

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 4431 - L2 Version 5
Chandra X-Ray Center

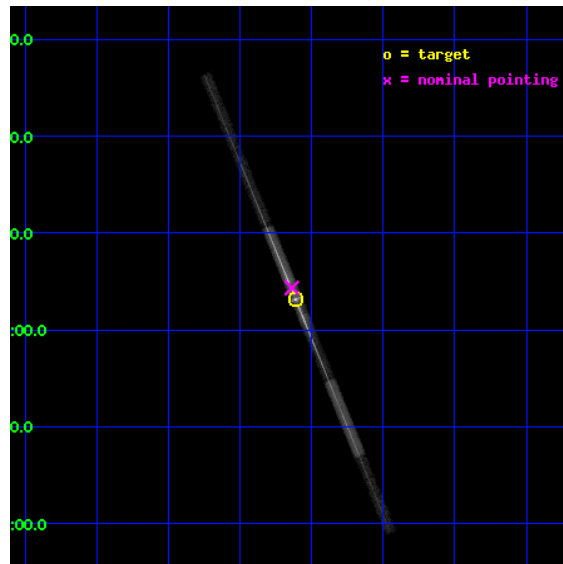
L2 Processing Date : Jan 18 2013

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1 Front

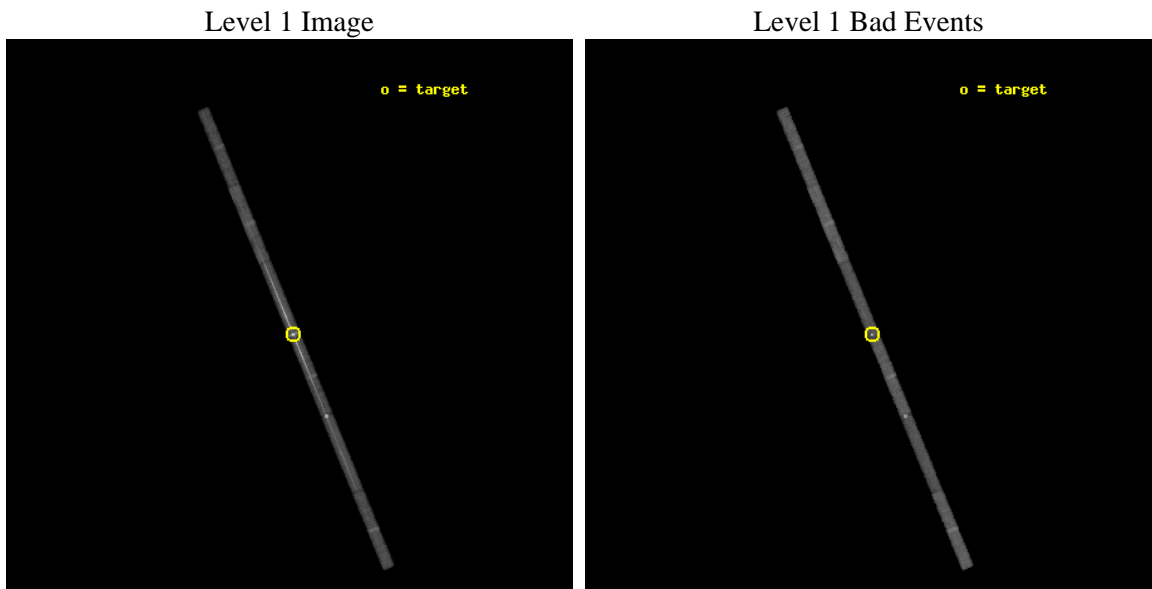
seq_num	790088	Sequence number
obs_id	4431	Observation id
title	AO4 CALIBRATION OBSERVATIONS OF 3C273	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	3C273	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.277917	Observer's specified target RA [deg]
dec_targ	2.052389	Observer's specified target Dec [deg]
ra_nom	187.28440147653	Nominal RA [deg]
dec_nom	2.0723829699544	Nominal Dec [deg]
roll_nom	247.66889126022	Nominal Roll [deg]
revision	5	Processing version of data
ontime	27971.299523652	Sum of GTIs [s]
livetime	26422.203479645	Livetime [s]
ontime4	27971.299523652	Sum of GTIs [s]
ontime5	27971.299523652	Sum of GTIs [s]
ontime6	27971.299523652	Sum of GTIs [s]
ontime7	27971.299523652	Sum of GTIs [s]
ontime8	27971.299523652	Sum of GTIs [s]
ontime9	27971.299523652	Sum of GTIs [s]
l2events	200904	Number of level 2 events



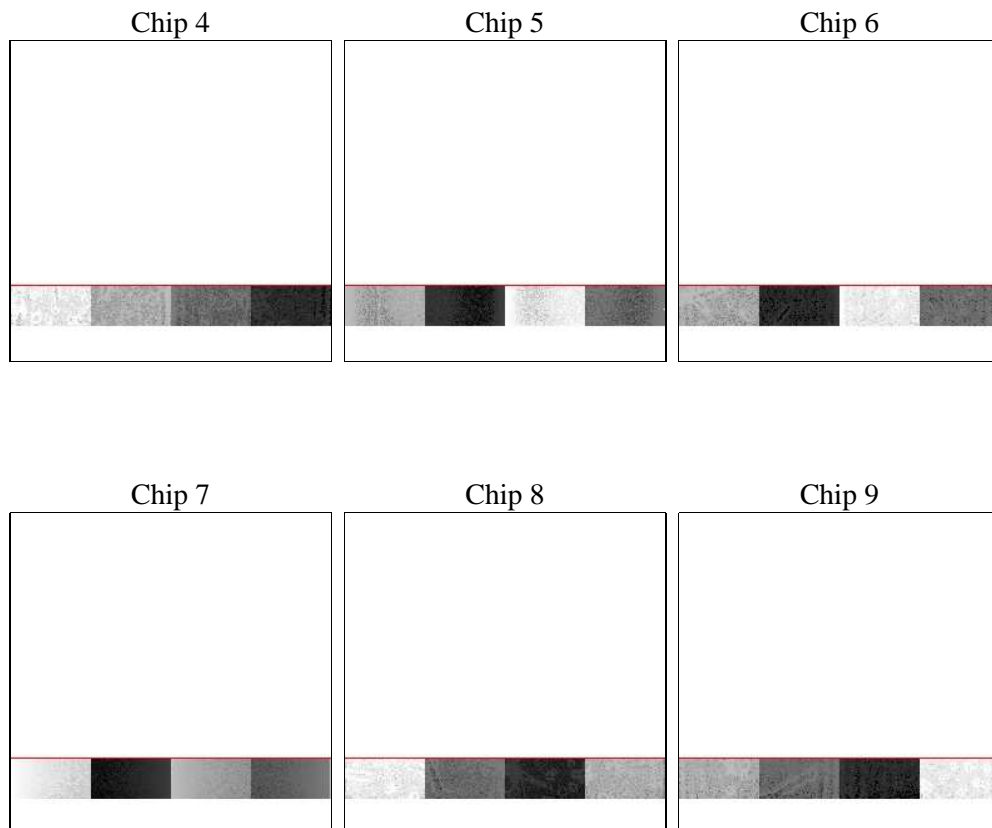
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	27459.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	27971.299523652	Sum of GTIs [s]
caldsver	4.5.5	 	ontime4	27971.299523652	Sum of GTIs [s]
date	2013-01-18T20:53:22	Date and time of file creation	ontime5	27971.299523652	Sum of GTIs [s]
revision	5	Processing version of data	ontime6	27971.299523652	Sum of GTIs [s]
			ontime7	27971.299523652	Sum of GTIs [s]
			ontime8	27971.299523652	Sum of GTIs [s]
			ontime9	27971.299523652	Sum of GTIs [s]
			l1events	382166	Number of level 1 events

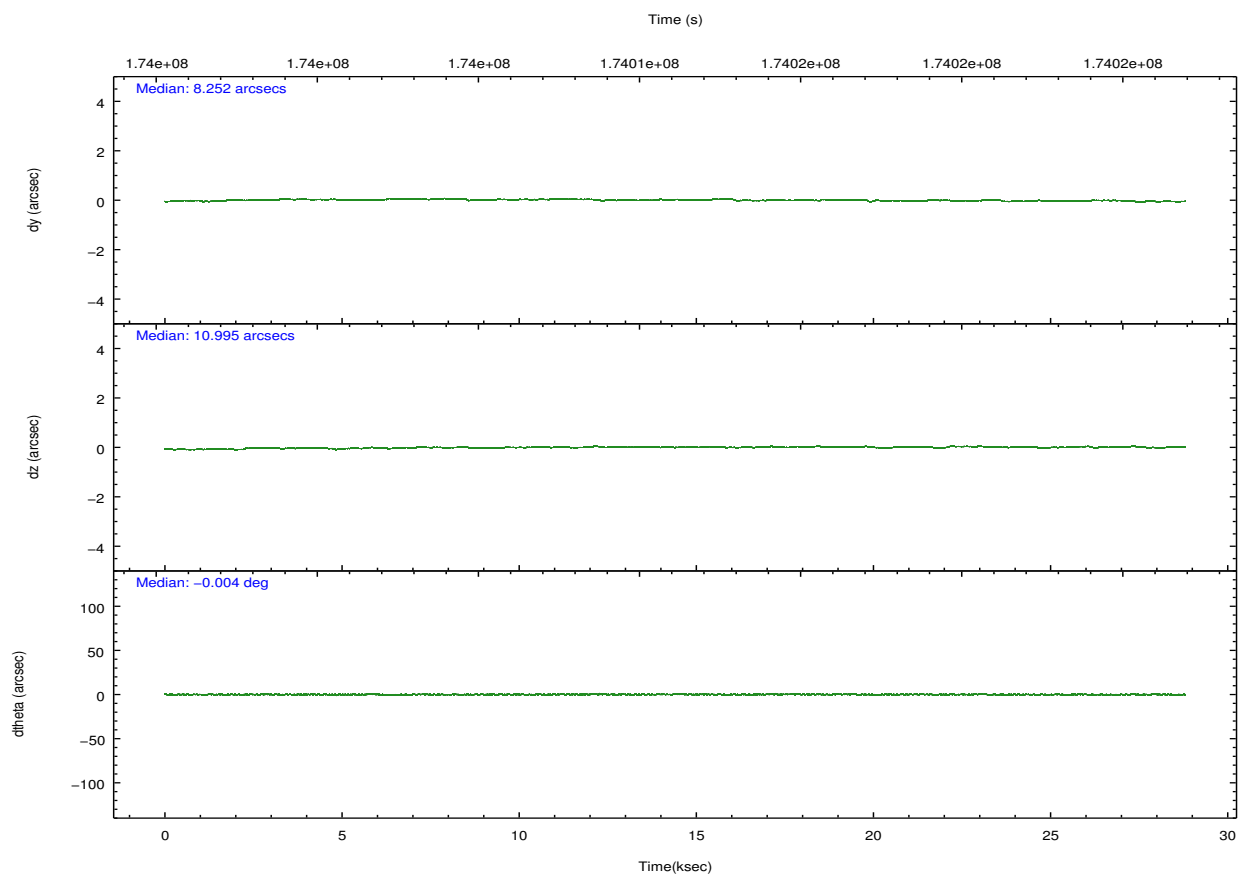
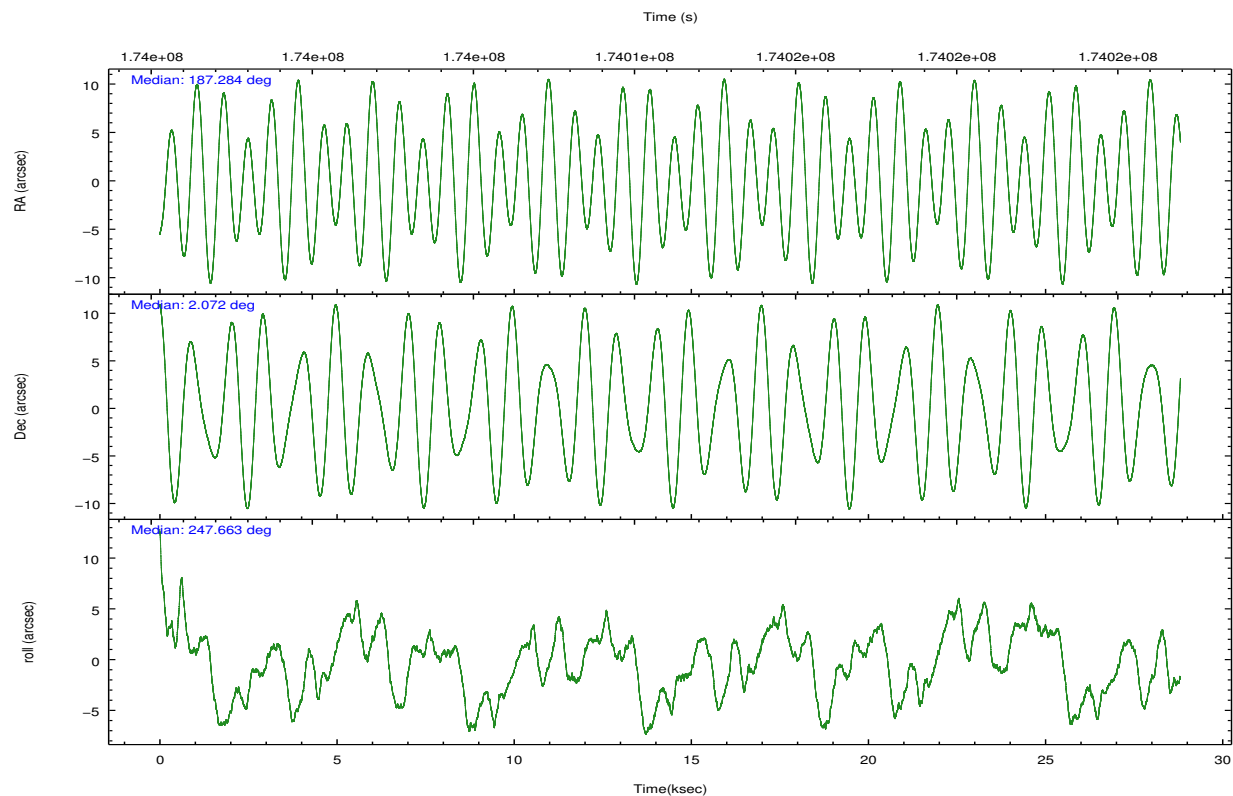
2.1.4 Events

	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	33074	52714	76303	150202	42200	27673	grade 0 events	2224	11117	39310	27253	4946	2192
rejected events	28454	19927	25382	33776	31542	23201		6%	21%	51%	18%	11%	7%
rejected %	86%	37%	33%	22%	74%	83%	grade 1 events	11	2039	87	1129	15	10
								0%	3%	0%	0%	0%	0%
							grade 2 events	762	7257	5633	27937	1645	634
								2%	13%	7%	18%	3%	2%
							grade 3 events	526	2479	2074	13047	939	548
								1%	4%	2%	8%	2%	1%
							grade 4 events	546	2863	2031	12881	868	560
								1%	5%	2%	8%	2%	2%
							grade 5 events	869	4321	922	7835	1121	909
								2%	8%	1%	5%	2%	3%
							grade 6 events	562	9075	1874	35310	2260	539
								1%	17%	2%	23%	5%	1%
							grade 7 events	27574	13563	24372	24810	30406	22281
								83%	25%	31%	16%	72%	80%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	187.280402	187.2844014765285	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	2.099349	2.072382969954441	Subarray start row	113	113
[deg] Pointing Roll	247.512404	247.6688912602179	Subarray row count	128	128
[s] Window start time (MET)	170812864.184000	170812864.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	175910464.184000	175910464.184000	[s] Primary exposure time	0.000000	0.7
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-182.132523	-182.1370004450064			
[mm] SIM translation stage offset	-8	-7.995522138001405			
[s] Observation start time (MET)	173998052.184000	173996176.00205			
Observation start date	2003-07-07T20:46:28	2003-07-07T20:16:16			
[s] Observation end time (MET)	174025511.184000	174026501.14085			
Observation end date	2003-07-08T04:24:07	2003-07-08T04:41:41			
Read mode	TIMED	TIMED			

2.3 Aspect

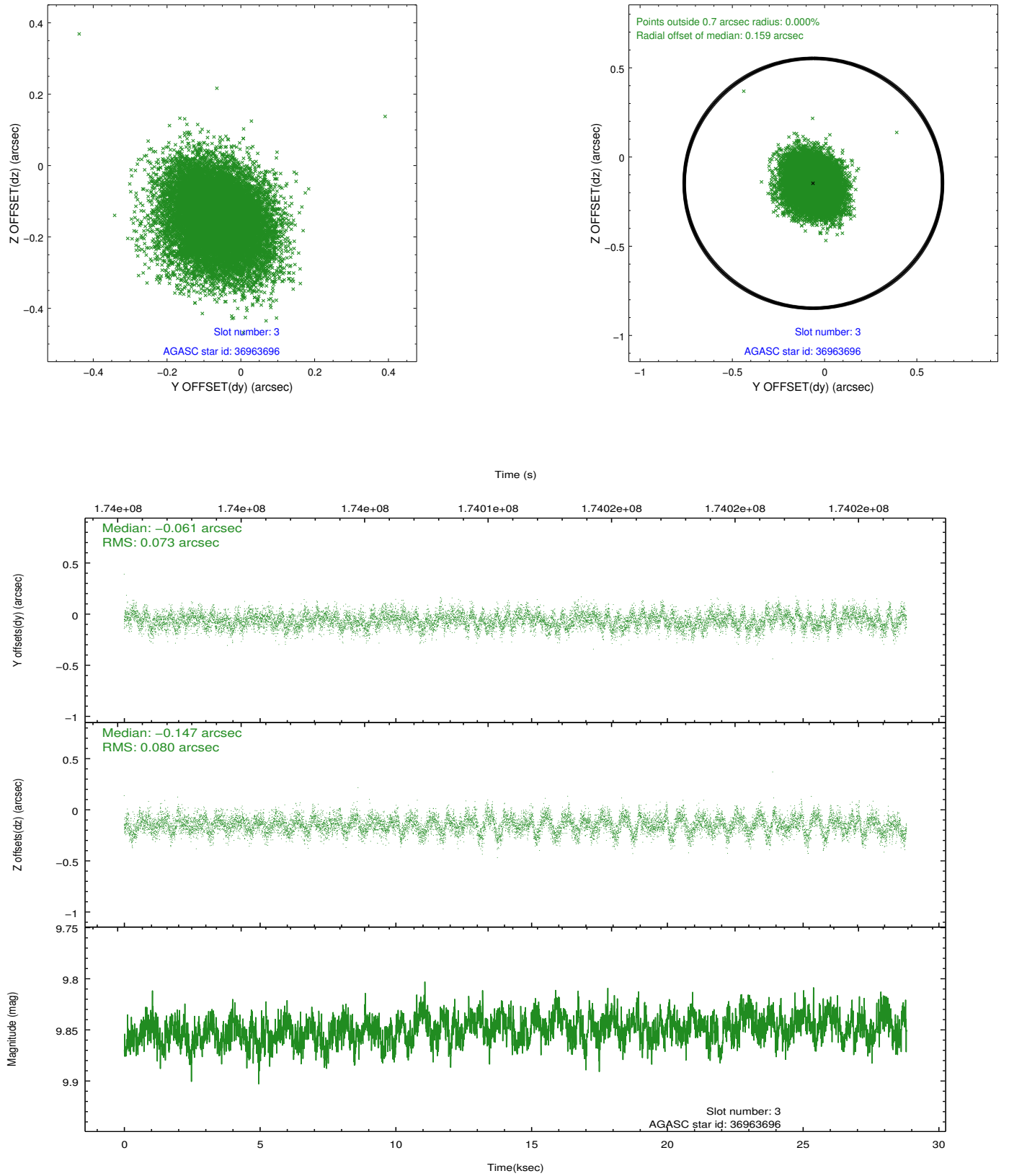


Slot Statistics

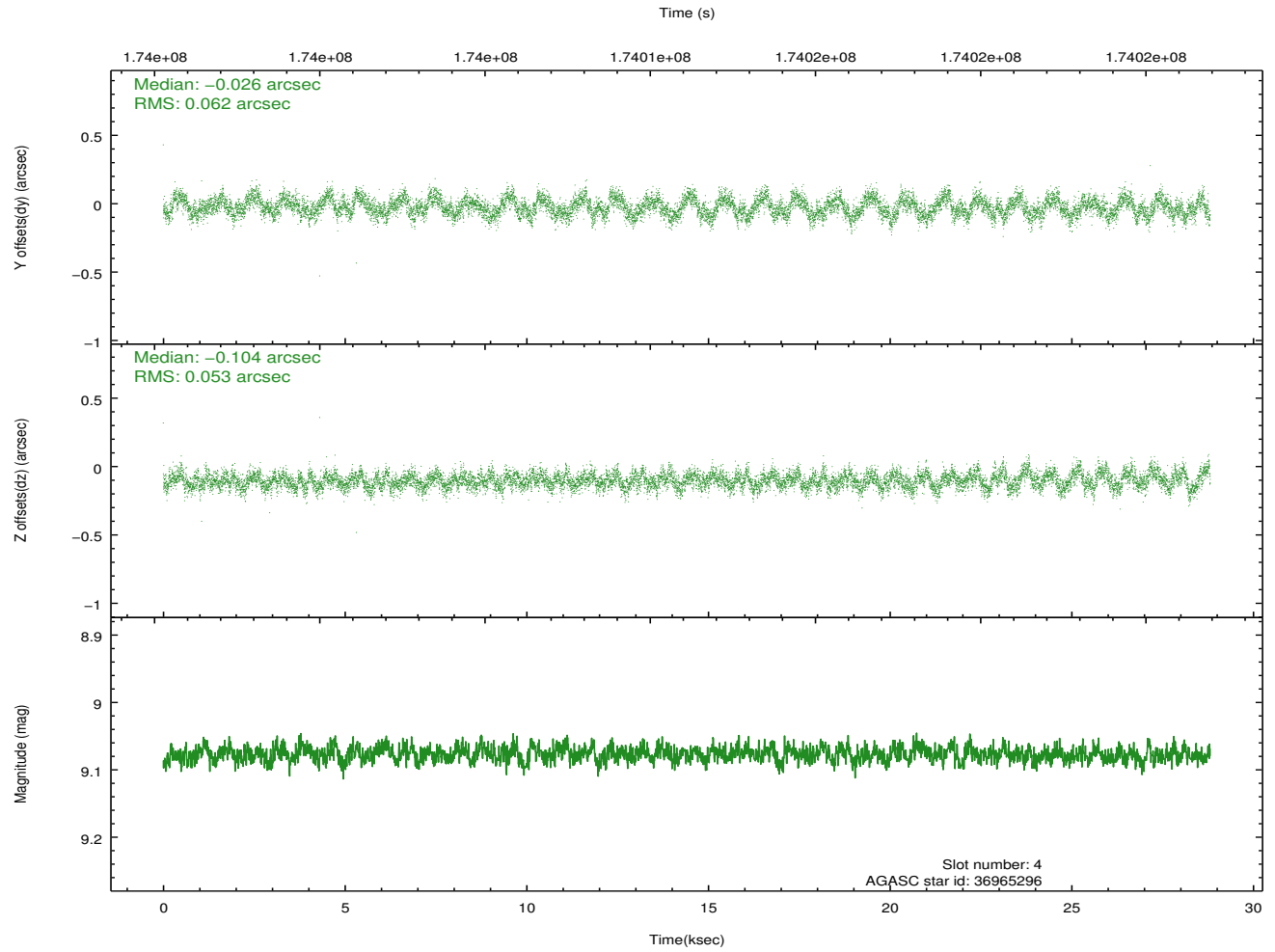
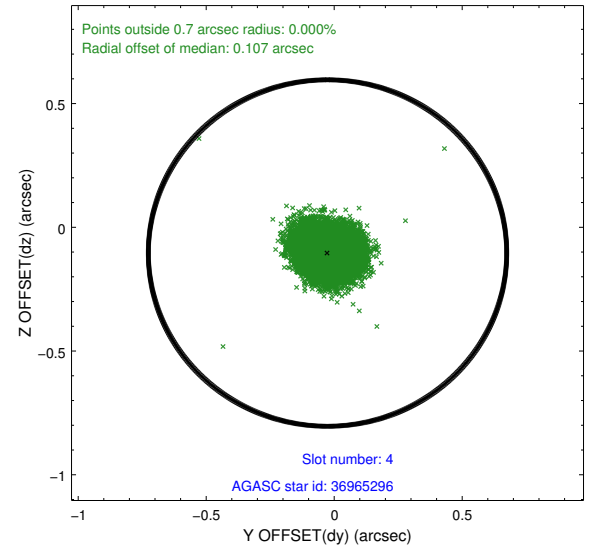
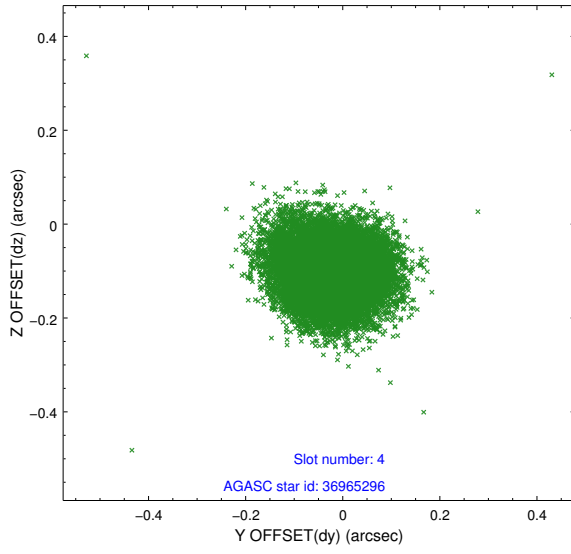
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.08	7028	-0.040	-0.098	0.007	0.011	0.000000	0.000000	-760.50	-1897.07
1	FID	ACIS-S-4	7.17	7028	0.056	0.046	0.005	0.010	0.000000	0.000000	2152.83	11.43
2	FID	ACIS-S-5	7.22	7028	-0.047	0.060	0.006	0.010	0.000000	0.000000	-1813.24	5.21
3	GUIDE	36963696	9.85	14045	-0.061	-0.147	0.115	0.188	186.971396	1.870472	1186.71	-712.24
4	GUIDE	36965296	9.08	14050	-0.026	-0.104	0.087	0.137	186.926292	1.837429	1358.81	-816.80
5	GUIDE	36965816	9.26	14052	-0.023	-0.081	0.091	0.148	186.823353	1.771455	1719.92	-1068.15
6	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	37883040	10.02	14042	0.110	0.337	0.128	0.211	187.575516	1.280402	2318.07	2109.60

2.4 Star Slots

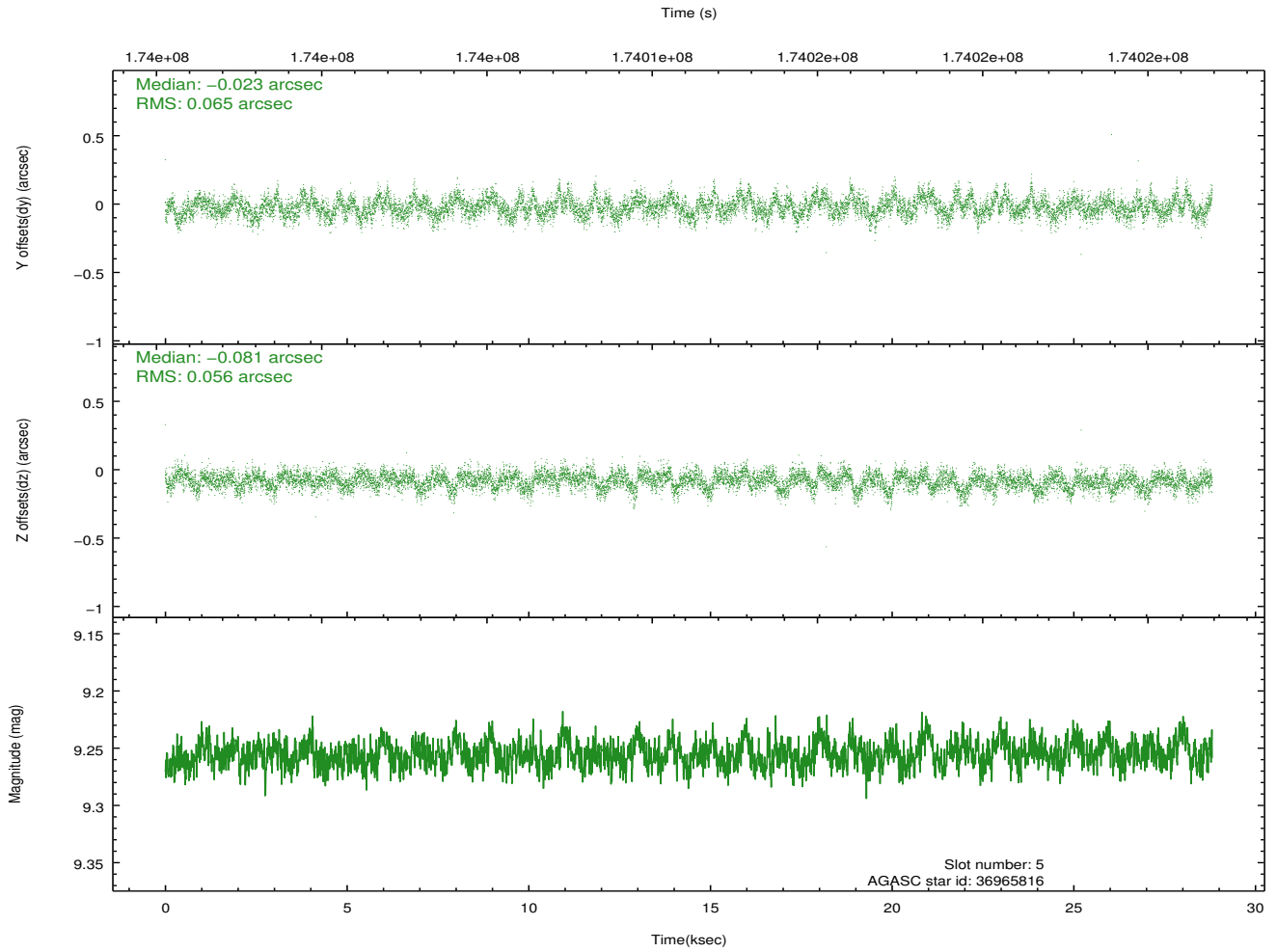
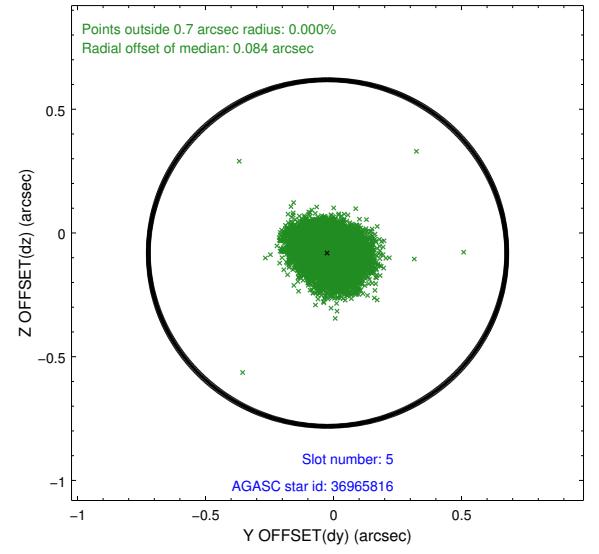
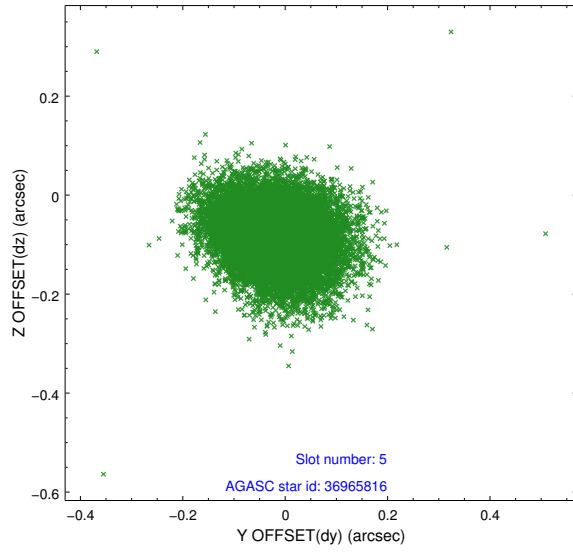
2.4.1 Slot 3



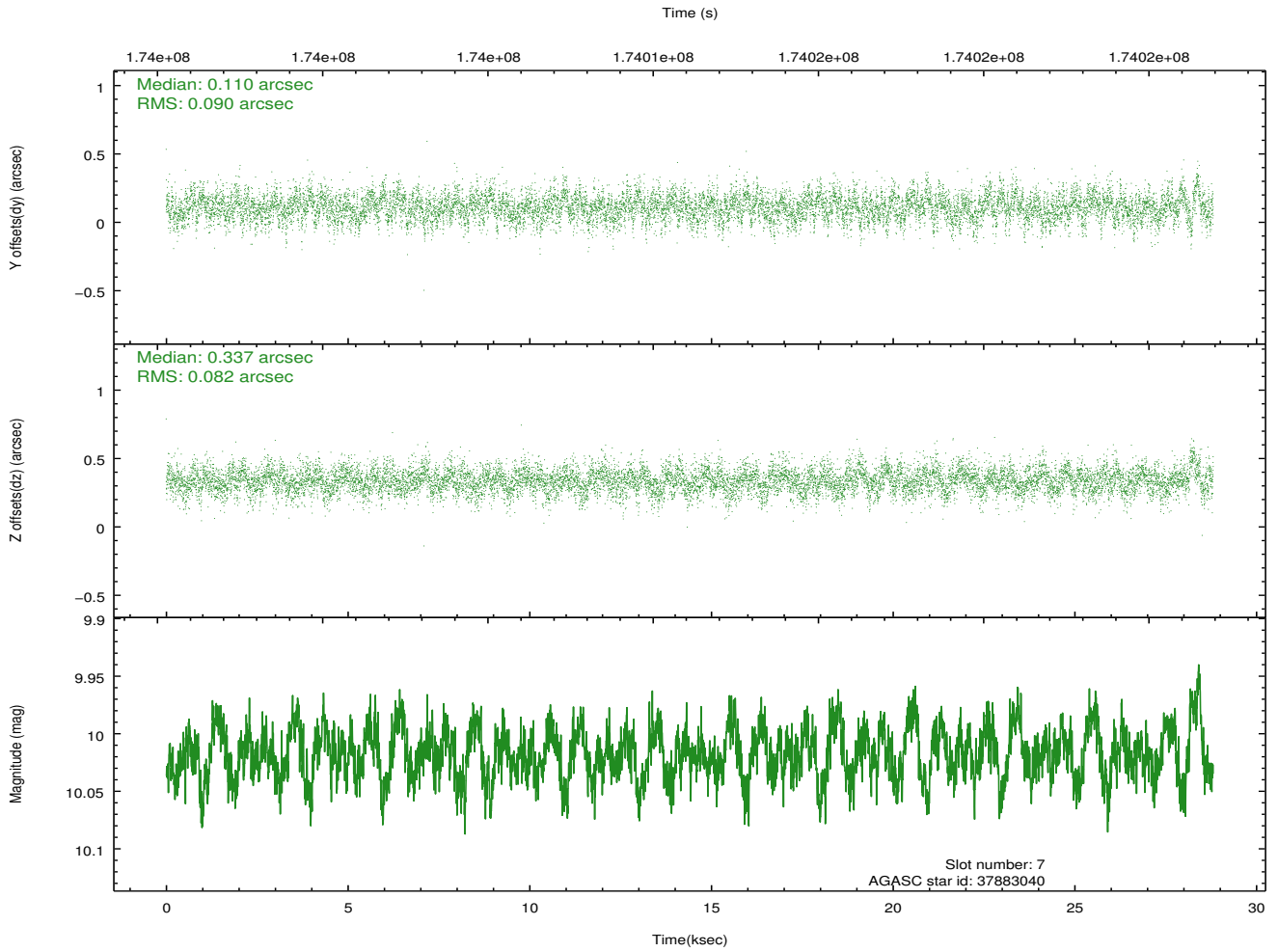
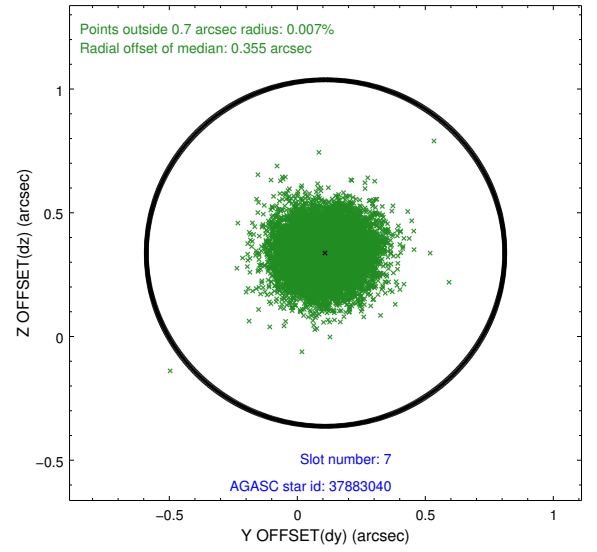
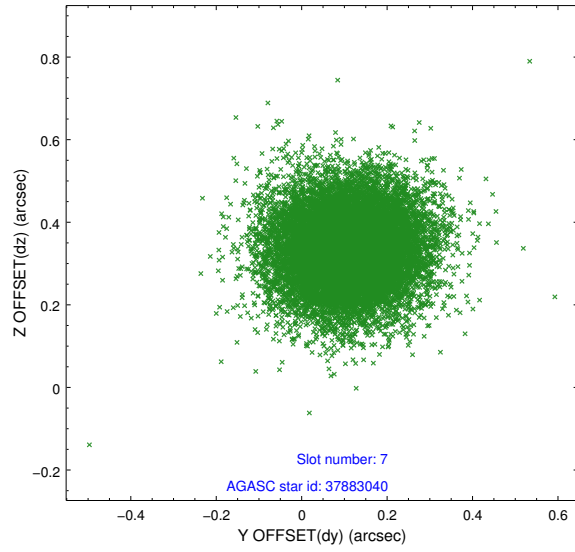
2.4.2 Slot 4



2.4.3 Slot 5

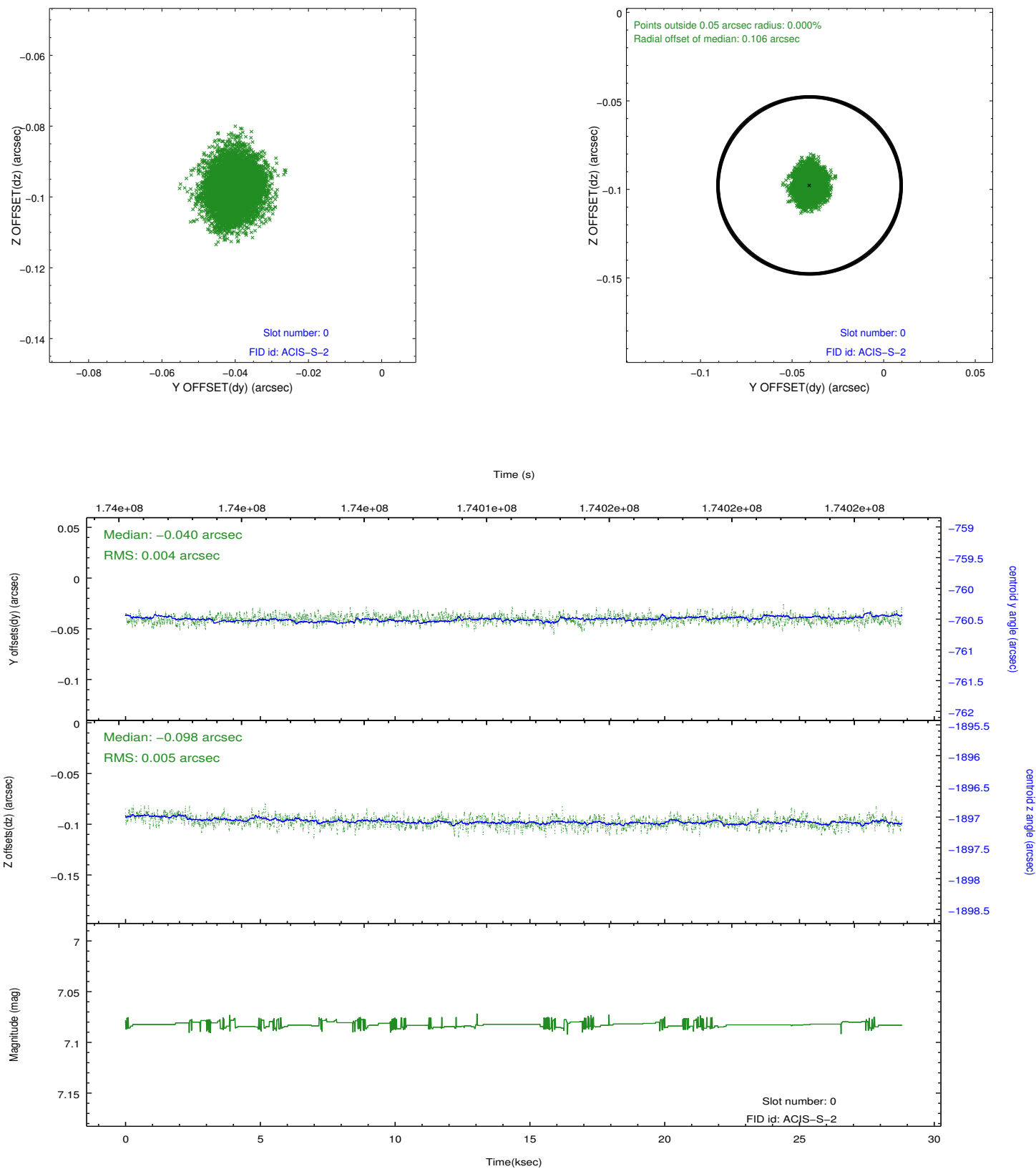


2.4.4 Slot 7

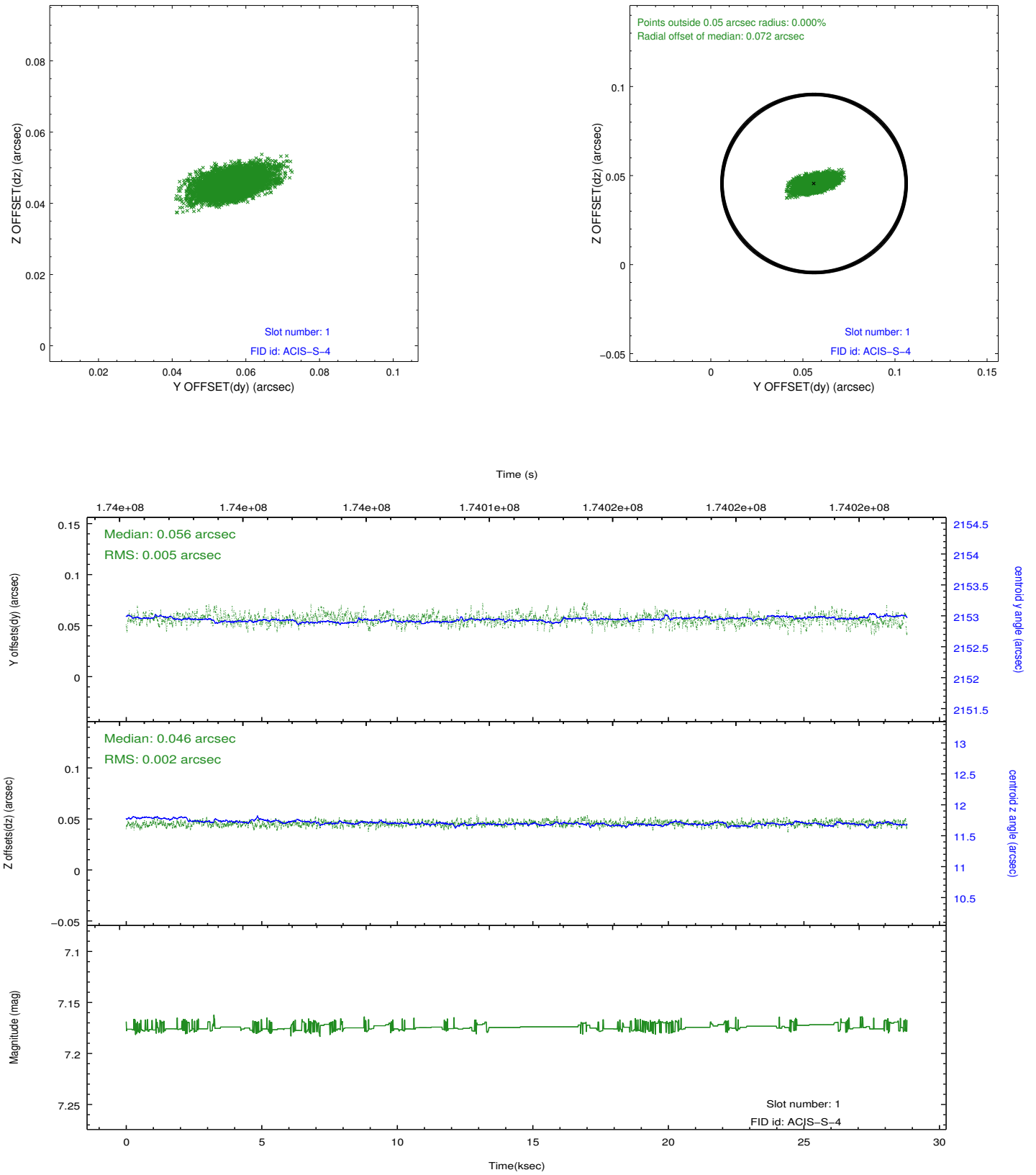


2.5 FID Slots

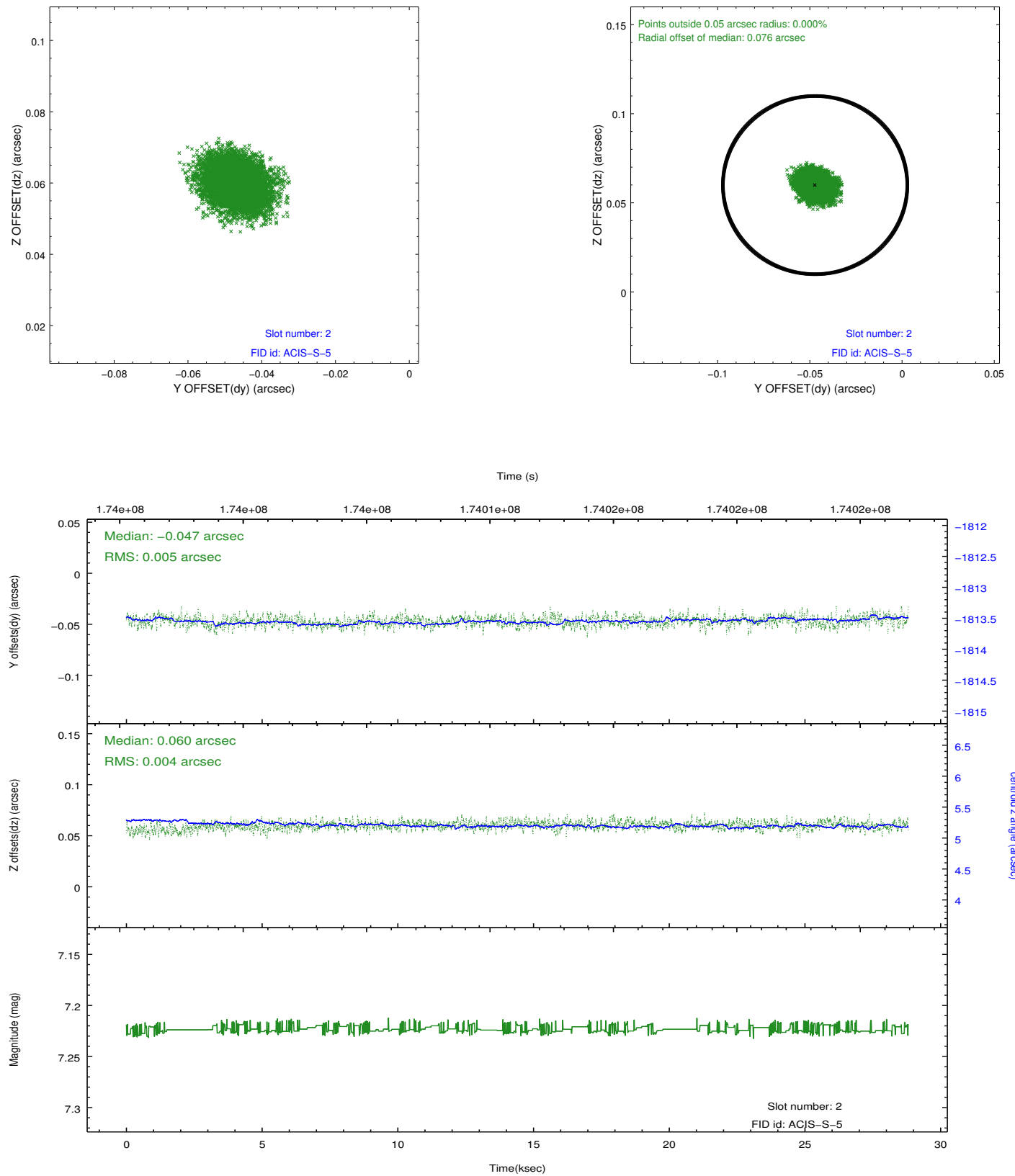
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

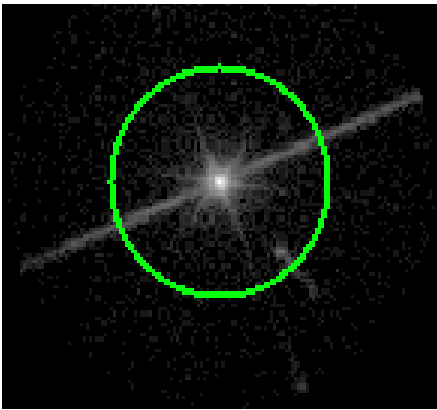


3 Gratings

3.1 LETG Arm



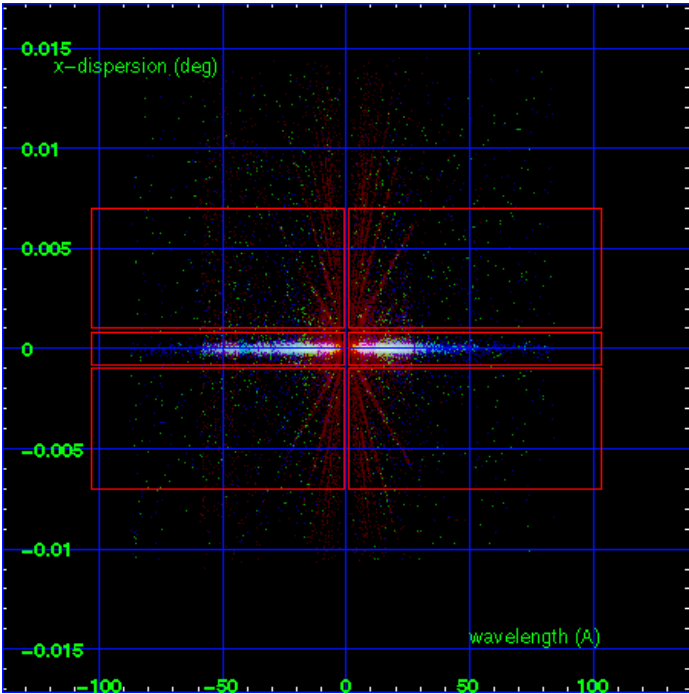
LETG Order Sort 123



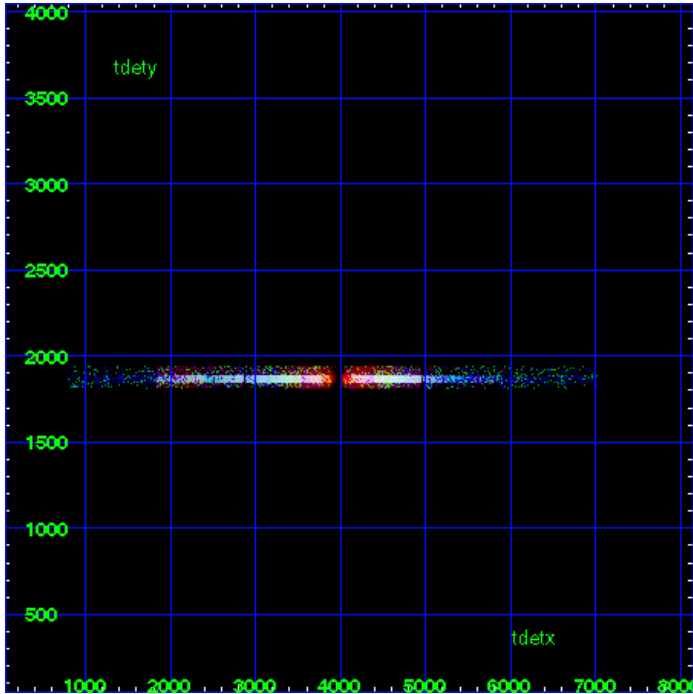
LETG Zero Order



LETG Order Sort ALL

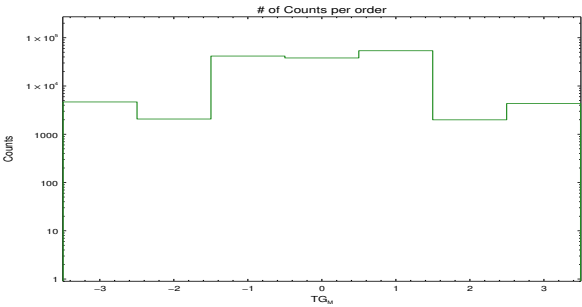


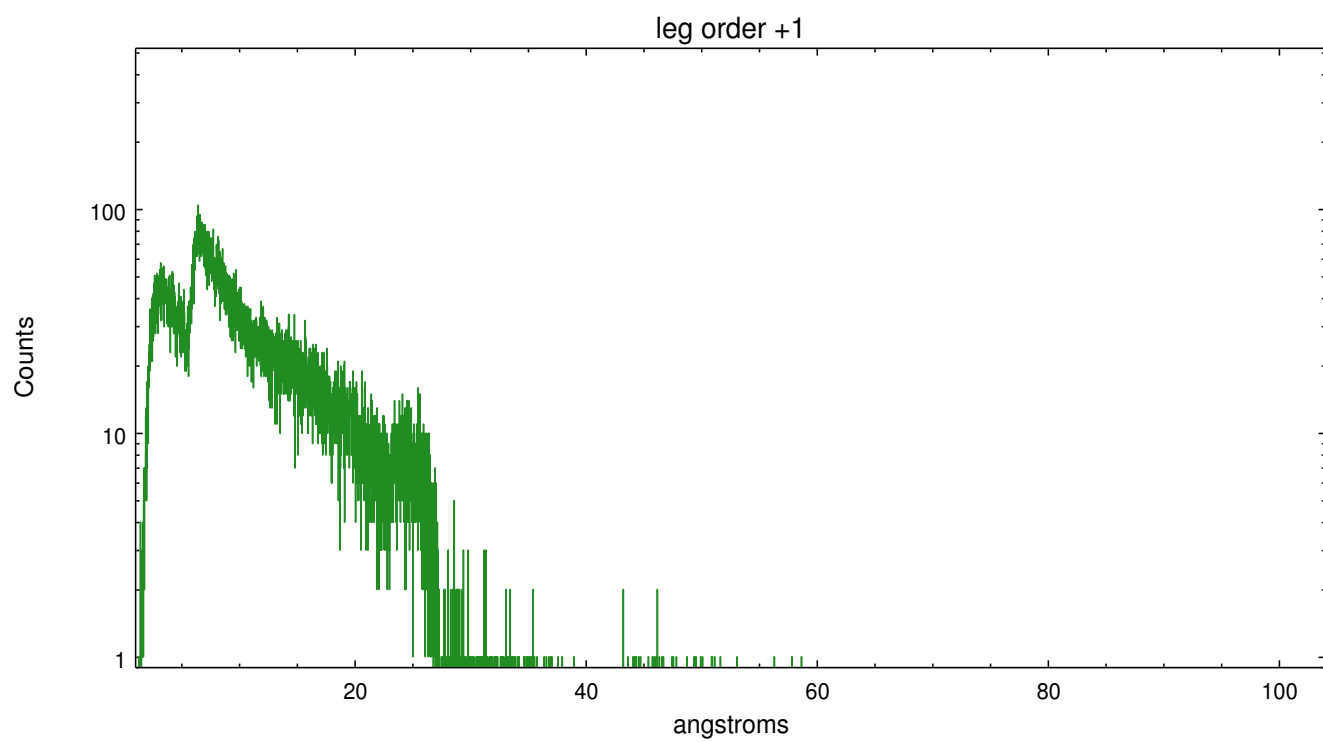
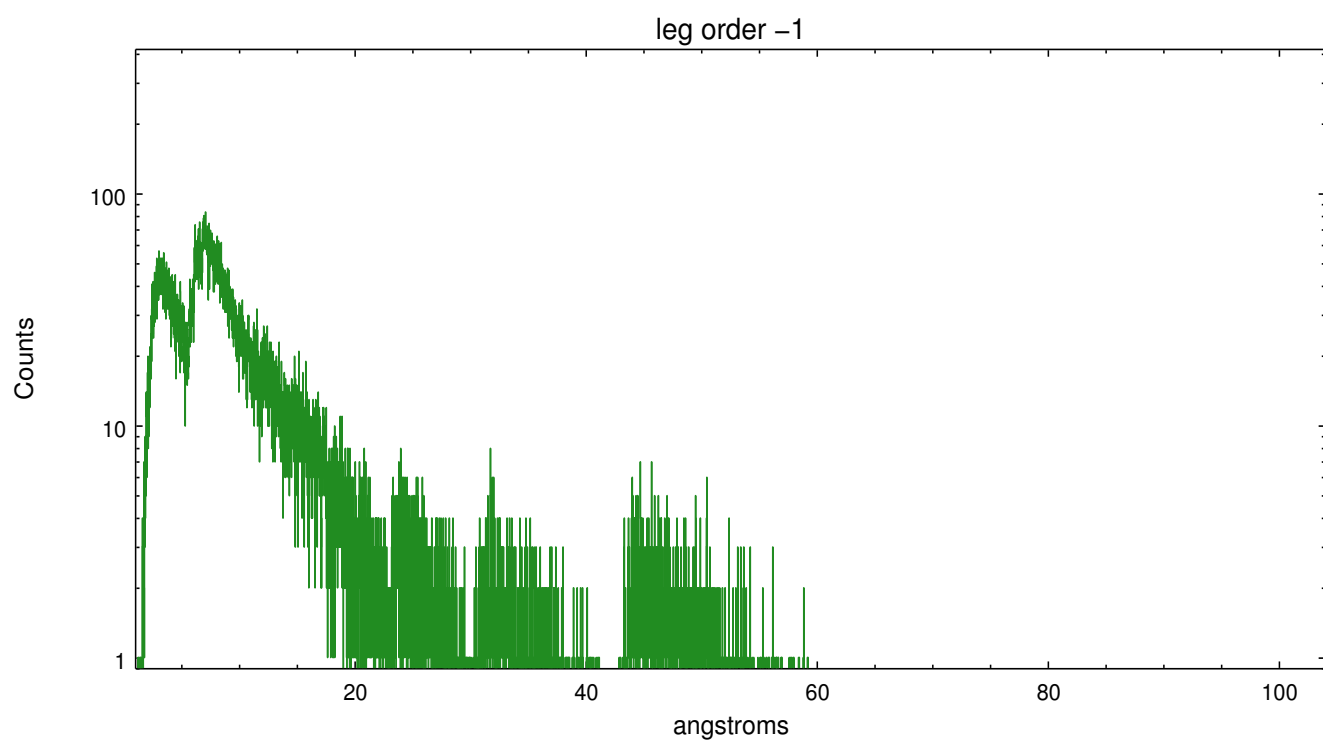
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	4692	2075	42065	38408	54273	1997	4341





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	27.971

A.2 Comments

The guide star in slot 6 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.