

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8372 - L2 Version 3
Chandra X-Ray Center

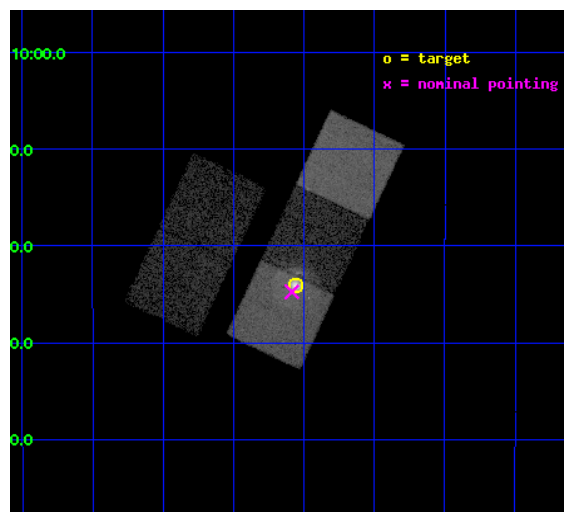
L2 Processing Date : Apr 25 2012

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

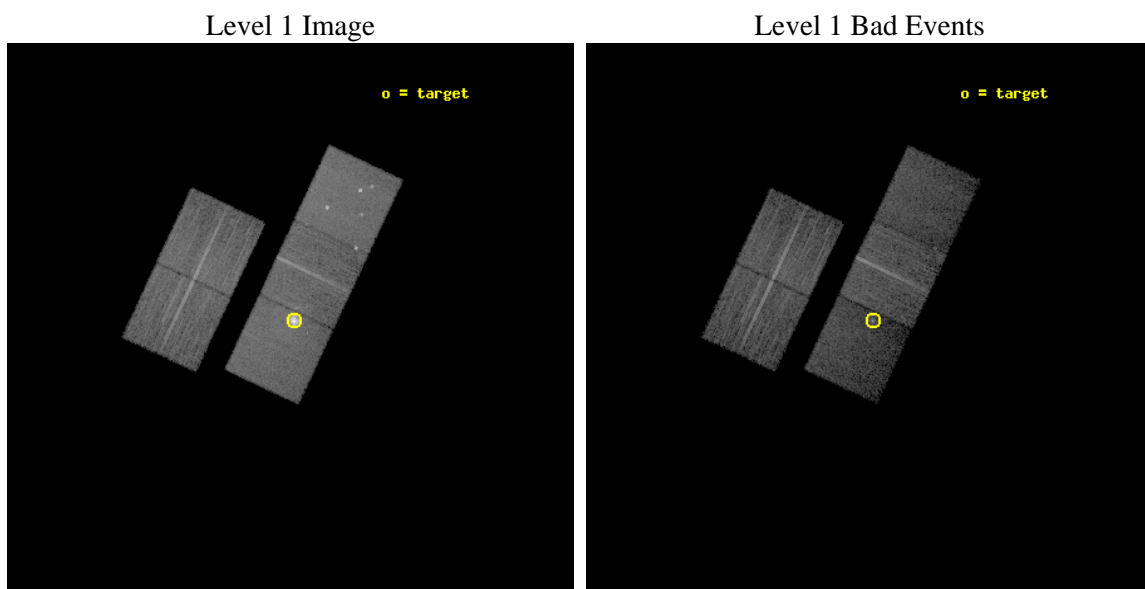
seq_num	590465	Sequence number
obs_id	8372	Observation id
title	AO8 Observations of the Standard Candles Cas A and G21.5-09	Propos
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-09[S3,-120,1.0,0,0]	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.39640822023	Nominal RA [deg]
dec_nom	-10.5792644157	Nominal Dec [deg]
roll_nom	115.15783981727	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10143.200078011	Sum of GTIs [s]
livetime	10010.671701676	Livetime [s]
ontime2	10143.200078011	Sum of GTIs [s]
ontime3	10143.200078011	Sum of GTIs [s]
ontime5	10143.200078011	Sum of GTIs [s]
ontime6	10143.200078011	Sum of GTIs [s]
ontime7	10143.200078011	Sum of GTIs [s]
l2events	136100	Number of level 2 events



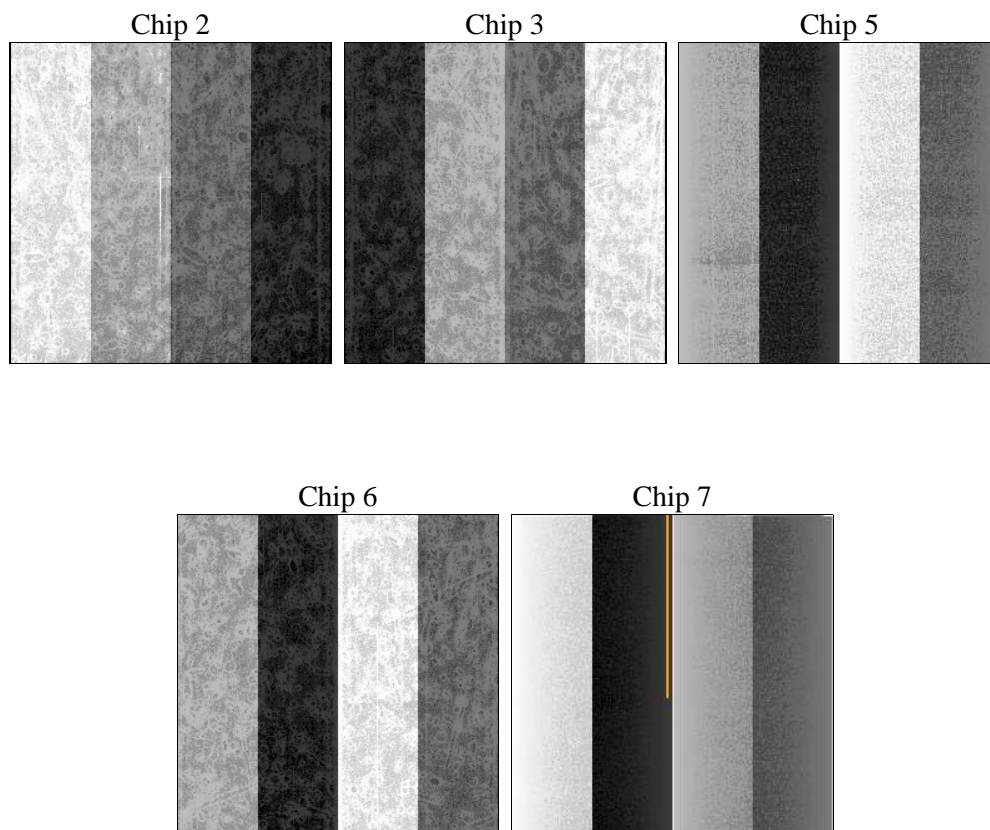
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	10143.200078011	Sum of GTIs [s]
caldsver	4.4.9	 	ontime2	10143.200078011	Sum of GTIs [s]
date	2012-04-25T13:03:04	Date and time of file creation	ontime3	10143.200078011	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	10143.200078011	Sum of GTIs [s]
			ontime6	10143.200078011	Sum of GTIs [s]
			ontime7	10143.200078011	Sum of GTIs [s]
			l1events	446392	Number of level 1 events

2.1.4 Events

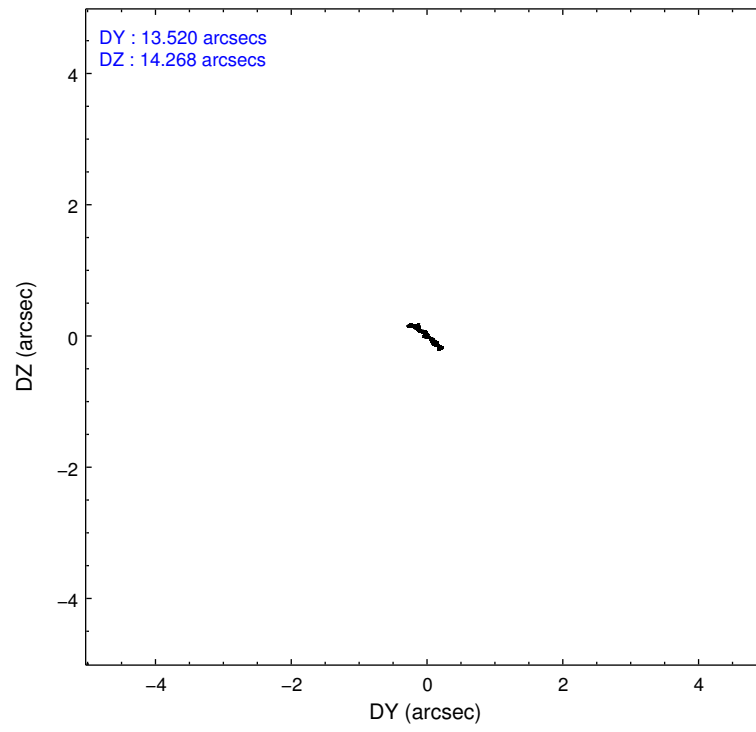
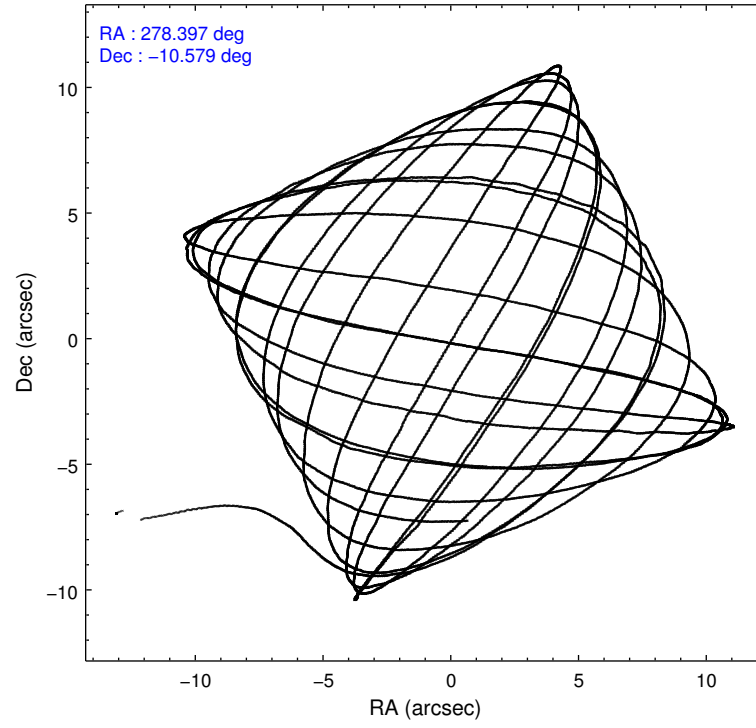
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	82273	73710	101105	80329	108975
rejected events	74986	66729	47655	69850	39821
rejected %	91%	90%	47%	86%	36%

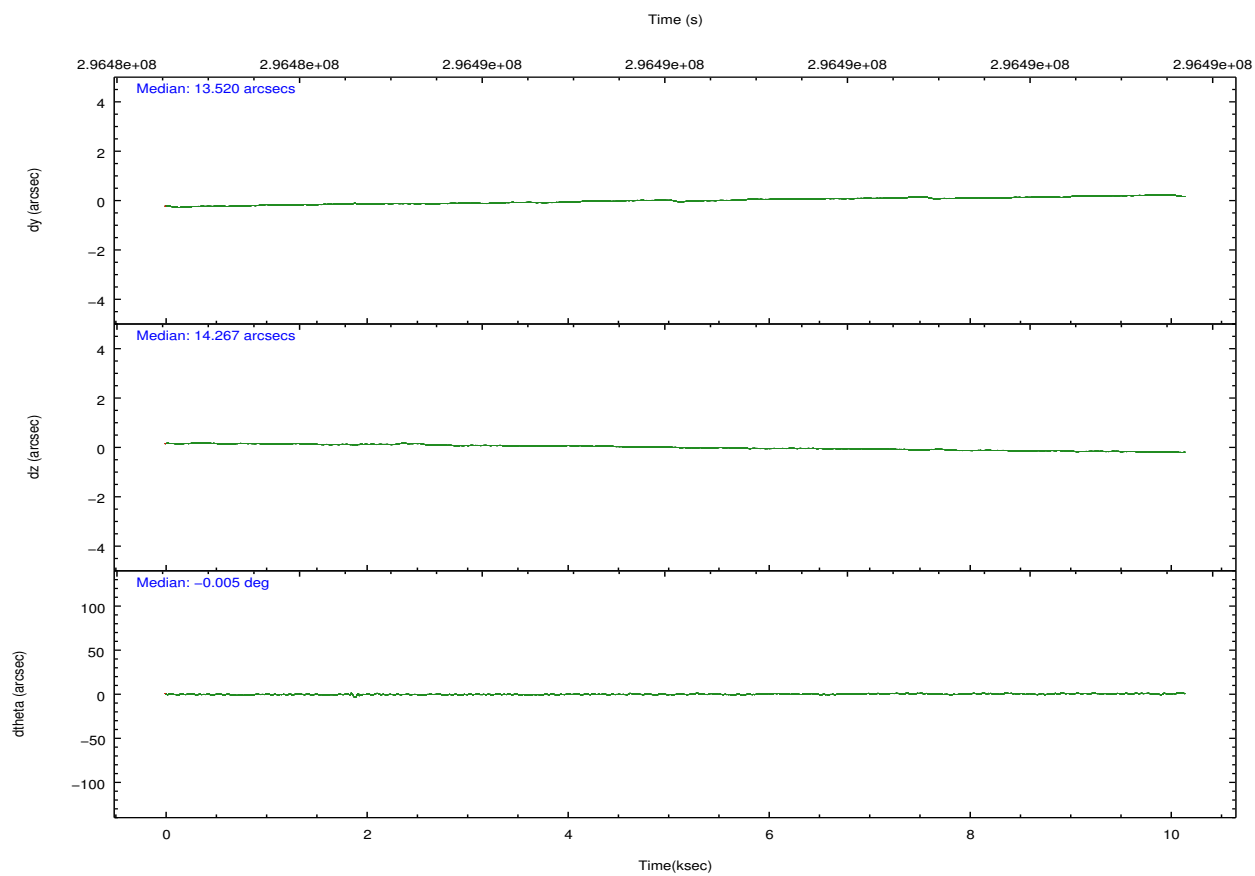
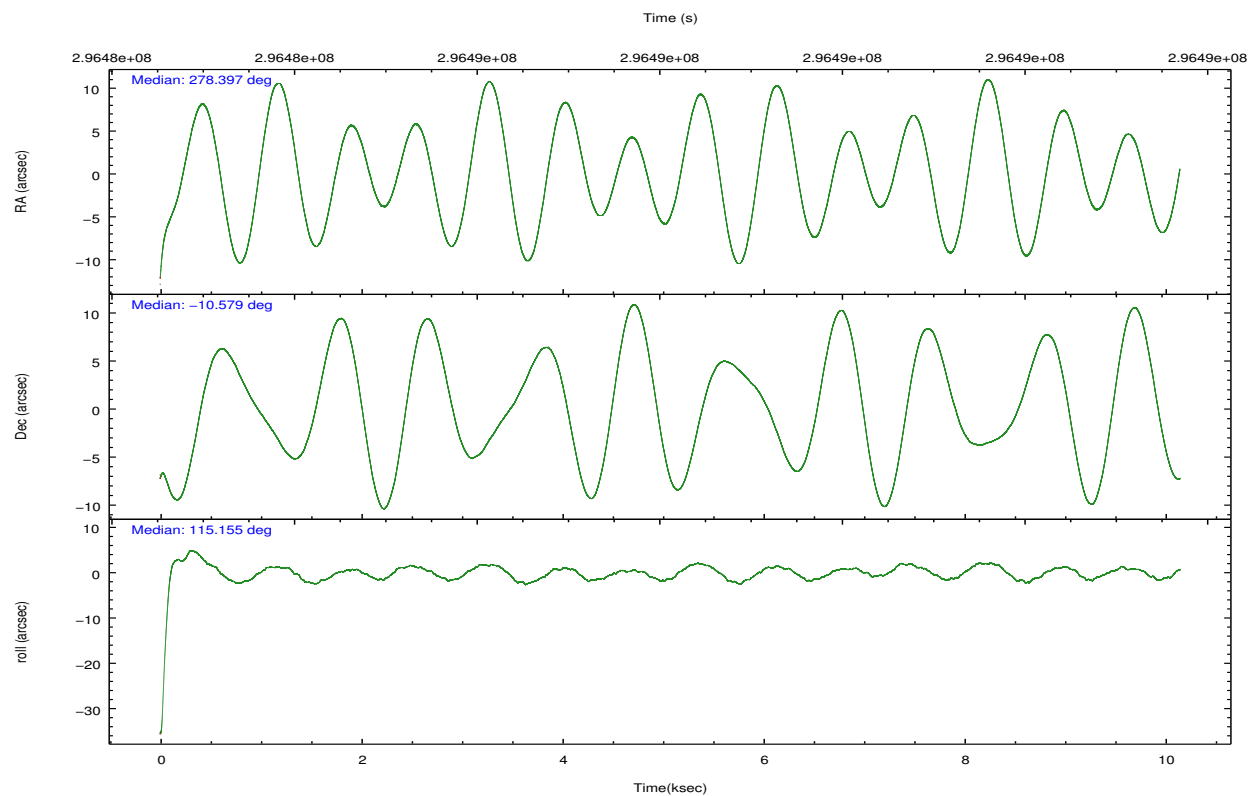
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	2936	2660	9057	5022	9939
	3%	3%	8%	6%	9%
grade 1 events	46	41	291	50	151
	0%	0%	0%	0%	0%
grade 2 events	1681	1563	15533	2112	16102
	2%	2%	15%	2%	14%
grade 3 events	813	817	2475	979	7220
	0%	1%	2%	1%	6%
grade 4 events	809	803	2399	973	7082
	0%	1%	2%	1%	6%
grade 5 events	2101	2553	7974	2683	8174
	2%	3%	7%	3%	7%
grade 6 events	1283	1368	25797	1709	30631
	1%	1%	25%	2%	28%
grade 7 events	72604	63905	37579	66801	29676
	88%	86%	37%	83%	27%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	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	278.419509	278.3964082202254	Subarray requested	NONE	NONE
[deg] Pointing Dec	-10.594535	-10.57926441570025	Alternating exposures requested	N	N
[deg] Pointing Roll	115.005505	115.1578398172718	[s] Primary exposure time	0.000000	3.1
[s] Window start time (MET)	286675265.184000	286675265.184000			
[s] Window stop time (MET)	296956865.184000	296956865.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.145094680475			
[mm] SIM translation stage offset	0	0.01257209746719923			
[s] Observation start time (MET)	296483176.184000	296482027.73652			
Observation start date	2007-05-25T12:25:11	2007-05-25T12:07:07			
[s] Observation end time (MET)	296493176.184000	296493403.18706			
Observation end date	2007-05-25T15:11:51	2007-05-25T15:16:43			
Read mode	TIMED	TIMED			

2.3 Aspect



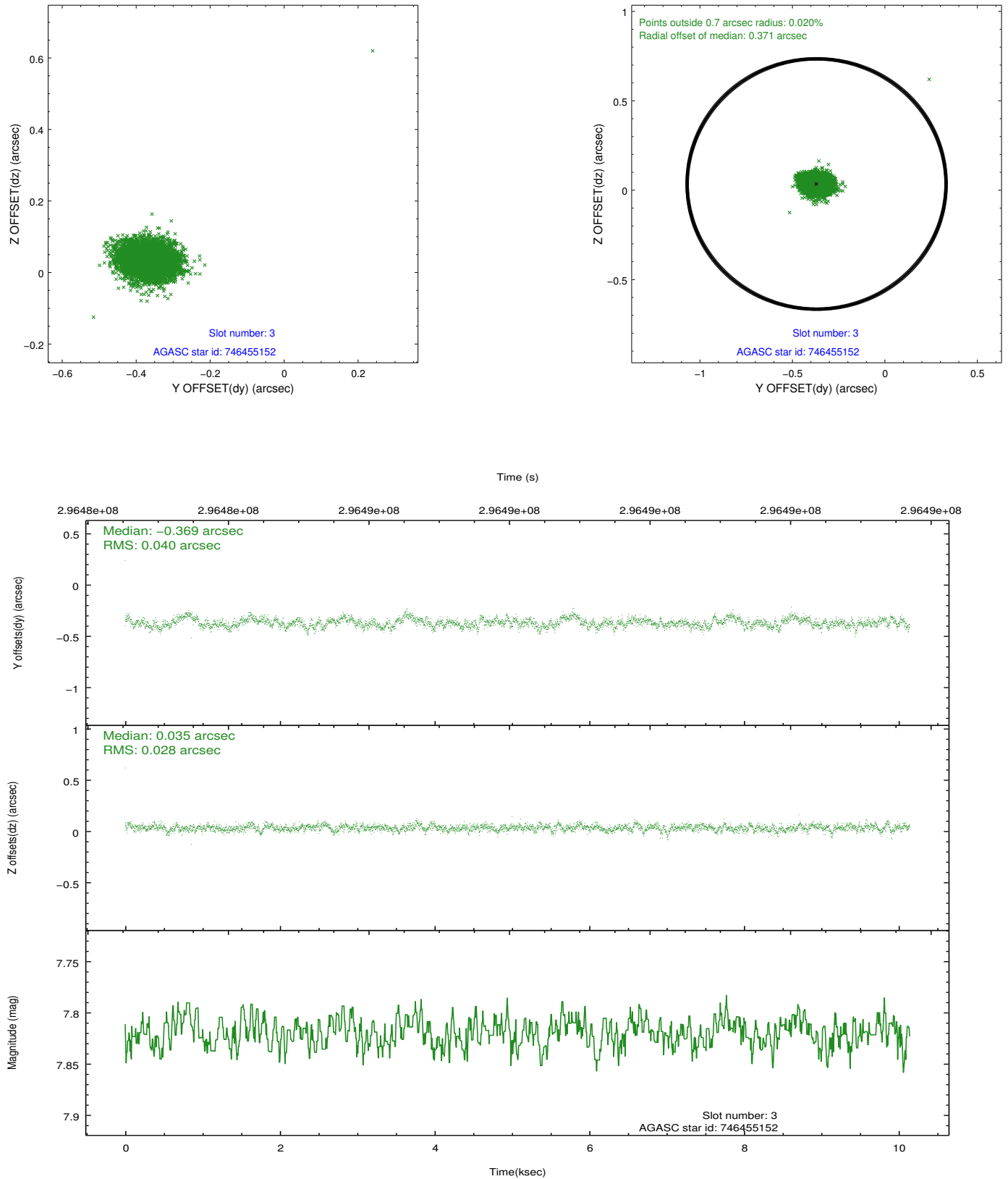


Slot Statistics

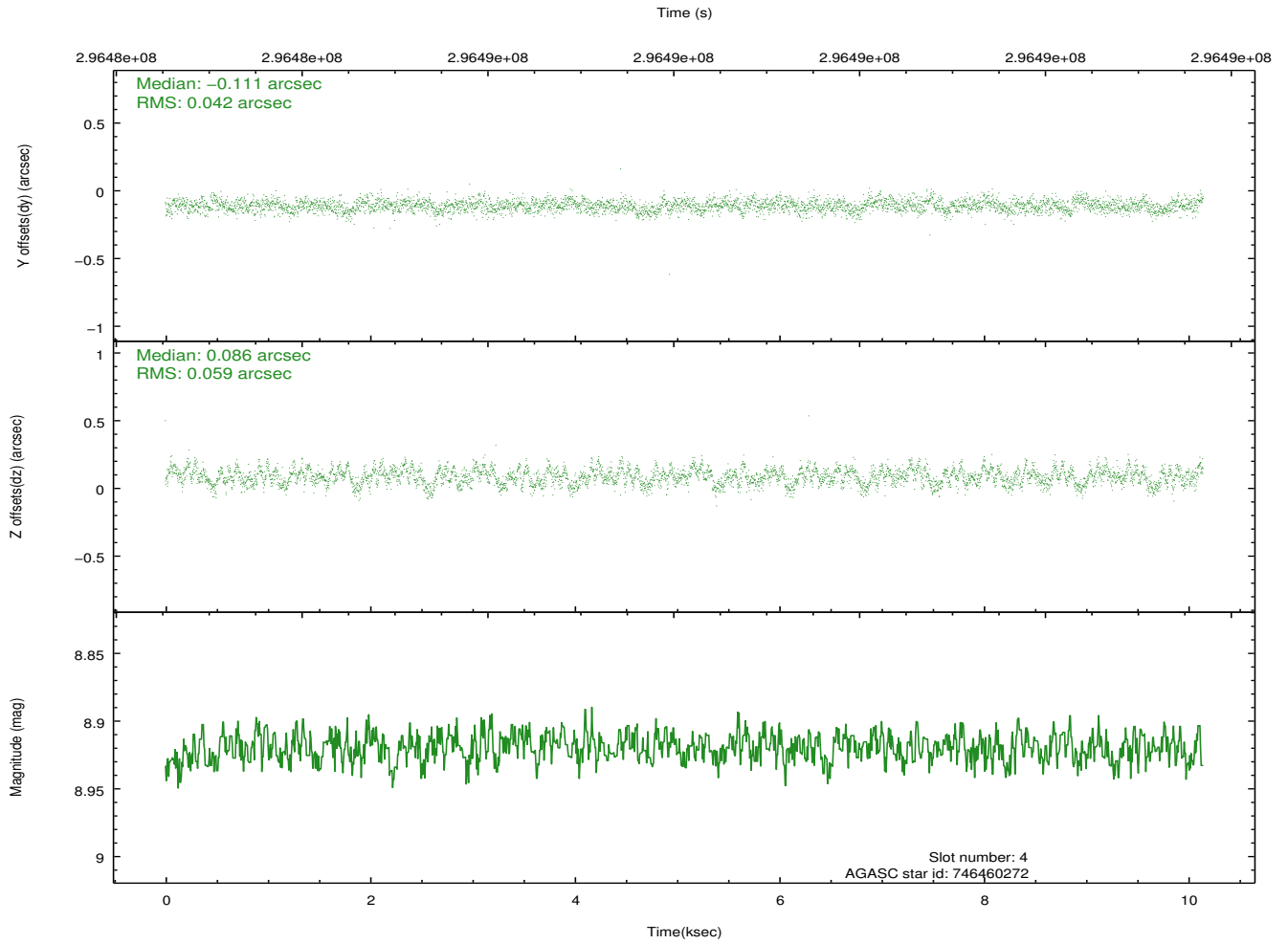
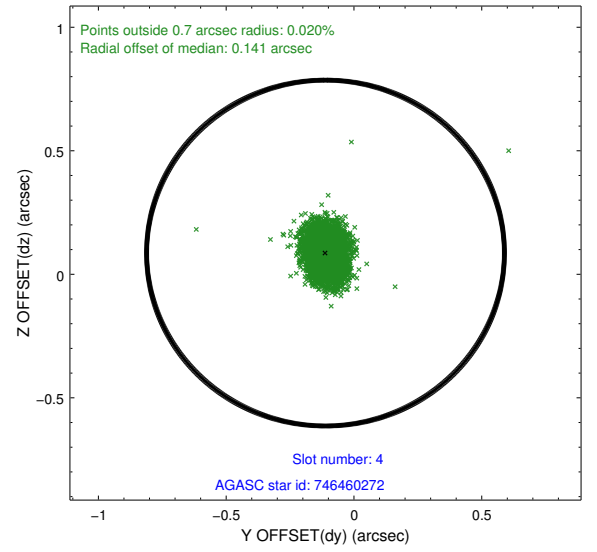
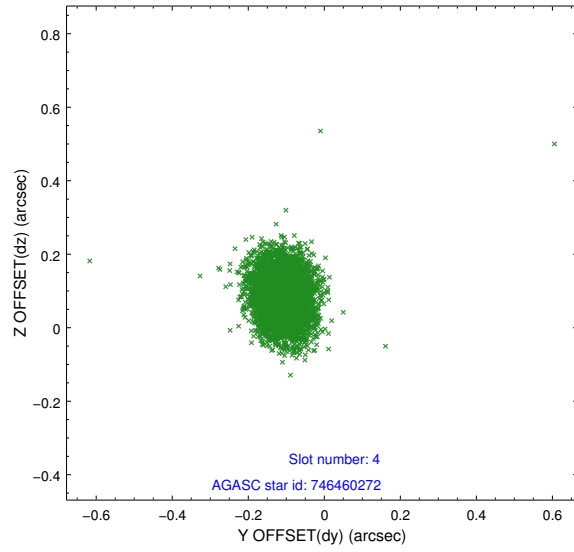
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	2475	0.049	-0.028	0.008	0.013	0.000000	0.000000	929.64	-1731.18
1	FID	ACIS-S-4	7.19	2475	0.152	0.001	0.007	0.012	0.000000	0.000000	2147.43	172.47
2	FID	ACIS-S-5	7.22	2475	-0.227	0.040	0.007	0.011	0.000000	0.000000	-1818.85	166.68
3	GUIDE	746455152	7.82	4950	-0.369	0.035	0.050	0.084	278.447893	-9.976732	1973.25	-1031.22
4	GUIDE	746460272	8.92	4946	-0.111	0.086	0.075	0.123	278.847488	-10.152127	802.27	-2047.33
5	GUIDE	746462392	8.53	4949	0.143	-0.006	0.064	0.105	279.038421	-10.890715	-1894.03	-1532.07
6	GUIDE	746462456	8.40	4947	0.195	-0.119	0.079	0.124	278.652171	-10.530173	-139.05	-844.32
7	GUIDE	746462680	9.02	4944	0.145	0.010	0.069	0.111	278.660755	-10.782756	-974.41	-486.85

2.4 Star Slots

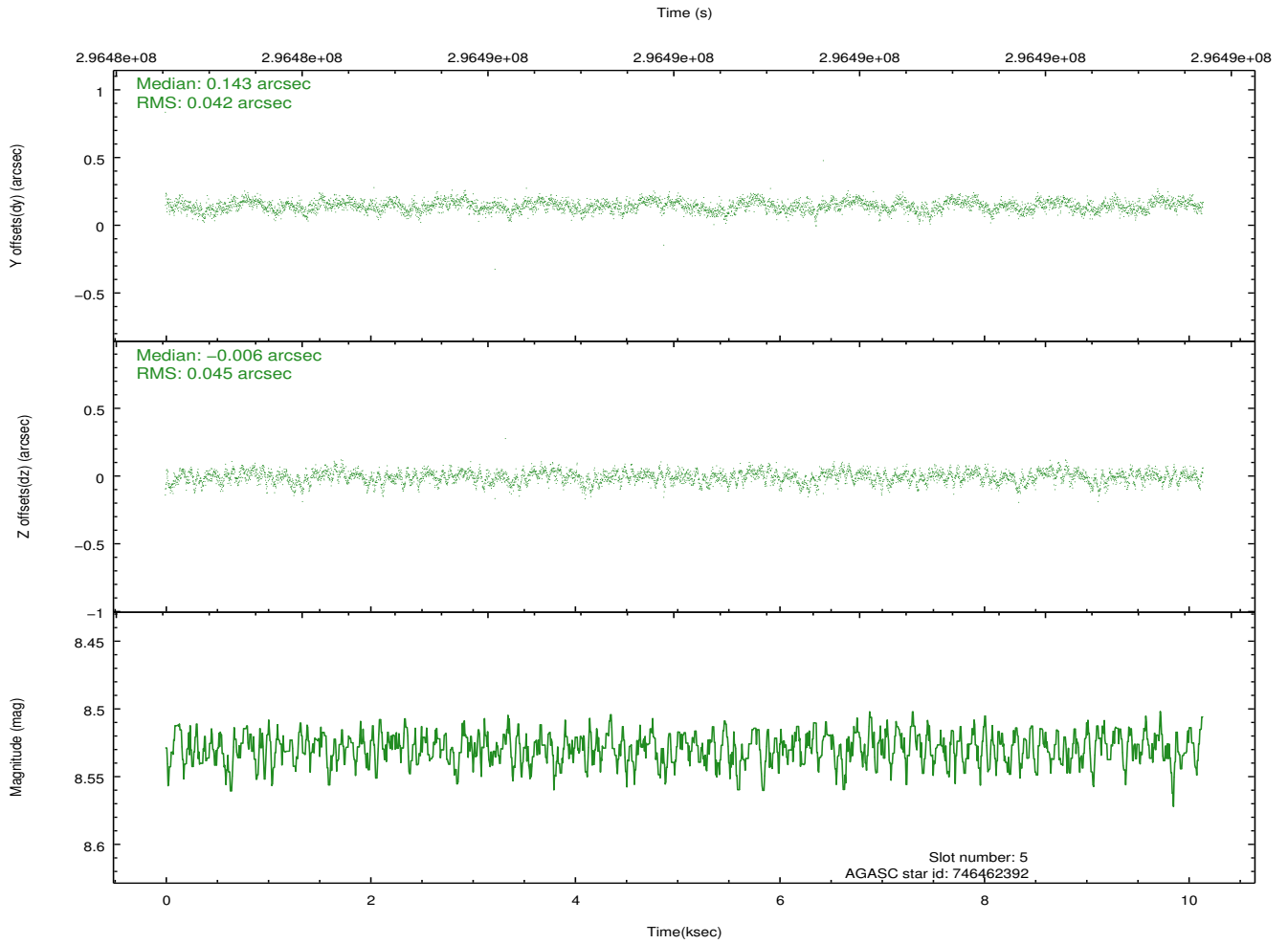
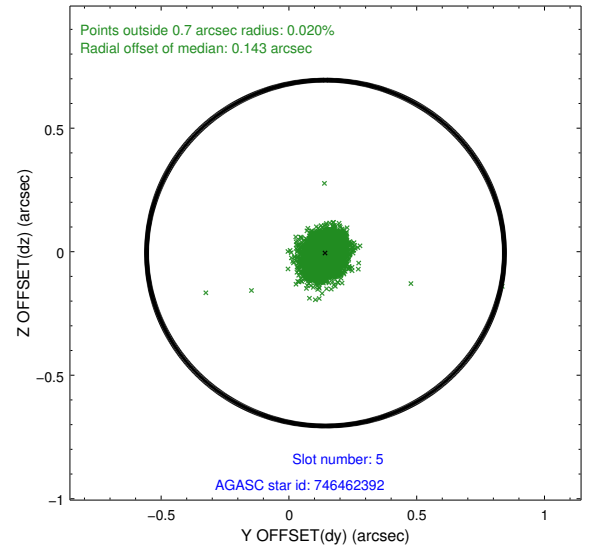
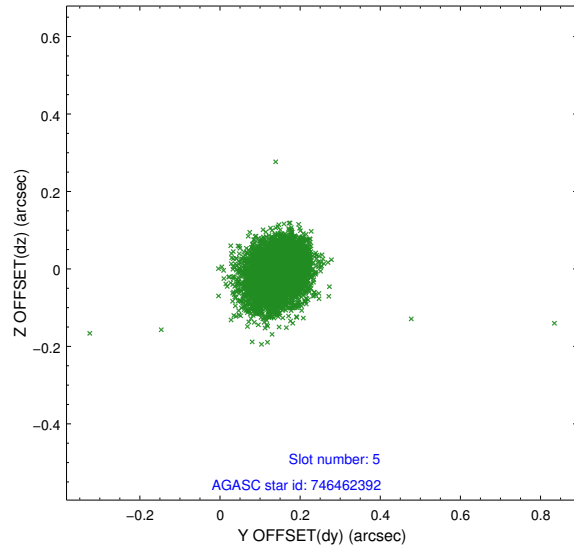
2.4.1 Slot 3



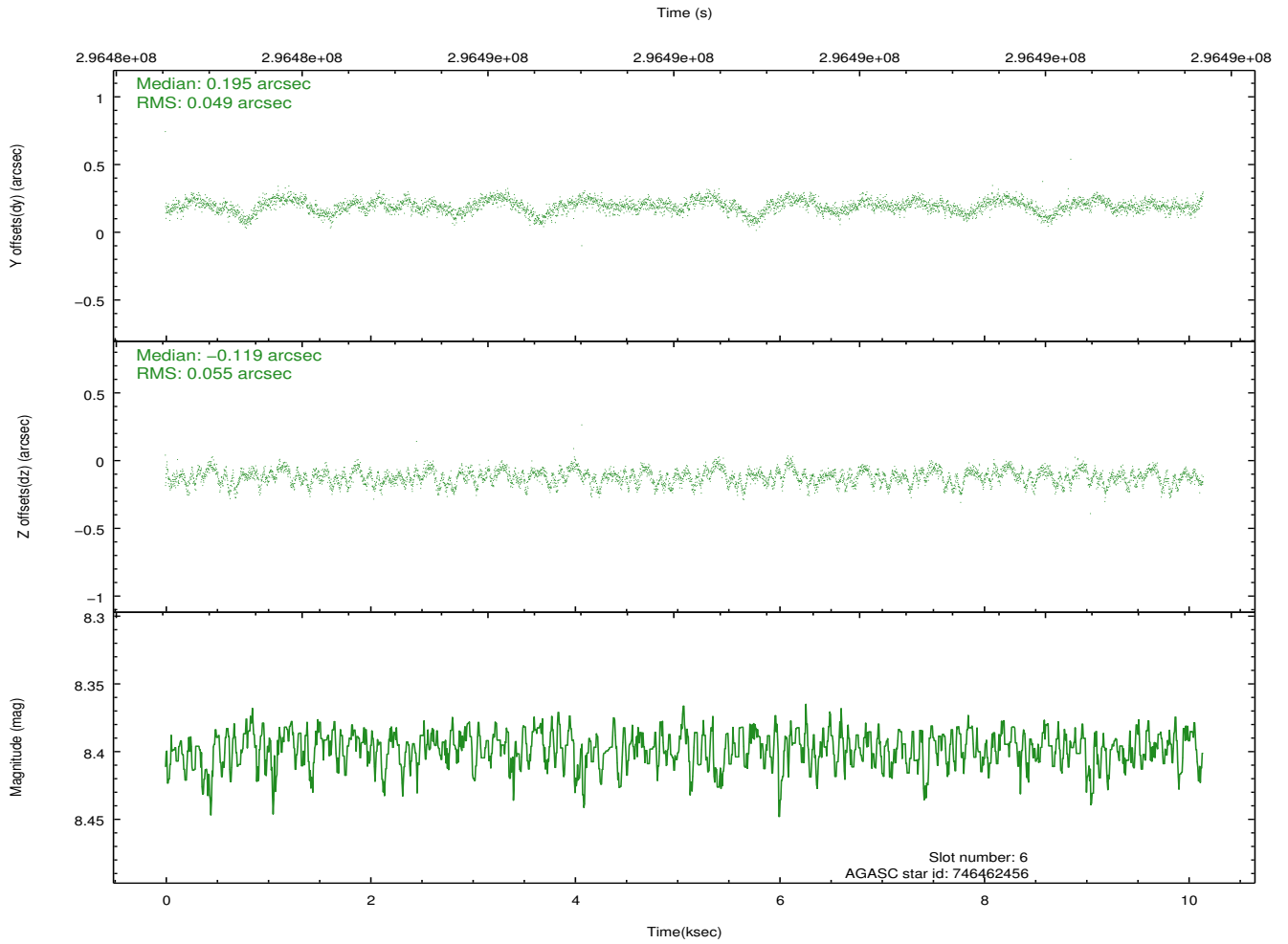
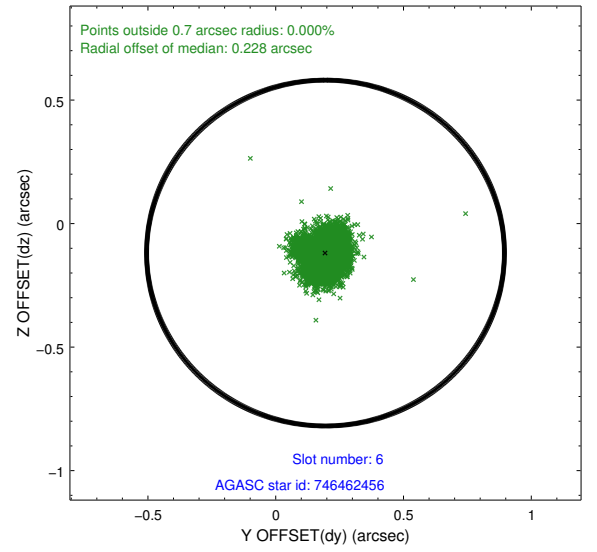
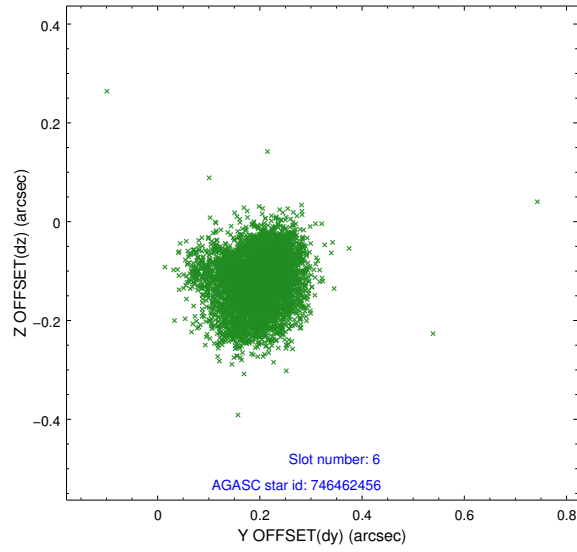
2.4.2 Slot 4



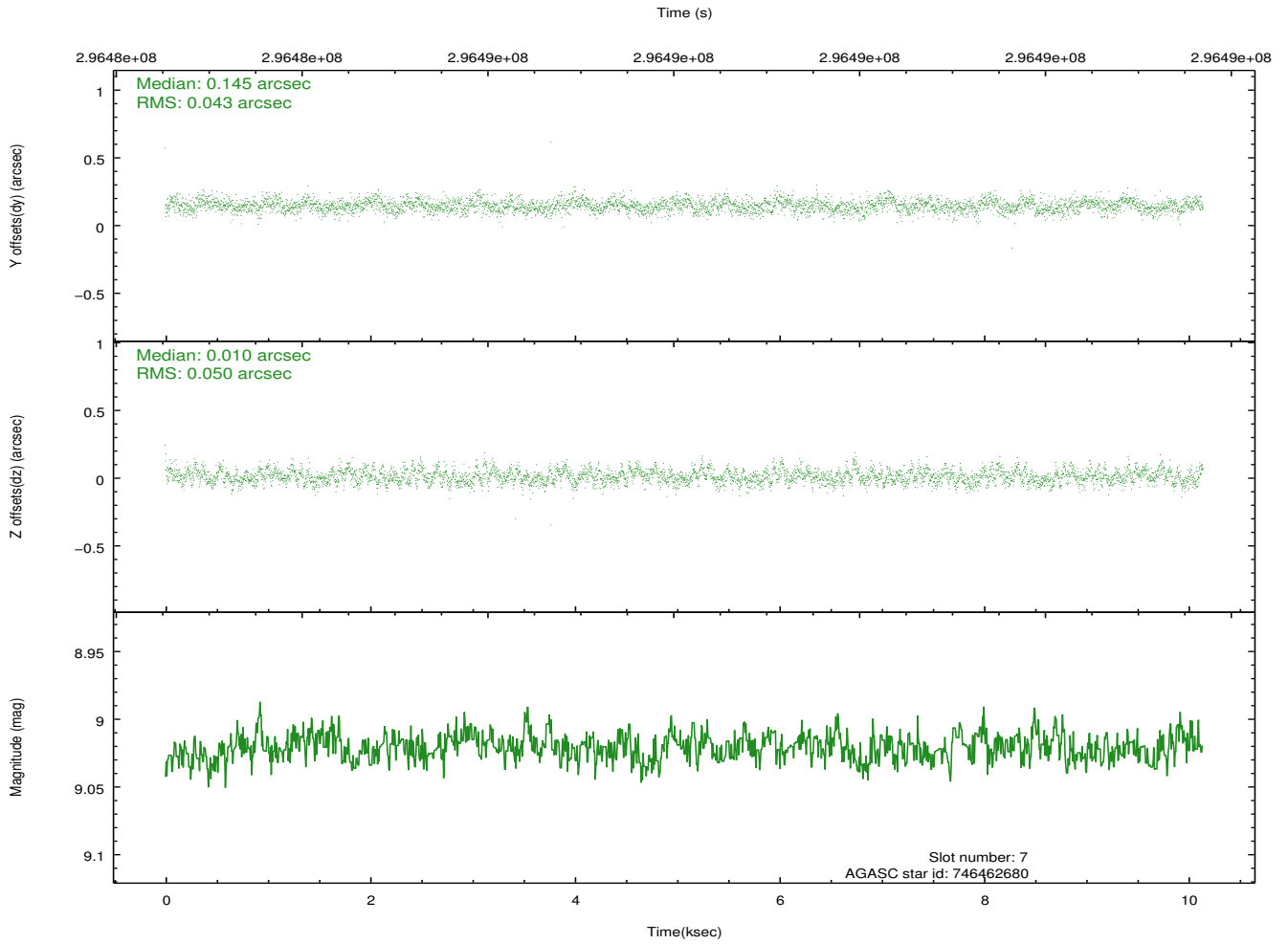
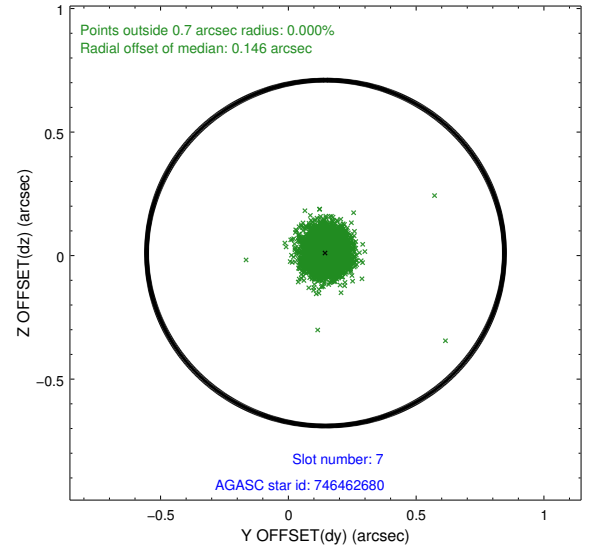
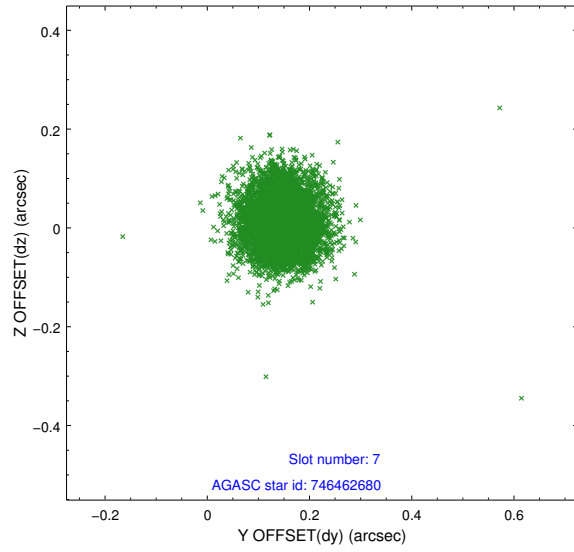
2.4.3 Slot 5



2.4.4 Slot 6

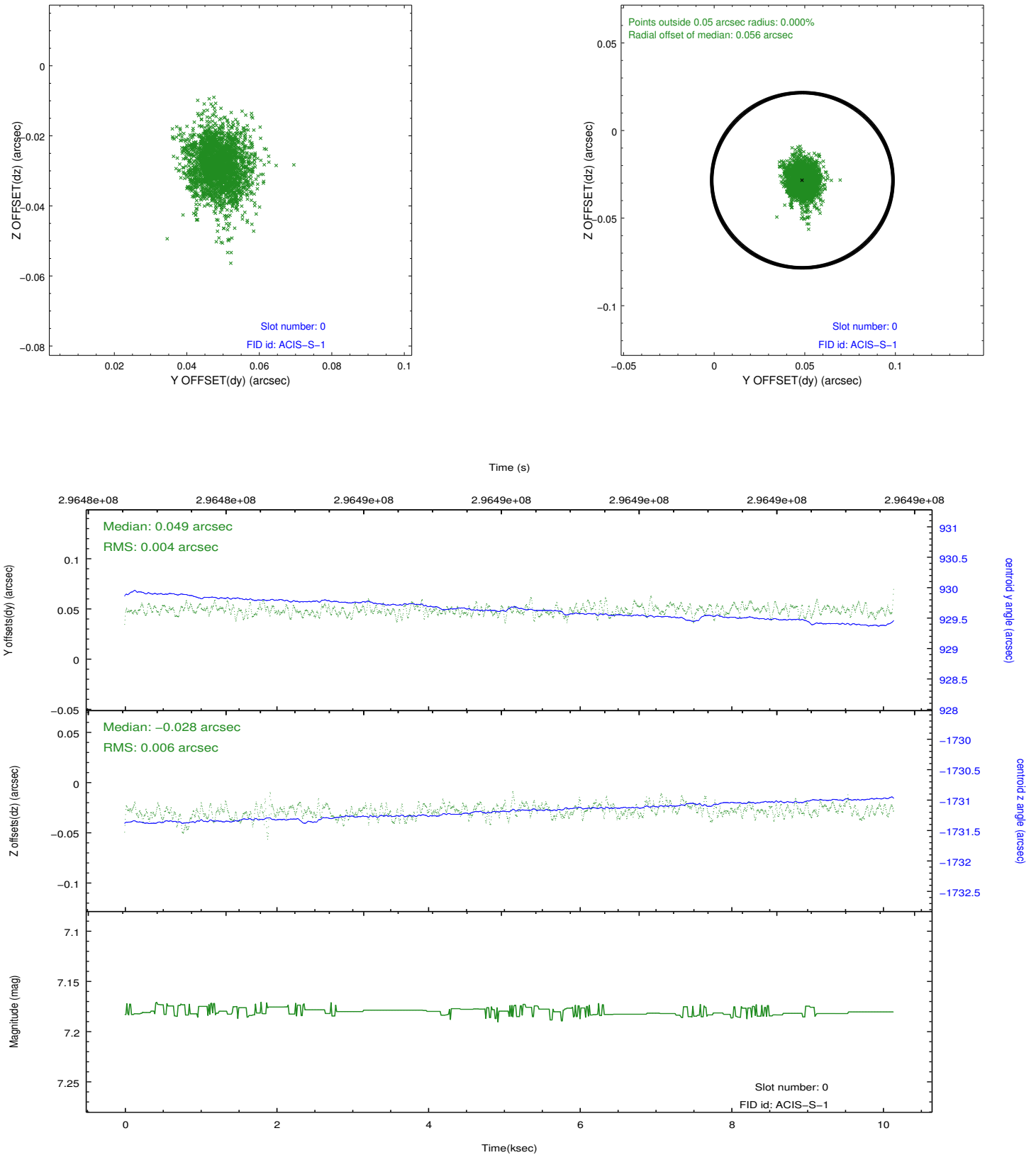


2.4.5 Slot 7

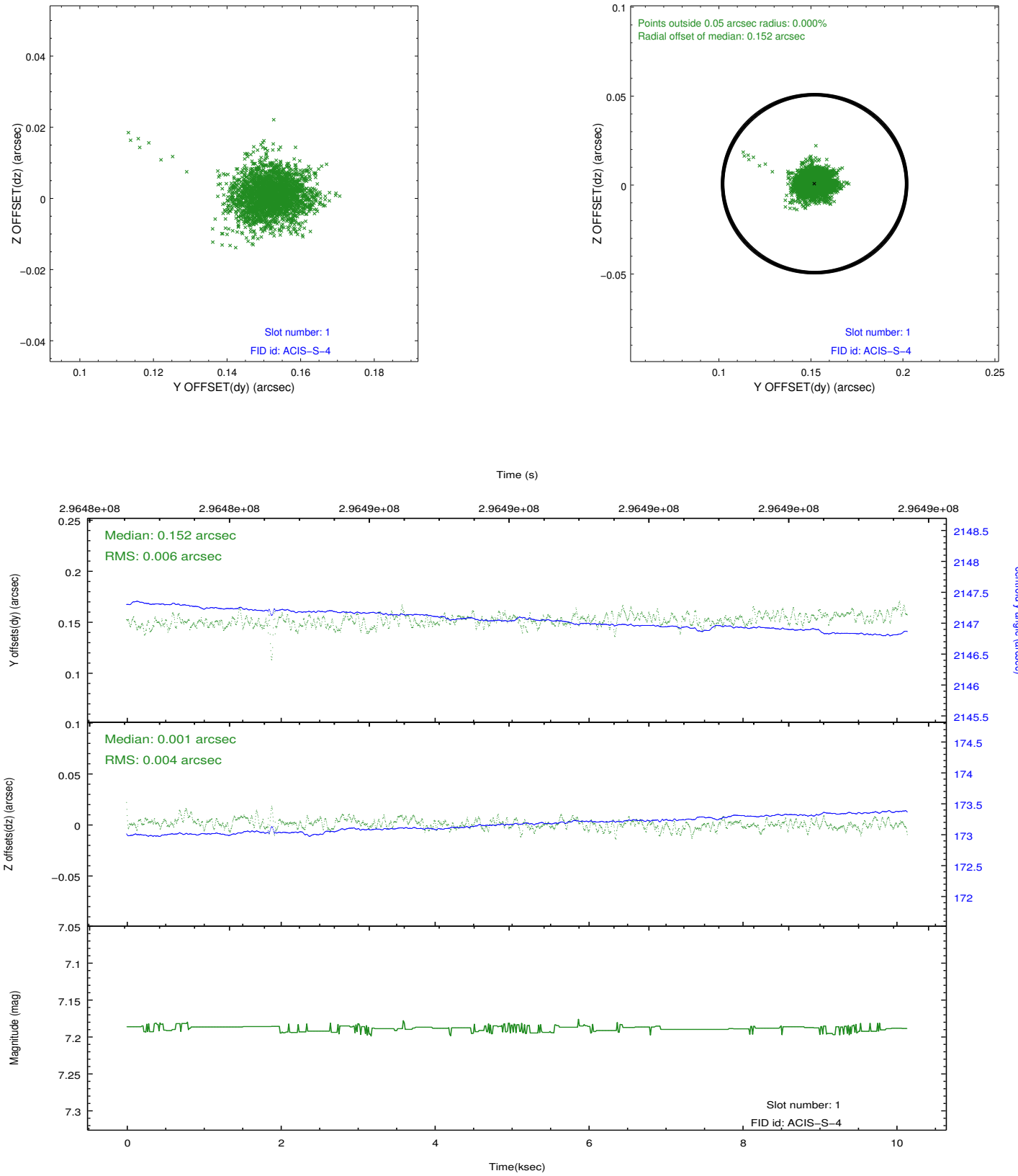


2.5 FID Slots

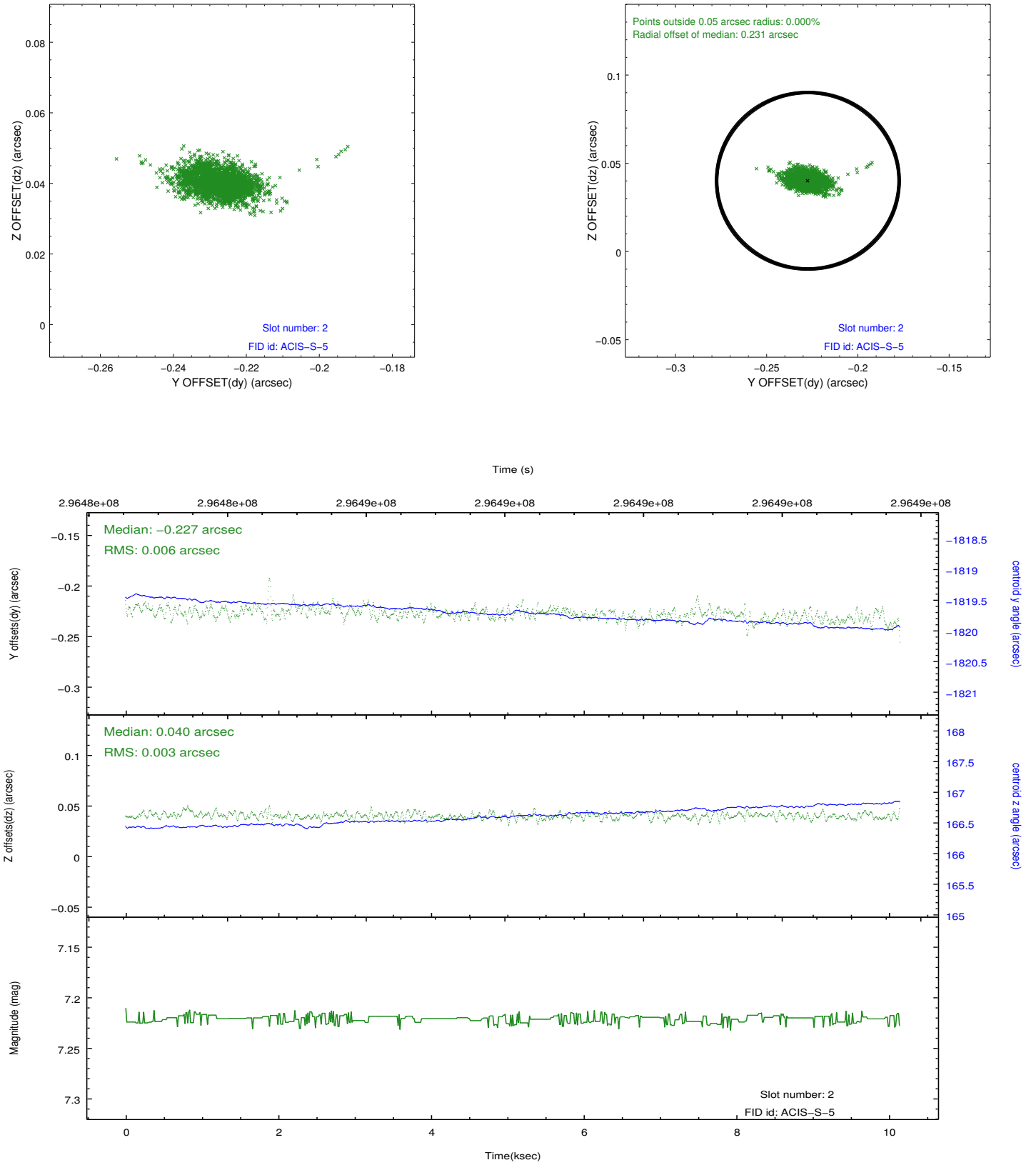
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.04.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.14

A.2 Comments

Window constraint met.

=====

A spatial region of the original bias map for CCD = 2 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 2 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:
(278.48656, -10.37996), (278.48405, -10.38112), (278.49679, -10.40778), (278.49870, -10.40538)