

V&V Reference Report

L2 ASCDS Version : 8.1.1

Observation 1454 - L2 Version 3

Chandra X-Ray Center

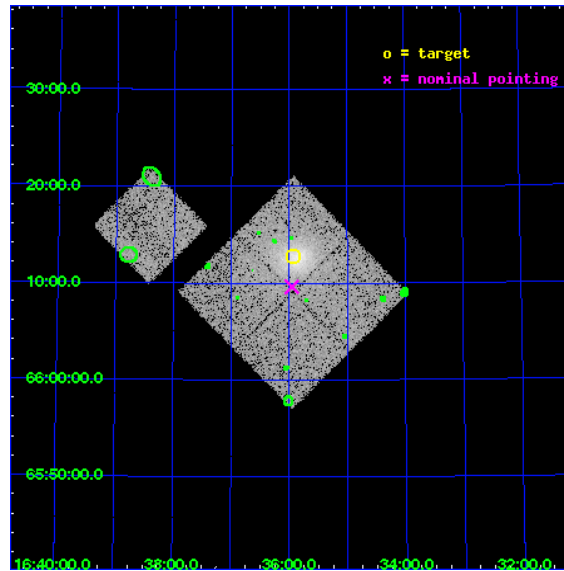
L2 Processing Date : Nov 20 2009

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1 Front

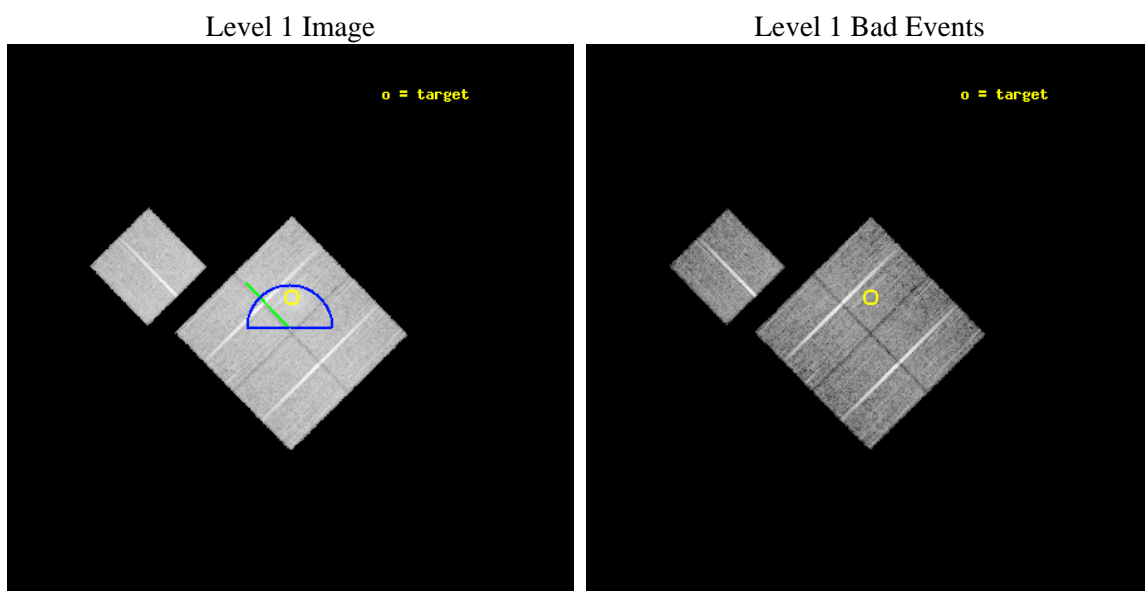
seq_num	800061	Sequence number
obs_id	1454	Observation id
title	ACIS STUDY OF DARK MATTER IN CLUSTERS	Proposal title
observer	Prof Gordon Garmire	Principal investigator
object	ABELL 2218	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	248.983333	Observer's specified target RA
dec_targ	66.2125	Observer's specified target Dec
ra_nom	248.9888685038	Nominal RA
dec_nom	66.160500322534	Nominal Dec
roll_nom	315.4635853645	Nominal Roll
revision	3	Processing version of data
ontime	11564.582230411	Sum of GTIs [s]
livetime	11418.144526855	Livetime [s]
ontime0	11564.74639041	Sum of GTIs [s]
ontime1	11564.705350406	Sum of GTIs [s]
ontime2	11564.664310411	Sum of GTIs [s]
ontime3	11564.582230411	Sum of GTIs [s]
ontime6	11564.623270407	Sum of GTIs [s]
l2events	58690	Number of level 2 events



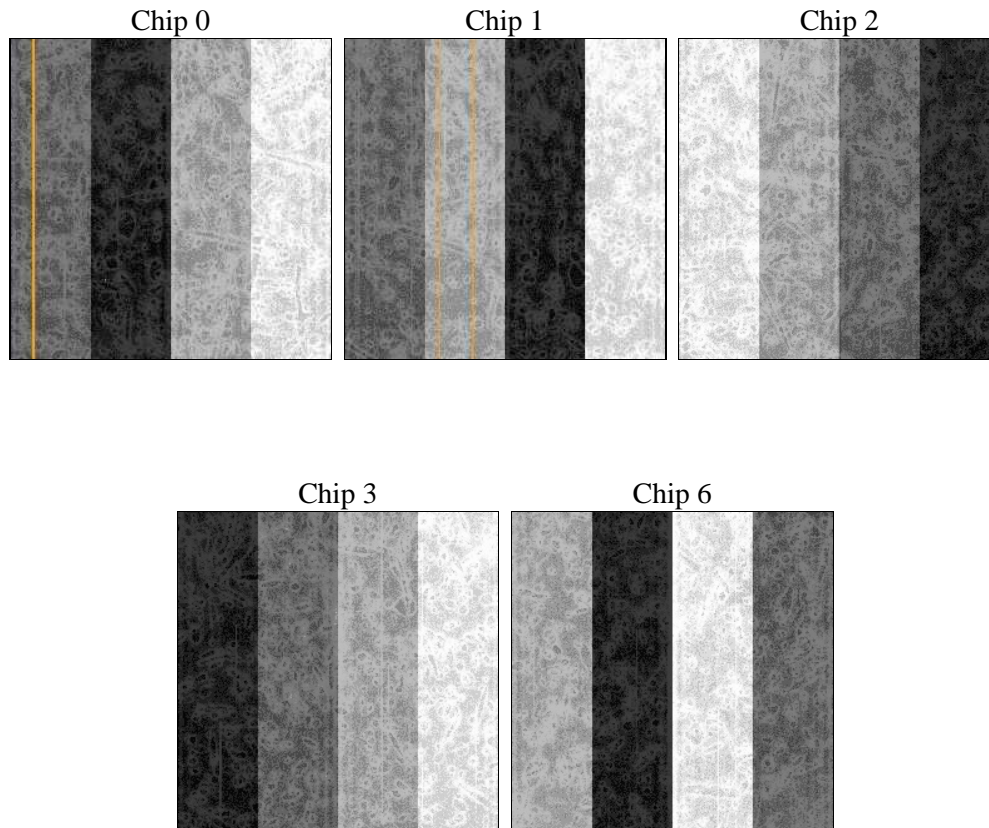
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	12800.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	11564.582230411	Sum of GTIs [s]
caldsver	4.1.4	 	ontime0	11564.74639041	Sum of GTIs [s]
date	2009-11-20T11:31:36	Date and time of file creation	ontime1	11564.705350406	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	11564.664310411	Sum of GTIs [s]
			ontime3	11564.582230411	Sum of GTIs [s]
			ontime6	11564.623270407	Sum of GTIs [s]
			l1events	524154	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	98394	97545	105823	117530	104862
rejected events	88007	85884	95430	96262	94993
rejected %	89%	88%	90%	81%	90%

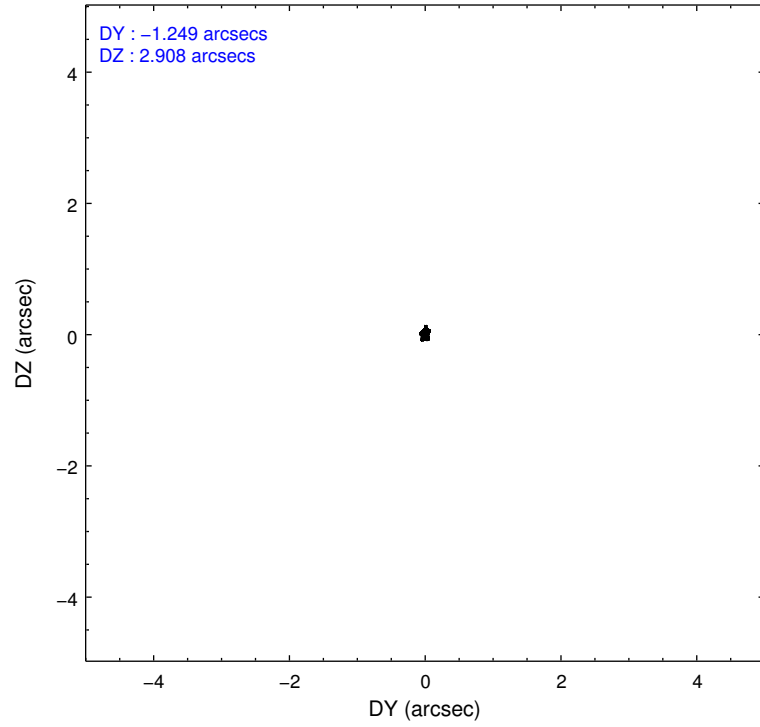
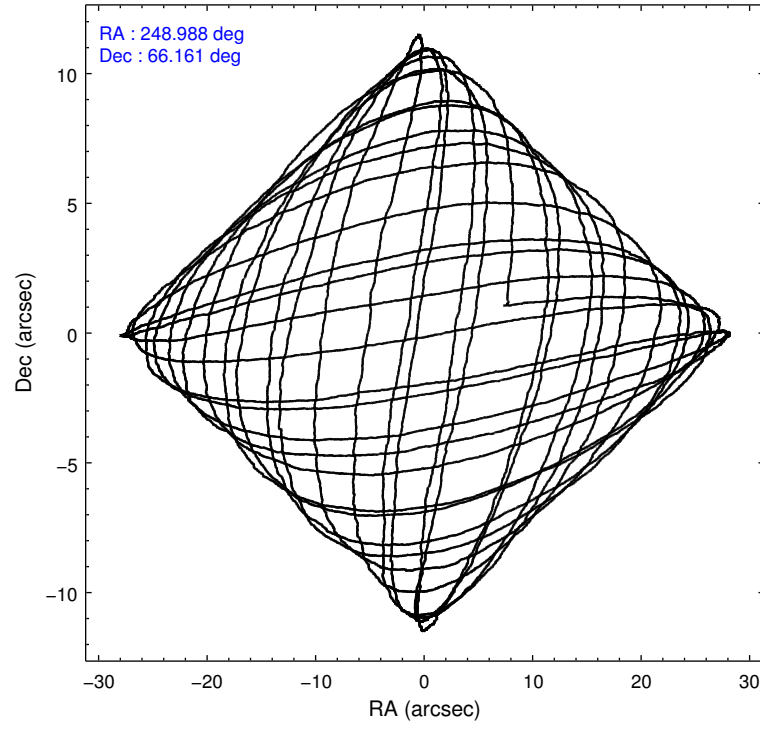
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2699	3208	2703	9270	1933
	2%	3%	2%	7%	1%
grade 1 events	18	28	24	44	15
	0%	0%	0%	0%	0%
grade 2 events	3913	4194	4103	7657	3969
	3%	4%	3%	6%	3%
grade 3 events	770	849	616	799	629
	0%	0%	0%	0%	0%
grade 4 events	681	828	607	803	585
	0%	0%	0%	0%	0%
grade 5 events	2037	2077	1786	1971	2108
	2%	2%	1%	1%	2%
grade 6 events	2333	2587	2368	2757	2757
	2%	2%	2%	2%	2%
grade 7 events	85943	83774	93616	94229	92866
	87%	85%	88%	80%	88%

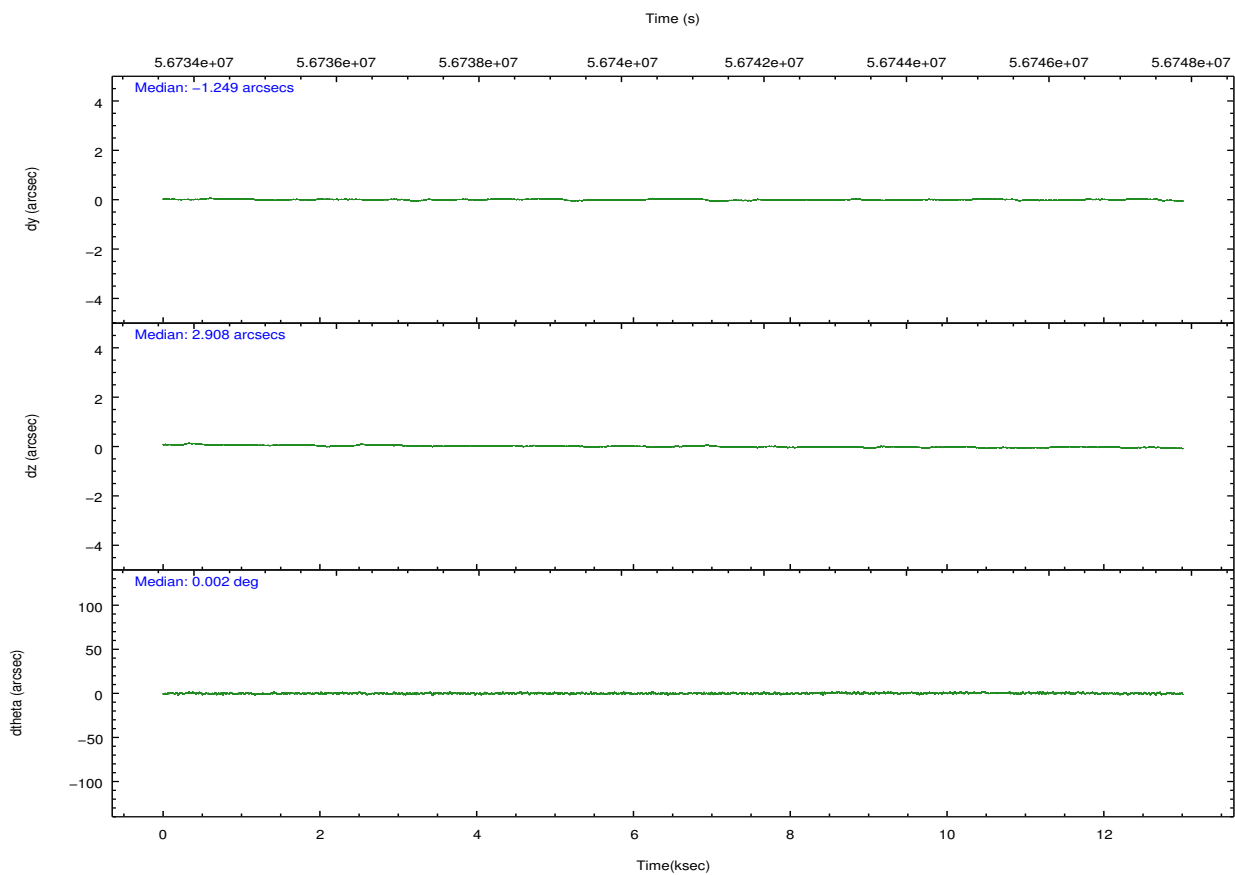
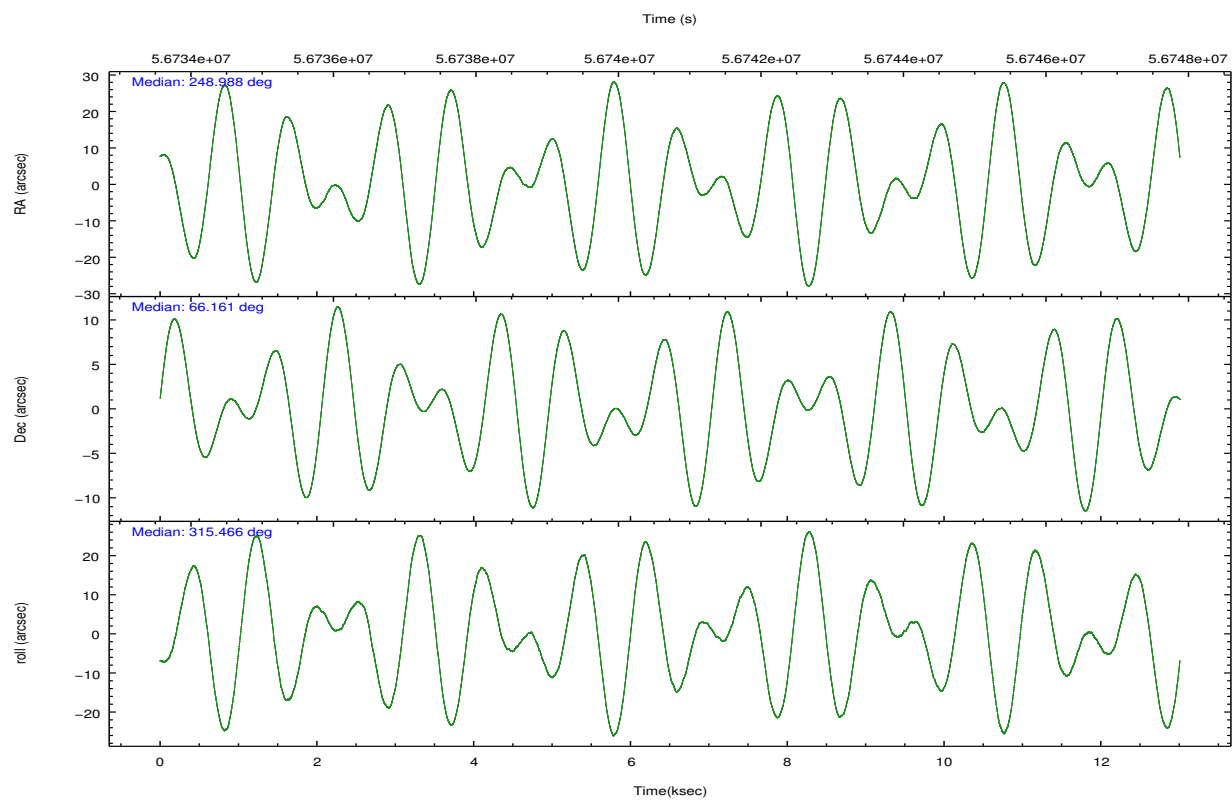
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01236	ACIS-01236
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
Pointing RA	248.922585	248.9888685037953
Pointing Dec	66.167812	66.16050032253355
Pointing Roll	315.315536	315.4635853645009
Roll angle	0.000000	0.000000
Roll tolerance	90.000000	90.000000
Roll constraint allows 180D rotation	N	N
SIM focus pos (mm)	-0.782348	-0.7809083437167272
SIM defocus (mm)	0	0.001439871863259334
SIM translation stage pos (mm)	-233.592463	-233.5874344608287
SIM translation stage offset (mm)	0	-0.005018542100998502
Observation start time	56734429.184000	56734219.731279
Observation start date	1999-10-19T15:32:45	1999-10-19T15:30:19
Observation end time	56747229.184000	56747857.35677
Observation end date	1999-10-19T19:06:05	1999-10-19T19:17:37
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
Primary exposure time	0.000000	3.2

2.3 Aspect



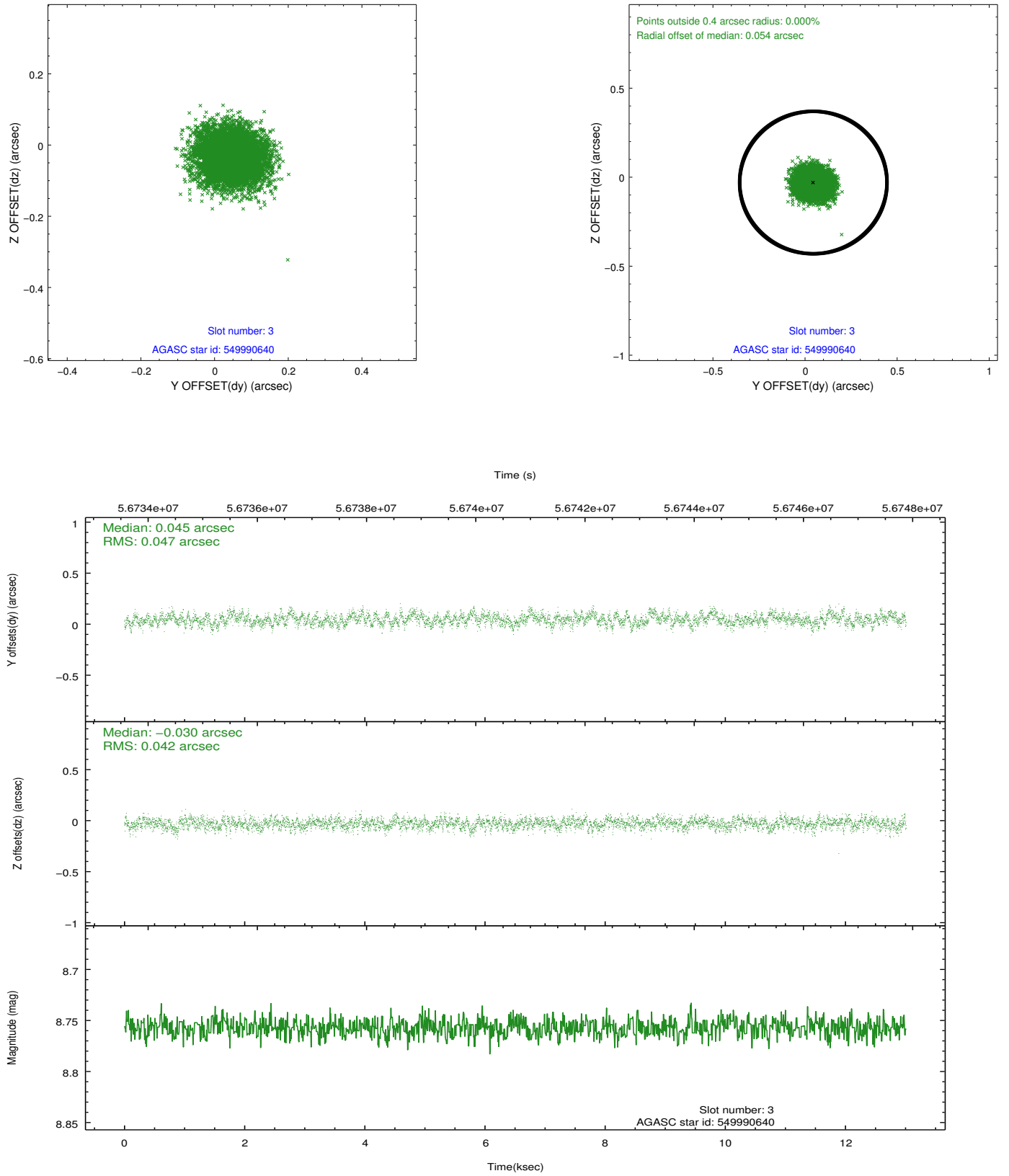


Slot Statistics

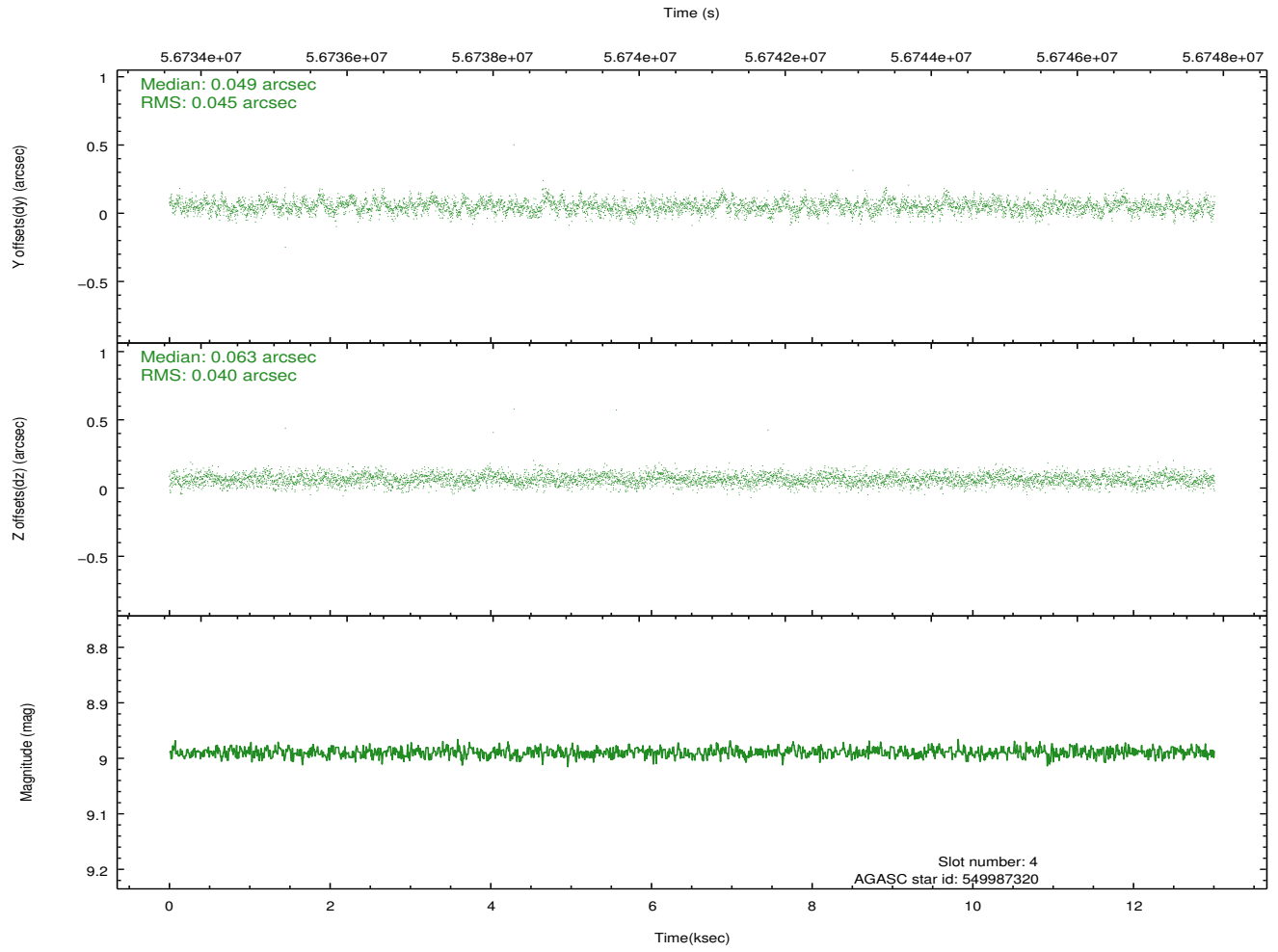
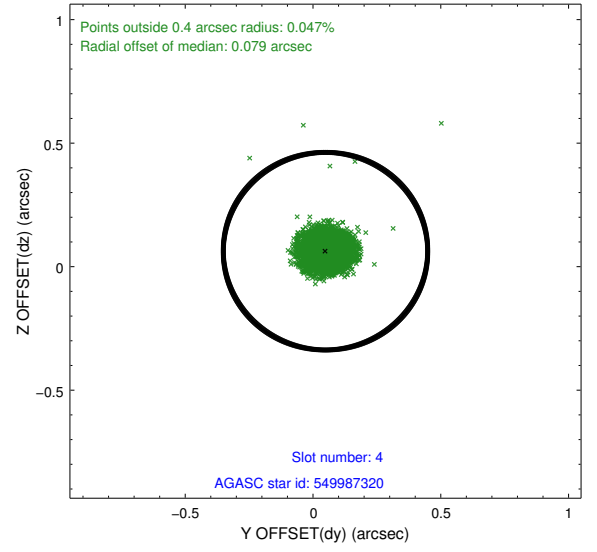
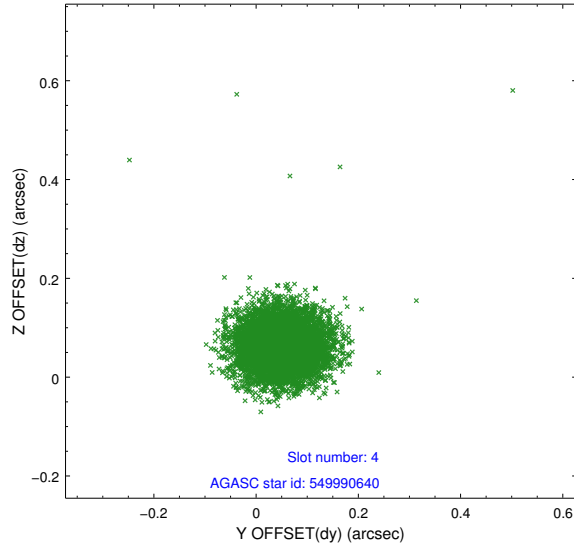
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.20	6347	-0.045	0.047	0.010	0.017	0.000000	0.000000	-753.12	-832.46
1	FID	ACIS-I-4	7.22	6347	0.093	0.021	0.007	0.014	0.000000	0.000000	2161.17	1073.42
2	FID	ACIS-I-5	7.23	6345	-0.150	0.001	0.010	0.016	0.000000	0.000000	-1806.77	1071.67
3	GUIDE	549990640	8.76	6343	0.045	-0.030	0.067	0.109	247.861354	66.249817	-1309.01	-862.80
4	GUIDE	549987320	8.99	6343	0.049	0.063	0.063	0.101	248.451292	66.216160	-609.17	-355.63
5	GUIDE	549988912	9.03	6343	-0.007	0.032	0.080	0.126	248.551855	66.304656	-727.31	-25.77
6	GUIDE	549990920	9.12	6343	-0.076	-0.016	0.070	0.112	249.731920	66.195262	762.78	902.57
7	GUIDE	549992648	9.36	6343	-0.015	-0.047	0.077	0.123	249.957584	65.815808	1969.28	181.40

2.4 Star Slots

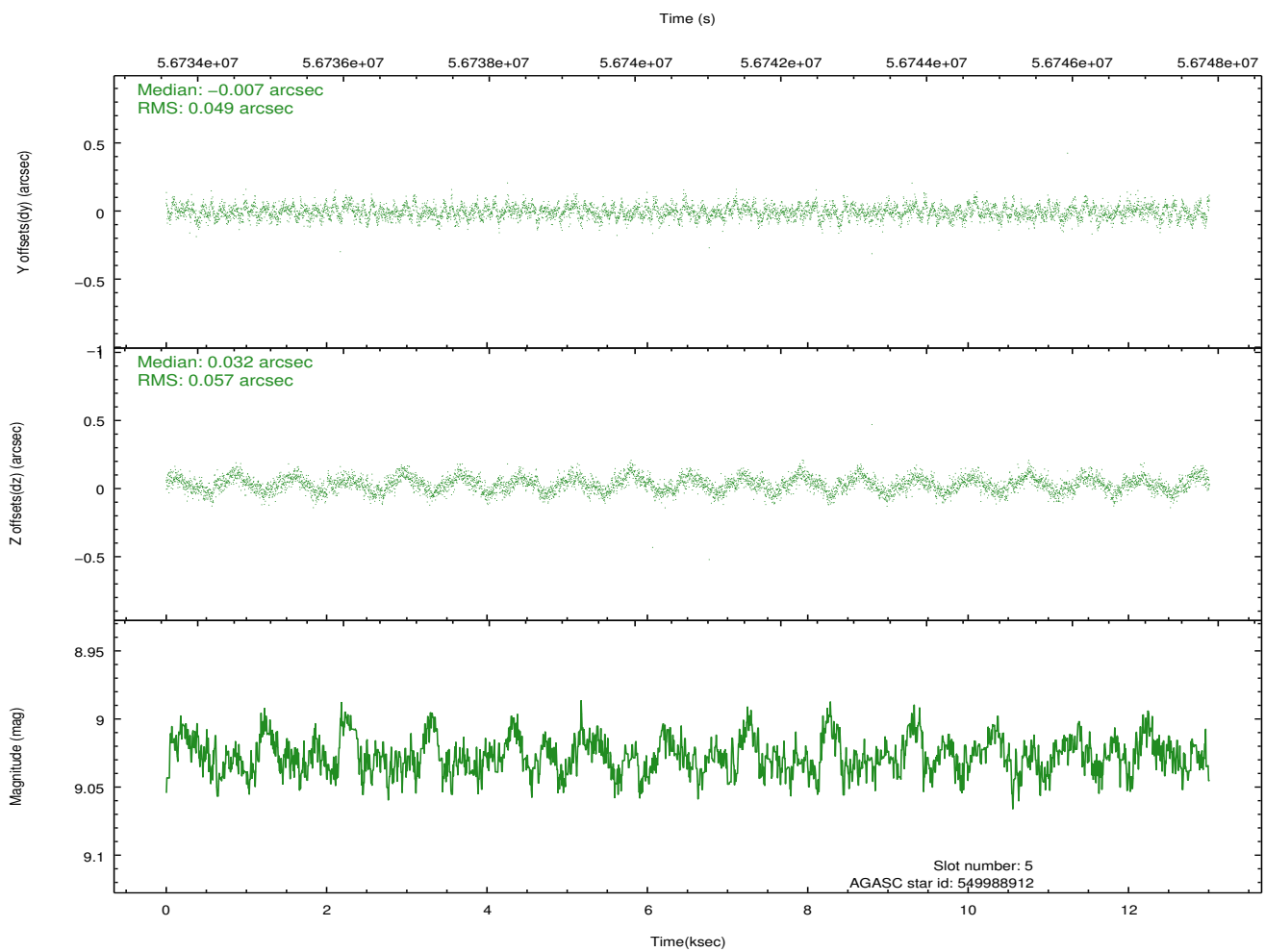
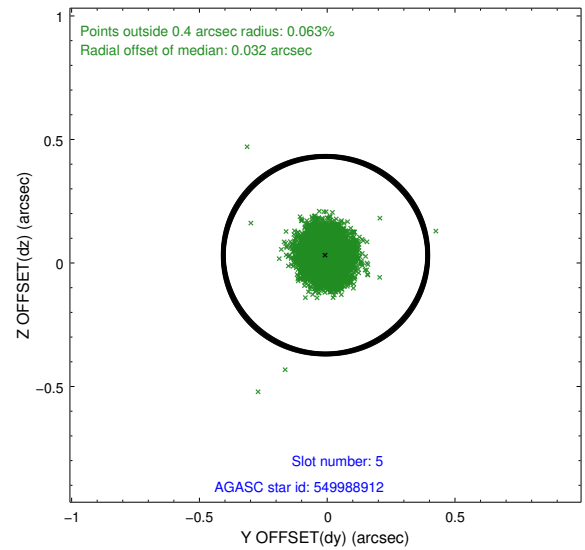
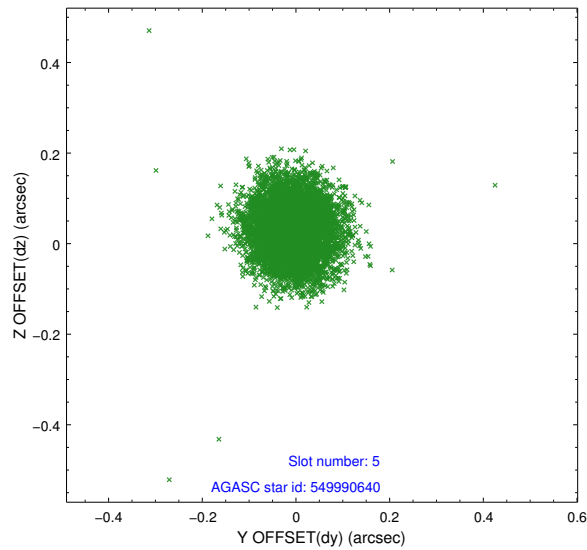
2.4.1 Slot 3



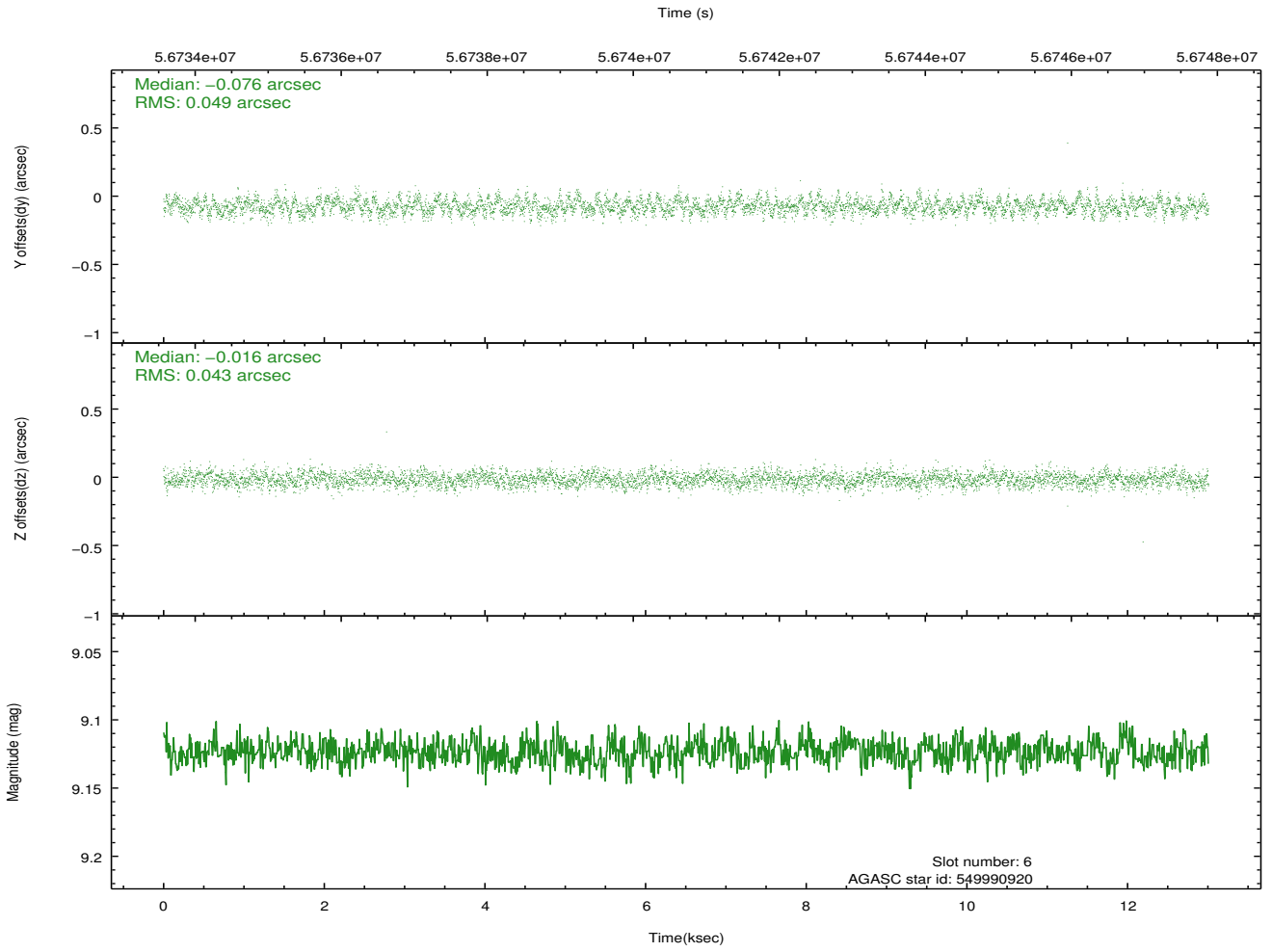
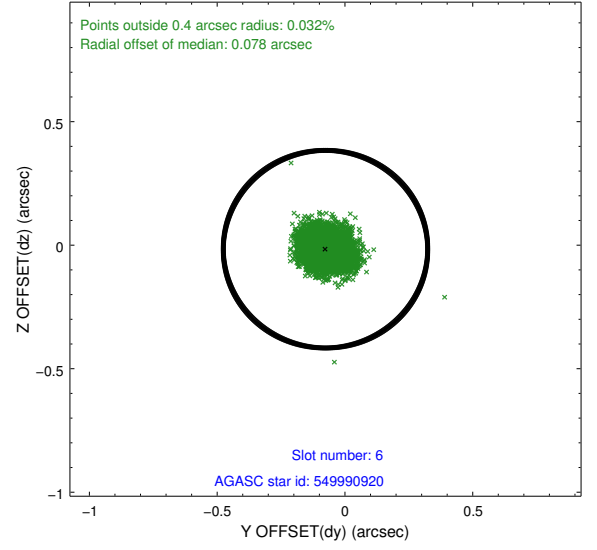
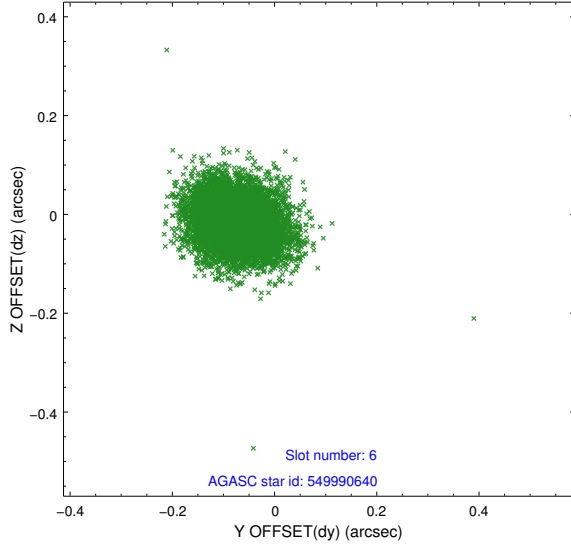
2.4.2 Slot 4



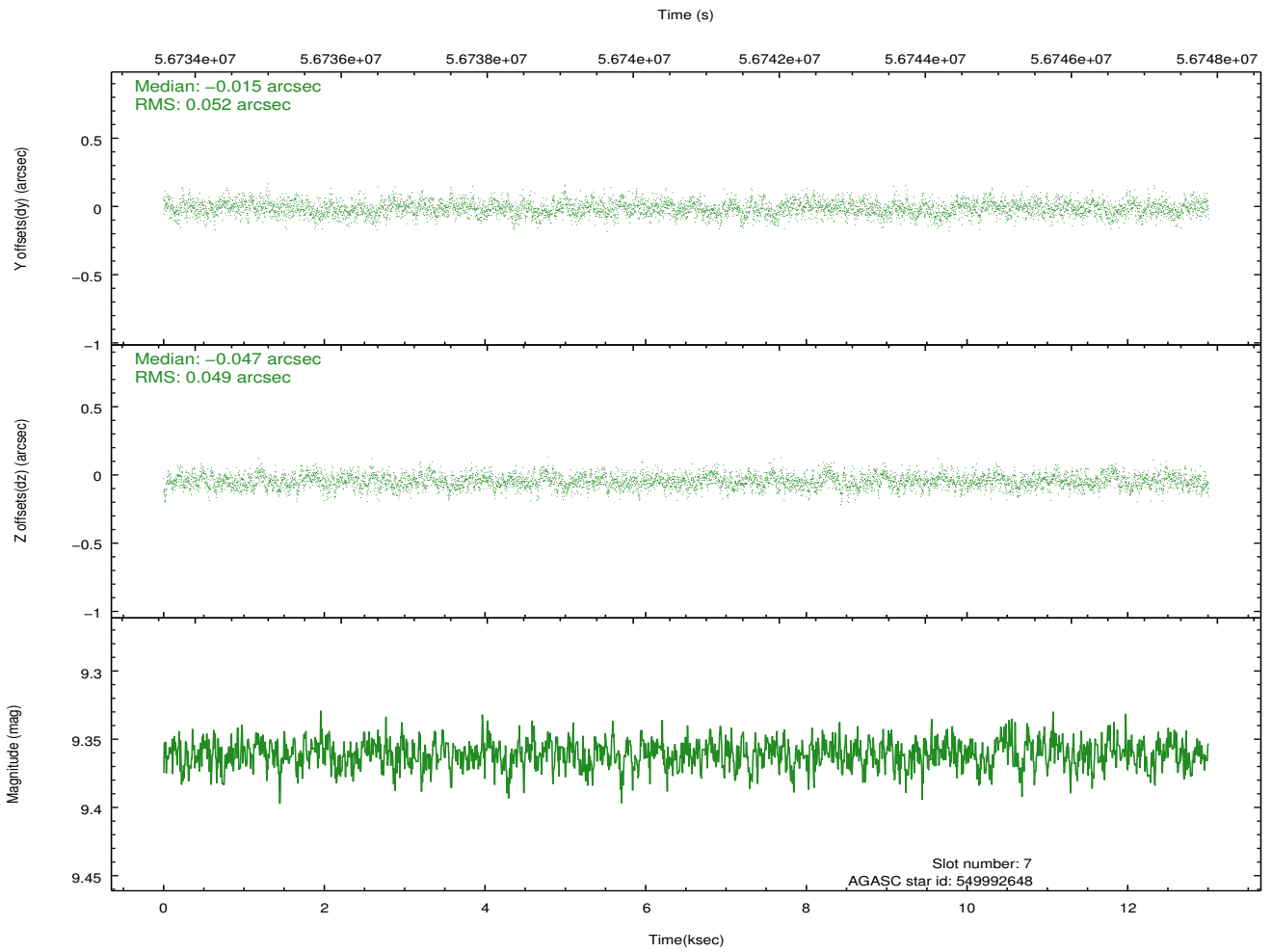
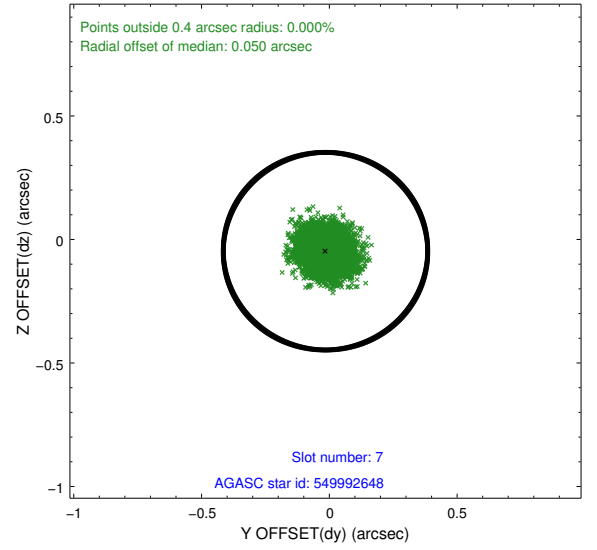
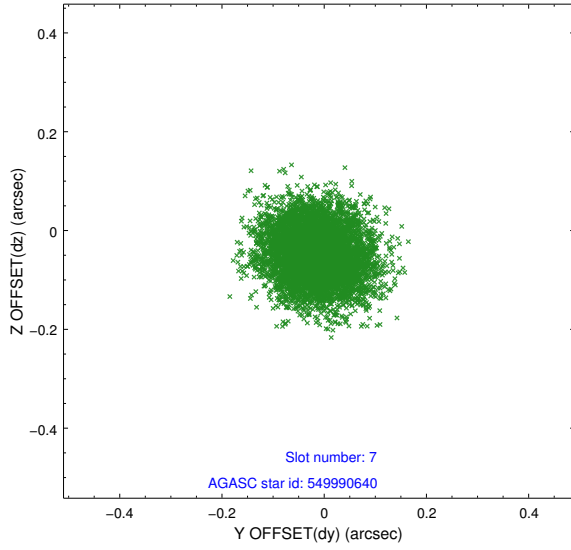
2.4.3 Slot 5



2.4.4 Slot 6

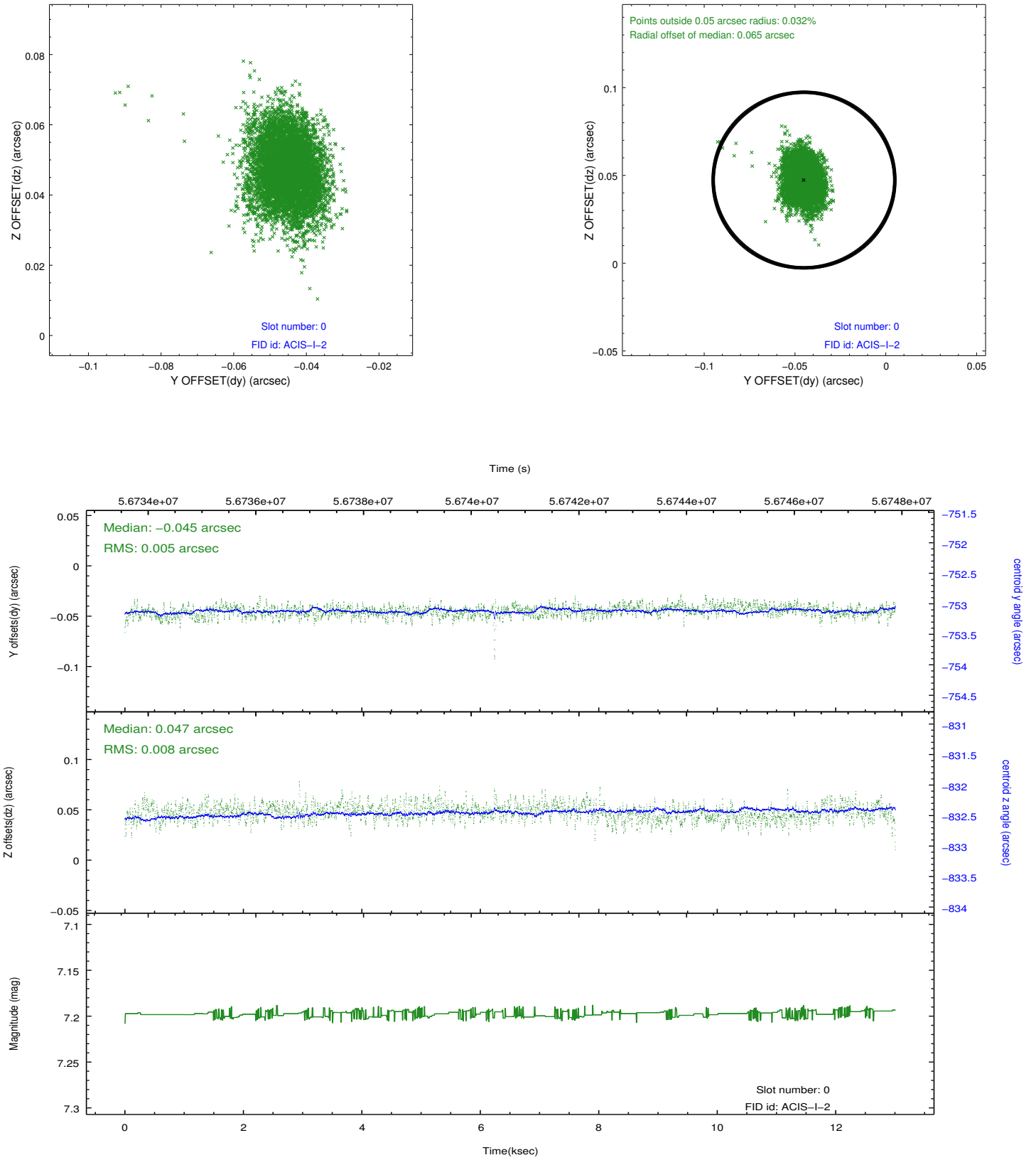


2.4.5 Slot 7

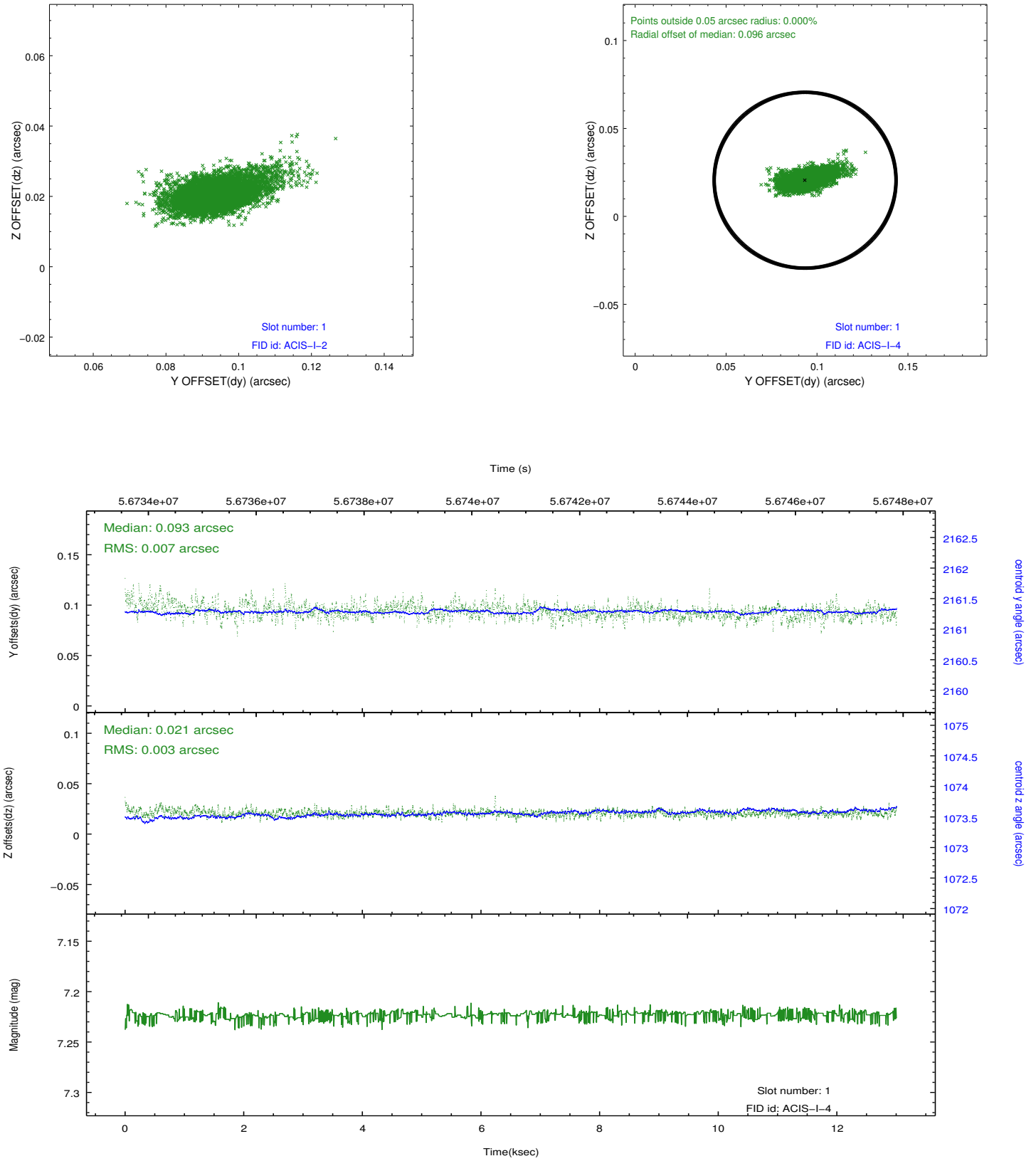


2.5 FID Slots

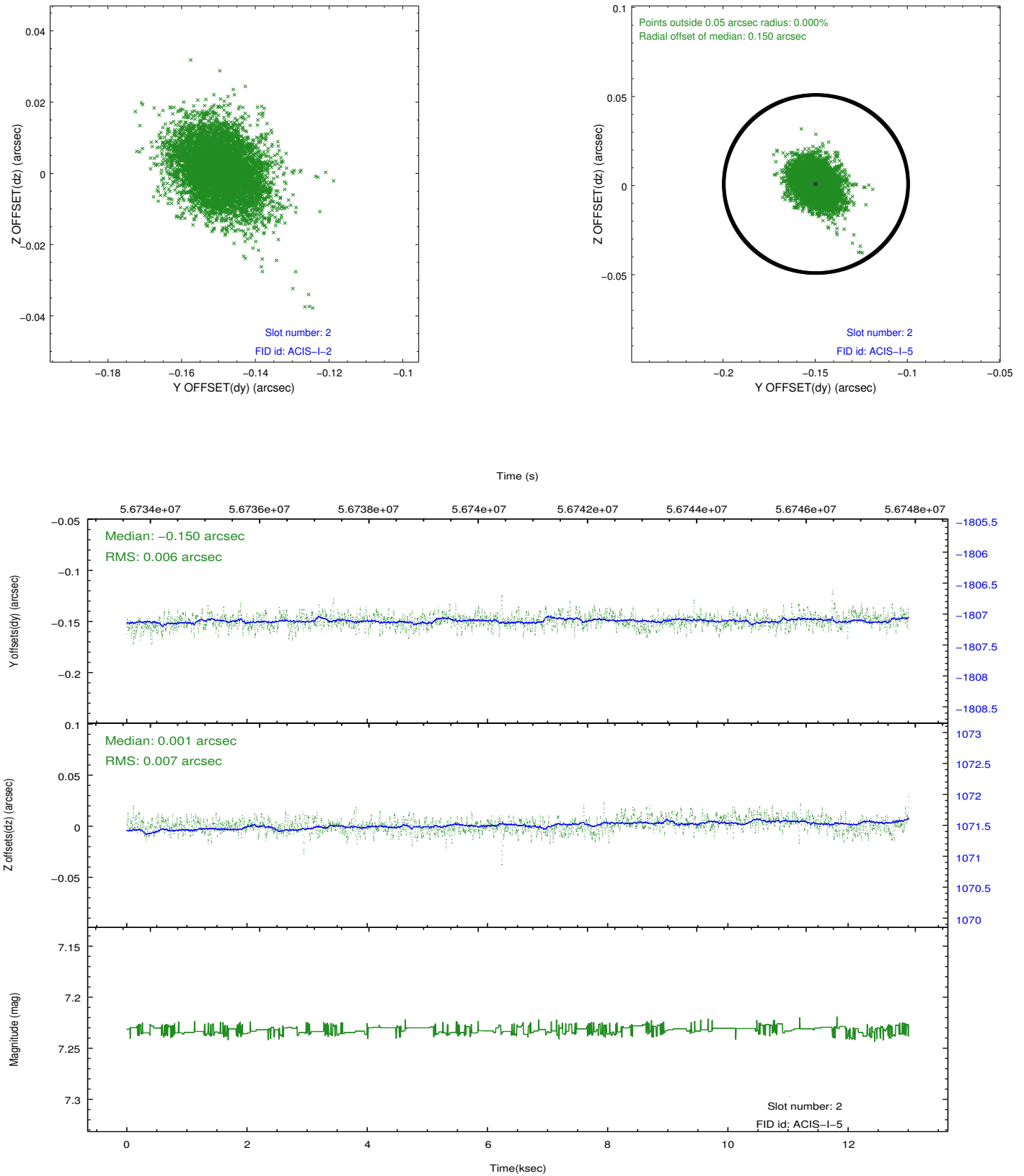
2.5.1 Slot 0



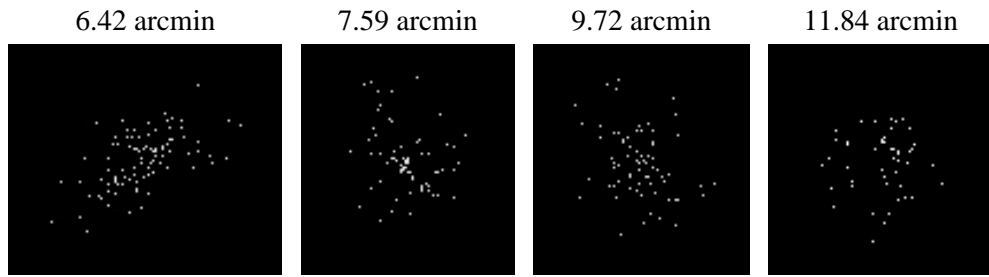
2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.03.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	11.561

A.2 Comments

Roll preference met.

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The focal plane temperature is approximately -110 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.