

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12853 - L2 Version 2
Chandra X-Ray Center

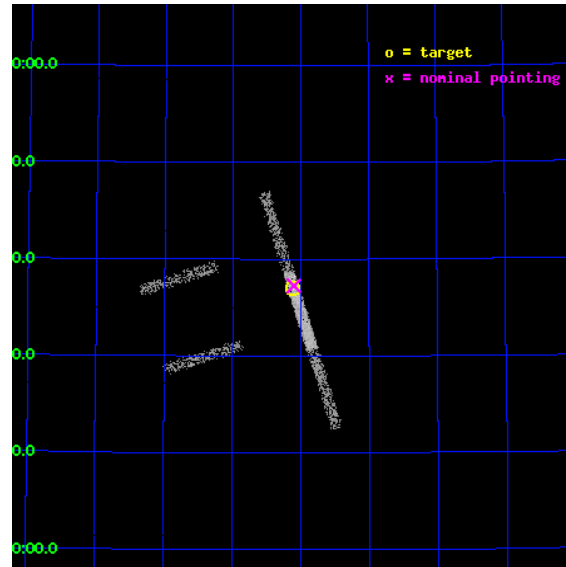
L2 Processing Date : Feb 7 2012

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

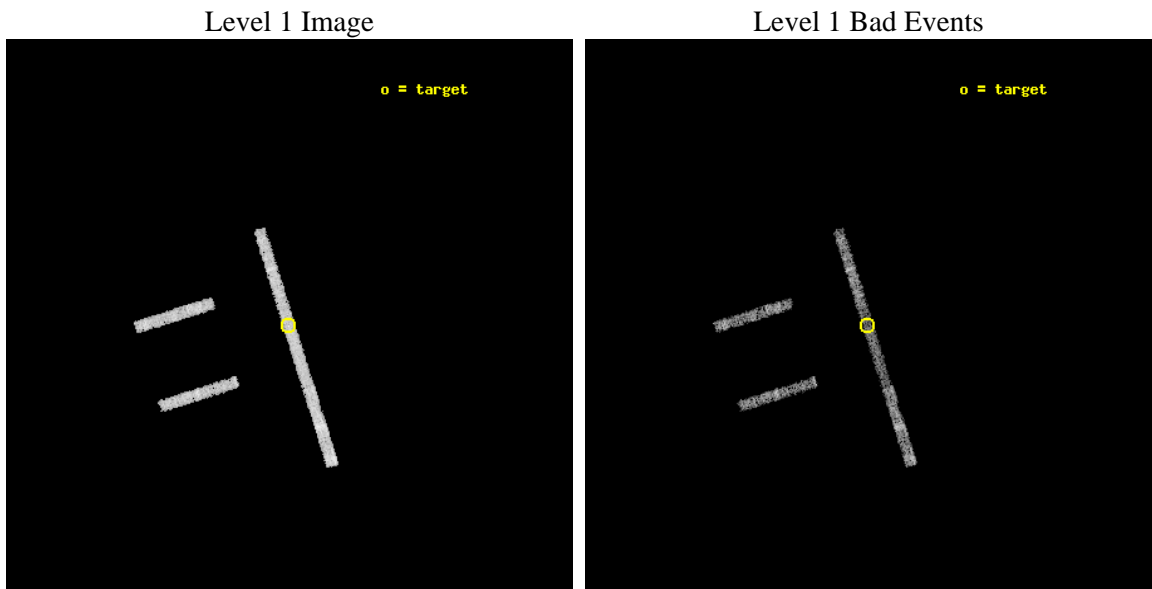
seq_num	702486	Sequence number
obs_id	12853	Observation id
title	X-ray properties of the Youngest Radio Sources	Proposal title
observer	Aneta Siemiginowska	Principal investigator
object	2021+614	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	305.527917	Observer's specified target RA [deg]
dec_targ	61.616333	Observer's specified target Dec [deg]
ra_nom	305.52551523565	Nominal RA [deg]
dec_nom	61.620989019038	Nominal Dec [deg]
roll_nom	72.553968083778	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5064.4999136925	Sum of GTIs [s]
livetime	4784.0196744909	Livetime [s]
ontime2	5064.3489174247	Sum of GTIs [s]
ontime3	5064.4309974313	Sum of GTIs [s]
ontime6	5064.4720374346	Sum of GTIs [s]
ontime7	5064.4999136925	Sum of GTIs [s]
ontime8	5064.389957428	Sum of GTIs [s]
l2events	4451	Number of level 2 events



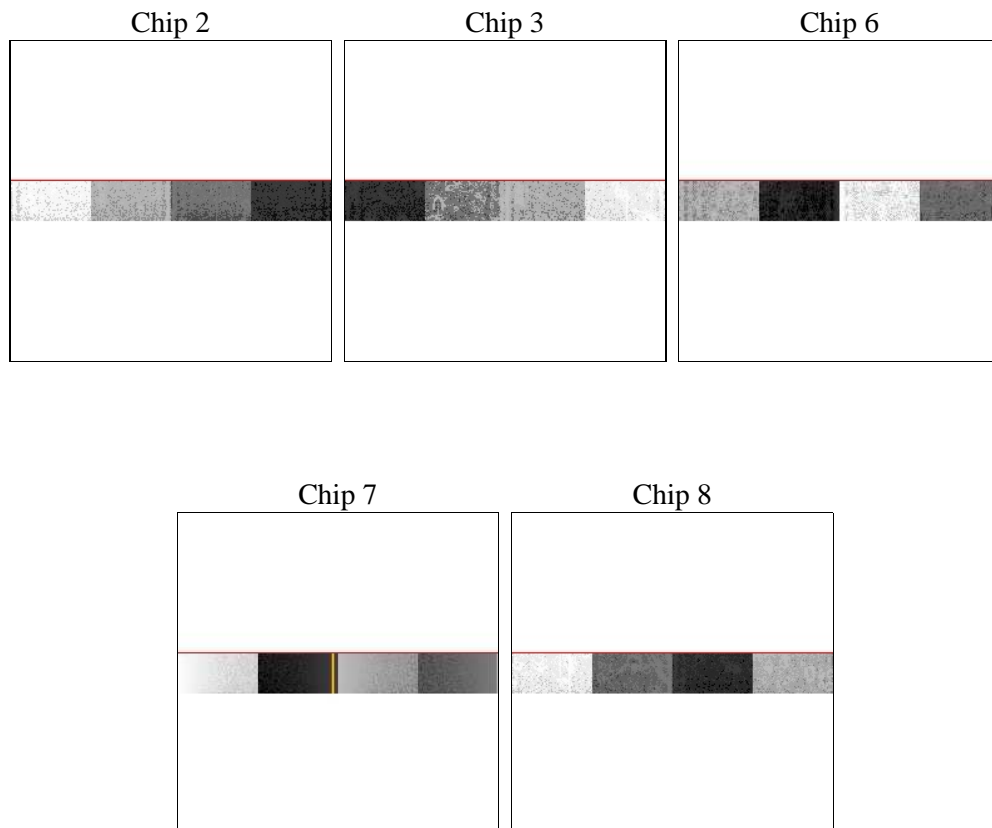
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	5064.4999136925	Sum of GTIs [s]
caldsver	4.4.7	 	ontime2	5064.3489174247	Sum of GTIs [s]
date	2012-02-07T13:22:55	Date and time of file creation	ontime3	5064.4309974313	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	5064.4720374346	Sum of GTIs [s]
			ontime7	5064.4999136925	Sum of GTIs [s]
			ontime8	5064.389957428	Sum of GTIs [s]
			l1events	29117	Number of level 1 events

2.1.4 Events

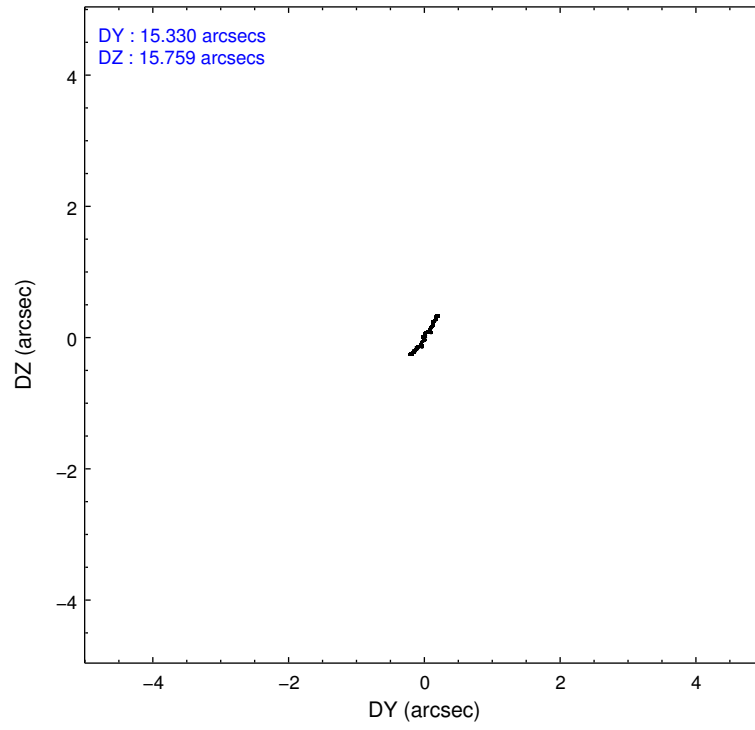
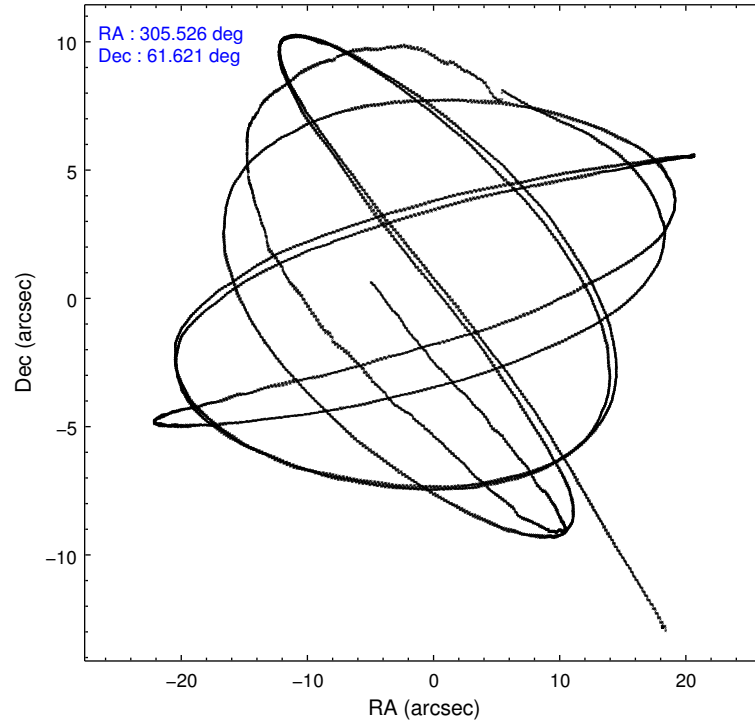
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	5359	4903	5500	5639	7716
rejected events	4811	4380	4911	2926	5984
rejected %	89%	89%	89%	51%	77%

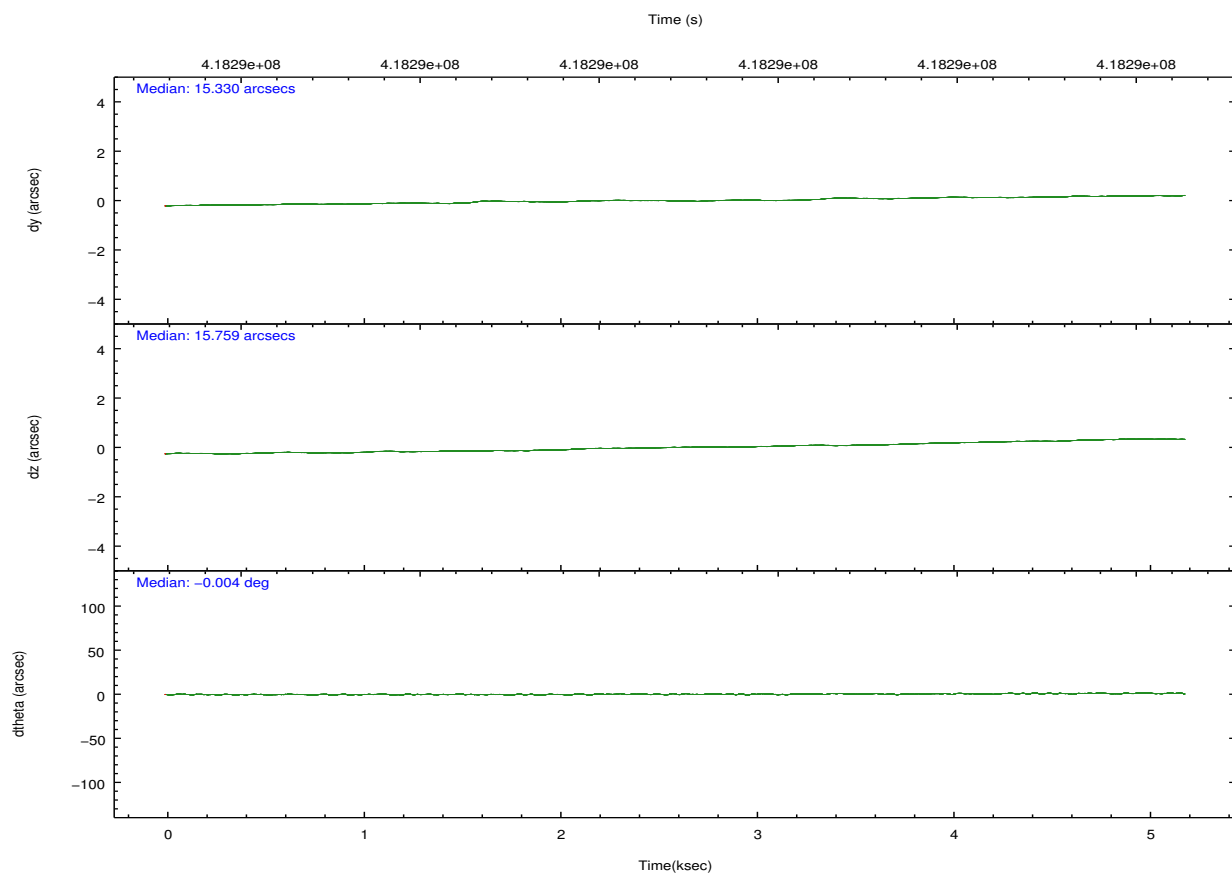
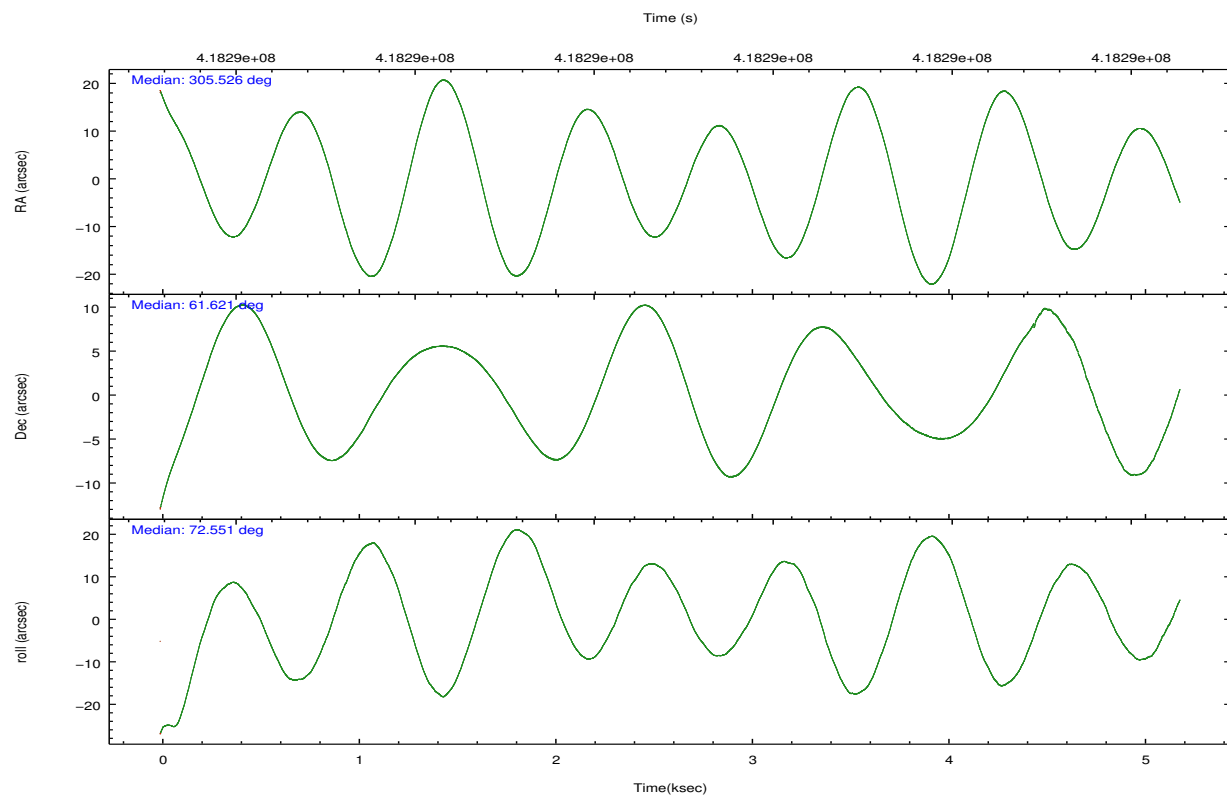
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	167	161	176	294	472
	3%	3%	3%	5%	6%
grade 1 events	6	2	0	9	1
	0%	0%	0%	0%	0%
grade 2 events	120	91	114	591	325
	2%	1%	2%	10%	4%
grade 3 events	91	96	97	290	210
	1%	1%	1%	5%	2%
grade 4 events	88	88	82	305	208
	1%	1%	1%	5%	2%
grade 5 events	170	194	189	603	274
	3%	3%	3%	10%	3%
grade 6 events	82	87	120	1234	517
	1%	1%	2%	21%	6%
grade 7 events	4635	4184	4722	2313	5709
	86%	85%	85%	41%	73%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	305.538653	305.525515235648	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	61.594425	61.62098901903814	Subarray start row	449	449
[deg] Pointing Roll	72.385777	72.5539680837782	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.7
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	418289008.184000	418288256.05227			
Observation start date	2011-04-04T07:22:22	2011-04-04T07:10:56			
[s] Observation end time (MET)	418294008.184000	418294417.32759			
Observation end date	2011-04-04T08:45:42	2011-04-04T08:53:37			
Read mode	TIMED	TIMED			

2.3 Aspect



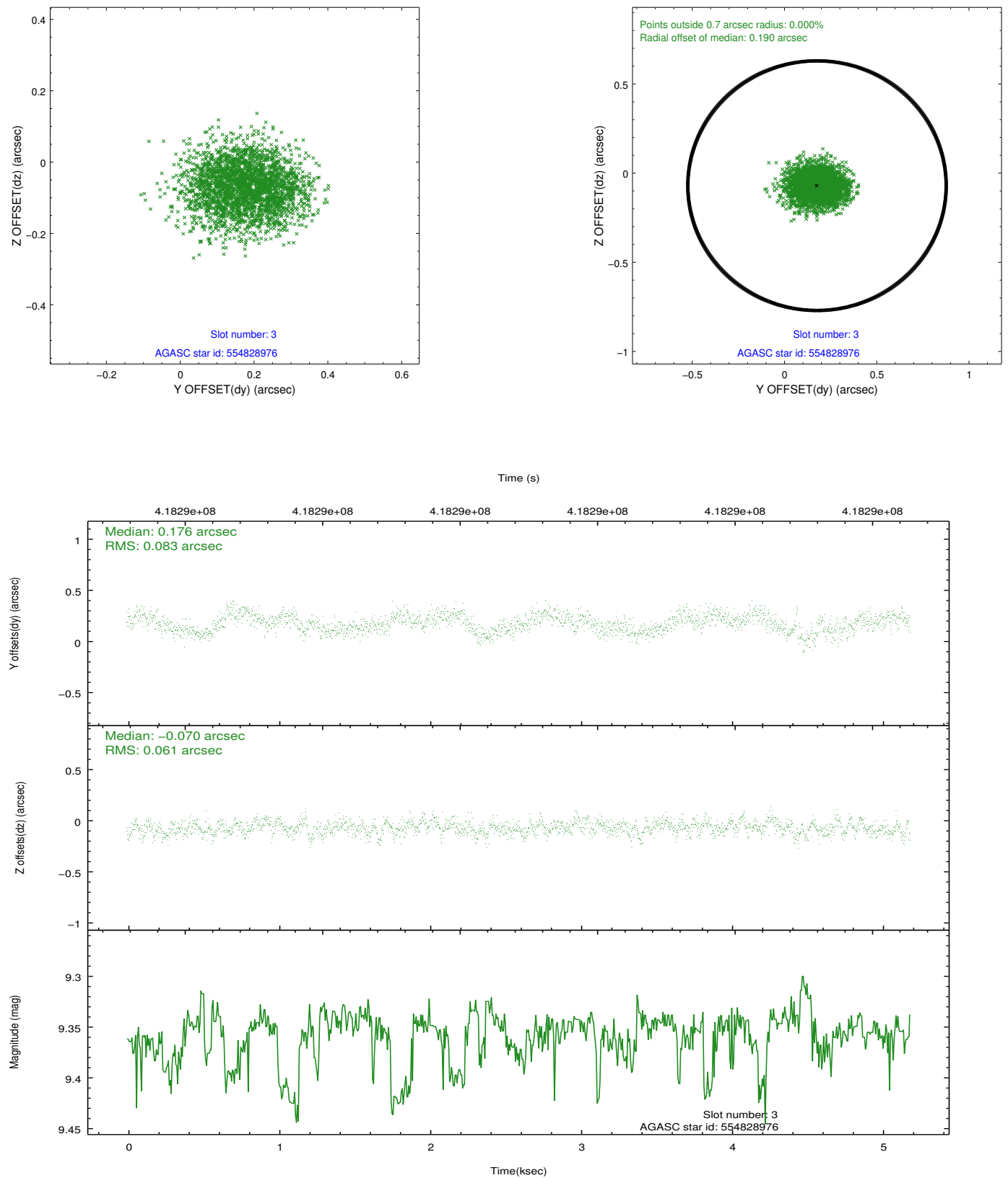


Slot Statistics

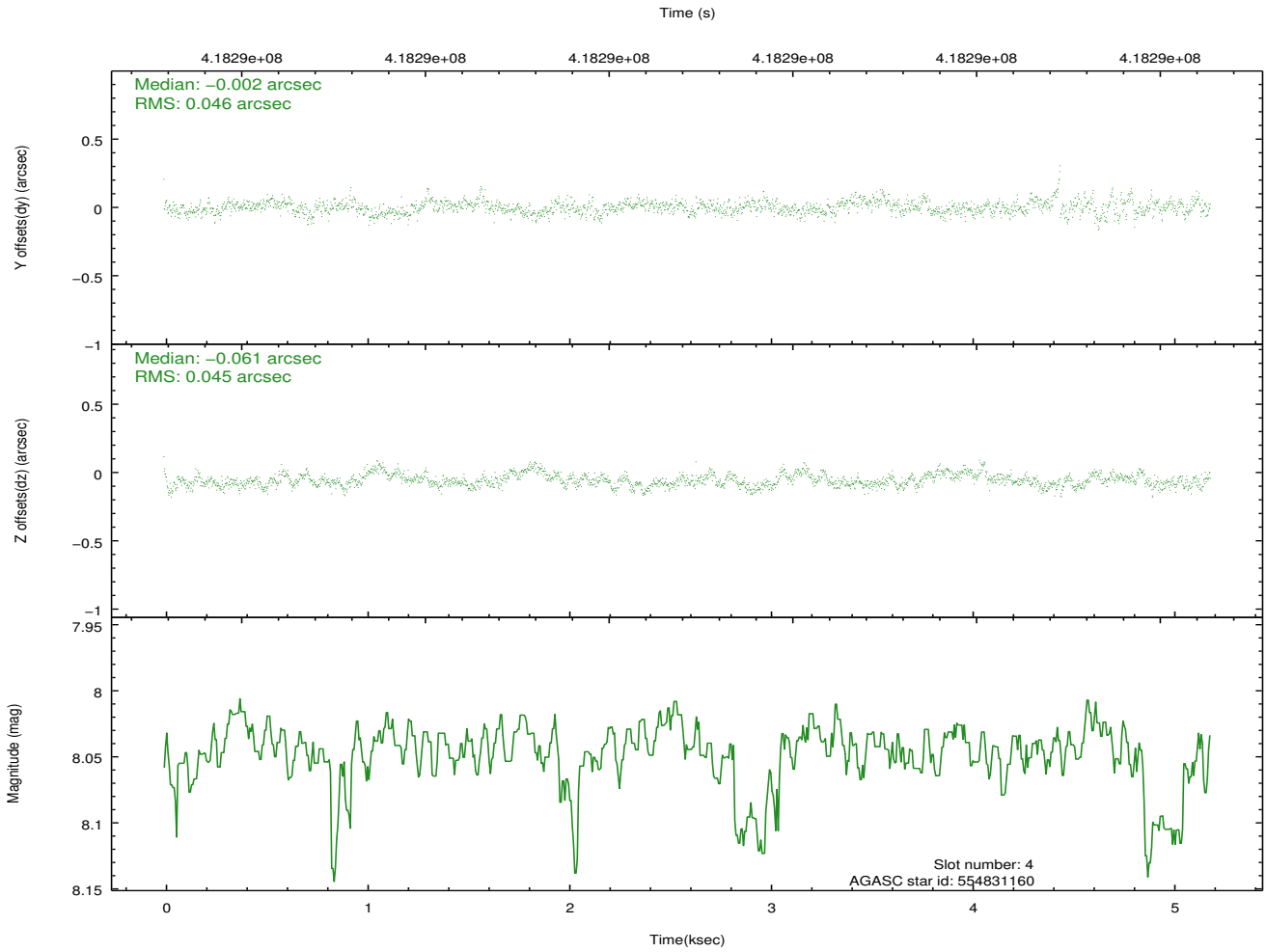
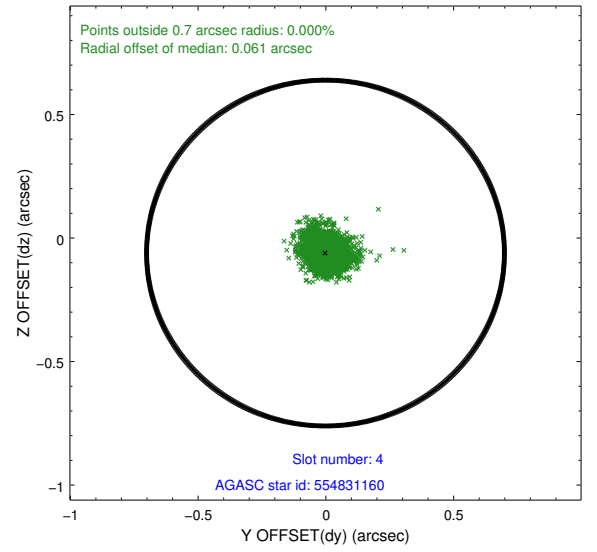
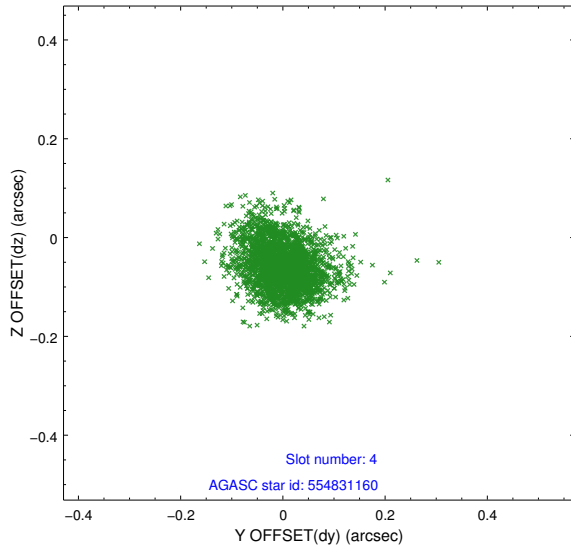
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.92	1265	-0.103	-0.025	0.007	0.011	0.000000	0.000000	-768.40	-1737.19
1	FID	ACIS-S-4	7.00	1266	0.212	0.057	0.008	0.013	0.000000	0.000000	2144.64	170.17
2	FID	ACIS-S-5	7.04	1266	-0.140	-0.023	0.007	0.011	0.000000	0.000000	-1819.80	165.08
3	GUIDE	554828976	9.36	2522	0.176	-0.070	0.110	0.176	304.832773	61.288463	-1412.37	832.55
4	GUIDE	554831160	8.04	2532	-0.002	-0.061	0.068	0.114	306.475670	61.555497	362.57	-1569.58
5	GUIDE	554834712	8.18	2525	-0.098	0.199	0.068	0.114	306.731478	61.526871	406.15	-2018.97
6	GUIDE	554840736	7.70	2532	-0.007	-0.135	0.063	0.105	305.227399	61.403549	-815.43	303.12
7	GUIDE	555354880	8.58	2531	-0.065	0.062	0.074	0.119	306.024514	61.971980	1546.95	-370.30

2.4 Star Slots

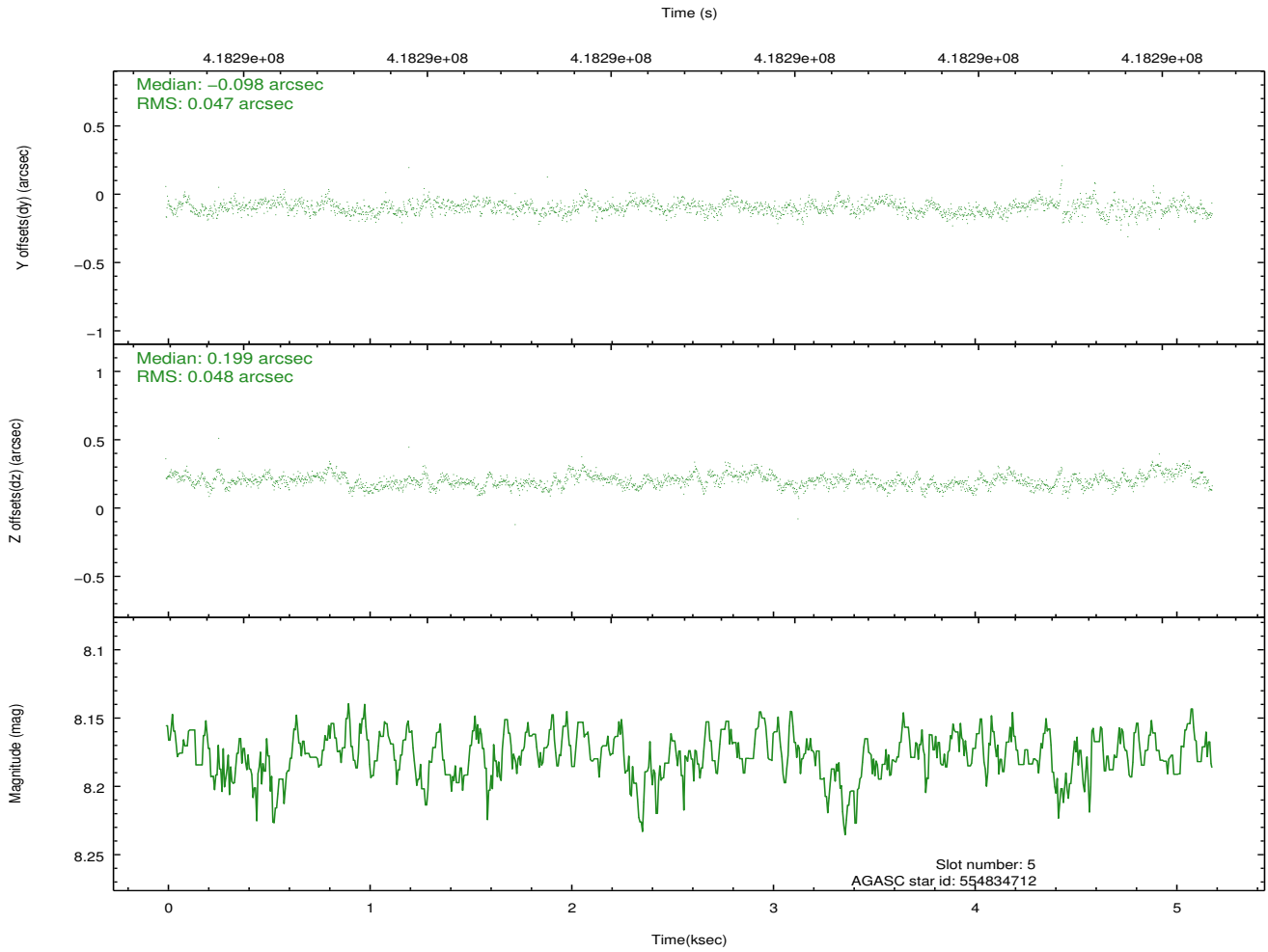
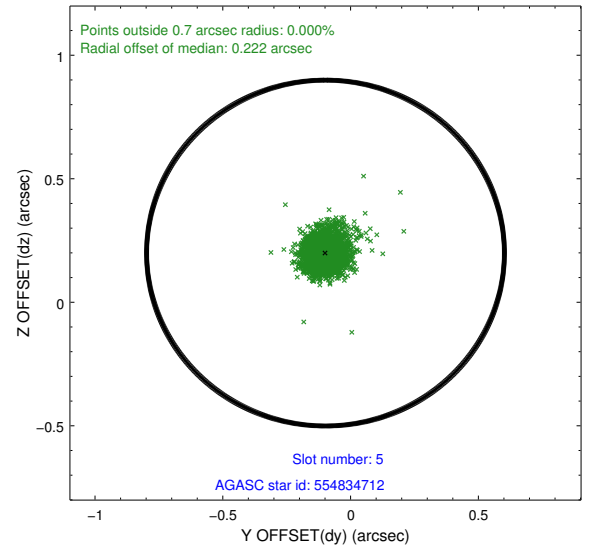
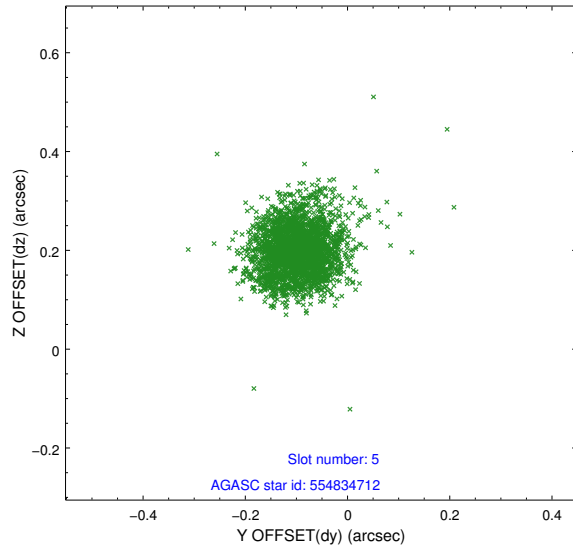
2.4.1 Slot 3



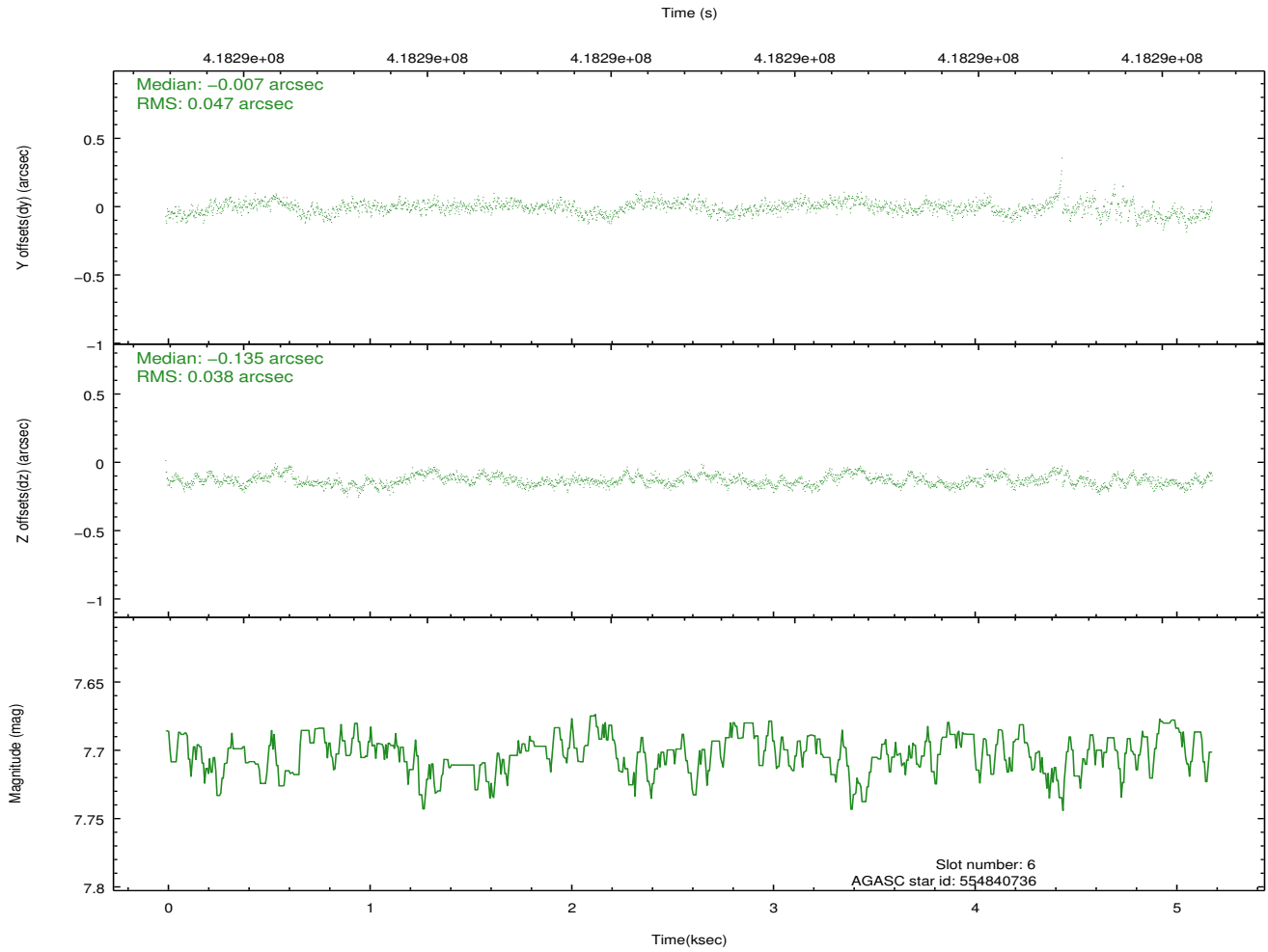
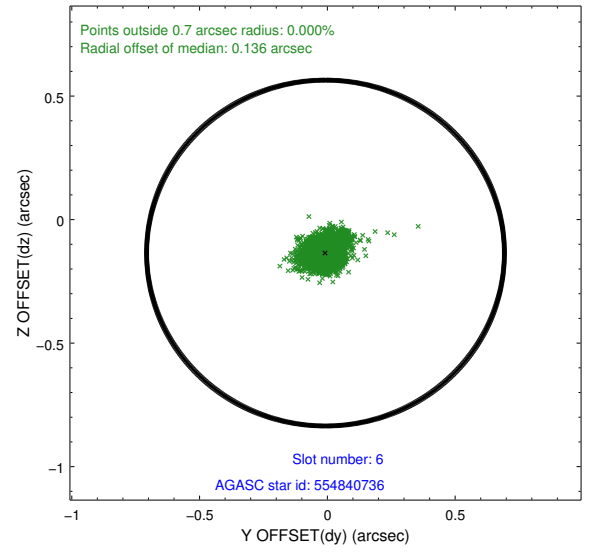
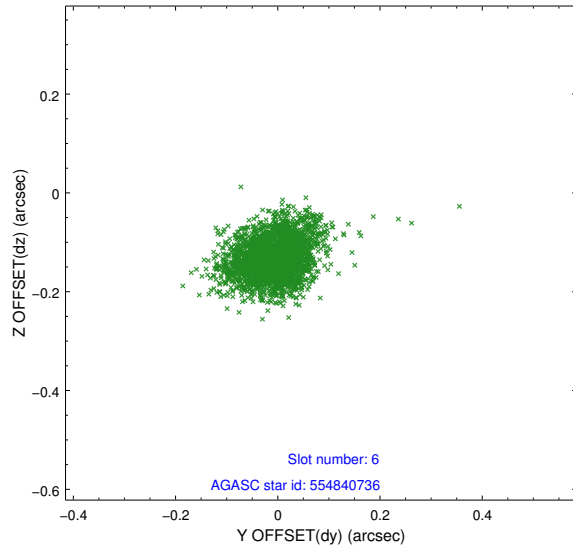
2.4.2 Slot 4



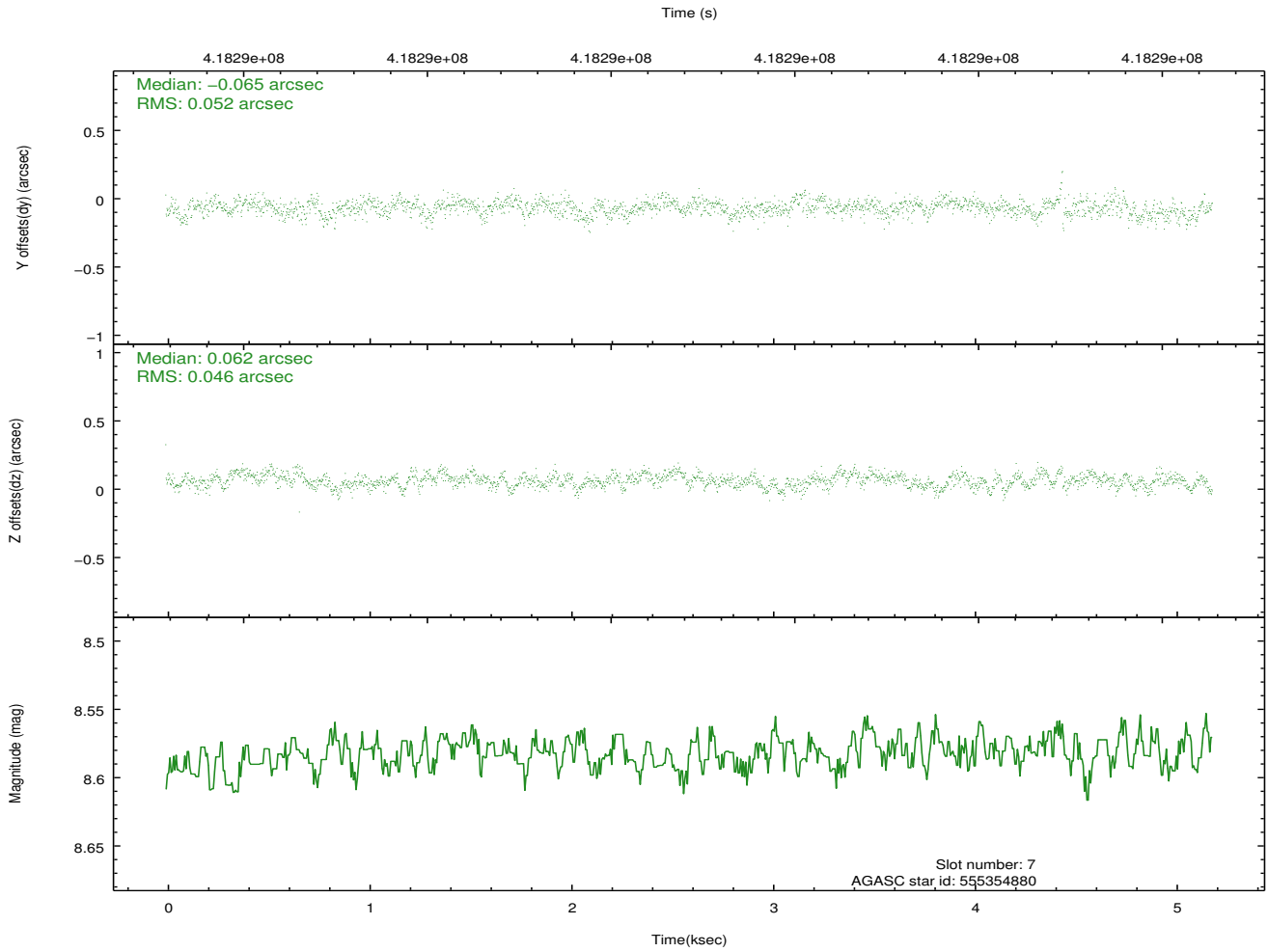
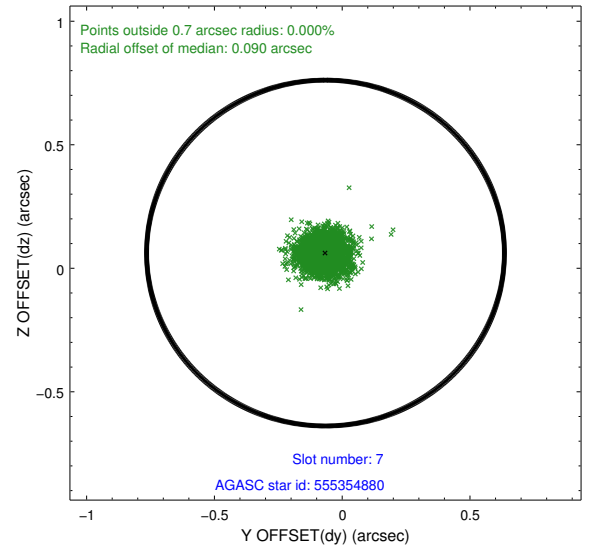
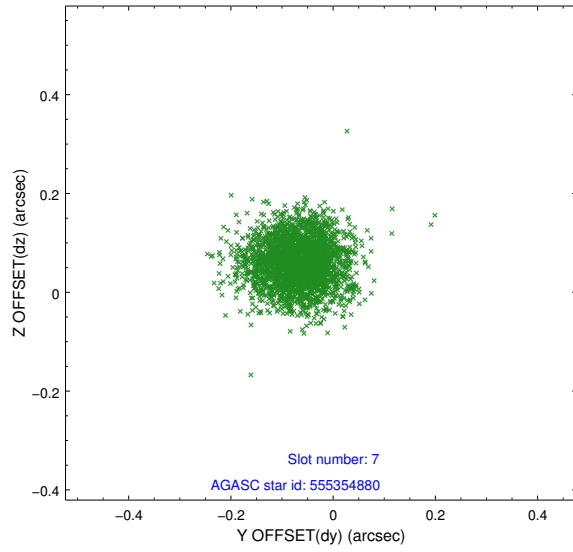
2.4.3 Slot 5



2.4.4 Slot 6

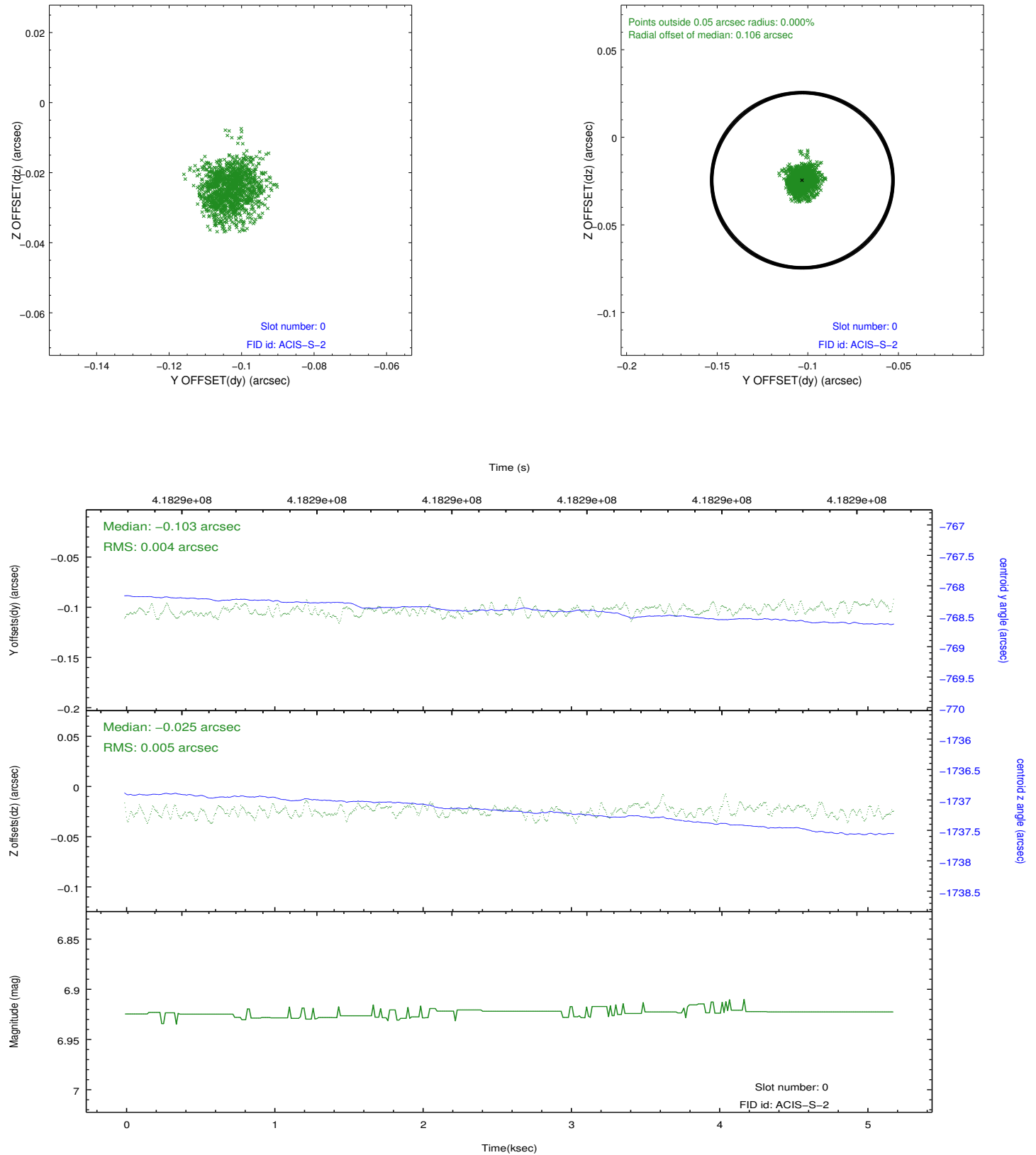


2.4.5 Slot 7

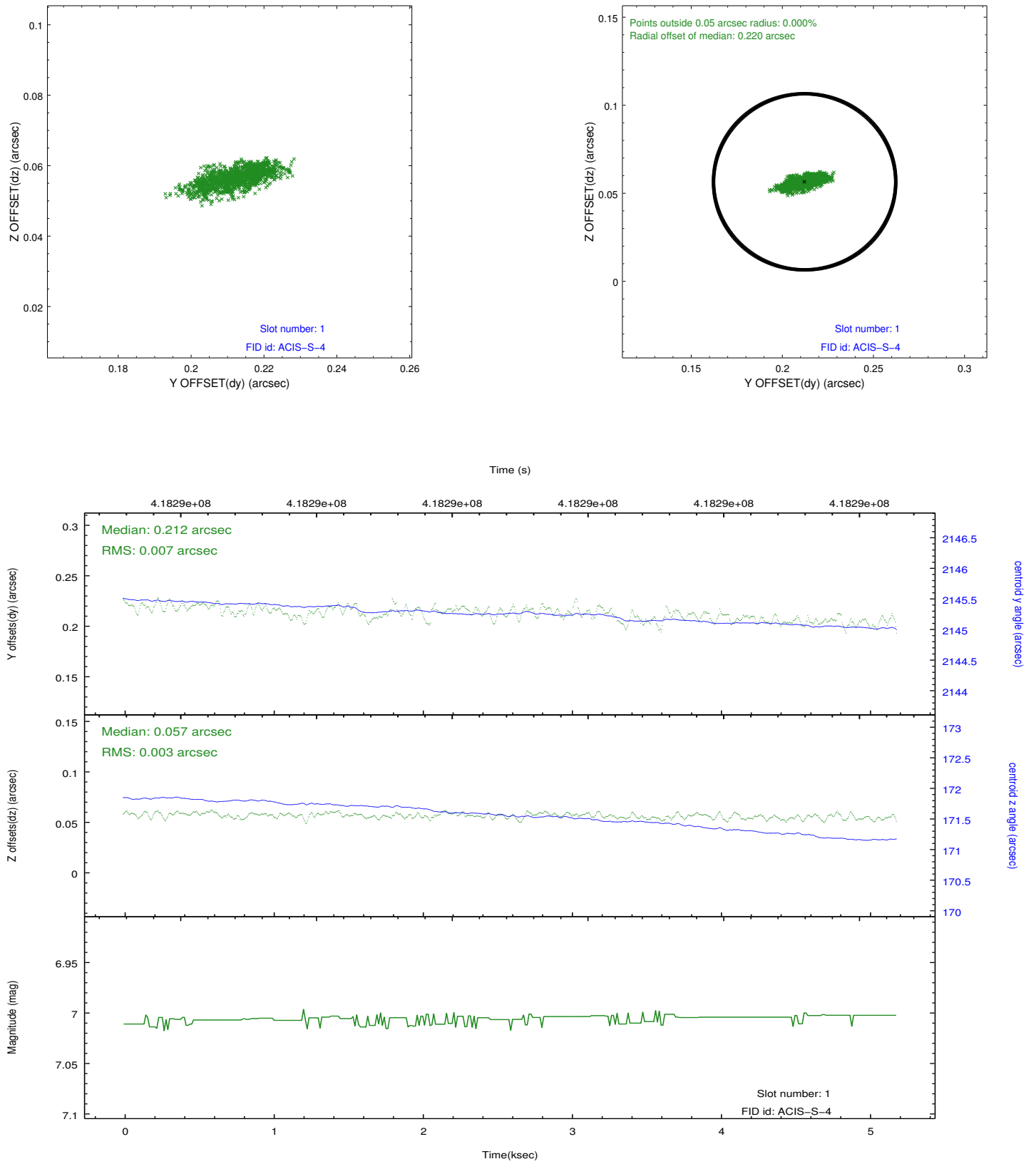


2.5 FID Slots

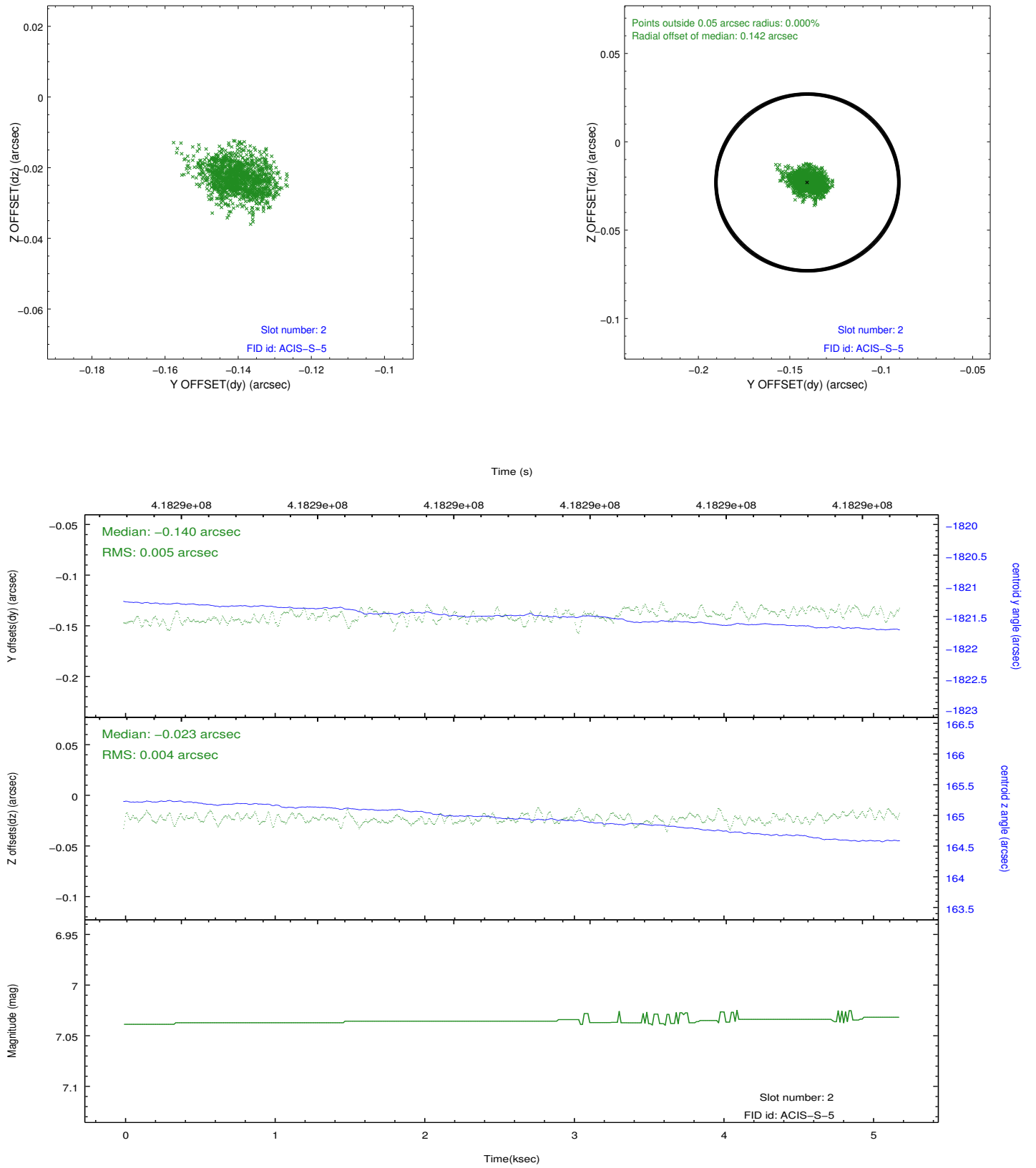
2.5.1 Slot 0



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	5.0644999136925

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.