

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14929 - L2 Version 2
Chandra X-Ray Center

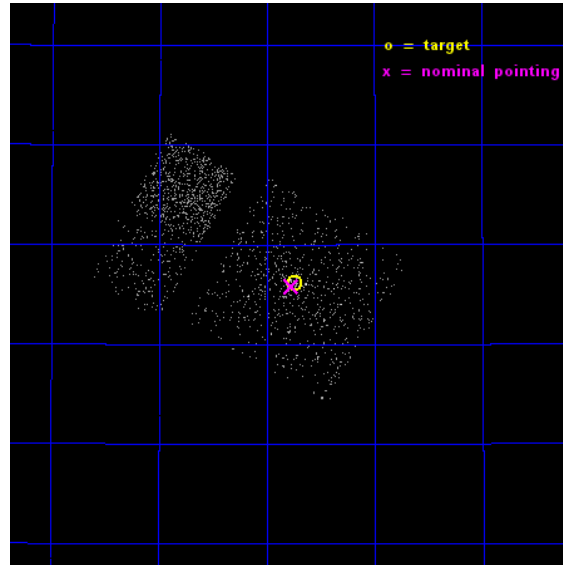
L2 Processing Date : Nov 30 2014

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

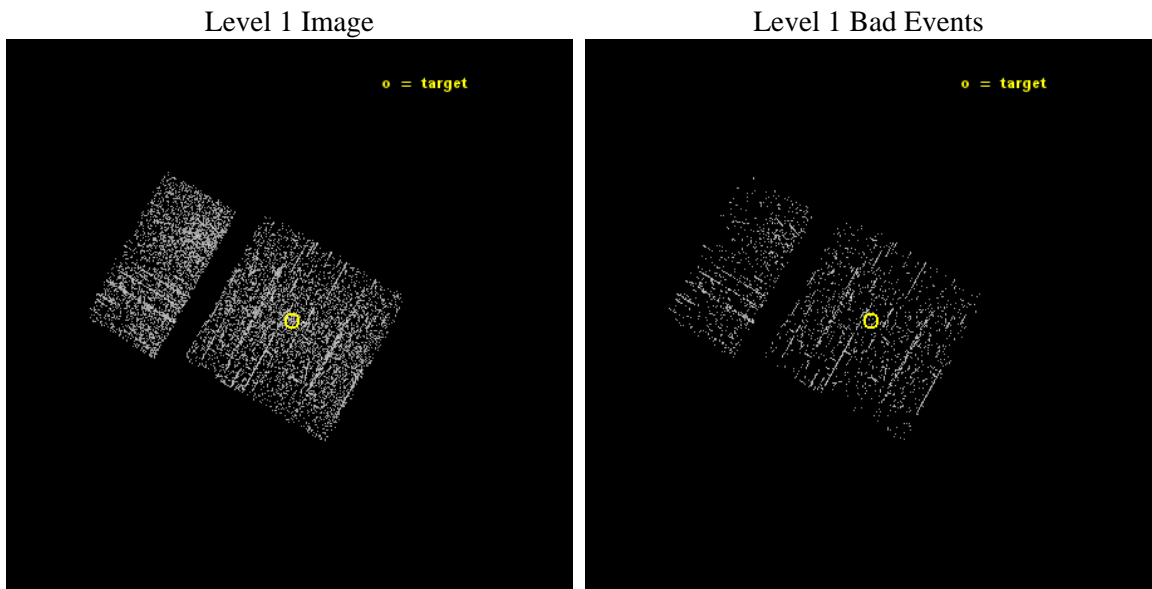
seq_num	601059	Sequence number
obs_id	14929	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr Robin Barnard	Principal investigator
object	M31 BHXN	Source name
dtcycle	0	
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.693077630284	Nominal RA [deg]
dec_nom	41.26350167712	Nominal Dec [deg]
roll_nom	300.22193326609	Nominal Roll [deg]
revision	2	Processing version of data
ontime	922.15855181217	Sum of GTIs [s]
livetime	145.16999997043	Livetime [s]
ontime0	922.15855181217	Sum of GTIs [s]
ontime1	922.15855181217	Sum of GTIs [s]
ontime2	922.15855181217	Sum of GTIs [s]
ontime3	922.15855181217	Sum of GTIs [s]
ontime6	922.15855181217	Sum of GTIs [s]
ontime7	922.15855181217	Sum of GTIs [s]
l2events	2013	Number of level 2 events



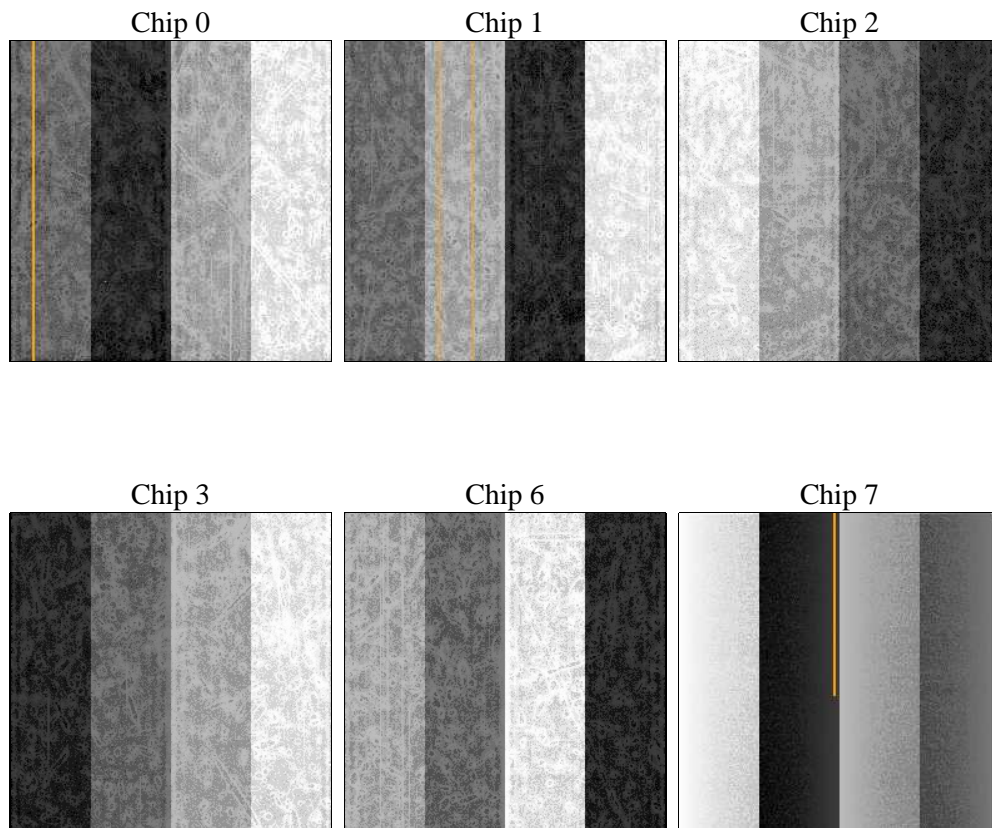
2 OBI Primary

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	922.15855181217	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	922.15855181217	Sum of GTIs [s]
date	2014-12-01T03:21:09	Date and time of file creation	ontime1	922.15855181217	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	922.15855181217	Sum of GTIs [s]
			ontime3	922.15855181217	Sum of GTIs [s]
			ontime6	922.15855181217	Sum of GTIs [s]
			ontime7	922.15855181217	Sum of GTIs [s]
			l1events	14969	Number of level 1 events

2.1.4 Events

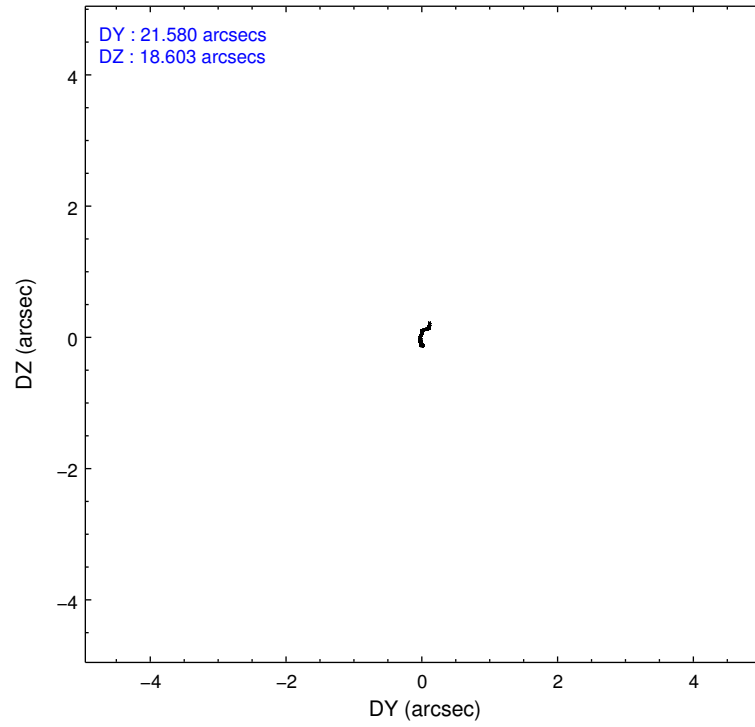
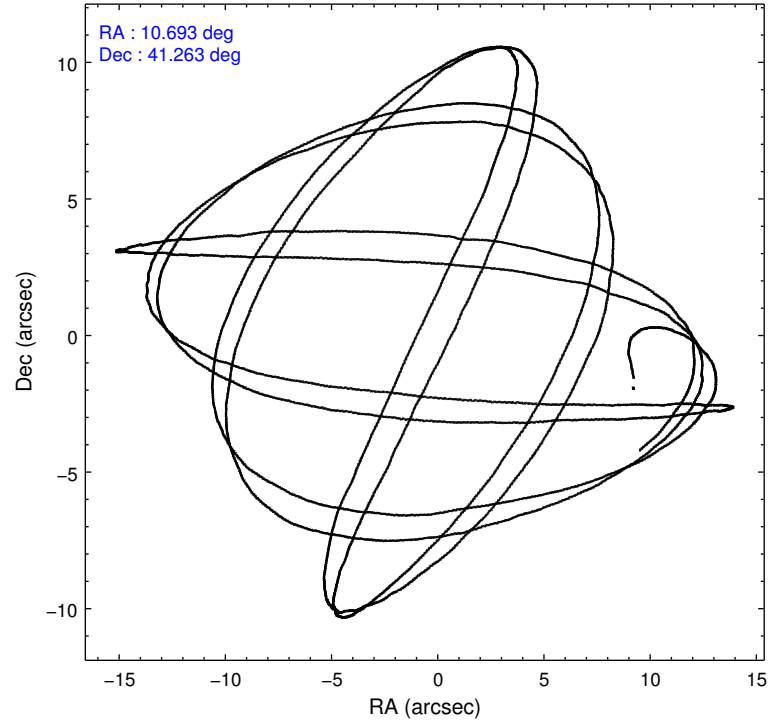
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	2210	2329	2645	2377	2760	2648
rejected events	1930	1978	2337	2048	2526	1872
rejected %	87%	84%	88%	86%	91%	70%

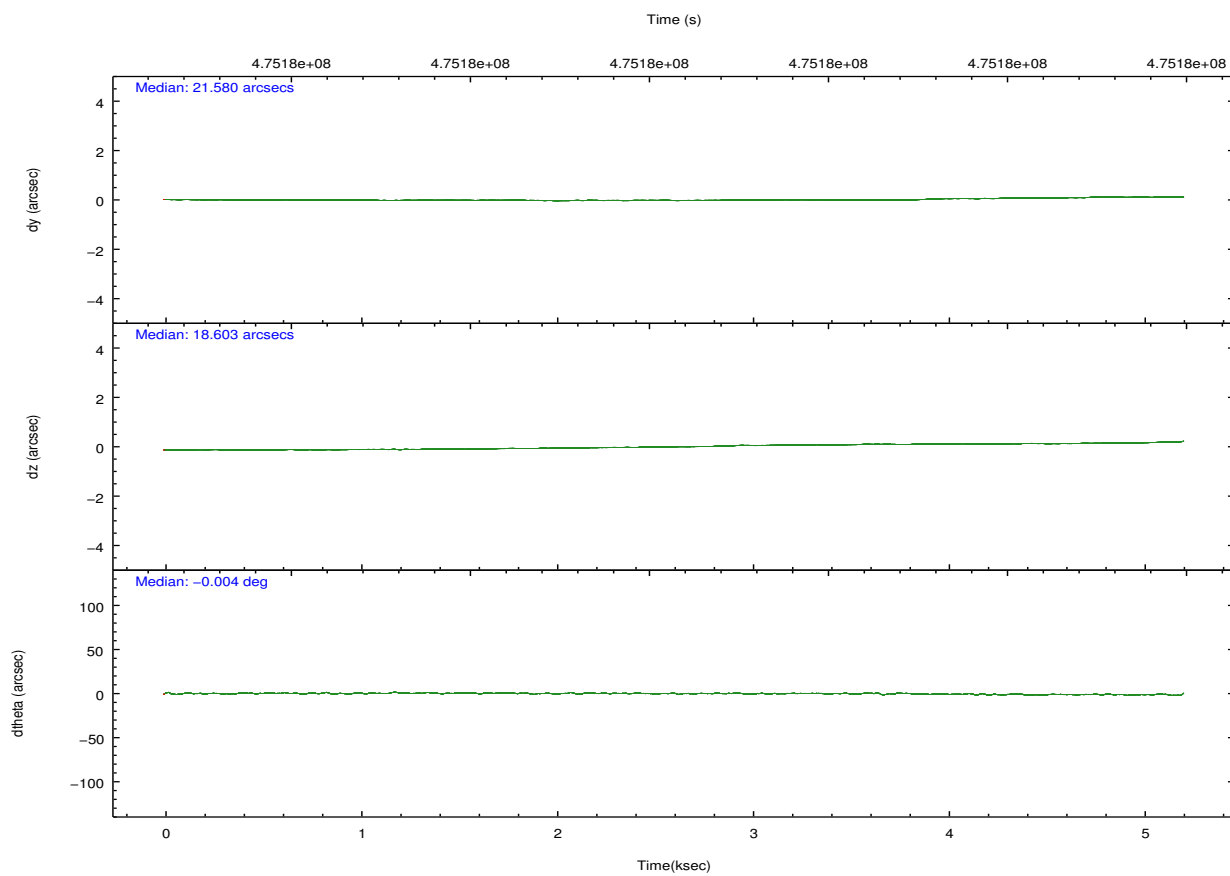
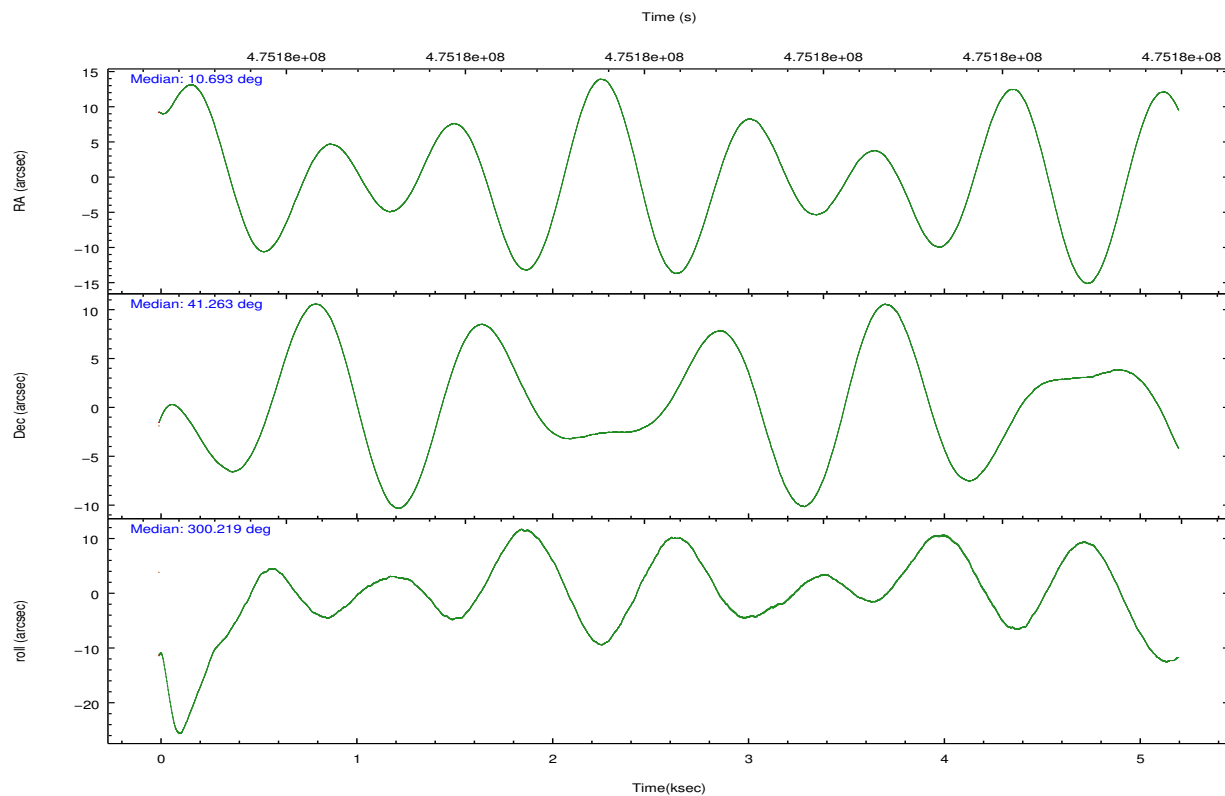
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	111	173	151	159	52	73
	5%	7%	5%	6%	1%	2%
grade 1 events	2	1	0	3	1	3
	0%	0%	0%	0%	0%	0%
grade 2 events	57	80	62	61	69	170
	2%	3%	2%	2%	2%	6%
grade 3 events	37	33	25	32	25	72
	1%	1%	0%	1%	0%	2%
grade 4 events	24	26	29	25	28	76
	1%	1%	1%	1%	1%	2%
grade 5 events	95	108	88	96	122	226
	4%	4%	3%	4%	4%	8%
grade 6 events	54	41	45	55	61	389
	2%	1%	1%	2%	2%	14%
grade 7 events	1830	1867	2245	1946	2402	1639
	82%	80%	84%	81%	87%	61%

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	10.661100	10.69307763028417	CCD I2 on	Y	Y
[deg] Pointing Dec	41.277074	41.26350167712013	CCD I3 on	Y	Y
[deg] Pointing Roll	300.034288	300.2219332660884	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)	475176741.184000	475175767.70024	CCD S5 on	N	N
Observation start date	2013-01-21T17:31:14	2013-01-21T17:16:07	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	475181741.184000	475182114.50058	On-chip summing requested	N	N
Observation end date	2013-01-21T18:54:34	2013-01-21T19:01:54	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



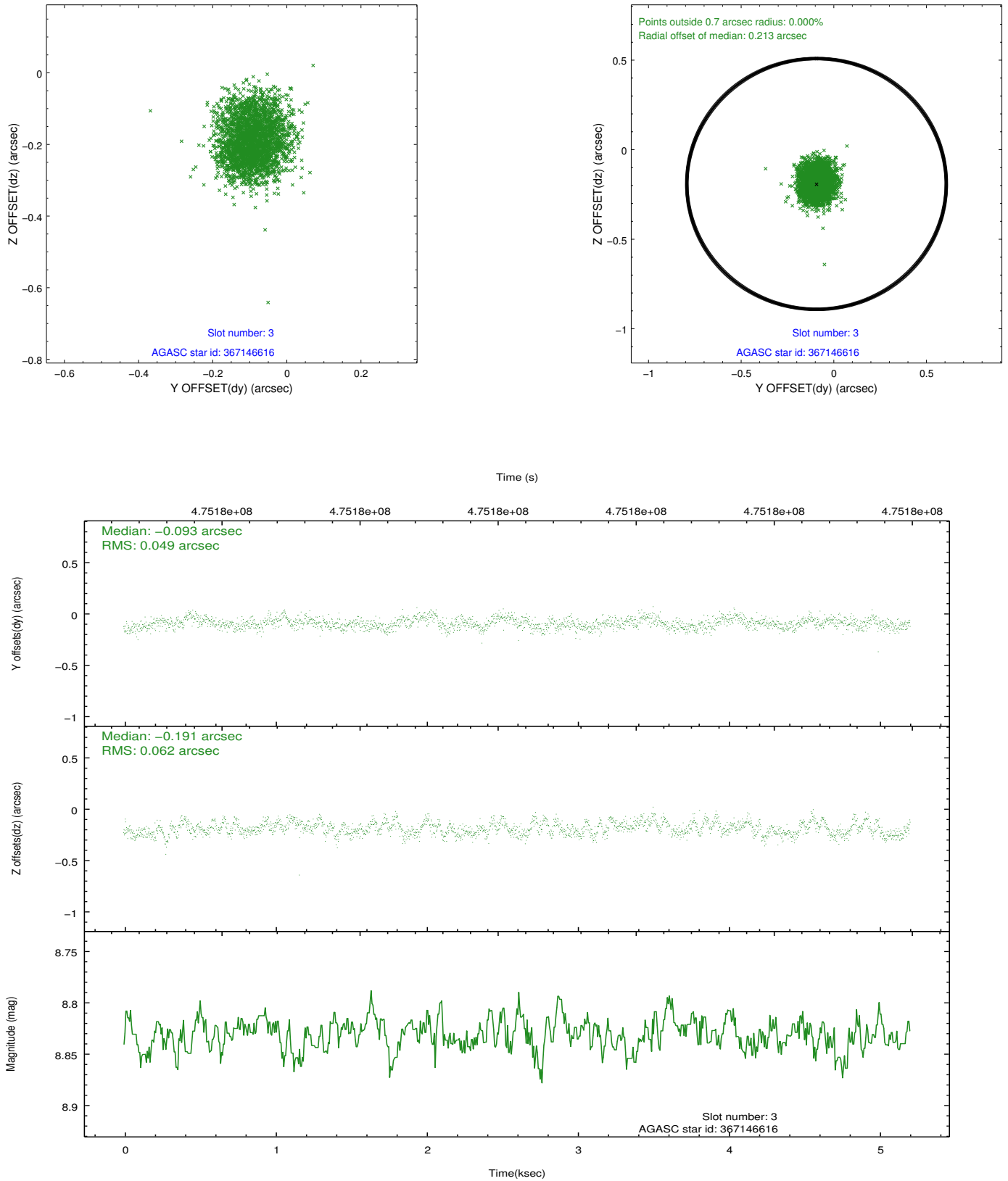


Slot Statistics

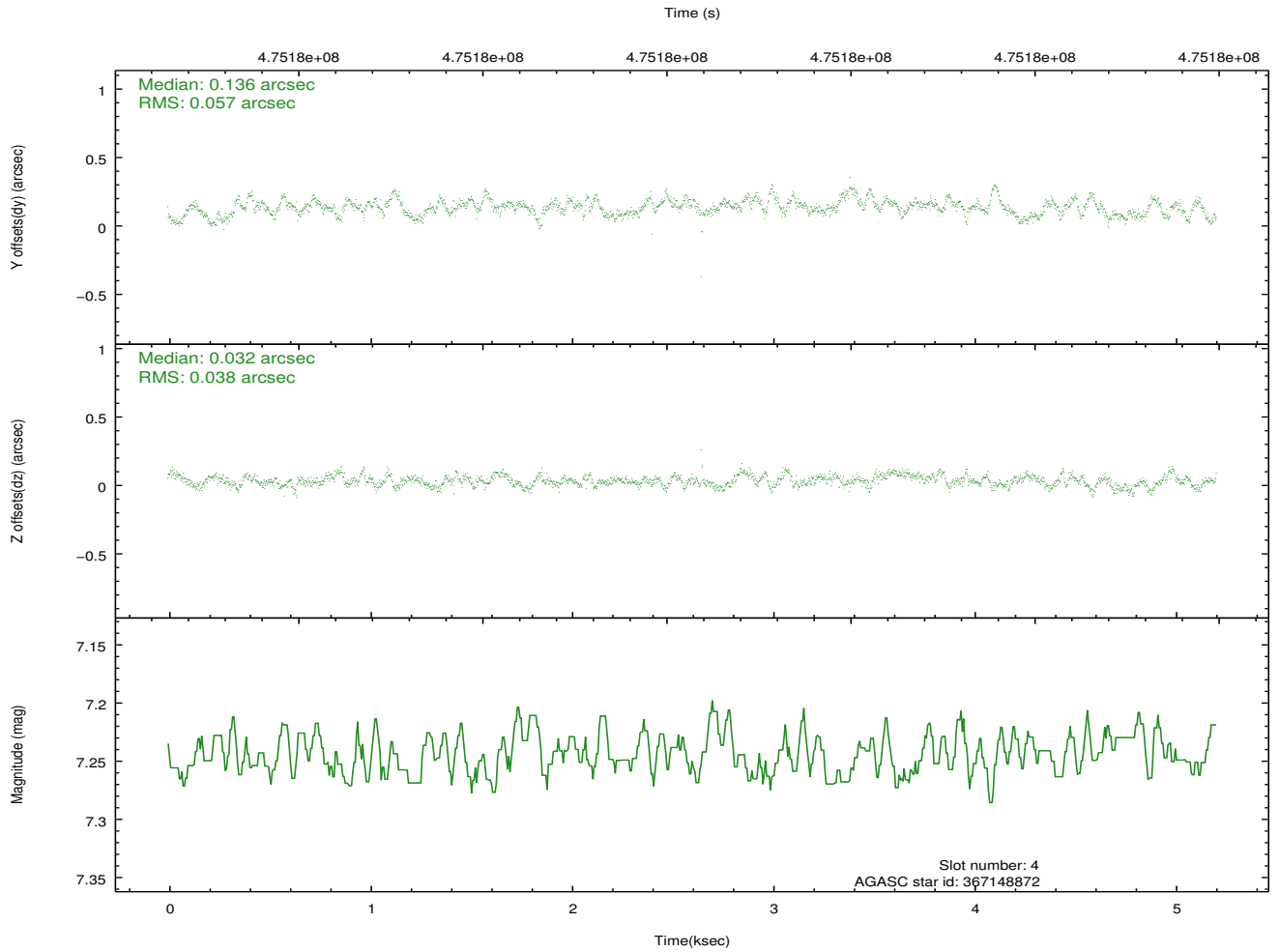
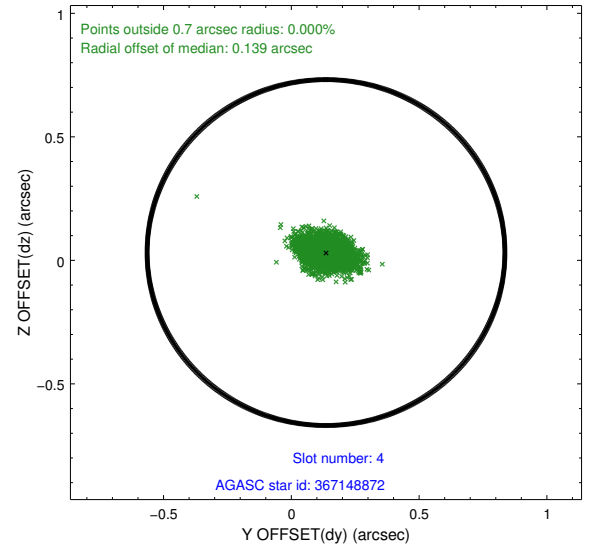
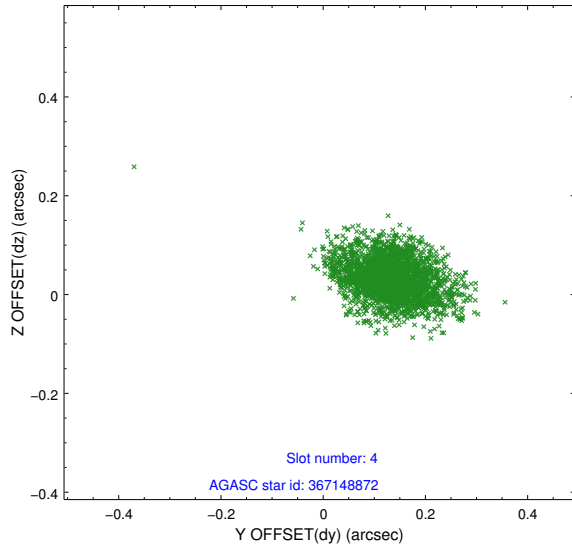
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.18	1271	0.050	0.018	0.006	0.011	0.000000	0.000000	917.76	-842.26
1	FID		ACIS-I-5	7.18	1271	-0.283	0.042	0.007	0.011	0.000000	0.000000	-1830.10	1054.59
2	FID		ACIS-I-6	7.18	1271	0.142	0.010	0.007	0.011	0.000000	0.000000	382.05	1700.44
3	GUIDE	used	367146616	8.83	2532	-0.093	-0.191	0.085	0.132	11.418645	41.190163	1290.21	1624.30
4	GUIDE	used	367148872	7.24	2540	0.136	0.032	0.069	0.120	10.505940	40.688258	1624.24	-1427.45
5	GUIDE	used	367657896	9.01	2541	-0.080	-0.012	0.099	0.156	11.197765	41.313576	609.23	1323.59
6	GUIDE	used	367663272	9.28	2533	-0.017	0.133	0.106	0.174	10.656279	41.699429	-1322.63	749.06
7	GUIDE	used	367674552	8.85	2524	0.056	0.045	0.098	0.158	11.016238	41.570845	-438.83	1358.57

2.4 Star Slots

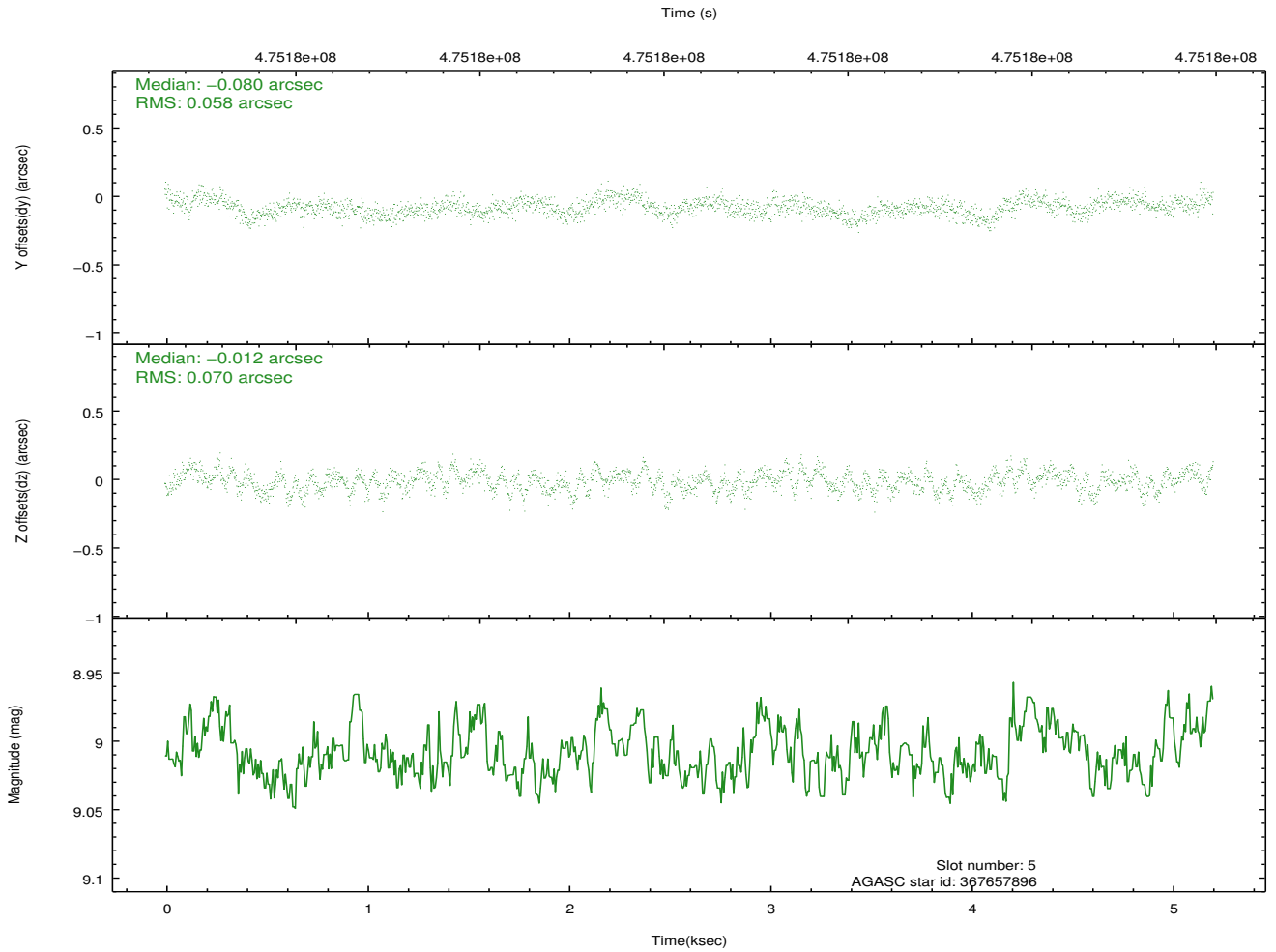
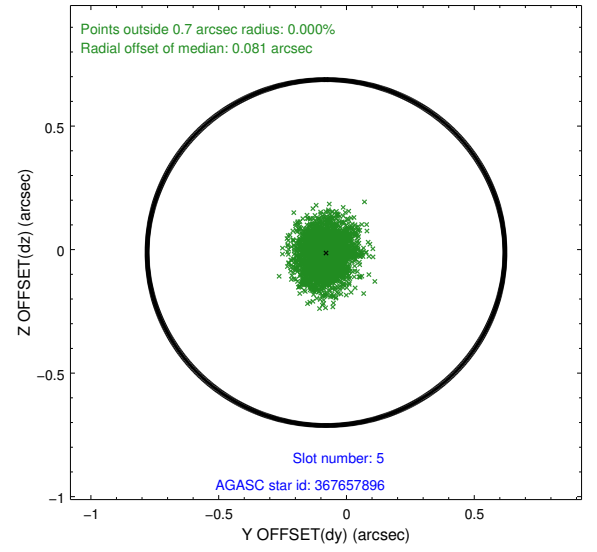
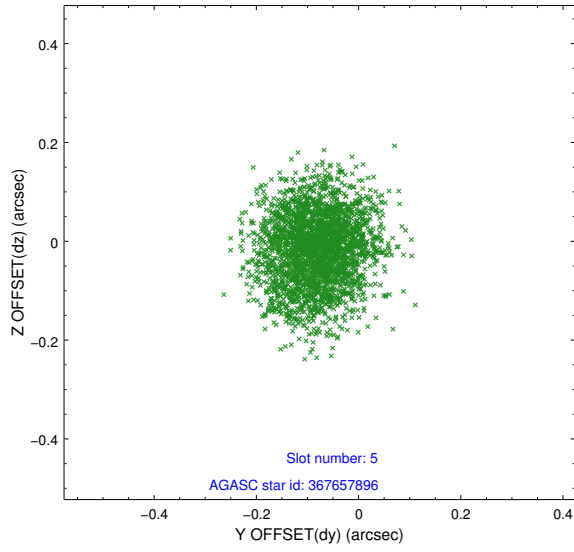
2.4.1 Slot 3



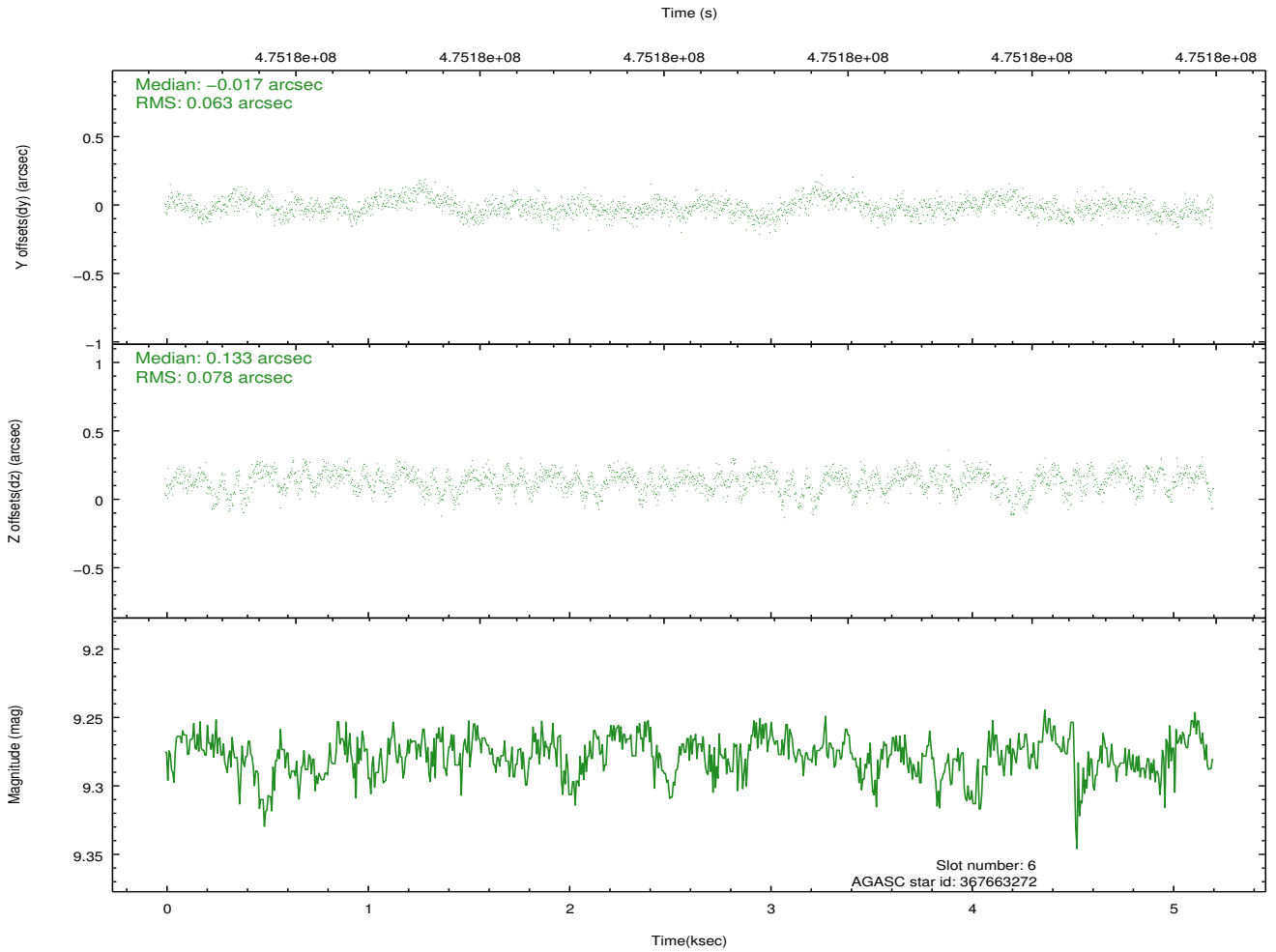
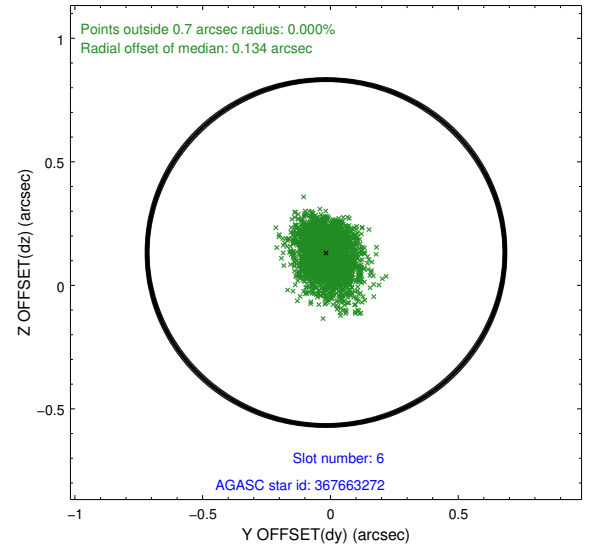
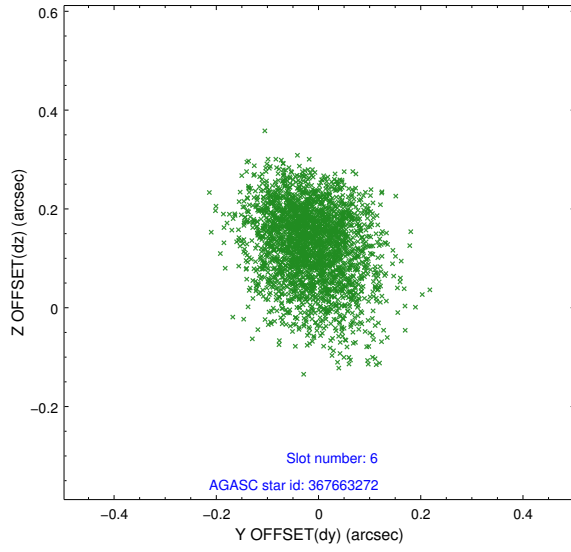
2.4.2 Slot 4



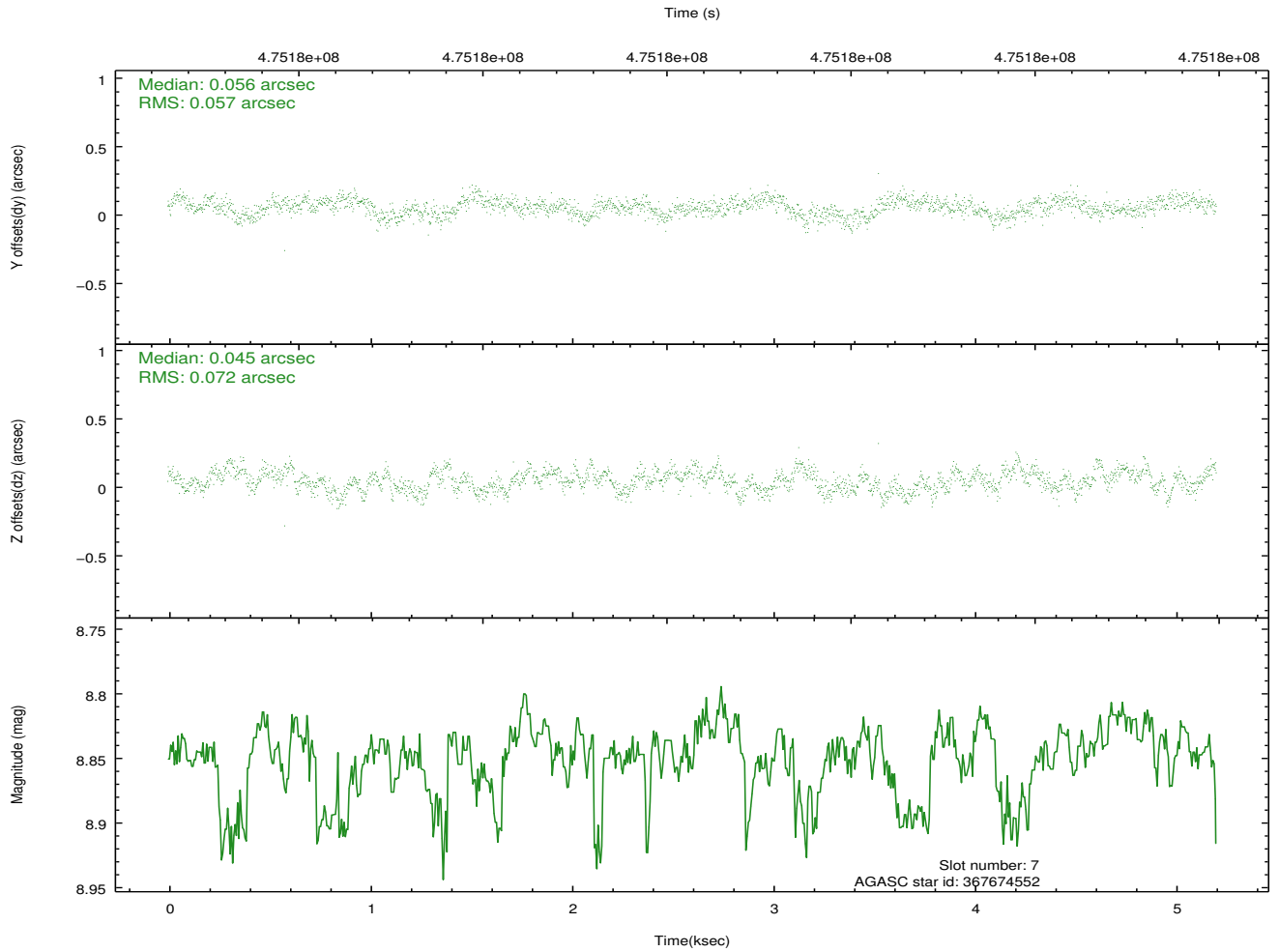
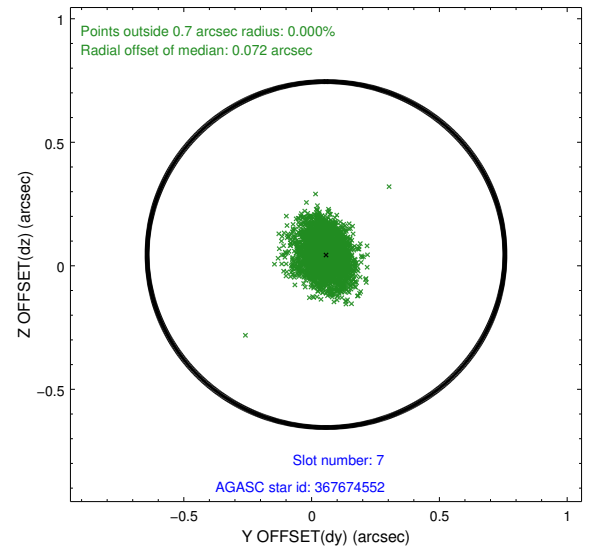
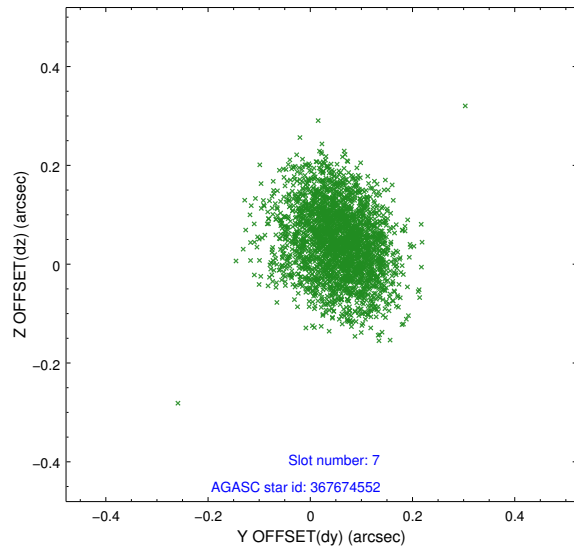
2.4.3 Slot 5



2.4.4 Slot 6

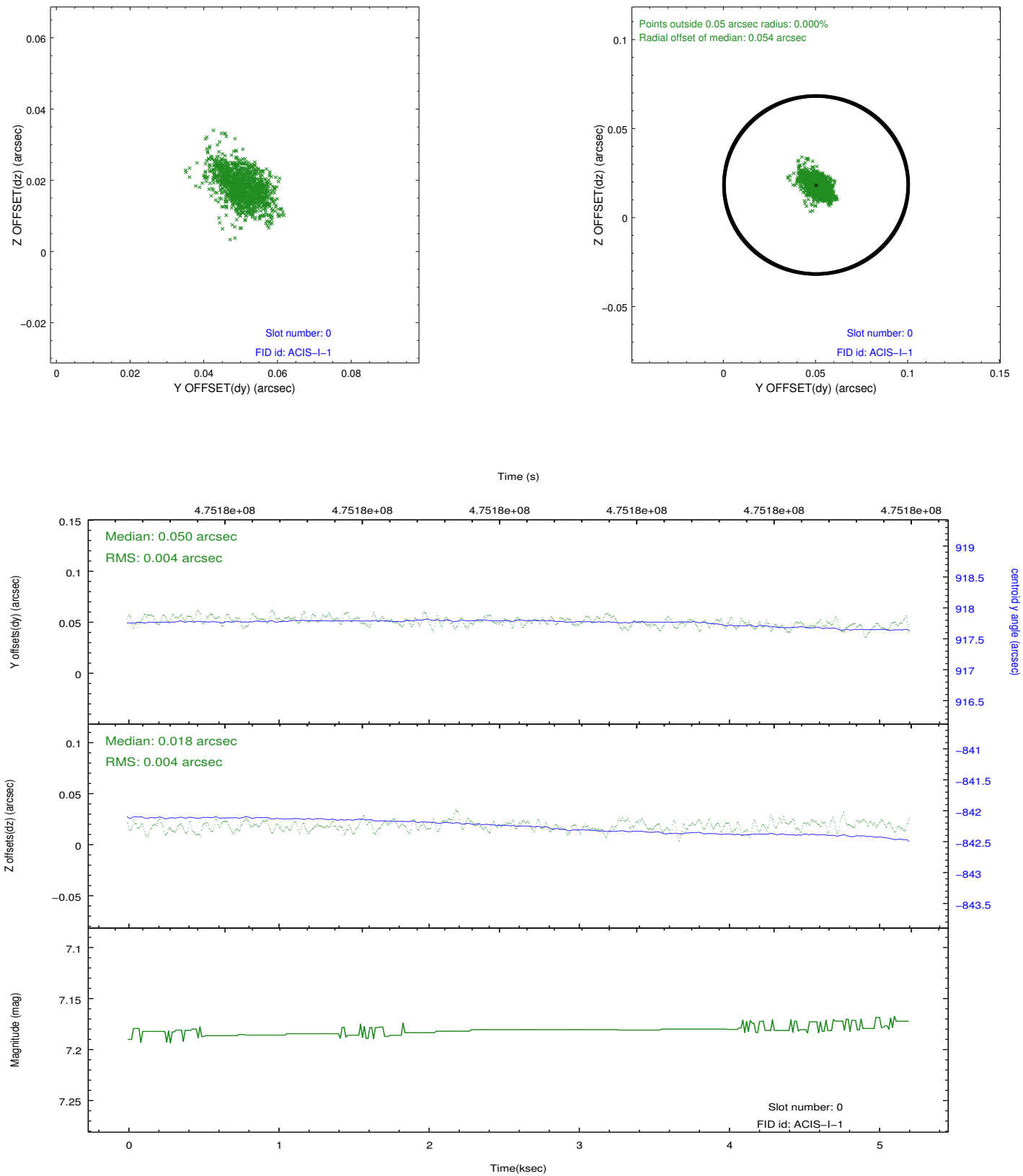


2.4.5 Slot 7

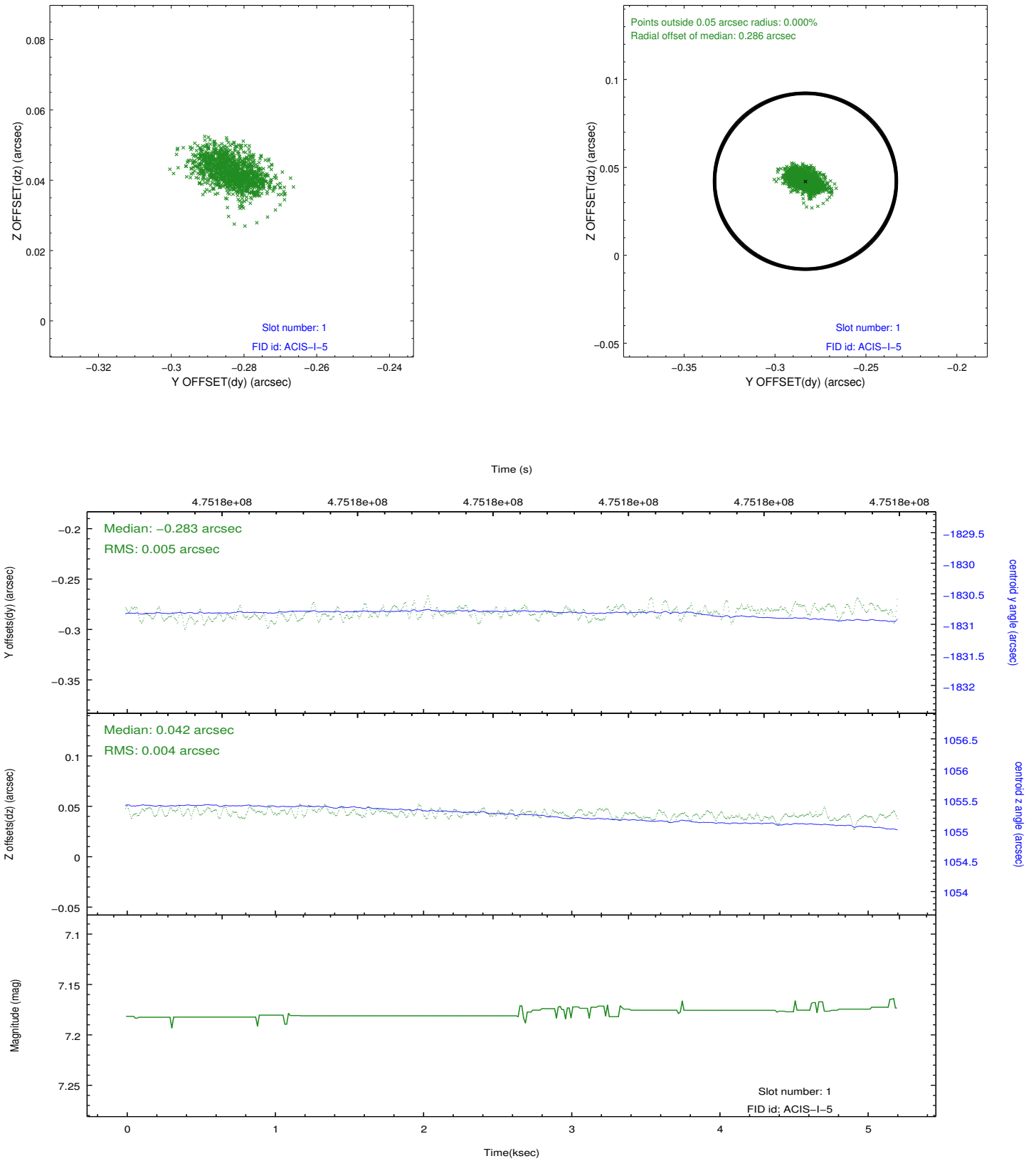


2.5 FID Slots

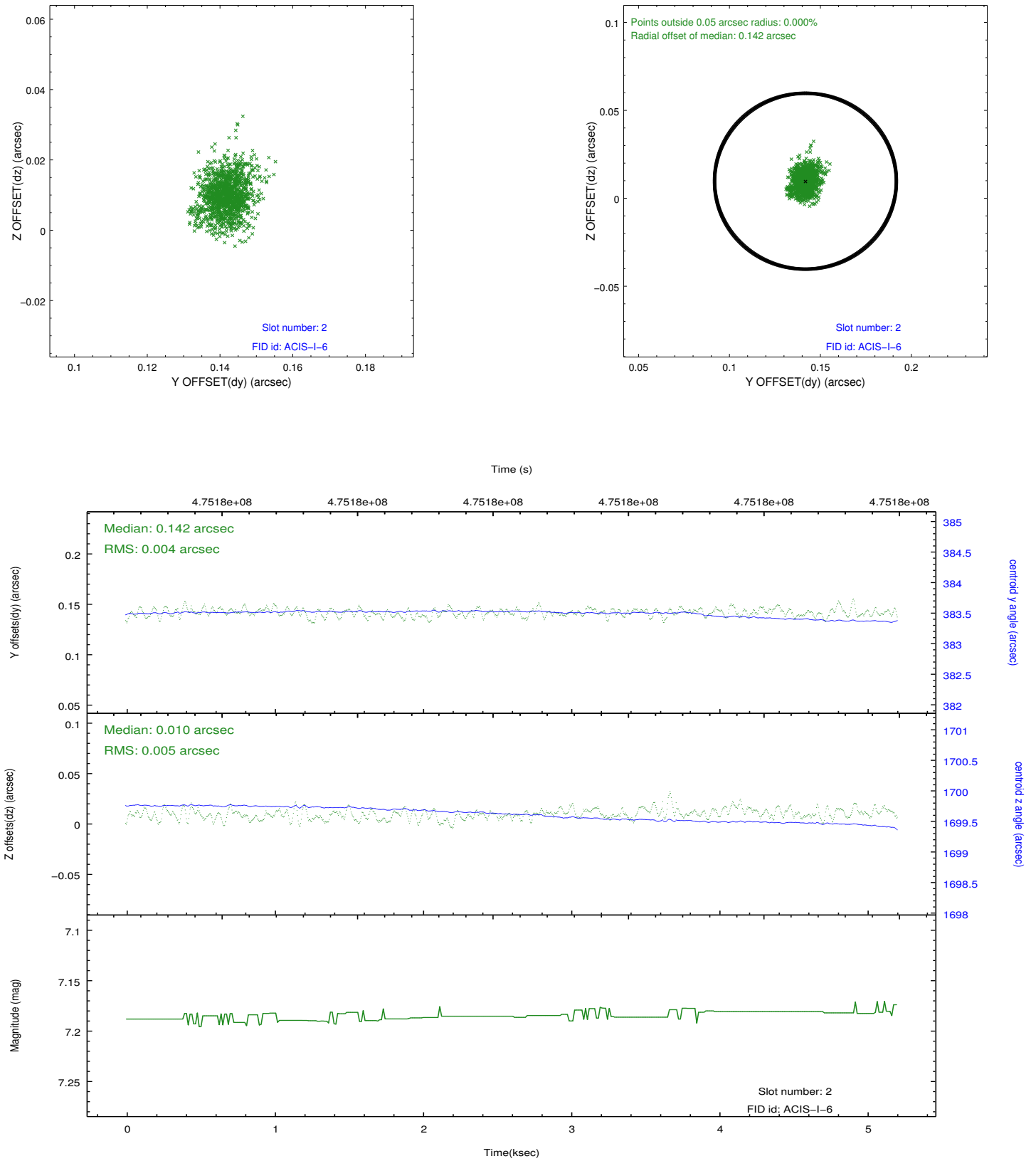
2.5.1 Slot 0



2.5.2 Slot 1



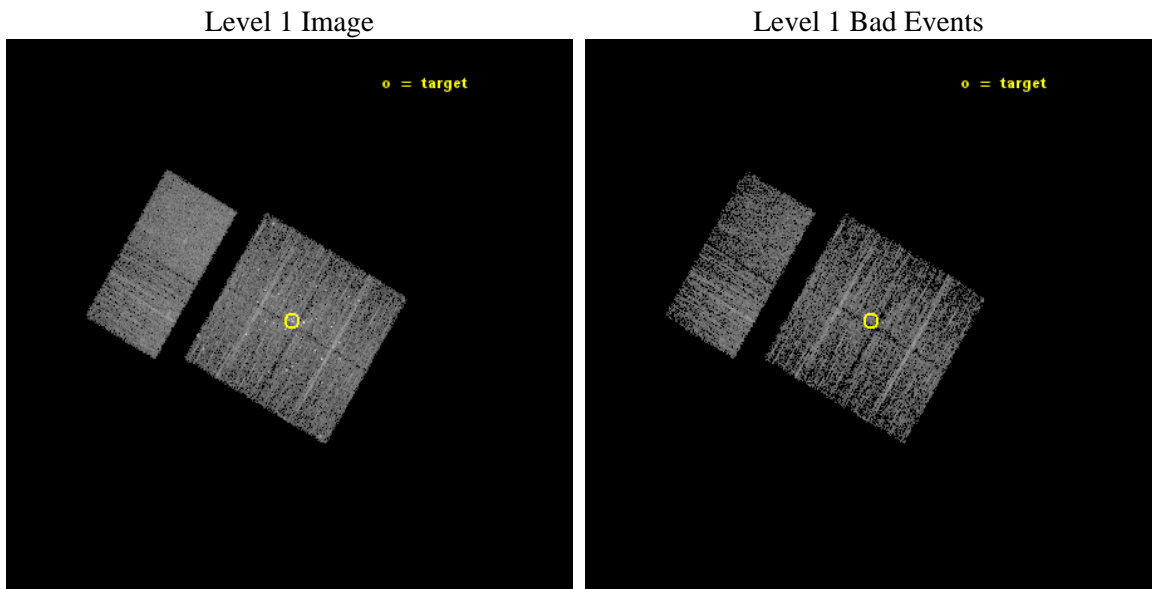
2.5.3 Slot 2



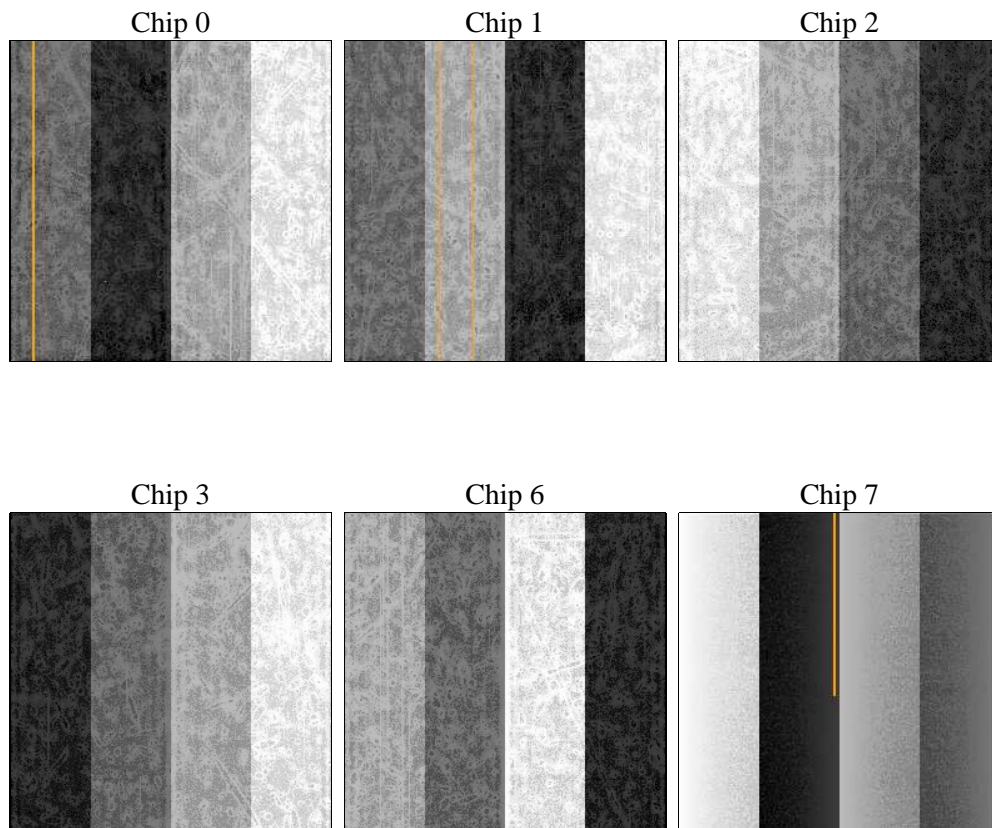
3 OBI Secondary

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	3954.634329617	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	3954.6343094707	Sum of GTIs [s]
date	2014-12-01T08:22:05	Date and time of file creation	ontime1	3954.6343889236	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3954.6343591213	Sum of GTIs [s]
			ontime3	3954.634329617	Sum of GTIs [s]
			ontime6	3954.6343387961	Sum of GTIs [s]
			ontime7	3954.6343483329	Sum of GTIs [s]
			l1events	143242	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	20813	23484	22671	23580	23857	28837	grade 0 events	2081	3443	2965	3500	1014	1165
rejected events	16896	17347	17810	17939	21081	16184		9%	14%	13%	14%	4%	4%
rejected %	81%	73%	78%	76%	88%	56%	grade 1 events	26	100	44	68	12	29
								0%	0%	0%	0%	0%	0%
							grade 2 events	757	1154	799	835	625	2571
								3%	4%	3%	3%	2%	8%
							grade 3 events	284	397	300	343	261	1126
								1%	1%	1%	1%	1%	3%
							grade 4 events	298	400	346	340	284	1065
								1%	1%	1%	1%	1%	3%
							grade 5 events	1014	1126	927	1103	1089	2966
								4%	4%	4%	4%	4%	10%
							grade 6 events	507	752	451	627	596	6738
								2%	3%	1%	2%	2%	23%
							grade 7 events	15846	16112	16839	16764	19976	13177
								76%	68%	74%	71%	83%	45%

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.87679288142917

A.2 Comments

Joint Proposal: HST. Monitor constraint met.

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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.