

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9710 - L2 Version 2
Chandra X-Ray Center

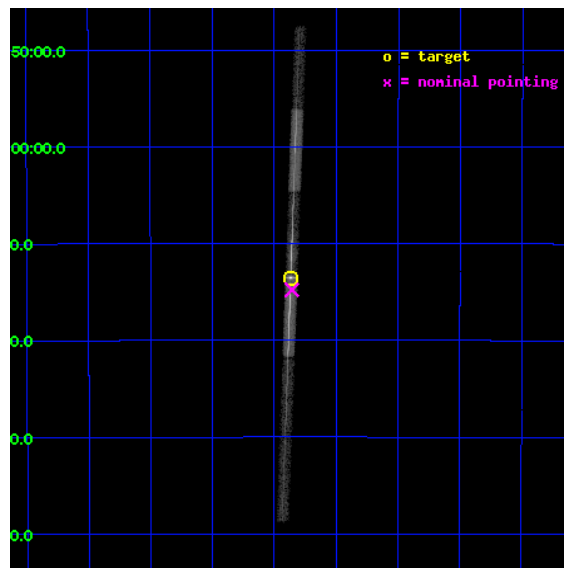
L2 Processing Date : May 17 2012

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1 Front

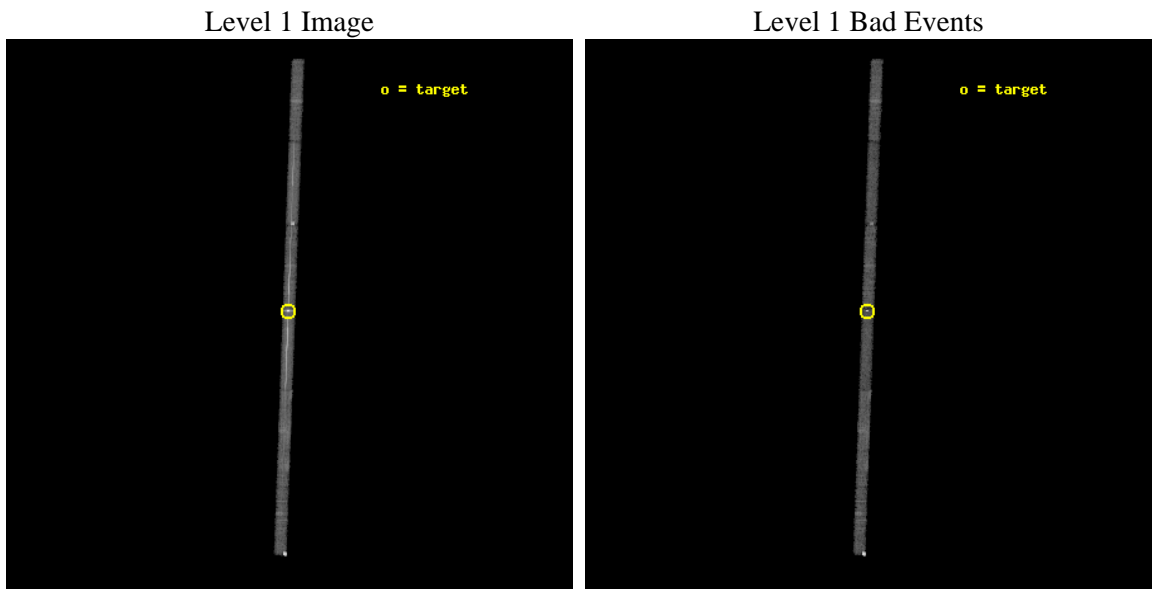
seq_num	790187	Sequence number
obs_id	9710	Observation id
title	AO9 Calibration Observations of PKS2155-304	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	PKS2155-304	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	329.716667	Observer's specified target RA [deg]
dec_targ	-30.225556	Observer's specified target Dec [deg]
ra_nom	329.71444998954	Nominal RA [deg]
dec_nom	-30.246505561957	Nominal Dec [deg]
roll_nom	92.040921855011	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9768.4998335838	Sum of GTIs [s]
livetime	9227.5044309466	Livetime [s]
ontime4	9768.4998335838	Sum of GTIs [s]
ontime5	9768.4998335838	Sum of GTIs [s]
ontime6	9768.4998335838	Sum of GTIs [s]
ontime7	9768.4998335838	Sum of GTIs [s]
ontime8	9768.4998335838	Sum of GTIs [s]
ontime9	9768.4618360996	Sum of GTIs [s]
l2events	76169	Number of level 2 events



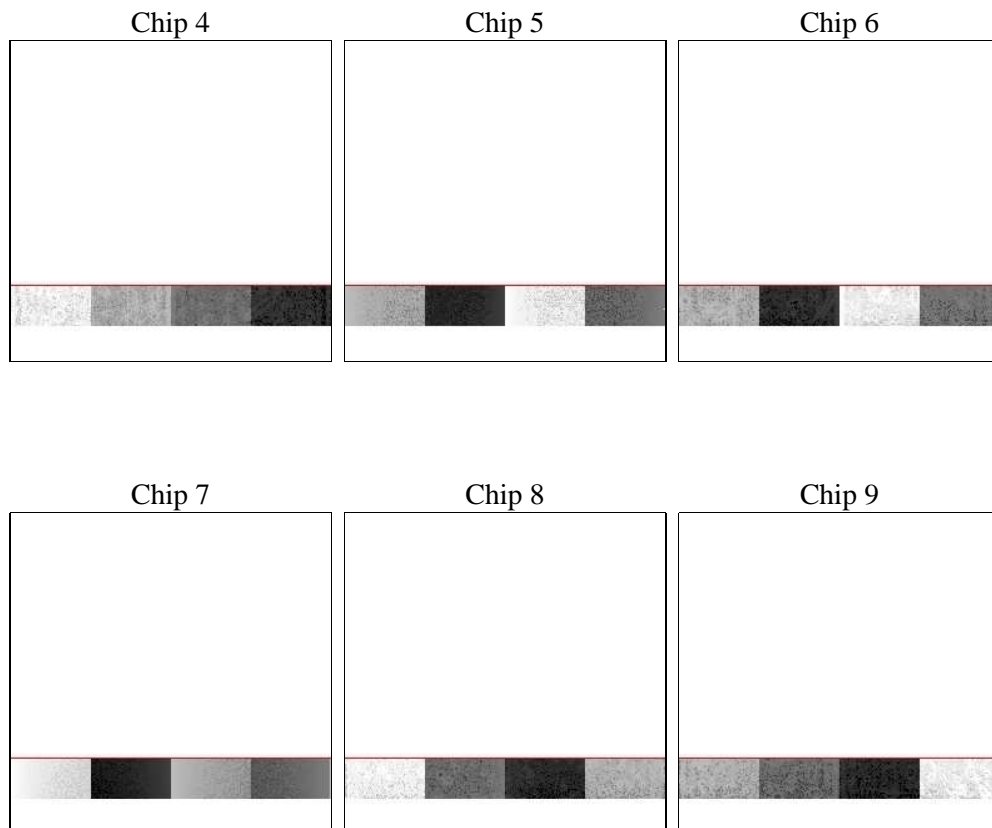
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	9768.4998335838	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	9768.4998335838	Sum of GTIs [s]
date	2012-05-17T15:25:55	Date and time of file creation	ontime5	9768.4998335838	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	9768.4998335838	Sum of GTIs [s]
			ontime7	9768.4998335838	Sum of GTIs [s]
			ontime8	9768.4998335838	Sum of GTIs [s]
			ontime9	9768.4618360996	Sum of GTIs [s]
			l1events	179244	Number of level 1 events

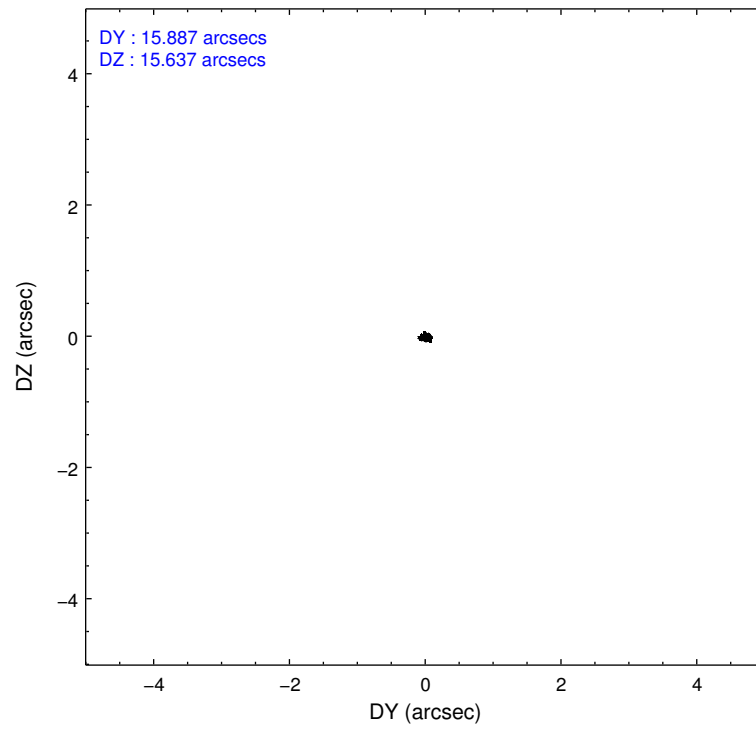
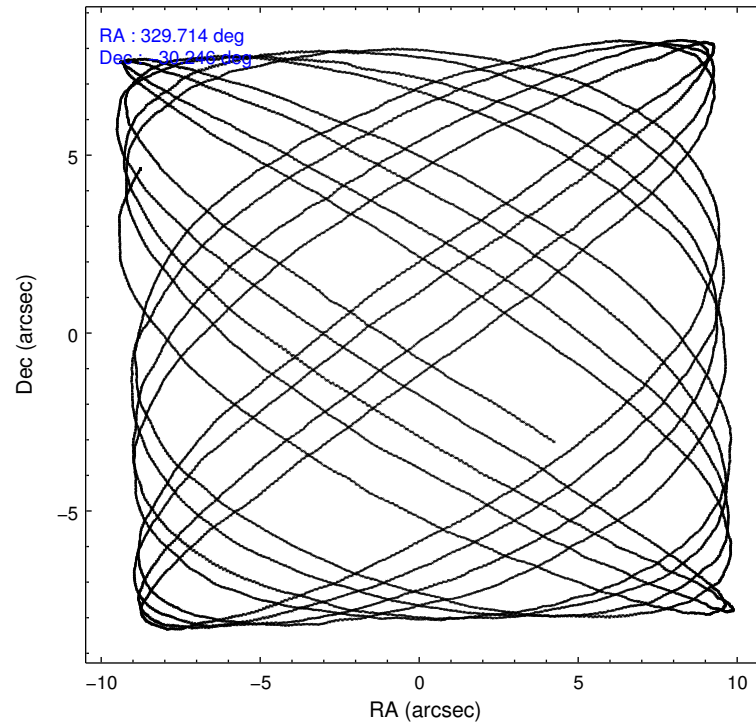
2.1.4 Events

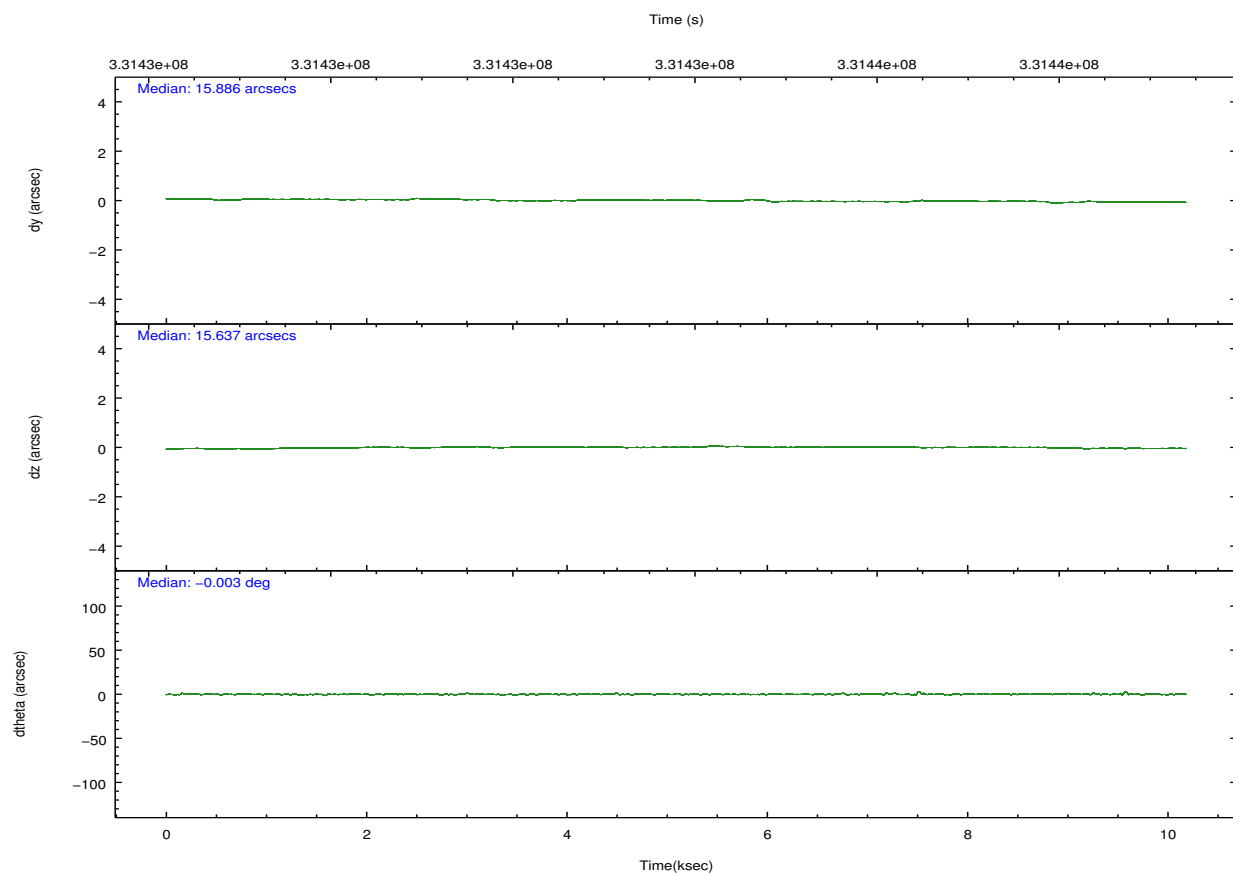
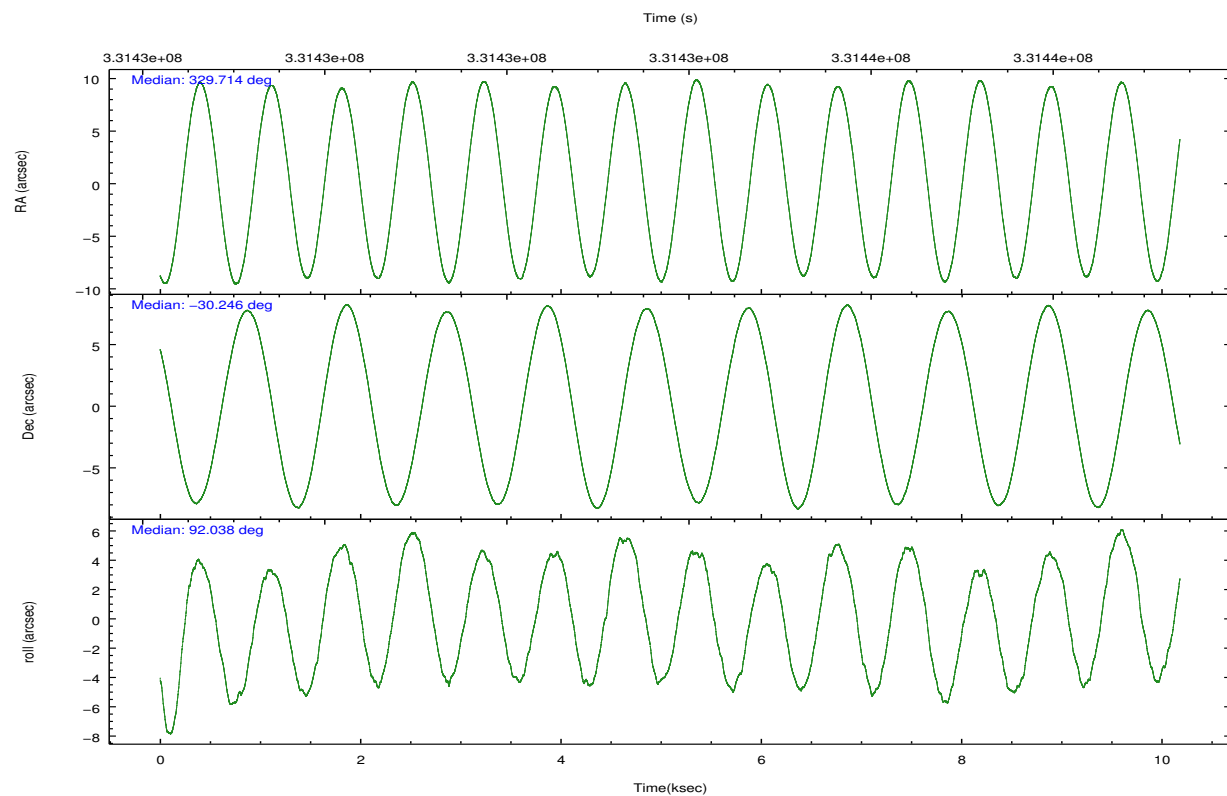
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	16492	27561	27780	58026	21807	27578	grade 0 events	1108	6199	11900	10766	2304	1040
rejected events	14097	10235	12519	16300	16178	25265		6%	22%	42%	18%	10%	3%
rejected %	85%	37%	45%	28%	74%	91%	grade 1 events	8	373	17	547	9	5
								0%	1%	0%	0%	0%	0%
							grade 2 events	448	3458	1544	9970	1011	323
								2%	12%	5%	17%	4%	1%
							grade 3 events	269	1346	641	4664	520	316
								1%	4%	2%	8%	2%	1%
							grade 4 events	286	1556	670	4494	541	304
								1%	5%	2%	7%	2%	1%
							grade 5 events	528	1867	574	3630	743	13628
								3%	6%	2%	6%	3%	49%
							grade 6 events	284	4768	511	11838	1255	330
								1%	17%	1%	20%	5%	1%
							grade 7 events	13561	7994	11923	12117	15424	11632
								82%	29%	42%	20%	70%	42%

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	329.731658	329.7144499895434	CCD I2 on	N	N
[deg] Pointing Dec	-30.269485	-30.24650556195711	CCD I3 on	N	N
[deg] Pointing Roll	91.892958	92.04092185501095	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-182.132523	-182.1344861297048	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-8	-7.998036453302973	CCD S4 on	Y	Y
[s] Observation start time (MET)	331428884.184000	331428378.91394	CCD S5 on	Y	Y
Observation start date	2008-07-02T23:33:39	2008-07-02T23:26:18	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	331438884.184000	331439107.58946	On-chip summing requested	N	N
Observation end date	2008-07-03T02:20:19	2008-07-03T02:25:07	Subarray requested	CUSTOM	1/8
Read mode	TIMED	TIMED	Subarray start row	113	113
			Subarray row count	128	128
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0.7

2.3 Aspect



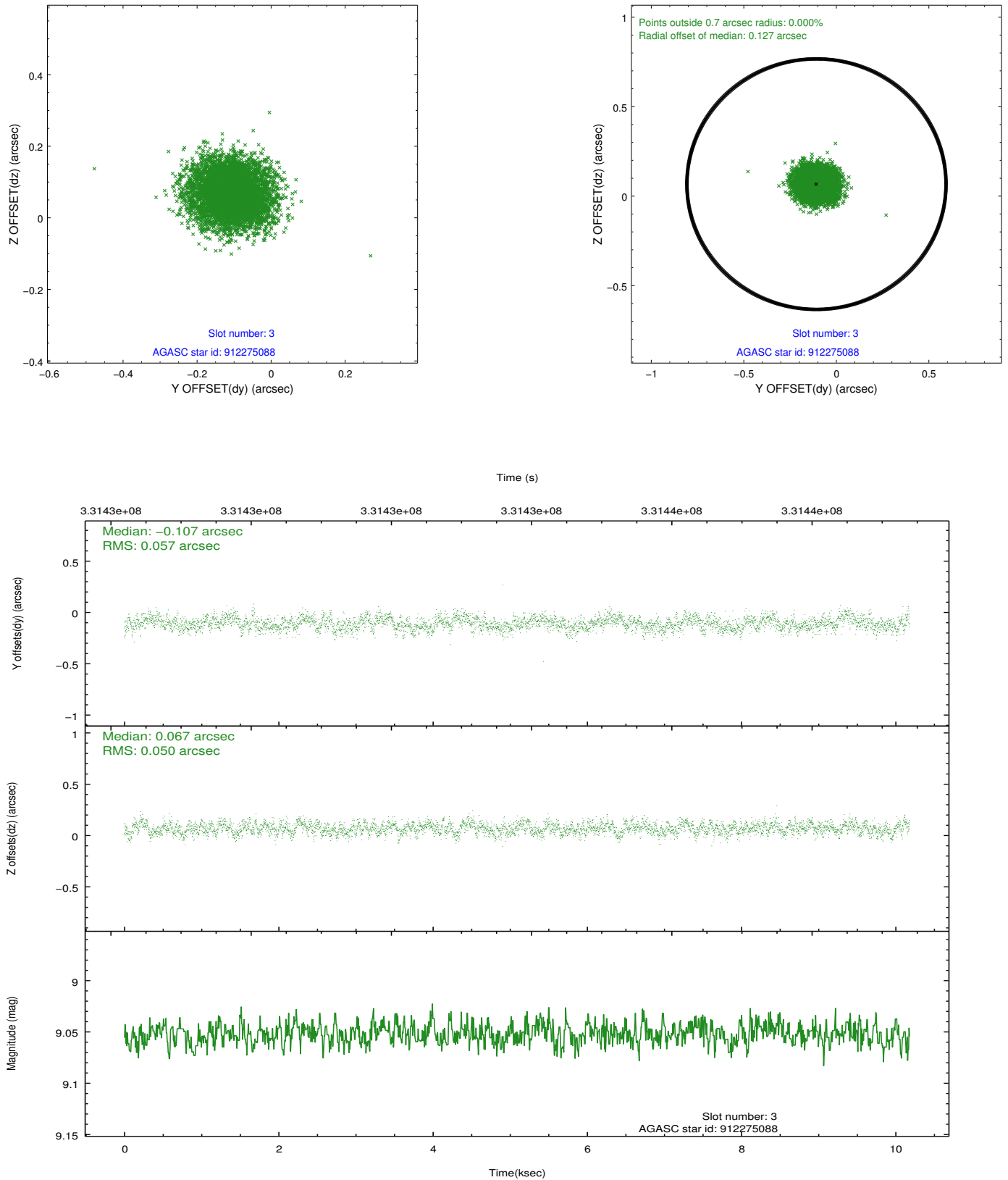


Slot Statistics

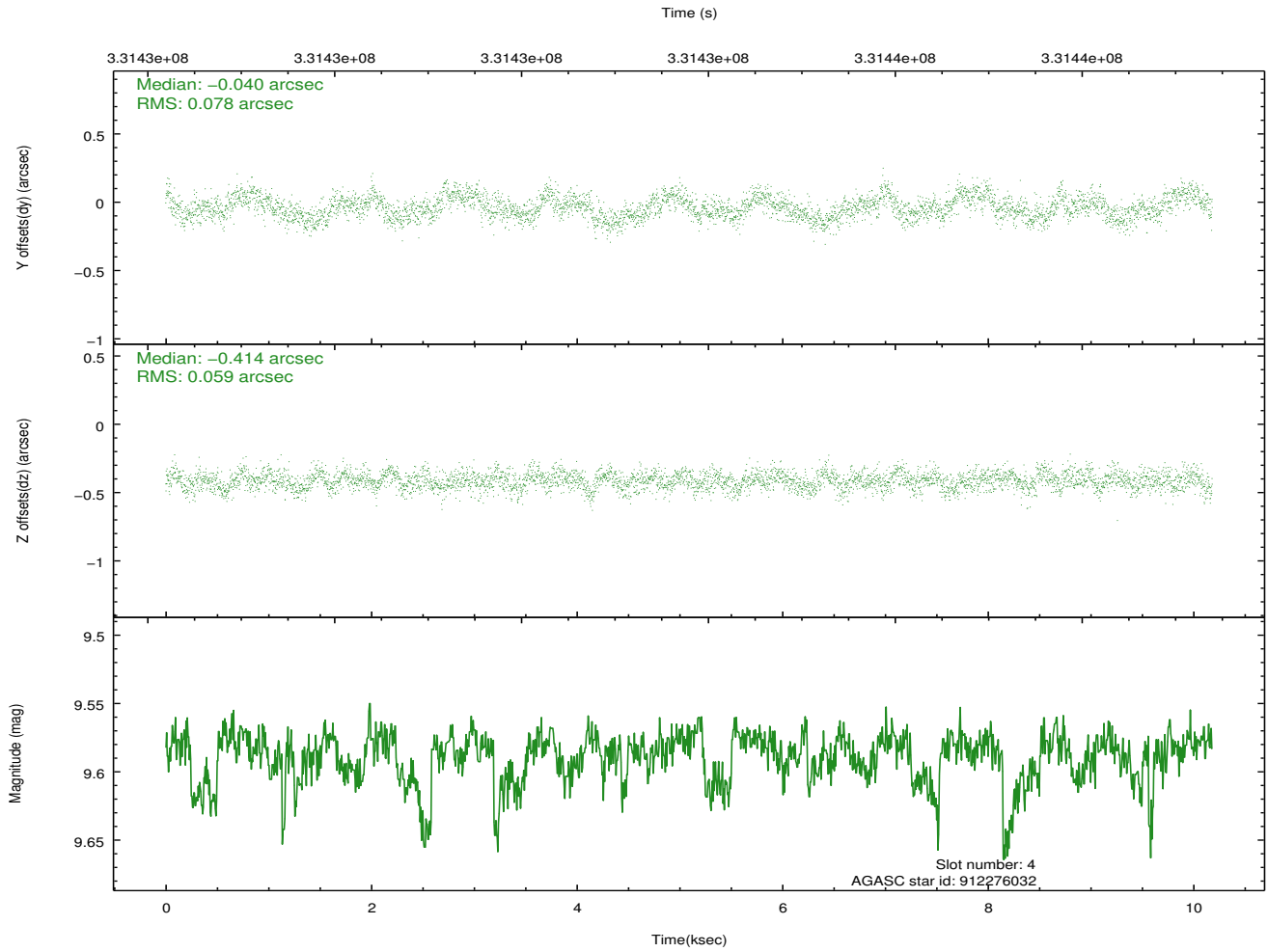
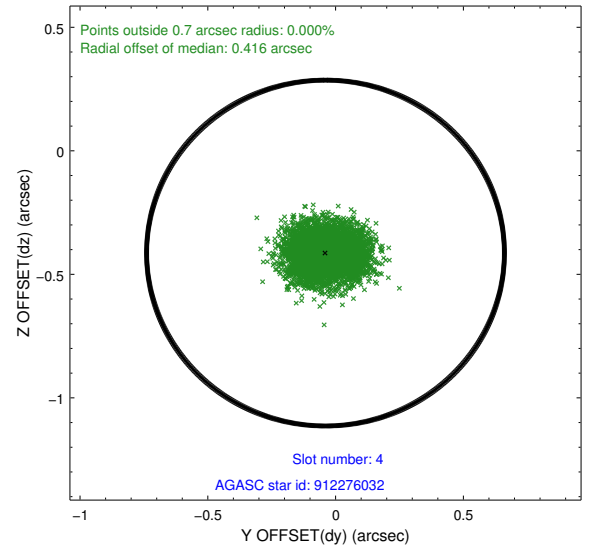
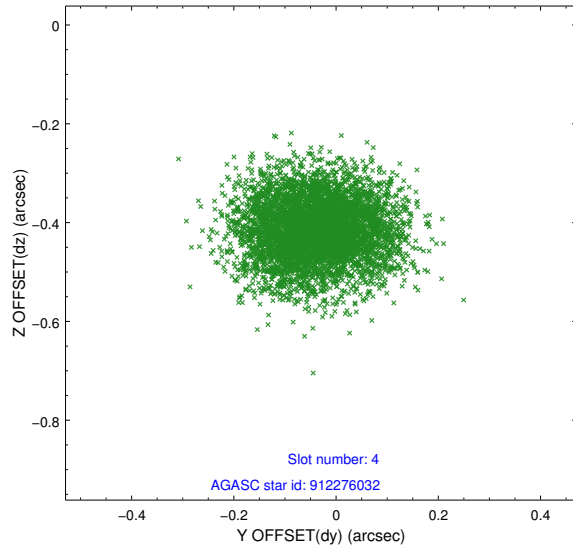
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	2484	-0.144	-0.100	0.006	0.011	0.000000	0.000000	-768.49	-1901.87
1	FID	ACIS-S-4	6.97	2484	0.093	0.099	0.006	0.011	0.000000	0.000000	2144.83	6.13
2	FID	ACIS-S-6	7.20	2484	0.025	0.008	0.007	0.012	0.000000	0.000000	394.38	644.06
3	GUIDE	912275088	9.05	4968	-0.107	0.067	0.081	0.129	329.619228	-29.738698	1921.10	288.28
4	GUIDE	912276032	9.59	4957	-0.040	-0.414	0.106	0.168	329.395967	-29.803466	1710.16	992.44
5	GUIDE	981468128	9.34	4966	0.157	0.576	0.104	0.167	329.756350	-30.158334	397.74	-89.43
6	GUIDE	981471664	6.35	4968	-0.055	-0.253	0.070	0.114	328.981826	-30.605916	-1141.74	2361.58
7	GUIDE	981475568	8.18	4965	0.041	0.020	0.076	0.128	328.999408	-30.923402	-2285.57	2338.70

2.4 Star Slots

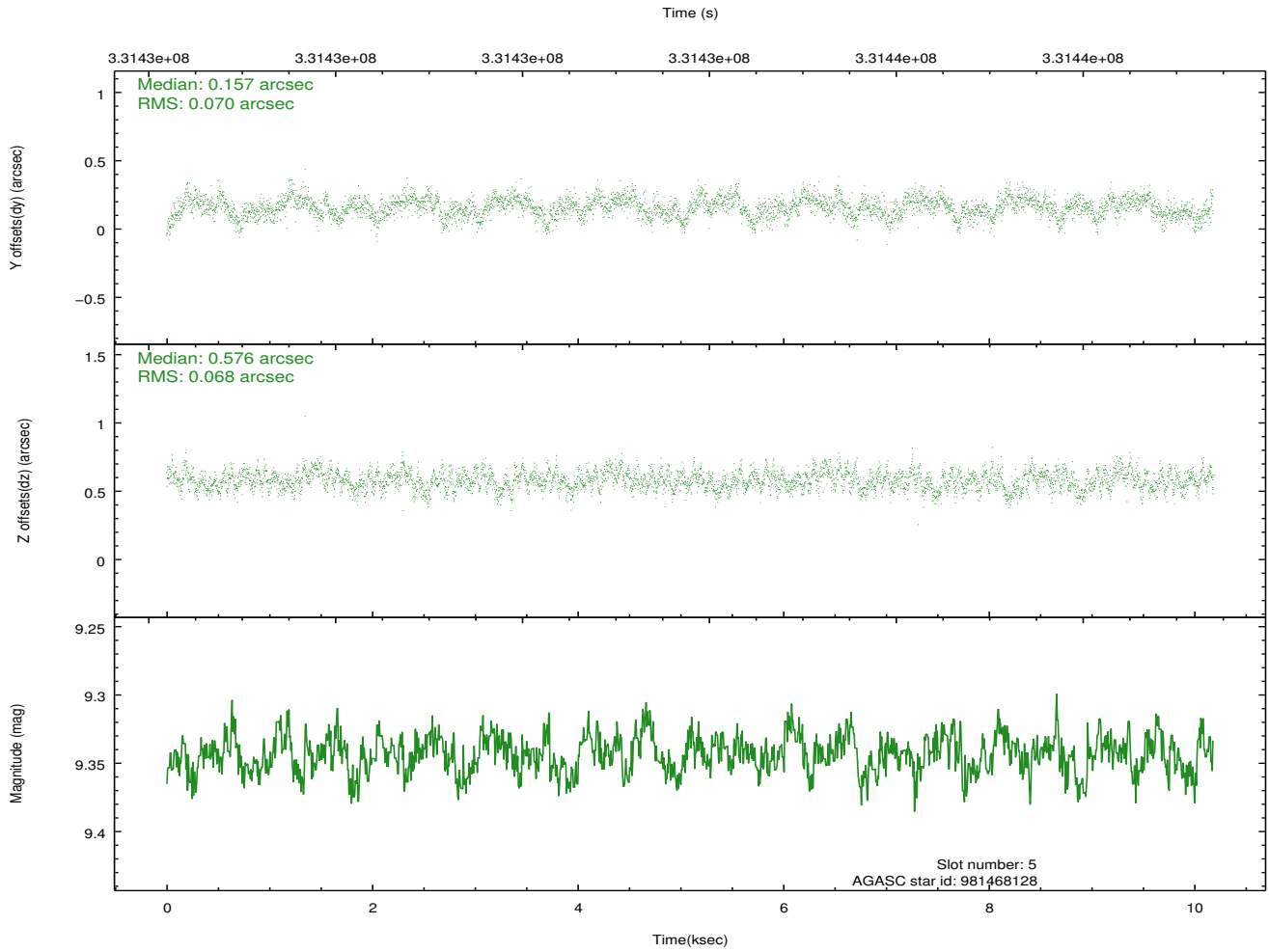
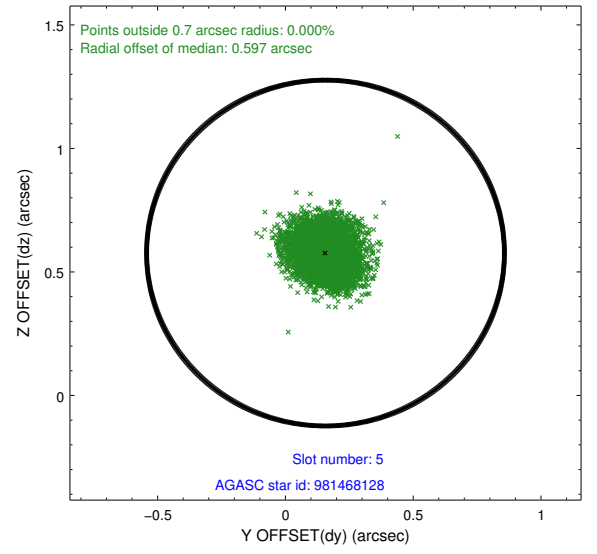
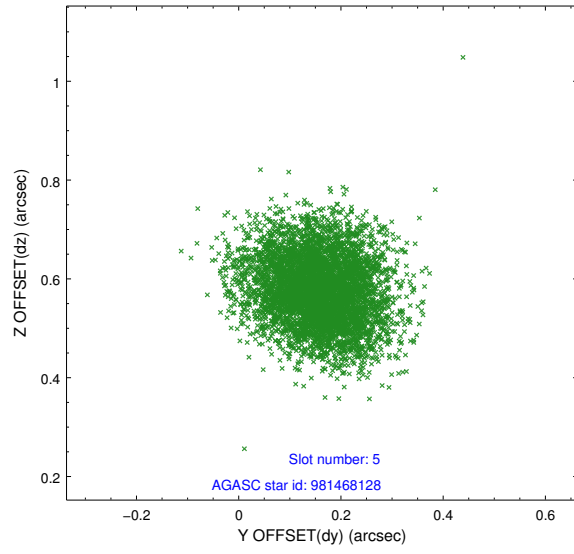
2.4.1 Slot 3



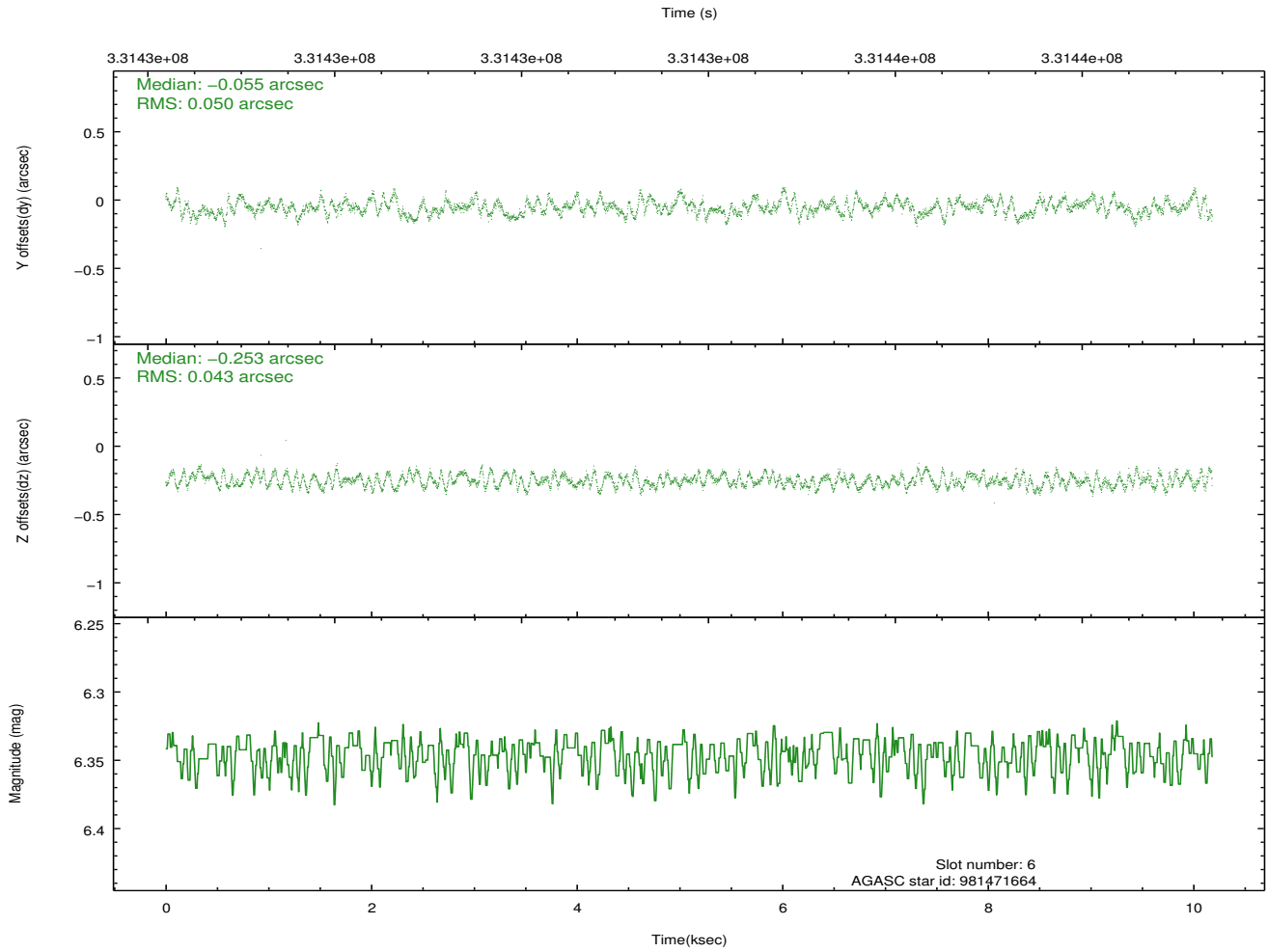
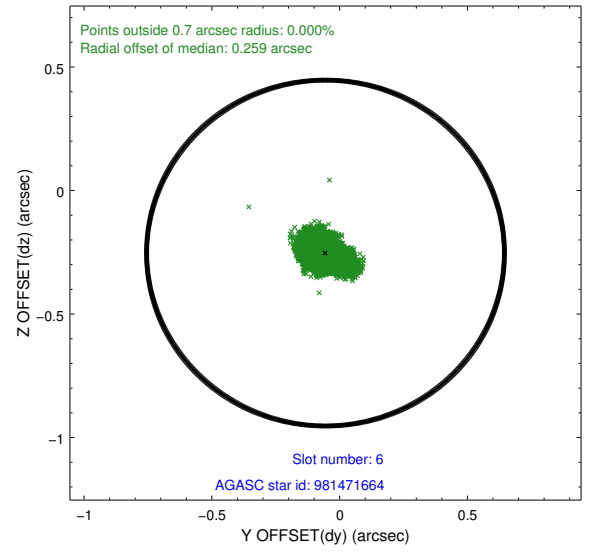
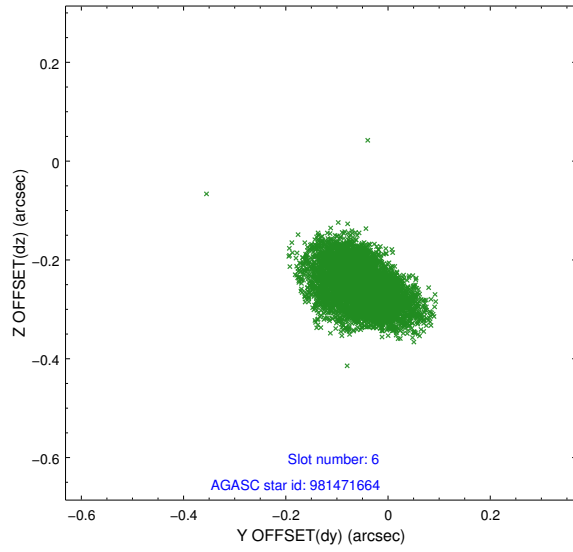
2.4.2 Slot 4



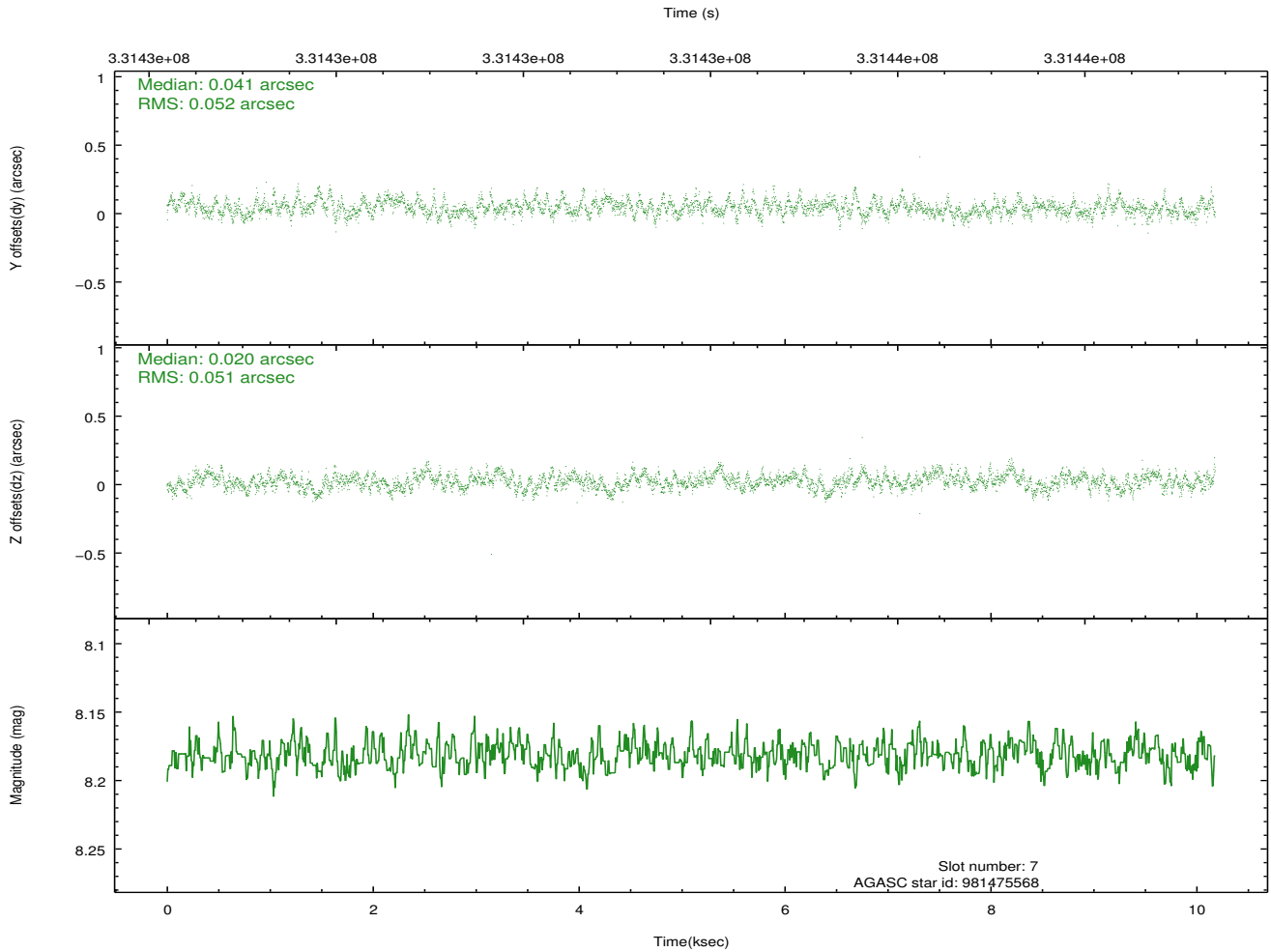
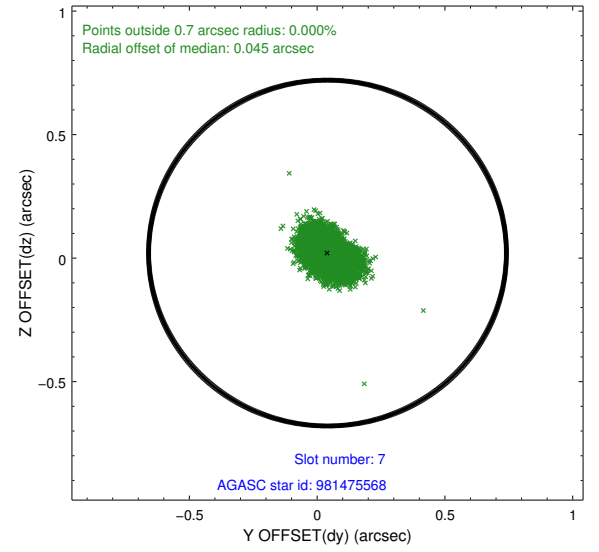
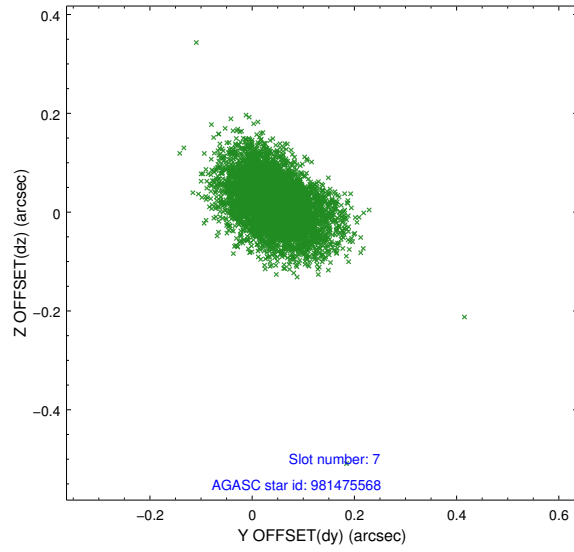
2.4.3 Slot 5



2.4.4 Slot 6

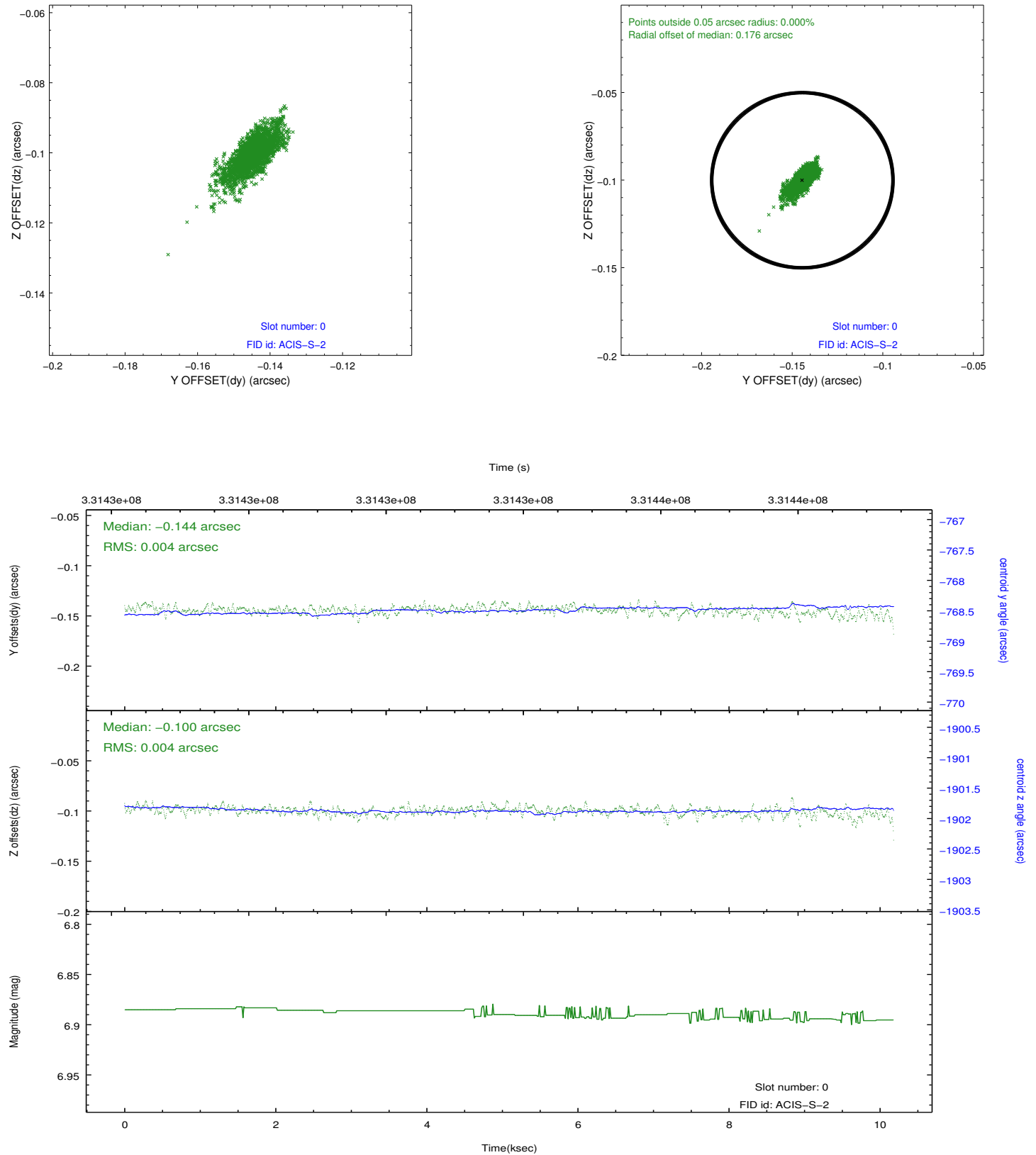


2.4.5 Slot 7

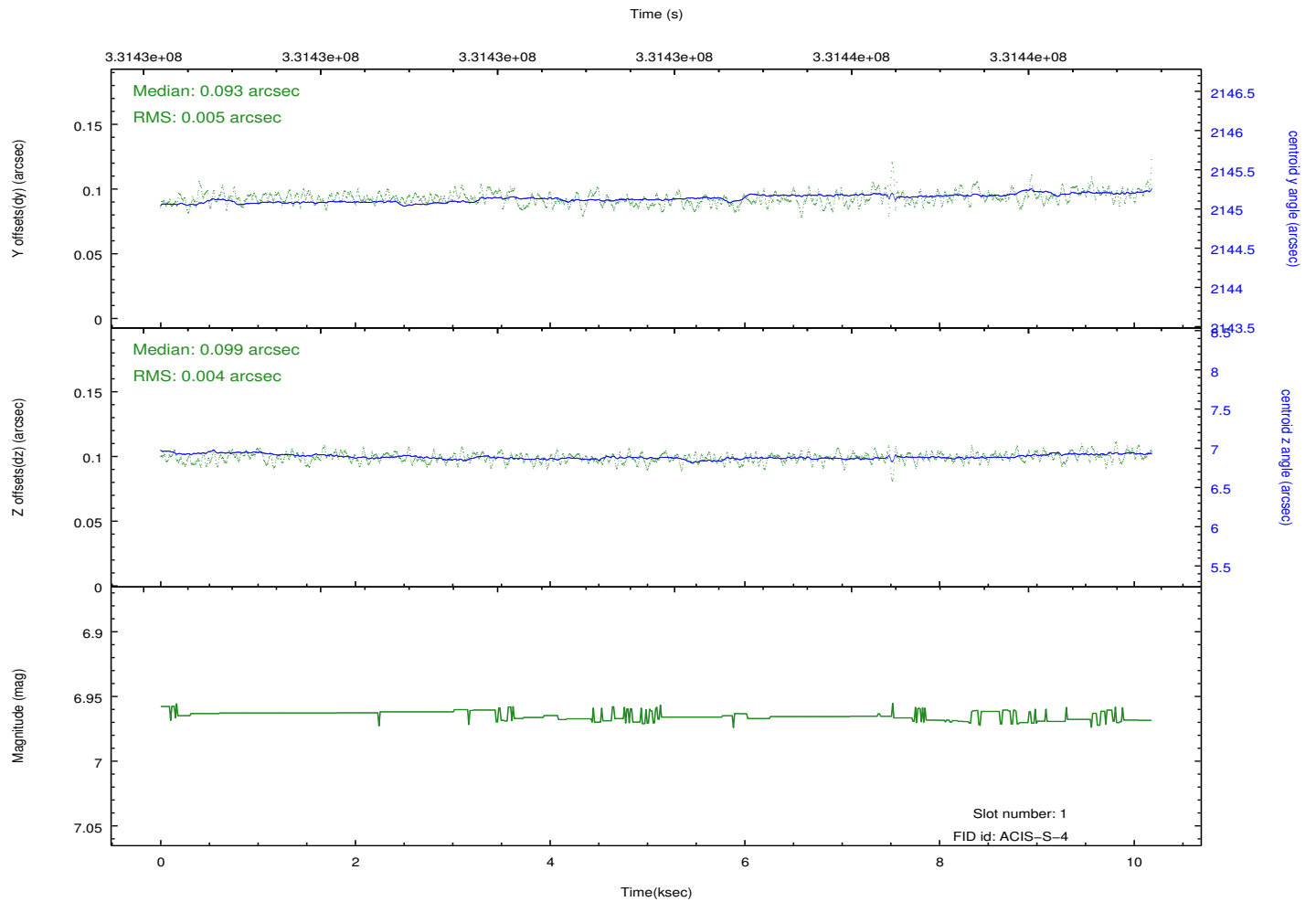
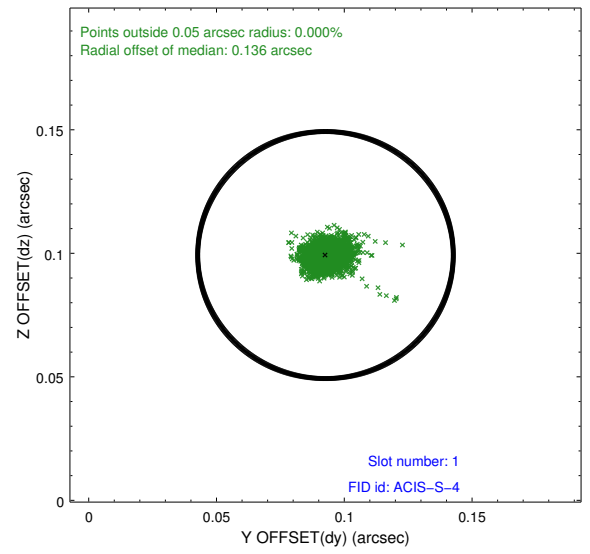
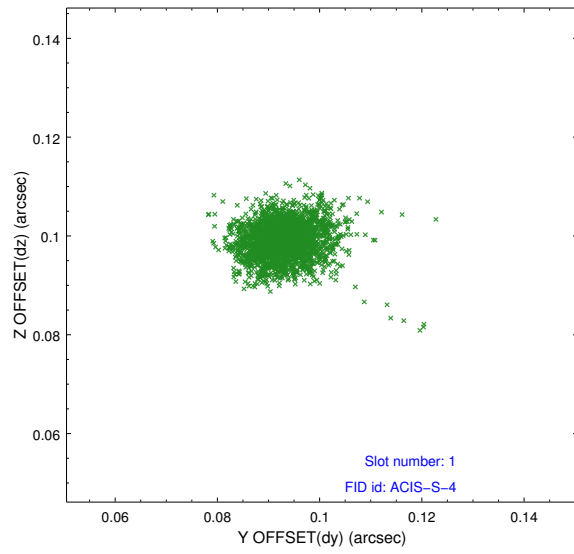


2.5 FID Slots

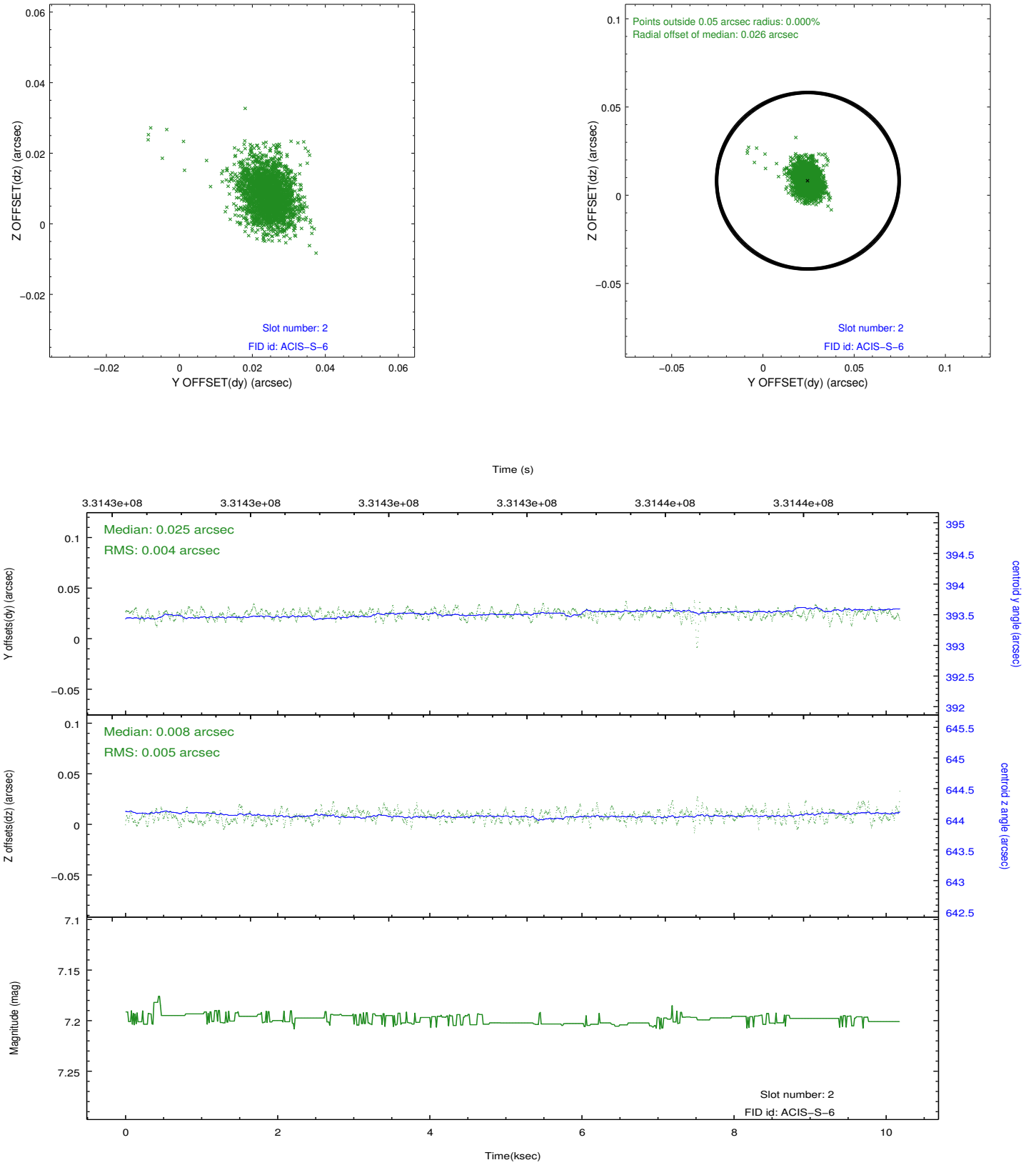
2.5.1 Slot 0



2.5.2 Slot 1

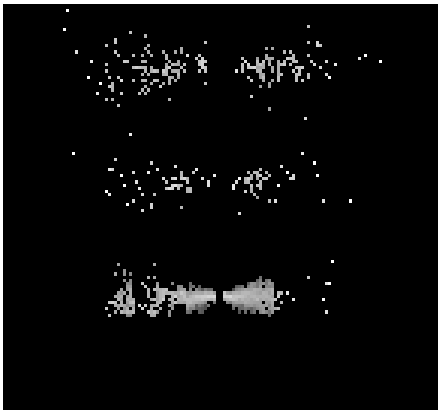


2.5.3 Slot 2

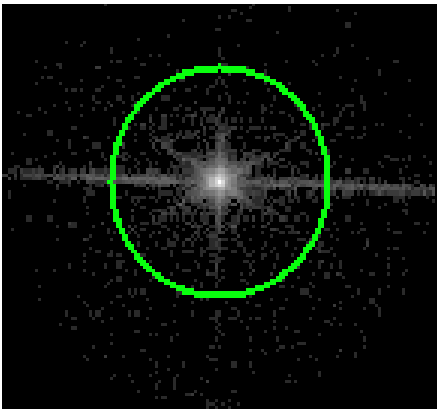


3 Gratings

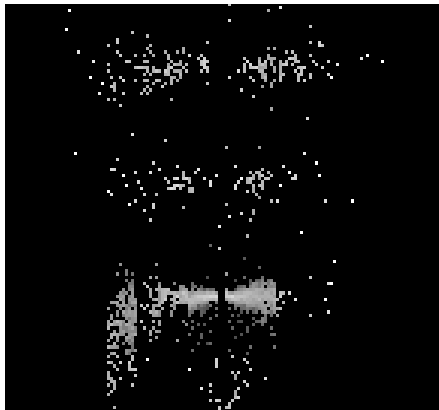
3.1 LETG Arm



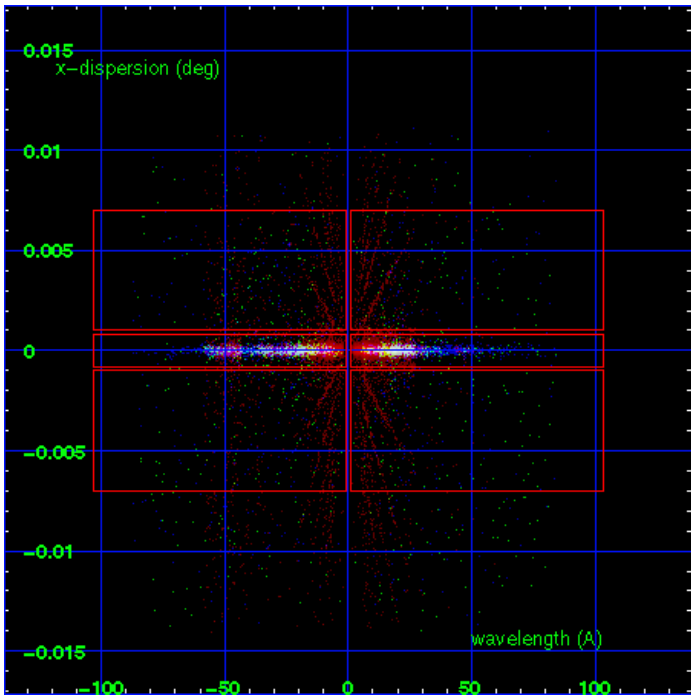
LETG Order Sort 123



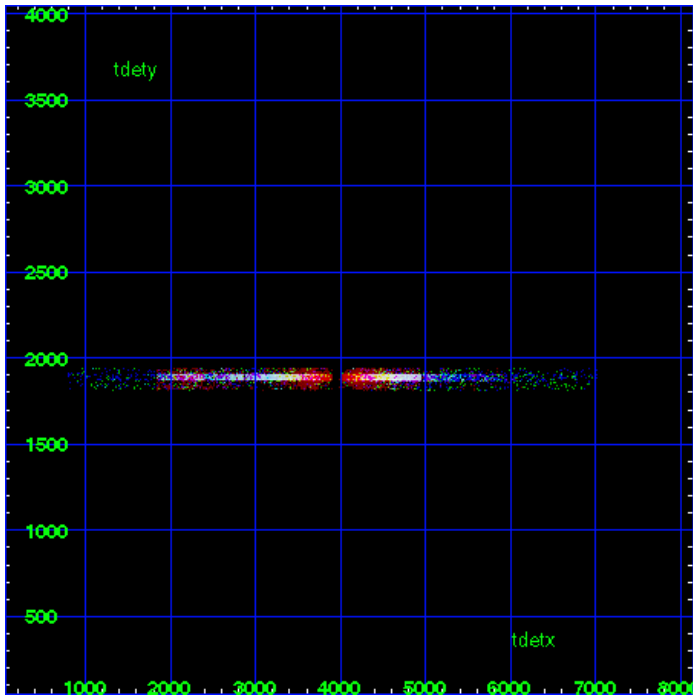
LETG Zero Order



LETG Order Sort ALL

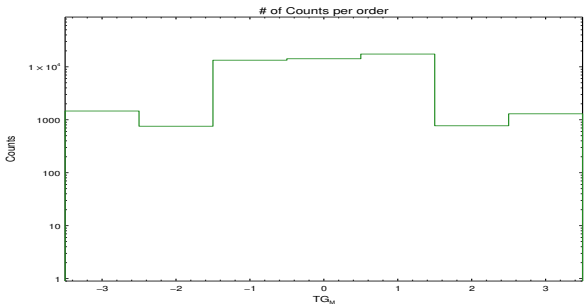


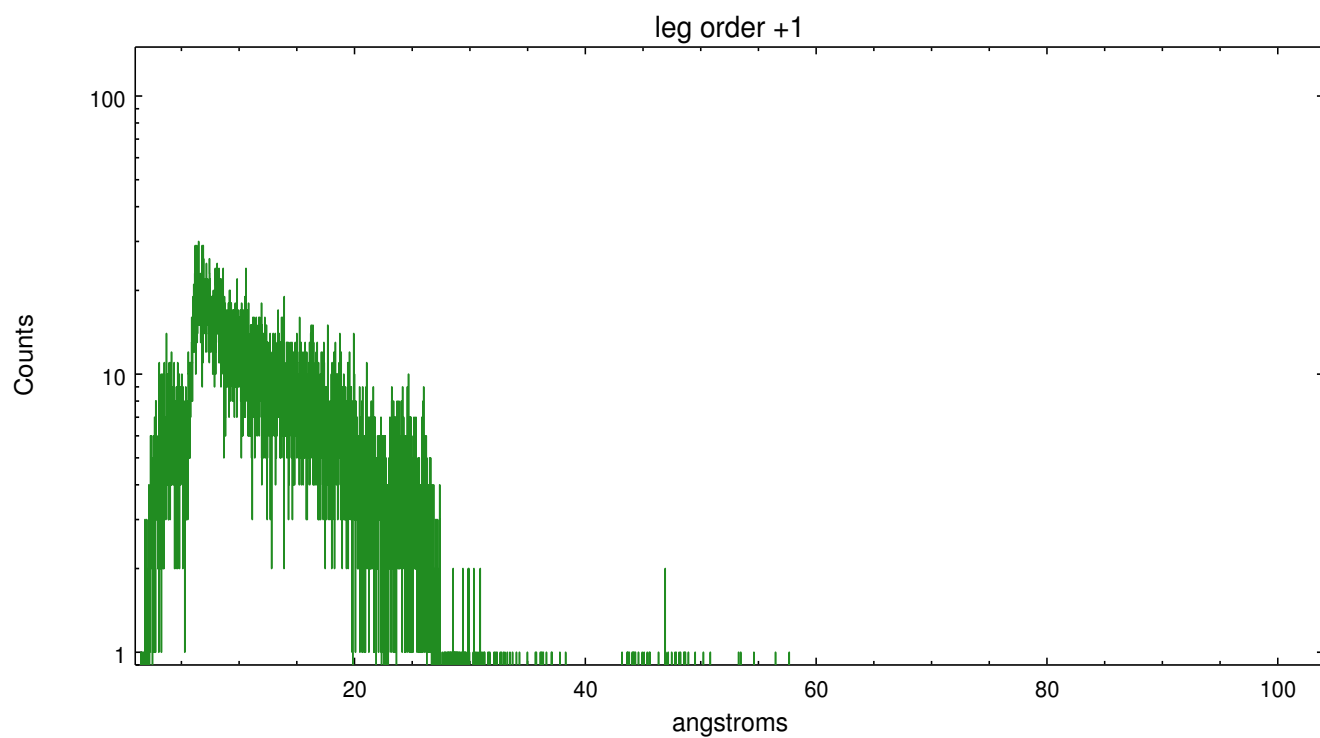
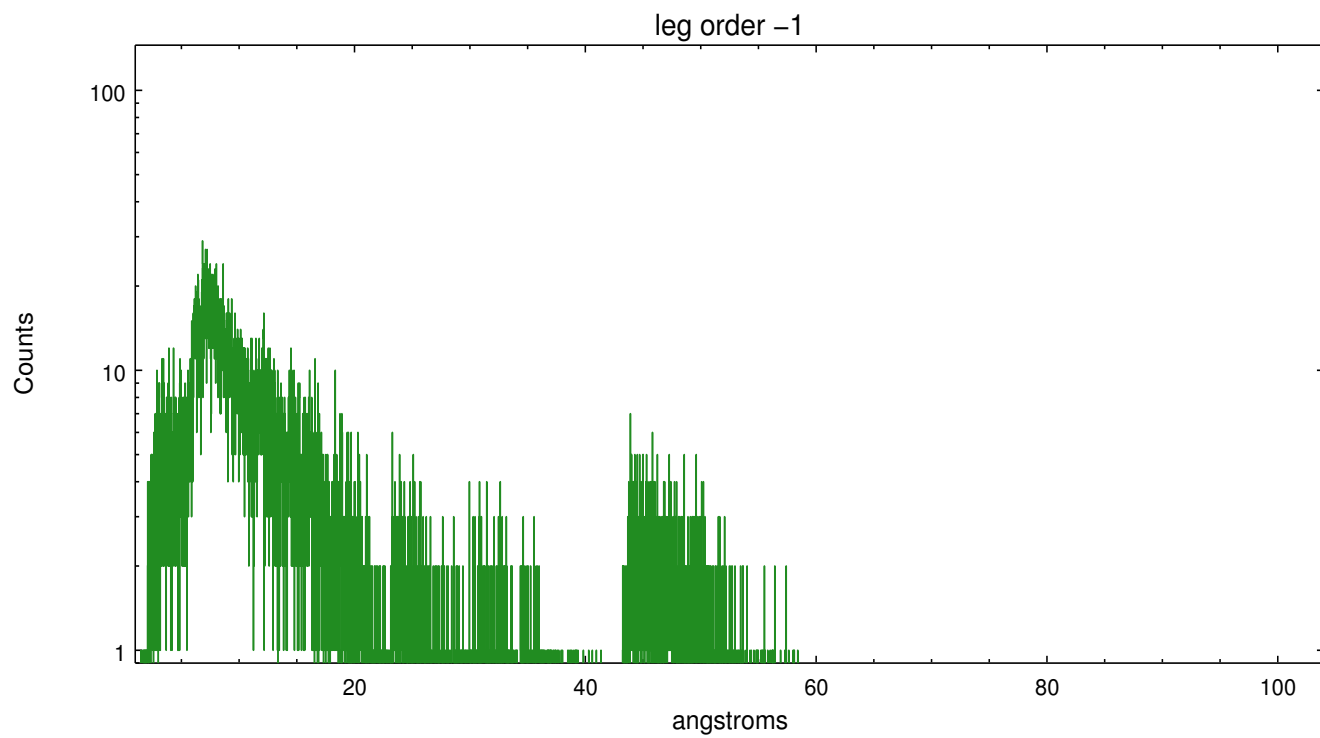
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1463	755	13335	14198	17418	770	1296





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.05.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.74119983

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.

===

Zeroth order is piled up.

===

Charge time for this ObsId remains at previous value of 9.74119983 ks, although with this processing the charge time would have been 9.7684998335838 ks.