

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14930 - L2 Version 2
Chandra X-Ray Center

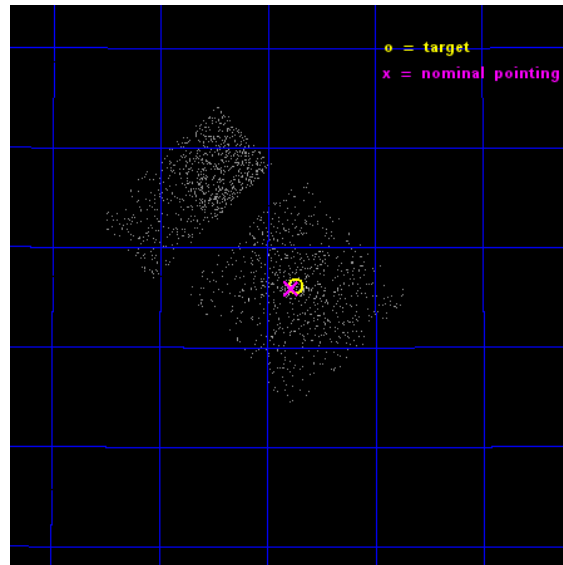
L2 Processing Date : Dec 1 2014

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1 Front

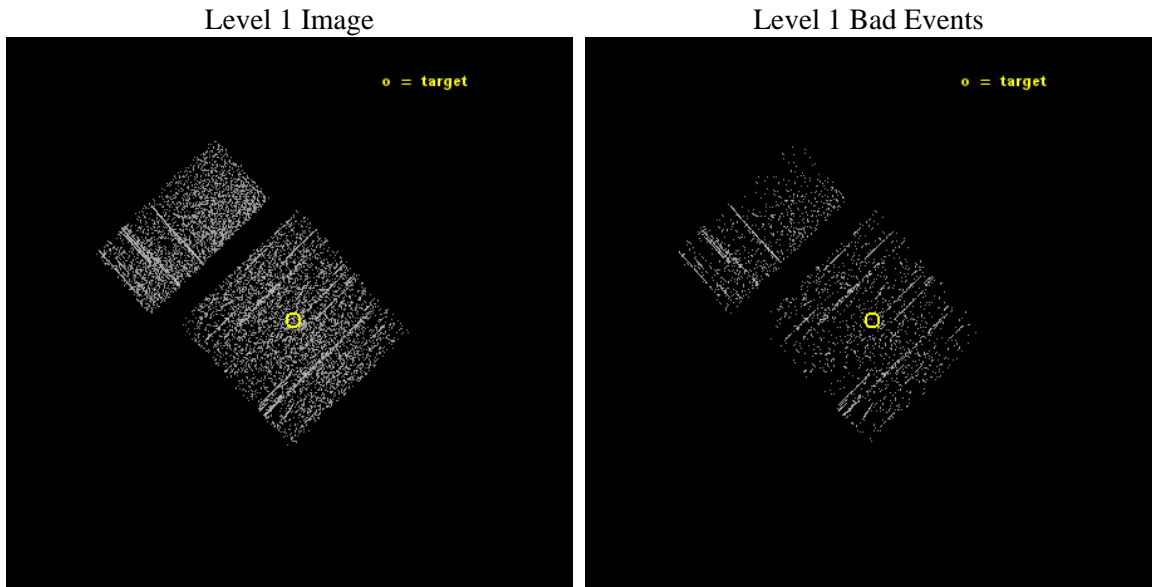
seq_num	601060	Sequence number
obs_id	14930	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr Robin Barnard	Principal investigator
object	M31 BHXN	Source name
dtcycle	0	
cycle	P	events are from which exps? P[rimary] S[econdar]
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.694673019963	Nominal RA [deg]
dec_nom	41.265416314693	Nominal Dec [deg]
roll_nom	316.93589413028	Nominal Roll [deg]
revision	2	Processing version of data
ontime	922.19503098726	Sum of GTIs [s]
livetime	145.17574267252	Livetime [s]
ontime0	922.19503098726	Sum of GTIs [s]
ontime1	922.19503098726	Sum of GTIs [s]
ontime2	922.19503098726	Sum of GTIs [s]
ontime3	922.19503098726	Sum of GTIs [s]
ontime6	922.19503098726	Sum of GTIs [s]
ontime7	922.19503098726	Sum of GTIs [s]
l2events	2012	Number of level 2 events



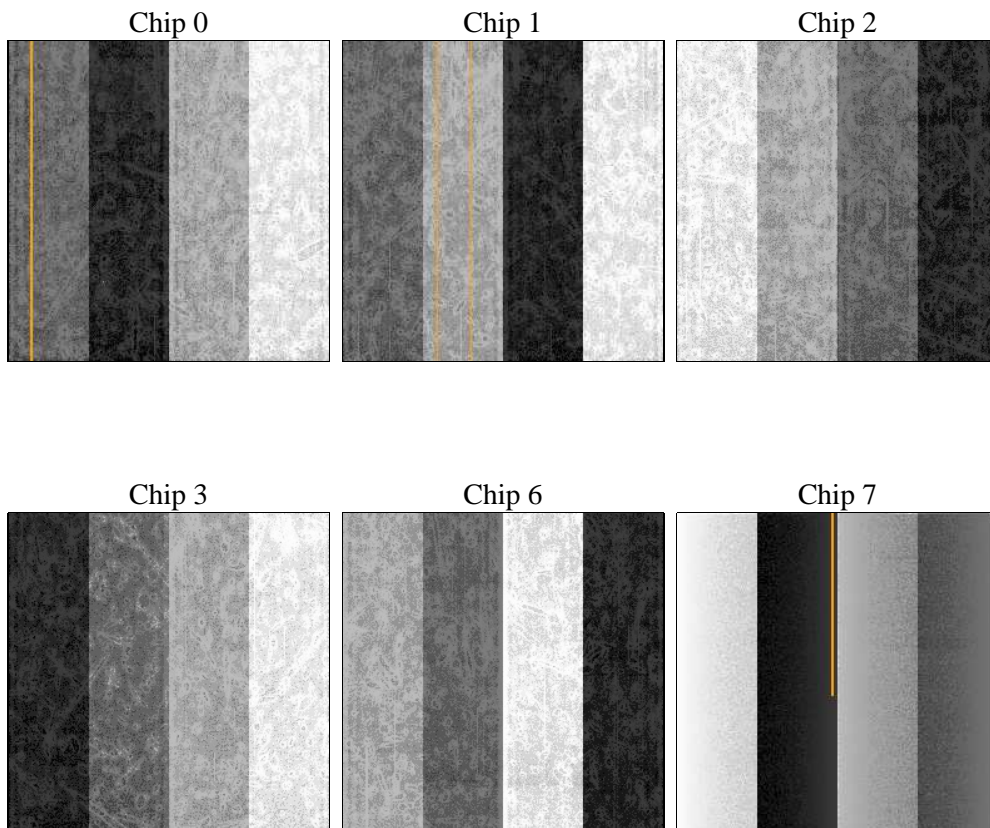
2 OBI Primary

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	922.19503098726	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	922.19503098726	Sum of GTIs [s]
date	2014-12-01T13:26:07	Date and time of file creation	ontime1	922.19503098726	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	922.19503098726	Sum of GTIs [s]
			ontime3	922.19503098726	Sum of GTIs [s]
			ontime6	922.19503098726	Sum of GTIs [s]
			ontime7	922.19503098726	Sum of GTIs [s]
			l1events	14929	Number of level 1 events

2.1.4 Events

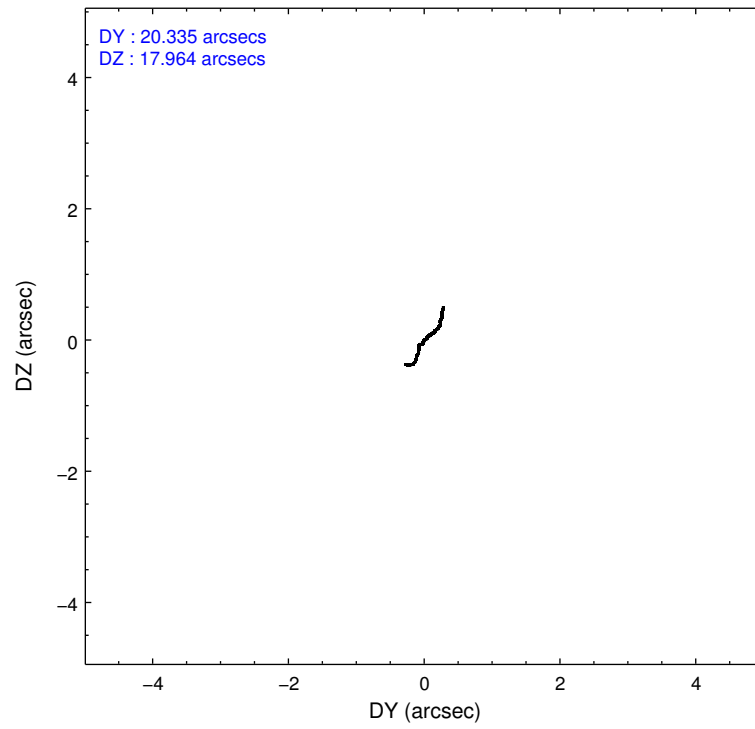
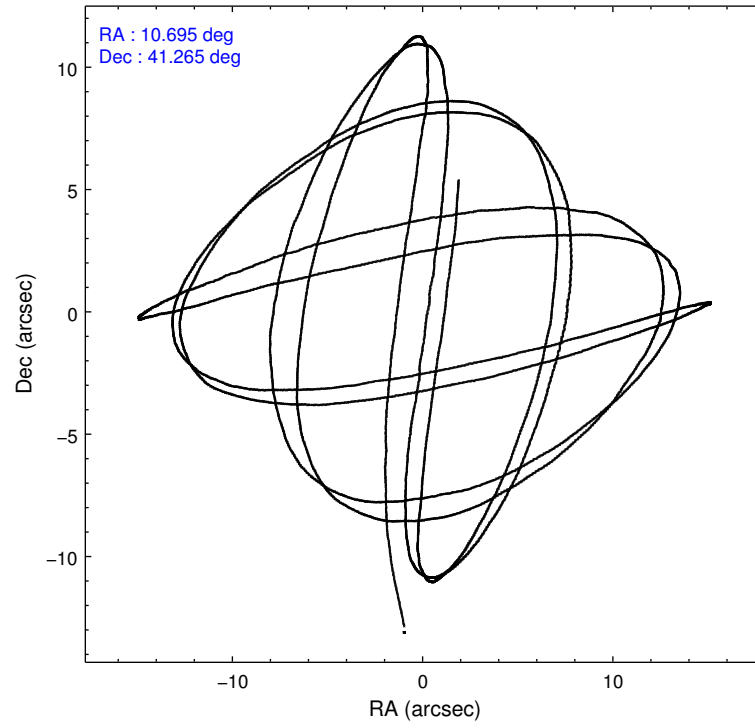
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	2302	2358	2188	2526	3096	2459
rejected events	2042	1942	1895	2157	2858	1746
rejected %	88%	82%	86%	85%	92%	71%

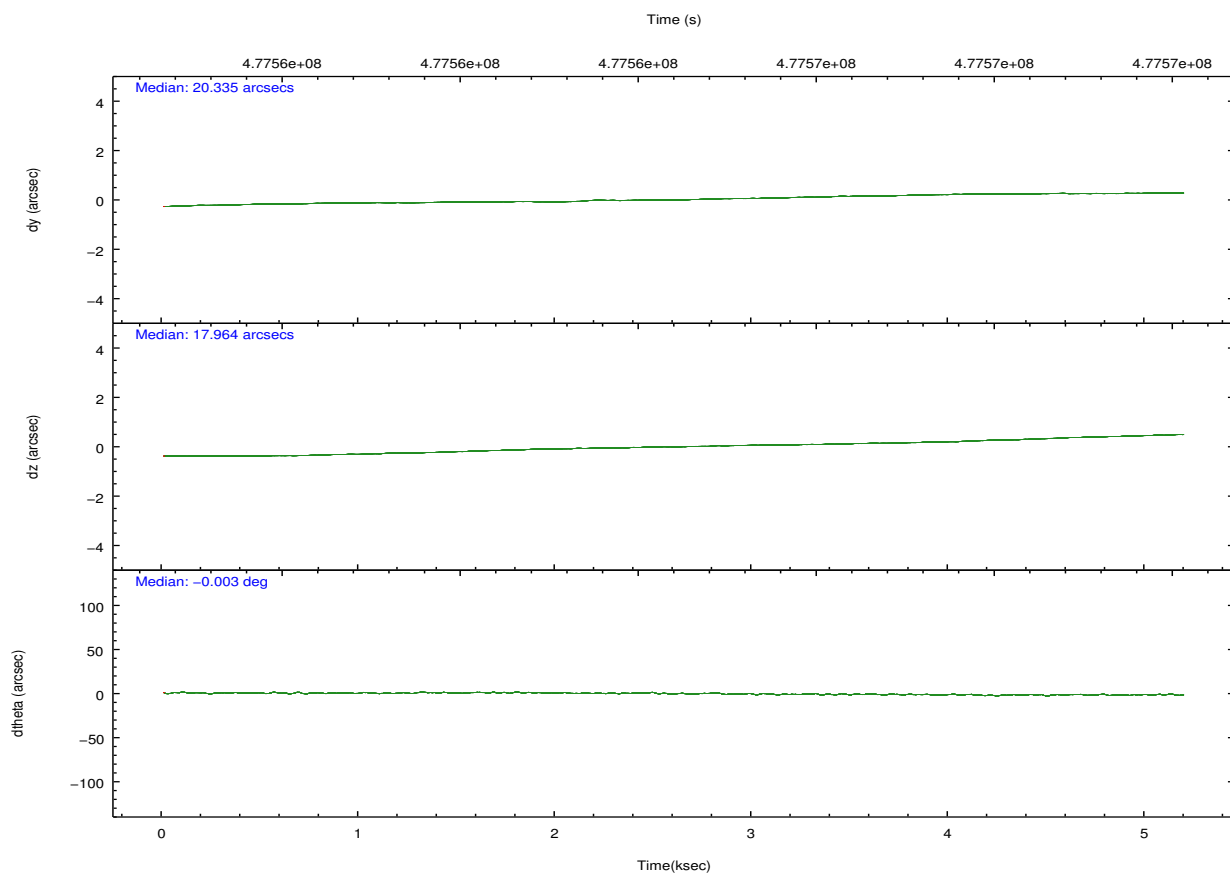
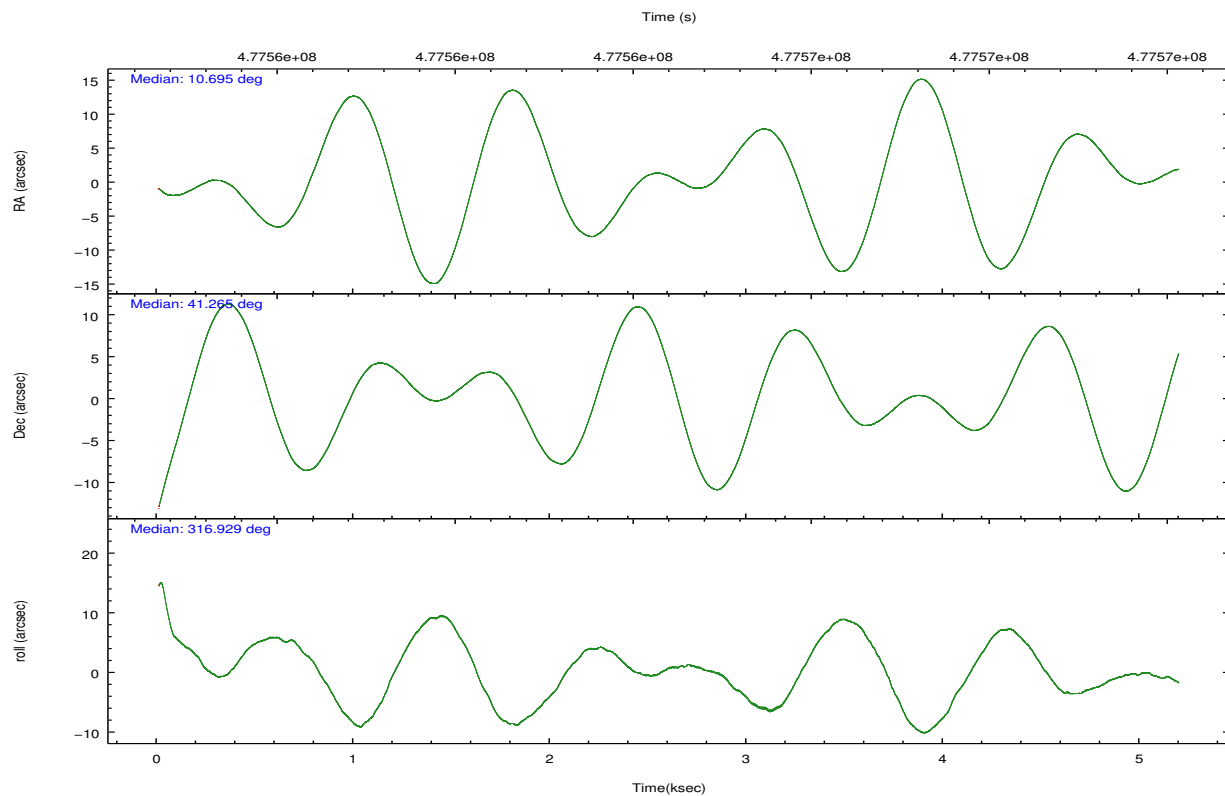
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	89	201	148	164	56	56
	3%	8%	6%	6%	1%	2%
grade 1 events	1	3	1	0	0	3
	0%	0%	0%	0%	0%	0%
grade 2 events	59	78	63	80	52	179
	2%	3%	2%	3%	1%	7%
grade 3 events	25	37	27	36	30	65
	1%	1%	1%	1%	0%	2%
grade 4 events	31	41	21	34	42	52
	1%	1%	0%	1%	1%	2%
grade 5 events	82	95	108	98	110	233
	3%	4%	4%	3%	3%	9%
grade 6 events	57	62	38	57	60	373
	2%	2%	1%	2%	1%	15%
grade 7 events	1958	1841	1782	2057	2746	1498
	85%	78%	81%	81%	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	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	10.659015	10.69467301996319	CCD I2 on	Y	Y
[deg] Pointing Dec	41.271561	41.26541631469312	CCD I3 on	Y	Y
[deg] Pointing Roll	316.750717	316.9358941302831	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)	477562796.184000	477561818.17915	CCD S5 on	N	N
Observation start date	2013-02-18T08:18:49	2013-02-18T08:03:38	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	477567796.184000	477569092.09204	On-chip summing requested	N	N
Observation end date	2013-02-18T09:42:09	2013-02-18T10:04:52	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



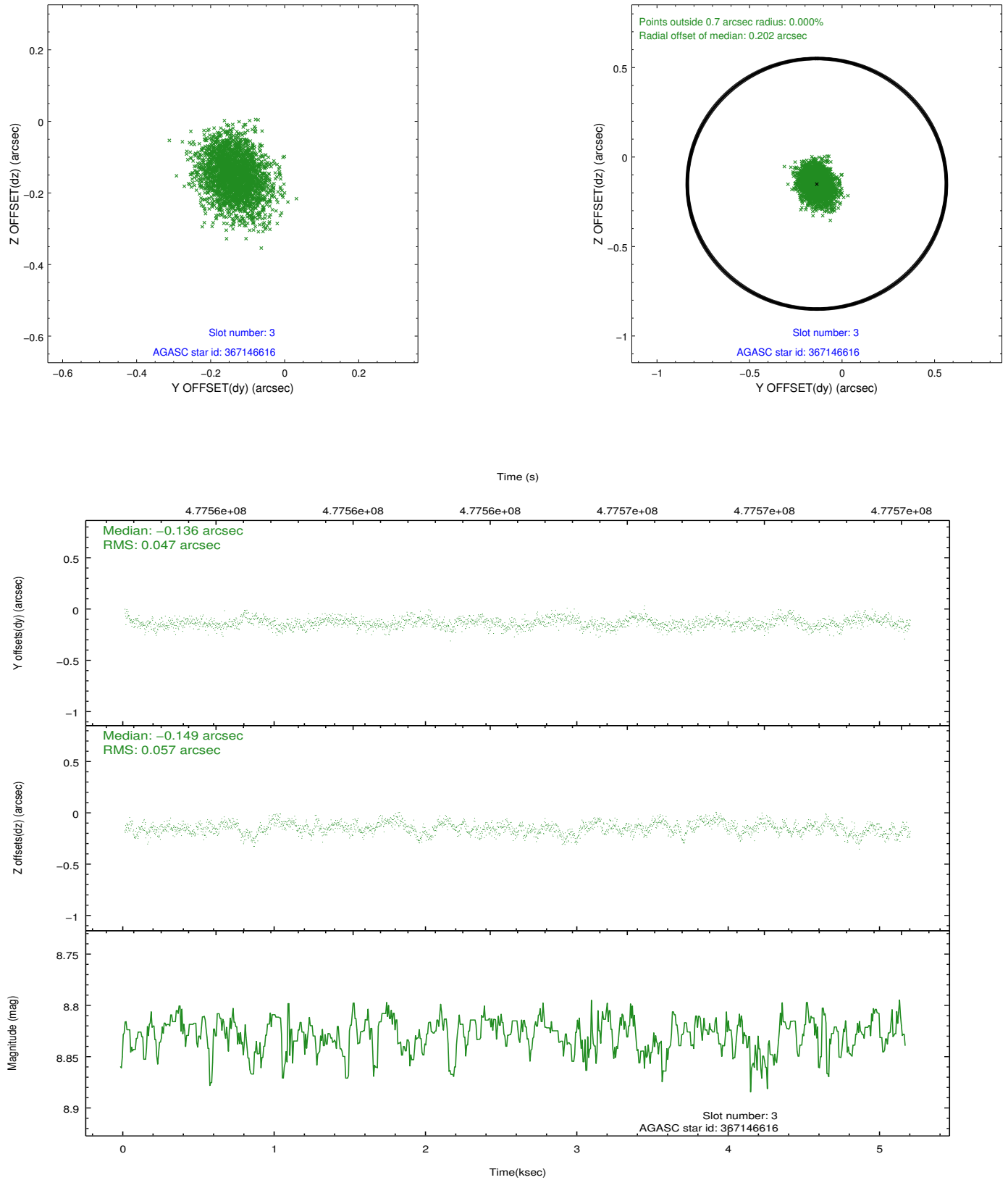


Slot Statistics

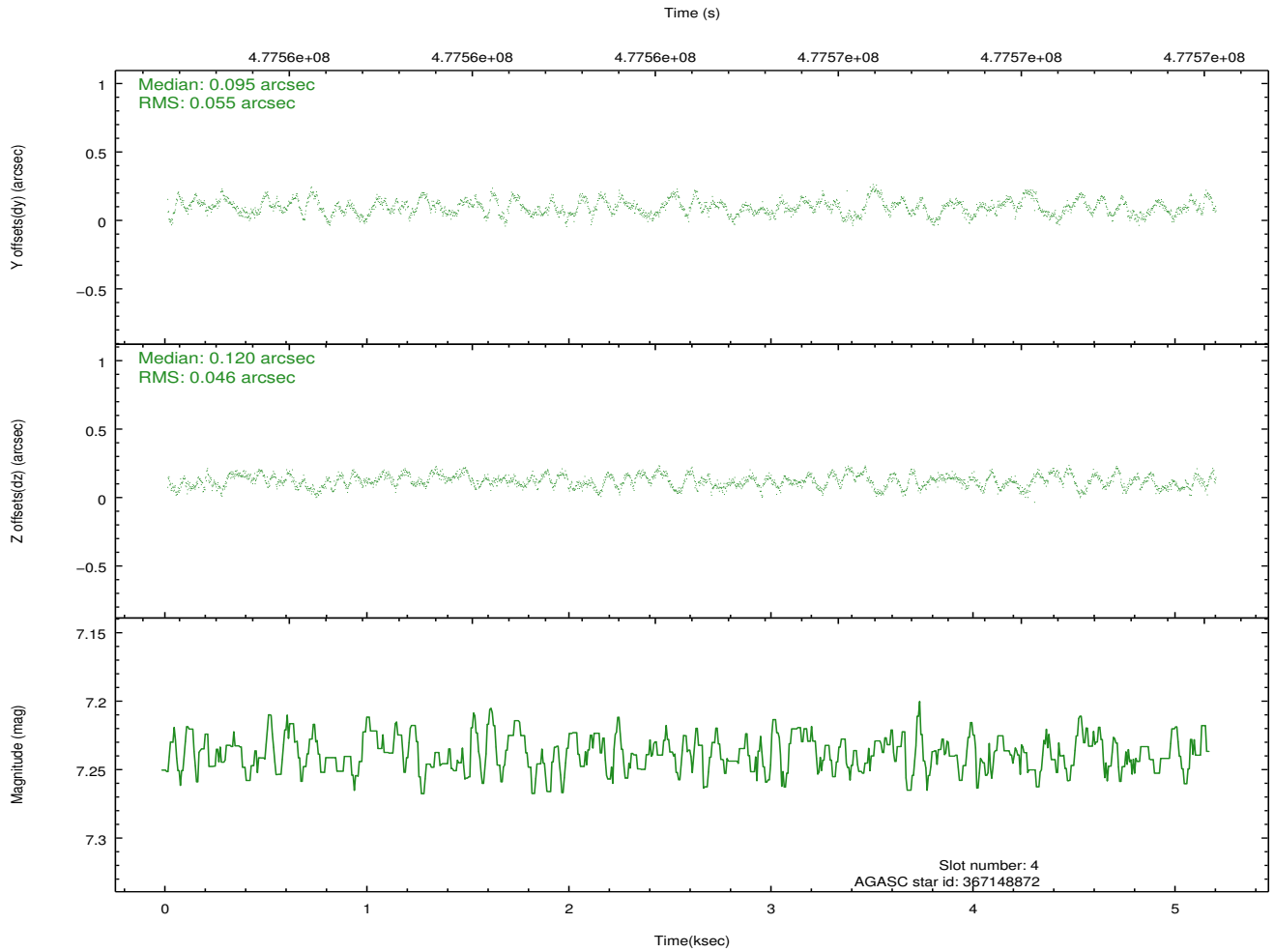
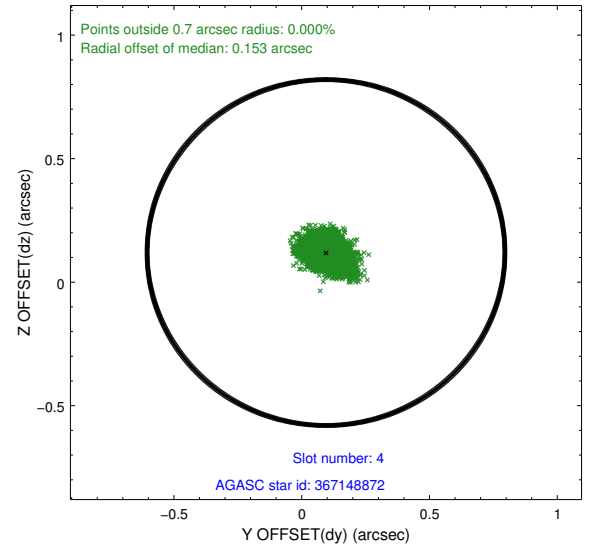
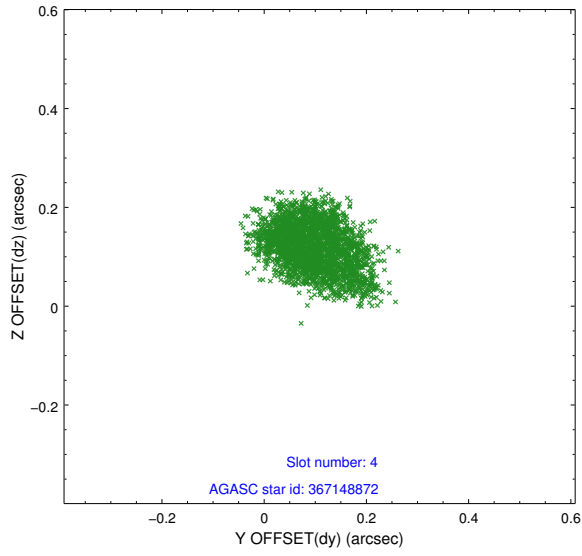
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.10	1266	0.061	0.014	0.015	0.023	0.000000	0.000000	919.02	-841.61
1	FID		ACIS-I-5	7.09	1266	-0.274	0.056	0.010	0.016	0.000000	0.000000	-1828.81	1055.29
2	FID		ACIS-I-6	7.10	1266	0.121	0.002	0.009	0.013	0.000000	0.000000	383.31	1701.10
3	GUIDE	used	367146616	8.83	2532	-0.136	-0.149	0.079	0.128	11.418645	41.190163	1693.42	1203.31
4	GUIDE	used	367148872	7.24	2532	0.095	0.120	0.077	0.121	10.505940	40.688258	1135.78	-1815.46
5	GUIDE	used	367657272	8.42	2531	-0.005	-0.033	0.085	0.138	11.834471	41.298907	2233.75	2265.28
6	GUIDE	used	367663272	9.29	2528	0.028	0.101	0.121	0.196	10.656279	41.699429	-1060.26	1116.77
7	GUIDE	used	367674552	8.85	2528	0.020	-0.030	0.101	0.166	11.016238	41.570845	-39.03	1445.95

2.4 Star Slots

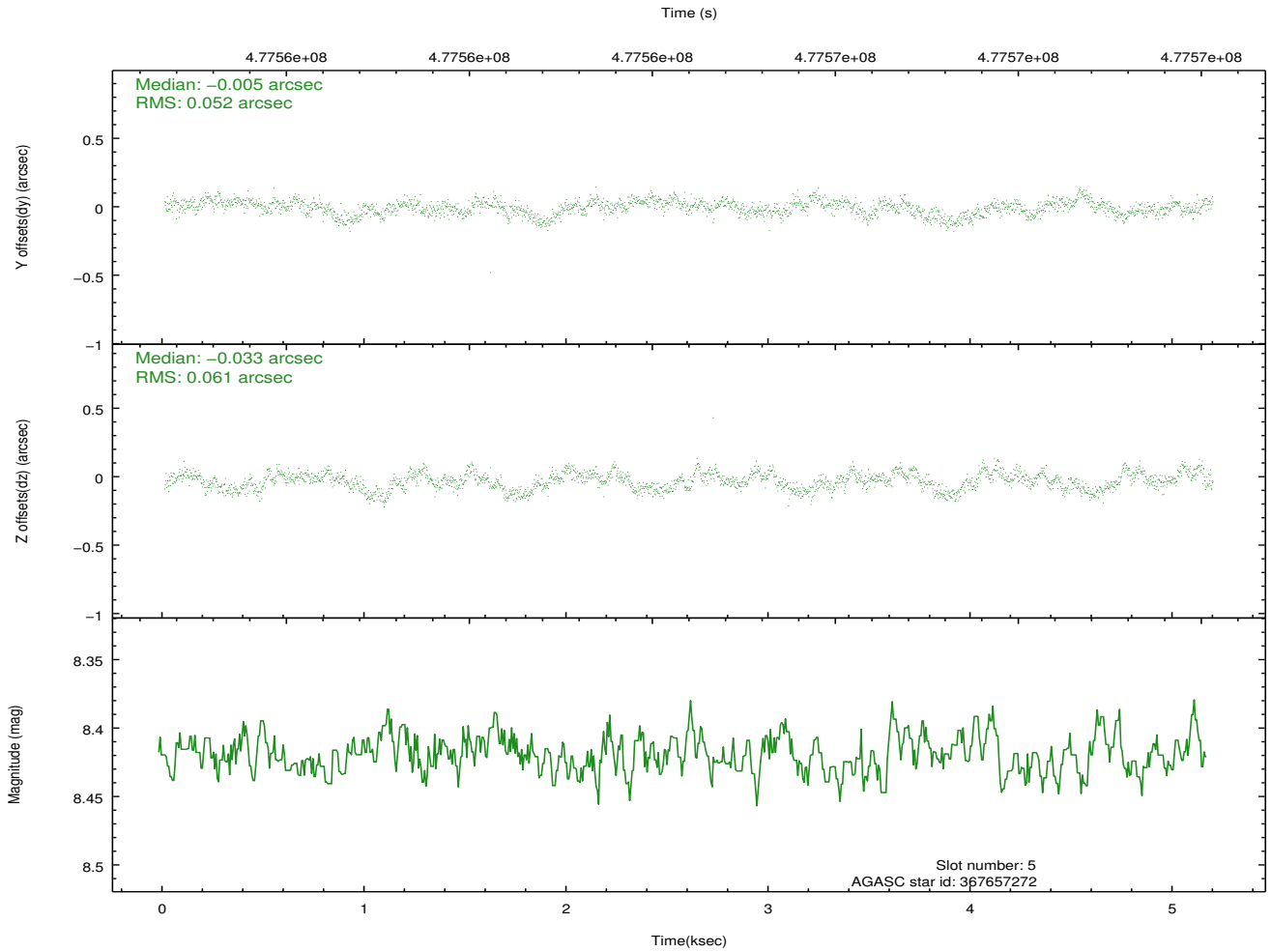
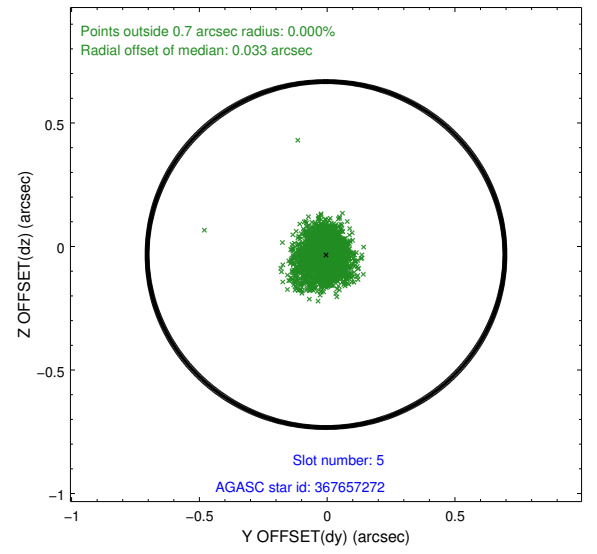
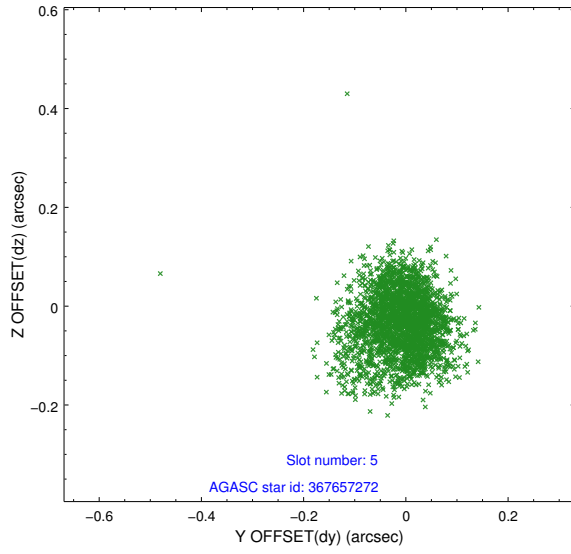
2.4.1 Slot 3



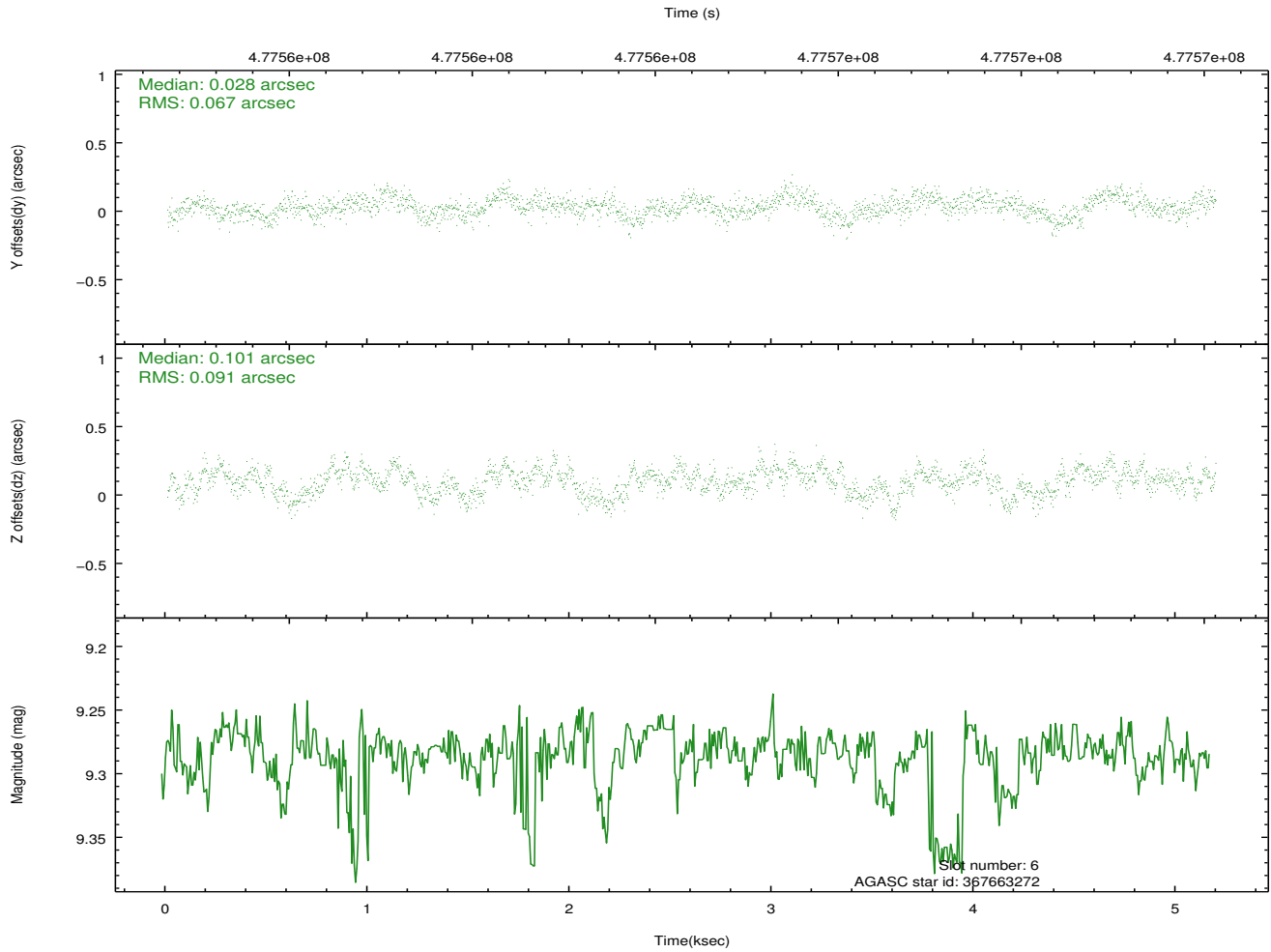
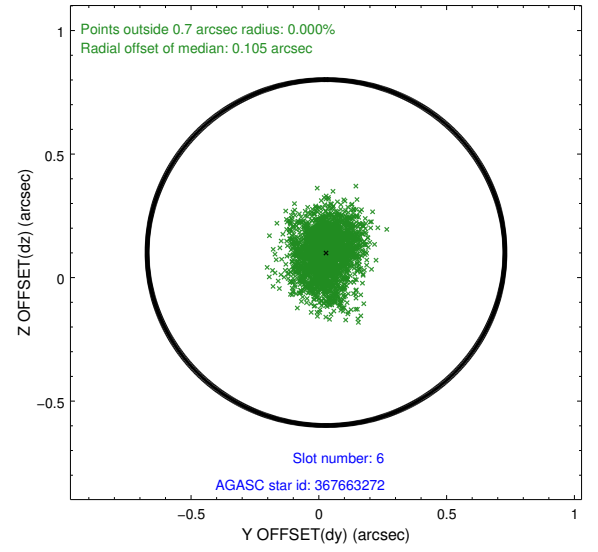
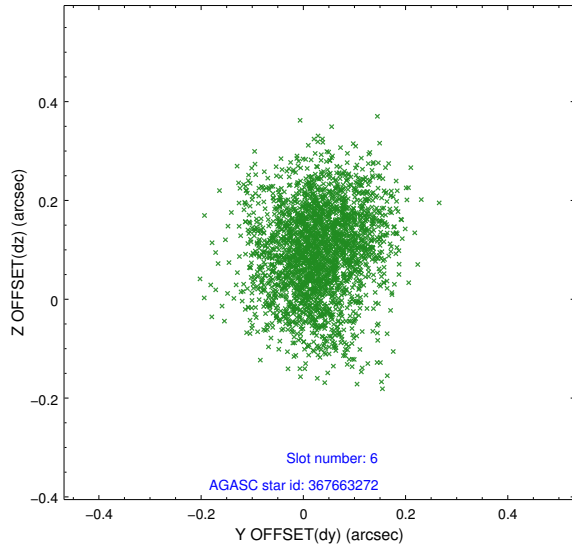
2.4.2 Slot 4



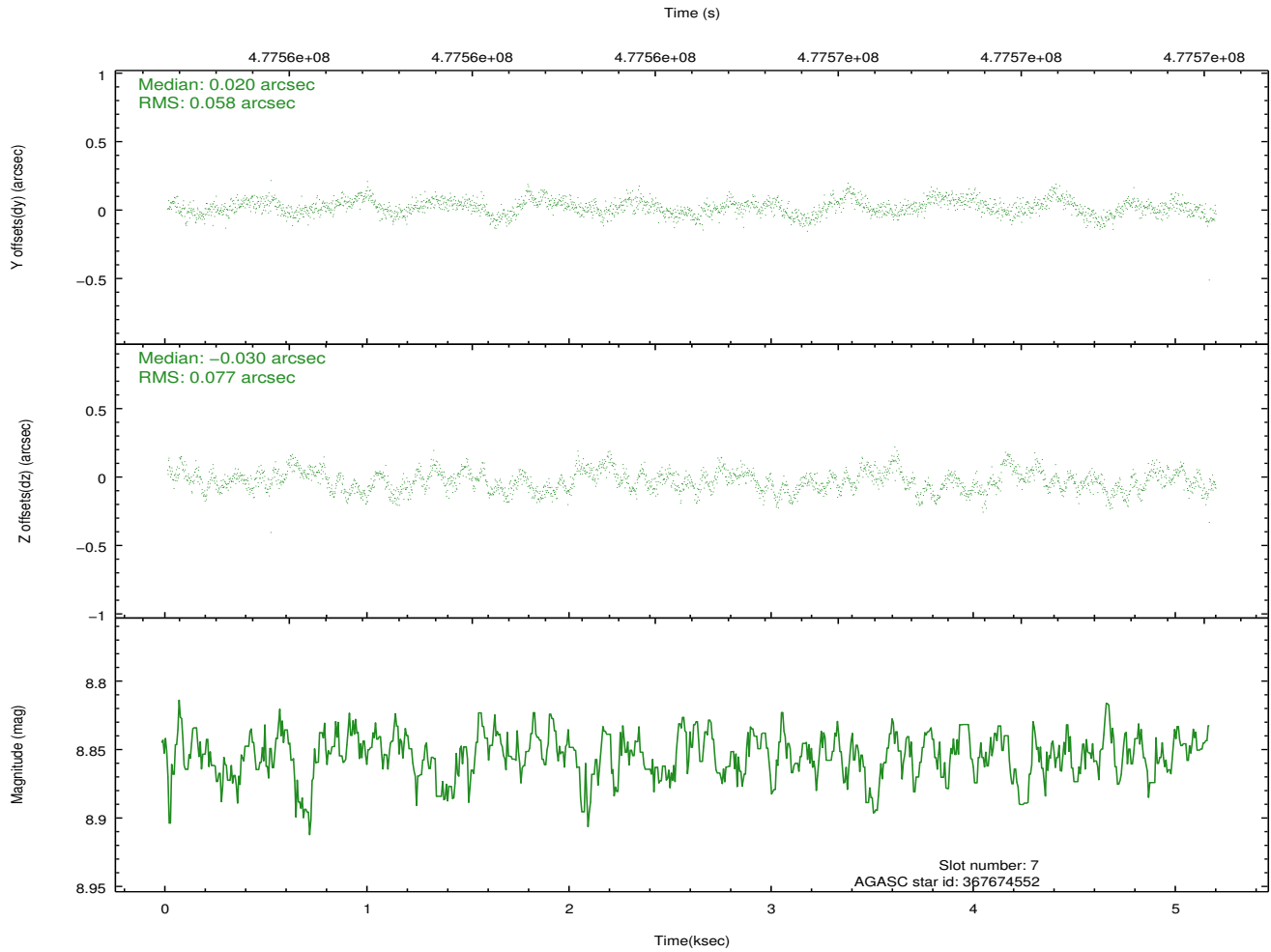
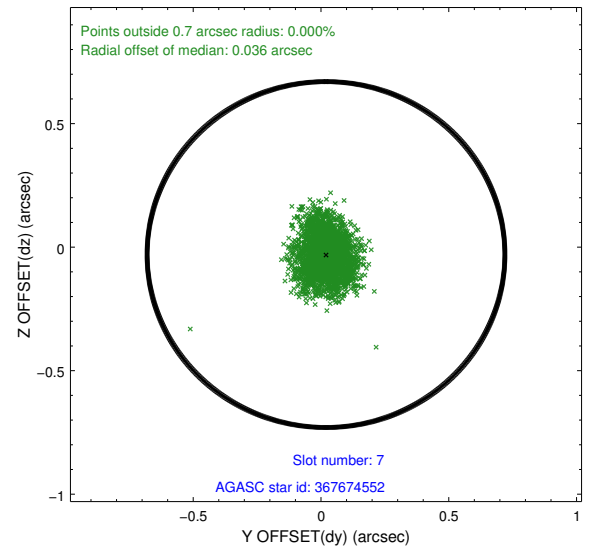
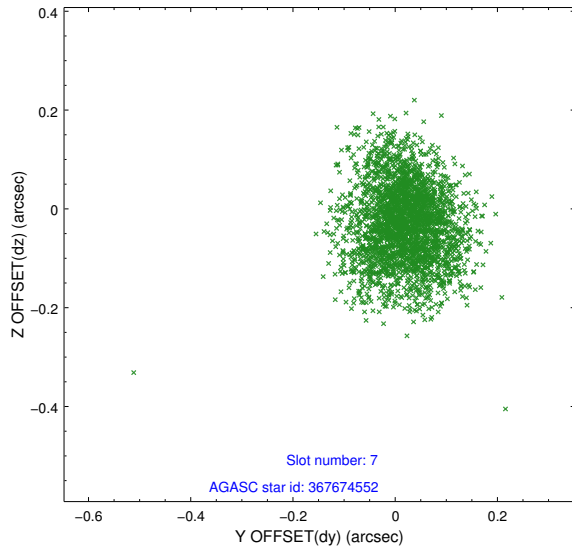
2.4.3 Slot 5



2.4.4 Slot 6

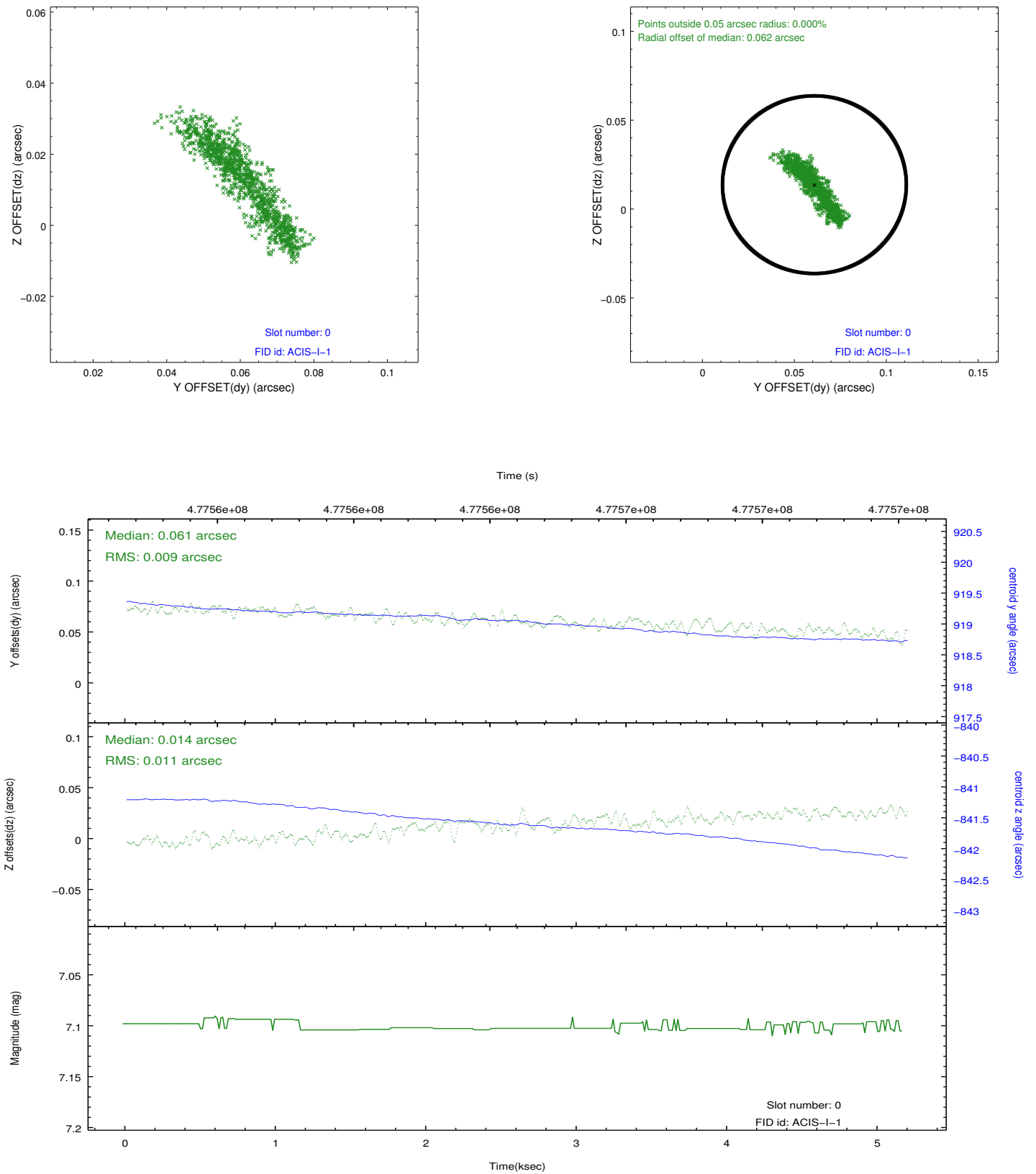


2.4.5 Slot 7

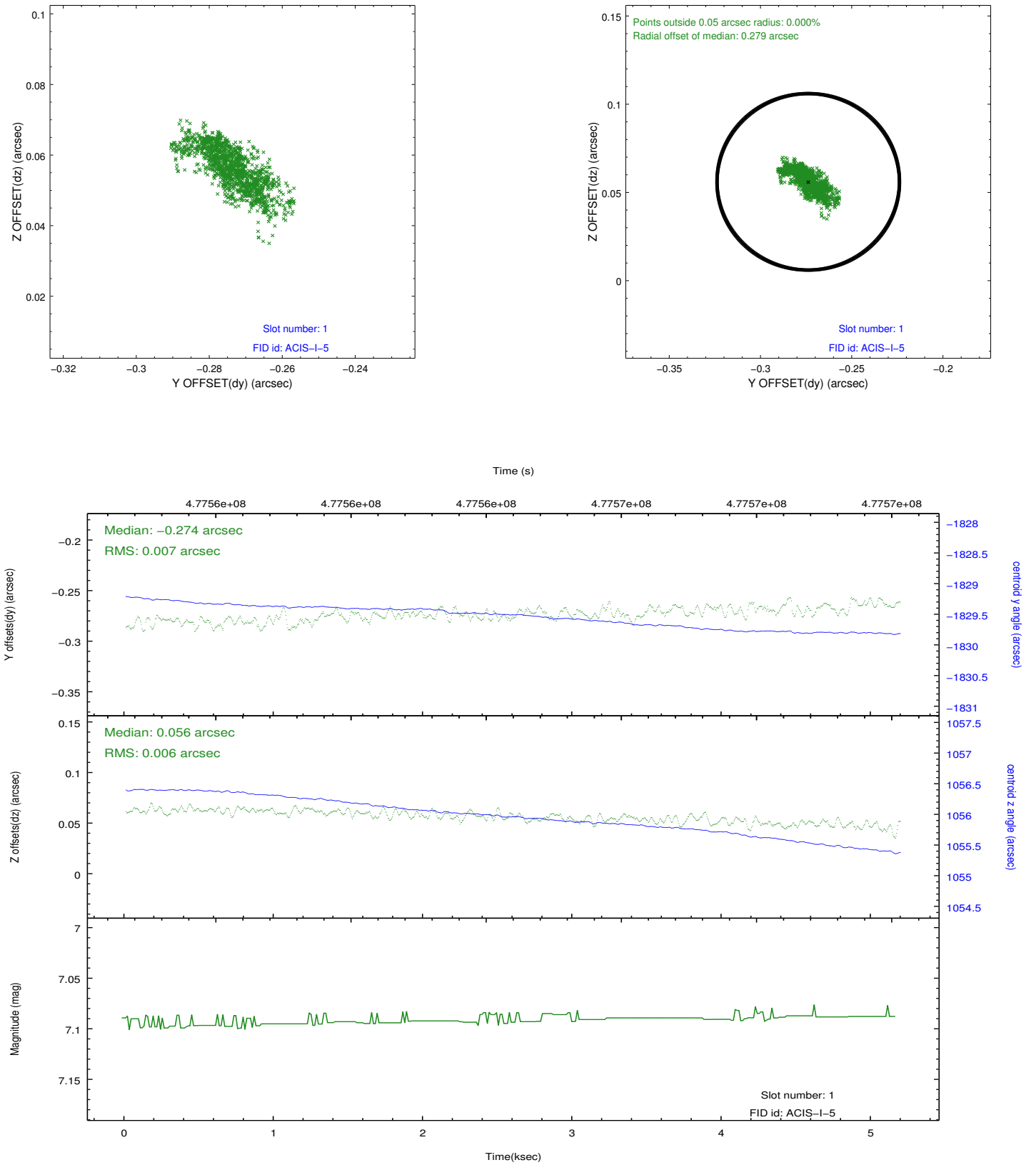


2.5 FID Slots

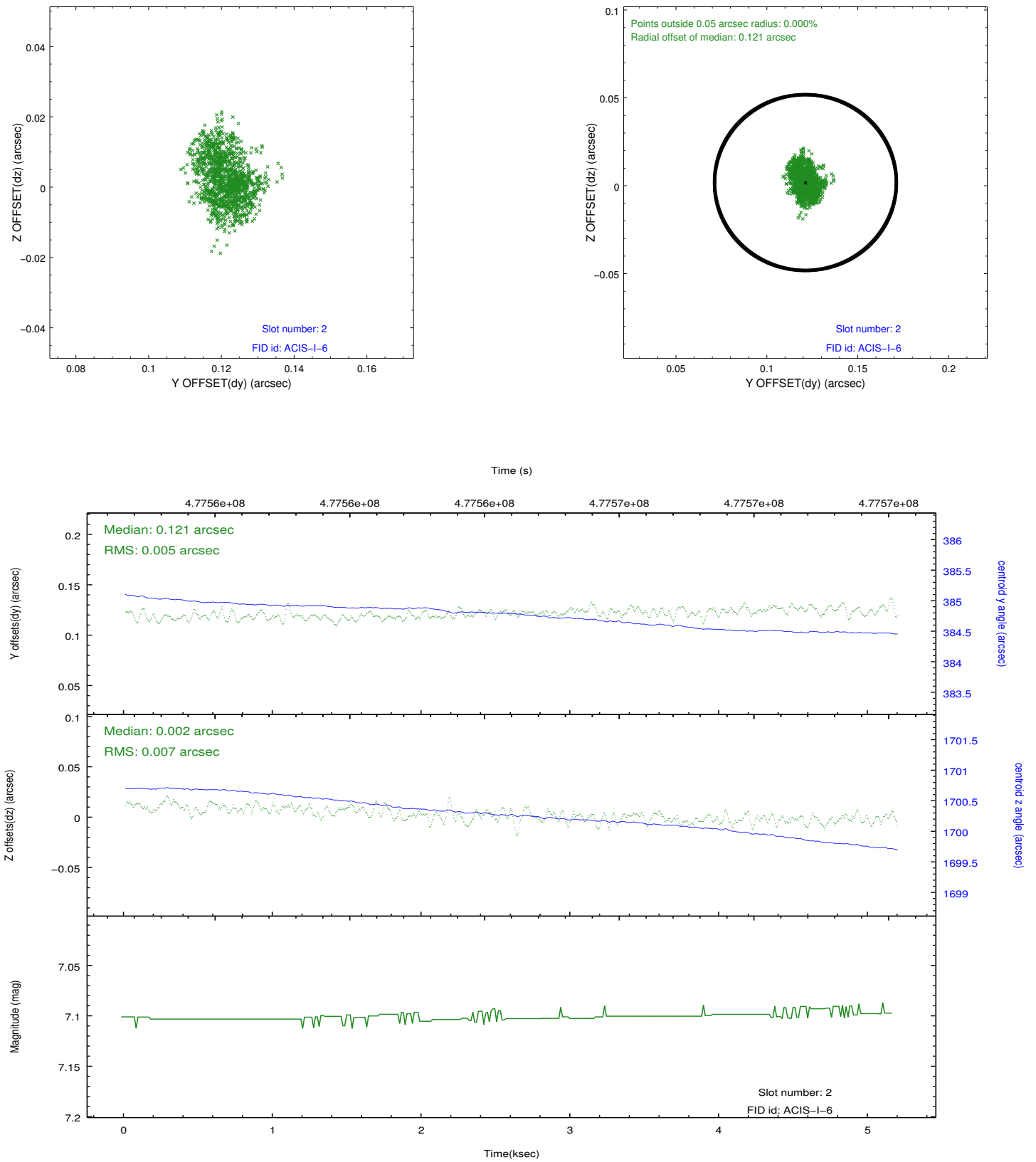
2.5.1 Slot 0



2.5.2 Slot 1



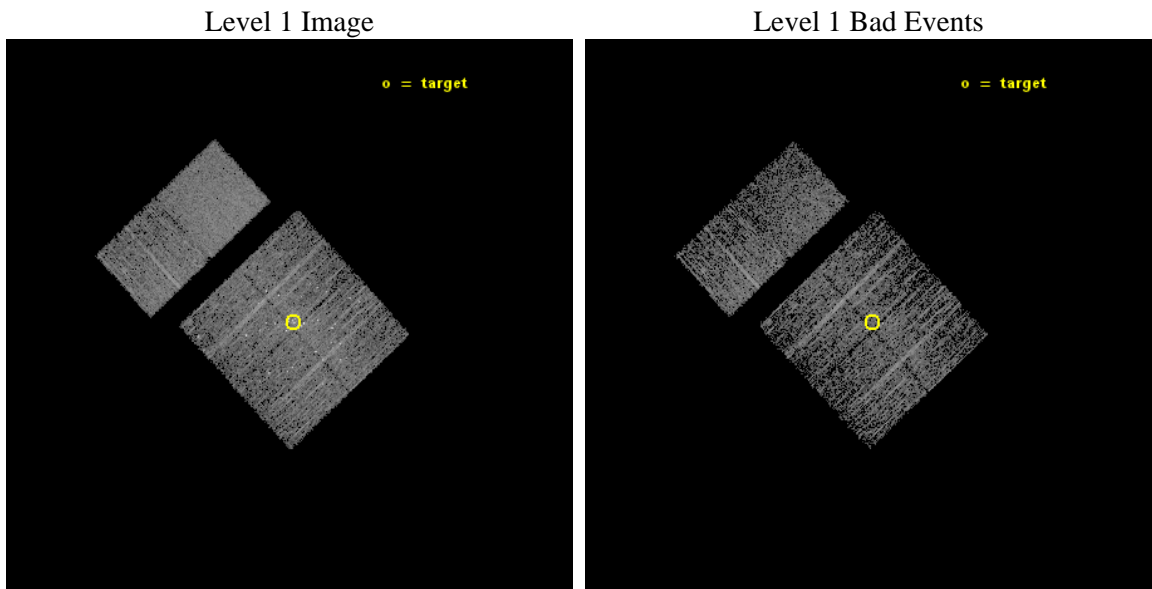
2.5.3 Slot 2



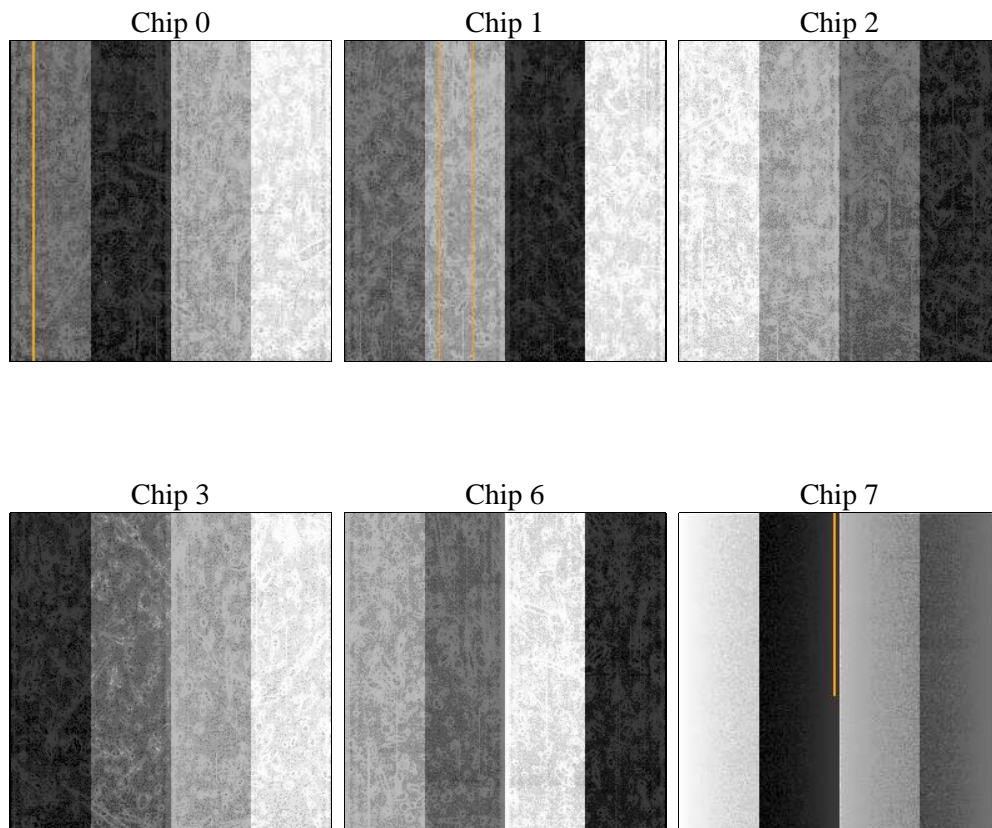
3 OBI Secondary

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	3957.6474090219	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	3957.6473891735	Sum of GTIs [s]
date	2014-12-01T13:26:21	Date and time of file creation	ontime1	3957.6474685669	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3957.6473391056	Sum of GTIs [s]
			ontime3	3957.6474090219	Sum of GTIs [s]
			ontime6	3957.6473987103	Sum of GTIs [s]
			ontime7	3957.6474089026	Sum of GTIs [s]
			l1events	143013	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	20644	24702	23008	22530	23173	28956	grade 0 events	1656	3543	2959	3298	1098	1126
rejected events	17189	18364	17953	17139	20282	16109		8%	14%	12%	14%	4%	3%
rejected %	83%	74%	78%	76%	87%	55%	grade 1 events	20	114	54	47	10	32
								0%	0%	0%	0%	0%	0%
							grade 2 events	674	1167	885	836	602	2698
								3%	4%	3%	3%	2%	9%
							grade 3 events	307	437	319	366	296	1129
								1%	1%	1%	1%	1%	3%
							grade 4 events	270	431	356	356	280	1101
								1%	1%	1%	1%	1%	3%
							grade 5 events	997	1160	909	1131	1145	3005
								4%	4%	3%	5%	4%	10%
							grade 6 events	549	766	538	542	616	6805
								2%	3%	2%	2%	2%	23%
							grade 7 events	16171	17084	16988	15954	19126	13060
								78%	69%	73%	70%	82%	45%

A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.87984244000916

A.2 Comments

Joint proposal with 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.