

# V&V Reference Report

## L2 ASCDS Version : 8.5

Observation 5172 - L2 Version 3  
Chandra X-Ray Center

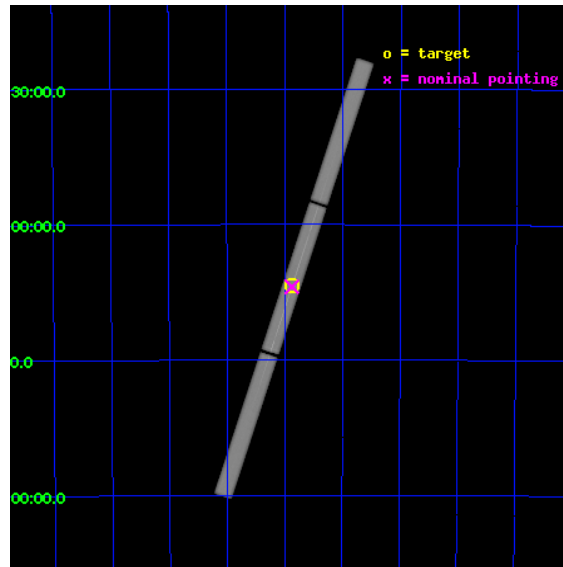
L2 Processing Date : Dec 12 2012

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# 1 Front

seq_num	790092	Sequence number
obs_id	5172	Observation id
title	AO5 Calibration Observations of PKS2155-304	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	PKS2155-304	Source name
ra_targ	329.716667	Observer's specified target RA [deg]
dec_targ	-30.225556	Observer's specified target Dec [deg]
ra_nom	329.71827560112	Nominal RA [deg]
dec_nom	-30.230029092047	Nominal Dec [deg]
roll_nom	288.26715680807	Nominal Roll [deg]
revision	3	Processing version of data
ontime	27165.576219827	[s]
livetime	26927.837848175	Ontime multiplied by DTCOR
l2events	2095940	Number of level 2 events

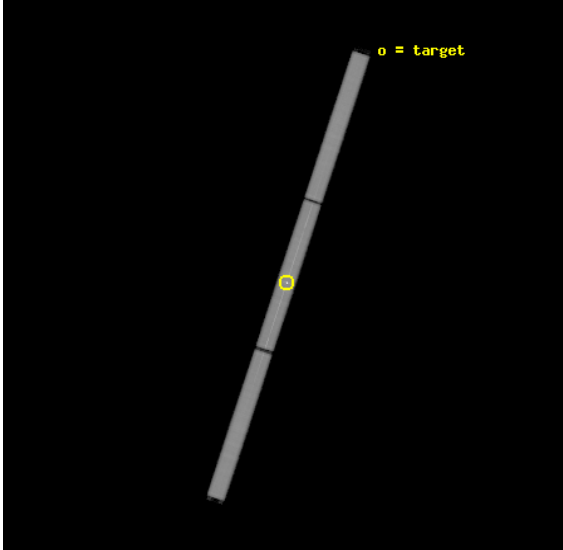


## 2 OBI

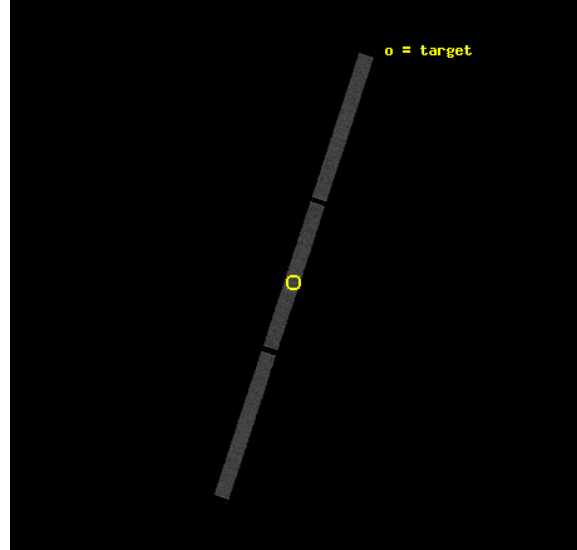
### 2.1 OBI

#### 2.1.1 Images

Level 1 Image



Level 1 Bad Events



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	27000.000000	[s] Scheduled observation exposure time
ascdsver	8.5	Processing system revision	ontime	27165.576219827	[s]
caldbver	4.5.4	&#160	l1events	2830519	Number of level 1 events
date	2012-12-12T00:21:31	Date and time of file creation			
revision	3	Processing version of data			

### 2.1.3 Events

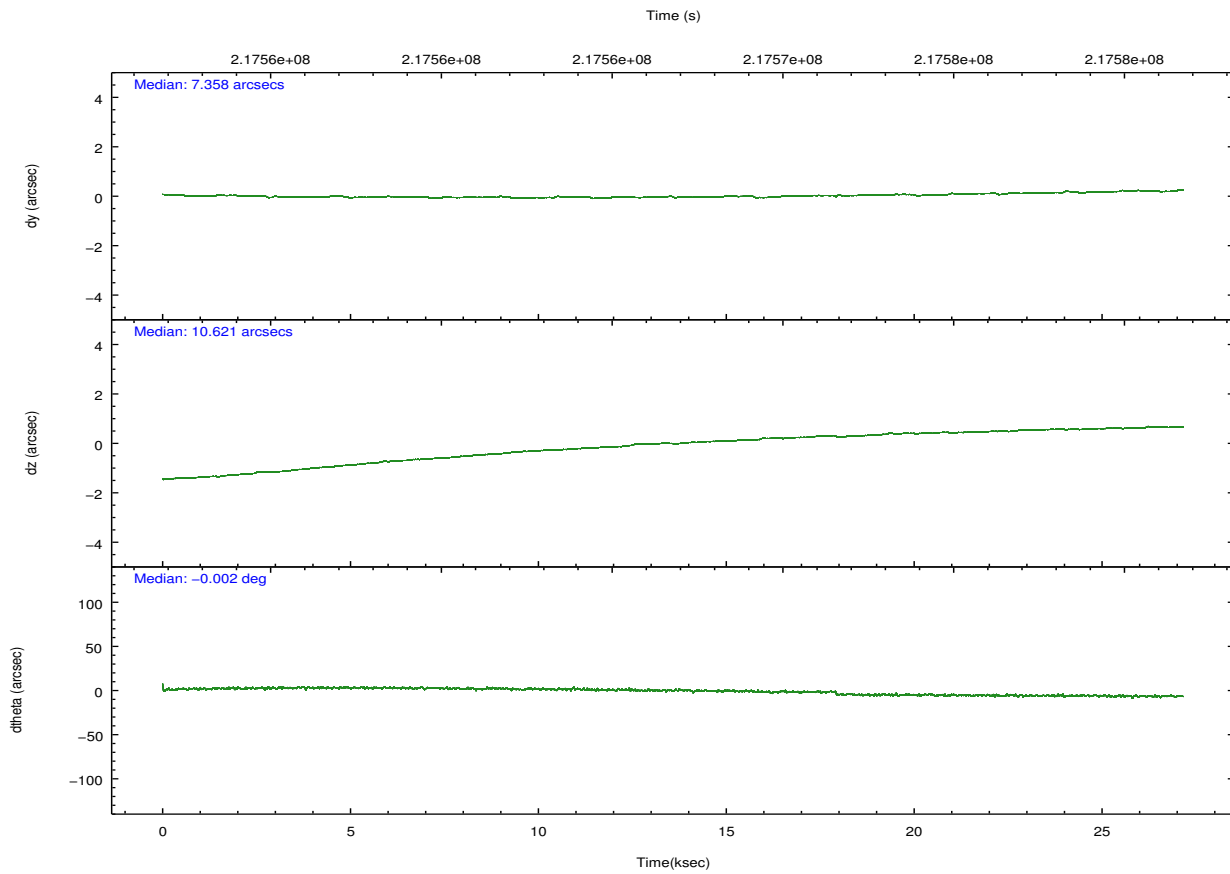
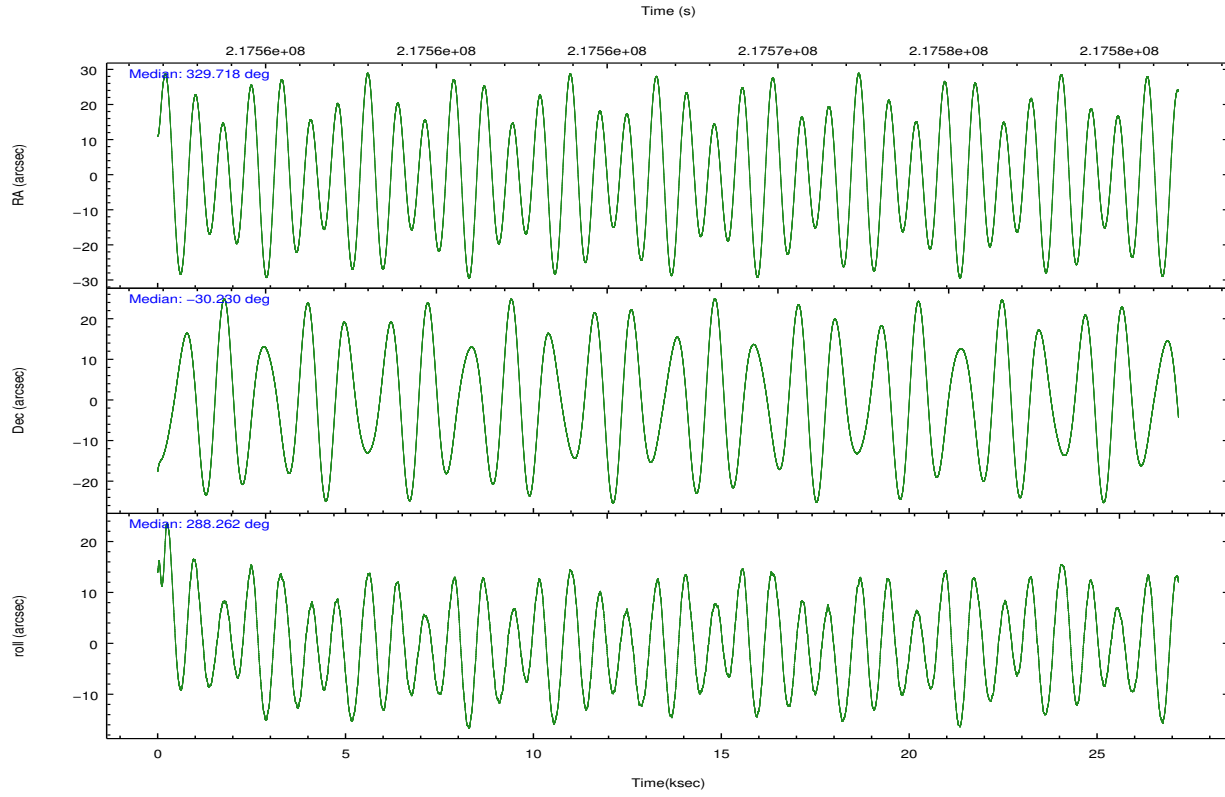
Level 1 Events

	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	948909	957068	924542
rejected events	48059	46896	49006
rejected %	5%	4%	5%

## 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	329.692456	329.7182756011174			
[deg] Pointing Dec	-30.212083	-30.23002909204663			
[deg] Pointing Roll	288.186822	288.2671568080695			
[s] Window start time (MET)	215654464.184000	215654464.184000			
[s] Window stop time (MET)	220838464.184000	220838464.184000			
[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)	217553368.184000	217552274.22274			
Observation start date	2004-11-22T23:28:24	2004-11-22T23:11:14			
[s] Observation end time (MET)	217580368.184000	217581176.14903			
Observation end date	2004-11-23T06:58:24	2004-11-23T07:12:56			

## 2.3 Aspect

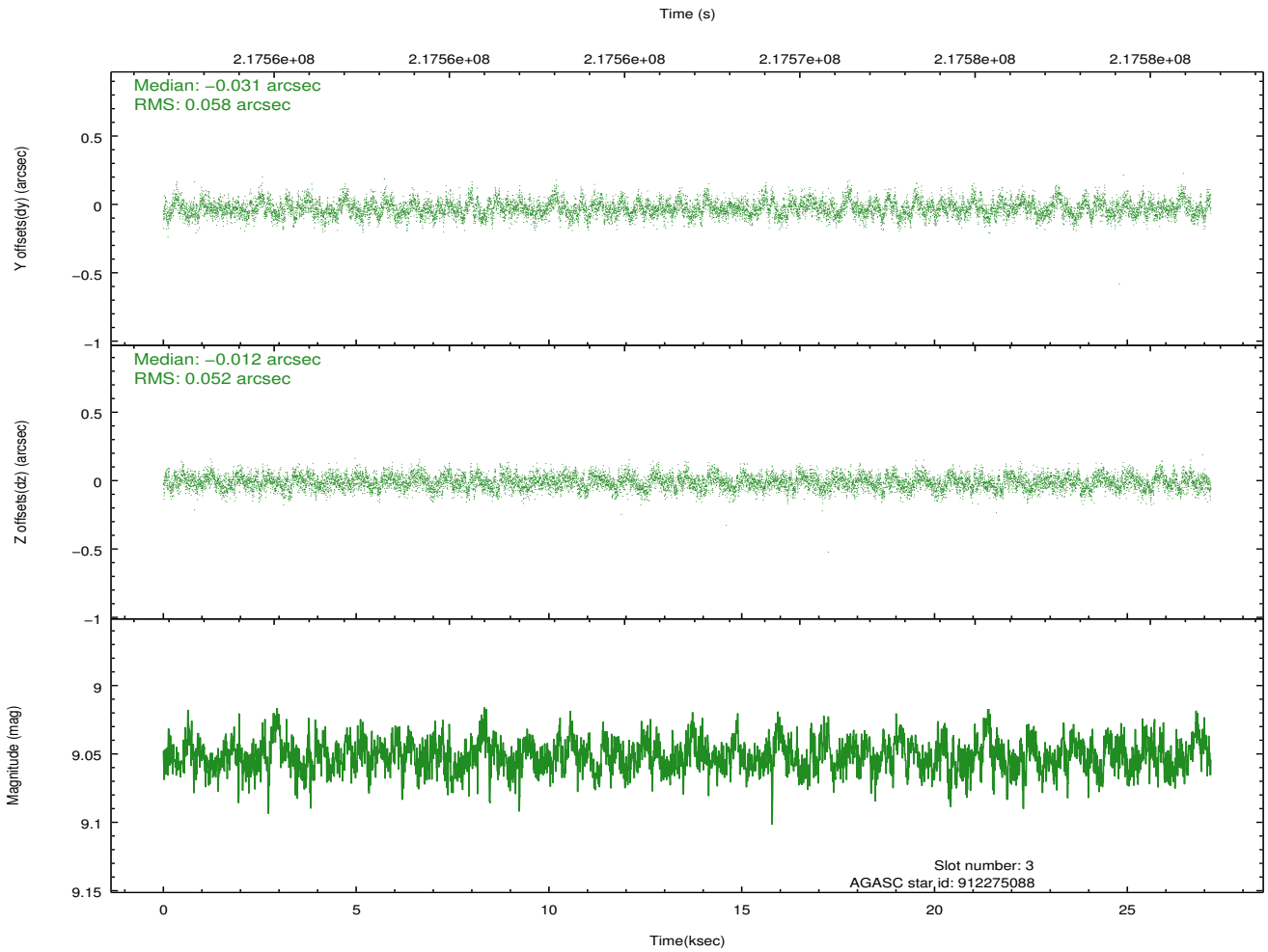
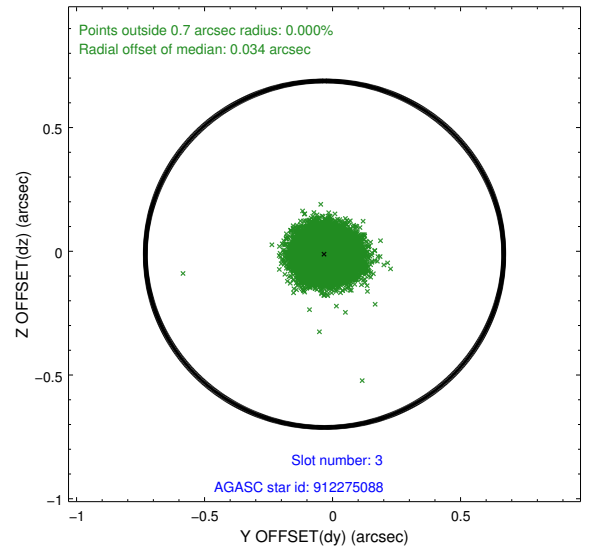
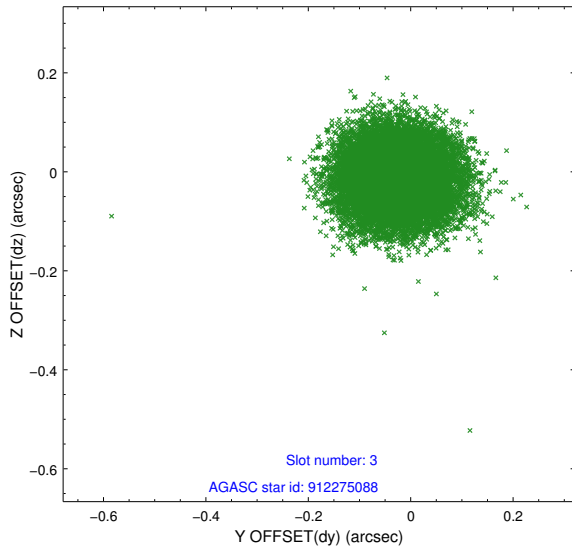


### Slot Statistics

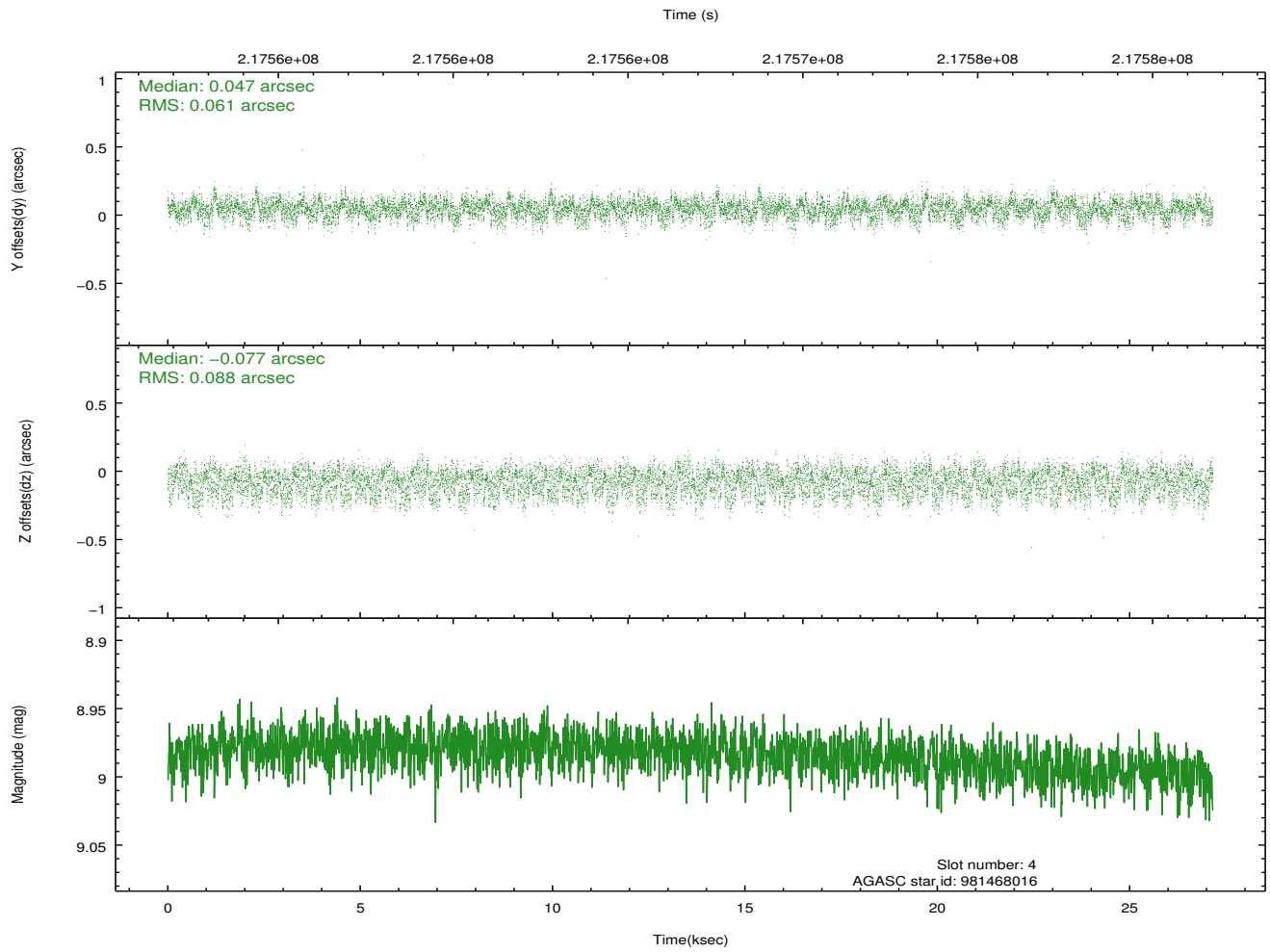
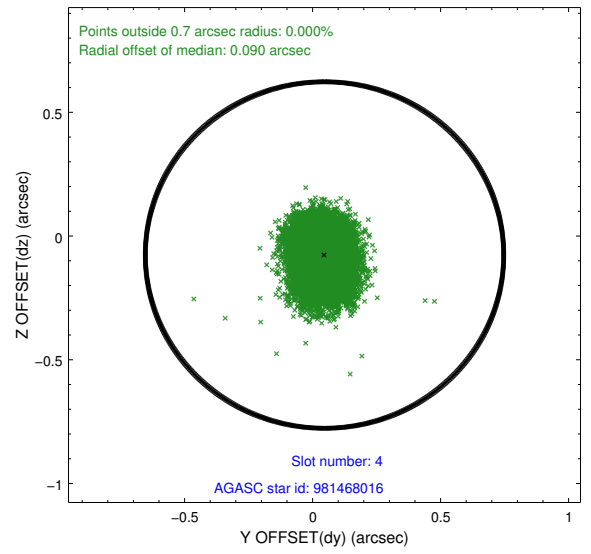
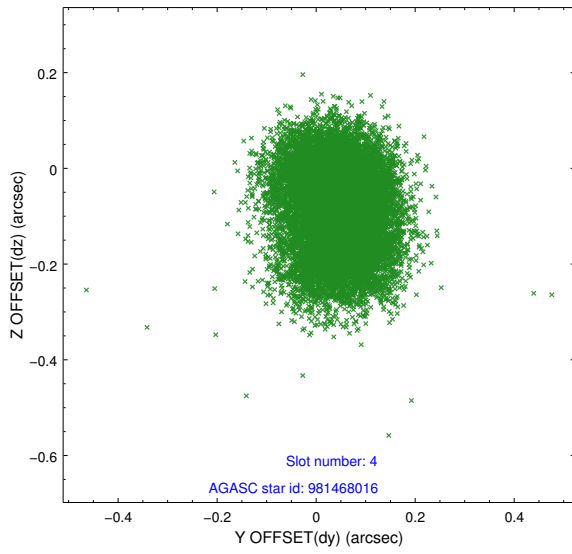
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-2	7.00	6626	0.151	-0.141	0.039	0.051	0.000000	0.000000	1238.15	-451.77
1	FID	HRC-S-3	7.01	6626	0.063	-0.092	0.011	0.018	0.000000	0.000000	-1164.13	570.44
2	FID	HRC-S-4	6.96	6626	0.194	-0.064	0.043	0.053	0.000000	0.000000	1236.62	573.13
3	GUIDE	912275088	9.05	13244	-0.031	-0.012	0.083	0.132	329.619228	-29.738698	-1690.11	314.44
4	GUIDE	981468016	8.98	13249	0.047	-0.077	0.115	0.183	328.842457	-30.034984	-1422.66	-2320.84
5	GUIDE	981468128	9.37	13241	0.074	0.025	0.101	0.165	329.756350	-30.158334	-121.28	249.42
6	GUIDE	981478152	9.42	13240	0.026	0.166	0.096	0.156	329.415589	-30.057192	-797.56	-645.60
7	GUIDE	912131856	9.76	13229	-0.115	-0.090	0.134	0.217	328.758728	-29.933690	-1849.47	-2458.41

## 2.4 Star Slots

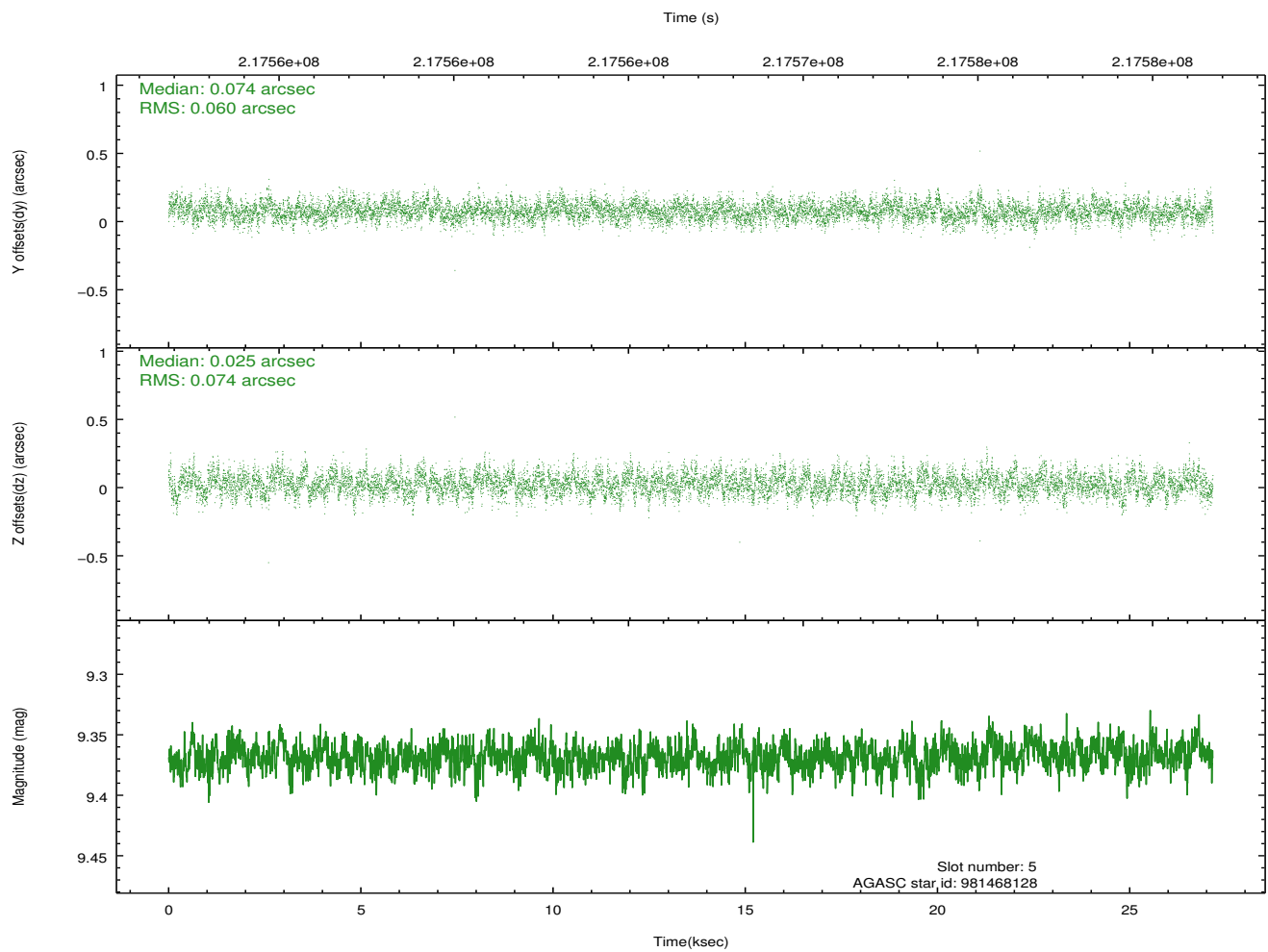
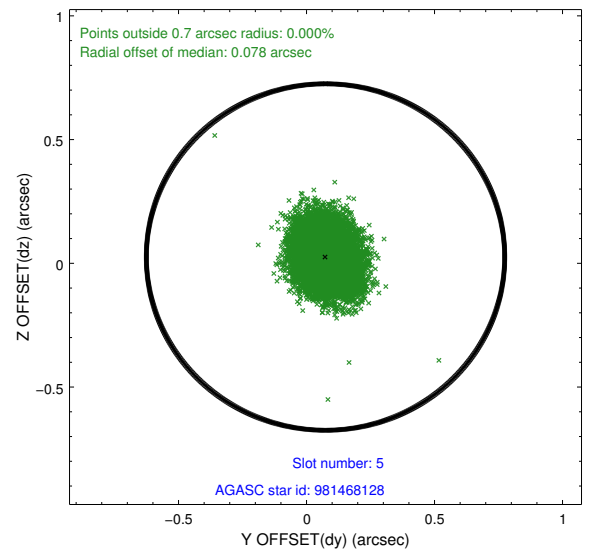
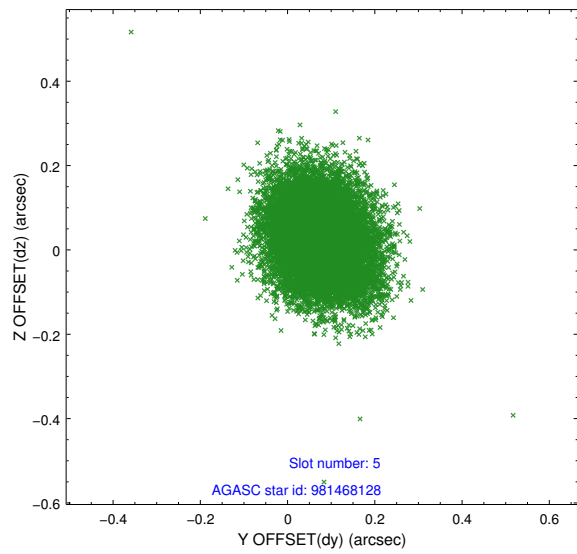
### 2.4.1 Slot 3



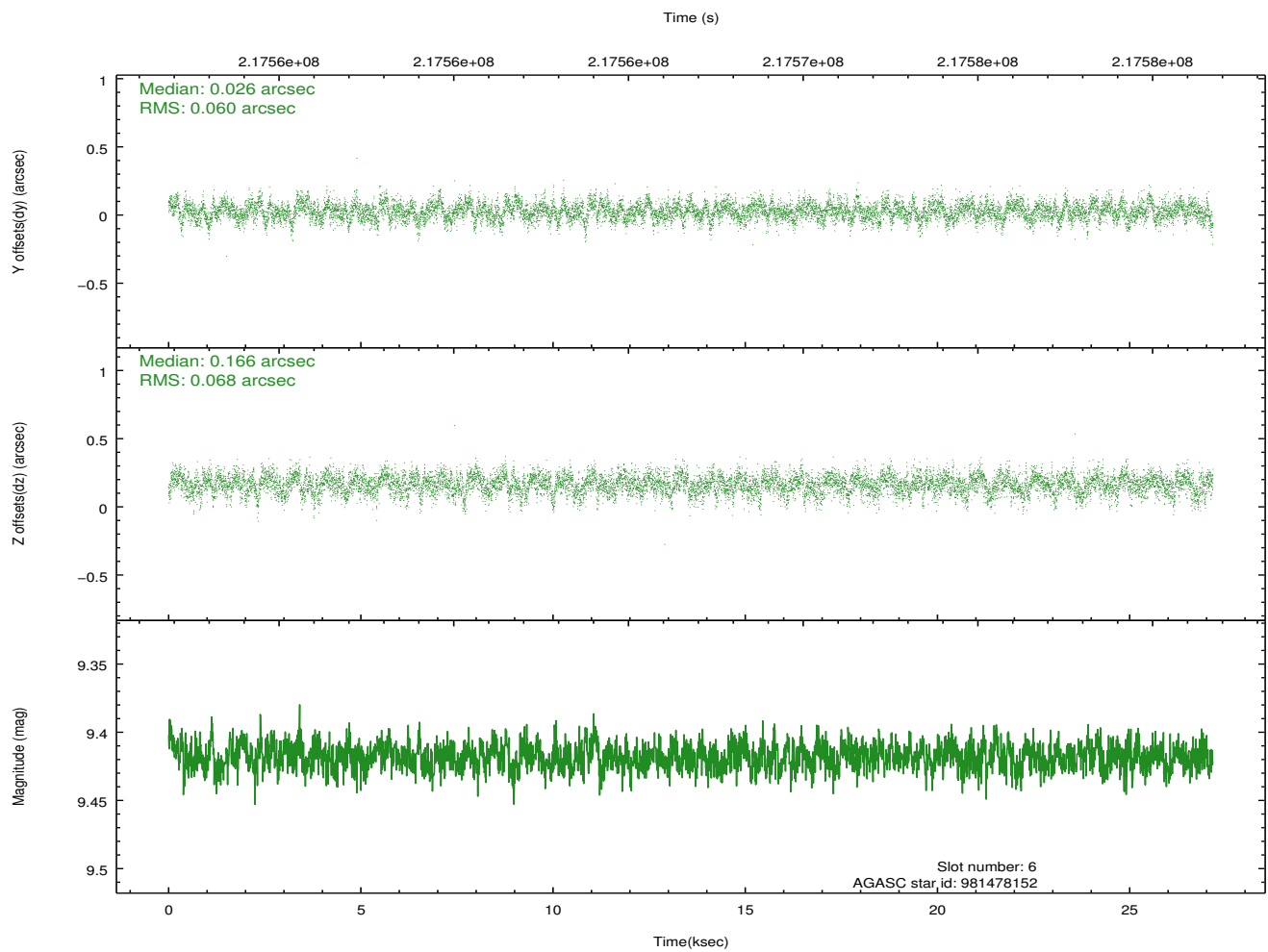
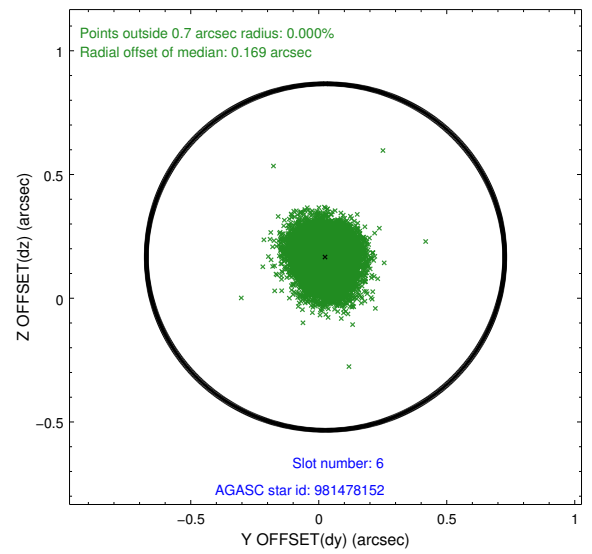
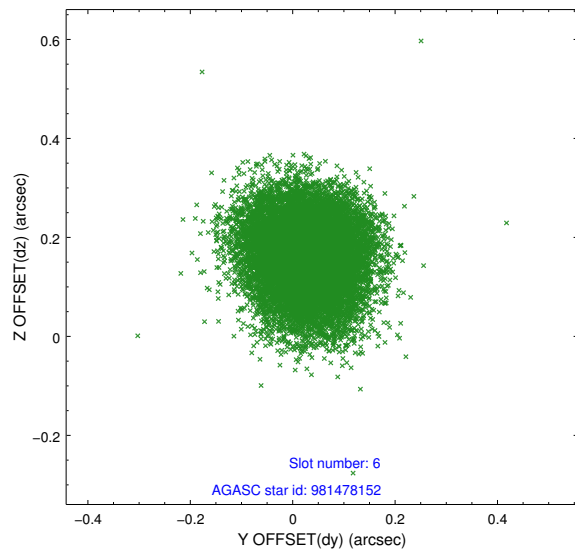
### 2.4.2 Slot 4



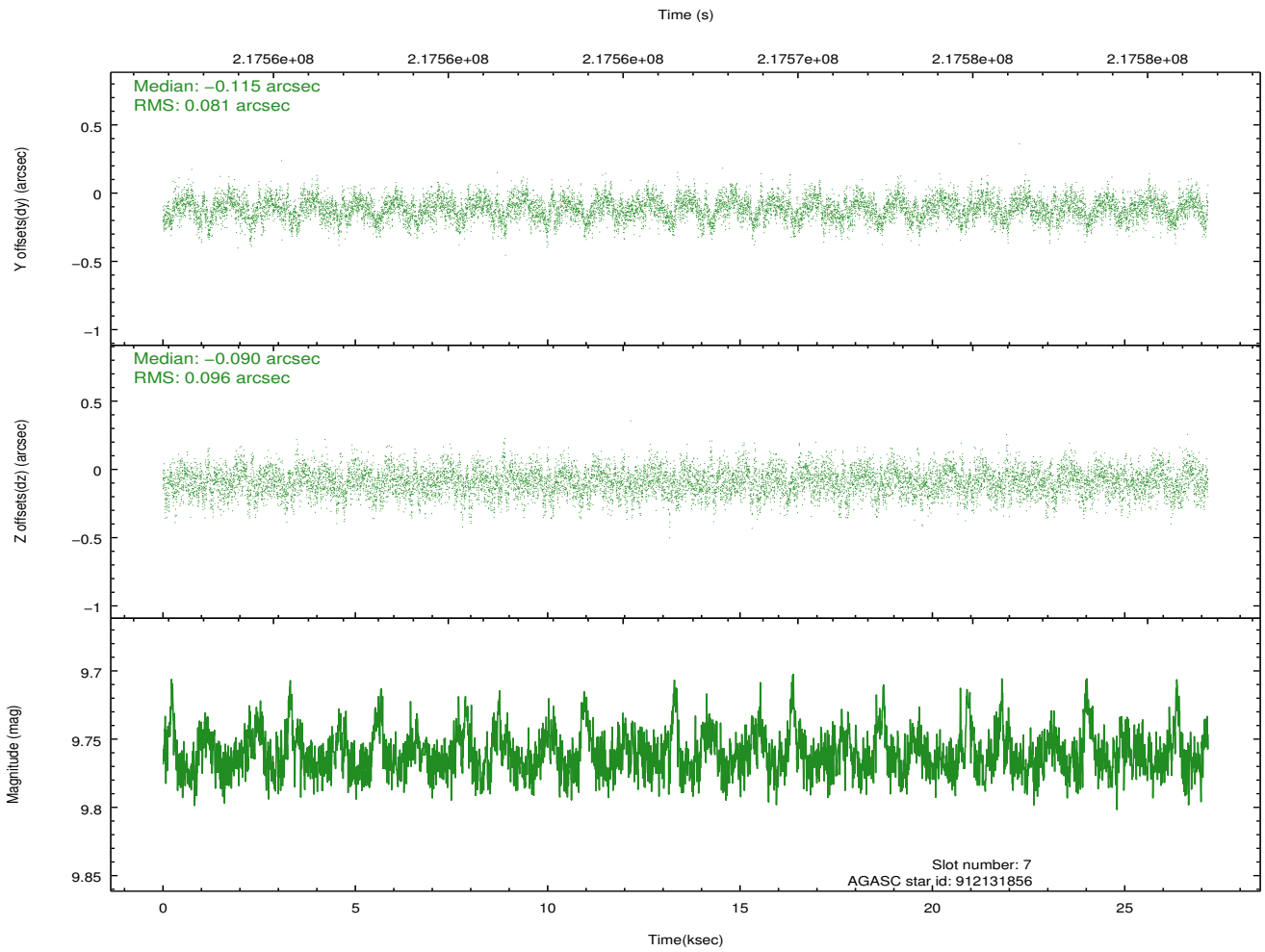
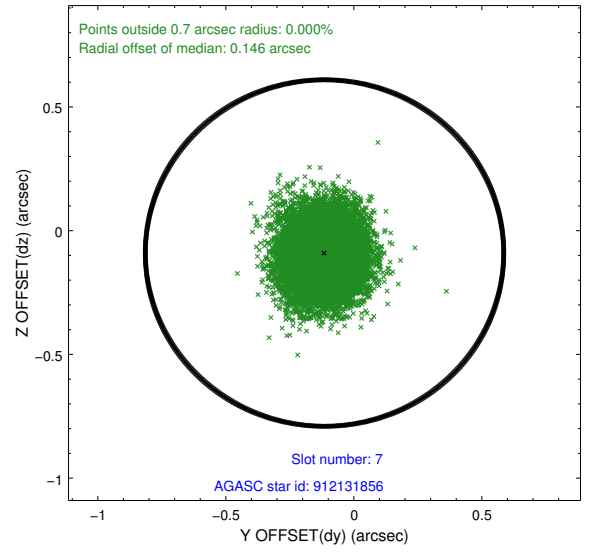
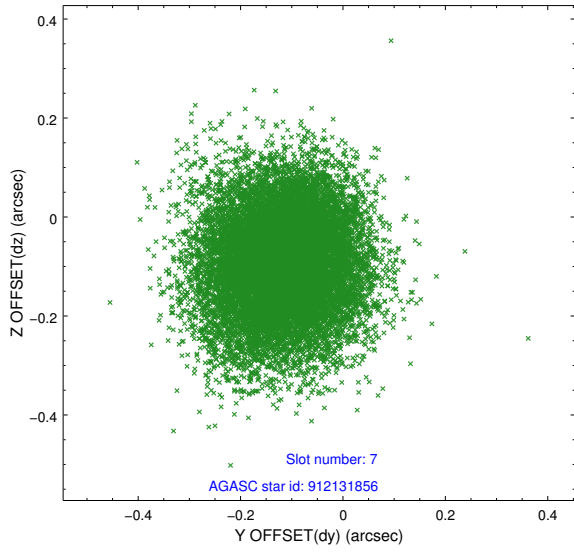
### 2.4.3 Slot 5



## 2.4.4 Slot 6

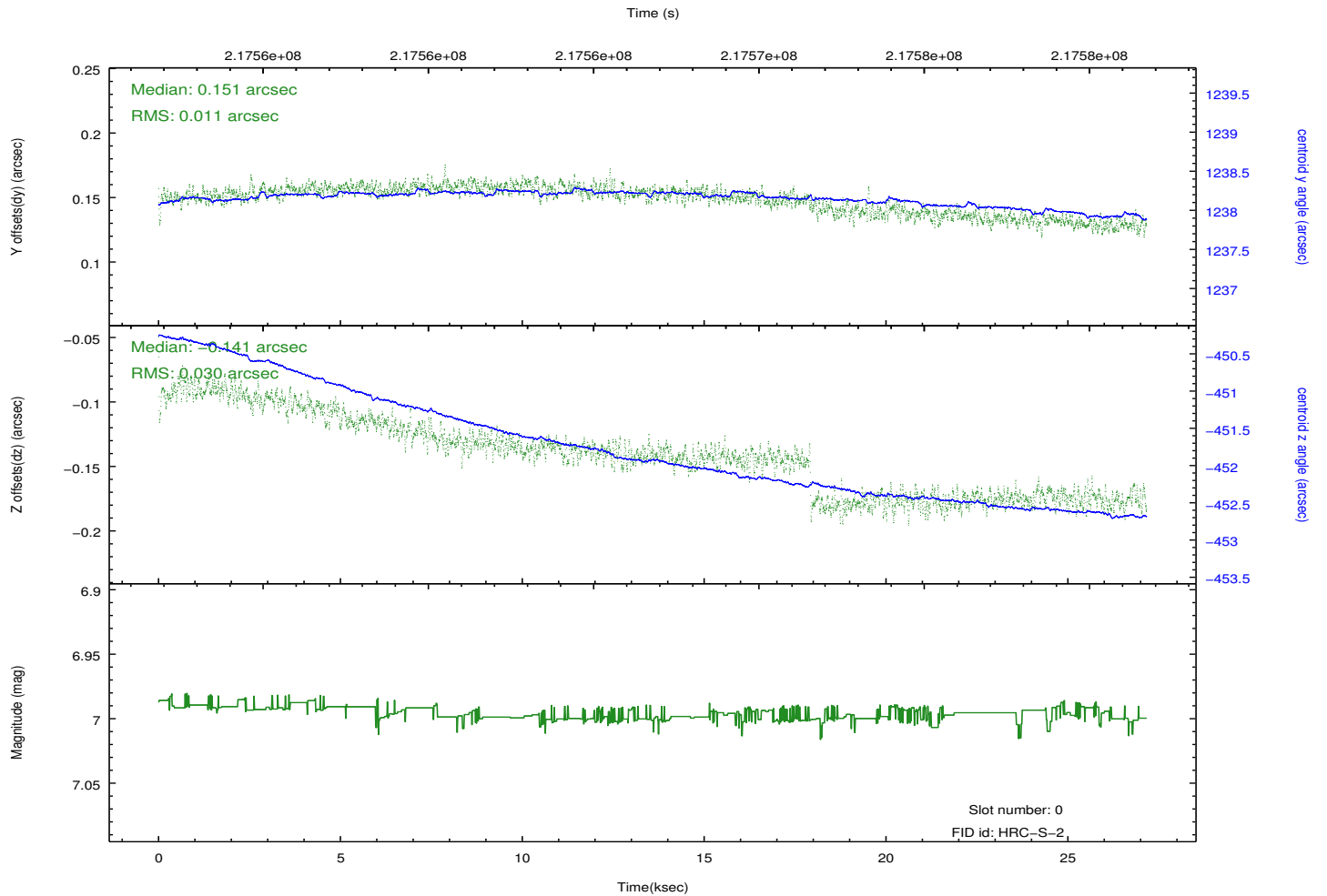
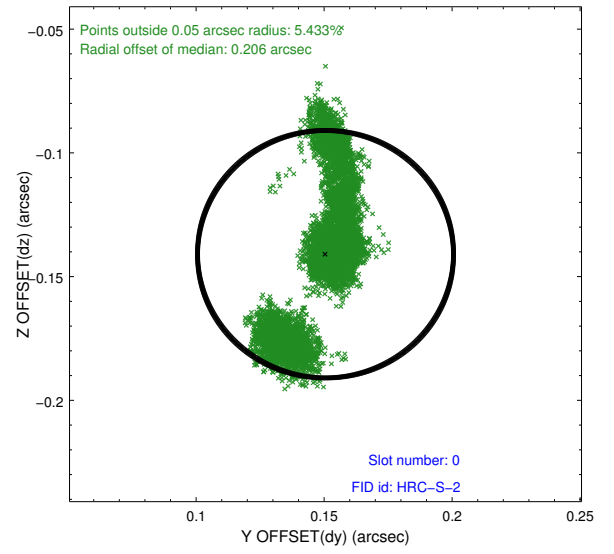
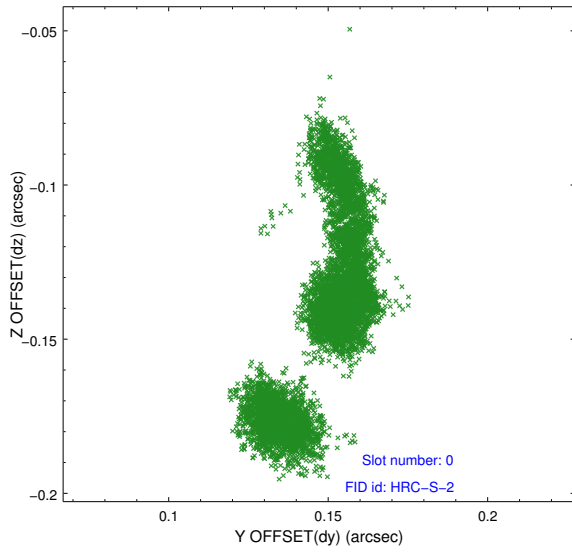


### 2.4.5 Slot 7

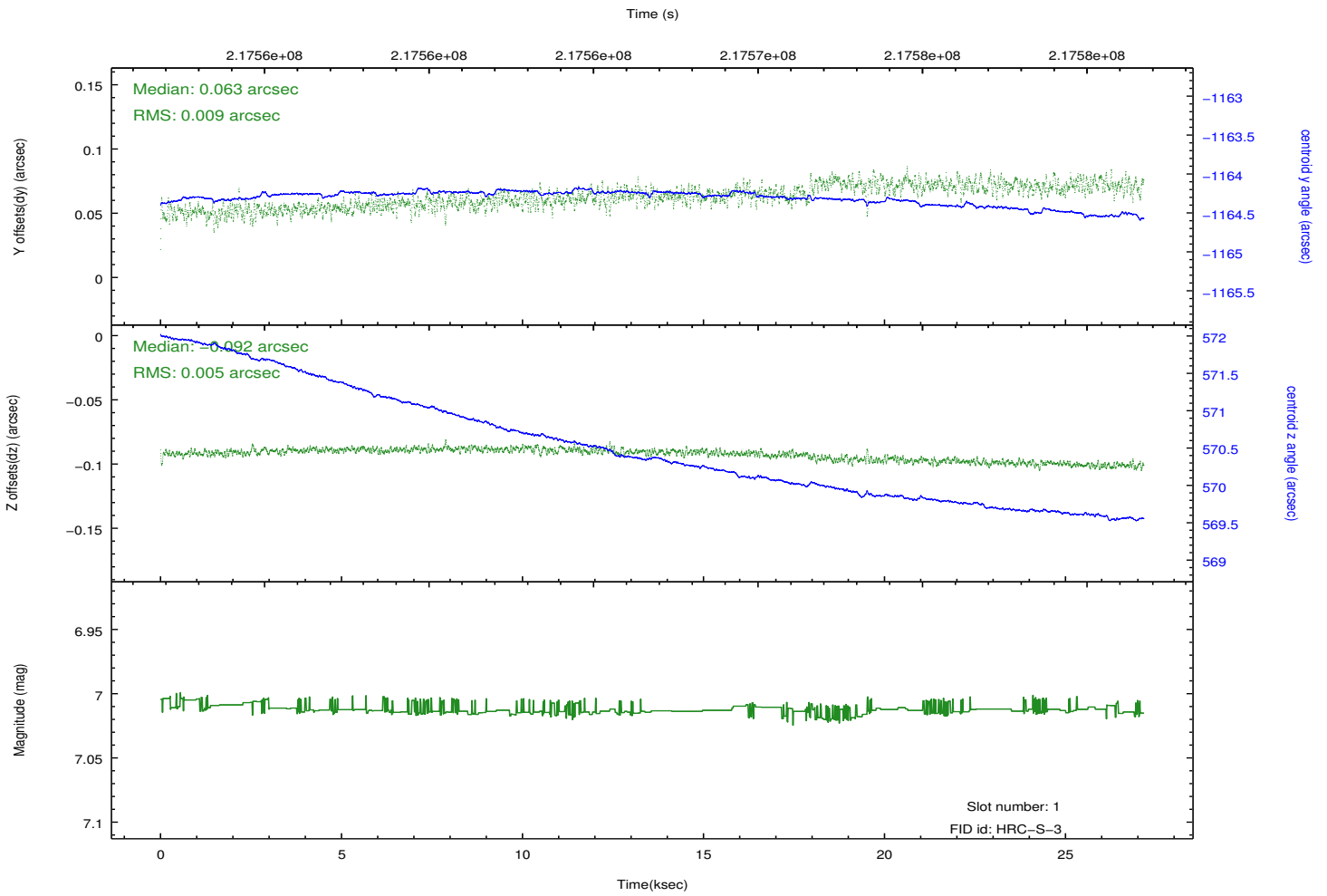
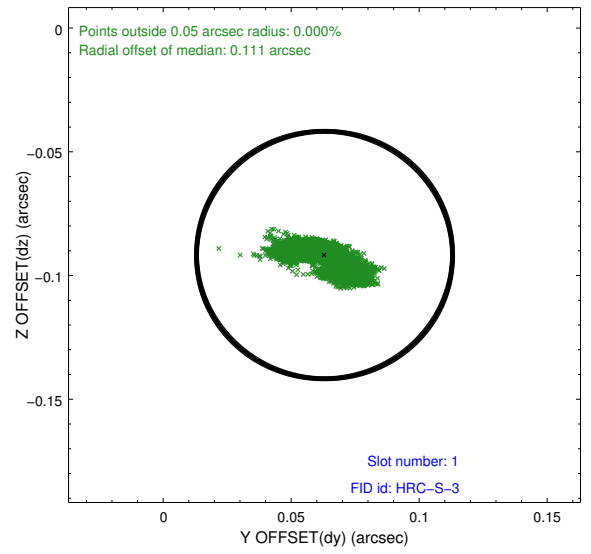
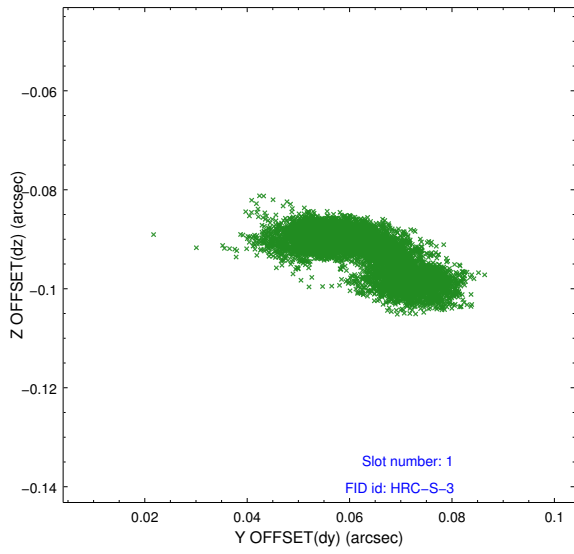


## 2.5 FID Slots

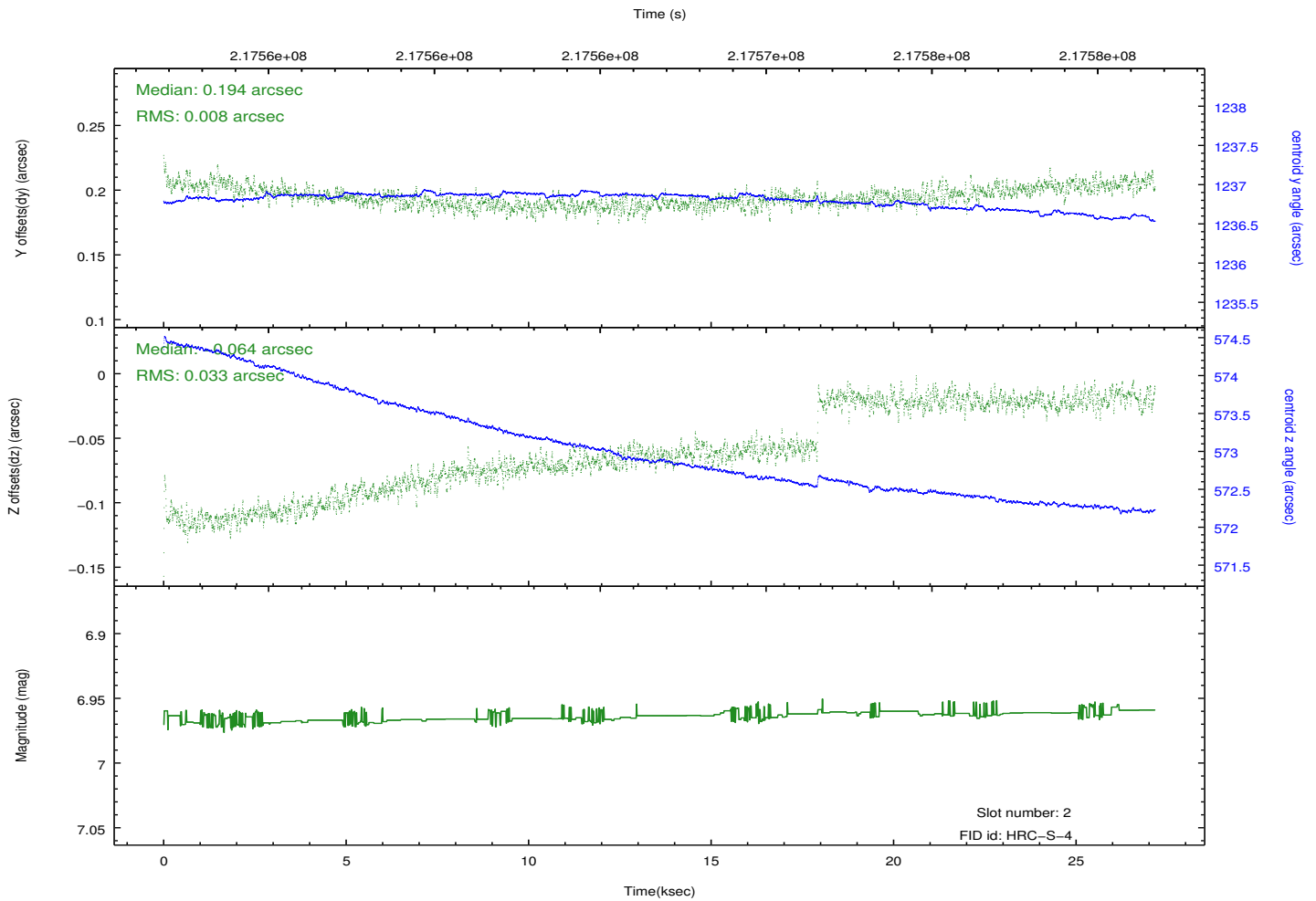
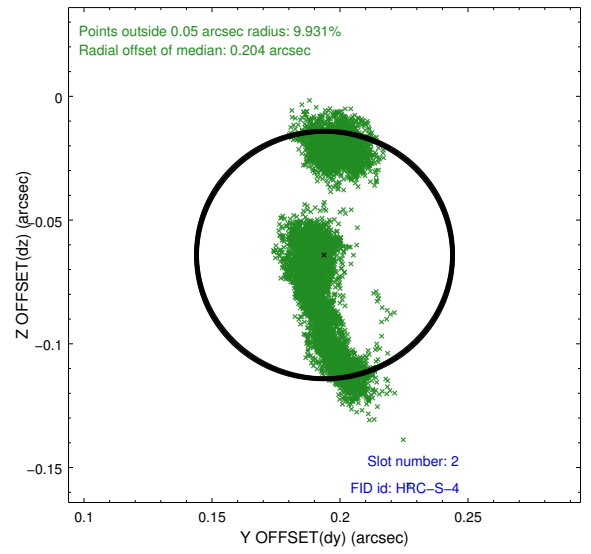
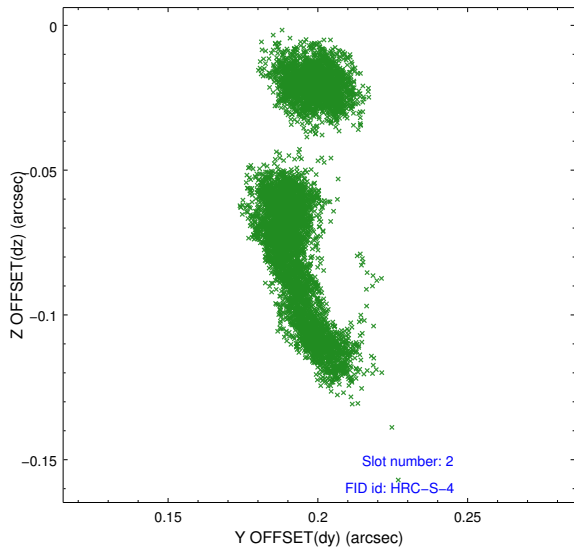
### 2.5.1 Slot 0



## 2.5.2 Slot 1

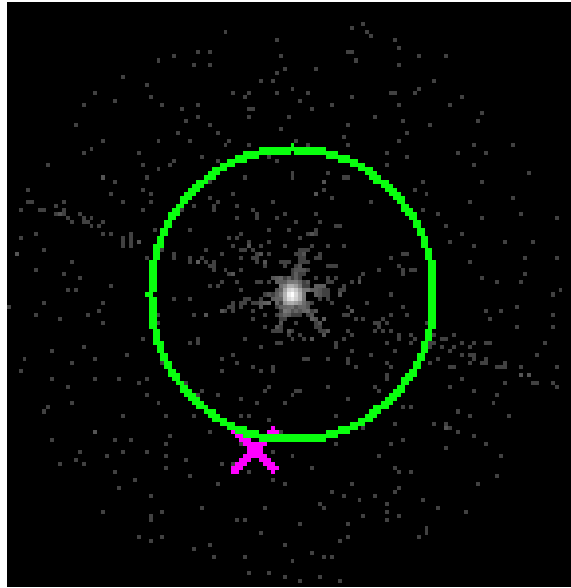


### 2.5.3 Slot 2

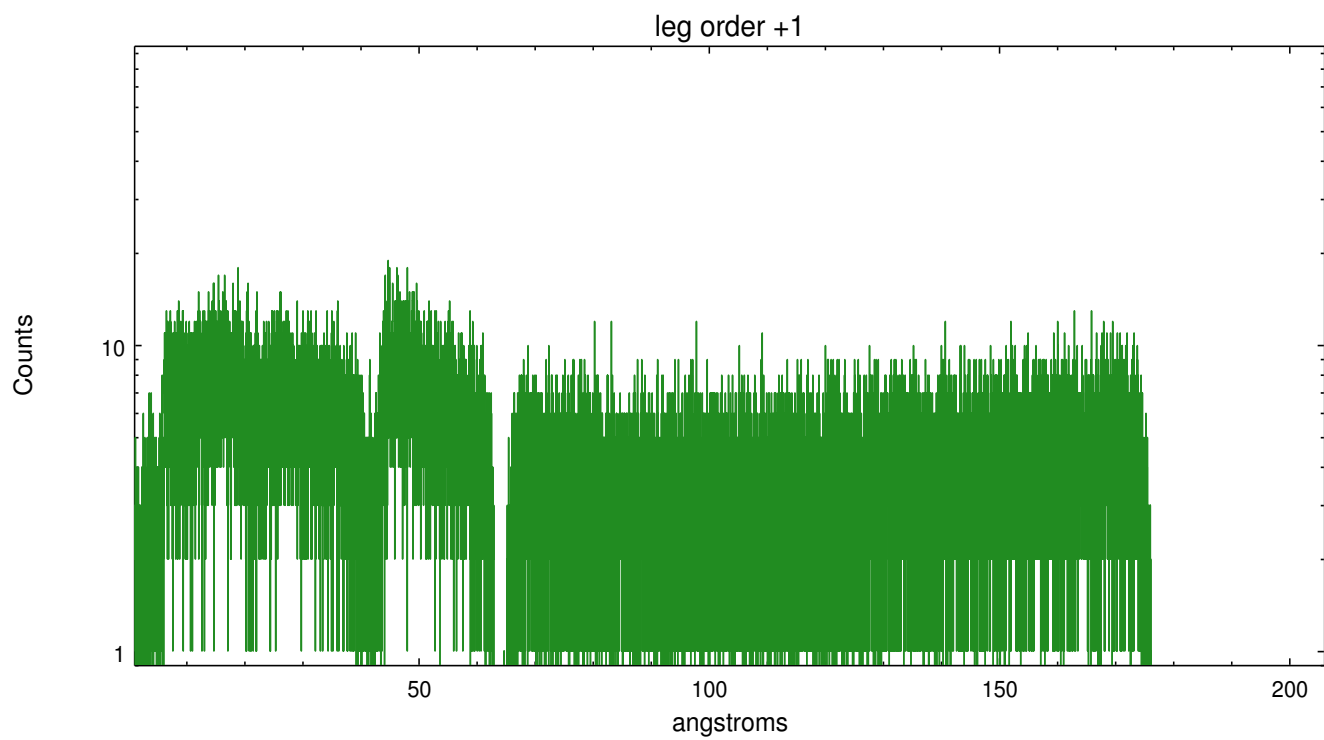
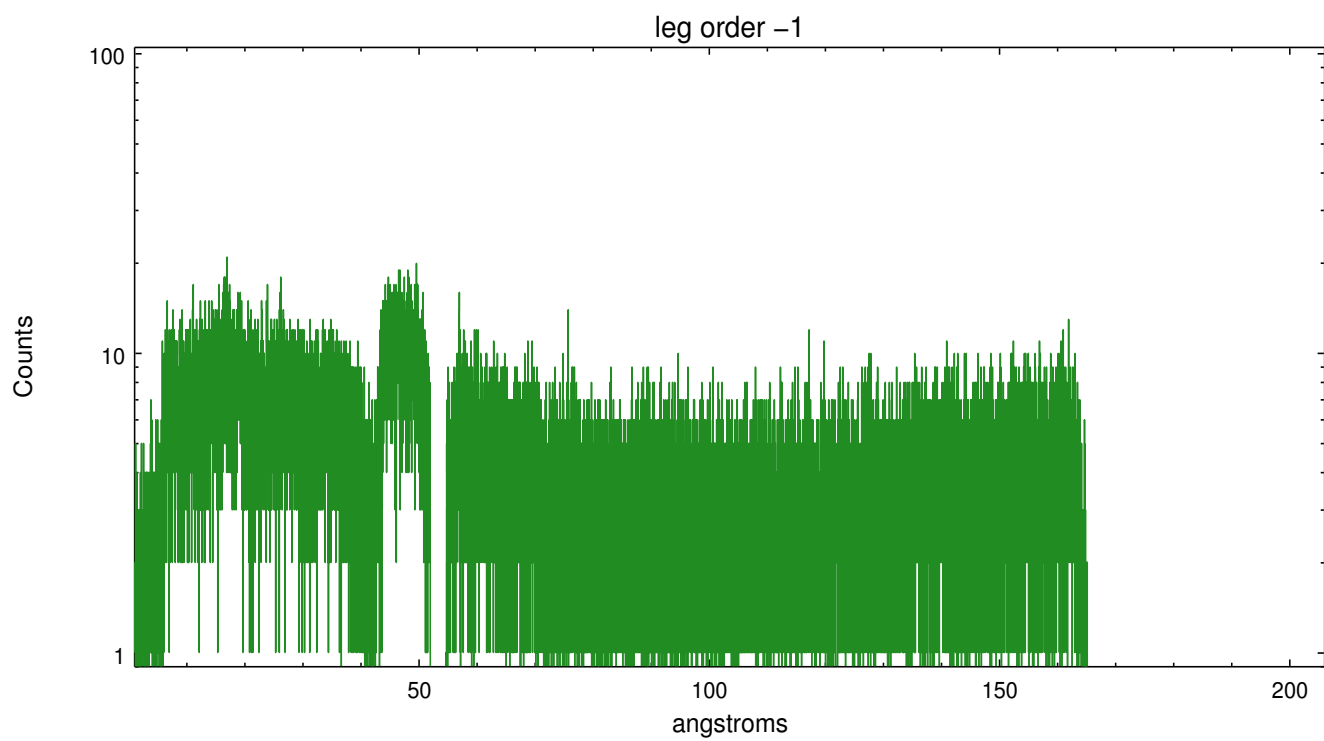


### 3 Gratings

#### 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	27.165

## A.2 Comments