

V&V Reference Report

L2 ASCDS Version : 8.4.3.1

Observation 6874 - L2 Version 2
Chandra X-Ray Center

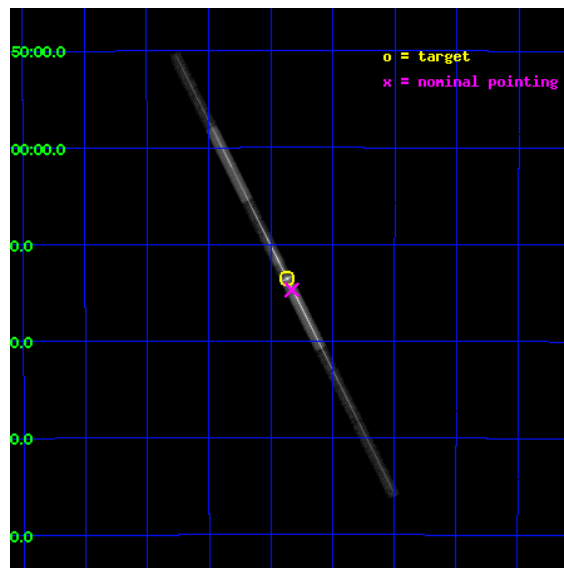
L2 Processing Date : Apr 6 2012

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1 Front

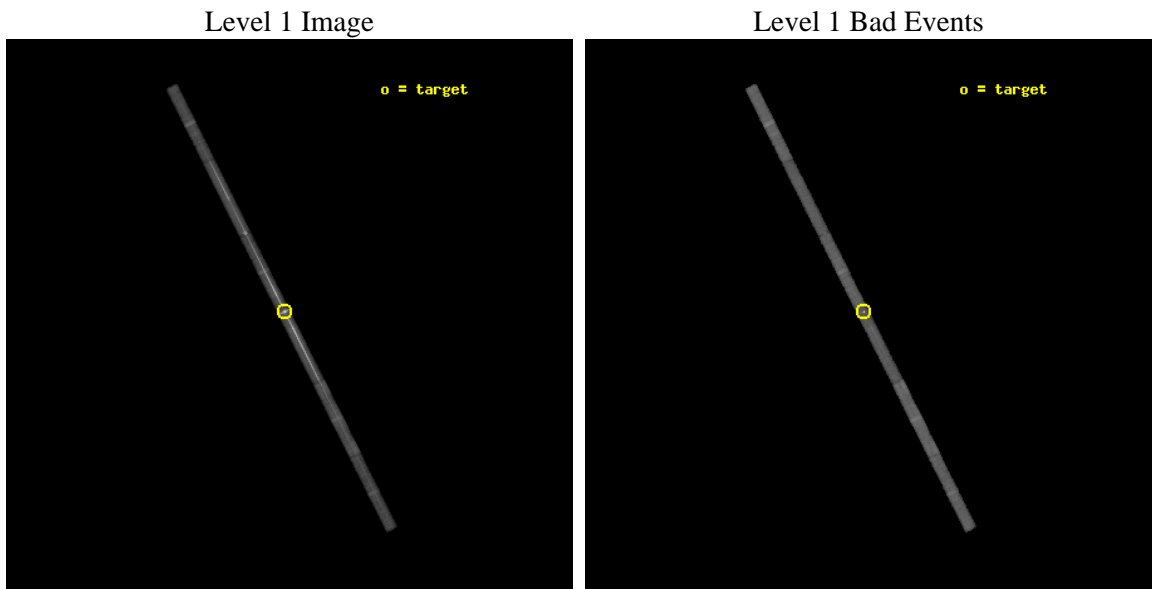
seq_num	701292	Sequence number
obs_id	6874	Observation id
title	Exploring the X-ray--TeV connection in BLLacs at short timescales	
observer	Dr Luigi Costamante	Principal investigator
object	PKS 2155-304	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	329.716667	Observer's specified target RA [deg]
dec_targ	-30.225556	Observer's specified target Dec [deg]
ra_nom	329.70738086245	Nominal RA [deg]
dec_nom	-30.245005380083	Nominal Dec [deg]
roll_nom	63.251522614245	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30120.999486983	Sum of GTIs [s]
liveltime	28452.849563975	Livetime [s]
ontime4	30120.999486983	Sum of GTIs [s]
ontime5	30120.999486983	Sum of GTIs [s]
ontime6	30120.258446932	Sum of GTIs [s]
ontime7	30120.999486983	Sum of GTIs [s]
ontime8	30120.999486983	Sum of GTIs [s]
ontime9	30120.999486983	Sum of GTIs [s]
l2events	417822	Number of level 2 events



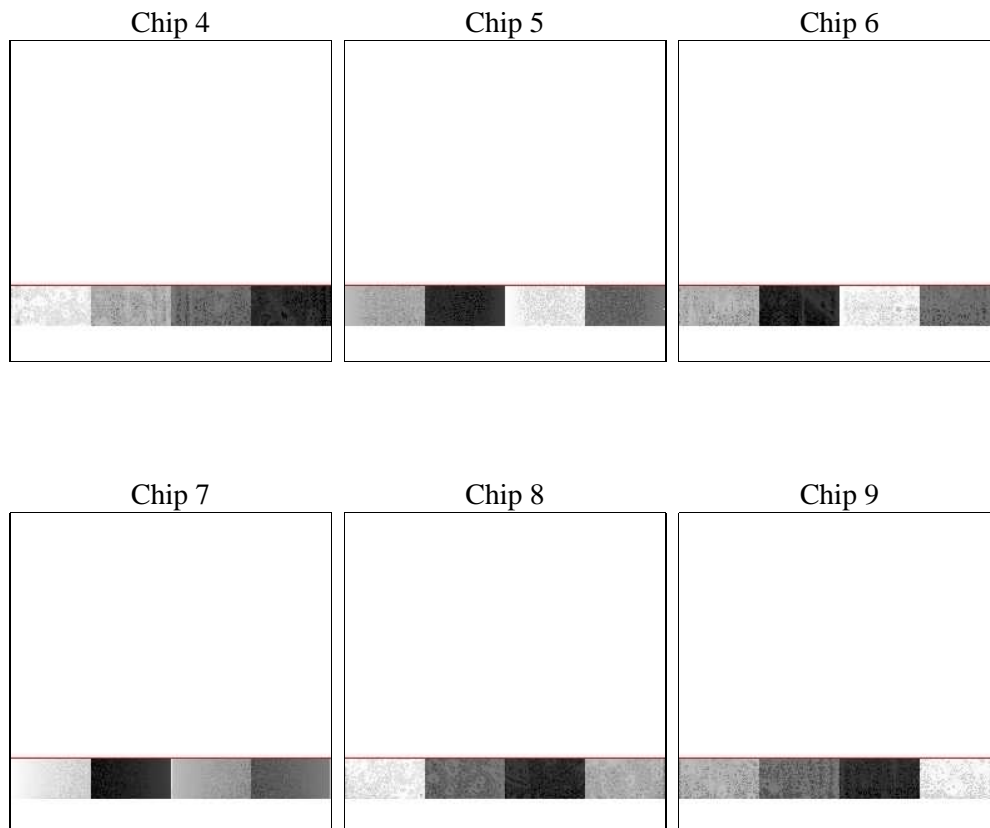
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3.1	Processing system revision	ontime	30120.999486983	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	30120.999486983	Sum of GTIs [s]
date	2012-04-06T04:11:34	Date and time of file creation	ontime5	30120.999486983	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	30120.258446932	Sum of GTIs [s]
			ontime7	30120.999486983	Sum of GTIs [s]
			ontime8	30120.999486983	Sum of GTIs [s]
			ontime9	30120.999486983	Sum of GTIs [s]
			l1events	727723	Number of level 1 events

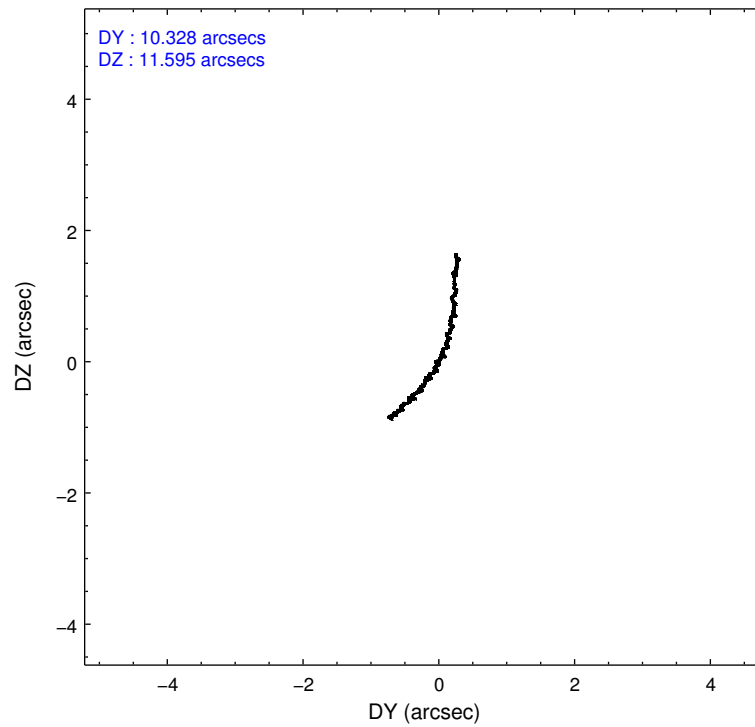
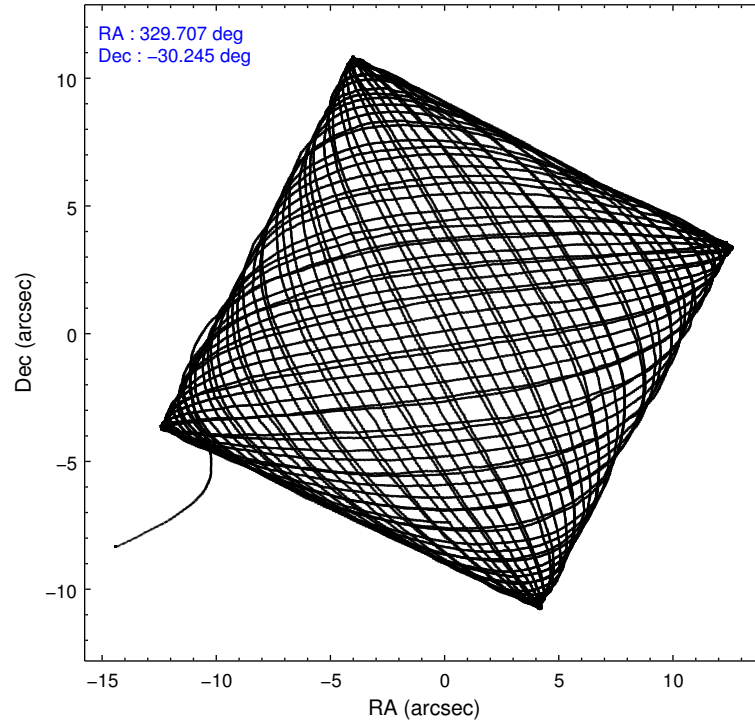
2.1.4 Events

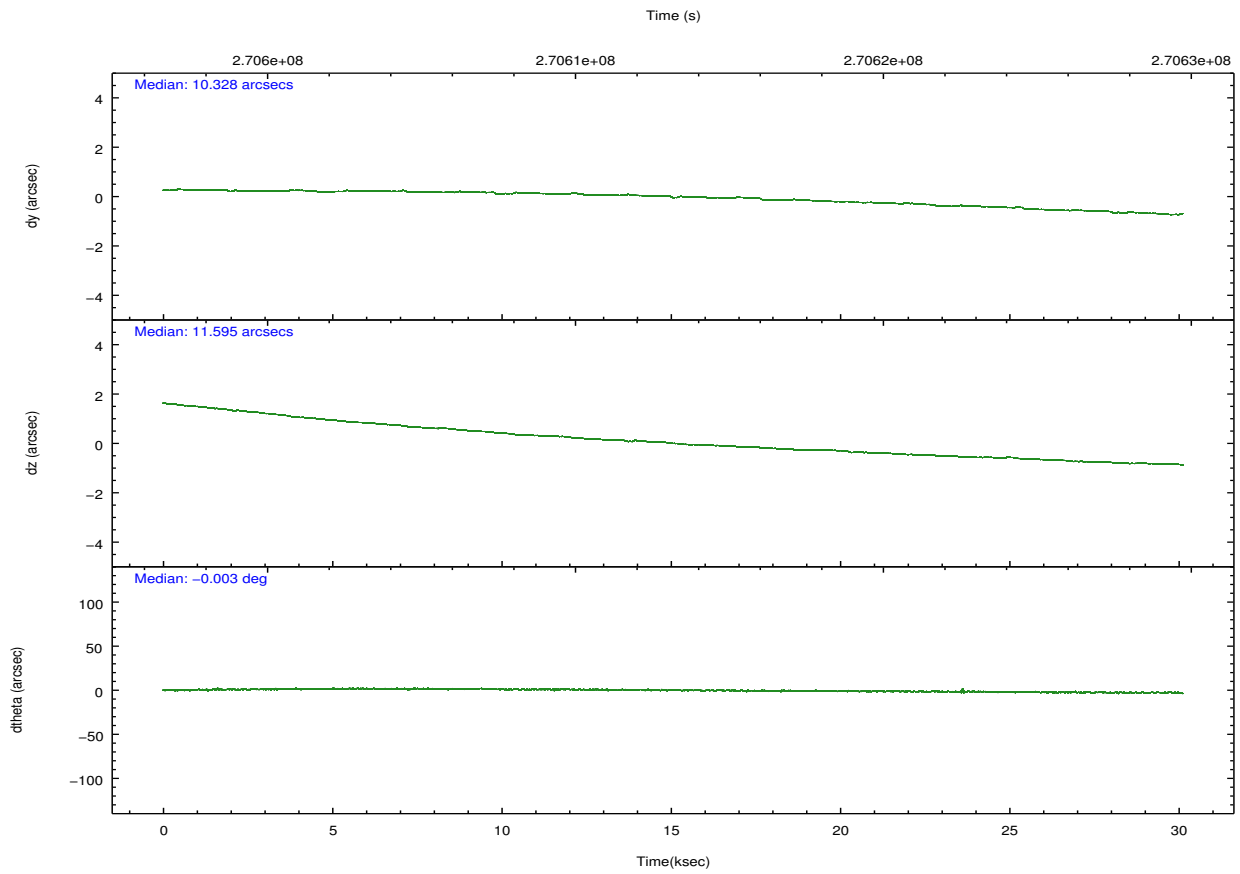
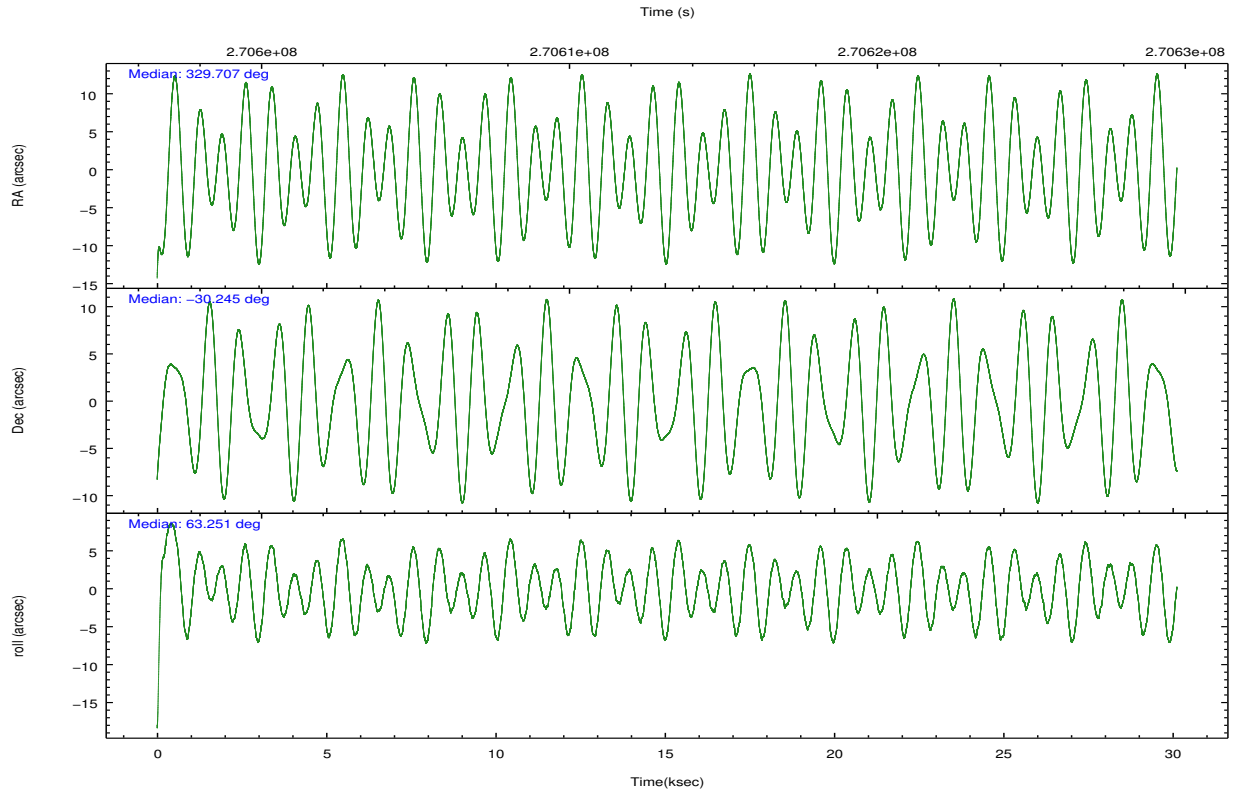
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	55507	96884	152169	302224	74433	46506	grade 0 events	5239	31525	89987	64169	12325	5312
rejected events	46276	32228	42114	73645	52222	37776		9%	32%	59%	21%	16%	11%
rejected %	83%	33%	27%	24%	70%	81%	grade 1 events	23	383	288	1974	31	15
								0%	0%	0%	0%	0%	0%
							grade 2 events	1544	12682	10914	57133	3283	1225
								2%	13%	7%	18%	4%	2%
							grade 3 events	955	4505	3930	26465	1832	892
								1%	4%	2%	8%	2%	1%
							grade 4 events	885	4877	3883	26163	1776	894
								1%	5%	2%	8%	2%	1%
							grade 5 events	1531	5064	1825	12663	2032	1531
								2%	5%	1%	4%	2%	3%
							grade 6 events	1001	14243	2927	58142	4128	902
								1%	14%	1%	19%	5%	1%
							grade 7 events	44329	23605	38415	55515	49026	35735
								79%	24%	25%	18%	65%	76%

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	329.709622	329.7073808624538	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-30.272178	-30.24500538008347	Subarray start row	113	113
[deg] Pointing Roll	63.096035	63.25152261424479	Subarray row count	128	128
[s] Window start time (MET)	270505865.184000	270505865.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	270533465.184000	270533465.184000	[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	-182.139514760308			
[mm] SIM translation stage offset	-8	-7.993007822699838			
[s] Observation start time (MET)	270598223.184000	270596414.11104			
Observation start date	2006-07-29T22:09:18	2006-07-29T21:40:14			
[s] Observation end time (MET)	270628223.184000	270629677.9251			
Observation end date	2006-07-30T06:29:18	2006-07-30T06:54:37			
Read mode	TIMED	TIMED			

2.3 Aspect



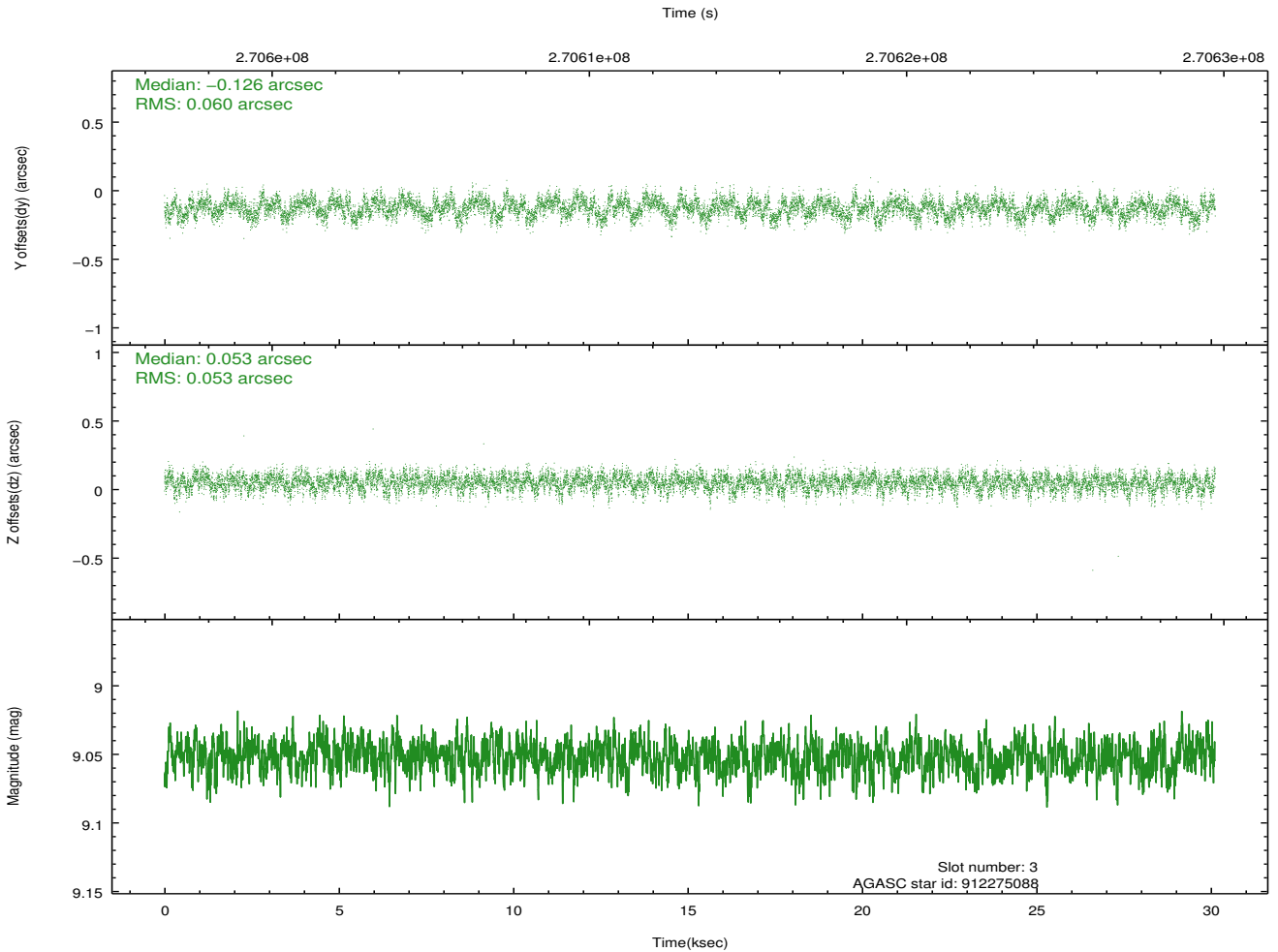
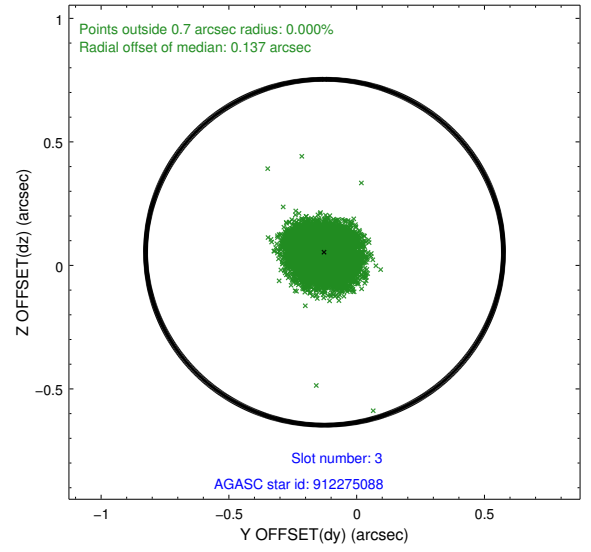
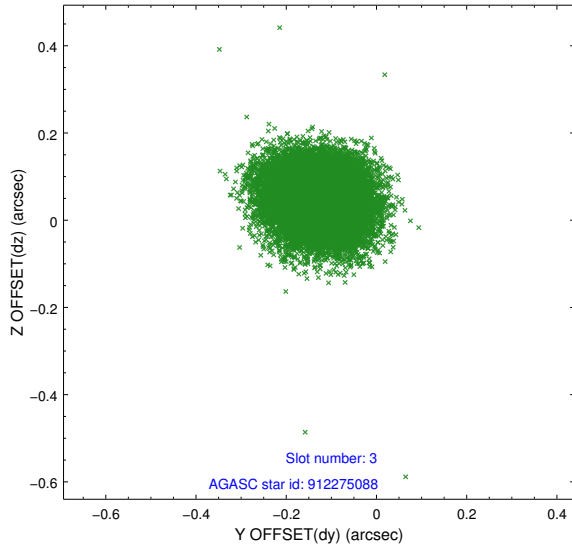


Slot Statistics

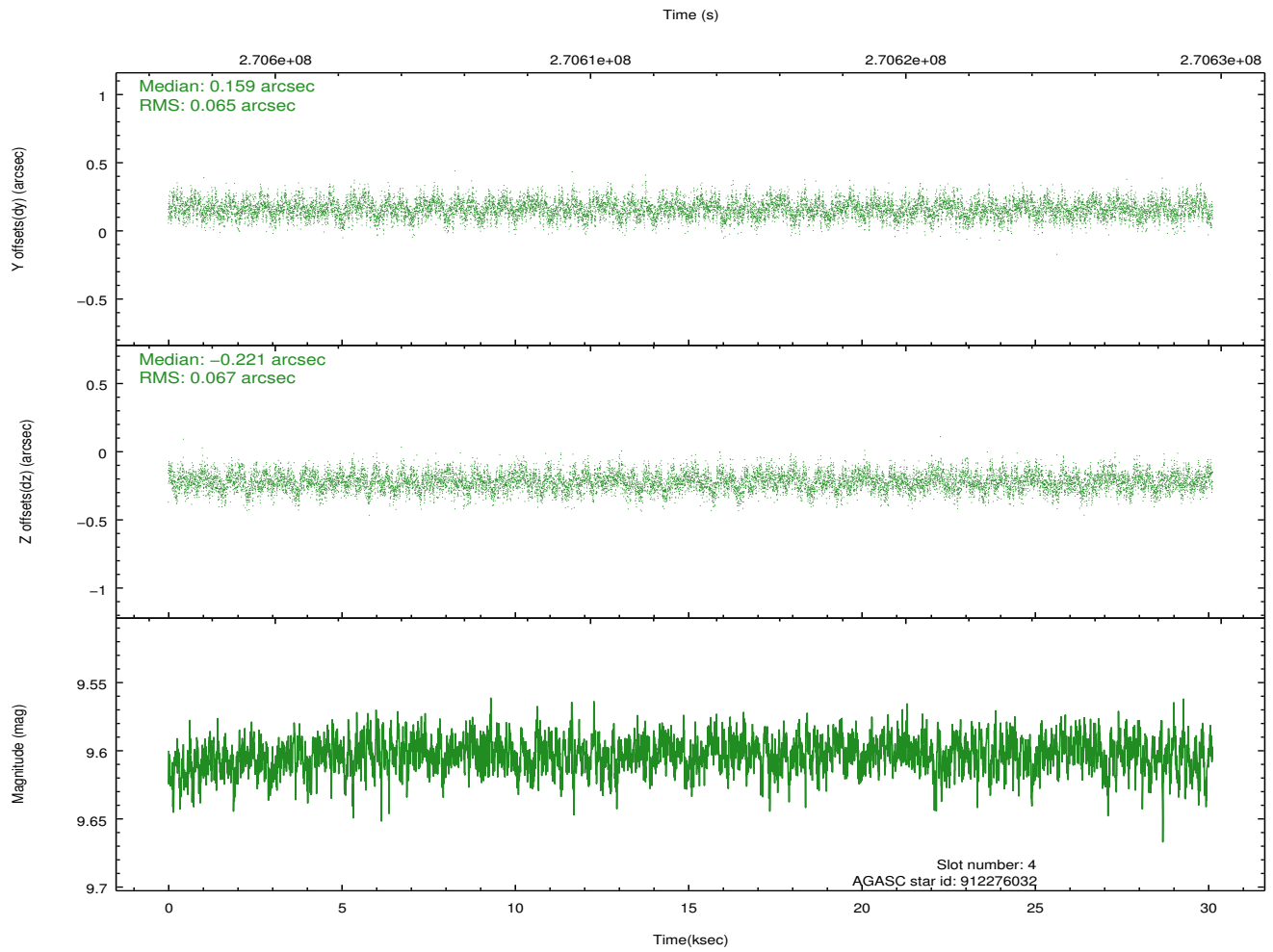
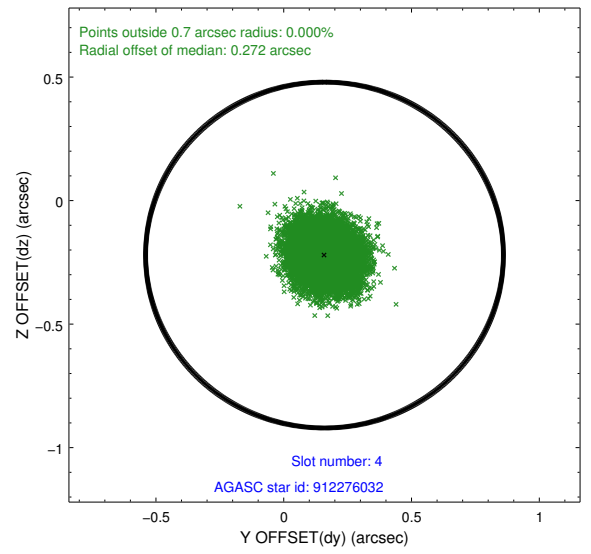
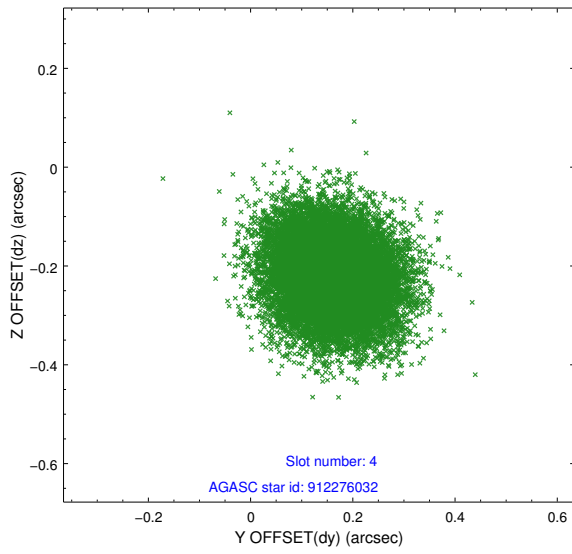
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	7346	-0.058	-0.165	0.023	0.042	0.000000	0.000000	-762.59	-1897.82
1	FID	ACIS-S-4	7.18	7347	0.189	0.072	0.008	0.017	0.000000	0.000000	2150.92	10.73
2	FID	ACIS-S-5	7.22	7347	-0.163	0.100	0.020	0.035	0.000000	0.000000	-1815.42	4.57
3	GUIDE	912275088	9.05	14681	-0.126	0.053	0.085	0.136	329.619228	-29.738698	1584.66	1121.18
4	GUIDE	912276032	9.60	14675	0.159	-0.221	0.099	0.160	329.395967	-29.803466	1060.52	1636.69
5	GUIDE	981468128	9.35	14676	0.050	0.089	0.132	0.195	329.756350	-30.158334	431.45	55.89
6	GUIDE	981471664	6.34	14695	-0.047	-0.045	0.063	0.100	328.981826	-30.605916	-2098.22	1463.80
7	GUIDE	981478152	9.39	14684	-0.041	0.122	0.099	0.162	329.415589	-30.057192	274.44	1167.03

2.4 Star Slots

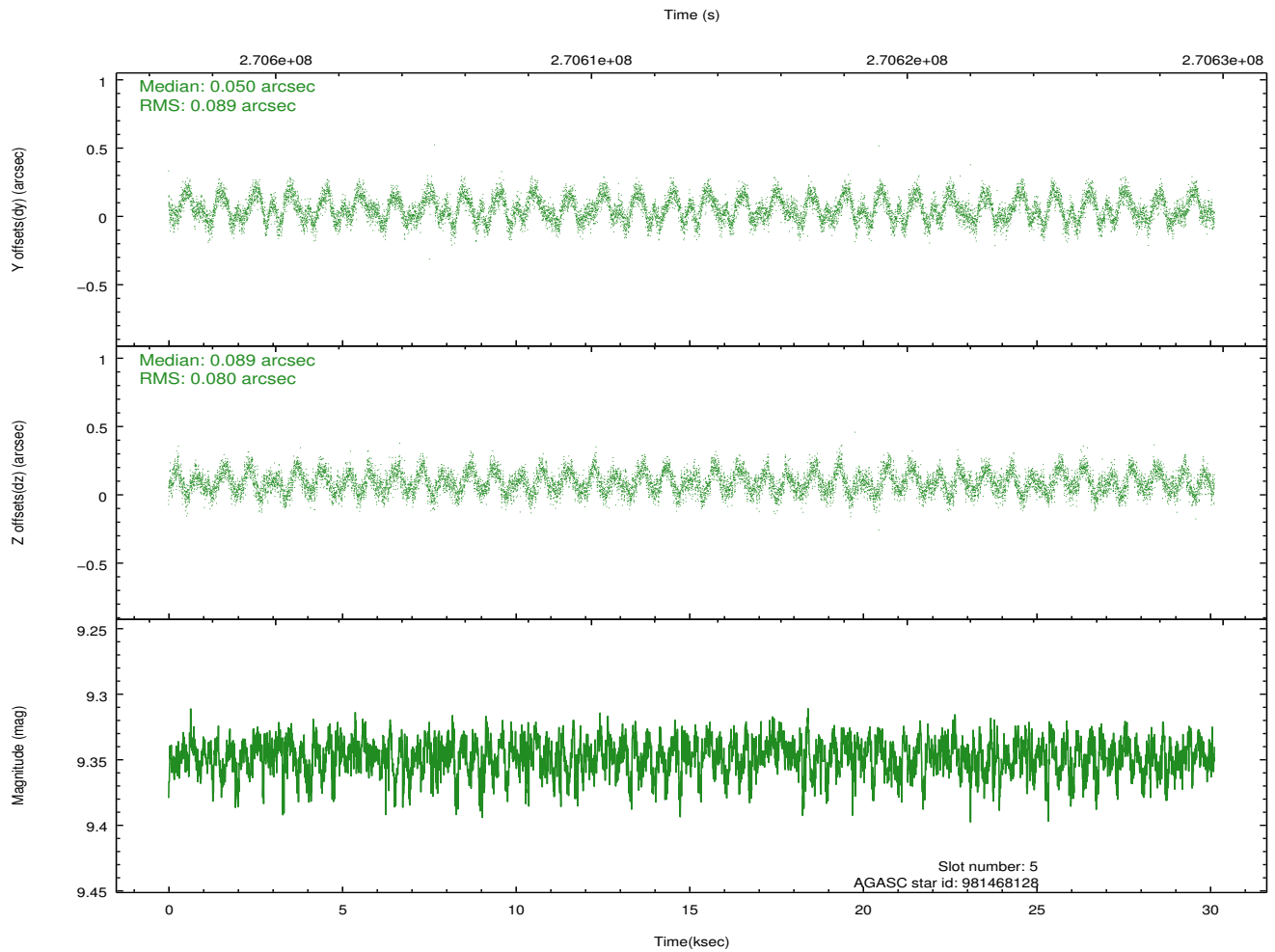
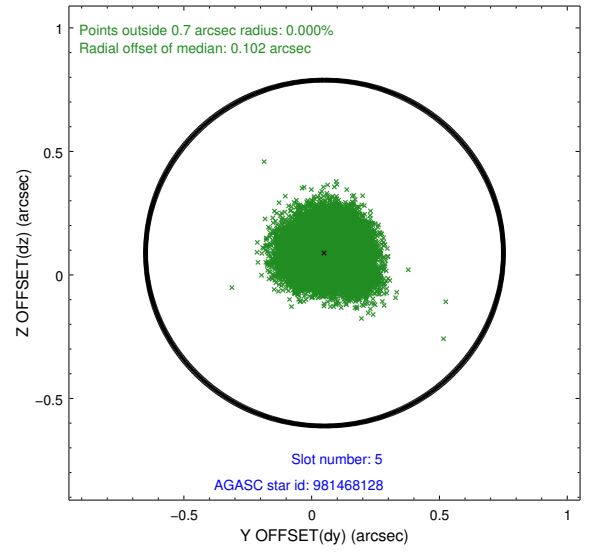
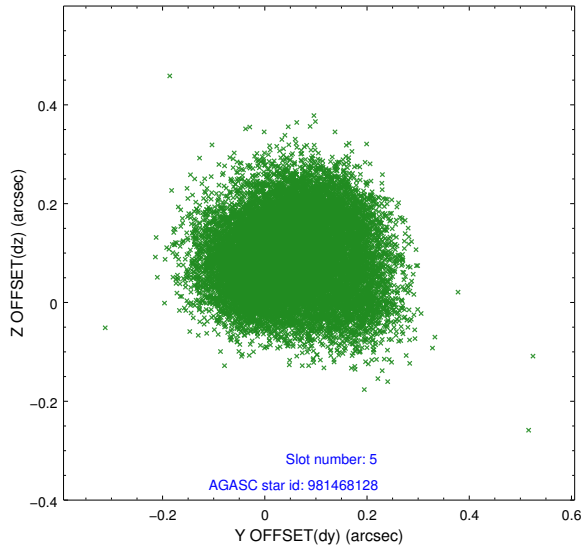
2.4.1 Slot 3



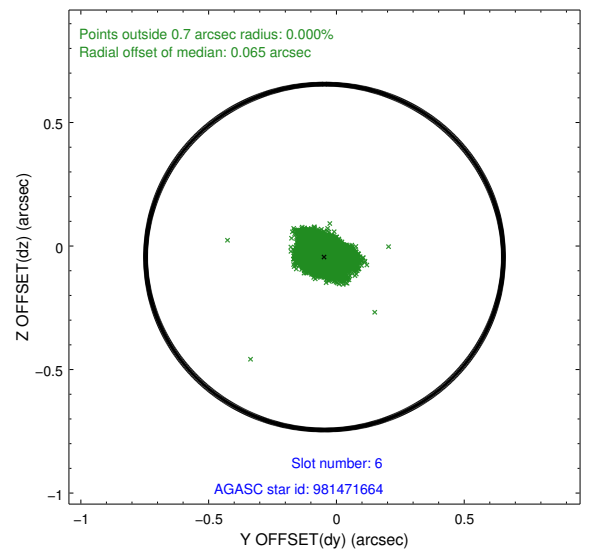
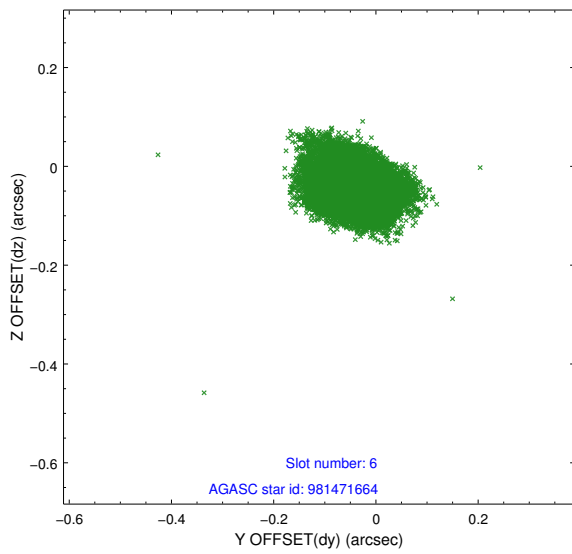
2.4.2 Slot 4



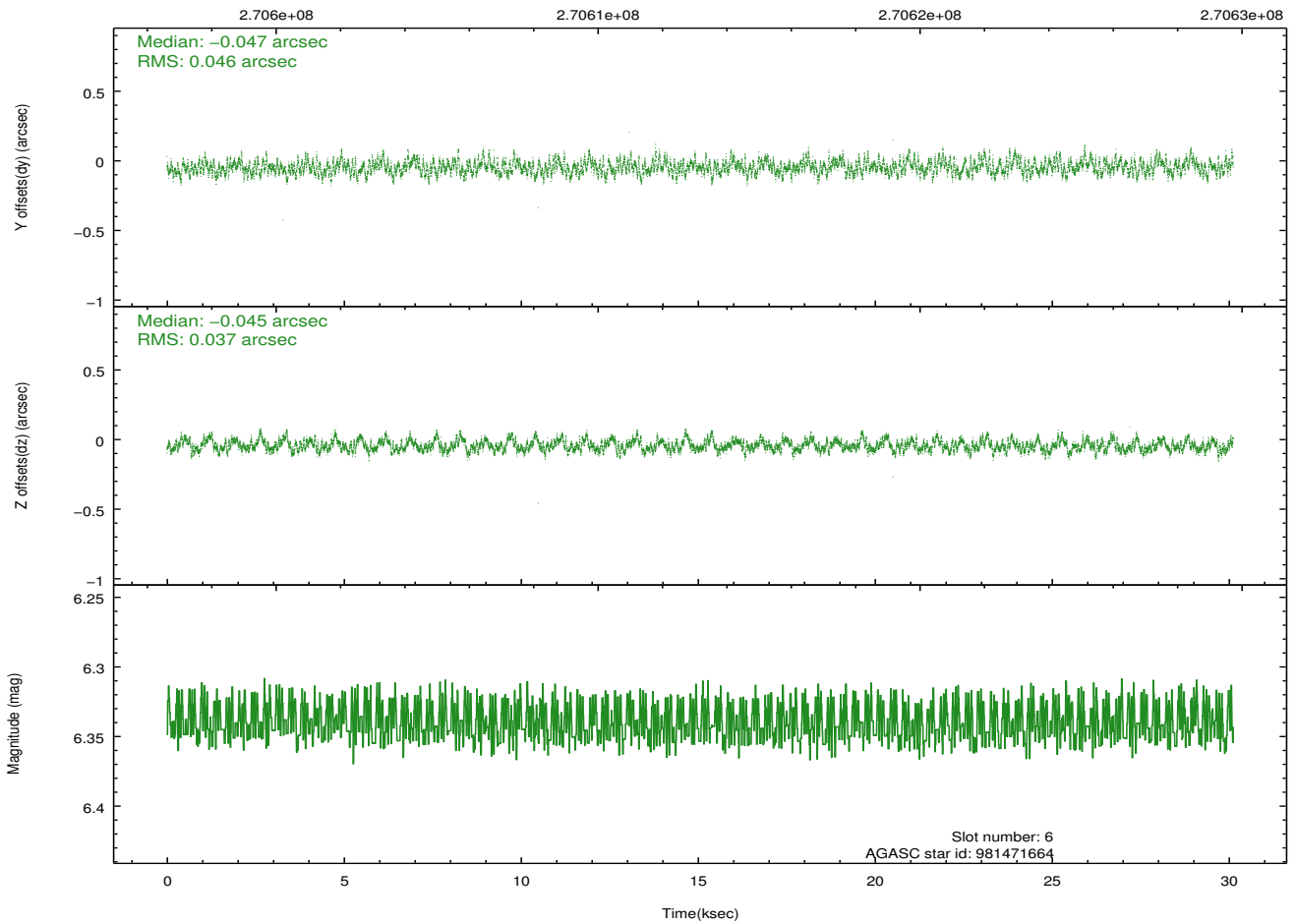
2.4.3 Slot 5



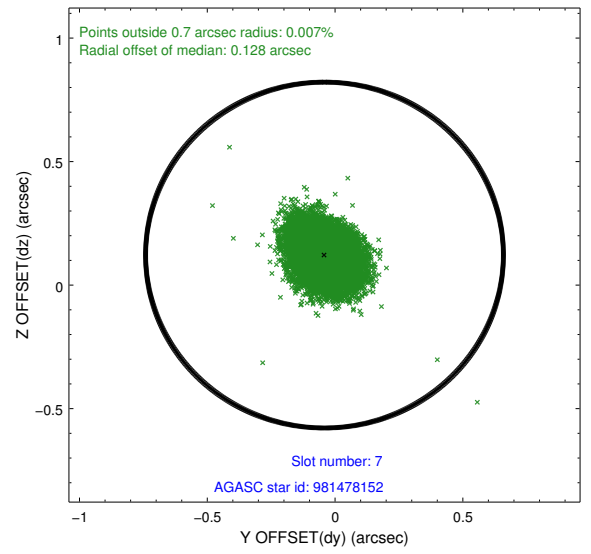
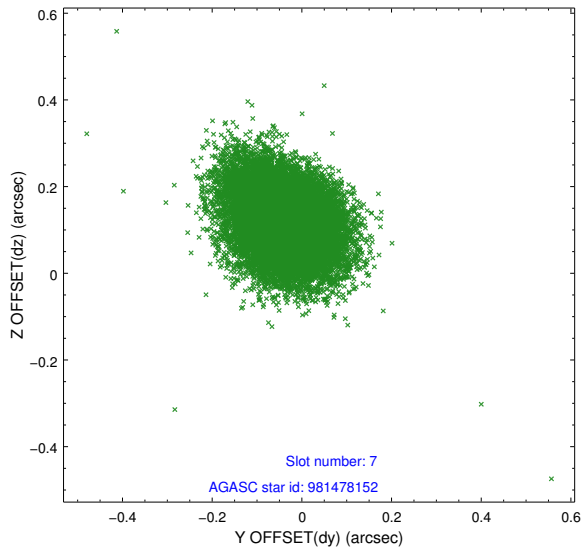
2.4.4 Slot 6



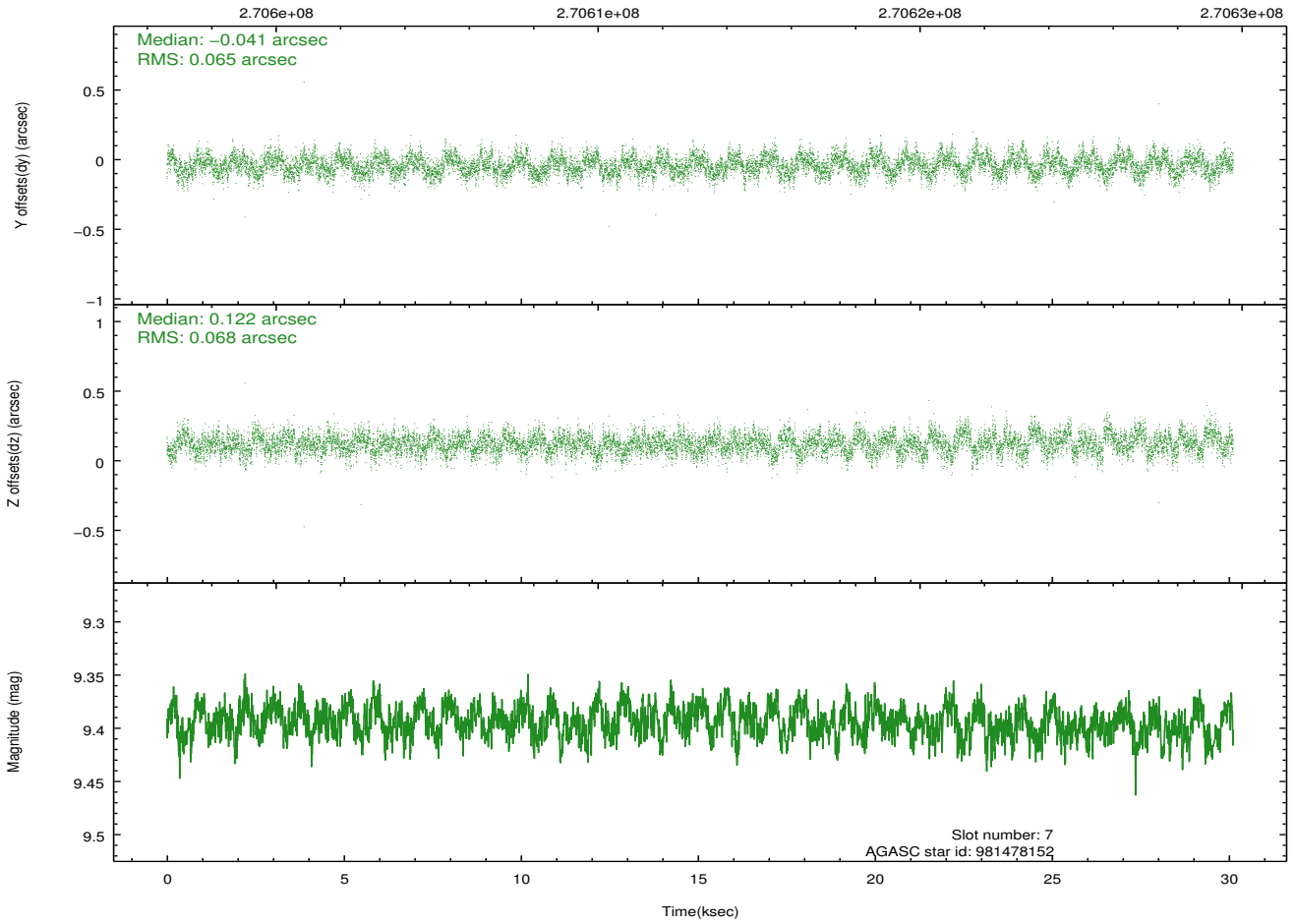
Time (s)



2.4.5 Slot 7

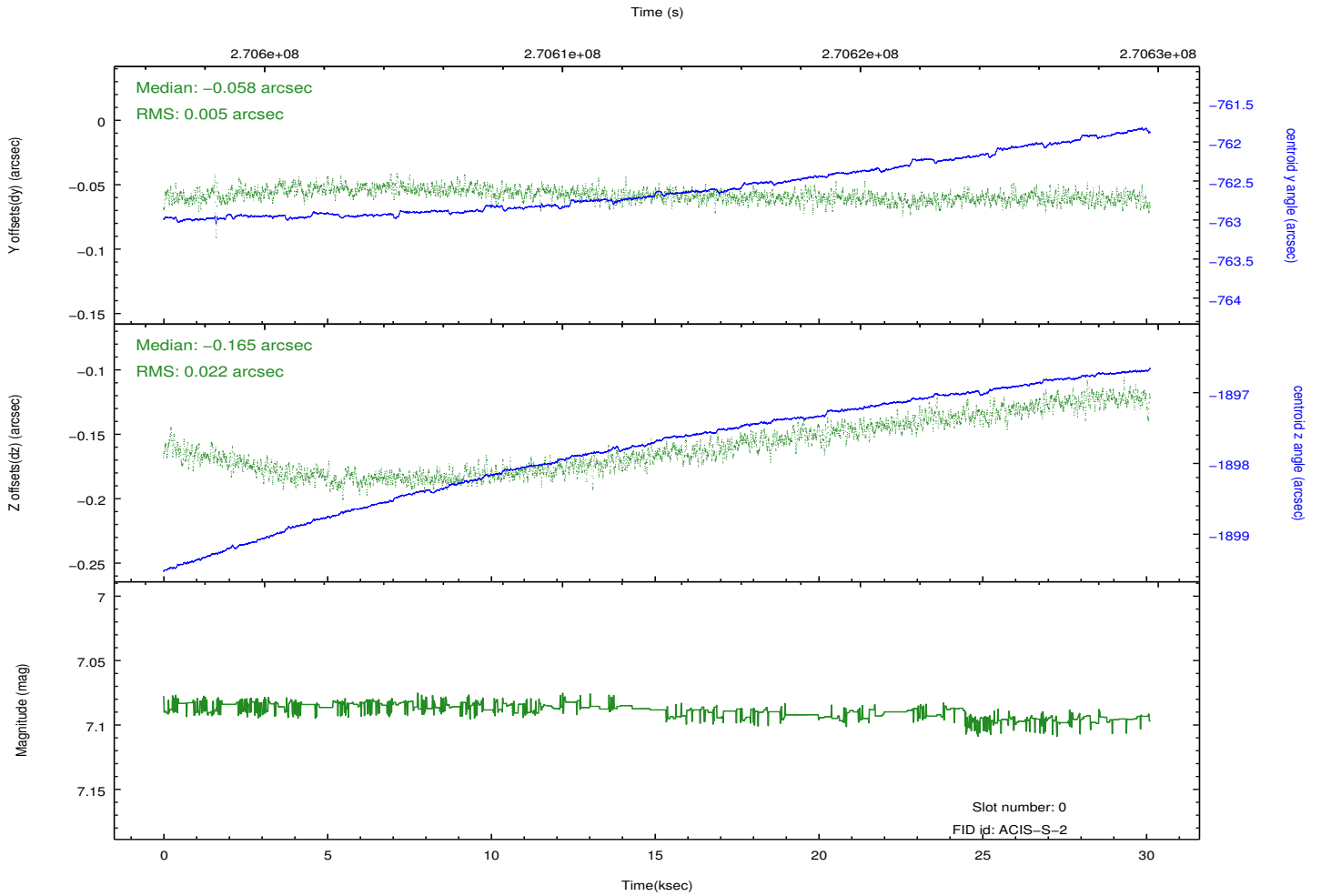
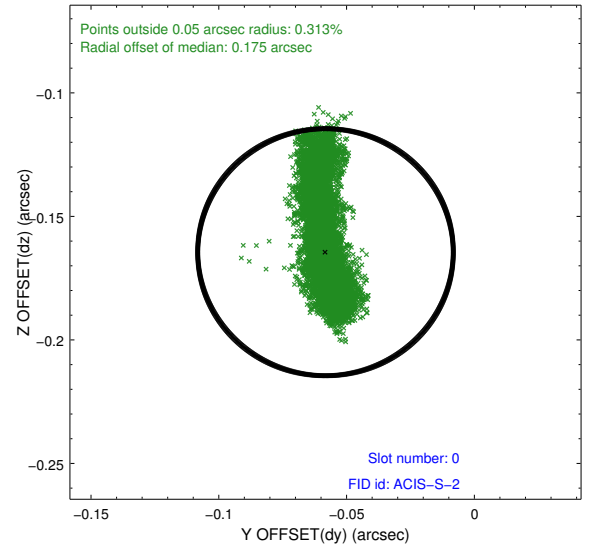
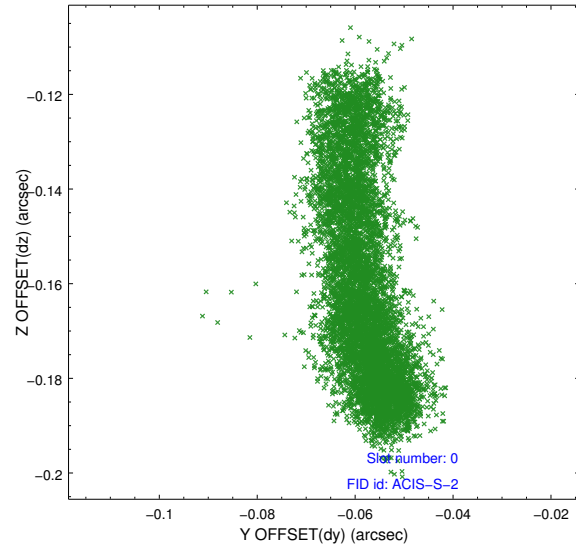


Time (s)

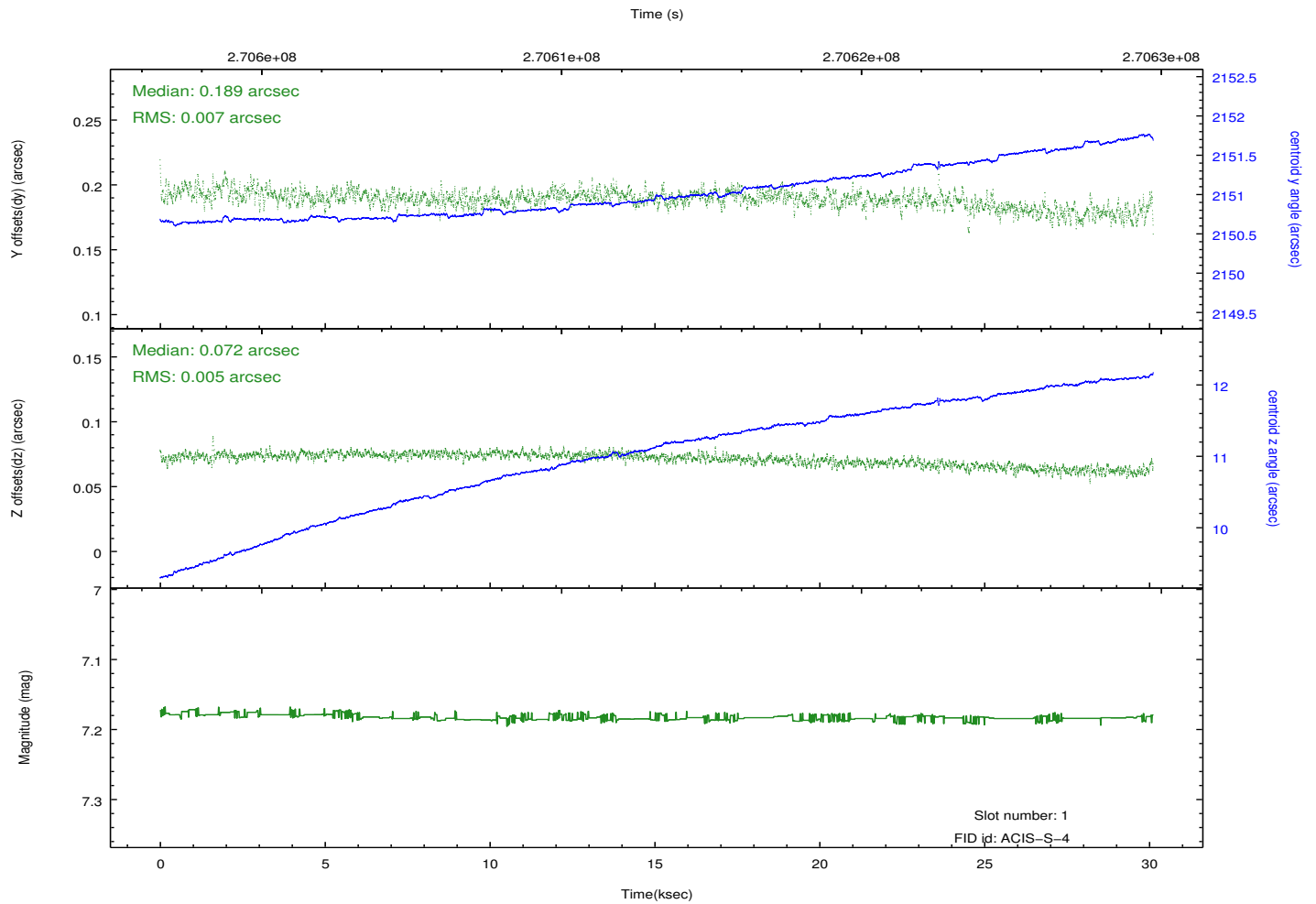
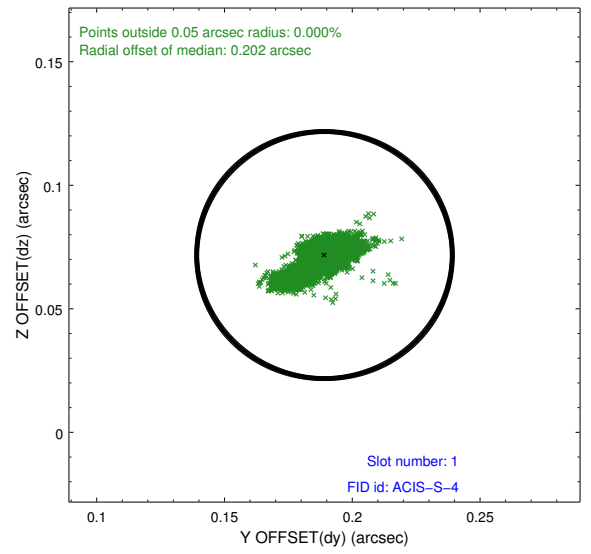
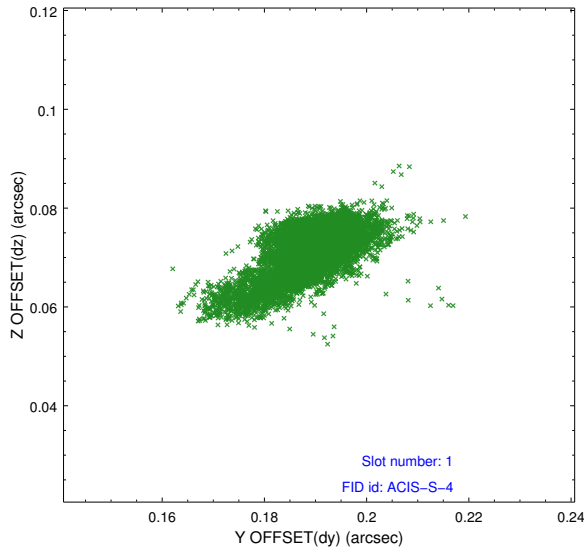


2.5 FID Slots

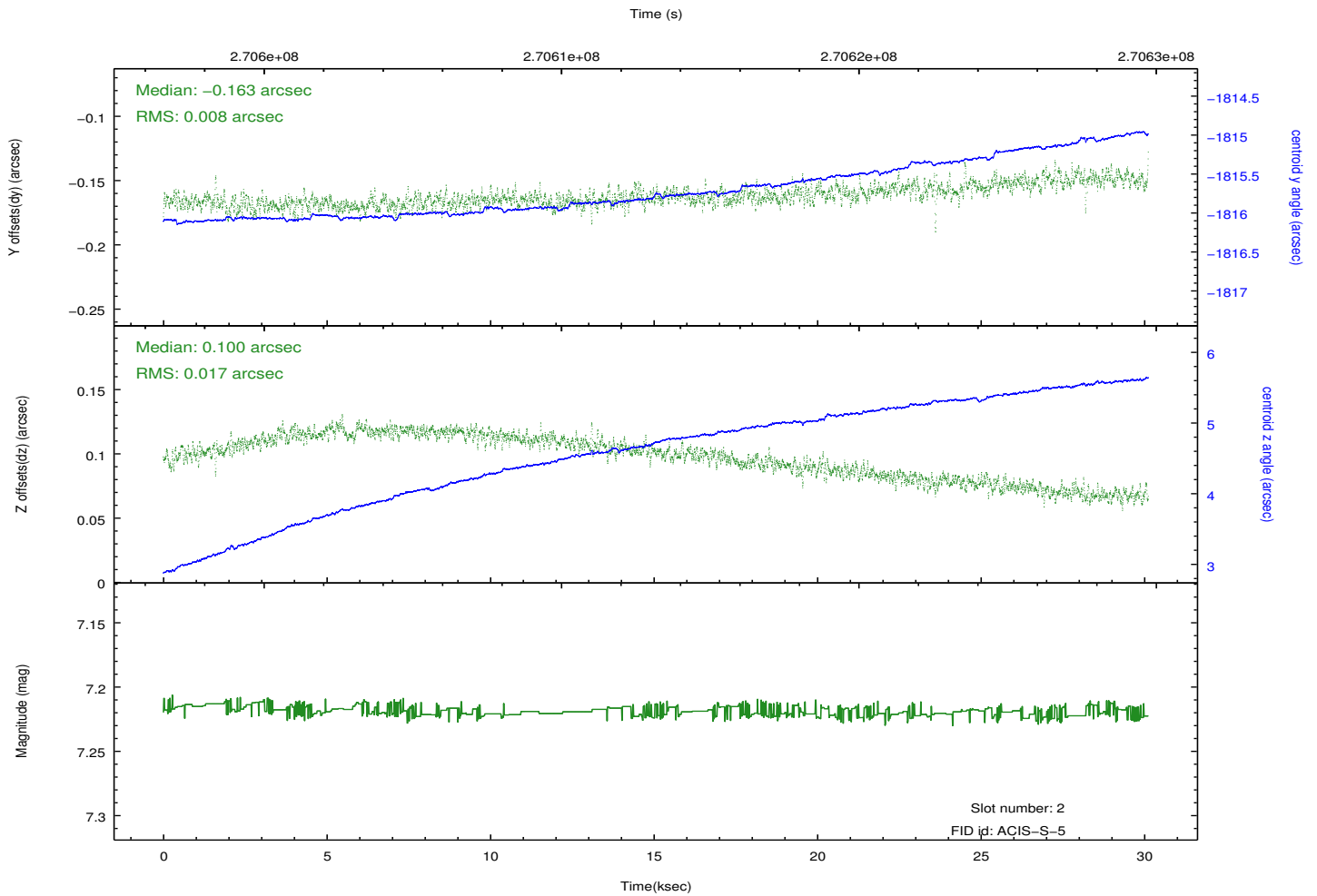
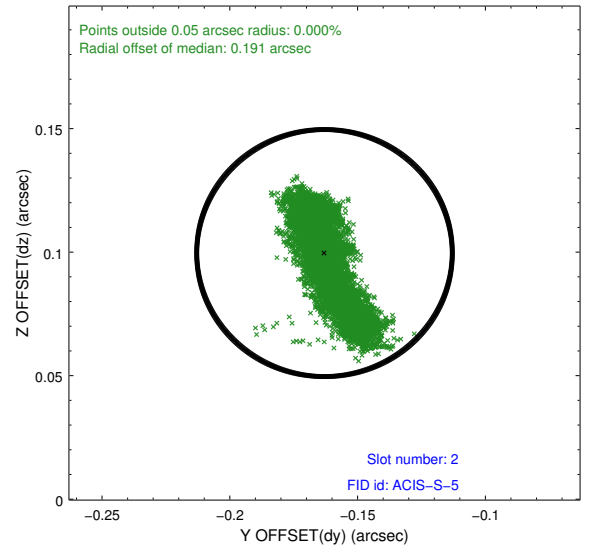
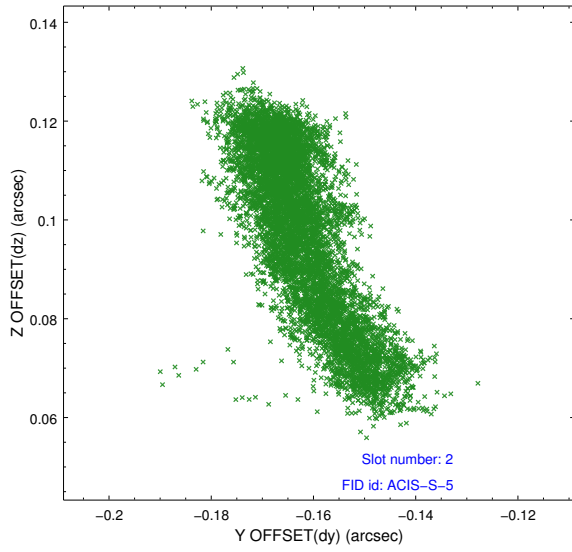
2.5.1 Slot 0



2.5.2 Slot 1

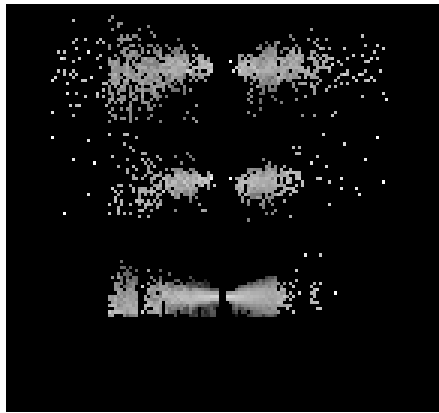


2.5.3 Slot 2

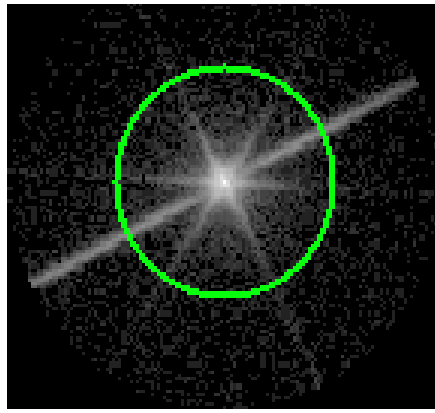


3 Gratings

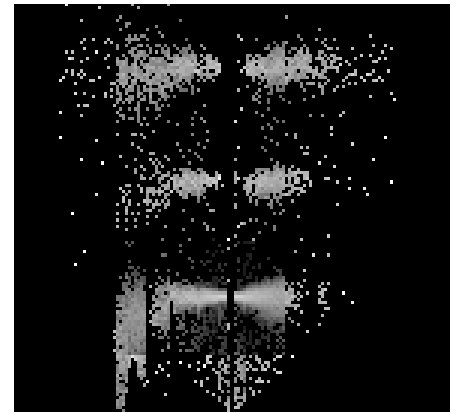
3.1 LETG Arm



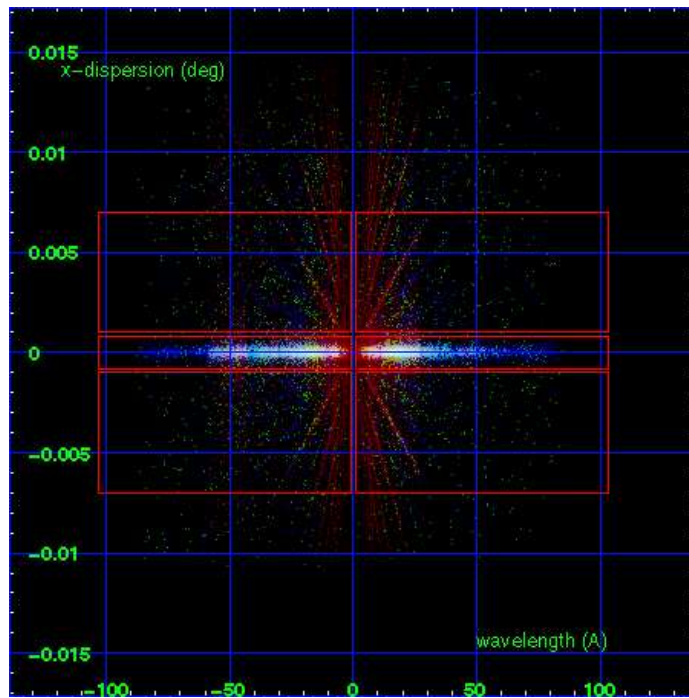
LETG Order Sort 123



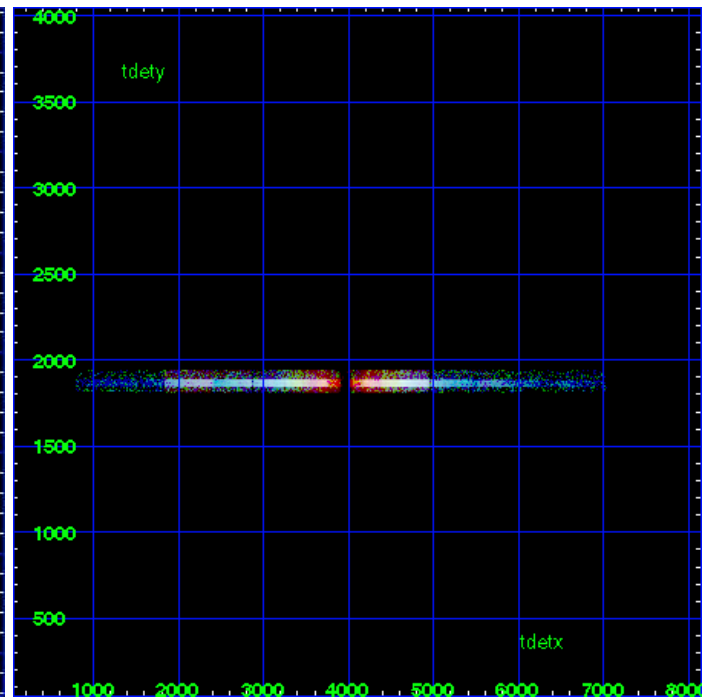
LETG Zero Order



LETG Order Sort ALL

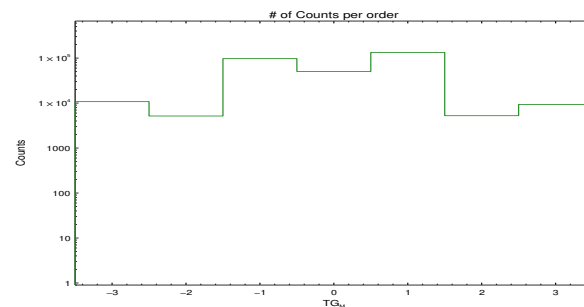


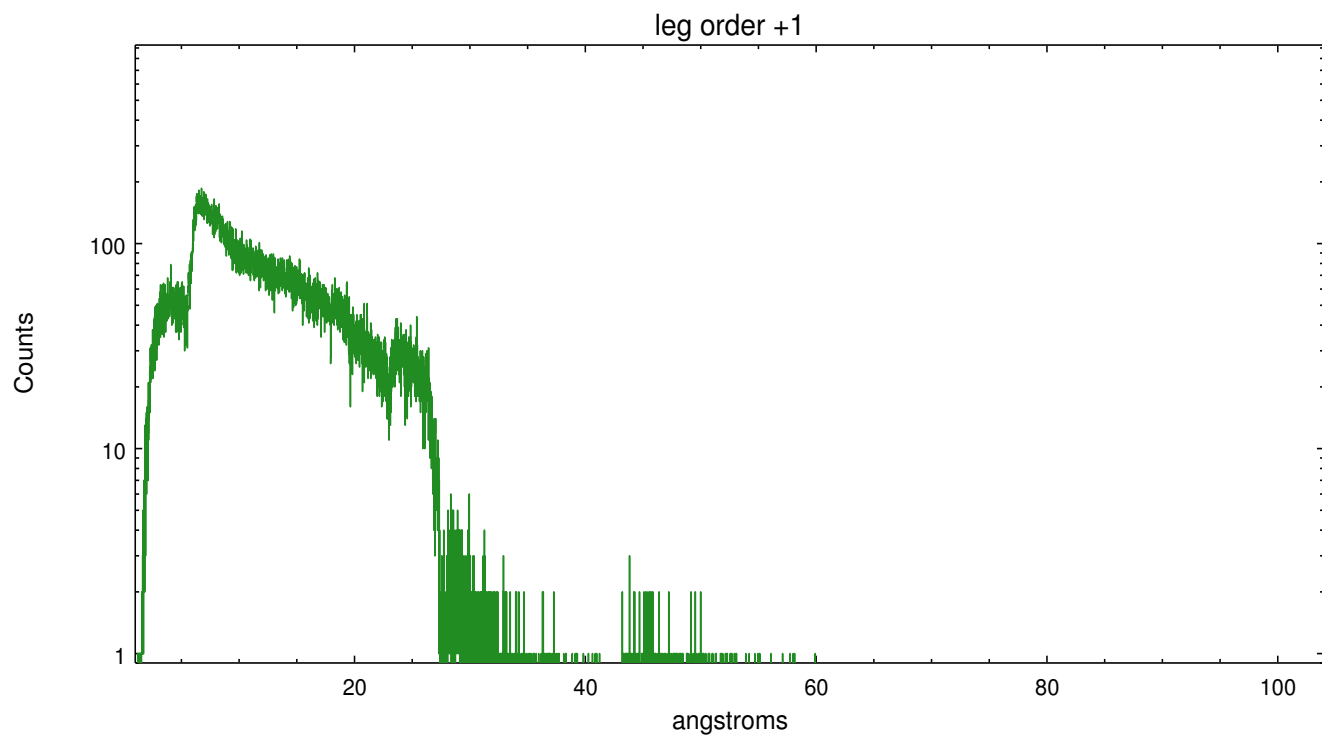
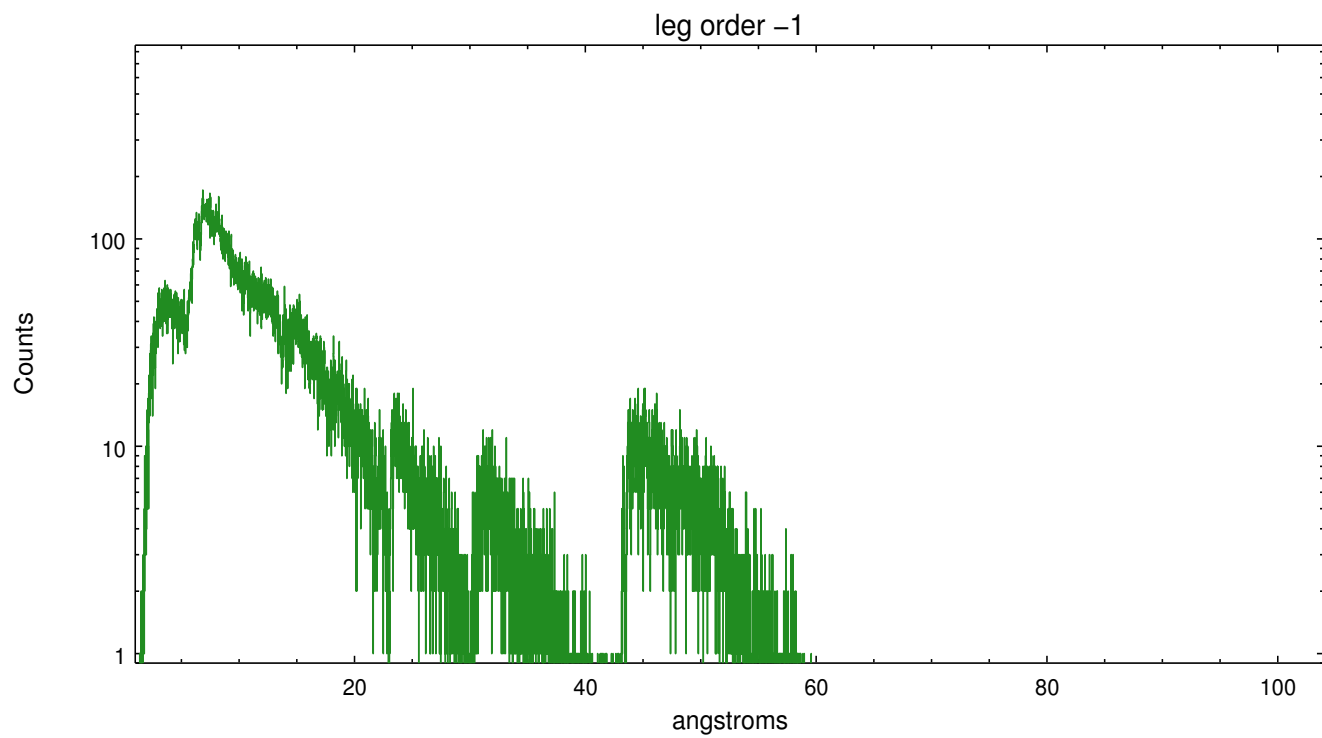
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	10766	5159	97301	50505	133261	5241	9312





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.04.06
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	30.1209994

A.2 Comments

Time window constraint met. 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.