

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 15743 - L2 Version 2  
Chandra X-Ray Center

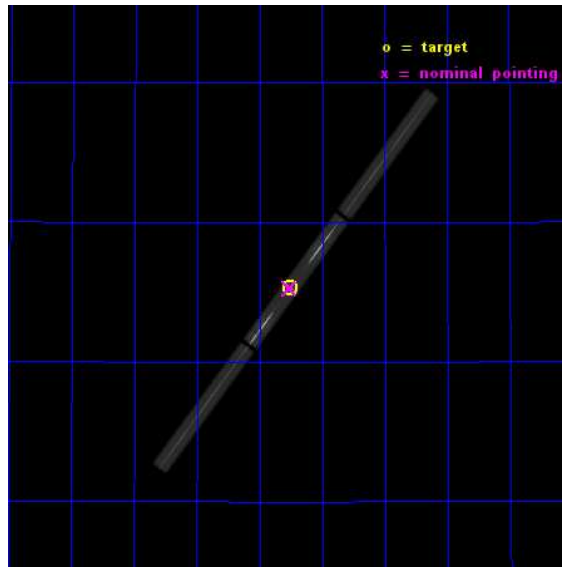
L2 Processing Date : Dec 8 2014

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# 1 Front

seq_num	300327	Sequence number
obs_id	15743	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	305.88105761402	Nominal RA [deg]
dec_nom	20.763983476727	Nominal Dec [deg]
roll_nom	307.14097210708	Nominal Roll [deg]
revision	2	Processing version of data
ontime	49549.783966959	[s]
livetime	48912.430000131	Ontime multiplied by DTCOR
l2events	7028808	Number of level 2 events

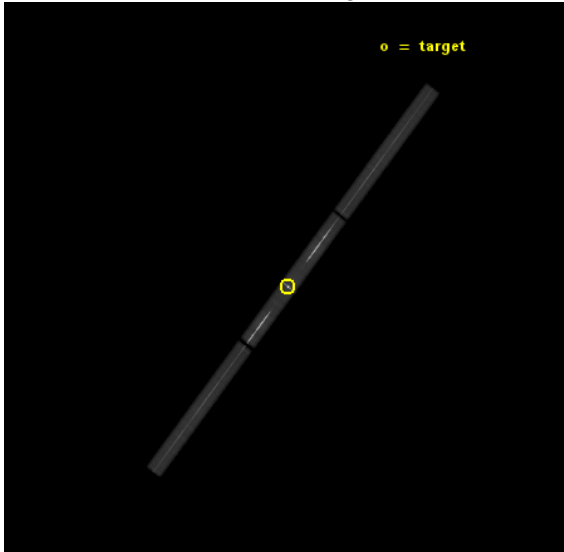


## 2 OBI

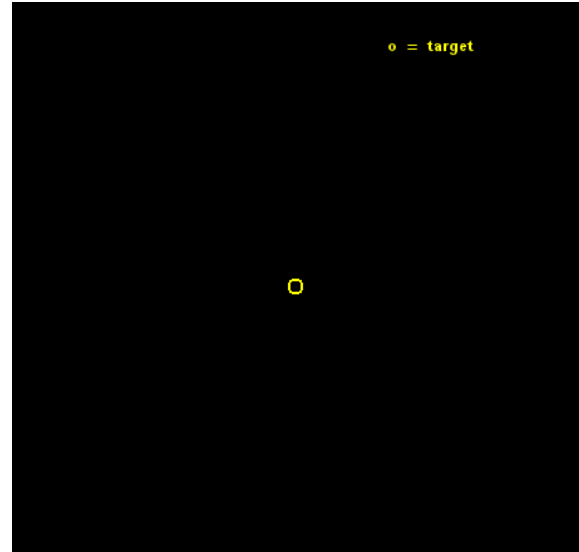
### 2.1 OBI

#### 2.1.1 Images

Level 1 Image



Level 1 Bad Events



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	49361.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	49549.783966959	[s]
caldbver	4.6.4	&#160	l1events	8015619	Number of level 1 events
date	2014-12-08T07:42:46	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	2	Processing version of data	zo_pos	(32851.54, 32870.12)	src1a sky pixel position

### 2.1.3 Events

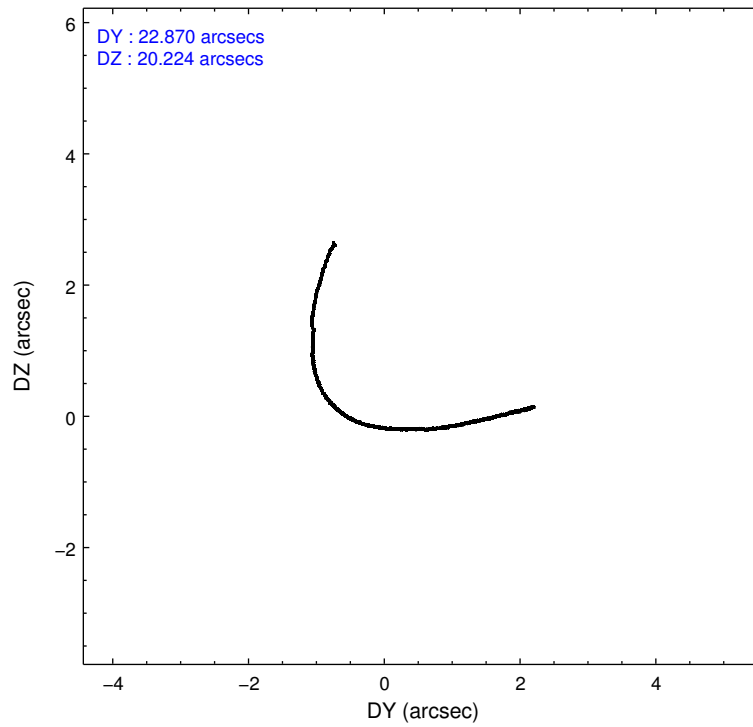
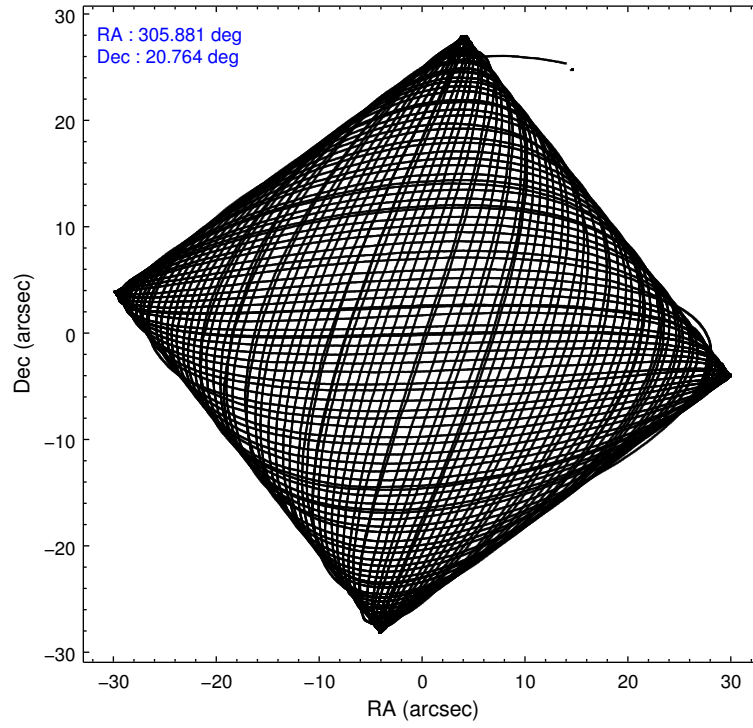
#### Level 1 Events

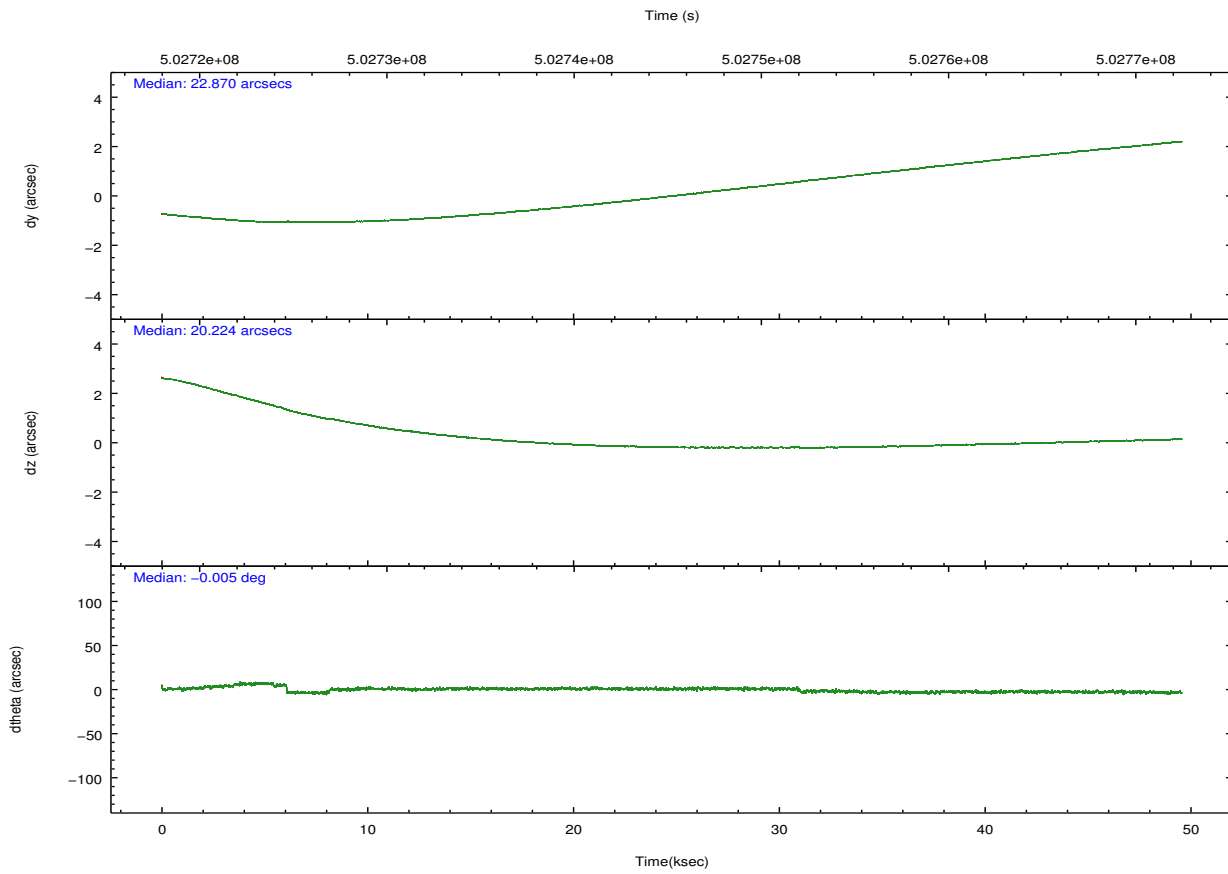
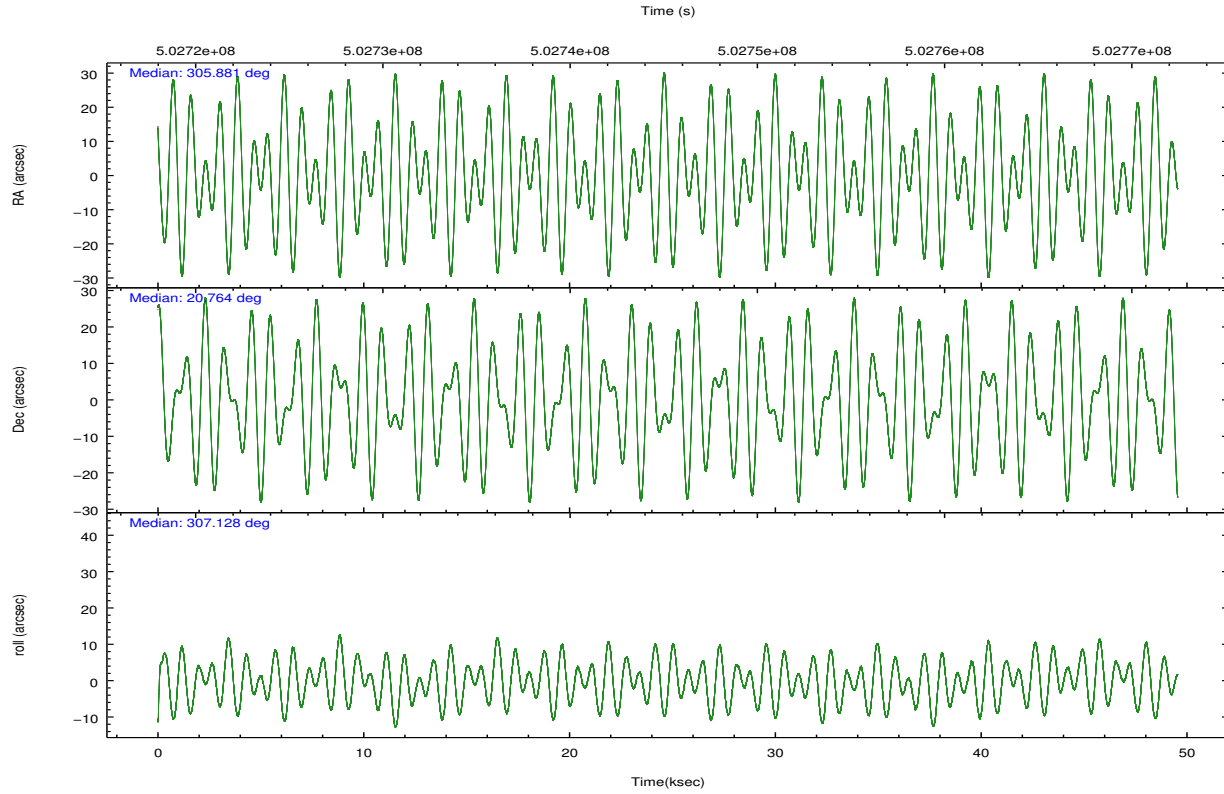
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	1336077	5320583	1358959
rejected events	25822	37450	26876
rejected %	1%	0%	1%

## 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	305.852211	305.8810576140206			
[deg] Pointing Dec	20.773776	20.76398347672723			
[deg] Pointing Roll	307.083870	307.140972107081			
[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)	502720636.184000	502719382.13561			
Observation start date	2013-12-06T12:36:09	2013-12-06T12:16:22			
[s] Observation end time (MET)	502769997.184000	502770884.28844			
Observation end date	2013-12-07T02:18:50	2013-12-07T02:34:44			

## 2.3 Aspect





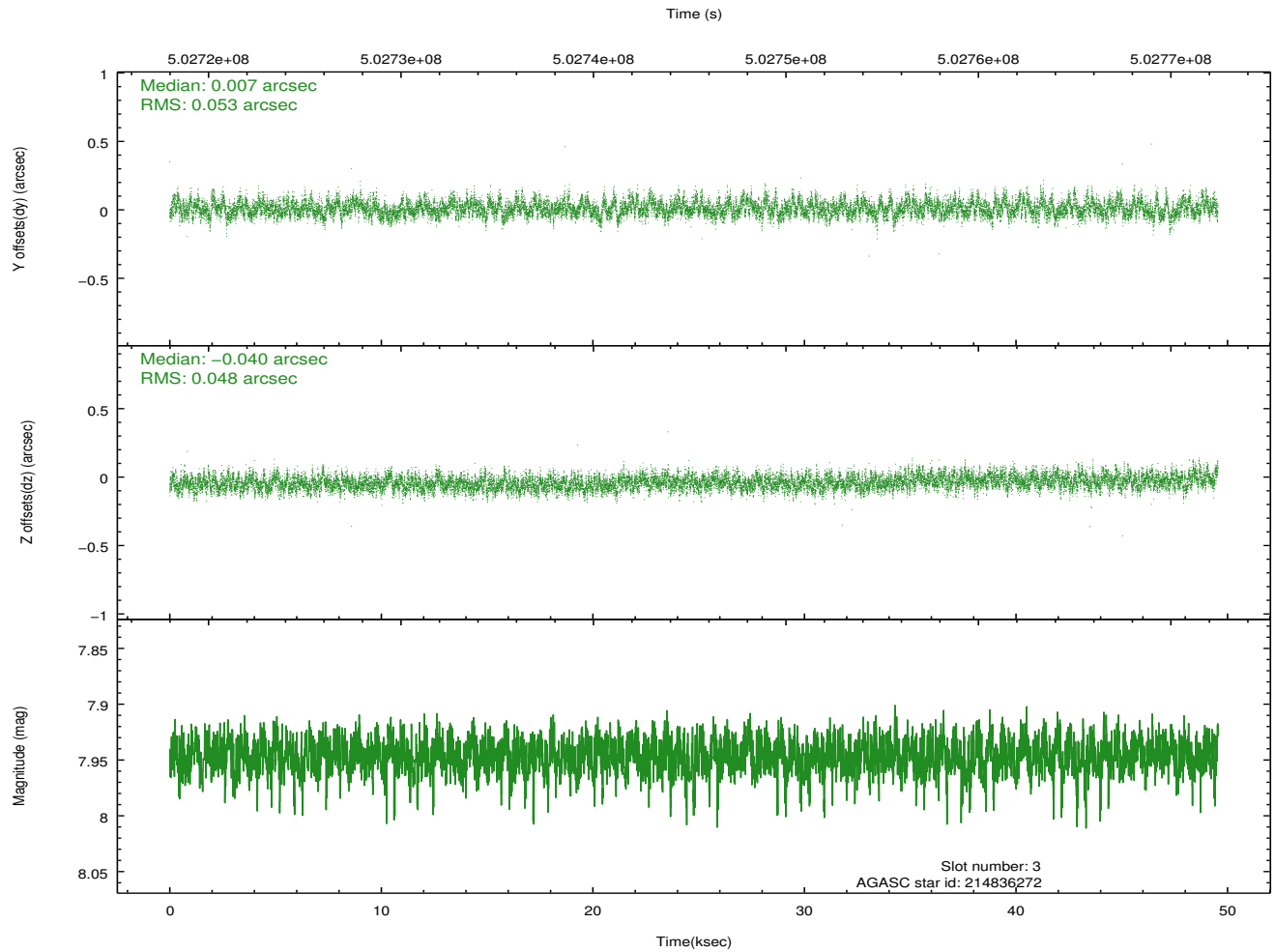
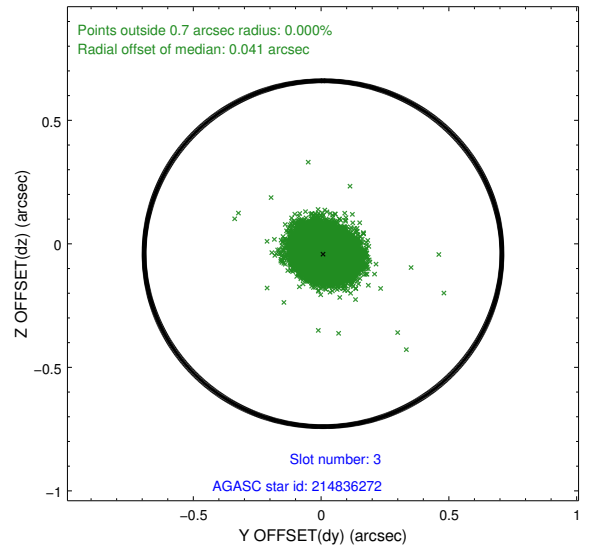
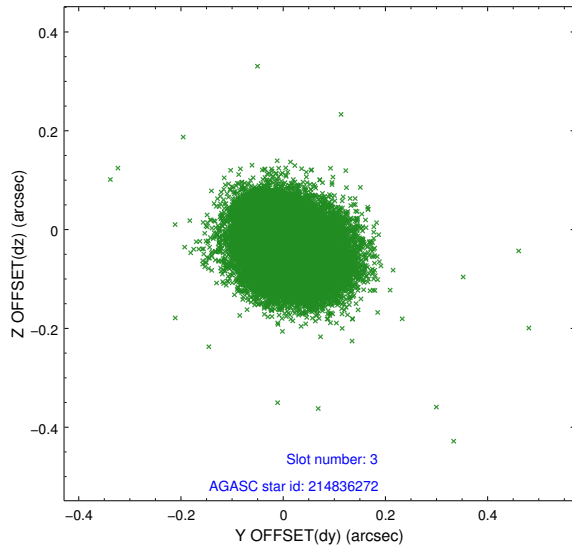
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.05	12086	-0.086	-0.175	0.013	0.030	0.000000	0.000000	-1177.83	-469.63
1	FID		HRC-S-2	7.03	12086	0.195	-0.140	0.031	0.057	0.000000	0.000000	1222.03	-462.21
2	FID		HRC-S-4	6.99	12084	0.303	0.002	0.032	0.057	0.000000	0.000000	1220.89	562.66
3	GUIDE	used	214836272	7.95	24165	0.007	-0.040	0.076	0.122	305.520357	20.358881	516.18	-1793.51
4	GUIDE	used	214958928	8.29	24170	0.122	-0.060	0.080	0.129	306.505103	20.582194	1873.84	1342.36
5	GUIDE	used	215497480	8.54	24161	-0.012	0.173	0.077	0.138	306.153937	21.105146	-341.15	1528.35
6	GUIDE	used	215499808	8.40	24162	-0.237	0.103	0.073	0.115	306.327211	20.993933	328.39	1753.06
7	GUIDE	used	214834480	7.25	24166	0.121	-0.174	0.096	0.180	305.687564	19.849996	2317.39	-2451.11

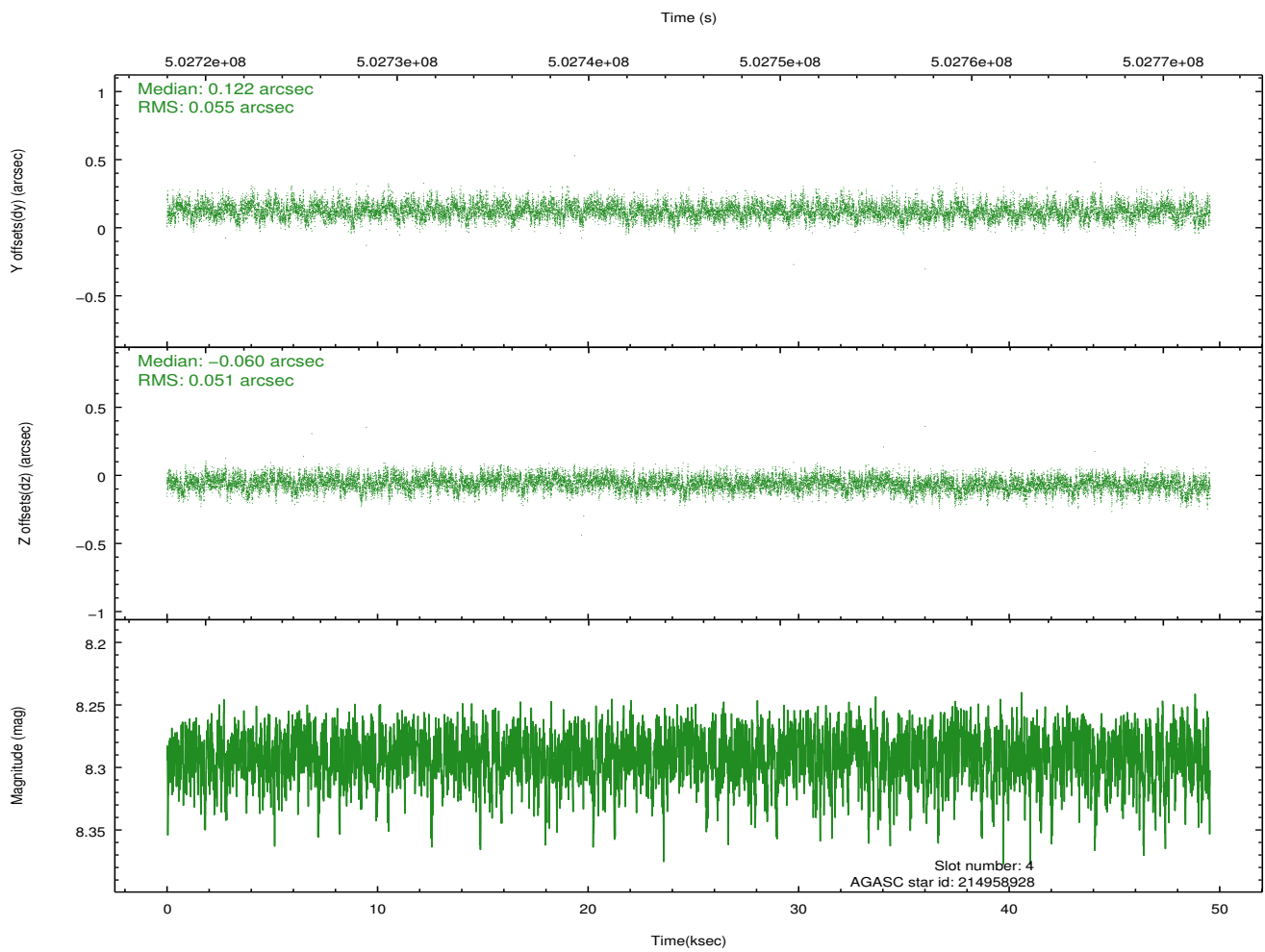
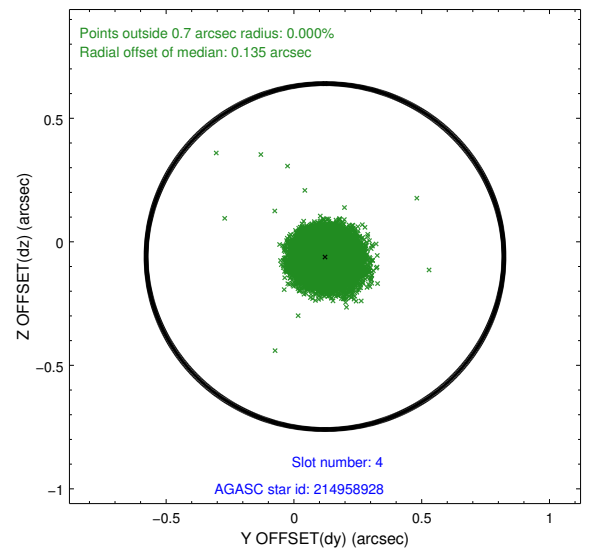
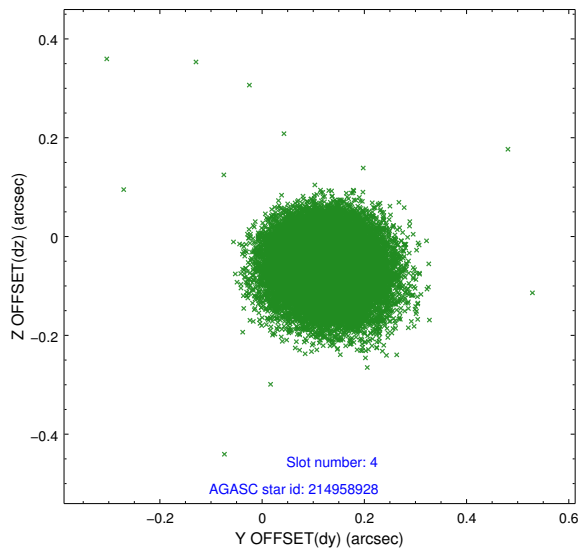
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## 2.4 Star Slots

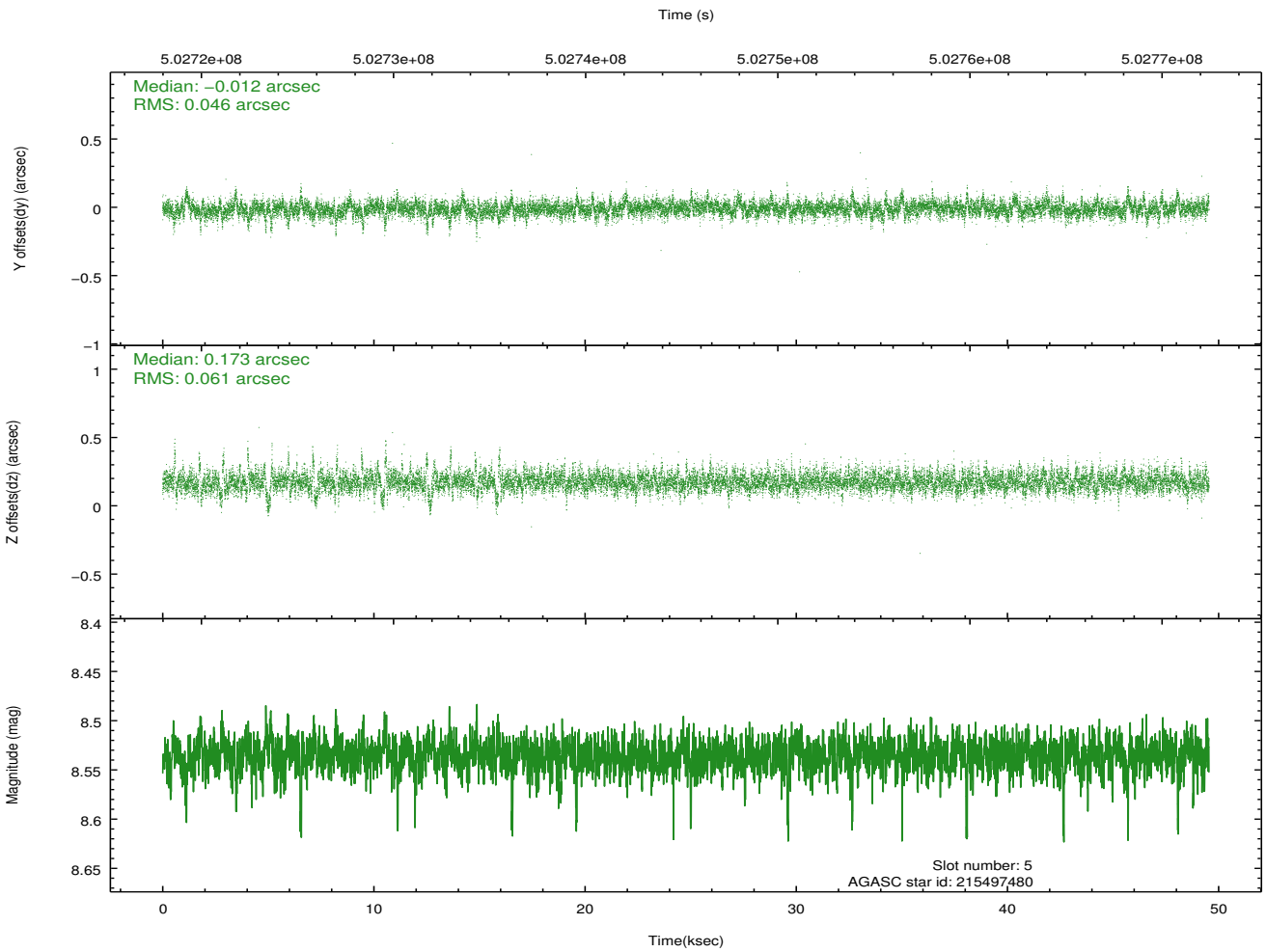
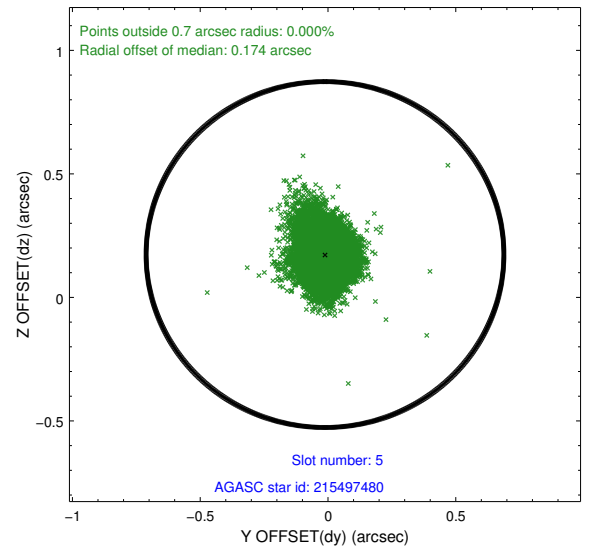
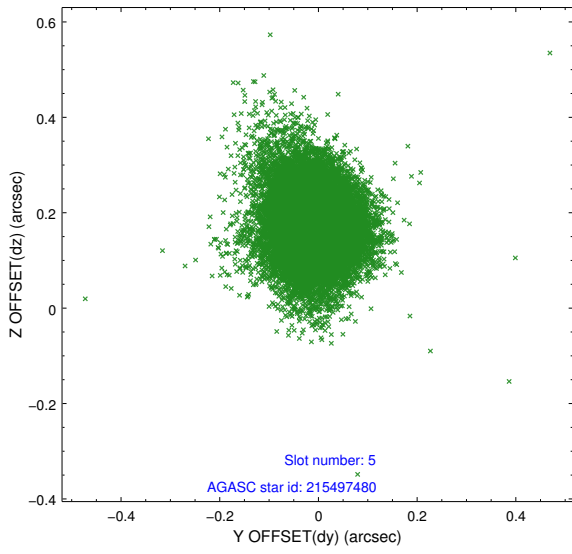
### 2.4.1 Slot 3



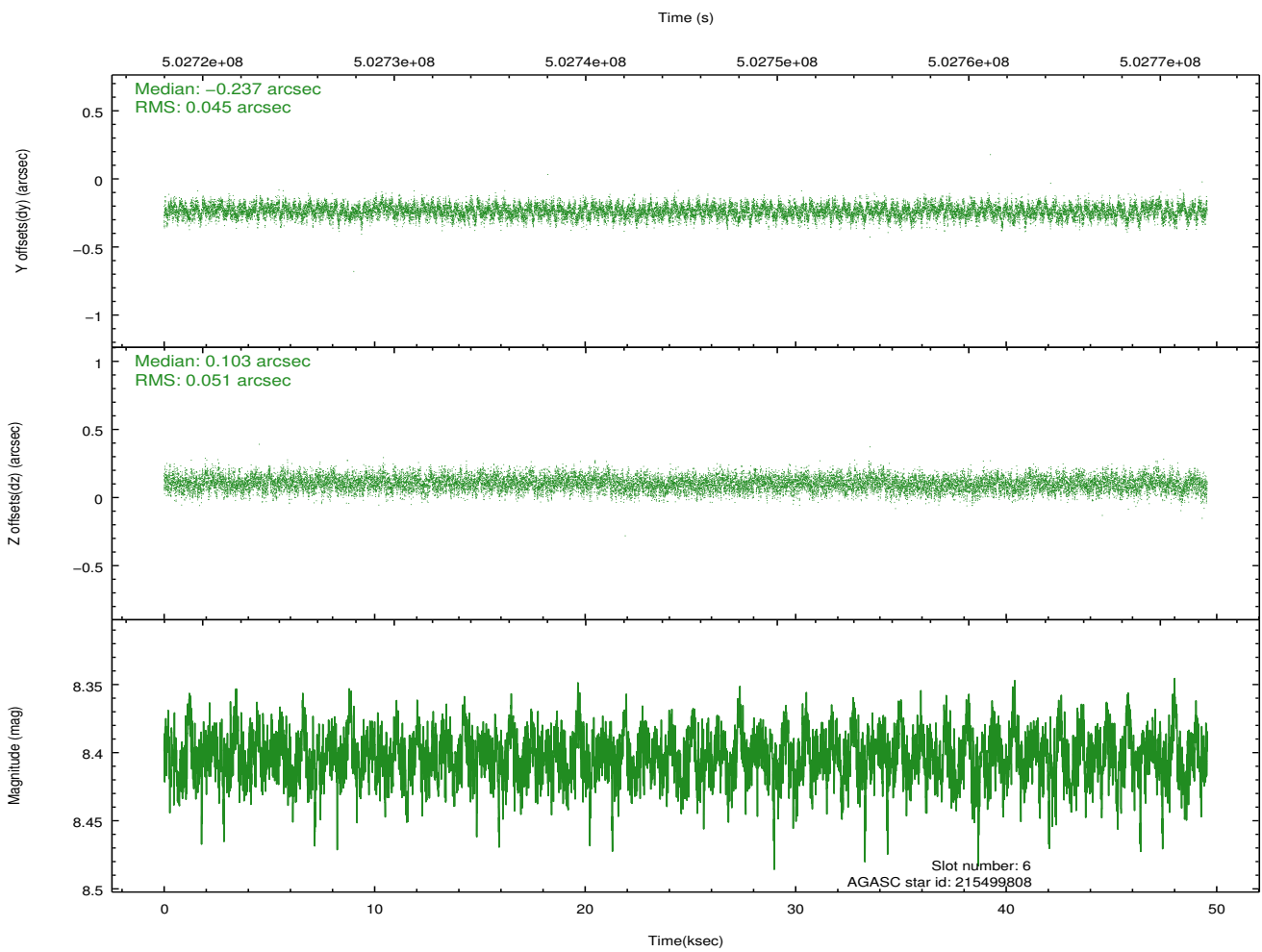
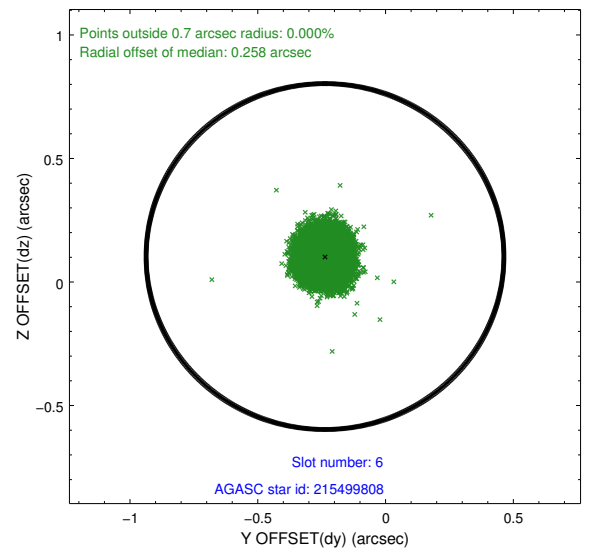
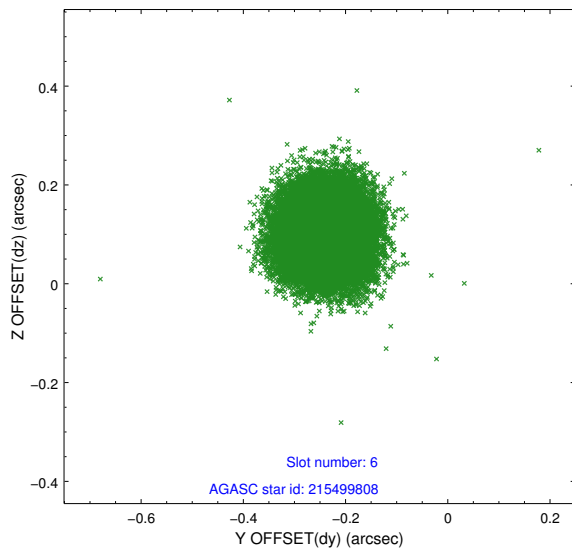
## 2.4.2 Slot 4



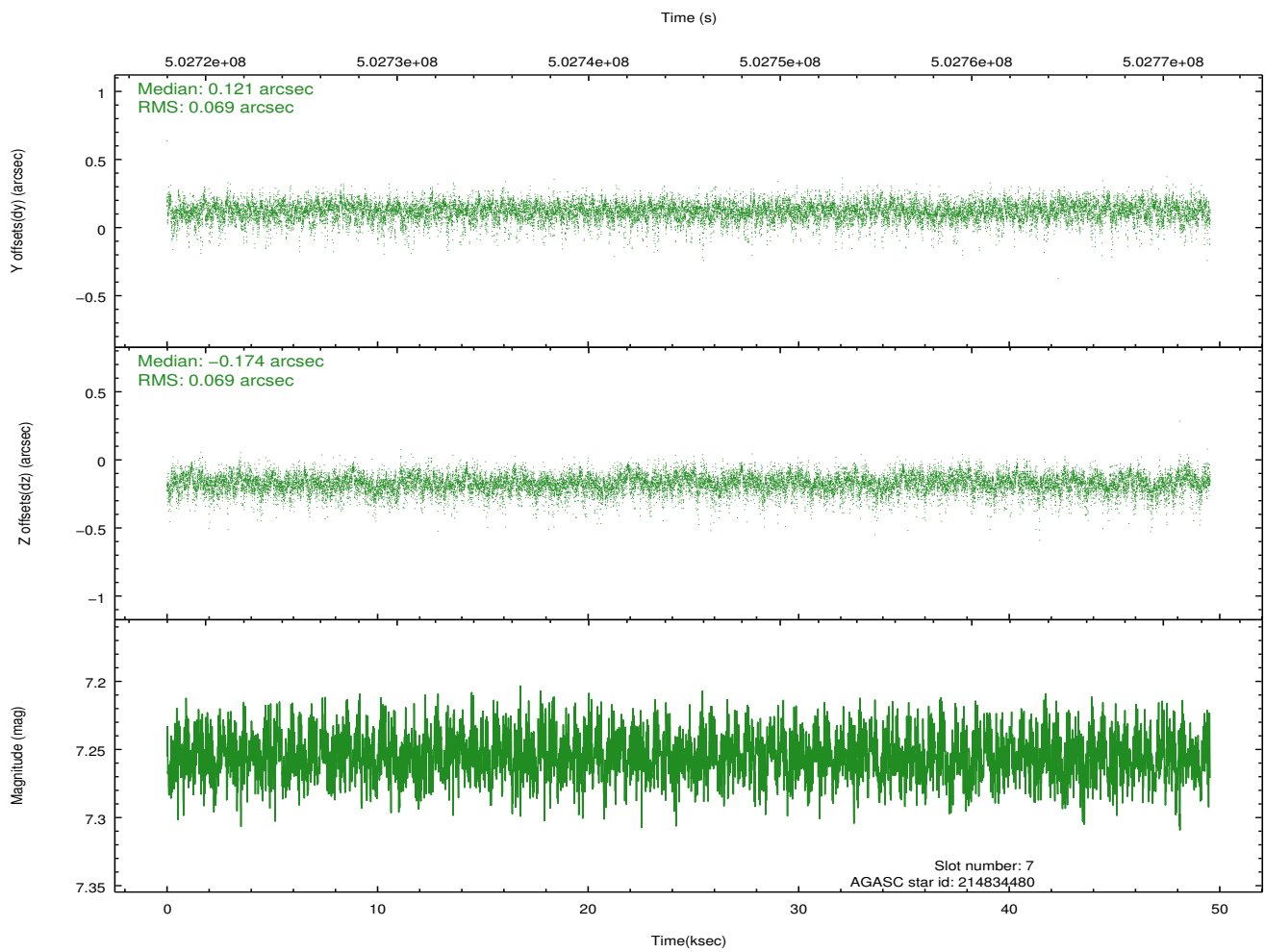
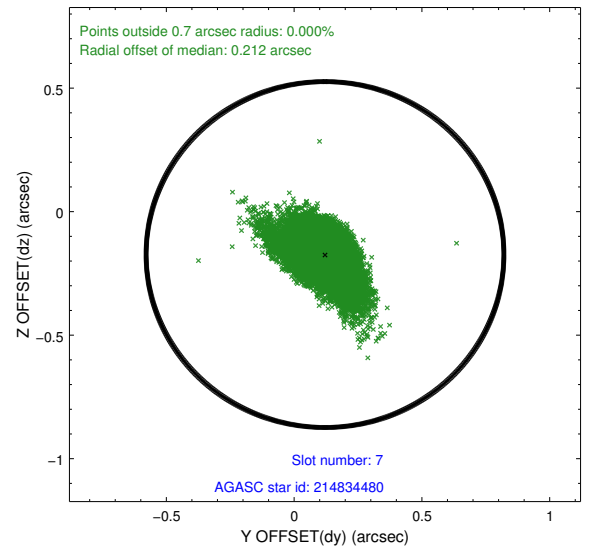
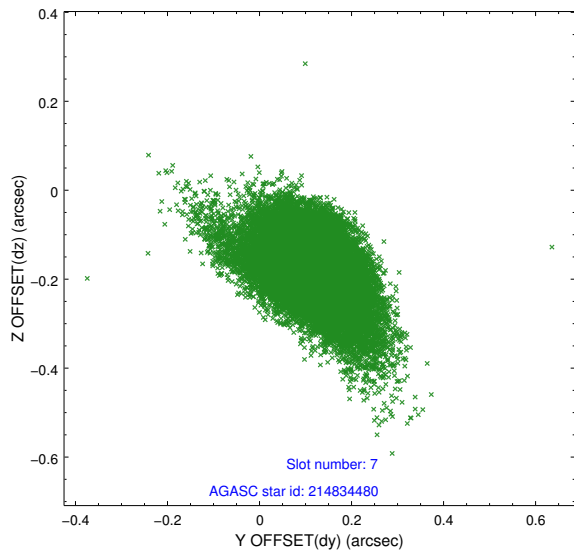
### 2.4.3 Slot 5



## 2.4.4 Slot 6

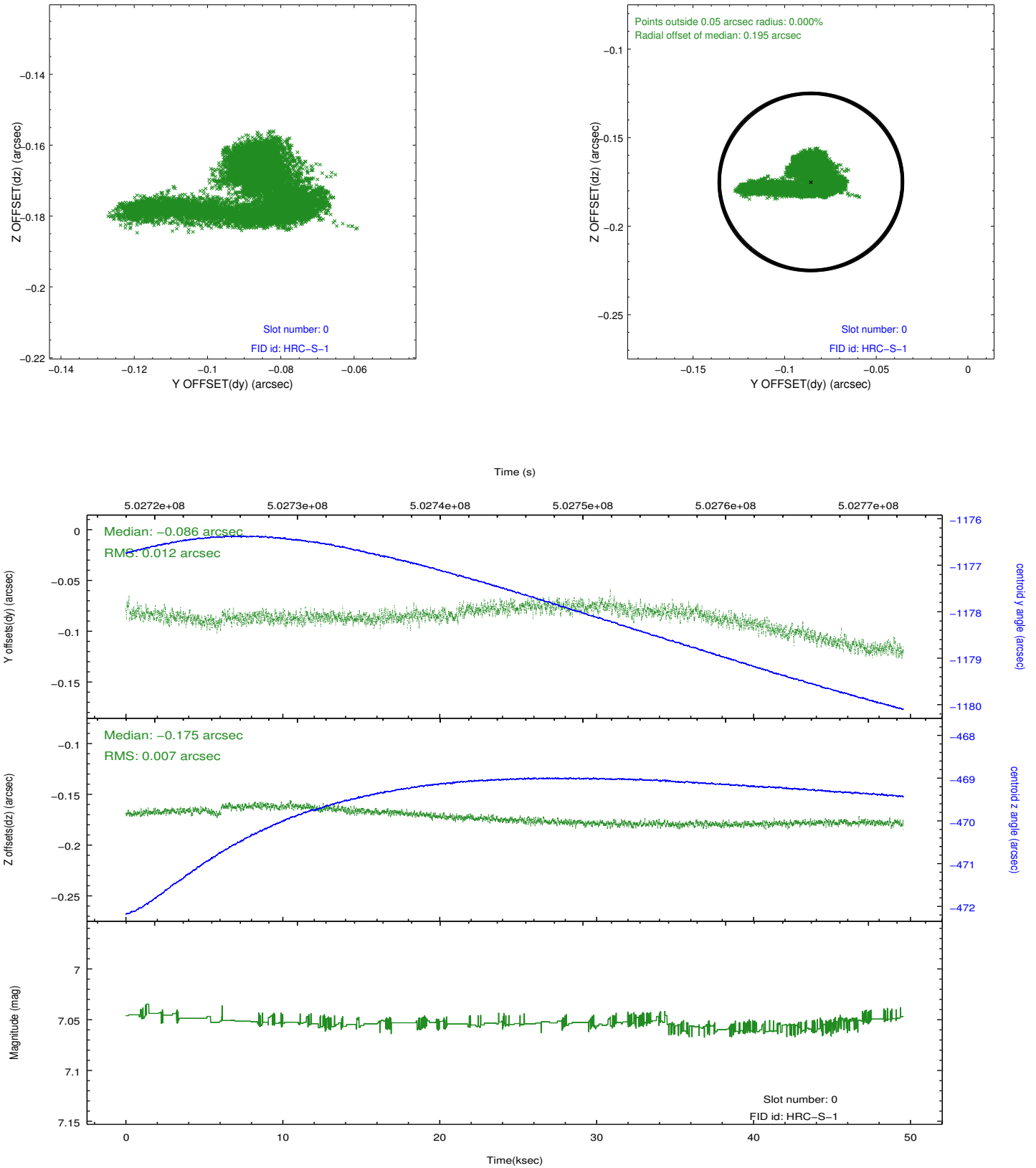


## 2.4.5 Slot 7

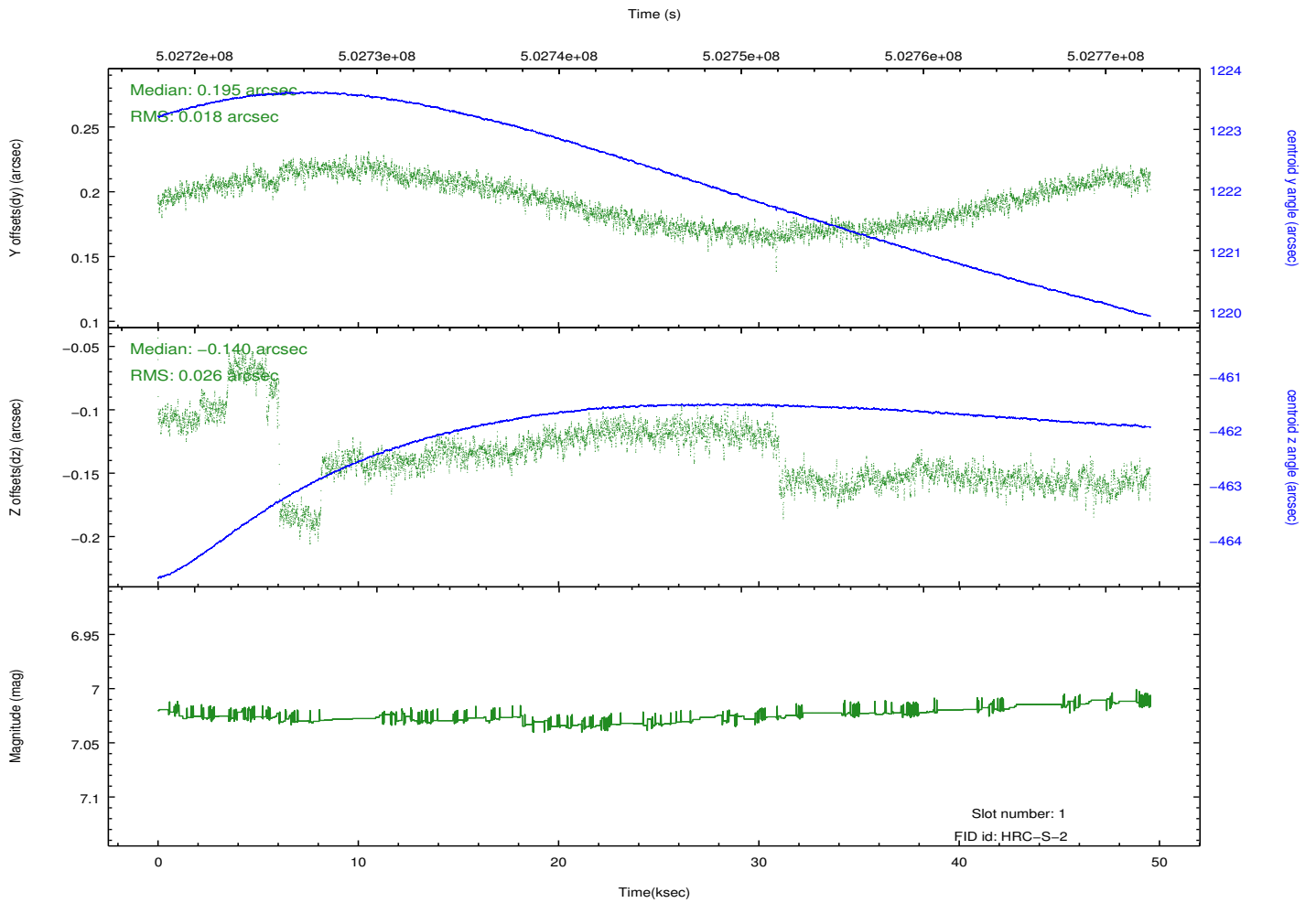
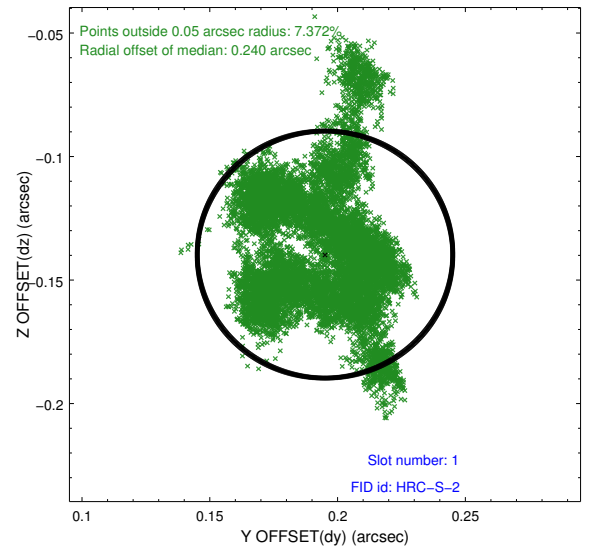
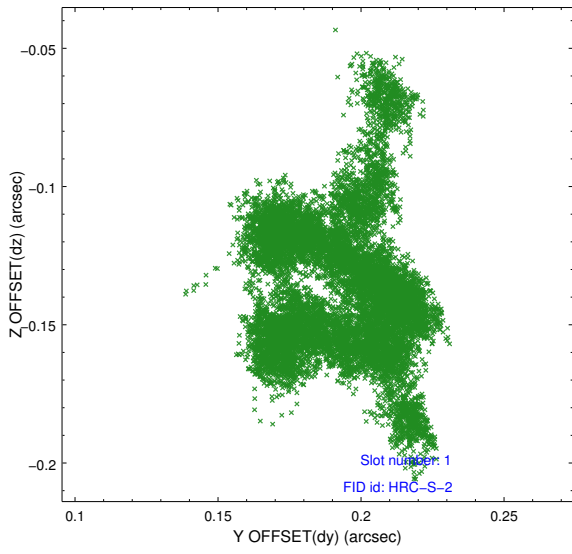


## 2.5 FID Slots

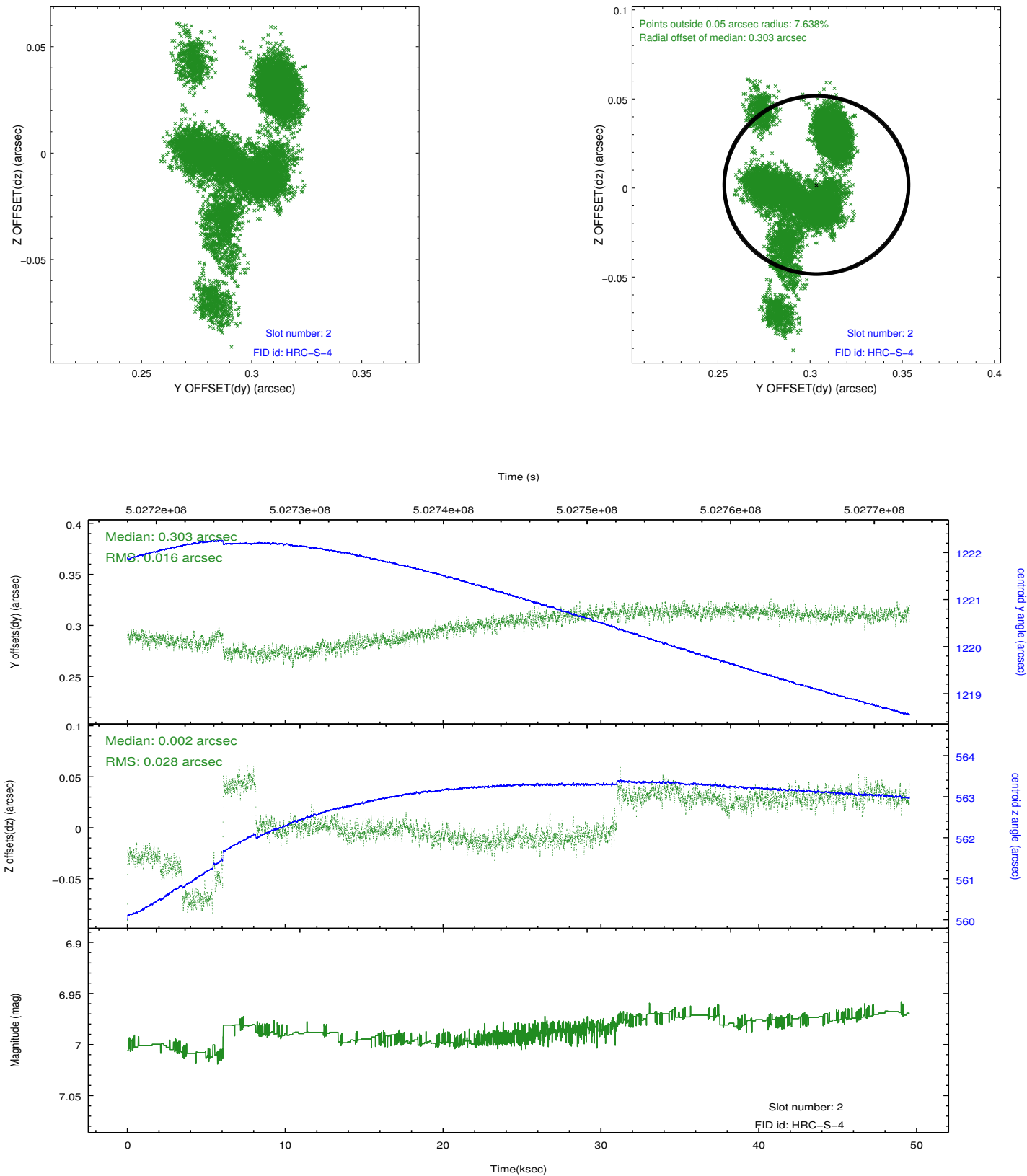
### 2.5.1 Slot 0



## 2.5.2 Slot 1

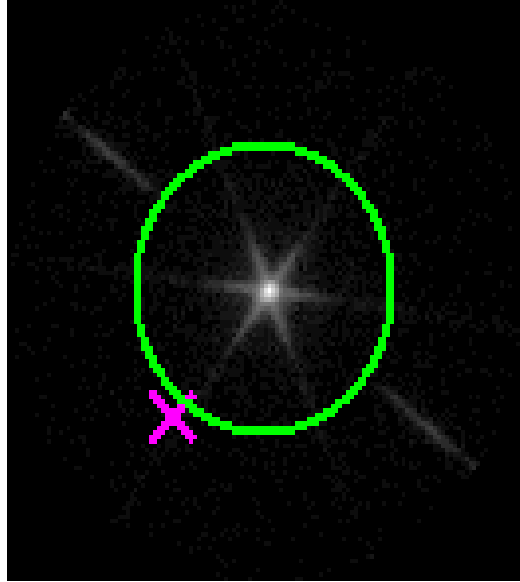


### 2.5.3 Slot 2

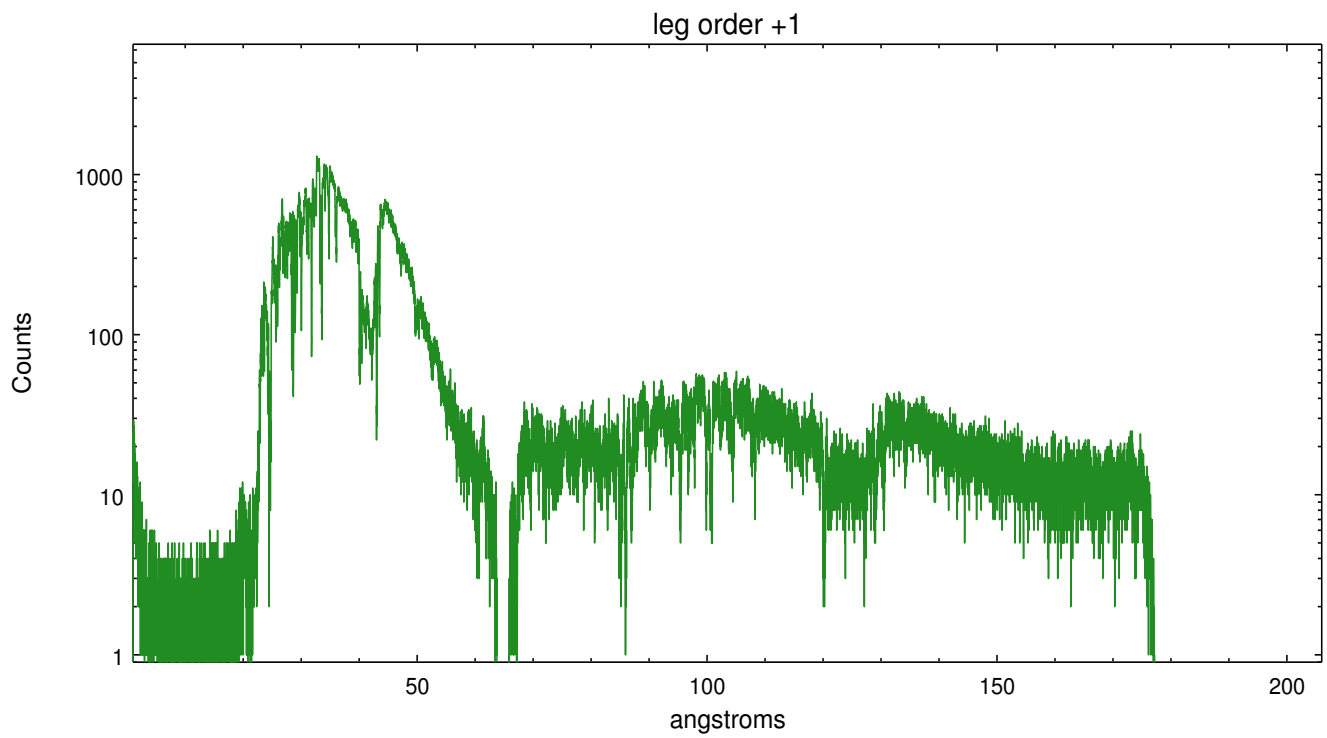
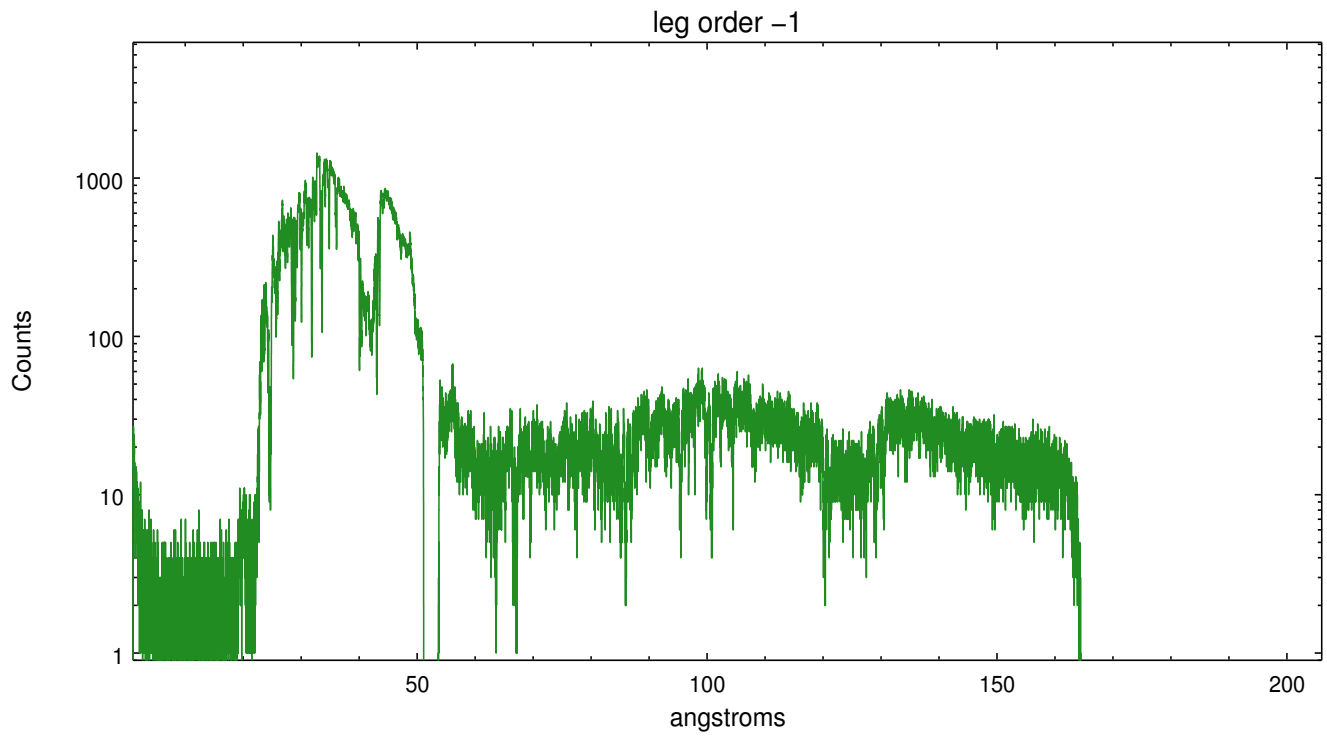


### 3 Gratings

#### 3.1 LETG Arm



LETG Zero Order



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2015.11.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	49.549783966959

## 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.