

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 4602 - L2 Version 3
Chandra X-Ray Center

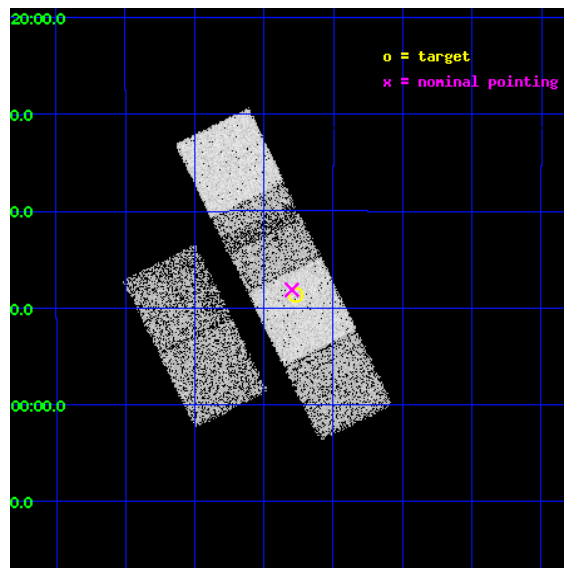
L2 Processing Date : Nov 7 2012

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1 Front

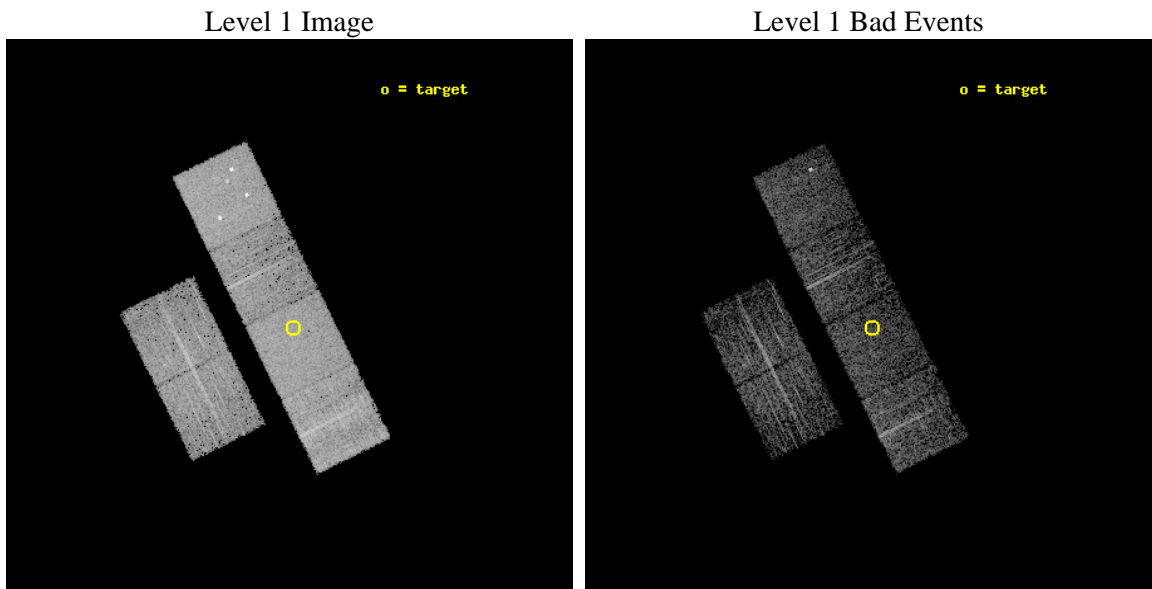
seq_num	500427	Sequence number
obs_id	4602	Observation id
title	Snapshot Observation of two Recently Discovered Radio Pulsars	Prop
observer	Professor Gordon Garmire	Principal investigator
object	PSR J0729-1448	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	112.31875	Observer's specified target RA [deg]
dec_targ	-14.810222	Observer's specified target Dec [deg]
ra_nom	112.32465478997	Nominal RA [deg]
dec_nom	-14.802356748407	Nominal Dec [deg]
roll_nom	63.699813361419	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4188.7180537879	Sum of GTIs [s]
livetime	4135.6779836477	Livetime [s]
ontime2	4195.1999843717	Sum of GTIs [s]
ontime3	4188.7180737257	Sum of GTIs [s]
ontime5	4188.7180737257	Sum of GTIs [s]
ontime6	4195.1999843717	Sum of GTIs [s]
ontime7	4188.7180537879	Sum of GTIs [s]
ontime8	4191.9590440094	Sum of GTIs [s]
l2events	59300	Number of level 2 events



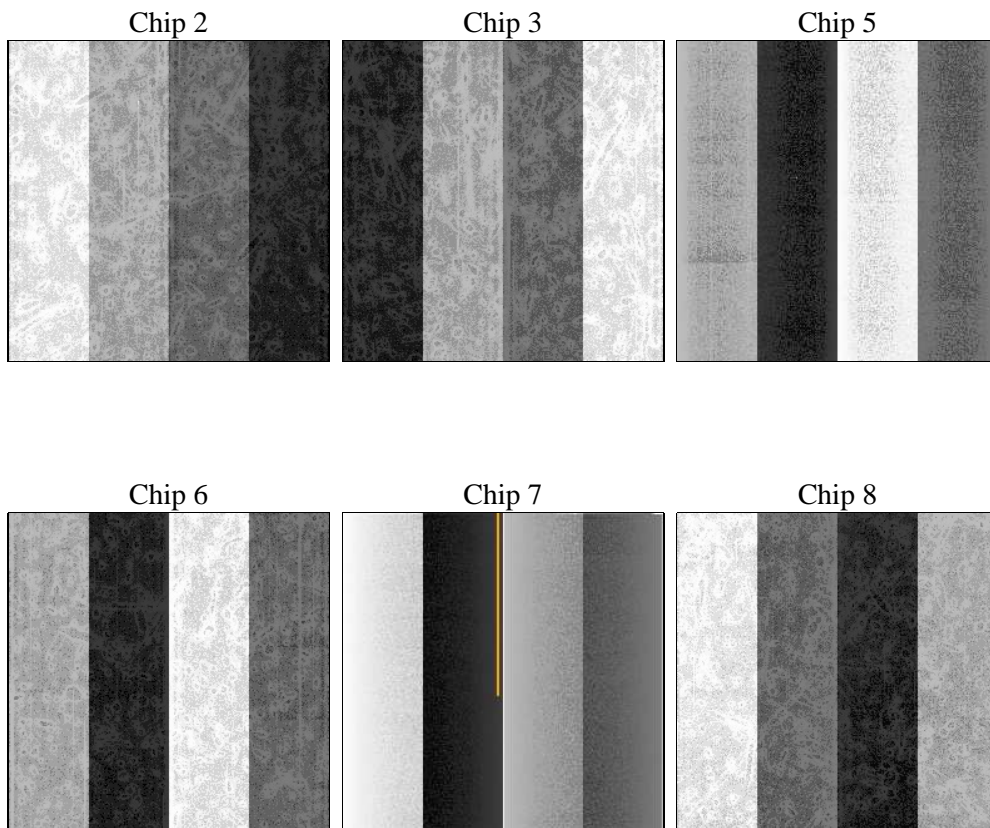
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4047.548000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	4188.7180537879	Sum of GTIs [s]
caldsver	4.5.2	 	ontime2	4195.1999843717	Sum of GTIs [s]
date	2012-11-08T02:08:54	Date and time of file creation	ontime3	4188.7180737257	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	4188.7180737257	Sum of GTIs [s]
			ontime6	4195.1999843717	Sum of GTIs [s]
			ontime7	4188.7180537879	Sum of GTIs [s]
			ontime8	4191.9590440094	Sum of GTIs [s]
			l1events	203211	Number of level 1 events

2.1.4 Events

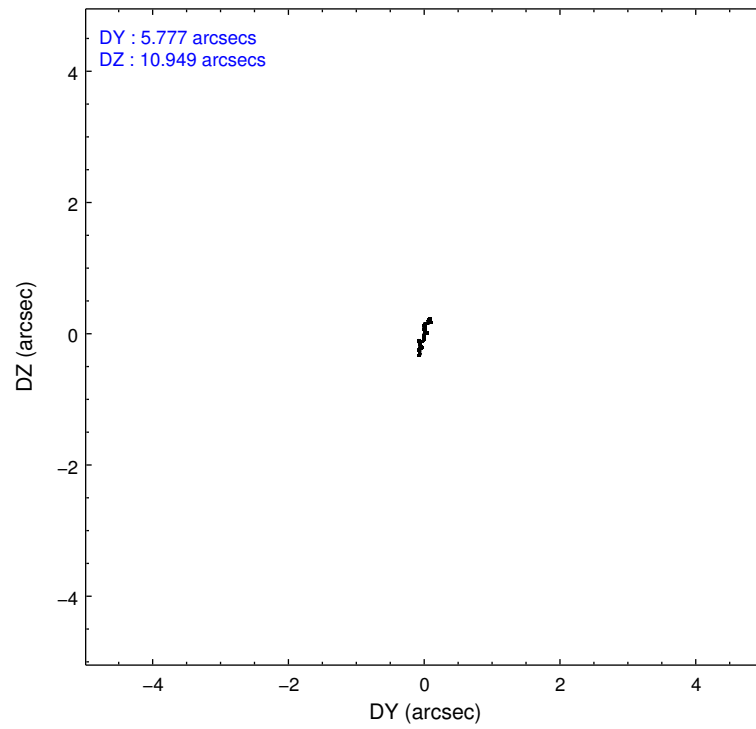
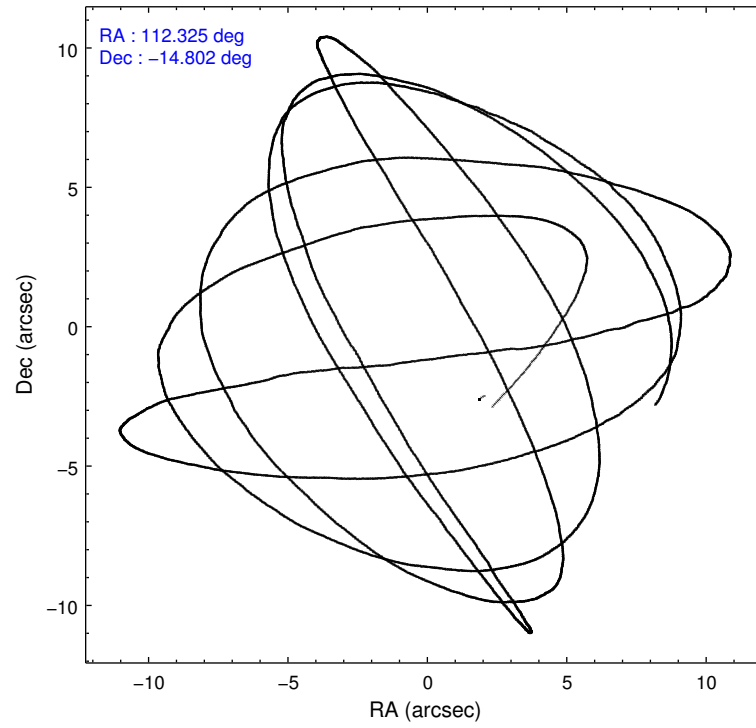
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	26927	26825	43674	27208	37076	41501	grade 0 events	2839	2689	4099	2999	1647	7363
rejected events	21183	20905	21238	20720	19357	24405		10%	10%	9%	11%	4%	17%
rejected %	78%	77%	48%	76%	52%	58%	grade 1 events	19	16	63	19	40	59
								0%	0%	0%	0%	0%	0%
							grade 2 events	1347	1581	6246	1832	3488	2858
								5%	5%	14%	6%	9%	6%
							grade 3 events	284	324	1162	354	1463	2275
								1%	1%	2%	1%	3%	5%
							grade 4 events	353	334	1028	356	1462	2185
								1%	1%	2%	1%	3%	5%
							grade 5 events	985	1018	2981	1081	3169	1467
								3%	3%	6%	3%	8%	3%
							grade 6 events	982	1043	10151	1022	9864	2536
								3%	3%	23%	3%	26%	6%
							grade 7 events	20118	19820	17944	19545	15943	22758
								74%	73%	41%	71%	43%	54%

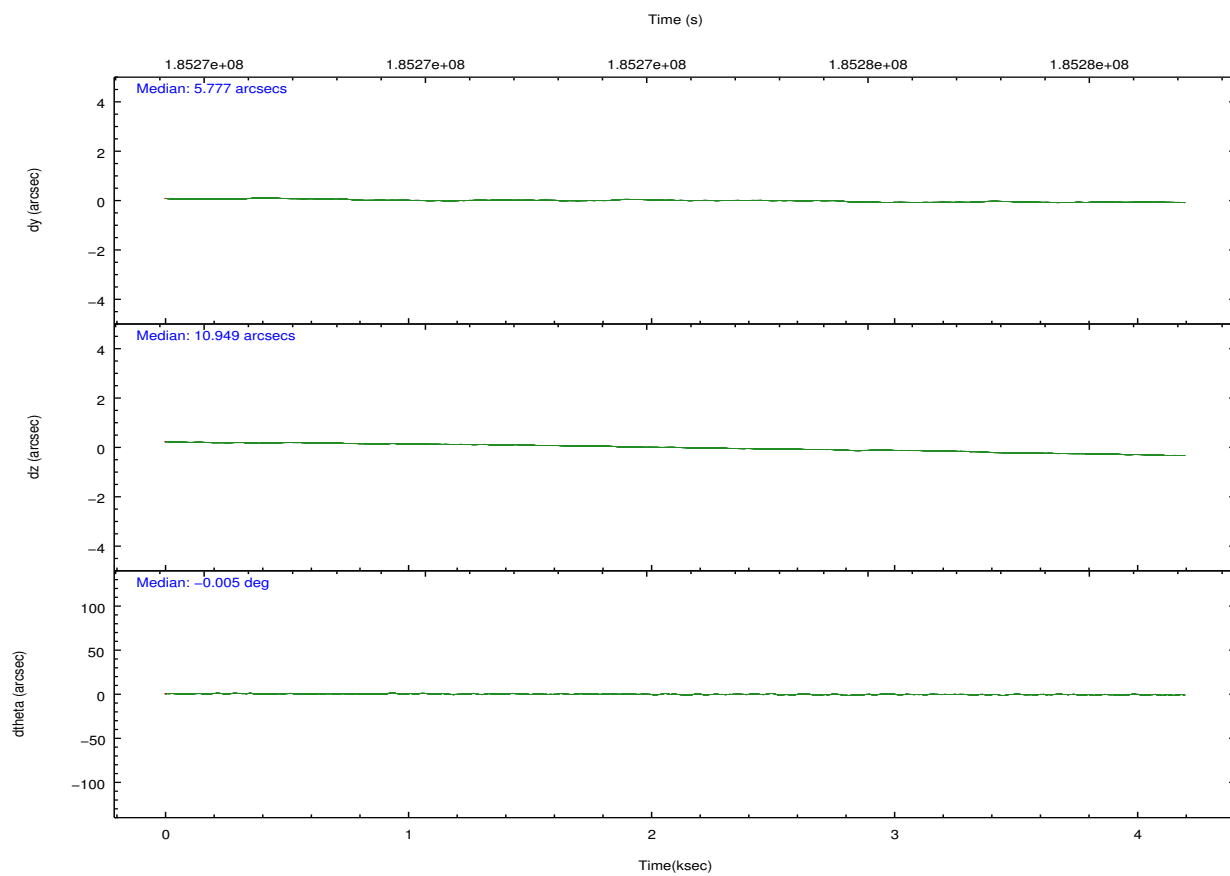
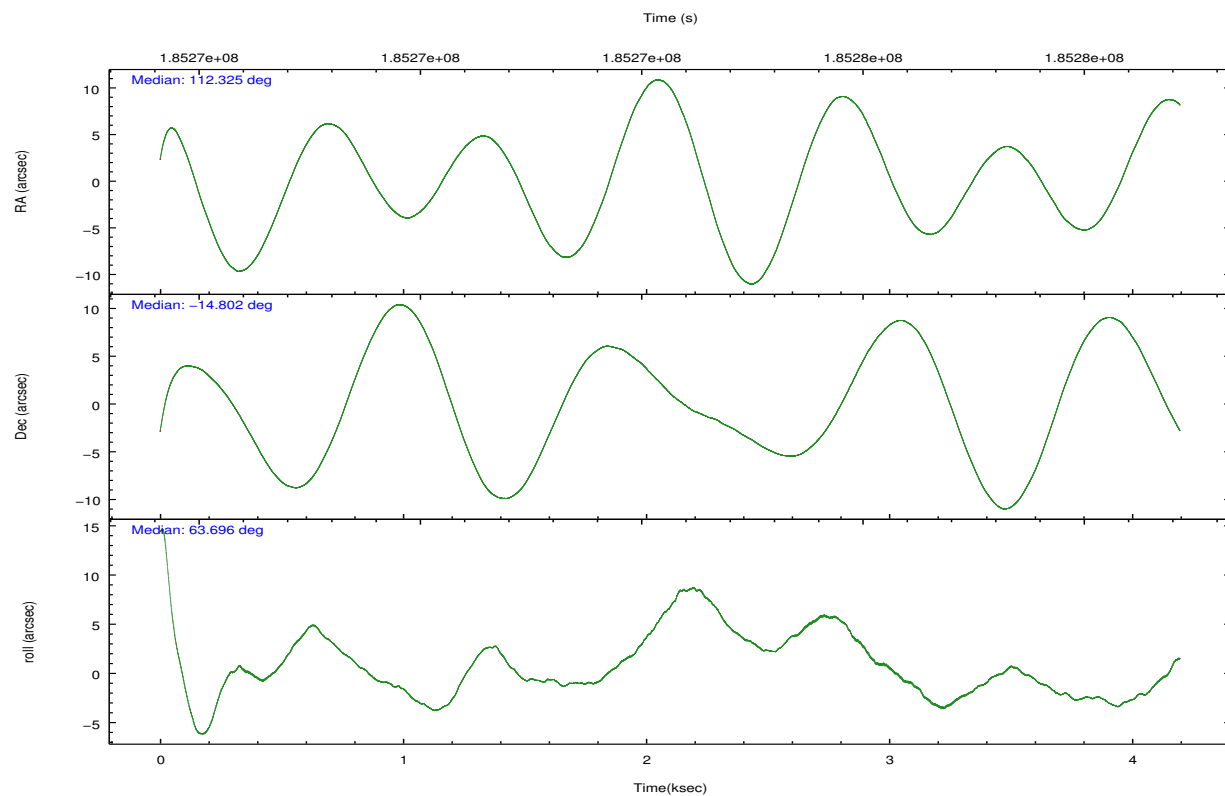
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-235678	ACIS-235678
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	112.326881	112.3246547899718
[deg] Pointing Dec	-14.829590	-14.80235674840732
[deg] Pointing Roll	63.543701	63.69981336141932
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	185272180.184000	185271109.86049
Observation start date	2003-11-15T08:28:36	2003-11-15T08:11:49
[s] Observation end time (MET)	185276227.184000	185276541.84823
Observation end date	2003-11-15T09:36:03	2003-11-15T09:42:21
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
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
[s] Primary exposure time	0.000000	3.2

2.3 Aspect



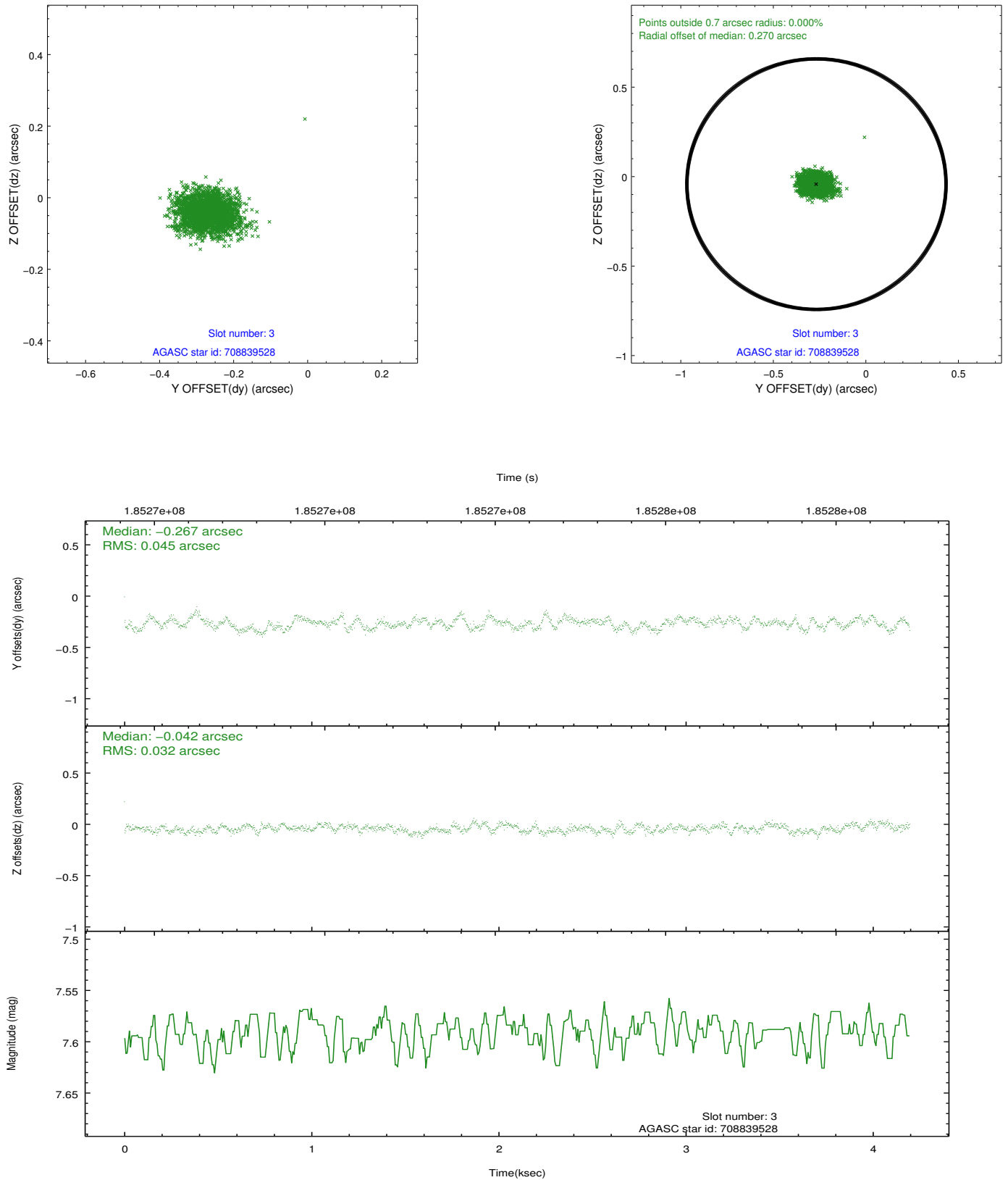


Slot Statistics

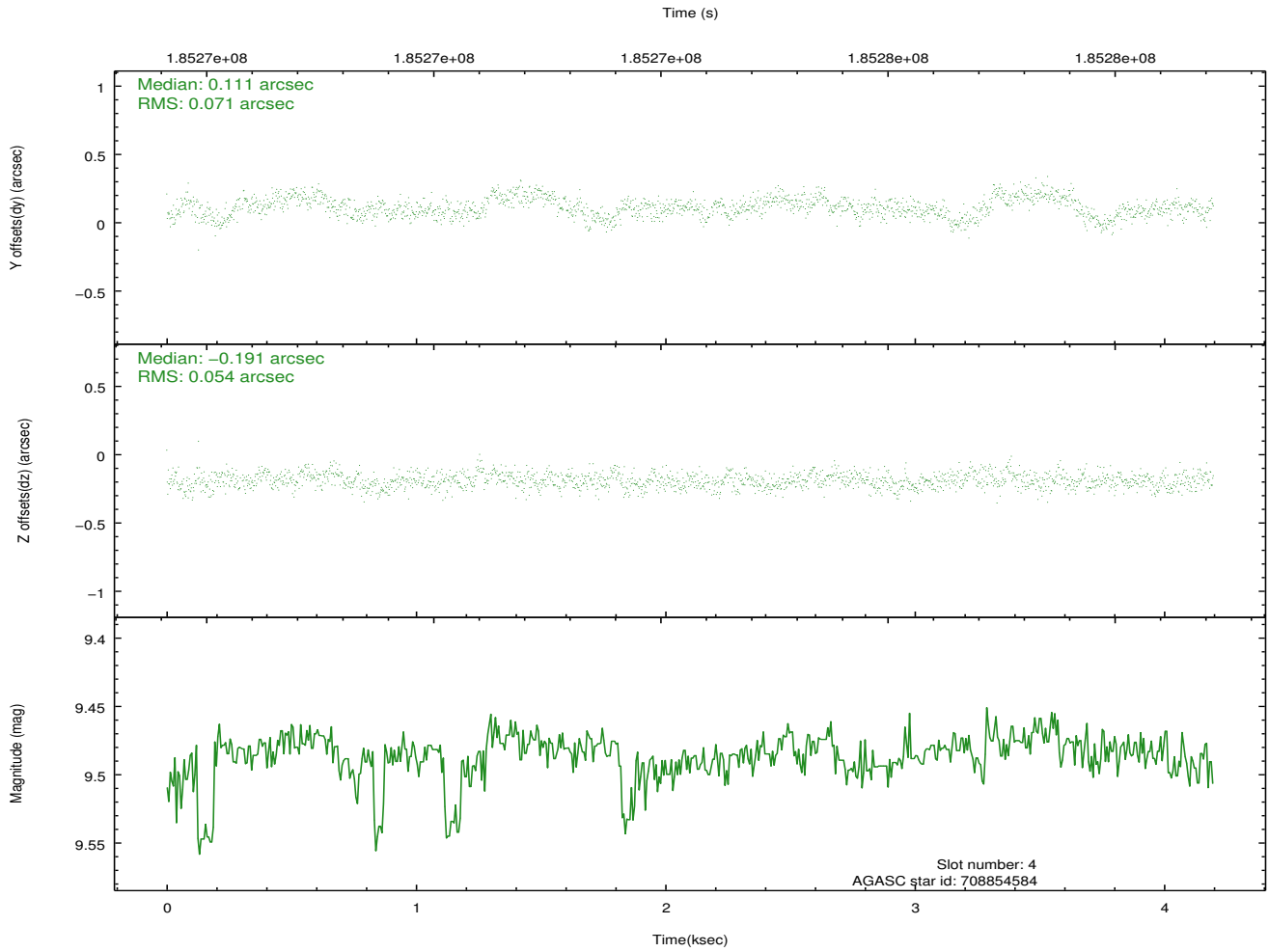
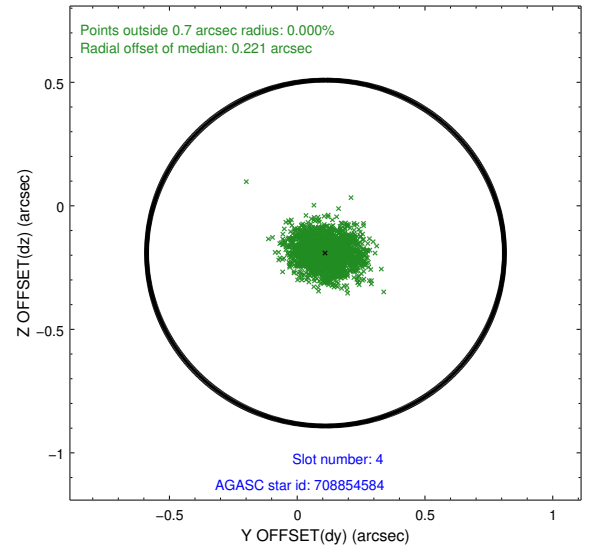
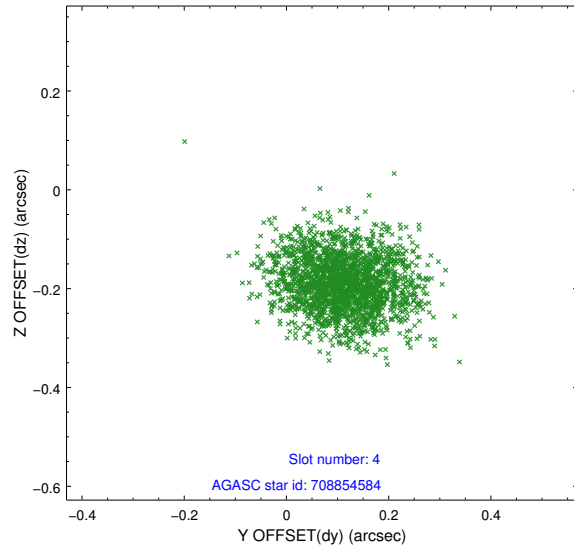
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	1019	-0.069	-0.026	0.008	0.012	0.000000	0.000000	-758.54	-1732.19
1	FID	ACIS-S-4	7.21	1019	0.093	0.040	0.006	0.012	0.000000	0.000000	2154.20	174.86
2	FID	ACIS-S-5	7.23	1019	-0.055	-0.006	0.007	0.011	0.000000	0.000000	-1809.47	170.13
3	GUIDE	708839528	7.59	2040	-0.267	-0.042	0.059	0.094	112.473288	-14.358194	1746.52	298.85
4	GUIDE	708854584	9.48	2031	0.111	-0.191	0.095	0.151	112.034963	-14.840408	-486.97	891.66
5	GUIDE	708990952	9.58	2039	-0.180	0.121	0.144	0.231	113.047447	-14.485799	2223.32	-1698.39
6	GUIDE	781978384	9.69	2037	0.230	-0.002	0.100	0.164	111.935066	-15.204878	-1815.60	615.15
7	GUIDE	783694016	9.40	2038	0.099	0.111	0.101	0.171	112.815547	-15.211260	-475.99	-2132.48

2.4 Star Slots

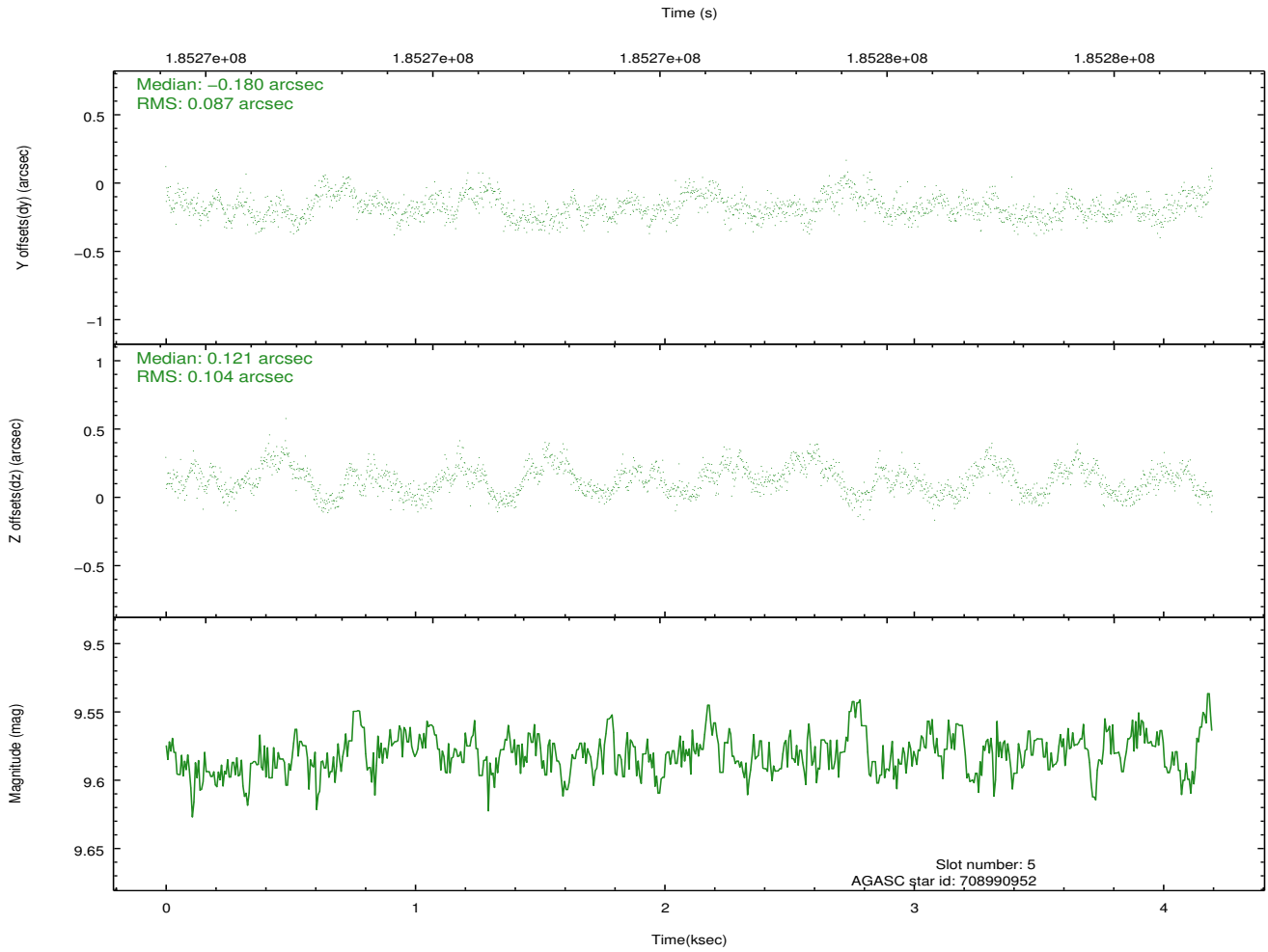
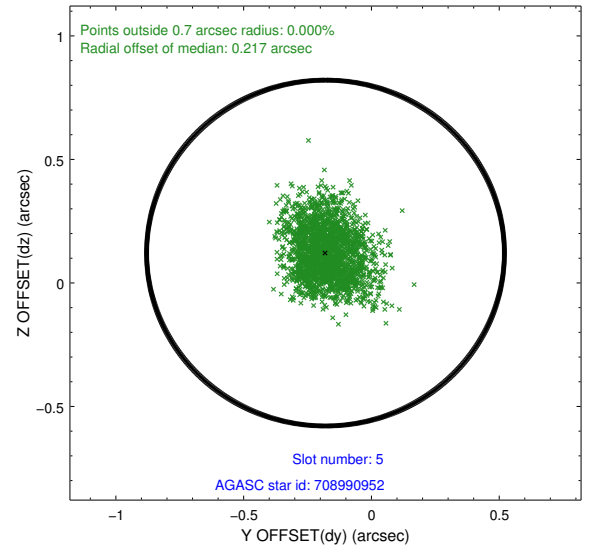
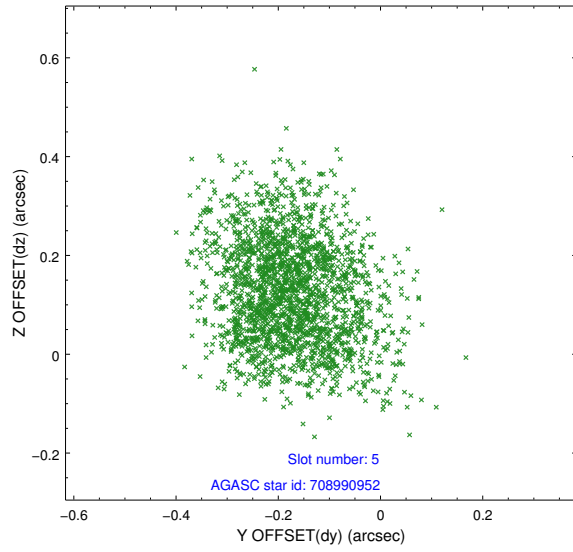
2.4.1 Slot 3



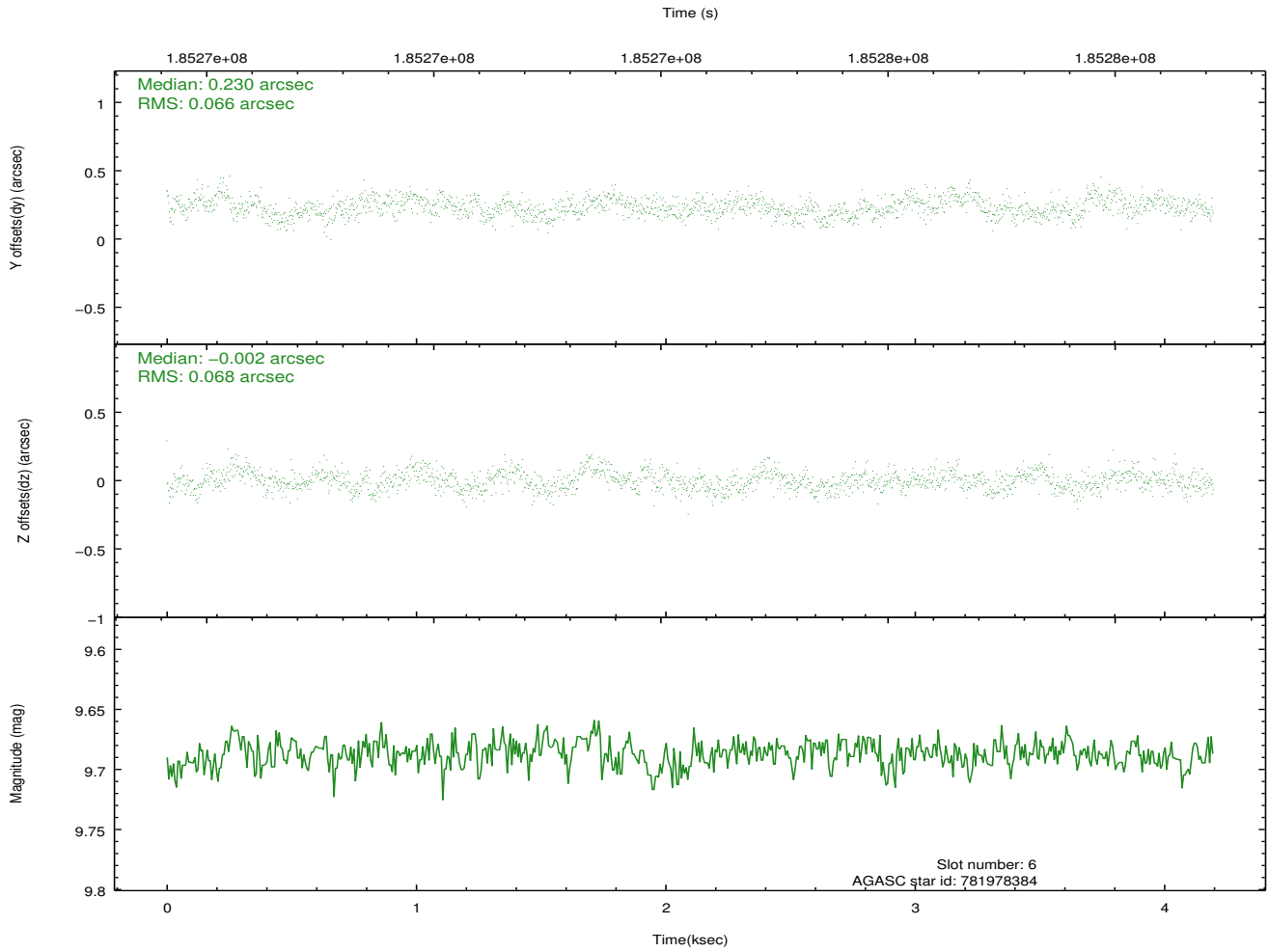
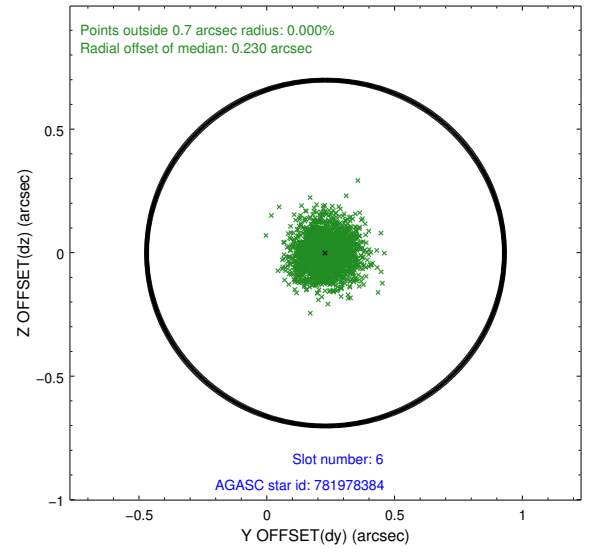
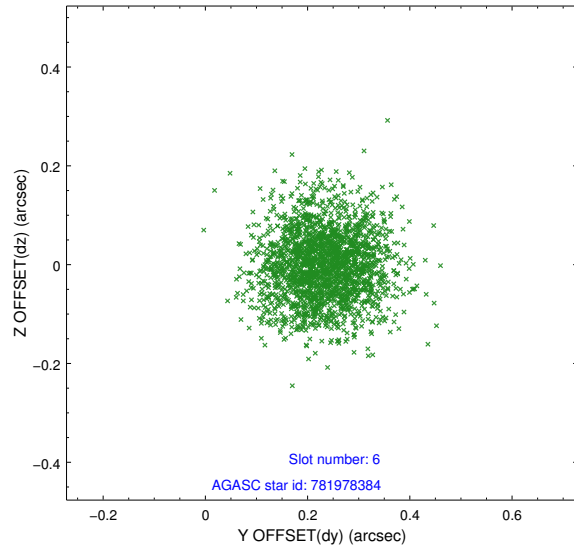
2.4.2 Slot 4



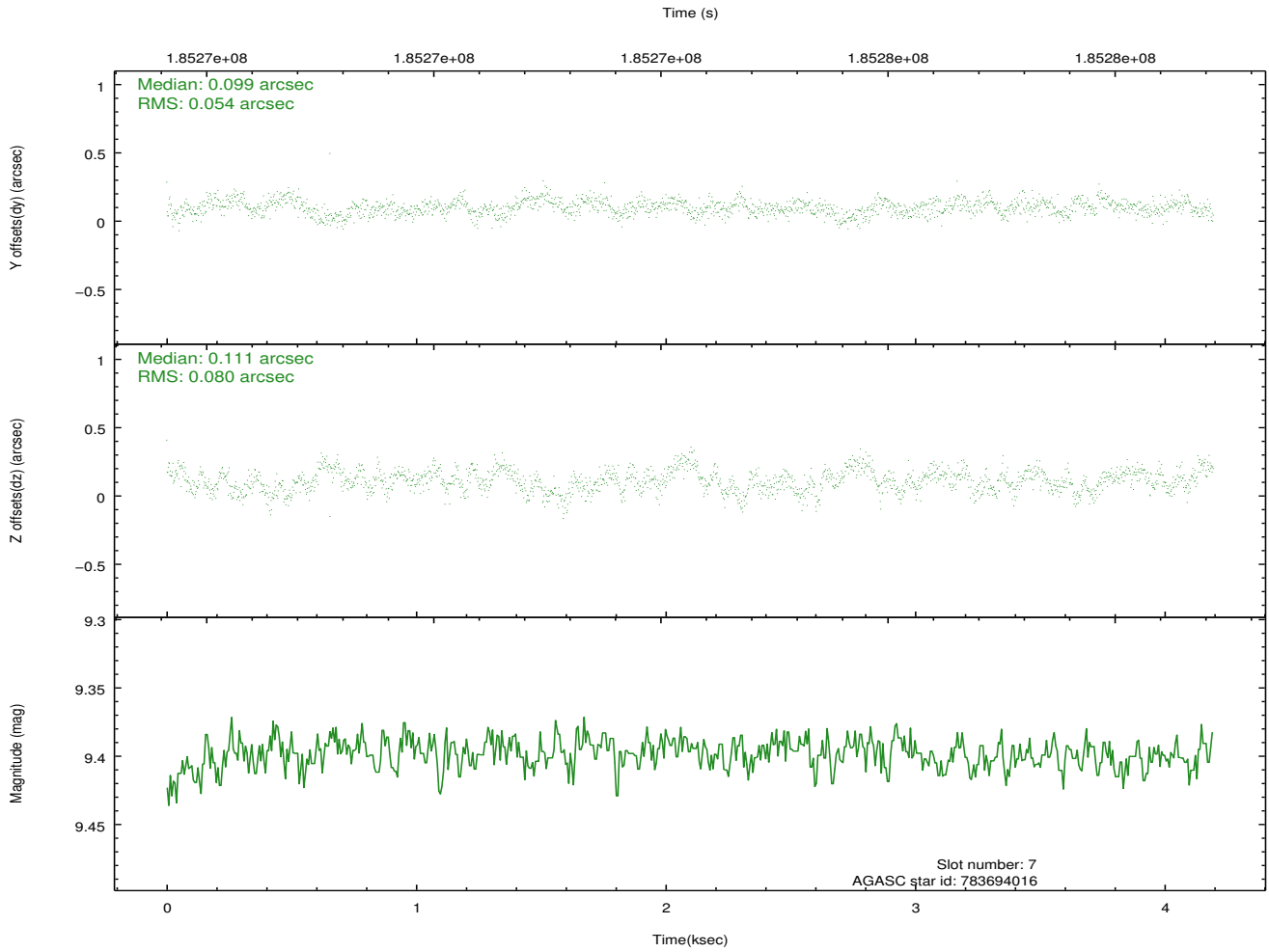
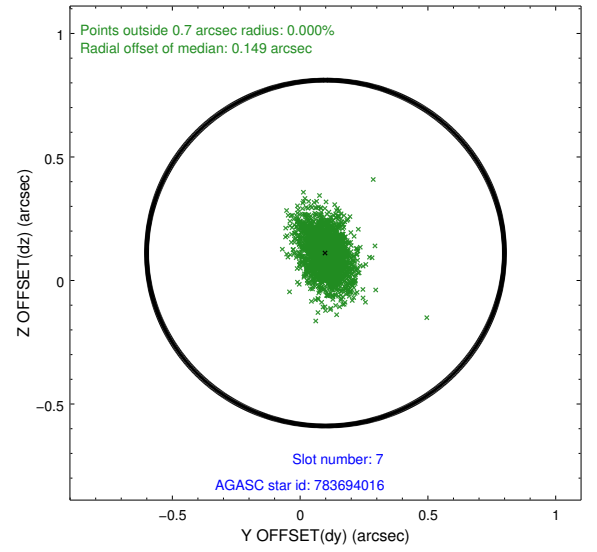
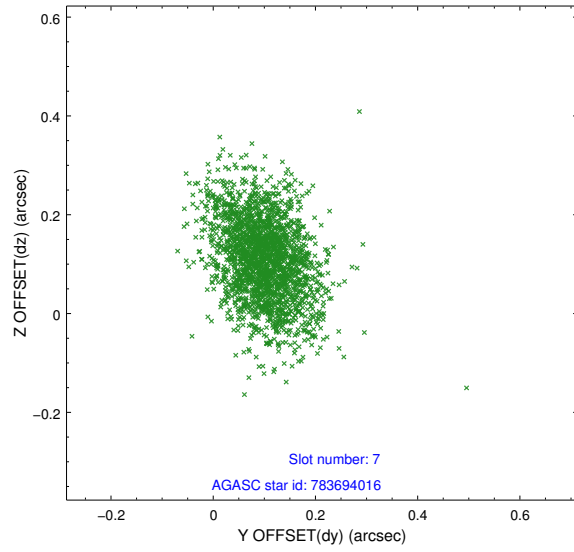
2.4.3 Slot 5



2.4.4 Slot 6

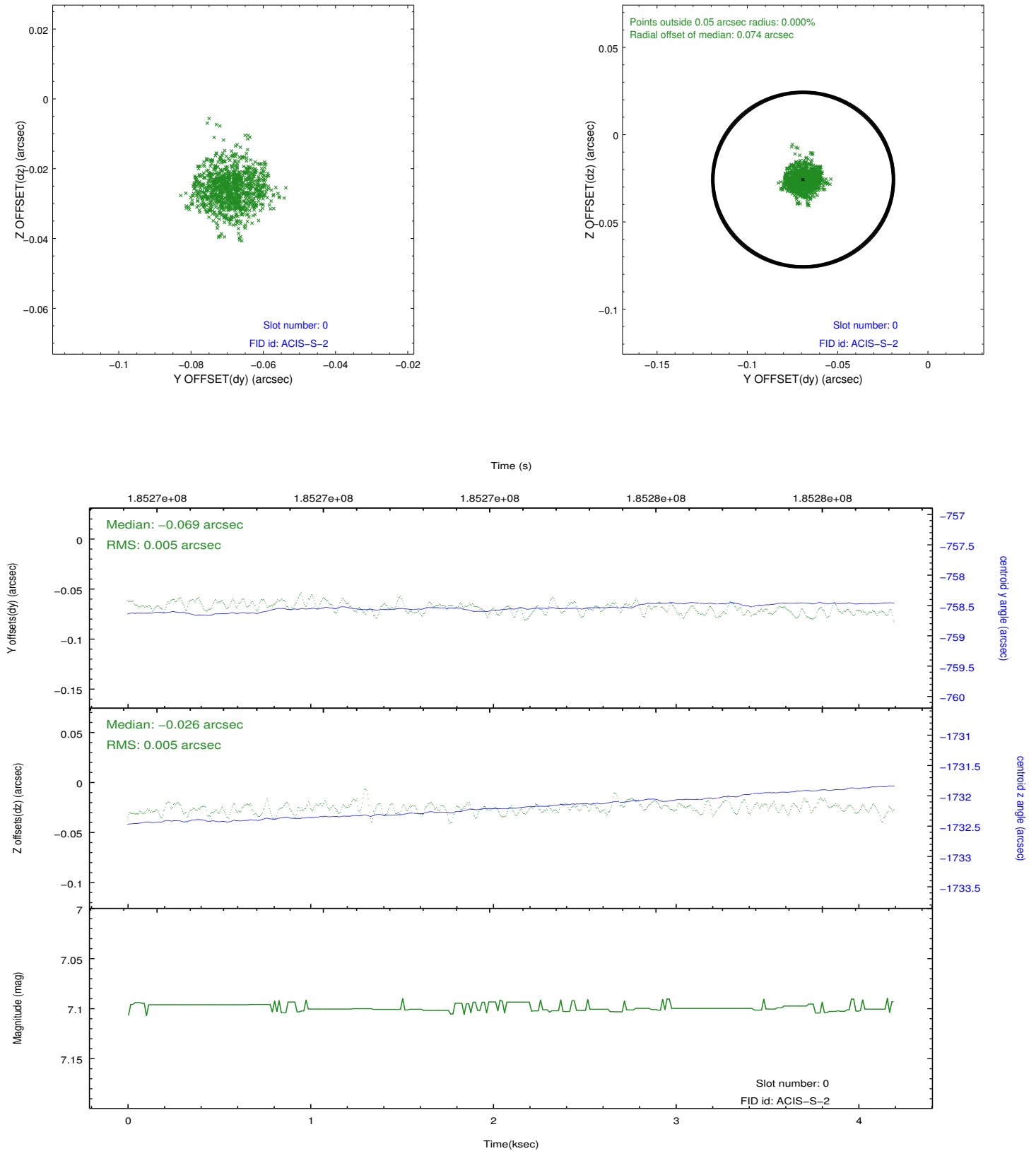


2.4.5 Slot 7

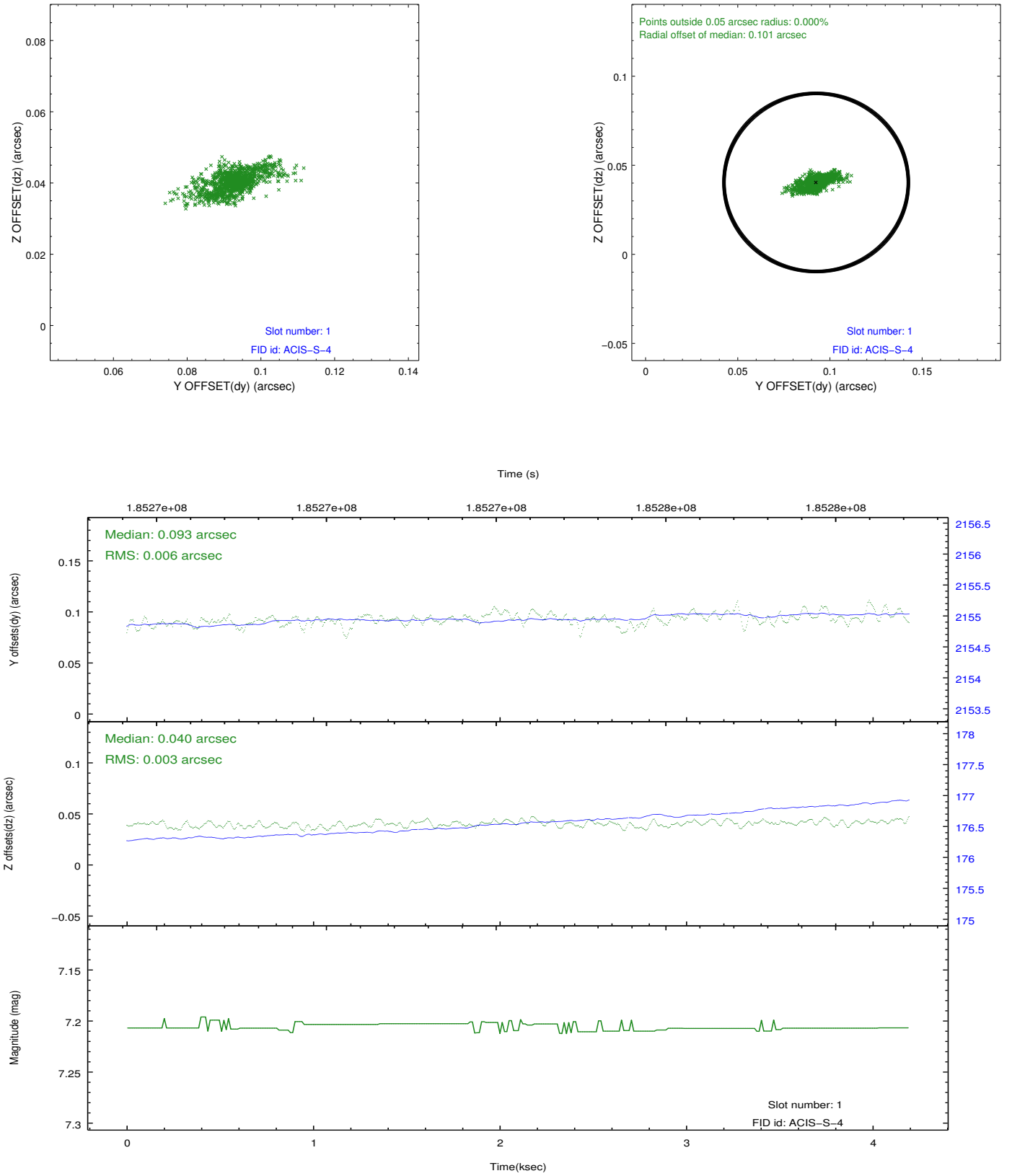


2.5 FID Slots

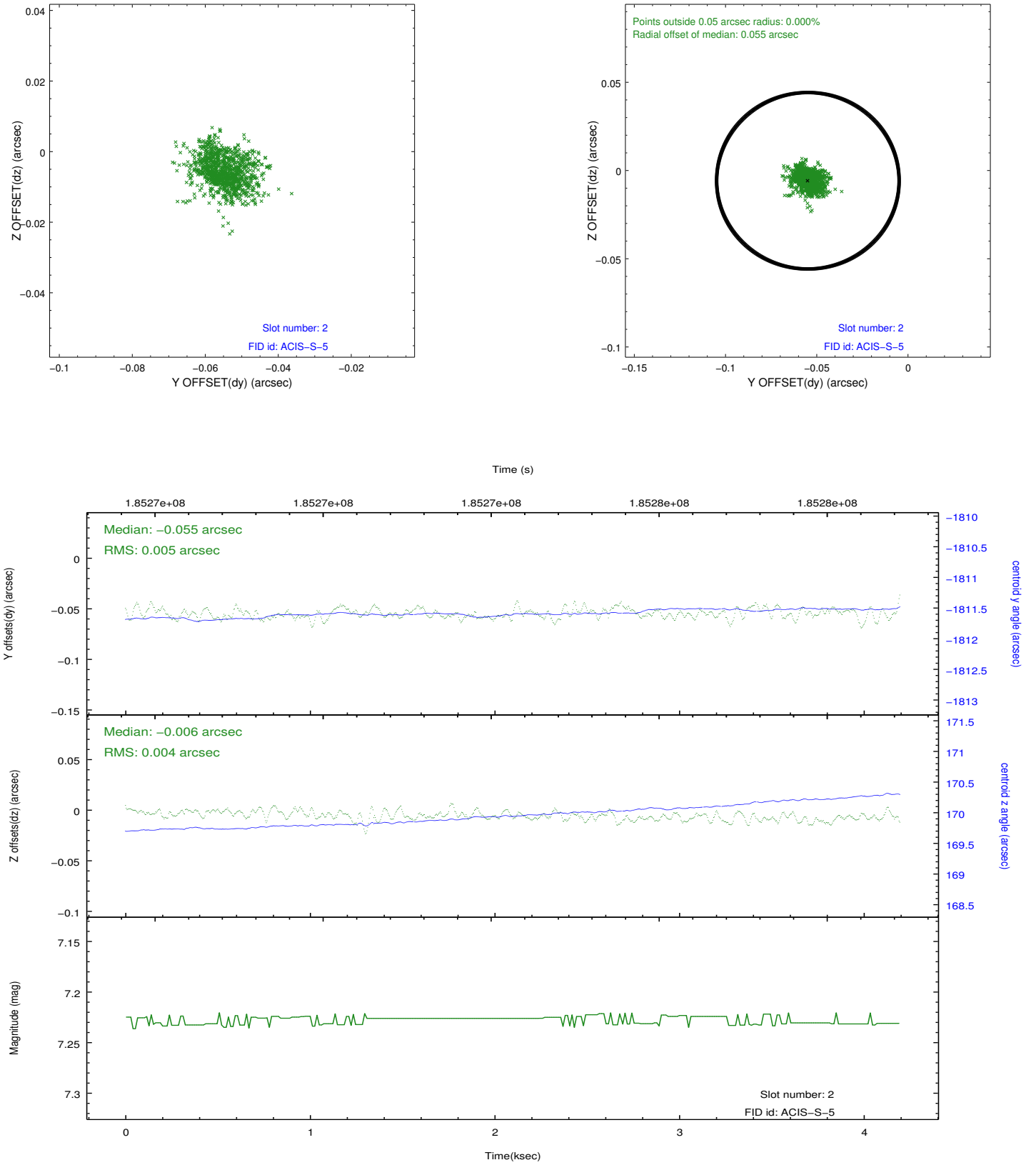
2.5.1 Slot 0



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	4.188

A.2 Comments

Noticeably low node.

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