

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 14265 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : Apr 28 2012

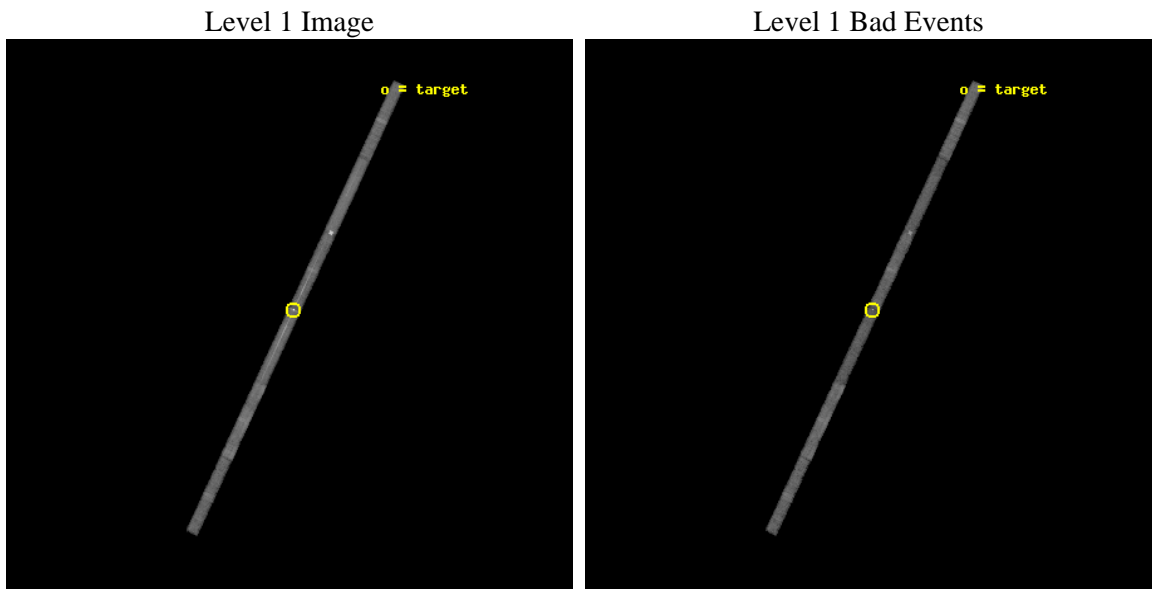
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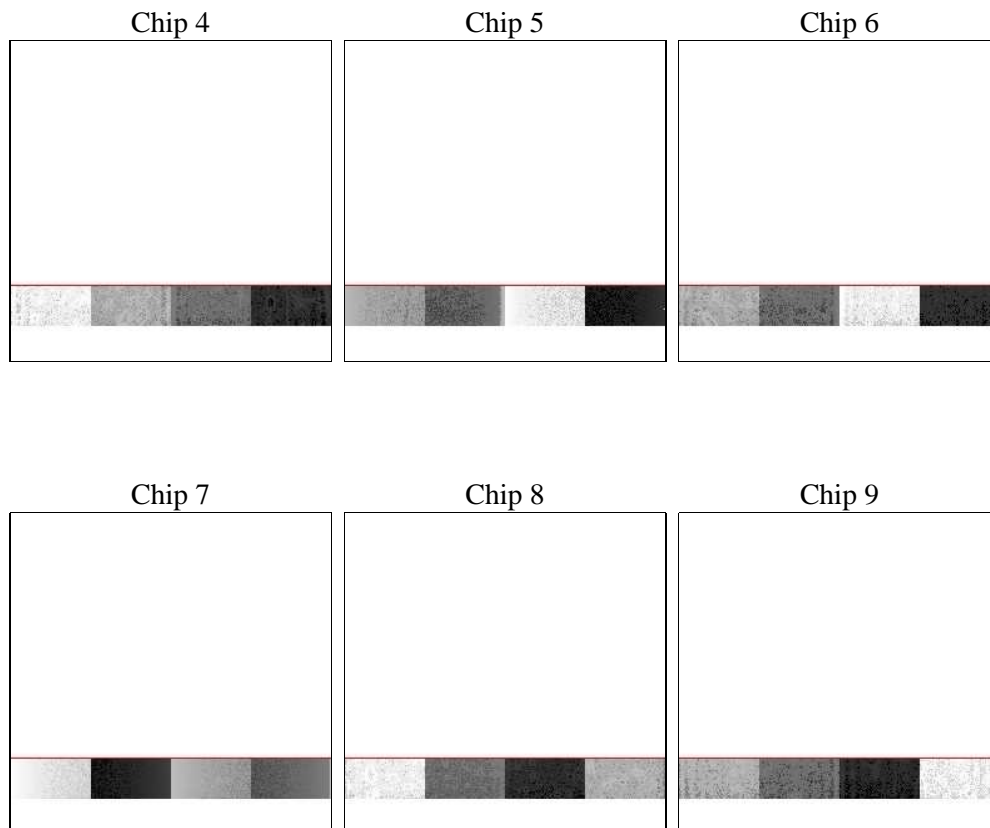
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	28000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	28054.599522173	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	28054.599522173	Sum of GTIs [s]
date	2012-04-28T23:22:37	Date and time of file creation	ontime5	28054.599522173	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	28054.594923735	Sum of GTIs [s]
			ontime7	28054.599522173	Sum of GTIs [s]
			ontime8	28054.553883731	Sum of GTIs [s]
			ontime9	28054.512843728	Sum of GTIs [s]
			l1events	213290	Number of level 1 events

2.1.4 Events

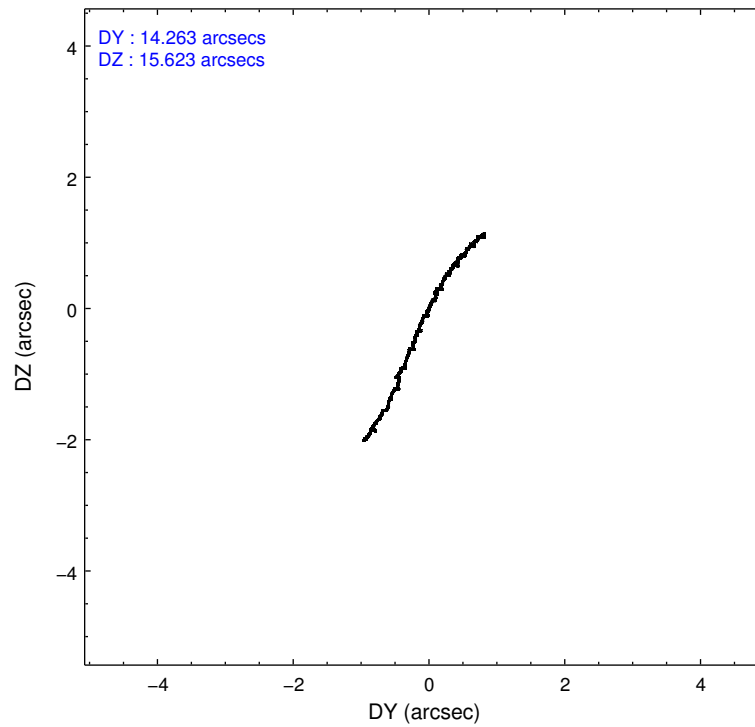
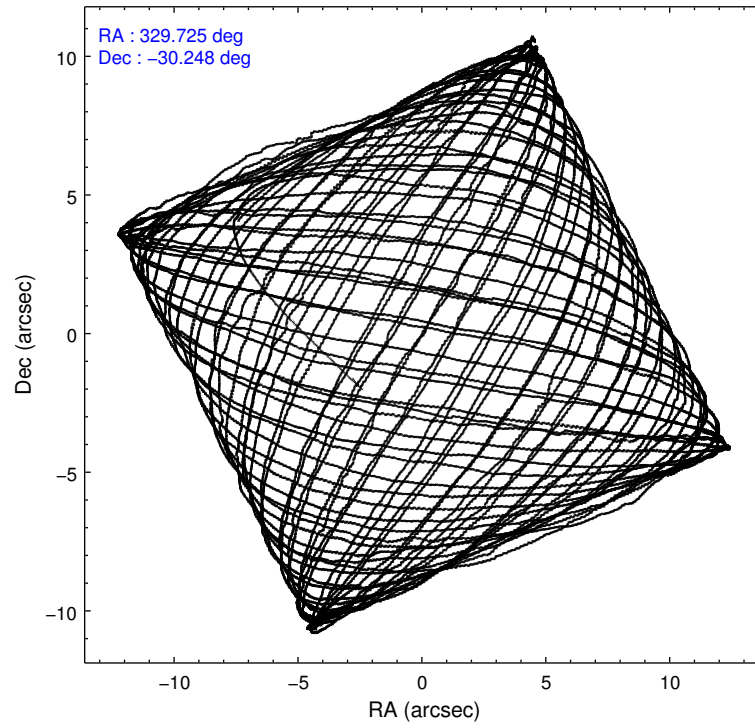
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	28985	46064	29806	46630	37848	23957
rejected events	25448	17568	21893	15449	28391	20781
rejected %	87%	38%	73%	33%	75%	86%

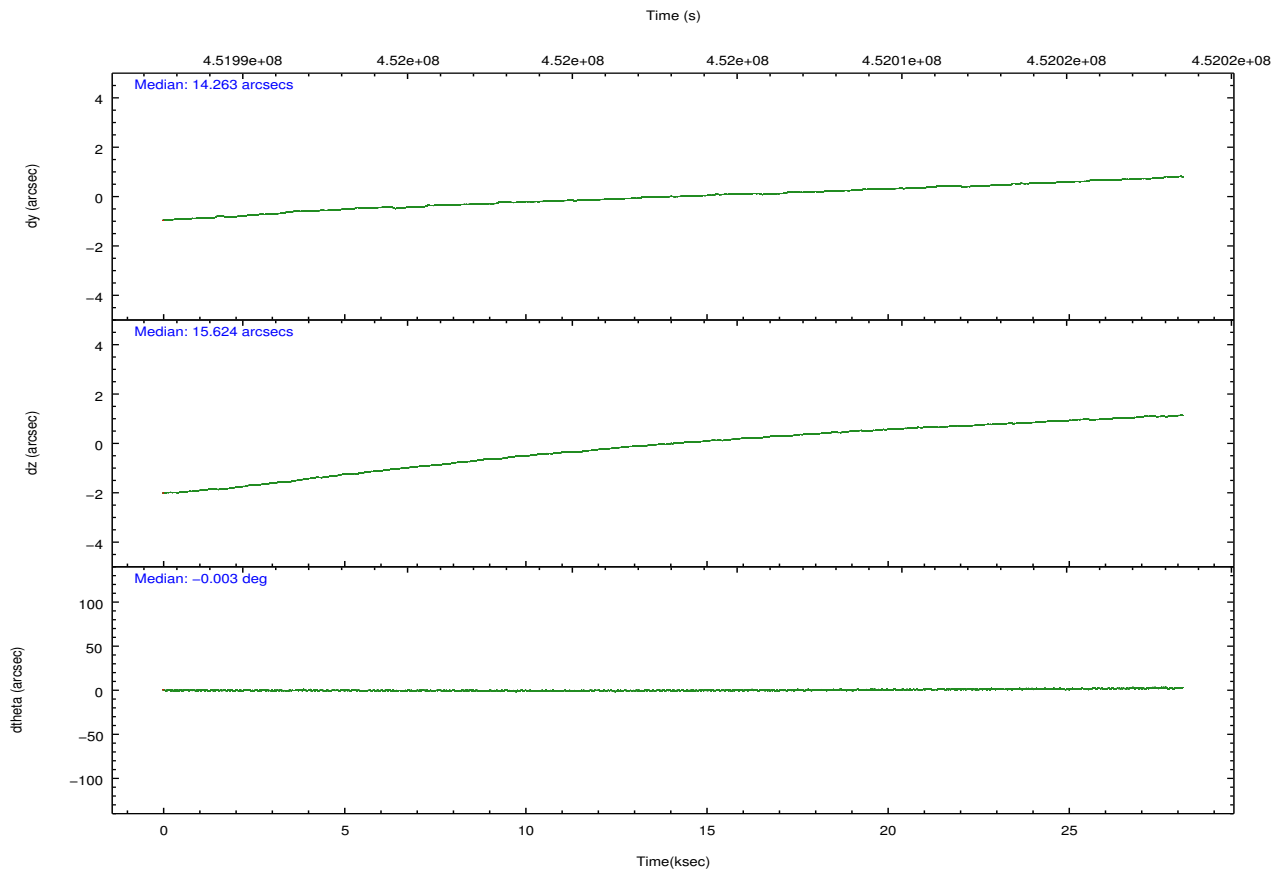
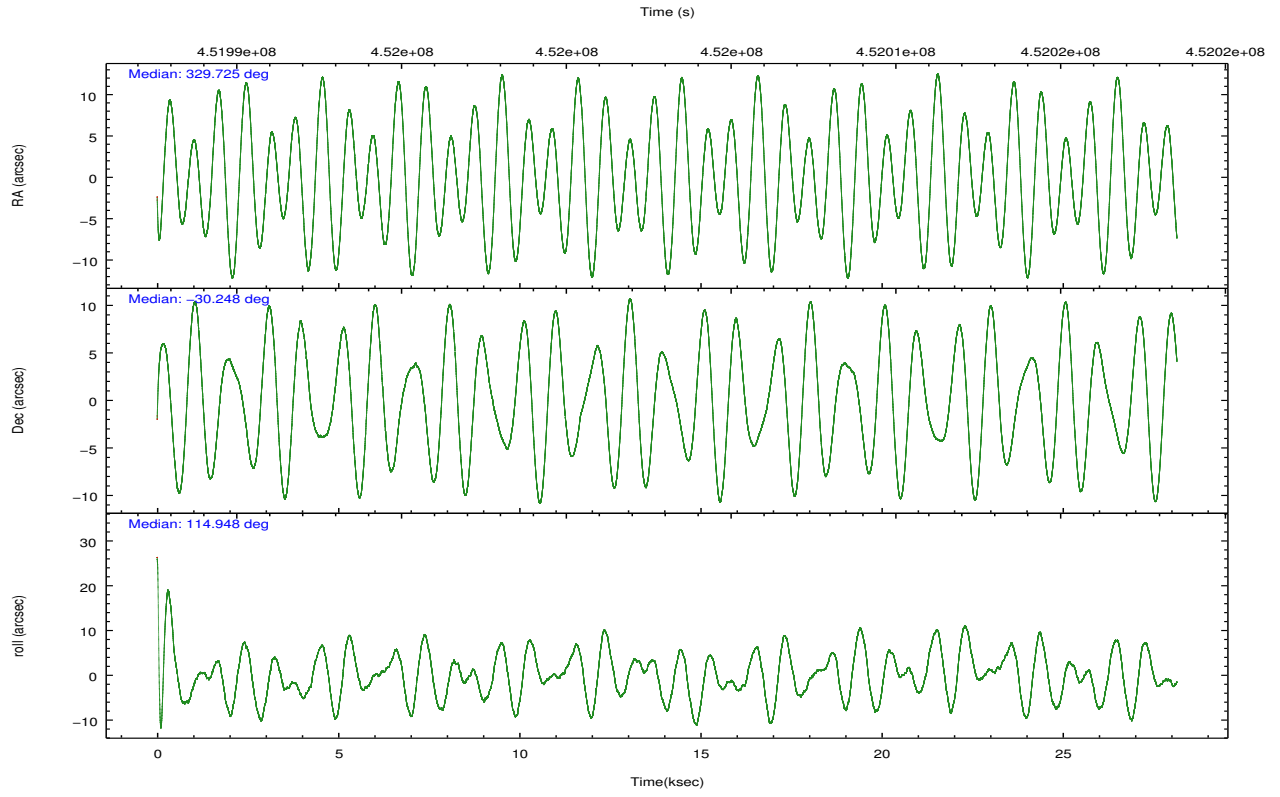
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	1184	9475	4908	6946	2524	1054
	4%	20%	16%	14%	6%	4%
grade 1 events	11	1020	9	115	17	9
	0%	2%	0%	0%	0%	0%
grade 2 events	786	5327	1056	7209	1941	552
	2%	11%	3%	15%	5%	2%
grade 3 events	464	2839	683	3556	975	535
	1%	6%	2%	7%	2%	2%
grade 4 events	488	2243	634	3436	967	485
	1%	4%	2%	7%	2%	2%
grade 5 events	895	3667	916	3128	1324	937
	3%	7%	3%	6%	3%	3%
grade 6 events	615	8612	632	10034	3050	550
	2%	18%	2%	21%	8%	2%
grade 7 events	24542	12881	20968	12206	27050	19835
	84%	27%	70%	26%	71%	82%

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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	329.751498	329.7253430636917	CCD I2 on	N	N
[deg] Pointing Dec	-30.263243	-30.24784072434297	CCD I3 on	N	N
[deg] Pointing Roll	114.814281	114.9577477168667	CCD S0 on	O1	Y
[s] Window start time (MET)	449625666.184000	449625666.184000	CCD S1 on	Y	Y
[s] Window stop time (MET)	454809666.184000	454809666.184000	CCD S2 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	Y	Y
[mm] SIM translation stage pos	-182.132523	-182.1370004450064	CCD S5 on	Y	Y
[mm] SIM translation stage offset	-8	-7.995522138001405	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	451989130.184000	451987882.31234	On-chip summing requested	N	N
Observation start date	2012-04-28T08:31:04	2012-04-28T08:11:22	Subarray requested	CUSTOM	1/8
[s] Observation end time (MET)	452017130.184000	452018020.38894	Subarray start row	113	113
Observation end date	2012-04-28T16:17:44	2012-04-28T16:33:40	Subarray row count	128	128
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0.7

2.3 Aspect



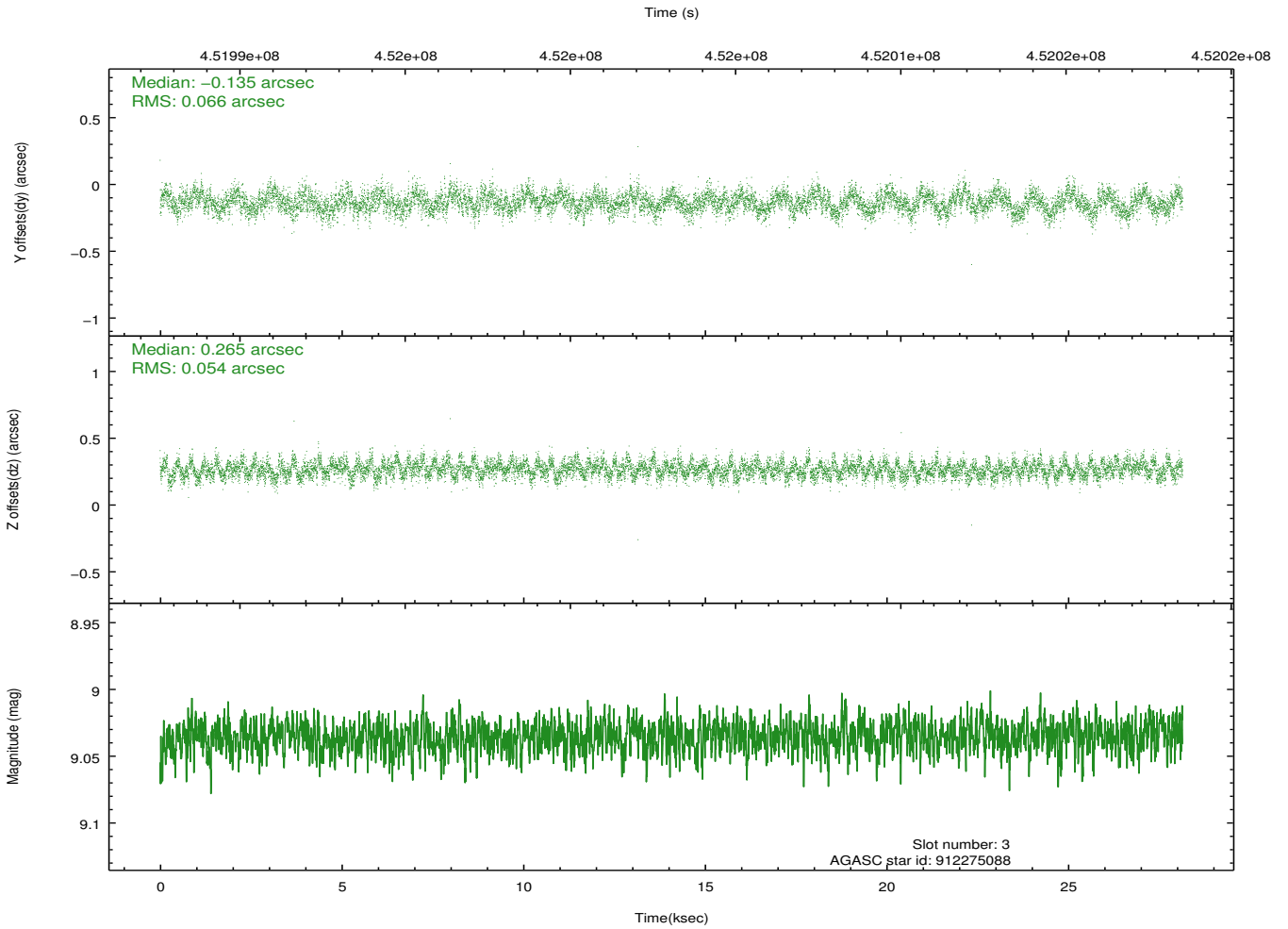
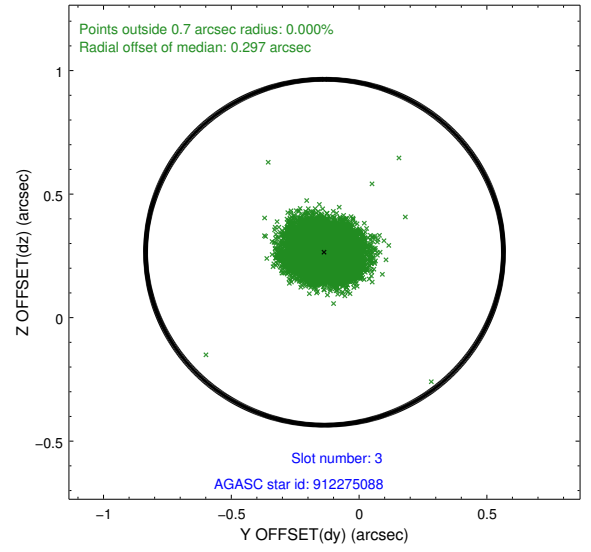
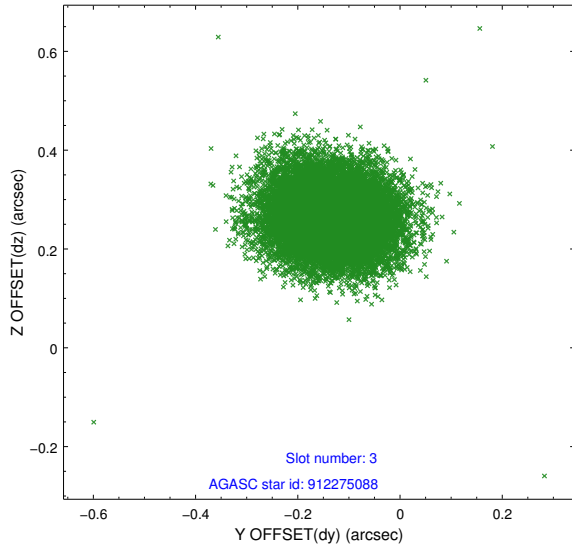


Slot Statistics

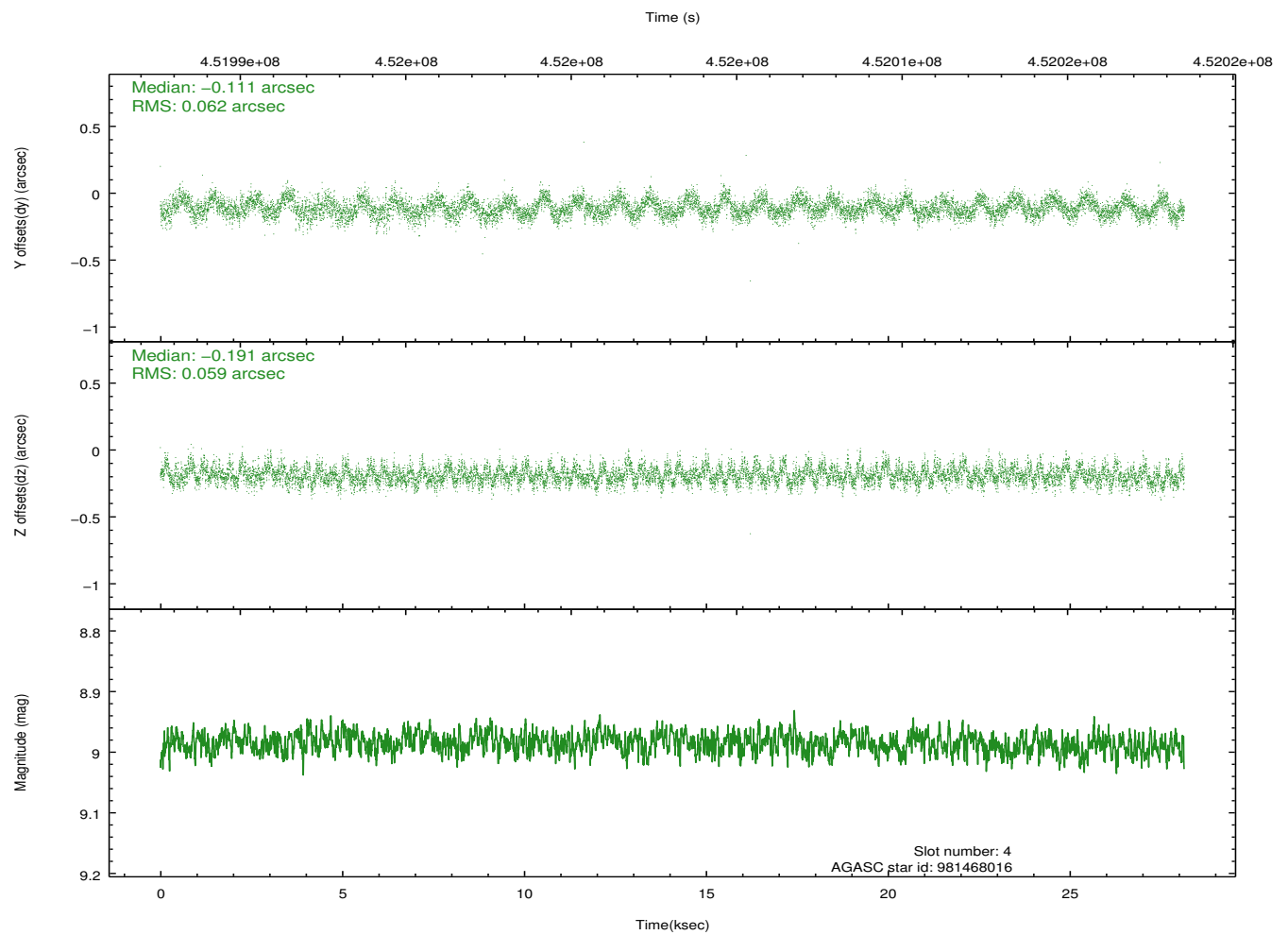
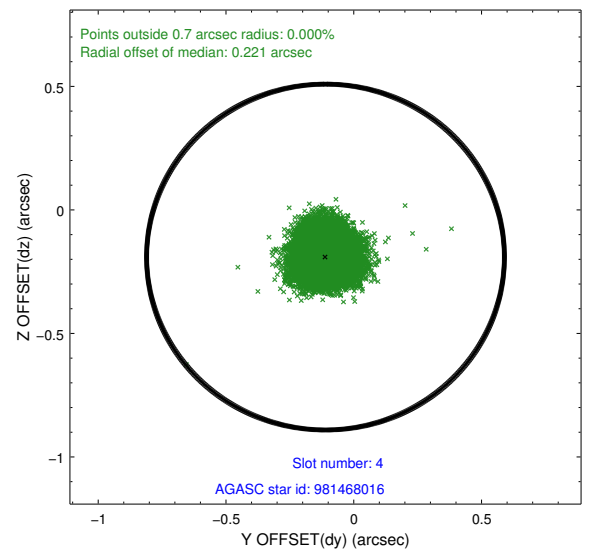
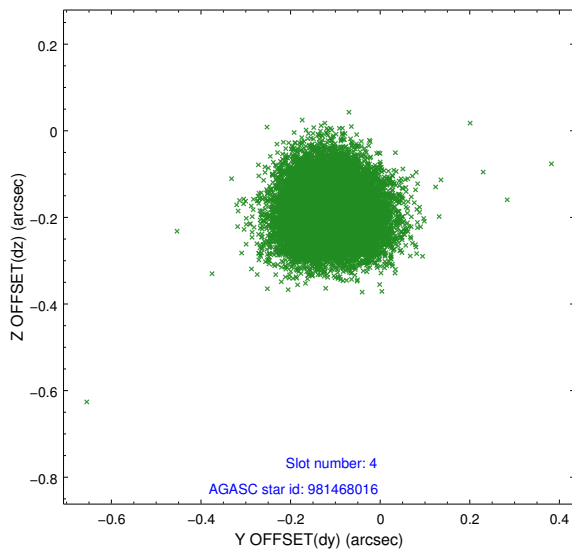
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.92	6867	-0.166	-0.117	0.042	0.055	0.000000	0.000000	-766.83	-1901.64
1	FID	ACIS-S-4	7.00	6867	0.156	0.096	0.014	0.024	0.000000	0.000000	2146.78	6.84
2	FID	ACIS-S-6	7.21	6865	-0.018	0.027	0.032	0.042	0.000000	0.000000	395.48	644.32
3	GUIDE	912275088	9.04	13722	-0.135	0.265	0.091	0.145	329.619228	-29.738698	1887.56	-416.61
4	GUIDE	981468016	8.98	13707	-0.111	-0.191	0.092	0.144	328.842457	-30.034984	1924.47	2231.42
5	GUIDE	981468128	9.34	13715	0.156	0.153	0.145	0.246	329.756350	-30.158334	336.81	-172.06
6	GUIDE	981478152	9.39	13678	0.077	-0.194	0.120	0.204	329.415589	-30.057192	1111.47	639.28
7	GUIDE	912131856	9.71	13706	0.021	-0.053	0.141	0.237	328.758728	-29.933690	2363.94	2319.06

2.4 Star Slots

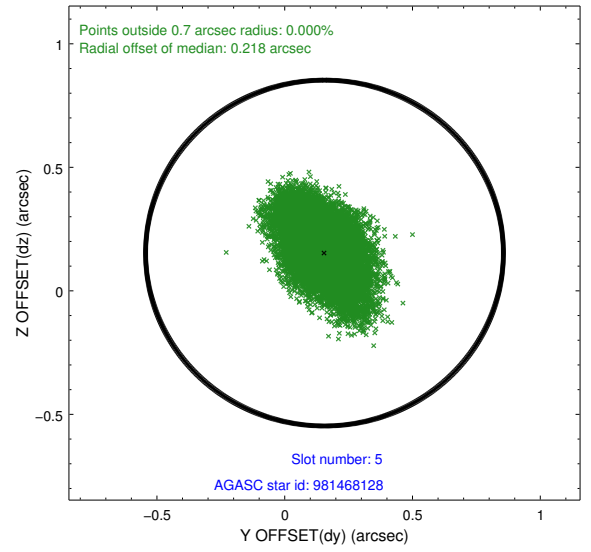
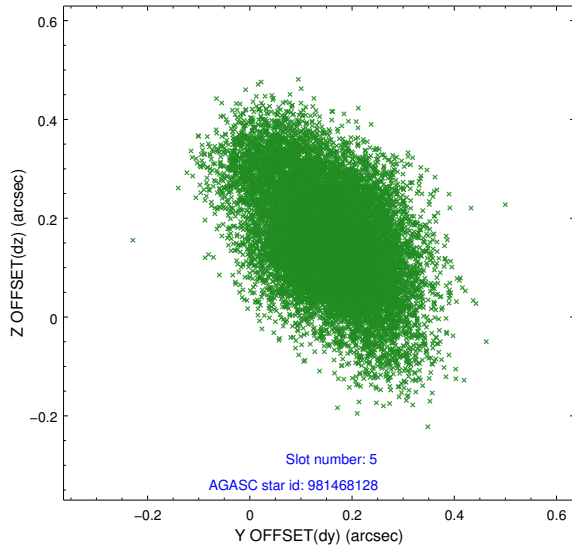
2.4.1 Slot 3



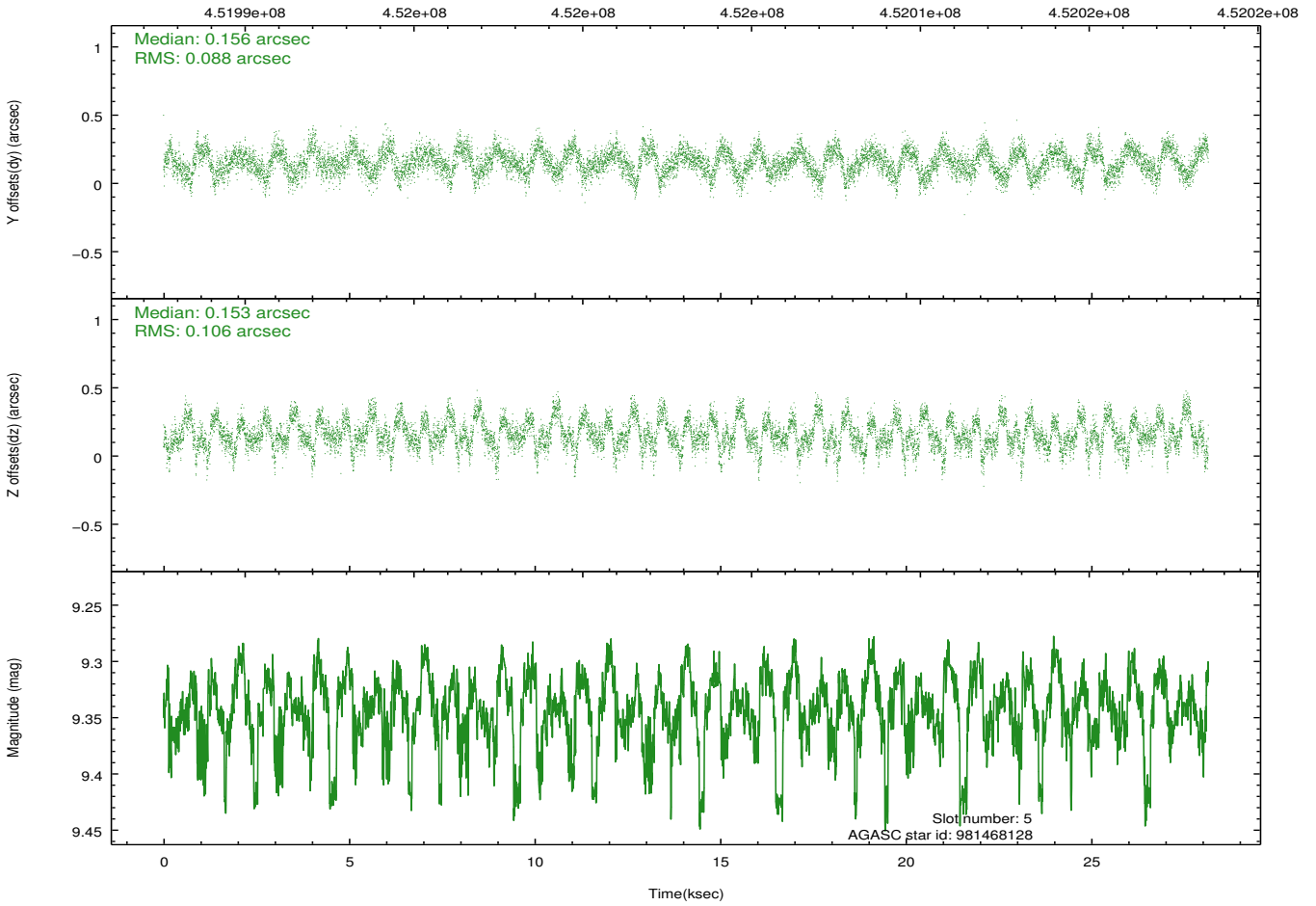
2.4.2 Slot 4



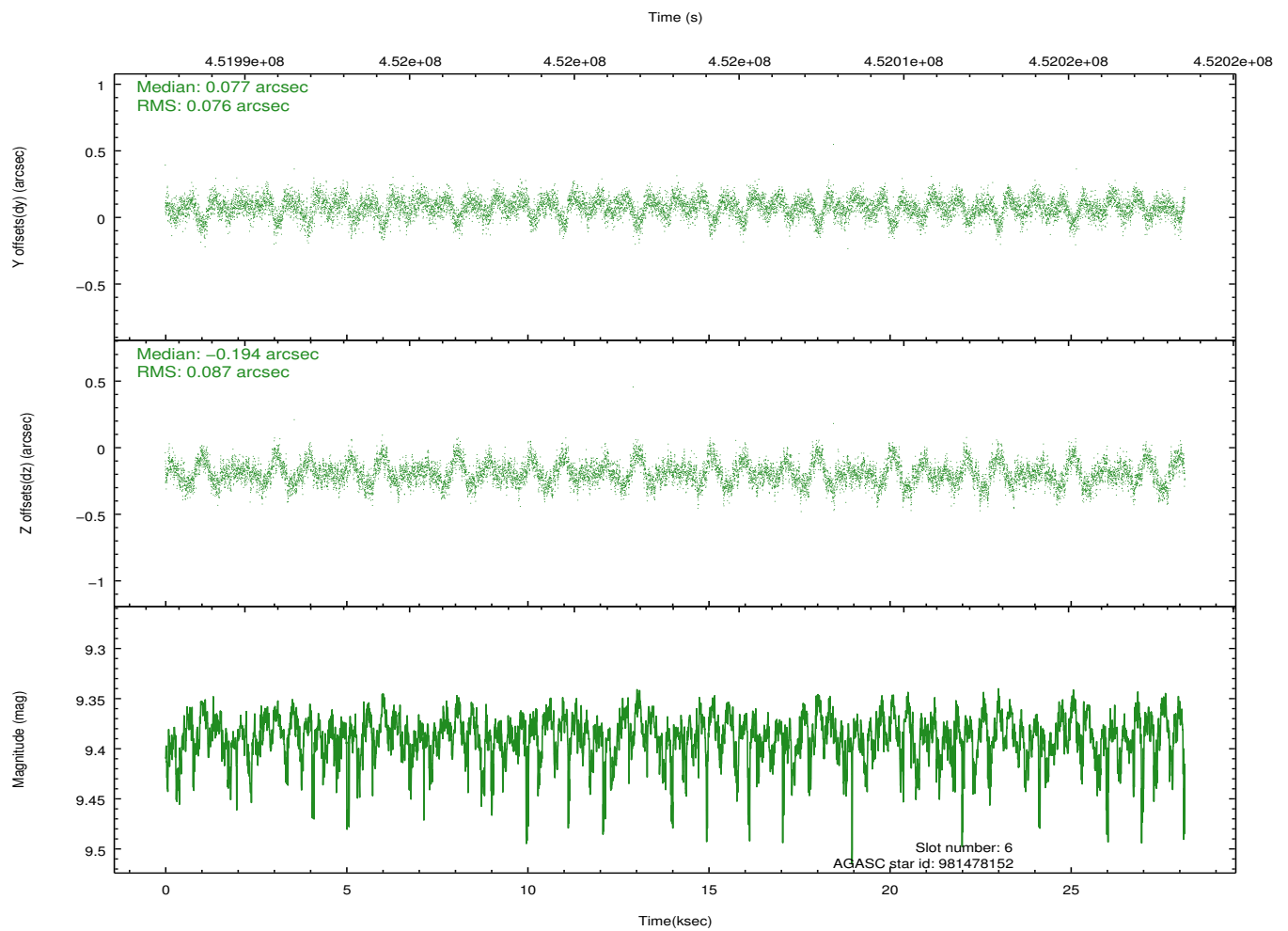
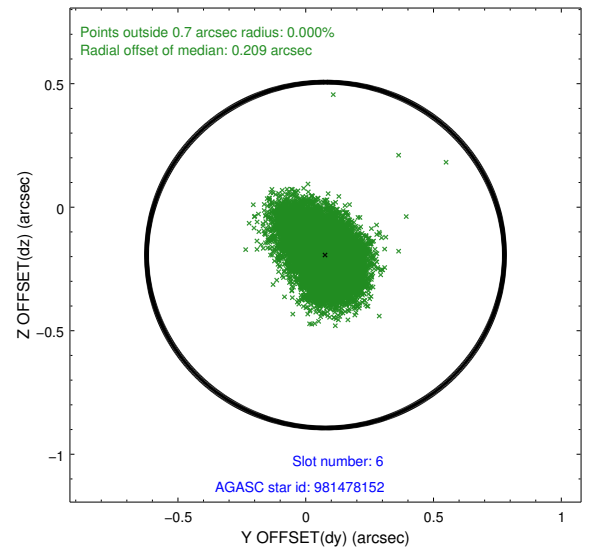
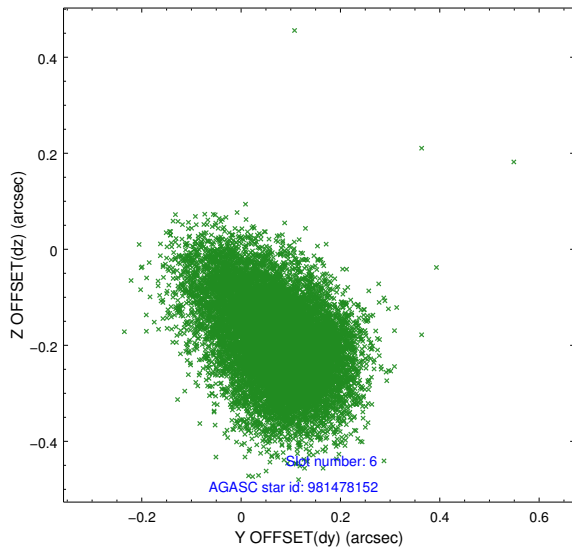
2.4.3 Slot 5



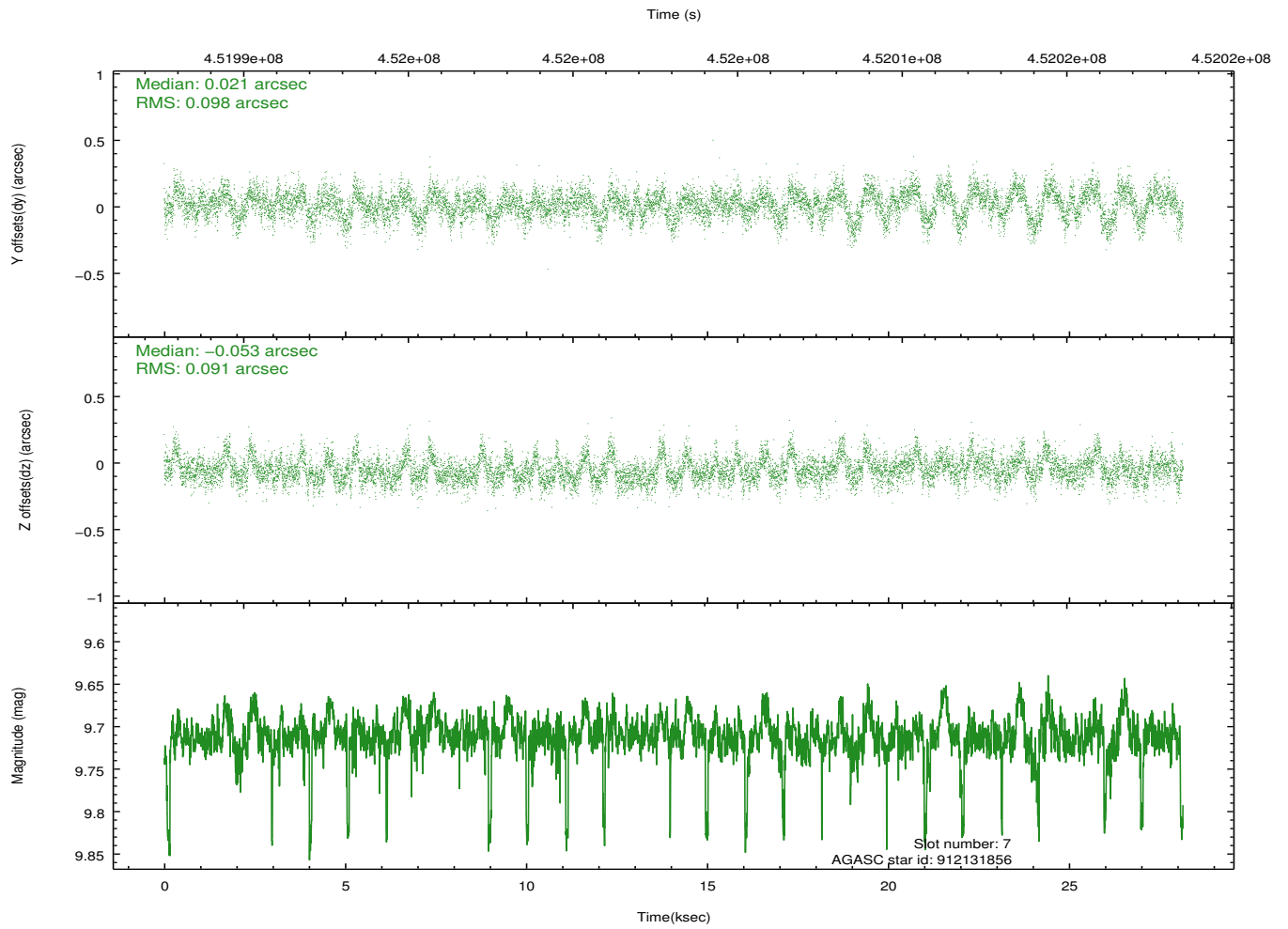
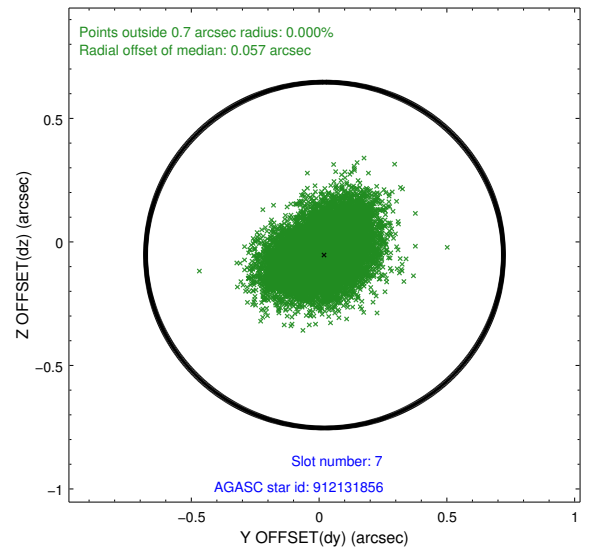
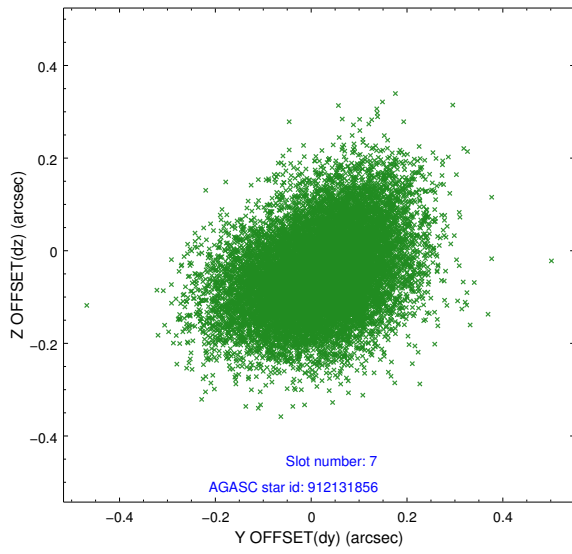
Time (s)



2.4.4 Slot 6

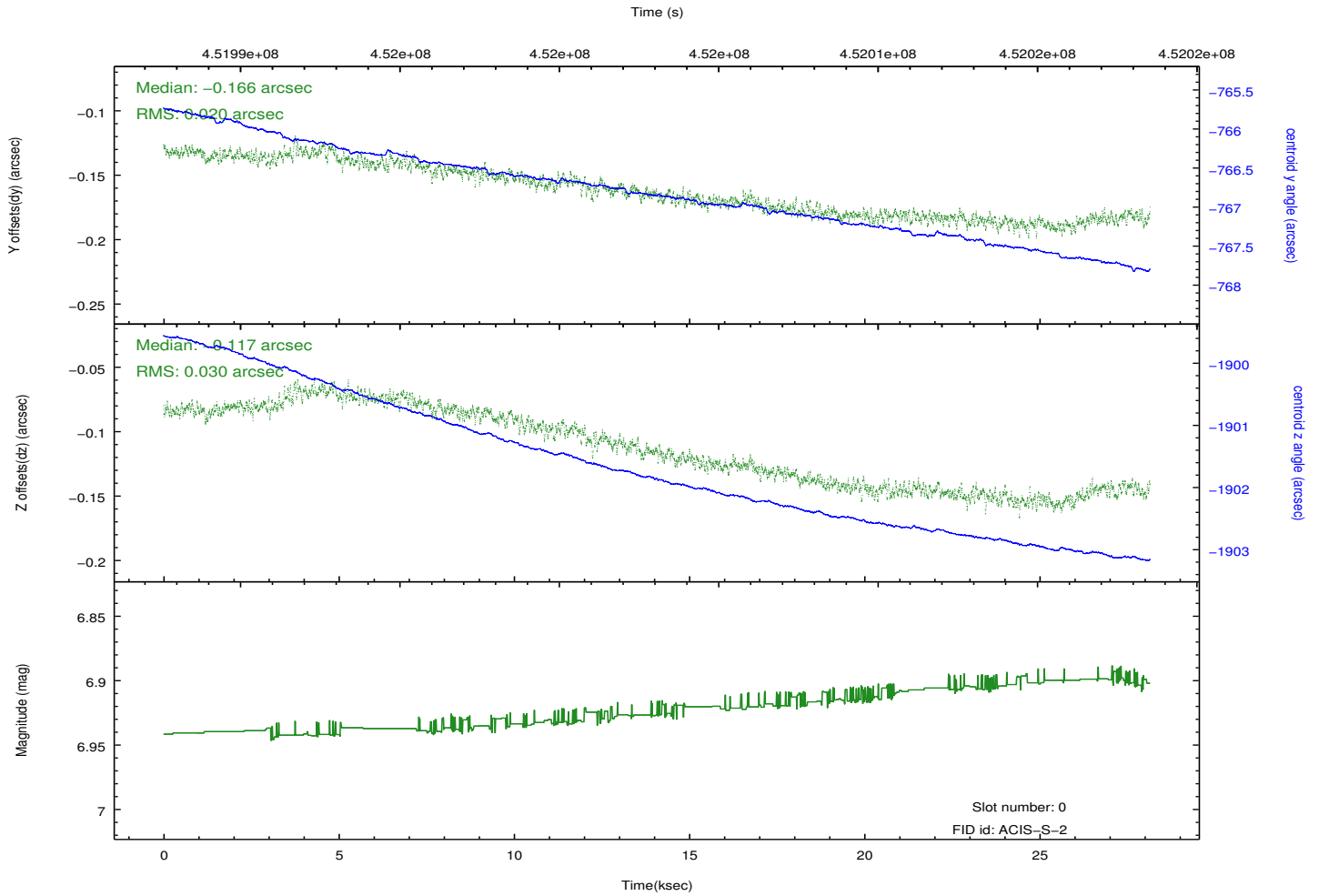
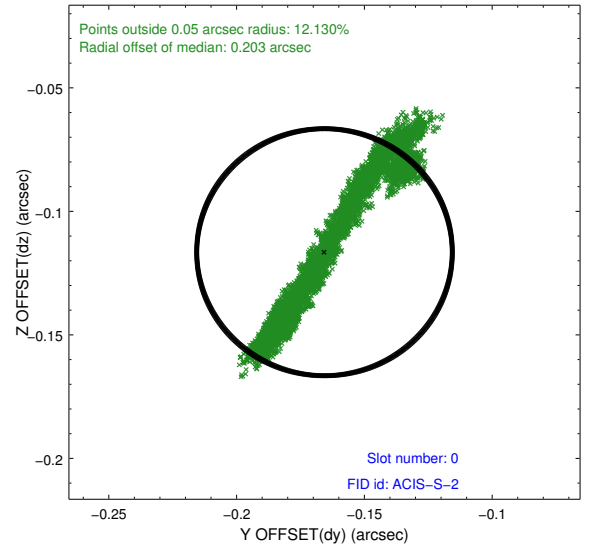
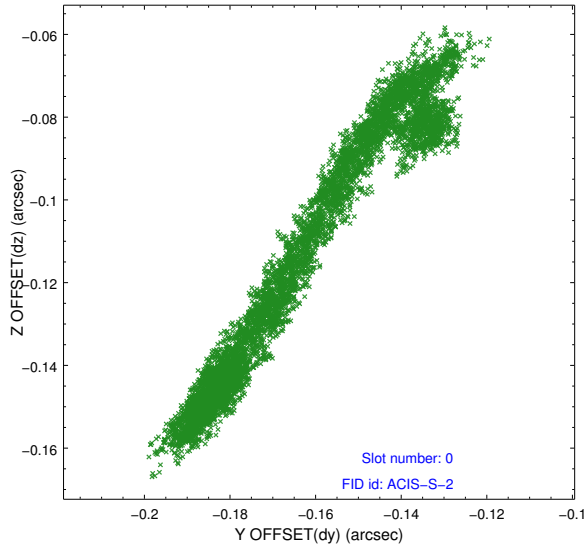


2.4.5 Slot 7

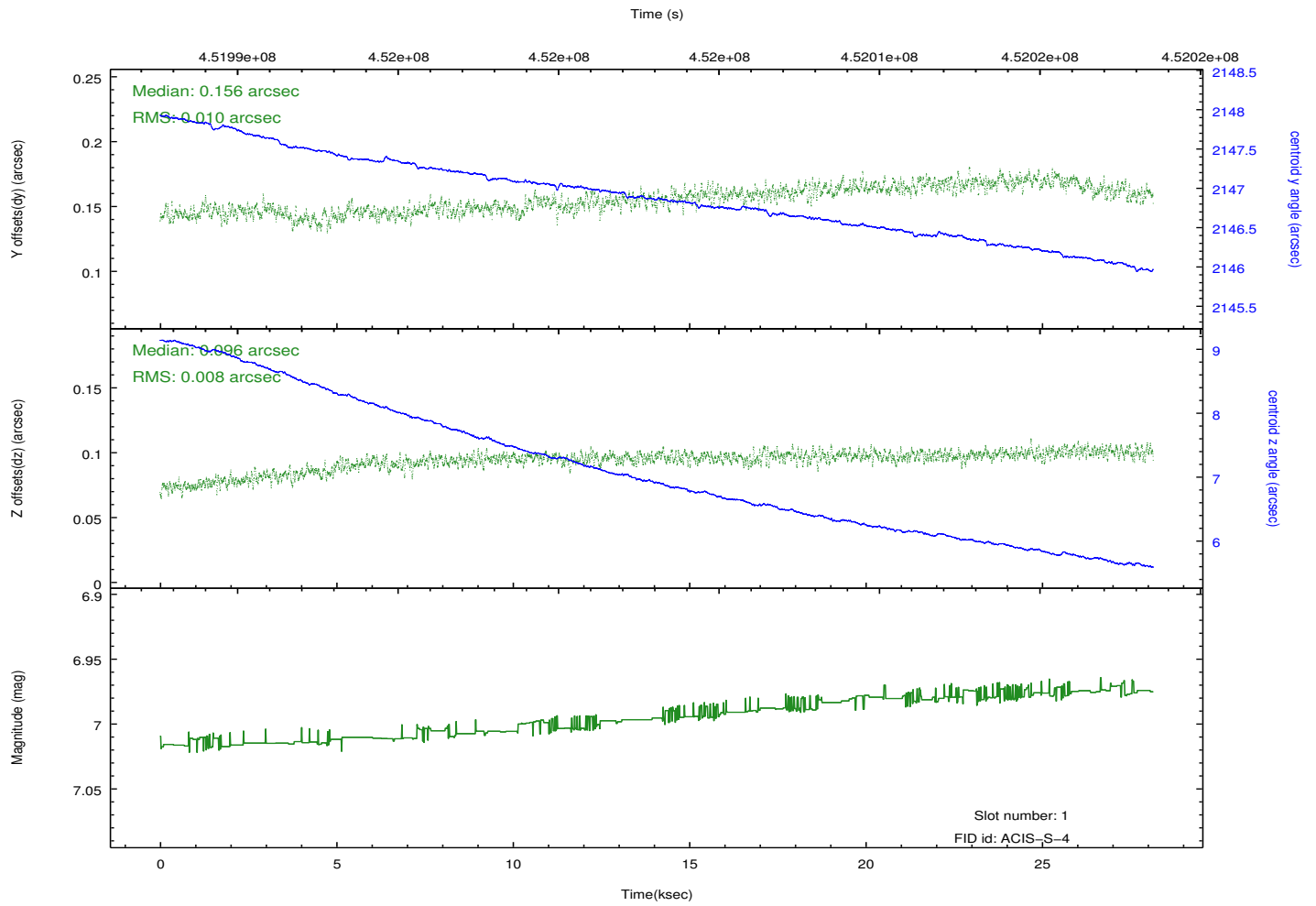
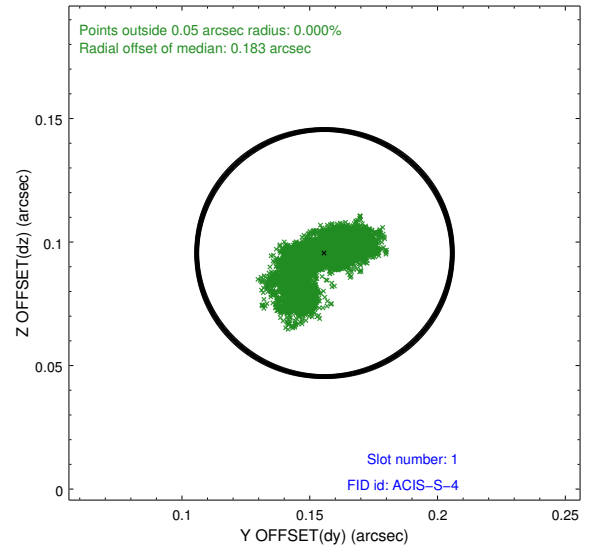
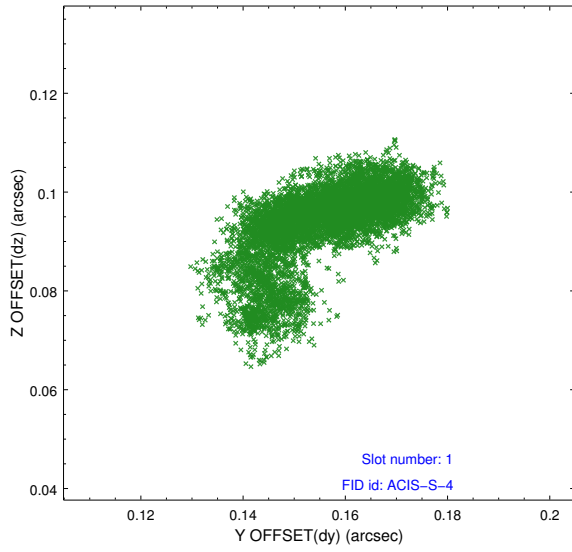


2.5 FID Slots

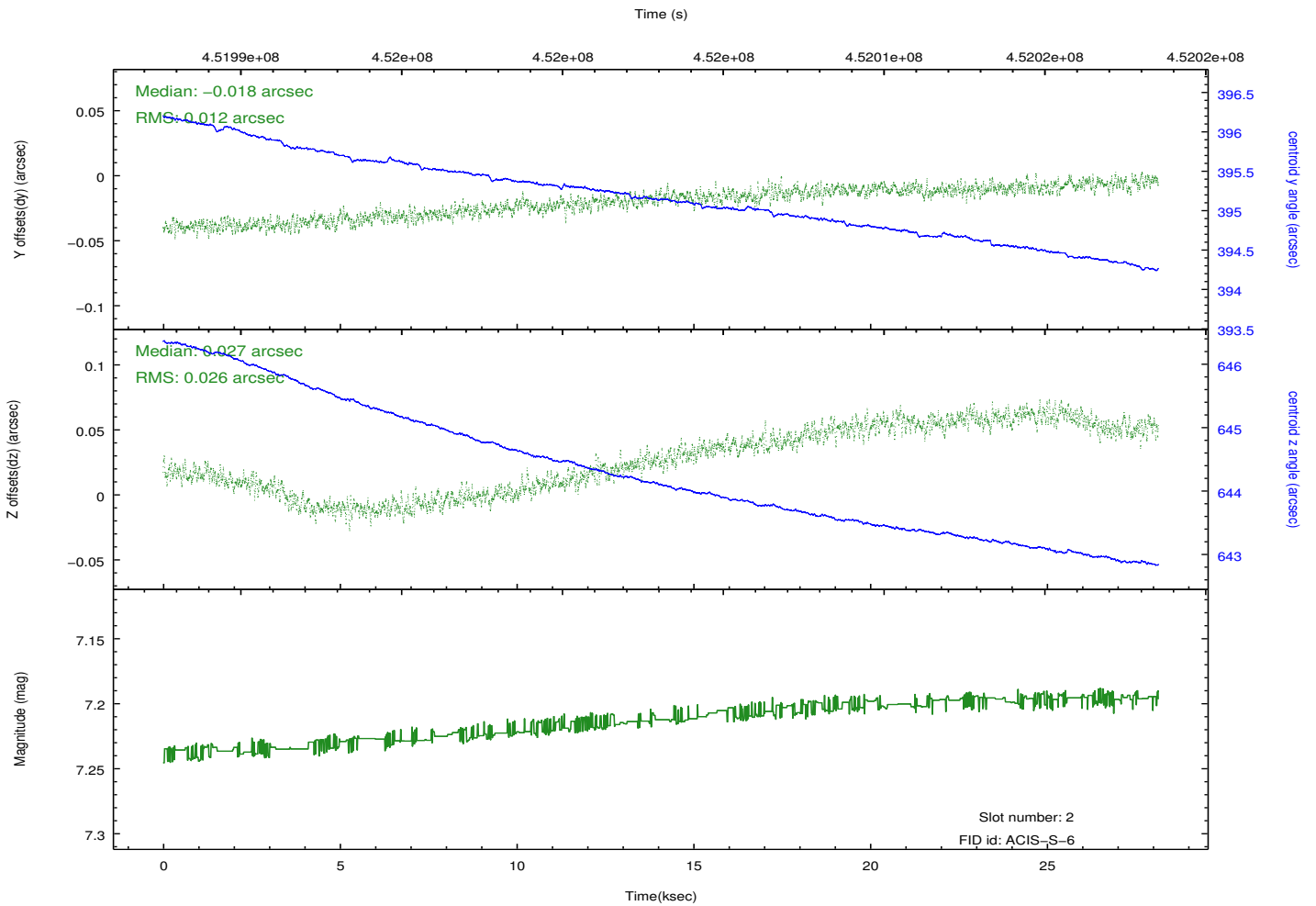
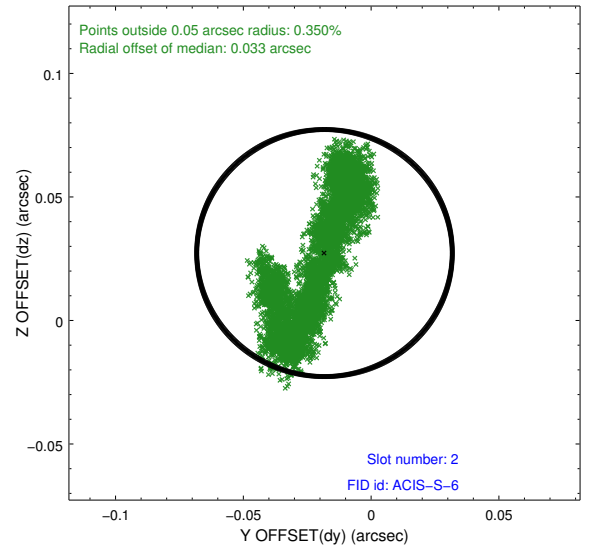
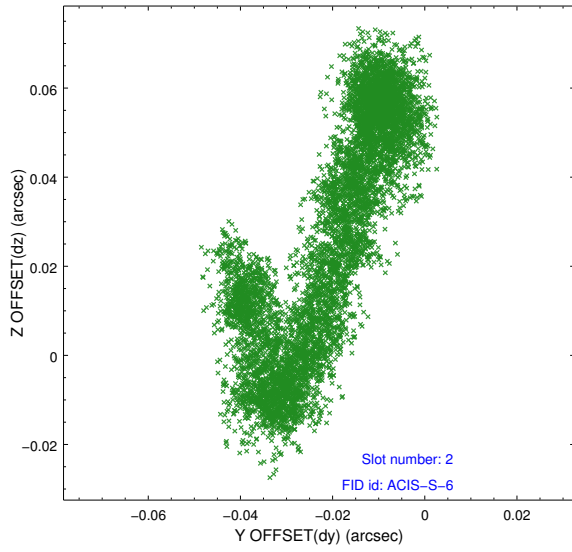
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

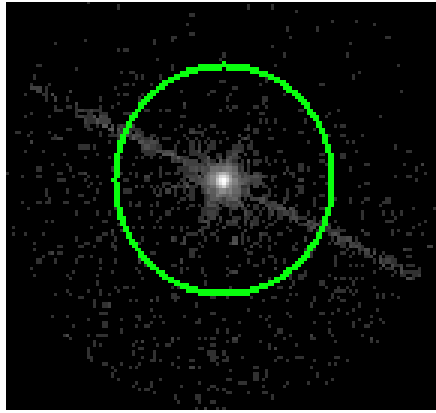


3 Gratings

3.1 LETG Arm



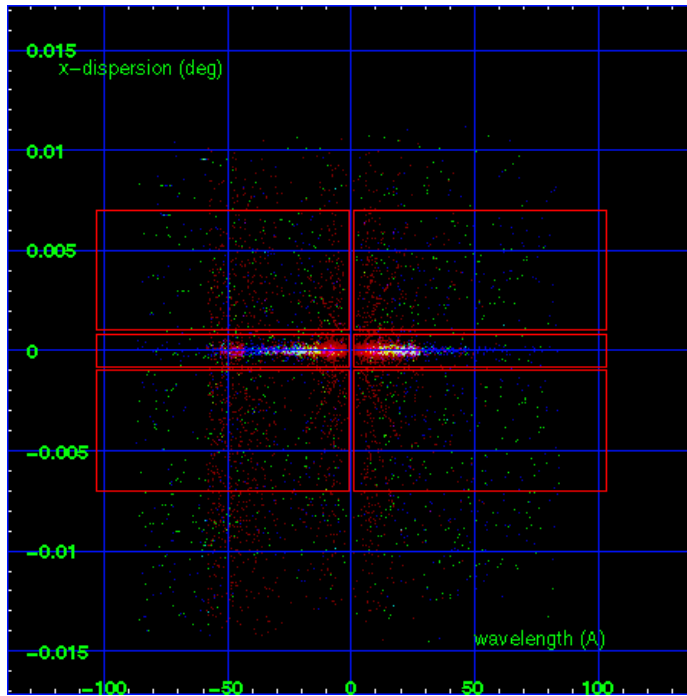
LETG Order Sort 123



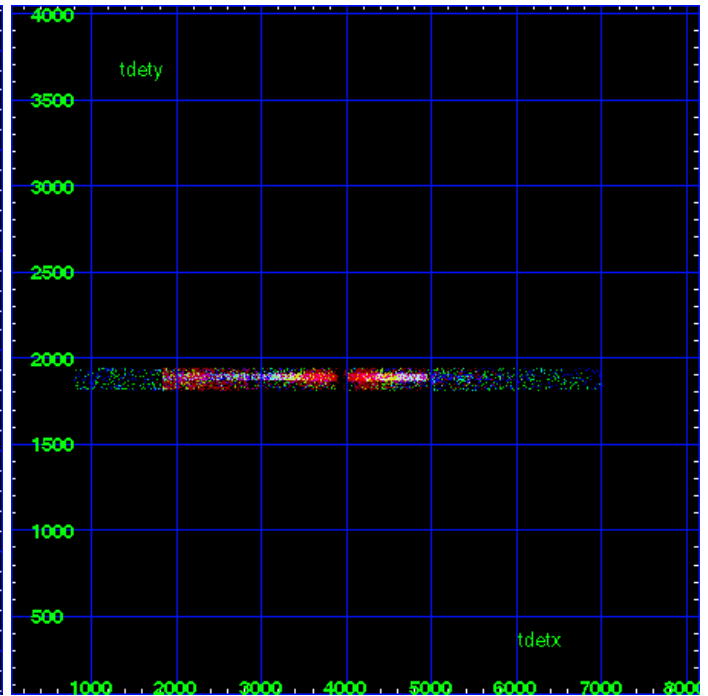
LETG Zero Order



LETG Order Sort ALL

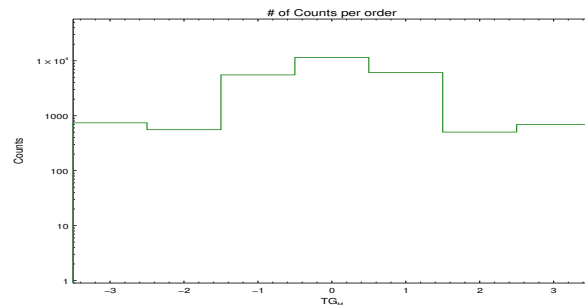


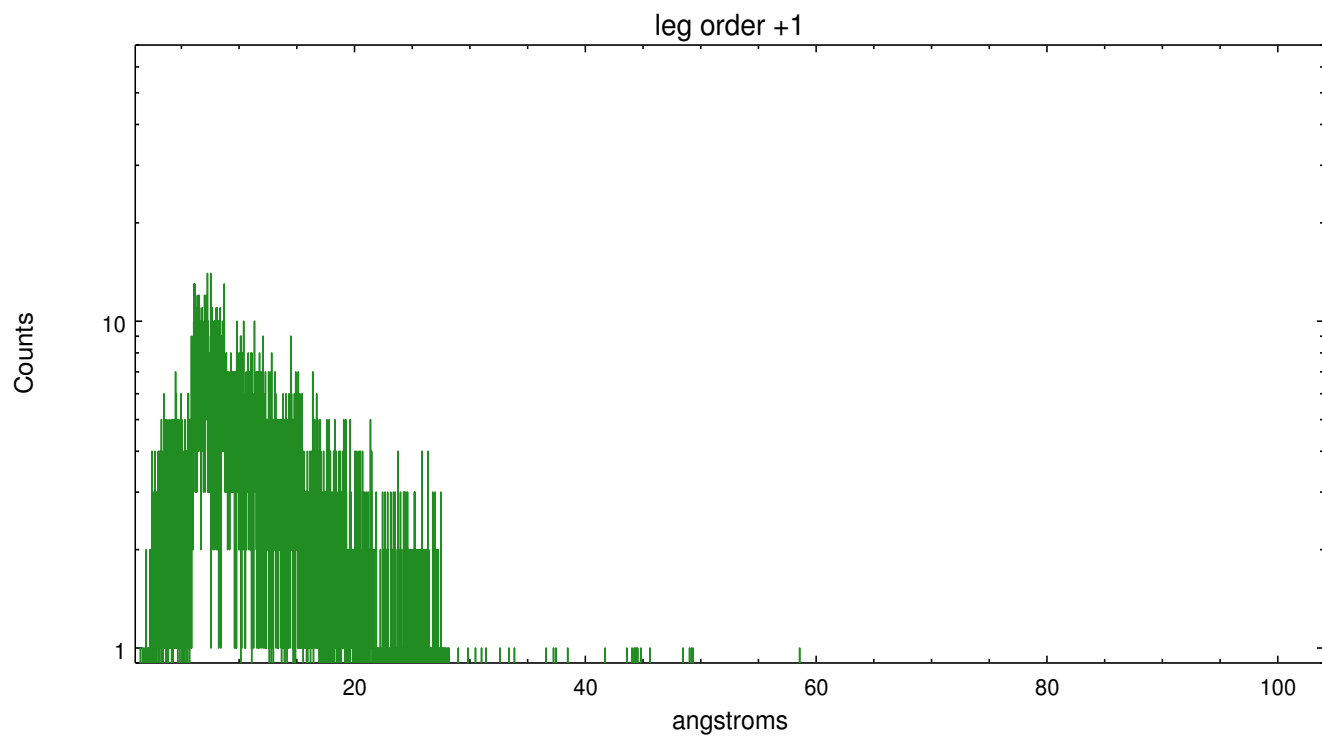
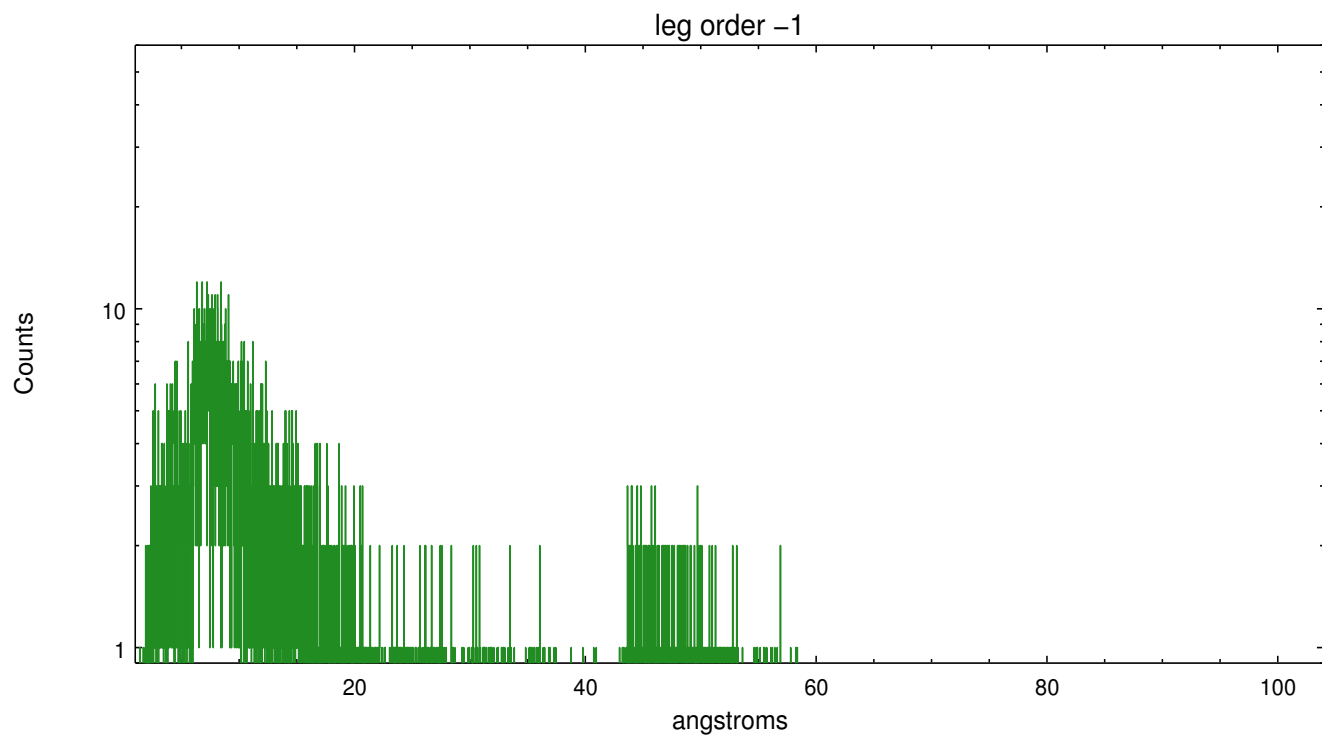
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	742	557	5528	11489	6101	503	694





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.04.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.054599522173

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.