

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 12162 - L2 Version 2
Chandra X-Ray Center

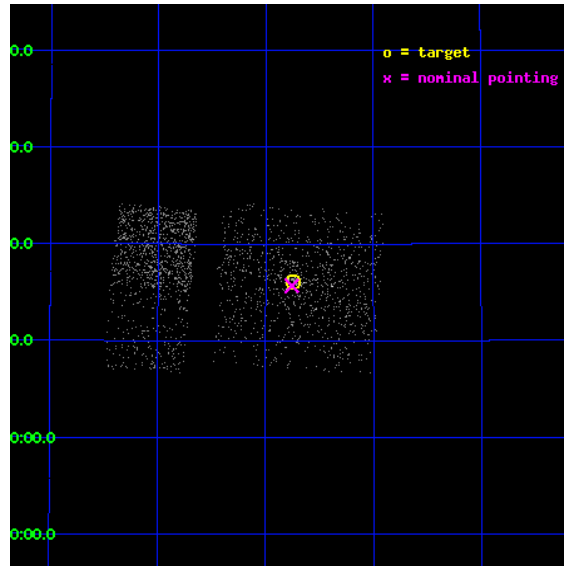
L2 Processing Date : Jul 8 2012

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1 Front

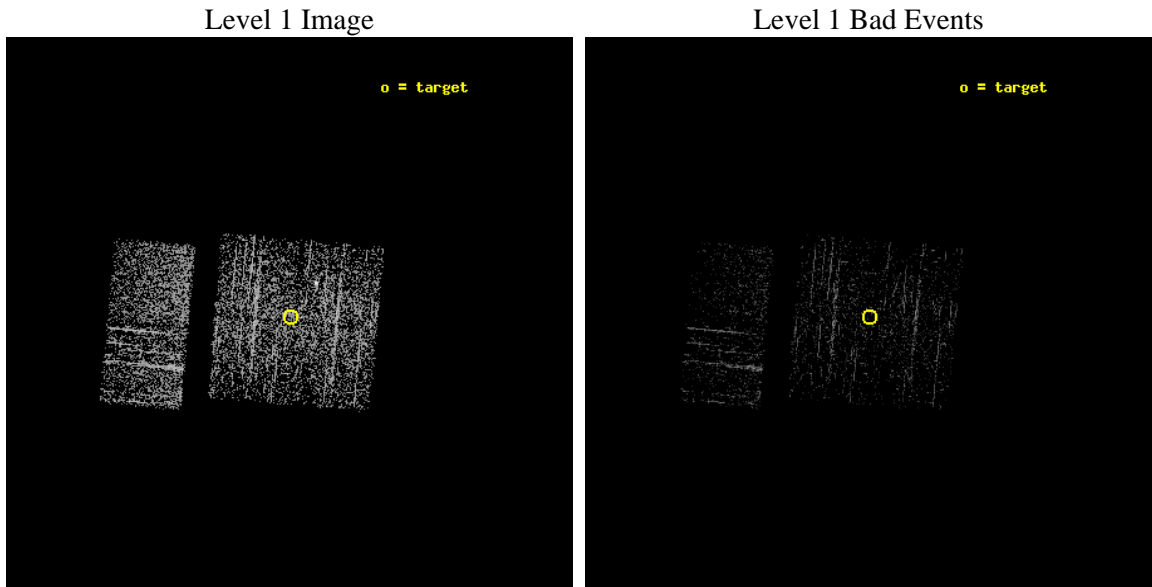
seq_num	600916	Sequence number
obs_id	12162	Observation id
title	Black Hole X-ray Novae in M31	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	M31	Source name
dtcycle	0	
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.689050914193	Nominal RA [deg]
dec_nom	41.2615044379	Nominal Dec [deg]
roll_nom	275.10693787871	Nominal Roll [deg]
revision	2	Processing version of data
ontime	941.32962197065	Sum of GTIs [s]
livetime	148.18798884975	Livetime [s]
ontime0	941.32962197065	Sum of GTIs [s]
ontime1	941.32962197065	Sum of GTIs [s]
ontime2	941.32963186502	Sum of GTIs [s]
ontime3	941.32962197065	Sum of GTIs [s]
ontime6	941.32963186502	Sum of GTIs [s]
ontime7	941.32962197065	Sum of GTIs [s]
l2events	2498	Number of level 2 events



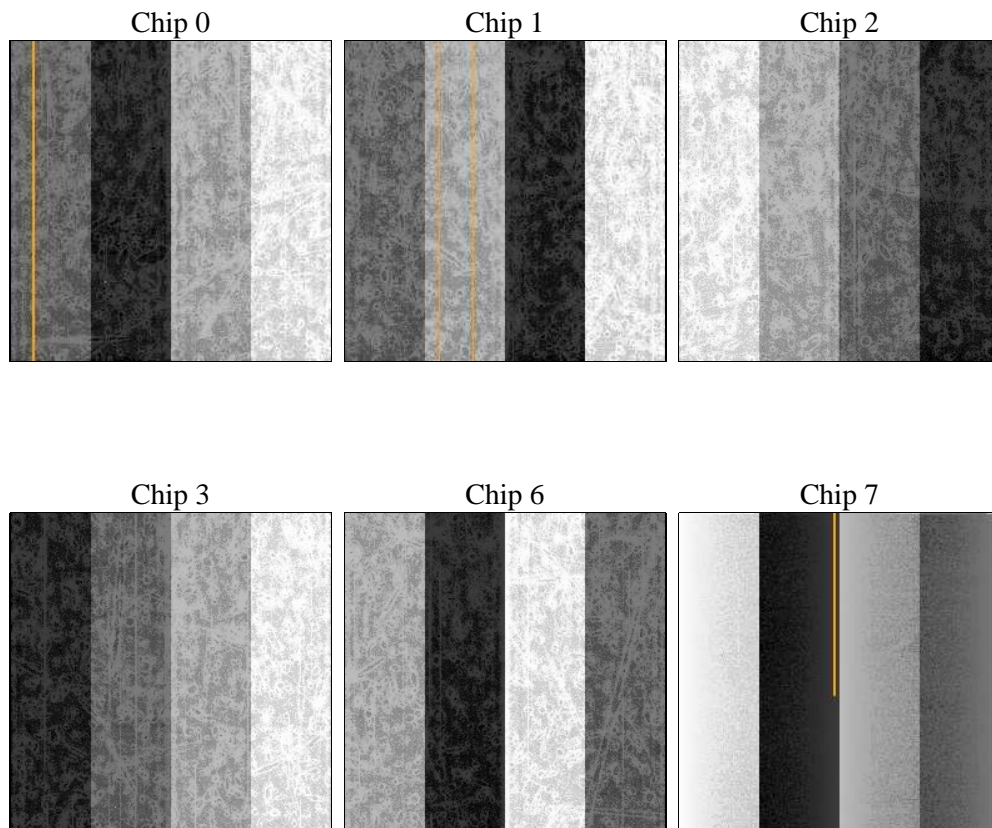
2 OBI Primary

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	8.4.5	Processing system revision	ontime	941.32962197065	Sum of GTIs [s]
caldsver	4.5.0	 	ontime0	941.32962197065	Sum of GTIs [s]
date	2012-07-08T04:24:14	Date and time of file creation	ontime1	941.32962197065	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	941.32963186502	Sum of GTIs [s]
			ontime3	941.32962197065	Sum of GTIs [s]
			ontime6	941.32963186502	Sum of GTIs [s]
			ontime7	941.32962197065	Sum of GTIs [s]
			l1events	20532	Number of level 1 events

2.1.4 Events

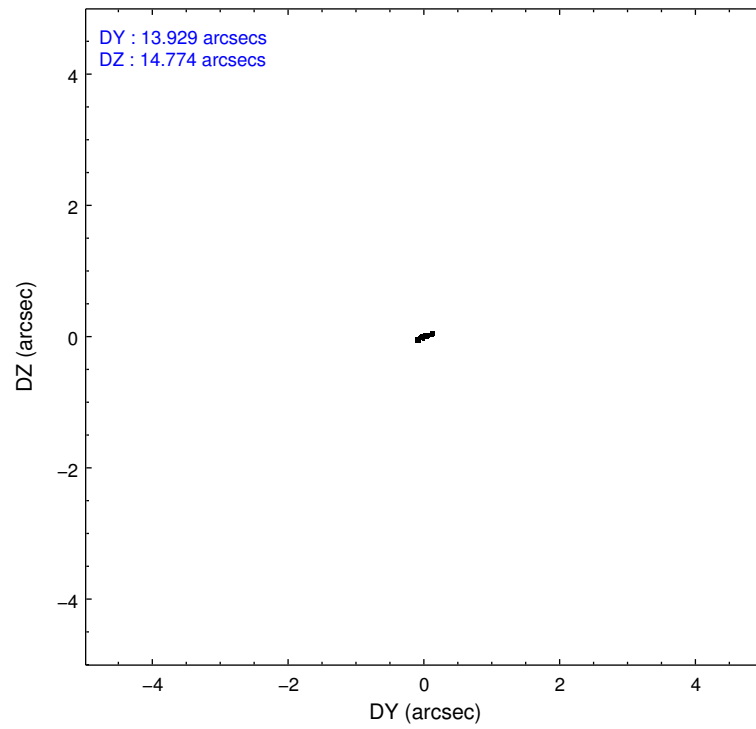
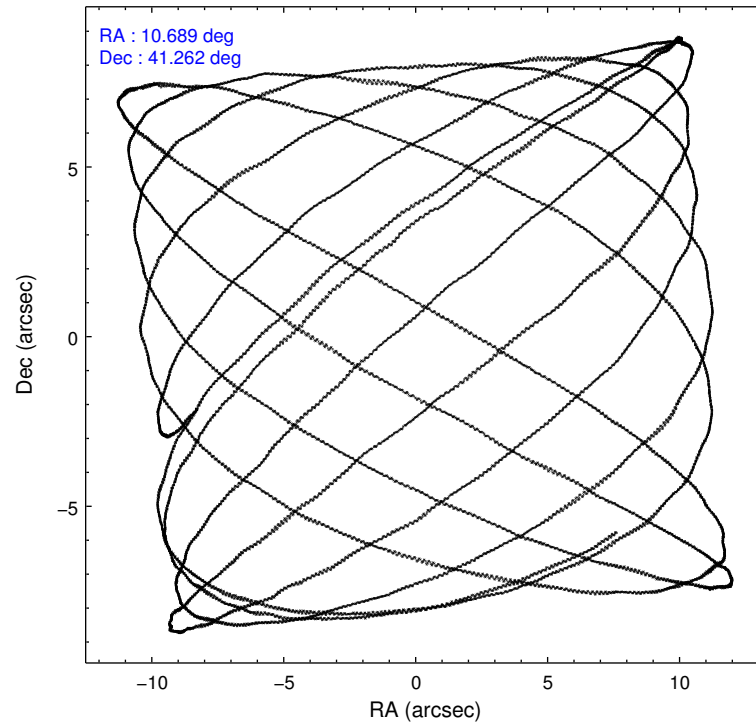
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	2918	3820	3285	3508	3754	3247
rejected events	2570	3051	3002	3086	3485	2259
rejected %	88%	79%	91%	87%	92%	69%

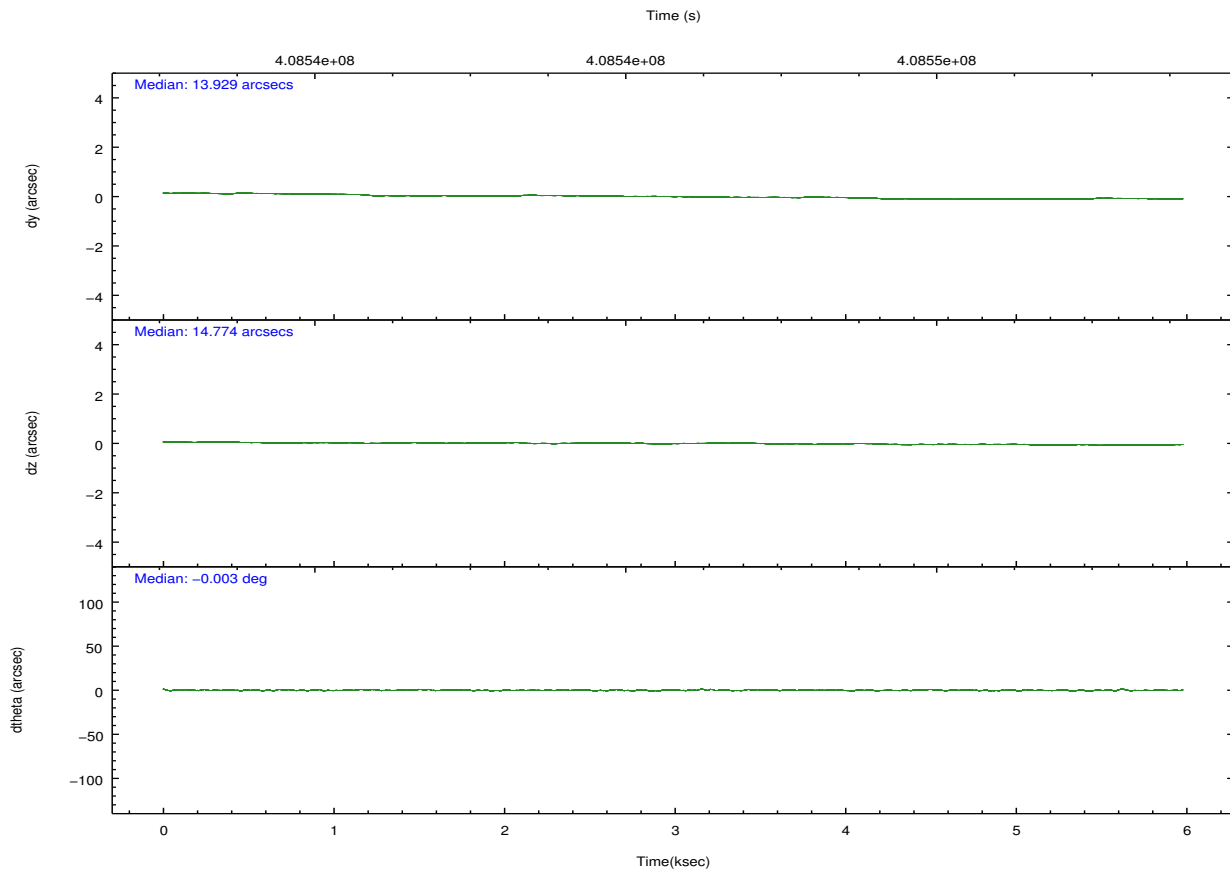
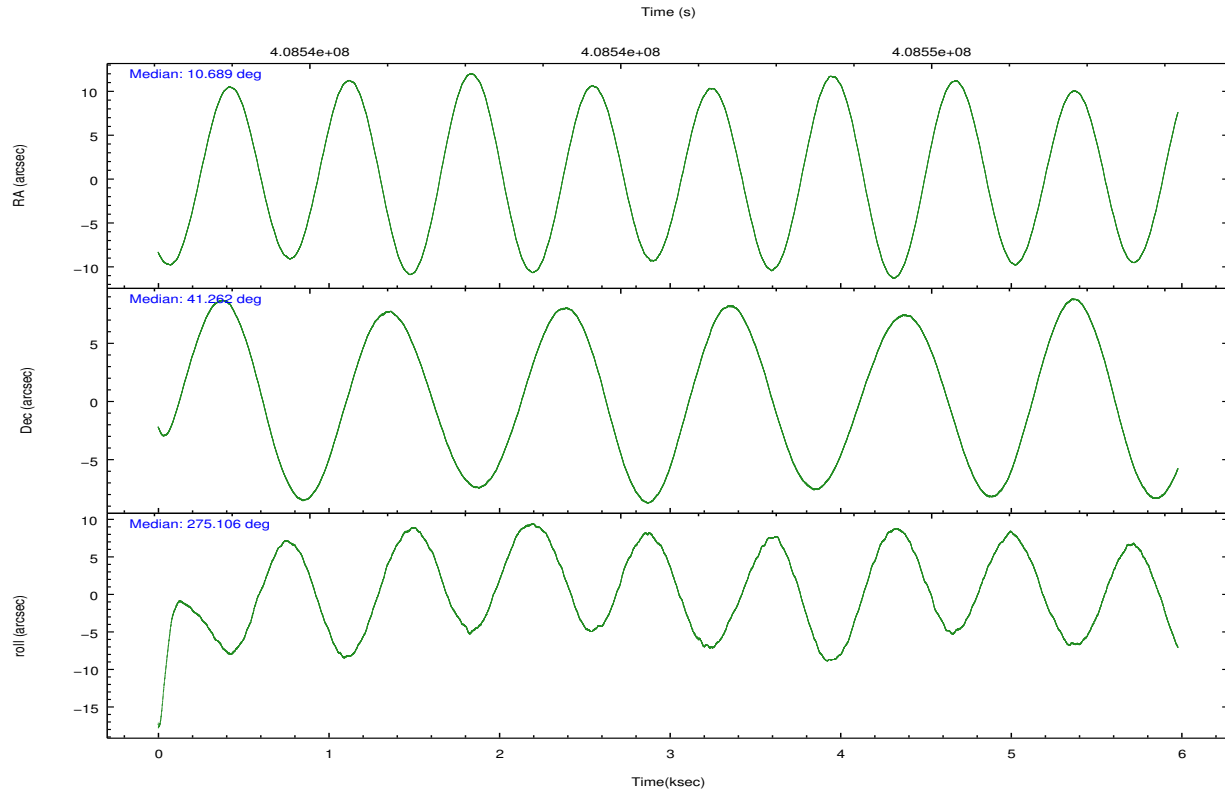
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	134	505	108	200	61	84
	4%	13%	3%	5%	1%	2%
grade 1 events	2	4	1	2	1	7
	0%	0%	0%	0%	0%	0%
grade 2 events	80	94	63	79	85	243
	2%	2%	1%	2%	2%	7%
grade 3 events	37	59	22	41	35	106
	1%	1%	0%	1%	0%	3%
grade 4 events	44	46	36	45	32	73
	1%	1%	1%	1%	0%	2%
grade 5 events	122	118	135	117	159	271
	4%	3%	4%	3%	4%	8%
grade 6 events	58	78	57	60	60	488
	1%	2%	1%	1%	1%	15%
grade 7 events	2441	2916	2863	2964	3321	1975
	83%	76%	87%	84%	88%	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	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	10.667934	10.68905091419315	CCD I2 on	Y	Y
[deg] Pointing Dec	41.283924	41.26150443790033	CCD I3 on	Y	Y
[deg] Pointing Roll	274.912199	275.1069378787101	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)	408542290.184000	408540702.86054	CCD S5 on	N	N
Observation start date	2010-12-12T11:57:04	2010-12-12T11:31:42	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	408547290.184000	408547491.94839	On-chip summing requested	N	N
Observation end date	2010-12-12T13:20:24	2010-12-12T13:24:51	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



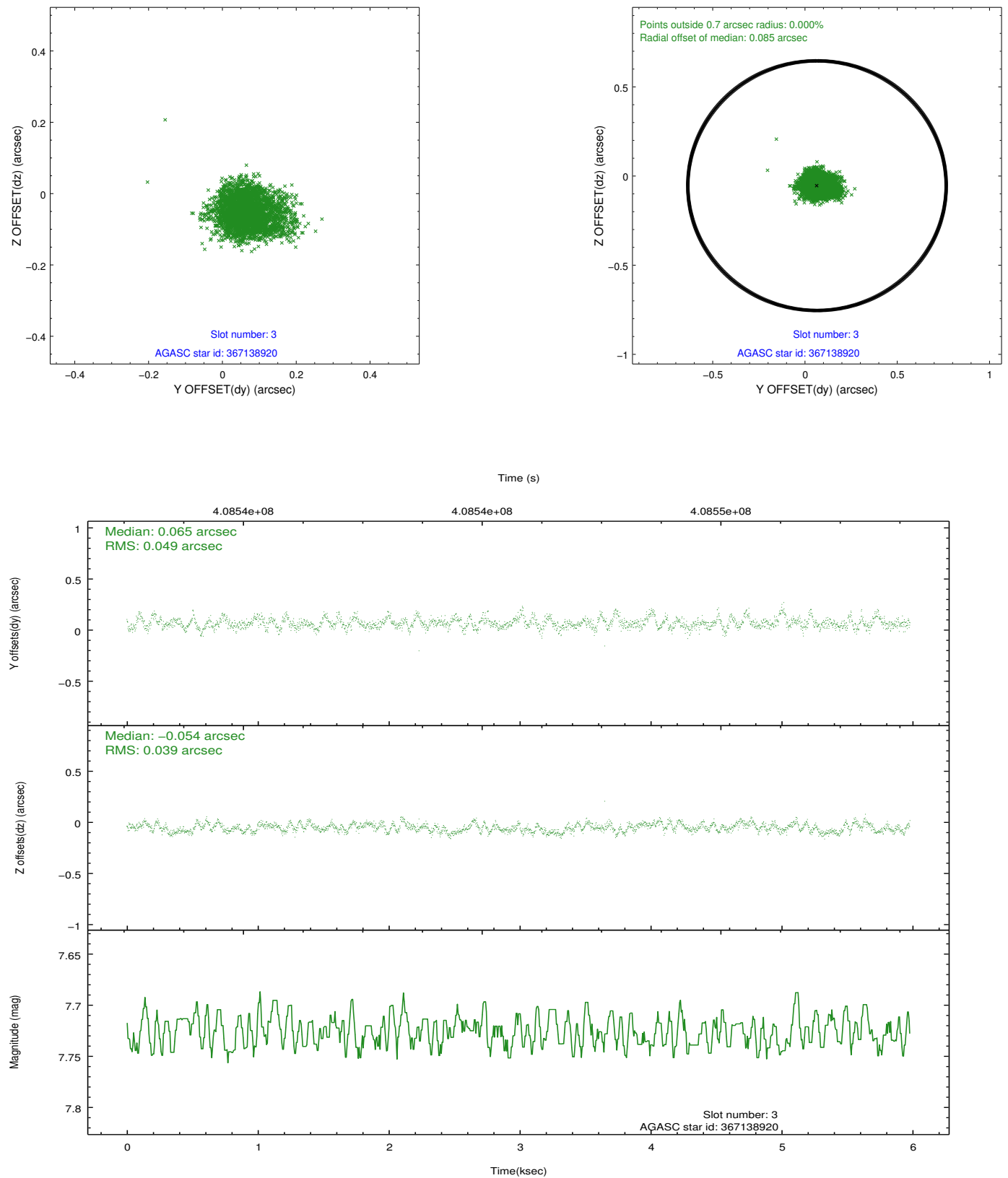


Slot Statistics

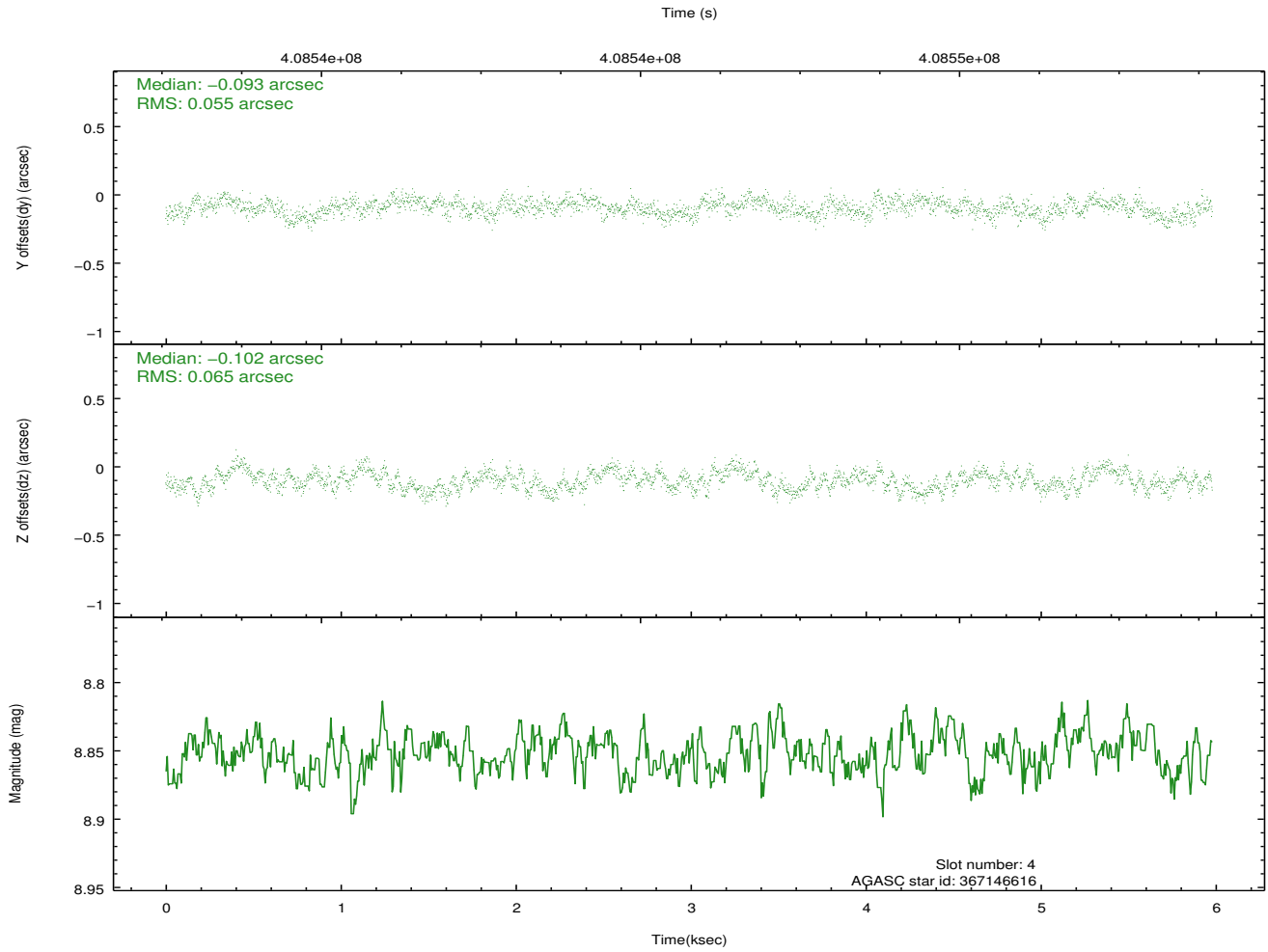
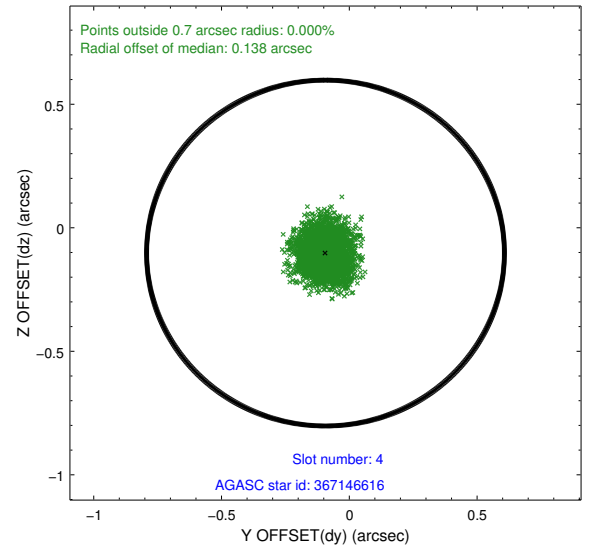
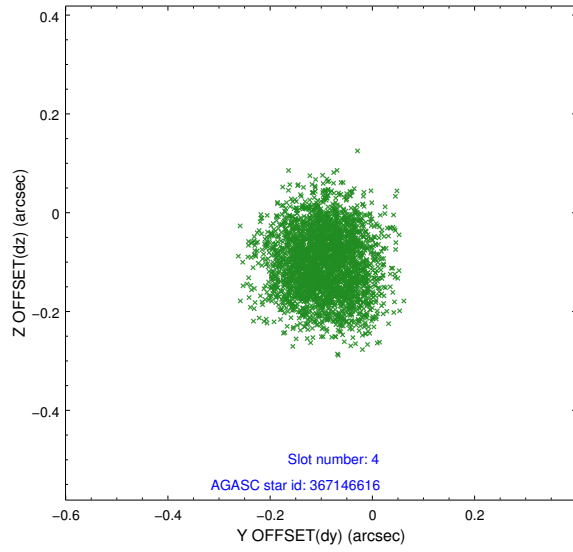
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.08	1459	0.041	-0.004	0.006	0.011	0.000000	0.000000	925.62	-838.35
1	FID	ACIS-I-5	7.08	1459	-0.230	0.042	0.006	0.009	0.000000	0.000000	-1822.25	1058.64
2	FID	ACIS-I-6	7.08	1459	0.098	0.033	0.007	0.012	0.000000	0.000000	390.09	1704.30
3	GUIDE	367138920	7.73	2918	0.065	-0.054	0.066	0.109	11.513485	40.808909	1890.89	2151.16
4	GUIDE	367146616	8.85	2916	-0.093	-0.102	0.093	0.145	11.418645	41.190163	502.38	1998.93
5	GUIDE	367148872	7.24	2918	0.059	0.068	0.076	0.124	10.505940	40.688258	2099.31	-623.43
6	GUIDE	367663272	9.28	2916	-0.032	-0.007	0.102	0.162	10.656279	41.699429	-1491.82	95.89
7	GUIDE	367674552	8.85	2916	-0.002	0.093	0.077	0.121	11.016238	41.570845	-950.94	1023.67

2.4 Star Slots

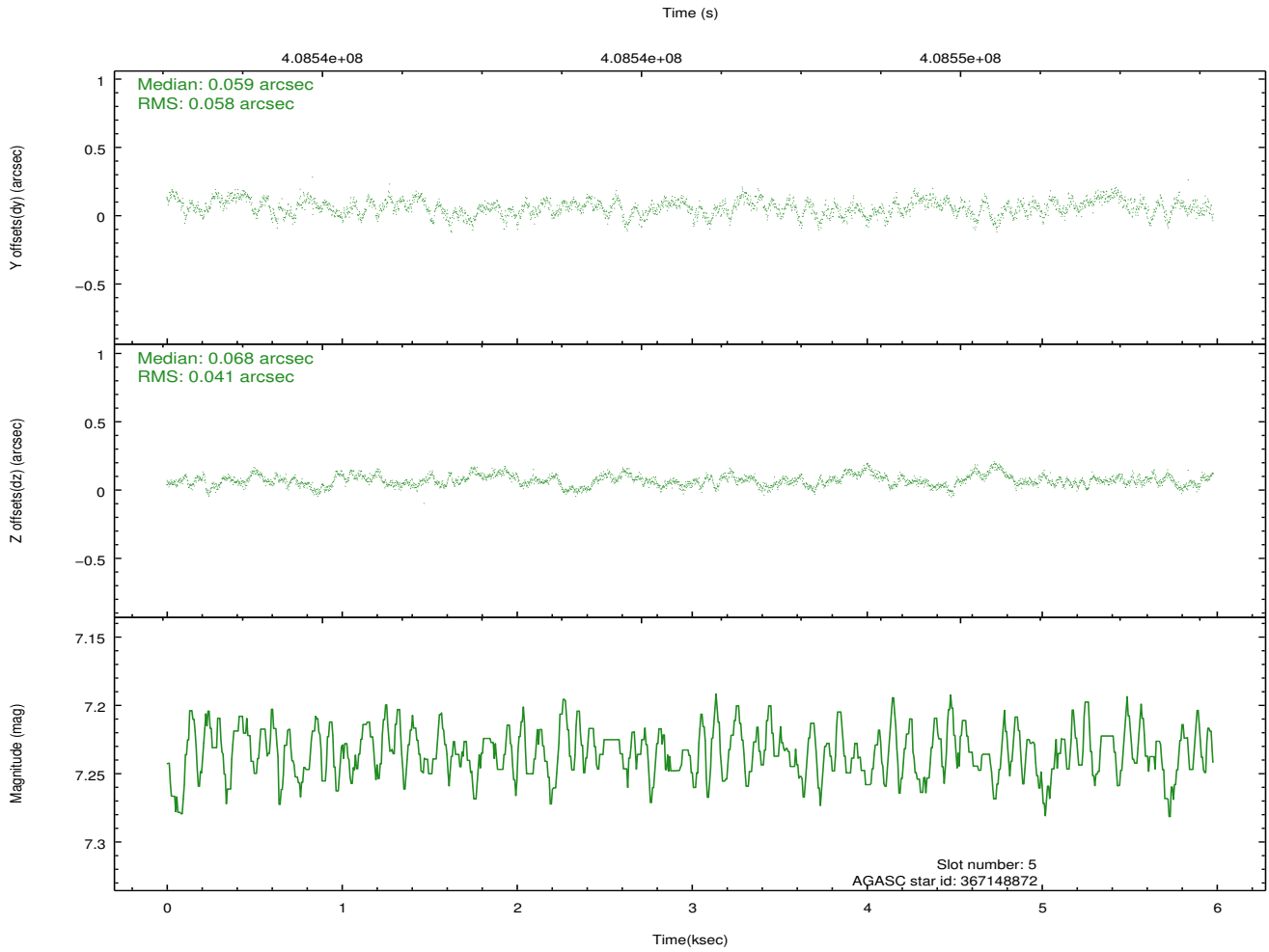
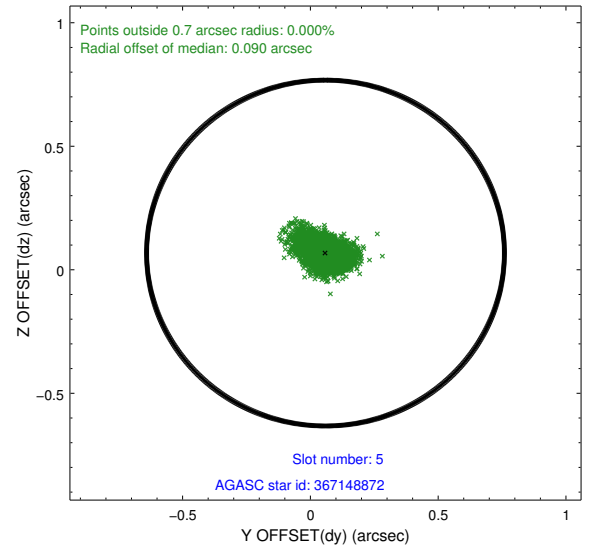
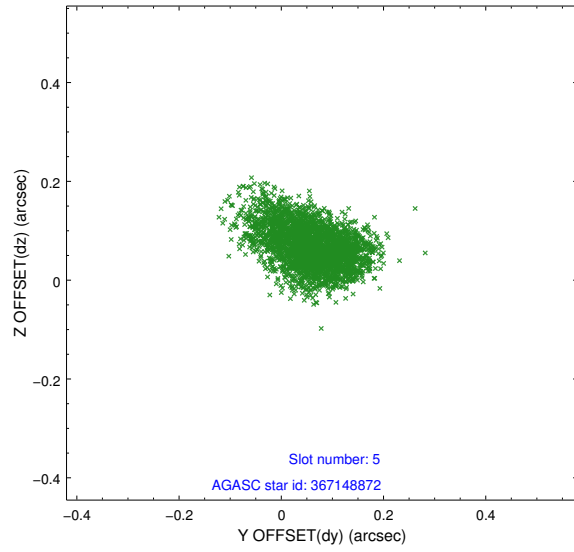
2.4.1 Slot 3



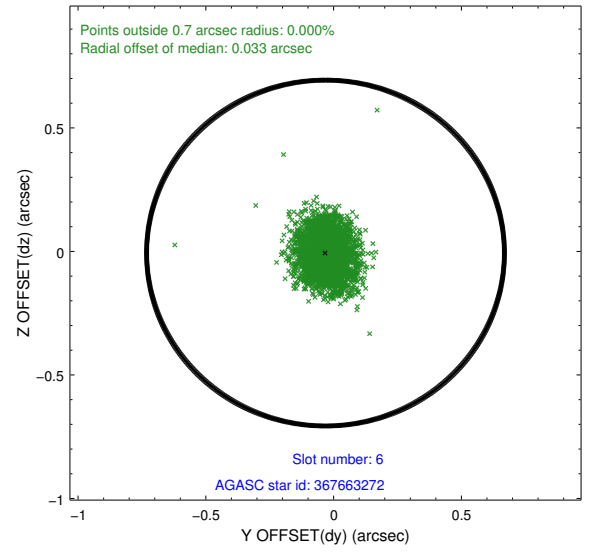
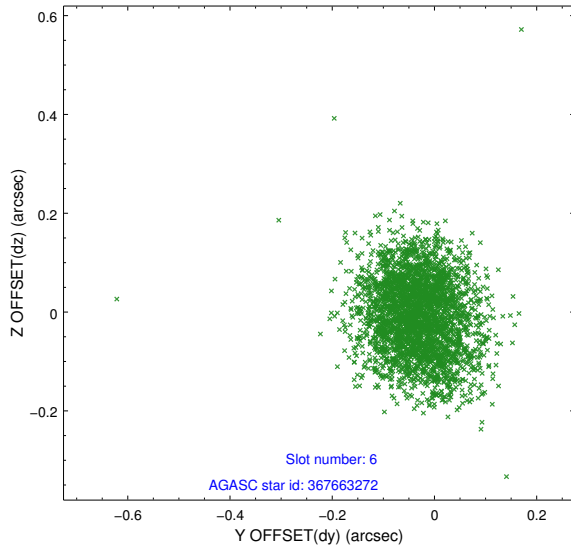
2.4.2 Slot 4



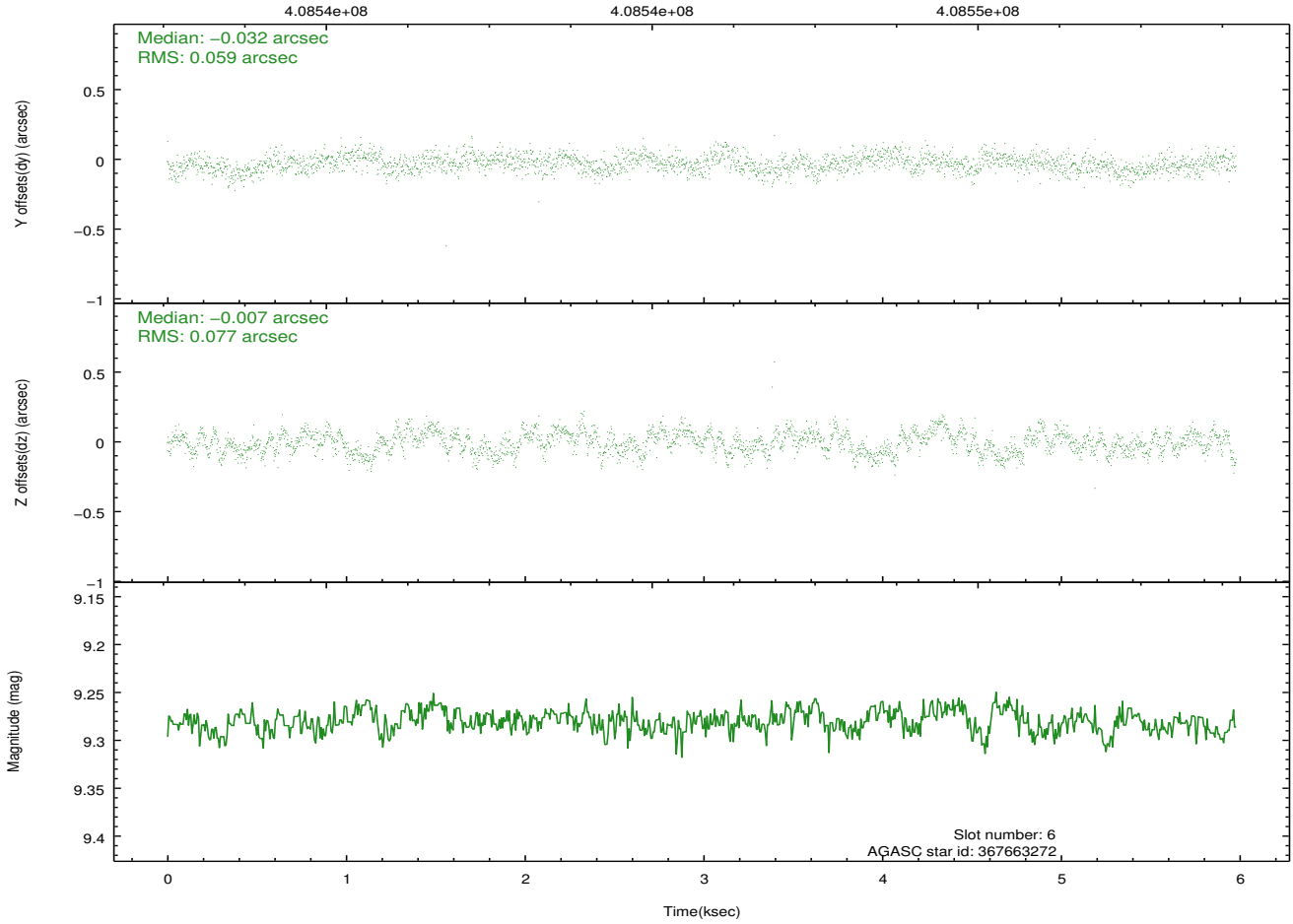
2.4.3 Slot 5



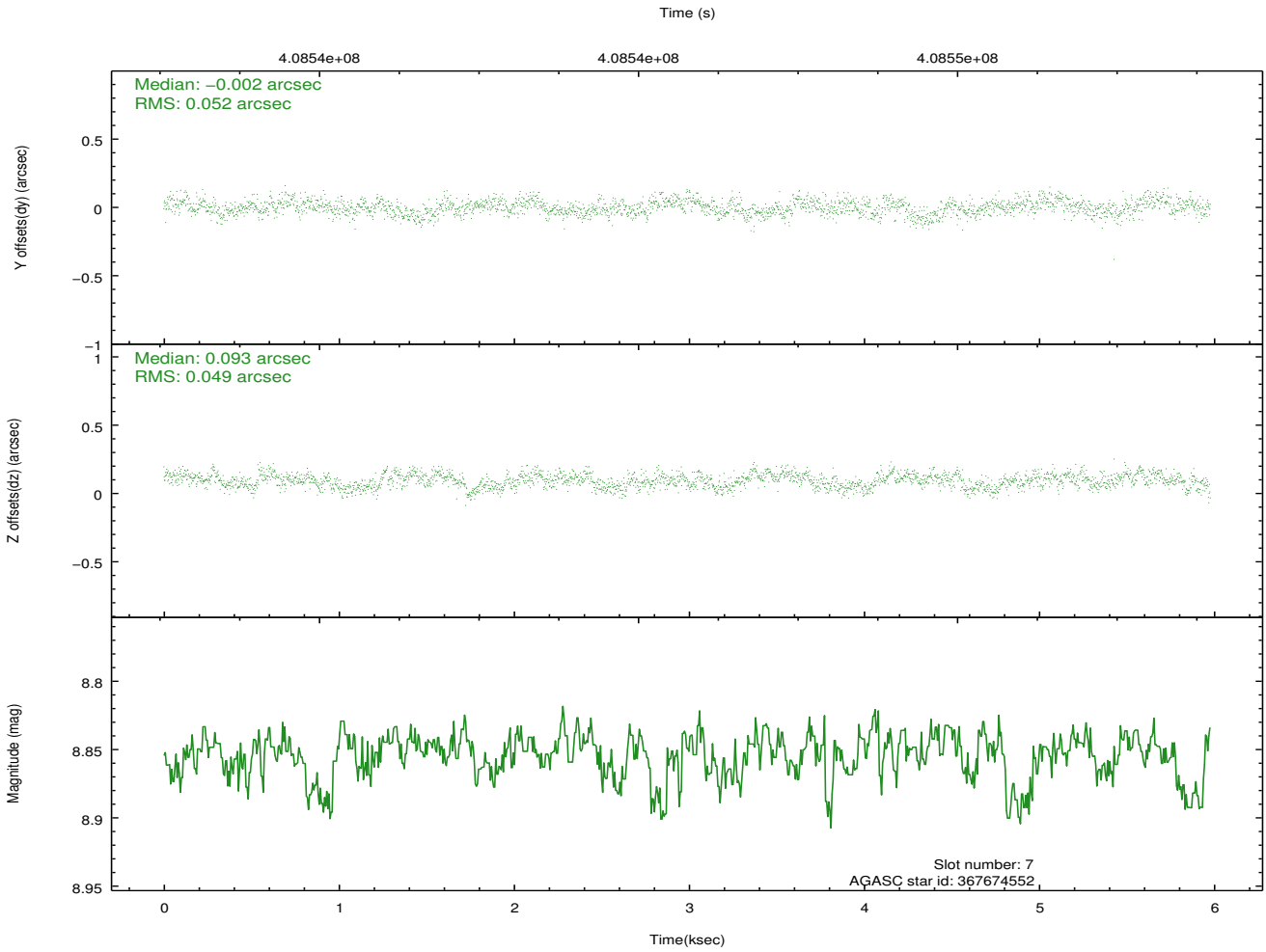
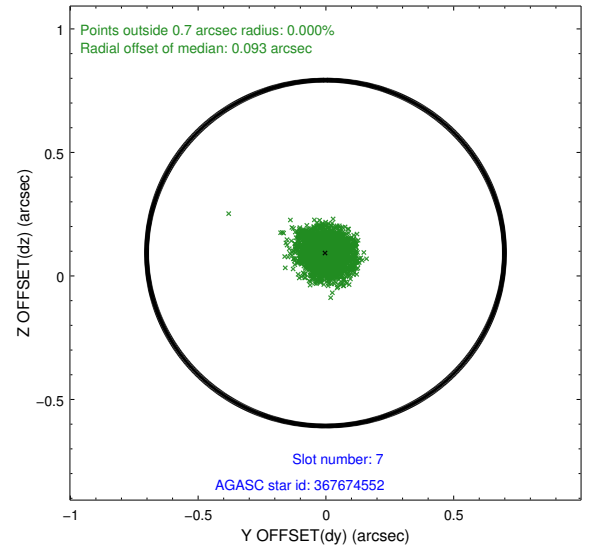
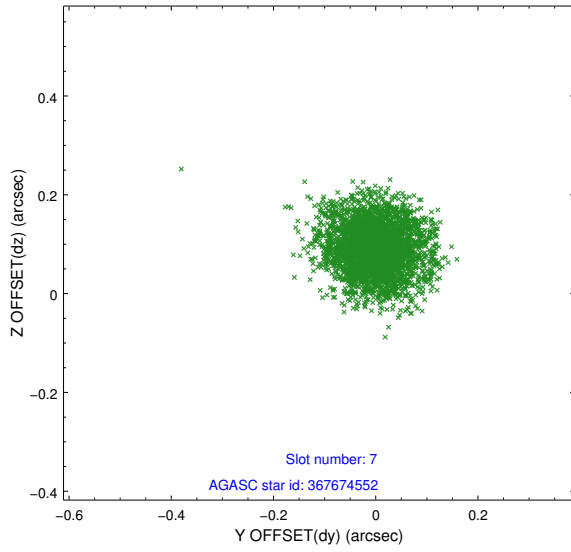
2.4.4 Slot 6



Time (s)

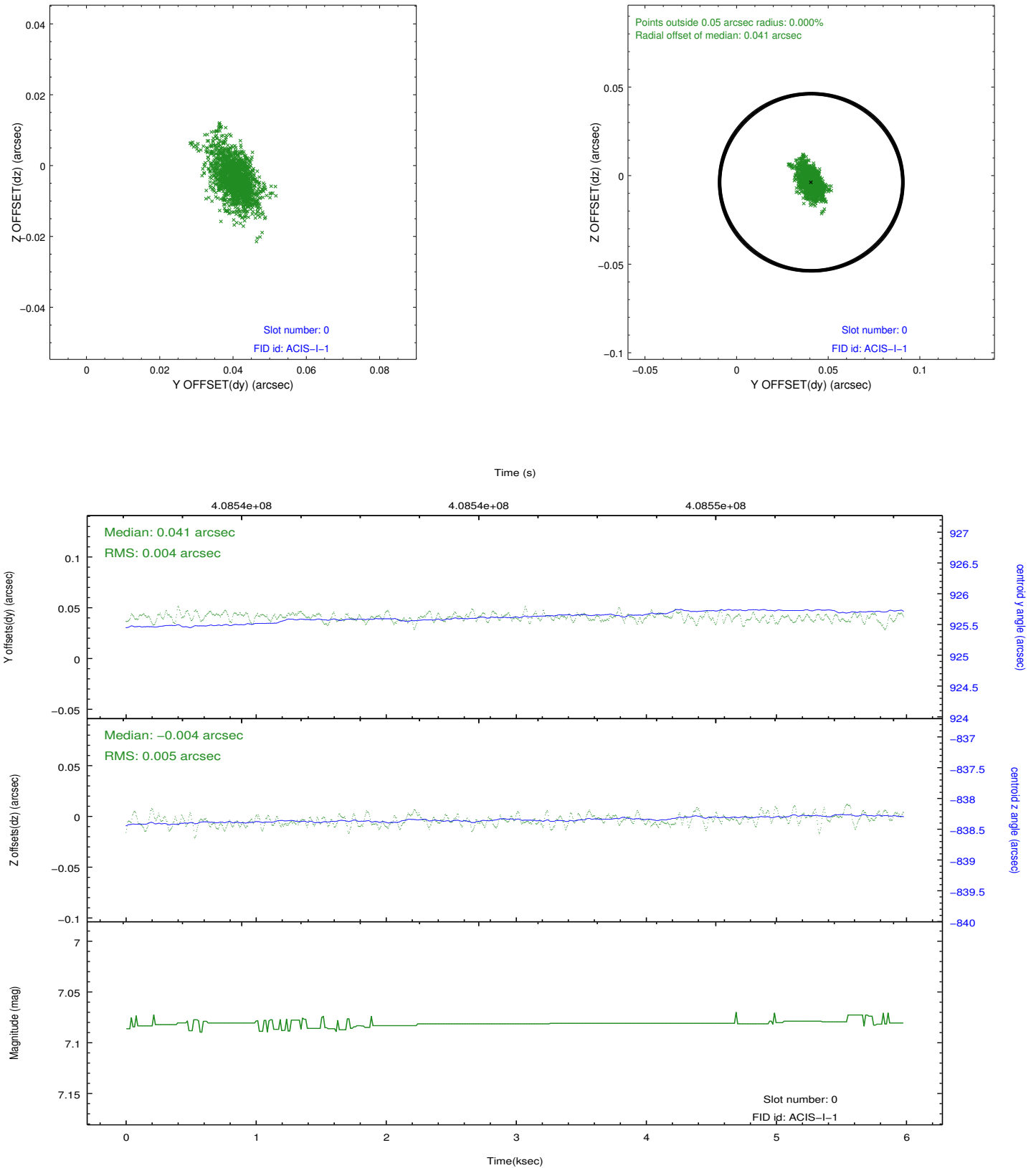


2.4.5 Slot 7

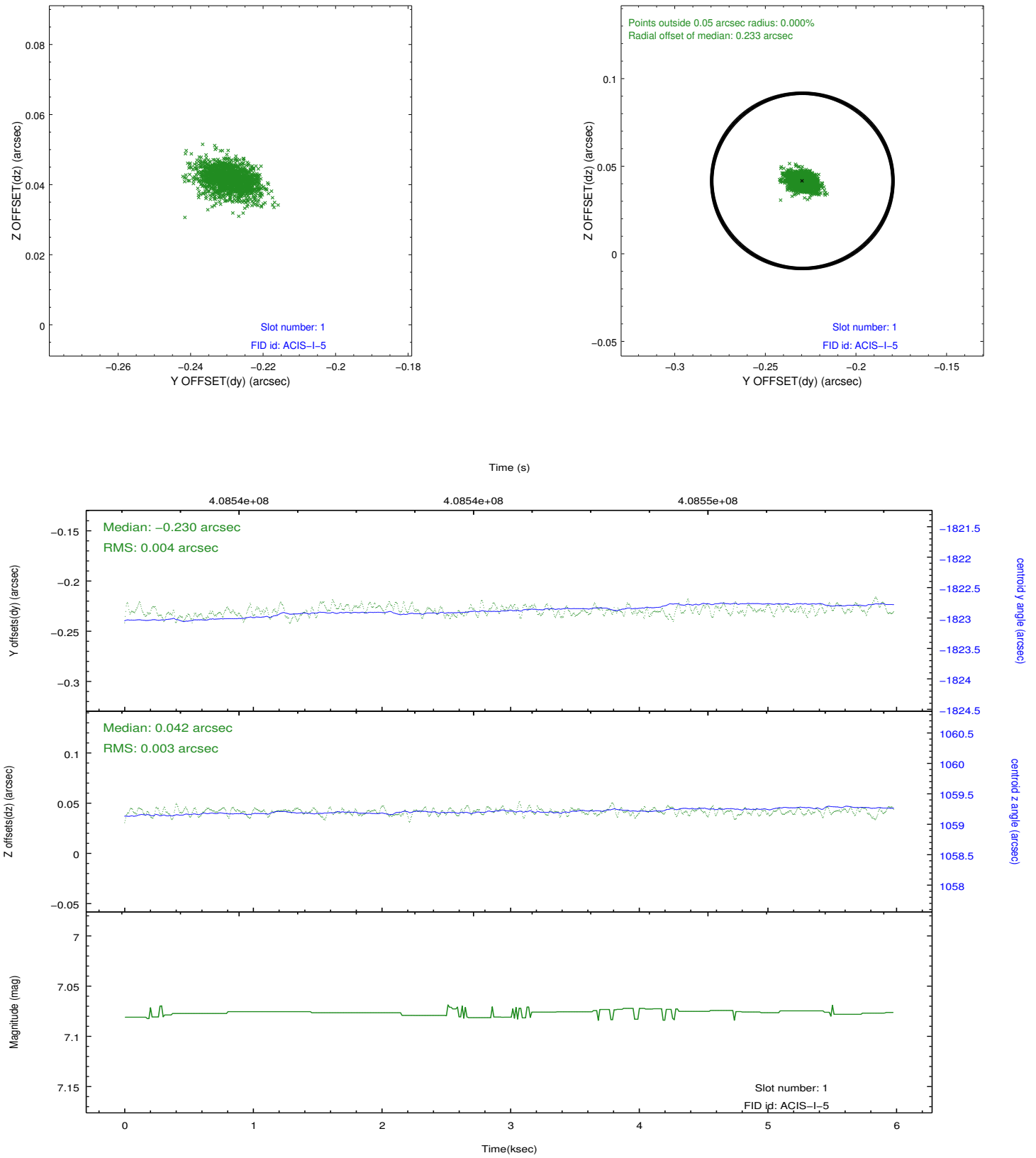


2.5 FID Slots

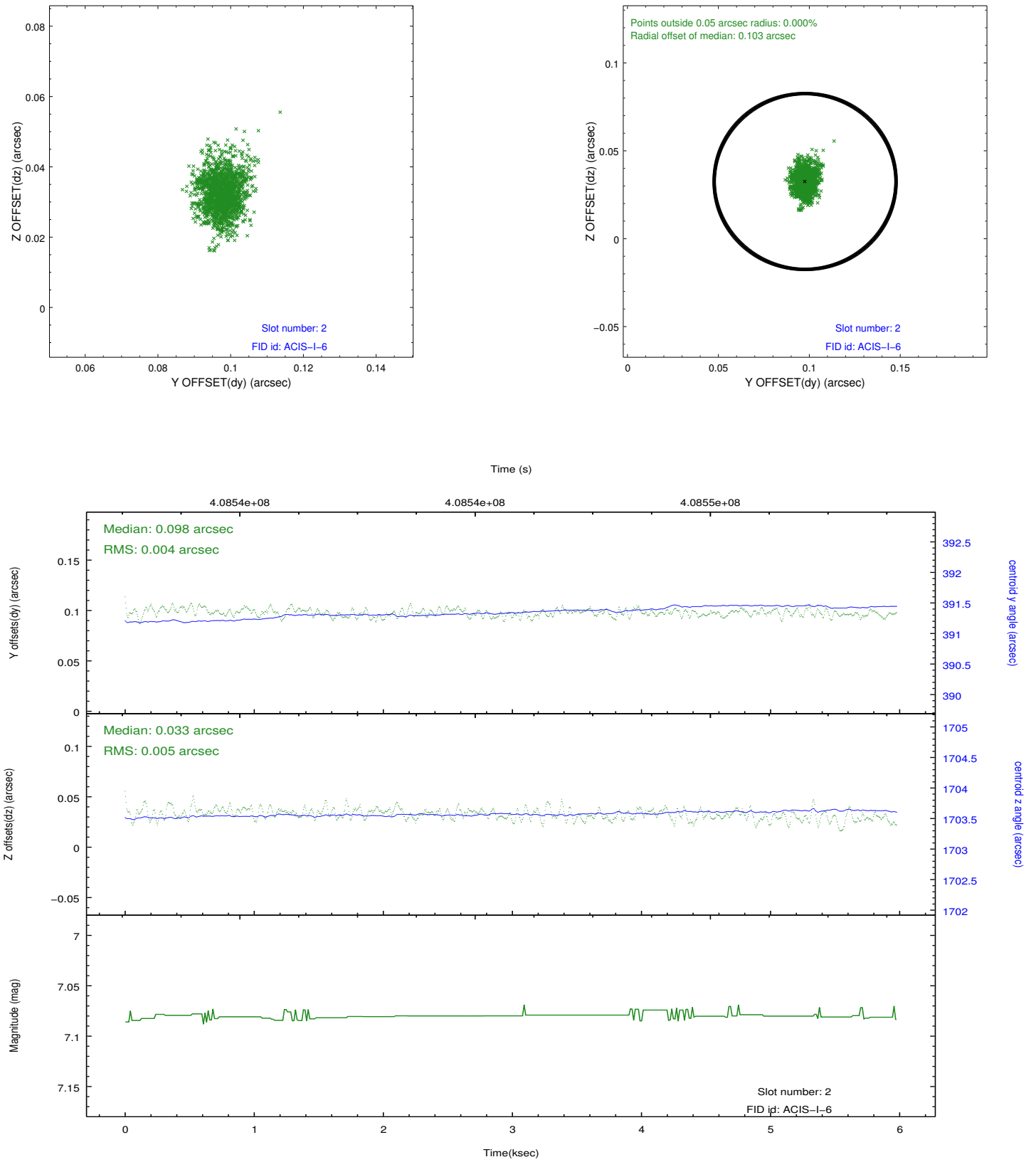
2.5.1 Slot 0



2.5.2 Slot 1



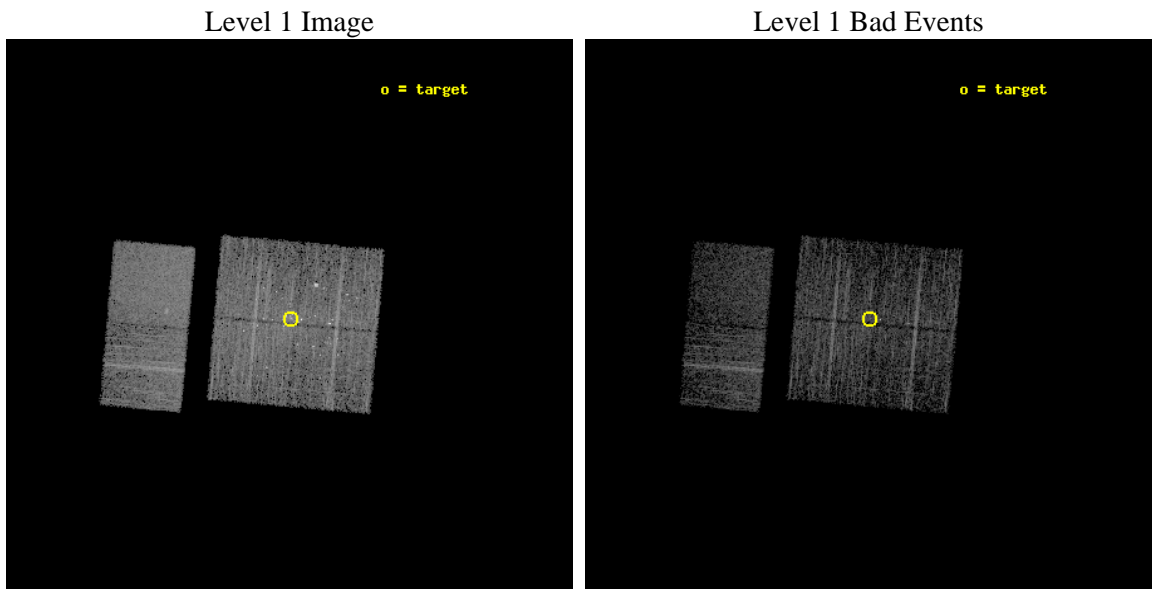
2.5.3 Slot 2



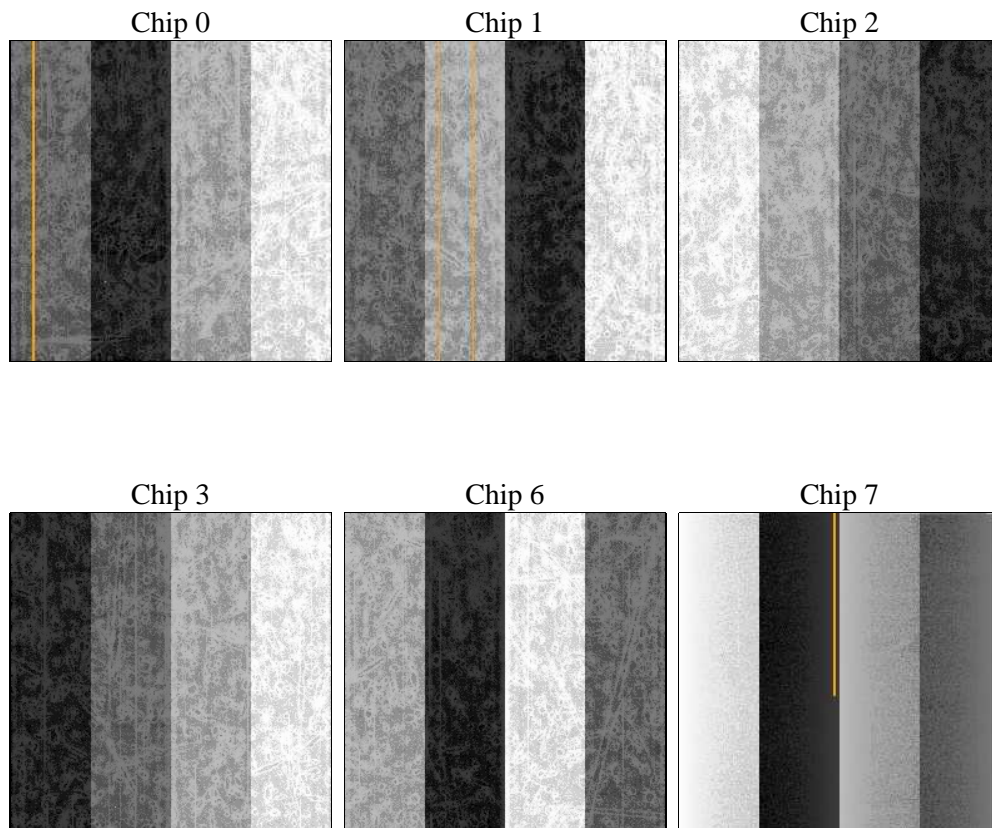
3 OBI Secondary

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	8.4.5	Processing system revision	ontime	4022.187804997	Sum of GTIs [s]
caldsver	4.5.0	 	ontime0	4022.187963903	Sum of GTIs [s]
date	2012-07-08T04:26:09	Date and time of file creation	ontime1	4022.1879364252	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4022.1878145337	Sum of GTIs [s]
			ontime3	4022.187804997	Sum of GTIs [s]
			ontime6	4022.1878438592	Sum of GTIs [s]
			ontime7	4022.1879437566	Sum of GTIs [s]
			l1events	188664	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	27210	32333	32064	31310	29740	36007	grade 0 events	2554	5353	2807	3830	1185	1558
rejected events	22345	23788	26900	24974	26304	19712		9%	16%	8%	12%	3%	4%
rejected %	82%	73%	83%	79%	88%	54%	grade 1 events	22	174	51	54	24	61
								0%	0%	0%	0%	0%	0%
							grade 2 events	930	1314	926	968	791	3285
								3%	4%	2%	3%	2%	9%
							grade 3 events	403	537	387	442	368	1433
								1%	1%	1%	1%	1%	3%
							grade 4 events	351	514	431	420	354	1458
								1%	1%	1%	1%	1%	4%
							grade 5 events	1205	1376	1096	1362	1403	3759
								4%	4%	3%	4%	4%	10%
							grade 6 events	633	836	619	688	746	8585
								2%	2%	1%	2%	2%	23%
							grade 7 events	21112	22229	25747	23546	24869	15868
								77%	68%	80%	75%	83%	44%

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.07.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.96351742726564

A.2 Comments