

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 19967 - L2 Version 1  
Chandra X-Ray Center

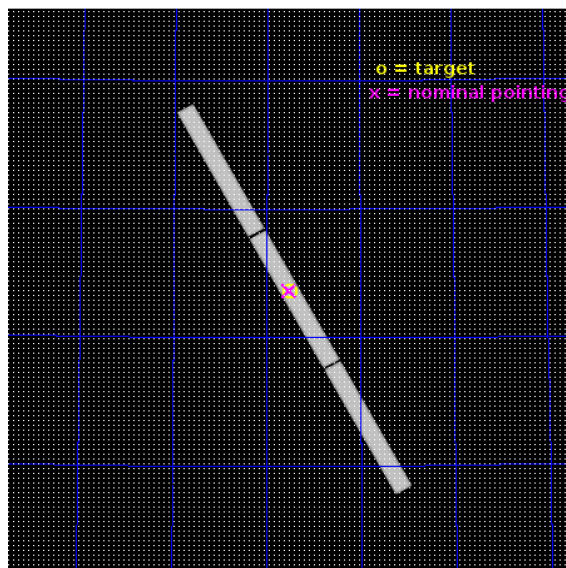
L2 Processing Date : Feb 10 2017

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# 1 Front

seq_num	703217	Sequence number
obs_id	19967	Observation id
title	The NLSy1 IRAS17020+4544: dissecting the first low ionization sub-relativistic black hole wind with LETG and HST/COS	Proposal title
observer	Dr Anna Lia Longinotti	Principal investigator
object	IRAS 17020+4544	Source name
ra_targ	255.876667	Observer's specified target RA [deg]
dec_targ	45.679722	Observer's specified target Dec [deg]
ra_nom	255.87811475628	Nominal RA [deg]
dec_nom	45.682006382215	Nominal Dec [deg]
roll_nom	61.066286524601	Nominal Roll [deg]
revision	1	Processing version of data
ontime	24166.682649255	[s]
livetime	23939.106096833	Ontime multiplied by DTCOR
l2events	2051406	Number of level 2 events

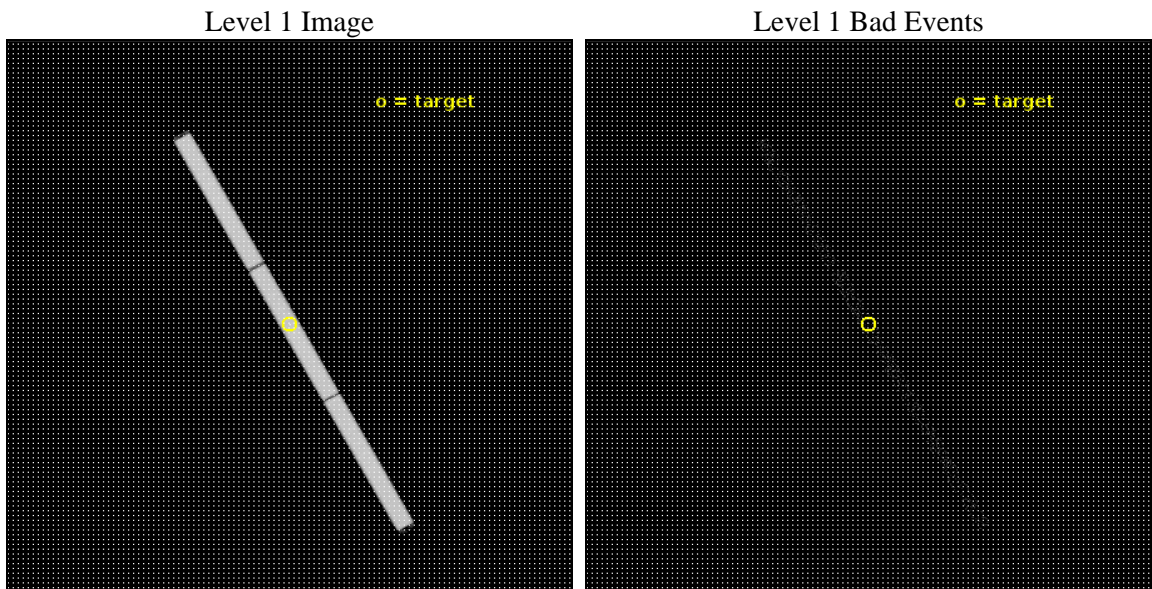




## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	24000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	24166.682649255	[s]
caldsver	4.7.3	&#160	l1events	2614714	Number of level 1 events
date	2017-02-10T04:20:17	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	1	Processing version of data	zo_pos	(32797.25, 32703.36)	src1a sky pixel position

### 2.1.3 Events

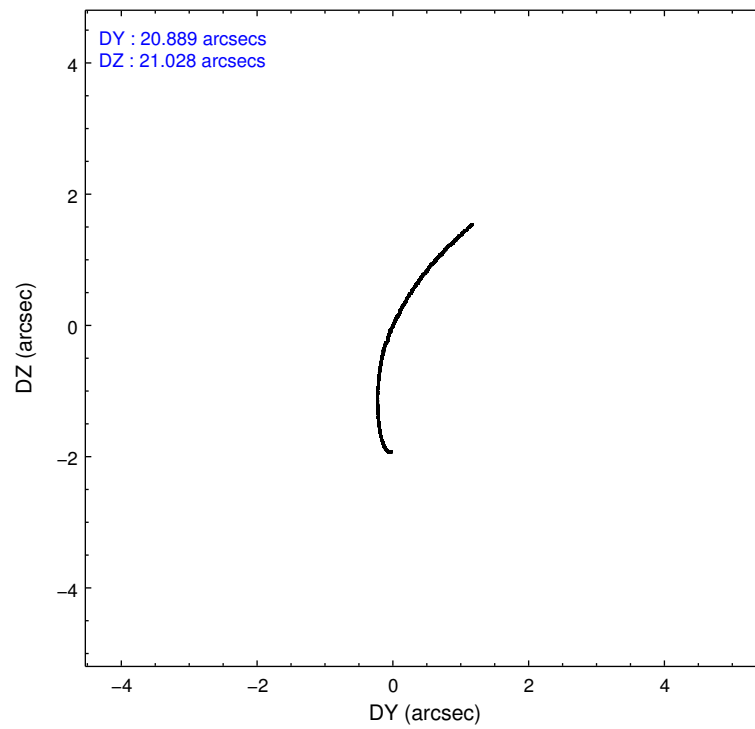
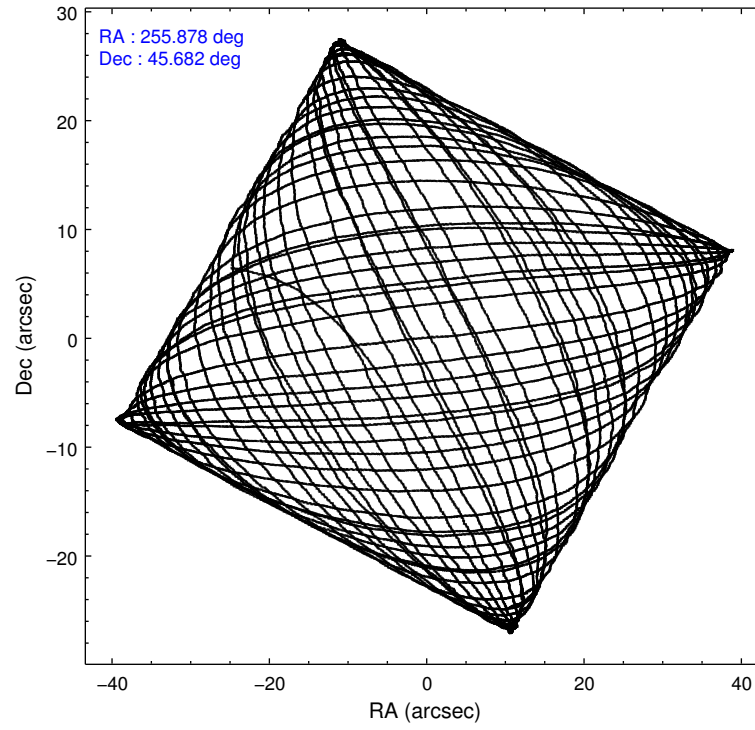
Level 1 Events

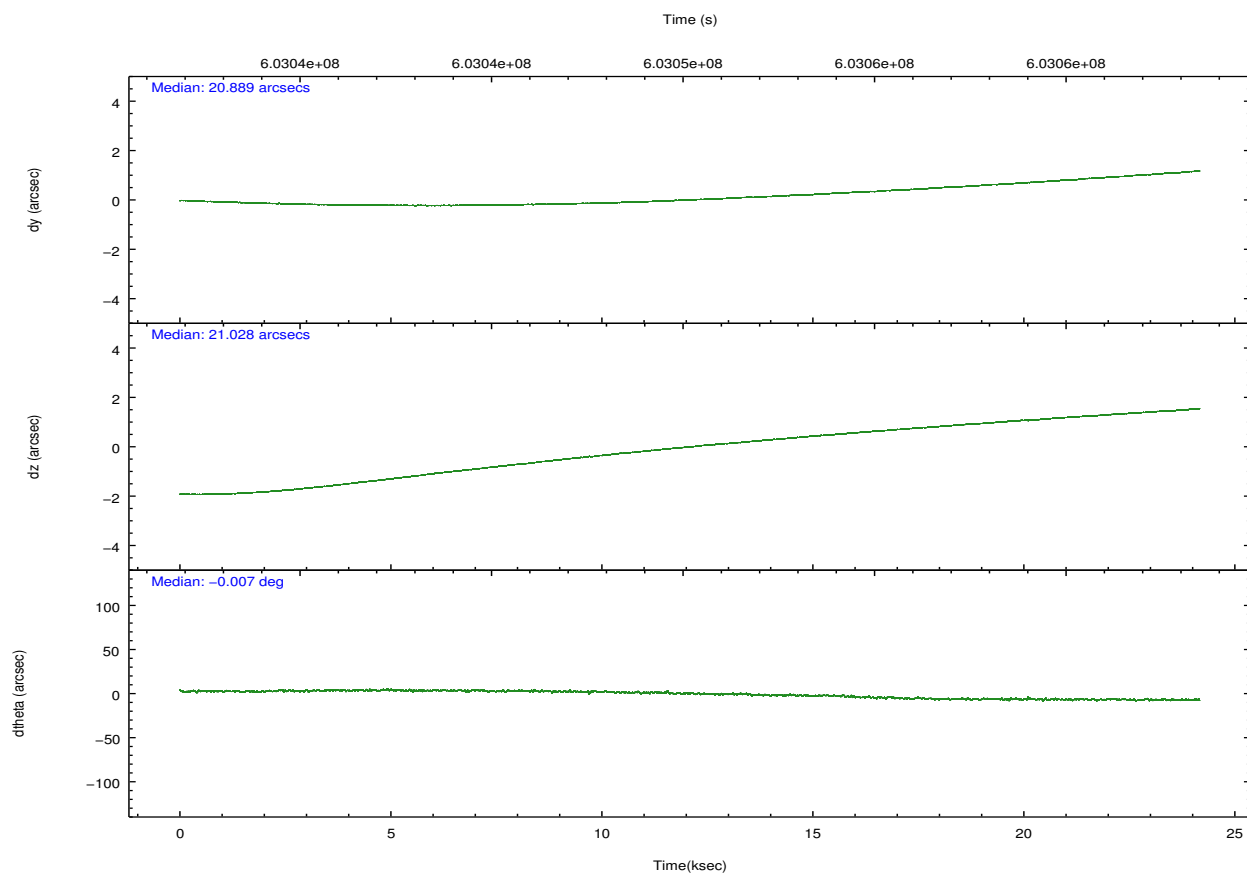
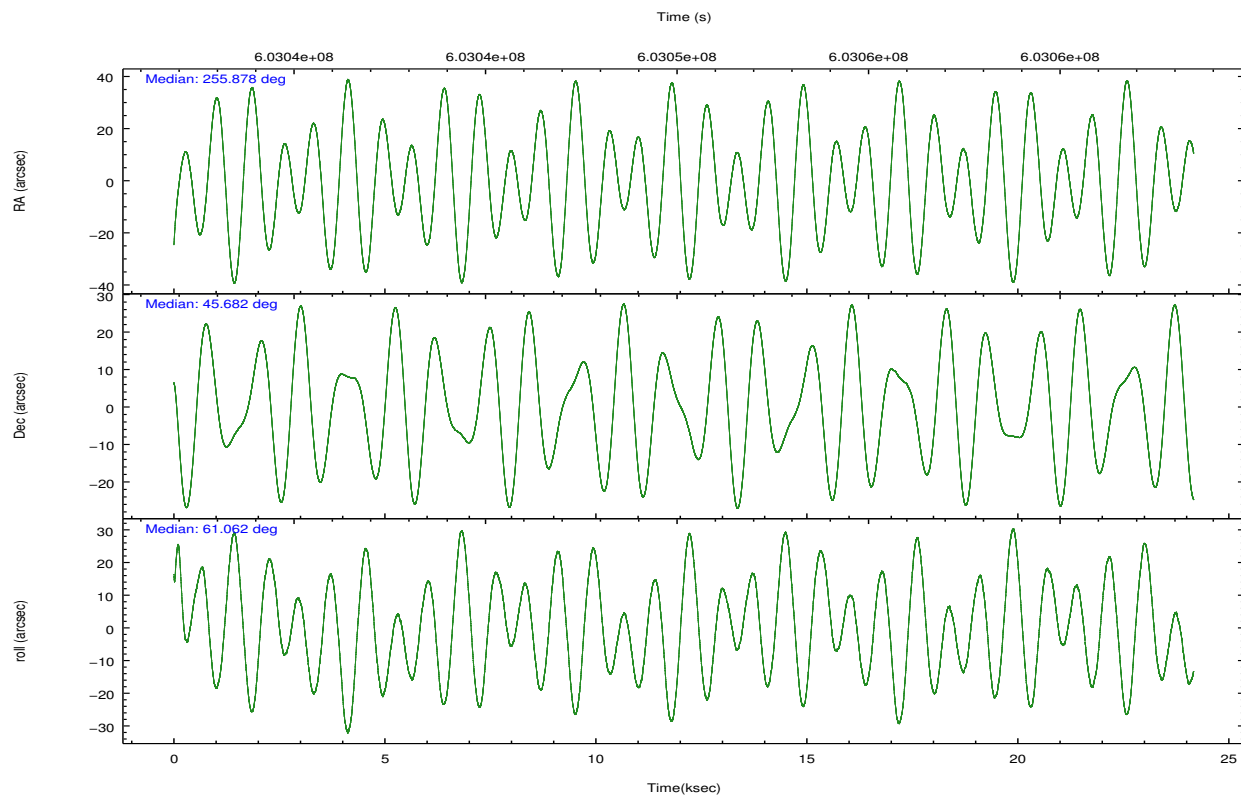
	segment 1	segment 2	segment 3
level 1 events	873203	874205	867306
rejected events	28749	28523	28641
rejected %	3%	3%	3%

## 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	255.880852	255.8781147562781			
[deg] Pointing Dec	45.653233	45.68200638221469			
[deg] Pointing Roll	60.997010	61.06628652460117			
[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)	603038264.184000	603037299.32397			
Observation start date	2017-02-09T14:36:35	2017-02-09T14:21:39			
[s] Observation end time (MET)	603062264.184000	603063085.25047			
Observation end date	2017-02-09T21:16:35	2017-02-09T21:31:25			

## 2.3 Aspect



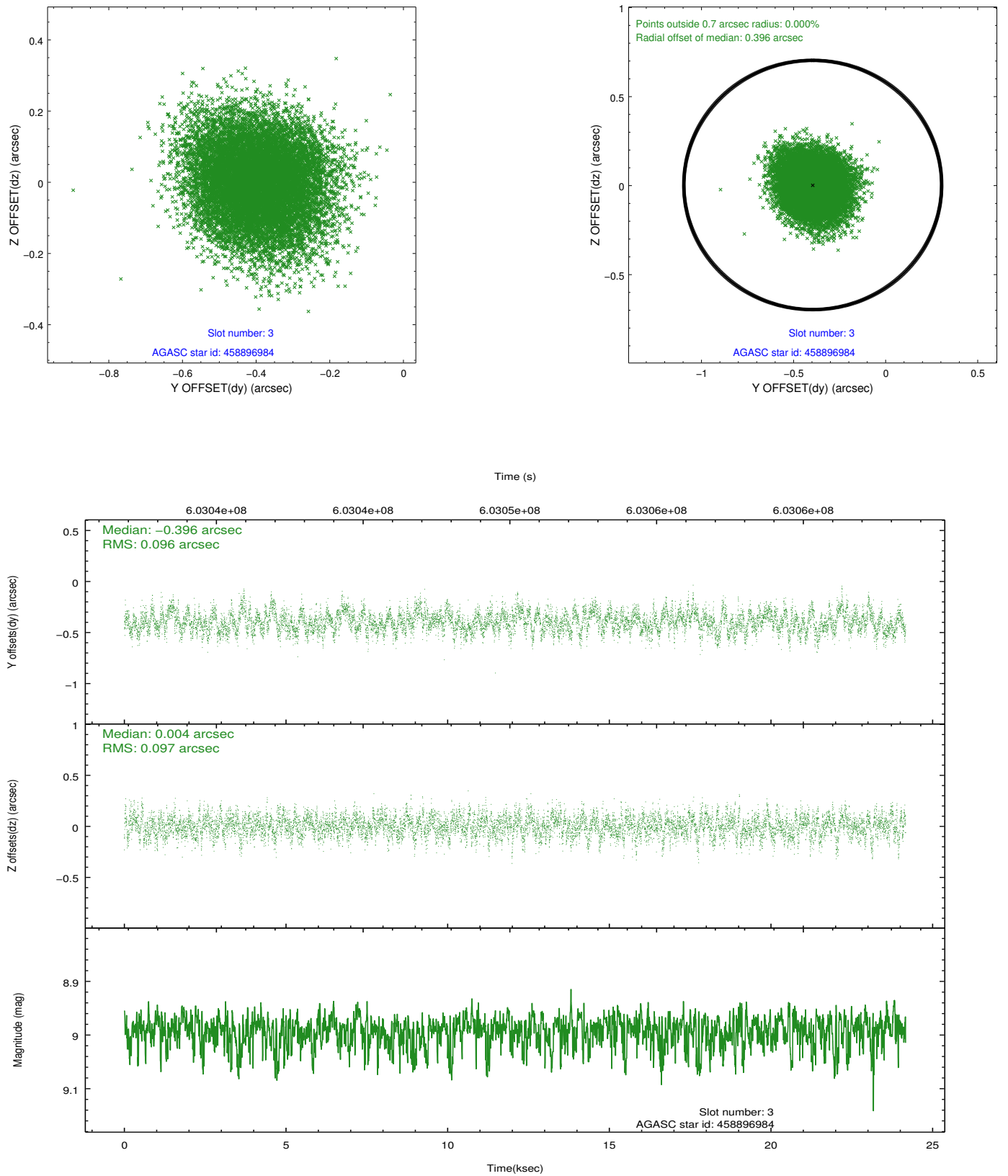


### Slot Statistics

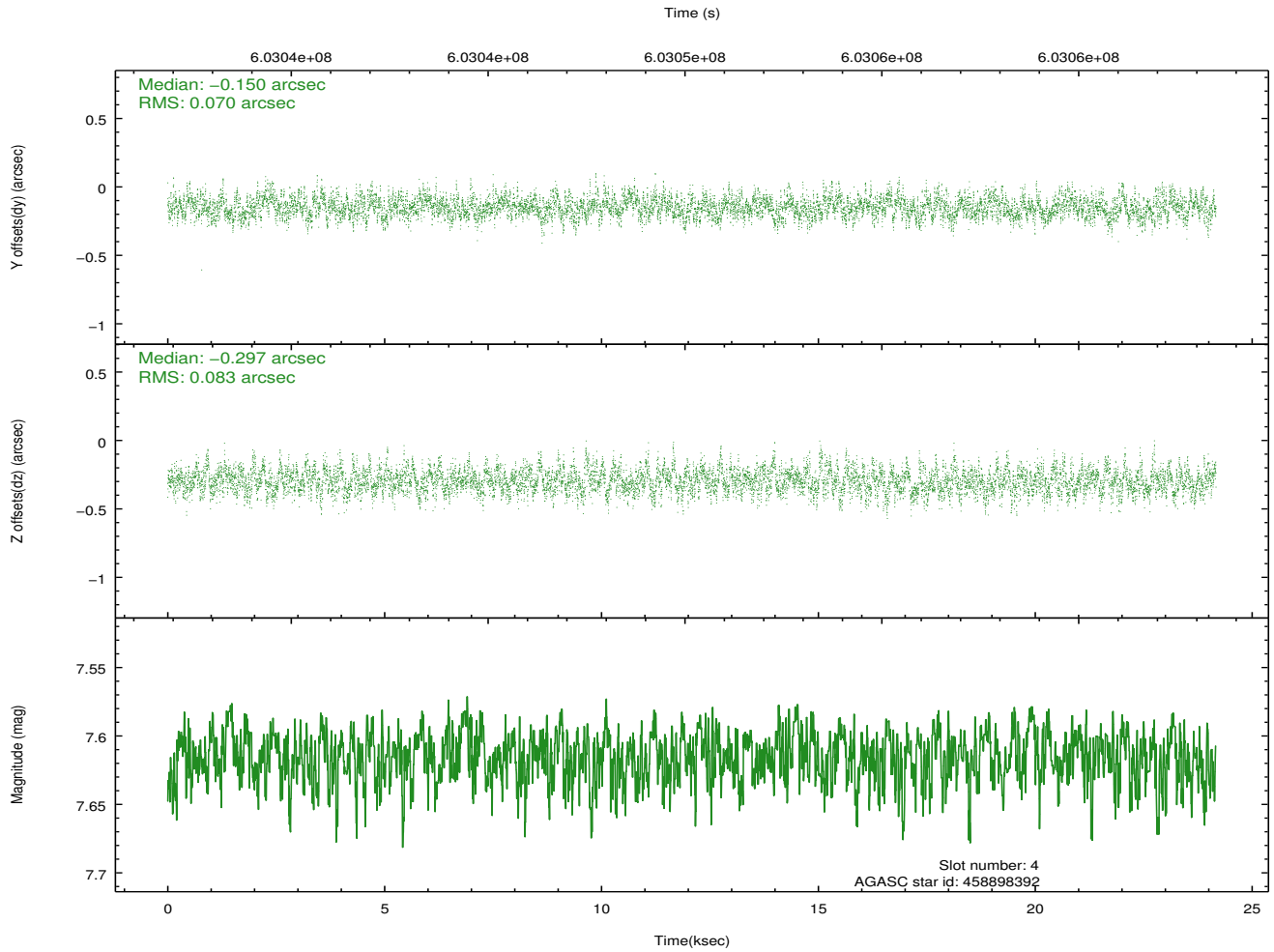
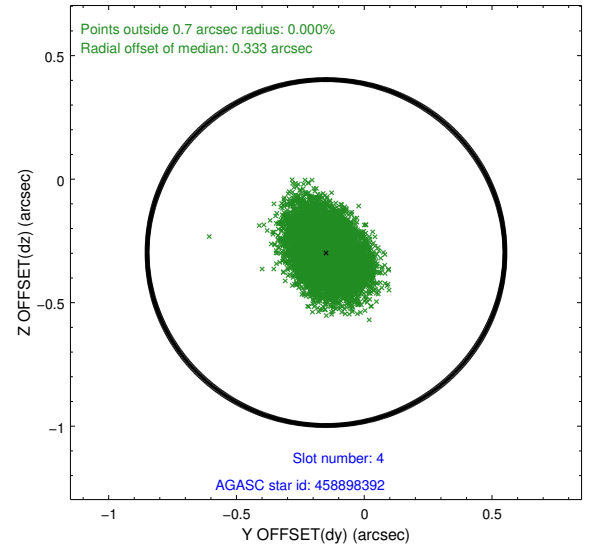
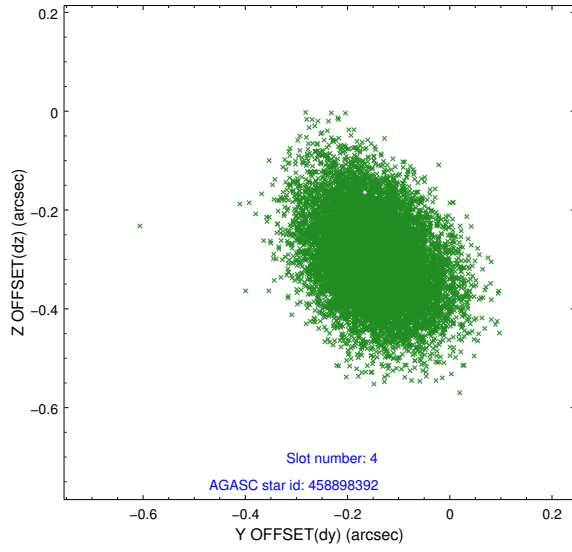
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.02	5895	-0.077	-0.197	0.053	0.061	0.000000	0.000000	-1175.75	-470.07
1	FID		HRC-S-2	6.99	5894	0.419	-0.134	0.013	0.021	0.000000	0.000000	1224.22	-462.55
2	FID		HRC-S-3	7.01	5895	0.050	0.029	0.050	0.058	0.000000	0.000000	-1178.21	559.61
3	GUIDE	used	458896984	8.99	11780	-0.396	0.004	0.146	0.235	256.338646	45.952153	1499.74	-478.66
4	GUIDE	used	458898392	7.61	11790	-0.150	-0.297	0.115	0.188	255.120167	45.778808	-522.55	1896.39
5	GUIDE	used	458900480	7.37	11790	0.289	0.181	0.109	0.177	255.979899	45.449218	-520.14	-574.50
6	GUIDE	used	458903928	7.98	11784	-0.133	-0.336	0.109	0.179	256.022074	46.089865	1542.96	451.97
7	GUIDE	used	458904480	8.94	11773	0.385	0.452	0.149	0.240	256.212390	45.224287	-939.89	-1482.11

## 2.4 Star Slots

### 2.4.1 Slot 3

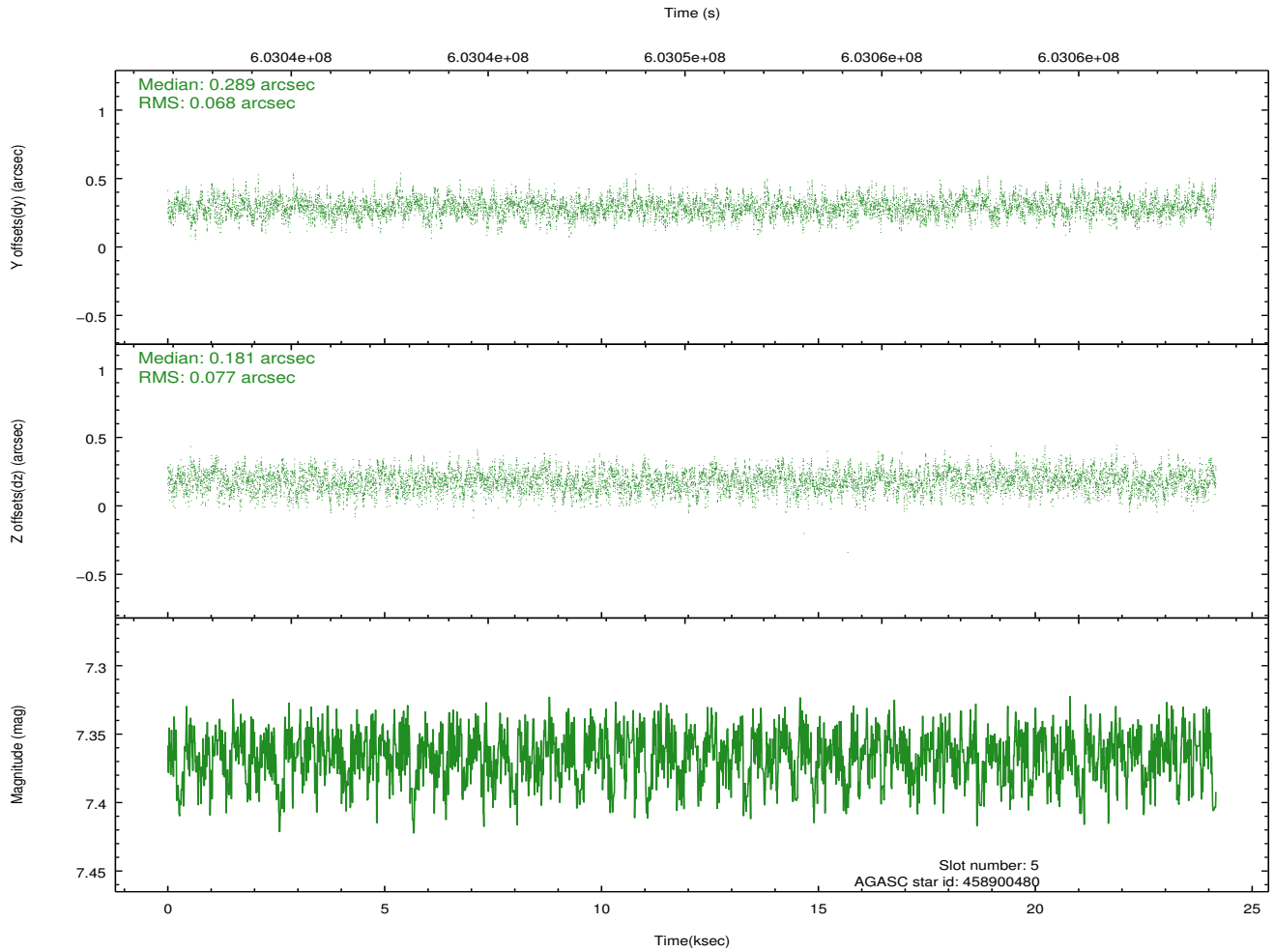
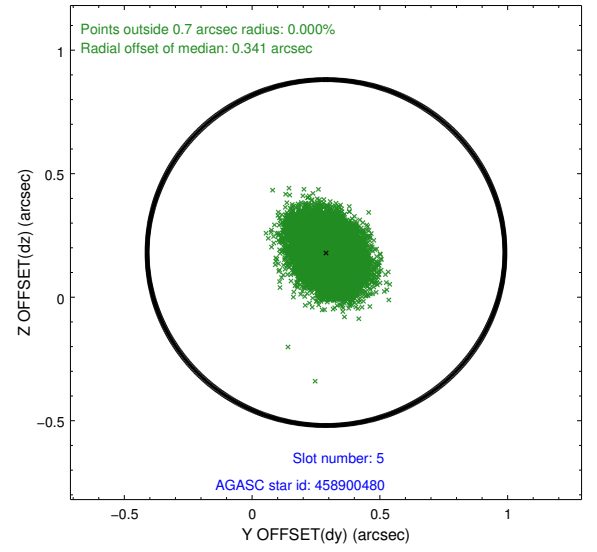
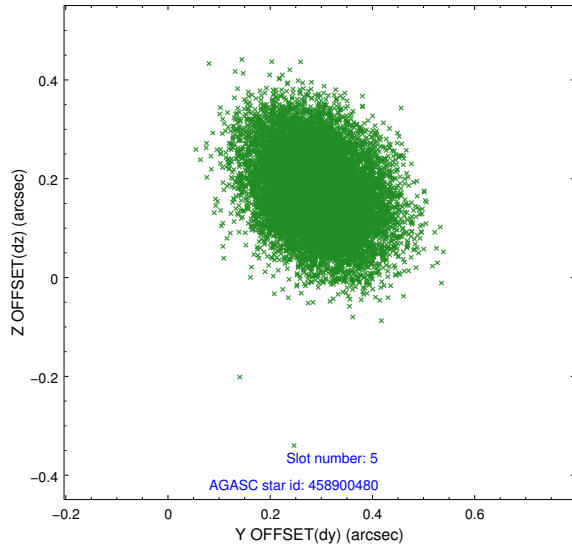


## 2.4.2 Slot 4

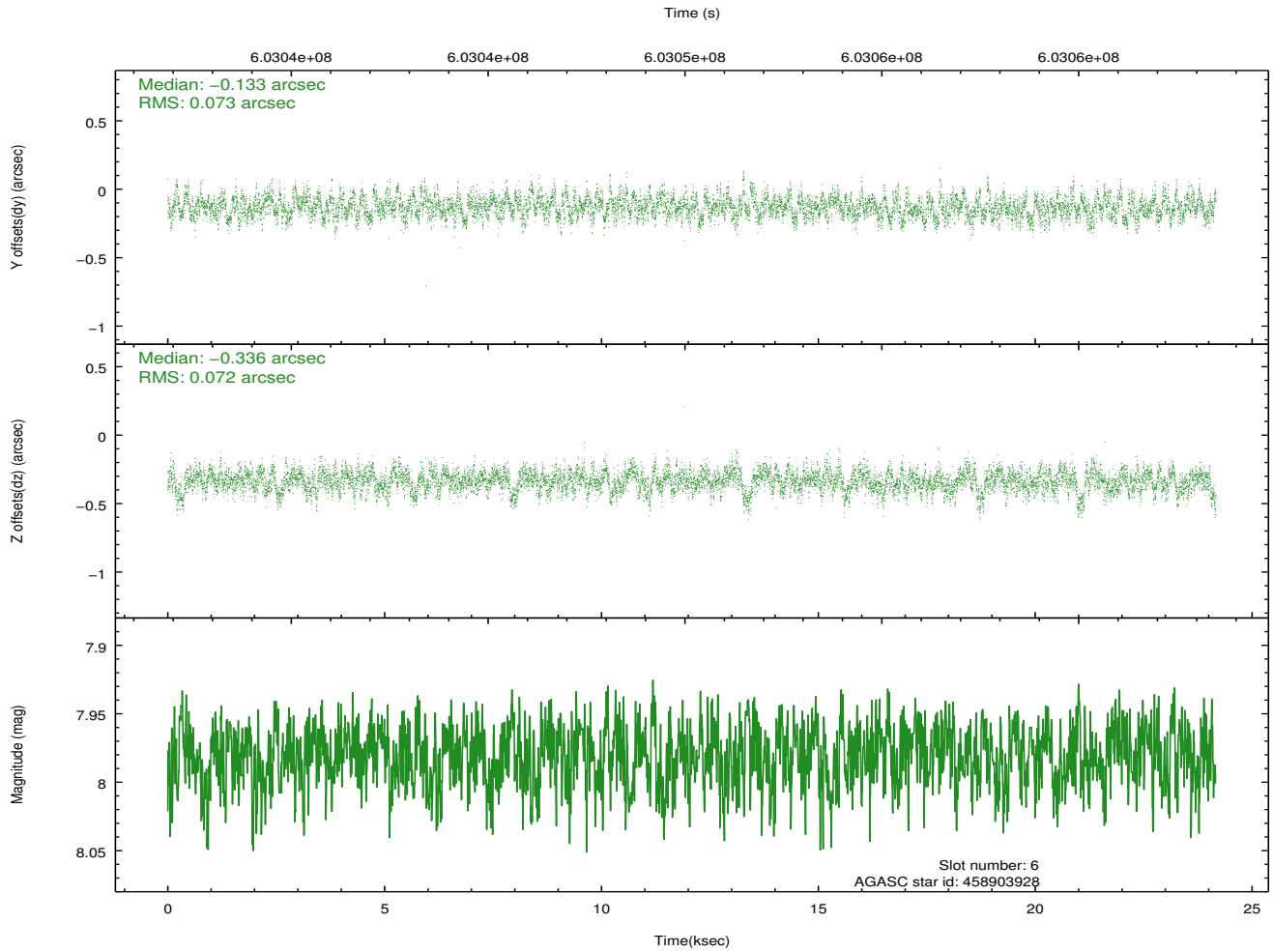
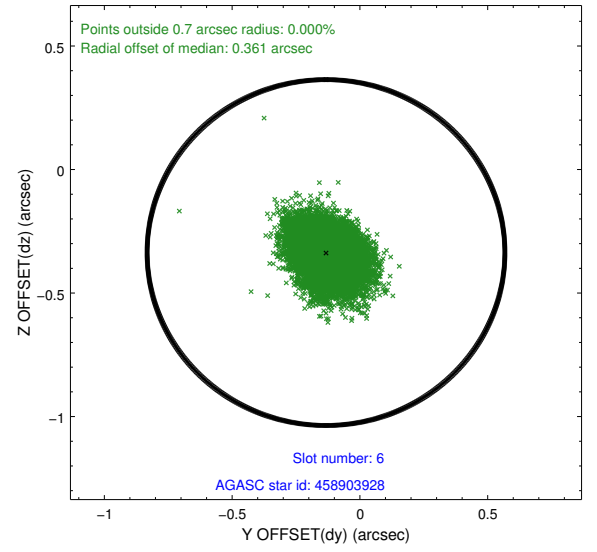
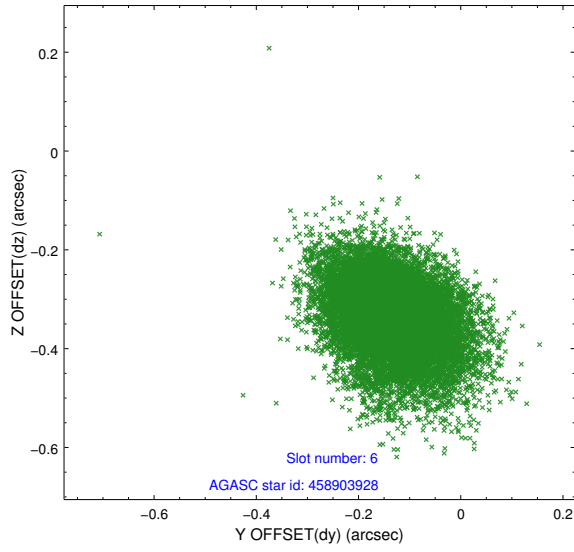




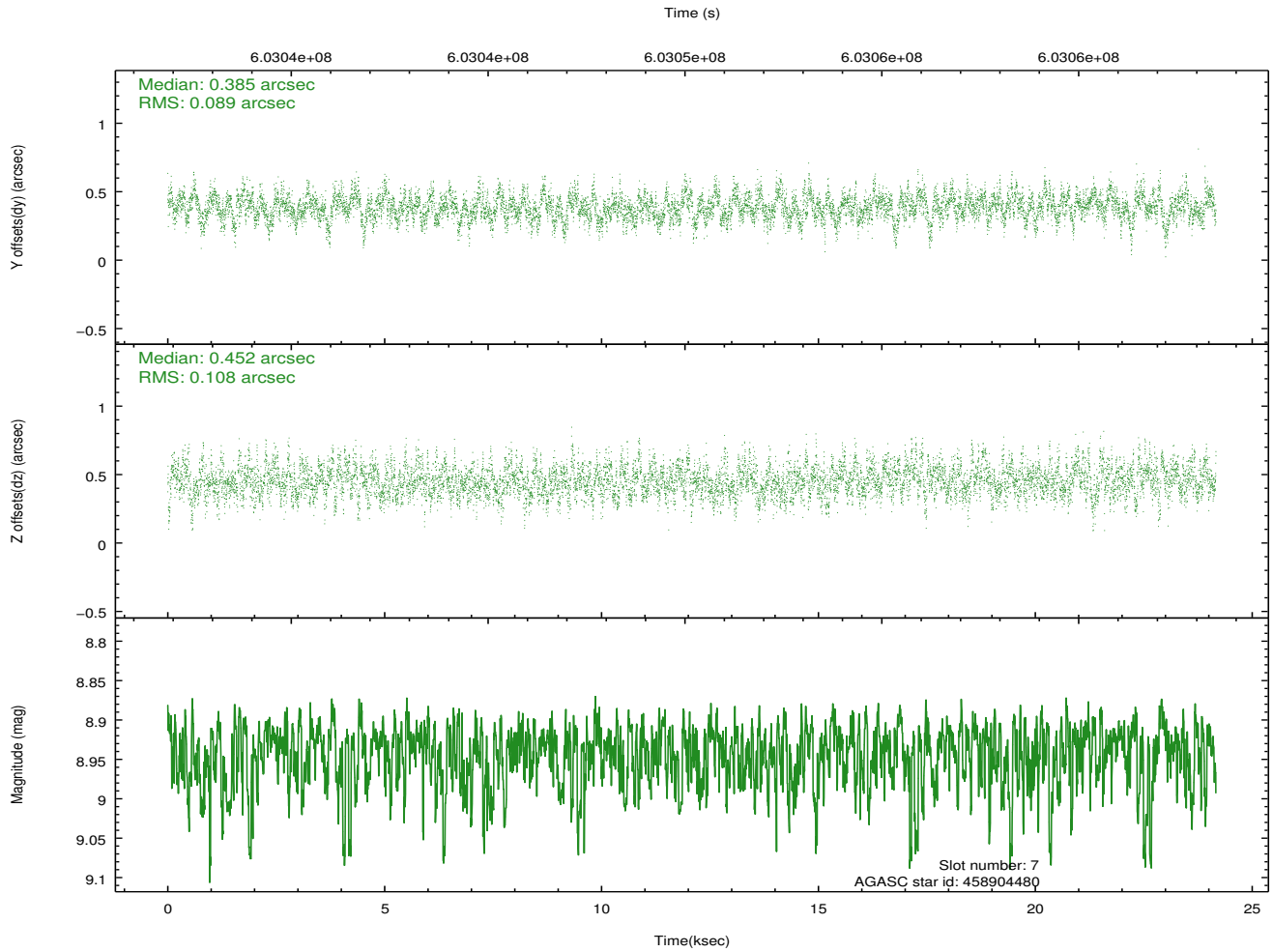
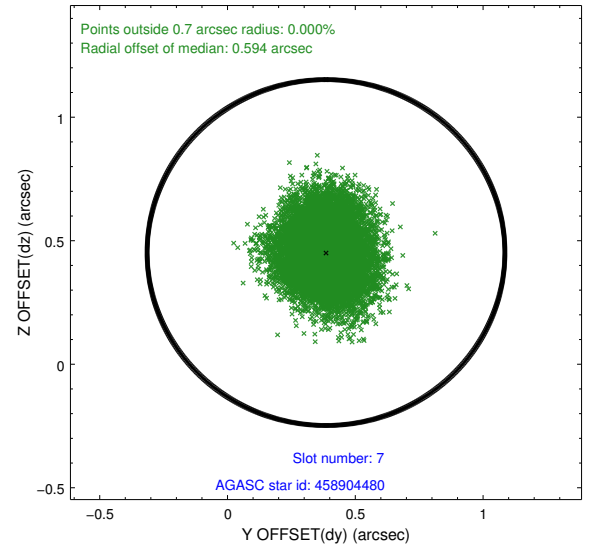
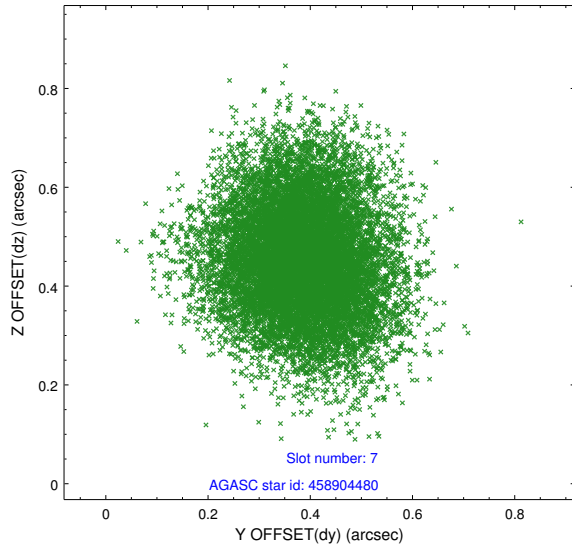
### 2.4.3 Slot 5



## 2.4.4 Slot 6

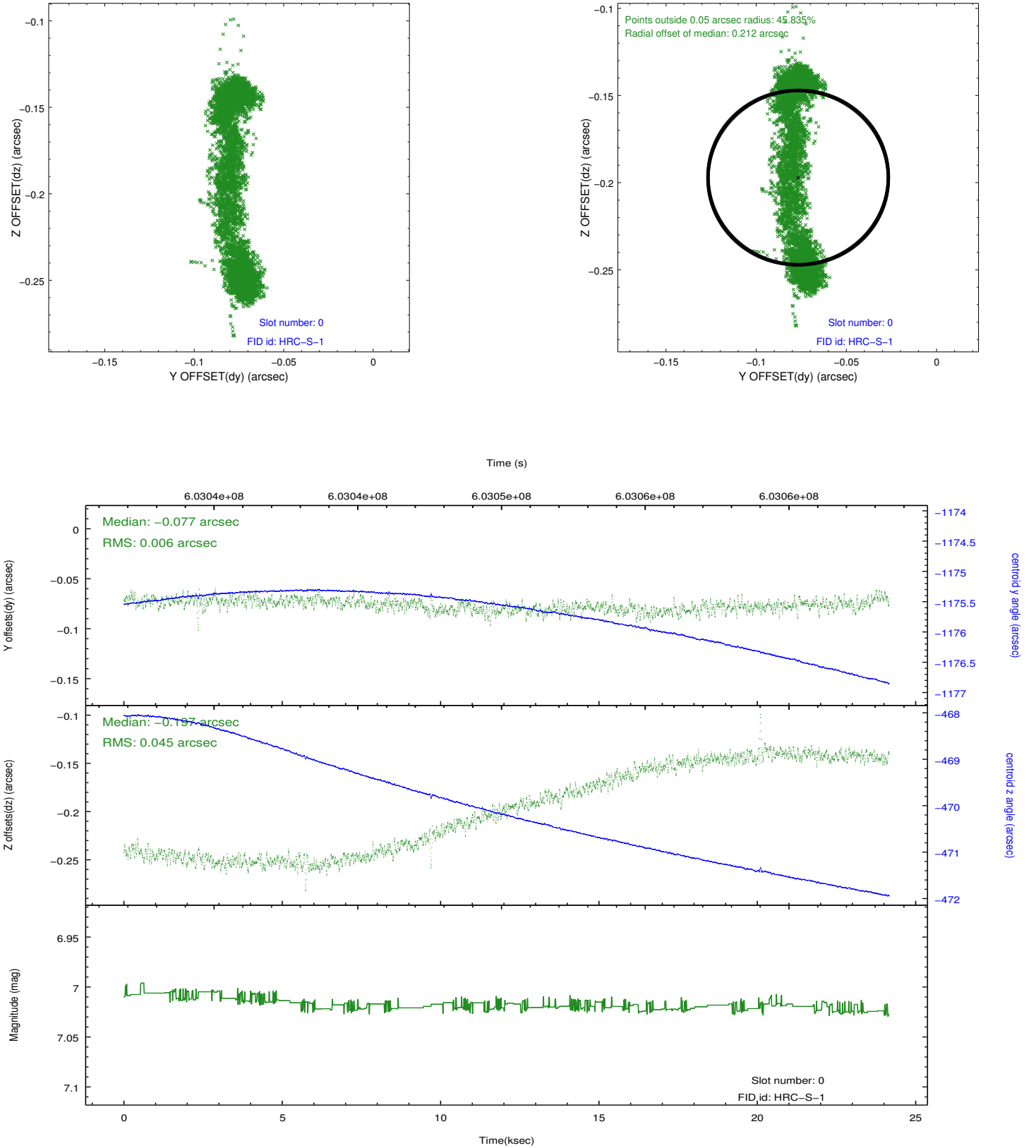


## 2.4.5 Slot 7

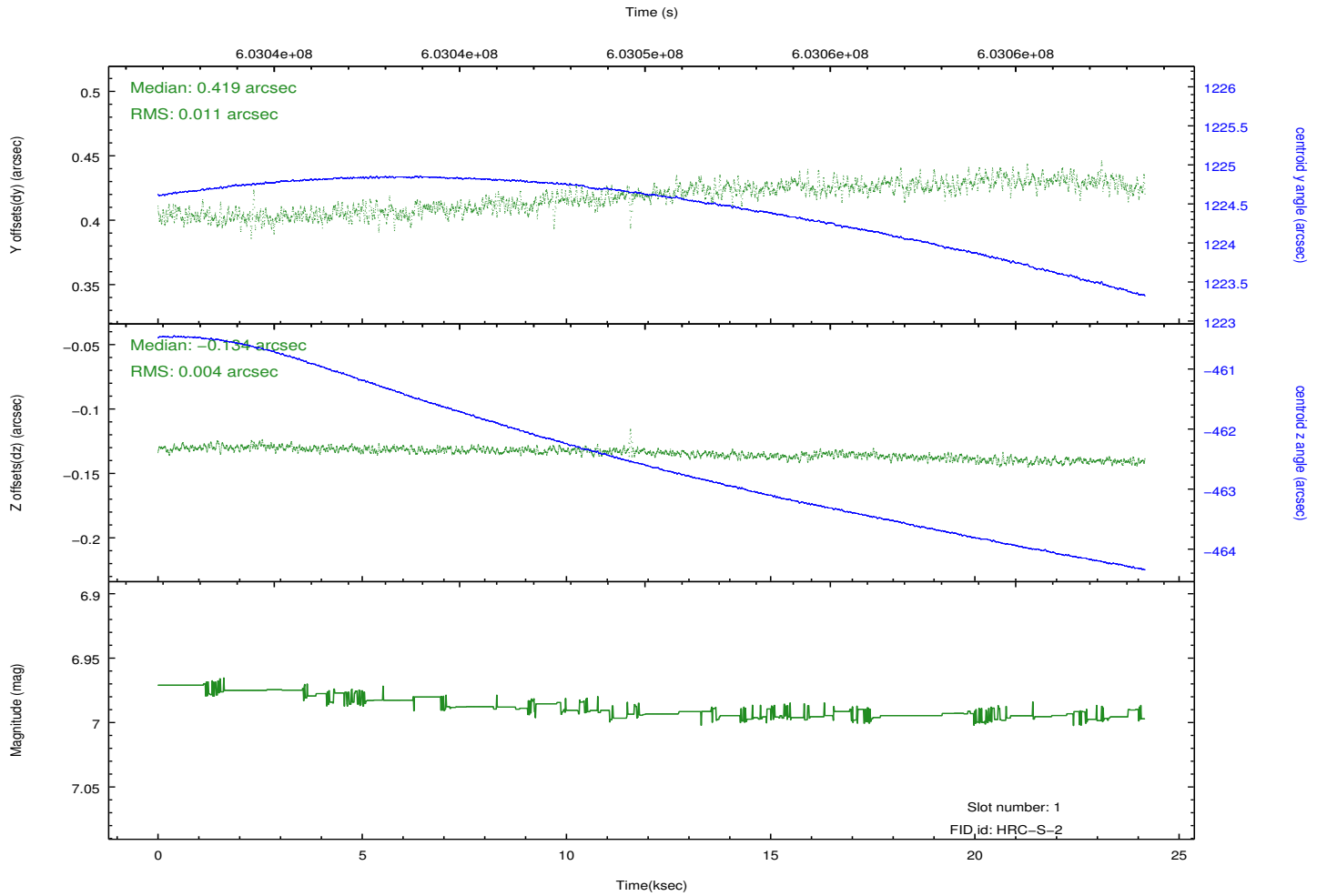
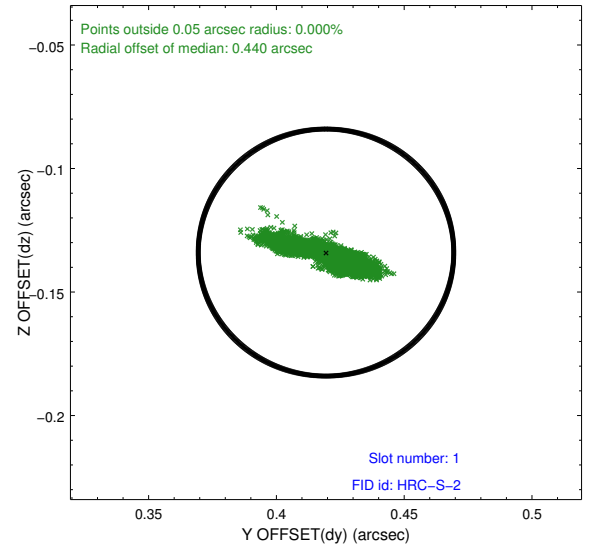
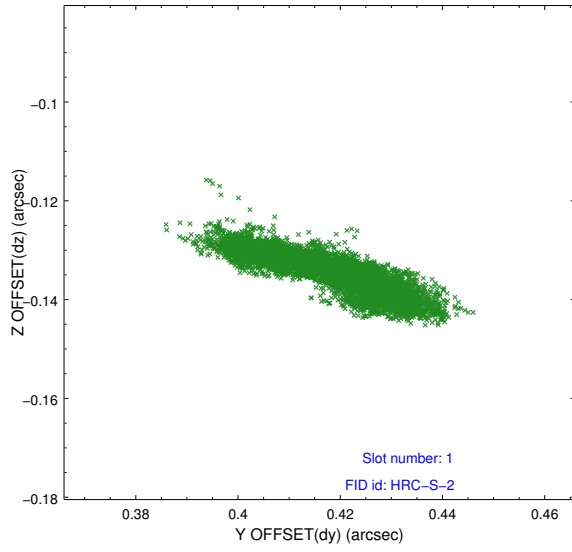


## 2.5 FID Slots

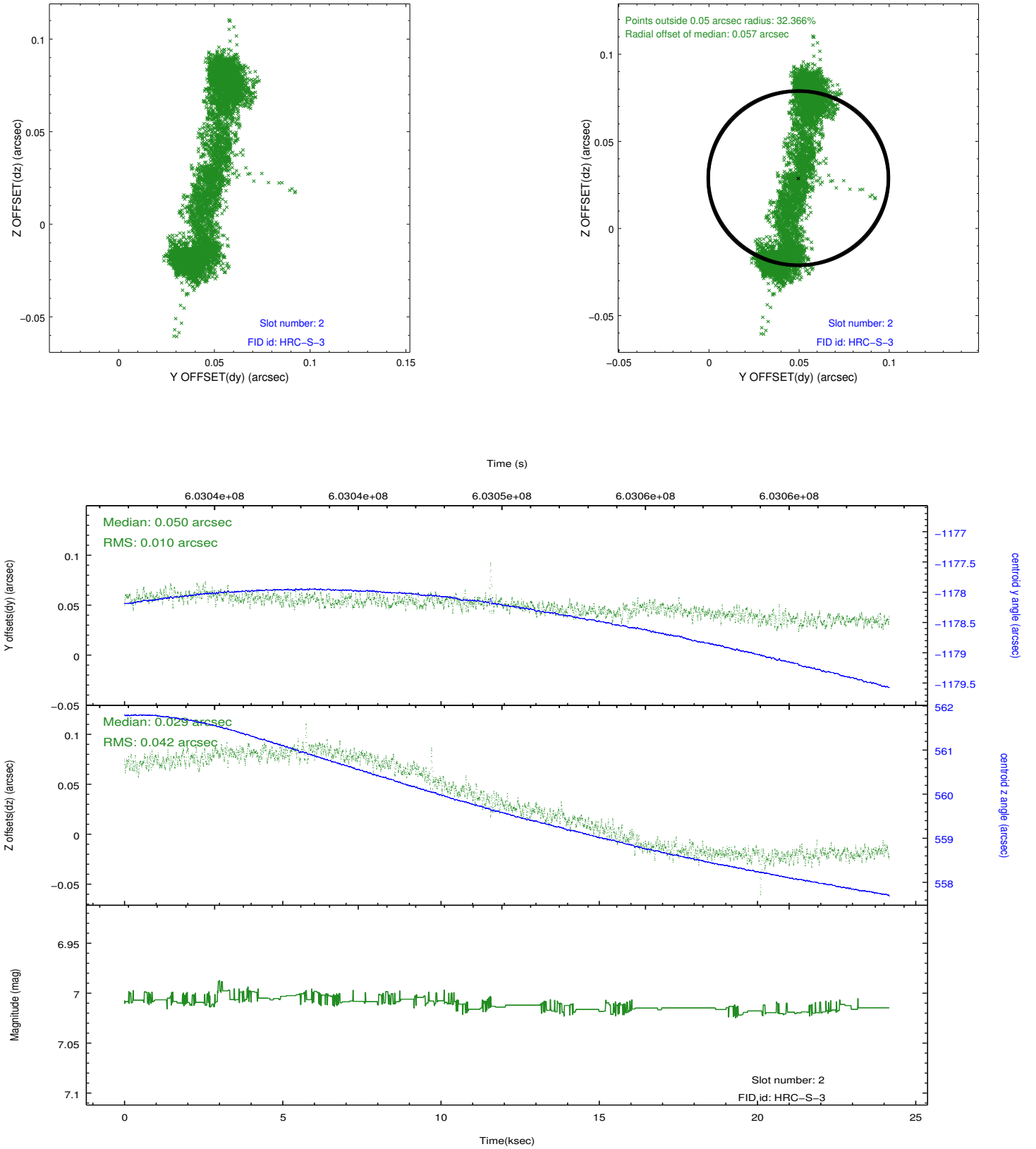
### 2.5.1 Slot 0



## 2.5.2 Slot 1

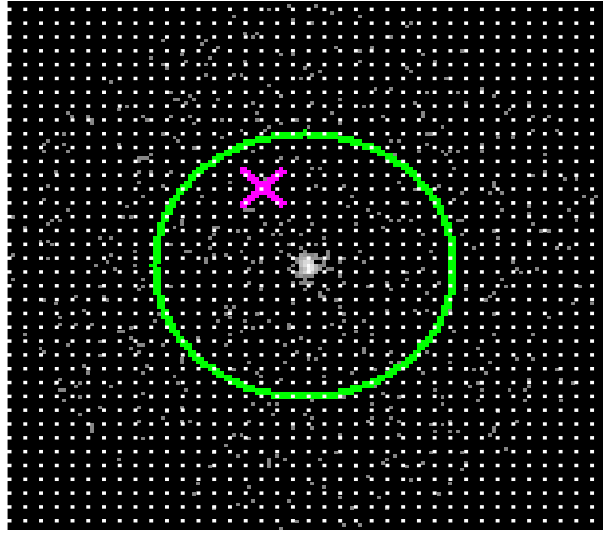


### 2.5.3 Slot 2

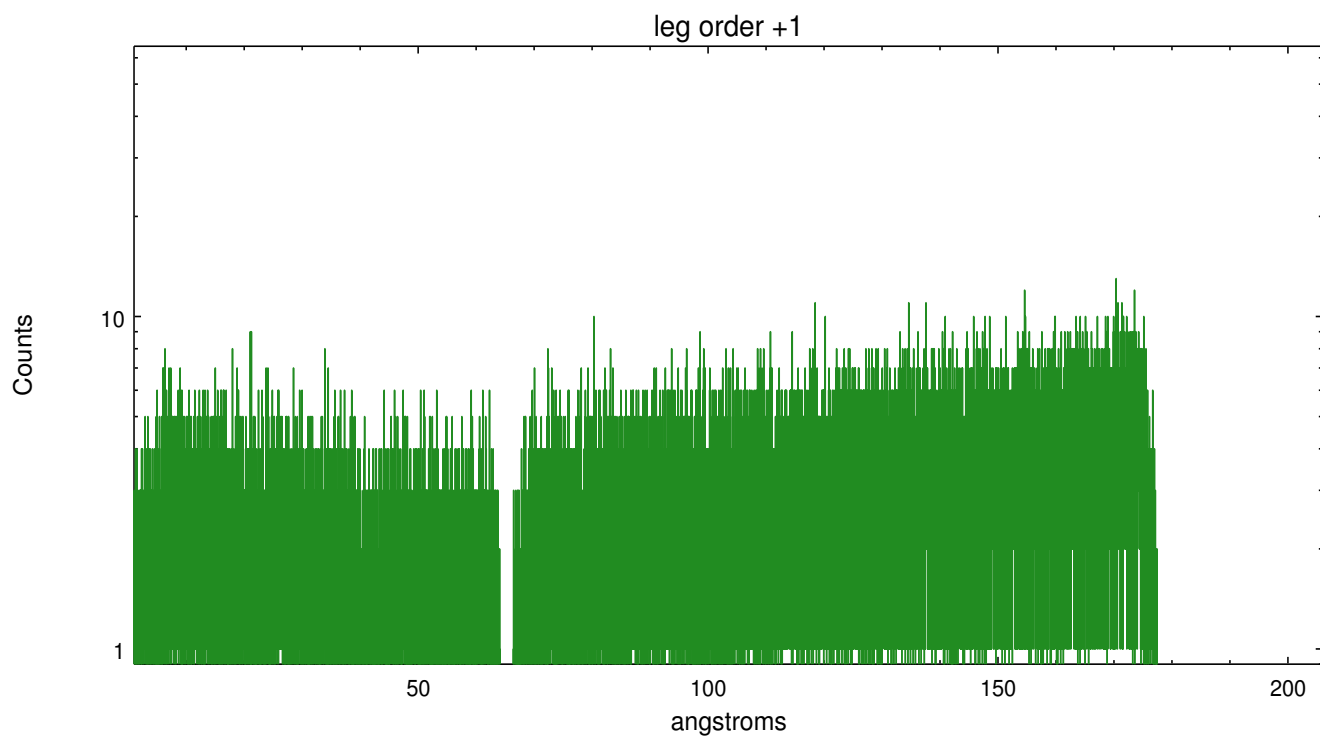
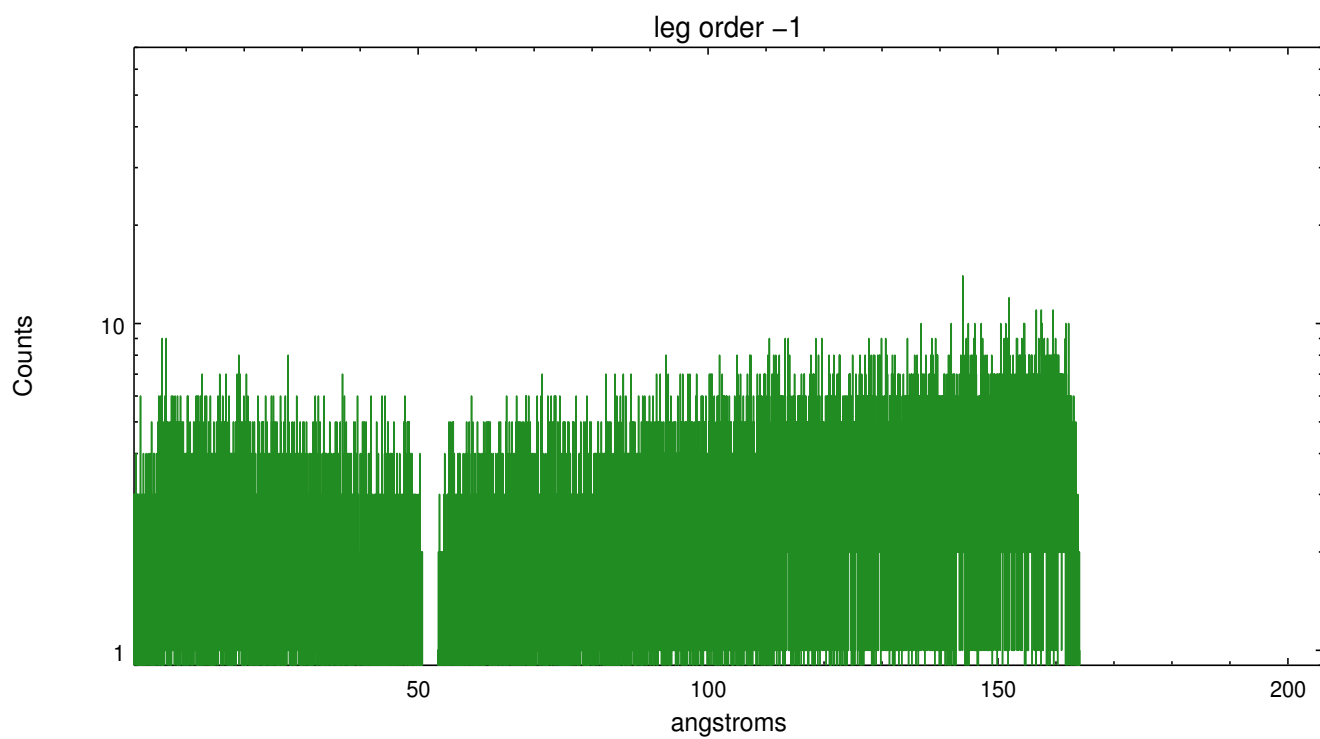


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2017.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.166682649255

## A.2 Comments

WARNING: Zeroth order selected by pipeline tools is well-centered in the core emission region but is not at the position(s) of brightest emission. The user may want to select a region or source of interest, then use software tools such as CIAO to specify the coordinates of the zeroth order source of interest before running the tools to resolve the dispersed events.