

V&V Reference Report

L2 ASCDS Version : 10.3.3

Observation 7474 - L2 Version 4
Chandra X-Ray Center

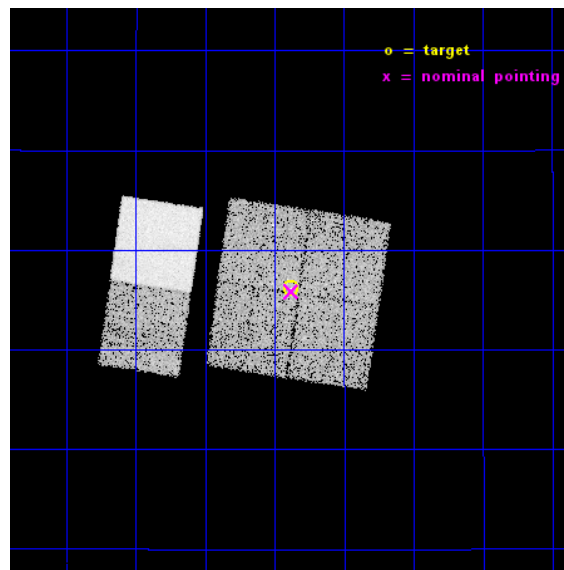
L2 Processing Date : Feb 18 2015

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1 Front

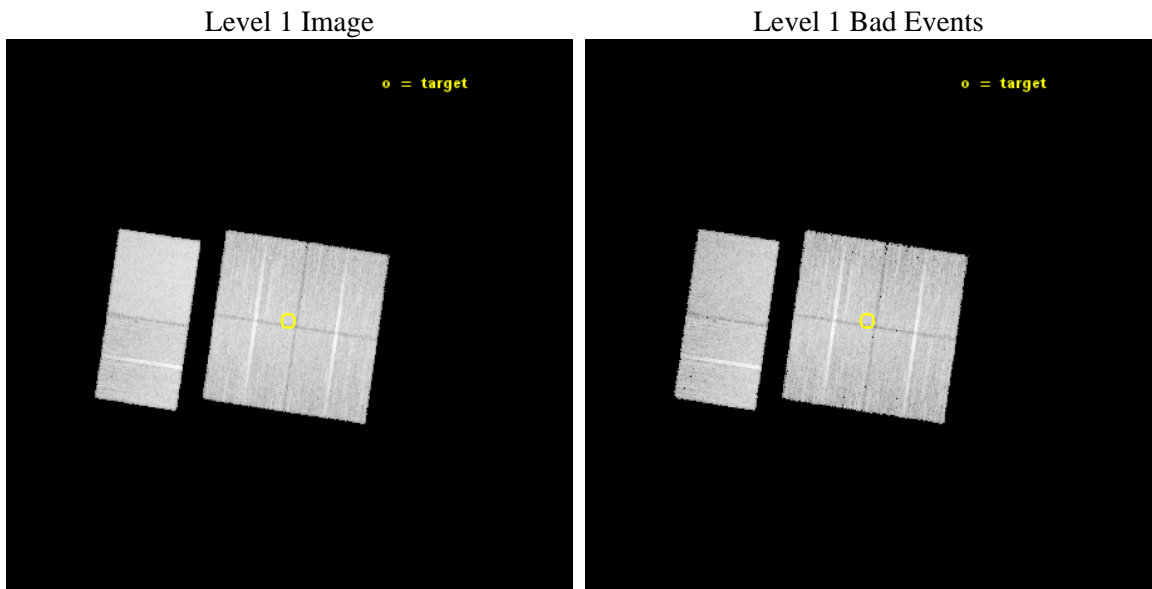
seq_num	400584	Sequence number
obs_id	7474	Observation id
title	A Pilot Study of X-ray Emission from Candidate Massive Star Clusters	
observer	Professor Gordon Garmire	Principal investigator
object	BDSB2003+81	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	93.970833	Observer's specified target RA [deg]
dec_targ	14.268889	Observer's specified target Dec [deg]
ra_nom	93.969711422507	Nominal RA [deg]
dec_nom	14.264296155997	Nominal Dec [deg]
roll_nom	278.45170409813	Nominal Roll [deg]
revision	4	Processing version of data
ontime	10156.799962223	Sum of GTIs [s]
livetime	10028.18844541	Livetime [s]
ontime0	10156.799962223	Sum of GTIs [s]
ontime1	10153.558961987	Sum of GTIs [s]
ontime2	10156.799962223	Sum of GTIs [s]
ontime3	10156.799962223	Sum of GTIs [s]
ontime6	10156.799962223	Sum of GTIs [s]
ontime7	10156.799962223	Sum of GTIs [s]
l2events	99718	Number of level 2 events



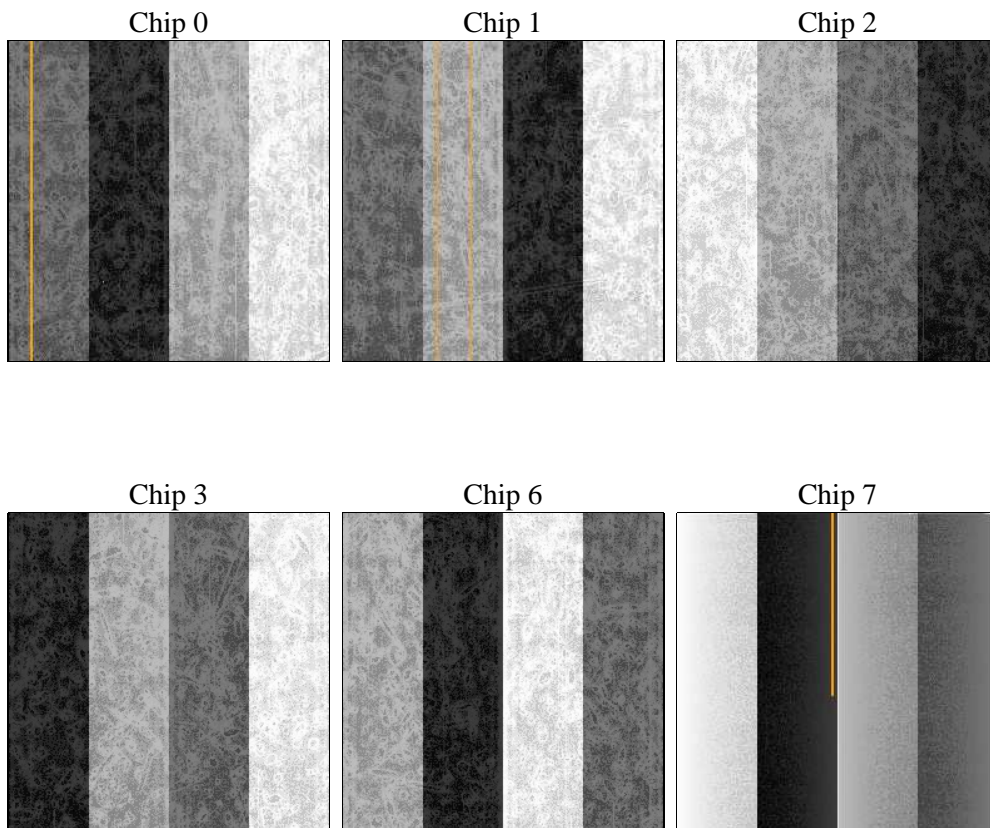
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	10156.799962223	Sum of GTIs [s]
caldsver	4.6.6	 	ontime0	10156.799962223	Sum of GTIs [s]
date	2015-02-18T15:48:45	Date and time of file creation	ontime1	10153.558961987	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	10156.799962223	Sum of GTIs [s]
			ontime3	10156.799962223	Sum of GTIs [s]
			ontime6	10156.799962223	Sum of GTIs [s]
			ontime7	10156.799962223	Sum of GTIs [s]
			l1events	583286	Number of level 1 events

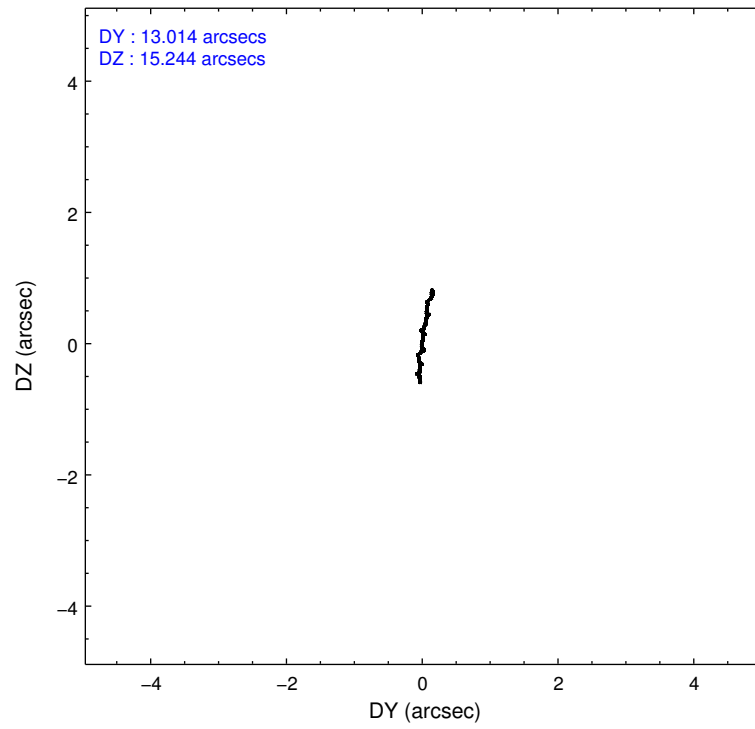
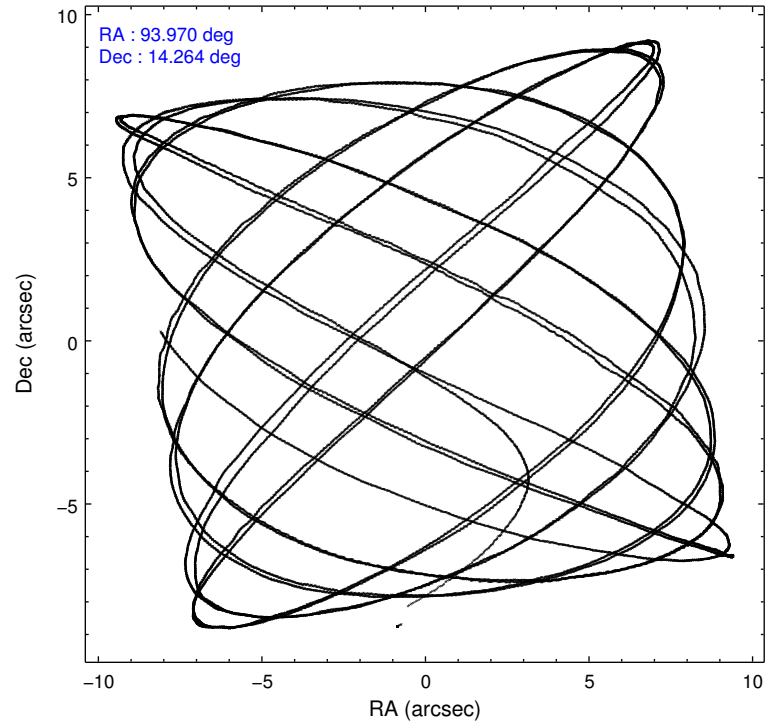
2.1.4 Events

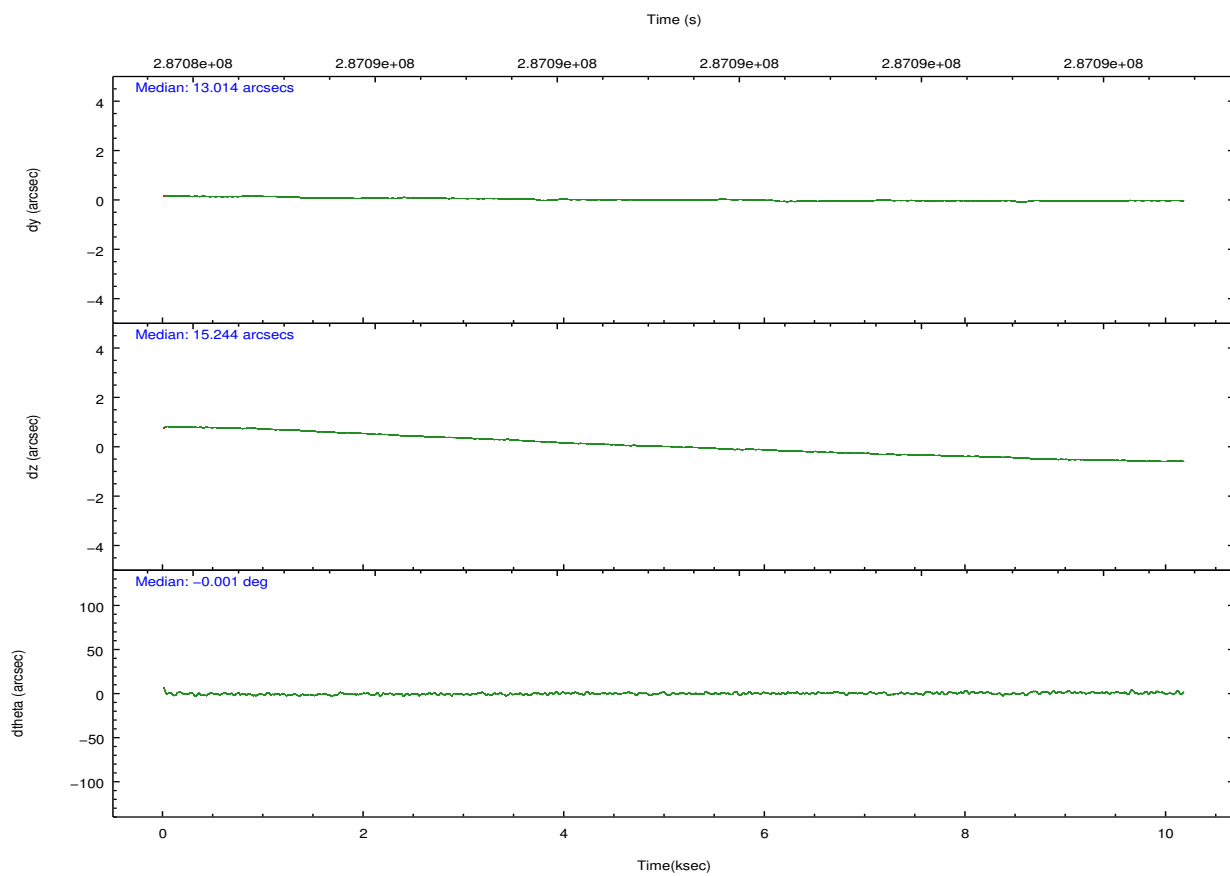
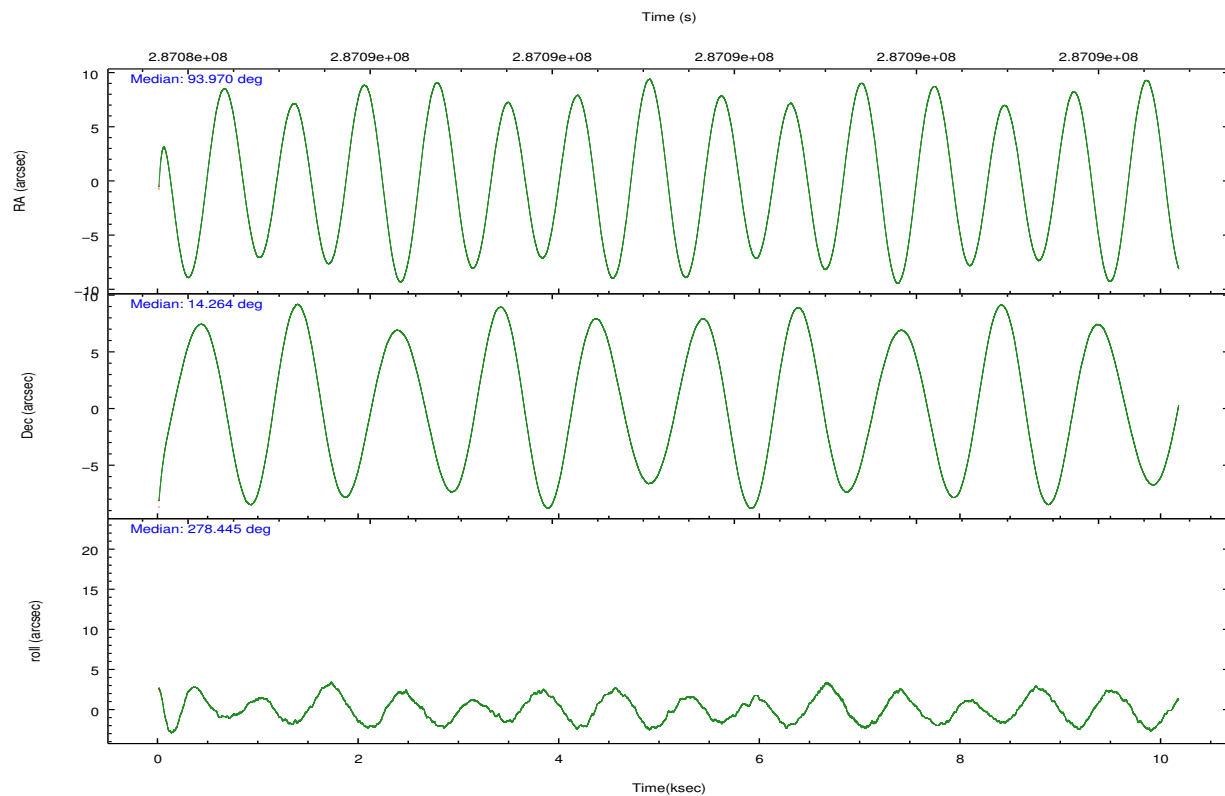
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	86026	87447	92324	91777	96860	128852	grade 0 events	4747	4497	4808	4808	4209	4593
rejected events	74776	75706	81571	80800	85856	75868		5%	5%	5%	5%	4%	3%
rejected %	86%	86%	88%	88%	88%	58%	grade 1 events	61	38	64	74	53	134
								0%	0%	0%	0%	0%	0%
							grade 2 events	2504	2780	2296	2216	2553	10747
								2%	3%	2%	2%	2%	8%
							grade 3 events	1072	1129	976	1049	1142	4602
								1%	1%	1%	1%	1%	3%
							grade 4 events	991	1103	1000	1029	959	4613
								1%	1%	1%	1%	0%	3%
							grade 5 events	3786	4049	3716	4320	4558	12148
								4%	4%	4%	4%	4%	9%
							grade 6 events	2078	2385	1833	2007	2260	29150
								2%	2%	1%	2%	2%	22%
							grade 7 events	70787	71466	77631	76274	81126	62865
								82%	81%	84%	83%	83%	48%

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	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	93.951976	93.96971142250713	CCD I2 on	Y	Y
[deg] Pointing Dec	14.285767	14.26429615599734	CCD I3 on	Y	Y
[deg] Pointing Roll	278.247385	278.451704098131	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	287084372.184000	287083244.17639	CCD S5 on	N	N
Observation start date	2007-02-05T17:38:27	2007-02-05T17:20:44	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	287094372.184000	287094968.12695	On-chip summing requested	N	N
Observation end date	2007-02-05T20:25:07	2007-02-05T20:36:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



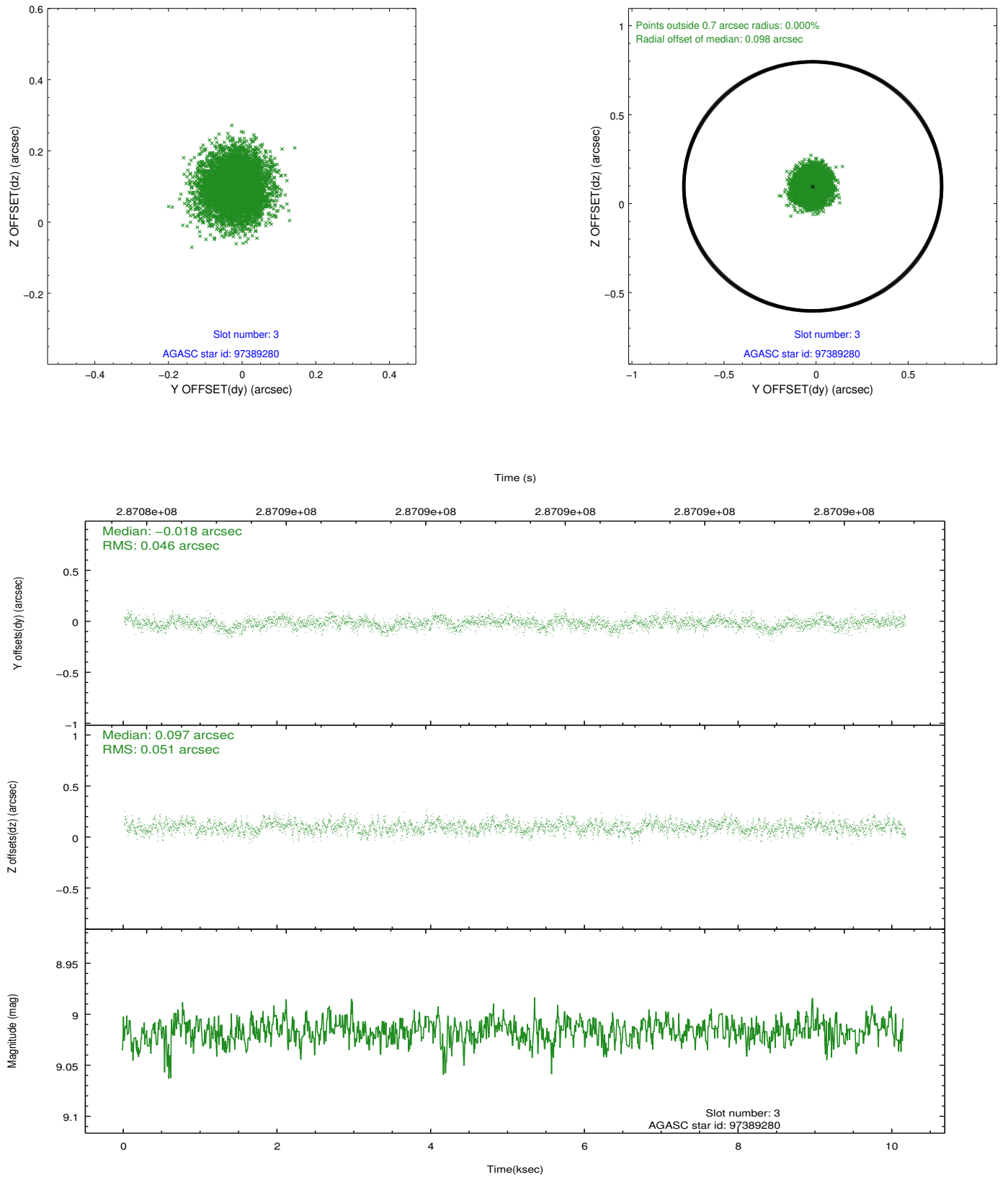


Slot Statistics

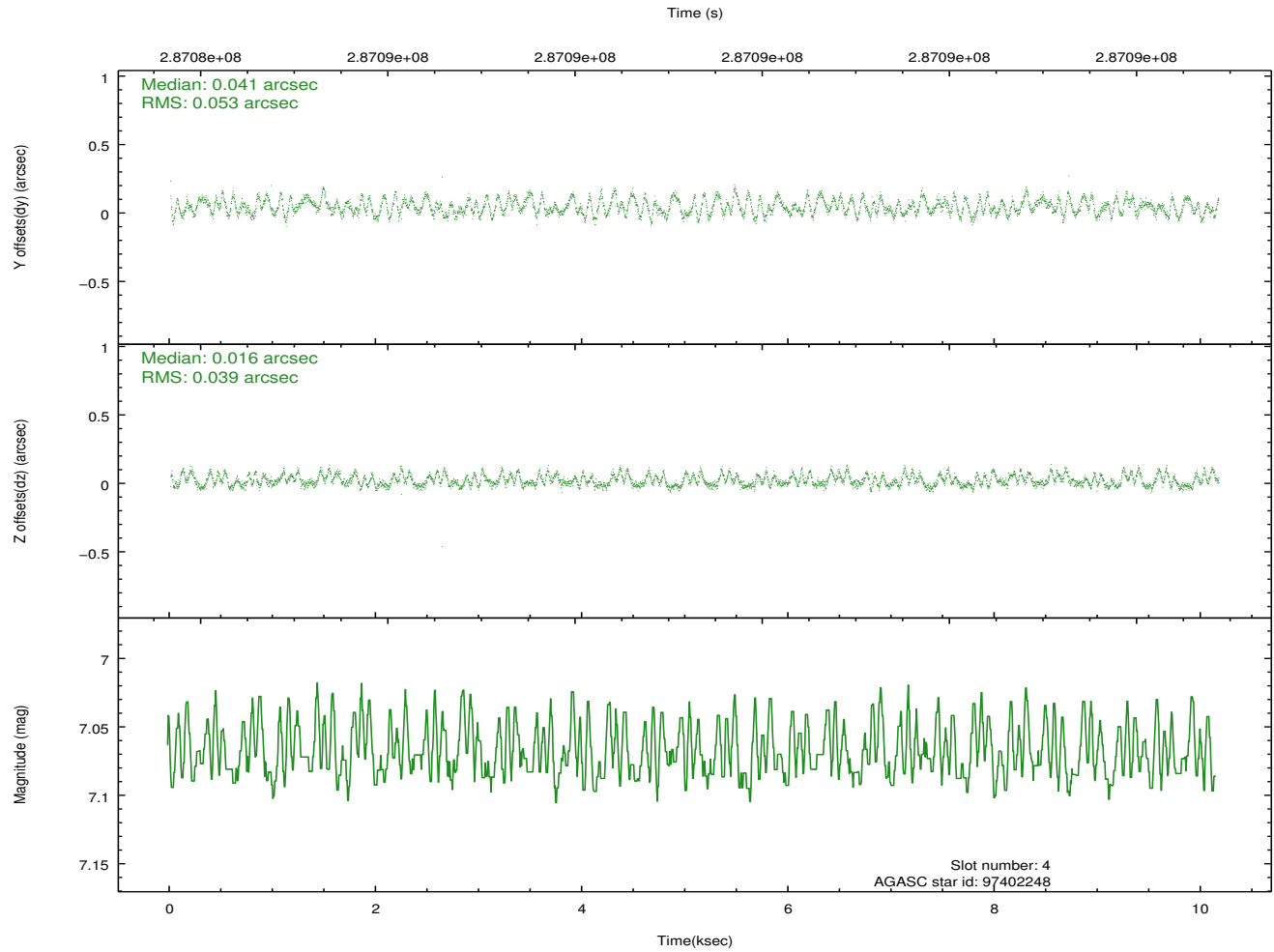
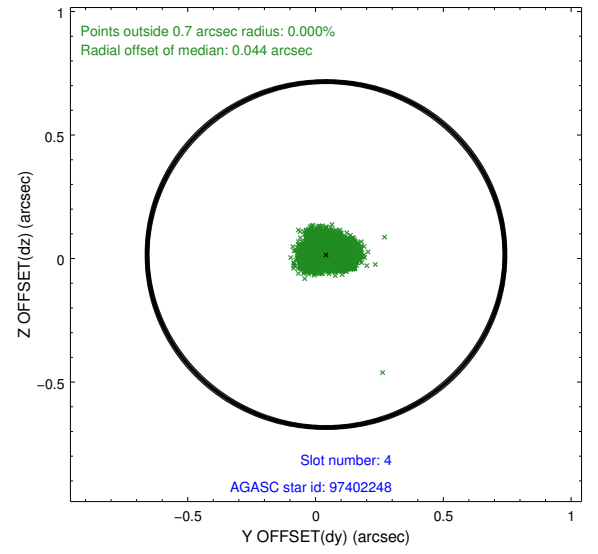
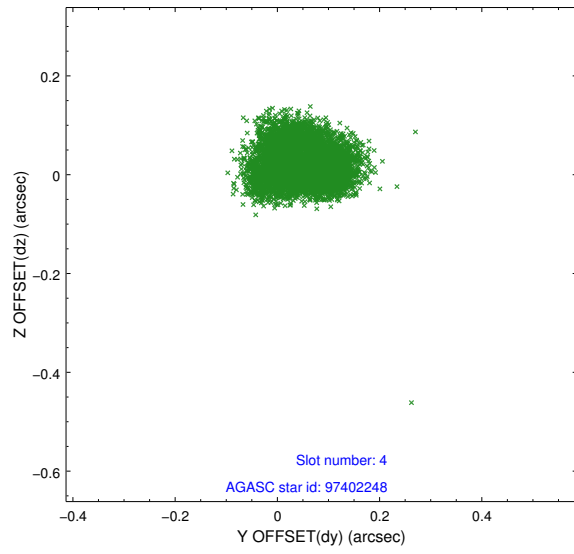
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.23	2480	-0.063	0.037	0.031	0.052	0.000000	0.000000	926.40	-838.88
1	FID		ACIS-I-2	7.15	2480	-0.153	-0.083	0.014	0.021	0.000000	0.000000	-767.49	-845.66
2	FID		ACIS-I-4	7.17	2480	0.118	0.114	0.020	0.035	0.000000	0.000000	2146.27	1060.72
3	GUIDE	used	97389280	9.02	4957	-0.018	0.097	0.073	0.118	94.380799	14.542482	-701.13	1611.56
4	GUIDE	used	97402248	7.07	4960	0.041	0.016	0.073	0.106	94.388806	14.058676	1026.50	1393.35
5	GUIDE	used	97262760	9.08	4958	0.001	-0.034	0.095	0.158	93.233330	14.340625	-558.16	-2451.29
6	GUIDE	used	97266216	8.06	4960	-0.001	-0.068	0.068	0.108	93.254717	14.313992	-452.61	-2392.42
7	GUIDE	used	97398456	7.51	4959	-0.030	-0.004	0.055	0.092	94.286158	13.714779	2201.17	861.96

2.4 Star Slots

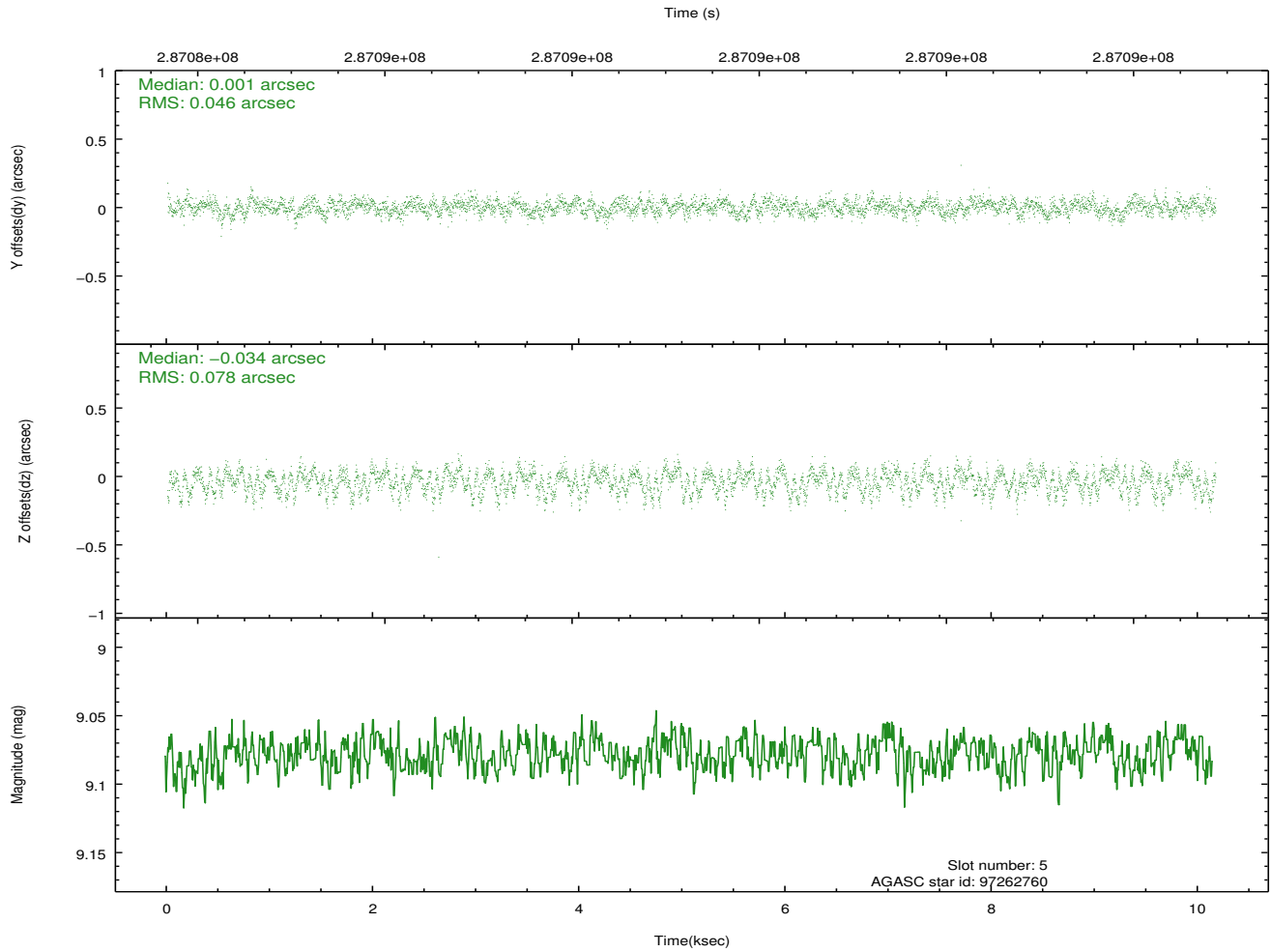
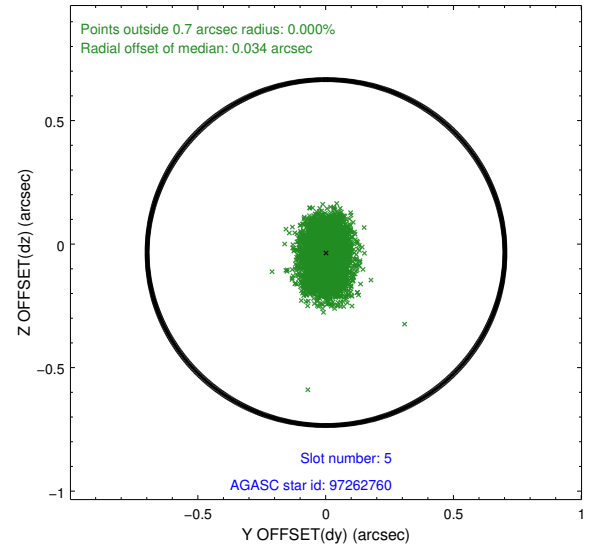
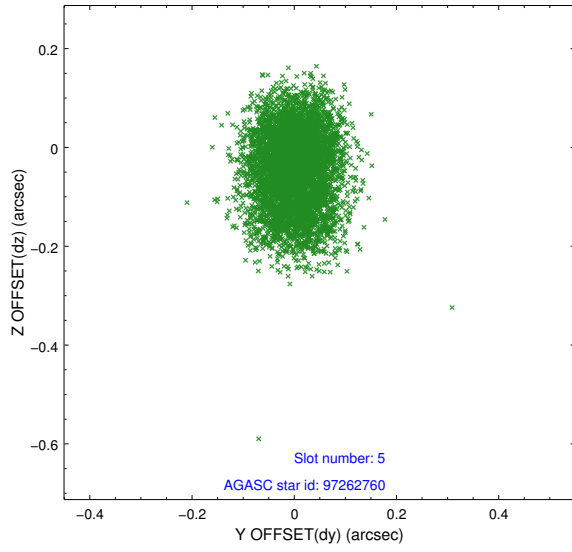
2.4.1 Slot 3



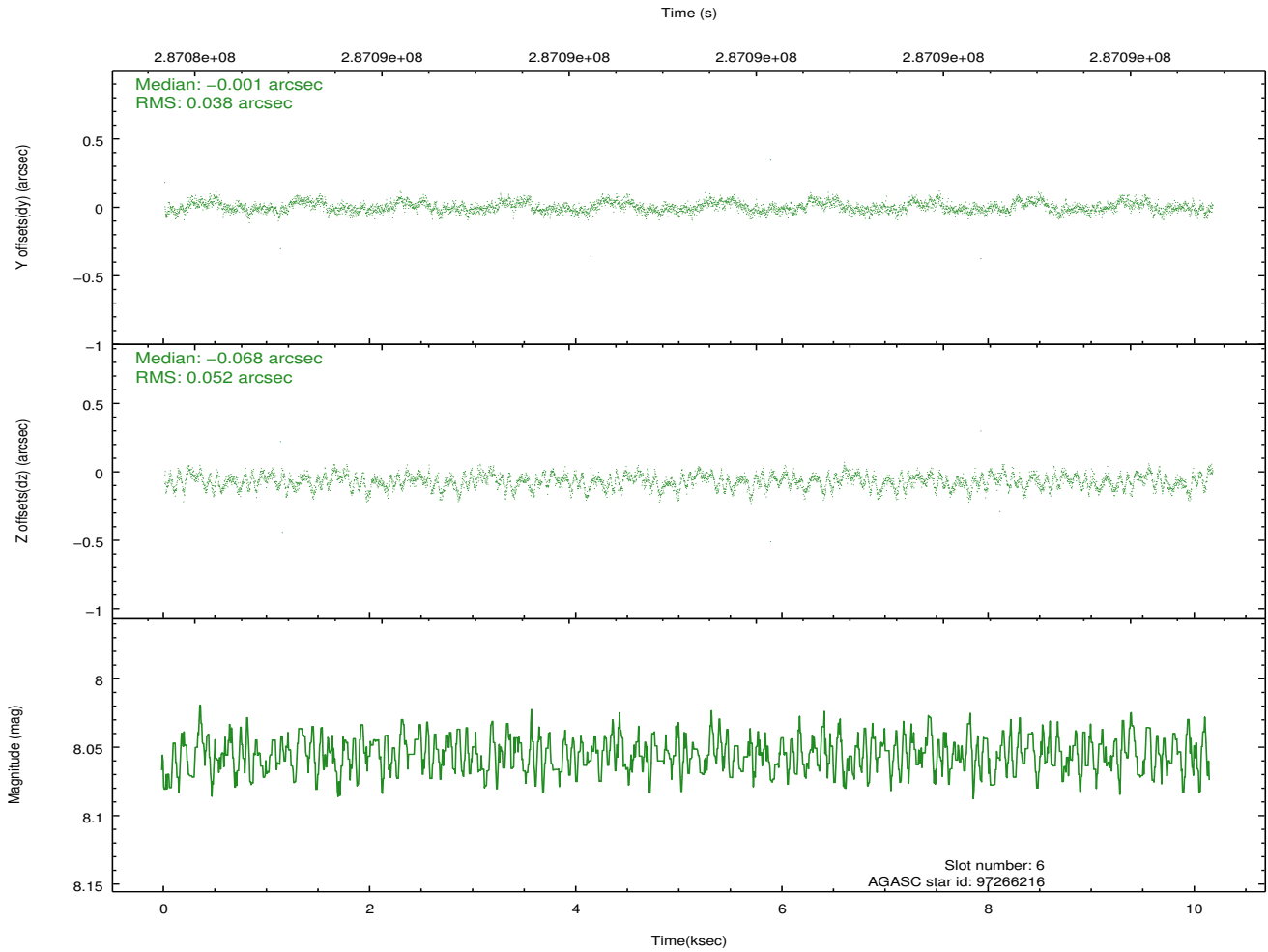
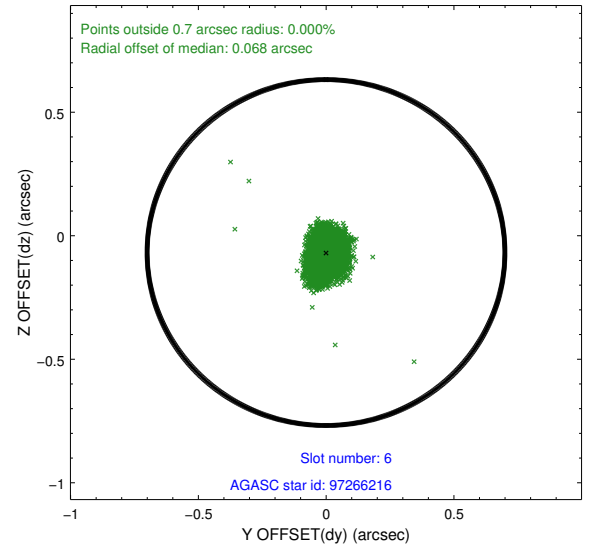
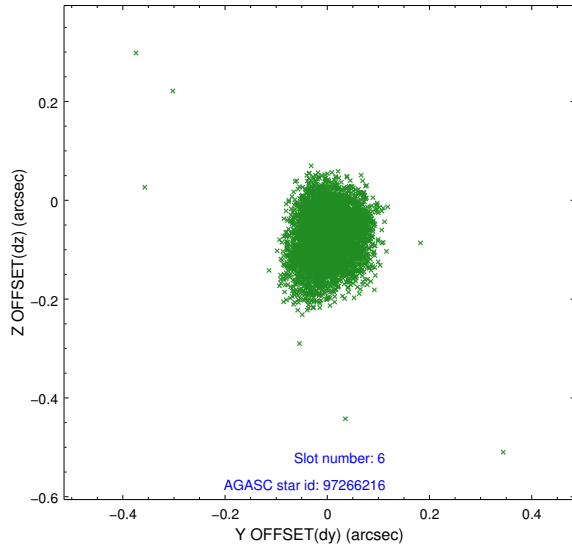
2.4.2 Slot 4



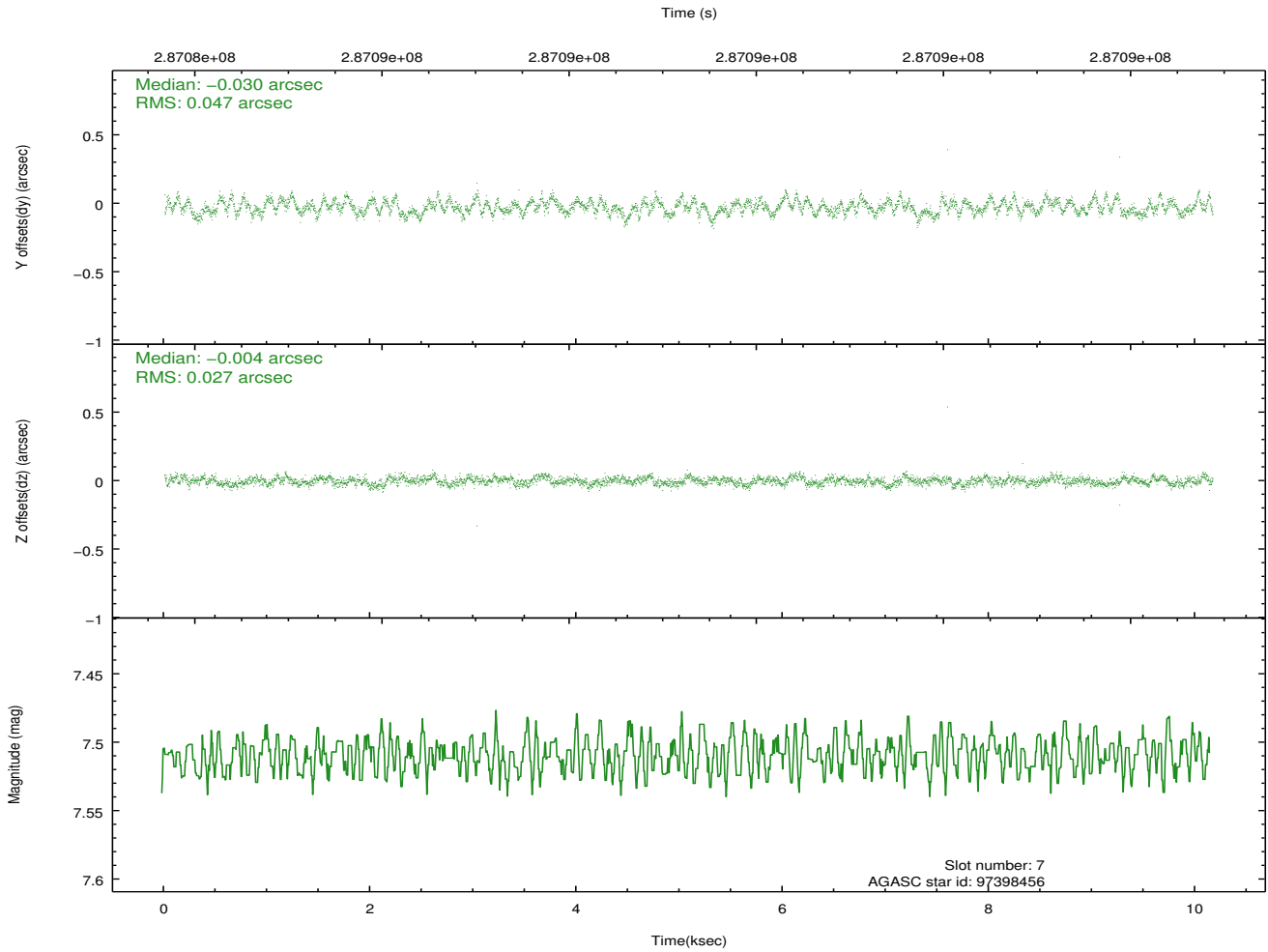
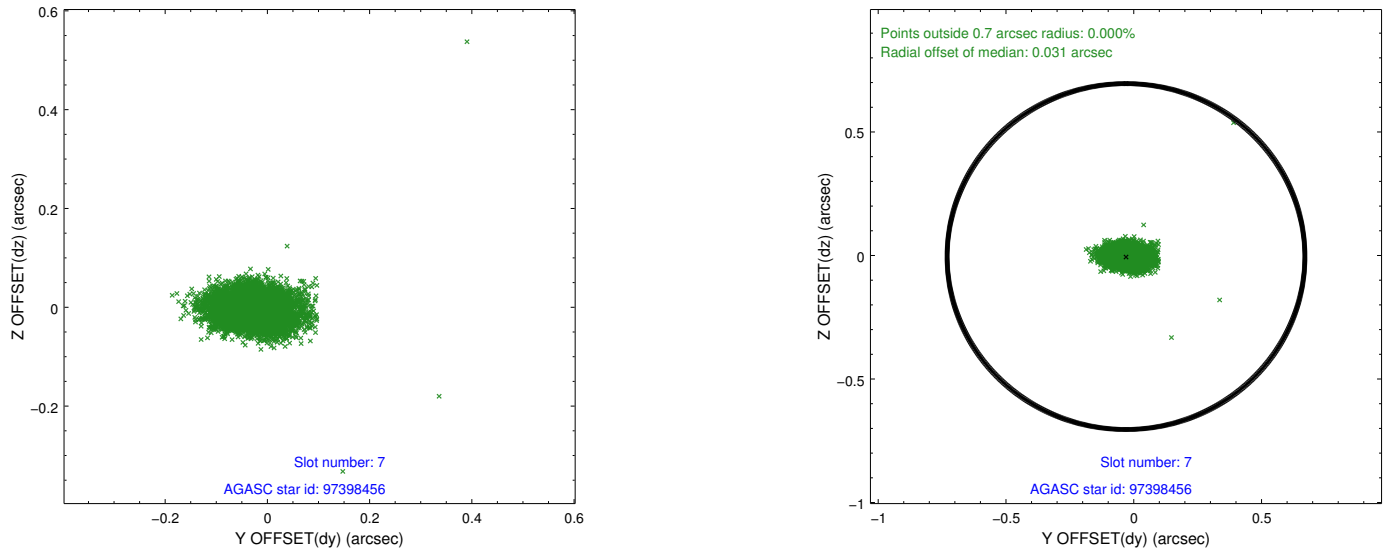
2.4.3 Slot 5



2.4.4 Slot 6

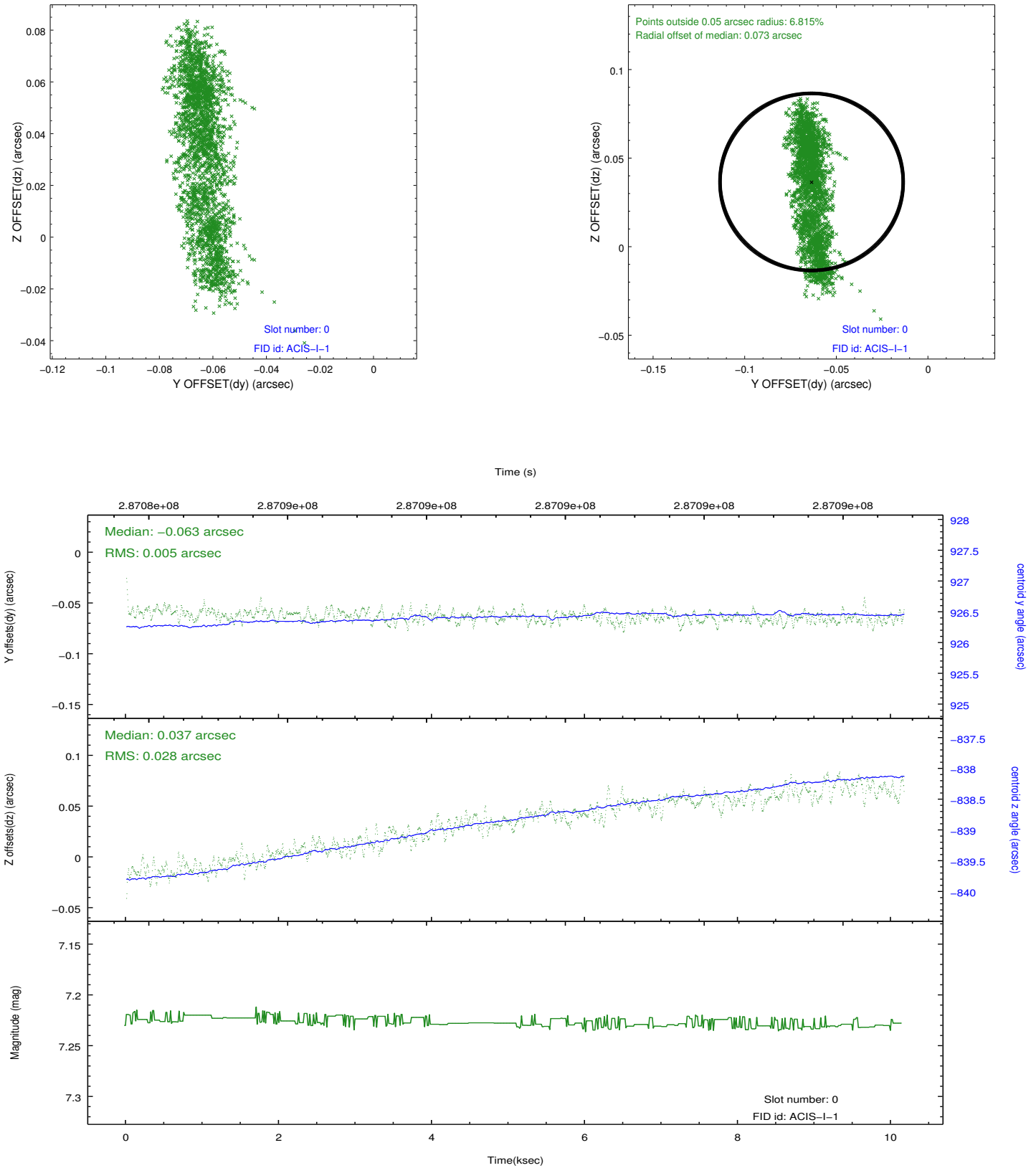


2.4.5 Slot 7

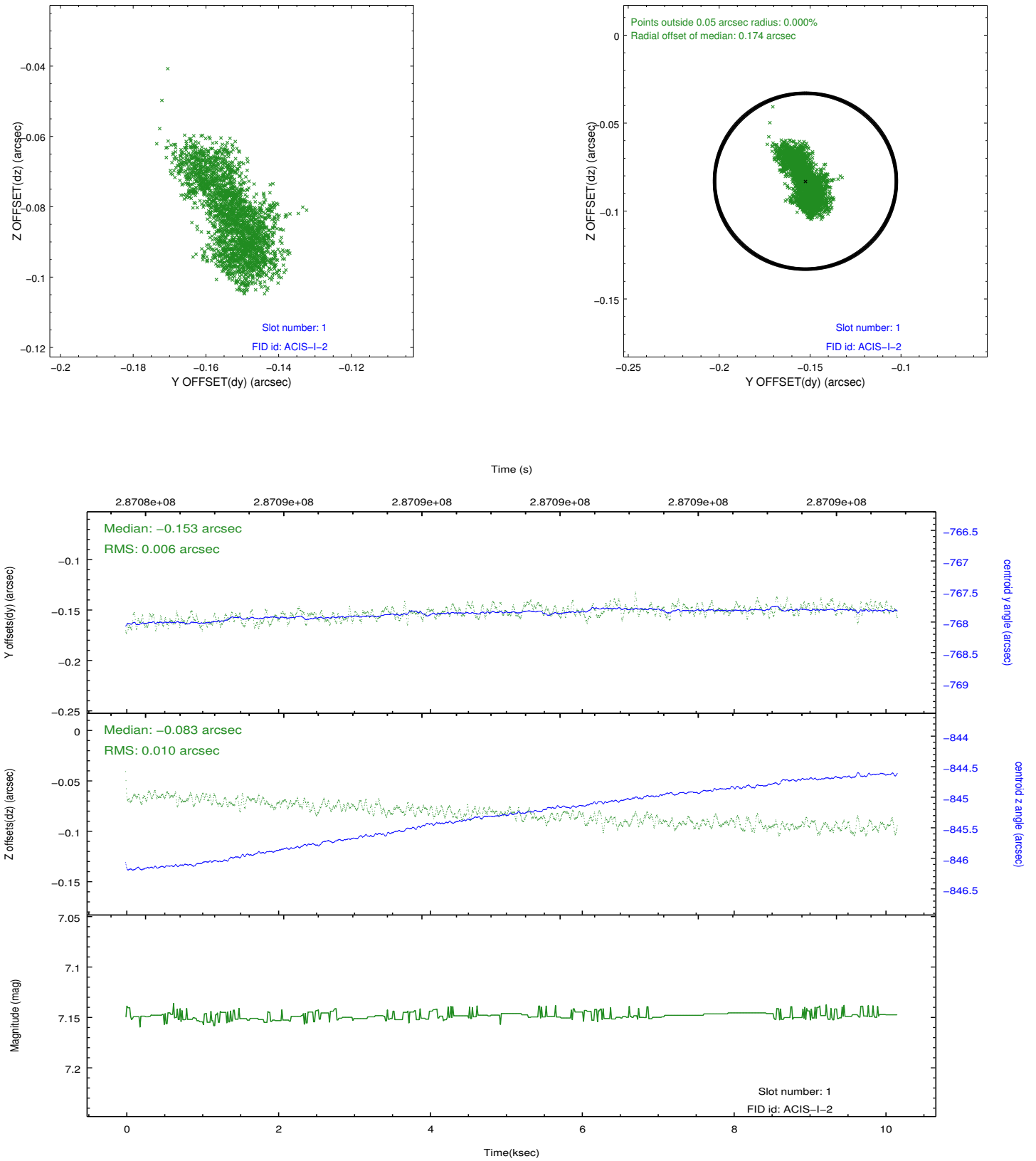


2.5 FID Slots

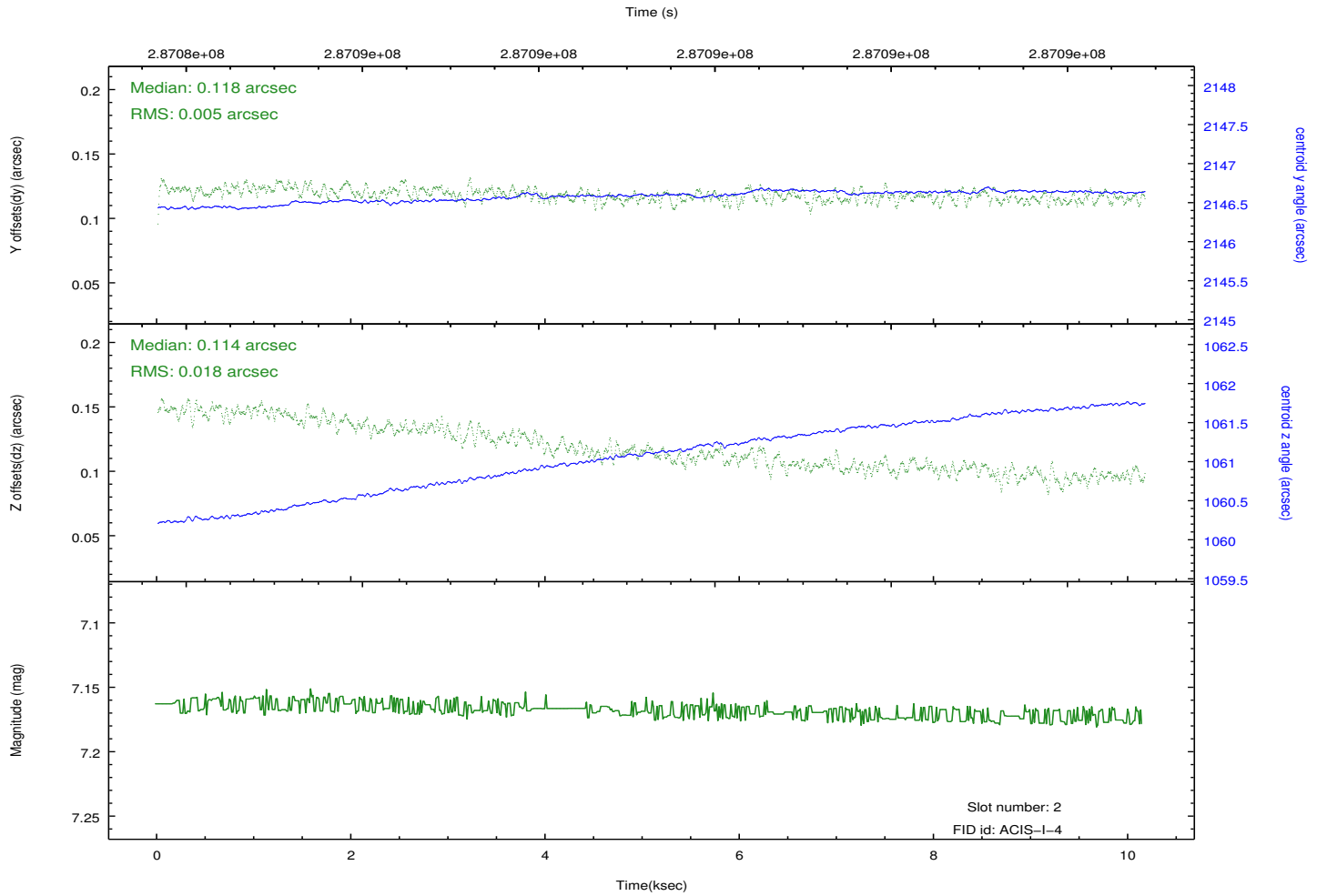
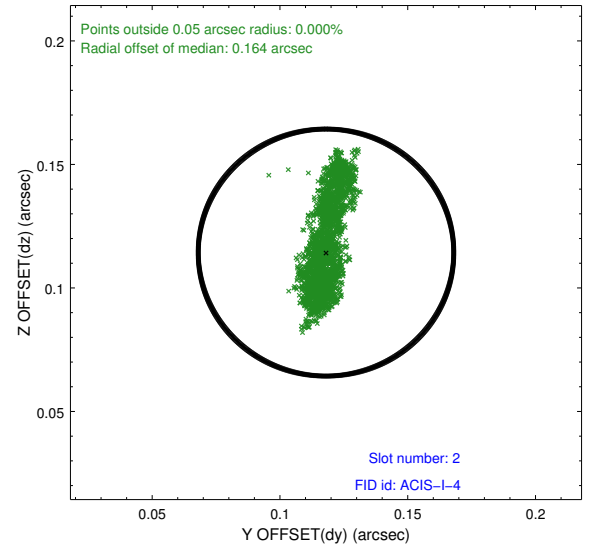
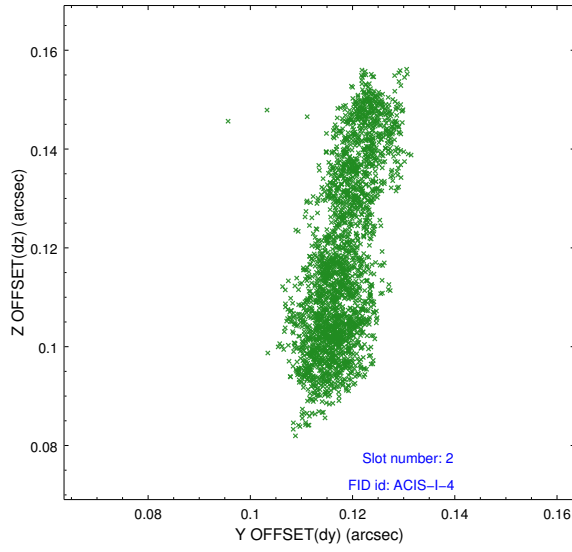
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2015.02.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.1567999

A.2 Comments

A spatial region of the original bias map for CCD = 0 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 = 0 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: (93.95955, 14.13180), (93.96622, 14.13275), (93.95266, 14.22121), (93.94547, 14.22363).