

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2282 - L2 Version 4
Chandra X-Ray Center

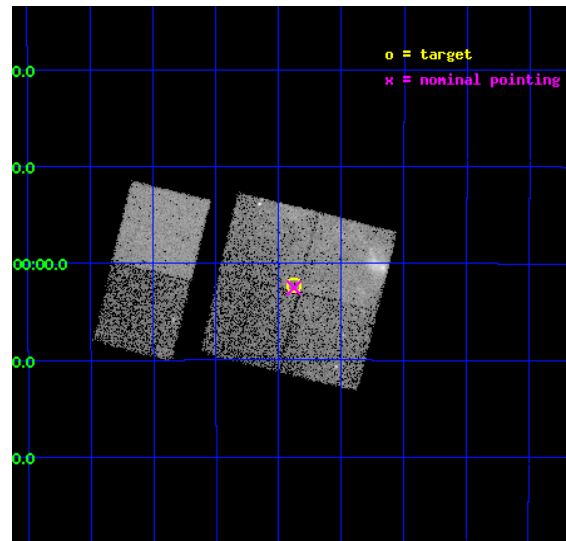
L2 Processing Date : Oct 19 2012

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

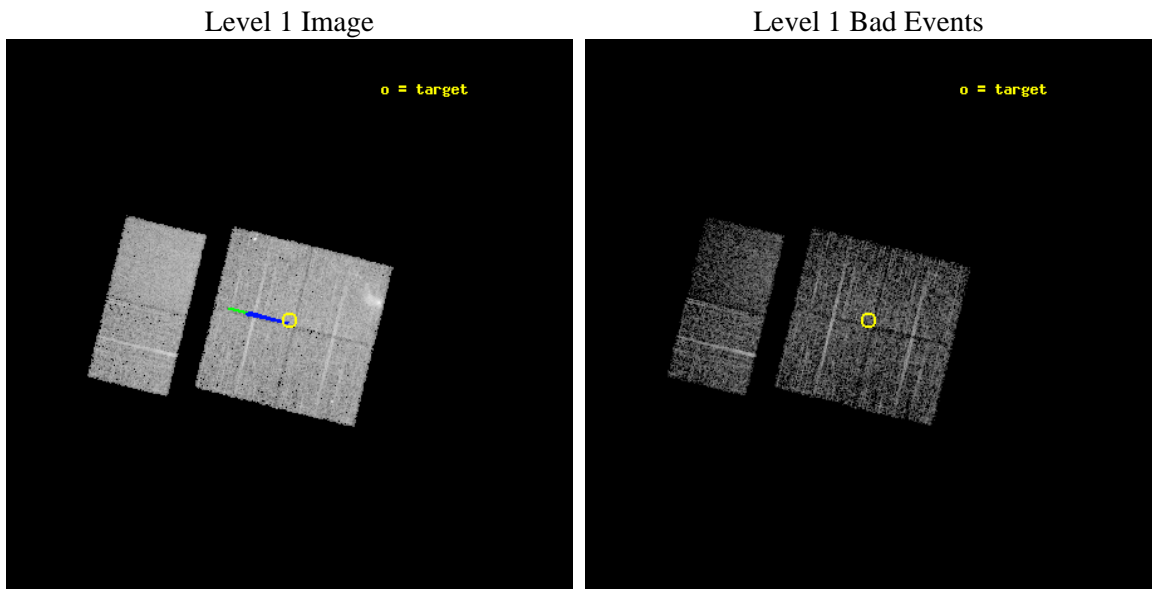
seq_num	900109	Sequence number
obs_id	2282	Observation id
title	CHANDRA SURVEY OF THE GALACTIC RIDGE AROUND THE MILKY WAY CENTER	P
observer	Prof. Q. Daniel Wang	Principal investigator
object	GCS 13	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.5954	Observer's specified target RA [deg]
dec_targ	-29.0376	Observer's specified target Dec [deg]
ra_nom	266.59456596128	Nominal RA [deg]
dec_nom	-29.042239389717	Nominal Dec [deg]
roll_nom	283.80728805906	Nominal Roll [deg]
revision	4	Processing version of data
ontime	10758.400010005	Sum of GTIs [s]
livetime	10622.170671147	Livetime [s]
ontime0	10758.400010005	Sum of GTIs [s]
ontime1	10758.400010005	Sum of GTIs [s]
ontime2	10758.400010005	Sum of GTIs [s]
ontime3	10758.400010005	Sum of GTIs [s]
ontime6	10755.159009829	Sum of GTIs [s]
ontime7	10758.400010005	Sum of GTIs [s]
l2events	68906	Number of level 2 events



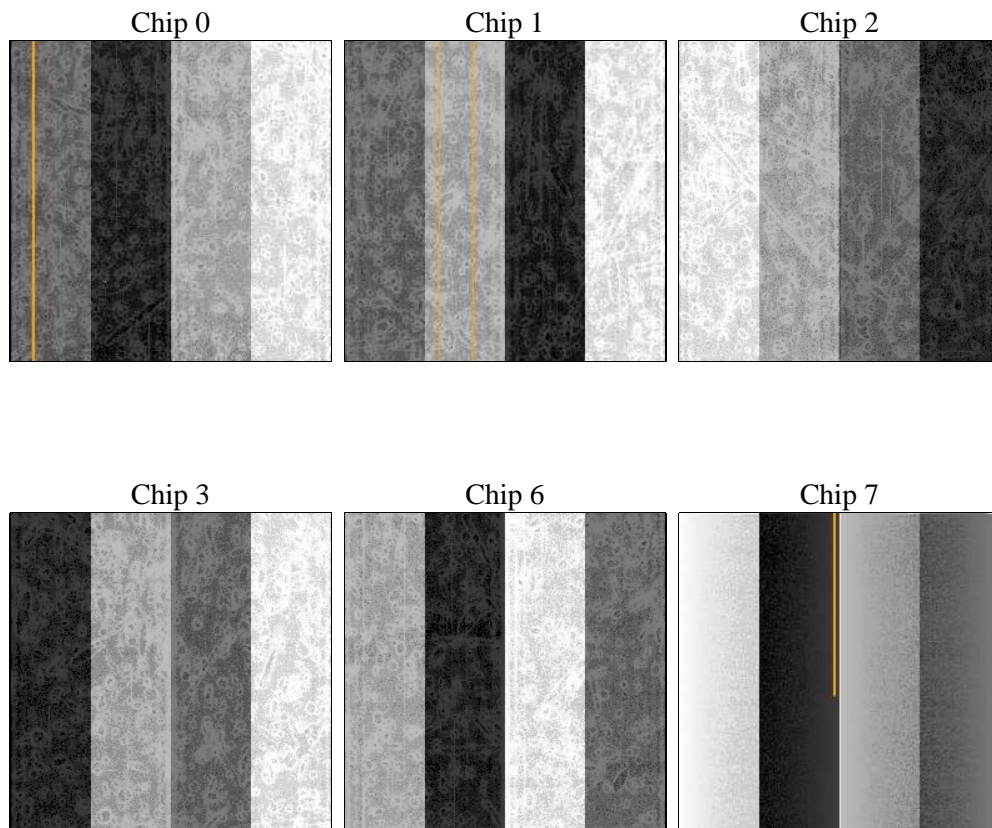
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	11000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	10758.400010005	Sum of GTIs [s]
caldsver	4.5.2	 	ontime0	10758.400010005	Sum of GTIs [s]
date	2012-10-19T21:26:44	Date and time of file creation	ontime1	10758.400010005	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	10758.400010005	Sum of GTIs [s]
			ontime3	10758.400010005	Sum of GTIs [s]
			ontime6	10755.159009829	Sum of GTIs [s]
			ontime7	10758.400010005	Sum of GTIs [s]
			l1events	204442	Number of level 1 events

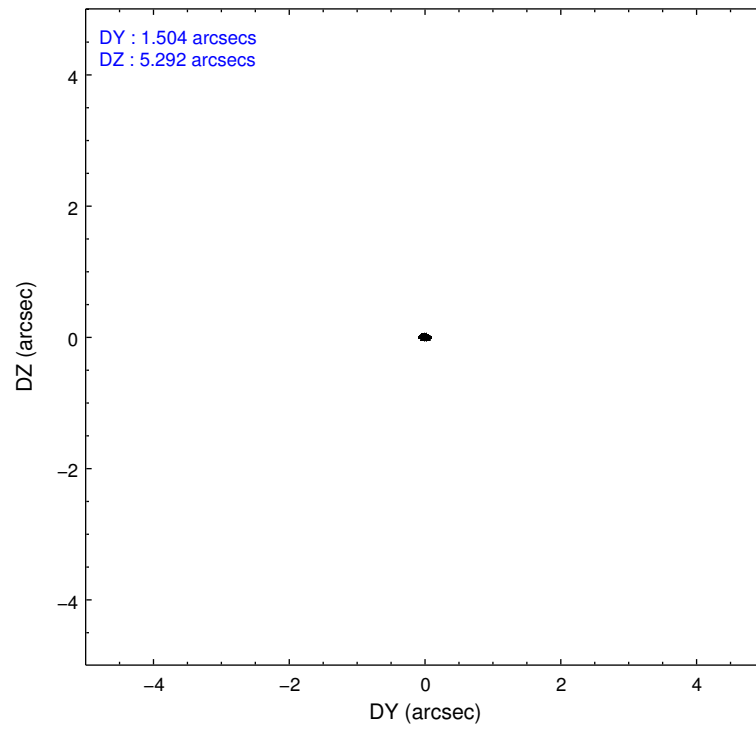
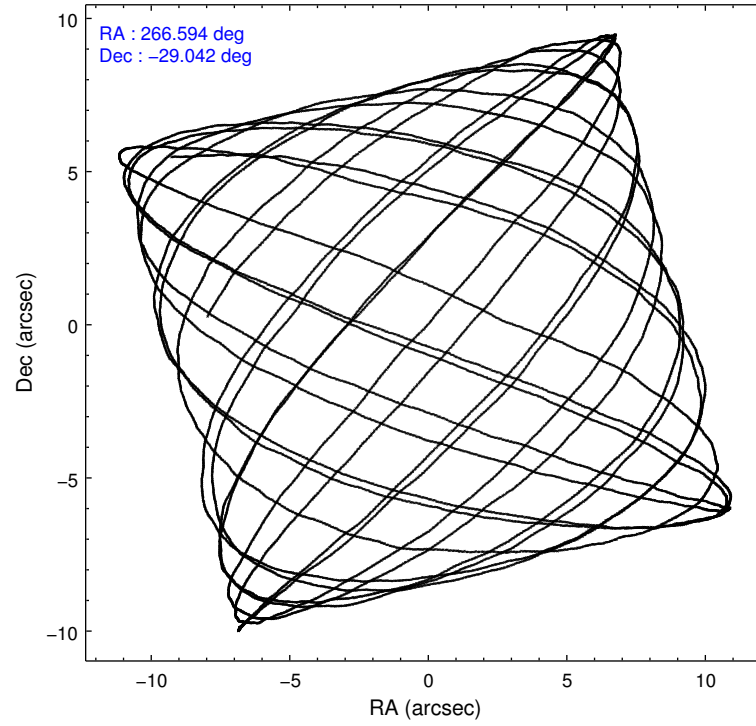
2.1.4 Events

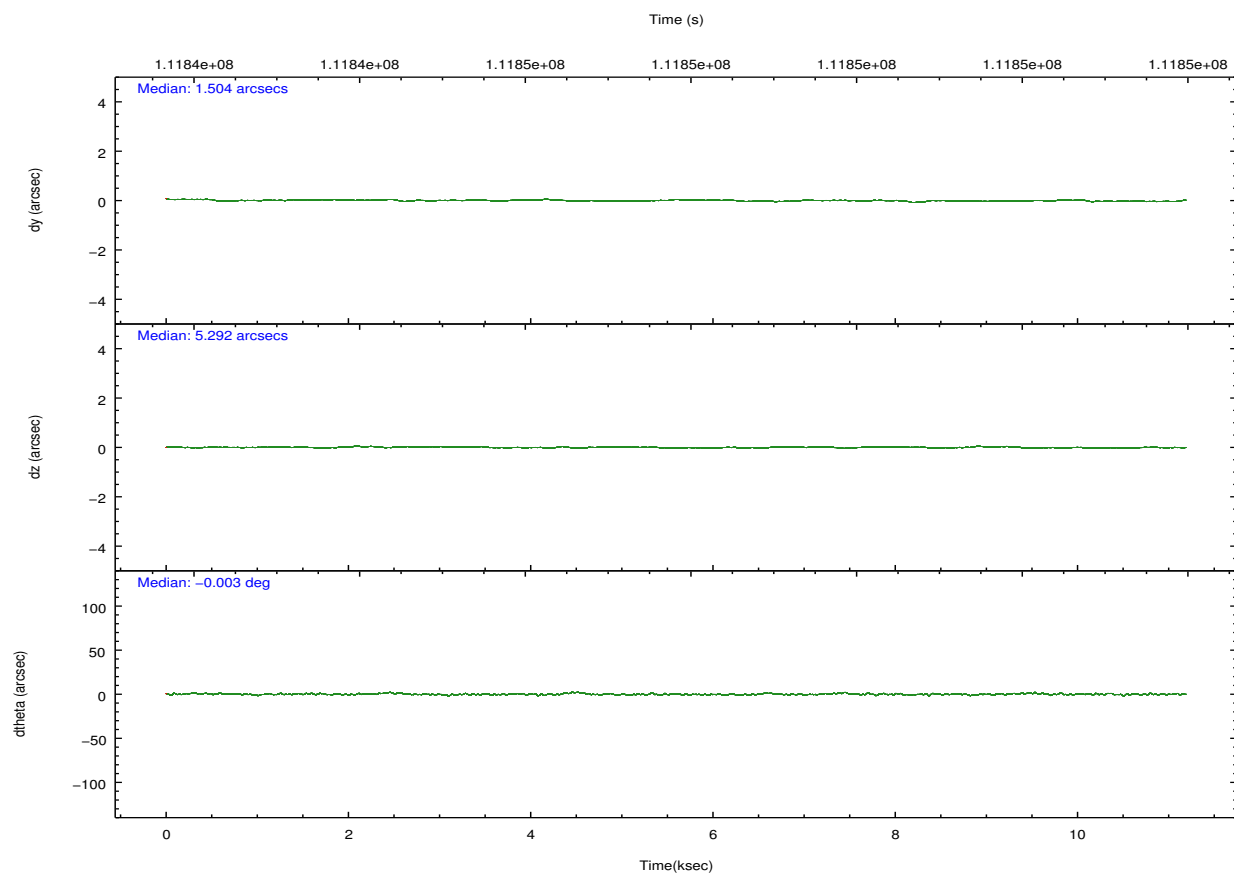
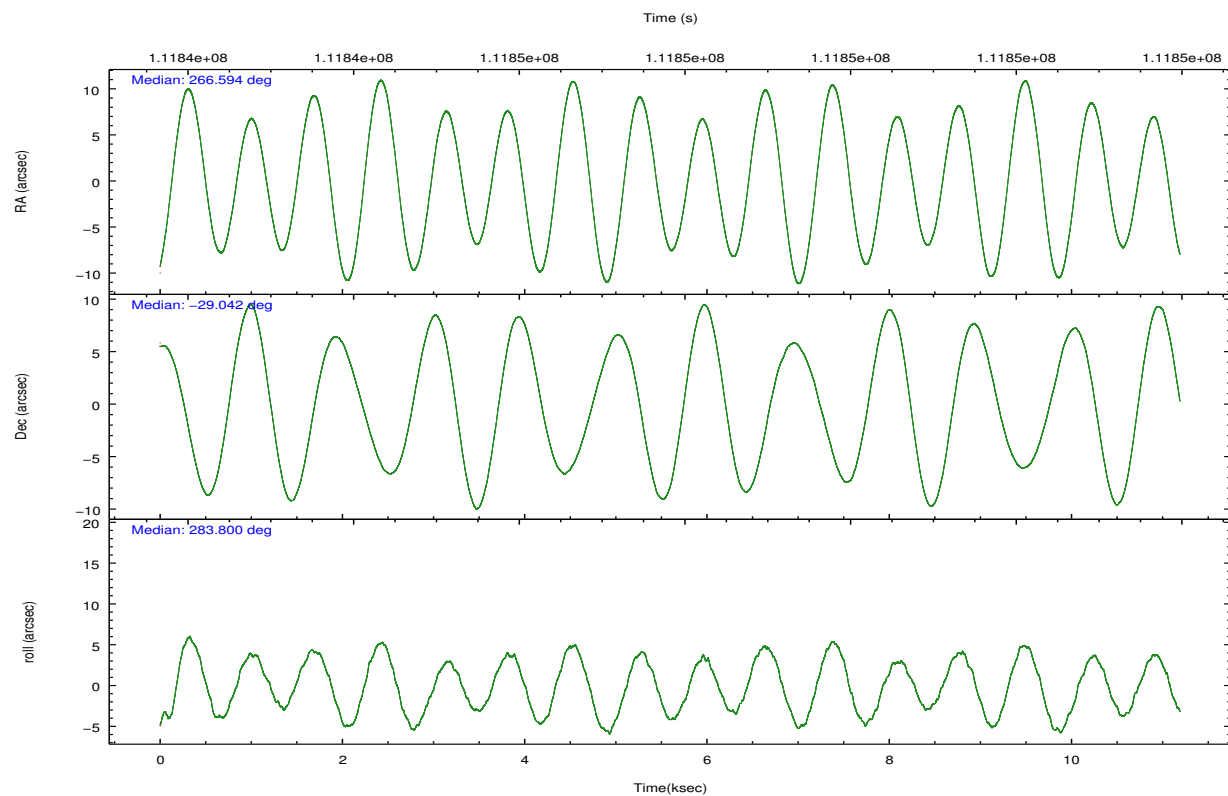
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	30541	44925	29470	33782	29377	36347	grade 0 events	5113	13870	3349	6940	2437	1940
rejected events	21665	22862	23364	22318	24136	16924		16%	30%	11%	20%	8%	5%
rejected %	70%	50%	79%	66%	82%	46%	grade 1 events	46	100	24	49	26	49
								0%	0%	0%	0%	0%	0%
							grade 2 events	1523	3510	1025	1839	1009	3943
								4%	7%	3%	5%	3%	10%
							grade 3 events	601	1282	480	731	424	1919
								1%	2%	1%	2%	1%	5%
							grade 4 events	588	1251	425	727	445	1803
								1%	2%	1%	2%	1%	4%
							grade 5 events	1144	1312	1051	1258	1316	4016
								3%	2%	3%	3%	4%	11%
							grade 6 events	1054	2156	828	1231	927	9825
								3%	4%	2%	3%	3%	27%
							grade 7 events	20472	21444	22288	21007	22793	12852
								67%	47%	75%	62%	77%	35%

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	266.572787	266.5945659612838	Subarray requested	NONE	NONE
[deg] Pointing Dec	-29.022498	-29.04223938971726	Alternating exposures requested	N	N
[deg] Pointing Roll	283.588029	283.8072880590584	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	283.600000	283.600000			
[deg] Roll tolerance	2.000000	2.000000			
Roll constraint allows 180D rotation	N	N			
[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)	111842414.184000	111842038.44068			
Observation start date	2001-07-18T11:19:10	2001-07-18T11:13:58			
[s] Observation end time (MET)	111853414.184000	111853548.16613			
Observation end date	2001-07-18T14:22:30	2001-07-18T14:25:48			
Read mode	TIMED	TIMED			

2.3 Aspect



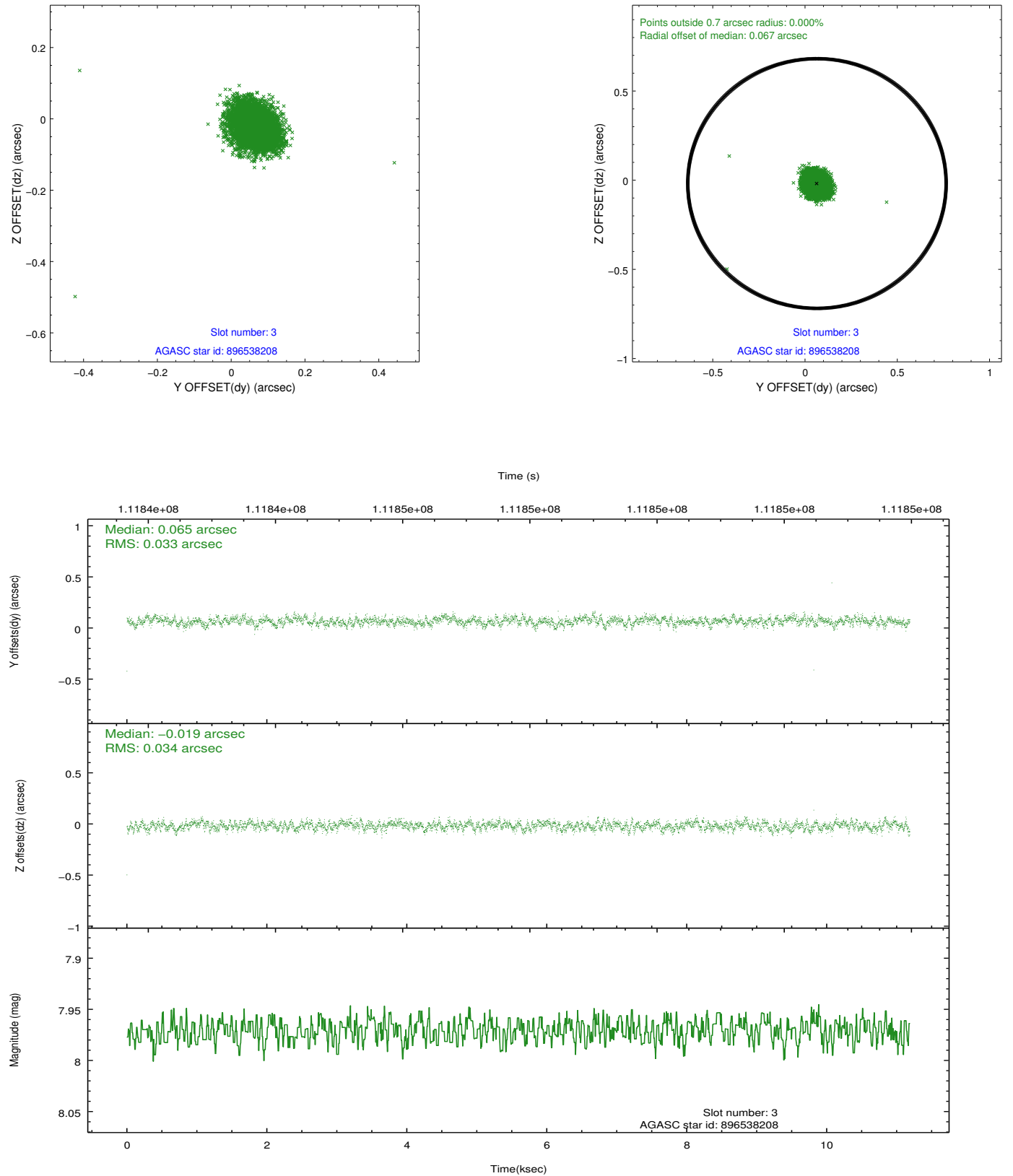


Slot Statistics

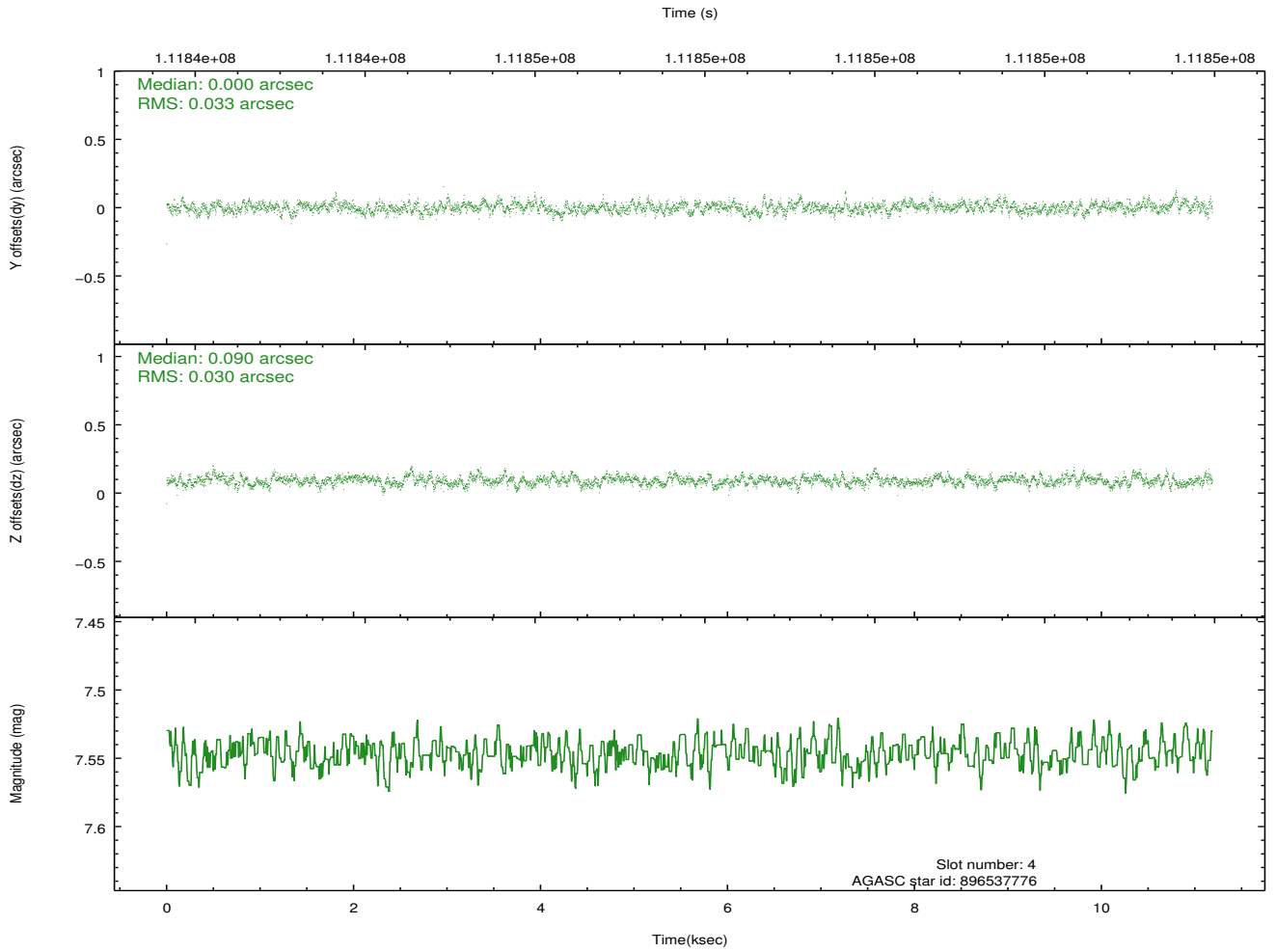
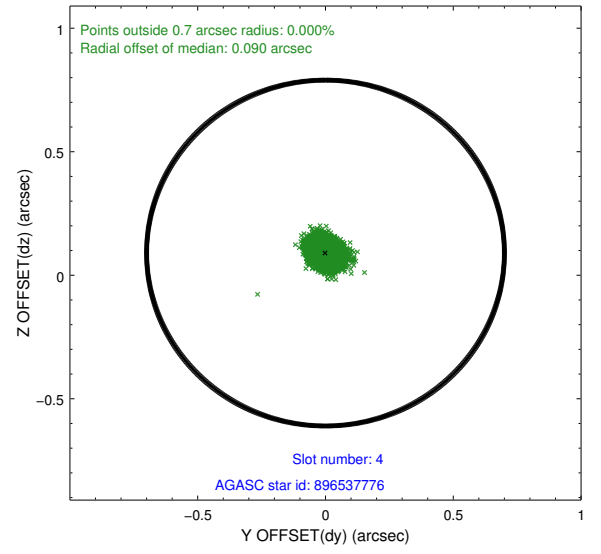
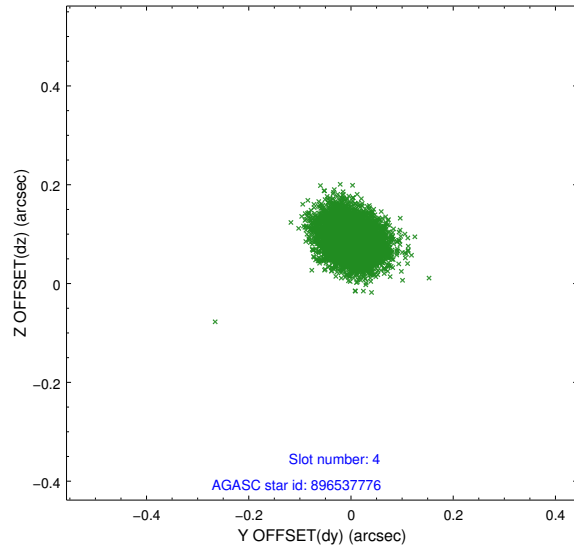
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.15	2730	-0.027	-0.044	0.012	0.044	0.000000	0.000000	-755.86	-835.05
1	FID	ACIS-I-4	7.19	2730	-0.028	0.036	0.007	0.014	0.000000	0.000000	2157.97	1071.00
2	FID	ACIS-I-5	7.23	2730	-0.045	0.076	0.011	0.034	0.000000	0.000000	-1809.13	1069.37
3	GUIDE	896538208	7.97	5459	0.065	-0.019	0.049	0.081	267.176969	-28.671626	-774.31	2150.87
4	GUIDE	896537776	7.55	5456	0.000	0.090	0.047	0.077	266.655684	-29.665673	2312.15	-290.79
5	GUIDE	896537176	8.02	5459	-0.046	-0.075	0.055	0.087	266.498272	-28.678259	-1258.80	62.50
6	GUIDE	896540808	7.50	5458	-0.128	0.069	0.048	0.077	265.985401	-29.308604	572.95	-2034.81
7	GUIDE	896536320	8.96	5457	0.109	-0.065	0.062	0.103	266.369048	-29.307026	846.85	-862.39

2.4 Star Slots

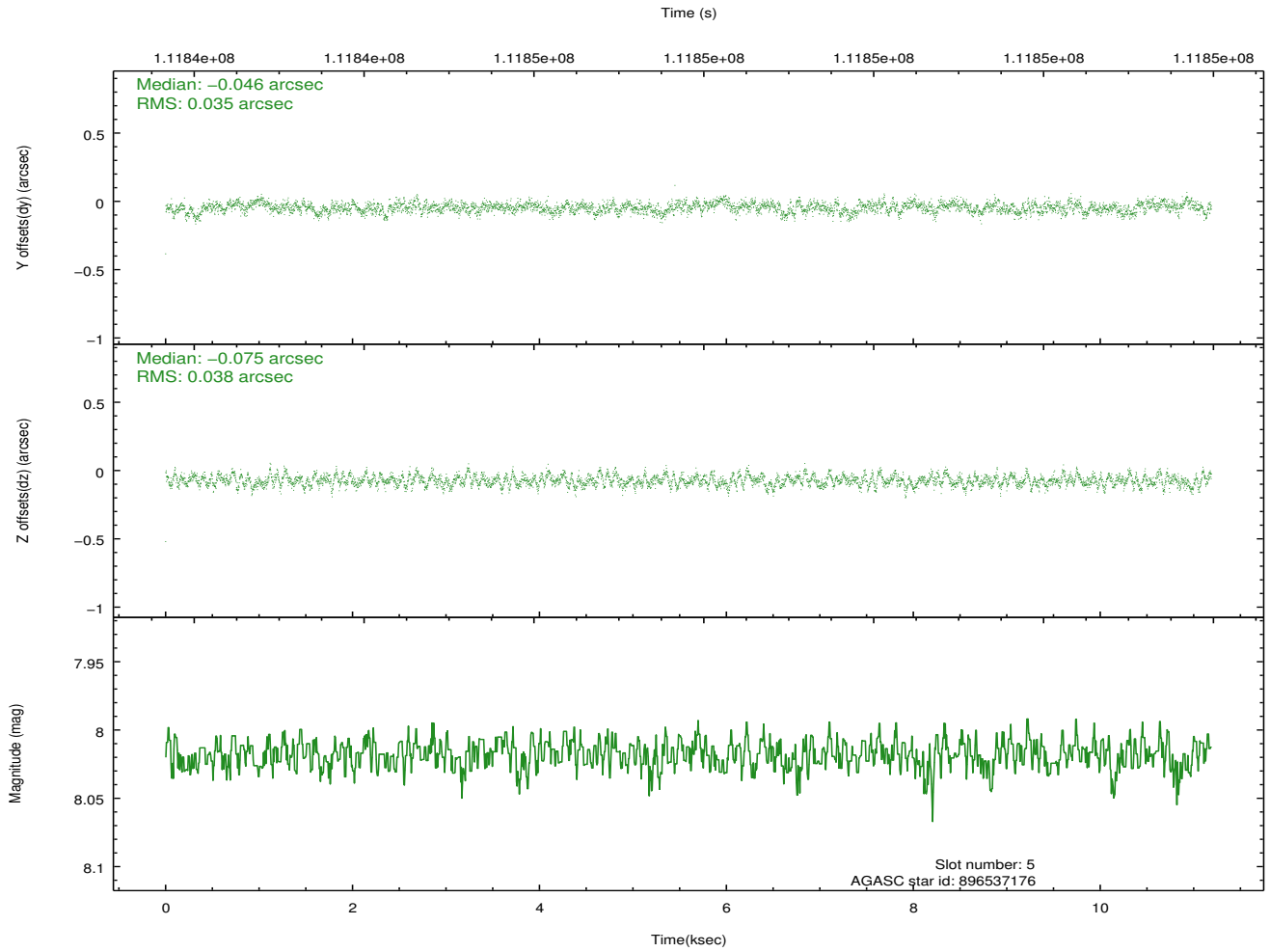
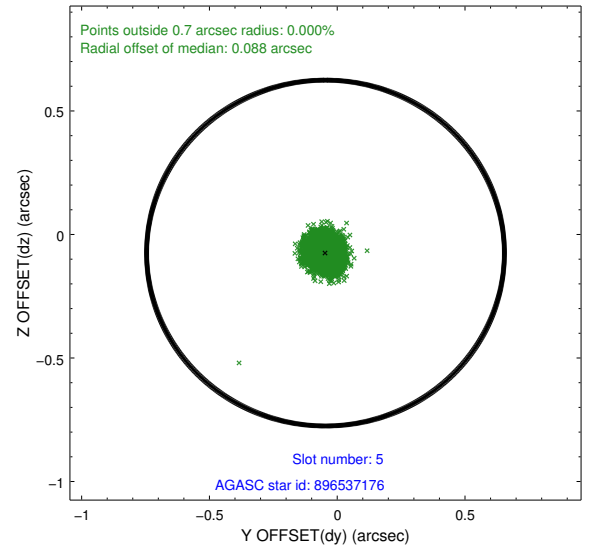
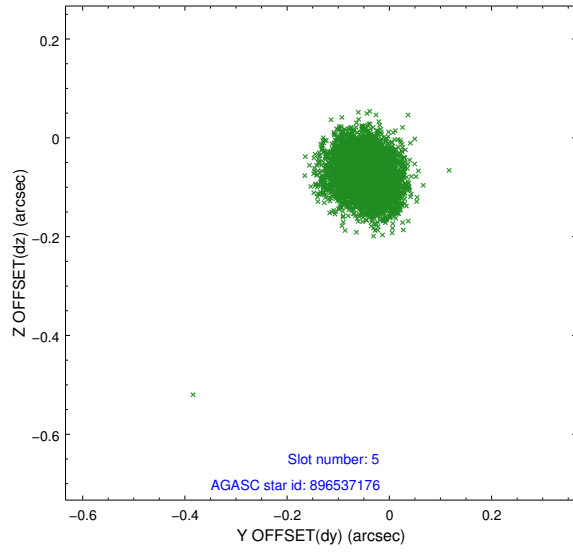
2.4.1 Slot 3



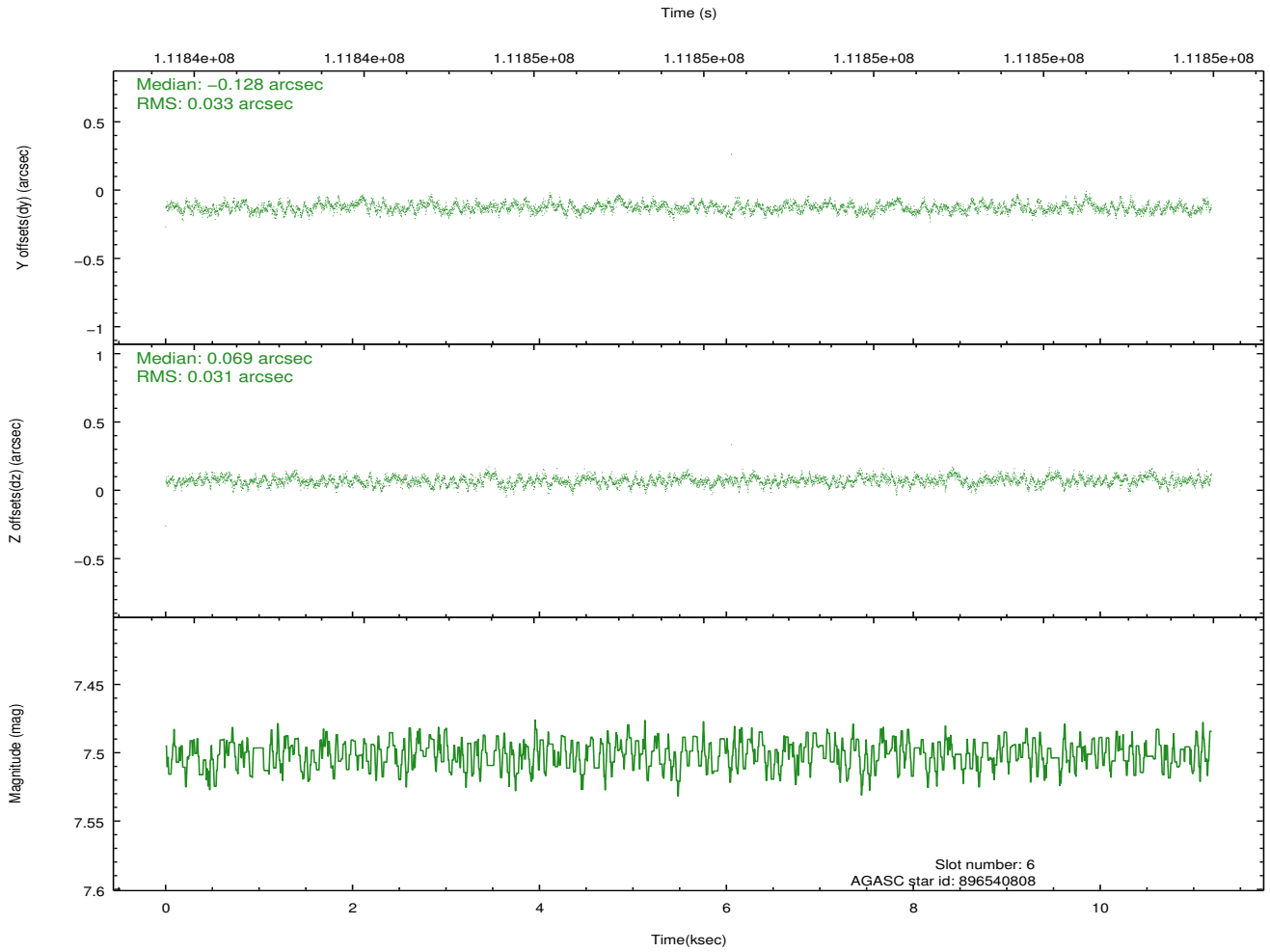
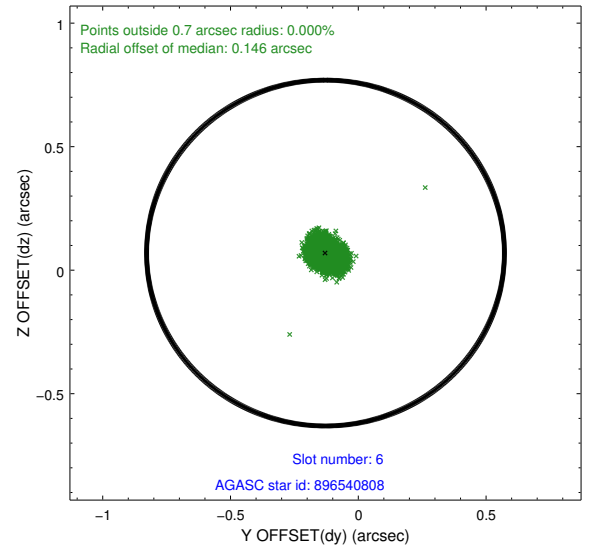
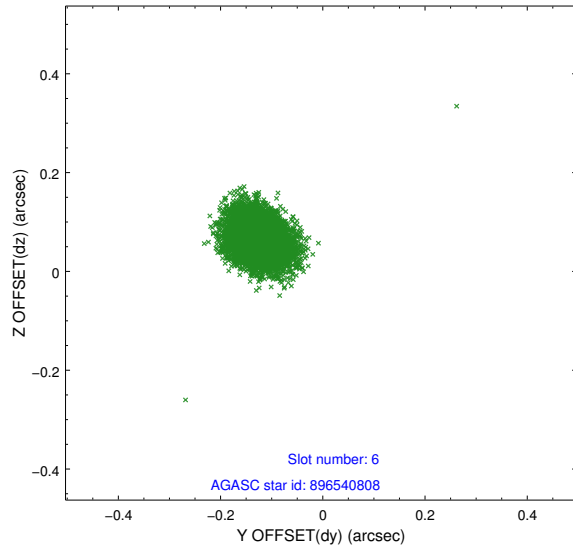
2.4.2 Slot 4



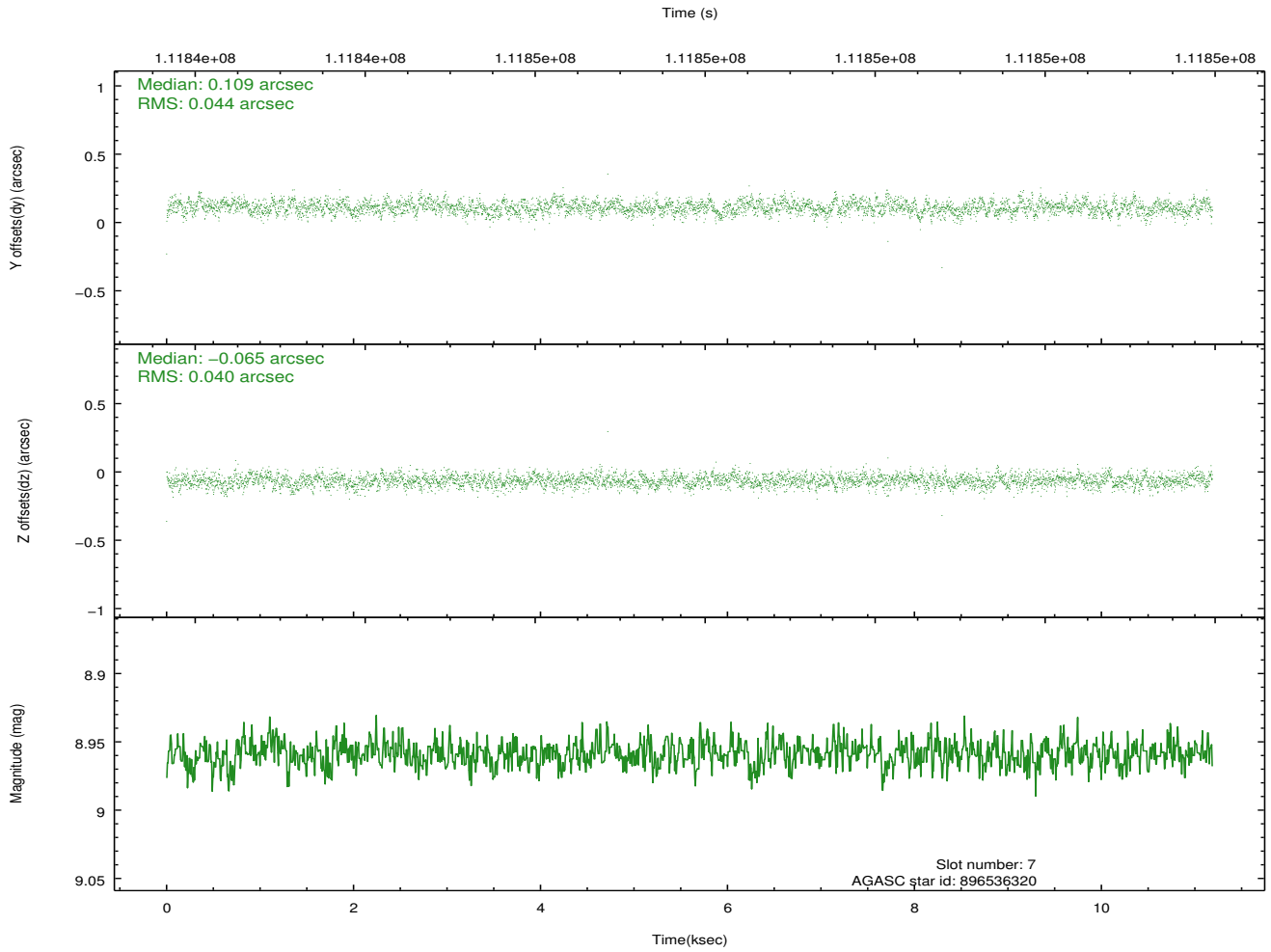
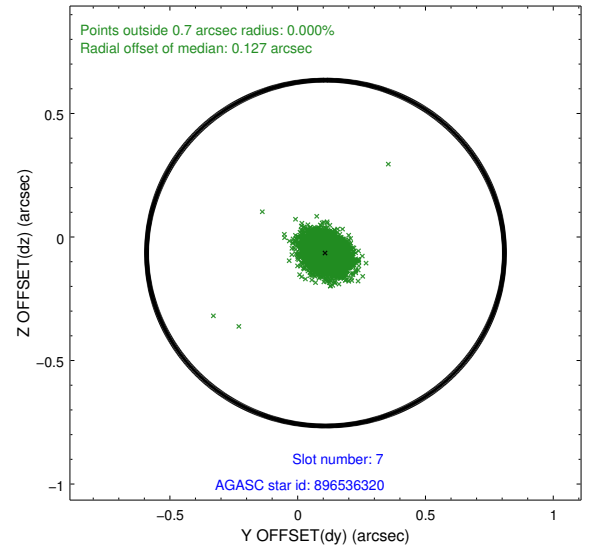
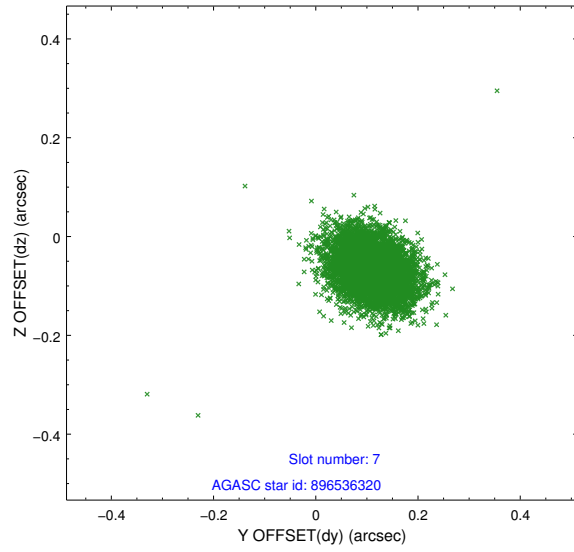
2.4.3 Slot 5



2.4.4 Slot 6

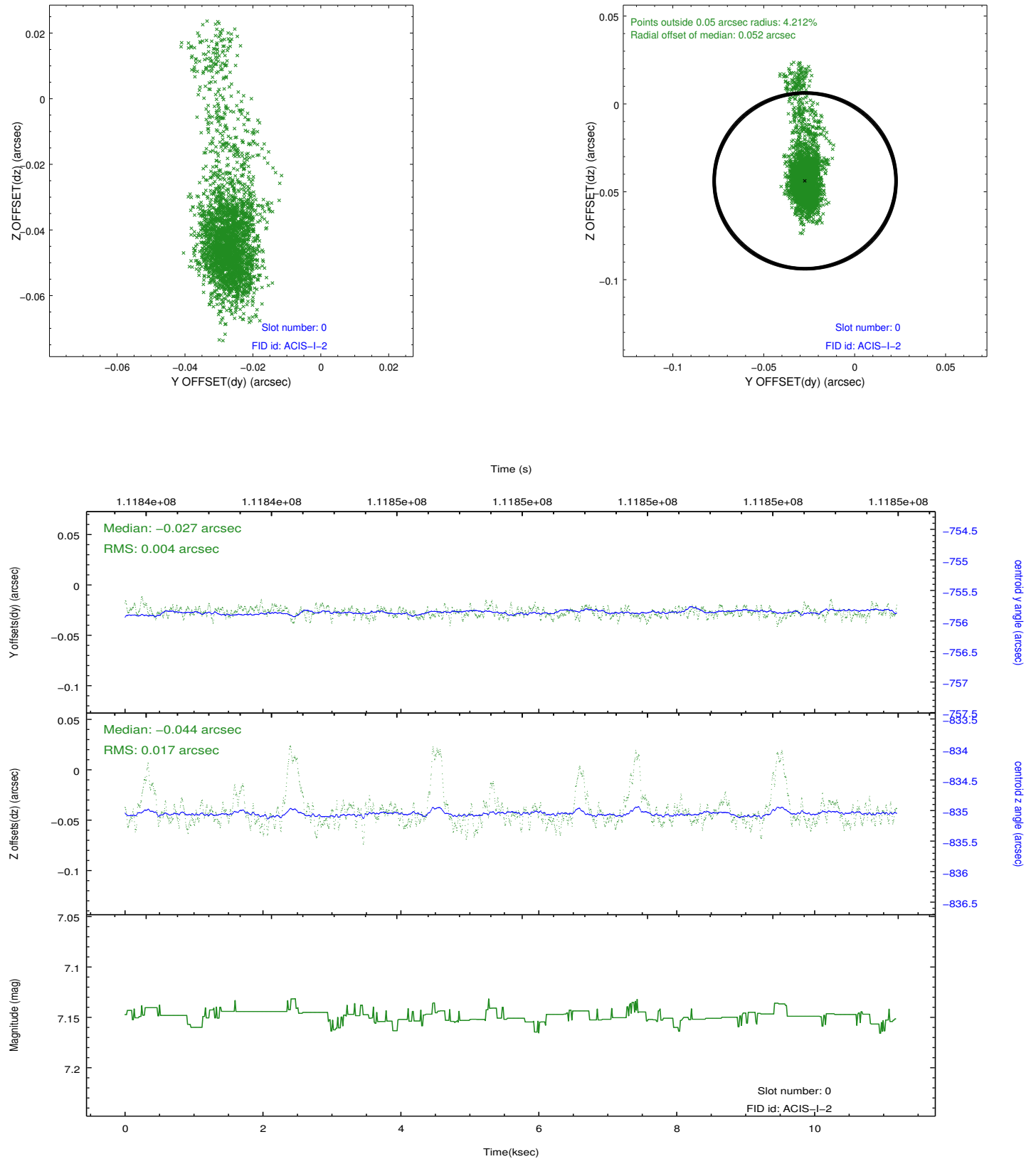


2.4.5 Slot 7

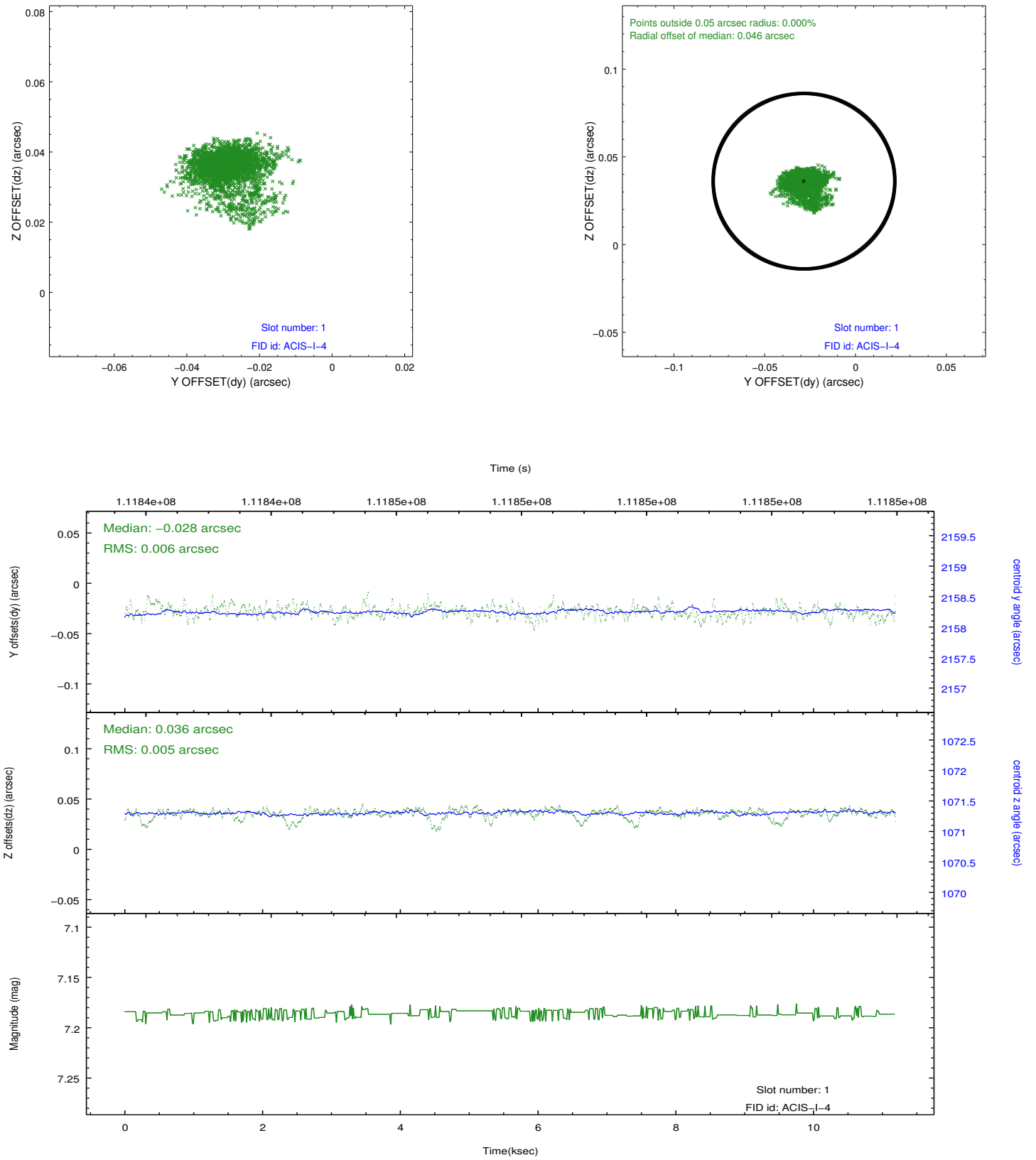


2.5 FID Slots

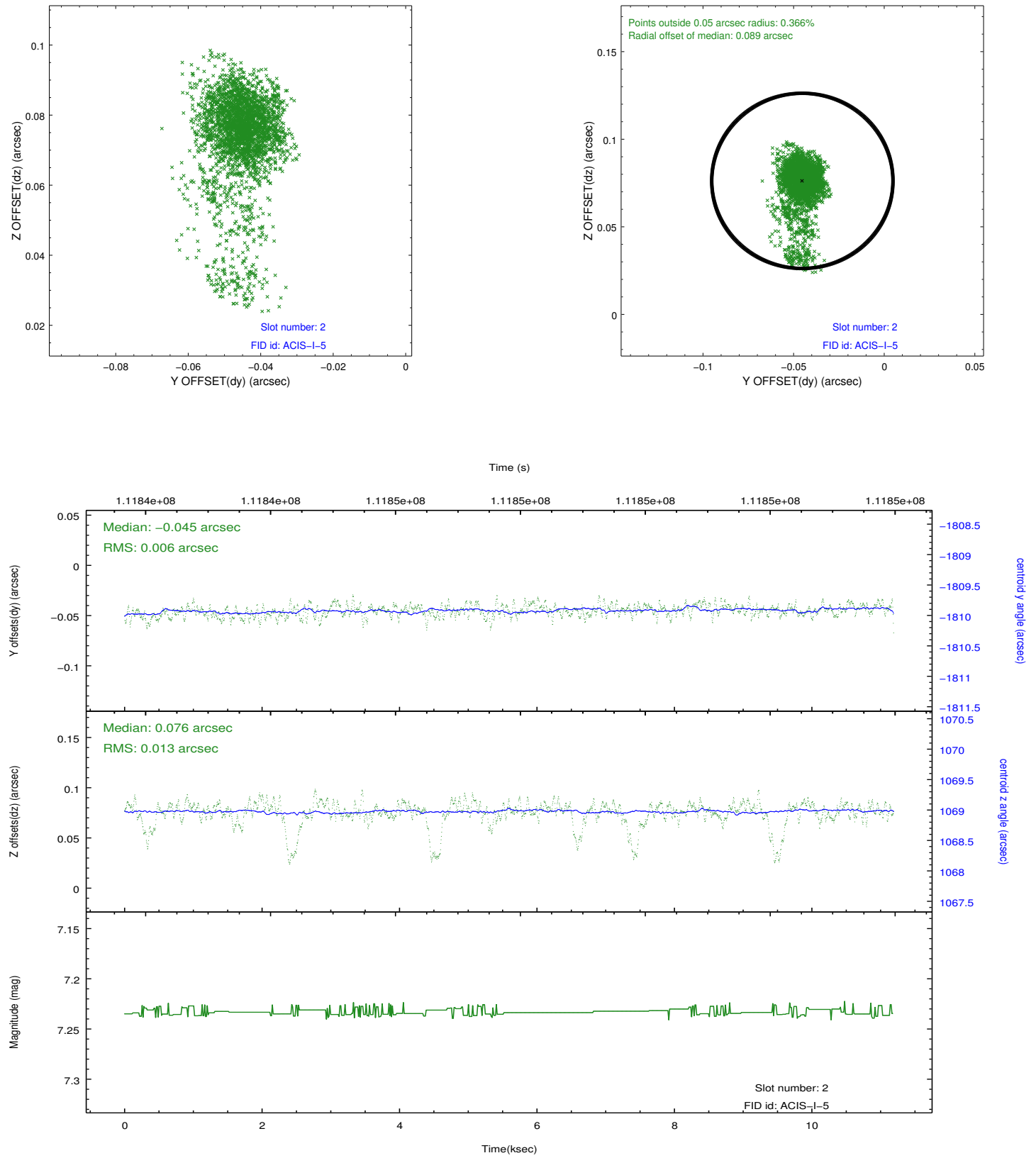
2.5.1 Slot 0



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)	2012.10.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.761

A.2 Comments

Roll constraint met.

=====

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:
(266.48387,-28.92615),(266.47964,-28.92707),(266.48405,-28.94283),(266.48828,-28.94191)