

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 12160 - L2 Version 2
Chandra X-Ray Center

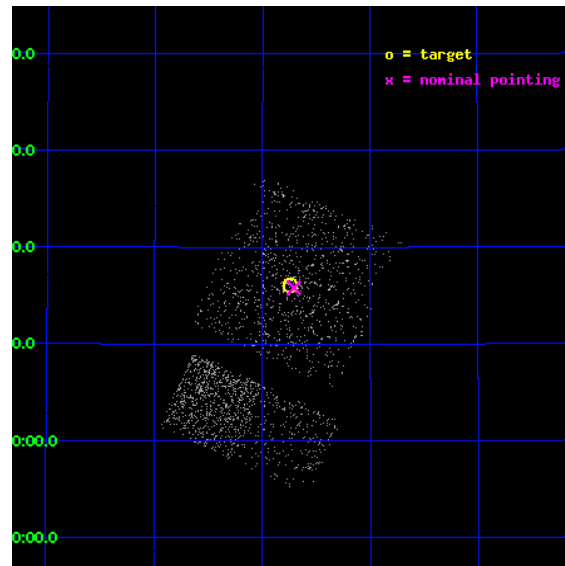
L2 Processing Date : Jul 5 2012

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

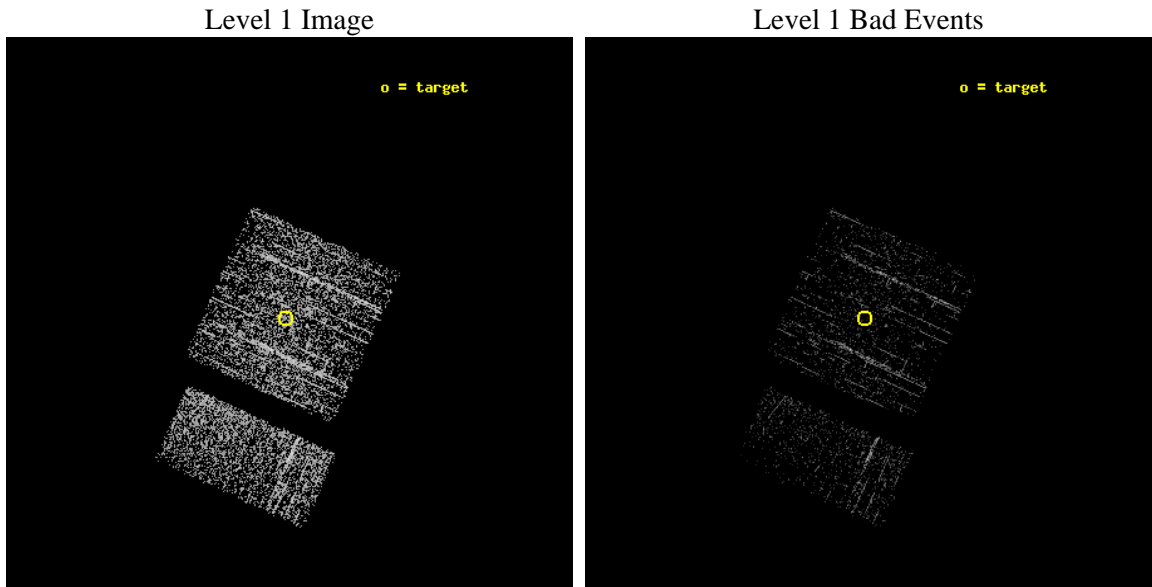
seq_num	600914	Sequence number
obs_id	12160	Observation id
title	Black Hole X-ray Novae in M31	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	M31	Source name
dtcycle	0	
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.6769946786	Nominal RA [deg]
dec_nom	41.263650767431	Nominal Dec [deg]
roll_nom	204.41457367755	Nominal Roll [deg]
revision	2	Processing version of data
ontime	937.74938285351	Sum of GTIs [s]
livetime	147.62437285171	Livetime [s]
ontime0	937.74939274788	Sum of GTIs [s]
ontime1	937.74939274788	Sum of GTIs [s]
ontime2	937.74938285351	Sum of GTIs [s]
ontime3	937.74938285351	Sum of GTIs [s]
ontime6	937.74937295914	Sum of GTIs [s]
ontime7	937.74938285351	Sum of GTIs [s]
l2events	2415	Number of level 2 events



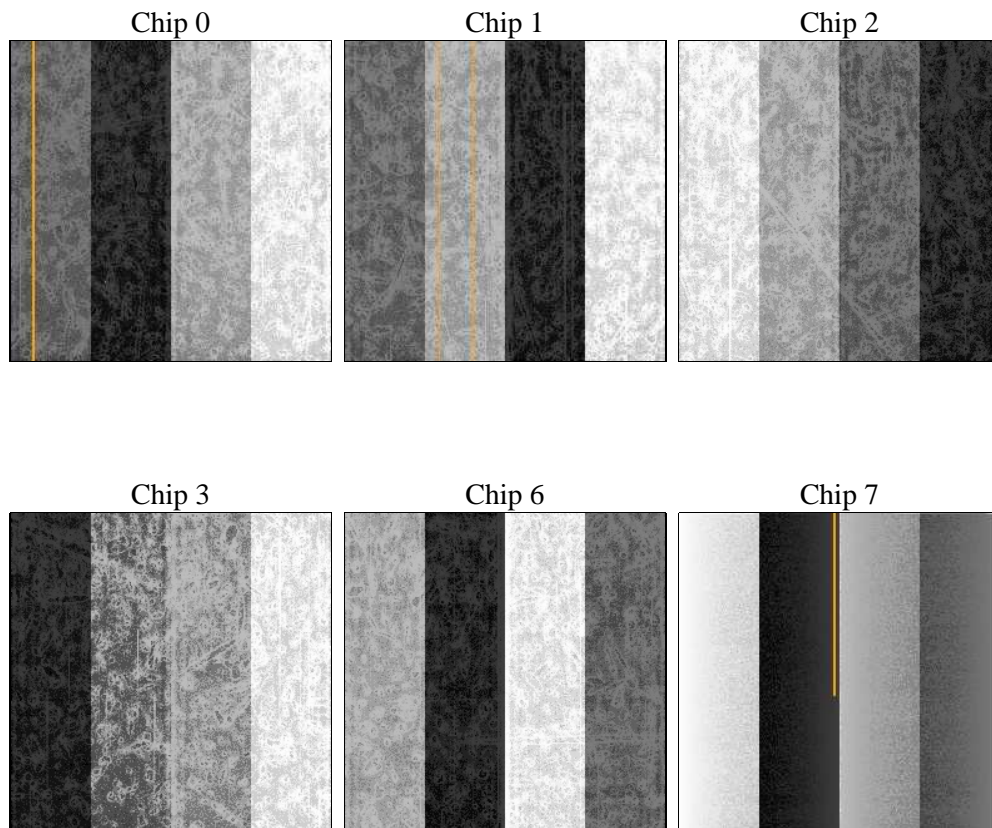
2 OBI Primary

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	8.4.5	Processing system revision	ontime	937.74938285351	Sum of GTIs [s]
caldbver	4.5.0	 	ontime0	937.74939274788	Sum of GTIs [s]
date	2012-07-05T05:38:38	Date and time of file creation	ontime1	937.74939274788	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	937.74938285351	Sum of GTIs [s]
			ontime3	937.74938285351	Sum of GTIs [s]
			ontime6	937.74937295914	Sum of GTIs [s]
			ontime7	937.74938285351	Sum of GTIs [s]
			l1events	20886	Number of level 1 events

2.1.4 Events

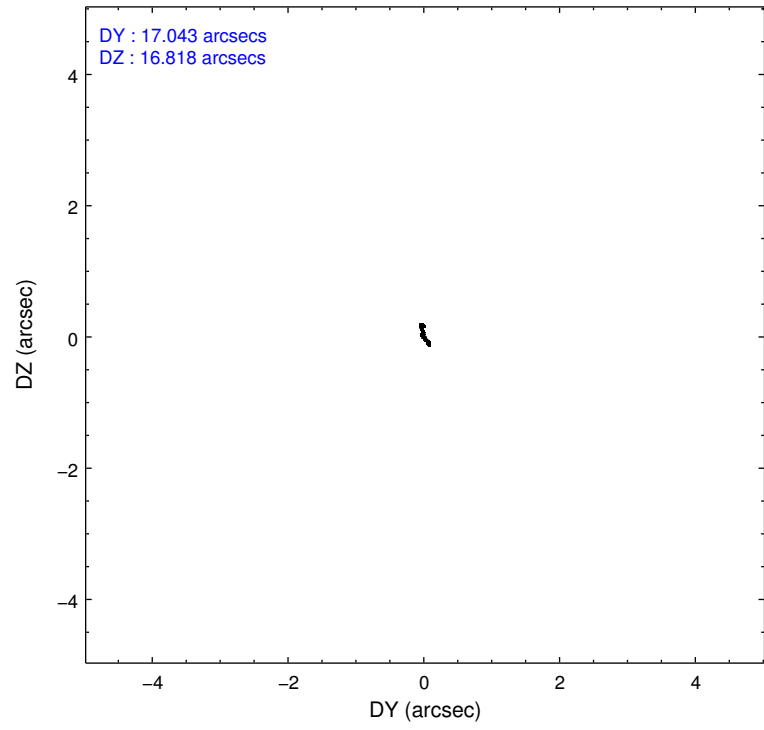
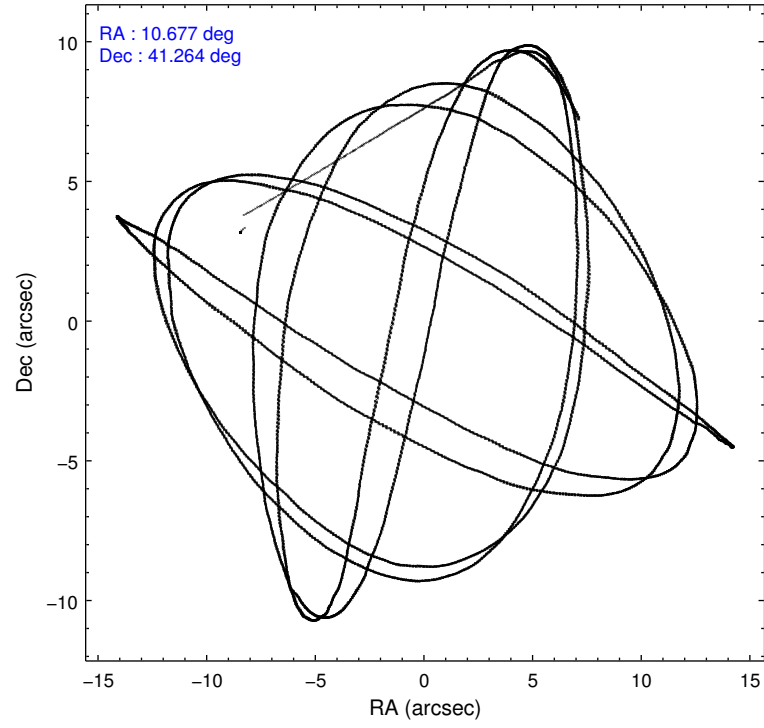
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	3454	3337	3671	3475	3712	3237
rejected events	3124	2984	3243	3043	3407	2337
rejected %	90%	89%	88%	87%	91%	72%

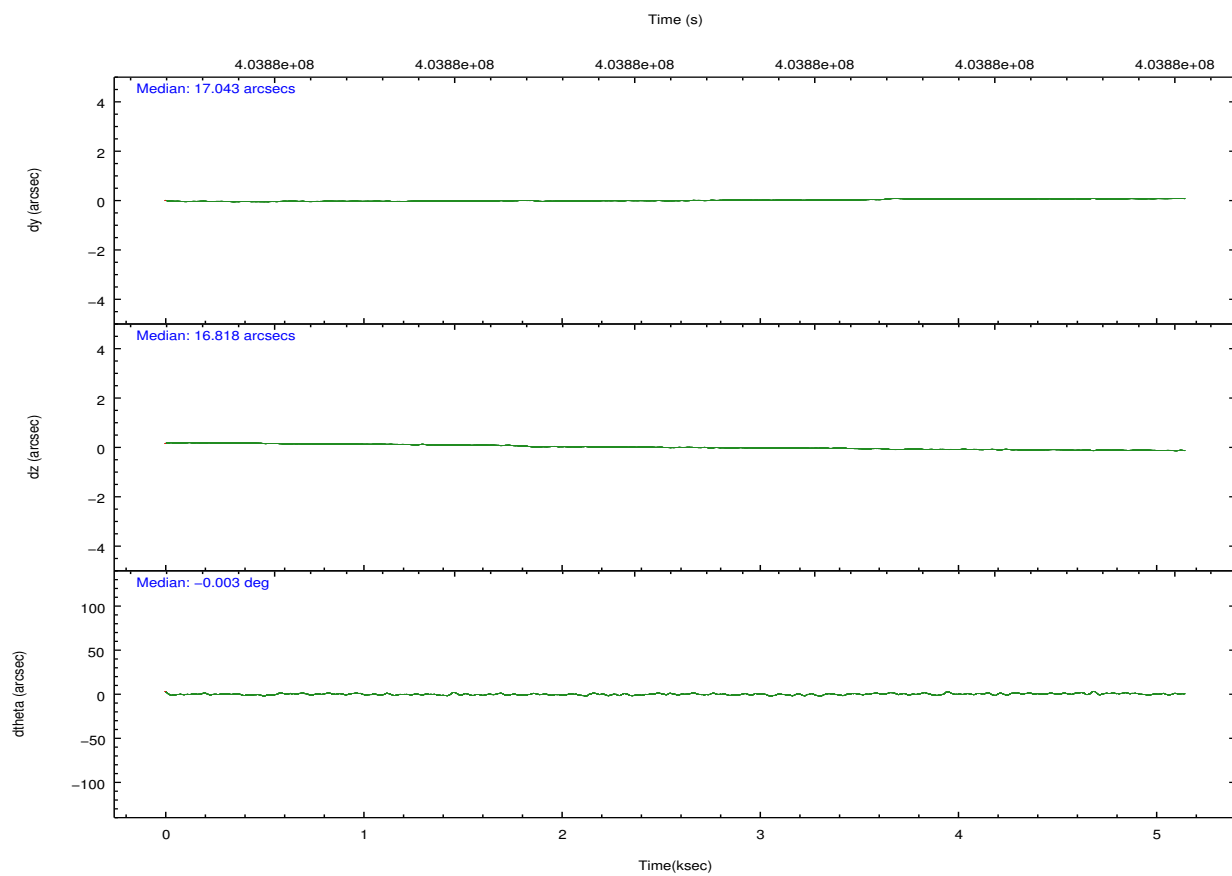
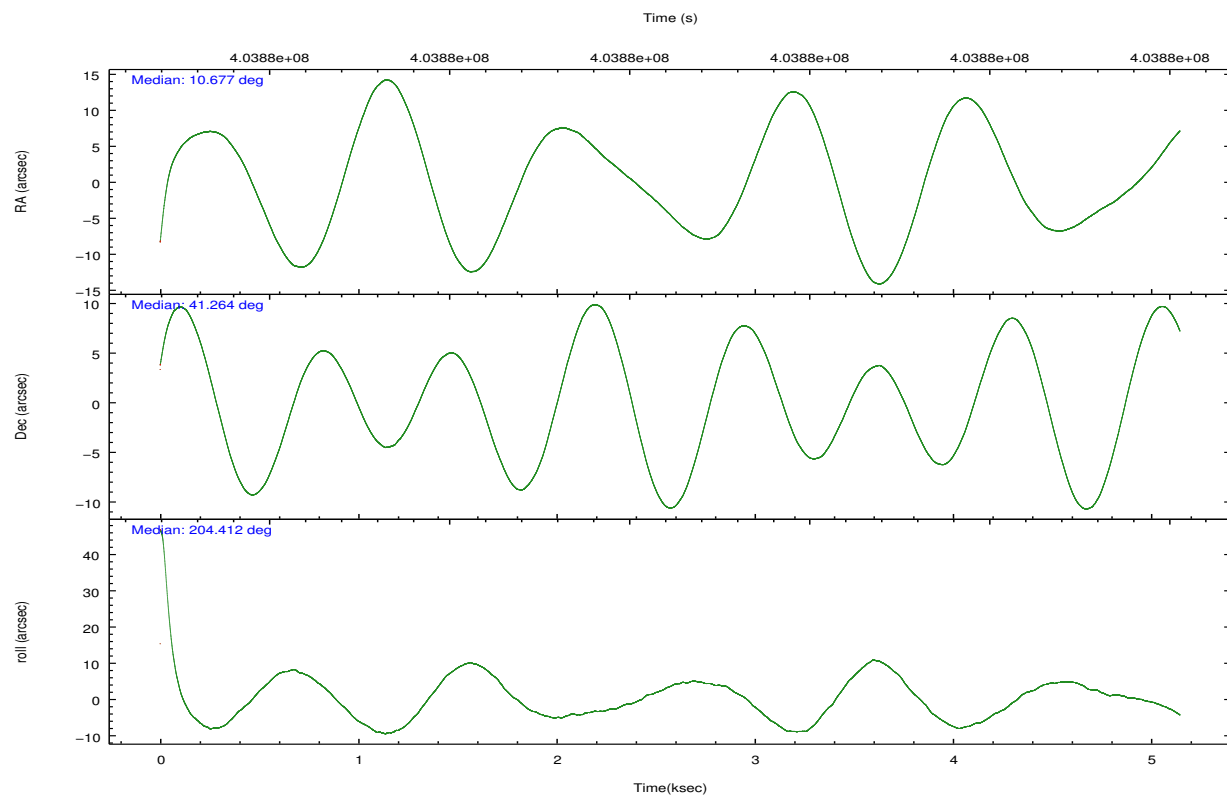
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	137	143	183	212	76	89
	3%	4%	4%	6%	2%	2%
grade 1 events	2	0	2	1	1	2
	0%	0%	0%	0%	0%	0%
grade 2 events	68	76	92	88	87	185
	1%	2%	2%	2%	2%	5%
grade 3 events	26	39	44	42	48	77
	0%	1%	1%	1%	1%	2%
grade 4 events	32	33	42	33	35	82
	0%	0%	1%	0%	0%	2%
grade 5 events	120	119	97	146	139	275
	3%	3%	2%	4%	3%	8%
grade 6 events	69	64	70	57	60	476
	1%	1%	1%	1%	1%	14%
grade 7 events	3000	2863	3141	2896	3266	2051
	86%	85%	85%	83%	87%	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	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	10.698153	10.67699467859961	CCD I2 on	Y	Y
[deg] Pointing Dec	41.286019	41.26365076743142	CCD I3 on	Y	Y
[deg] Pointing Roll	204.191822	204.4145736775492	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)	403875791.184000	403874035.47013	CCD S5 on	N	N
Observation start date	2010-10-19T11:42:05	2010-10-19T11:13:55	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	403880791.184000	403881638.40802	On-chip summing requested	N	N
Observation end date	2010-10-19T13:05:25	2010-10-19T13:20:38	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



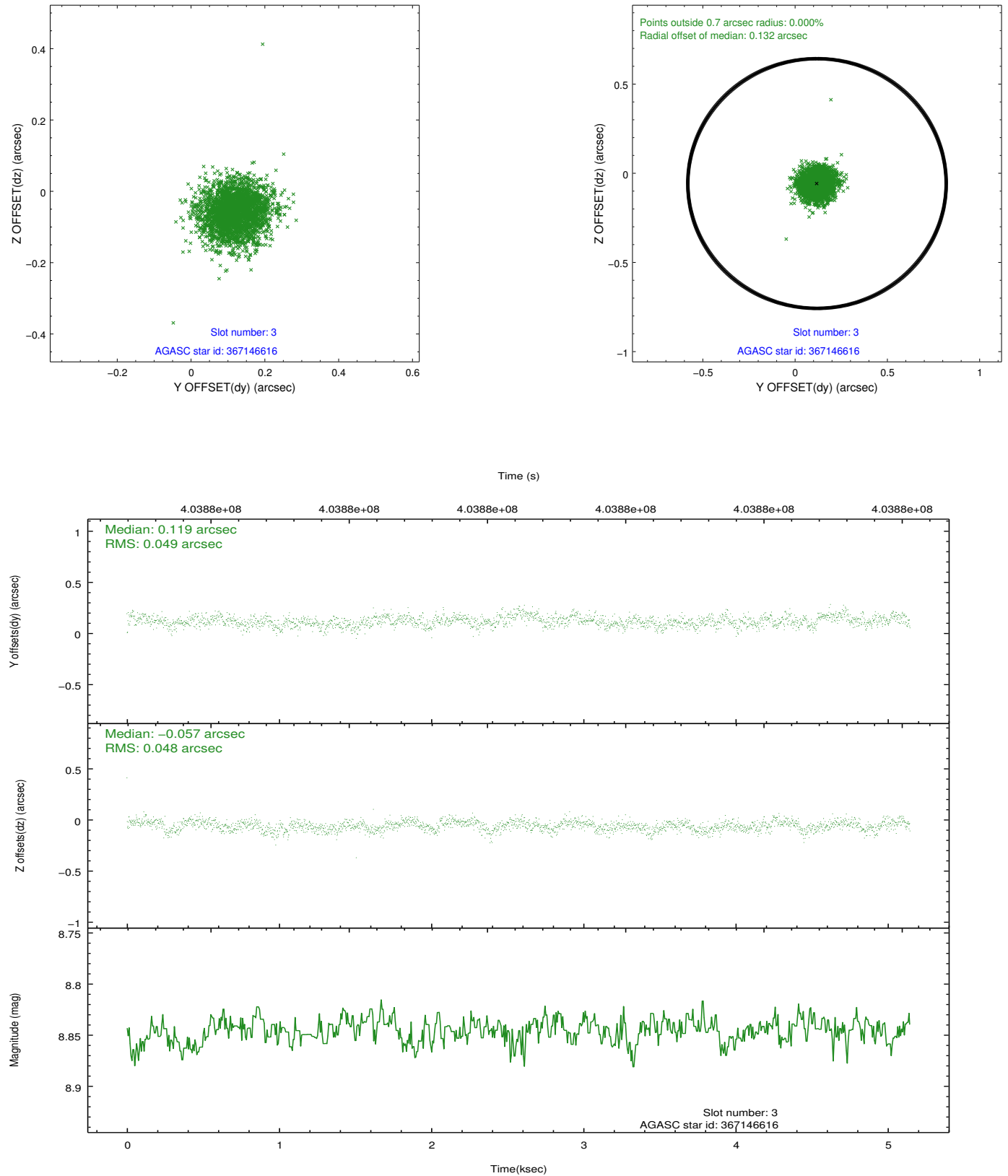


Slot Statistics

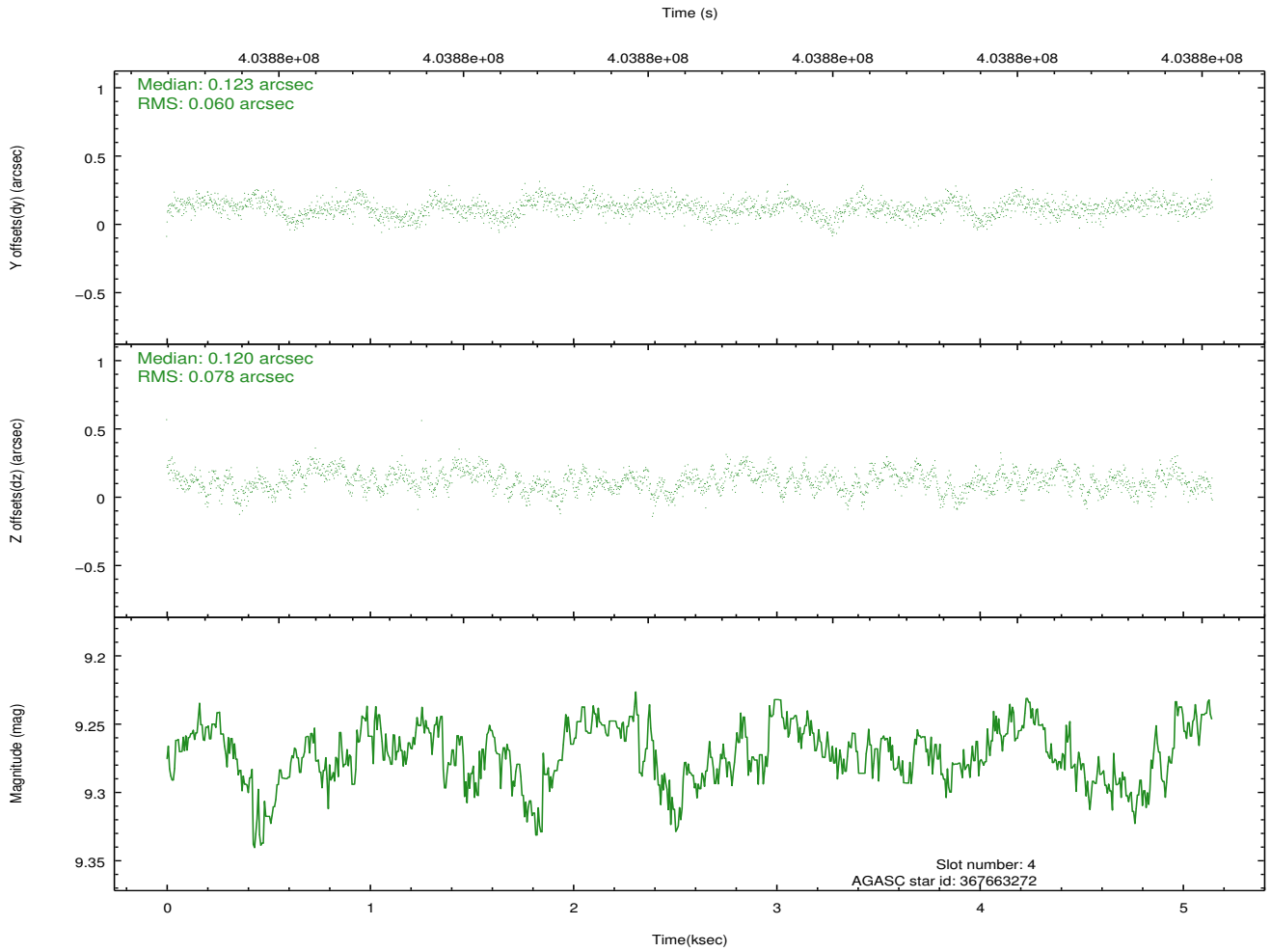
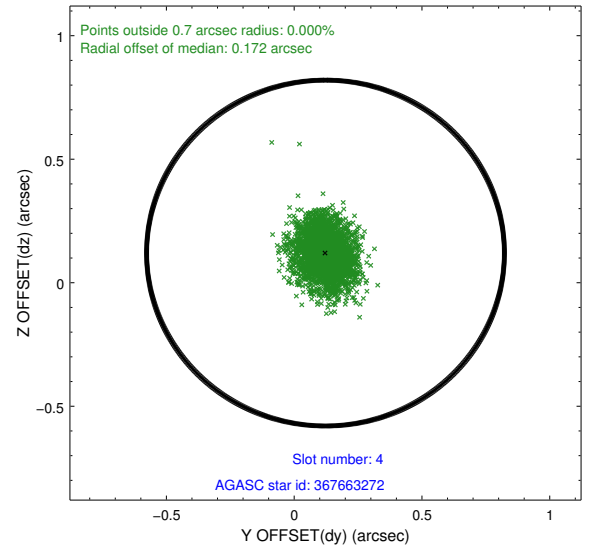
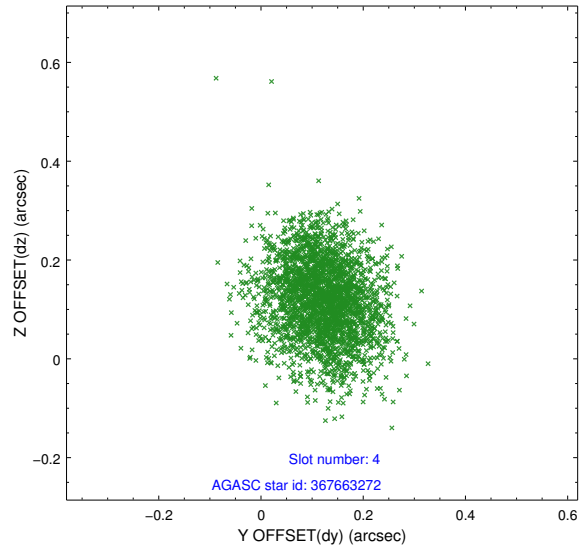
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	6.95	1255	-0.167	-0.065	0.007	0.014	0.000000	0.000000	-771.97	-846.92
1	FID	ACIS-I-4	6.97	1256	0.091	0.112	0.008	0.012	0.000000	0.000000	2141.76	1058.89
2	FID	ACIS-I-6	7.05	1256	-0.025	0.017	0.011	0.018	0.000000	0.000000	389.70	1702.28
3	GUIDE	367146616	8.85	2510	0.119	-0.057	0.072	0.117	11.418645	41.190163	-1641.98	1107.61
4	GUIDE	367663272	9.27	2509	0.123	0.120	0.105	0.169	10.656279	41.699429	-506.41	-1402.70
5	GUIDE	367674552	8.86	2508	0.029	0.212	0.091	0.142	11.016238	41.570845	-1202.19	-585.48
6	GUIDE	367148872	7.21	2510	-0.271	-0.254	0.073	0.116	10.505940	40.688258	1360.17	1748.04
7	GUIDE	367657896	9.03	2510	0.002	-0.024	0.084	0.138	11.197765	41.313576	-1273.70	460.65

2.4 Star Slots

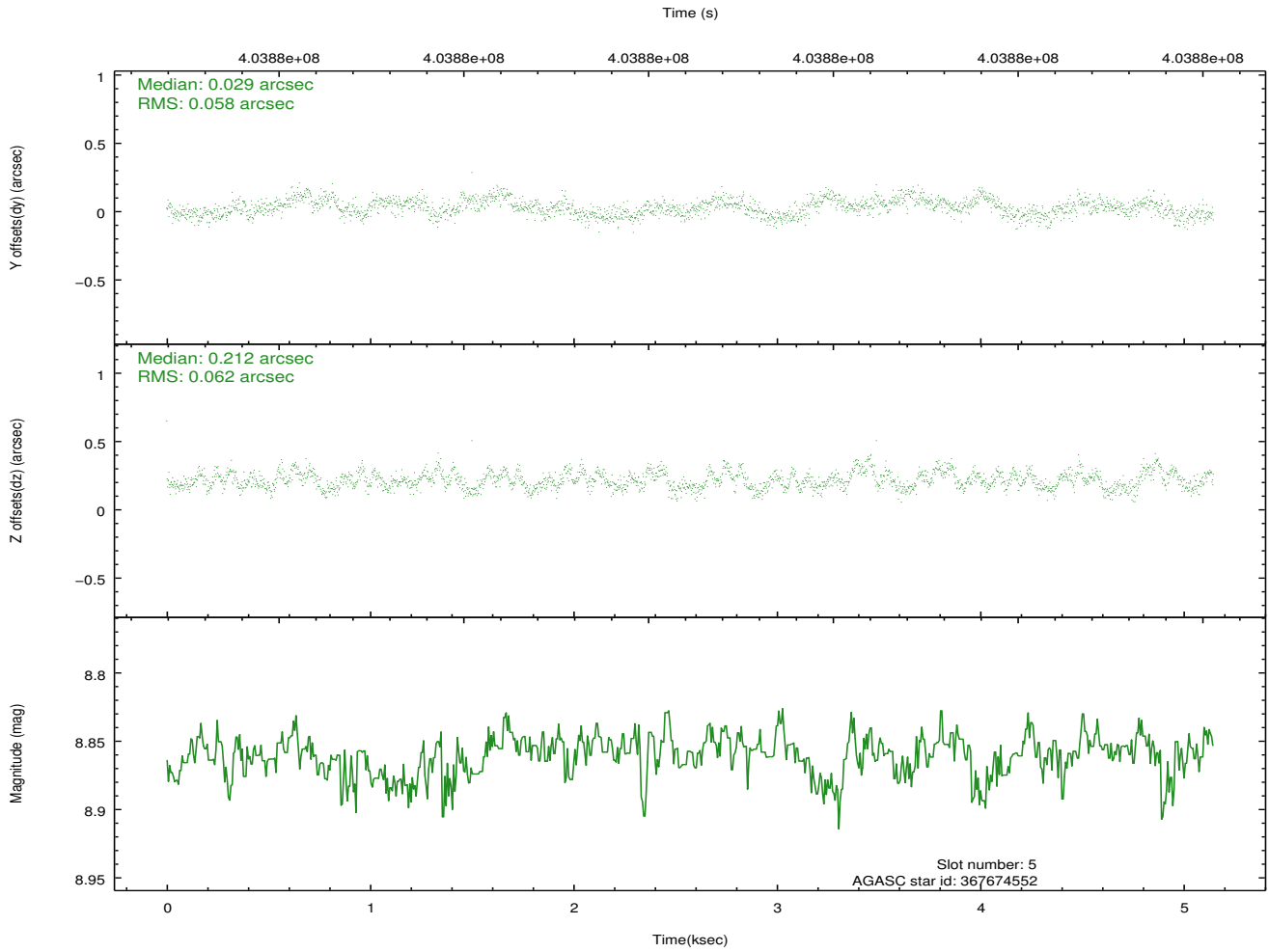
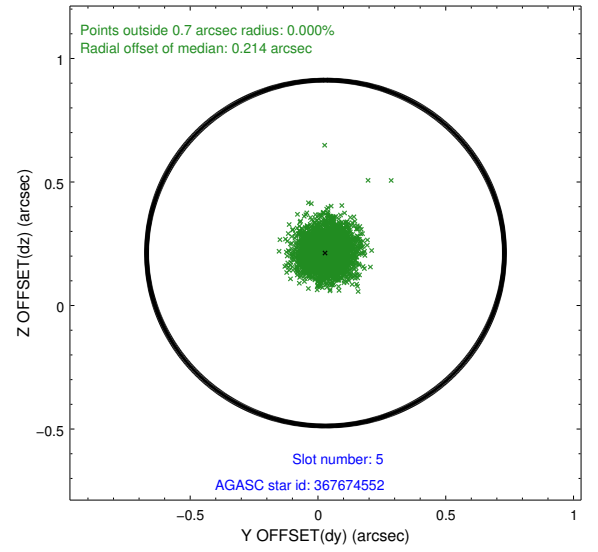
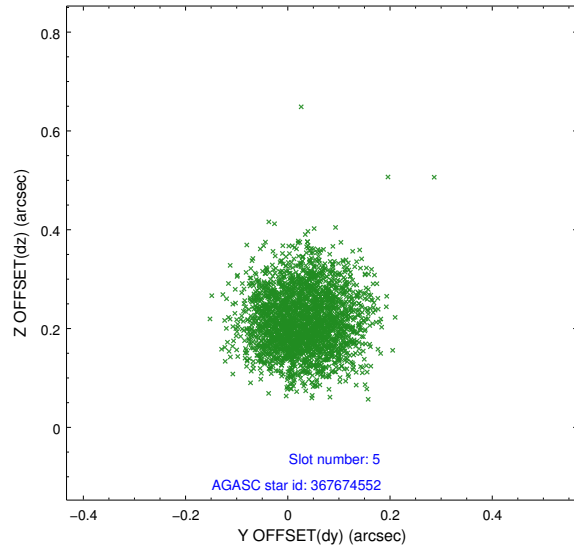
2.4.1 Slot 3



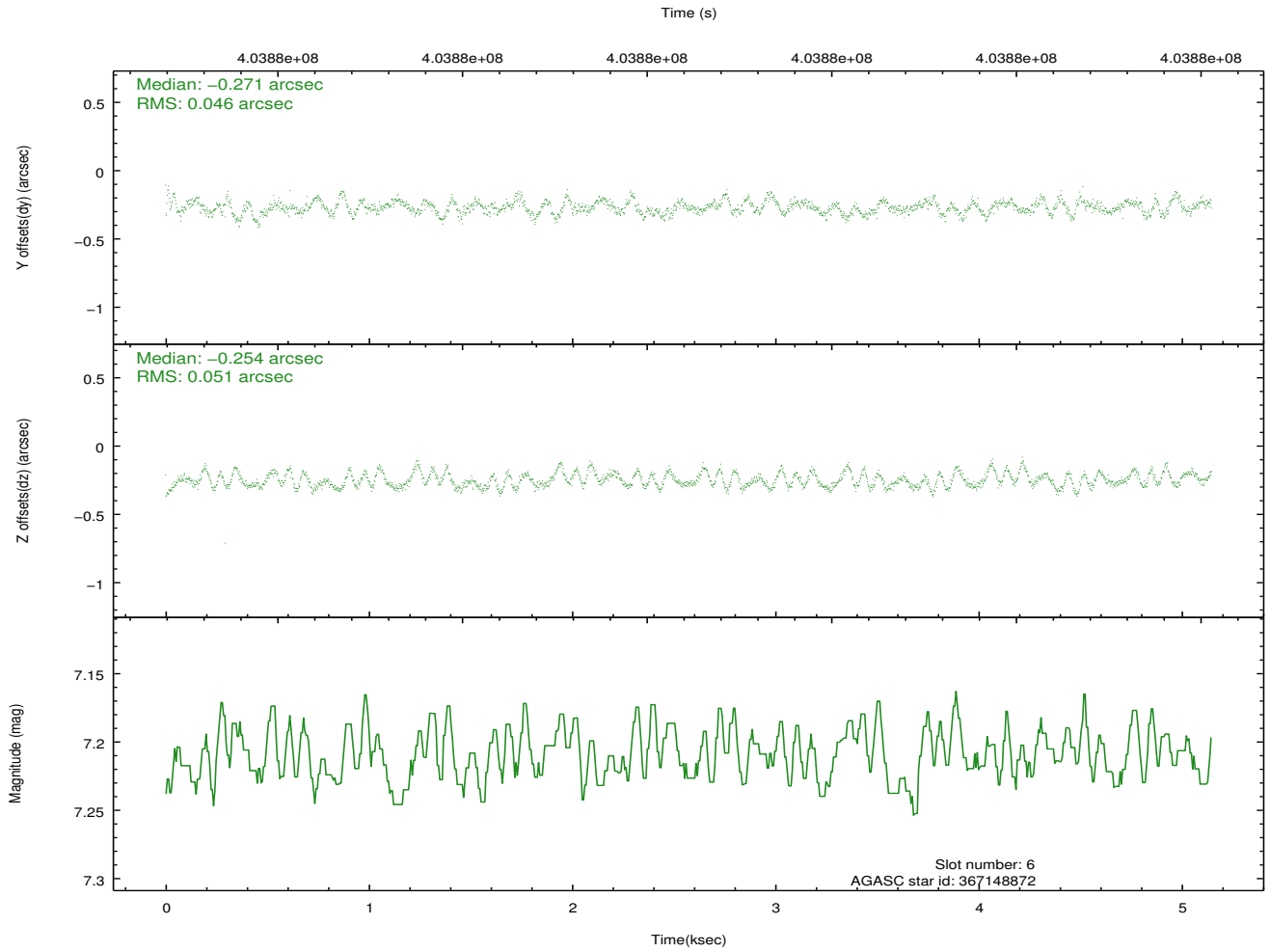
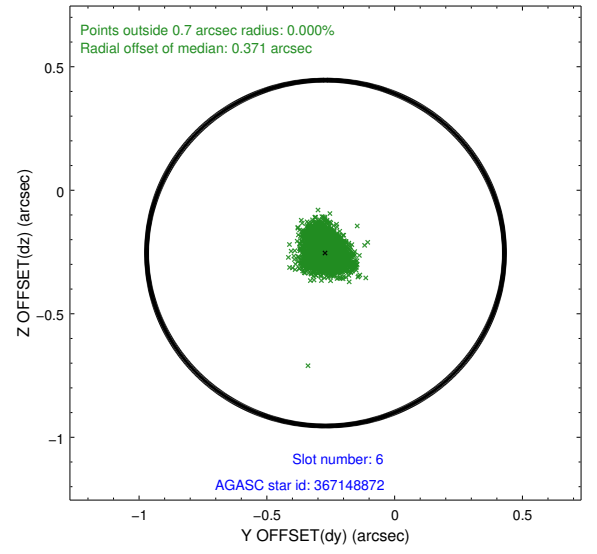
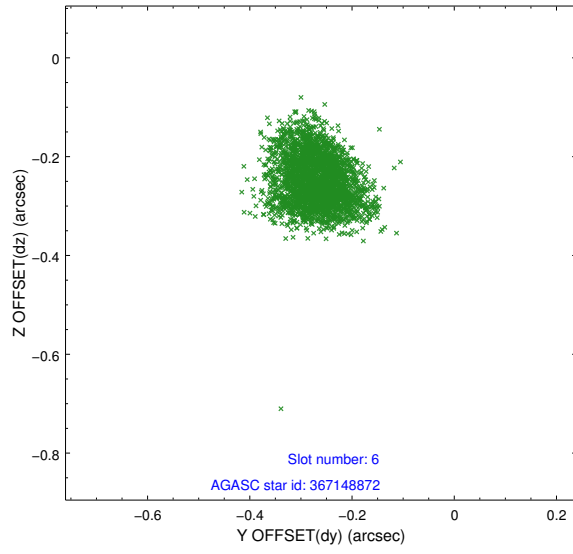
2.4.2 Slot 4



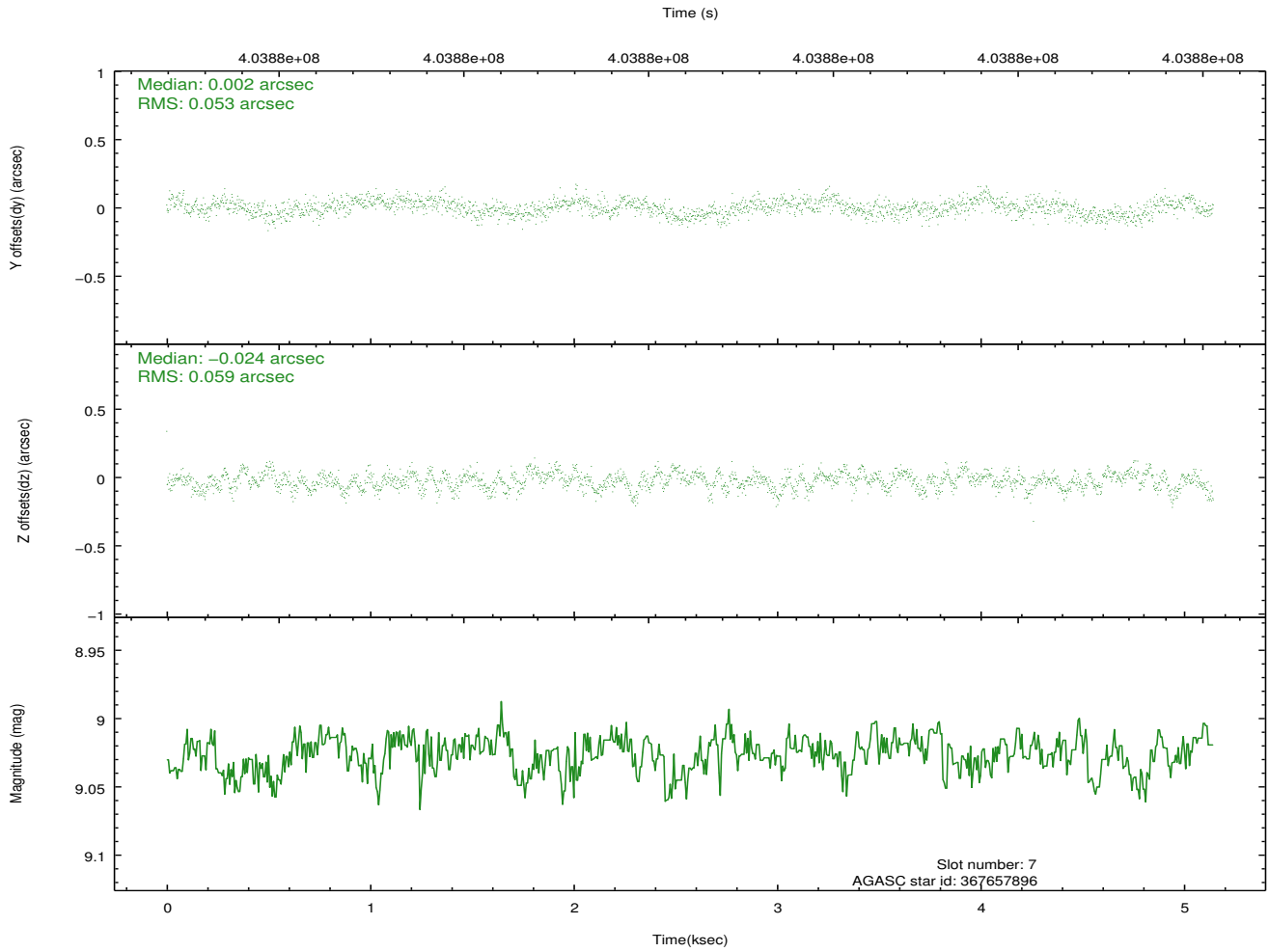
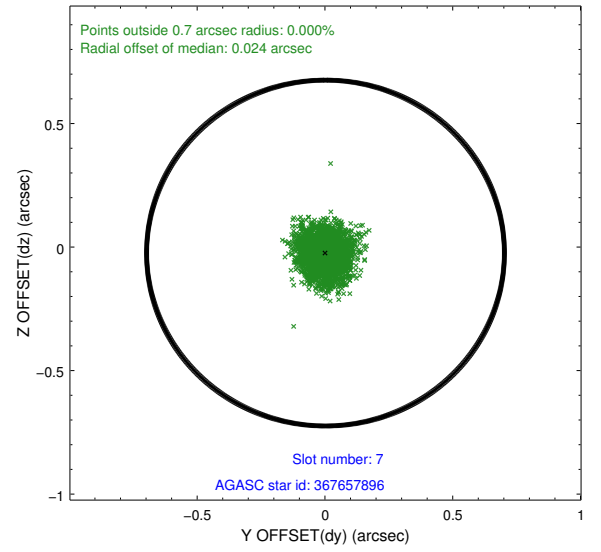
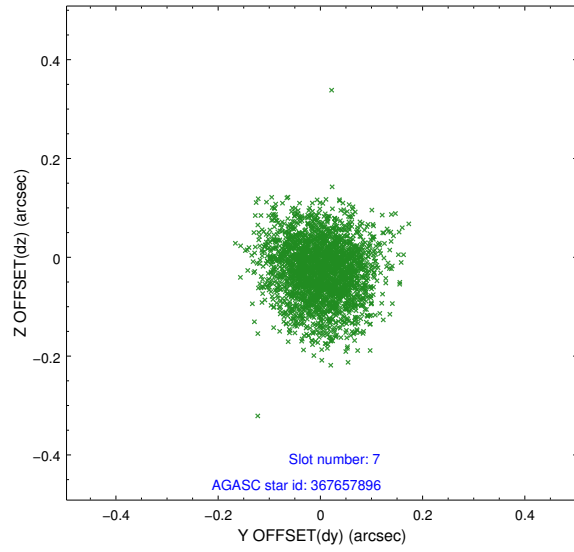
2.4.3 Slot 5



2.4.4 Slot 6

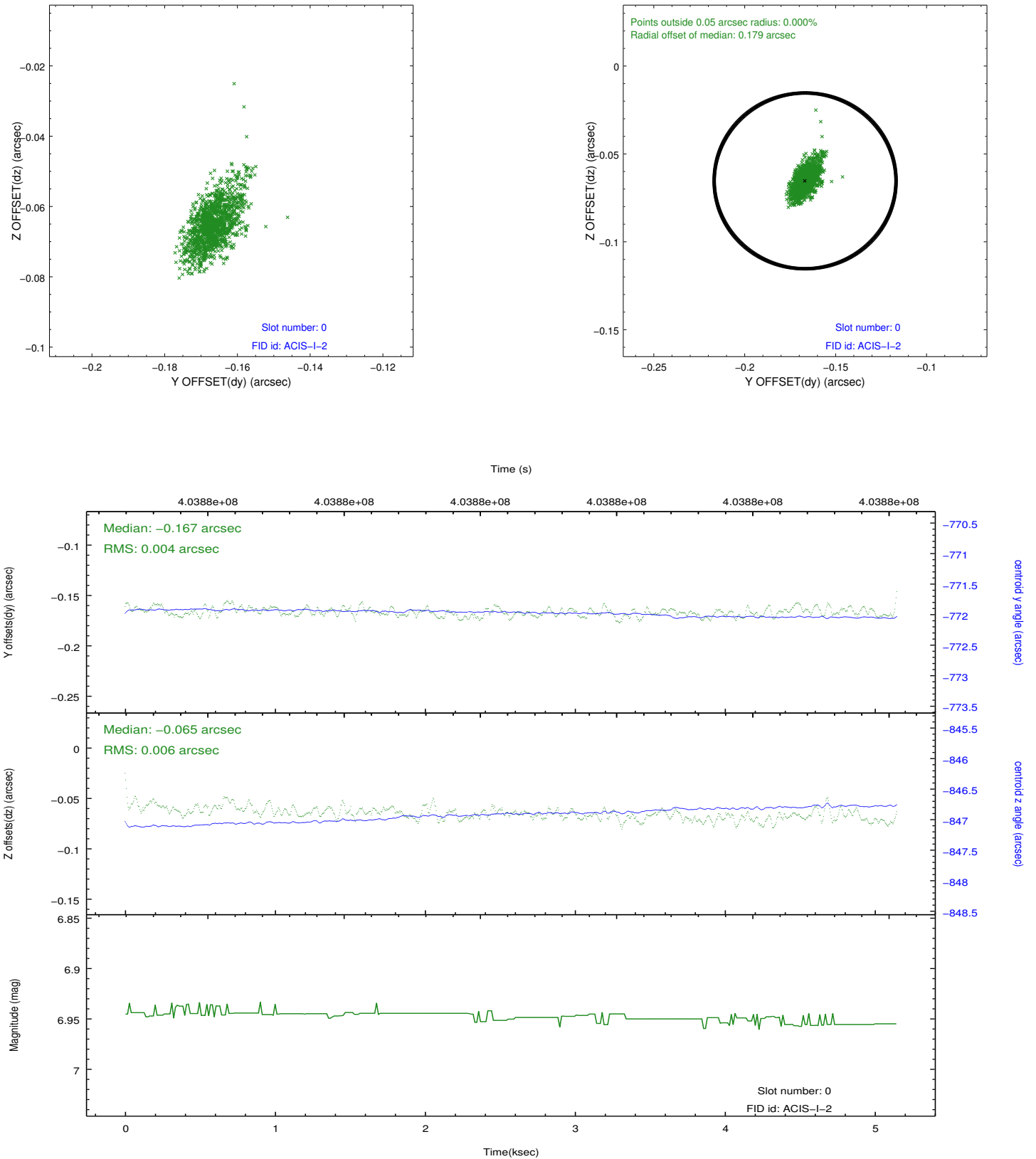


2.4.5 Slot 7

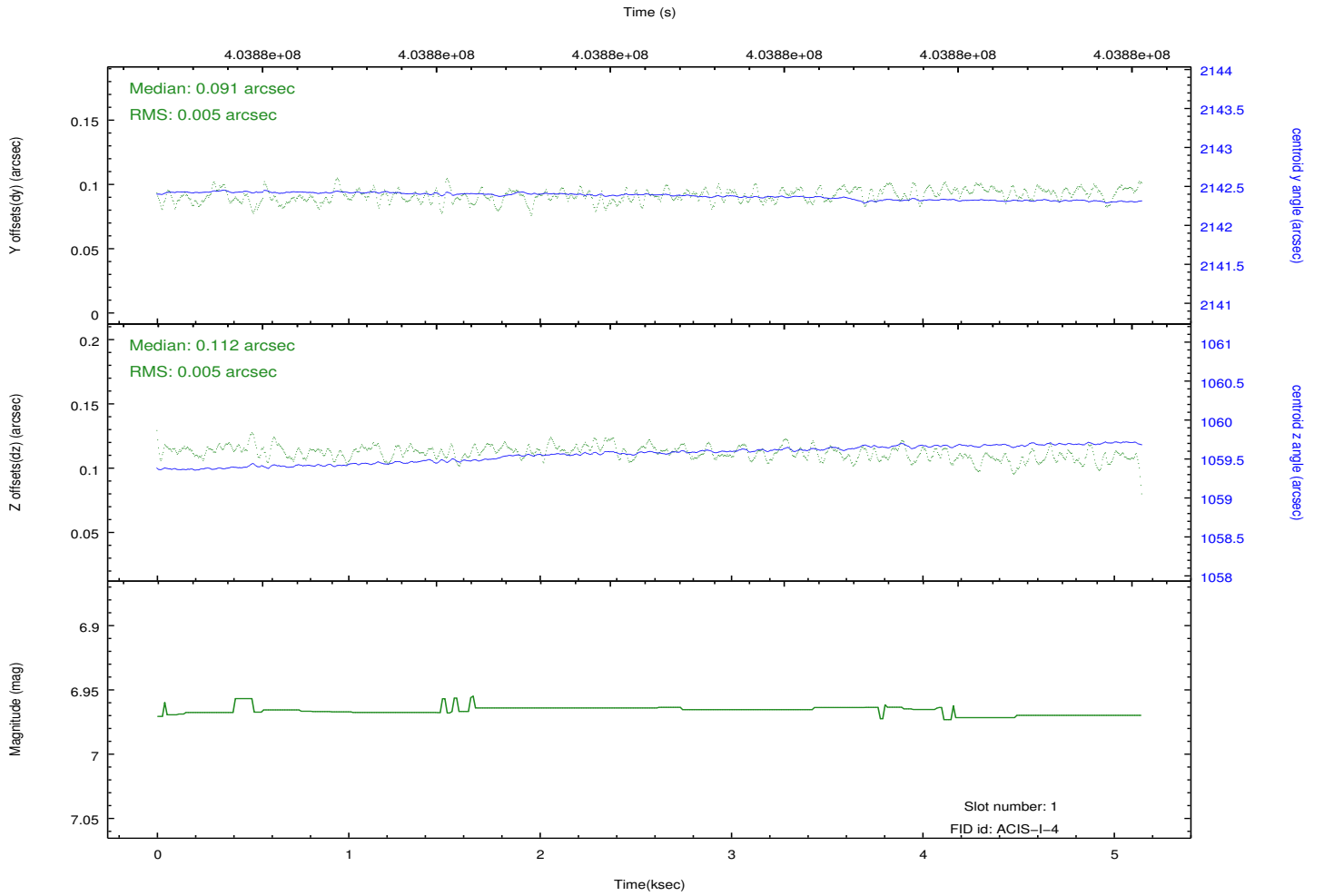
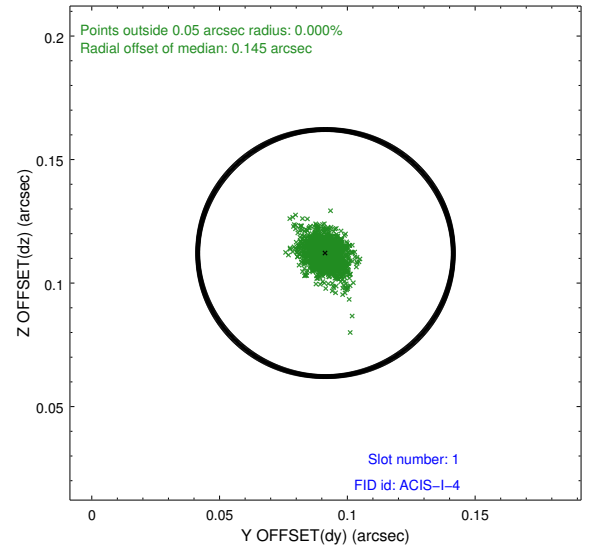
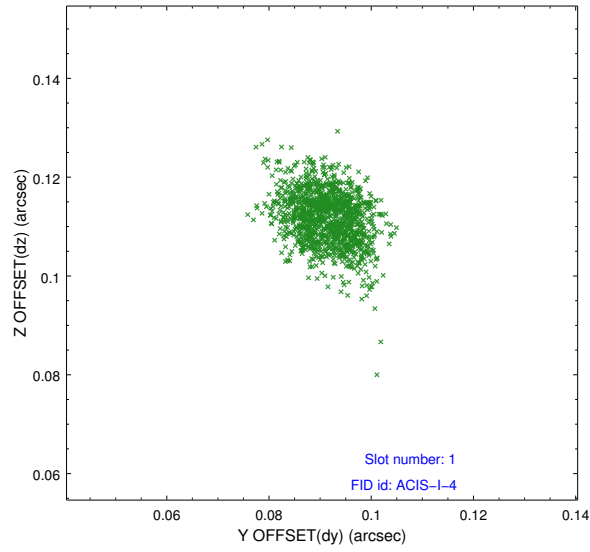


2.5 FID Slots

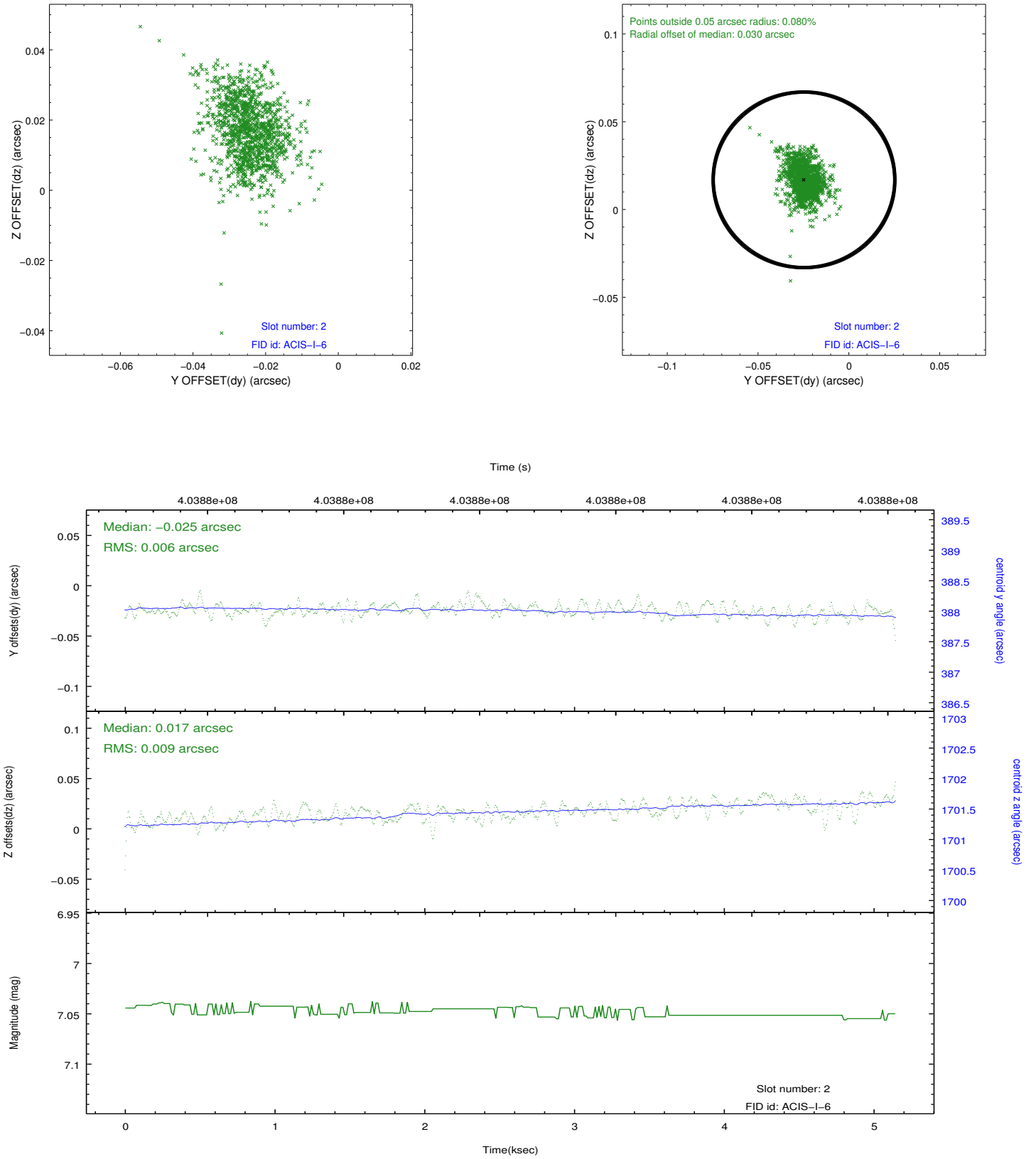
2.5.1 Slot 0



2.5.2 Slot 1



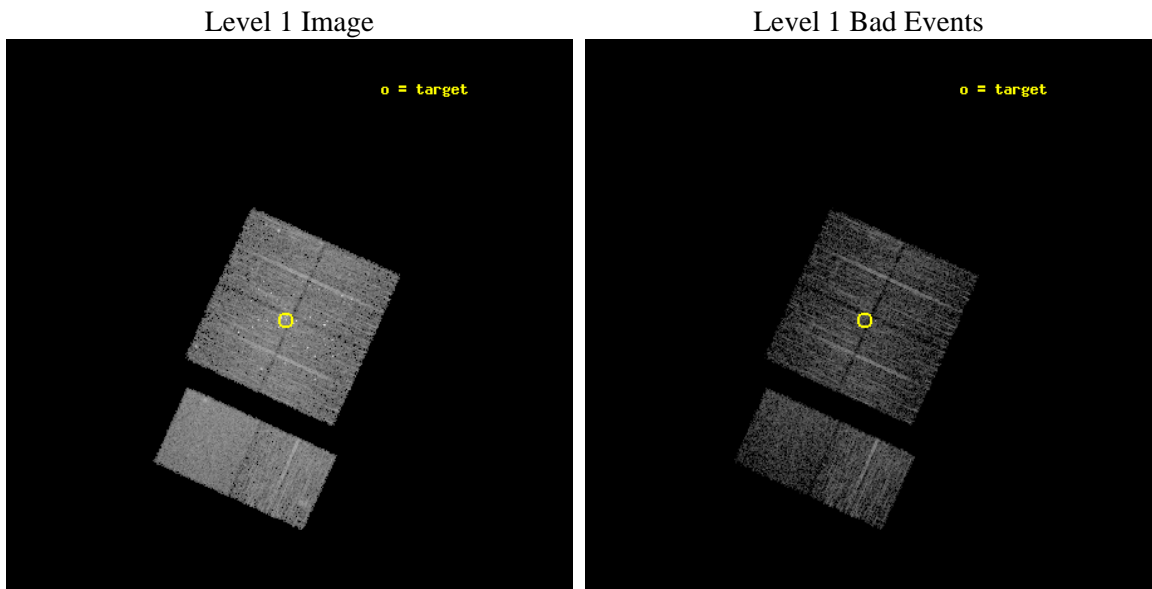
2.5.3 Slot 2



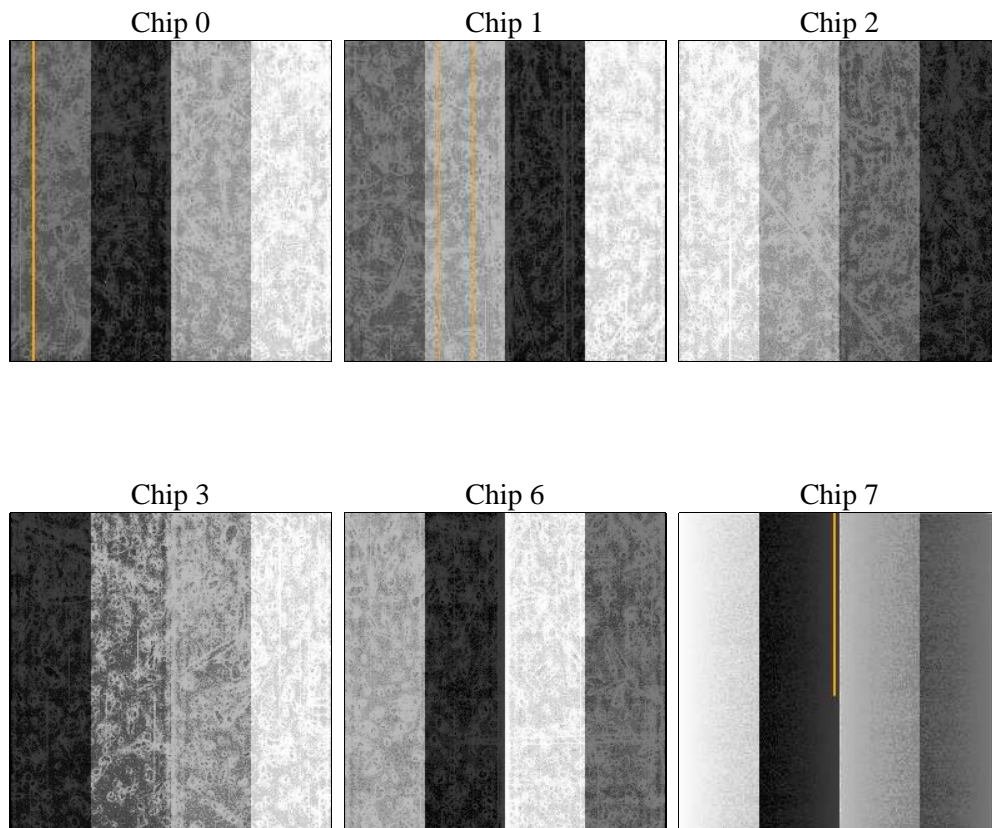
3 OBI Secondary

3.1 OBI

3.1.1 Images



3.1.2 Bias



3.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	4022.193095088	Sum of GTIs [s]
caldsver	4.5.0	 	ontime0	4022.1929370761	Sum of GTIs [s]
date	2012-07-05T05:49:31	Date and time of file creation	ontime1	4022.1927880049	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4022.1930459142	Sum of GTIs [s]
			ontime3	4022.193095088	Sum of GTIs [s]
			ontime6	4022.1929756403	Sum of GTIs [s]
			ontime7	4022.1930249333	Sum of GTIs [s]
			l1events	187253	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	28325	29111	31238	31360	31870	35349	grade 0 events	3051	2696	3355	4467	1434	1496
rejected events	22667	23696	25261	24188	28189	19263		10%	9%	10%	14%	4%	4%
rejected %	80%	81%	80%	77%	88%	54%	grade 1 events	69	30	104	69	13	37
								0%	0%	0%	0%	0%	0%
							grade 2 events	1075	1114	1099	1116	813	3257
								3%	3%	3%	3%	2%	9%
							grade 3 events	436	426	406	435	399	1369
								1%	1%	1%	1%	1%	3%
							grade 4 events	402	424	441	451	336	1390
								1%	1%	1%	1%	1%	3%
							grade 5 events	1253	1283	1180	1418	1347	3623
								4%	4%	3%	4%	4%	10%
							grade 6 events	699	758	689	710	703	8598
								2%	2%	2%	2%	2%	24%
							grade 7 events	21340	22380	23964	22694	26825	15579
								75%	76%	76%	72%	84%	44%

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.07.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.9599424781799

A.2 Comments