

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16421 - L2 Version 2
Chandra X-Ray Center

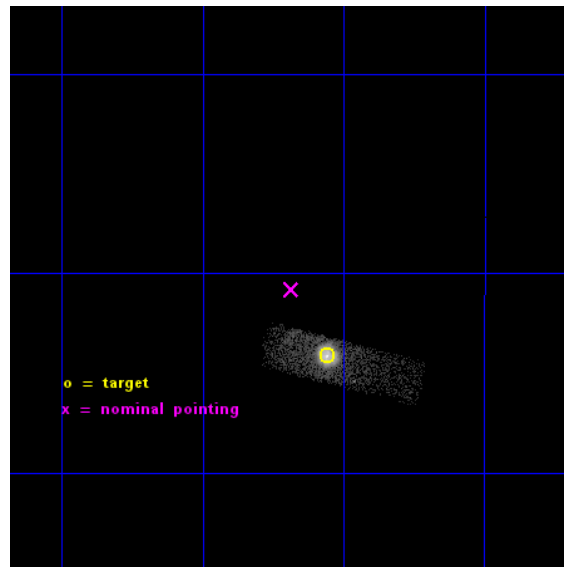
L2 Processing Date : Dec 11 2014

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

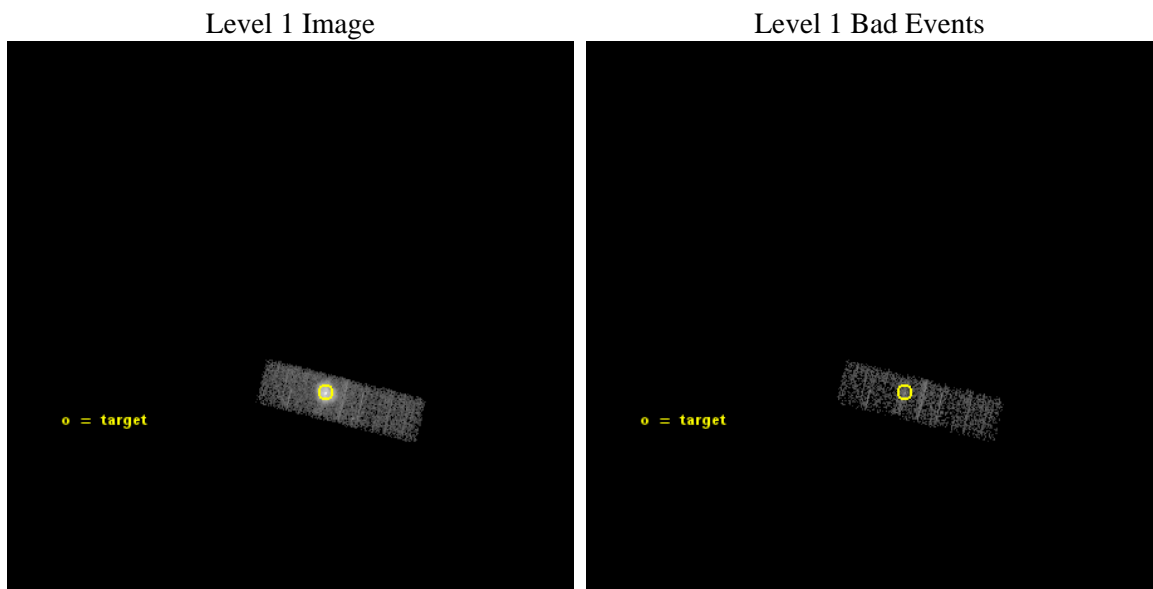
seq_num	590534	Sequence number
obs_id	16421	Observation id
title	AO-15 ACIS Calibration Observations of G21.5-09.	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-09	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.42126499608	Nominal RA [deg]
dec_nom	-10.51346866582	Nominal Dec [deg]
roll_nom	103.96623258045	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10062.13889116	Sum of GTIs [s]
livetime	9571.1394379916	Livetime [s]
ontime3	10062.13889116	Sum of GTIs [s]
l2events	26933	Number of level 2 events



2 OBI

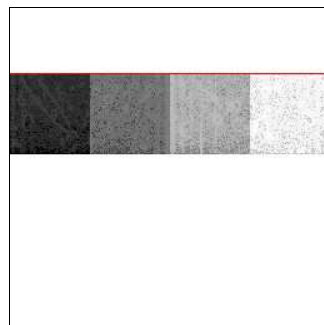
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 3



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	10062.13889116	Sum of GTIs [s]
caldsver	4.6.4	 	ontime3	10062.13889116	Sum of GTIs [s]
date	2014-12-11T12:54:06	Date and time of file creation	l1events	40373	Number of level 1 events
revision	2	Processing version of data			

2.1.4 Events

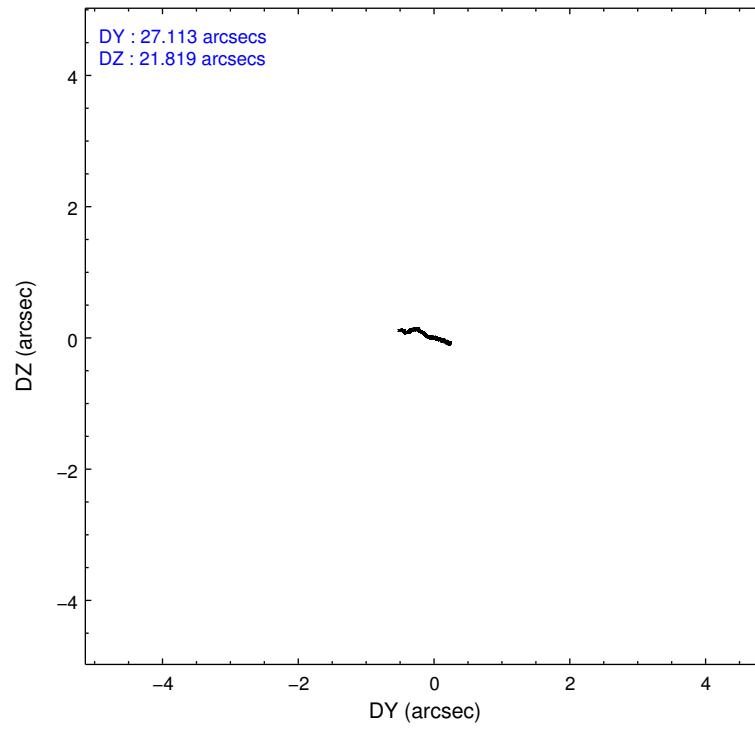
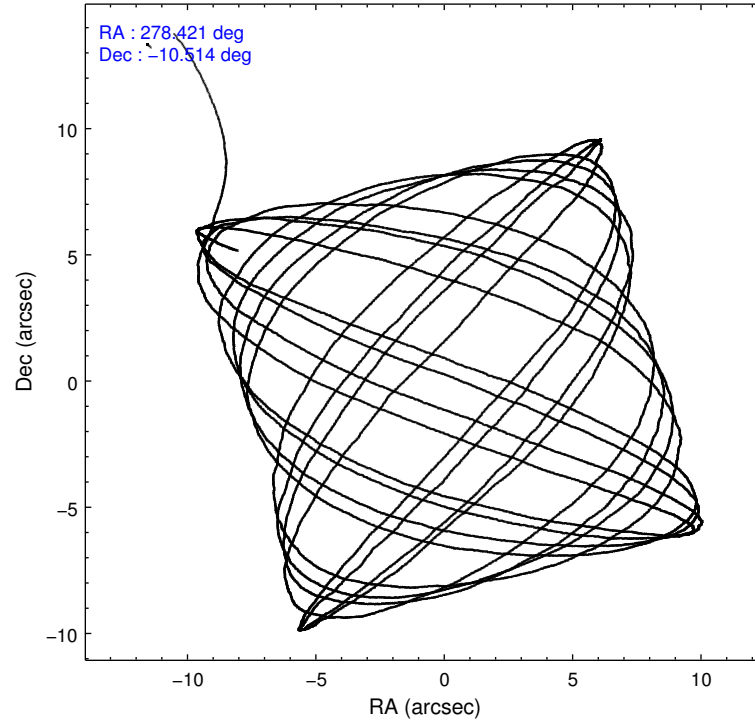
	ccd 3
level 1 events	40373
rejected events	12210
rejected %	30%

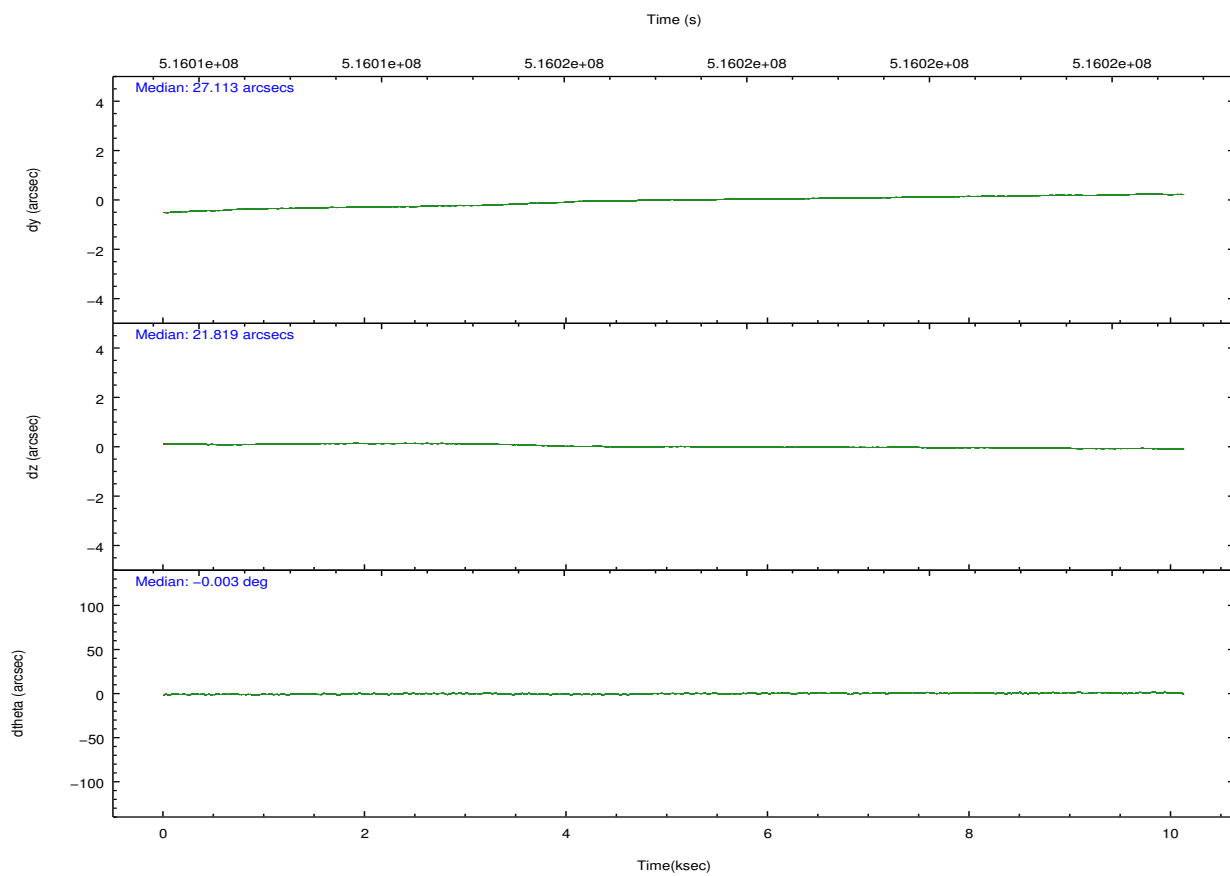
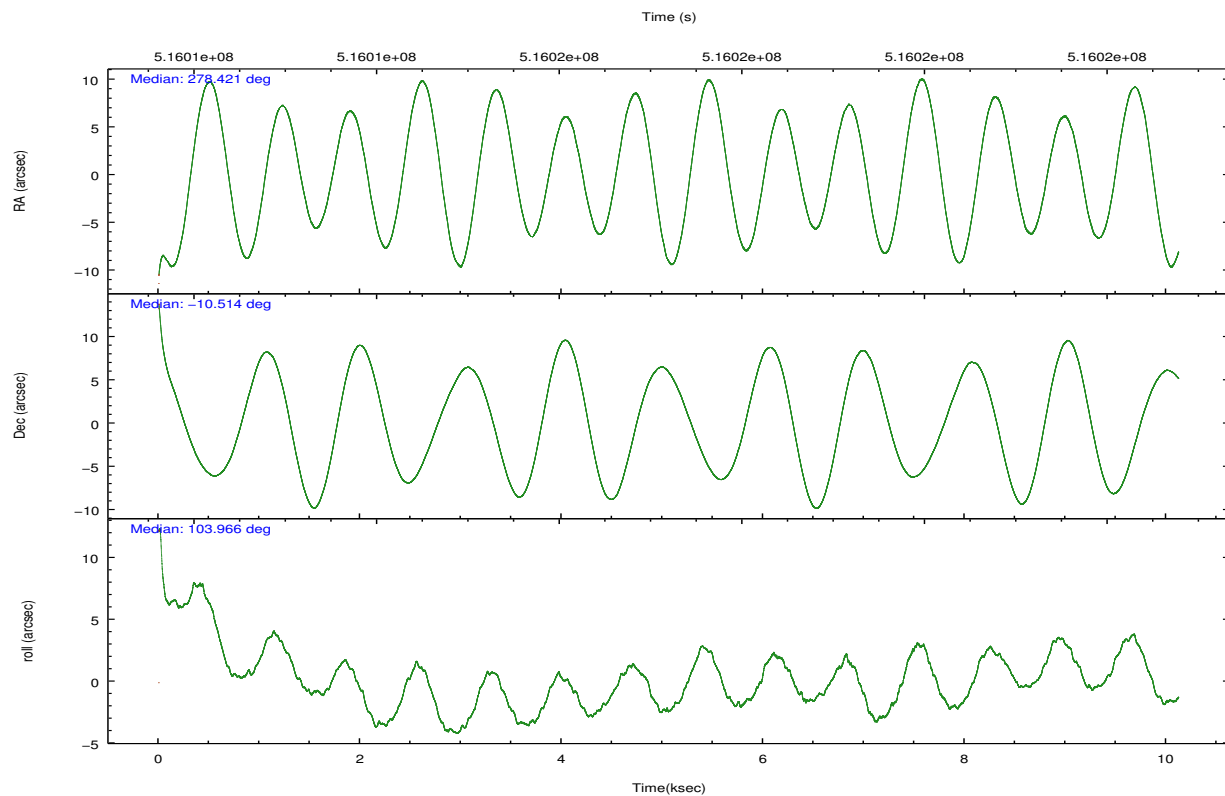
	ccd 3
grade 0 events	20424
	50%
grade 1 events	77
	0%
grade 2 events	3628
	8%
grade 3 events	1292
	3%
grade 4 events	1381
	3%
grade 5 events	627
	1%
grade 6 events	1441
	3%
grade 7 events	11503
	28%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-3	ACIS-3	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	278.440830	278.4212649960774	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	-10.533203	-10.51346866582019	Subarray start row	560	560
[deg] Pointing Roll	103.761108	103.9662325804518	Subarray row count	256	256
[mm] SIM focus pos	-0.782348	-0.7809083437167272	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001439871863259334	[s] Primary exposure time	0.000000	0.8
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	516012260.184000	516010956.59227			
Observation start date	2014-05-09T08:43:13	2014-05-09T08:22:36			
[s] Observation end time (MET)	516022260.184000	516023201.75544			
Observation end date	2014-05-09T11:29:53	2014-05-09T11:46:41			
Read mode	TIMED	TIMED			

2.3 Aspect



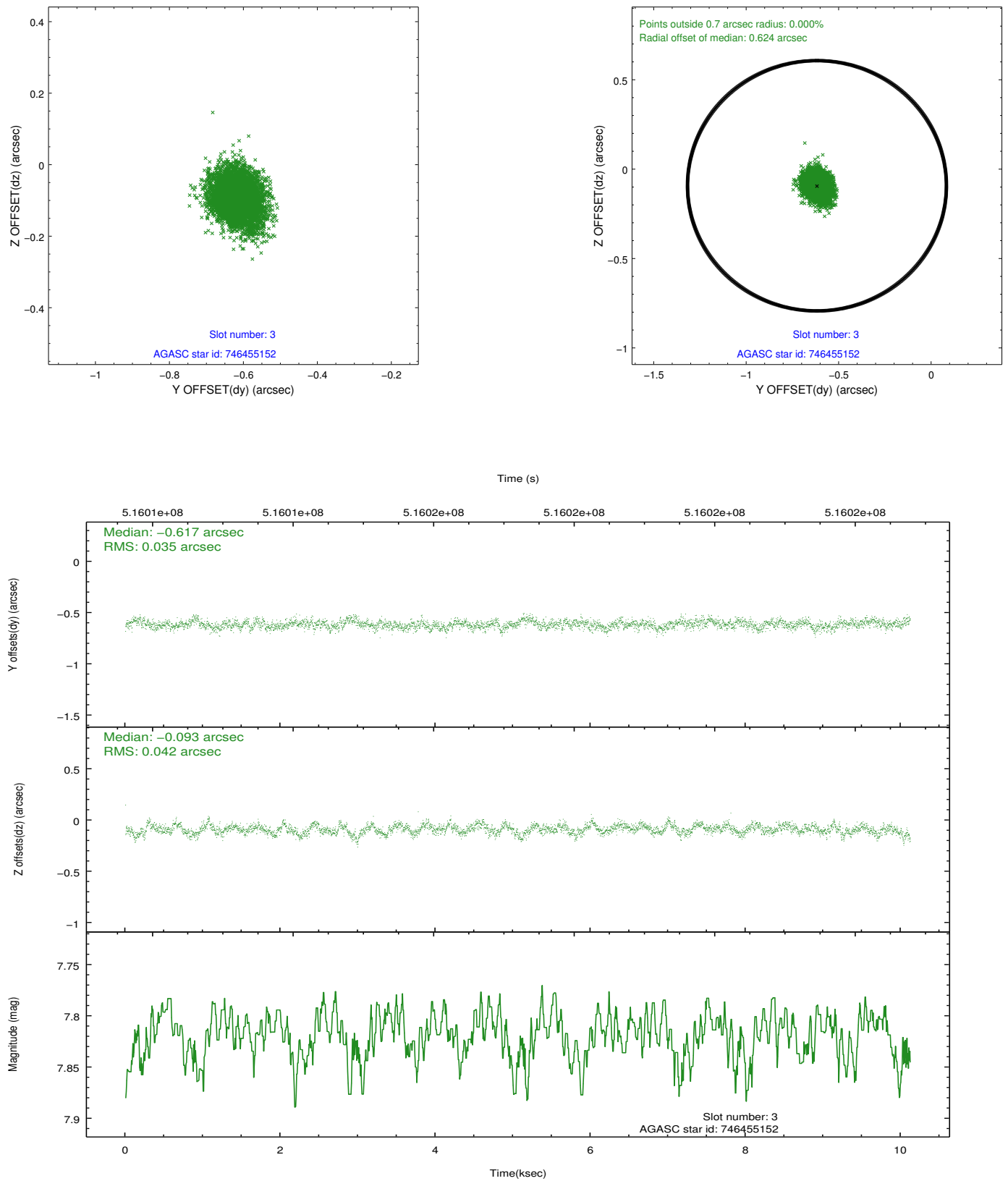


Slot Statistics

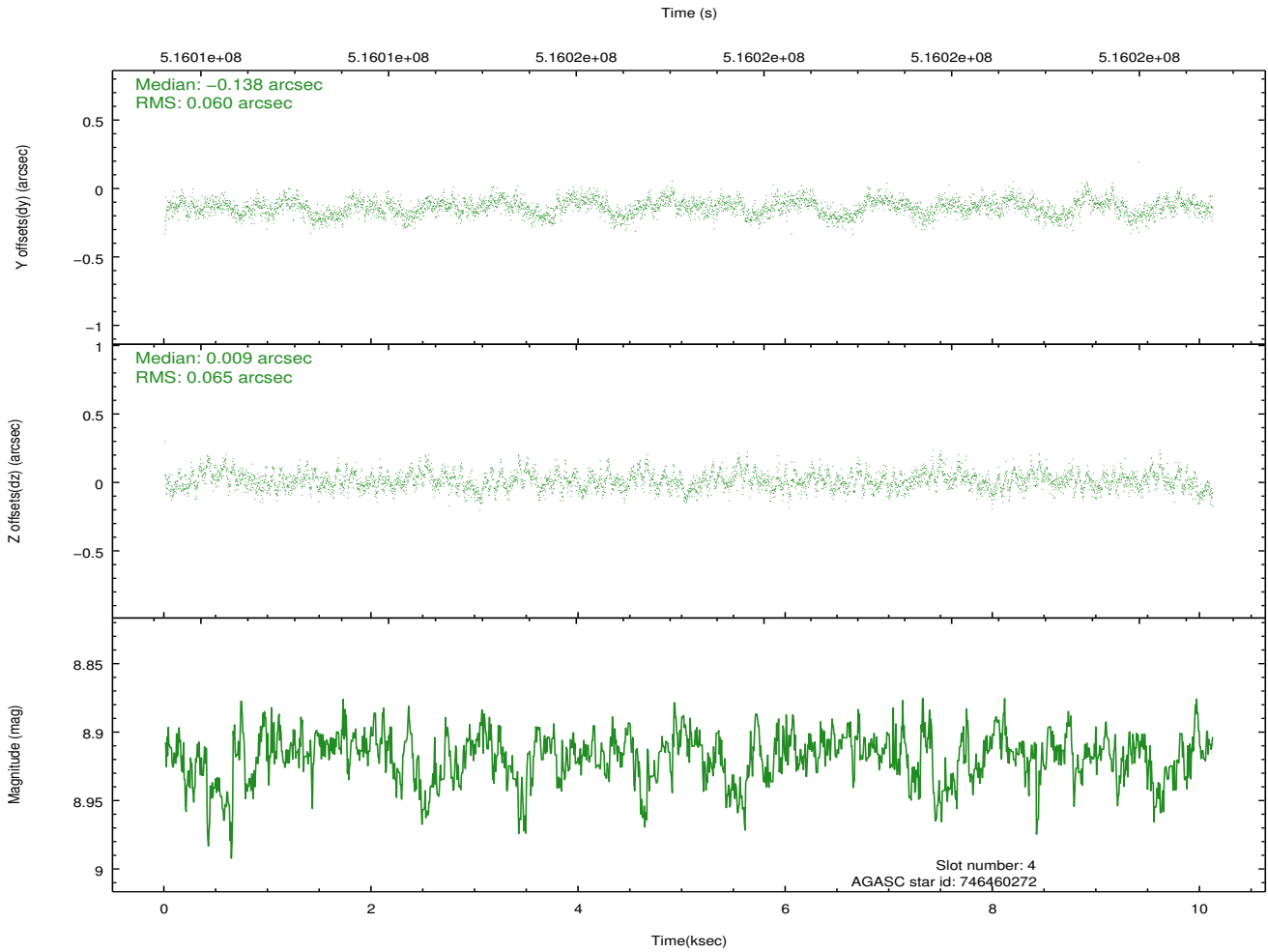
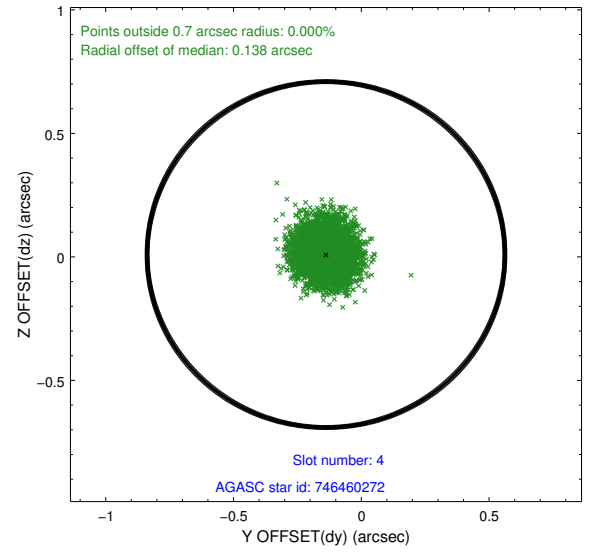
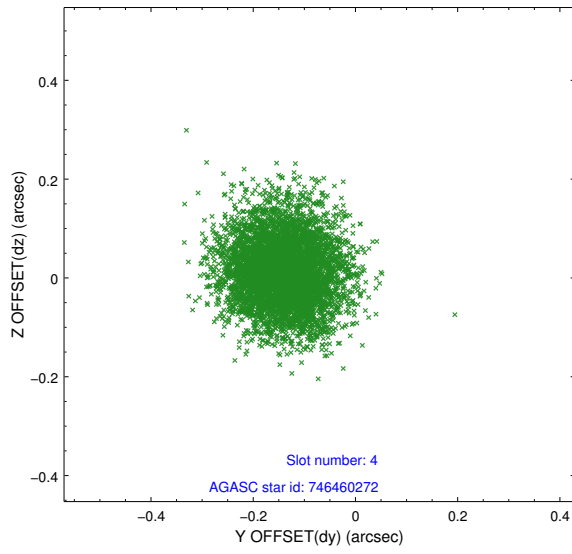
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.07	2469	0.051	-0.001	0.010	0.017	0.000000	0.000000	912.15	-845.60
1	FID		ACIS-I-5	7.06	2469	-0.270	0.043	0.006	0.012	0.000000	0.000000	-1836.04	1051.61
2	FID		ACIS-I-6	7.06	2469	0.128	0.029	0.010	0.016	0.000000	0.000000	377.14	1696.74
3	GUIDE	used	746455152	7.82	4937	-0.617	-0.093	0.057	0.095	278.447893	-9.976732	1939.61	-500.80
4	GUIDE	used	746460272	8.92	4933	-0.138	0.009	0.095	0.152	278.847488	-10.152127	989.47	-1725.76
5	GUIDE	used	746462392	8.53	4938	0.387	0.126	0.084	0.142	279.038421	-10.890715	-1756.82	-1746.55
6	GUIDE	used	746462456	8.36	4935	0.209	-0.027	0.095	0.159	278.652171	-10.530173	-169.32	-729.25
7	GUIDE	used	746462680	9.01	4936	0.160	-0.019	0.100	0.156	278.660755	-10.782756	-1057.37	-541.69

2.4 Star Slots

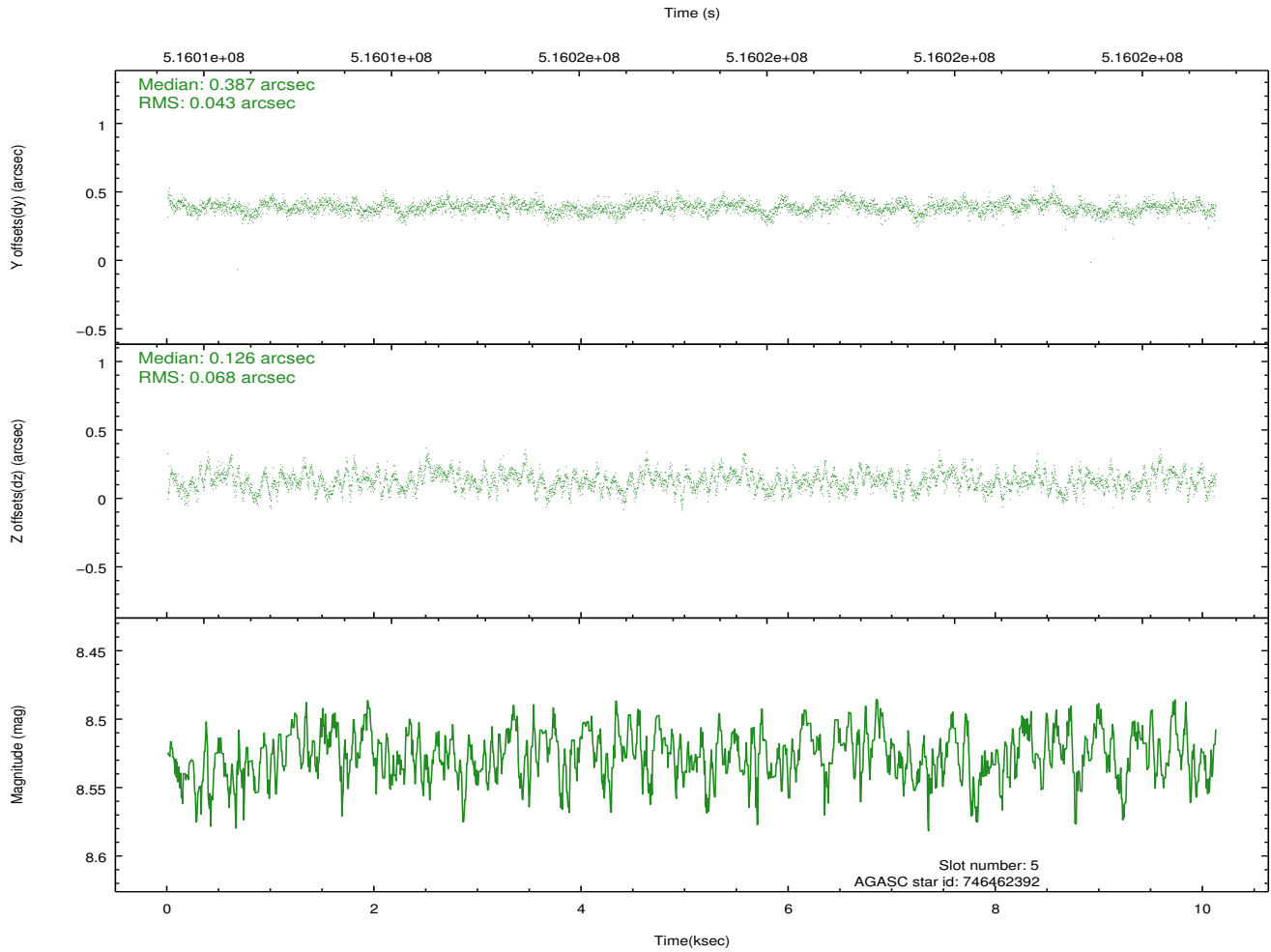
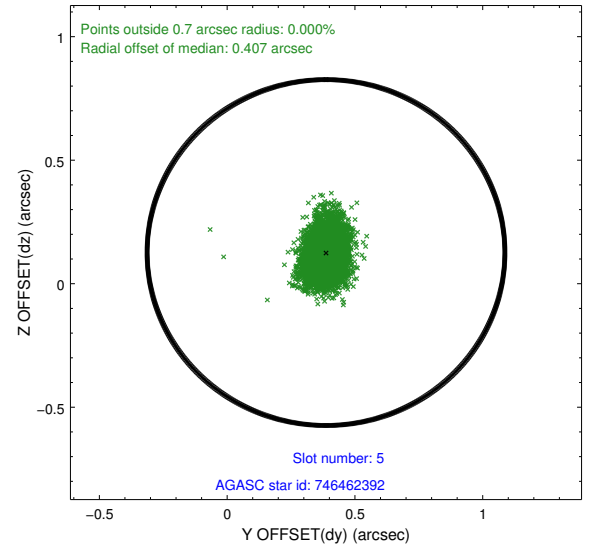
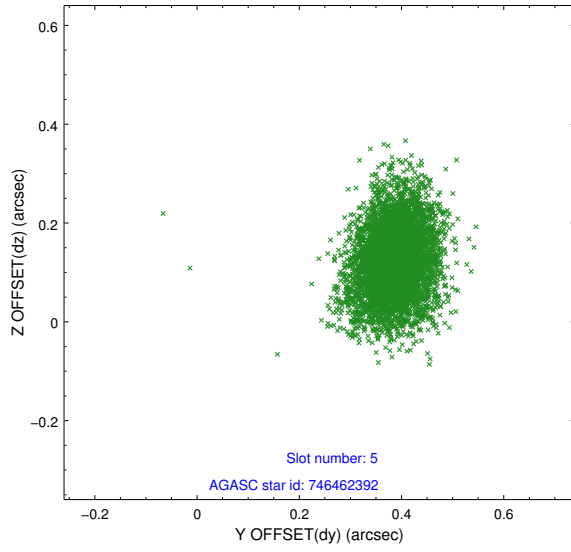
2.4.1 Slot 3



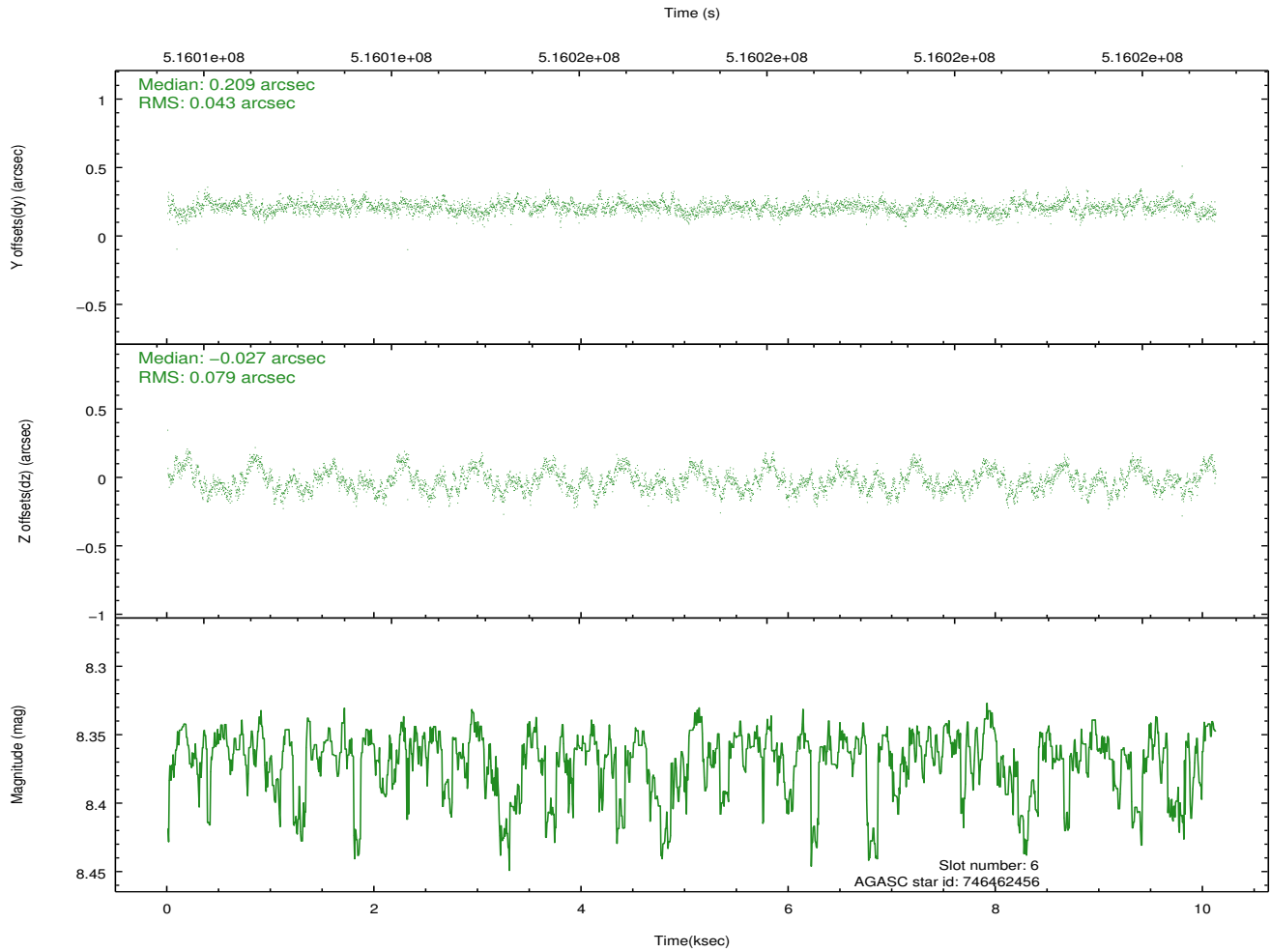
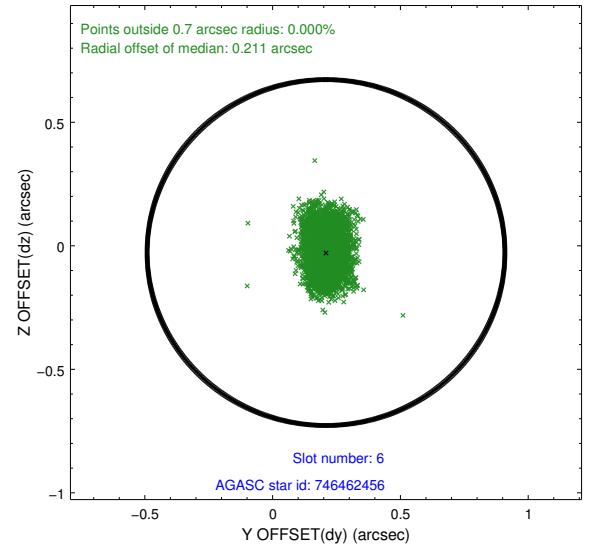
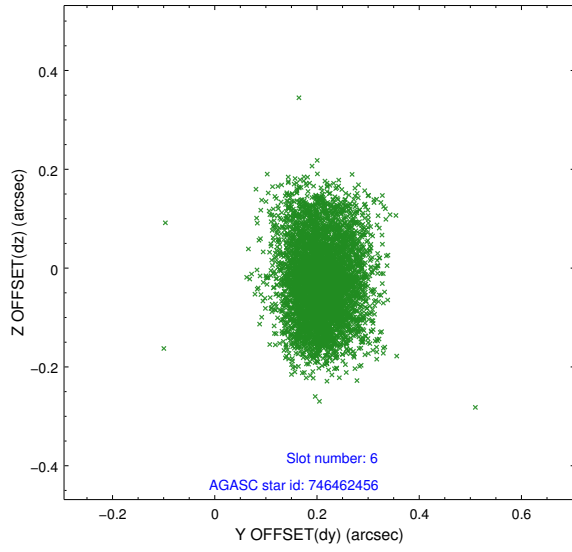
2.4.2 Slot 4



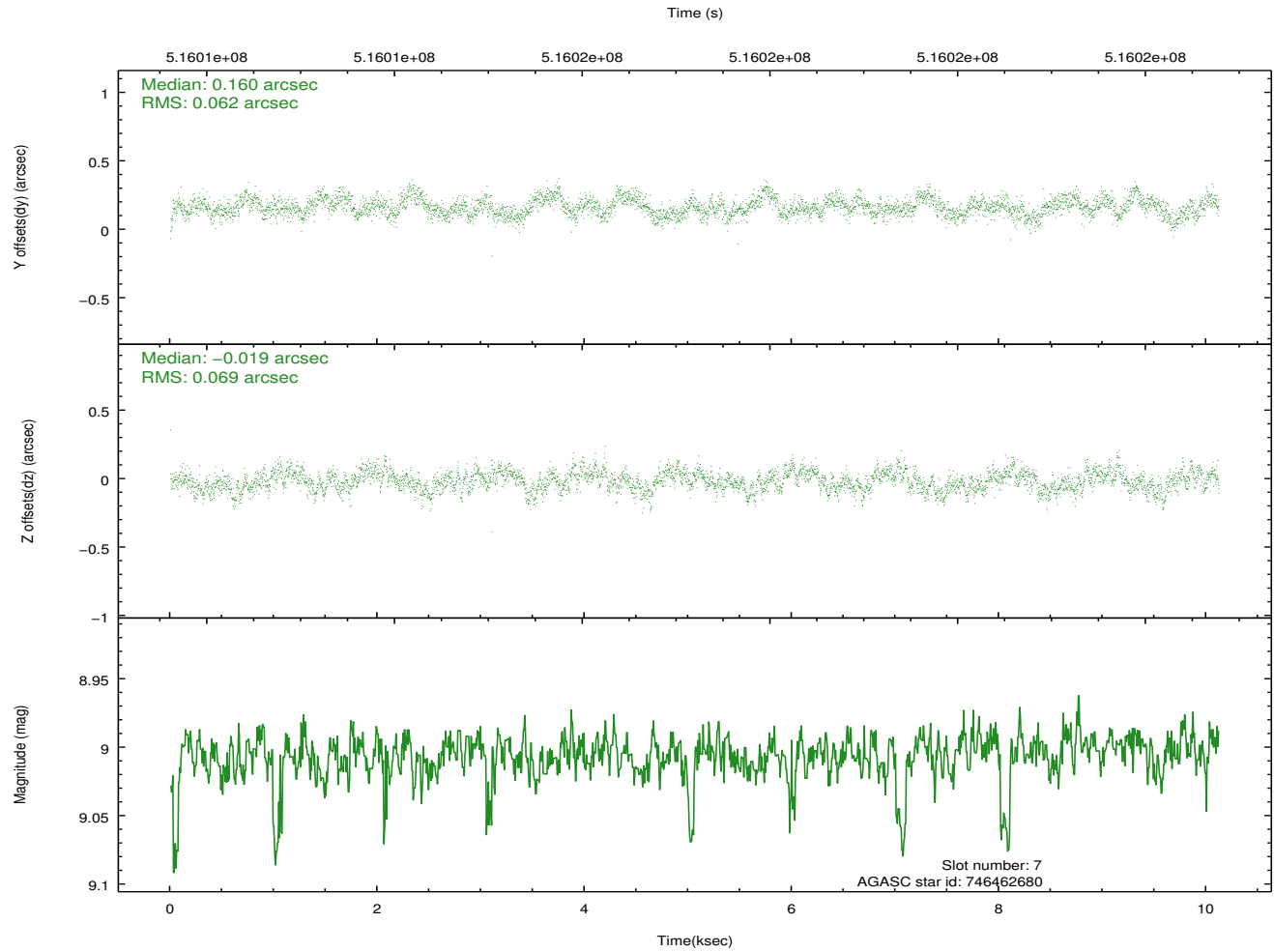
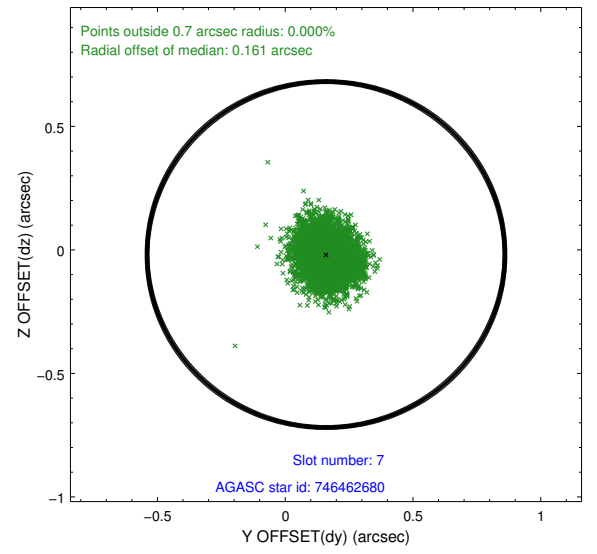
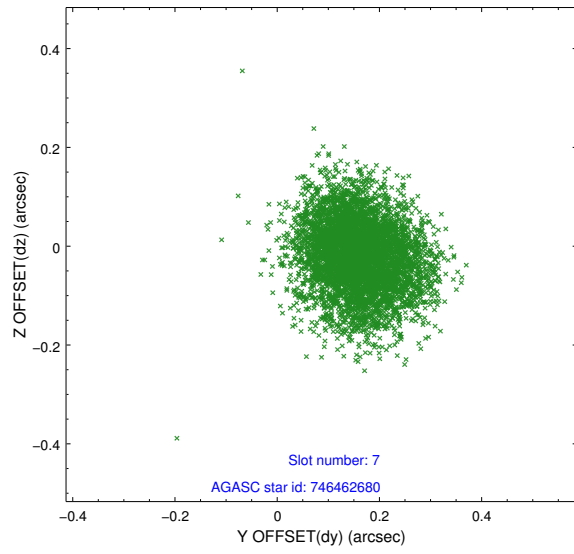
2.4.3 Slot 5



2.4.4 Slot 6

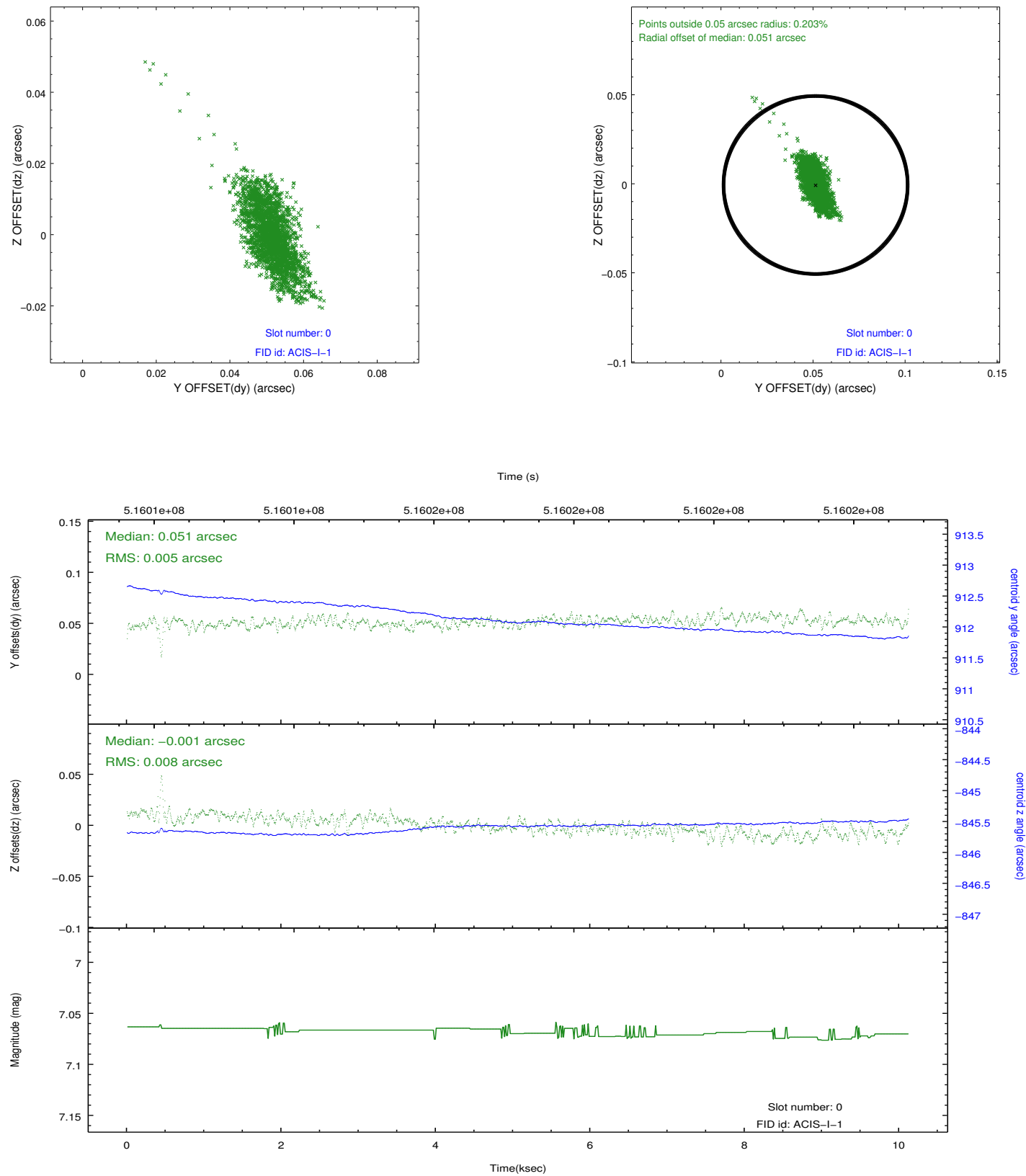


2.4.5 Slot 7

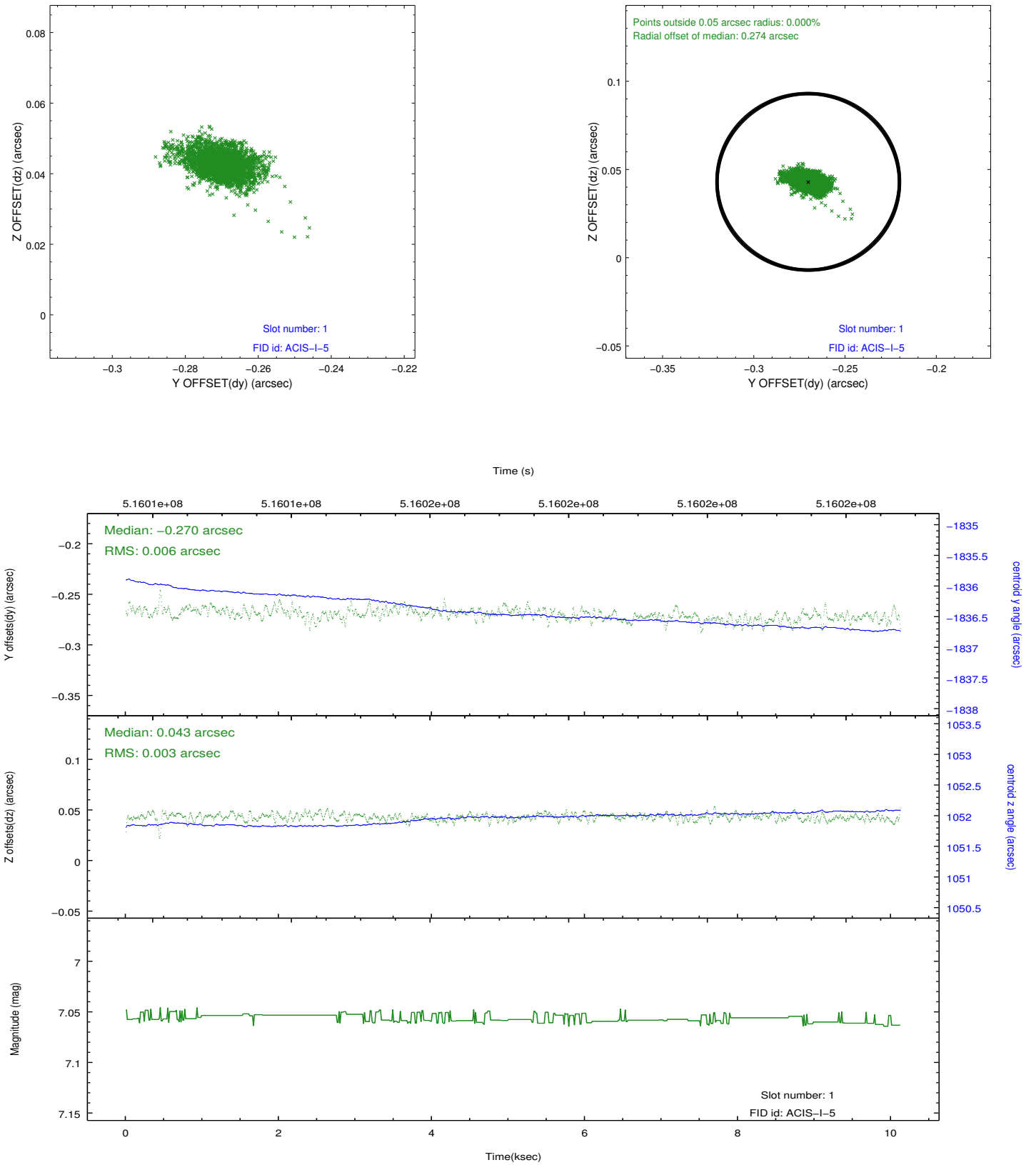


2.5 FID Slots

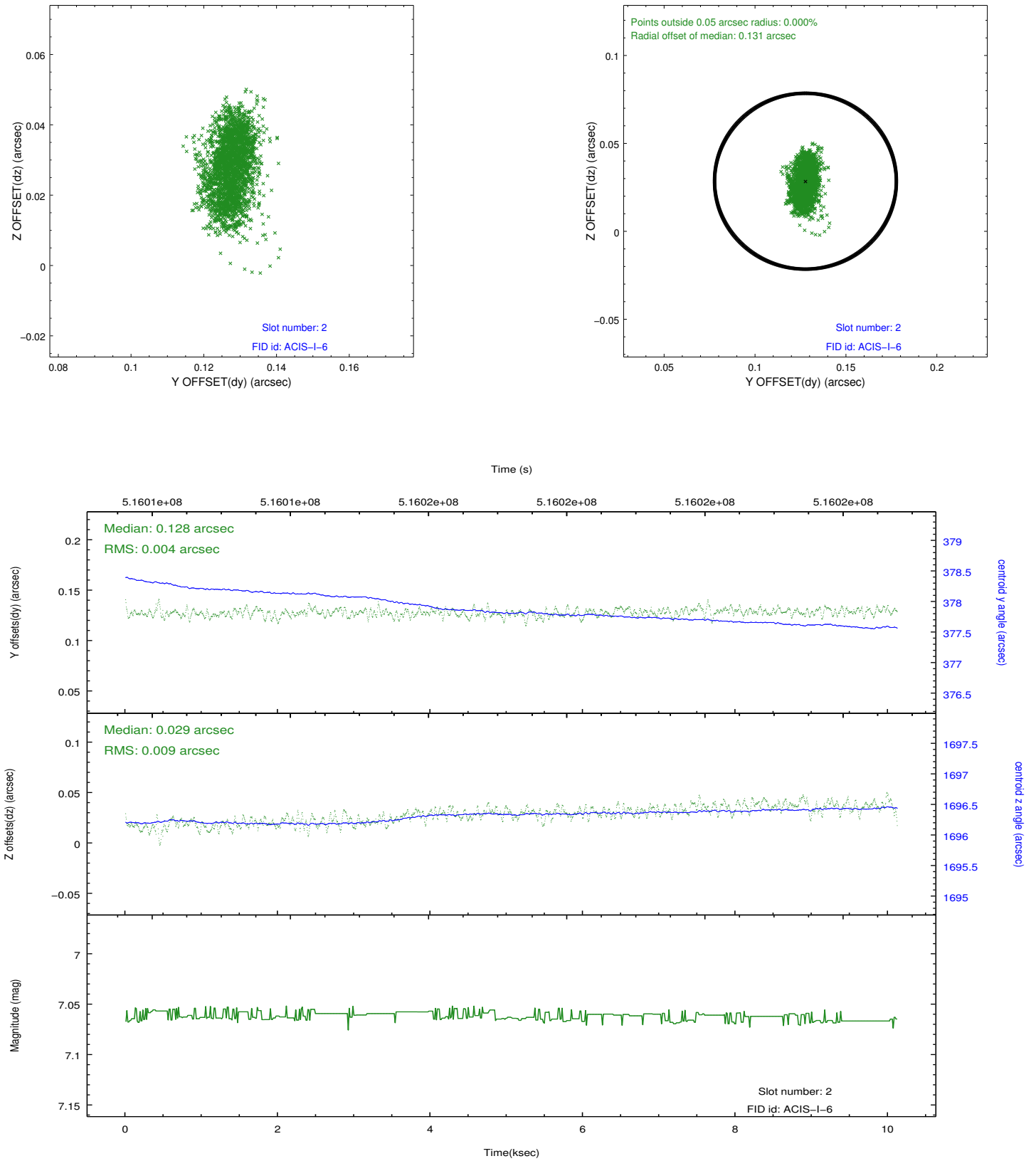
2.5.1 Slot 0



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)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.06213889116

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.