

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13246 - L2 Version 2
Chandra X-Ray Center

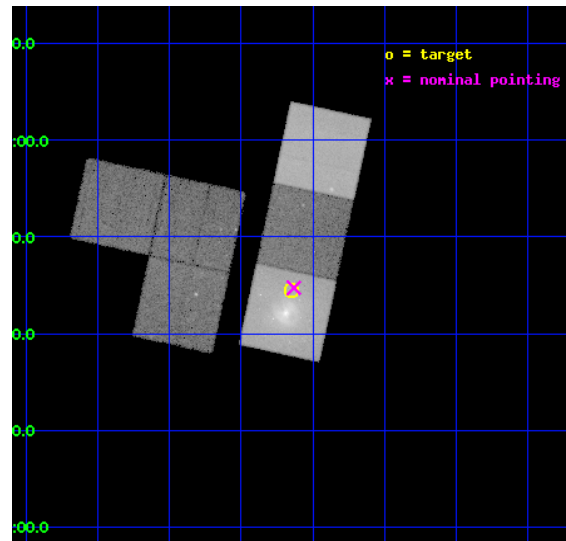
L2 Processing Date : Feb 6 2012

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1 Front

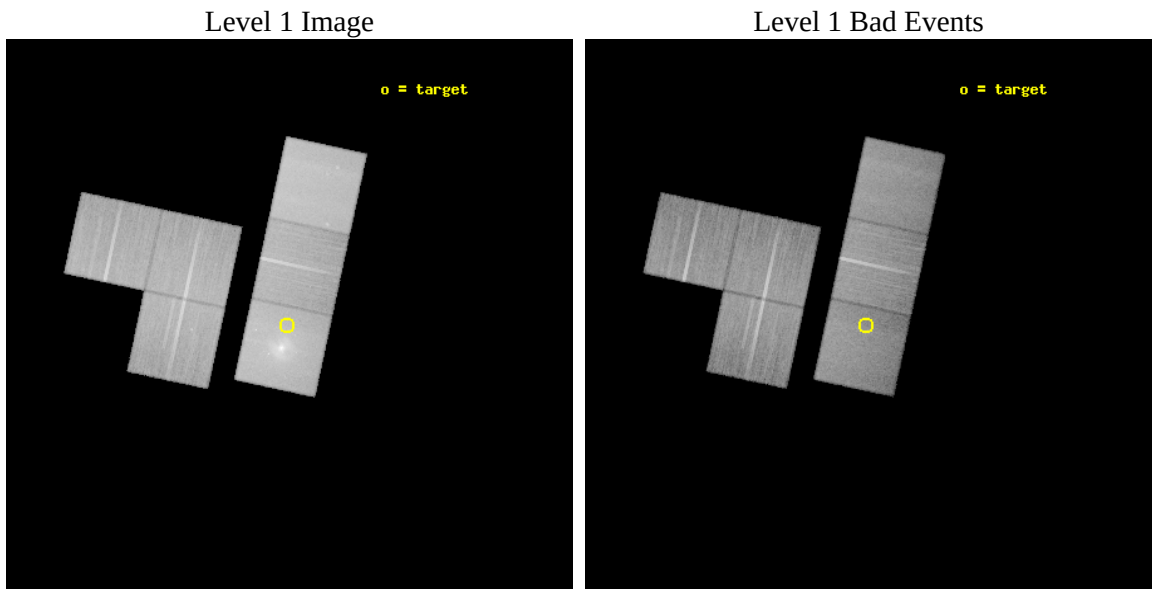
seq_num	600922	Sequence number
obs_id	13246	Observation id
title	Understanding AGN Feedback with Deep Observations of NGC 5813	Prop
observer	Dr. Scott Randall	Principal investigator
object	NGC5813	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	225.286321	Observer's specified target RA [deg]
dec_targ	1.741986	Observer's specified target Dec [deg]
ra_nom	225.28296675201	Nominal RA [deg]
dec_nom	1.7454854759768	Nominal Dec [deg]
roll_nom	102.15674467895	Nominal Roll [deg]
revision	2	Processing version of data
ontime	45593.59983021	Sum of GTIs [s]
livetime	45016.26621599	Livetime [s]
ontime0	45590.358759463	Sum of GTIs [s]
ontime2	45590.358779967	Sum of GTIs [s]
ontime3	45590.358769834	Sum of GTIs [s]
ontime5	45593.59983021	Sum of GTIs [s]
ontime6	45593.59983021	Sum of GTIs [s]
ontime7	45593.59983021	Sum of GTIs [s]
l2events	567199	Number of level 2 events



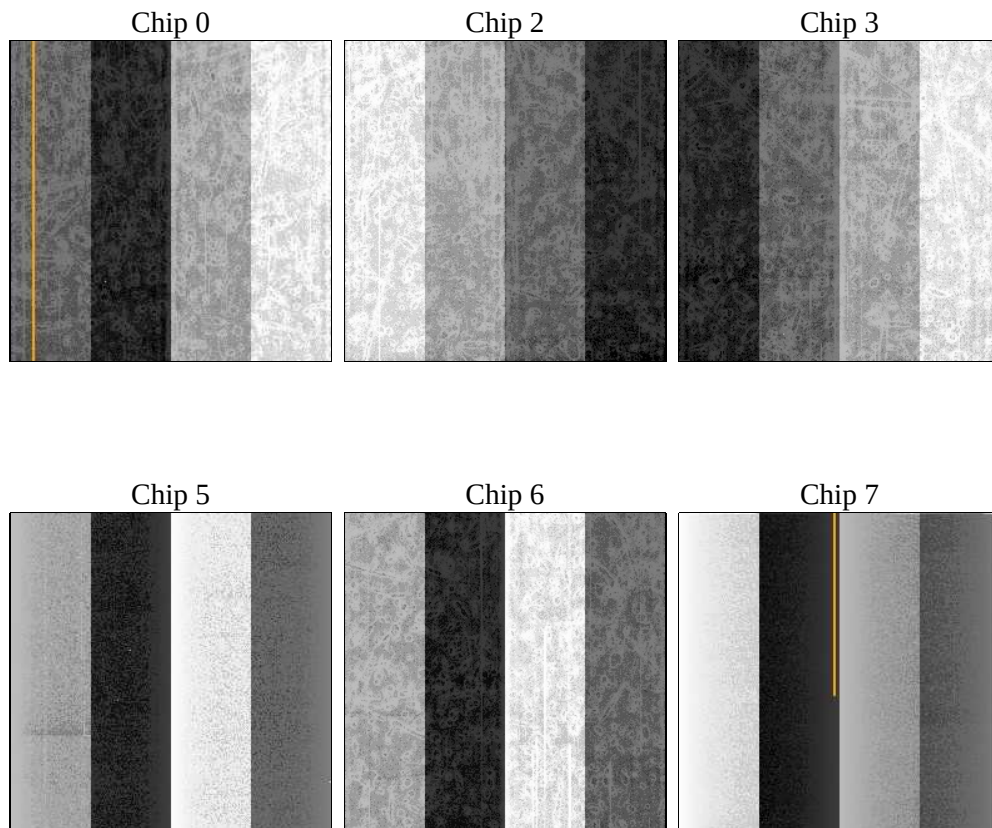
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45630.462000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	45593.59983021	Sum of GTIs [s]
caldsver	4.4.7	 	ontime0	45590.358759463	Sum of GTIs [s]
date	2012-02-07T00:52:26	Date and time of file creation	ontime2	45590.358779967	Sum of GTIs [s]
revision	2	Processing version of data	ontime3	45590.358769834	Sum of GTIs [s]
			ontime5	45593.59983021	Sum of GTIs [s]
			ontime6	45593.59983021	Sum of GTIs [s]
			ontime7	45593.59983021	Sum of GTIs [s]
			l1events	2049232	Number of level 1 events

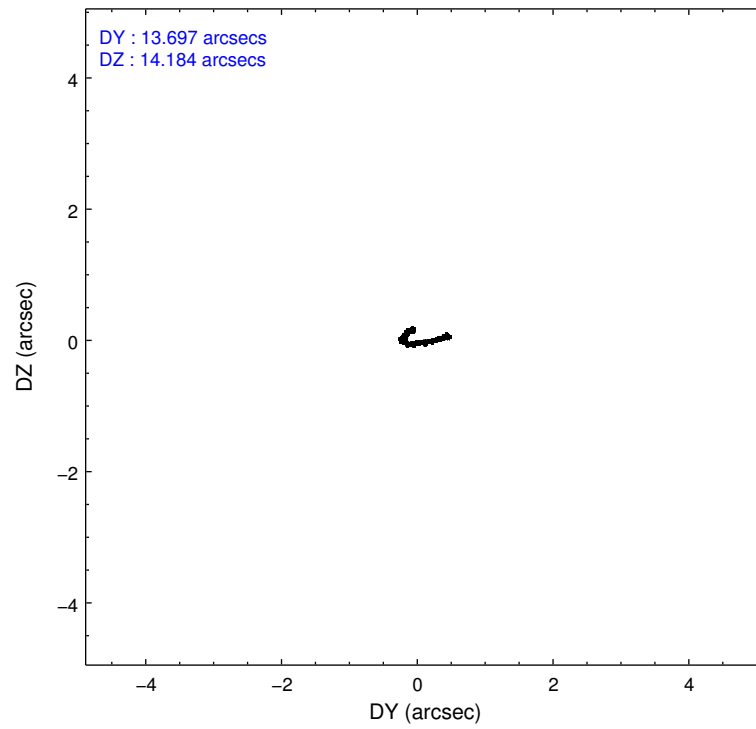
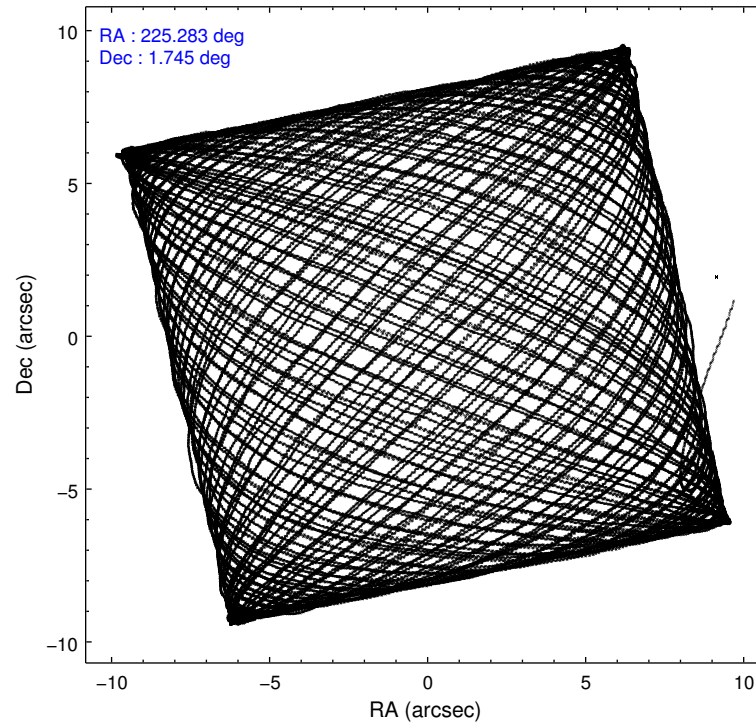
2.1.4 Events

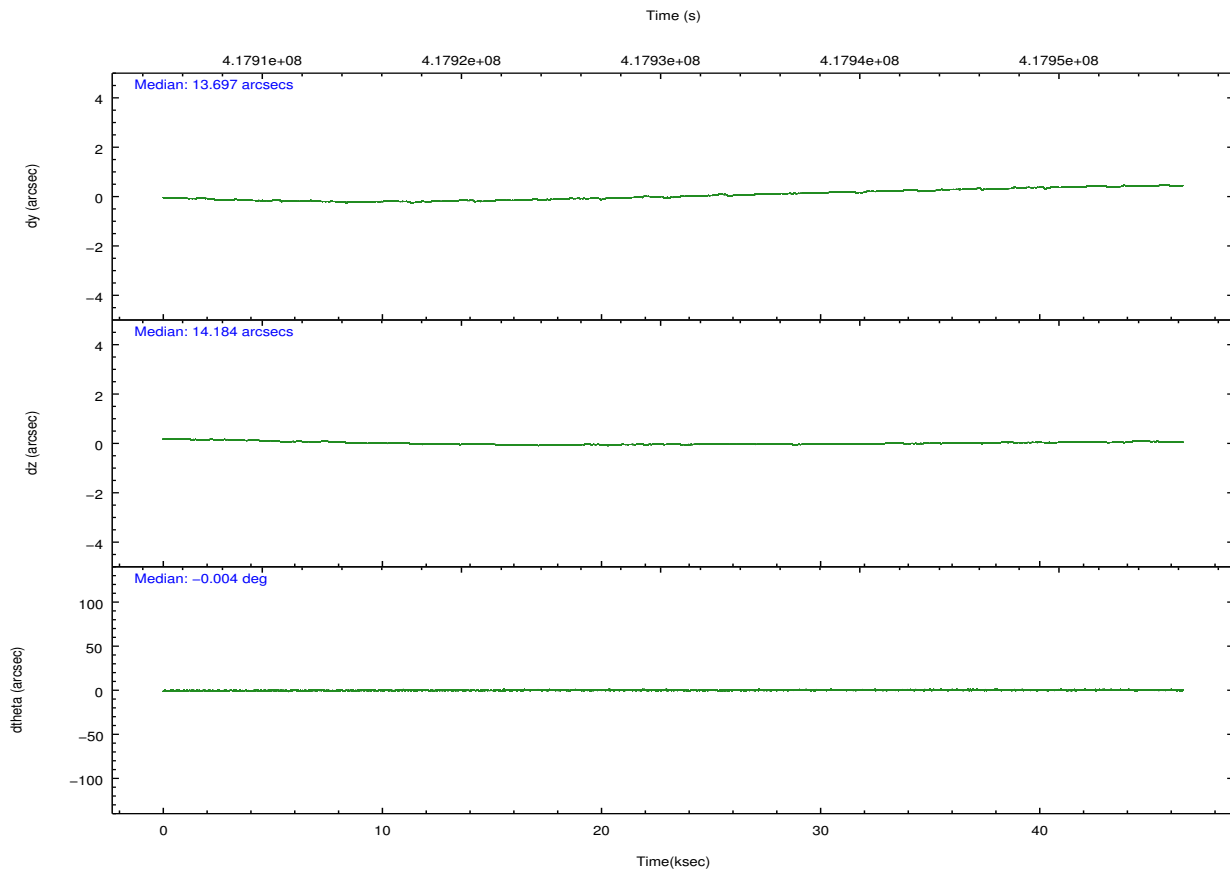
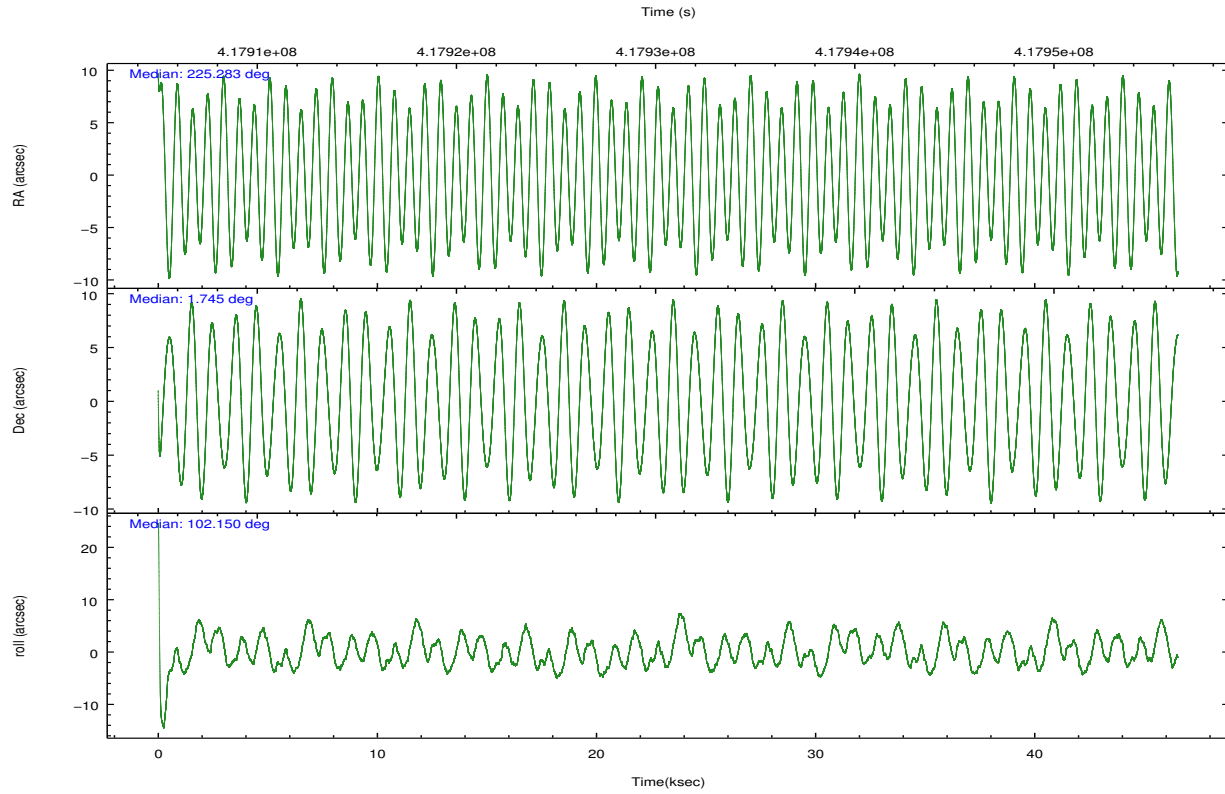
	ccd 0	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7		ccd 0	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	277956	289384	282999	450368	295115	453410	grade 0 events	11503	12182	11923	14723	13777	43470
rejected events	244900	257215	251262	232746	258818	206996		4%	4%	4%	3%	4%	9%
rejected %	88%	88%	88%	51%	87%	45%	grade 1 events	189	172	159	735	154	474
								0%	0%	0%	0%	0%	0%
							grade 2 events	8038	7408	6761	66891	7812	56021
								2%	2%	2%	14%	2%	12%
							grade 3 events	3457	3250	3283	8459	3600	23718
								1%	1%	1%	1%	1%	5%
							grade 4 events	3290	3356	3389	7995	3575	23568
								1%	1%	1%	1%	1%	5%
							grade 5 events	13135	11526	13758	34295	13931	38691
								4%	3%	4%	7%	4%	8%
							grade 6 events	6771	5974	6387	119579	7536	99652
								2%	2%	2%	26%	2%	21%
							grade 7 events	231573	245516	237339	197691	244730	167816
								83%	84%	83%	43%	82%	37%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-023567	ACIS-023567	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	O1	Y
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	225.301596	225.2829667520124	CCD I2 on	O3	Y
[deg] Pointing Dec	1.725467	1.745485475976752	CCD I3 on	O2	Y
[deg] Pointing Roll	101.999541	102.156744678951	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O5	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O4	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	N	N
[s] Observation start time (MET)	417908264.184000	417906723.86999	CCD S5 on	N	N
Observation start date	2011-03-30T21:36:38	2011-03-30T21:12:03	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	417953894.184000	417954609.30997	On-chip summing requested	N	N
Observation end date	2011-03-31T10:17:08	2011-03-31T10:30:09	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



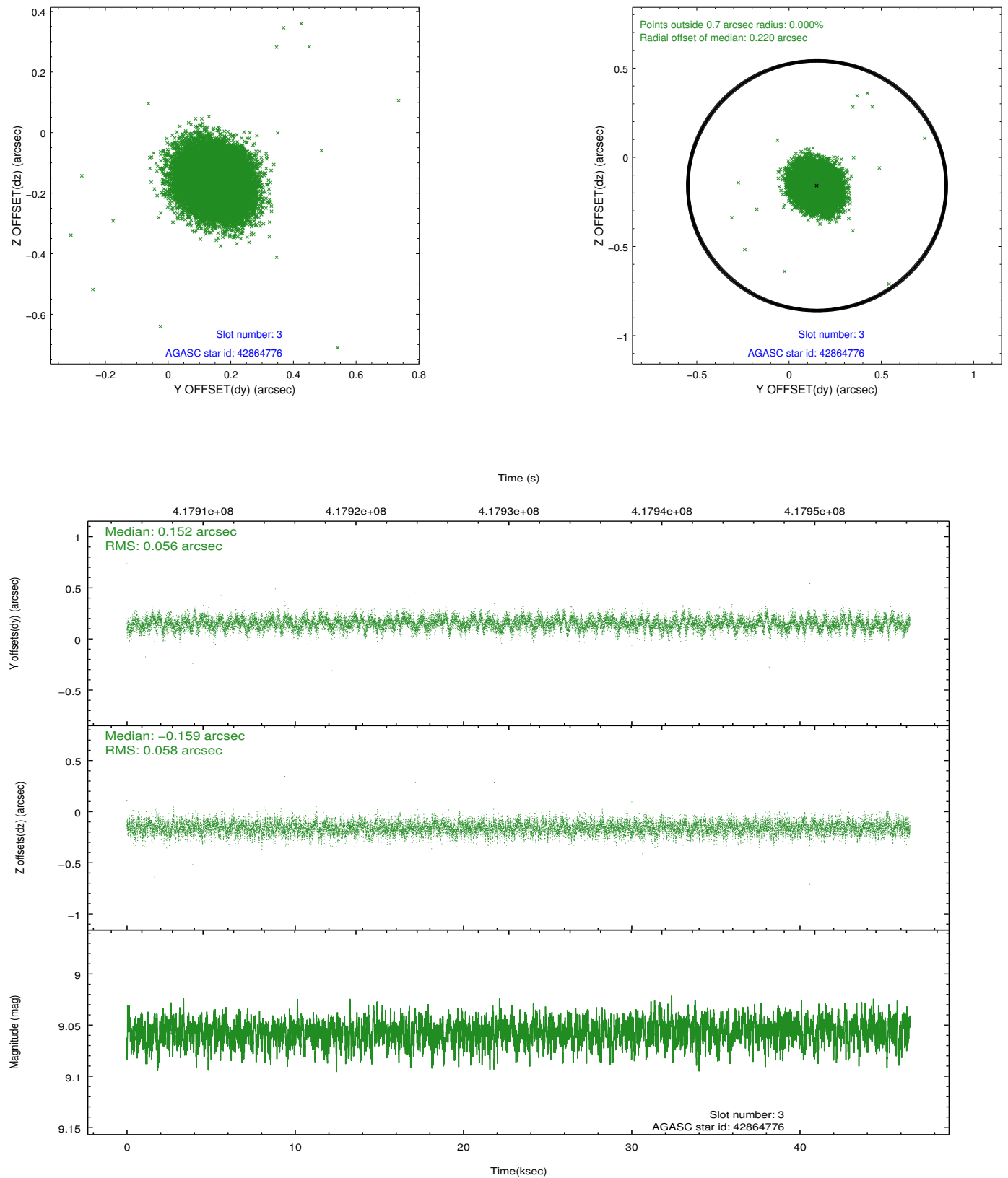


Slot Statistics

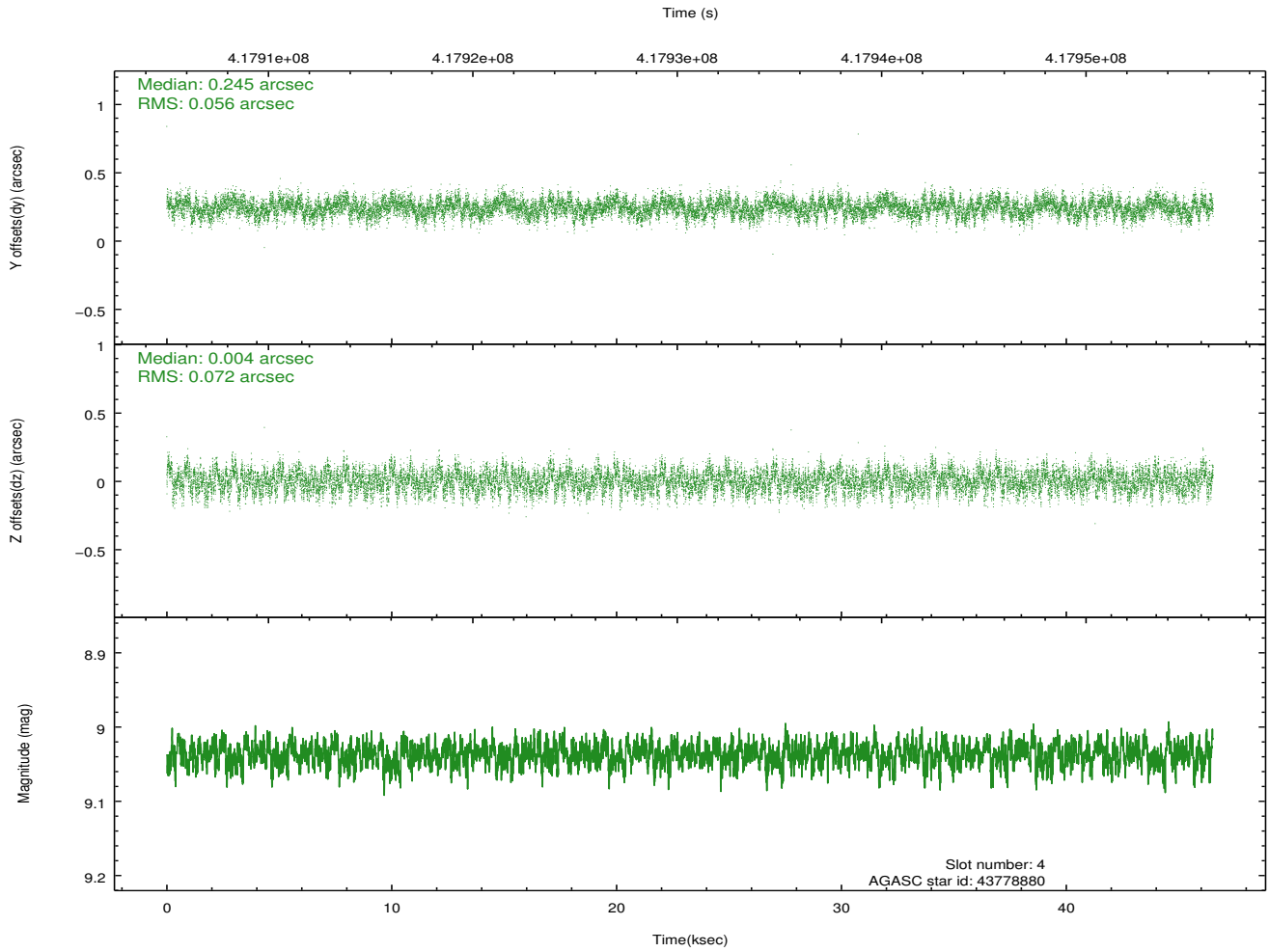
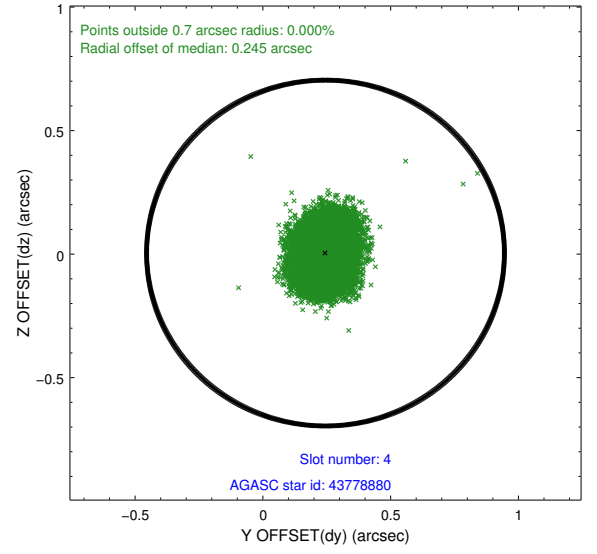
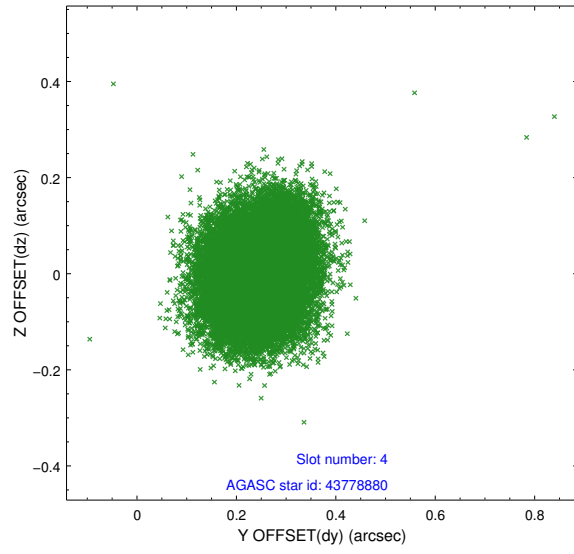
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.97	11352	-0.059	-0.057	0.009	0.015	0.000000	0.000000	-766.73	-1735.62
1	FID	ACIS-S-4	7.05	11351	0.202	0.044	0.009	0.016	0.000000	0.000000	2146.79	173.00
2	FID	ACIS-S-5	7.08	11352	-0.174	0.022	0.007	0.012	0.000000	0.000000	-1819.72	166.60
3	GUIDE	42864776	9.06	22696	0.152	-0.159	0.085	0.136	224.993302	1.618488	-146.49	1165.81
4	GUIDE	43778880	9.04	22562	0.245	0.004	0.098	0.156	225.720242	1.617889	-690.09	-1392.92
5	GUIDE	43782432	8.06	22693	-0.141	-0.048	0.057	0.094	225.298629	1.853875	454.70	-85.62
6	GUIDE	44304040	8.12	22699	-0.182	0.151	0.077	0.127	225.823407	2.372575	1889.40	-2319.92
7	GUIDE	44305752	8.85	22688	-0.071	0.054	0.106	0.170	225.685277	2.473250	2347.15	-1909.16

2.4 Star Slots

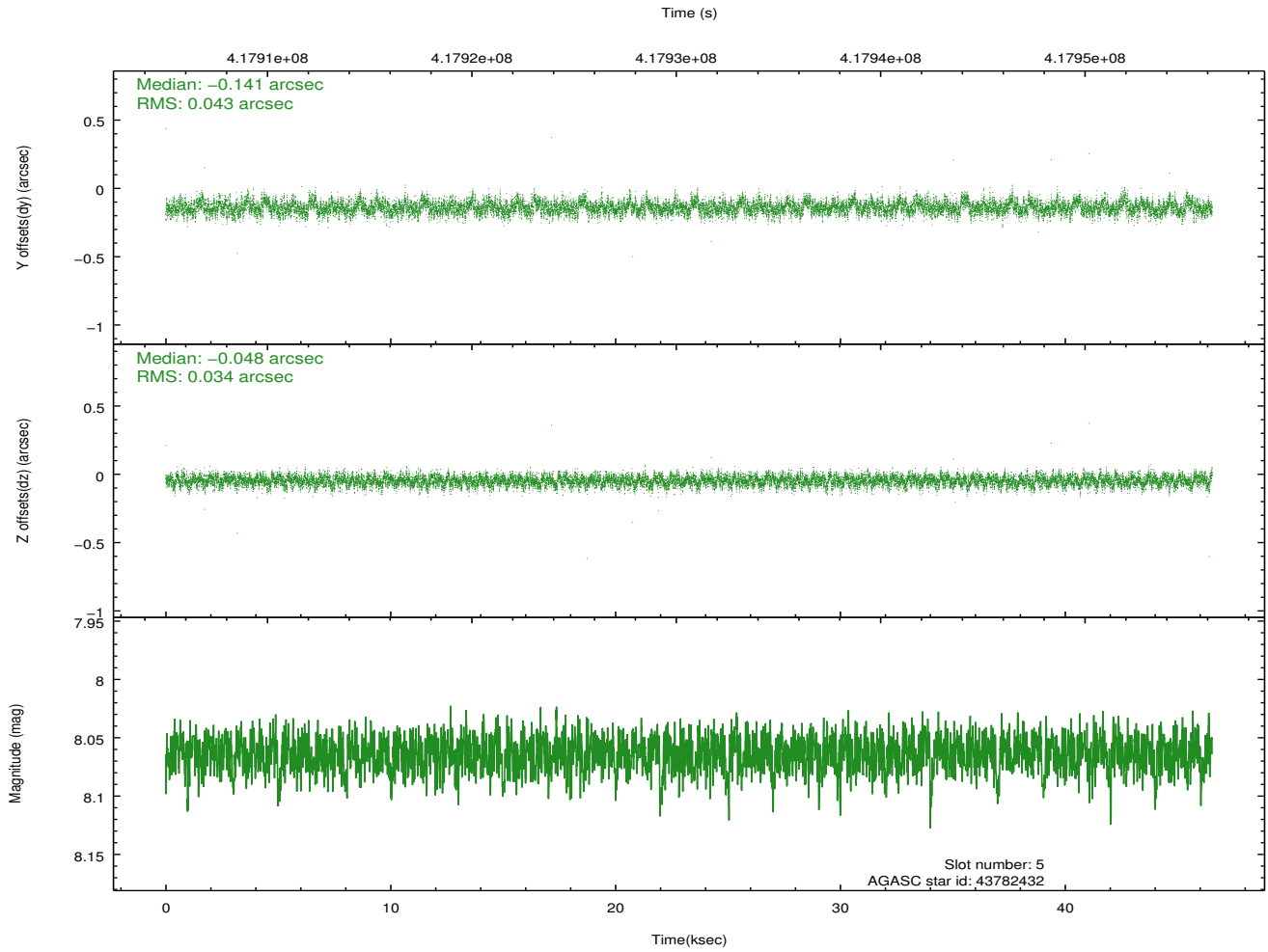
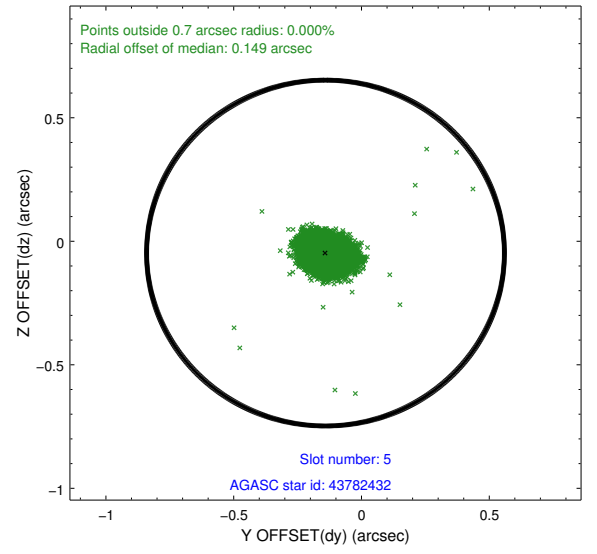
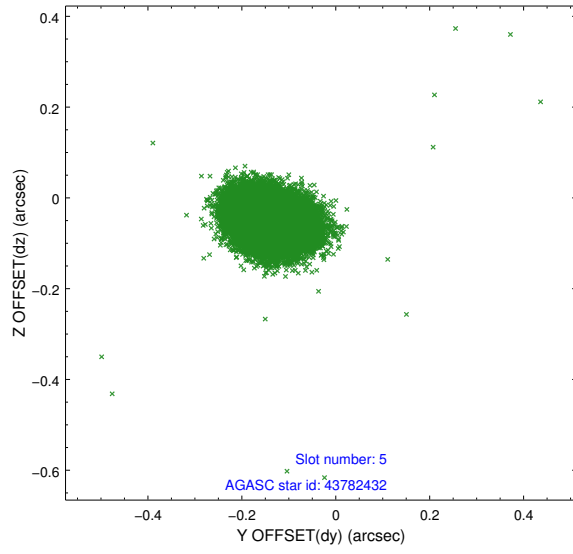
2.4.1 Slot 3



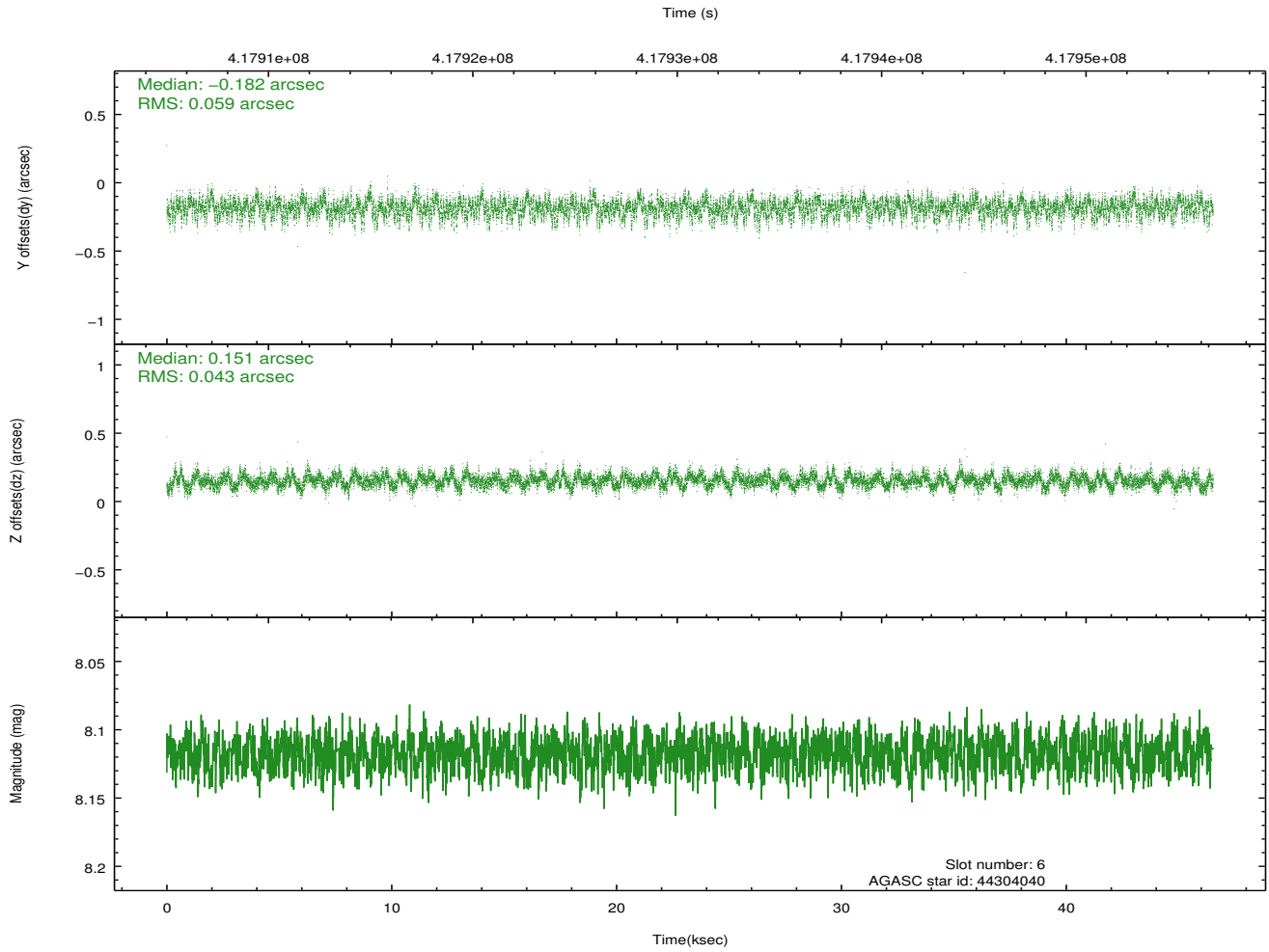
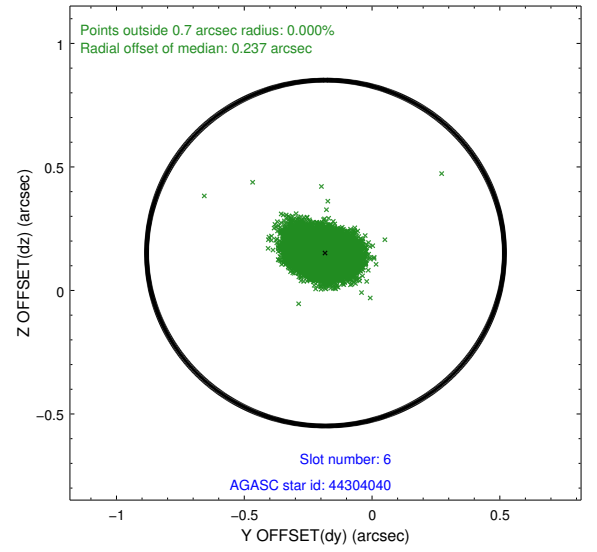
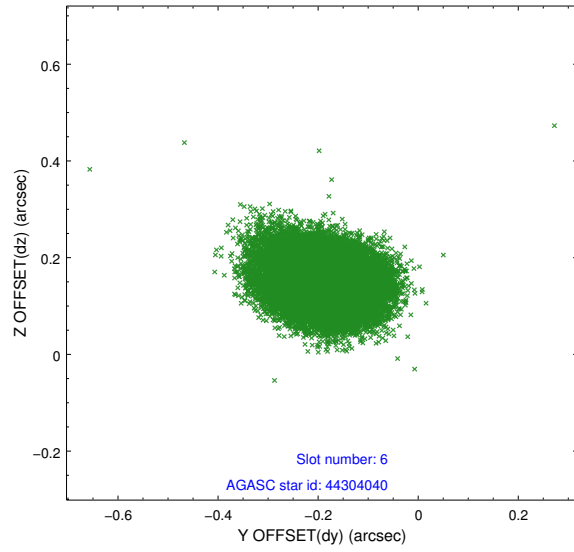
2.4.2 Slot 4



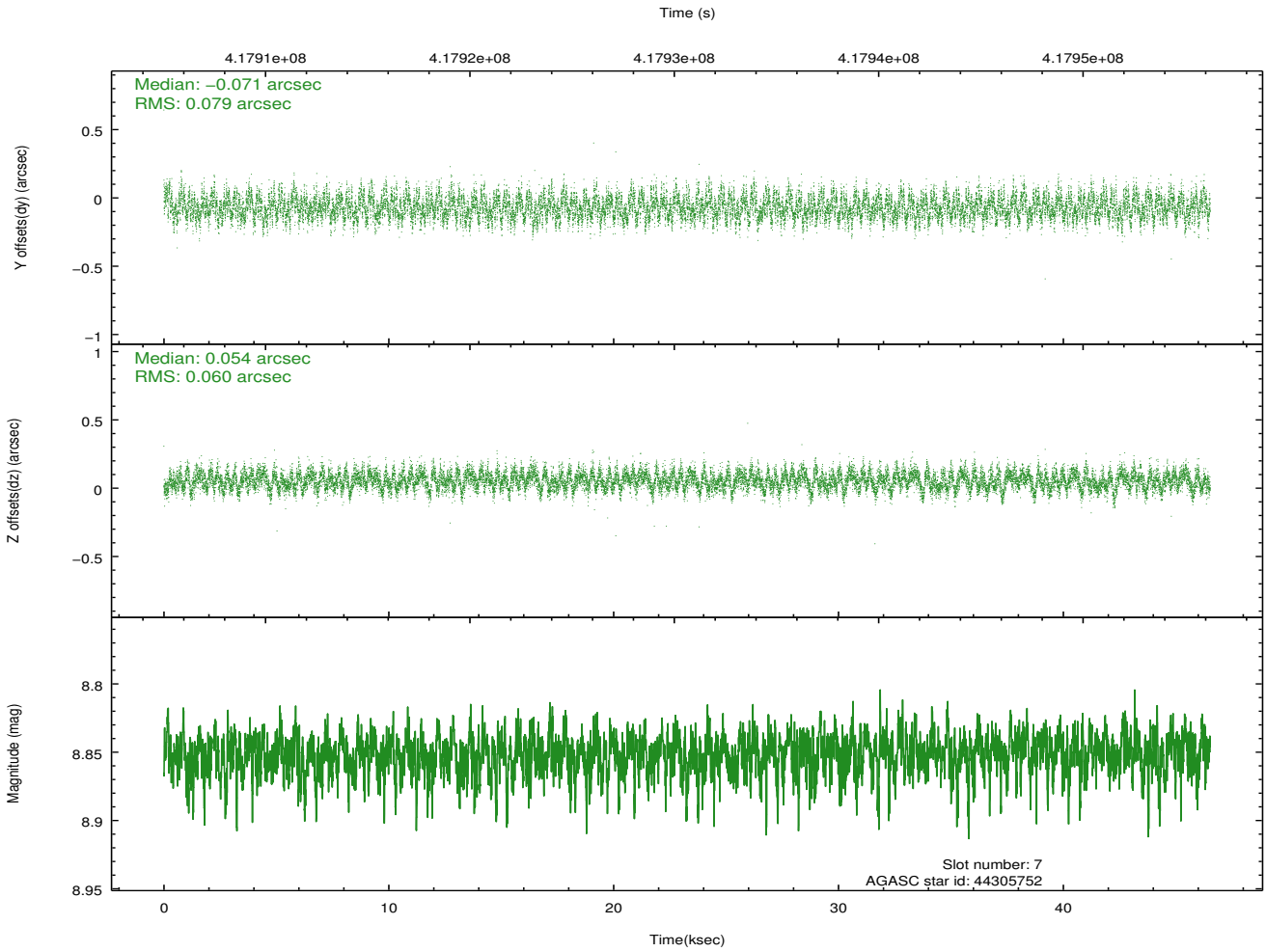
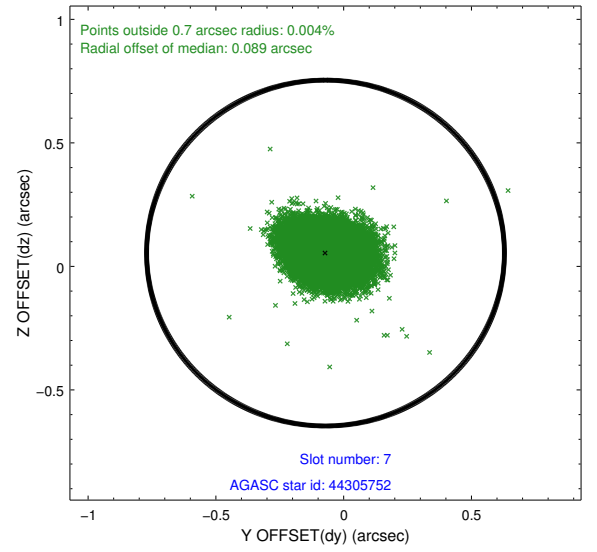
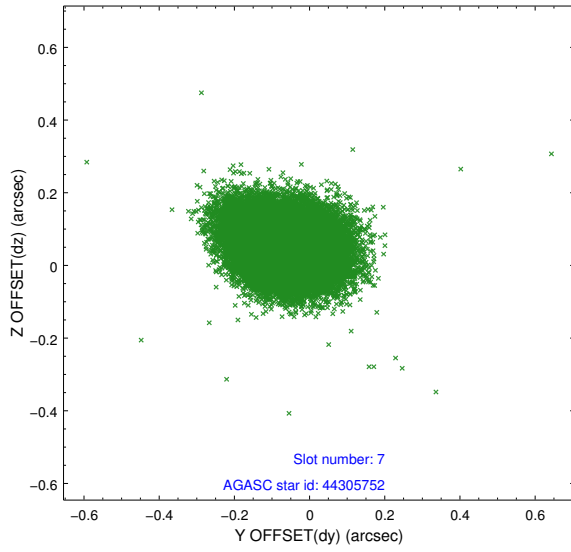
2.4.3 Slot 5



2.4.4 Slot 6

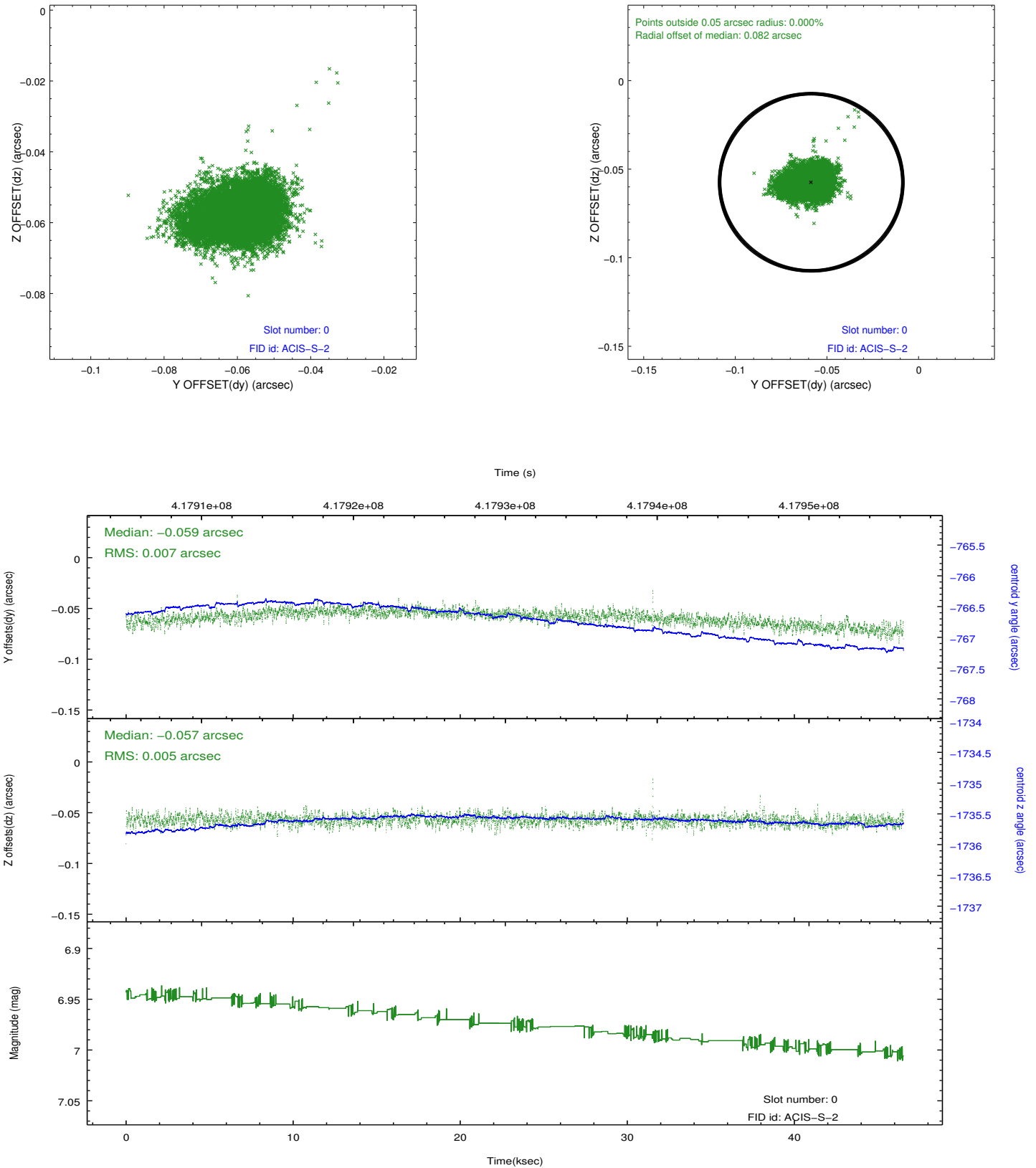


2.4.5 Slot 7

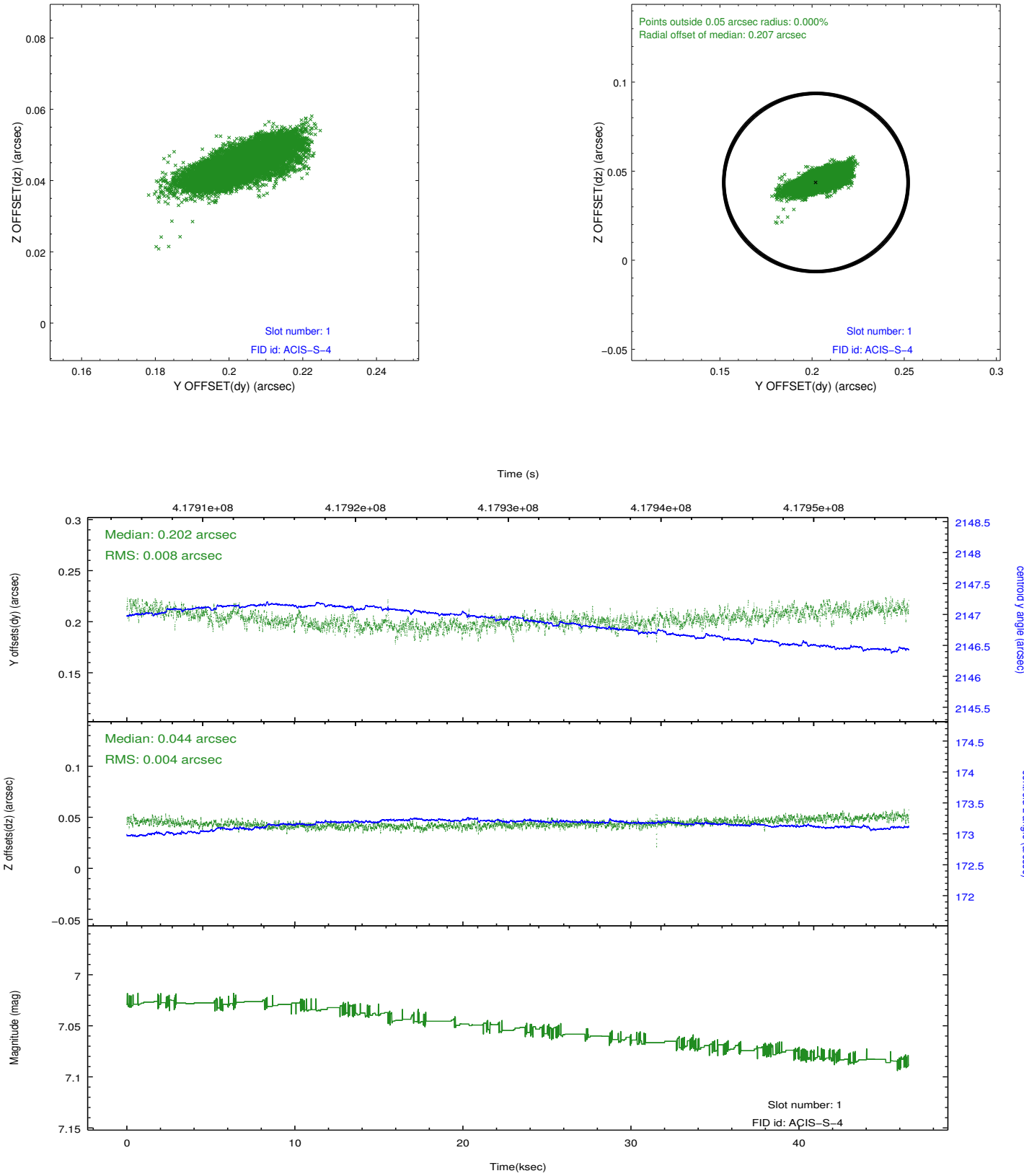


2.5 FID Slots

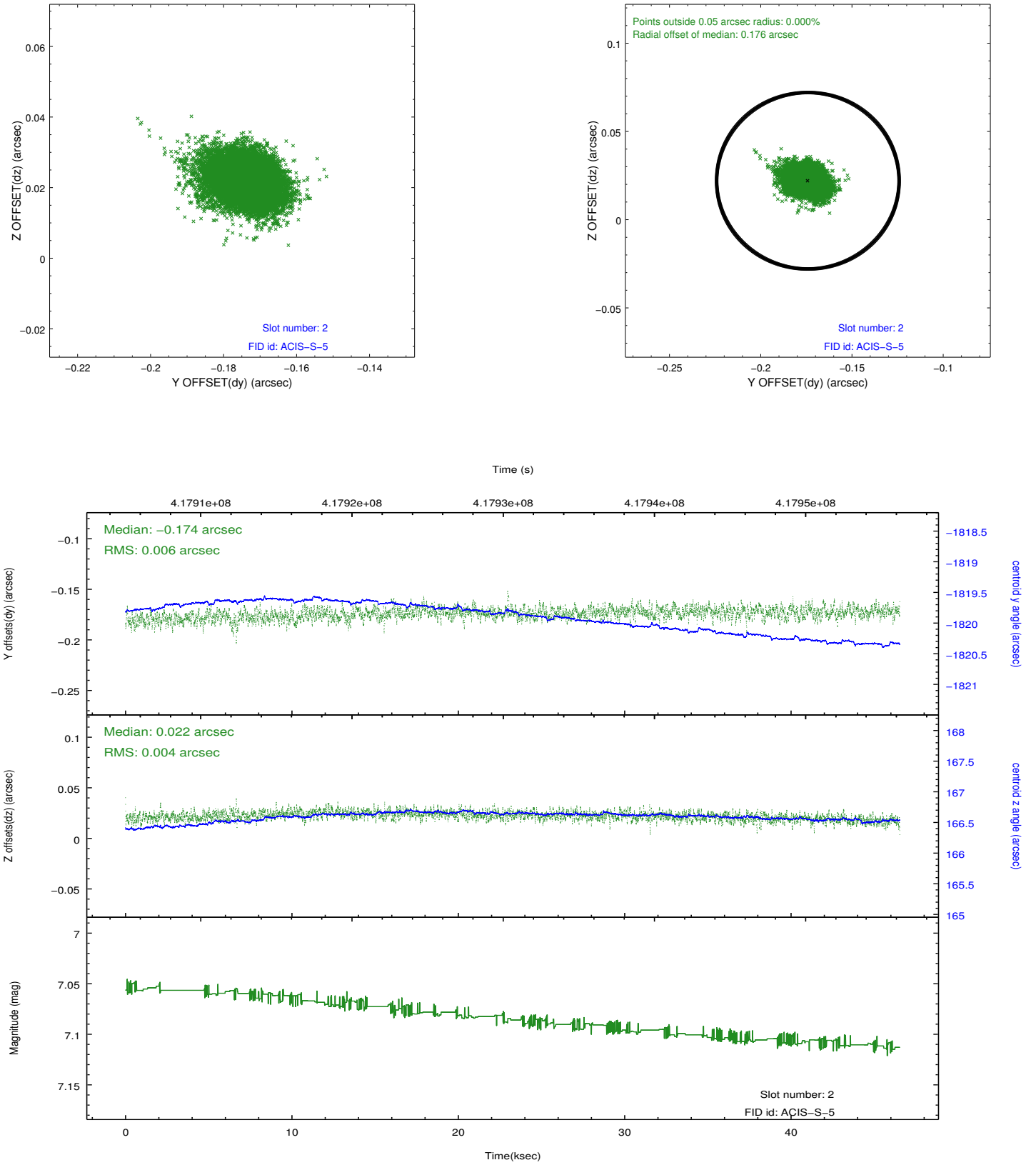
2.5.1 Slot 0



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)	2012.02.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.59359983021

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.

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Joint proposal with NRAO.