

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12375 - L2 Version 2
Chandra X-Ray Center

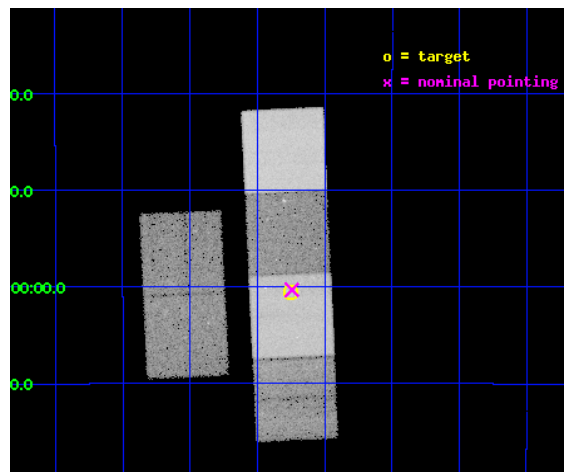
L2 Processing Date : Feb 4 2012

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1 Front

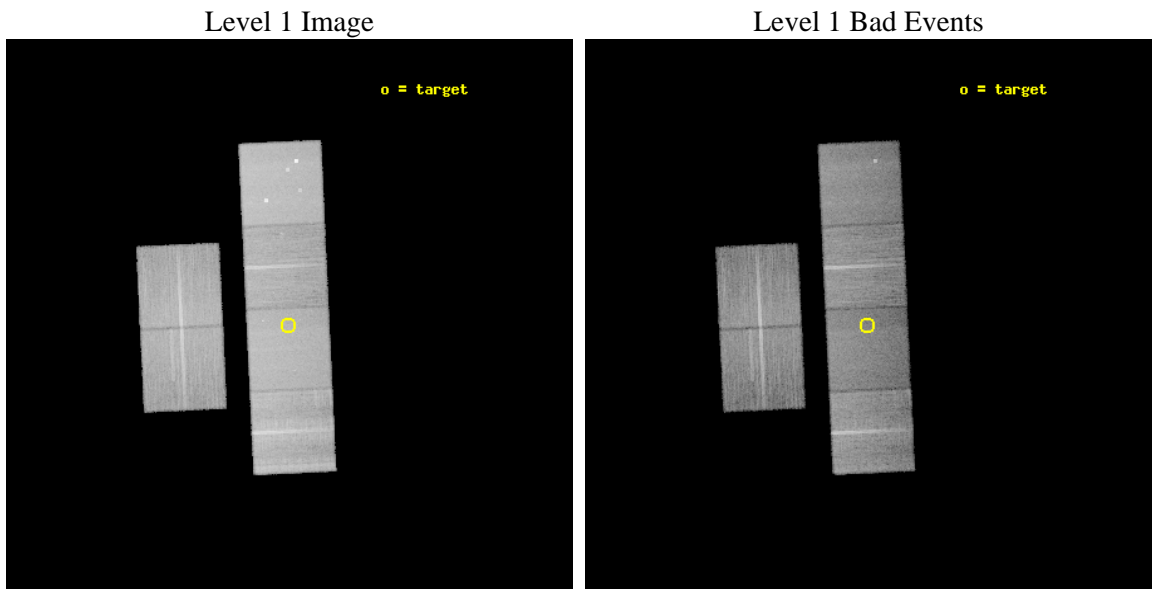
seq_num	200709	Sequence number
obs_id	12375	Observation id
title	X-rays from Planetary Nebulae: Unveiling Binarity, Magnetic Fields, and Wind Collisions	Proposal title
observer	Dr. Joel Kastner	Principal investigator
object	NGC 6445	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	267.313333	Observer's specified target RA [deg]
dec_targ	-20.009583	Observer's specified target Dec [deg]
ra_nom	267.31082807595	Nominal RA [deg]
dec_nom	-20.005348809081	Nominal Dec [deg]
roll_nom	87.317990100143	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30056.240984619	Sum of GTIs [s]
livetime	29675.650763576	Livetime [s]
ontime2	30056.282024622	Sum of GTIs [s]
ontime3	30052.876904249	Sum of GTIs [s]
ontime5	30056.199944615	Sum of GTIs [s]
ontime6	30052.917944252	Sum of GTIs [s]
ontime7	30056.240984619	Sum of GTIs [s]
ontime8	30056.076824605	Sum of GTIs [s]
l2events	339981	Number of level 2 events



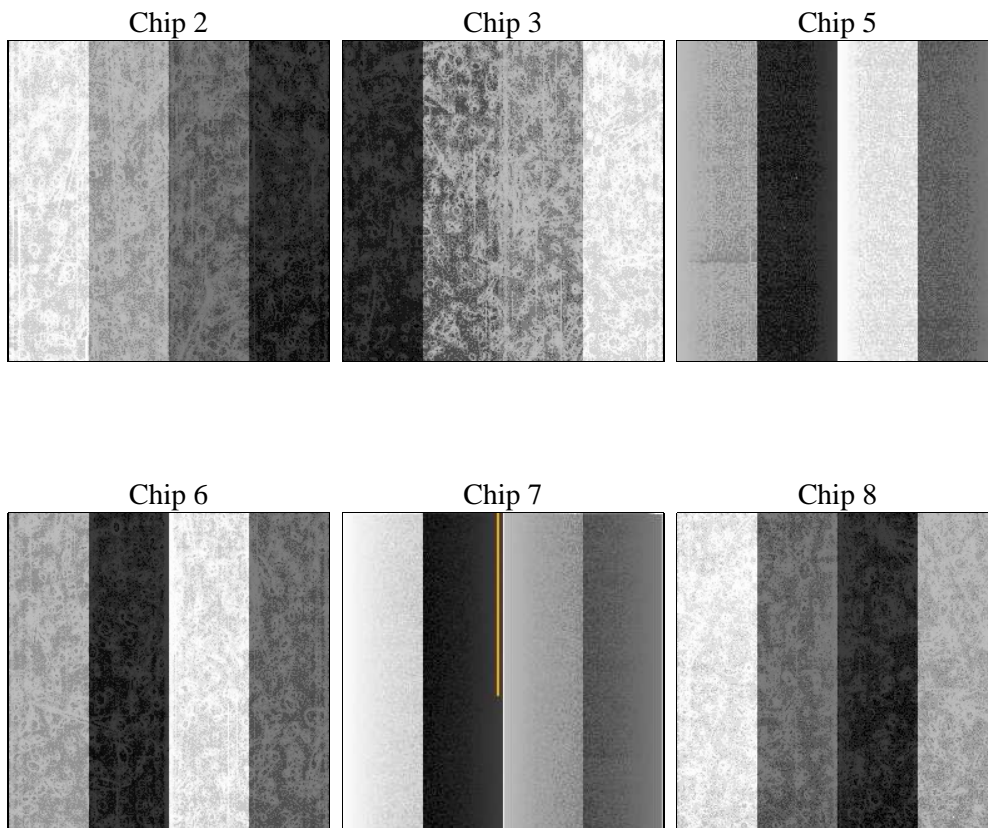
2 OBI

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	Processing system revision	ontime	30056.240984619	Sum of GTIs [s]
caldbver	4.4.7	 	ontime2	30056.282024622	Sum of GTIs [s]
date	2012-02-04T20:14:50	Date and time of file creation	ontime3	30052.876904249	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	30056.199944615	Sum of GTIs [s]
			ontime6	30052.917944252	Sum of GTIs [s]
			ontime7	30056.240984619	Sum of GTIs [s]
			ontime8	30056.076824605	Sum of GTIs [s]
			l1events	1431285	Number of level 1 events

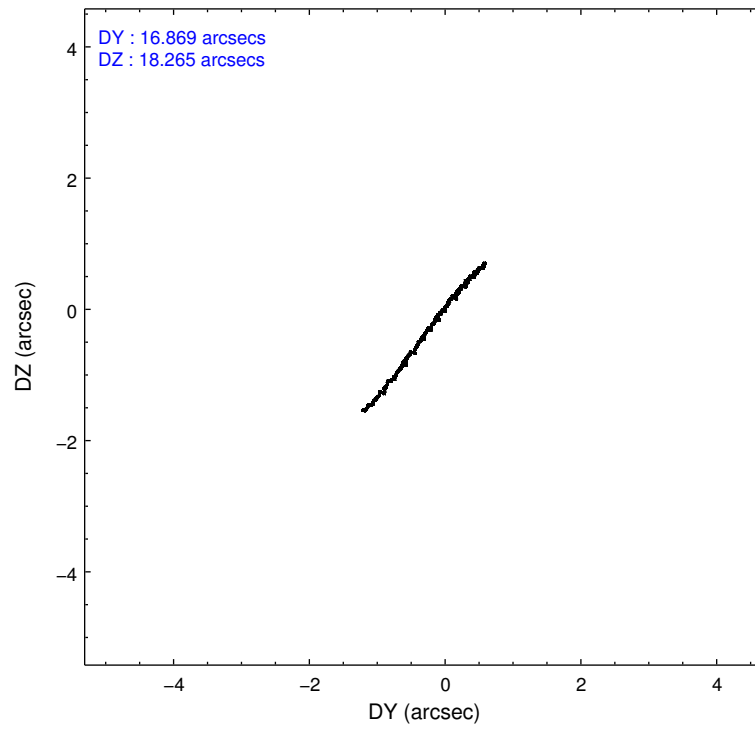
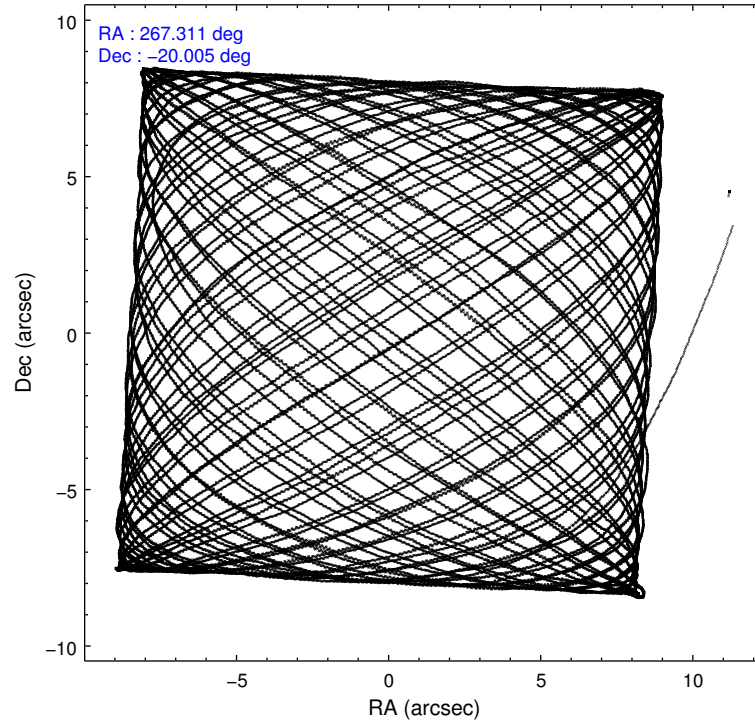
2.1.4 Events

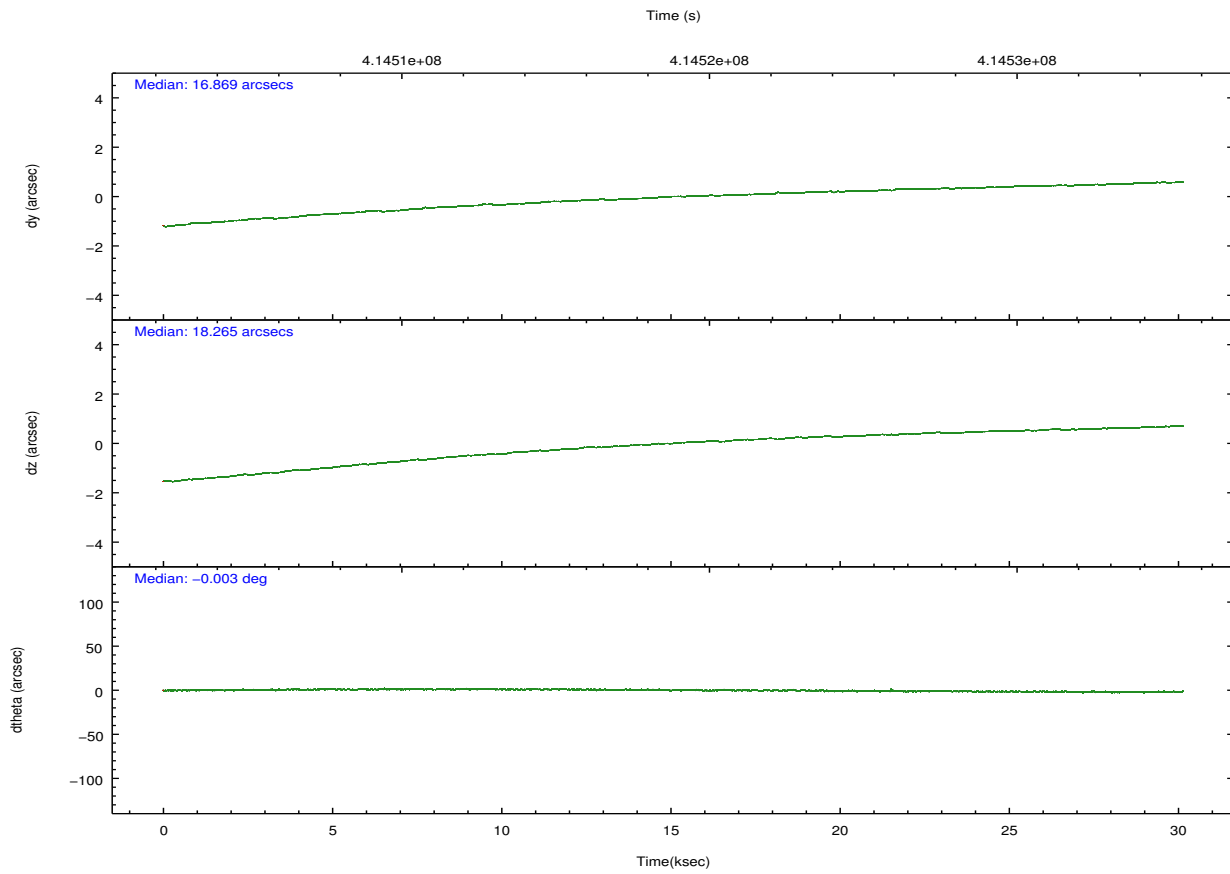
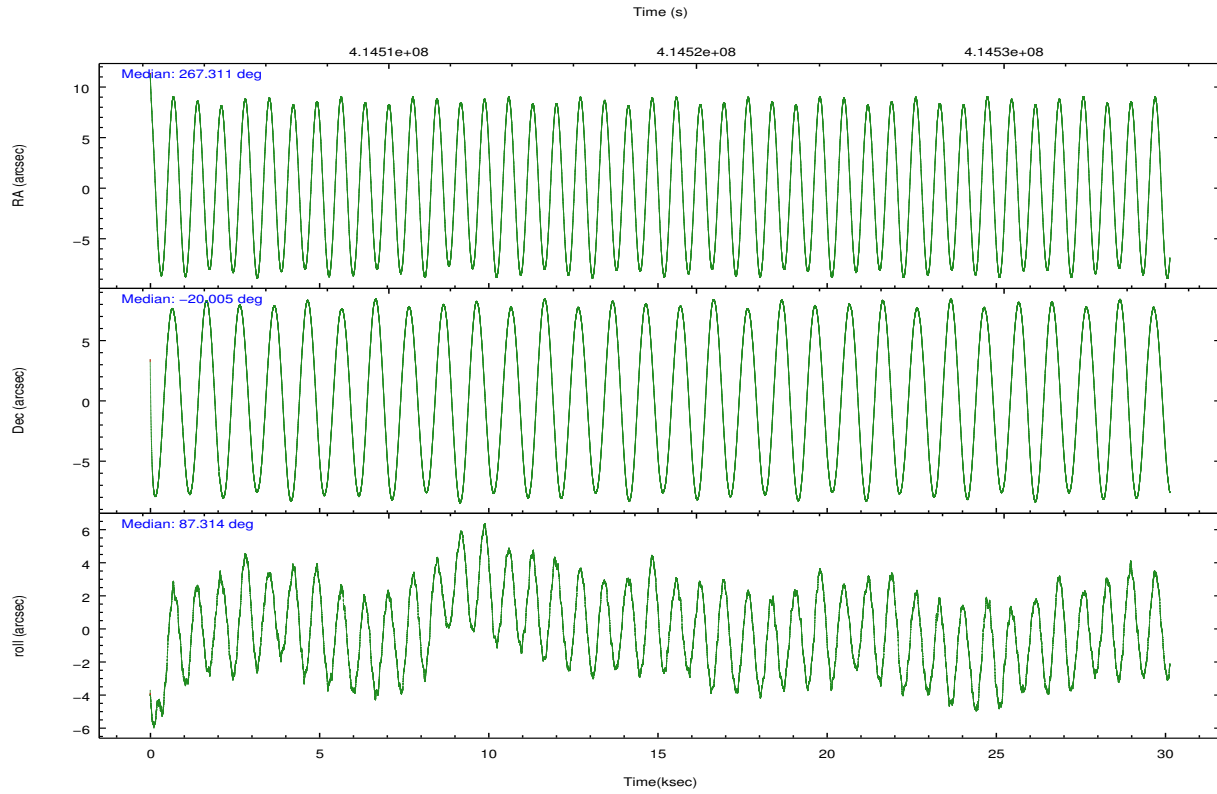
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	210856	192470	312113	204572	250232	261042	grade 0 events	8554	8459	15171	9538	10920	21655
rejected events	188070	170557	156532	179503	136416	190354		4%	4%	4%	4%	4%	8%
rejected %	89%	88%	50%	87%	54%	72%	grade 1 events	136	138	530	102	306	220
								0%	0%	0%	0%	0%	0%
							grade 2 events	5469	4781	48567	5418	23398	16078
								2%	2%	15%	2%	9%	6%
							grade 3 events	2243	2244	6188	2510	10098	7326
								1%	1%	1%	1%	4%	2%
							grade 4 events	2303	2265	5804	2447	9996	6971
								1%	1%	1%	1%	3%	2%
							grade 5 events	8279	9147	24240	9325	26009	13495
								3%	4%	7%	4%	10%	5%
							grade 6 events	4220	4166	79869	5157	59418	18660
								2%	2%	25%	2%	23%	7%
							grade 7 events	179652	161270	131744	170075	110087	176637
								85%	83%	42%	83%	43%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	267.324541	267.3108280759541	CCD I2 on	O4	Y
[deg] Pointing Dec	-20.029460	-20.0053488090813	CCD I3 on	O5	Y
[deg] Pointing Roll	87.166054	87.31799010014338	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O2	Y
[s] Observation start time (MET)	414503876.184000	414502555.19368	CCD S5 on	N	N
Observation start date	2011-02-19T11:56:50	2011-02-19T11:35:55	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	414533876.184000	414534914.44536	On-chip summing requested	N	N
Observation end date	2011-02-19T20:16:50	2011-02-19T20:35:14	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



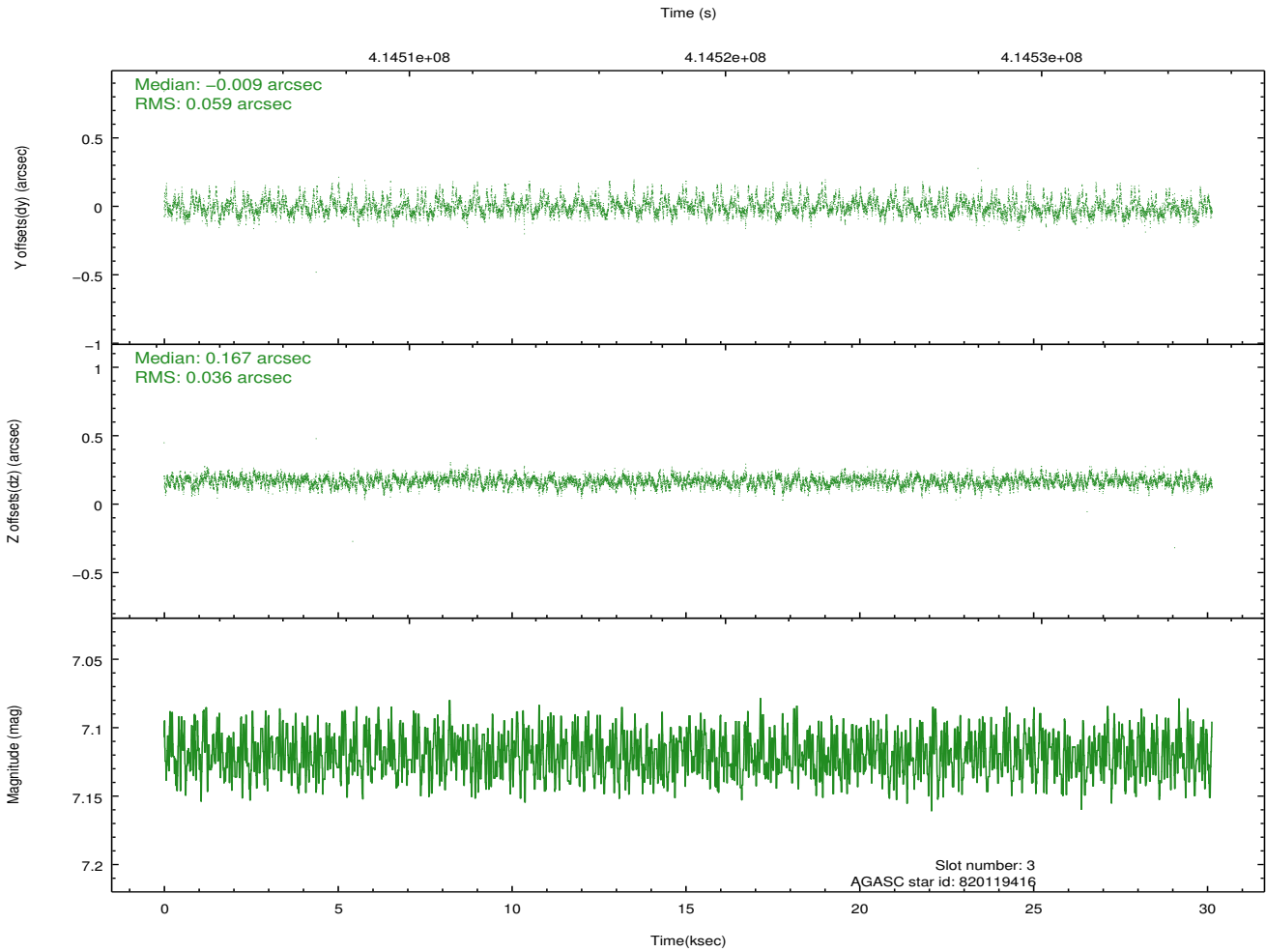
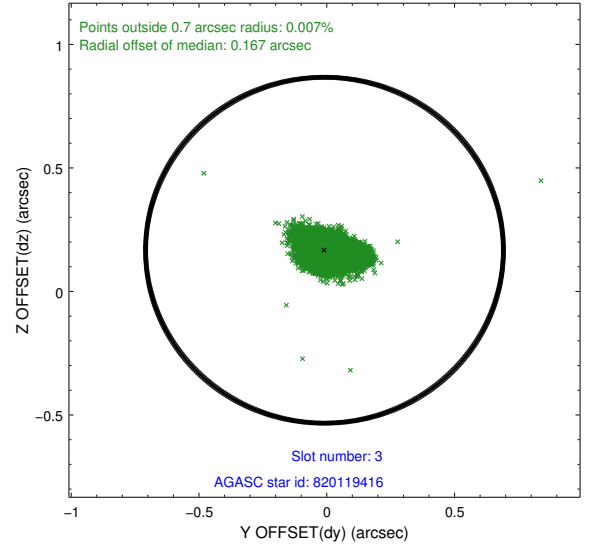
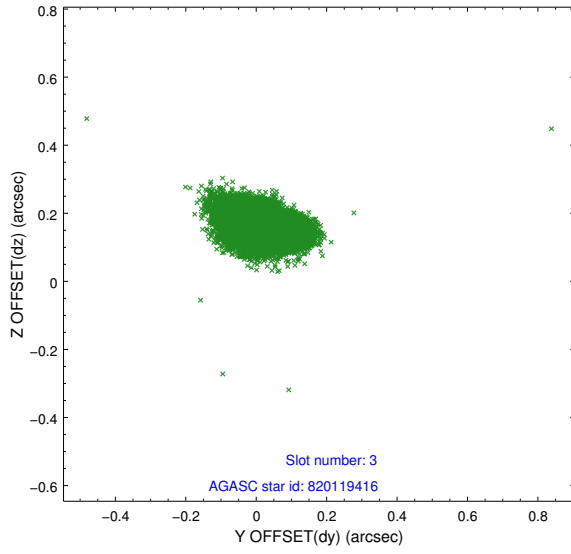


Slot Statistics

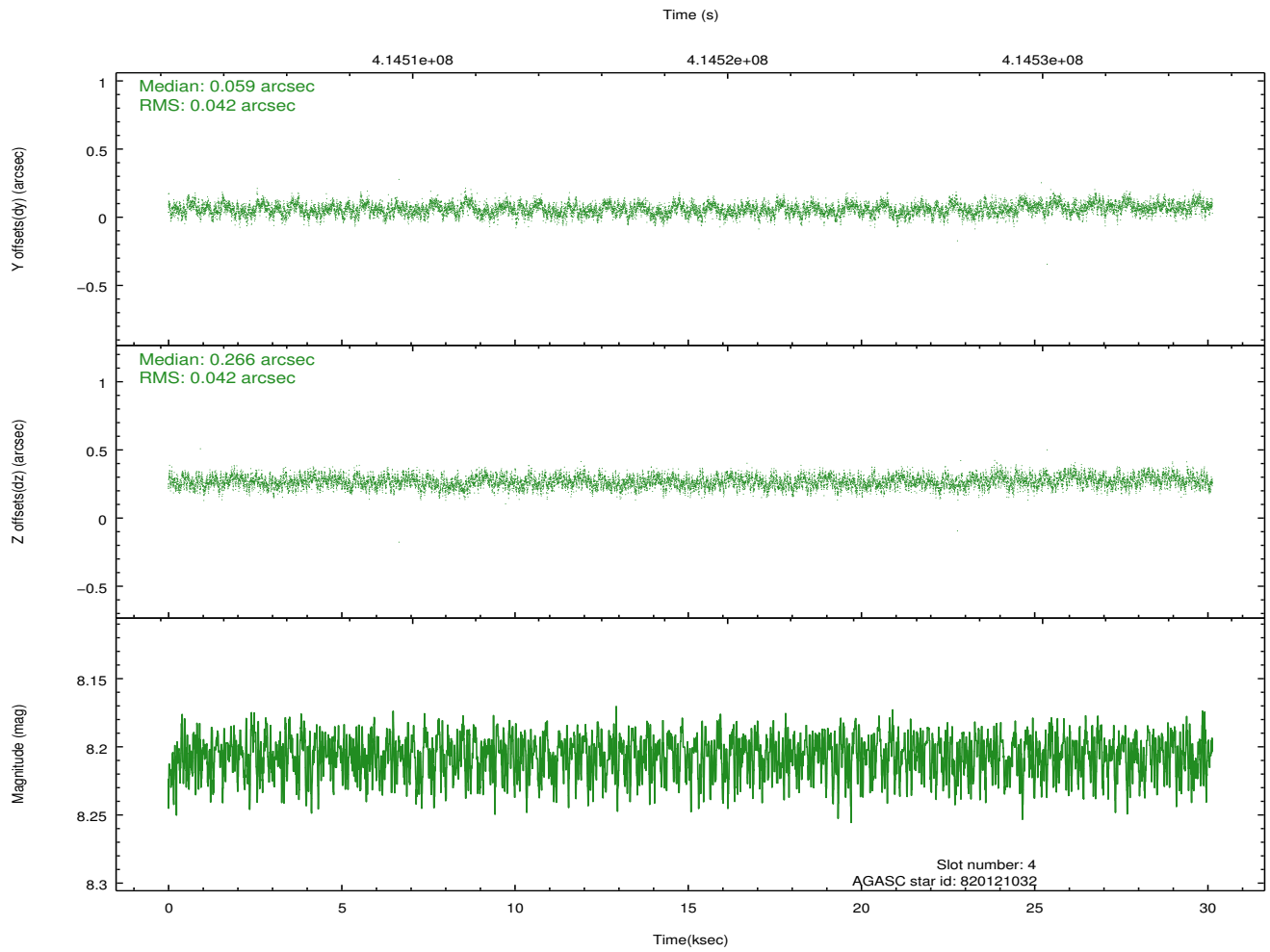
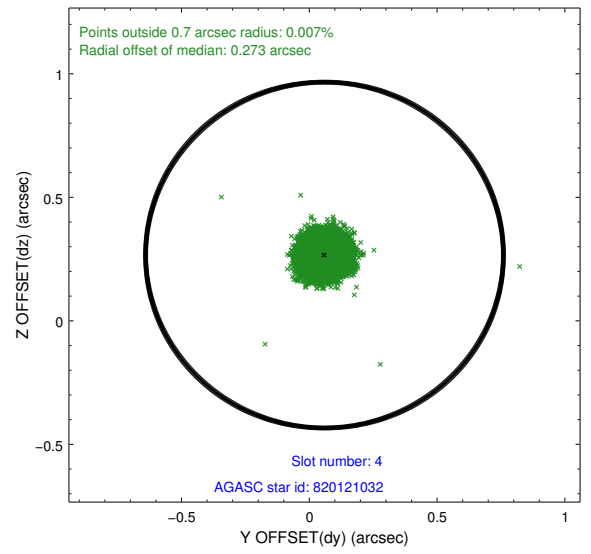
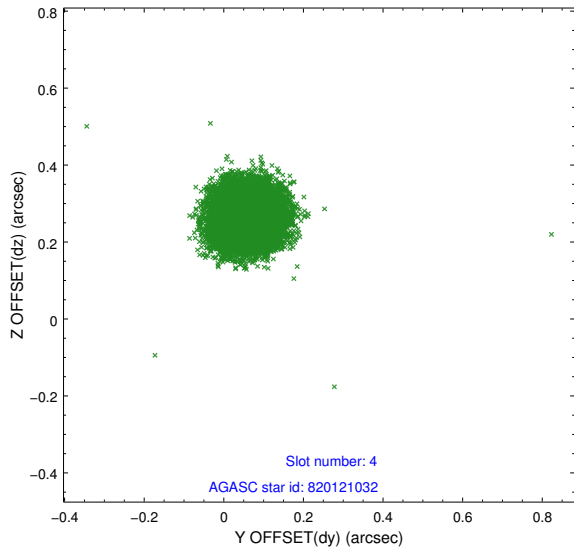
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	7352	-0.070	-0.047	0.012	0.025	0.000000	0.000000	-769.87	-1739.55
1	FID	ACIS-S-4	6.98	7352	0.172	0.046	0.012	0.019	0.000000	0.000000	2143.65	168.90
2	FID	ACIS-S-5	7.01	7349	-0.135	0.010	0.015	0.028	0.000000	0.000000	-1822.65	162.68
3	GUIDE	820119416	7.12	14702	-0.009	0.167	0.070	0.125	267.952133	-19.525193	1914.25	-2036.99
4	GUIDE	820121032	8.21	14699	0.059	0.266	0.064	0.100	267.981285	-20.437665	-1361.90	-2285.50
5	GUIDE	820121744	6.70	14703	-0.237	-0.680	0.047	0.075	267.173633	-19.779615	872.86	554.41
6	GUIDE	820119768	7.96	14702	0.019	0.007	0.067	0.108	267.398392	-20.006729	94.29	-245.22
7	GUIDE	820250968	8.26	14702	0.159	0.239	0.071	0.115	268.040879	-20.078647	-61.57	-2427.78

2.4 Star Slots

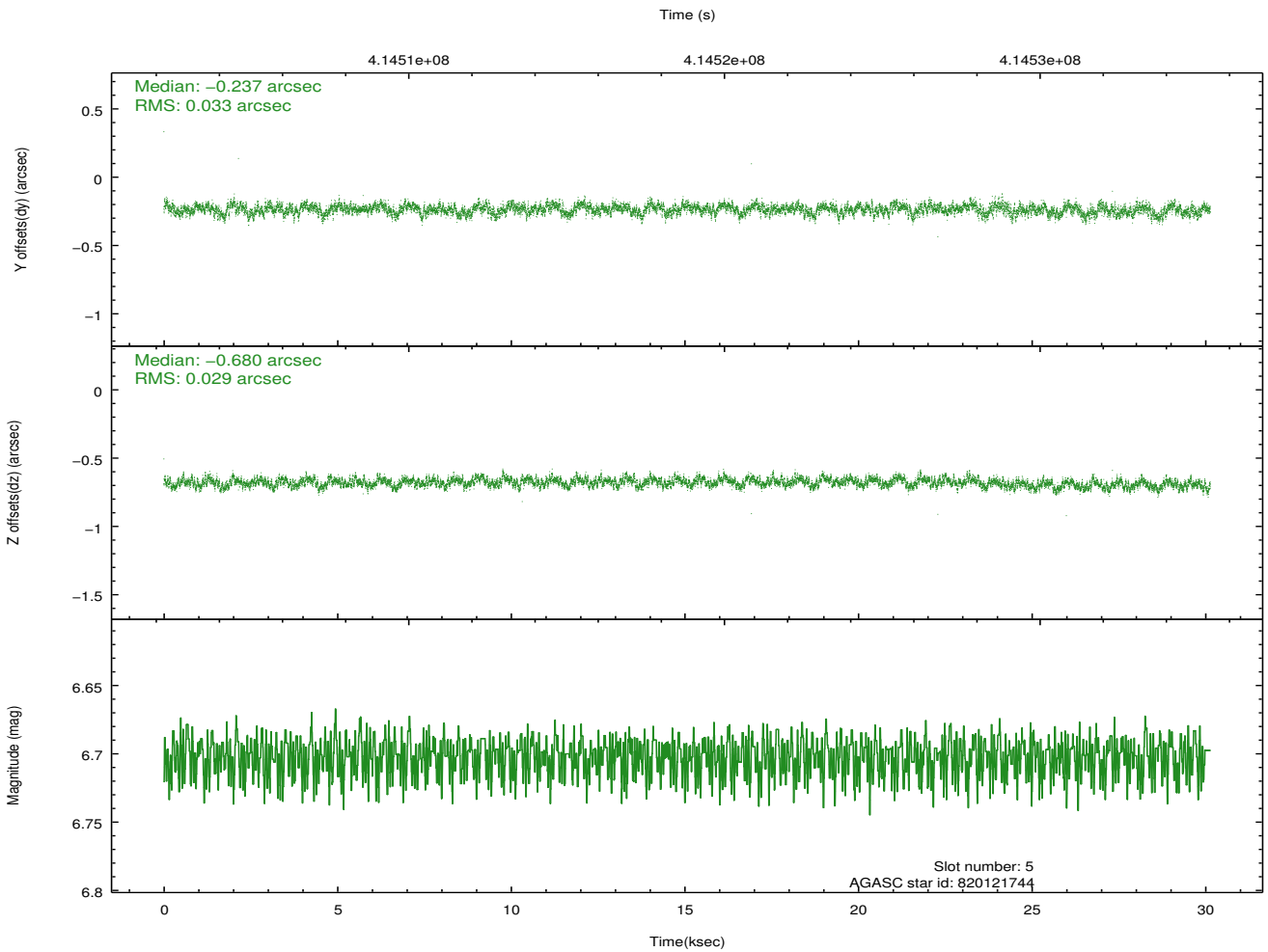
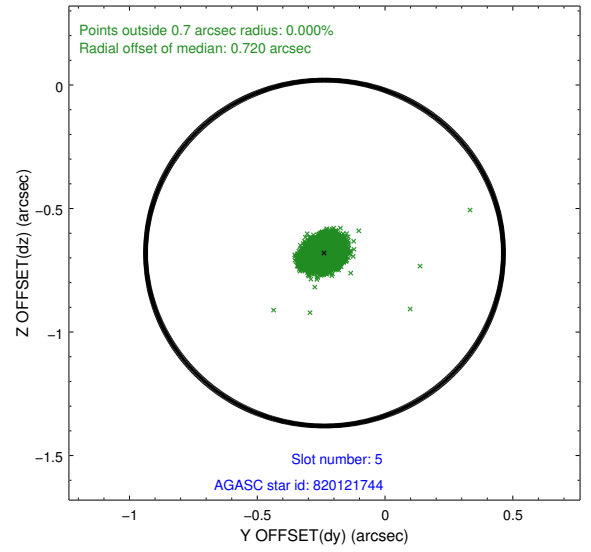
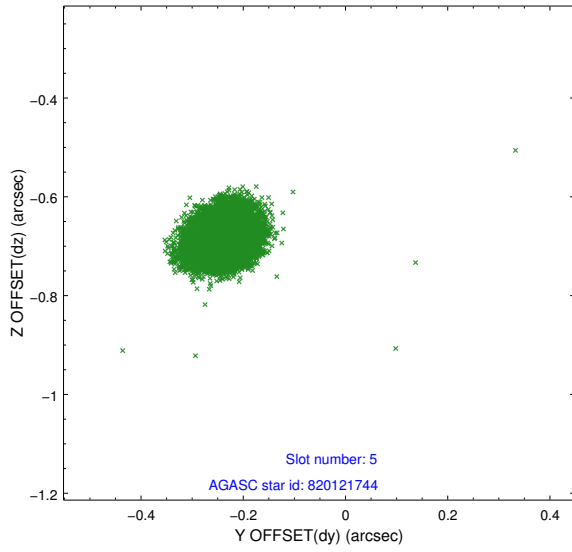
2.4.1 Slot 3



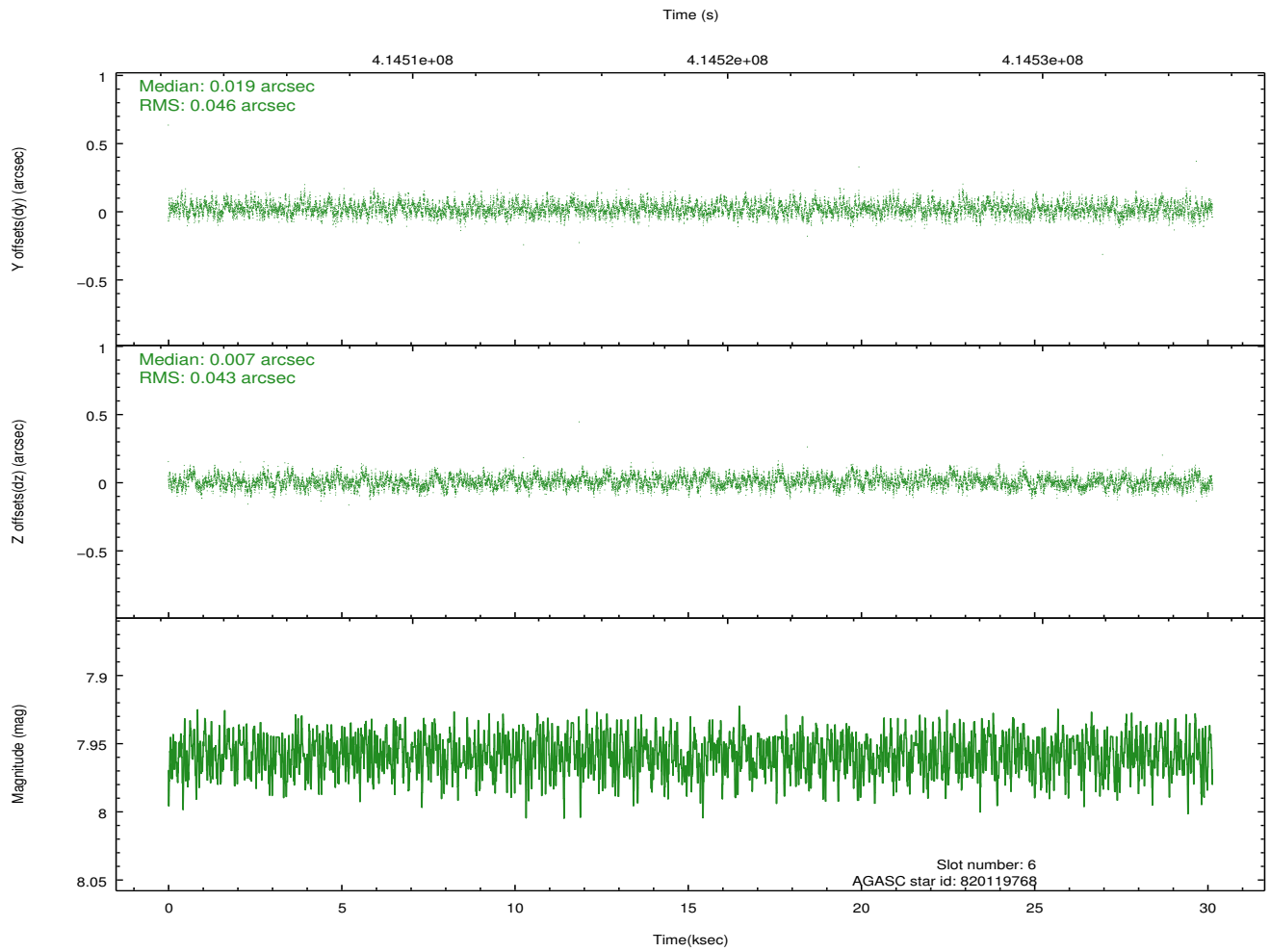
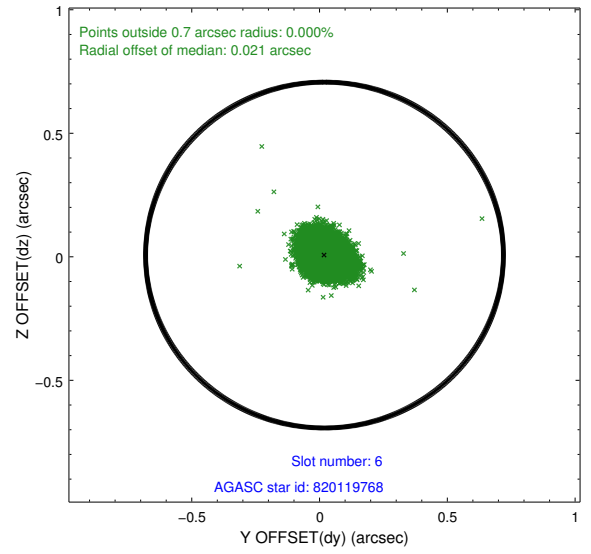
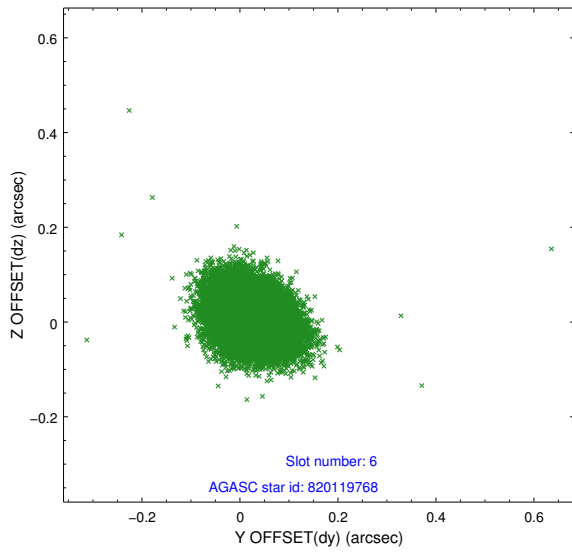
2.4.2 Slot 4



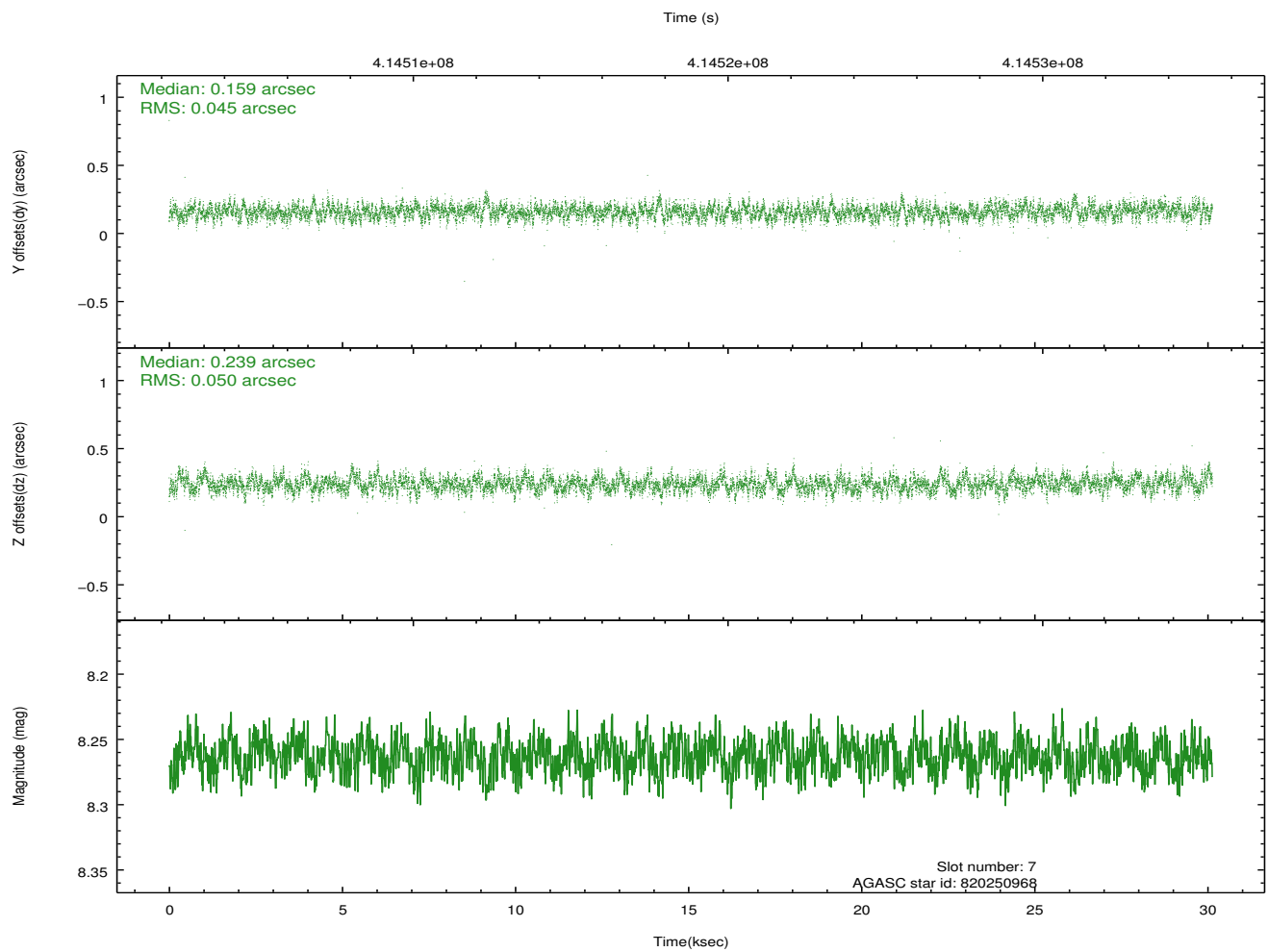
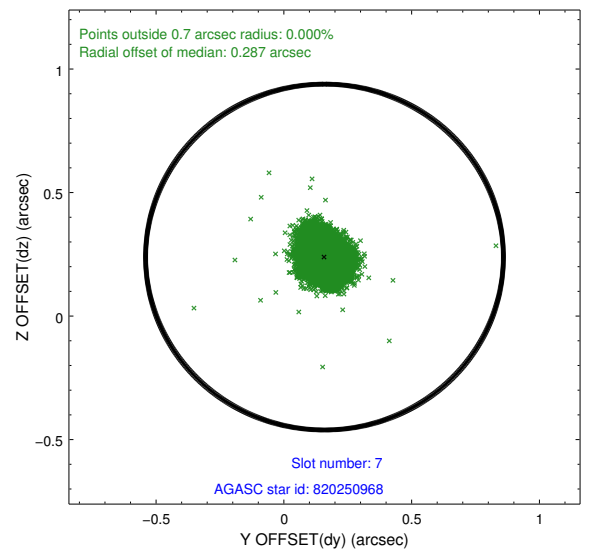
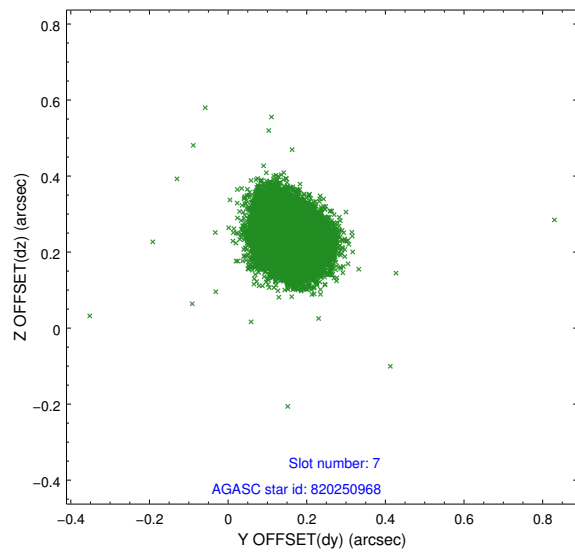
2.4.3 Slot 5



2.4.4 Slot 6

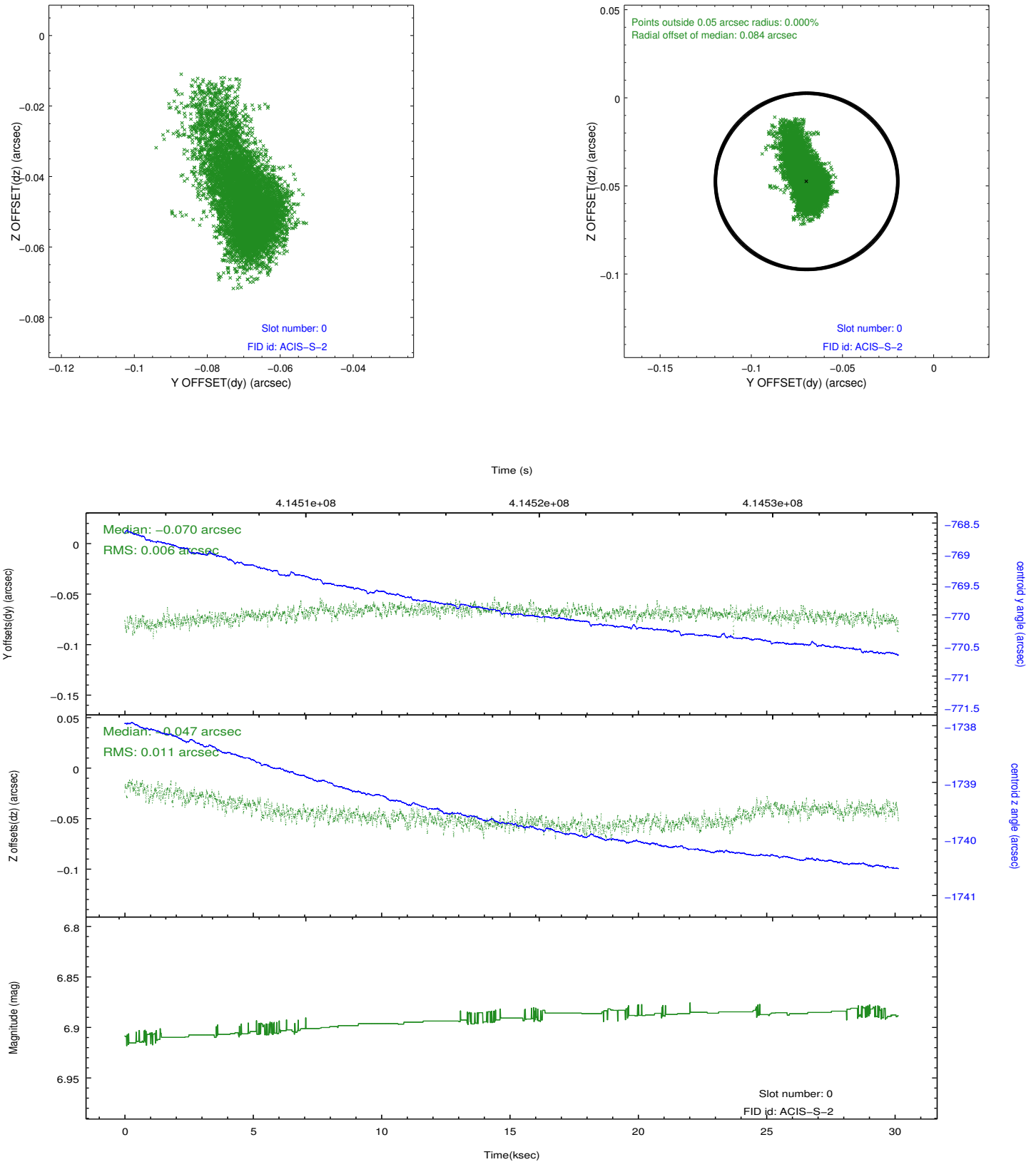


2.4.5 Slot 7

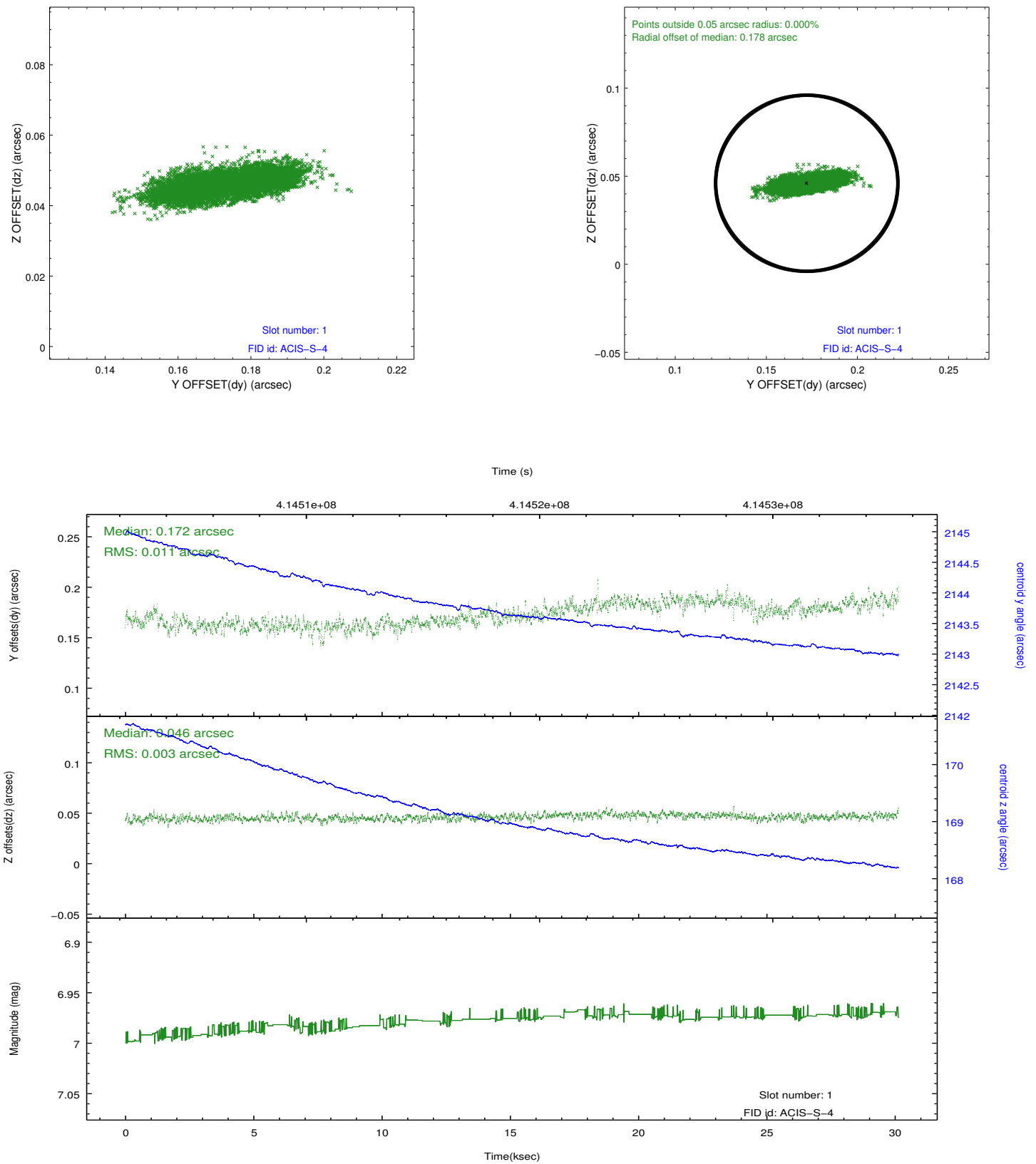


2.5 FID Slots

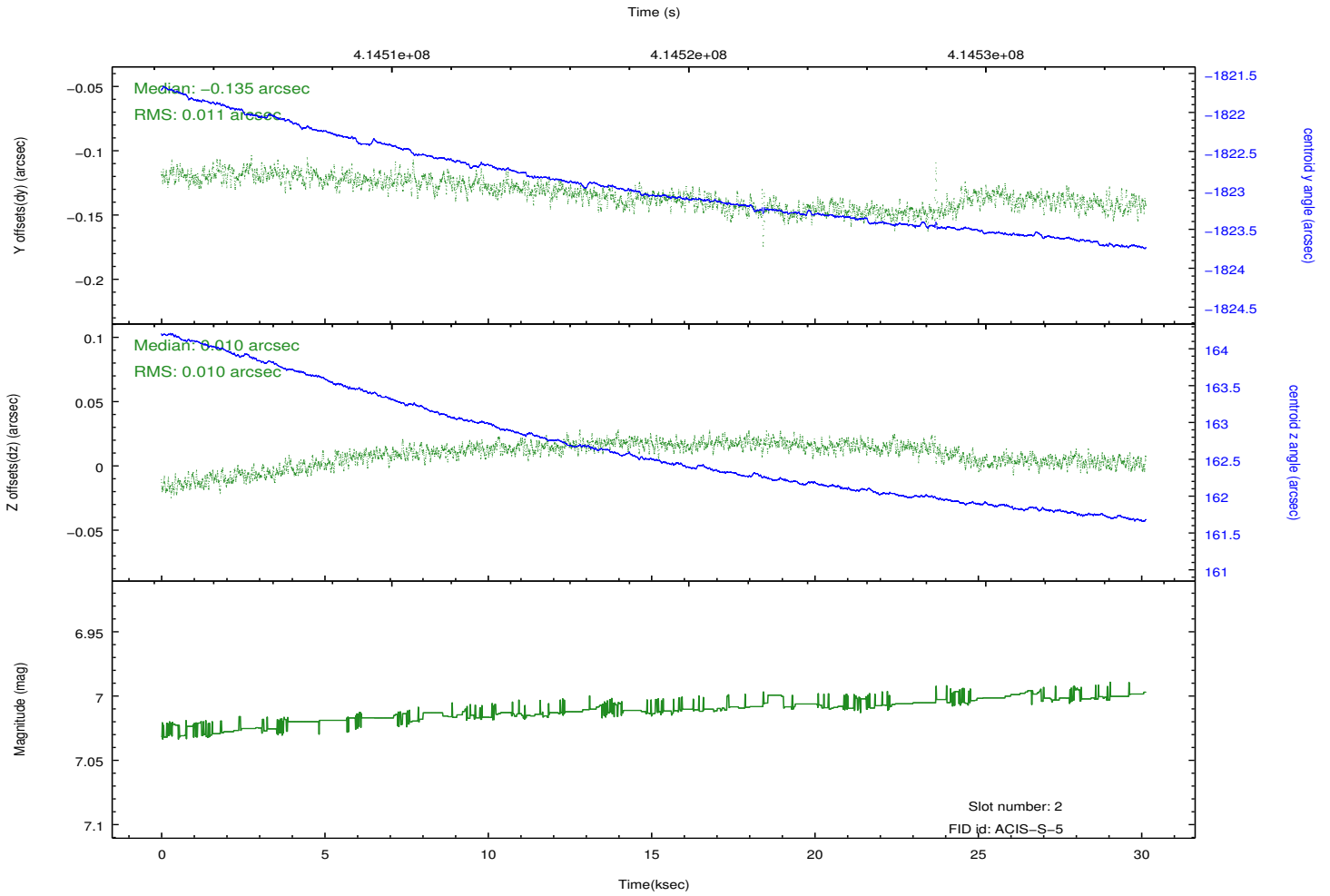
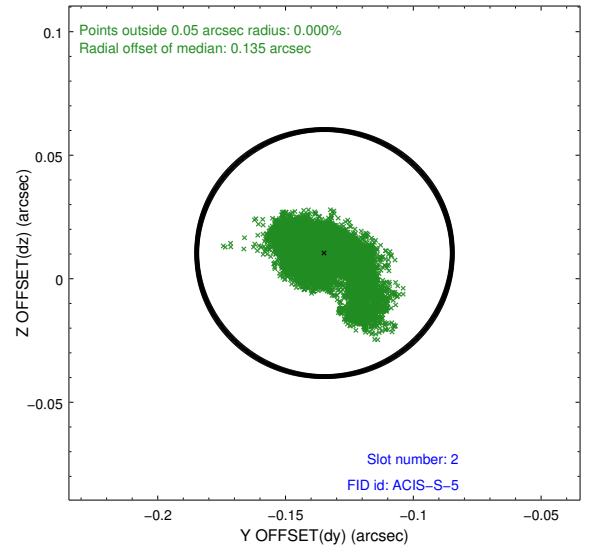
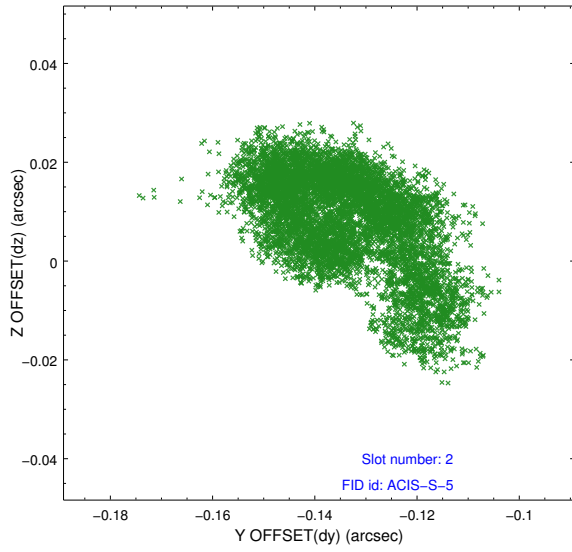
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.056240991831

A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.