

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 14927 - L2 Version 2
Chandra X-Ray Center

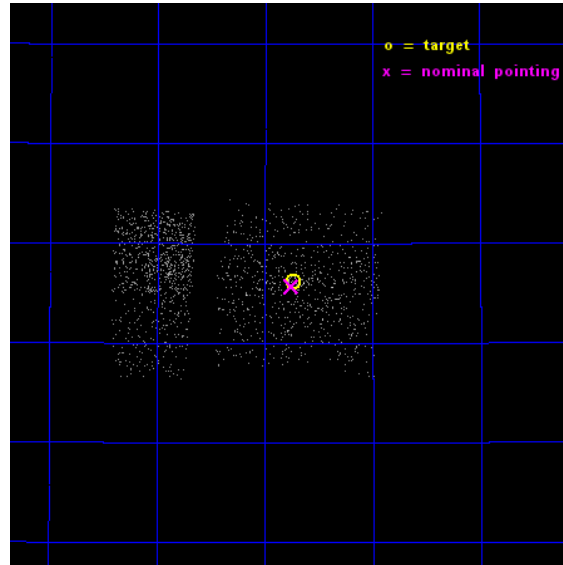
L2 Processing Date : Nov 30 2014

Contents

1	Front	2
2	OBI Primary	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
3	OBI Secondary	17
3.1	OBI	17
3.1.1	Images	17
3.1.2	Bias	17
3.1.3	Parameters	18
3.1.4	Events	18
A	Summary	19
A.1	Status	19
A.2	Comments	19

1 Front

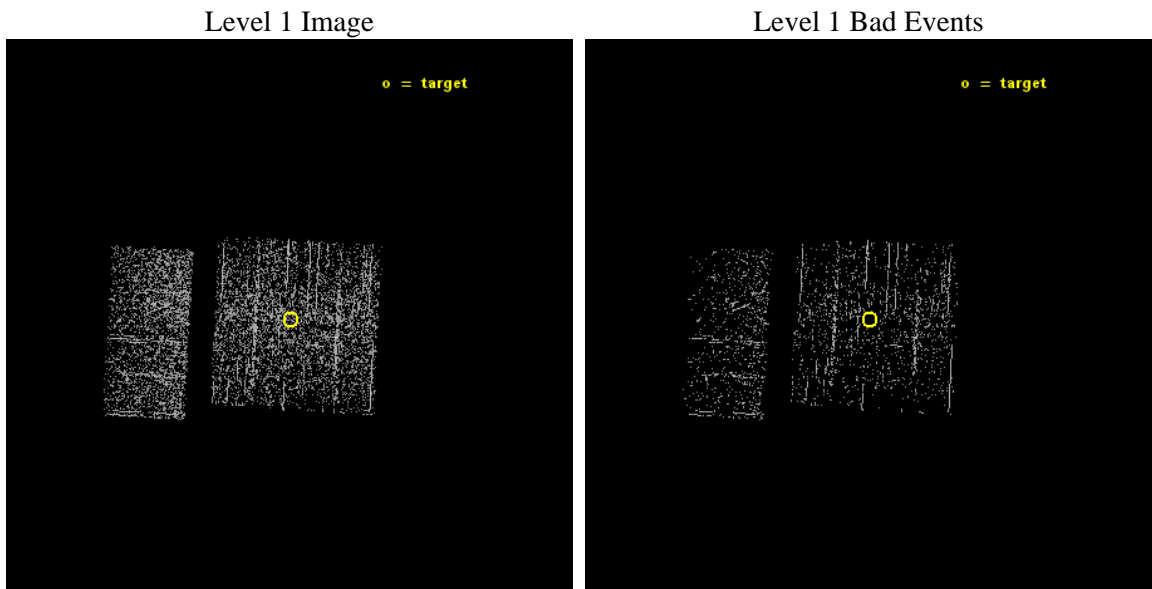
seq_num	601057	Sequence number
obs_id	14927	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr Robin Barnard	Principal investigator
object	M31 BHXN	Source name
dtcycle	0	
cycle	P	events are from which exps? P[rimary] S[econdar]
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.688758751447	Nominal RA [deg]
dec_nom	41.26138540053	Nominal Dec [deg]
roll_nom	272.99376340533	Nominal Roll [deg]
revision	2	Processing version of data
ontime	922.72832232714	Sum of GTIs [s]
livetime	145.25969559325	Livetime [s]
ontime0	922.72832232714	Sum of GTIs [s]
ontime1	922.72832232714	Sum of GTIs [s]
ontime2	922.72832232714	Sum of GTIs [s]
ontime3	922.72832232714	Sum of GTIs [s]
ontime6	922.72832232714	Sum of GTIs [s]
ontime7	922.72832232714	Sum of GTIs [s]
l2events	1933	Number of level 2 events



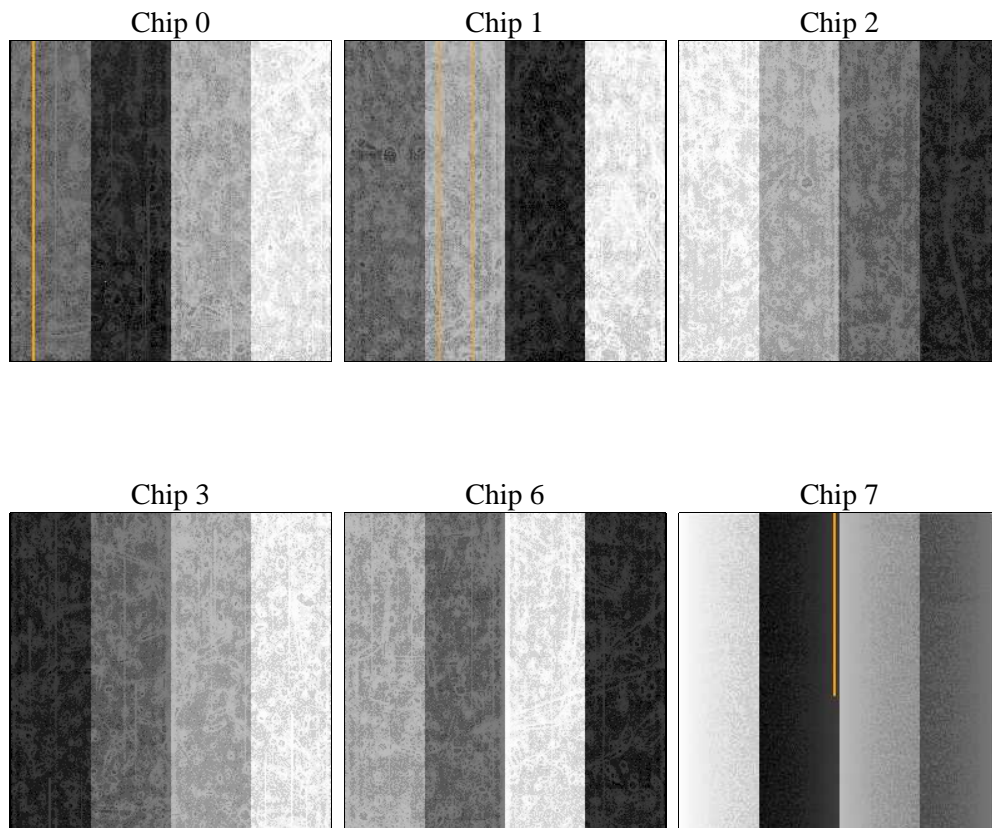
2 OBI Primary

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	922.72832232714	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	922.72832232714	Sum of GTIs [s]
date	2014-11-30T05:15:47	Date and time of file creation	ontime1	922.72832232714	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	922.72832232714	Sum of GTIs [s]
			ontime3	922.72832232714	Sum of GTIs [s]
			ontime6	922.72832232714	Sum of GTIs [s]
			ontime7	922.72832232714	Sum of GTIs [s]
			l1events	14863	Number of level 1 events

2.1.4 Events

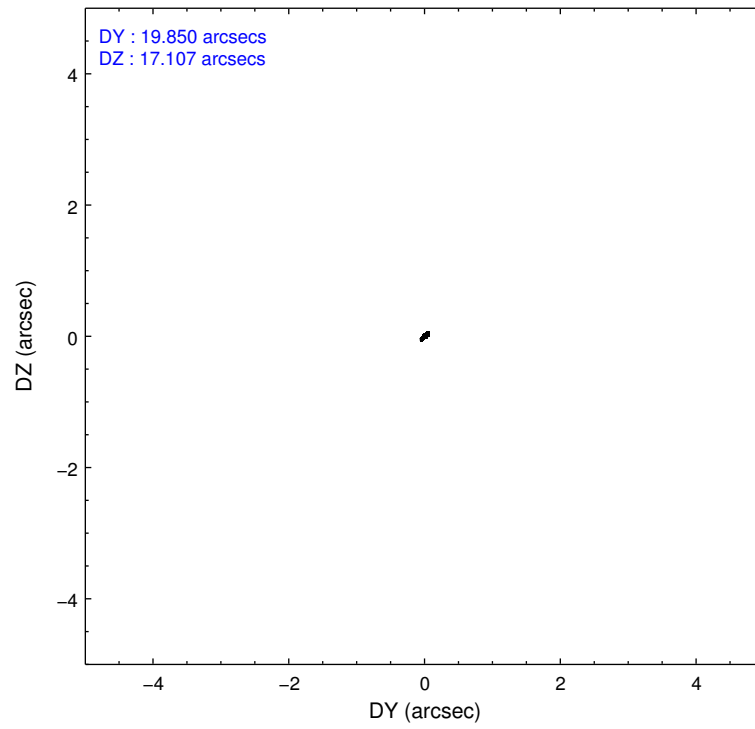
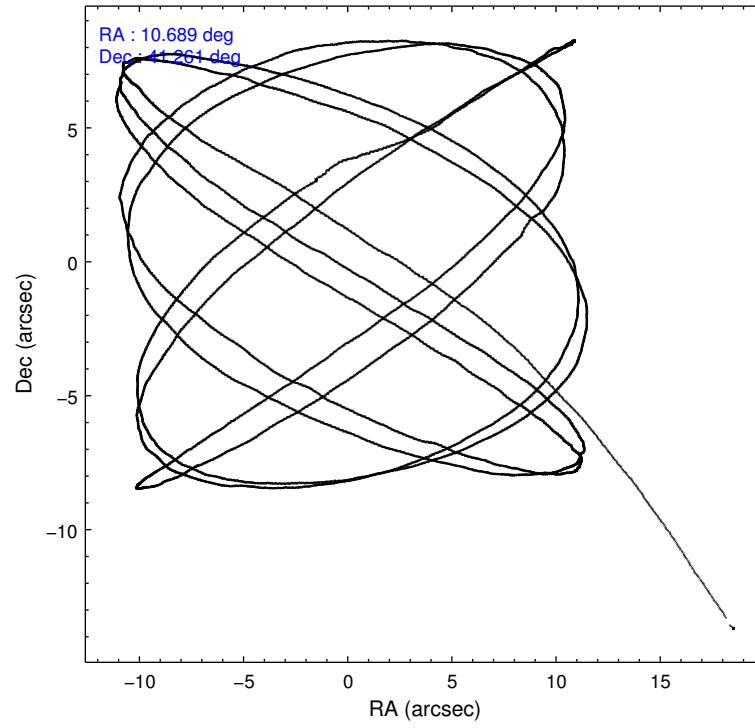
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	2209	2705	2267	2636	2452	2594
rejected events	1956	2332	1963	2333	2217	1853
rejected %	88%	86%	86%	88%	90%	71%

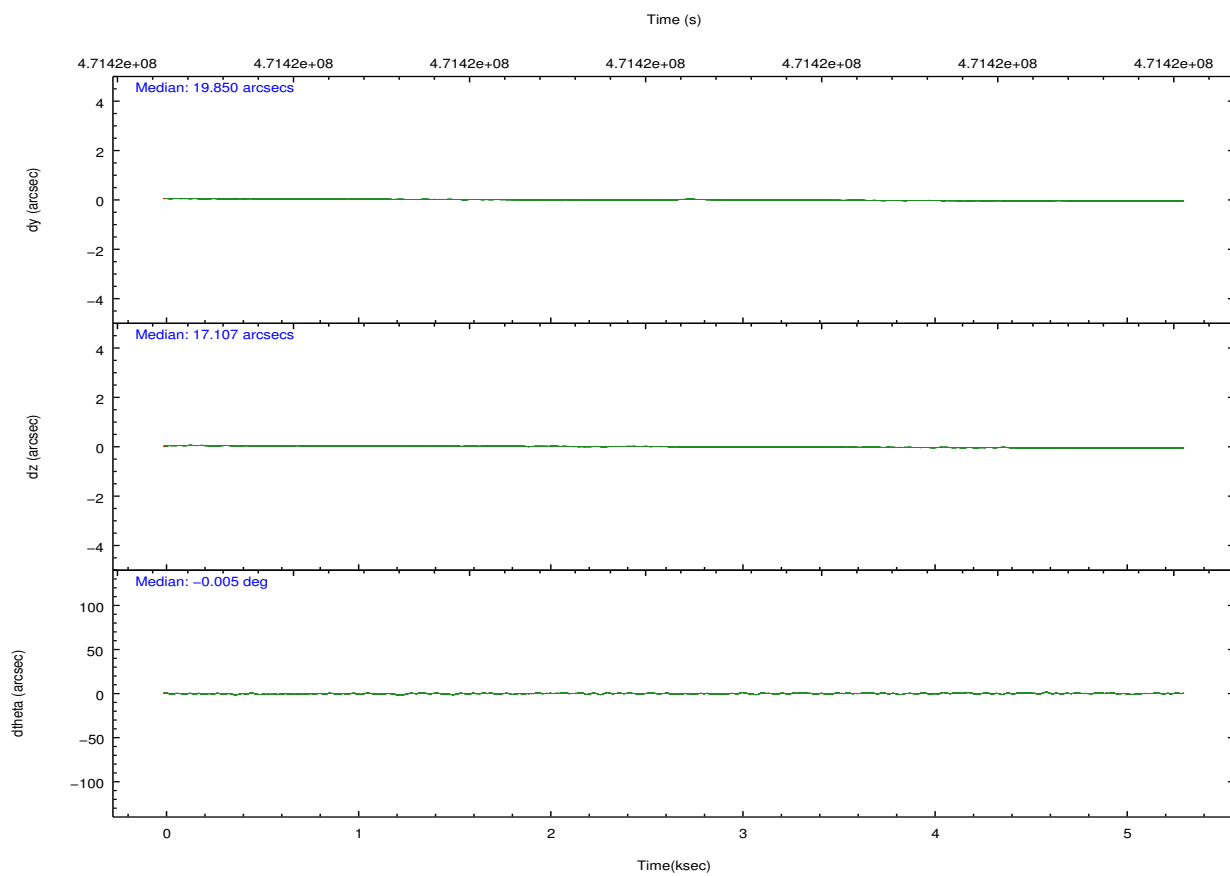
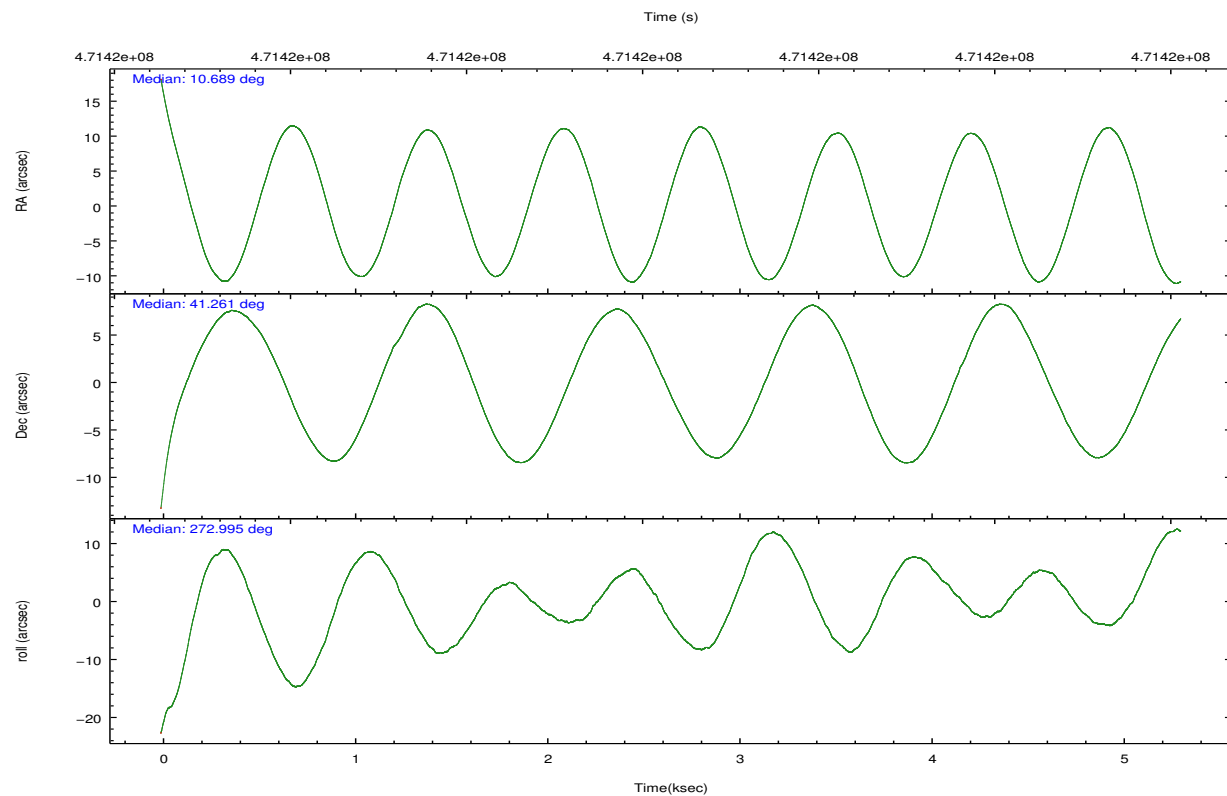
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	90	166	134	142	65	67
	4%	6%	5%	5%	2%	2%
grade 1 events	1	2	0	1	2	6
	0%	0%	0%	0%	0%	0%
grade 2 events	63	84	62	68	54	156
	2%	3%	2%	2%	2%	6%
grade 3 events	36	48	39	28	31	67
	1%	1%	1%	1%	1%	2%
grade 4 events	27	27	25	22	31	62
	1%	0%	1%	0%	1%	2%
grade 5 events	113	112	94	126	115	221
	5%	4%	4%	4%	4%	8%
grade 6 events	38	49	45	44	54	389
	1%	1%	1%	1%	2%	14%
grade 7 events	1841	2217	1868	2205	2100	1626
	83%	81%	82%	83%	85%	62%

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	10.668675	10.68875875144709	CCD I2 on	Y	Y
[deg] Pointing Dec	41.284390	41.26138540053021	CCD I3 on	Y	Y
[deg] Pointing Roll	272.798327	272.9937634053279	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)	471419814.184000	471418792.97281	CCD S5 on	N	N
Observation start date	2012-12-09T05:55:47	2012-12-09T05:39:52	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	471424814.184000	471425867.01069	On-chip summing requested	N	N
Observation end date	2012-12-09T07:19:07	2012-12-09T07:37:47	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



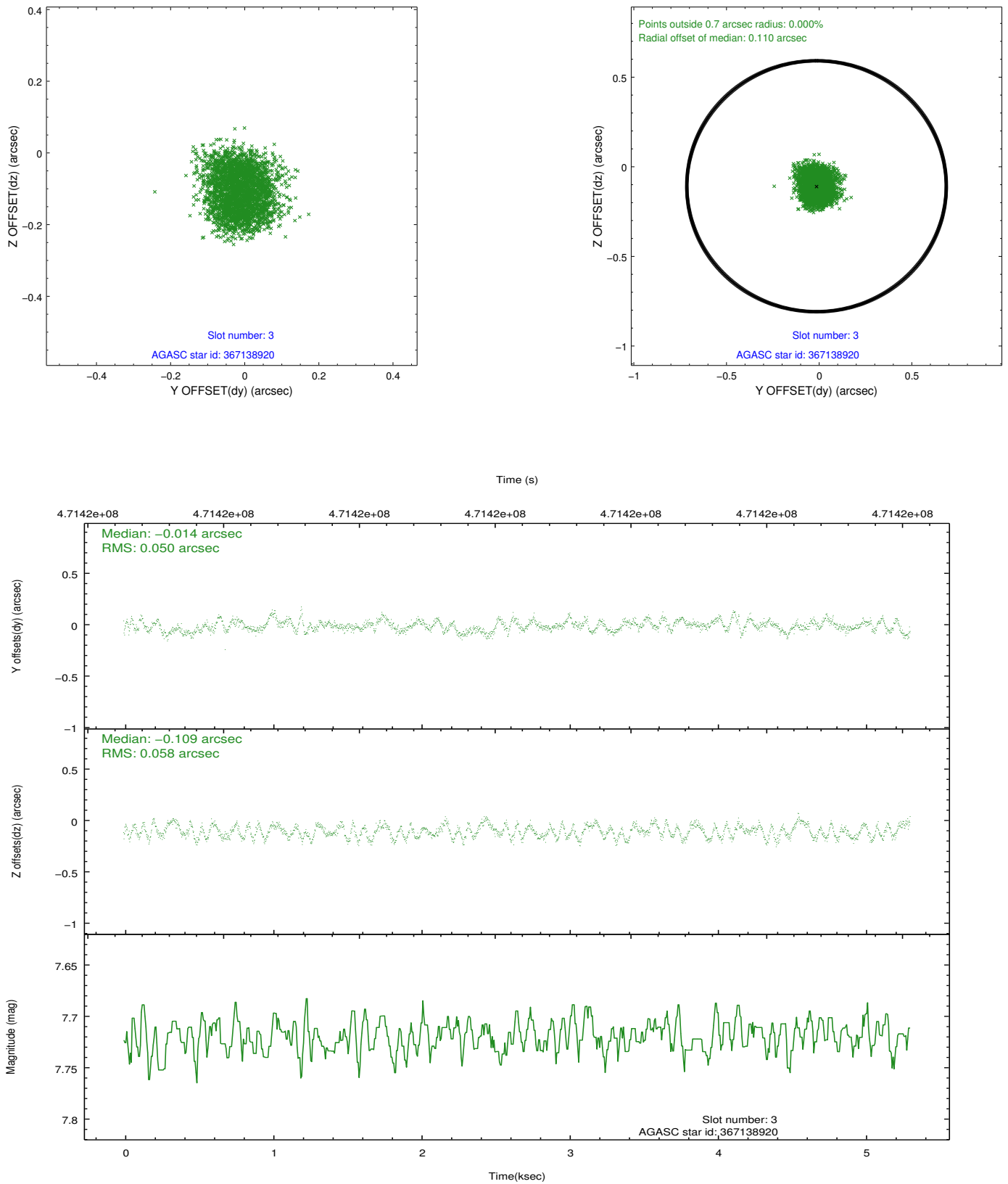


Slot Statistics

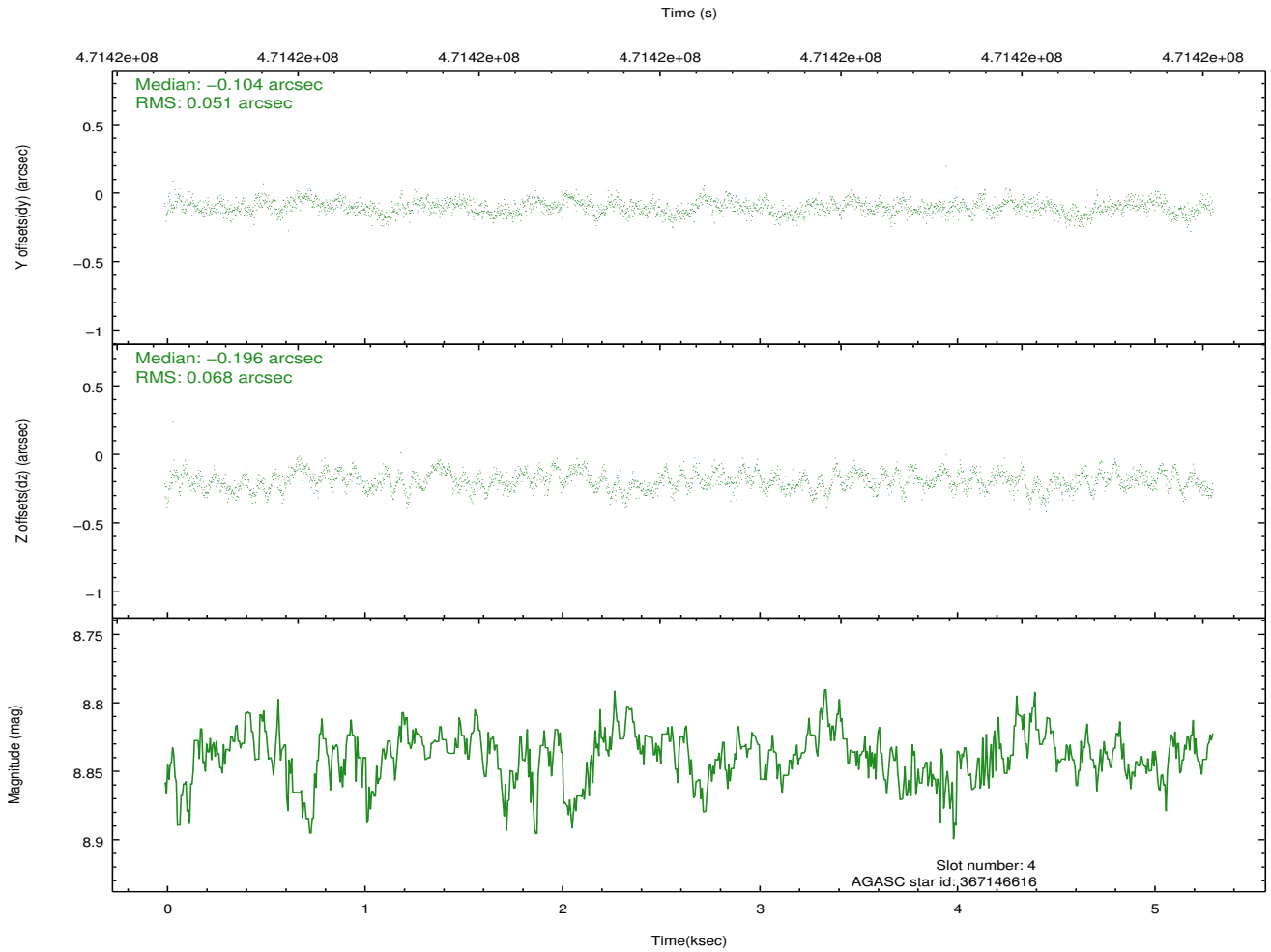
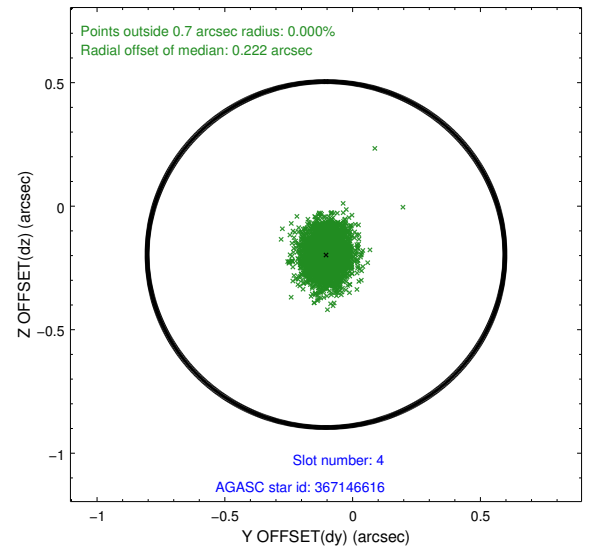
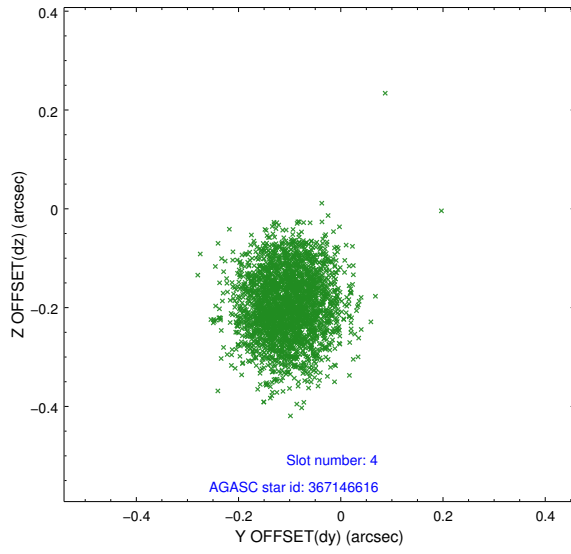
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.12	1295	0.113	-0.031	0.006	0.012	0.000000	0.000000	919.63	-840.74
1	FID		ACIS-I-2	7.01	1295	-0.039	-0.078	0.009	0.016	0.000000	0.000000	-773.99	-847.88
2	FID		ACIS-I-5	7.10	1295	-0.166	0.181	0.007	0.012	0.000000	0.000000	-1829.53	1056.25
3	GUIDE	used	367138920	7.72	2590	-0.014	-0.109	0.082	0.125	11.513485	40.808909	1811.96	2217.27
4	GUIDE	used	367146616	8.84	2589	-0.104	-0.196	0.091	0.142	11.418645	41.190163	430.02	2013.87
5	GUIDE	used	367148872	7.24	2590	0.026	0.129	0.073	0.111	10.505940	40.688258	2122.55	-547.75
6	GUIDE	used	367663272	9.28	2588	0.034	0.051	0.121	0.186	10.656279	41.699429	-1492.54	38.51
7	GUIDE	used	367674552	8.85	2589	0.046	0.115	0.110	0.181	11.016238	41.570845	-986.43	985.76

2.4 Star Slots

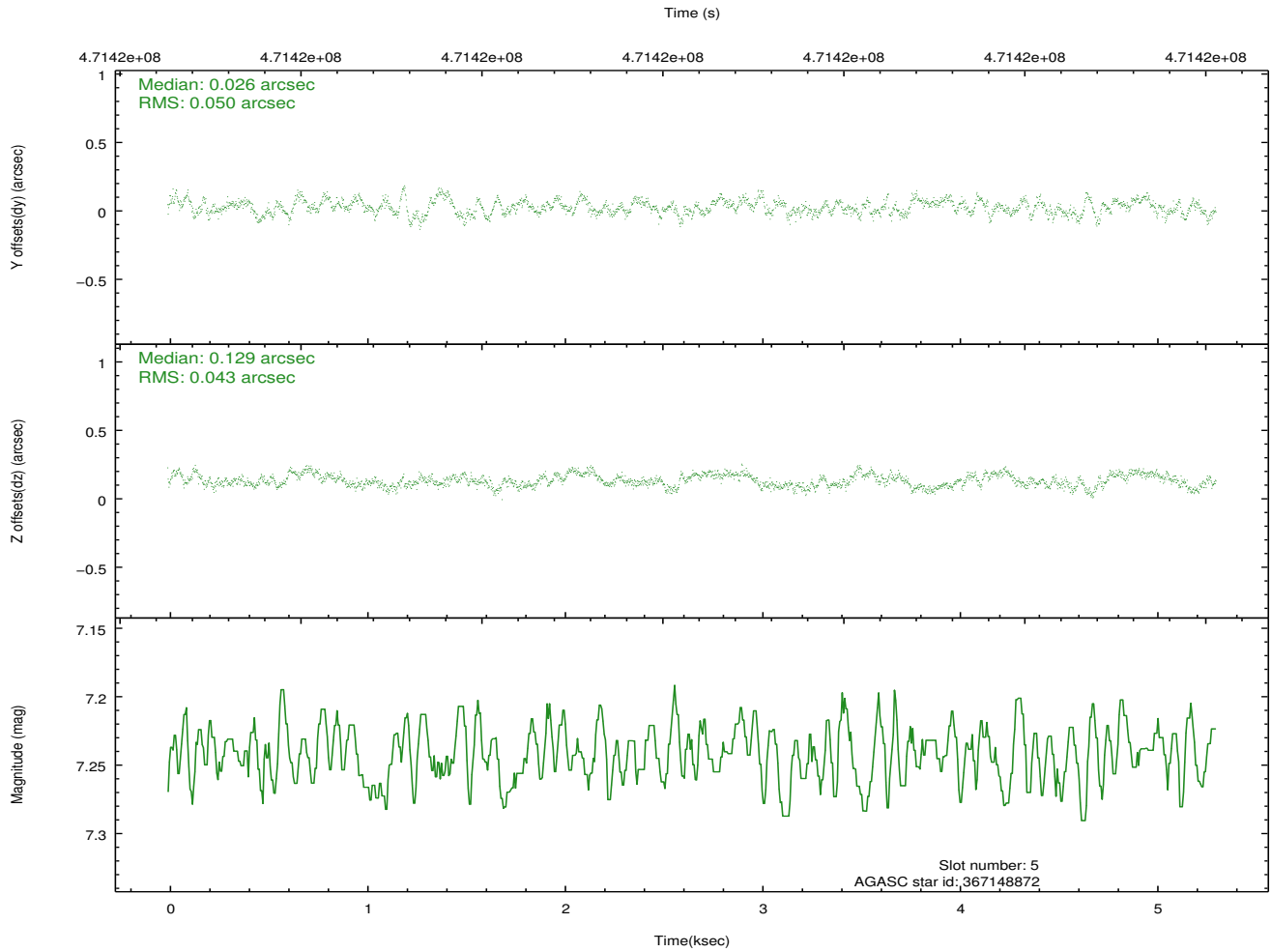
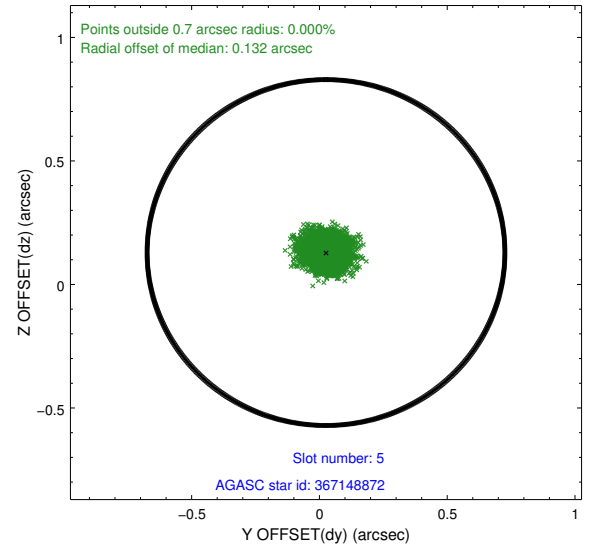
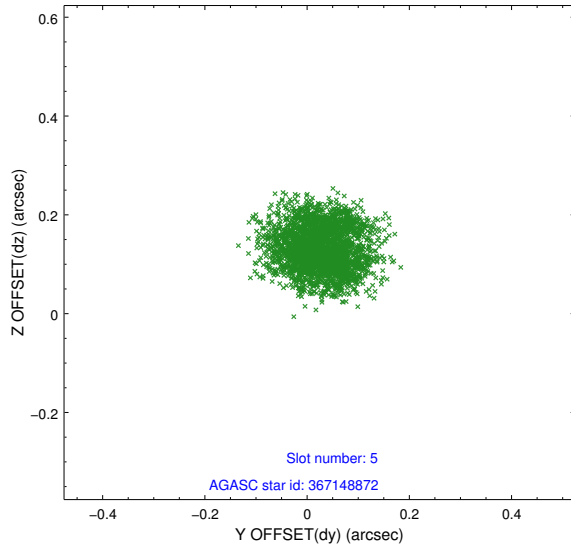
2.4.1 Slot 3



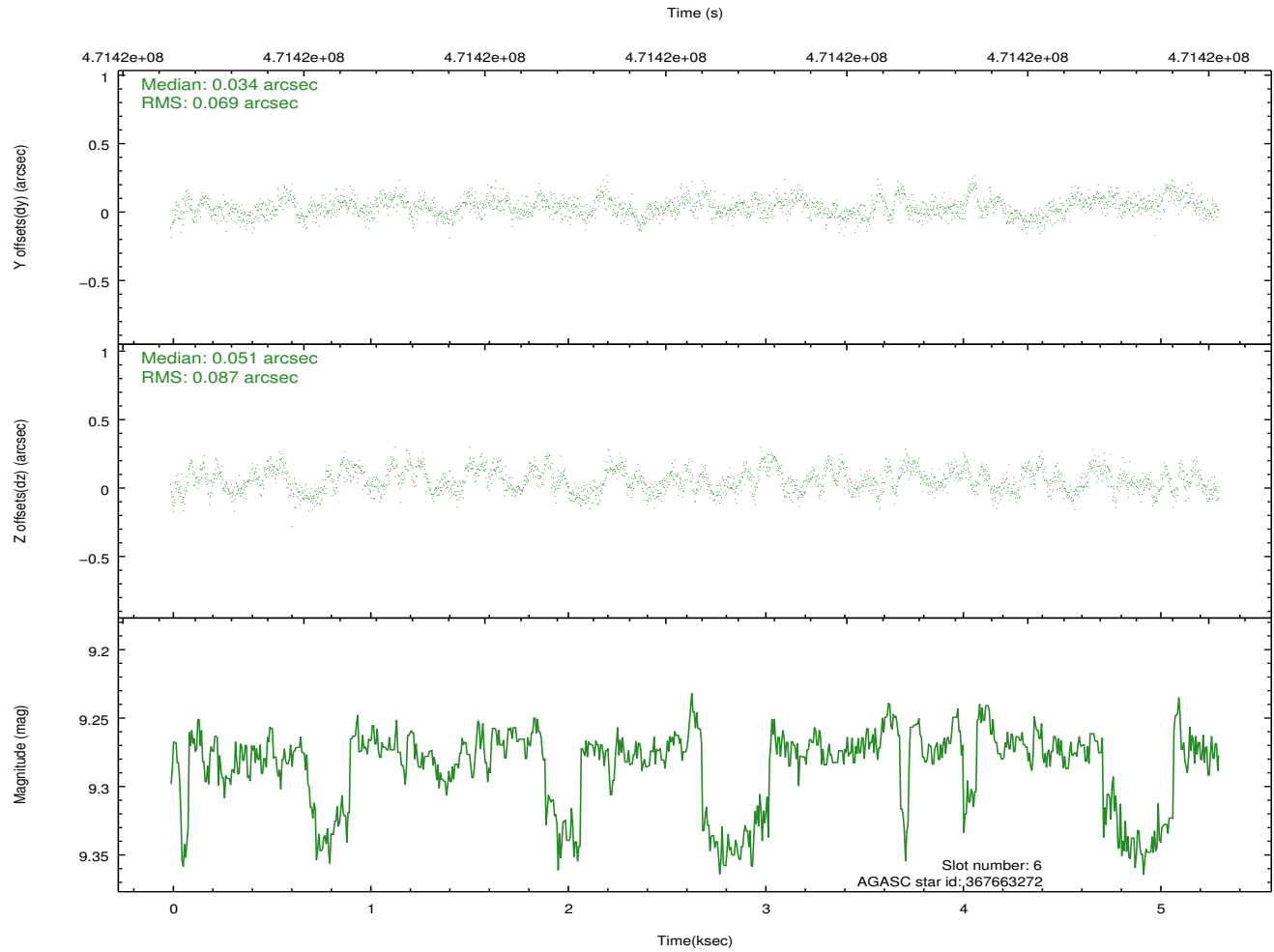
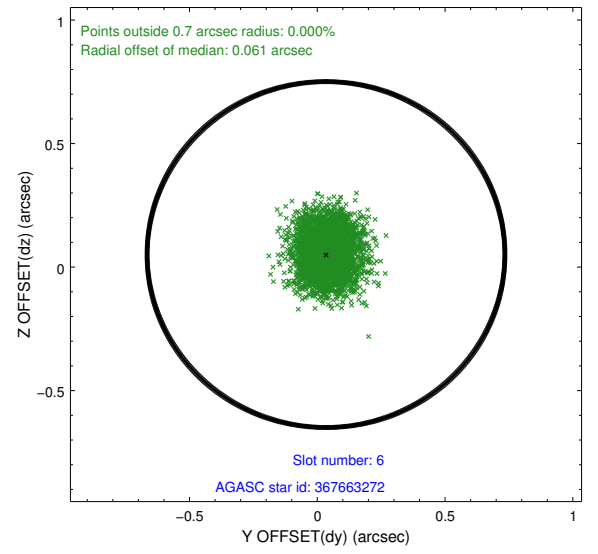
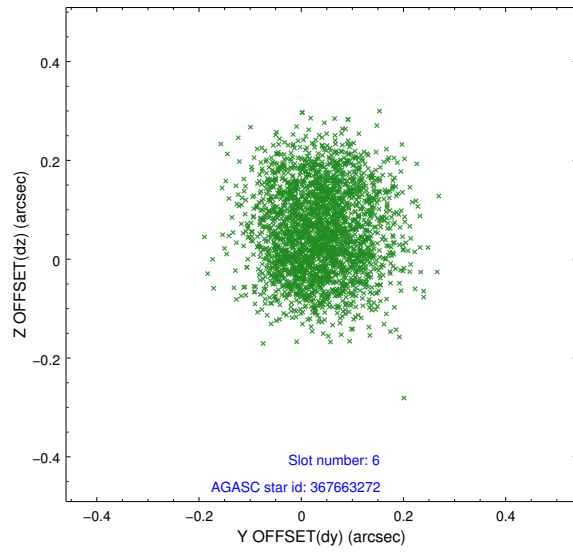
2.4.2 Slot 4



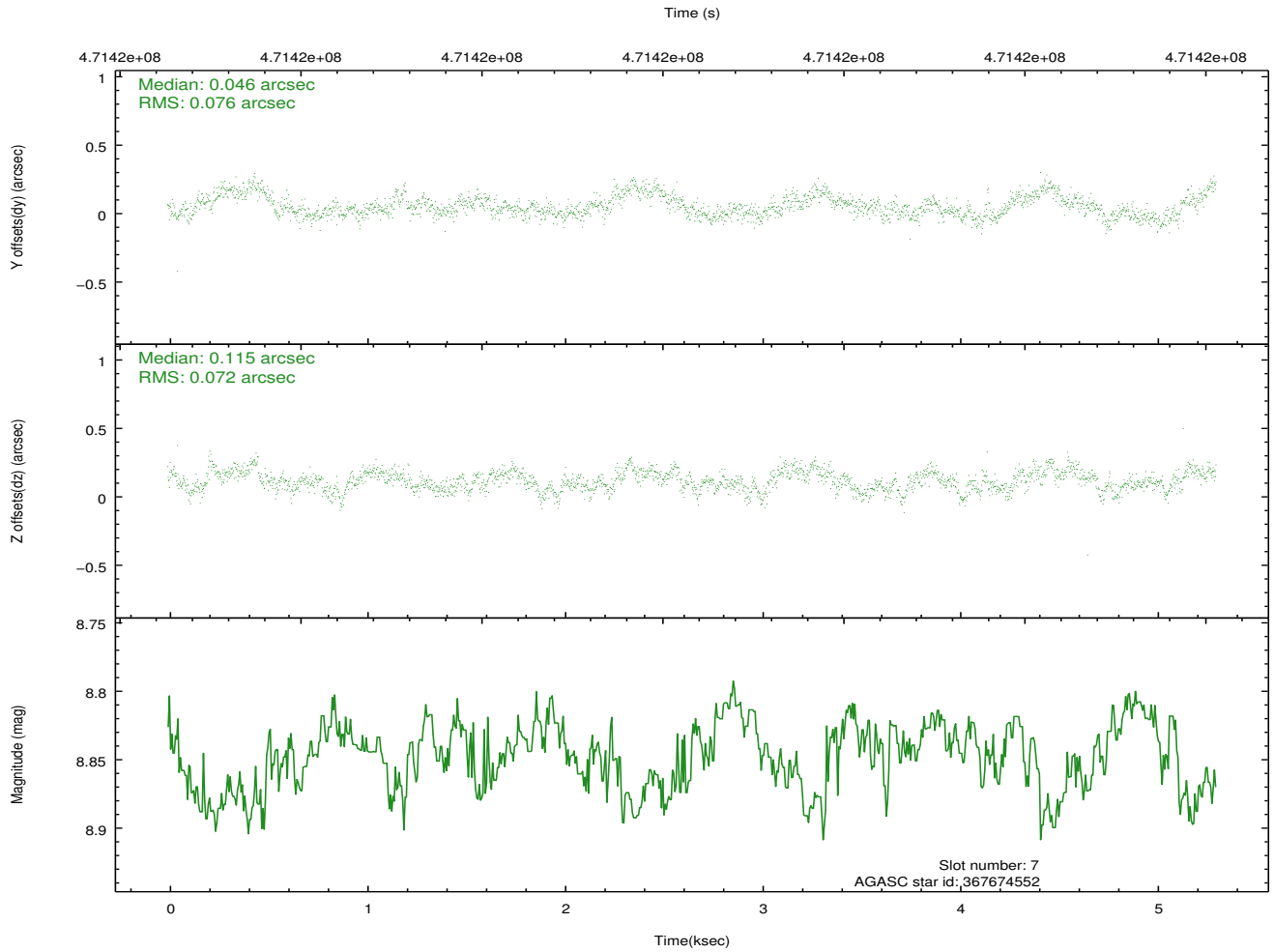
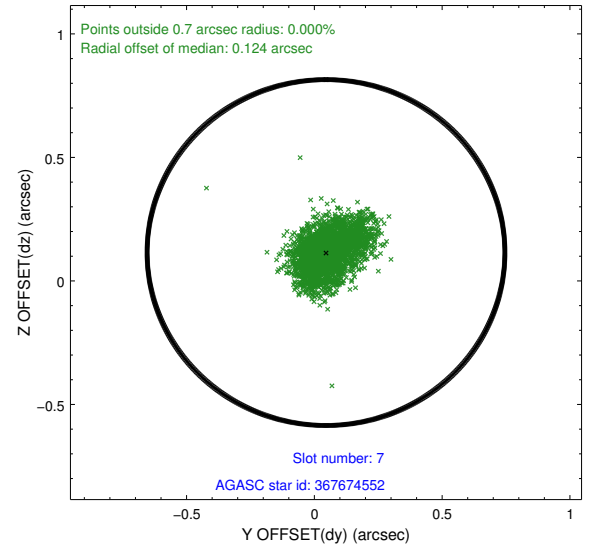
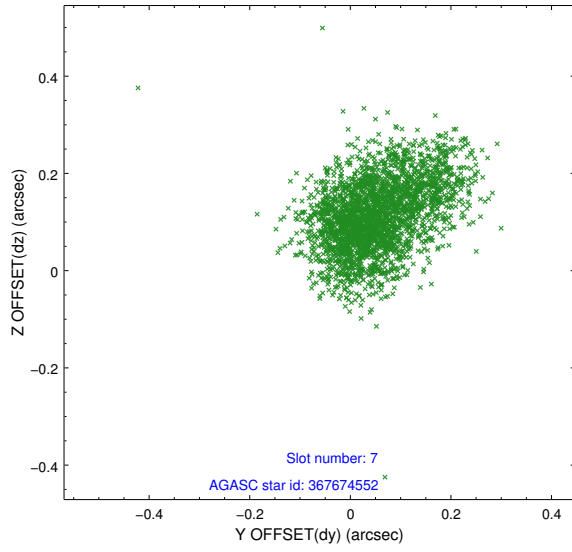
2.4.3 Slot 5



2.4.4 Slot 6

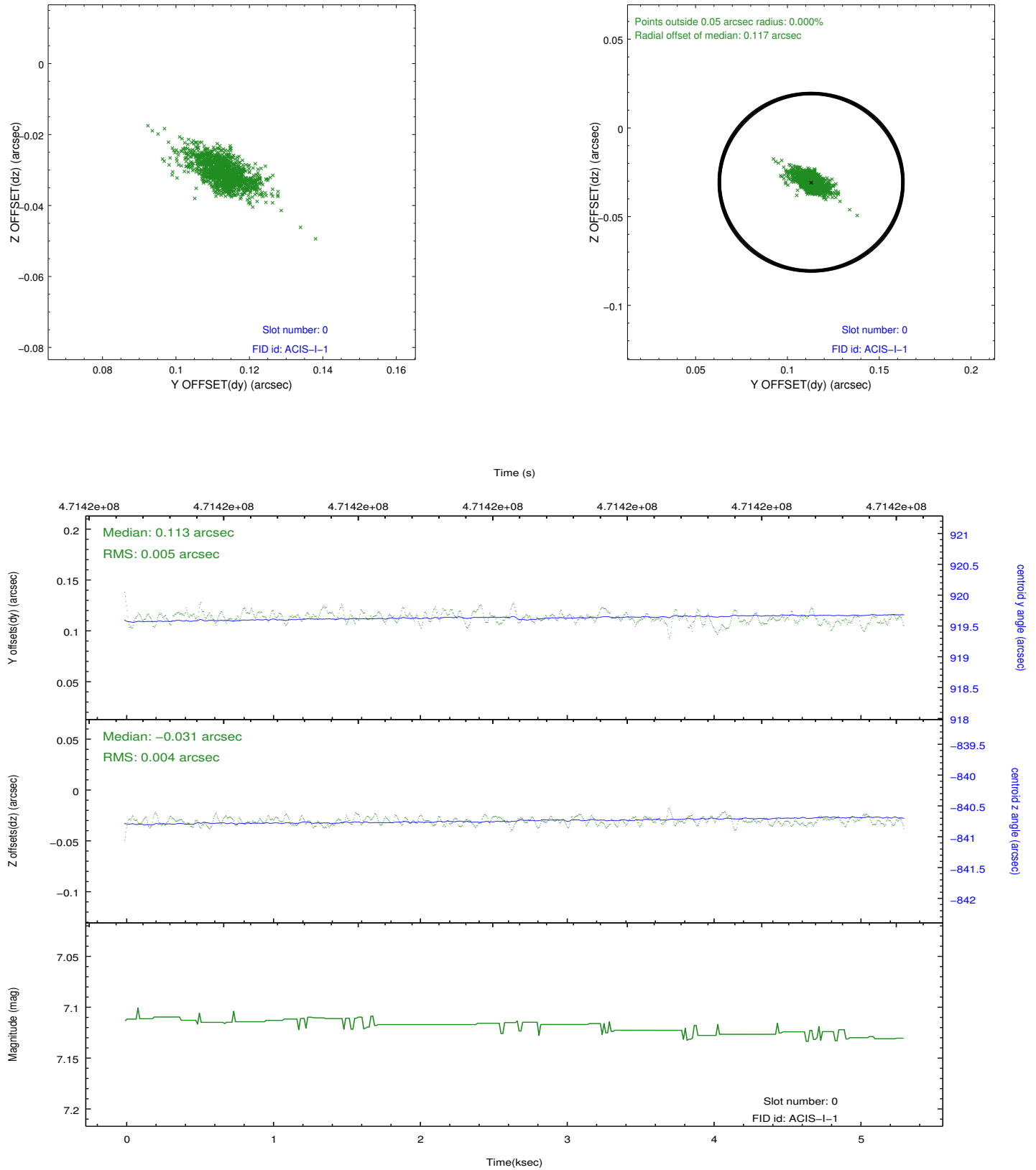


2.4.5 Slot 7

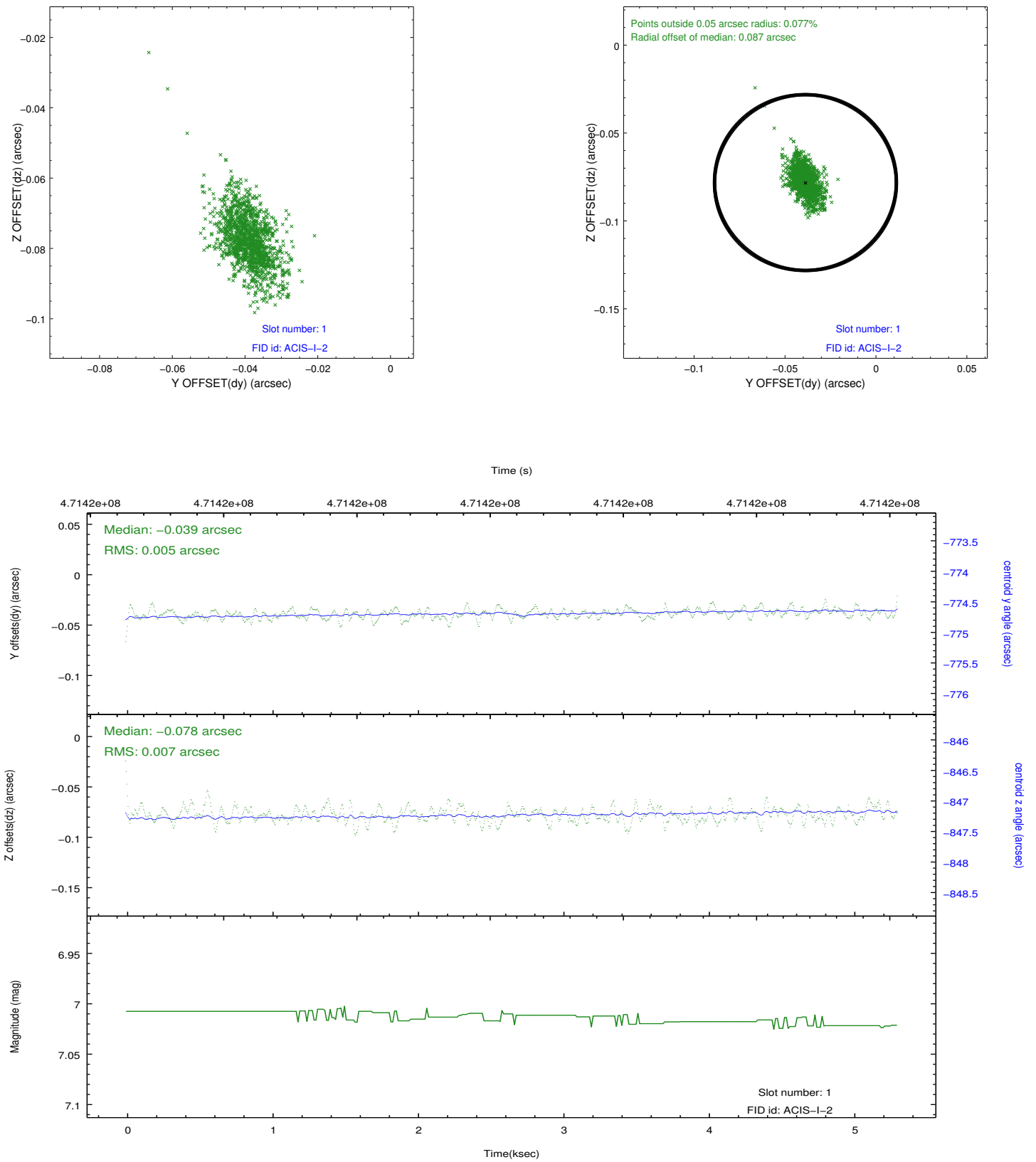


2.5 FID Slots

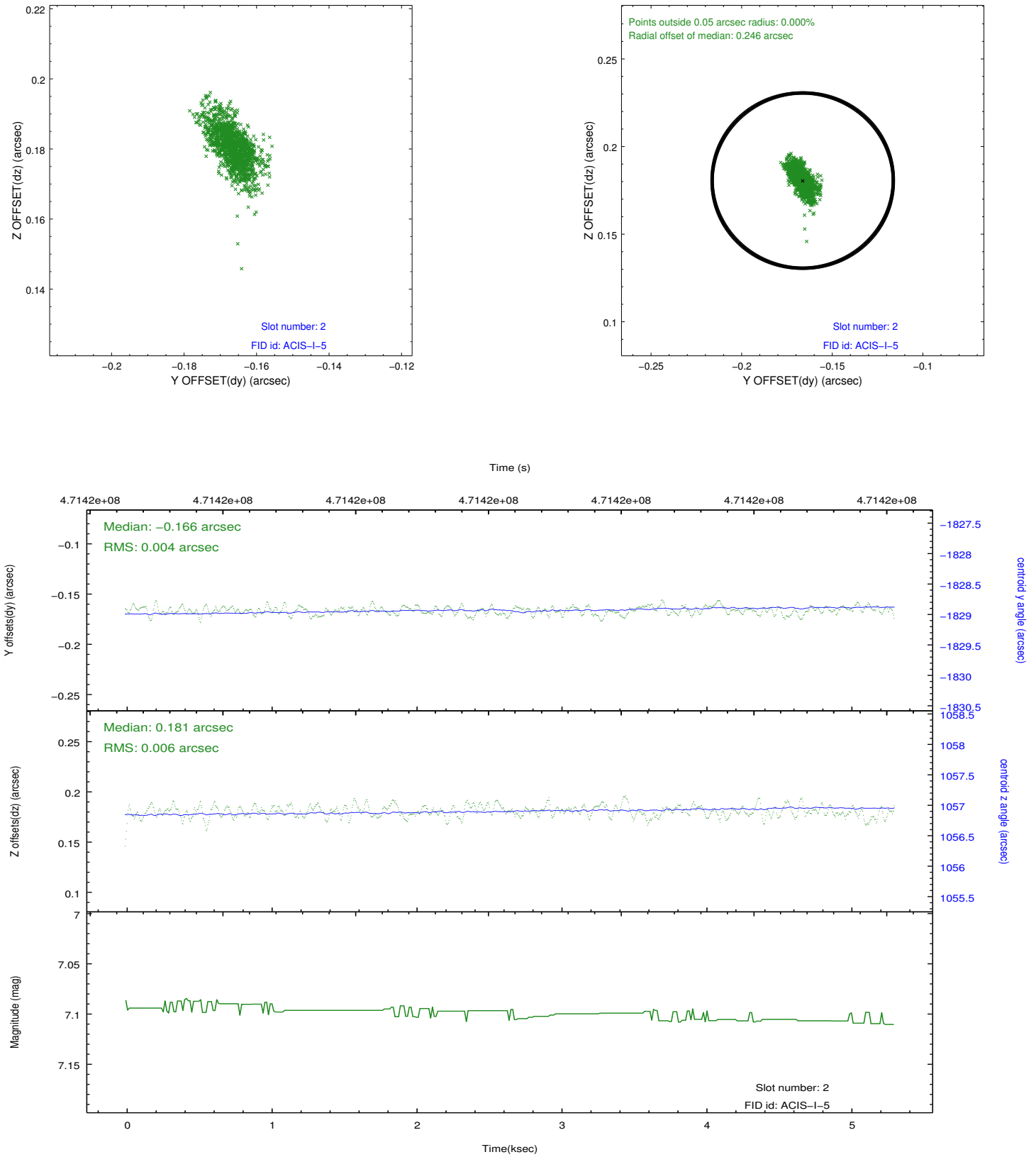
2.5.1 Slot 0



2.5.2 Slot 1



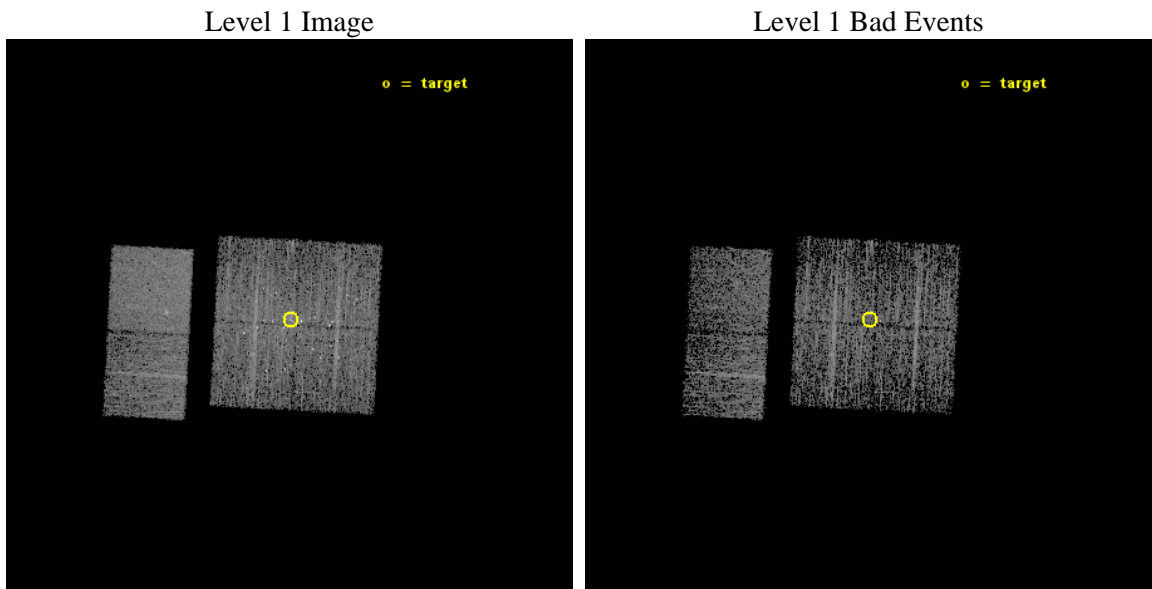
2.5.3 Slot 2



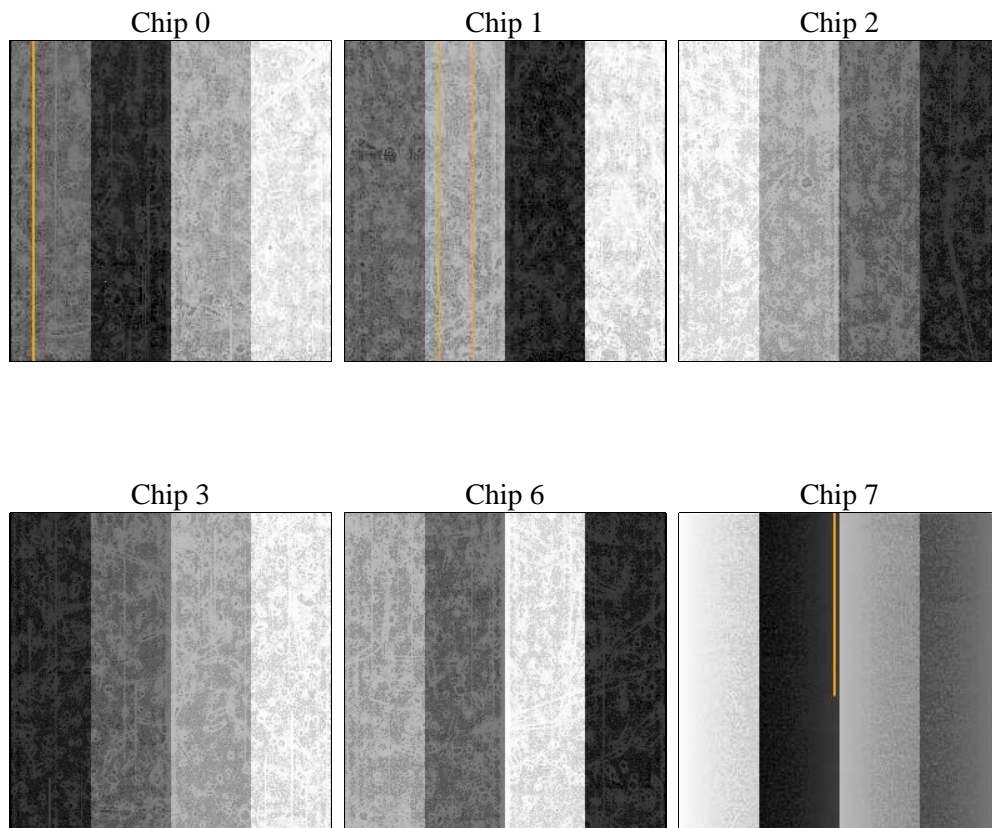
3 OBI Secondary

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	3957.6235706806	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	3957.6234686375	Sum of GTIs [s]
date	2014-11-30T10:17:00	Date and time of file creation	ontime1	3957.6235896349	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3957.6236000657	Sum of GTIs [s]
			ontime3	3957.6235706806	Sum of GTIs [s]
			ontime6	3957.6235795617	Sum of GTIs [s]
			ontime7	3957.6235709786	Sum of GTIs [s]
			l1events	139360	Number of level 1 events

3.1.4 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	19632	23231	22982	23144	20919	29452	grade 0 events	2248	3157	2742	3178	872	1201
rejected events	15505	17547	18235	18008	18423	16514		11%	13%	11%	13%	4%	4%
rejected %	78%	75%	79%	77%	88%	56%	grade 1 events	24	116	31	40	13	32
								0%	0%	0%	0%	0%	0%
							grade 2 events	764	996	829	757	526	2697
								3%	4%	3%	3%	2%	9%
							grade 3 events	316	404	315	315	251	1067
								1%	1%	1%	1%	1%	3%
							grade 4 events	278	367	333	316	240	1167
								1%	1%	1%	1%	1%	3%
							grade 5 events	1036	1129	998	1115	1111	2982
								5%	4%	4%	4%	5%	10%
							grade 6 events	523	763	533	576	607	6814
								2%	3%	2%	2%	2%	23%
							grade 7 events	14443	16299	17201	16847	17299	13492
								73%	70%	74%	72%	82%	45%

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.88035189300774

A.2 Comments

Joint Proposal: HST

=====

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.