

V&V Reference Report

L2 ASCDS Version : 10.2.4

Observation 16296 - L2 Version 1
Chandra X-Ray Center

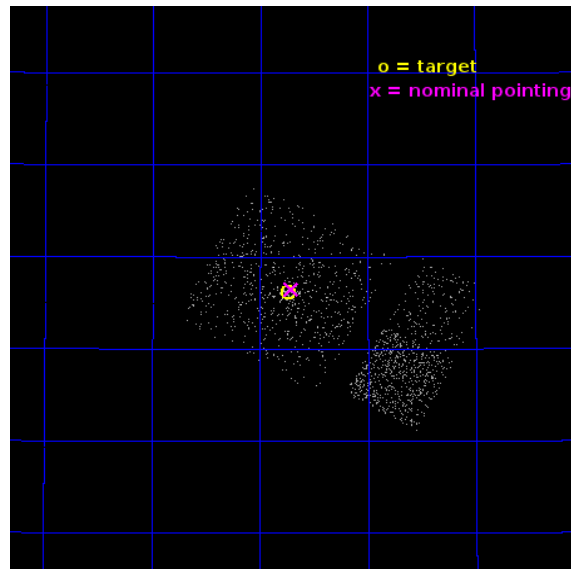
L2 Processing Date : Jul 22 2014

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

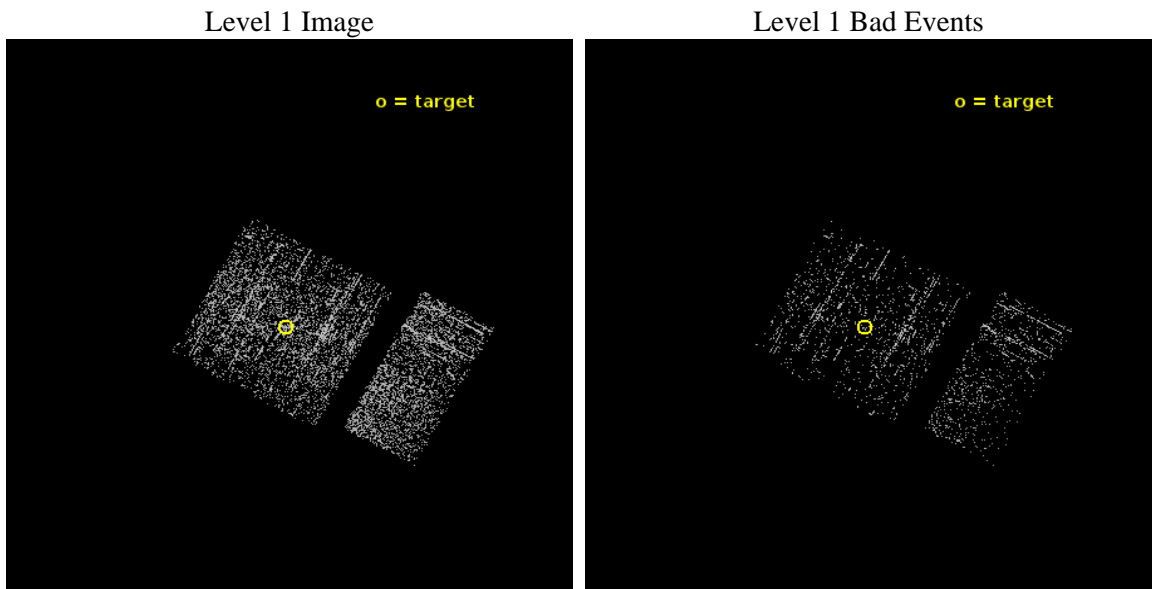
seq_num	601140	Sequence number
obs_id	16296	Observation id
title	M31 BHXNe	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	M31 BHXNe	Source name
dtcycle	0	
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.677206524958	Nominal RA [deg]
dec_nom	41.274649142936	Nominal Dec [deg]
roll_nom	119.01136547357	Nominal Roll [deg]
revision	1	Processing version of data
ontime	922.1913241148	Sum of GTIs [s]
livetime	145.17515912138	Livetime [s]
ontime0	922.1913241148	Sum of GTIs [s]
ontime1	922.1913241148	Sum of GTIs [s]
ontime2	922.1913241148	Sum of GTIs [s]
ontime3	922.1913241148	Sum of GTIs [s]
ontime6	922.19503092766	Sum of GTIs [s]
ontime7	922.1913241148	Sum of GTIs [s]
l2events	1773	Number of level 2 events



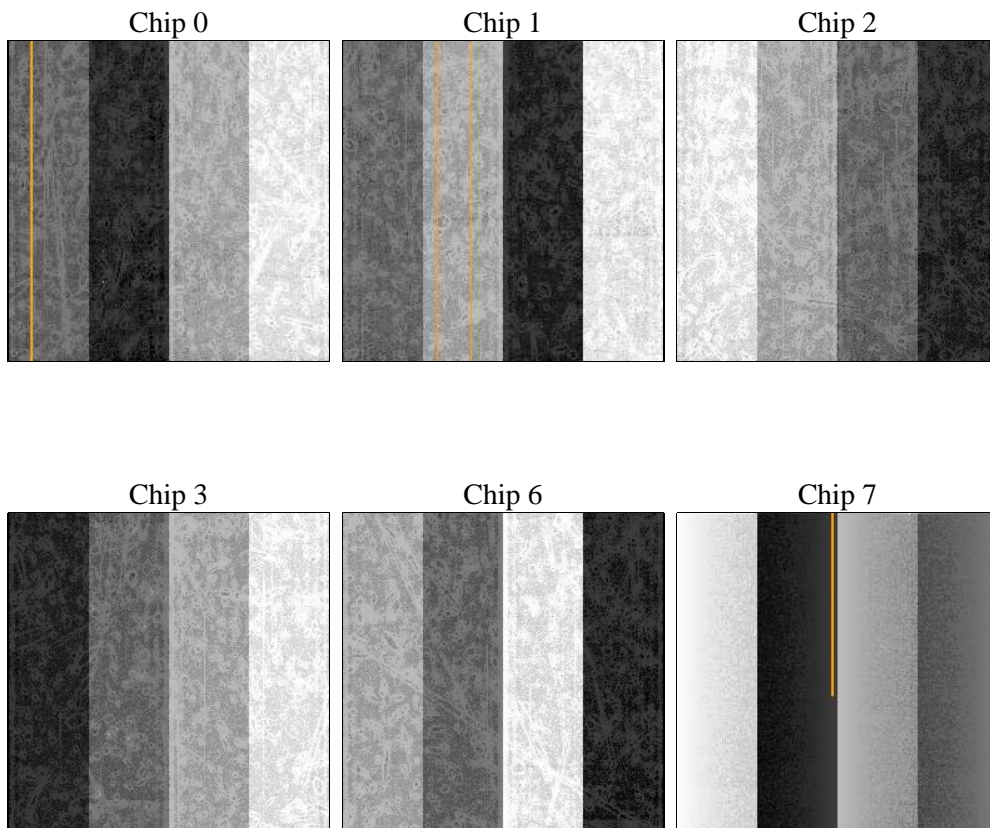
2 OBI Primary

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	10.2.4	Processing system revision	ontime	922.1913241148	Sum of GTIs [s]
caldsver	4.6.2	 	ontime0	922.1913241148	Sum of GTIs [s]
date	2014-07-22T23:21:17	Date and time of file creation	ontime1	922.1913241148	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	922.1913241148	Sum of GTIs [s]
			ontime3	922.1913241148	Sum of GTIs [s]
			ontime6	922.19503092766	Sum of GTIs [s]
			ontime7	922.1913241148	Sum of GTIs [s]
			l1events	12437	Number of level 1 events

2.1.4 Events

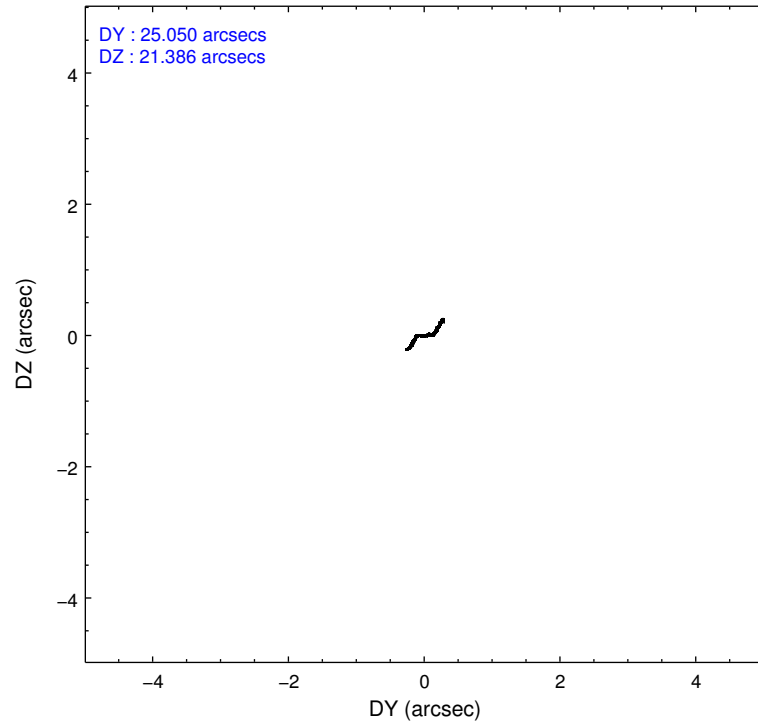
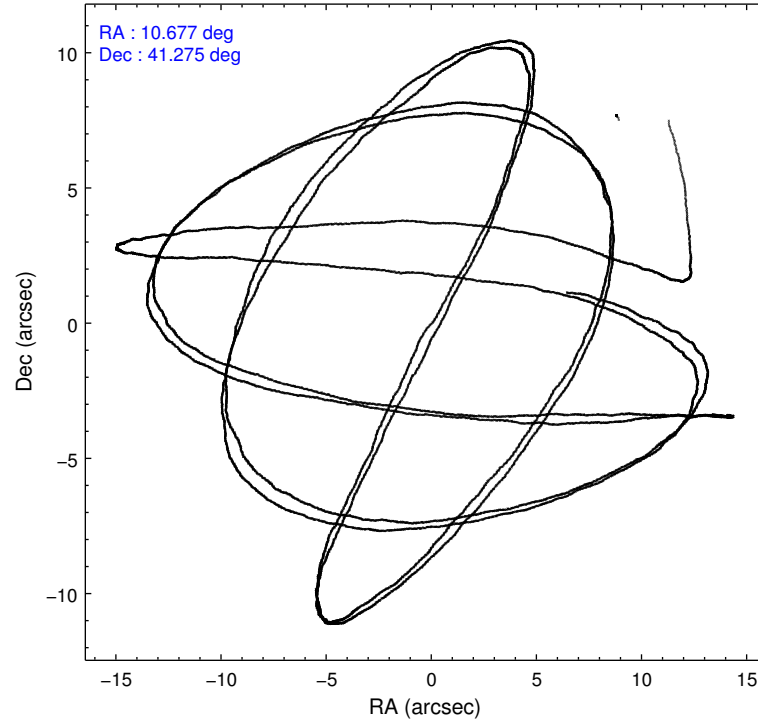
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	1863	1980	2143	1752	2356	2343
rejected events	1620	1695	1842	1451	2159	1684
rejected %	86%	85%	85%	82%	91%	71%

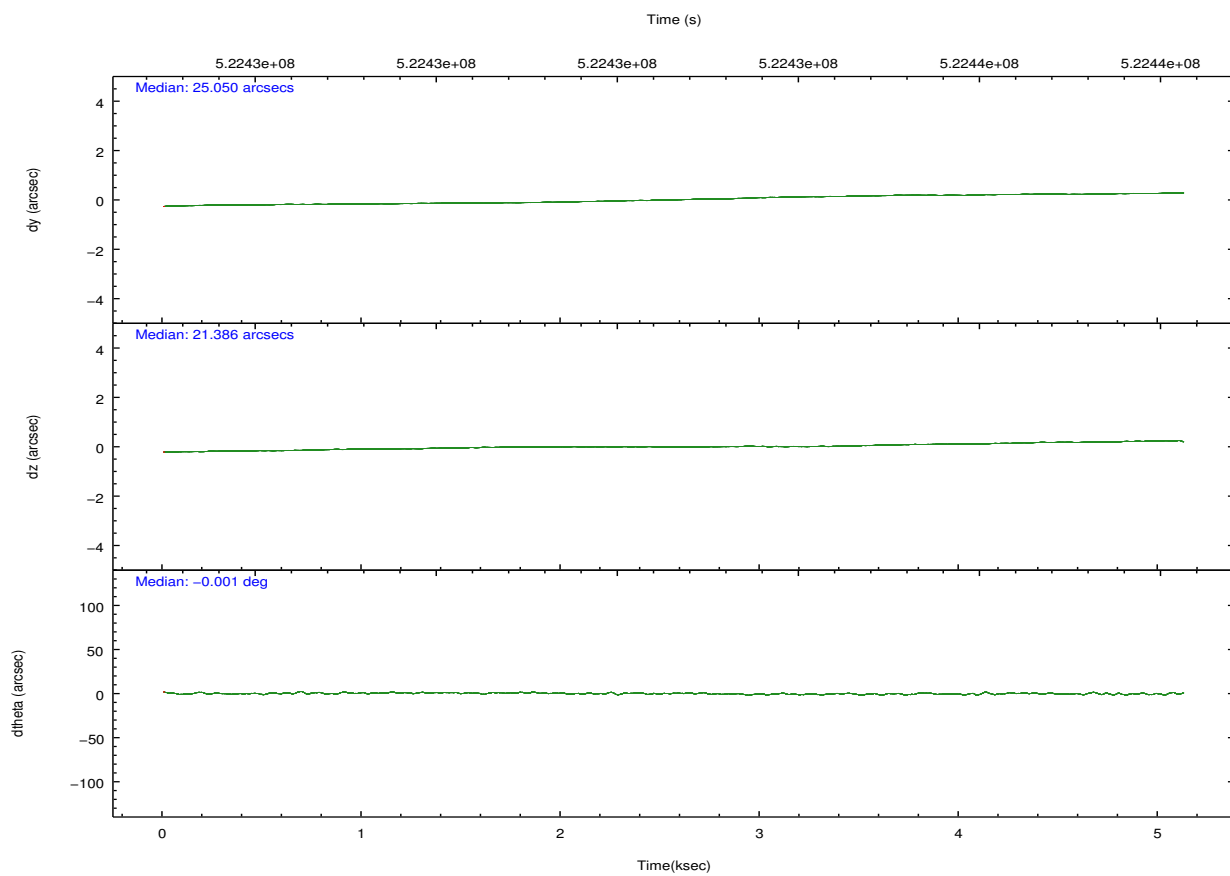
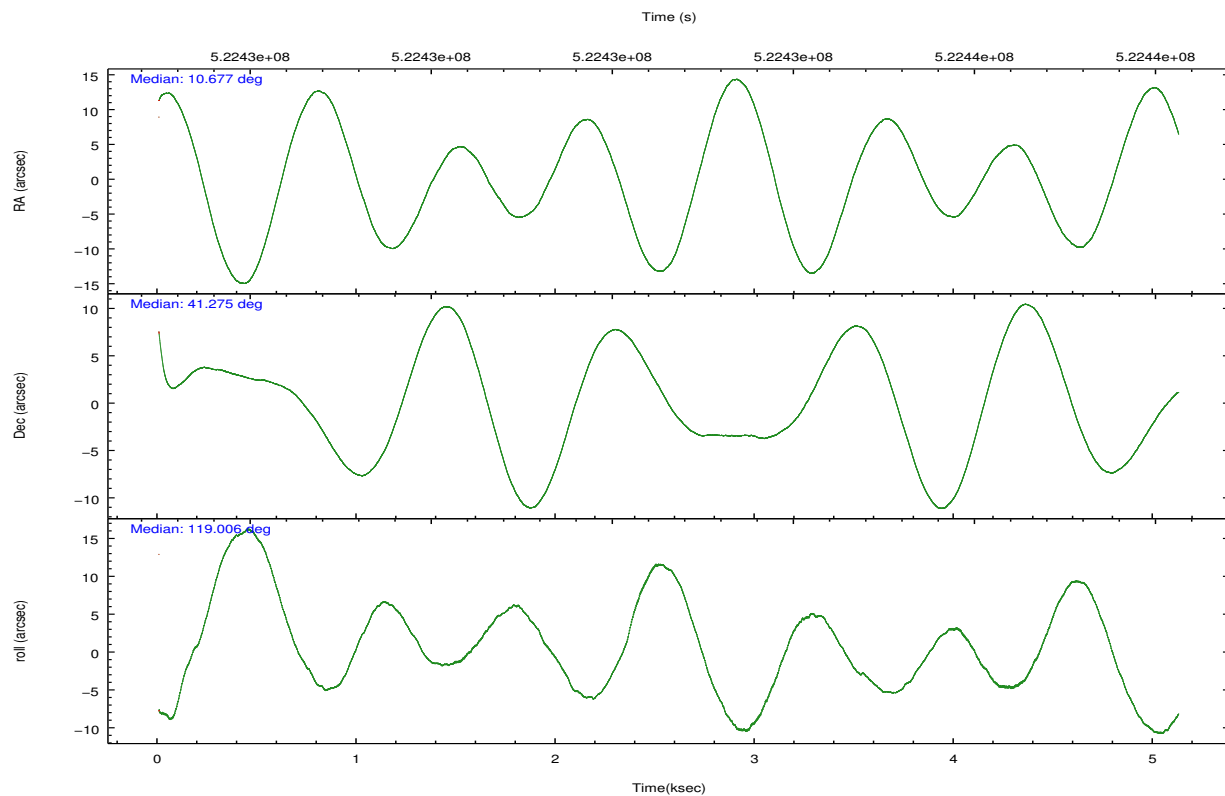
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	93	110	147	150	36	54
	4%	5%	6%	8%	1%	2%
grade 1 events	1	0	2	1	1	2
	0%	0%	0%	0%	0%	0%
grade 2 events	58	69	47	52	50	153
	3%	3%	2%	2%	2%	6%
grade 3 events	23	30	35	31	23	55
	1%	1%	1%	1%	0%	2%
grade 4 events	28	24	28	23	25	70
	1%	1%	1%	1%	1%	2%
grade 5 events	82	80	71	96	109	214
	4%	4%	3%	5%	4%	9%
grade 6 events	47	55	45	48	66	334
	2%	2%	2%	2%	2%	14%
grade 7 events	1531	1612	1768	1351	2046	1461
	82%	81%	82%	77%	86%	62%

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	10.708666	10.67720652495789	CCD I2 on	Y	Y
[deg] Pointing Dec	41.260490	41.27464914293622	CCD I3 on	Y	Y
[deg] Pointing Roll	118.781928	119.0113654735702	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)	522430885.184000	522429478.75983	CCD S5 on	N	N
Observation start date	2014-07-22T15:40:18	2014-07-22T15:17:58	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	522435885.184000	522437096.56025	On-chip summing requested	N	N
Observation end date	2014-07-22T17:03:38	2014-07-22T17:24:56	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



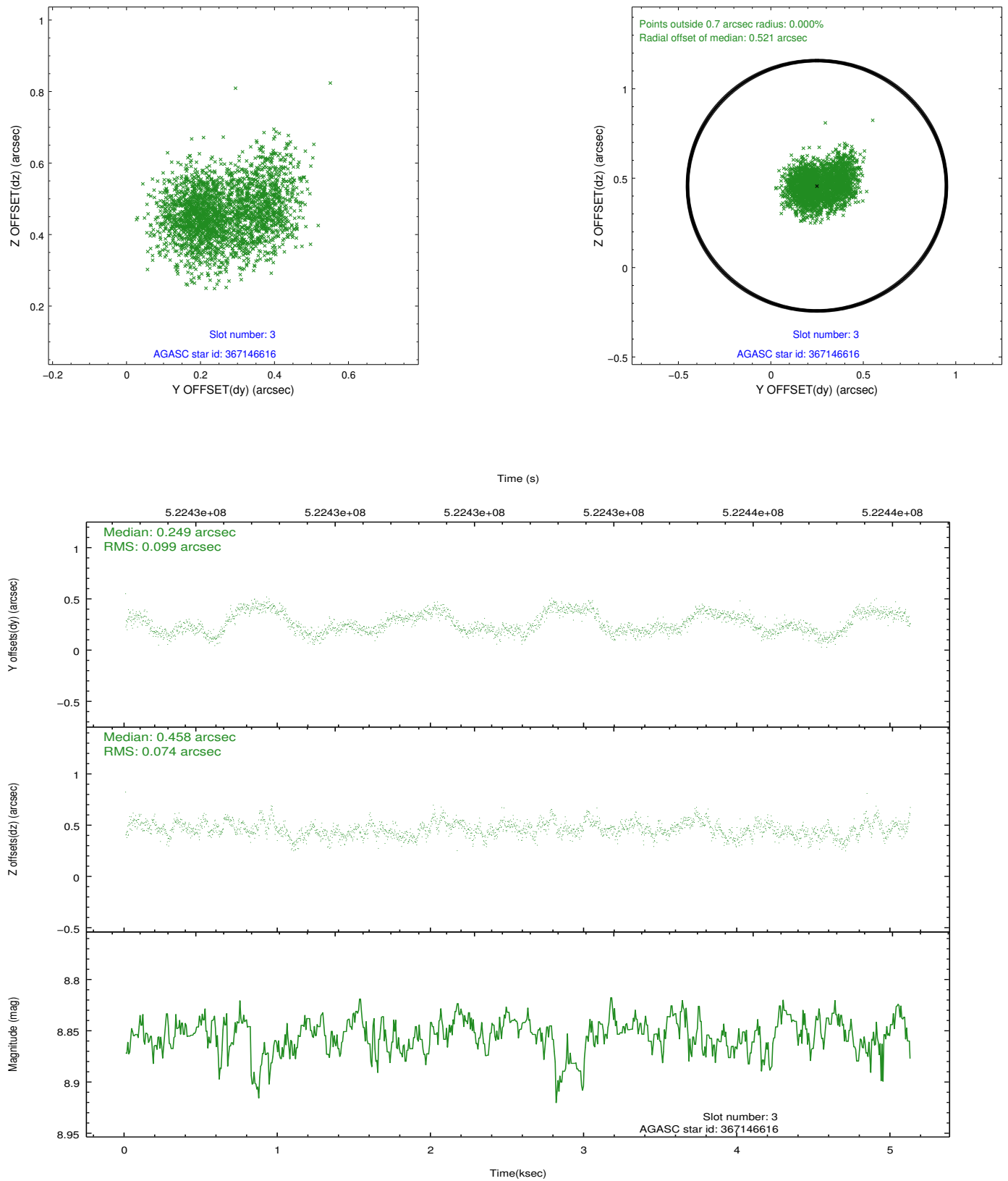


Slot Statistics

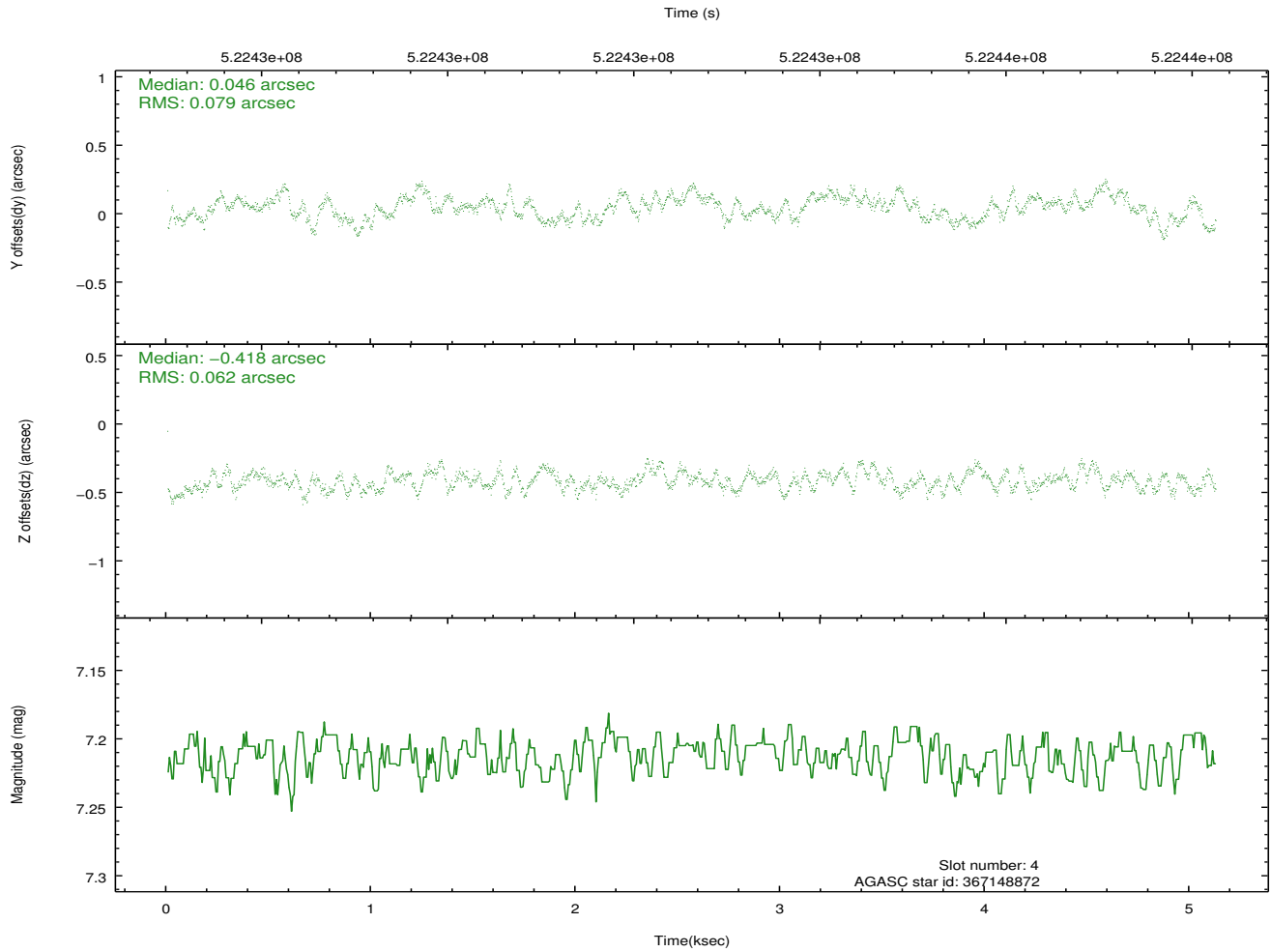
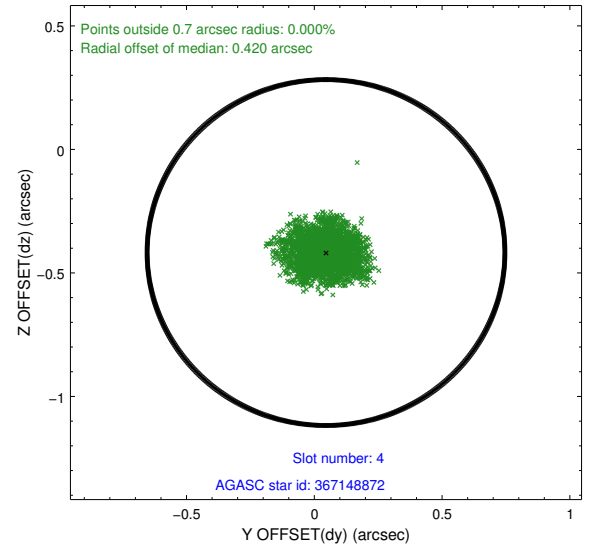
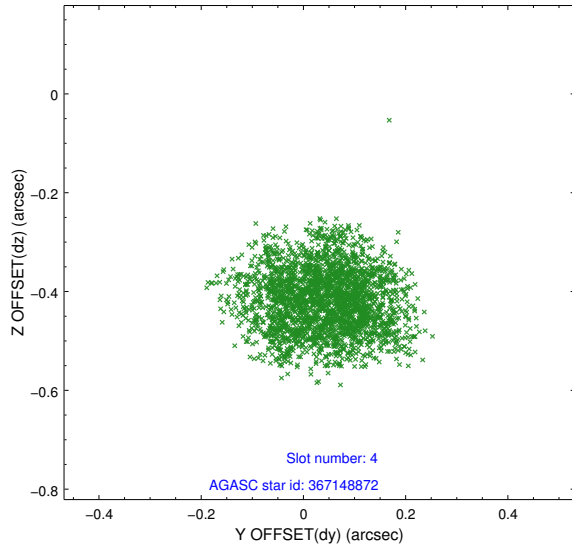
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.07	1250	0.056	0.063	0.008	0.013	0.000000	0.000000	914.15	-845.11
1	FID	ACIS-I-2	6.98	1250	-0.176	-0.090	0.008	0.013	0.000000	0.000000	-779.52	-852.27
2	FID	ACIS-I-6	7.07	1250	0.029	0.094	0.007	0.012	0.000000	0.000000	379.26	1696.14
3	GUIDE	367146616	8.85	2498	0.249	0.458	0.133	0.210	11.418645	41.190163	-1140.28	-1566.74
4	GUIDE	367148872	7.21	2500	0.046	-0.418	0.109	0.165	10.505940	40.688258	-1539.39	1476.60
5	GUIDE	367657896	9.02	2498	0.112	0.056	0.110	0.177	11.197765	41.313576	-465.98	-1251.75
6	GUIDE	367663272	9.26	2495	-0.210	-0.147	0.117	0.185	10.656279	41.699429	1452.95	-636.09
7	GUIDE	367674552	8.83	2498	-0.206	0.052	0.094	0.157	11.016238	41.570845	582.39	-1264.37

2.4 Star Slots

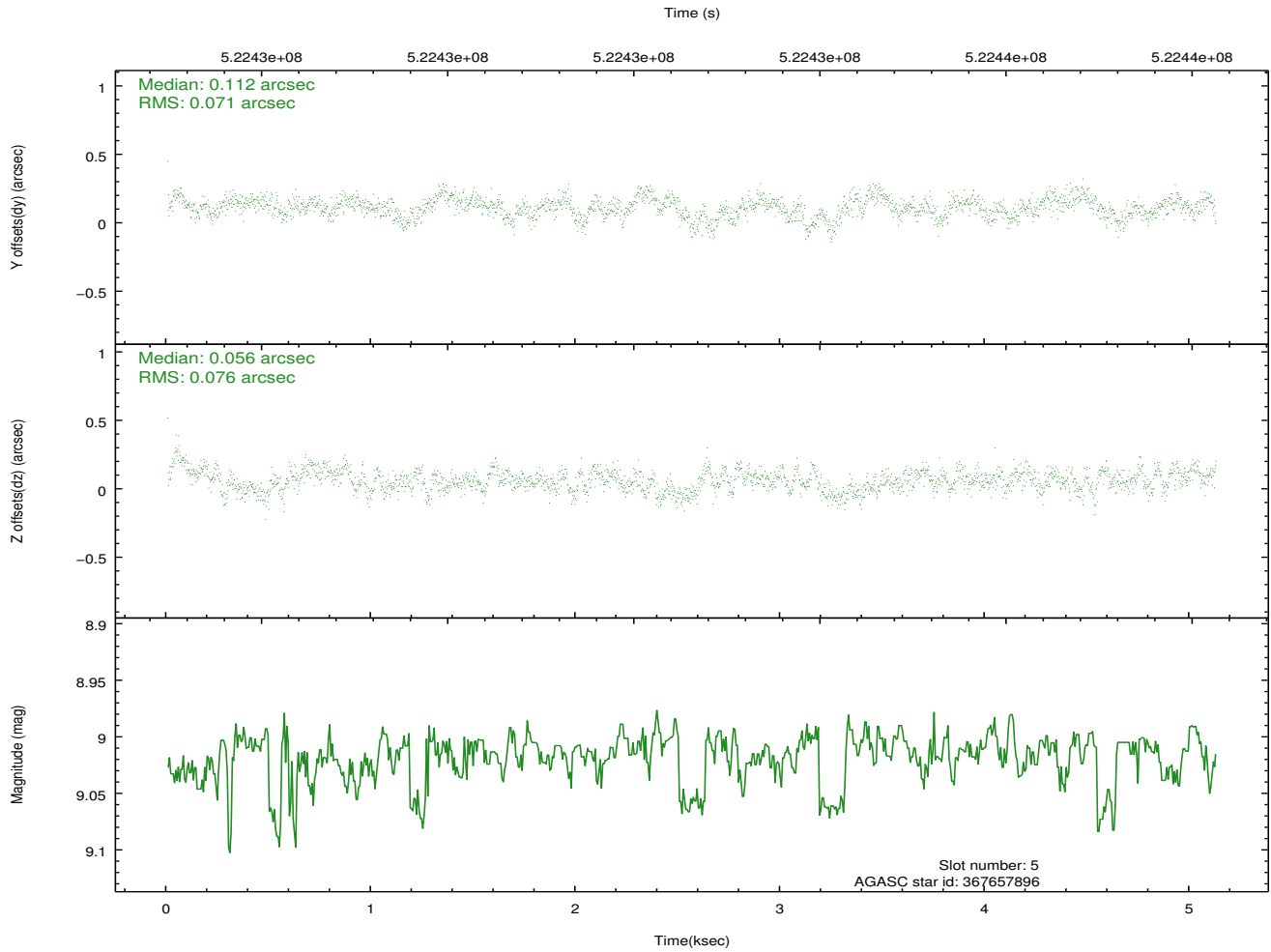
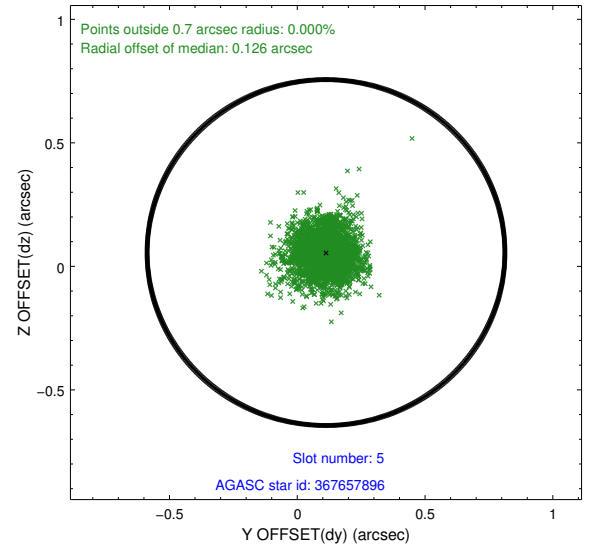
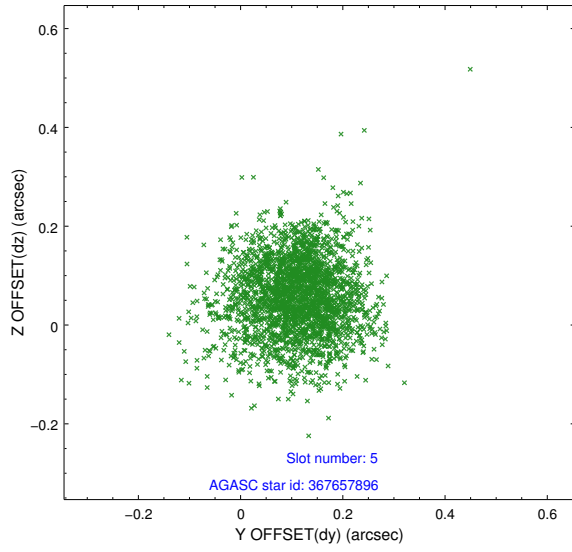
2.4.1 Slot 3



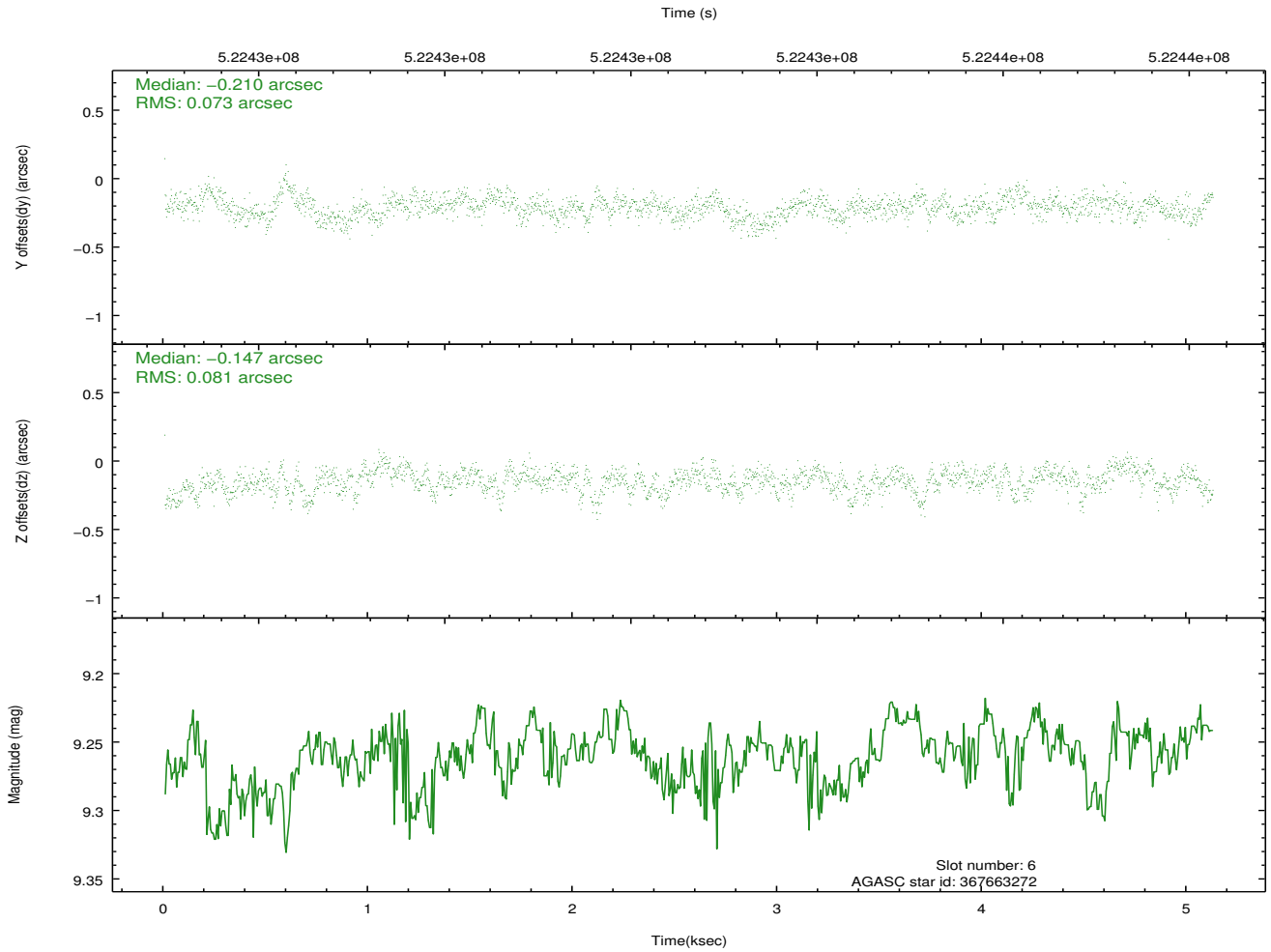
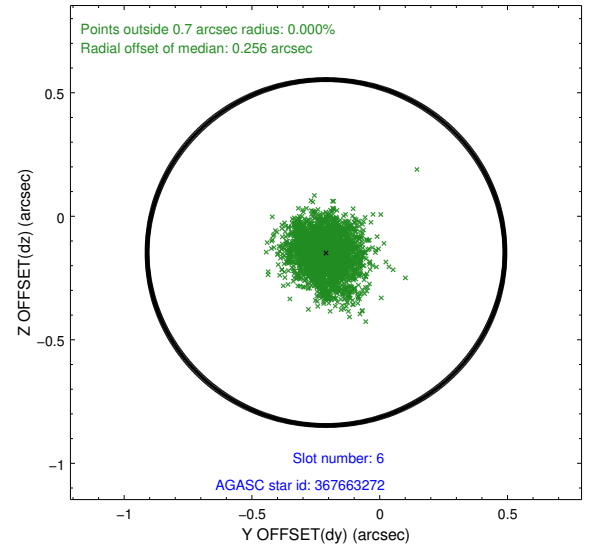
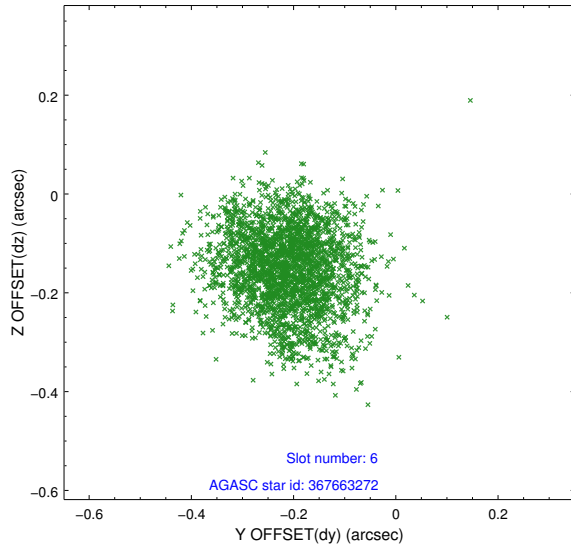
2.4.2 Slot 4



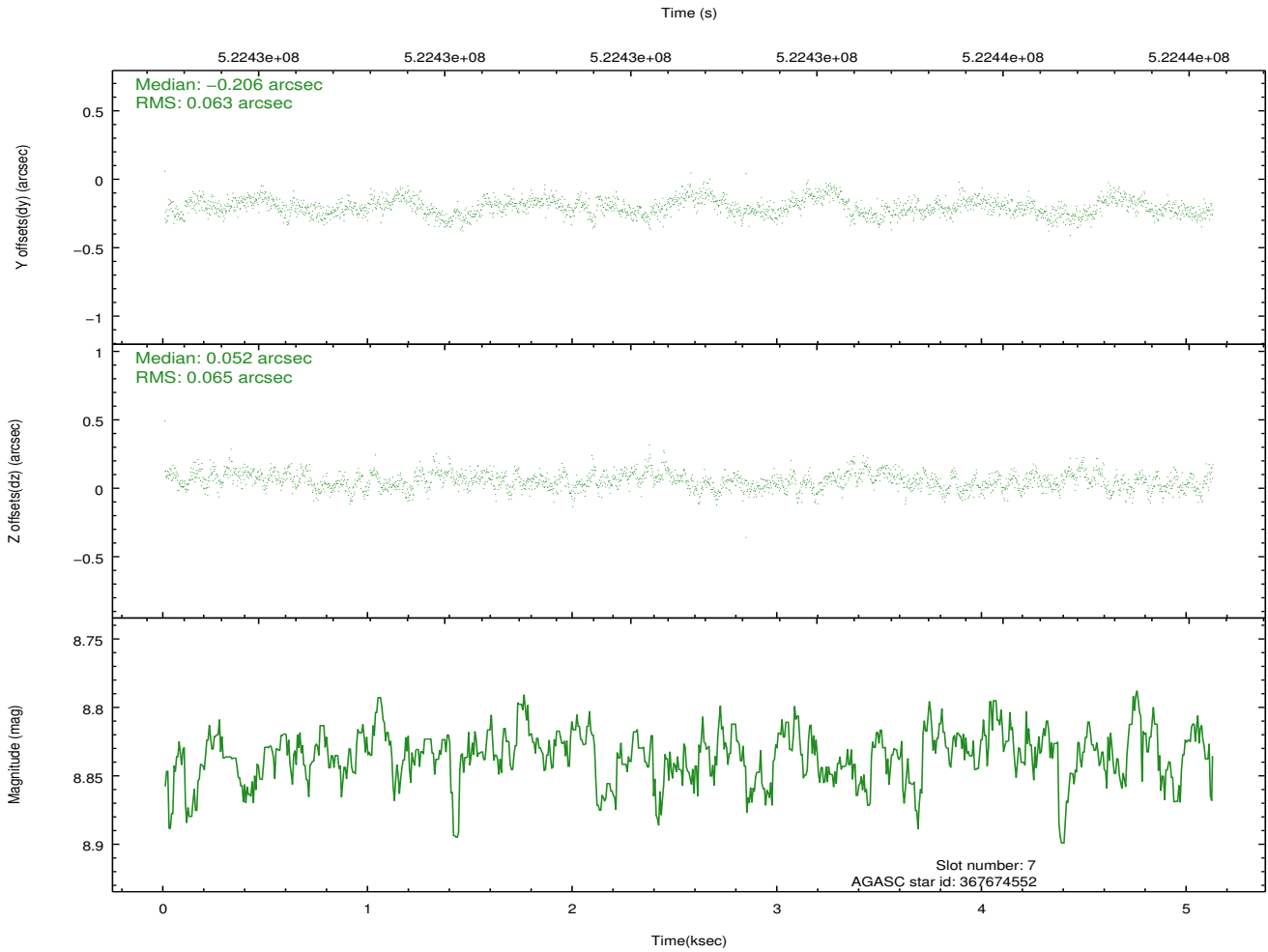
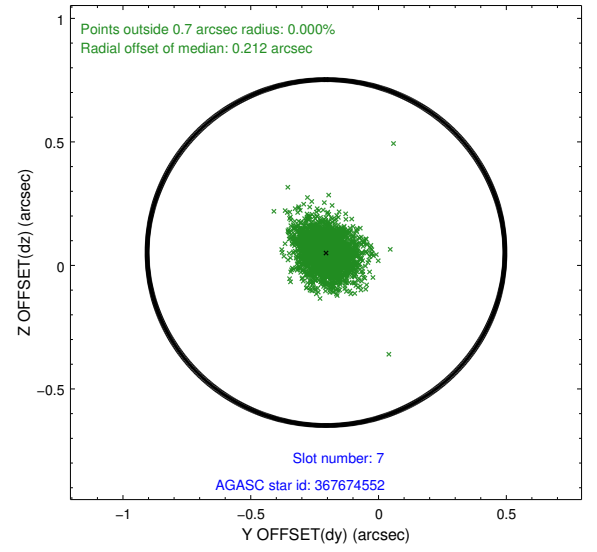
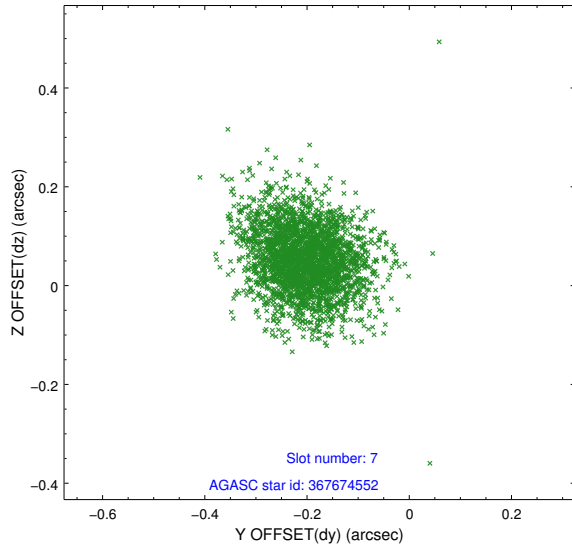
2.4.3 Slot 5



2.4.4 Slot 6

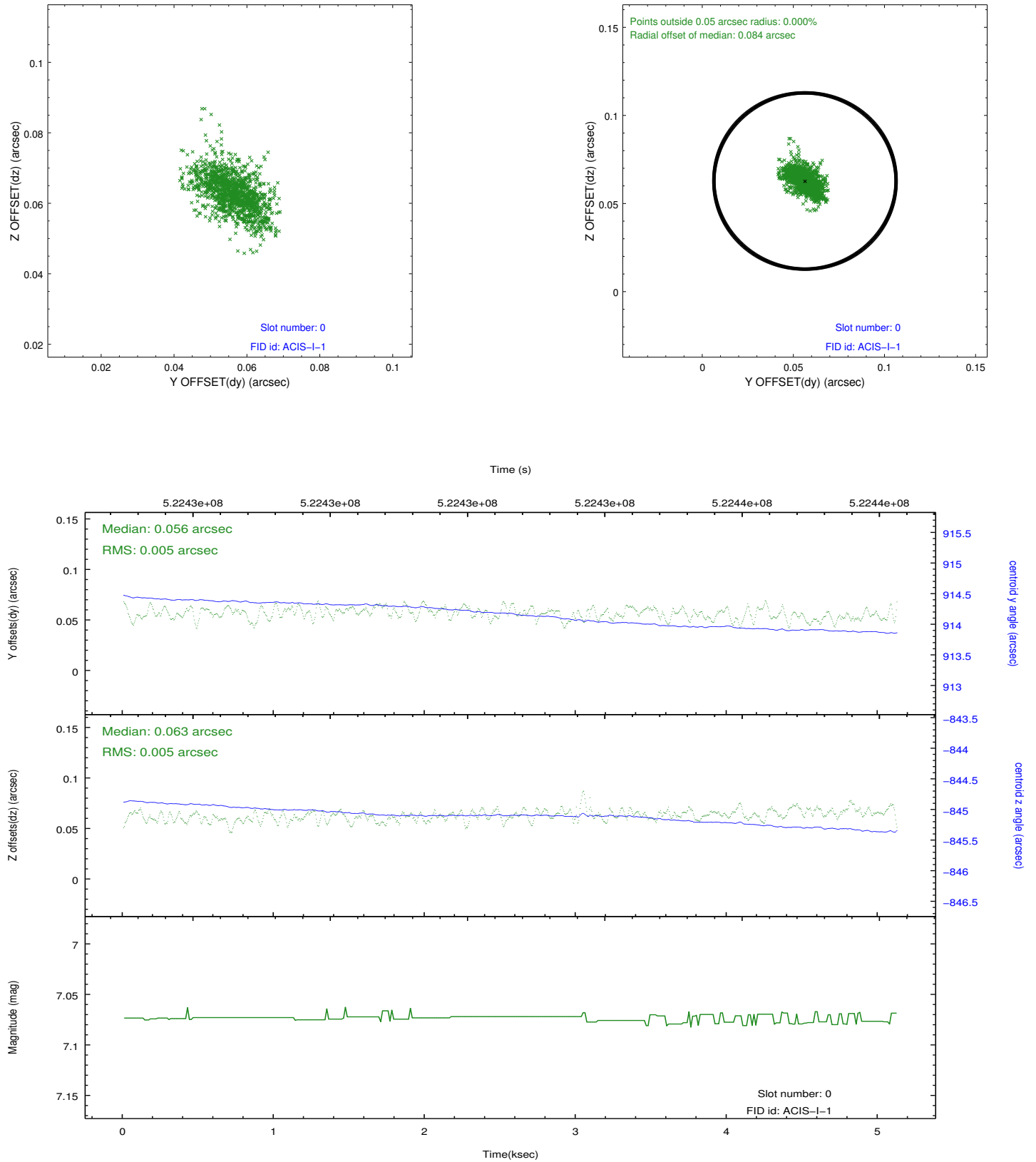


2.4.5 Slot 7

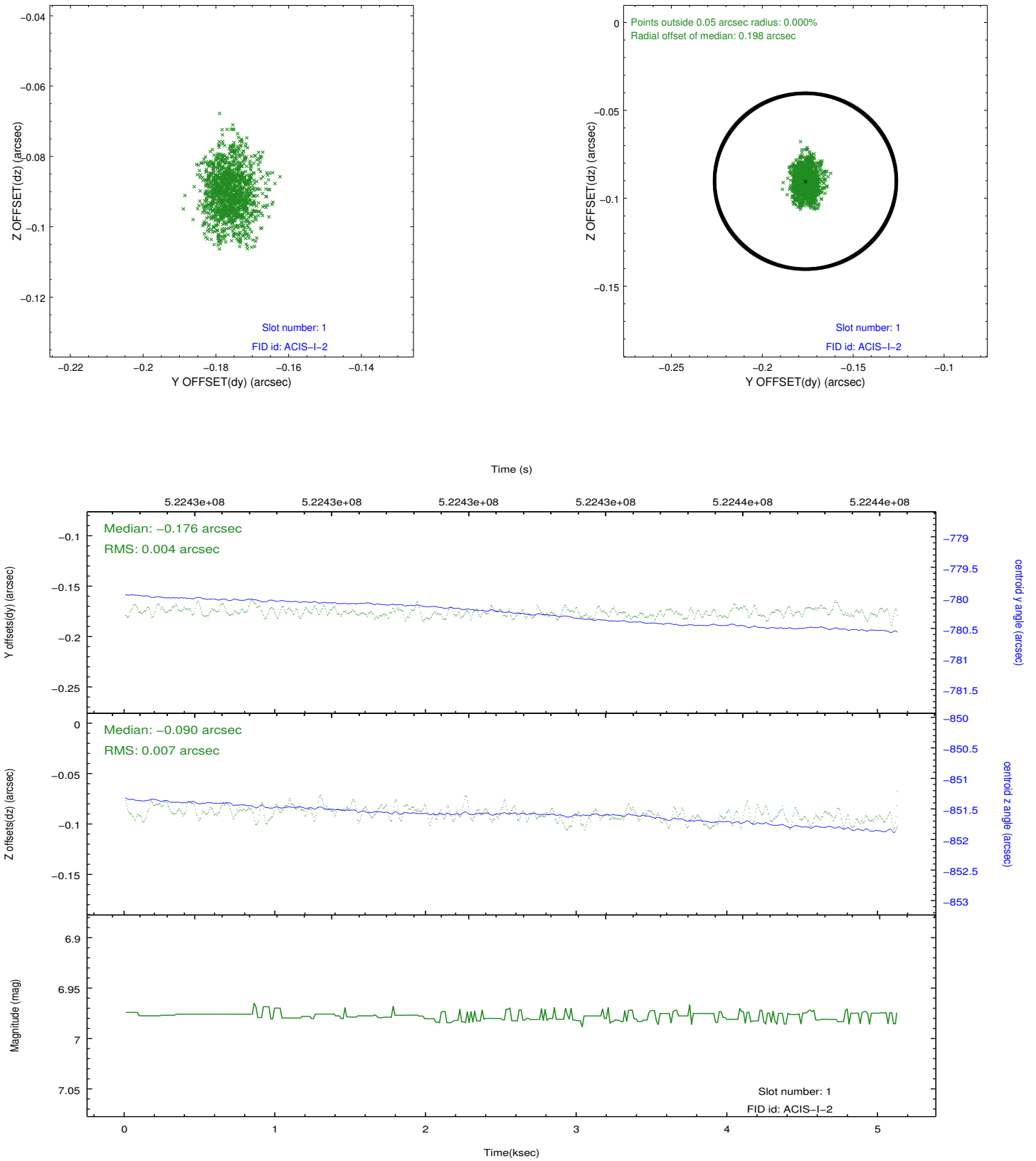


2.5 FID Slots

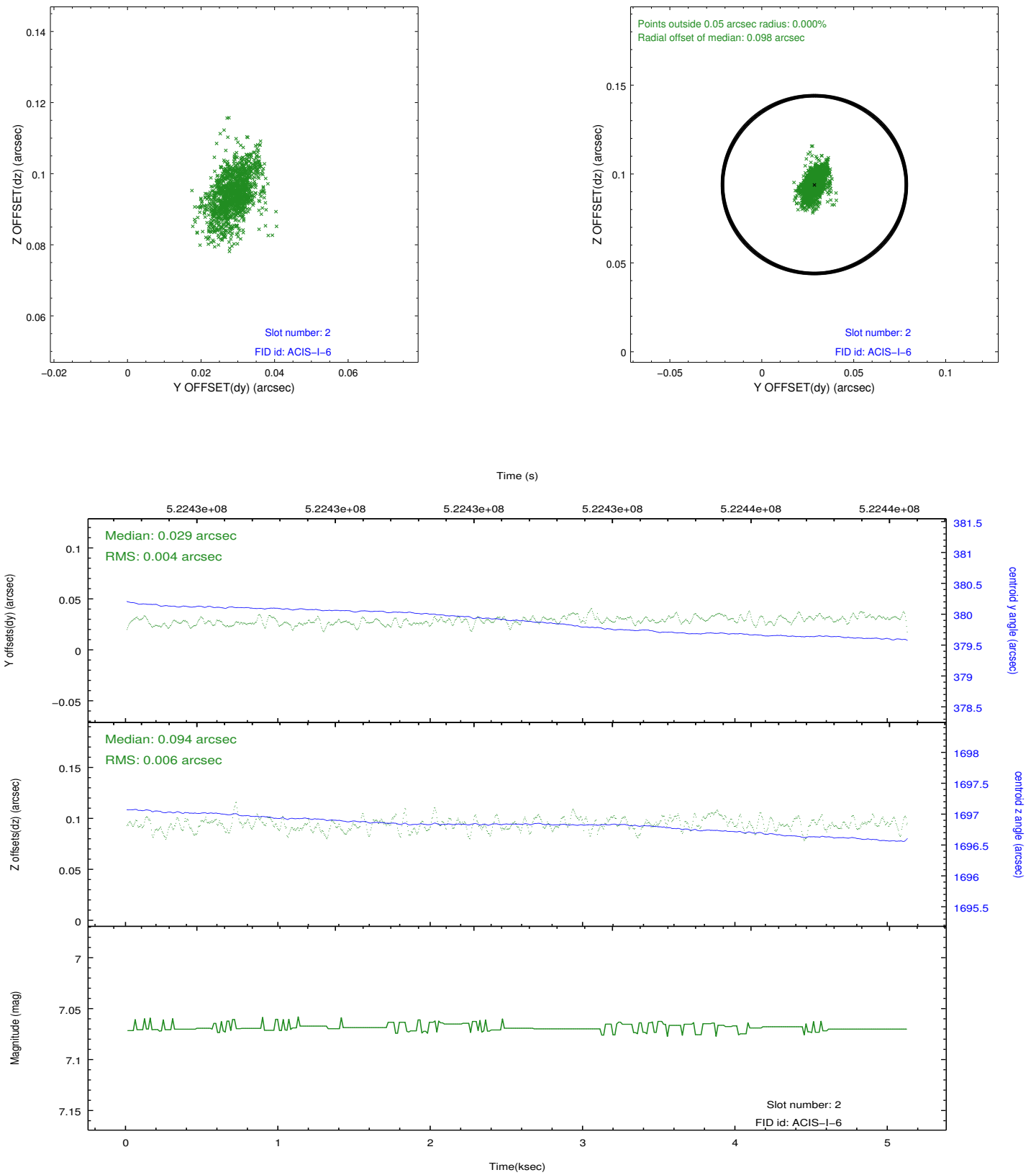
2.5.1 Slot 0



2.5.2 Slot 1



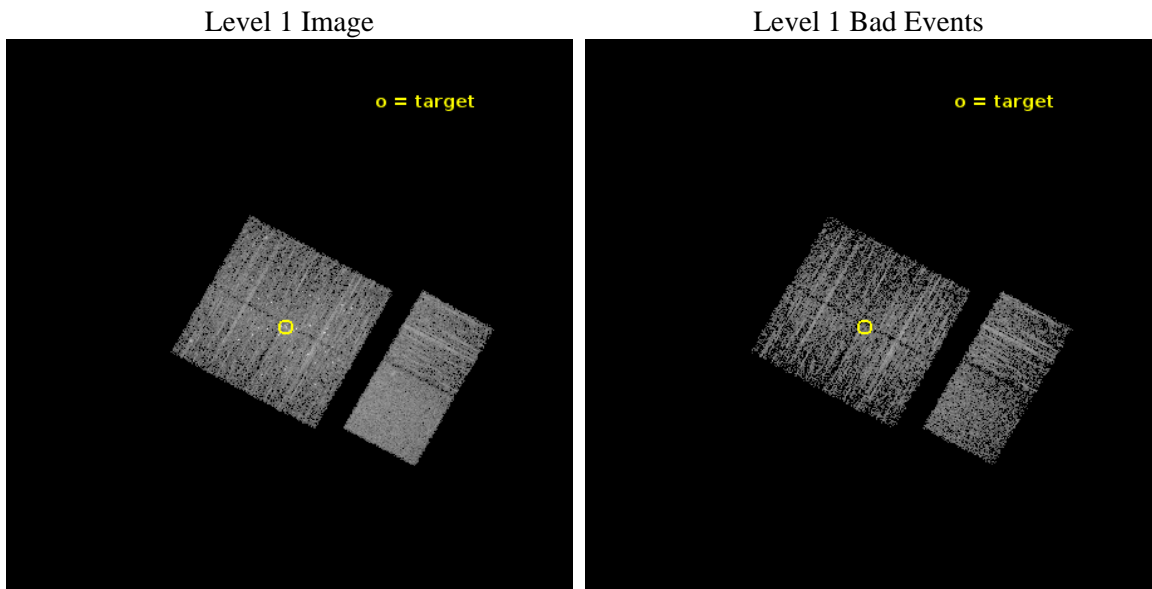
2.5.3 Slot 2



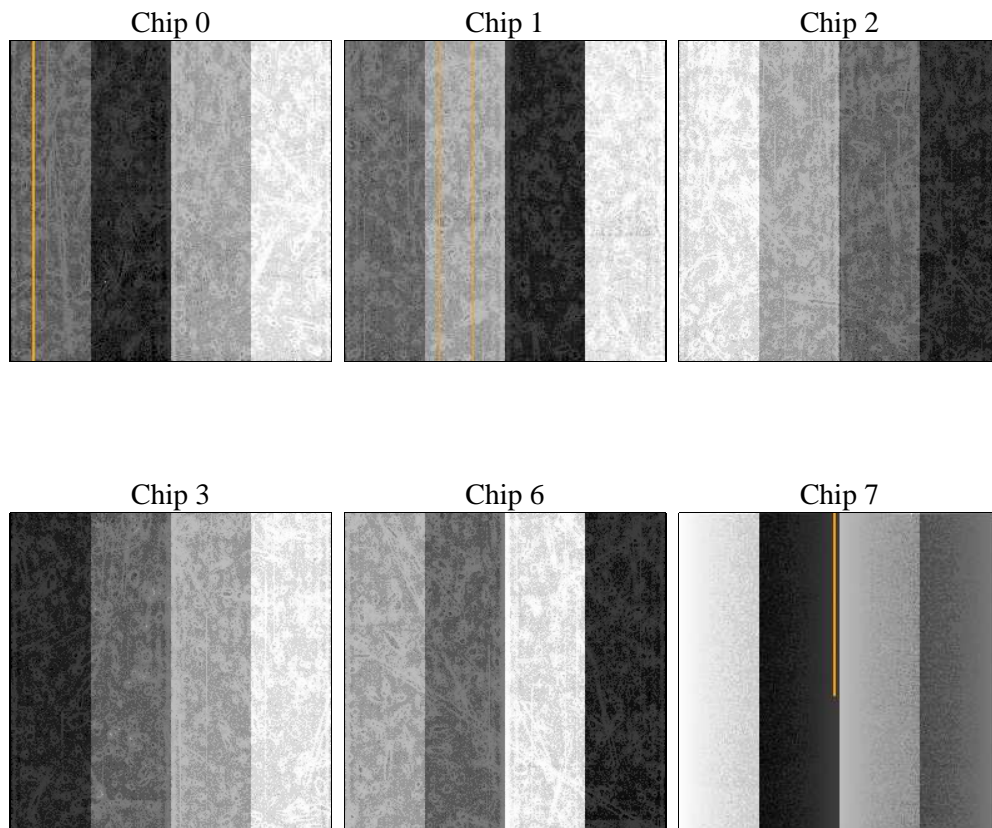
3 OBI Secondary

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	10.2.4	Processing system revision	ontime	3957.6458563805	Sum of GTIs [s]
caldsver	4.6.2	 	ontime0	3957.6456172466	Sum of GTIs [s]
date	2014-07-22T23:21:24	Date and time of file creation	ontime1	3957.6459258795	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	3954.4050447941	Sum of GTIs [s]
			ontime3	3957.6458563805	Sum of GTIs [s]
			ontime6	3957.6457066536	Sum of GTIs [s]
			ontime7	3957.645866096	Sum of GTIs [s]
			l1events	127149	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	17526	19088	22175	21497	20184	26679	grade 0 events	1685	2393	2849	3354	865	1071
rejected events	14211	14675	17288	16133	17711	14969		9%	12%	12%	15%	4%	4%
rejected %	81%	76%	77%	75%	87%	56%	grade 1 events	20	17	77	48	8	43
								0%	0%	0%	0%	0%	0%
							grade 2 events	635	797	826	797	581	2436
								3%	4%	3%	3%	2%	9%
							grade 3 events	268	279	310	309	244	1010
								1%	1%	1%	1%	1%	3%
							grade 4 events	221	304	342	343	269	1020
								1%	1%	1%	1%	1%	3%
							grade 5 events	885	996	943	1022	1013	2842
								5%	5%	4%	4%	5%	10%
							grade 6 events	512	642	566	567	515	6184
								2%	3%	2%	2%	2%	23%
							grade 7 events	13300	13660	16262	15057	16689	12073
								75%	71%	73%	70%	82%	45%

A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.07.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.8798371804953

A.2 Comments