

V&V Reference Report

L2 ASCDS Version : 10.2.4

Observation 16347 - L2 Version 2
Chandra X-Ray Center

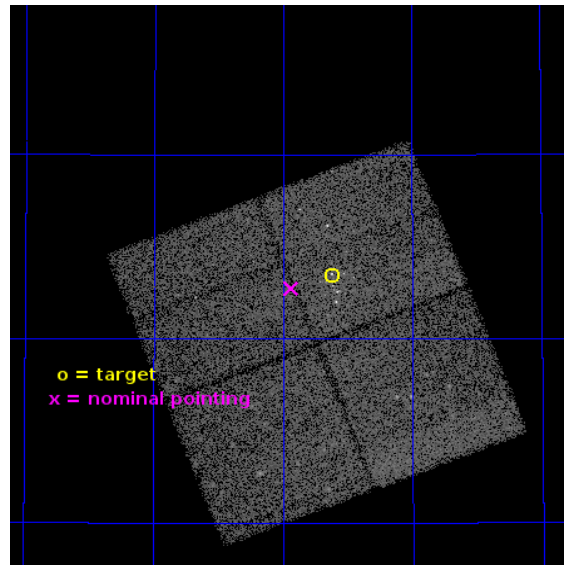
L2 Processing Date : Sep 3 2014

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

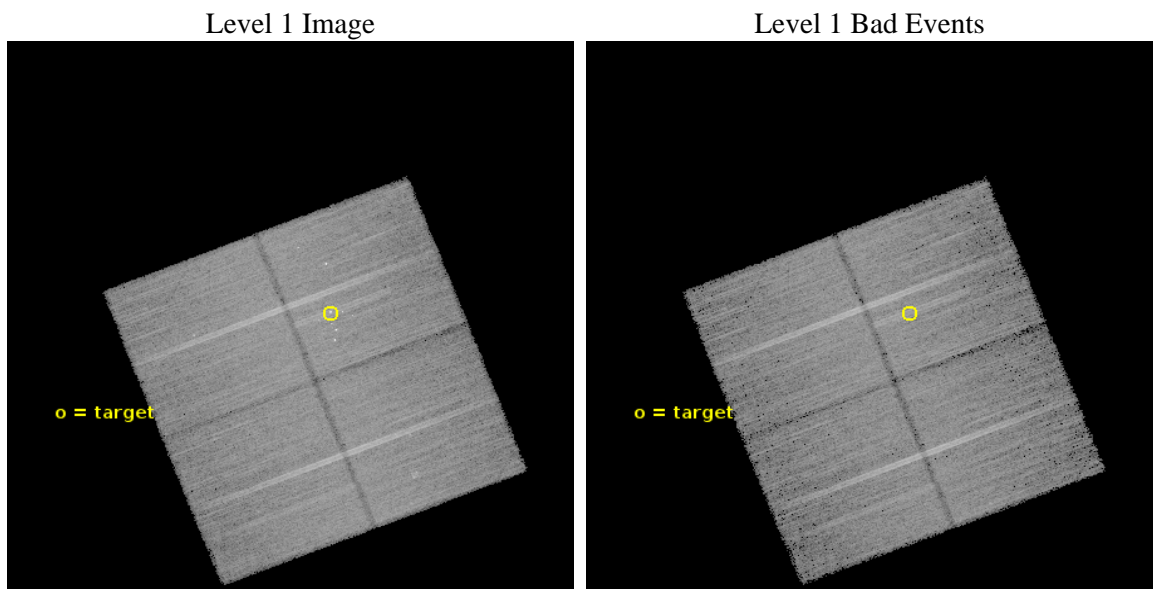
seq_num	601147	Sequence number
obs_id	16347	Observation id
title	Searching for evidence of dwarf galaxy collisions with large spiral galaxies through X-ray emission	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	NGC3359	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	161.653333	Observer's specified target RA [deg]
dec_targ	63.224167	Observer's specified target Dec [deg]
ra_nom	161.73339141142	Nominal RA [deg]
dec_nom	63.212577774614	Nominal Dec [deg]
roll_nom	338.62576391182	Nominal Roll [deg]
revision	2	Processing version of data
ontime	49953.359413803	Sum of GTIs [s]
livetime	49300.681997933	Livetime [s]
ontime0	49953.359423876	Sum of GTIs [s]
ontime1	49953.359423816	Sum of GTIs [s]
ontime2	49956.500384212	Sum of GTIs [s]
ontime3	49953.359413803	Sum of GTIs [s]
l2events	100937	Number of level 2 events



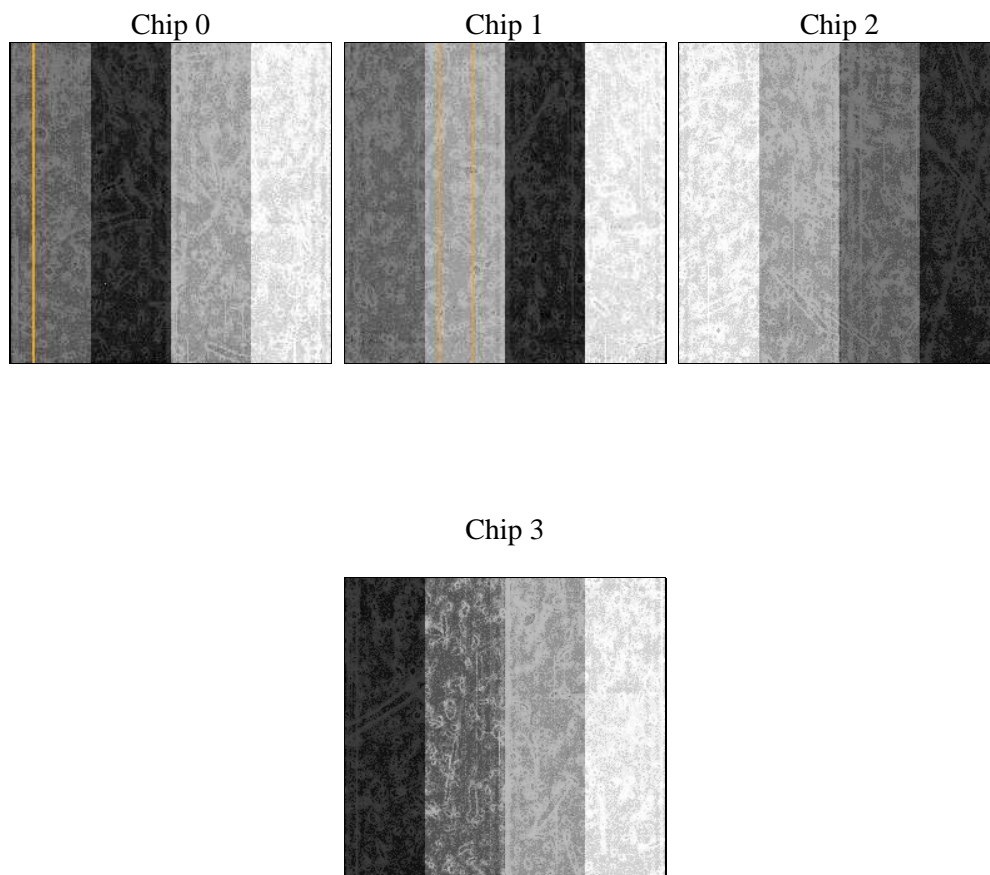
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	49863.000000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	49953.359413803	Sum of GTIs [s]
caldsver	4.6.3	 	ontime0	49953.359423876	Sum of GTIs [s]
date	2014-09-03T16:39:56	Date and time of file creation	ontime1	49953.359423816	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	49956.500384212	Sum of GTIs [s]
			ontime3	49953.359413803	Sum of GTIs [s]
			l1events	929667	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	220182	224849	241168	243468
rejected events	191288	192835	213448	211680
rejected %	86%	85%	88%	86%

	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	9699	11255	9571	13273
	4%	5%	3%	5%
grade 1 events	112	112	155	170
	0%	0%	0%	0%
grade 2 events	7356	7793	6958	6513
	3%	3%	2%	2%
grade 3 events	2968	3077	2825	3095
	1%	1%	1%	1%
grade 4 events	2799	3128	2932	3024
	1%	1%	1%	1%
grade 5 events	11703	12398	10973	13239
	5%	5%	4%	5%
grade 6 events	6075	6765	5434	5885
	2%	3%	2%	2%
grade 7 events	179470	180321	202320	198269
	81%	80%	83%	81%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	161.672863	161.7333914114174	Subarray requested	NONE	NONE
[deg] Pointing Dec	63.208328	63.21257777461409	Alternating exposures requested	N	N
[deg] Pointing Roll	338.471104	338.6257639118174	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-226.592463	-226.5900949765872			
[mm] SIM translation stage offset	-7	-7.002358026342478			
[s] Observation start time (MET)	524484872.184000	524483886.88614			
Observation start date	2014-08-15T10:13:25	2014-08-15T09:58:06			
[s] Observation end time (MET)	524534735.184000	524535414.15149			
Observation end date	2014-08-16T00:04:28	2014-08-16T00:16:54			
Read mode	TIMED	TIMED			

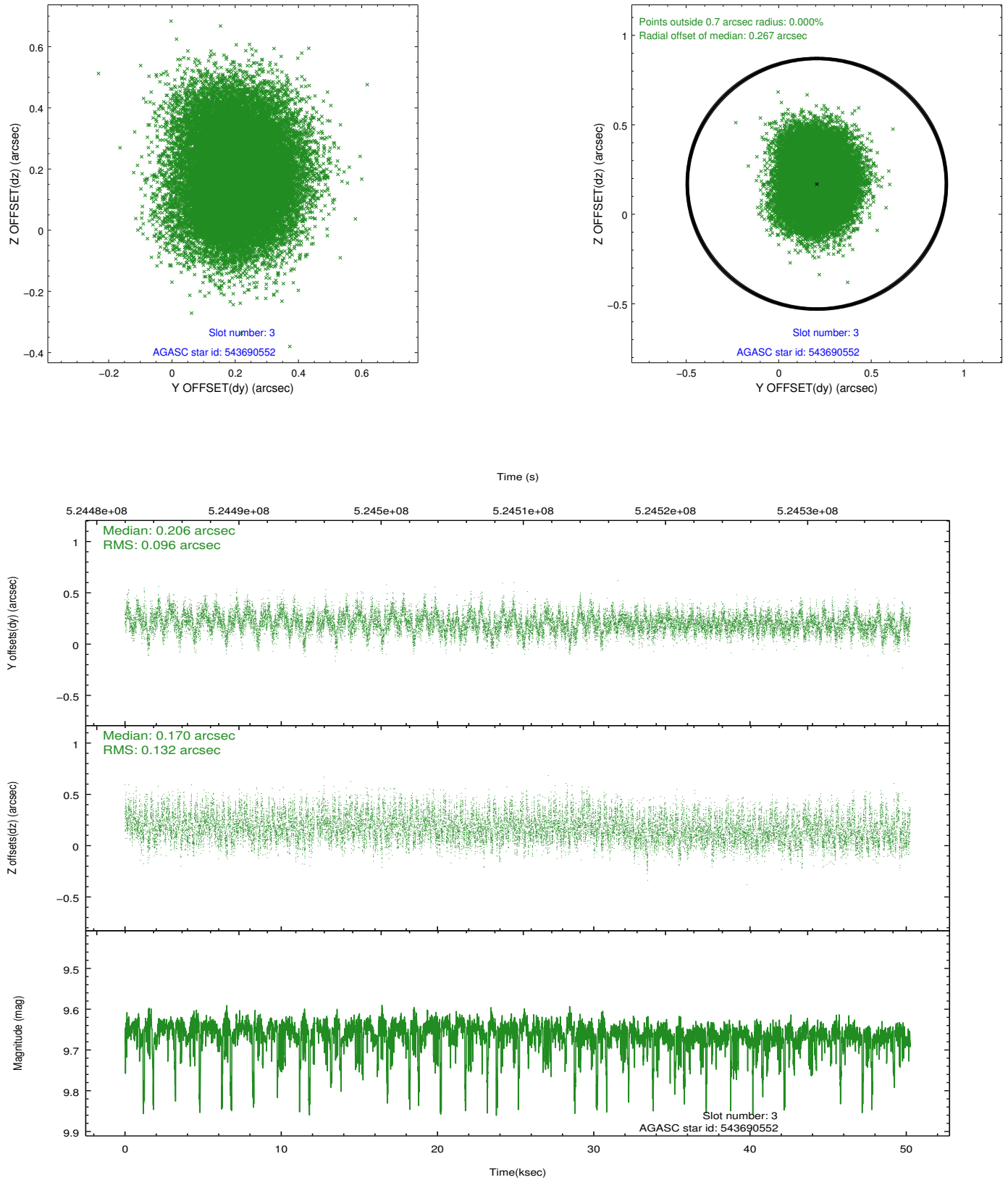
2.3 Aspect

Slot Statistics

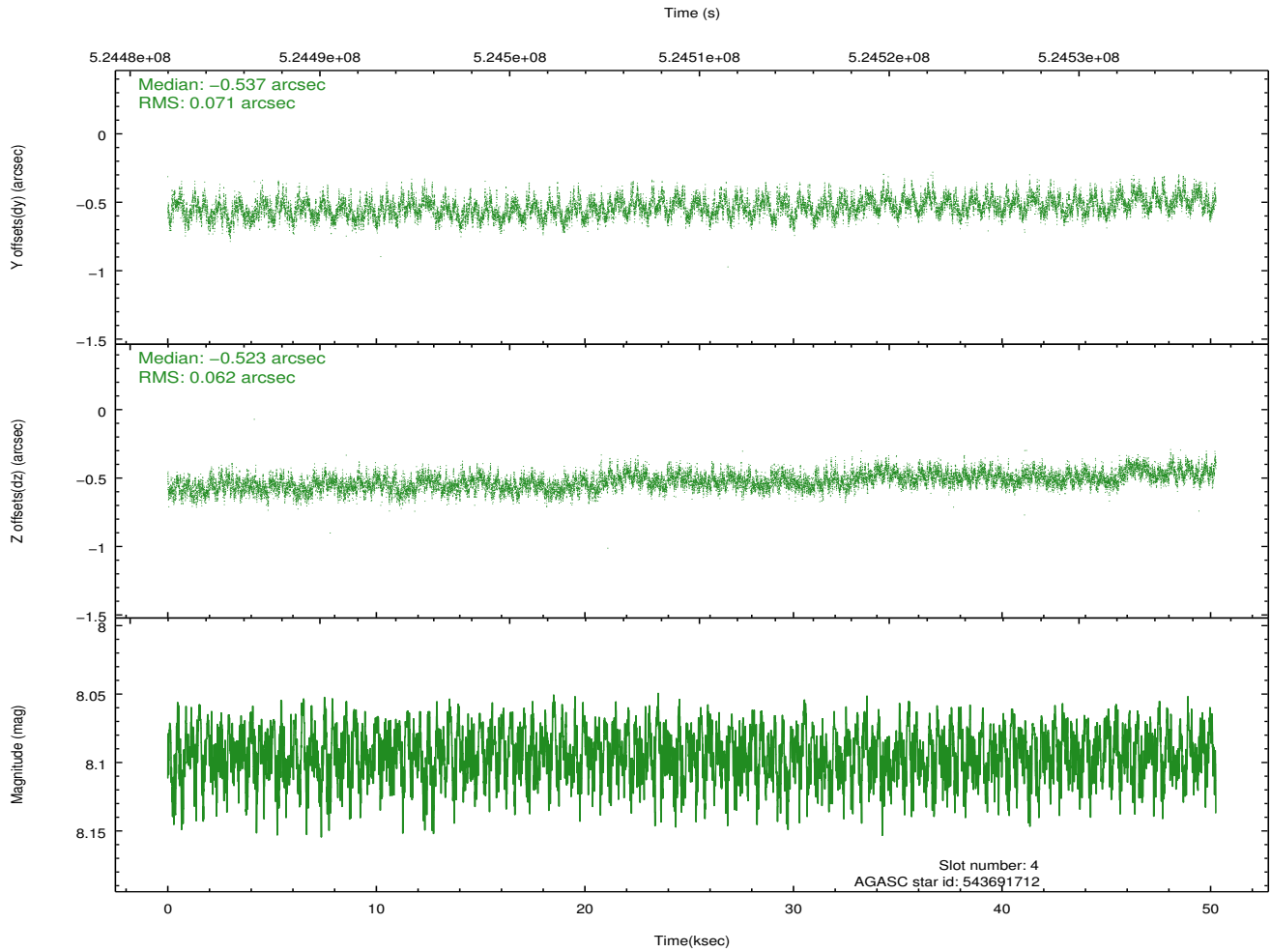
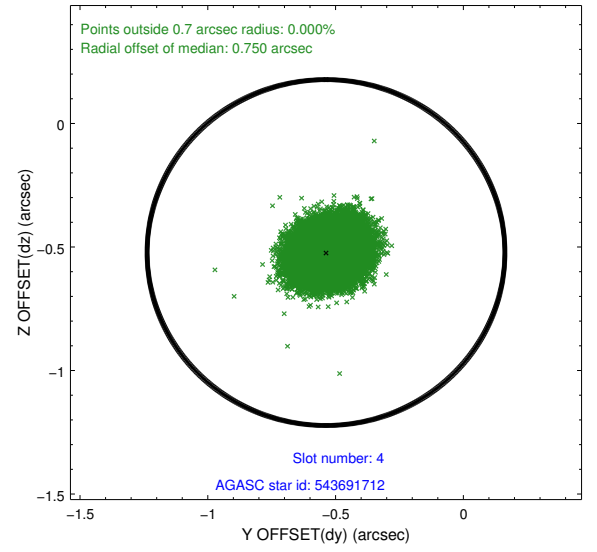
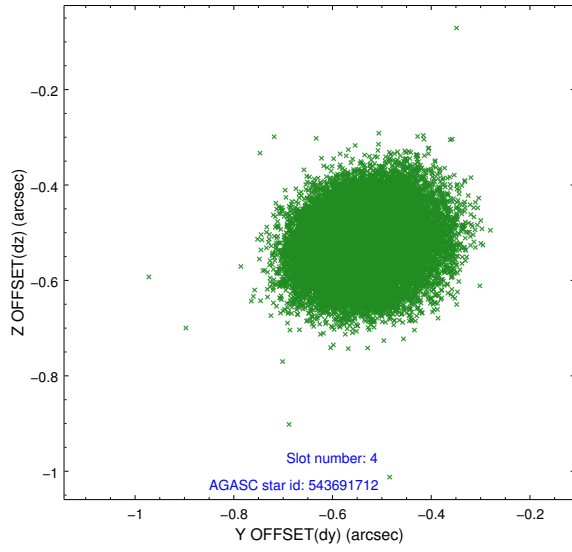
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.05	12257	0.066	-0.010	0.019	0.044	0.000000	0.000000	913.05	-991.49
1	FID	ACIS-I-5	7.05	12258	-0.322	0.045	0.020	0.038	0.000000	0.000000	-1835.56	905.91
2	FID	ACIS-I-6	7.06	12258	0.155	0.035	0.023	0.035	0.000000	0.000000	378.57	1550.50
3	GUIDE	543690552	9.66	24410	0.206	0.170	0.175	0.281	161.406293	62.594161	400.96	-2217.52
4	GUIDE	543691712	8.09	24509	-0.537	-0.523	0.101	0.160	163.378753	63.551172	2078.43	2185.58
5	GUIDE	543693176	8.97	24497	-0.275	-0.048	0.128	0.208	162.062791	62.518318	1513.89	-2070.74
6	GUIDE	543693504	8.71	24507	0.473	0.251	0.082	0.133	160.608718	63.039973	-1397.42	-1187.46
7	GUIDE	543694616	9.26	24495	0.131	0.147	0.119	0.193	160.217743	63.162828	-2148.93	-995.11

2.4 Star Slots

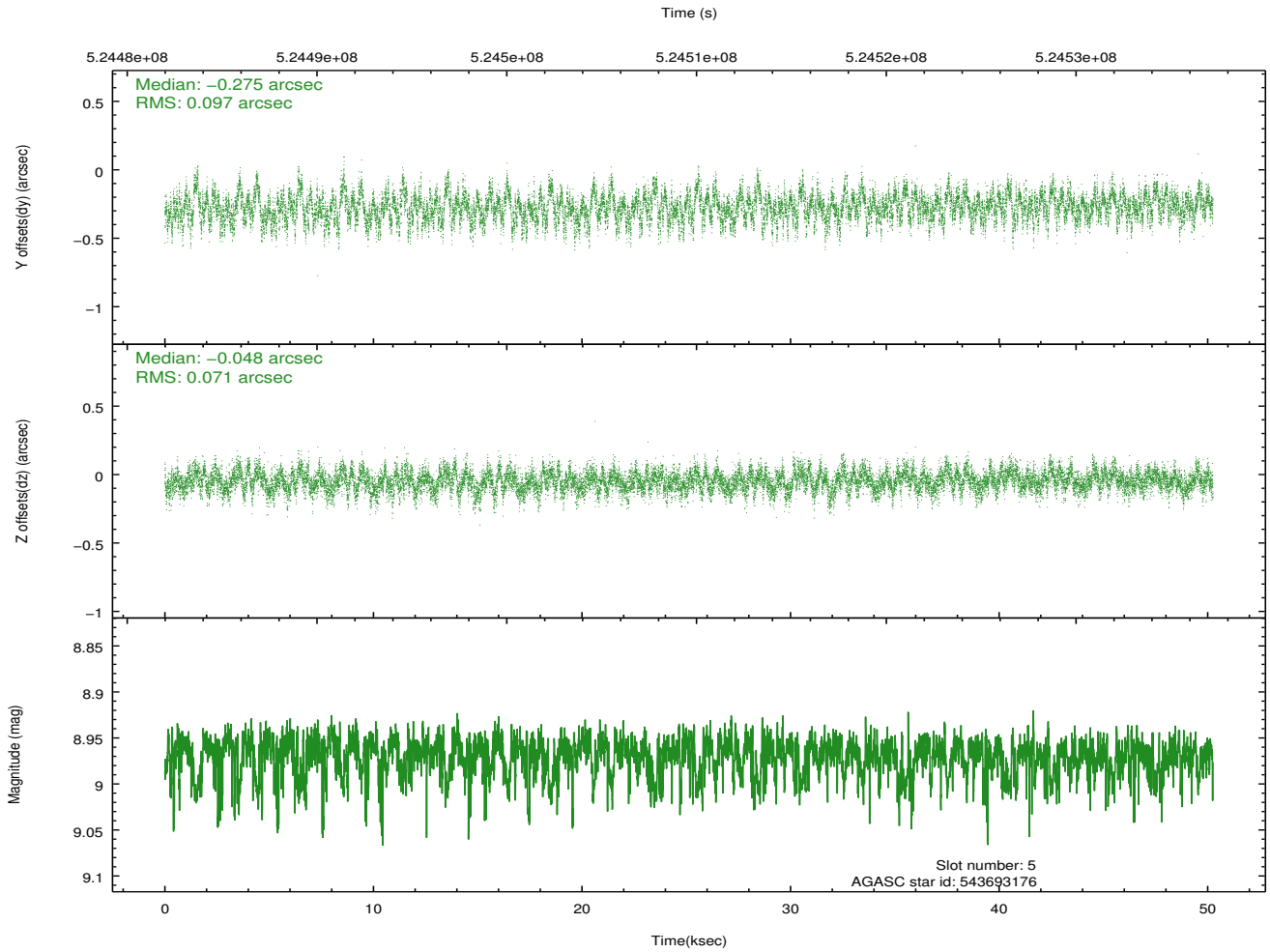
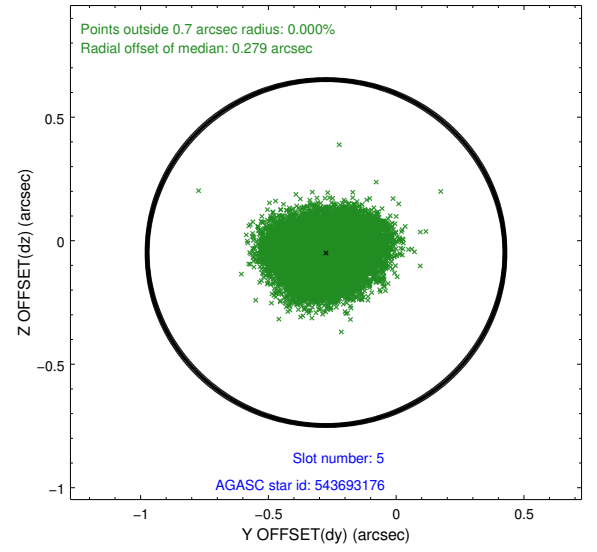
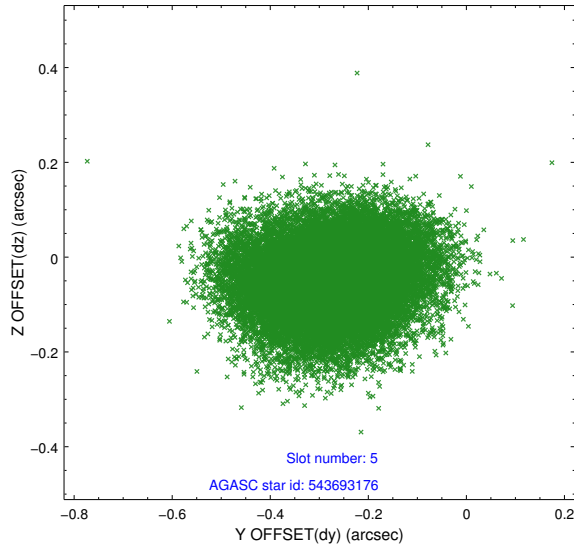
2.4.1 Slot 3



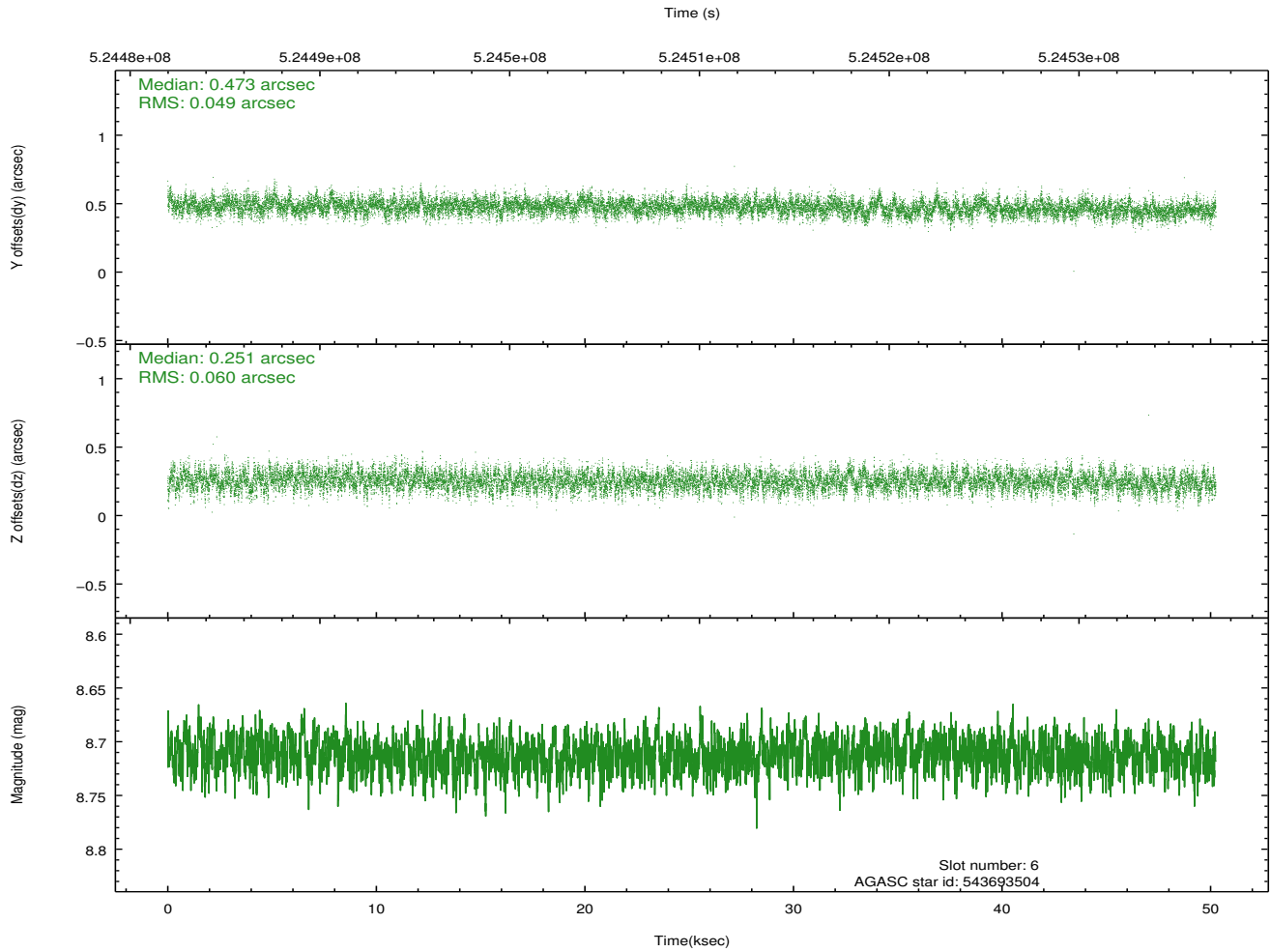
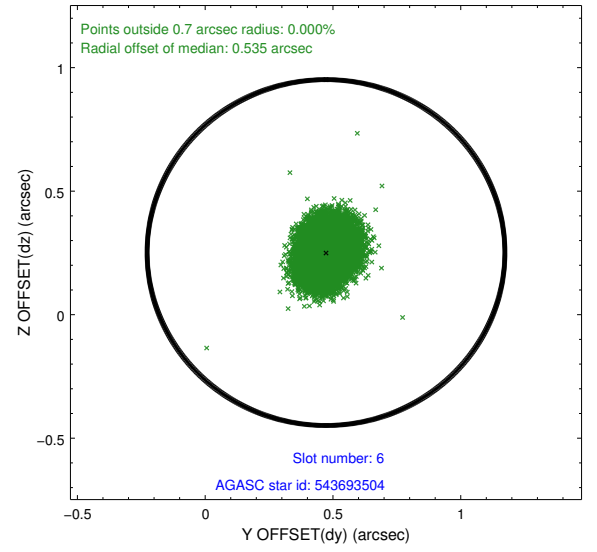
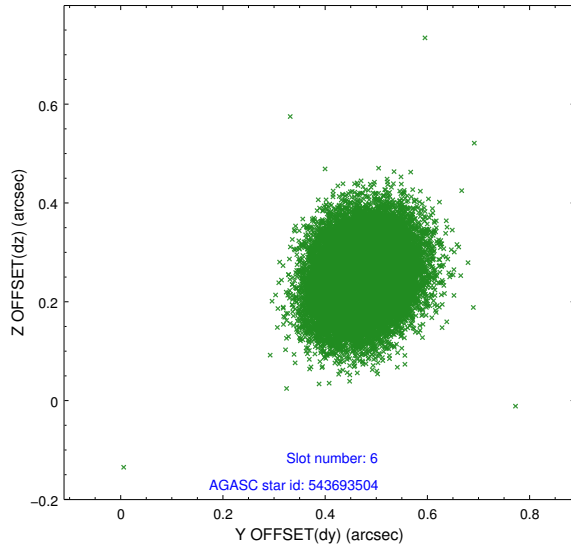
2.4.2 Slot 4



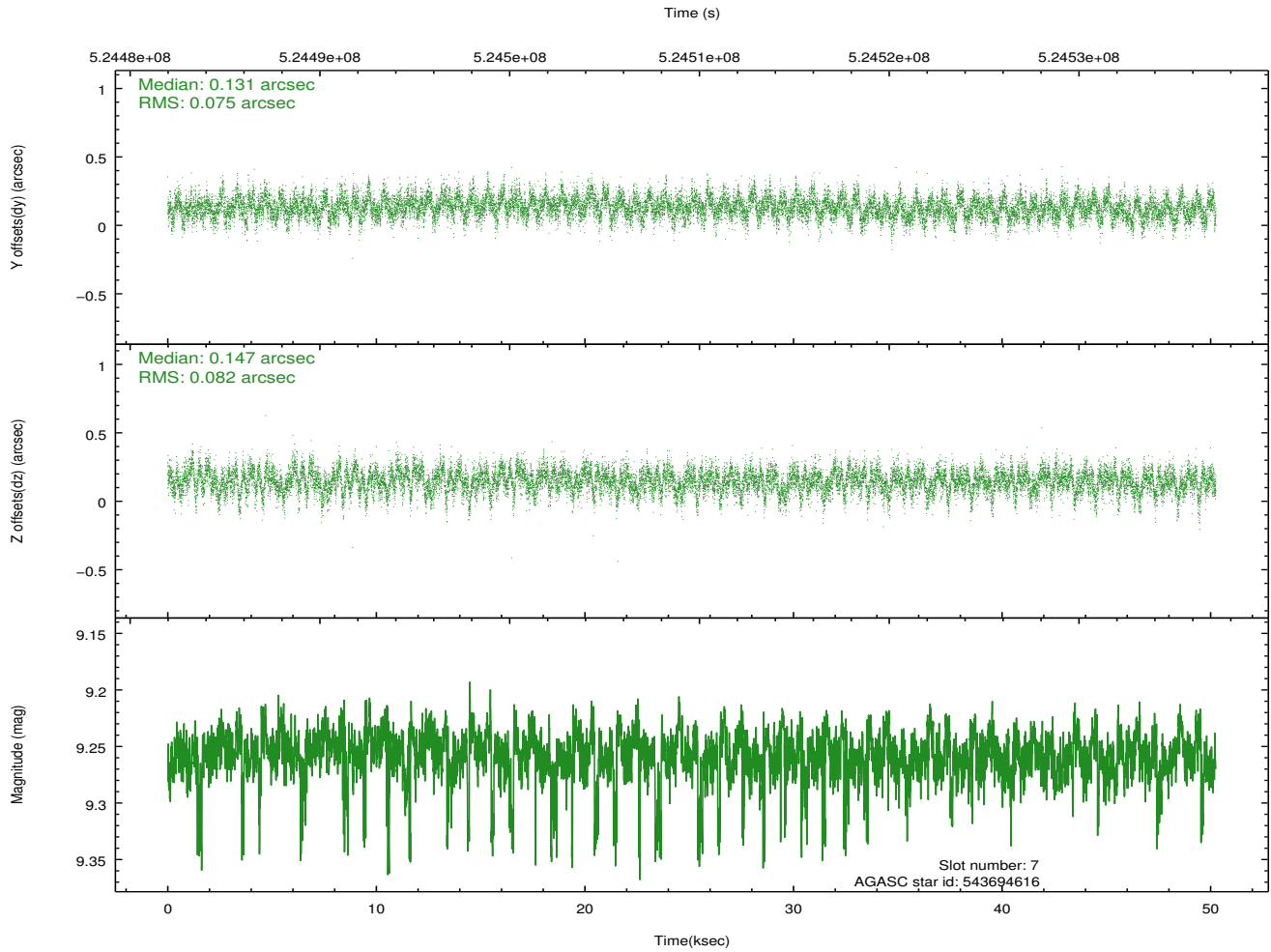
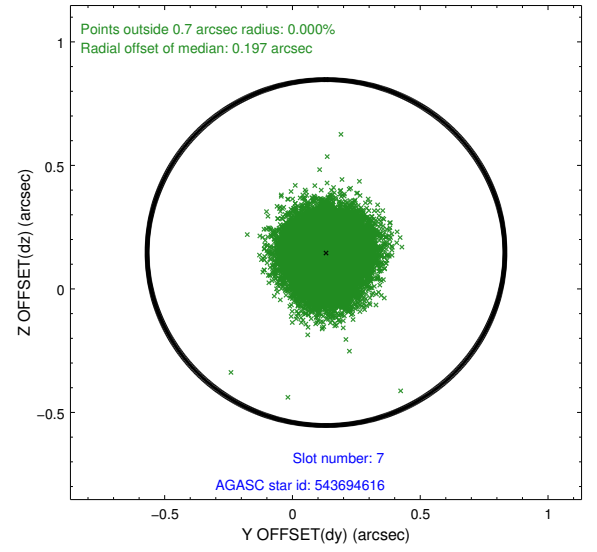
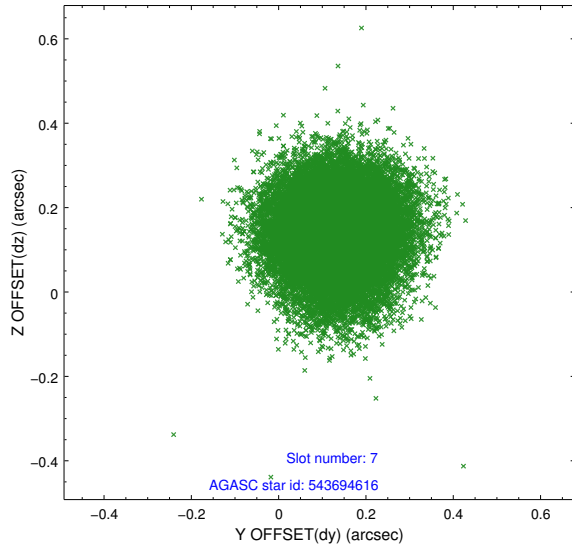
2.4.3 Slot 5



2.4.4 Slot 6

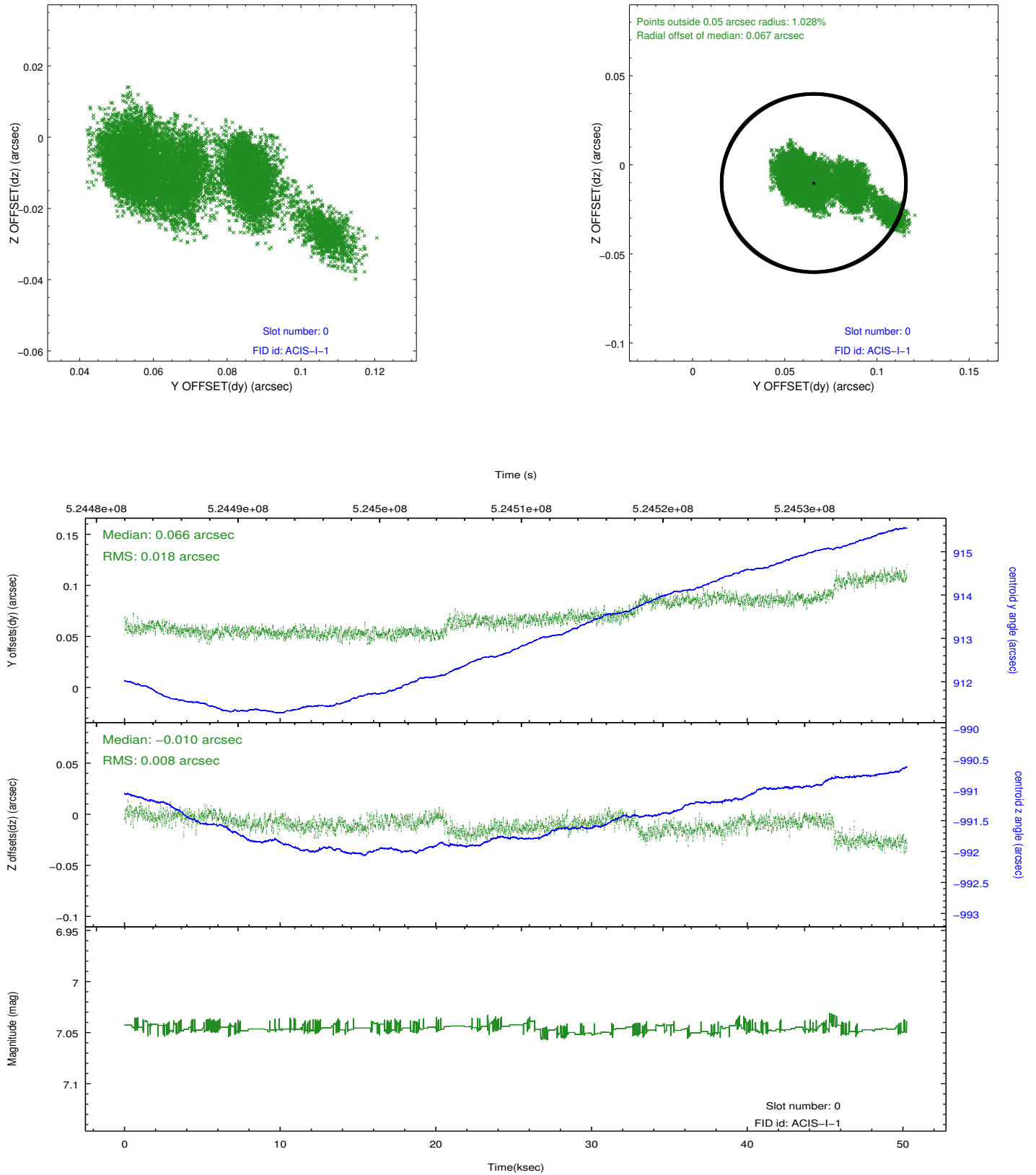


2.4.5 Slot 7

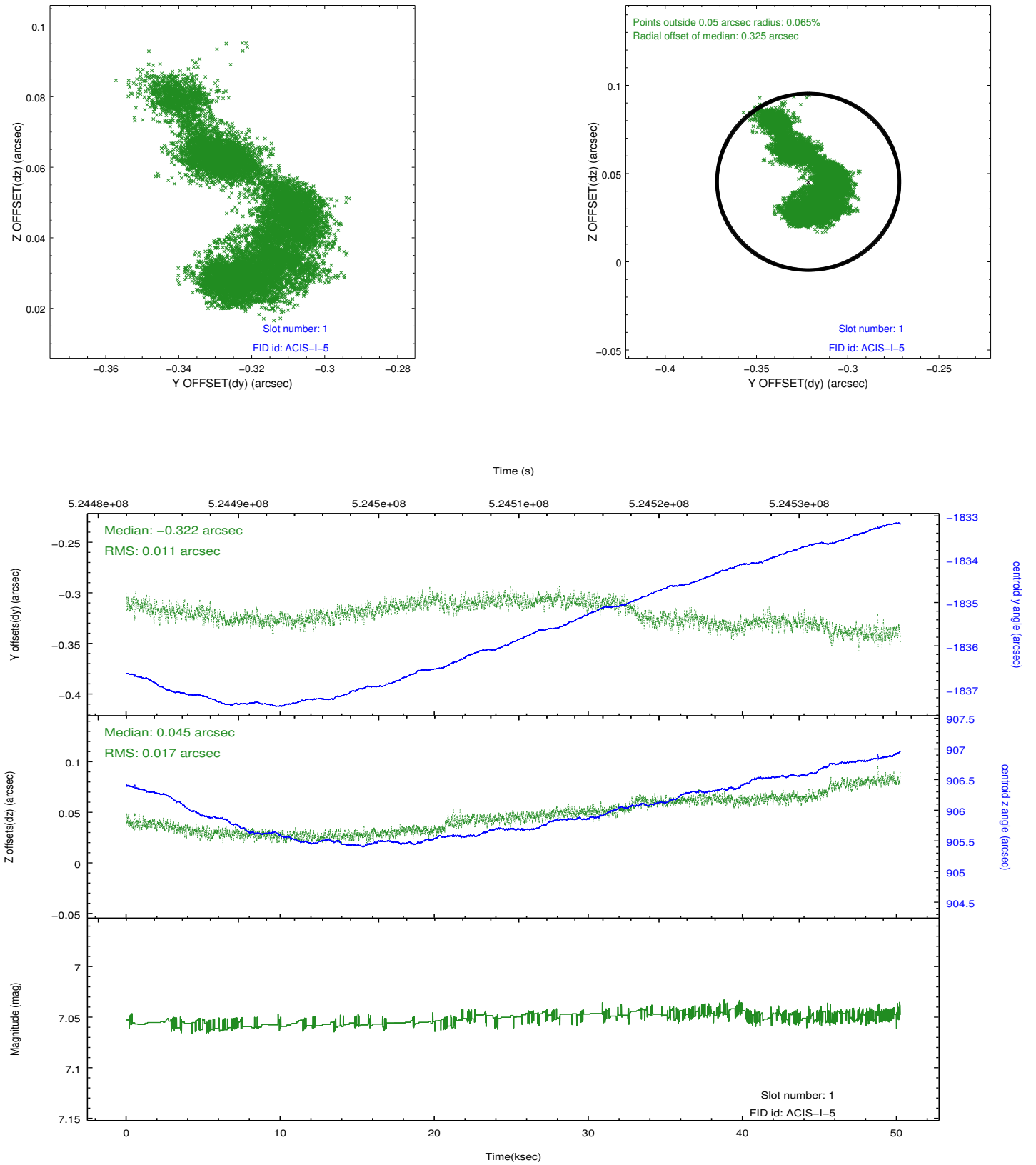


2.5 FID Slots

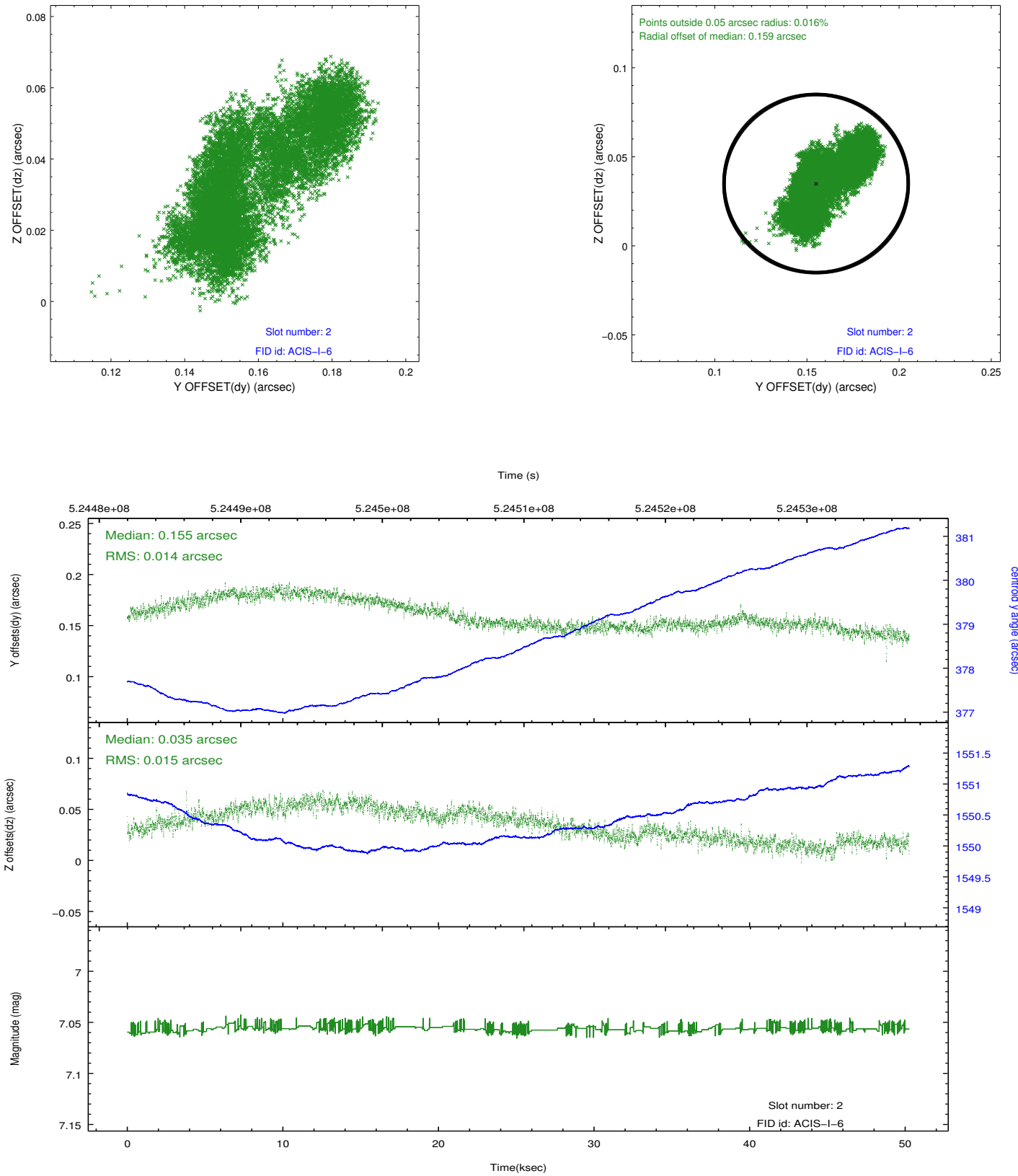
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.09.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	49.953359413803

A.2 Comments

A spatial region of the original bias map for CCD = 2 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 2 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords: (162.03764,63.18121), (162.03952,63.18336), (161.91385,63.20579), (161.91761,63.20263).