

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12496 - L2 Version 2
Chandra X-Ray Center

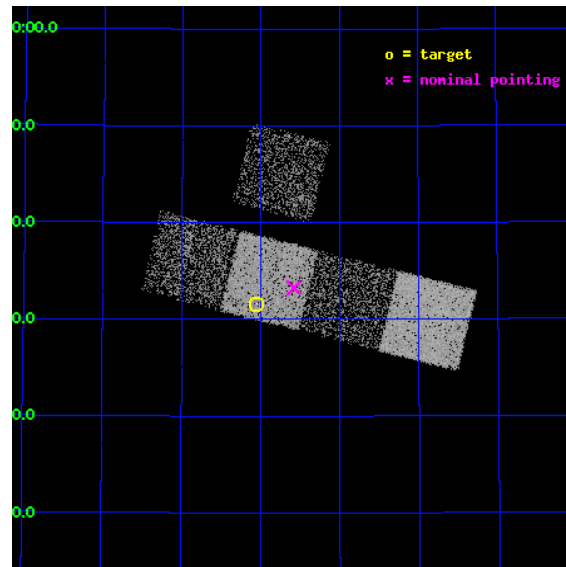
L2 Processing Date : Feb 4 2012

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

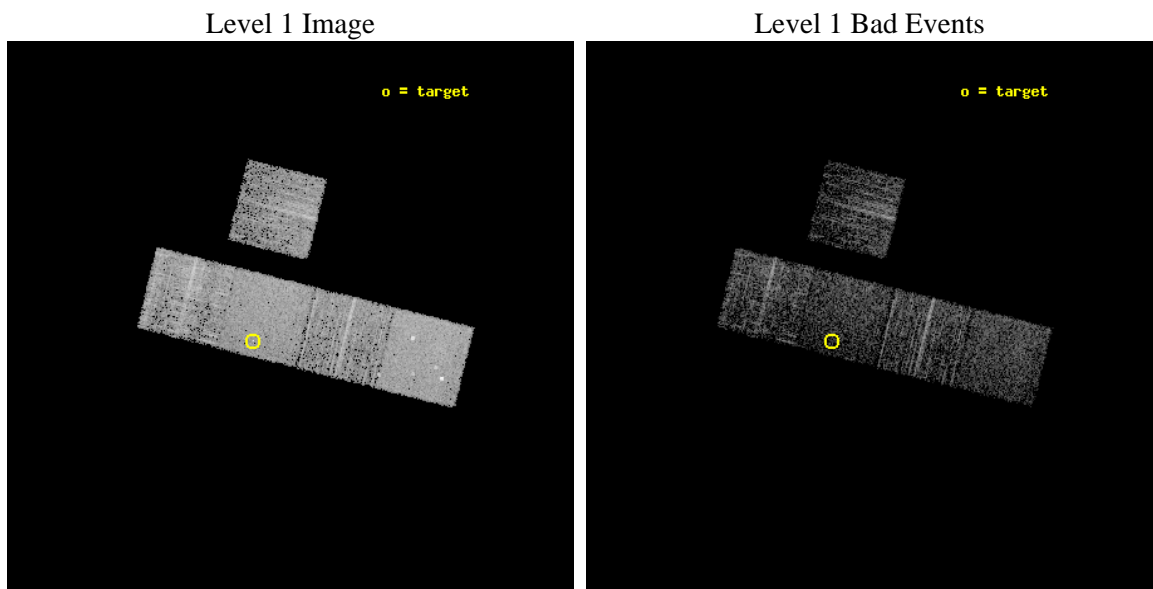
seq_num	401237	Sequence number
obs_id	12496	Observation id
title	The Nearest and Brightest Quiescent Low Mass X-ray Binaries	Propos
observer	Prof. Robert Rutledge	Principal investigator
object	1RXS J095703.2+563138	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	149.263333	Observer's specified target RA [deg]
dec_targ	56.527222	Observer's specified target Dec [deg]
ra_nom	149.14496387998	Nominal RA [deg]
dec_nom	56.554482510766	Nominal Dec [deg]
roll_nom	194.05685609047	Nominal Roll [deg]
revision	2	Processing version of data
ontime	2737.3000210524	Sum of GTIs [s]
livetime	2701.5351811064	Livetime [s]
ontime3	2737.3000210524	Sum of GTIs [s]
ontime5	2737.3000210524	Sum of GTIs [s]
ontime6	2737.3000210524	Sum of GTIs [s]
ontime7	2737.3000210524	Sum of GTIs [s]
ontime8	2737.3000210524	Sum of GTIs [s]
l2events	31082	Number of level 2 events



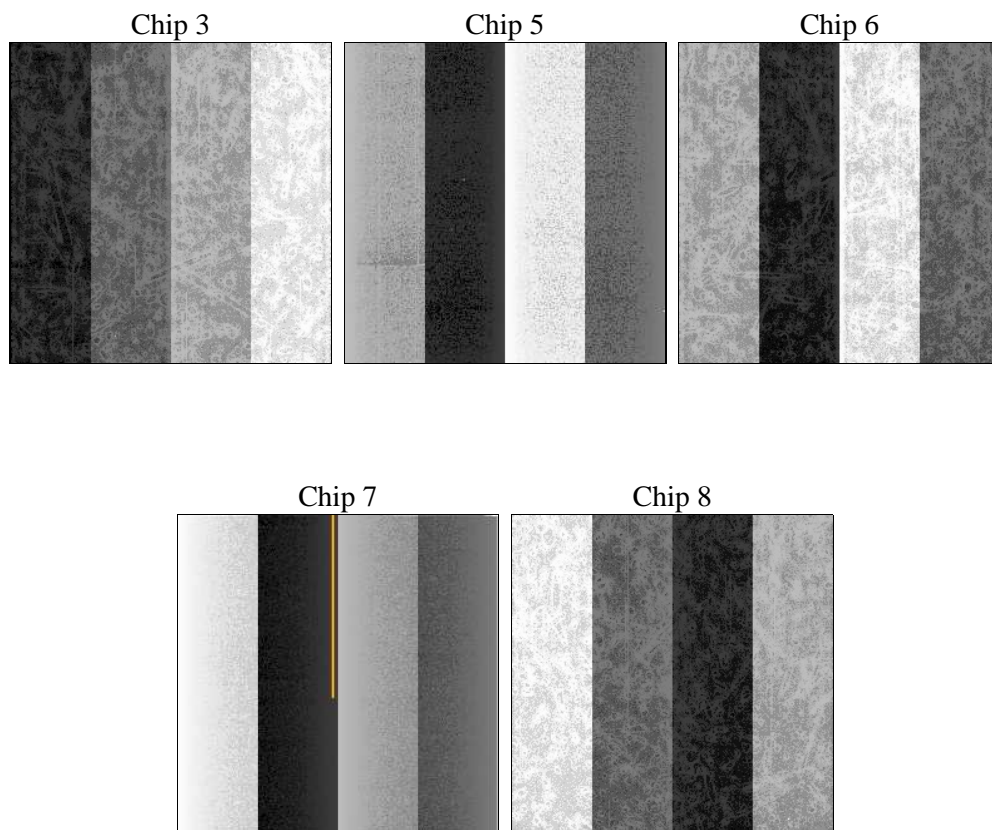
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2700.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	2737.3000210524	Sum of GTIs [s]
caldsver	4.4.7	 	ontime3	2737.3000210524	Sum of GTIs [s]
date	2012-02-04T20:02:38	Date and time of file creation	ontime5	2737.3000210524	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	2737.3000210524	Sum of GTIs [s]
			ontime7	2737.3000210524	Sum of GTIs [s]
			ontime8	2737.3000210524	Sum of GTIs [s]
			l1events	123043	Number of level 1 events

2.1.4 Events

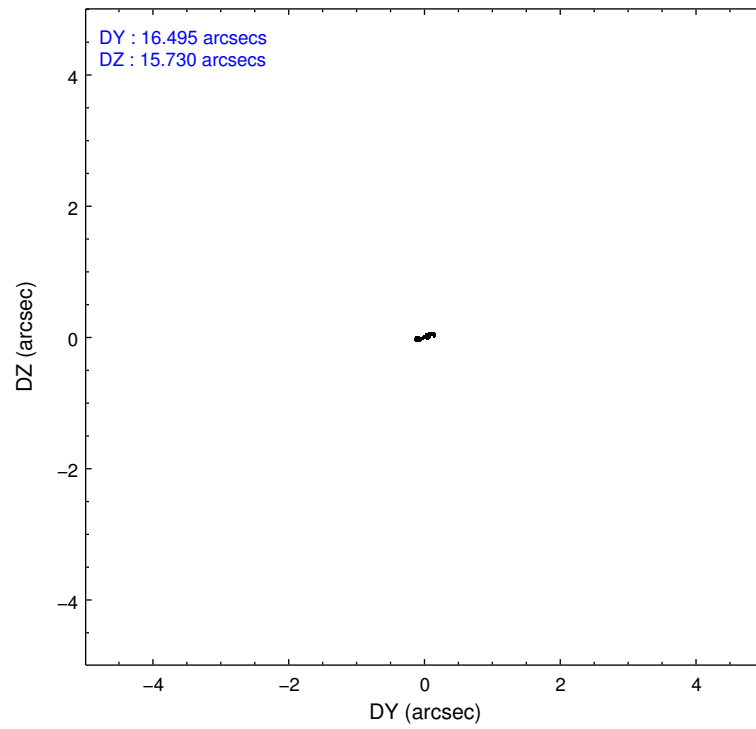
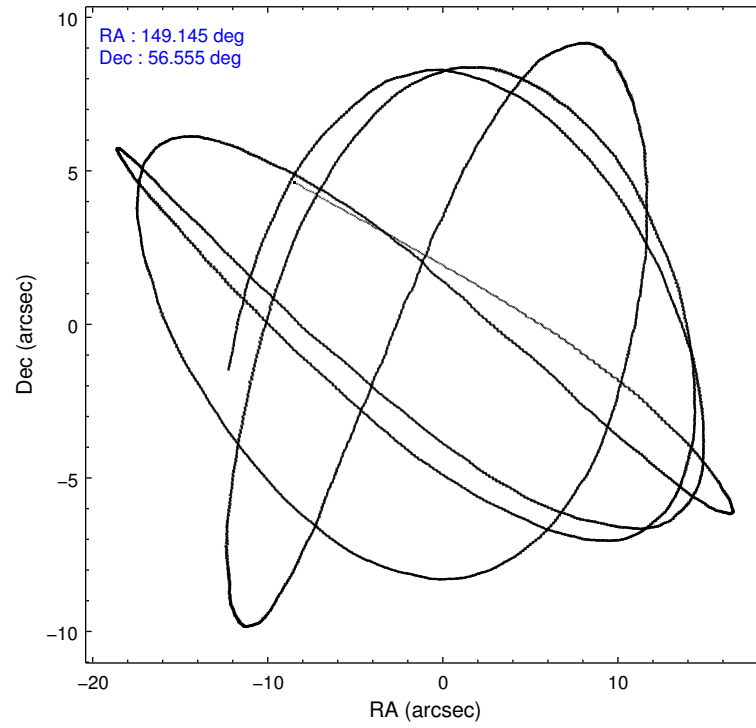
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	18642	31851	20978	25190	26382
rejected events	16653	15798	18708	14088	19304
rejected %	89%	49%	89%	55%	73%

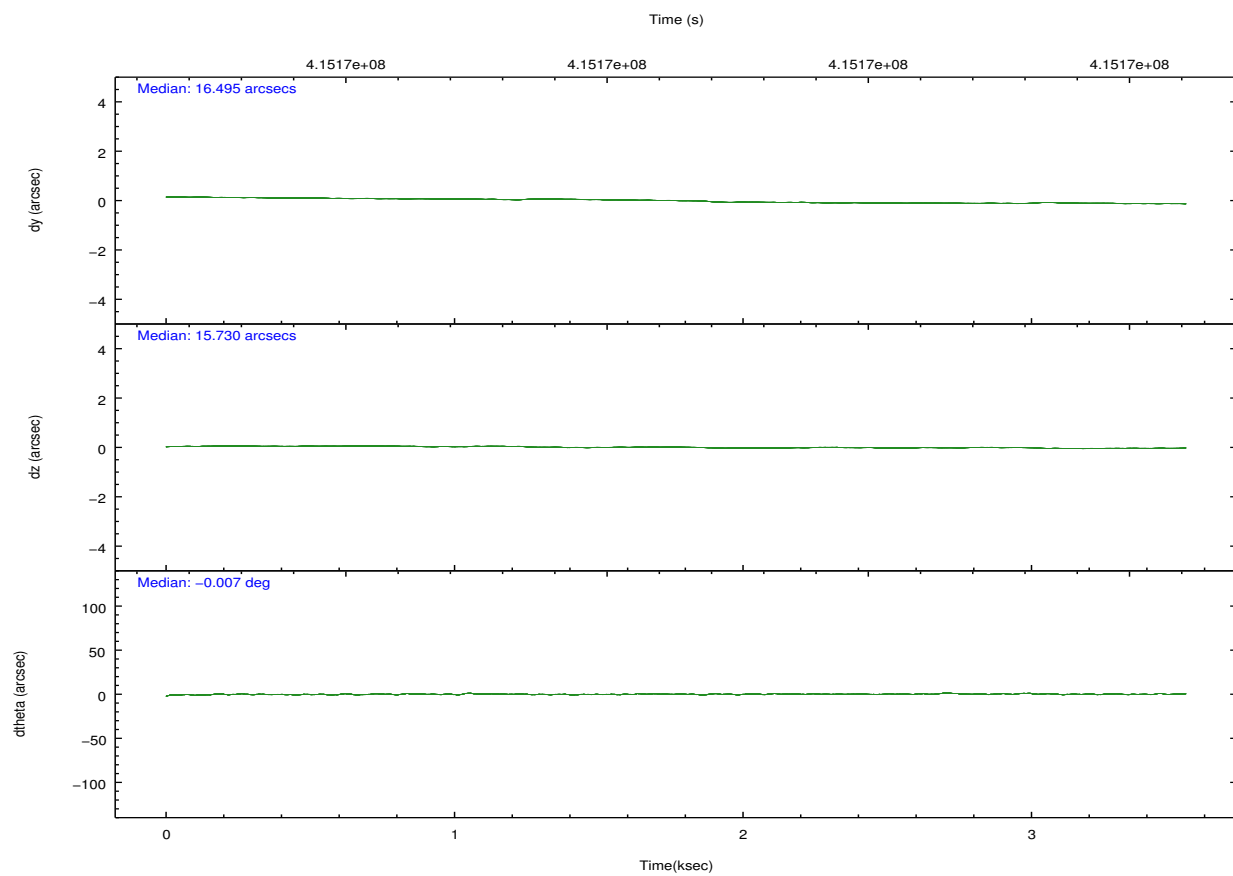
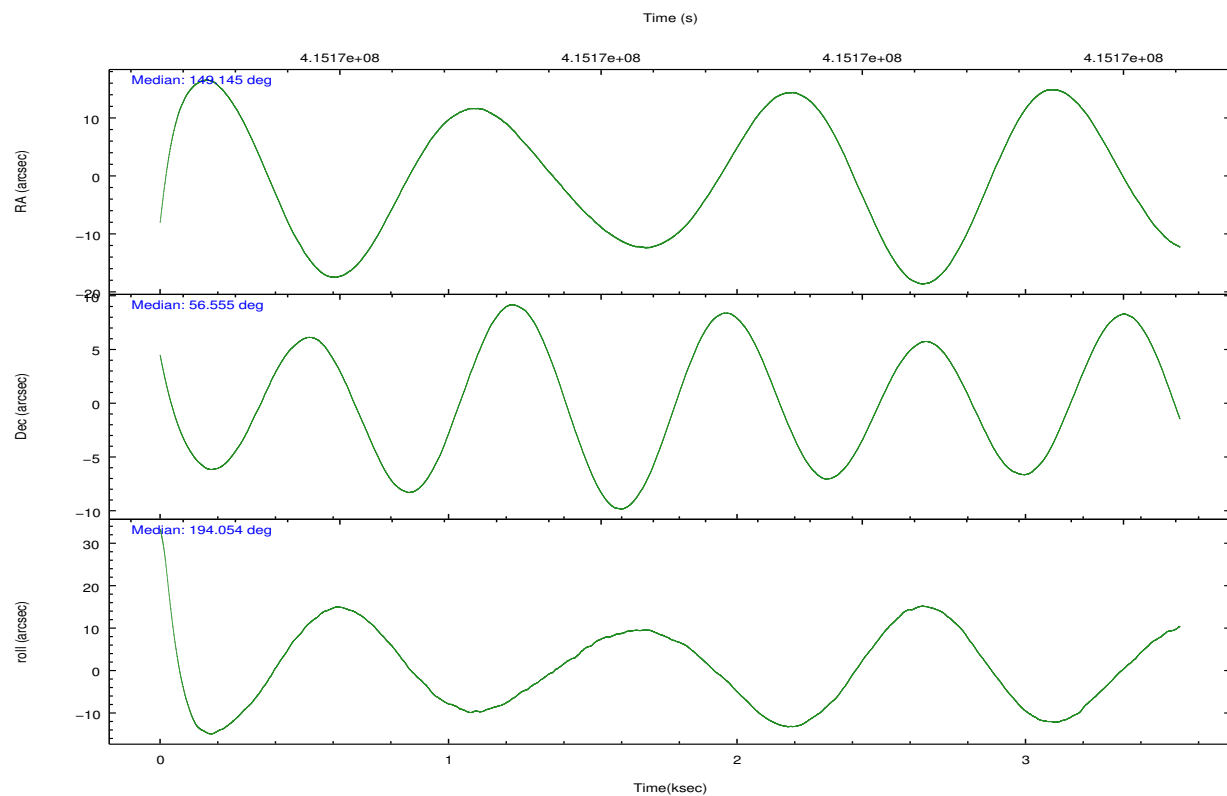
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	692	2052	798	1011	1985
	3%	6%	3%	4%	7%
grade 1 events	14	99	11	31	20
	0%	0%	0%	0%	0%
grade 2 events	442	4995	492	2283	1620
	2%	15%	2%	9%	6%
grade 3 events	216	597	263	1016	713
	1%	1%	1%	4%	2%
grade 4 events	225	556	229	983	679
	1%	1%	1%	3%	2%
grade 5 events	918	2403	864	2566	1379
	4%	7%	4%	10%	5%
grade 6 events	418	7870	493	5825	2083
	2%	24%	2%	23%	7%
grade 7 events	15717	13279	17828	11475	17903
	84%	41%	84%	45%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	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	149.179957	149.1449638799828	CCD I2 on	N	N
[deg] Pointing Dec	56.573748	56.55448251076639	CCD I3 on	O1	Y
[deg] Pointing Roll	193.870928	194.0568560904723	CCD S0 on	N	N
[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	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	415166340.184000	415164796.96546	CCD S5 on	N	N
Observation start date	2011-02-27T03:57:54	2011-02-27T03:33:16	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	415169040.184000	415169736.44071	On-chip summing requested	N	N
Observation end date	2011-02-27T04:42:54	2011-02-27T04:55:36	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



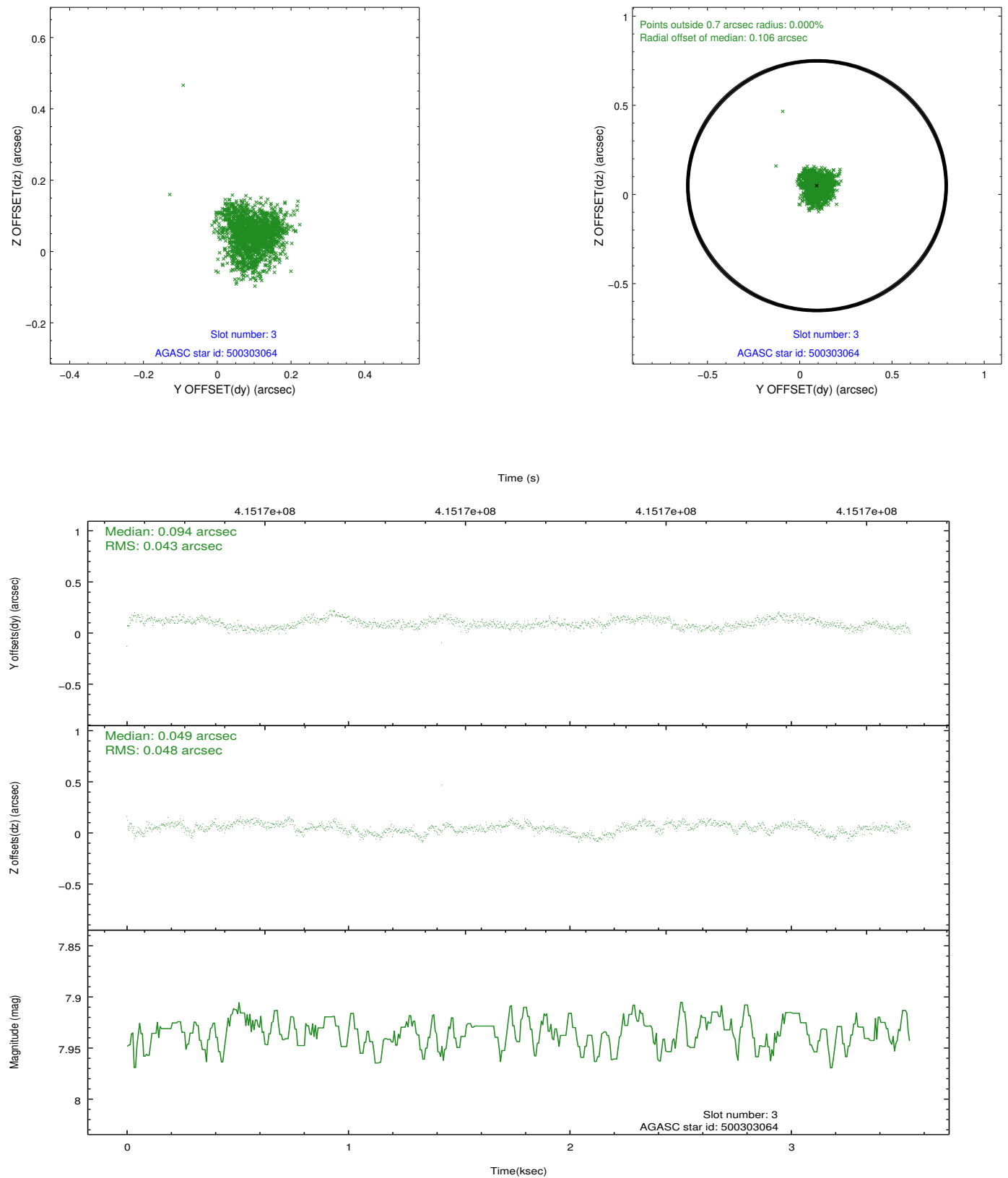


Slot Statistics

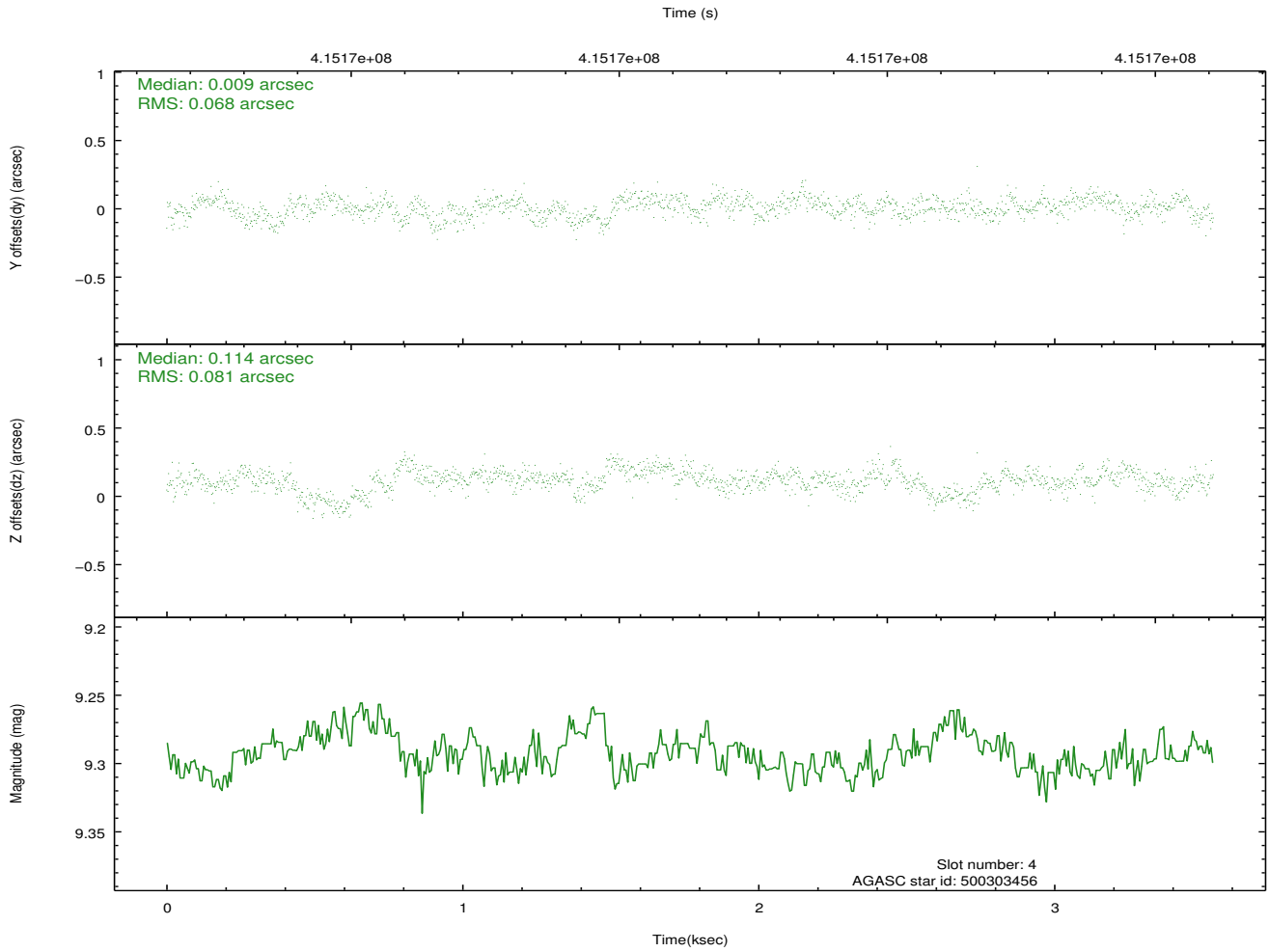
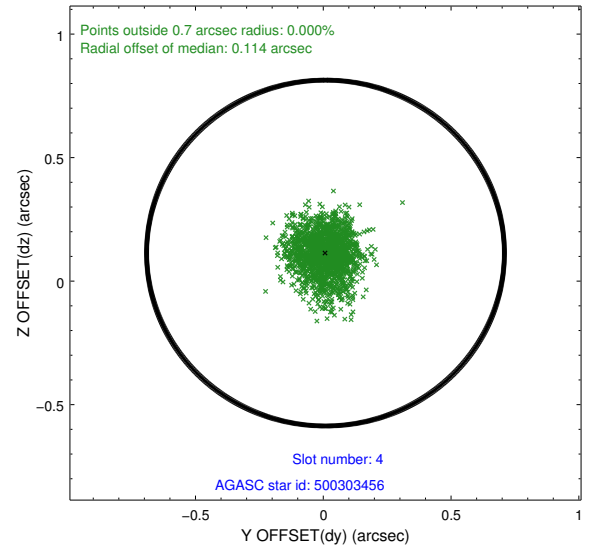
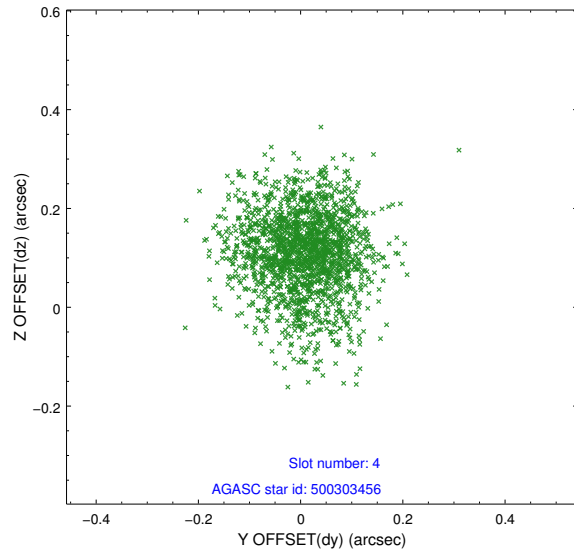
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.95	862	0.079	-0.099	0.008	0.014	0.000000	0.000000	926.67	-1732.84
1	FID	ACIS-S-5	7.00	863	-0.111	0.049	0.007	0.012	0.000000	0.000000	-1821.58	162.95
2	FID	ACIS-S-6	7.11	863	0.010	0.062	0.007	0.011	0.000000	0.000000	390.15	808.99
3	GUIDE	500303064	7.93	1725	0.094	0.049	0.069	0.106	149.677228	57.181709	-1466.73	-1895.52
4	GUIDE	500303456	9.29	1725	0.009	0.114	0.113	0.186	150.182658	56.965736	-2251.99	-912.99
5	GUIDE	500307720	9.22	1725	-0.054	-0.020	0.097	0.157	149.835368	56.109010	-878.57	1933.20
6	GUIDE	500308824	8.88	1724	0.080	-0.188	0.093	0.142	148.561668	56.446939	1302.66	144.07
7	GUIDE	500313088	8.59	1724	-0.129	0.055	0.081	0.124	148.648854	56.088054	1455.18	1438.31

2.4 Star Slots

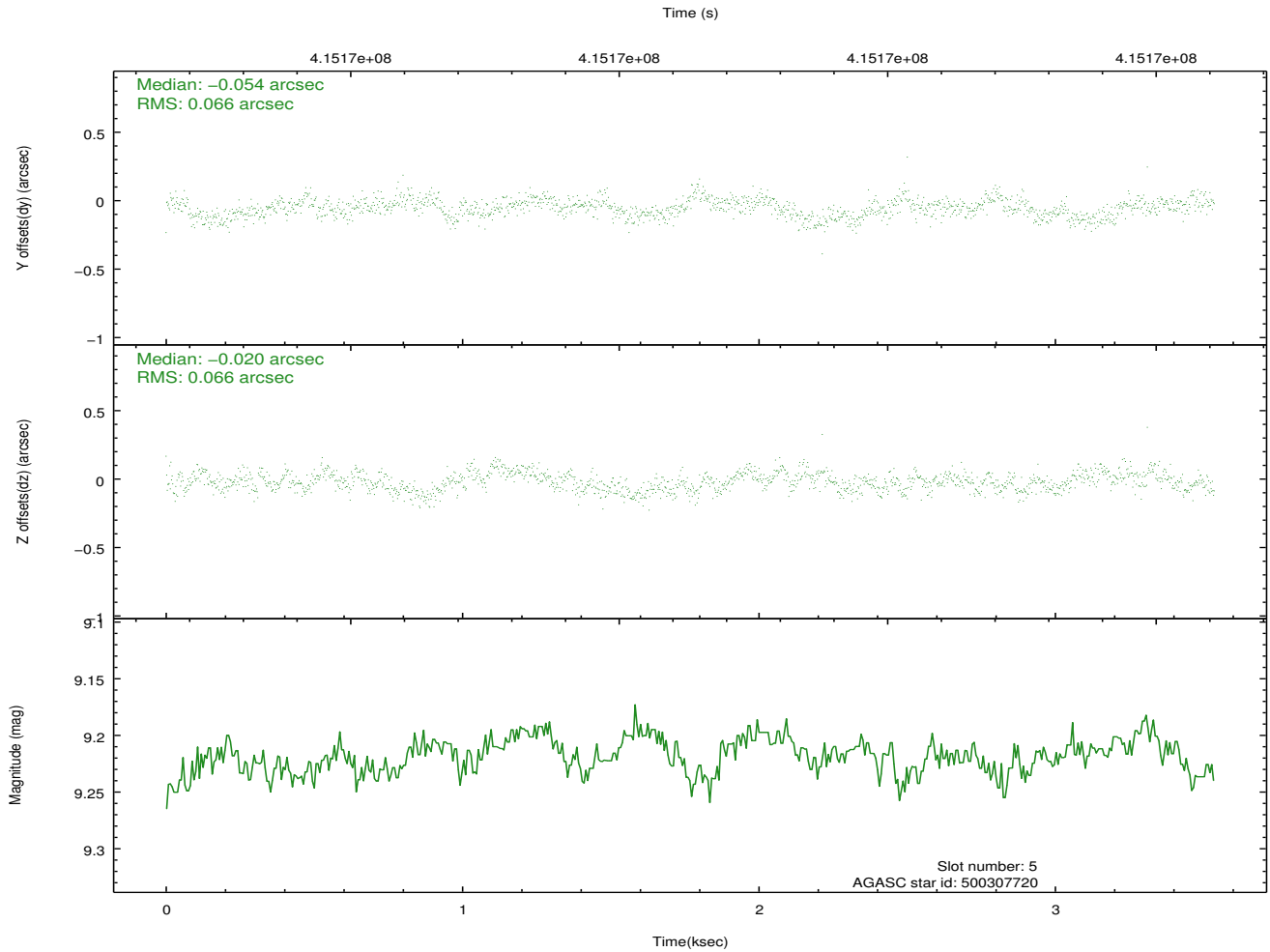
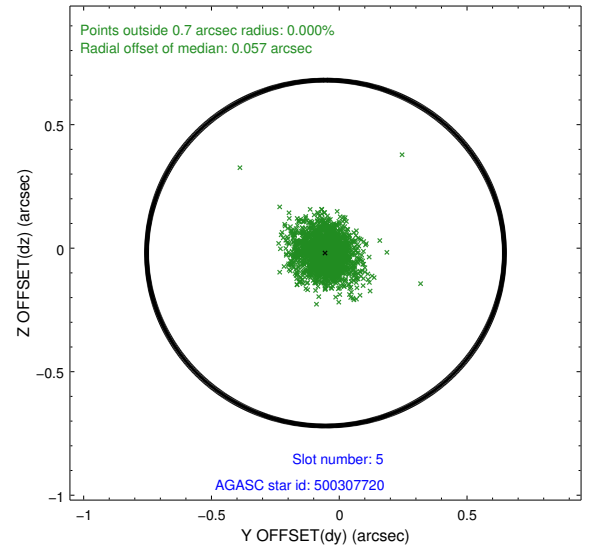
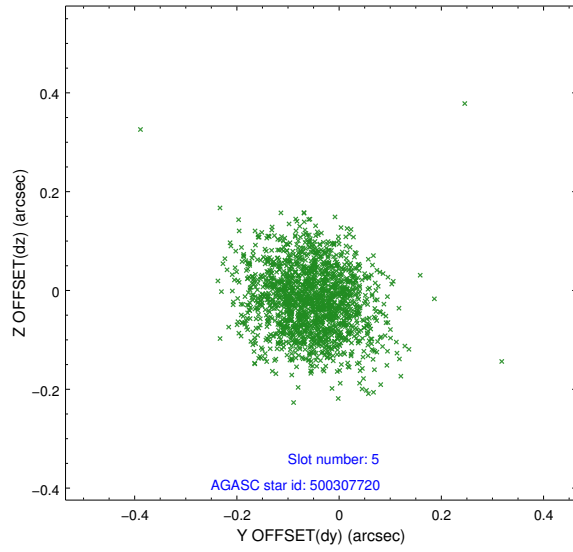
2.4.1 Slot 3



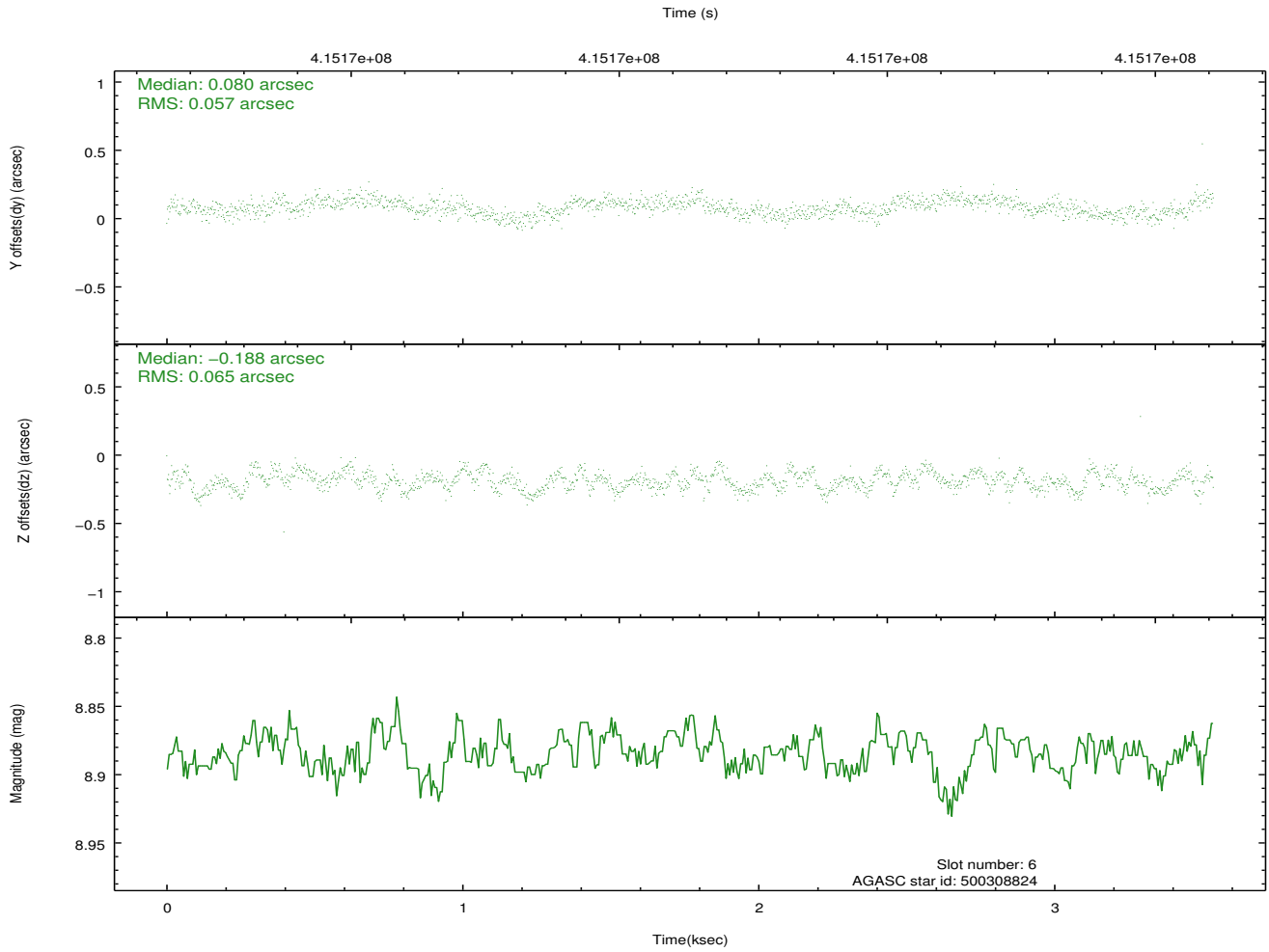
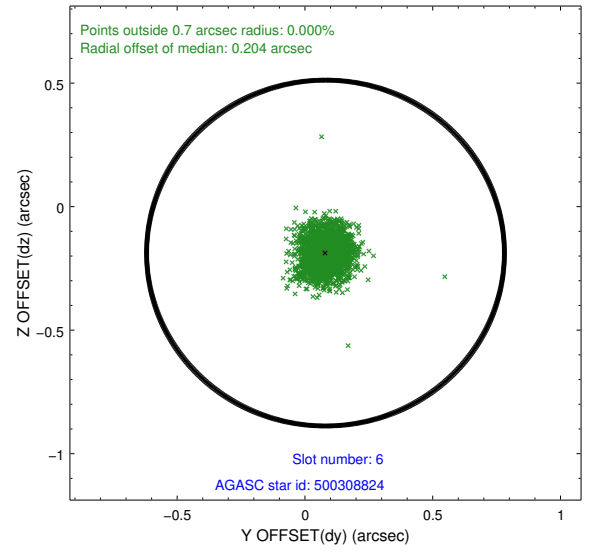
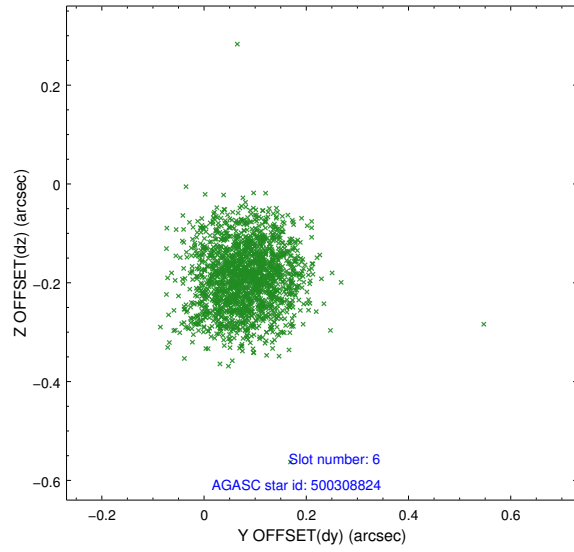
2.4.2 Slot 4



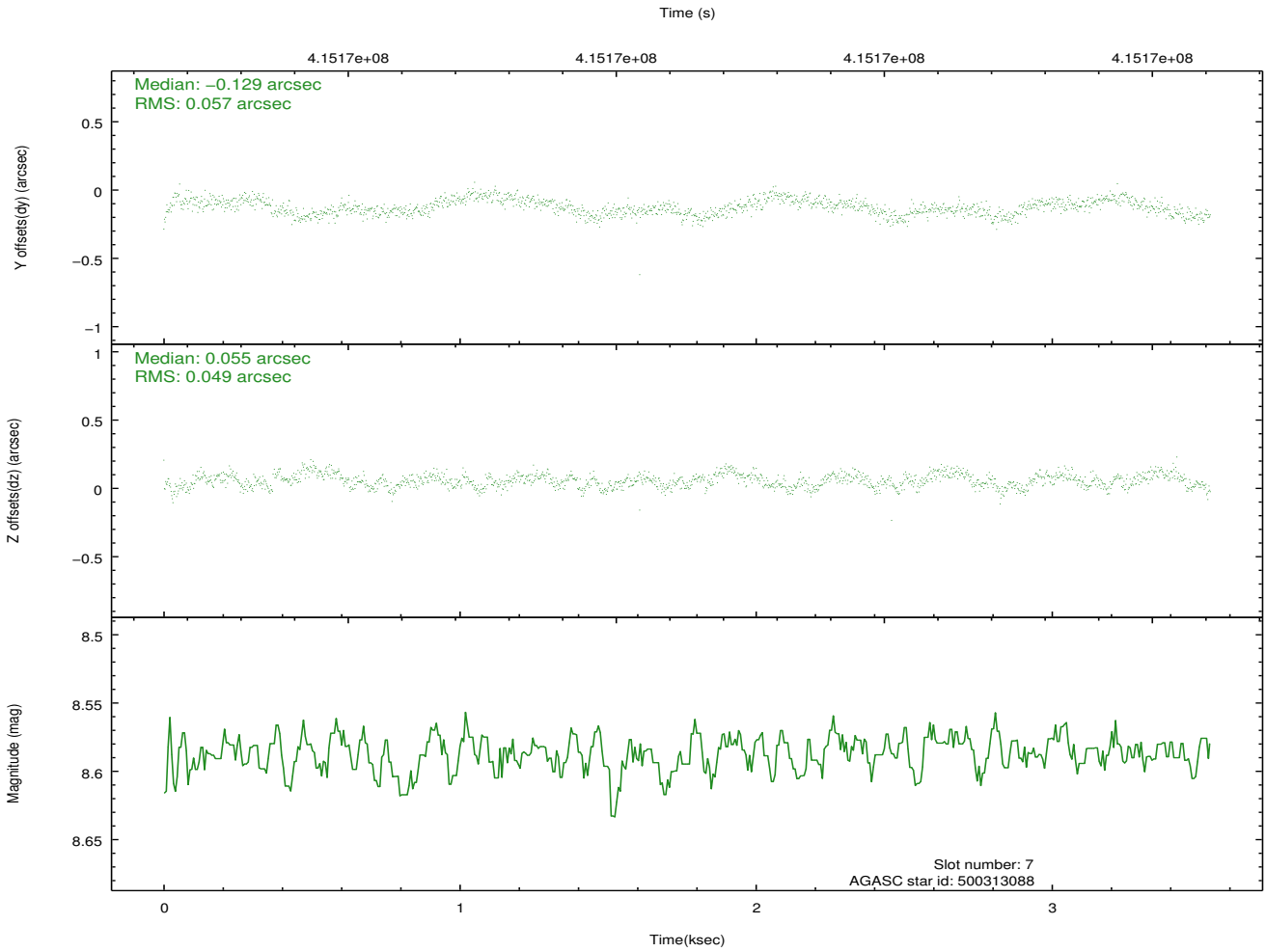
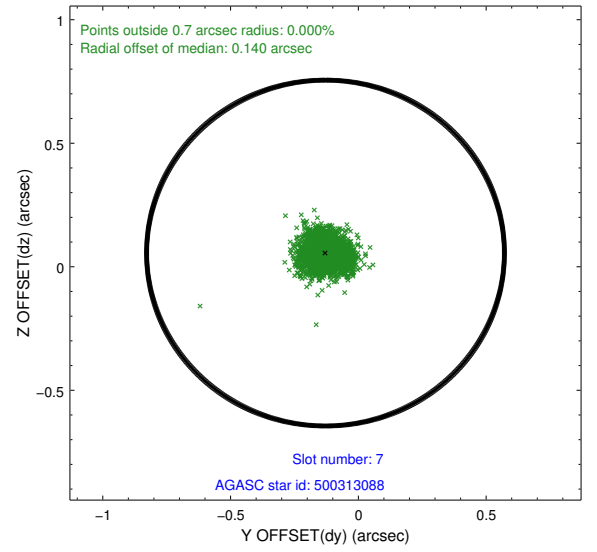
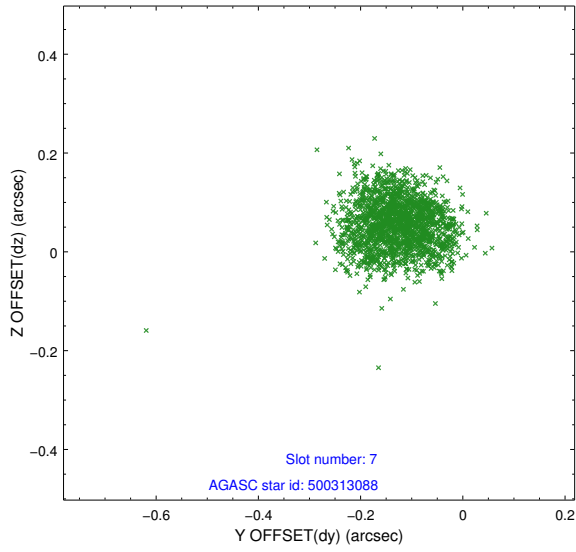
2.4.3 Slot 5



2.4.4 Slot 6

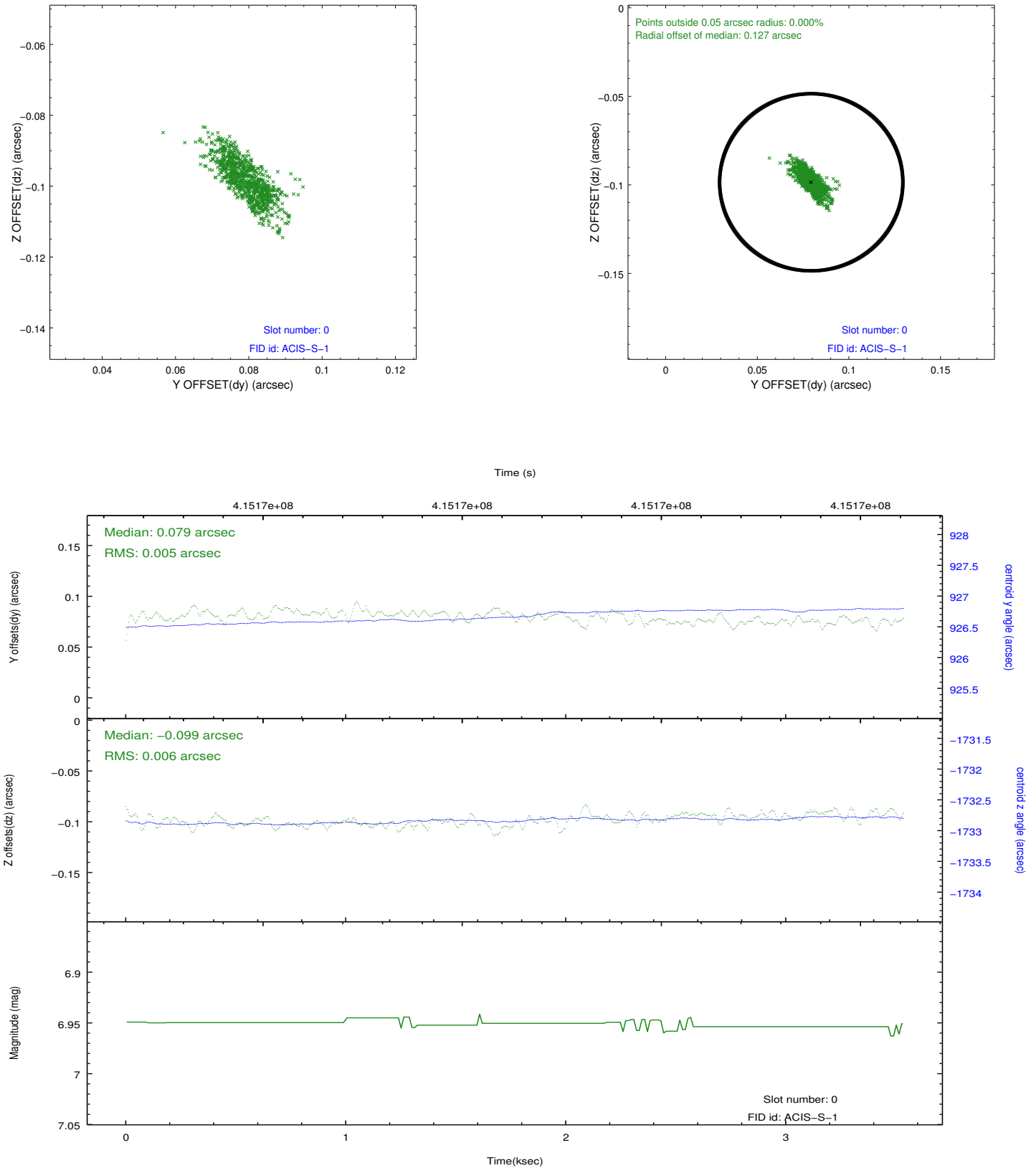


2.4.5 Slot 7

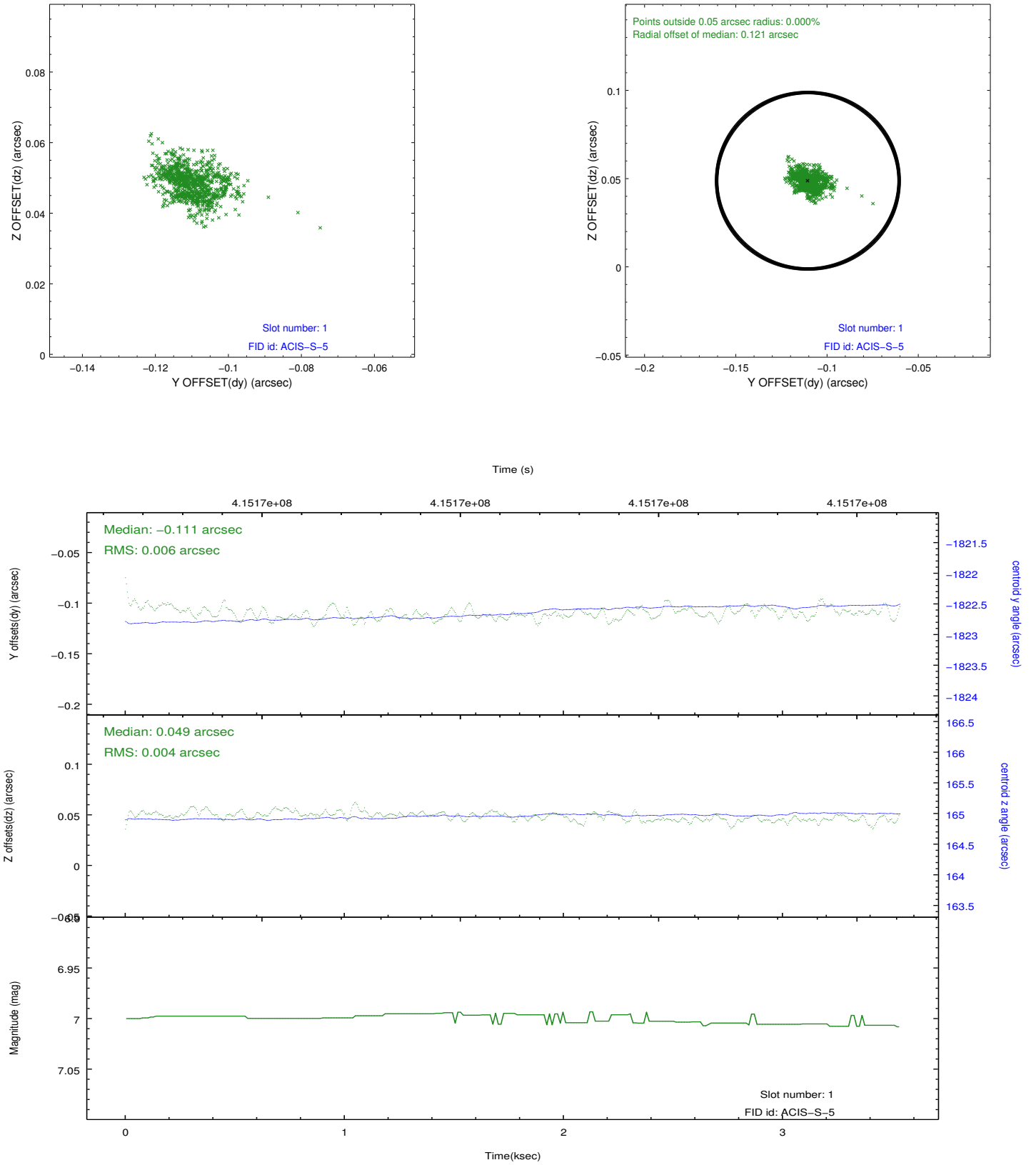


2.5 FID Slots

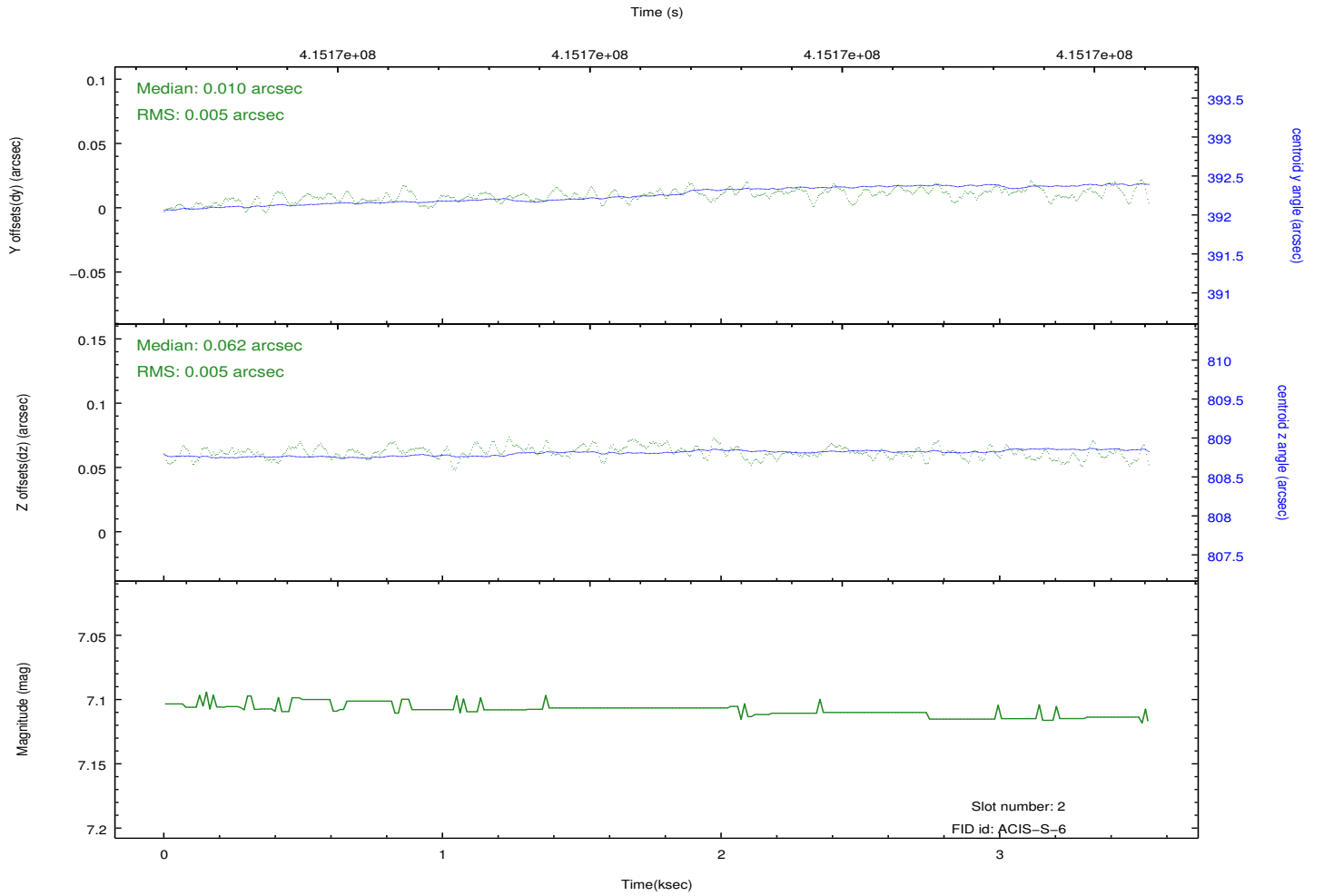
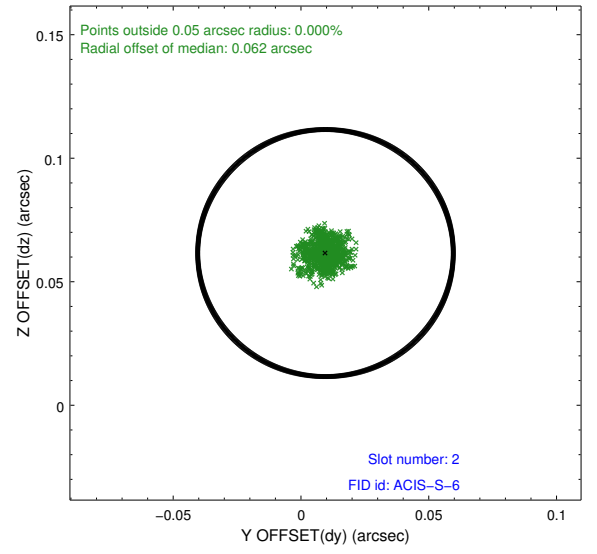
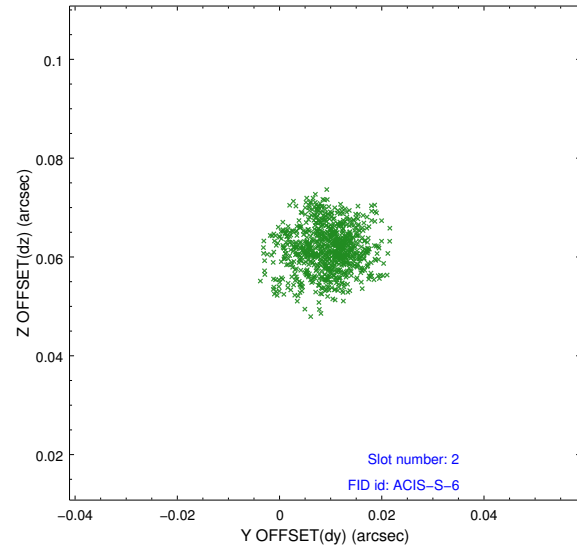
2.5.1 Slot 0



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)	2012.02.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.7373000210524

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.