

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 14391 - L2 Version 1
Chandra X-Ray Center

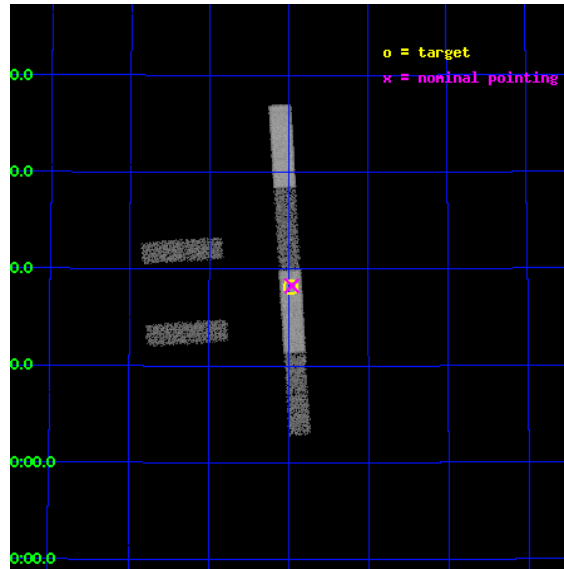
L2 Processing Date : Feb 12 2012

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

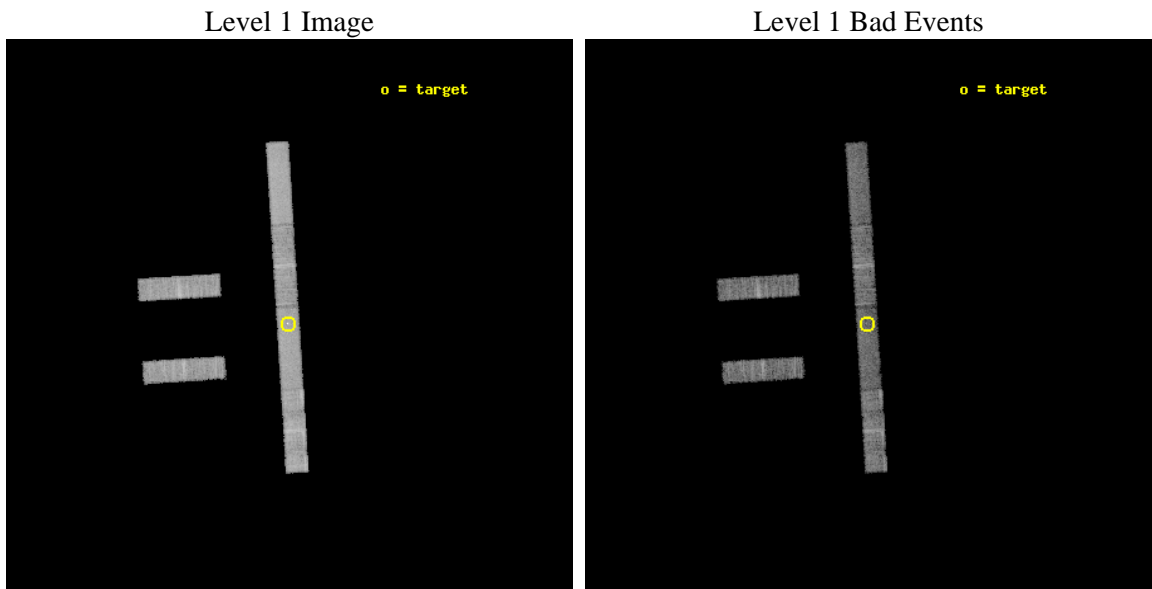
seq_num	600955	Sequence number
obs_id	14391	Observation id
title	The most luminous ULXs	Proposal title
observer	Mr. Andrew Sutton	Principal investigator
object	2XMM J151558.6+561810	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	228.994583	Observer's specified target RA [deg]
dec_targ	56.303028	Observer's specified target Dec [deg]
ra_nom	228.99014831246	Nominal RA [deg]
dec_nom	56.304861887503	Nominal Dec [deg]
roll_nom	86.460304182415	Nominal Roll [deg]
revision	1	Processing version of data
ontime	13573.748328388	Sum of GTIs [s]
livetime	13085.538772722	Livetime [s]
ontime2	13573.789368391	Sum of GTIs [s]
ontime3	13573.625208378	Sum of GTIs [s]
ontime5	13573.707288384	Sum of GTIs [s]
ontime6	13573.666248381	Sum of GTIs [s]
ontime7	13573.748328388	Sum of GTIs [s]
ontime8	13573.584168375	Sum of GTIs [s]
l2events	40353	Number of level 2 events



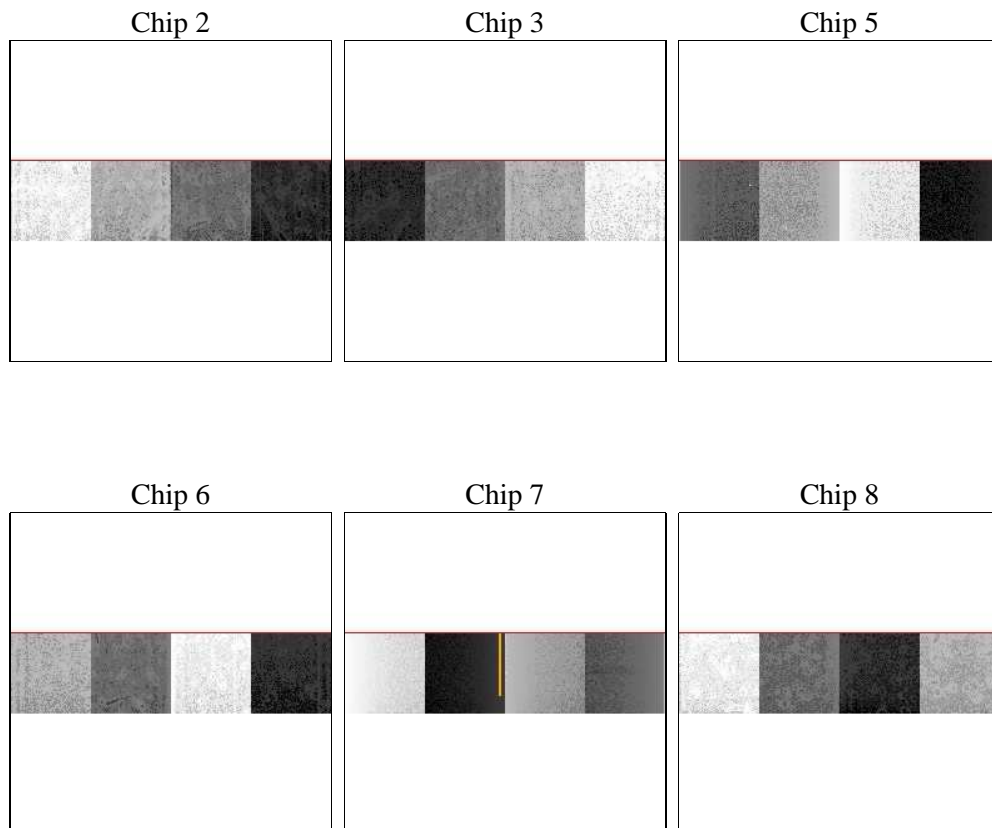
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	13500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	13573.748328388	Sum of GTIs [s]
caldbver	4.4.7	 	ontime2	13573.789368391	Sum of GTIs [s]
date	2012-02-12T17:12:48	Date and time of file creation	ontime3	13573.625208378	Sum of GTIs [s]
revision	1	Processing version of data	ontime5	13573.707288384	Sum of GTIs [s]
			ontime6	13573.666248381	Sum of GTIs [s]
			ontime7	13573.748328388	Sum of GTIs [s]
			ontime8	13573.584168375	Sum of GTIs [s]
			l1events	174469	Number of level 1 events

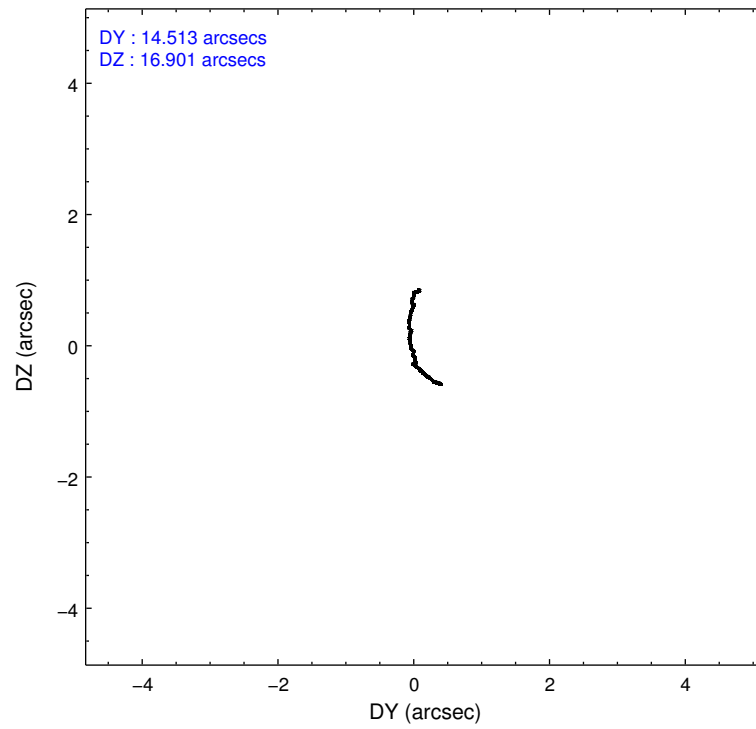
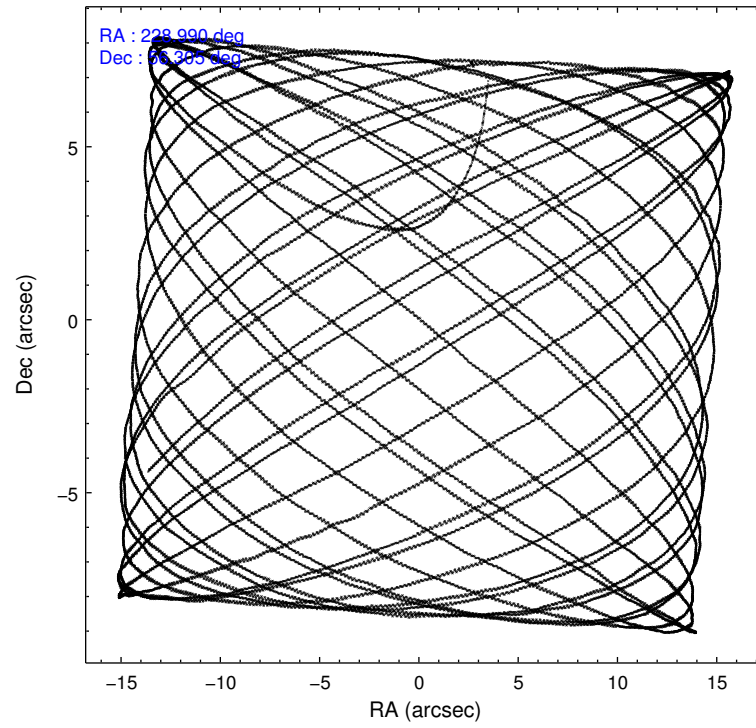
2.1.4 Events

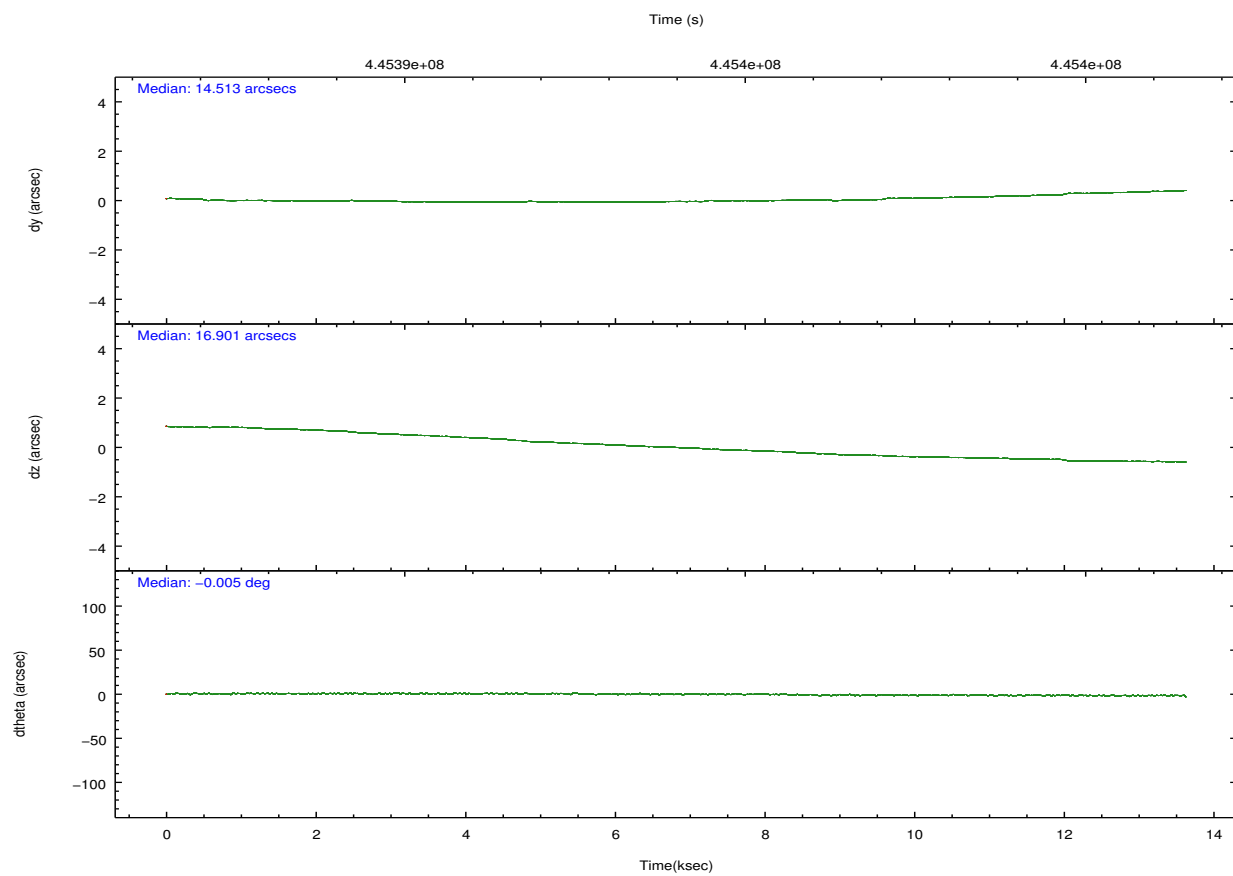
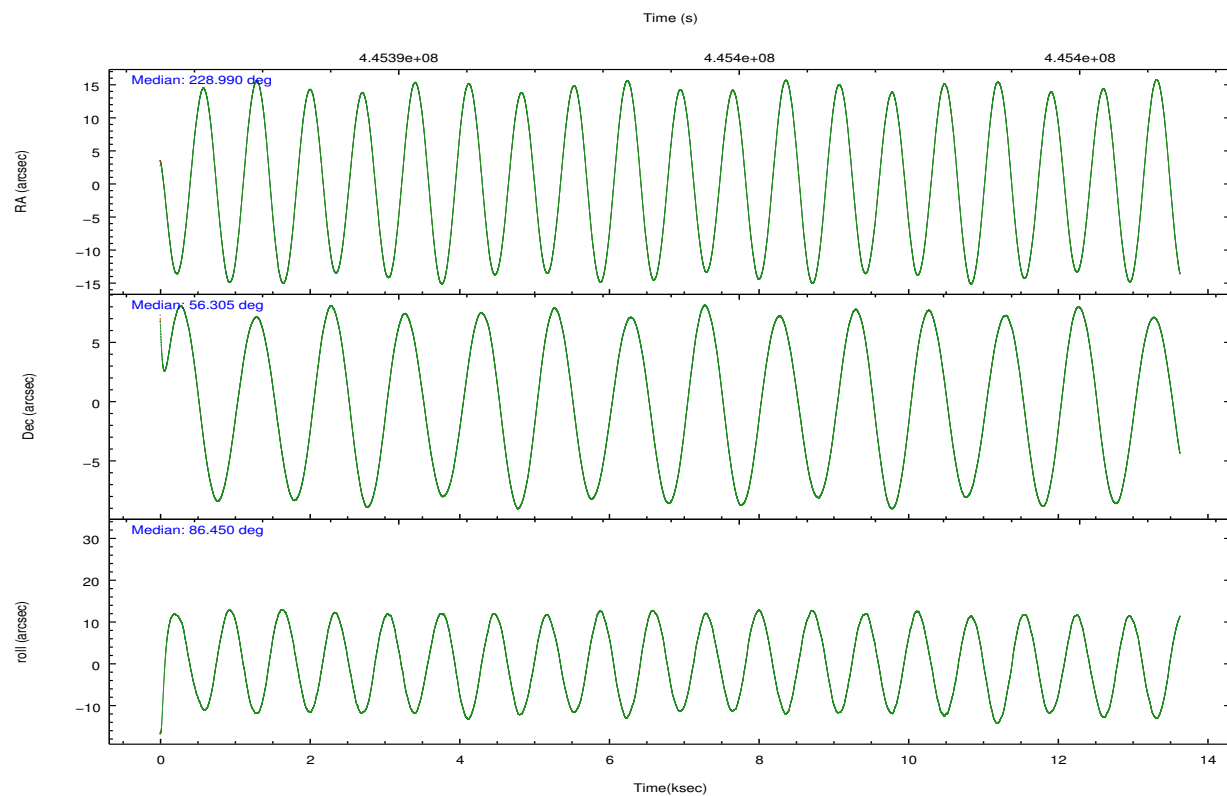
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	26144	24429	34874	24598	30540	33884	grade 0 events	911	750	1418	862	1551	2165
rejected events	23178	21930	17721	21727	16042	25731		3%	3%	4%	3%	5%	6%
rejected %	88%	89%	50%	88%	52%	75%	grade 1 events	8	11	85	7	31	19
								0%	0%	0%	0%	0%	0%
							grade 2 events	709	503	5107	551	3043	1856
								2%	2%	14%	2%	9%	5%
							grade 3 events	390	389	1007	417	1572	868
								1%	1%	2%	1%	5%	2%
							grade 4 events	419	382	988	418	1552	847
								1%	1%	2%	1%	5%	2%
							grade 5 events	1011	1053	3135	1093	3133	1447
								3%	4%	8%	4%	10%	4%
							grade 6 events	538	478	8636	623	6784	2418
								2%	1%	24%	2%	22%	7%
							grade 7 events	22158	20863	14498	20627	12874	24264
								84%	85%	41%	83%	42%	71%

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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	229.012708	228.9901483124628	CCD I2 on	O3	Y
[deg] Pointing Dec	56.280492	56.30486188750265	CCD I3 on	O2	Y
[deg] Pointing Roll	86.284924	86.4603041824154	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O4	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	O1	Y
[s] Observation start time (MET)	445387294.184000	445386092.19987	CCD S5 on	N	N
Observation start date	2012-02-11T22:40:28	2012-02-11T22:21:32	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	445400794.184000	445401703.4632	On-chip summing requested	N	N
Observation end date	2012-02-12T02:25:28	2012-02-12T02:41:43	Subarray requested	CUSTOM	1/4
Read mode	TIMED	TIMED	Subarray start row	385	385
			Subarray row count	256	256
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.1

2.3 Aspect



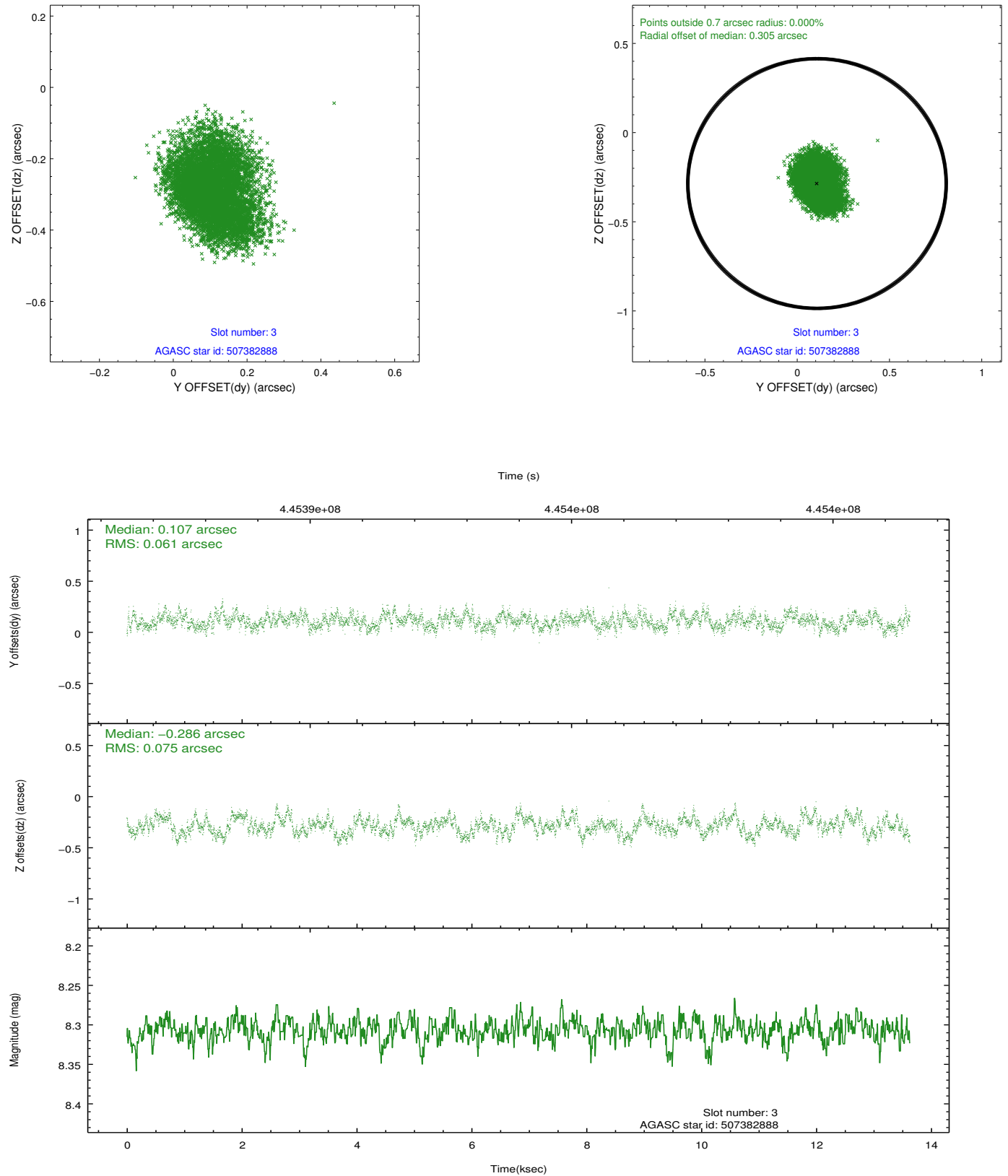


Slot Statistics

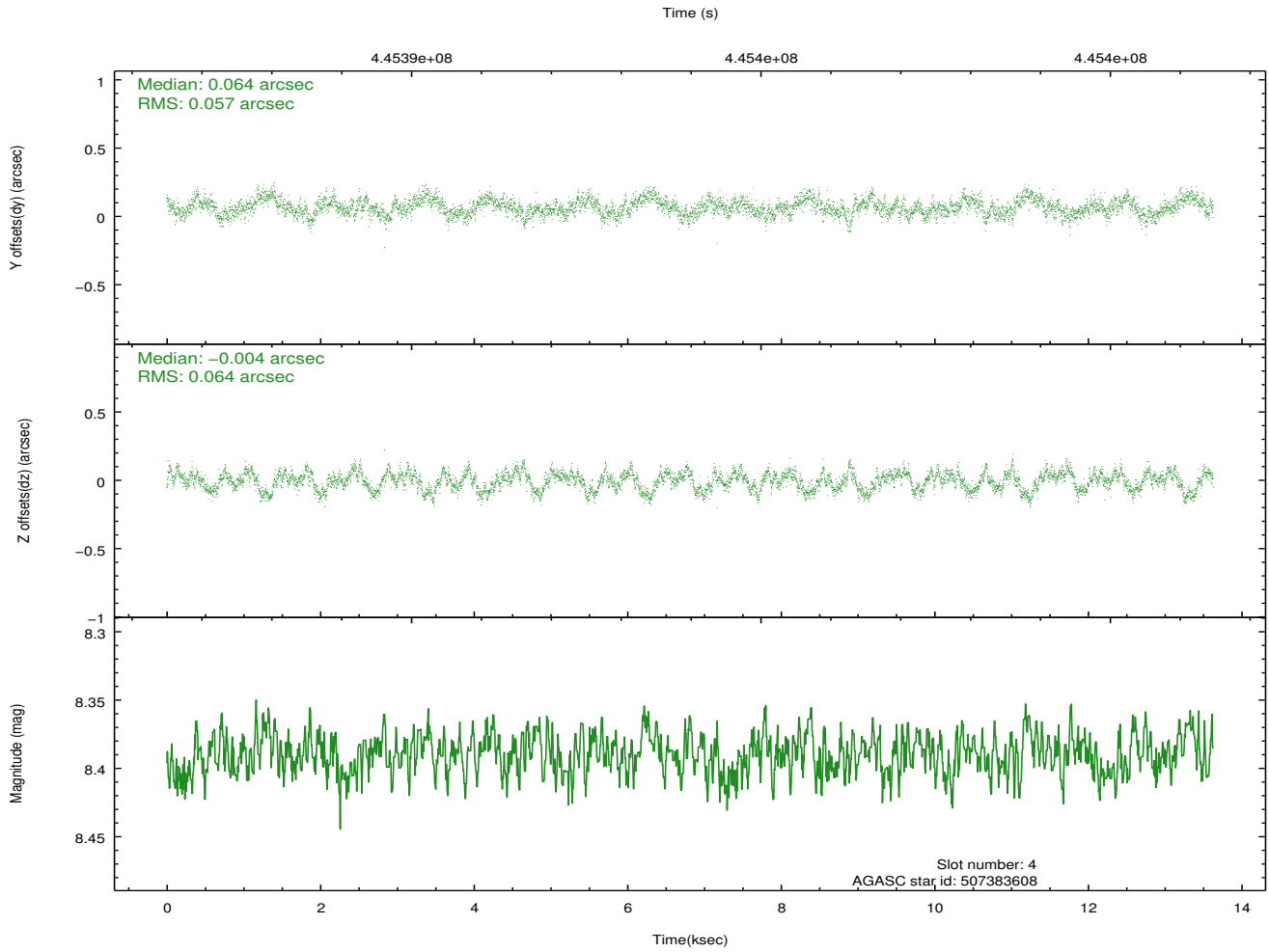
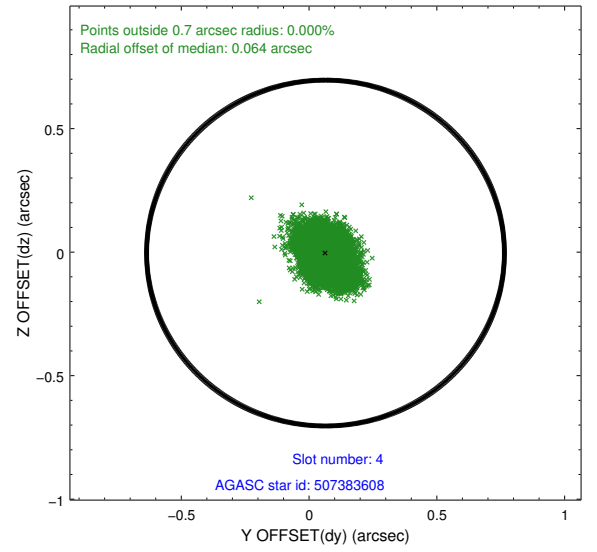
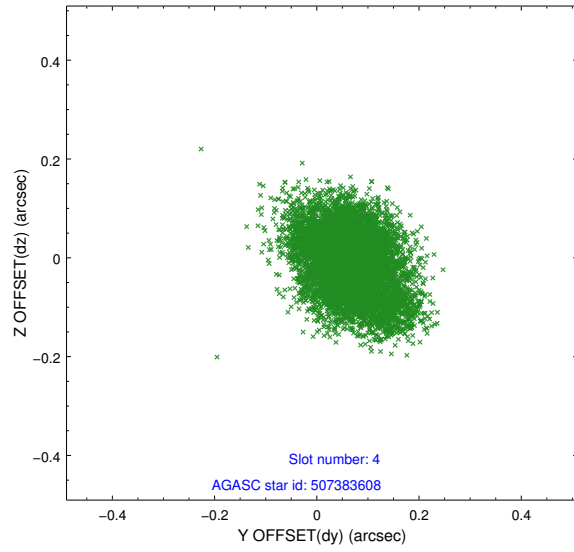
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.98	3324	0.099	-0.081	0.018	0.038	0.000000	0.000000	928.59	-1734.10
1	FID	ACIS-S-5	7.02	3324	-0.167	0.059	0.012	0.019	0.000000	0.000000	-1820.45	163.26
2	FID	ACIS-S-6	7.11	3325	0.047	0.034	0.027	0.050	0.000000	0.000000	393.75	807.55
3	GUIDE	507382888	8.31	6650	0.107	-0.286	0.105	0.166	227.987228	56.025159	-1035.85	1999.73
4	GUIDE	507383608	8.39	6649	0.064	-0.004	0.091	0.148	228.419739	56.118692	-653.67	1150.22
5	GUIDE	507384816	10.01	6638	-0.109	0.187	0.180	0.305	230.143276	56.438347	731.78	-2206.47
6	GUIDE	507387752	8.39	6645	-0.066	0.018	0.105	0.170	230.184127	56.785522	1983.79	-2185.79
7	GUIDE	507388336	9.27	6601	0.005	0.093	0.130	0.217	229.367625	56.897463	2263.90	-552.07

2.4 Star Slots

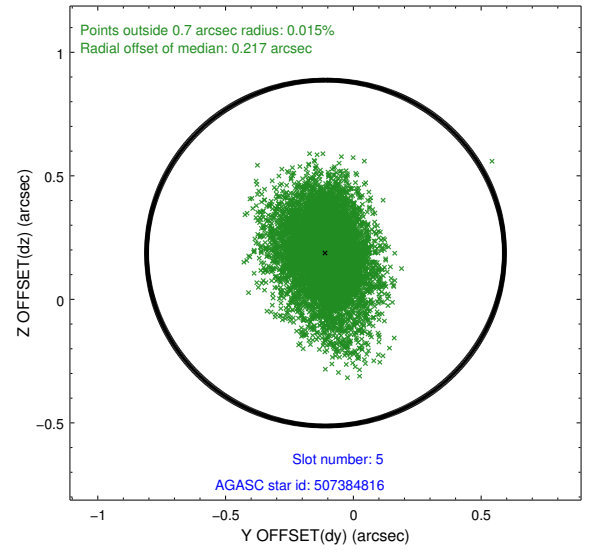
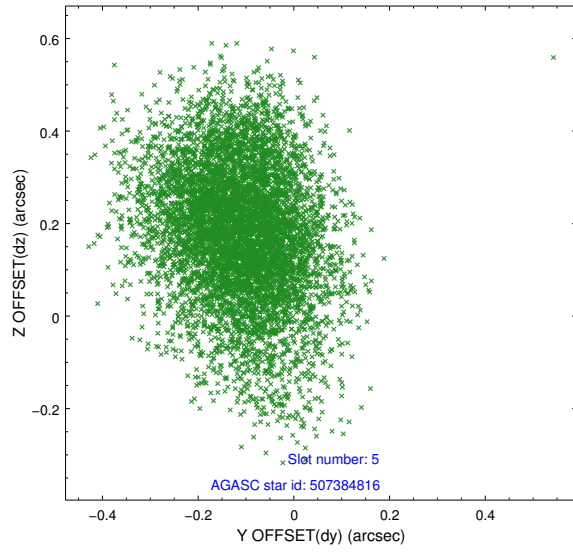
2.4.1 Slot 3



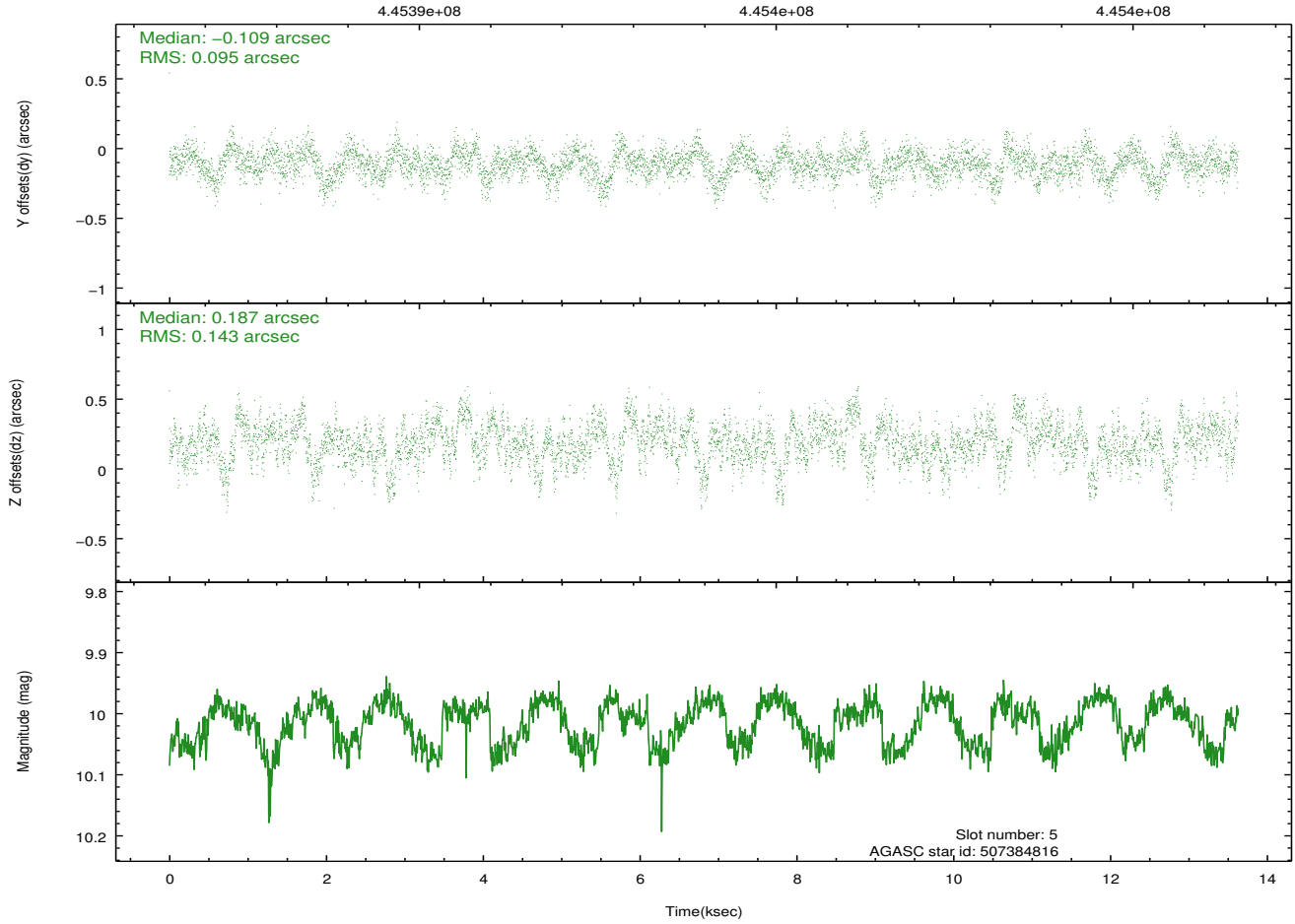
2.4.2 Slot 4



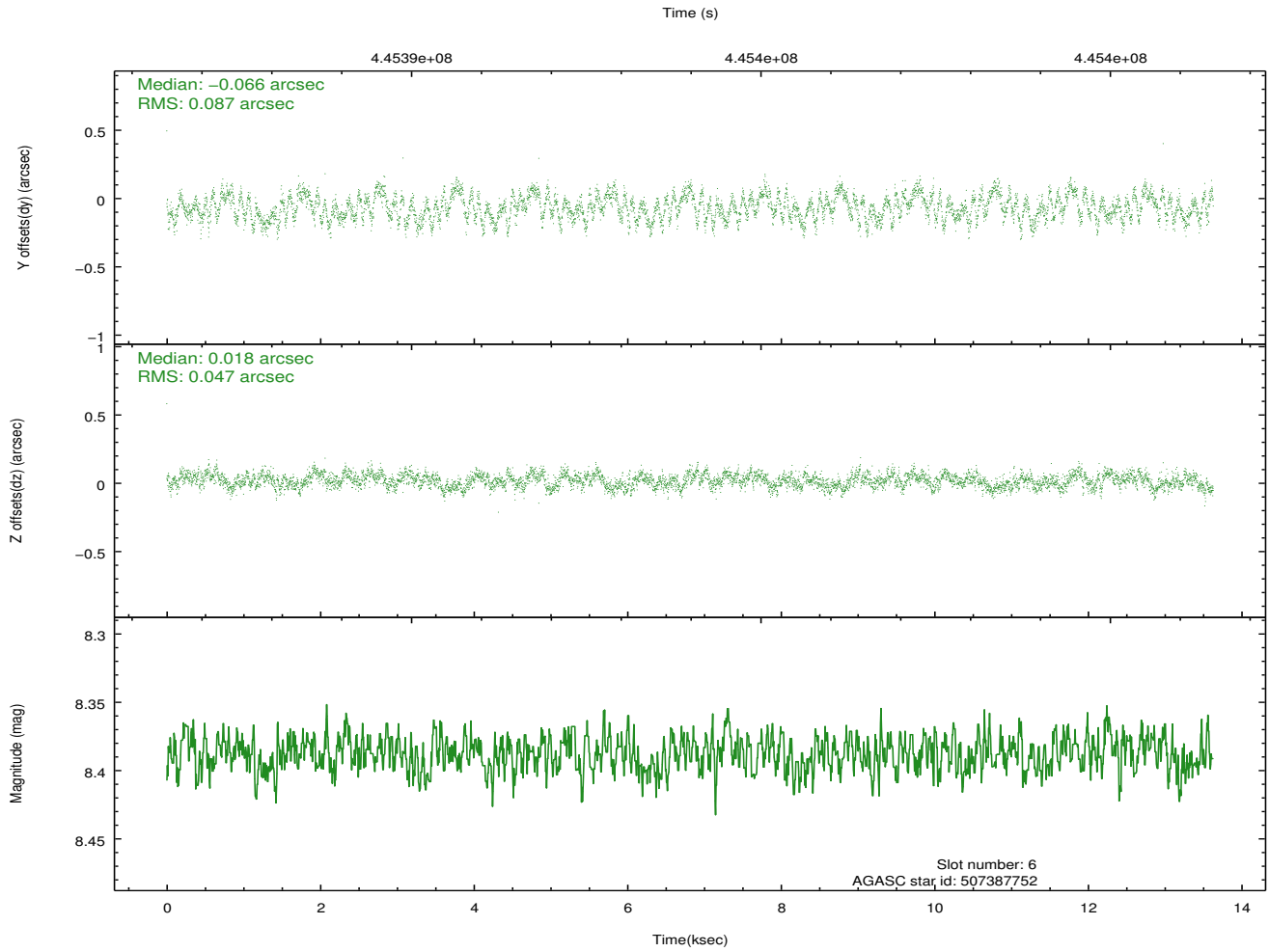
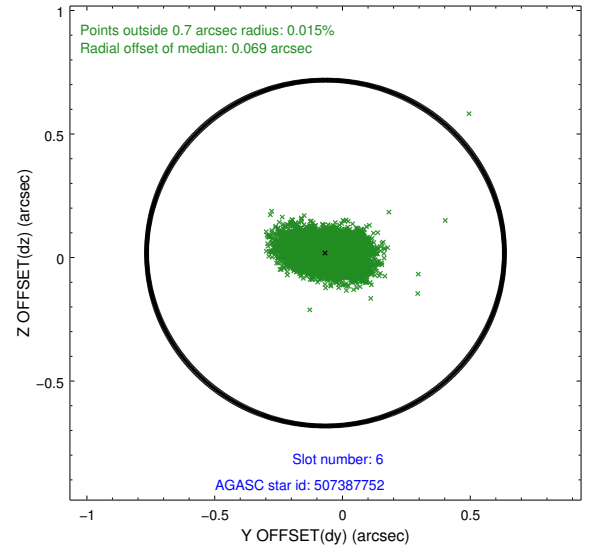
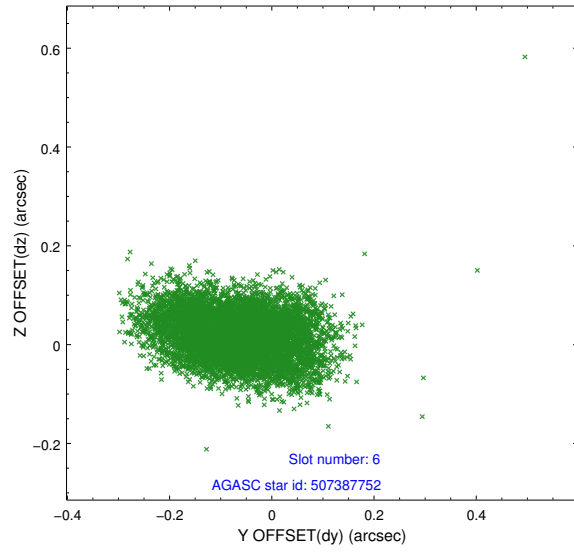
2.4.3 Slot 5



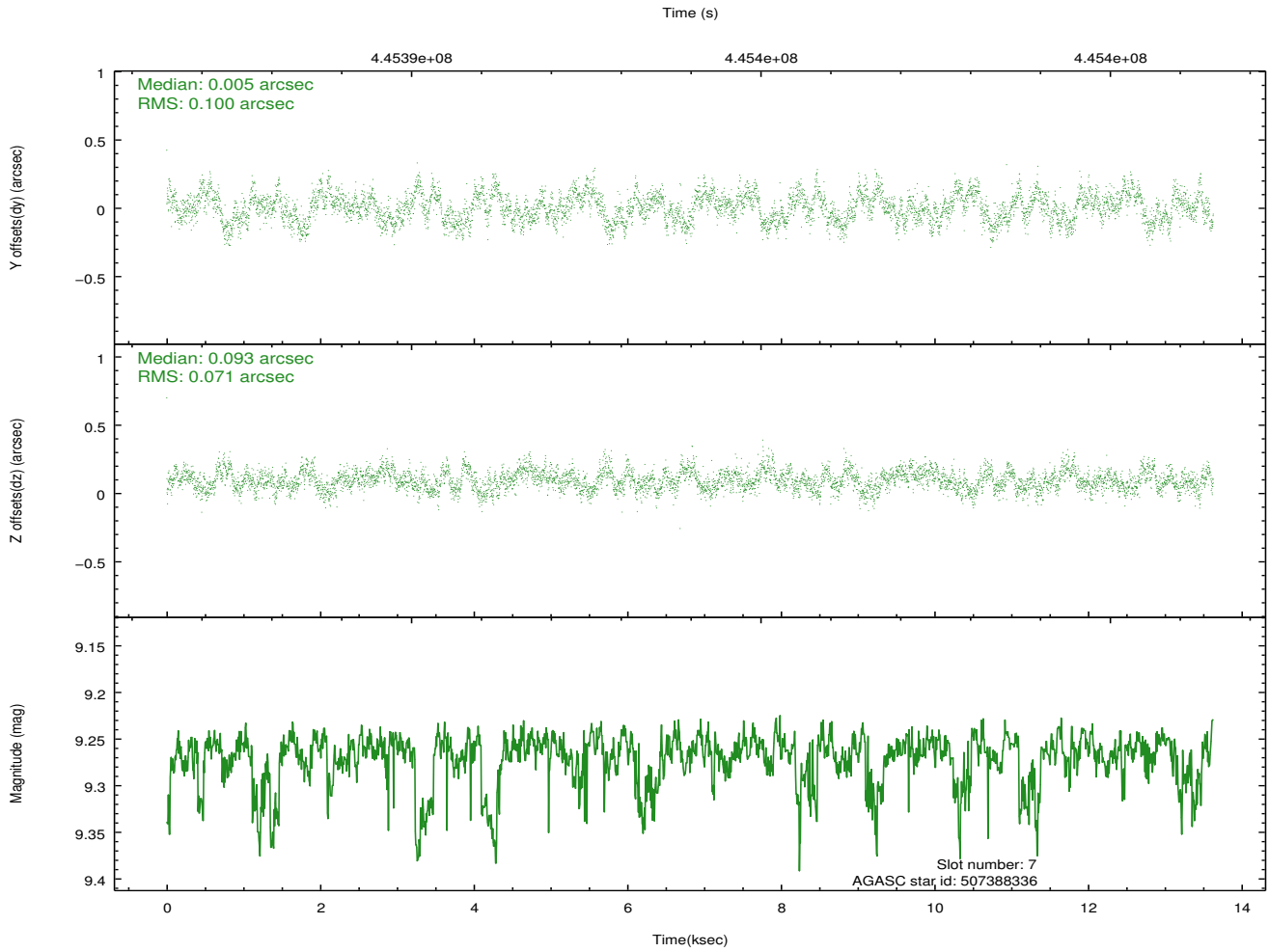
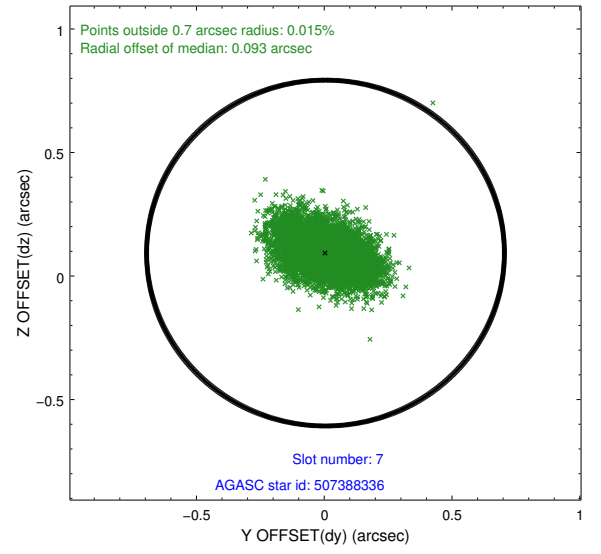
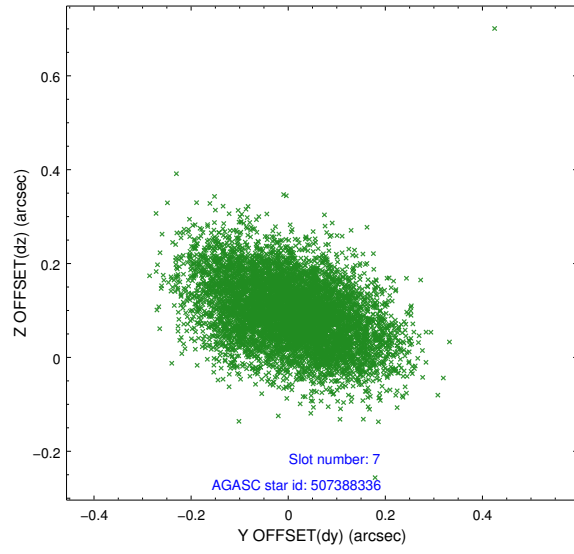
Time (s)



2.4.4 Slot 6

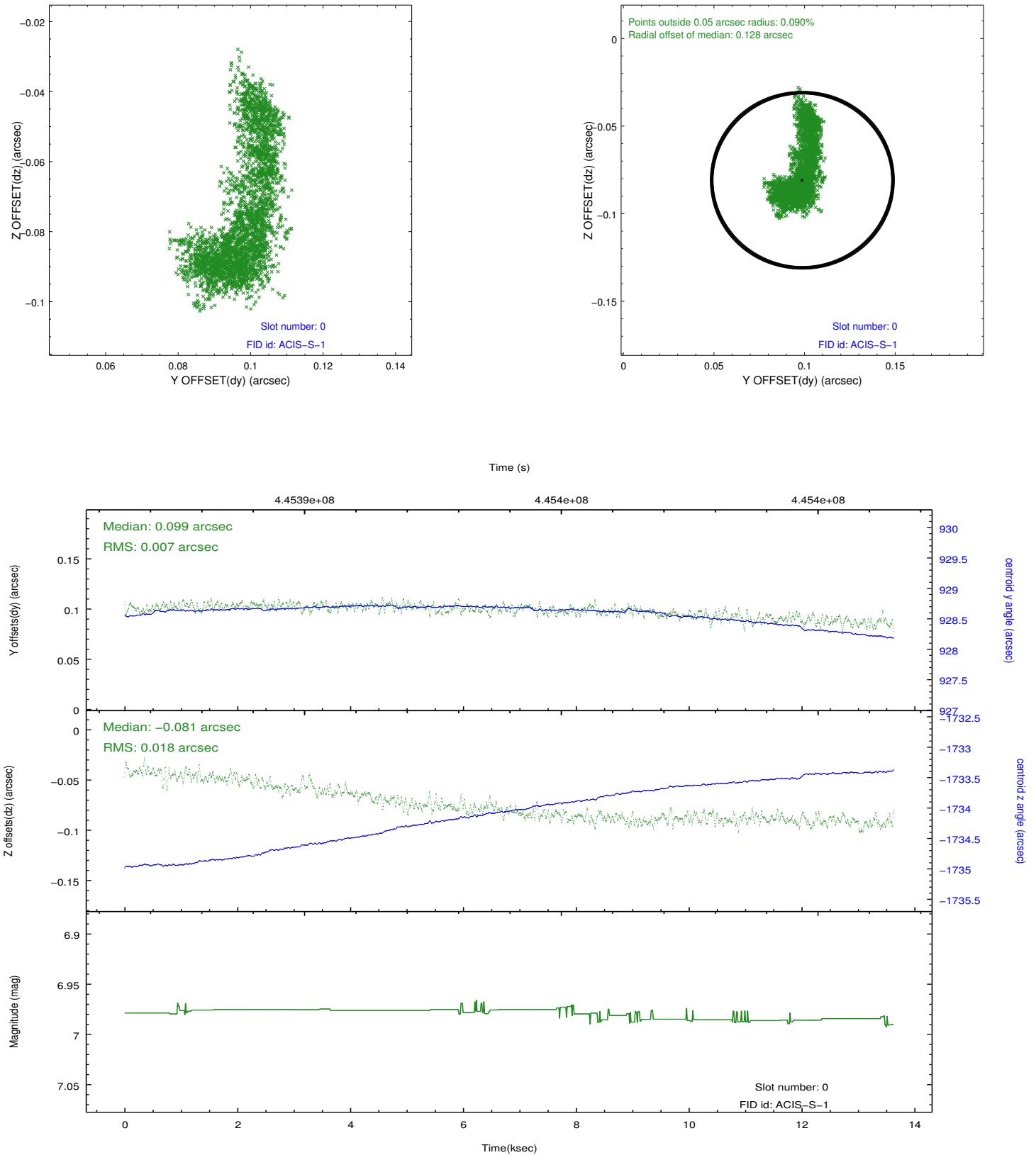


2.4.5 Slot 7

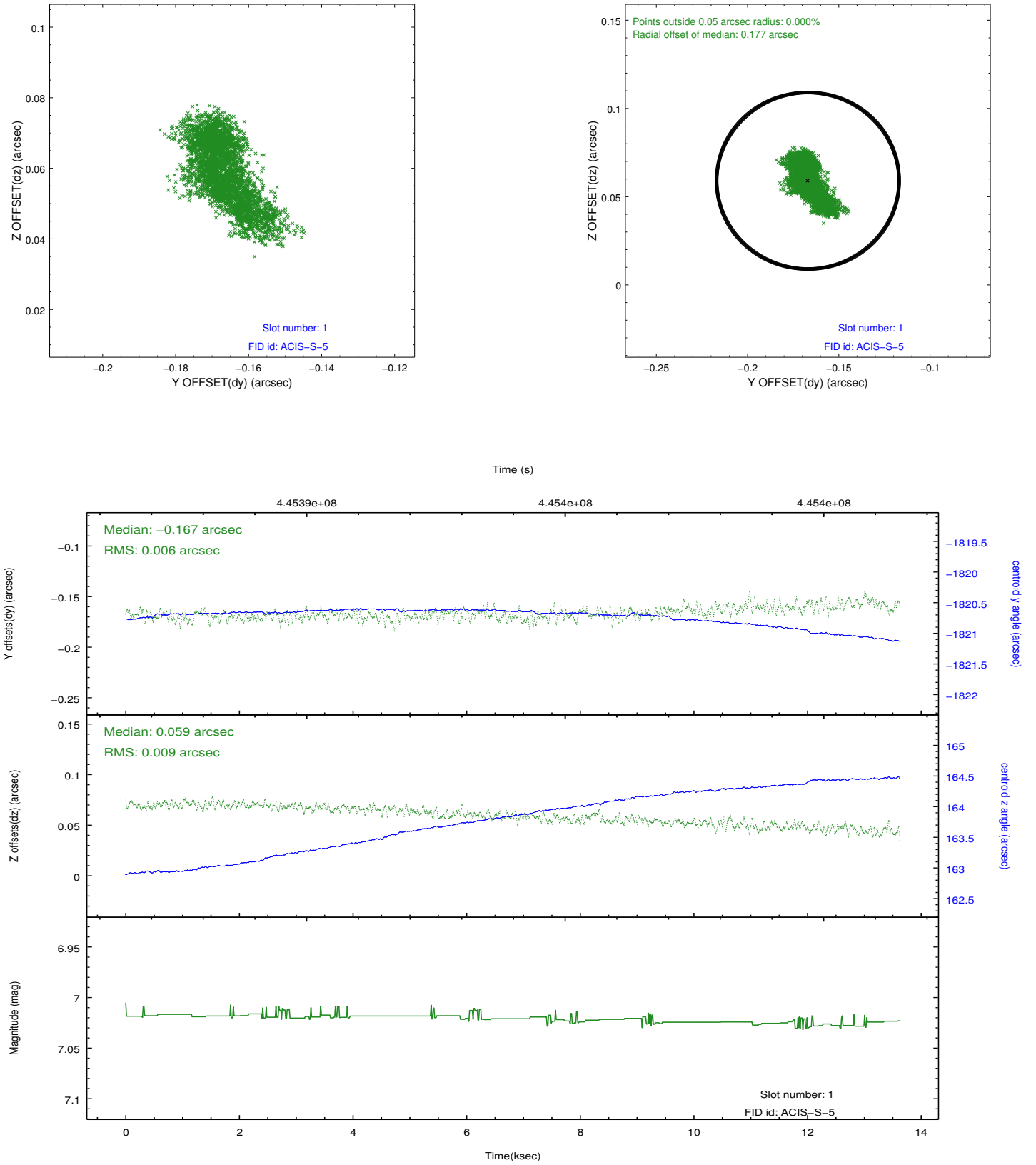


2.5 FID Slots

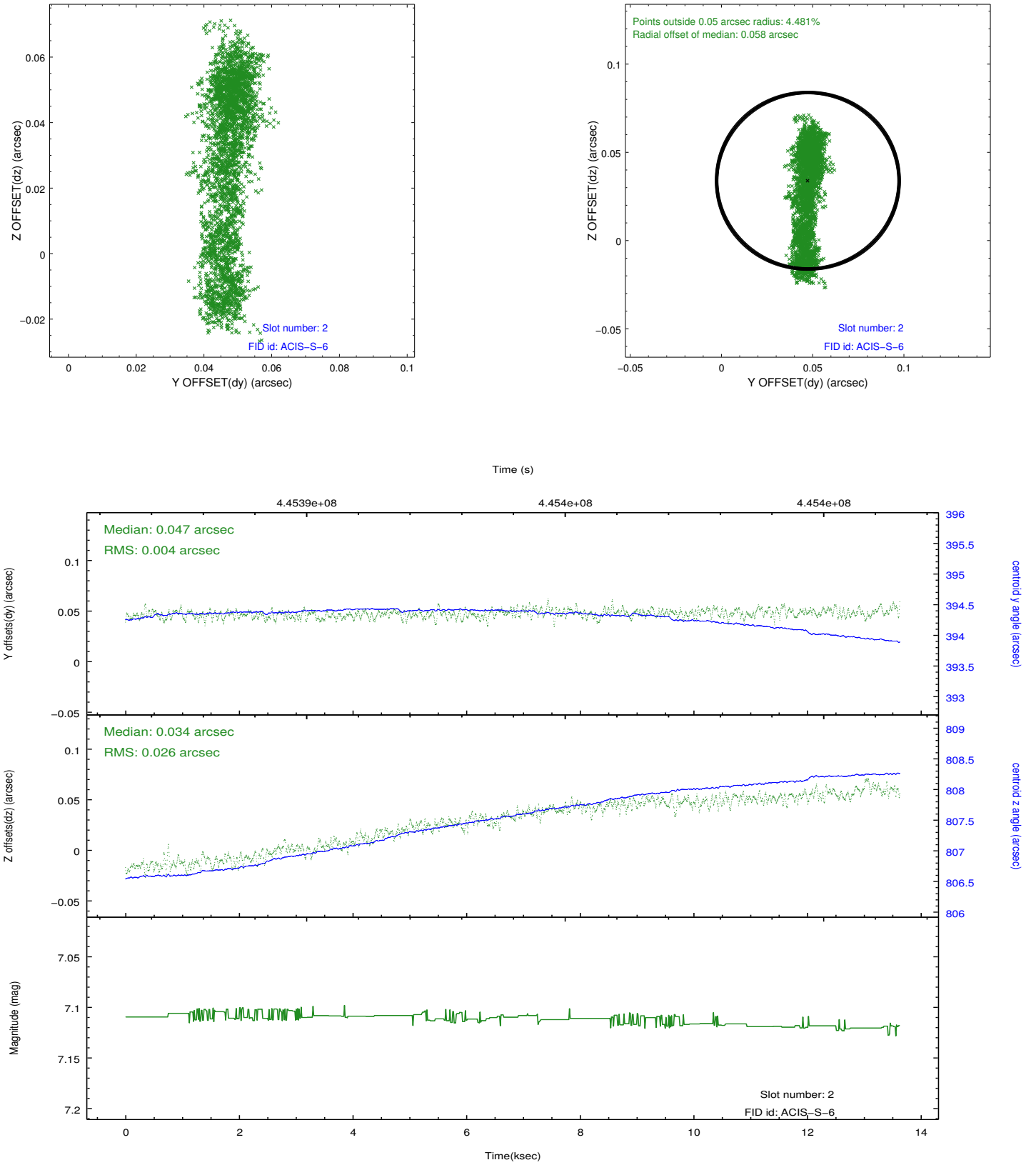
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.02.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	13.573748328388

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.