

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12864 - L2 Version 2
Chandra X-Ray Center

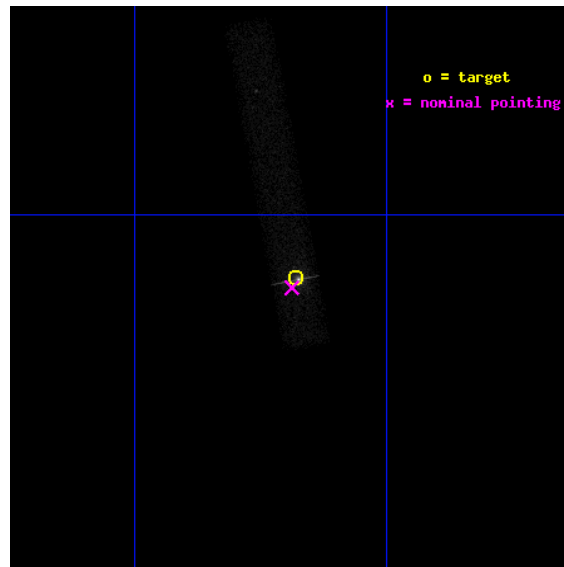
L2 Processing Date : Feb 2 2012

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1 Front

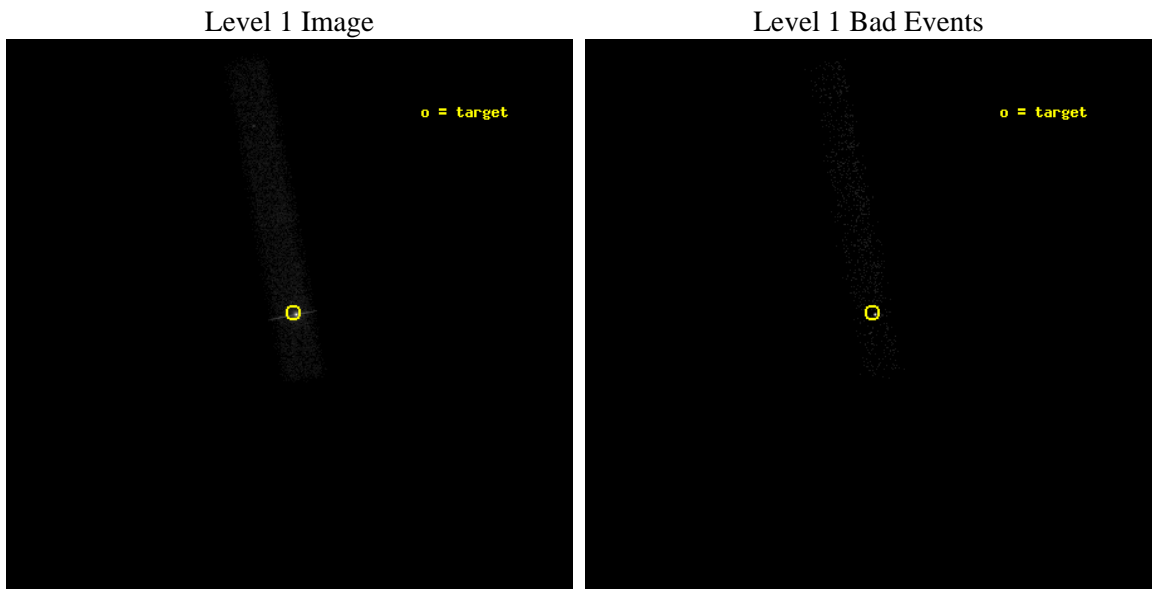
seq_num	702497	Sequence number
obs_id	12864	Observation id
title	Chandra Survey of Hard X-ray Selected Merging AGN Hosts	Proposal t
observer	Dr. Richard Mushotzky	Principal investigator
object	IRAS 05589+2828	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	90.545	Observer's specified target RA [deg]
dec_targ	28.473	Observer's specified target Dec [deg]
ra_nom	90.54700466972	Nominal RA [deg]
dec_nom	28.468468116573	Nominal Dec [deg]
roll_nom	259.37367486391	Nominal Roll [deg]
revision	2	Processing version of data
ontime	16009.599045753	Sum of GTIs [s]
livetime	14519.861278572	Livetime [s]
ontime7	16009.599045753	Sum of GTIs [s]
l2events	40526	Number of level 2 events



2 OBI

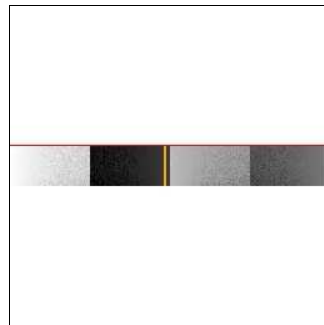
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	16009.599045753	Sum of GTIs [s]
caldbver	4.4.7	 	ontime7	16009.599045753	Sum of GTIs [s]
date	2012-02-02T04:35:40	Date and time of file creation	l1events	64294	Number of level 1 events
revision	2	Processing version of data			

2.1.4 Events

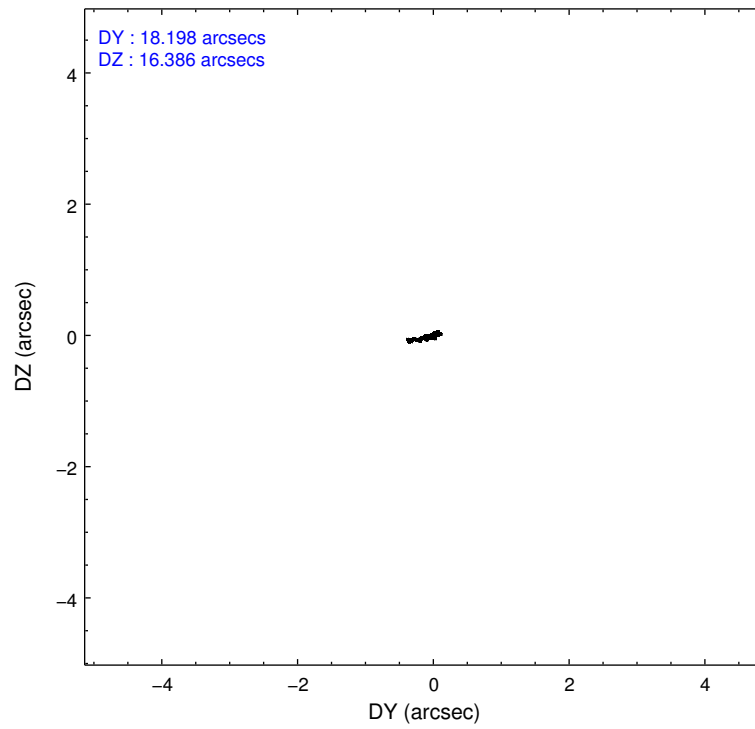
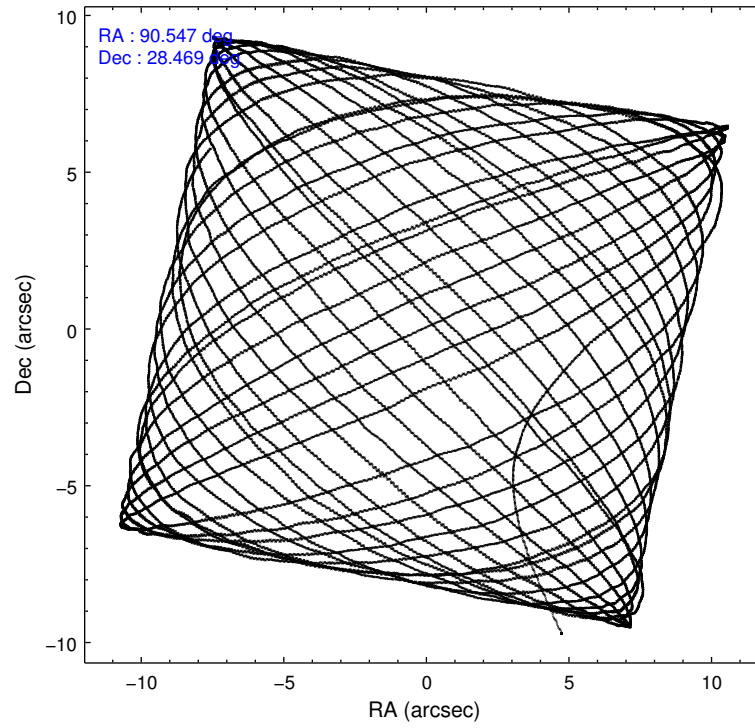
	ccd 7
level 1 events	64294
rejected events	23315
rejected %	36%

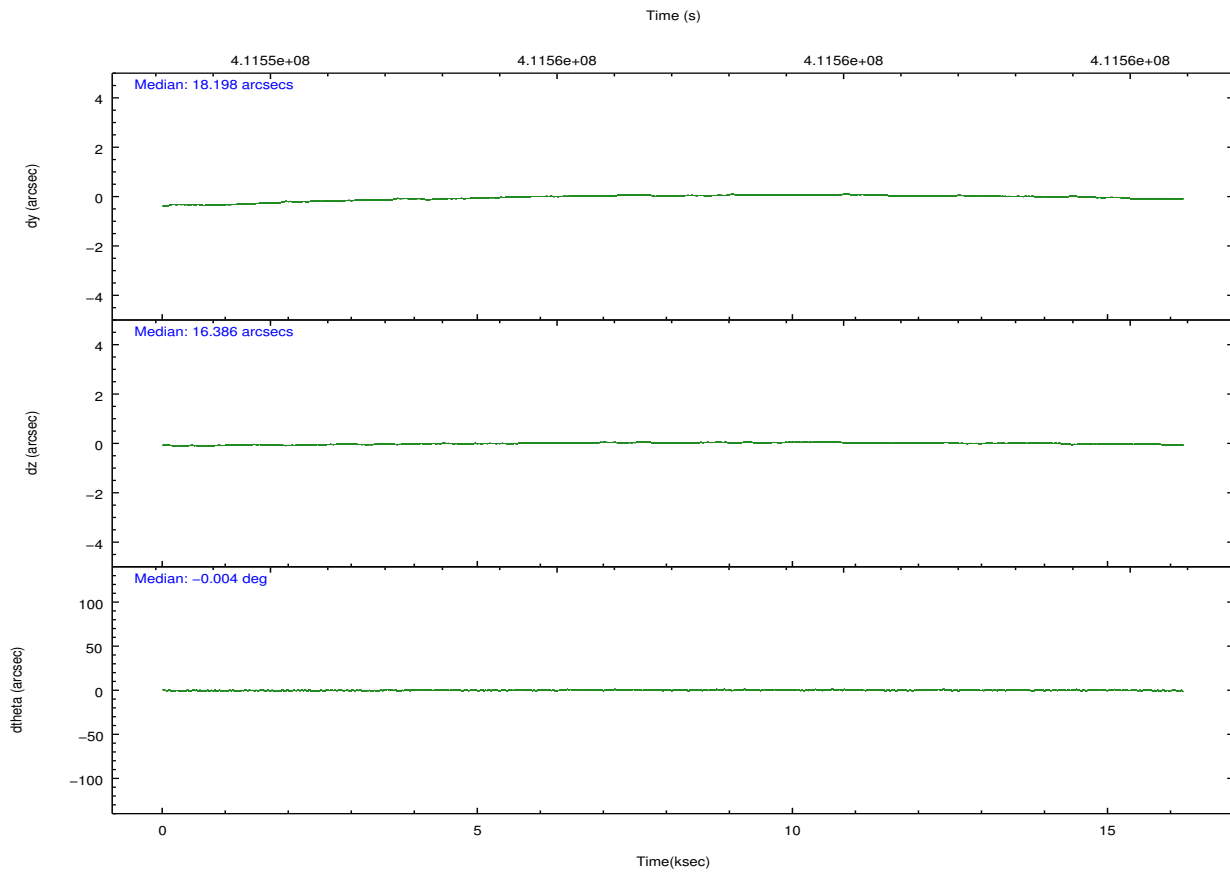
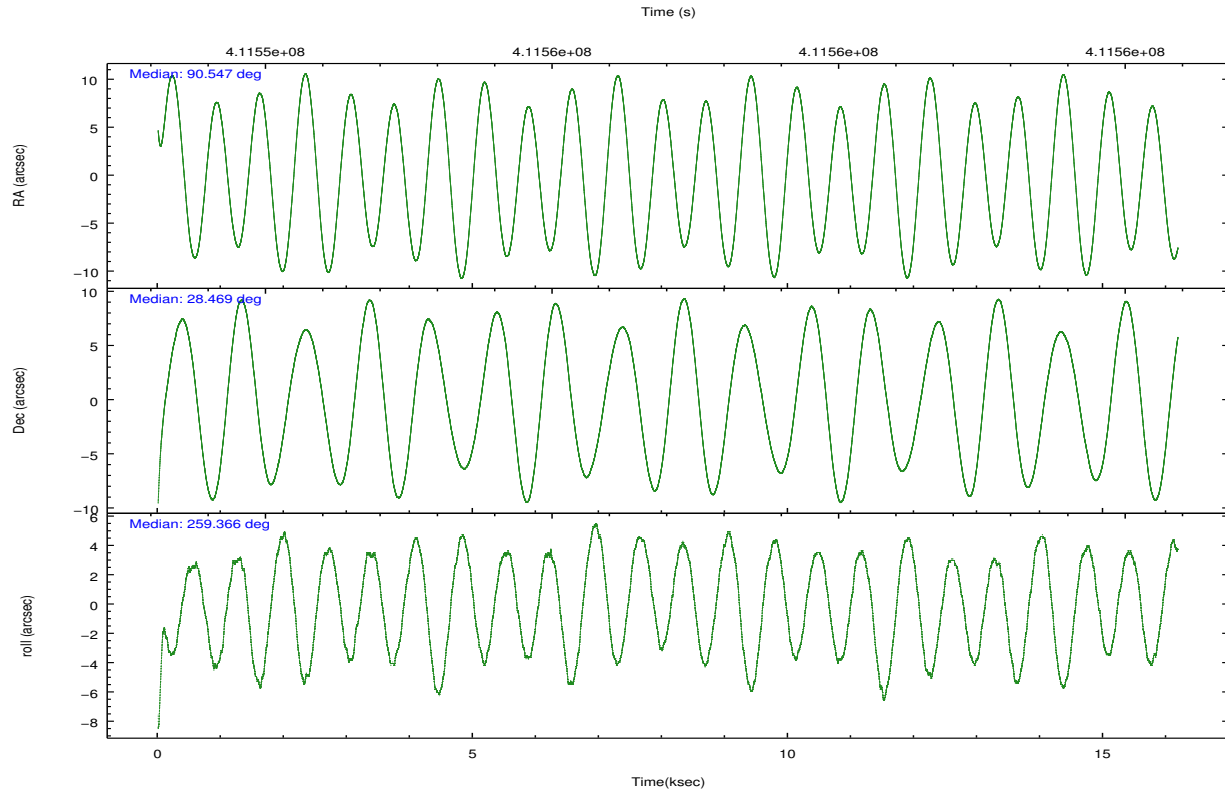
	ccd 7
grade 0 events	5834
	9%
grade 1 events	789
	1%
grade 2 events	8716
	13%
grade 3 events	4457
	6%
grade 4 events	4186
	6%
grade 5 events	6037
	9%
grade 6 events	17789
	27%
grade 7 events	16486
	25%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	90.536257	90.54700466971963	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	28.494142	28.46846811657267	Subarray start row	449	449
[deg] Pointing Roll	259.222180	259.3736748639098	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.4
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	411549125.184000	411548228.29084			
Observation start date	2011-01-16T07:10:59	2011-01-16T06:57:08			
[s] Observation end time (MET)	411565125.184000	411566530.17928			
Observation end date	2011-01-16T11:37:39	2011-01-16T12:02:10			
Read mode	TIMED	TIMED			

2.3 Aspect



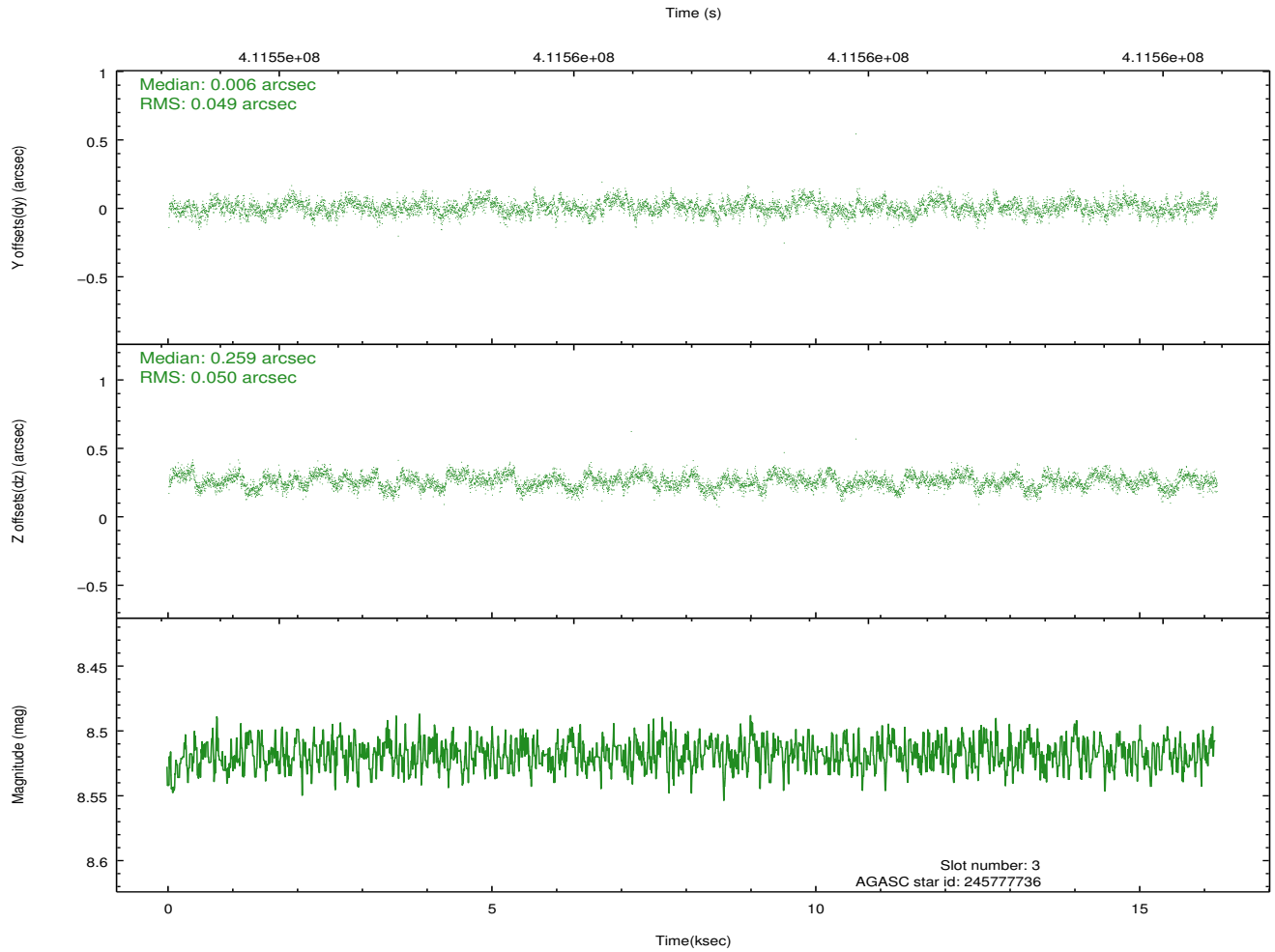
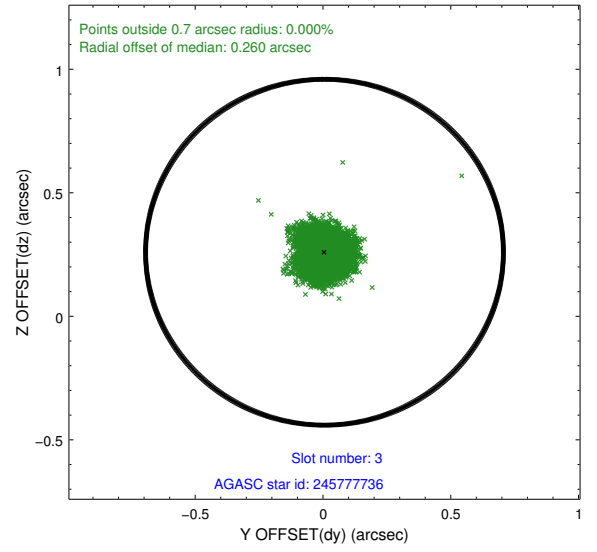
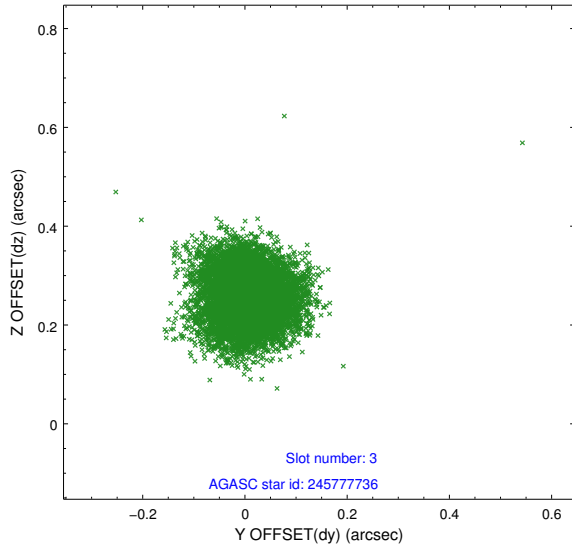


Slot Statistics

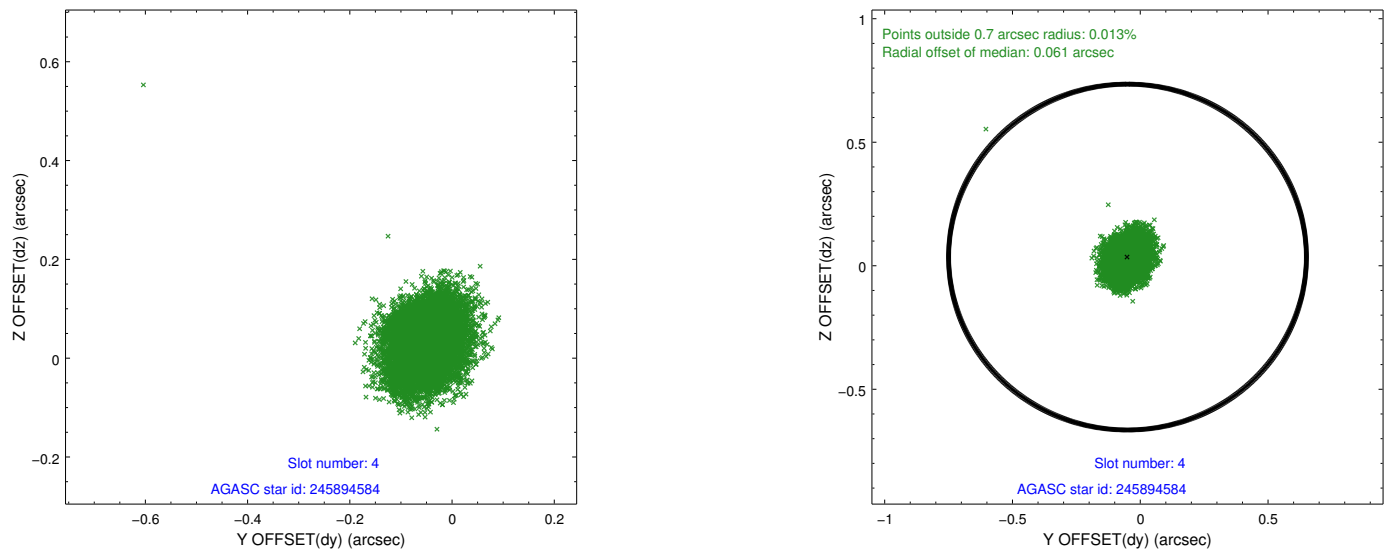
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.93	3947	-0.079	-0.023	0.007	0.012	0.000000	0.000000	-771.28	-1737.81
1	FID	ACIS-S-4	7.00	3947	0.233	0.045	0.009	0.019	0.000000	0.000000	2142.18	170.45
2	FID	ACIS-S-5	7.04	3947	-0.185	-0.013	0.008	0.016	0.000000	0.000000	-1823.88	164.38
3	GUIDE	245777736	8.52	7893	0.006	0.259	0.075	0.118	89.810612	28.289785	1146.72	-2122.96
4	GUIDE	245894584	7.73	7895	-0.050	0.035	0.070	0.111	90.154113	29.005183	-1583.31	-1526.47
5	GUIDE	245900312	8.04	7894	0.023	0.005	0.082	0.130	90.747444	28.677020	-771.99	531.83
6	GUIDE	245901960	7.80	7890	-0.098	-0.068	0.077	0.121	91.067640	28.300939	364.52	1784.11
7	GUIDE	245903368	9.05	7890	0.115	-0.226	0.088	0.141	90.543164	28.141710	1242.72	259.07

2.4 Star Slots

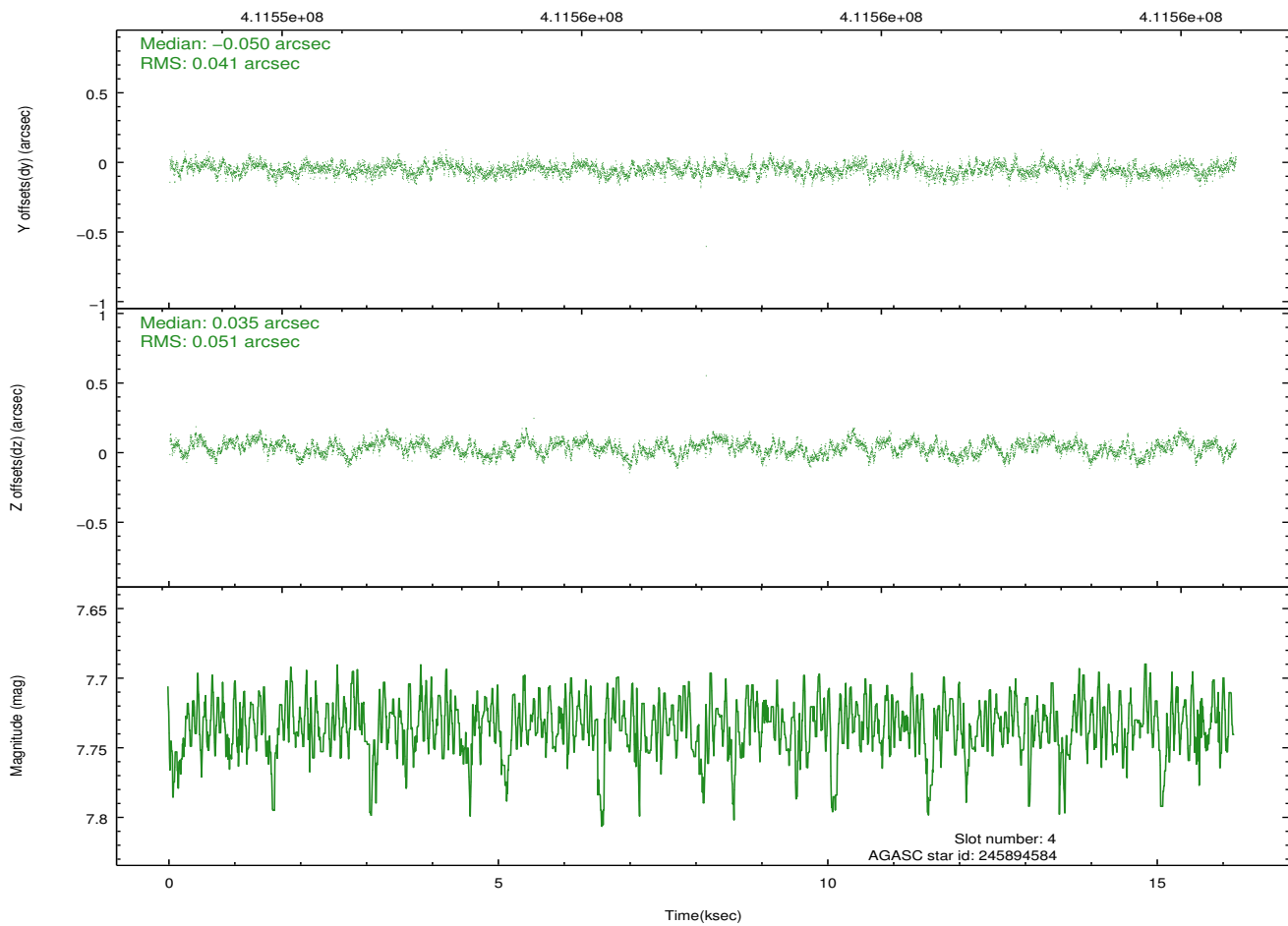
2.4.1 Slot 3



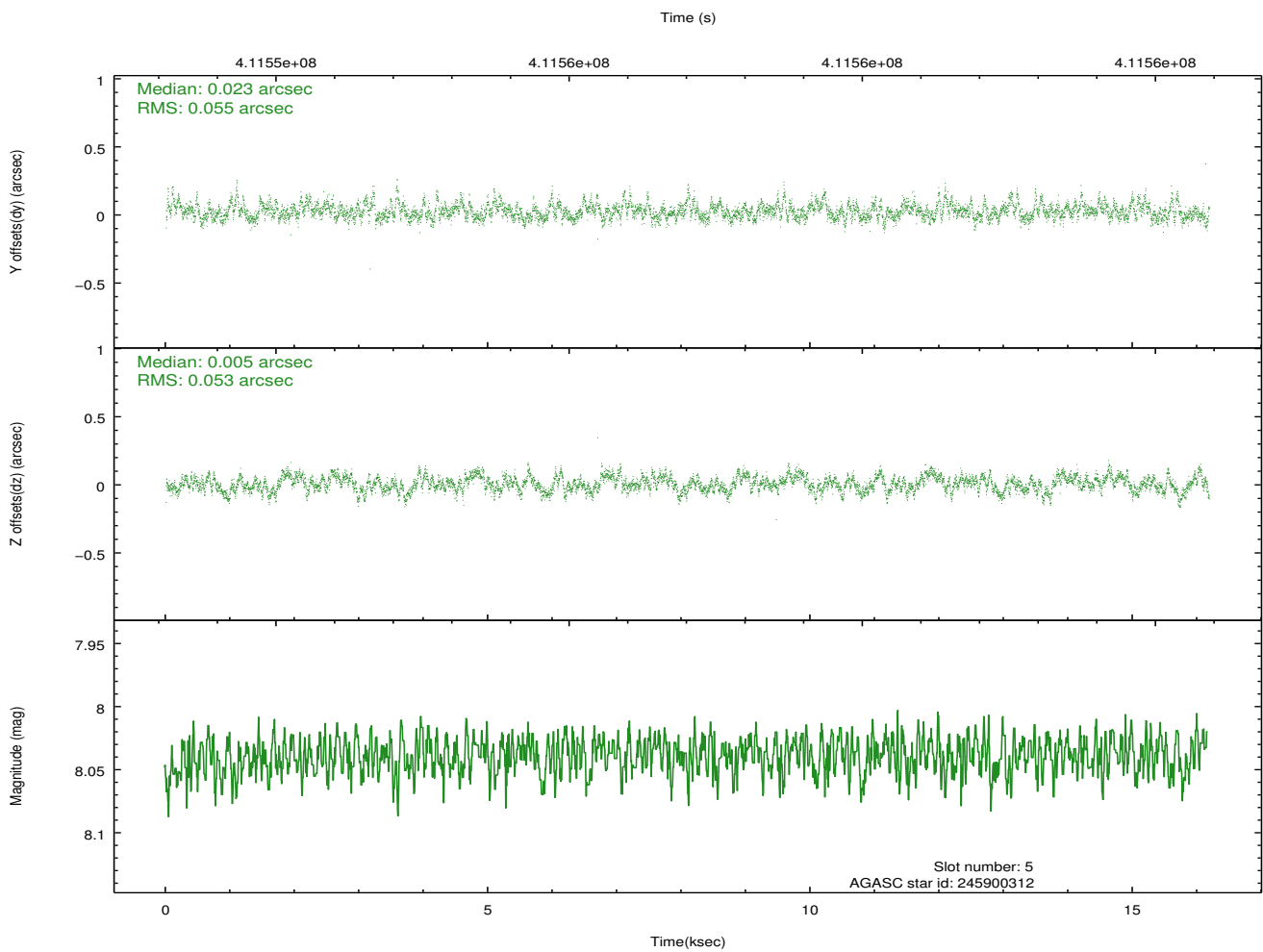
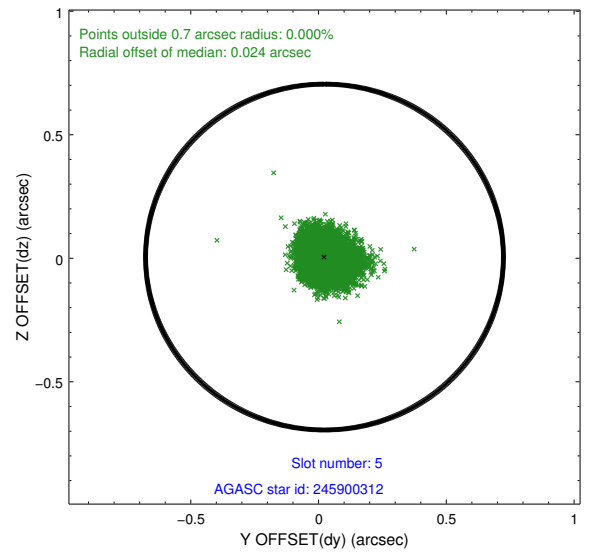
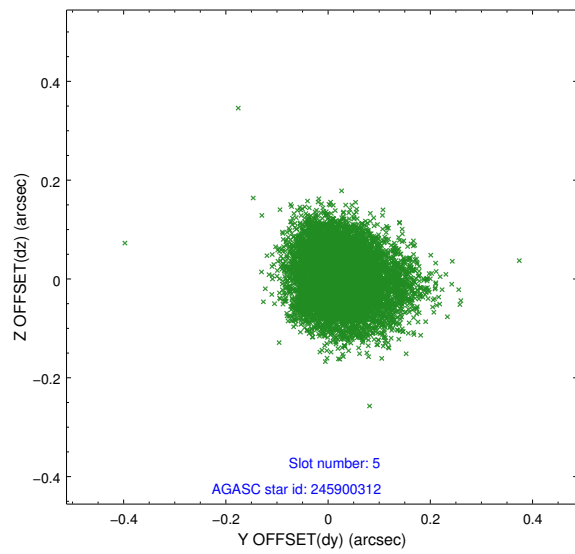
2.4.2 Slot 4



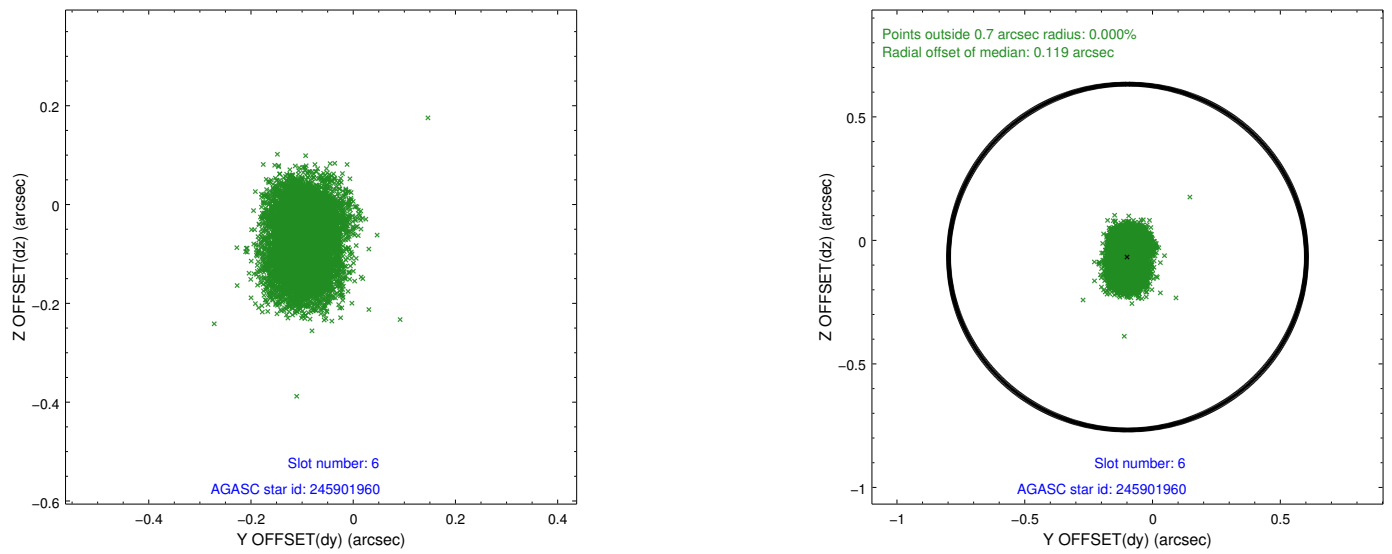
Time (s)



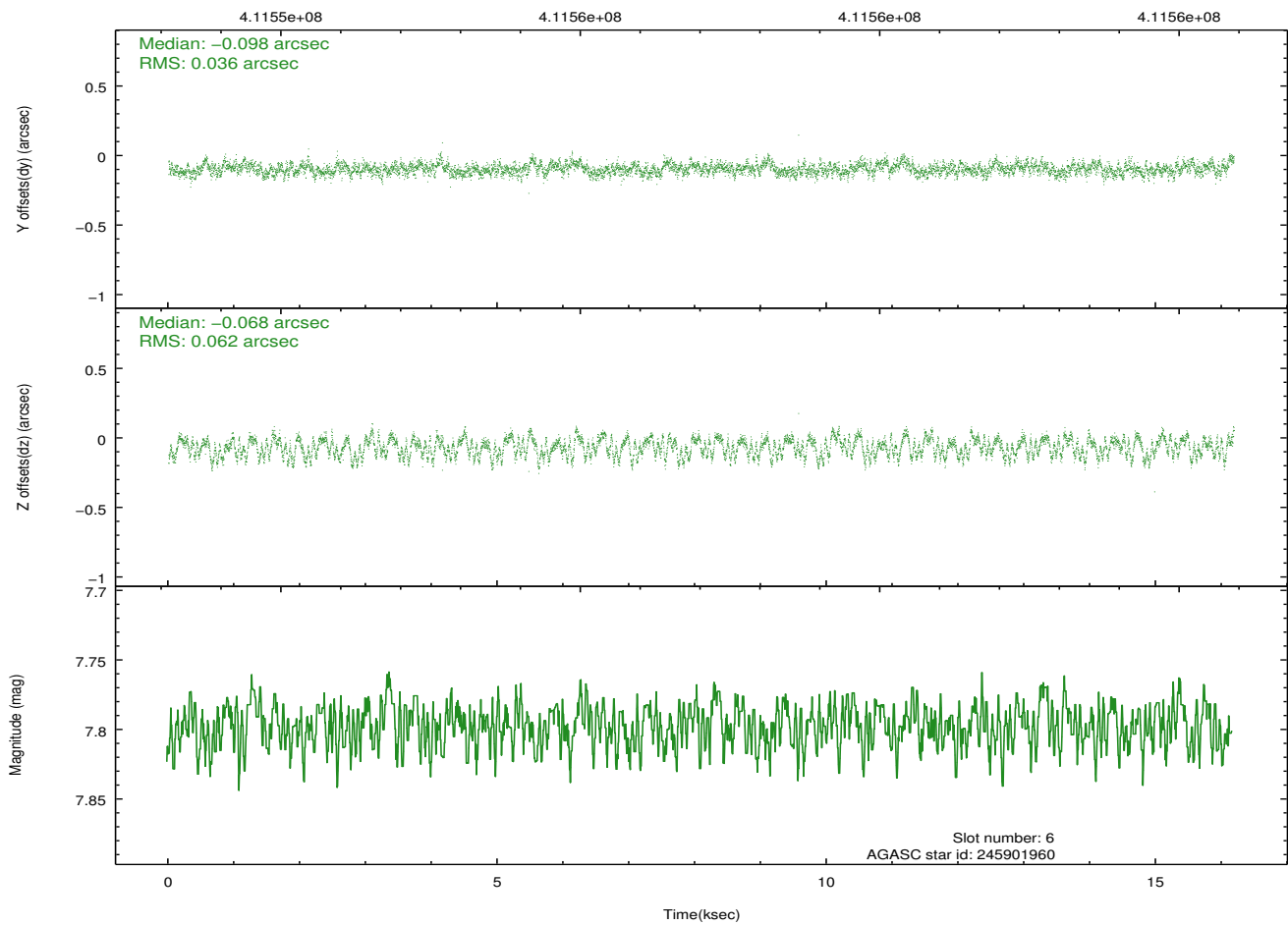
2.4.3 Slot 5



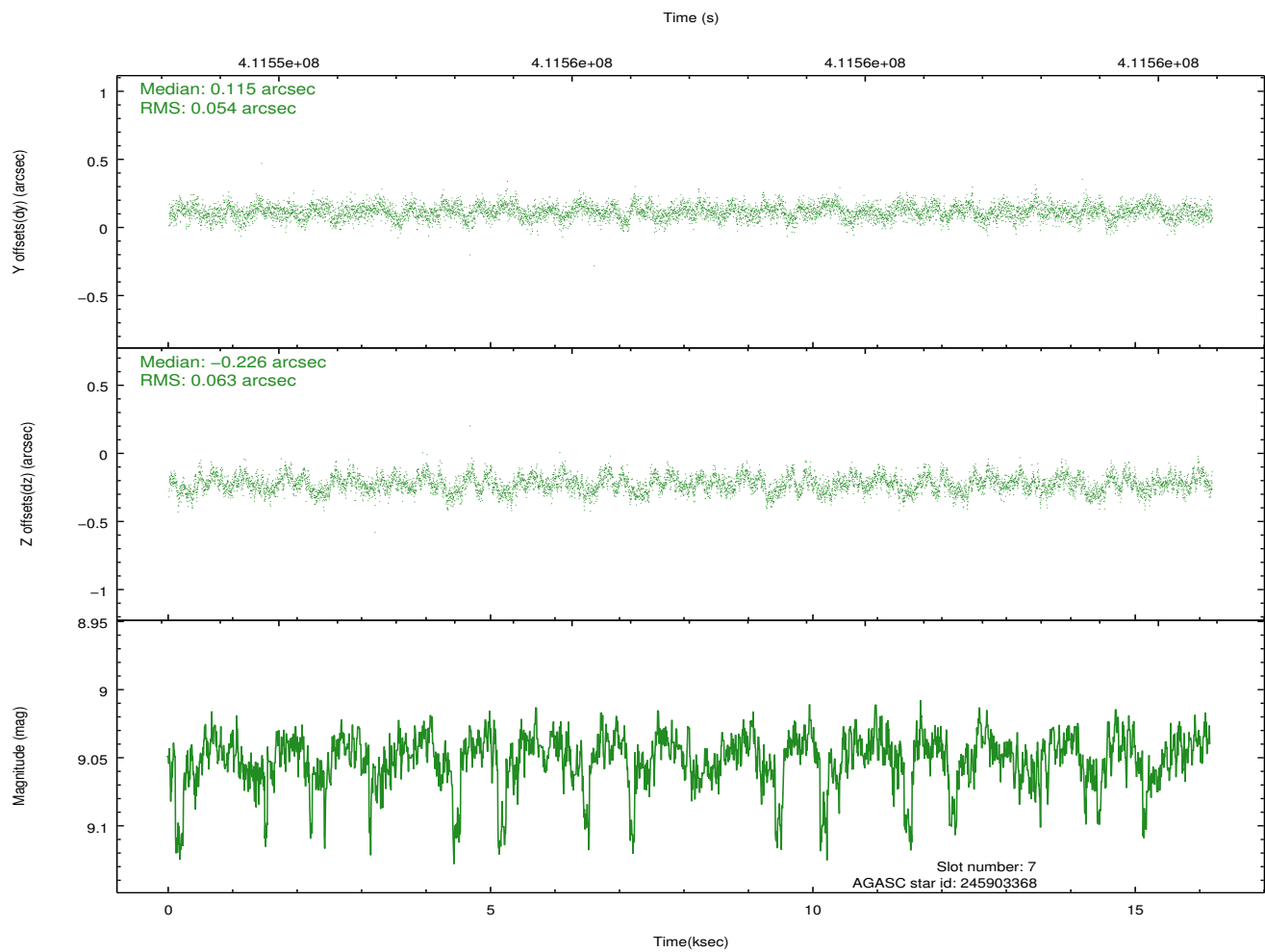
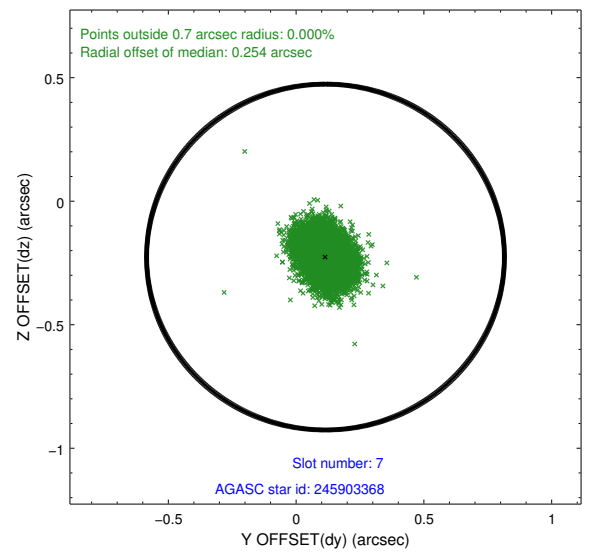
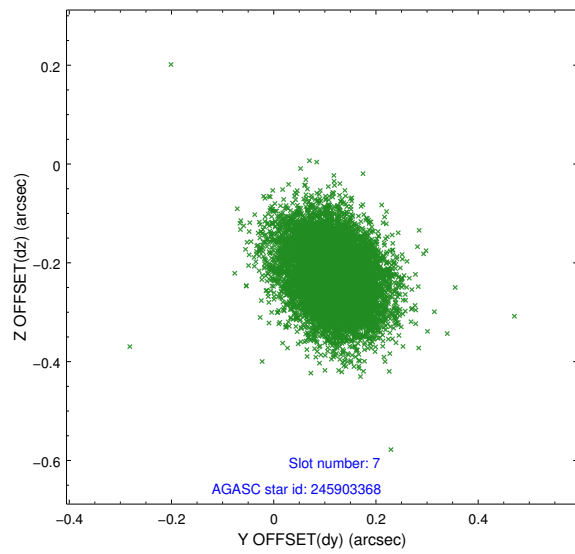
2.4.4 Slot 6



Time (s)

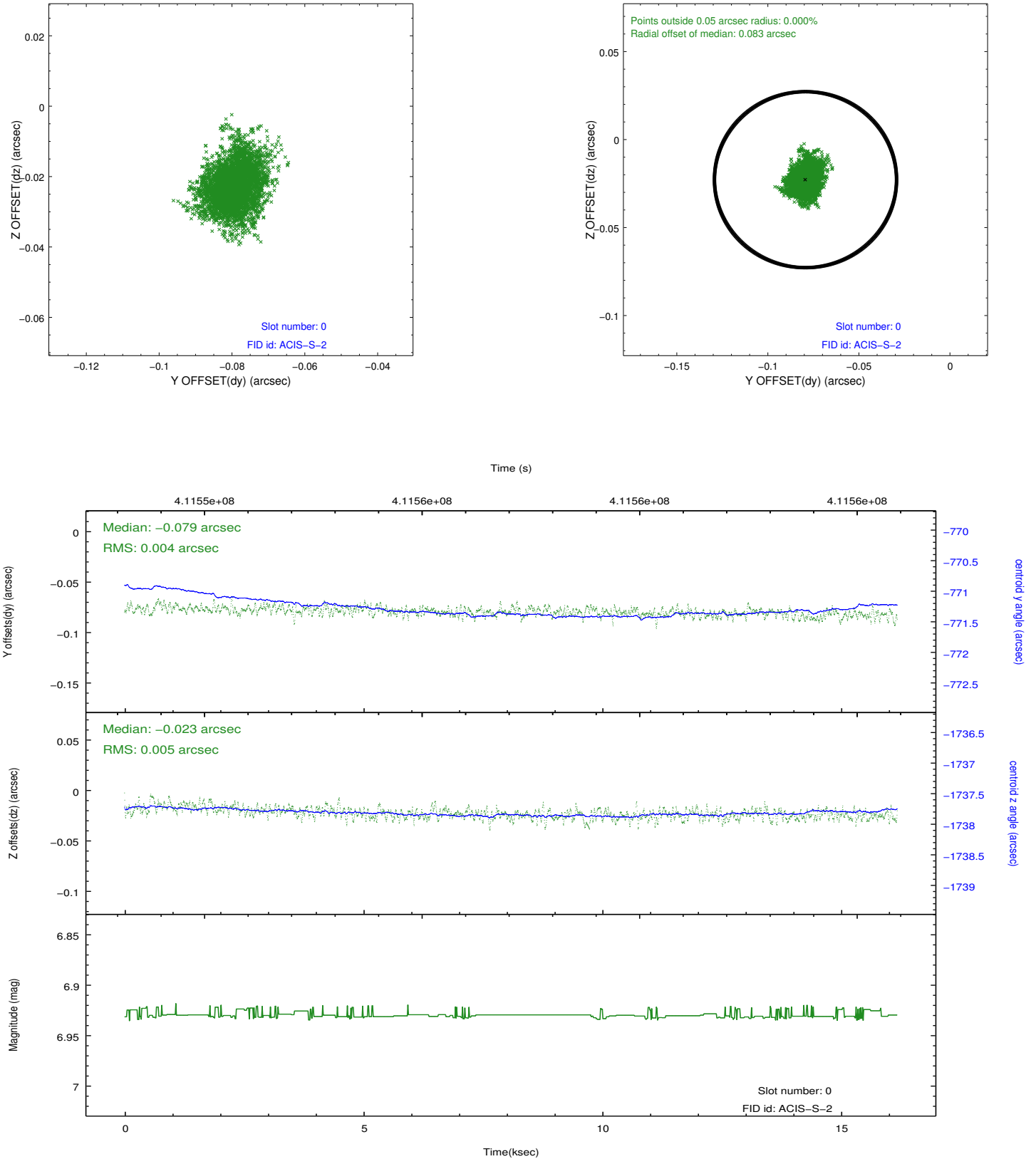


2.4.5 Slot 7

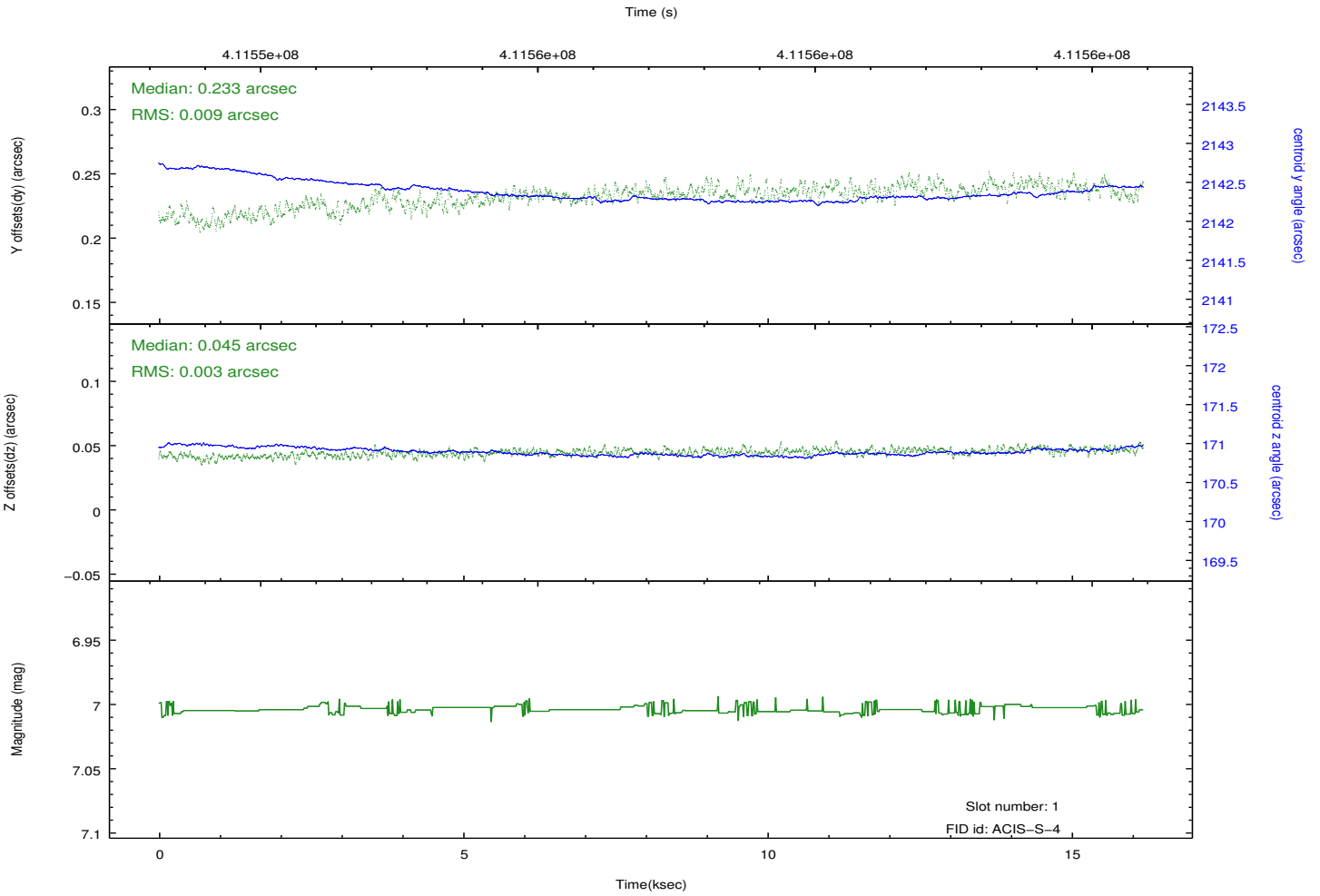
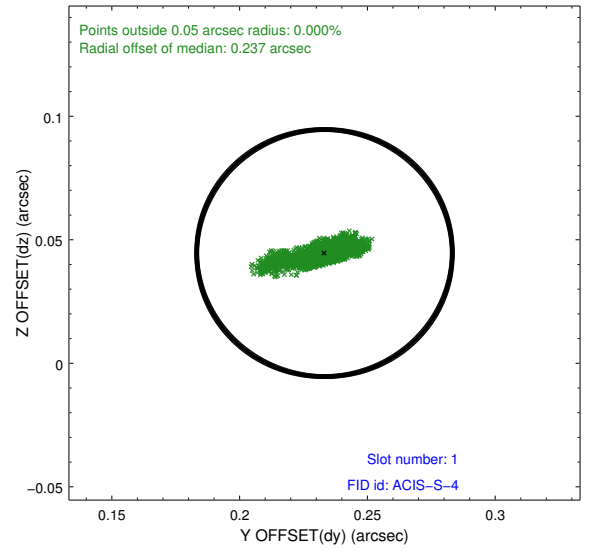
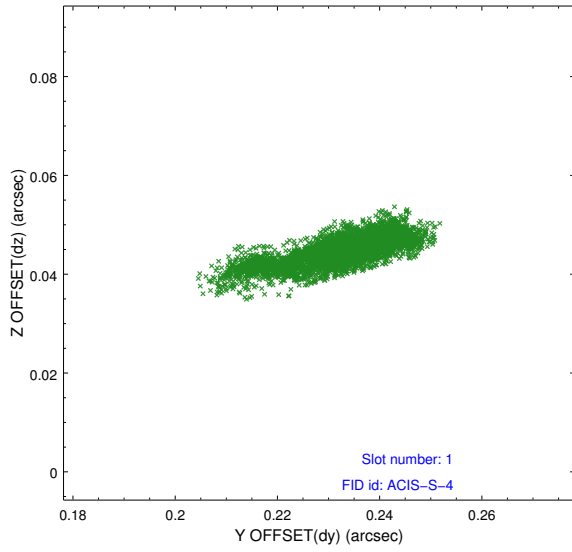


2.5 FID Slots

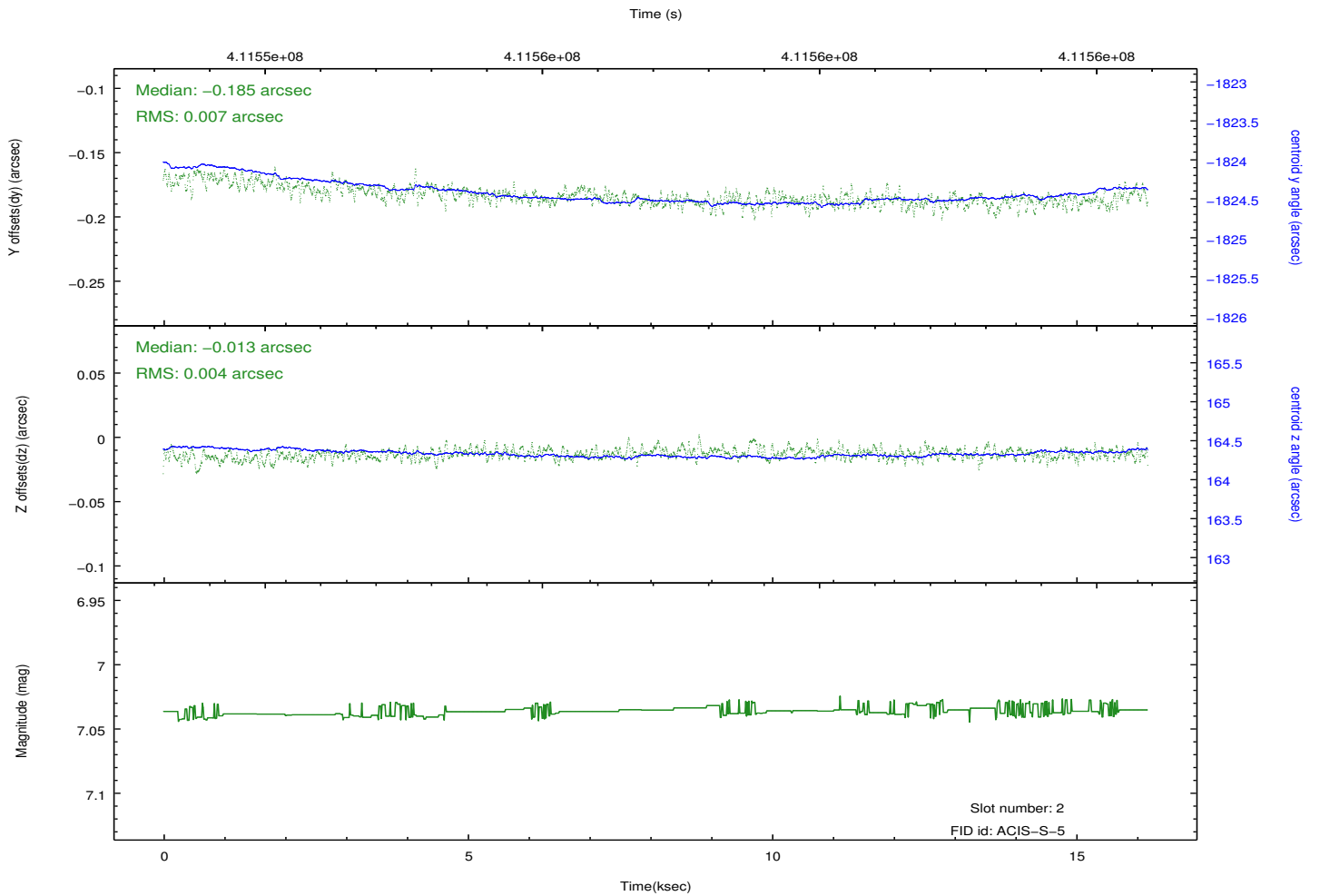
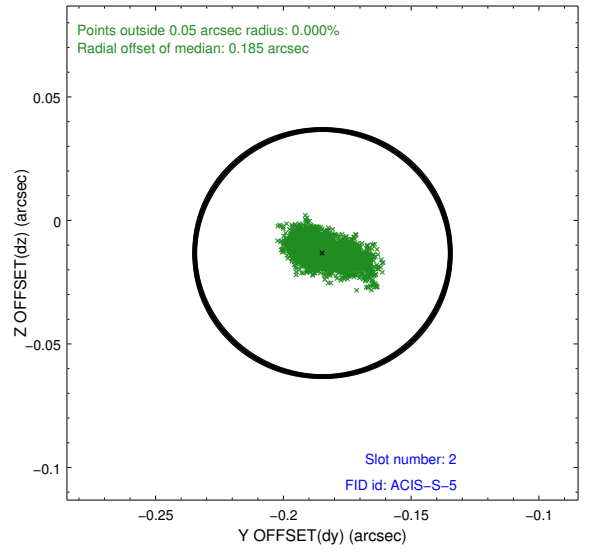
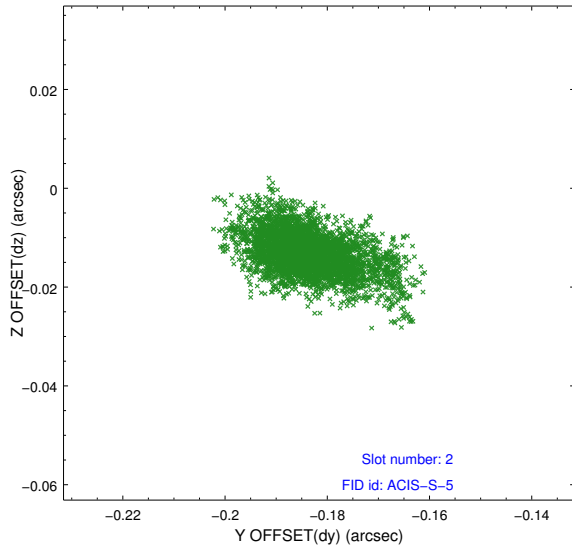
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.02.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.009599045753

A.2 Comments

Target position differs from requested coordinates by more than 3 arcsec.

====

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.

===

The EXPOSURE (and LIVETIME) are 14519.86 s, which is 90.69% (DTCOR) of the ONTIME of 16009.60 s. The reason that DTCOR is about 0.91 instead of about 0.99 is that the frame time is only 0.4 s. Since the frame transfer time is 0.04104 s, the fraction of the time spent in the static exposure is $0.4 / (0.4 + 0.04104) = 0.906947$.