

V&V Reference Report

L2 ASCDS Version : 10.5.1.1

Observation 18776 - L2 Version 2
Chandra X-Ray Center

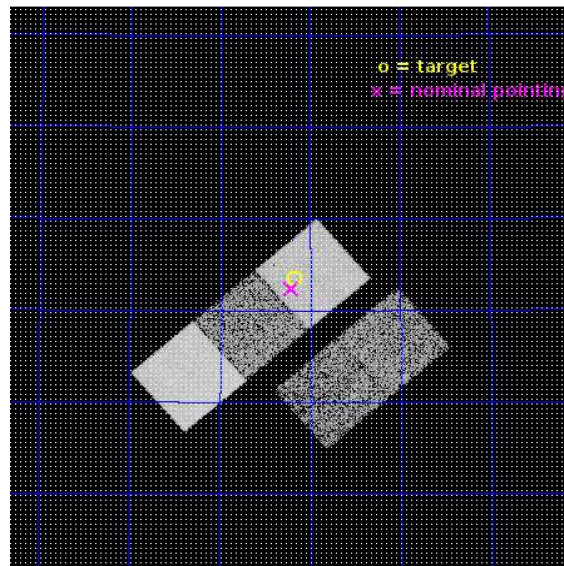
L2 Processing Date : Oct 19 2016

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1 Front

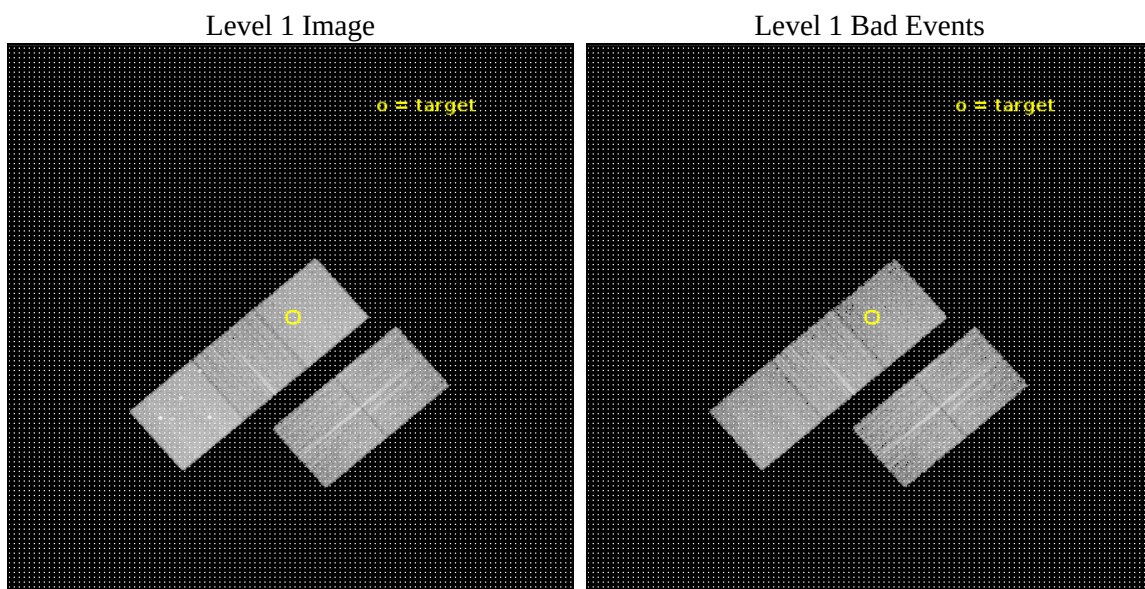
seq_num	801651	Sequence number
obs_id	18776	Observation id
title	Probing the extreme mass peaks at $z>0.7$	Proposal title
observer	Monique ARNAUD	Principal investigator
object	PLCK G079.95+46.96	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	240.54229	Observer's specified target RA [deg]
dec_targ	51.059221	Observer's specified target Dec [deg]
ra_nom	240.55230314027	Nominal RA [deg]
dec_nom	51.039582676309	Nominal Dec [deg]
roll_nom	319.27420988986	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10055.600812435	Sum of GTIs [s]
livetime	9924.2169849951	Livetime [s]
ontime2	10055.436652422	Sum of GTIs [s]
ontime3	10055.477692485	Sum of GTIs [s]
ontime5	10055.559772491	Sum of GTIs [s]
ontime6	10055.518732429	Sum of GTIs [s]
ontime7	10055.600812435	Sum of GTIs [s]
l2events	102052	Number of level 2 events



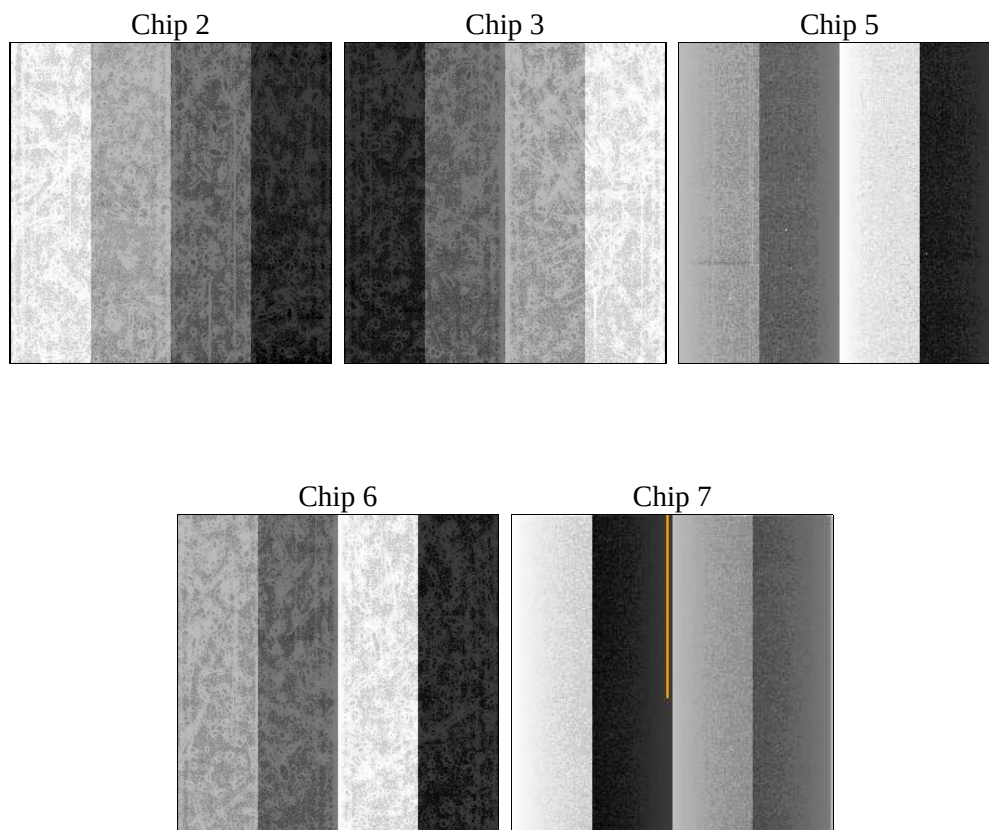
2 OBI

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	10.5.1.1	Processing system revision	ontime	10055.600812435	Sum of GTIs [s]
caldsver	4.7.2	 	ontime2	10055.436652422	Sum of GTIs [s]
date	2016-10-19T22:07:42	Date and time of file creation	ontime3	10055.477692485	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	10055.559772491	Sum of GTIs [s]
			ontime6	10055.518732429	Sum of GTIs [s]
			ontime7	10055.600812435	Sum of GTIs [s]
			l1events	399989	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	66413	68145	108751	70565	86115
rejected events	59601	61141	55703	63146	49355
rejected %	89%	89%	51%	89%	57%

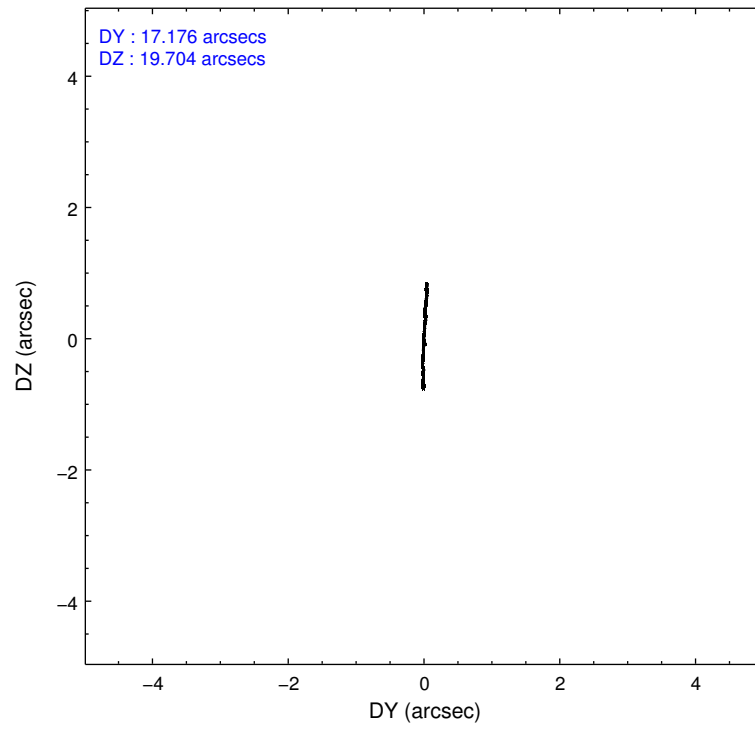
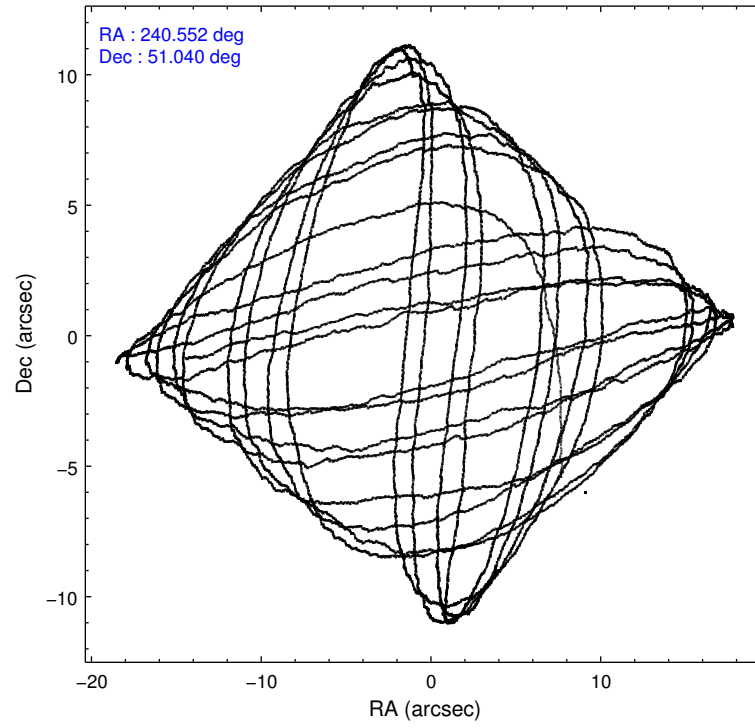
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	2419	2449	5829	2351	2935
	3%	3%	5%	3%	3%
grade 1 events	31	34	405	31	112
	0%	0%	0%	0%	0%
grade 2 events	1572	1491	16103	1818	7787
	2%	2%	14%	2%	9%
grade 3 events	746	757	1551	736	2716
	1%	1%	1%	1%	3%
grade 4 events	682	781	1506	684	2668
	1%	1%	1%	0%	3%
grade 5 events	2542	3143	6988	3028	8075
	3%	4%	6%	4%	9%
grade 6 events	1397	1531	28096	1834	20679
	2%	2%	25%	2%	24%
grade 7 events	57024	57959	48273	60083	41143
	85%	85%	44%	85%	47%

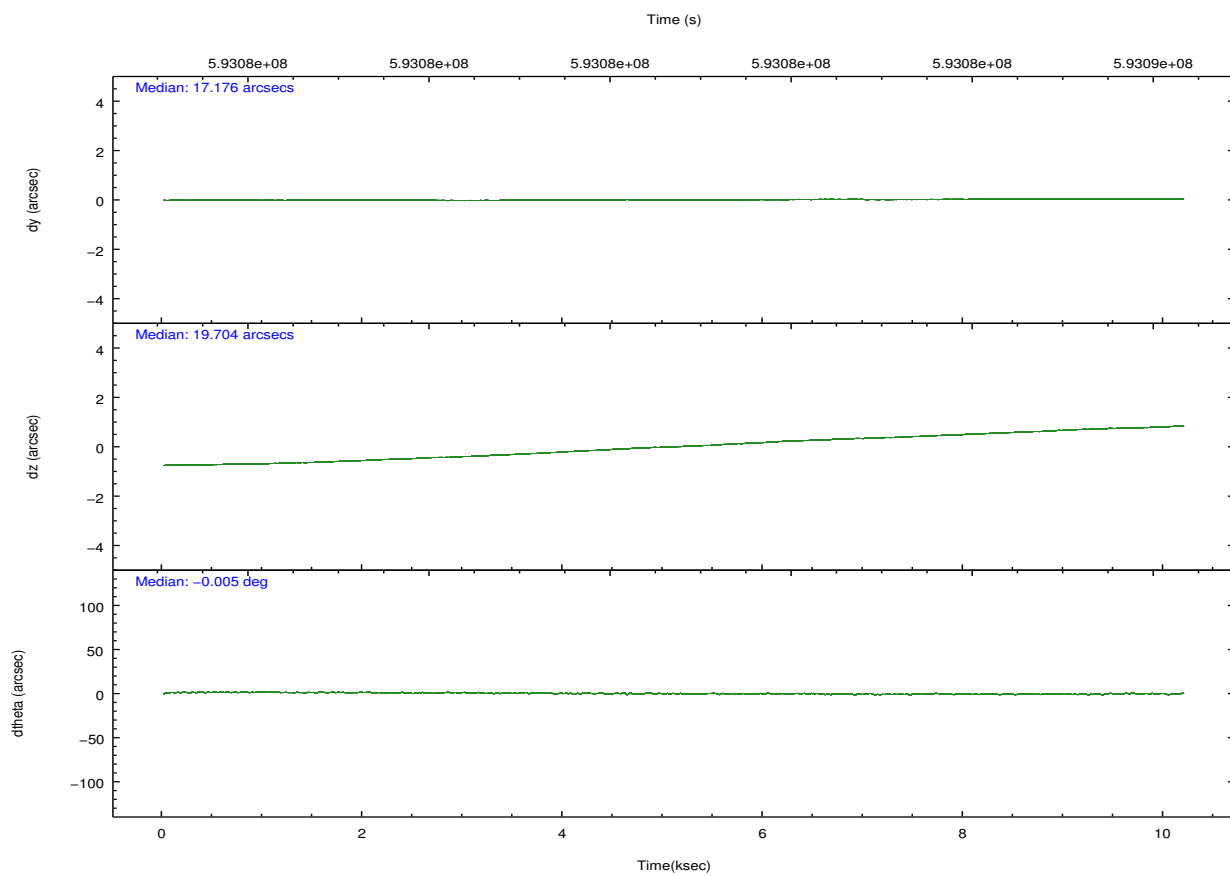
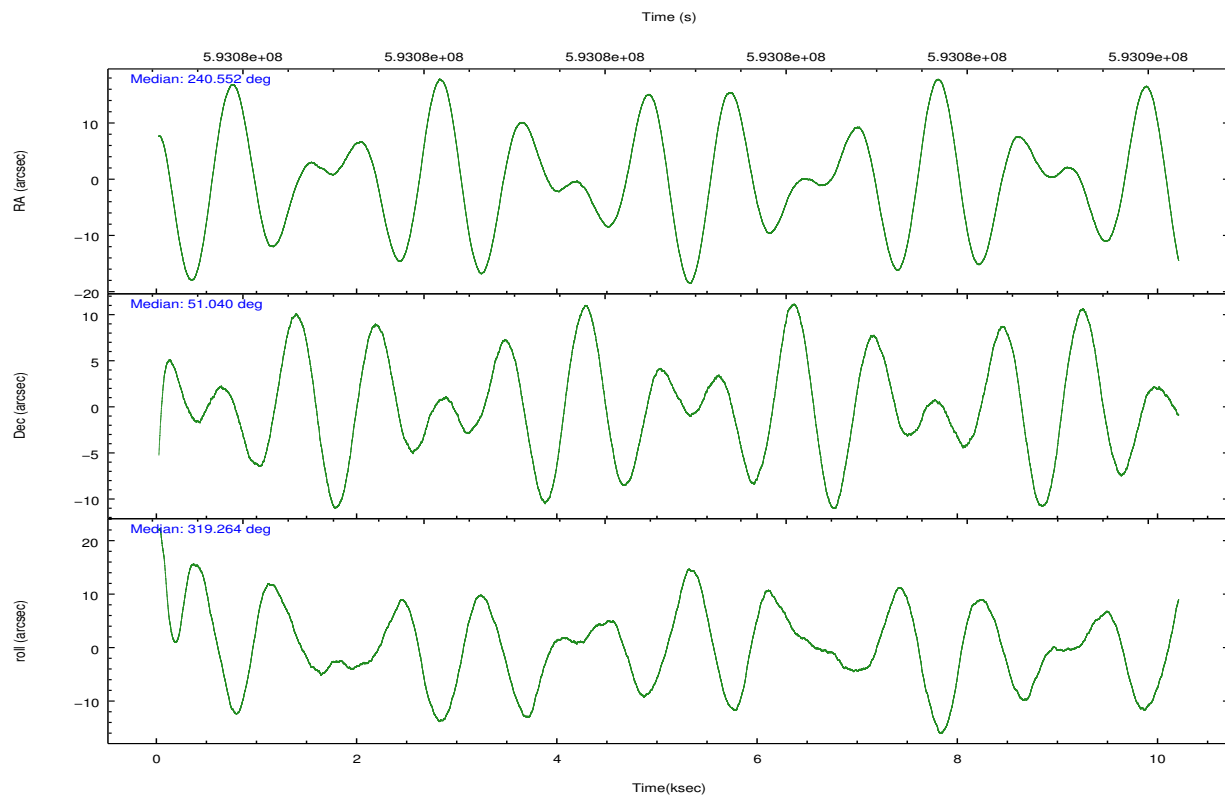
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-23567	ACIS-23567
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	240.509313	240.5523031402687
[deg] Pointing Dec	51.044313	51.03958267630898
[deg] Pointing Roll	319.150983	319.2742098898573
[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)	593075796.184000	593074545.2606601
Observation start date	2016-10-17T07:15:28	2016-10-17T06:55:45
[s] Observation end time (MET)	593085796.184000	593086577.7363501
Observation end date	2016-10-17T10:02:08	2016-10-17T10:16:17
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	O1	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	Y	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	N	N
CCD S5 on	N	N
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	3.1

2.3 Aspect



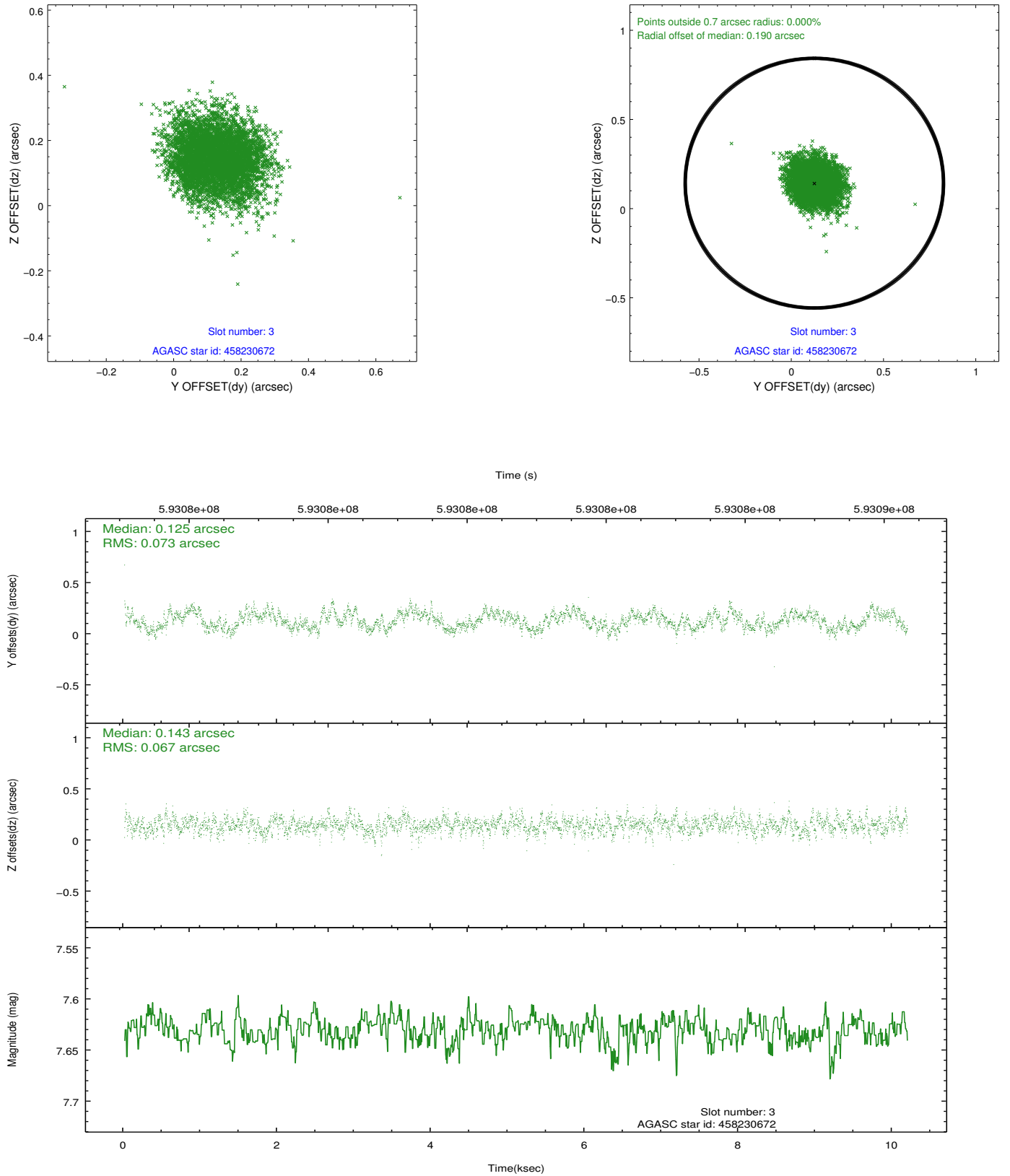


Slot Statistics

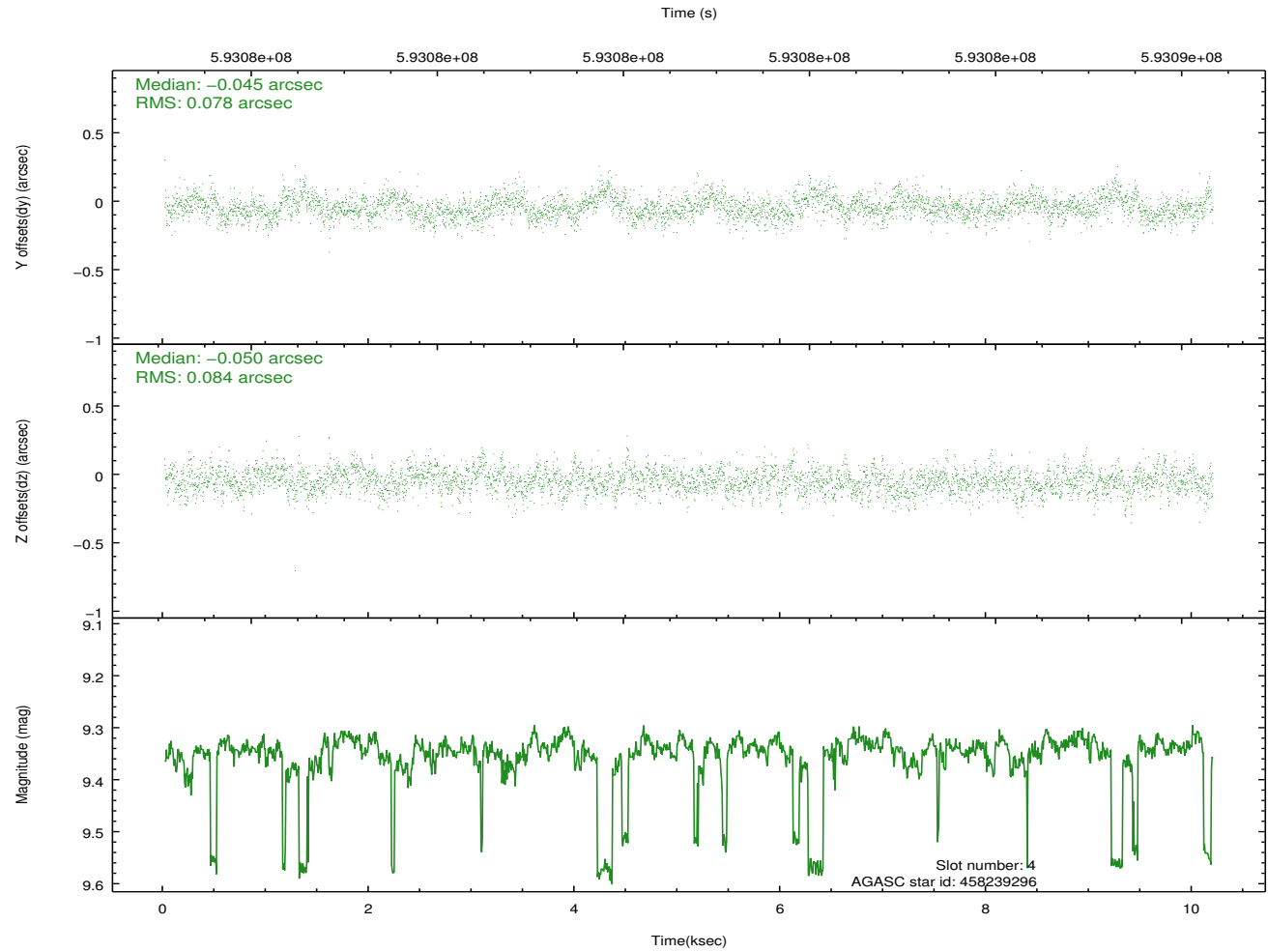
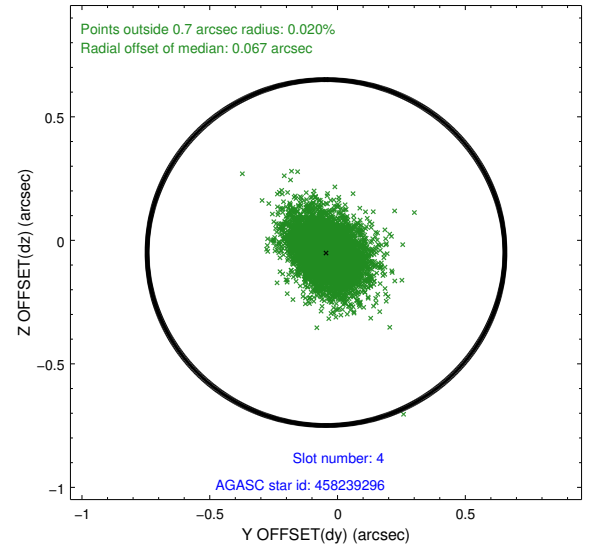
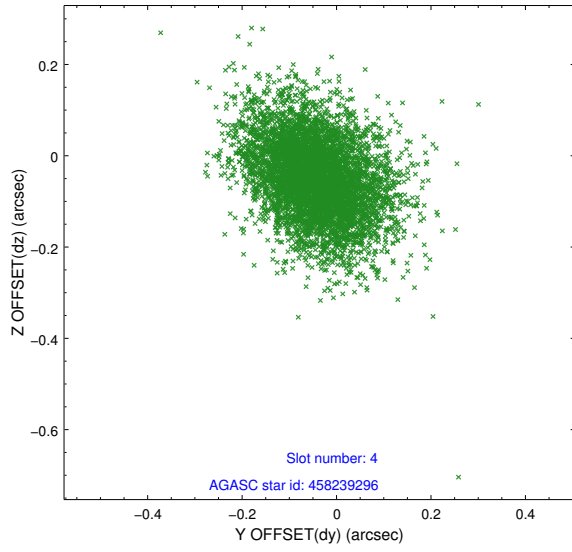
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.15	2485	-0.205	-0.123	0.018	0.030	0.000000	0.000000	-770.39	-1741.30
1	FID		ACIS-S-4	7.25	2485	0.493	0.133	0.008	0.015	0.000000	0.000000	2143.32	166.95
2	FID		ACIS-S-5	7.25	2485	-0.319	-0.001	0.018	0.029	0.000000	0.000000	-1822.71	161.02
3	GUIDE	used	458230672	7.63	4967	0.125	0.143	0.107	0.167	239.781302	50.639262	-308.84	-2183.44
4	GUIDE	used	458239296	9.35	4968	-0.045	-0.050	0.119	0.202	239.994991	51.611541	-2207.19	795.30
5	GUIDE	used	458239480	8.91	4965	0.169	0.302	0.140	0.237	239.600519	50.696906	-757.04	-2291.73
6	GUIDE	used	458360768	9.12	4963	-0.137	-0.297	0.141	0.240	240.951205	50.512724	2015.42	-783.62
7	GUIDE	used	458364672	8.52	4969	-0.122	-0.098	0.120	0.190	240.447741	51.347790	-819.91	735.43

2.4 Star Slots

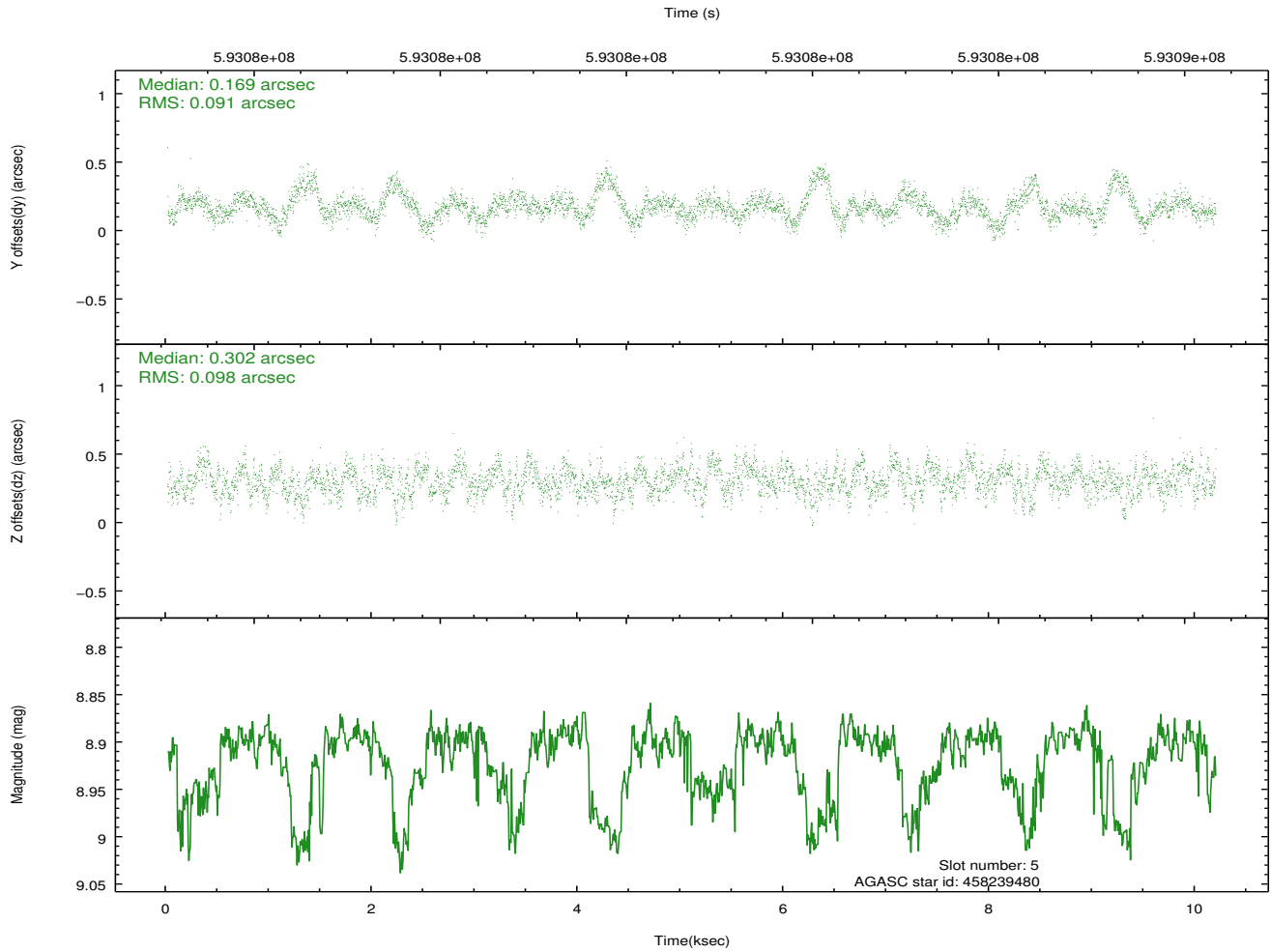
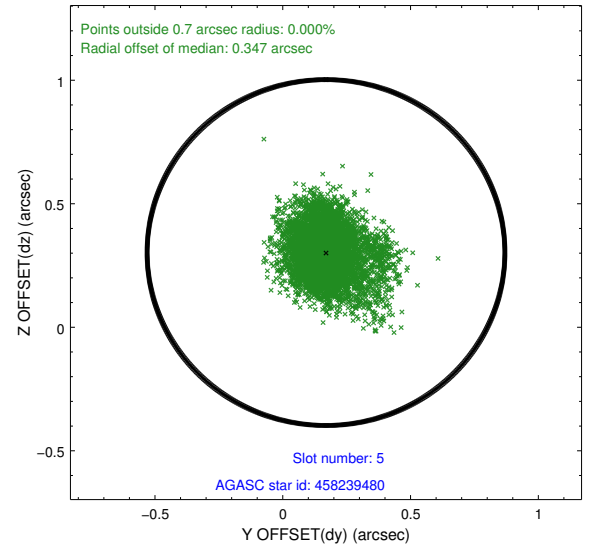
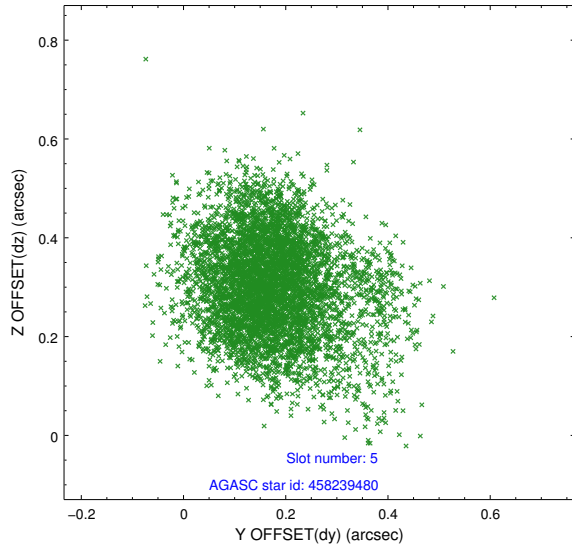
2.4.1 Slot 3



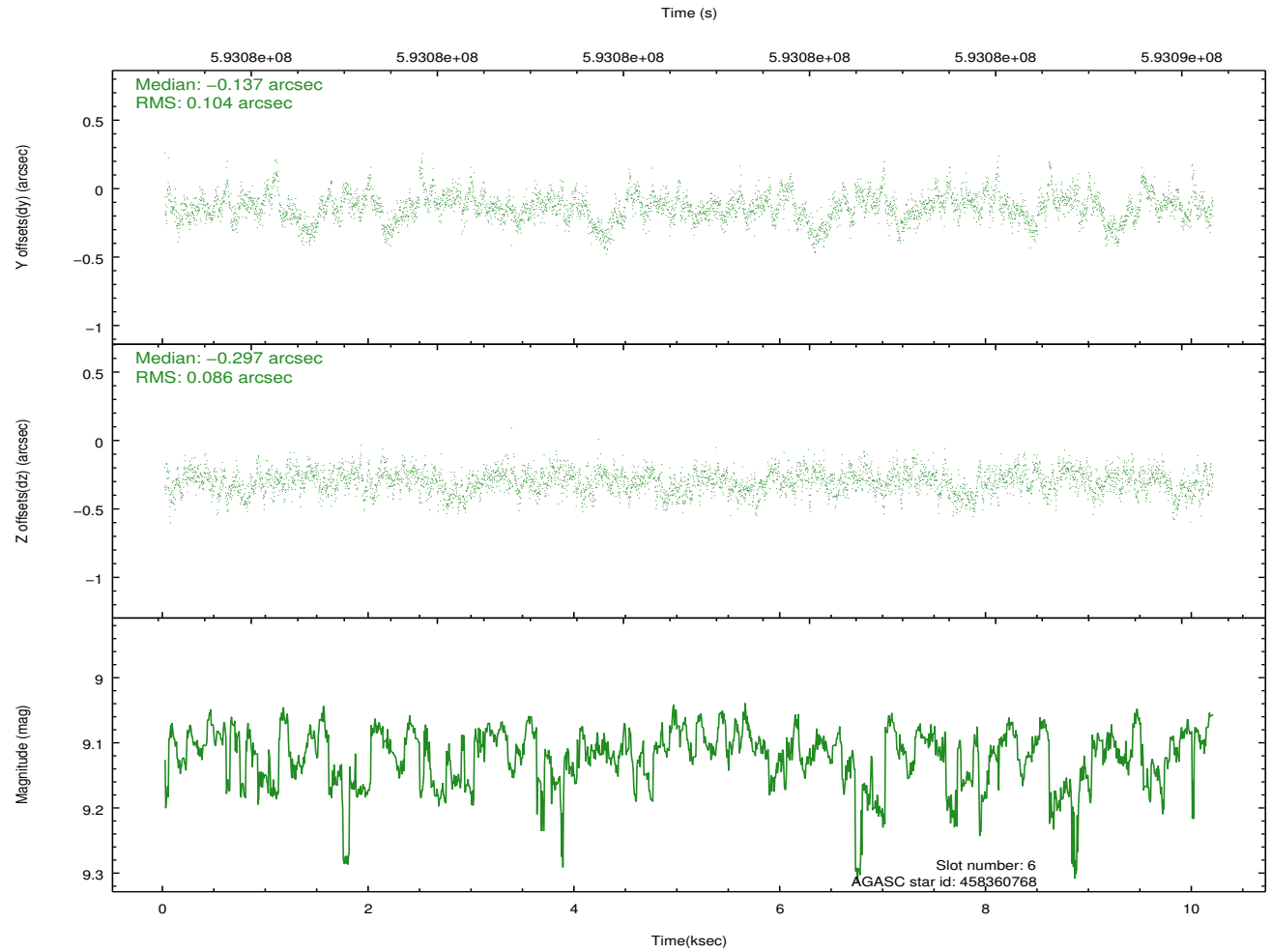
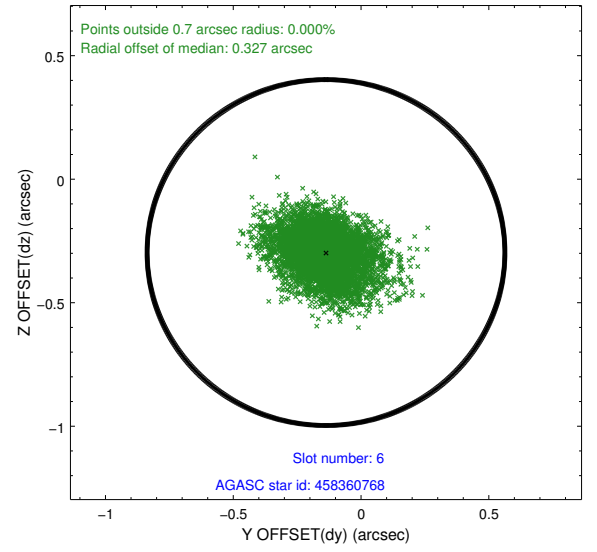
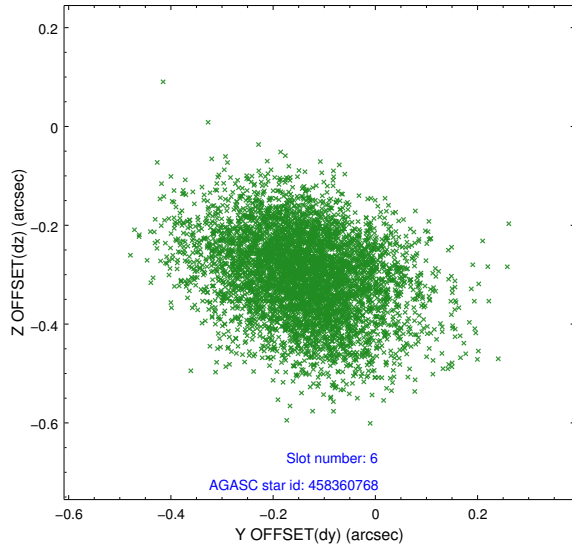
2.4.2 Slot 4



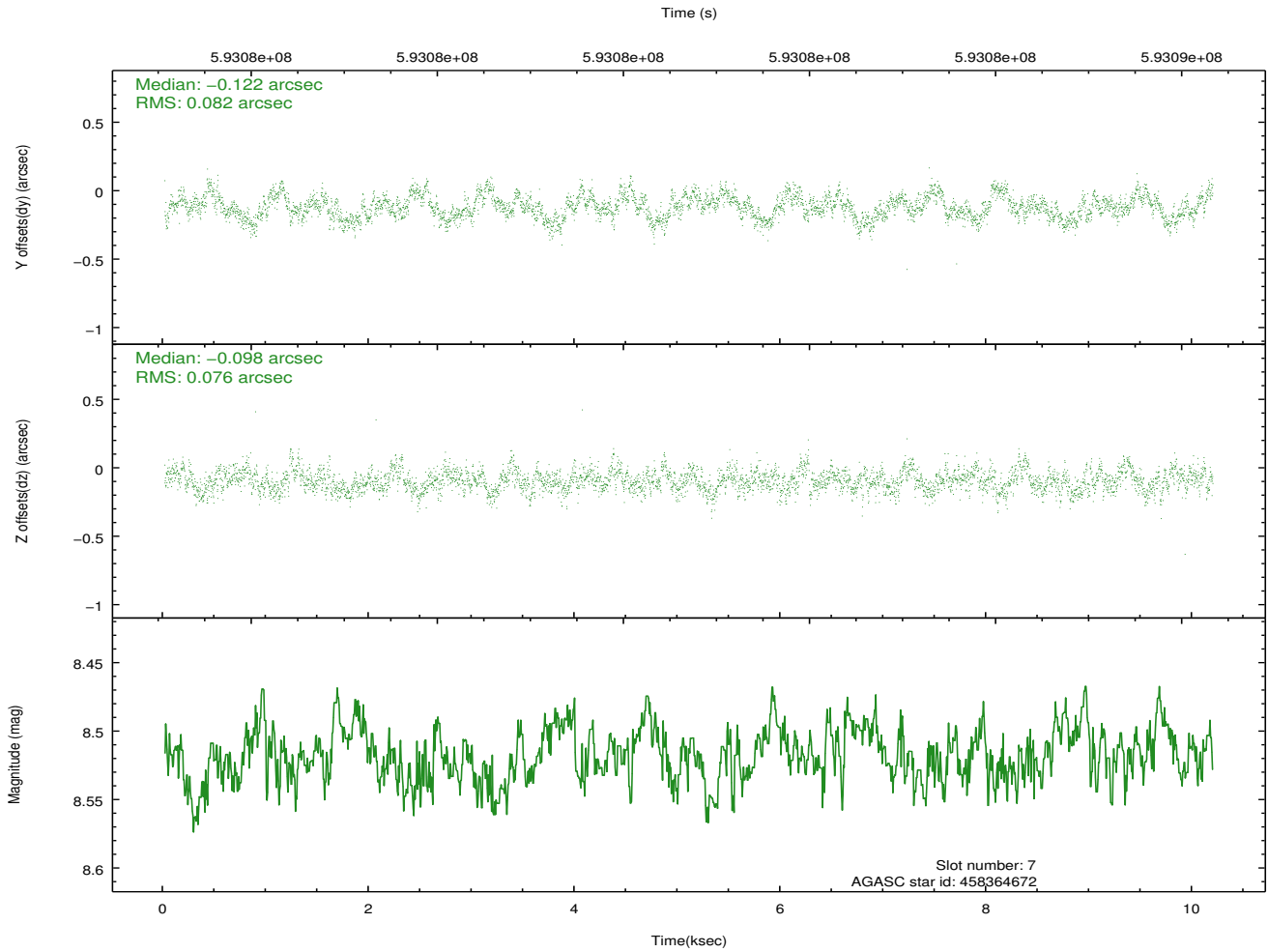
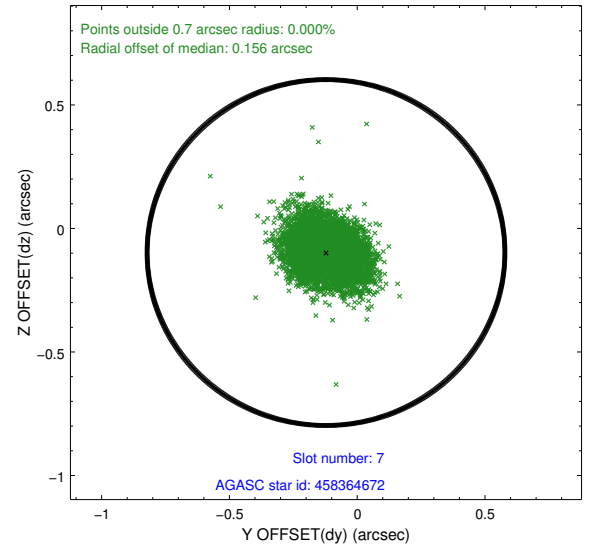
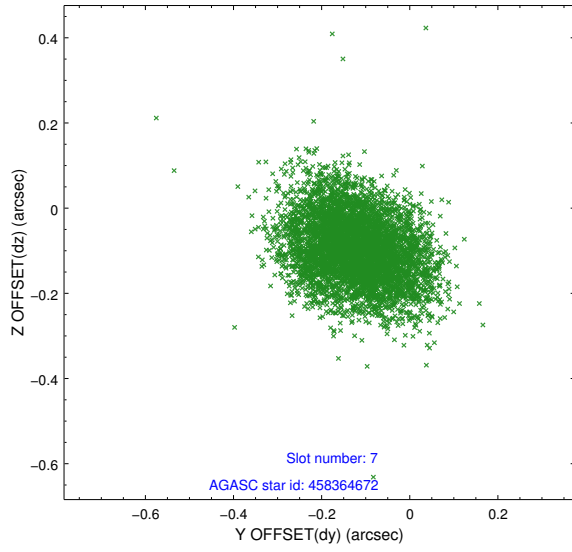
2.4.3 Slot 5



2.4.4 Slot 6

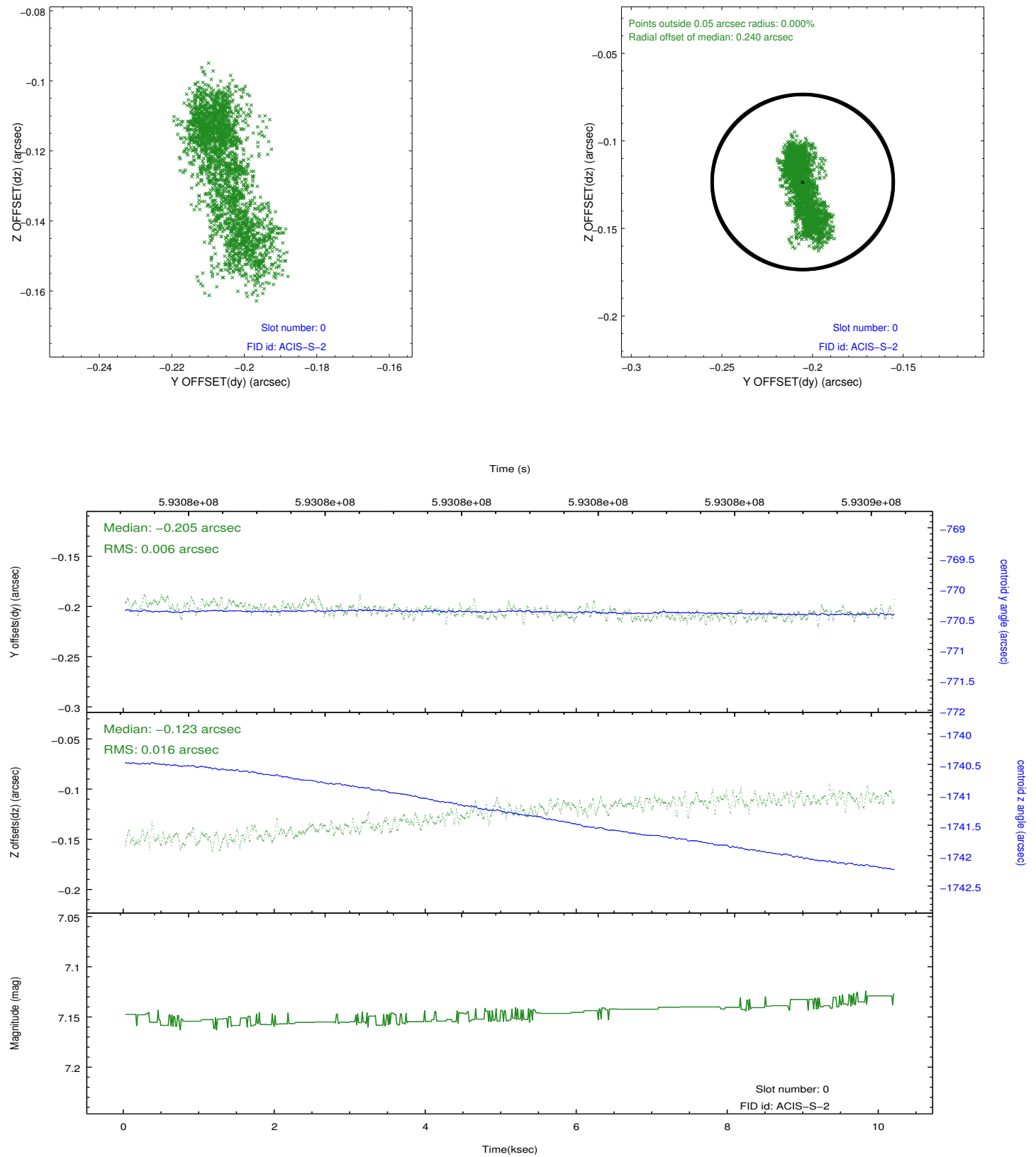


2.4.5 Slot 7

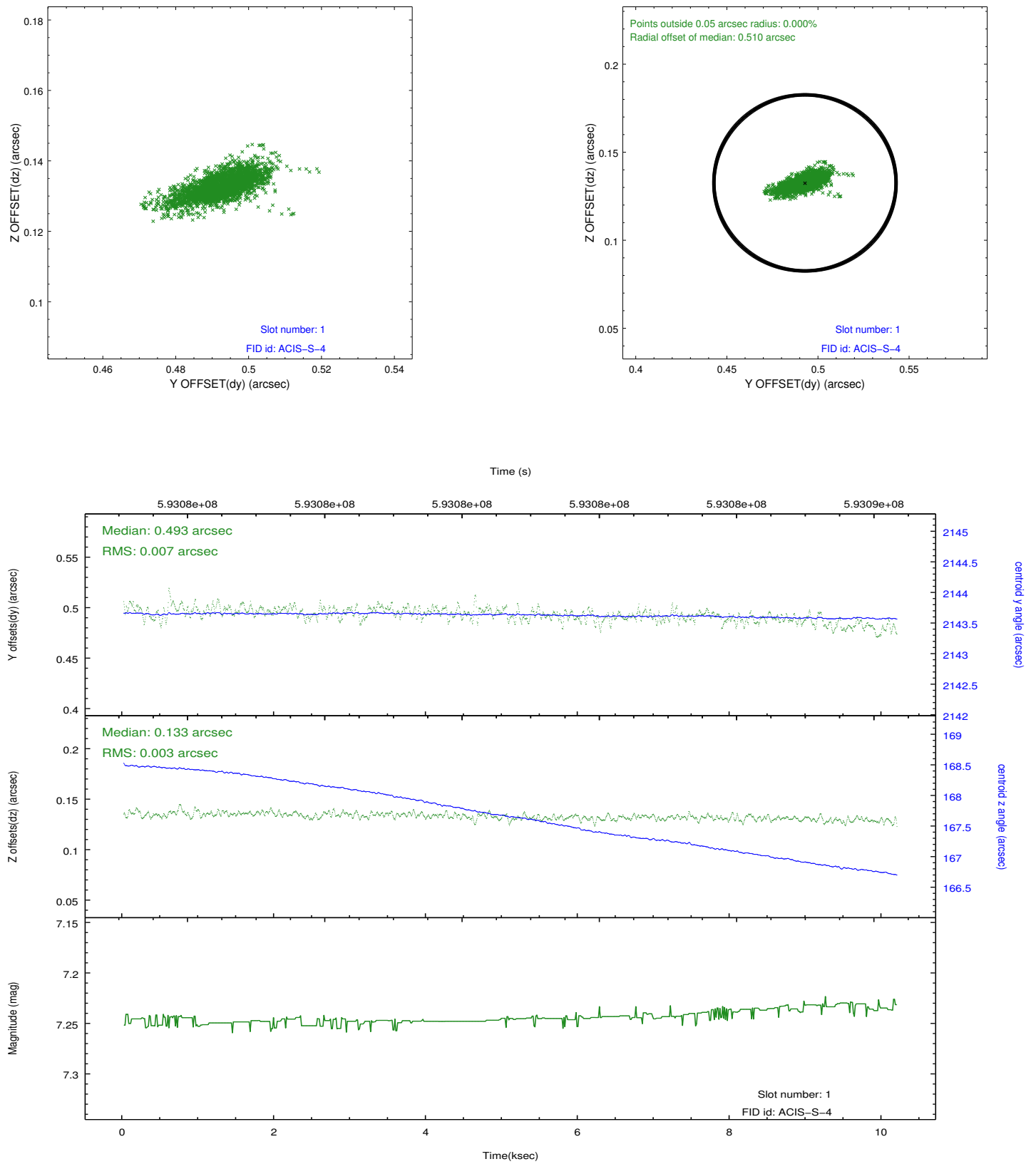


2.5 FID Slots

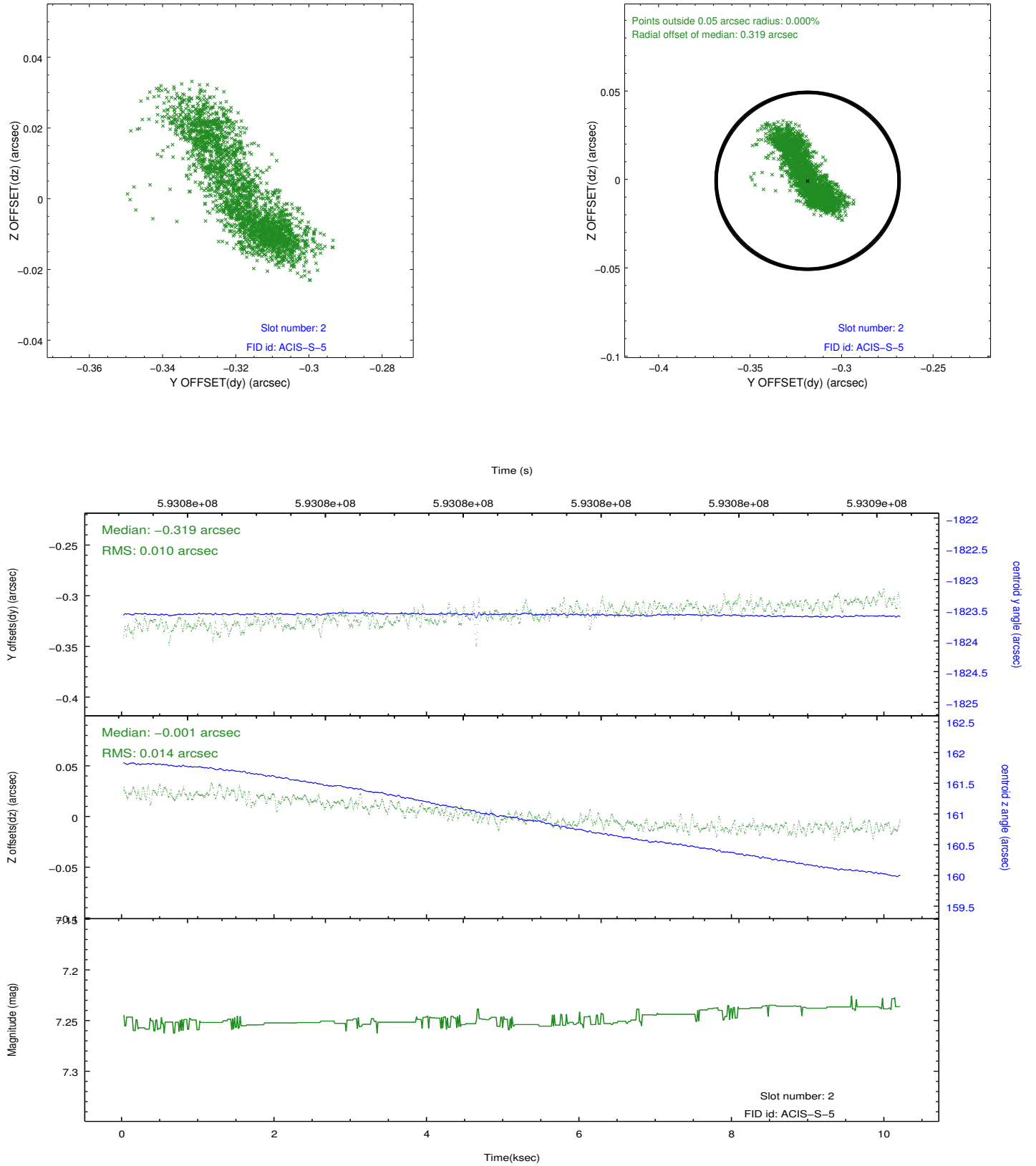
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2016.10.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.055600812435

A.2 Comments

Joint proposal with XMM.

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: (240.55191,50.82219), (240.55541,50.82478), (240.48896,50.86088), (240.48676,50.85758).