

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14928 - L2 Version 2
Chandra X-Ray Center

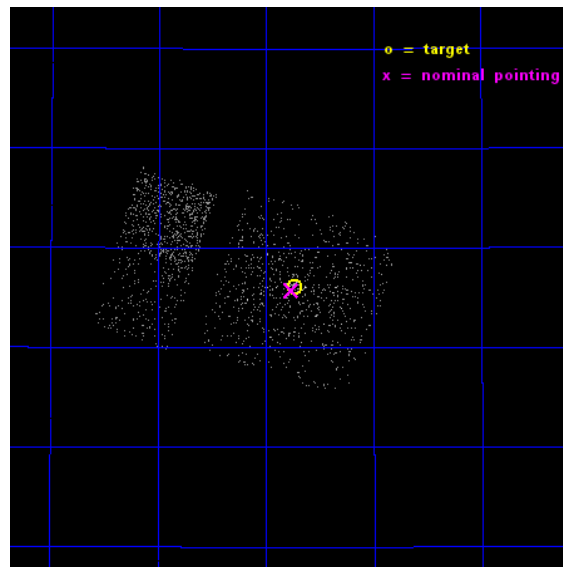
L2 Processing Date : Nov 30 2014

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1 Front

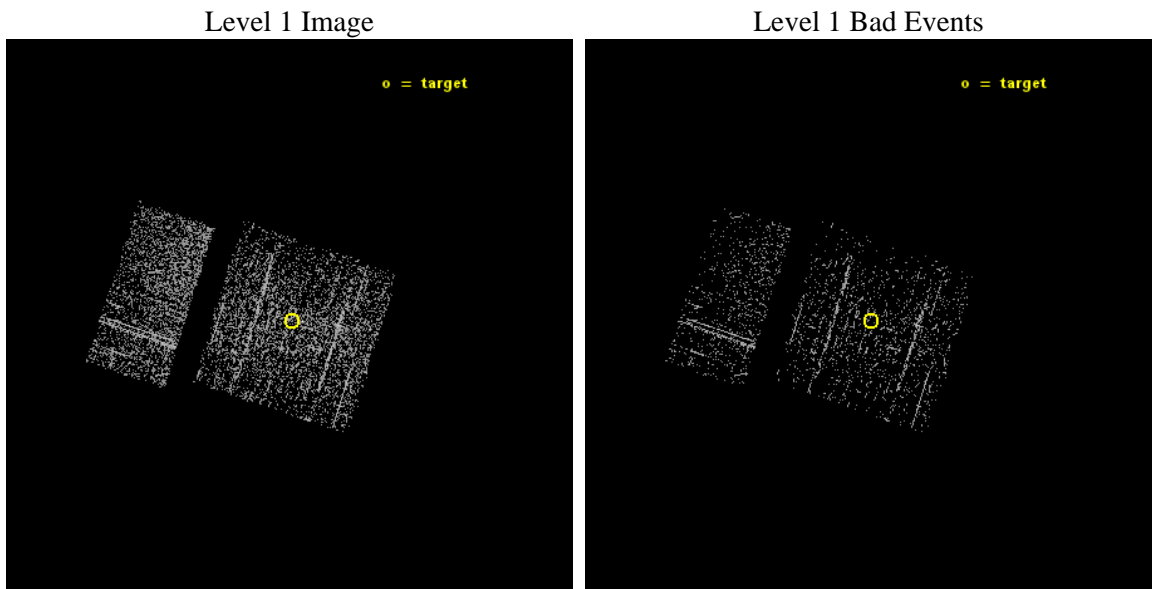
seq_num	601058	Sequence number
obs_id	14928	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr Robin Barnard	Principal investigator
object	M31 BHXN	Source name
dtcycle	0	
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.6912680142	Nominal RA [deg]
dec_nom	41.262346268074	Nominal Dec [deg]
roll_nom	288.02701519933	Nominal Roll [deg]
revision	2	Processing version of data
ontime	922.12309259176	Sum of GTIs [s]
livetime	145.16441783381	Livetime [s]
ontime0	922.12309259176	Sum of GTIs [s]
ontime1	922.12309265137	Sum of GTIs [s]
ontime2	922.12309259176	Sum of GTIs [s]
ontime3	922.12309259176	Sum of GTIs [s]
ontime6	922.12309259176	Sum of GTIs [s]
ontime7	922.12309265137	Sum of GTIs [s]
l2events	1980	Number of level 2 events



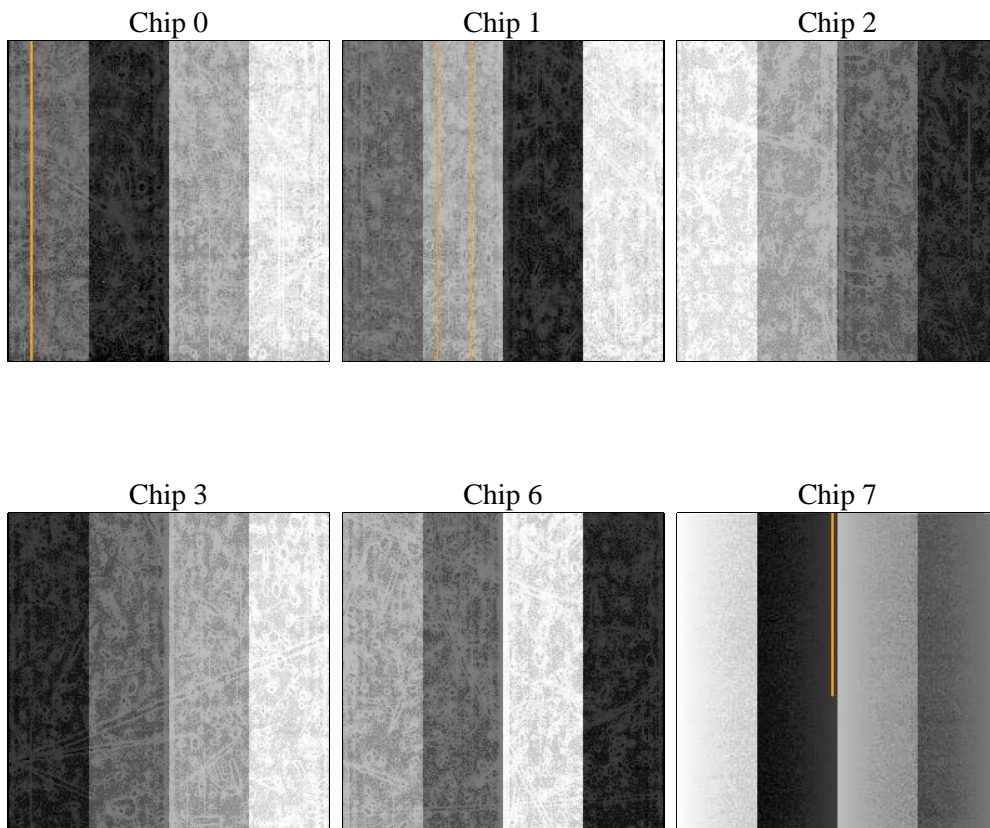
2 OBI Primary

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	922.12309259176	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	922.12309259176	Sum of GTIs [s]
date	2014-11-30T19:43:58	Date and time of file creation	ontime1	922.12309265137	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	922.12309259176	Sum of GTIs [s]
			ontime3	922.12309259176	Sum of GTIs [s]
			ontime6	922.12309259176	Sum of GTIs [s]
			ontime7	922.12309265137	Sum of GTIs [s]
			l1events	15173	Number of level 1 events

2.1.4 Events

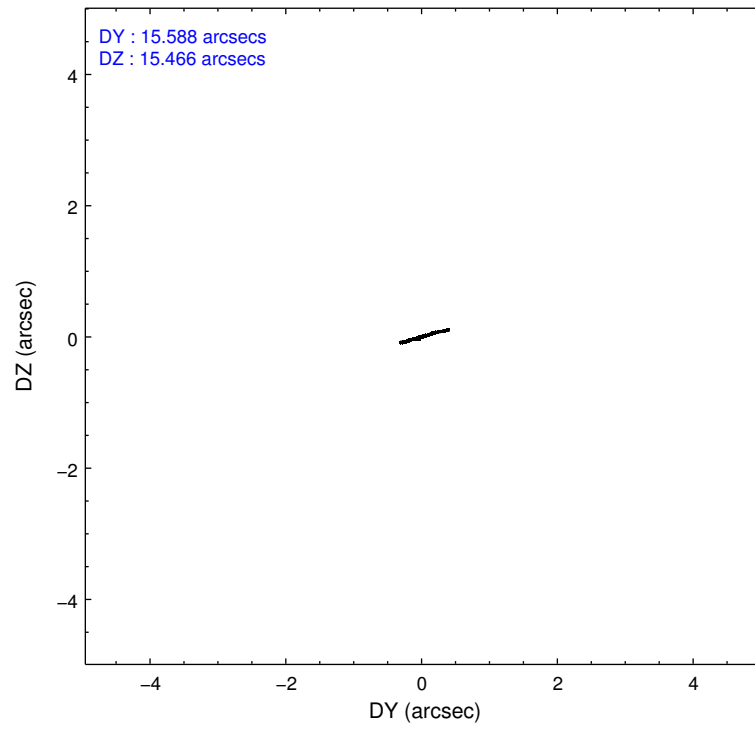
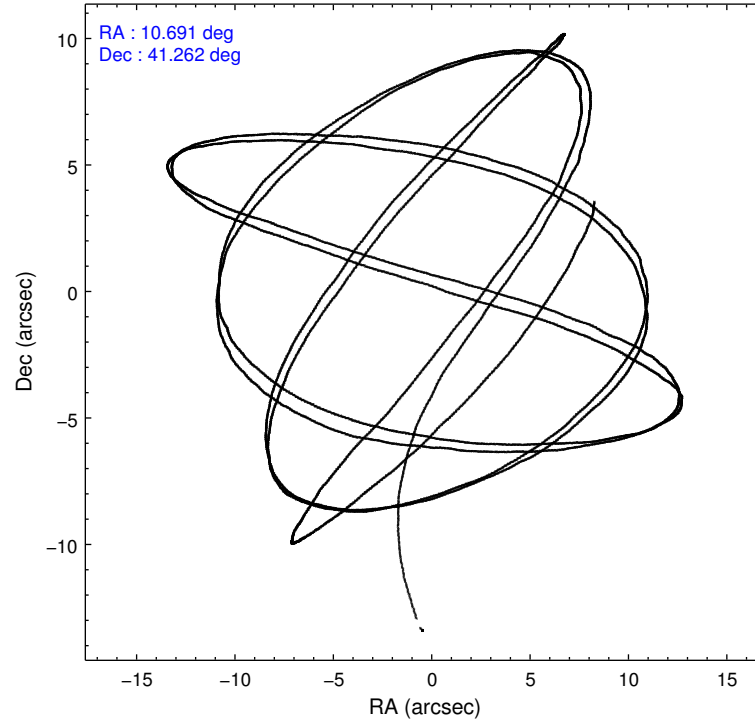
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	2472	2483	2637	2084	2951	2546
rejected events	2193	2084	2315	1772	2733	1820
rejected %	88%	83%	87%	85%	92%	71%

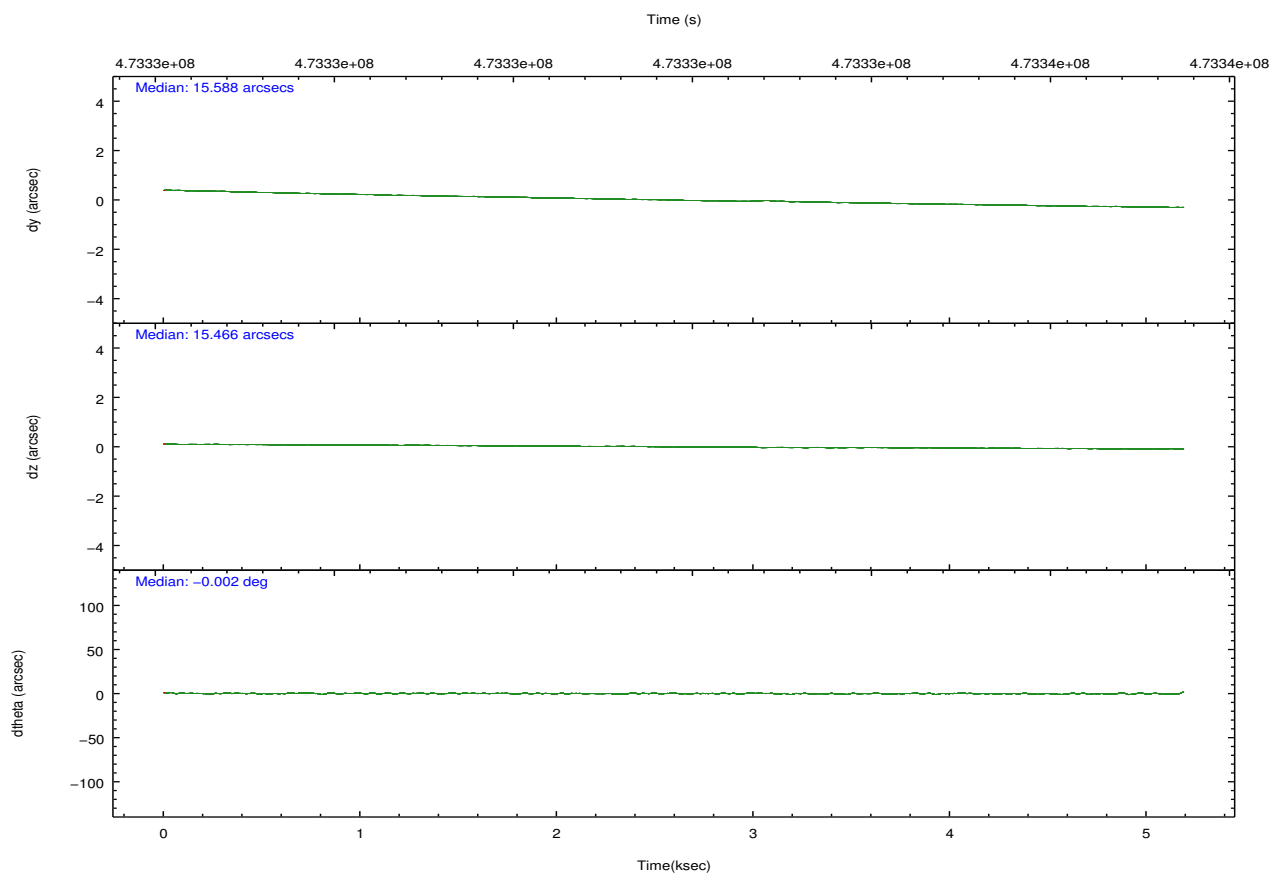
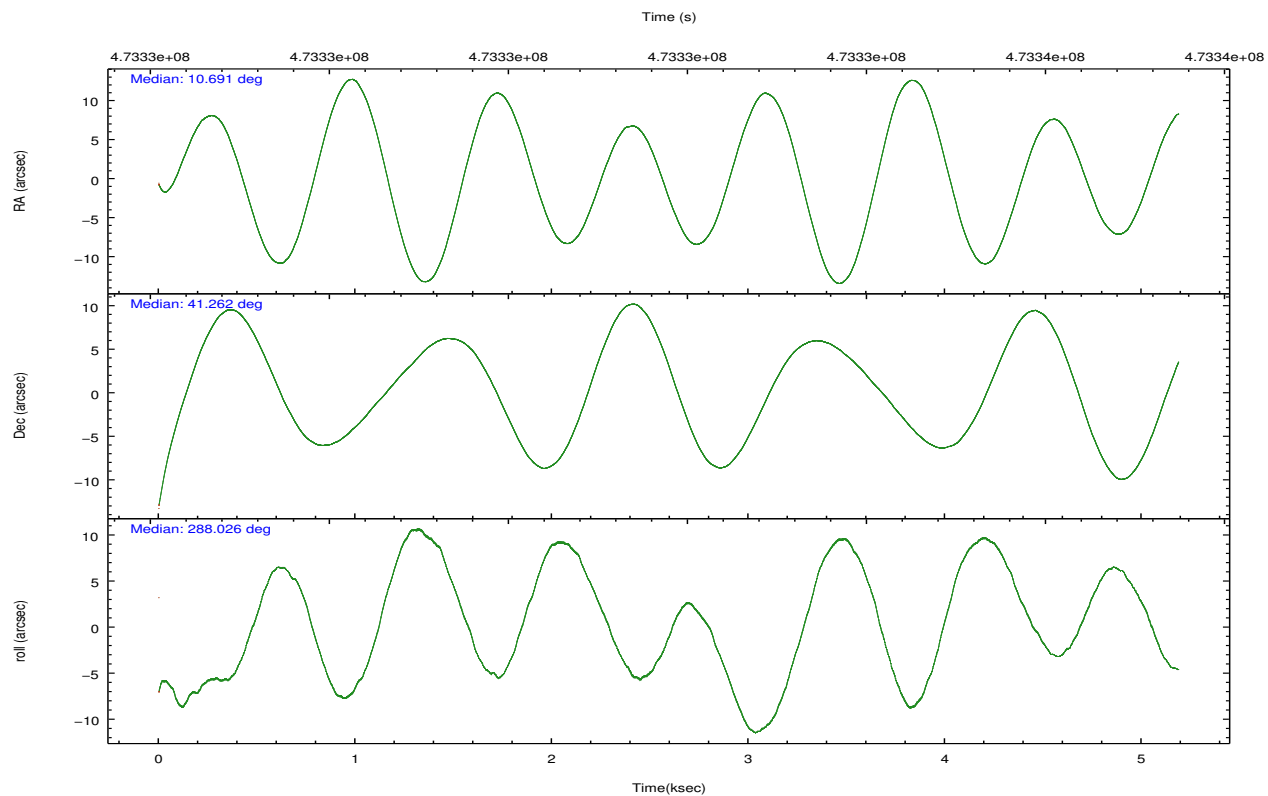
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	120	173	147	157	56	90
	4%	6%	5%	7%	1%	3%
grade 1 events	0	6	0	2	3	2
	0%	0%	0%	0%	0%	0%
grade 2 events	58	80	68	71	57	151
	2%	3%	2%	3%	1%	5%
grade 3 events	22	42	35	27	24	58
	0%	1%	1%	1%	0%	2%
grade 4 events	39	36	36	24	21	58
	1%	1%	1%	1%	0%	2%
grade 5 events	82	106	104	97	105	243
	3%	4%	3%	4%	3%	9%
grade 6 events	56	69	39	36	64	374
	2%	2%	1%	1%	2%	14%
grade 7 events	2095	1971	2208	1670	2621	1570
	84%	79%	83%	80%	88%	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	10.663917	10.6912680142002	CCD I2 on	Y	Y
[deg] Pointing Dec	41.280686	41.26234626807388	CCD I3 on	Y	Y
[deg] Pointing Roll	287.836366	288.027015199332	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)	473330496.184000	473329516.58816	CCD S5 on	N	N
Observation start date	2012-12-31T08:40:29	2012-12-31T08:25:16	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	473335496.184000	473336285.68853	On-chip summing requested	N	N
Observation end date	2012-12-31T10:03:49	2012-12-31T10:18:05	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



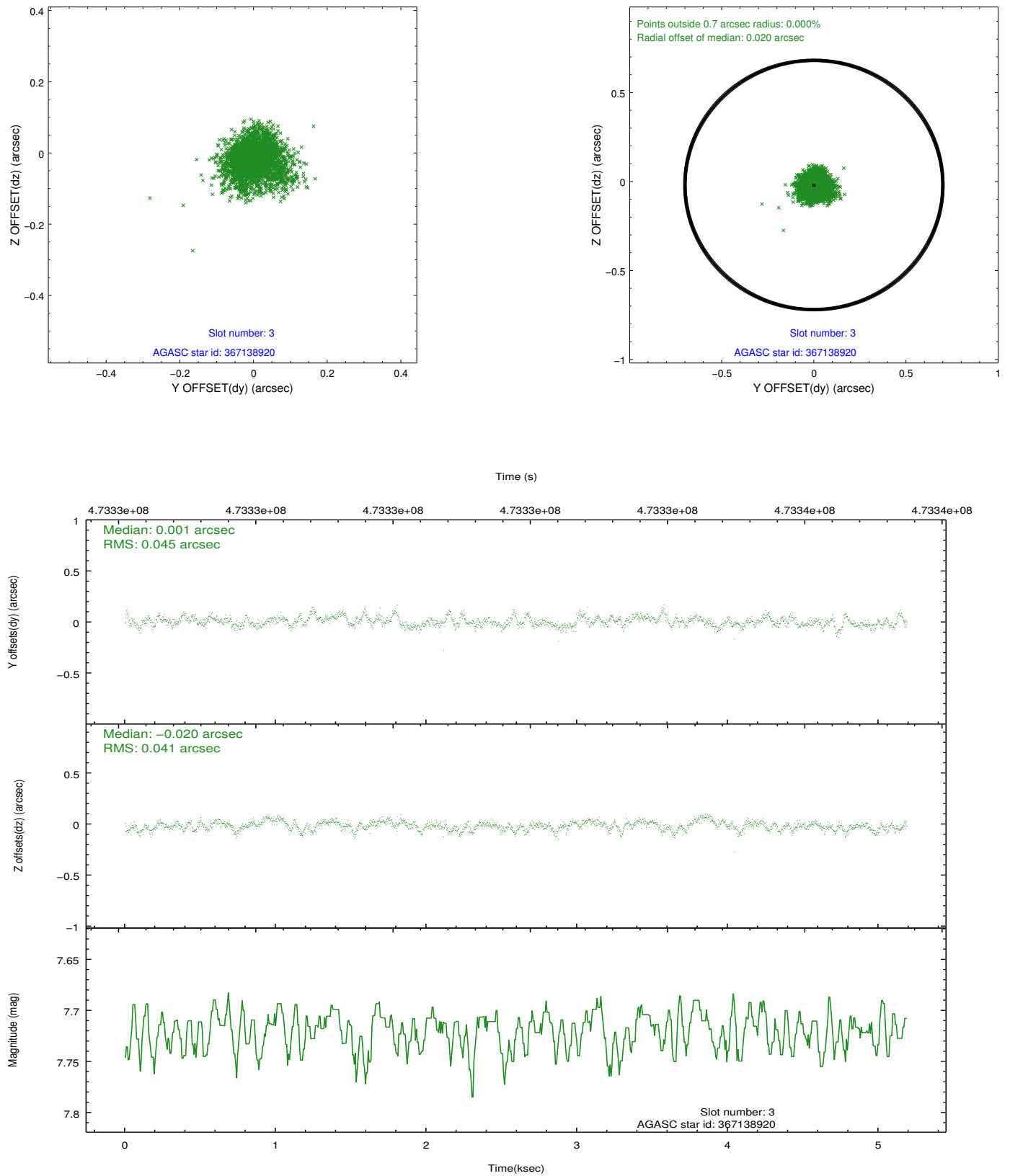


Slot Statistics

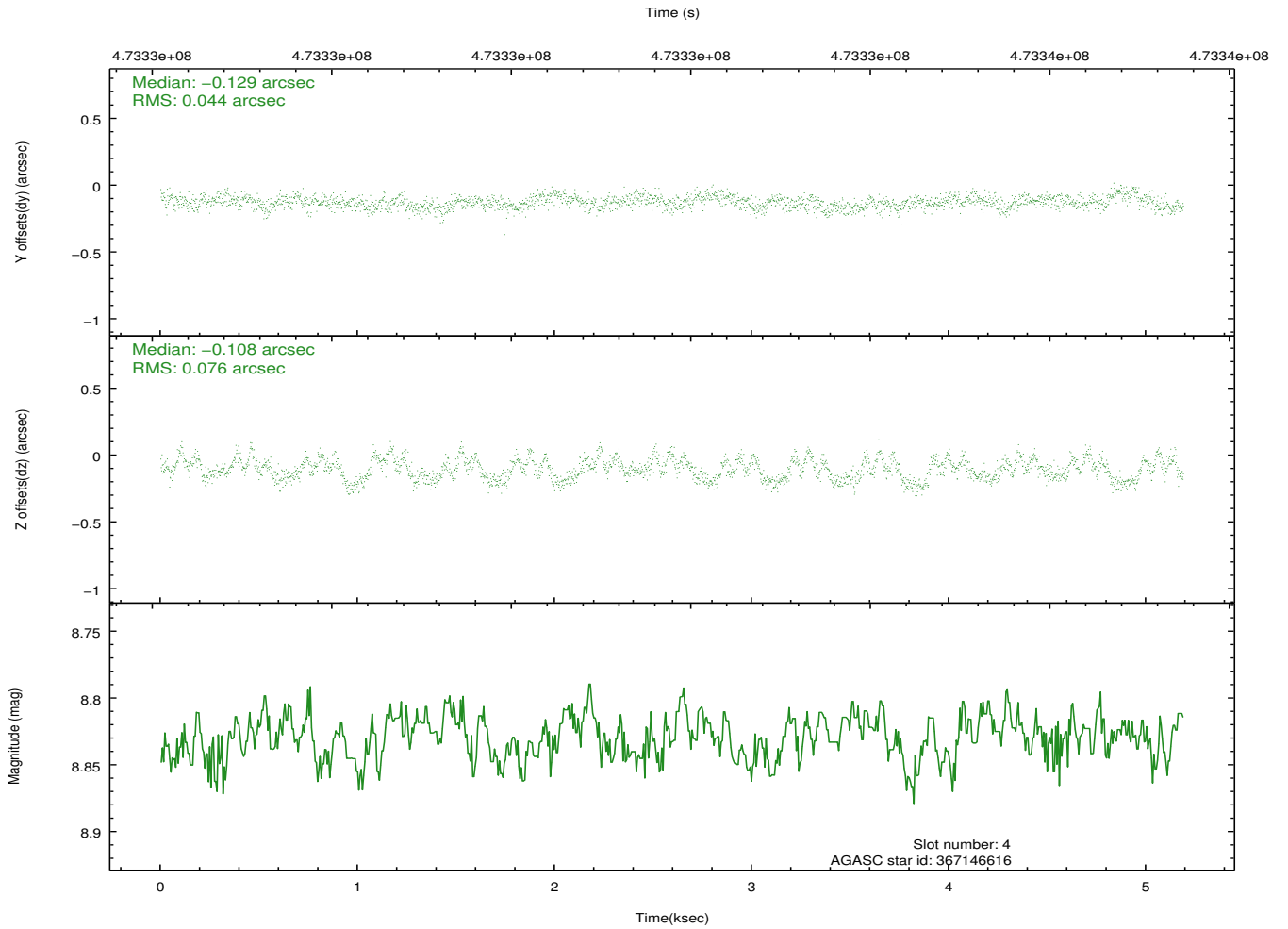
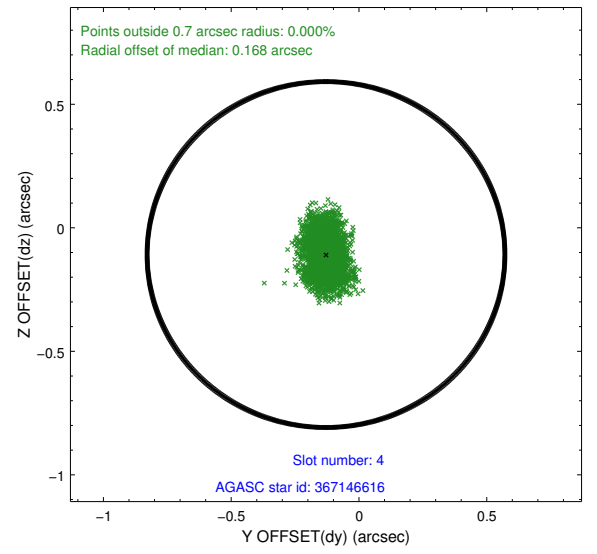
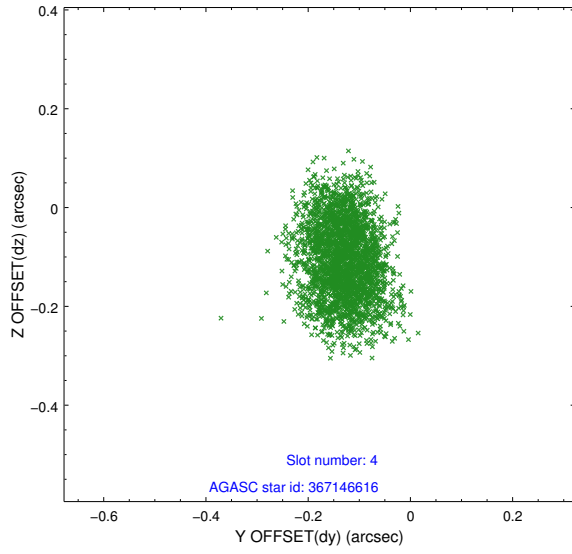
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.22	1266	0.048	-0.028	0.007	0.013	0.000000	0.000000	923.90	-839.10
1	FID		ACIS-I-5	7.21	1266	-0.239	0.041	0.006	0.012	0.000000	0.000000	-1823.87	1057.85
2	FID		ACIS-I-6	7.21	1265	0.100	0.057	0.007	0.011	0.000000	0.000000	388.20	1703.71
3	GUIDE	used	367138920	7.72	2532	0.001	-0.020	0.064	0.105	11.513485	40.808909	2316.12	1687.81
4	GUIDE	used	367146616	8.83	2532	-0.129	-0.108	0.095	0.152	11.418645	41.190163	928.75	1849.79
5	GUIDE	used	367148872	7.24	2532	0.091	0.014	0.065	0.105	10.505940	40.688258	1898.94	-1063.35
6	GUIDE	used	367674552	8.85	2532	0.080	0.049	0.078	0.124	11.016238	41.570845	-704.64	1223.53
7	GUIDE	used	367663272	9.27	2516	-0.040	0.070	0.103	0.168	10.656279	41.699429	-1441.54	441.54

2.4 Star Slots

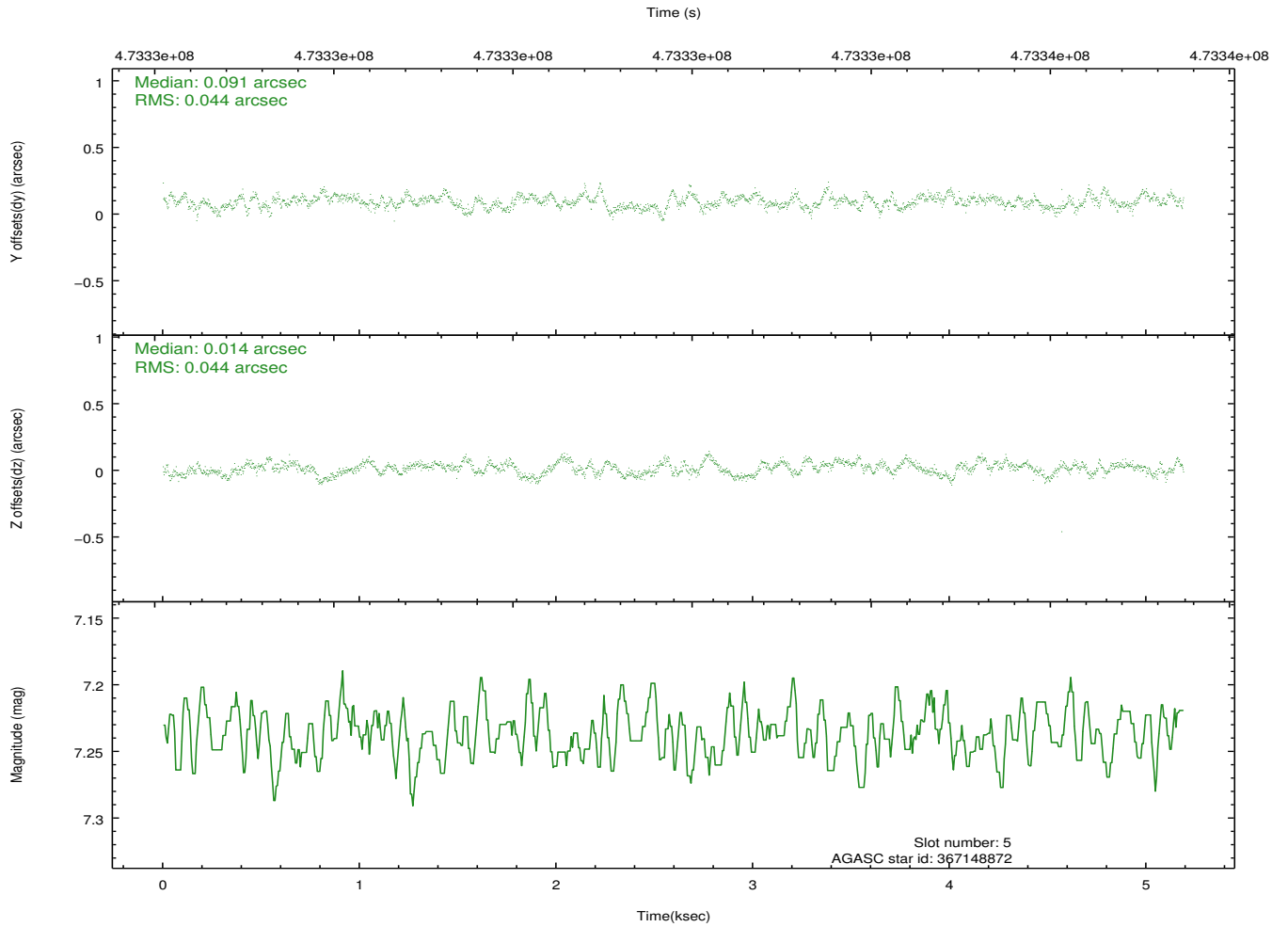
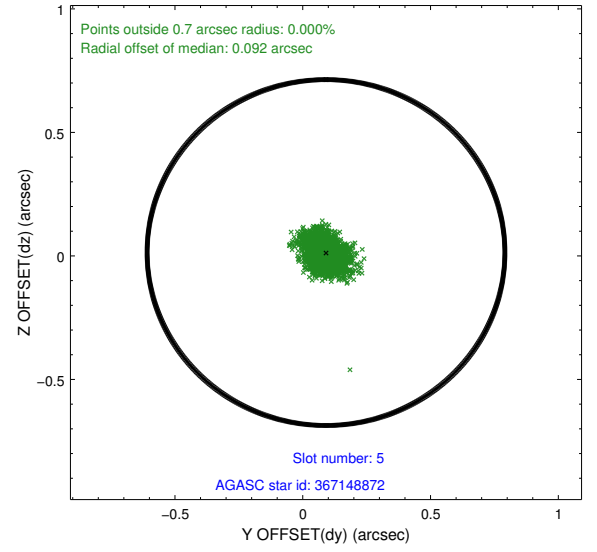
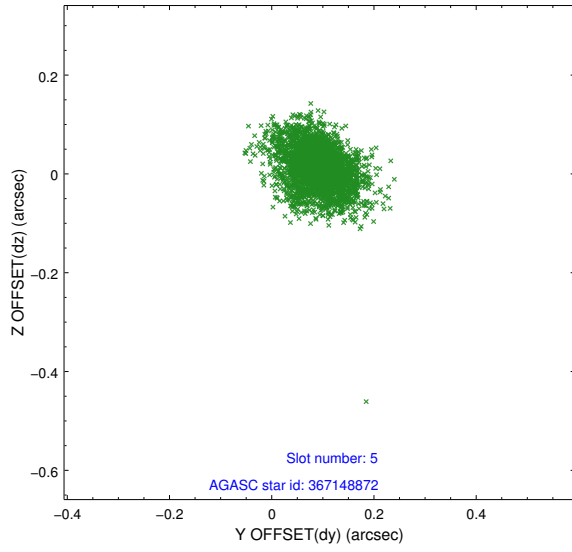
2.4.1 Slot 3



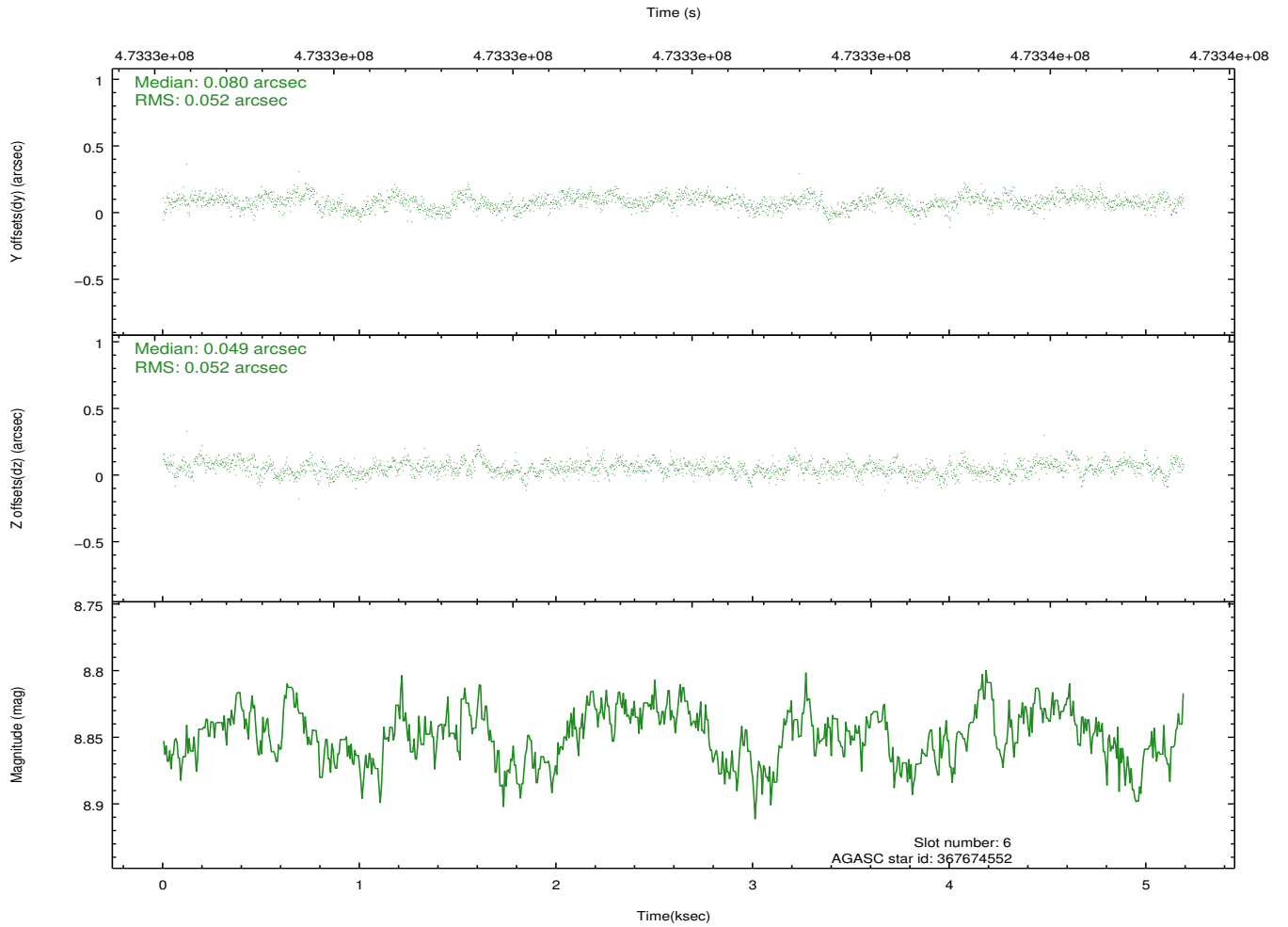
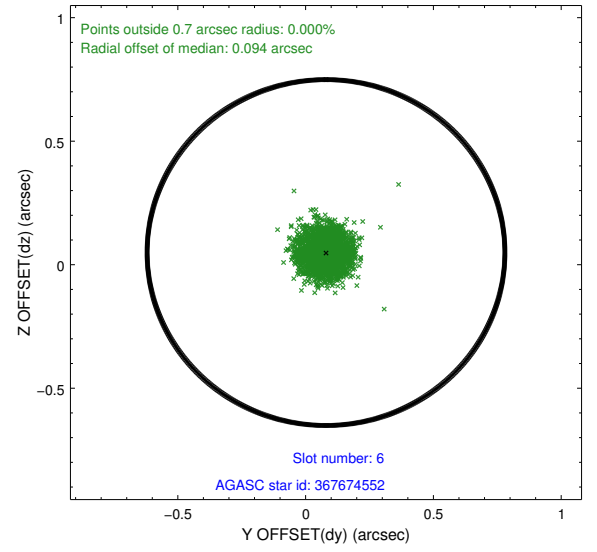
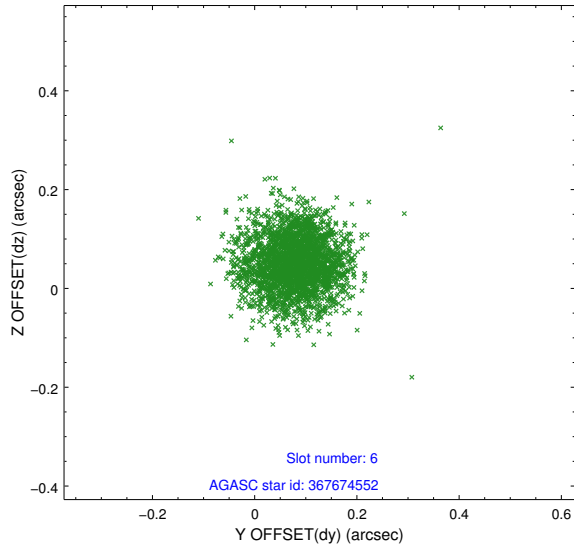
2.4.2 Slot 4



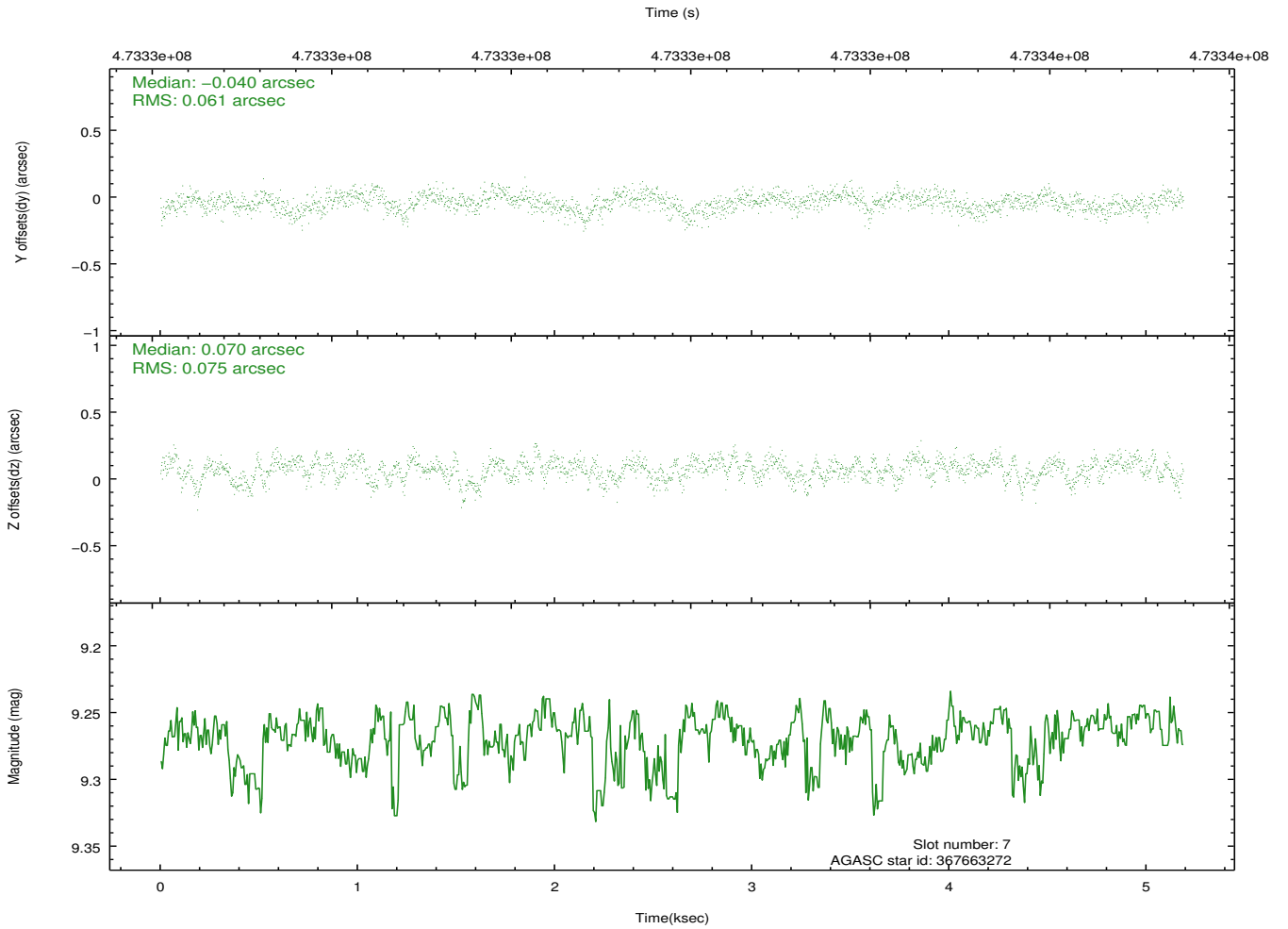
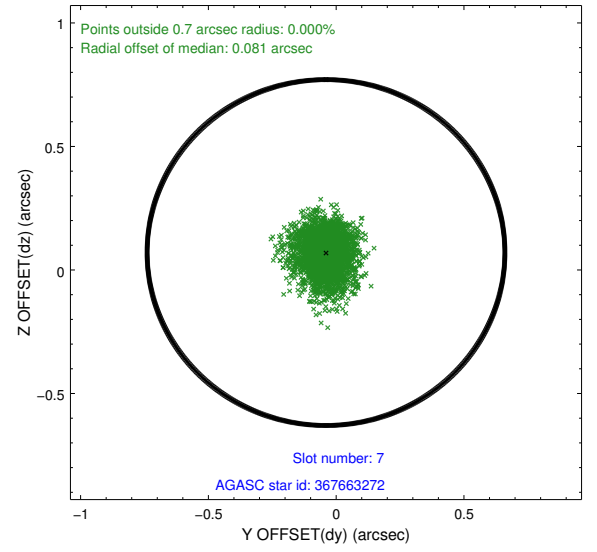
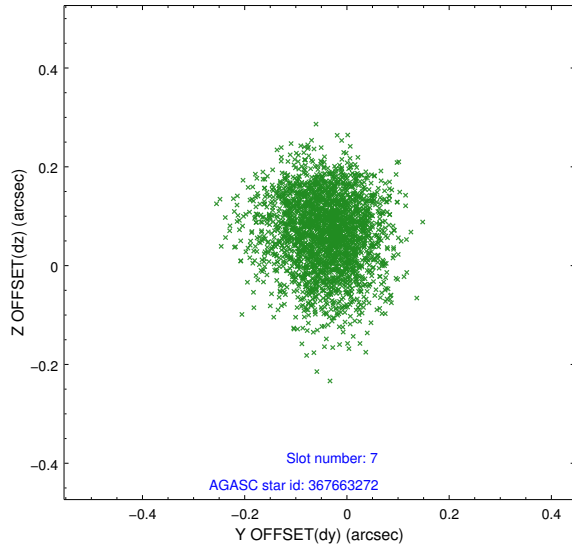
2.4.3 Slot 5



2.4.4 Slot 6

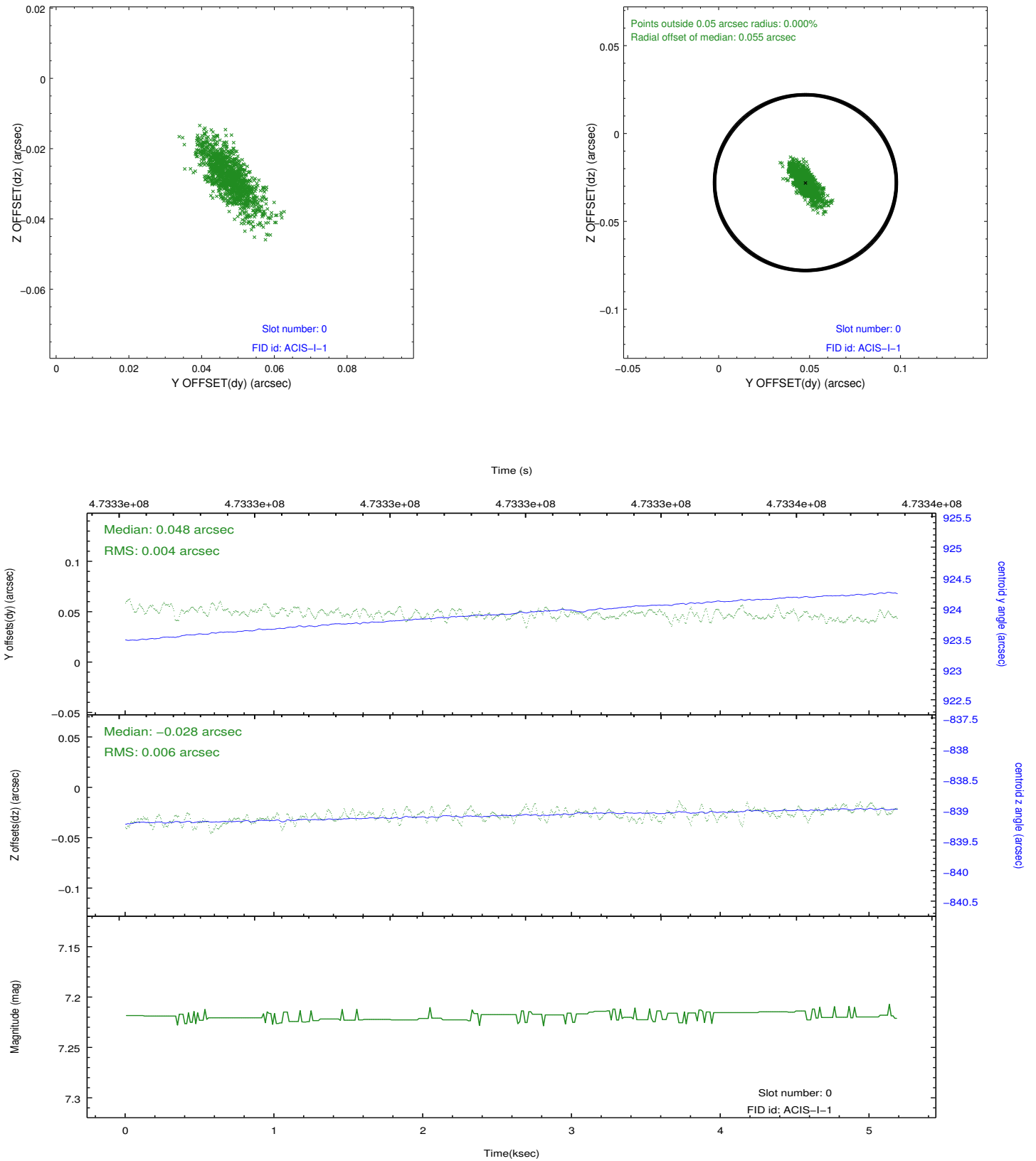


2.4.5 Slot 7

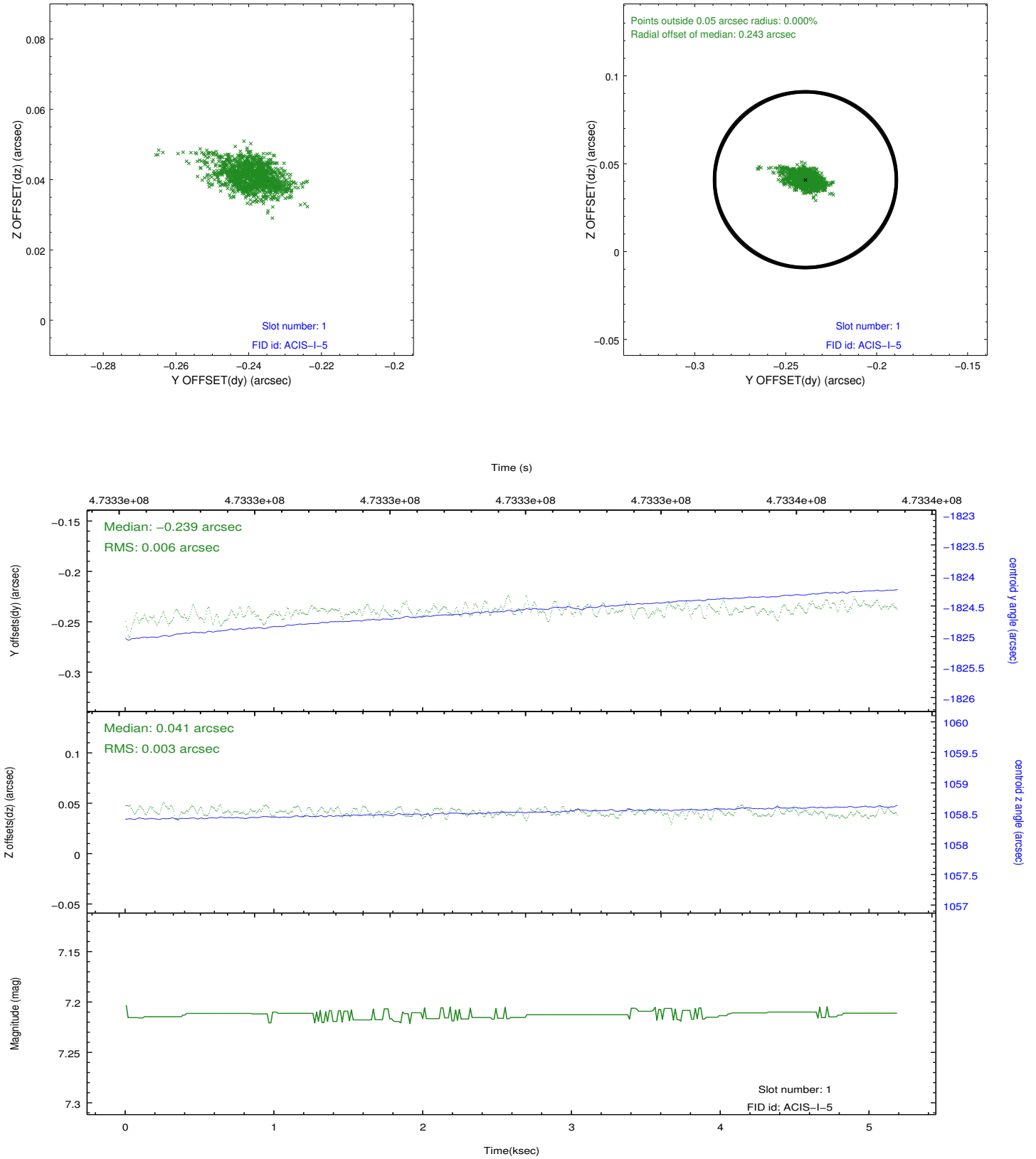


2.5 FID Slots

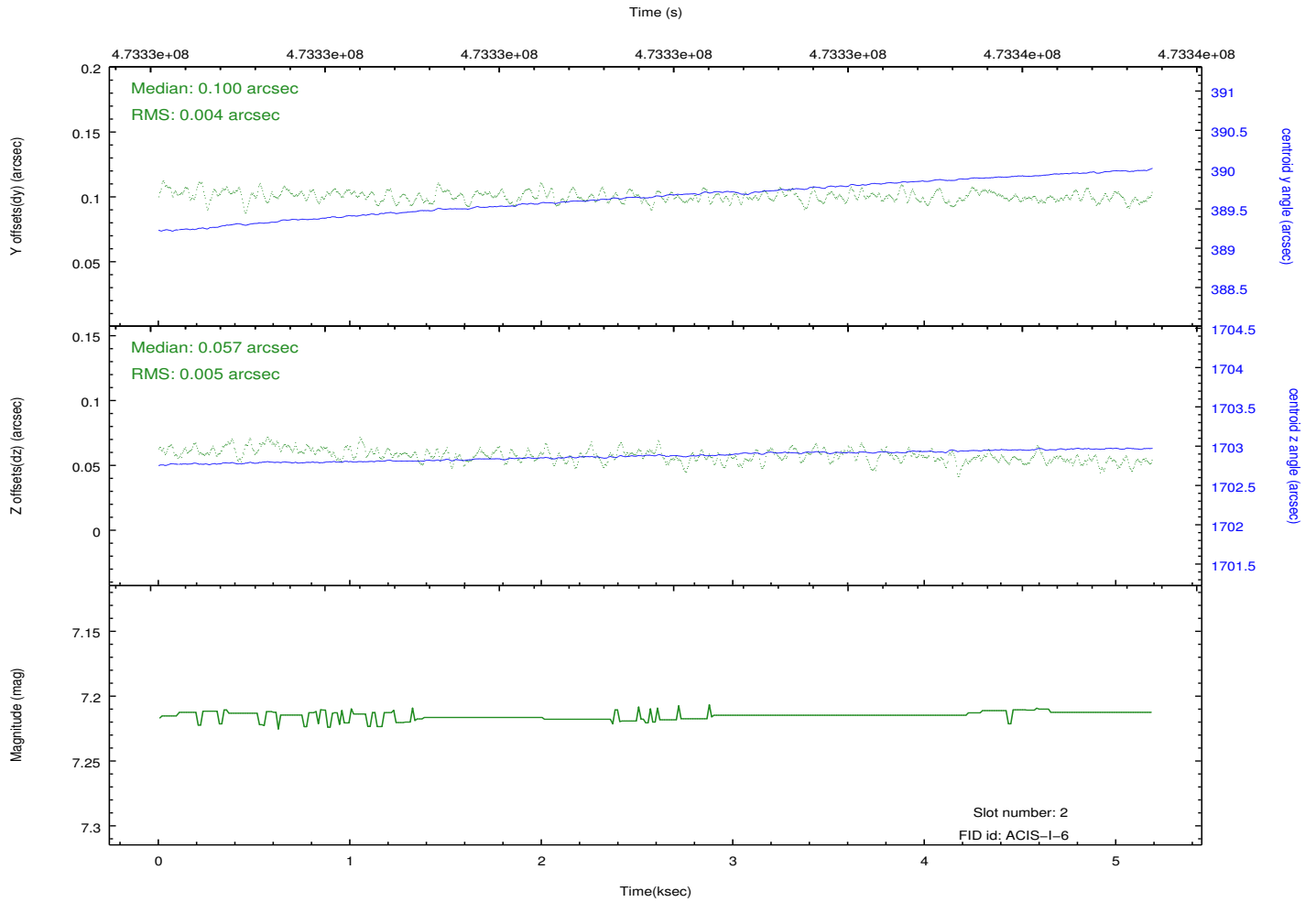
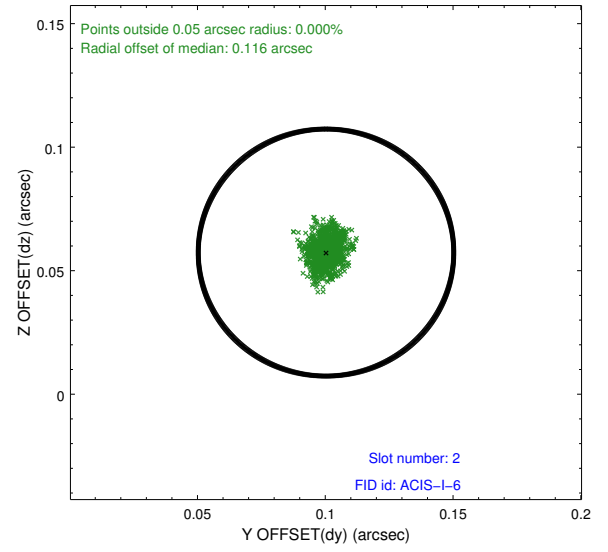
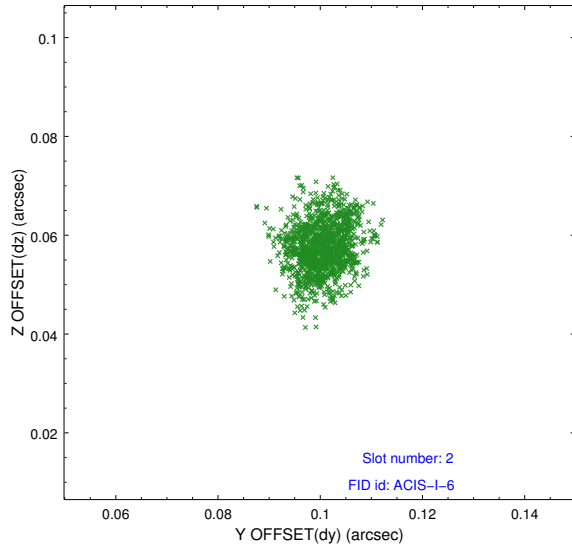
2.5.1 Slot 0



2.5.2 Slot 1



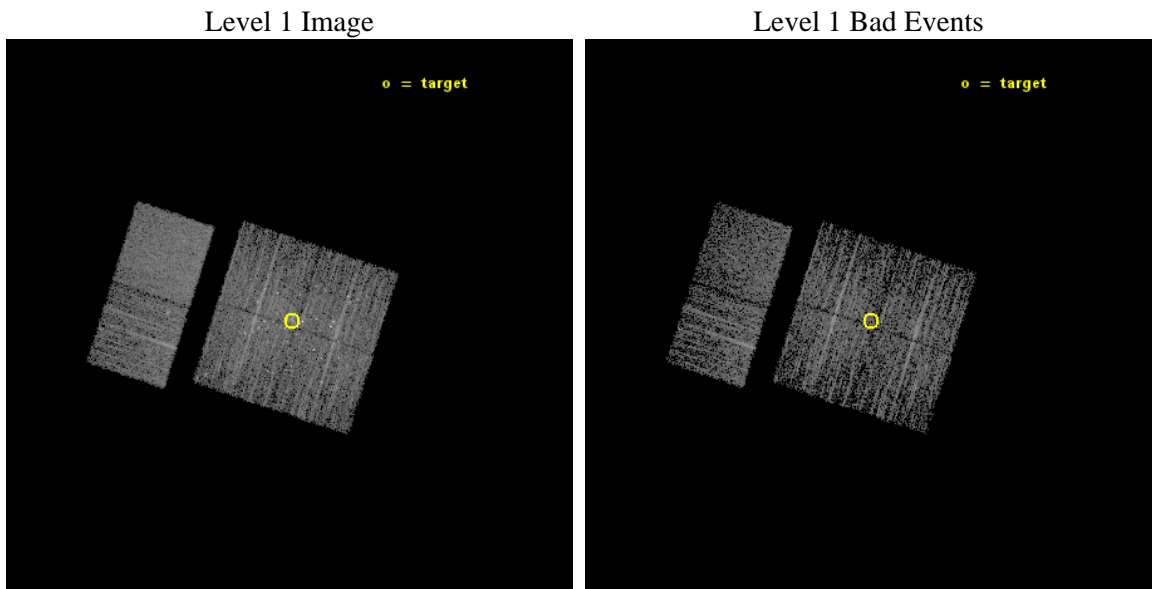
2.5.3 Slot 2



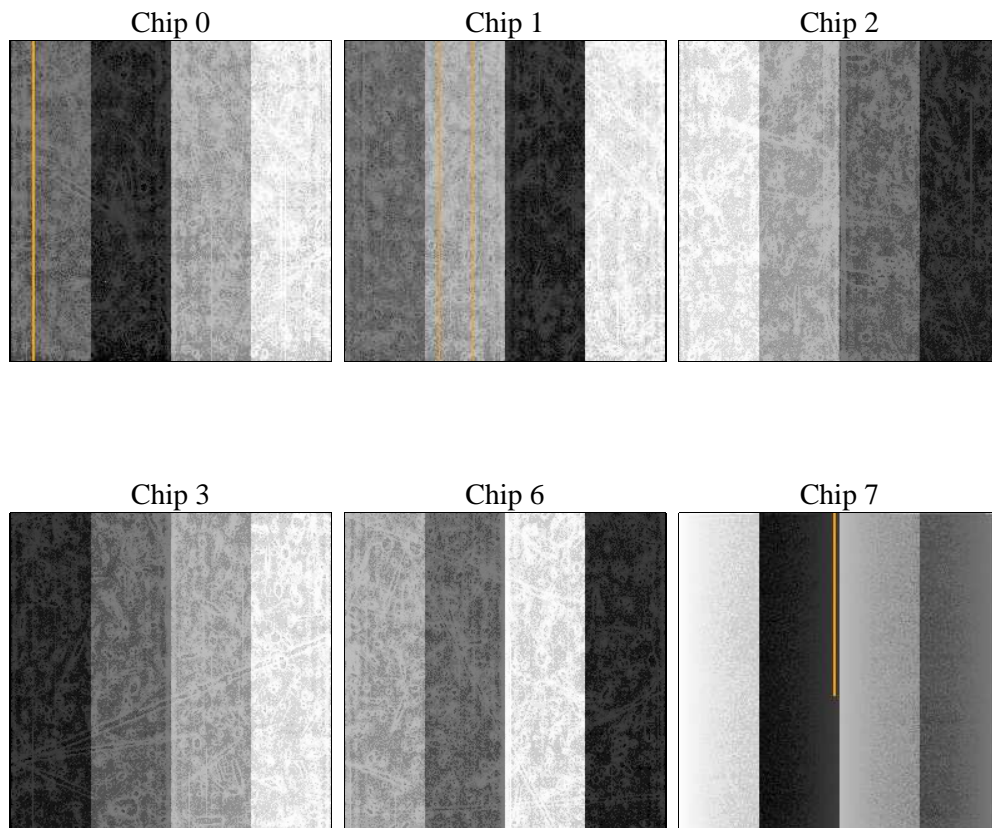
3 OBI Secondary

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	3957.6217392087	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	3957.6218305826	Sum of GTIs [s]
date	2014-11-30T19:44:07	Date and time of file creation	ontime1	3957.6217085719	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3957.6217088103	Sum of GTIs [s]
			ontime3	3957.6217392087	Sum of GTIs [s]
			ontime6	3957.6217386127	Sum of GTIs [s]
			ontime7	3957.6217290759	Sum of GTIs [s]
			l1events	144025	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	21660	24268	24057	23650	21590	28800	grade 0 events	2440	3326	2731	3246	970	1120
rejected events	17320	18311	19337	18422	18844	16267		11%	13%	11%	13%	4%	3%
rejected %	79%	75%	80%	77%	87%	56%	grade 1 events	24	135	31	45	10	25
								0%	0%	0%	0%	0%	0%
							grade 2 events	757	1053	806	793	595	2534
								3%	4%	3%	3%	2%	8%
							grade 3 events	308	380	316	297	268	997
								1%	1%	1%	1%	1%	3%
							grade 4 events	277	409	320	310	269	993
								1%	1%	1%	1%	1%	3%
							grade 5 events	977	1074	900	1084	1083	2865
								4%	4%	3%	4%	5%	9%
							grade 6 events	562	802	556	587	649	6910
								2%	3%	2%	2%	3%	23%
							grade 7 events	16315	17089	18397	17288	17746	13356
								75%	70%	76%	73%	82%	46%

A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.87974483180046

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.