

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 7068 - L2 Version 2
Chandra X-Ray Center

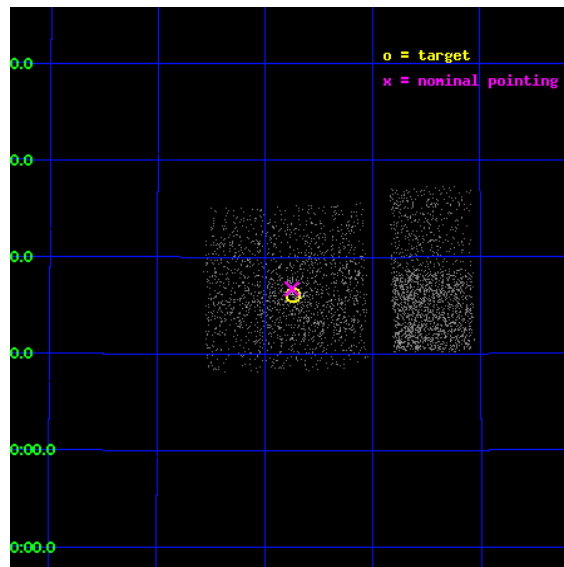
L2 Processing Date : Apr 25 2012

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1 Front

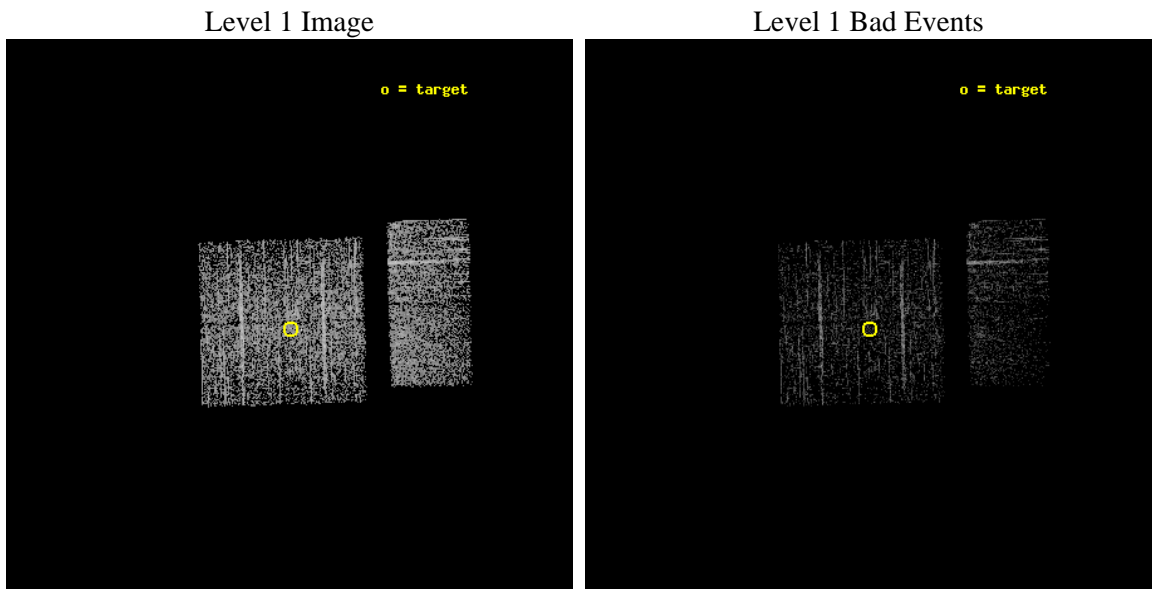
seq_num	600506	Sequence number
obs_id	7068	Observation id
title	Black Hole X-ray Nova in M31	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	M31-Center	Source name
dtcycle	0	
cycle	P	events are from which exps? P[rimary] S[econdar]
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.687748177588	Nominal RA [deg]
dec_nom	41.278774625431	Nominal Dec [deg]
roll_nom	88.484198027016	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1825.2241532207	Sum of GTIs [s]
livetime	287.33430899531	Livetime [s]
ontime0	1825.2241532207	Sum of GTIs [s]
ontime1	1825.2241532207	Sum of GTIs [s]
ontime2	1825.2241532207	Sum of GTIs [s]
ontime3	1825.2241532207	Sum of GTIs [s]
ontime6	1825.2241432667	Sum of GTIs [s]
ontime7	1825.2241532207	Sum of GTIs [s]
l2events	4654	Number of level 2 events



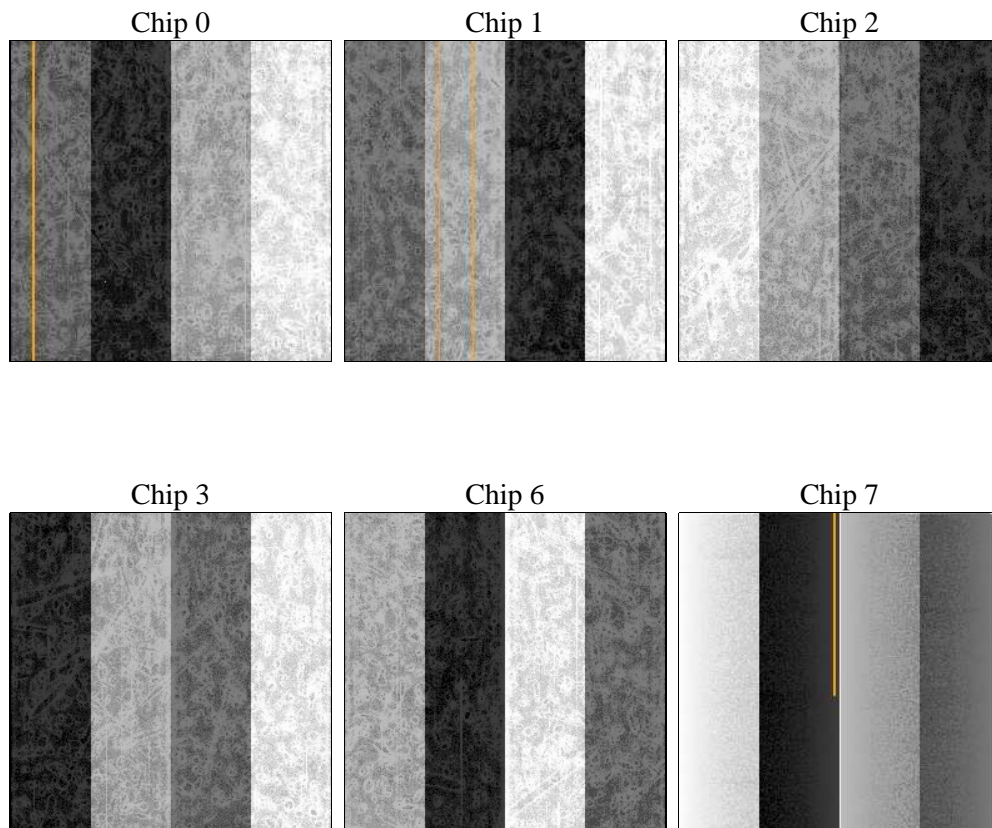
2 OBI Primary

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	9885.504000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	1825.2241532207	Sum of GTIs [s]
caldbver	4.4.9	 	ontime0	1825.2241532207	Sum of GTIs [s]
date	2012-04-25T20:38:18	Date and time of file creation	ontime1	1825.2241532207	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	1825.2241532207	Sum of GTIs [s]
			ontime3	1825.2241532207	Sum of GTIs [s]
			ontime6	1825.2241432667	Sum of GTIs [s]
			ontime7	1825.2241532207	Sum of GTIs [s]
			l1events	42885	Number of level 1 events

2.1.4 Events

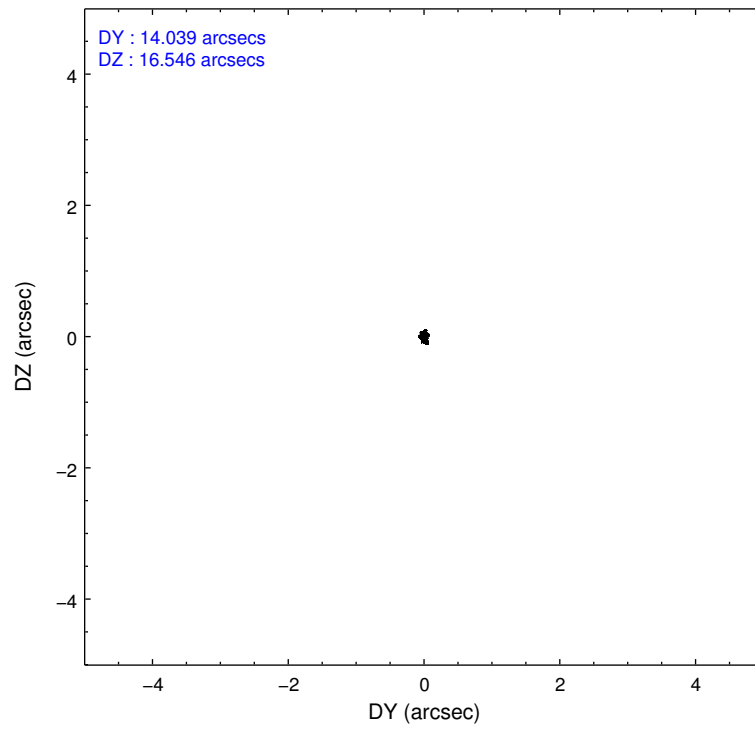
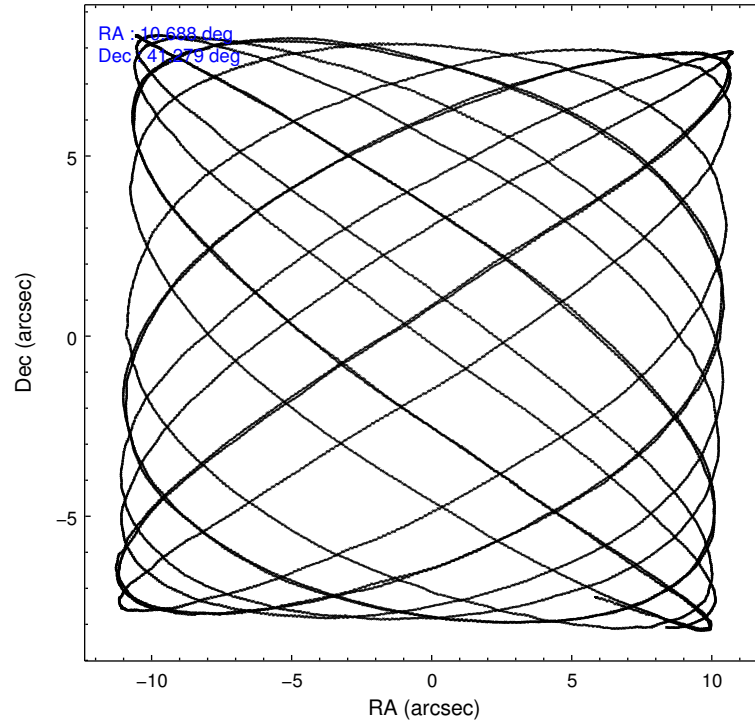
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	6634	7313	7849	7121	7977	5991
rejected events	6044	6531	7186	6127	7457	4147
rejected %	91%	89%	91%	86%	93%	69%

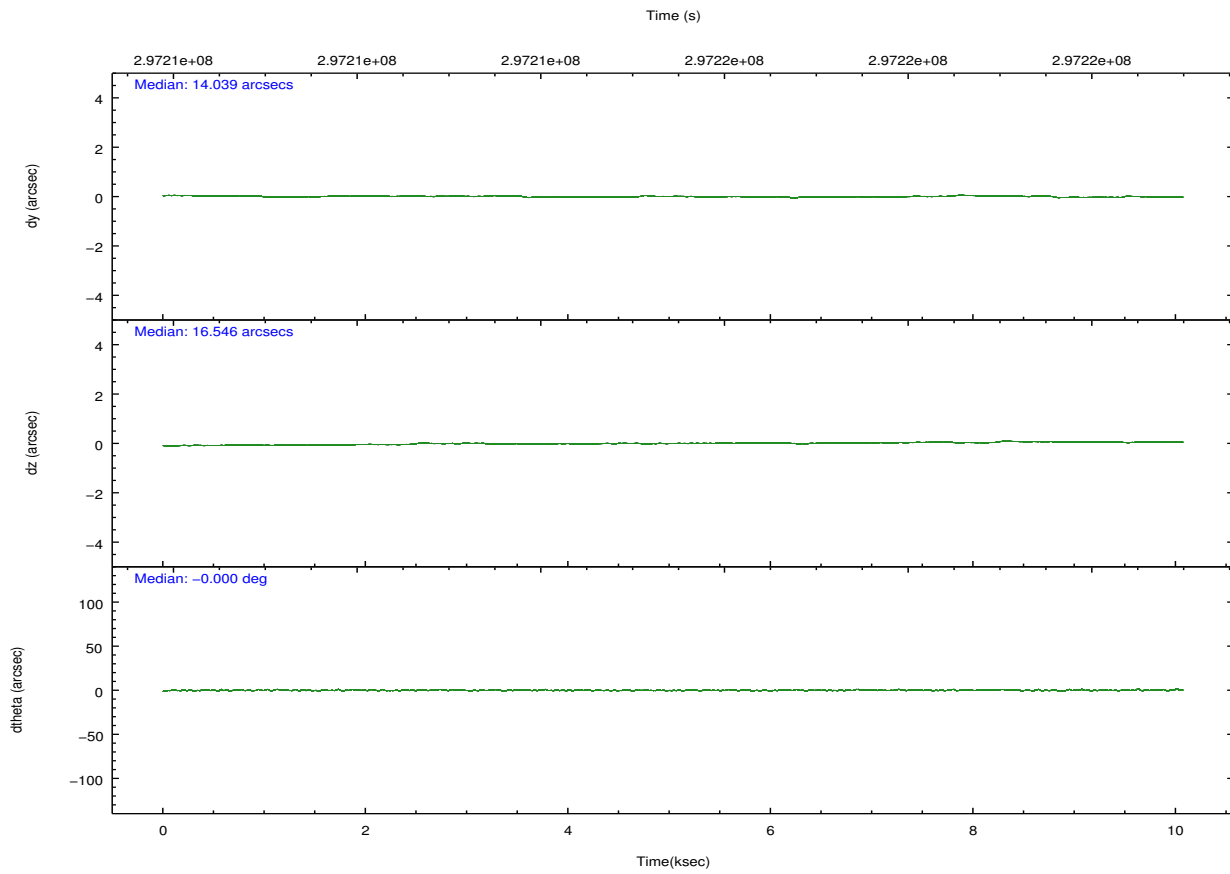
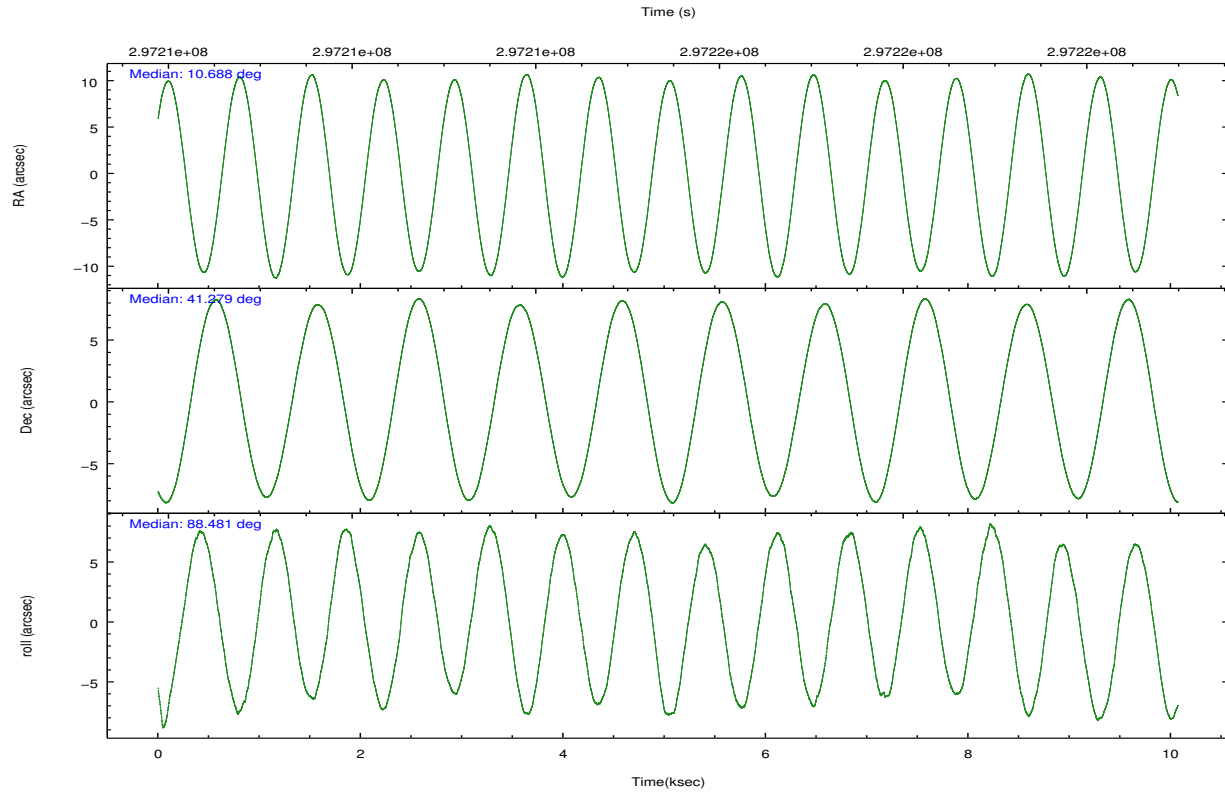
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	180	305	243	518	127	166
	2%	4%	3%	7%	1%	2%
grade 1 events	2	3	4	4	1	7
	0%	0%	0%	0%	0%	0%
grade 2 events	157	161	173	160	135	468
	2%	2%	2%	2%	1%	7%
grade 3 events	72	105	62	93	83	185
	1%	1%	0%	1%	1%	3%
grade 4 events	83	83	83	93	74	154
	1%	1%	1%	1%	0%	2%
grade 5 events	174	203	193	211	264	555
	2%	2%	2%	2%	3%	9%
grade 6 events	104	133	105	132	105	880
	1%	1%	1%	1%	1%	14%
grade 7 events	5862	6320	6986	5910	7188	3576
	88%	86%	89%	82%	90%	59%

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	10.705271	10.68774817758849	CCD I2 on	Y	Y
[deg] Pointing Dec	41.254675	41.27877462543061	CCD I3 on	Y	Y
[deg] Pointing Roll	88.263955	88.48419802701609	CCD S0 on	N	N
[s] Window start time (MET)	296697665.184000	296697665.184000	CCD S1 on	N	N
[s] Window stop time (MET)	297388865.184000	297388865.184000	CCD S2 on	O1	Y
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S3 on	O2	Y
[mm] SIM defocus	0	0.001439871863259334	CCD S4 on	N	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S5 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	297210588.184000	297210212.37132	On-chip summing requested	N	N
Observation start date	2007-06-02T22:28:43	2007-06-02T22:23:32	Subarray requested	NONE	NONE
[s] Observation end time (MET)	297220474.184000	297220711.44682	Alternating exposures requested	Y	Y
Observation end date	2007-06-03T01:13:29	2007-06-03T01:18:31	[s] Primary exposure time	0.600000	0.6
Read mode	TIMED	TIMED	[s] Secondary exposure time	0.000000	3.2
			Duty cycle	5	5

2.3 Aspect



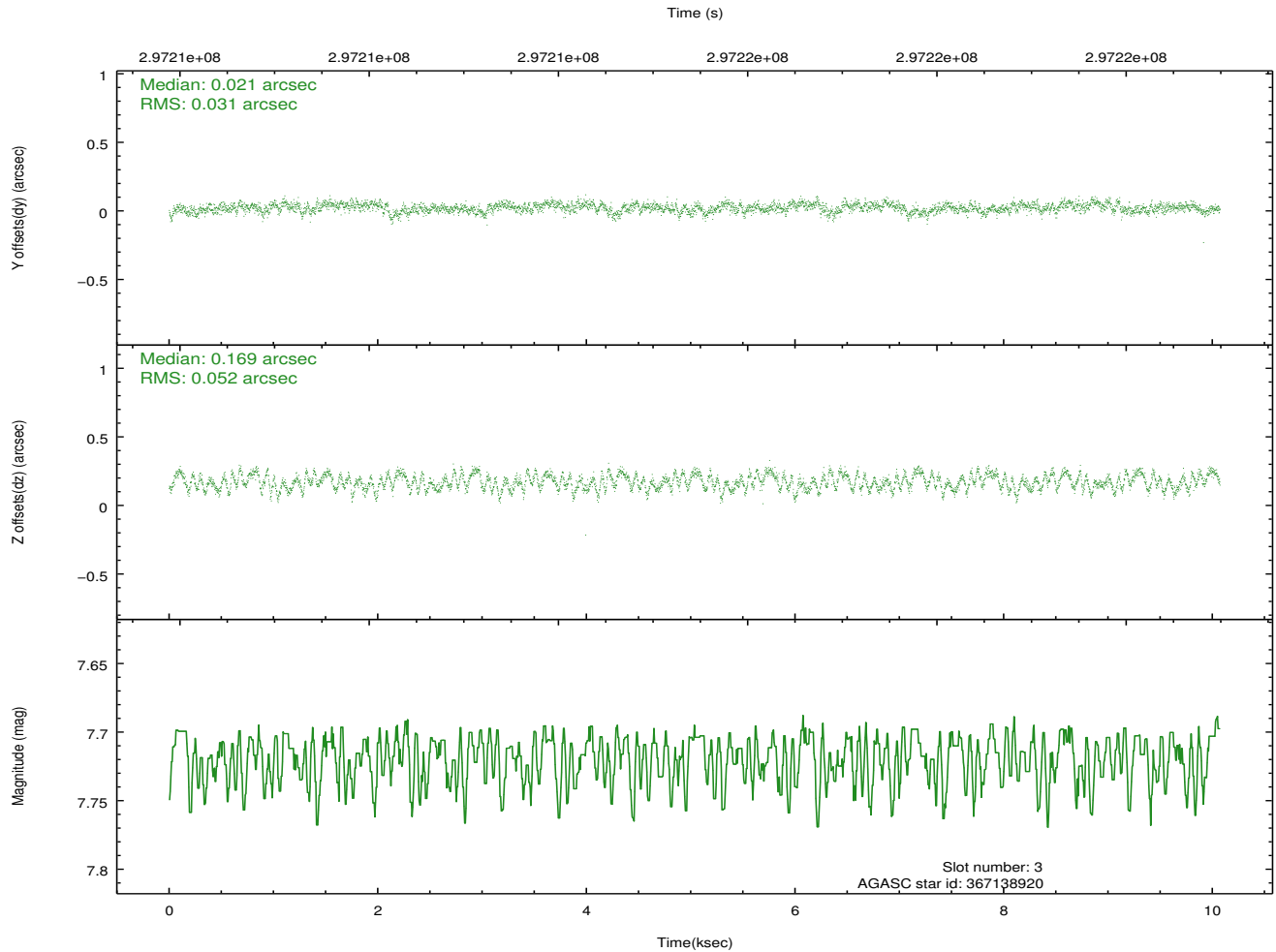
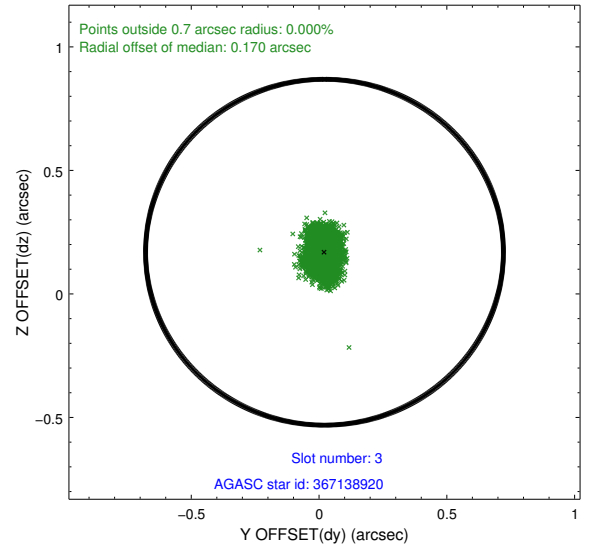
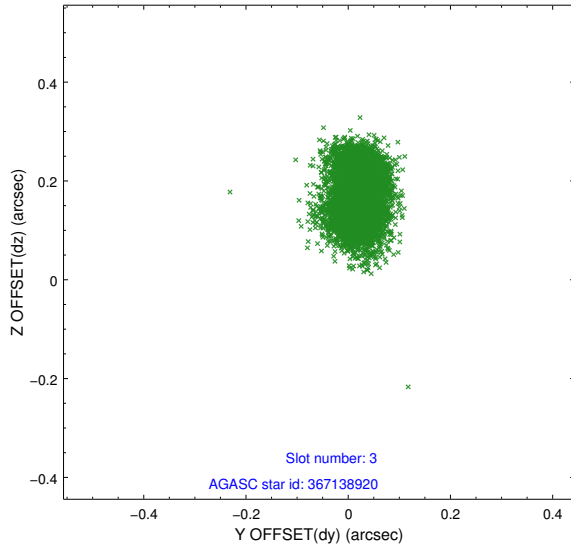


Slot Statistics

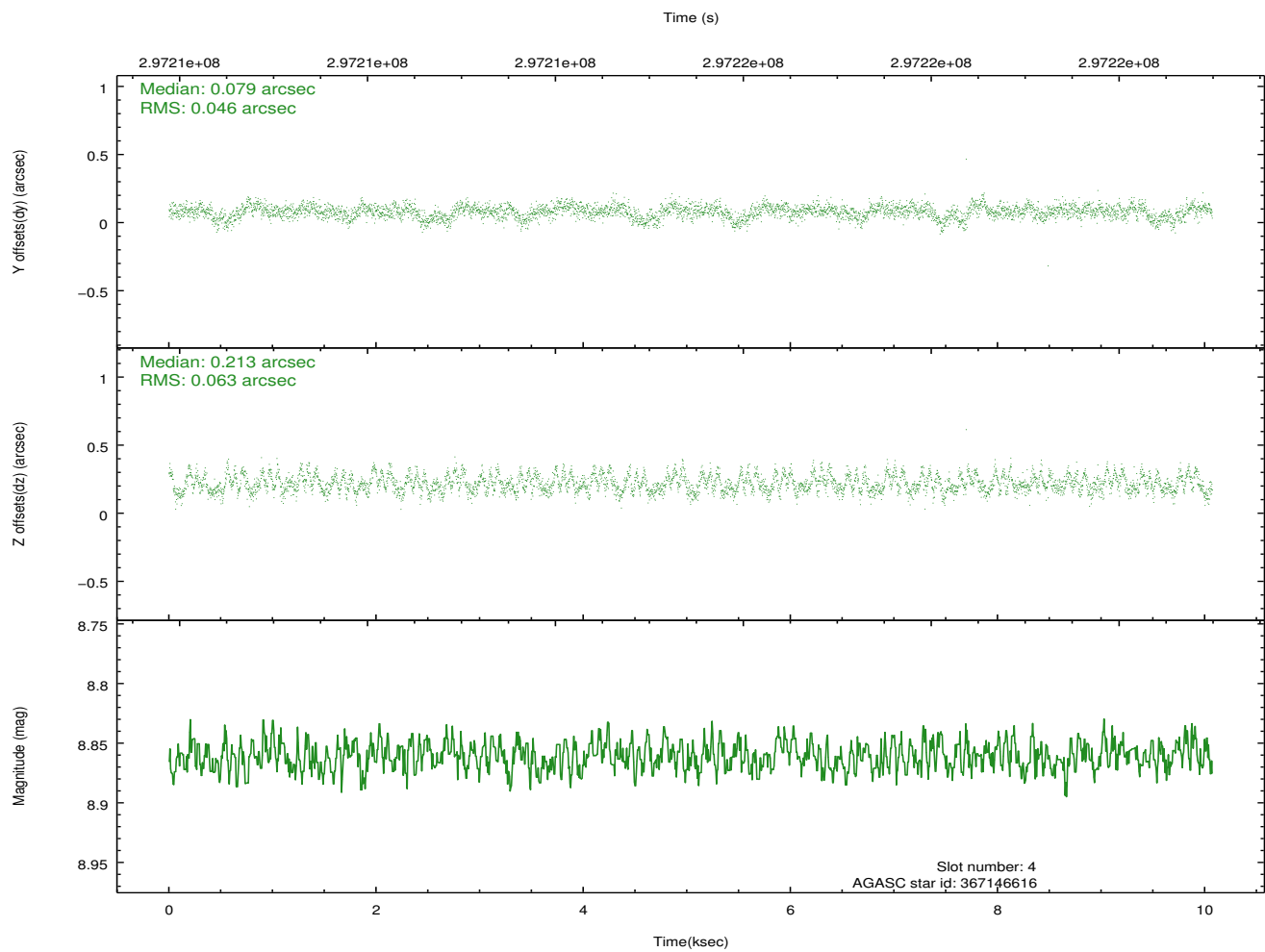
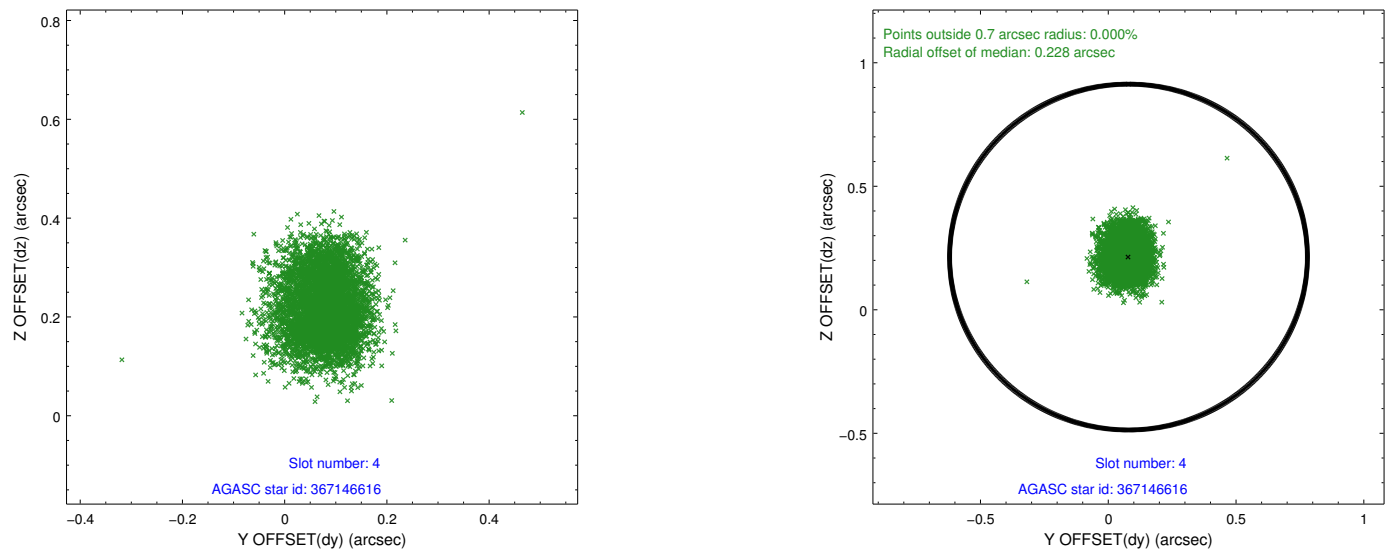
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.23	2456	0.069	-0.045	0.006	0.011	0.000000	0.000000	925.49	-840.25
1	FID	ACIS-I-5	7.22	2456	-0.216	0.068	0.006	0.010	0.000000	0.000000	-1822.56	1057.16
2	FID	ACIS-I-6	7.23	2456	0.056	0.048	0.007	0.011	0.000000	0.000000	390.52	1702.18
3	GUIDE	367138920	7.72	4913	0.021	0.169	0.065	0.103	11.513485	40.808909	-1526.97	-2249.74
4	GUIDE	367146616	8.86	4910	0.079	0.213	0.084	0.135	11.418645	41.190163	-165.34	-1938.33
5	GUIDE	367148872	7.21	4913	0.021	-0.222	0.067	0.111	10.505940	40.688258	-2054.07	481.91
6	GUIDE	367657896	9.01	4906	-0.037	0.026	0.078	0.127	11.197765	41.313576	256.14	-1324.00
7	GUIDE	367663272	9.27	4888	-0.080	-0.193	0.118	0.183	10.656279	41.699429	1596.54	180.75

2.4 Star Slots

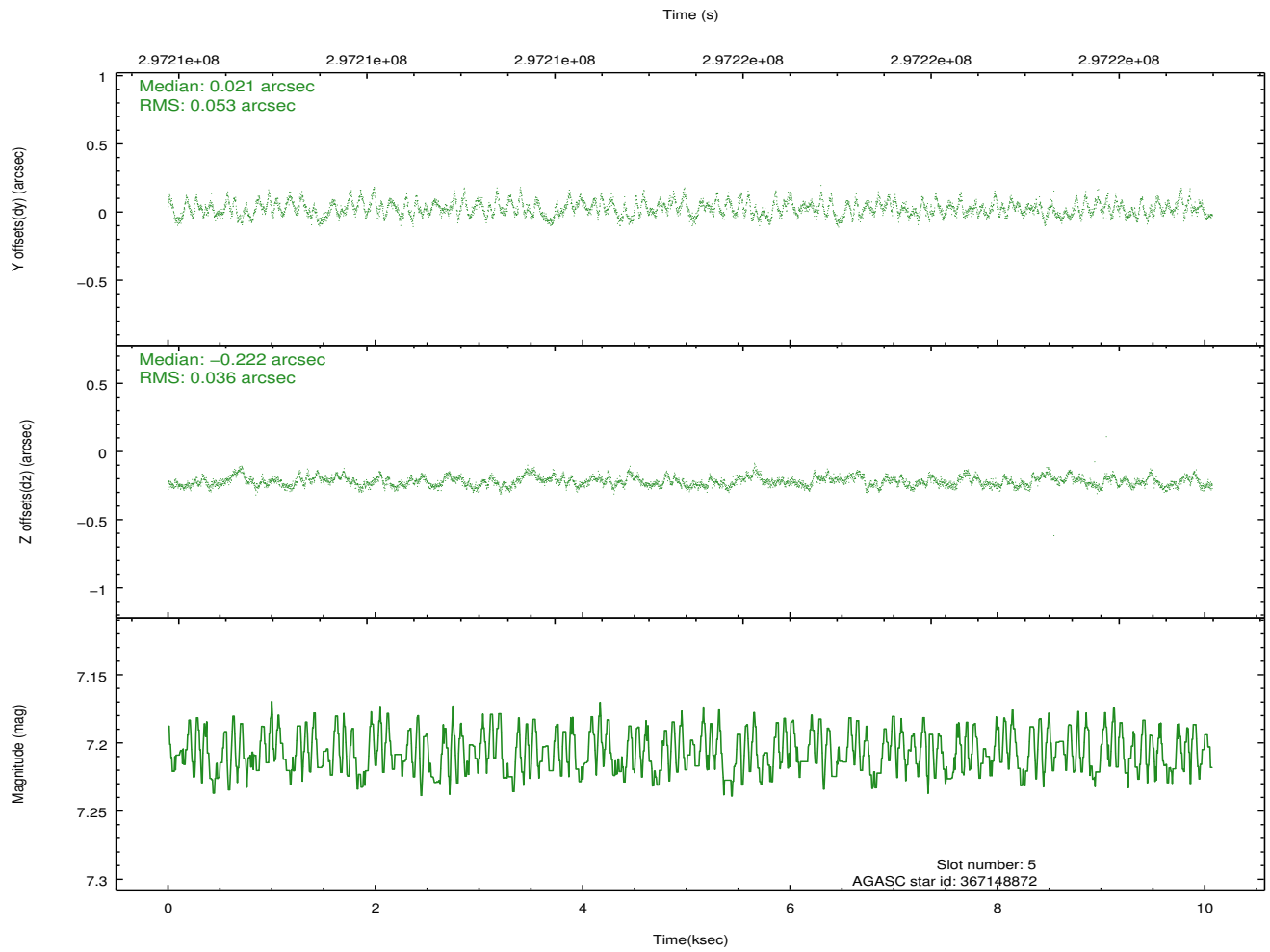
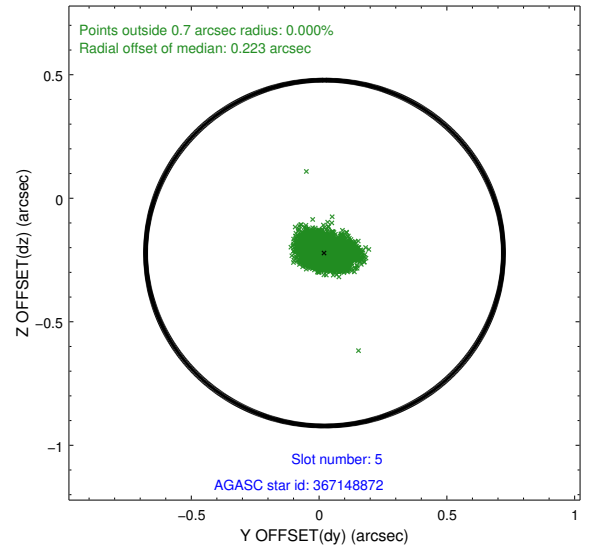
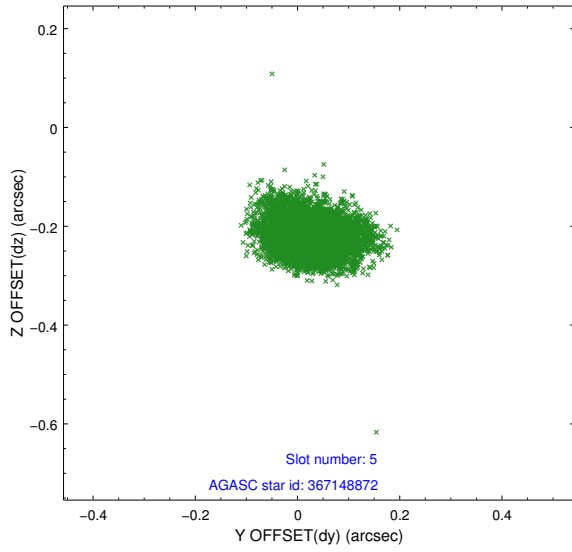
2.4.1 Slot 3



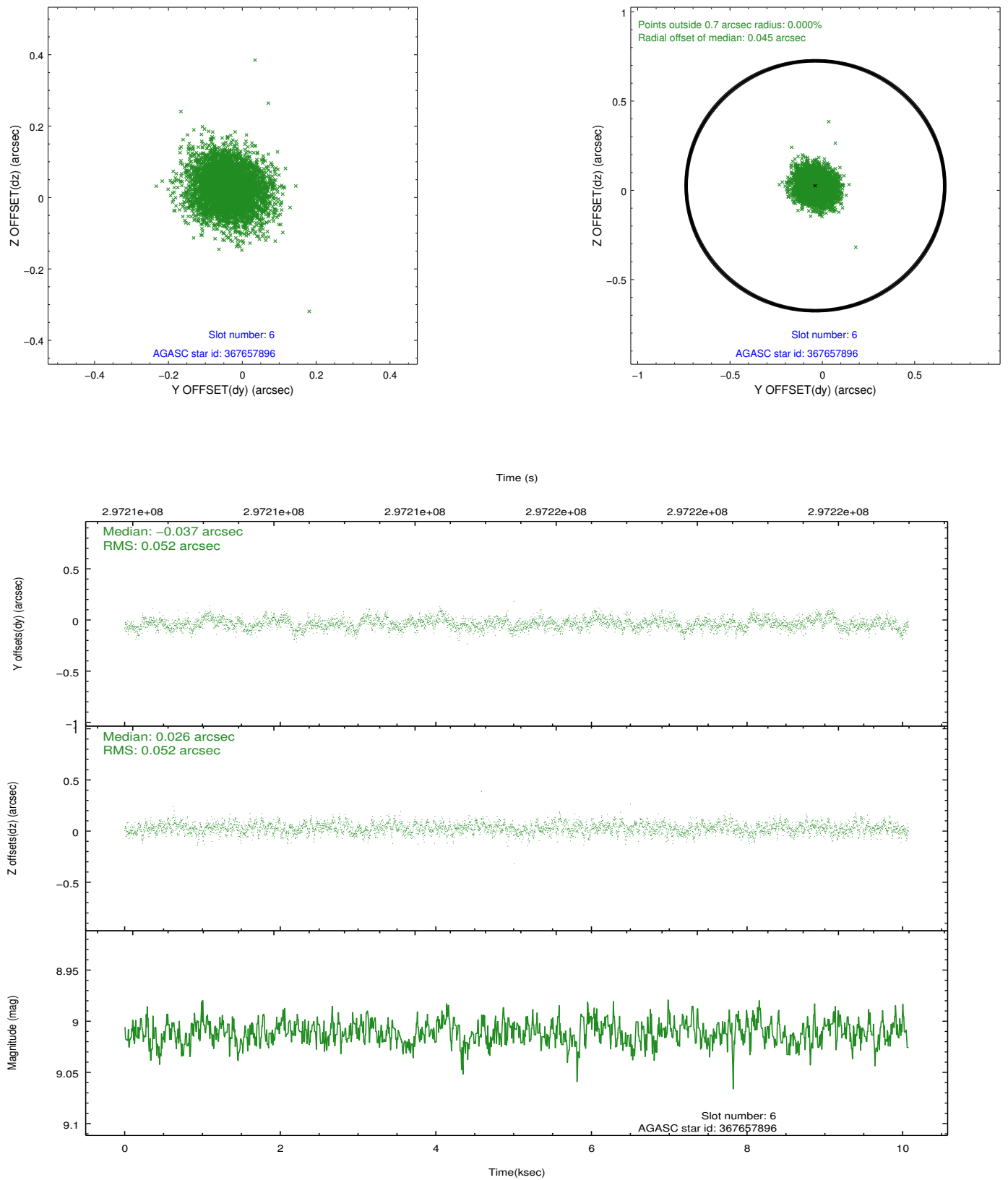
2.4.2 Slot 4



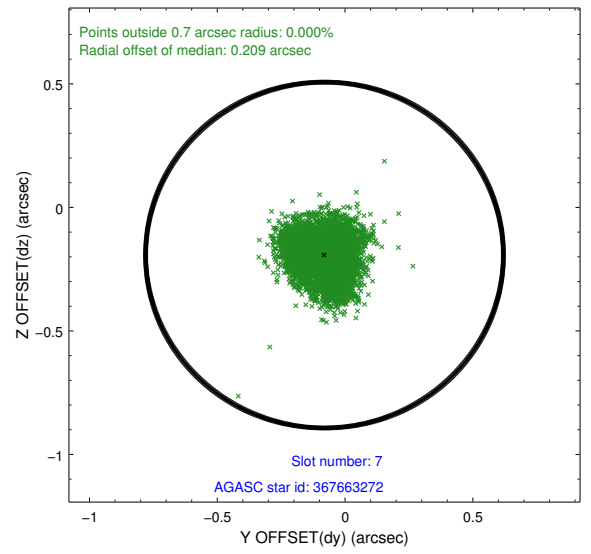
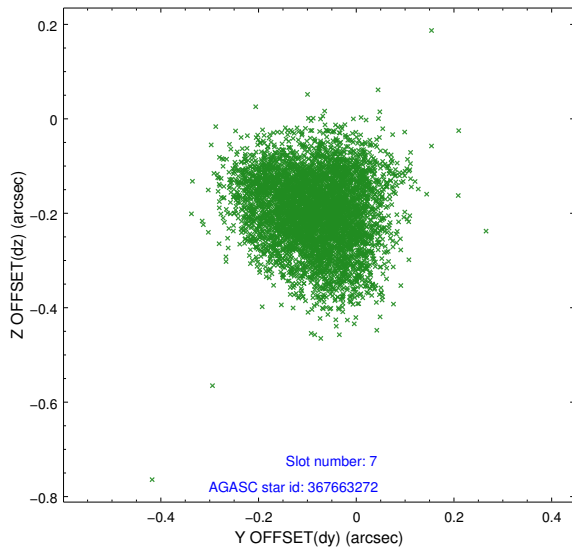
2.4.3 Slot 5



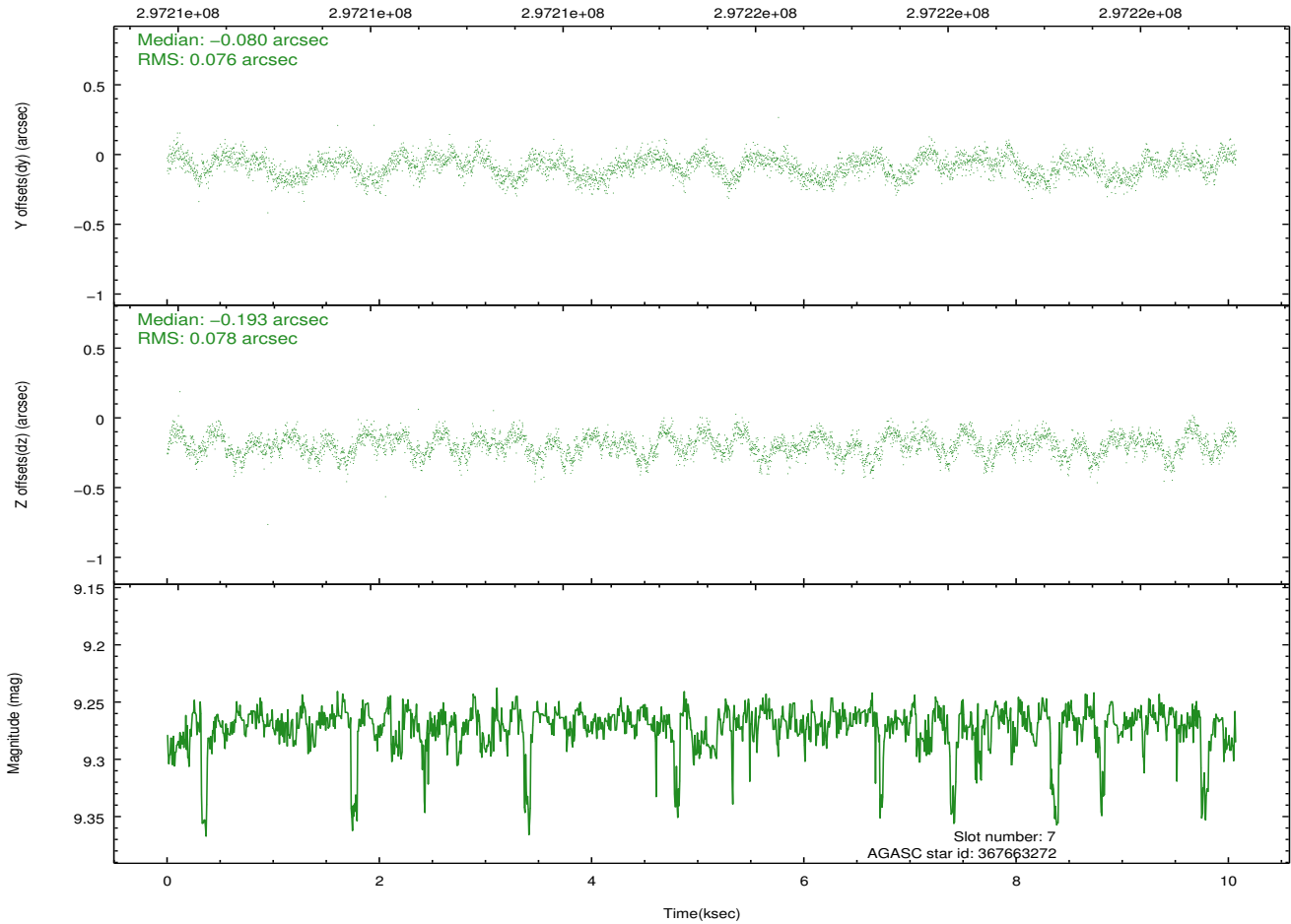
2.4.4 Slot 6



2.4.5 Slot 7

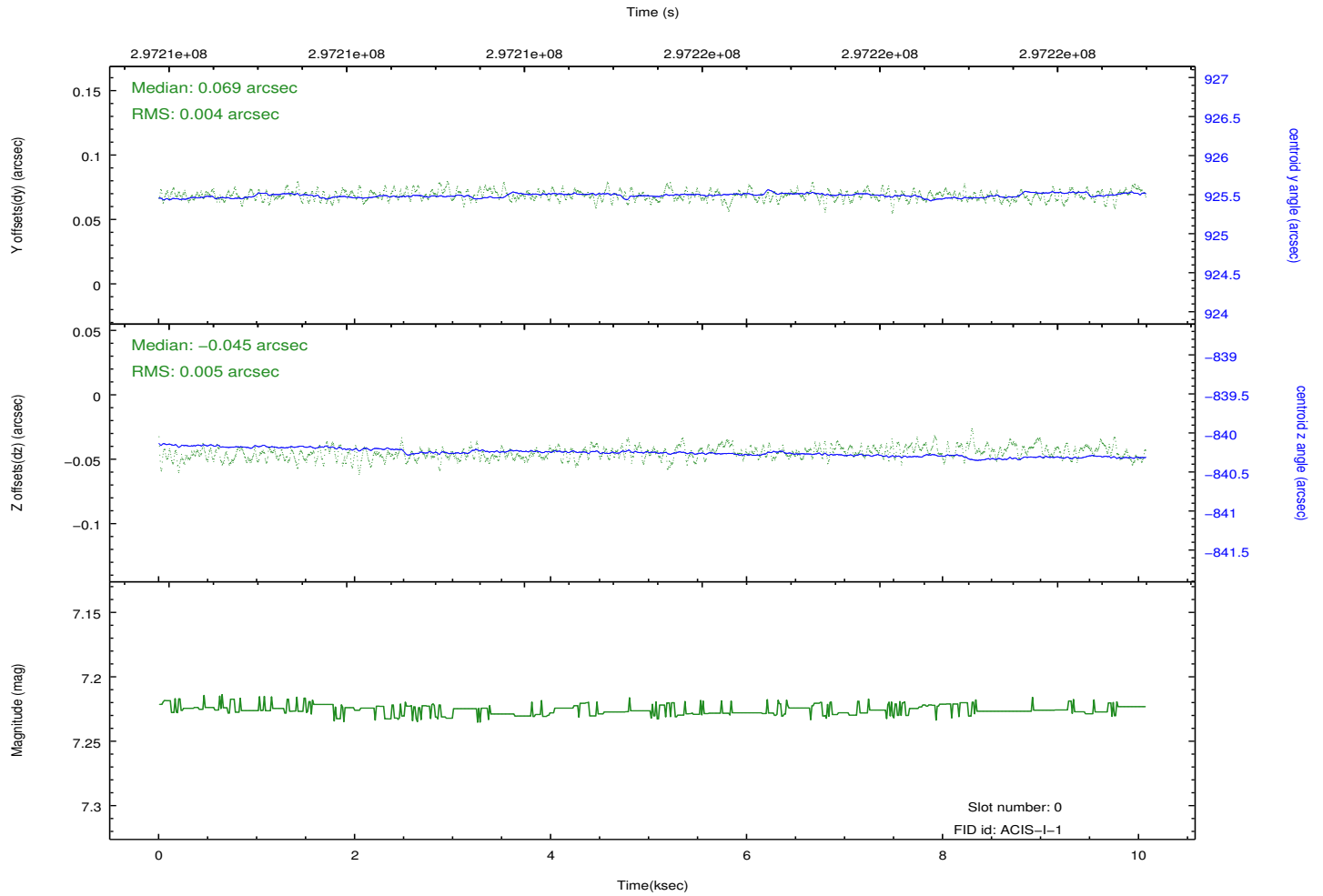
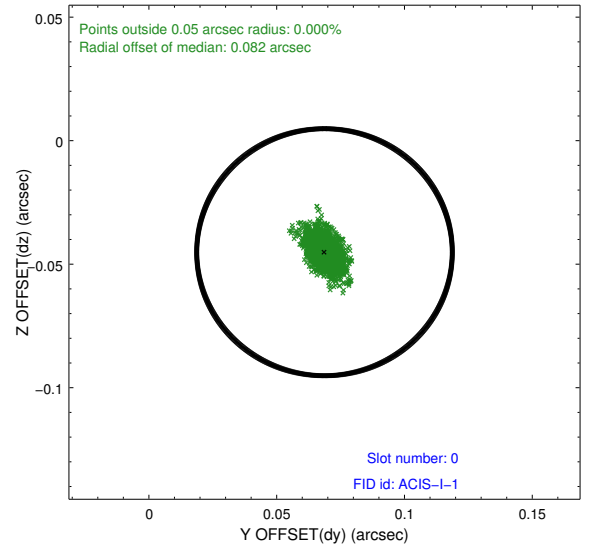
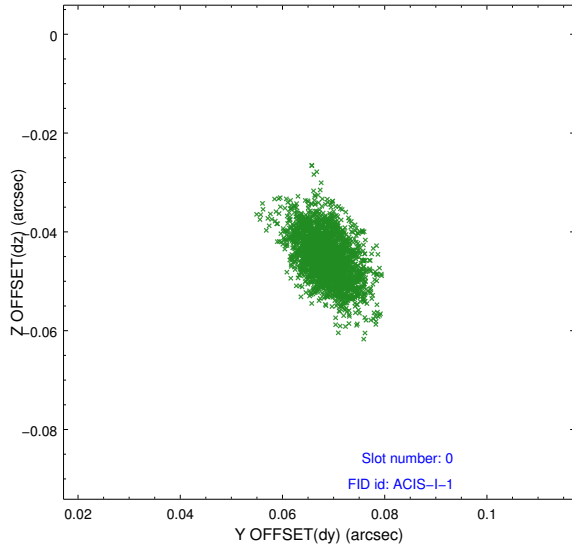


Time (s)

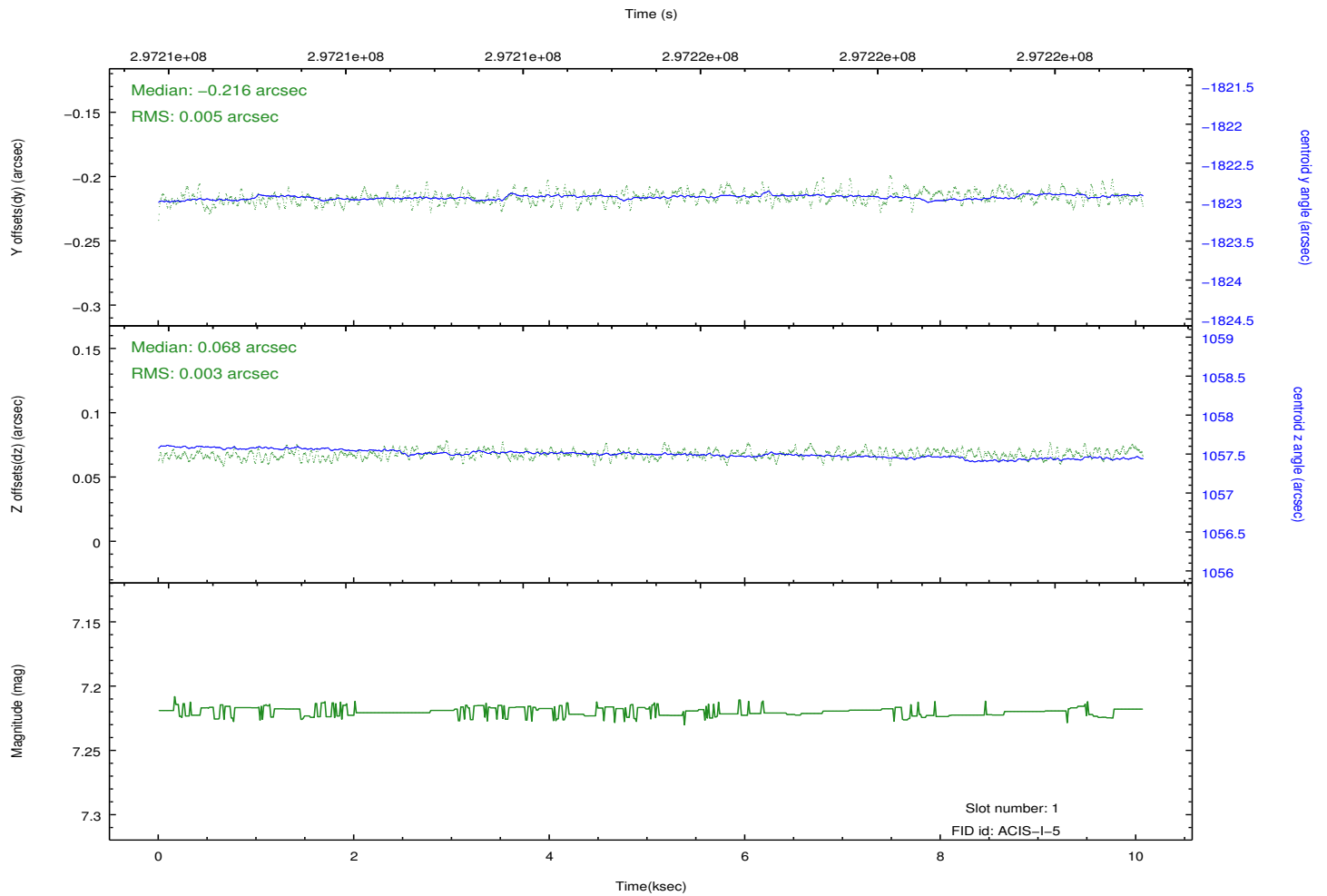
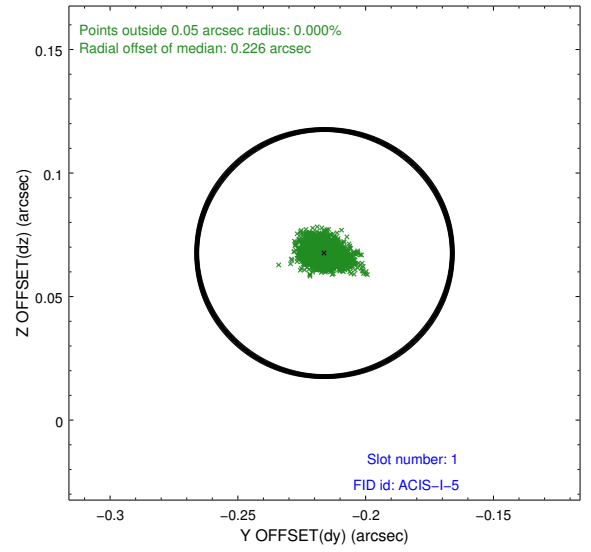
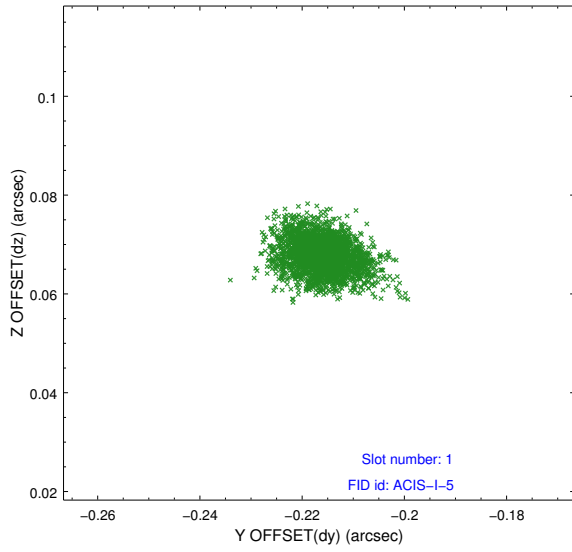


2.5 FID Slots

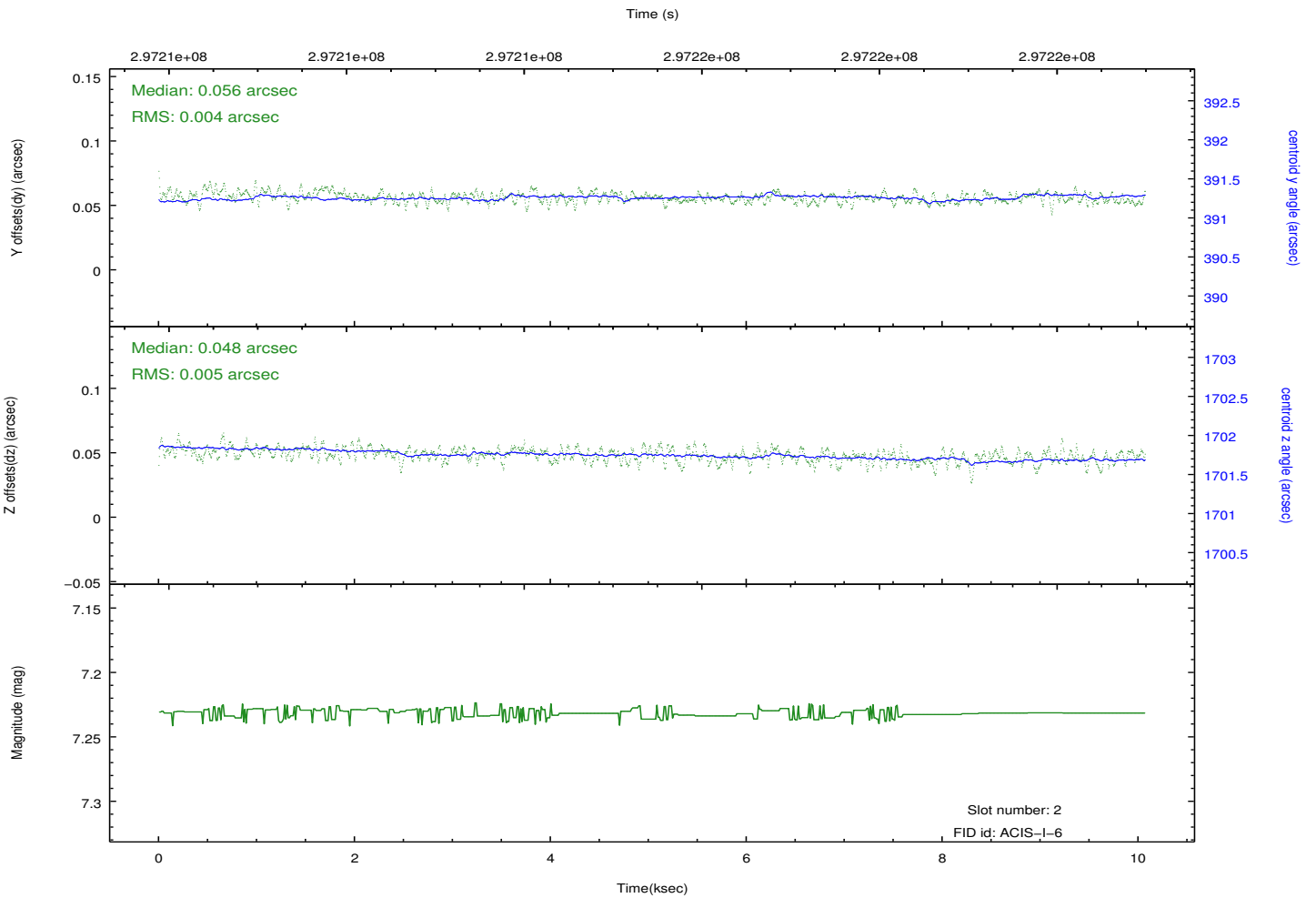
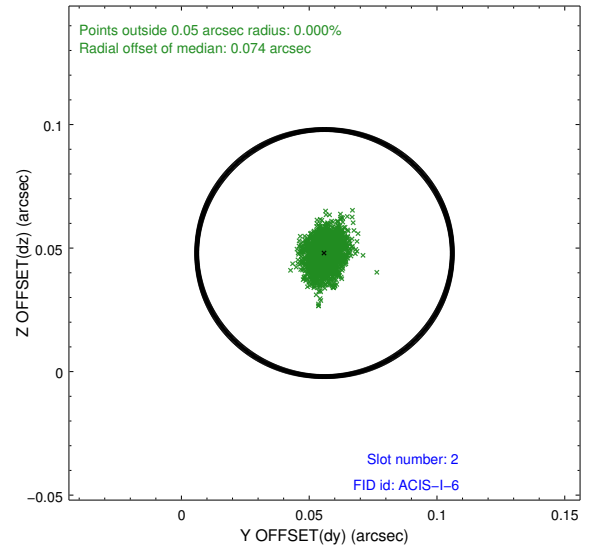
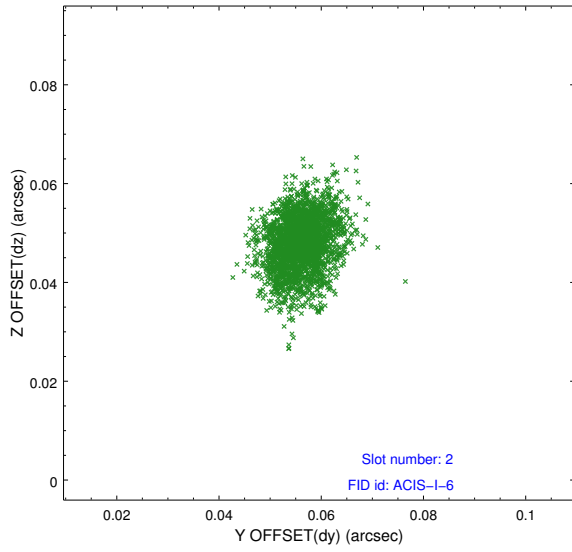
2.5.1 Slot 0



2.5.2 Slot 1



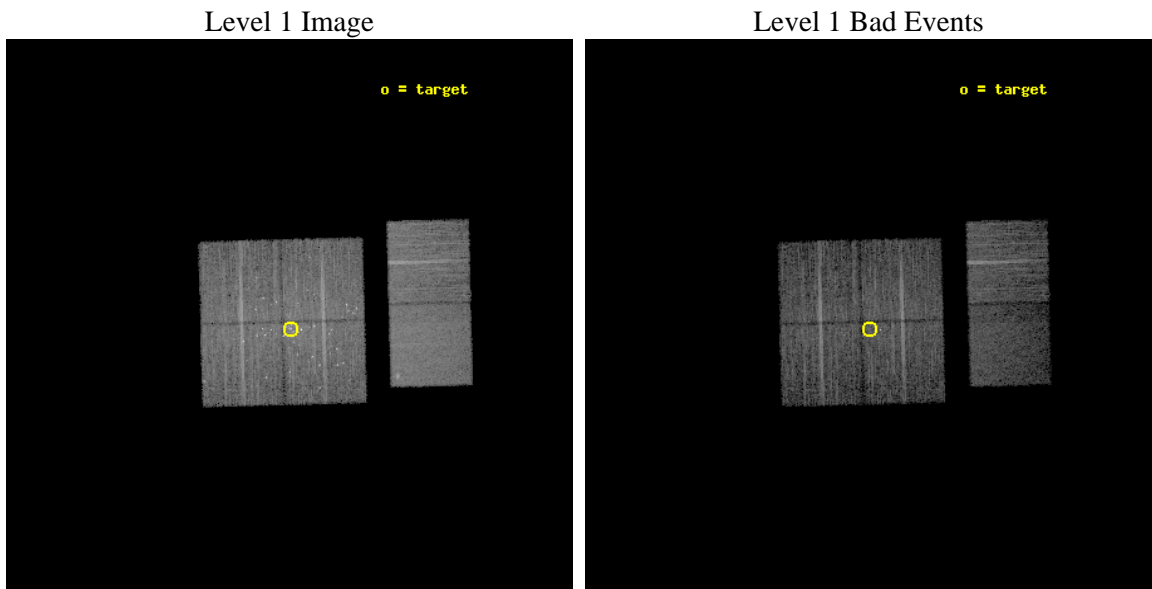
2.5.3 Slot 2



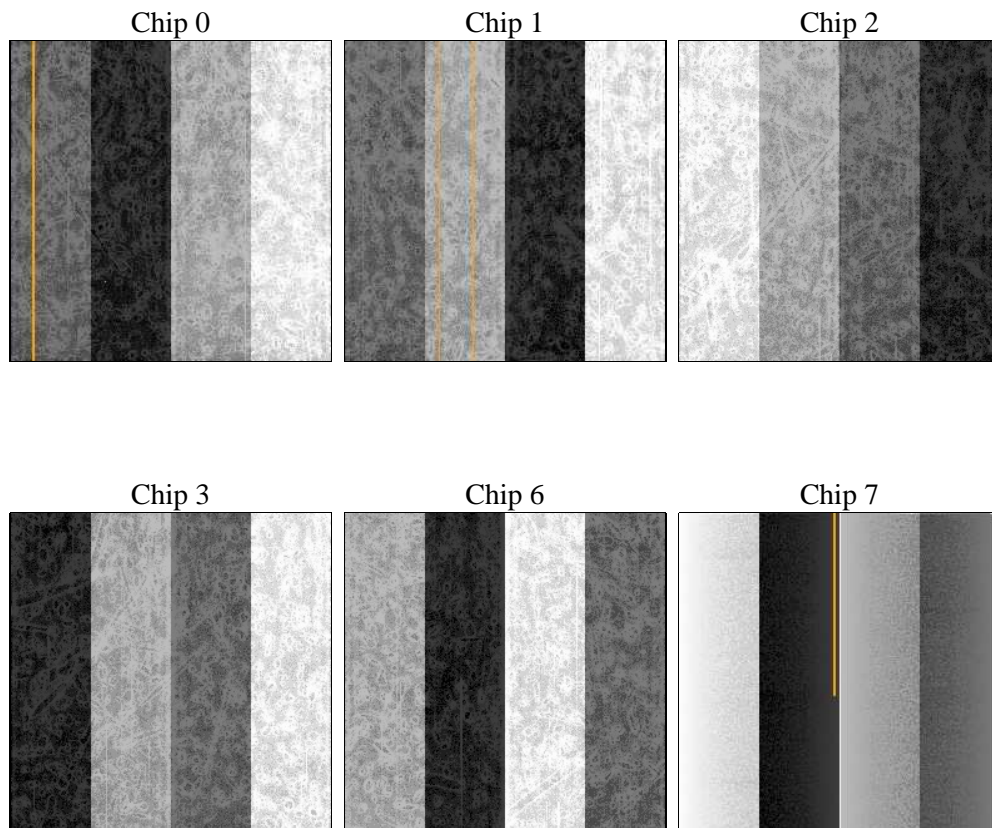
3 OBI Secondary

3.1 OBI

3.1.1 Images



3.1.2 Bias



3.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	9885.504000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	7791.4946068525	Sum of GTIs [s]
caldbver	4.4.9	 	ontime0	7797.9765373468	Sum of GTIs [s]
date	2012-04-25T20:40:30	Date and time of file creation	ontime1	7797.9772144556	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	7797.976945281	Sum of GTIs [s]
			ontime3	7791.4946068525	Sum of GTIs [s]
			ontime6	7797.9775342345	Sum of GTIs [s]
			ontime7	7794.7355073094	Sum of GTIs [s]
			l1events	391330	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	61453	63470	65629	69648	62201	68929	grade 0 events	4269	6297	4672	10852	2312	3076
rejected events	52855	51871	56613	52738	55731	37369		6%	9%	7%	15%	3%	4%
rejected %	86%	81%	86%	75%	89%	54%	grade 1 events	64	115	63	358	30	82
								0%	0%	0%	0%	0%	0%
							grade 2 events	1693	2017	1601	2460	1424	6436
								2%	3%	2%	3%	2%	9%
							grade 3 events	711	884	728	1074	675	2844
								1%	1%	1%	1%	1%	4%
							grade 4 events	695	939	768	1014	643	2976
								1%	1%	1%	1%	1%	4%
							grade 5 events	2150	2355	1944	2495	2419	7159
								3%	3%	2%	3%	3%	10%
							grade 6 events	1239	1470	1258	1526	1420	16249
								2%	2%	1%	2%	2%	23%
							grade 7 events	50632	49393	54595	49869	53278	30107
								82%	77%	83%	71%	85%	43%

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.04.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.61692979

A.2 Comments

Window constraint met. Coordinated with HST.