

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 6925 - L2 Version 3
Chandra X-Ray Center

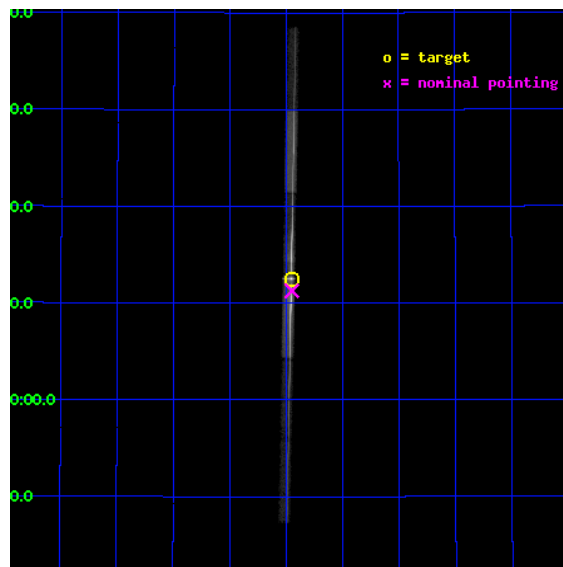
L2 Processing Date : Apr 17 2012

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1 Front

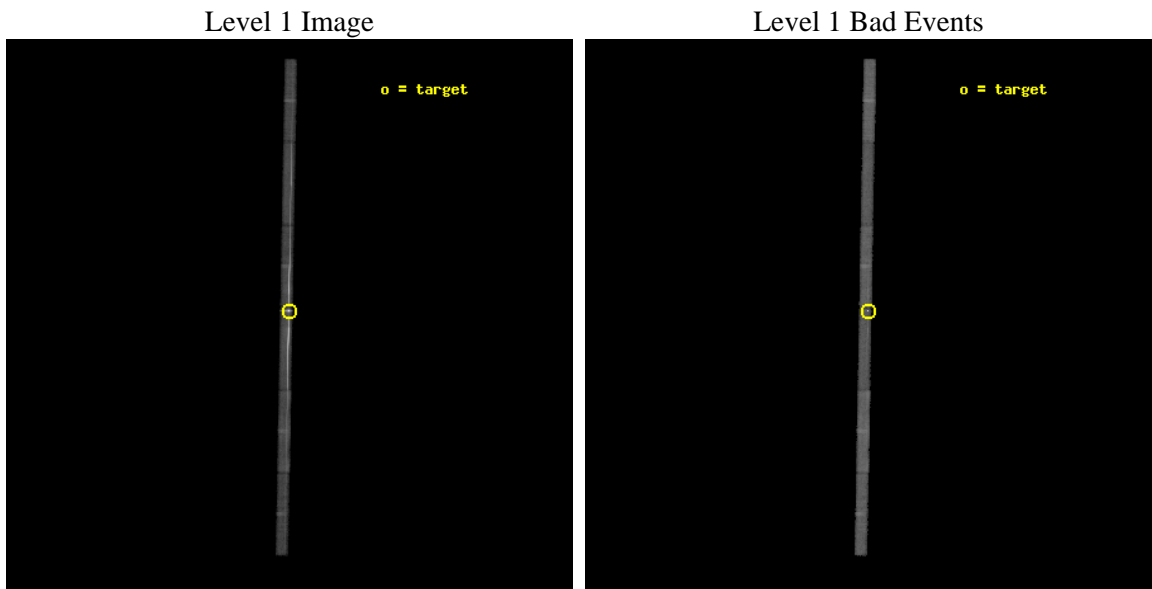
seq_num	790105	Sequence number
obs_id	6925	Observation id
title	AO7 Calibration Observations of PKS2155-304	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	MKN421	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	166.113333	Observer's specified target RA [deg]
dec_targ	38.208806	Observer's specified target Dec [deg]
ra_nom	166.11223890063	Nominal RA [deg]
dec_nom	38.18790058361	Nominal Dec [deg]
roll_nom	91.026438374337	Nominal Roll [deg]
revision	3	Processing version of data
ontime	27687.001100183	Sum of GTIs [s]
livetime	25914.452546034	Livetime [s]
ontime4	27686.360060155	Sum of GTIs [s]
ontime5	27687.001100183	Sum of GTIs [s]
ontime6	27687.001100183	Sum of GTIs [s]
ontime7	27687.001100183	Sum of GTIs [s]
ontime8	27687.001100183	Sum of GTIs [s]
ontime9	27686.967947125	Sum of GTIs [s]
l2events	417879	Number of level 2 events



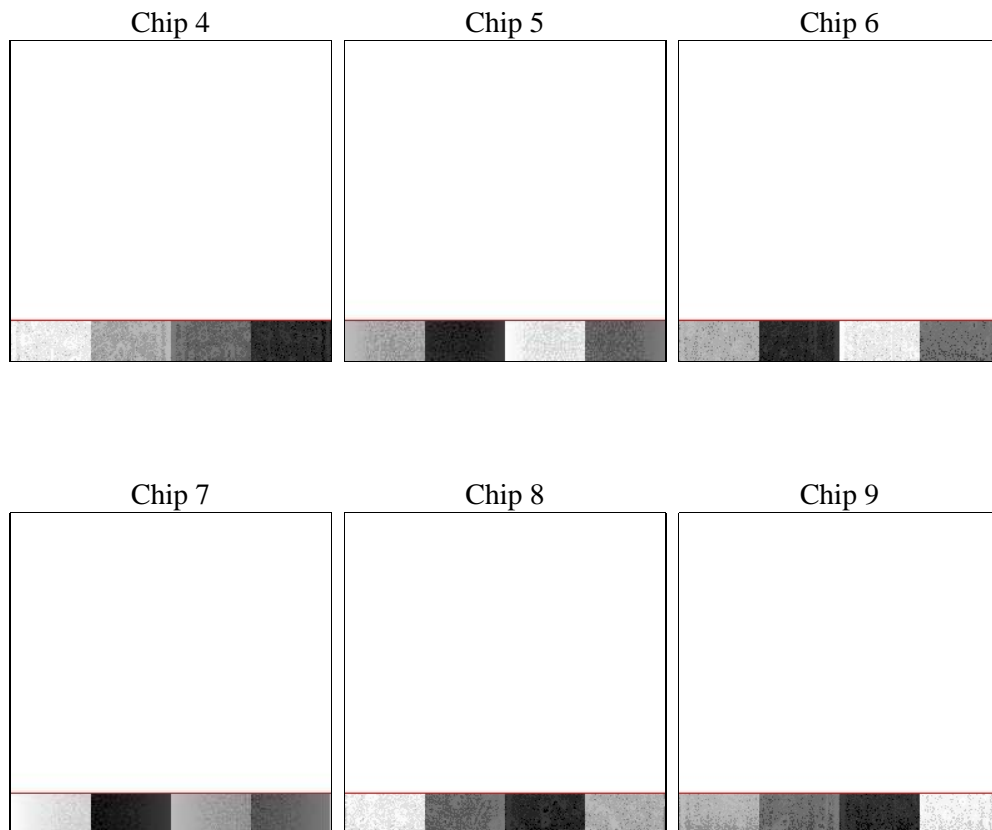
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	27623.059000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	27687.001100183	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	27686.360060155	Sum of GTIs [s]
date	2012-04-17T23:03:20	Date and time of file creation	ontime5	27687.001100183	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	27687.001100183	Sum of GTIs [s]
			ontime7	27687.001100183	Sum of GTIs [s]
			ontime8	27687.001100183	Sum of GTIs [s]
			ontime9	27686.967947125	Sum of GTIs [s]
			l1events	699985	Number of level 1 events

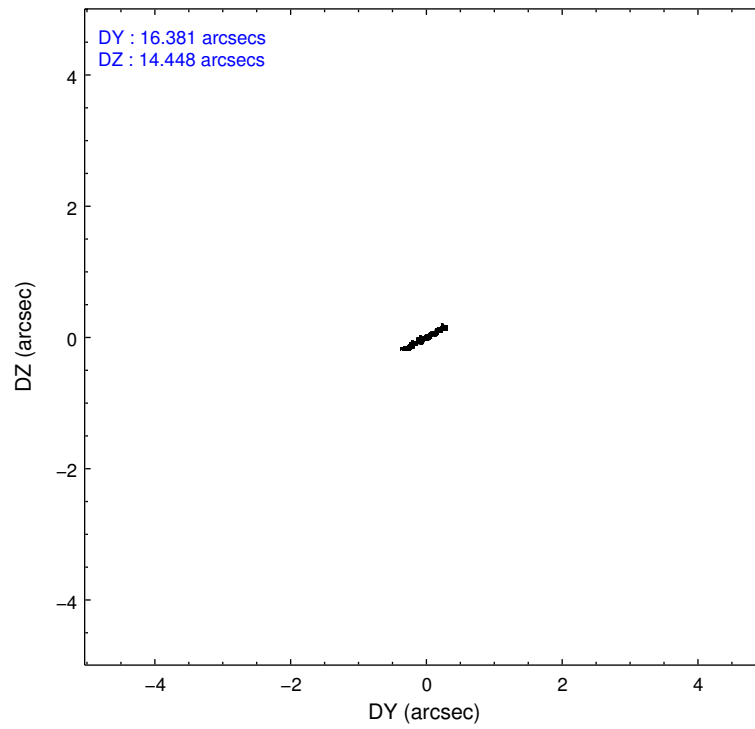
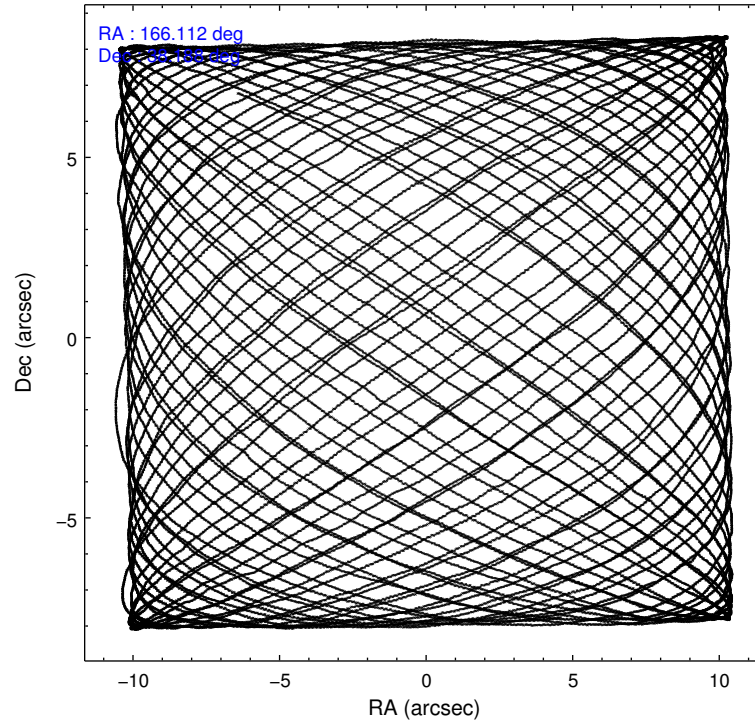
2.1.4 Events

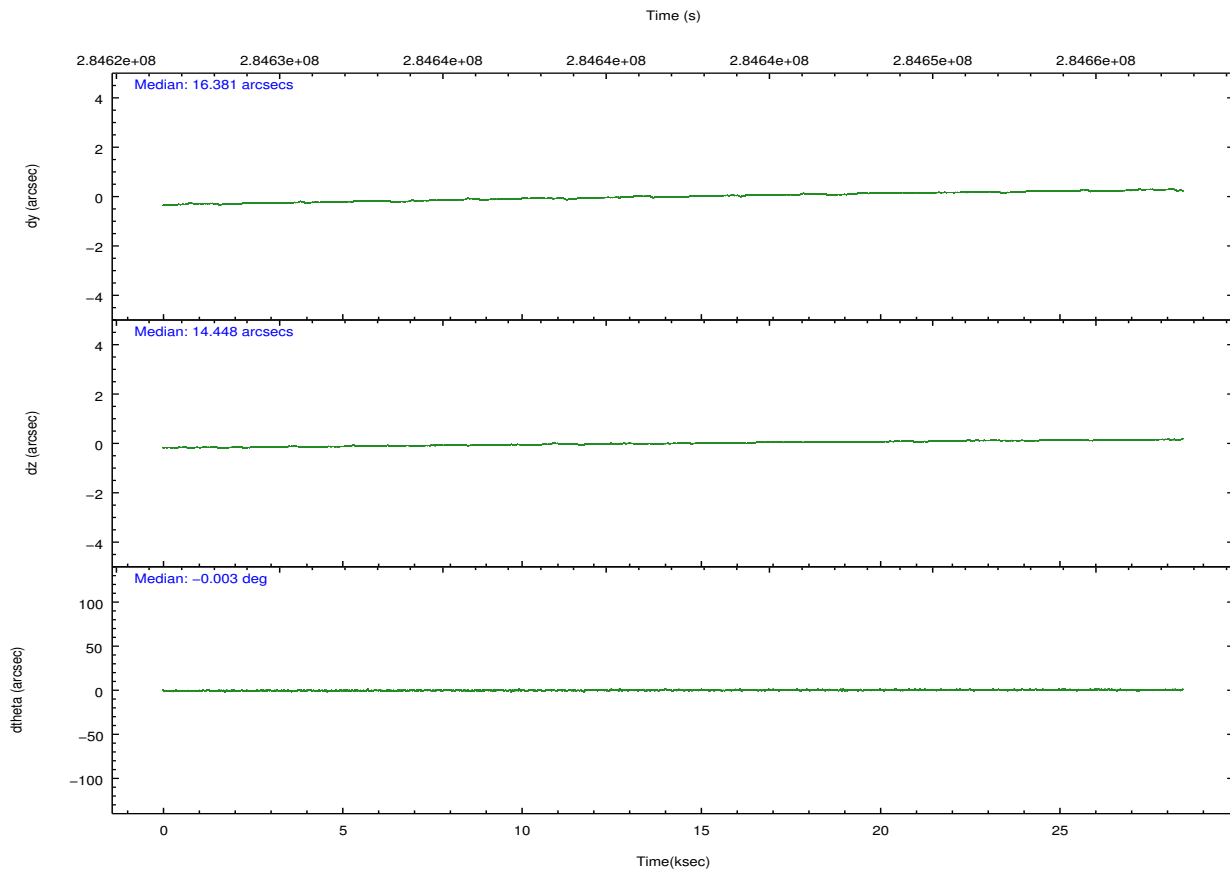
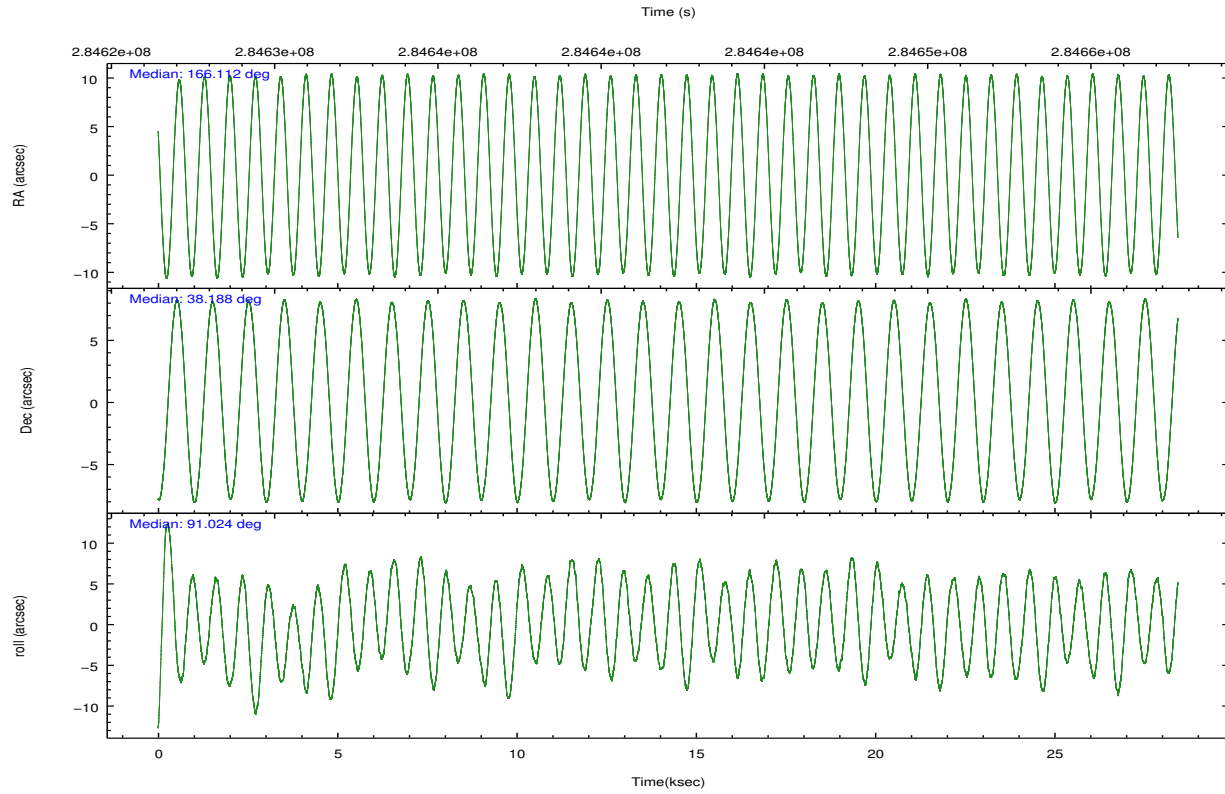
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	52978	75879	159108	297896	70659	43465	grade 0 events	4777	18060	94900	55404	11542	4679
rejected events	44027	26591	39603	67932	48607	35054		9%	23%	59%	18%	16%	10%
rejected %	83%	35%	24%	22%	68%	80%	grade 1 events	20	70	298	1598	27	22
								0%	0%	0%	0%	0%	0%
							grade 2 events	1421	10678	12185	56117	3124	1086
								2%	14%	7%	18%	4%	2%
							grade 3 events	926	3687	4538	25969	1803	915
								1%	4%	2%	8%	2%	2%
							grade 4 events	891	3502	4389	26065	1796	828
								1%	4%	2%	8%	2%	1%
							grade 5 events	1342	4243	1570	11986	1876	1387
								2%	5%	0%	4%	2%	3%
							grade 6 events	936	13364	3500	66421	3788	904
								1%	17%	2%	22%	5%	2%
							grade 7 events	42665	22275	37728	54336	46703	33644
								80%	29%	23%	18%	66%	77%

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	166.130575	166.1122389006264	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	38.164677	38.18790058361013	Subarray start row	1	1
[deg] Pointing Roll	90.858479	91.02643837433746	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.6
[mm] SIM translation stage pos	-178.632523	-178.6395878605364			
[mm] SIM translation stage offset	-11.5	-11.49293472247138			
[s] Observation start time (MET)	284628647.184000	284627633.62248			
Observation start date	2007-01-08T07:29:42	2007-01-08T07:13:53			
[s] Observation end time (MET)	284656270.184000	284656481.73634			
Observation end date	2007-01-08T15:10:05	2007-01-08T15:14:41			
Read mode	TIMED	TIMED			

2.3 Aspect



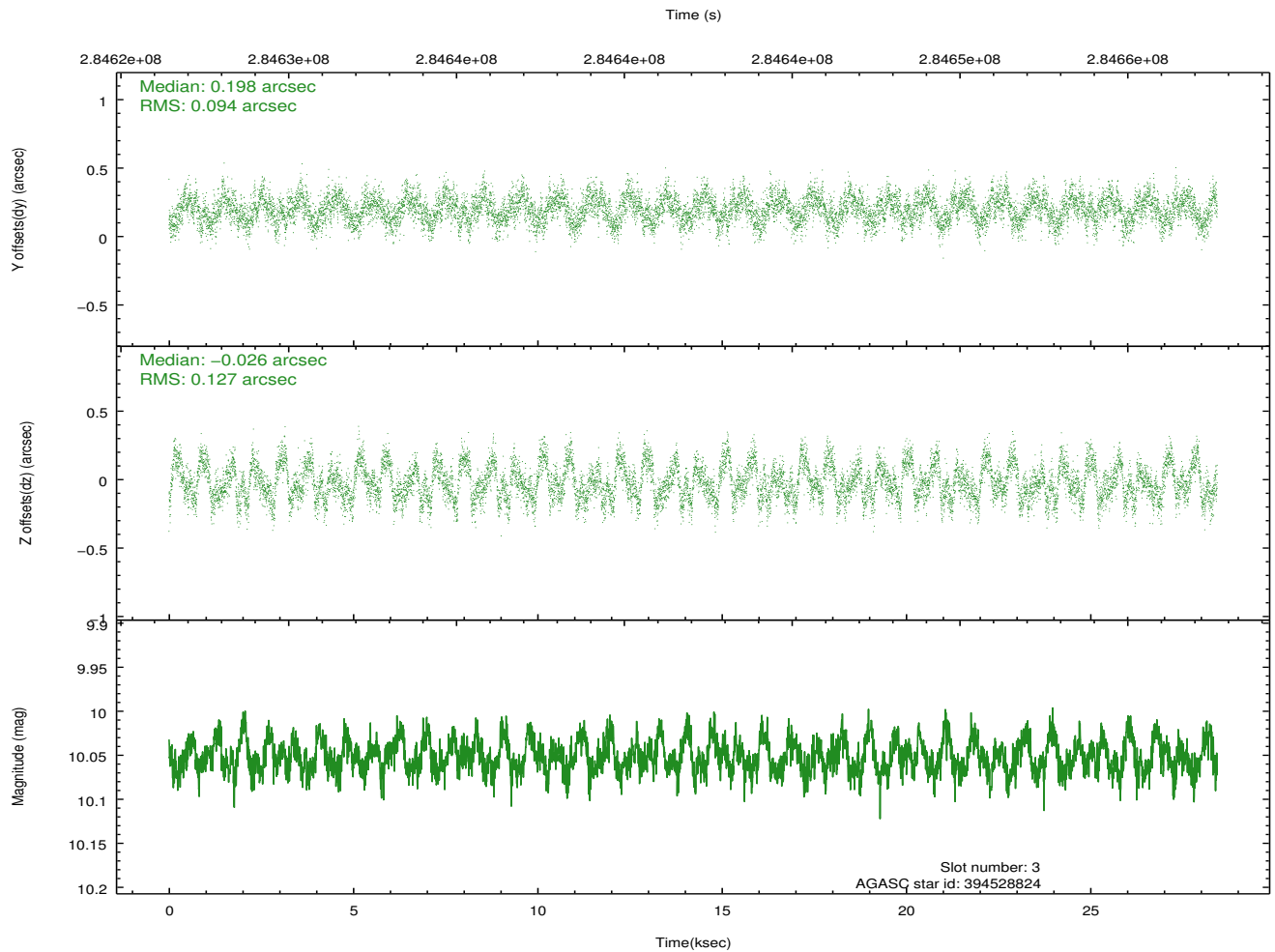
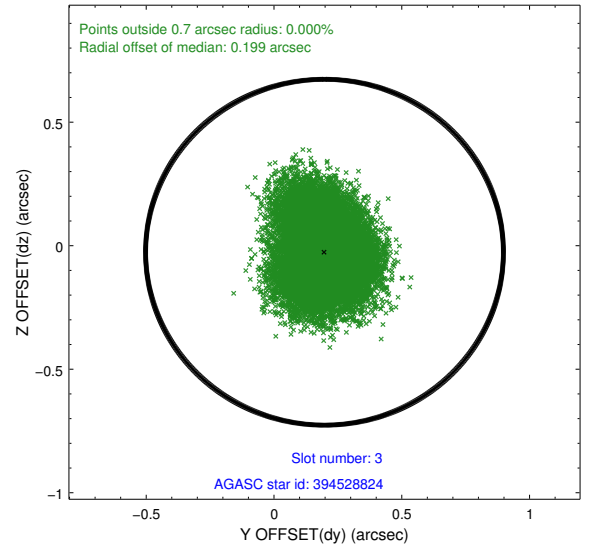
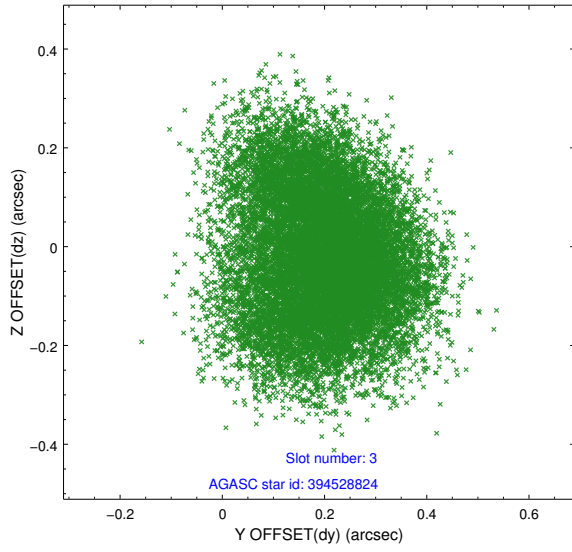


Slot Statistics

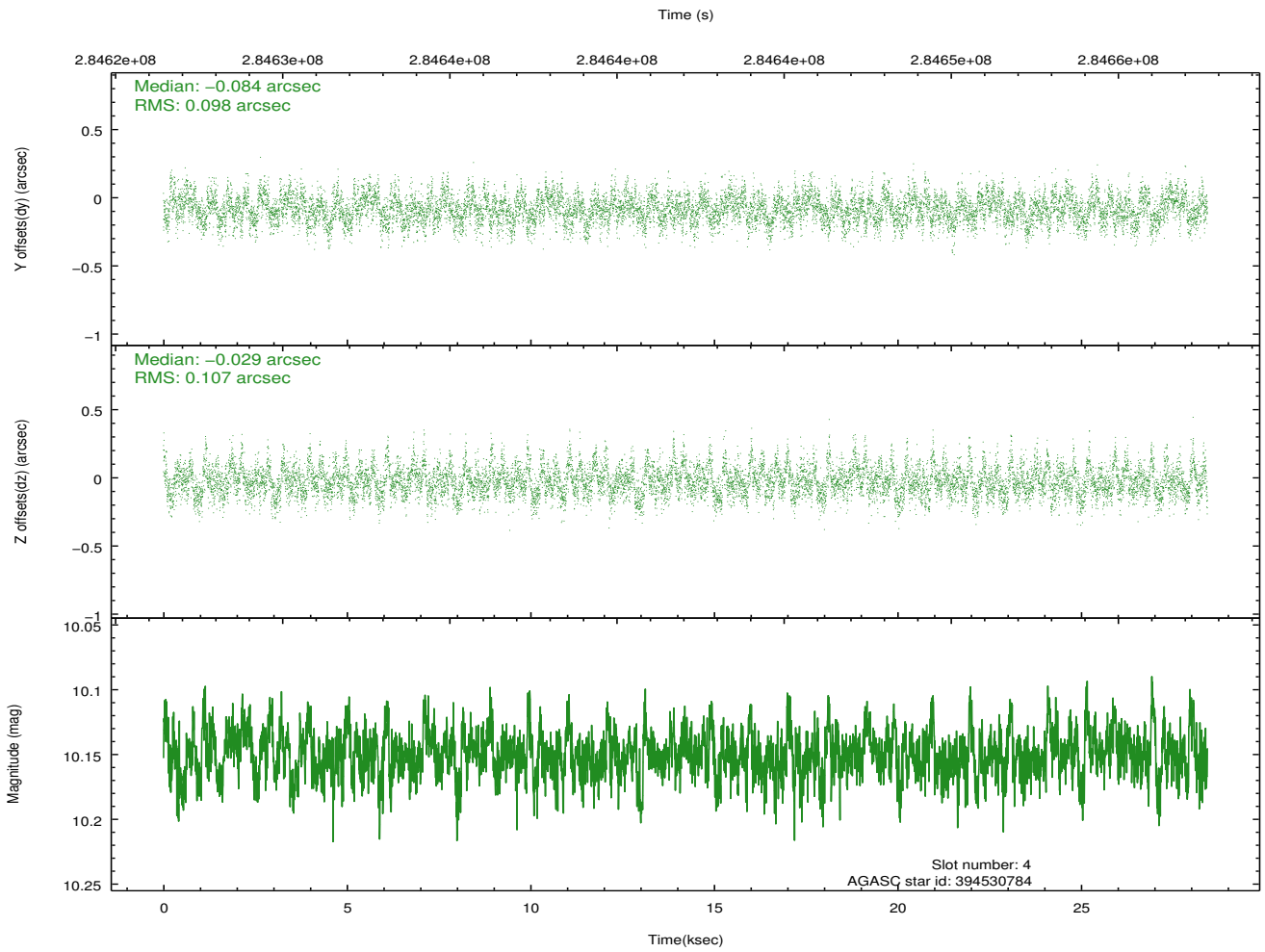
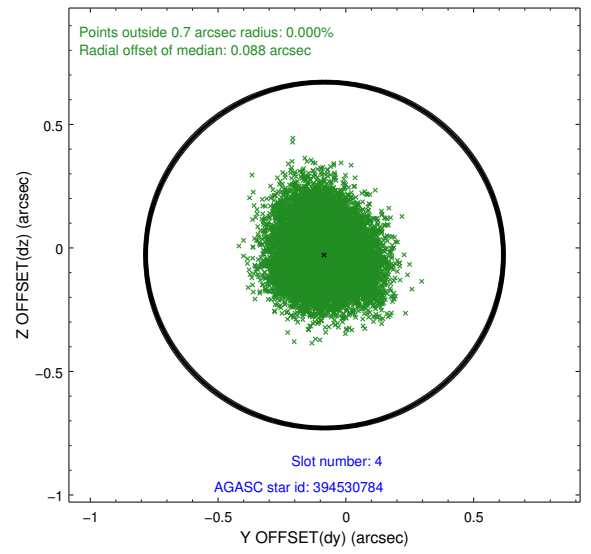
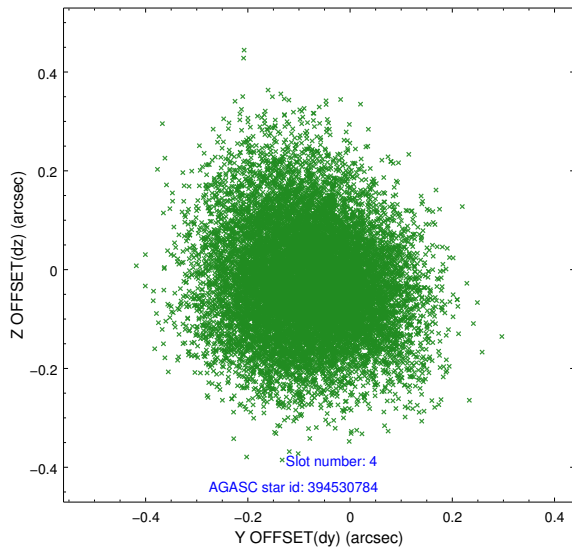
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.20	6937	0.173	0.045	0.011	0.020	0.000000	0.000000	927.58	-1968.02
1	FID	ACIS-S-5	7.23	6937	-0.218	0.158	0.011	0.024	0.000000	0.000000	-1821.65	-70.36
2	FID	ACIS-S-6	7.42	6936	0.022	-0.193	0.009	0.014	0.000000	0.000000	393.03	573.23
3	GUIDE	394528824	10.05	13845	0.198	-0.026	0.172	0.266	165.824970	38.140431	-72.38	866.50
4	GUIDE	394530784	10.15	13842	-0.084	-0.029	0.155	0.251	165.569172	38.418674	943.03	1569.66
5	GUIDE	394533848	8.72	13867	-0.022	0.040	0.099	0.150	166.382906	38.276007	391.91	-716.49
6	GUIDE	394543960	9.80	13858	0.005	-0.068	0.112	0.177	165.802757	37.787371	-1342.20	952.78
7	GUIDE	394546712	6.61	13873	-0.093	0.069	0.083	0.122	166.451462	38.394357	814.83	-916.94

2.4 Star Slots

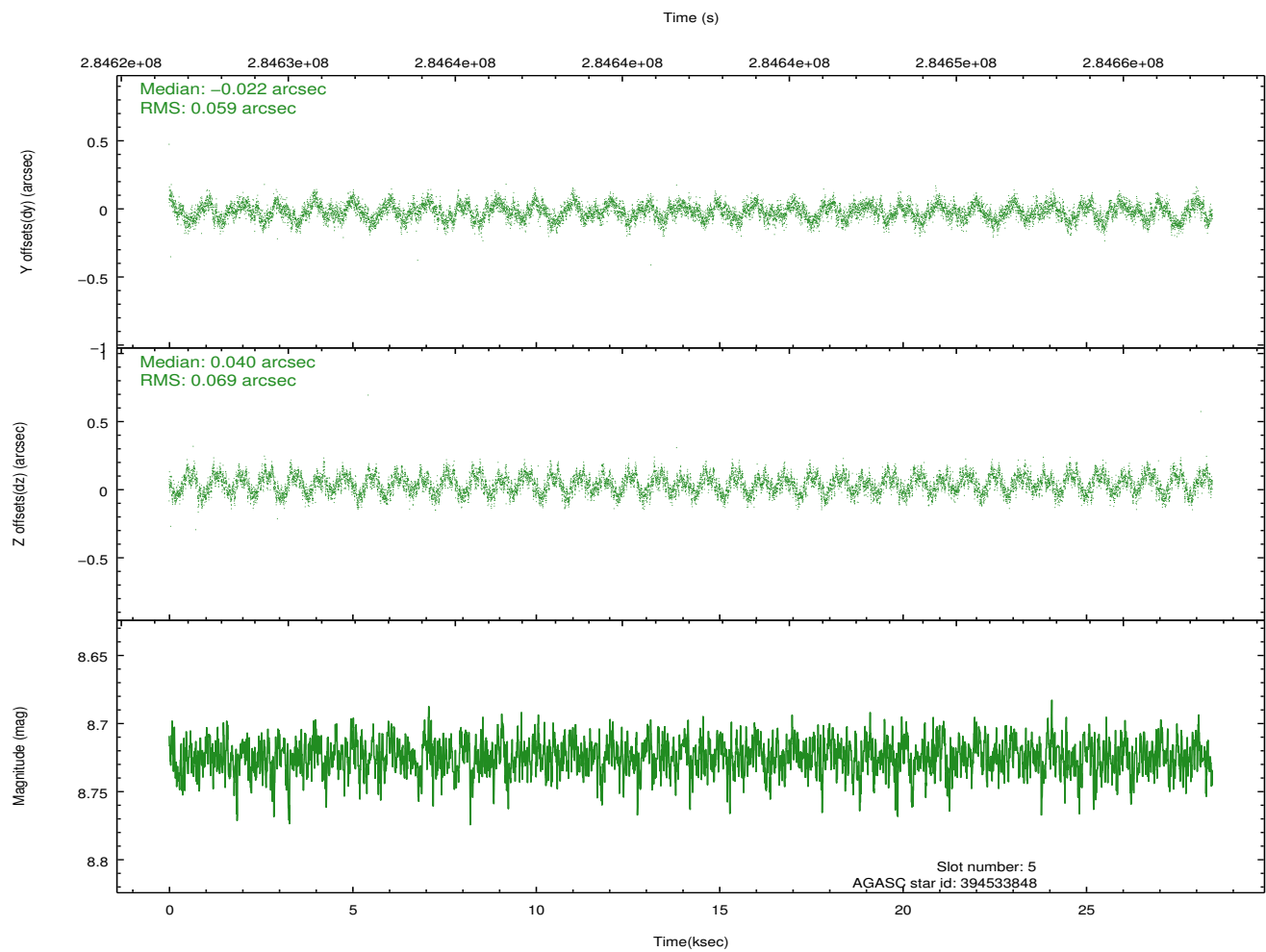
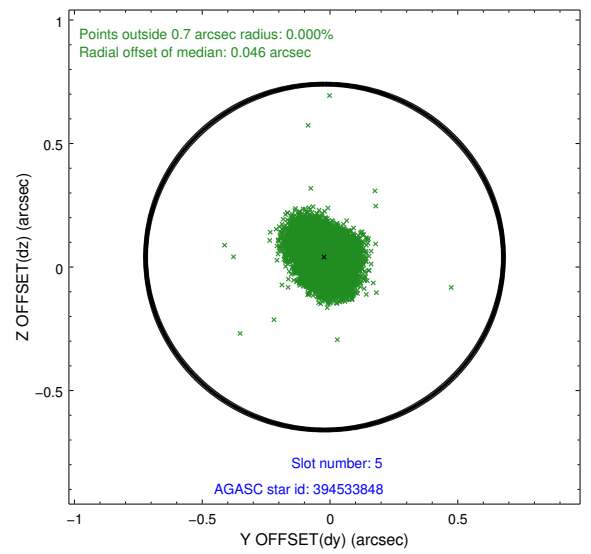
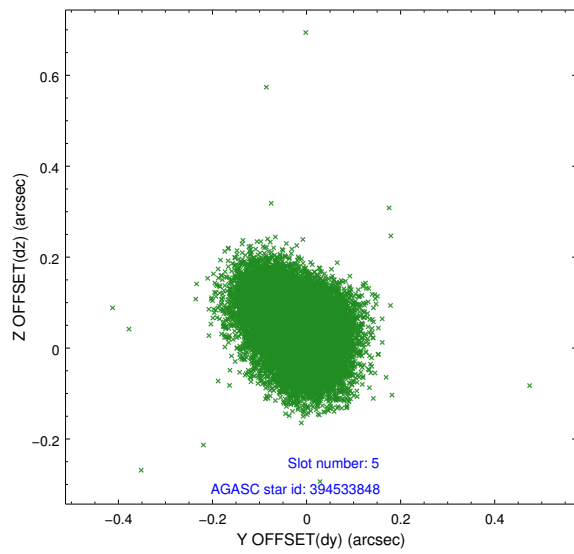
2.4.1 Slot 3



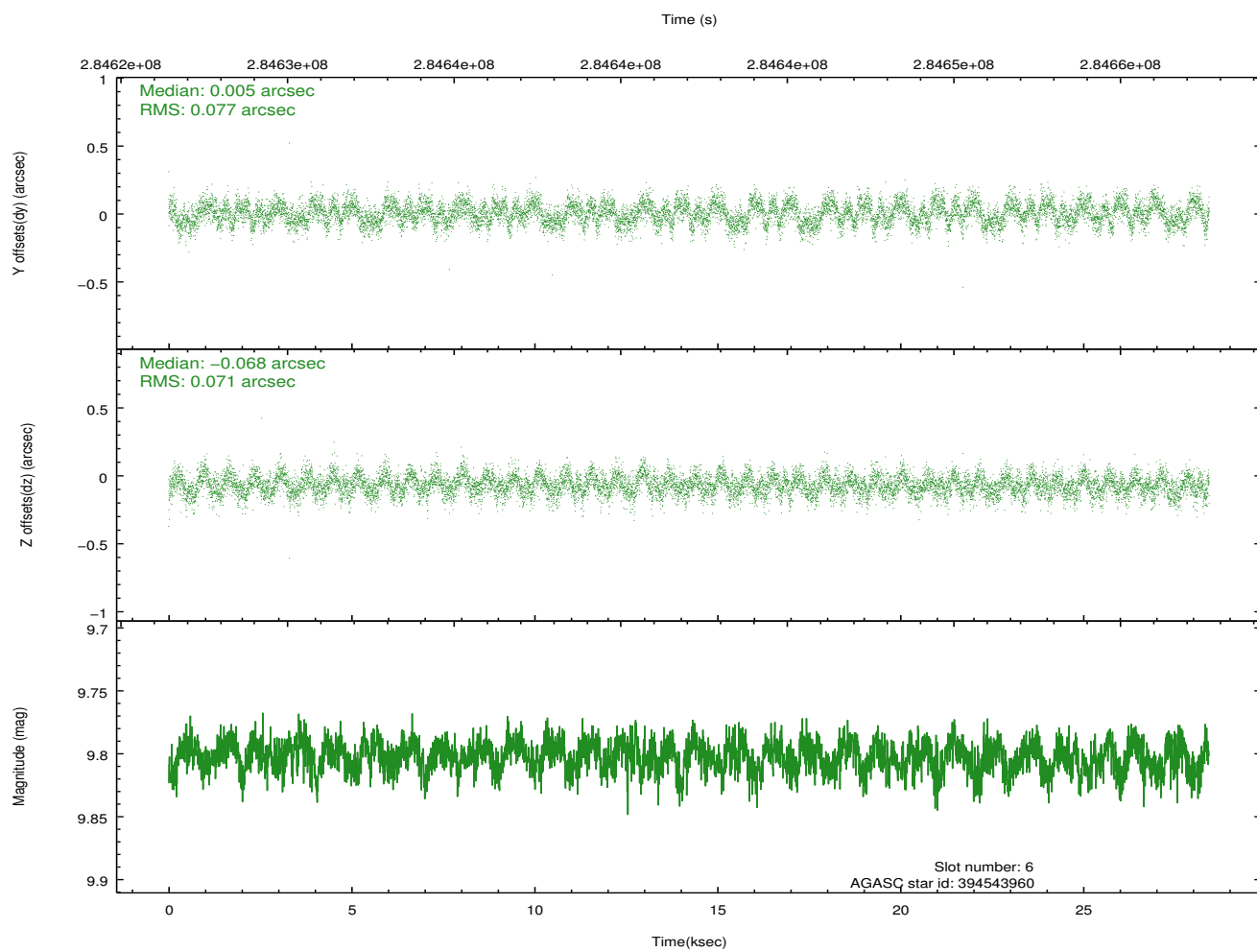
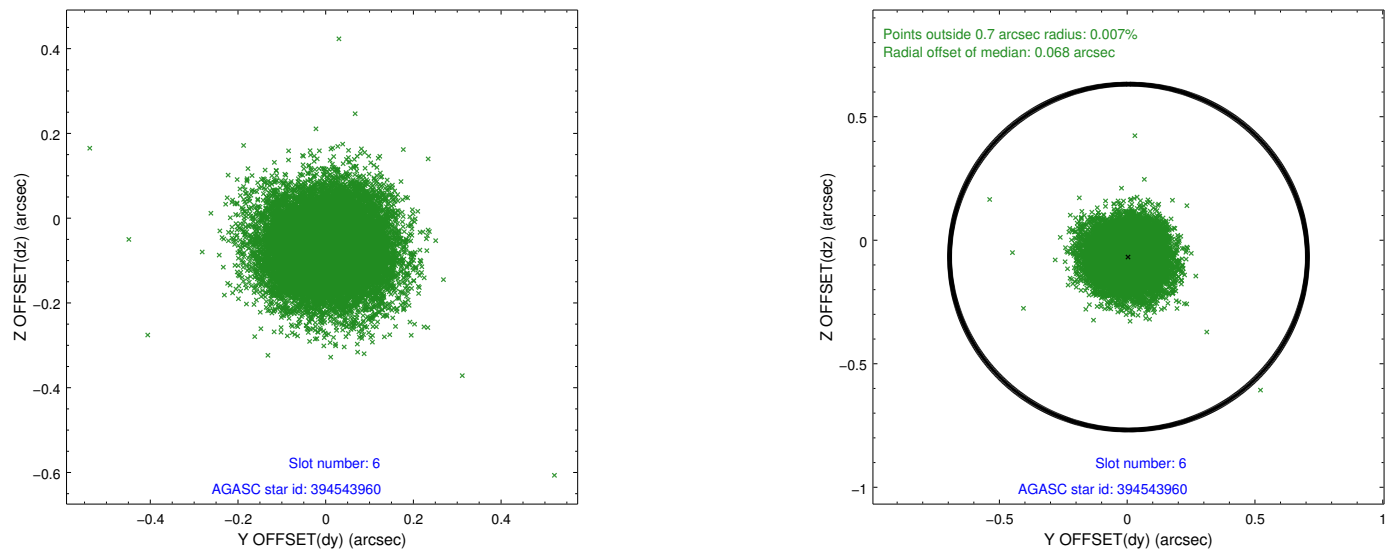
2.4.2 Slot 4



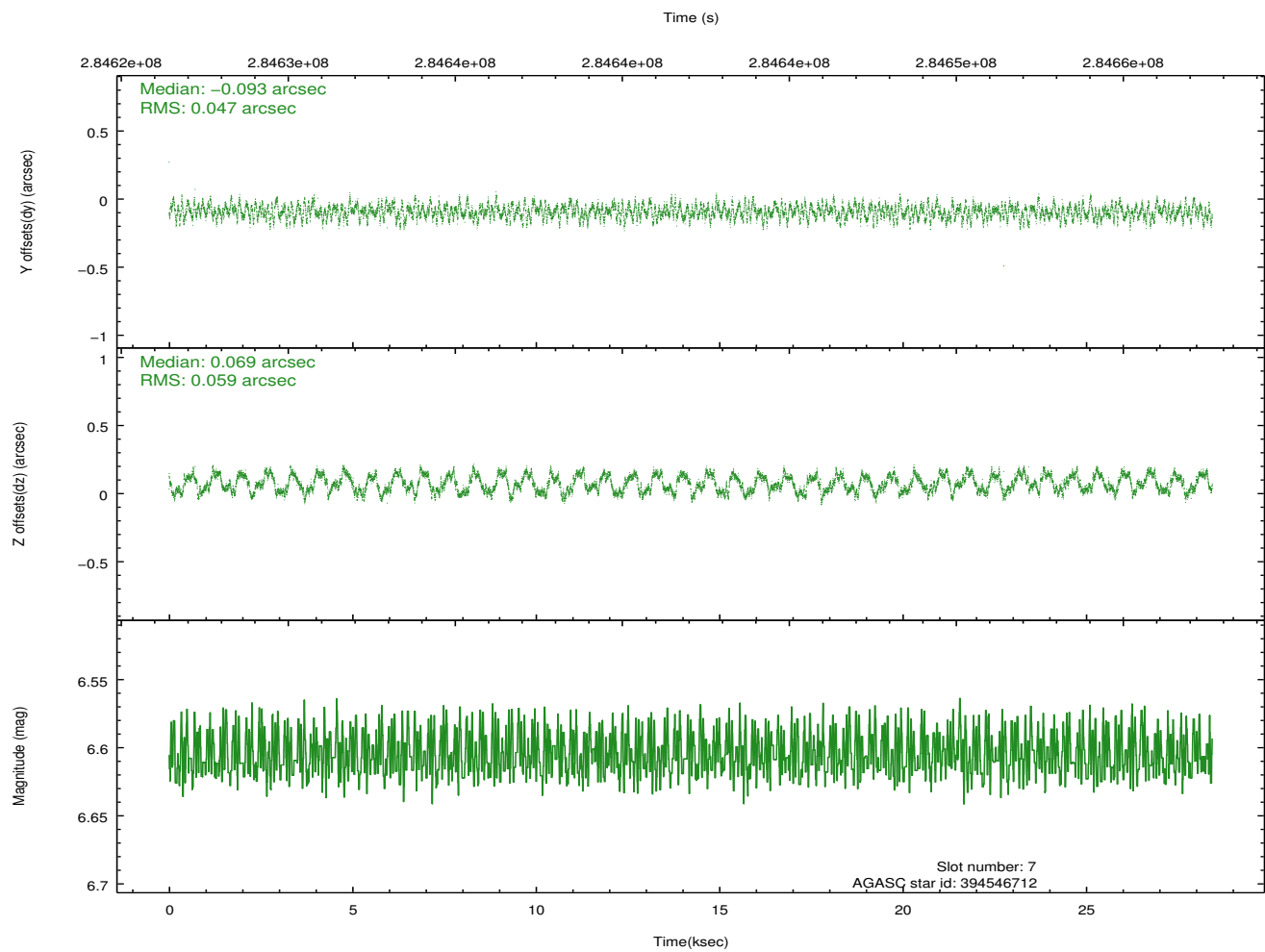
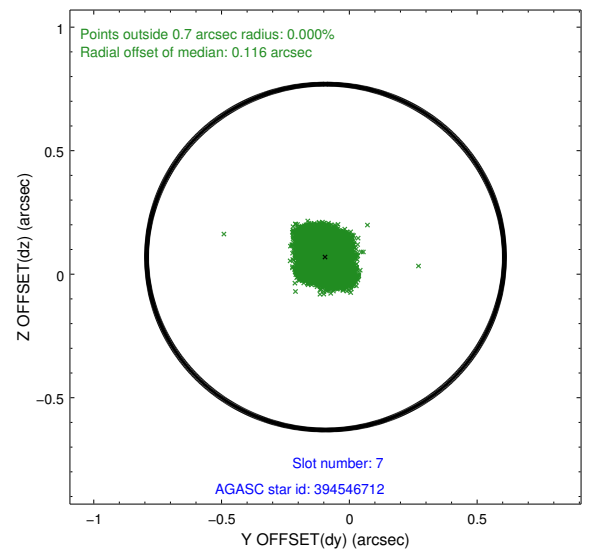
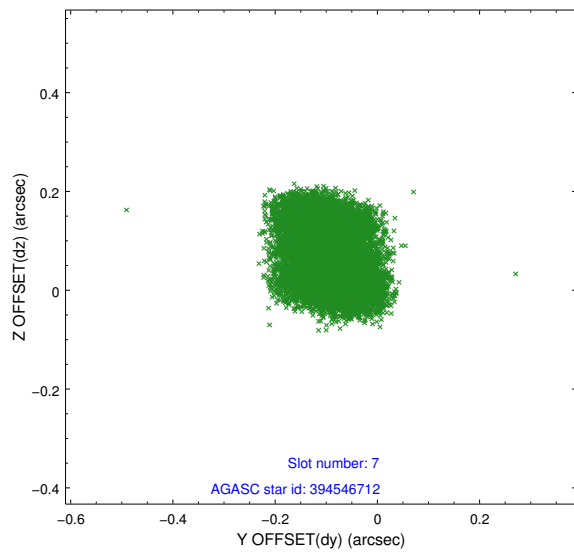
2.4.3 Slot 5



2.4.4 Slot 6

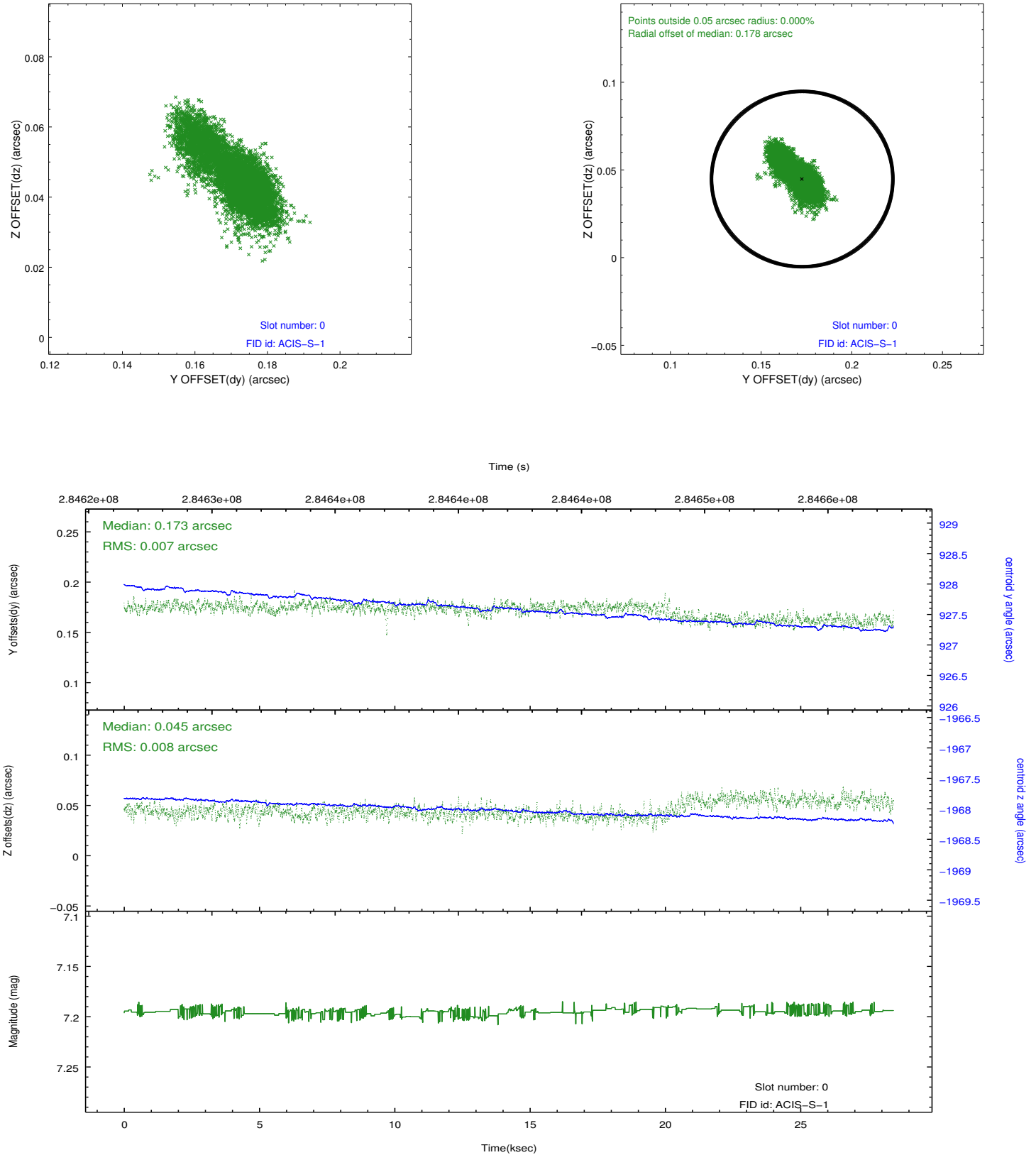


2.4.5 Slot 7

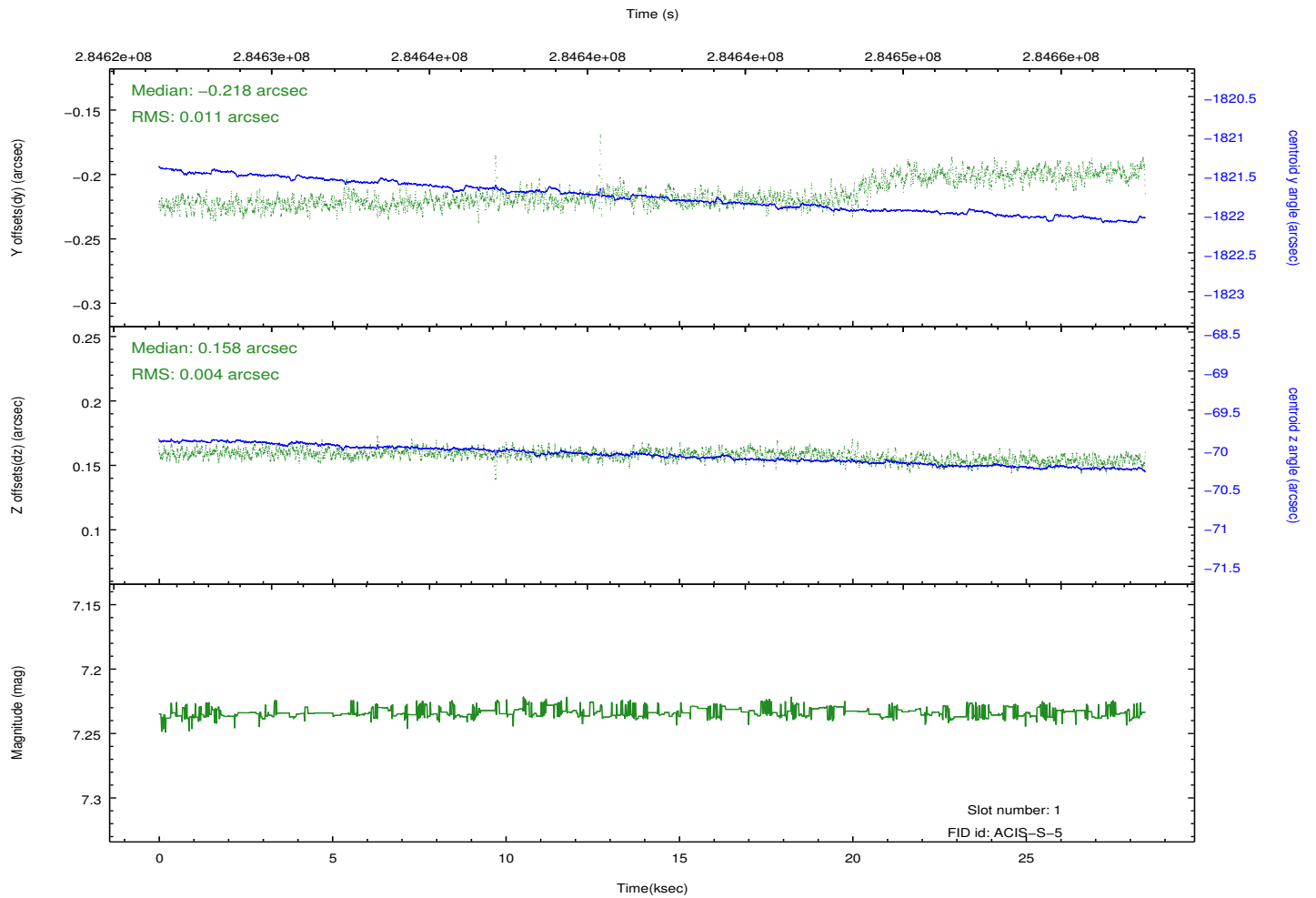
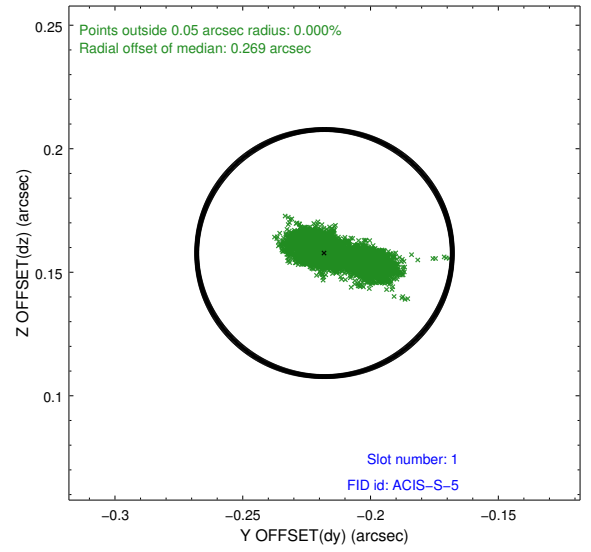
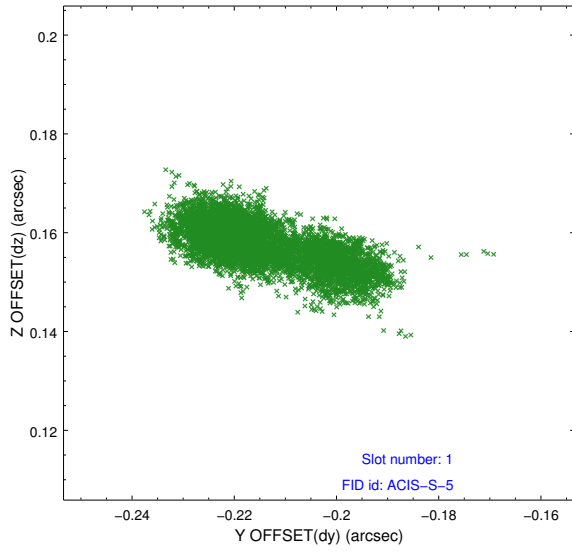


2.5 FID Slots

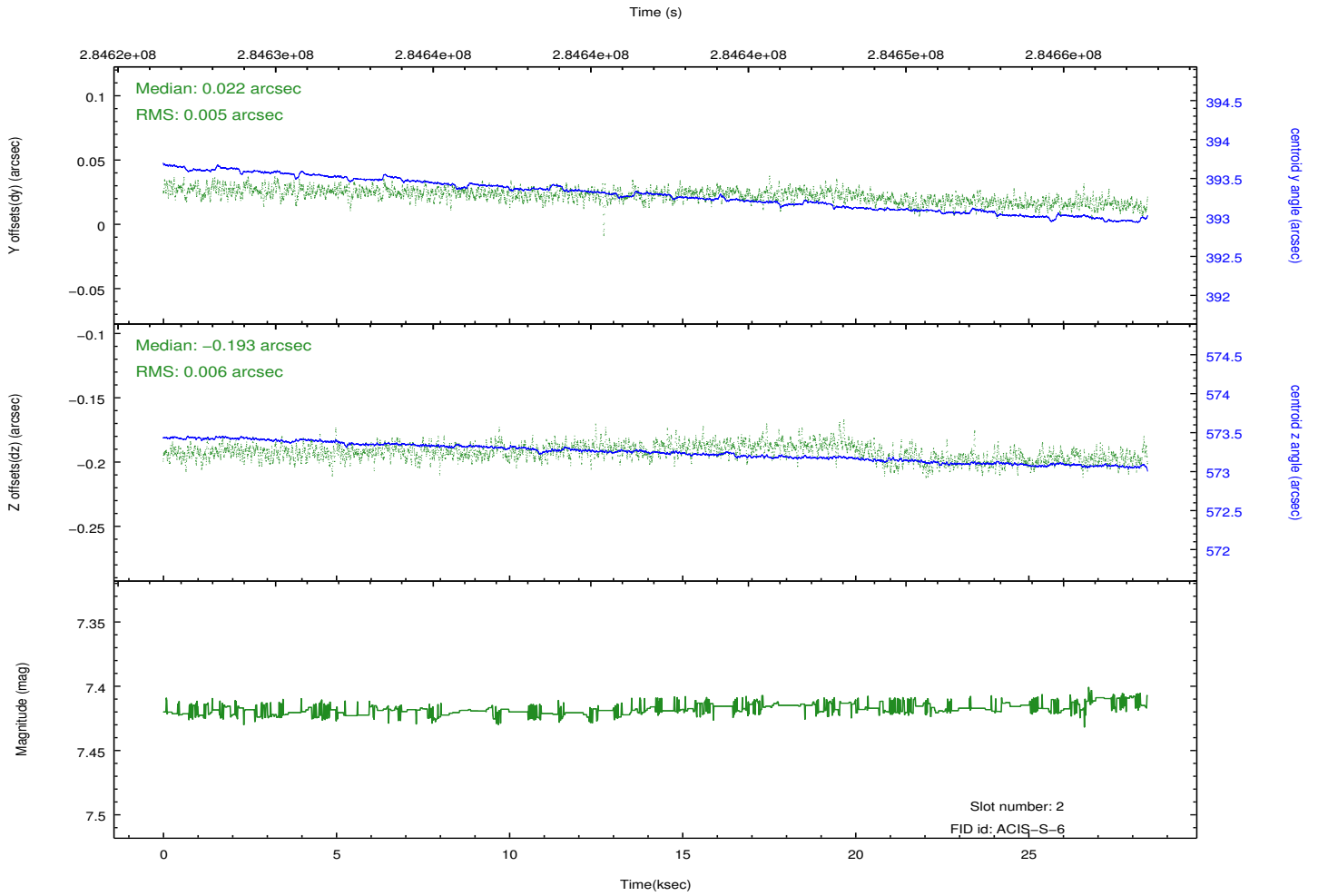
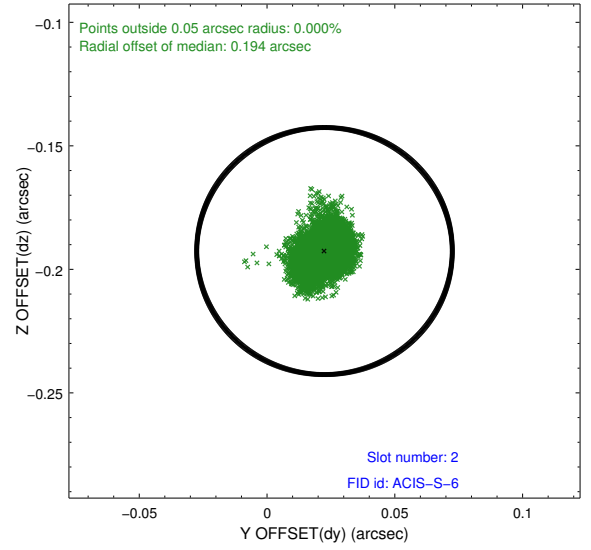
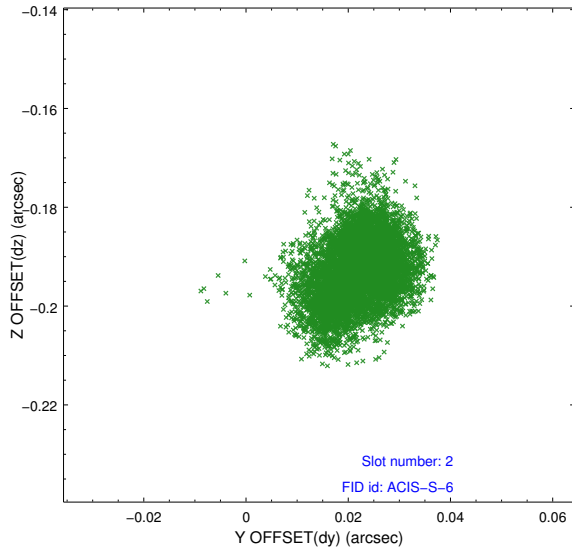
2.5.1 Slot 0



2.5.2 Slot 1

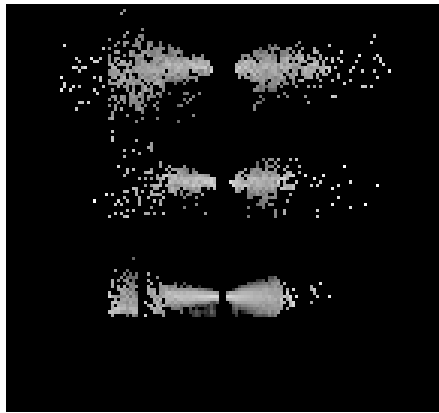


2.5.3 Slot 2

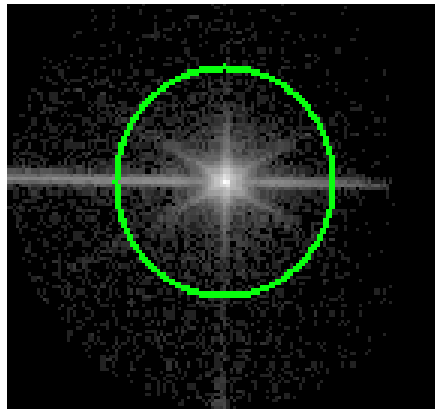


3 Gratings

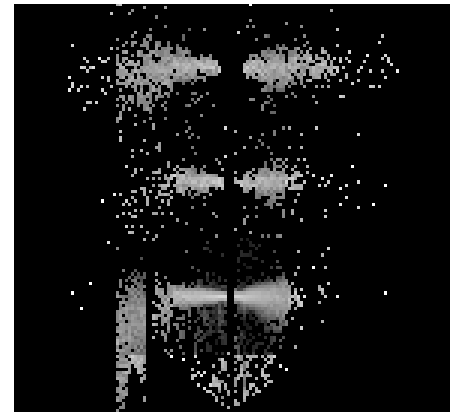
3.1 LETG Arm



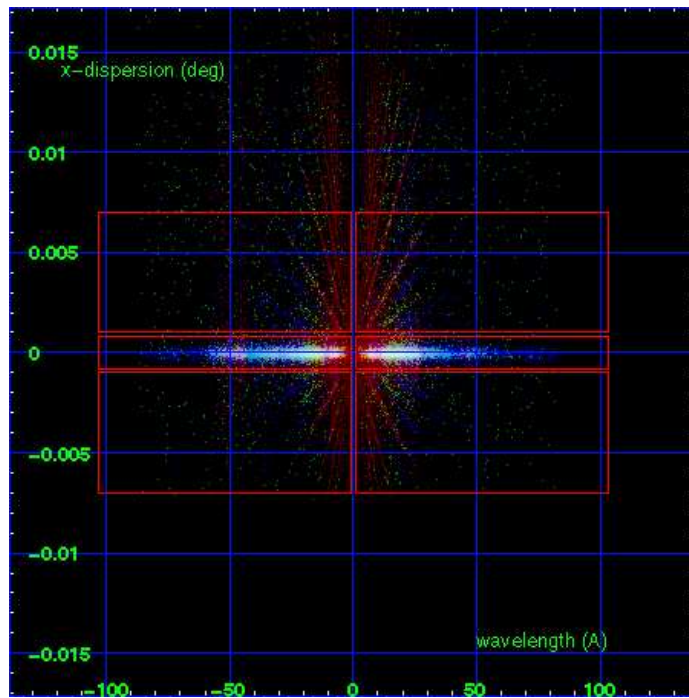
LETG Order Sort 123



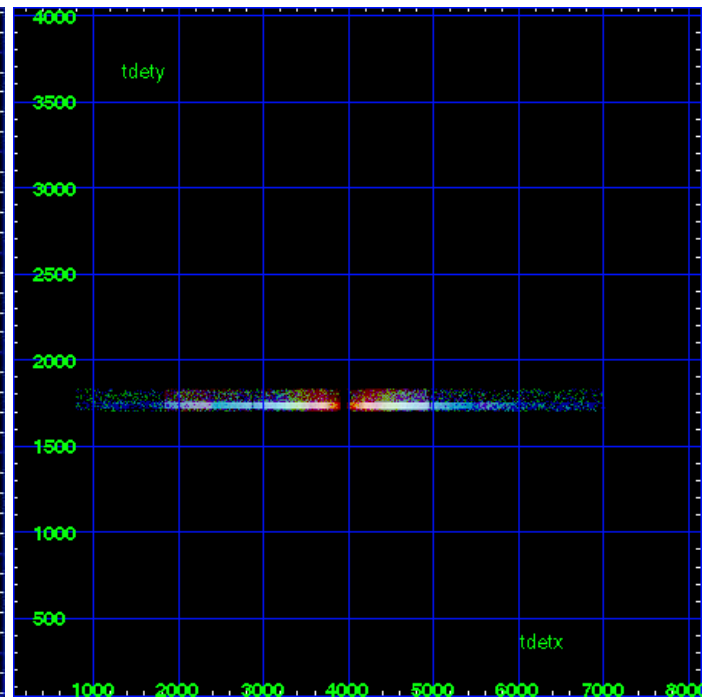
LETG Zero Order



LETG Order Sort ALL

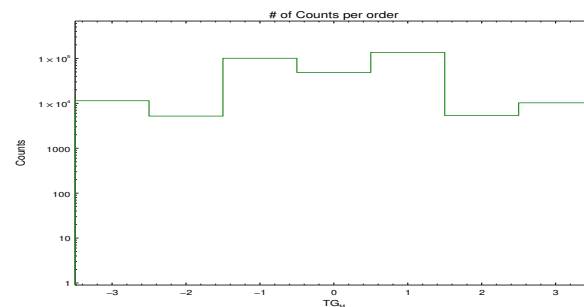


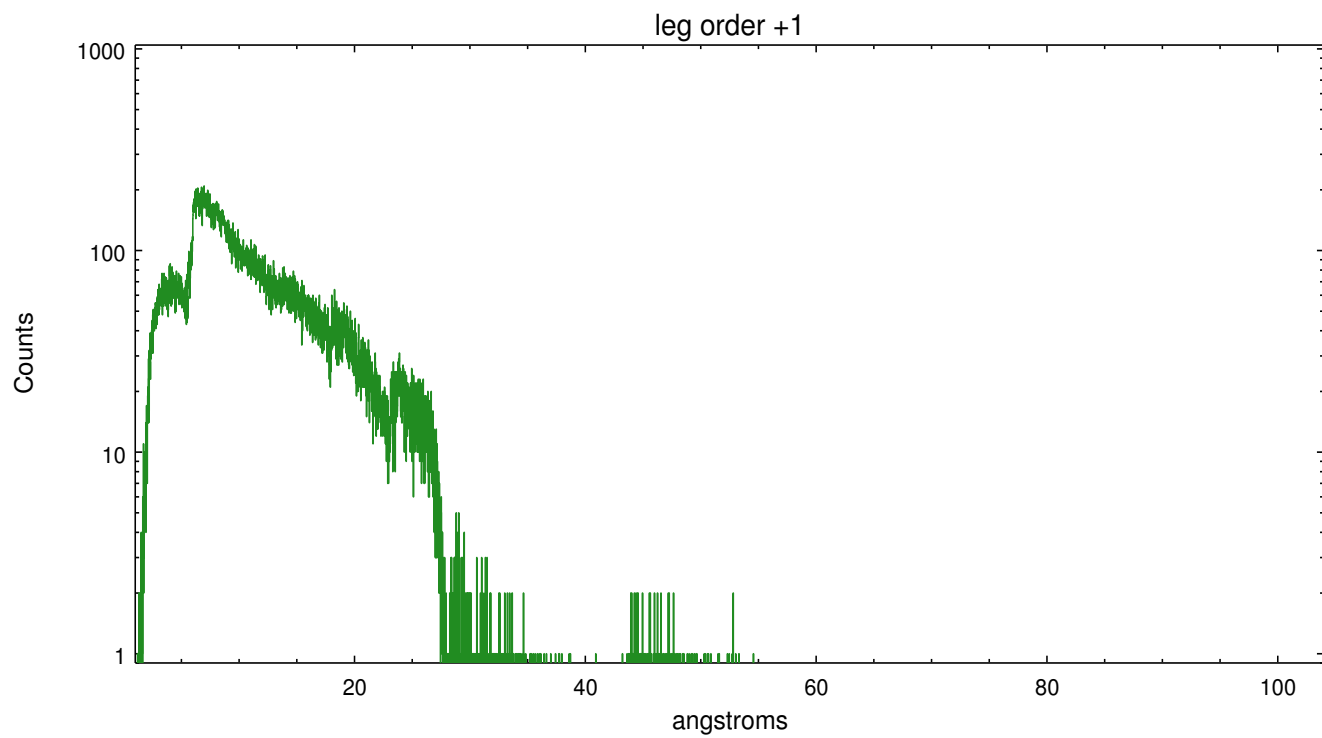
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	11427	5195	100678	48640	135725	5372	10262





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.04.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	27.6870011

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.