

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 14014 - L2 Version 2
Chandra X-Ray Center

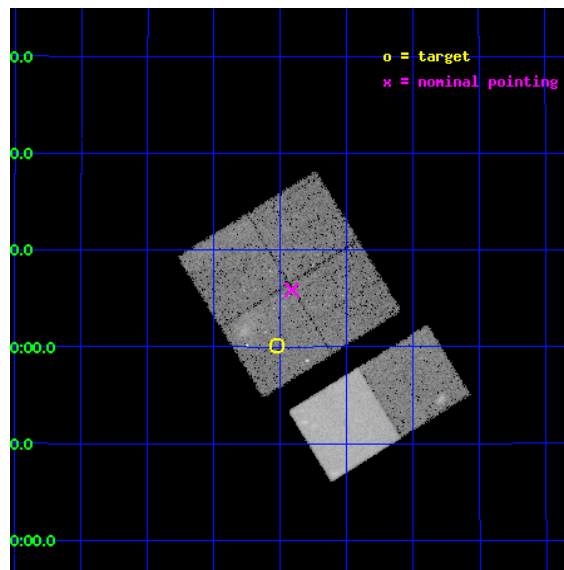
L2 Processing Date : Mar 28 2012

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 7	12
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

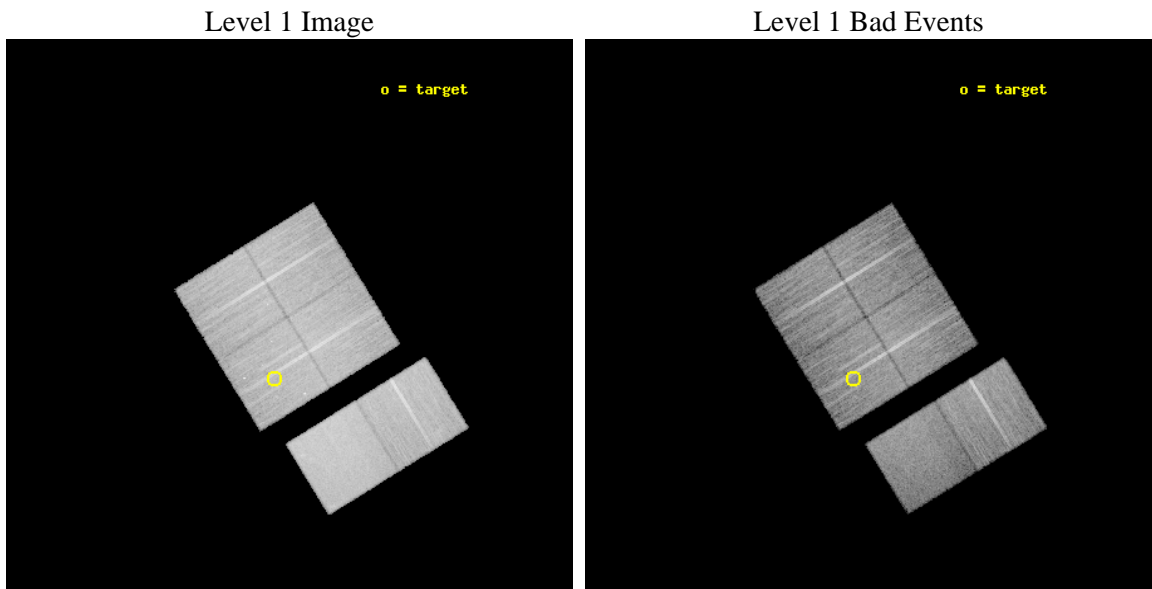
seq_num	801194	Sequence number
obs_id	14014	Observation id
title	Understanding the connection between radio halos and cluster mergers	
observer	Dr Rossella Cassano	Principal investigator
object	Z5768	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	197.88125	Observer's specified target RA [deg]
dec_targ	22.001389	Observer's specified target Dec [deg]
ra_nom	197.85294177638	Nominal RA [deg]
dec_nom	22.09835339975	Nominal Dec [deg]
roll_nom	148.28429986944	Nominal Roll [deg]
revision	2	Processing version of data
ontime	26966.399899602	Sum of GTIs [s]
livetime	26624.935106857	Livetime [s]
ontime0	26966.399899602	Sum of GTIs [s]
ontime1	26966.399899602	Sum of GTIs [s]
ontime2	26959.917788863	Sum of GTIs [s]
ontime3	26966.399899602	Sum of GTIs [s]
ontime6	26963.158859253	Sum of GTIs [s]
ontime7	26966.399899602	Sum of GTIs [s]
l2events	169287	Number of level 2 events



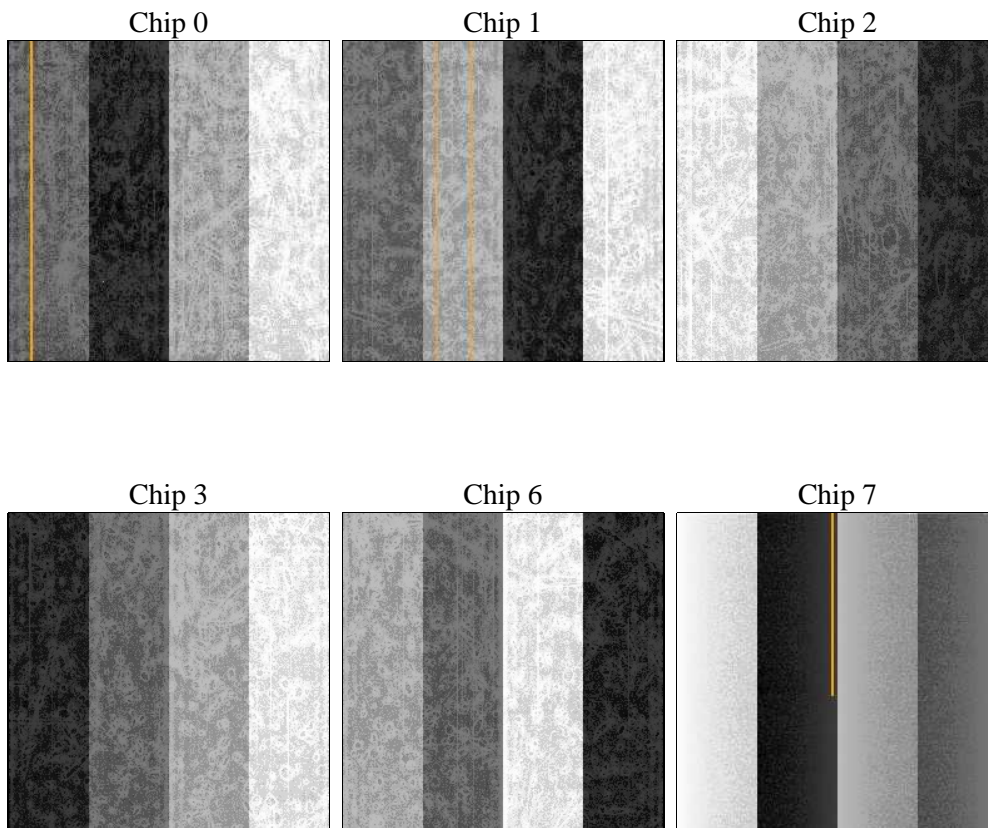
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	27000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	26966.399899602	Sum of GTIs [s]
caldsver	4.4.8	 	ontime0	26966.399899602	Sum of GTIs [s]
date	2012-03-28T20:56:46	Date and time of file creation	ontime1	26966.399899602	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	26959.917788863	Sum of GTIs [s]
			ontime3	26966.399899602	Sum of GTIs [s]
			ontime6	26963.158859253	Sum of GTIs [s]
			ontime7	26966.399899602	Sum of GTIs [s]
			l1events	958638	Number of level 1 events

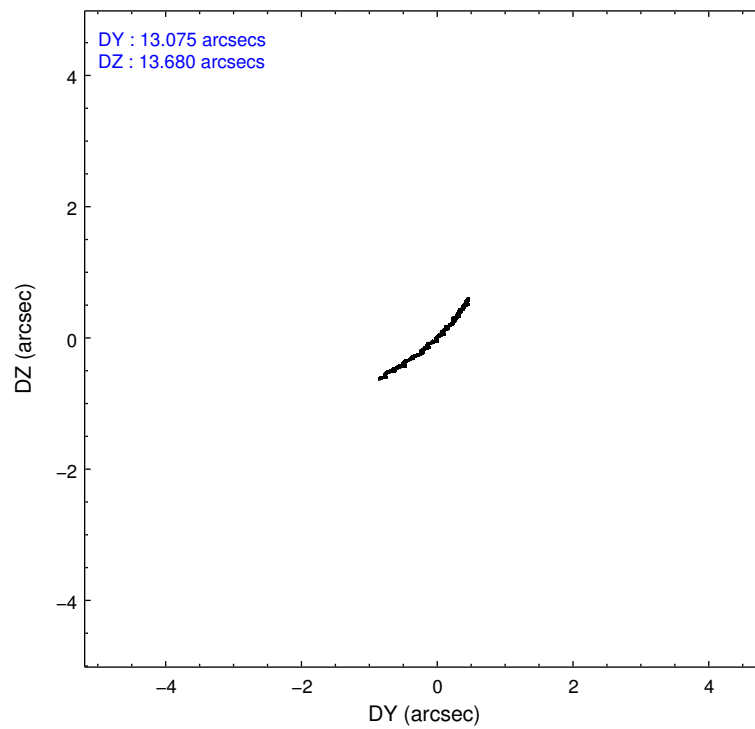
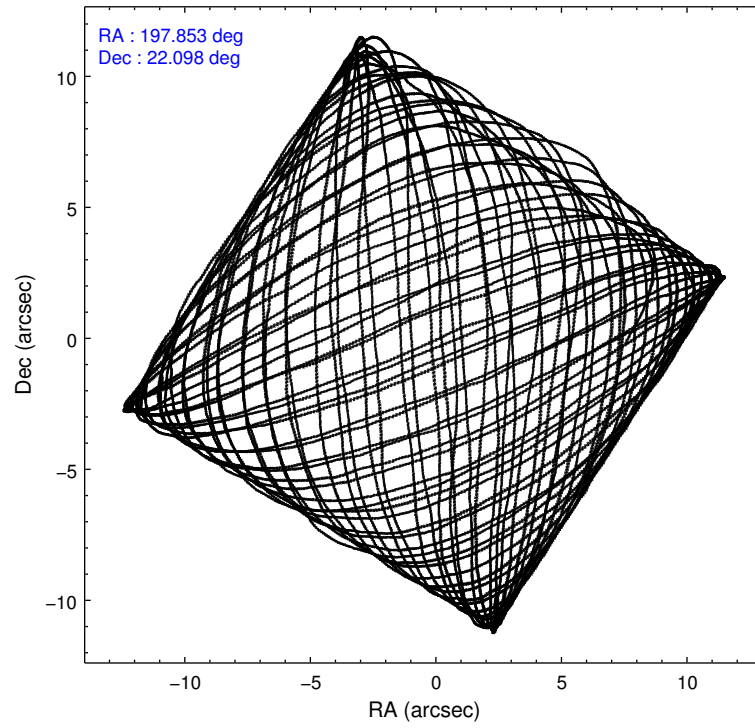
2.1.4 Events

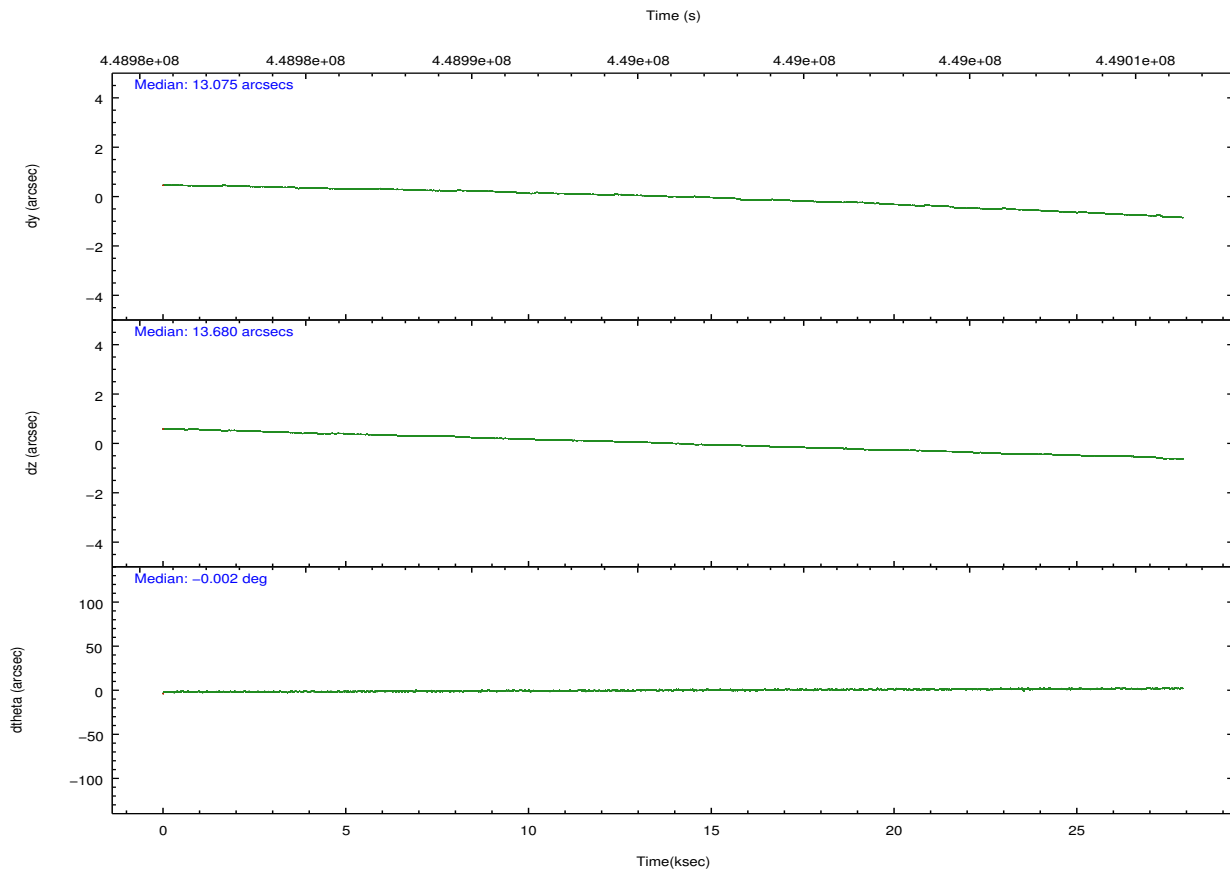
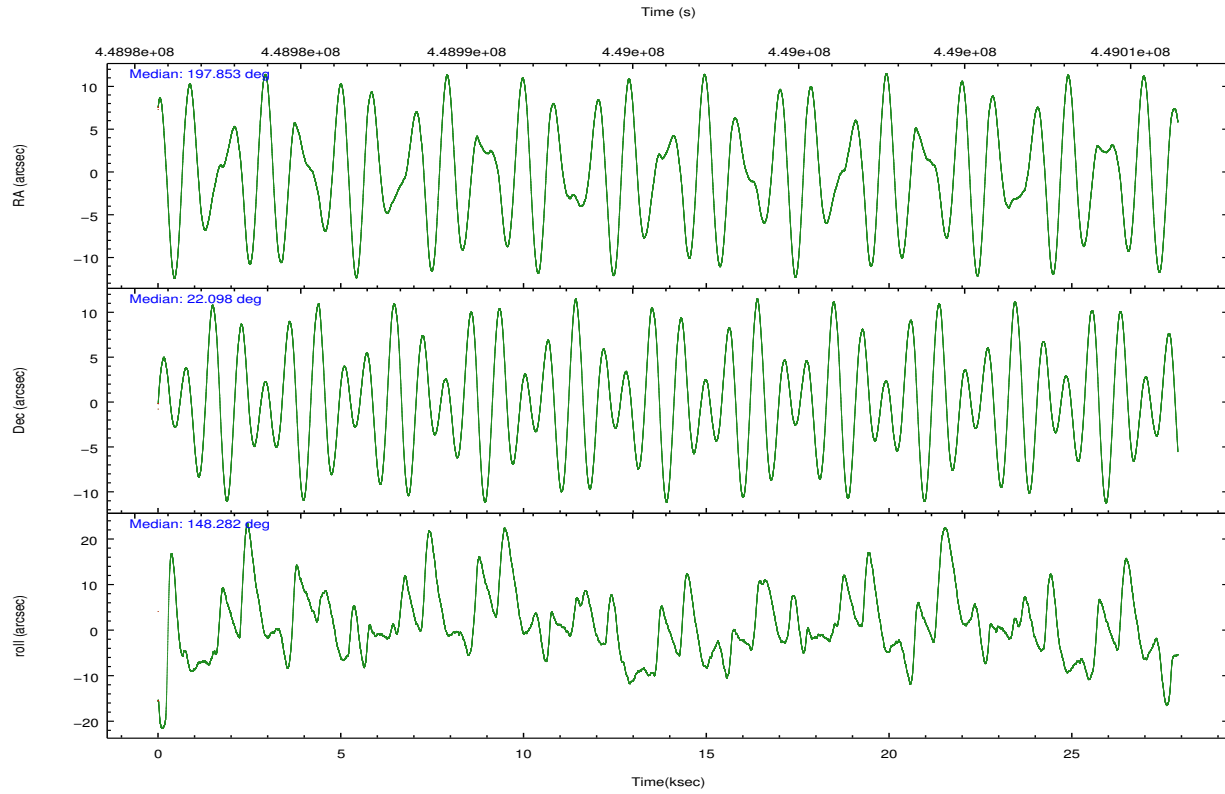
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	140801	144495	155678	151672	162067	203925	grade 0 events	6136	6953	6303	8653	7566	8400
rejected events	123429	125089	138204	131583	141973	113181		4%	4%	4%	5%	4%	4%
rejected %	87%	86%	88%	86%	87%	55%	grade 1 events	95	96	80	116	88	239
								0%	0%	0%	0%	0%	0%
							grade 2 events	4140	4463	4144	4001	4380	18551
								2%	3%	2%	2%	2%	9%
							grade 3 events	1892	1935	1837	1878	1932	7923
								1%	1%	1%	1%	1%	3%
							grade 4 events	1710	1933	1799	1924	1942	7709
								1%	1%	1%	1%	1%	3%
							grade 5 events	6955	7161	6586	7563	8022	20726
								4%	4%	4%	4%	4%	10%
							grade 6 events	3496	4125	3393	3634	4277	48177
								2%	2%	2%	2%	2%	23%
							grade 7 events	116377	117829	131536	123903	133860	92200
								82%	81%	84%	81%	82%	45%

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	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	197.882608	197.8529417763839	CCD I2 on	Y	Y
[deg] Pointing Dec	22.097626	22.09835339974971	CCD I3 on	Y	Y
[deg] Pointing Roll	148.064451	148.2842998694406	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)	448983015.184000	448981568.94039	CCD S5 on	N	N
Observation start date	2012-03-24T13:29:09	2012-03-24T13:06:08	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	449010015.184000	449010860.87944	On-chip summing requested	N	N
Observation end date	2012-03-24T20:59:09	2012-03-24T21:14:20	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



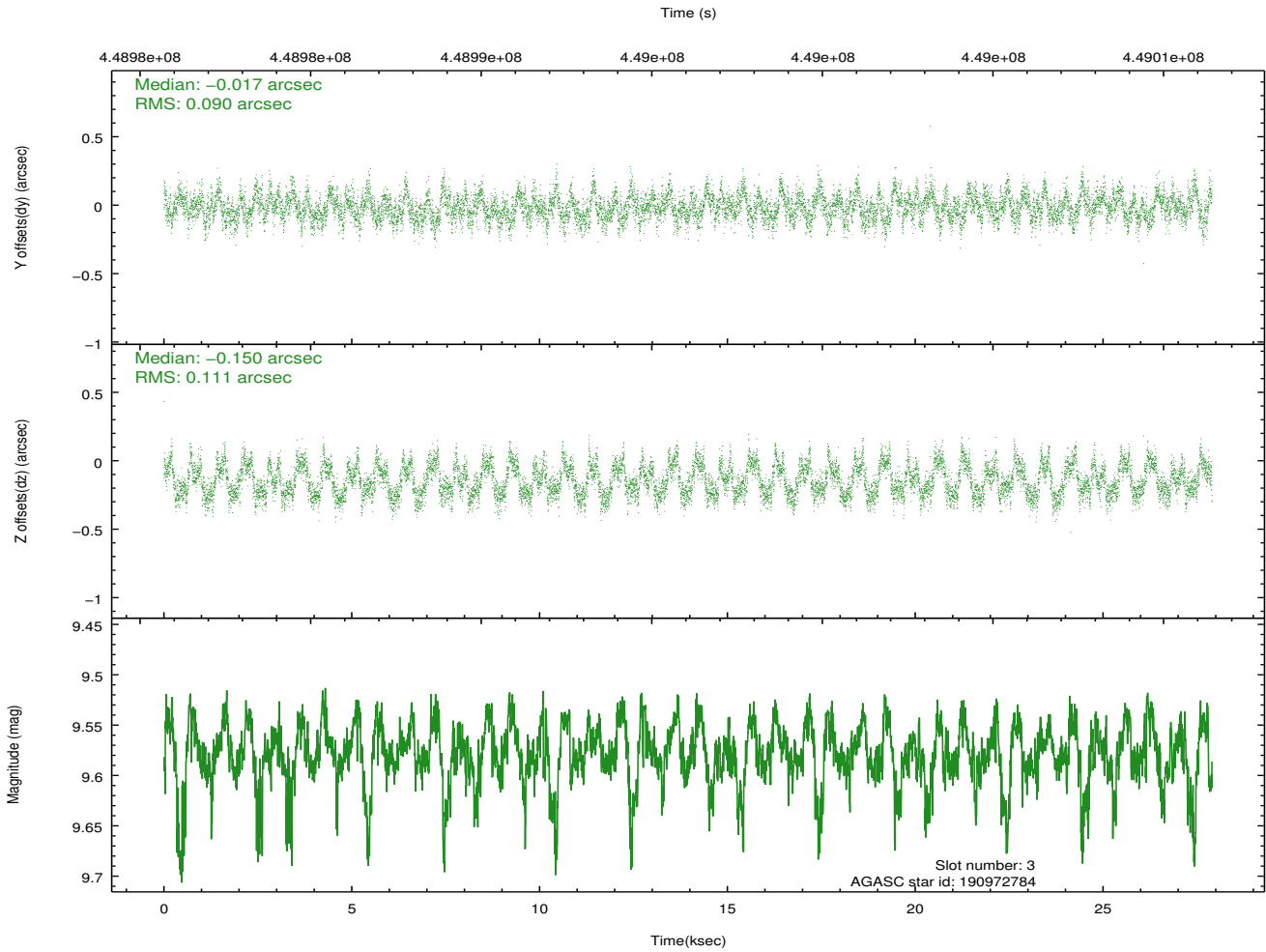
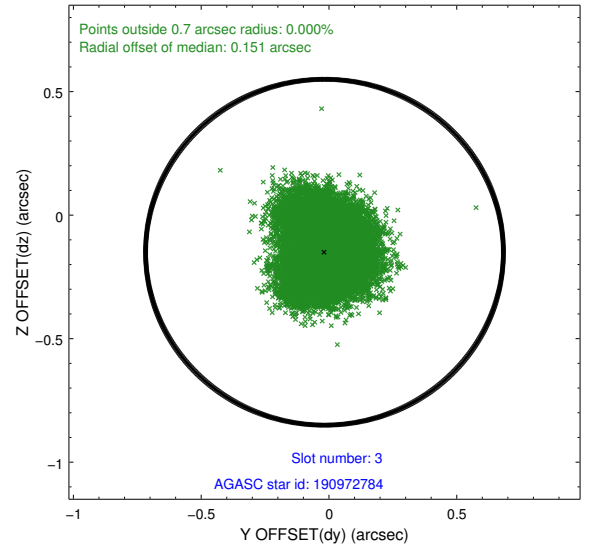
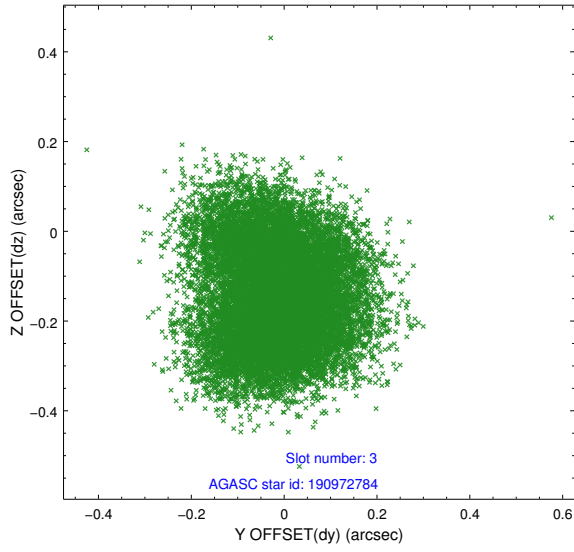


Slot Statistics

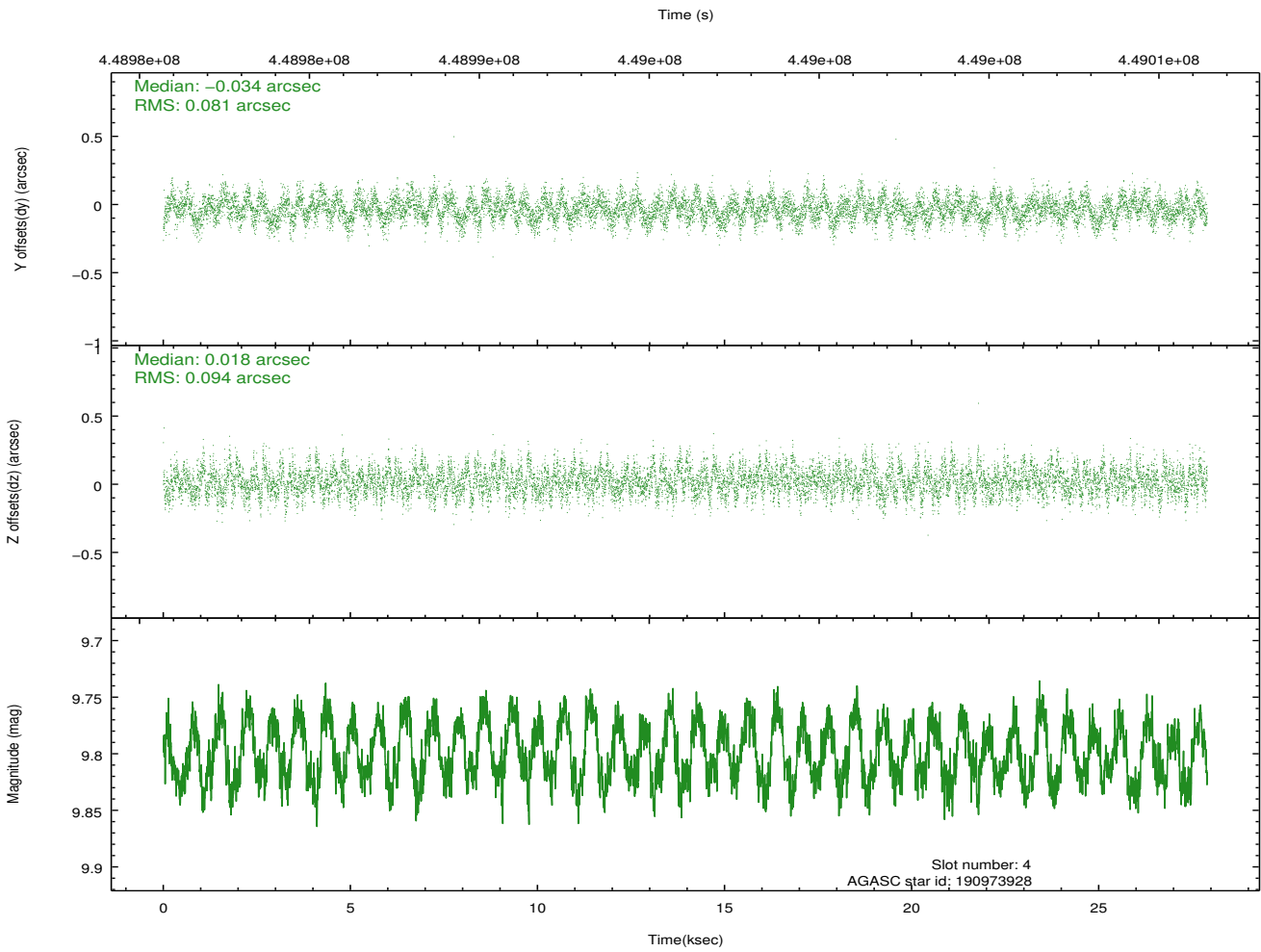
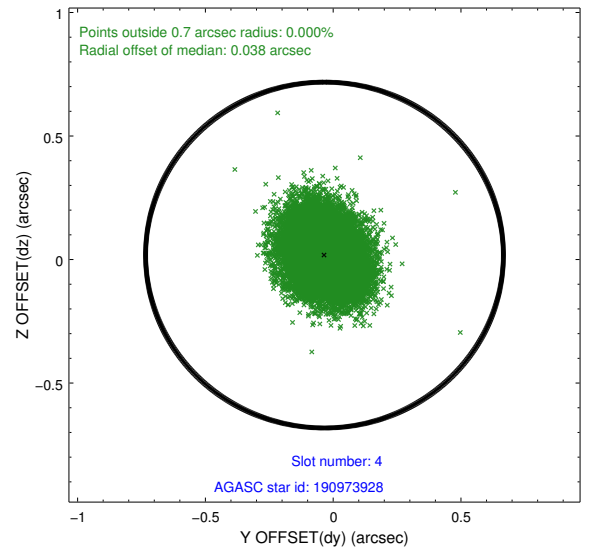
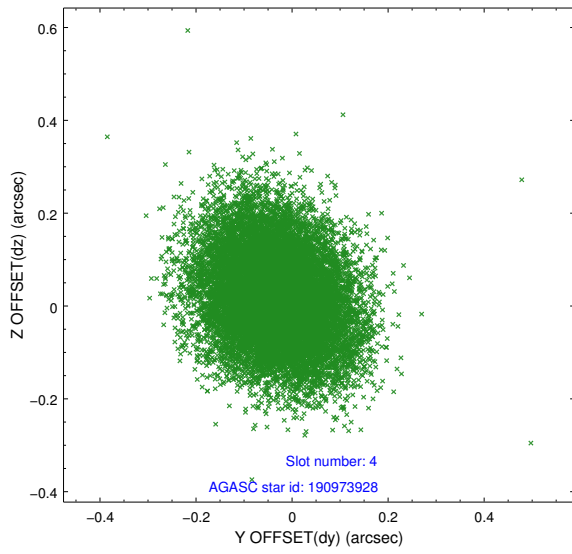
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.08	6805	0.046	0.015	0.011	0.018	0.000000	0.000000	926.56	-837.22
1	FID	ACIS-I-5	7.07	6805	-0.205	0.059	0.014	0.022	0.000000	0.000000	-1821.76	1060.25
2	FID	ACIS-I-6	7.08	6805	0.069	-0.003	0.016	0.026	0.000000	0.000000	392.01	1704.81
3	GUIDE	190972784	9.58	13582	-0.017	-0.150	0.156	0.238	197.351360	22.226147	1748.15	541.52
4	GUIDE	190973928	9.80	13596	-0.034	0.018	0.133	0.213	197.904188	21.564389	-1075.47	1591.59
5	GUIDE	190974376	6.78	13609	-0.077	-0.167	0.088	0.139	197.884749	21.918670	-346.65	543.60
6	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	261373192	9.61	13599	0.131	0.284	0.137	0.222	198.392023	22.526629	-618.52	-2208.33

2.4 Star Slots

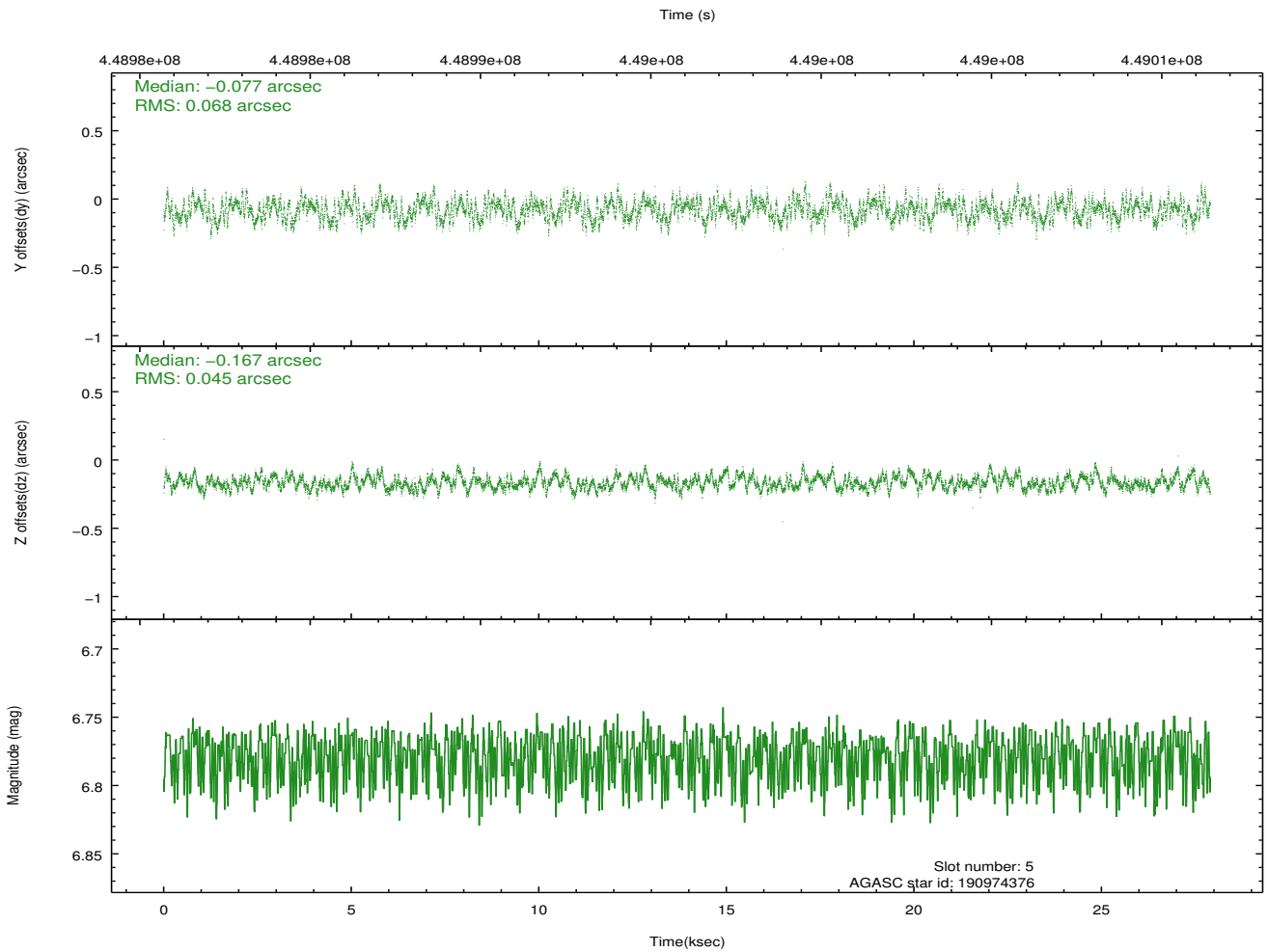
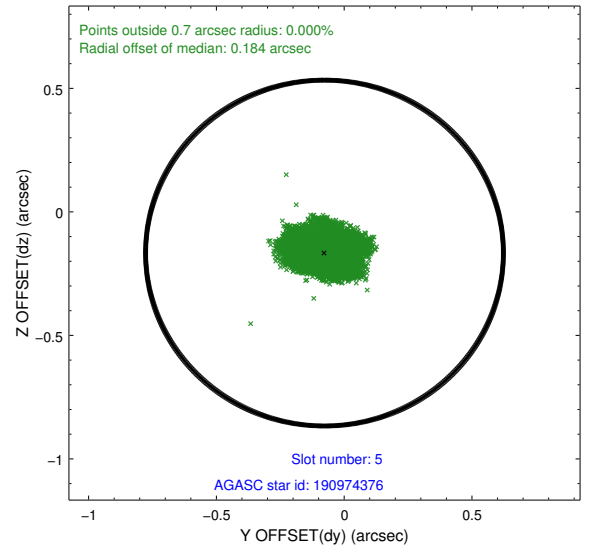
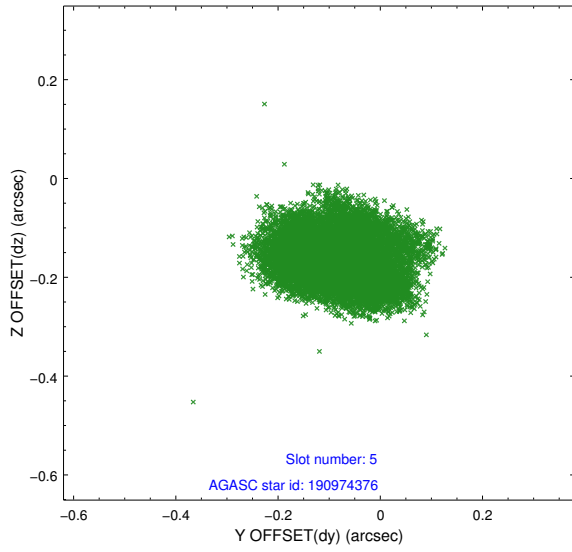
2.4.1 Slot 3



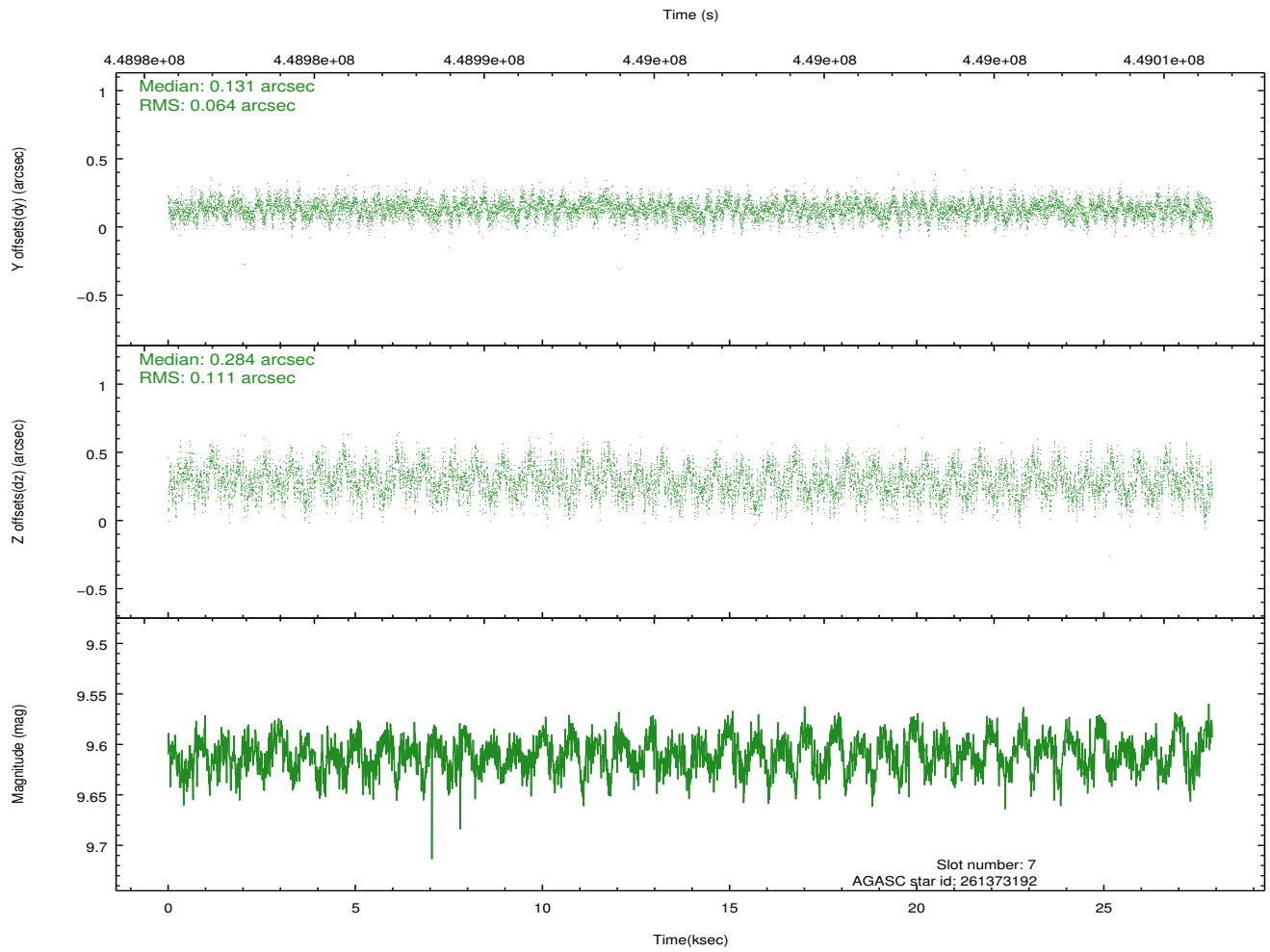
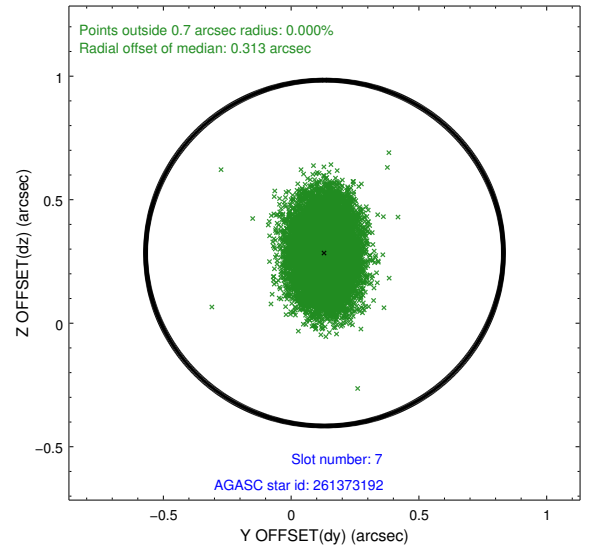
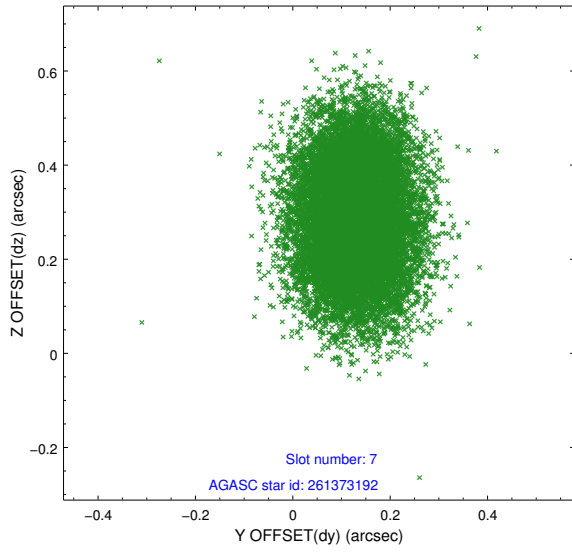
2.4.2 Slot 4



2.4.3 Slot 5

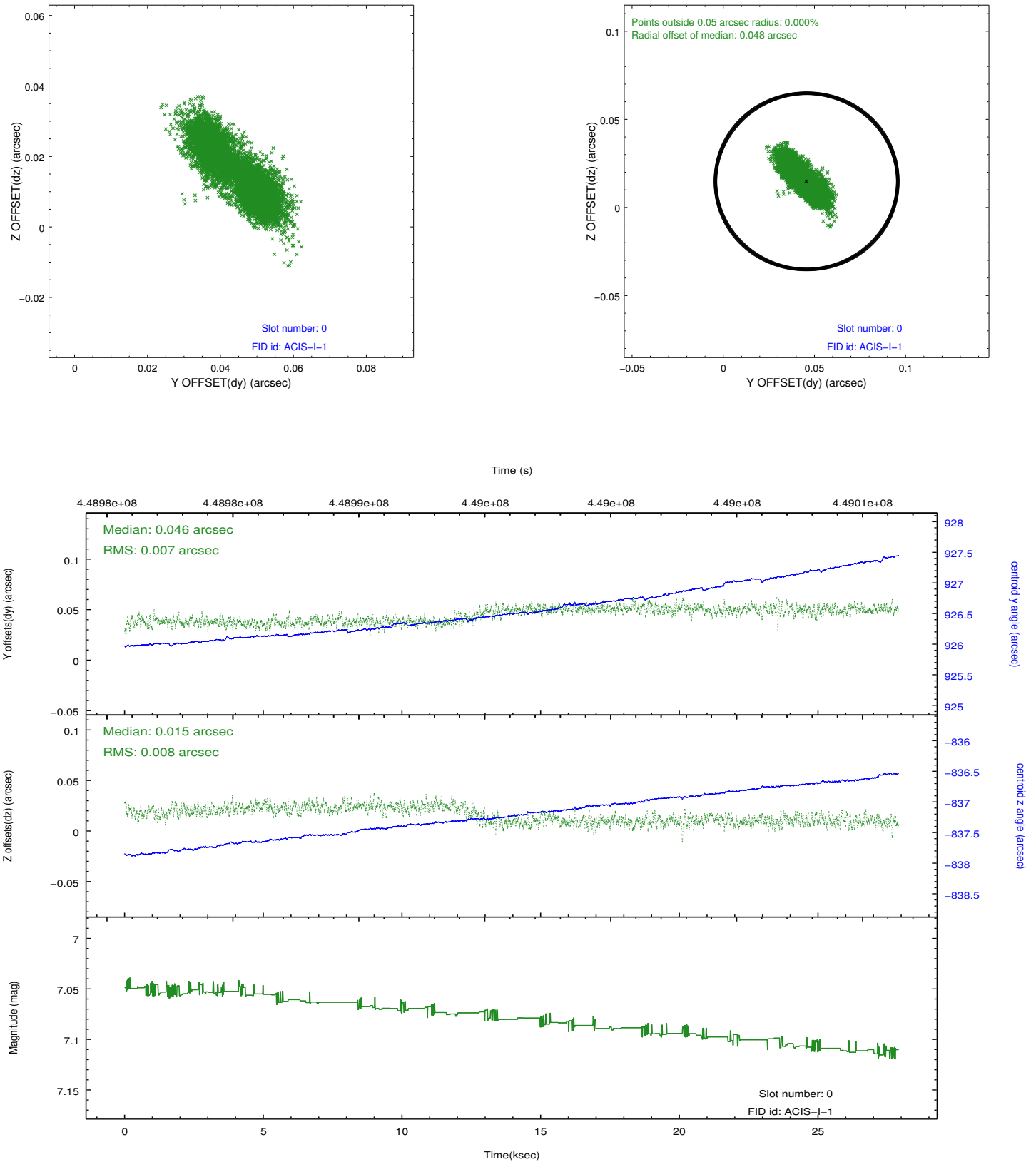


2.4.4 Slot 7

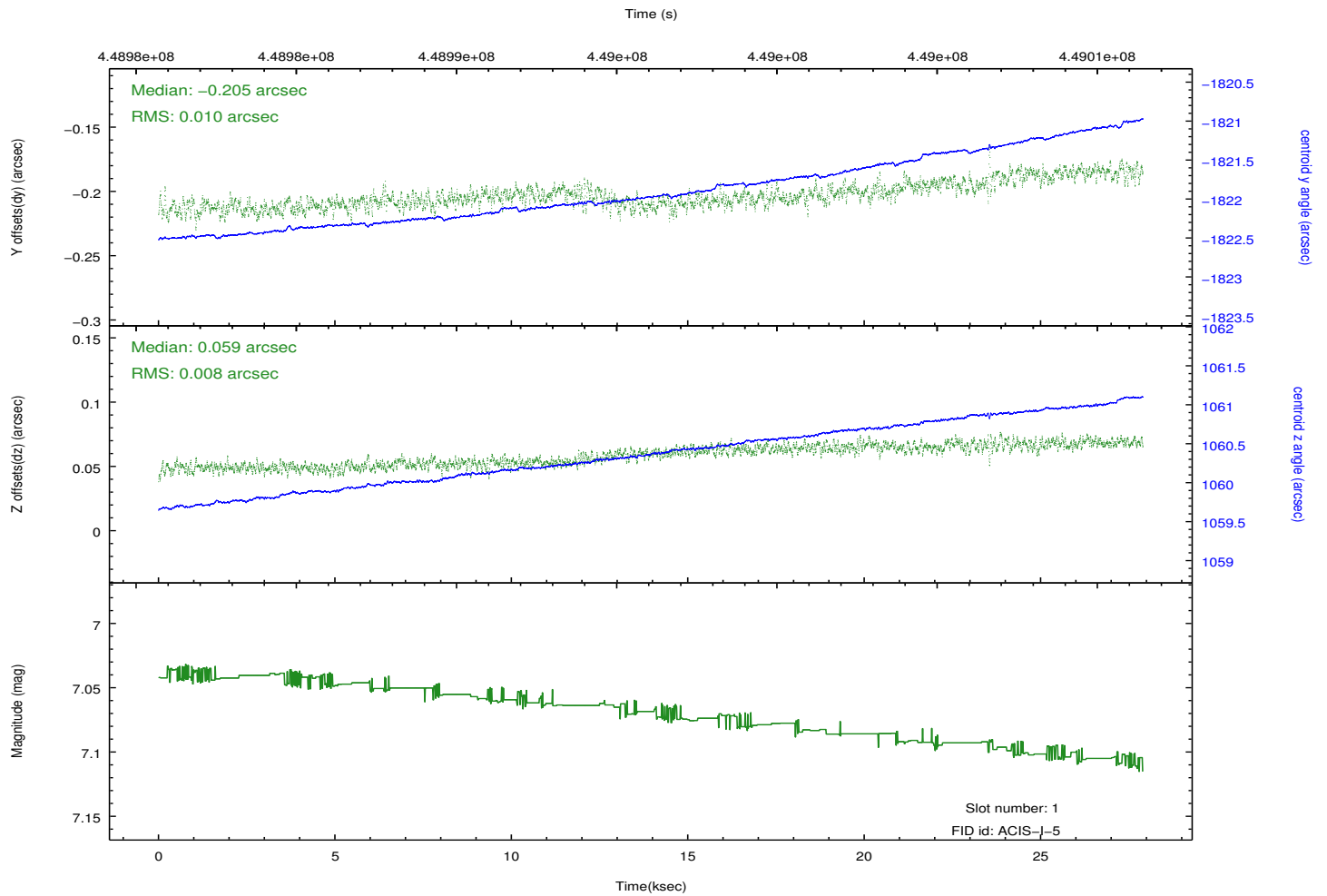
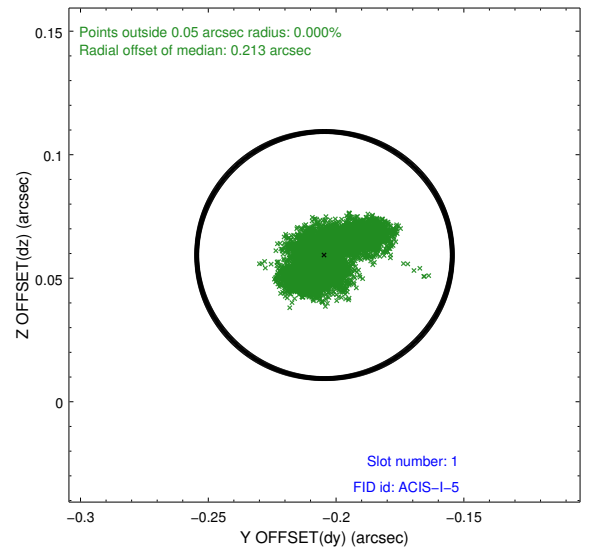
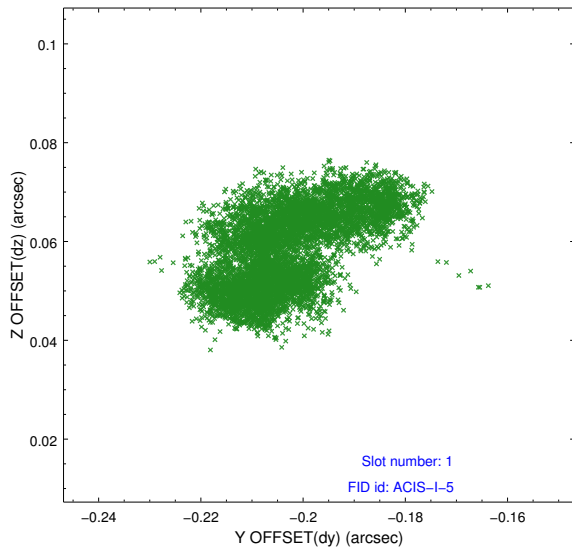


2.5 FID Slots

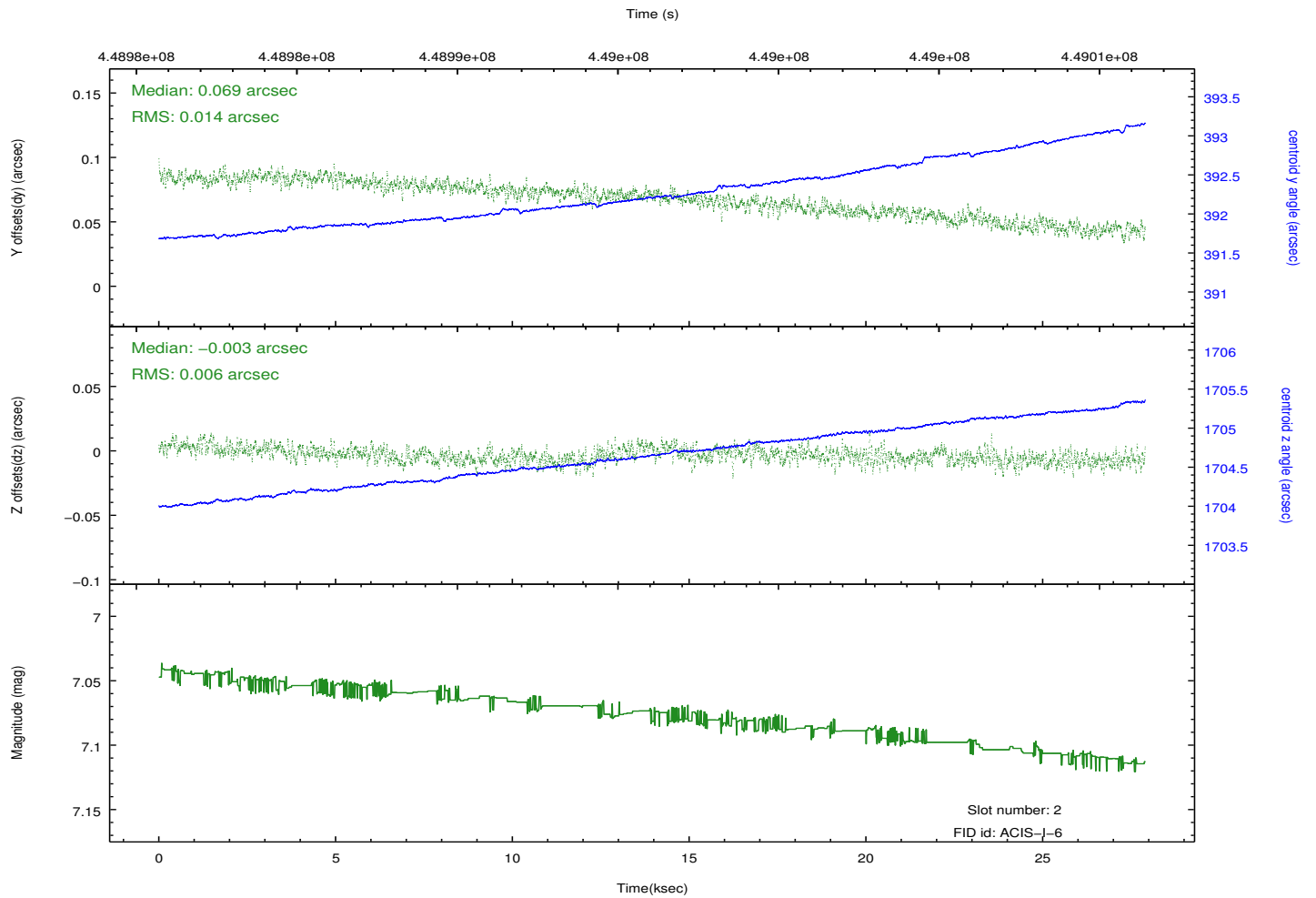
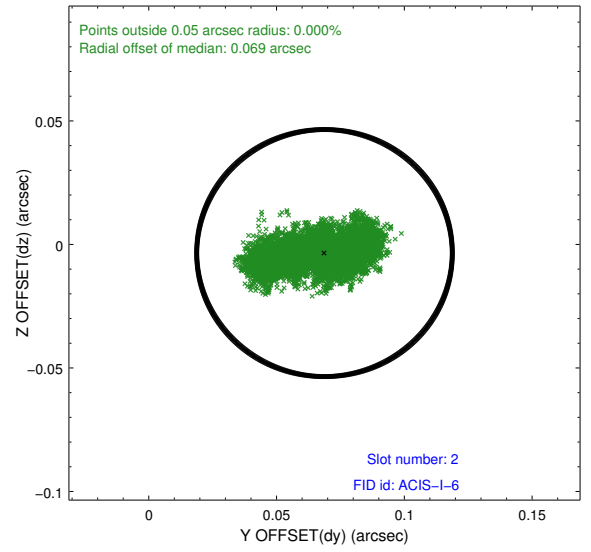
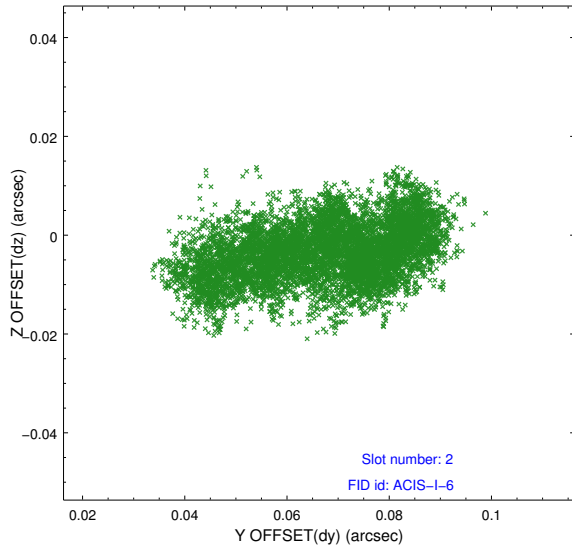
2.5.1 Slot 0



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)	2012.03.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	26.966399899602

A.2 Comments

A spatial region of the original bias map for CCD = 6 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 = 6 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:
(197.59112,21.87700), (197.59551,21.87450), (197.61661,21.90636), (197.60953,21.90479)

===

The guide star in slot 6 was not used in the aspect solution due to poor data quality.