

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 15324 - L2 Version 2
Chandra X-Ray Center

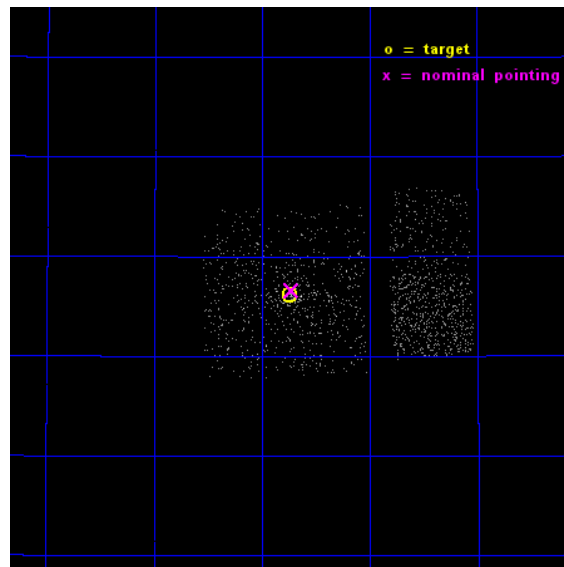
L2 Processing Date : Dec 3 2014

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1 Front

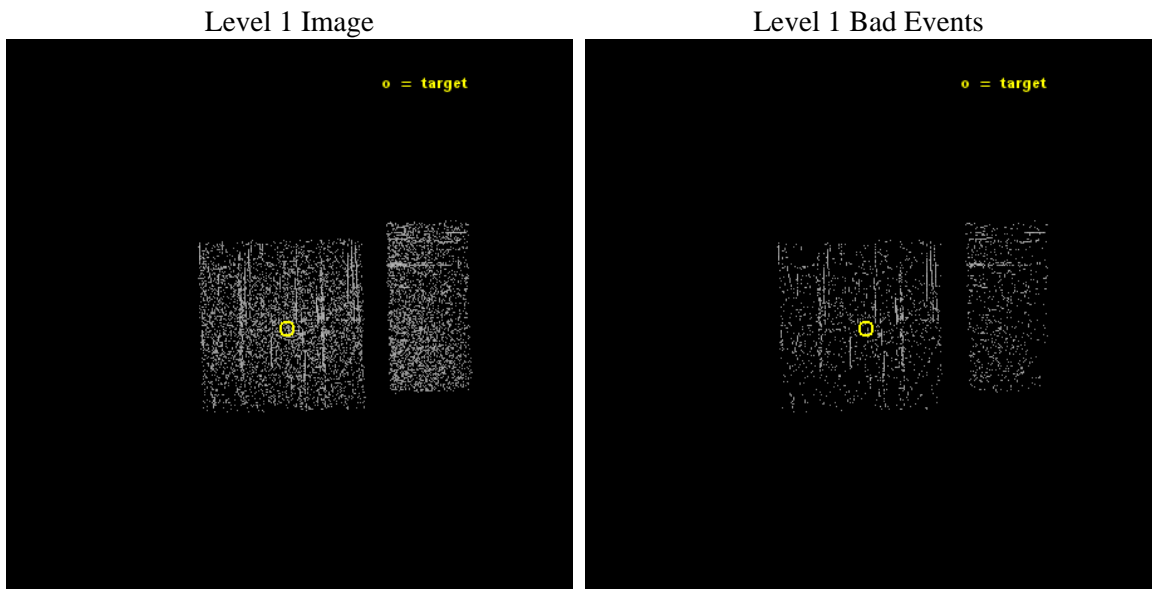
seq_num	601080	Sequence number
obs_id	15324	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr Stephen Murray	Principal investigator
object	M31 BHXN	Source name
dtcycle	0	
cycle	P	events are from which exps? P[primary] S[econdar]
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.682129381989	Nominal RA [deg]
dec_nom	41.276812099252	Nominal Dec [deg]
roll_nom	88.551991644821	Nominal Roll [deg]
revision	2	Processing version of data
ontime	925.79185962677	Sum of GTIs [s]
livetime	145.74197026155	Livetime [s]
ontime0	925.79185962677	Sum of GTIs [s]
ontime1	925.79185962677	Sum of GTIs [s]
ontime2	925.79185962677	Sum of GTIs [s]
ontime3	925.79185962677	Sum of GTIs [s]
ontime6	925.79185962677	Sum of GTIs [s]
ontime7	925.79185962677	Sum of GTIs [s]
l2events	1783	Number of level 2 events



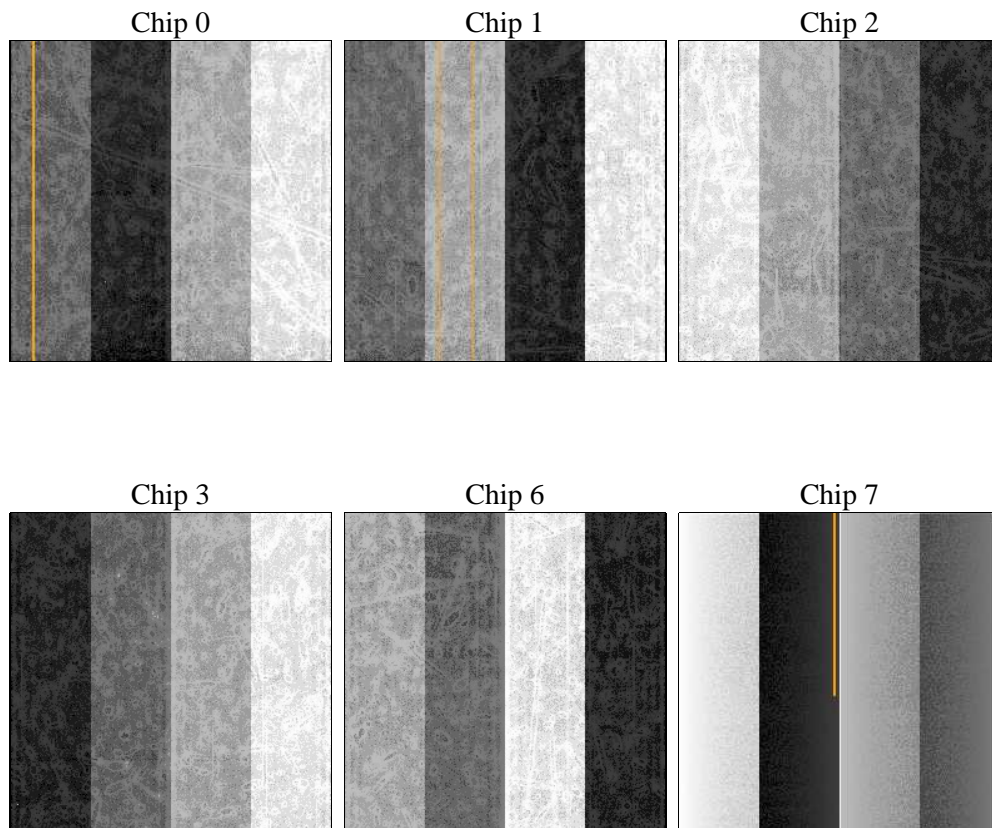
2 OBI Primary

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	925.79185962677	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	925.79185962677	Sum of GTIs [s]
date	2014-12-03T11:55:13	Date and time of file creation	ontime1	925.79185962677	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	925.79185962677	Sum of GTIs [s]
			ontime3	925.79185962677	Sum of GTIs [s]
			ontime6	925.79185962677	Sum of GTIs [s]
			ontime7	925.79185962677	Sum of GTIs [s]
			l1events	13257	Number of level 1 events

2.1.4 Events

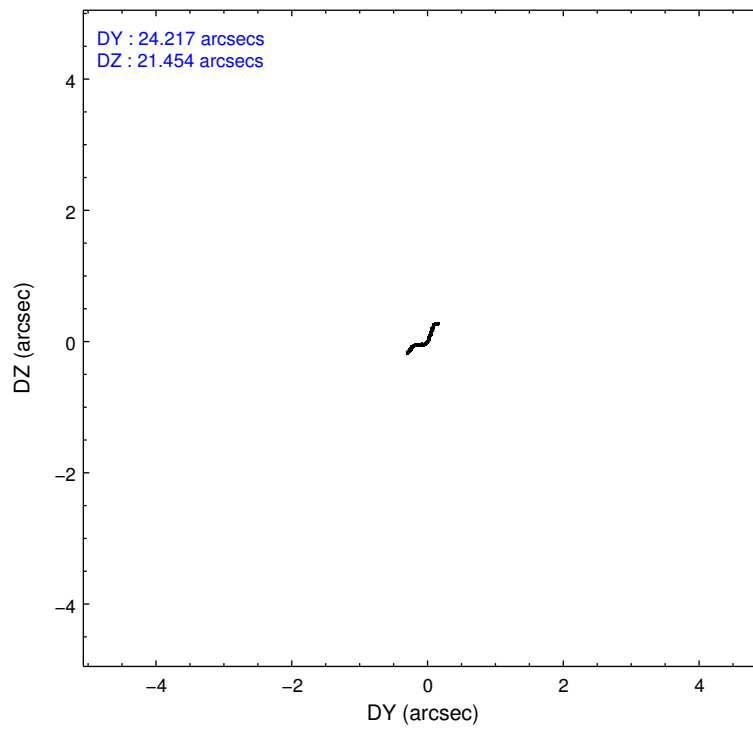
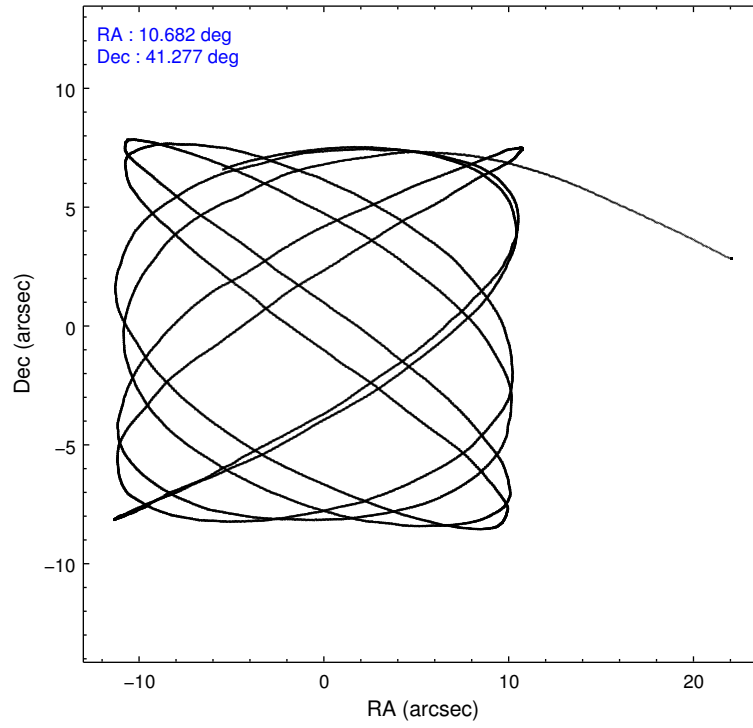
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	2173	1721	2657	2258	2191	2257
rejected events	1956	1448	2431	1821	1988	1632
rejected %	90%	84%	91%	80%	90%	72%

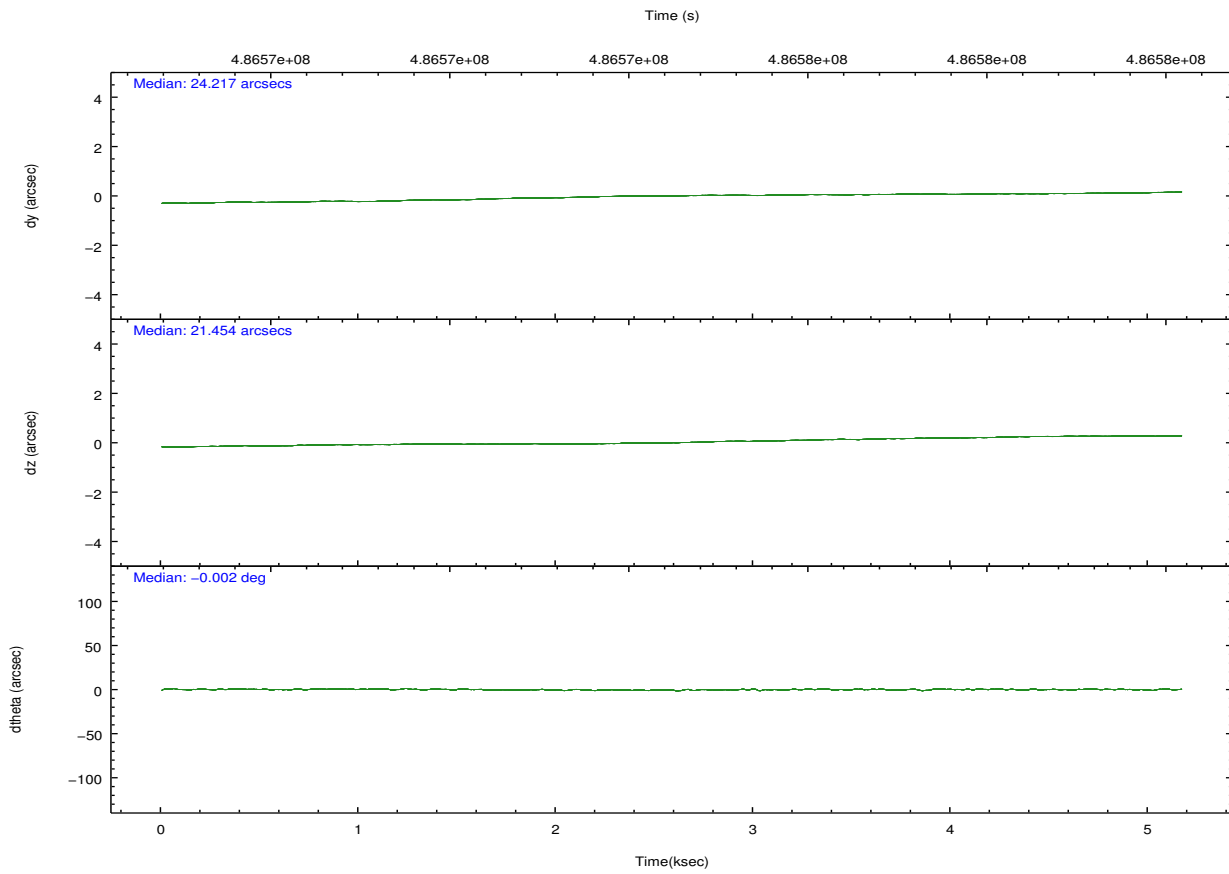
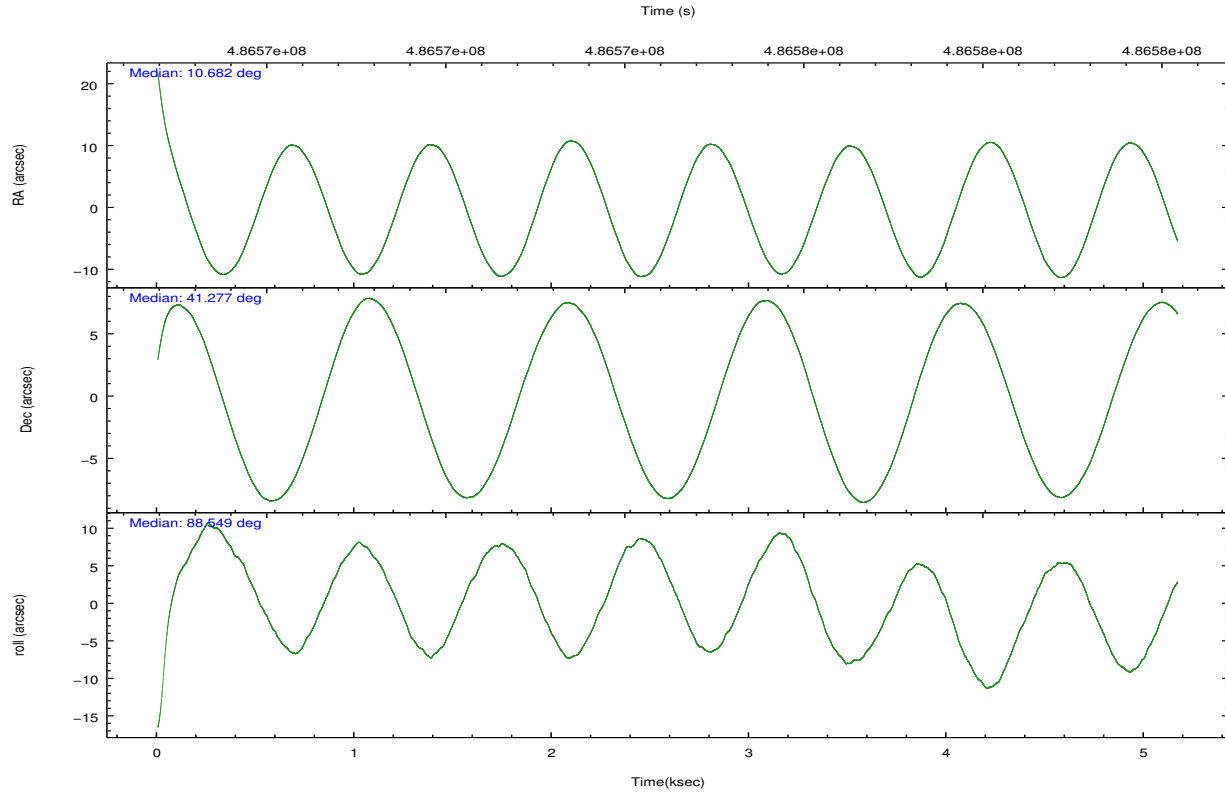
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	87	124	95	244	53	64
	4%	7%	3%	10%	2%	2%
grade 1 events	1	1	2	4	3	5
	0%	0%	0%	0%	0%	0%
grade 2 events	42	49	52	72	71	143
	1%	2%	1%	3%	3%	6%
grade 3 events	25	21	23	28	20	55
	1%	1%	0%	1%	0%	2%
grade 4 events	23	25	21	24	18	62
	1%	1%	0%	1%	0%	2%
grade 5 events	80	83	84	98	90	193
	3%	4%	3%	4%	4%	8%
grade 6 events	46	56	37	70	43	307
	2%	3%	1%	3%	1%	13%
grade 7 events	1869	1362	2343	1718	1893	1428
	86%	79%	88%	76%	86%	63%

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	10.699676	10.68212938198917	CCD I2 on	Y	Y
[deg] Pointing Dec	41.252651	41.27681209925215	CCD I3 on	Y	Y
[deg] Pointing Roll	88.331772	88.55199164482126	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)	486571823.184000	486570261.27938	CCD S5 on	N	N
Observation start date	2013-06-02T14:49:16	2013-06-02T14:24:21	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	486576823.184000	486577865.7548	On-chip summing requested	N	N
Observation end date	2013-06-02T16:12:36	2013-06-02T16:31:05	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



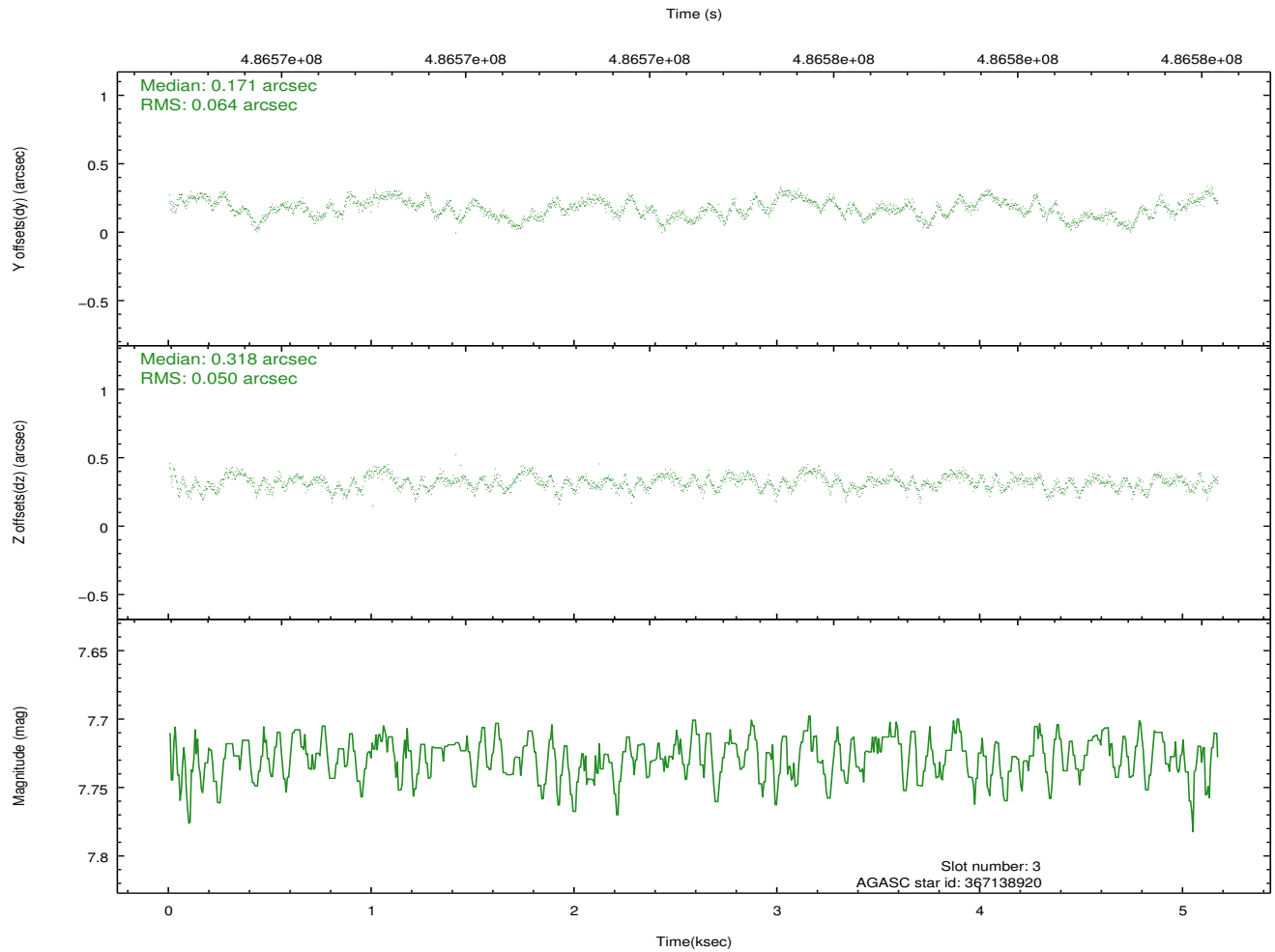
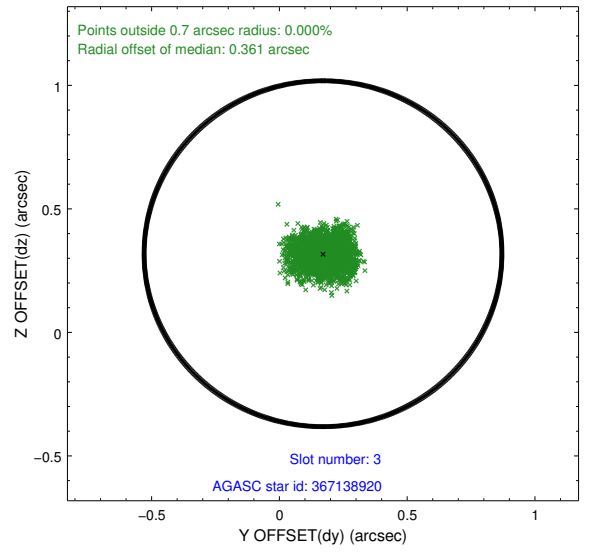
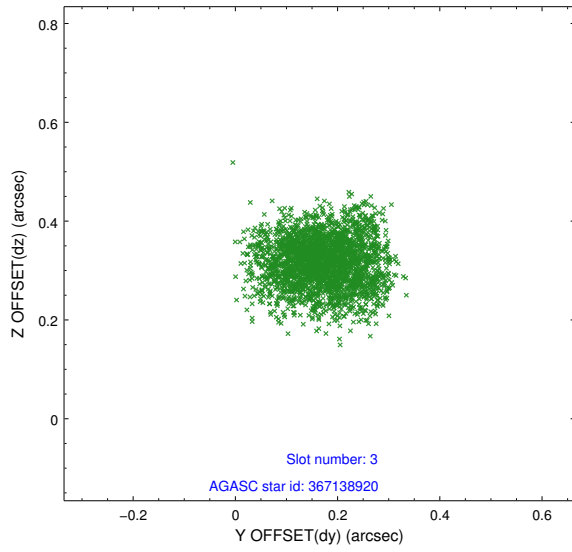


Slot Statistics

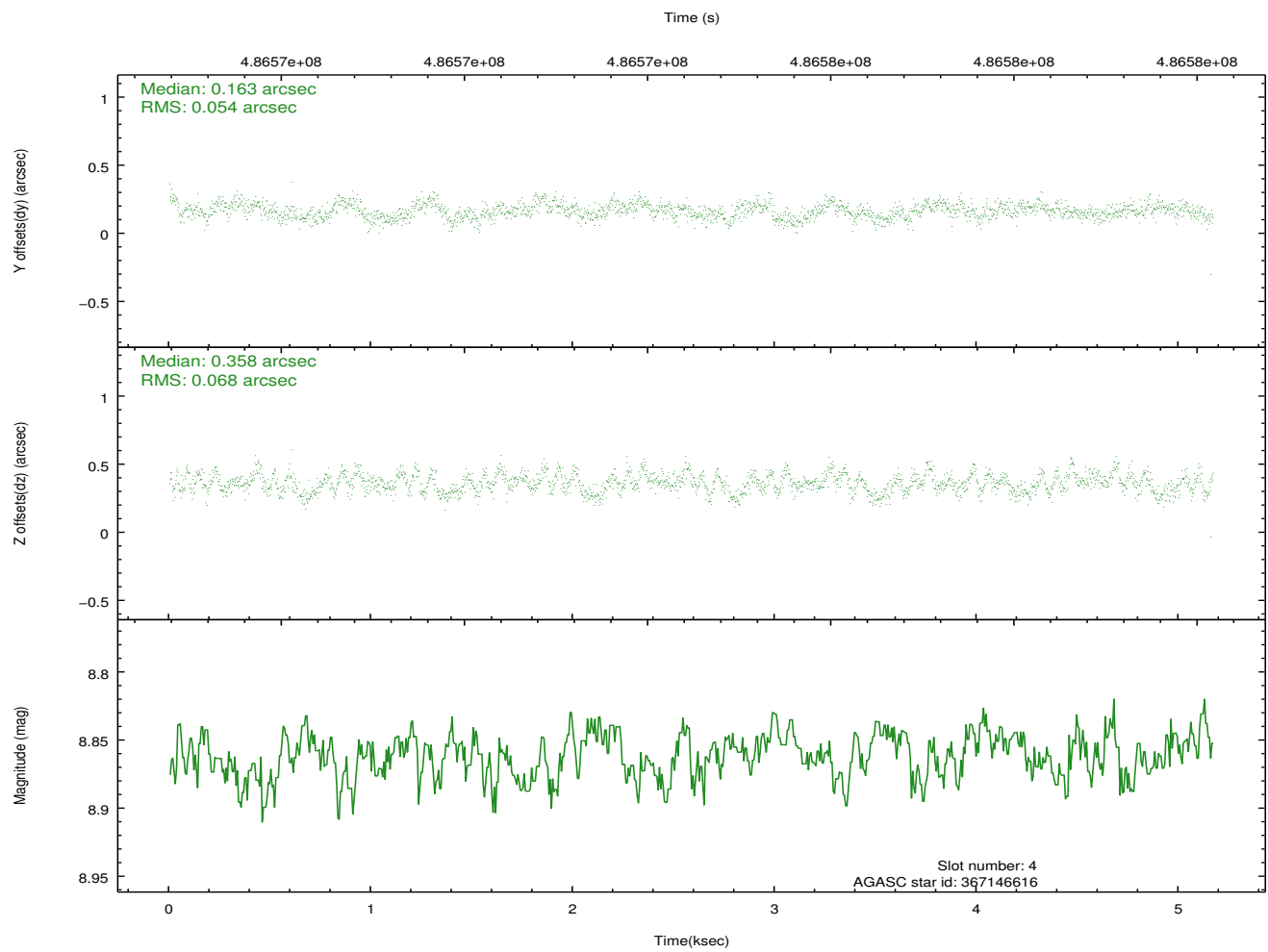
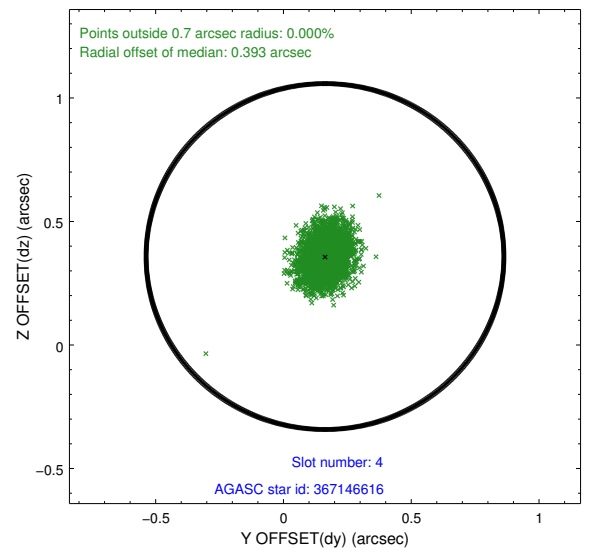
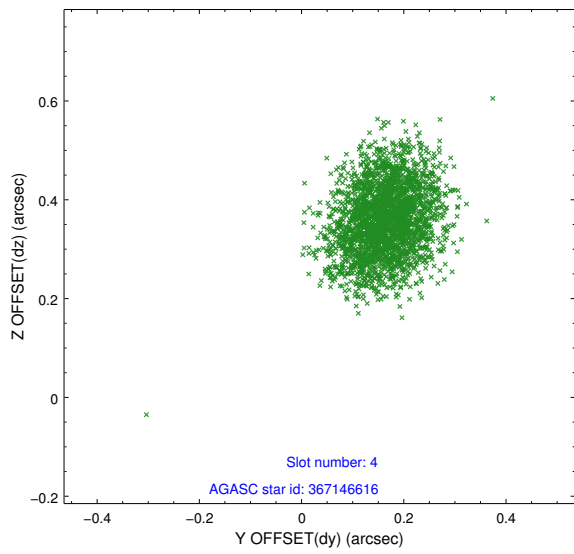
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.06	1261	0.081	-0.032	0.007	0.011	0.000000	0.000000	915.12	-845.29
1	FID		ACIS-I-5	7.05	1261	-0.289	0.063	0.007	0.011	0.000000	0.000000	-1832.73	1051.68
2	FID		ACIS-I-6	7.05	1261	0.117	0.040	0.009	0.014	0.000000	0.000000	379.40	1697.50
3	GUIDE	used	367138920	7.73	2519	0.171	0.318	0.088	0.137	11.513485	40.808909	-1522.21	-2263.21
4	GUIDE	used	367146616	8.86	2513	0.163	0.358	0.094	0.150	11.418645	41.190163	-160.27	-1953.25
5	GUIDE	used	367148872	7.21	2522	0.007	-0.298	0.087	0.149	10.505940	40.688258	-2046.49	469.02
6	GUIDE	used	367663272	9.28	2506	-0.165	-0.443	0.169	0.253	10.656279	41.699429	1603.02	164.88
7	GUIDE	used	367674552	8.86	2515	-0.183	0.068	0.082	0.132	11.016238	41.570845	1171.97	-818.30

2.4 Star Slots

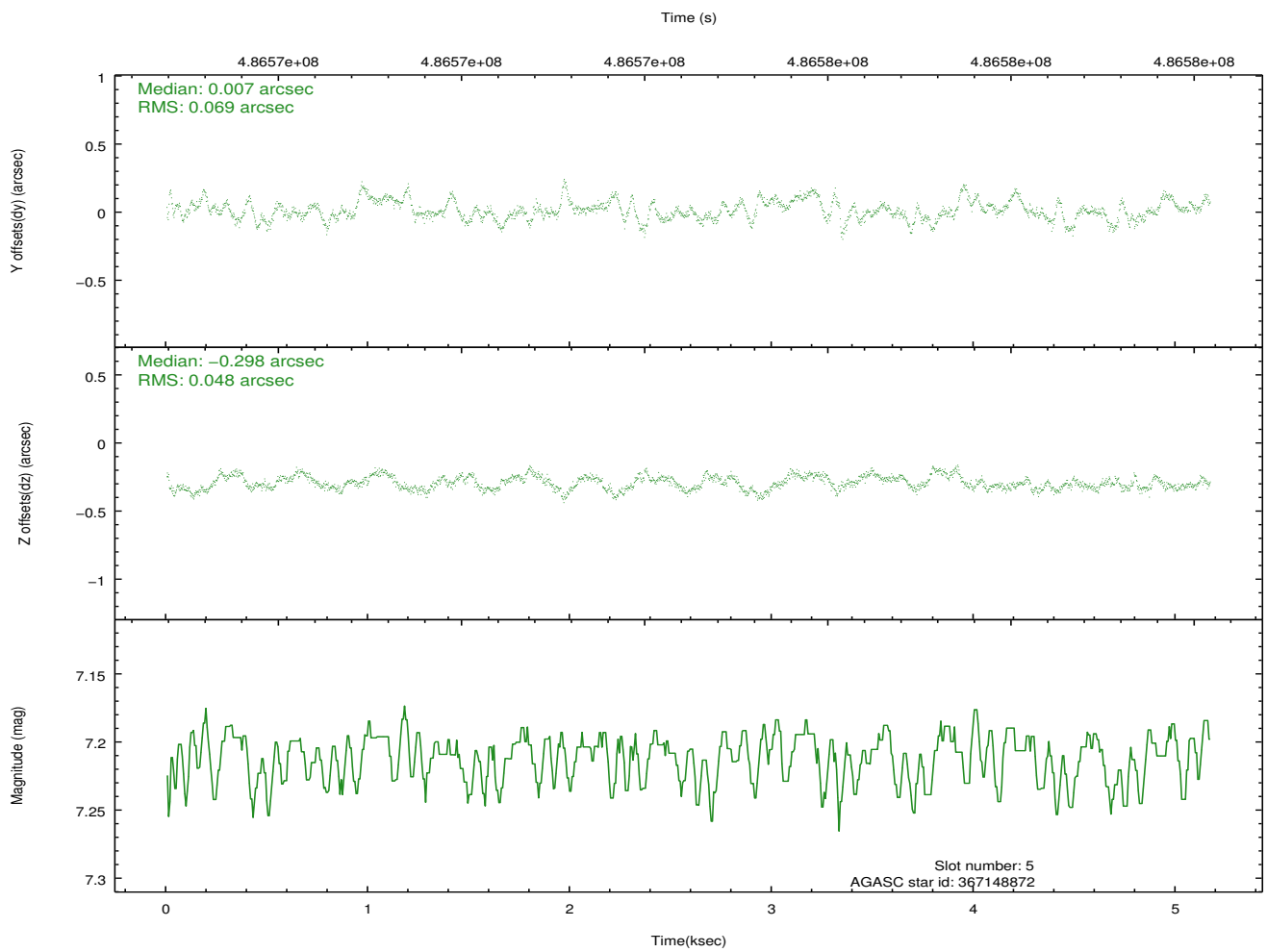
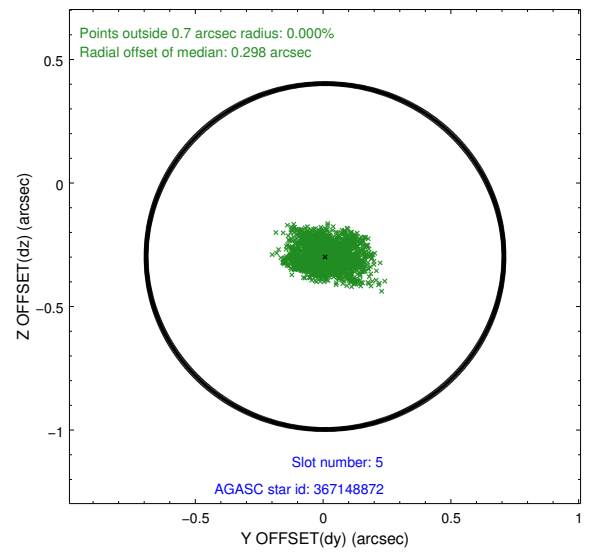
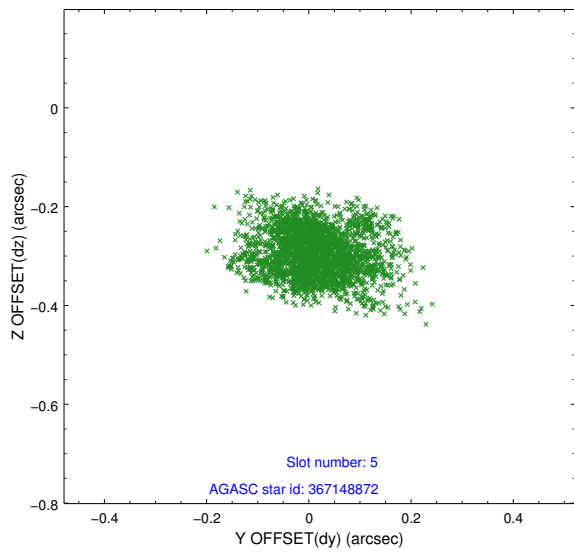
2.4.1 Slot 3



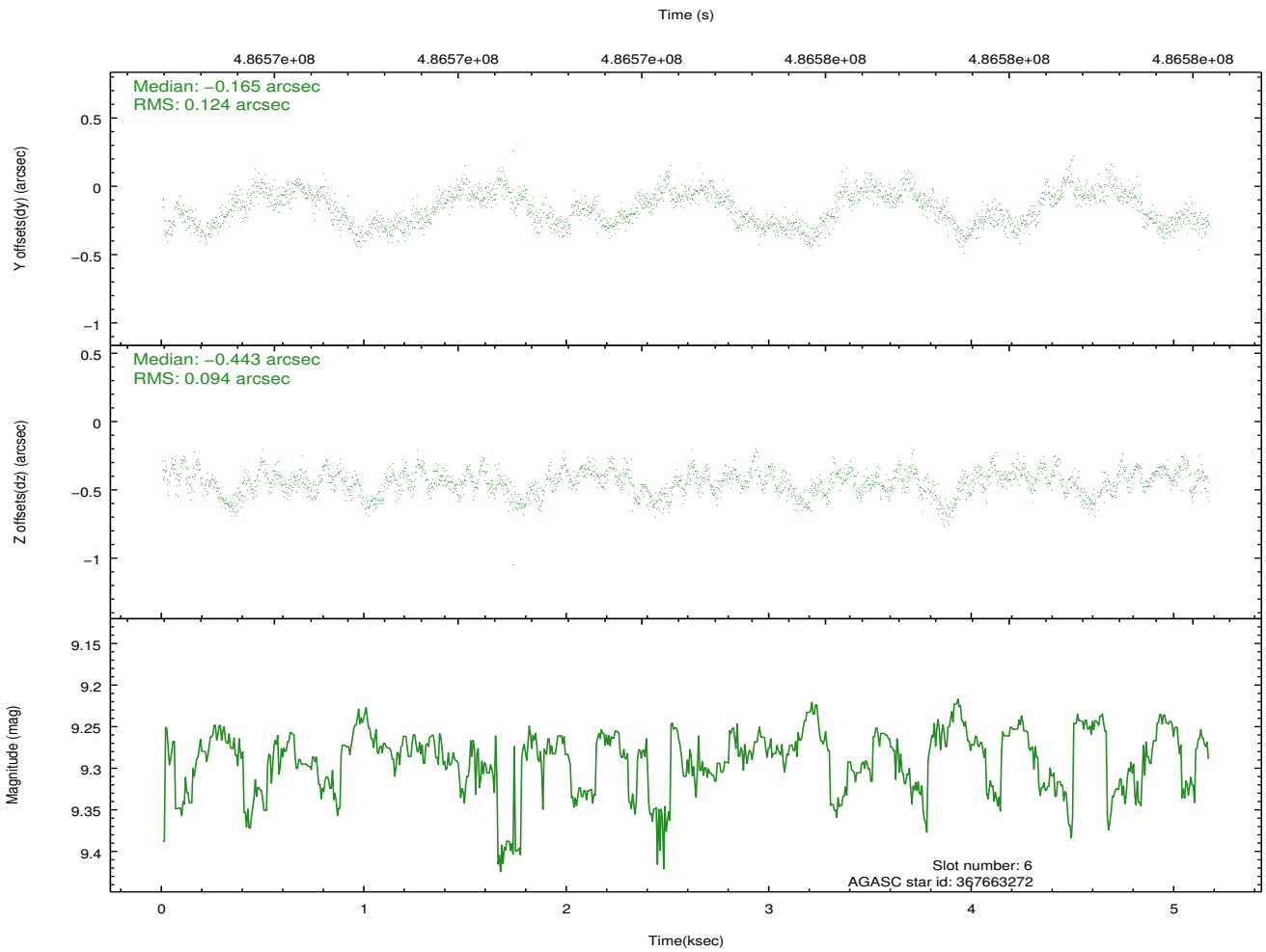
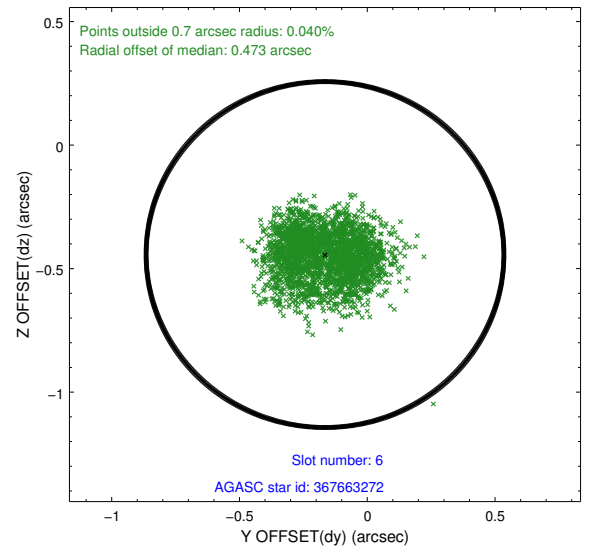
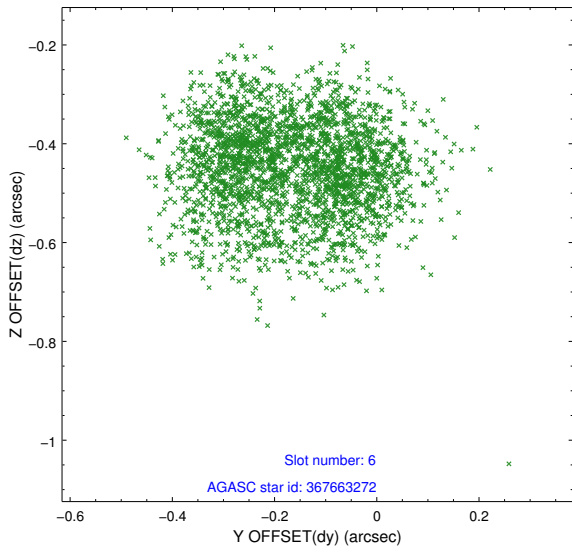
2.4.2 Slot 4



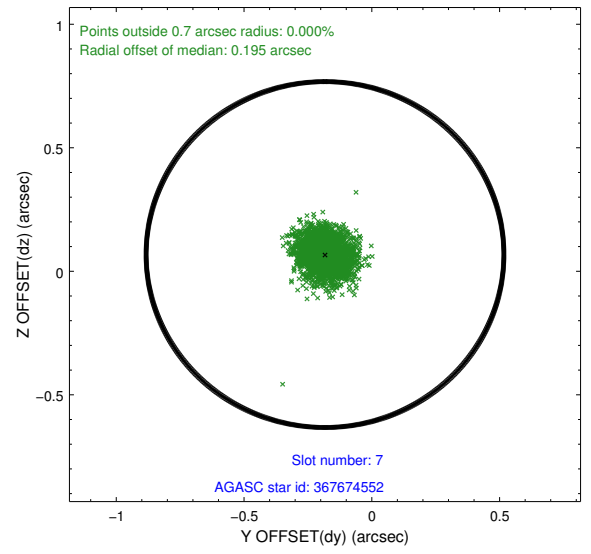
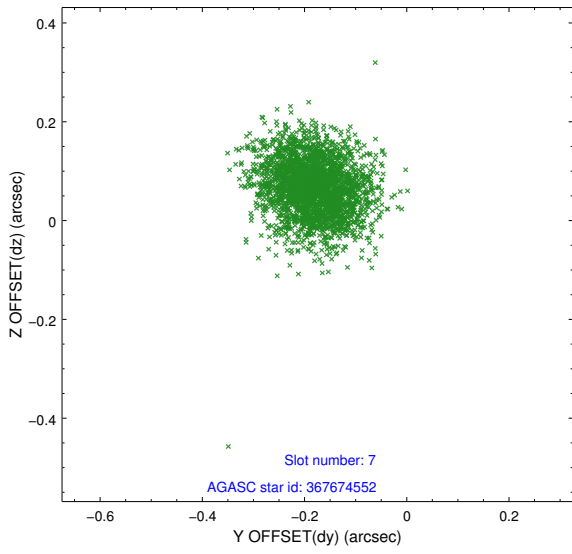
2.4.3 Slot 5



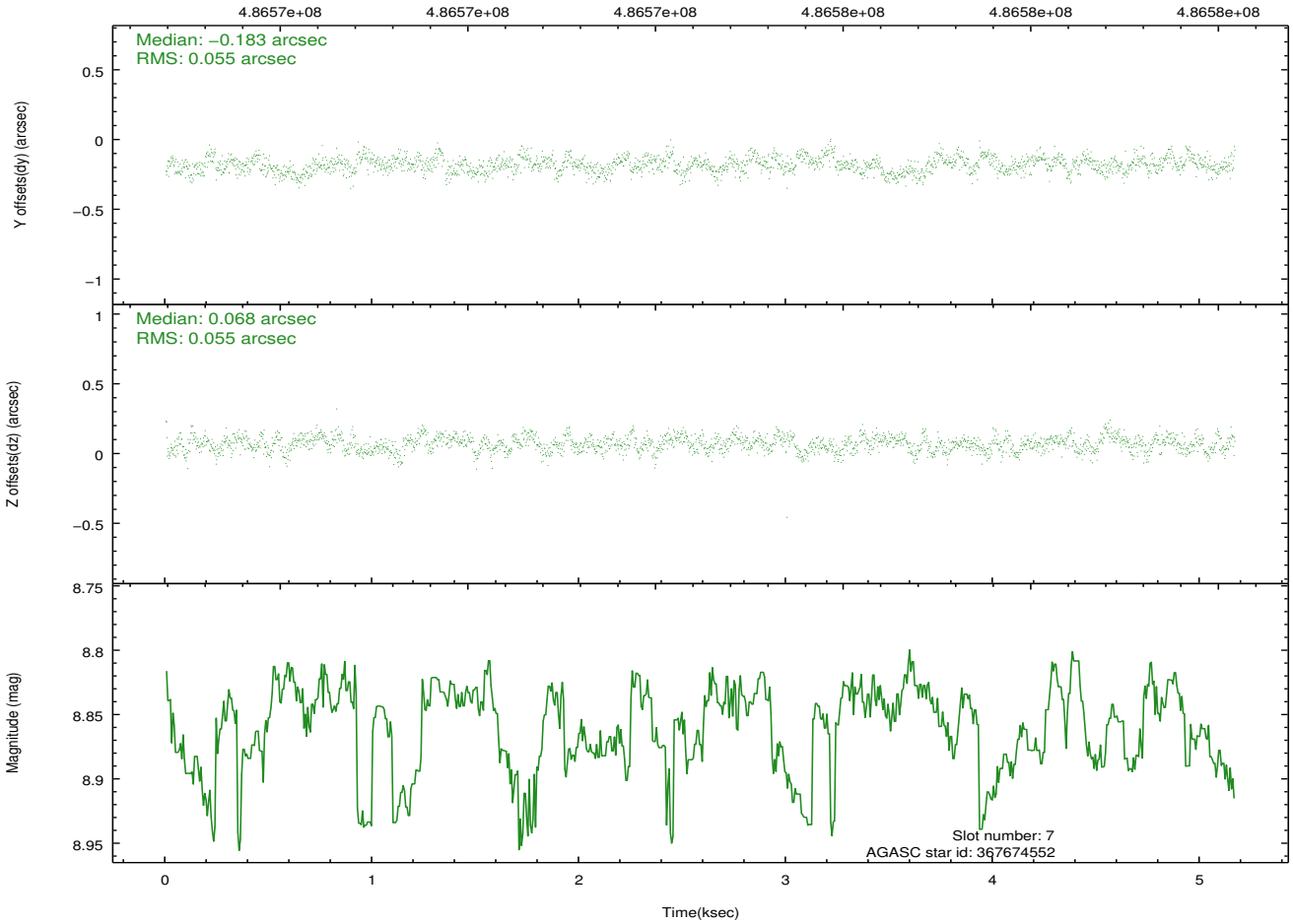
2.4.4 Slot 6



2.4.5 Slot 7

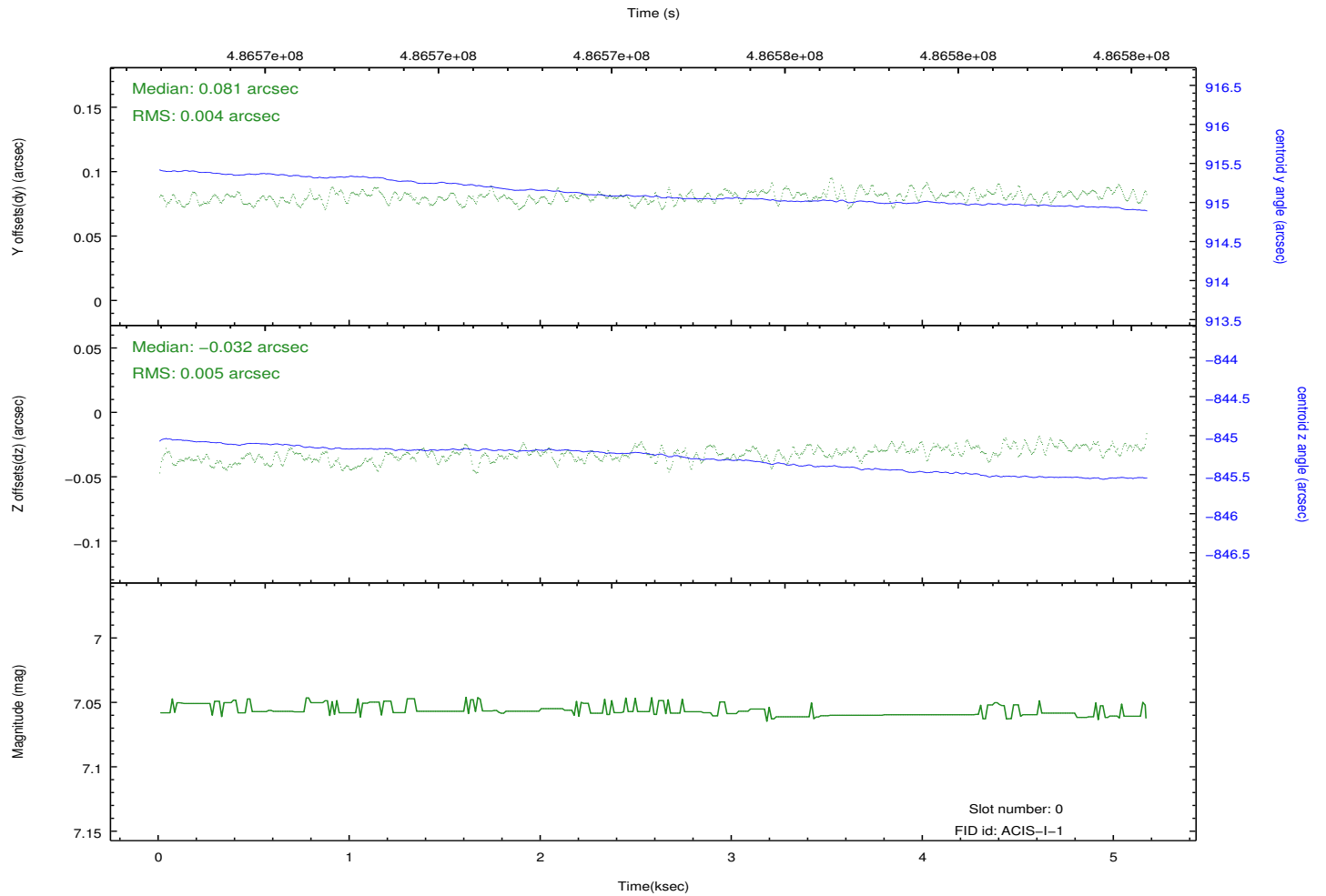
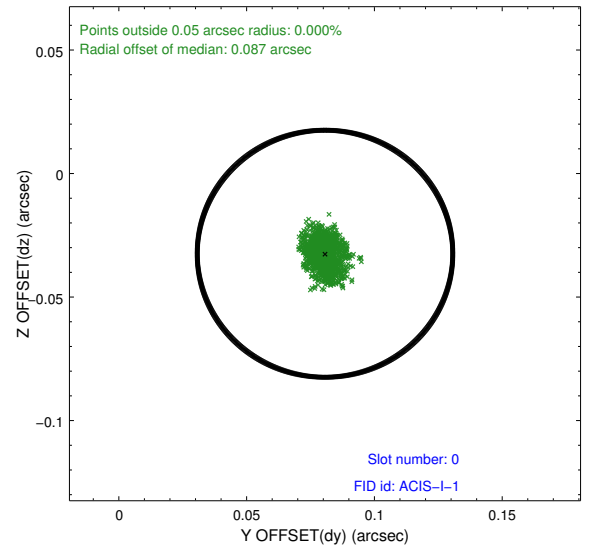
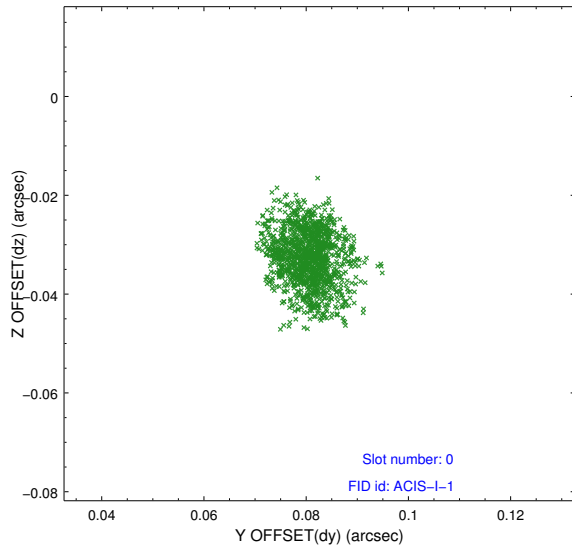


Time (s)

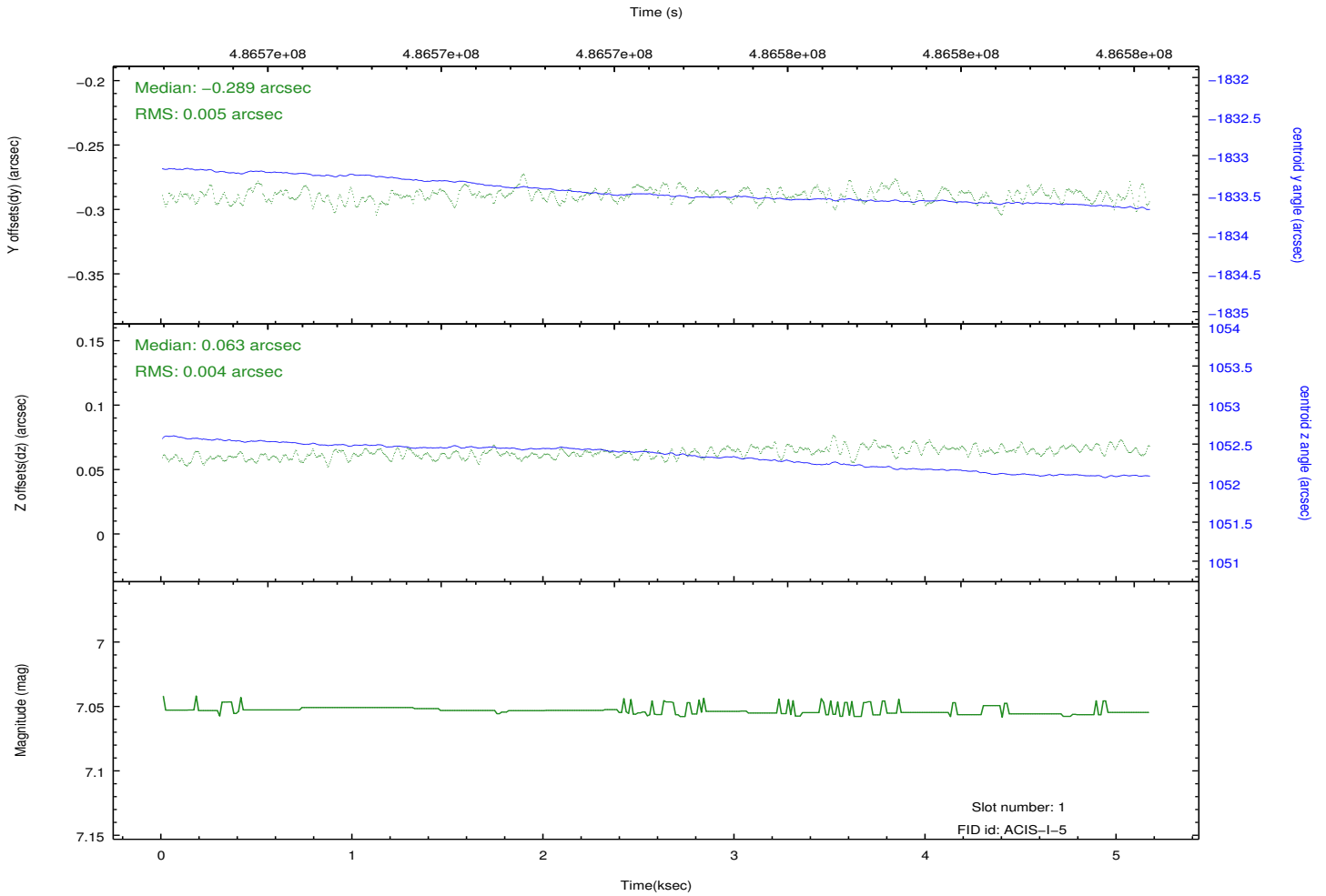
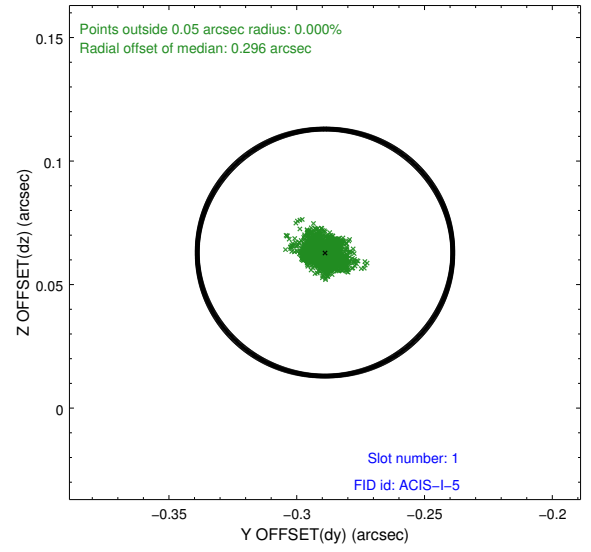
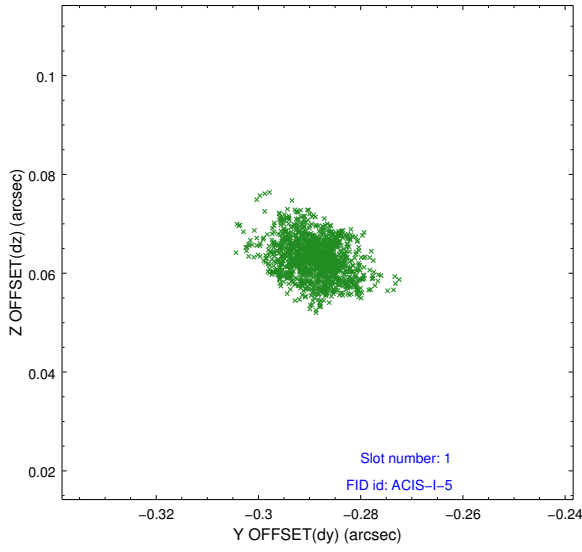


2.5 FID Slots

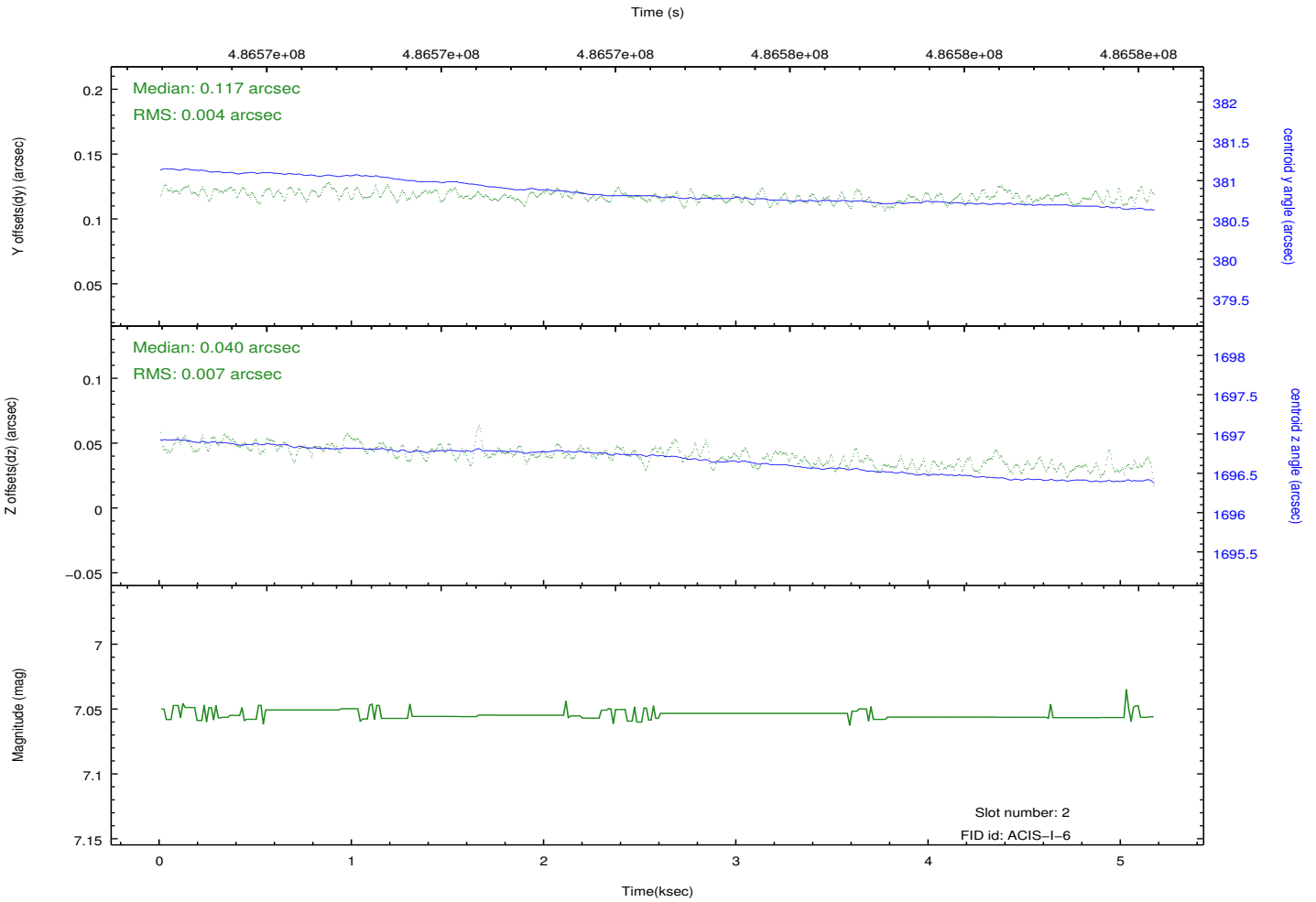
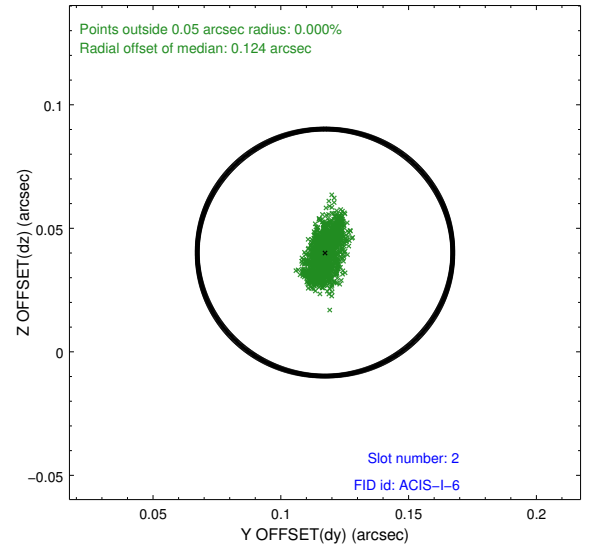
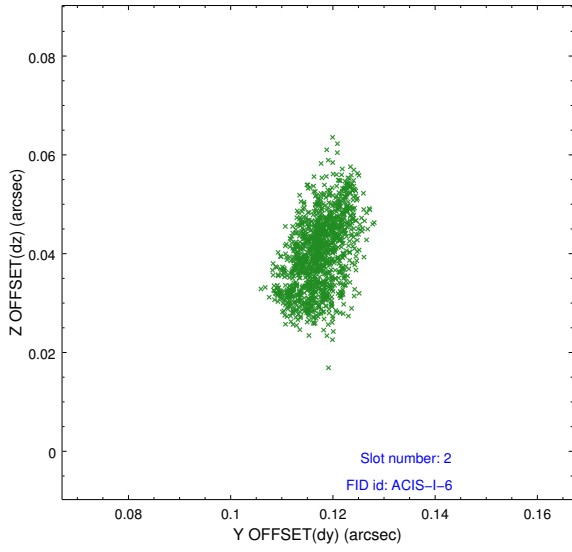
2.5.1 Slot 0



2.5.2 Slot 1



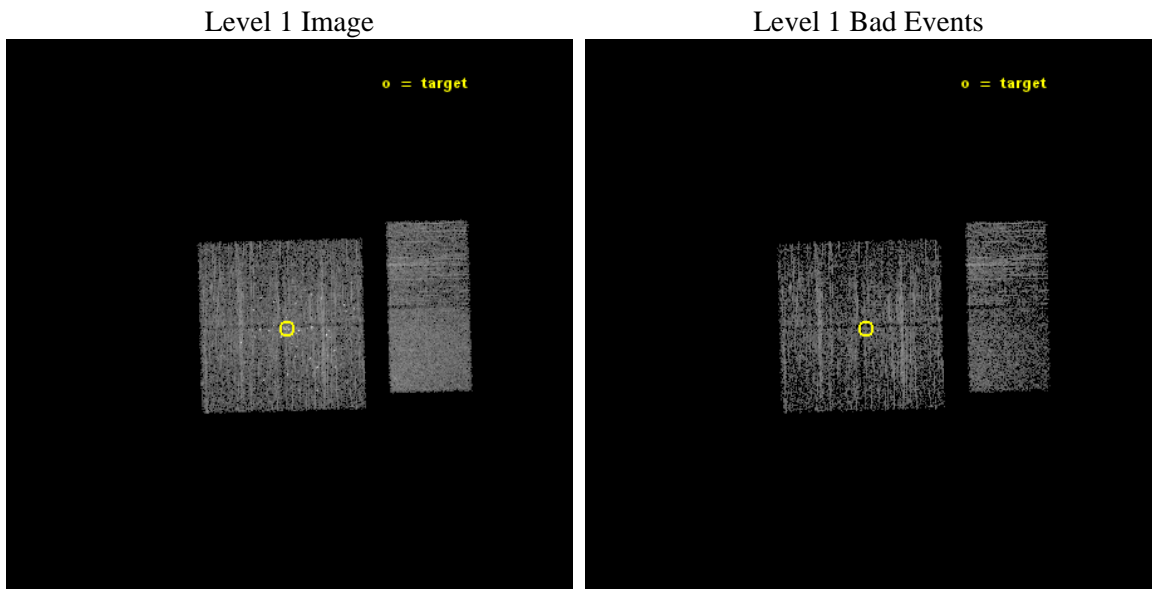
2.5.3 Slot 2



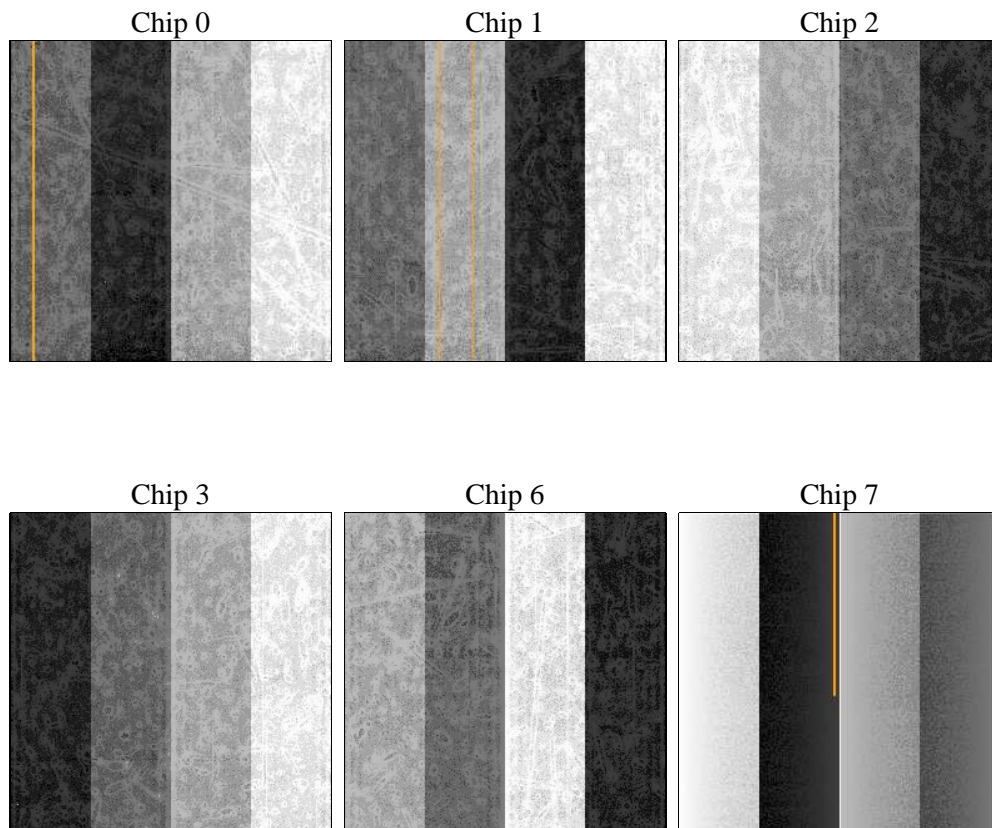
3 OBI Secondary

3.1 OBI

3.1.1 Images



3.1.2 Bias



3.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	3957.6480177045	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	3957.6476891637	Sum of GTIs [s]
date	2014-12-03T11:55:49	Date and time of file creation	ontime1	3957.6480078101	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3957.6480771899	Sum of GTIs [s]
			ontime3	3957.6480177045	Sum of GTIs [s]
			ontime6	3957.6480277181	Sum of GTIs [s]
			ontime7	3957.6479085684	Sum of GTIs [s]
			l1events	126396	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	18580	18916	19138	24513	19705	25544	grade 0 events	1848	2268	1829	5110	821	1059
rejected events	15094	14780	15666	16834	17355	14381		9%	11%	9%	20%	4%	4%
rejected %	81%	78%	81%	68%	88%	56%	grade 1 events	20	27	22	148	10	39
								0%	0%	0%	0%	0%	0%
							grade 2 events	687	750	680	1059	523	2235
								3%	3%	3%	4%	2%	8%
							grade 3 events	241	279	254	422	245	957
								1%	1%	1%	1%	1%	3%
							grade 4 events	233	307	258	421	237	943
								1%	1%	1%	1%	1%	3%
							grade 5 events	903	983	732	1152	996	2603
								4%	5%	3%	4%	5%	10%
							grade 6 events	482	540	454	674	526	5981
								2%	2%	2%	2%	2%	23%
							grade 7 events	14166	13762	14909	15527	16347	11727
								76%	72%	77%	63%	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	4.88343987733127

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.