

# V&V Reference Report

## L2 ASCDS Version : 10.6

Observation 20655 - L2 Version 1  
Chandra X-Ray Center

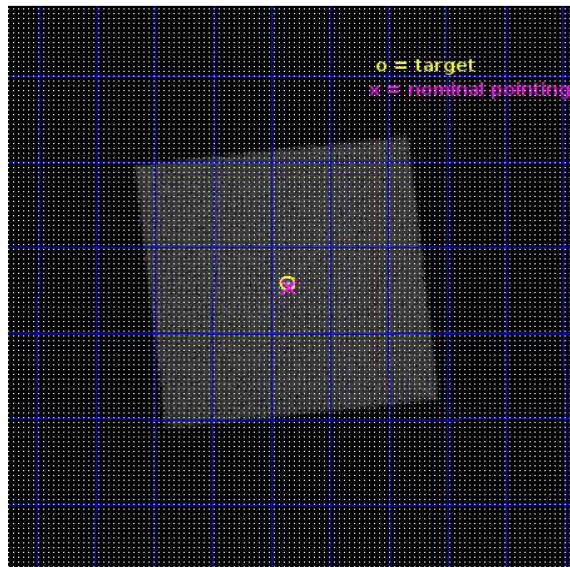
L2 Processing Date : May 17 2018

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# 1 Front

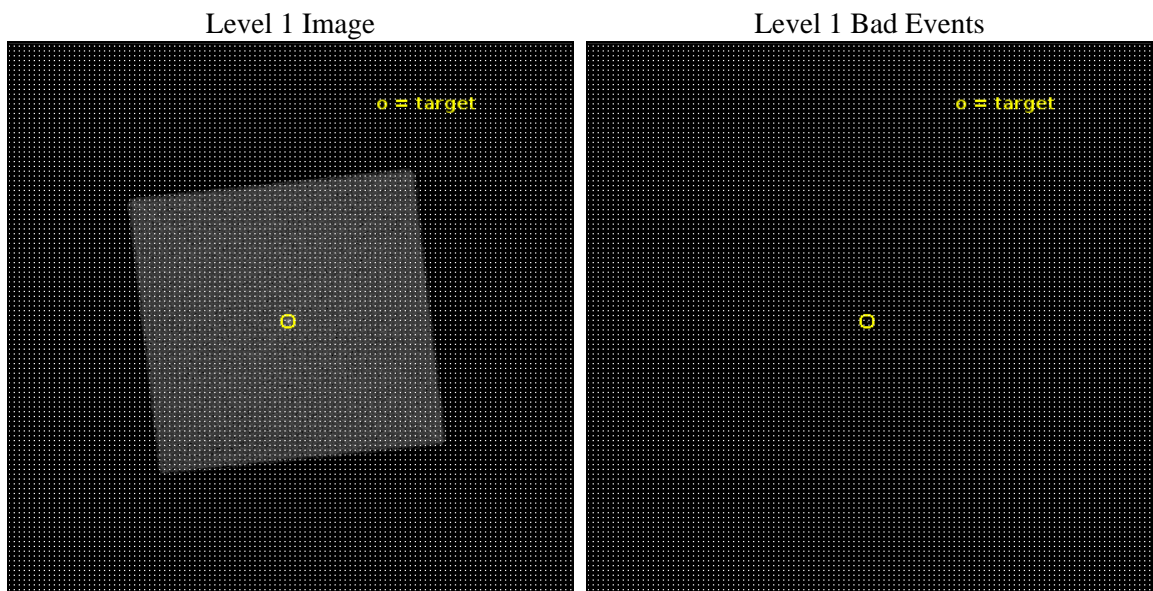
seq_num	291368	Sequence number
obs_id	20655	Observation id
title	AO-19 Calibration Observations of HZ43	Proposal title
observer	CXC Calibration	Principal investigator
object	HZ43	Source name
ra_targ	199.090417	Observer's specified target RA [deg]
dec_targ	29.098306	Observer's specified target Dec [deg]
ra_nom	199.08635486662	Nominal RA [deg]
dec_nom	29.089206975434	Nominal Dec [deg]
roll_nom	218.67343740282	Nominal Roll [deg]
revision	1	Processing version of data
ontime	2178.3813788891	[s]
livetime	2148.5519230594	Ontime multiplied by DTCOR
l2events	259695	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	2000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	2178.3813788891	[s]
caldbver	4.7.8	&#160	l1events	443380	Number of level 1 events
date	2018-05-17T16:11:57	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	1	Processing version of data	zo_pos	(16291.34, 16633.09)	src1a sky pixel position

### 2.1.3 Events

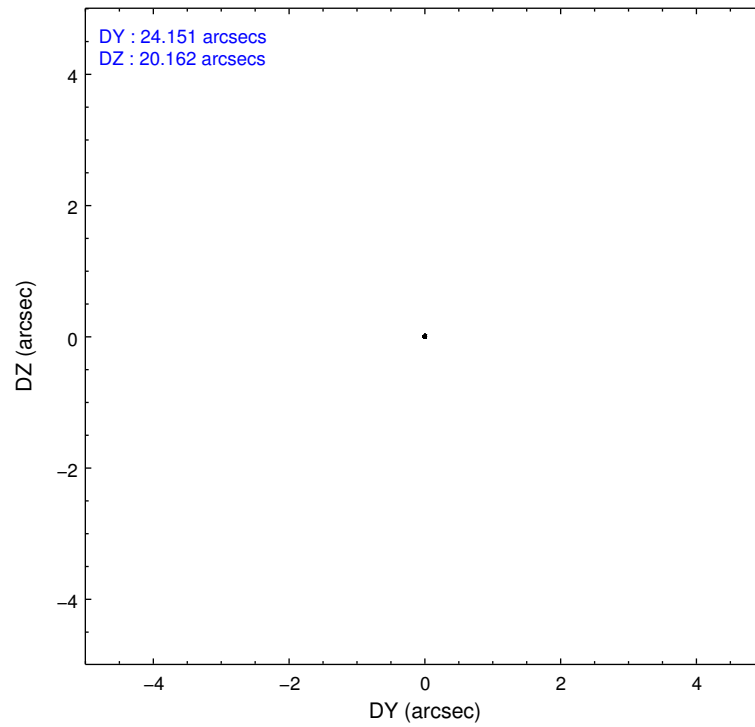
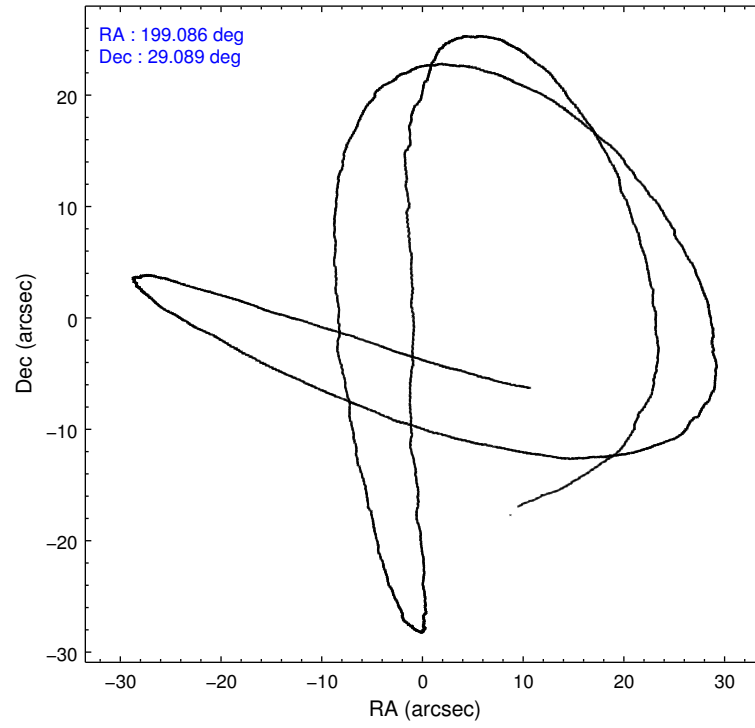
#### Level 1 Events

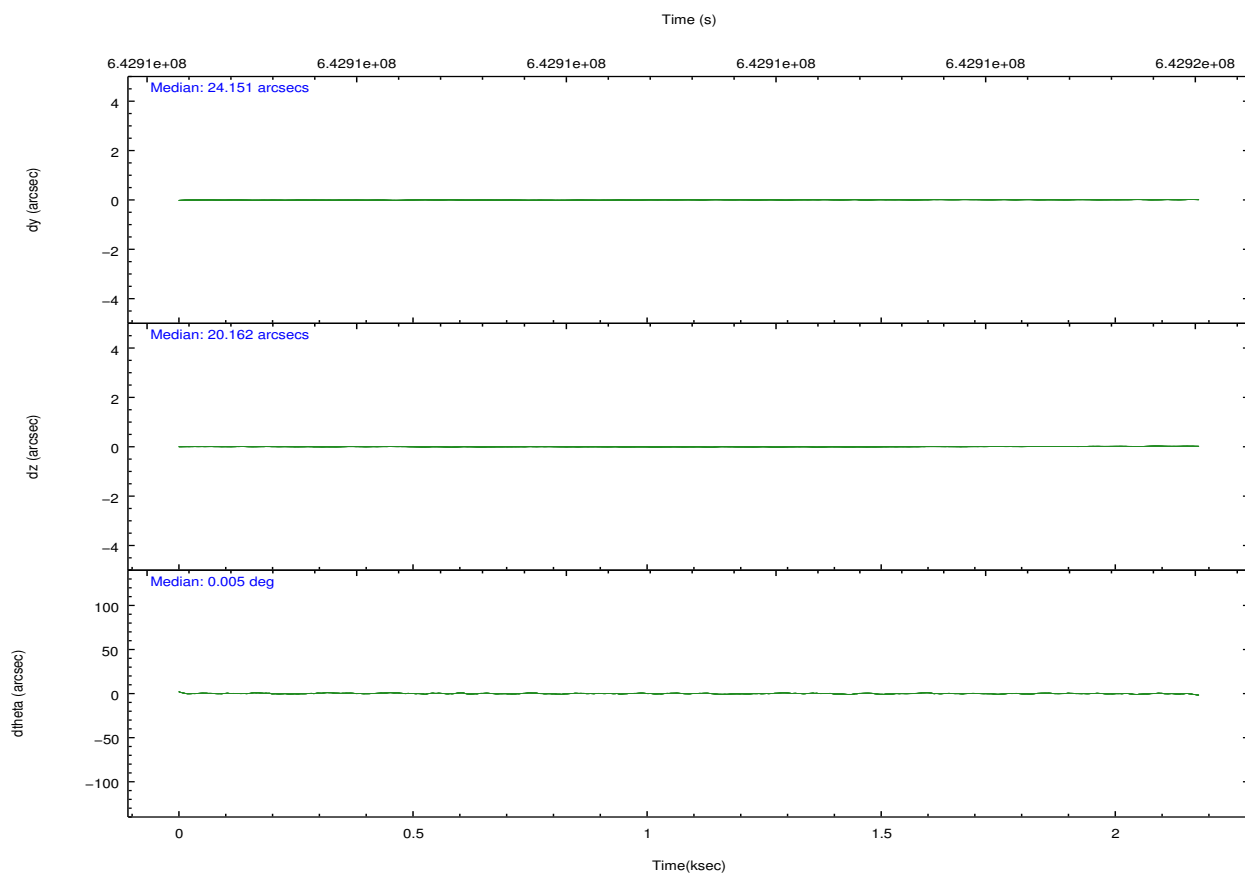
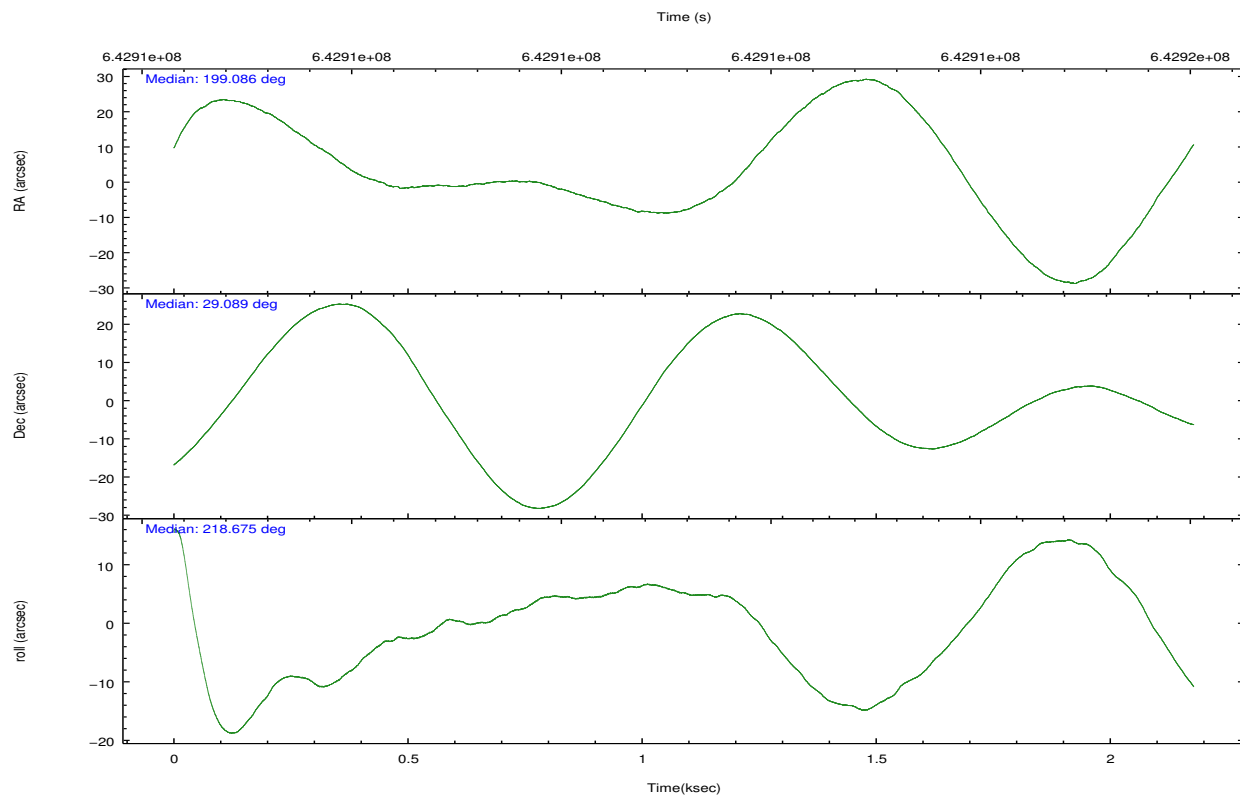
	<b>segment 0</b>
level 1 events	443380
rejected events	102536
rejected %	23%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	7	7
Detector	HRC-I	HRC-I	Obspar file type	PREDICTED	ACTUAL
Grating	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	199.097269	199.0863548666236			
[deg] Pointing Dec	29.114703	29.08920697543403			
[deg] Pointing Roll	218.763390	218.6734374028249			
[s] Window start time (MET)	642729669.184000	642729669.184000			
[s] Window stop time (MET)	645408069.184000	645408069.184000			
[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)	642912893.184000	642912036.1578799			
Observation start date	2018-05-17T02:53:44	2018-05-17T02:40:36			
[s] Observation end time (MET)	642914893.184000	642915525.7705899			
Observation end date	2018-05-17T03:27:04	2018-05-17T03:38:45			

## 2.3 Aspect





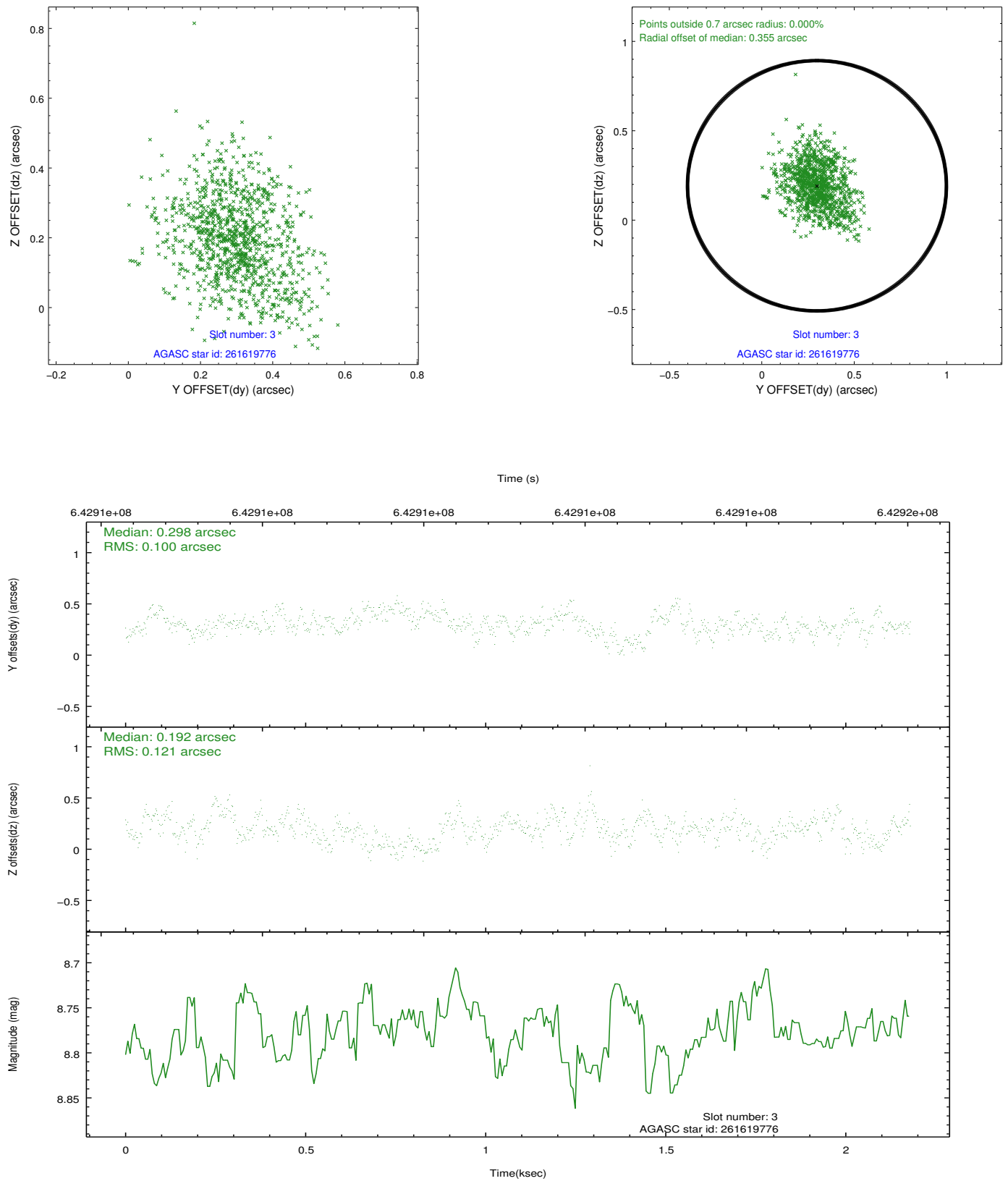
Slot Statistics

lot	status	used	id	mag	n_pts	med_dy	med_dz	drl	dr2	ra	dec	mean_y	mean_x
0	FID		HRC-I-1	7.02	532	-0.250	-0.021	0.006	0.010	0.000000	0.000000	-780.36	-1308.47
1	FID		HRC-I-2	7.05	532	0.358	-0.065	0.006	0.009	0.000000	0.000000	831.41	-1312.46
2	FID		HRC-I-3	7.11	532	0.011	-0.004	0.006	0.010	0.000000	0.000000	-1207.18	993.62
3	GUIDE	used	261619776	8.78	1064	0.298	0.192	0.168	0.271	198.654383	29.401174	436.00	-1673.46
4	GUIDE	used	261621400	6.97	1063	-0.411	-0.131	0.141	0.241	198.901600	28.741982	1322.09	657.95
5	GUIDE	used	261626376	9.68	1059	0.527	0.209	0.248	0.400	198.947288	29.347445	-155.43	-946.95
6	BAD	used	261623040	9.09	983	-0.531	-0.073	0.189	0.321	198.792686	29.757643	-708.42	-2400.47
7	GUIDE	used	261629720	8.08	1062	0.090	-0.210	0.153	0.272	199.236176	29.044452	-182.99	469.25

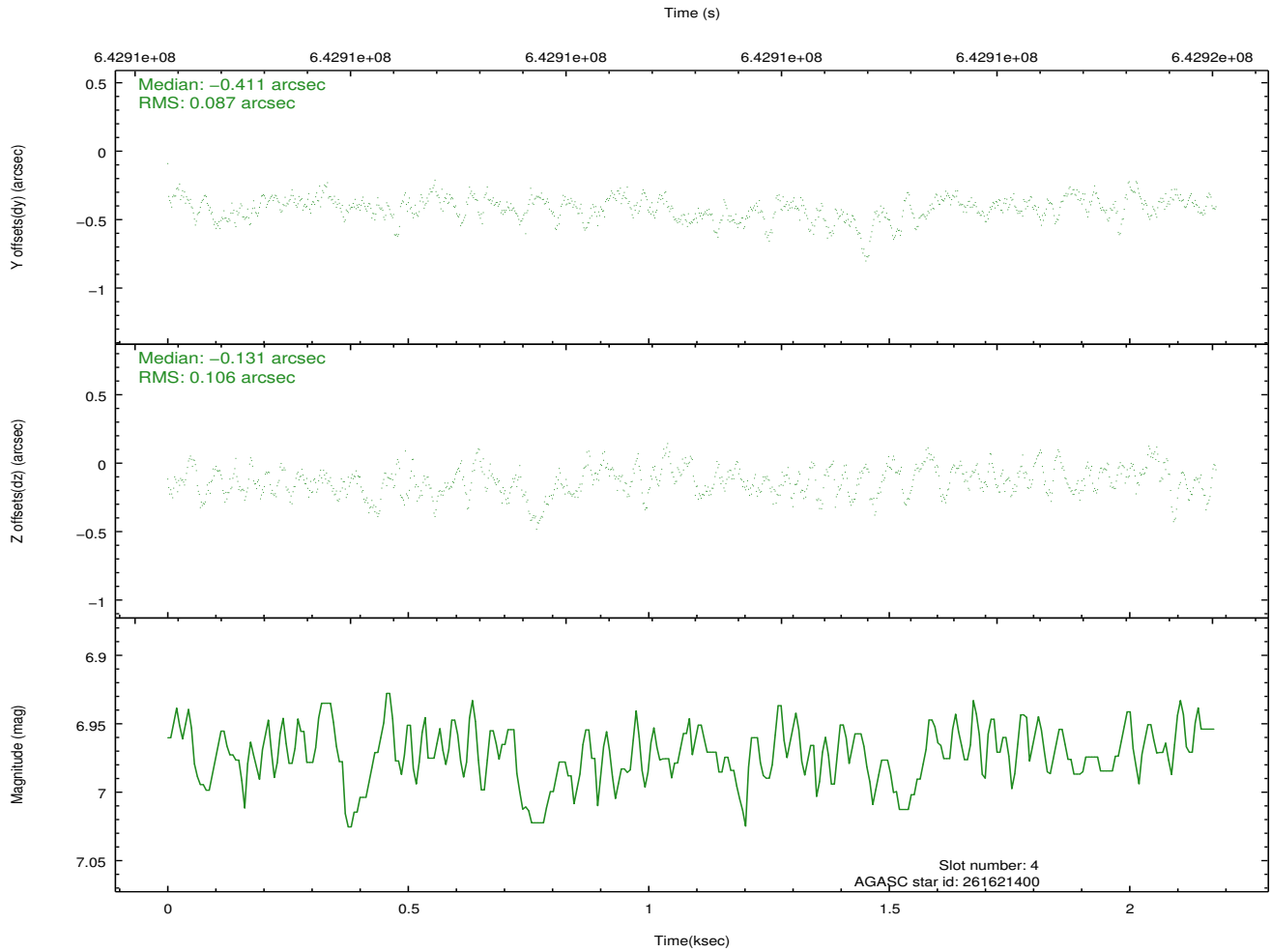
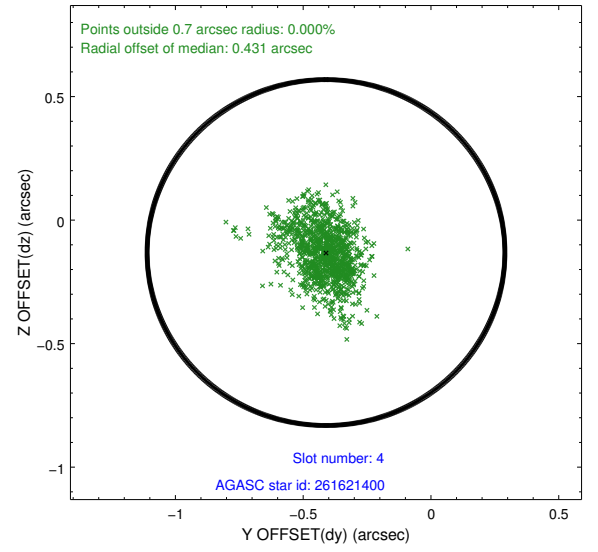
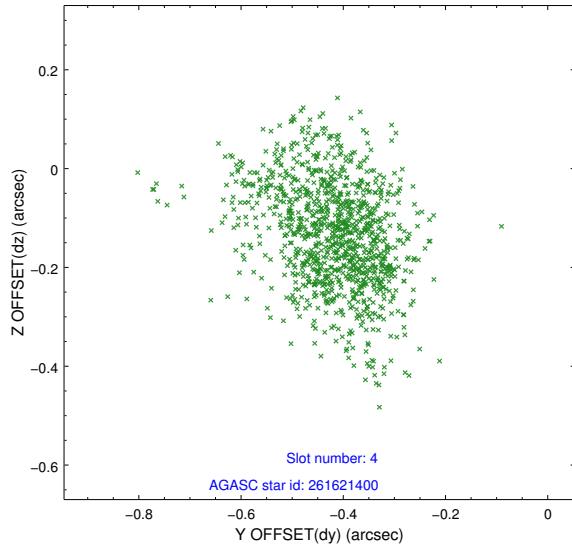


## 2.4 Star Slots

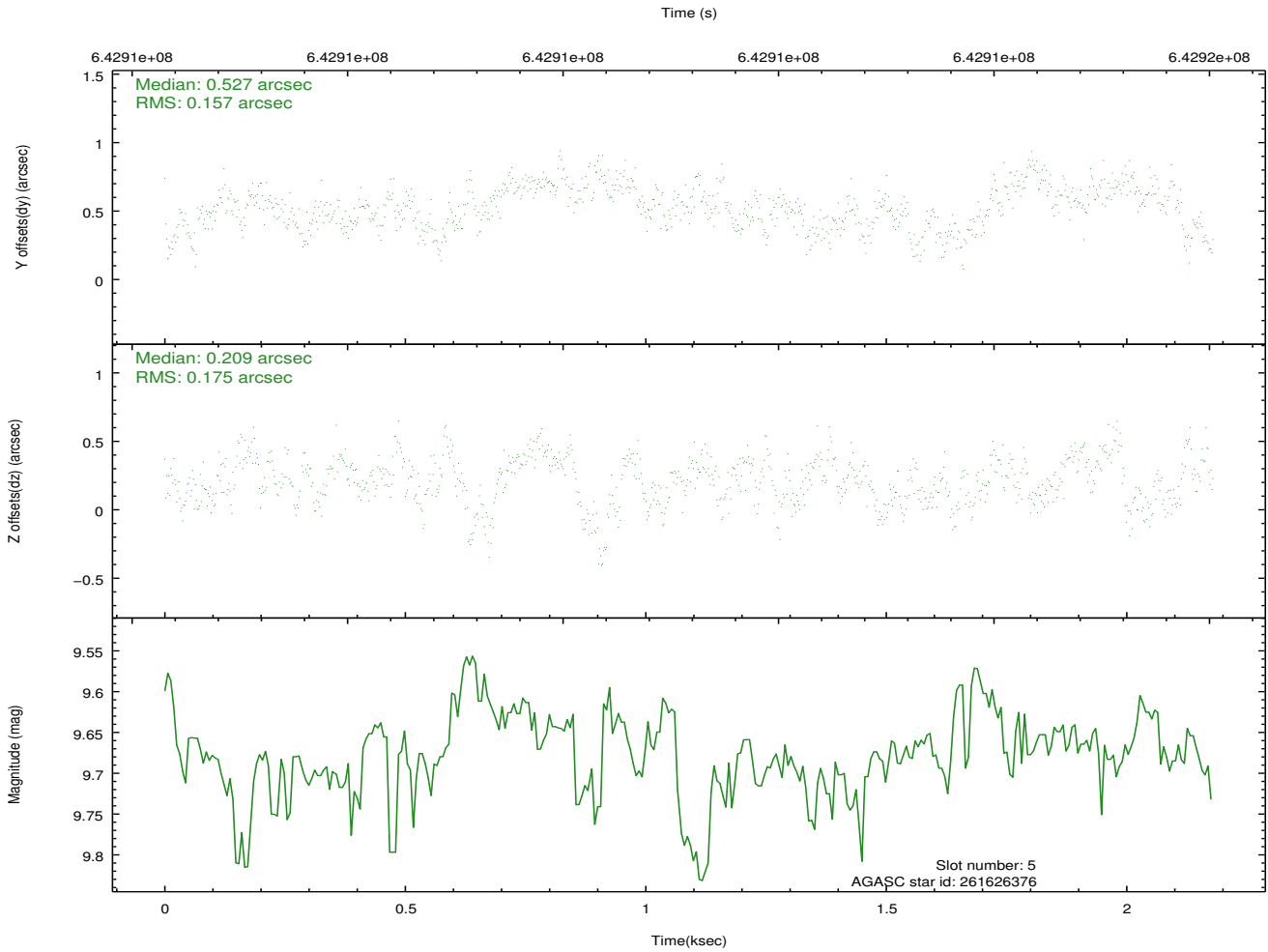
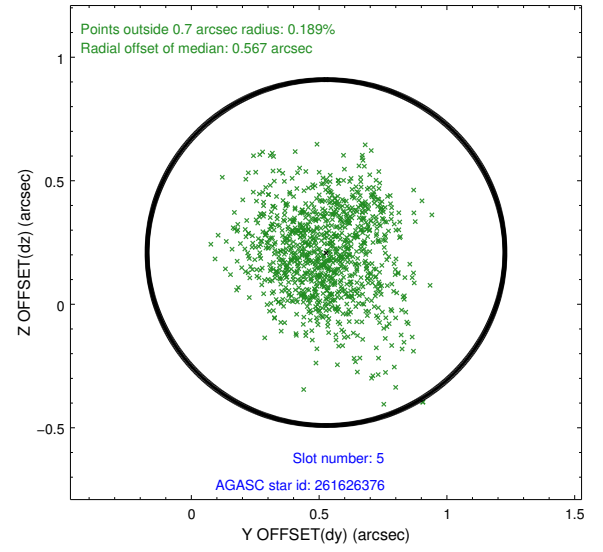
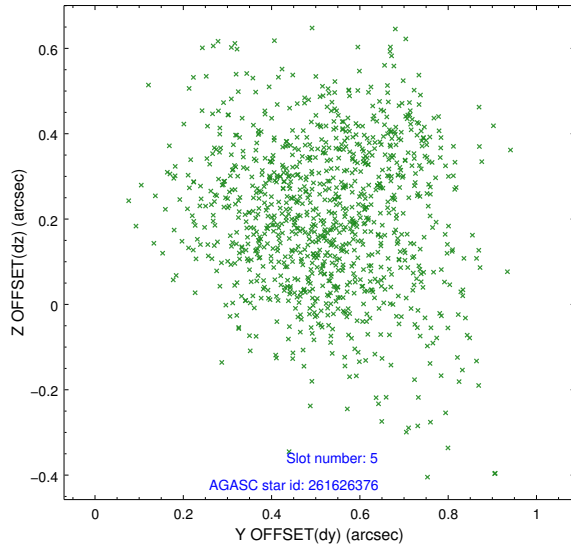
### 2.4.1 Slot 3



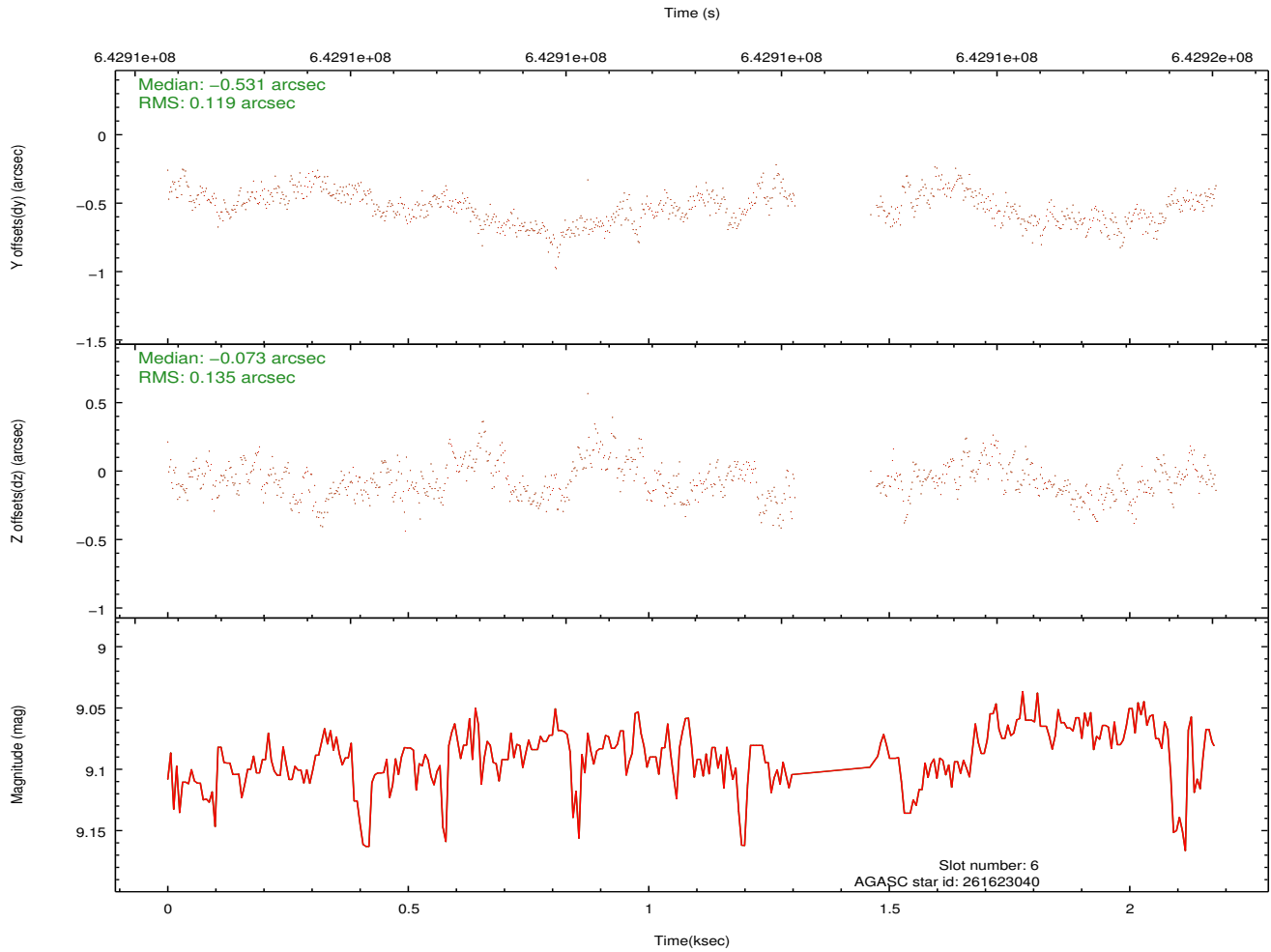
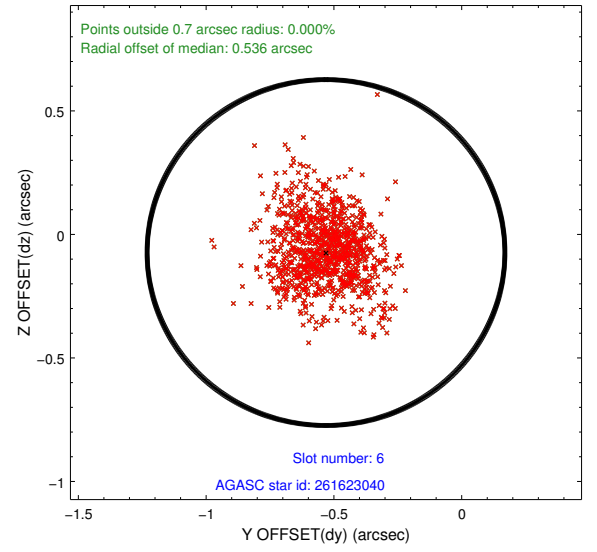
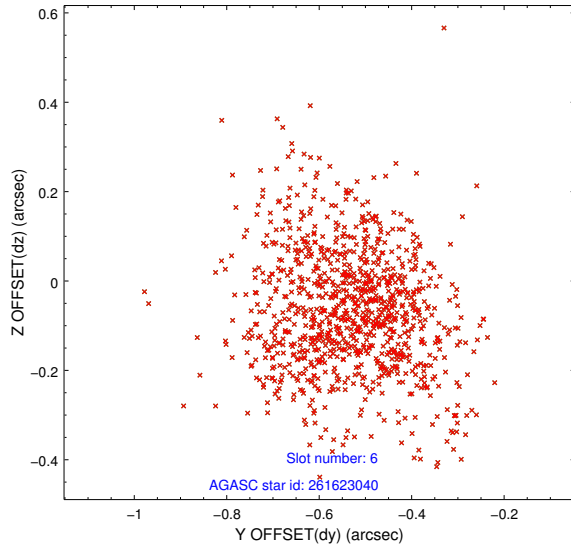
## 2.4.2 Slot 4



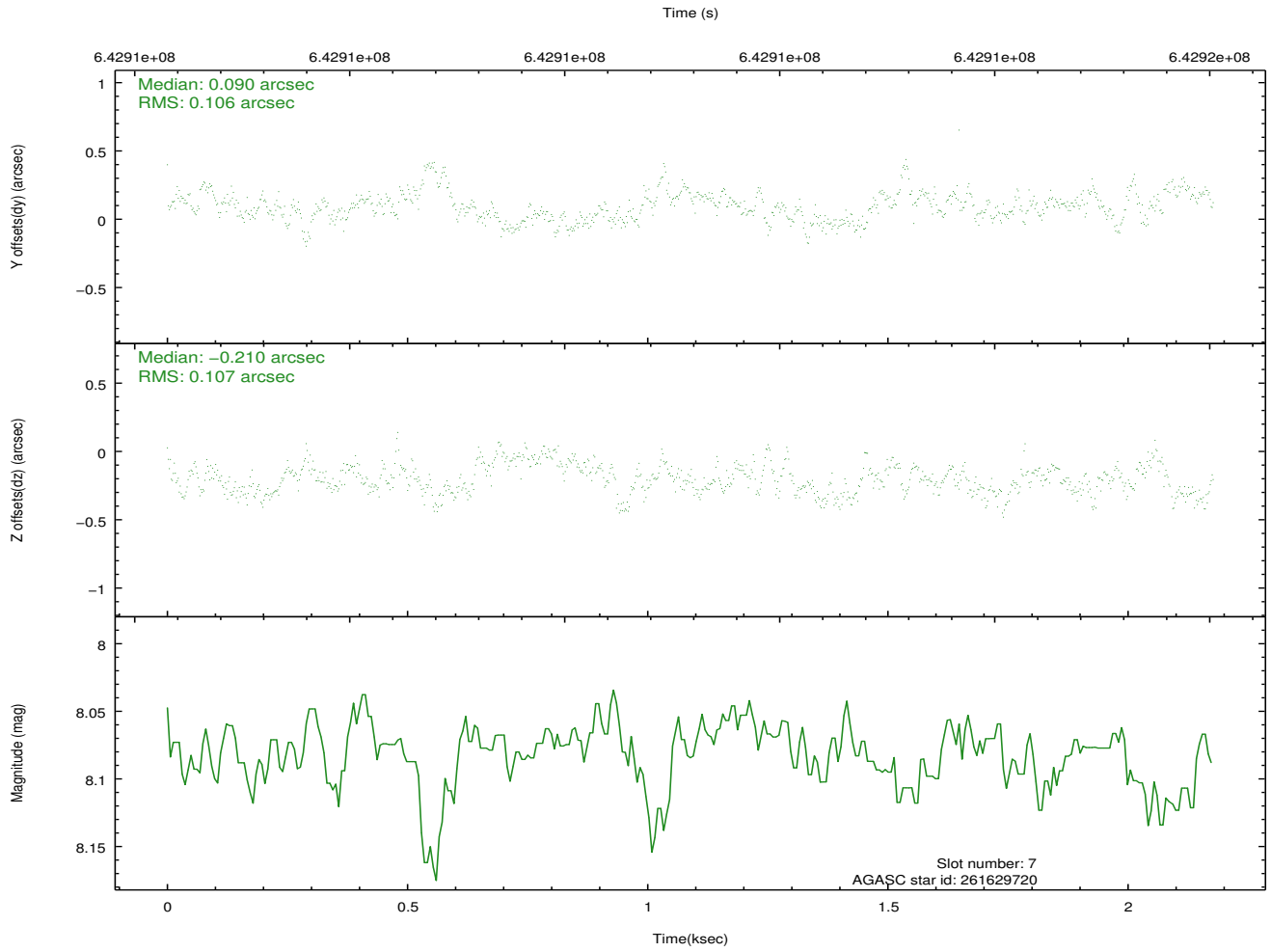
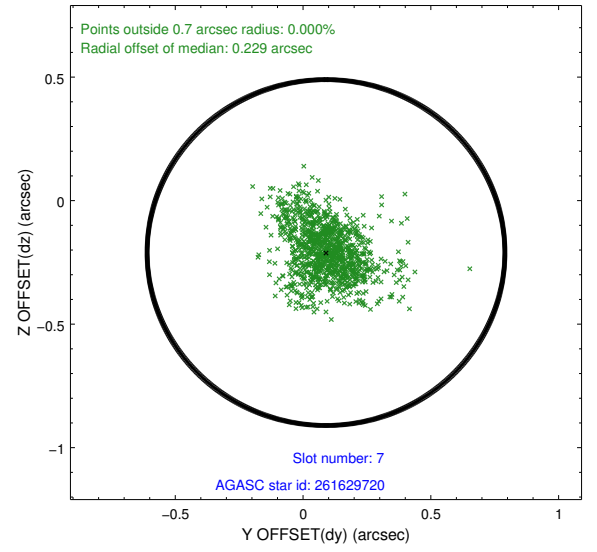
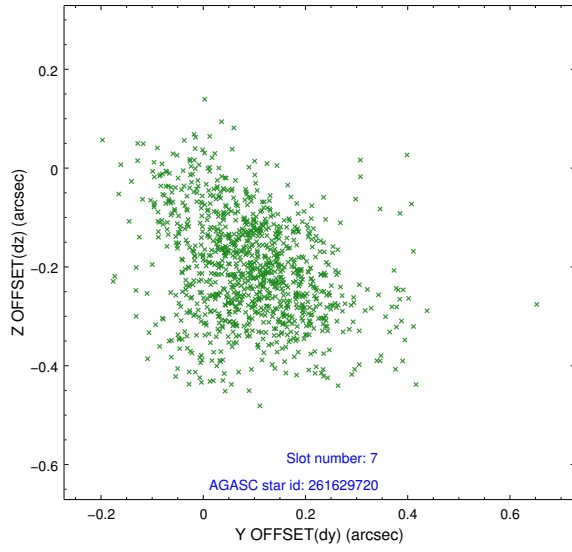
### 2.4.3 Slot 5



## 2.4.4 Slot 6

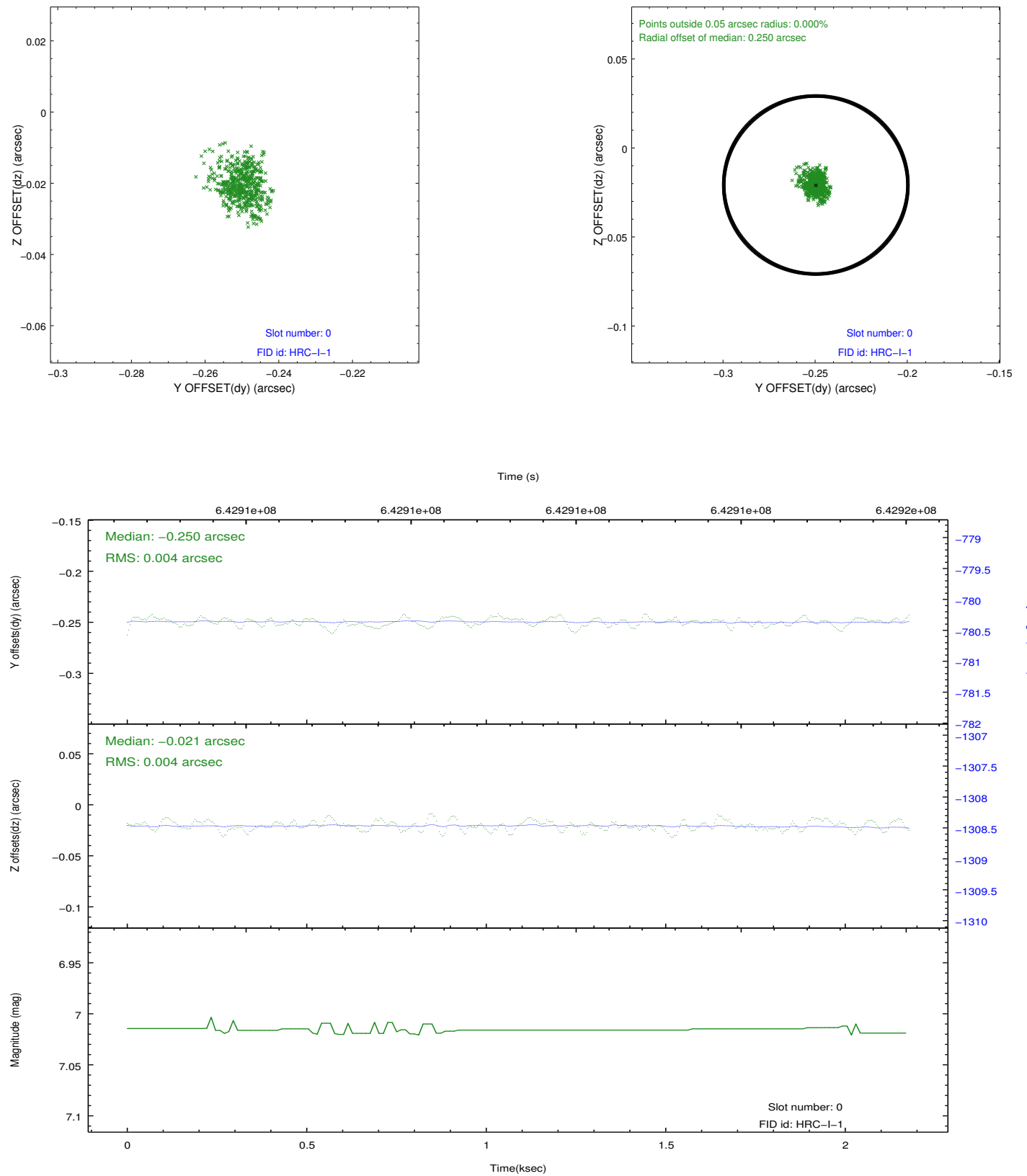


## 2.4.5 Slot 7

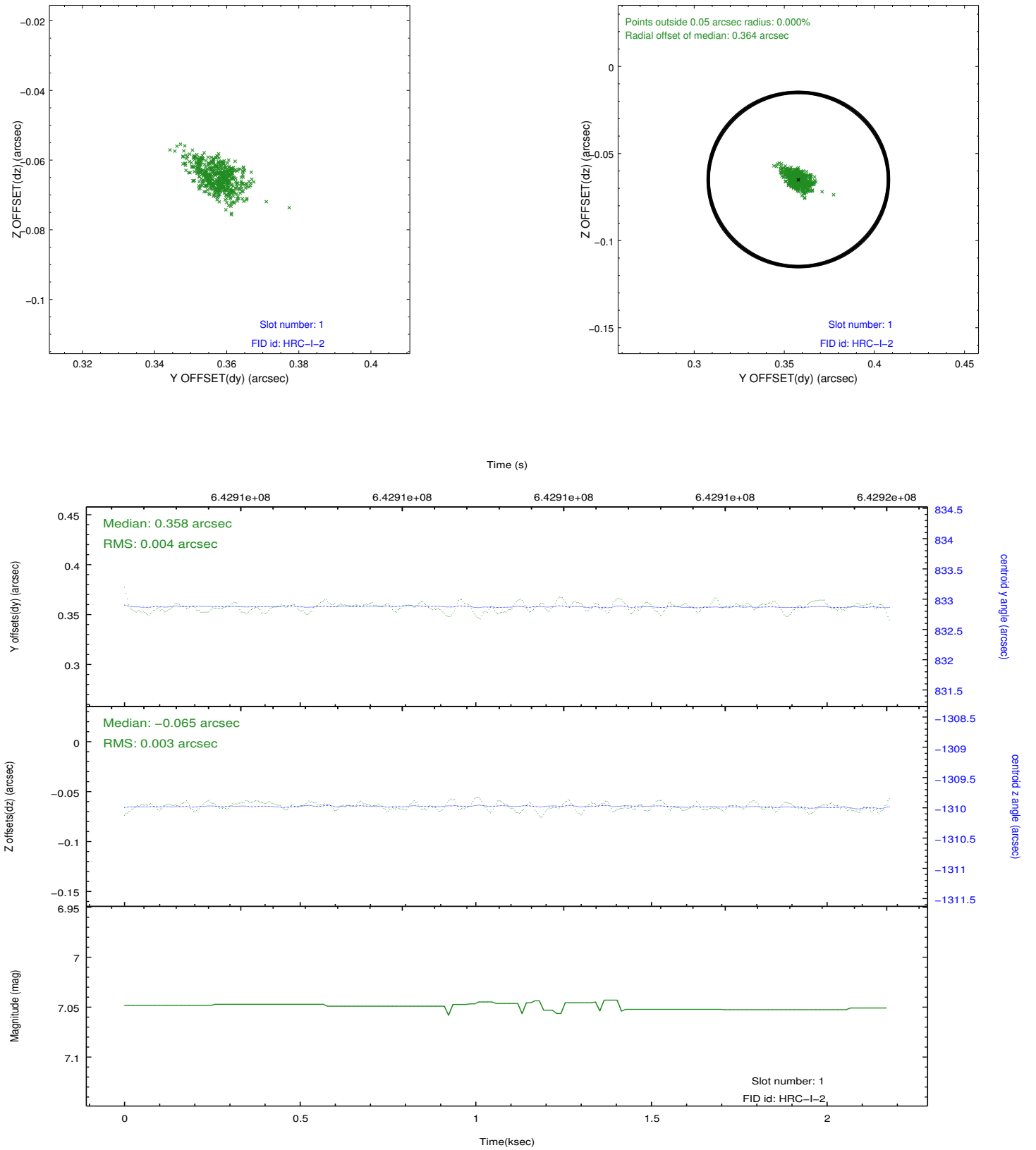


## 2.5 FID Slots

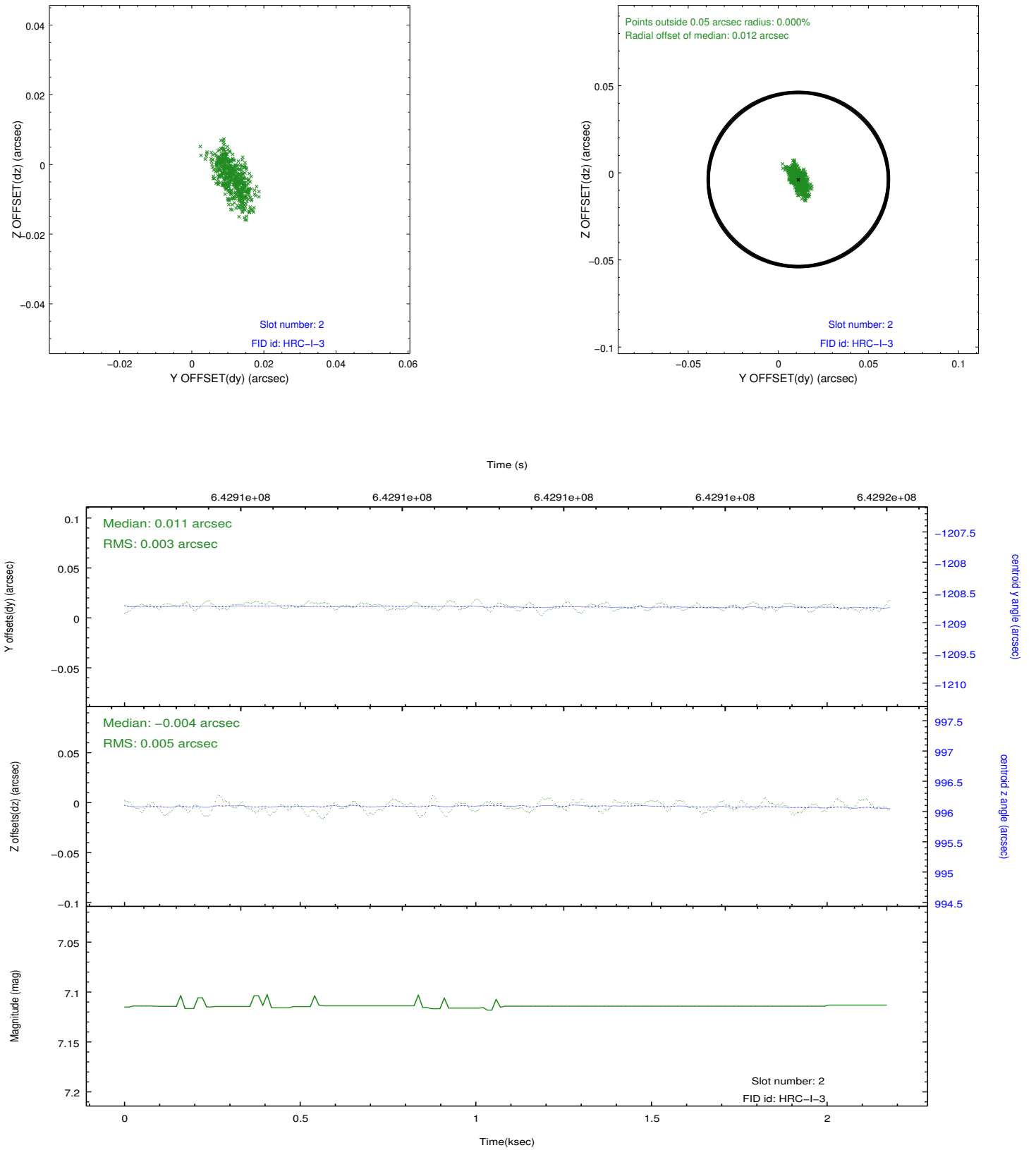
### 2.5.1 Slot 0



## 2.5.2 Slot 1



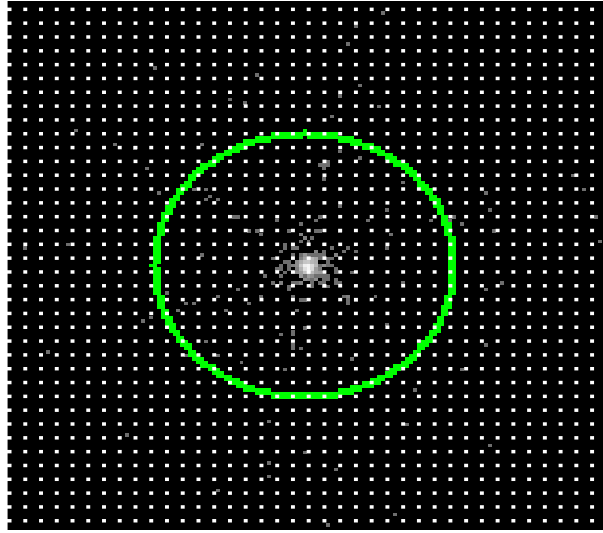
### 2.5.3 Slot 2



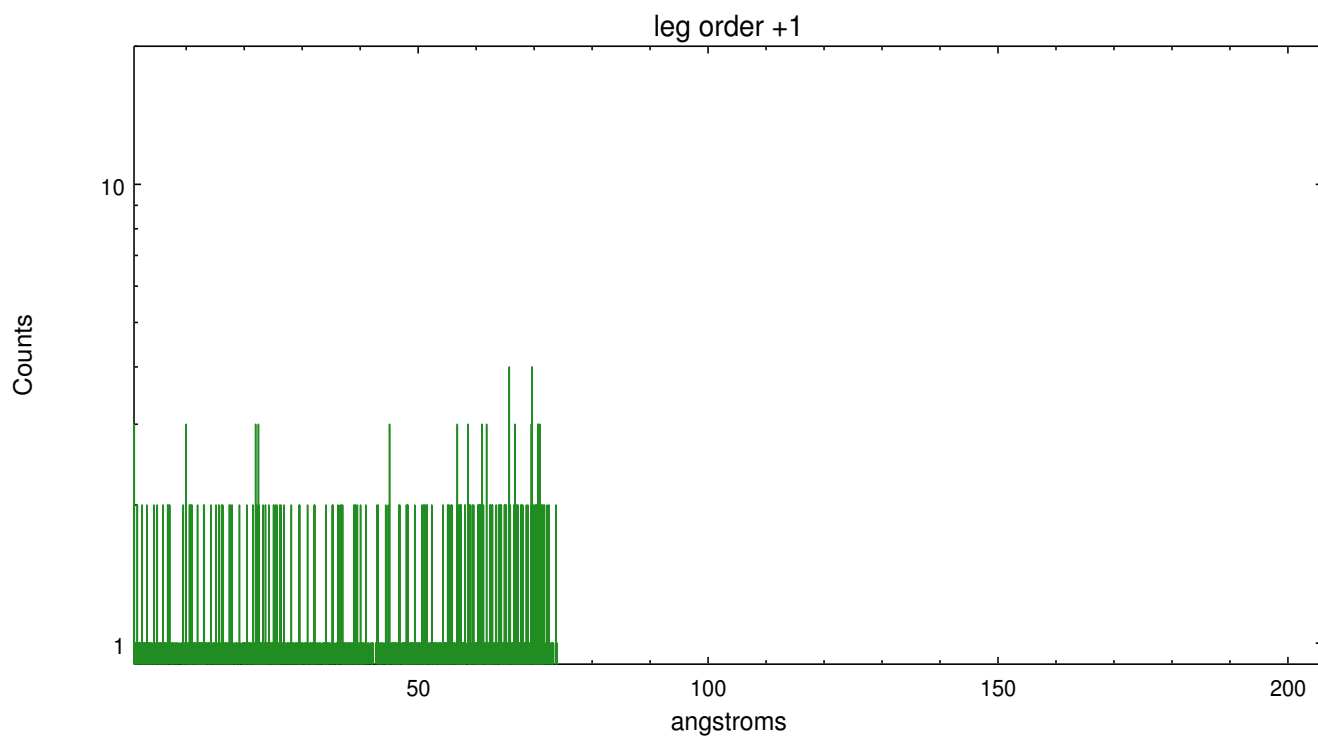
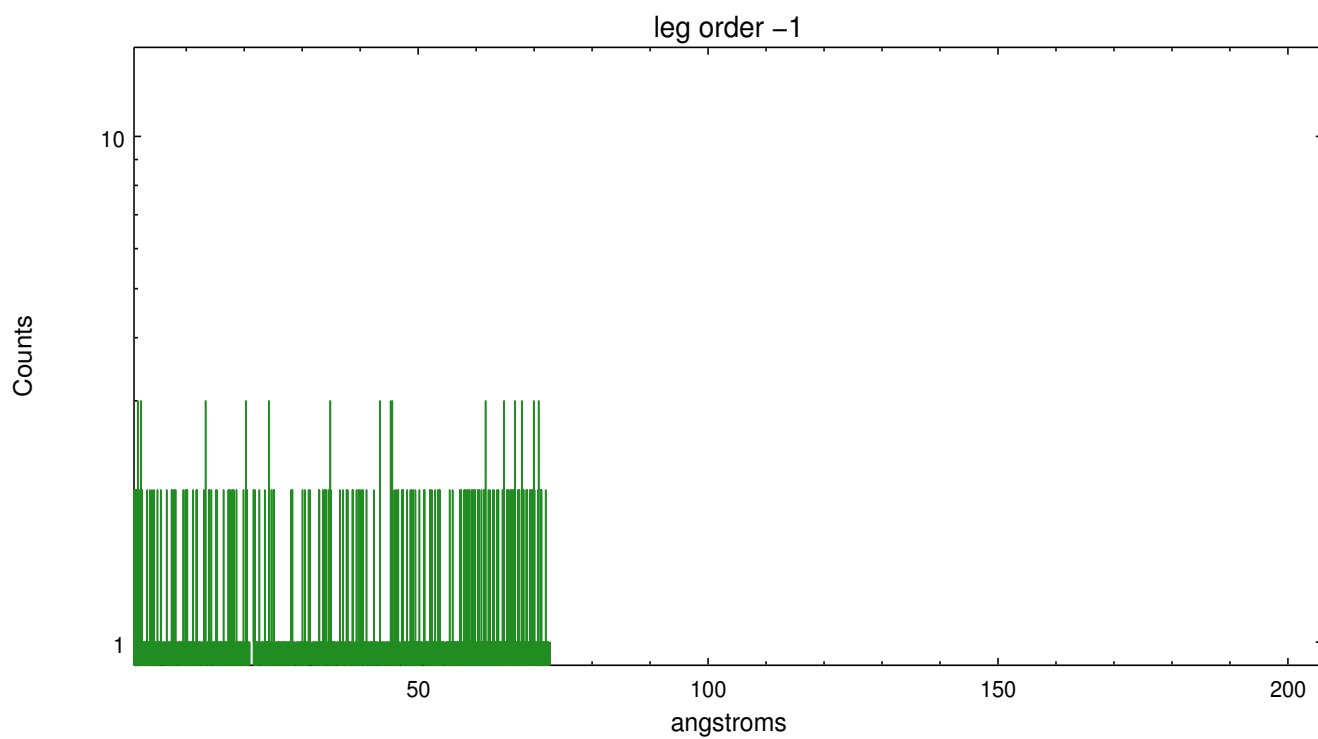


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order



# A Summary

## A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2018.05.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.1783813788891

## A.2 Comments

Note: calibration observation in non-standard detector/grating combination; standard calibration products do not exist for making responses with ciao.