

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 15742 - L2 Version 2  
Chandra X-Ray Center

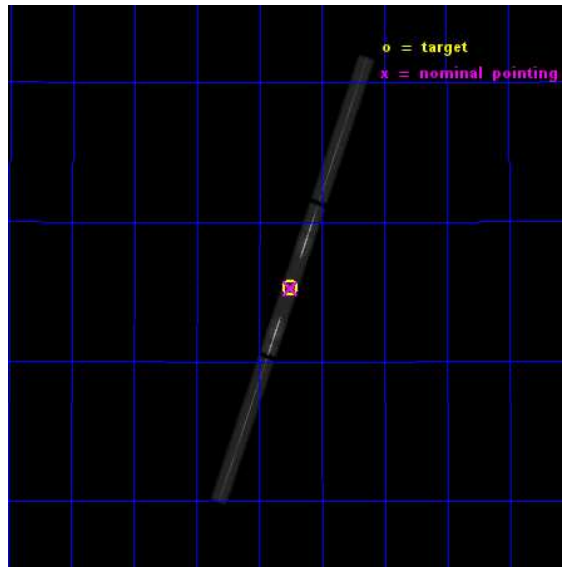
L2 Processing Date : Dec 7 2014

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# 1 Front

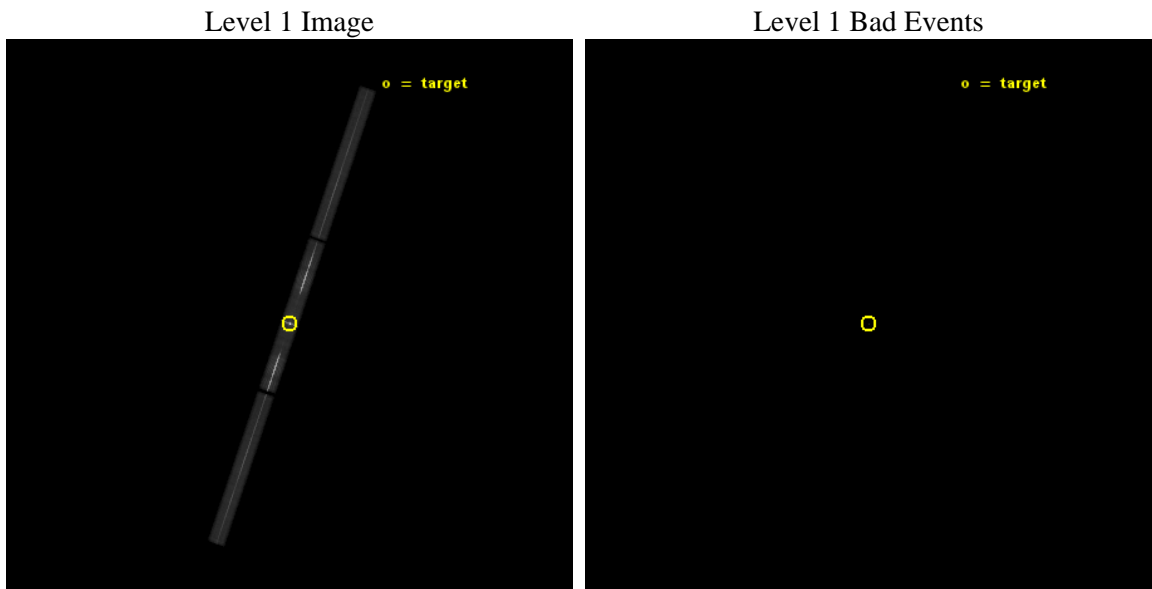
seq_num	300326	Sequence number
obs_id	15742	Observation id
title	Probing mass ejection in novae with high resolution X-ray spectroscopy	Proposal title
observer	Dr Thomas Nelson	Principal investigator
object	A bright nova	Source name
ra_targ	305.878042	Observer's specified target RA [deg]
dec_targ	20.767806	Observer's specified target Dec [deg]
ra_nom	305.87963952703	Nominal RA [deg]
dec_nom	20.763258597688	Nominal Dec [deg]
roll_nom	289.13090266761	Nominal Roll [deg]
revision	2	Processing version of data
ontime	50183.234000325	[s]
livetime	45863.118688953	Ontime multiplied by DTCOR
l2events	8390368	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	50000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	50183.234000325	[s]
caldsver	4.6.4	&#160	l1events	9330707	Number of level 1 events
date	2014-12-07T21:28:12	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	2	Processing version of data	zo_pos	(32814.91, 32889.24)	src1a sky pixel position

## 2.1.3 Events

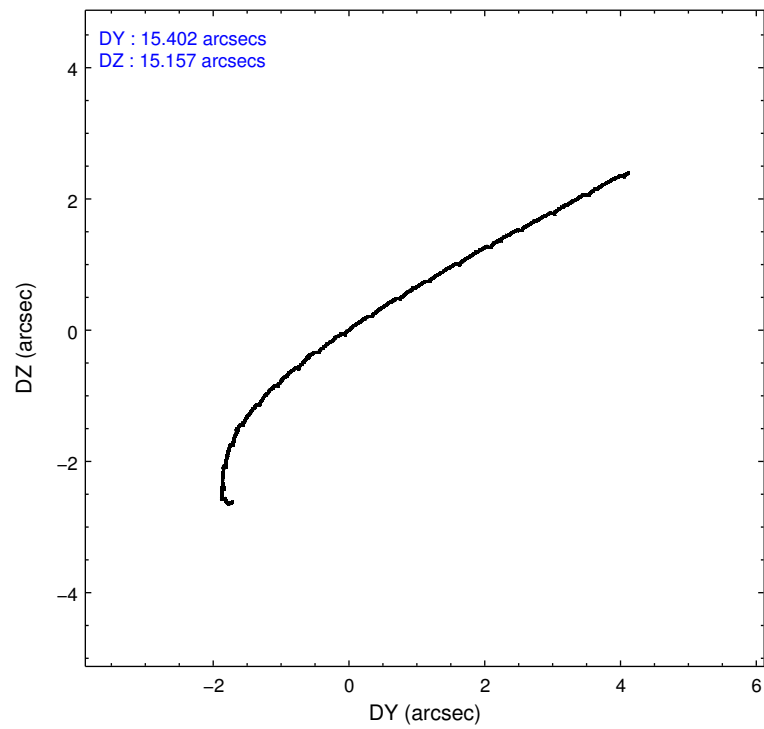
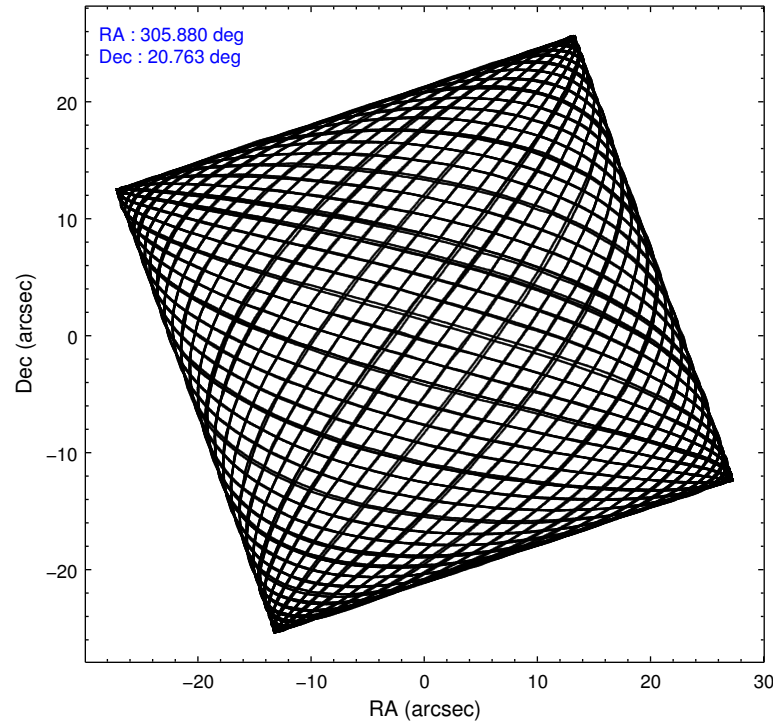
### Level 1 Events

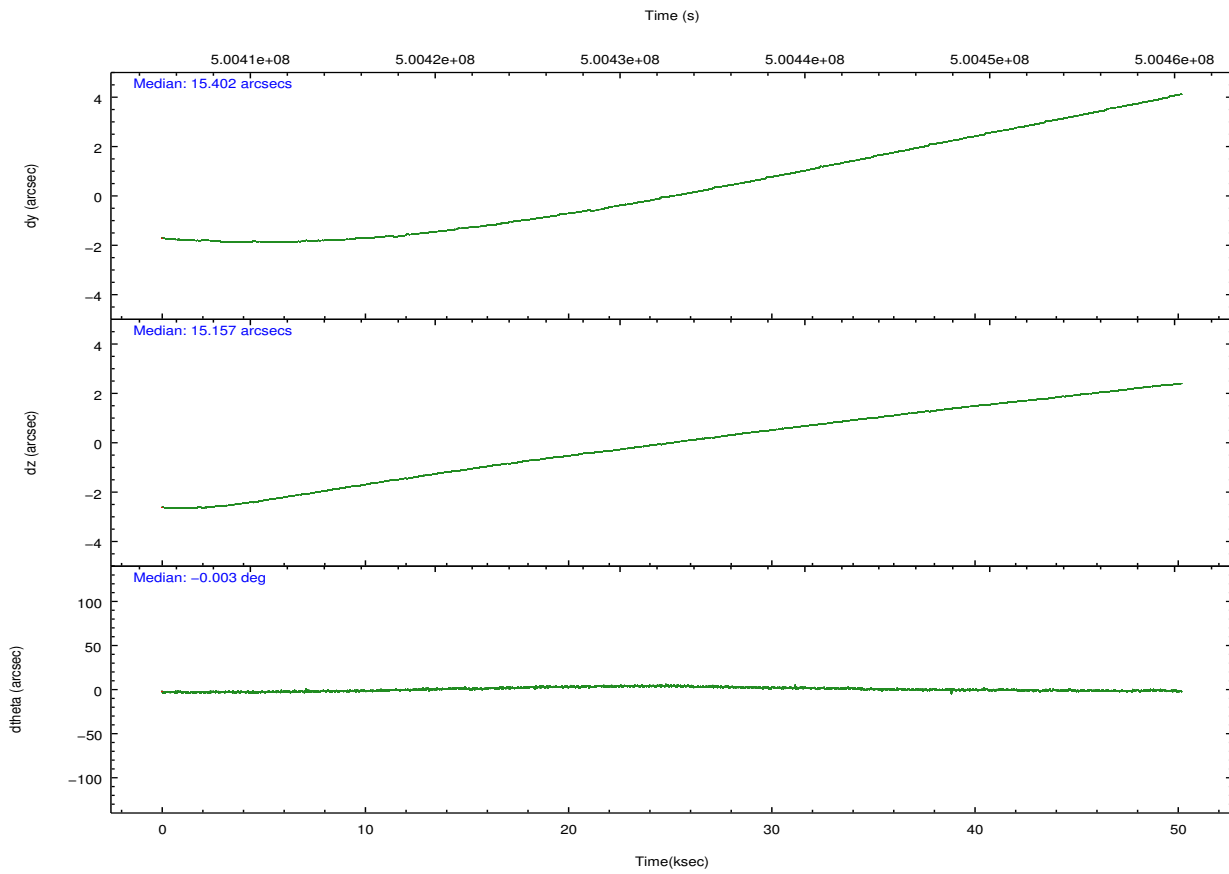
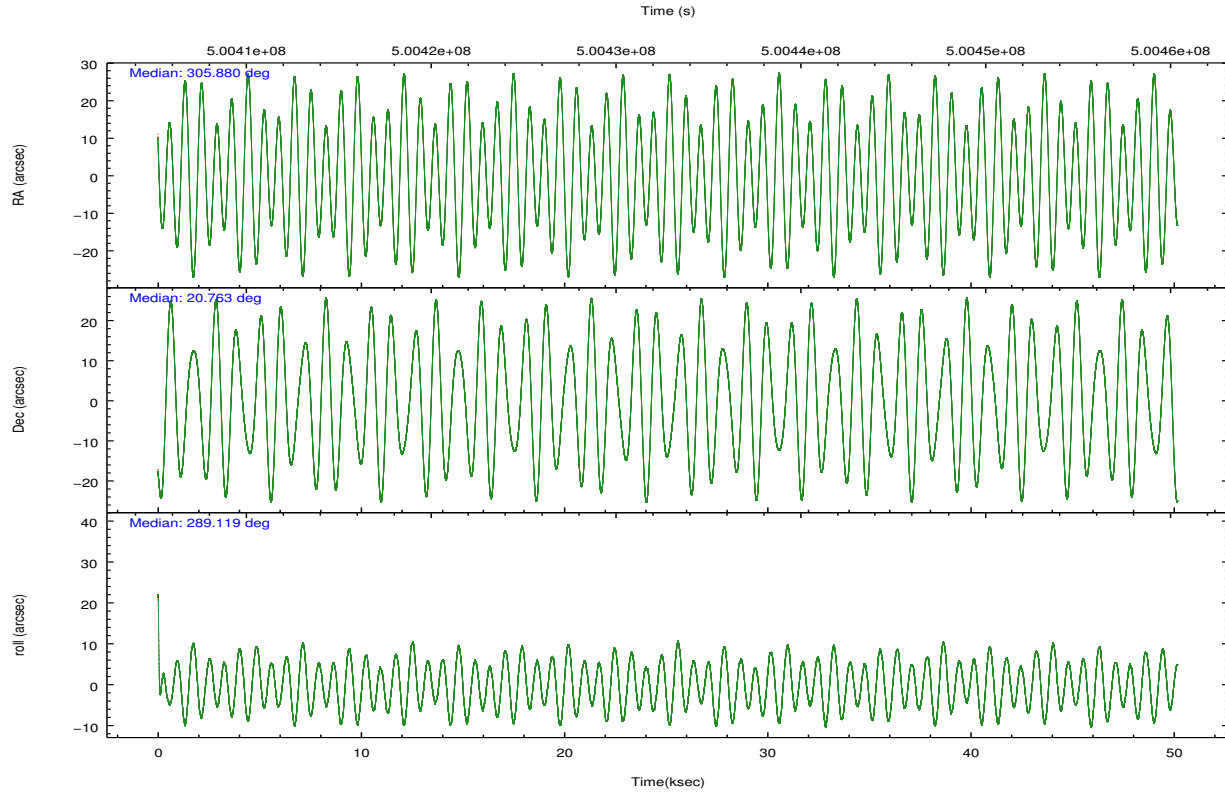
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	1338251	6635094	1357362
rejected events	21581	34795	21903
rejected %	1%	0%	1%

## 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	305.855448	305.8796395270283			
[deg] Pointing Dec	20.780957	20.7632585976881			
[deg] Pointing Roll	289.072143	289.1309026676076			
[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)	500407881.184000	500406858.49638			
Observation start date	2013-11-09T18:10:14	2013-11-09T17:54:18			
[s] Observation end time (MET)	500457881.184000	500459232.92425			
Observation end date	2013-11-10T08:03:34	2013-11-10T08:27:12			

## 2.3 Aspect



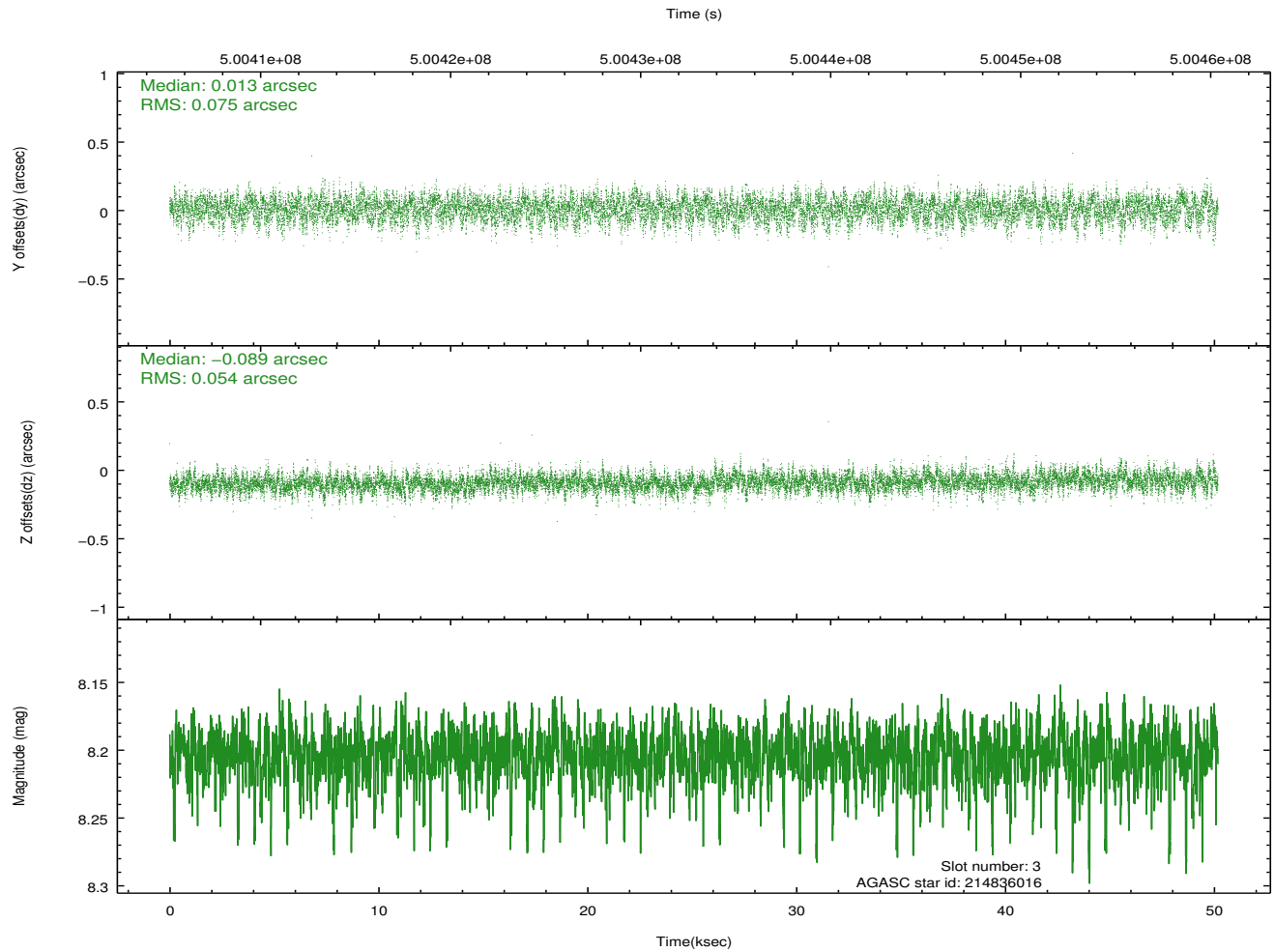
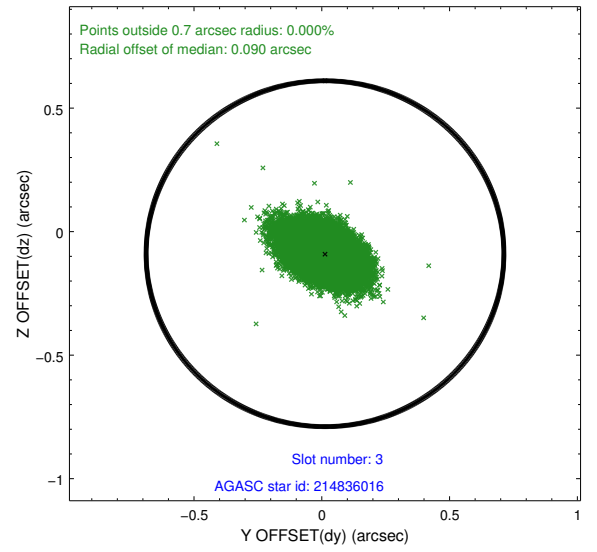
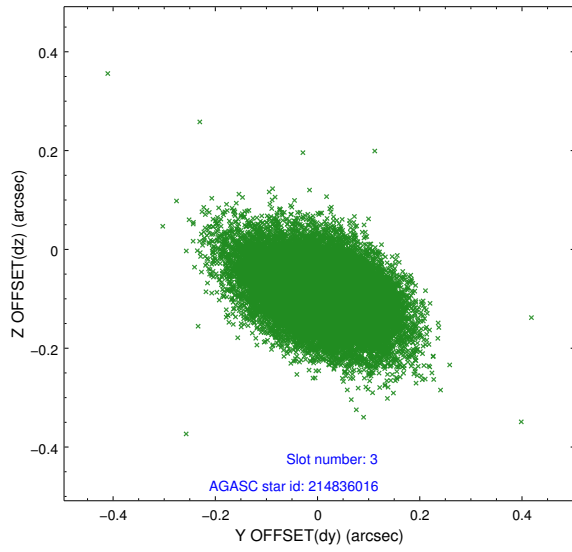


### Slot Statistics

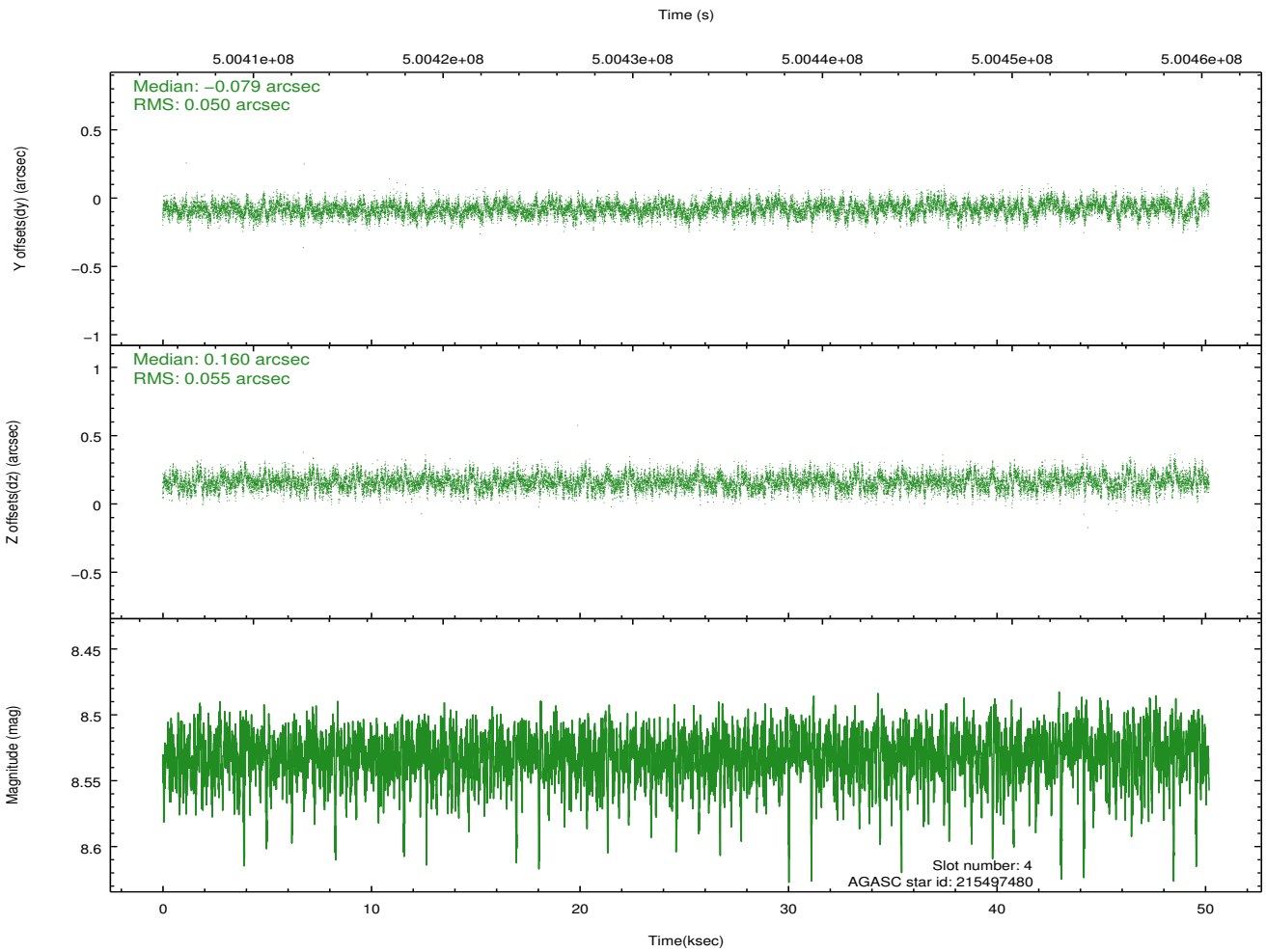
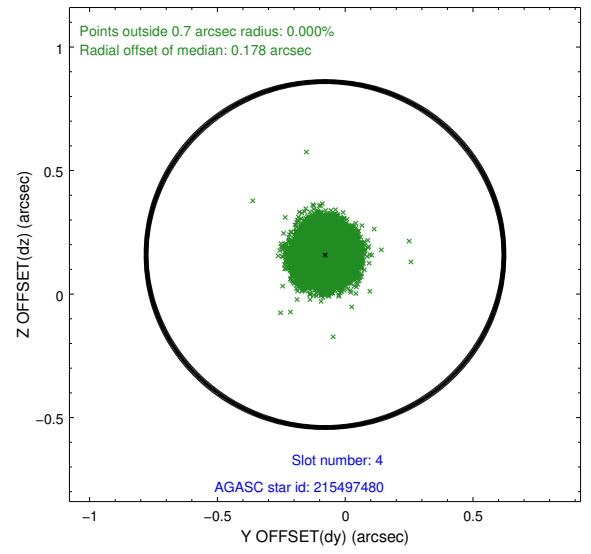
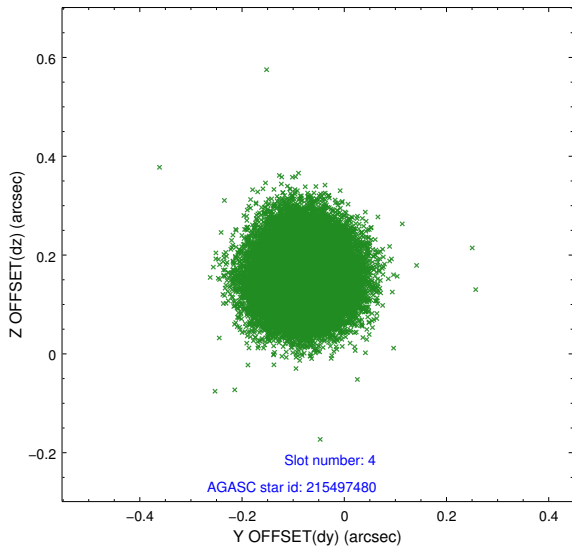
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.04	12240	0.059	-0.171	0.037	0.051	0.000000	0.000000	-1170.21	-463.95
1	FID		HRC-S-2	7.02	12240	0.237	-0.121	0.024	0.058	0.000000	0.000000	1229.56	-456.58
2	FID		HRC-S-3	7.04	12241	0.081	-0.007	0.042	0.053	0.000000	0.000000	-1172.80	565.71
3	GUIDE	used	214836016	8.20	24481	0.013	-0.089	0.096	0.163	305.369551	20.098083	1784.86	-2354.40
4	GUIDE	used	215497480	8.53	24477	-0.079	0.160	0.080	0.126	306.153937	21.105146	-776.25	1329.07
5	GUIDE	used	215499808	8.44	24479	-0.116	0.082	0.069	0.115	306.327211	20.993933	-208.86	1750.01
6	GUIDE	used	214836272	7.95	24469	0.135	-0.179	0.073	0.119	305.520357	20.358881	1066.26	-1564.86
7	GUIDE	used	214958928	8.28	24475	0.049	0.025	0.076	0.121	306.505103	20.582194	1387.66	1837.24

## 2.4 Star Slots

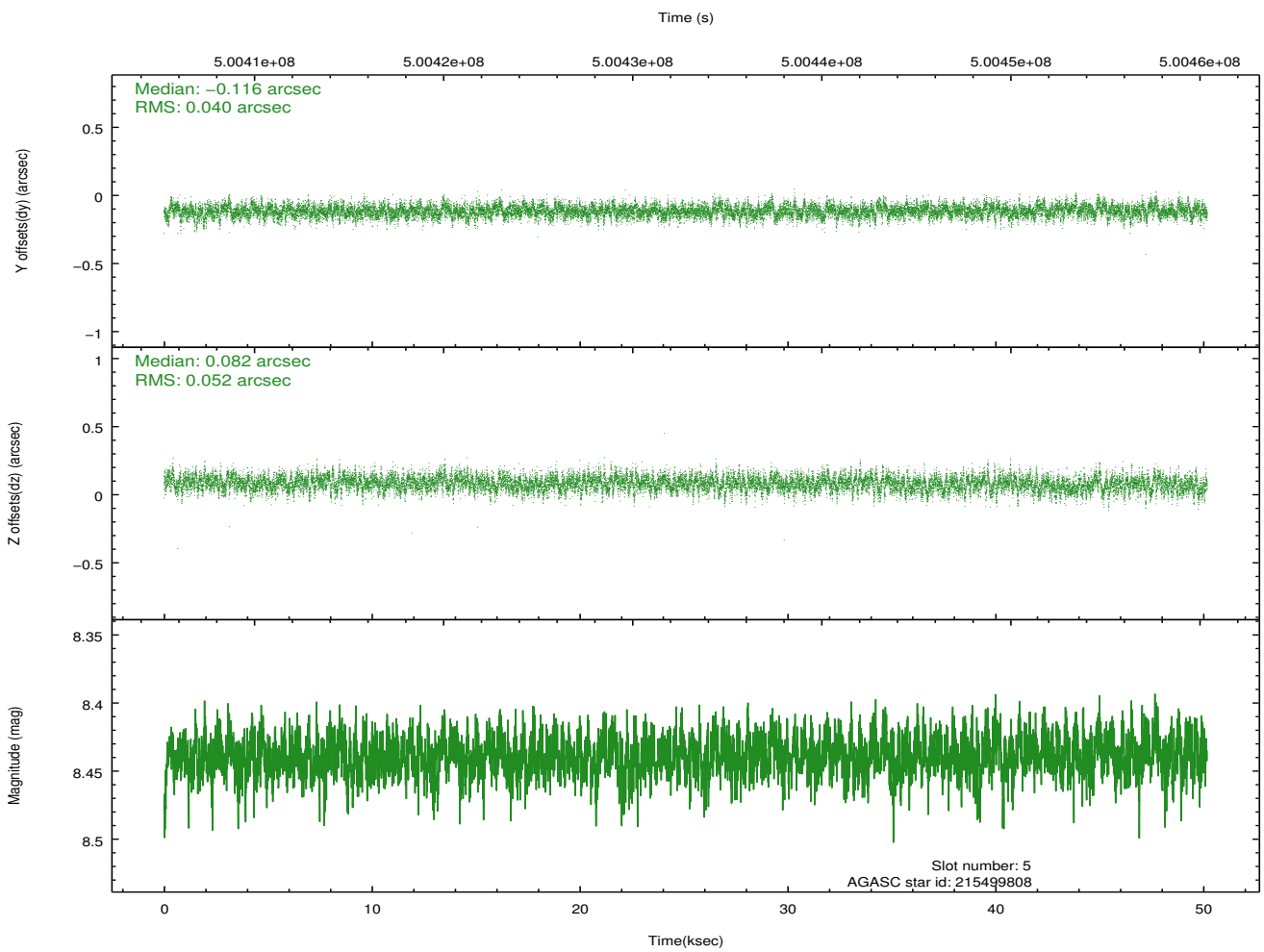
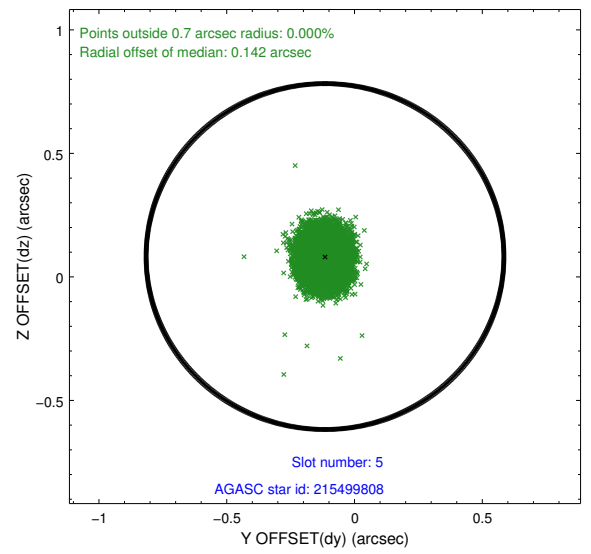
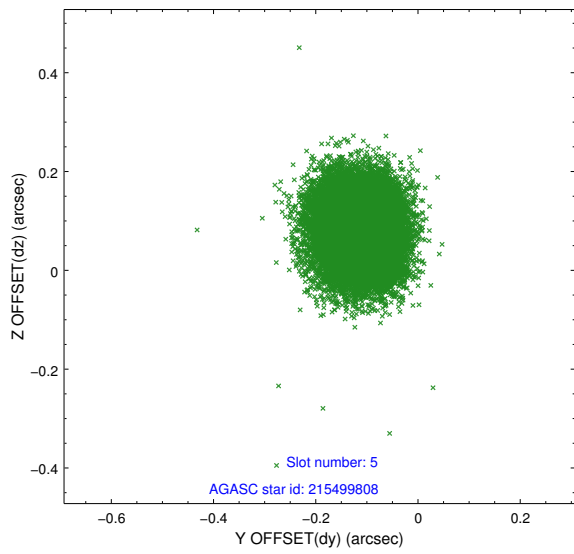
### 2.4.1 Slot 3



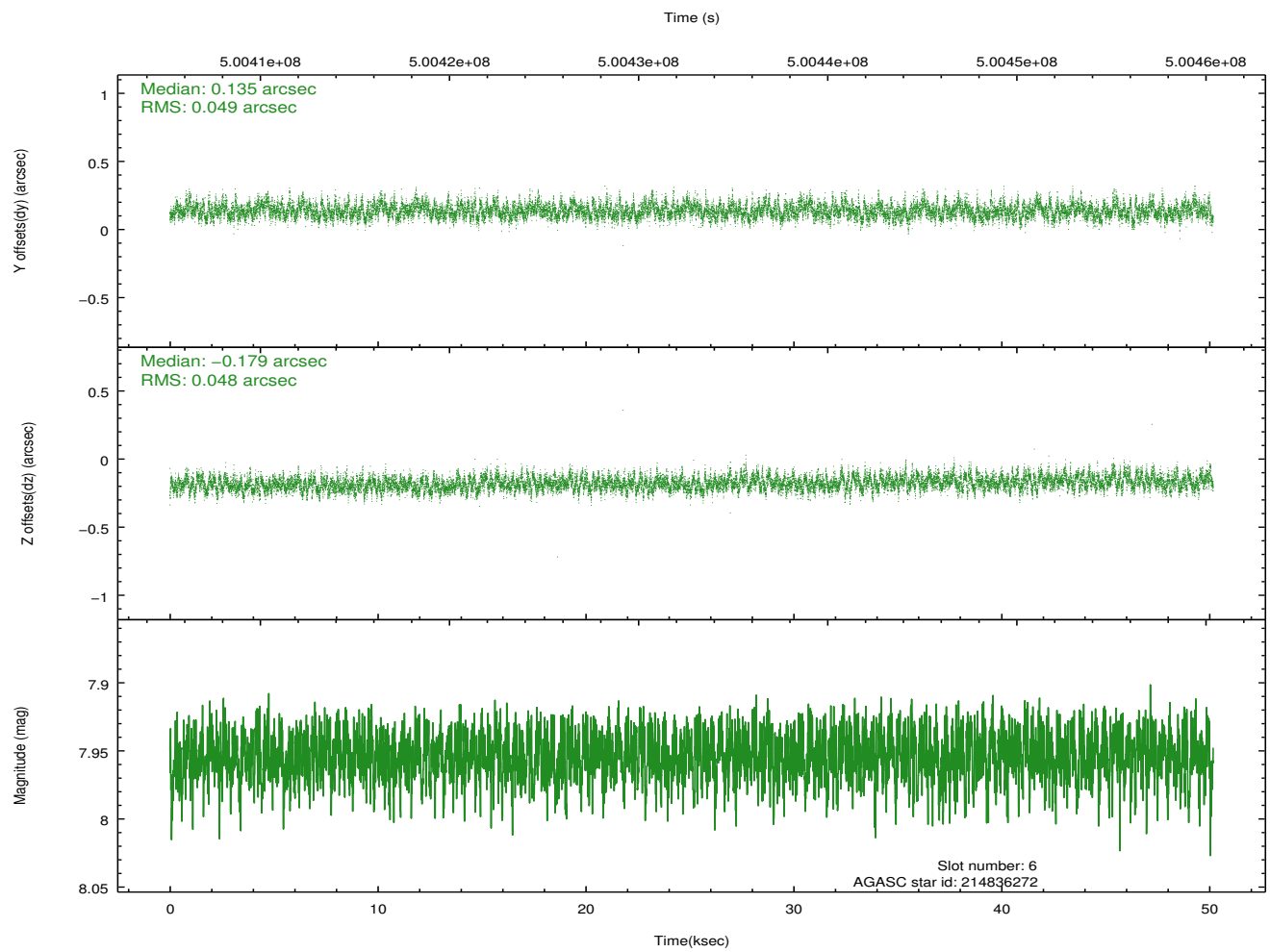
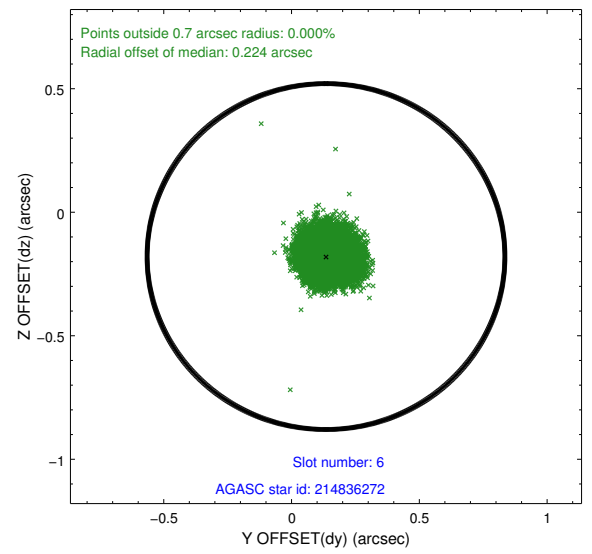
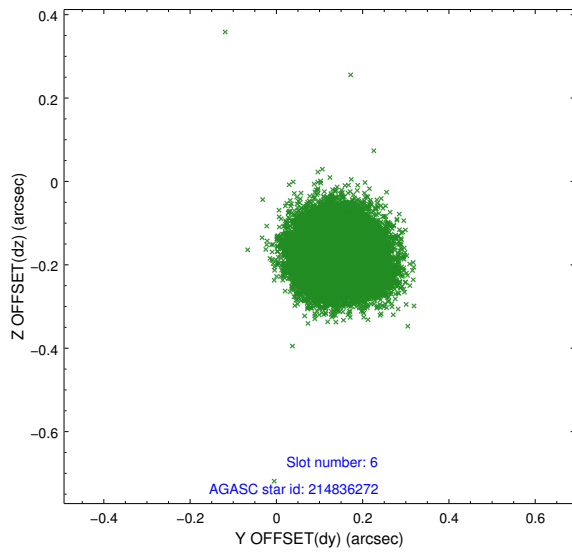
### 2.4.2 Slot 4



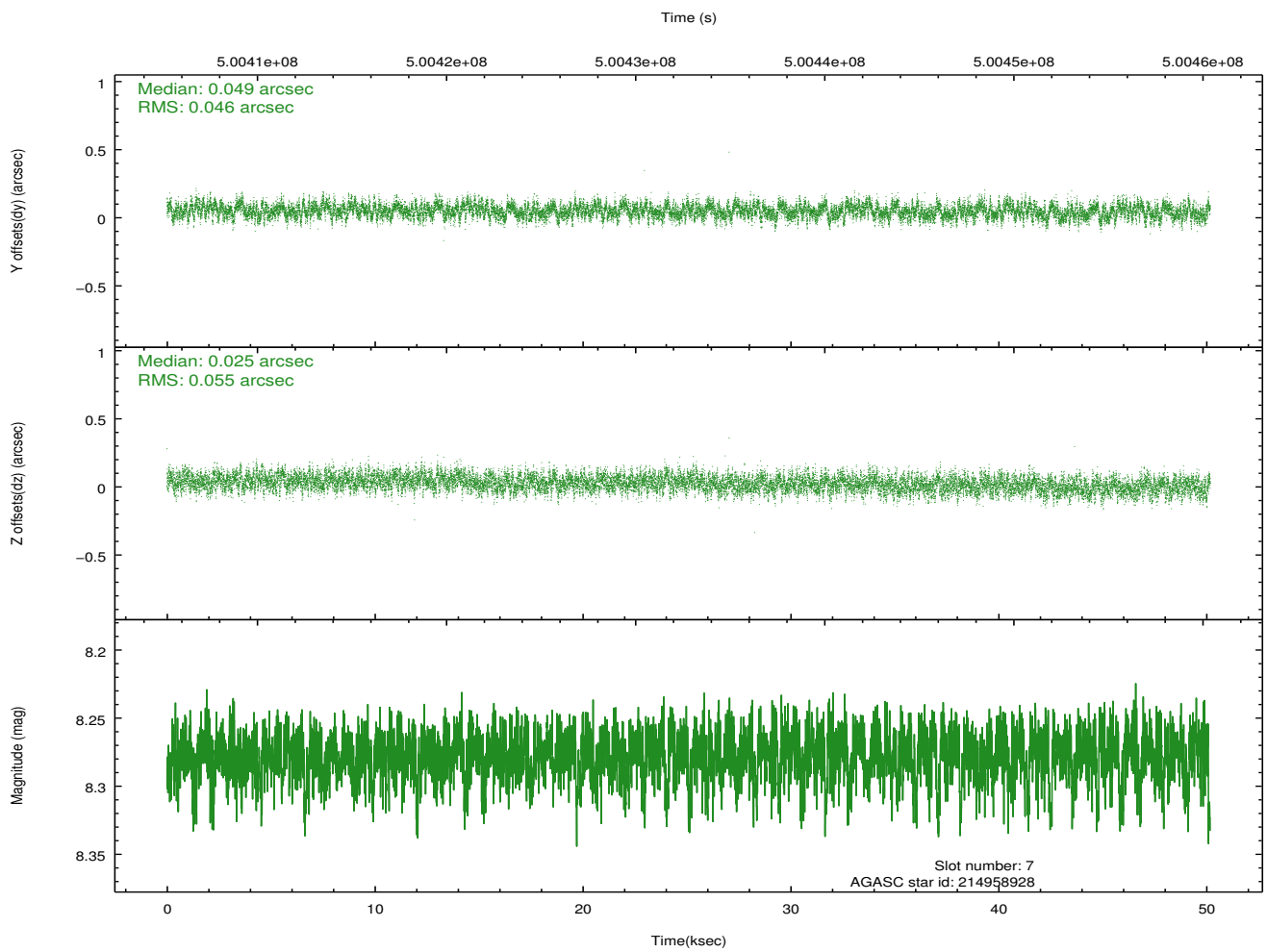
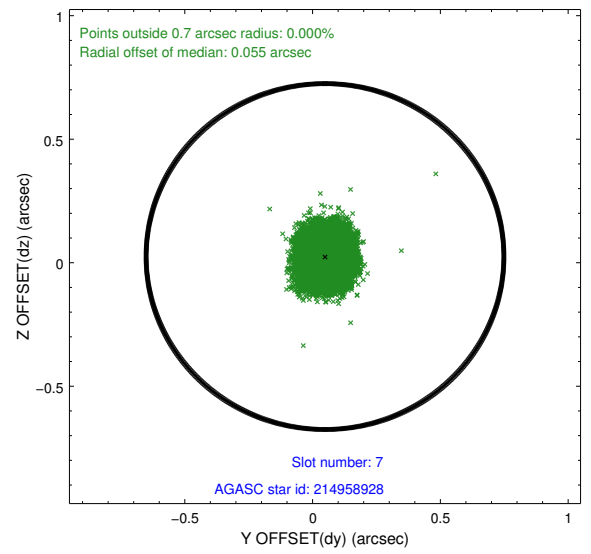
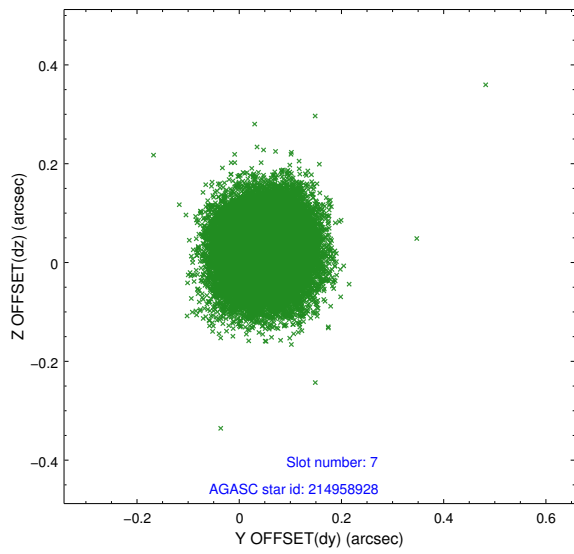
### 2.4.3 Slot 5



## 2.4.4 Slot 6

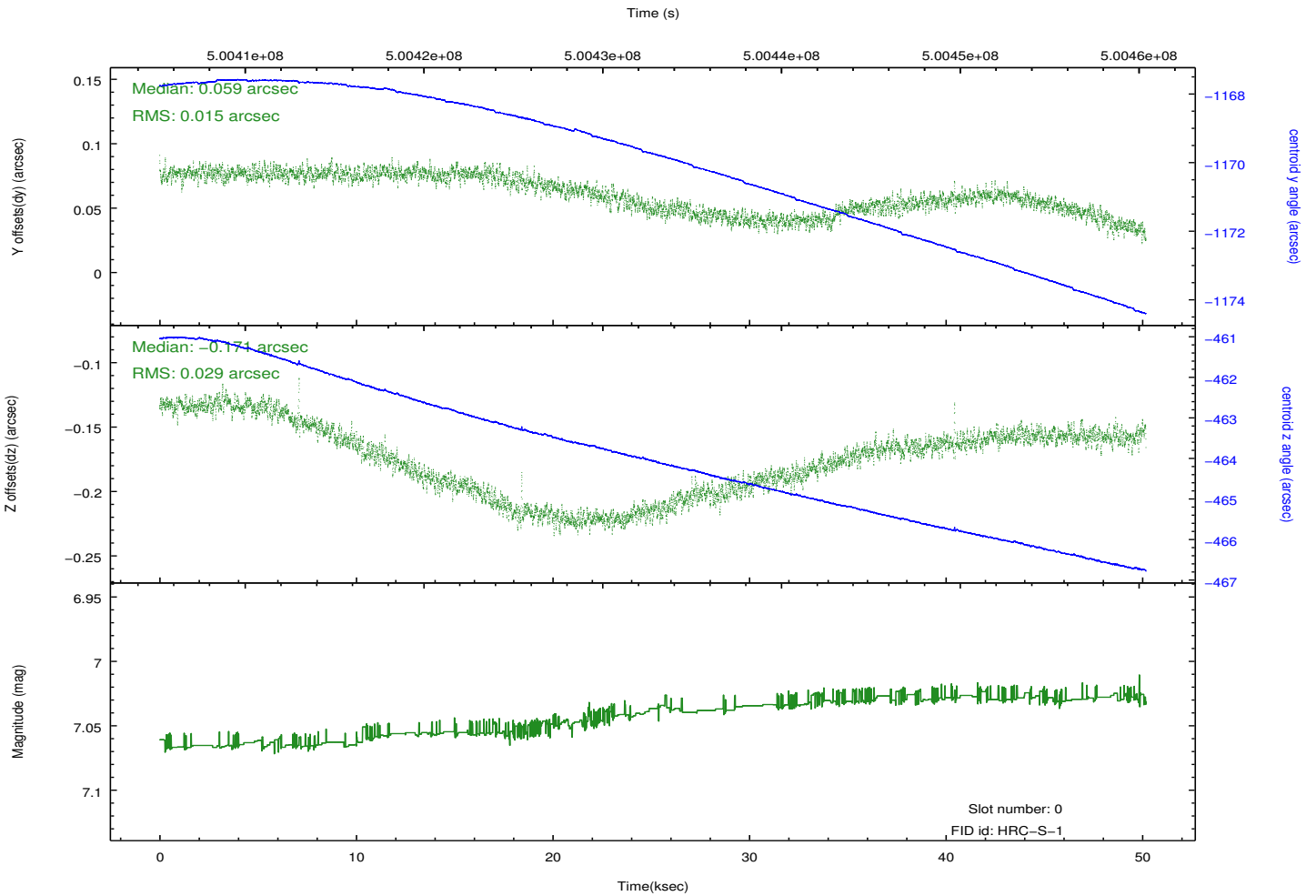
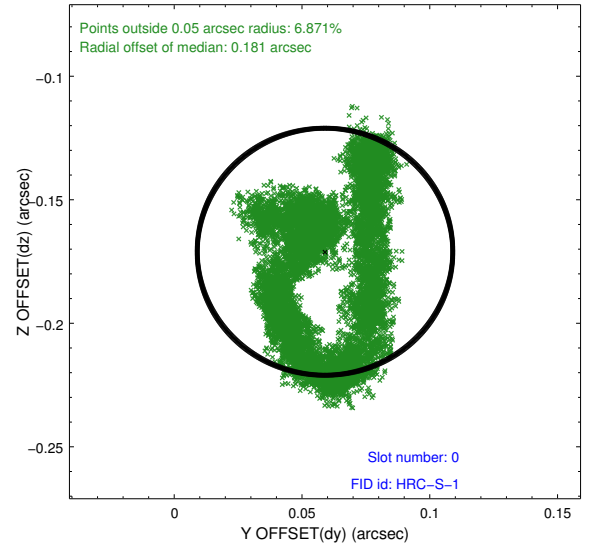
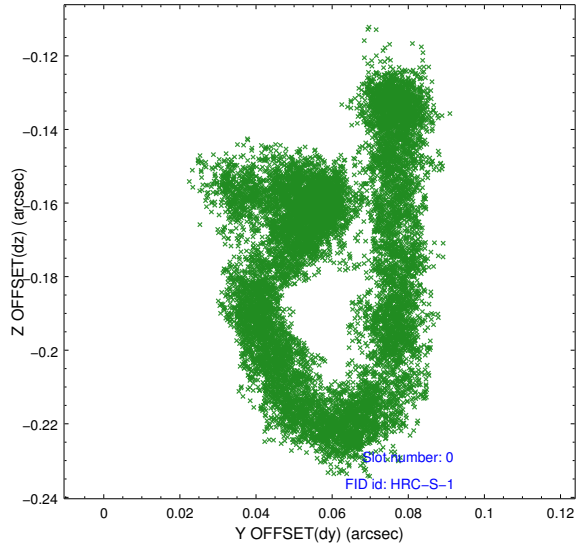


## 2.4.5 Slot 7

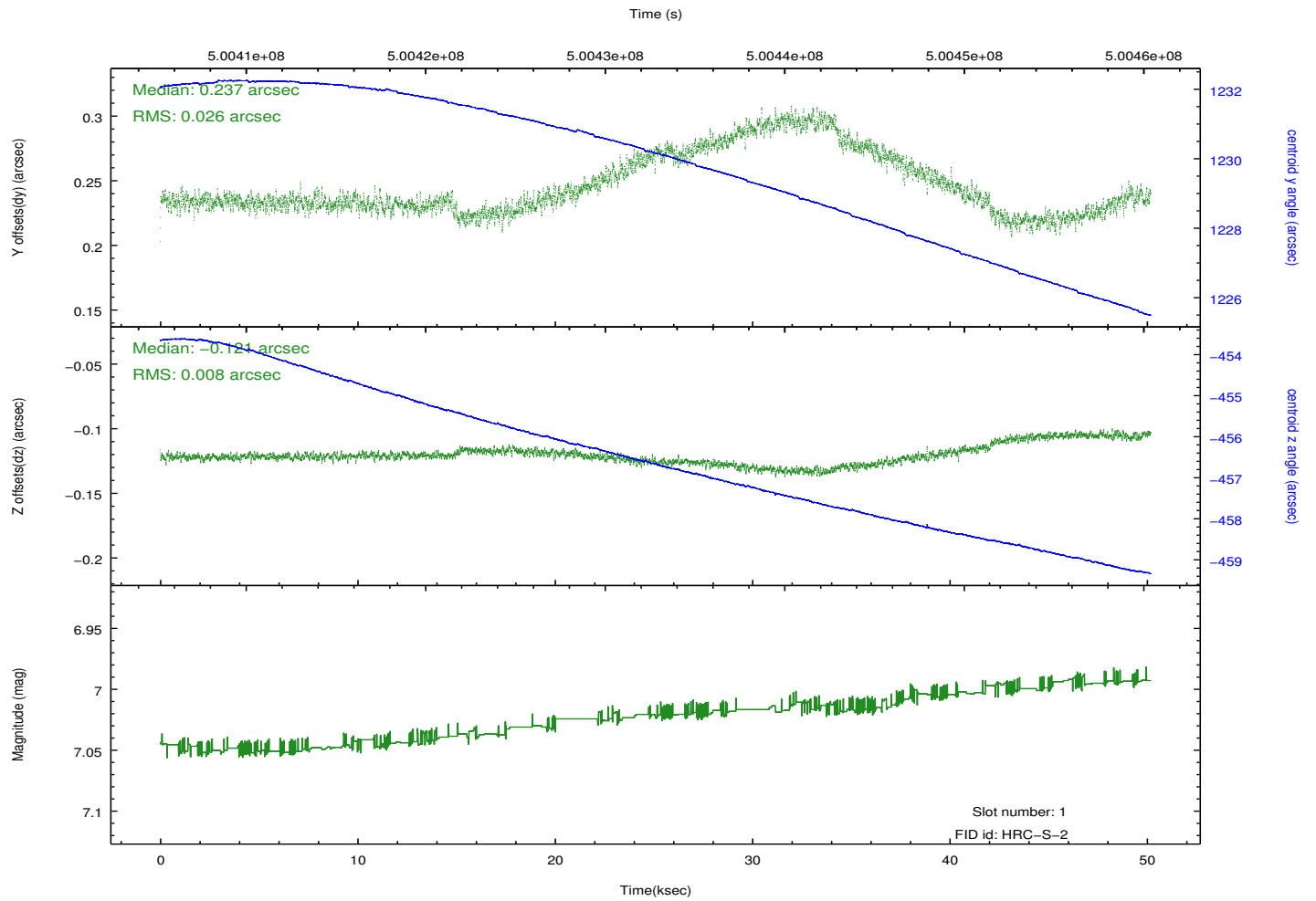
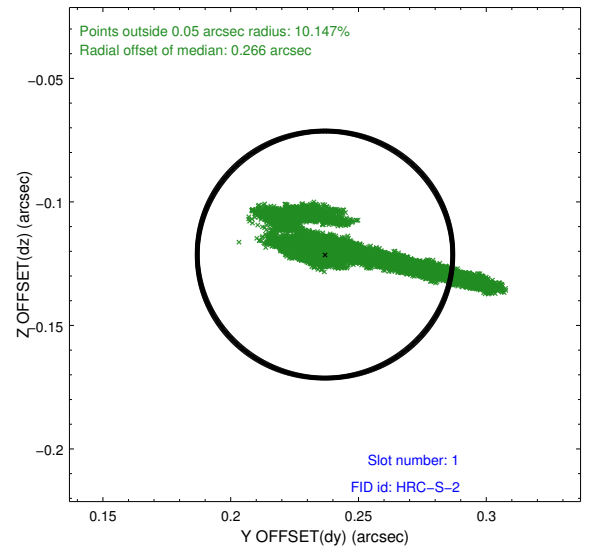
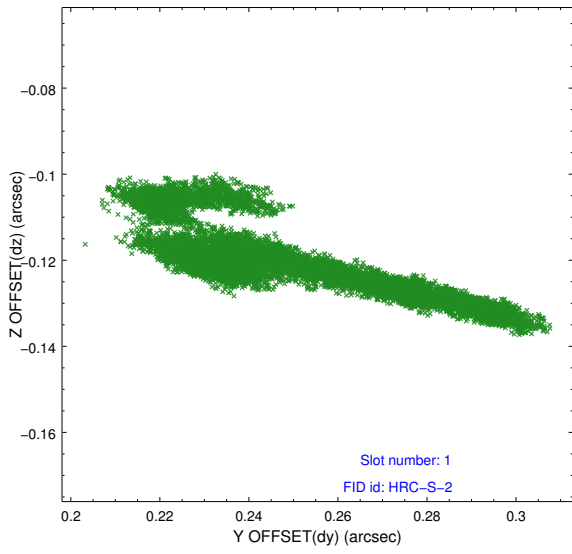


## 2.5 FID Slots

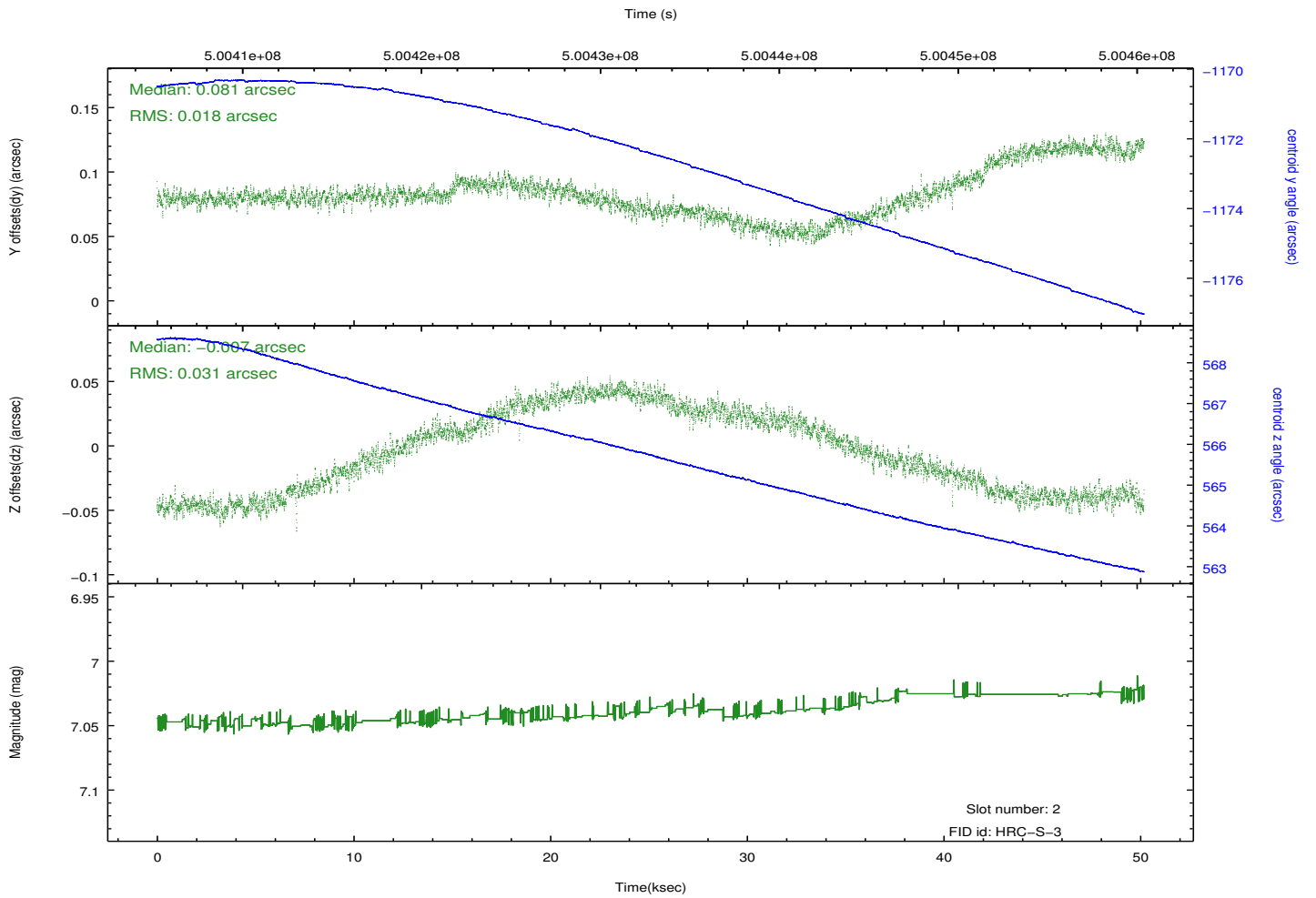
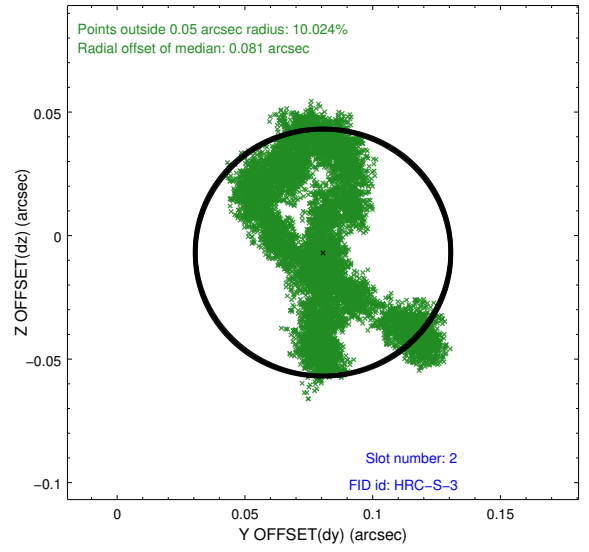
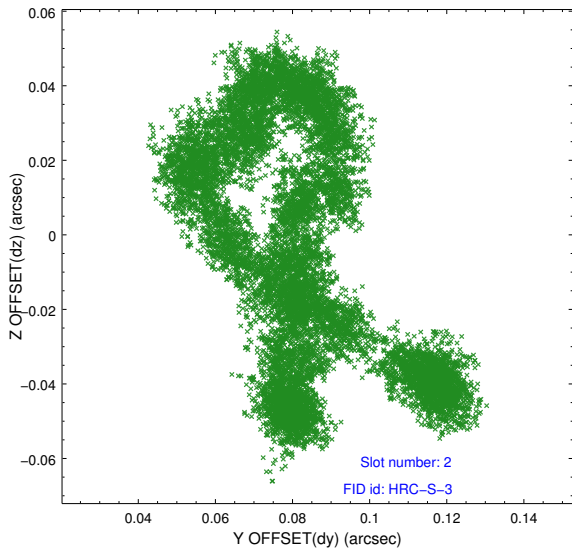
### 2.5.1 Slot 0



## 2.5.2 Slot 1

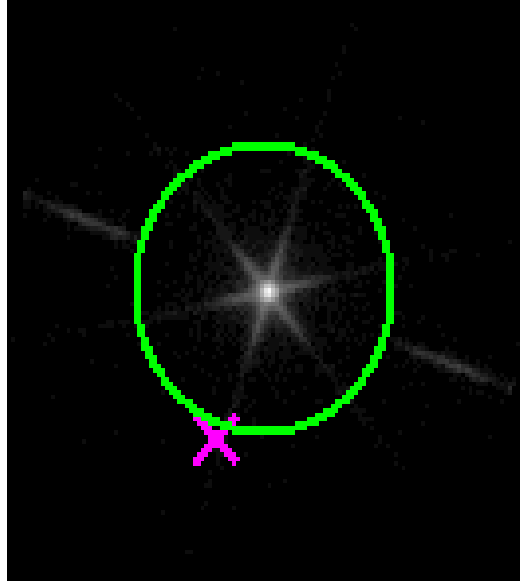


### 2.5.3 Slot 2

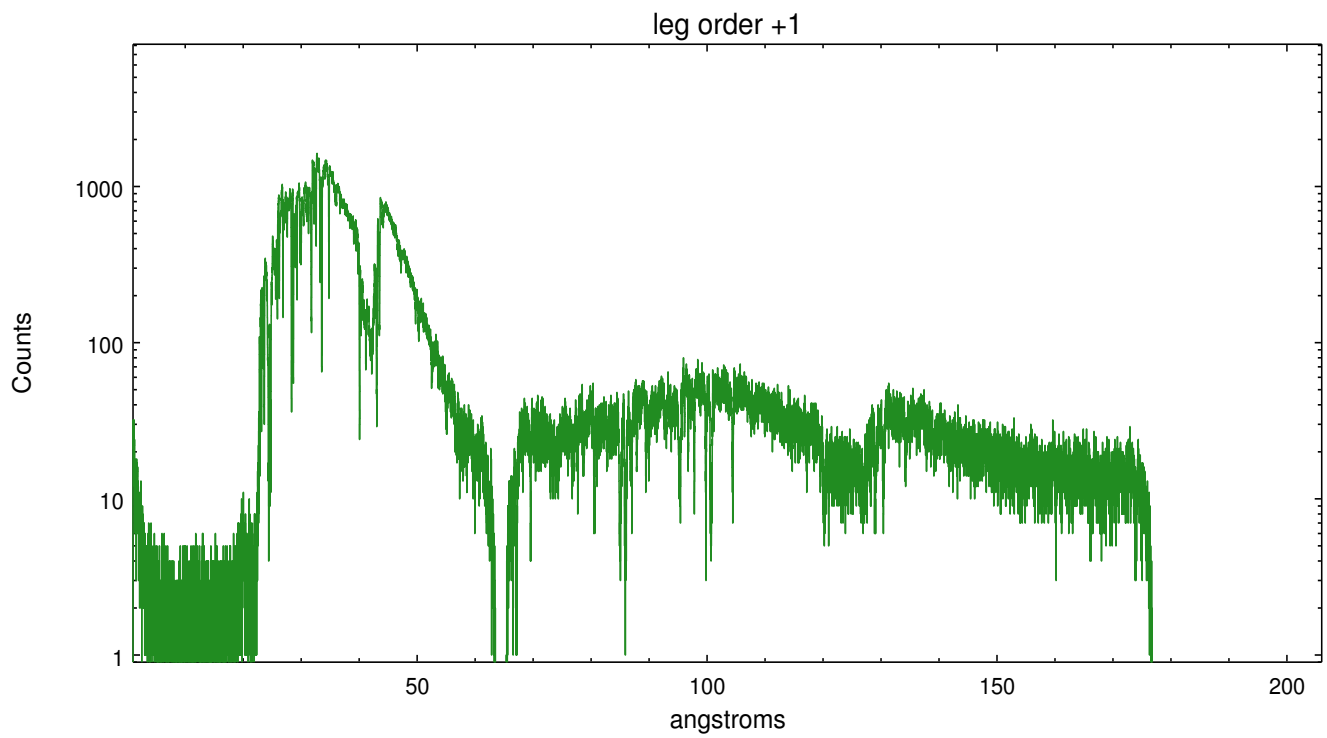
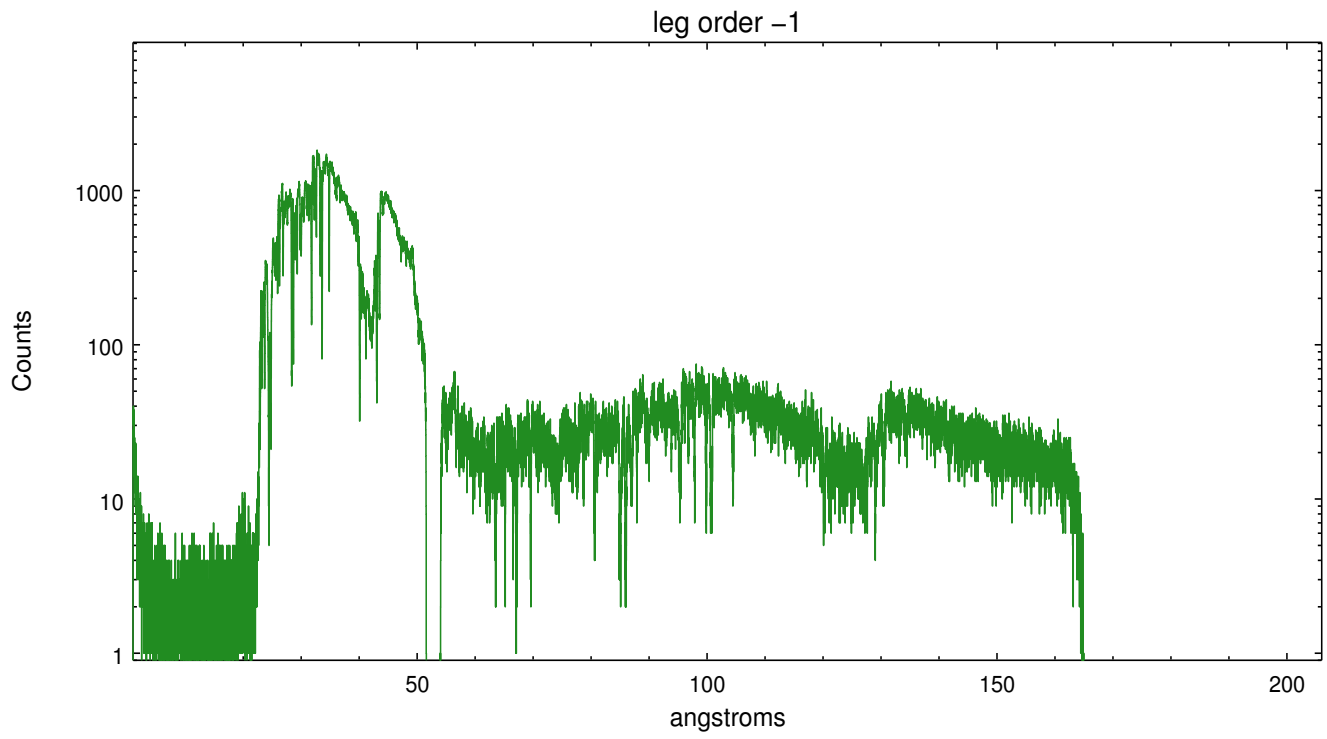


### 3 Gratings

#### 3.1 LETG Arm



LETG Zero Order



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.11.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.183234000325

## 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.