

V&V Reference Report

L2 ASCDS Version : 10

Observation 15646 - L2 Version 2
Chandra X-Ray Center

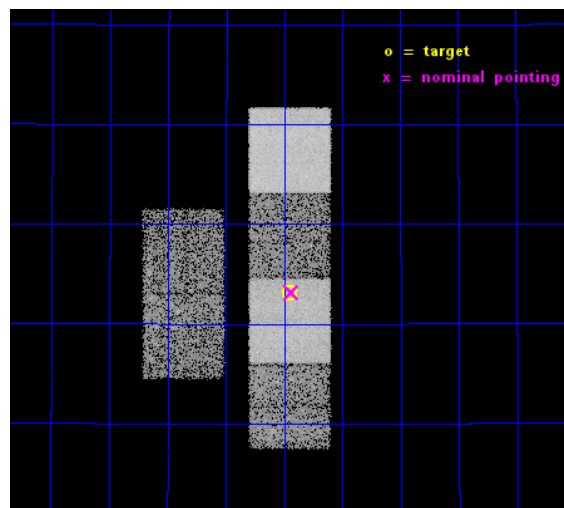
L2 Processing Date : Dec 3 2014

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1 Front

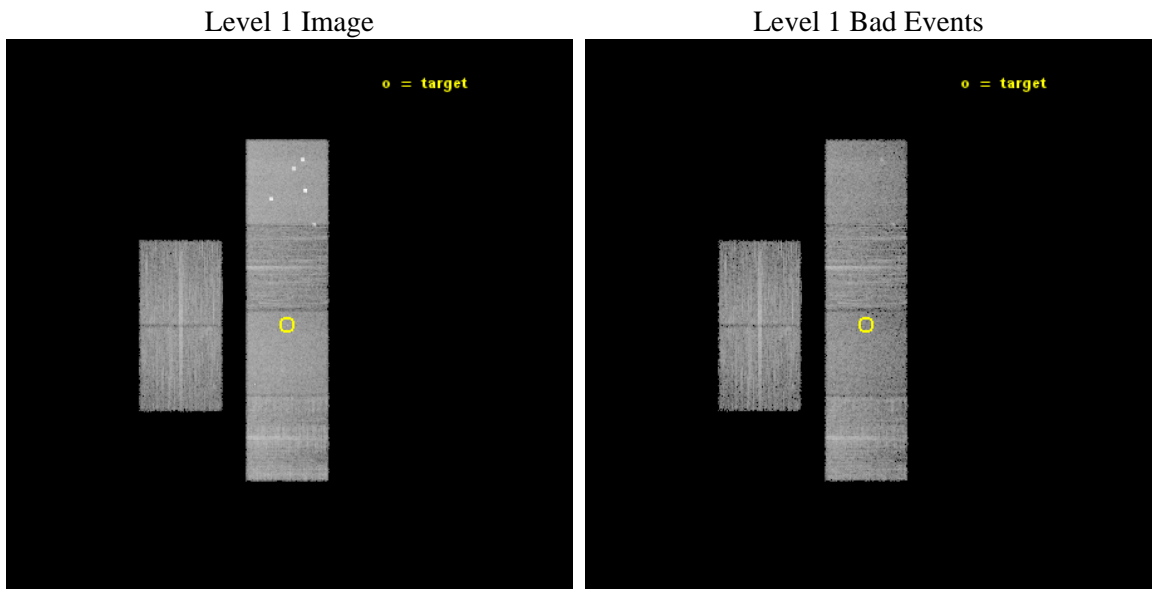
seq_num	401541	Sequence number
obs_id	15646	Observation id
title	An intermediate-mass black hole candidate in NGC 404	Proposal titl
observer	Prof. Philip Kaaret	Principal investigator
object	NGC 404	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	17.3625	Observer's specified target RA [deg]
dec_targ	35.717778	Observer's specified target Dec [deg]
ra_nom	17.359354720358	Nominal RA [deg]
dec_nom	35.719391580606	Nominal Dec [deg]
roll_nom	89.968929823504	Nominal Roll [deg]
revision	2	Processing version of data
ontime	13753.555261493	Sum of GTIs [s]
livetime	13579.399463375	Livetime [s]
ontime2	13753.596301496	Sum of GTIs [s]
ontime3	13750.191171169	Sum of GTIs [s]
ontime5	13753.514221489	Sum of GTIs [s]
ontime6	13753.473181486	Sum of GTIs [s]
ontime7	13753.555261493	Sum of GTIs [s]
ontime8	13743.66814065	Sum of GTIs [s]
l2events	115422	Number of level 2 events



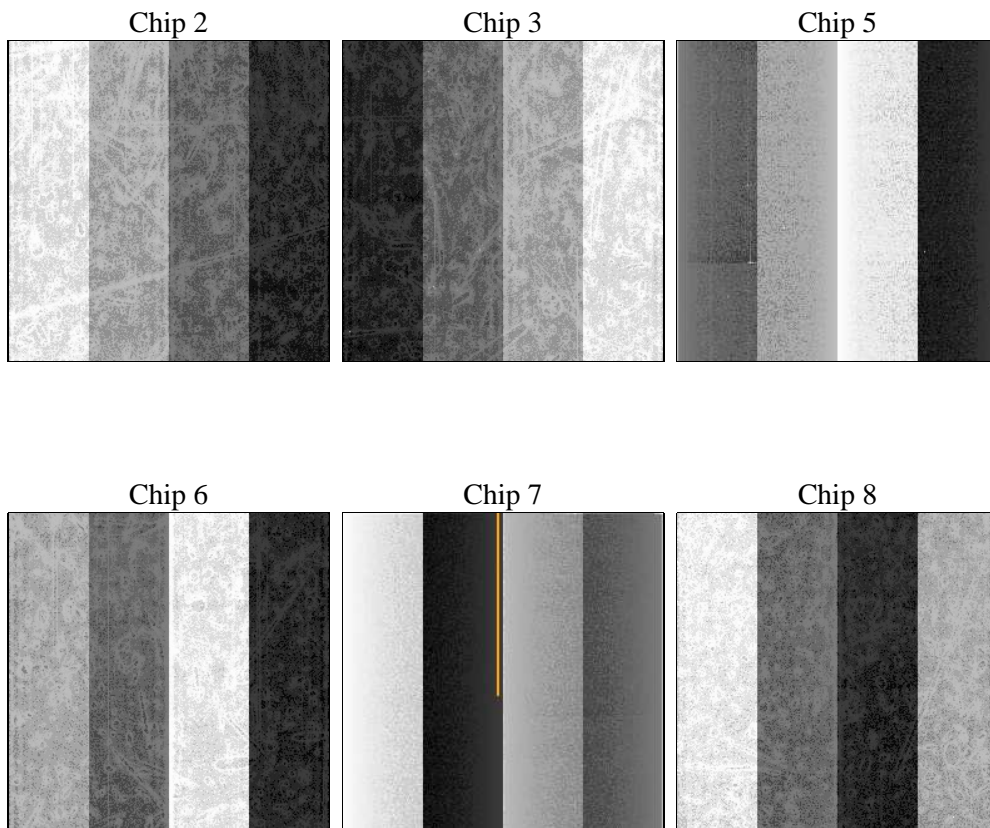
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	13753.555261493	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	13753.596301496	Sum of GTIs [s]
date	2014-12-03T11:50:20	Date and time of file creation	ontime3	13750.191171169	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	13753.514221489	Sum of GTIs [s]
			ontime6	13753.473181486	Sum of GTIs [s]
			ontime7	13753.555261493	Sum of GTIs [s]
			ontime8	13743.66814065	Sum of GTIs [s]
			l1events	490003	Number of level 1 events

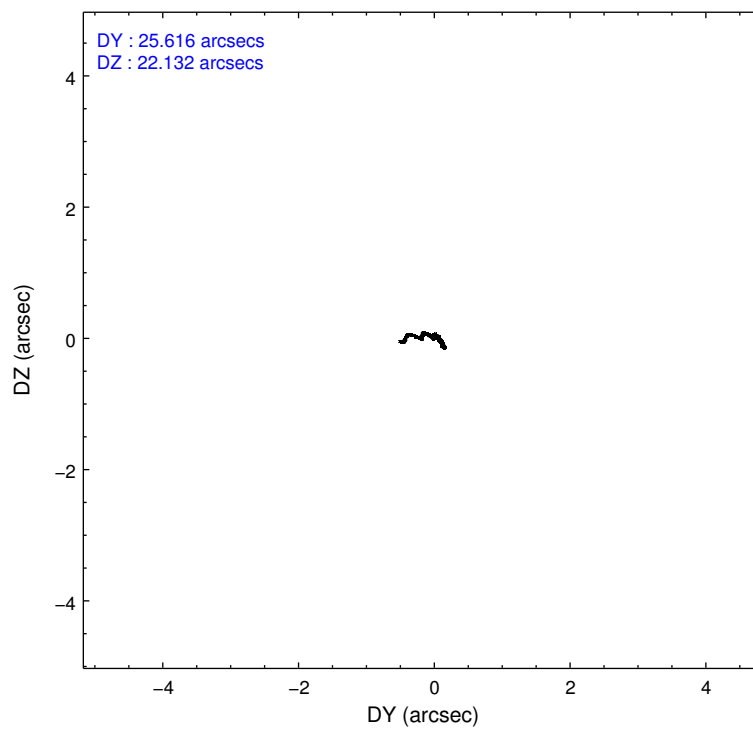
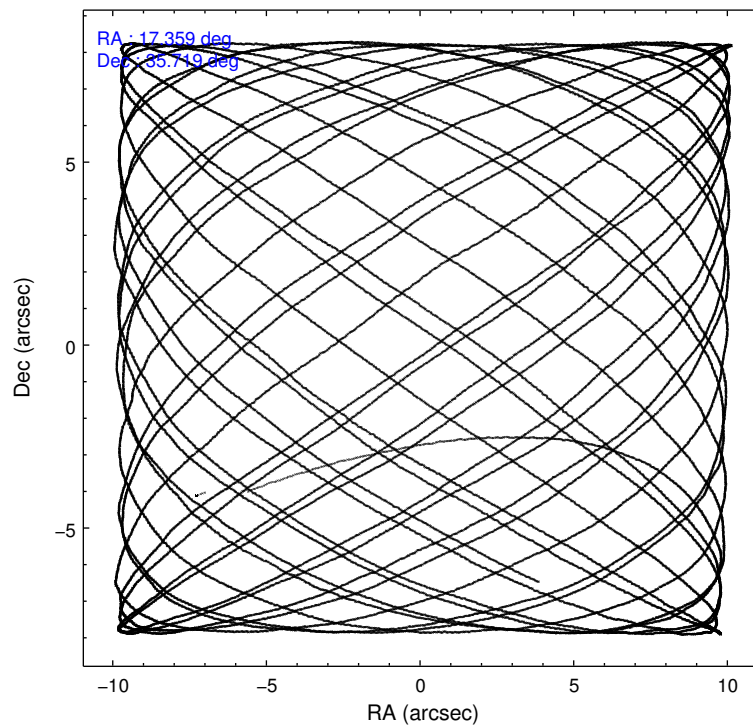
2.1.4 Events

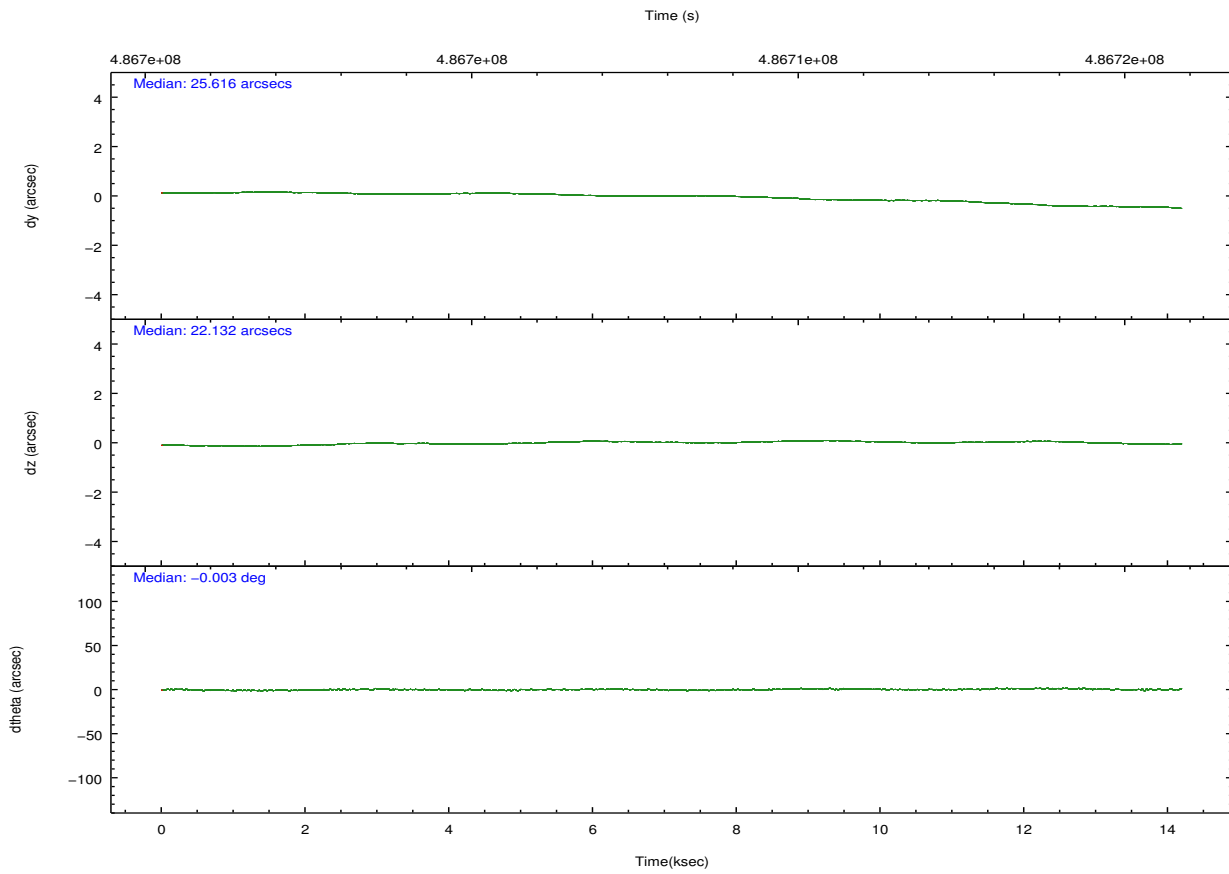
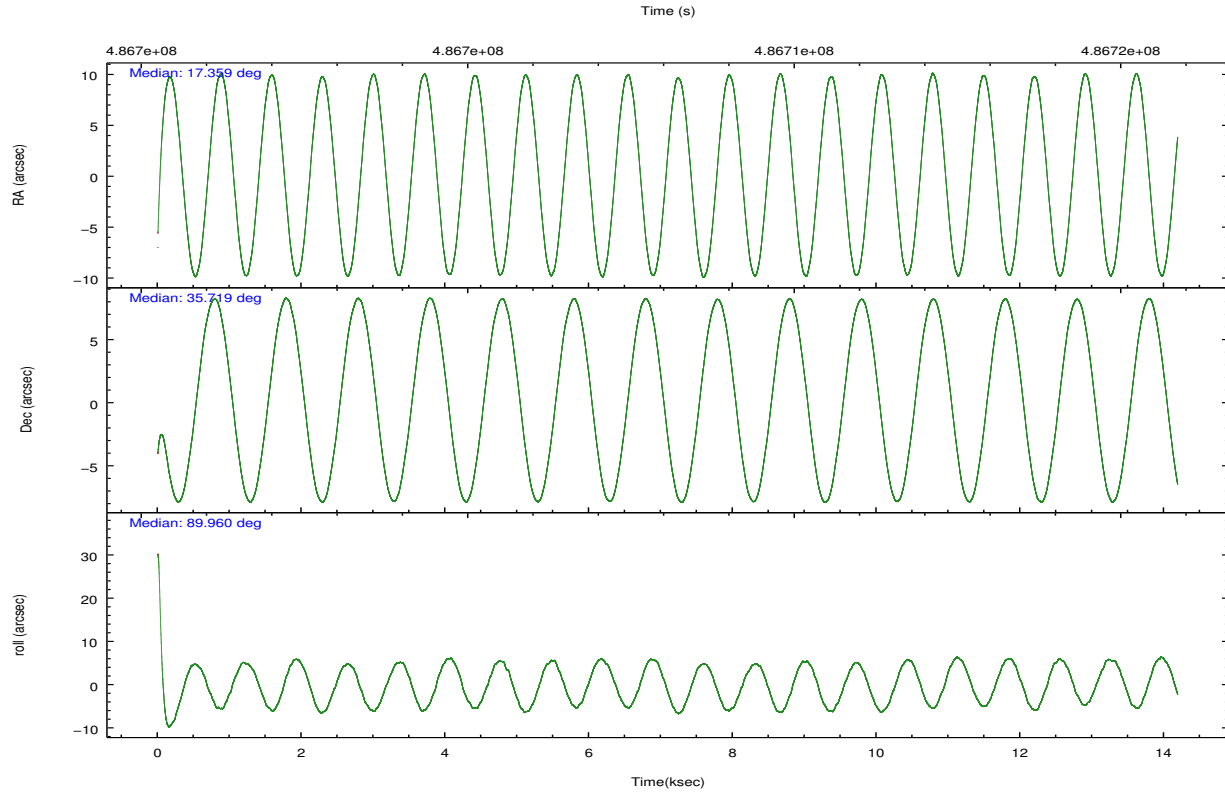
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	66104	61376	116786	65982	88478	91277	grade 0 events	2699	2598	12648	2854	3593	7010
rejected events	58500	54029	55917	57865	49498	67582		4%	4%	10%	4%	4%	7%
rejected %	88%	88%	47%	87%	55%	74%	grade 1 events	39	36	378	31	129	66
								0%	0%	0%	0%	0%	0%
							grade 2 events	1828	1619	16218	1803	8110	5392
								2%	2%	13%	2%	9%	5%
							grade 3 events	748	785	1950	774	3337	2632
								1%	1%	1%	1%	3%	2%
							grade 4 events	780	771	1862	798	3189	2351
								1%	1%	1%	1%	3%	2%
							grade 5 events	2892	3452	8315	3364	9155	4884
								4%	5%	7%	5%	10%	5%
							grade 6 events	1550	1574	28205	1889	20756	6314
								2%	2%	24%	2%	23%	6%
							grade 7 events	55568	50541	47210	54469	40209	62628
								84%	82%	40%	82%	45%	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	17.376570	17.35935472035796	CCD I2 on	O2	Y
[deg] Pointing Dec	35.695897	35.71939158060614	CCD I3 on	O3	Y
[deg] Pointing Roll	89.802235	89.96892982350437	CCD S0 on	N	N
[s] Window start time (MET)	486612967.184000	486612967.184000	CCD S1 on	O1	Y
[s] Window stop time (MET)	486814567.184000	486814567.184000	CCD S2 on	O5	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	O4	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S5 on	N	N
[mm] SIM translation stage offset	0	0.00754346686406393	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	486701158.184000	486699854.5989	On-chip summing requested	N	N
Observation start date	2013-06-04T02:44:51	2013-06-04T02:24:14	Subarray requested	NONE	NONE
[s] Observation end time (MET)	486715158.184000	486715879.44977	Alternating exposures requested	N	N
Observation end date	2013-06-04T06:38:11	2013-06-04T06:51:19	[s] Primary exposure time	0.000000	3.2
Read mode	TIMED	TIMED			

2.3 Aspect





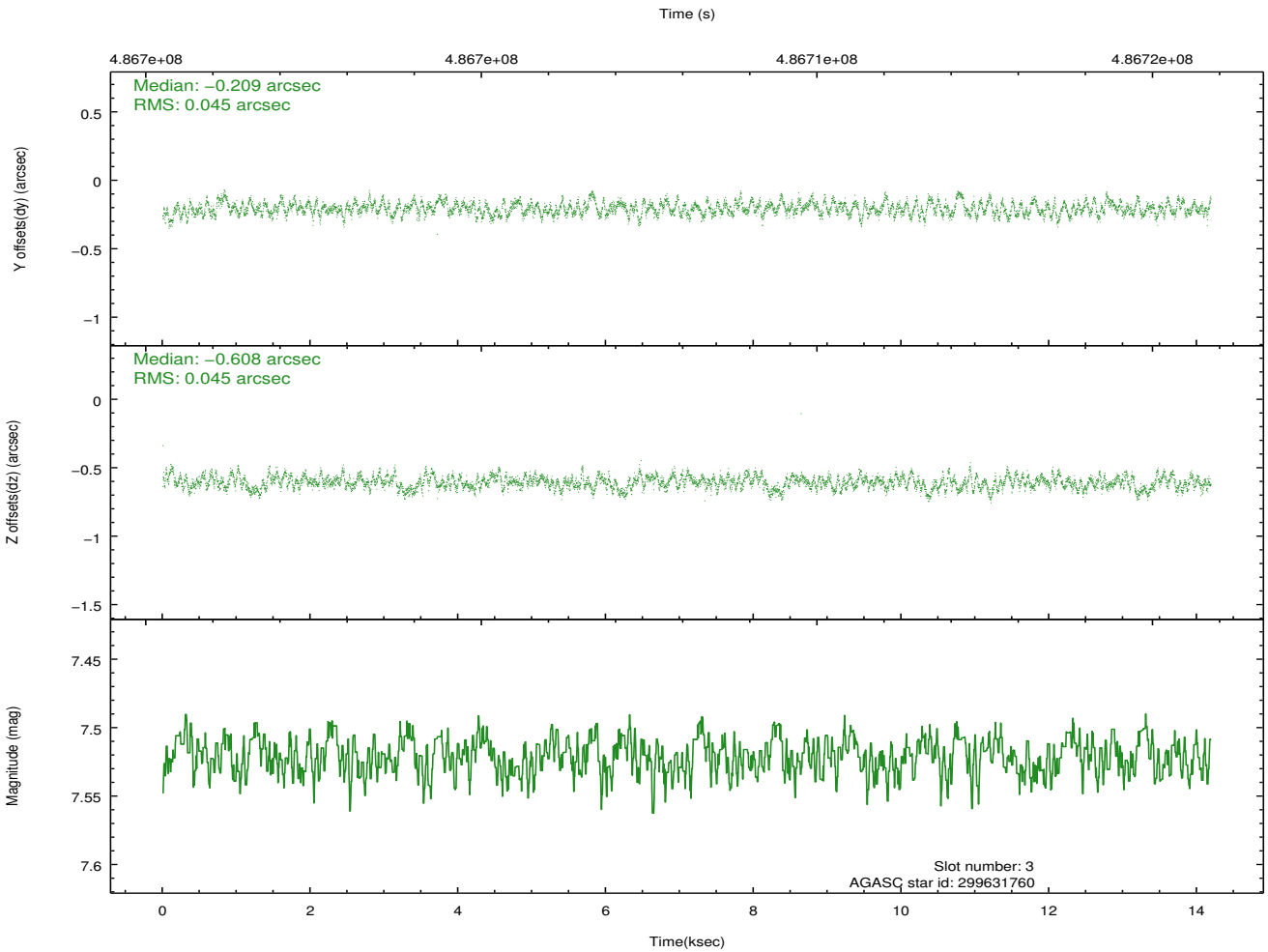
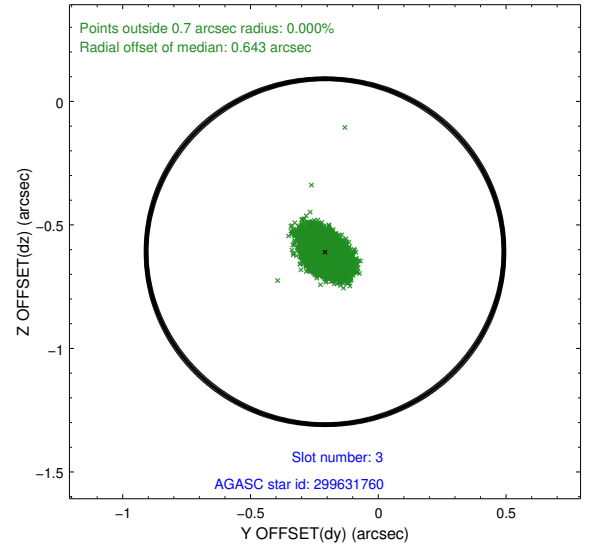
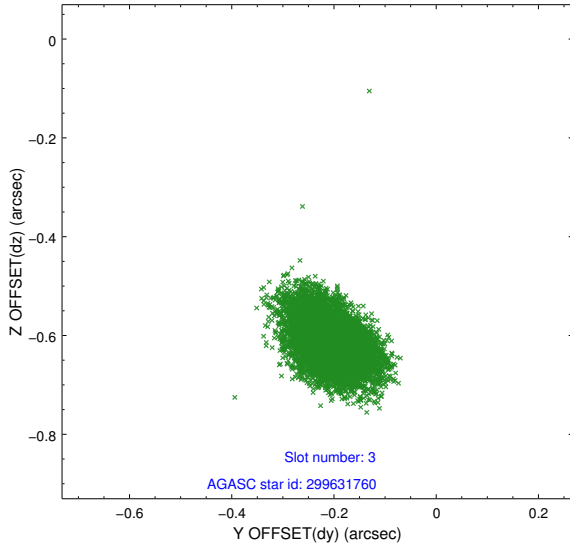
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.88	3461	-0.144	-0.014	0.007	0.011	0.000000	0.000000	-778.97	-1743.69
1	FID		ACIS-S-4	6.97	3461	0.281	0.073	0.005	0.010	0.000000	0.000000	2134.61	164.49
2	FID		ACIS-S-5	7.00	3461	-0.169	-0.050	0.006	0.011	0.000000	0.000000	-1831.39	158.47
3	GUIDE	used	299631760	7.52	6922	-0.209	-0.608	0.068	0.110	16.695472	35.572221	-445.71	1992.75
4	GUIDE	used	299633480	7.93	6922	0.003	-0.379	0.072	0.117	16.698517	35.145641	-1981.23	1989.43
5	GUIDE	used	301336592	8.80	6920	0.175	0.574	0.101	0.157	18.052270	35.168509	-1884.50	-1994.07
6	GUIDE	used	301337024	8.01	6921	0.126	0.414	0.063	0.107	18.154465	35.180691	-1837.51	-2295.35
7	GUIDE	used	301862320	7.77	6921	-0.103	0.005	0.083	0.136	18.180164	36.268723	2079.91	-2325.23

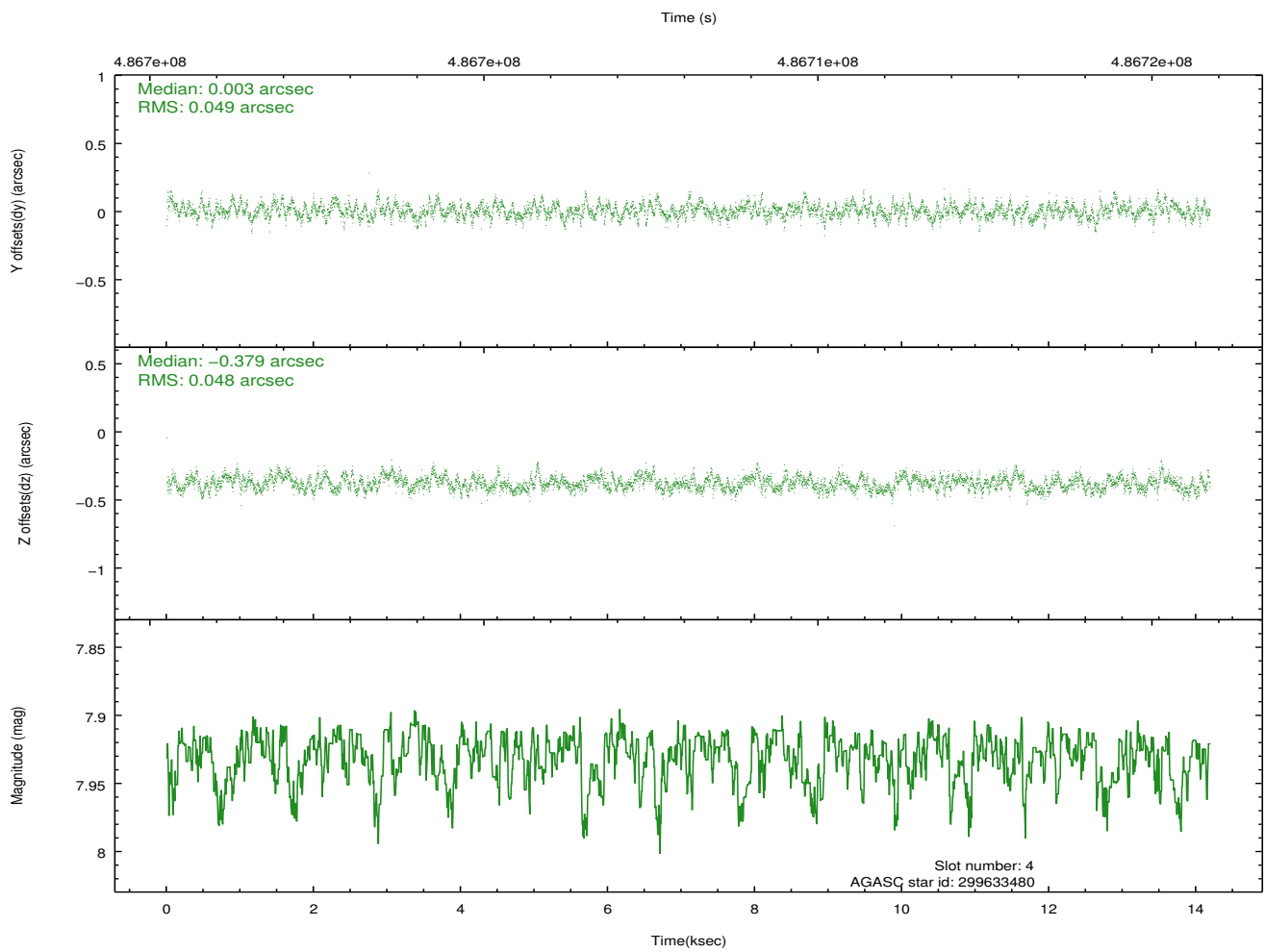
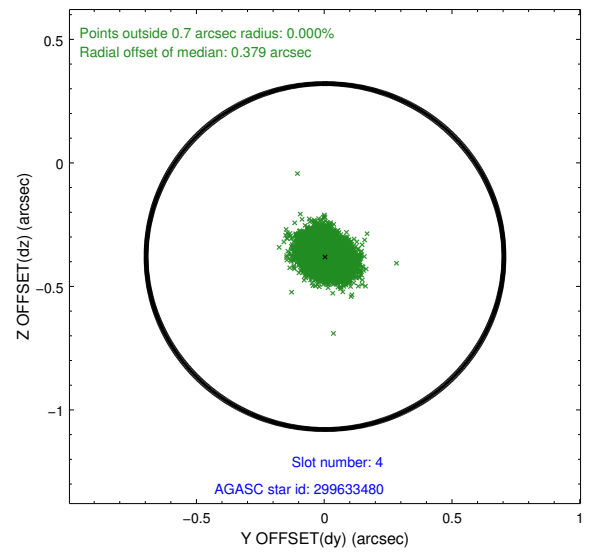
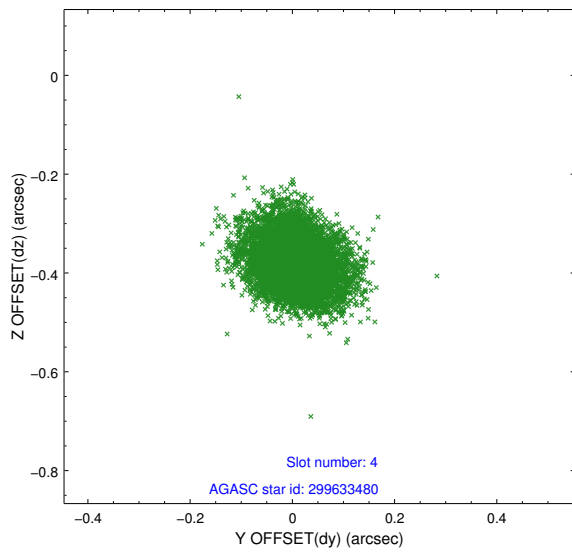
∞

2.4 Star Slots

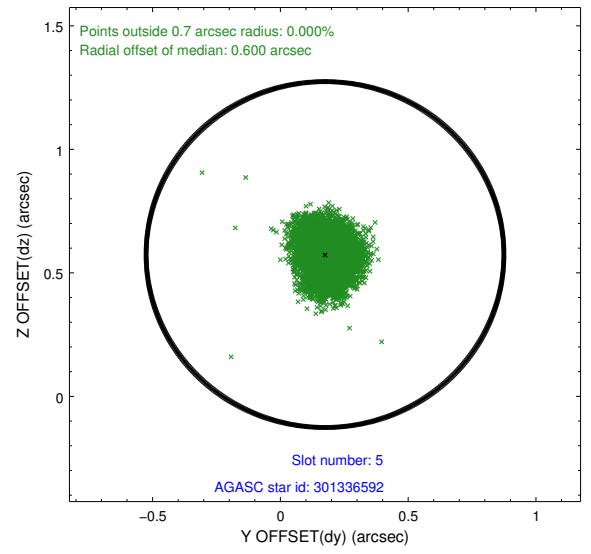
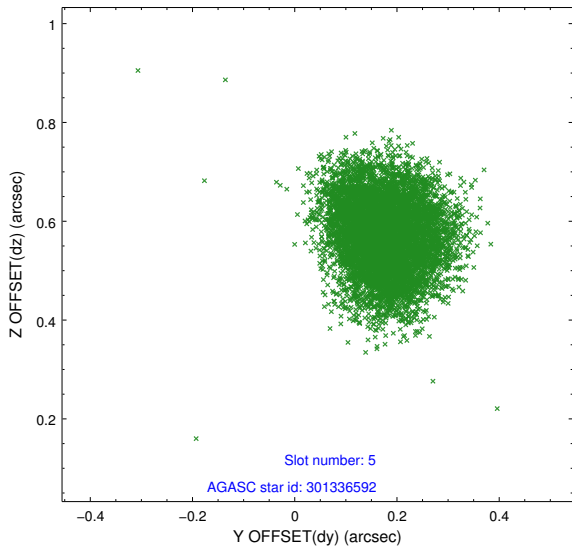
2.4.1 Slot 3



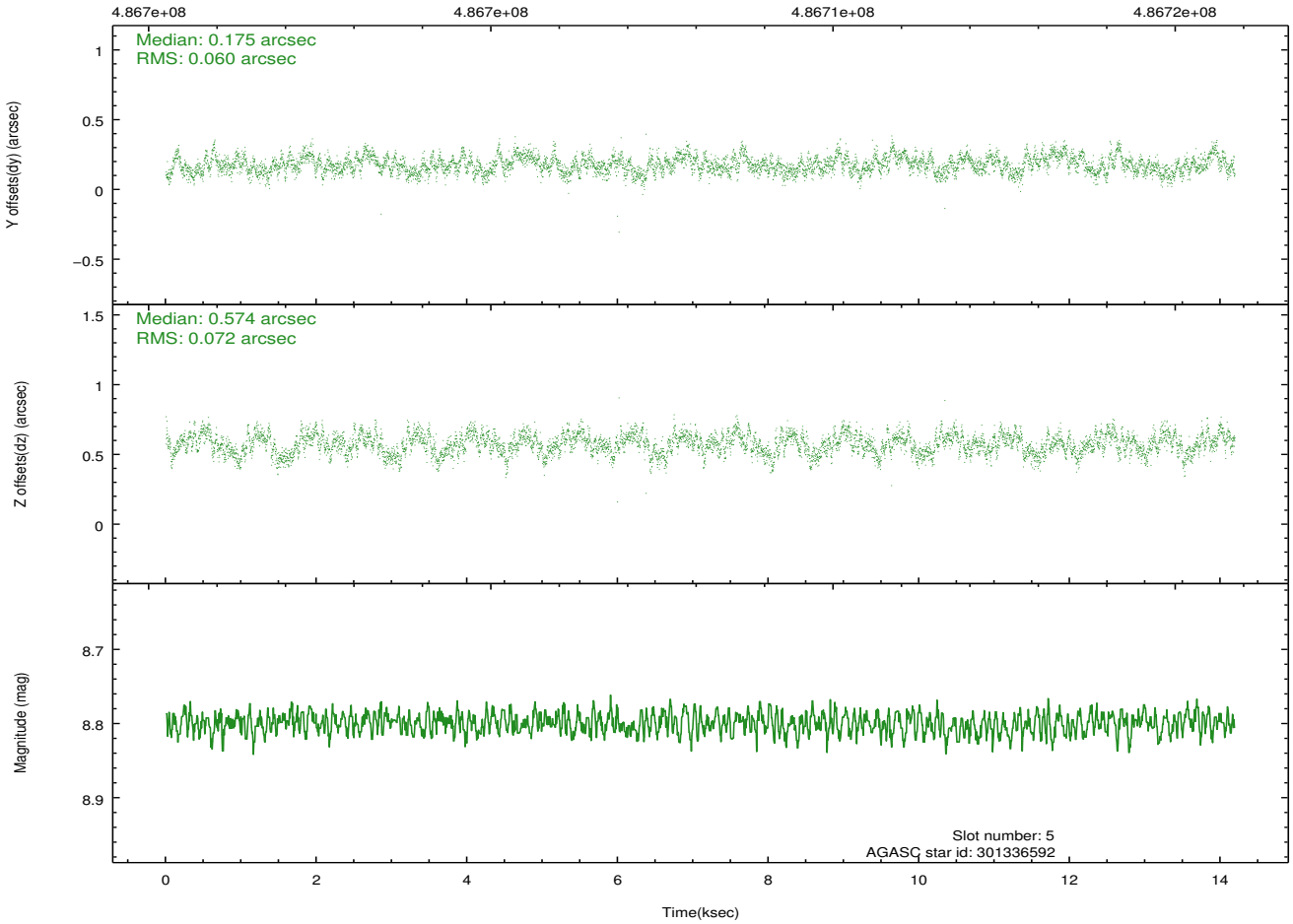
2.4.2 Slot 4



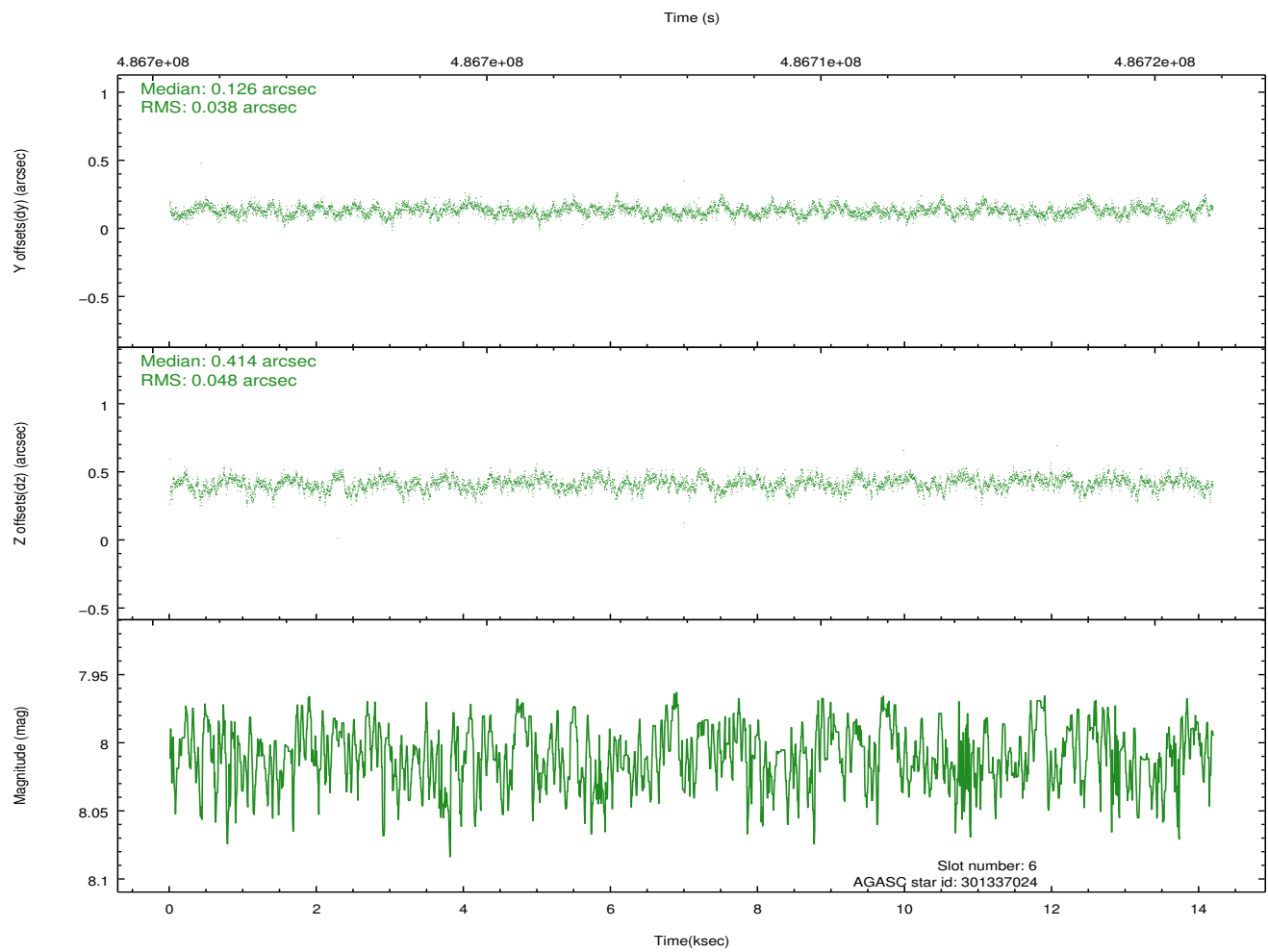
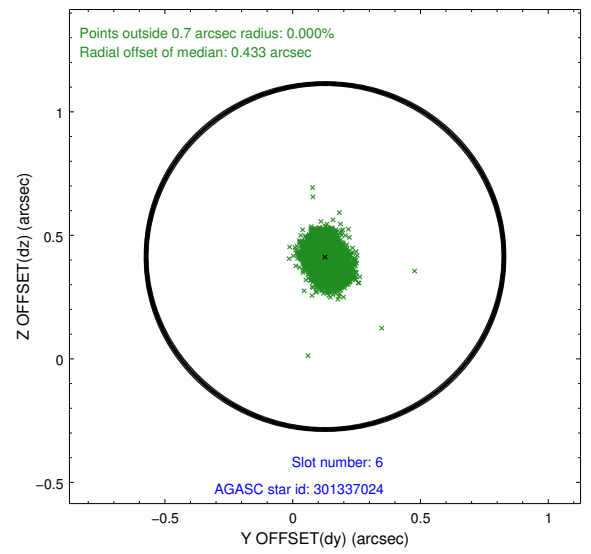
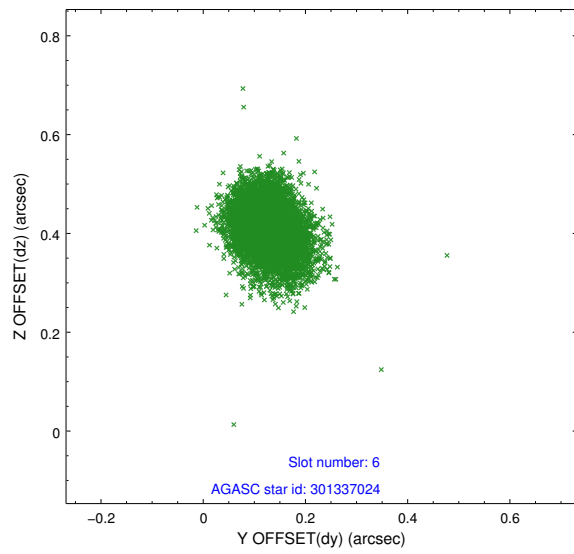
2.4.3 Slot 5



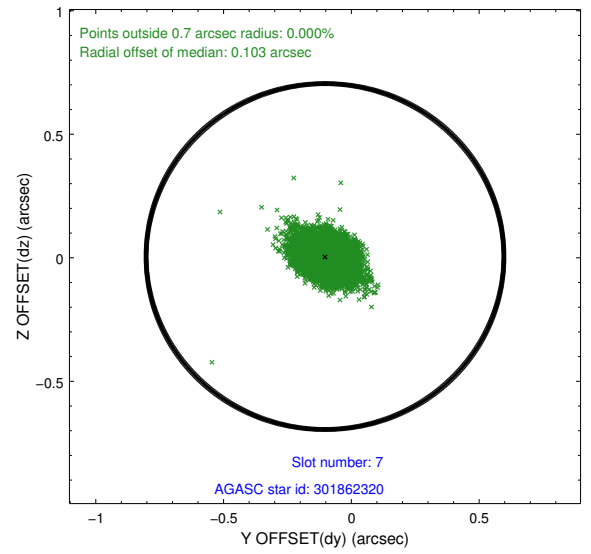
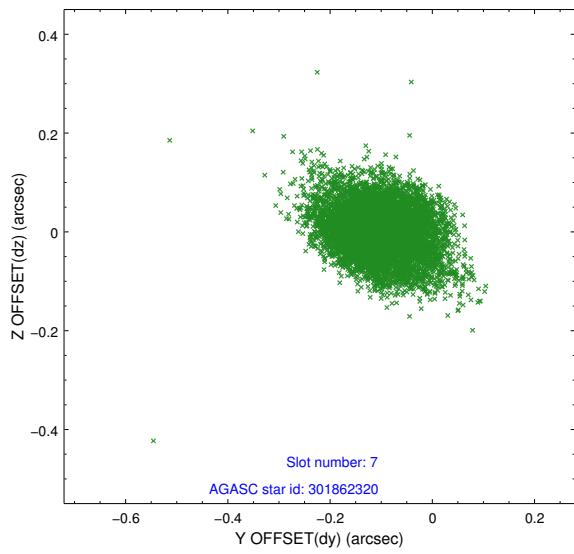
Time (s)



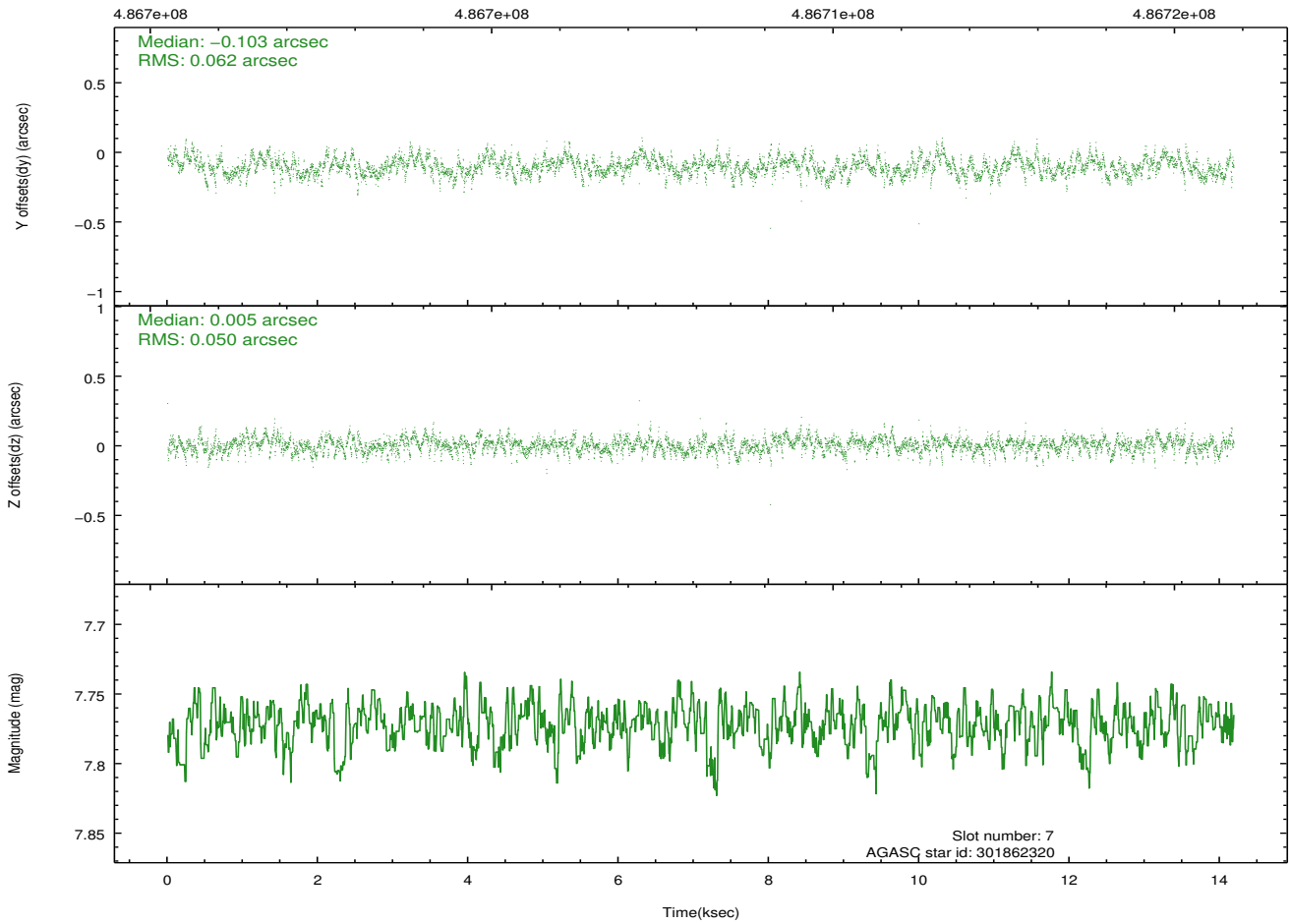
2.4.4 Slot 6



2.4.5 Slot 7

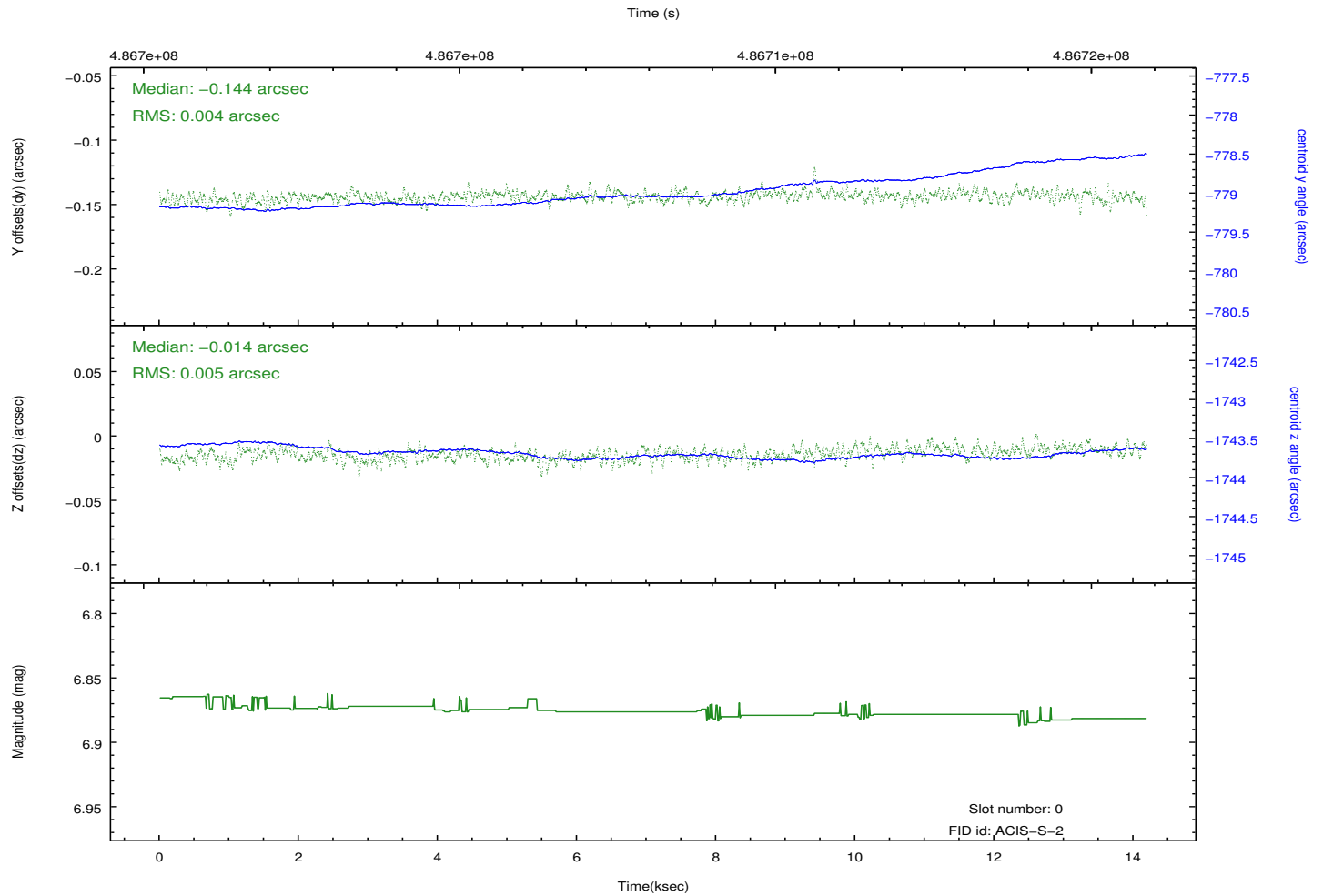
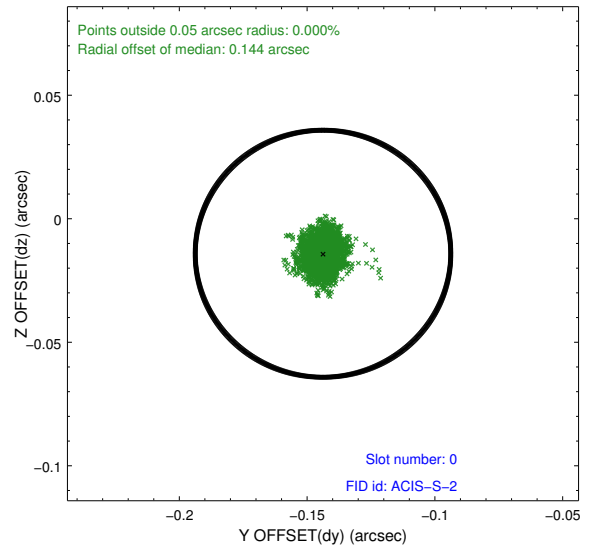
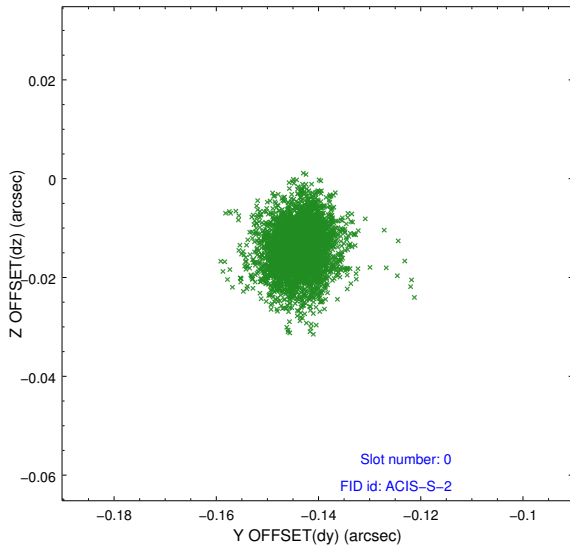


Time (s)

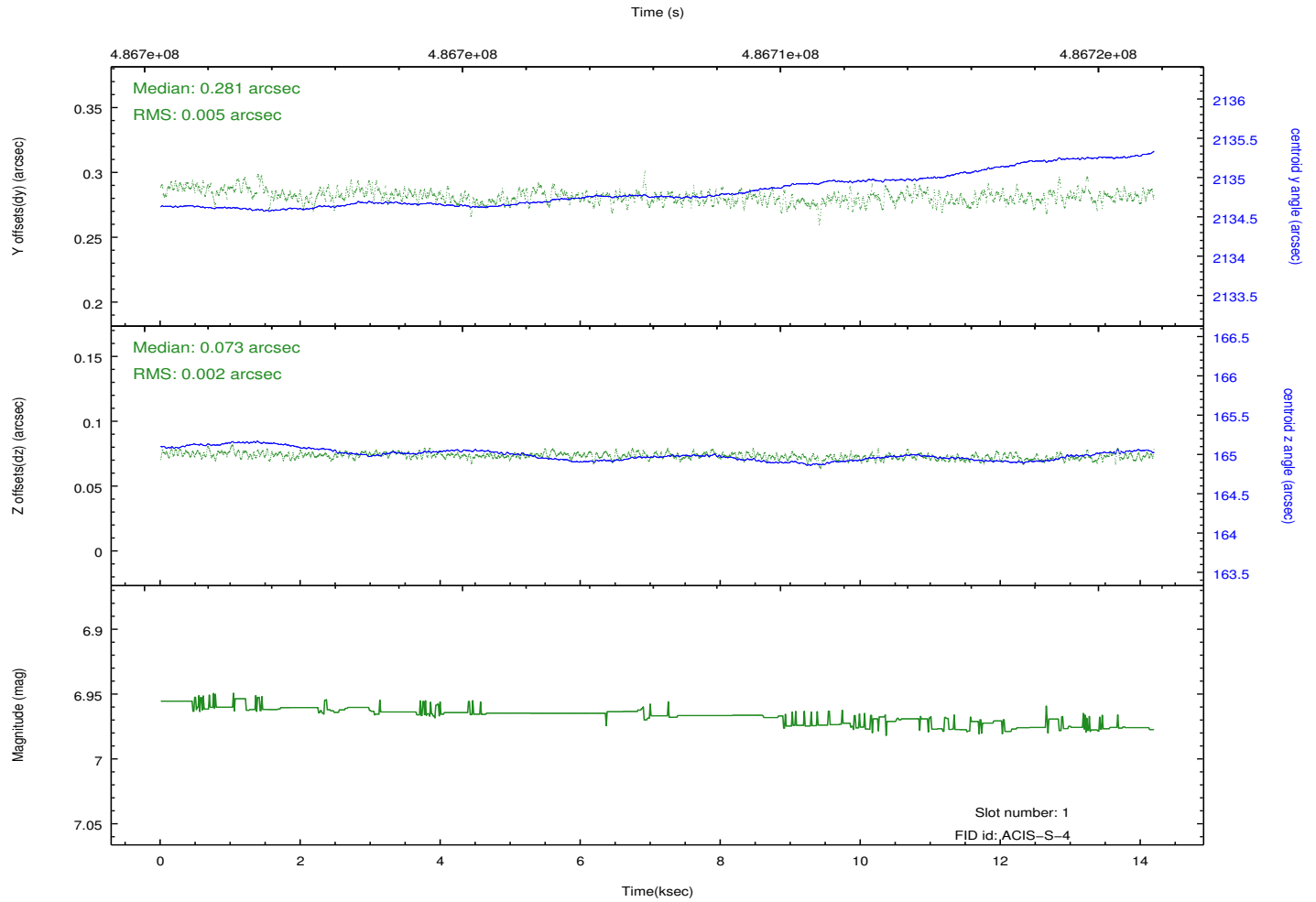
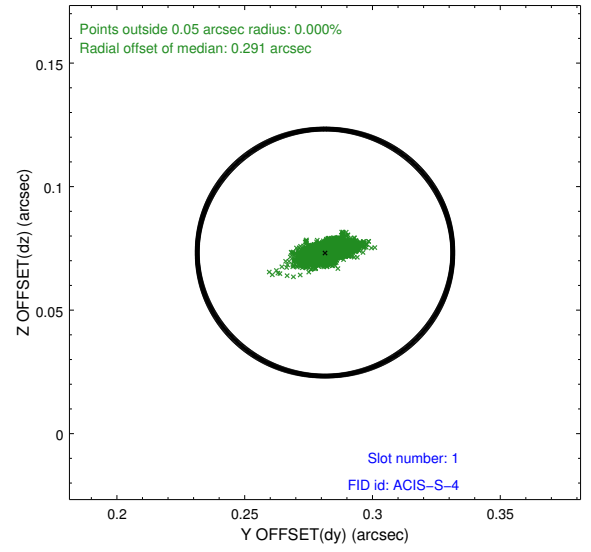
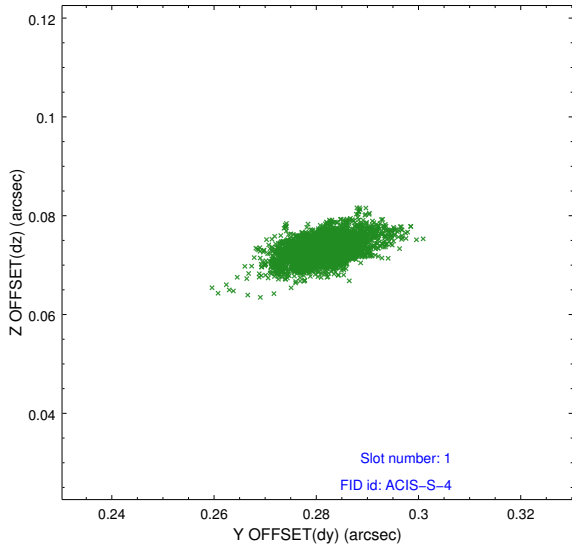


2.5 FID Slots

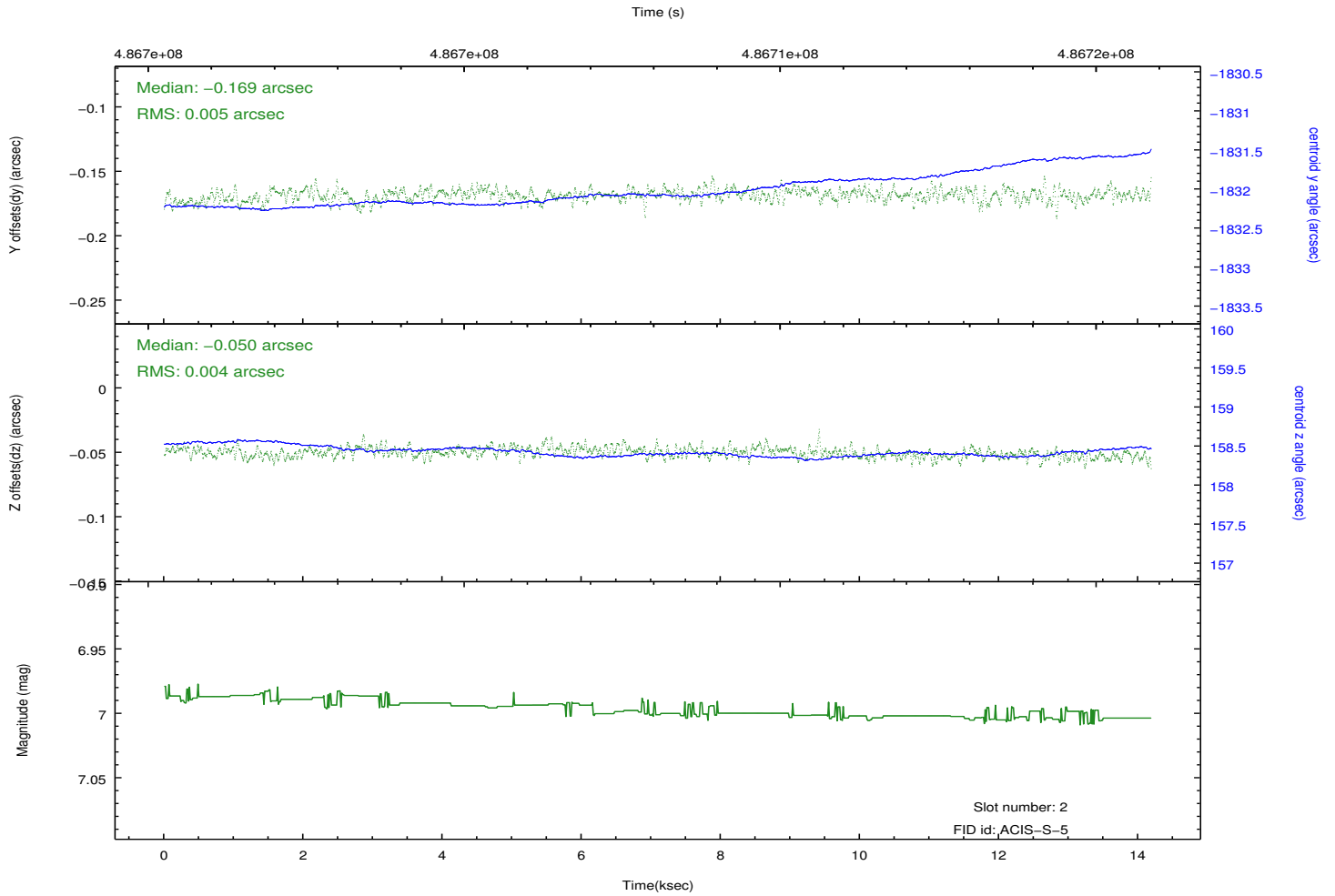
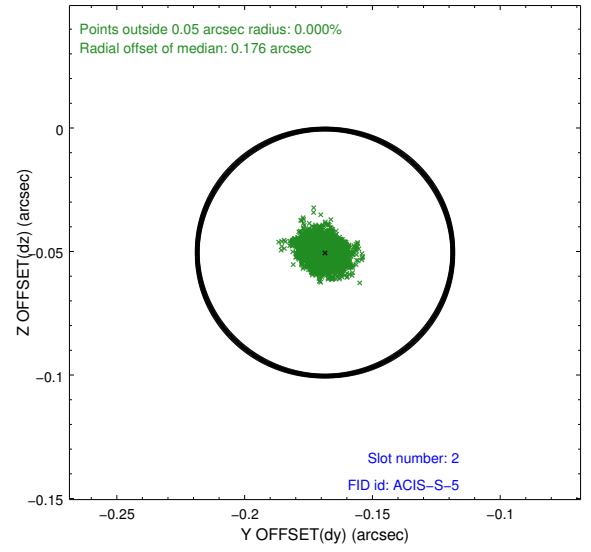
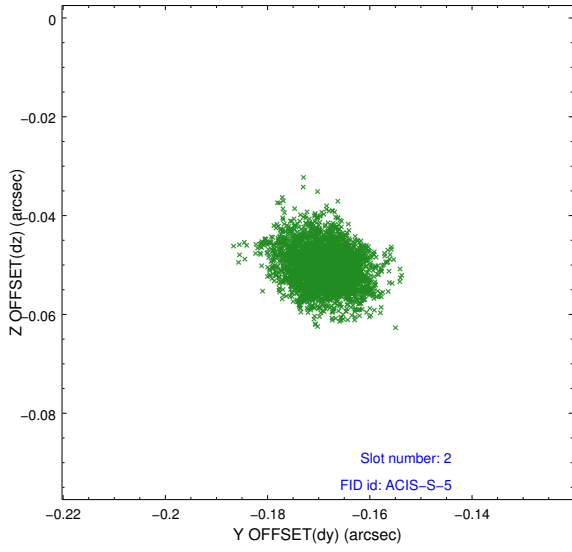
2.5.1 Slot 0



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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	13.753555261493

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.