

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16124 - L2 Version 2
Chandra X-Ray Center

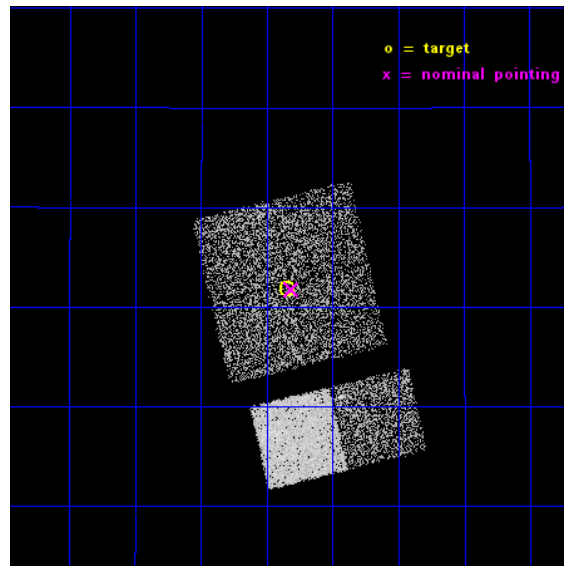
L2 Processing Date : Dec 10 2014

Contents

1	Front	2
2	OBI	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
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

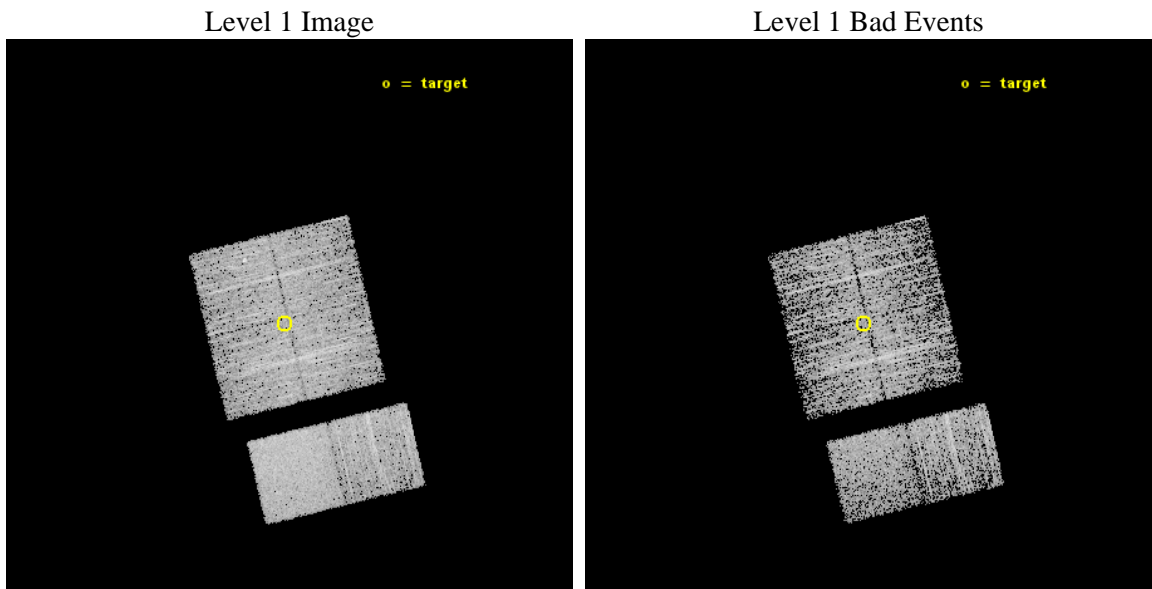
seq_num	801378	Sequence number
obs_id	16124	Observation id
title	The Massive Fossil Cluster RXJ1416.4+2315	Proposal title
observer	Dr. David Buote	Principal investigator
object	RXJ1416.4+2315 Offset 4	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	213.962083	Observer's specified target RA [deg]
dec_targ	23.363528	Observer's specified target Dec [deg]
ra_nom	213.953202176	Nominal RA [deg]
dec_nom	23.362900514048	Nominal Dec [deg]
roll_nom	166.51298315844	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4972.7999815345	Sum of GTIs [s]
livetime	4909.8313939076	Livetime [s]
ontime0	4972.7999815345	Sum of GTIs [s]
ontime1	4972.7999815345	Sum of GTIs [s]
ontime2	4972.7999815345	Sum of GTIs [s]
ontime3	4972.7999815345	Sum of GTIs [s]
ontime6	4972.7999815345	Sum of GTIs [s]
ontime7	4972.7999815345	Sum of GTIs [s]
l2events	25552	Number of level 2 events



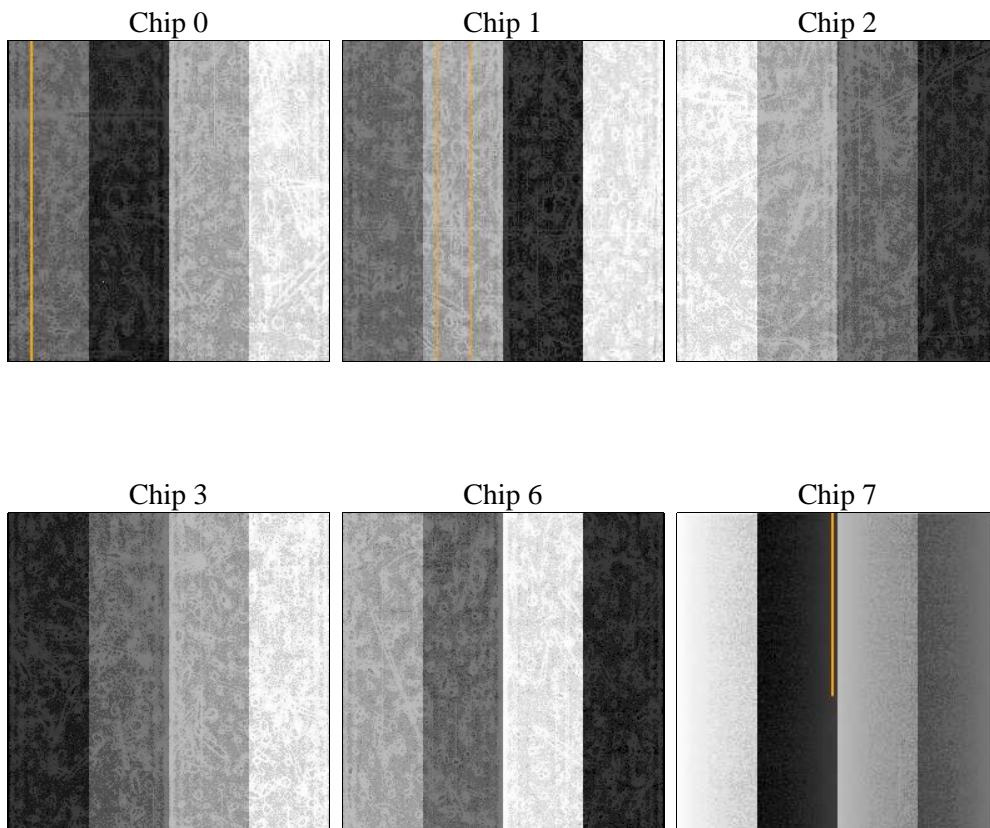
2 OBI

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	10.3.1	Processing system revision	ontime	4972.7999815345	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	4972.7999815345	Sum of GTIs [s]
date	2014-12-11T02:34:31	Date and time of file creation	ontime1	4972.7999815345	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4972.7999815345	Sum of GTIs [s]
			ontime3	4972.7999815345	Sum of GTIs [s]
			ontime6	4972.7999815345	Sum of GTIs [s]
			ontime7	4972.7999815345	Sum of GTIs [s]
			l1events	145942	Number of level 1 events

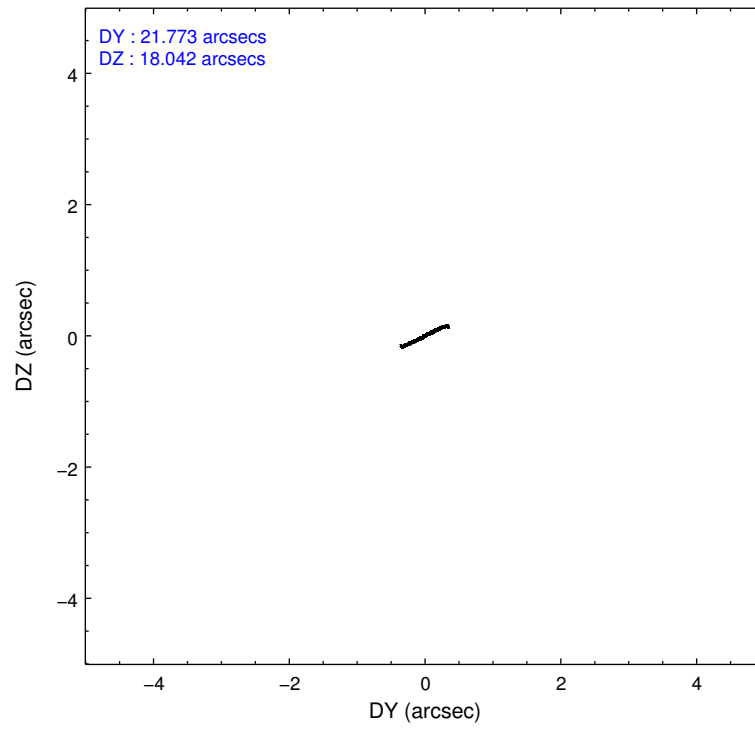
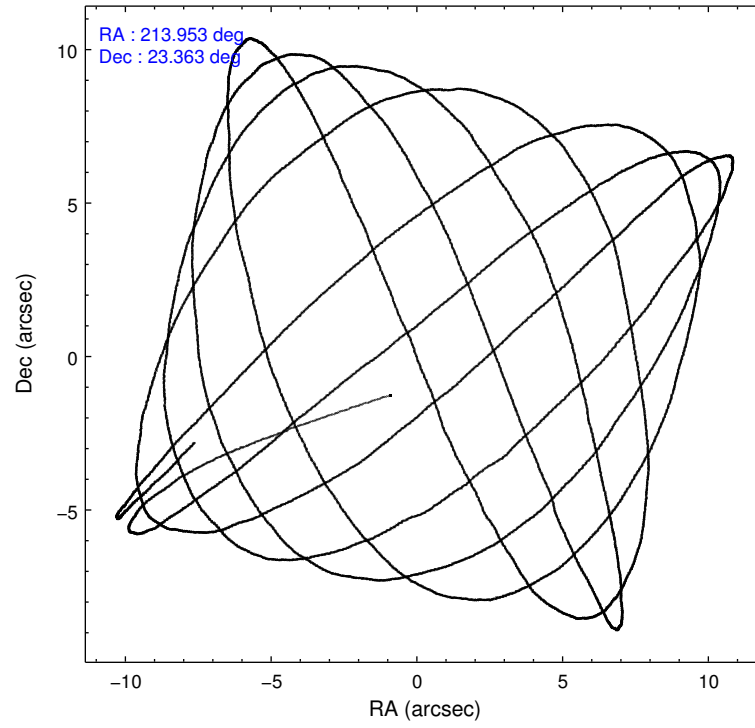
2.1.4 Events

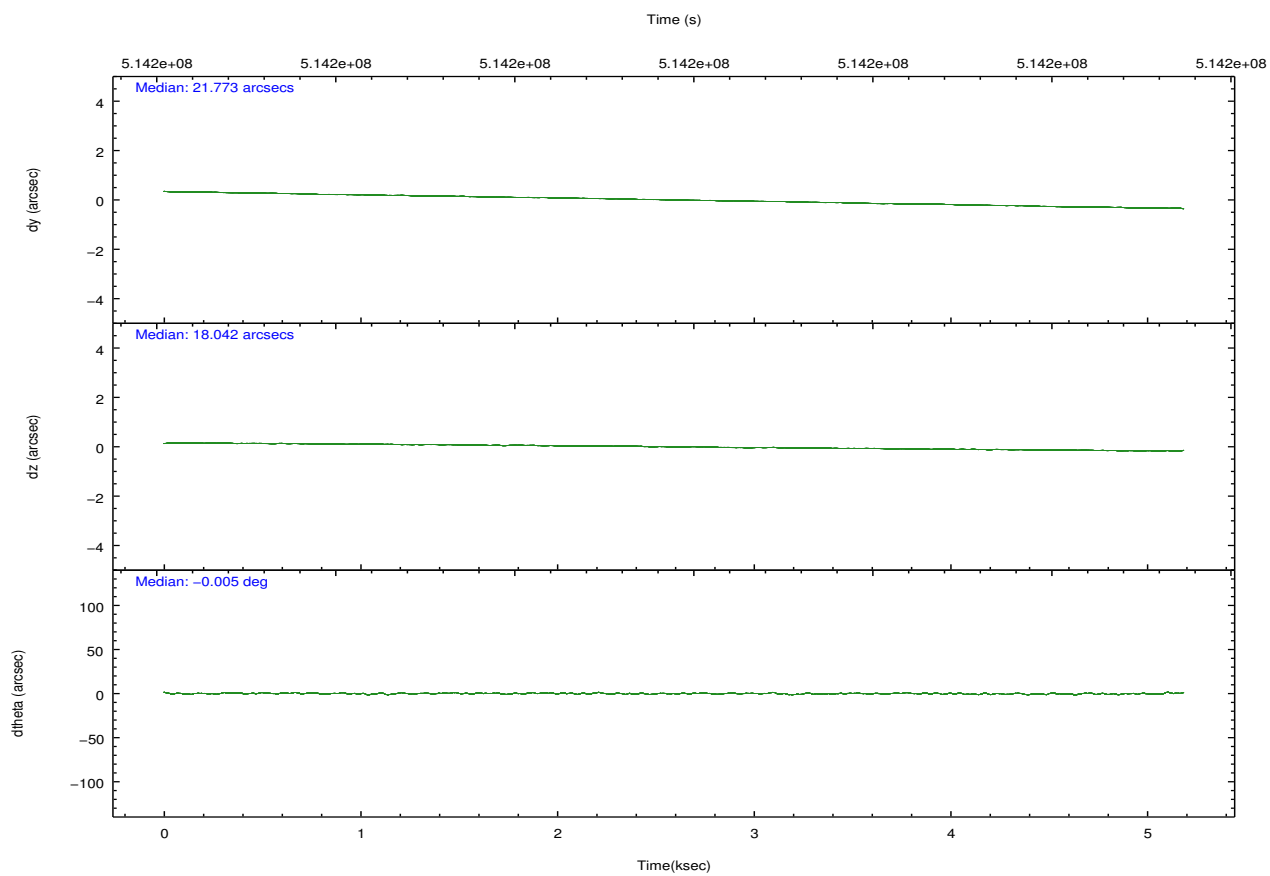
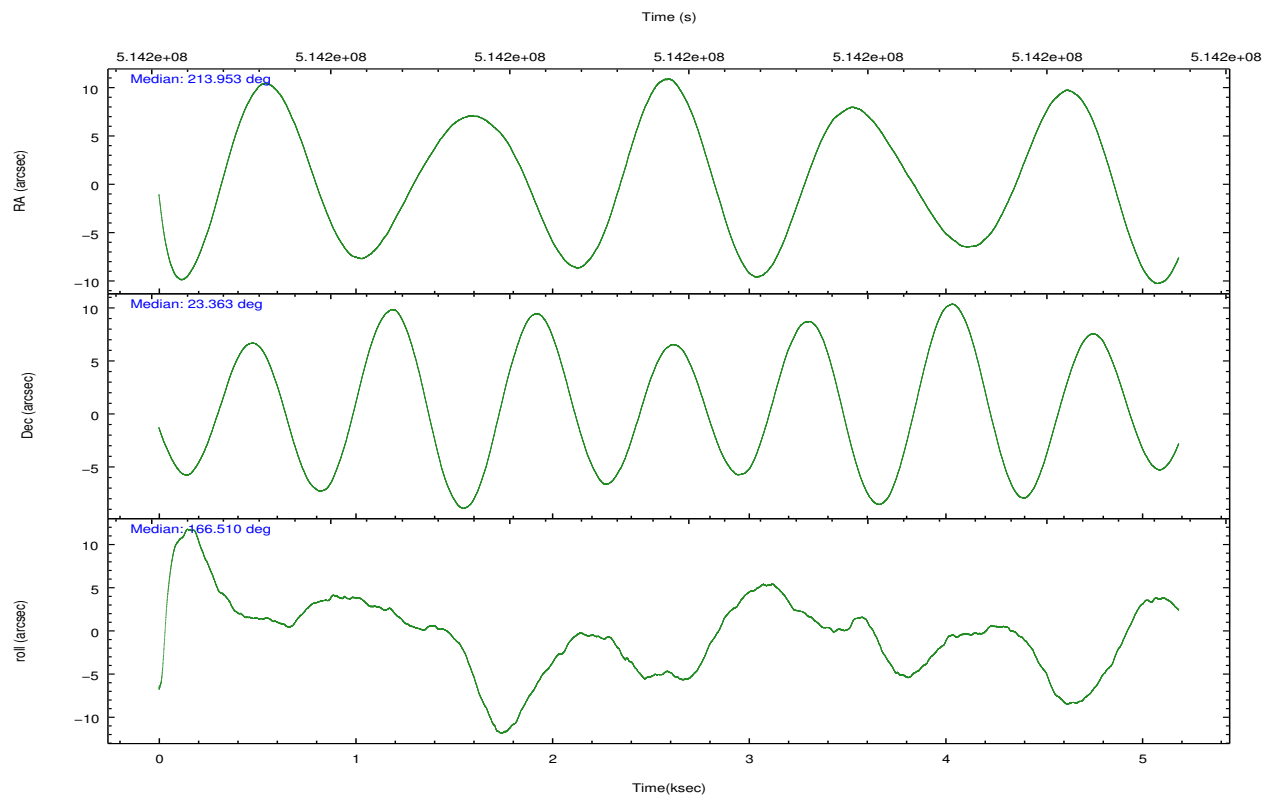
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	20649	22986	22961	22532	24351	32463	grade 0 events	960	1319	994	1006	1003	1277
rejected events	17922	19712	20339	19792	21387	18525		4%	5%	4%	4%	4%	3%
rejected %	86%	85%	88%	87%	87%	57%	grade 1 events	13	9	11	18	8	29
								0%	0%	0%	0%	0%	0%
							grade 2 events	669	722	595	607	711	2871
								3%	3%	2%	2%	2%	8%
							grade 3 events	277	288	256	272	300	1163
								1%	1%	1%	1%	1%	3%
							grade 4 events	250	300	273	275	284	1158
								1%	1%	1%	1%	1%	3%
							grade 5 events	1055	1227	1005	1246	1238	3357
								5%	5%	4%	5%	5%	10%
							grade 6 events	571	647	506	582	668	7476
								2%	2%	2%	2%	2%	23%
							grade 7 events	16854	18474	19321	18526	20139	15132
								81%	80%	84%	82%	82%	46%

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	213.981984	213.9532021759979	CCD I2 on	Y	Y
[deg] Pointing Dec	23.370907	23.36290051404785	CCD I3 on	Y	Y
[deg] Pointing Roll	166.292915	166.5129831584441	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)	514199479.184000	514198449.50475	CCD S5 on	N	N
Observation start date	2014-04-18T09:10:12	2014-04-18T08:54:09	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	514204479.184000	514204613.34259	On-chip summing requested	N	N
Observation end date	2014-04-18T10:33:32	2014-04-18T10:36:53	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



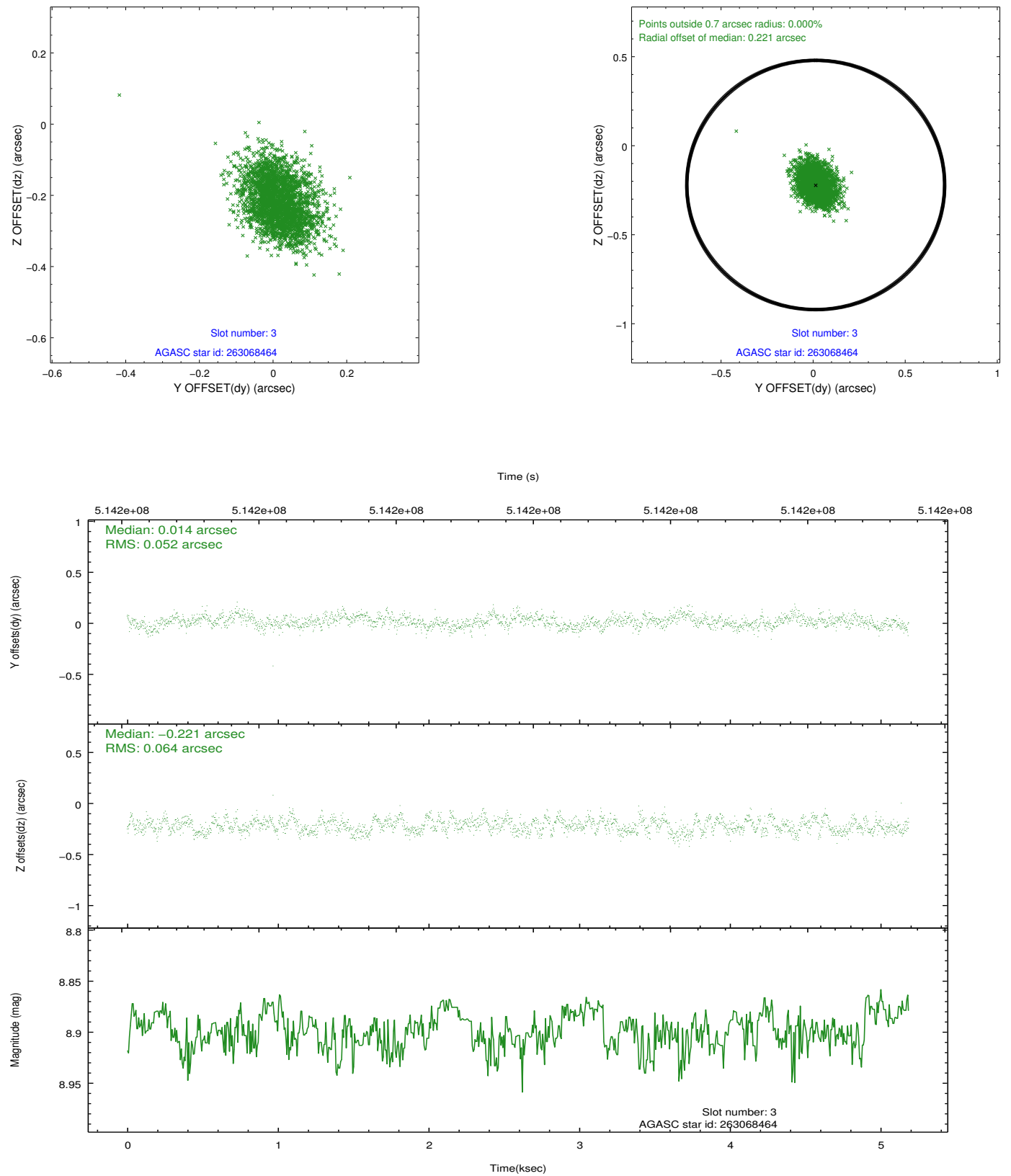


Slot Statistics

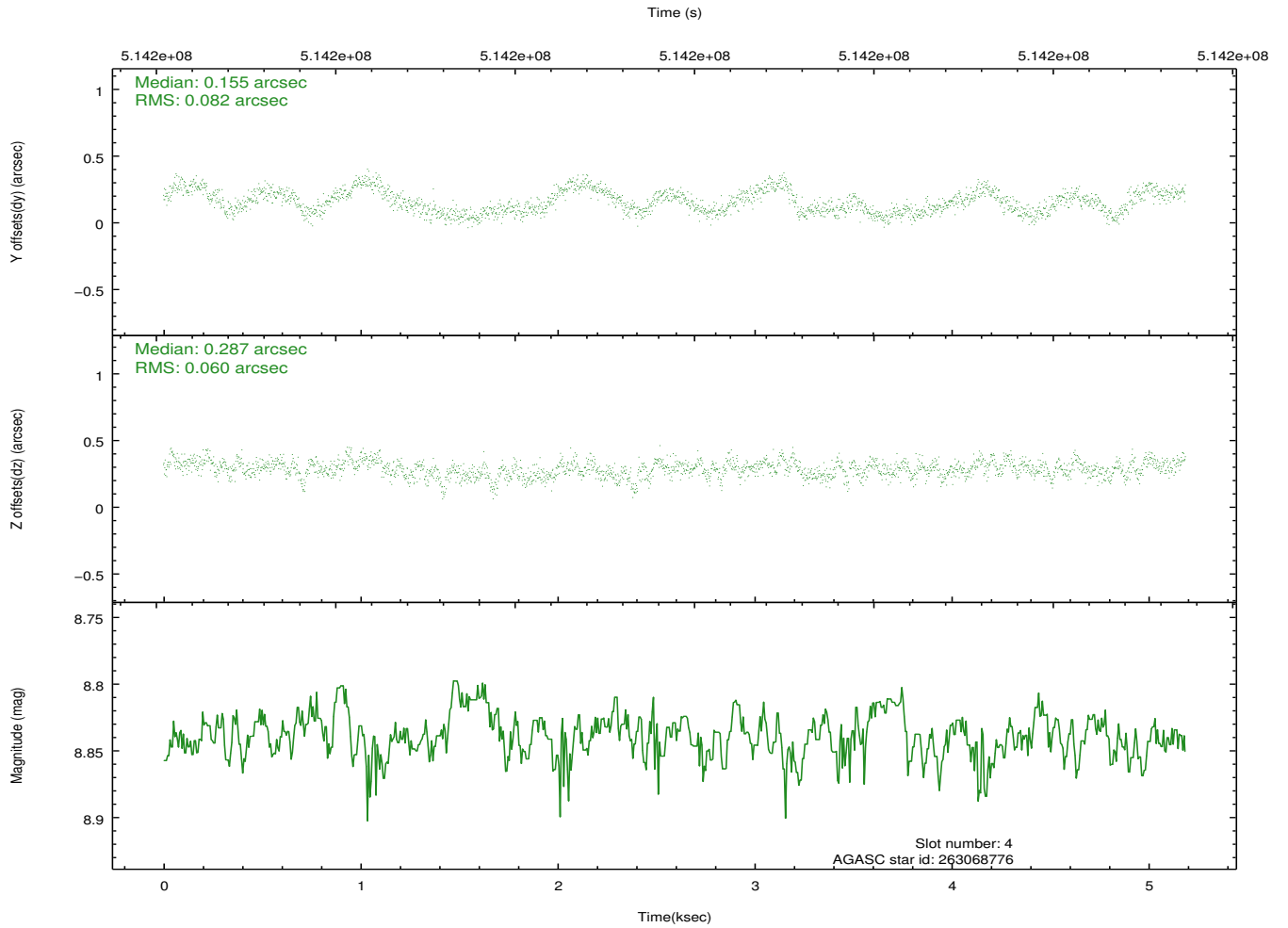
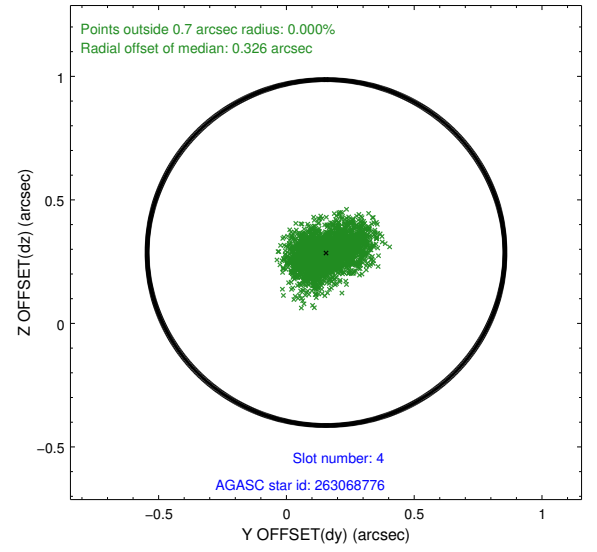
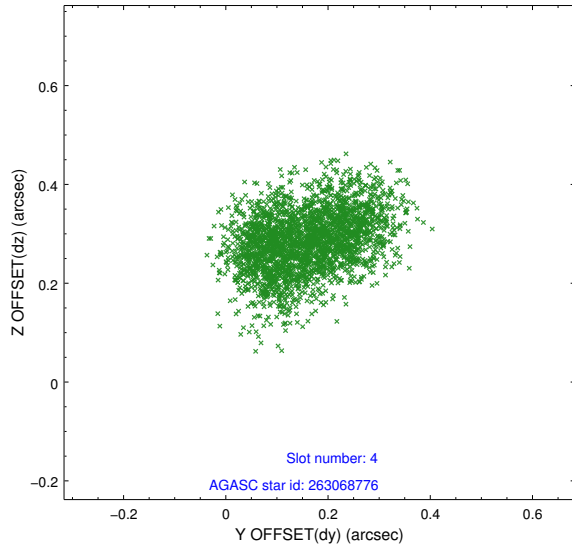
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	7.02	1265	-0.126	-0.127	0.011	0.023	0.000000	0.000000	-776.75	-848.25
1	FID		ACIS-I-4	7.05	1265	0.324	0.106	0.010	0.017	0.000000	0.000000	2137.11	1057.73
2	FID		ACIS-I-5	7.10	1265	-0.298	0.091	0.012	0.021	0.000000	0.000000	-1829.36	1056.67
3	GUIDE	used	263068464	8.90	2531	0.014	-0.221	0.088	0.140	214.145675	22.675072	-1122.06	2304.66
4	GUIDE	used	263068776	8.84	2531	0.155	0.287	0.110	0.171	214.499885	23.608632	-1456.29	-1238.09
5	GUIDE	used	263070912	7.06	2531	0.013	0.083	0.079	0.126	213.756514	23.686063	991.01	-926.84
6	GUIDE	used	263070936	9.78	2530	-0.123	-0.141	0.168	0.264	213.504673	23.179585	1372.16	1040.53
7	GUIDE	used	263068552	9.62	2526	-0.073	-0.007	0.154	0.253	213.268886	23.490114	2391.12	135.87

2.4 Star Slots

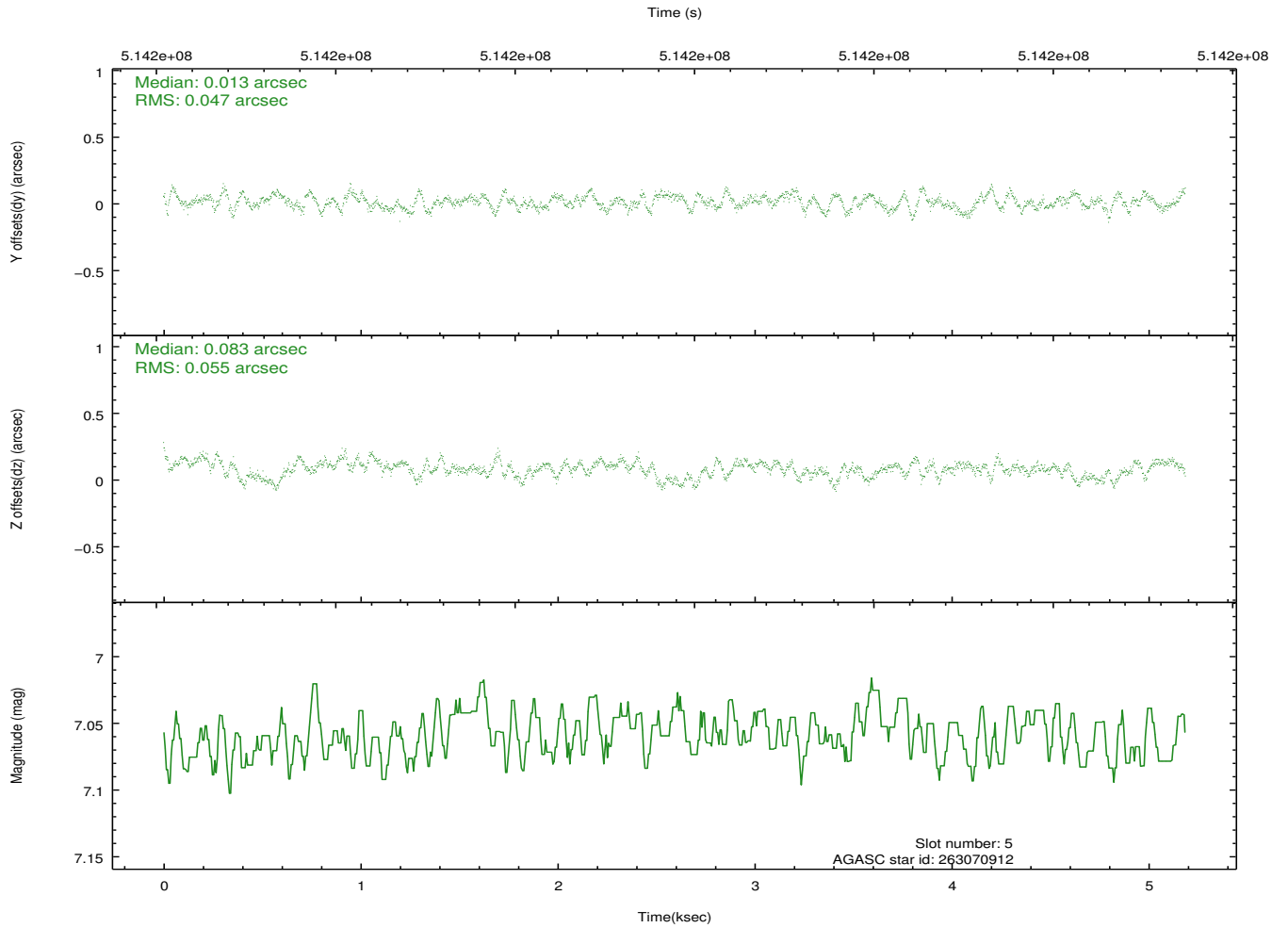
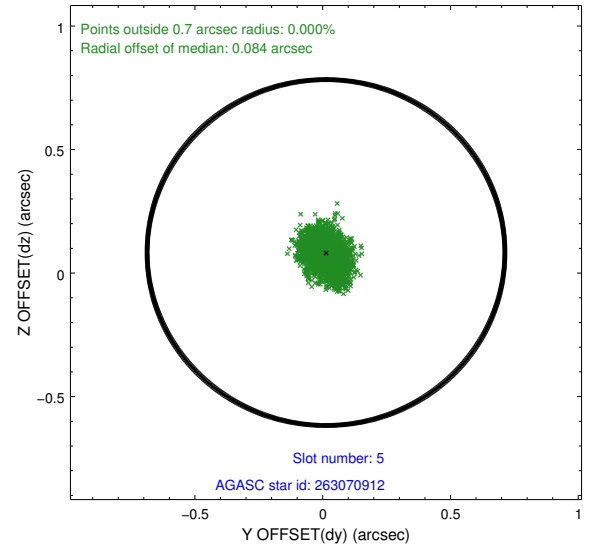
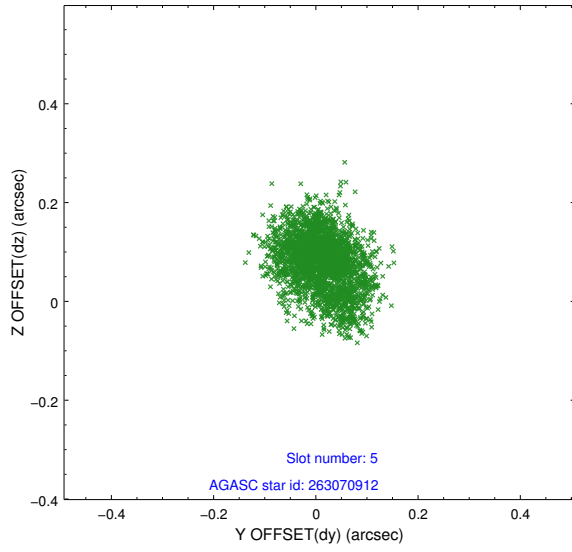
2.4.1 Slot 3



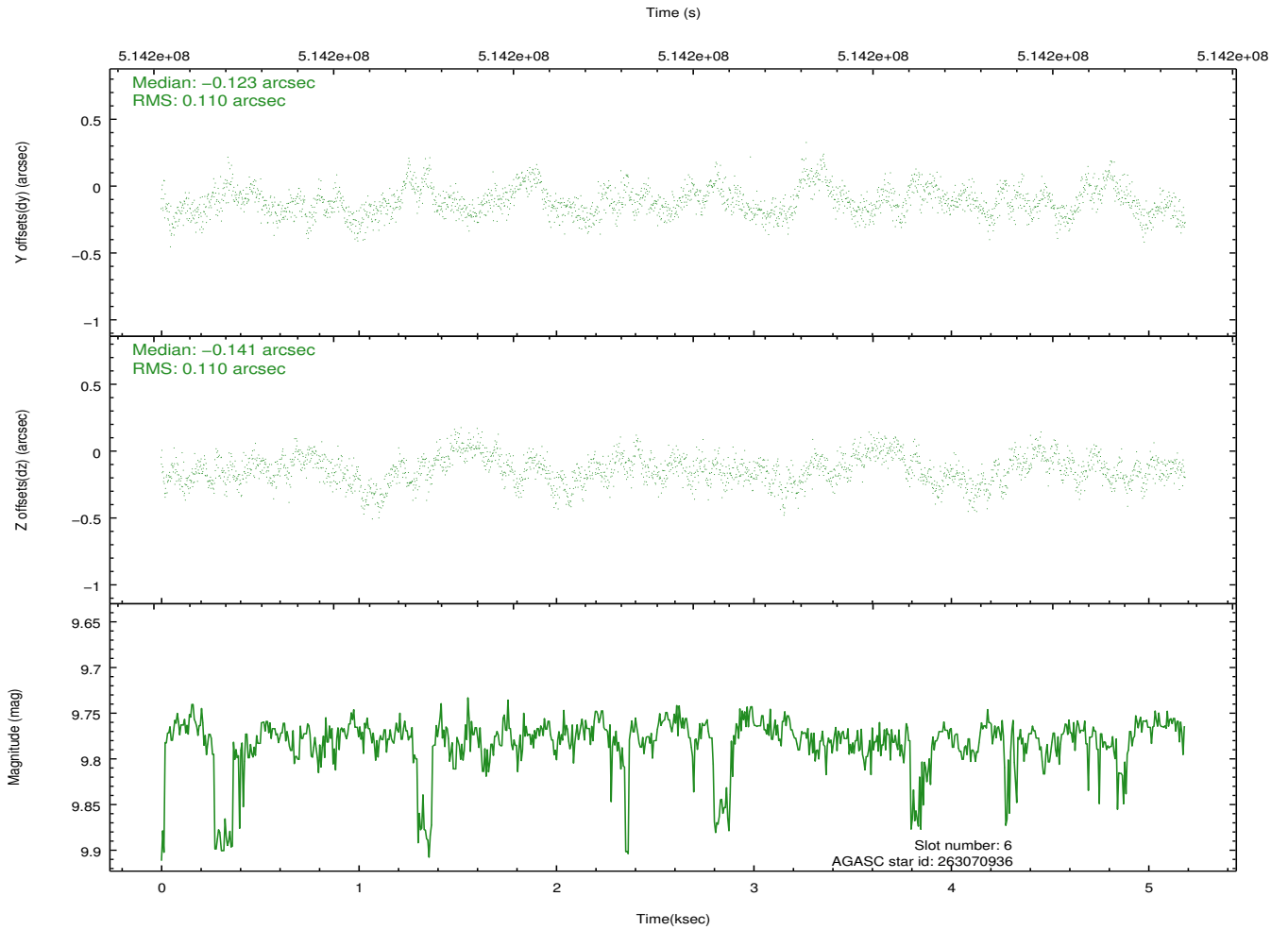
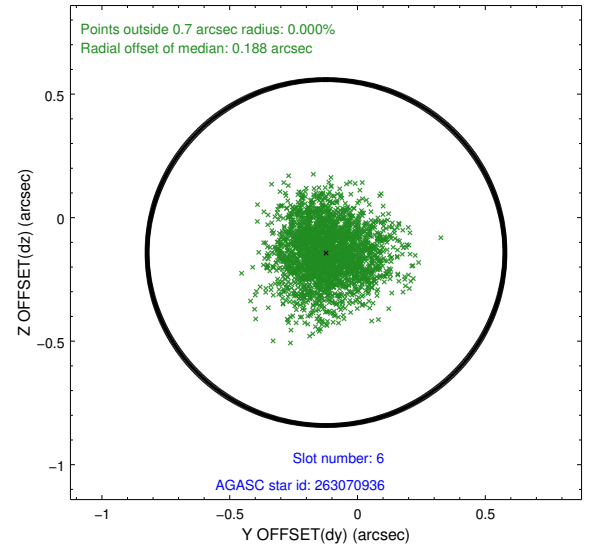
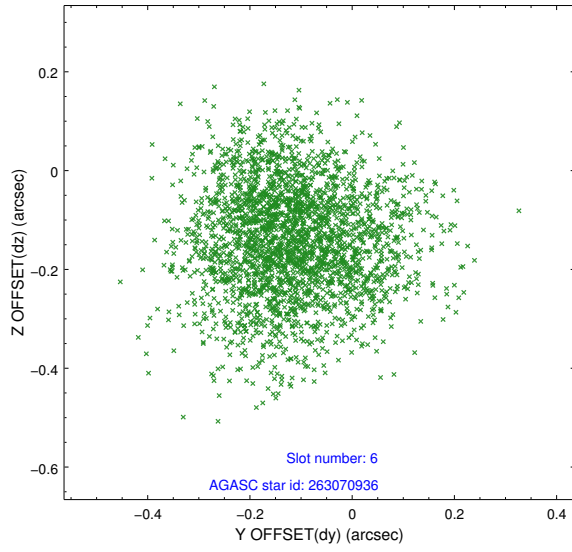
2.4.2 Slot 4



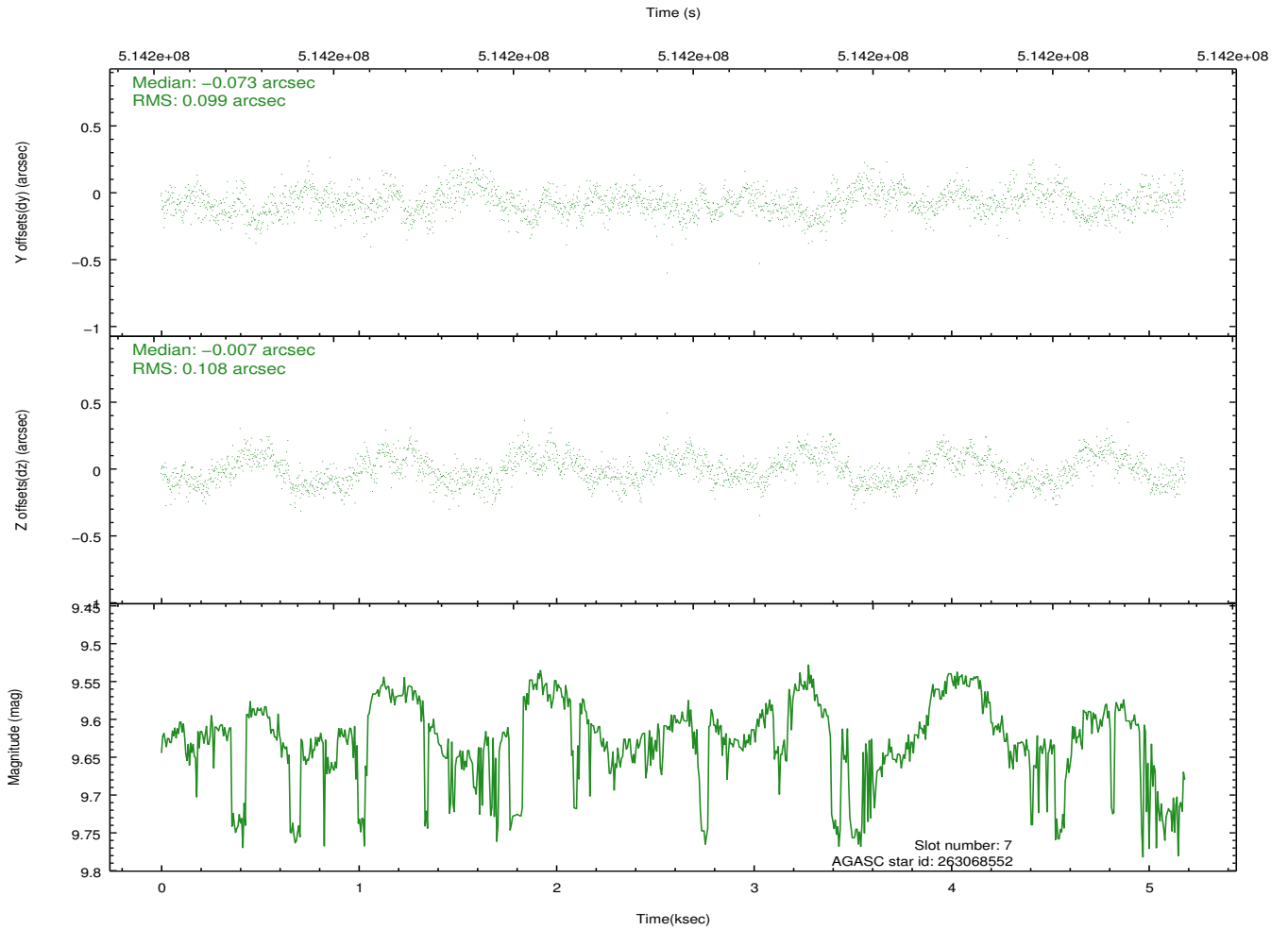
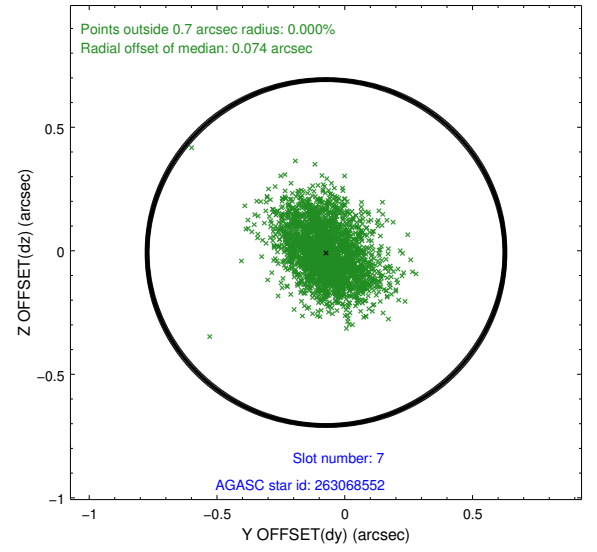
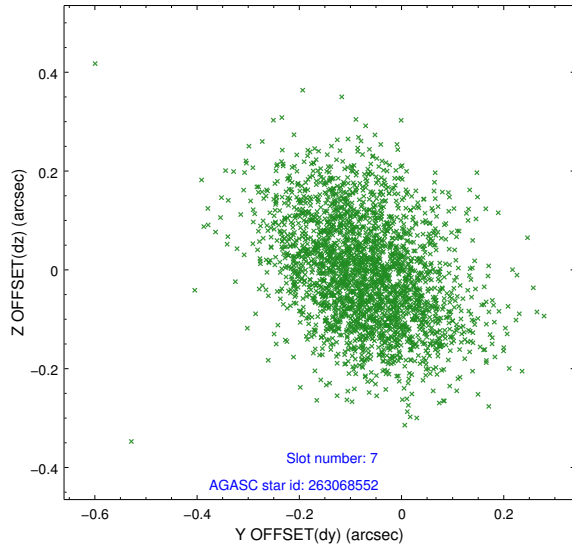
2.4.3 Slot 5



2.4.4 Slot 6

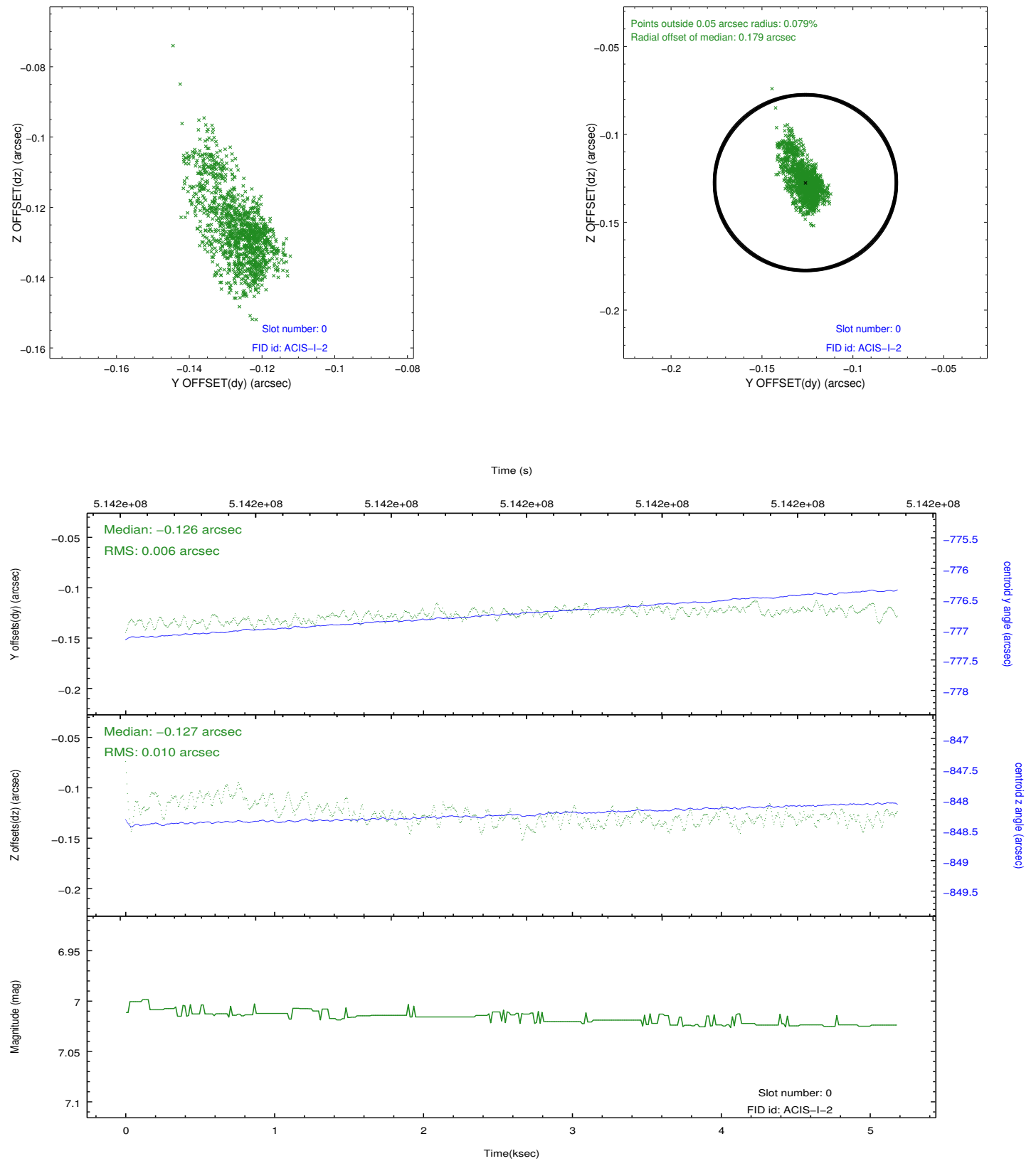


2.4.5 Slot 7

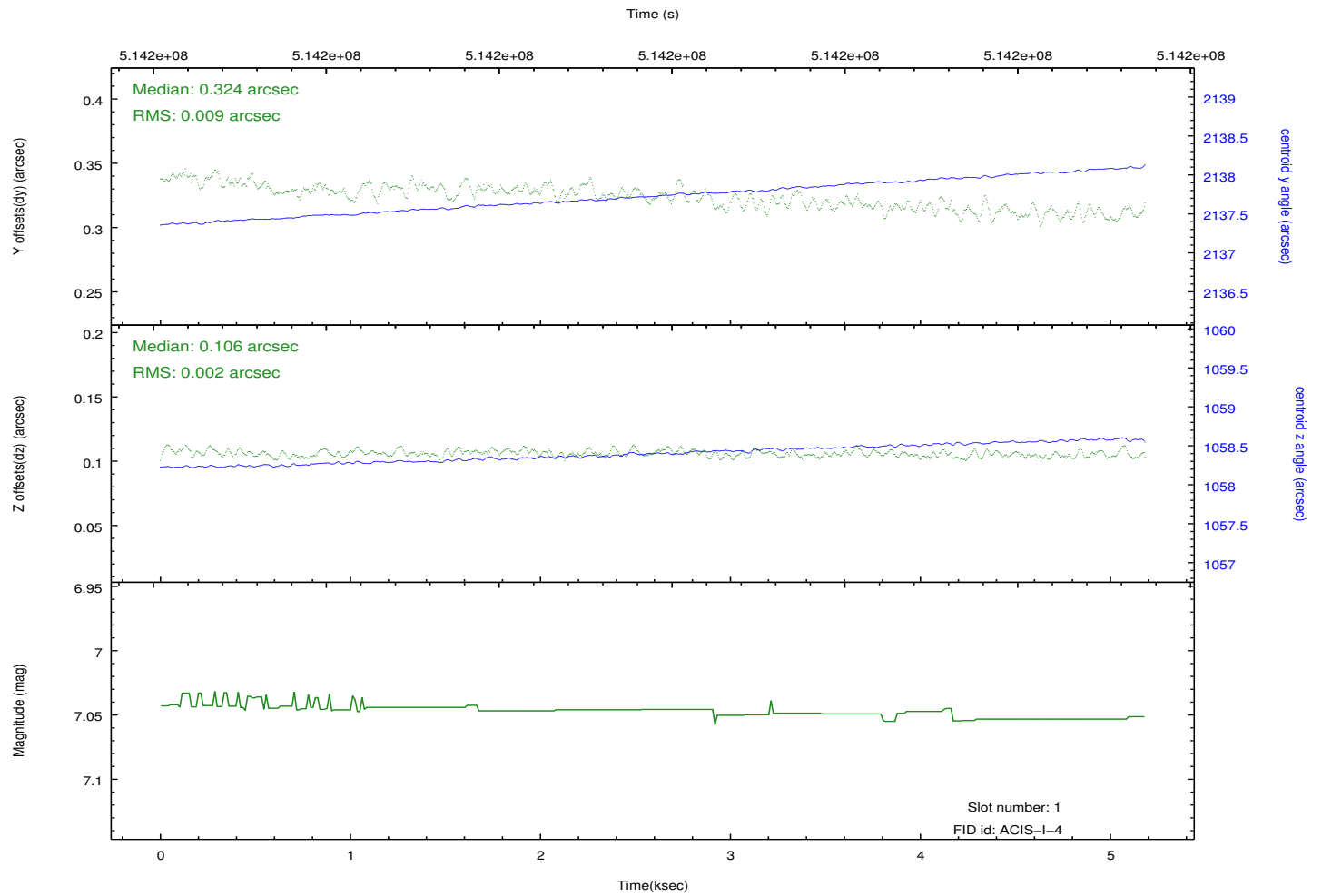
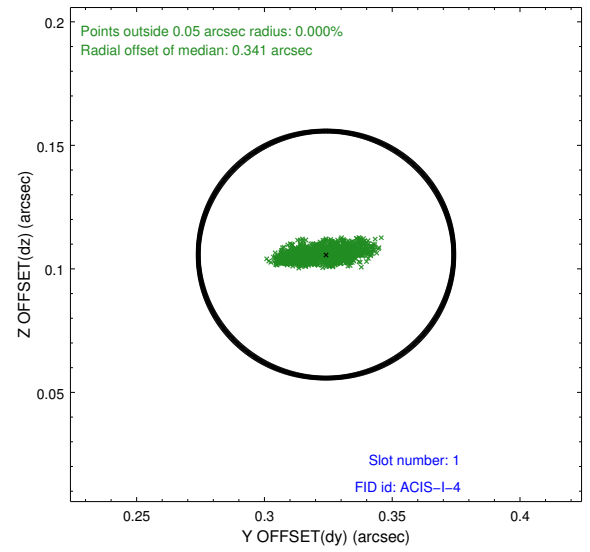
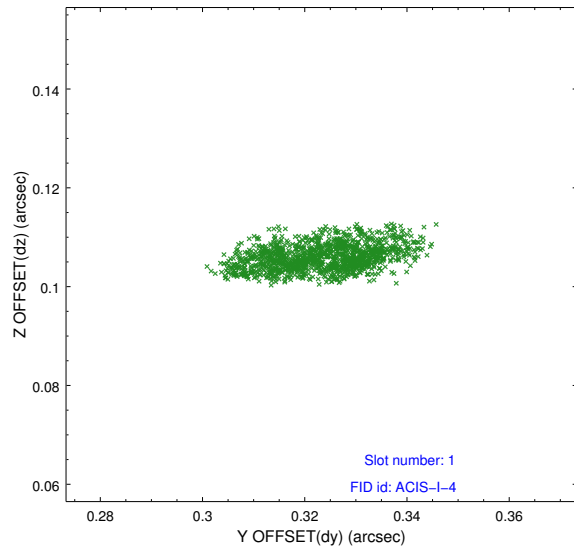


2.5 FID Slots

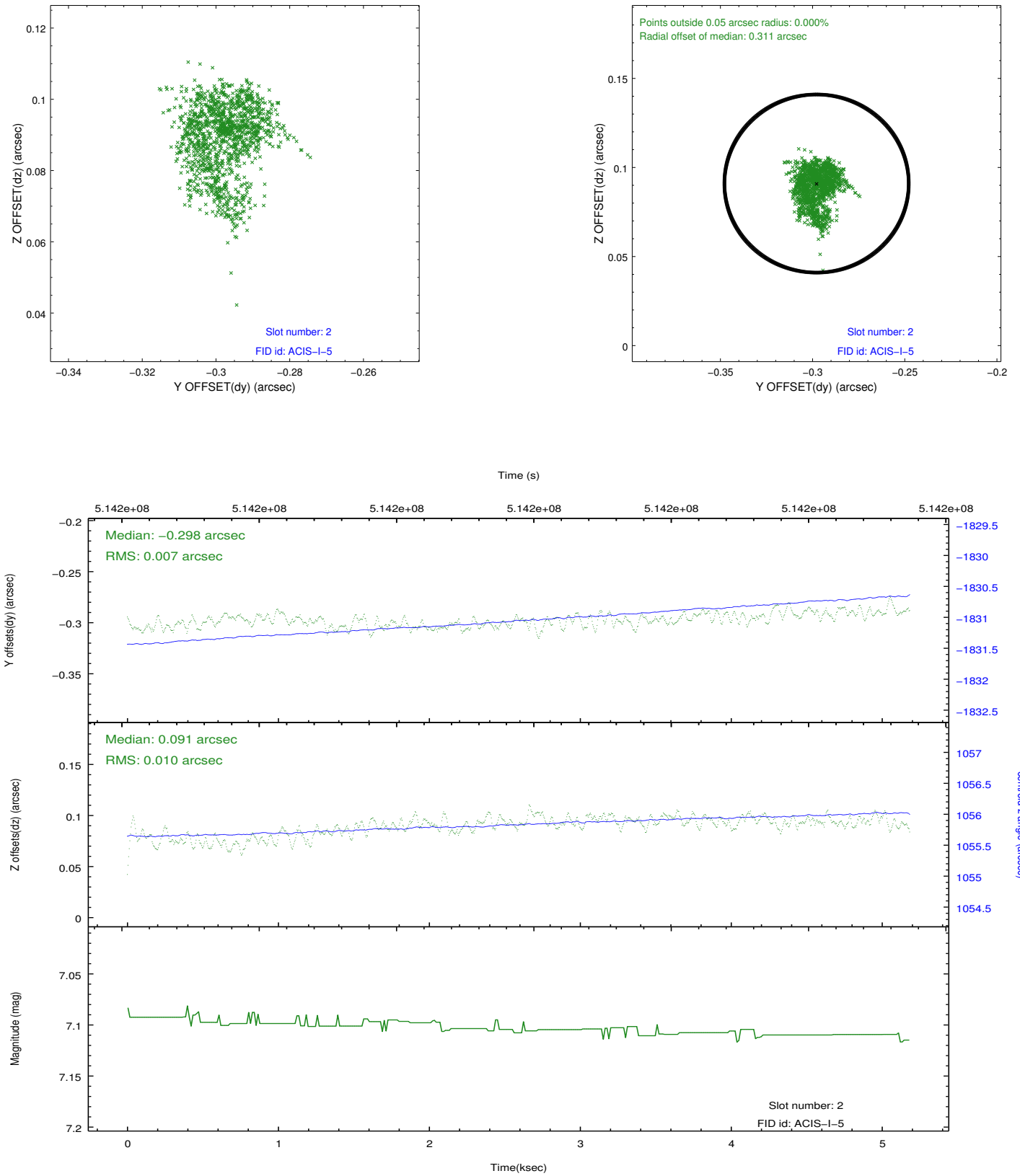
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.9727999815345

A.2 Comments

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.