

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2288 - L2 Version 4
Chandra X-Ray Center

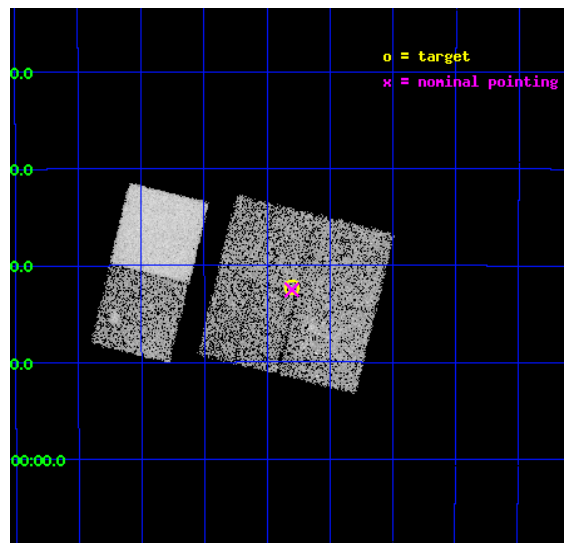
L2 Processing Date : Oct 18 2012

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

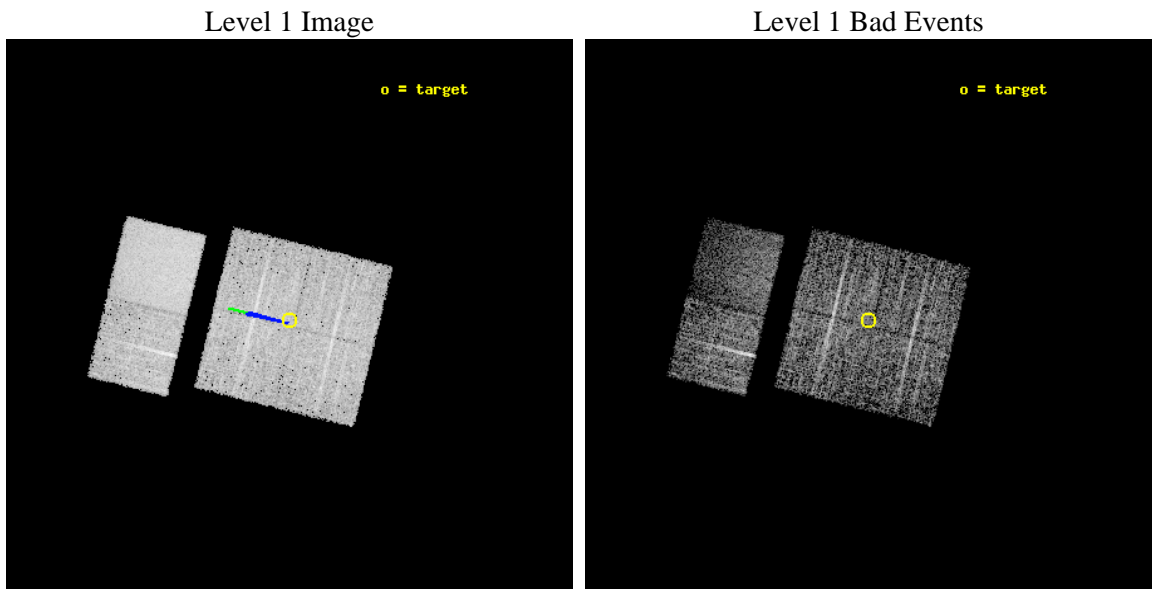
seq_num	900115	Sequence number
obs_id	2288	Observation id
title	CHANDRA SURVEY OF THE GALACTIC RIDGE AROUND THE MILKY WAY CENTER	P
observer	Prof. Q. Daniel Wang	Principal investigator
object	GCS 7	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.8264	Observer's specified target RA [deg]
dec_targ	-28.7042	Observer's specified target Dec [deg]
ra_nom	266.82549959789	Nominal RA [deg]
dec_nom	-28.708832078551	Nominal Dec [deg]
roll_nom	283.80721353929	Nominal Roll [deg]
revision	4	Processing version of data
ontime	11938.857089281	Sum of GTIs [s]
livetime	11787.6800921	Livetime [s]
ontime0	11941.974929541	Sum of GTIs [s]
ontime1	11942.015969545	Sum of GTIs [s]
ontime2	11942.057009548	Sum of GTIs [s]
ontime3	11938.857089281	Sum of GTIs [s]
ontime6	11945.421089798	Sum of GTIs [s]
ontime7	11942.13908954	Sum of GTIs [s]
l2events	63573	Number of level 2 events



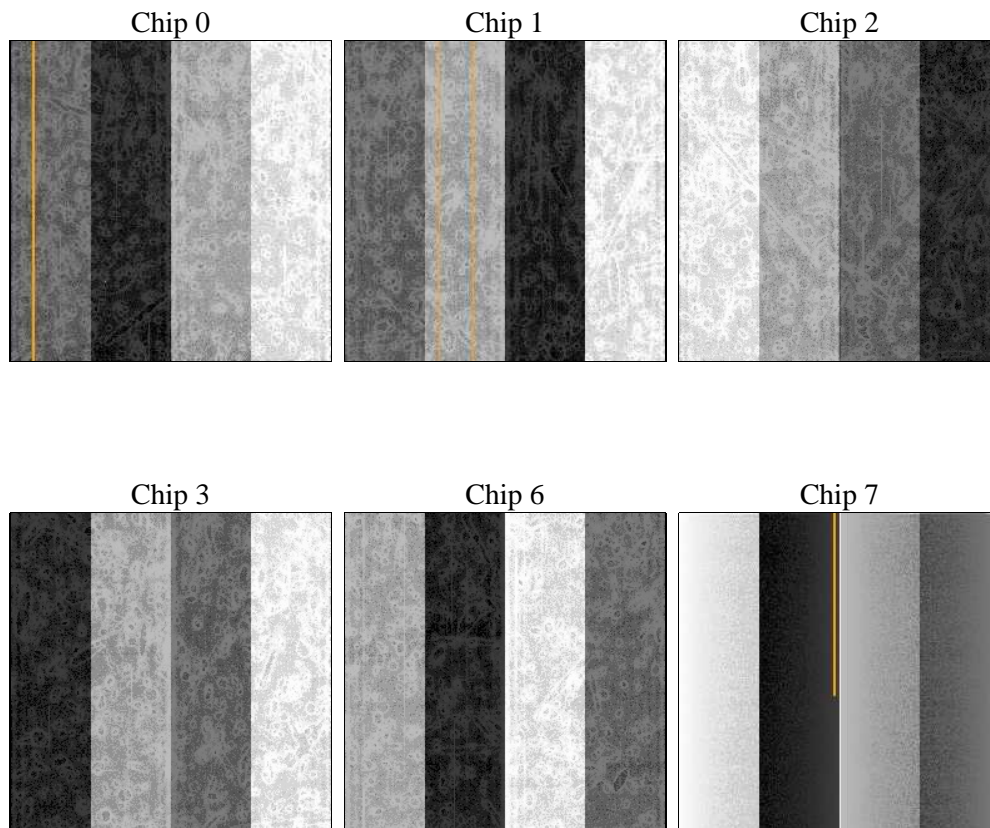
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	12000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	11938.857089281	Sum of GTIs [s]
caldsver	4.5.2	 	ontime0	11941.974929541	Sum of GTIs [s]
date	2012-10-18T15:55:54	Date and time of file creation	ontime1	11942.015969545	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	11942.057009548	Sum of GTIs [s]
			ontime3	11938.857089281	Sum of GTIs [s]
			ontime6	11945.421089798	Sum of GTIs [s]
			ontime7	11942.13908954	Sum of GTIs [s]
			l1events	212518	Number of level 1 events

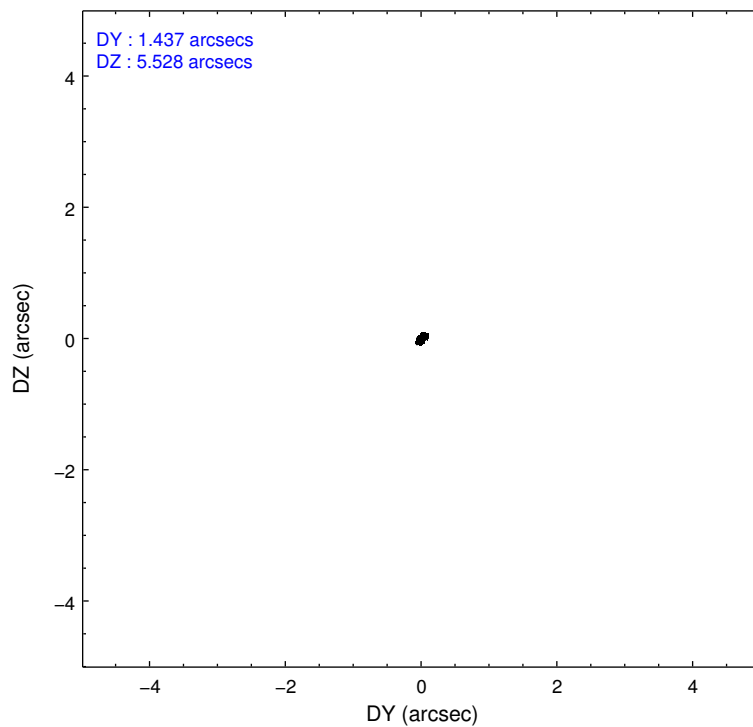
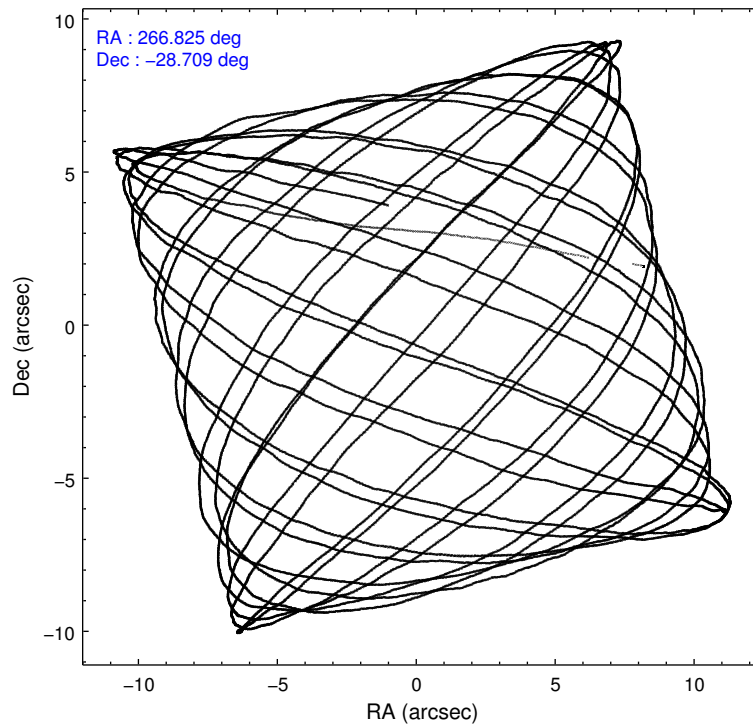
2.1.4 Events

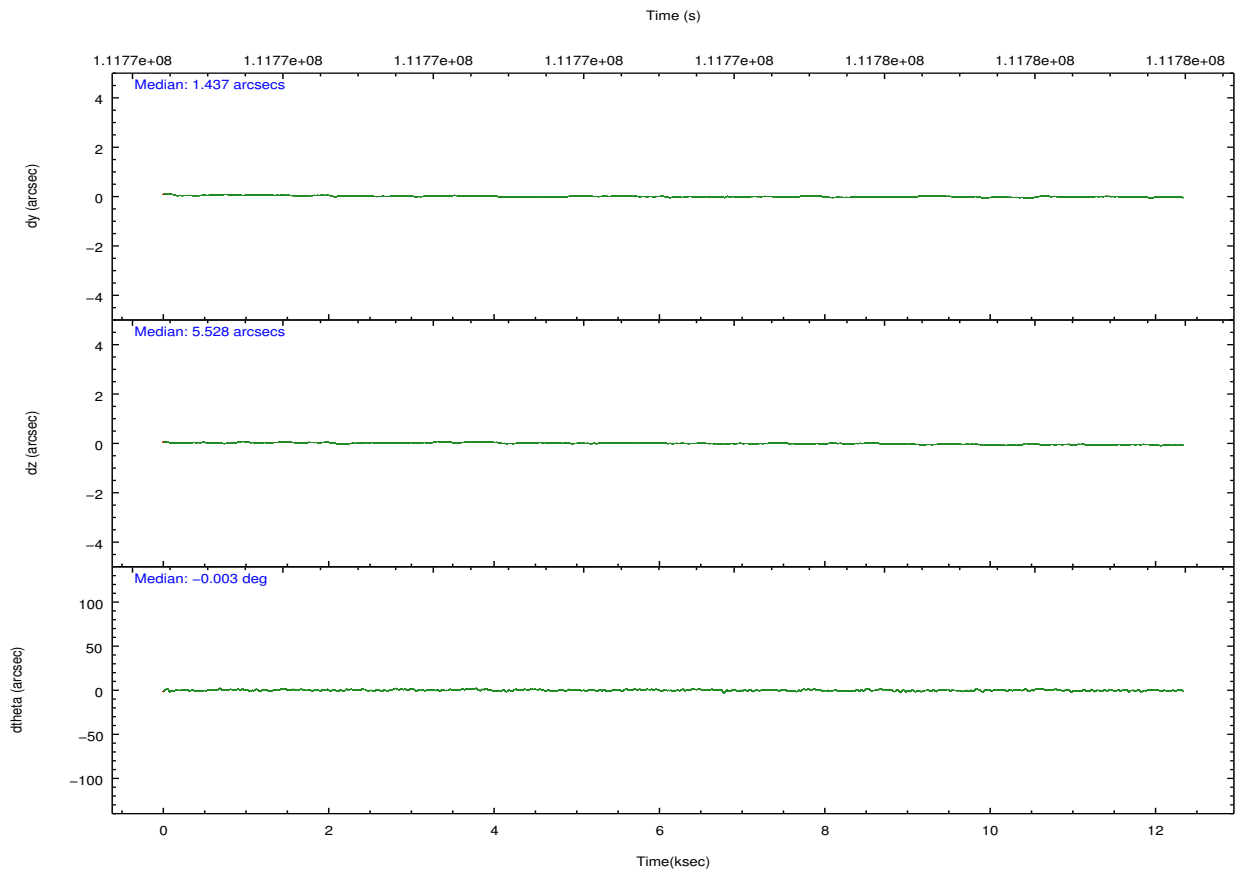
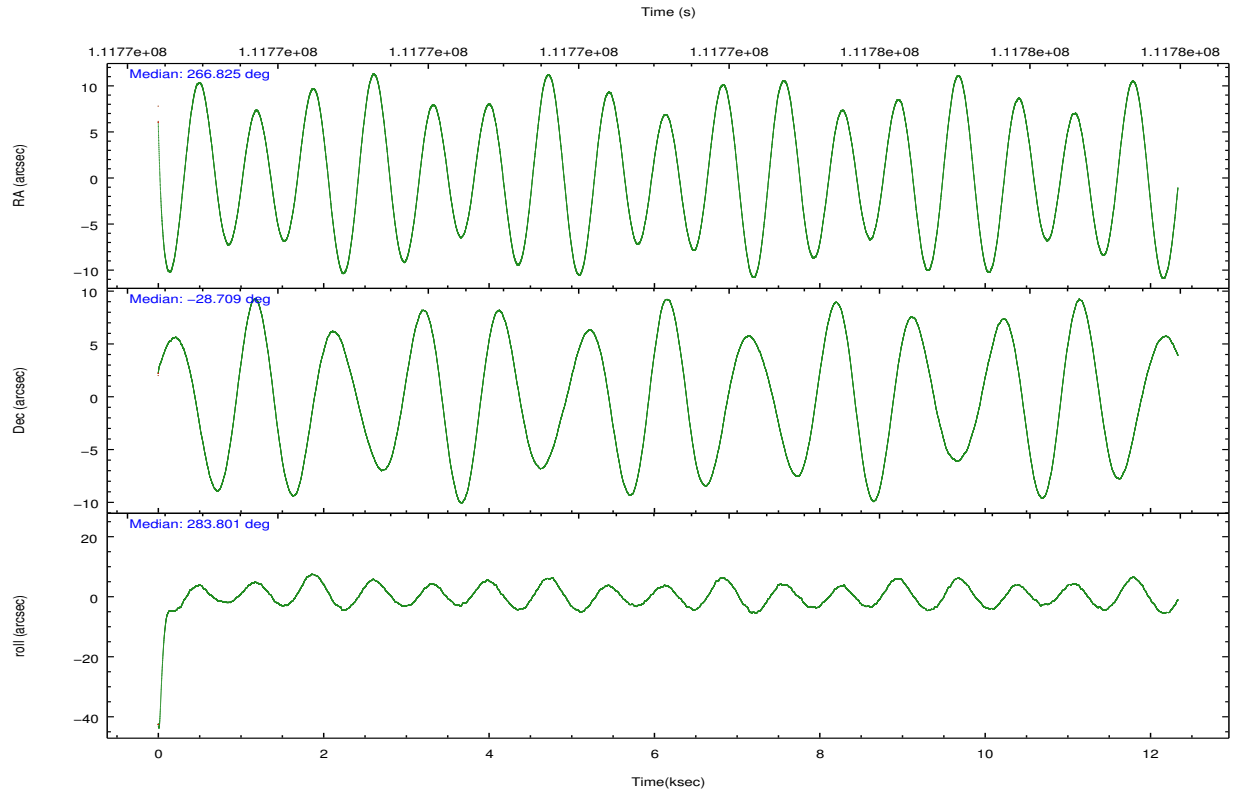
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	31944	32056	32795	32158	34039	49526	grade 0 events	5052	4078	3094	3362	3520	2816
rejected events	23060	24119	26703	25533	27304	18625		15%	12%	9%	10%	10%	5%
rejected %	72%	75%	81%	79%	80%	37%	grade 1 events	44	37	27	36	31	35
								0%	0%	0%	0%	0%	0%
							grade 2 events	1510	1455	1158	1229	1203	6033
								4%	4%	3%	3%	3%	12%
							grade 3 events	630	612	480	479	478	2758
								1%	1%	1%	1%	1%	5%
							grade 4 events	654	677	475	554	501	2693
								2%	2%	1%	1%	1%	5%
							grade 5 events	1288	1290	1132	1321	1478	4501
								4%	4%	3%	4%	4%	9%
							grade 6 events	1040	1119	887	1002	1035	16607
								3%	3%	2%	3%	3%	33%
							grade 7 events	21726	22788	25542	24175	25793	14083
								68%	71%	77%	75%	75%	28%

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	266.803855	266.8254995978905	Subarray requested	NONE	NONE
[deg] Pointing Dec	-28.689090	-28.70883207855075	Alternating exposures requested	N	N
[deg] Pointing Roll	283.588177	283.8072135392932	[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)	111767354.184000	111766311.95022			
Observation start date	2001-07-17T14:28:10	2001-07-17T14:11:51			
[s] Observation end time (MET)	111779354.184000	111779488.83823			
Observation end date	2001-07-17T17:48:10	2001-07-17T17:51:28			
Read mode	TIMED	TIMED			

2.3 Aspect



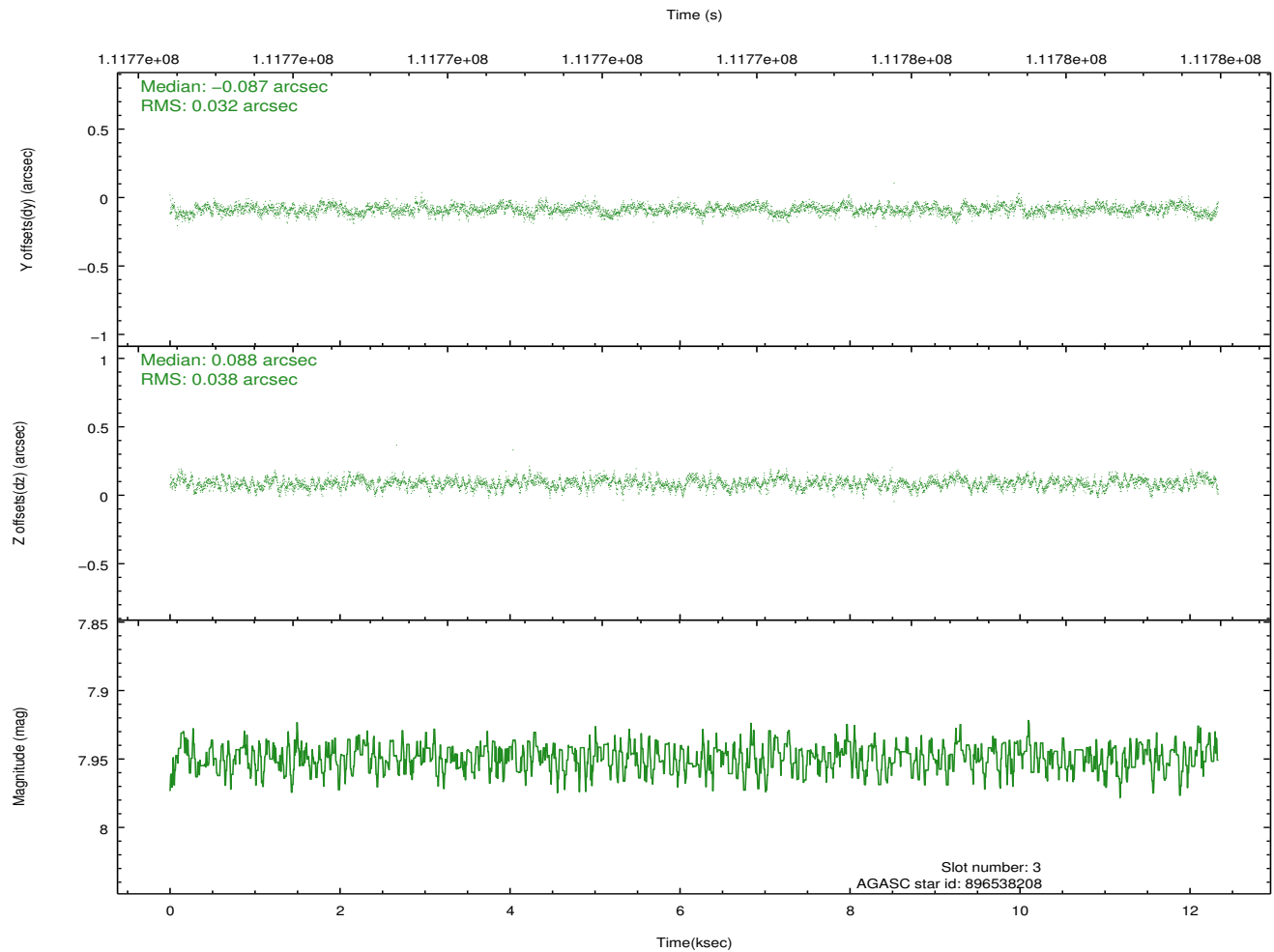
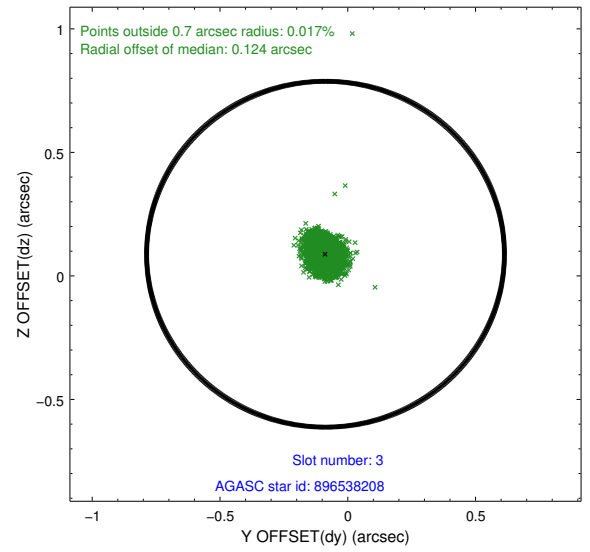
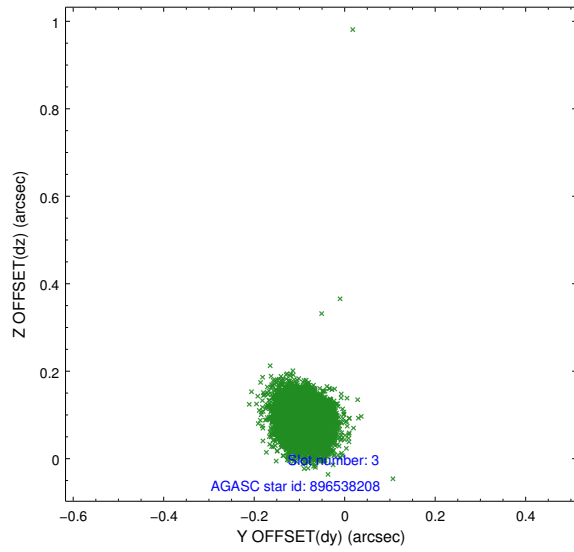


Slot Statistics

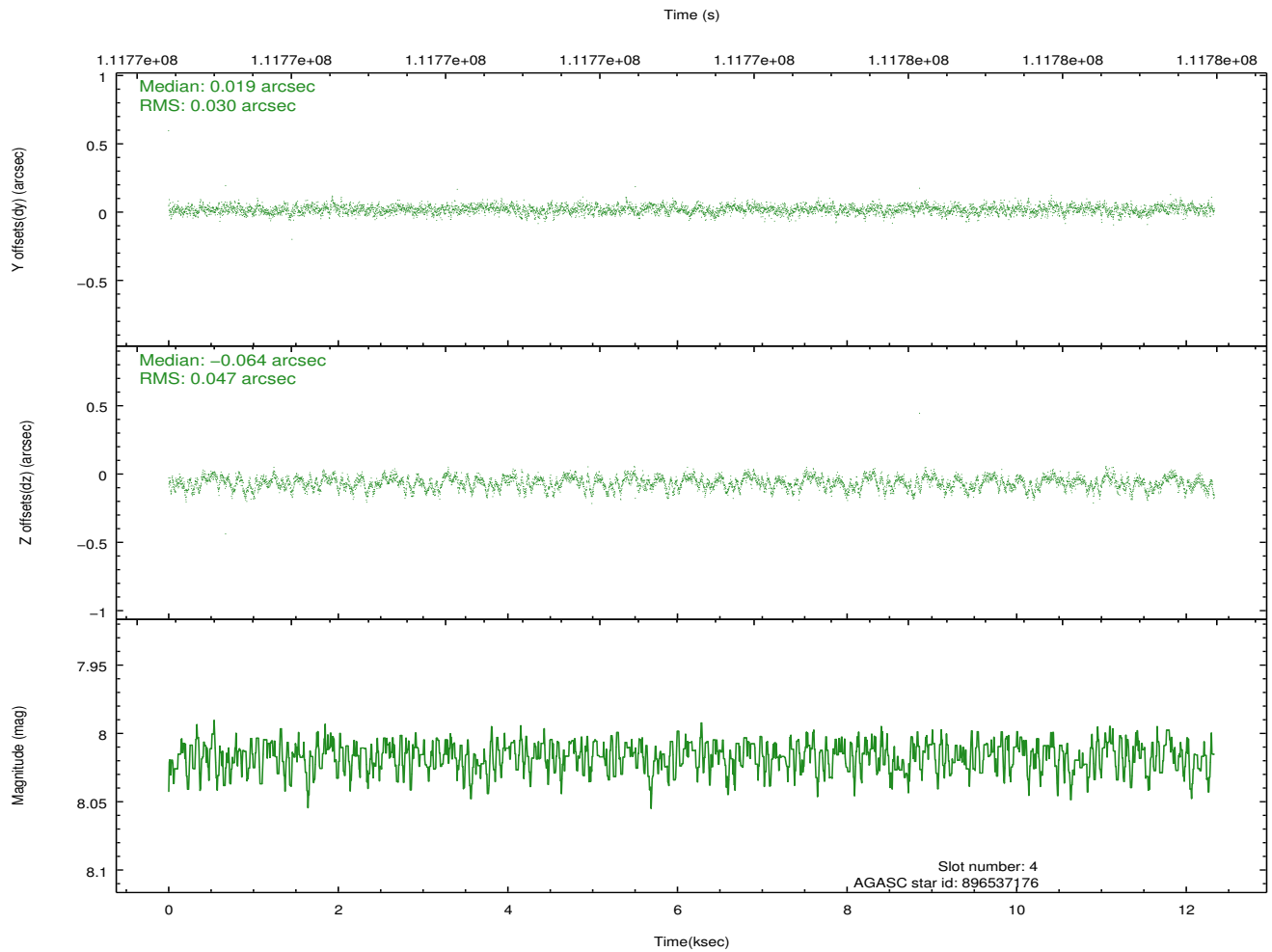
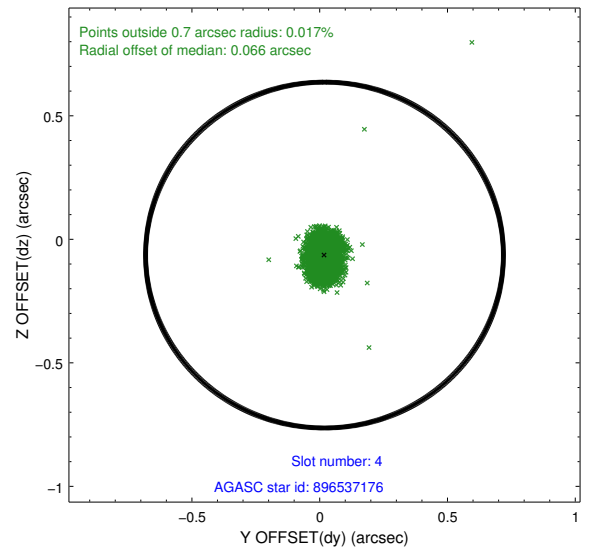
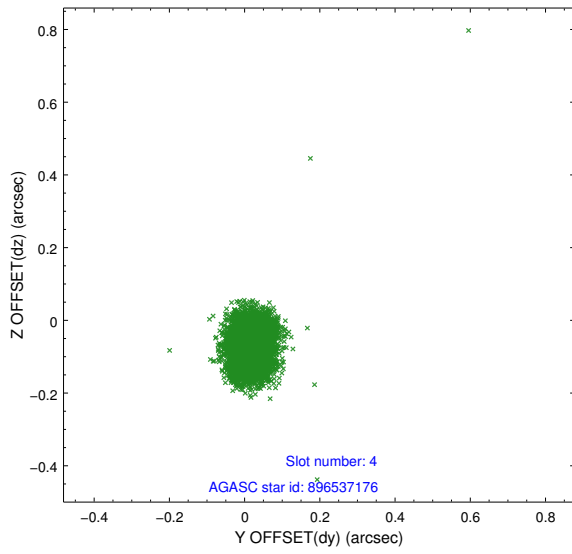
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.15	3009	-0.030	-0.051	0.009	0.016	0.000000	0.000000	-755.80	-835.30
1	FID	ACIS-I-4	7.18	3008	-0.032	0.039	0.007	0.012	0.000000	0.000000	2158.06	1070.79
2	FID	ACIS-I-5	7.23	3008	-0.039	0.080	0.010	0.017	0.000000	0.000000	-1809.13	1069.10
3	GUIDE	896538208	7.95	6016	-0.087	0.088	0.051	0.082	267.176969	-28.671626	216.70	1160.71
4	GUIDE	896537176	8.02	6016	0.019	-0.064	0.057	0.094	266.498272	-28.678259	-263.95	-928.43
5	GUIDE	896536320	8.99	6014	0.032	-0.043	0.077	0.122	266.369048	-29.307026	1843.62	-1849.33
6	GUIDE	896011040	7.69	6017	0.013	0.067	0.044	0.070	267.058469	-28.014759	-2169.19	1357.04
7	GUIDE	896535464	9.34	6010	0.025	-0.045	0.077	0.126	266.962550	-28.408631	-864.07	726.40

2.4 Star Slots

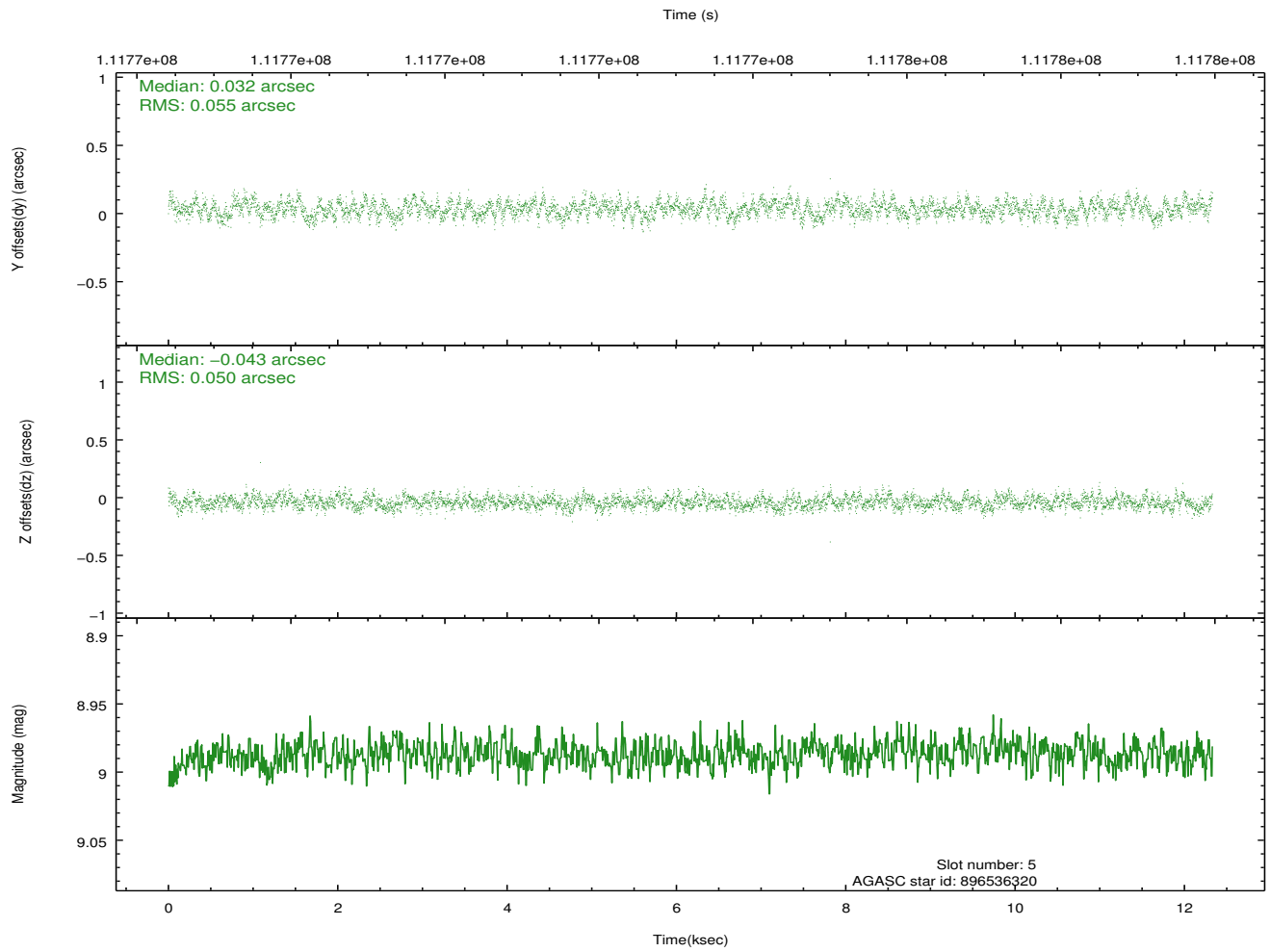
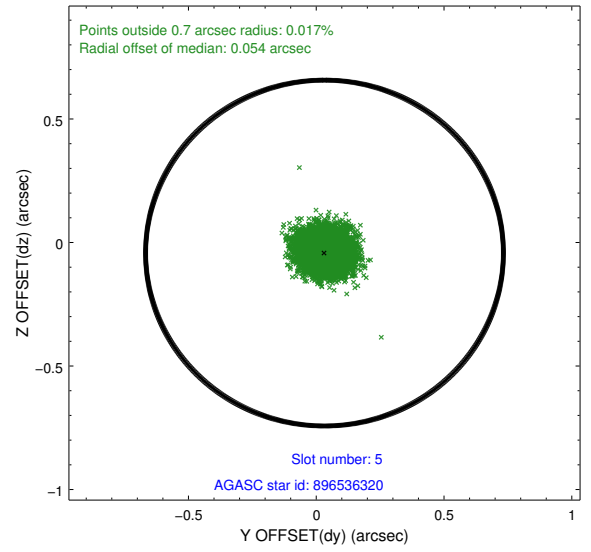
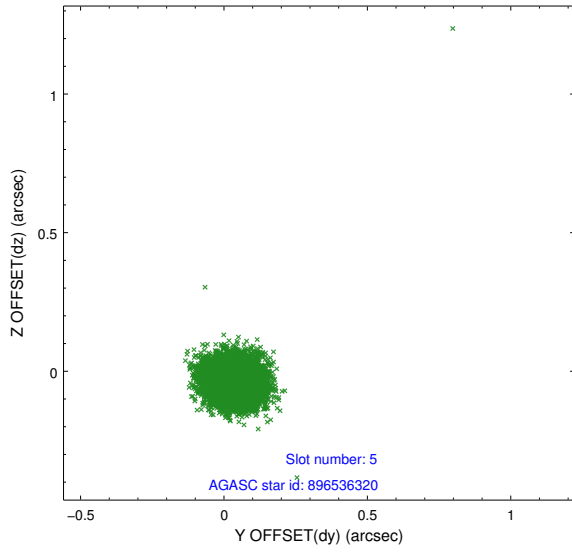
2.4.1 Slot 3



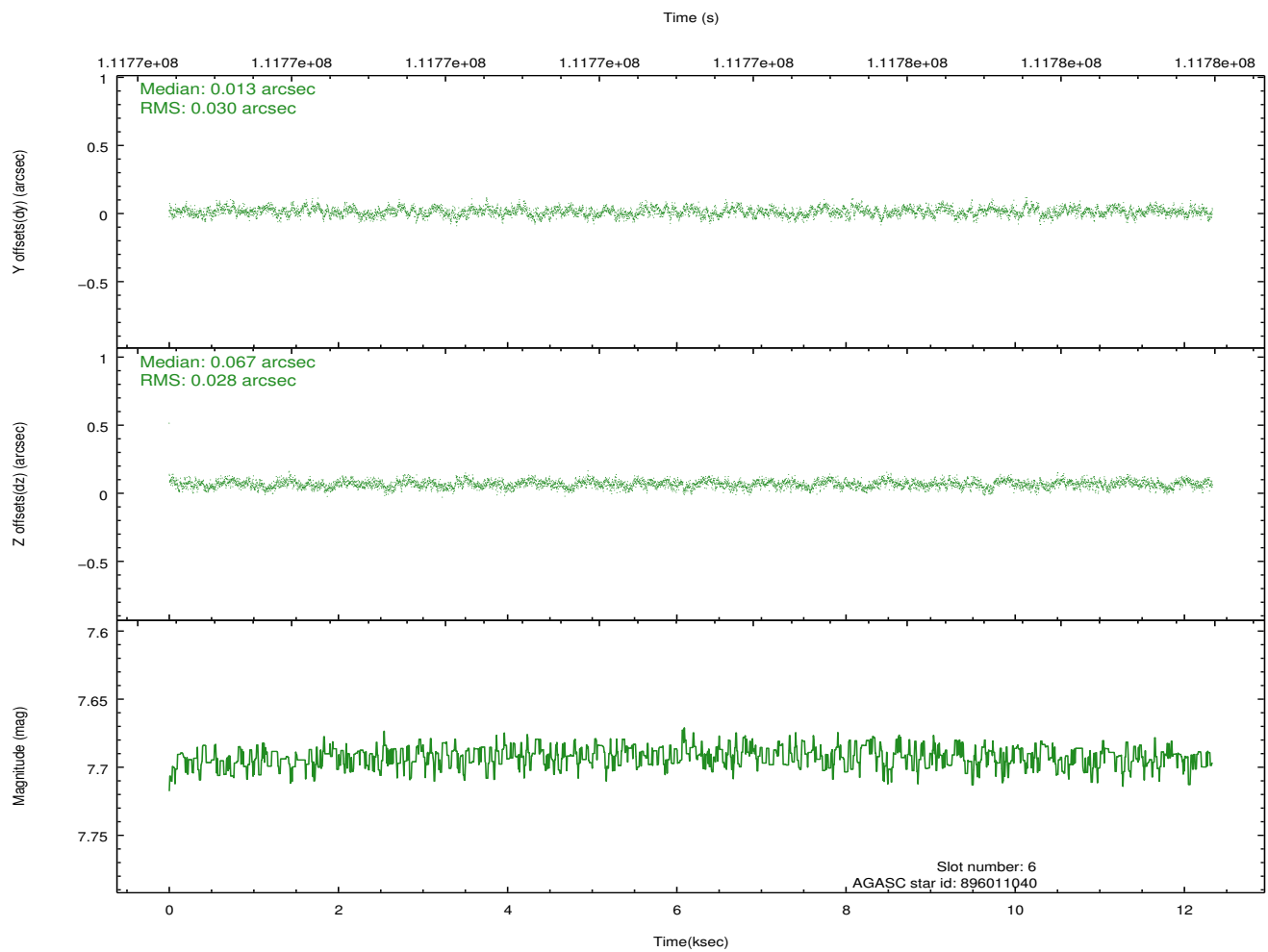
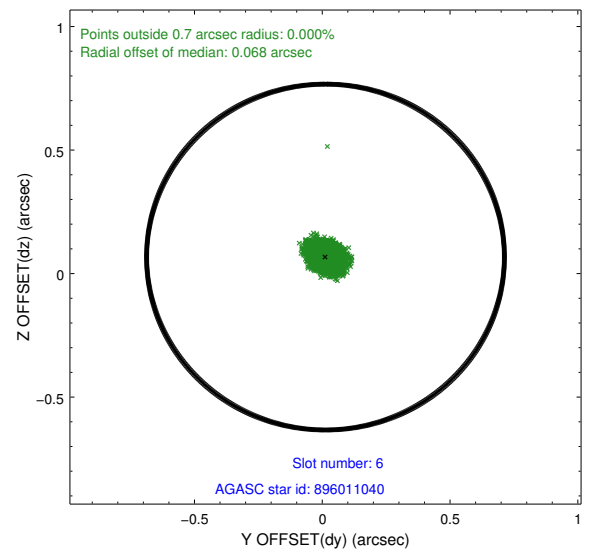
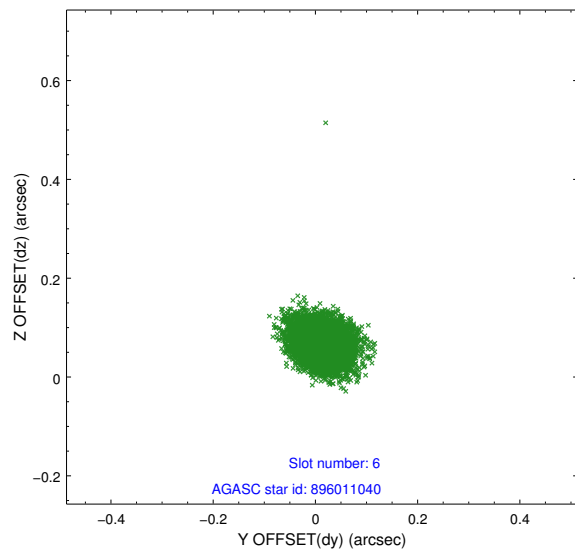
2.4.2 Slot 4



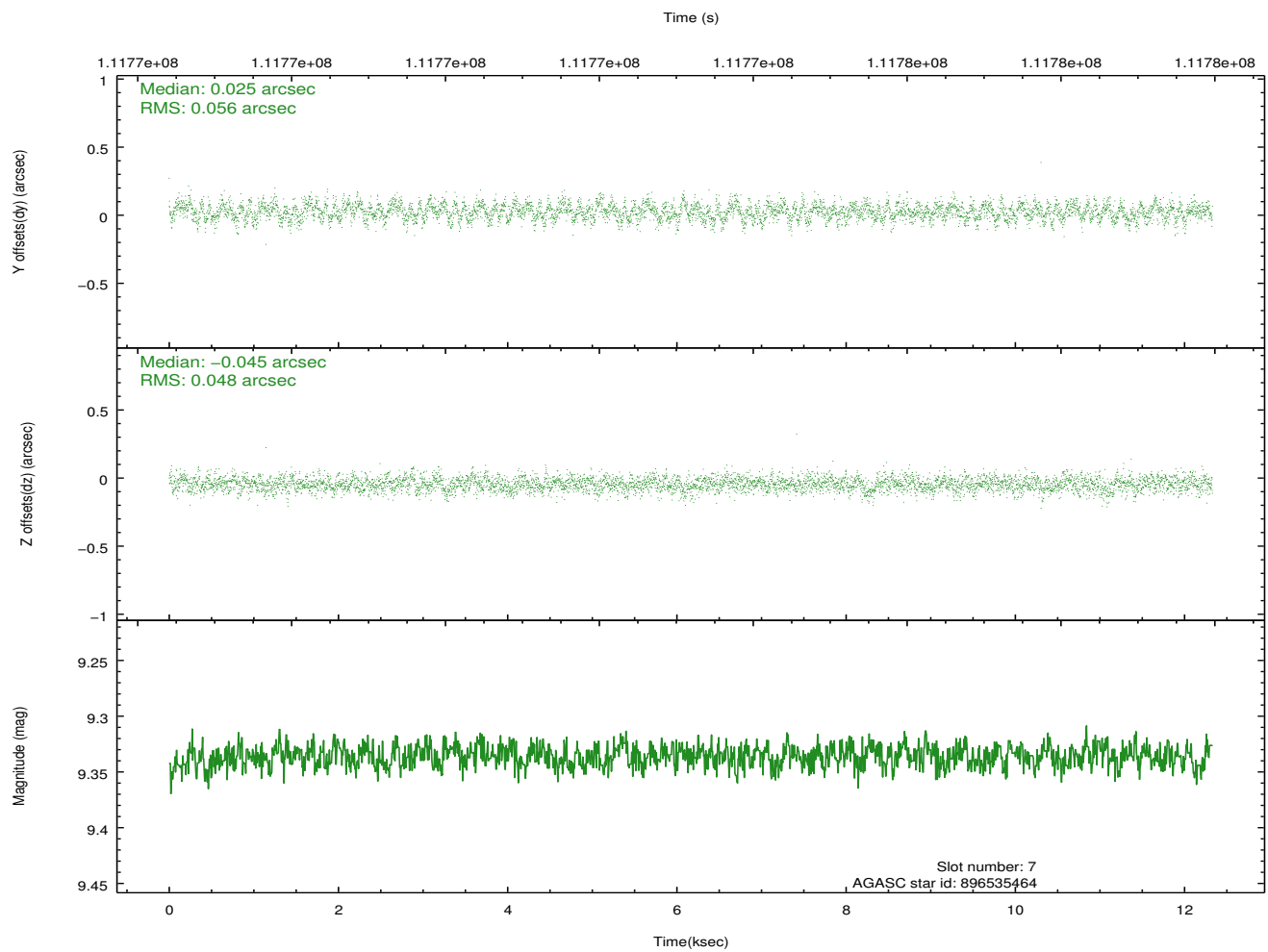
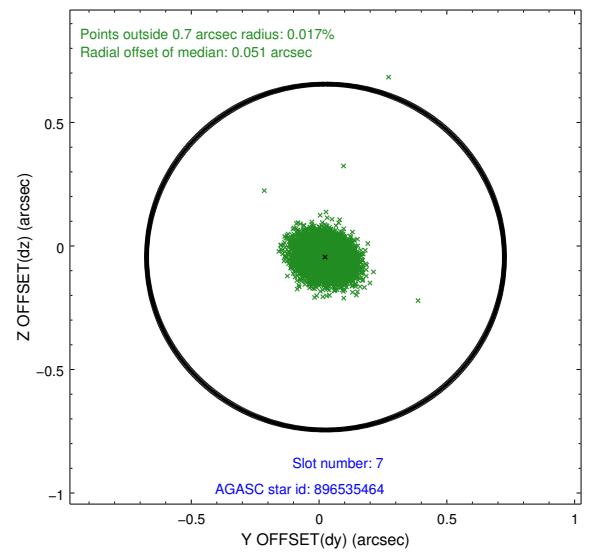
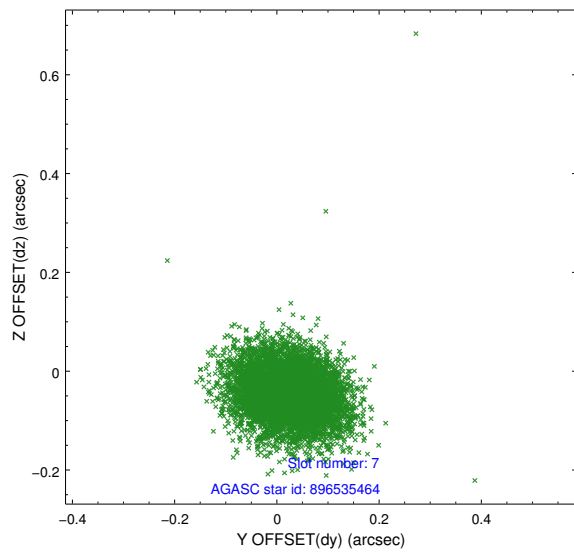
2.4.3 Slot 5



2.4.4 Slot 6

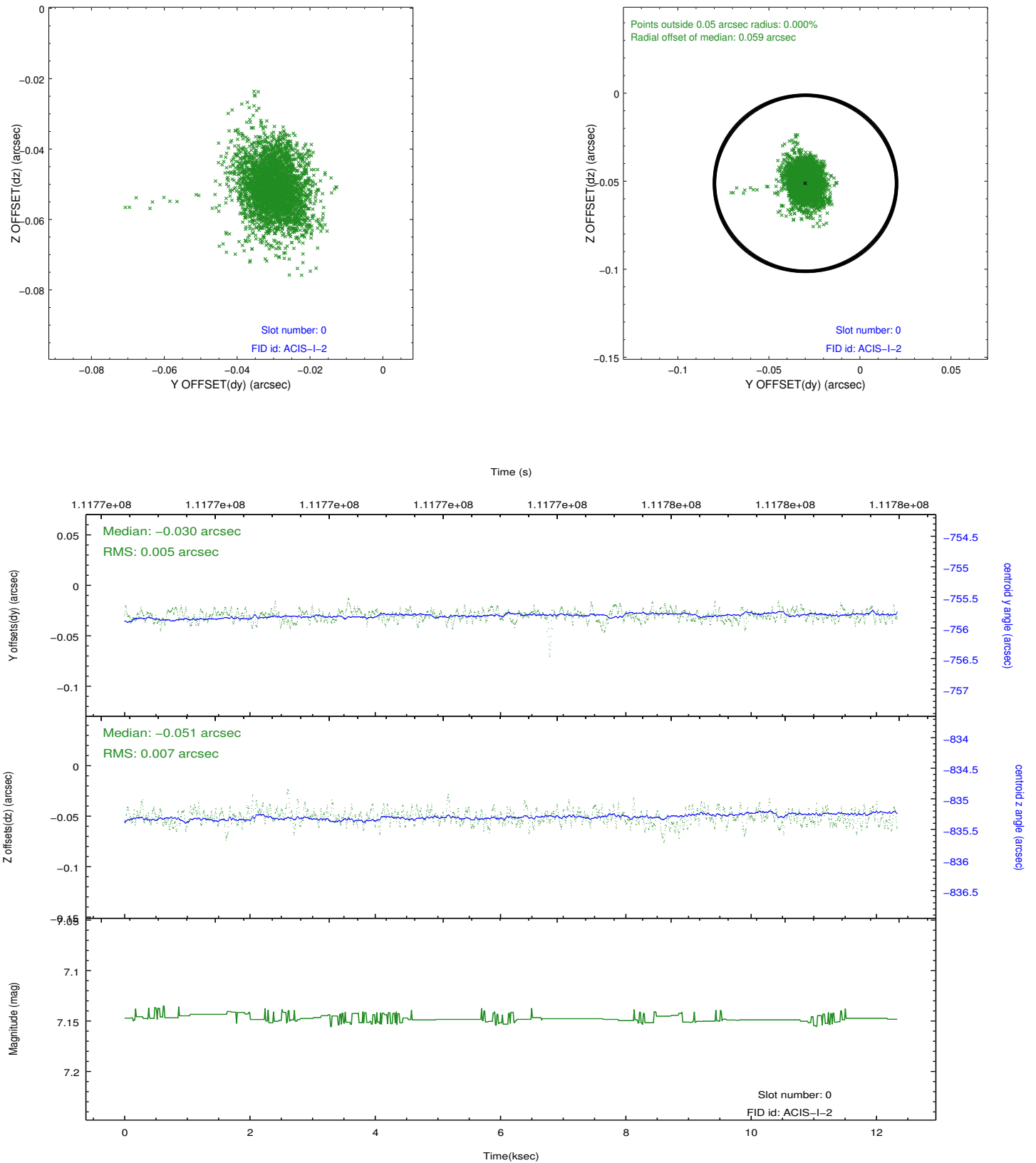


2.4.5 Slot 7

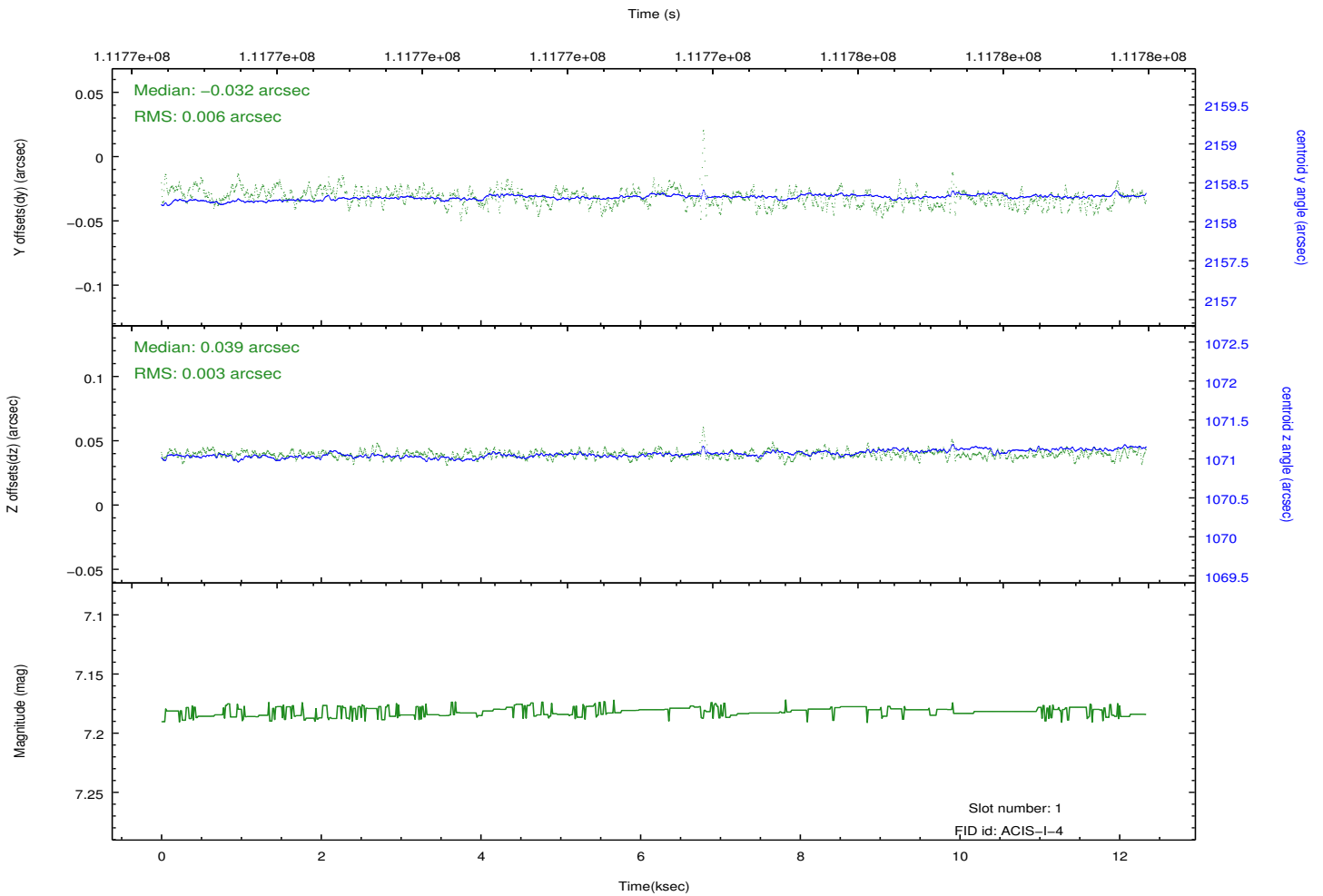
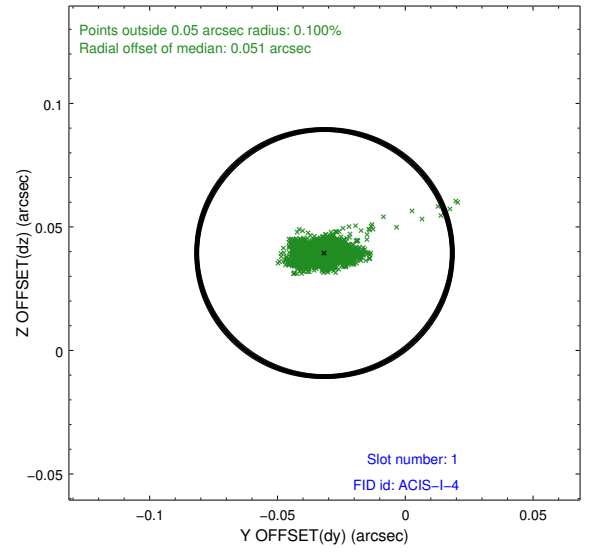
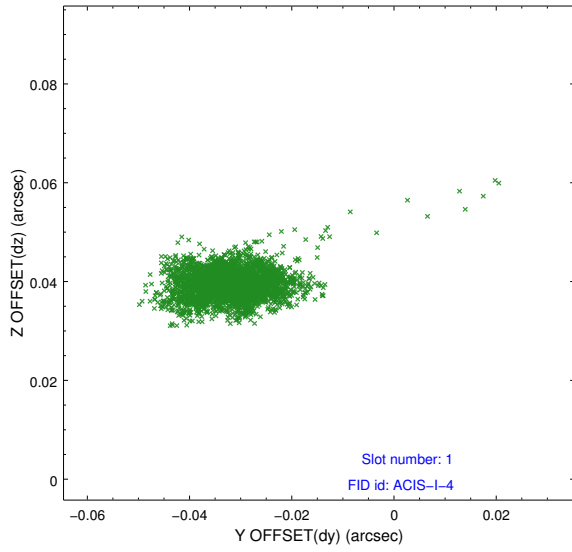


2.5 FID Slots

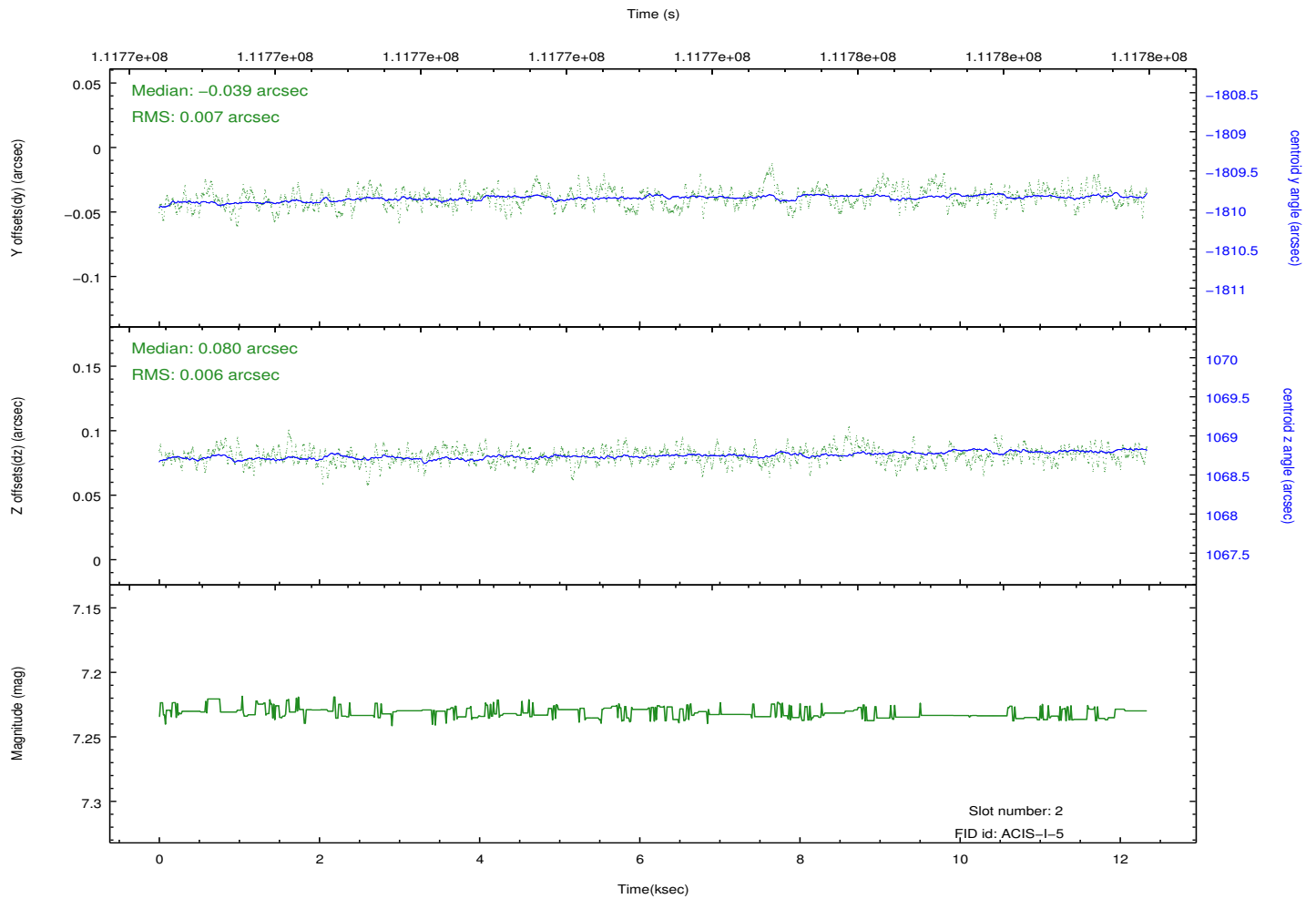
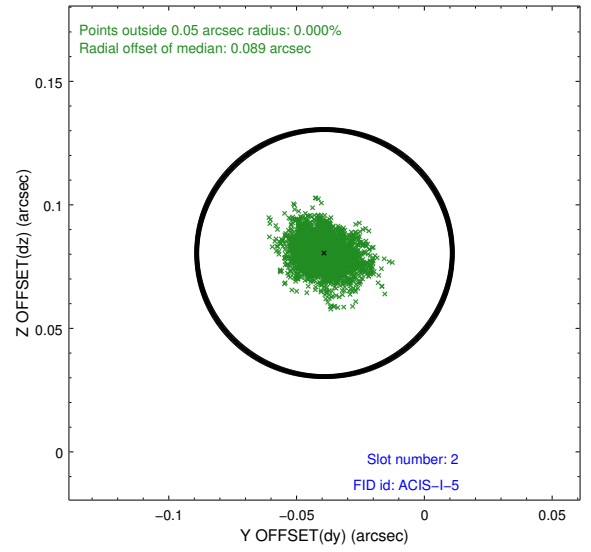
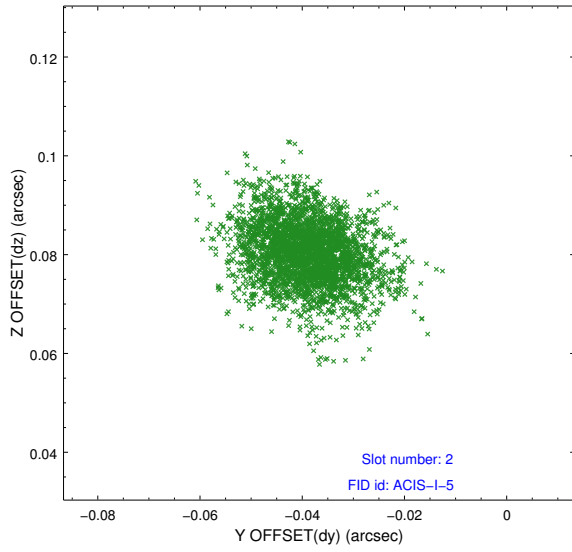
2.5.1 Slot 0



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)	2012.10.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	11.939

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:
(266.71509, -28.59278), (266.71087, -28.59370), (266.71527, -28.60945), (266.71949, -28.60854)