

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 10819 - L2 Version 3
Chandra X-Ray Center

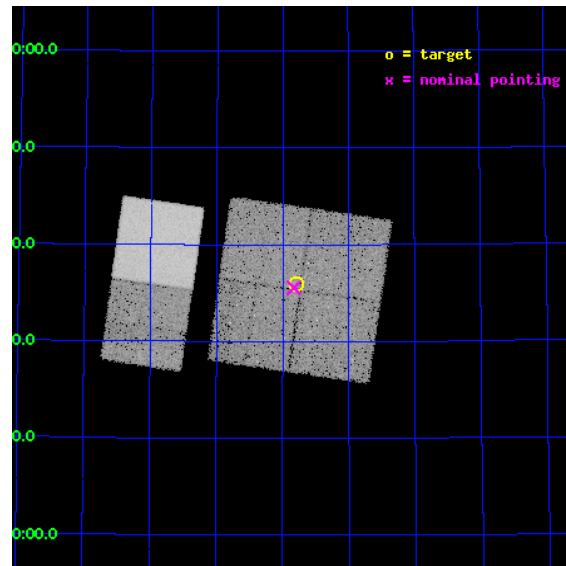
L2 Processing Date : May 24 2012

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

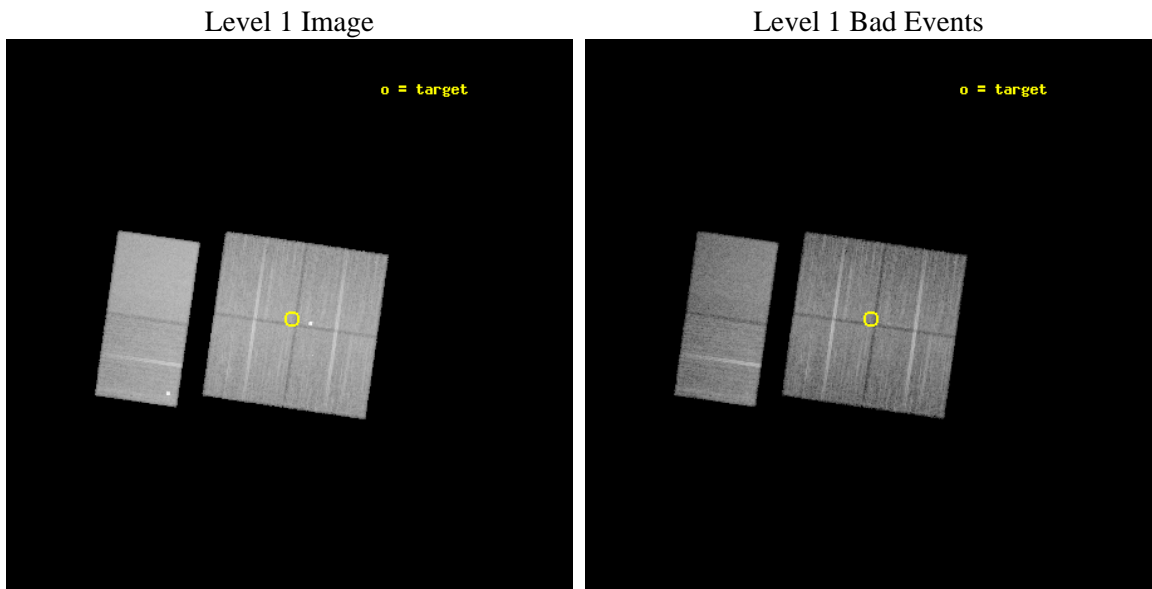
seq_num	200519	Sequence number
obs_id	10819	Observation id
title	The Evolution of X-ray Emission in the Planet-Forming Era	Proposal
observer	Dr Jon Miller	Principal investigator
object	NGC 7160	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	328.45	Observer's specified target RA [deg]
dec_targ	62.6	Observer's specified target Dec [deg]
ra_nom	328.45762048916	Nominal RA [deg]
dec_nom	62.592735922353	Nominal Dec [deg]
roll_nom	278.2019271136	Nominal Roll [deg]
revision	3	Processing version of data
ontime	14950.399944365	Sum of GTIs [s]
livetime	14761.088978219	Livetime [s]
ontime0	14950.399944365	Sum of GTIs [s]
ontime1	14950.399944365	Sum of GTIs [s]
ontime2	14950.399944365	Sum of GTIs [s]
ontime3	14950.399944365	Sum of GTIs [s]
ontime6	14950.399944365	Sum of GTIs [s]
ontime7	14950.399944365	Sum of GTIs [s]
l2events	166089	Number of level 2 events



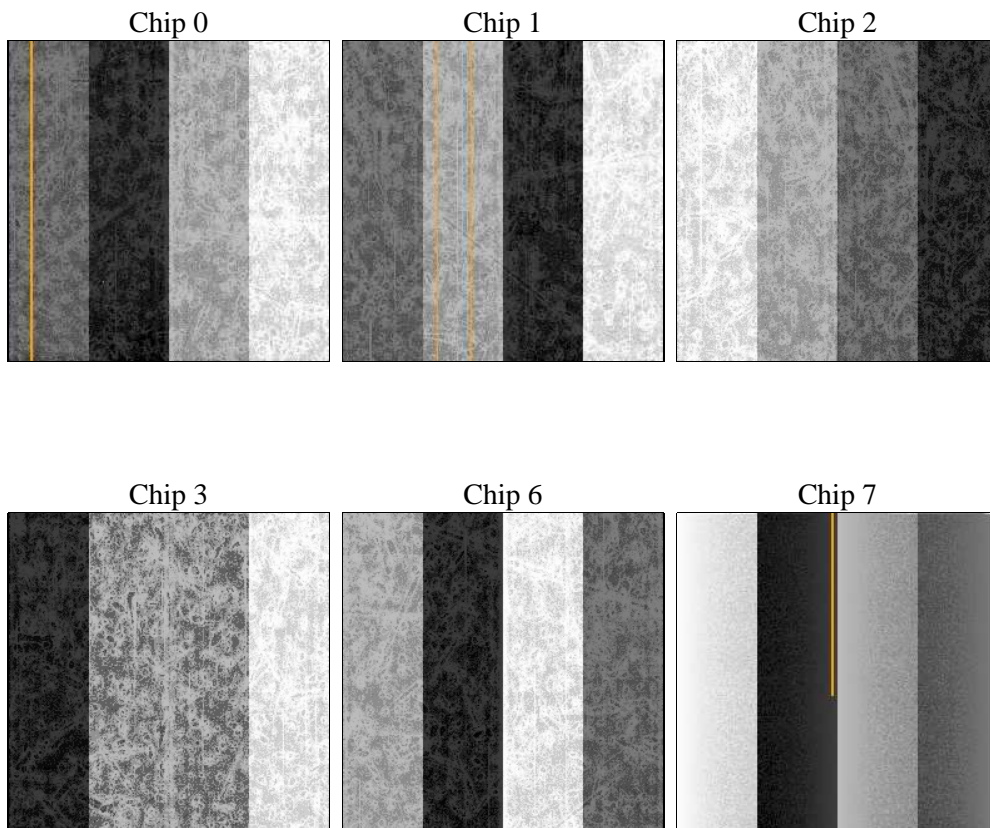
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	14950.399944365	Sum of GTIs [s]
caldsver	4.4.9	 	ontime0	14950.399944365	Sum of GTIs [s]
date	2012-05-24T20:31:45	Date and time of file creation	ontime1	14950.399944365	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	14950.399944365	Sum of GTIs [s]
			ontime3	14950.399944365	Sum of GTIs [s]
			ontime6	14950.399944365	Sum of GTIs [s]
			ontime7	14950.399944365	Sum of GTIs [s]
			l1events	954843	Number of level 1 events

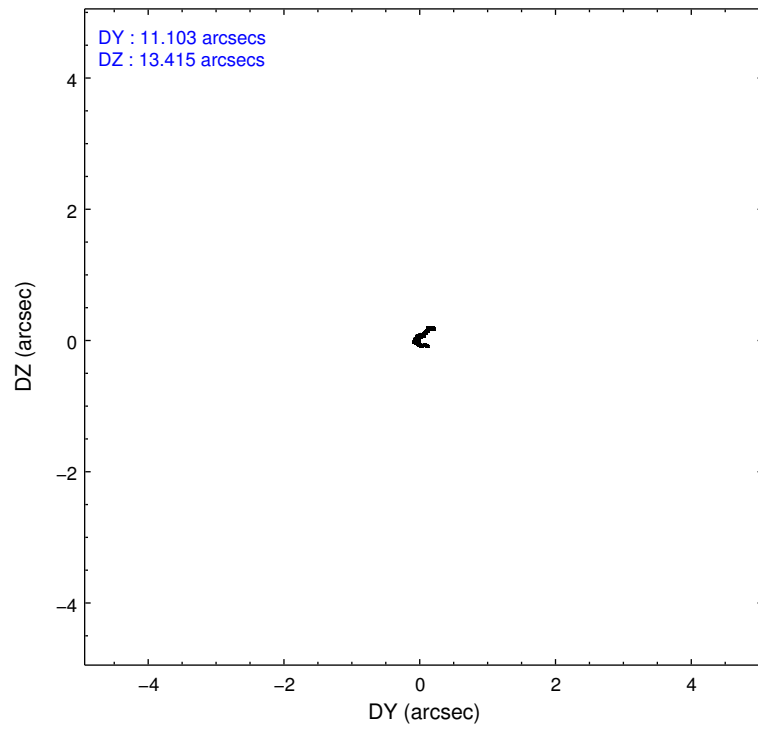
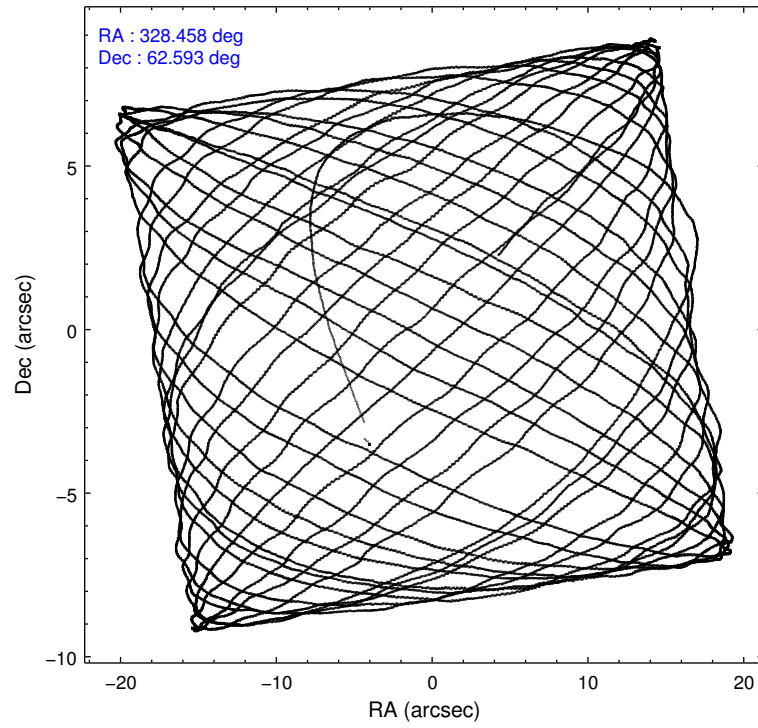
2.1.4 Events

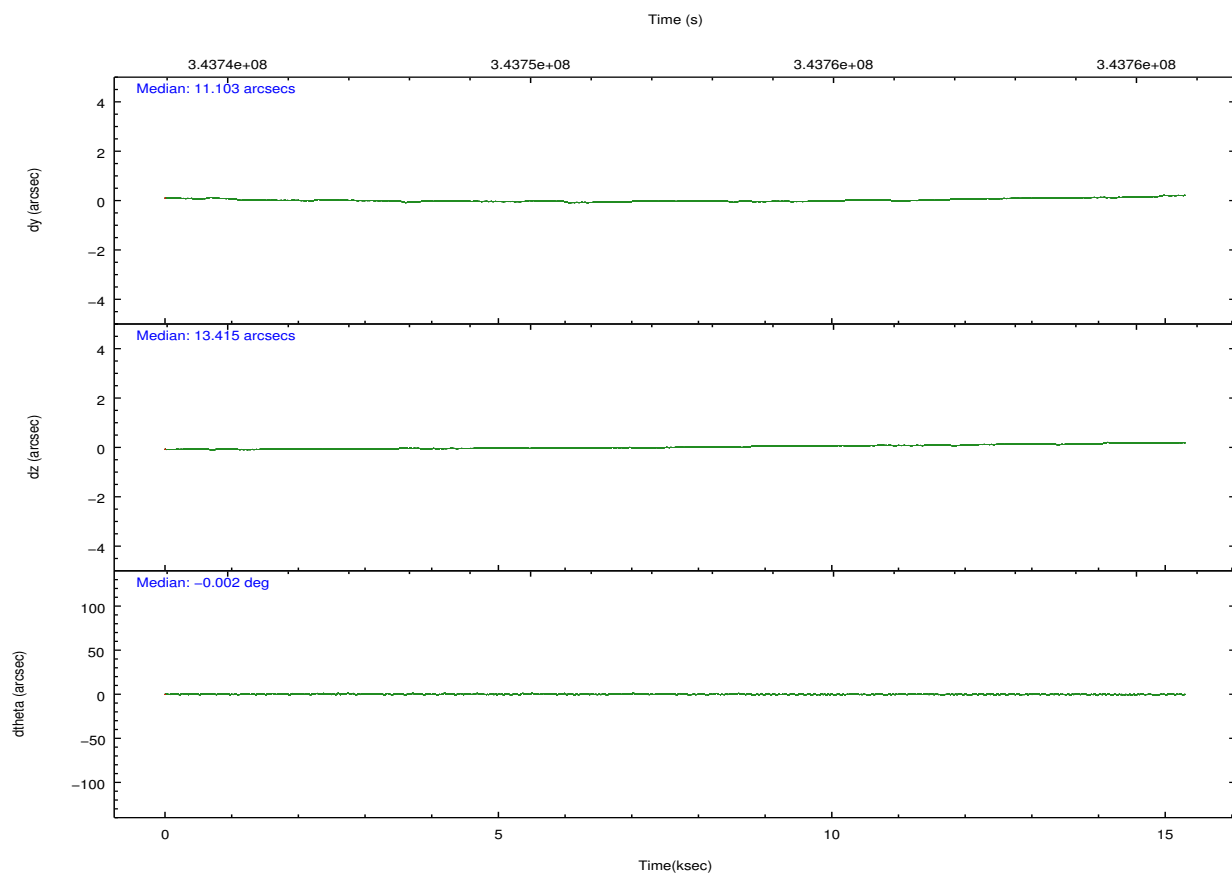
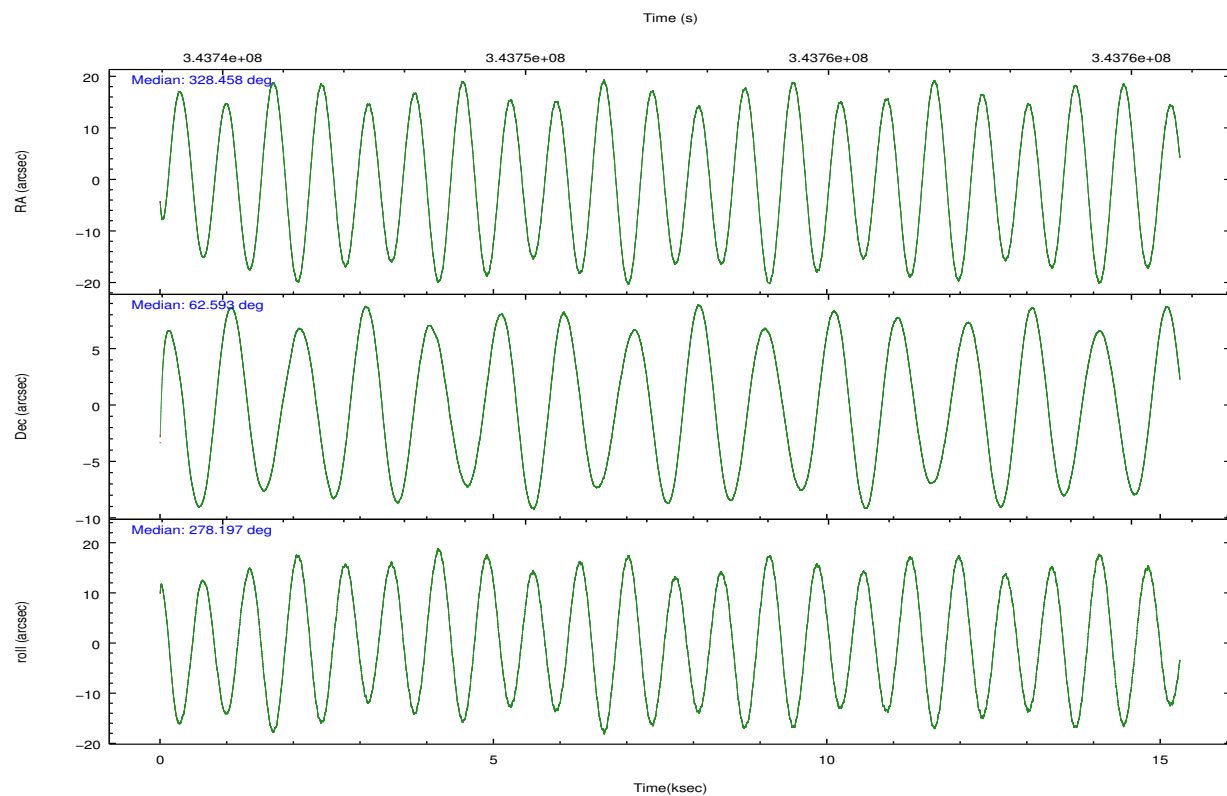
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	139822	147366	147324	147097	161683	211551	grade 0 events	8092	11913	7678	7934	11491	7467
rejected events	120705	123361	129617	128808	138721	124261		5%	8%	5%	5%	7%	3%
rejected %	86%	83%	87%	87%	85%	58%	grade 1 events	92	146	101	108	116	231
								0%	0%	0%	0%	0%	0%
							grade 2 events	4386	4637	3841	3598	4193	18049
								3%	3%	2%	2%	2%	8%
							grade 3 events	1677	1818	1607	1763	1694	7293
								1%	1%	1%	1%	1%	3%
							grade 4 events	1659	1764	1568	1703	1739	7363
								1%	1%	1%	1%	1%	3%
							grade 5 events	6317	6780	6209	7141	7566	19856
								4%	4%	4%	4%	4%	9%
							grade 6 events	3309	3885	3019	3298	3859	47154
								2%	2%	2%	2%	2%	22%
							grade 7 events	114290	116423	123301	121552	131025	104138
								81%	79%	83%	82%	81%	49%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	328.420397	328.45762048916	Subarray requested	NONE	NONE
[deg] Pointing Dec	62.614238	62.592735922353	Alternating exposures requested	N	N
[deg] Pointing Roll	278.026288	278.2019271136043	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	343745033.184000	343744009.00409			
Observation start date	2008-11-22T12:42:48	2008-11-22T12:26:49			
[s] Observation end time (MET)	343760033.184000	343760689.34241			
Observation end date	2008-11-22T16:52:48	2008-11-22T17:04:49			
Read mode	TIMED	TIMED			

2.3 Aspect



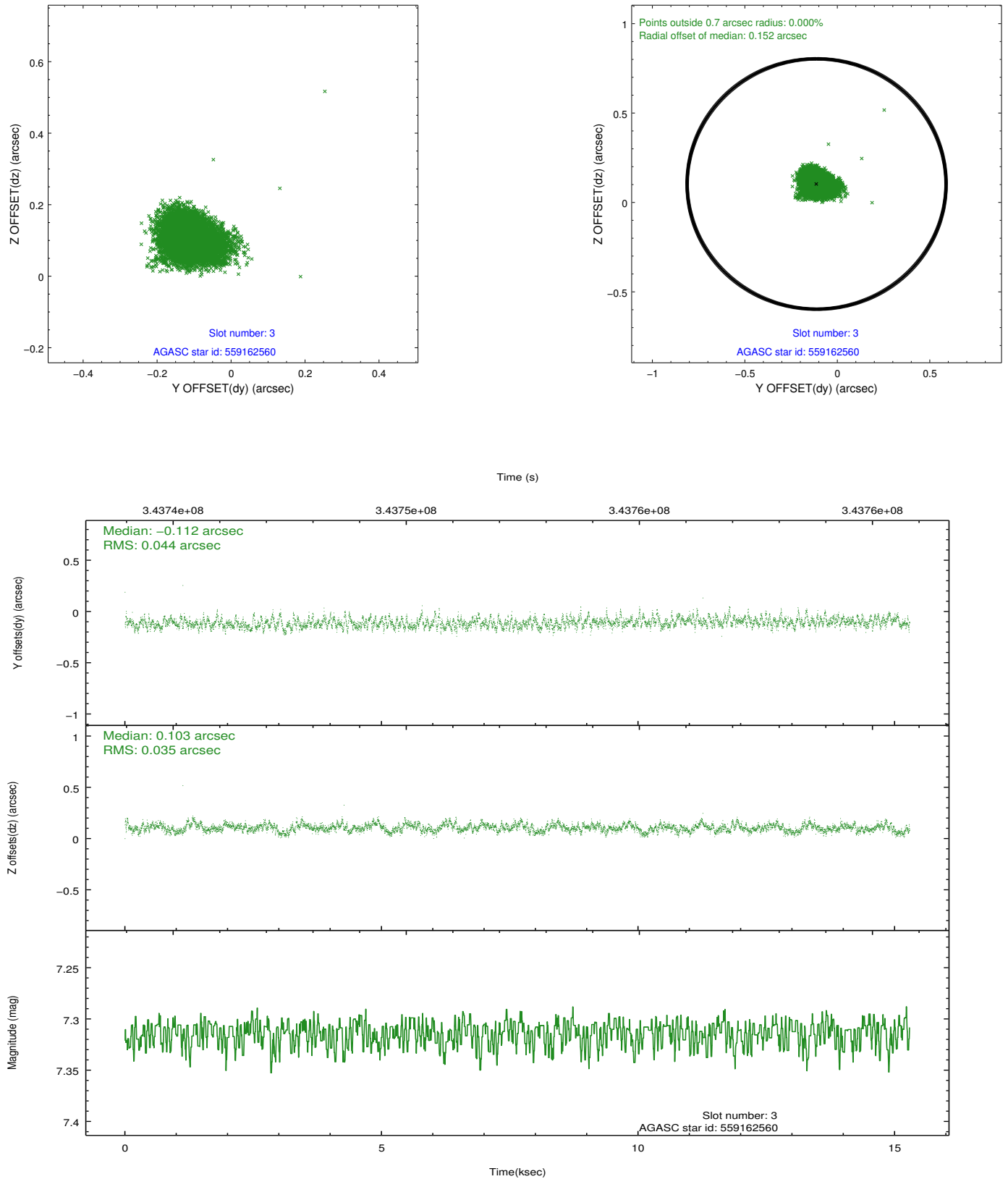


Slot Statistics

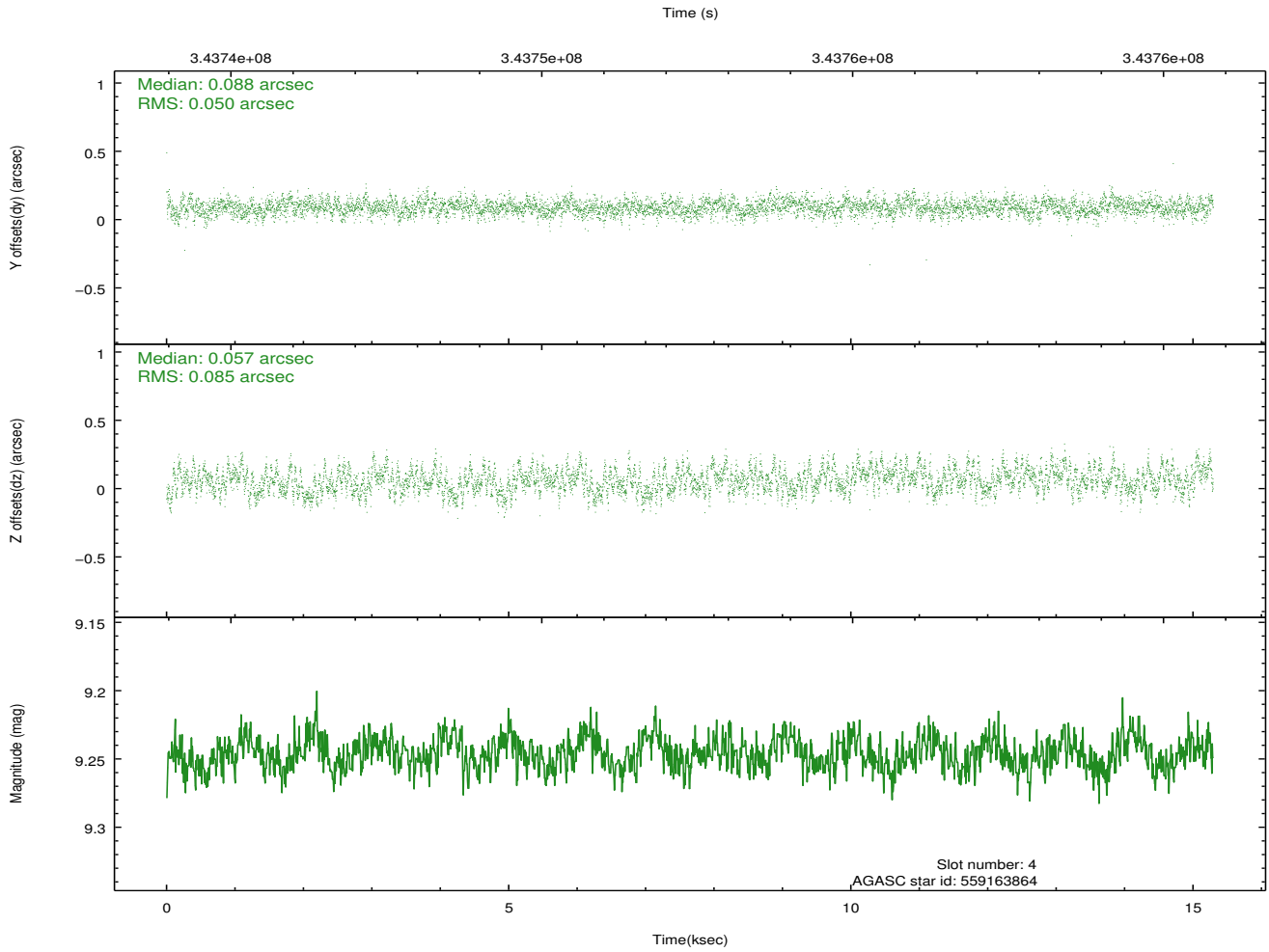
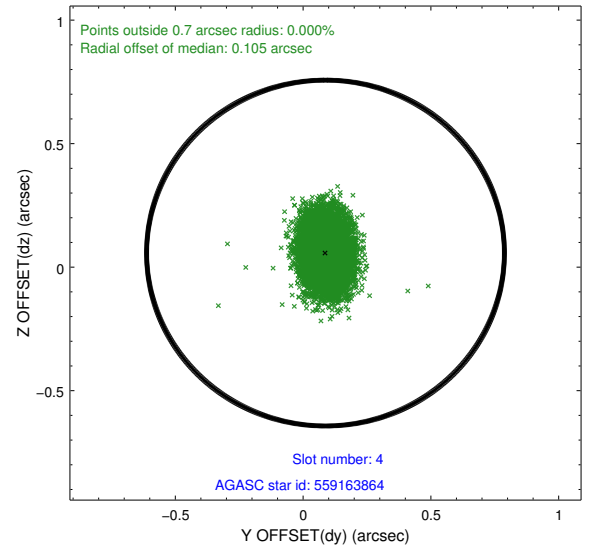
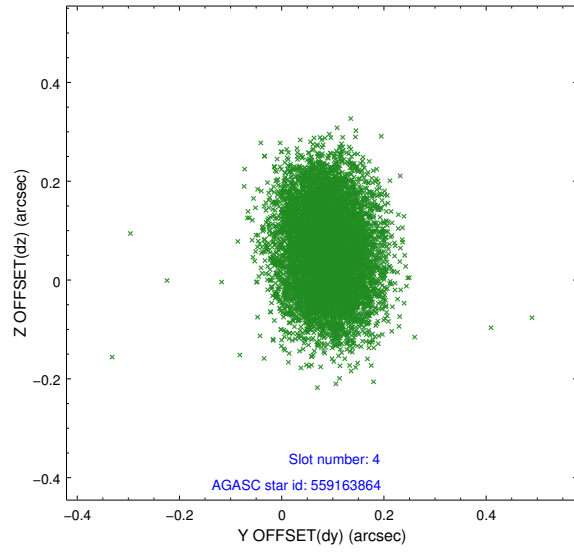
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.06	3731	0.027	0.030	0.014	0.021	0.000000	0.000000	928.47	-836.96
1	FID	ACIS-I-5	7.05	3731	-0.169	0.052	0.011	0.018	0.000000	0.000000	-1819.67	1060.39
2	FID	ACIS-I-6	7.06	3731	0.050	-0.013	0.008	0.014	0.000000	0.000000	393.71	1705.17
3	GUIDE	559162560	7.31	7459	-0.112	0.103	0.059	0.097	328.973659	63.261063	-2184.21	1212.75
4	GUIDE	559163864	9.25	7458	0.088	0.057	0.105	0.171	327.323031	62.690574	-540.32	-1753.59
5	GUIDE	559167352	7.19	7461	-0.043	0.049	0.067	0.109	328.757272	62.009100	2235.31	259.74
6	GUIDE	559171856	8.05	7461	0.041	0.155	0.068	0.107	329.066735	62.894631	-856.26	1191.62
7	GUIDE	559165880	8.06	7458	0.021	-0.368	0.063	0.103	329.840271	62.759696	-217.41	2393.12

2.4 Star Slots

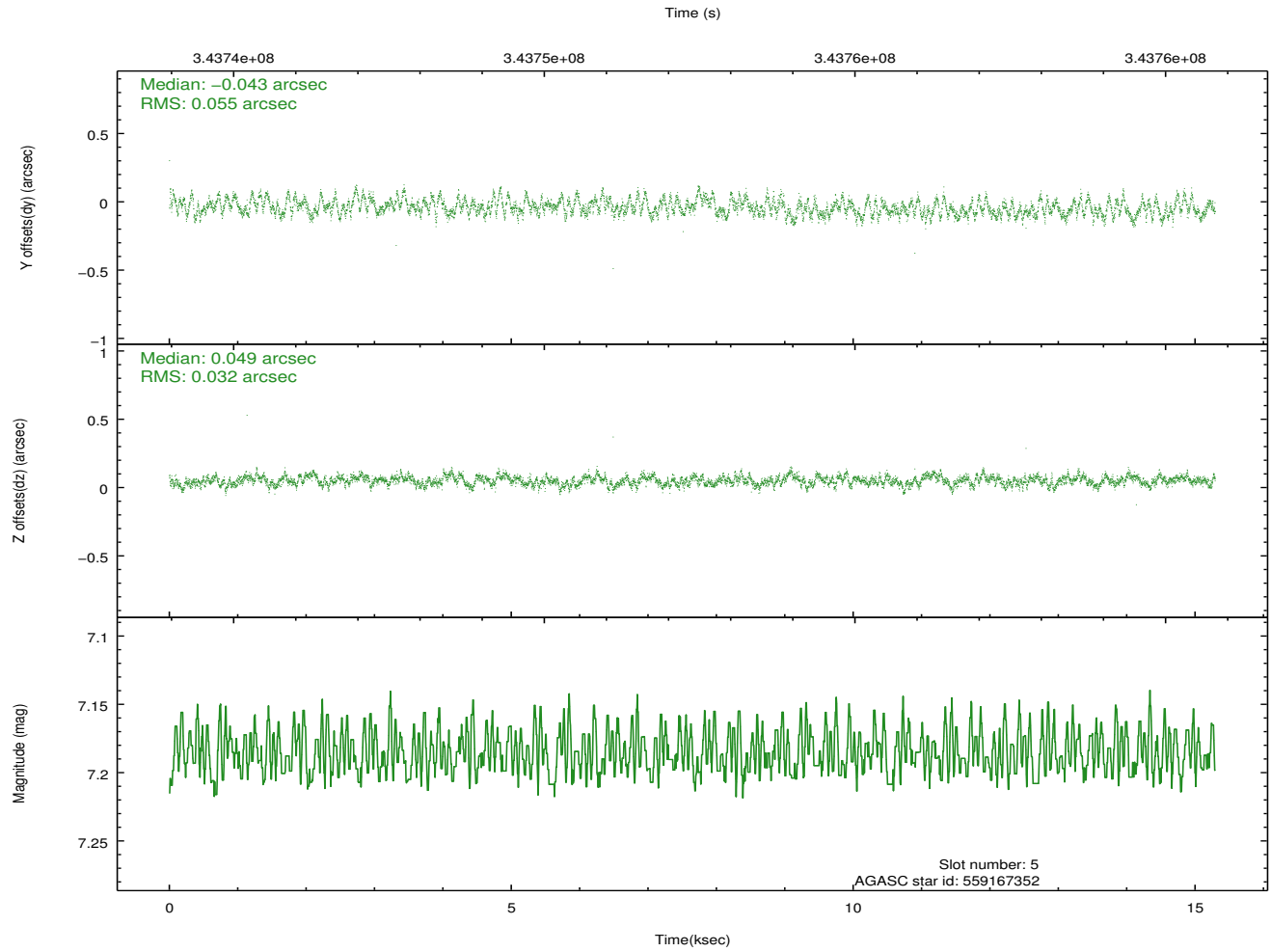
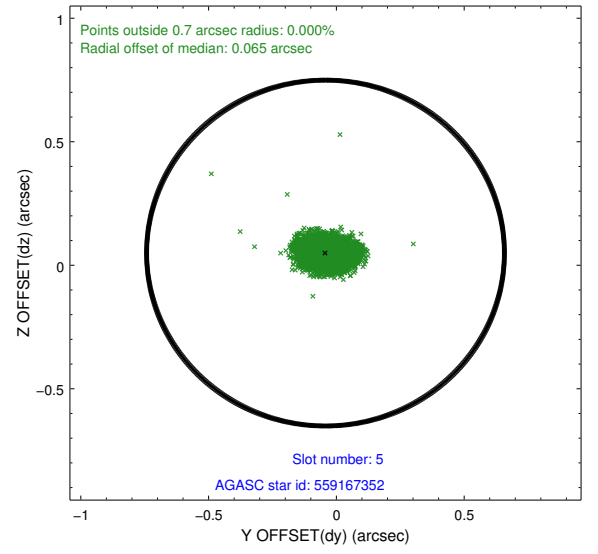
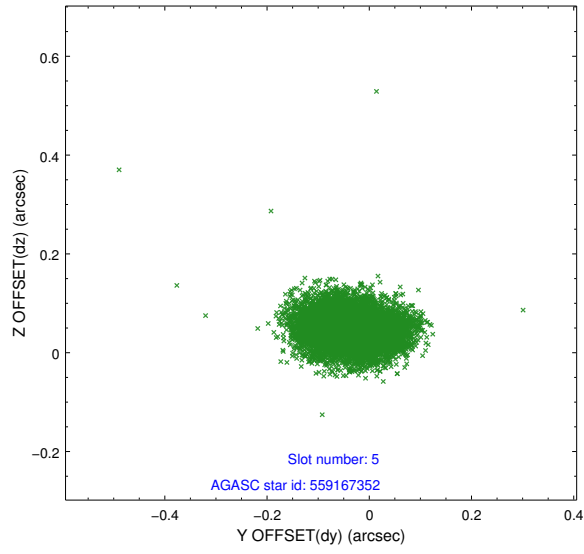
2.4.1 Slot 3



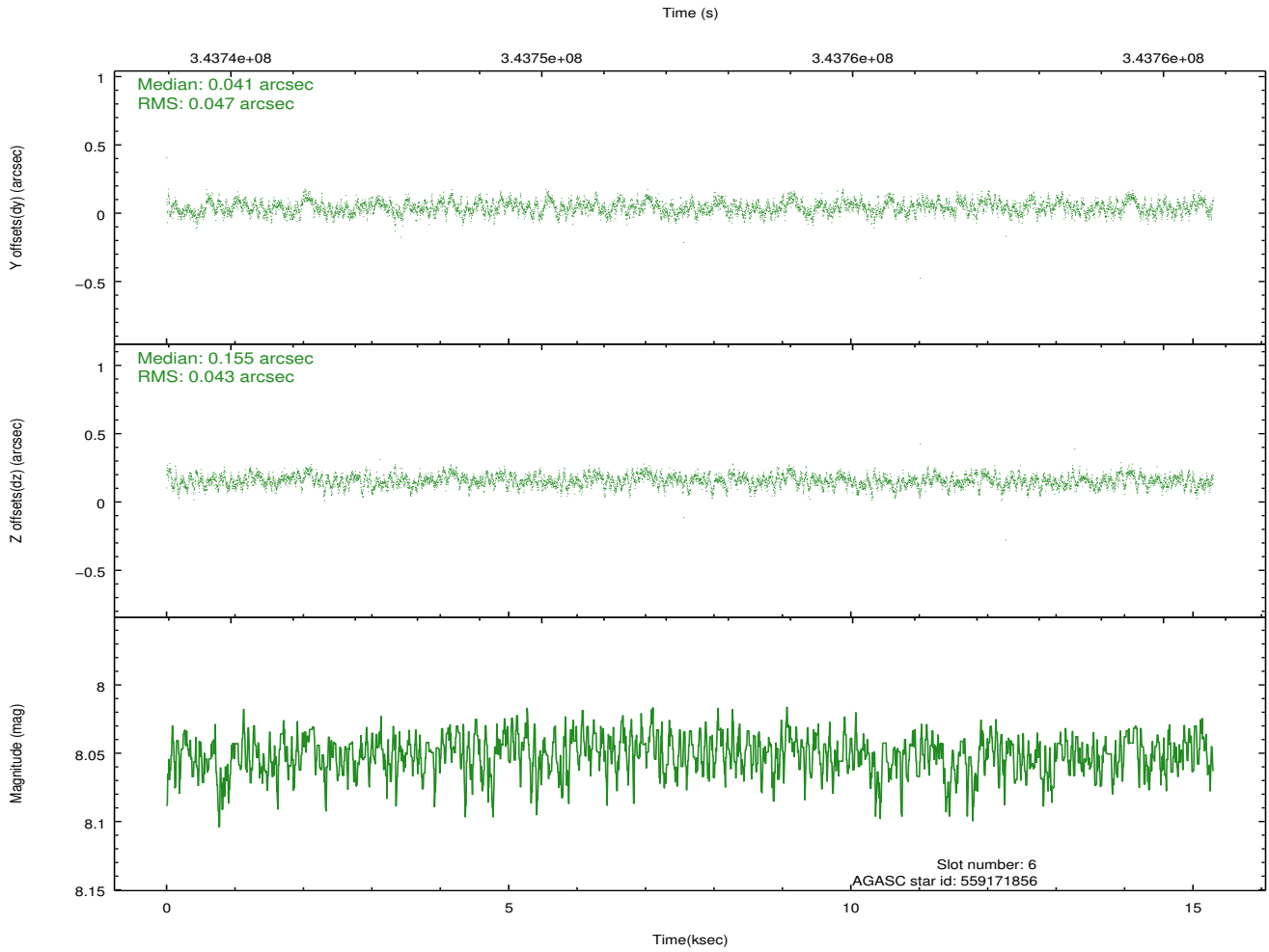
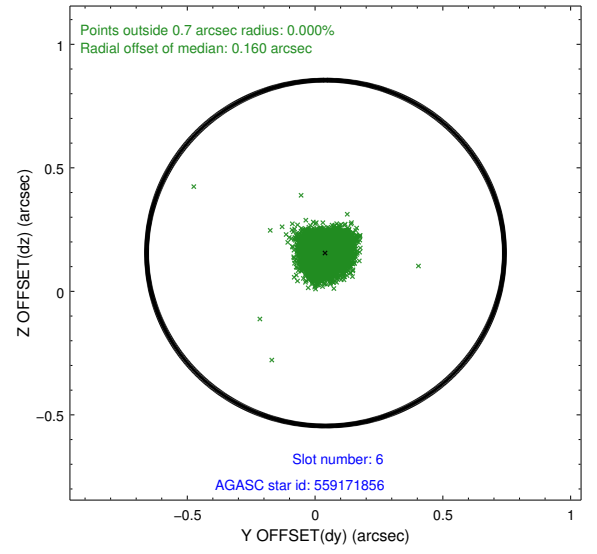
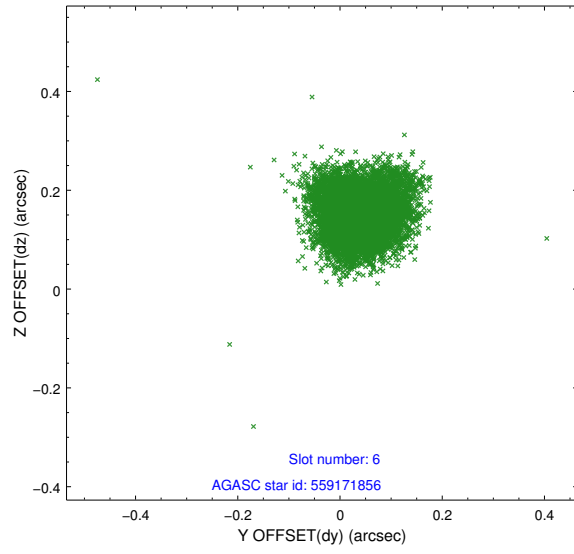
2.4.2 Slot 4



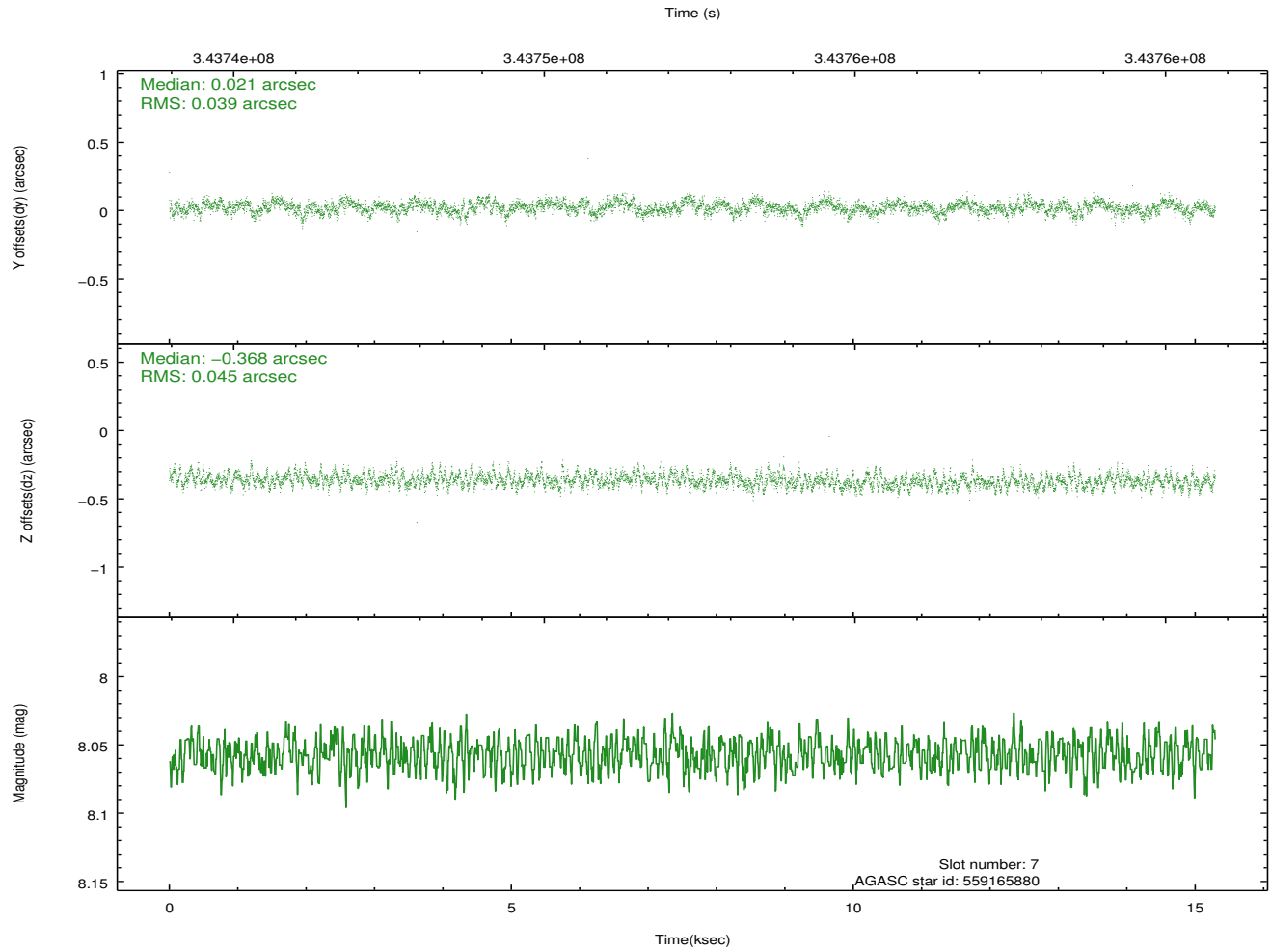
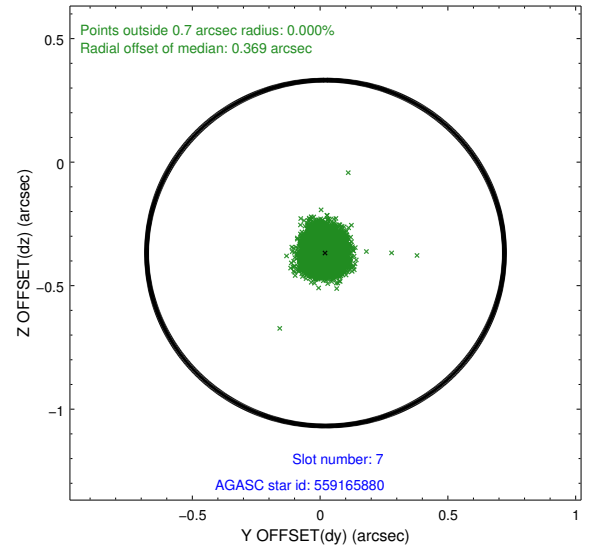
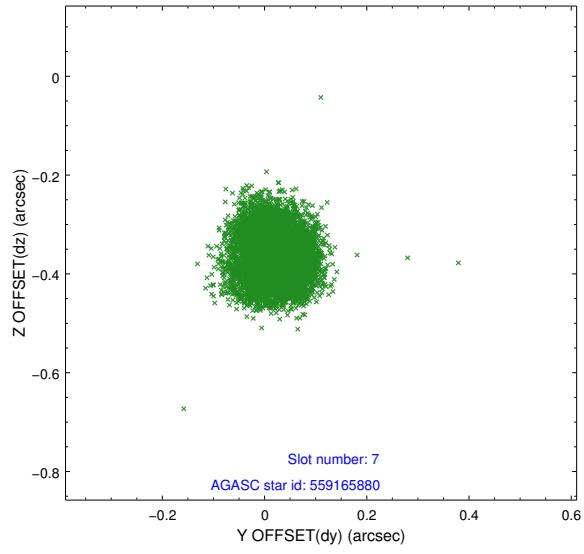
2.4.3 Slot 5



2.4.4 Slot 6

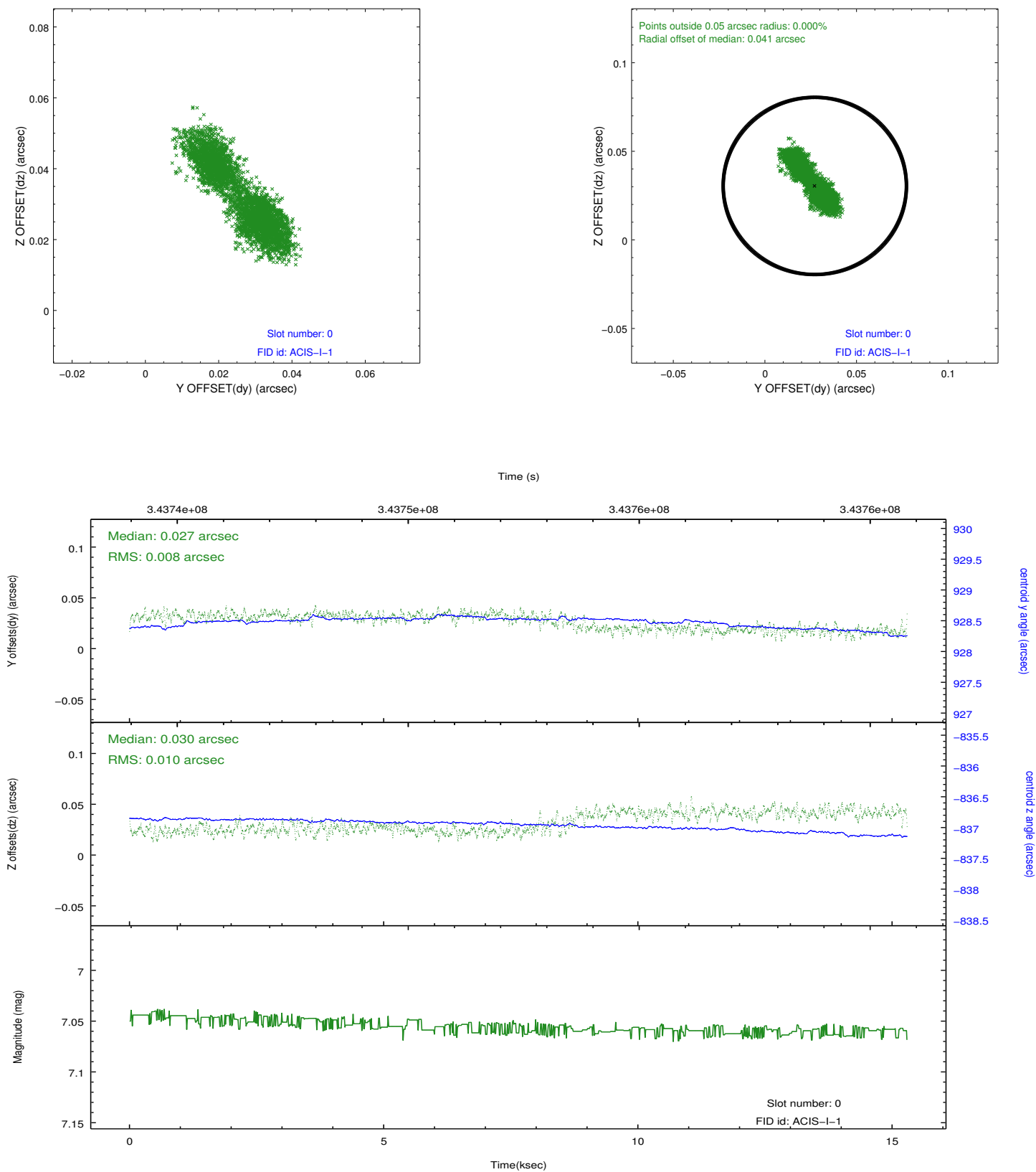


2.4.5 Slot 7

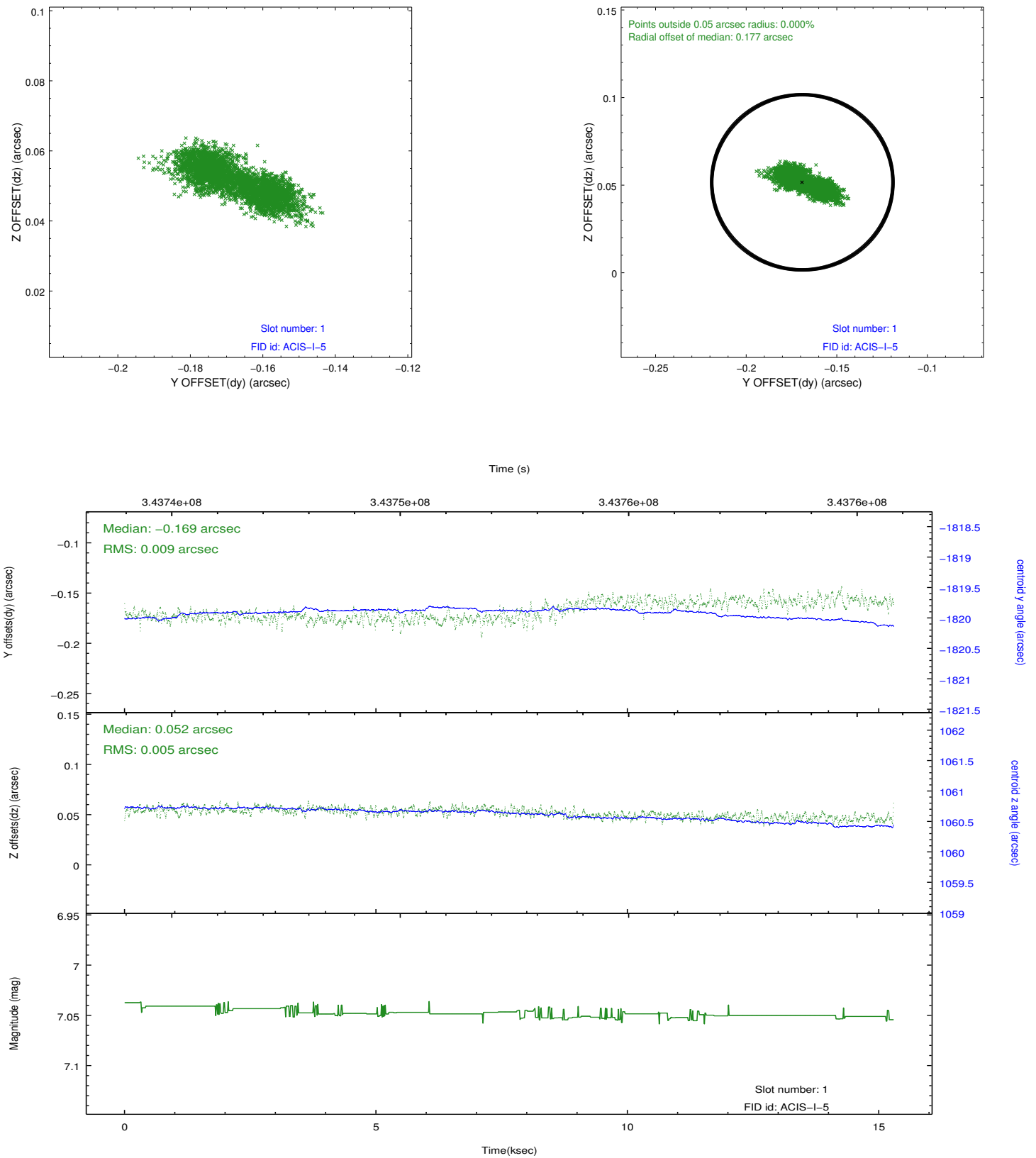


2.5 FID Slots

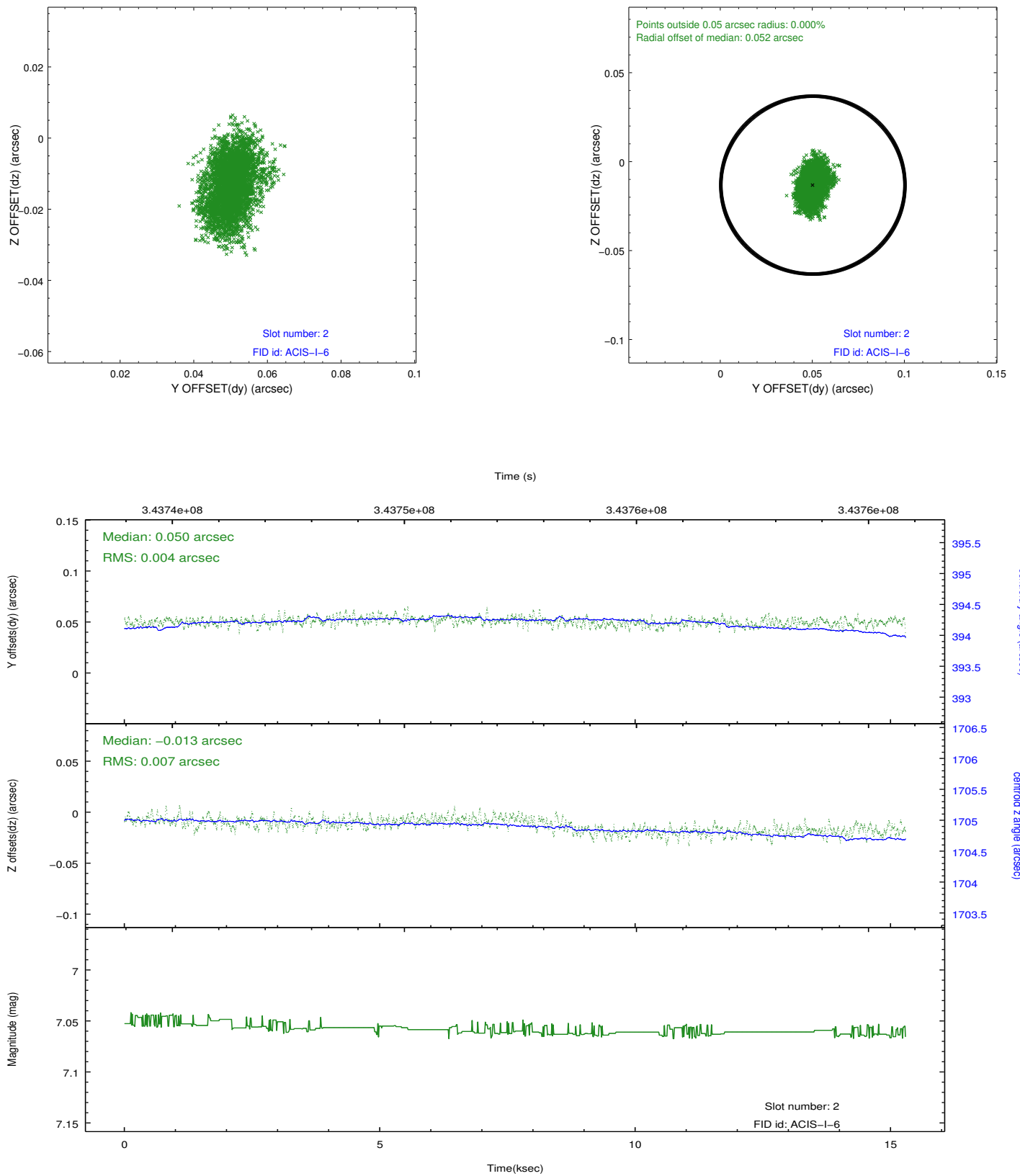
2.5.1 Slot 0



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)	2012.06.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.9503999

A.2 Comments

A spatial region of the original bias map for CCD = 1 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 1 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:
(328.25190,62.67071), (328.21813,62.66838), (328.22574,62.64478), (328.26195,62.63941)