

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16613 - L2 Version 2
Chandra X-Ray Center

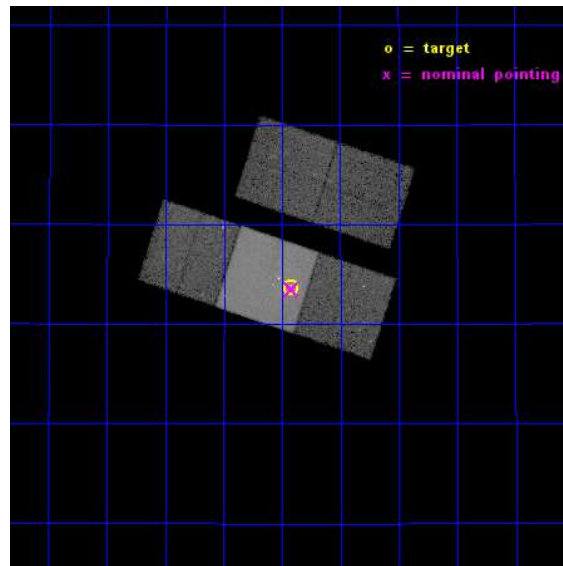
L2 Processing Date : Dec 11 2014

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1 Front

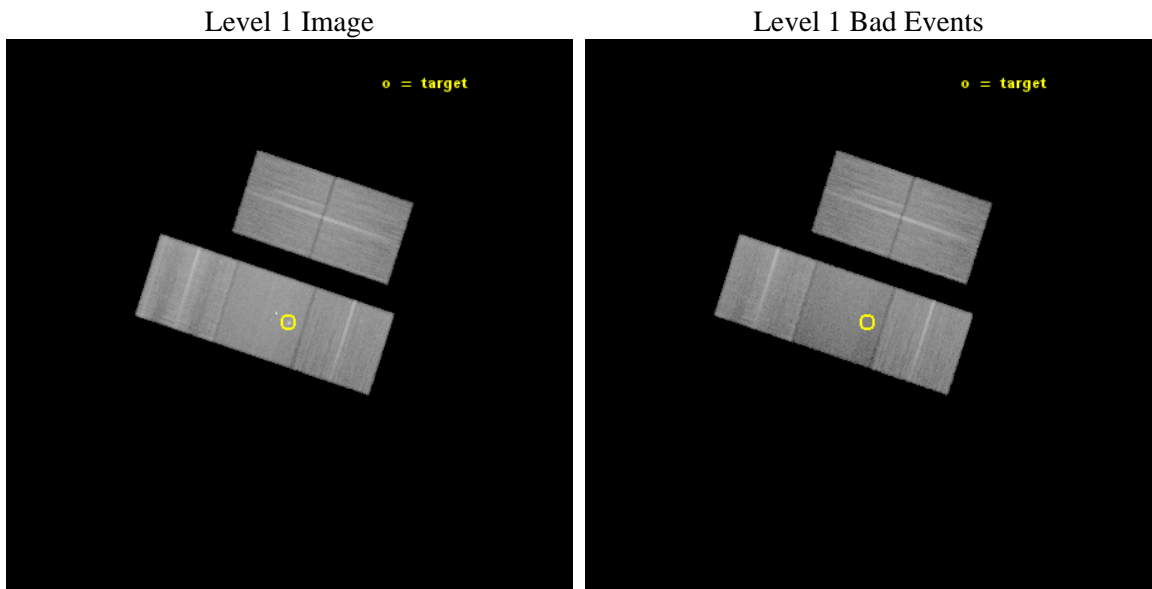
seq_num	801384	Sequence number
obs_id	16613	Observation id
title	Powerful radio galaxies in rich clusters	Proposal title
observer	Dr Martin Hardcastle	Principal investigator
object	3C320	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	232.855833	Observer's specified target RA [deg]
dec_targ	35.561167	Observer's specified target Dec [deg]
ra_nom	232.85490430763	Nominal RA [deg]
dec_nom	35.558231701882	Nominal Dec [deg]
roll_nom	198.1571672065	Nominal Roll [deg]
revision	2	Processing version of data
ontime	50067.990724802	Sum of GTIs [s]
livetime	49413.815566464	Livetime [s]
ontime2	50064.685574412	Sum of GTIs [s]
ontime3	50064.767634571	Sum of GTIs [s]
ontime6	50058.526733518	Sum of GTIs [s]
ontime7	50067.990724802	Sum of GTIs [s]
ontime8	50061.585683703	Sum of GTIs [s]
l2events	225610	Number of level 2 events



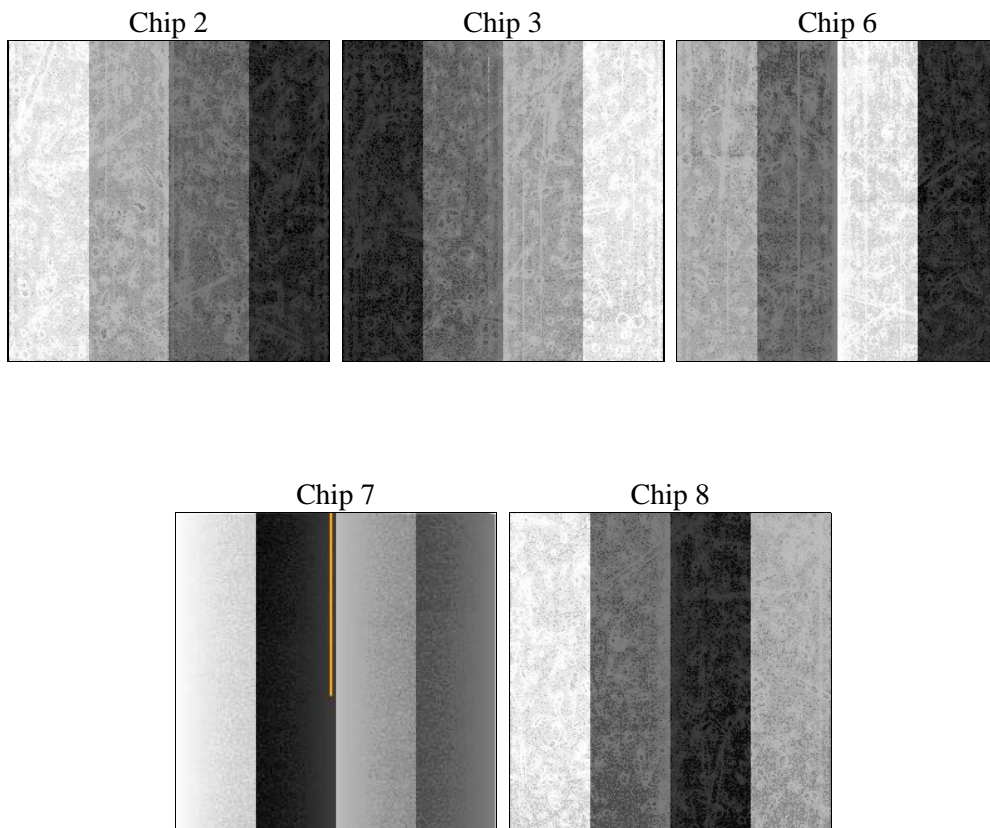
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	50000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	50067.990724802	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	50064.685574412	Sum of GTIs [s]
date	2014-12-12T02:57:15	Date and time of file creation	ontime3	50064.767634571	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	50058.526733518	Sum of GTIs [s]
			ontime7	50067.990724802	Sum of GTIs [s]
			ontime8	50061.585683703	Sum of GTIs [s]
			l1events	1264906	Number of level 1 events

2.1.4 Events

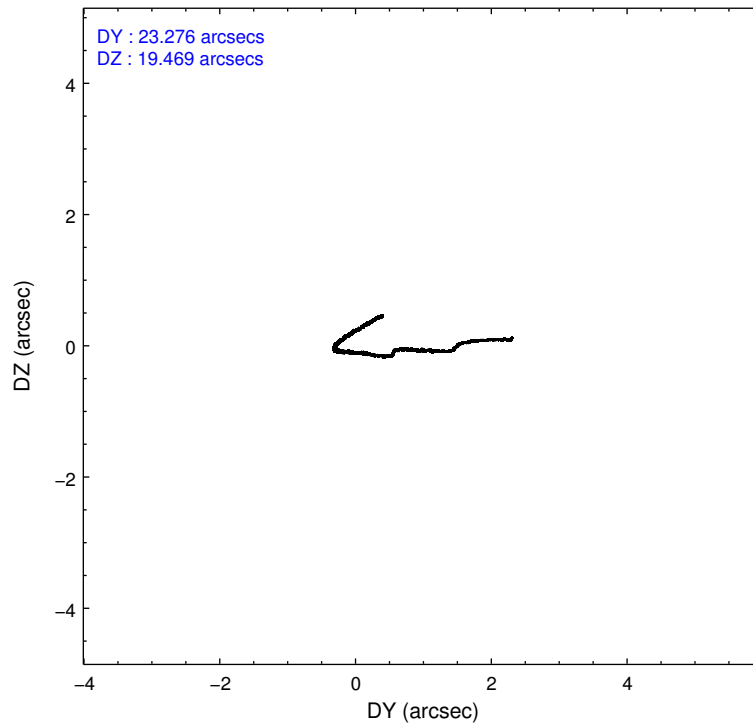
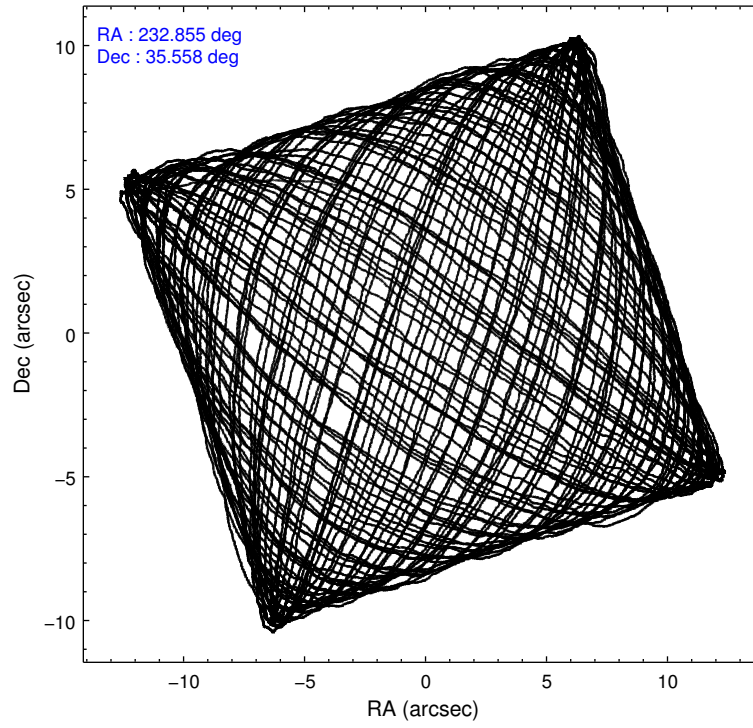
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	226350	218712	235090	282652	302102
rejected events	200715	194046	207472	146266	218268
rejected %	88%	88%	88%	51%	72%

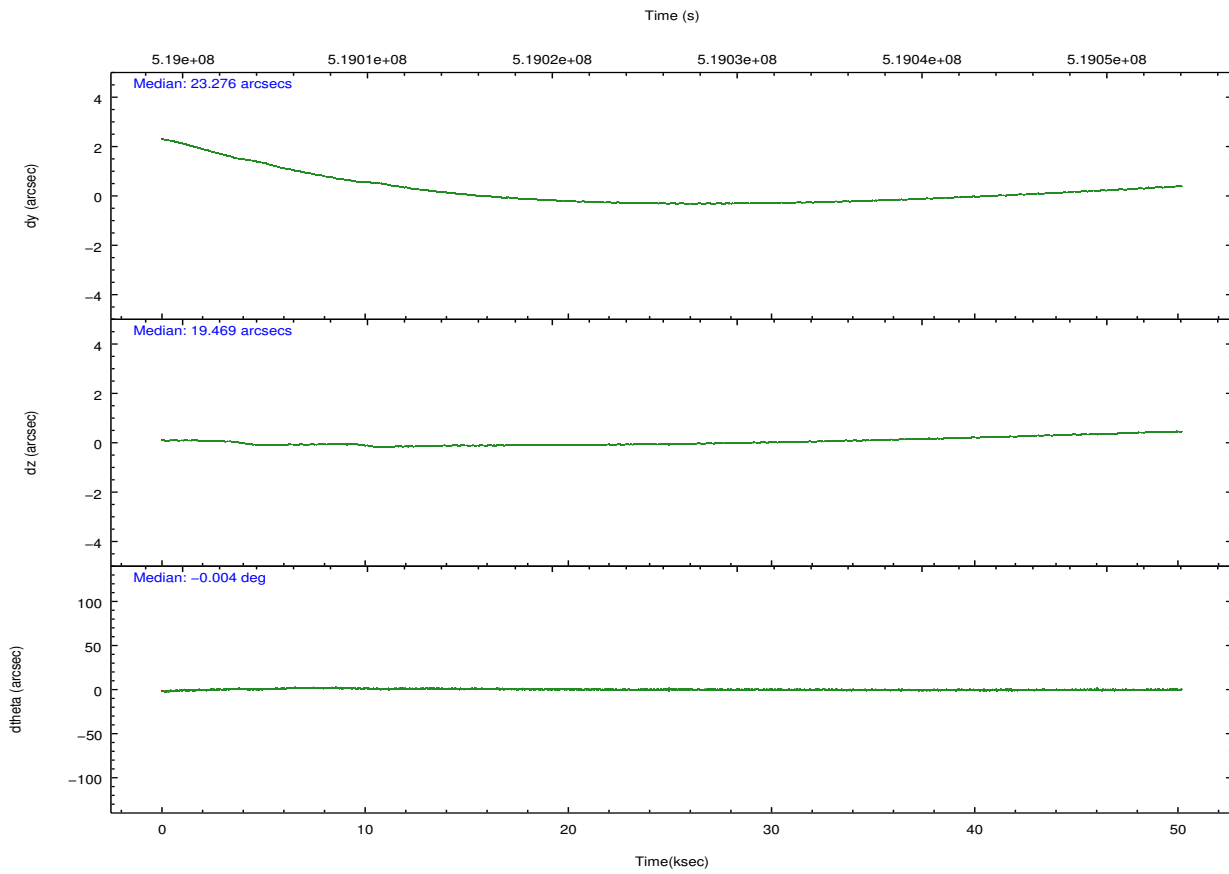
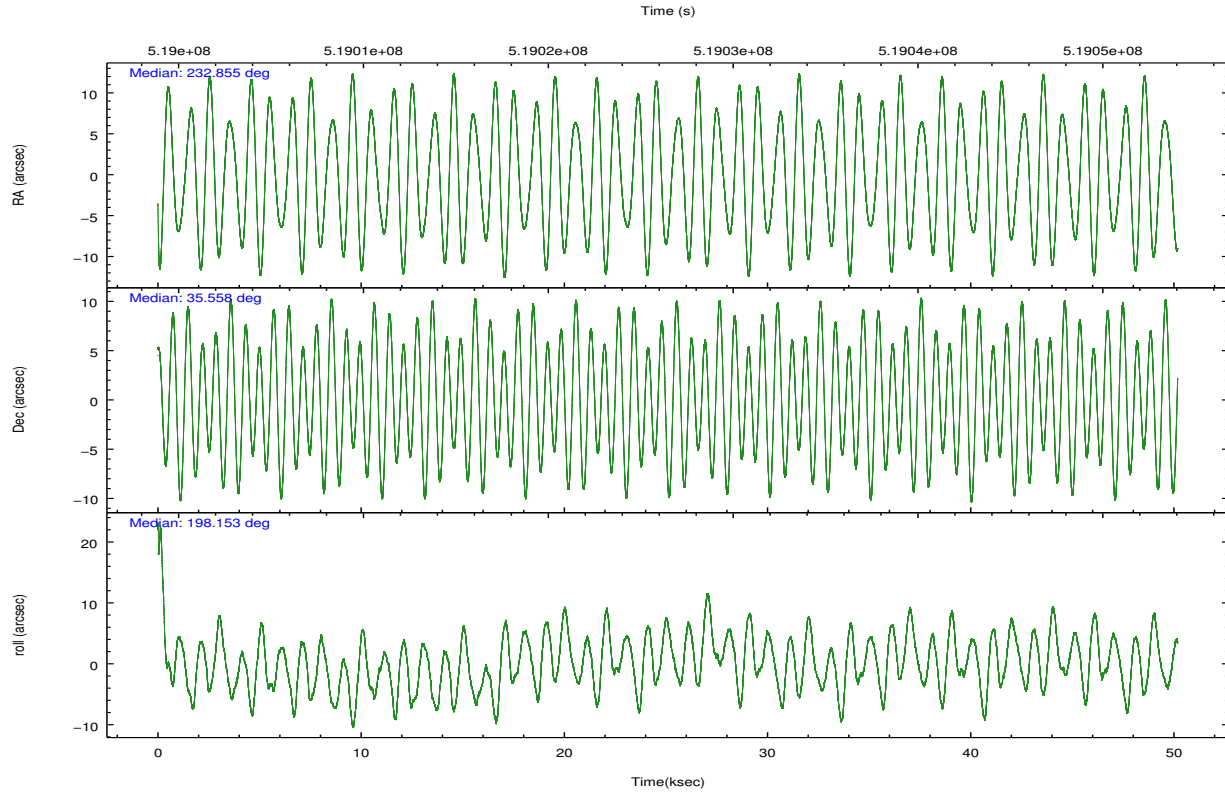
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	9266	8841	9512	14834	23399
	4%	4%	4%	5%	7%
grade 1 events	130	136	121	416	237
	0%	0%	0%	0%	0%
grade 2 events	6403	5536	6419	29521	19829
	2%	2%	2%	10%	6%
grade 3 events	2566	2648	2784	12084	9243
	1%	1%	1%	4%	3%
grade 4 events	2556	2668	2761	12048	8673
	1%	1%	1%	4%	2%
grade 5 events	8218	10606	10335	29130	15940
	3%	4%	4%	10%	5%
grade 6 events	4845	4975	6143	67911	22692
	2%	2%	2%	24%	7%
grade 7 events	192366	183302	197015	116708	202089
	84%	83%	83%	41%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	232.876994	232.8549043076287	CCD I2 on	O1	Y
[deg] Pointing Dec	35.578844	35.55823170188187	CCD I3 on	Y	Y
[deg] Pointing Roll	197.987694	198.1571672065028	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	519001561.184000	519000548.63246	CCD S5 on	N	N
Observation start date	2014-06-12T23:04:54	2014-06-12T22:49:08	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	519051561.184000	519052392.62282	On-chip summing requested	N	N
Observation end date	2014-06-13T12:58:14	2014-06-13T13:13:12	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





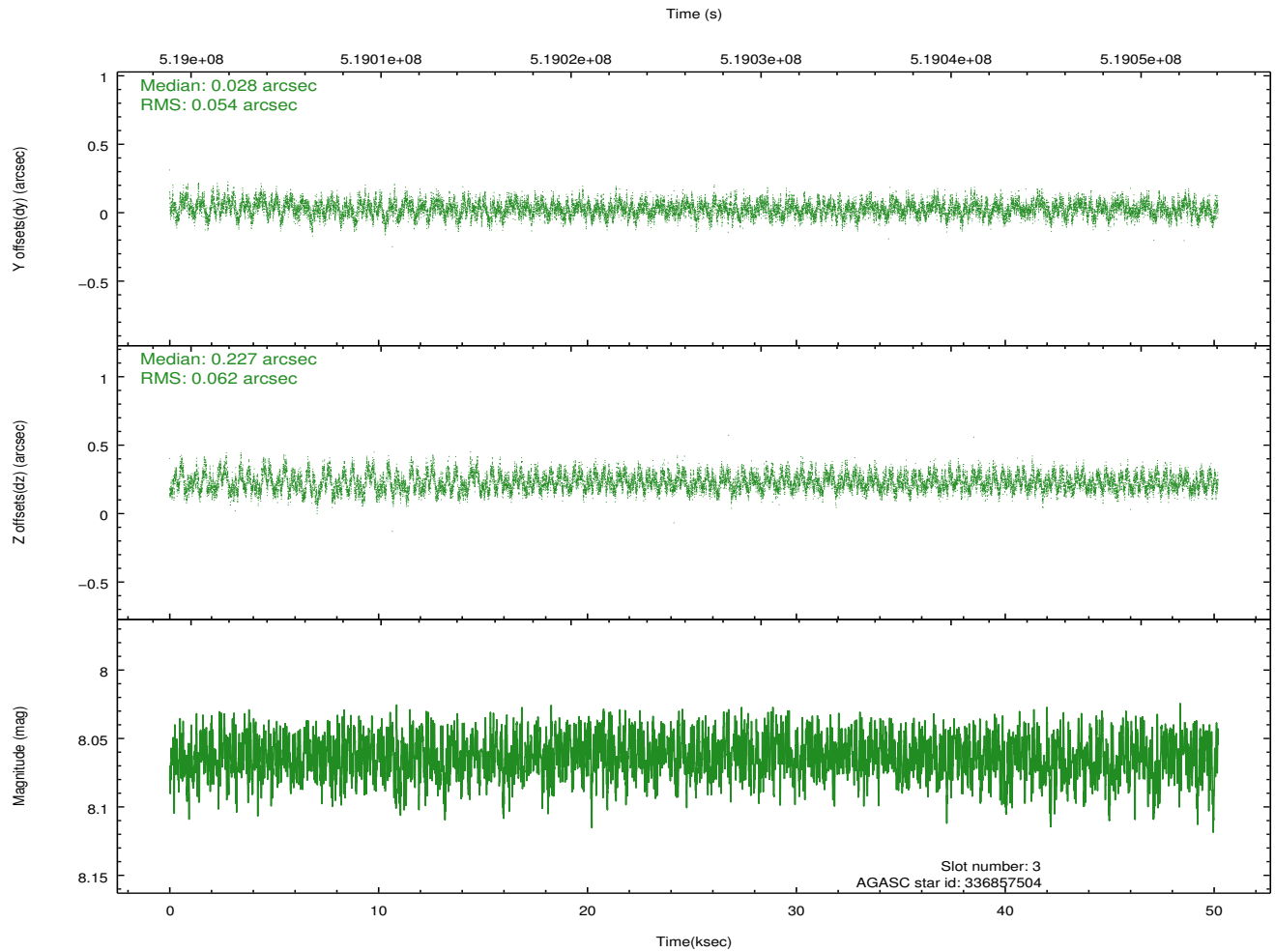
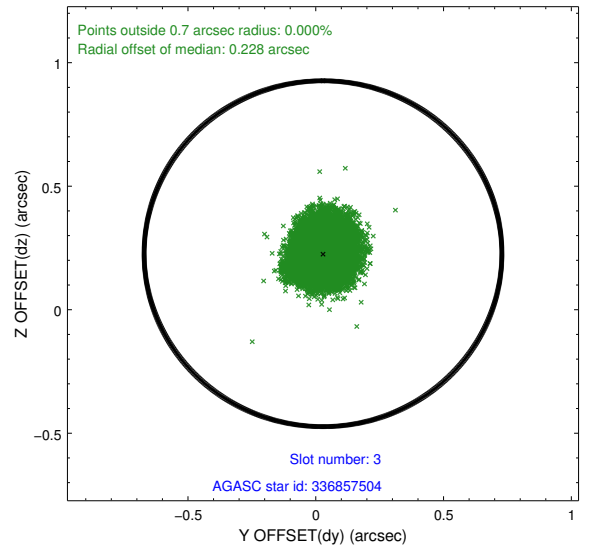
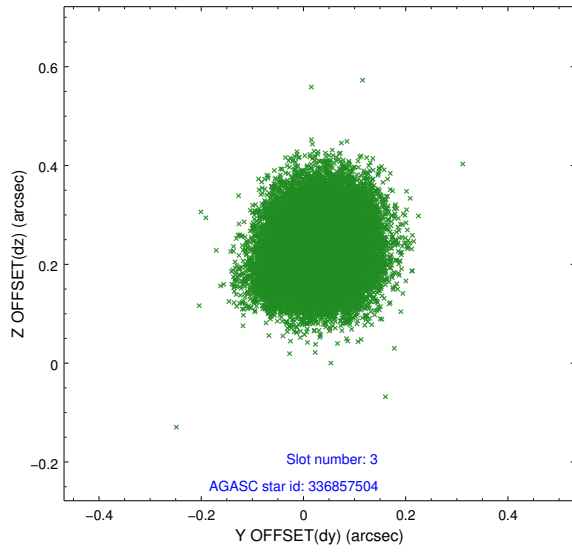
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.99	12240	-0.158	-0.043	0.016	0.053	0.000000	0.000000	-776.87	-1741.01
1	FID		ACIS-S-4	7.08	12240	0.367	0.088	0.019	0.042	0.000000	0.000000	2136.95	167.62
2	FID		ACIS-S-5	7.09	12240	-0.238	-0.036	0.012	0.039	0.000000	0.000000	-1829.81	161.14
3	GUIDE	used	336857504	8.06	24480	0.028	0.227	0.089	0.139	233.372572	35.928958	-1763.98	-755.76
4	GUIDE	used	336858528	9.25	24464	0.139	0.674	0.138	0.227	232.635443	35.893964	319.94	-1296.37
5	GUIDE	used	336861424	9.04	24408	-0.085	-0.252	0.132	0.209	233.236840	35.395041	-799.42	952.93
6	GUIDE	used	336863632	8.51	24474	-0.097	-0.293	0.093	0.152	232.985574	35.464620	-175.70	489.30
7	GUIDE	used	336866904	9.11	24463	0.017	-0.362	0.139	0.244	232.675598	35.168829	1019.63	1220.36

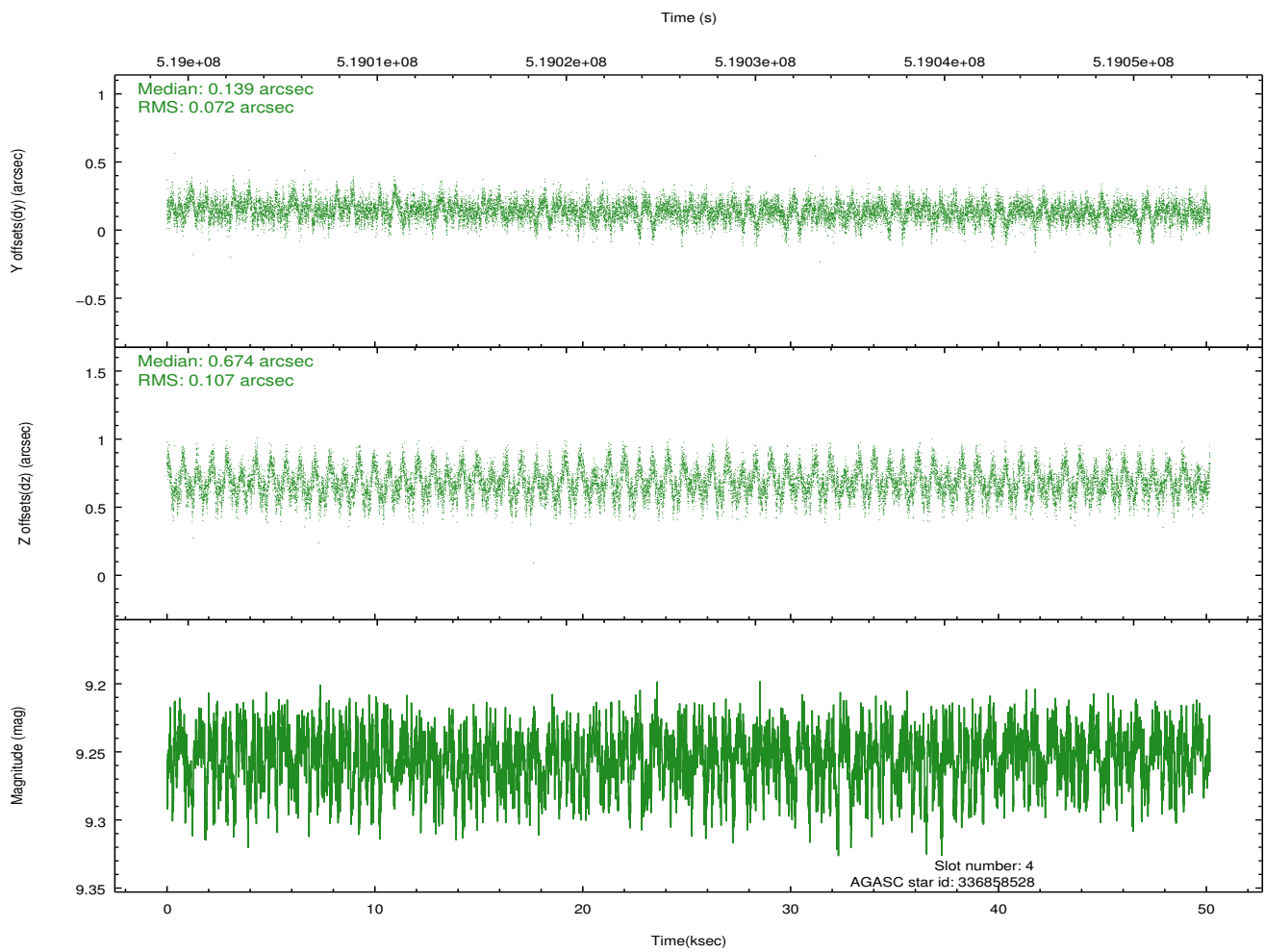
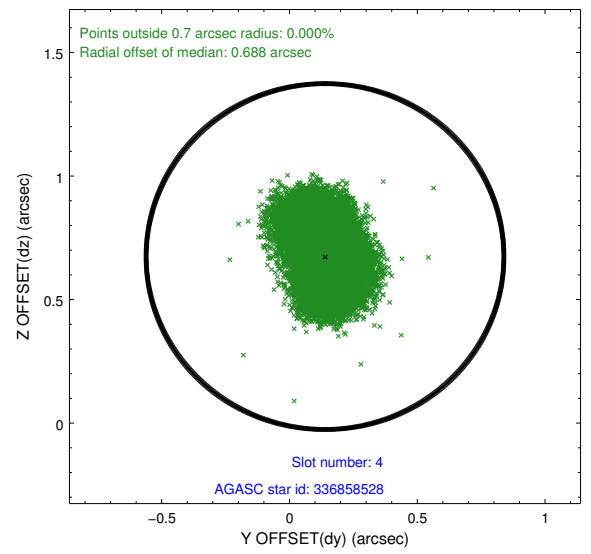
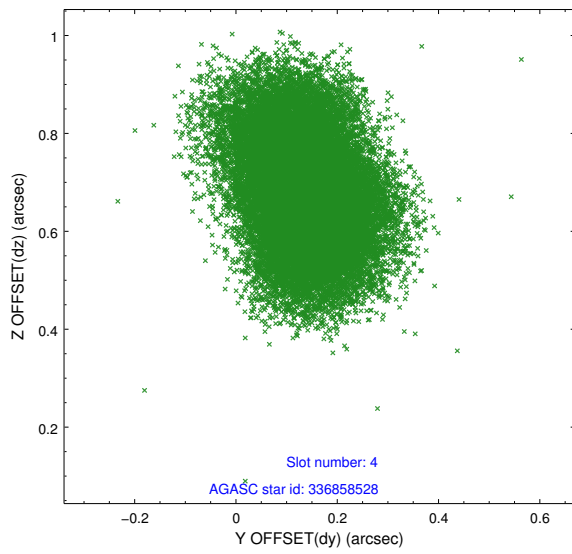
∞

2.4 Star Slots

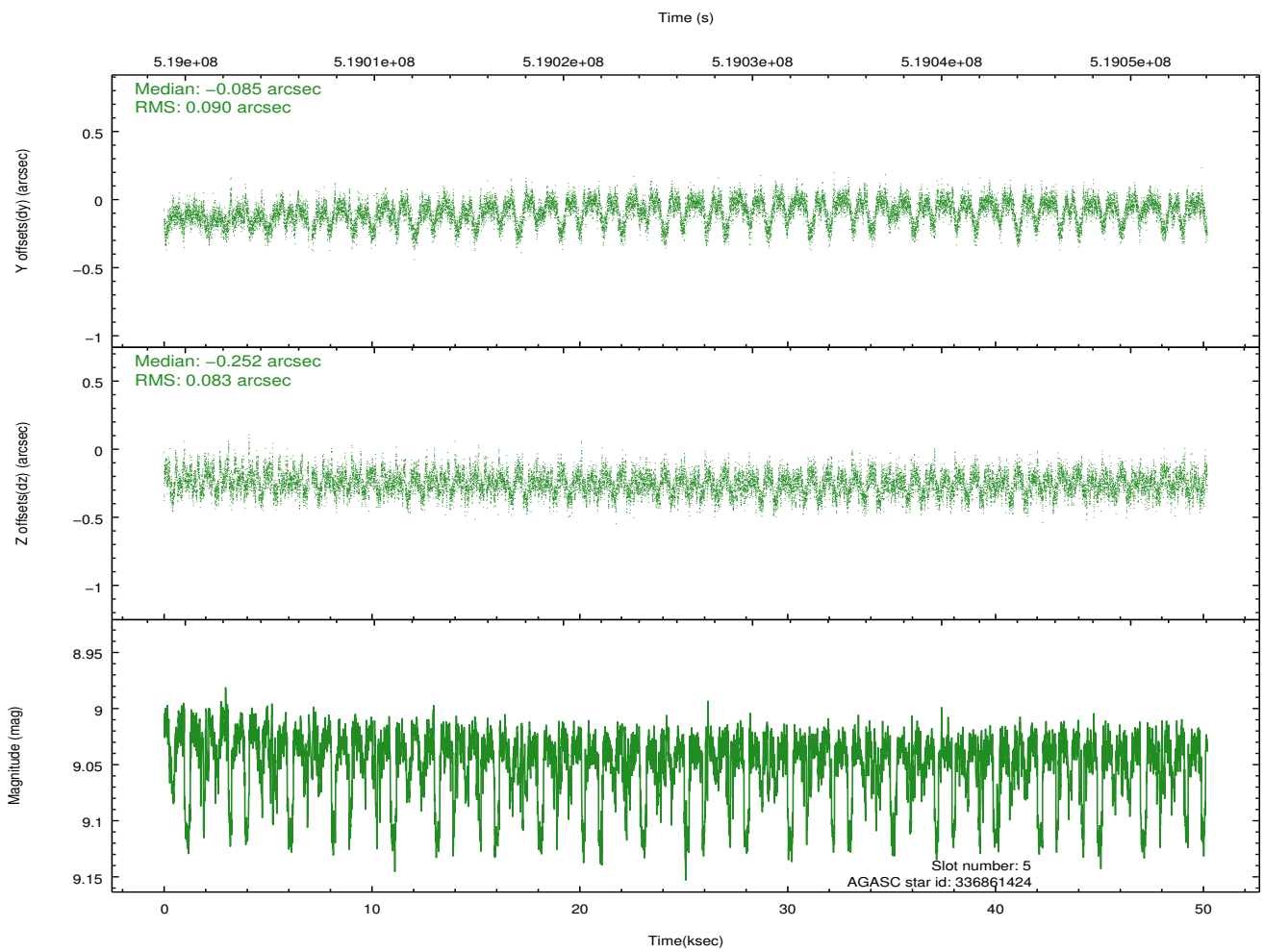
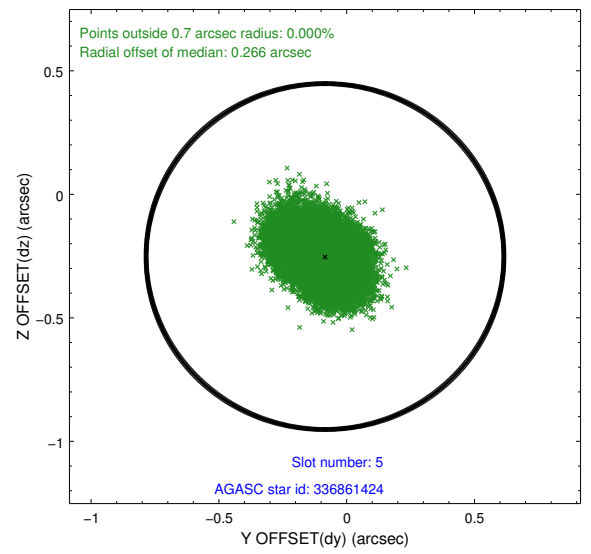
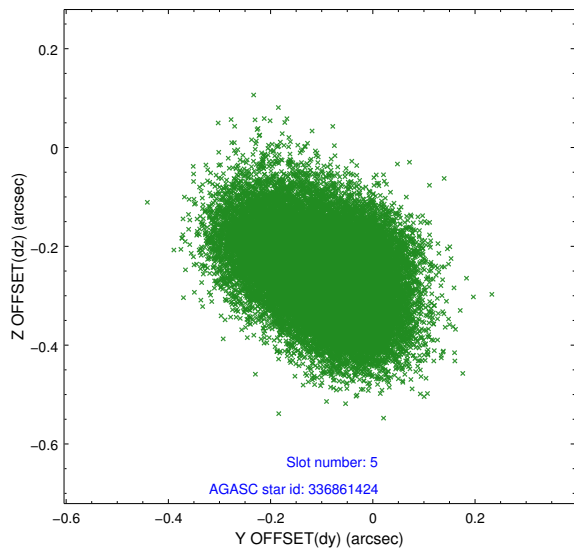
2.4.1 Slot 3



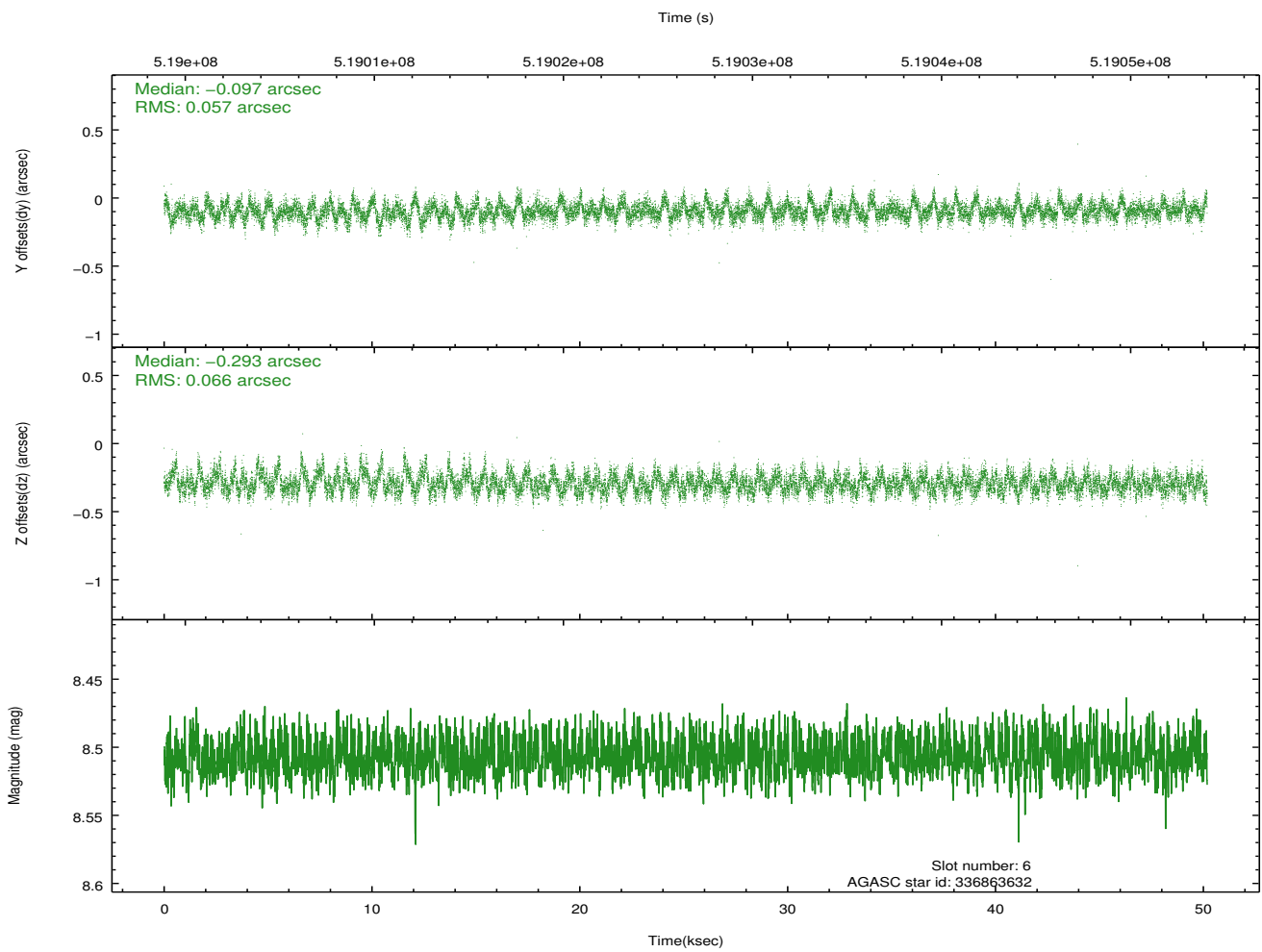
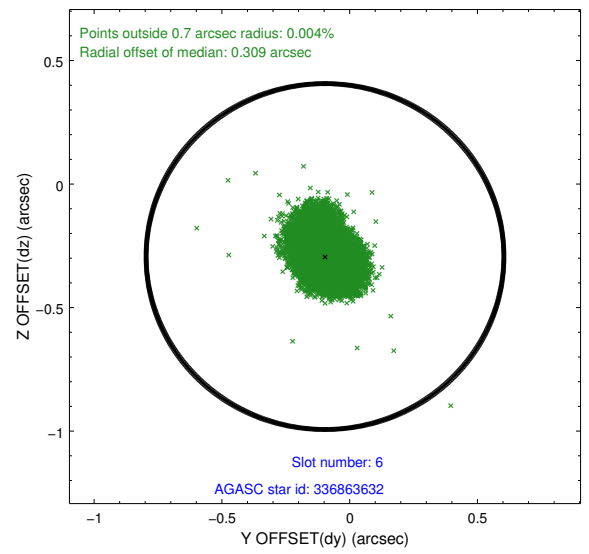
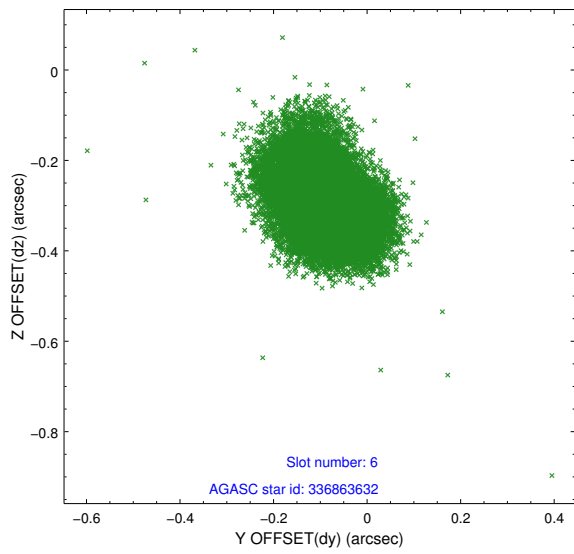
2.4.2 Slot 4



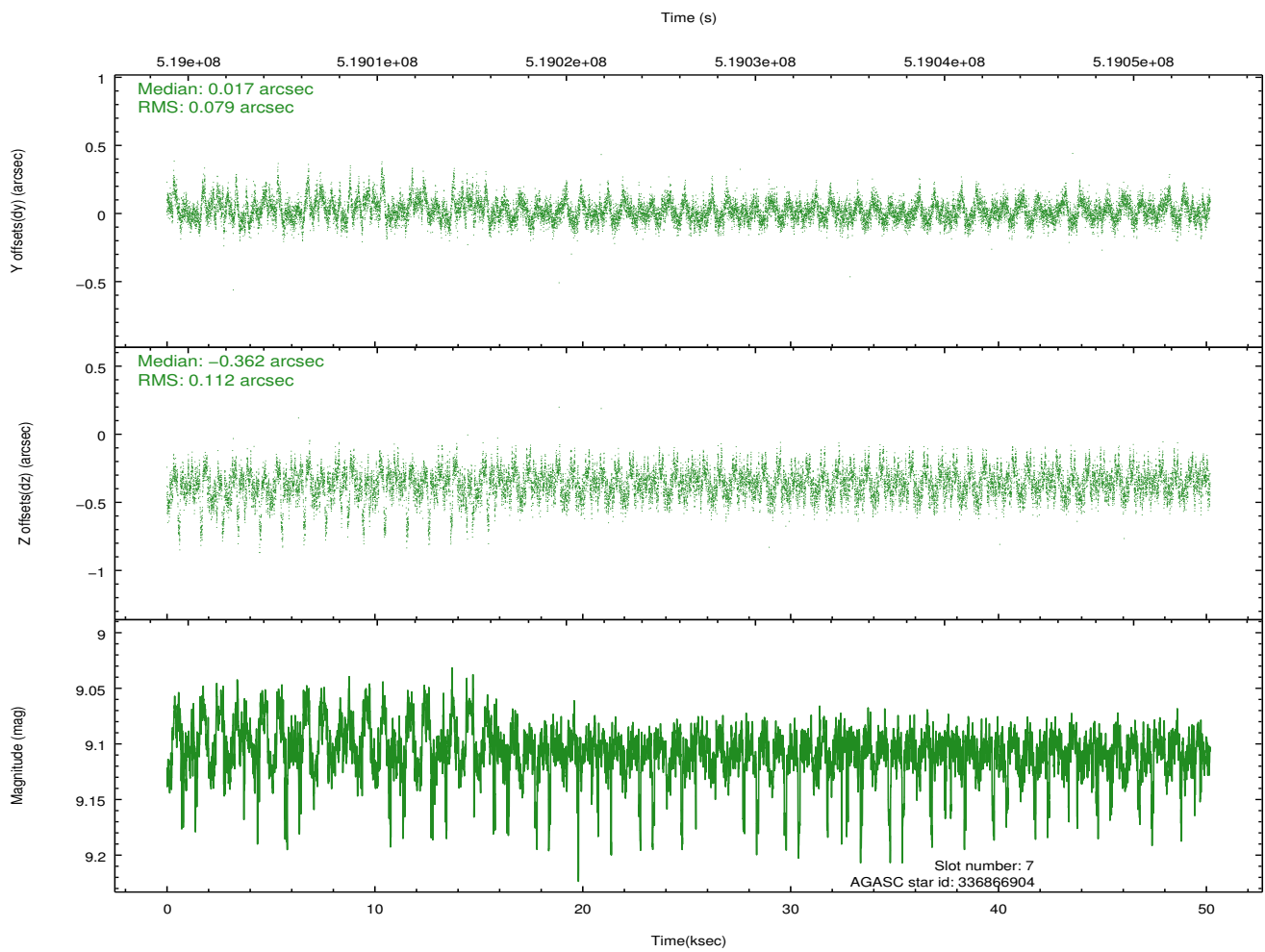
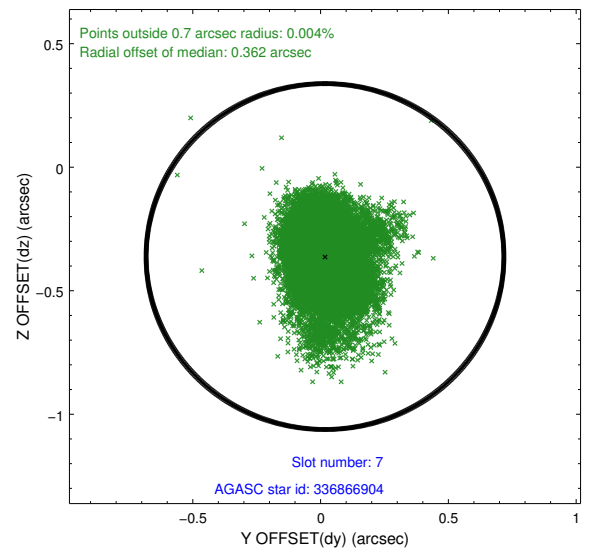
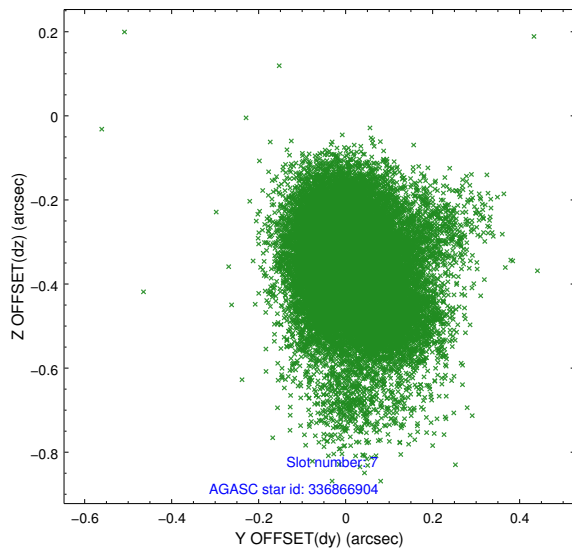
2.4.3 Slot 5



2.4.4 Slot 6

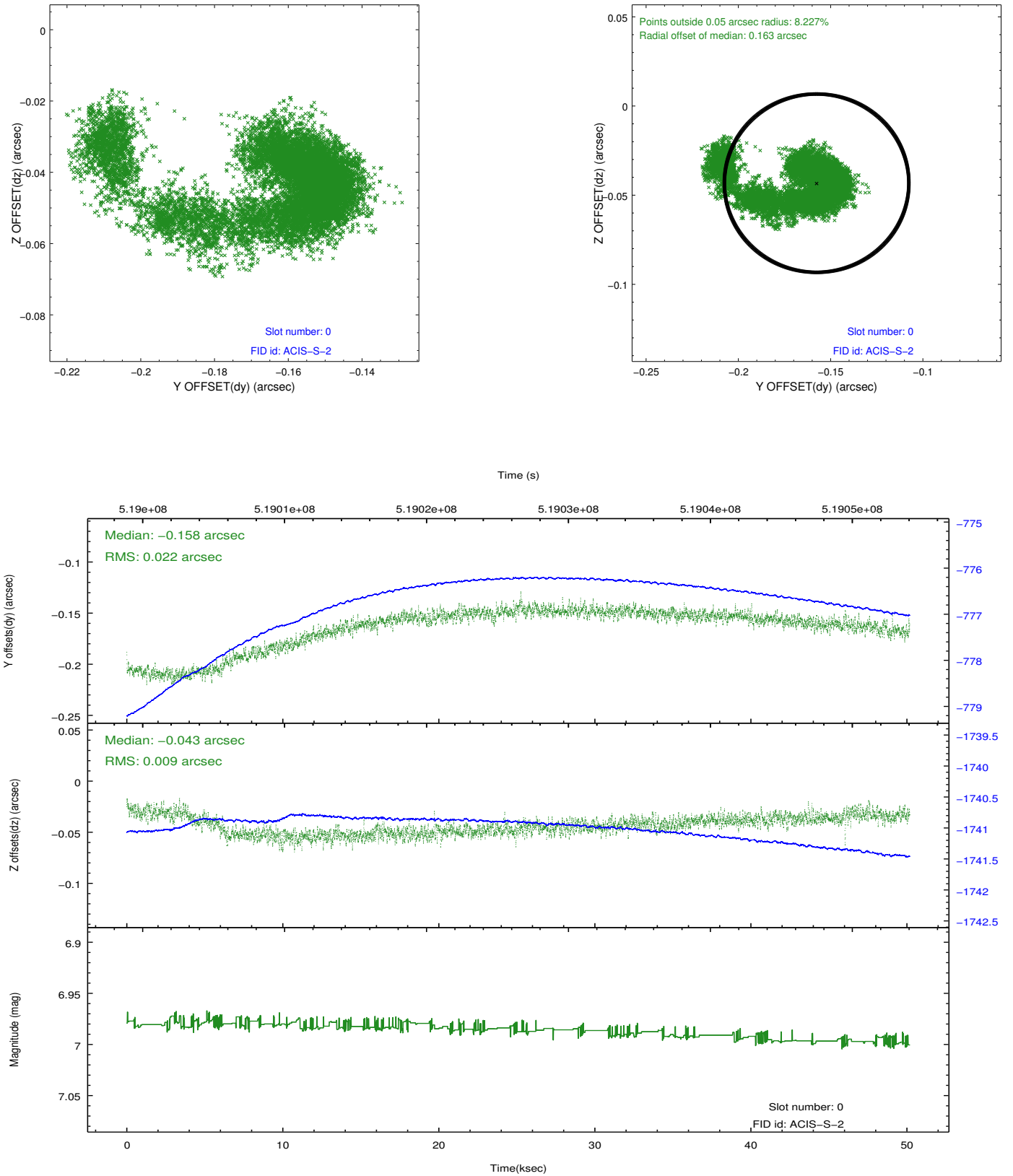


2.4.5 Slot 7

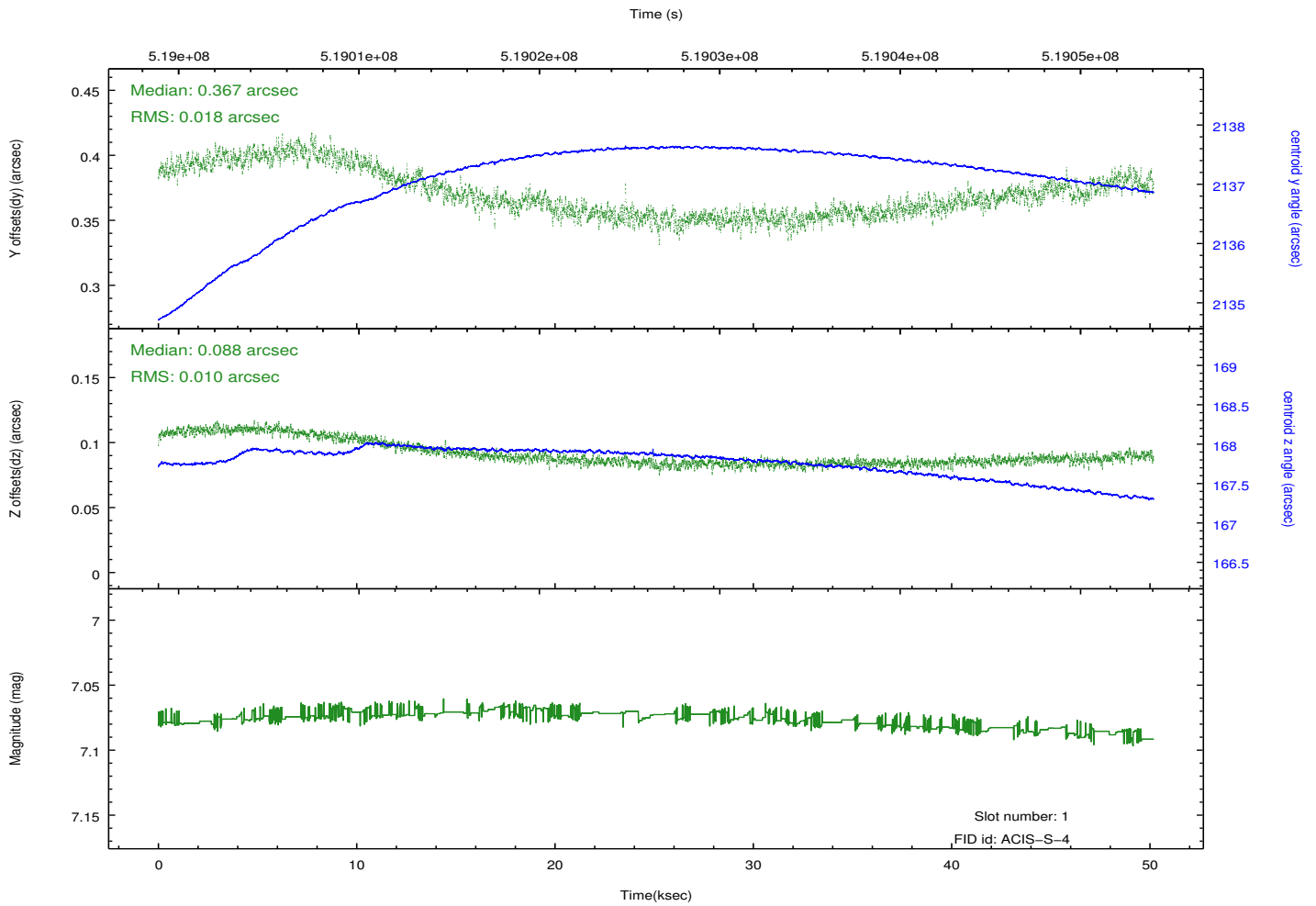
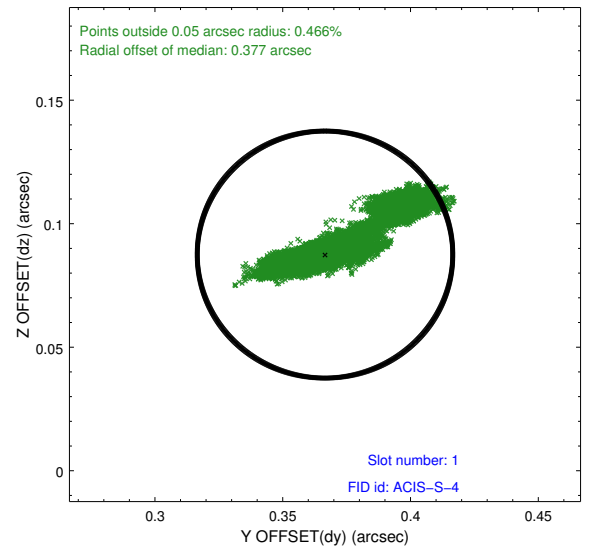
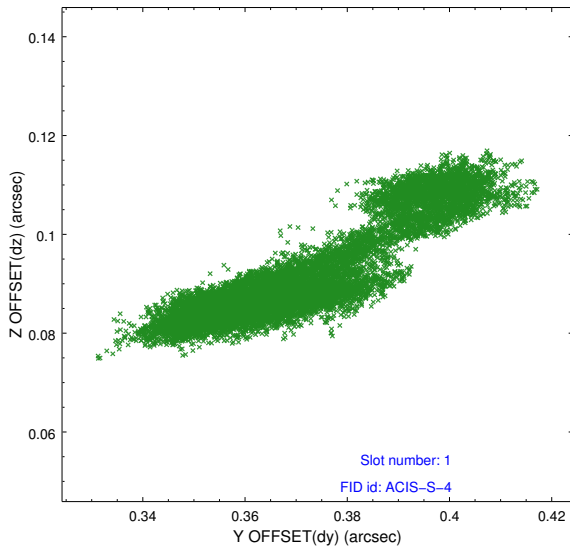


2.5 FID Slots

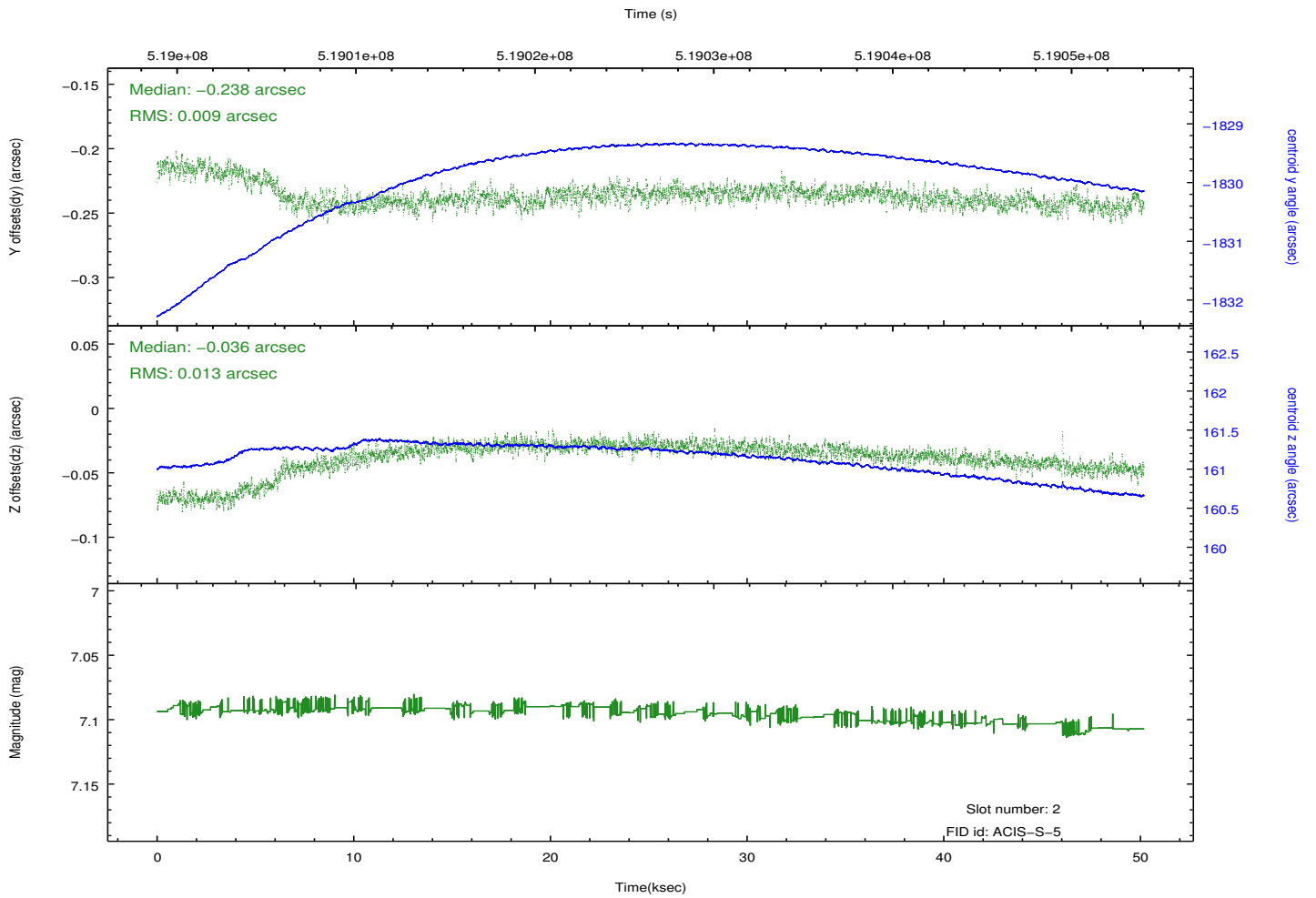
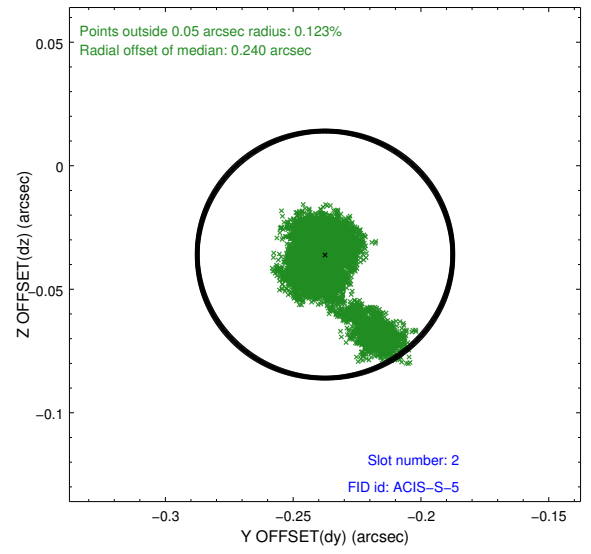
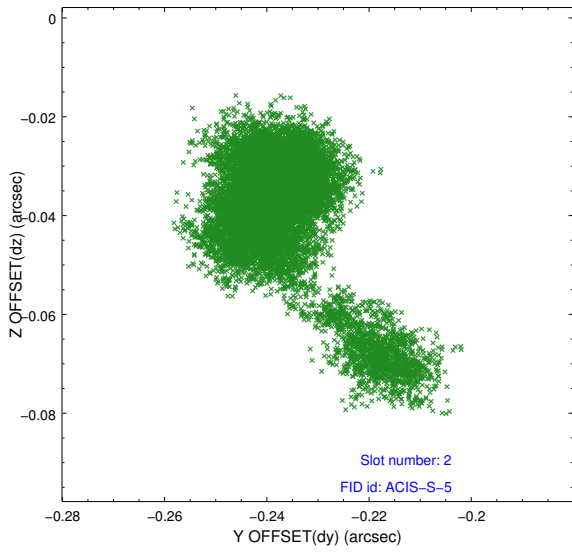
2.5.1 Slot 0



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)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.067990724802

A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.