

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 5185 - L2 Version 3
Chandra X-Ray Center

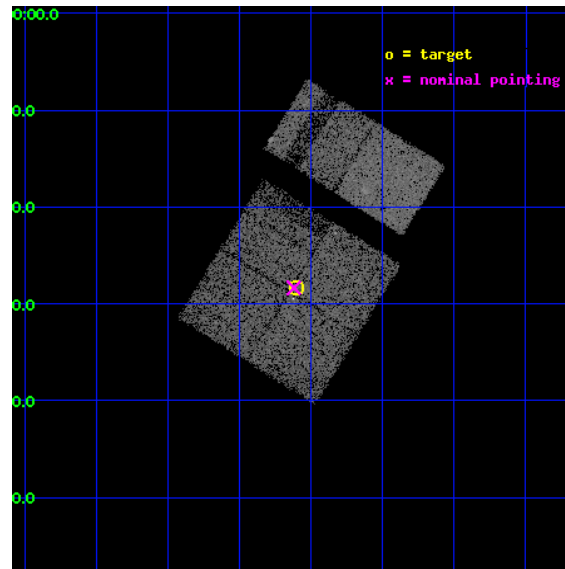
L2 Processing Date : Nov 7 2012

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1 Front

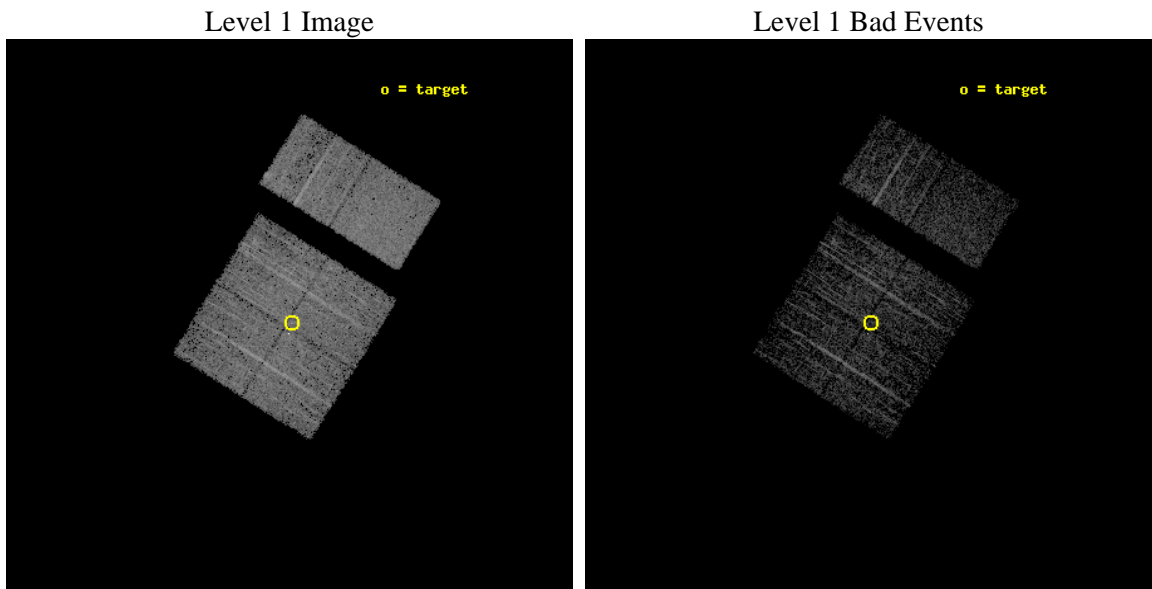
seq_num	200293	Sequence number
obs_id	5185	Observation id
title	Search for beta Pic analogs	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	51 Eri	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	69.400417	Observer's specified target RA [deg]
dec_targ	-2.473333	Observer's specified target Dec [deg]
ra_nom	69.404867987094	Nominal RA [deg]
dec_nom	-2.4725207834421	Nominal Dec [deg]
roll_nom	31.94918650169	Nominal Roll [deg]
revision	3	Processing version of data
ontime	3187.1999881268	Sum of GTIs [s]
livetime	3146.8417427757	Livetime [s]
ontime0	3187.1999881268	Sum of GTIs [s]
ontime1	3187.1999881268	Sum of GTIs [s]
ontime2	3187.1999881268	Sum of GTIs [s]
ontime3	3187.1999881268	Sum of GTIs [s]
ontime6	3187.1999881268	Sum of GTIs [s]
ontime7	3187.1999881268	Sum of GTIs [s]
l2events	47716	Number of level 2 events



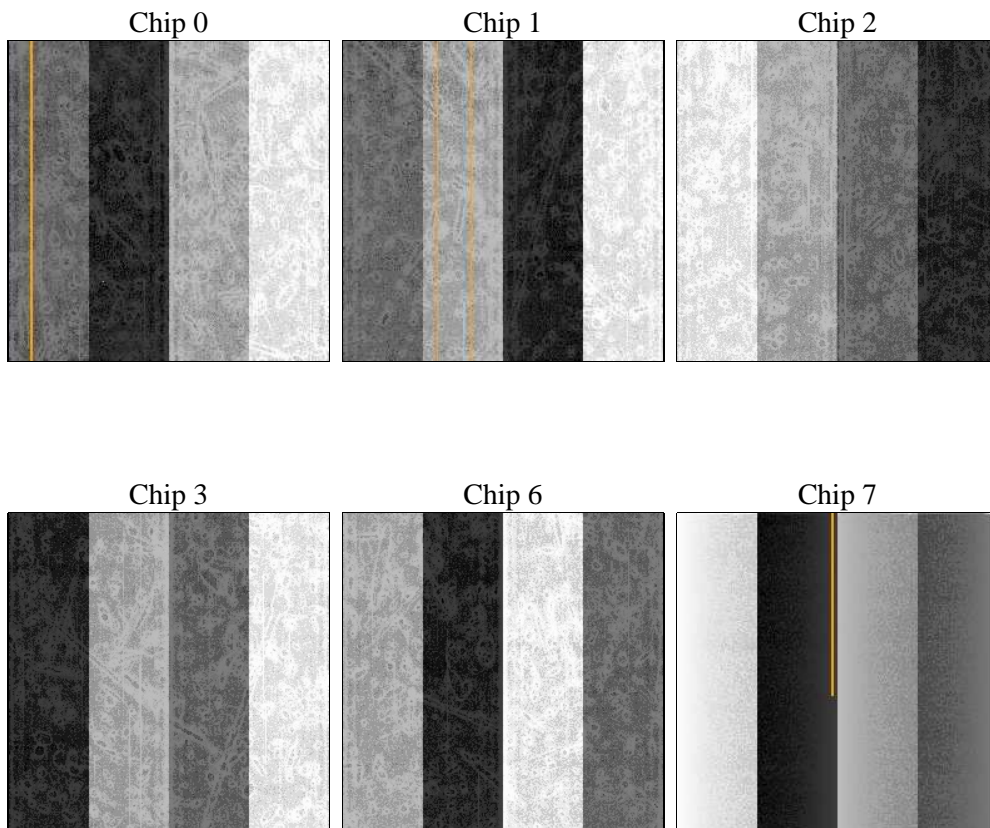
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	3187.1999881268	Sum of GTIs [s]
caldsver	4.5.2	 	ontime0	3187.1999881268	Sum of GTIs [s]
date	2012-11-08T02:10:44	Date and time of file creation	ontime1	3187.1999881268	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	3187.1999881268	Sum of GTIs [s]
			ontime3	3187.1999881268	Sum of GTIs [s]
			ontime6	3187.1999881268	Sum of GTIs [s]
			ontime7	3187.1999881268	Sum of GTIs [s]
			l1events	175201	Number of level 1 events

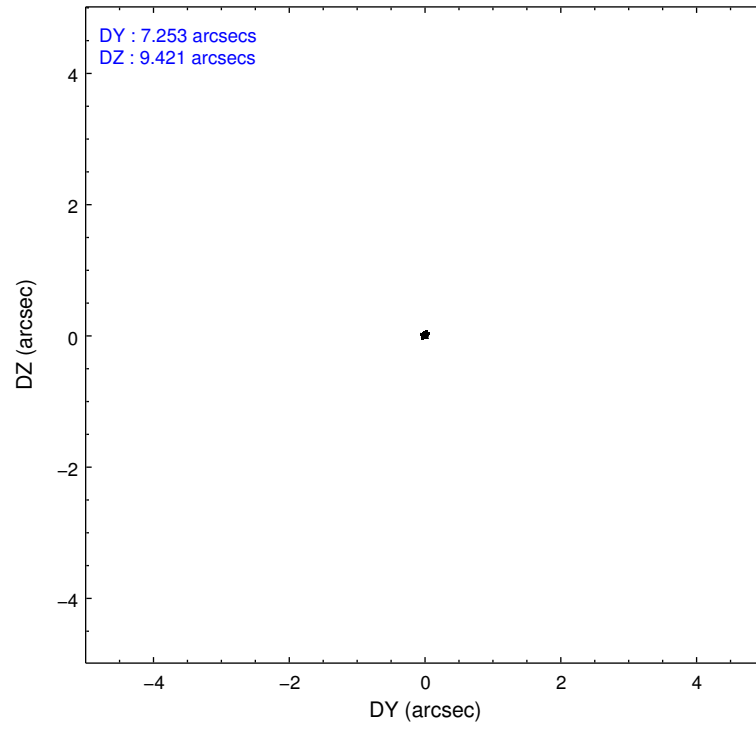
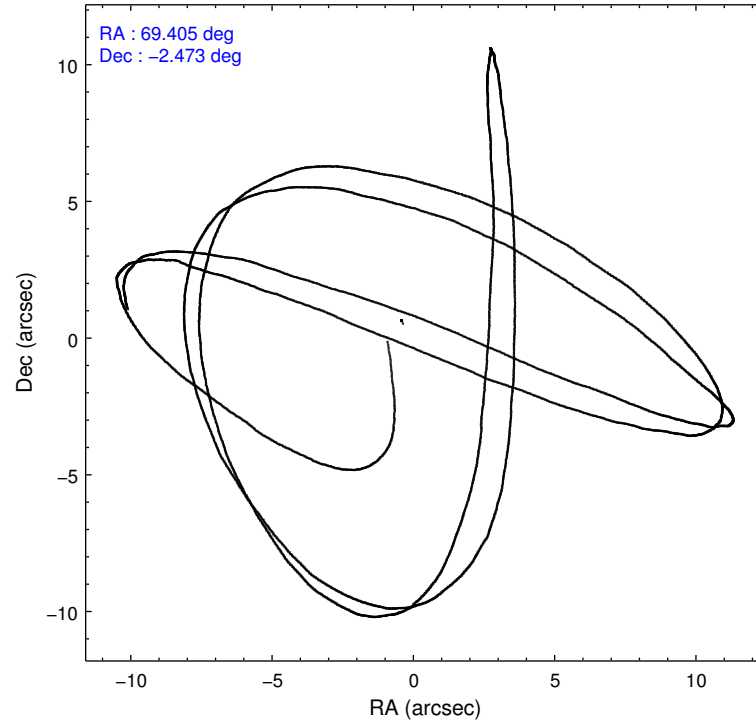
2.1.4 Events

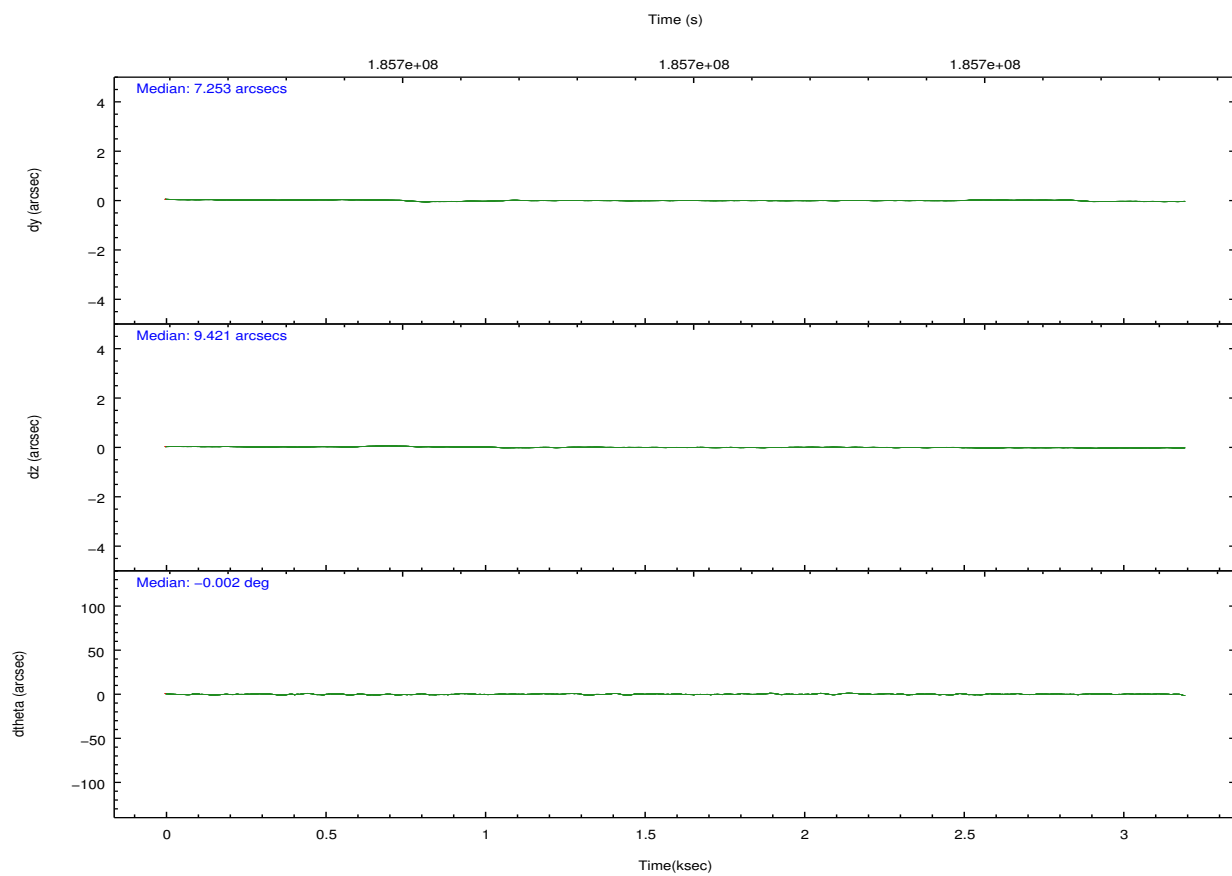
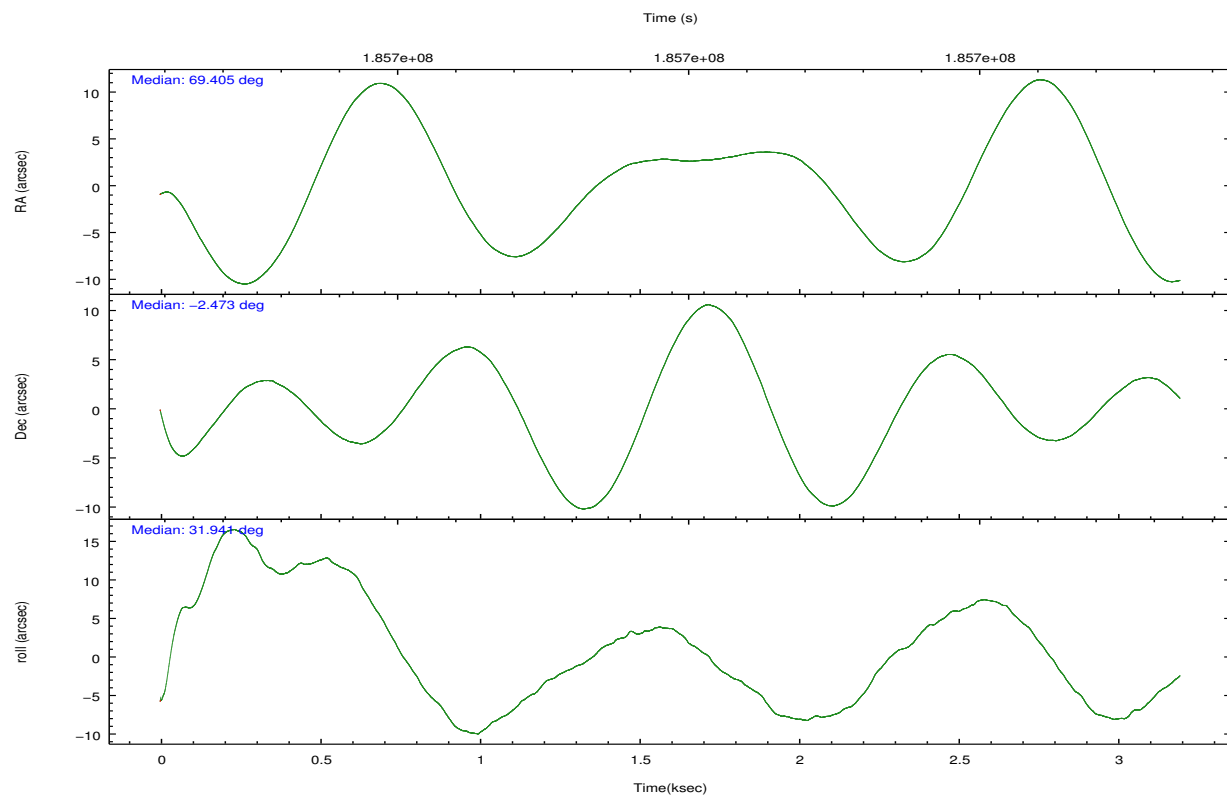
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	26838	28785	29233	27629	30073	32643	grade 0 events	4123	4062	3942	4084	4206	1497
rejected events	19239	20028	22317	19740	22230	19901		15%	14%	13%	14%	13%	4%
rejected %	71%	69%	76%	71%	73%	60%	grade 1 events	19	125	25	17	24	39
								0%	0%	0%	0%	0%	0%
							grade 2 events	2771	3714	2081	3159	3340	3154
								10%	12%	7%	11%	11%	9%
							grade 3 events	350	442	312	369	342	1336
								1%	1%	1%	1%	1%	4%
							grade 4 events	360	391	444	347	341	1309
								1%	1%	1%	1%	1%	4%
							grade 5 events	853	946	819	938	1023	2892
								3%	3%	2%	3%	3%	8%
							grade 6 events	1773	2077	1701	1692	1485	8199
								6%	7%	5%	6%	4%	25%
							grade 7 events	16589	17028	19909	17023	19312	14217
								61%	59%	68%	61%	64%	43%

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	69.392209	69.40486798709421	Subarray requested	NONE	NONE
[deg] Pointing Dec	-2.496824	-2.472520783442089	Alternating exposures requested	N	N
[deg] Pointing Roll	31.739993	31.94918650169027	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	185697535.184000	185696138.42892			
Observation start date	2003-11-20T06:37:51	2003-11-20T06:15:38			
[s] Observation end time (MET)	185700535.184000	185701346.96664			
Observation end date	2003-11-20T07:27:51	2003-11-20T07:42:26			
Read mode	TIMED	TIMED			

2.3 Aspect



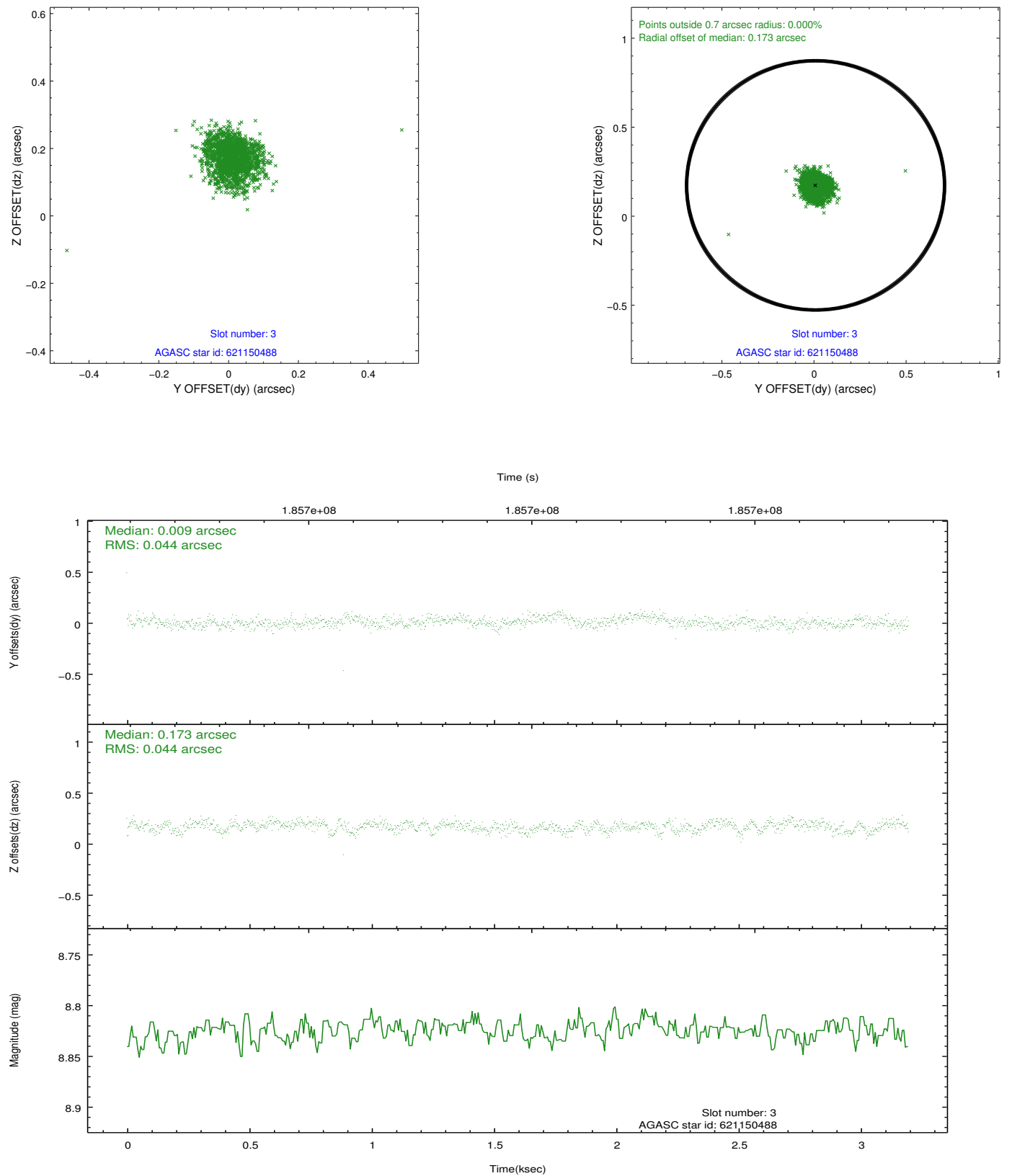


Slot Statistics

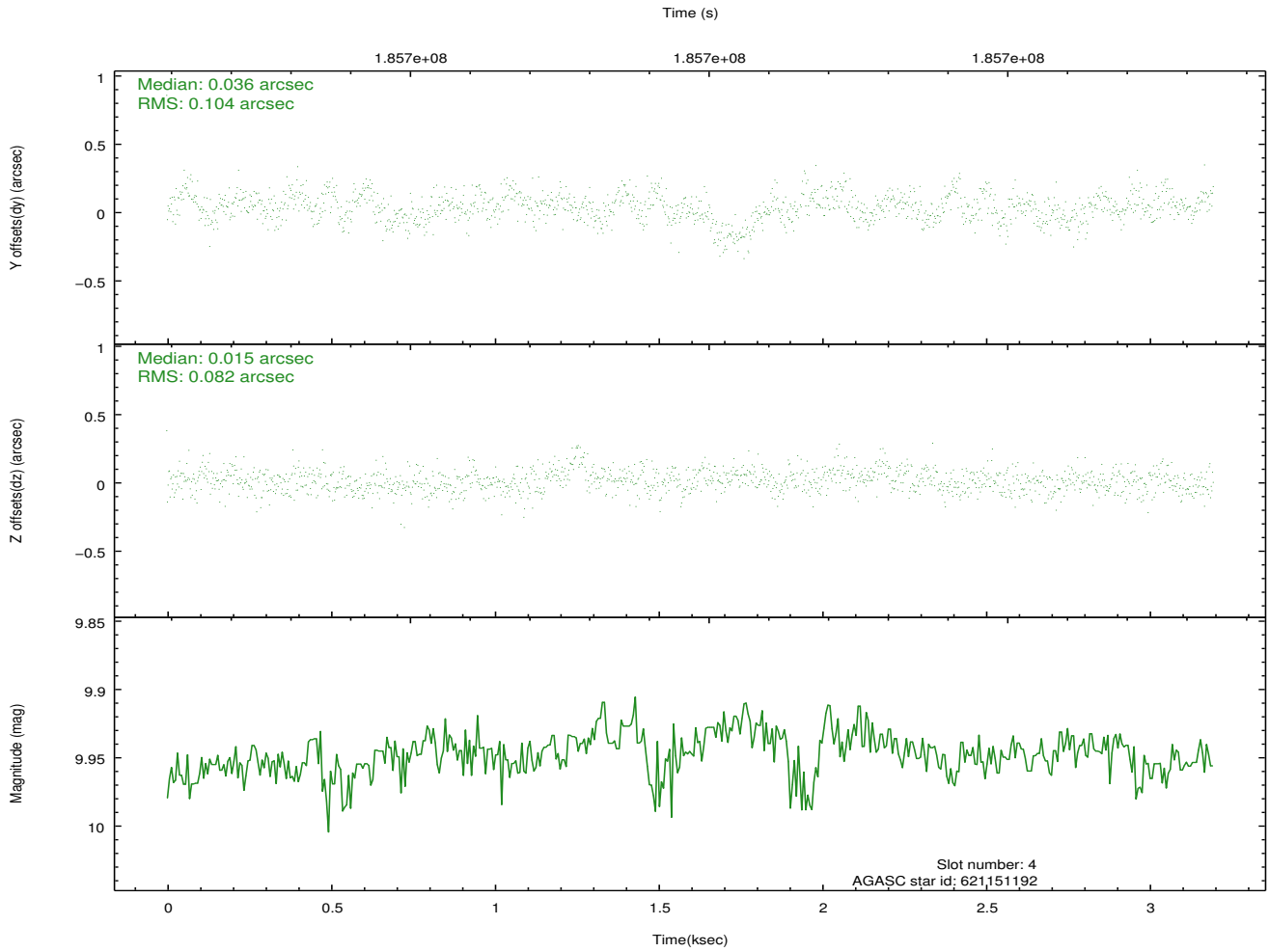
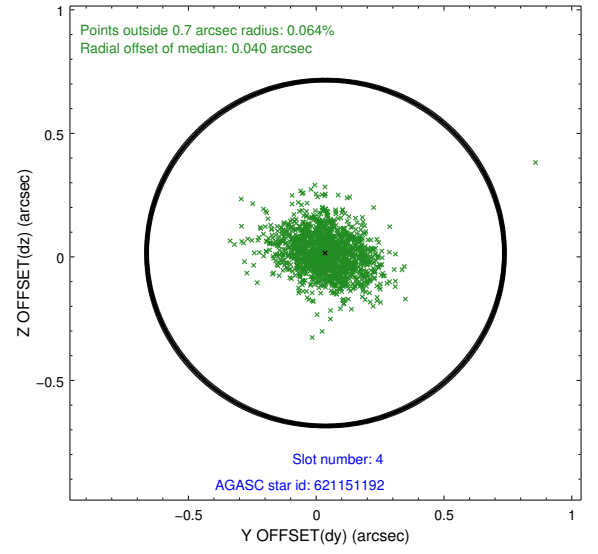
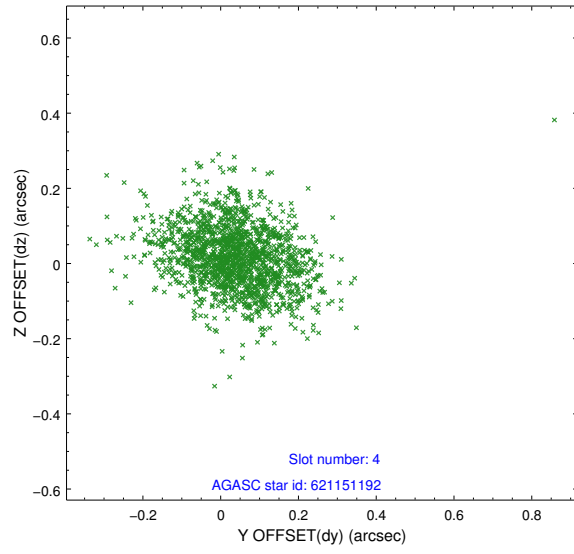
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	780	-0.007	0.044	0.006	0.012	0.000000	0.000000	932.42	-832.83
1	FID	ACIS-I-5	7.23	780	-0.139	0.025	0.006	0.011	0.000000	0.000000	-1814.72	1063.63
2	FID	ACIS-I-6	7.26	780	0.055	0.001	0.007	0.011	0.000000	0.000000	395.85	1710.38
3	GUIDE	621150488	8.82	1559	0.009	0.173	0.065	0.100	69.381004	-2.536201	-107.99	-99.73
4	GUIDE	621151192	9.95	1557	0.036	0.015	0.133	0.232	70.235475	-2.692308	2209.32	-2195.04
5	GUIDE	621152560	8.84	1560	0.058	-0.005	0.063	0.103	69.453503	-2.701542	-197.86	-744.66
6	GUIDE	621154808	7.08	1560	-0.090	-0.107	0.062	0.097	69.428429	-2.646508	-172.03	-527.89
7	GUIDE	621155736	9.56	1559	-0.014	-0.079	0.090	0.151	69.594541	-1.940502	1673.20	1319.58

2.4 Star Slots

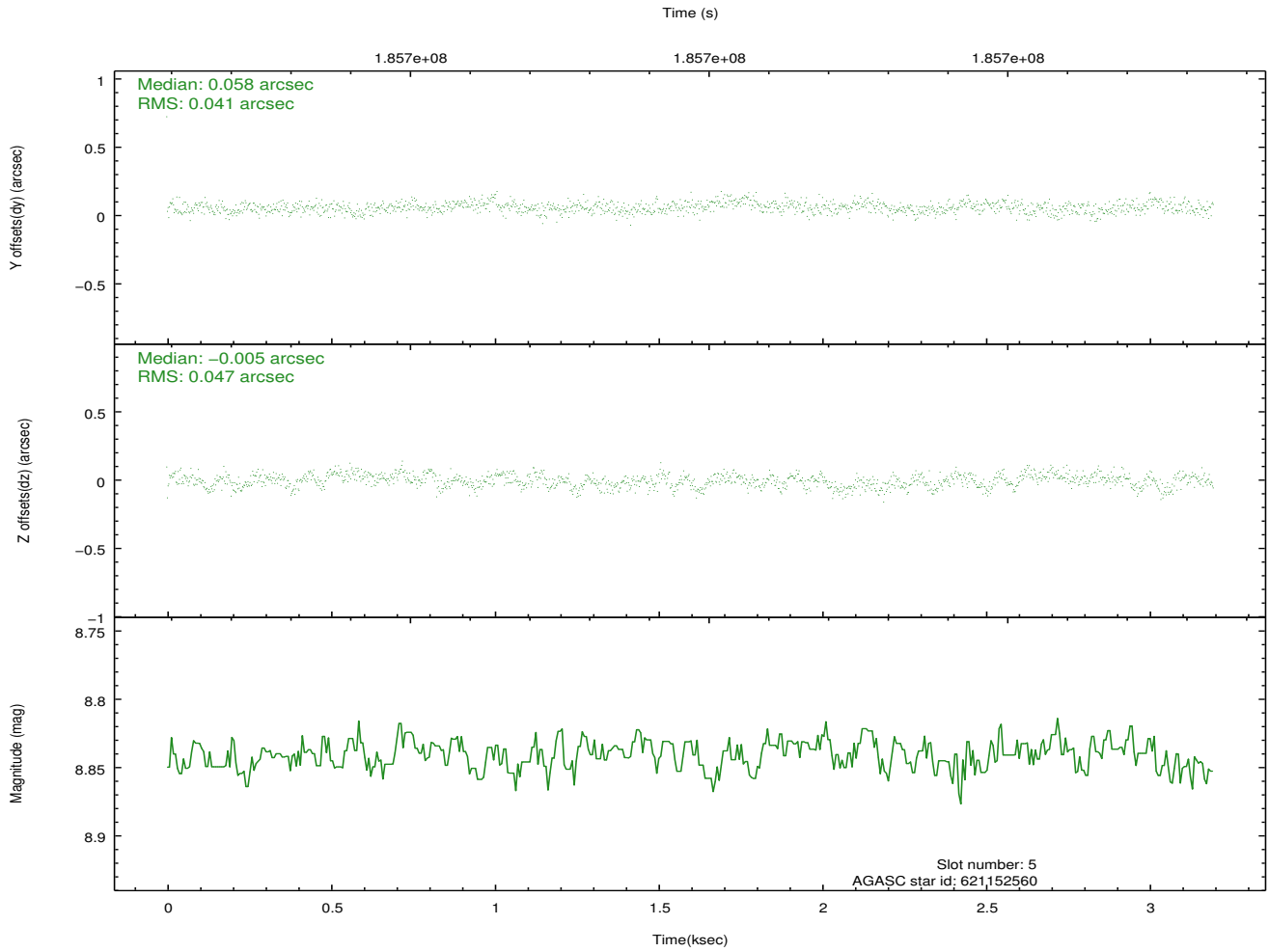
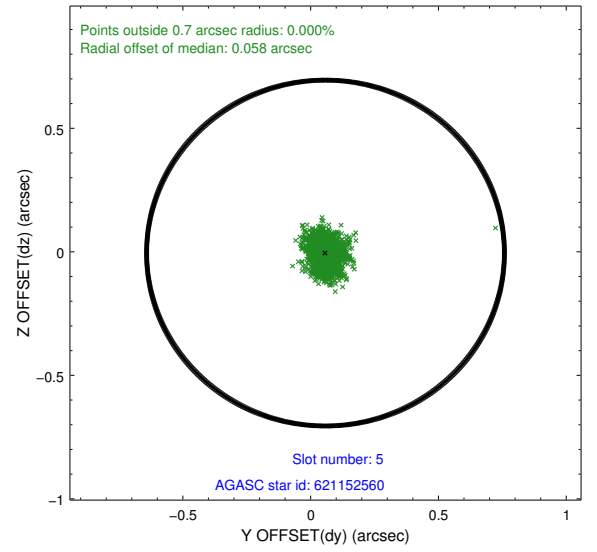
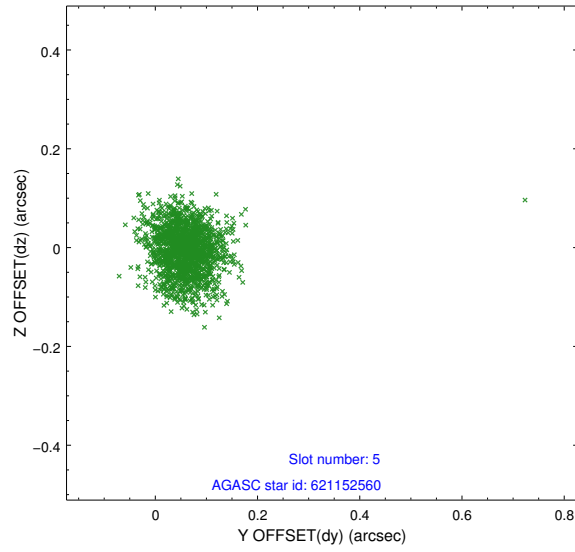
2.4.1 Slot 3



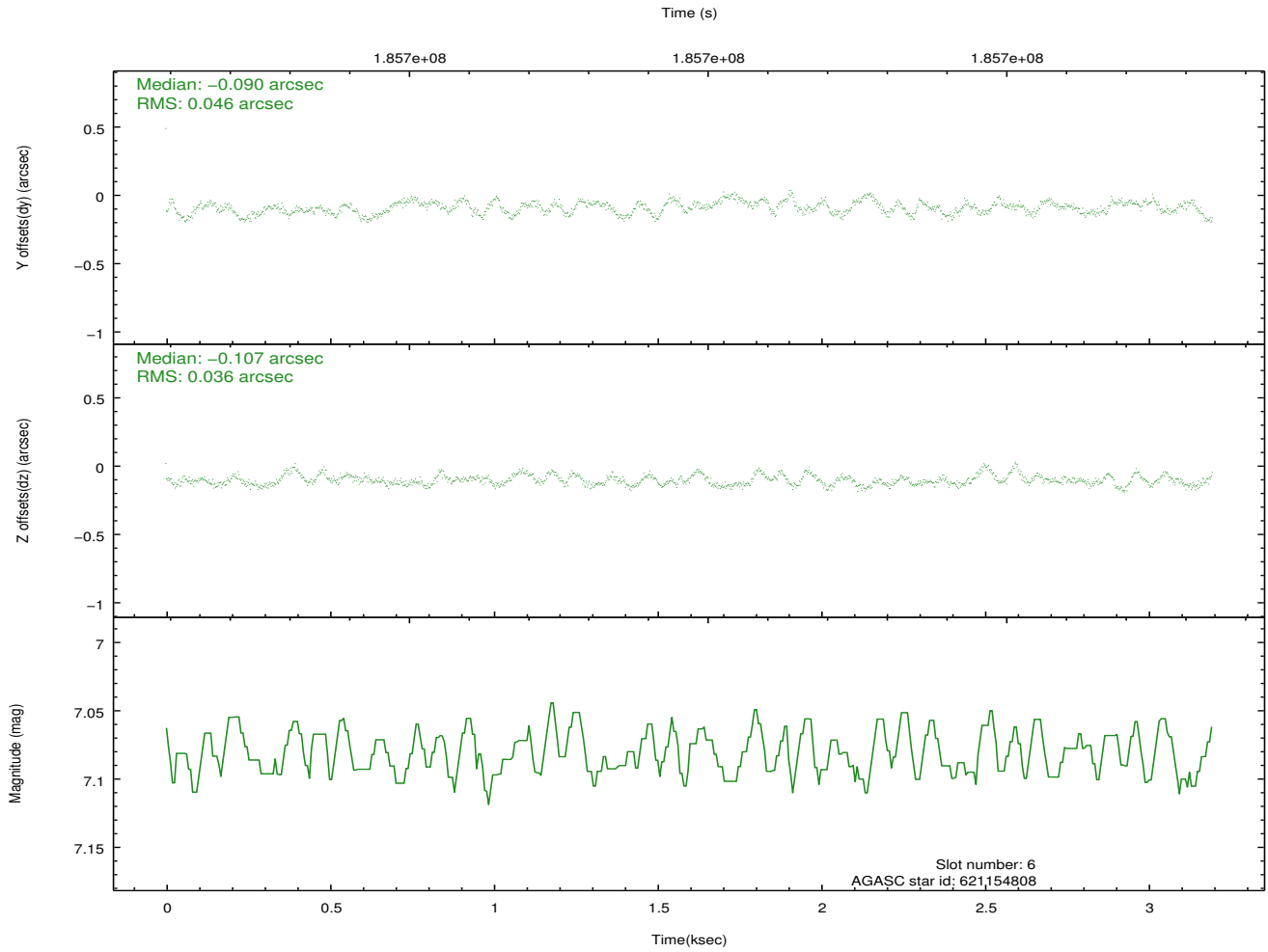
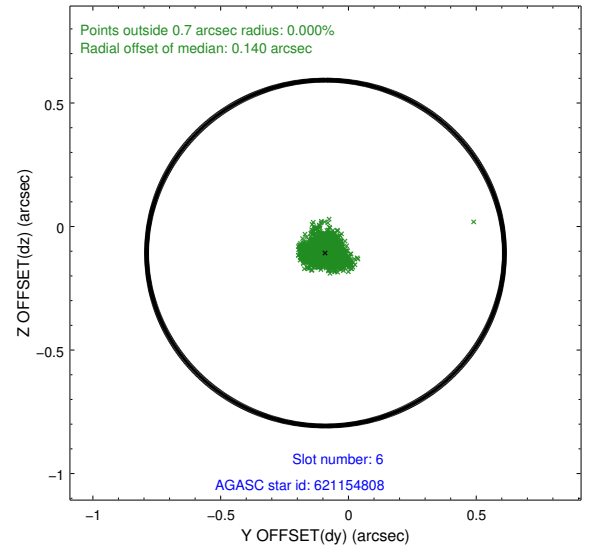
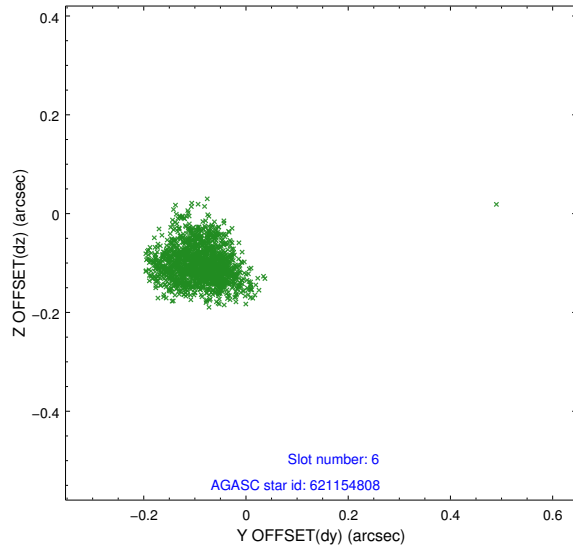
2.4.2 Slot 4



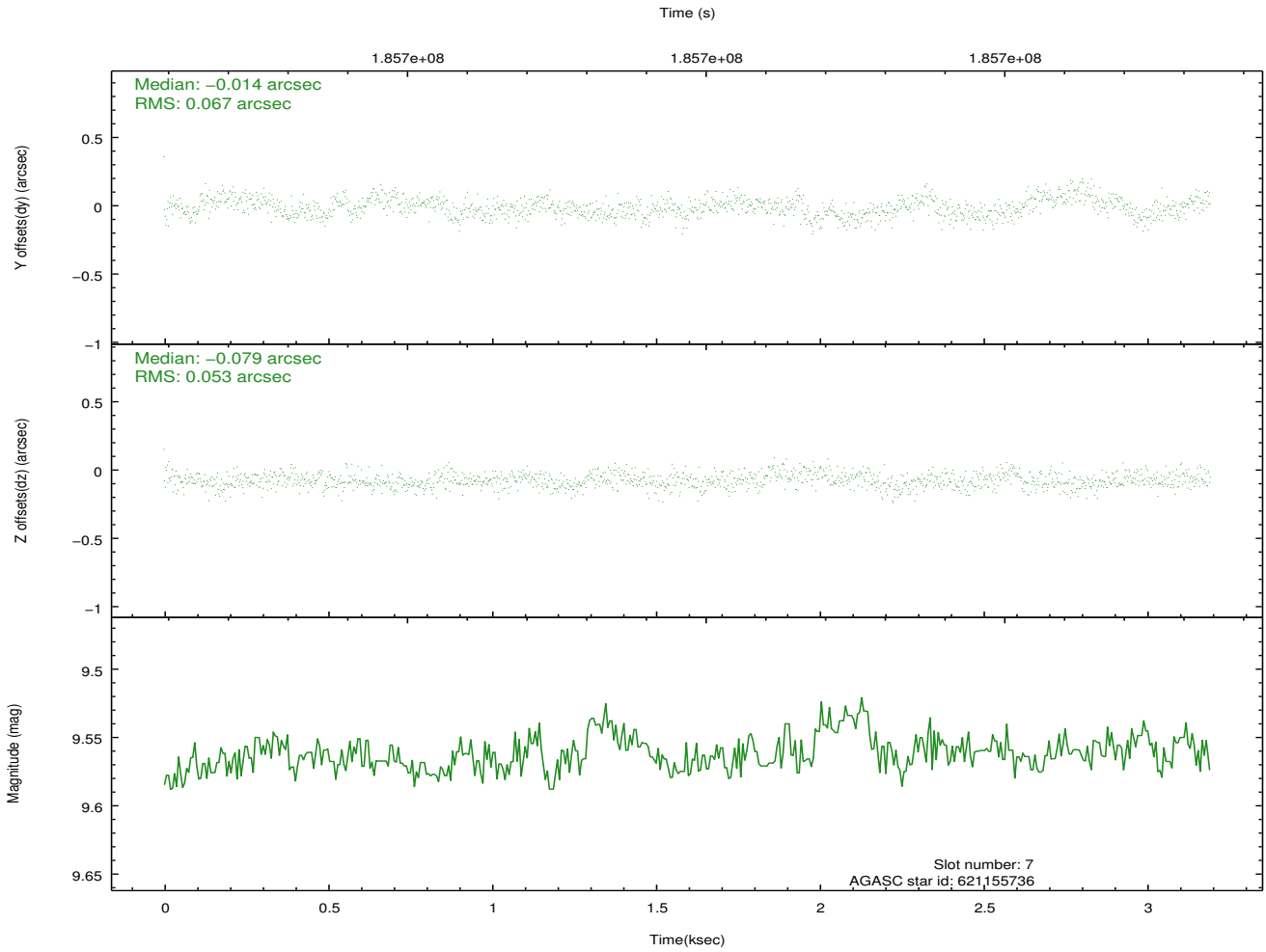
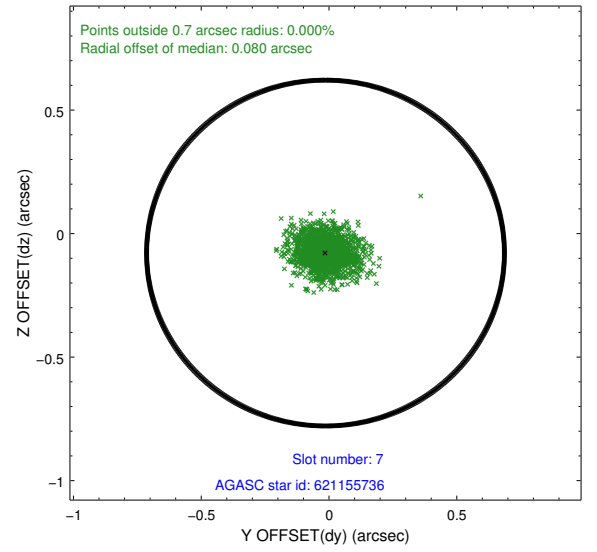
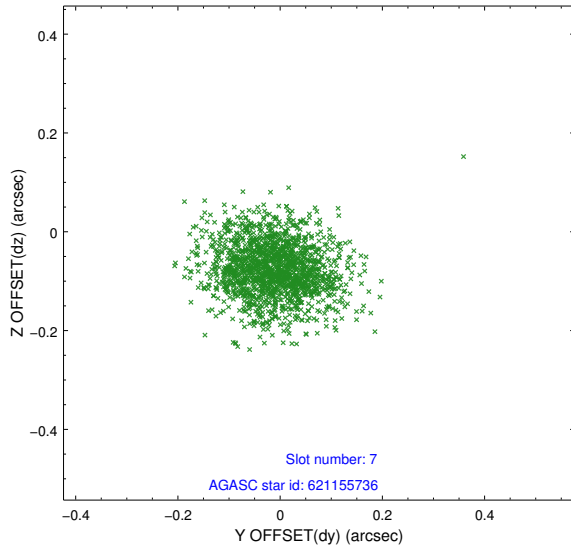
2.4.3 Slot 5



2.4.4 Slot 6

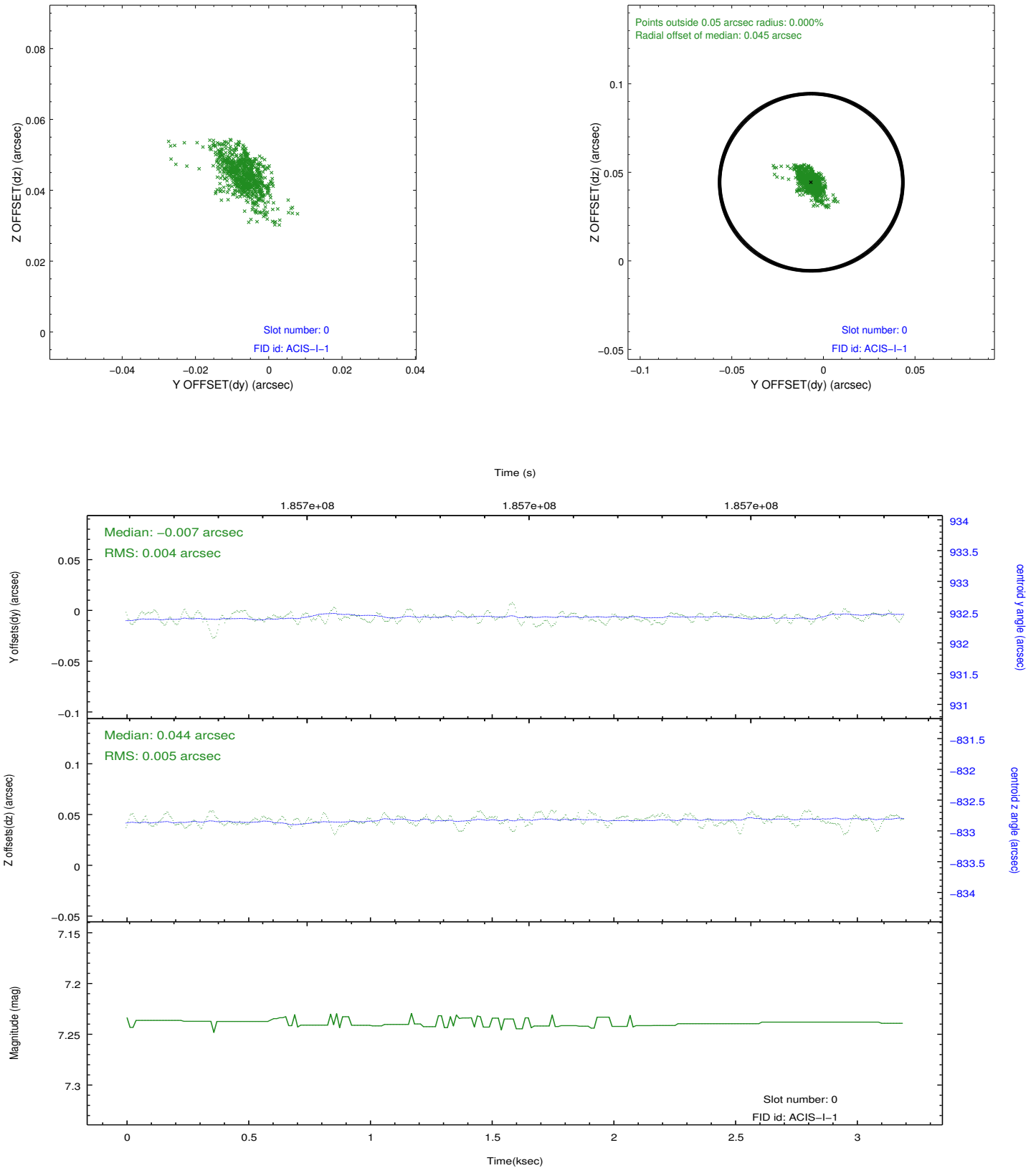


2.4.5 Slot 7

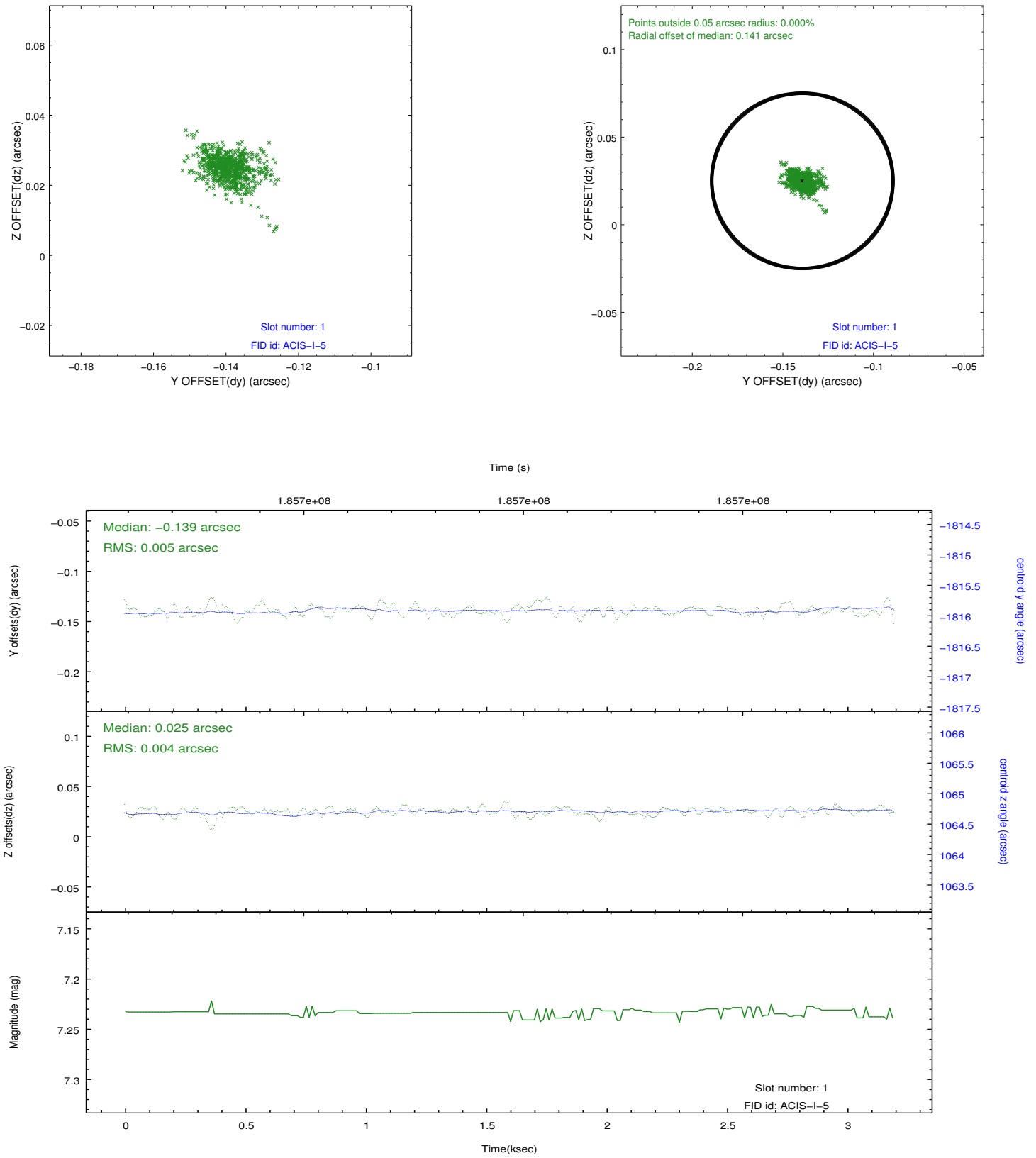


2.5 FID Slots

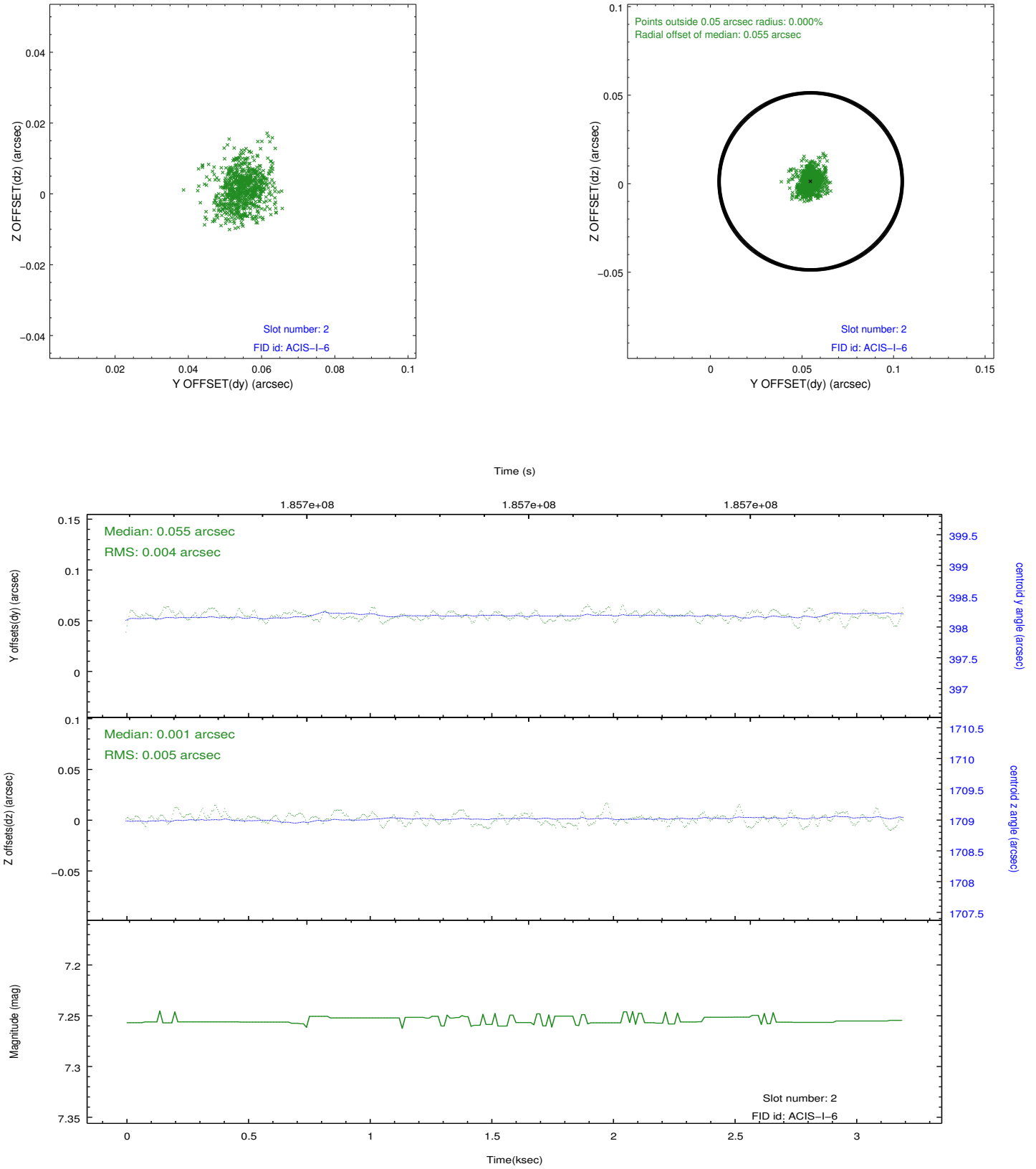
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Glenn Allen
V&V Date (YYYY-MM-DD)	2013.02.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.187

A.2 Comments

Two nodes weirdly low.

The event rates of two nodes: (CCD_ID, NODE_ID) = (2, 3) and (6, 1) are relatively low. This issue is not a problem. These nodes are fine. The reason there are fewer events when the entire data file is displayed is that there are fewer events at the highest energies on these two nodes. For example, if the data are filtered to include only the events that have $PI < 900$ (i.e. $ENERGY < \sim 13.1$ keV), then displaying the filtered data reveals that the two nodes no longer appear to have a relatively small number of events. The reason that there are a relatively small number of events for these two nodes at high energies is that fewer of the events that saturate the analog-to-digital converters are telemetered because the two nodes have relatively small overclock values. Since the events at energies $> \sim 13.1$ keV are produced by cosmic rays, the relative lack of these events for the two nodes is not important for scientific analyses of the data.

Glenn