

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 4641 - L2 Version 3
Chandra X-Ray Center

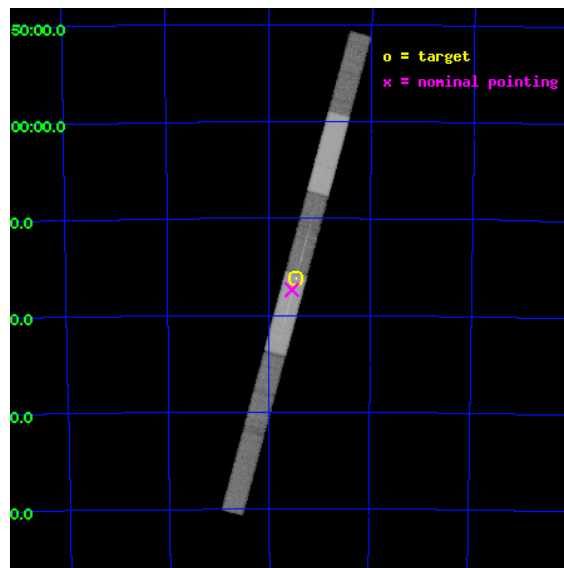
L2 Processing Date : Jan 15 2013

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1 Front

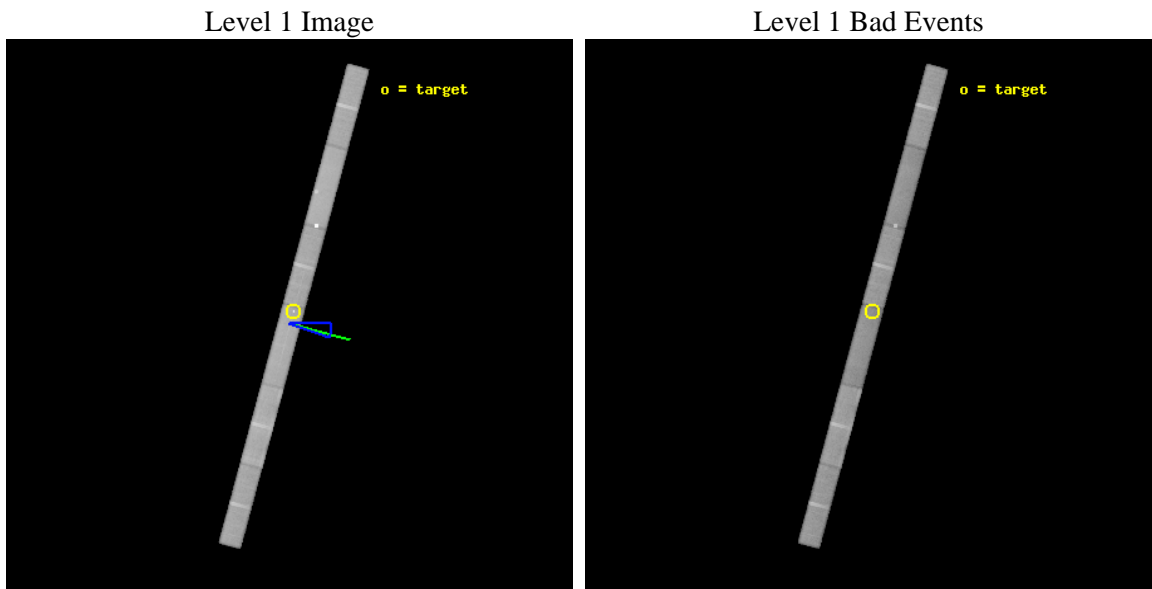
seq_num	500460	Sequence number
obs_id	4641	Observation id
title	Spatially resolved grating spectrometry of the newborn supernova remnant SNR1987A	Proposal title
observer	Dr. Richard McCray	Principal investigator
object	SNR1987A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.866667	Observer's specified target RA [deg]
dec_targ	-69.26975	Observer's specified target Dec [deg]
ra_nom	83.886580477407	Nominal RA [deg]
dec_nom	-69.289570285759	Nominal Dec [deg]
roll_nom	105.17525308371	Nominal Roll [deg]
revision	3	Processing version of data
ontime	75459.0	Sum of GTIs [s]
livetime	72484.246522708	Livetime [s]
ontime4	75459.0	Sum of GTIs [s]
ontime5	75459.0	Sum of GTIs [s]
ontime6	75457.958979905	Sum of GTIs [s]
ontime7	75459.0	Sum of GTIs [s]
ontime8	75459.0	Sum of GTIs [s]
ontime9	75459.0	Sum of GTIs [s]
l2events	253937	Number of level 2 events



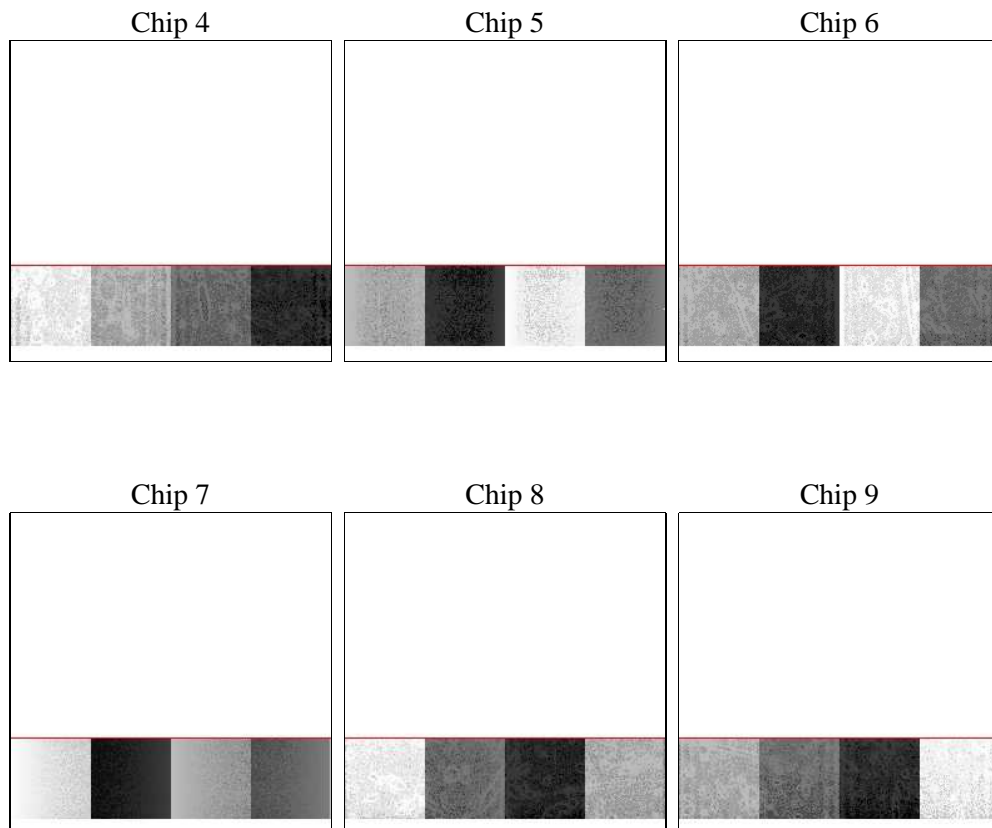
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	75434.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	75459.0	Sum of GTIs [s]
caldsver	4.5.5	 	ontime4	75459.0	Sum of GTIs [s]
date	2013-01-15T21:24:16	Date and time of file creation	ontime5	75459.0	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	75457.958979905	Sum of GTIs [s]
			ontime7	75459.0	Sum of GTIs [s]
			ontime8	75459.0	Sum of GTIs [s]
			ontime9	75459.0	Sum of GTIs [s]
			l1events	1197613	Number of level 1 events

2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	189372	244229	175402	204848	221392	162370	grade 0 events	8393	22034	8782	9940	12692	7493
rejected events	168020	121845	153707	113810	177179	142091		4%	9%	5%	4%	5%	4%
rejected %	88%	49%	87%	55%	80%	87%	grade 1 events	74	1947	45	223	82	48
								0%	0%	0%	0%	0%	0%
							grade 2 events	4288	29333	3870	19026	8825	3626
								2%	12%	2%	9%	3%	2%
							grade 3 events	2855	11486	2943	9600	5375	2864
								1%	4%	1%	4%	2%	1%
							grade 4 events	2755	8303	2789	9470	5102	2814
								1%	3%	1%	4%	2%	1%
							grade 5 events	5874	20176	6331	18444	8171	6458
								3%	8%	3%	9%	3%	3%
							grade 6 events	3282	52495	3520	43804	12557	3654
								1%	21%	2%	21%	5%	2%
							grade 7 events	161851	98455	147122	94341	168588	135413
								85%	40%	83%	46%	76%	83%

2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	LETG	LETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	83.941966	83.88658047740677
[deg] Pointing Dec	-69.308481	-69.28957028575931
[deg] Pointing Roll	105.070441	105.1752530837074
[deg] Roll angle	100.000000	100.000000
[deg] Roll tolerance	10.000000	10.000000
Roll constraint allows 180D rotation	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-182.132523	-182.1344861297048
[mm] SIM translation stage offset	-8	-7.998036453302973
[s] Observation start time (MET)	210242294.184000	210241244.6082
Observation start date	2004-08-30T08:37:10	2004-08-30T08:20:44
[s] Observation end time (MET)	210317728.184000	210318426.59914
Observation end date	2004-08-31T05:34:24	2004-08-31T05:47:06
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/4
Subarray start row	49	49
Subarray row count	256	256
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	1

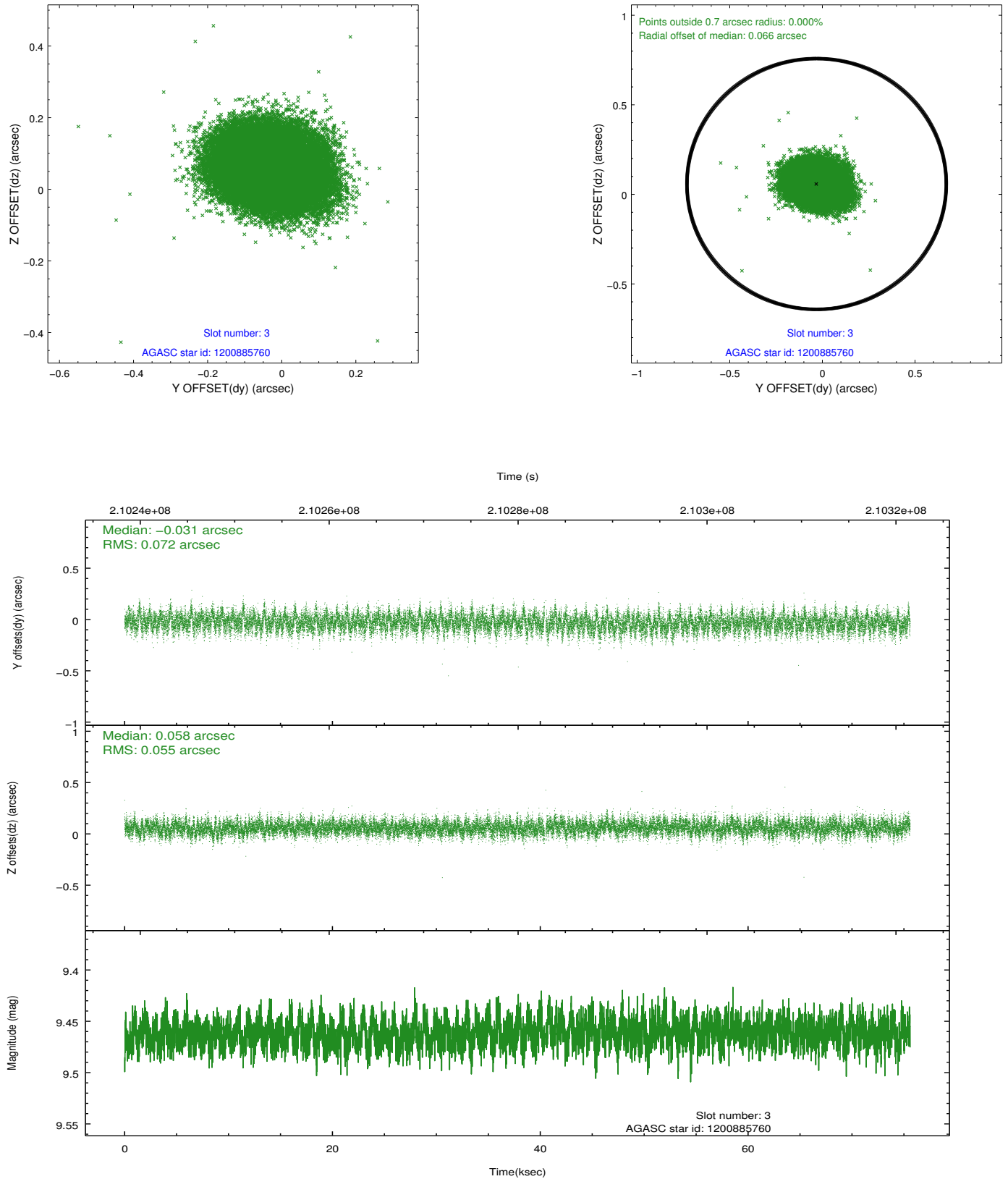
2.3 Aspect

Slot Statistics

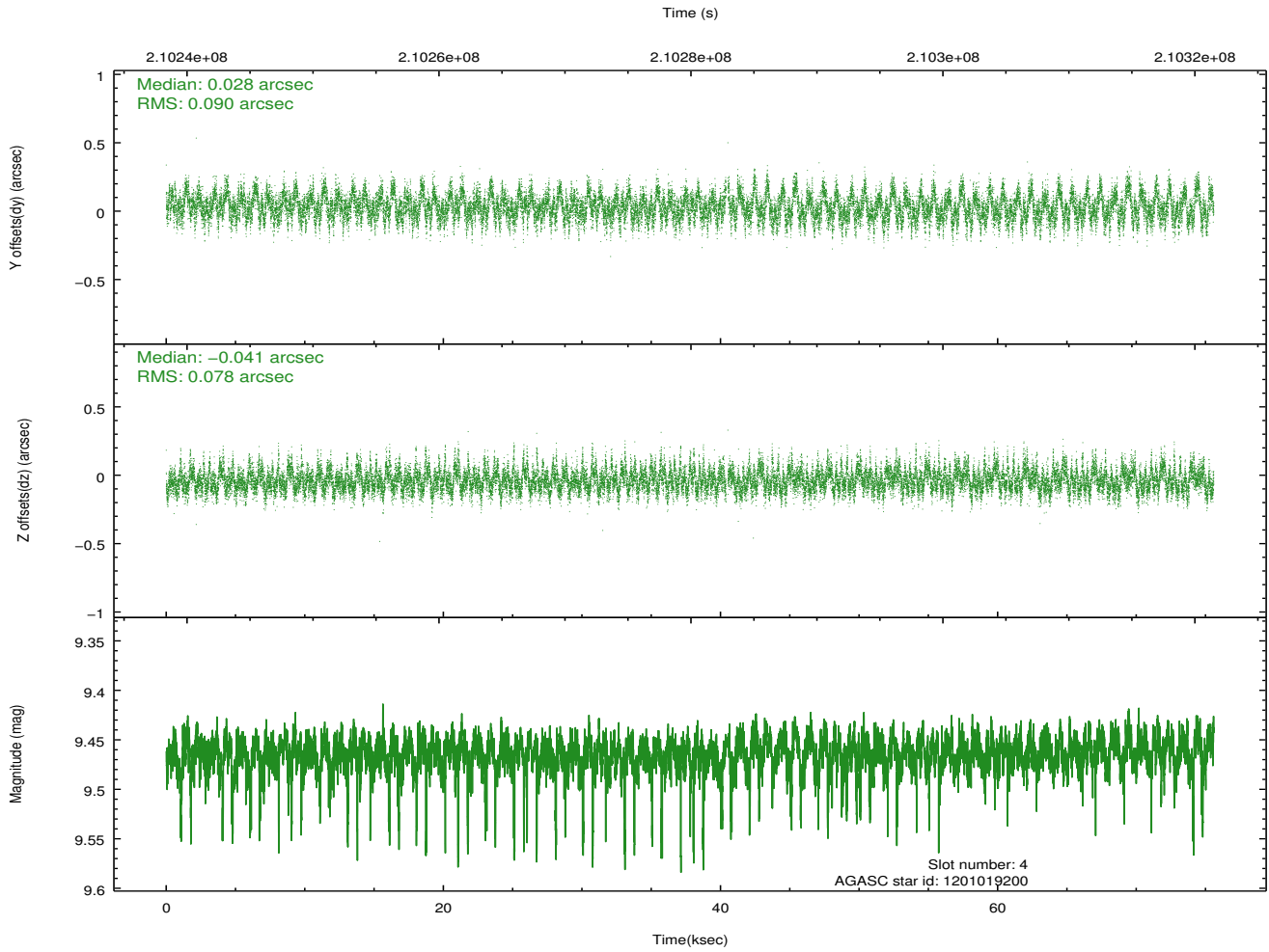
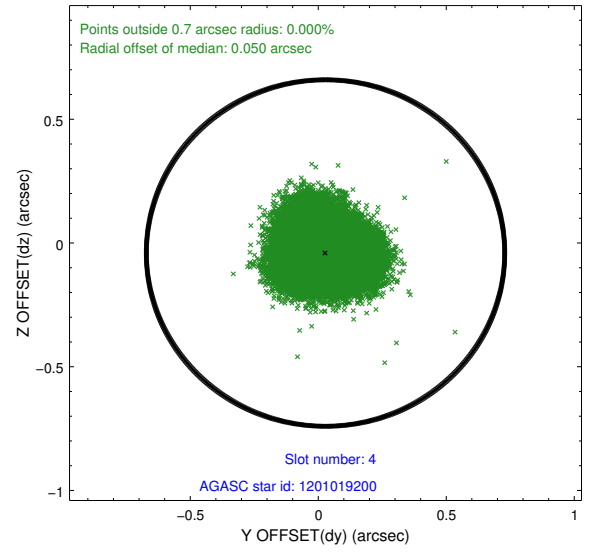
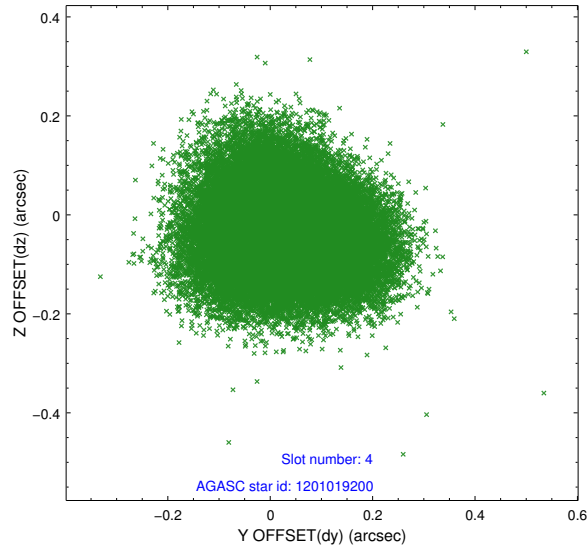
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	18406	0.085	0.057	0.026	0.036	0.000000	0.000000	937.46	-1891.54
1	FID	ACIS-S-2	7.09	18406	-0.104	-0.123	0.015	0.024	0.000000	0.000000	-758.66	-1896.27
2	FID	ACIS-S-5	7.22	18406	-0.001	0.074	0.015	0.024	0.000000	0.000000	-1811.80	5.99
3	GUIDE	1200885760	9.46	36783	-0.031	0.058	0.096	0.157	83.723637	-68.777667	1918.92	-221.53
4	GUIDE	1201019200	9.46	36686	0.028	-0.041	0.128	0.203	84.213591	-68.777384	1753.89	-838.37
5	GUIDE	1201406184	7.93	36808	-0.055	-0.062	0.066	0.108	82.503234	-69.975517	-1877.84	2342.05
6	GUIDE	1201410616	9.34	36798	0.114	-0.173	0.123	0.198	82.516808	-69.784406	-1213.40	2162.54
7	GUIDE	1201017424	10.20	36707	-0.067	0.223	0.168	0.284	85.854985	-69.248506	-462.16	-2401.65

2.4 Star Slots

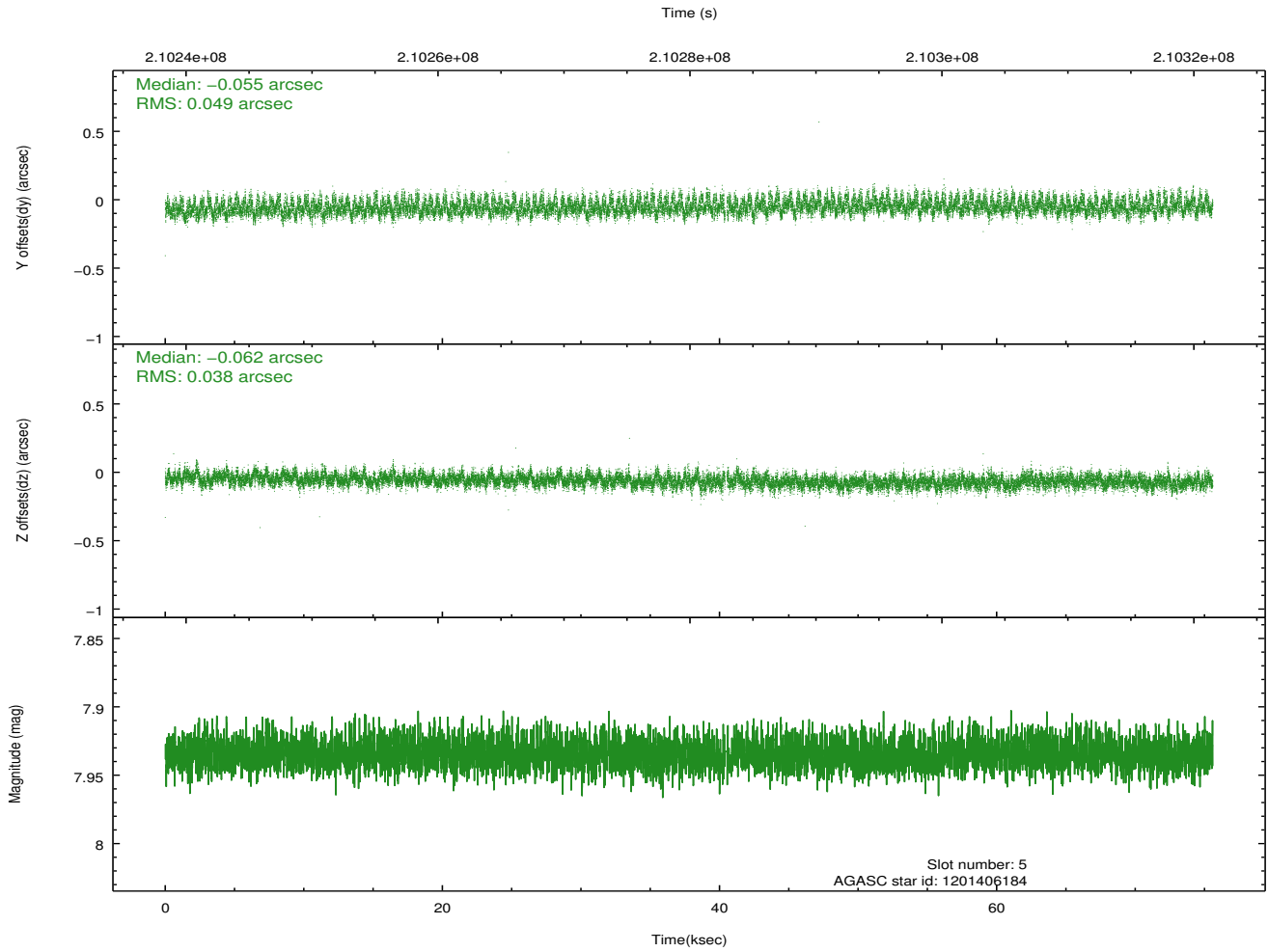
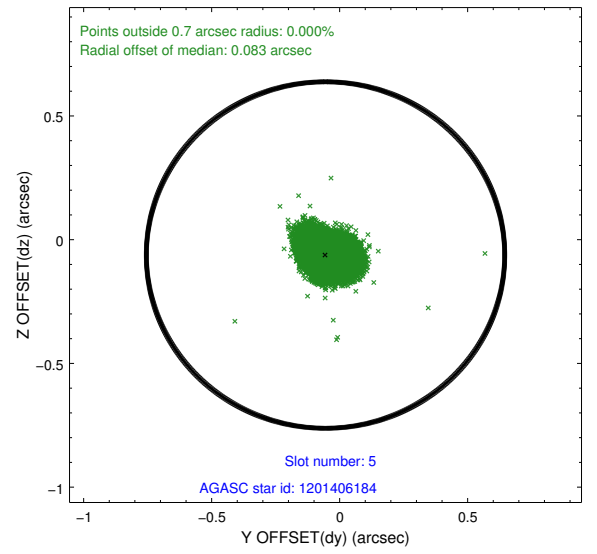
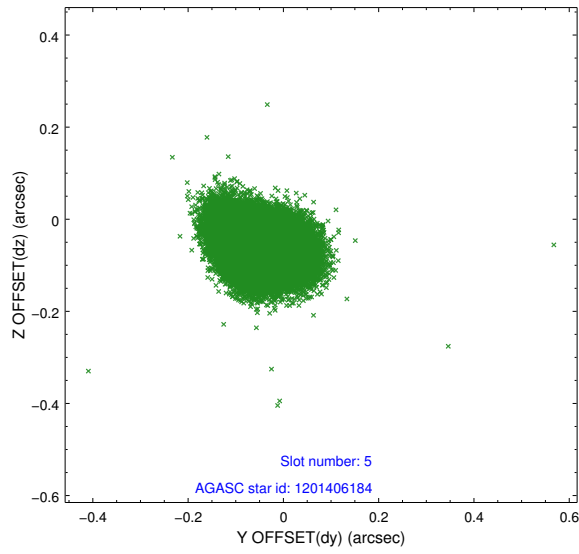
2.4.1 Slot 3



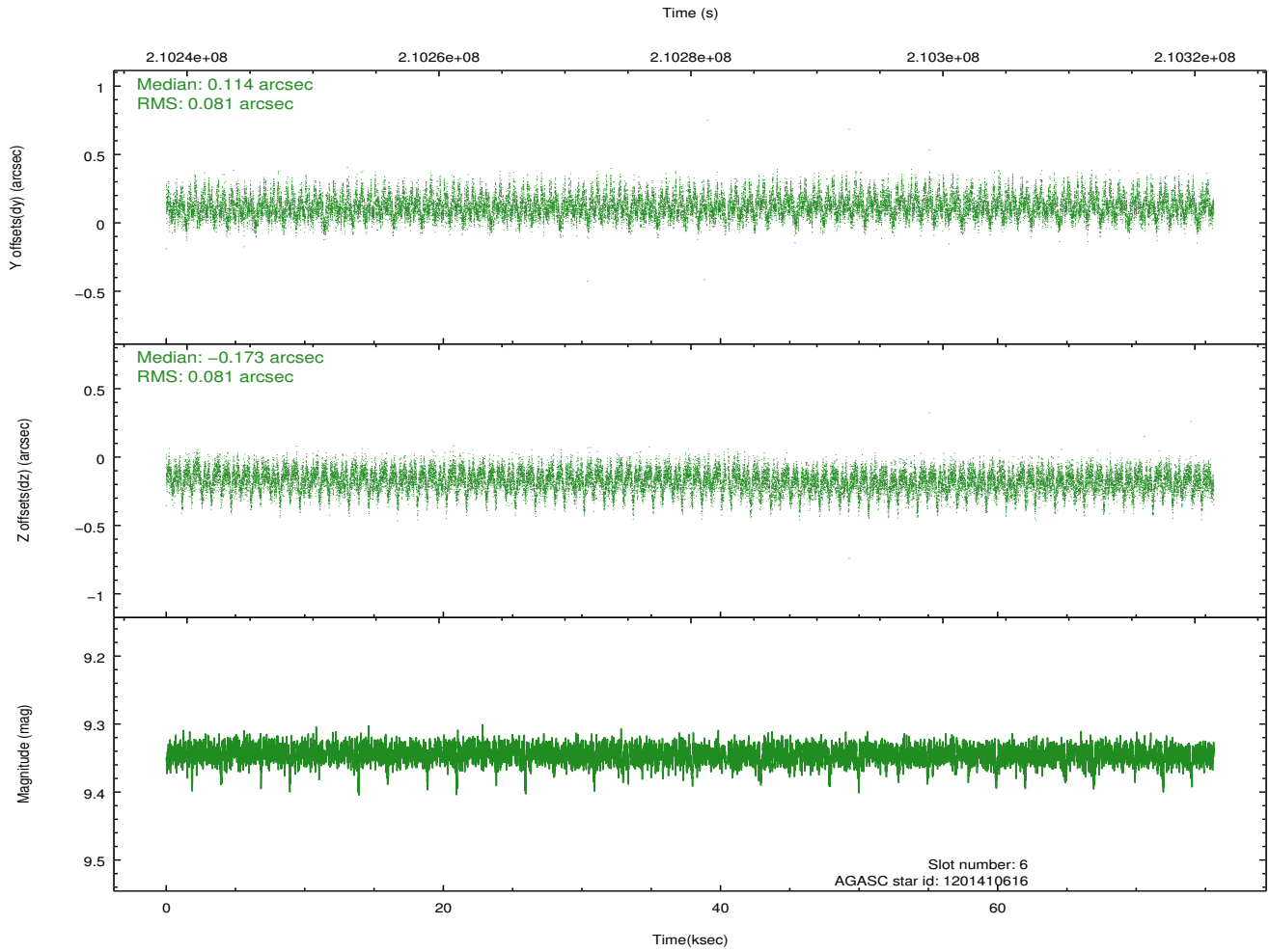
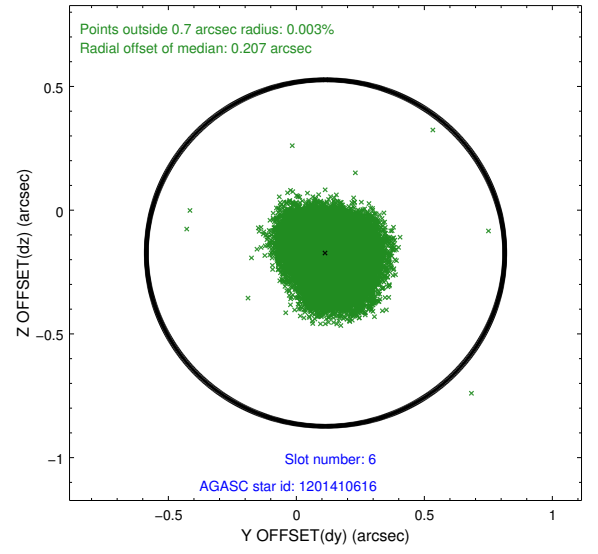
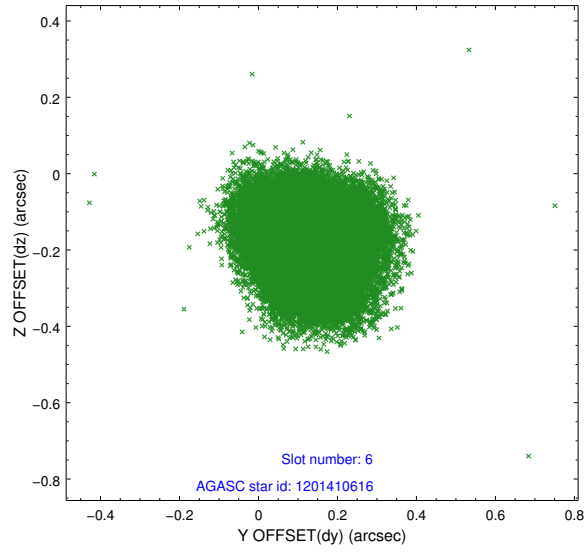
2.4.2 Slot 4



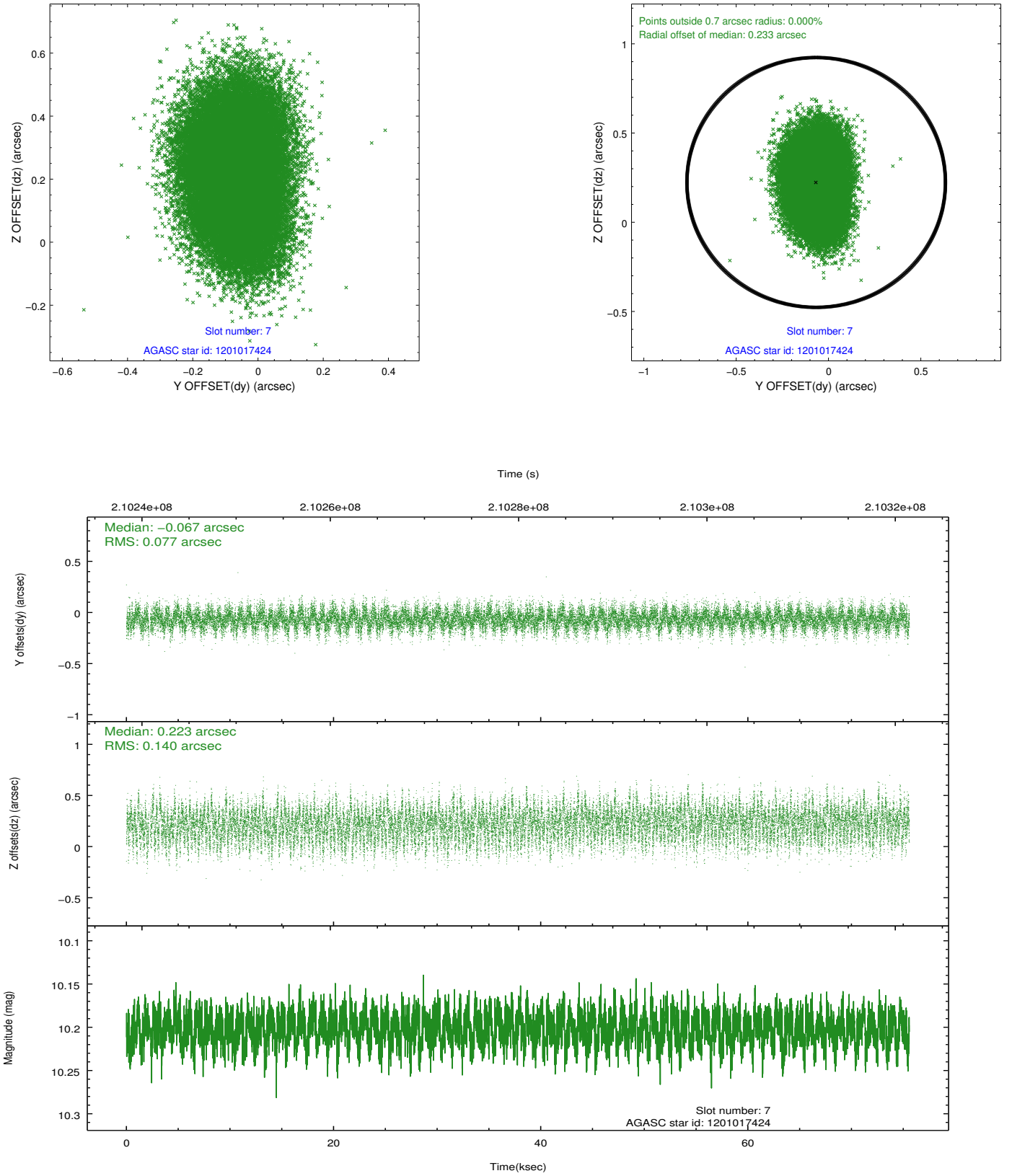
2.4.3 Slot 5



2.4.4 Slot 6

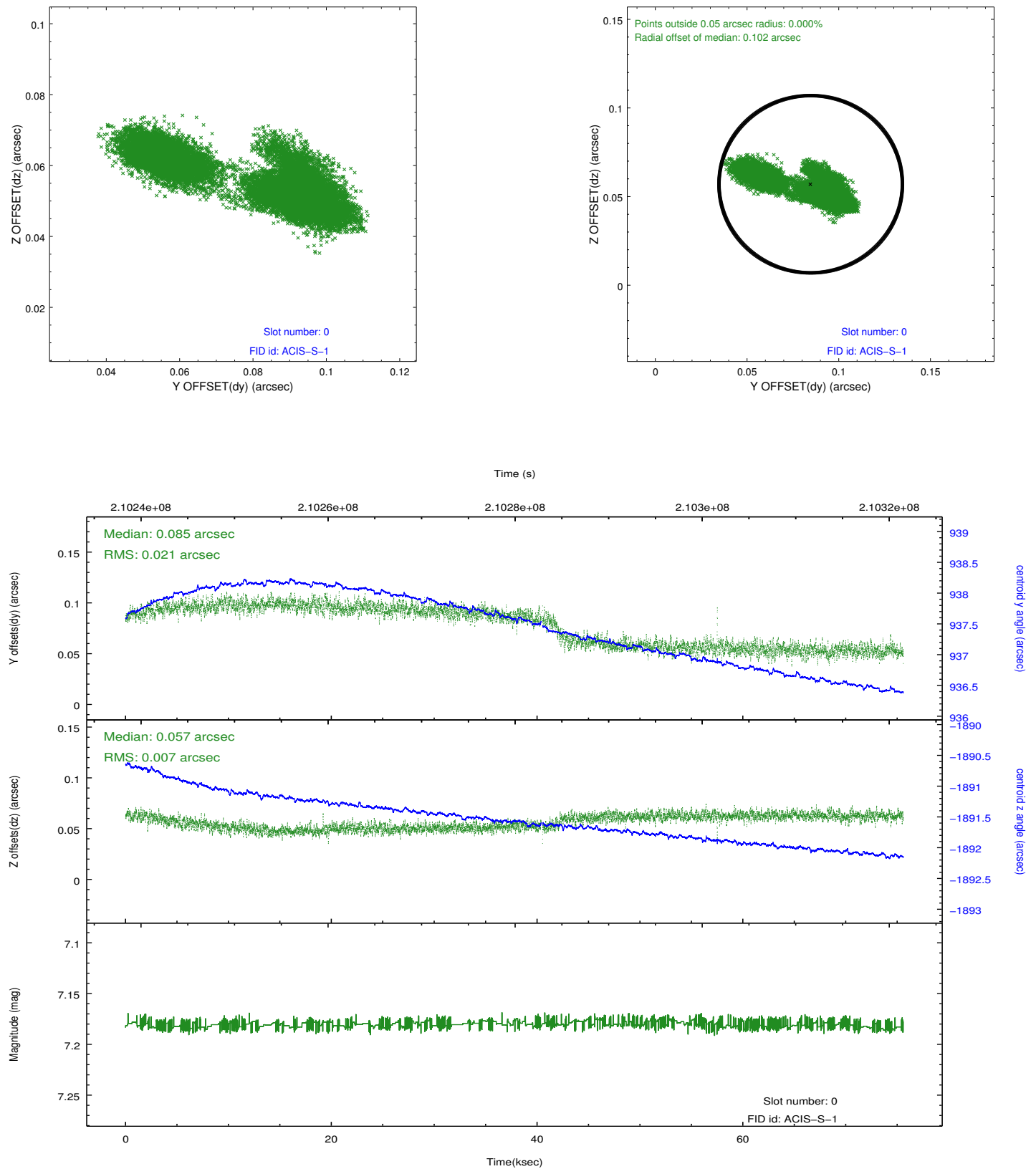


2.4.5 Slot 7

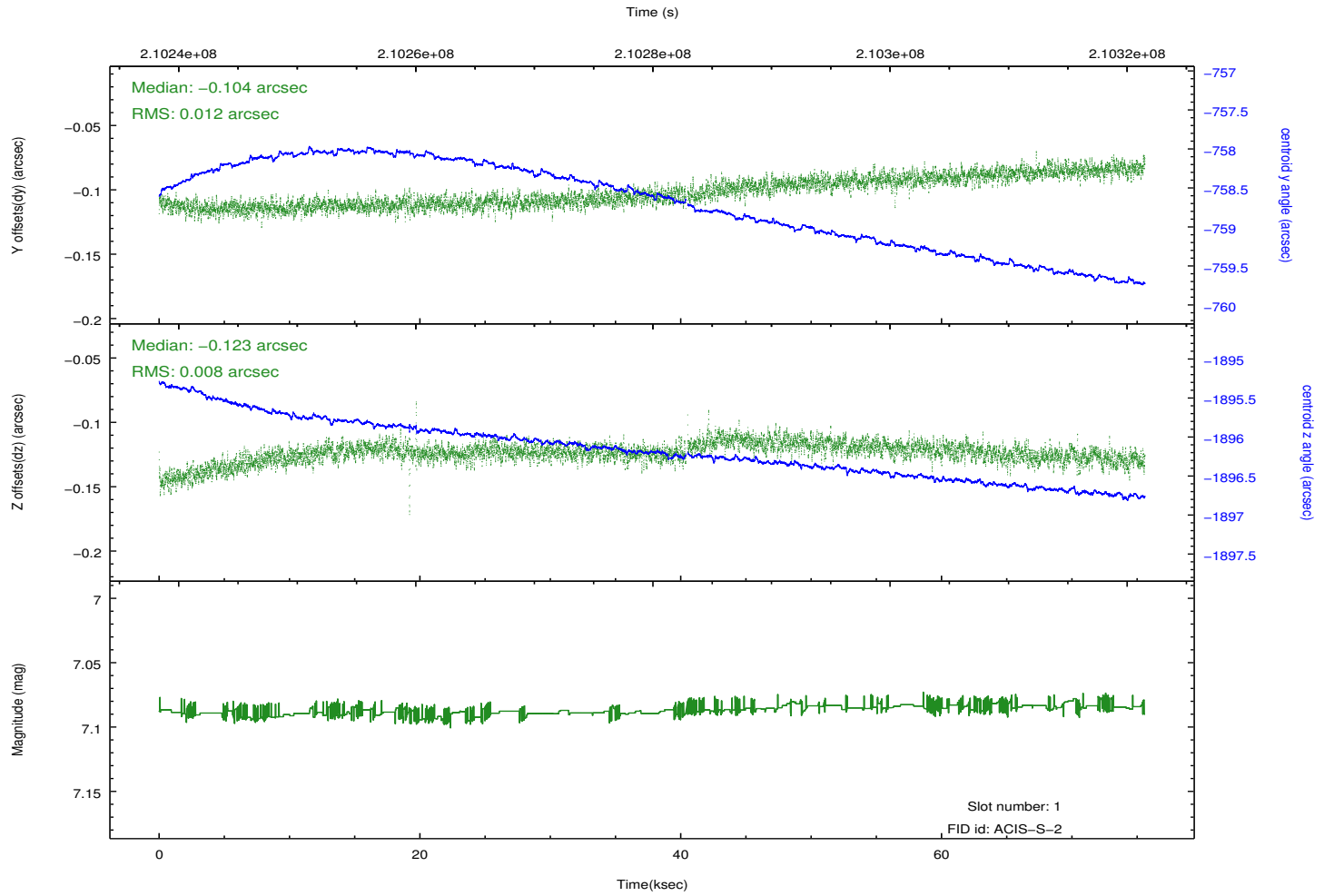
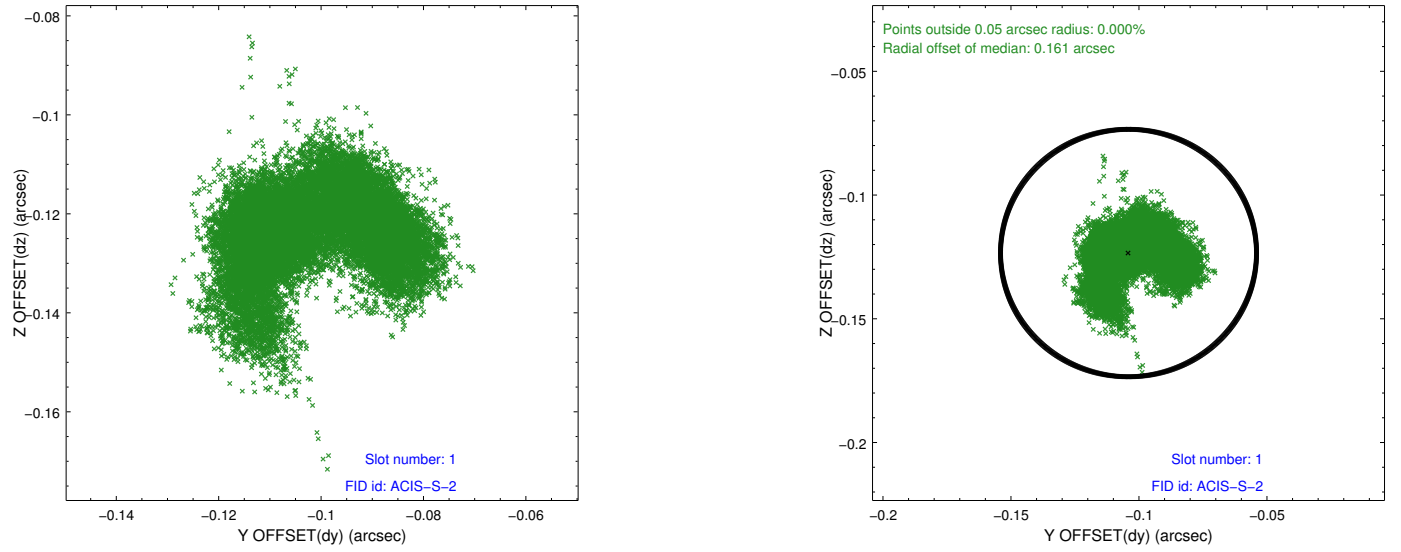


2.5 FID Slots

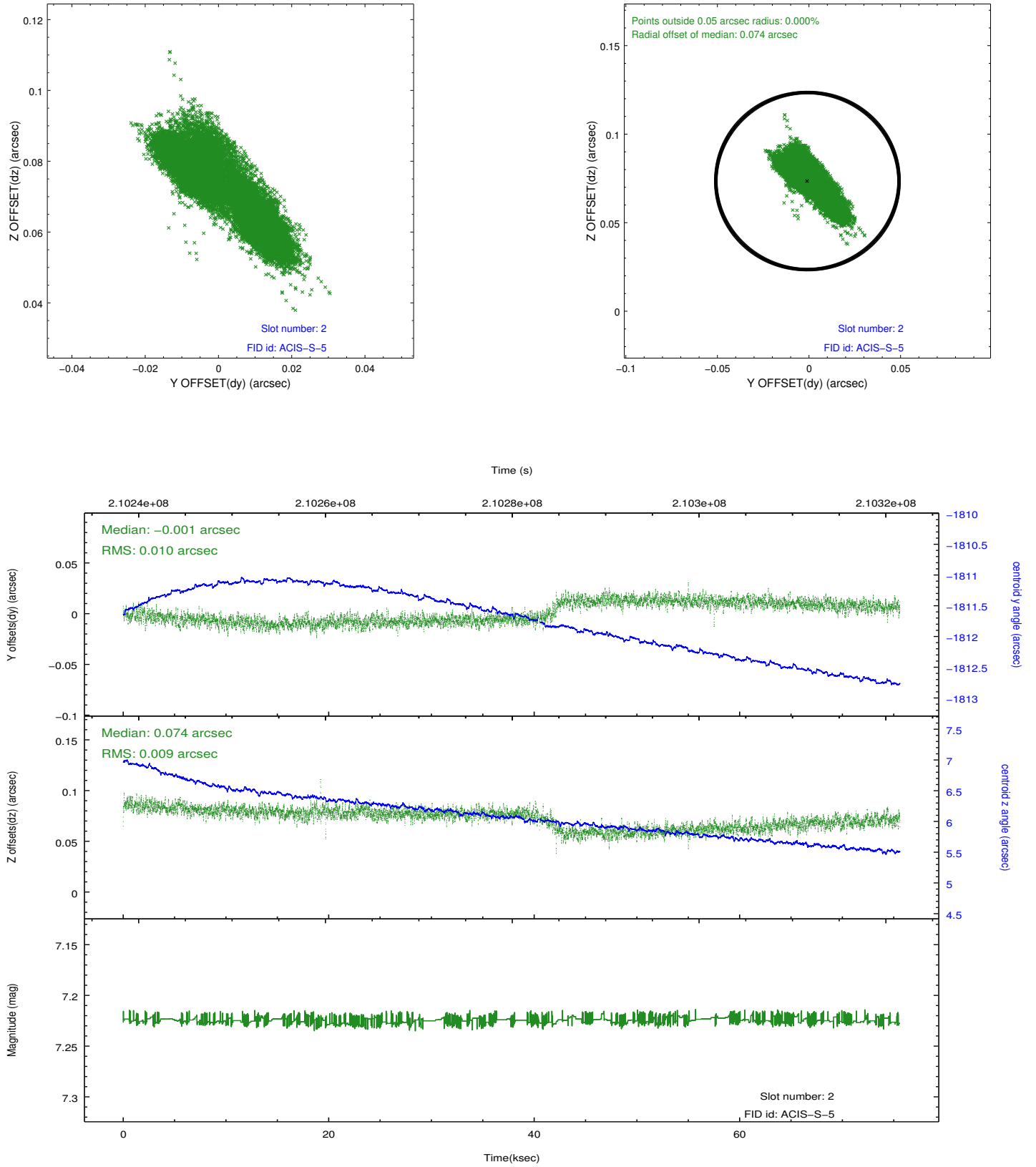
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

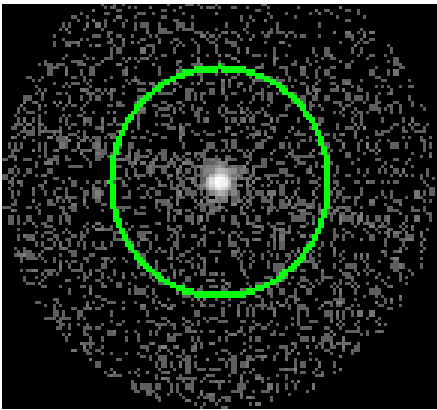


3 Gratings

3.1 LETG Arm



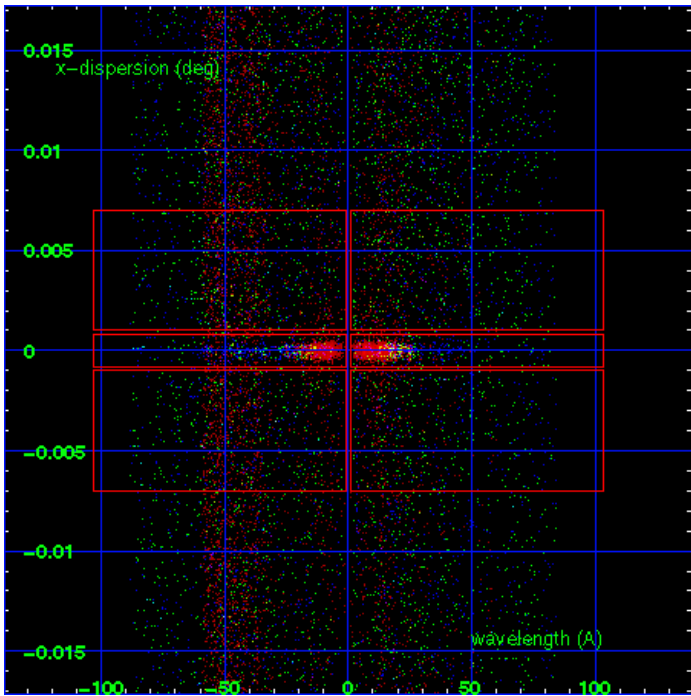
LETG Order Sort 123



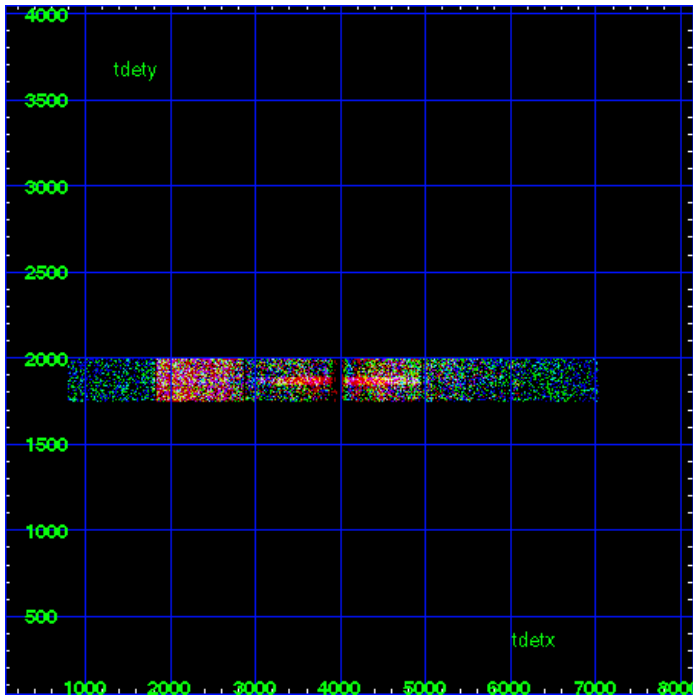
LETG Zero Order



LETG Order Sort ALL

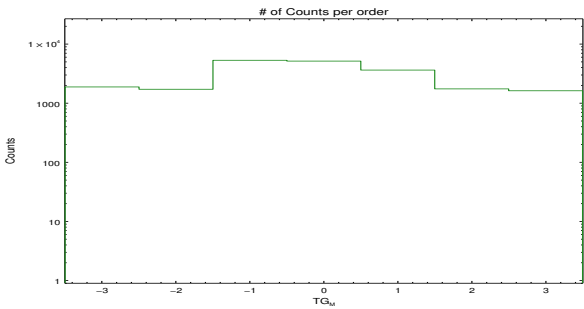


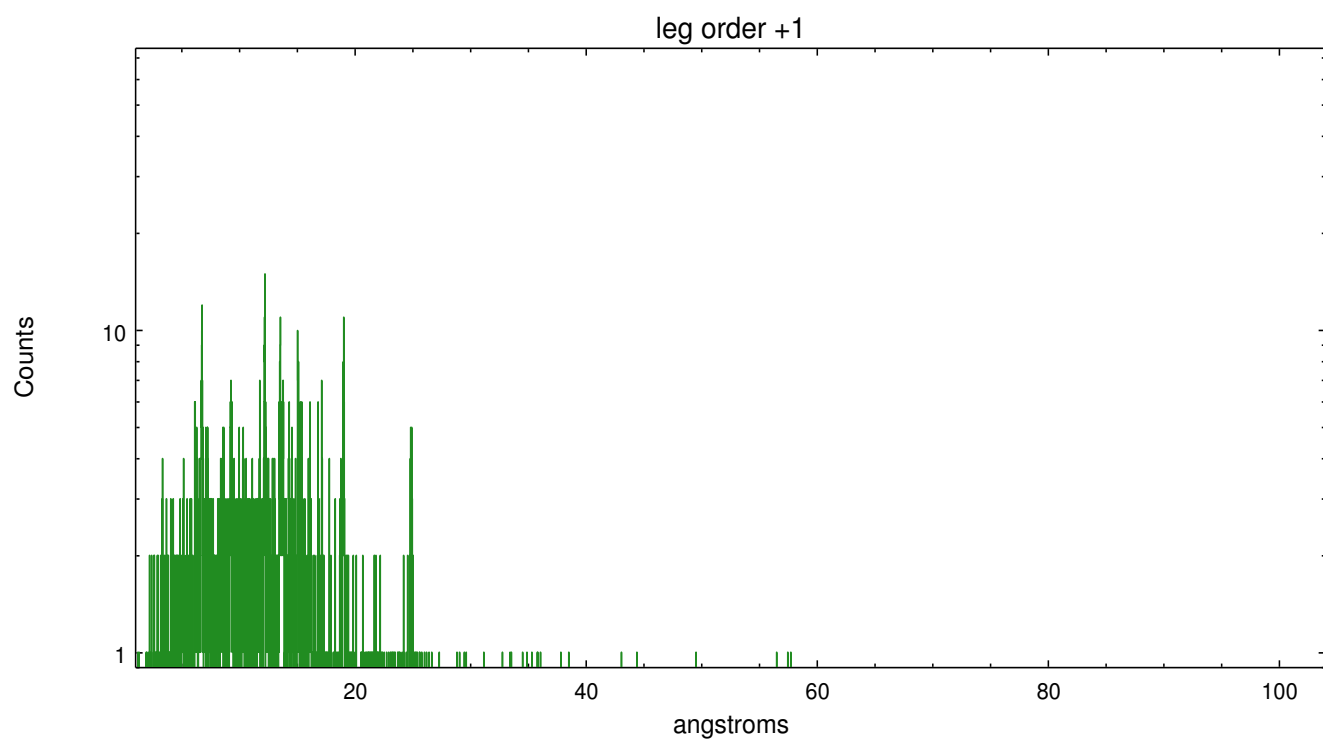
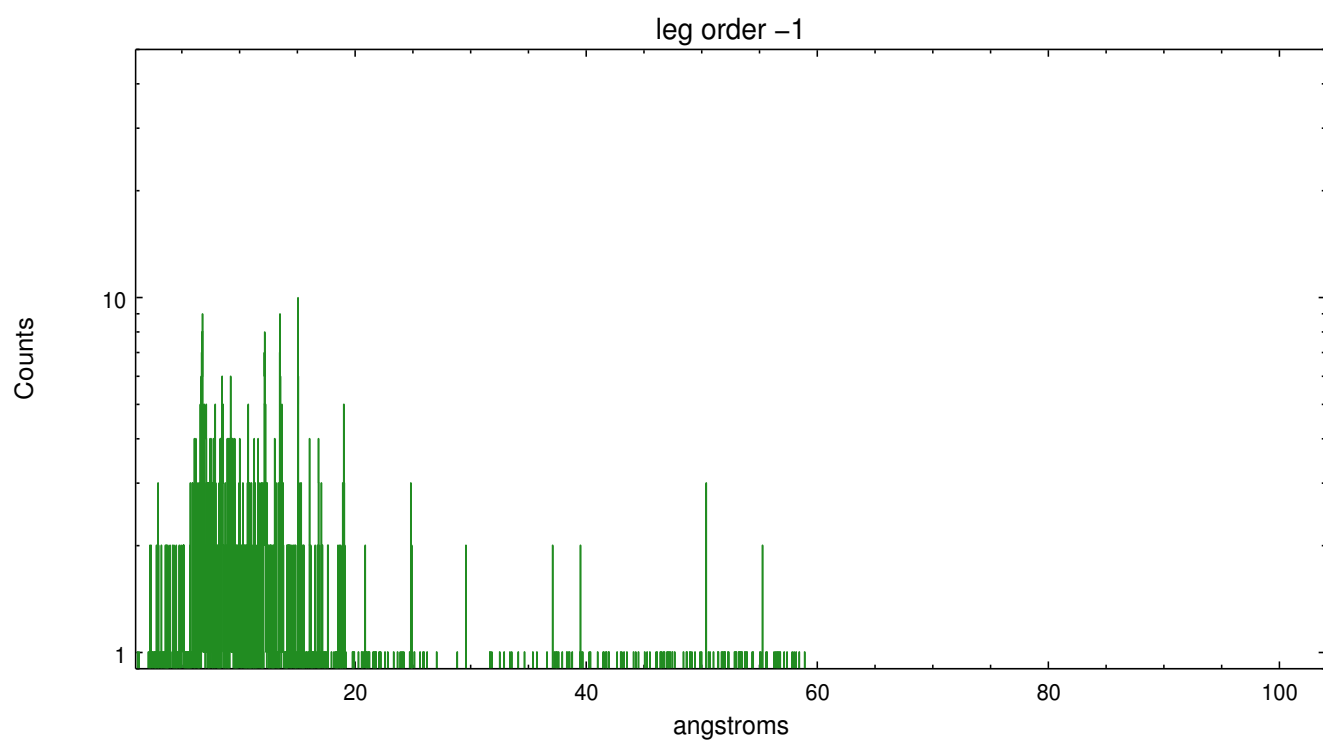
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1893	1728	5353	5187	3654	1755	1631





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	75.459

A.2 Comments

Gain and CTI correction are not well calibrated on CCD_ID 5 (ACIS-S1). Default order sorting can clip some regions, particularly longward of 30A (first order). User-specified custom processing parameters may be required in `tg_resolve_events` (`osipfile=None`, `osort_lo`, `osort_hi ~0.5`) though this can allow more zeroth order background at short wavelengths.