

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 3169 - L2 Version 5
Chandra X-Ray Center

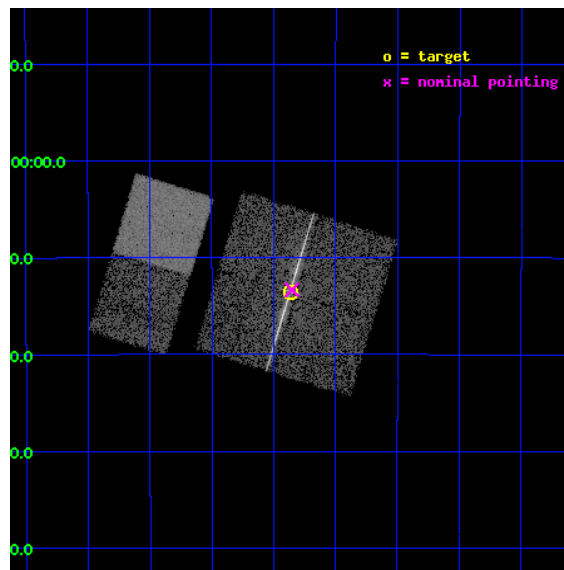
L2 Processing Date : Oct 26 2012

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1 Front

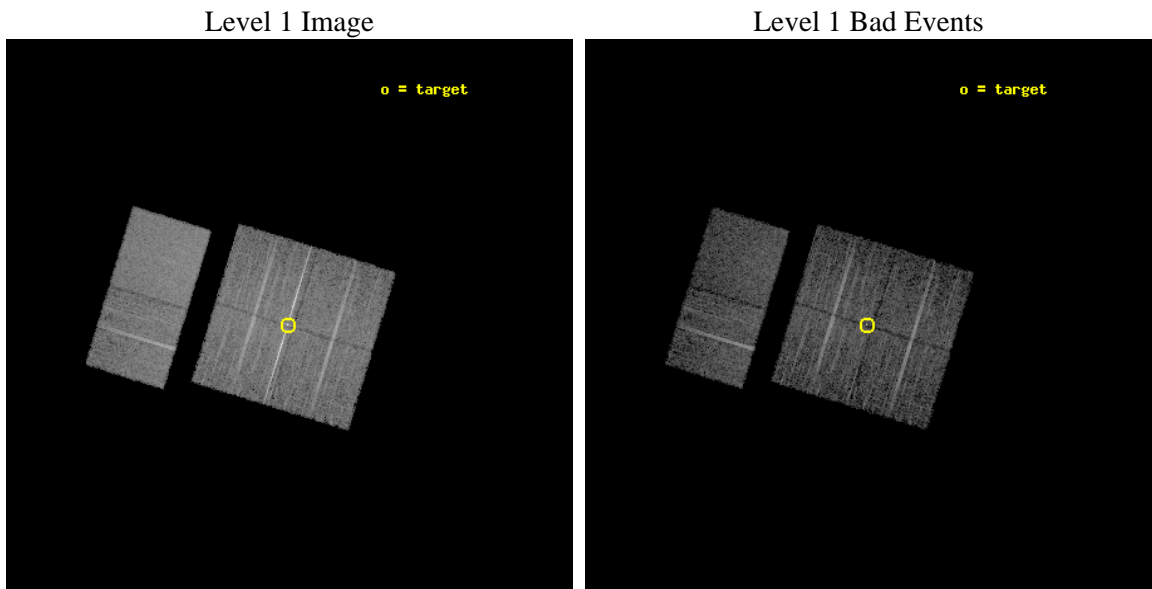
seq_num	790063	Sequence number
obs_id	3169	Observation id
title	AO3 LETG/ACIS-I CALIBRATION OBSERVATIONS OF PKS2155-304	Proposal t
observer	Dr. CXC Calibration	Principal investigator
object	PKS2155-304	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	329.716667	Observer's specified target RA [deg]
dec_targ	-30.225556	Observer's specified target Dec [deg]
ra_nom	329.71327356829	Nominal RA [deg]
dec_nom	-30.222296191718	Nominal Dec [deg]
roll_nom	287.06343916377	Nominal Roll [deg]
revision	5	Processing version of data
ontime	7932.8000073731	Sum of GTIs [s]
livetime	7832.350117121	Livetime [s]
ontime0	7932.8000073731	Sum of GTIs [s]
ontime1	7932.8000073731	Sum of GTIs [s]
ontime2	7932.8000073731	Sum of GTIs [s]
ontime3	7932.8000073731	Sum of GTIs [s]
ontime6	7932.8000073731	Sum of GTIs [s]
ontime7	7932.8000073731	Sum of GTIs [s]
l2events	76059	Number of level 2 events



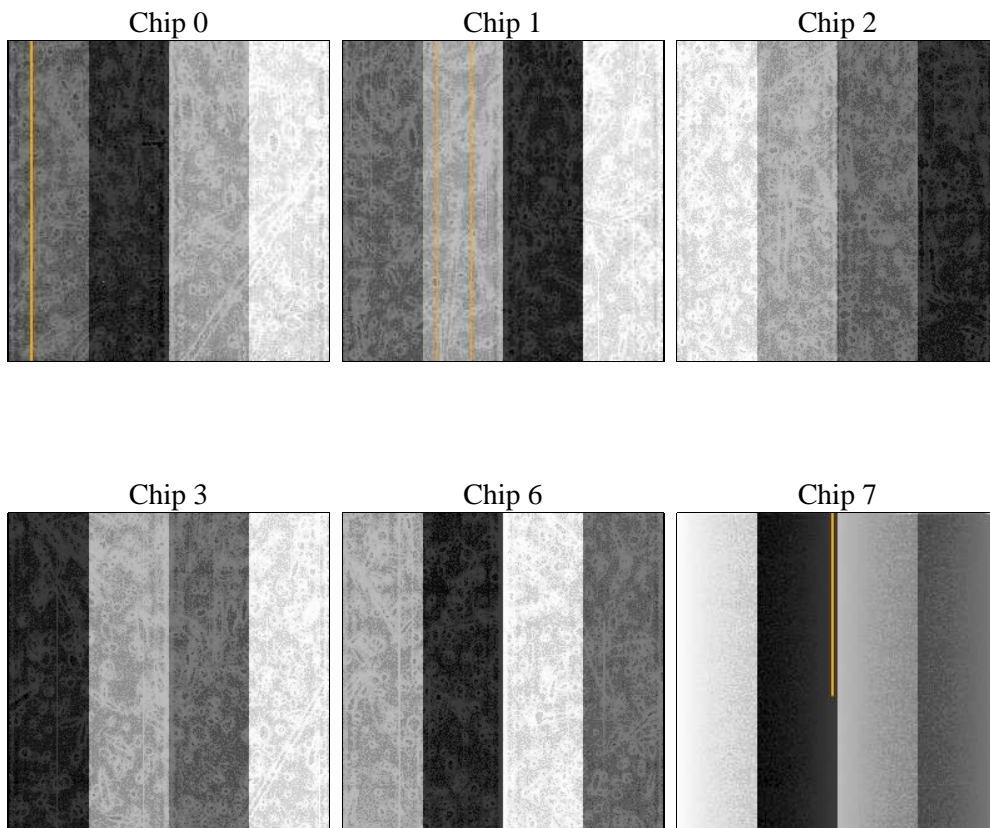
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7932.8000073731	Sum of GTIs [s]
caldsver	4.5.2	 	ontime0	7932.8000073731	Sum of GTIs [s]
date	2012-09-28T05:54:42	Date and time of file creation	ontime1	7932.8000073731	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	7932.8000073731	Sum of GTIs [s]
			ontime3	7932.8000073731	Sum of GTIs [s]
			ontime6	7932.8000073731	Sum of GTIs [s]
			ontime7	7932.8000073731	Sum of GTIs [s]
			l1events	334493	Number of level 1 events

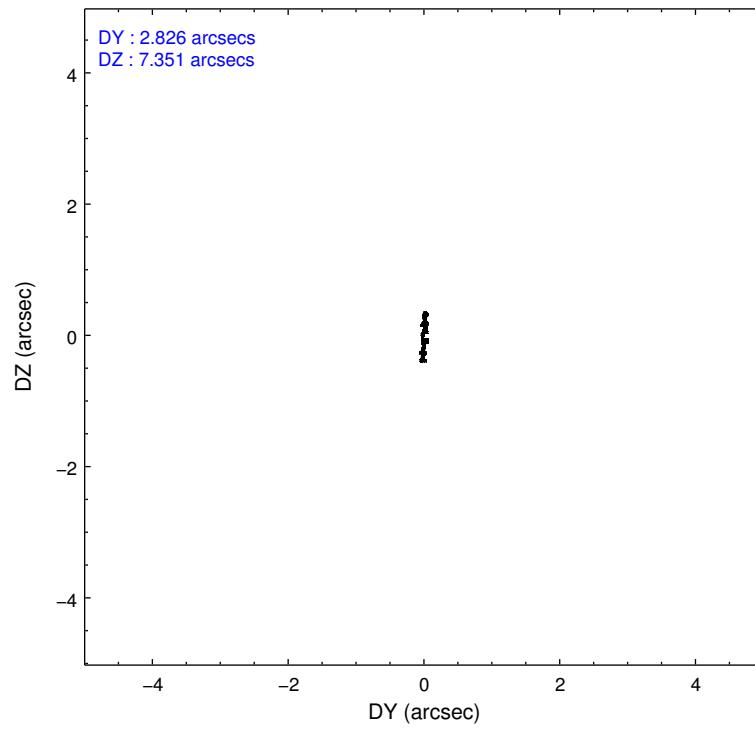
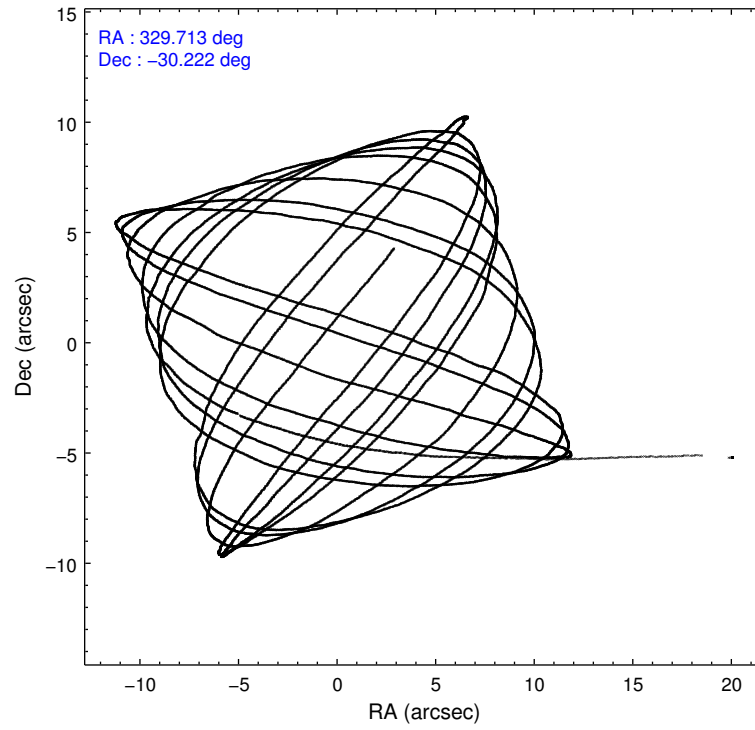
2.1.4 Events

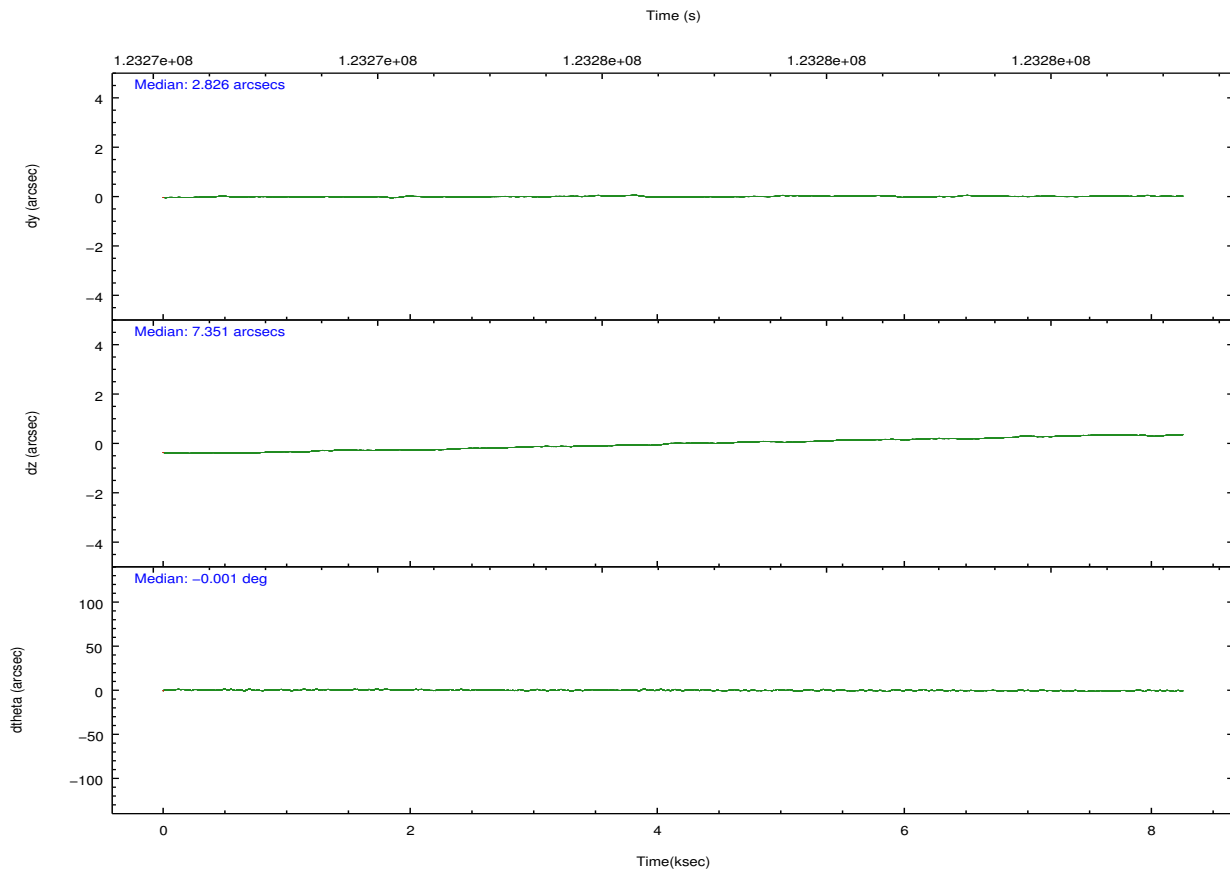
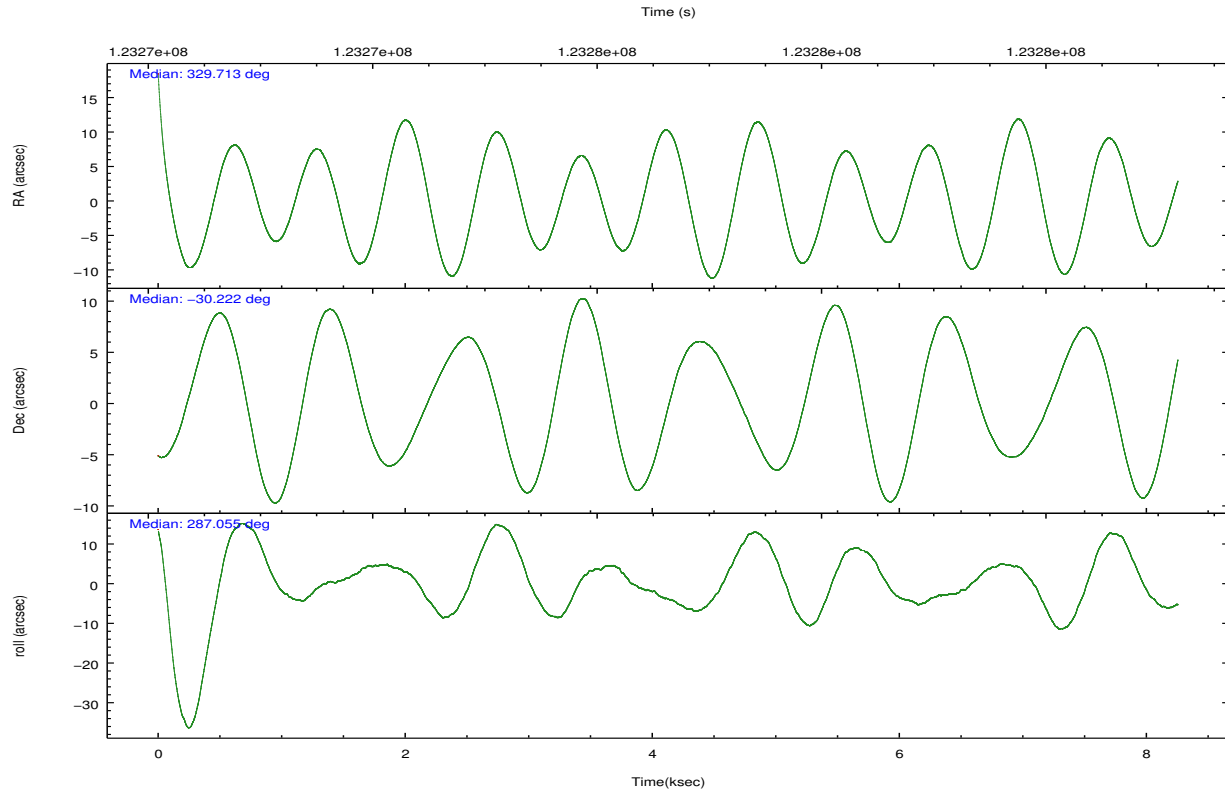
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	45655	46571	64051	62597	51590	64029	grade 0 events	2879	2850	11852	12327	2503	2330
rejected events	39008	39820	46820	44611	45135	37545		6%	6%	18%	19%	4%	3%
rejected %	85%	85%	73%	71%	87%	58%	grade 1 events	25	25	83	177	27	61
								0%	0%	0%	0%	0%	0%
							grade 2 events	1469	1364	2437	2404	1445	5287
								3%	2%	3%	3%	2%	8%
							grade 3 events	588	619	833	876	583	2402
								1%	1%	1%	1%	1%	3%
							grade 4 events	575	625	825	891	604	2254
								1%	1%	1%	1%	1%	3%
							grade 5 events	1875	1947	1815	2261	2179	6178
								4%	4%	2%	3%	4%	9%
							grade 6 events	1145	1303	1289	1497	1322	14218
								2%	2%	2%	2%	2%	22%
							grade 7 events	37099	37838	44917	42164	42927	31299
								81%	81%	70%	67%	83%	48%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	329.690039	329.7132735682899	Subarray requested	NONE	NONE
[deg] Pointing Dec	-30.203618	-30.22229619171787	Alternating exposures requested	N	N
[deg] Pointing Roll	286.843015	287.0634391637694	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	120960064.184000	120960064.184000			
[s] Window stop time (MET)	126144064.184000	126144064.184000			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	123272761.184000	123271767.7683			
Observation start date	2001-11-27T18:24:57	2001-11-27T18:09:27			
[s] Observation end time (MET)	123280761.184000	123280894.88117			
Observation end date	2001-11-27T20:38:17	2001-11-27T20:41:34			
Read mode	TIMED	TIMED			

2.3 Aspect



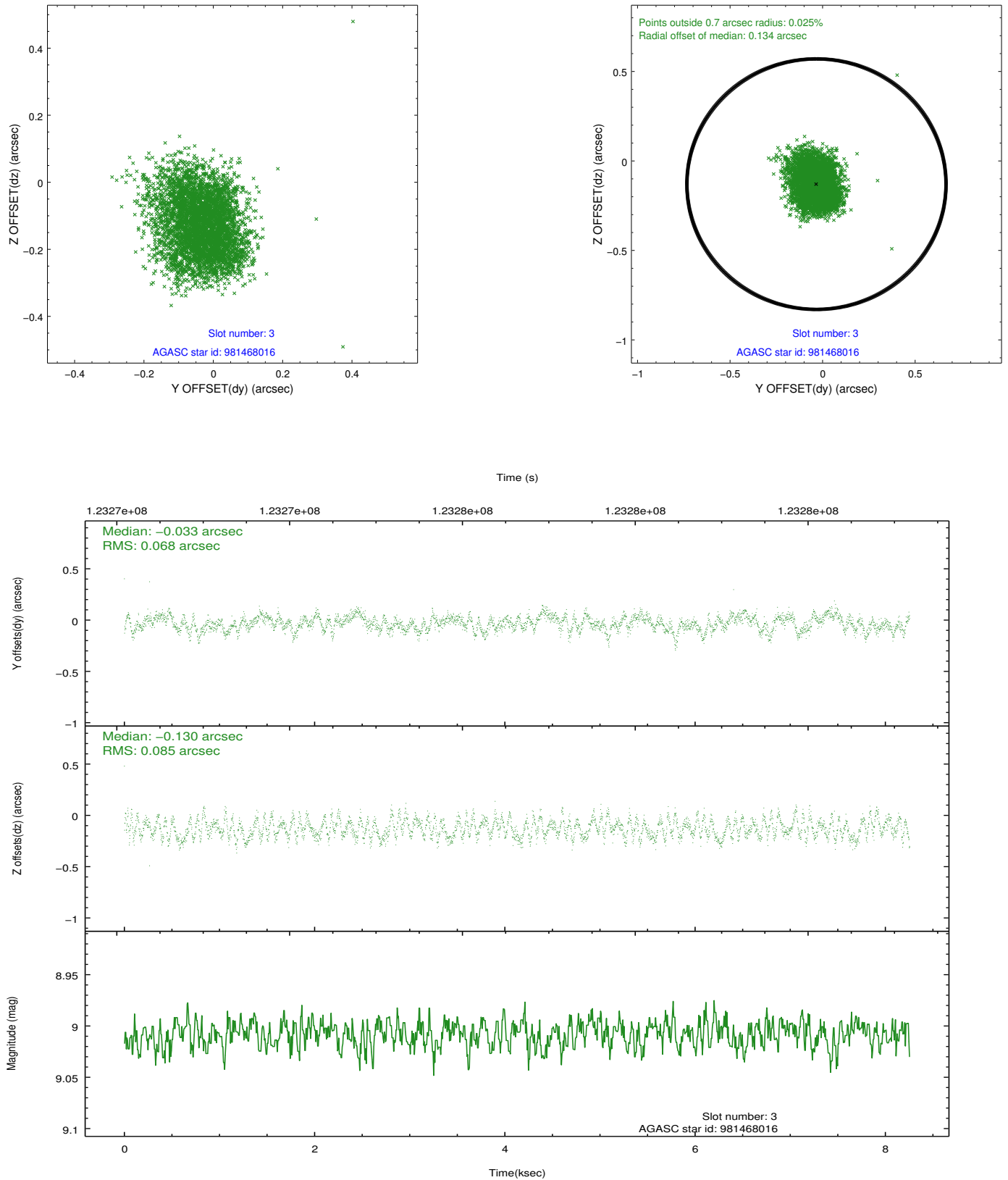


Slot Statistics

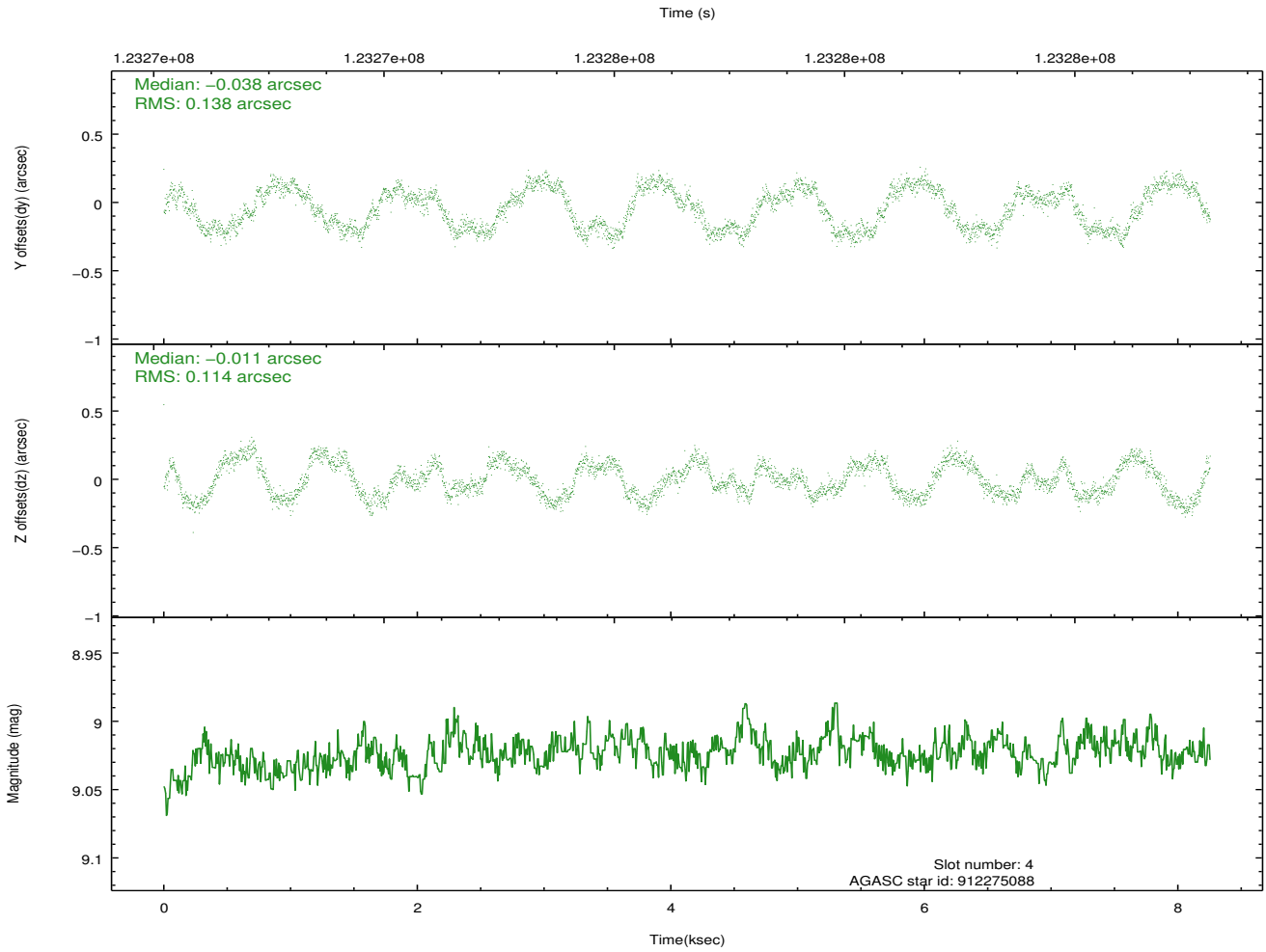
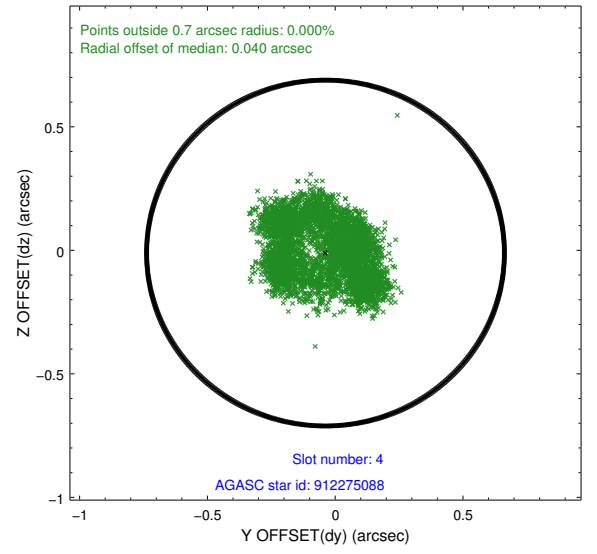
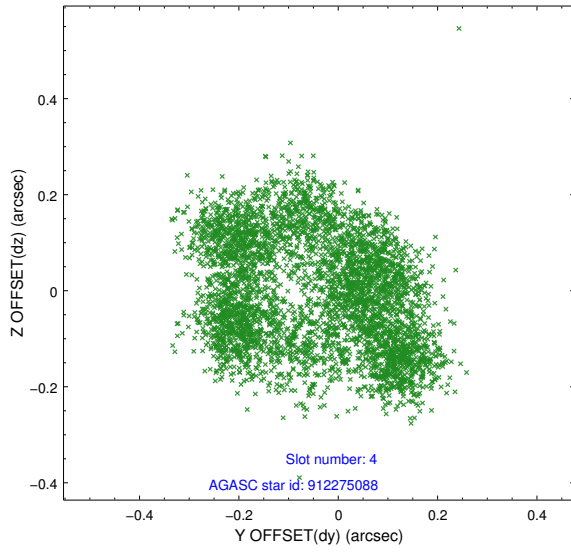
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	2014	-0.006	0.031	0.010	0.017	0.000000	0.000000	936.94	-830.71
1	FID	ACIS-I-5	7.24	2014	-0.044	0.051	0.006	0.010	0.000000	0.000000	-1810.78	1066.52
2	FID	ACIS-I-6	7.26	2013	-0.042	-0.012	0.009	0.015	0.000000	0.000000	401.77	1711.68
3	GUIDE	981468016	9.01	4026	-0.033	-0.130	0.117	0.182	328.842457	-30.034984	-1336.46	-2355.01
4	GUIDE	912275088	9.02	4026	-0.038	-0.011	0.199	0.265	329.619228	-29.738698	-1666.10	272.76
5	GUIDE	981478152	9.41	4022	-0.022	0.133	0.086	0.140	329.415589	-30.057192	-751.36	-665.46
6	GUIDE	981468128	9.37	4026	0.064	-0.026	0.102	0.173	329.756350	-30.158334	-95.98	245.09
7	GUIDE	981469488	9.61	4027	0.038	0.027	0.125	0.186	329.261199	-30.045155	-930.34	-1114.04

2.4 Star Slots

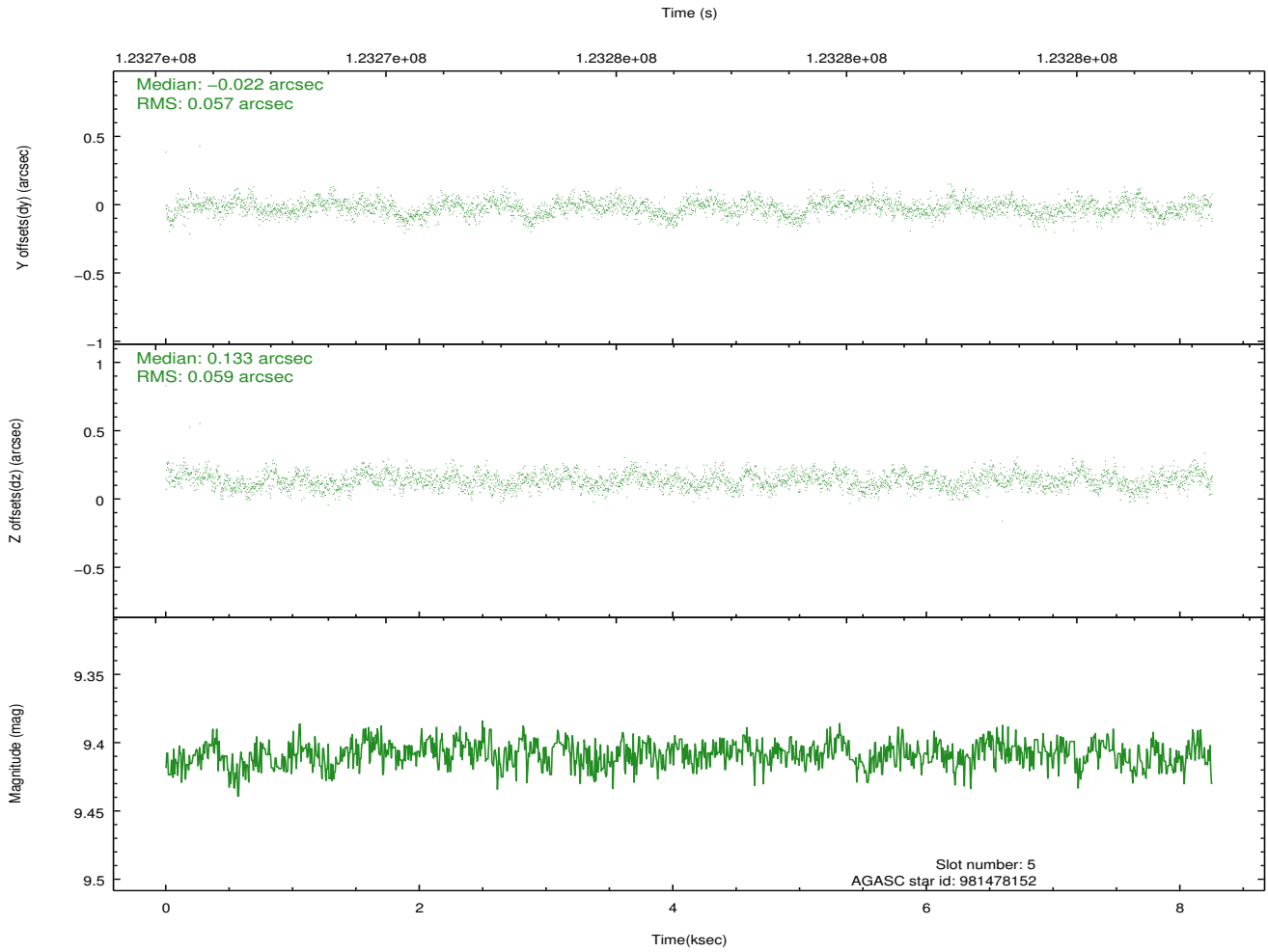
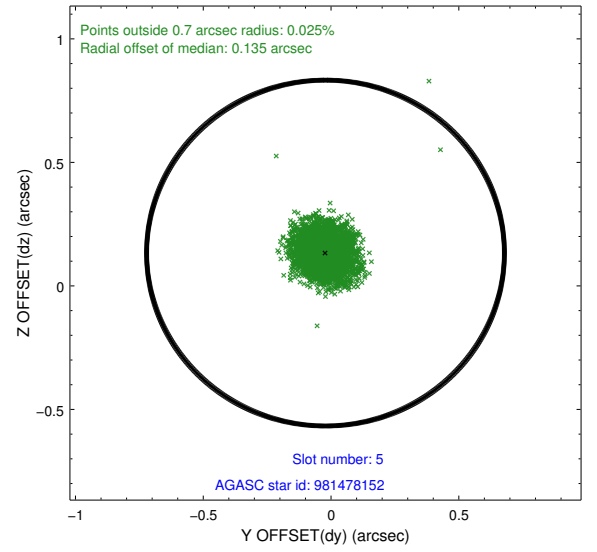
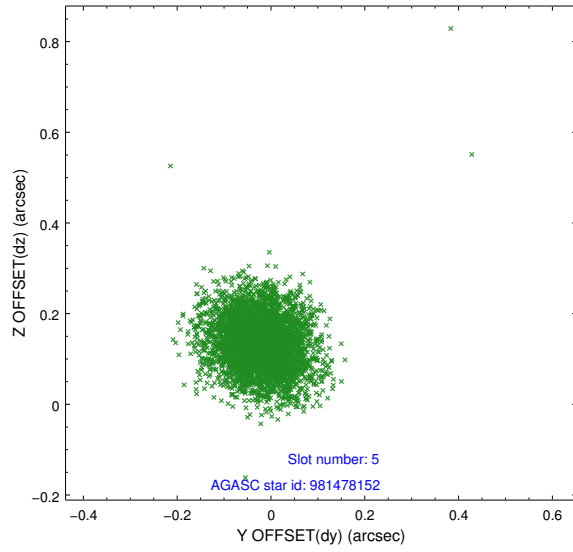
2.4.1 Slot 3



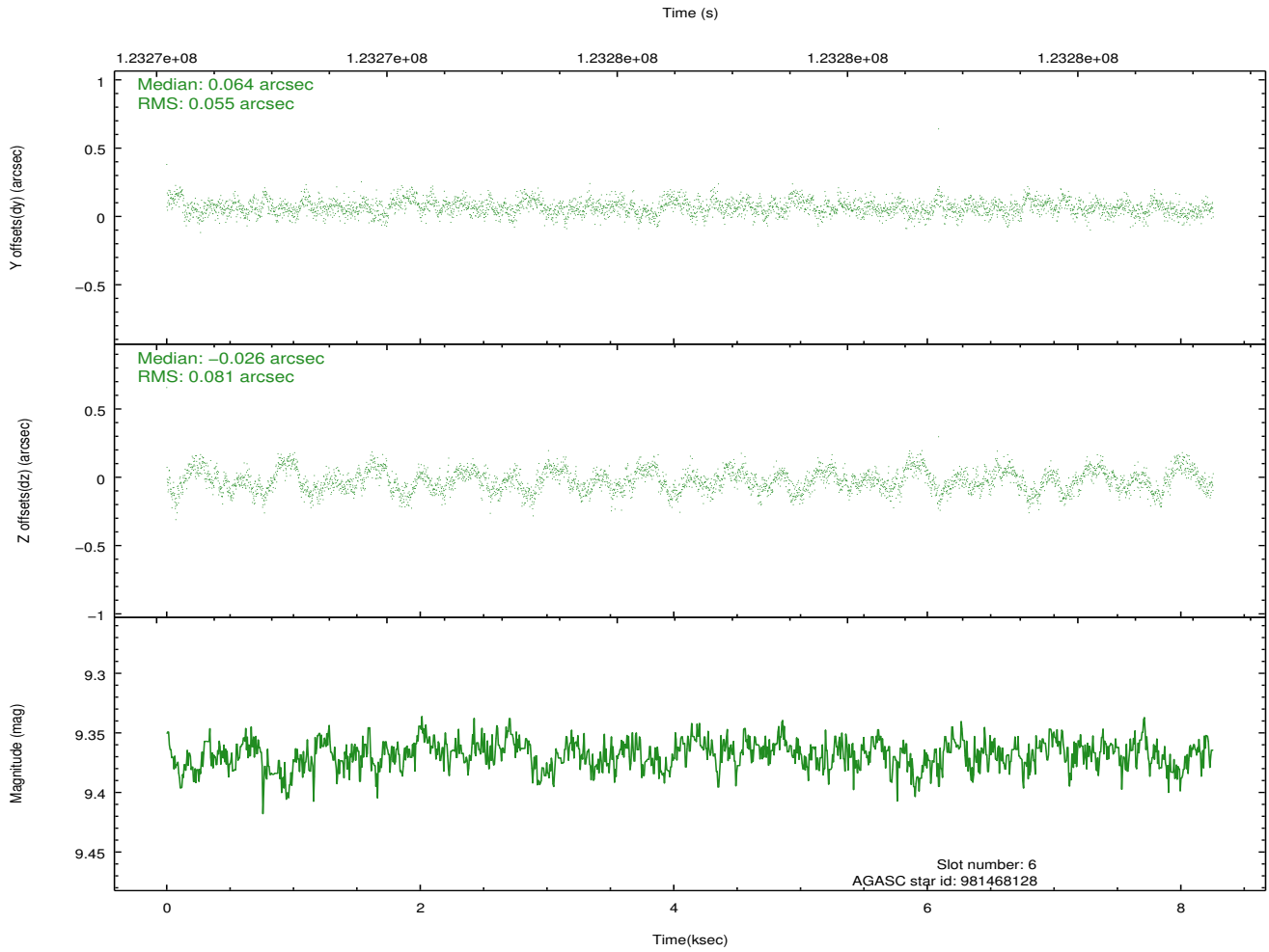
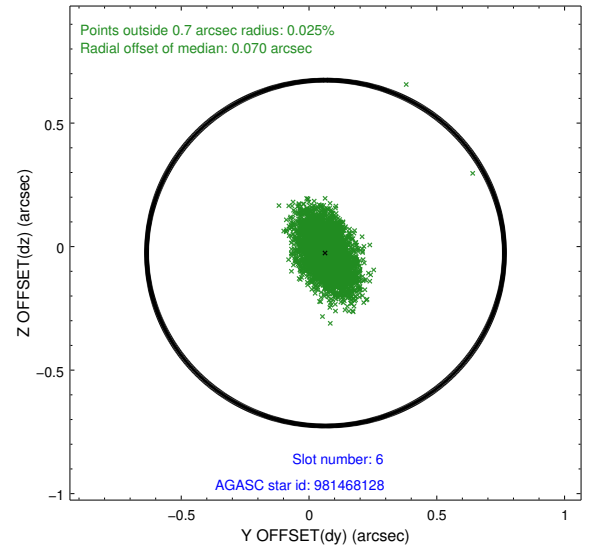
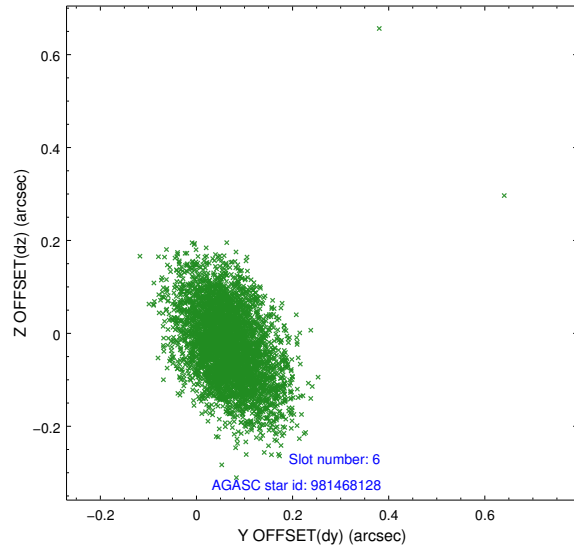
2.4.2 Slot 4



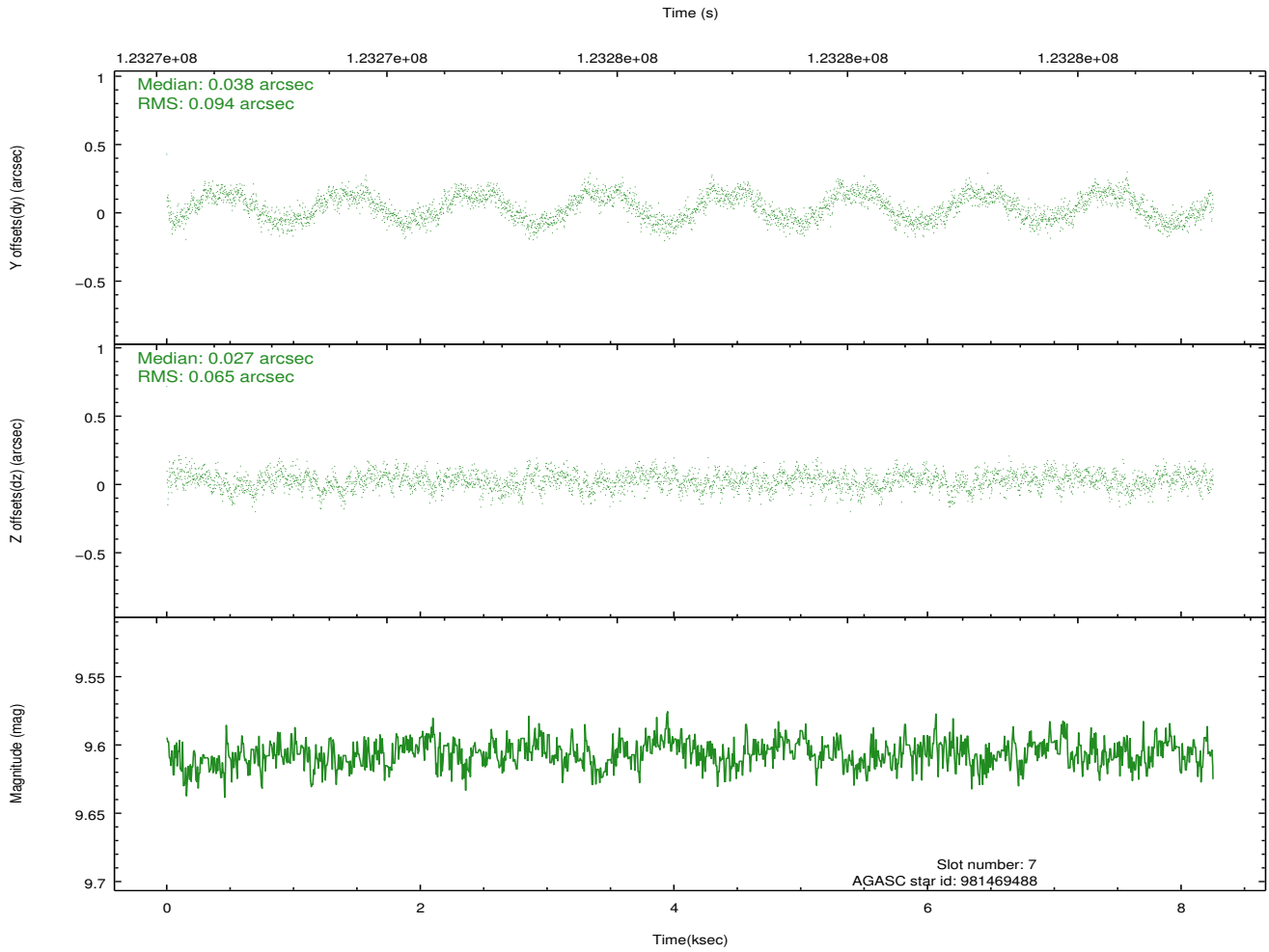
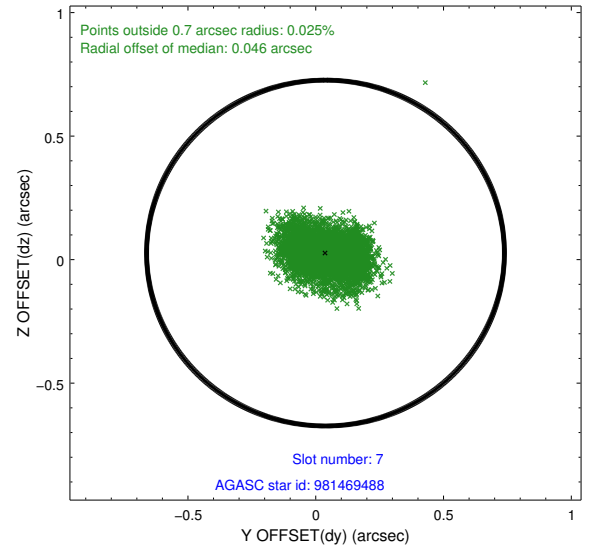
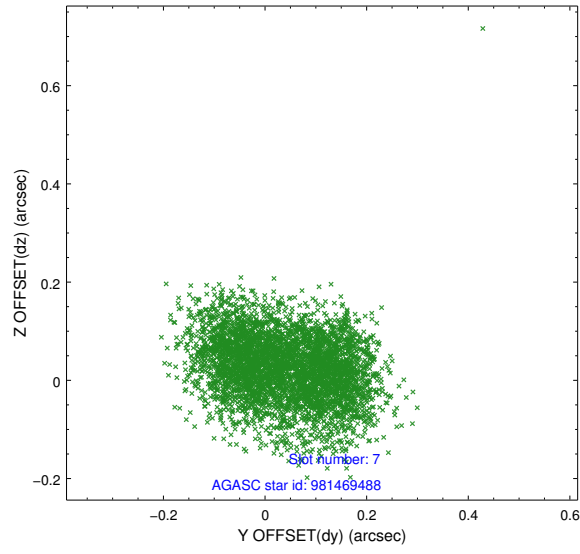
2.4.3 Slot 5



2.4.4 Slot 6

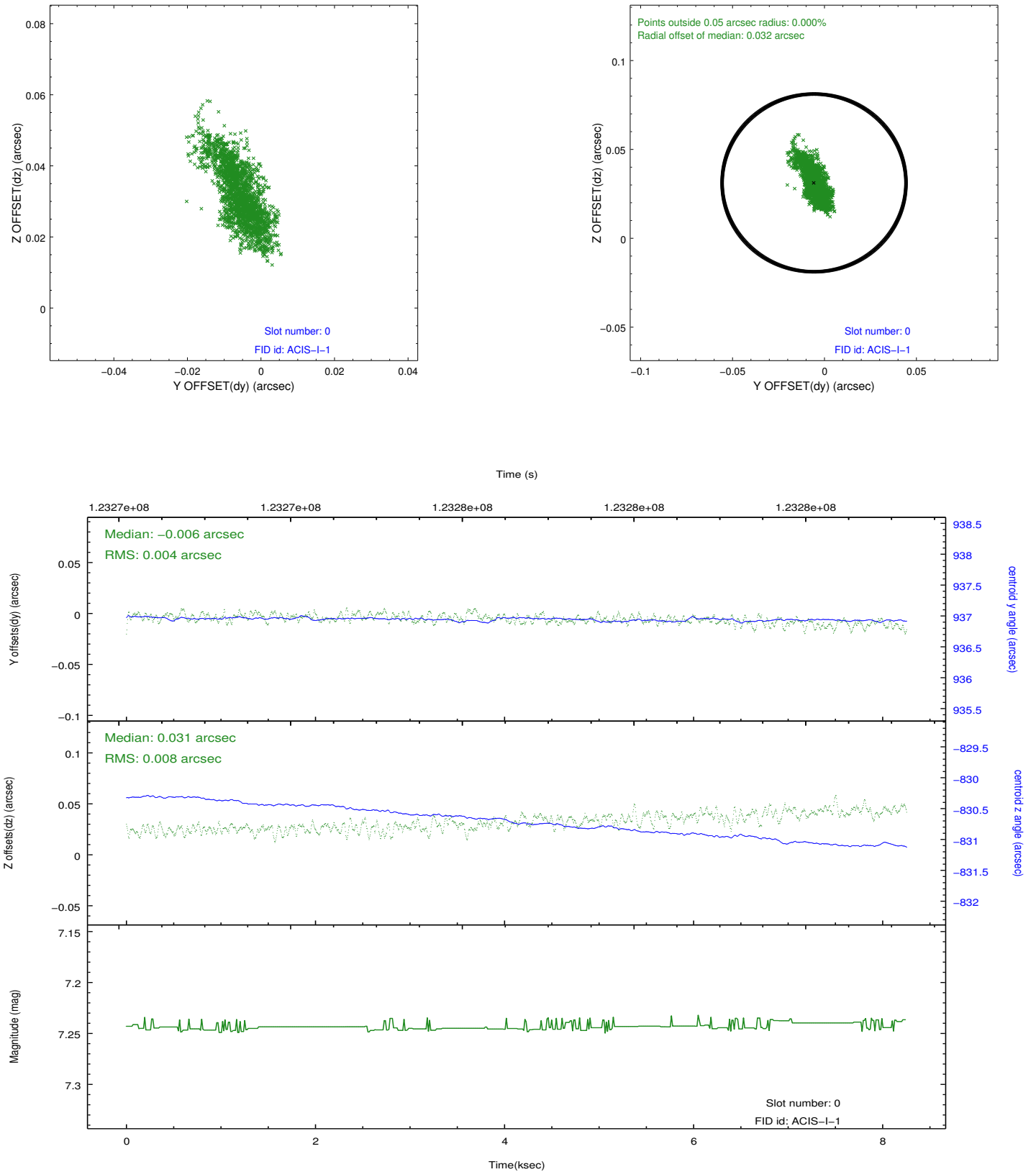


2.4.5 Slot 7

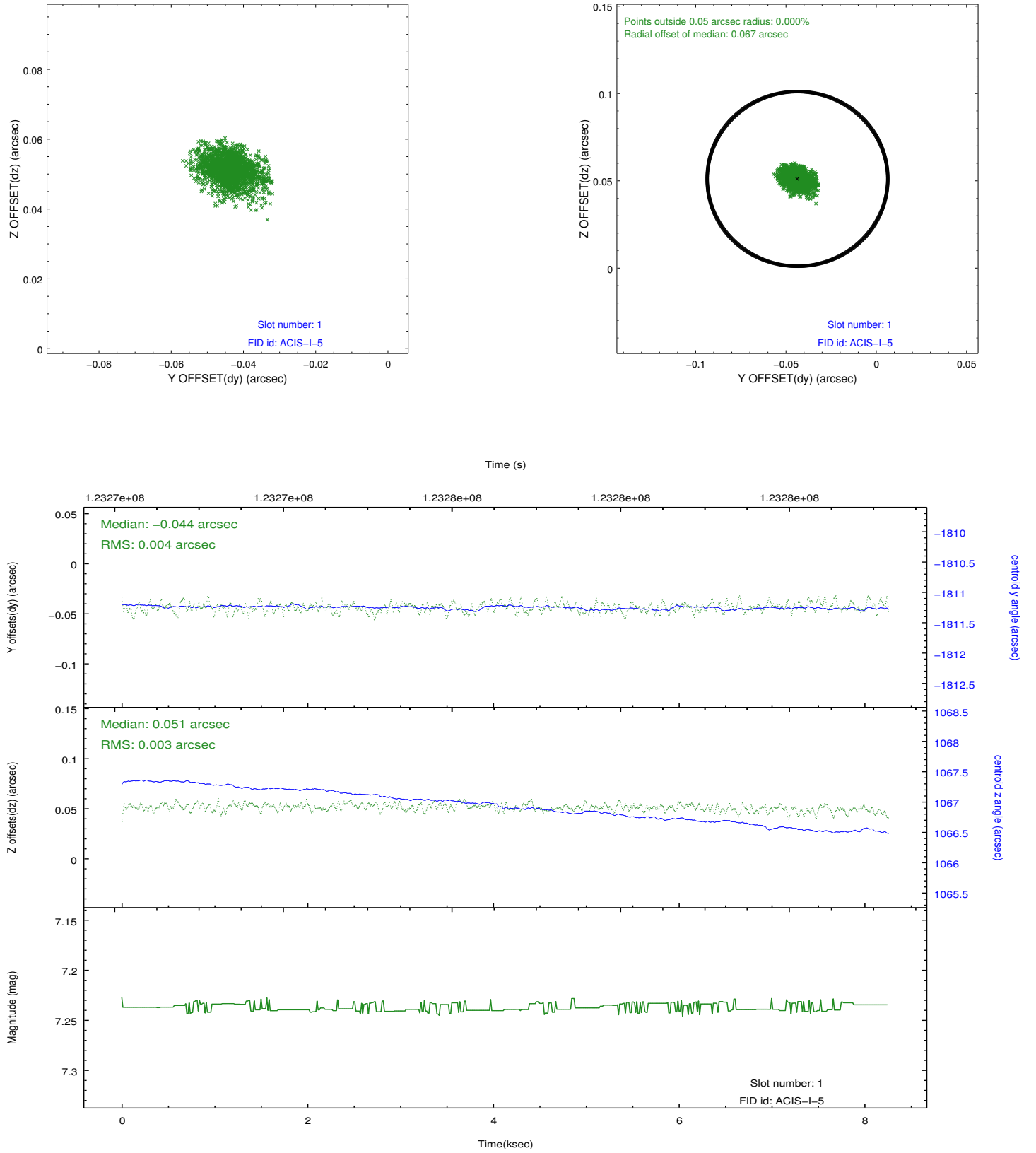


2.5 FID Slots

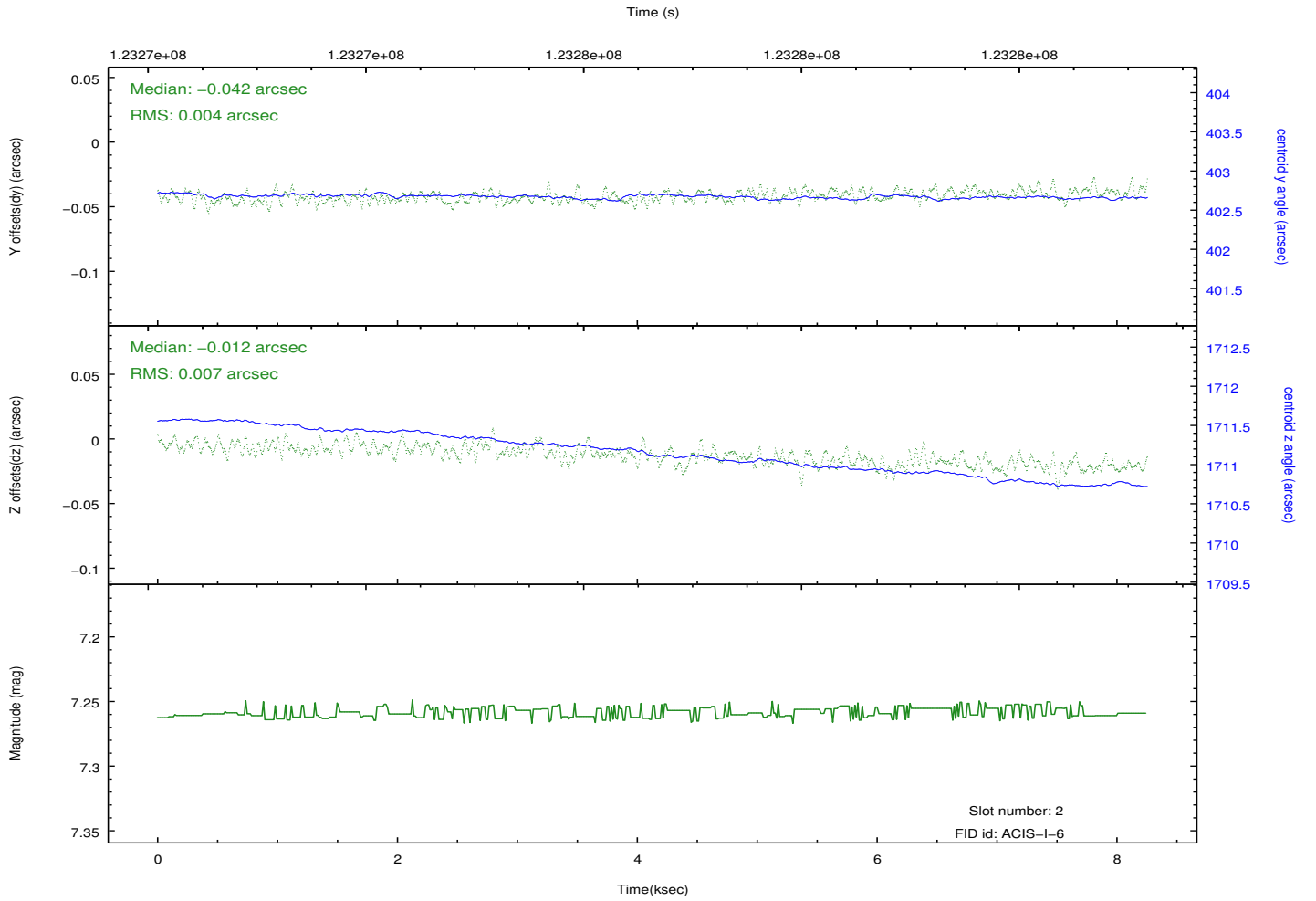
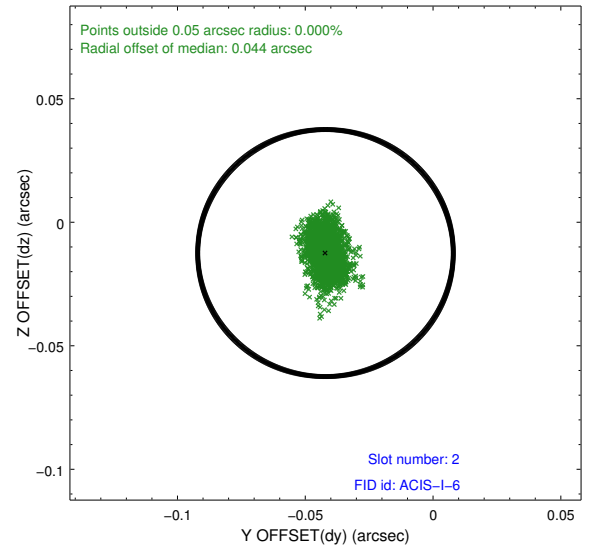
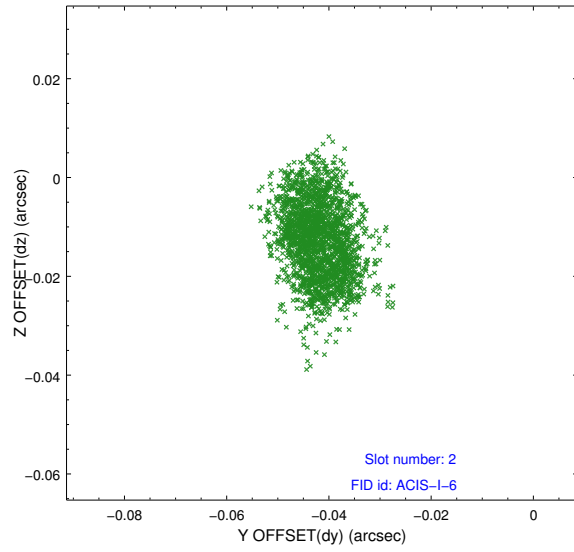
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

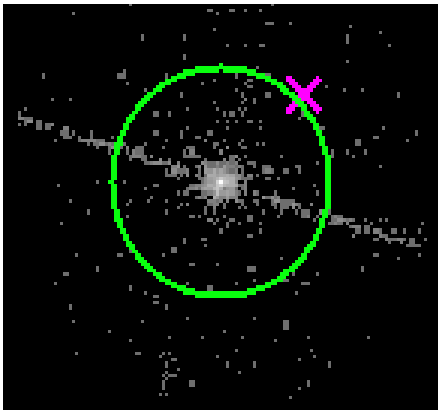


3 Gratings

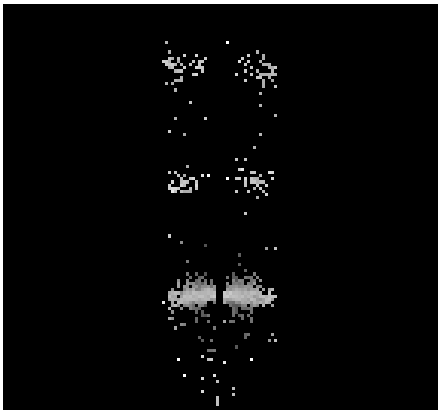
3.1 LETG Arm



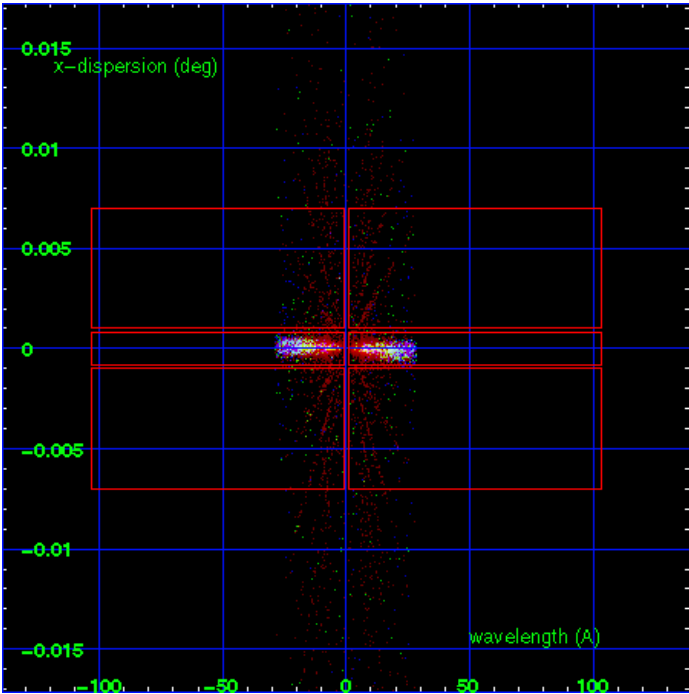
LETG Order Sort 123



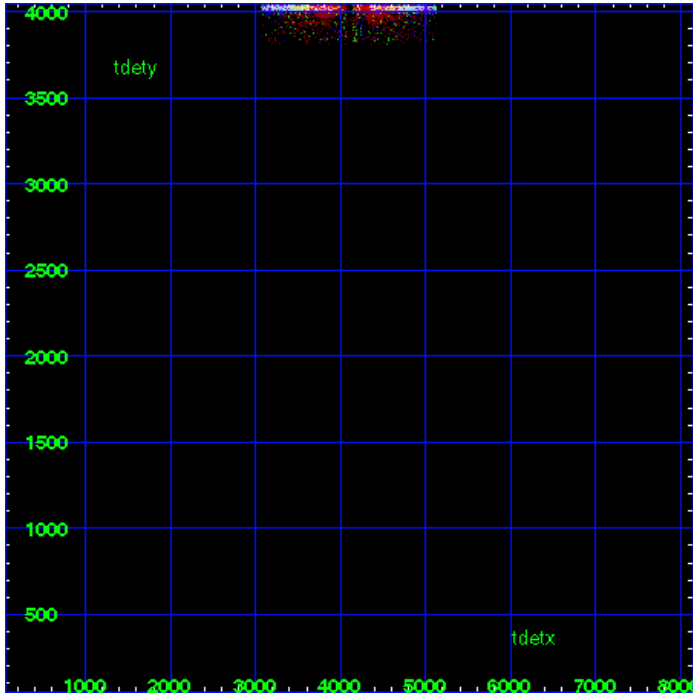
LETG Zero Order



LETG Order Sort ALL

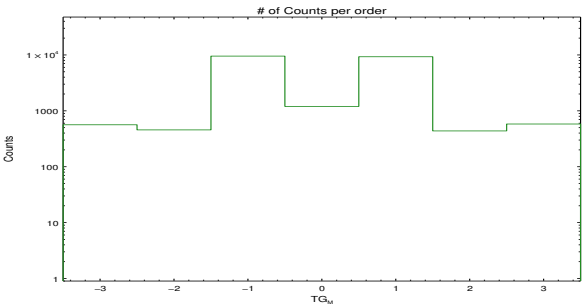


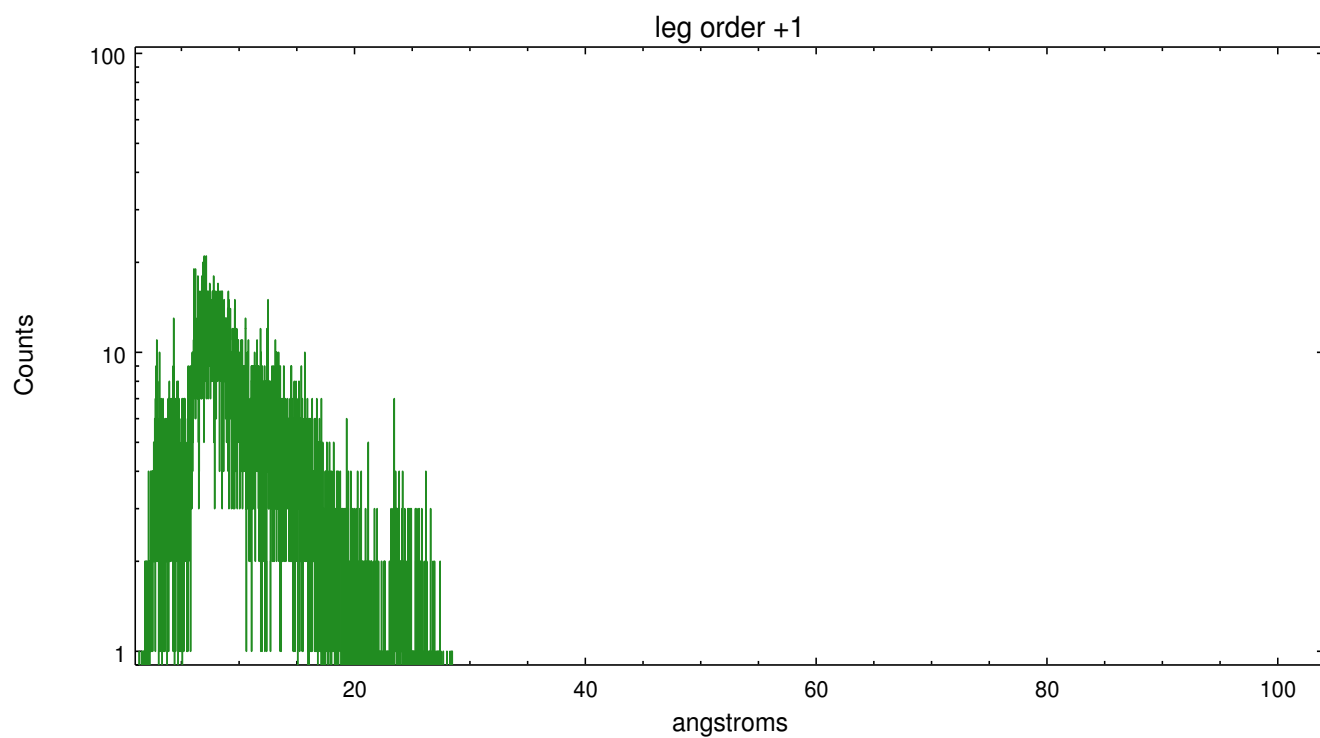
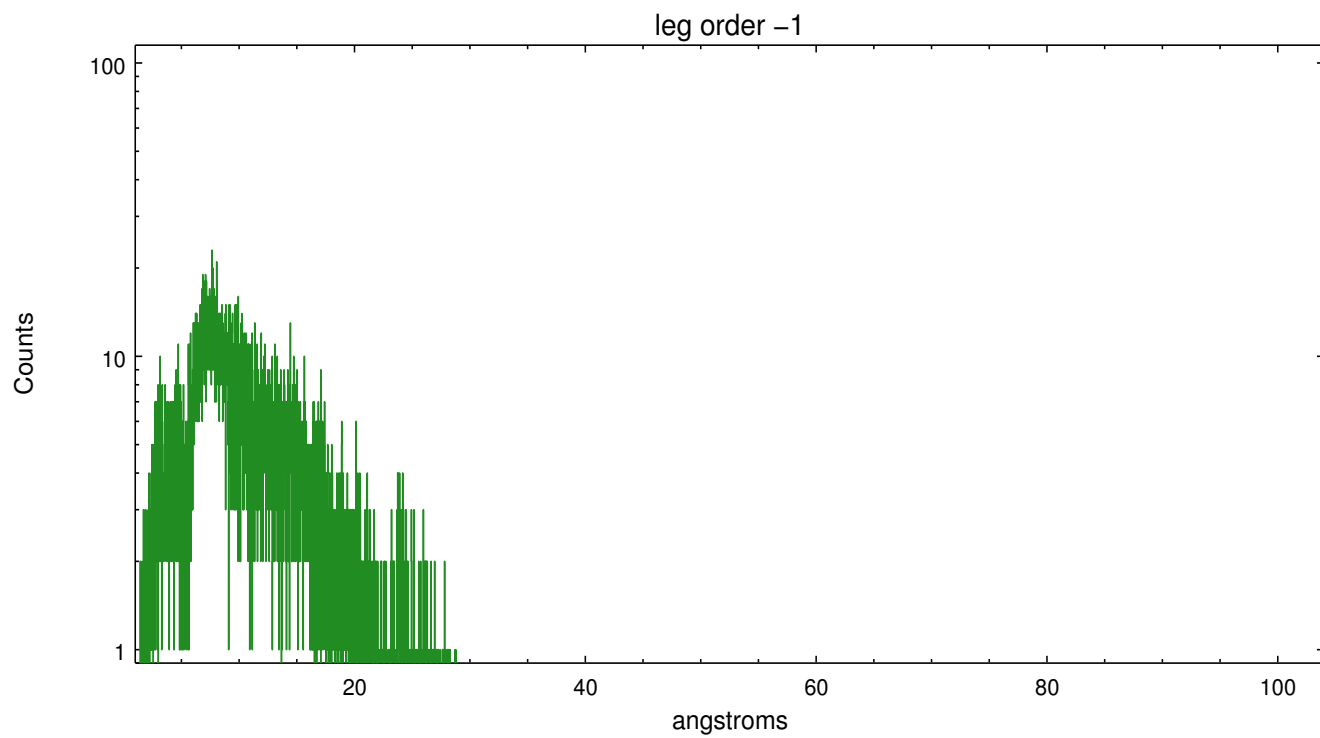
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	563	456	9529	1200	9287	437	581





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.10.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.936

A.2 Comments

Non-standard grating/detector configuration. There are no order sorting tables for ACIS-I LETG. Processing required use of `osip=NONE` in `tg_resolve_events`, Also, `osort_lo=0.3` `osort_hi=0.3` in `tg_resolve_events`.