

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15394 - L2 Version 2  
Chandra X-Ray Center

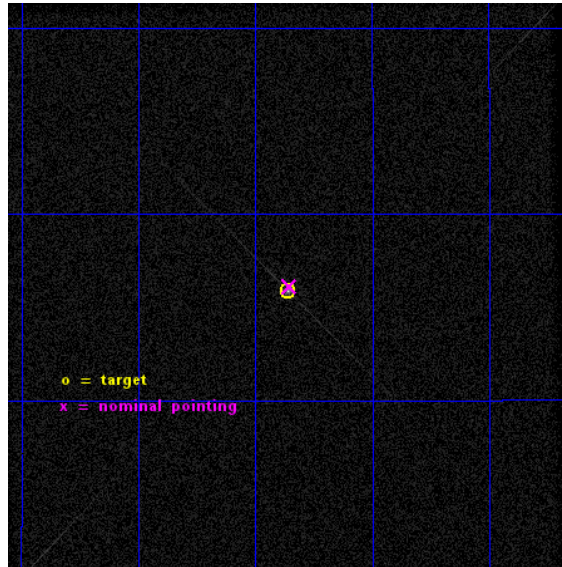
L2 Processing Date : Dec 1 2014

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# 1 Front

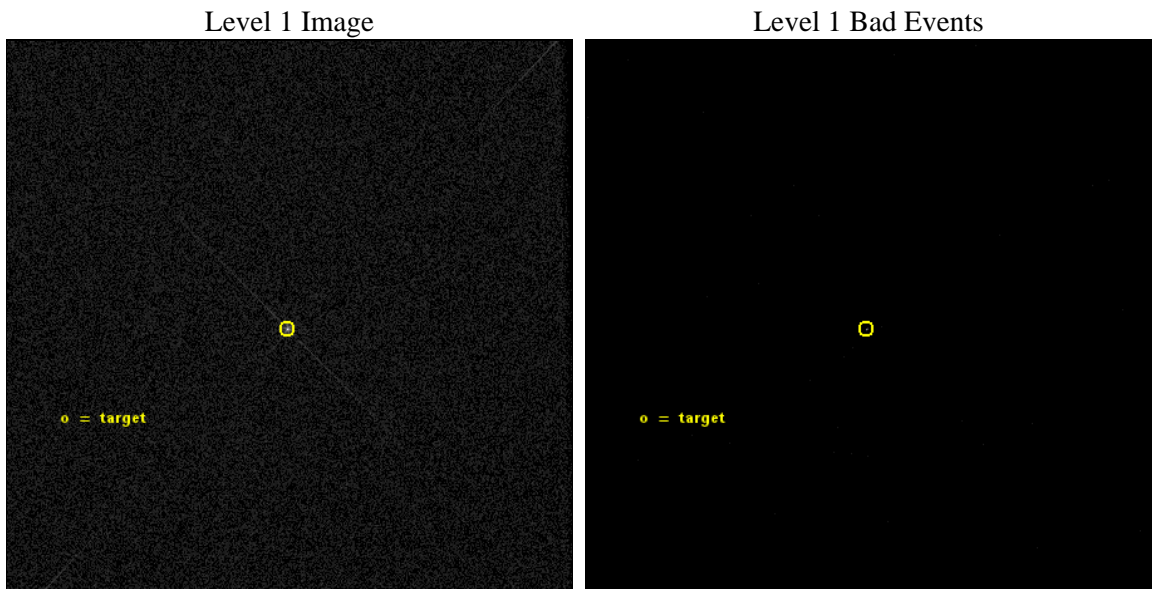
seq_num	291073	Sequence number
obs_id	15394	Observation id
title	AO-14 Calibration Observations of HZ43	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	HZ43	Source name
ra_targ	199.090417	Observer's specified target RA [deg]
dec_targ	29.098306	Observer's specified target Dec [deg]
ra_nom	199.08863975731	Nominal RA [deg]
dec_nom	29.102209702434	Nominal Dec [deg]
roll_nom	133.95288363765	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1807.3313477039	[s]
livetime	1791.127441744	Ontime multiplied by DTCOR
l2events	123896	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	10.3	Processing system revision	ontime	1807.3313477039	[s]
caldbver	4.6.4	&#160	l1events	171406	Number of level 1 events
date	2014-12-02T02:05:58	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	2	Processing version of data	zo_pos	(16344.20, 16278.12)	src1a sky pixel position

### 2.1.3 Events

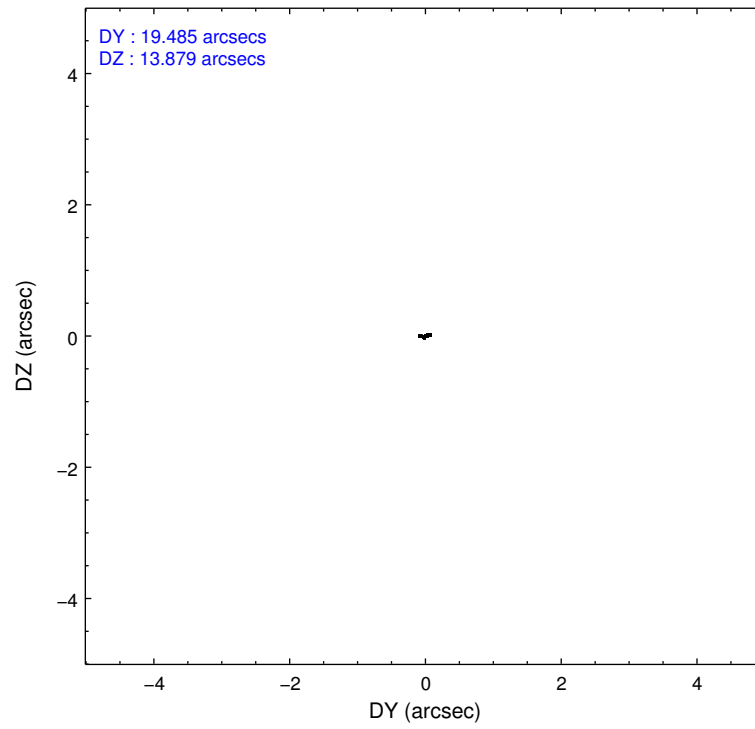
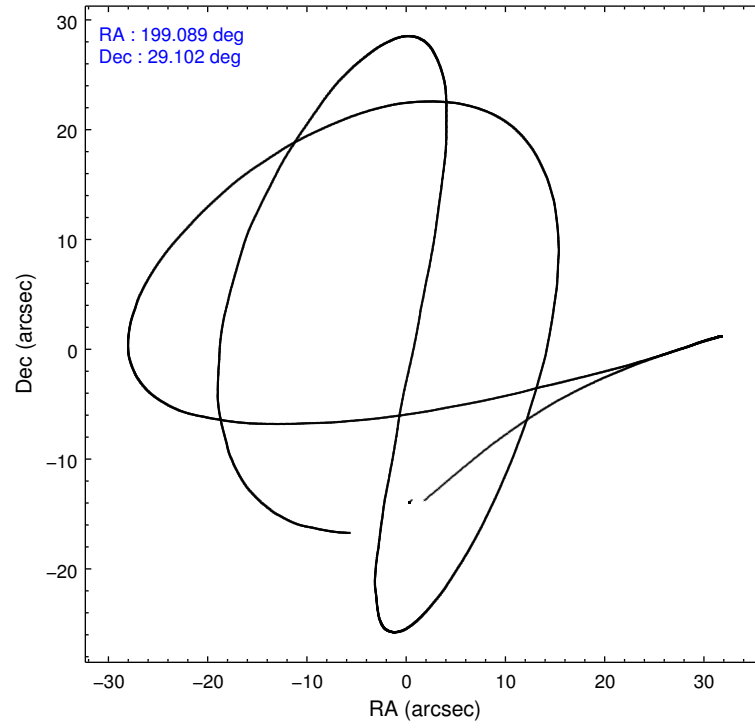
#### Level 1 Events

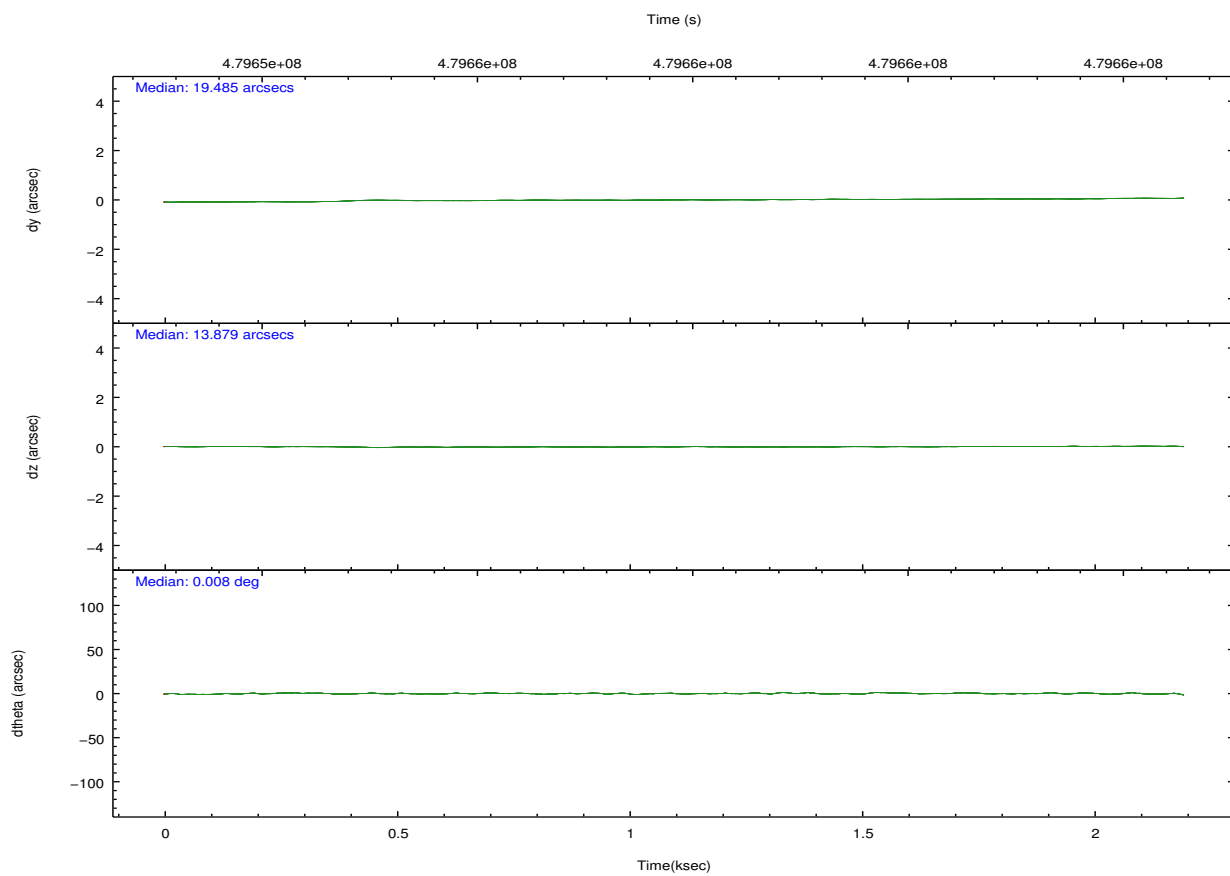
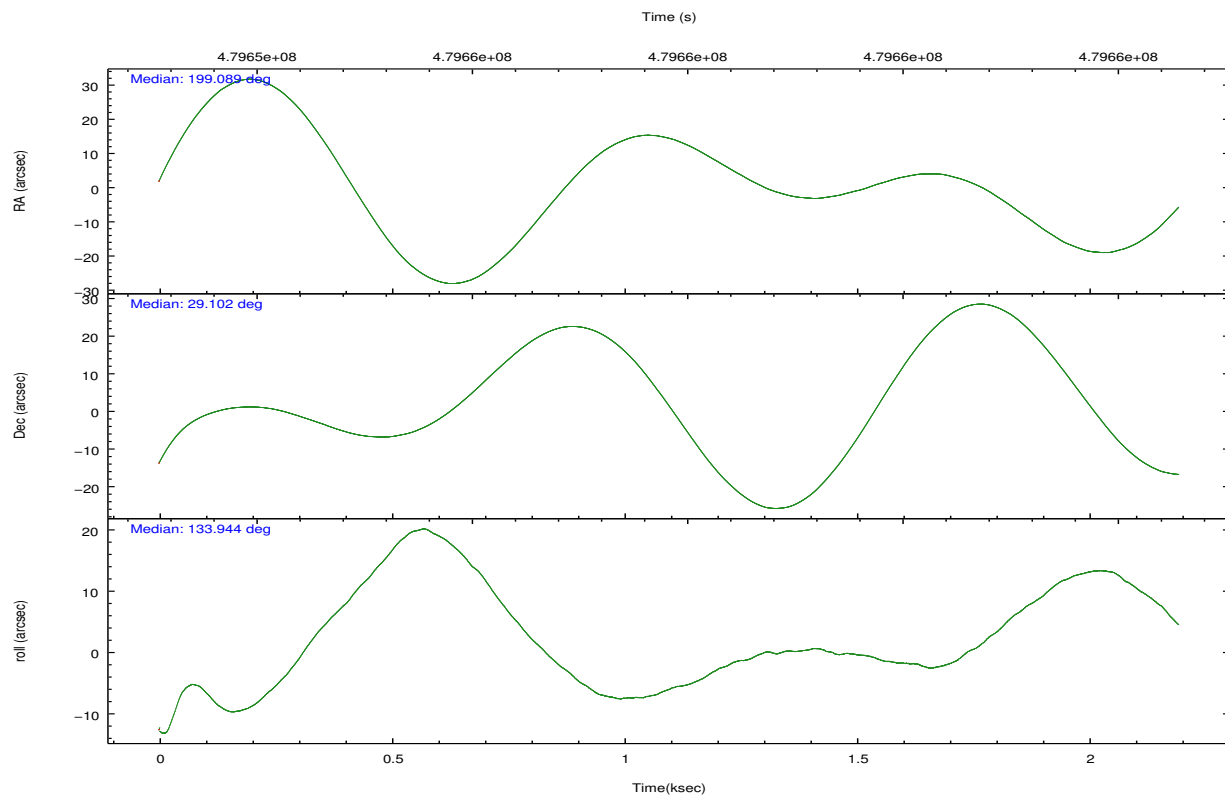
	<b>segment 0</b>
level 1 events	171406
rejected events	3938
rejected %	2%

## 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	199.118685	199.0886397573124			
[deg] Pointing Dec	29.095306	29.10220970243441			
[deg] Pointing Roll	134.033858	133.952883637648			
[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)	479654542.184000	479653664.94224			
Observation start date	2013-03-14T13:21:15	2013-03-14T13:07:44			
[s] Observation end time (MET)	479656542.184000	479656699.4549			
Observation end date	2013-03-14T13:54:35	2013-03-14T13:58:19			

## 2.3 Aspect



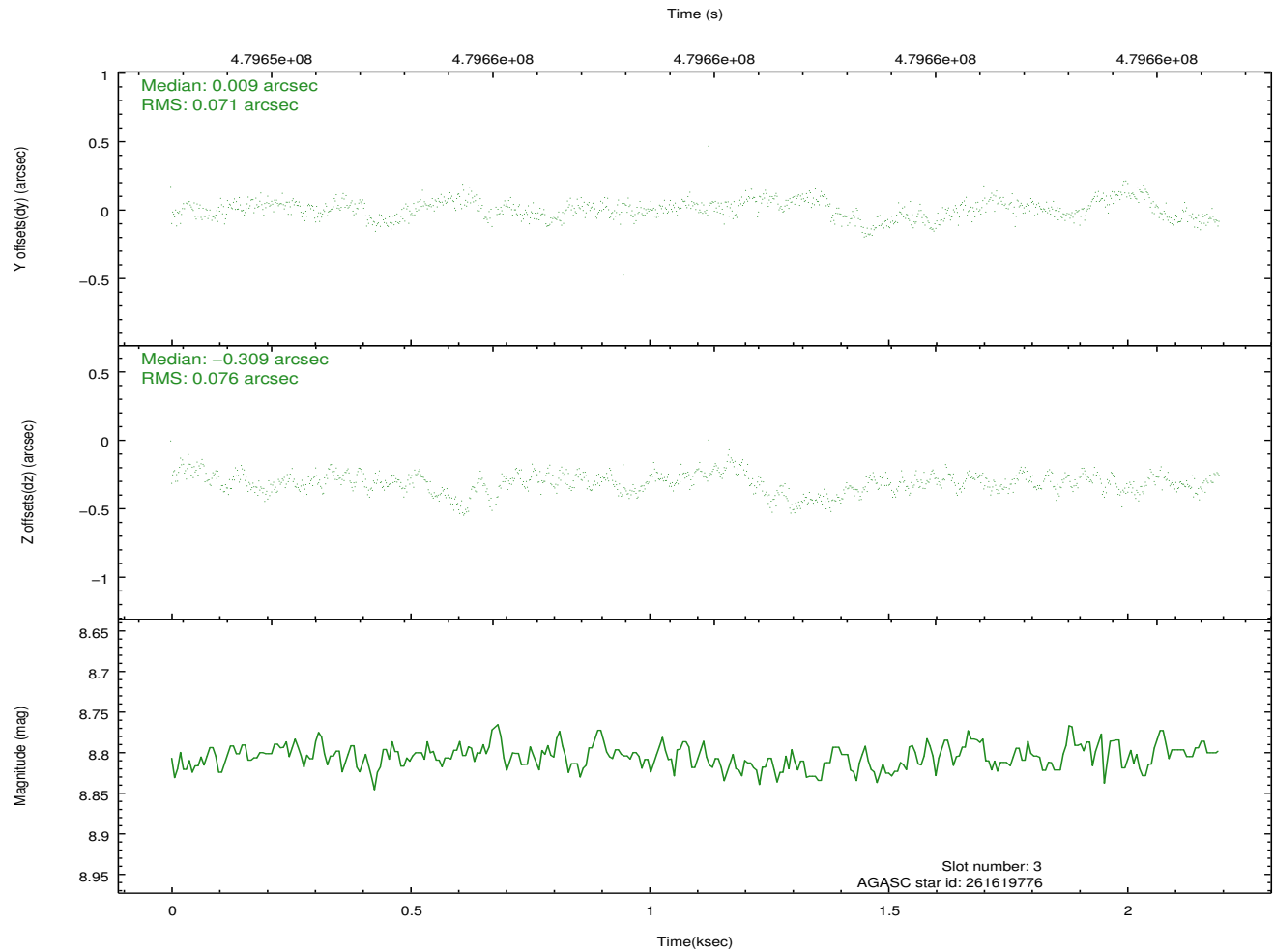
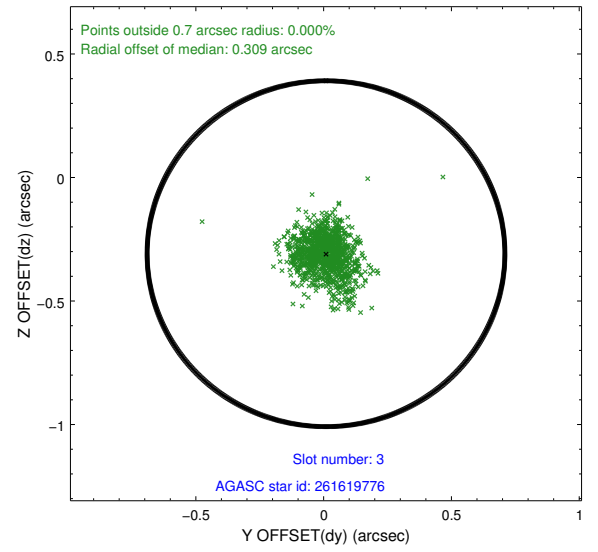
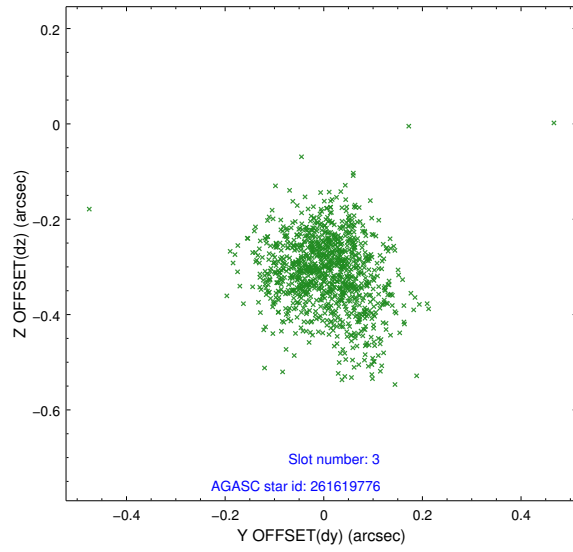


### Slot Statistics

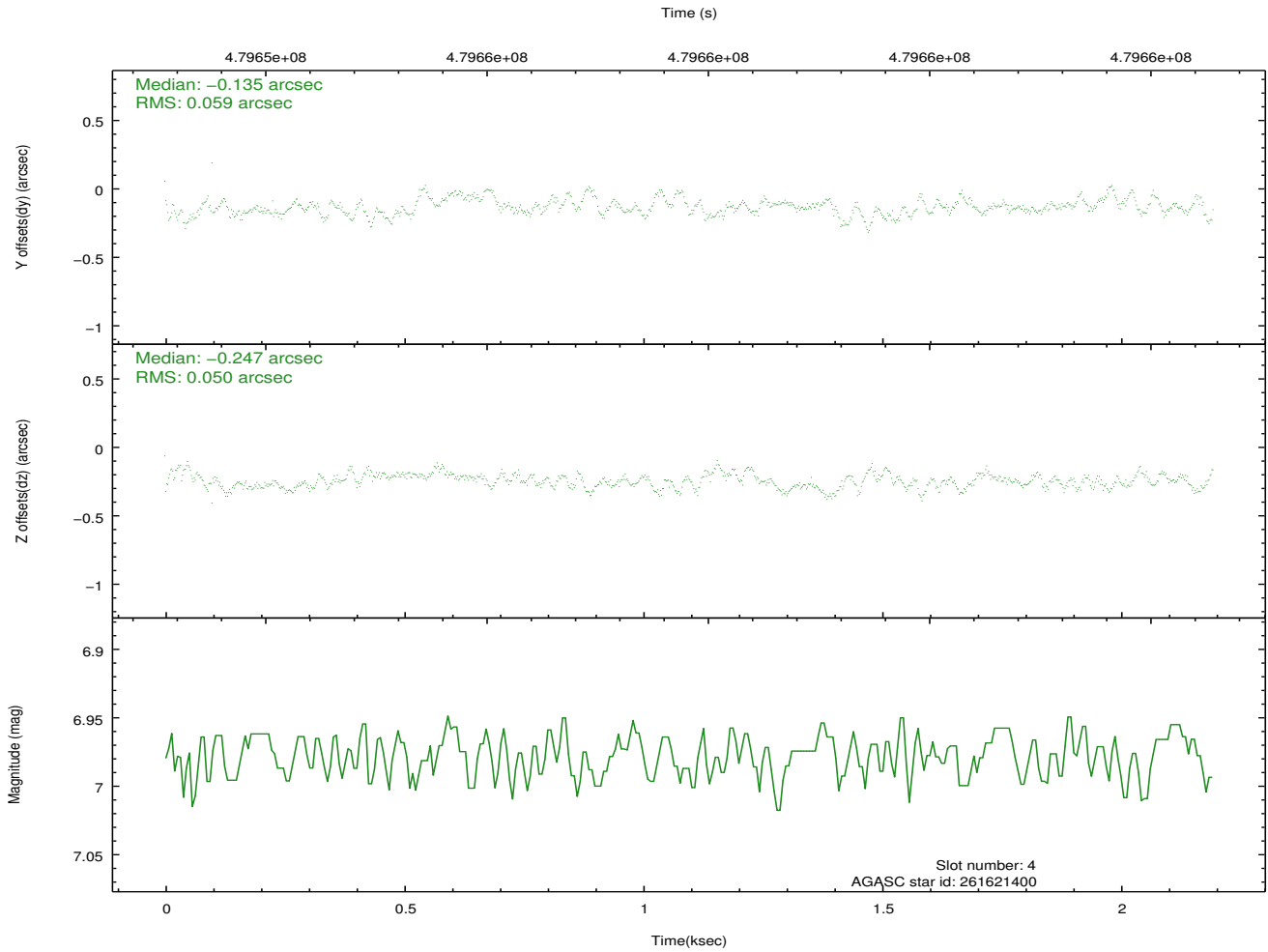
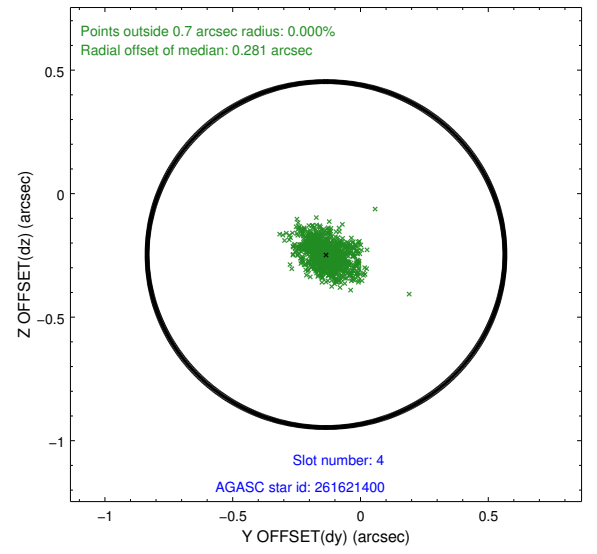
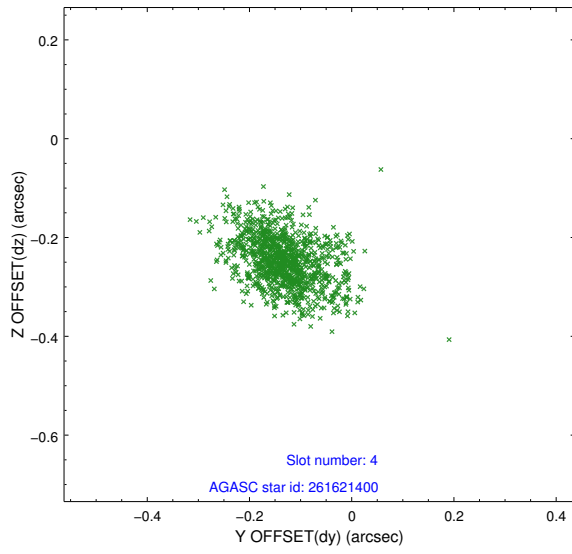
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-I-1	6.95	536	-0.107	0.025	0.006	0.011	0.000000	0.000000	-775.50	-1301.92
1	FID		HRC-I-2	6.99	536	0.241	-0.103	0.006	0.010	0.000000	0.000000	836.03	-1306.02
2	FID		HRC-I-3	7.04	536	-0.015	-0.011	0.005	0.011	0.000000	0.000000	-1202.36	1000.17
3	GUIDE	used	261619776	8.80	1067	0.009	-0.309	0.108	0.183	198.654383	29.401174	1805.54	279.66
4	GUIDE	used	261621400	6.98	1071	-0.135	-0.247	0.080	0.136	198.901600	28.741982	-435.50	1376.81
5	GUIDE	used	261626376	9.68	1065	0.108	0.088	0.245	0.418	198.947288	29.347445	1027.28	-242.45
6	GUIDE	used	261629720	8.12	1071	0.201	0.301	0.087	0.155	199.236176	29.044452	-386.83	-138.43
7	GUIDE	used	261623040	9.13	1067	-0.185	0.169	0.125	0.205	198.792686	29.757643	2423.54	-925.26

## 2.4 Star Slots

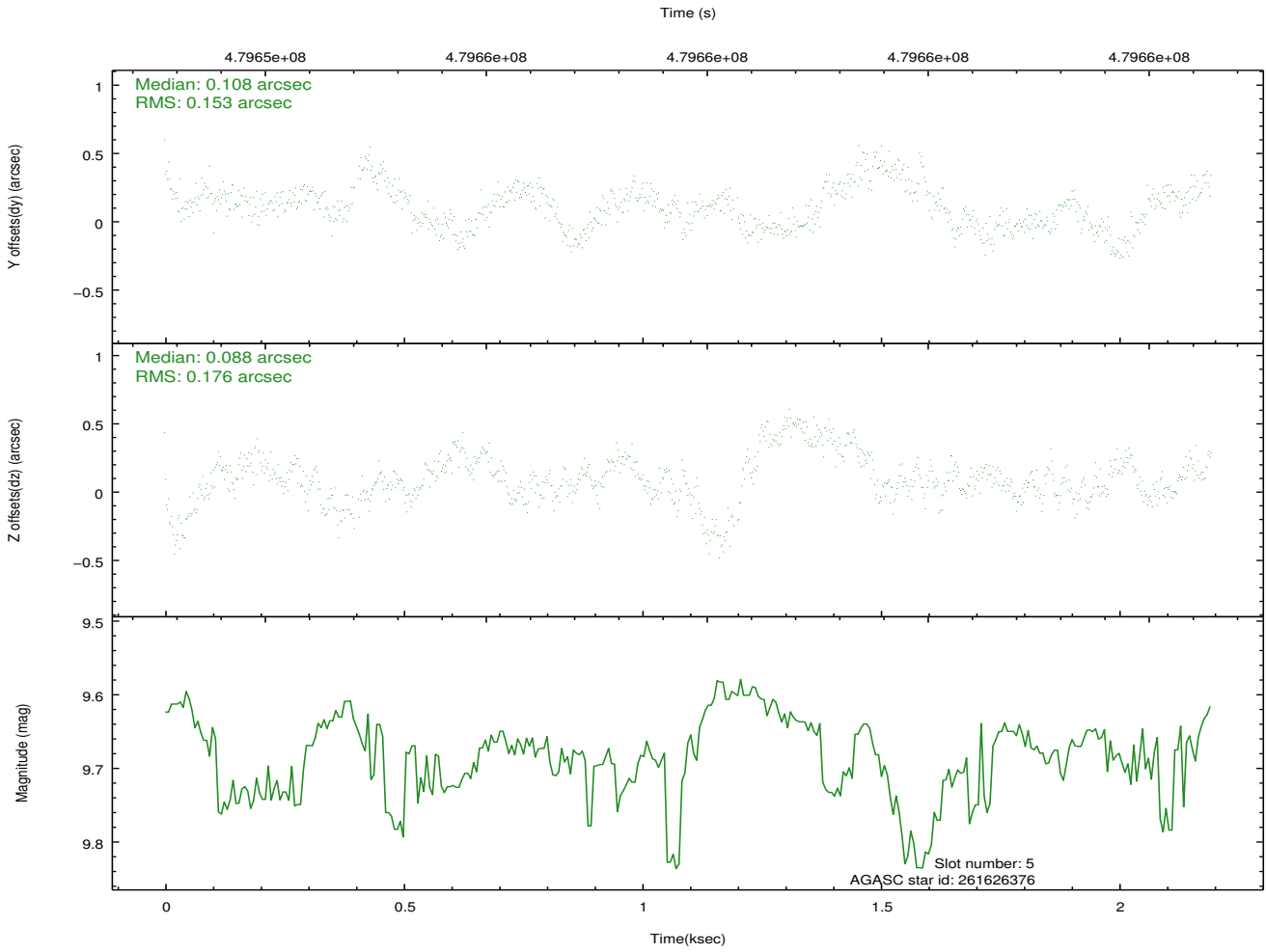
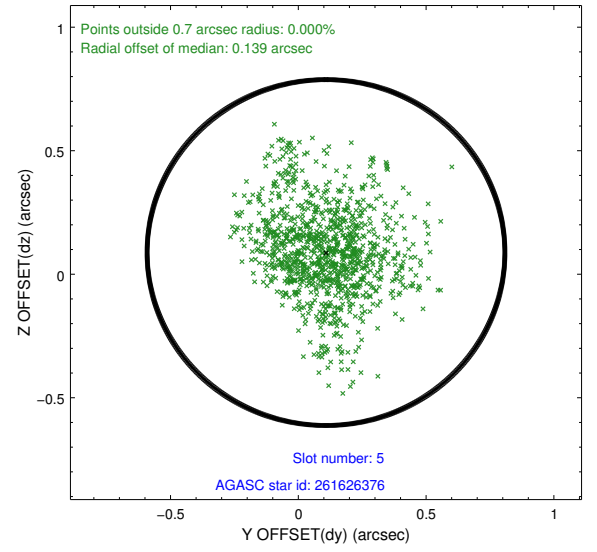
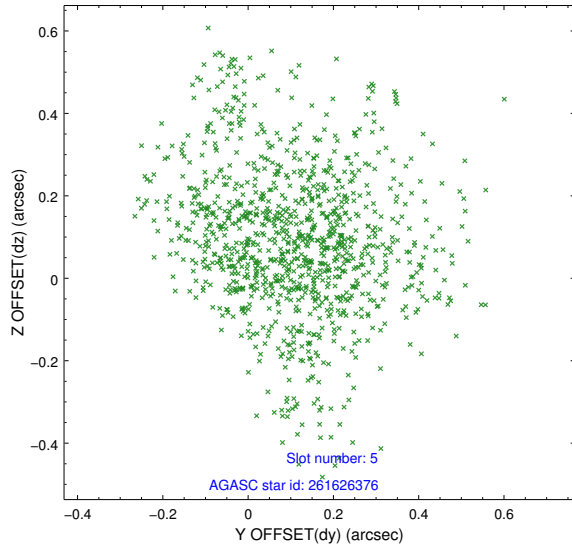
### 2.4.1 Slot 3



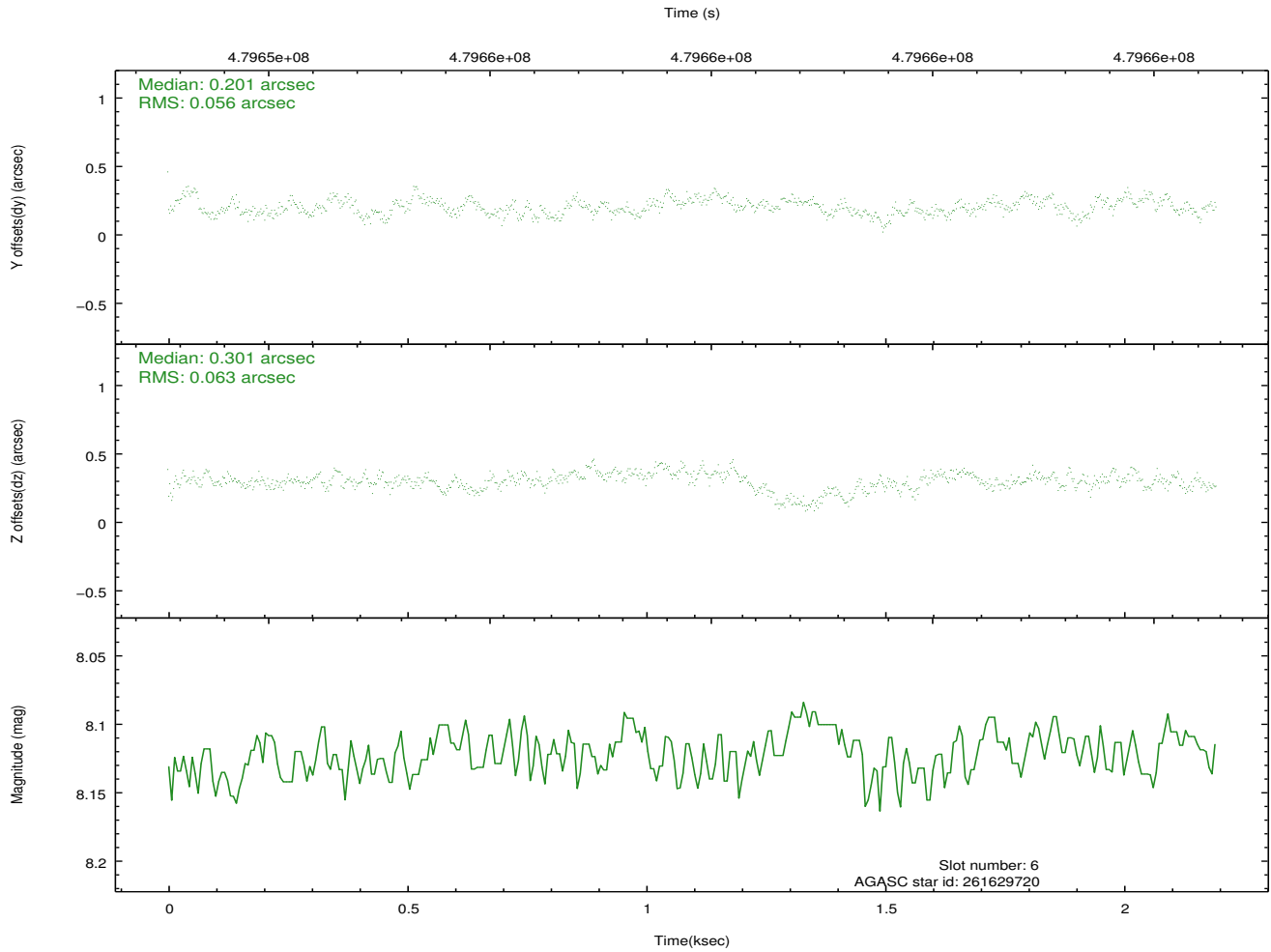
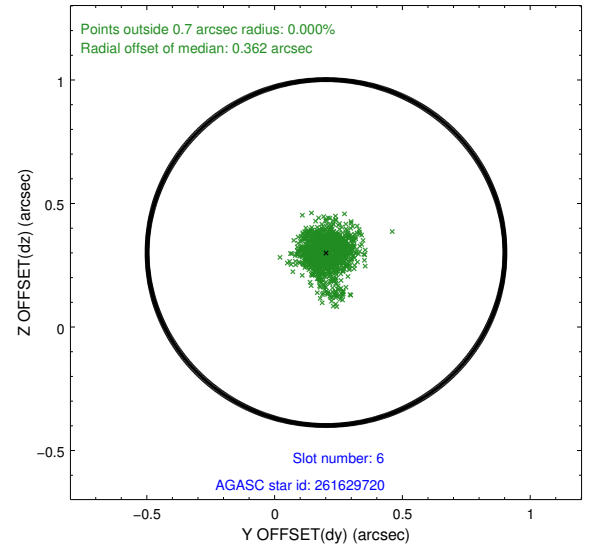
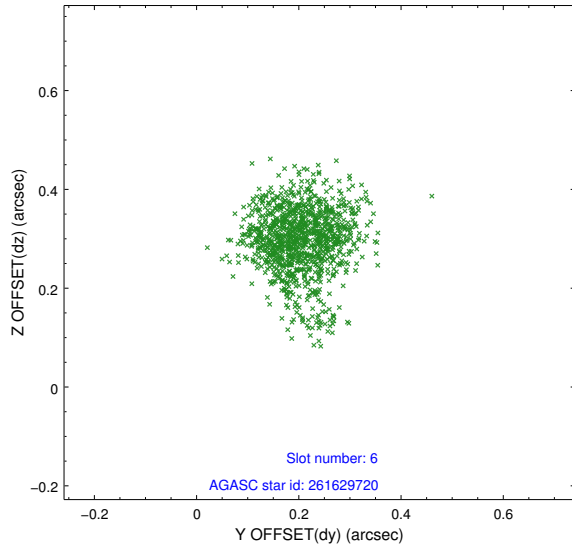
## 2.4.2 Slot 4



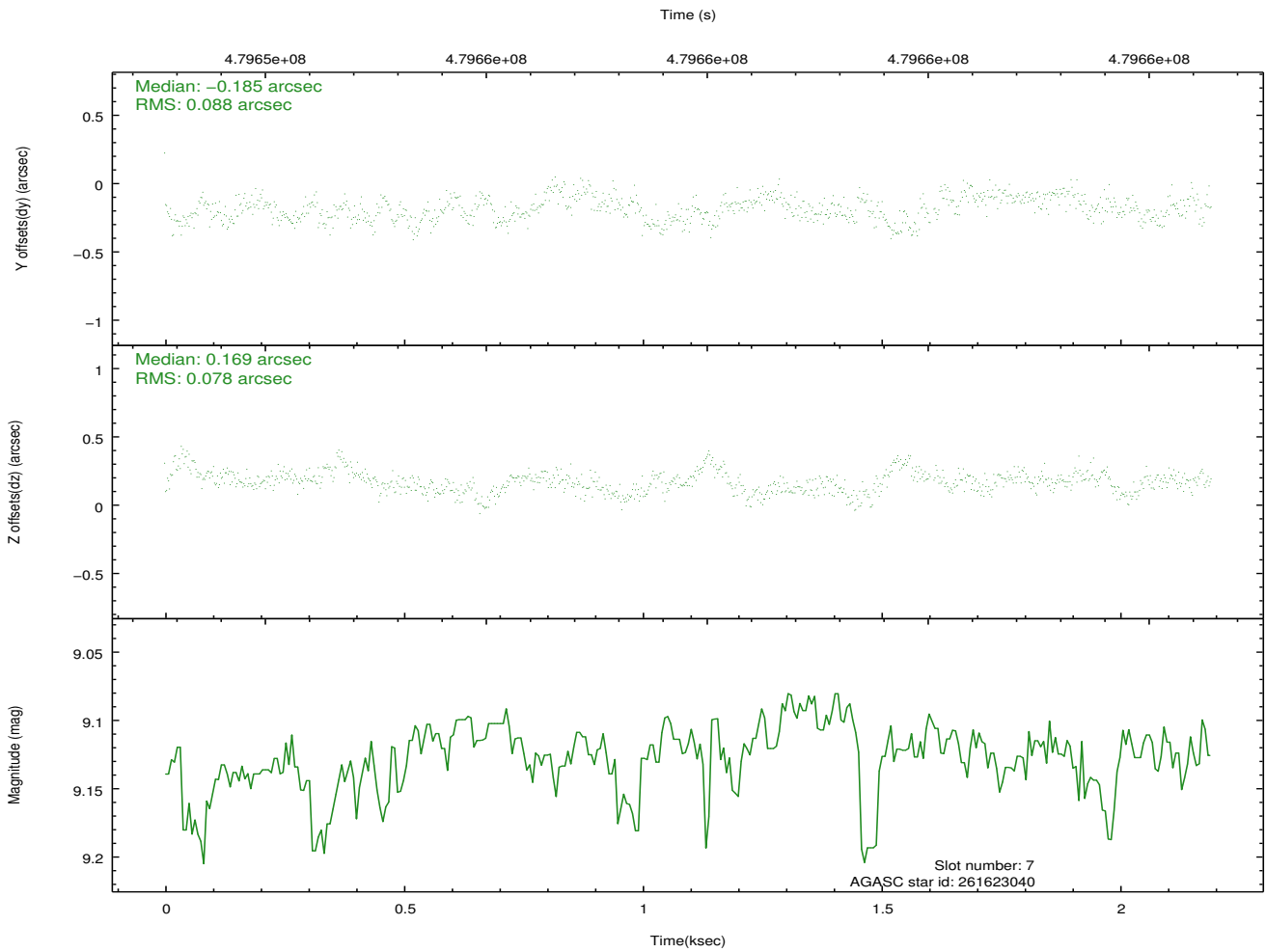
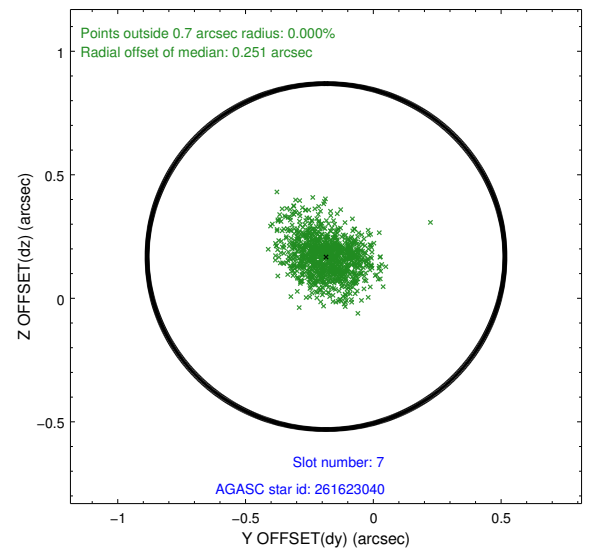
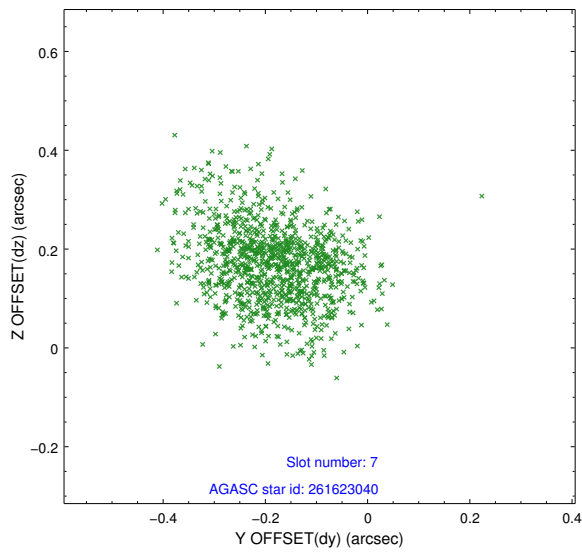
### 2.4.3 Slot 5



## 2.4.4 Slot 6

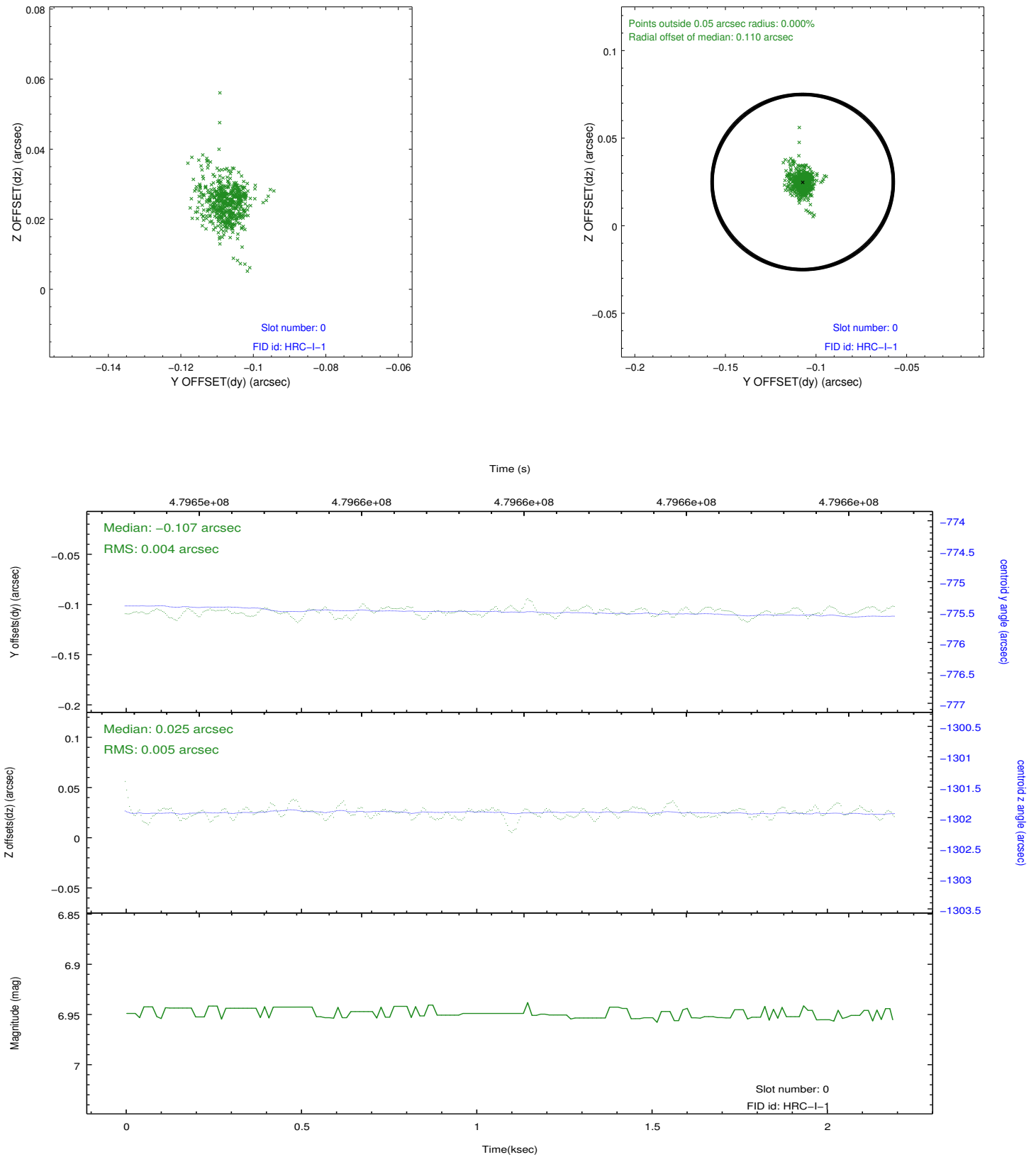


## 2.4.5 Slot 7

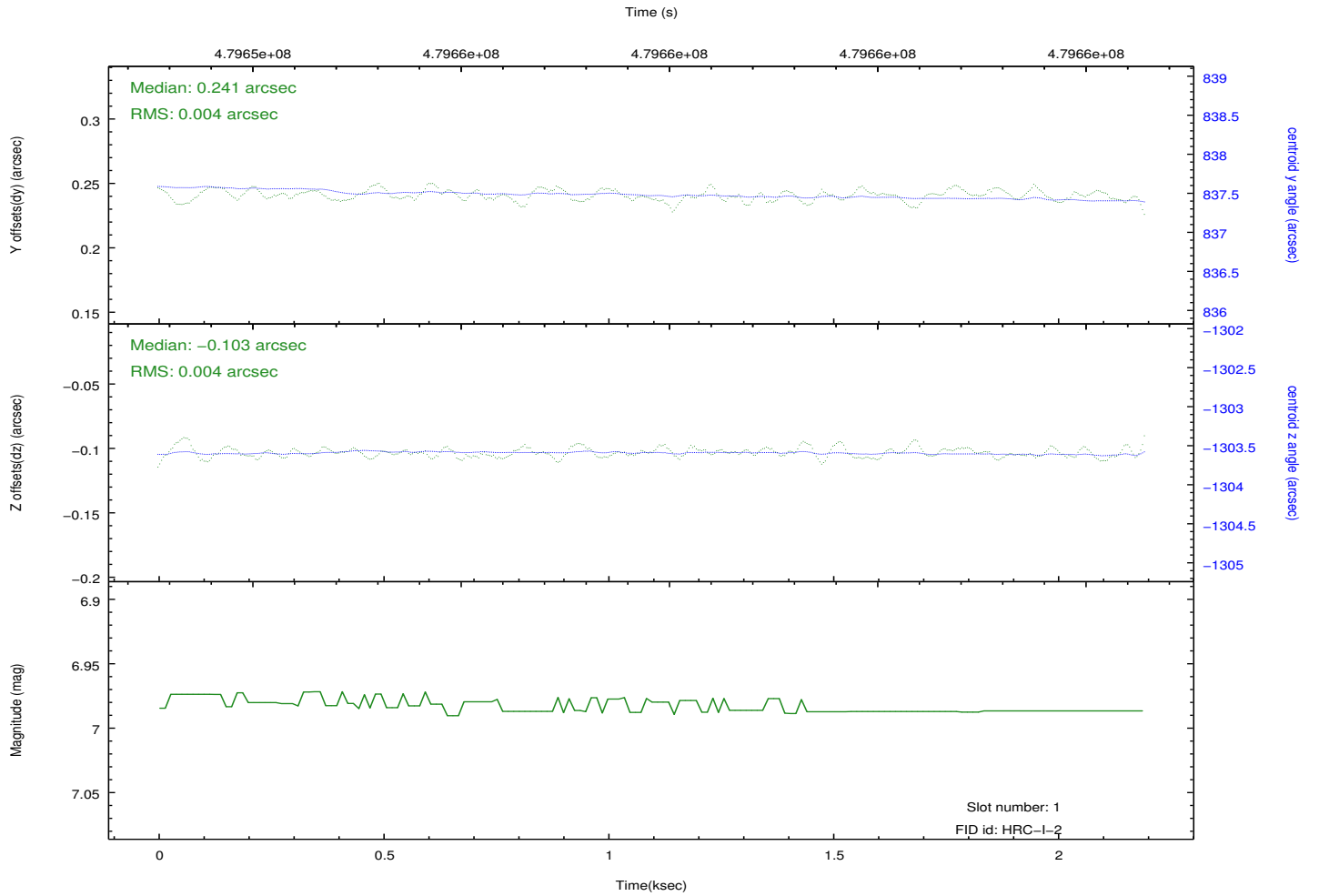
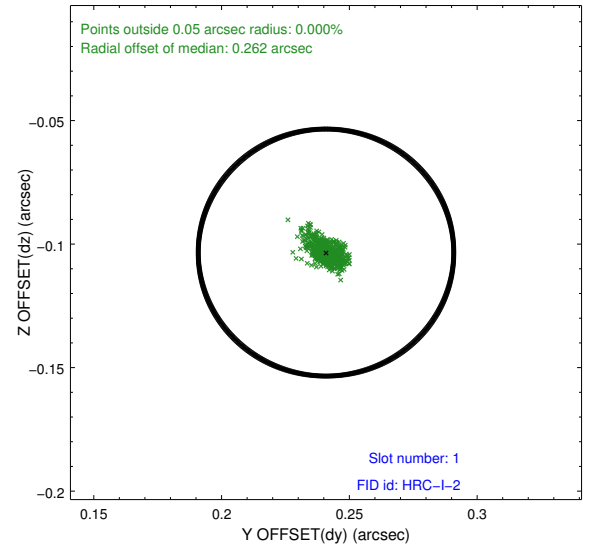
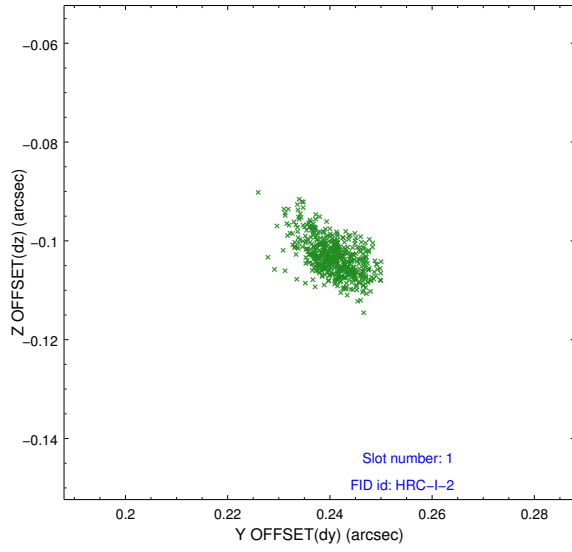


## 2.5 FID Slots

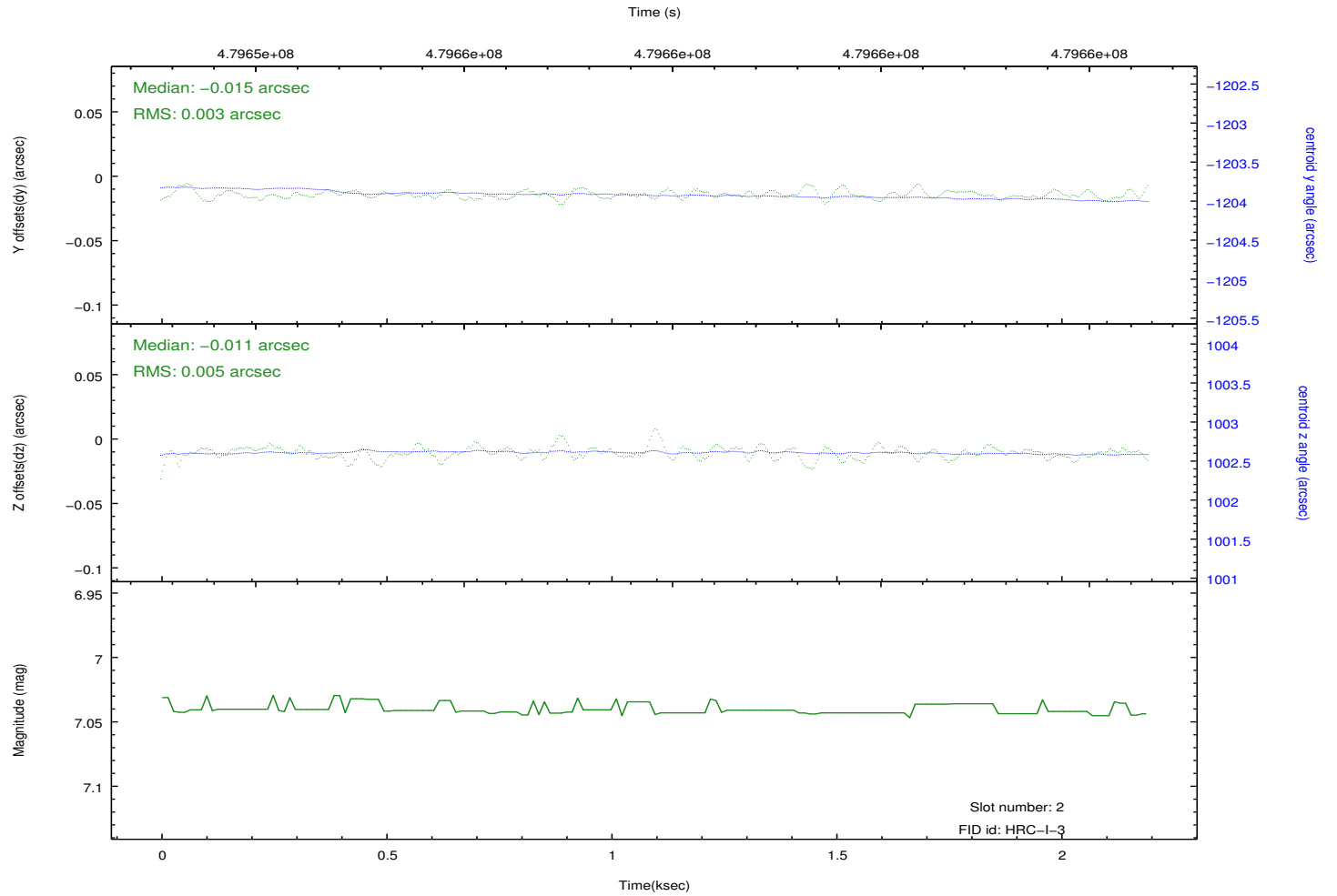
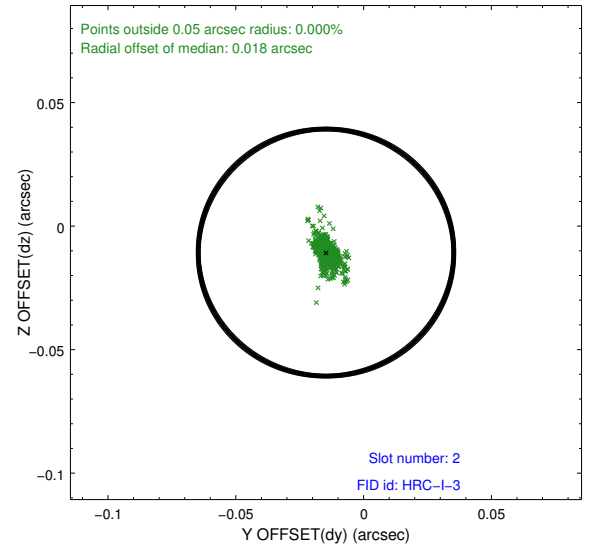
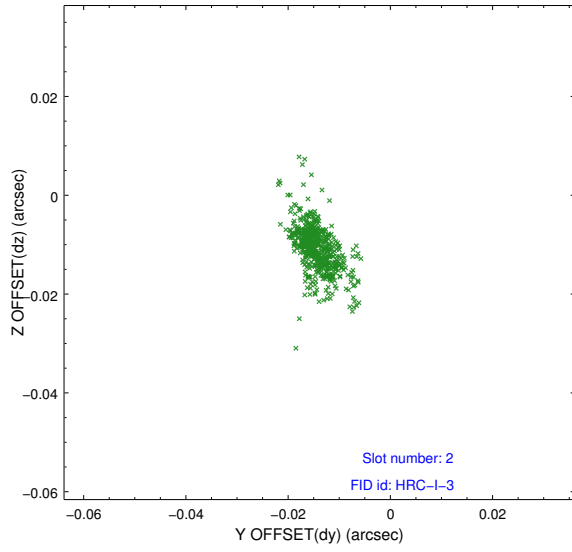
### 2.5.1 Slot 0



## 2.5.2 Slot 1

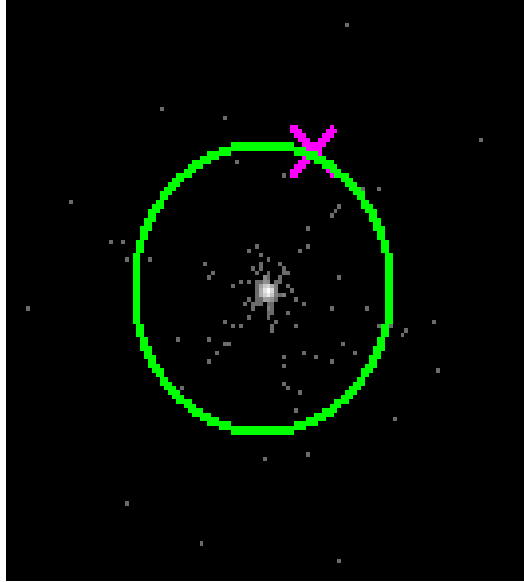


### 2.5.3 Slot 2

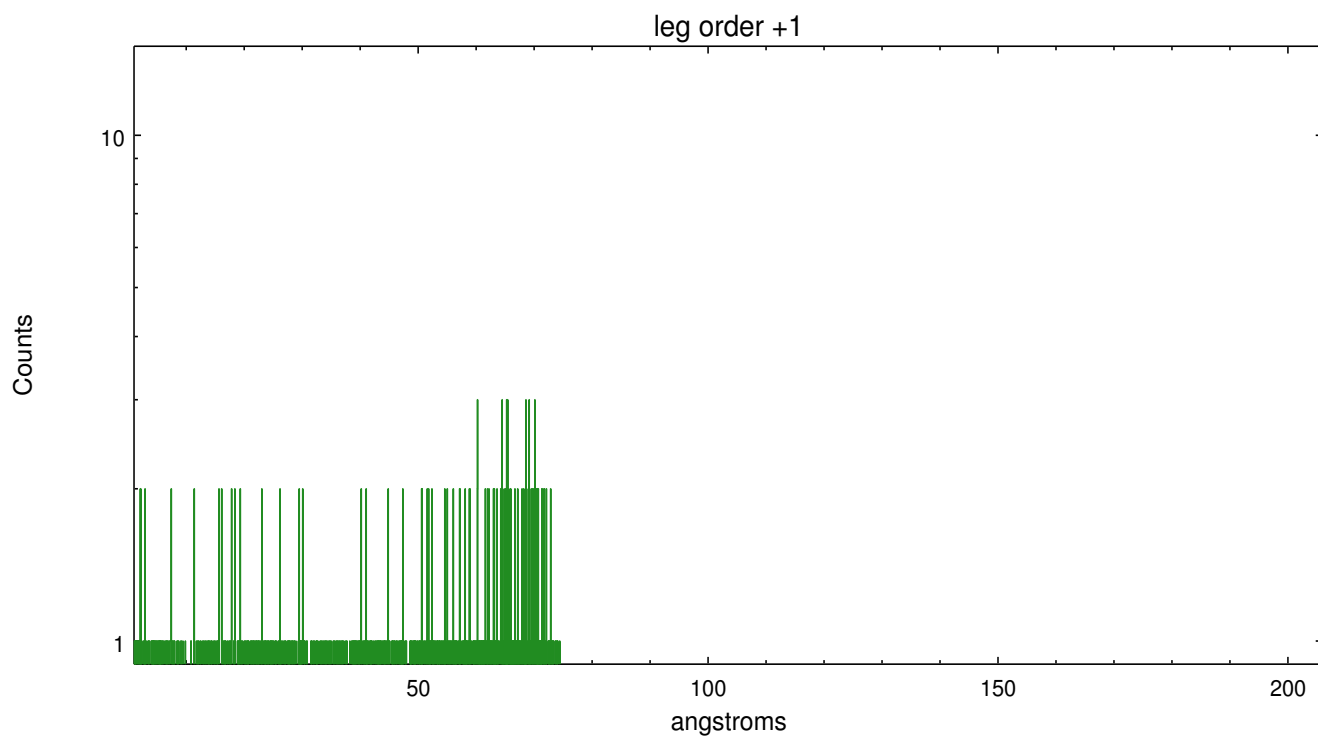
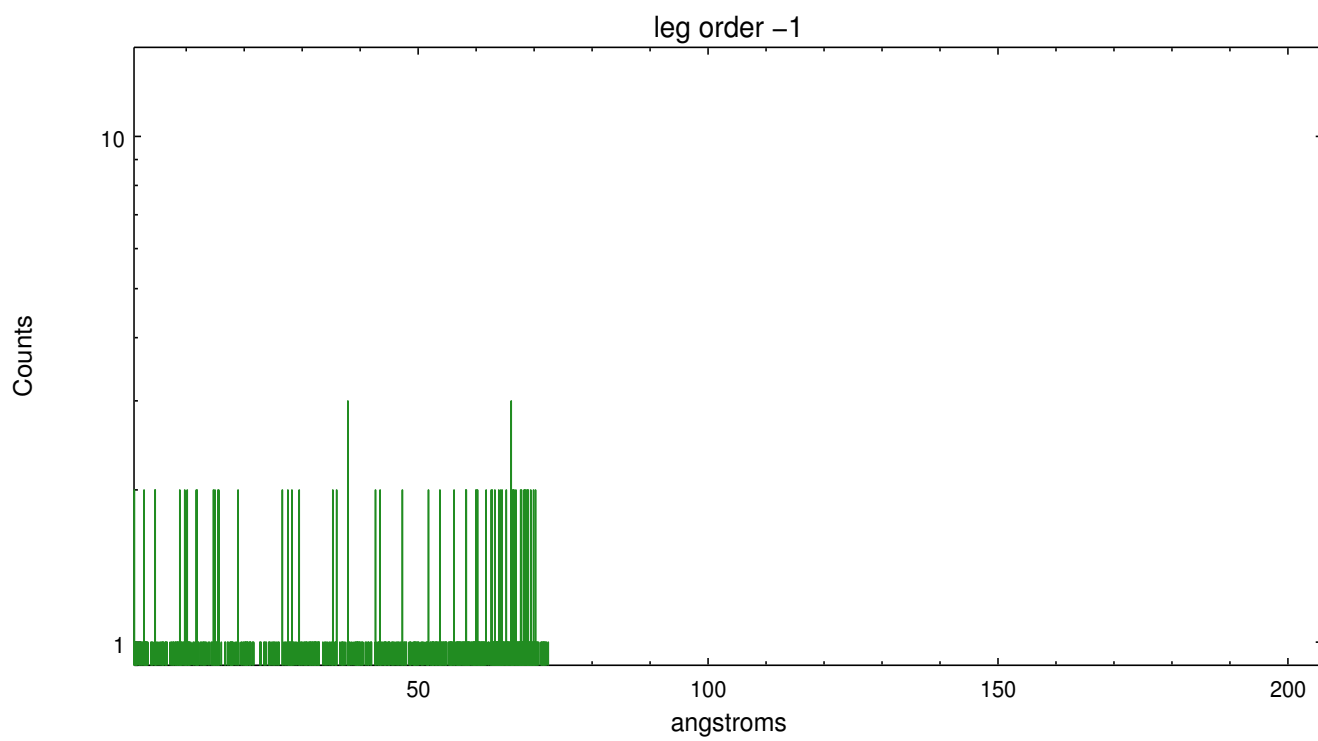


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.11.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.8073313477039

## A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.