

V&V Reference Report

L2 ASCDS Version : 10

Observation 15325 - L2 Version 2
Chandra X-Ray Center

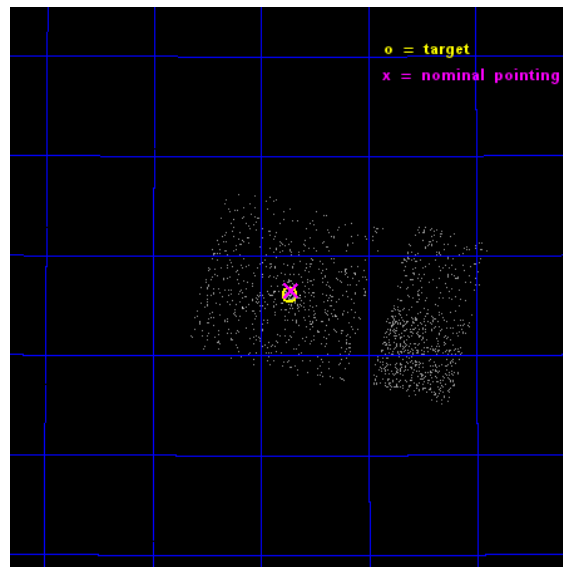
L2 Processing Date : Dec 4 2014

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1 Front

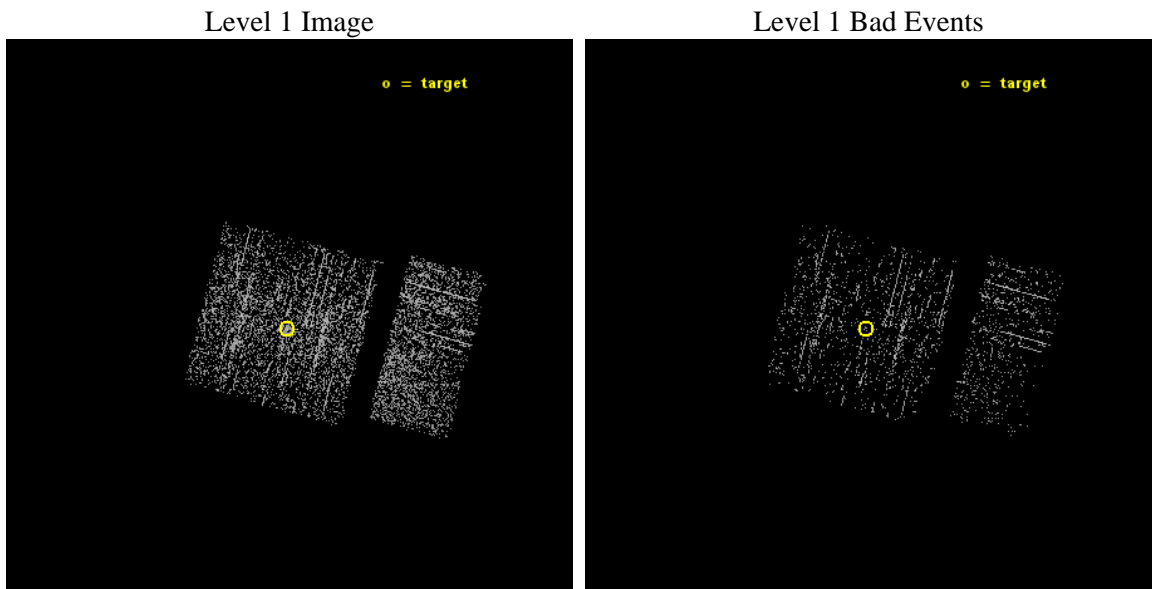
seq_num	601081	Sequence number
obs_id	15325	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr Stephen Murray	Principal investigator
object	M31 BHXN	Source name
dtcycle	0	
cycle	P	events are from which exps? P[primary] S[econdar]
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.679306776431	Nominal RA [deg]
dec_nom	41.275786733562	Nominal Dec [deg]
roll_nom	104.87782371921	Nominal Roll [deg]
revision	2	Processing version of data
ontime	925.78316938877	Sum of GTIs [s]
livetime	145.74060220847	Livetime [s]
ontime0	925.78316938877	Sum of GTIs [s]
ontime1	925.78316938877	Sum of GTIs [s]
ontime2	925.78316938877	Sum of GTIs [s]
ontime3	925.78316938877	Sum of GTIs [s]
ontime6	925.78316938877	Sum of GTIs [s]
ontime7	925.78316938877	Sum of GTIs [s]
l2events	1760	Number of level 2 events



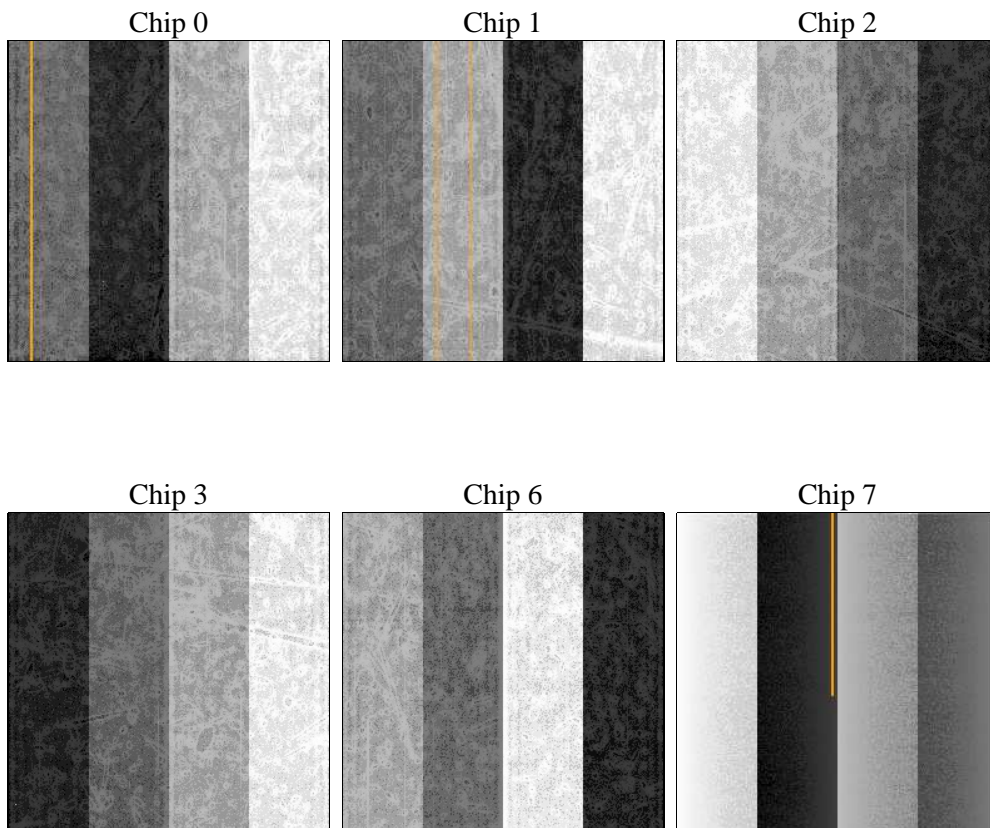
2 OBI Primary

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	925.78316938877	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	925.78316938877	Sum of GTIs [s]
date	2014-12-04T06:38:59	Date and time of file creation	ontime1	925.78316938877	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	925.78316938877	Sum of GTIs [s]
			ontime3	925.78316938877	Sum of GTIs [s]
			ontime6	925.78316938877	Sum of GTIs [s]
			ontime7	925.78316938877	Sum of GTIs [s]
			l1events	13297	Number of level 1 events

2.1.4 Events

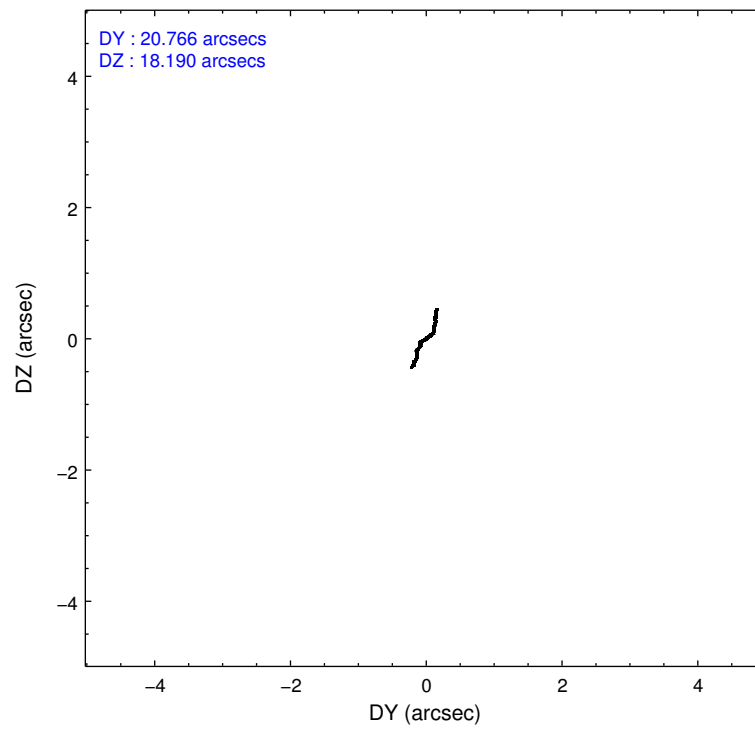
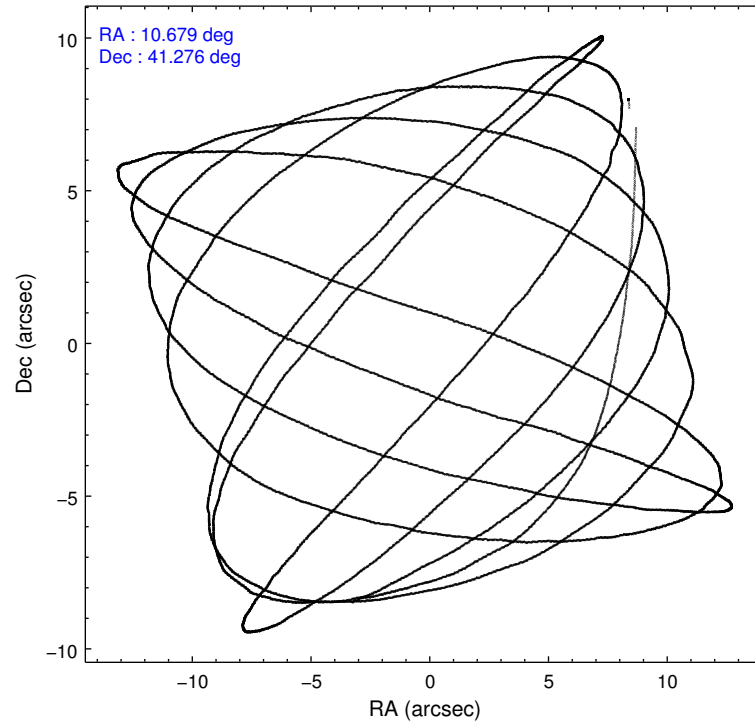
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	1832	2048	2472	2242	2632	2071
rejected events	1617	1747	2233	1872	2406	1440
rejected %	88%	85%	90%	83%	91%	69%

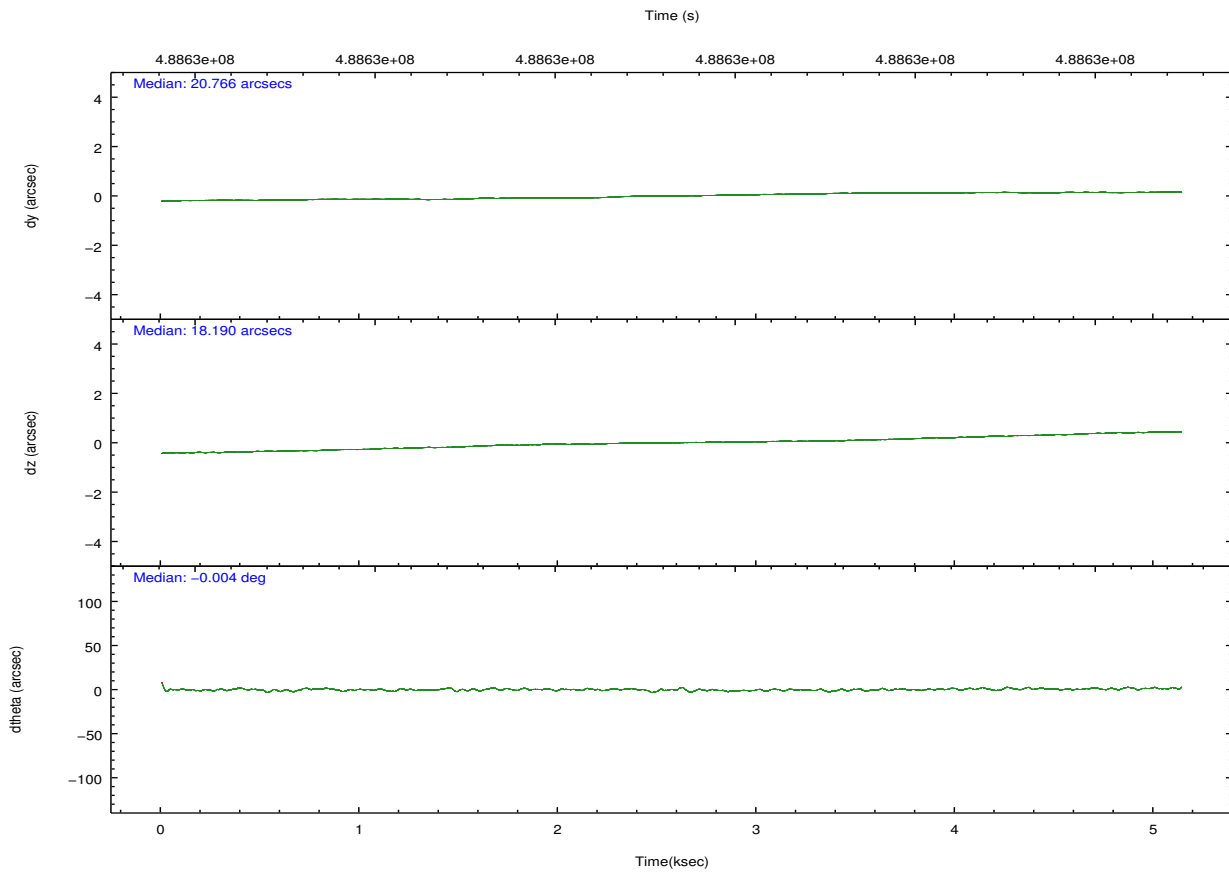
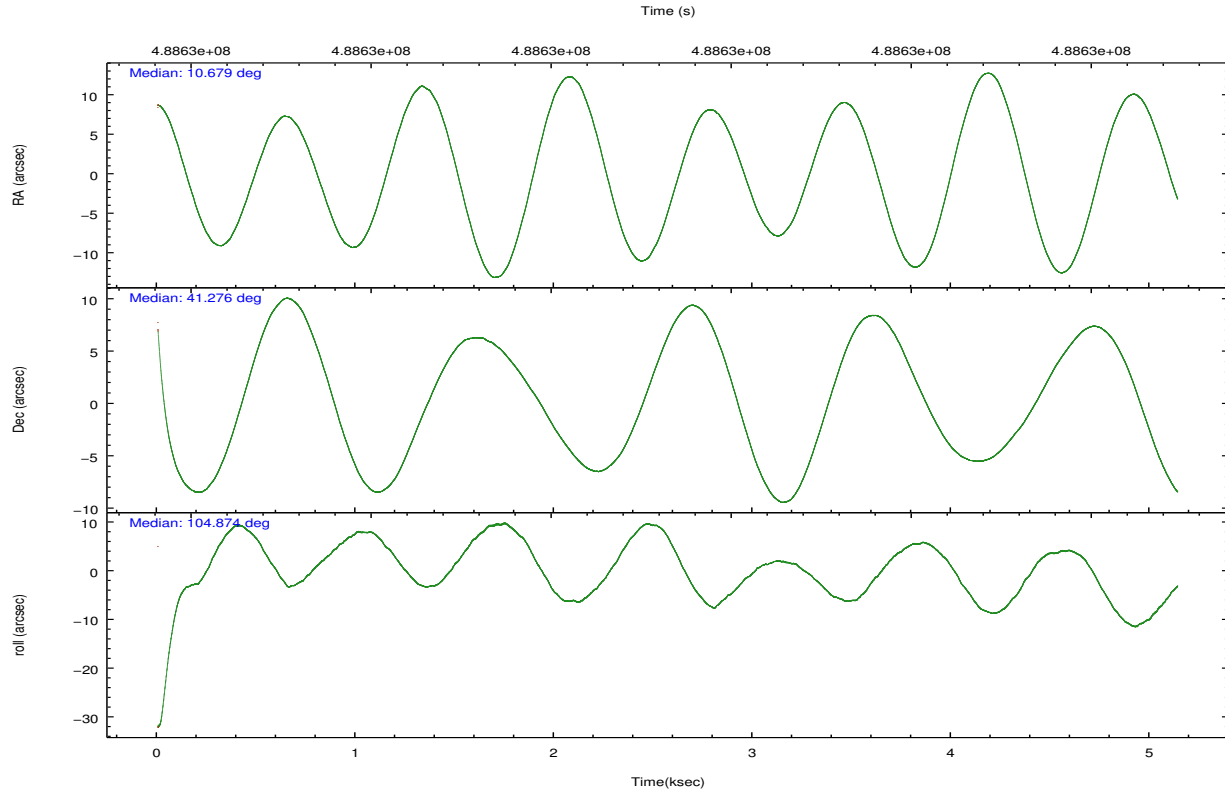
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	76	121	108	194	58	51
	4%	5%	4%	8%	2%	2%
grade 1 events	0	2	3	3	1	1
	0%	0%	0%	0%	0%	0%
grade 2 events	53	68	58	68	66	150
	2%	3%	2%	3%	2%	7%
grade 3 events	30	32	24	27	29	63
	1%	1%	0%	1%	1%	3%
grade 4 events	24	39	21	26	27	57
	1%	1%	0%	1%	1%	2%
grade 5 events	99	100	86	112	86	176
	5%	4%	3%	4%	3%	8%
grade 6 events	33	47	36	57	49	318
	1%	2%	1%	2%	1%	15%
grade 7 events	1517	1639	2136	1755	2316	1255
	82%	80%	86%	78%	87%	60%

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	10.705181	10.67930677643146	CCD I2 on	Y	Y
[deg] Pointing Dec	41.256402	41.27578673356208	CCD I3 on	Y	Y
[deg] Pointing Roll	104.652127	104.8778237192139	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	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	488627217.184000	488625871.72848	CCD S5 on	N	N
Observation start date	2013-06-26T09:45:50	2013-06-26T09:24:31	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	488632217.184000	488632781.25386	On-chip summing requested	N	N
Observation end date	2013-06-26T11:09:10	2013-06-26T11:19:41	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	Y	Y
			[s] Primary exposure time	0.600000	0.6
			[s] Secondary exposure time	0.000000	3.2
			Duty cycle	5	5

2.3 Aspect





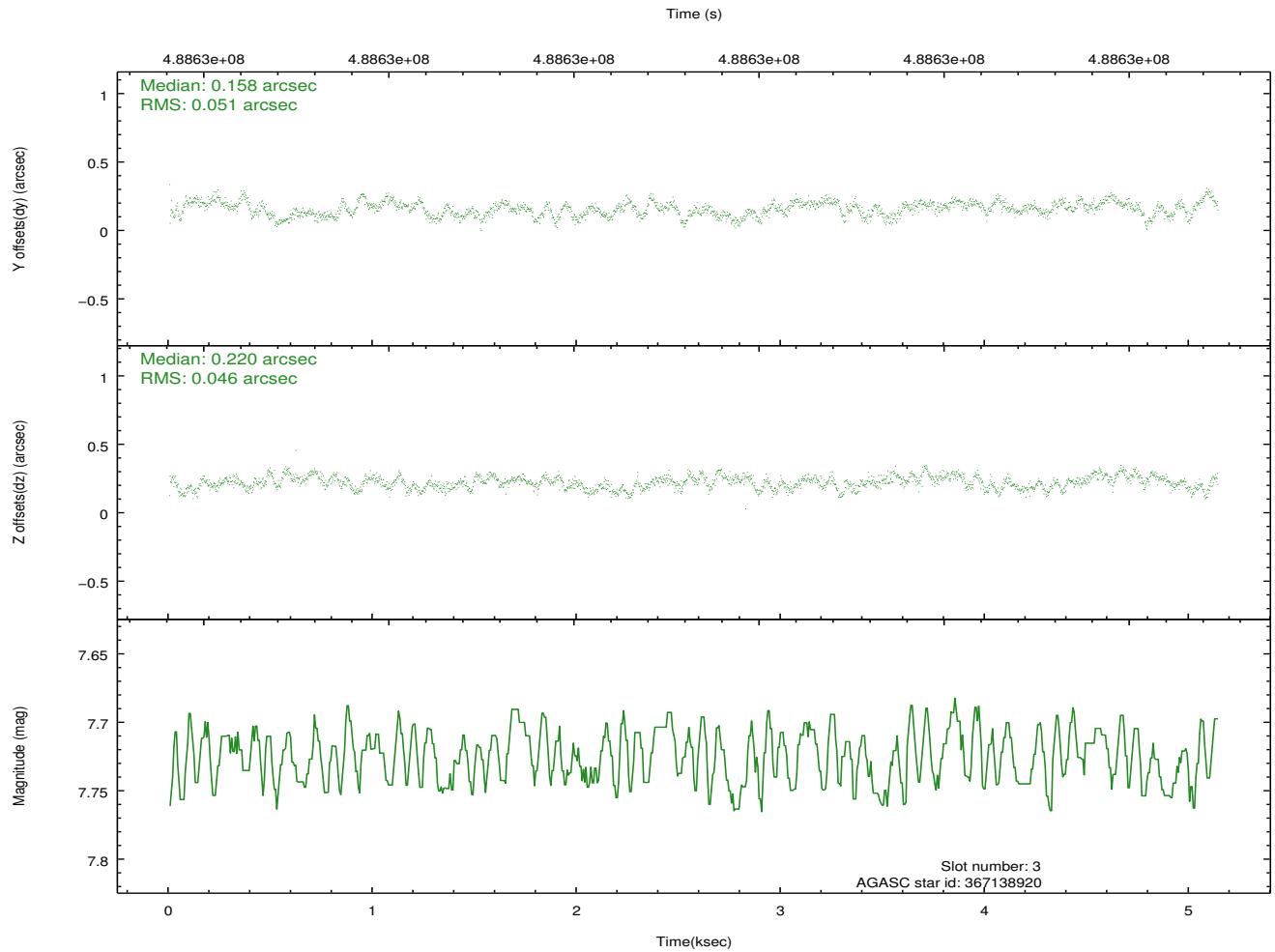
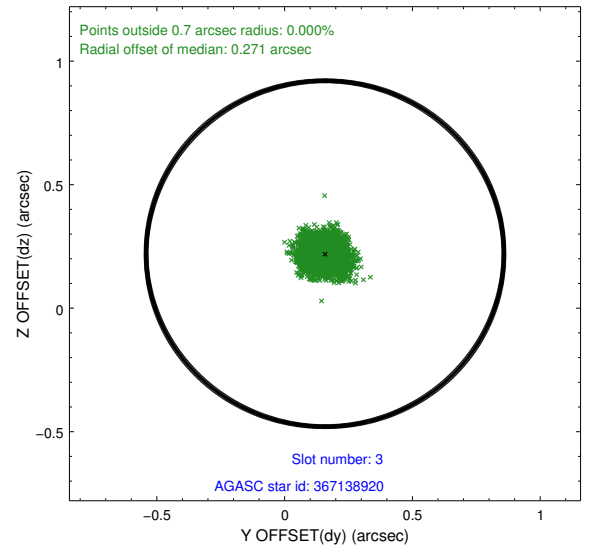
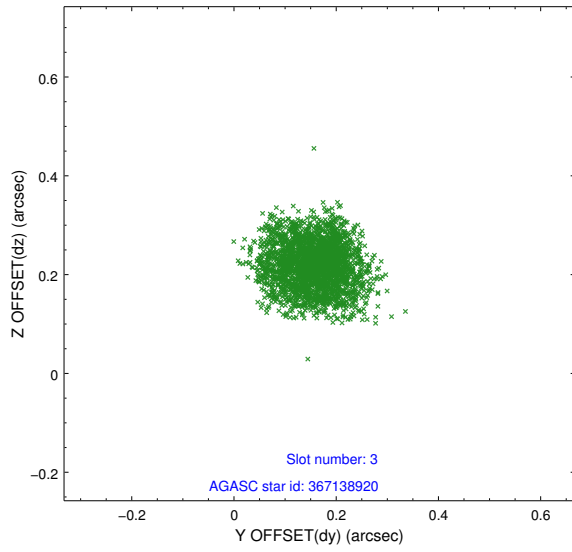
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.10	1254	-0.080	0.005	0.016	0.026	0.000000	0.000000	918.50	-841.82
1	FID		ACIS-I-2	7.00	1254	-0.192	-0.108	0.010	0.017	0.000000	0.000000	-775.06	-849.04
2	FID		ACIS-I-4	7.02	1253	0.173	0.170	0.012	0.022	0.000000	0.000000	2138.02	1057.59
3	GUIDE	used	367138920	7.72	2506	0.158	0.220	0.074	0.113	11.513485	40.808909	-2106.15	-1726.46
4	GUIDE	used	367146616	8.85	2504	0.208	0.299	0.098	0.148	11.418645	41.190163	-711.96	-1811.68
5	GUIDE	used	367148872	7.22	2507	0.066	-0.358	0.080	0.132	10.505940	40.688258	-1841.17	1043.03
6	GUIDE	used	367663272	9.27	2428	-0.226	-0.159	0.138	0.214	10.656279	41.699429	1575.45	-274.45
7	GUIDE	used	367674552	8.85	2506	-0.213	0.003	0.125	0.185	11.016238	41.570845	885.57	-1097.02

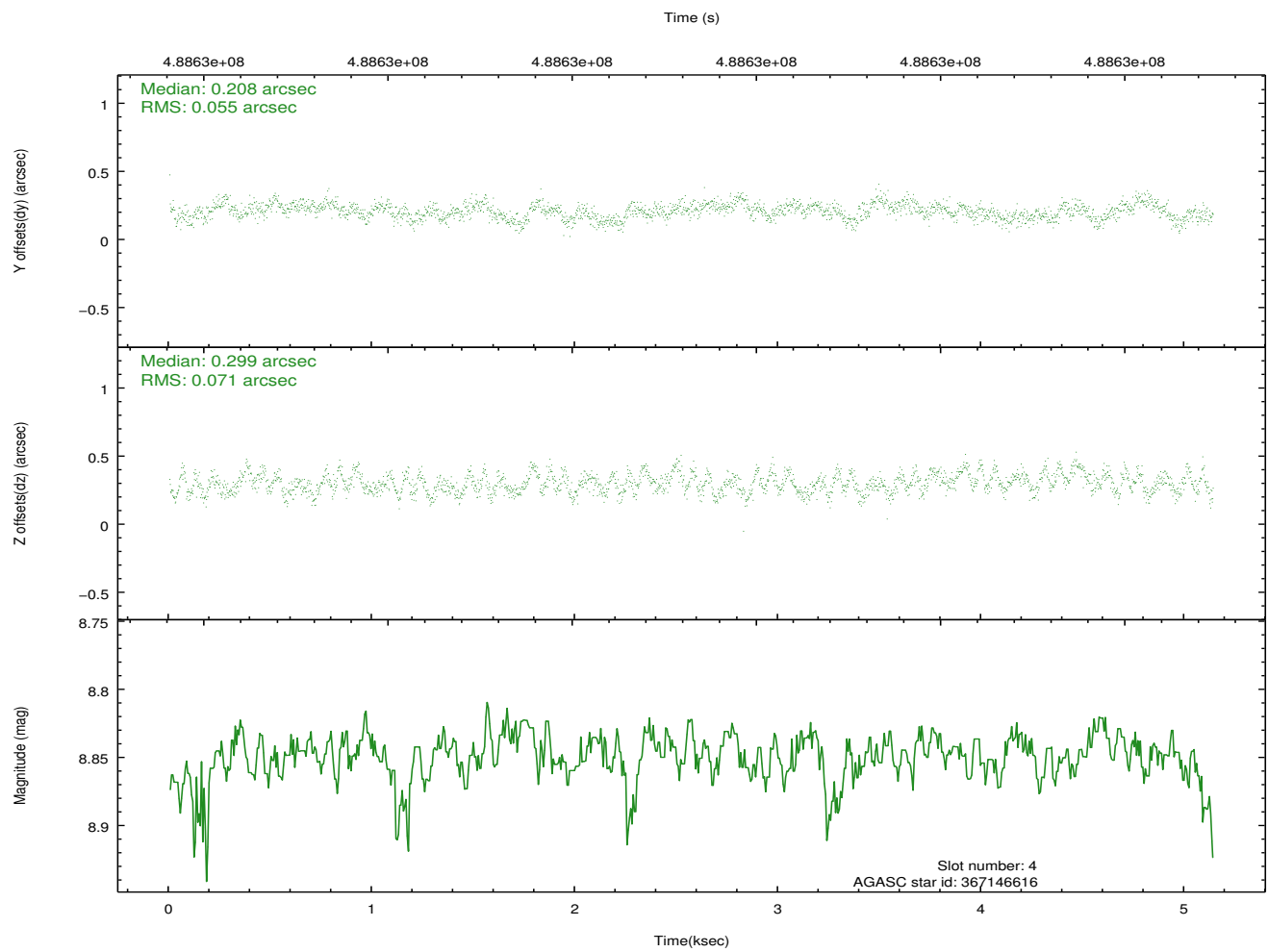
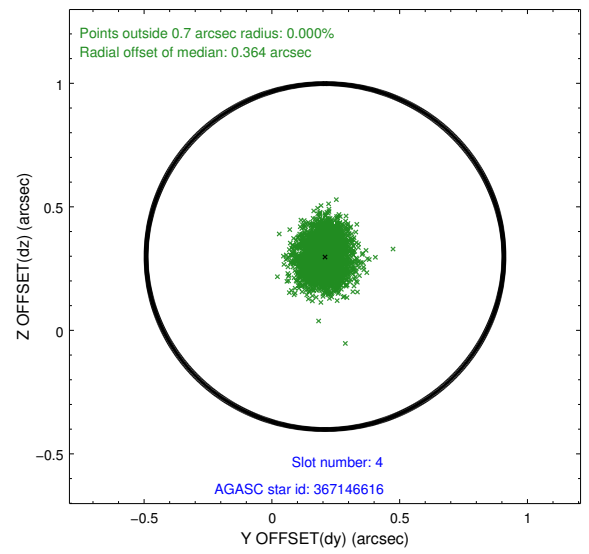
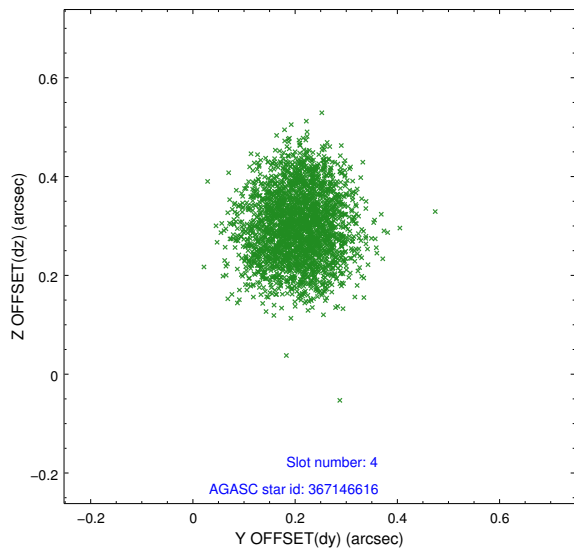
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2.4 Star Slots

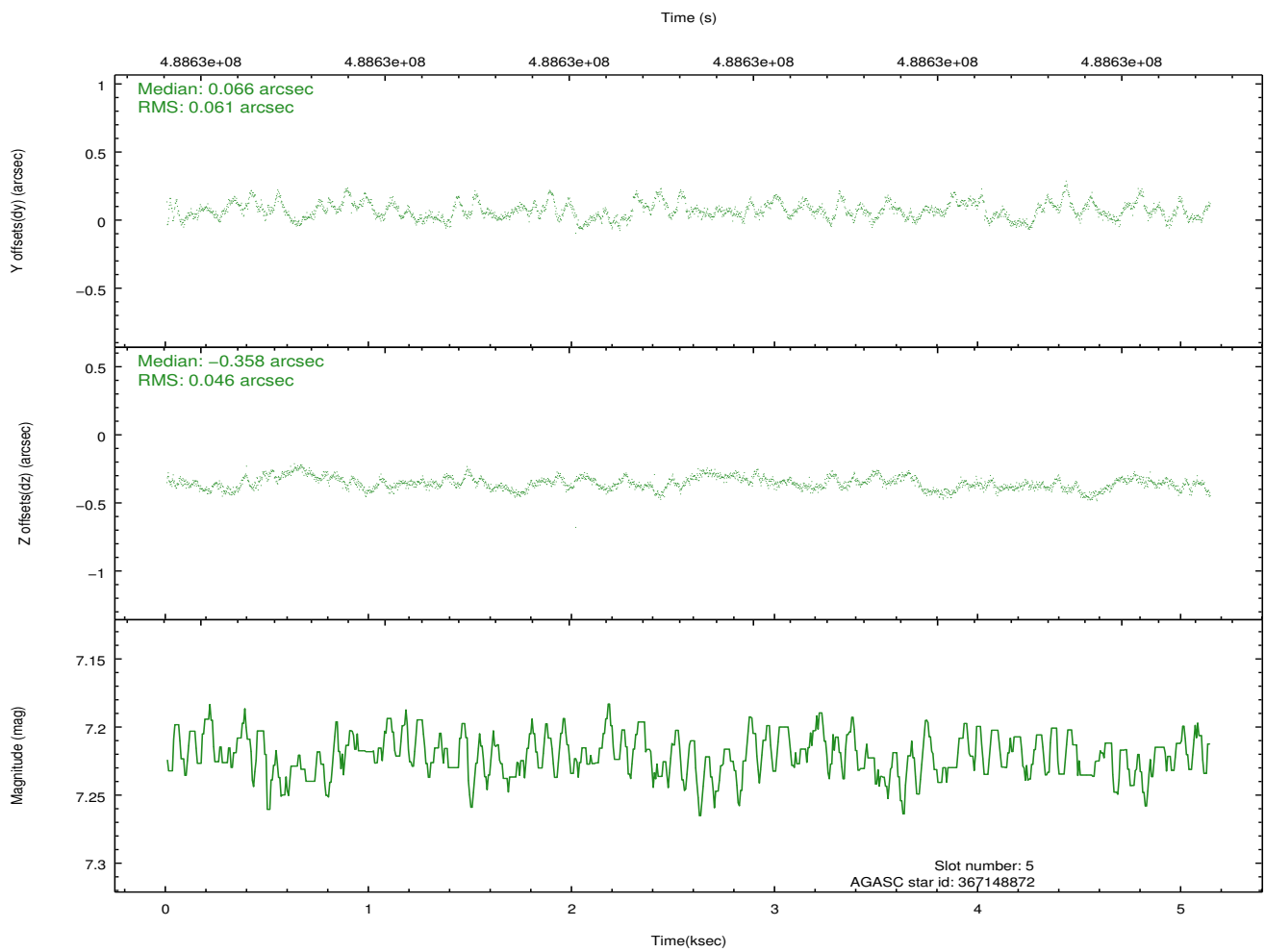
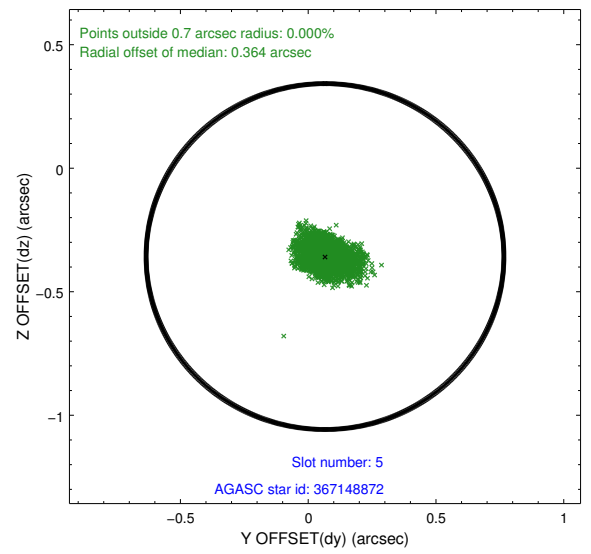
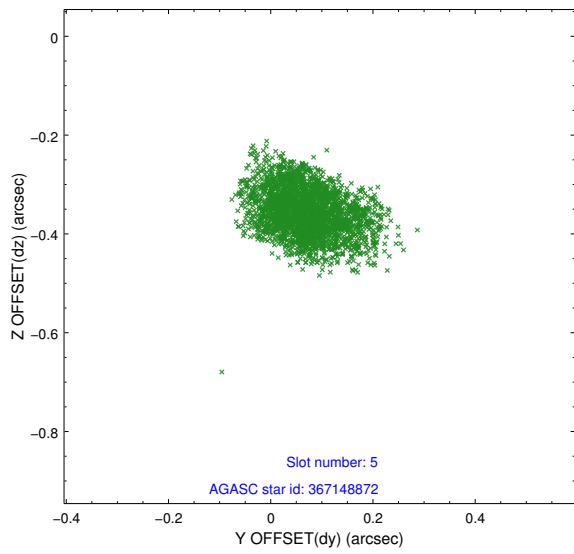
2.4.1 Slot 3



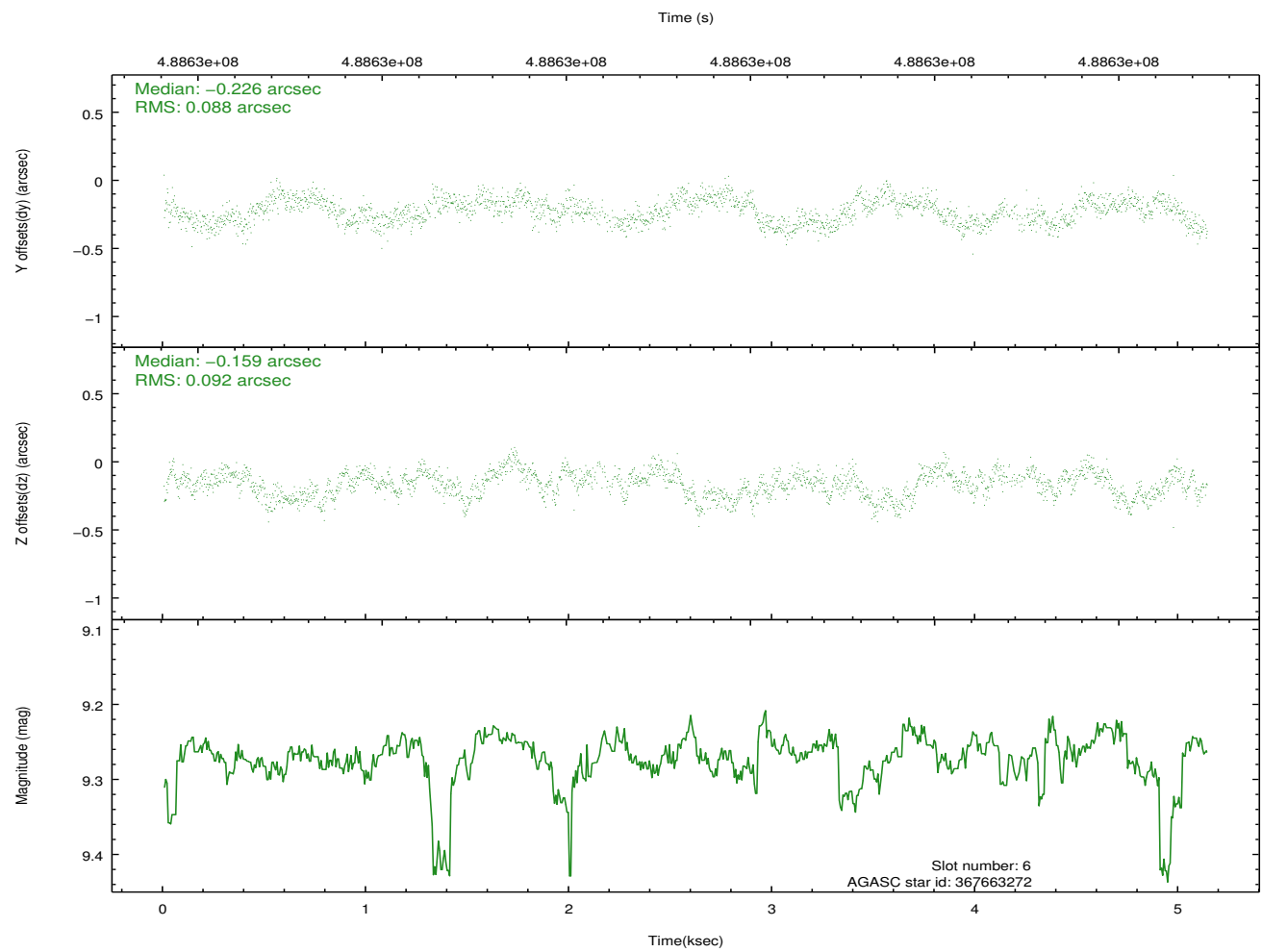
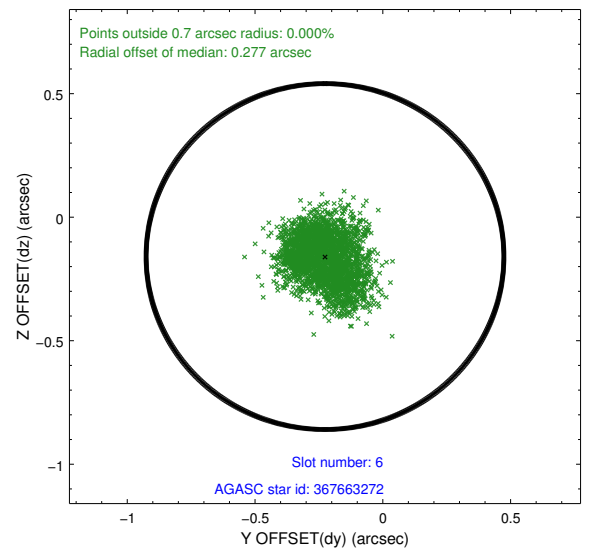
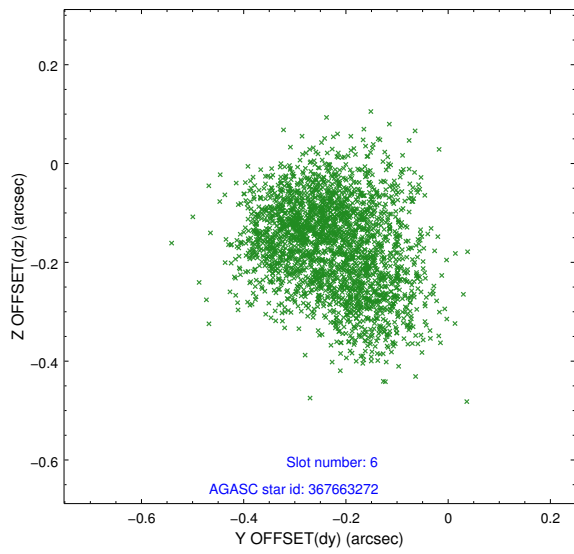
2.4.2 Slot 4



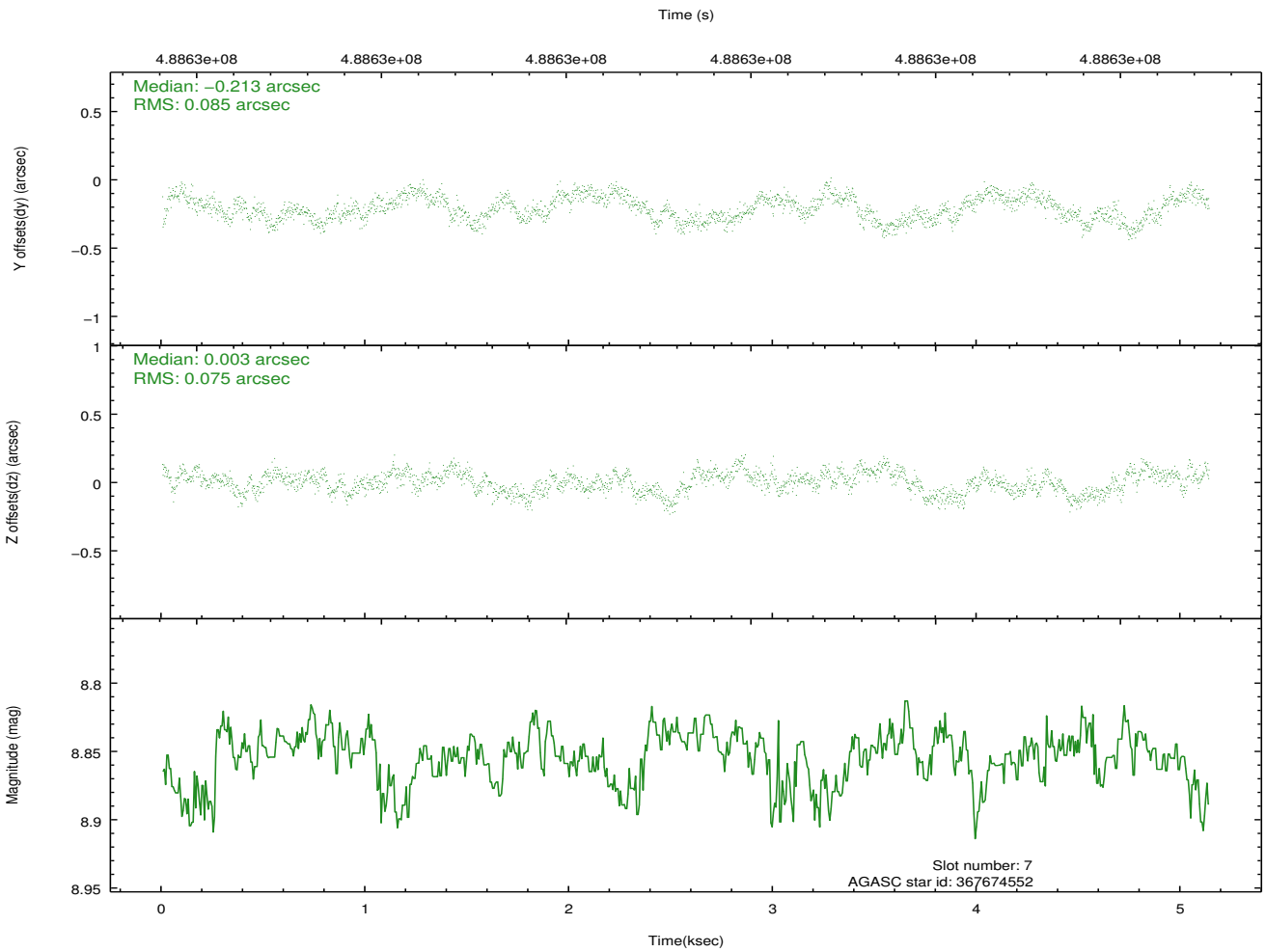
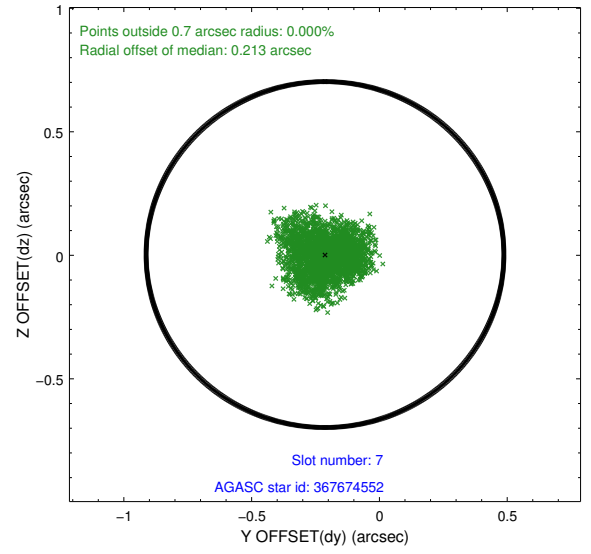
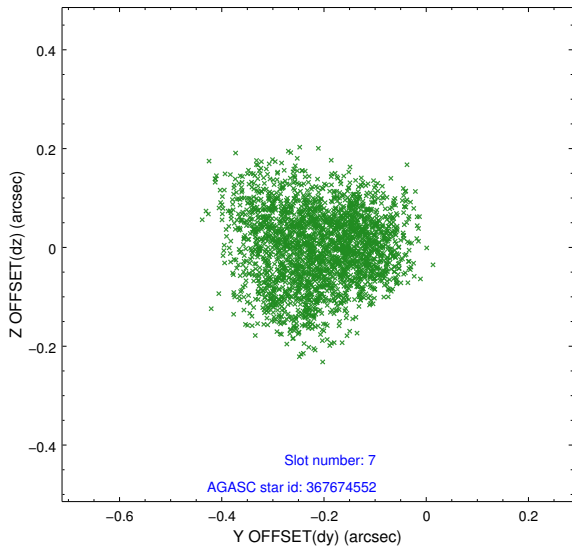
2.4.3 Slot 5



2.4.4 Slot 6

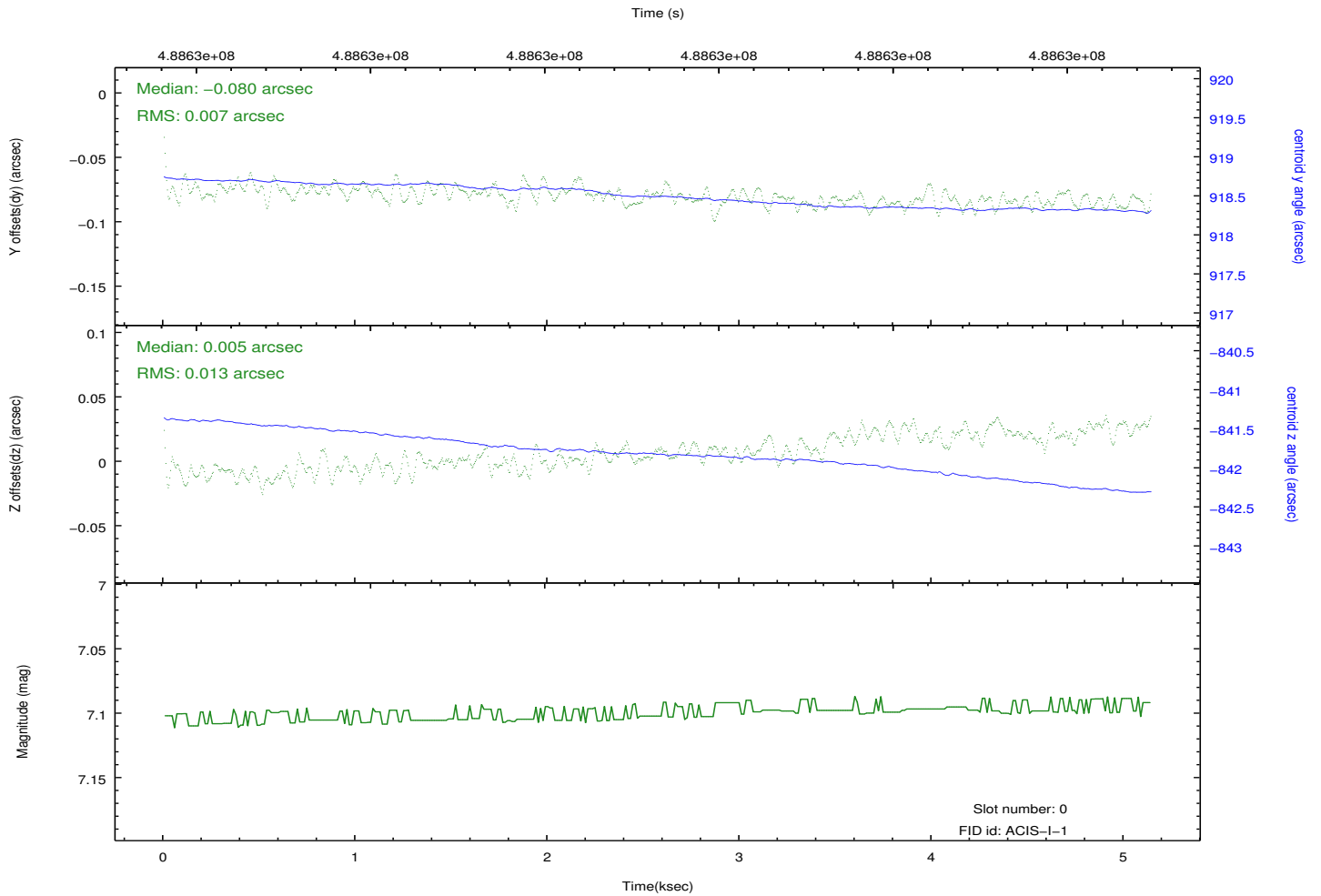
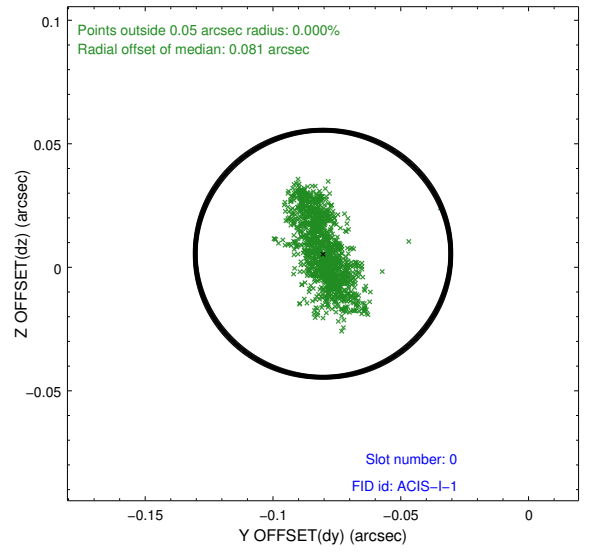
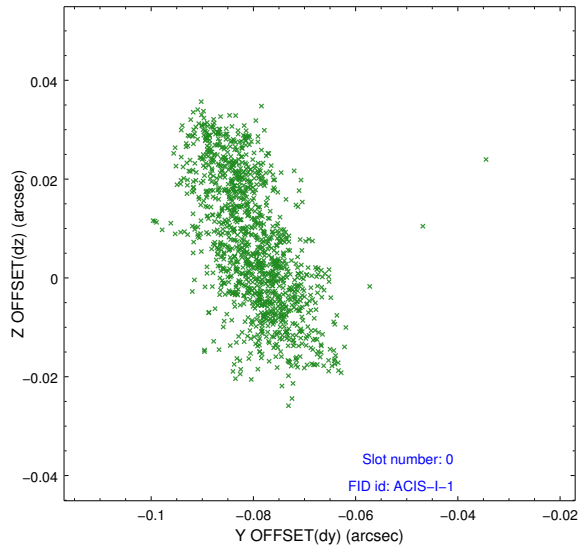


2.4.5 Slot 7

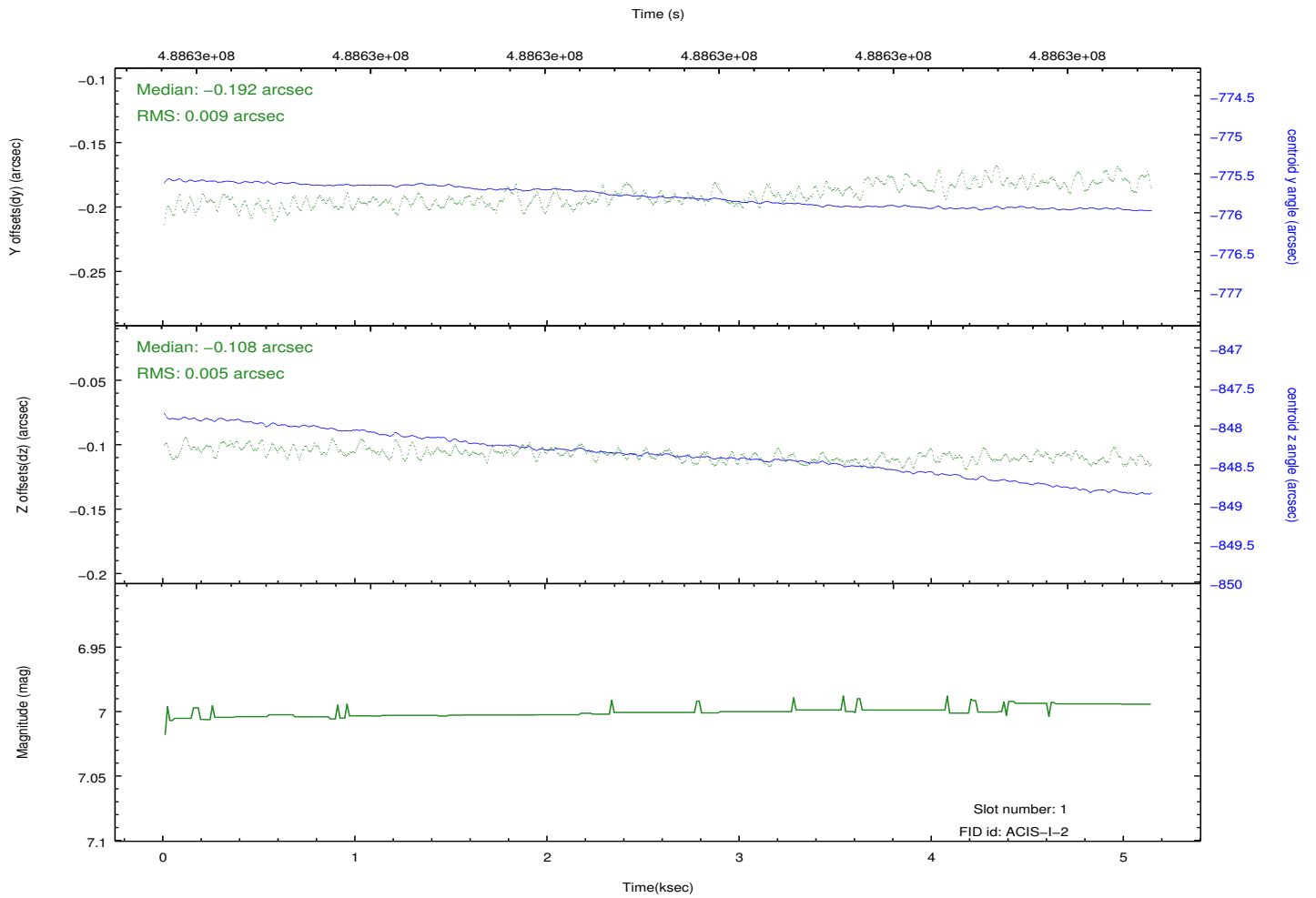
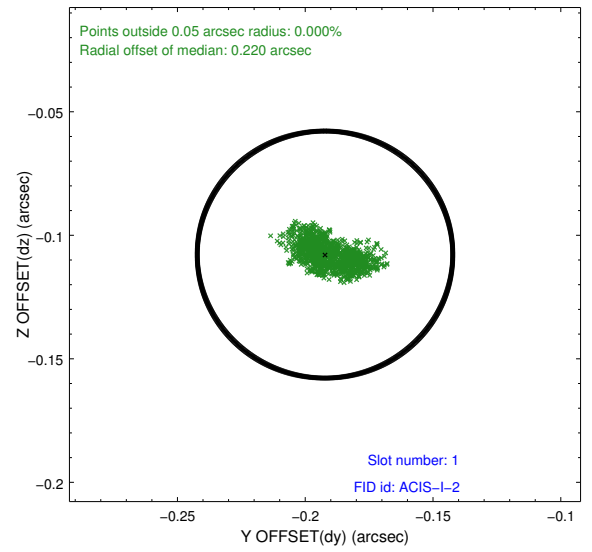
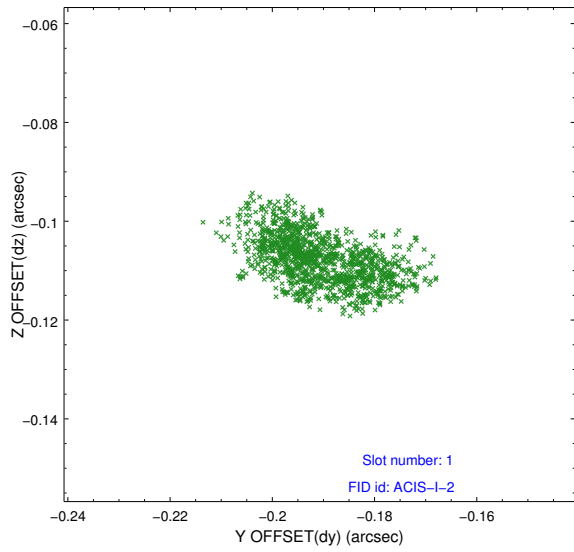


2.5 FID Slots

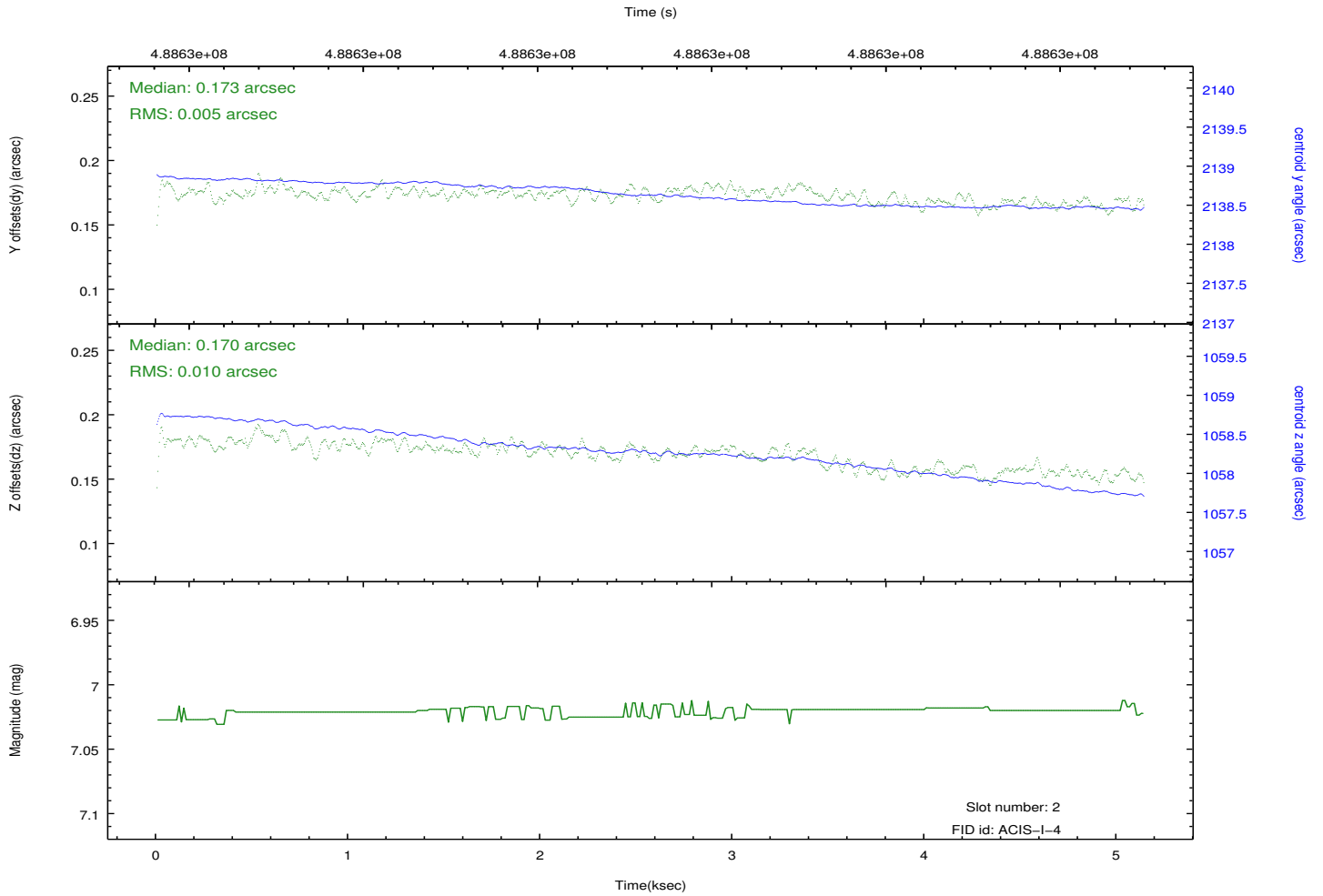
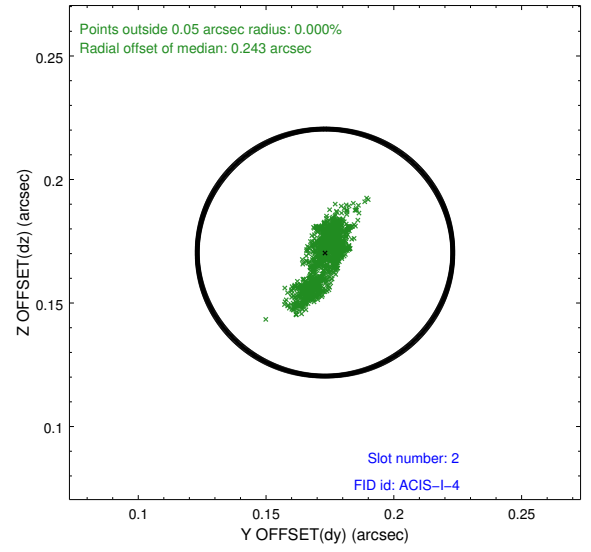
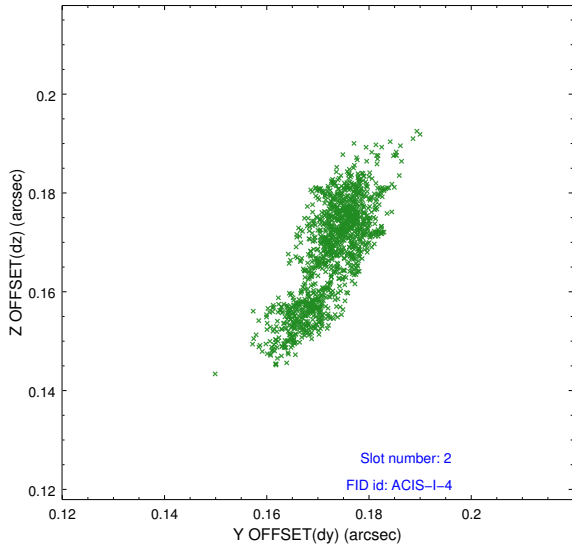
2.5.1 Slot 0



2.5.2 Slot 1



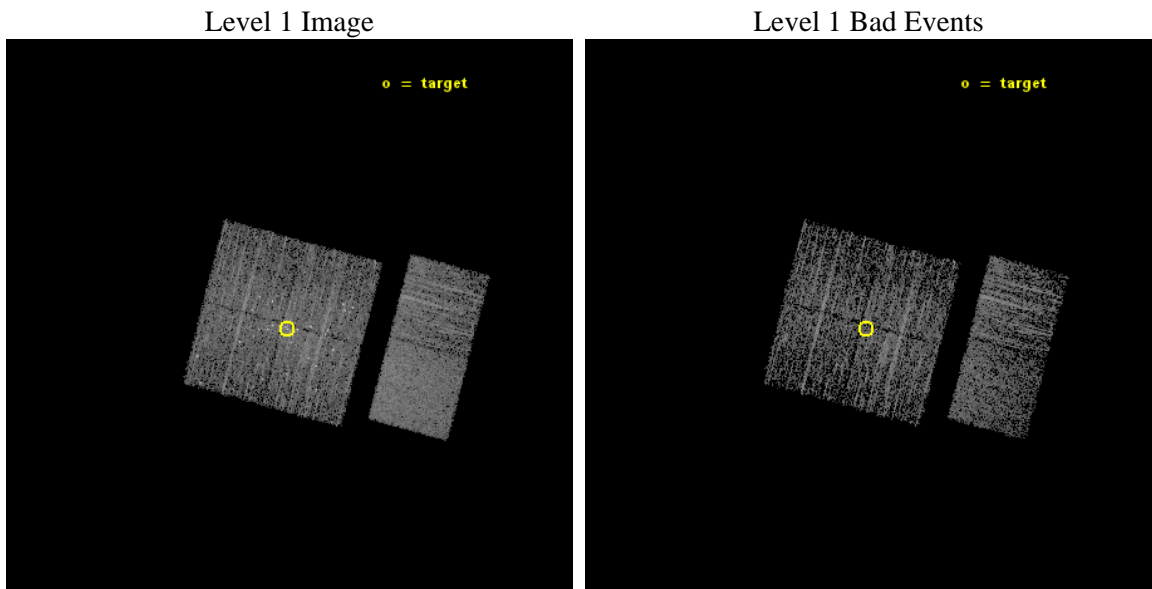
2.5.3 Slot 2



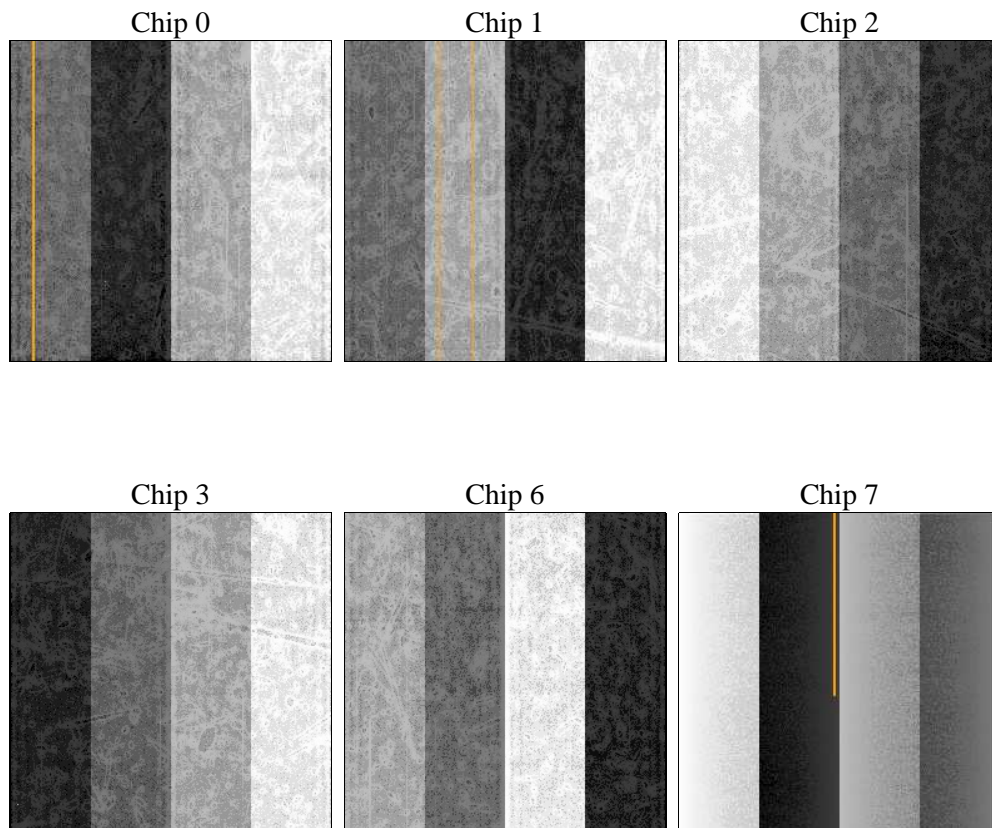
3 OBI Secondary

3.1 OBI

3.1.1 Images



3.1.2 Bias



3.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	3957.6449486017	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	3957.6447694302	Sum of GTIs [s]
date	2014-12-04T06:40:56	Date and time of file creation	ontime1	3957.6448490024	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3957.6447996497	Sum of GTIs [s]
			ontime3	3957.6449486017	Sum of GTIs [s]
			ontime6	3957.6447598338	Sum of GTIs [s]
			ontime7	3957.6448686123	Sum of GTIs [s]
			l1events	124733	Number of level 1 events

3.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	18184	18345	19980	23083	19700	25441
rejected events	14680	13564	15806	16743	17266	14330
rejected %	80%	73%	79%	72%	87%	56%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	1817	2724	2465	4021	916	979
	9%	14%	12%	17%	4%	3%
grade 1 events	18	24	21	111	17	29
	0%	0%	0%	0%	0%	0%
grade 2 events	706	844	674	921	507	2265
	3%	4%	3%	3%	2%	8%
grade 3 events	251	301	306	388	243	987
	1%	1%	1%	1%	1%	3%
grade 4 events	270	322	292	382	219	861
	1%	1%	1%	1%	1%	3%
grade 5 events	877	955	804	1053	1000	2692
	4%	5%	4%	4%	5%	10%
grade 6 events	473	596	438	634	555	6027
	2%	3%	2%	2%	2%	23%
grade 7 events	13772	12579	14980	15573	16243	11601
	75%	68%	74%	67%	82%	45%

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.88342811799047

A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.