

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 11084 - L2 Version 3
Chandra X-Ray Center

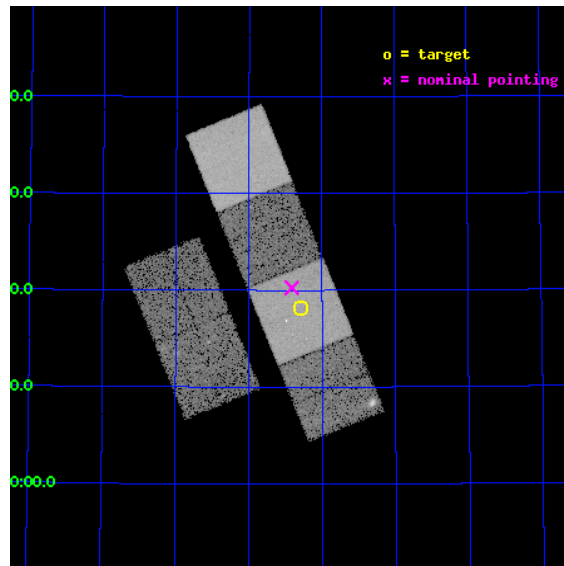
L2 Processing Date : Jun 26 2012

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1 Front

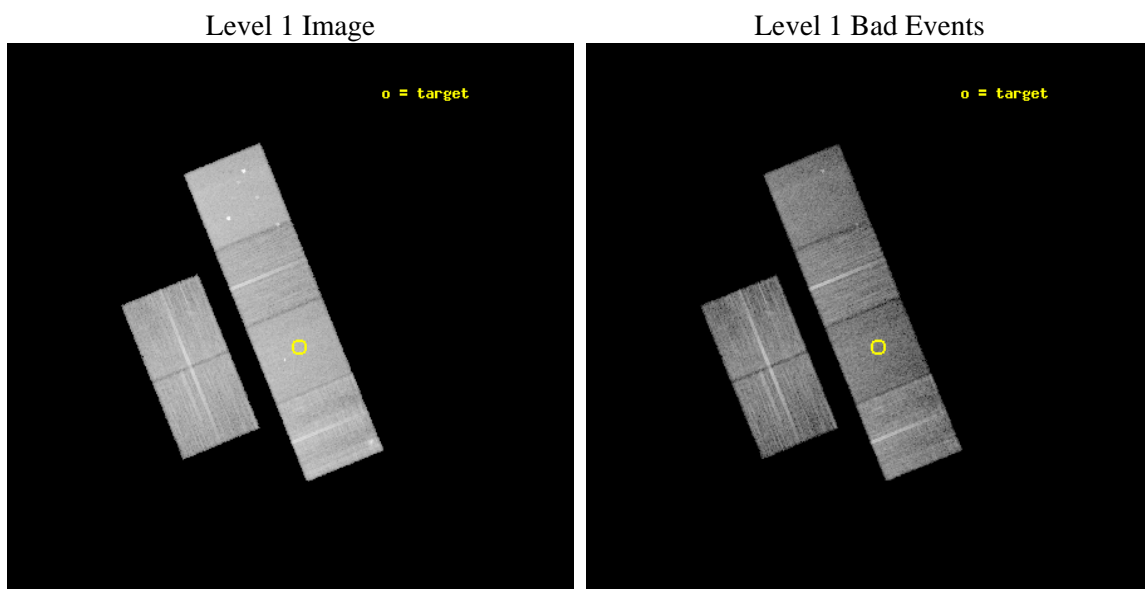
seq_num	401119	Sequence number
obs_id	11084	Observation id
title	X-Ray Binaries In a Nearby Star-Burst Galaxy: A New Lab for Astrophysics.	Proposal title
observer	Dr Silas Laycock	Principal investigator
object	IC 10	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	5.072083	Observer's specified target RA [deg]
dec_targ	59.303778	Observer's specified target Dec [deg]
ra_nom	5.1028236022987	Nominal RA [deg]
dec_nom	59.337828852176	Nominal Dec [deg]
roll_nom	67.894424664842	Nominal Roll [deg]
revision	3	Processing version of data
ontime	14753.89156121	Sum of GTIs [s]
livetime	14567.068902535	Livetime [s]
ontime2	14747.45062077	Sum of GTIs [s]
ontime3	14753.7684412	Sum of GTIs [s]
ontime5	14753.850521207	Sum of GTIs [s]
ontime6	14750.56851089	Sum of GTIs [s]
ontime7	14753.89156121	Sum of GTIs [s]
ontime8	14747.245410562	Sum of GTIs [s]
l2events	182320	Number of level 2 events



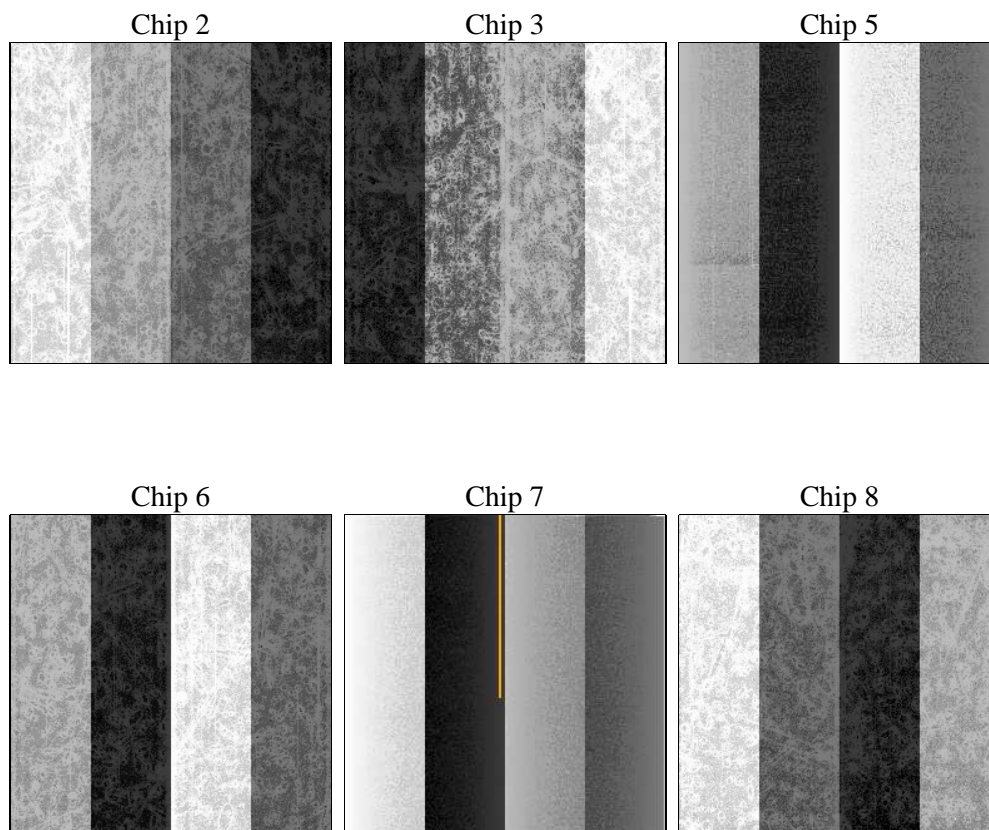
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	14753.89156121	Sum of GTIs [s]
caldsver	4.4.10	 	ontime2	14747.45062077	Sum of GTIs [s]
date	2012-06-26T02:06:23	Date and time of file creation	ontime3	14753.7684412	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	14753.850521207	Sum of GTIs [s]
			ontime6	14750.56851089	Sum of GTIs [s]
			ontime7	14753.89156121	Sum of GTIs [s]
			ontime8	14747.245410562	Sum of GTIs [s]
			l1events	790390	Number of level 1 events

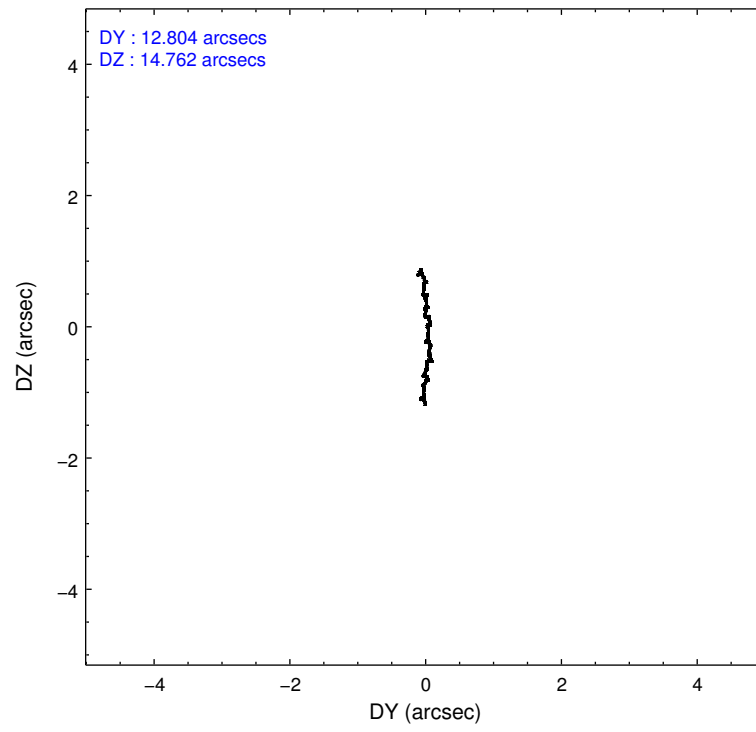
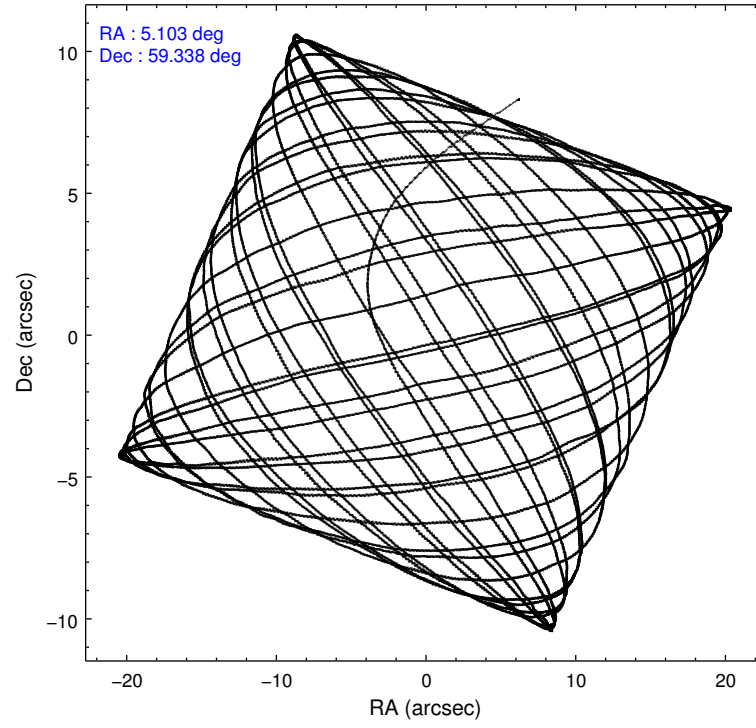
2.1.4 Events

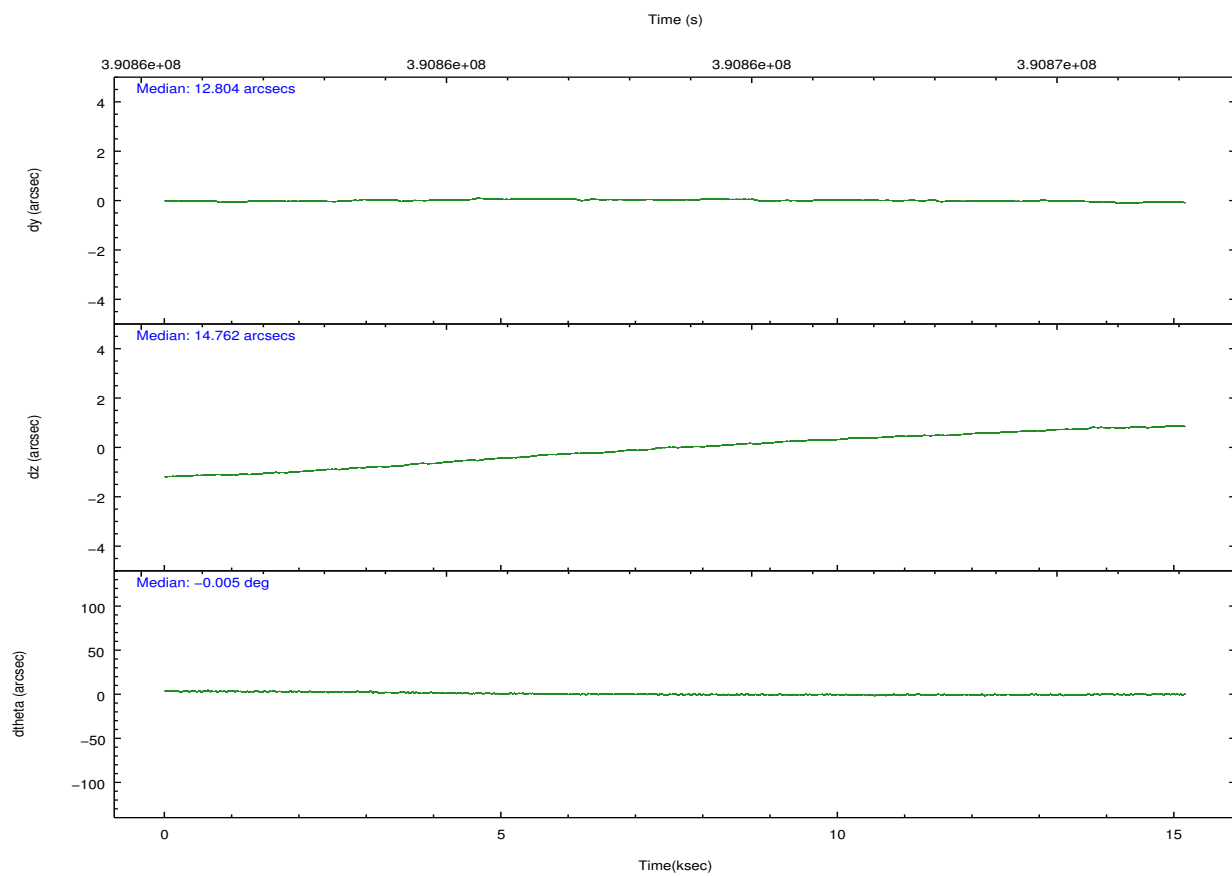
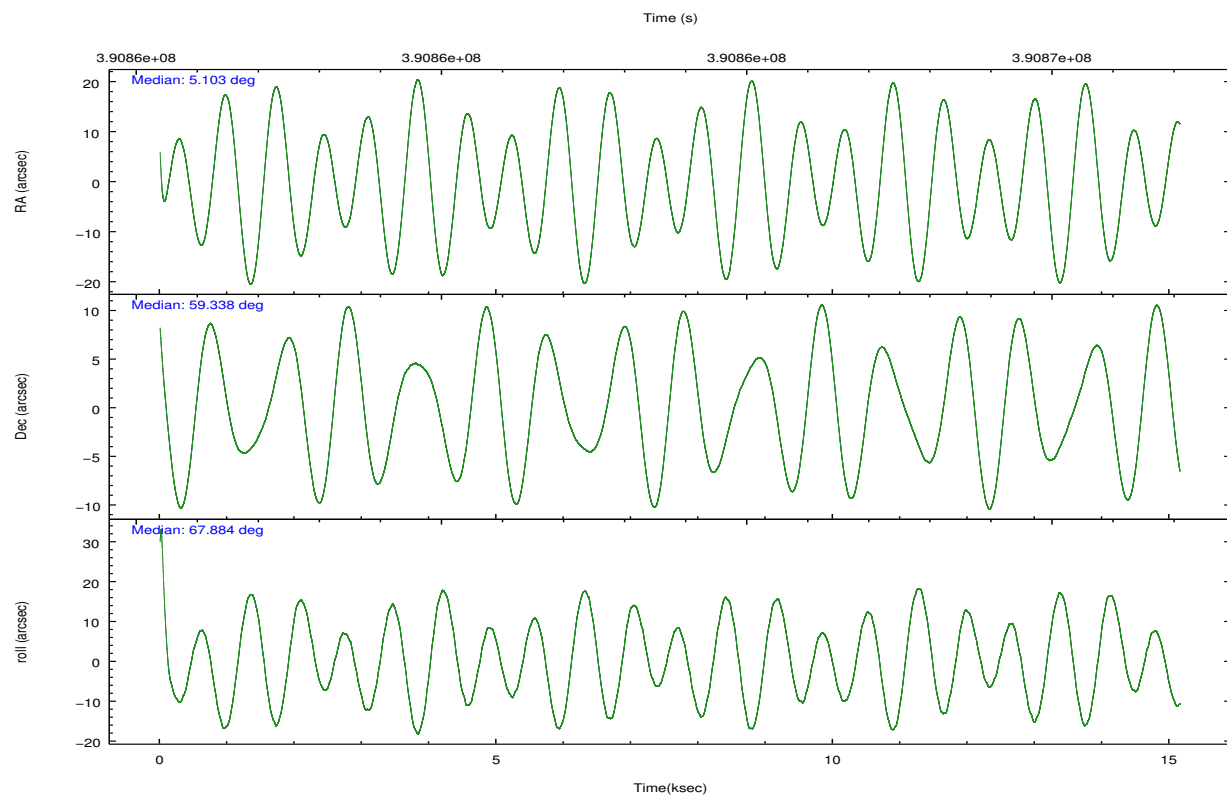
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	114082	106955	169000	114636	135767	149950	grade 0 events	4248	4034	9624	4394	5873	12213
rejected events	102376	95652	84213	102299	73411	110519		3%	3%	5%	3%	4%	8%
rejected %	89%	89%	49%	89%	54%	73%	grade 1 events	66	63	617	68	183	133
								0%	0%	0%	0%	0%	0%
							grade 2 events	2868	2425	25020	2783	12944	9045
								2%	2%	14%	2%	9%	6%
							grade 3 events	1212	1257	3343	1243	5577	3910
								1%	1%	1%	1%	4%	2%
							grade 4 events	1206	1355	3262	1243	5683	3769
								1%	1%	1%	1%	4%	2%
							grade 5 events	4266	4888	13087	4975	14242	7109
								3%	4%	7%	4%	10%	4%
							grade 6 events	2175	2239	43578	2681	32314	10501
								1%	2%	25%	2%	23%	7%
							grade 7 events	98041	90694	70469	97249	58951	103270
								85%	84%	41%	84%	43%	68%

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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	5.110877	5.102823602298713	CCD I2 on	O2	Y
[deg] Pointing Dec	59.310811	59.33782885217597	CCD I3 on	O3	Y
[deg] Pointing Roll	67.730845	67.89442466484155	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O5	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O4	Y
[s] Observation start time (MET)	390856326.184000	390855205.89142	CCD S5 on	N	N
Observation start date	2010-05-21T19:11:00	2010-05-21T18:53:25	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	390871326.184000	390872812.82982	On-chip summing requested	N	N
Observation end date	2010-05-21T23:21:00	2010-05-21T23:46:52	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



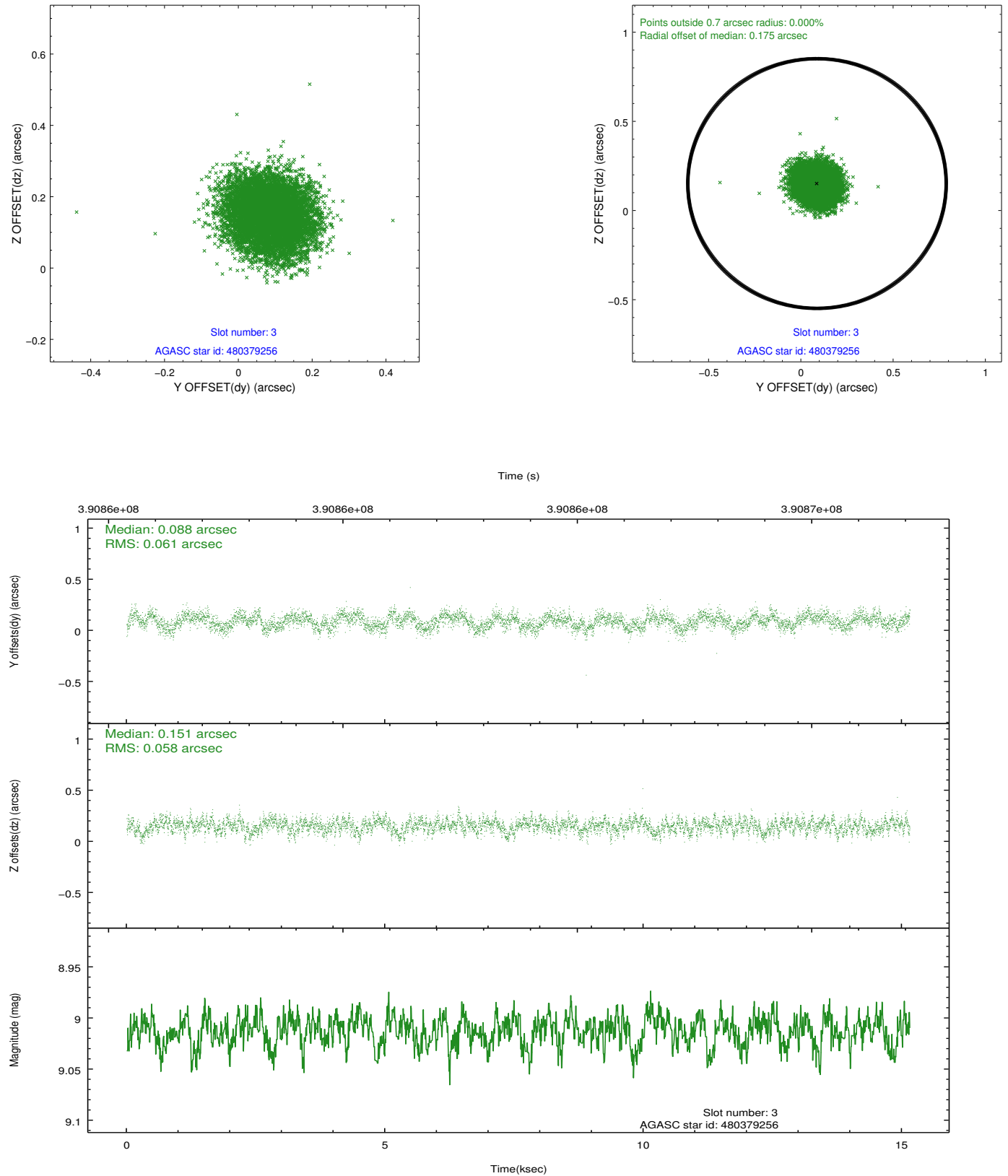


Slot Statistics

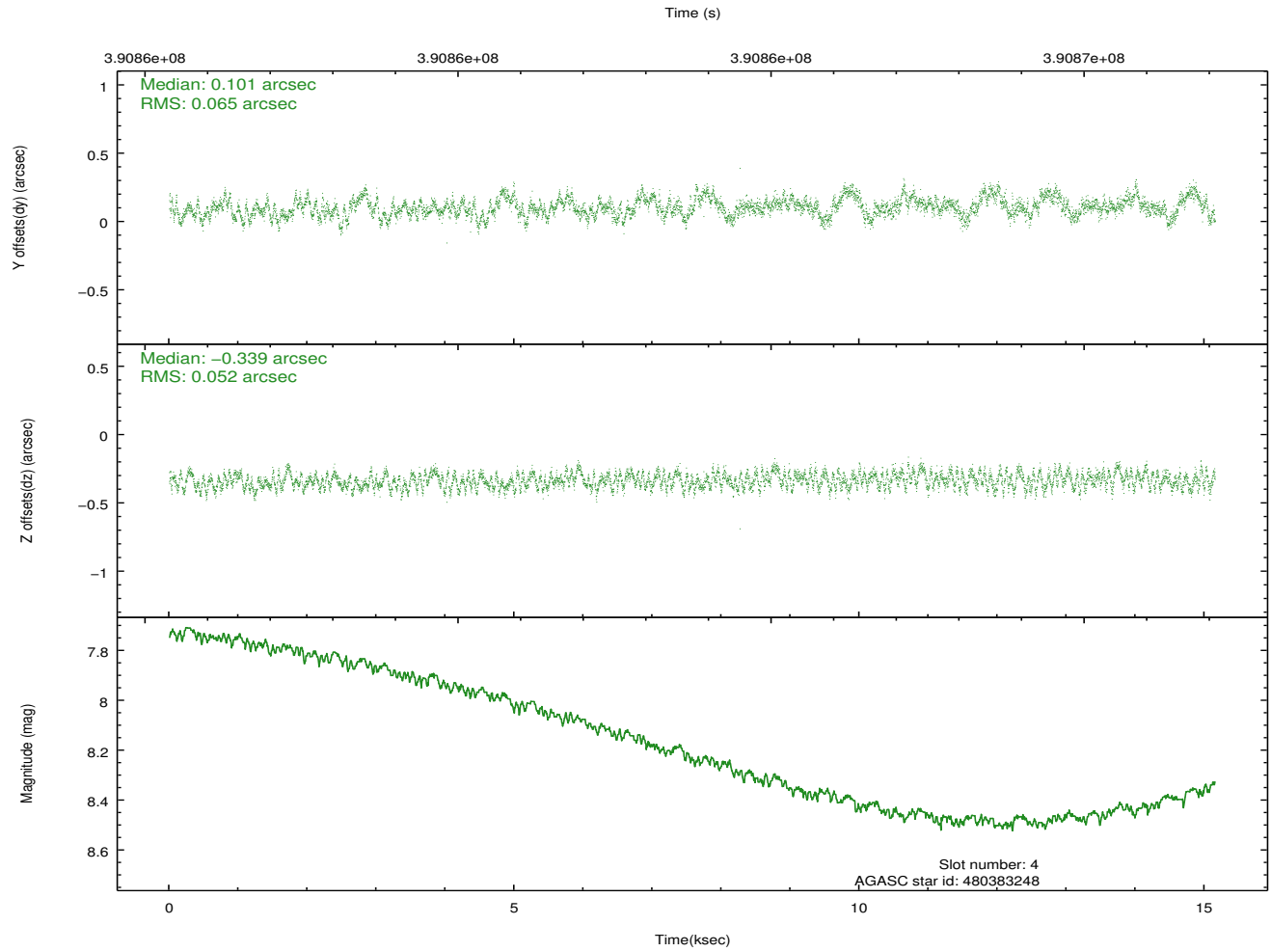
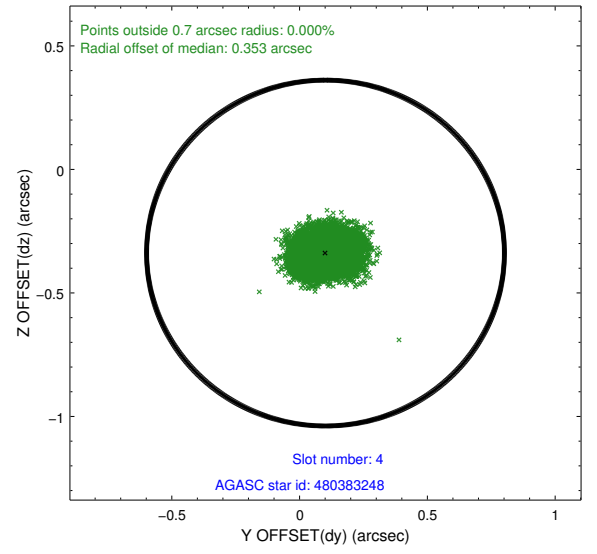
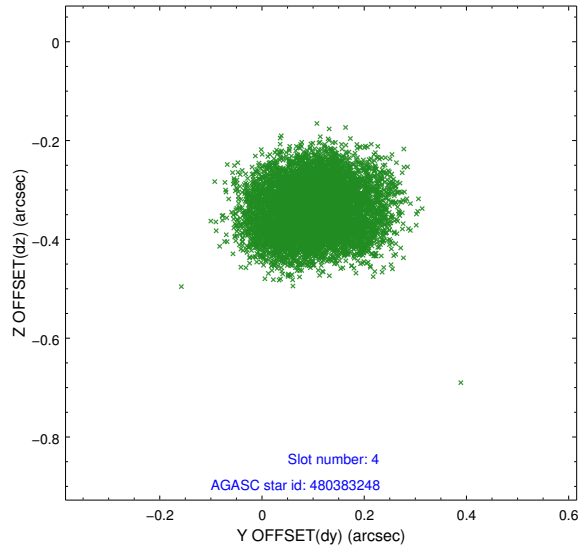
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.92	3696	-0.043	-0.022	0.014	0.027	0.000000	0.000000	-765.73	-1736.08
1	FID	ACIS-S-4	7.01	3696	0.140	0.026	0.015	0.026	0.000000	0.000000	2147.57	172.18
2	FID	ACIS-S-5	7.04	3696	-0.132	0.002	0.014	0.023	0.000000	0.000000	-1818.31	166.12
3	GUIDE	480379256	9.01	7387	0.088	0.151	0.091	0.142	5.631259	59.673209	1569.57	-379.16
4	GUIDE	480383248	8.23	7388	0.101	-0.339	0.090	0.140	4.828098	59.139041	-768.54	249.03
5	GUIDE	480388568	8.32	7390	0.041	-0.147	0.076	0.123	3.952528	59.440255	-355.29	2145.61
6	GUIDE	480382592	8.58	7390	-0.046	-0.015	0.066	0.108	3.877912	59.161998	-1338.69	1910.74
7	GUIDE	480391984	9.10	7367	-0.185	0.349	0.091	0.151	6.240867	58.961592	-351.76	-2409.88

2.4 Star Slots

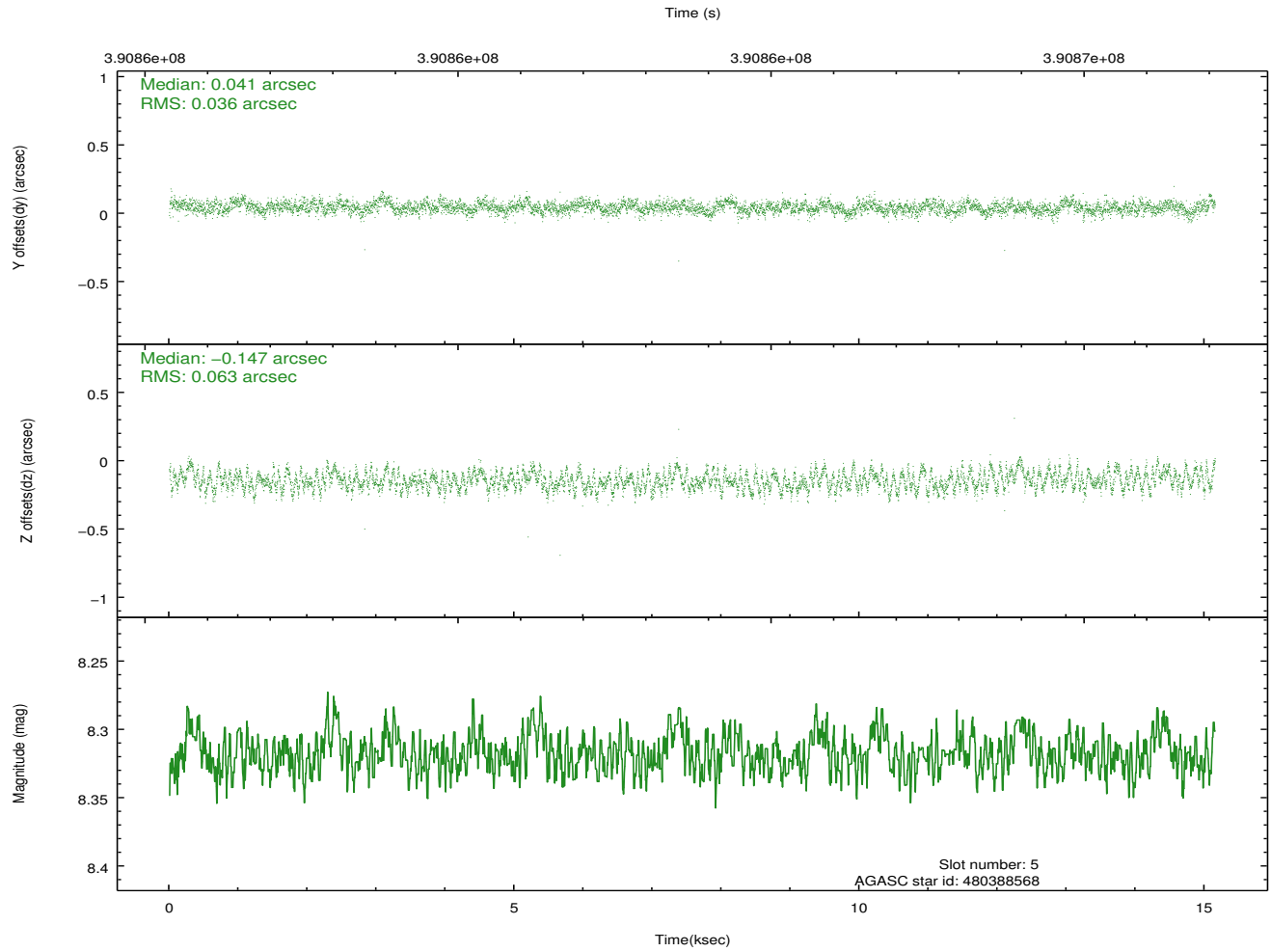
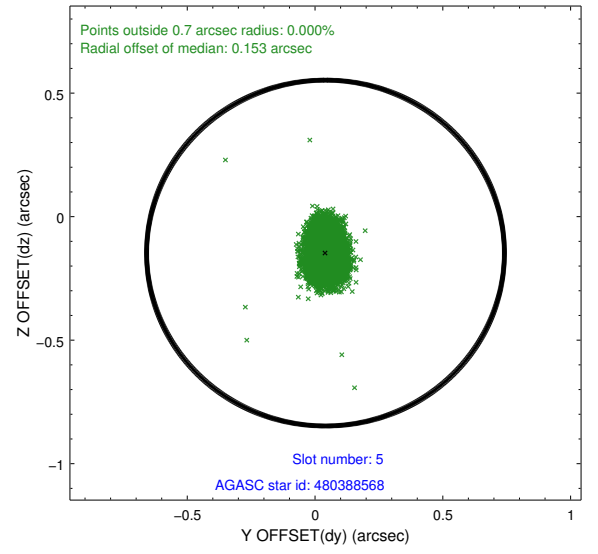
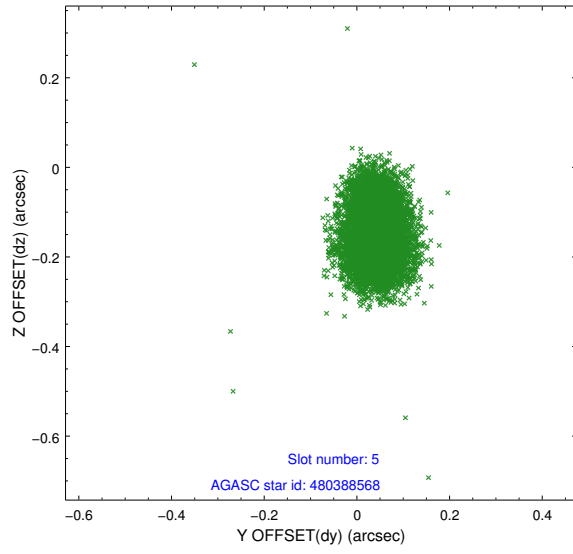
2.4.1 Slot 3



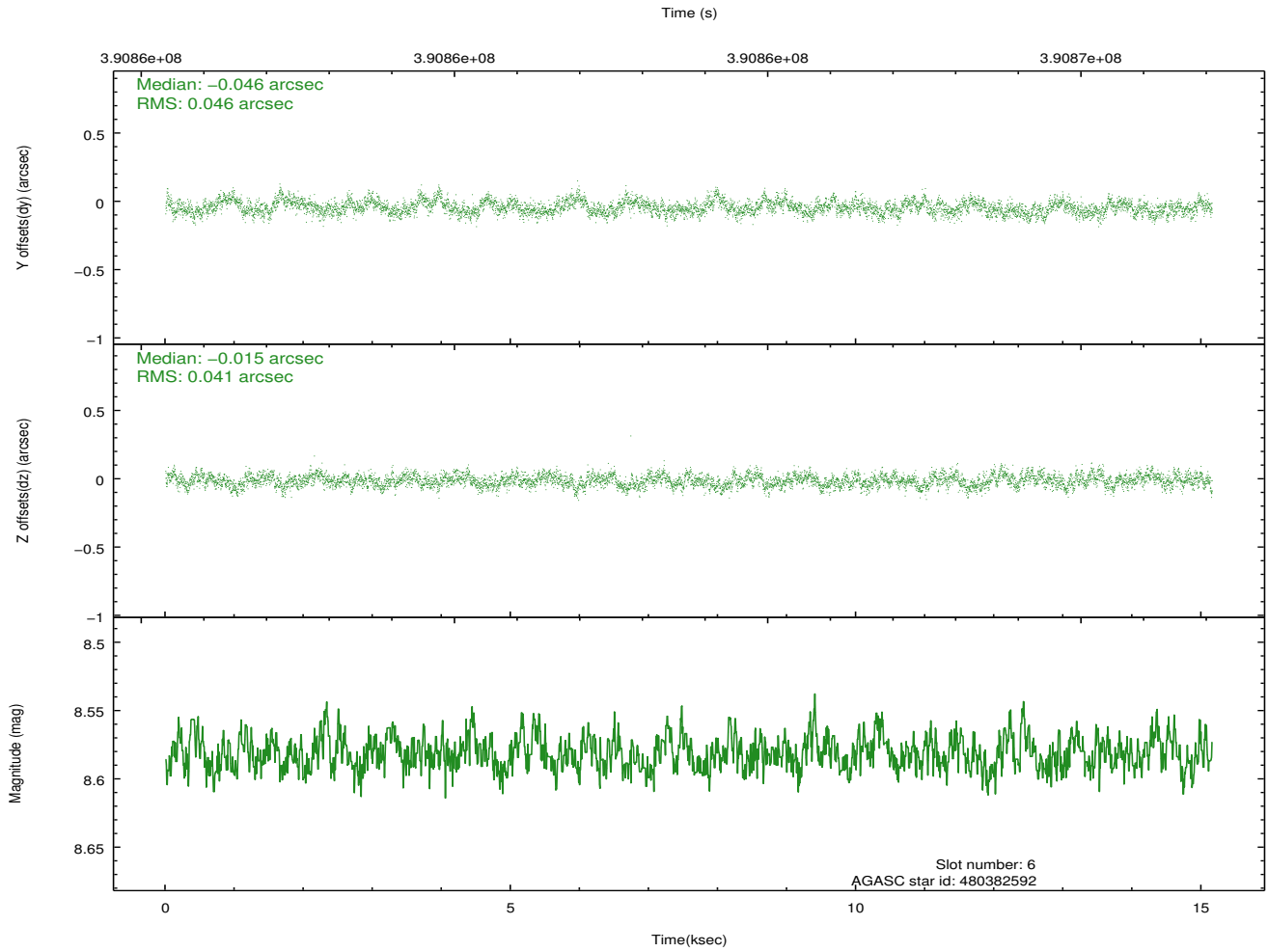
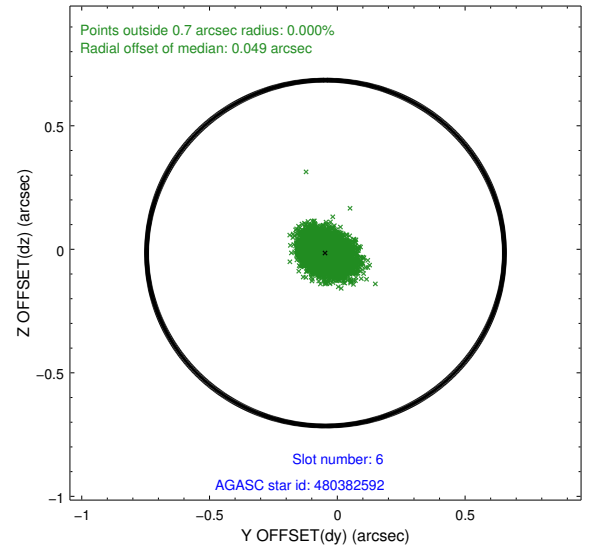
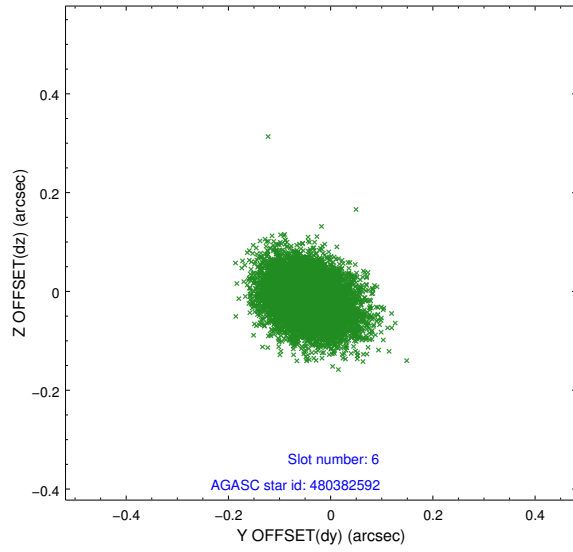
2.4.2 Slot 4



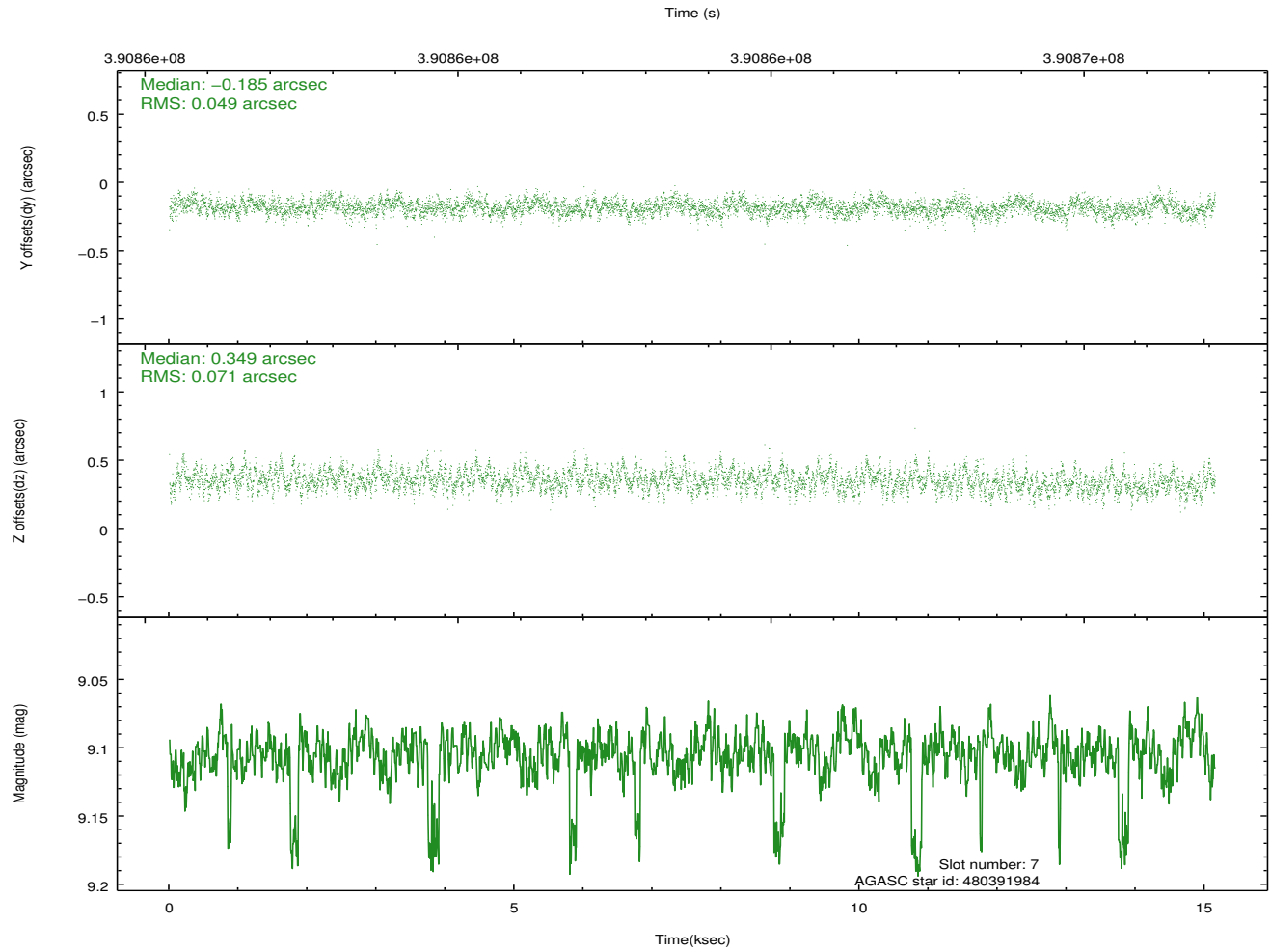
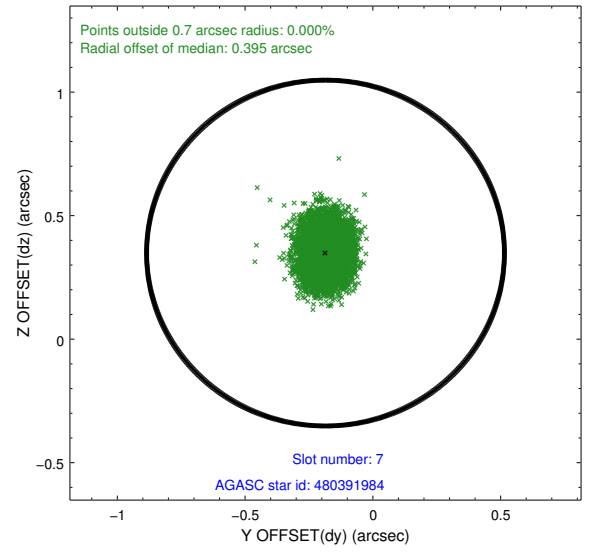
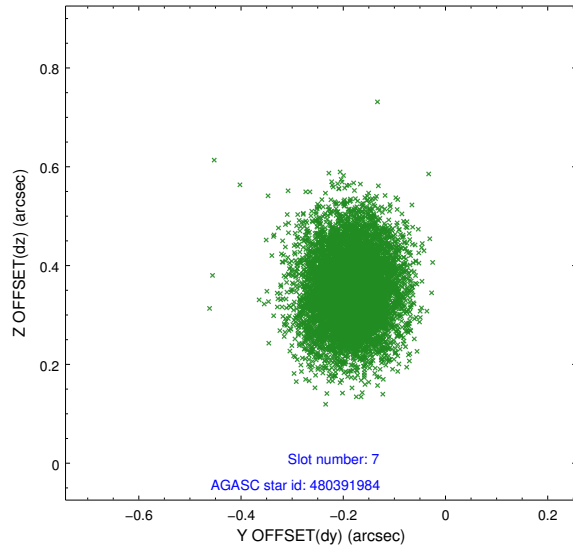
2.4.3 Slot 5



2.4.4 Slot 6

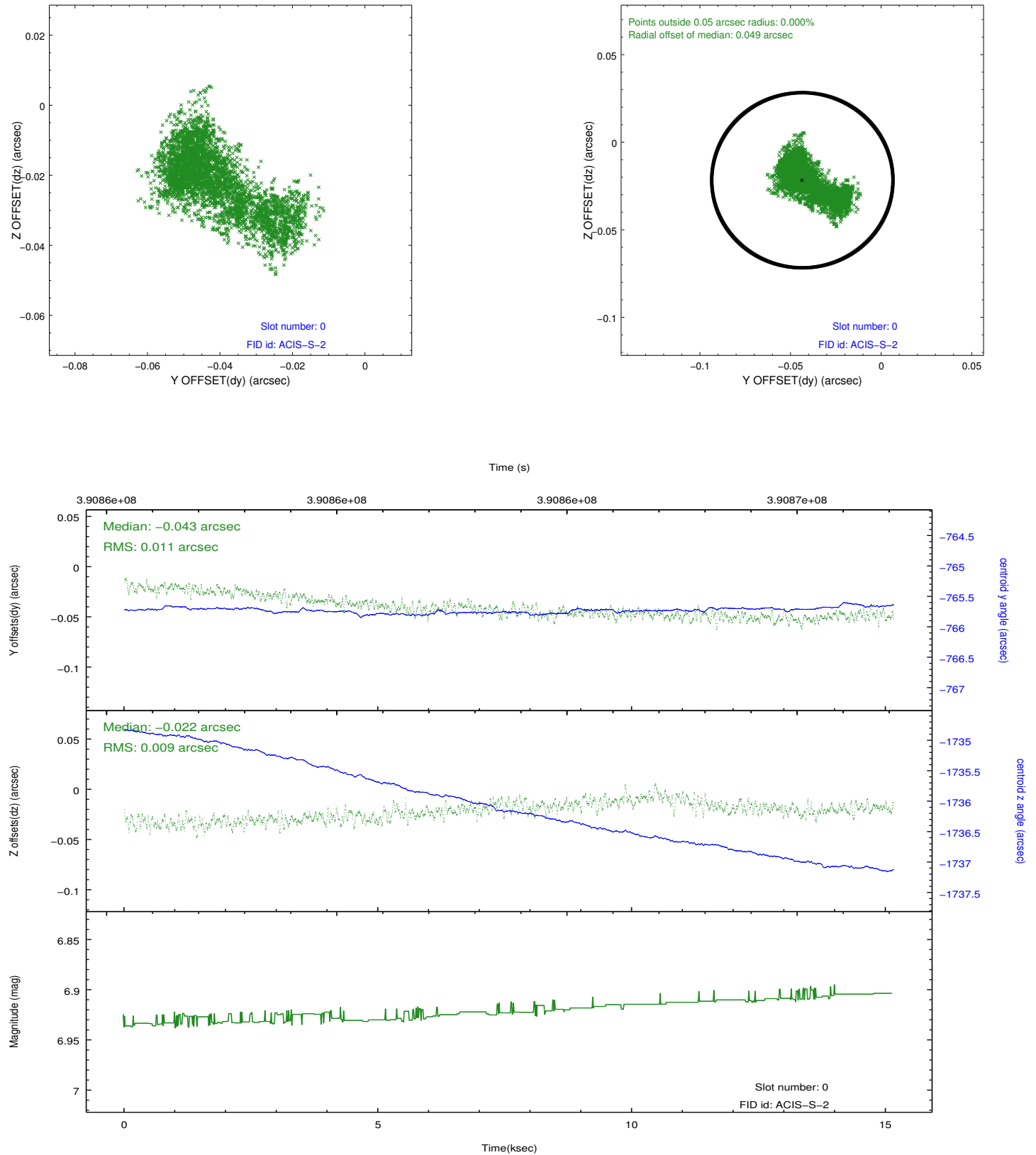


2.4.5 Slot 7

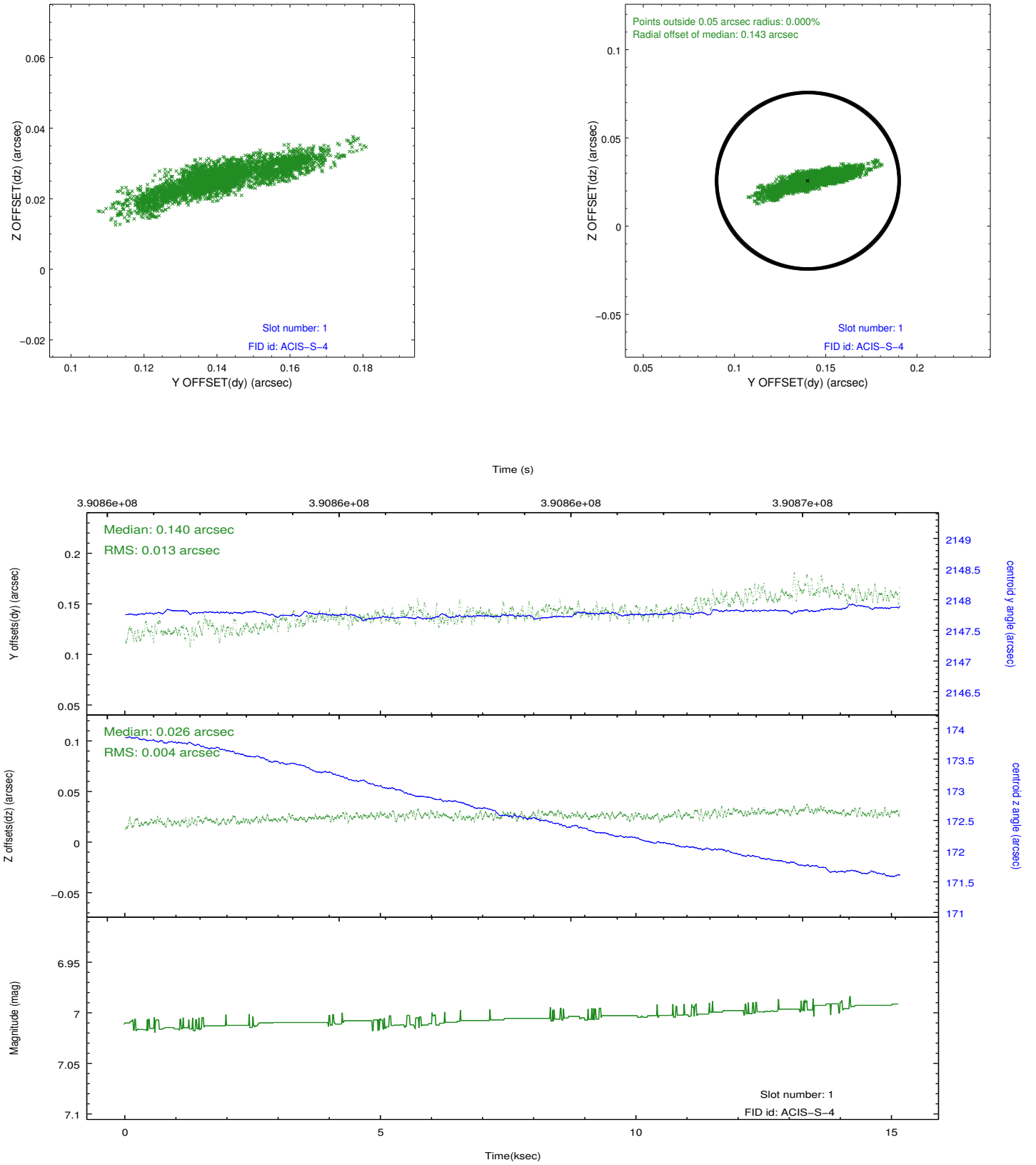


2.5 FID Slots

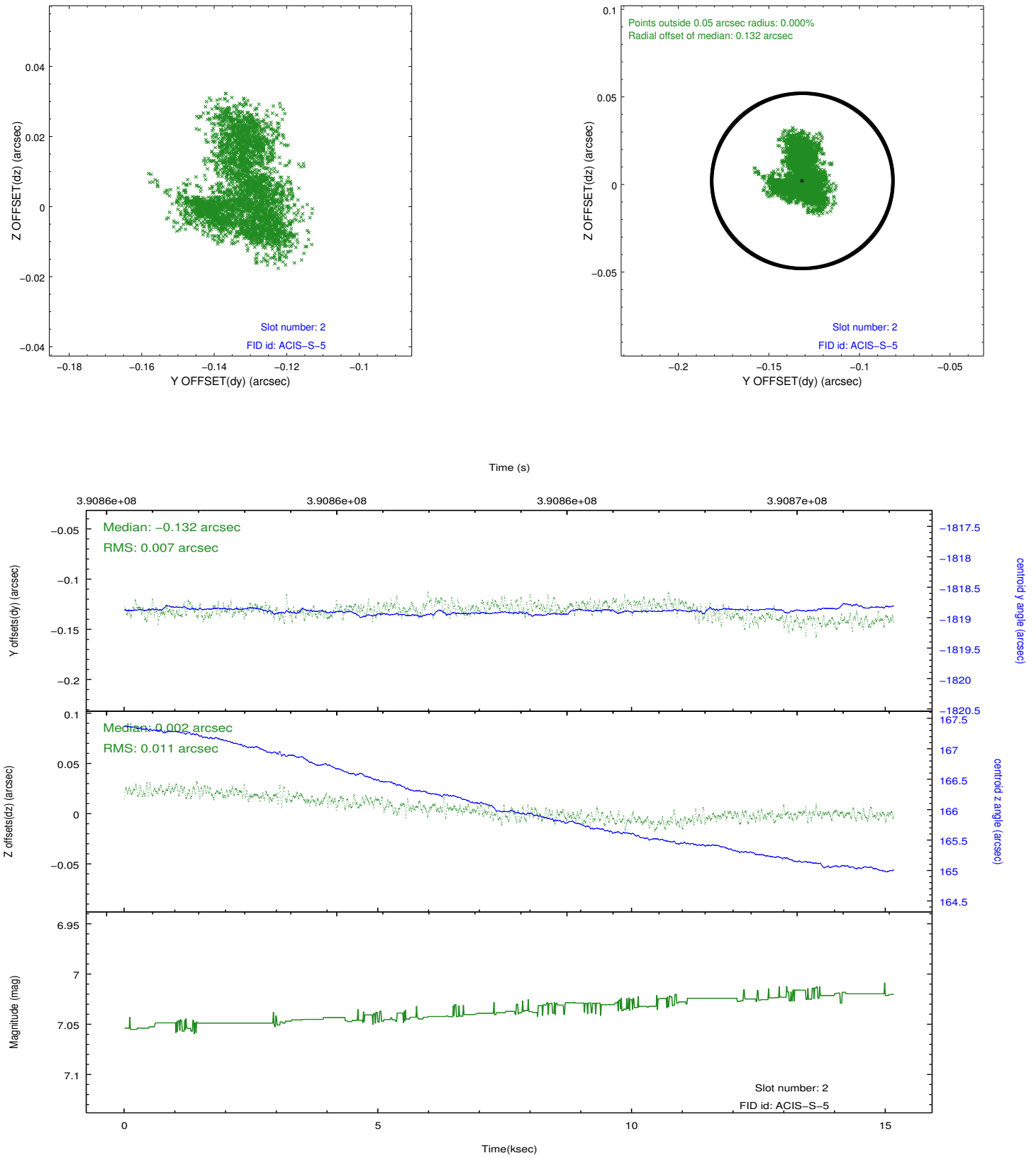
2.5.1 Slot 0



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)	2012.07.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.7538915

A.2 Comments

Monitor constraint met, follows obs11083 by 47 days.

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A spatial region of the original bias map for CCD = 3 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 = 3 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: (5.33900,59.13843), (5.39031,59.12754), (5.45296,59.20559), (5.41219,59.22974)