

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2601 - L2 Version 4
Chandra X-Ray Center

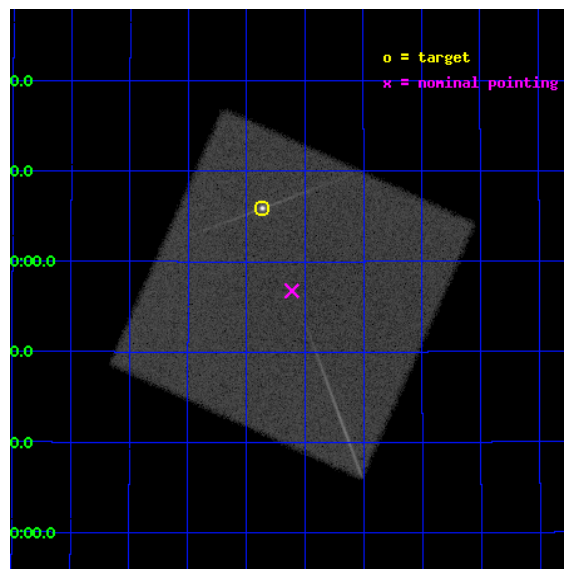
L2 Processing Date : Sep 30 2012

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1 Front

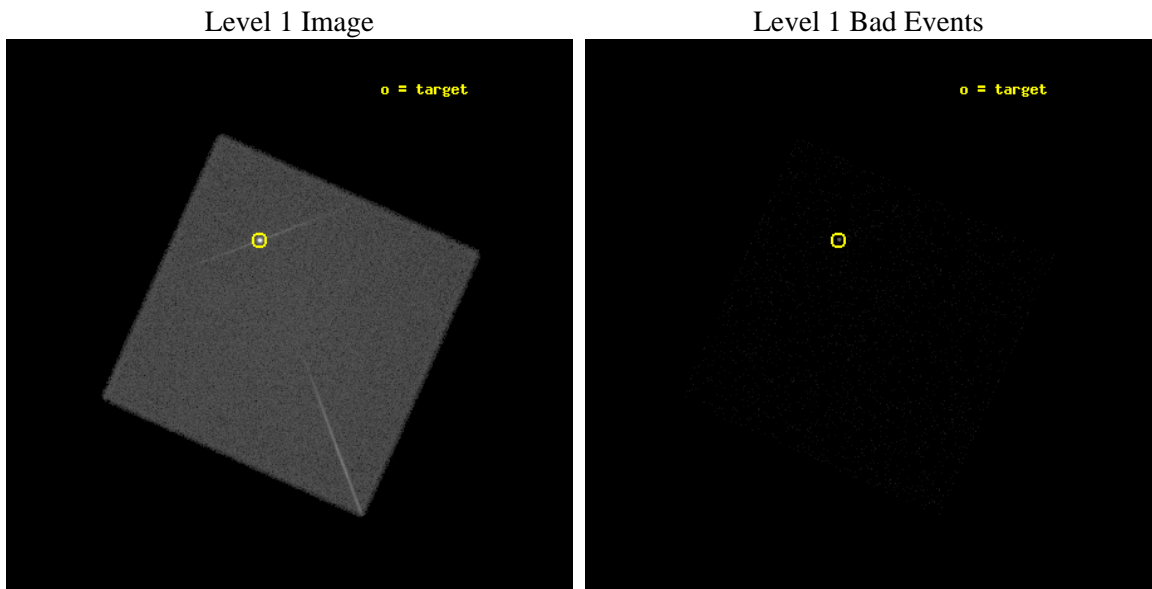
seq_num	290157	Sequence number
obs_id	2601	Observation id
title	AO3 LETG/HRC-I CALIBRATION OBSERVATIONS OF HZ43	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	HZ43	Source name
ra_targ	199.092083	Observer's specified target RA [deg]
dec_targ	29.099	Observer's specified target Dec [deg]
ra_nom	199.02805497186	Nominal RA [deg]
dec_nom	28.946248453499	Nominal Dec [deg]
roll_nom	69.234298017318	Nominal Roll [deg]
revision	4	Processing version of data
ontime	9550.1816336662	[s]
liveltime	9488.4222374332	Ontime multiplied by DTCOR
l2events	394587	Number of level 2 events



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	1	Obi number	sched_exp_time	9360.137000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9550.1816336662	[s]
caldbver	4.5.2	 	l1events	596451	Number of level 1 events
date	2012-09-30T02:18:09	Date and time of file creation			
revision	4	Processing version of data			

2.1.3 Events

Level 1 Events

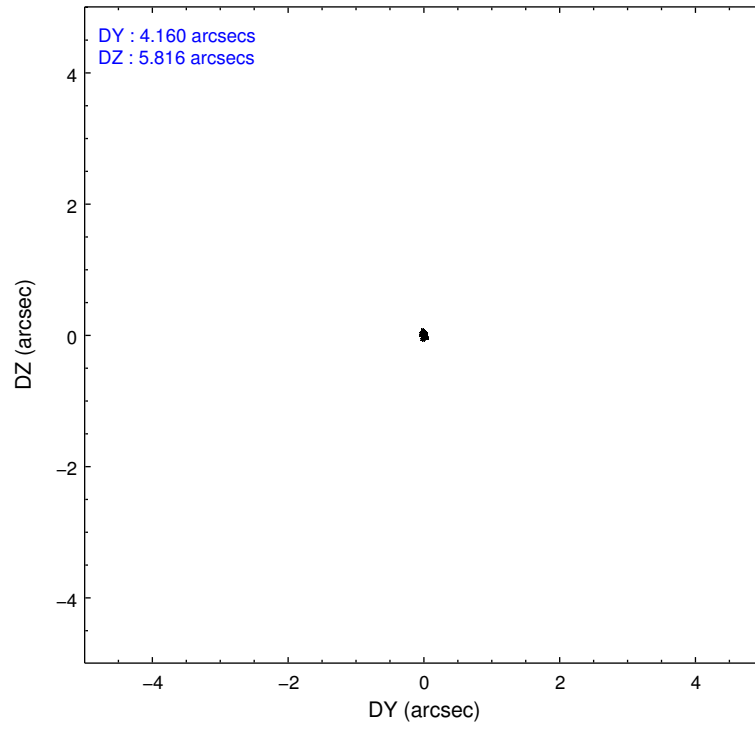
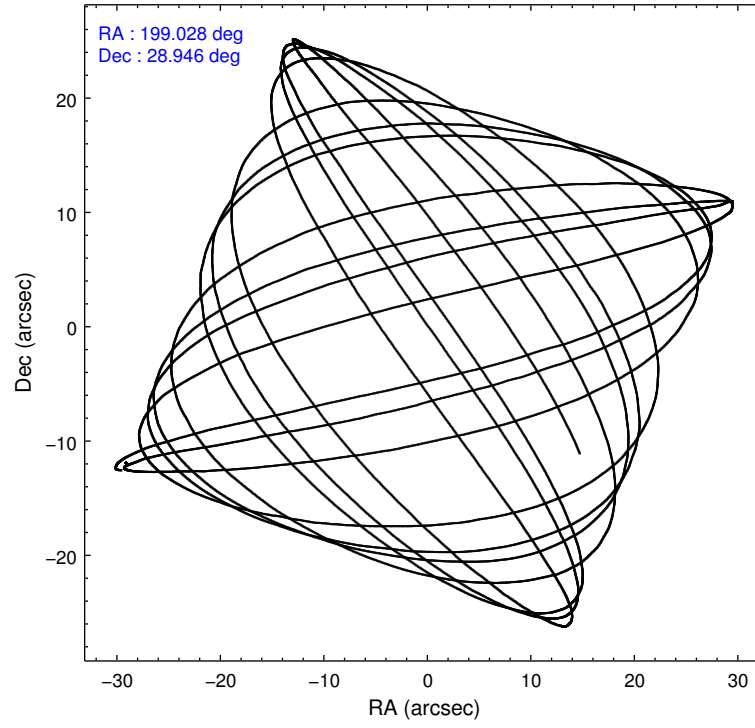
	segment 0
level 1 events	596451
rejected events	27854
rejected %	4%

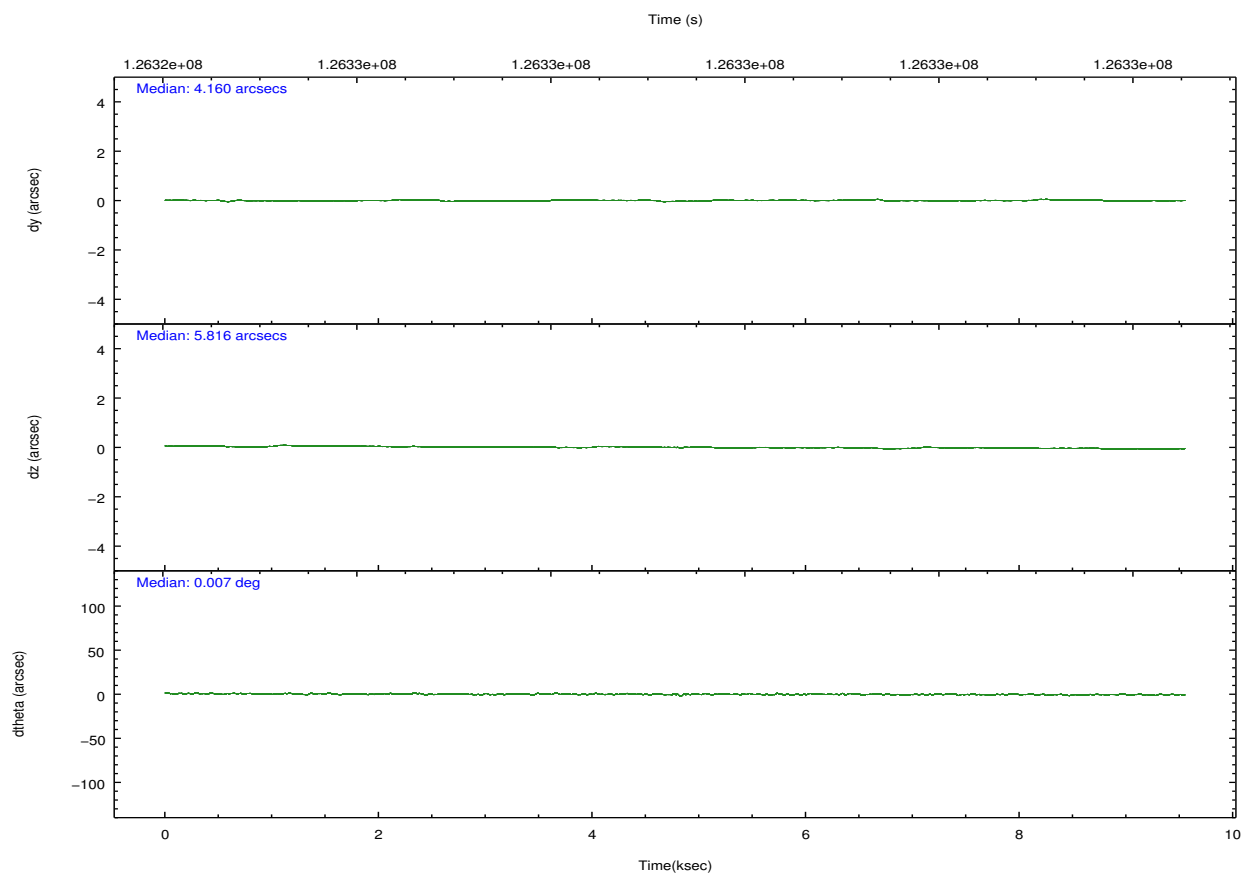
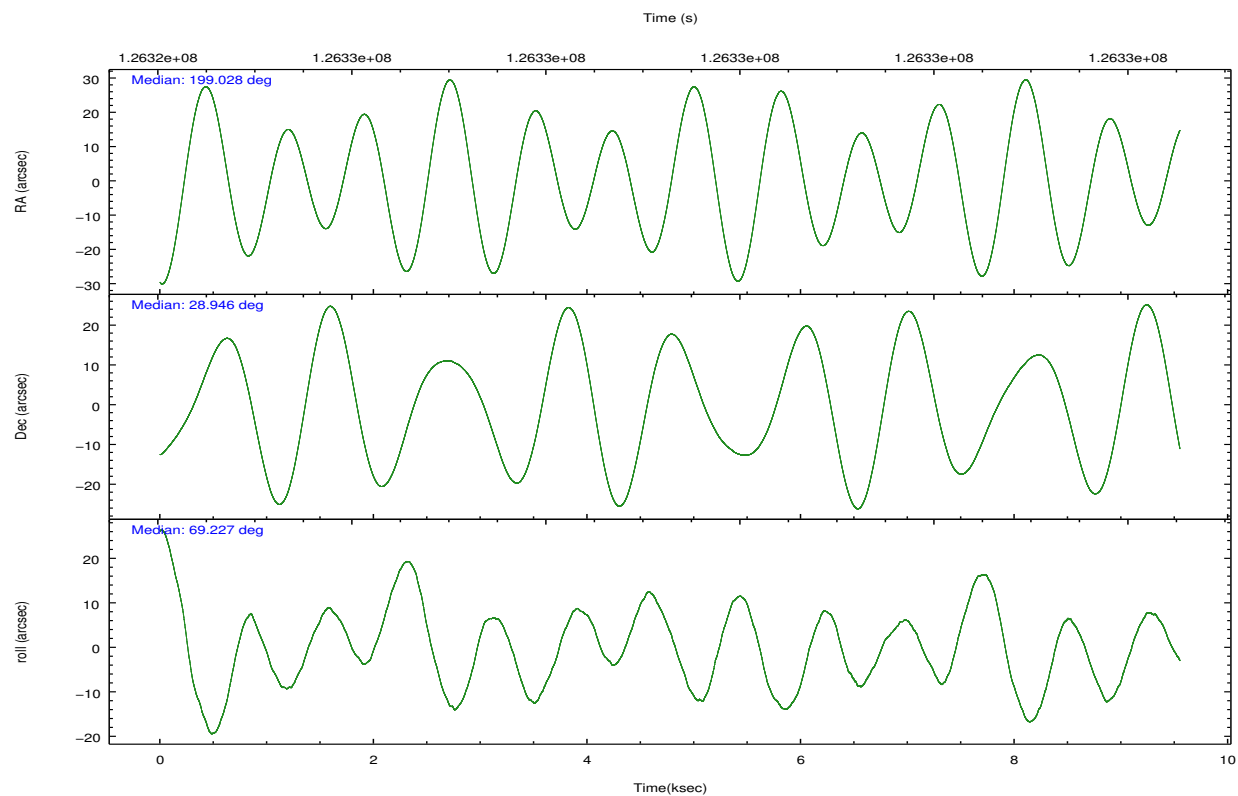
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	LETG	LETG
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	199.033712	199.0280549718591
[deg] Pointing Dec	28.919462	28.9462484534994
[deg] Pointing Roll	69.327053	69.23429801731781
[s] Window start time (MET)	126230464.184000	126230464.184000
[s] Window stop time (MET)	128822464.184000	128822464.184000
[mm] SIM focus pos	-1.040293	-1.038866356238299
[mm] SIM defocus	0	0.001426264420575141
[mm] SIM translation stage pos	126.985494	126.9854943052878
[mm] SIM translation stage offset	0	-5.413686238853188e-06
[s] Observation start time (MET)	126324698.184000	126324321.41561
Observation start date	2002-01-02T02:10:34	2002-01-02T02:05:21
[s] Observation end time (MET)	126334058.184000	126334372.56601
Observation end date	2002-01-02T04:46:34	2002-01-02T04:52:52

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect



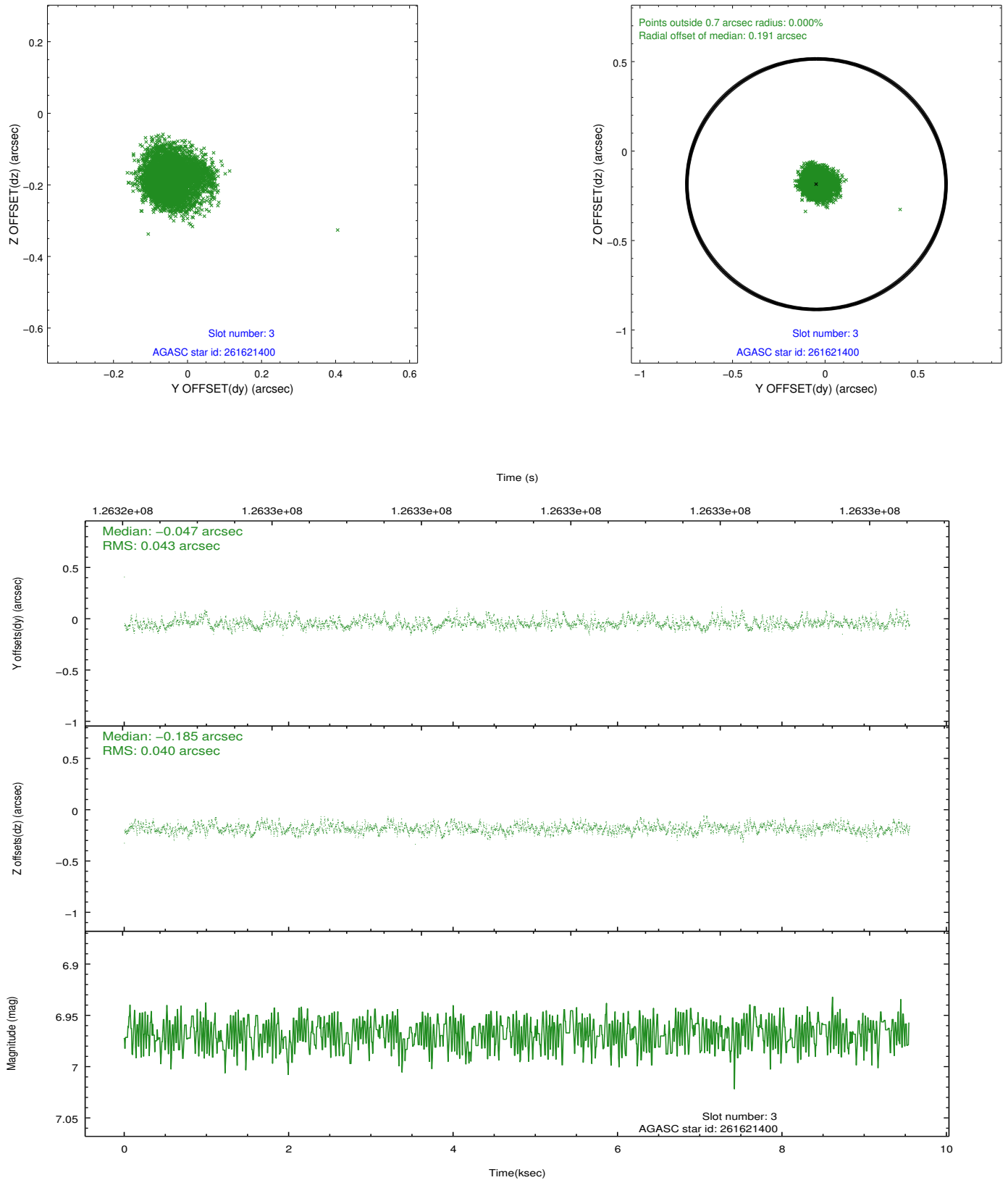


Slot Statistics

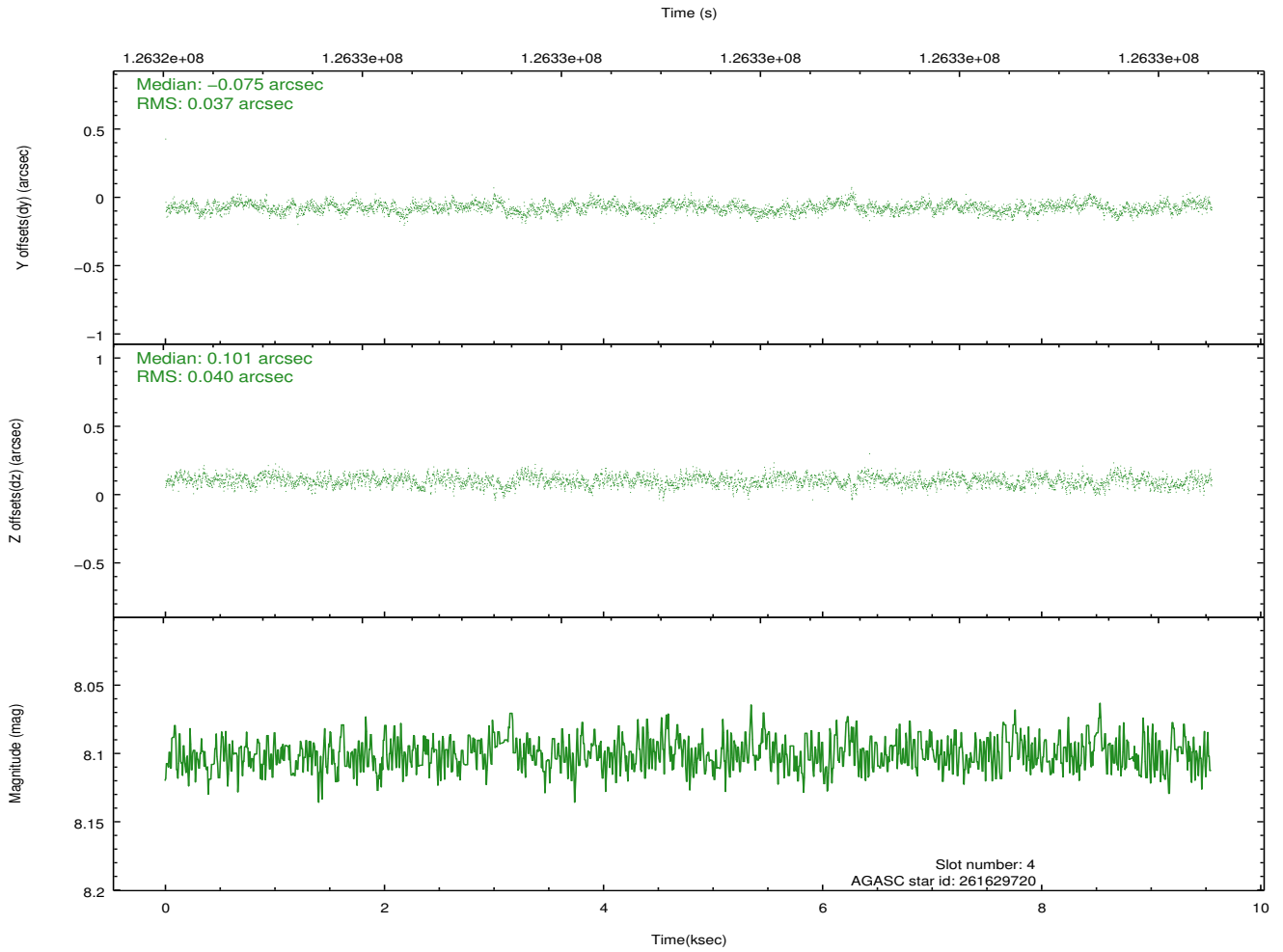
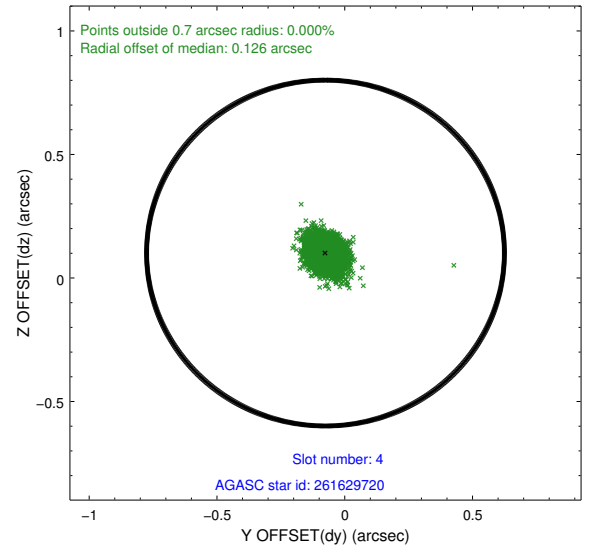
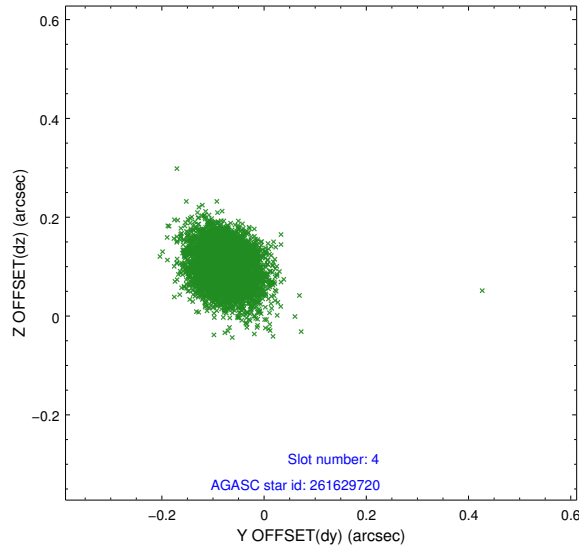
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.97	2330	0.005	0.028	0.007	0.011	0.000000	0.000000	-759.62	-1293.68
1	FID	HRC-I-2	7.02	2330	0.085	-0.055	0.006	0.010	0.000000	0.000000	852.77	-1295.83
2	FID	HRC-I-3	7.06	2330	0.029	-0.061	0.006	0.010	0.000000	0.000000	-1187.79	1010.23
3	GUIDE	261621400	6.97	4659	-0.047	-0.185	0.062	0.100	198.901600	28.741982	-745.86	165.29
4	GUIDE	261629720	8.10	4660	-0.075	0.101	0.057	0.091	199.236176	29.044452	645.29	-436.10
5	GUIDE	261619776	8.80	4660	-0.101	-0.105	0.087	0.137	198.654383	29.401174	1203.10	1726.67
6	GUIDE	261619992	9.32	4655	0.179	-0.186	0.098	0.158	198.395553	28.647634	-1623.06	1543.59
7	GUIDE	261623624	9.12	4656	0.039	0.385	0.105	0.165	199.611555	28.454113	-918.60	-2299.64

2.4 Star Slots

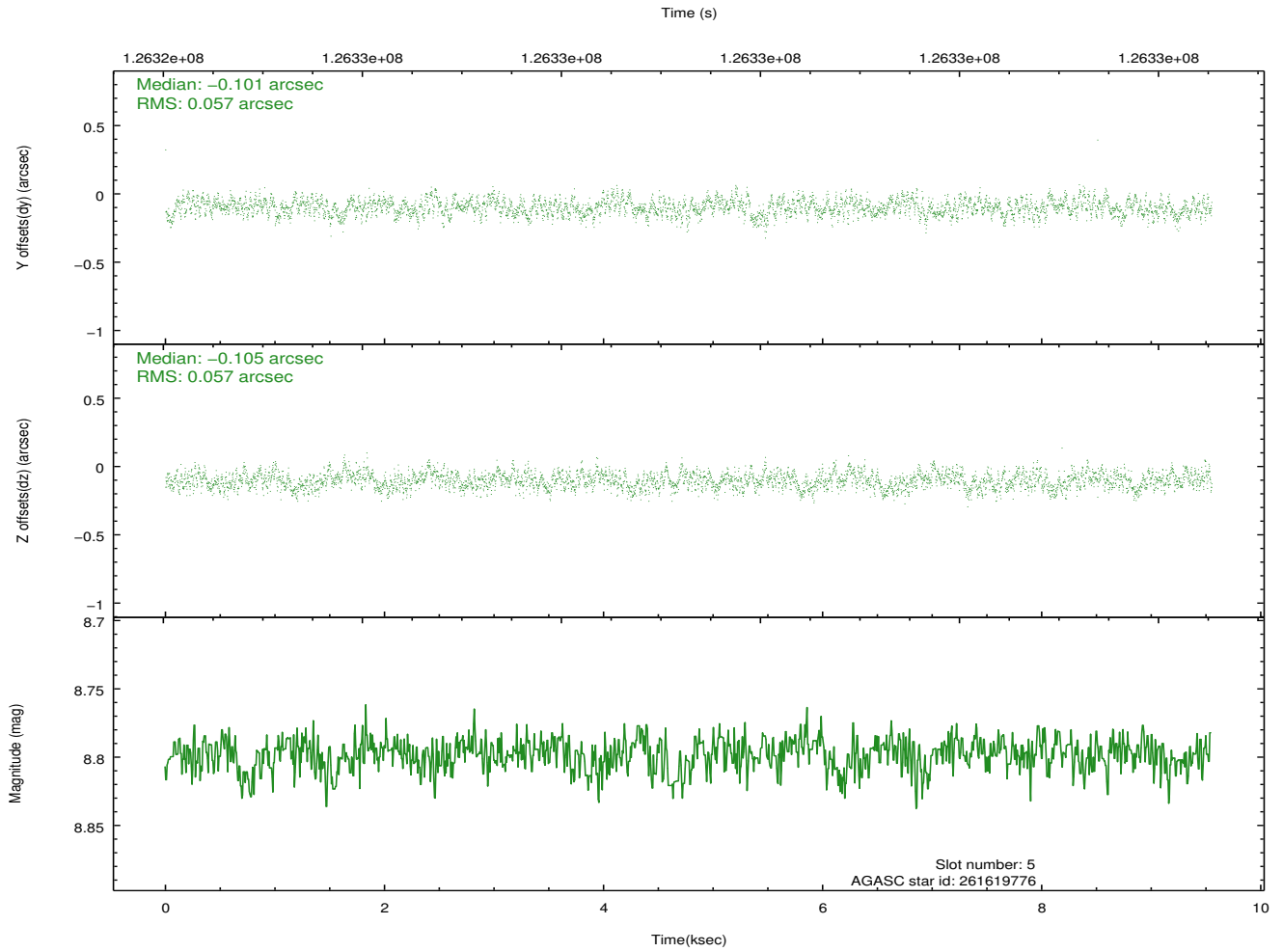
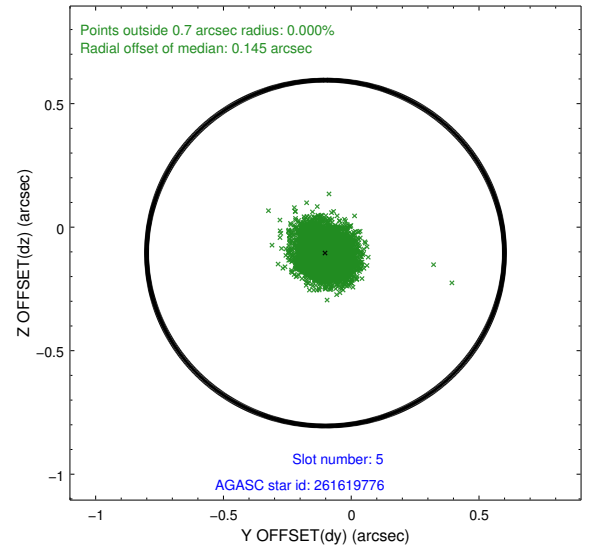
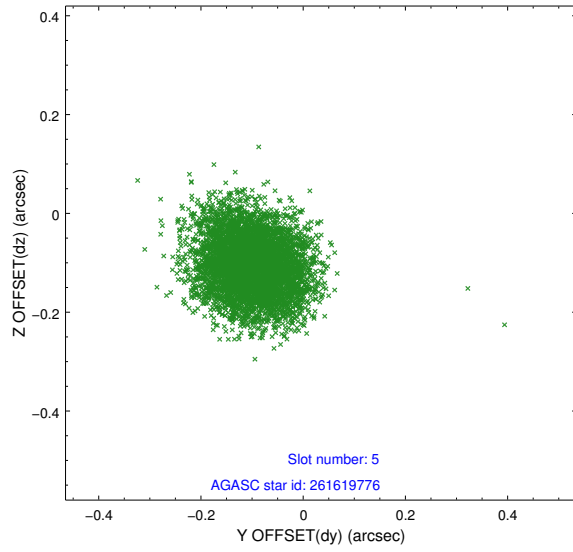
2.4.1 Slot 3



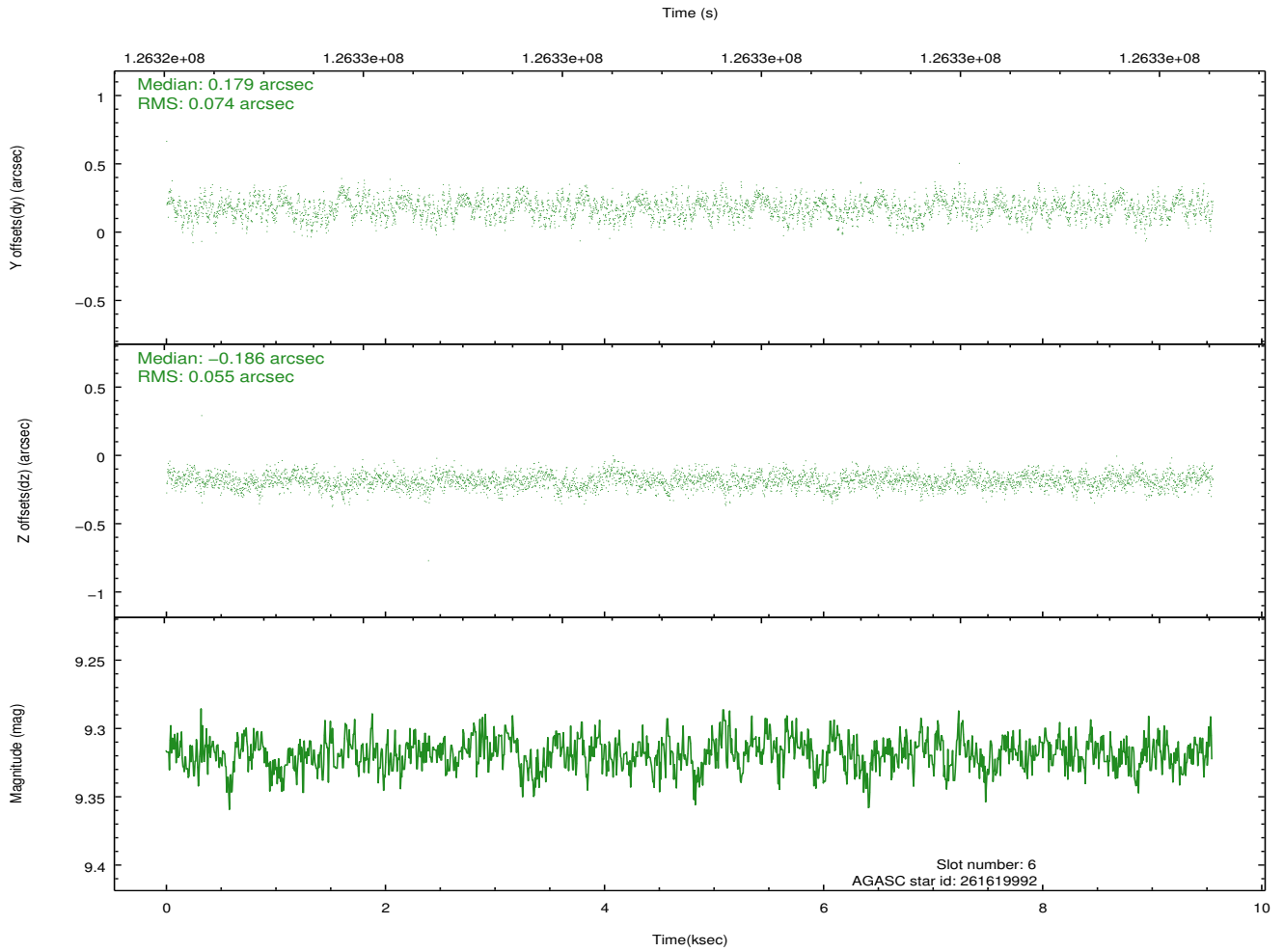
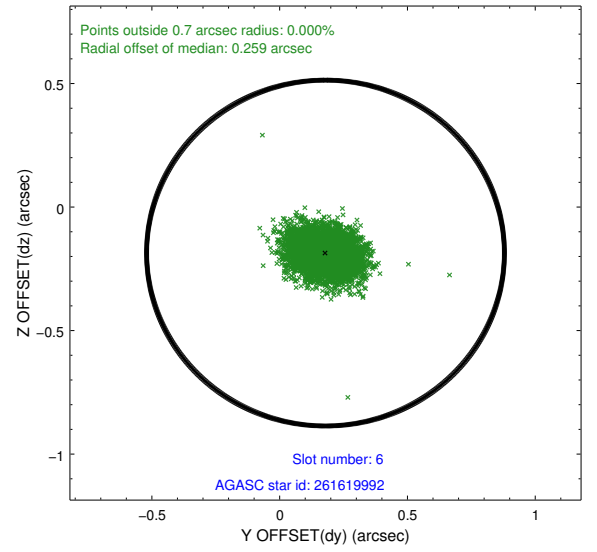
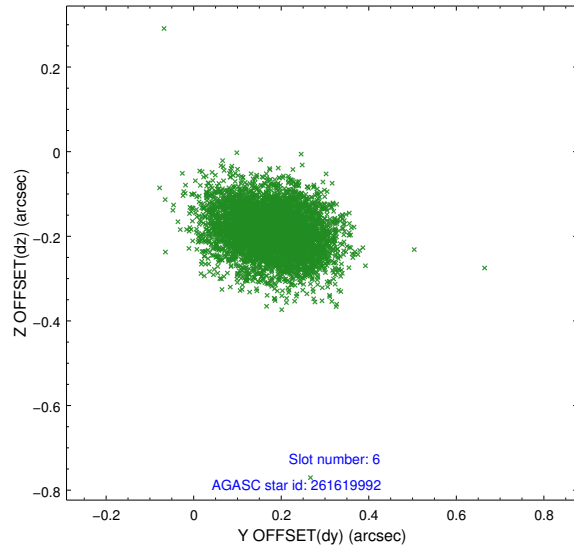
2.4.2 Slot 4



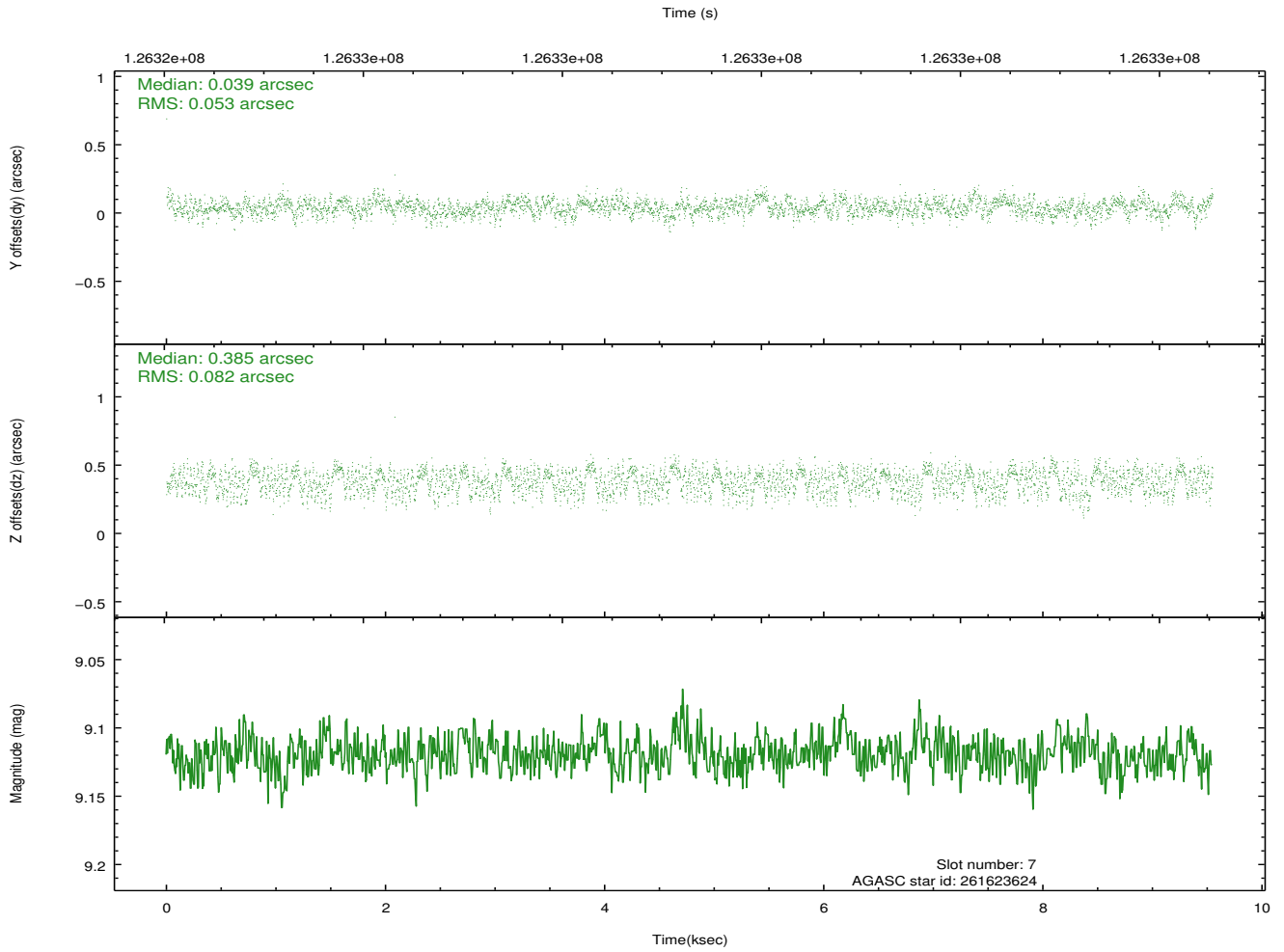
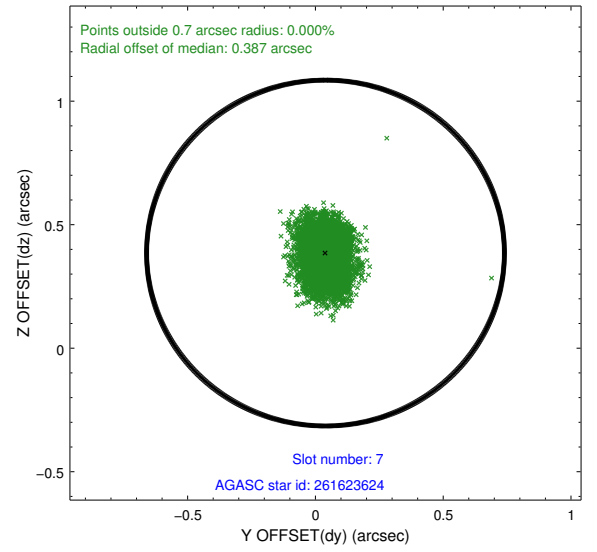
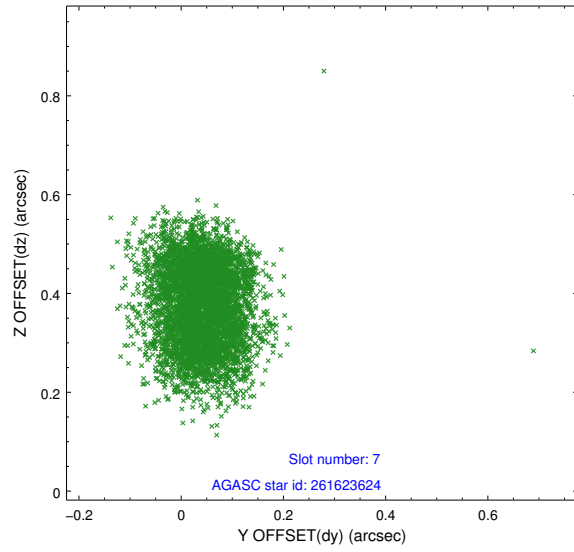
2.4.3 Slot 5



2.4.4 Slot 6

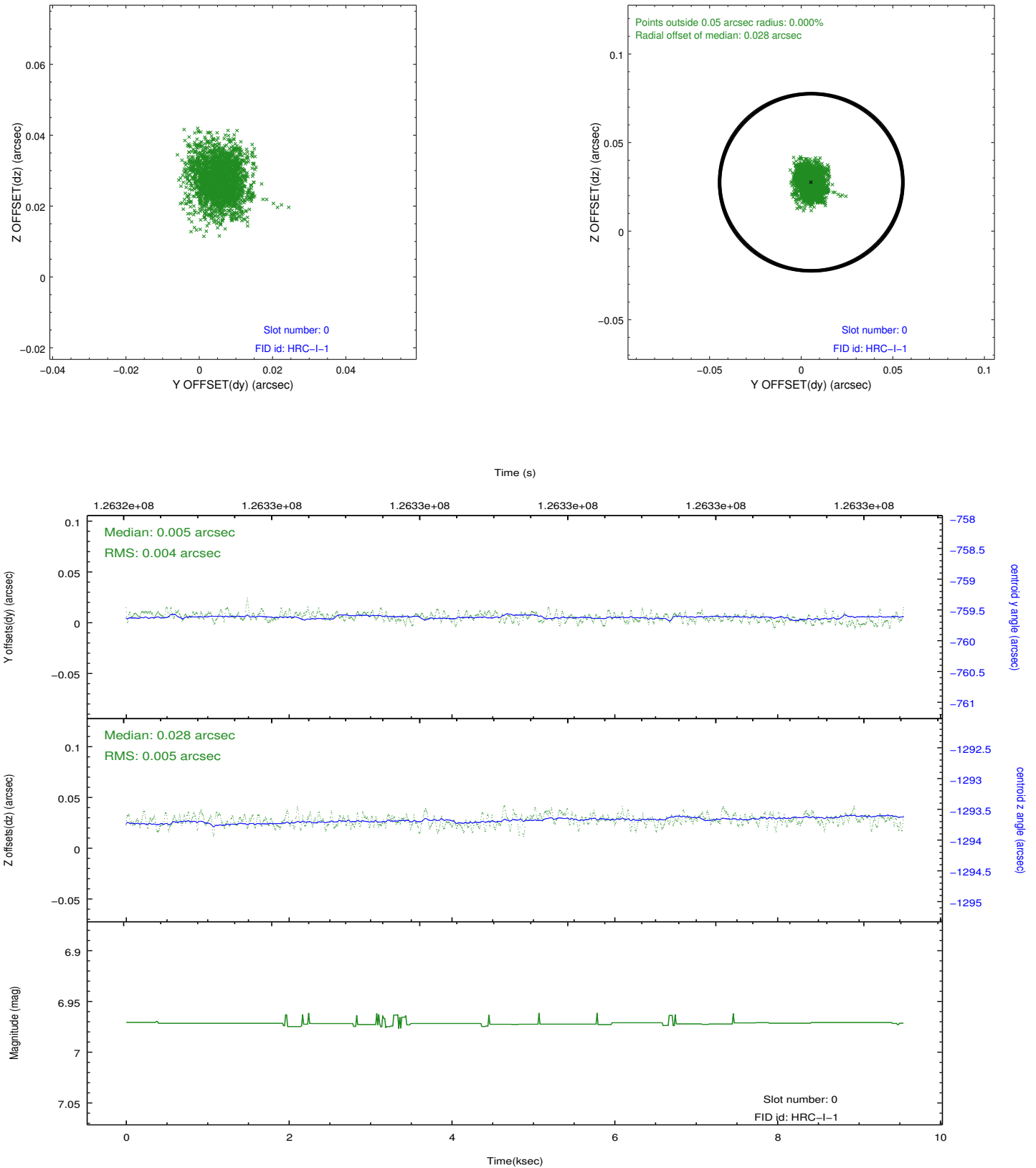


2.4.5 Slot 7

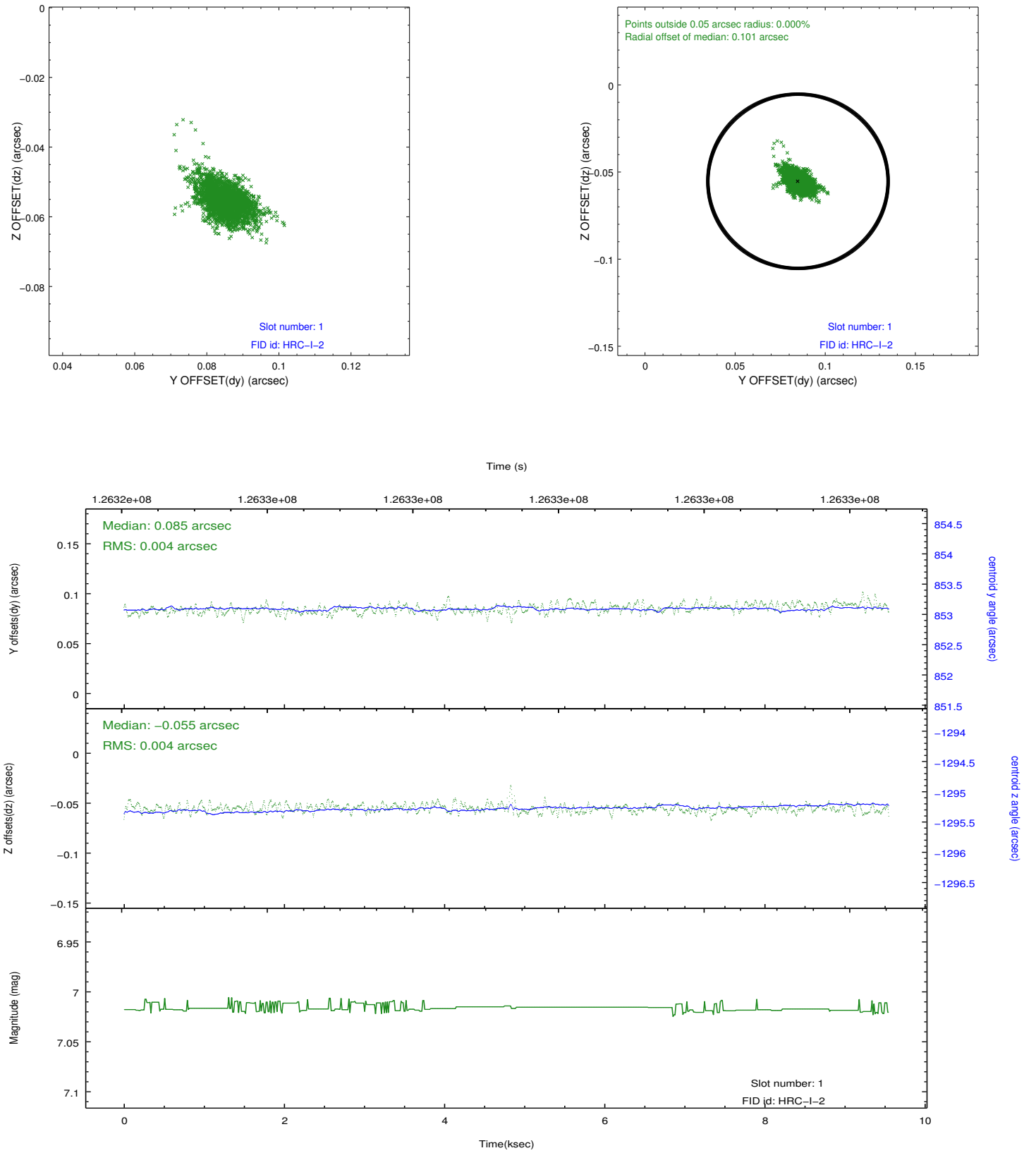


2.5 FID Slots

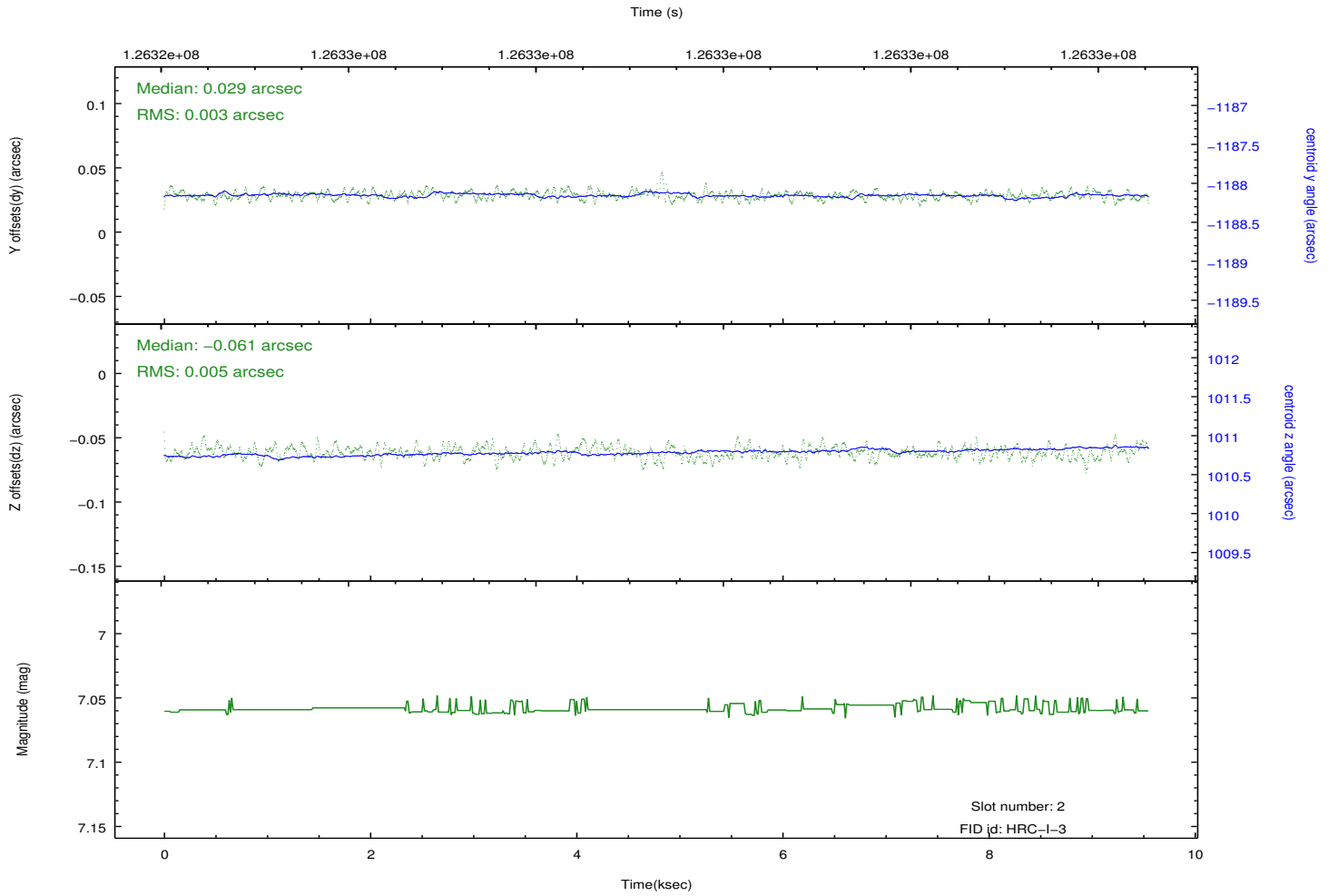
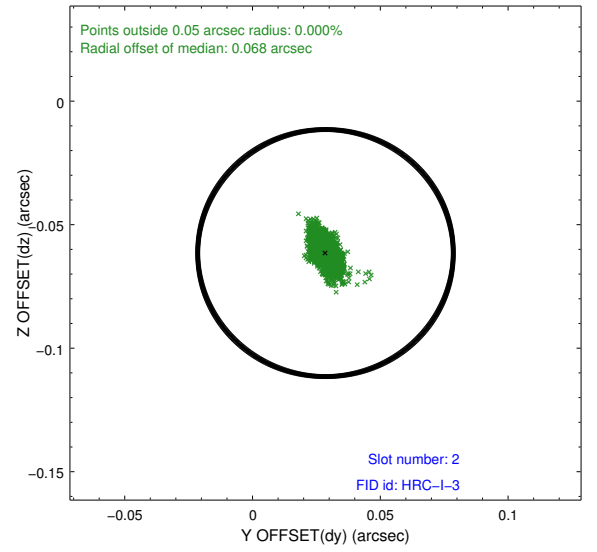
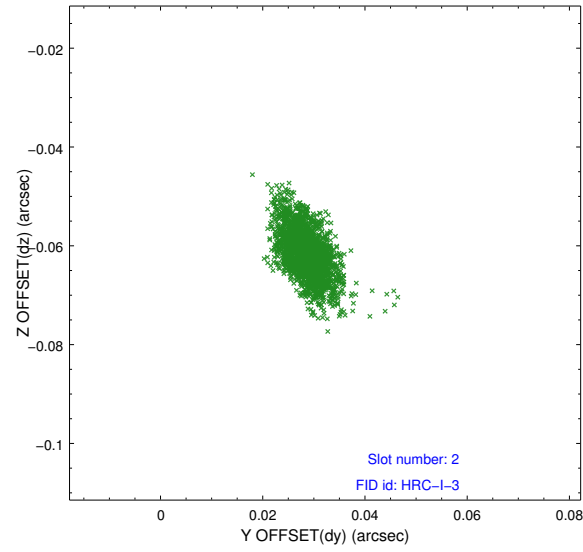
2.5.1 Slot 0



2.5.2 Slot 1

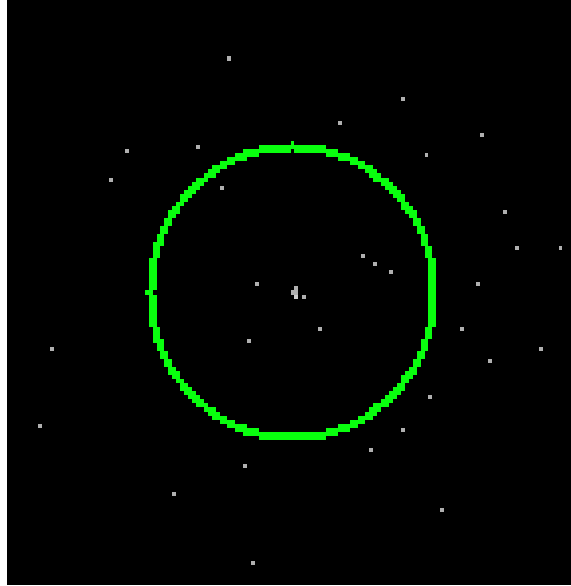


2.5.3 Slot 2

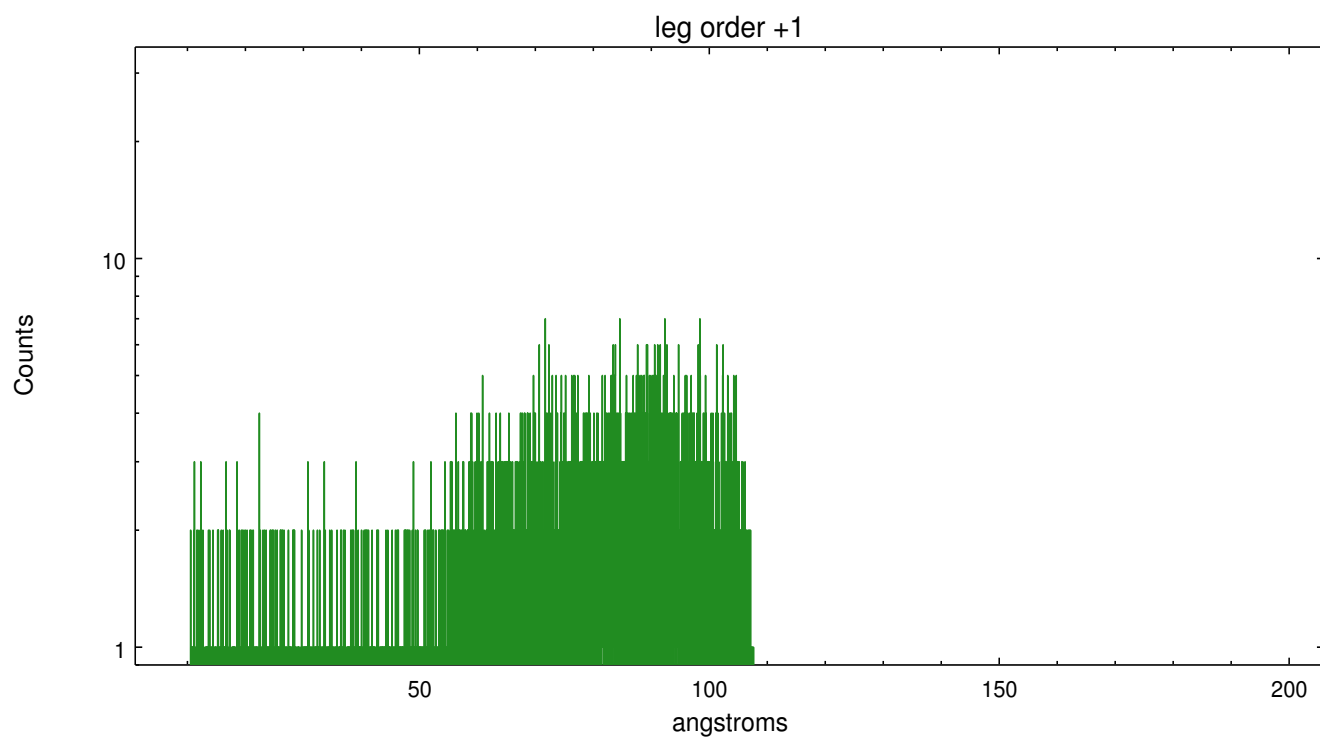
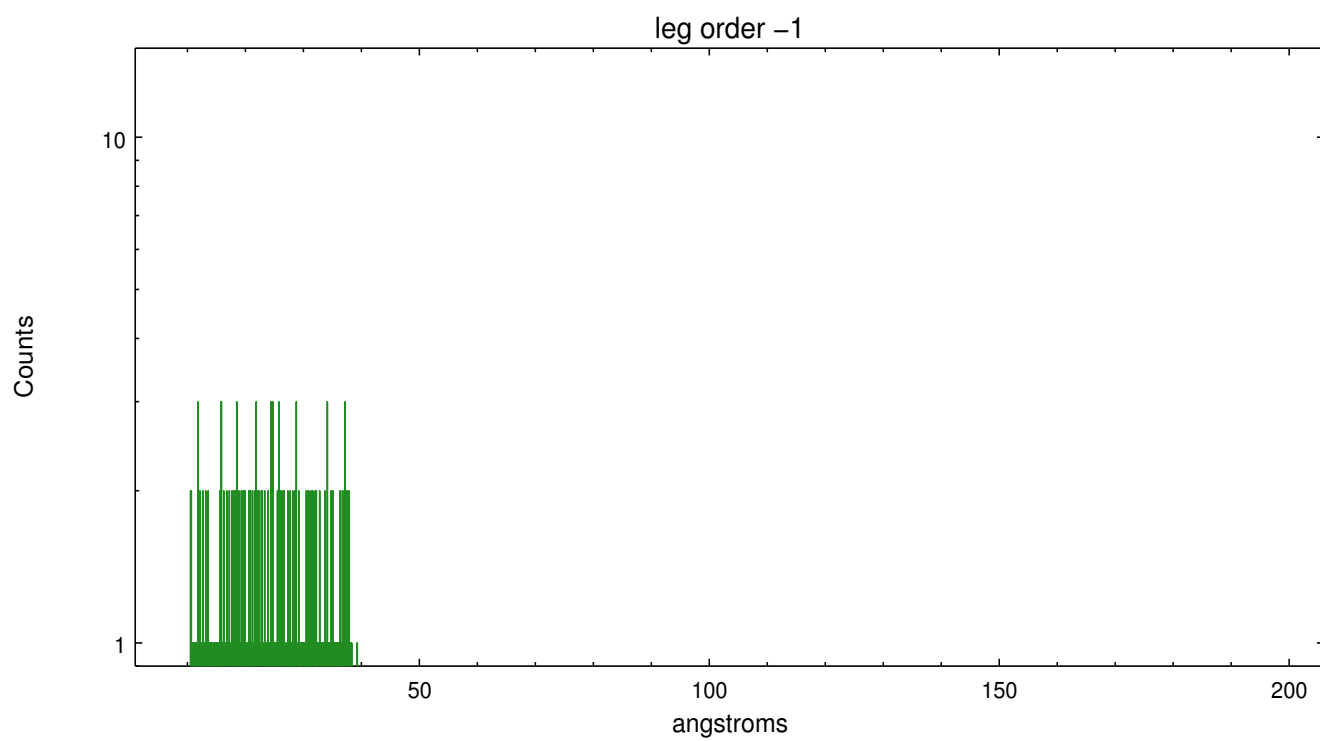


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.10.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.547

A.2 Comments

Target is very off-axis and therefore asymmetric and extended. The point spread function is significantly extended by this off-axis position. The zeroth order position was not found by the software and the processing software defaulted to the coordinates supplied by the user for the position of the zeroth order for the grating spectral extraction. The off-axis position yields a minus side spectrum with energies beyond 100 A. The plus side spectrum is truncated. === 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. WARNING: The user will need to deconvolve the PSF of the off-axis source to get an accurate determination of the zeroth order position, then use software tools such as CIAO to specify the coordinates of the zeroth order before running the tools to resolve the dispersed events.