

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 19520 - L2 Version 1
Chandra X-Ray Center

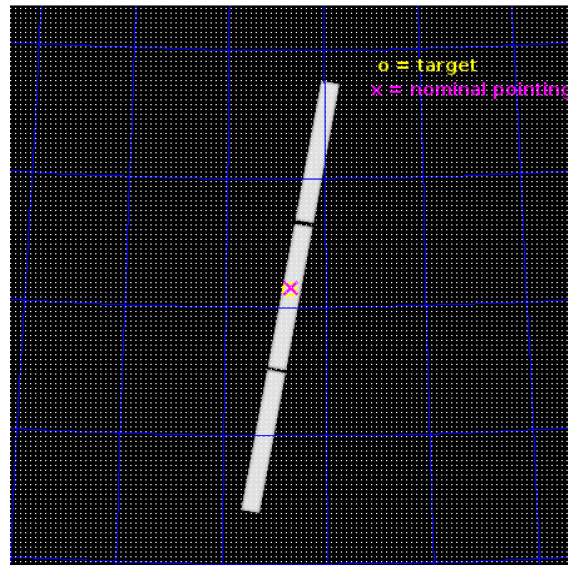
L2 Processing Date : Dec 30 2017

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Parameters	4
2.1.3	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Gratings	17
3.1	LETG Arm	17
A	Summary	19
A.1	Status	19
A.2	Comments	19

1 Front

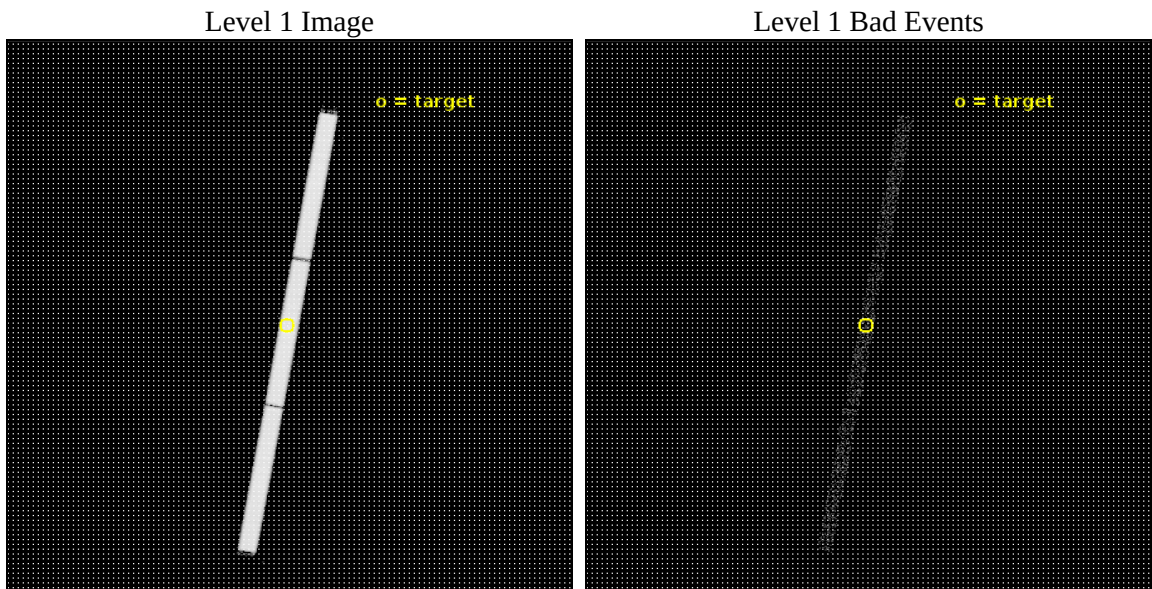
seq_num	703368	Sequence number
obs_id	19520	Observation id
title	The origin of variability in NGC 3516: obscuring disk wind?	Propos
observer	Missagh Mehdipour	Principal investigator
object	NGC 3516	Source name
ra_targ	166.697917	Observer's specified target RA [deg]
dec_targ	72.568611	Observer's specified target Dec [deg]
ra_nom	166.67290867907	Nominal RA [deg]
dec_nom	72.575638979036	Nominal Dec [deg]
roll_nom	100.09119487632	Nominal Roll [deg]
revision	1	Processing version of data
ontime	19671.032407045	[s]
livetime	19487.002600727	Ontime multiplied by DTCOR
l2events	1655680	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	19500.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	19671.032407045	[s]
caldbver	4.7.7	 	l1events	2151055	Number of level 1 events
date	2017-12-30T04:41:11	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	1	Processing version of data	zo_pos	(32557.24, 32577.58)	src1a sky pixel position

2.1.3 Events

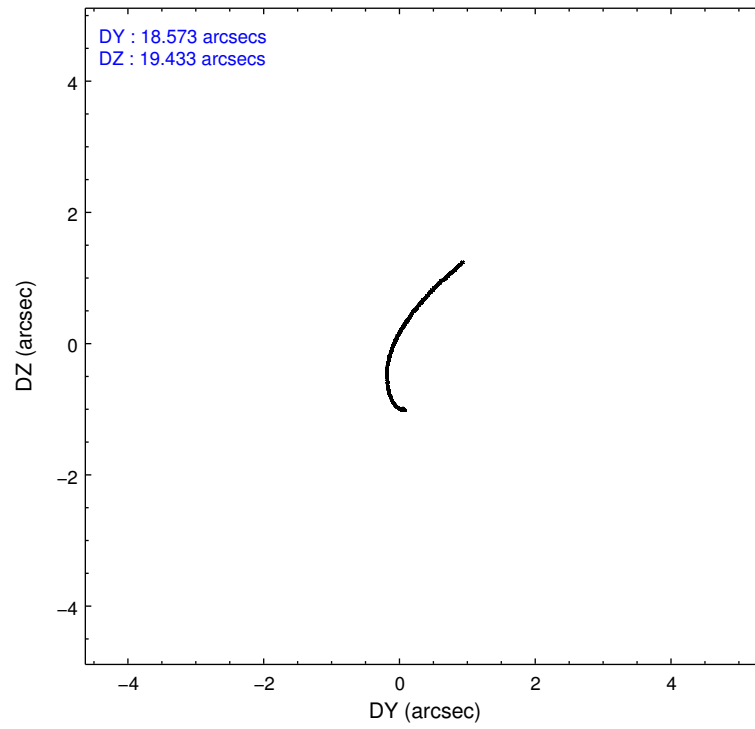
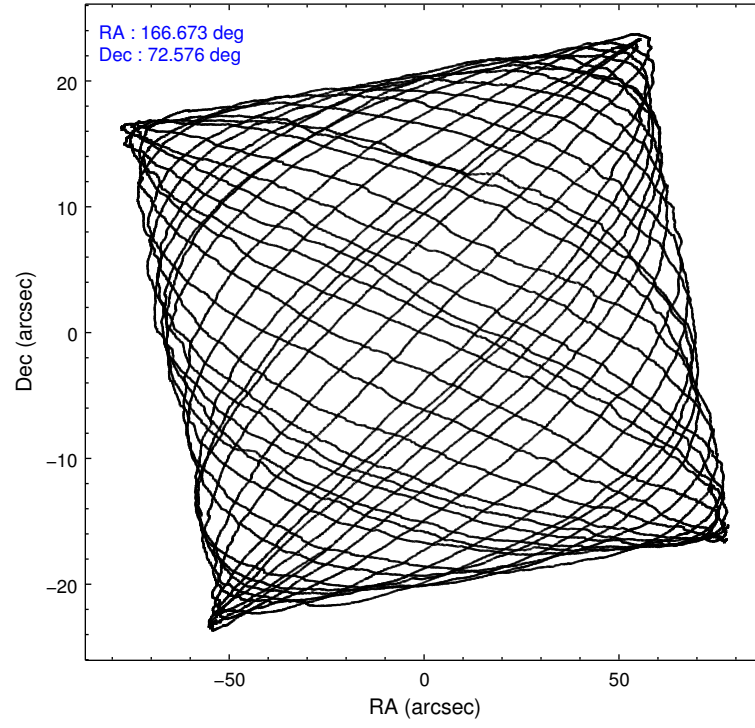
Level 1 Events

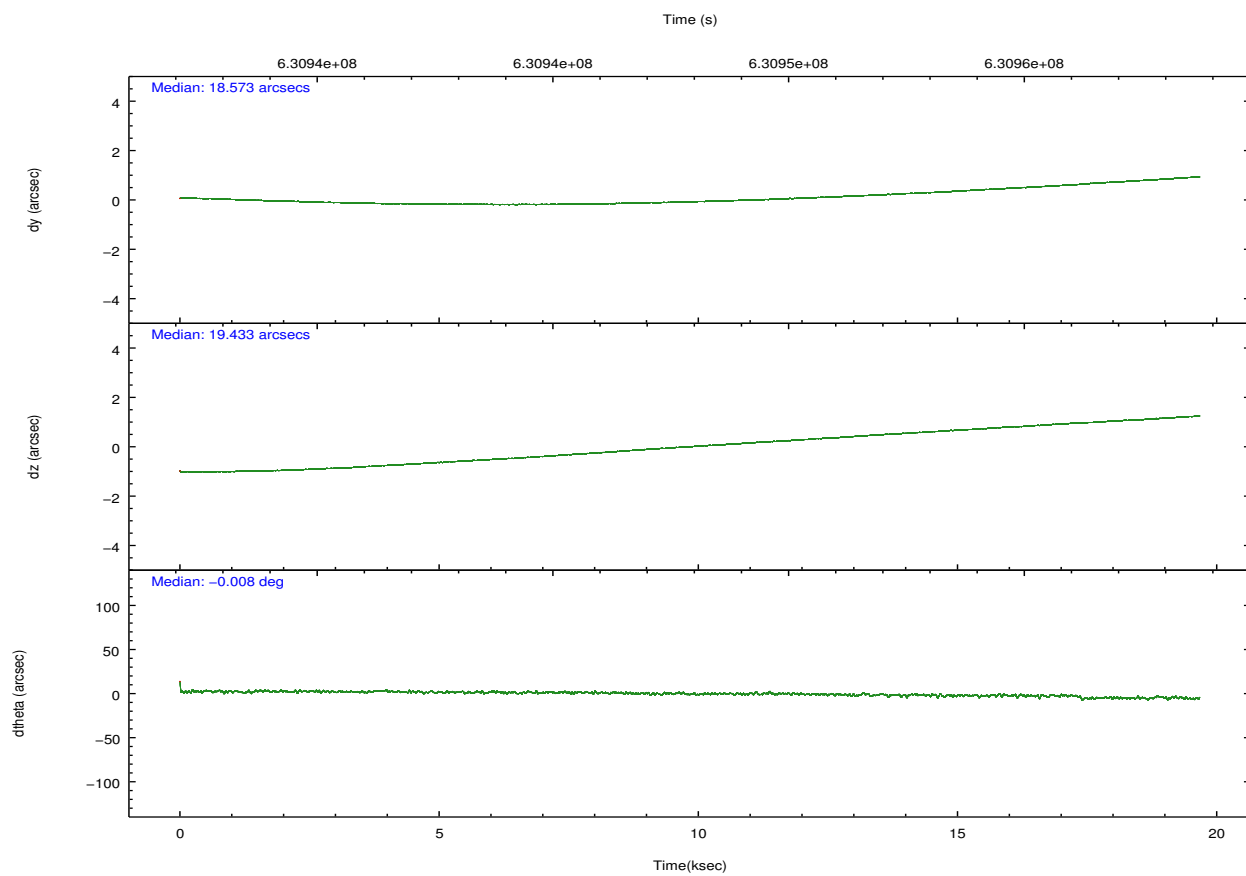
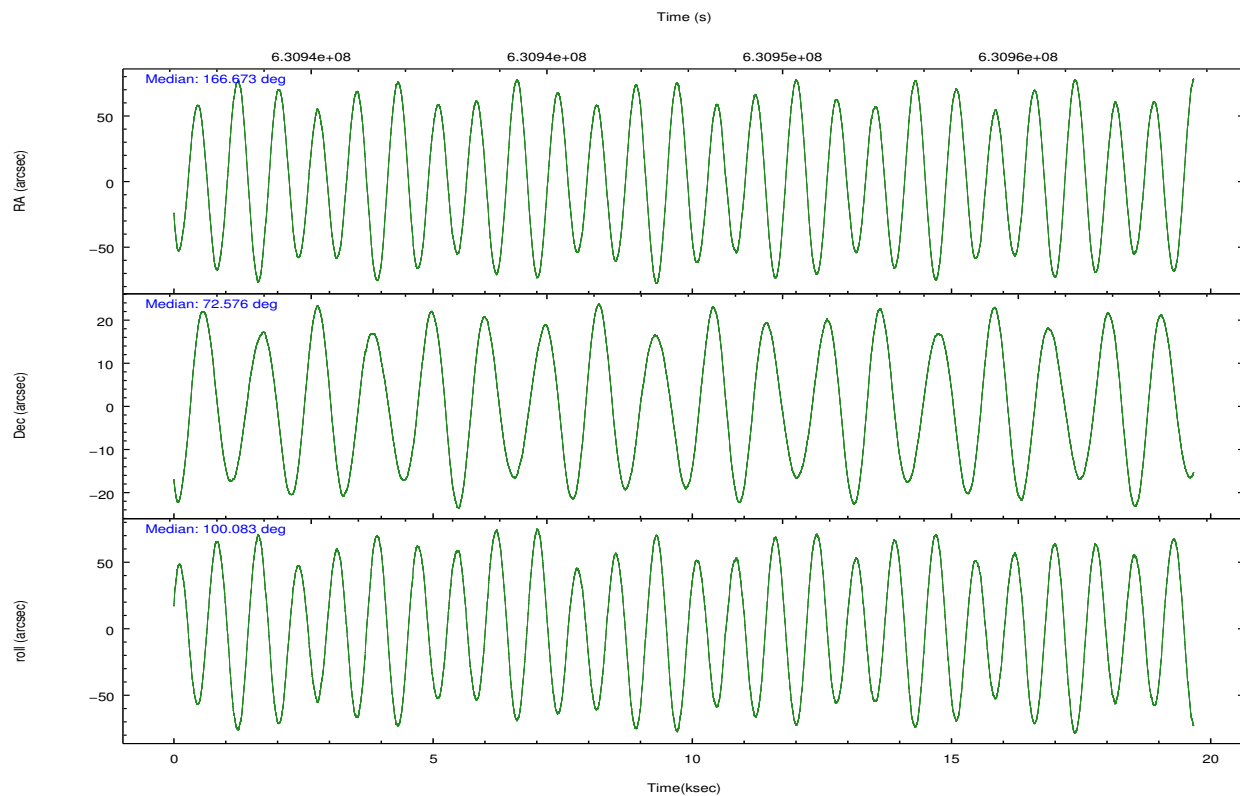
	segment 1	segment 2	segment 3
level 1 events	718719	716256	716080
rejected events	34668	34100	34232
rejected %	4%	4%	4%

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	166.738490	166.6729086790723			
[deg] Pointing Dec	72.554513	72.57563897903556			
[deg] Pointing Roll	99.961291	100.0911948763229			
[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)	630938235.184000	630937129.06441			
Observation start date	2017-12-29T12:36:06	2017-12-29T12:18:49			
[s] Observation end time (MET)	630957735.184000	630958599.74067			
Observation end date	2017-12-29T18:01:06	2017-12-29T18:16:39			

2.3 Aspect



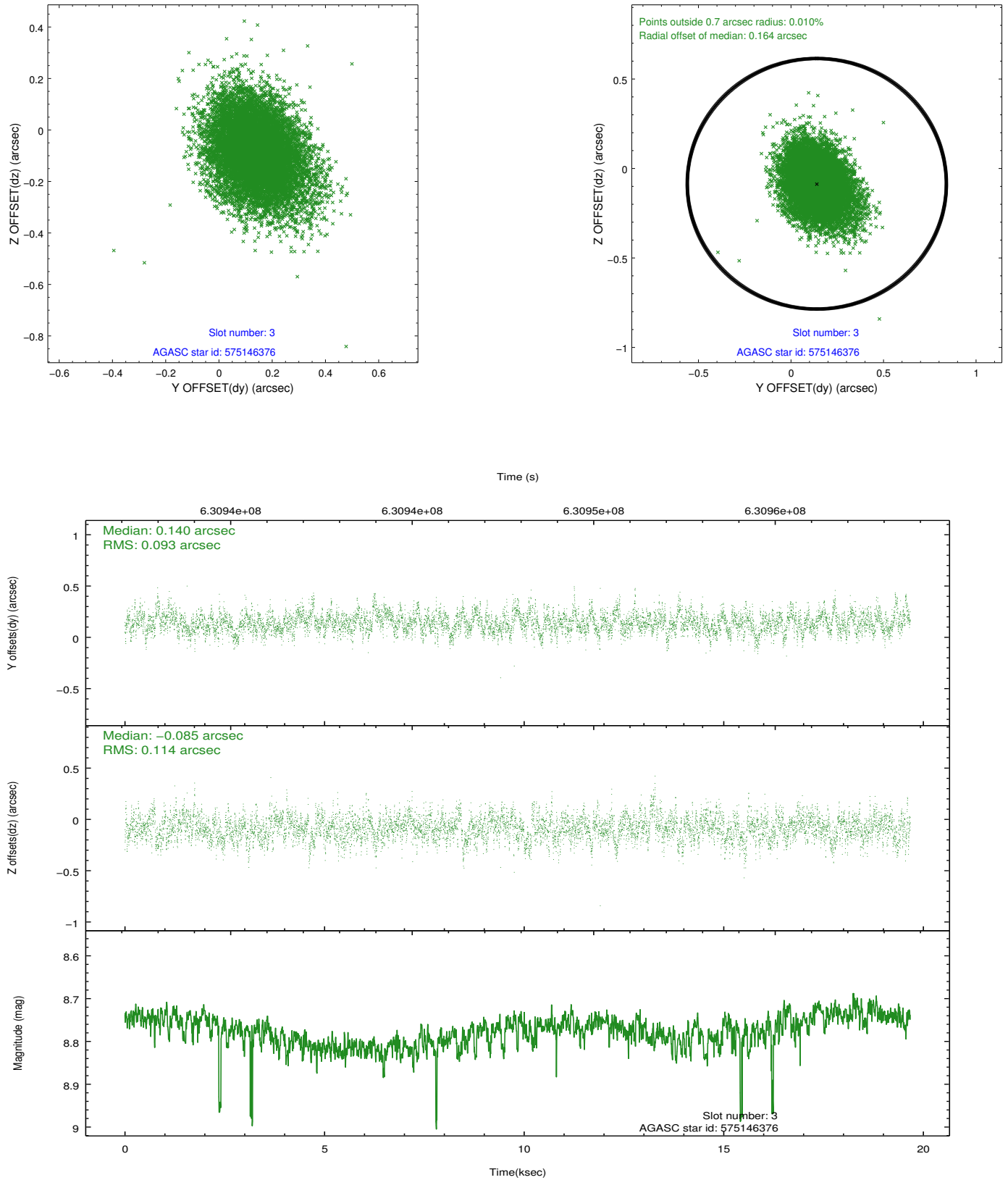


Slot Statistics

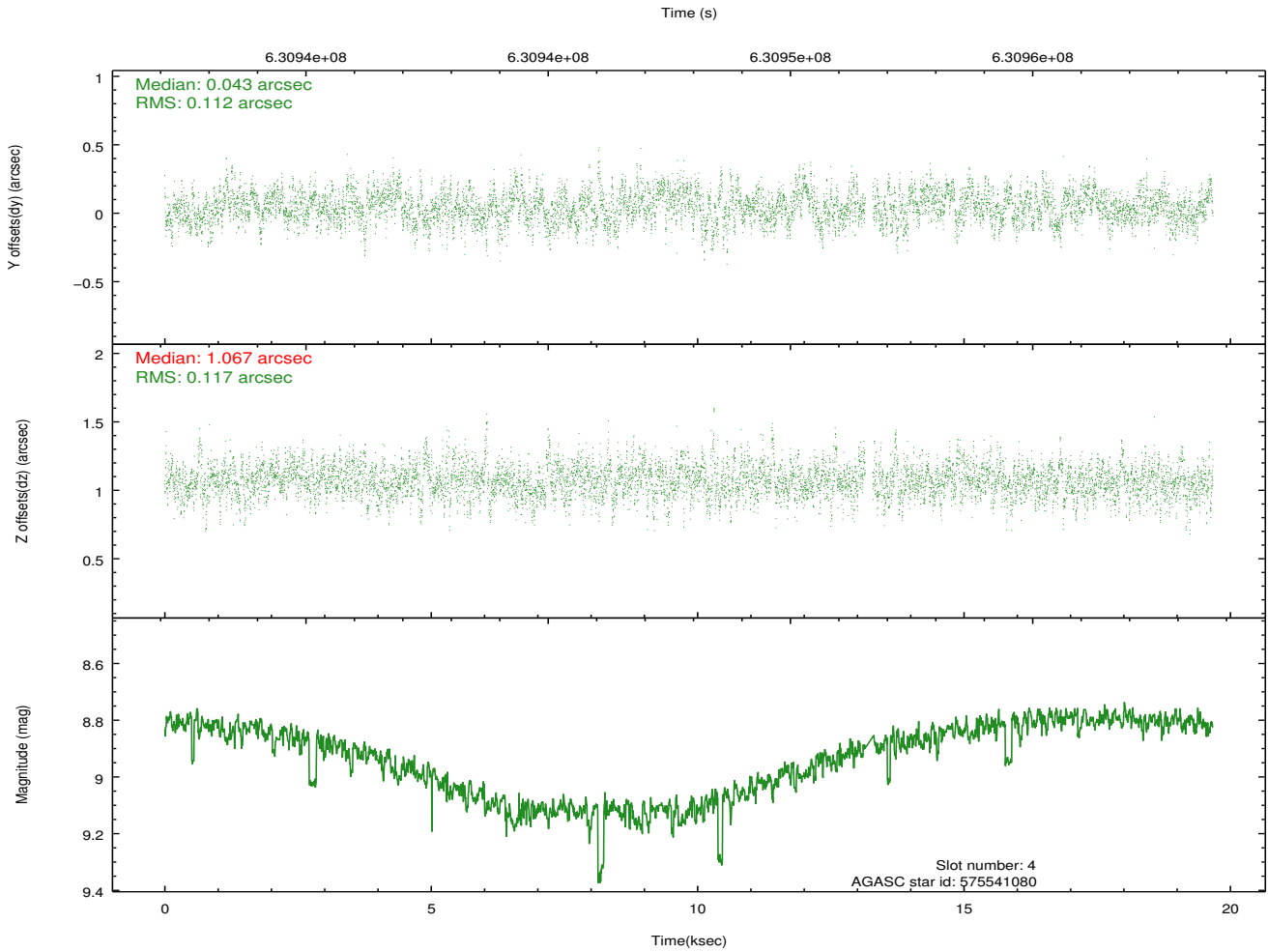
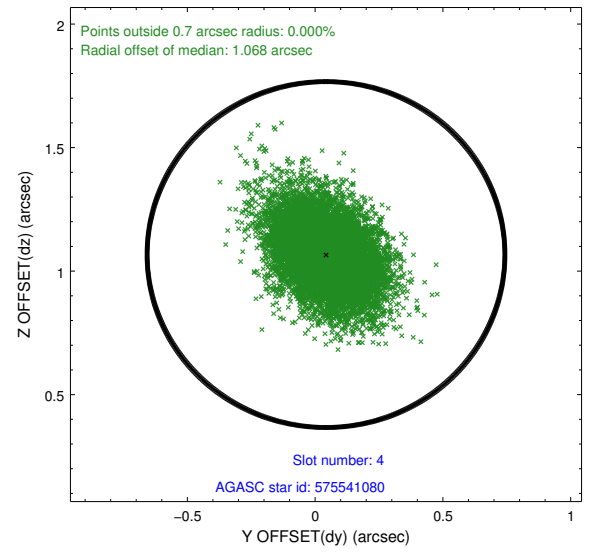
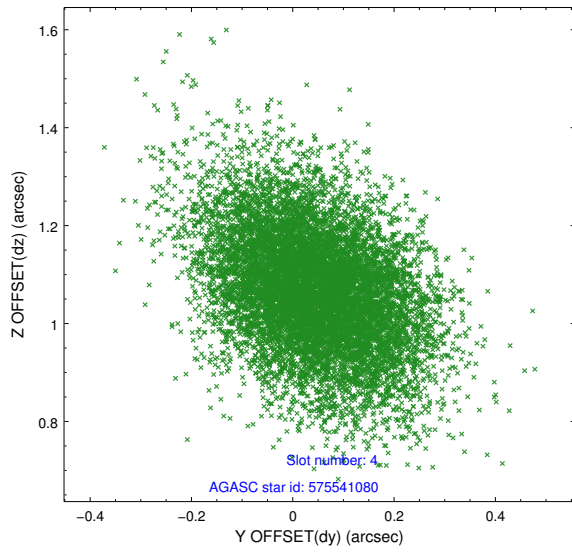
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.04	4798	-0.206	-0.223	0.007	0.013	0.000000	0.000000	-1173.44	-468.60
1	FID		HRC-S-2	7.00	4798	0.193	-0.149	0.032	0.066	0.000000	0.000000	1226.40	-461.07
2	FID		HRC-S-4	7.01	4799	0.415	0.068	0.030	0.056	0.000000	0.000000	1225.62	563.88
3	GUIDE	used	575146376	8.77	9590	0.140	-0.085	0.154	0.258	166.888472	72.124920	-1551.00	104.13
4	GUIDE	used	575541080	8.91	9511	0.043	1.067	0.170	0.285	167.870403	73.115273	1795.15	-1515.22
5	GUIDE	used	576067400	8.06	9592	0.160	0.576	0.157	0.260	168.743801	72.008418	-2284.23	-1861.99
6	GUIDE	used	575541344	9.32	9585	-0.136	-0.606	0.204	0.334	166.947366	72.953762	1378.15	-466.26
7	GUIDE	used	575543720	9.31	9588	-0.210	-0.951	0.217	0.340	164.695945	72.631615	689.83	2106.47

2.4 Star Slots

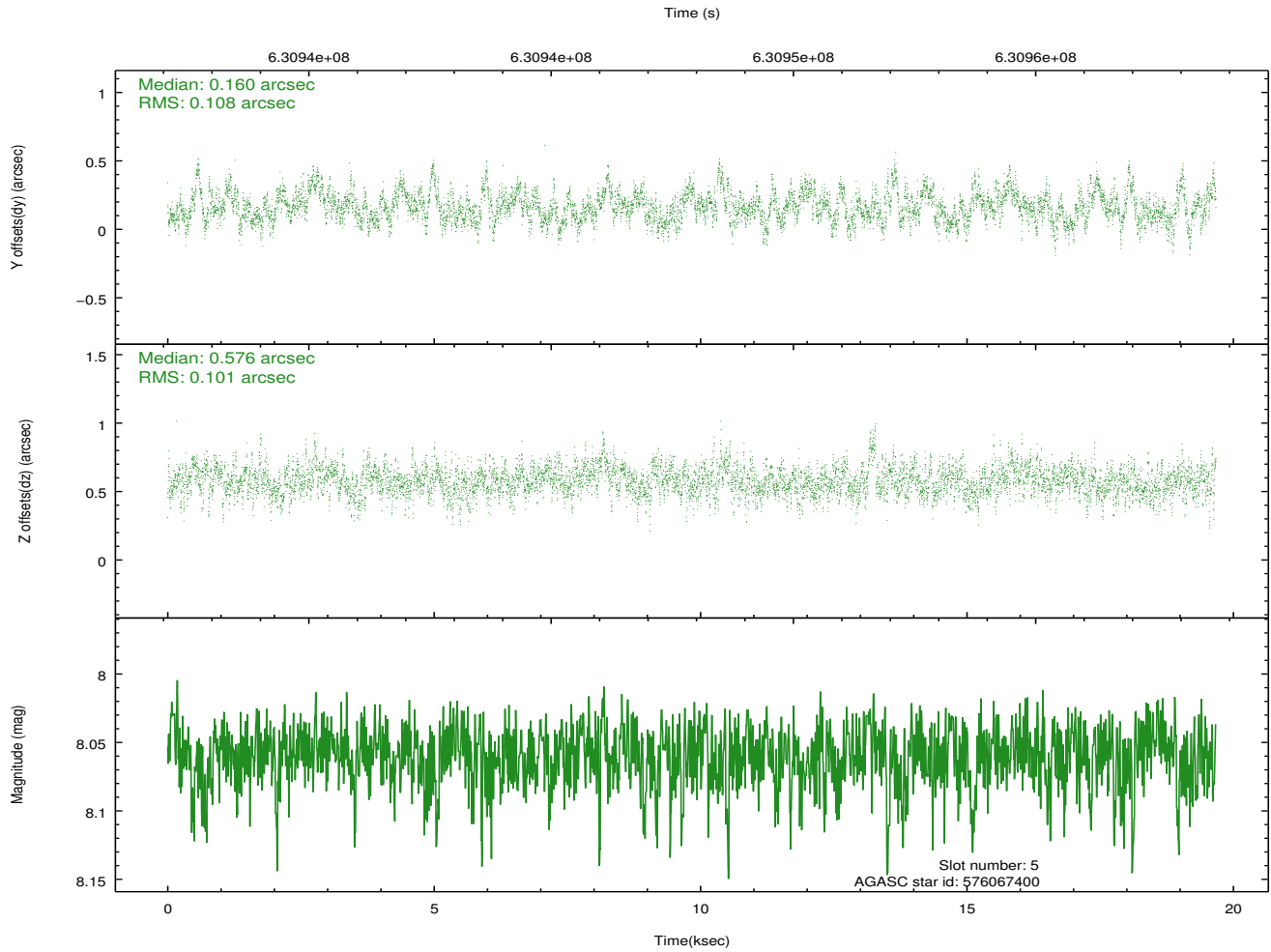
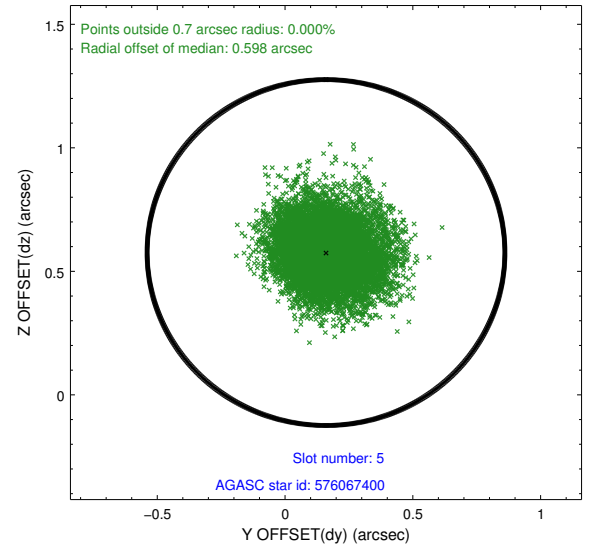
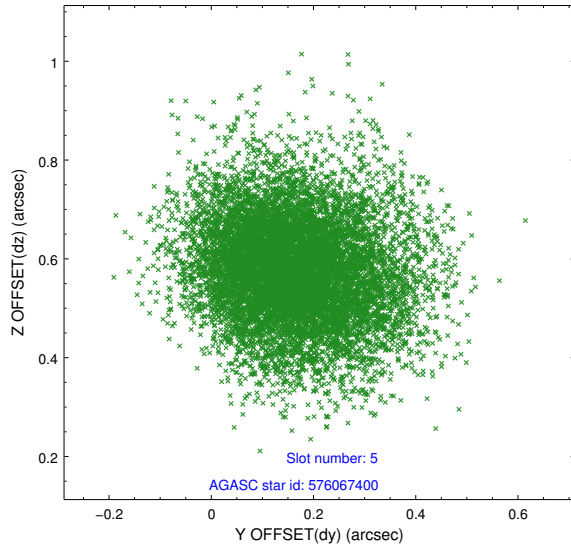
2.4.1 Slot 3



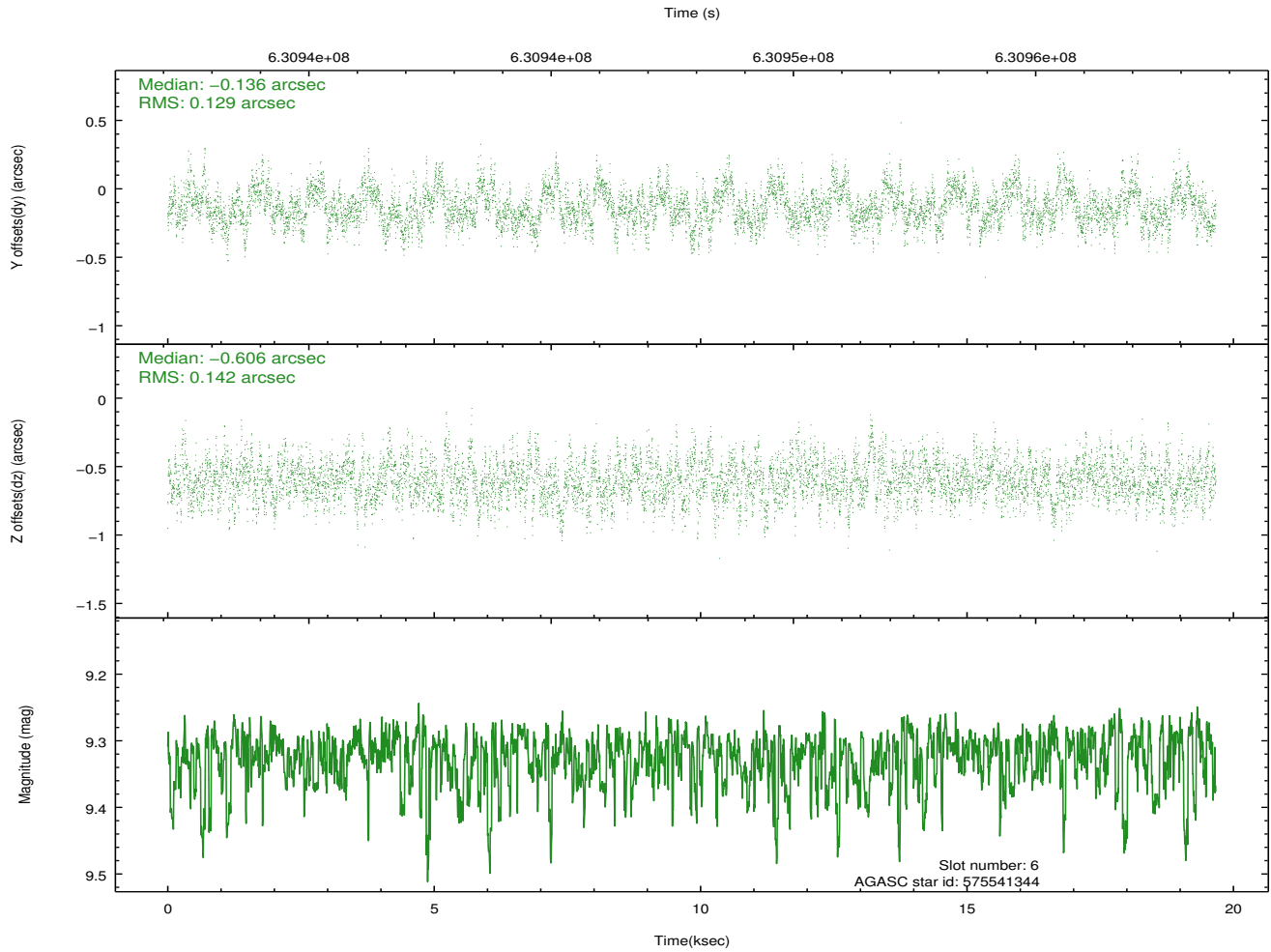
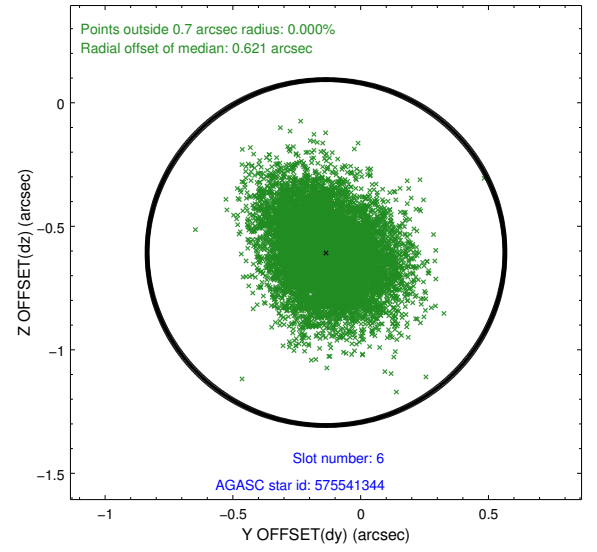
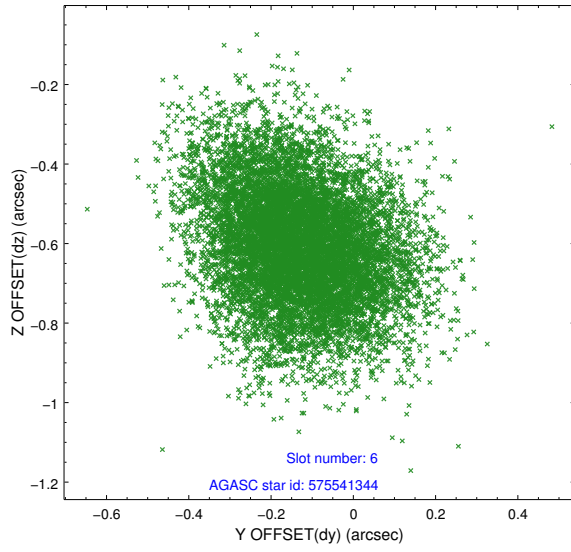
2.4.2 Slot 4



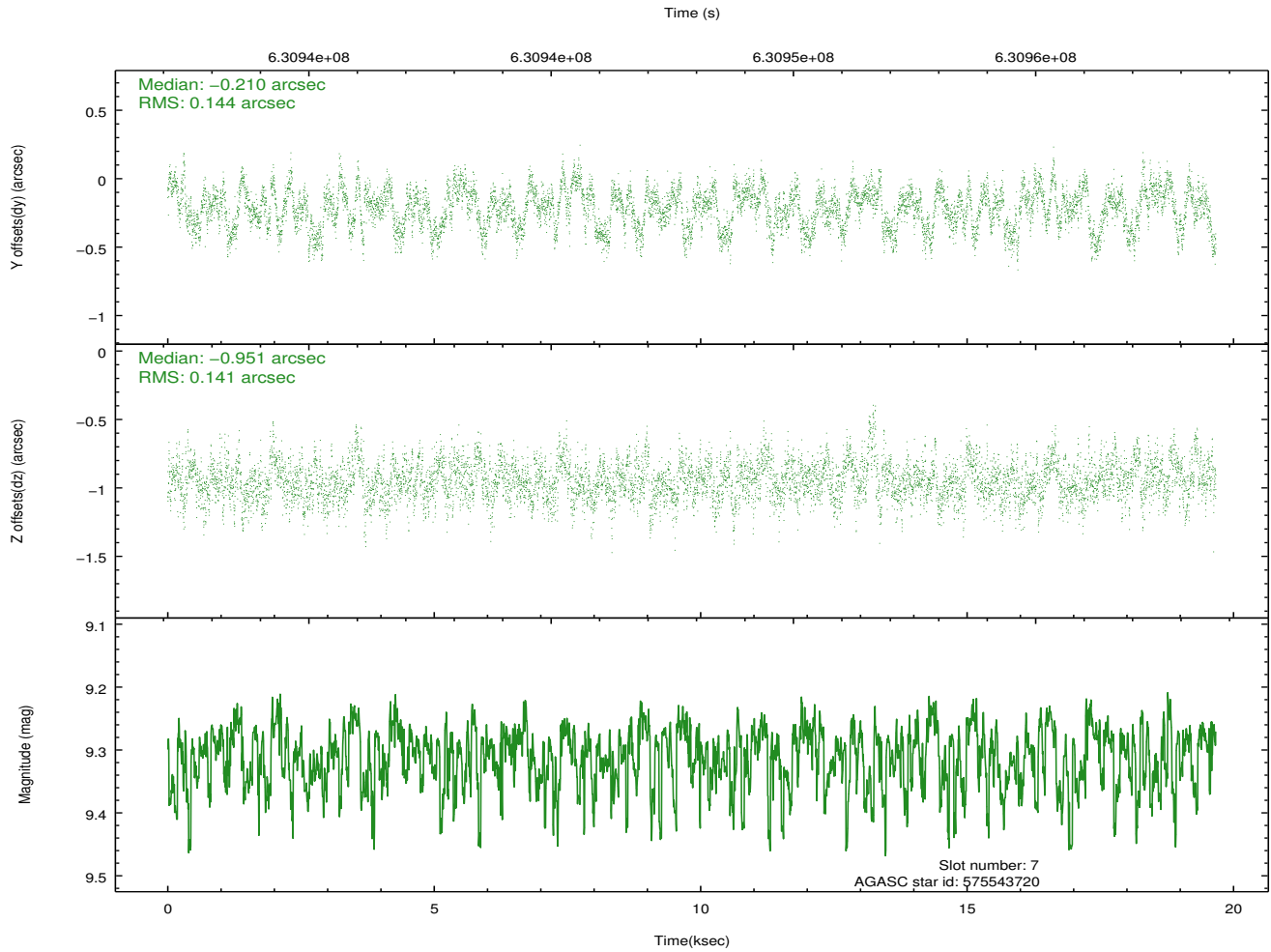
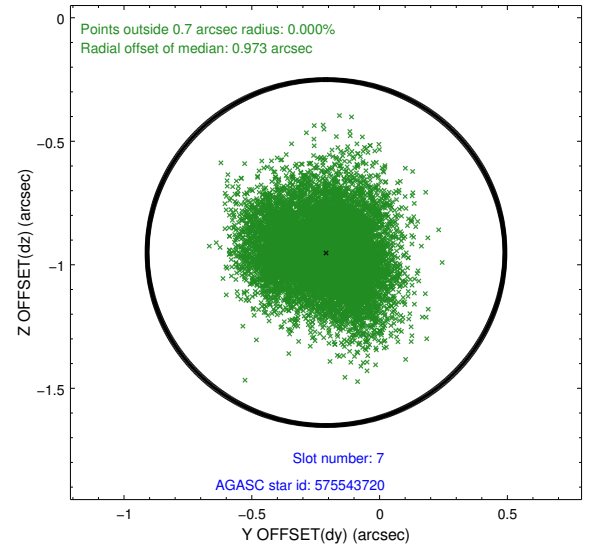
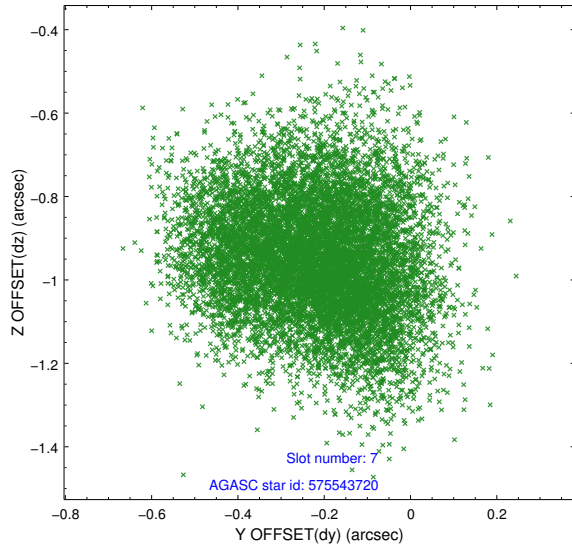
2.4.3 Slot 5



2.4.4 Slot 6

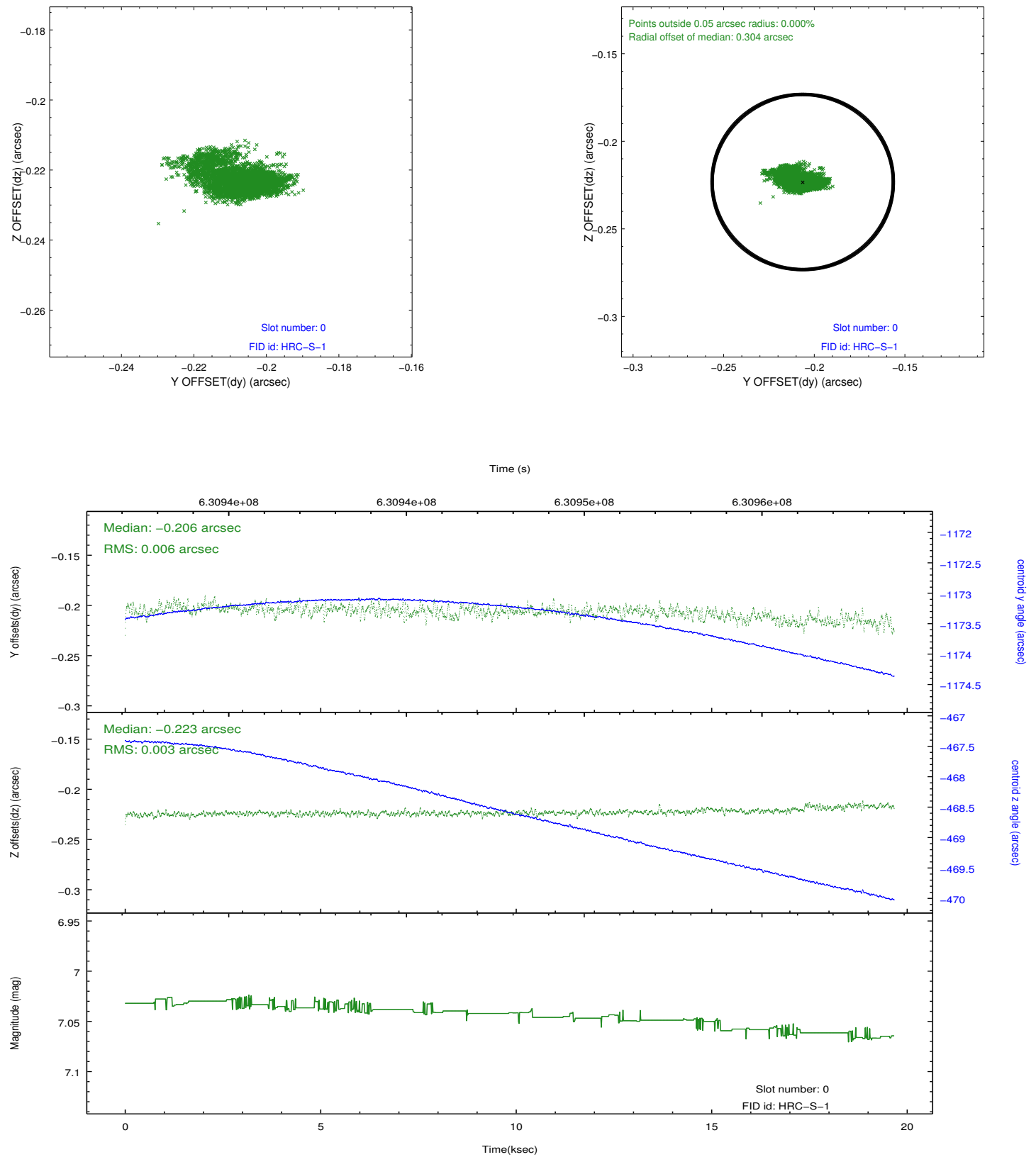


2.4.5 Slot 7

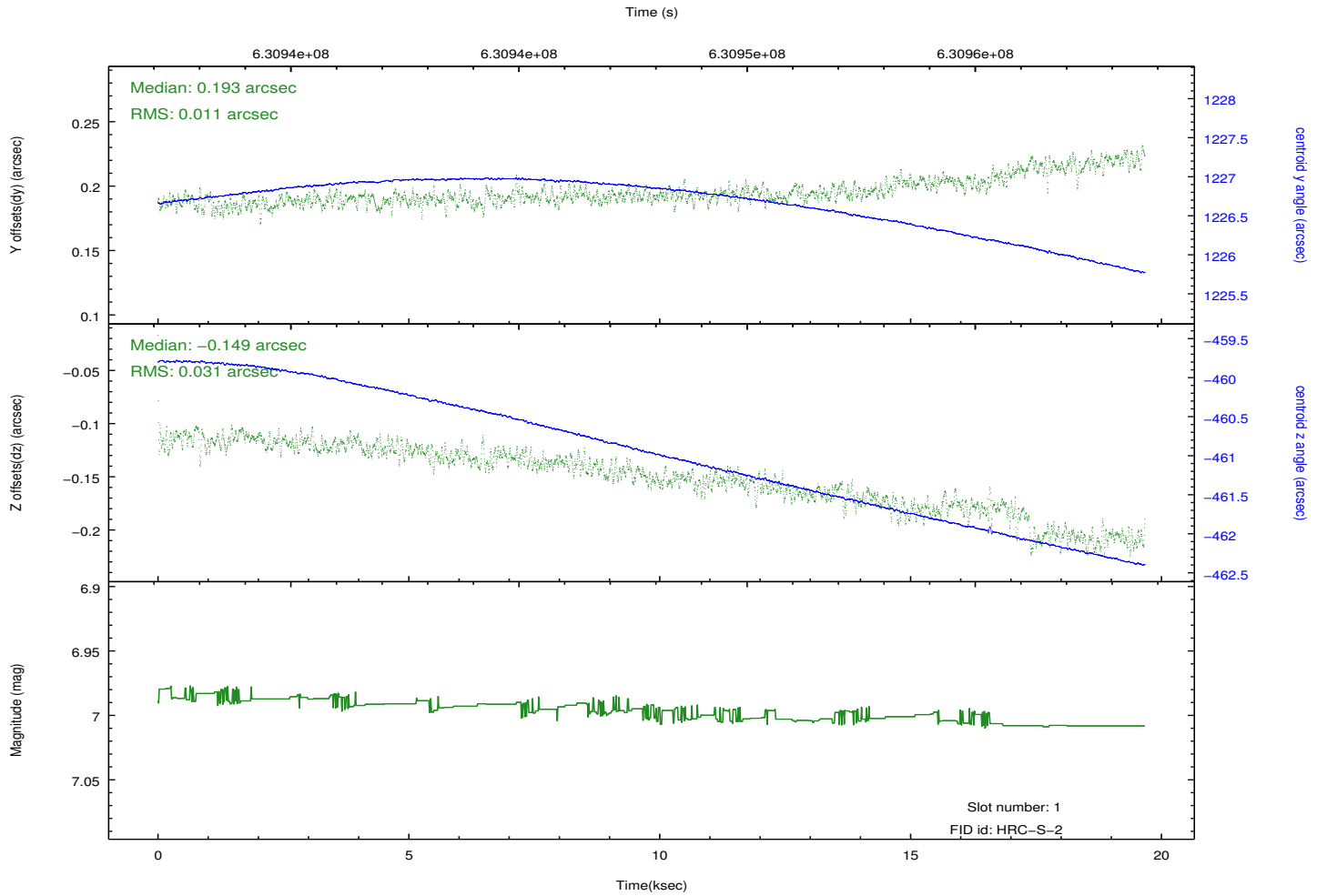
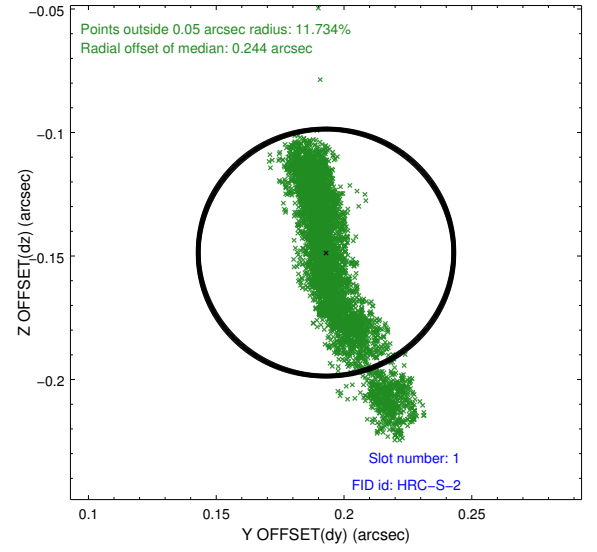
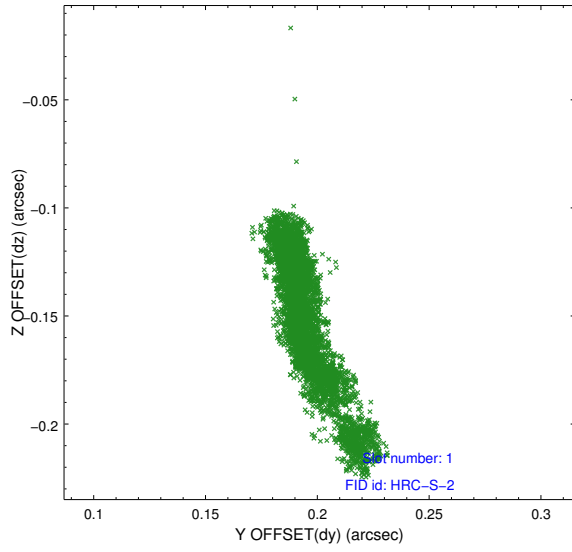


2.5 FID Slots

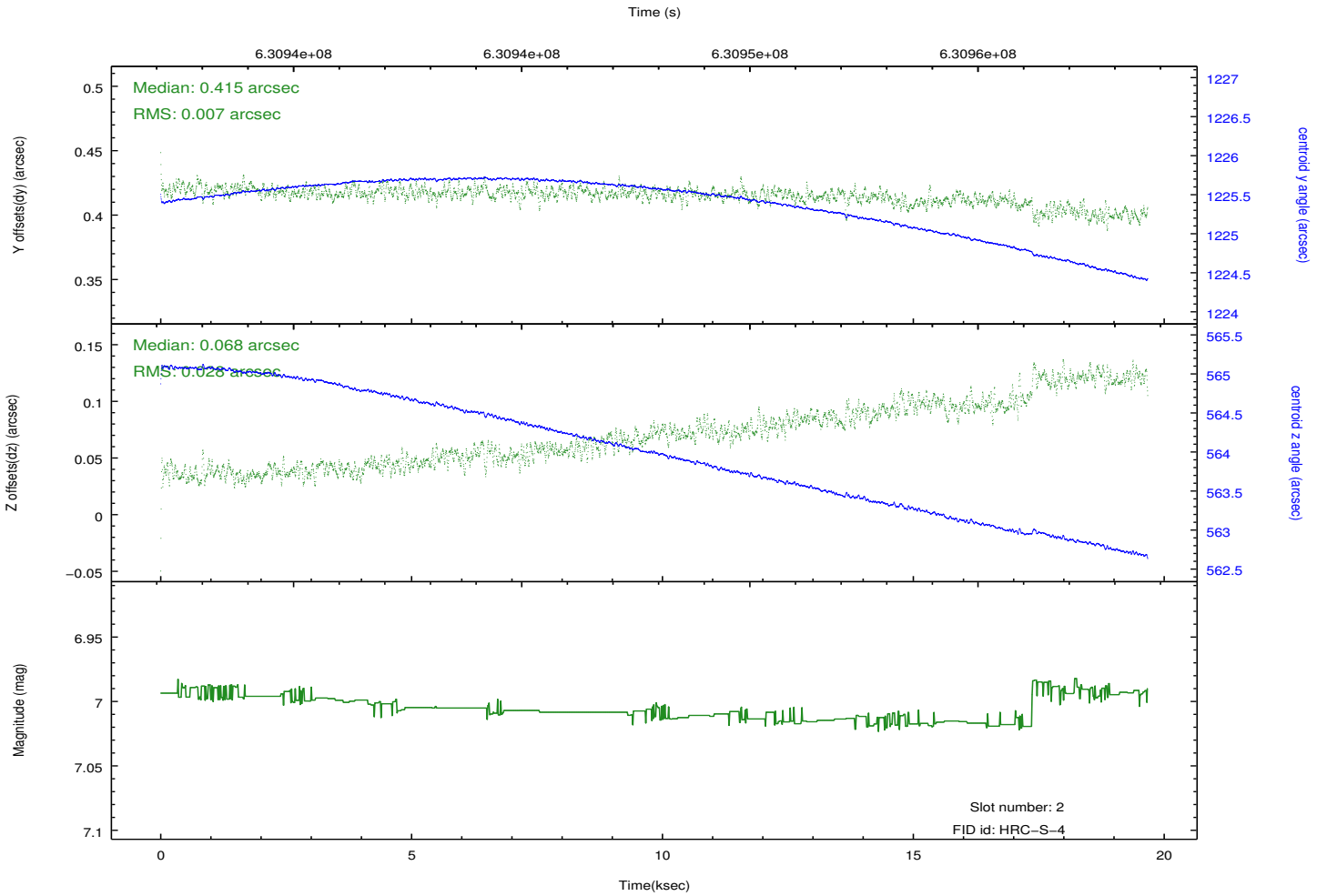
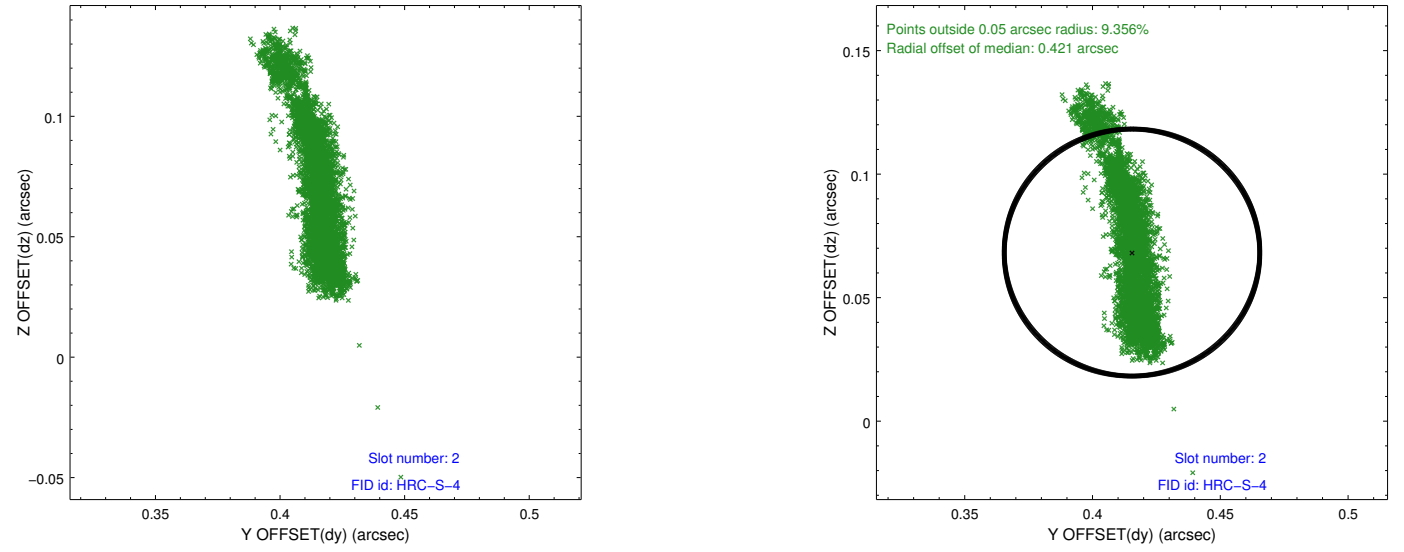
2.5.1 Slot 0



2.5.2 Slot 1

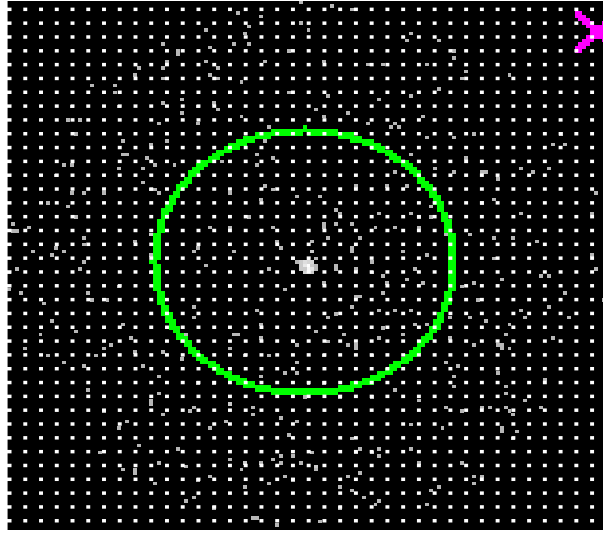


2.5.3 Slot 2

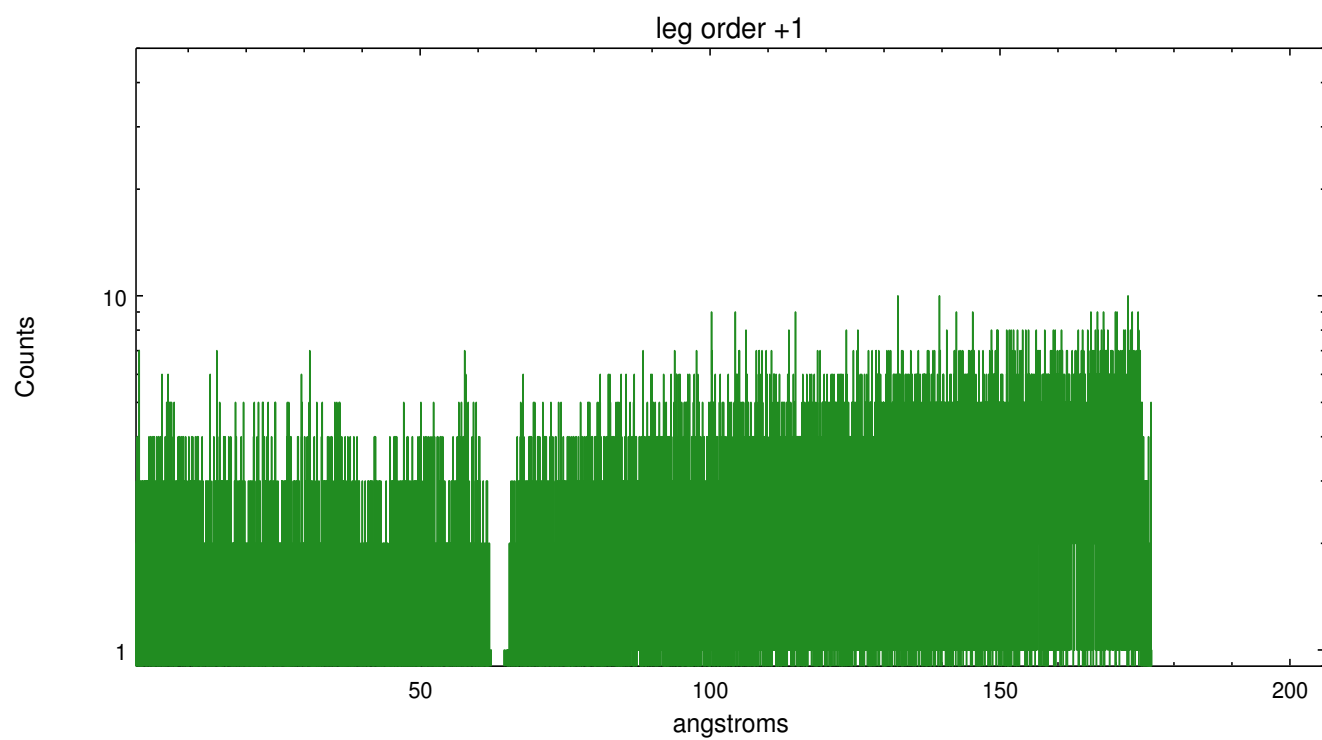
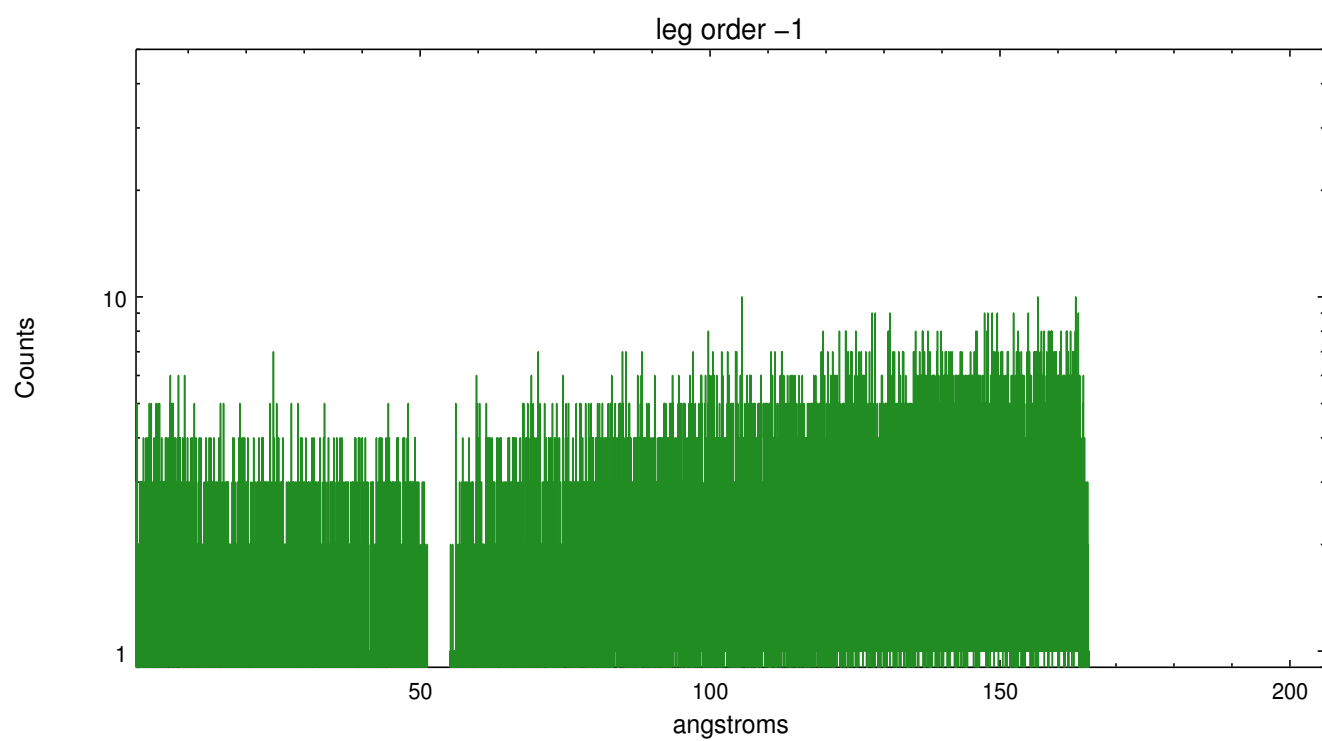


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2018.01.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.671032407045

A.2 Comments

WARNING: there are no standard ciao tools for analysis of grating spectra from extended sources. The shape of an emission 'line' will be the shape of the zero order spatial structure convolved with the instrumental LSF. Grating extractions can be used, but need to be combined with custom spatial-spectral analysis, since wavelength is multi-valued at any particular diffraction angle. === 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.