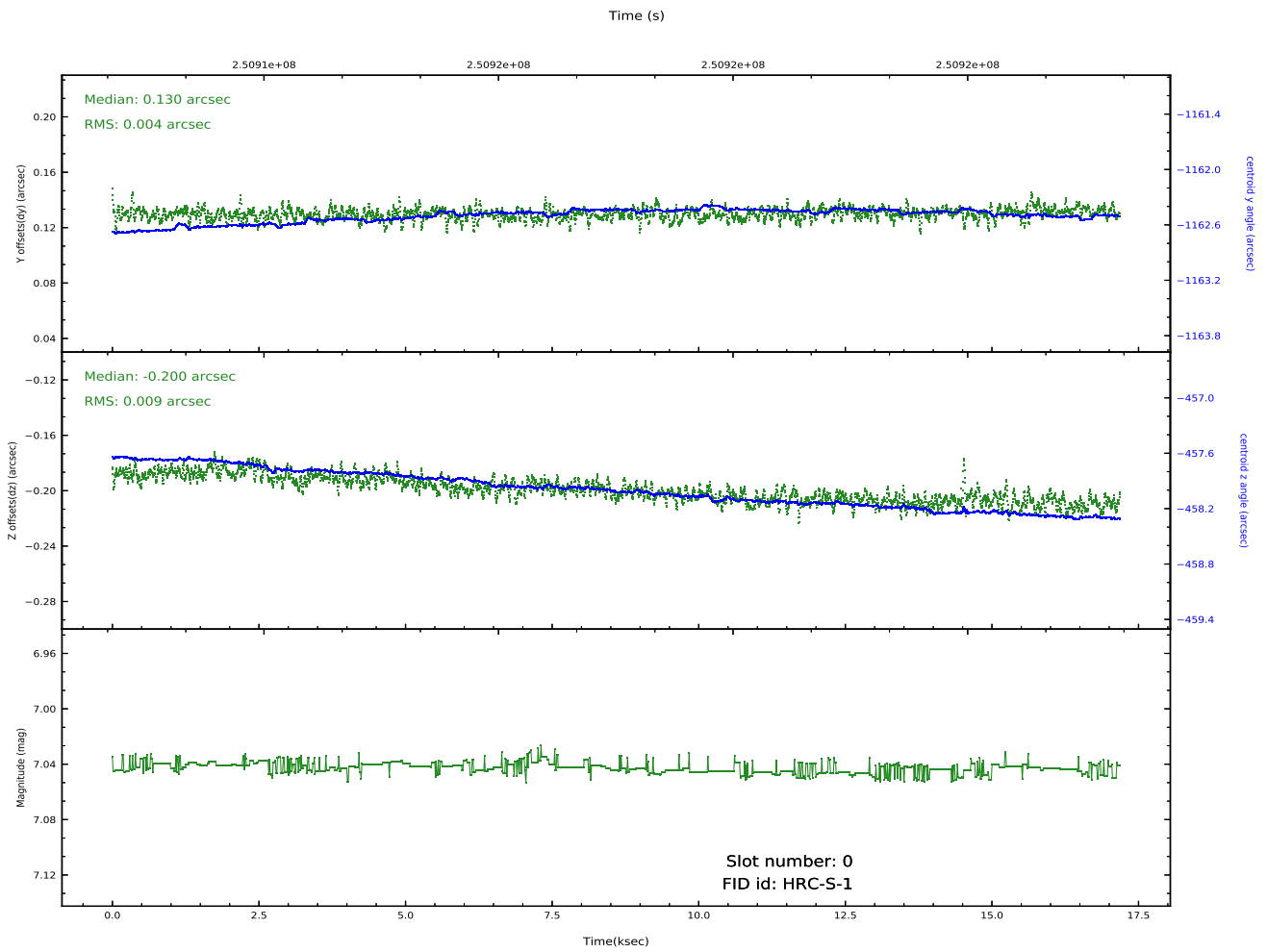
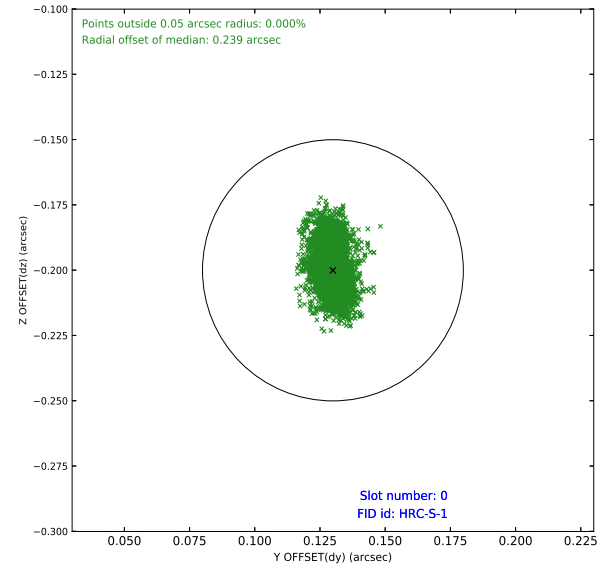
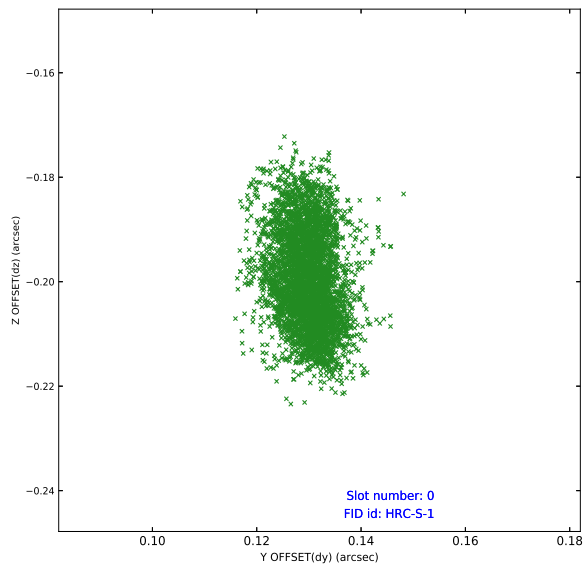


## 2.4.5 Slot 7

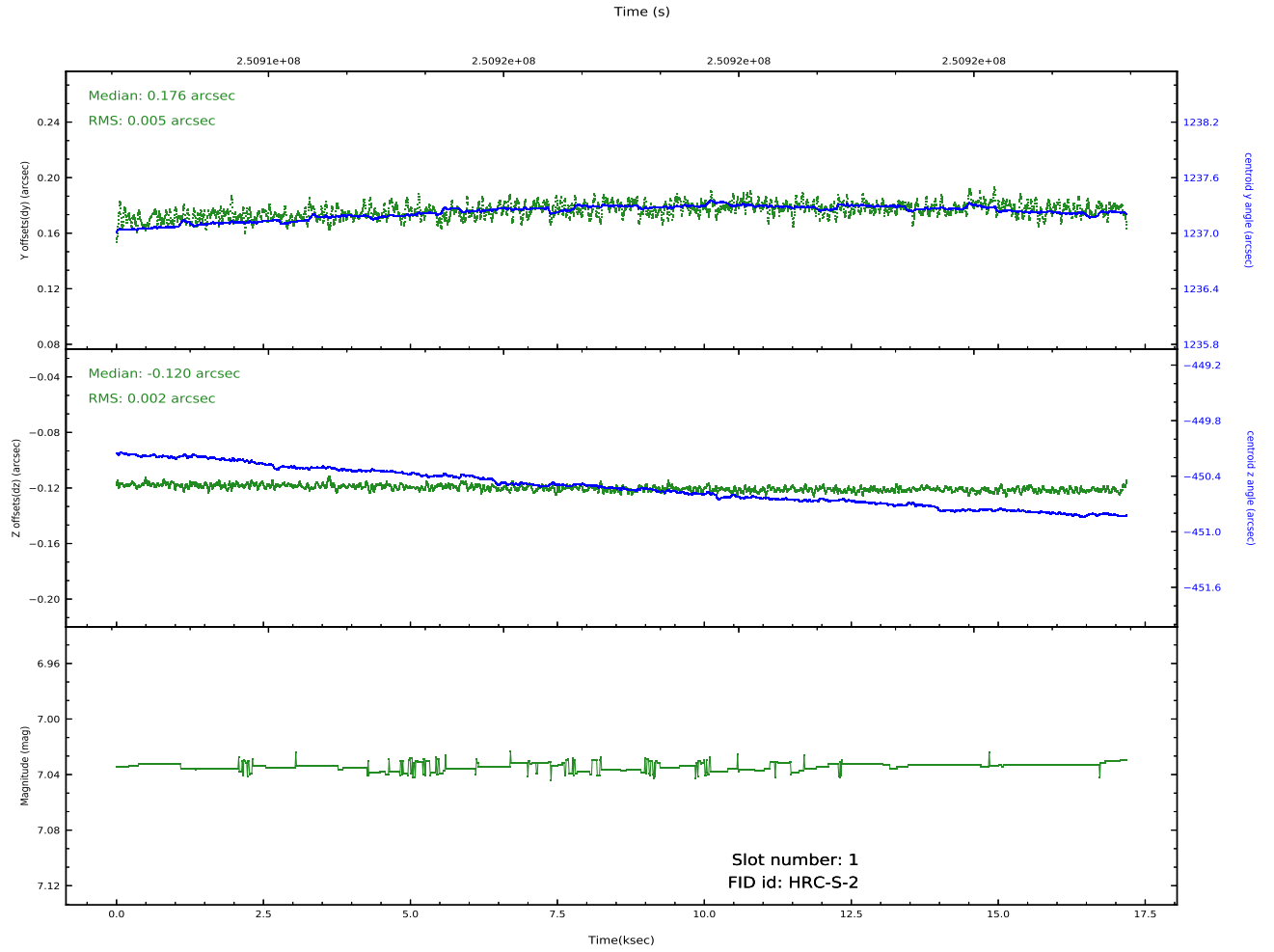
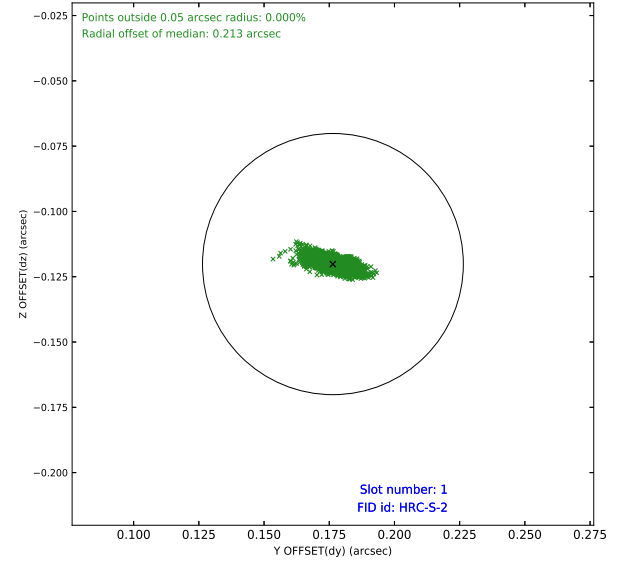
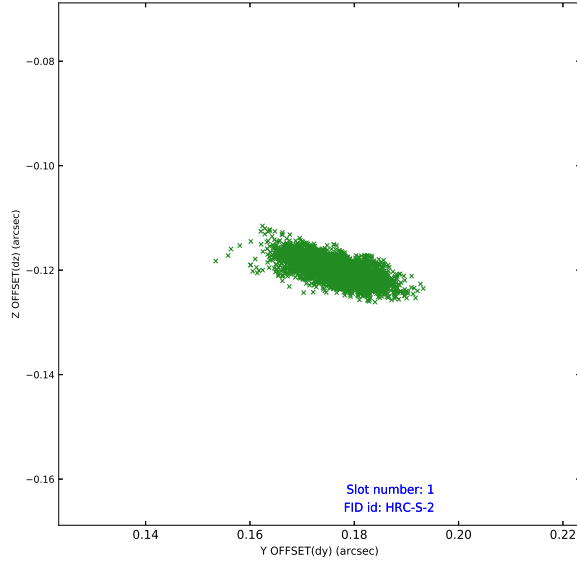


## 2.5 FID Slots

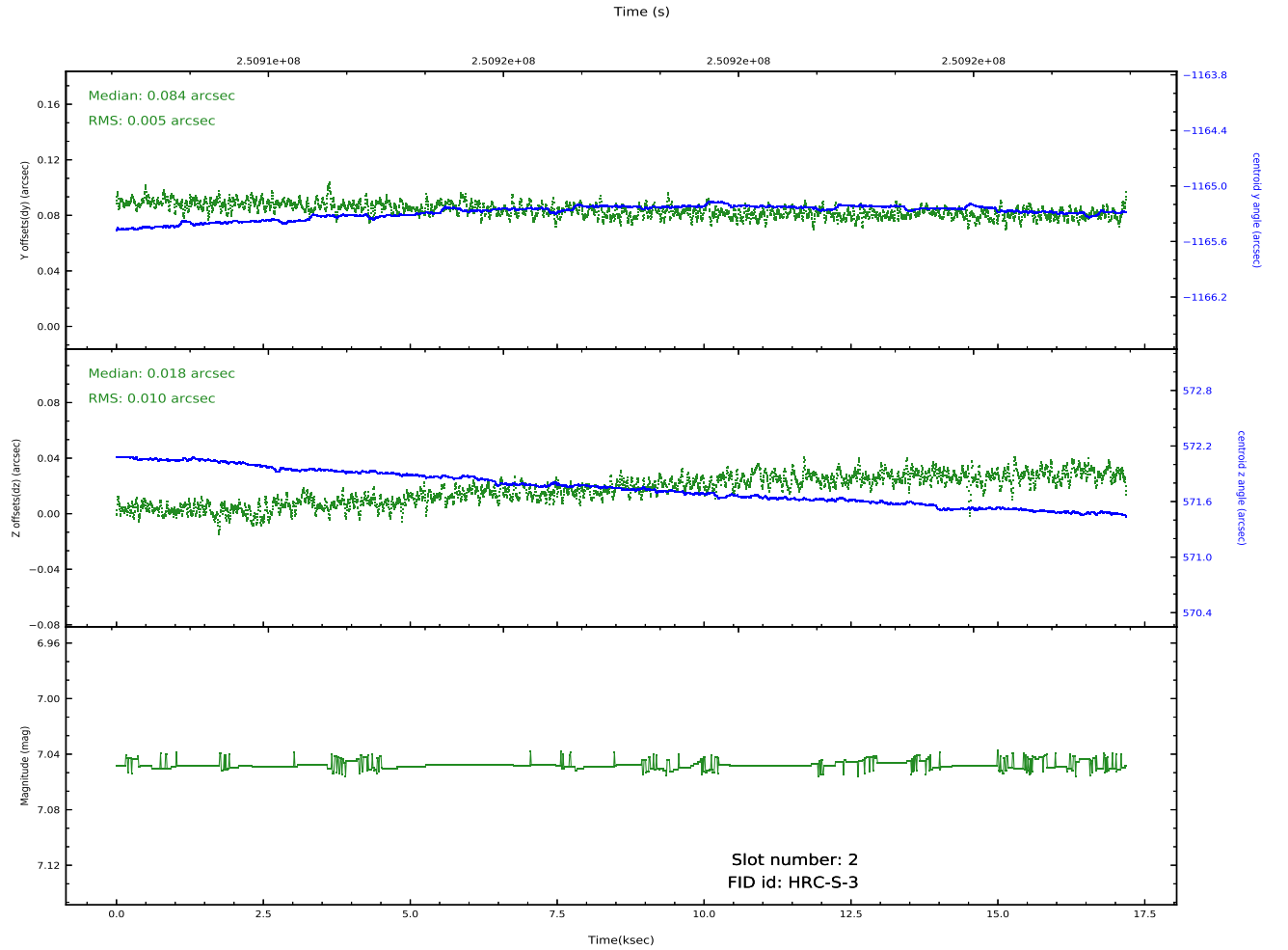
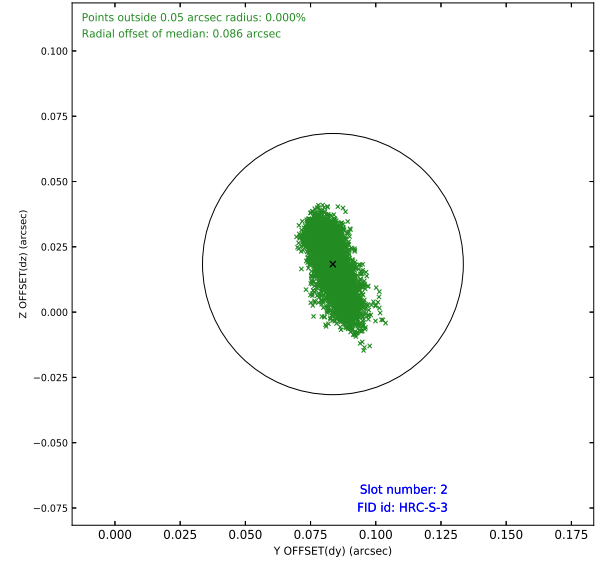
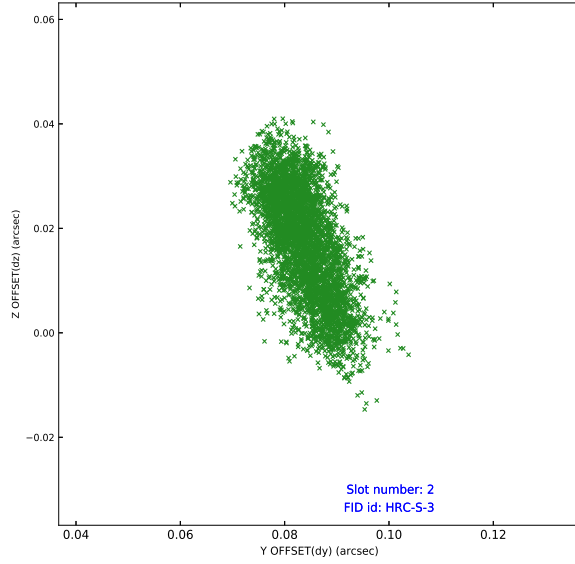
### 2.5.1 Slot 0



## 2.5.2 Slot 1

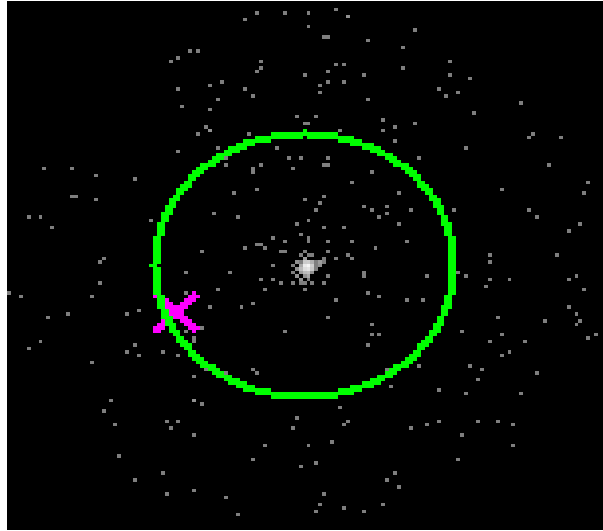


### 2.5.3 Slot 2

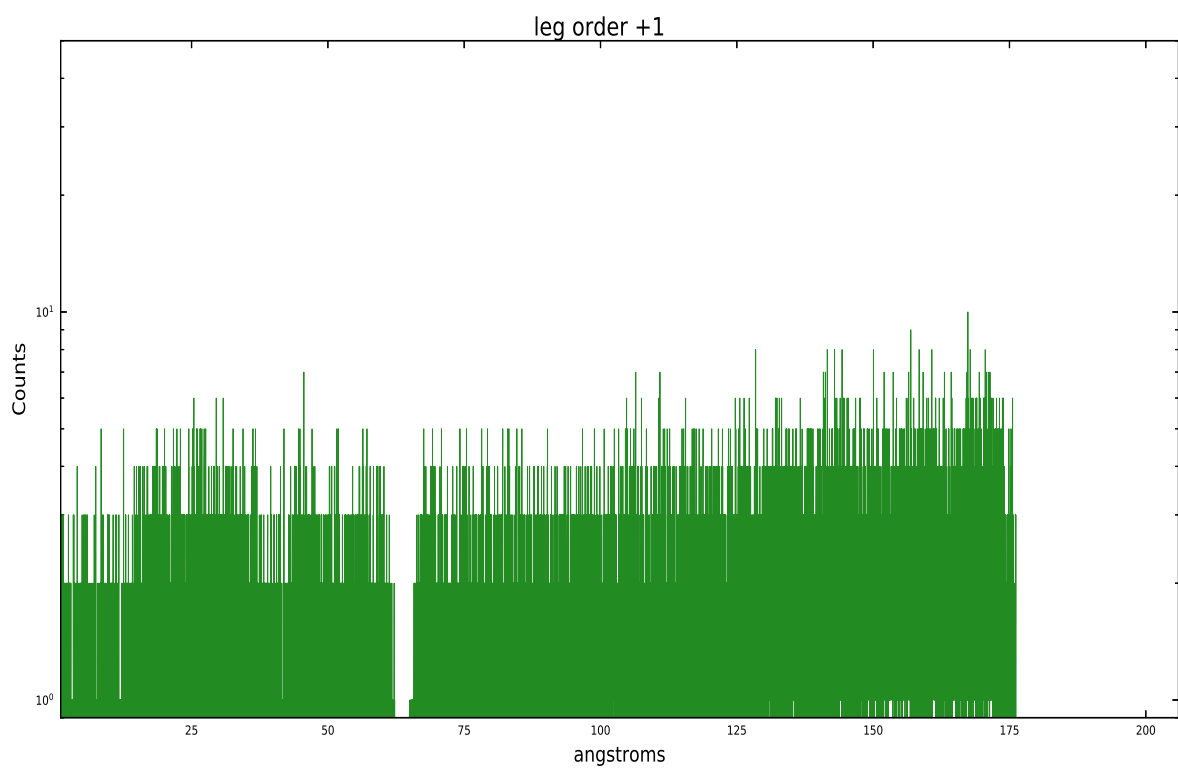
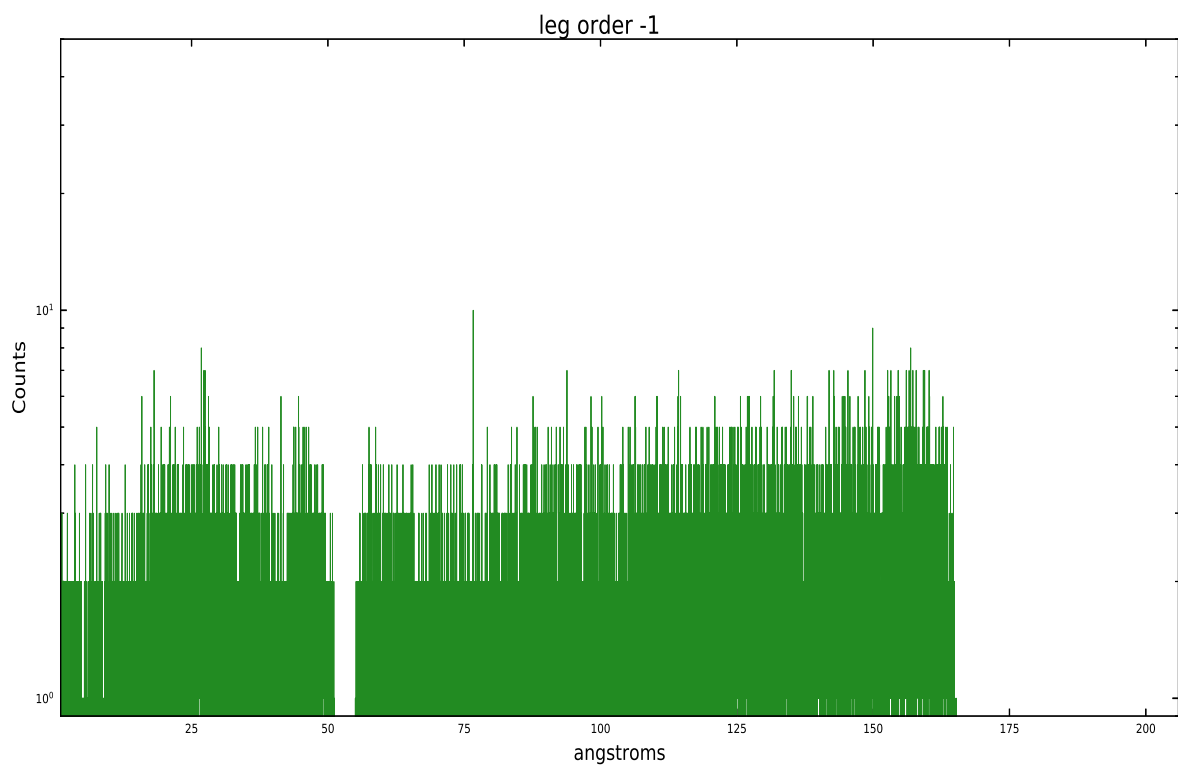


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order





## A Summary

### A.1 Status

V&V Scientist	David Principe
V&V Date (YYYY-MM-DD)	2020.10.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.18438

### A.2 Comments