

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 4101 - L2 Version 4
Chandra X-Ray Center

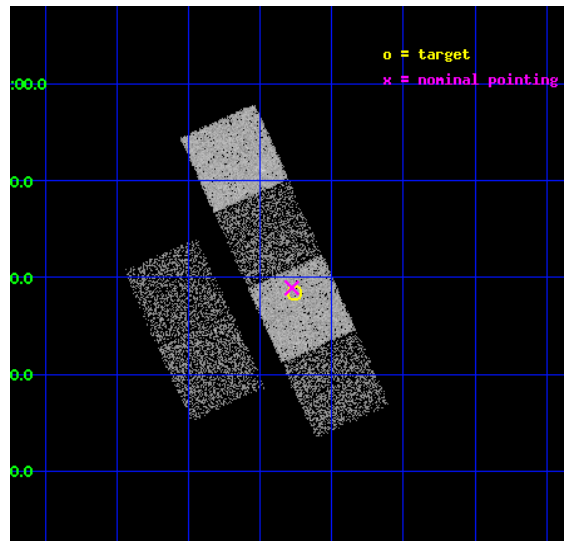
L2 Processing Date : Dec 27 2012

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1 Front

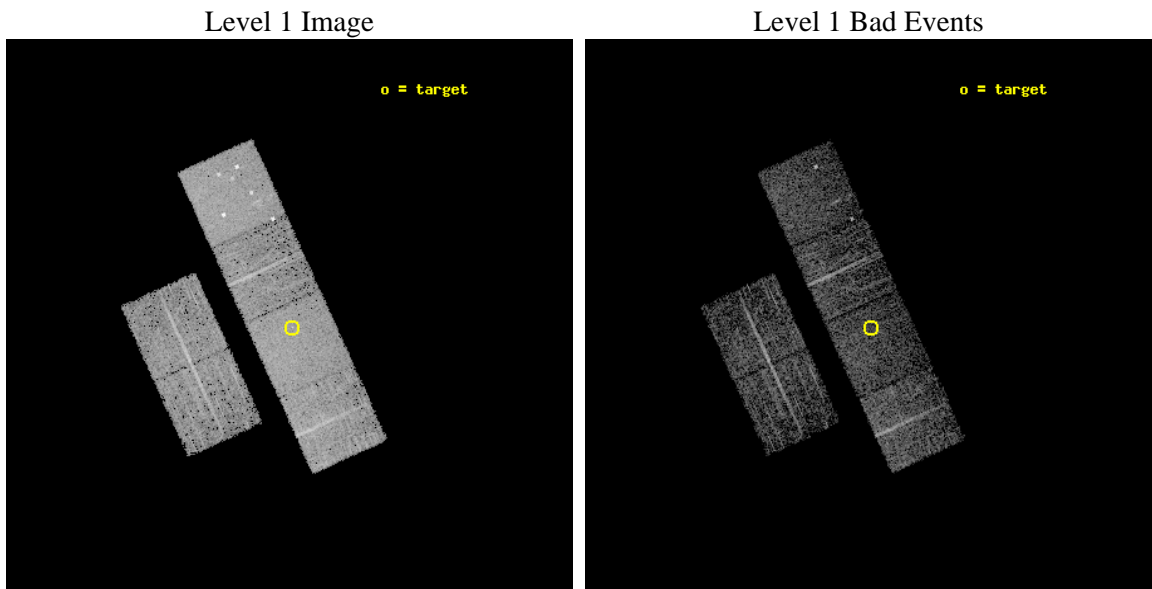
seq_num	700780	Sequence number
obs_id	4101	Observation id
title	X-RAY CONSTRAINTS ON THE STRUCTURE OF THE BROAD EMISSION LINE REGION IN QUASARS	Proposal title
observer	Dr. Gordon Richards	Principal investigator
object	SDSS J115115.38+003826.9	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	177.814167	Observer's specified target RA [deg]
dec_targ	0.640806	Observer's specified target Dec [deg]
ra_nom	177.81957567673	Nominal RA [deg]
dec_nom	0.64877251680326	Nominal Dec [deg]
roll_nom	65.534684470442	Nominal Roll [deg]
revision	4	Processing version of data
ontime	3733.8384528756	Sum of GTIs [s]
livetime	3686.5583421377	Livetime [s]
ontime2	3733.8794928789	Sum of GTIs [s]
ontime3	3733.7153527439	Sum of GTIs [s]
ontime5	3733.7974128723	Sum of GTIs [s]
ontime6	3733.7563927472	Sum of GTIs [s]
ontime7	3733.8384528756	Sum of GTIs [s]
ontime8	3730.4332329333	Sum of GTIs [s]
l2events	37743	Number of level 2 events



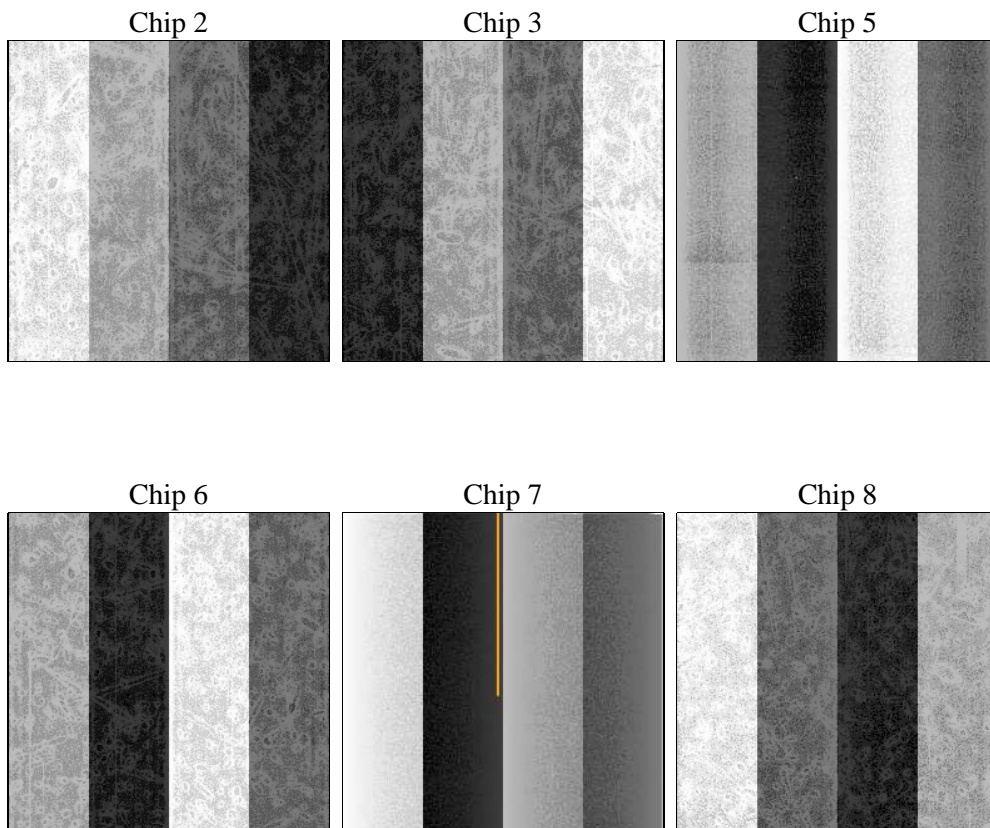
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3980.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	3733.8384528756	Sum of GTIs [s]
caldsver	4.5.5	 	ontime2	3733.8794928789	Sum of GTIs [s]
date	2012-12-27T19:17:53	Date and time of file creation	ontime3	3733.7153527439	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	3733.7974128723	Sum of GTIs [s]
			ontime6	3733.7563927472	Sum of GTIs [s]
			ontime7	3733.8384528756	Sum of GTIs [s]
			ontime8	3730.4332329333	Sum of GTIs [s]
			l1events	174079	Number of level 1 events

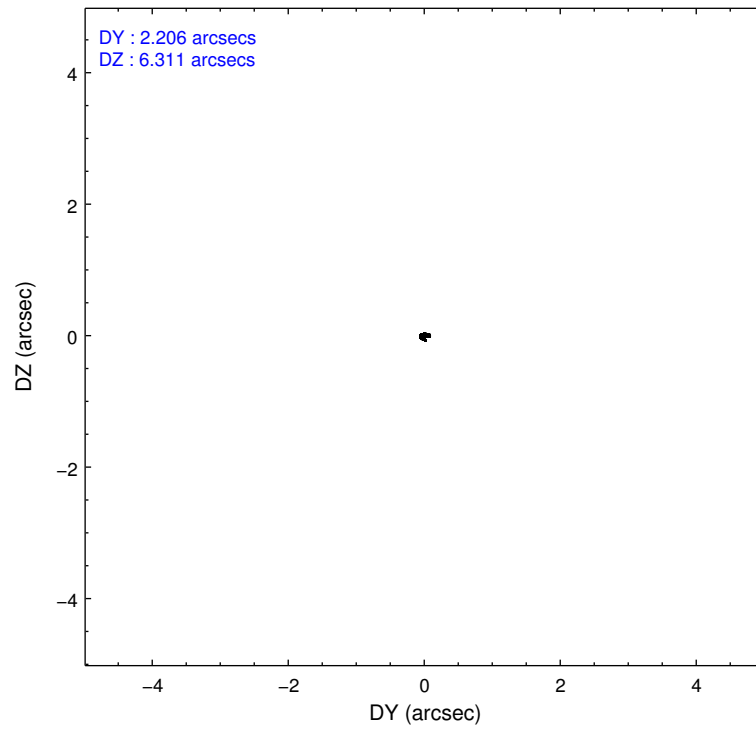
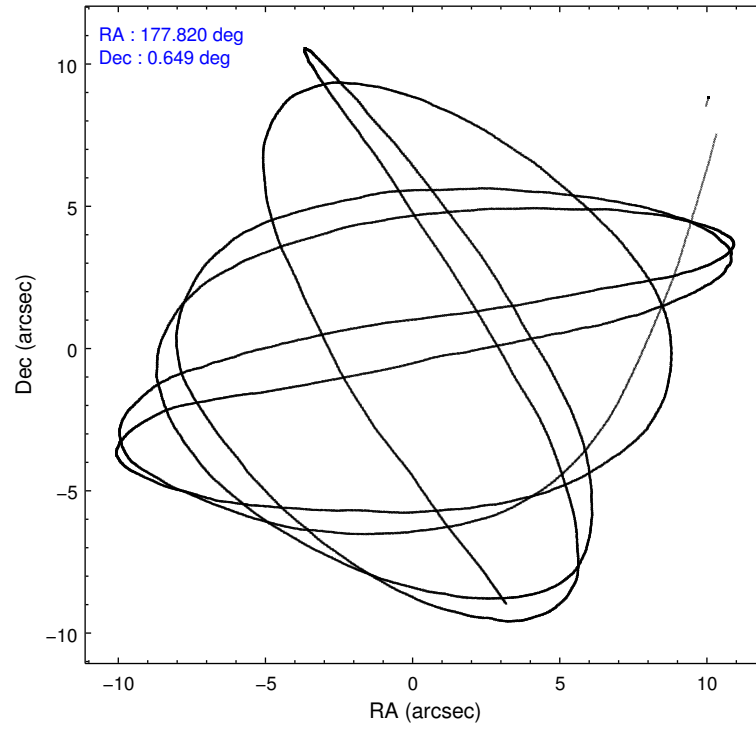
2.1.4 Events

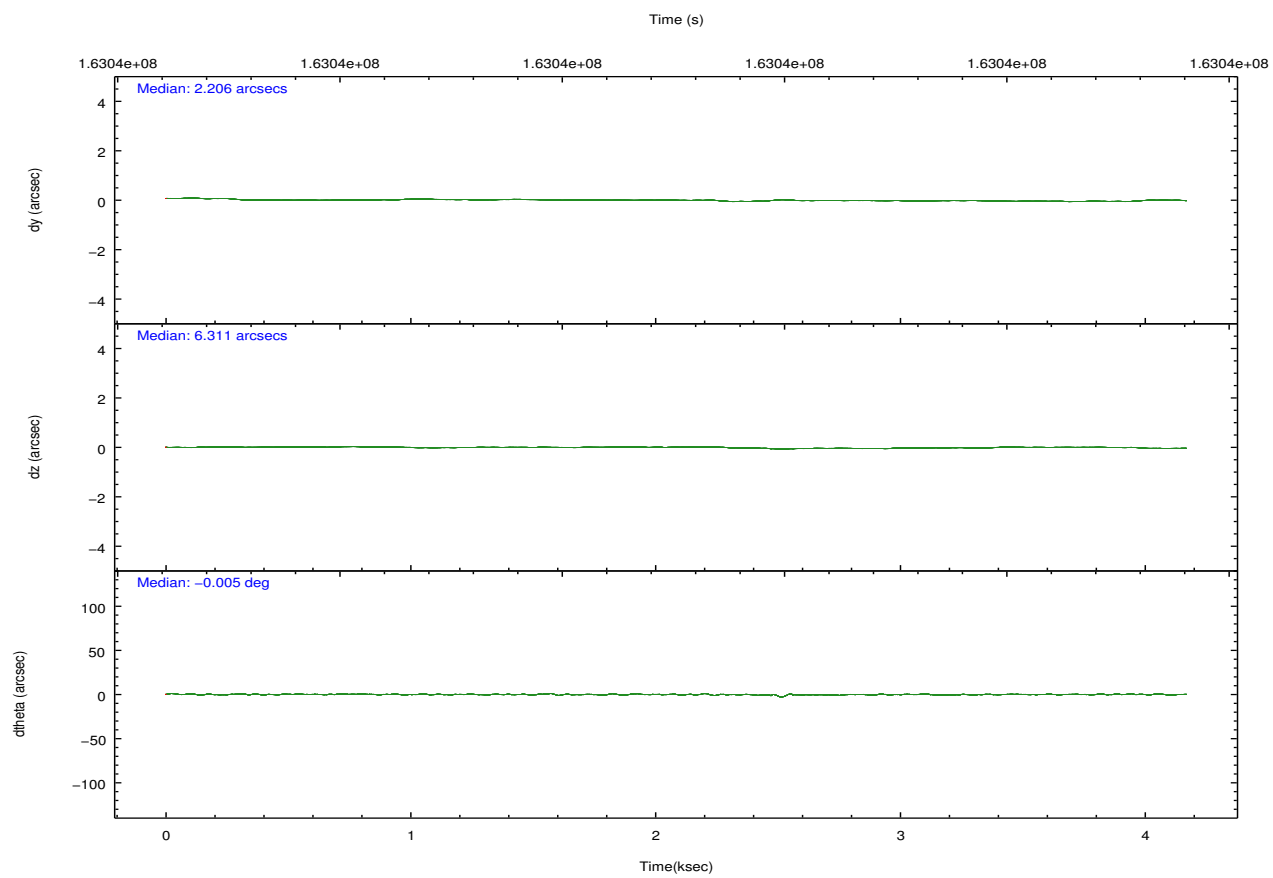
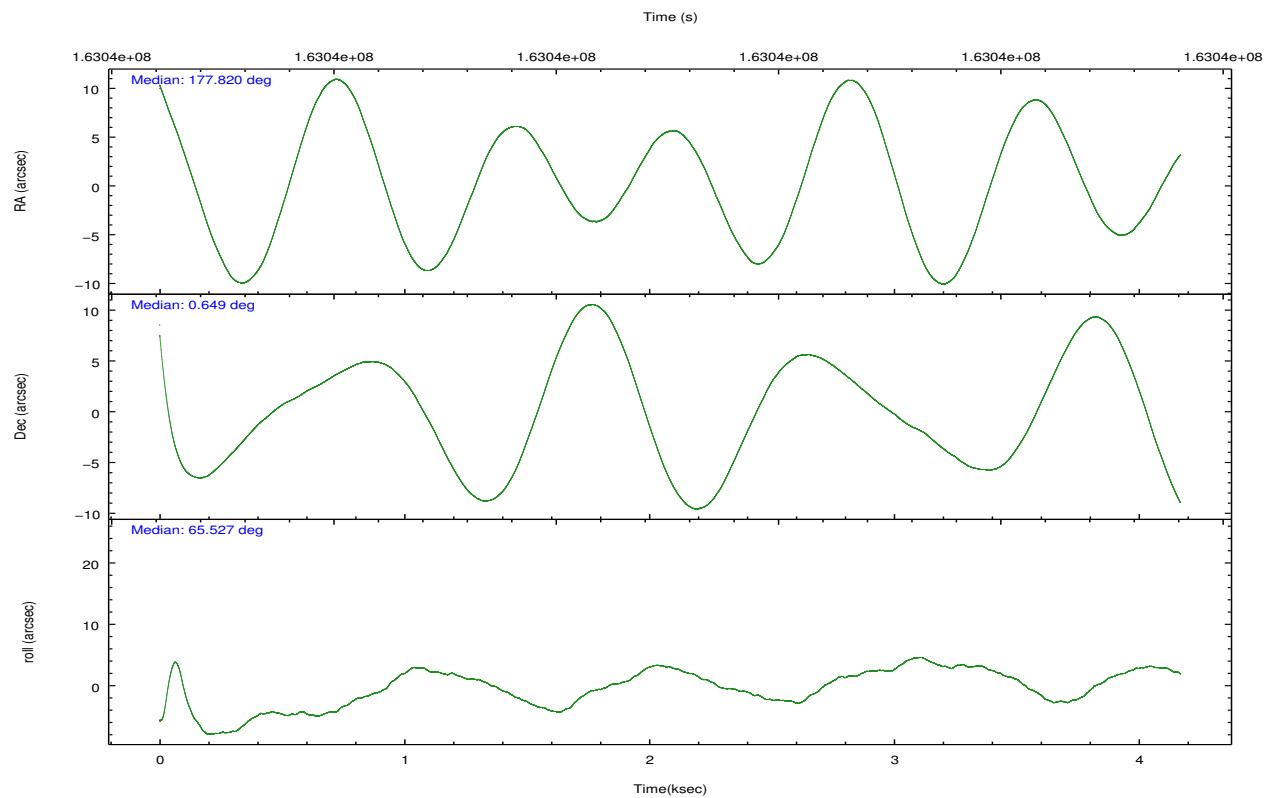
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	24179	23229	38306	24193	32071	32101	grade 0 events	1185	1216	2997	1115	1315	1842
rejected events	21561	20415	19725	21369	18720	26139		4%	5%	7%	4%	4%	5%
rejected %	89%	87%	51%	88%	58%	81%	grade 1 events	18	18	129	13	29	28
								0%	0%	0%	0%	0%	0%
							grade 2 events	539	528	5487	604	2644	1240
								2%	2%	14%	2%	8%	3%
							grade 3 events	246	275	750	262	1187	623
								1%	1%	1%	1%	3%	1%
							grade 4 events	254	283	730	264	1193	604
								1%	1%	1%	1%	3%	1%
							grade 5 events	935	1030	2747	1074	3095	1326
								3%	4%	7%	4%	9%	4%
							grade 6 events	404	516	8643	581	7040	1662
								1%	2%	22%	2%	21%	5%
							grade 7 events	20598	19363	16823	20280	15568	24776
								85%	83%	43%	83%	48%	77%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	177.822648	177.8195756767266	Subarray requested	NONE	NONE
[deg] Pointing Dec	0.621704	0.6487725168032616	Alternating exposures requested	N	N
[deg] Pointing Roll	65.378023	65.53468447044156	[s] Primary exposure time	0.000000	3.2
[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)	163039614.184000	163038360.25086			
Observation start date	2003-03-03T00:45:50	2003-03-03T00:26:00			
[s] Observation end time (MET)	163043594.184000	163044379.05112			
Observation end date	2003-03-03T01:52:10	2003-03-03T02:06:19			
Read mode	TIMED	TIMED			

2.3 Aspect



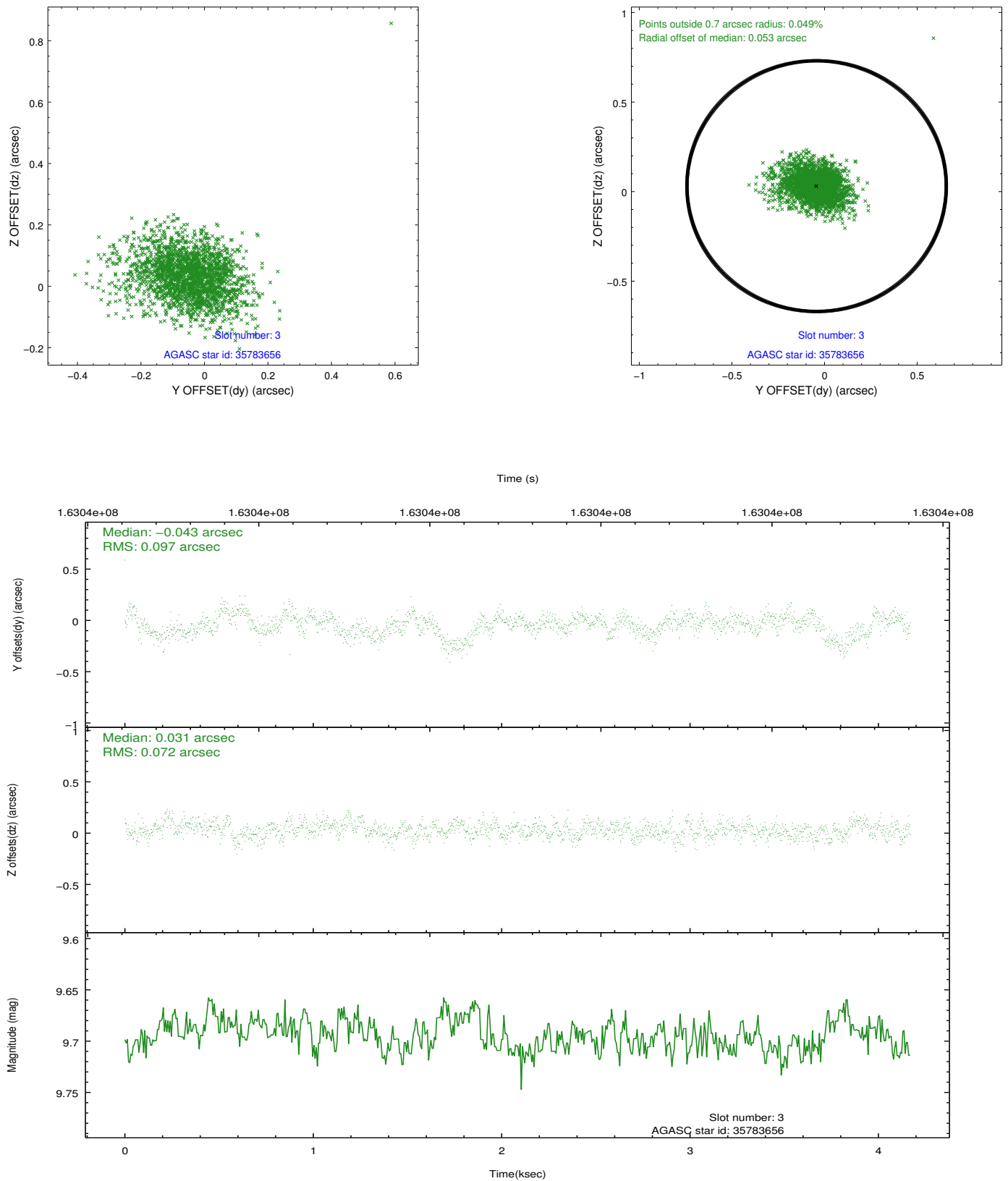


Slot Statistics

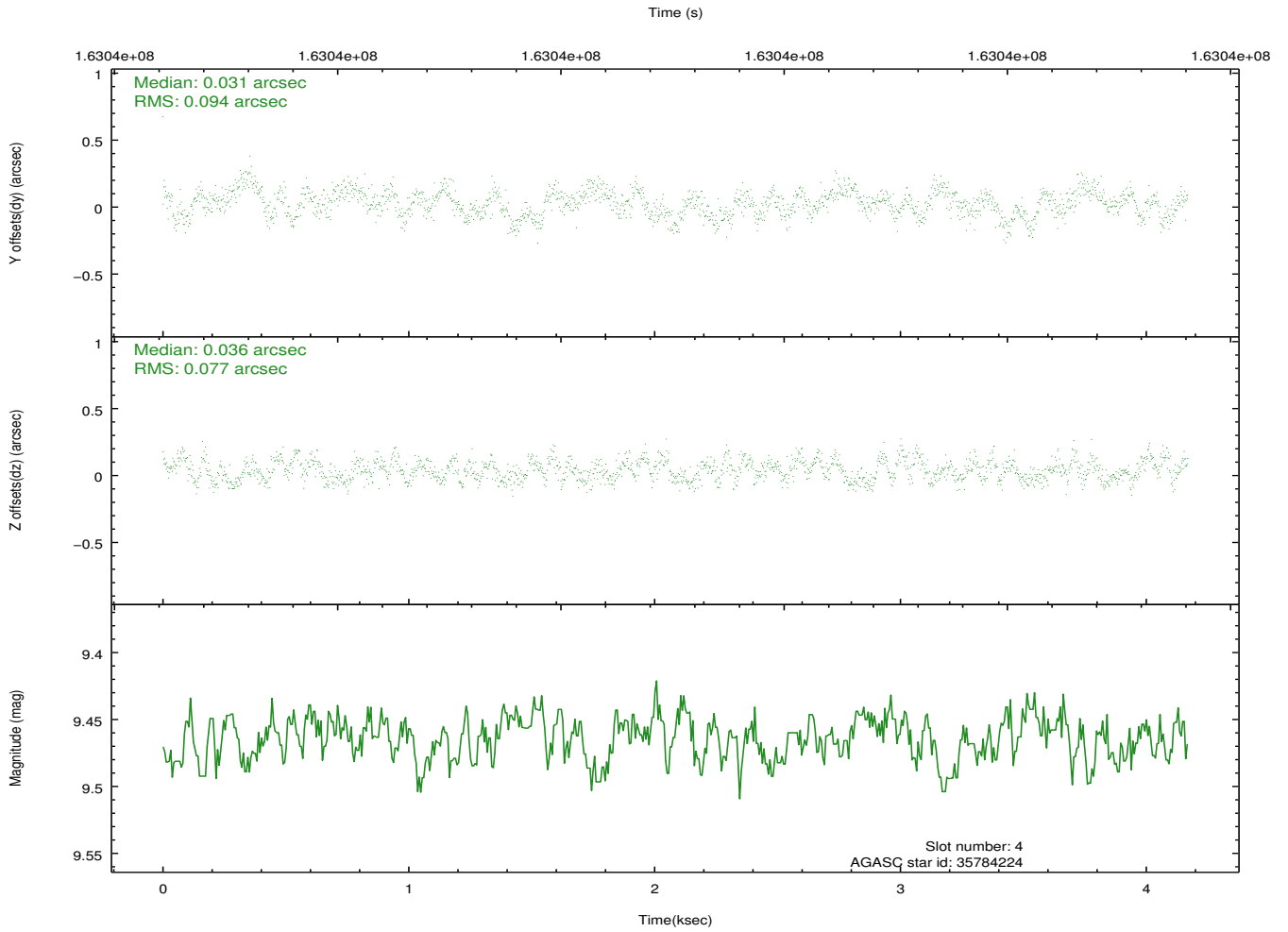
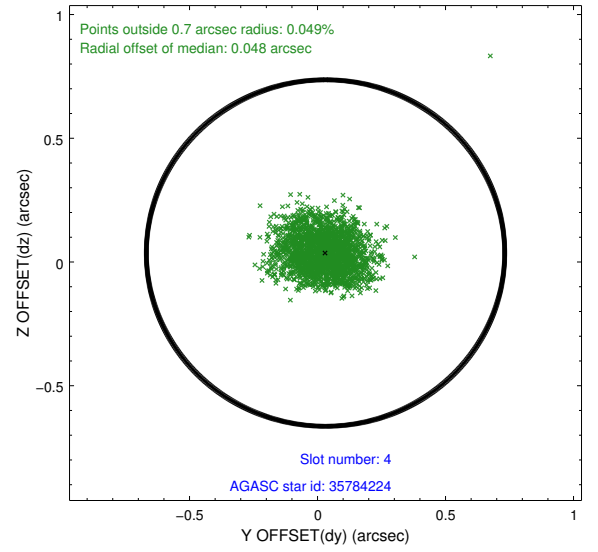
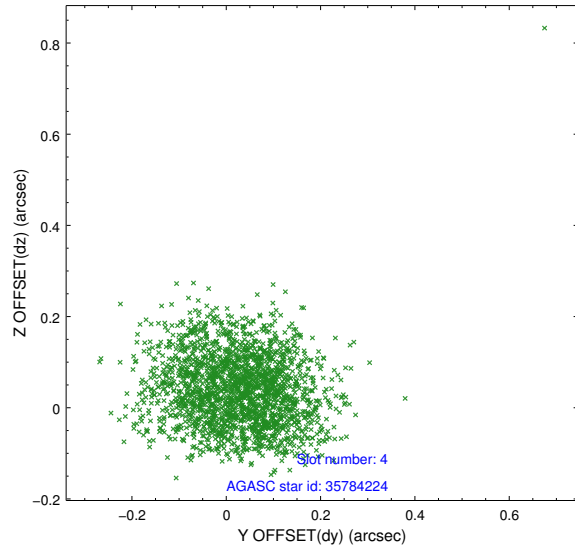
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	1018	-0.050	0.004	0.007	0.012	0.000000	0.000000	-754.84	-1727.41
1	FID	ACIS-S-4	7.21	1017	0.001	0.023	0.005	0.010	0.000000	0.000000	2157.78	179.62
2	FID	ACIS-S-5	7.24	1018	0.017	-0.019	0.006	0.012	0.000000	0.000000	-1805.73	174.86
3	GUIDE	35783656	9.69	2034	-0.043	0.031	0.122	0.213	178.538116	0.980270	2247.27	-1803.14
4	GUIDE	35784224	9.46	2034	0.031	0.036	0.129	0.204	178.398190	1.076869	2354.63	-1201.08
5	GUIDE	35785968	9.98	2034	0.108	-0.004	0.108	0.173	178.064100	0.247272	-861.33	-1352.59
6	GUIDE	35787624	6.67	2035	-0.081	0.074	0.069	0.115	178.459489	0.552116	727.73	-2188.91
7	GUIDE	35788008	9.41	2034	-0.004	-0.142	0.104	0.165	177.612047	1.006805	945.15	1265.52

2.4 Star Slots

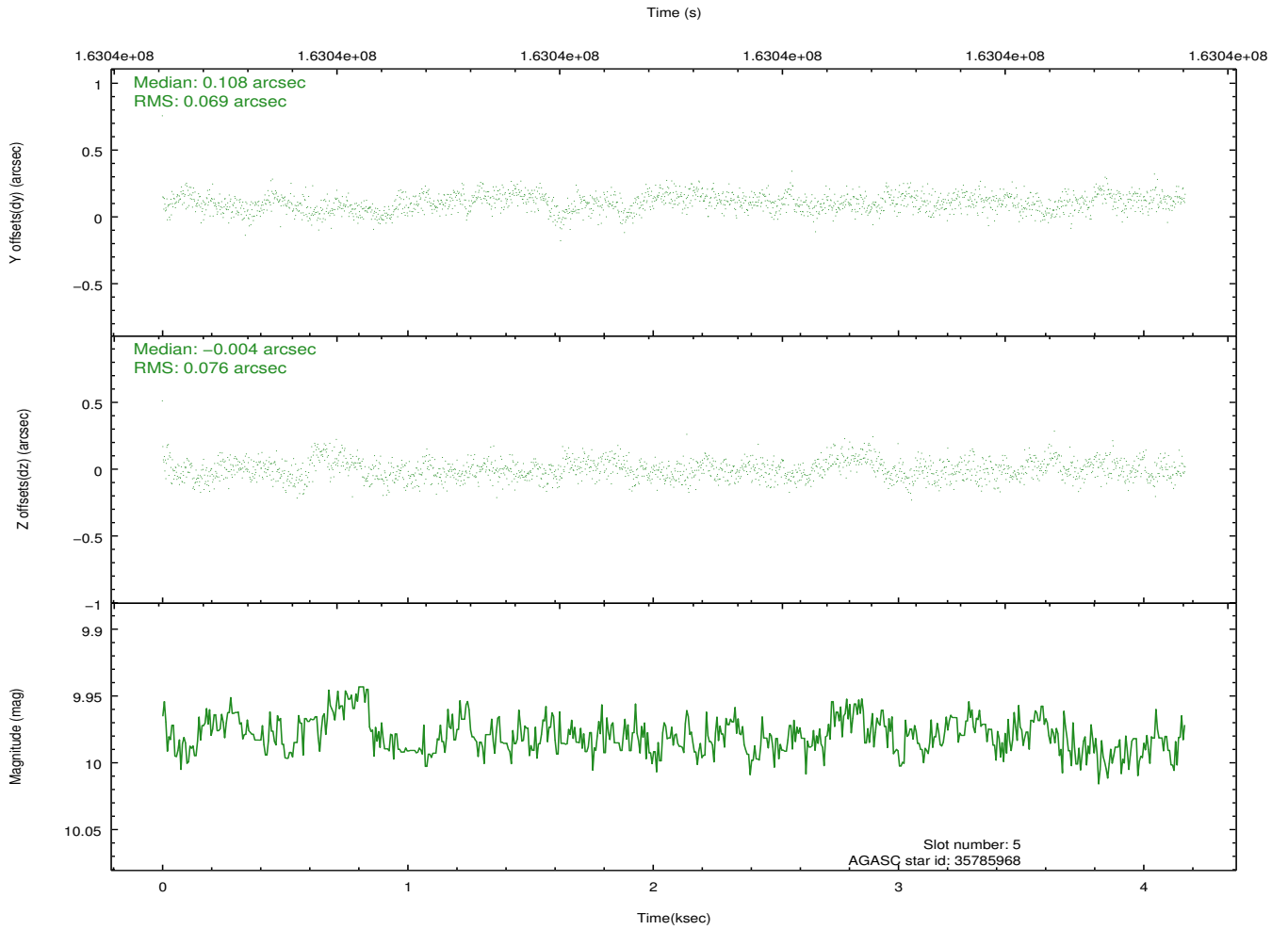
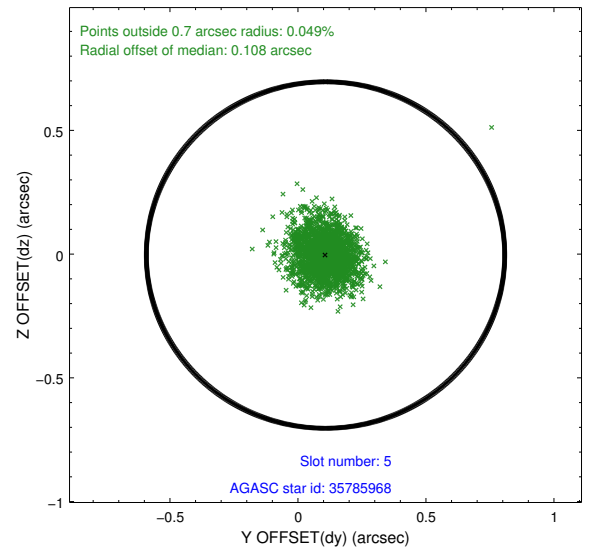
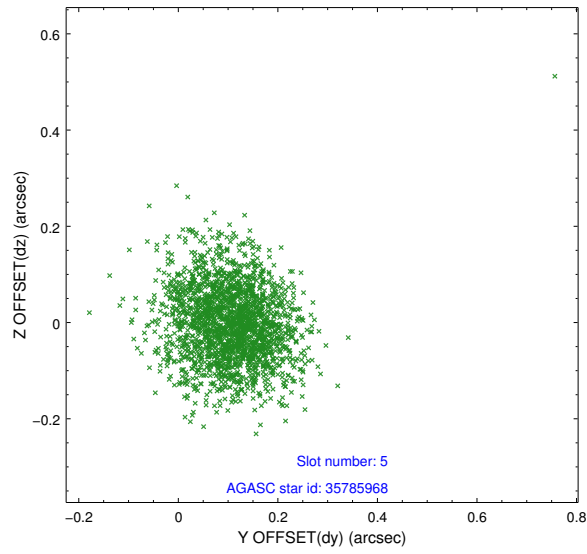
2.4.1 Slot 3



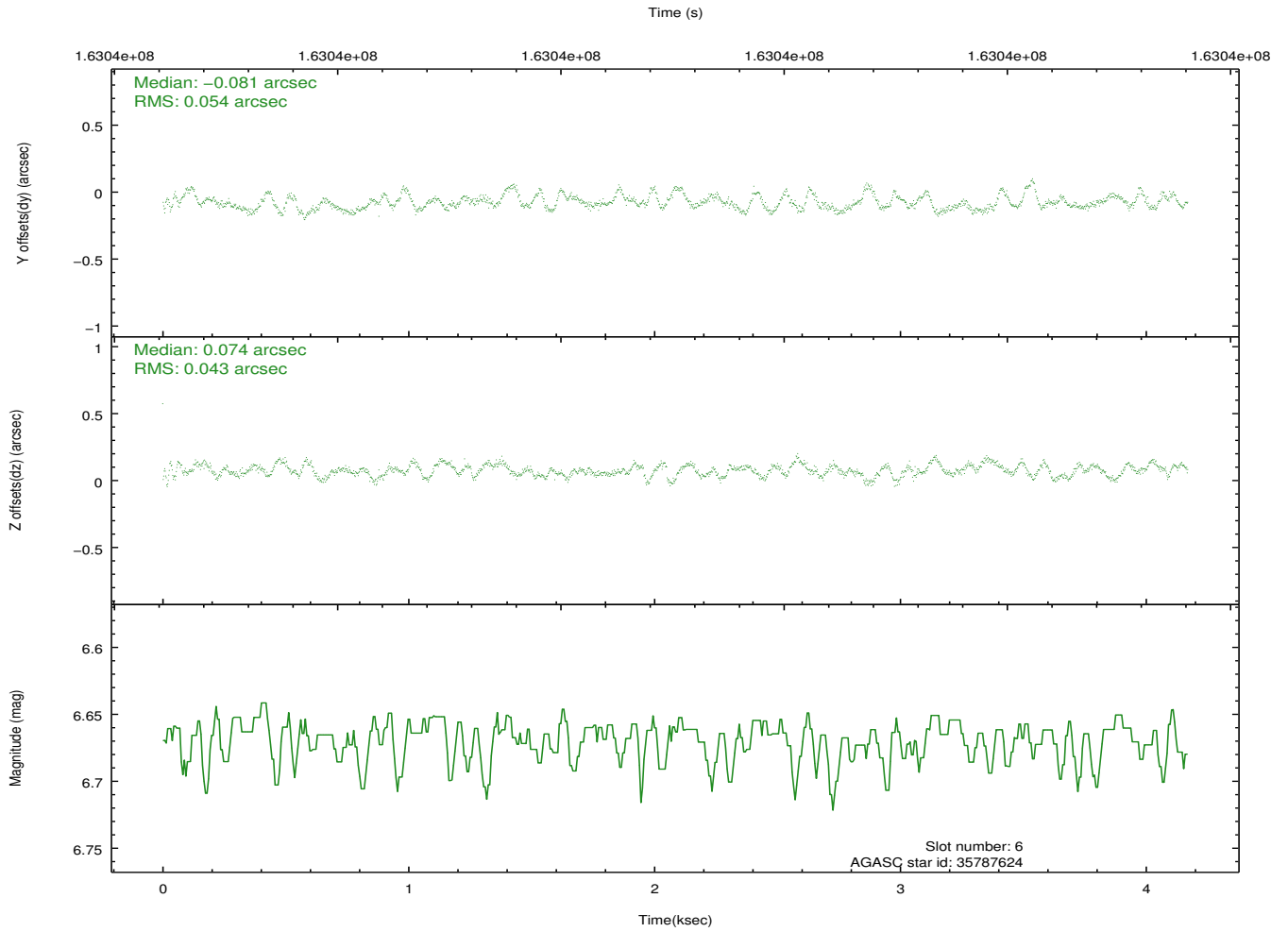
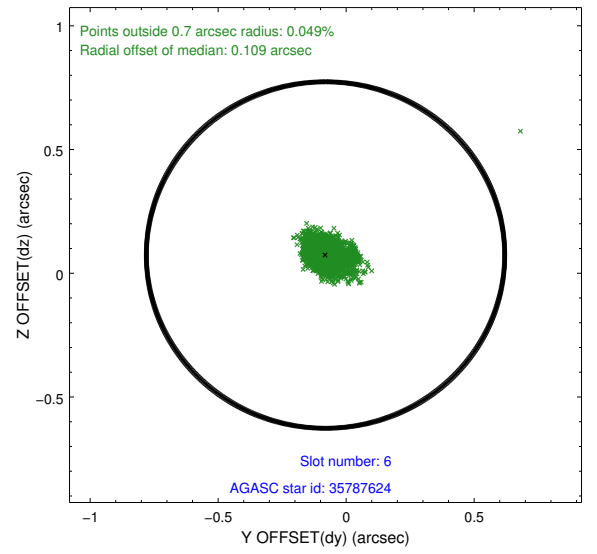
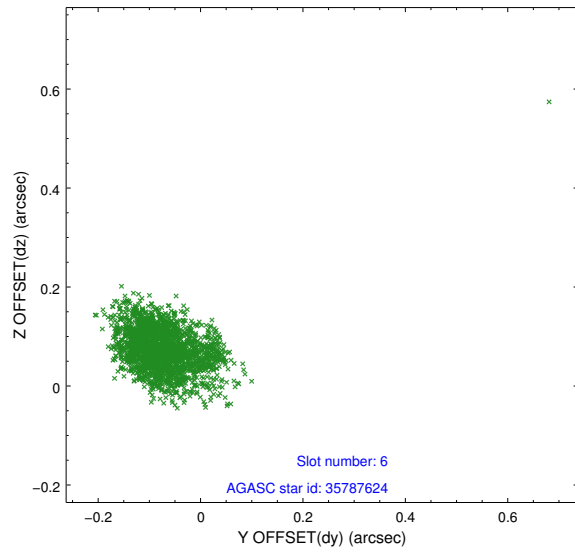
2.4.2 Slot 4



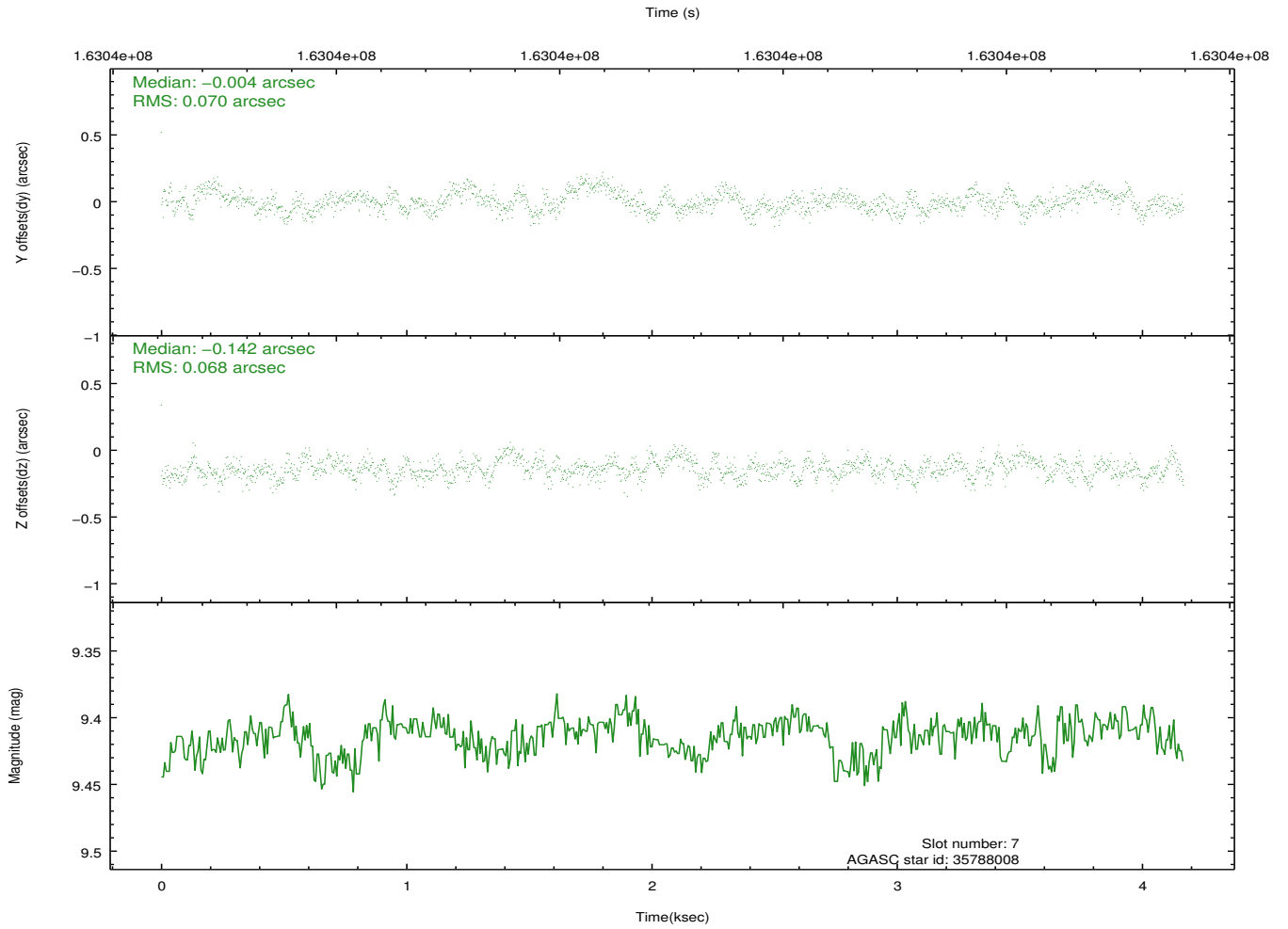
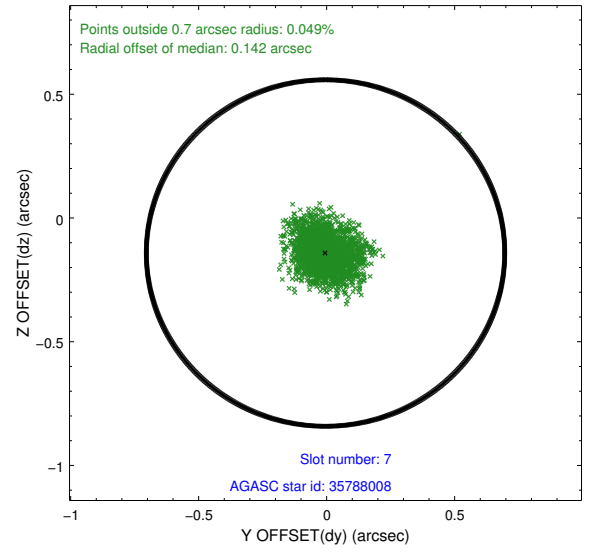
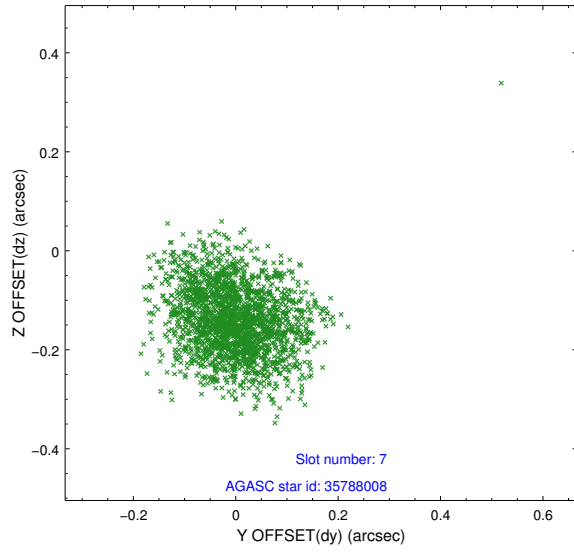
2.4.3 Slot 5



2.4.4 Slot 6

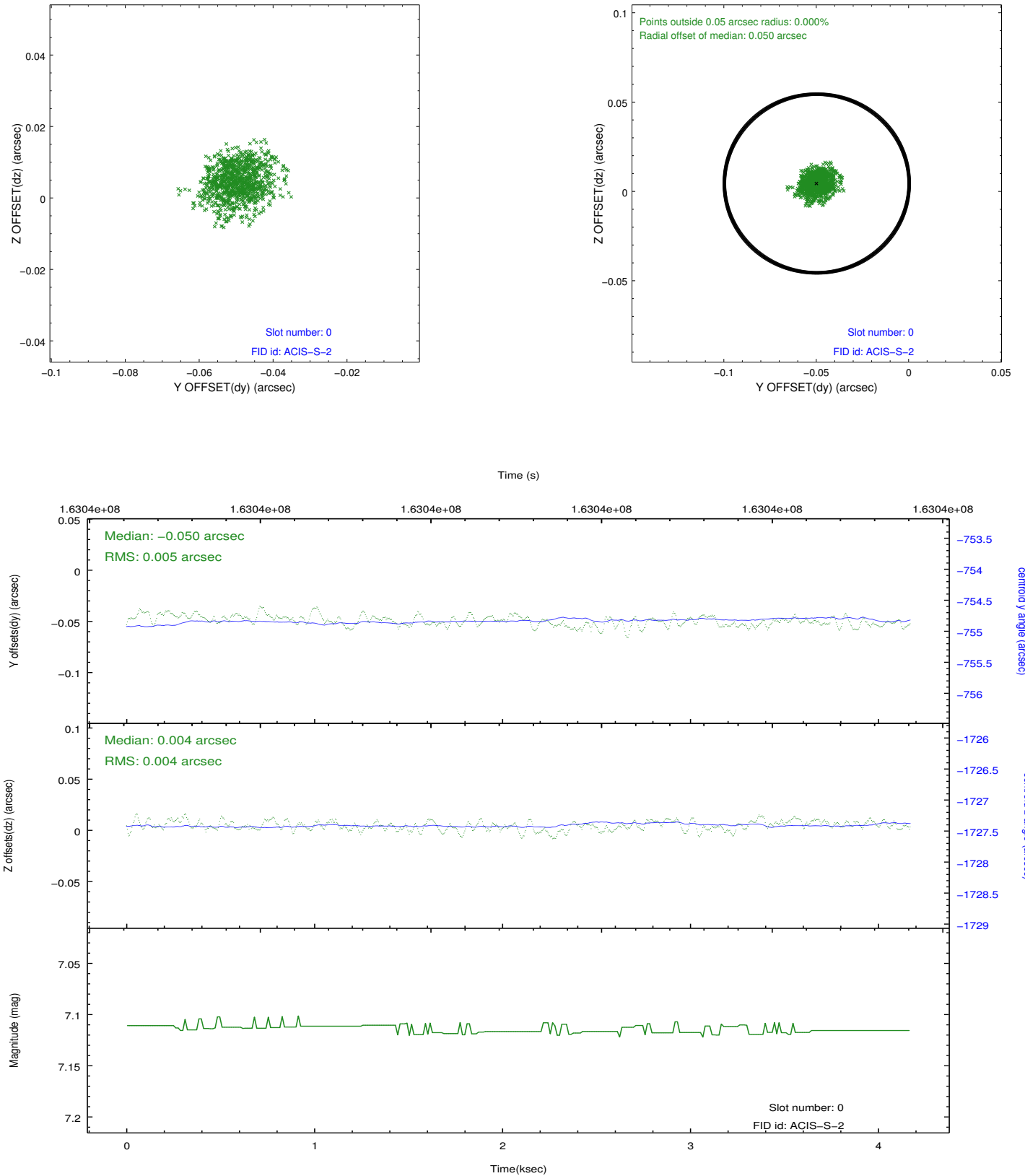


2.4.5 Slot 7

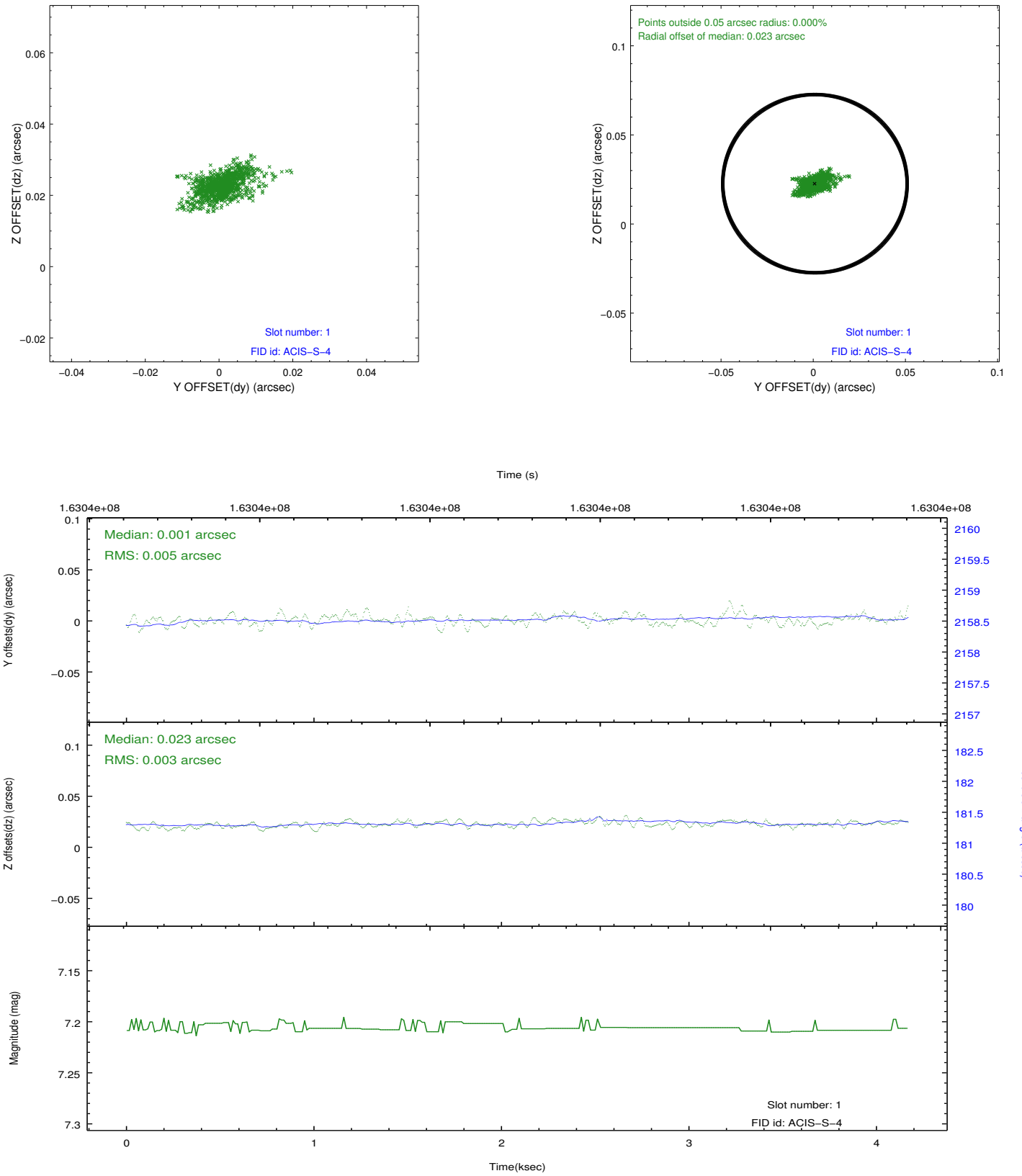


2.5 FID Slots

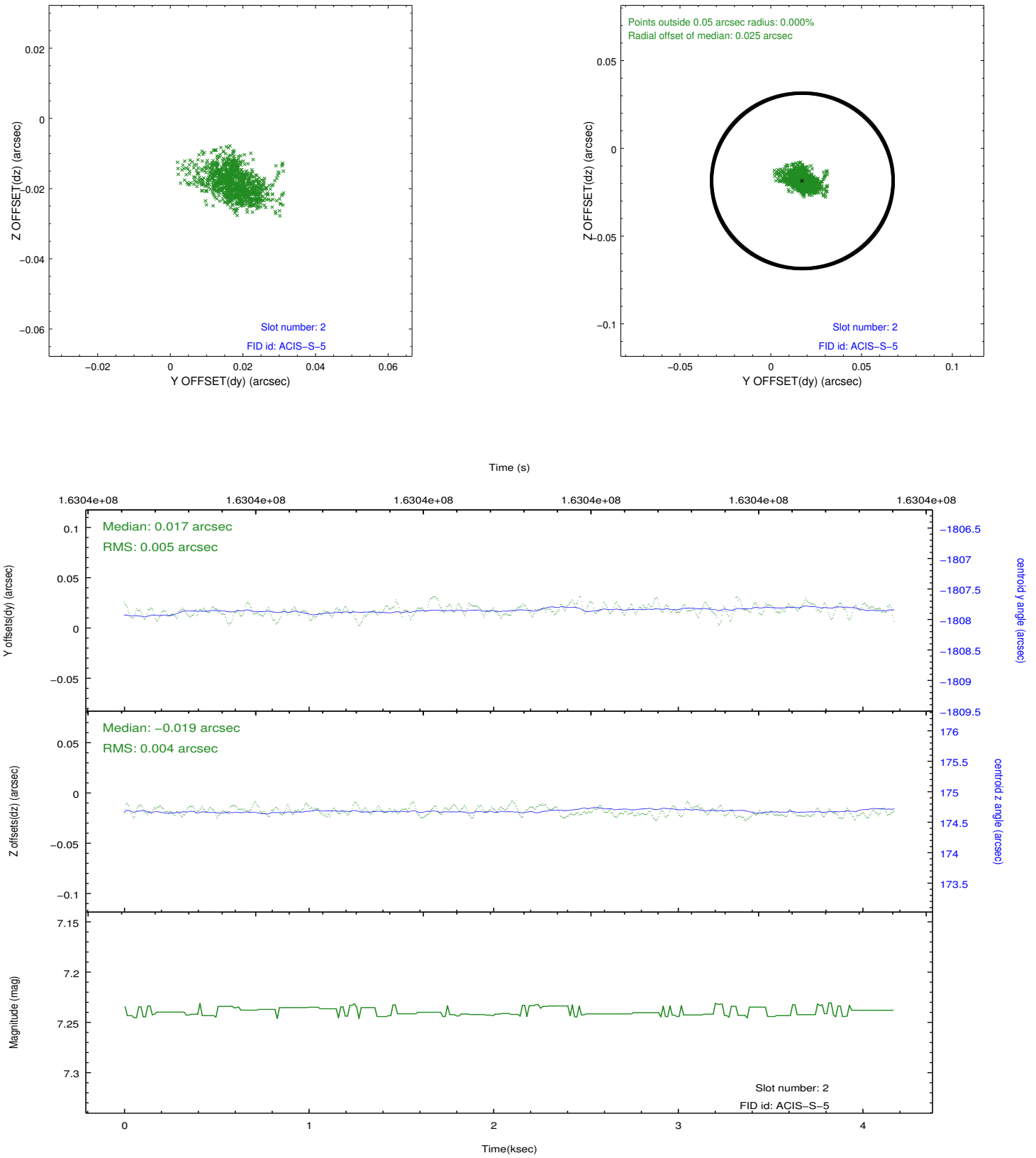
2.5.1 Slot 0



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)	2013.01.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.734

A.2 Comments

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:
(178.05410,0.70245),(178.04826,0.70509),(178.02669,0.65768),(178.03123,0.65219)