

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12275 - L2 Version 2
Chandra X-Ray Center

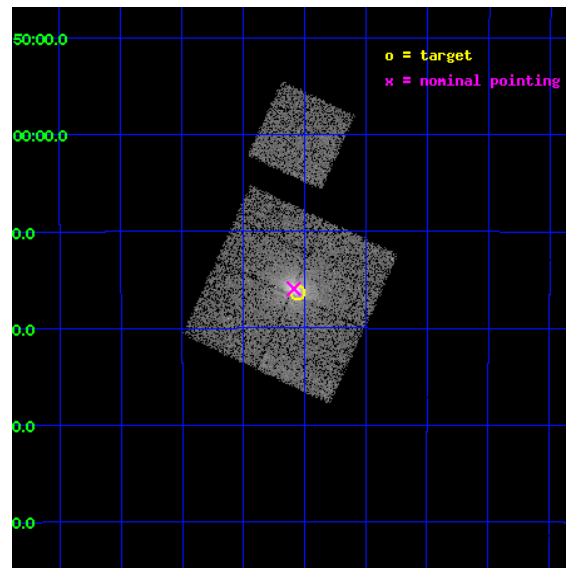
L2 Processing Date : Feb 6 2012

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

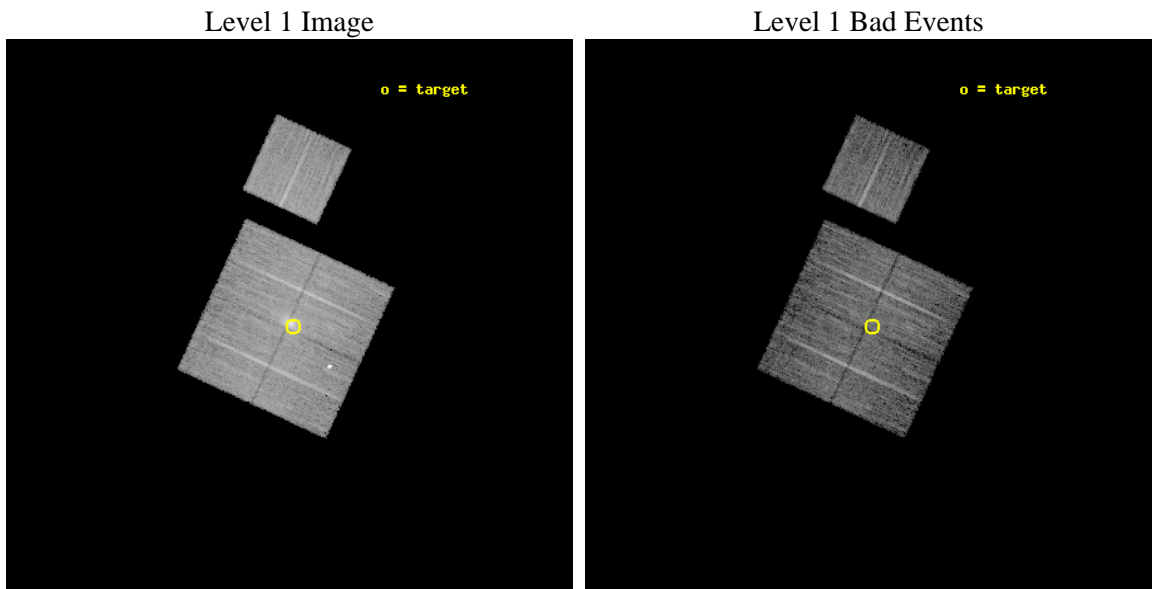
seq_num	800994	Sequence number
obs_id	12275	Observation id
title	A 'CENTENNIAL' SAMPLE OF THE 100 X-RAY BRIGHTEST GALAXY CLUSTERS	
observer	Dr. Alexey Vikhlinin	Principal investigator
object	RXJ1252.5-3116	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	193.14	Observer's specified target RA [deg]
dec_targ	-31.271111	Observer's specified target Dec [deg]
ra_nom	193.1469992537	Nominal RA [deg]
dec_nom	-31.265683643038	Nominal Dec [deg]
roll_nom	24.772463446702	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10053.300077319	Sum of GTIs [s]
livetime	9921.9463106771	Livetime [s]
ontime0	10053.300077319	Sum of GTIs [s]
ontime1	10050.159057021	Sum of GTIs [s]
ontime2	10053.300077319	Sum of GTIs [s]
ontime3	10053.300077319	Sum of GTIs [s]
ontime6	10053.300077319	Sum of GTIs [s]
l2events	46377	Number of level 2 events



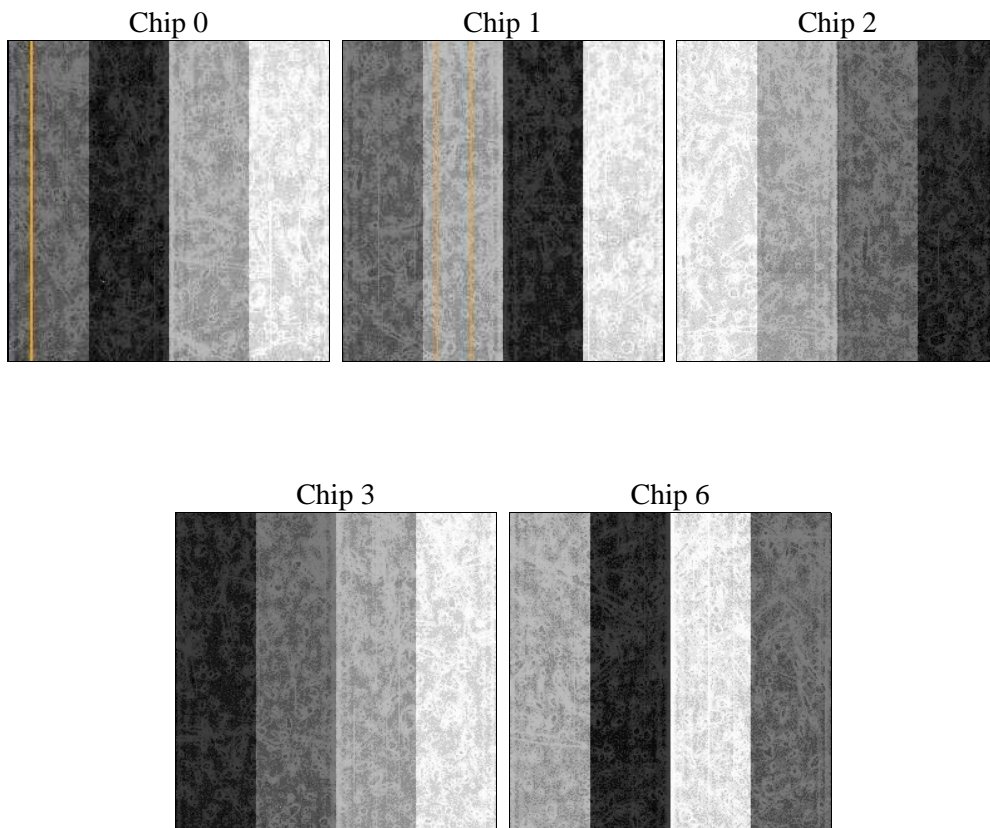
2 OBI

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	8.4.3	Processing system revision	ontime	10053.300077319	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	10053.300077319	Sum of GTIs [s]
date	2012-02-06T21:15:50	Date and time of file creation	ontime1	10050.159057021	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	10053.300077319	Sum of GTIs [s]
			ontime3	10053.300077319	Sum of GTIs [s]
			ontime6	10053.300077319	Sum of GTIs [s]
			l1events	355993	Number of level 1 events

2.1.4 Events

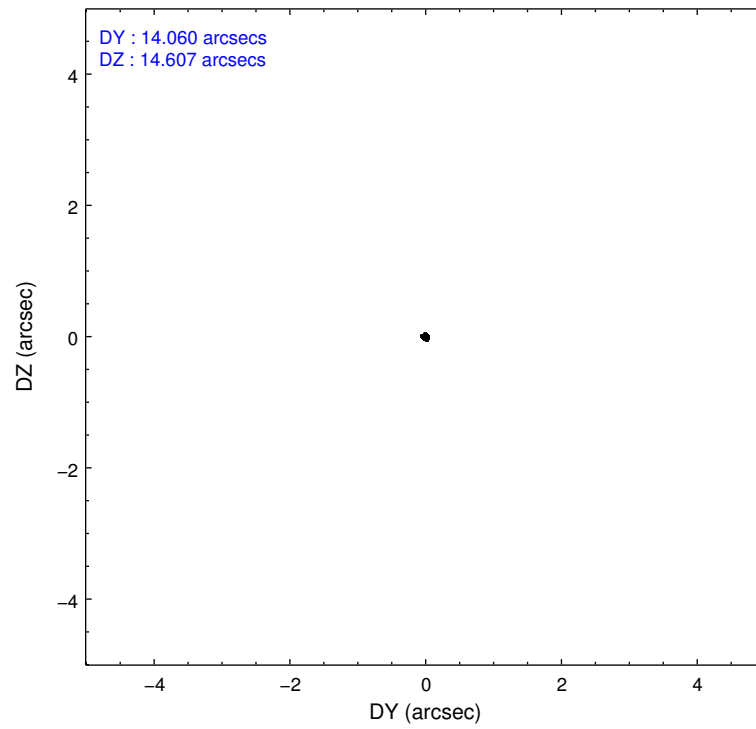
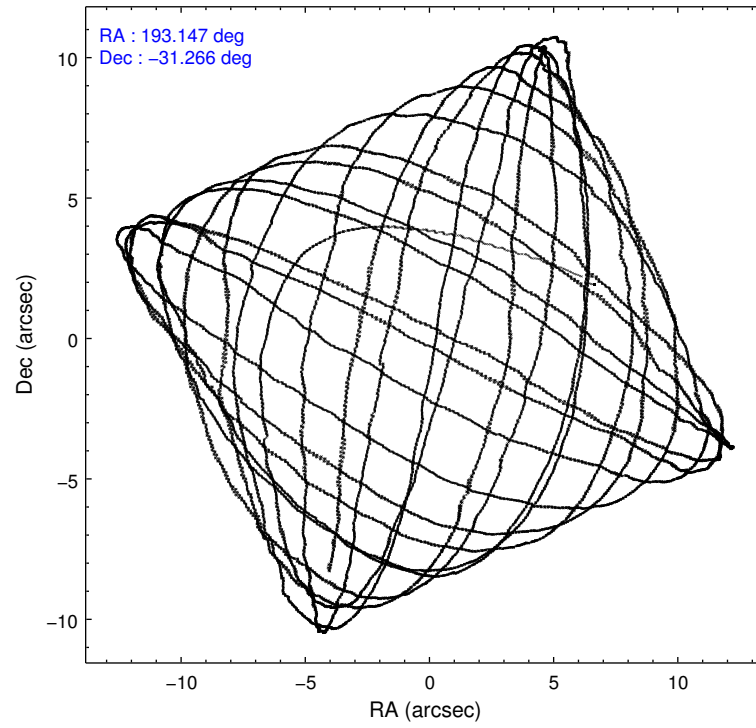
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	65256	69008	74846	76855	70028
rejected events	56388	56112	62887	62154	62289
rejected %	86%	81%	84%	80%	88%

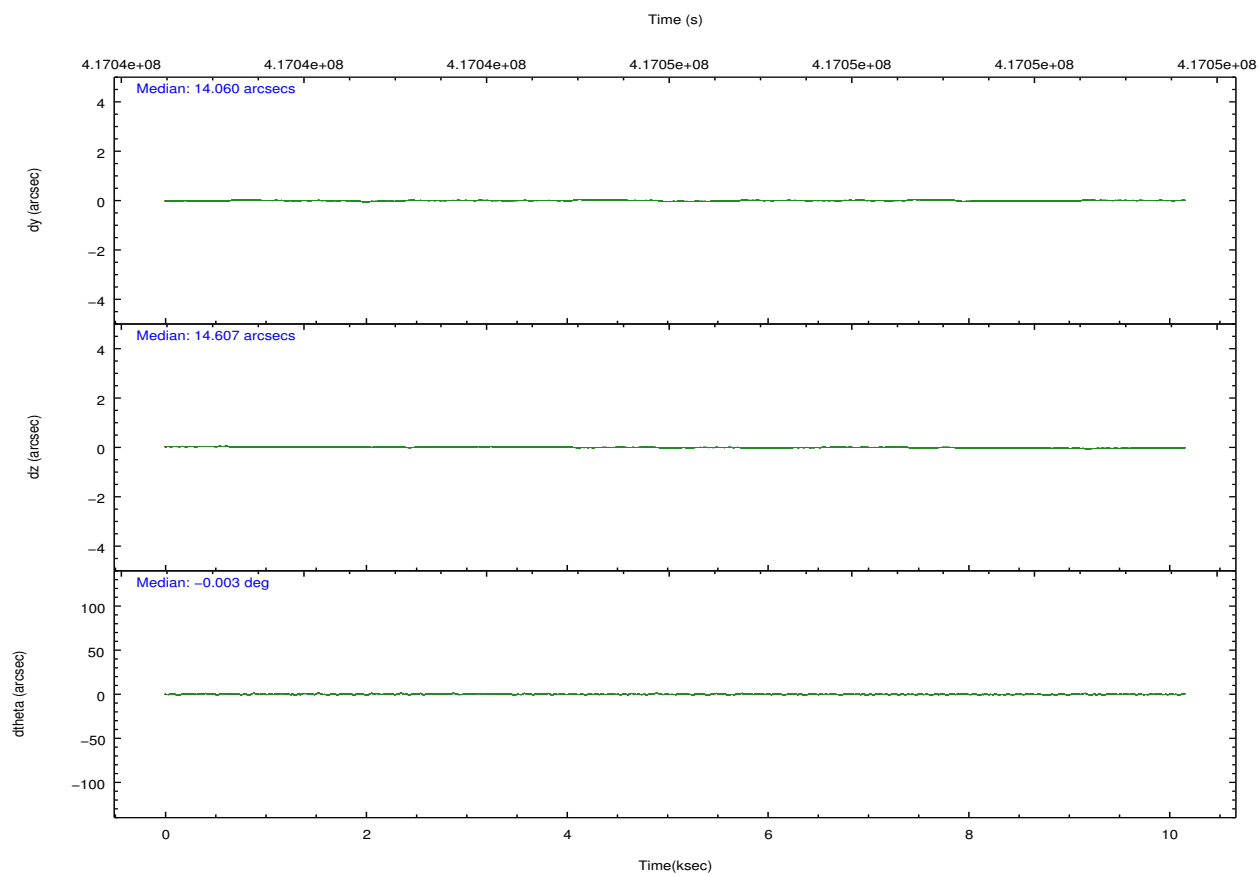
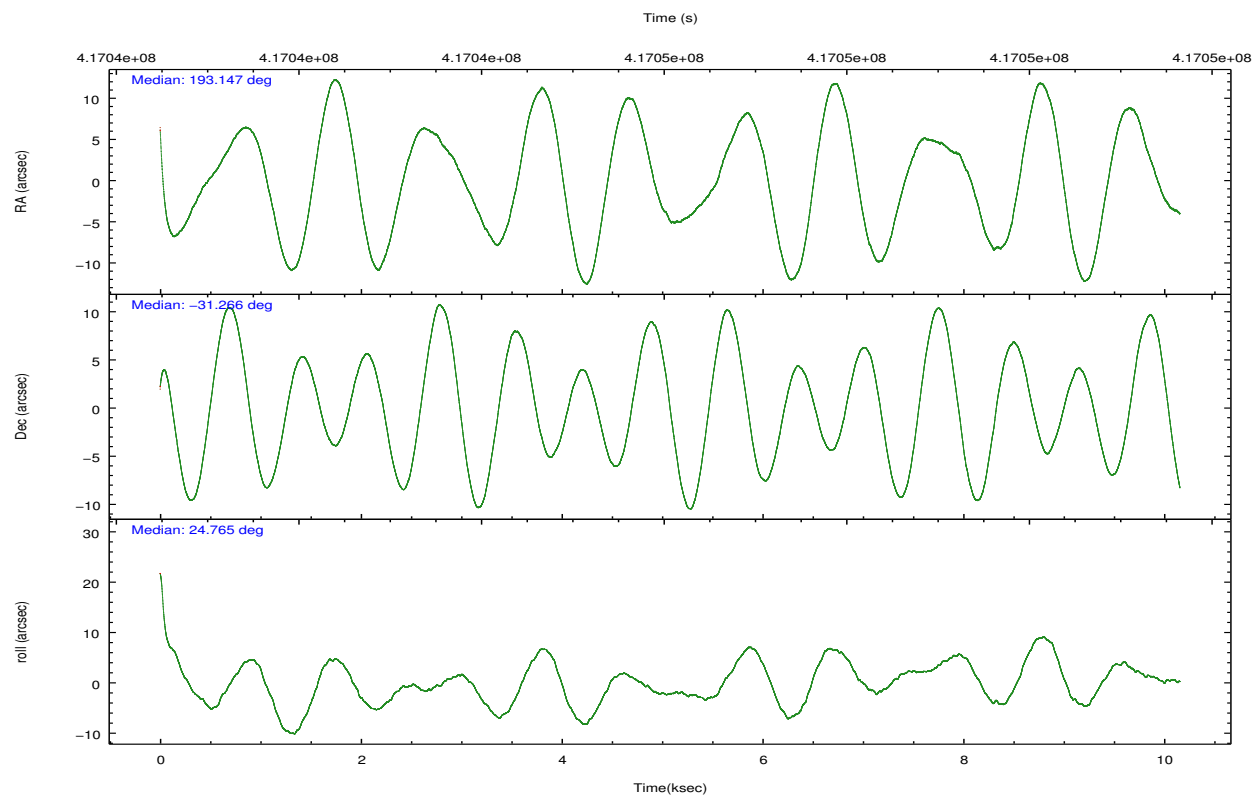
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3657	7194	6493	8921	2622
	5%	10%	8%	11%	3%
grade 1 events	34	58	73	75	36
	0%	0%	0%	0%	0%
grade 2 events	2089	2130	2197	2232	1713
	3%	3%	2%	2%	2%
grade 3 events	845	914	832	993	880
	1%	1%	1%	1%	1%
grade 4 events	763	862	933	943	818
	1%	1%	1%	1%	1%
grade 5 events	2901	3157	2783	3274	3075
	4%	4%	3%	4%	4%
grade 6 events	1516	1800	1505	1614	1708
	2%	2%	2%	2%	2%
grade 7 events	53451	52893	60030	58803	59176
	81%	76%	80%	76%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	193.128569	193.1469992536971	CCD I2 on	Y	Y
[deg] Pointing Dec	-31.288221	-31.26568364303785	CCD I3 on	Y	Y
[deg] Pointing Roll	24.554191	24.77246344670232	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	417041144.184000	417040027.90009	CCD S5 on	N	N
Observation start date	2011-03-20T20:44:38	2011-03-20T20:27:07	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	417051144.184000	417051744.6757	On-chip summing requested	N	N
Observation end date	2011-03-20T23:31:18	2011-03-20T23:42:24	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



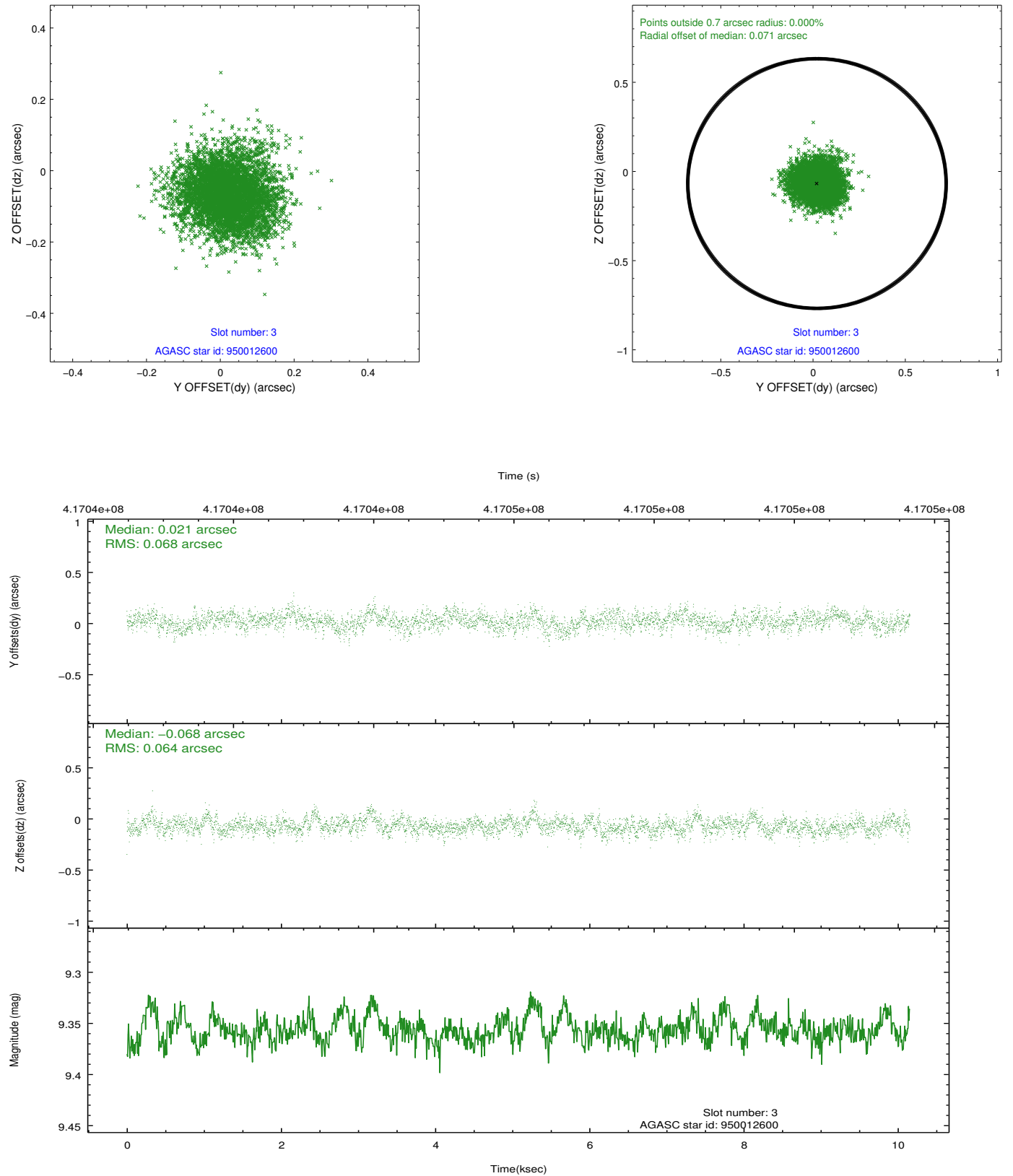


Slot Statistics

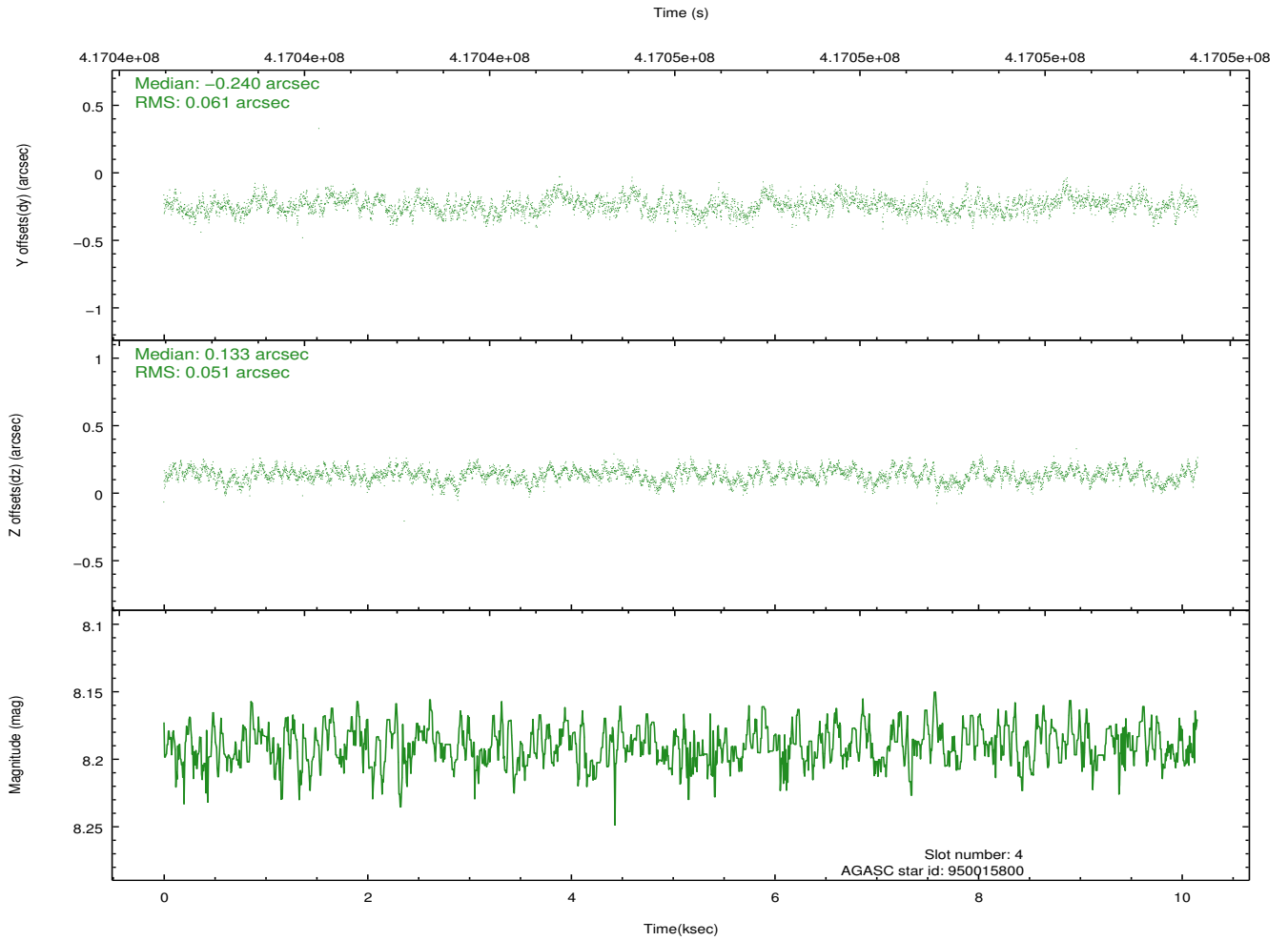
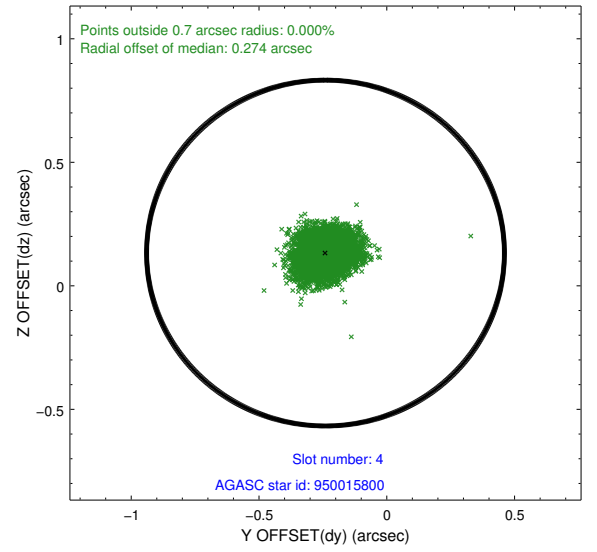
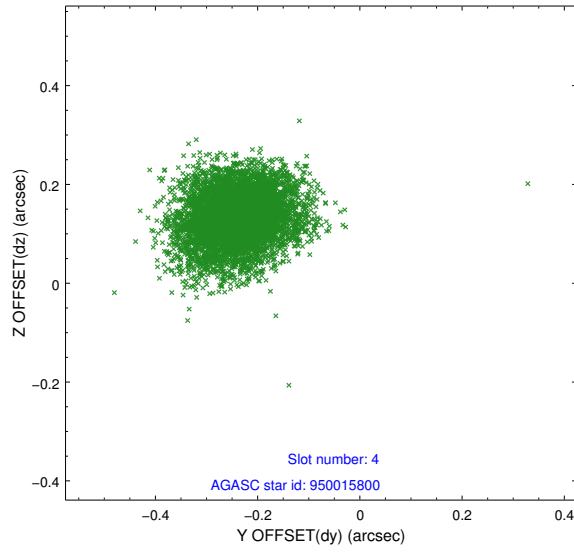
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.12	2478	0.041	-0.002	0.006	0.011	0.000000	0.000000	925.49	-838.18
1	FID	ACIS-I-5	7.11	2478	-0.229	0.043	0.006	0.010	0.000000	0.000000	-1822.64	1059.04
2	FID	ACIS-I-6	7.11	2478	0.096	0.029	0.006	0.011	0.000000	0.000000	390.47	1704.16
3	GUIDE	950012600	9.36	4952	0.021	-0.068	0.100	0.161	192.563661	-31.224306	-1487.91	927.77
4	GUIDE	950015800	8.19	4952	-0.240	0.133	0.084	0.135	193.332408	-31.348857	478.84	-459.01
5	GUIDE	950017376	8.23	4953	-0.010	0.203	0.071	0.117	193.248026	-31.857181	-518.42	-2014.86
6	GUIDE	950142464	7.46	4955	0.060	-0.011	0.089	0.140	194.006186	-31.482088	2156.15	-1764.19
7	GUIDE	950013792	7.46	4954	0.165	-0.260	0.085	0.147	192.960809	-31.201917	-340.44	496.39

2.4 Star Slots

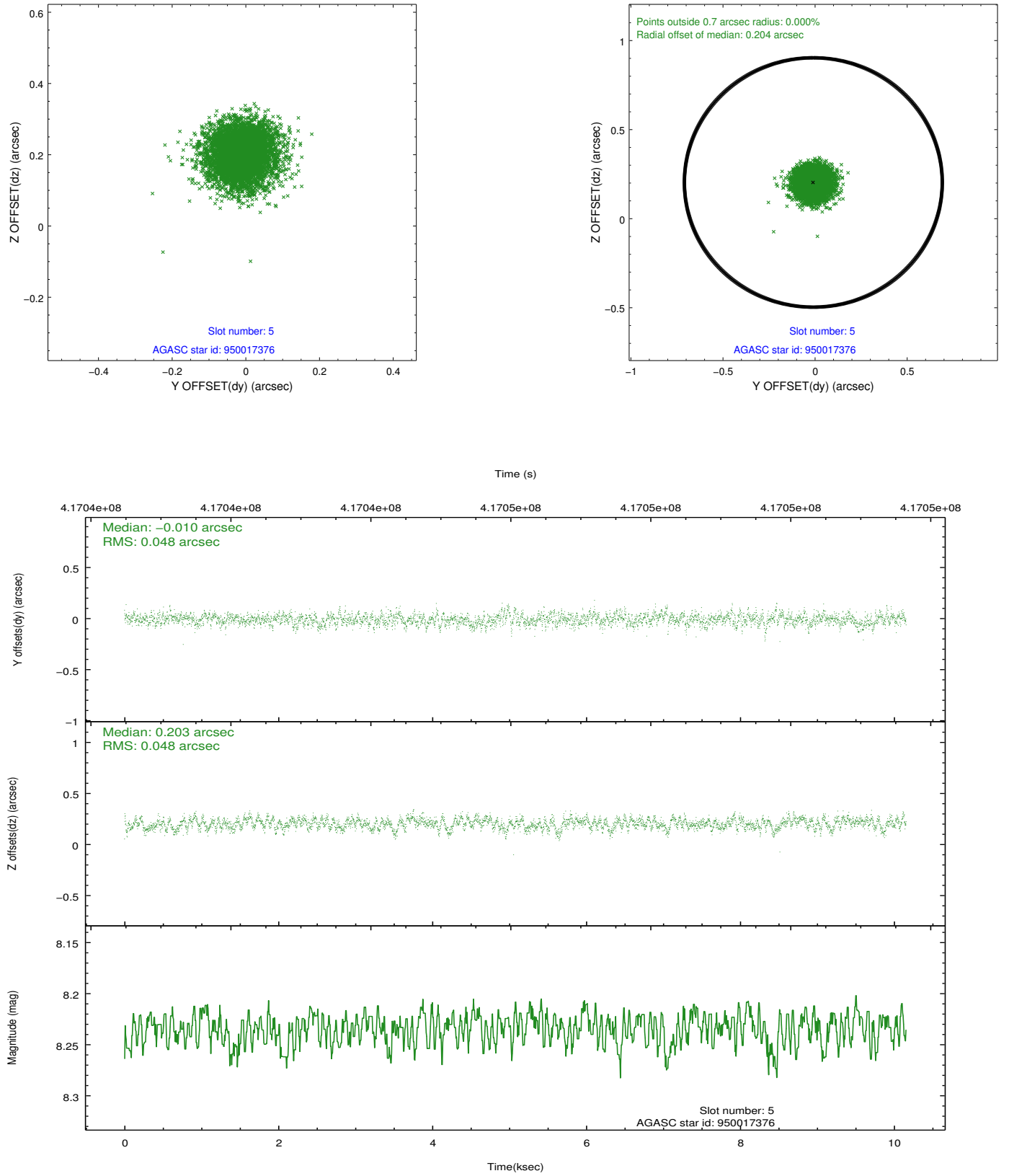
2.4.1 Slot 3



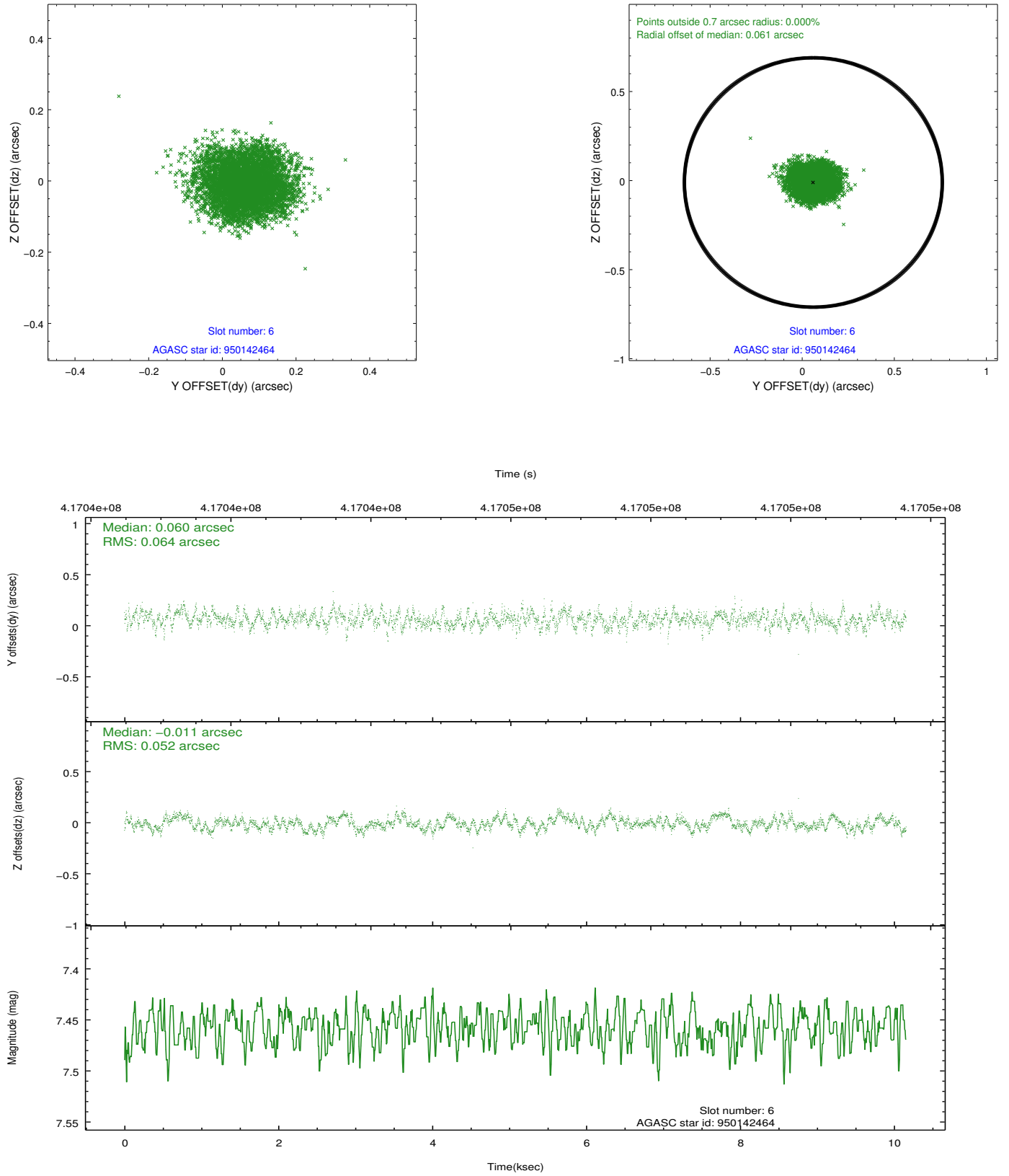
2.4.2 Slot 4



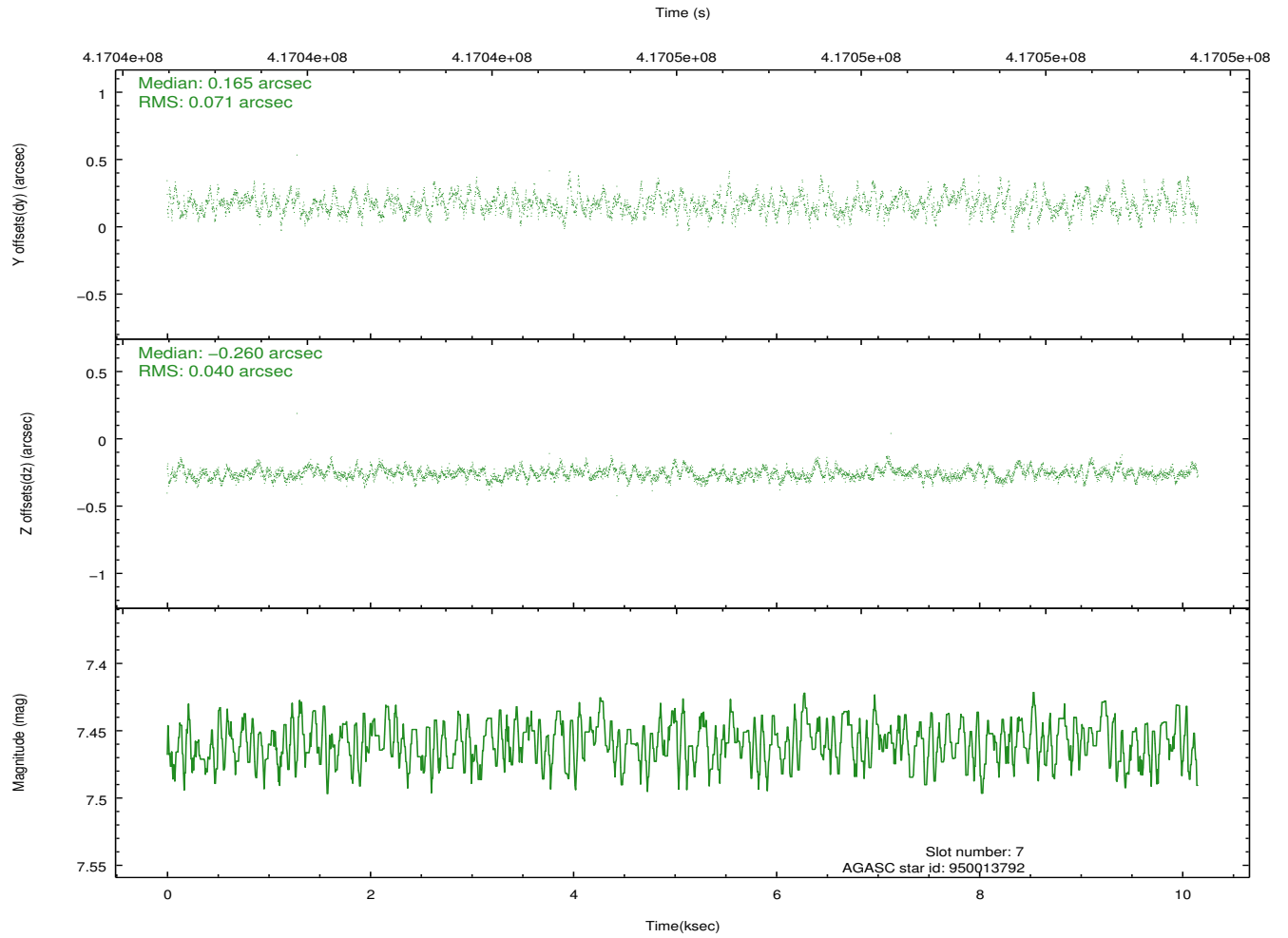
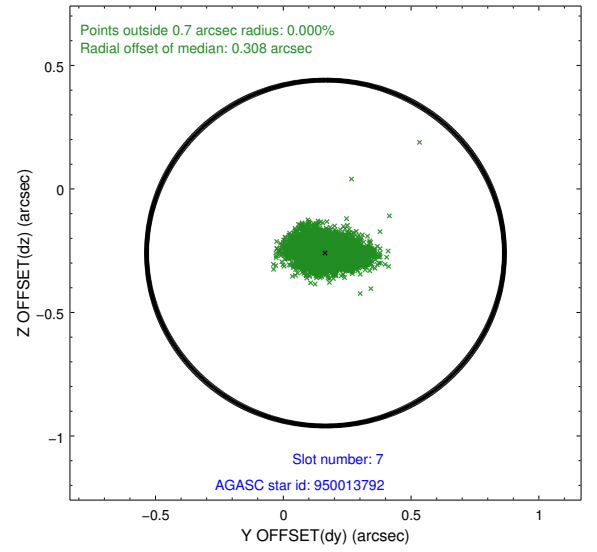
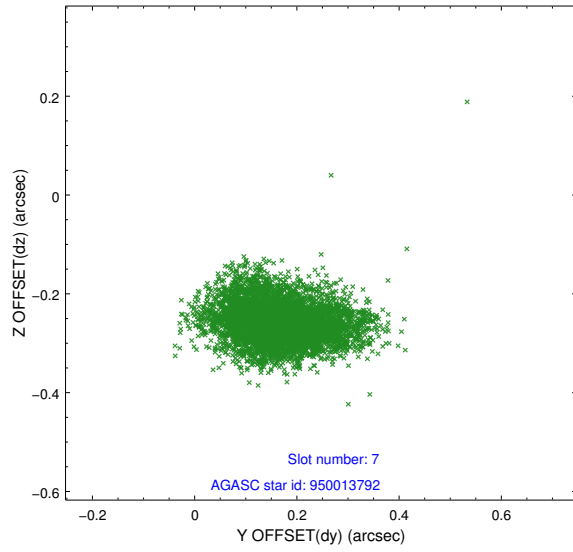
2.4.3 Slot 5



2.4.4 Slot 6

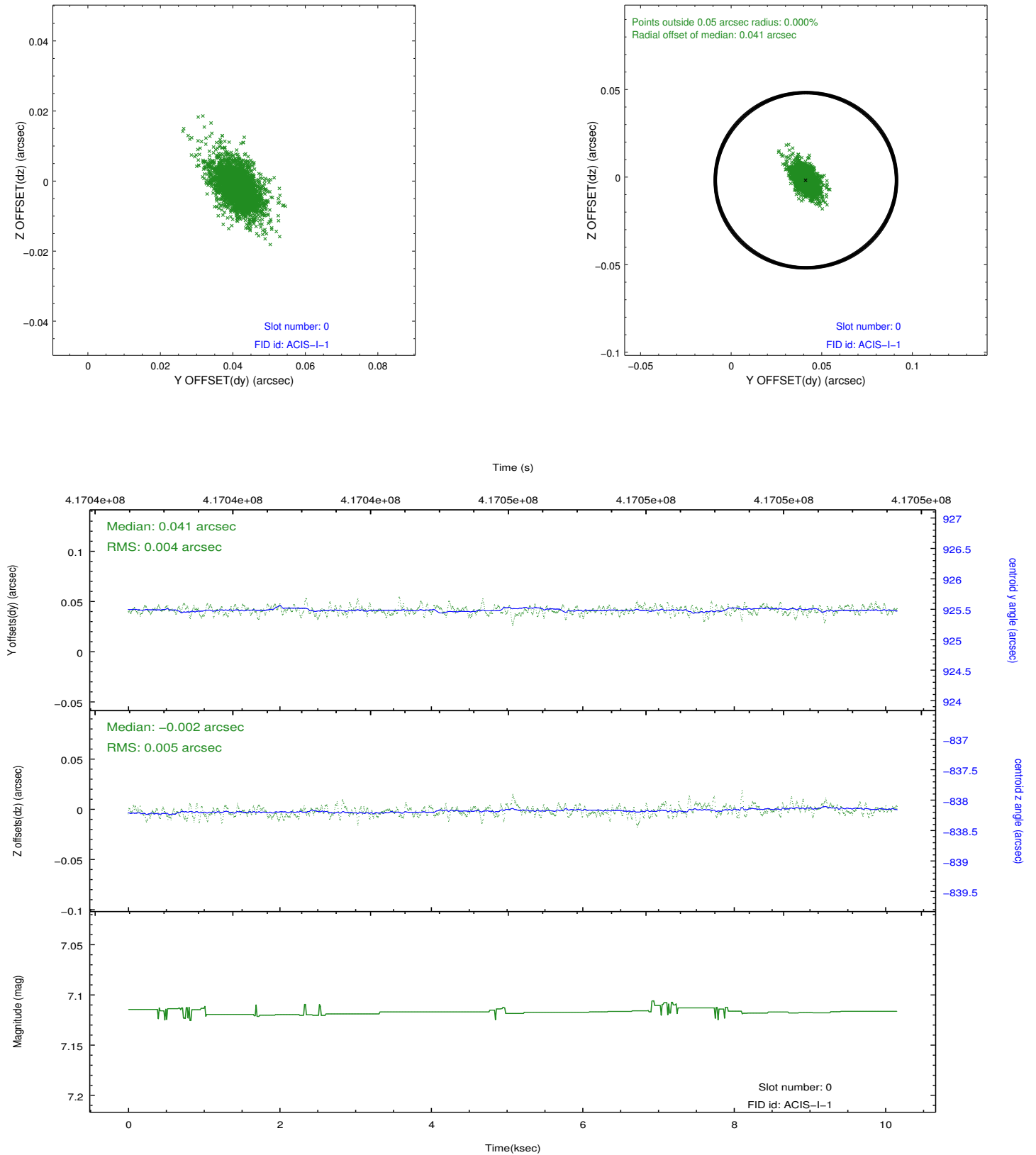


2.4.5 Slot 7

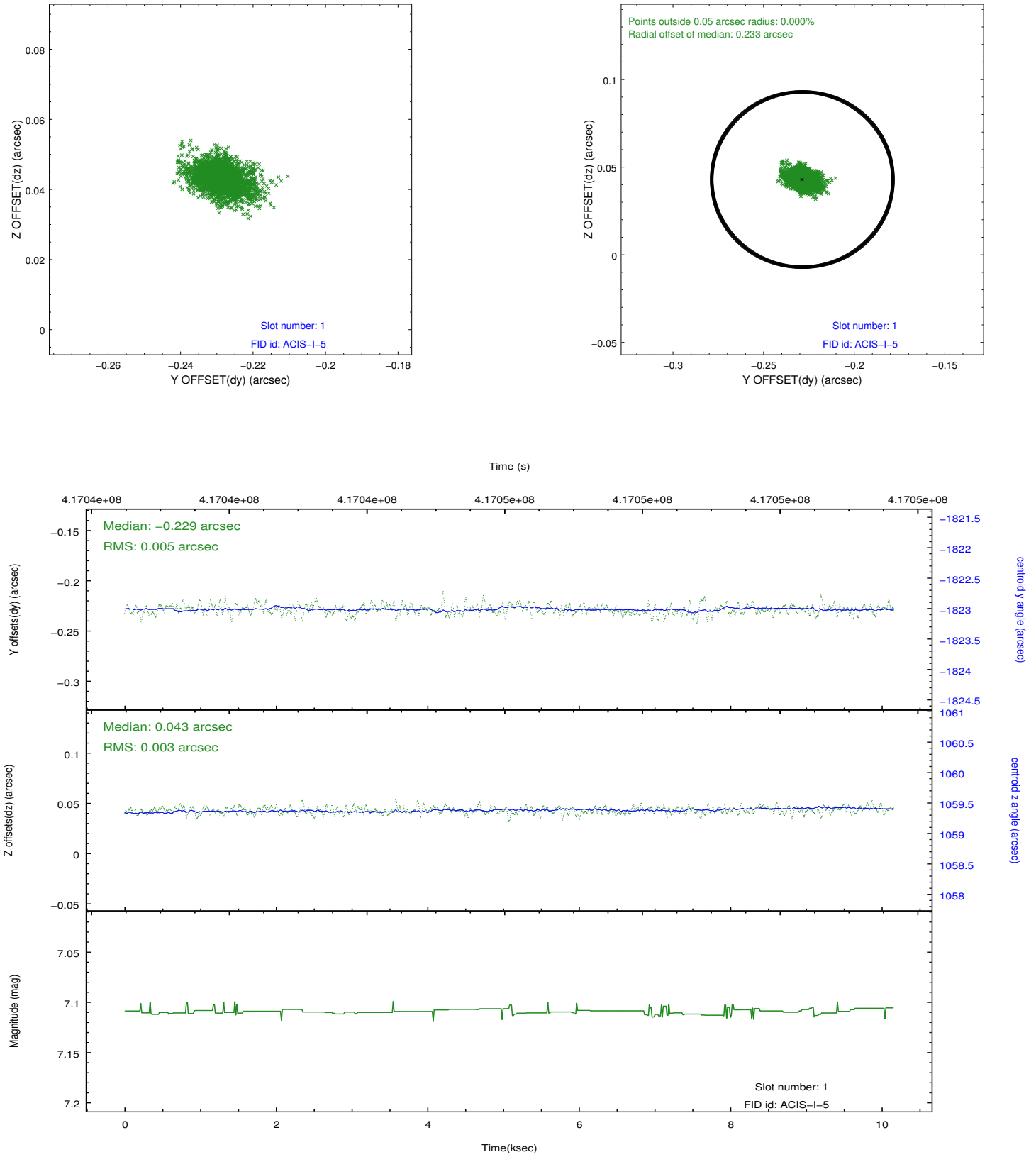


2.5 FID Slots

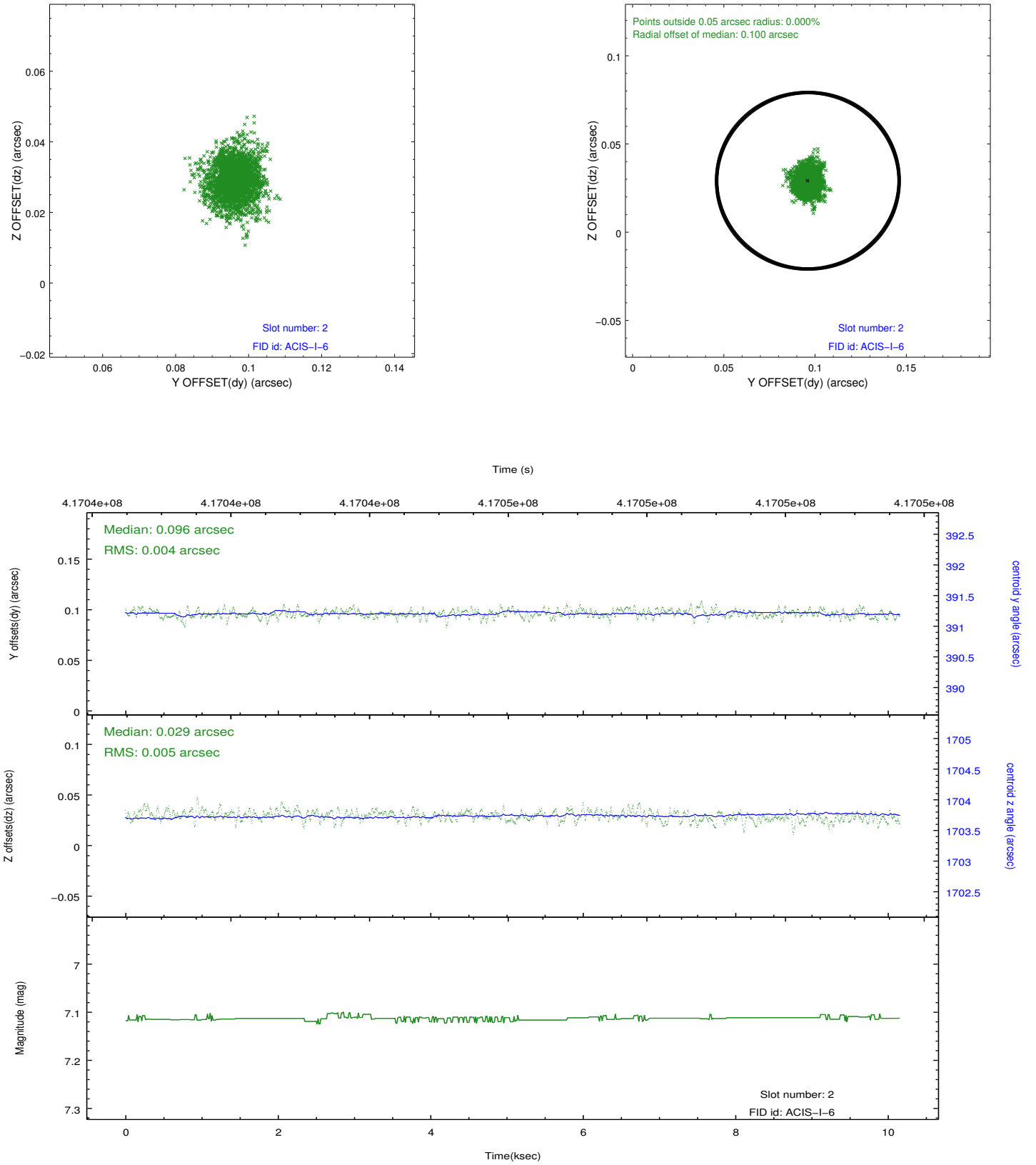
2.5.1 Slot 0



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	10.053300077319

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.