

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 19017 - L2 Version 1
Chandra X-Ray Center

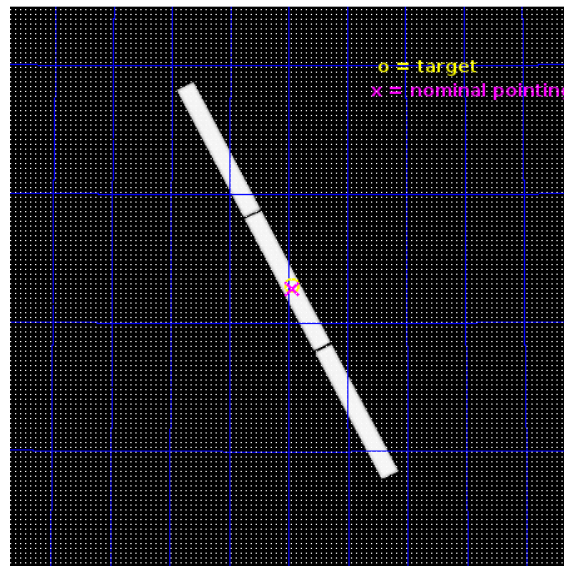
L2 Processing Date : Feb 16 2017

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1 Front

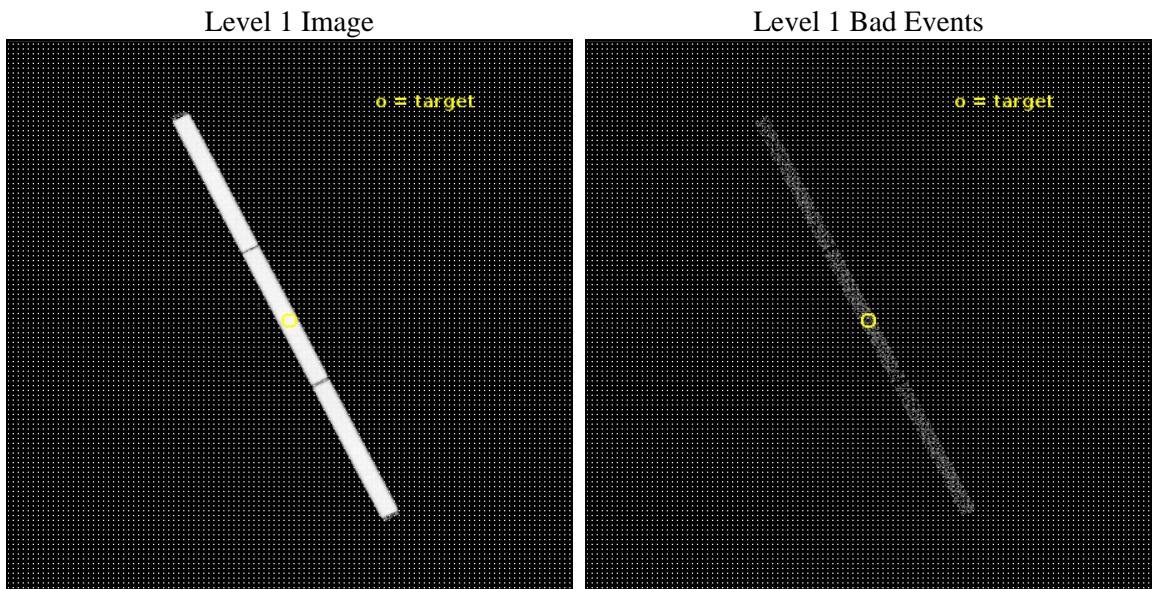
seq_num	300399	Sequence number
obs_id	19017	Observation id
title	EUV Emission from Accreting White Dwarfs in Outburst: A Pathfinder for the Great Observatories Accretion Legacy Survey	Proposal title
observer	Christian Knigge	Principal investigator
object	YZ Cnc	Source name
ra_targ	122.735833	Observer's specified target RA [deg]
dec_targ	28.142639	Observer's specified target Dec [deg]
ra_nom	122.73766877119	Nominal RA [deg]
dec_nom	28.133020778908	Nominal Dec [deg]
roll_nom	243.06584420181	Nominal Roll [deg]
revision	1	Processing version of data
ontime	24765.282683611	[s]
livetime	24532.917446137	Ontime multiplied by DTCOR
l2events	2081045	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	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	24765.282683611	[s]
caldsver	4.7.3	 	l1events	2582894	Number of level 1 events
date	2017-02-16T06:39:31	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	1	Processing version of data	zo_pos	(32805.14, 33033.89)	src1a sky pixel position

2.1.3 Events

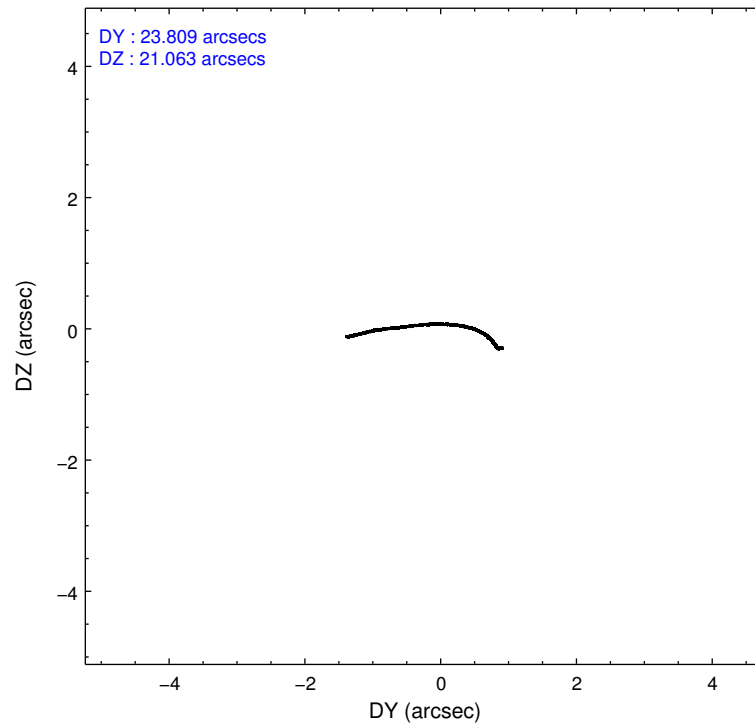
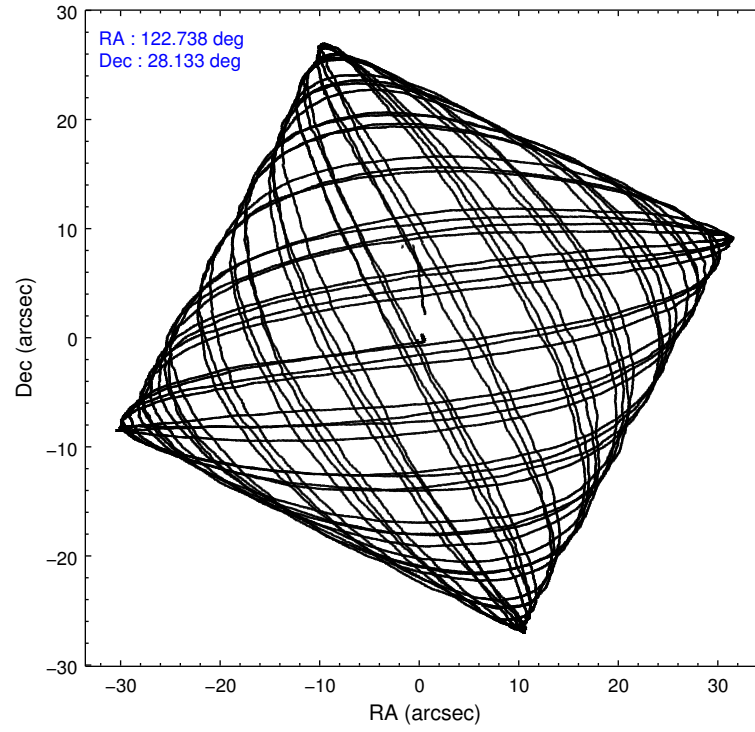
Level 1 Events

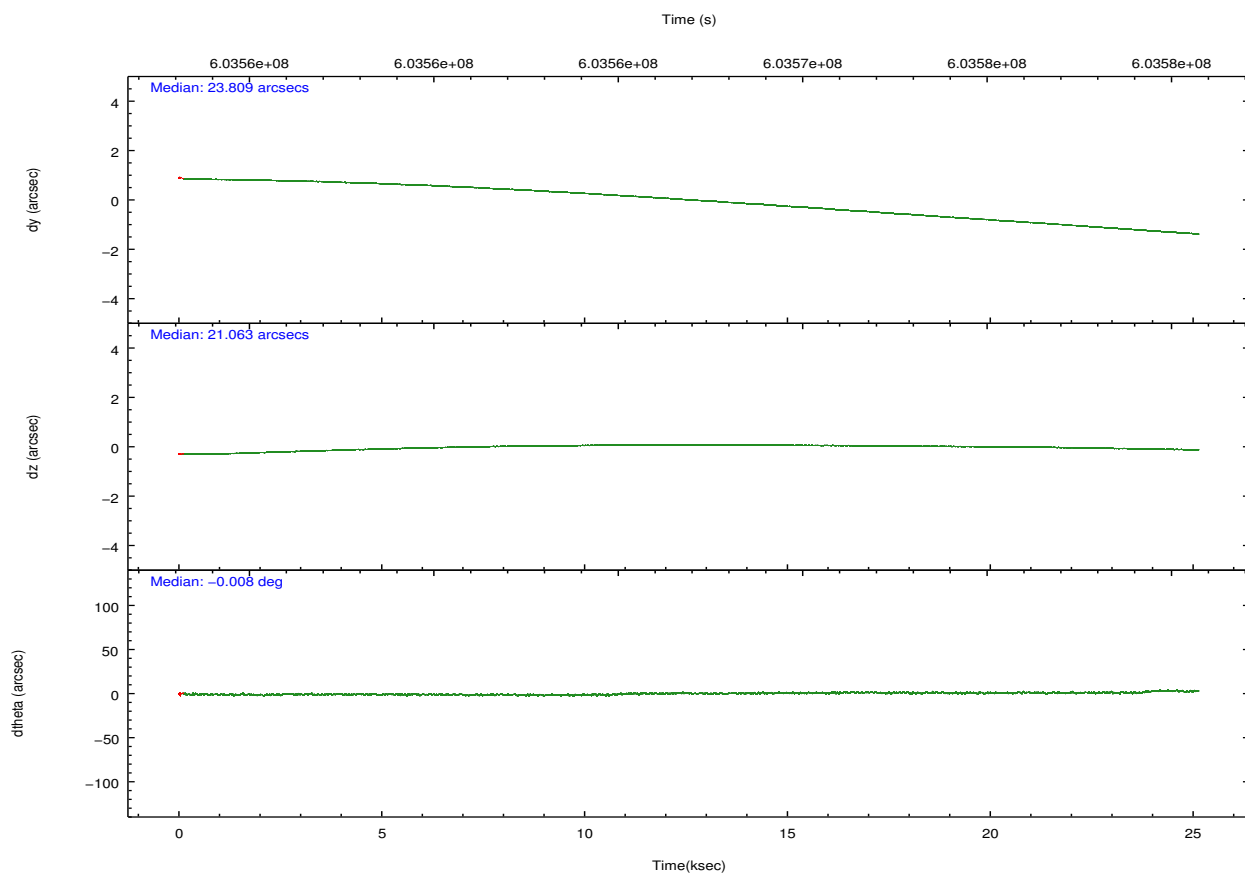
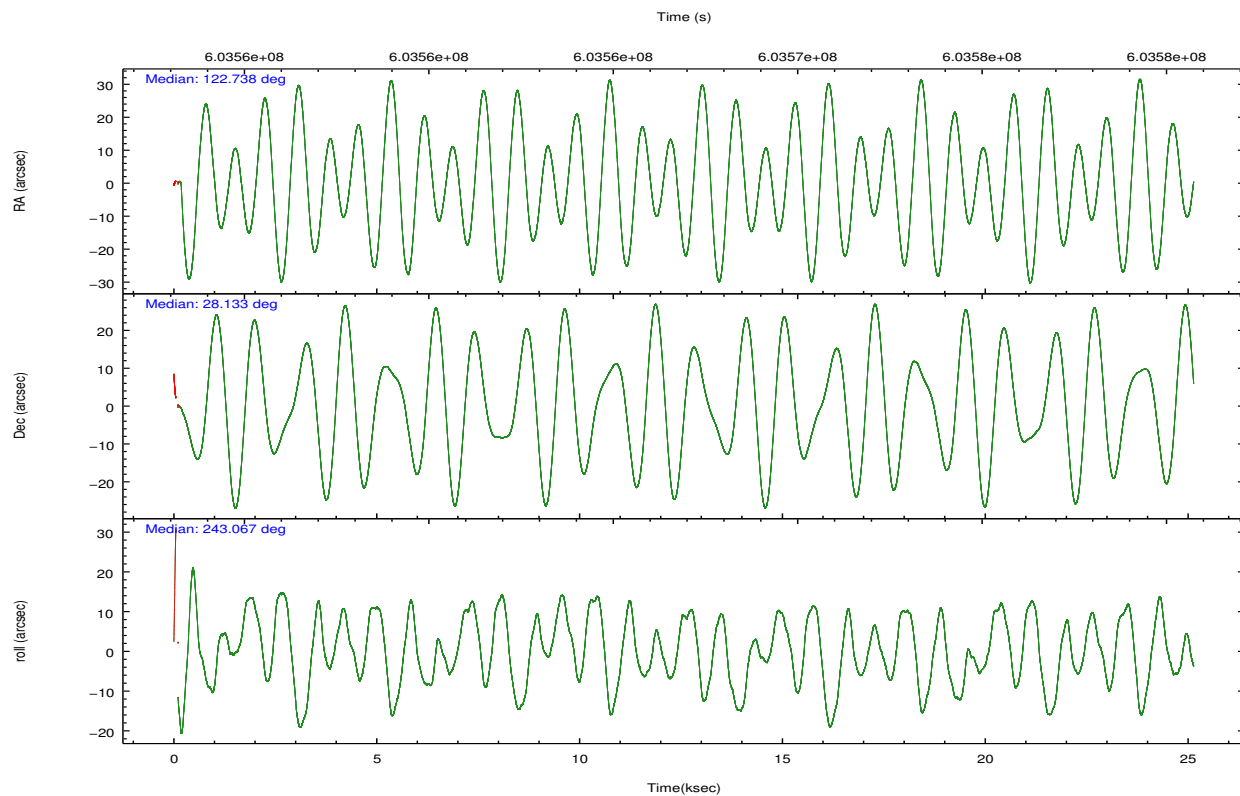
	segment 1	segment 2	segment 3
level 1 events	862513	860023	860358
rejected events	2758	2979	2819
rejected %	0%	0%	0%

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	122.734389	122.7376687711924			
[deg] Pointing Dec	28.161715	28.13302077890849			
[deg] Pointing Roll	243.000045	243.0658442018097			
[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)	603554483.184000	603552974.80383			
Observation start date	2017-02-15T14:00:14	2017-02-15T13:36:14			
[s] Observation end time (MET)	603579483.184000	603580723.09293			
Observation end date	2017-02-15T20:56:54	2017-02-15T21:18:43			

2.3 Aspect



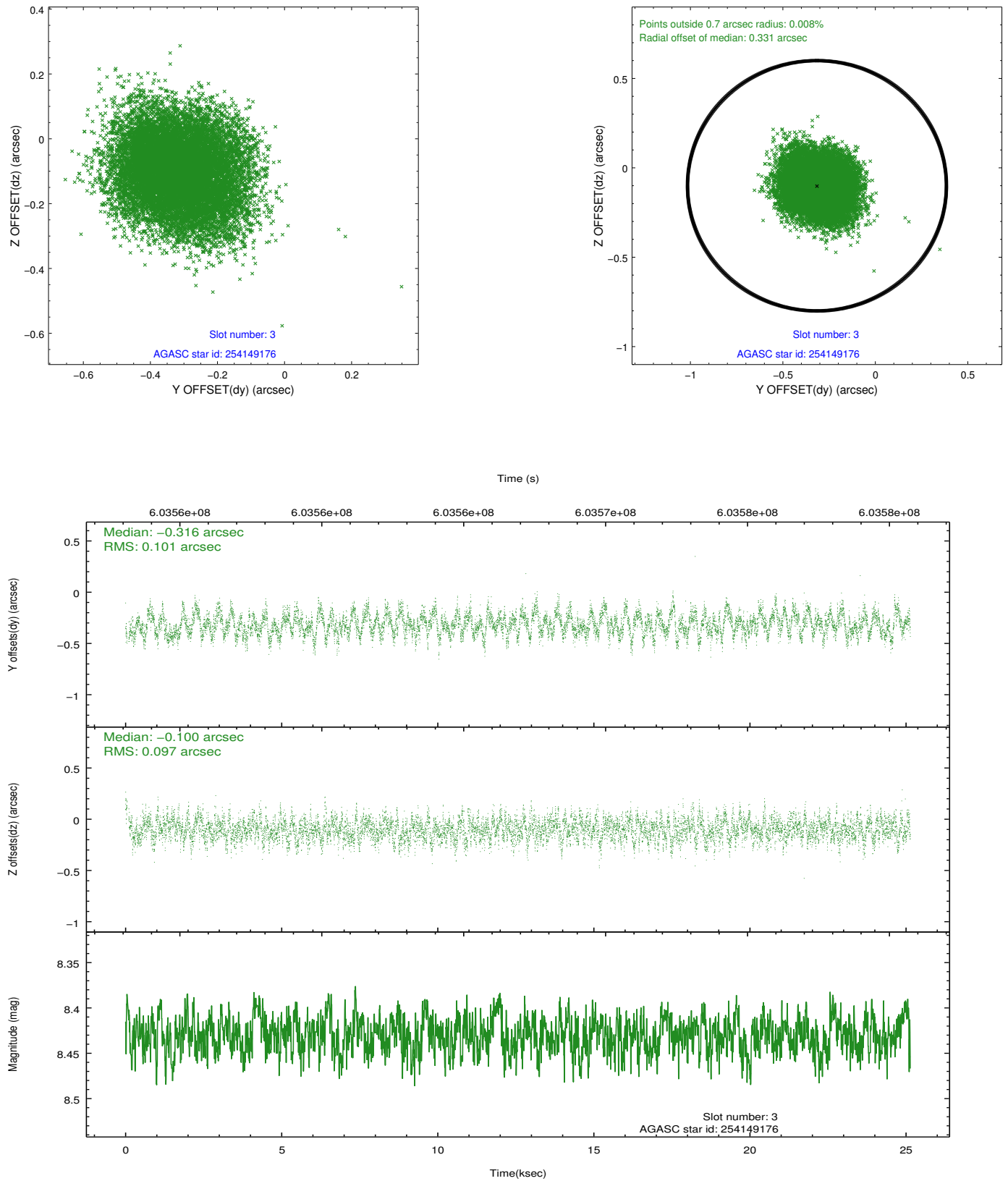


Slot Statistics

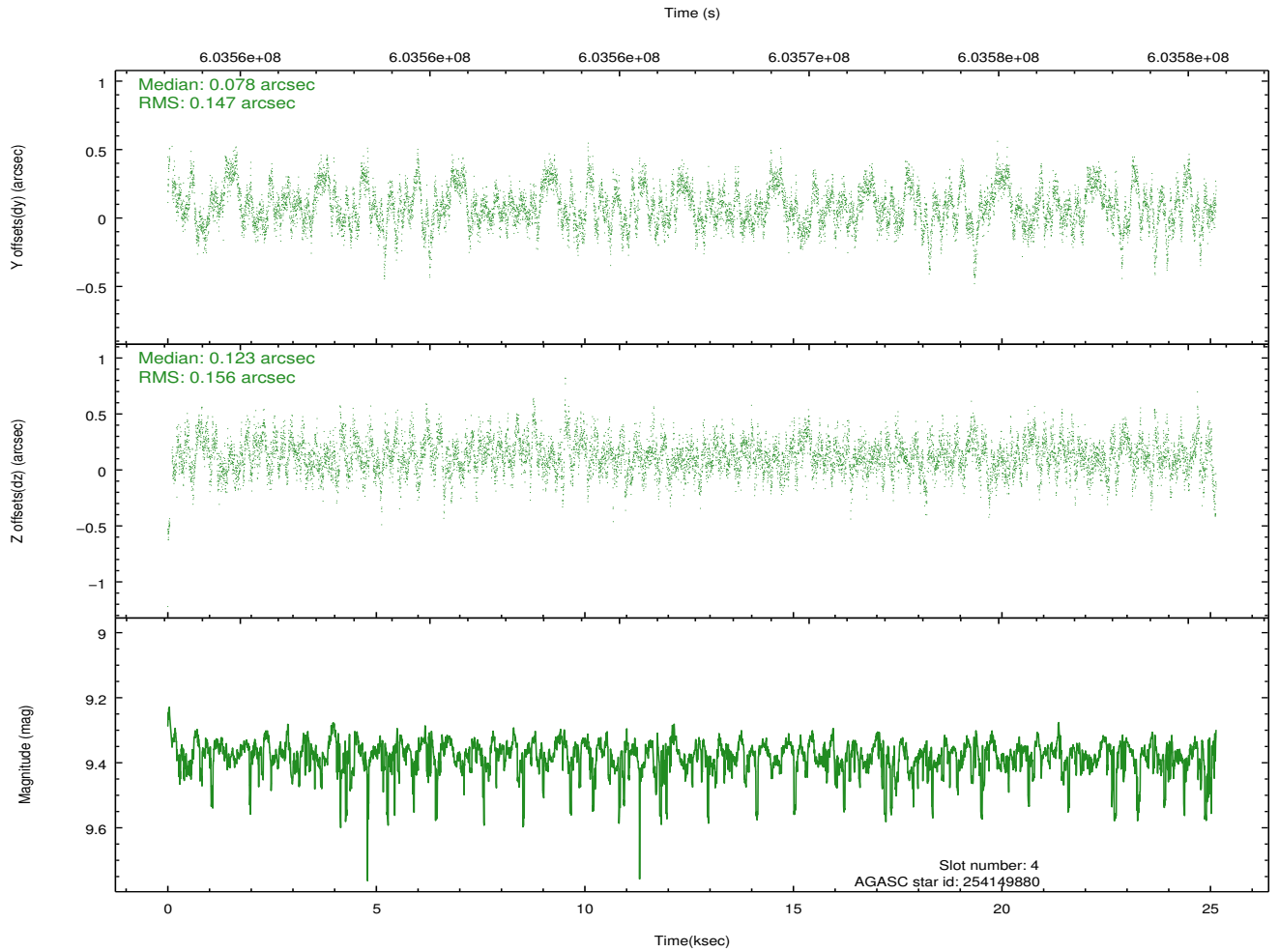
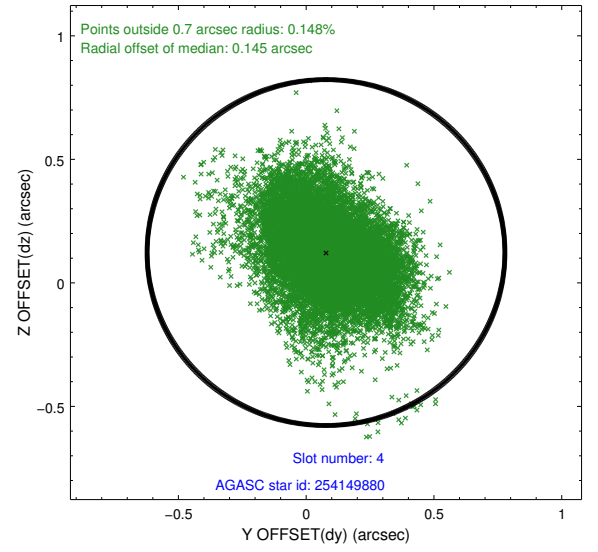
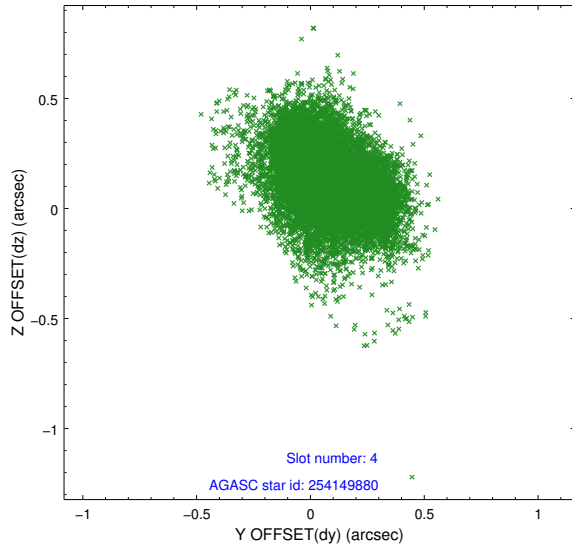
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.04	6119	-0.086	-0.187	0.013	0.019	0.000000	0.000000	-1178.48	-470.22
1	FID		HRC-S-2	7.01	6118	0.422	-0.131	0.011	0.021	0.000000	0.000000	1221.52	-462.67
2	FID		HRC-S-3	7.02	6119	0.056	0.016	0.012	0.026	0.000000	0.000000	-1180.95	559.44
3	GUIDE	used	254149176	8.43	12232	-0.316	-0.100	0.150	0.237	122.392823	28.196326	380.42	-1021.89
4	GUIDE	used	254149880	9.38	12203	0.078	0.123	0.226	0.368	122.159356	28.494454	-244.27	-2166.25
5	GUIDE	used	254151552	9.75	12215	0.248	0.049	0.214	0.347	122.426865	28.907240	-1951.54	-2082.17
6	GUIDE	used	253635560	9.41	12213	-0.010	-0.076	0.234	0.395	121.891540	27.828640	2278.98	-1850.52
7	MONITOR	unused		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

2.4 Star Slots

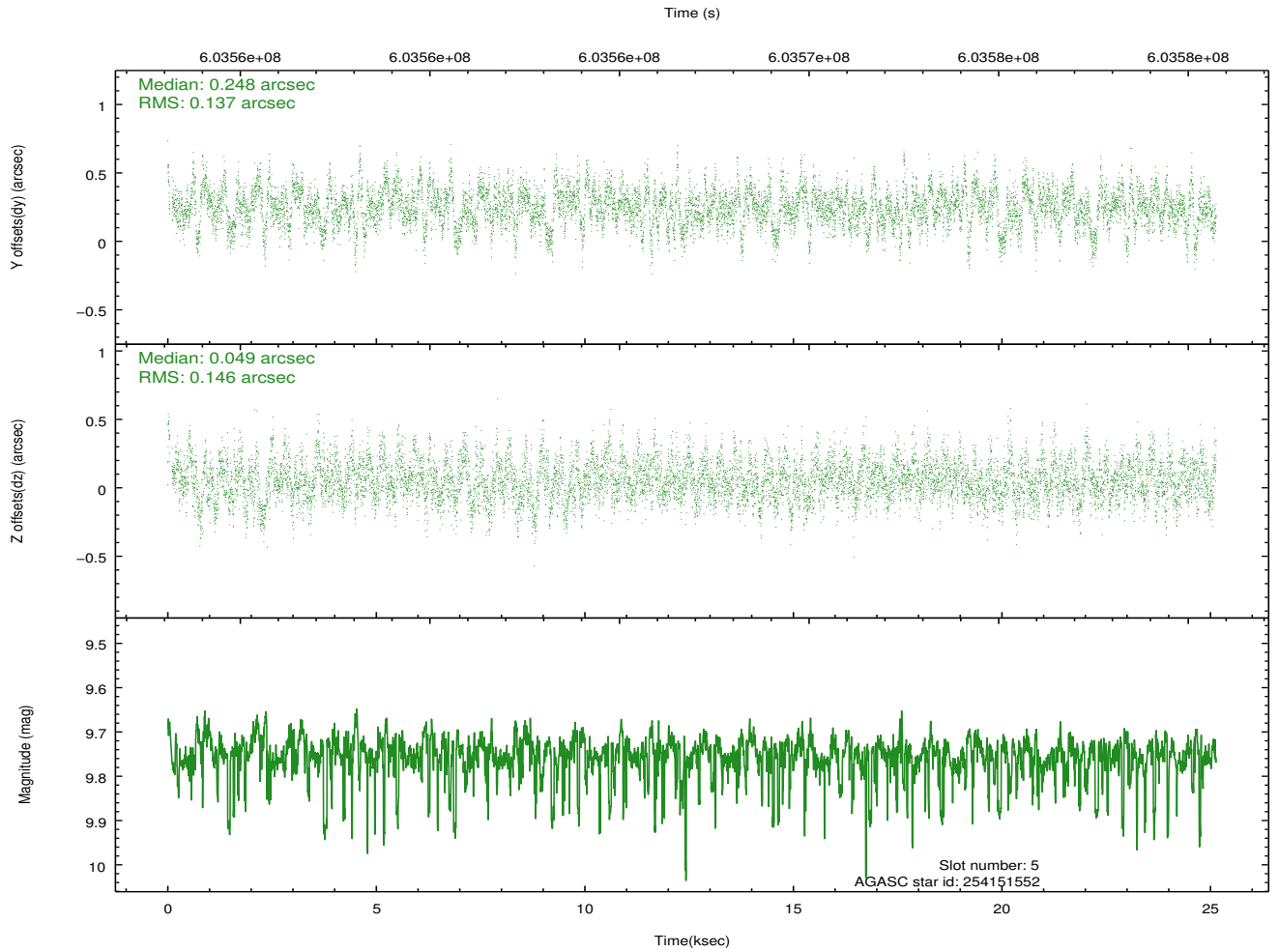
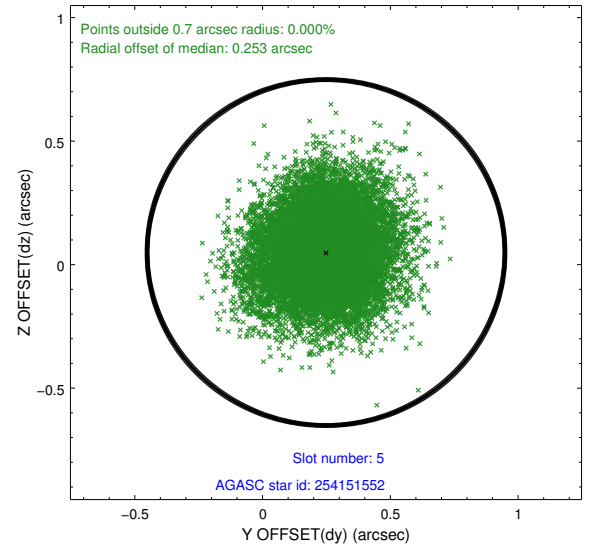
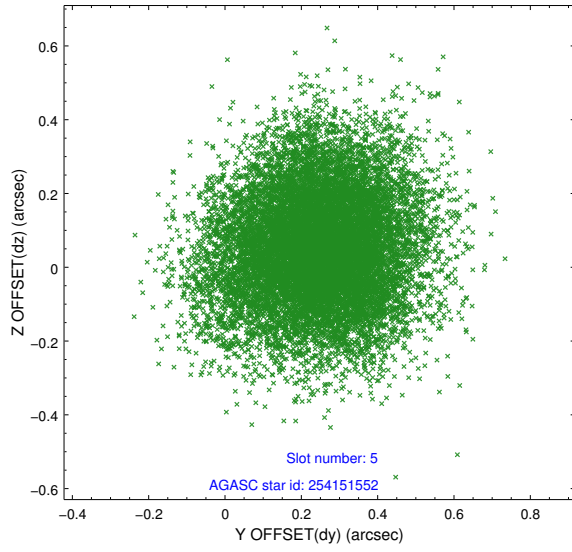
2.4.1 Slot 3



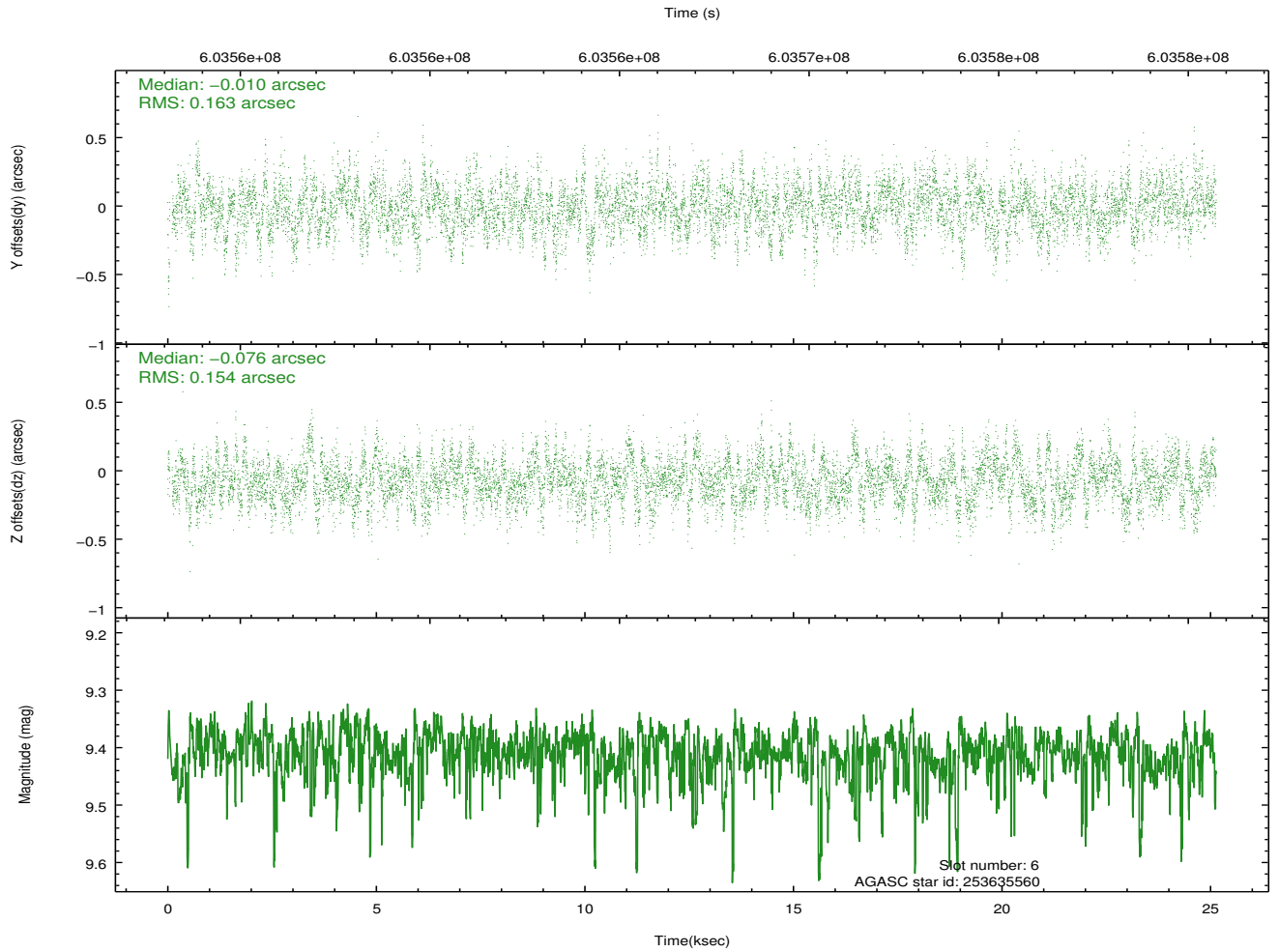
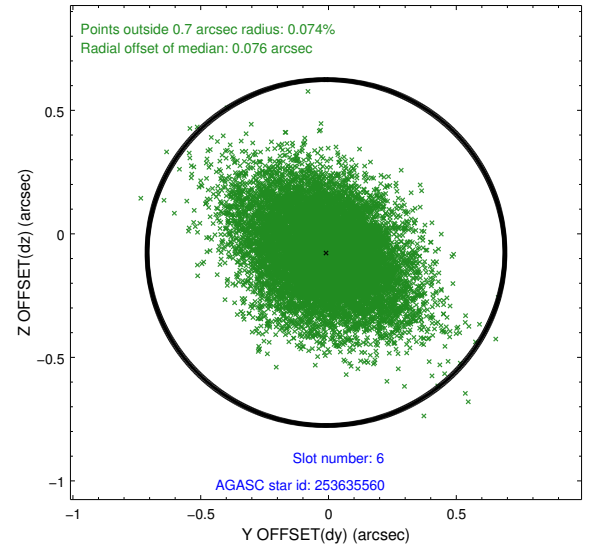
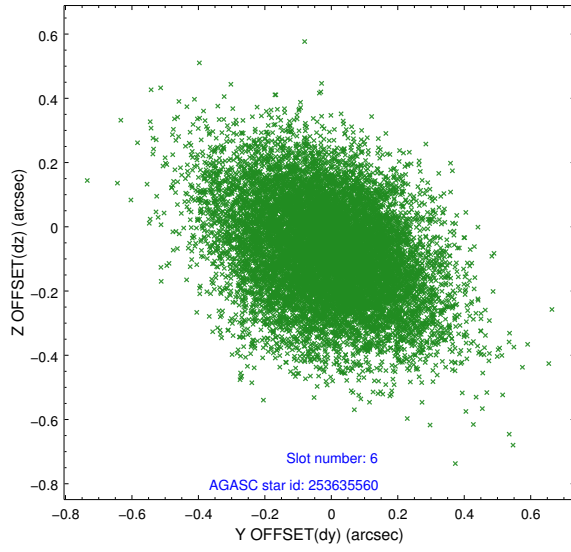
2.4.2 Slot 4



2.4.3 Slot 5

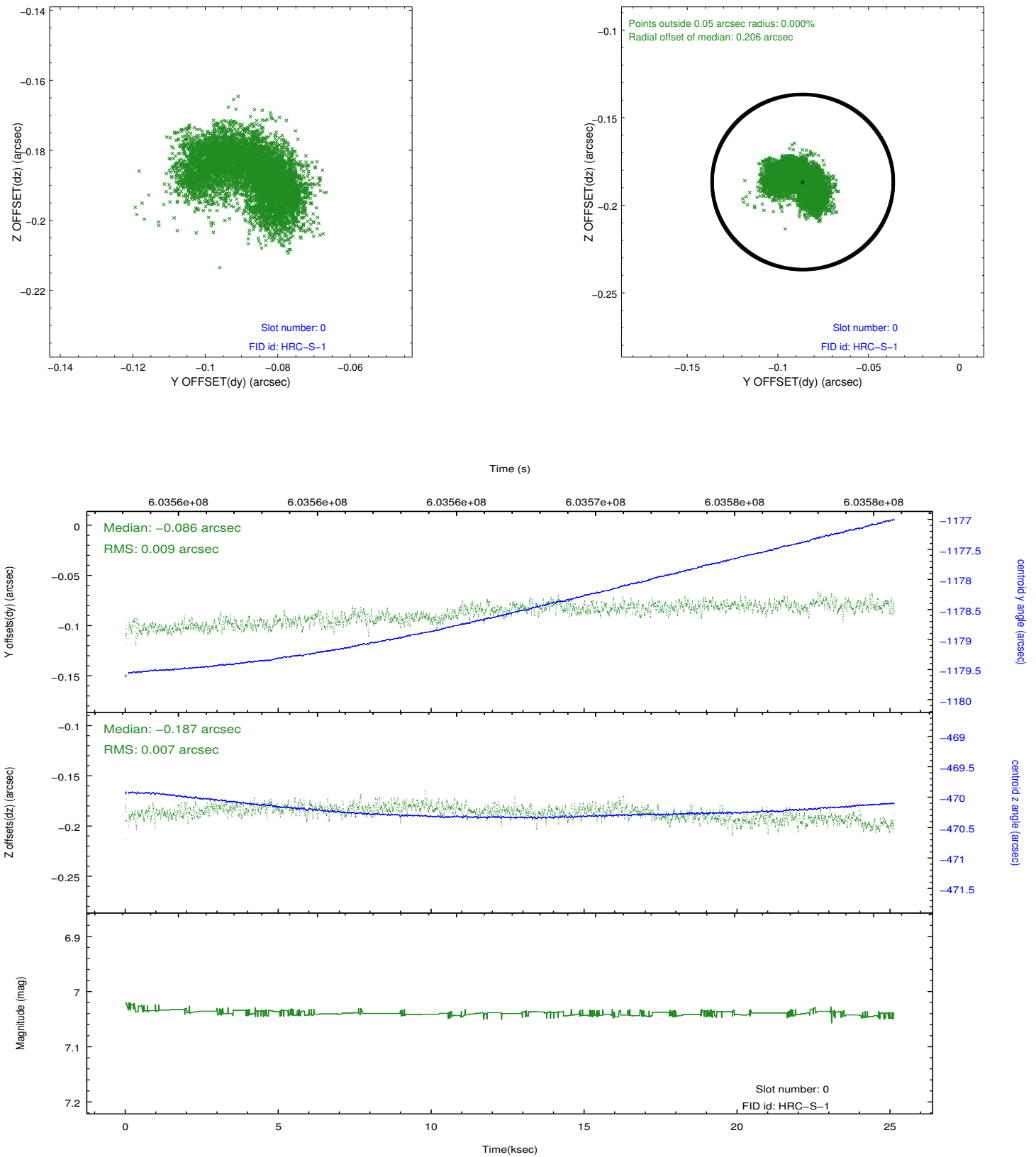


2.4.4 Slot 6

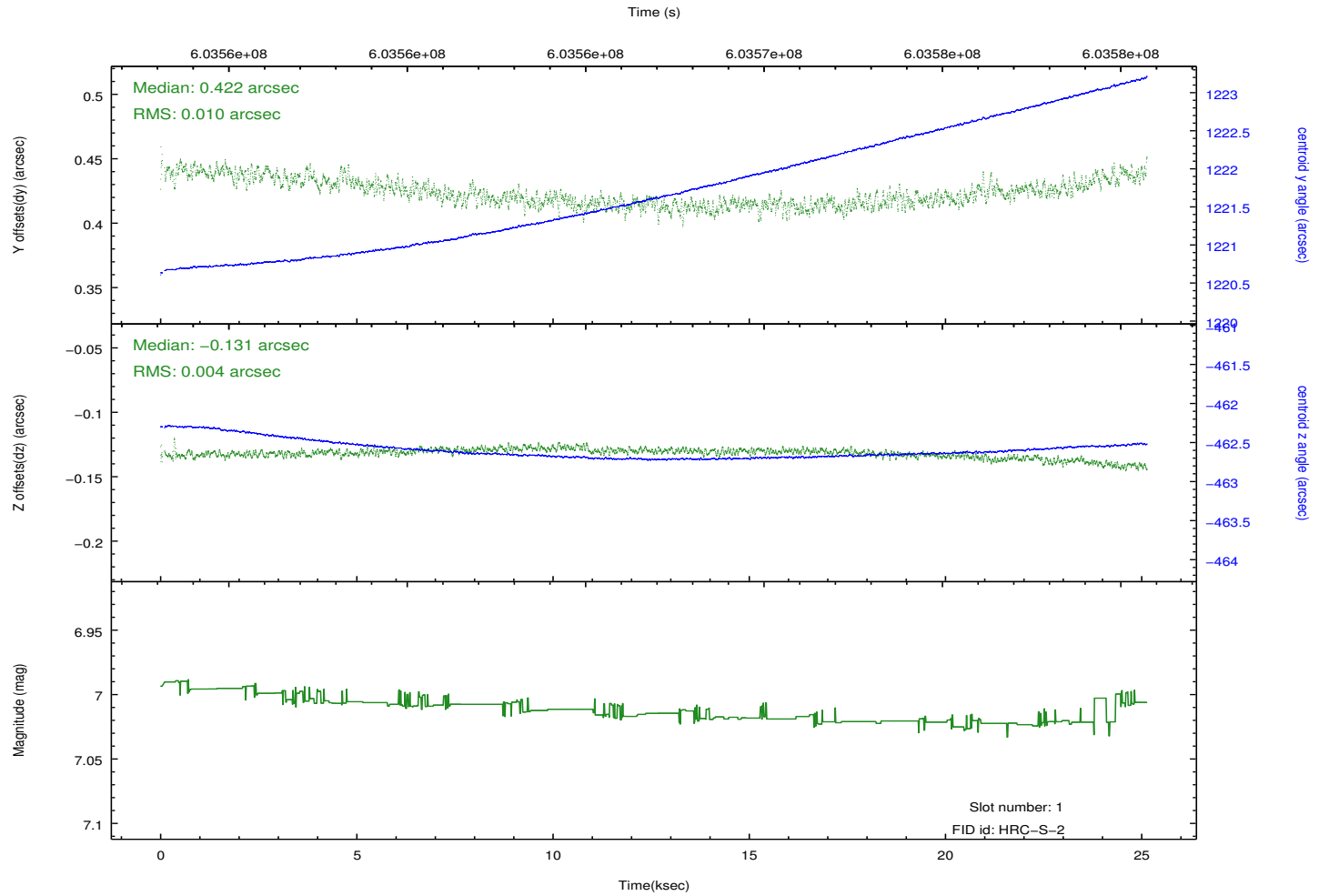
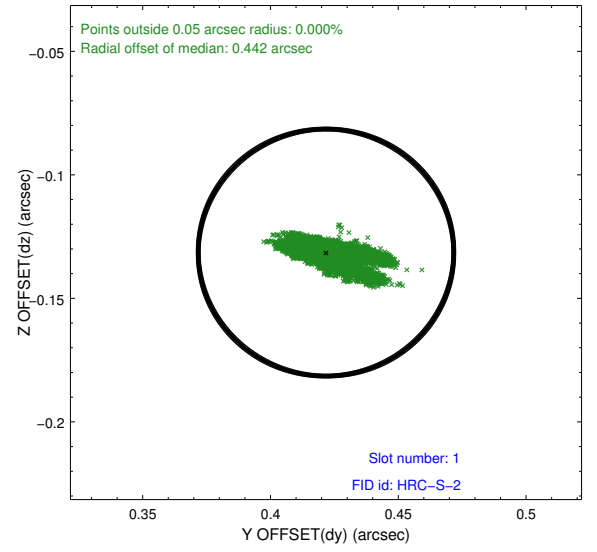
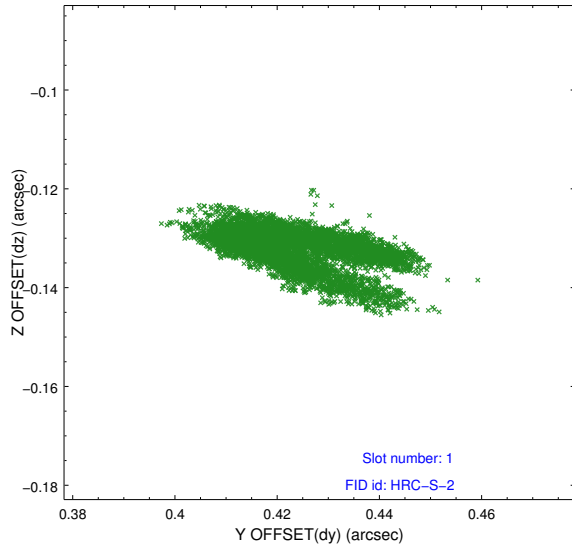


2.5 FID Slots

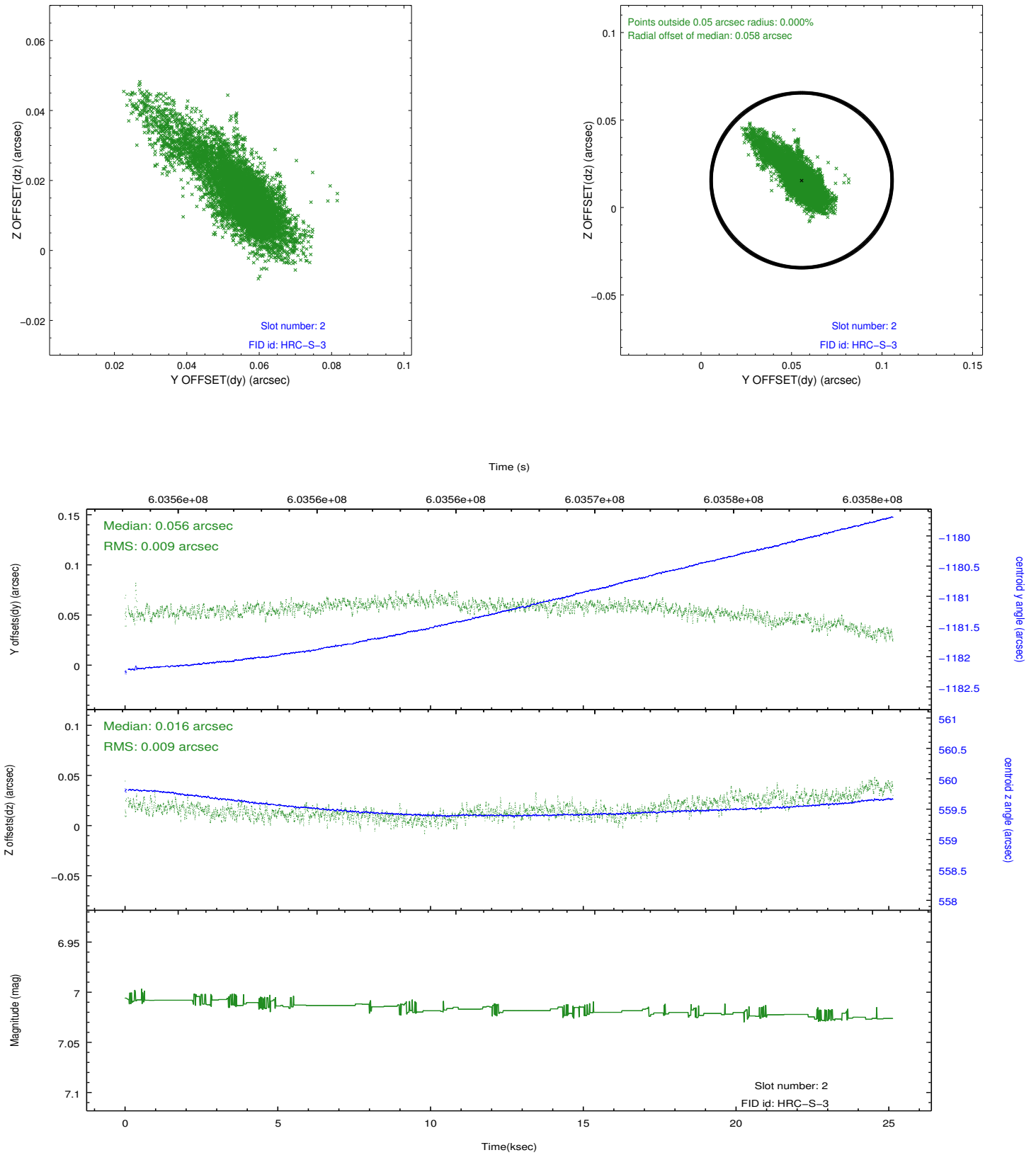
2.5.1 Slot 0



2.5.2 Slot 1

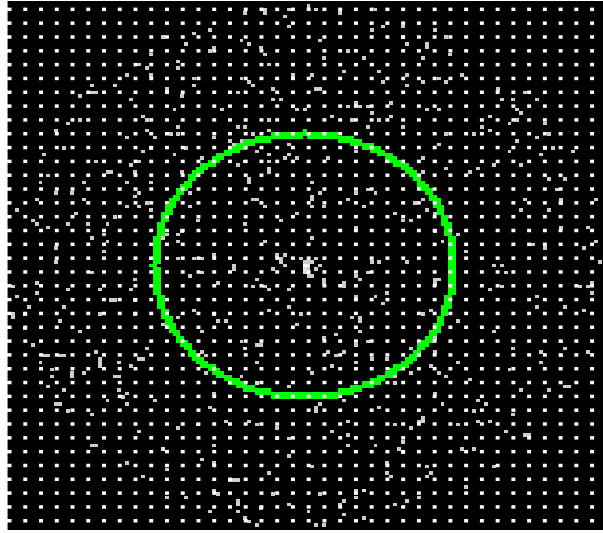


2.5.3 Slot 2

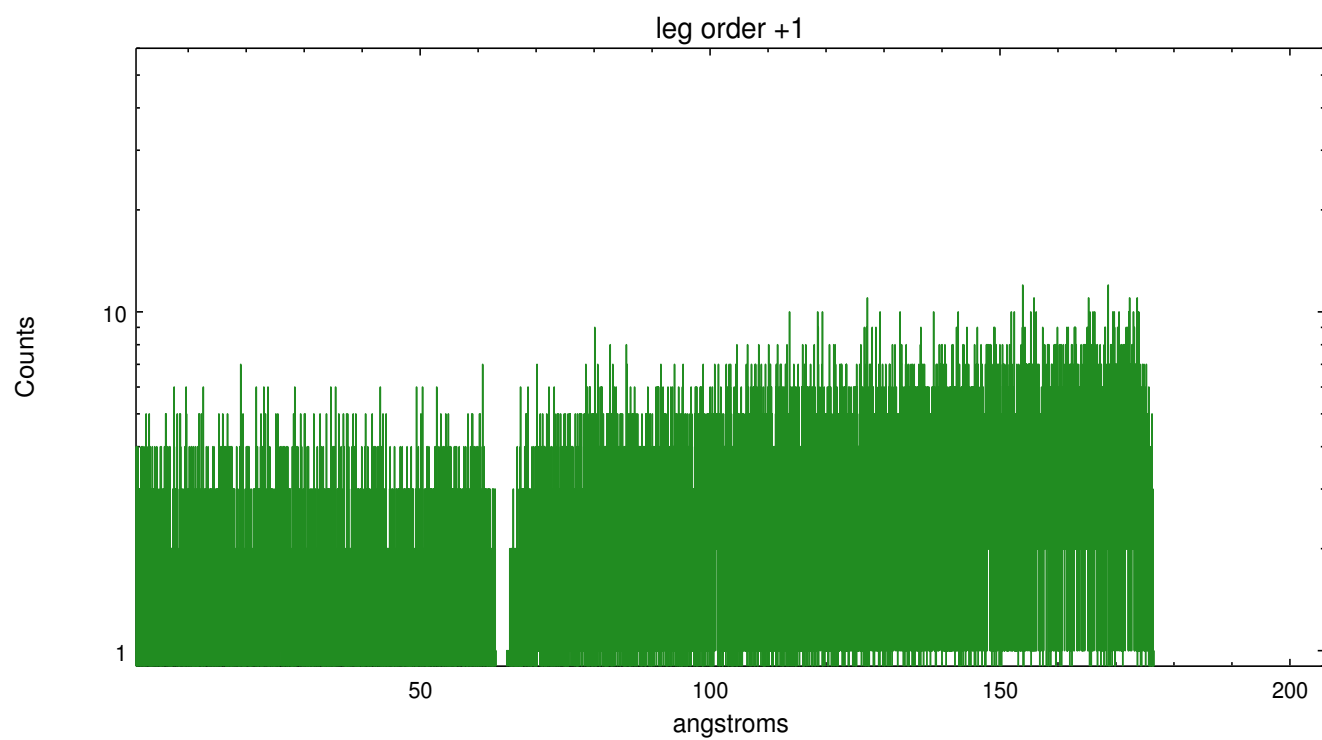
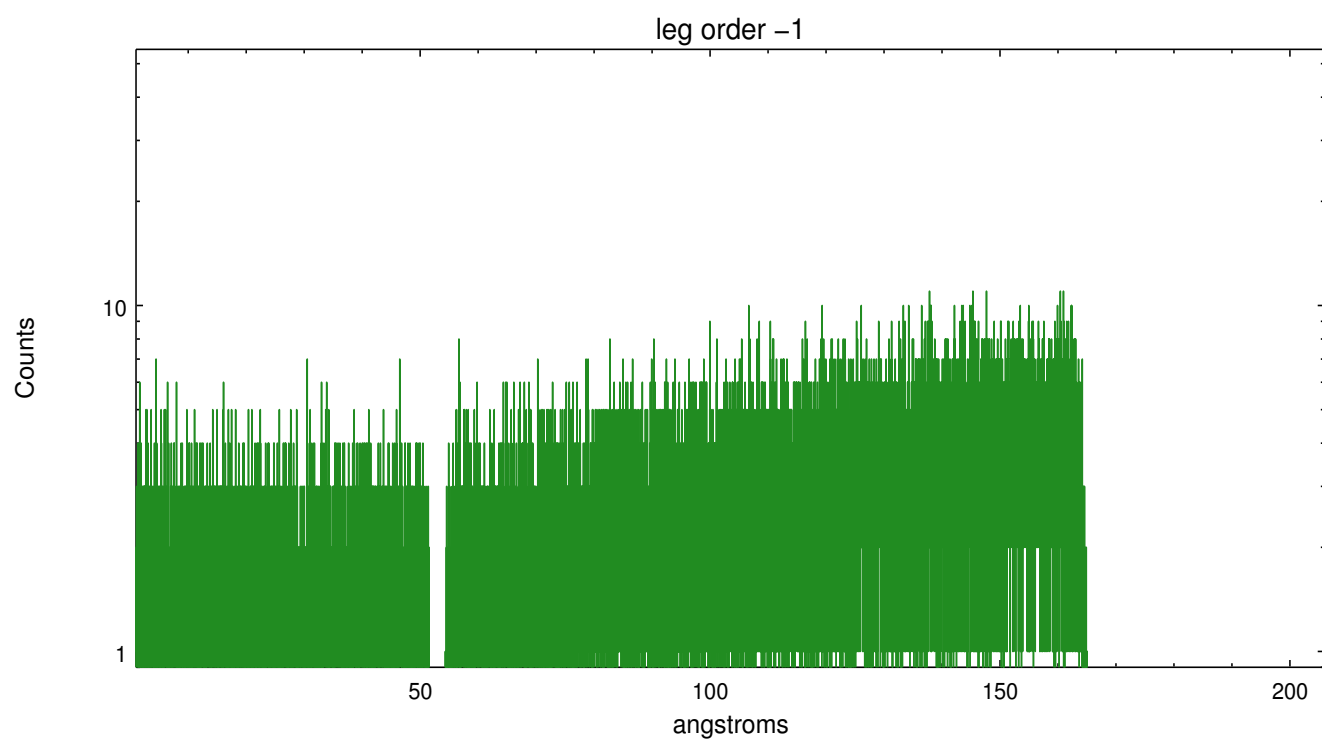


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2017.02.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.765282683611

A.2 Comments

Source is slightly extended with non-uniform X-ray flux in the core. The user may want to extract the spectrum using a different zeroth order position to center on the area of interest. 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.

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The ACA has the capability to devote one or more of the eight image slots to "monitor" particular sky locations. This allows simultaneous optical photometry of one or more targets in the ACA field of view. These optical sources can be slightly fainter than the ACA guide star limit of $m_{ACA} = 10.2$ mag. The bright-end limit for monitor star photometry is $m_{ACA}=6.2$ mag. However, since there are a fixed number of image slots, devoting a slot to photometry instead of tracking a guide star results in a degradation of the image reconstruction and celestial location accuracy (Section 5.4). Using one monitor slot represents a 15 - 25% increase in the aspect image reconstruction RMS diameter, depending on the particular guide star configuration. Two monitor slots would increase the diameter by about 50 - 60%, but this configuration is not operationally allowed under normal circumstances. The photometric accuracy which can be achieved depends primarily on the star magnitude, integration time, CCD dark current, CCD read noise, sky background, and the CCD dark current uncertainty.