

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 20944 - L2 Version 2
Chandra X-Ray Center

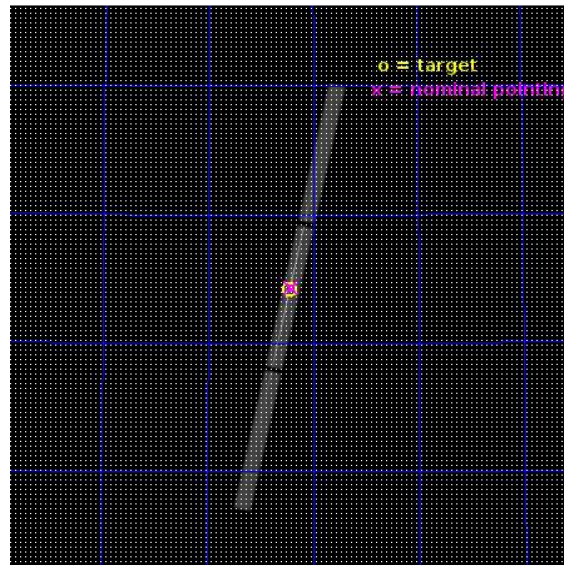
L2 Processing Date : Jan 24 2018

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1 Front

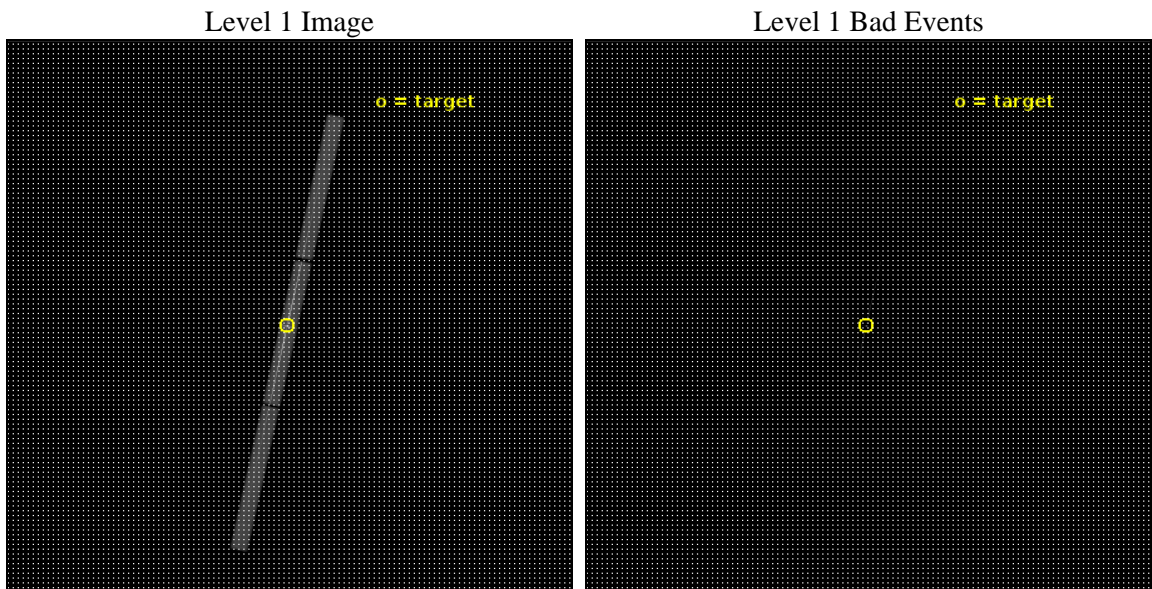
seq_num	901342	Sequence number
obs_id	20944	Observation id
title	Assessing the WHIM detection towards Mkn421	Proposal title
observer	Yair Krongold	Principal investigator
object	Mkn 421	Source name
ra_targ	166.11375	Observer's specified target RA [deg]
dec_targ	38.208889	Observer's specified target Dec [deg]
ra_nom	166.1030467012	Nominal RA [deg]
dec_nom	38.216611382147	Nominal Dec [deg]
roll_nom	102.07395473822	Nominal Roll [deg]
revision	2	Processing version of data
ontime	31976.67062211	[s]
livetime	31107.21034853	Ontime multiplied by DTCOR
l2events	4575875	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	32000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	31976.670632005	[s]
caldsver	4.7.7	 	l1events	5339216	Number of level 1 events
date	2018-01-24T21:00:44	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	2	Processing version of data	zo_pos	(32530.23, 32552.74)	src1a sky pixel position

2.1.3 Events

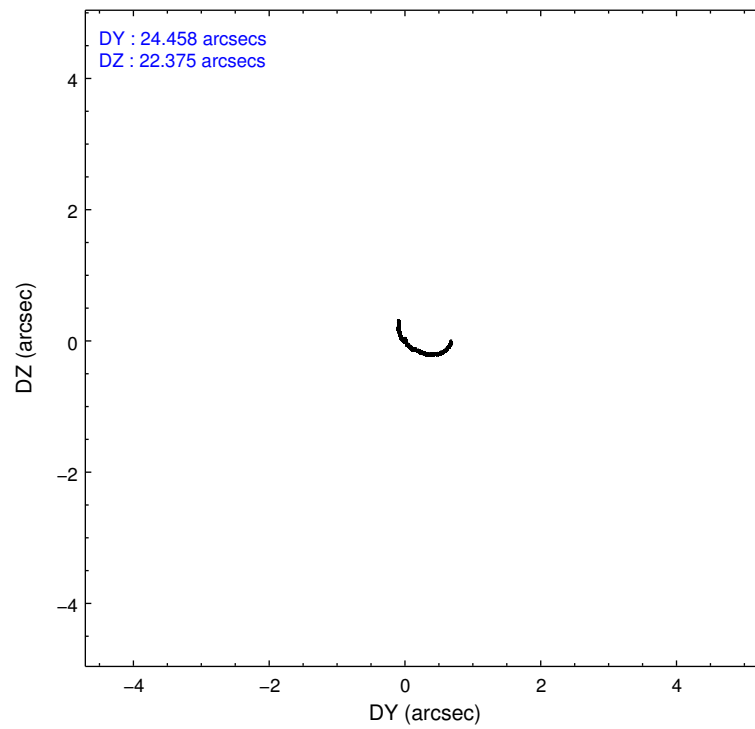
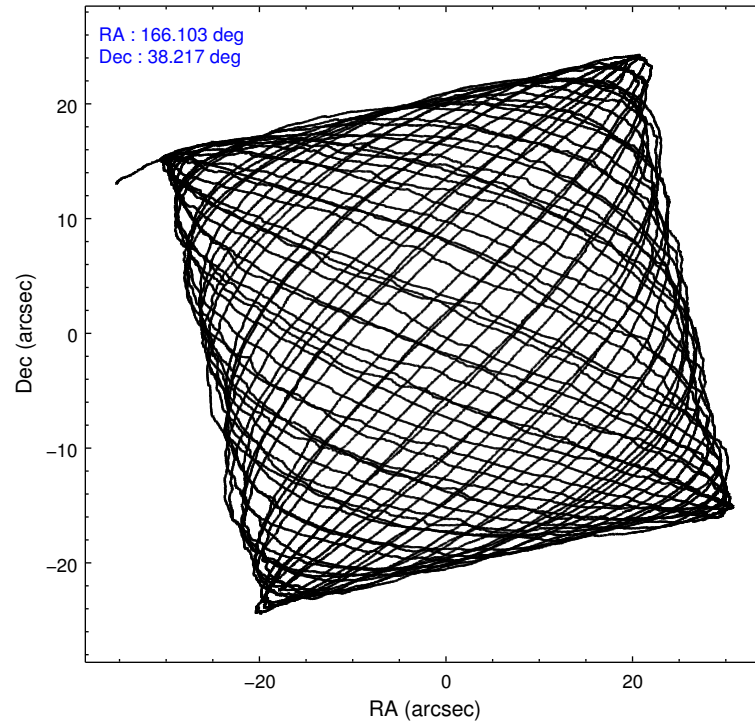
Level 1 Events

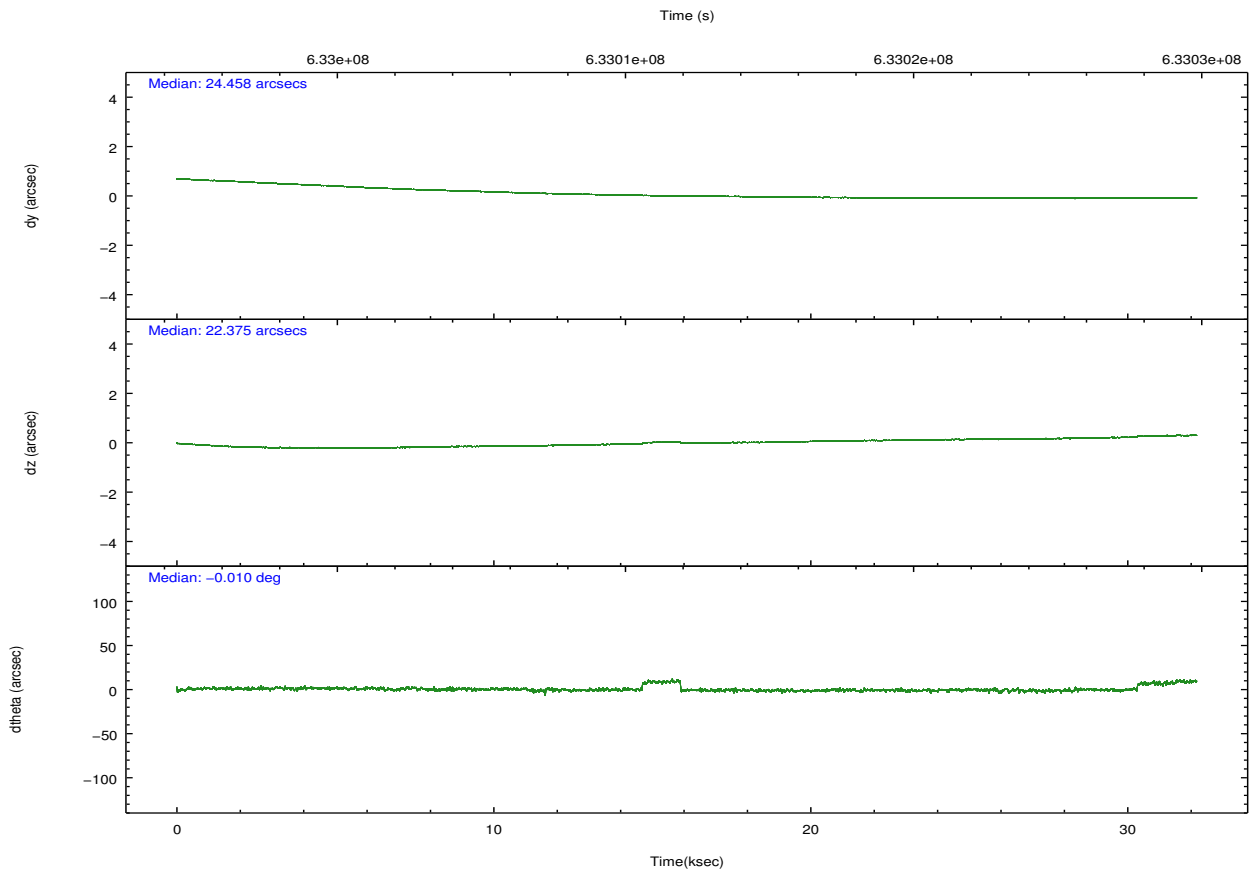
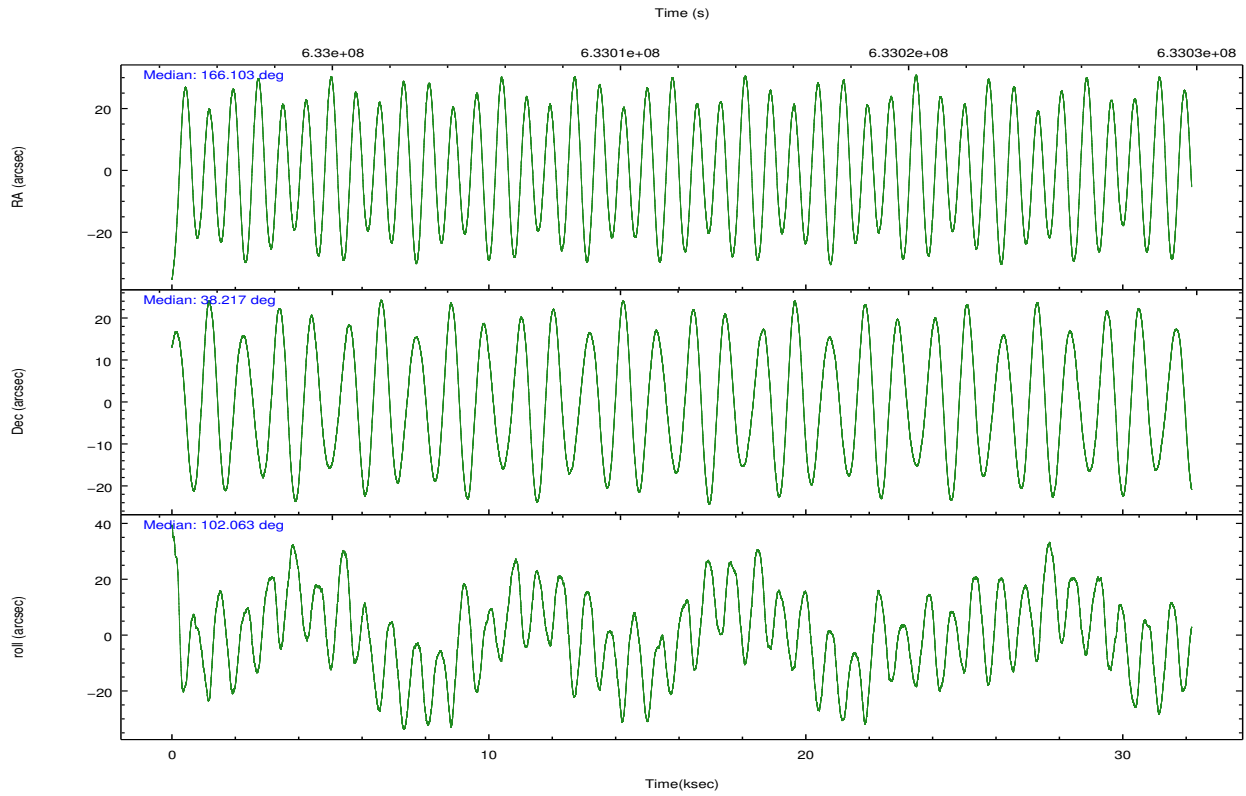
	segment 1	segment 2	segment 3
level 1 events	1210618	2903248	1225350
rejected events	24607	43844	24282
rejected %	2%	1%	1%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	7	7
Detector	HRC-S	HRC-S			
Grating	LETG	LETG			
Data mode	OBSERVING	OBSERVING	Obspar file type	PREDICTED	ACTUAL
Observation mode	POINTING	POINTING	Obspar update status	NONE	UPDATED
[deg] Pointing RA	166.128937	166.1030467012022			
[deg] Pointing Dec	38.196122	38.21661138214721			
[deg] Pointing Roll	101.990608	102.0739547382184			
[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)	632996211.184000	632995558.7855099			
Observation start date	2018-01-22T08:15:42	2018-01-22T08:05:58			
[s] Observation end time (MET)	633028211.184000	633029045.53748			
Observation end date	2018-01-22T17:09:02	2018-01-22T17:24:05			

2.3 Aspect





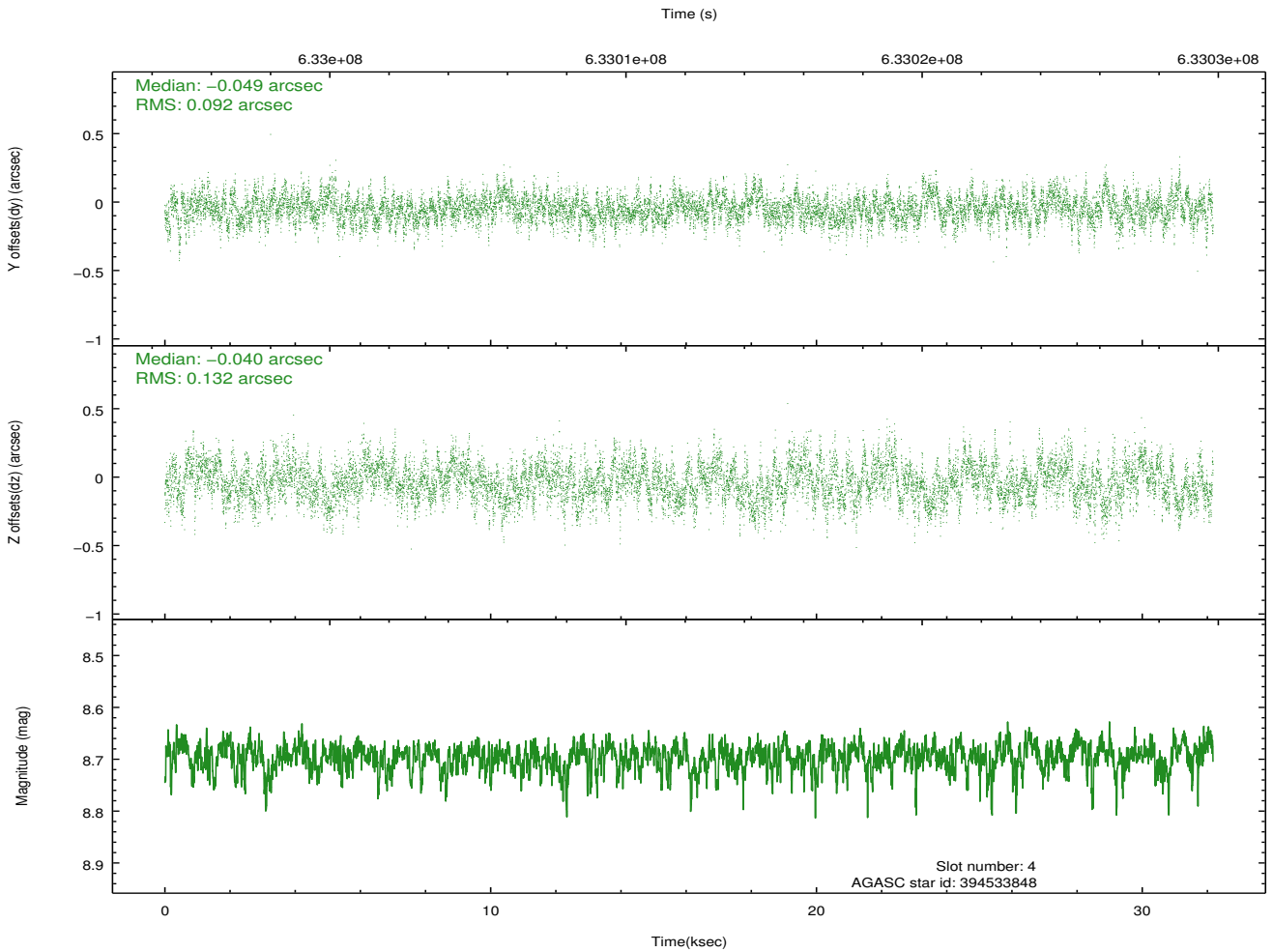
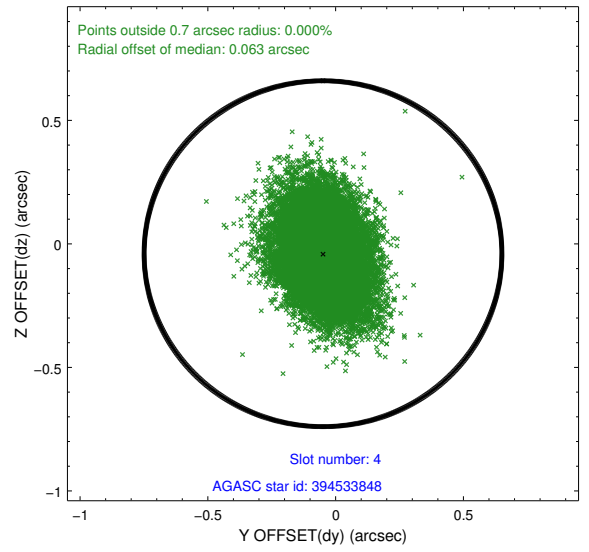
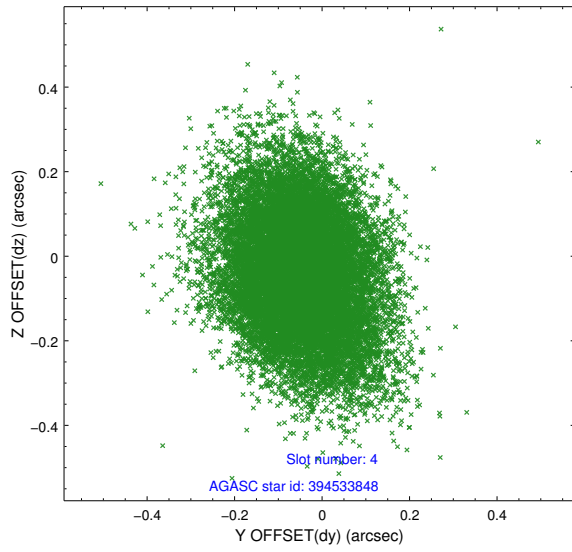
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.11	7848	-0.181	-0.239	0.012	0.021	0.000000	0.000000	-1179.41	-471.68
1	FID		HRC-S-3	7.08	7847	-0.049	-0.092	0.015	0.029	0.000000	0.000000	-1182.27	557.94
2	FID		HRC-S-4	7.04	7848	0.618	0.034	0.011	0.018	0.000000	0.000000	1219.38	561.01
3	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
4	GUIDE	used	394533848	8.69	15683	-0.049	-0.040	0.170	0.282	166.382906	38.276007	135.79	-756.22
5	GUIDE	used	394543960	9.73	15644	0.198	-0.004	0.269	0.447	165.802757	37.787371	-1244.85	1212.99
6	GUIDE	used	394546712	6.59	15696	-0.060	-0.137	0.147	0.253	166.451462	38.394357	510.81	-1037.18
7	GUIDE	used	394530152	7.51	15688	-0.087	0.186	0.155	0.256	166.075805	38.868252	2398.08	-356.33

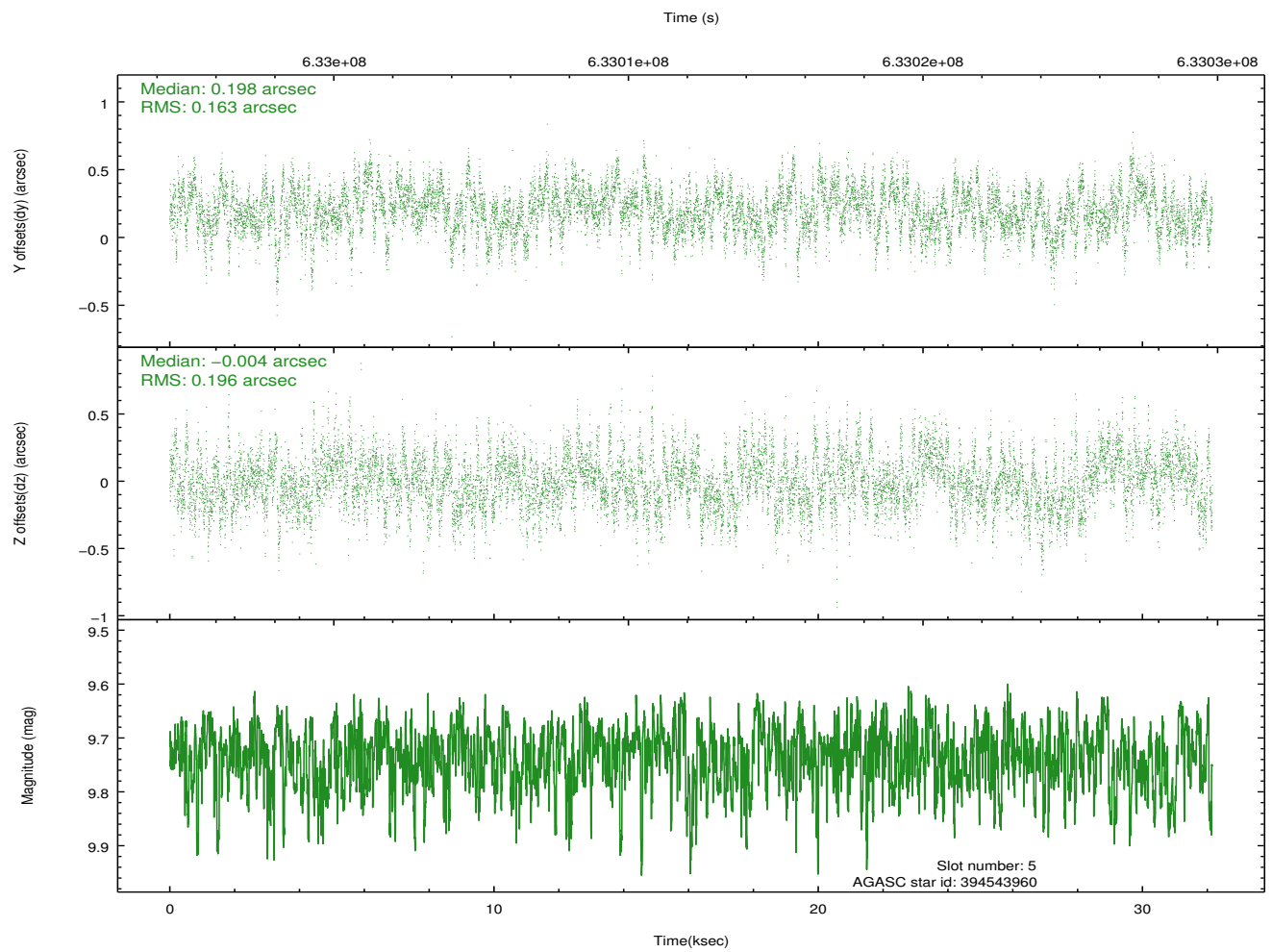
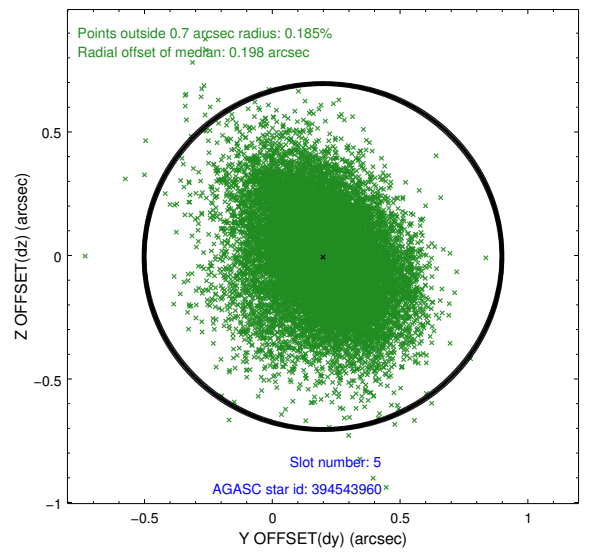
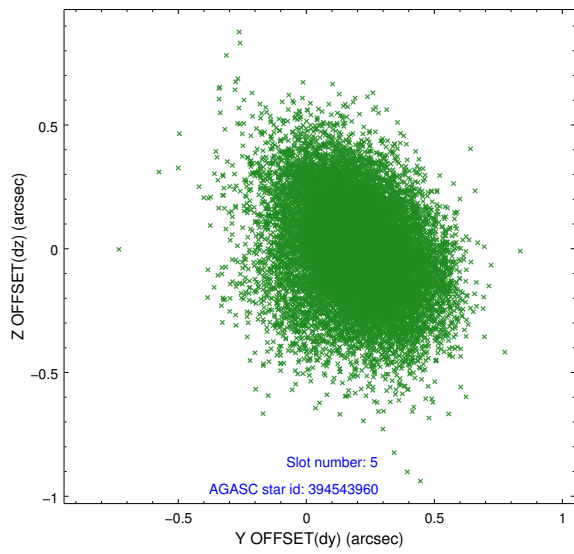
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2.4 Star Slots

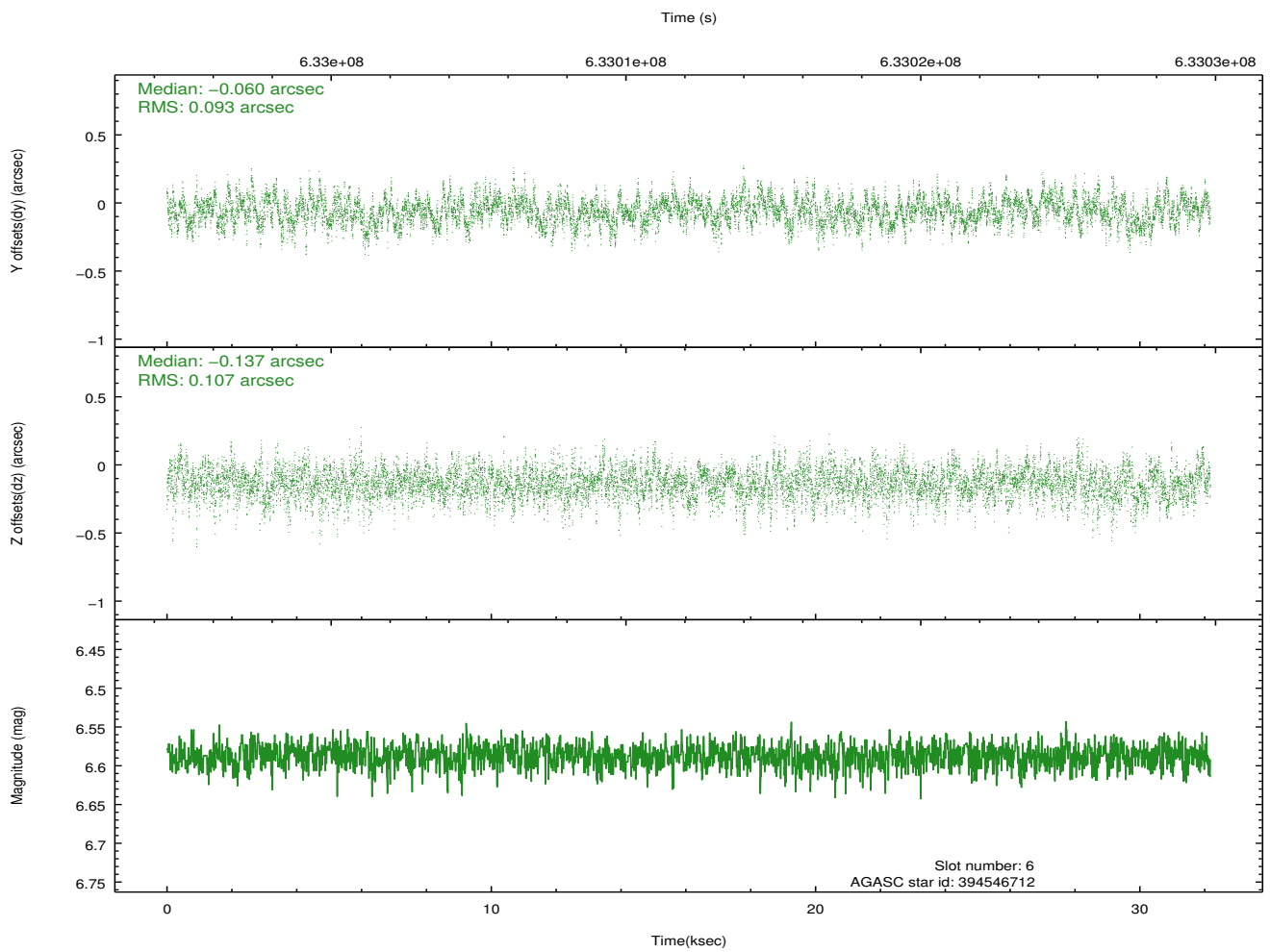
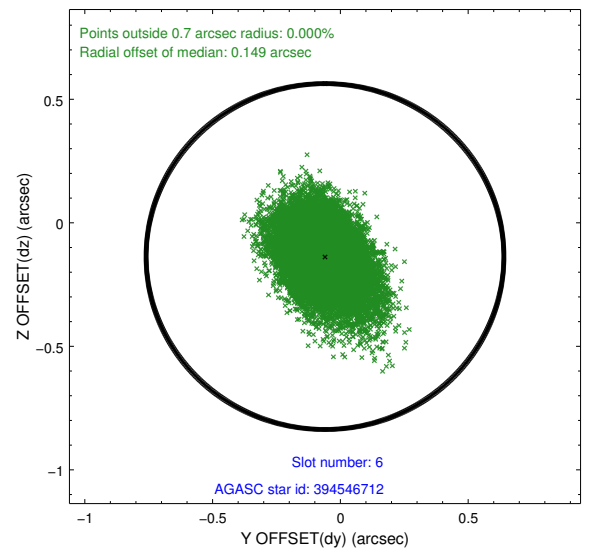
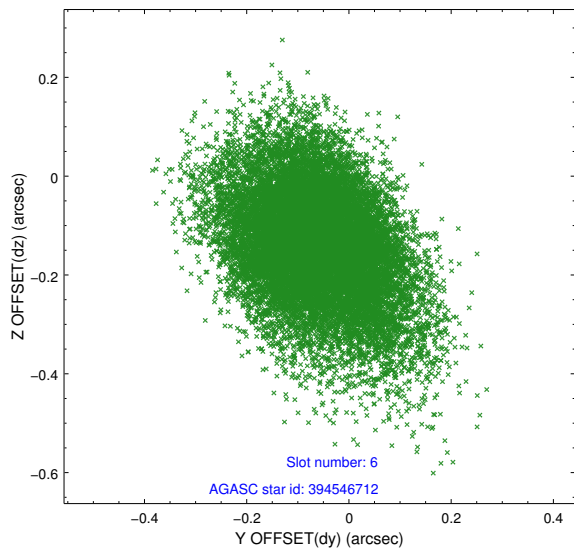
2.4.1 Slot 4



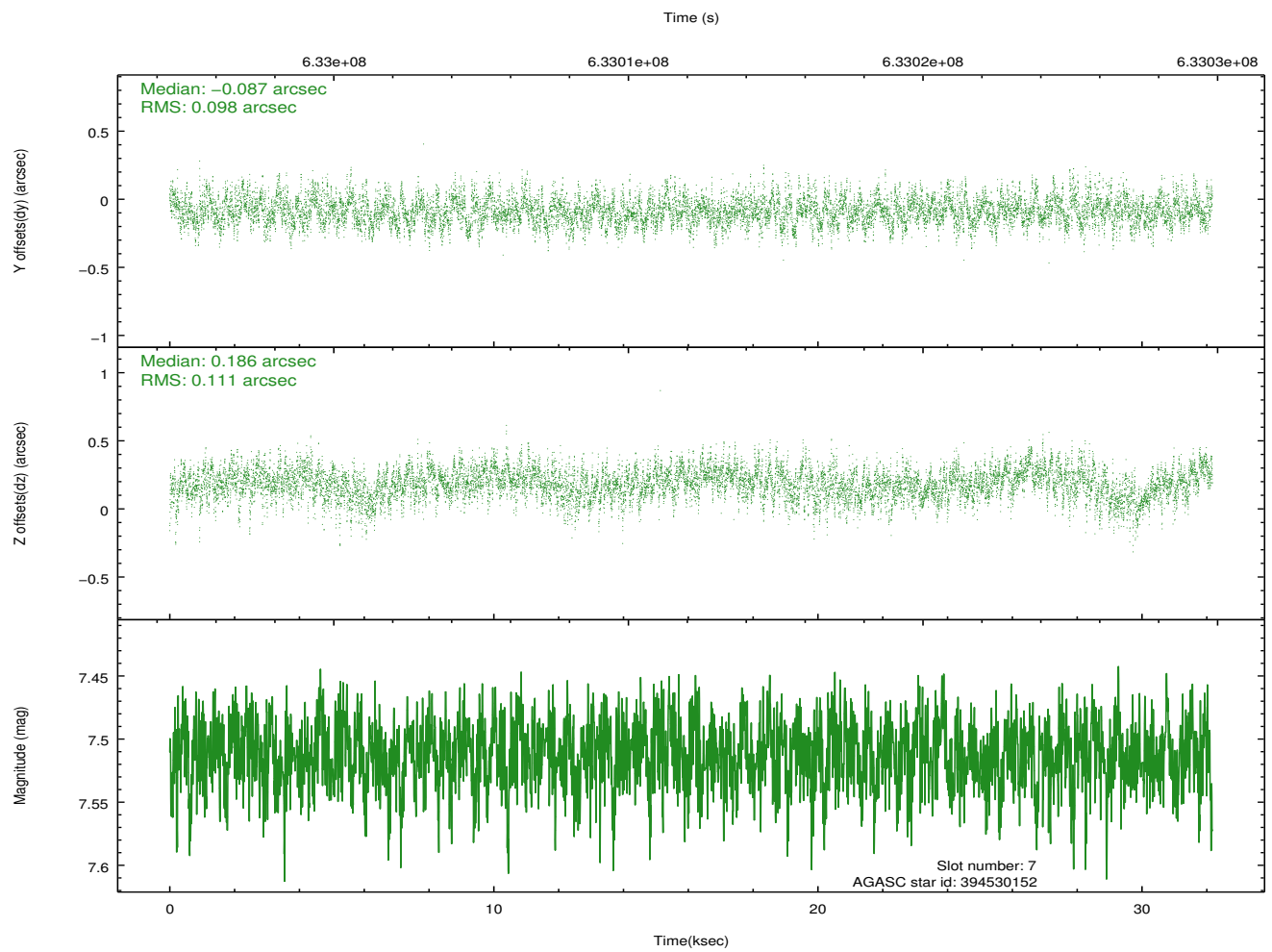
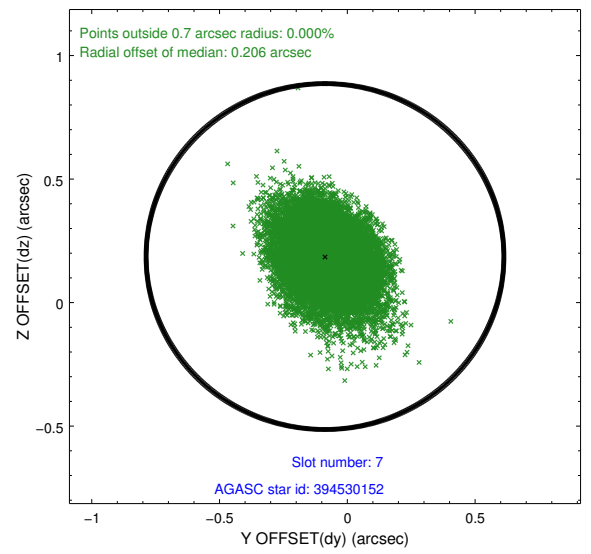
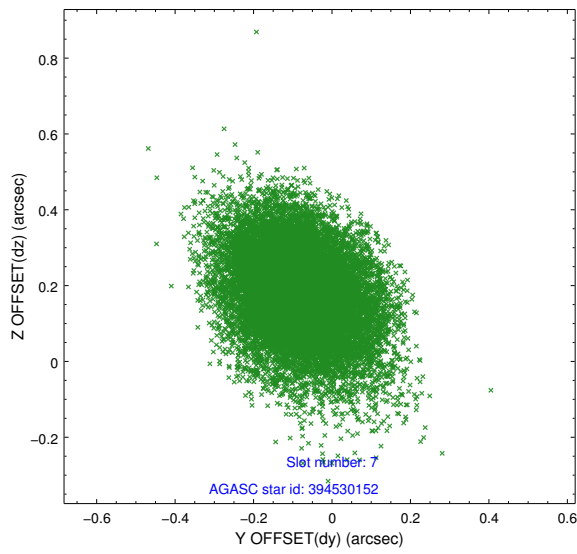
2.4.2 Slot 5



2.4.3 Slot 6

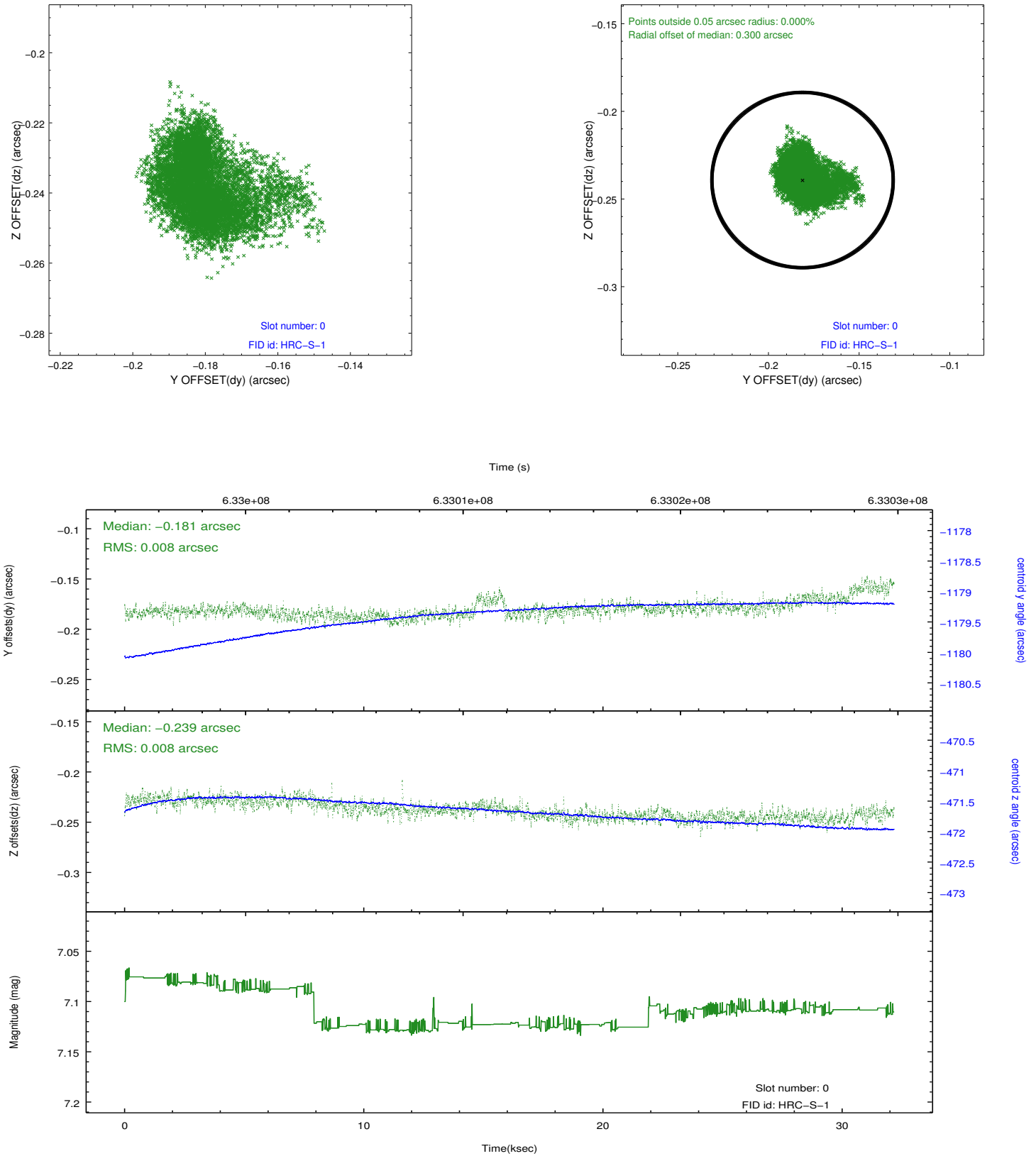


2.4.4 Slot 7

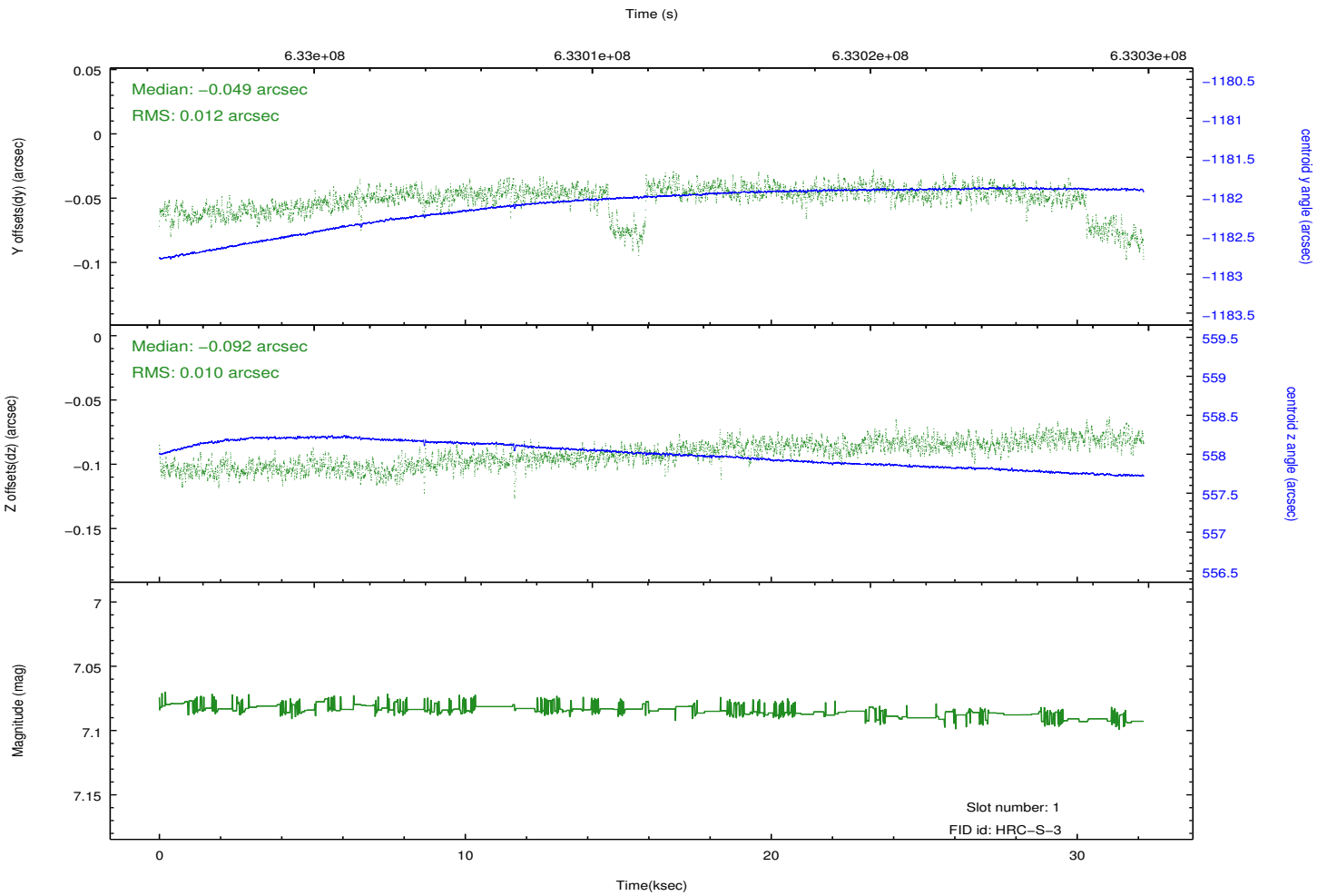
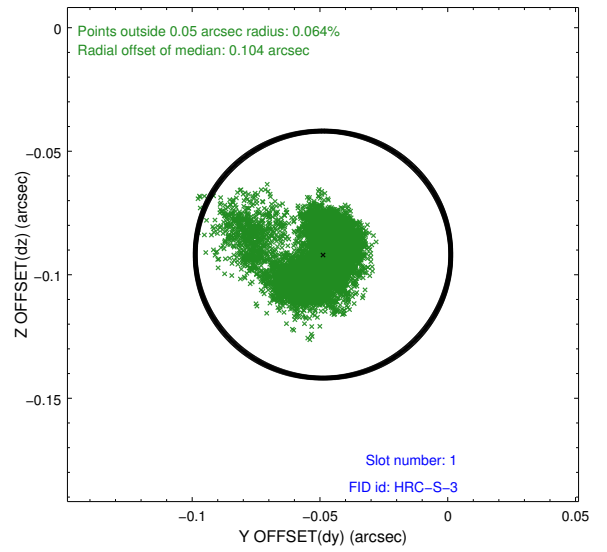
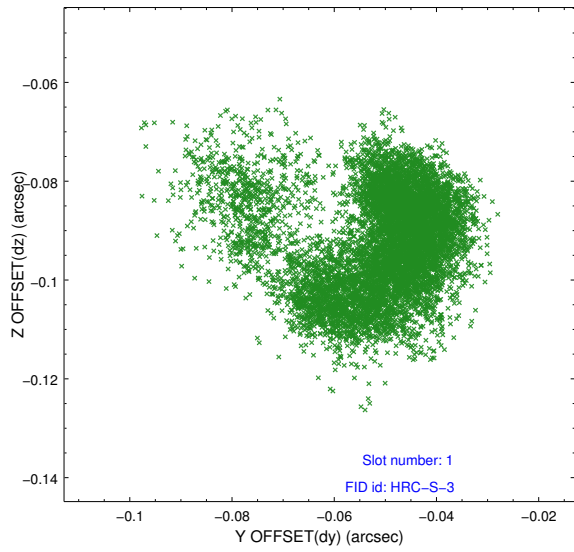


2.5 FID Slots

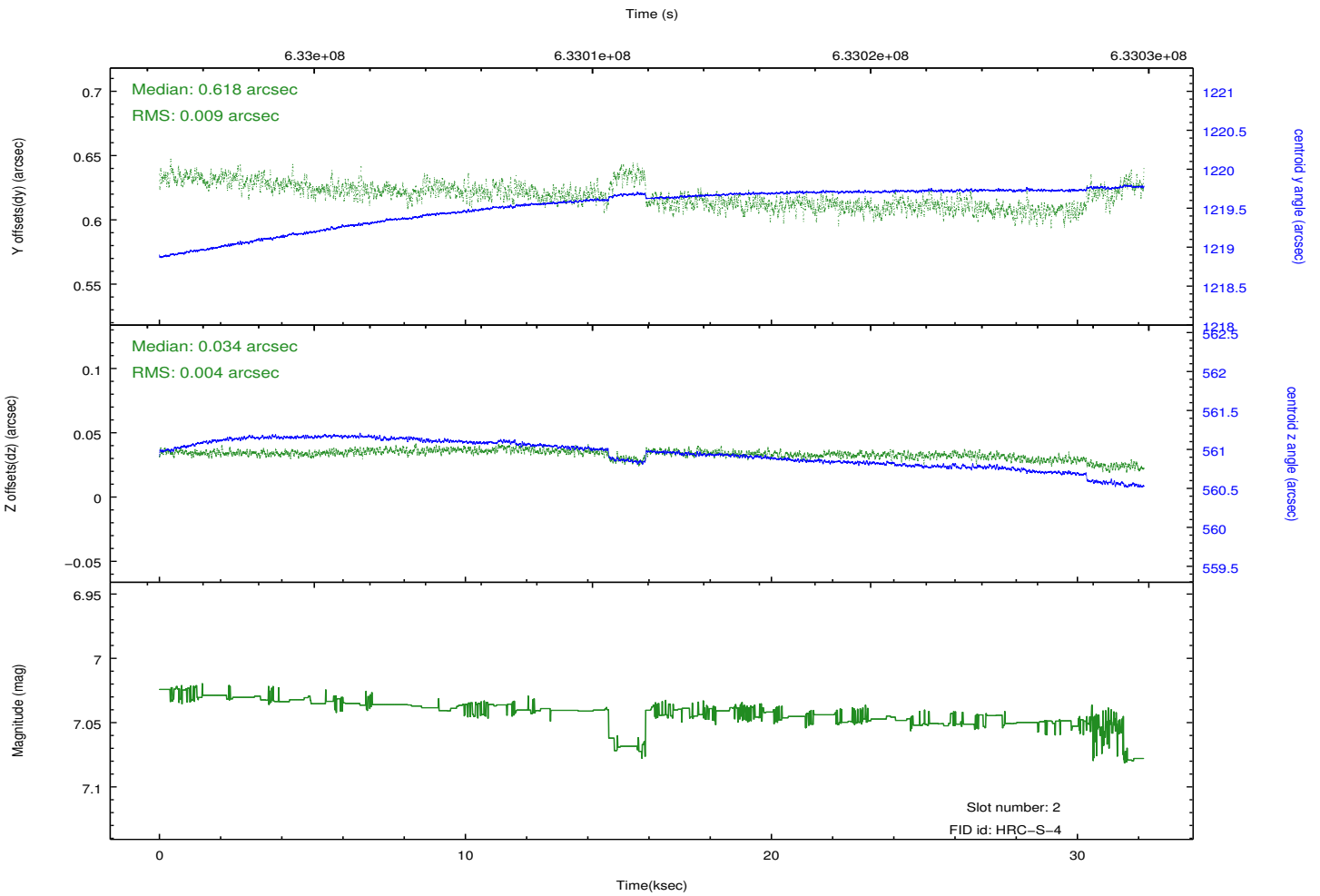
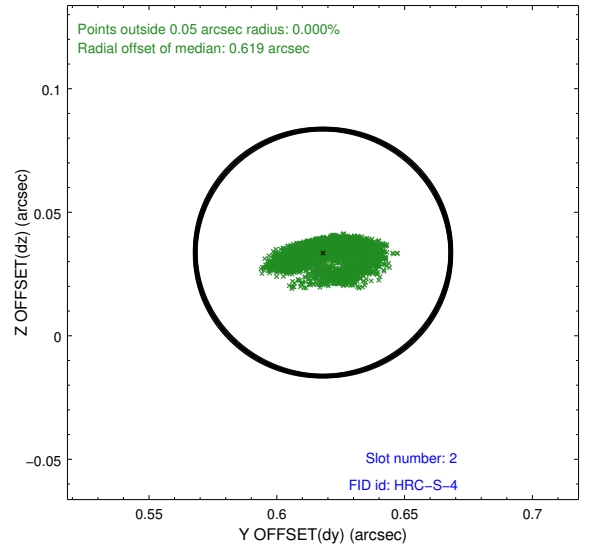
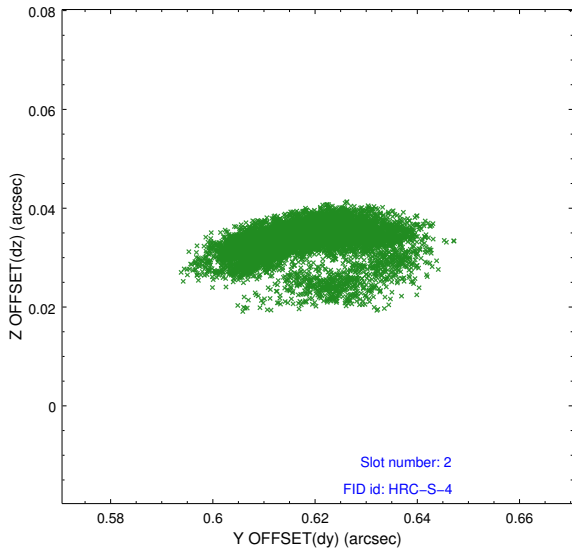
2.5.1 Slot 0



2.5.2 Slot 1

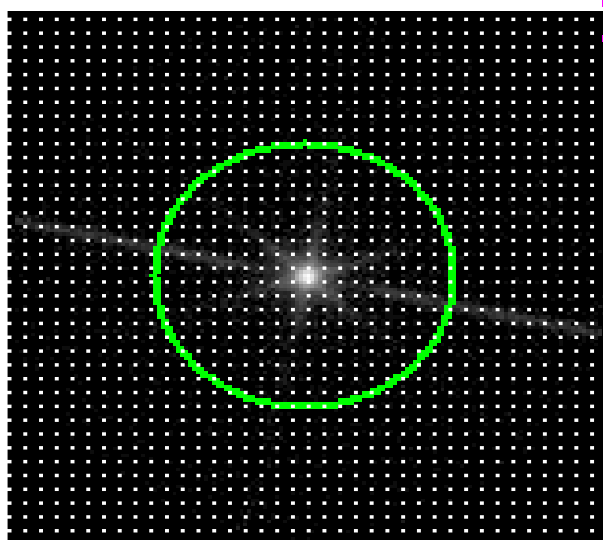


2.5.3 Slot 2

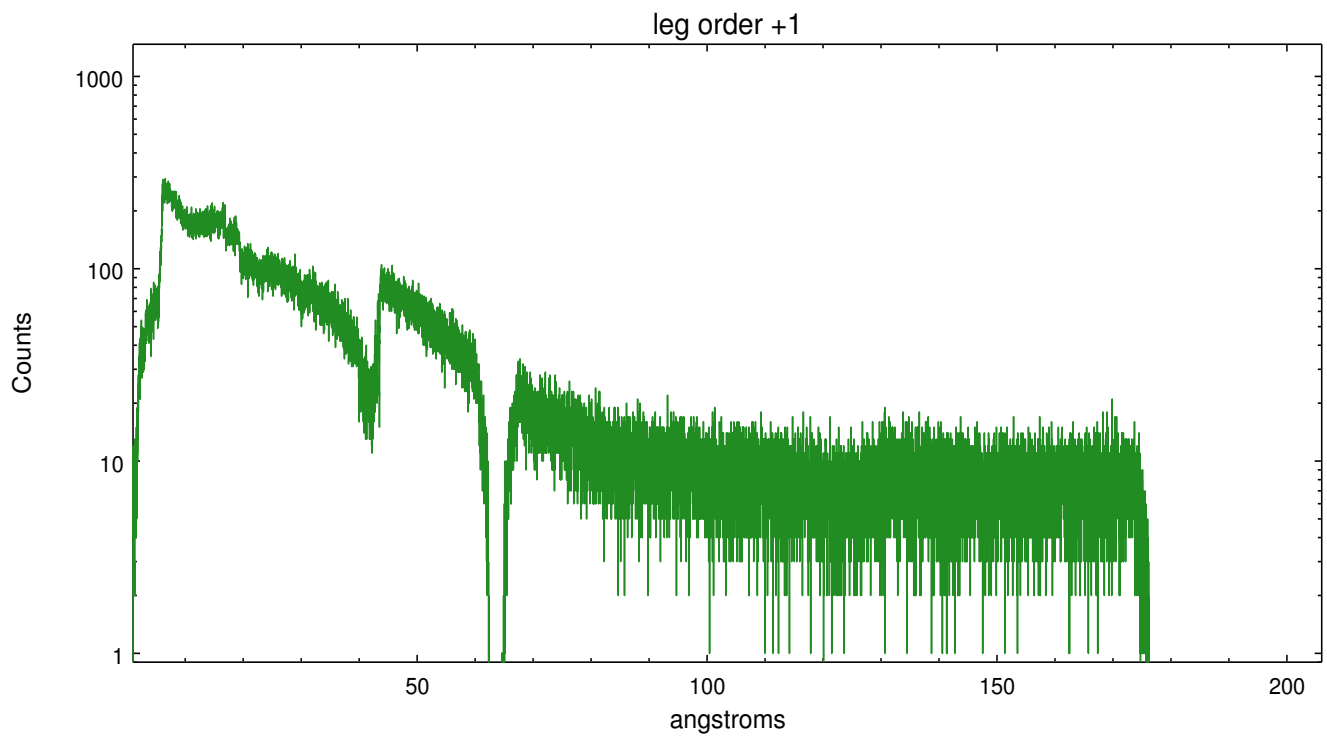
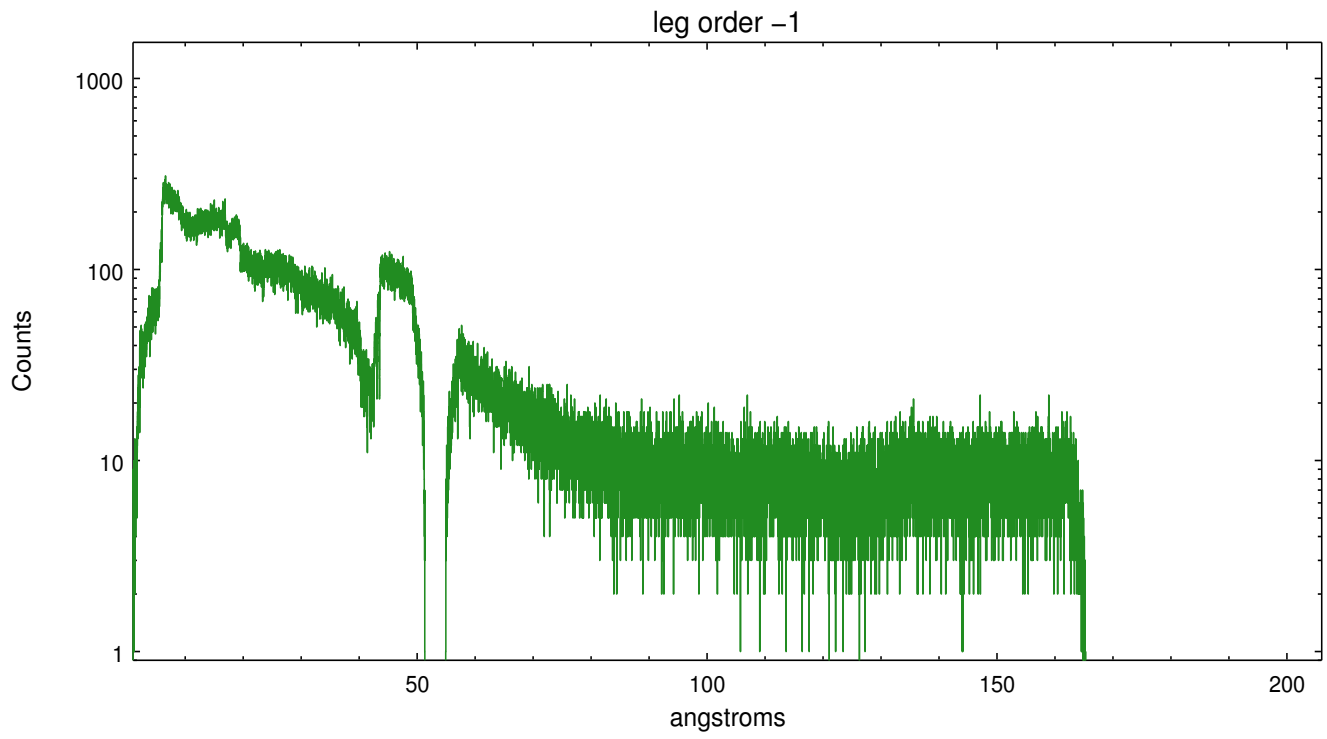


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2018.01.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	31.97667062211

A.2 Comments

Due to corruption of the secondary science data during this observation, some instrument parameters have bogus values. The data in this observation have been inspected by the HRC team. PLEASE NOTE: All the event data in this observation are good. The short gaps in the GTI intervals can be eliminated (i.e., use the first START and last STOP). THE DTF values during this observation can be estimated by dropping all the low values and averaging the remaining values near 1.0.

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The guide star in slot 3 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.