

# V&V Reference Report

## L2 ASCDS Version : 8.5.1

Observation 5581 - L2 Version 3  
Chandra X-Ray Center

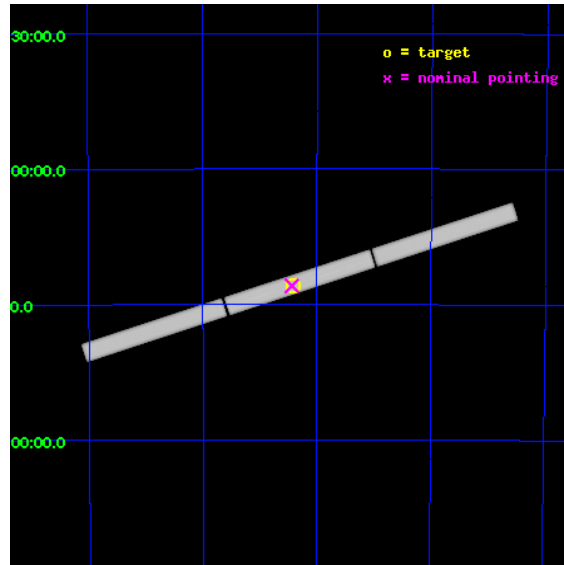
L2 Processing Date : Dec 16 2012

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# 1 Front

seq_num	500570	Sequence number
obs_id	5581	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	110.10936672911	Nominal RA [deg]
dec_nom	-31.432172424953	Nominal Dec [deg]
roll_nom	341.94621354488	Nominal Roll [deg]
revision	3	Processing version of data
ontime	68196.584318578	[s]
livetime	67675.531698711	Ontime multiplied by DTCOR
l2events	4323224	Number of level 2 events

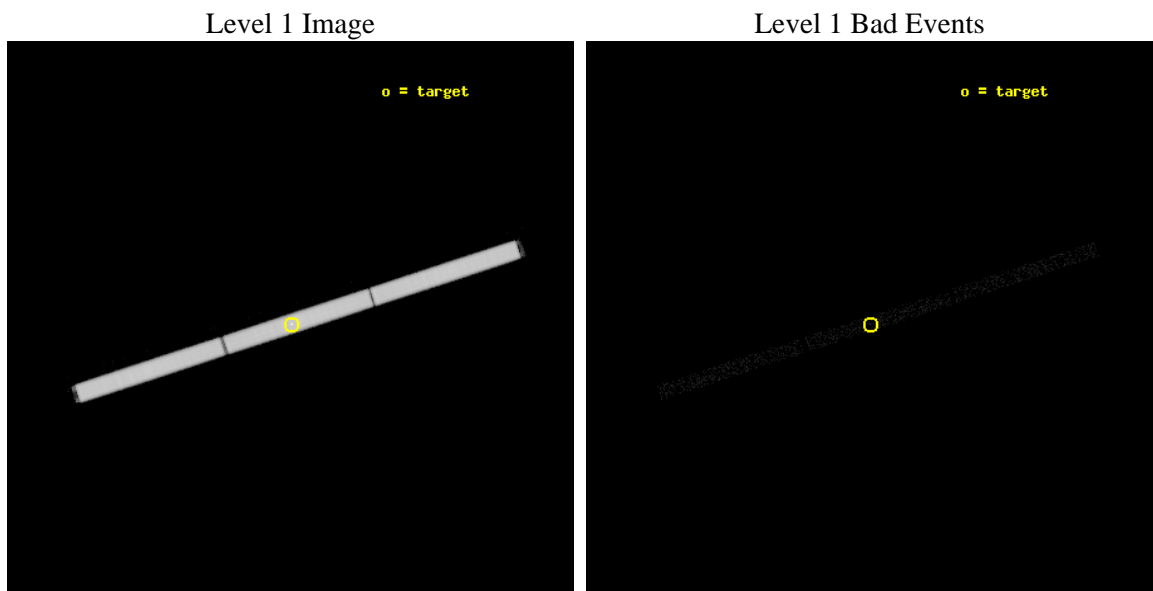




## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	1	Obi number	sched_exp_time	68010.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1	Processing system revision	ontime	68196.584328592	[s]
caldsver	4.5.5	&#160	l1events	5775595	Number of level 1 events
date	2012-12-16T14:33:17	Date and time of file creation			
revision	3	Processing version of data			

### 2.1.3 Events

Level 1 Events

	segment 1	segment 2	segment 3
level 1 events	1936879	1921177	1917539
rejected events	22113	21101	21587
rejected %	1%	1%	1%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	7	7
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	110.076923	110.1093667291087			
[deg] Pointing Dec	-31.439485	-31.43217242495311			
[deg] Pointing Roll	341.861961	341.9462135448765			
[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)	222849064.184000	222848172.19871			
Observation start date	2005-01-23T06:30:00	2005-01-23T06:16:12			
[s] Observation end time (MET)	222917074.184000	222918178.67687			
Observation end date	2005-01-24T01:23:30	2005-01-24T01:42:58			

## 2.3 Aspect

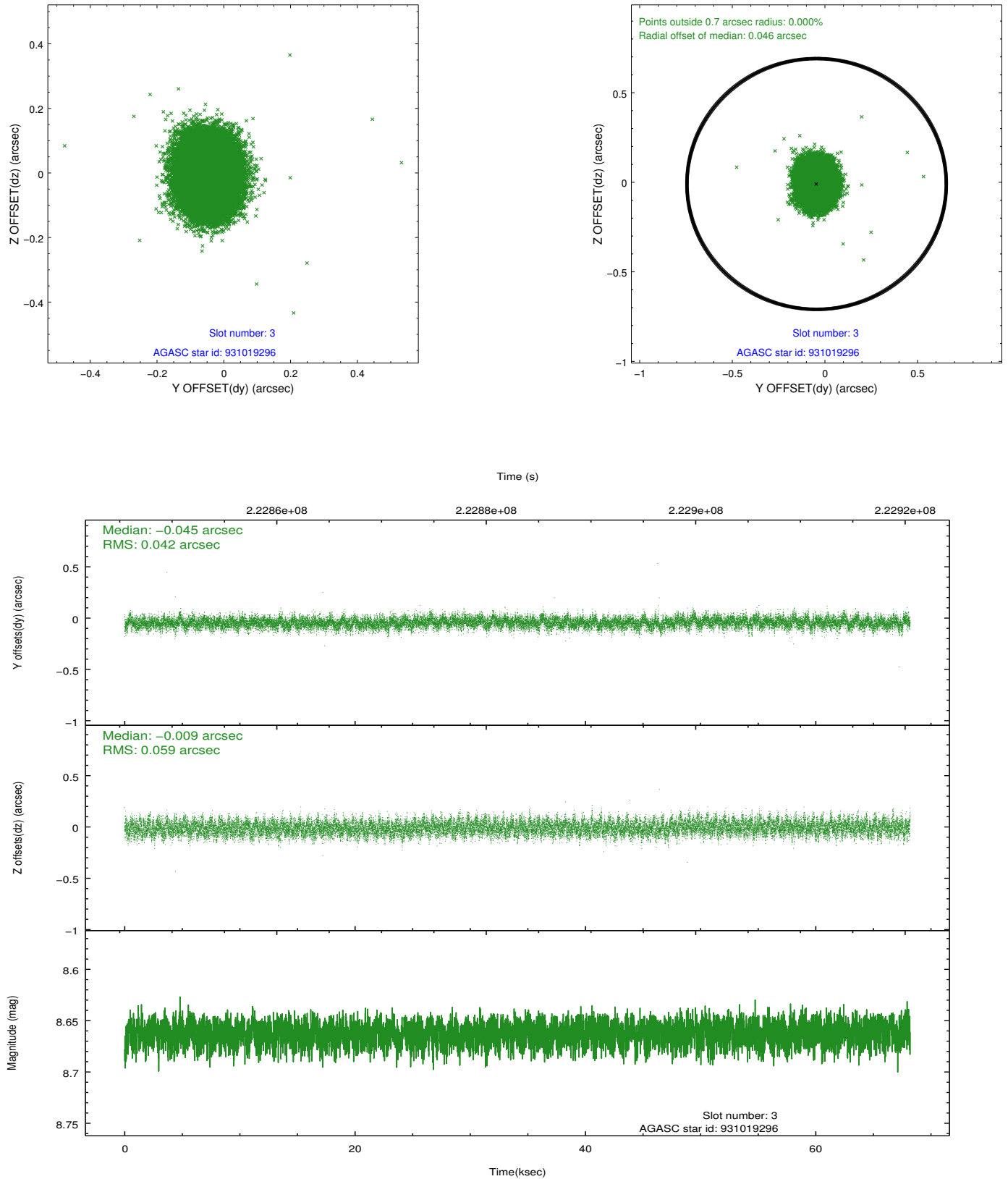


### Slot Statistics

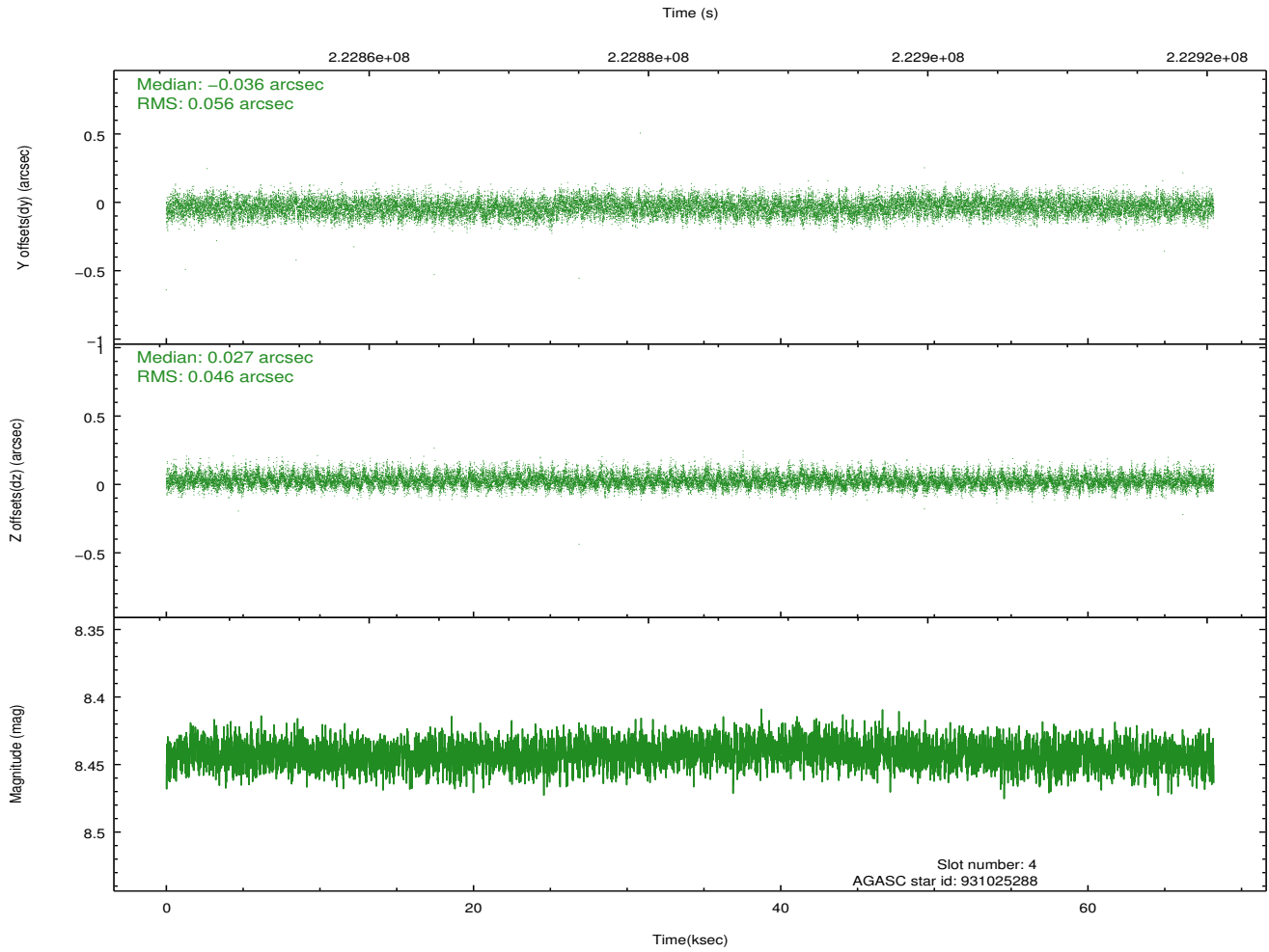
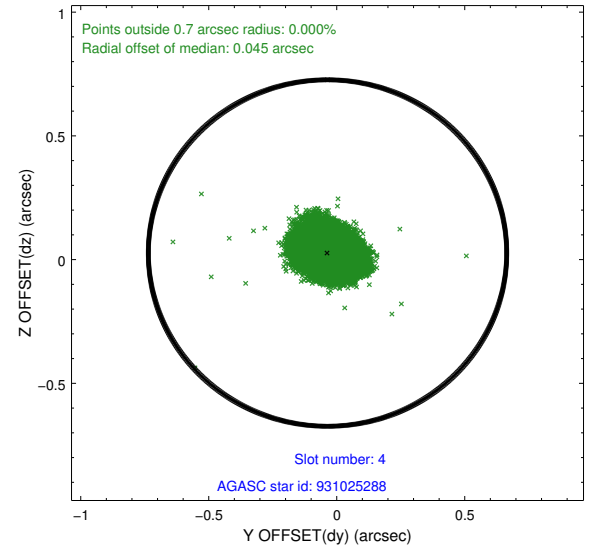
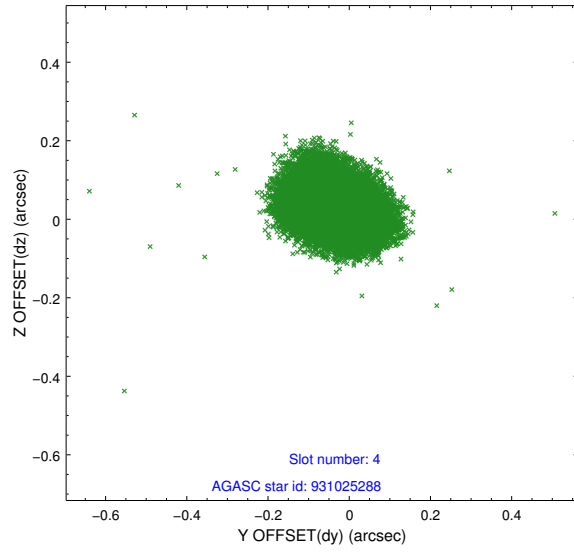
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-1	7.01	16632	0.115	-0.122	0.030	0.060	0.000000	0.000000	-1160.57	-455.88
1	FID	HRC-S-2	7.01	16632	0.152	-0.104	0.016	0.025	0.000000	0.000000	1239.07	-448.50
2	FID	HRC-S-3	7.02	16633	0.122	-0.072	0.025	0.053	0.000000	0.000000	-1163.22	573.69
3	GUIDE	931019296	8.66	33258	-0.045	-0.009	0.077	0.125	109.471771	-31.694370	-1474.16	-1454.27
4	GUIDE	931025288	8.44	33258	-0.036	0.027	0.077	0.124	109.511084	-30.937793	-2221.33	1168.14
5	GUIDE	931163512	8.47	33254	0.053	0.038	0.070	0.112	110.894384	-31.299941	2236.15	1251.74
6	GUIDE	931695048	7.39	33267	0.015	0.013	0.100	0.165	110.648539	-32.046020	2339.16	-1536.05
7	GUIDE	931160352	8.64	33254	0.010	-0.072	0.091	0.144	110.268138	-30.864891	-82.34	2149.30

## 2.4 Star Slots

### 2.4.1 Slot 3

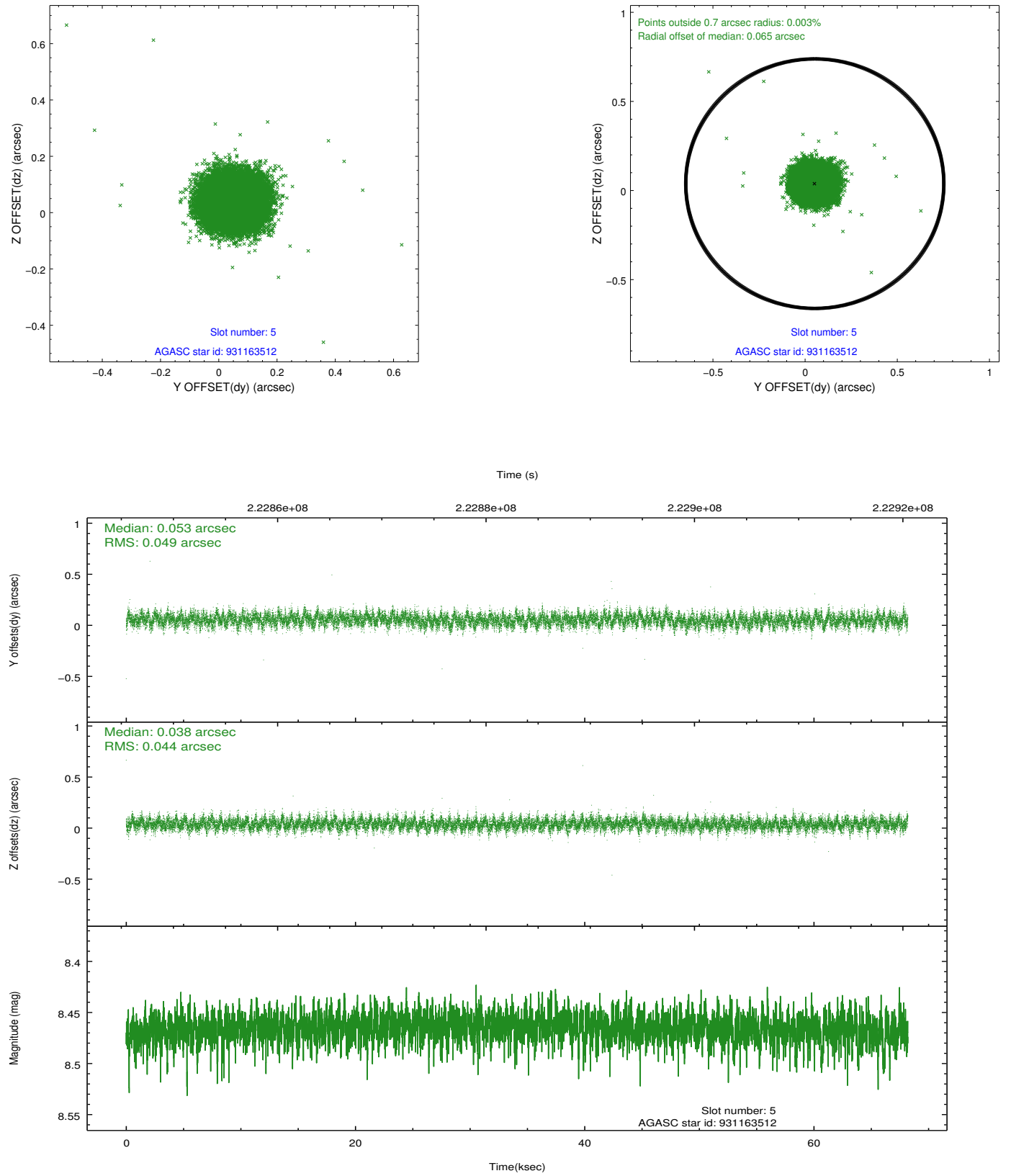


## 2.4.2 Slot 4

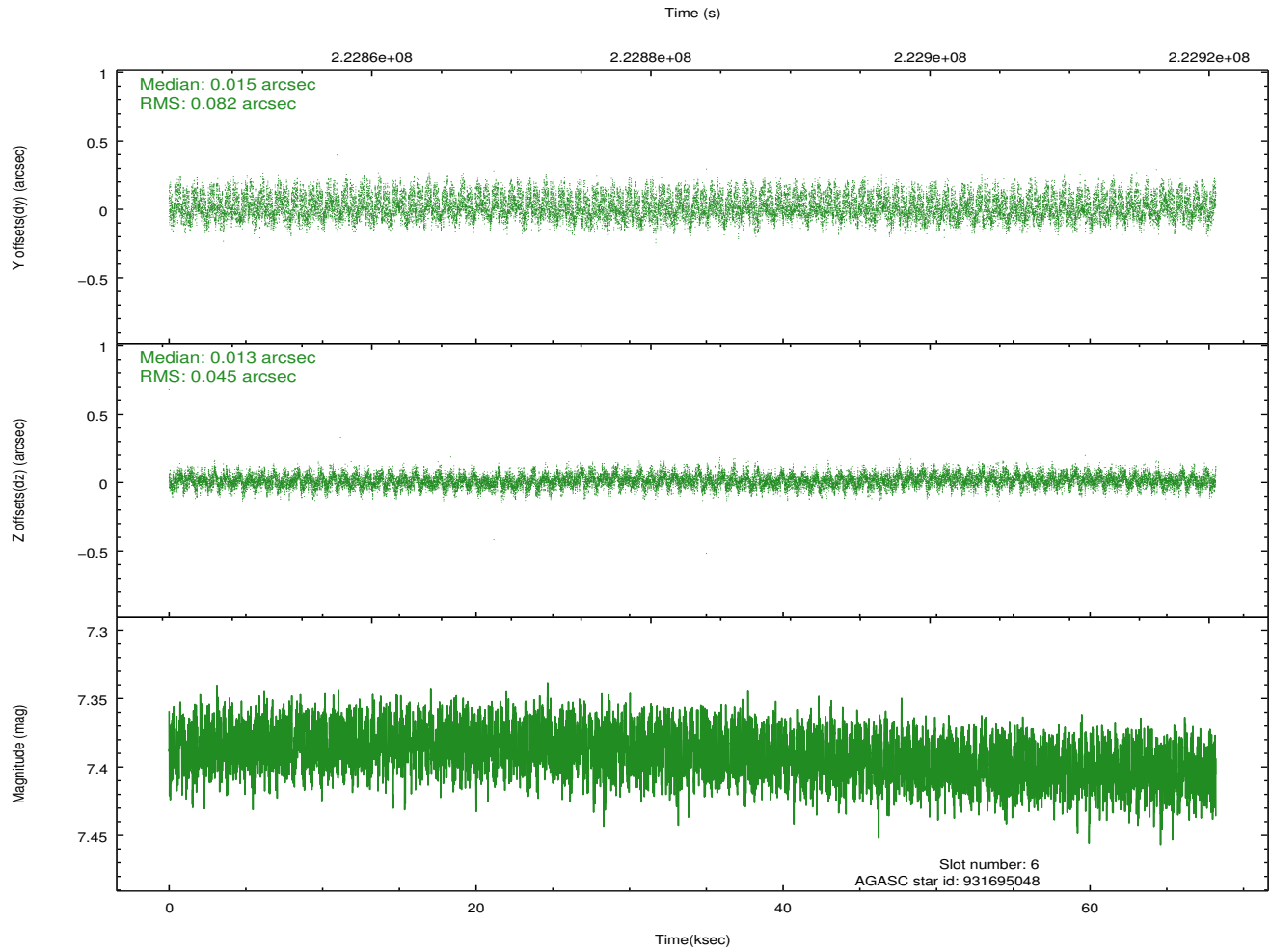
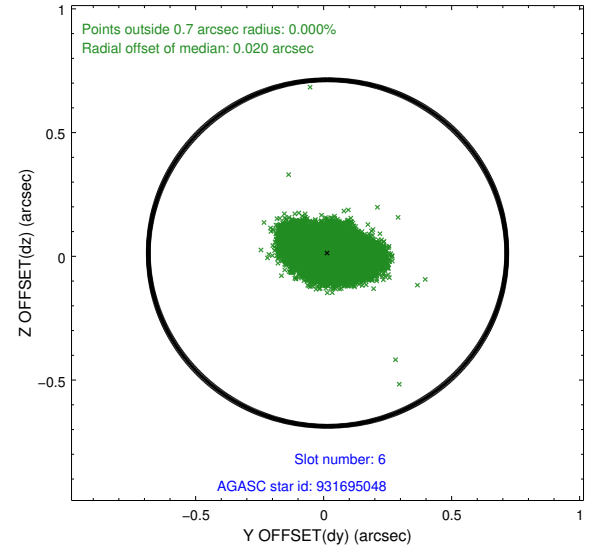
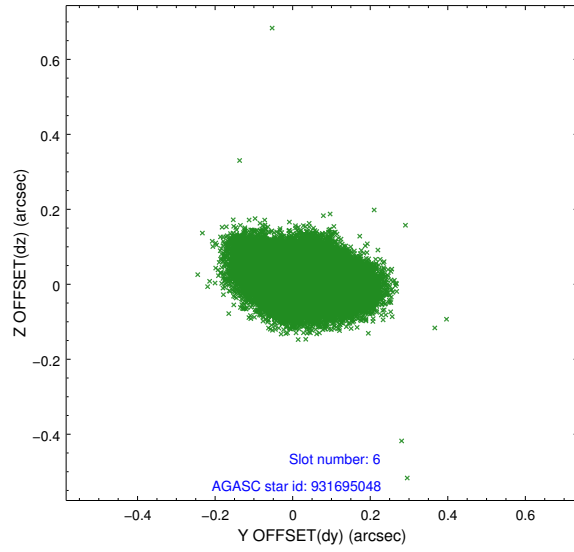




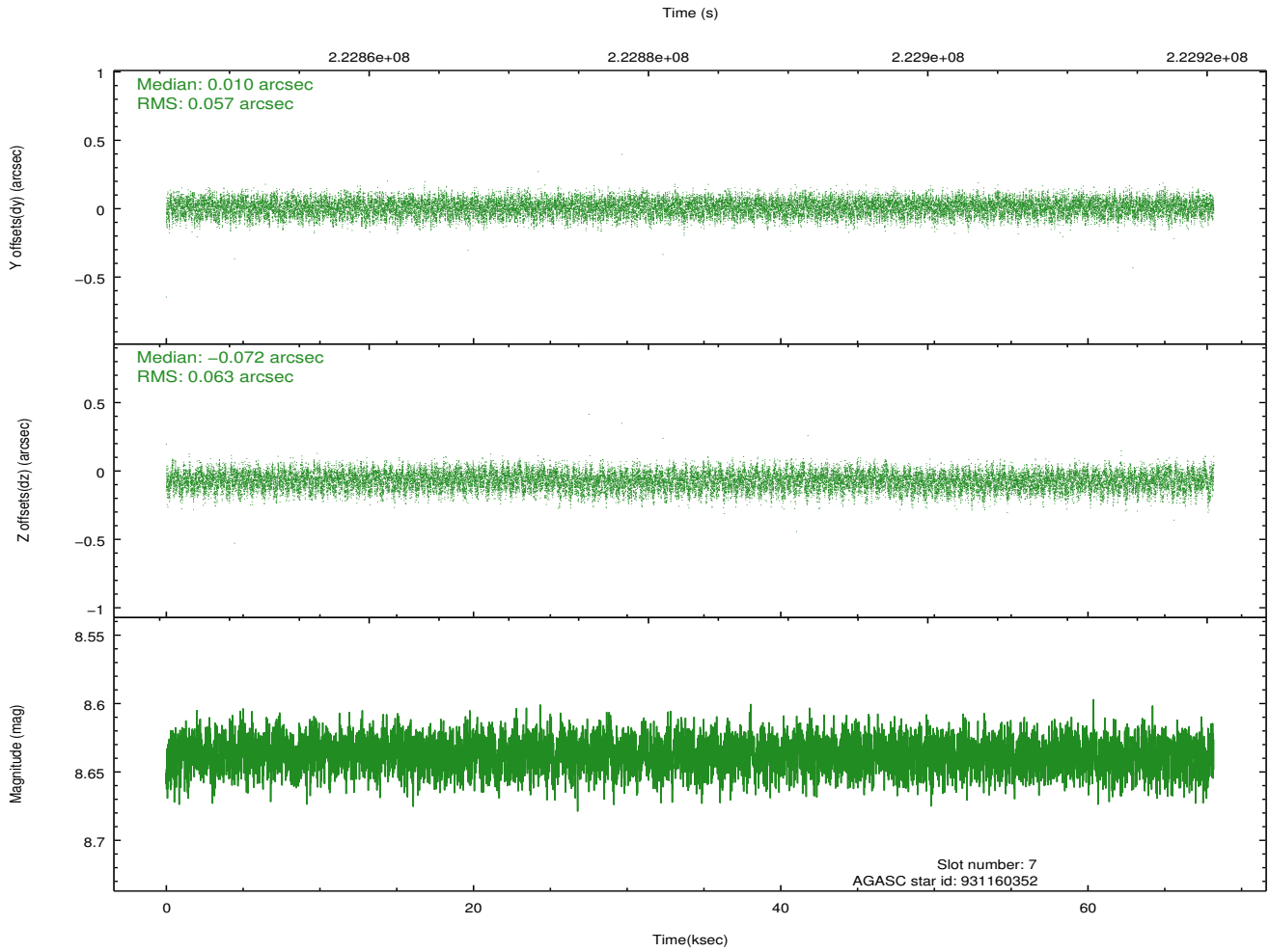
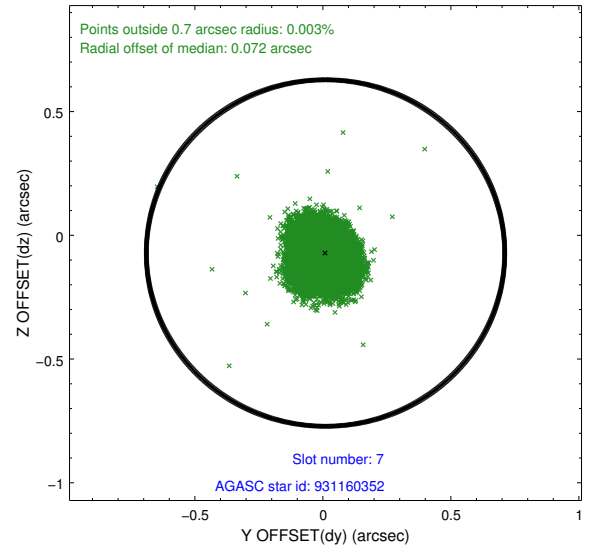
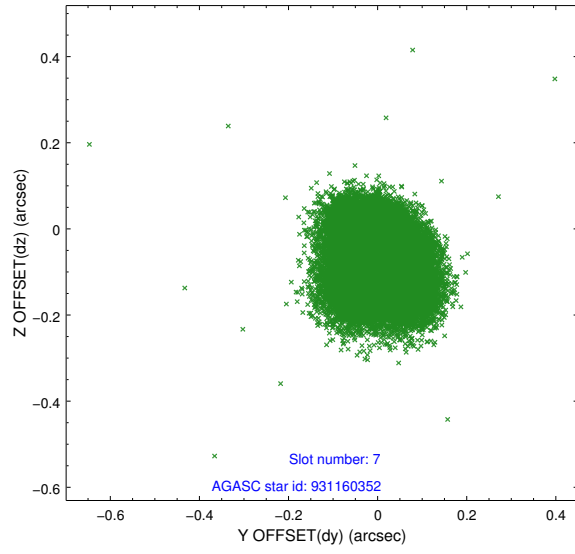
### 2.4.3 Slot 5



## 2.4.4 Slot 6

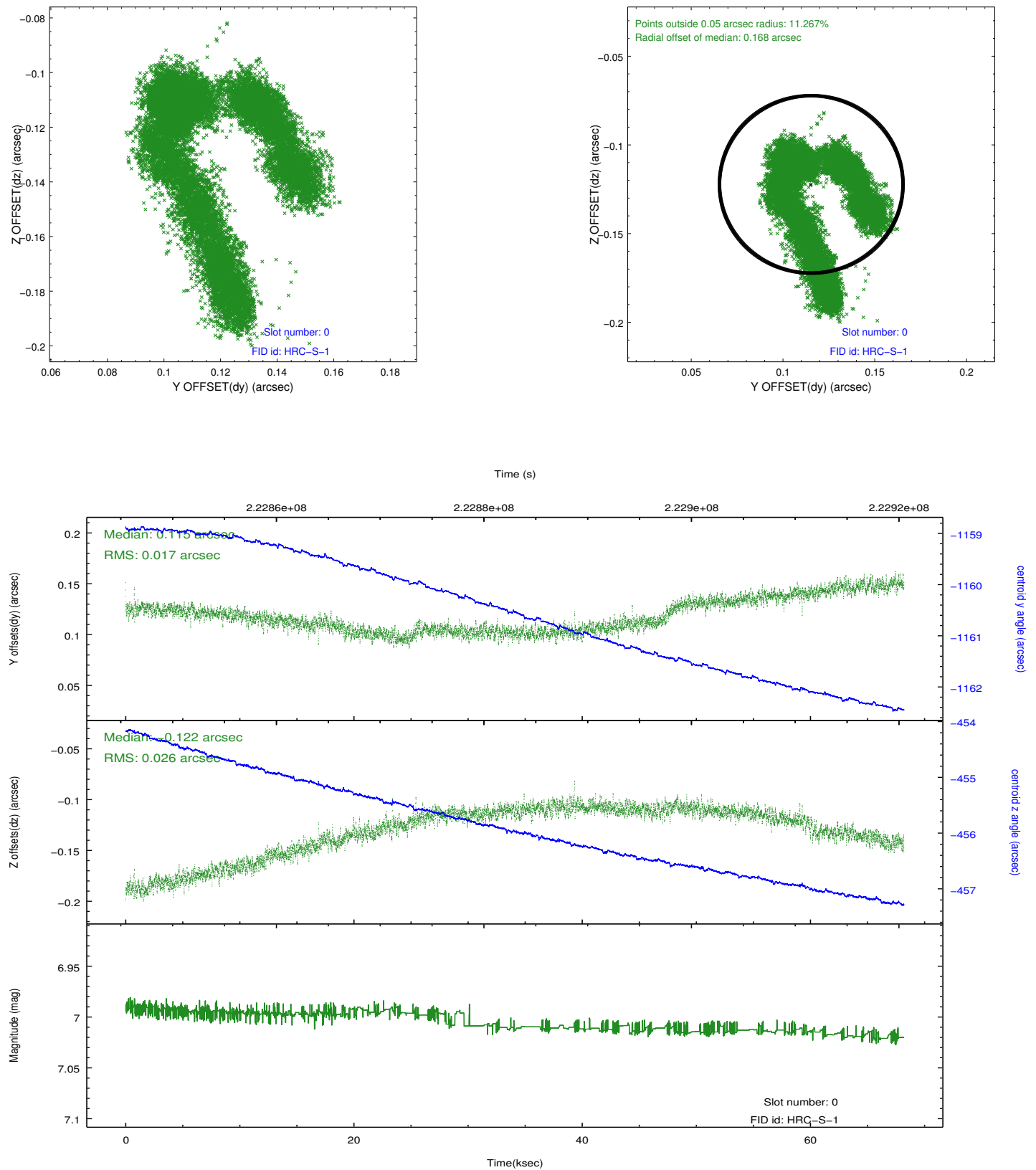


## 2.4.5 Slot 7

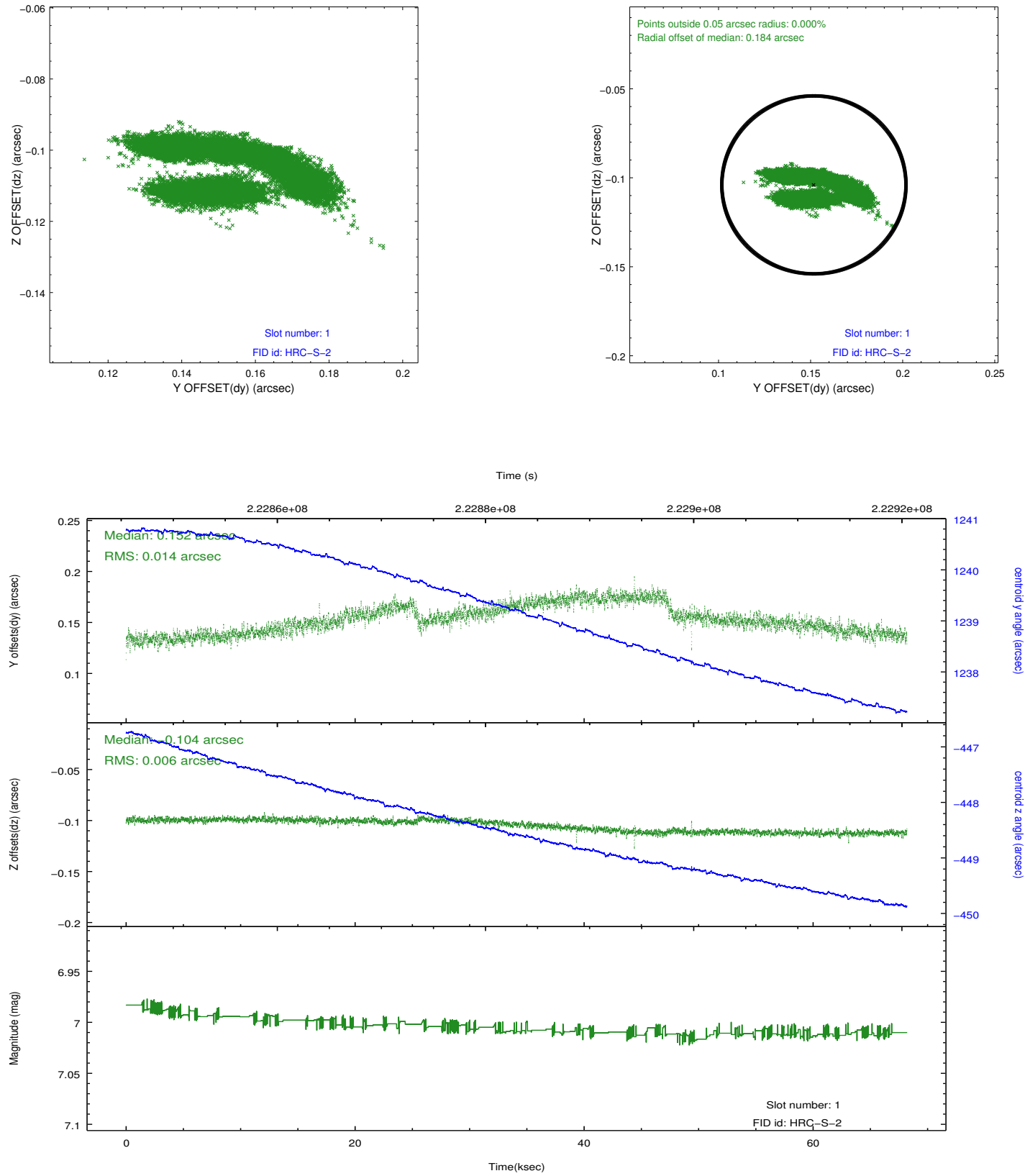


## 2.5 FID Slots

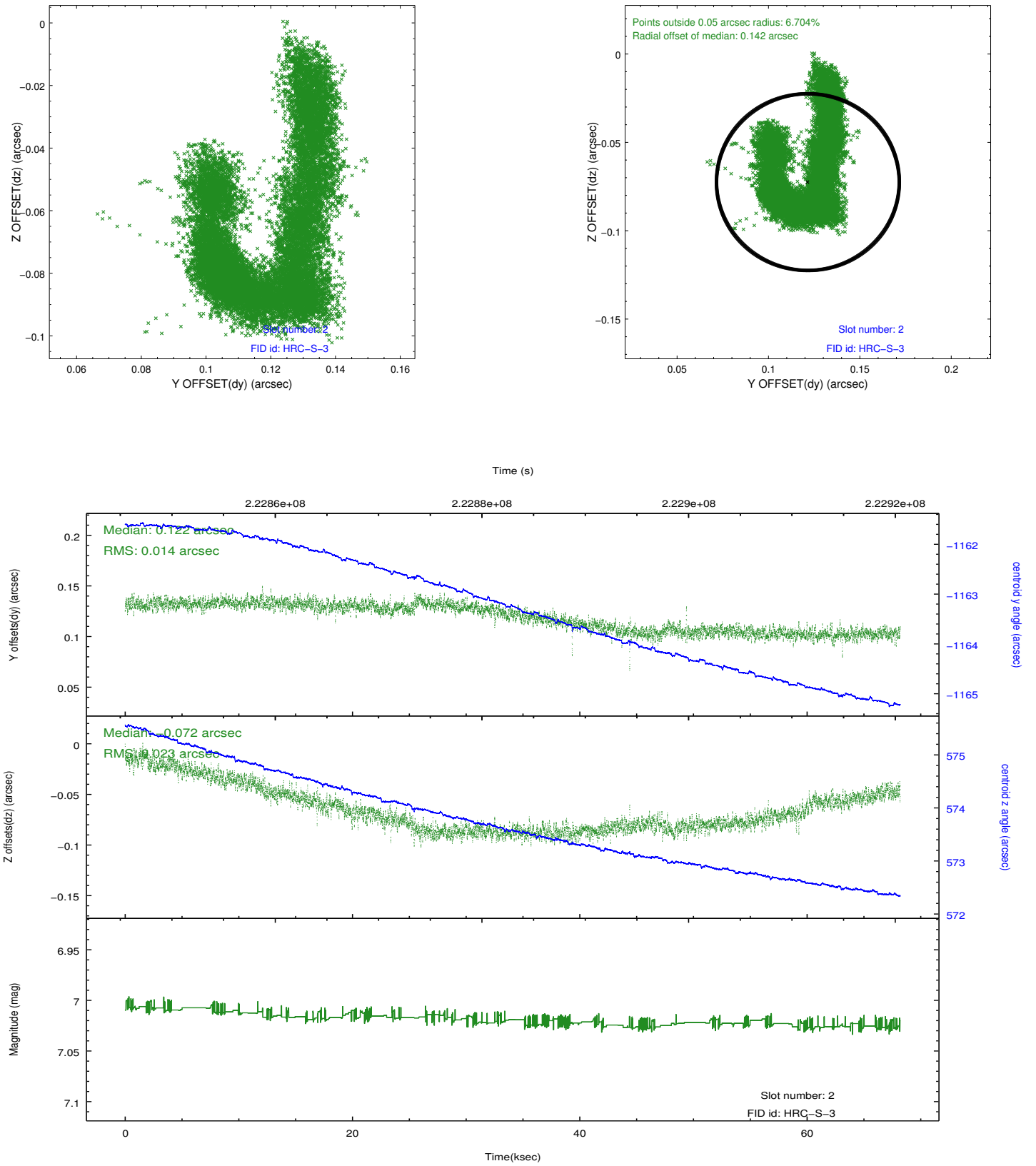
### 2.5.1 Slot 0



## 2.5.2 Slot 1

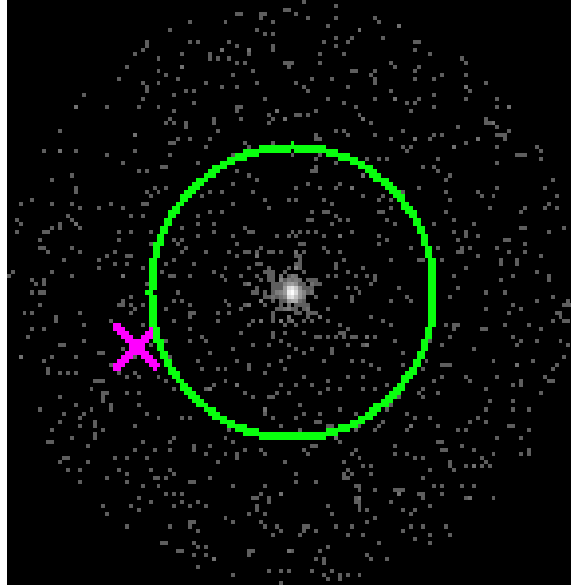


### 2.5.3 Slot 2

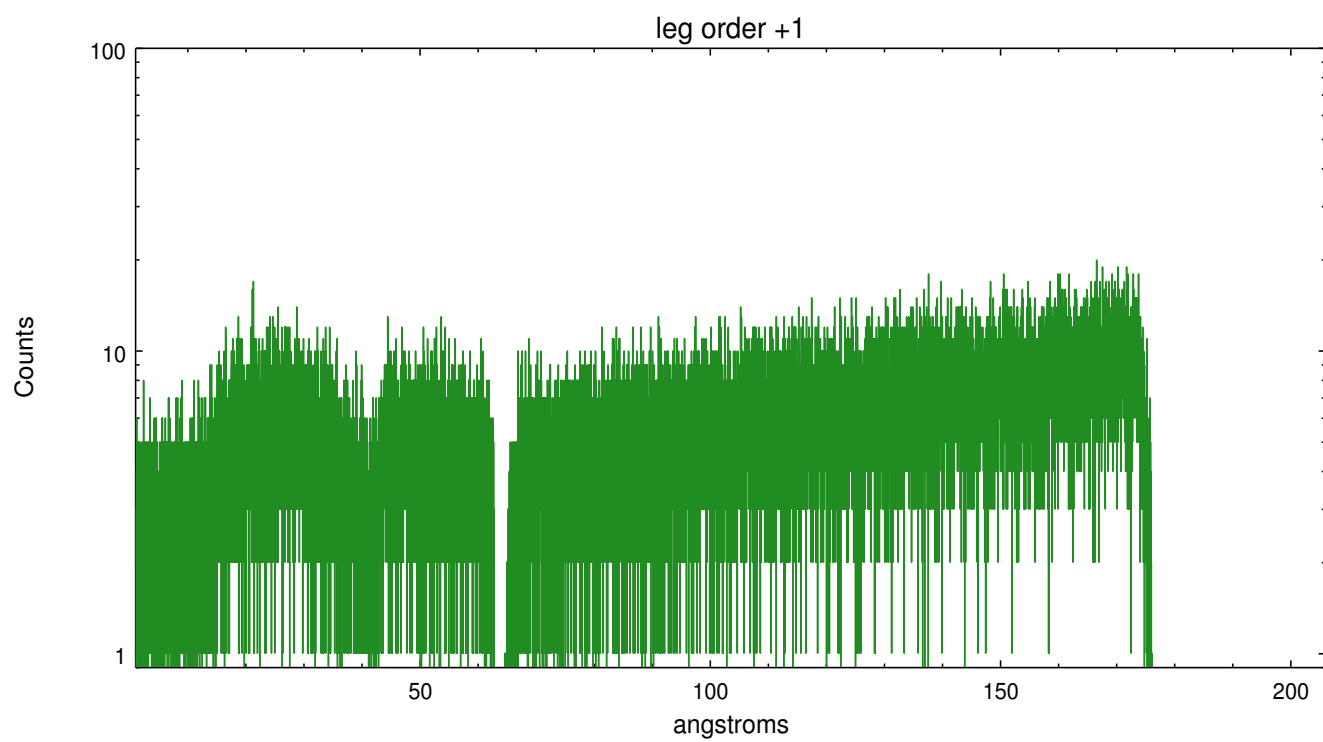
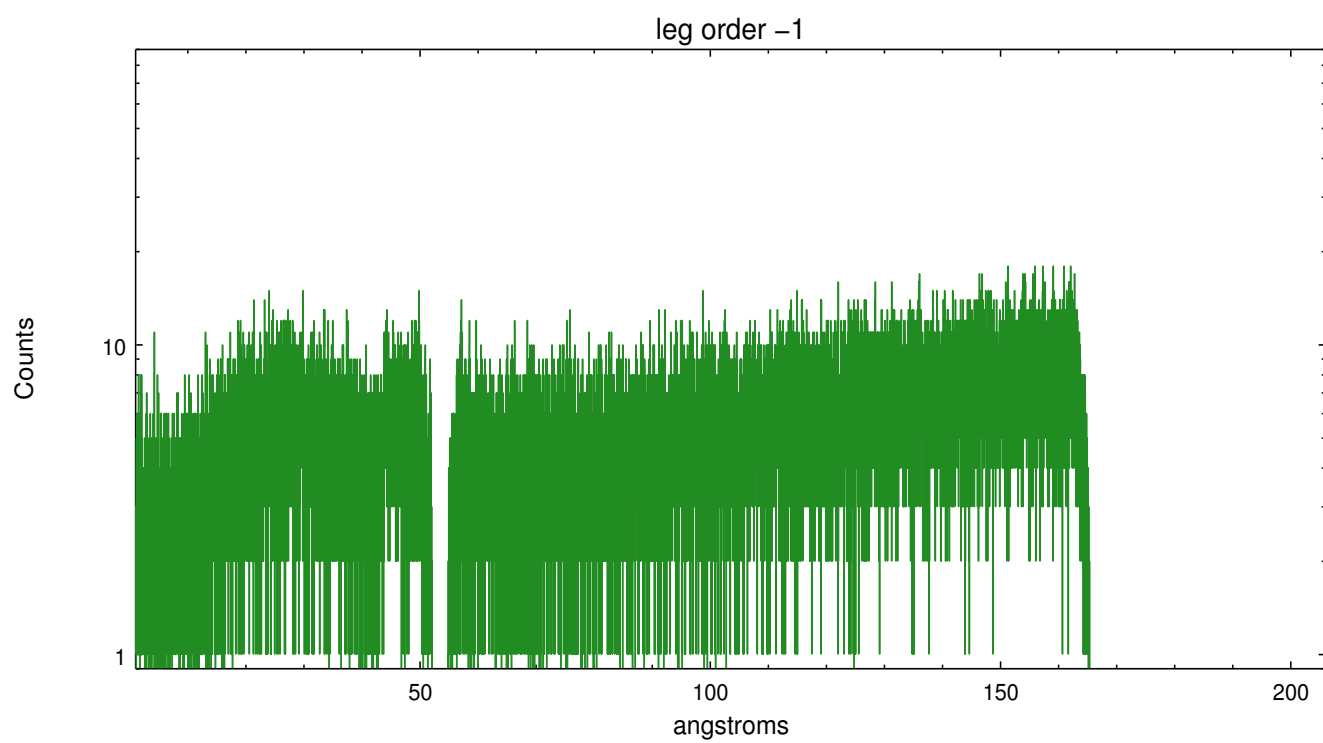


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order





## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	68.196

### A.2 Comments