

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9706 - L2 Version 2
Chandra X-Ray Center

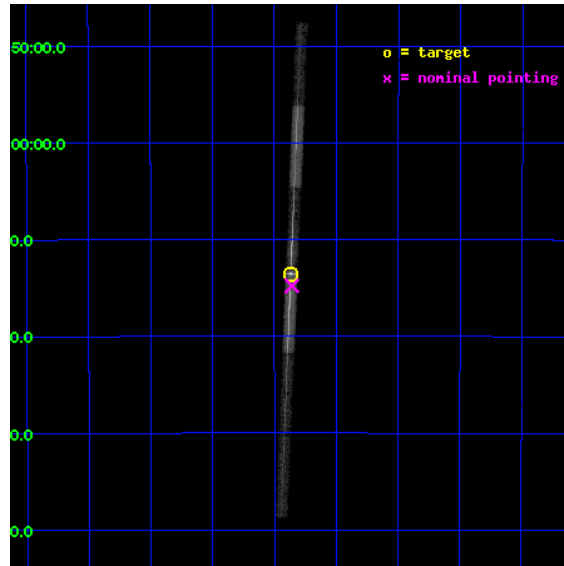
L2 Processing Date : May 17 2012

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1 Front

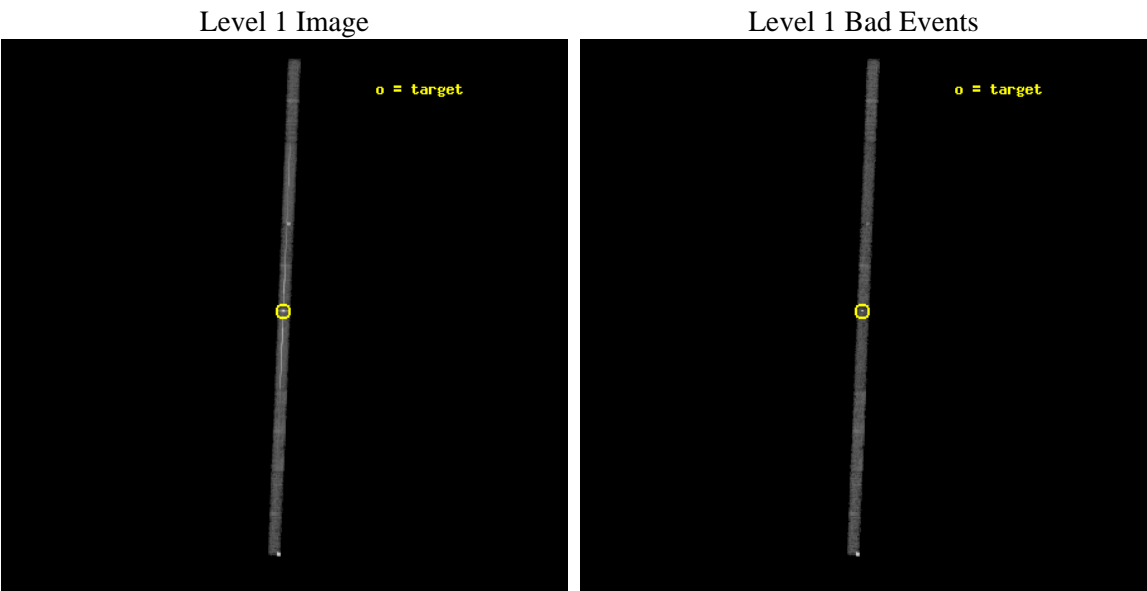
seq_num	790183	Sequence number
obs_id	9706	Observation id
title	AO9 Calibration Observations of PKS2155-304	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	PKS2155-304	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	329.716667	Observer's specified target RA [deg]
dec_targ	-30.225556	Observer's specified target Dec [deg]
ra_nom	329.71459423604	Nominal RA [deg]
dec_nom	-30.24652209615	Nominal Dec [deg]
roll_nom	92.347505714448	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10064.383347094	Sum of GTIs [s]
livetime	9507.0014344244	Livetime [s]
ontime4	10064.424387097	Sum of GTIs [s]
ontime5	10064.342307091	Sum of GTIs [s]
ontime6	10064.301267087	Sum of GTIs [s]
ontime7	10064.383347094	Sum of GTIs [s]
ontime8	10064.260227084	Sum of GTIs [s]
ontime9	10064.219187081	Sum of GTIs [s]
l2events	79874	Number of level 2 events



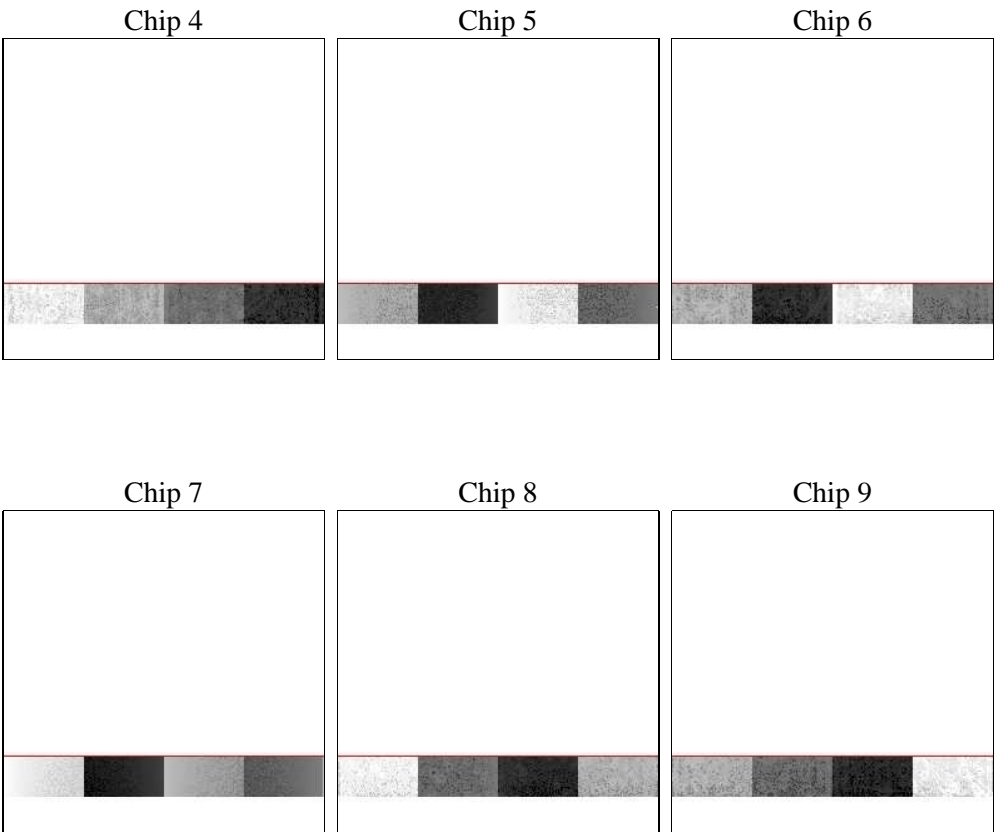
2 OBI

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	10064.383347094	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	10064.424387097	Sum of GTIs [s]
date	2012-05-17T15:25:55	Date and time of file creation	ontime5	10064.342307091	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	10064.301267087	Sum of GTIs [s]
			ontime7	10064.383347094	Sum of GTIs [s]
			ontime8	10064.260227084	Sum of GTIs [s]
			ontime9	10064.219187081	Sum of GTIs [s]
			l1events	185739	Number of level 1 events

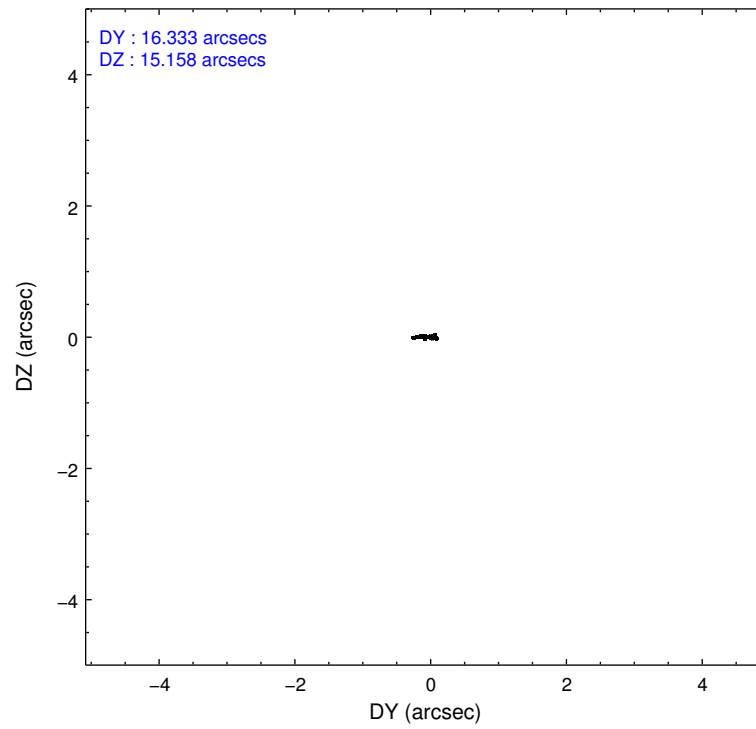
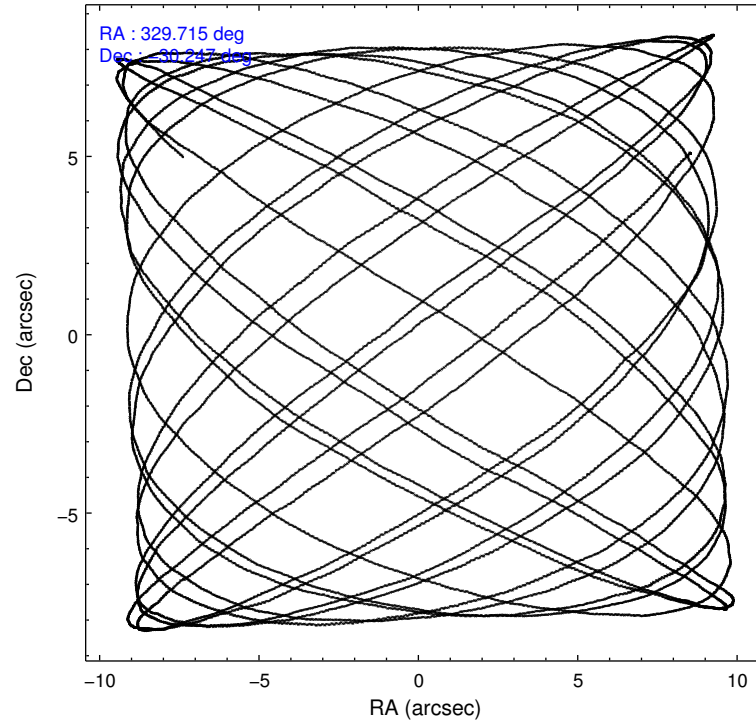
2.1.4 Events

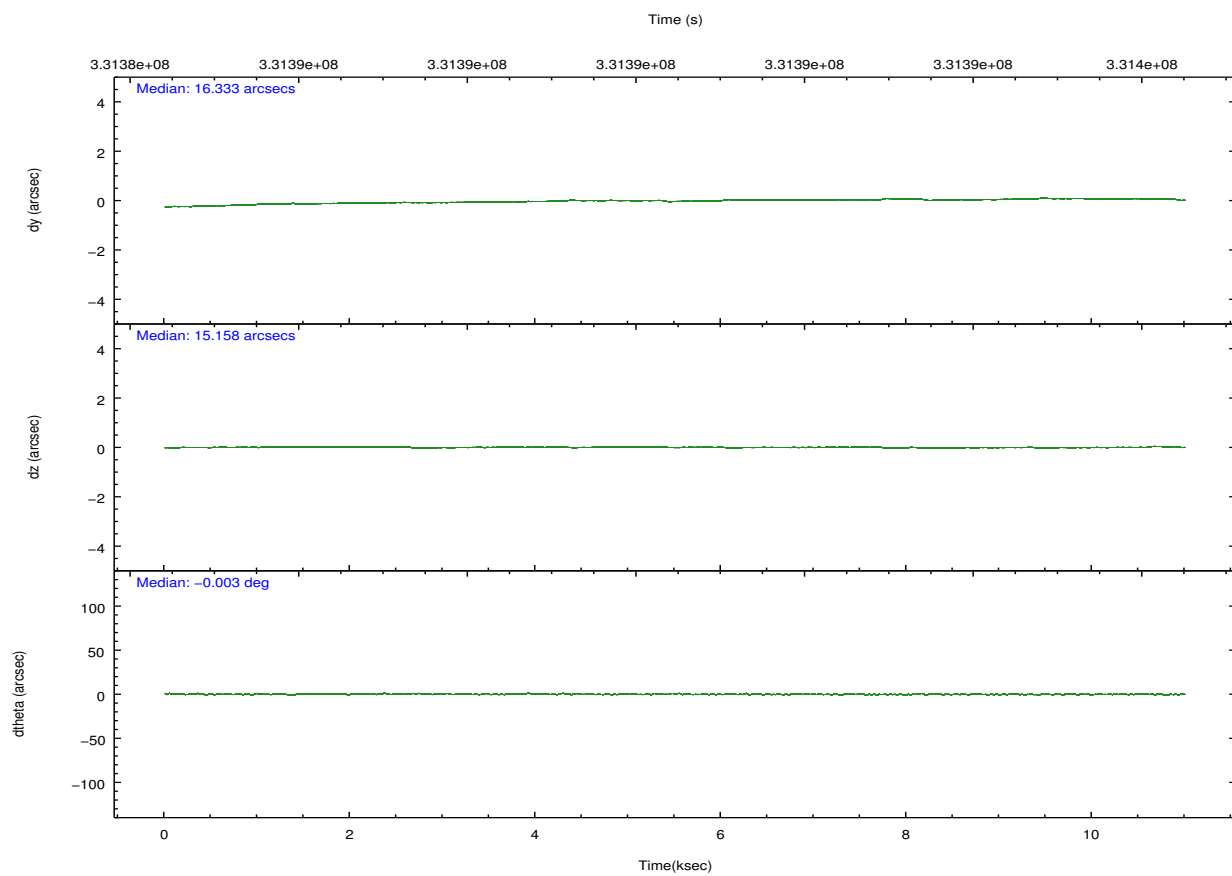
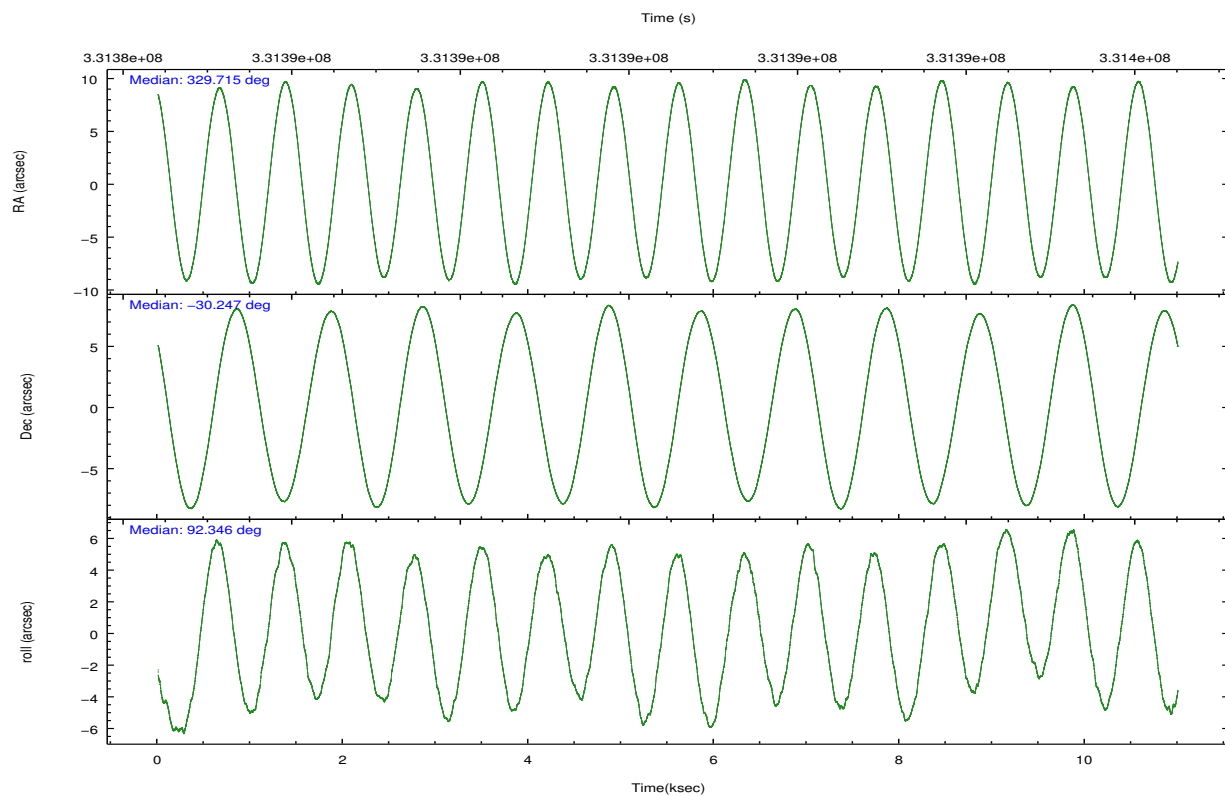
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	17534	28224	28648	60912	21794	28627	grade 0 events	1179	6668	12372	11467	2328	1123
rejected events	14966	10671	12728	17091	16109	26237		6%	23%	43%	18%	10%	3%
rejected %	85%	37%	44%	28%	73%	91%	grade 1 events	3	299	28	665	8	6
								0%	1%	0%	1%	0%	0%
							grade 2 events	433	3488	1641	10606	1003	361
								2%	12%	5%	17%	4%	1%
							grade 3 events	327	1304	677	4808	535	298
								1%	4%	2%	7%	2%	1%
							grade 4 events	293	1288	686	4637	489	253
								1%	4%	2%	7%	2%	0%
							grade 5 events	525	1885	585	3810	759	14001
								2%	6%	2%	6%	3%	48%
							grade 6 events	336	4806	546	12307	1330	355
								1%	17%	1%	20%	6%	1%
							grade 7 events	14438	8486	12113	12612	15342	12230
								82%	30%	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	329.731937	329.7145942360388	CCD I2 on	N	N
[deg] Pointing Dec	-30.269424	-30.24652209614955	CCD I3 on	N	N
[deg] Pointing Roll	92.199617	92.34750571444813	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	-182.1370004450064	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-8	-7.995522138001405	CCD S4 on	Y	Y
[s] Observation start time (MET)	331385971.184000	331384658.0493	CCD S5 on	Y	Y
Observation start date	2008-07-02T11:38:26	2008-07-02T11:17:38	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	331395971.184000	331396194.93736	On-chip summing requested	N	N
Observation end date	2008-07-02T14:25:06	2008-07-02T14:29:54	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



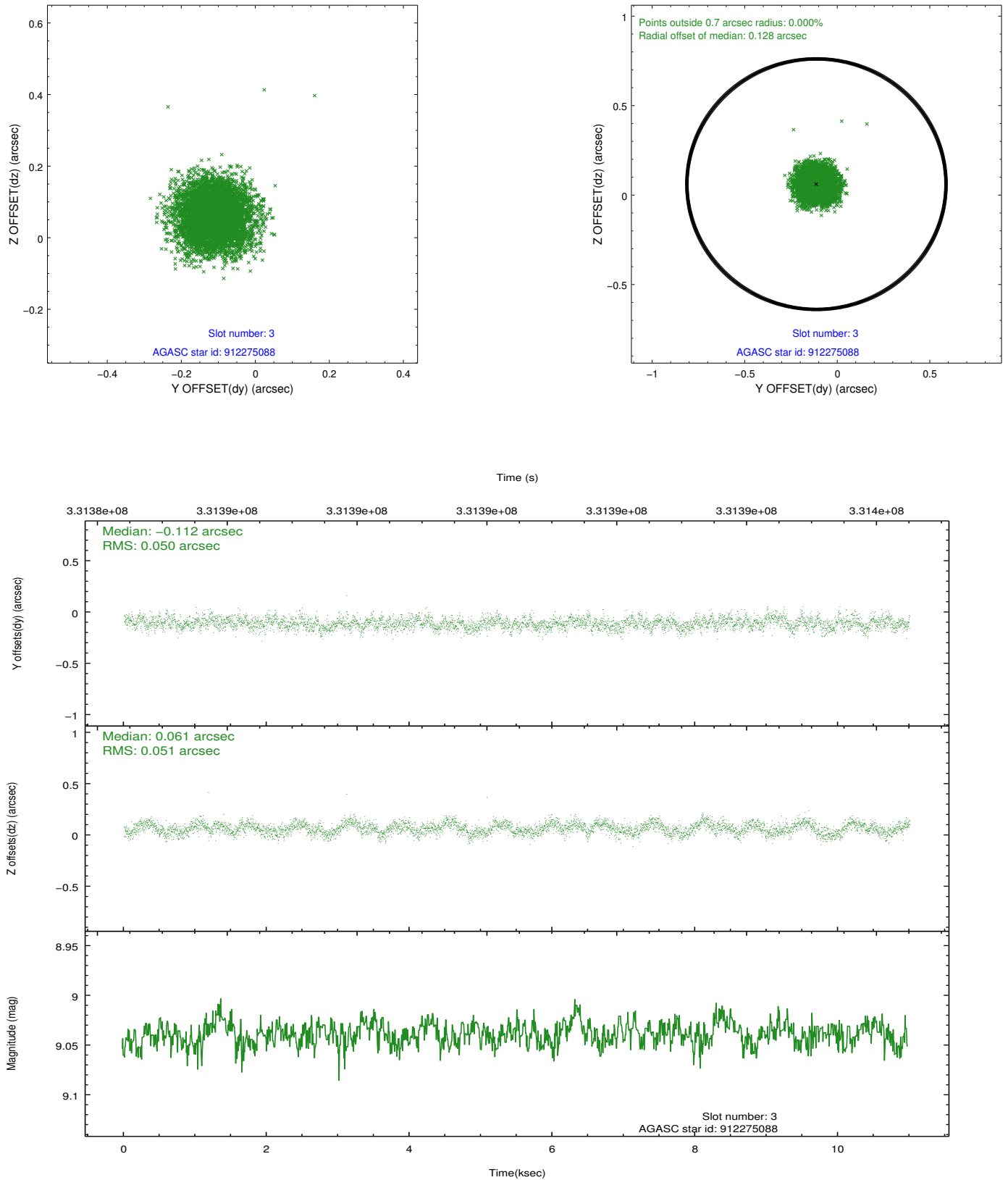


Slot Statistics

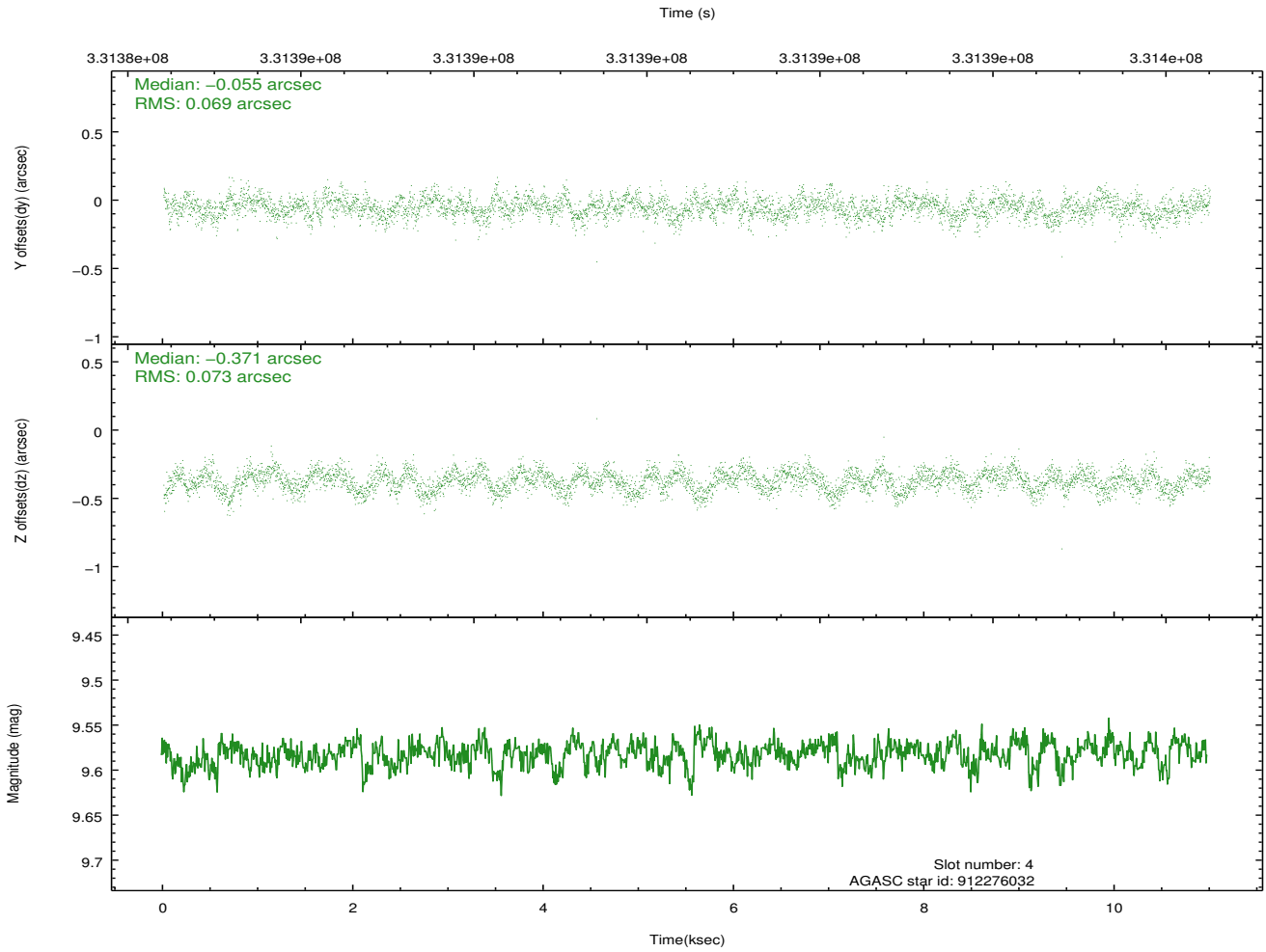
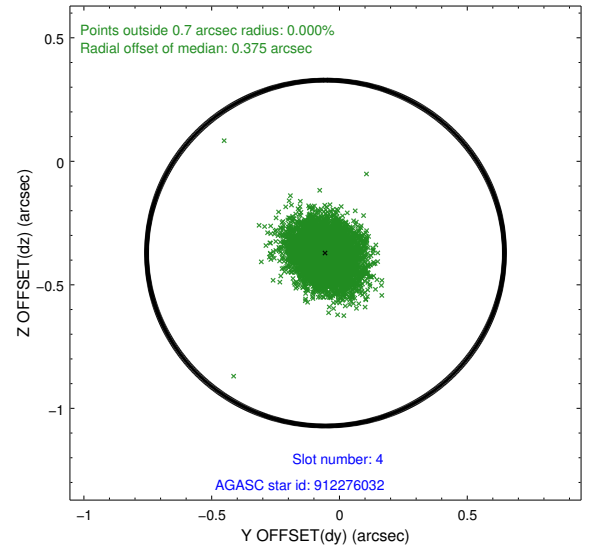
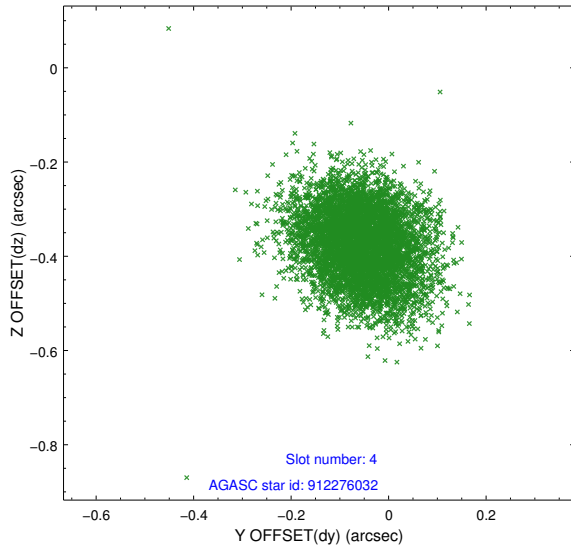
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	2682	-0.146	-0.093	0.007	0.023	0.000000	0.000000	-768.93	-1901.33
1	FID	ACIS-S-4	6.96	2682	0.101	0.104	0.007	0.016	0.000000	0.000000	2144.43	6.72
2	FID	ACIS-S-6	7.19	2682	0.018	-0.003	0.008	0.014	0.000000	0.000000	393.88	644.59
3	GUIDE	912275088	9.04	5361	-0.112	0.061	0.077	0.124	329.619228	-29.738698	1922.42	278.81
4	GUIDE	912276032	9.58	5360	-0.055	-0.371	0.106	0.171	329.395967	-29.803466	1715.22	984.14
5	GUIDE	981468128	9.33	5360	0.135	0.575	0.101	0.171	329.756350	-30.158334	397.01	-90.74
6	GUIDE	981475568	8.18	5364	0.046	0.018	0.098	0.161	328.999408	-30.923402	-2272.88	2351.26
7	GUIDE	981471664	6.36	5364	-0.012	-0.276	0.096	0.142	328.981826	-30.605916	-1129.71	2368.93

2.4 Star Slots

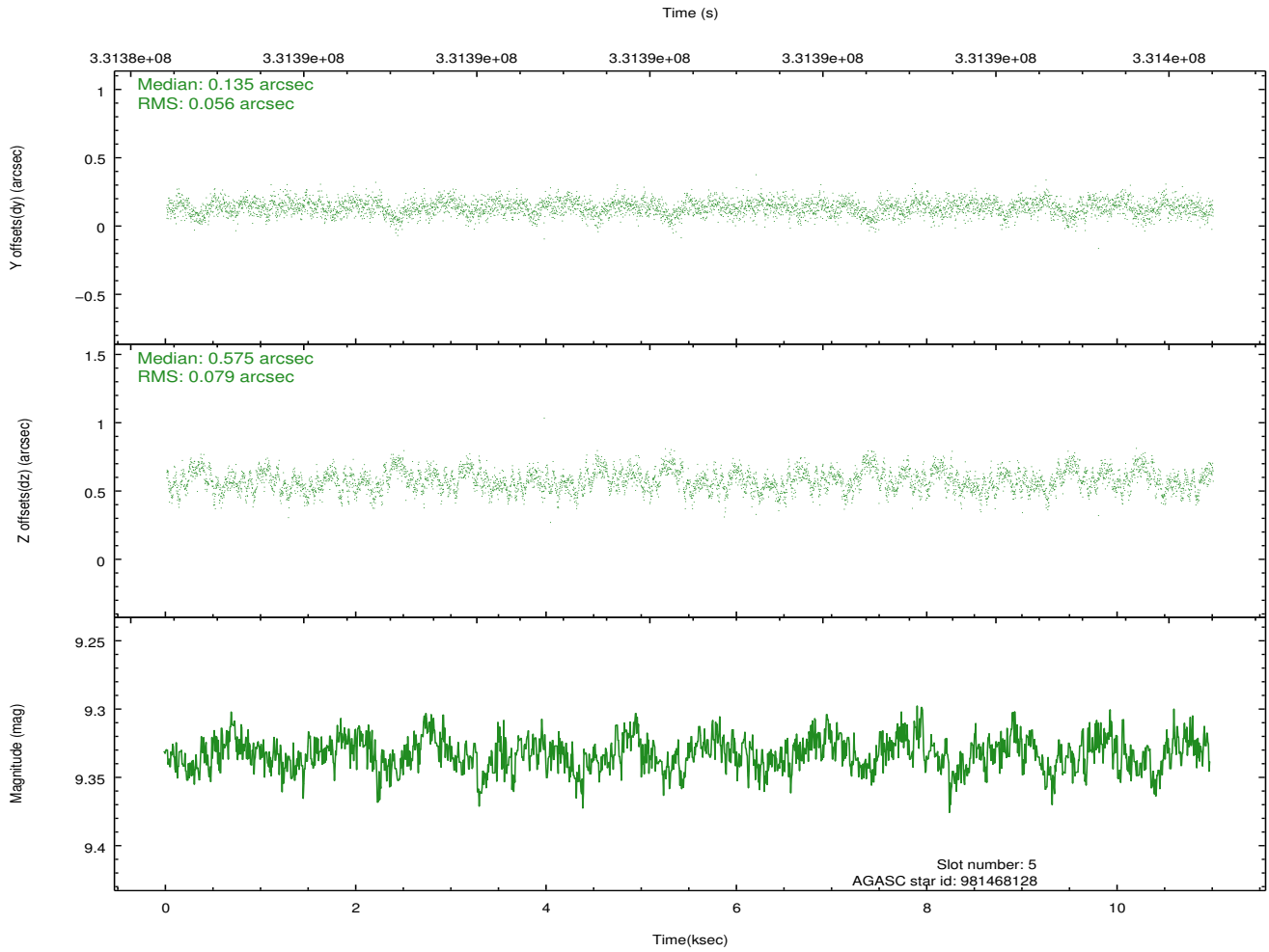
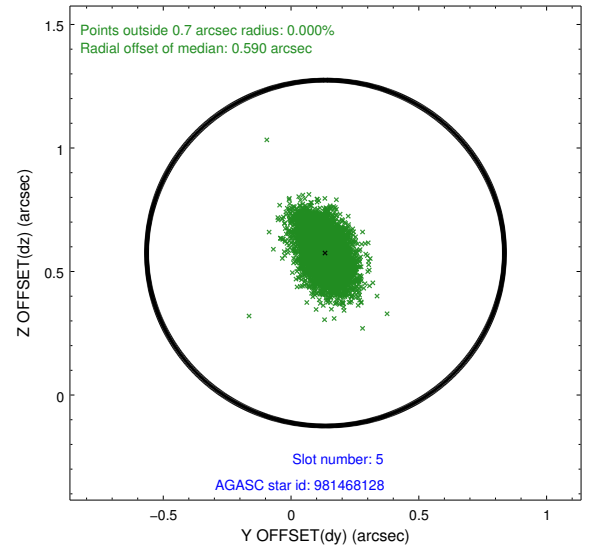
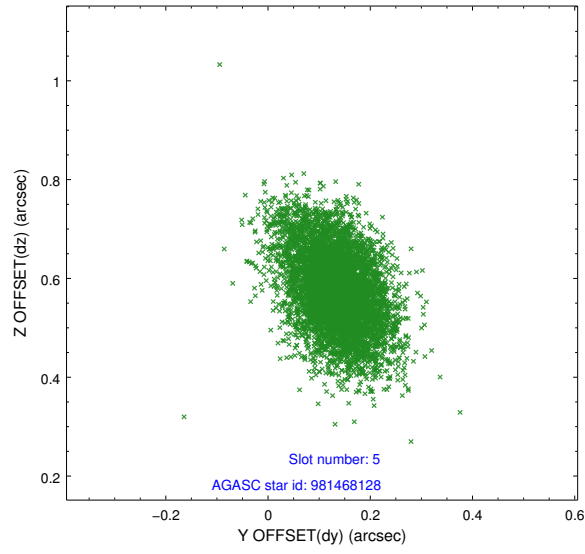
2.4.1 Slot 3



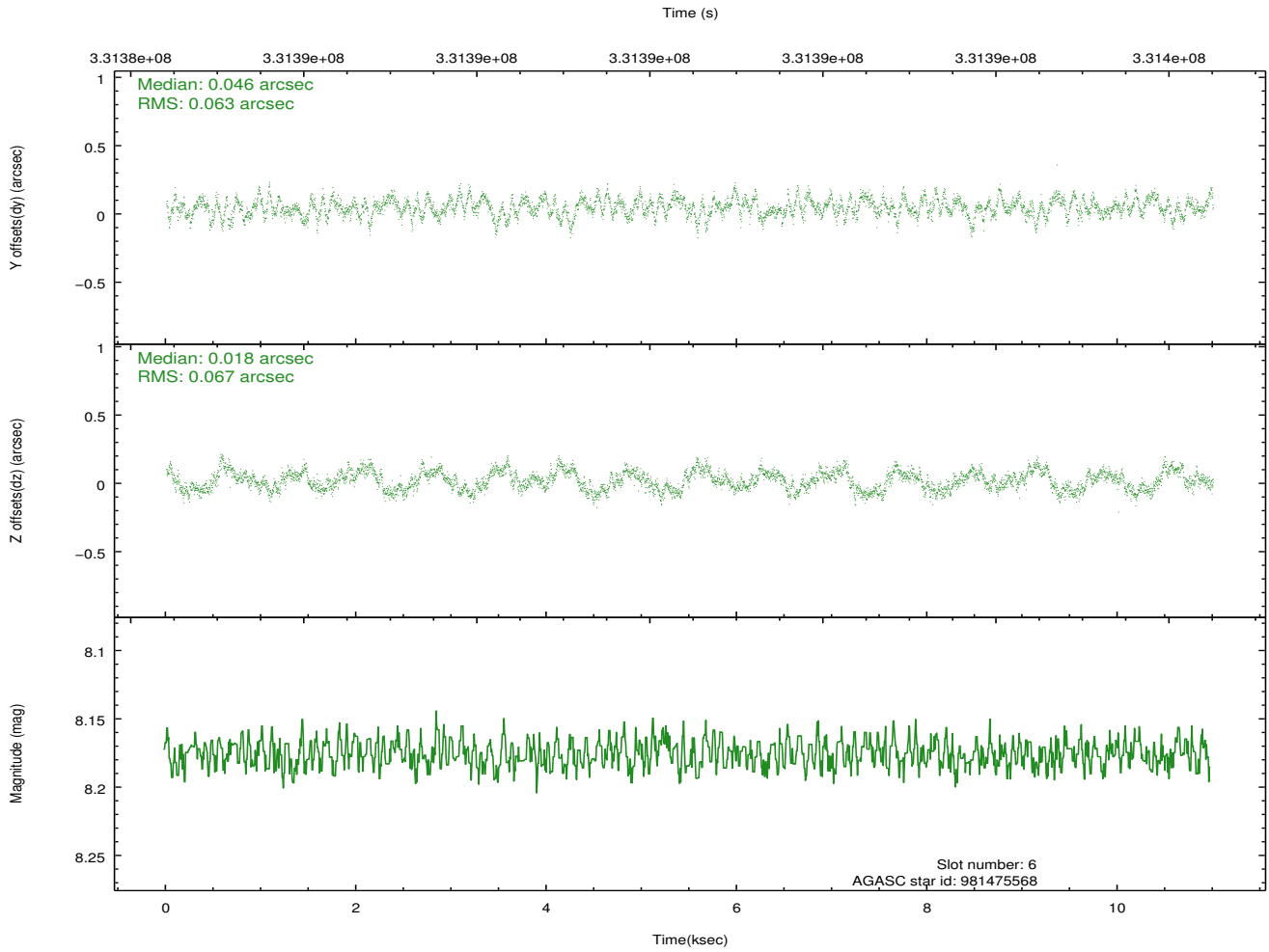
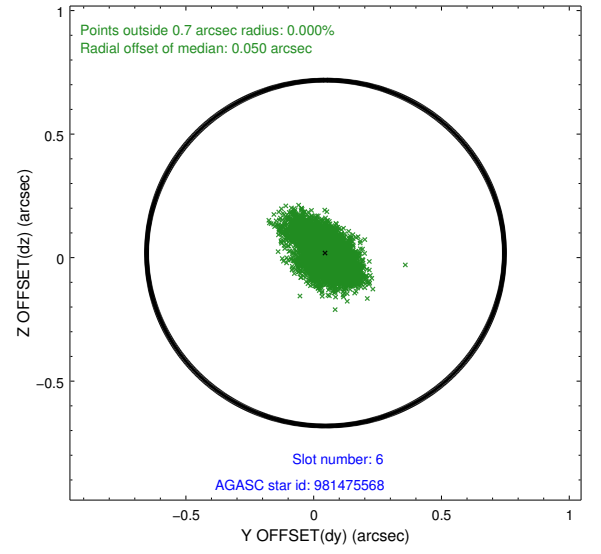
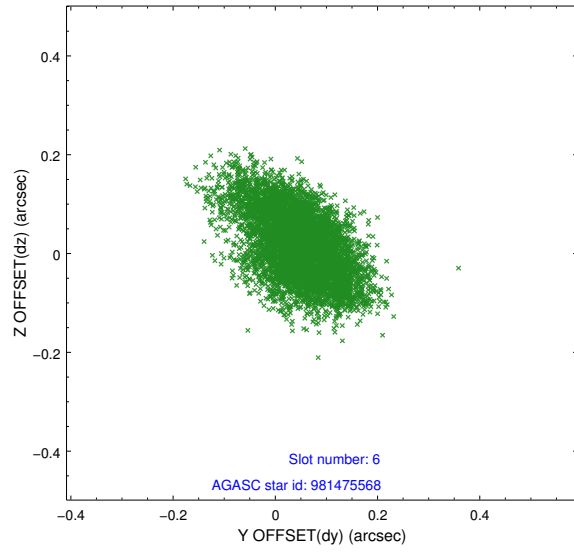
2.4.2 Slot 4



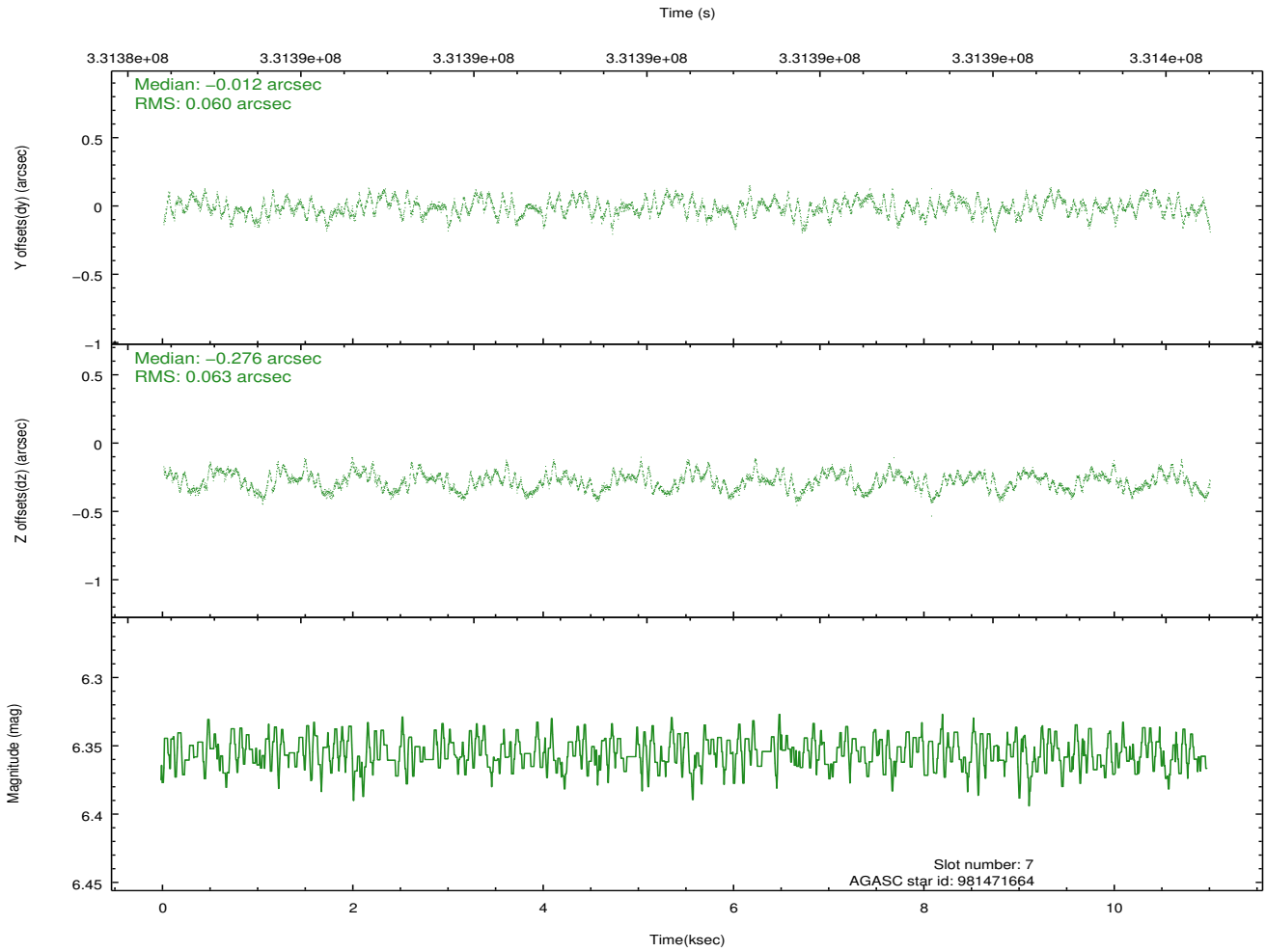
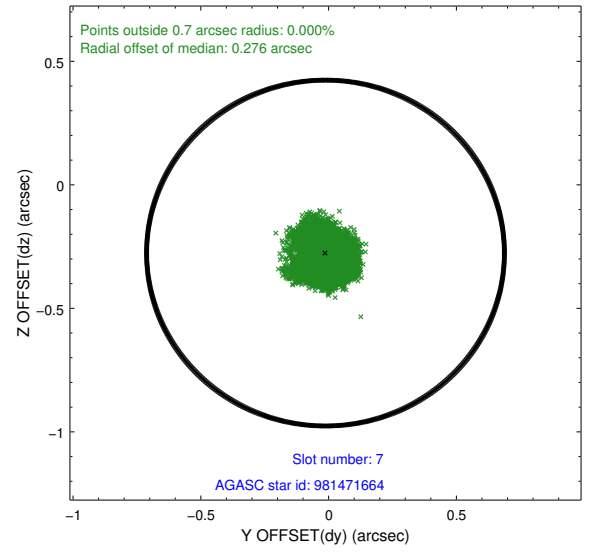
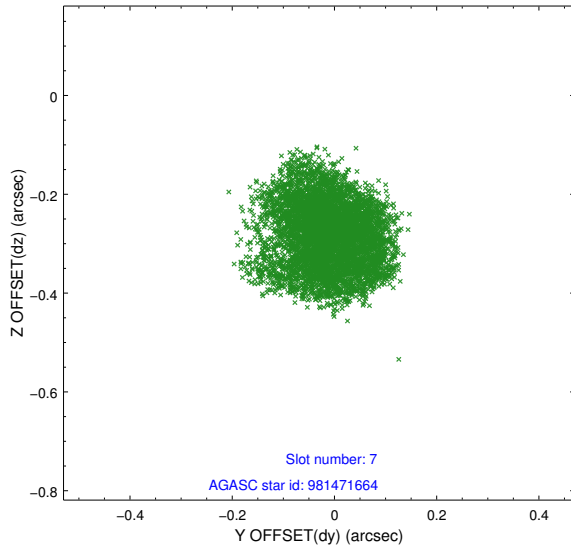
2.4.3 Slot 5



2.4.4 Slot 6

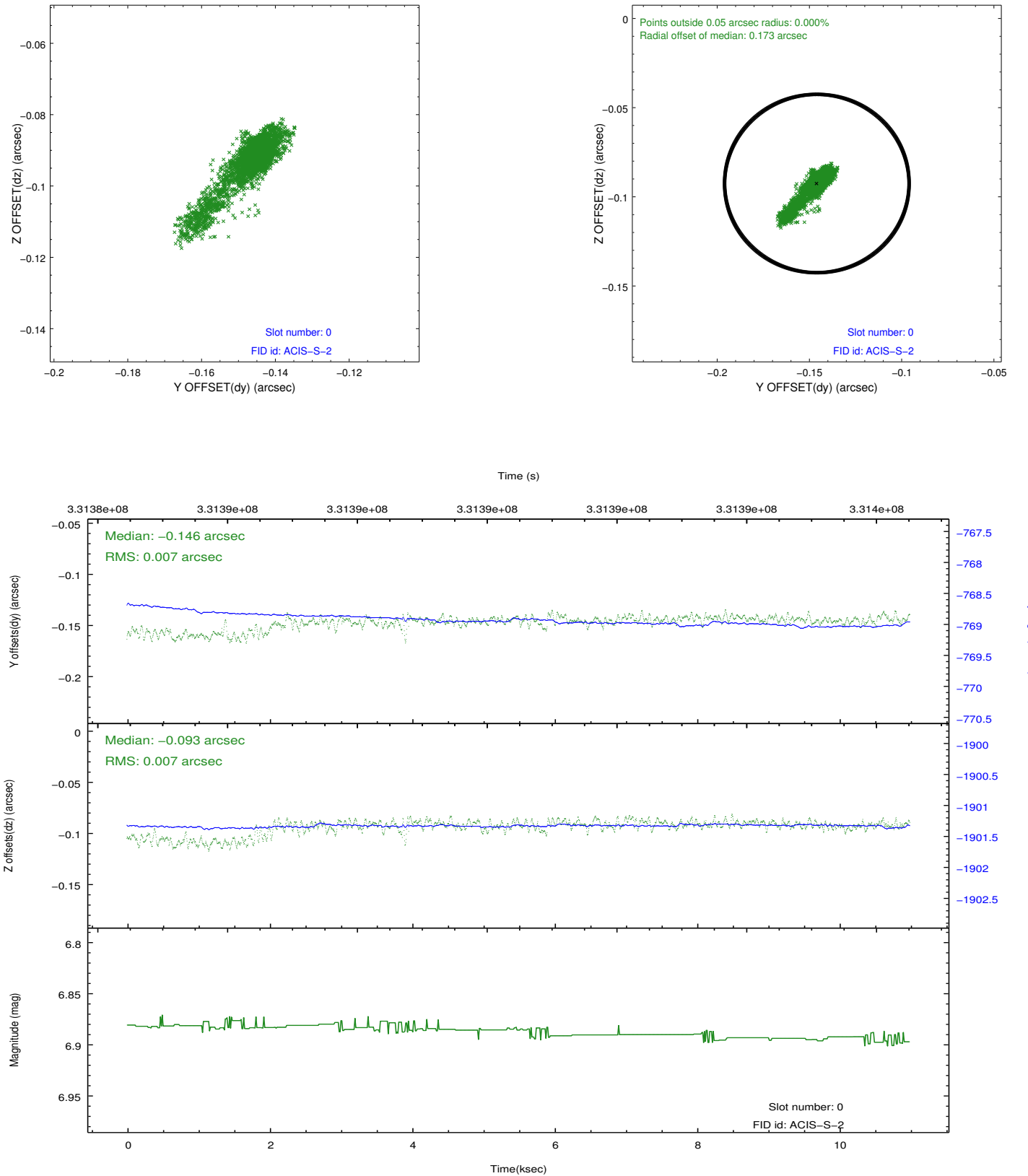


2.4.5 Slot 7

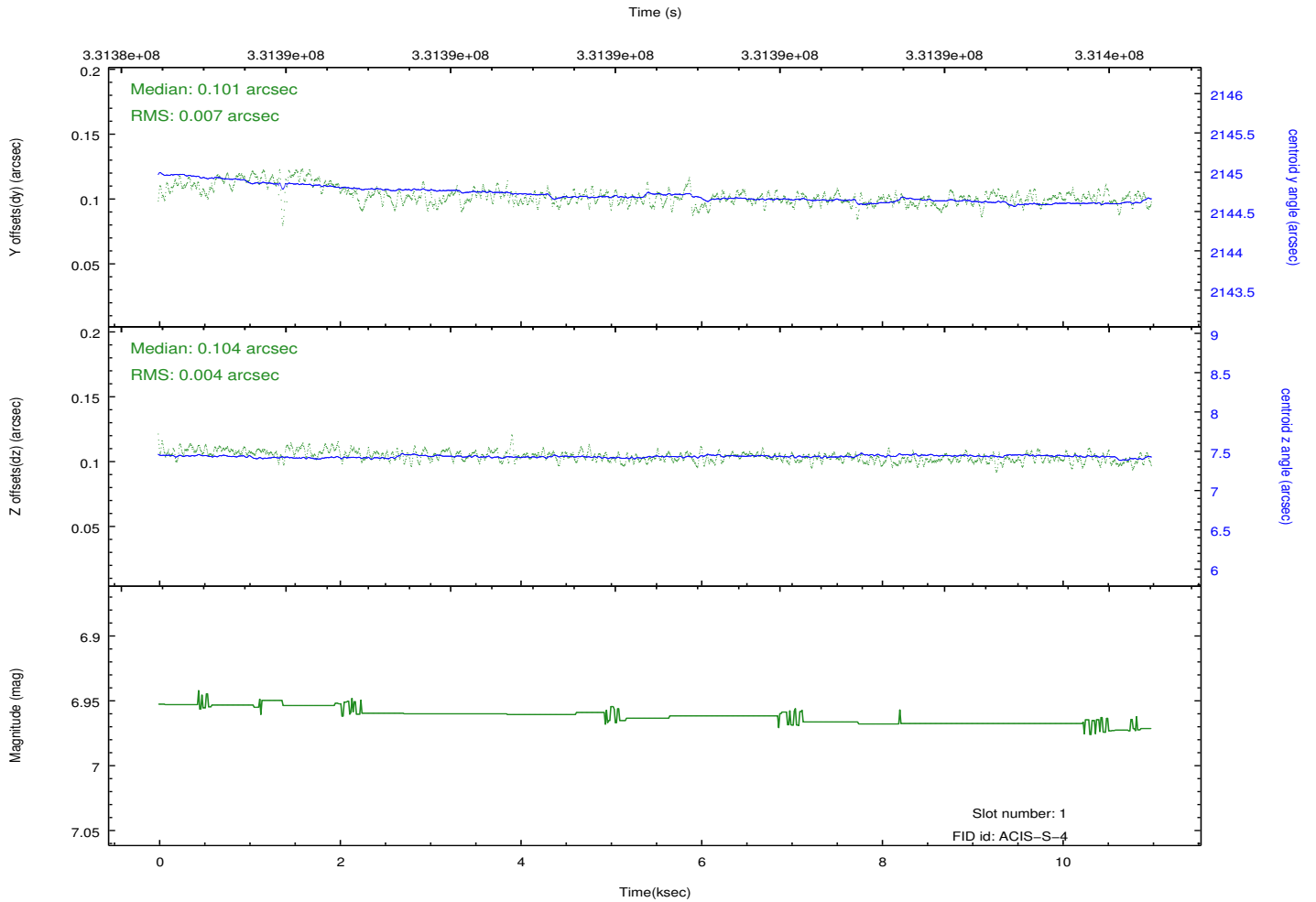
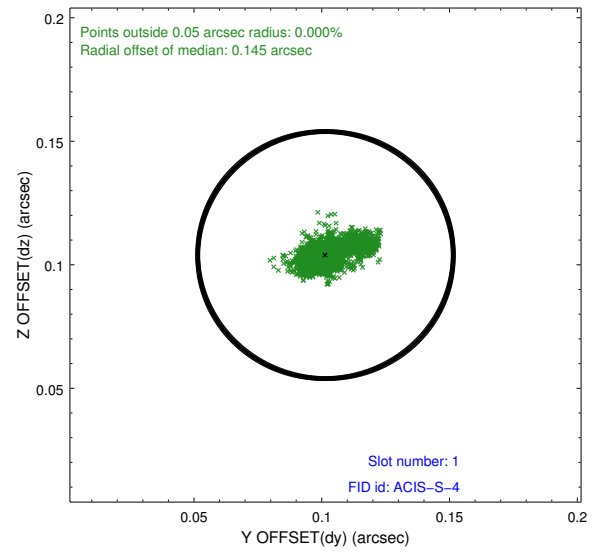
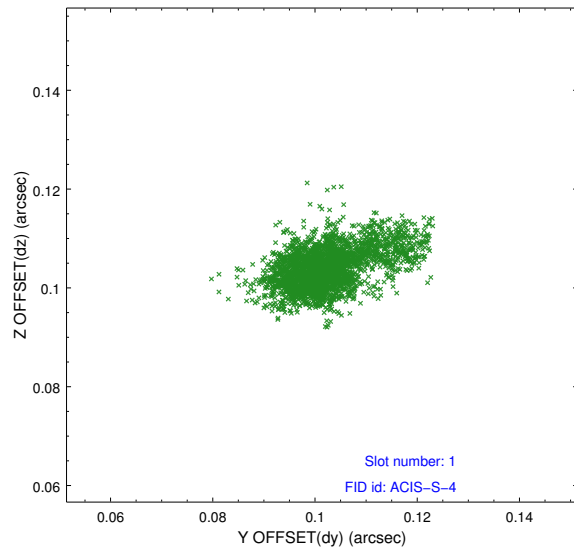


2.5 FID Slots

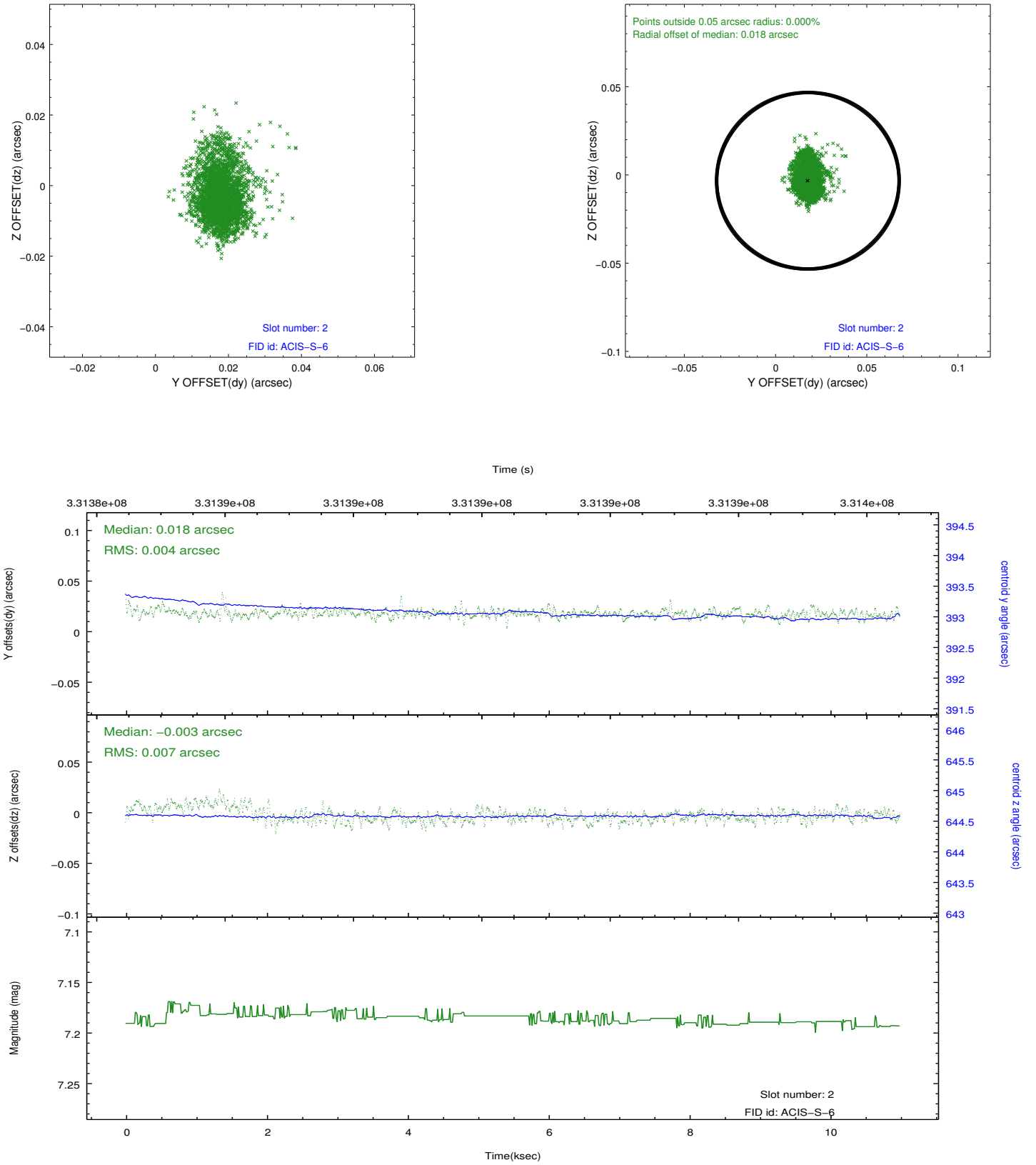
2.5.1 Slot 0



2.5.2 Slot 1

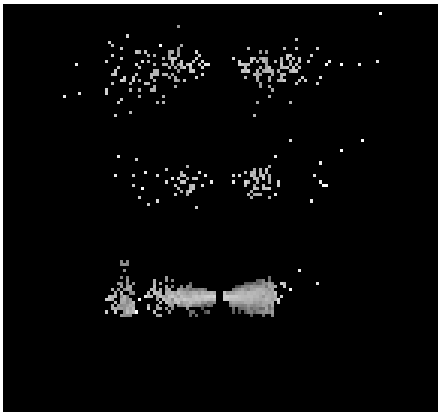


2.5.3 Slot 2

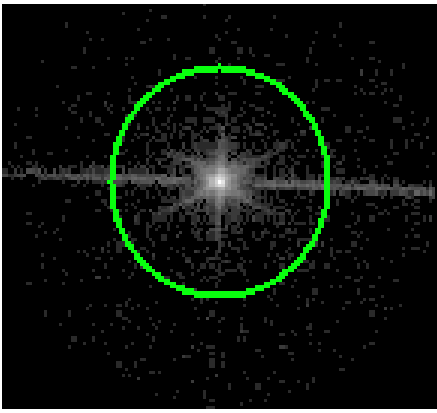


3 Gratings

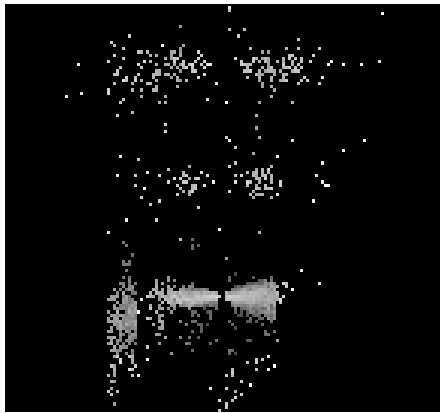
3.1 LETG Arm



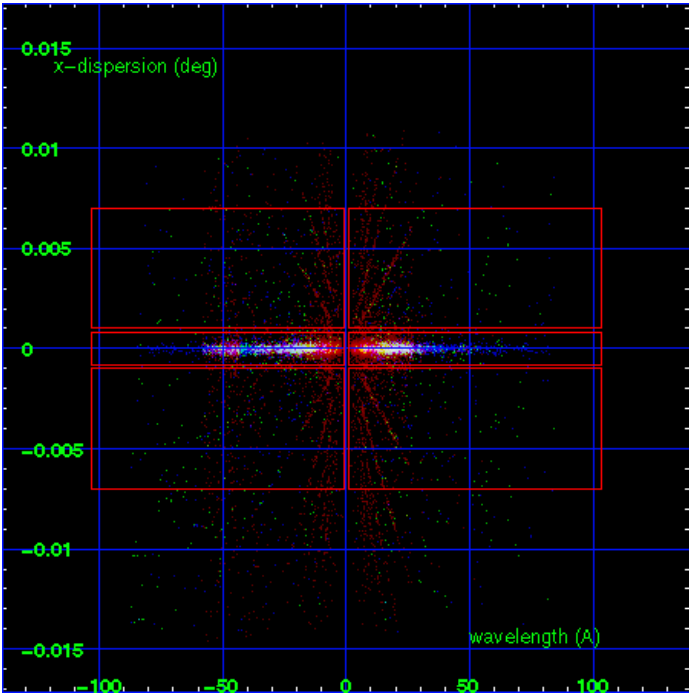
LETG Order Sort 123



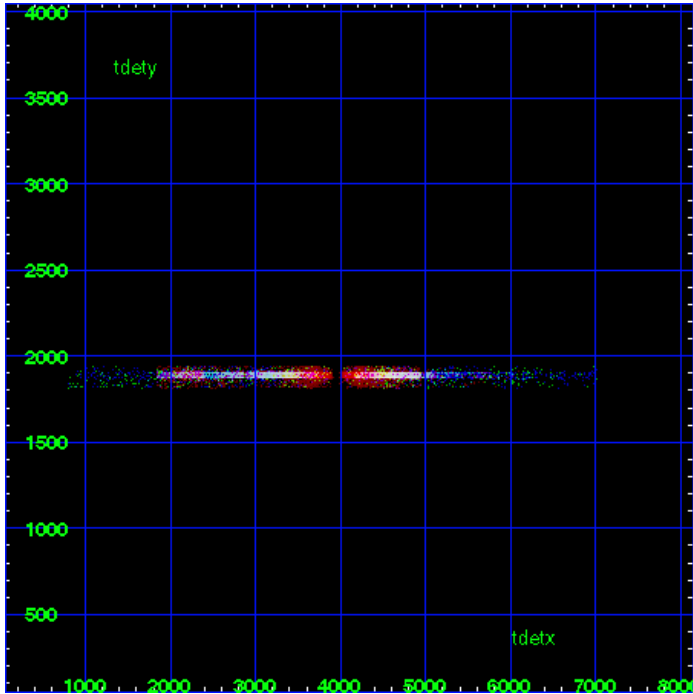
LETG Zero Order



LETG Order Sort ALL

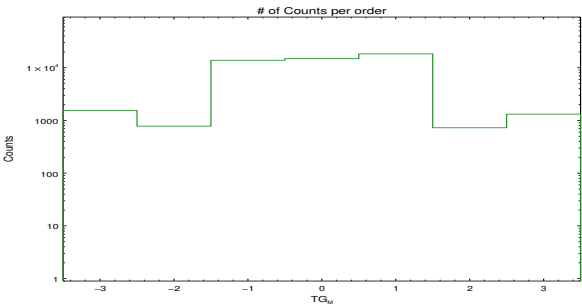


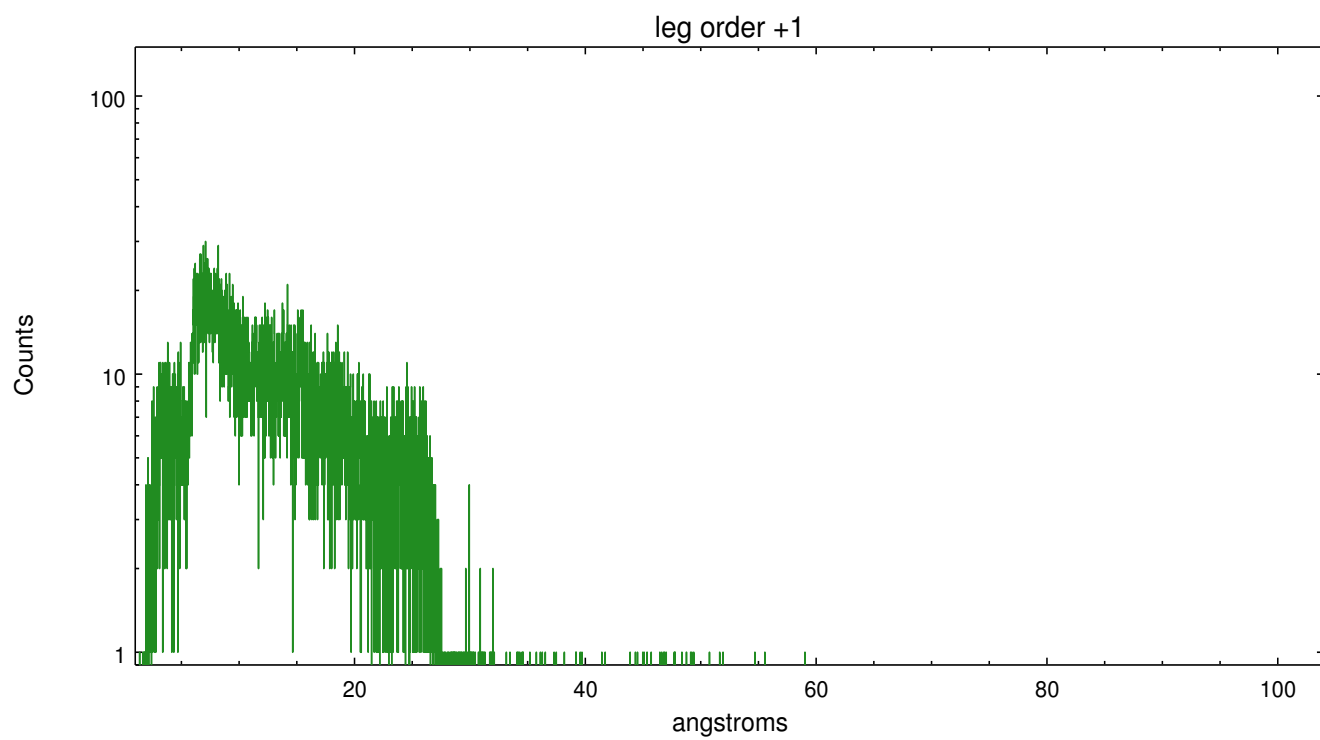
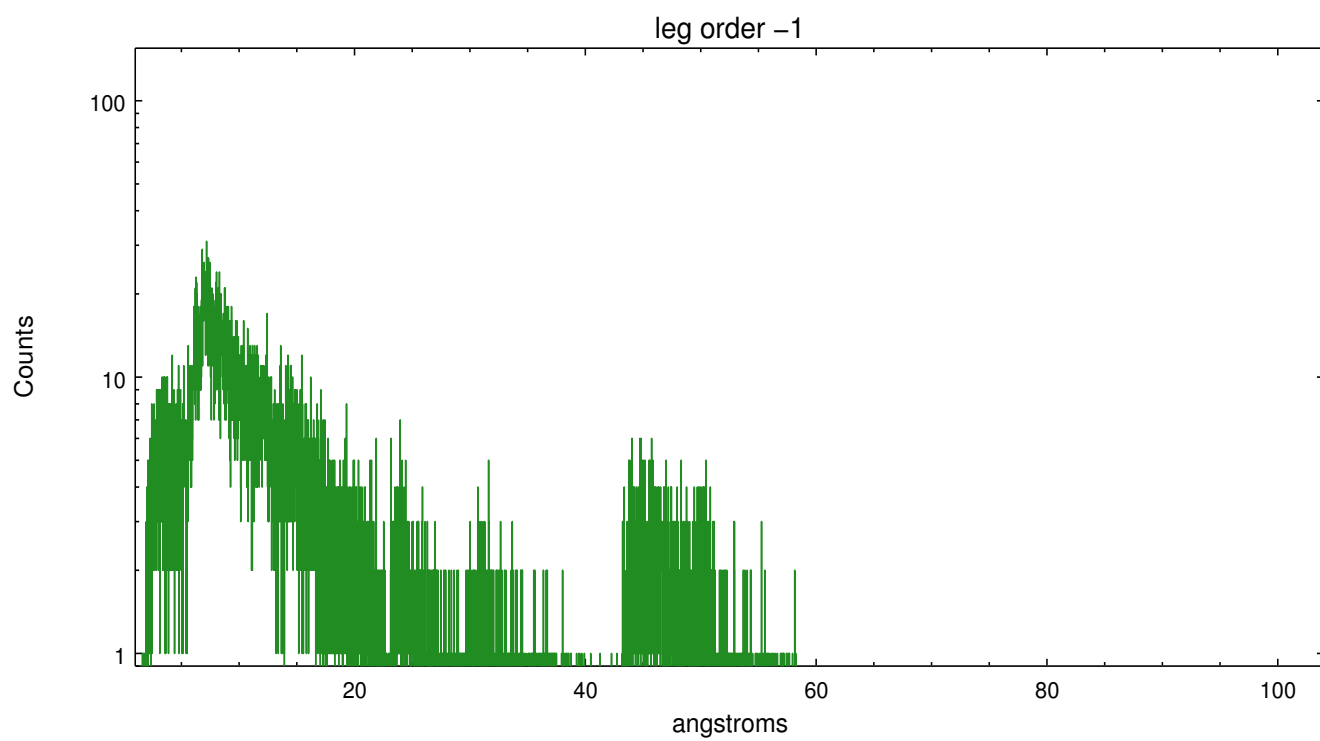
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1548	780	13858	14888	18304	727	1318





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	10.0645998

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.

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Zeroth order piled up.