

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 13609 - L2 Version 2
Chandra X-Ray Center

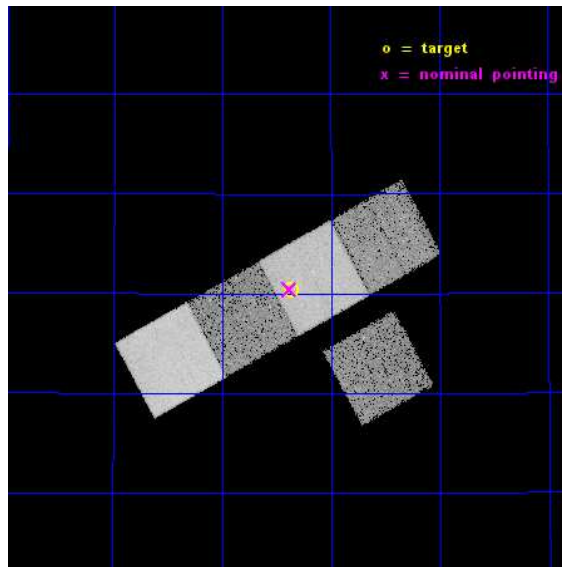
L2 Processing Date : Nov 29 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

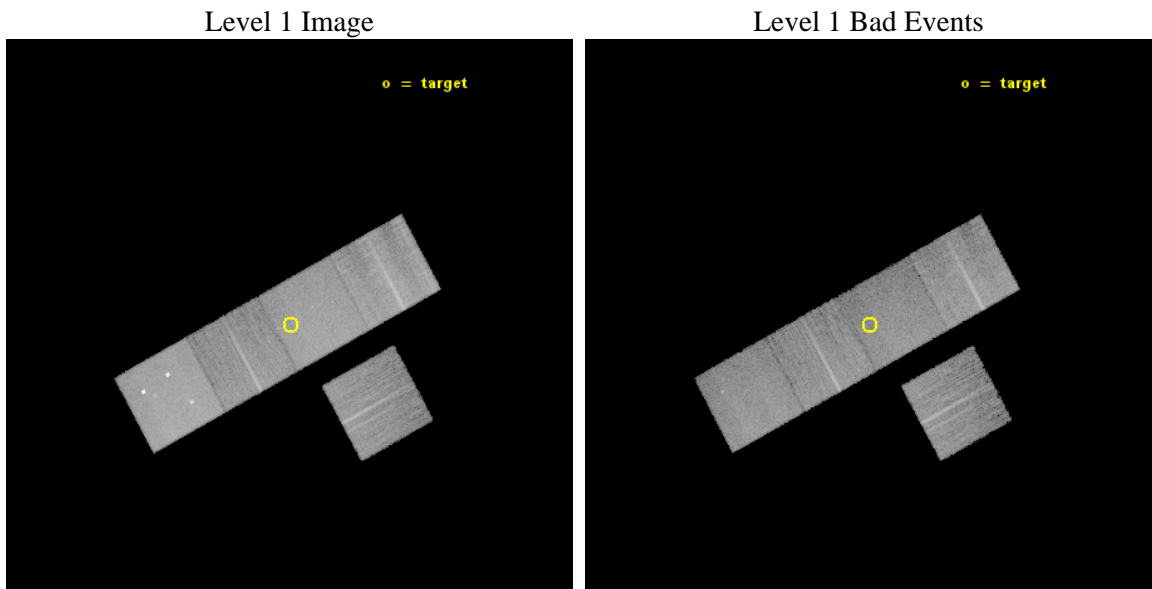
seq_num	200764	Sequence number
obs_id	13609	Observation id
title	Are Convective Dynamos Super-Saturated at High Rotation Velocities?	
observer	Prof. Edo Berger	Principal investigator
object	GJ4073	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	280.842083	Observer's specified target RA [deg]
dec_targ	40.6725	Observer's specified target Dec [deg]
ra_nom	280.8455727565	Nominal RA [deg]
dec_nom	40.67392771168	Nominal Dec [deg]
roll_nom	331.26243673864	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20066.300154328	Sum of GTIs [s]
livetime	19804.119170217	Livetime [s]
ontime3	20063.159183979	Sum of GTIs [s]
ontime5	20066.300154328	Sum of GTIs [s]
ontime6	20066.300154328	Sum of GTIs [s]
ontime7	20066.300154328	Sum of GTIs [s]
ontime8	20063.159213841	Sum of GTIs [s]
l2events	170545	Number of level 2 events



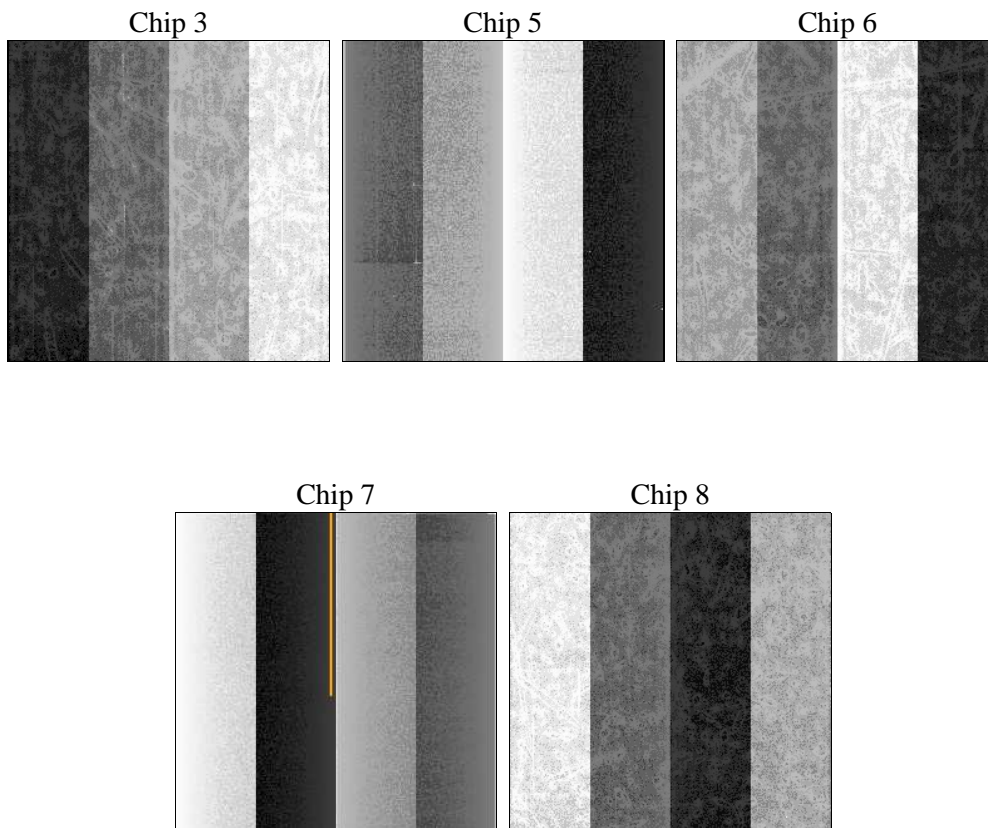
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	20066.300154328	Sum of GTIs [s]
caldbver	4.6.4	 	ontime3	20063.159183979	Sum of GTIs [s]
date	2014-11-30T02:39:41	Date and time of file creation	ontime5	20066.300154328	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	20066.300154328	Sum of GTIs [s]
			ontime7	20066.300154328	Sum of GTIs [s]
			ontime8	20063.159213841	Sum of GTIs [s]
			l1events	651188	Number of level 1 events

2.1.4 Events

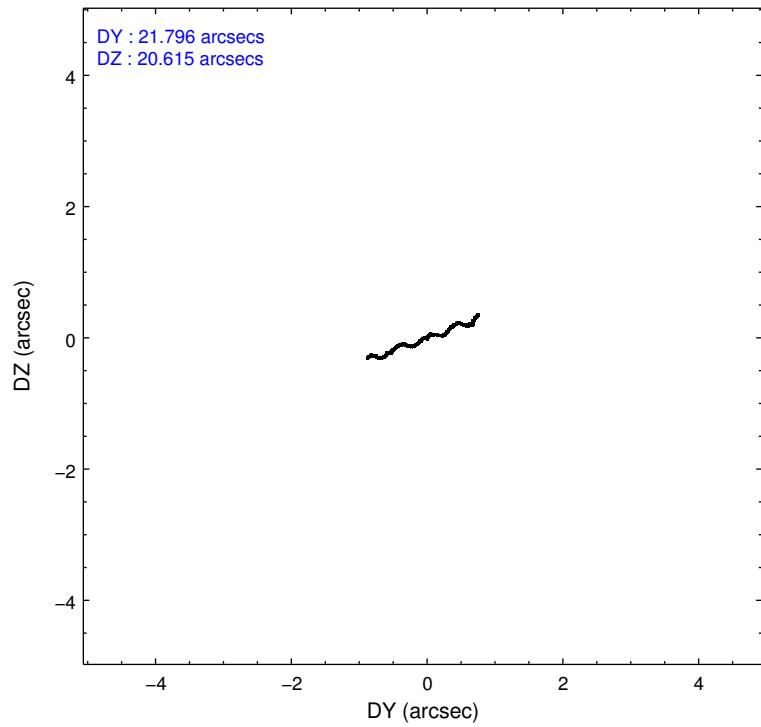
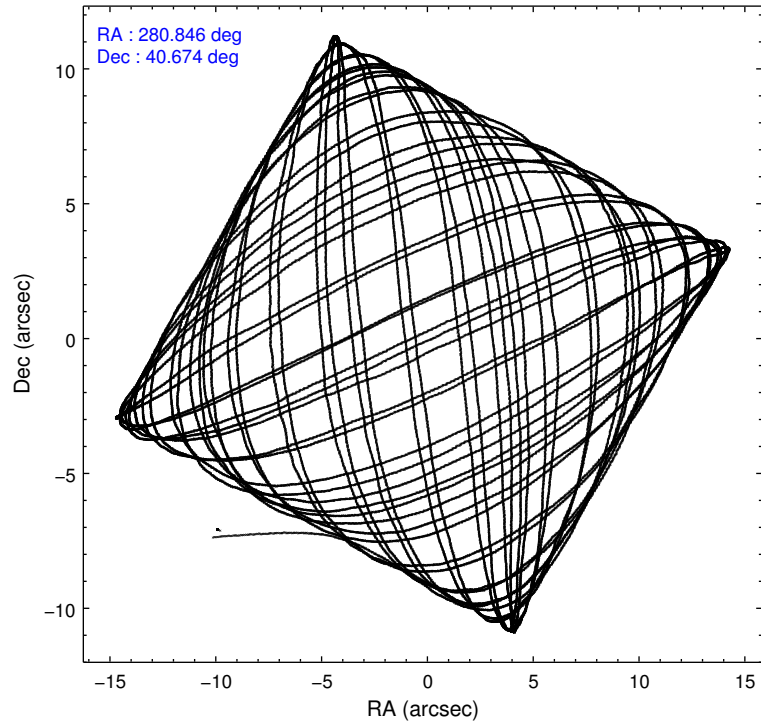
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	93374	176827	102781	138938	139268
rejected events	82146	87600	90016	78686	102165
rejected %	87%	49%	87%	56%	73%

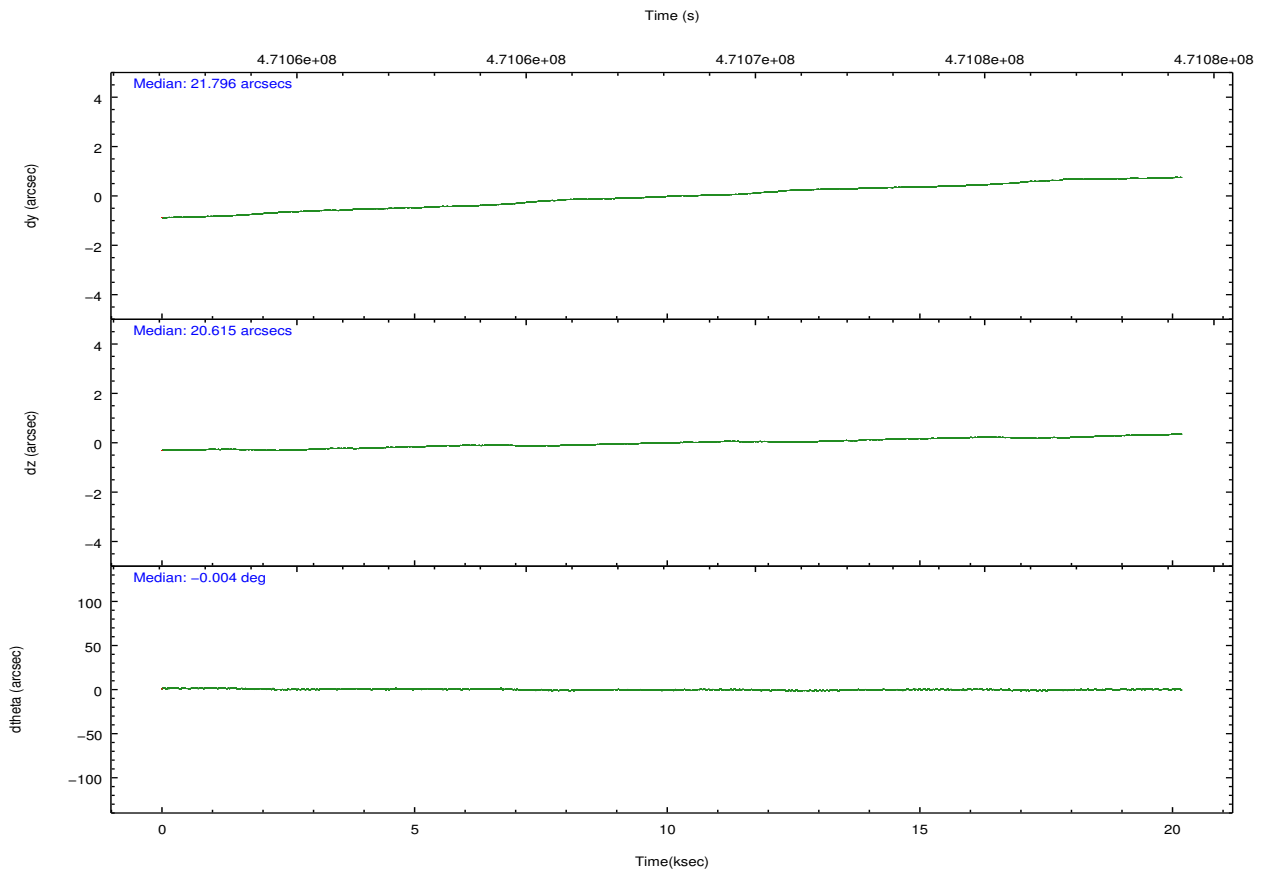
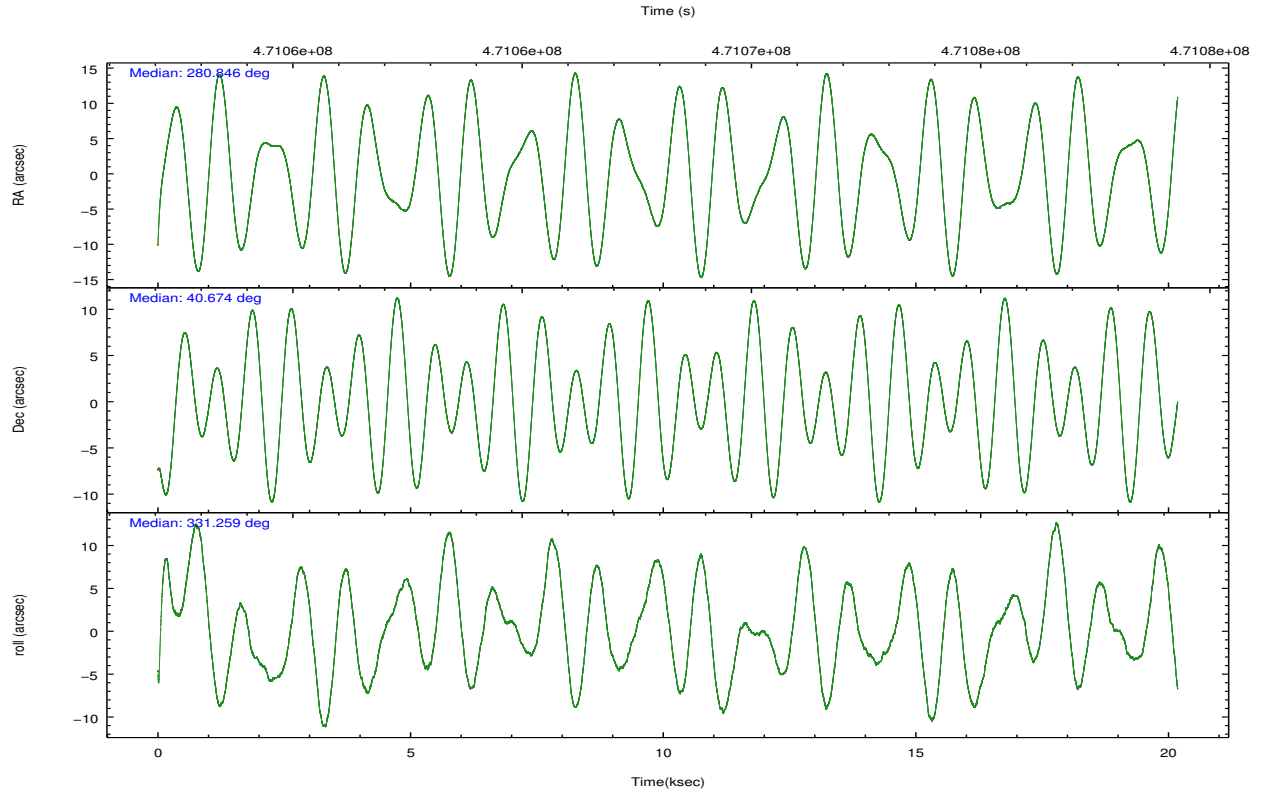
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	3826	12887	4498	5360	11000
	4%	7%	4%	3%	7%
grade 1 events	64	521	66	147	111
	0%	0%	0%	0%	0%
grade 2 events	2478	26871	2911	12342	8621
	2%	15%	2%	8%	6%
grade 3 events	1208	2812	1335	5011	3838
	1%	1%	1%	3%	2%
grade 4 events	1262	2719	1245	5182	3678
	1%	1%	1%	3%	2%
grade 5 events	5271	12544	5323	14195	7667
	5%	7%	5%	10%	5%
grade 6 events	2457	43952	2780	32368	9999
	2%	24%	2%	23%	7%
grade 7 events	76808	74521	84623	64333	94354
	82%	42%	82%	46%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	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	280.809554	280.8455727564969	CCD I2 on	N	N
[deg] Pointing Dec	40.672983	40.67392771167999	CCD I3 on	O1	Y
[deg] Pointing Roll	331.129298	331.2624367386427	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[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)	471058262.184000	471056781.91585	CCD S5 on	N	N
Observation start date	2012-12-05T01:29:55	2012-12-05T01:06:21	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	471078262.184000	471079031.07954	On-chip summing requested	N	N
Observation end date	2012-12-05T07:03:15	2012-12-05T07:17:11	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



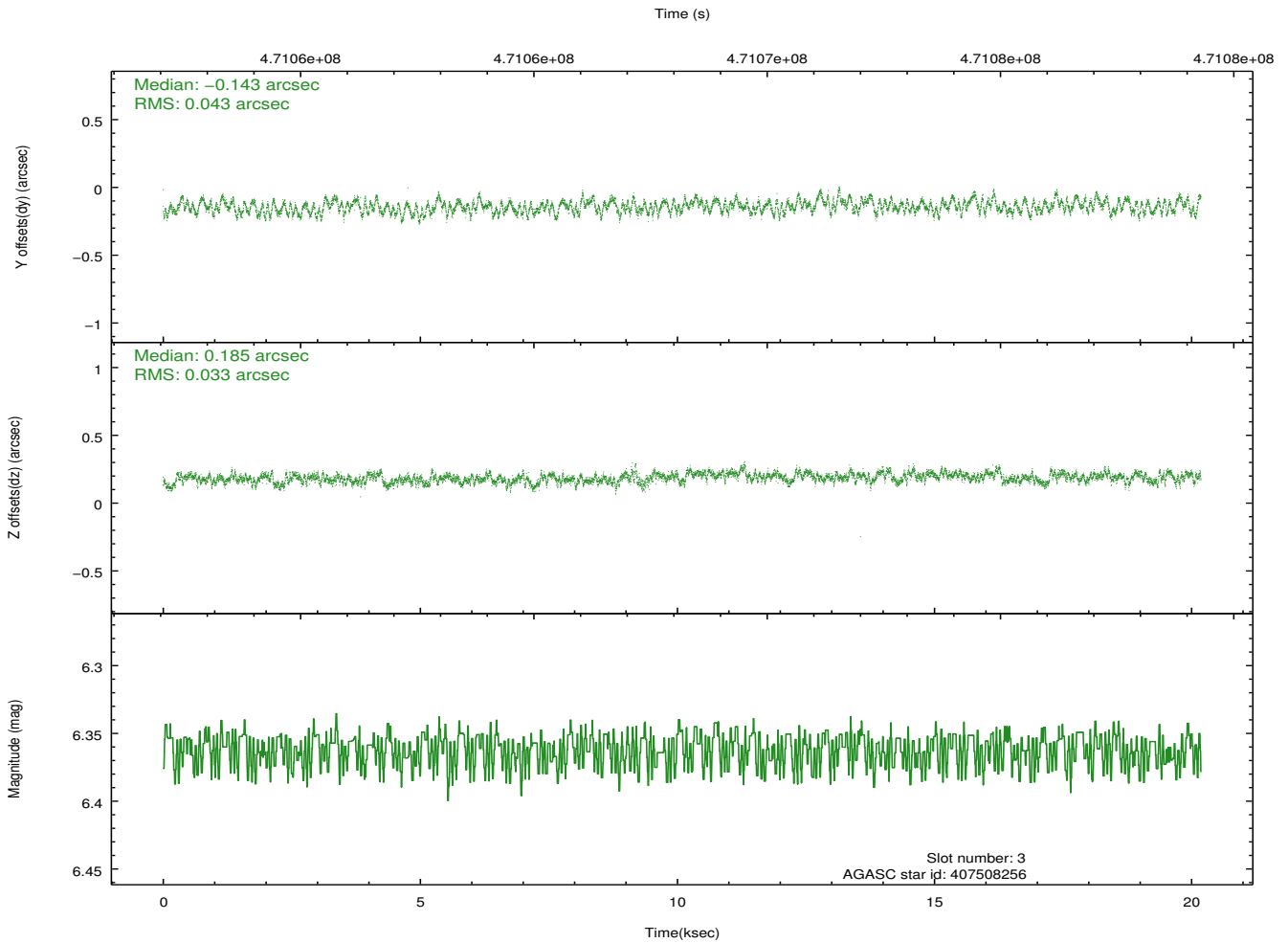
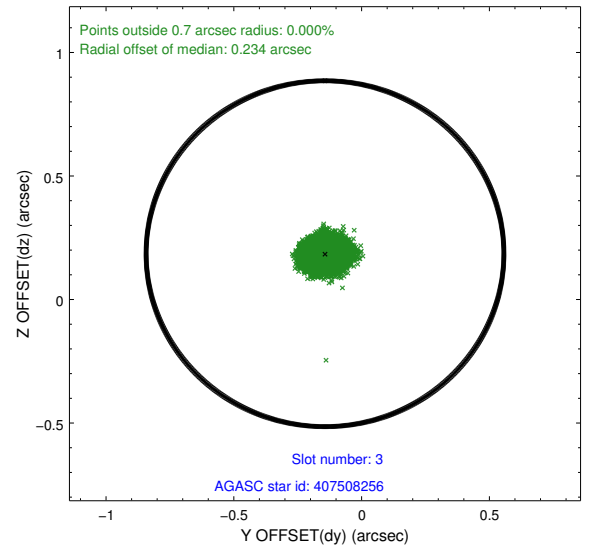
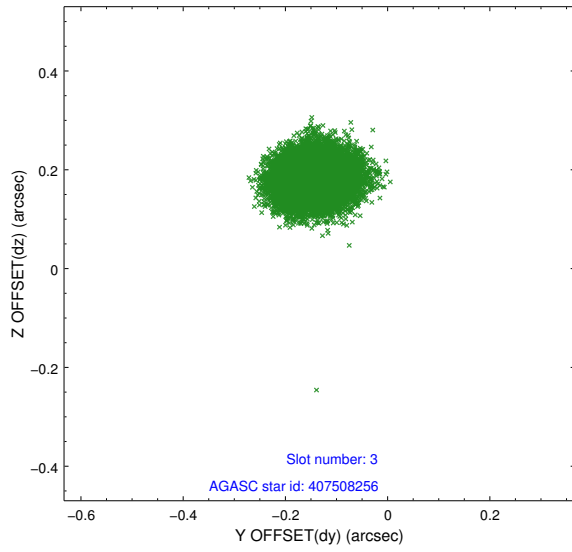


Slot Statistics

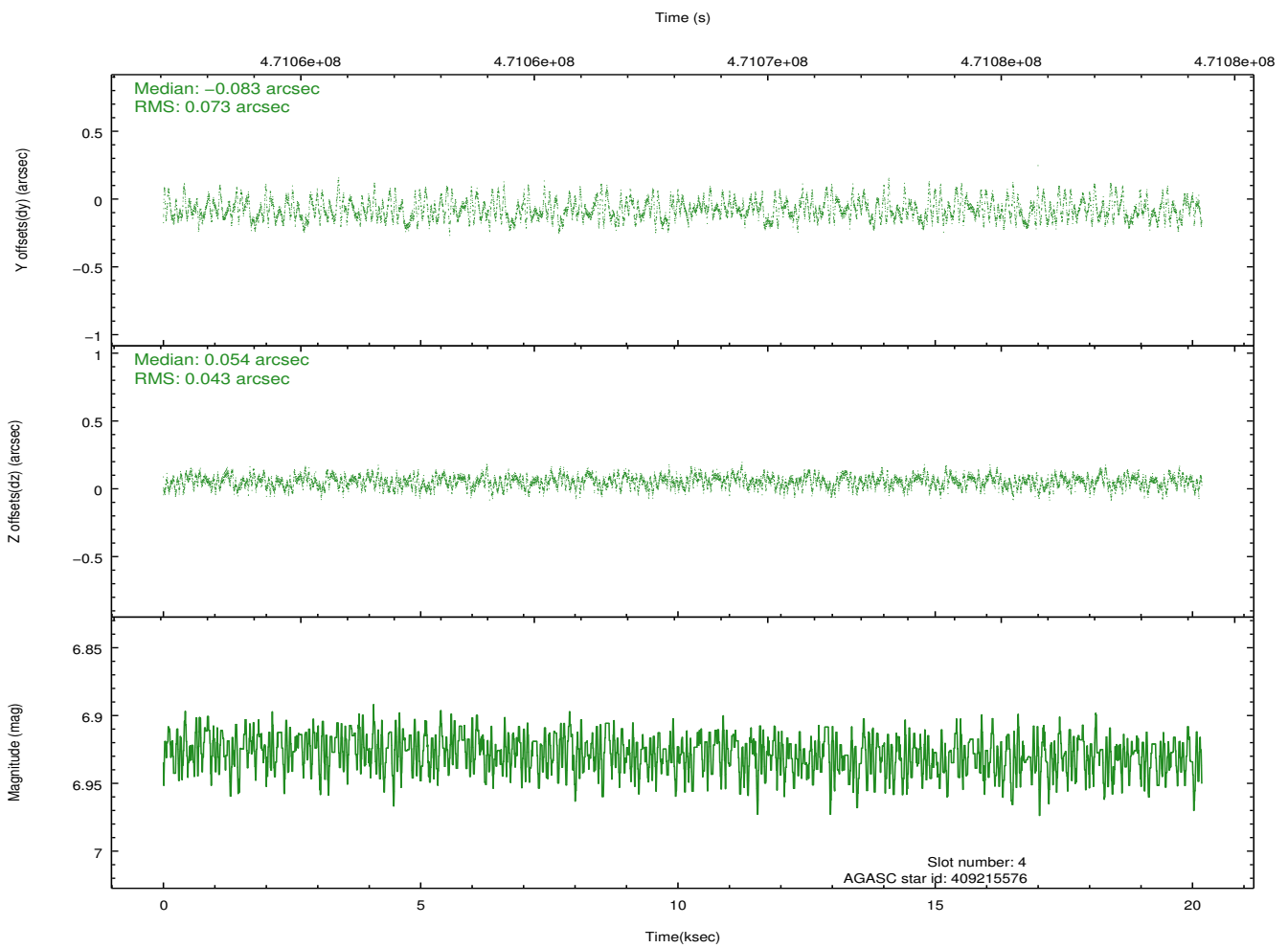
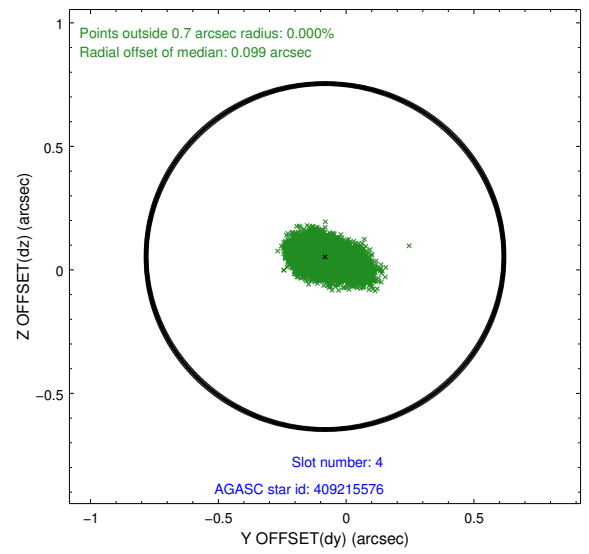
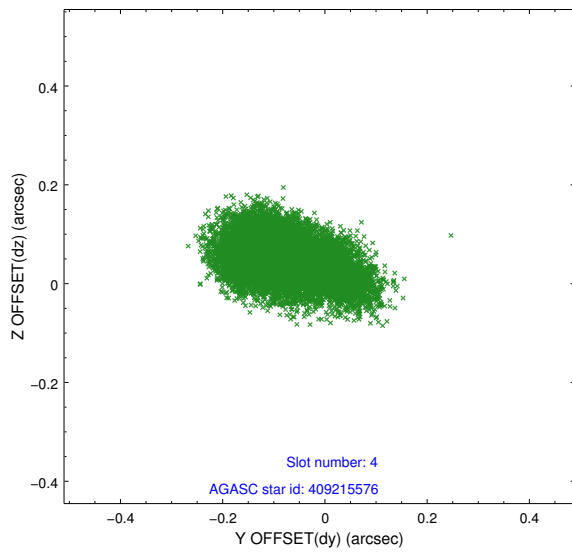
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.92	4923	-0.111	-0.011	0.012	0.019	0.000000	0.000000	-775.03	-1742.09
1	FID		ACIS-S-4	7.01	4923	0.243	0.056	0.010	0.019	0.000000	0.000000	2138.52	166.26
2	FID		ACIS-S-5	7.04	4923	-0.160	-0.038	0.015	0.030	0.000000	0.000000	-1827.69	160.05
3	GUIDE	used	407508256	6.36	9846	-0.143	0.185	0.059	0.091	279.998065	40.331396	-1361.07	-2142.77
4	GUIDE	used	409215576	6.93	9846	-0.083	0.054	0.089	0.152	280.420534	40.717833	-1007.92	-369.28
5	GUIDE	used	409733136	8.78	9839	-0.125	-0.040	0.095	0.155	280.388540	41.389171	-2241.73	1711.21
6	GUIDE	used	409211704	9.20	9806	0.404	-0.222	0.176	0.300	281.180556	39.898904	2242.54	-1943.36
7	GUIDE	used	409227176	8.44	9842	-0.060	0.024	0.143	0.206	281.535346	40.279809	2425.76	-269.66

2.4 Star Slots

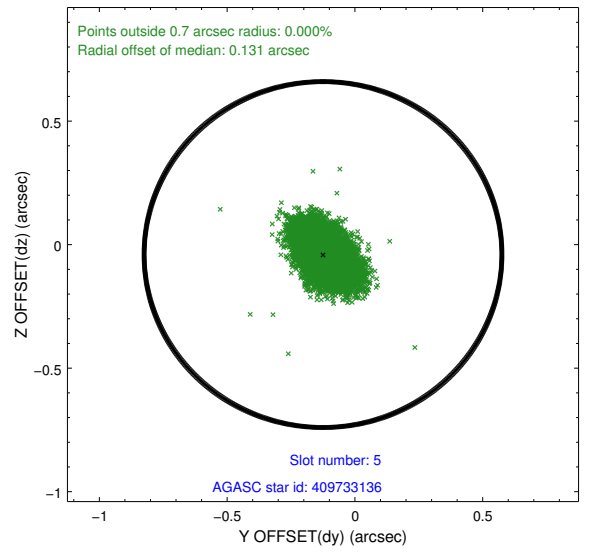
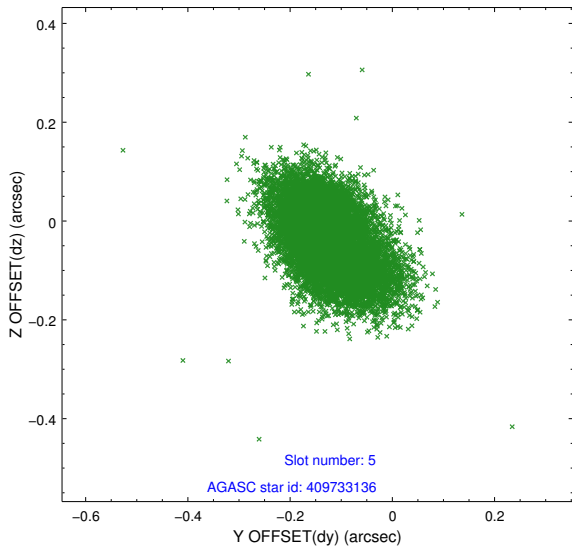
2.4.1 Slot 3



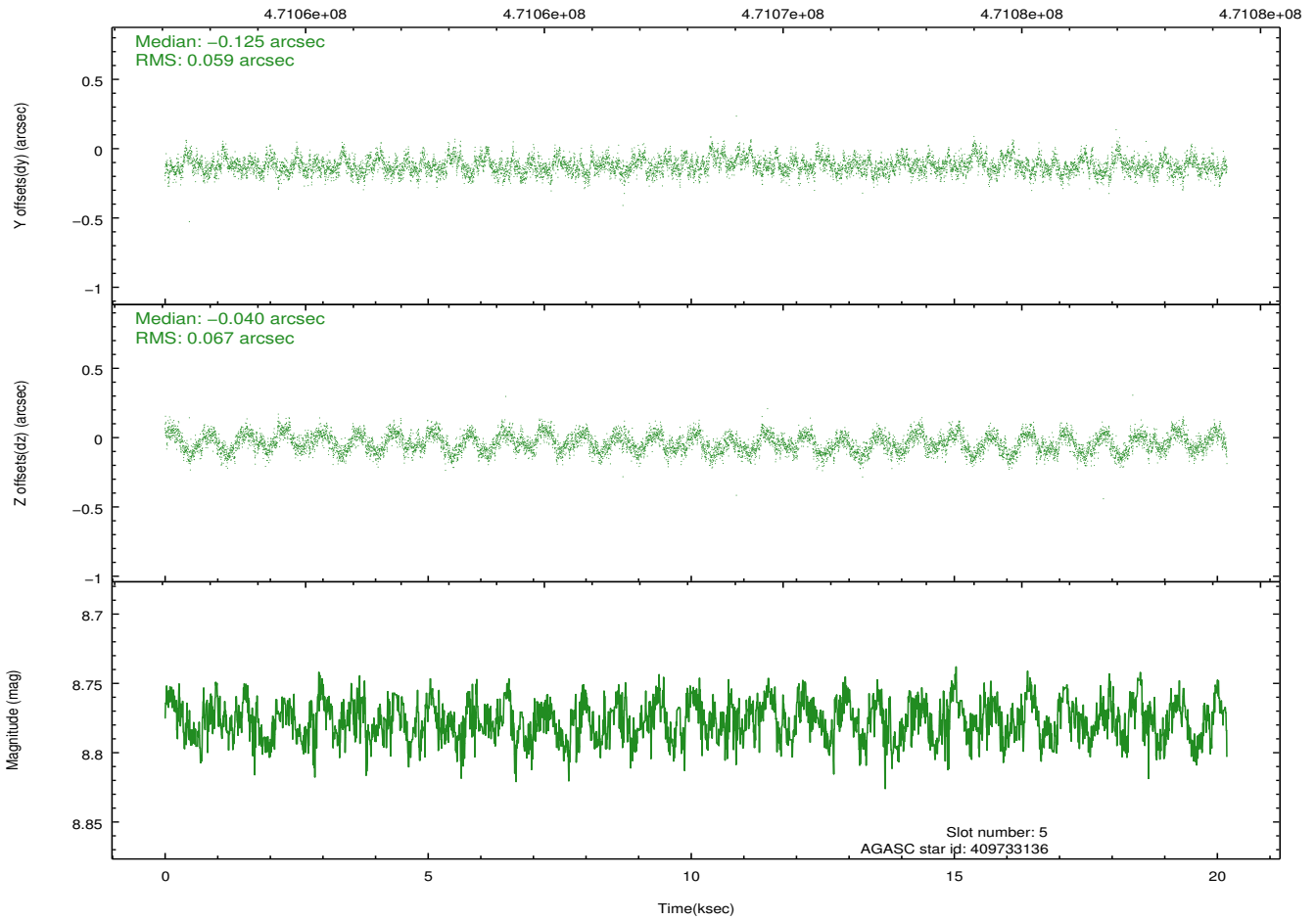
2.4.2 Slot 4



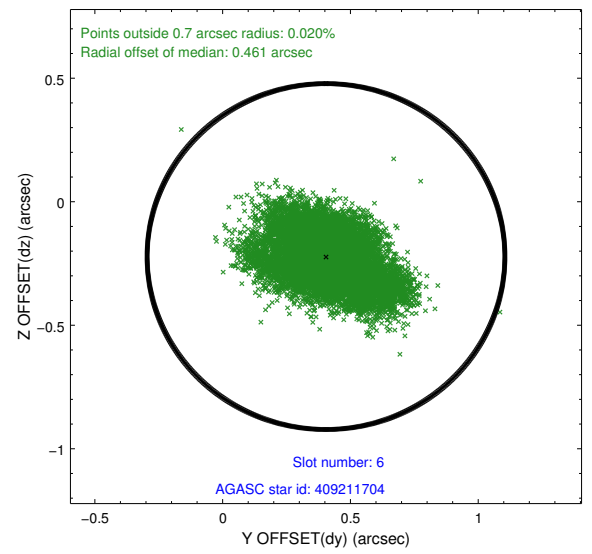
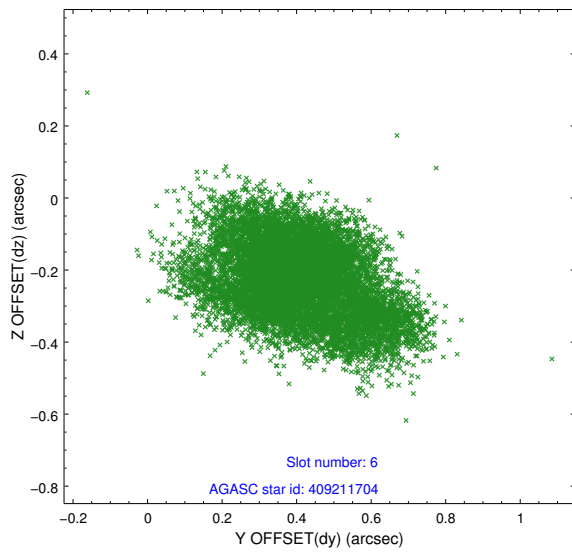
2.4.3 Slot 5



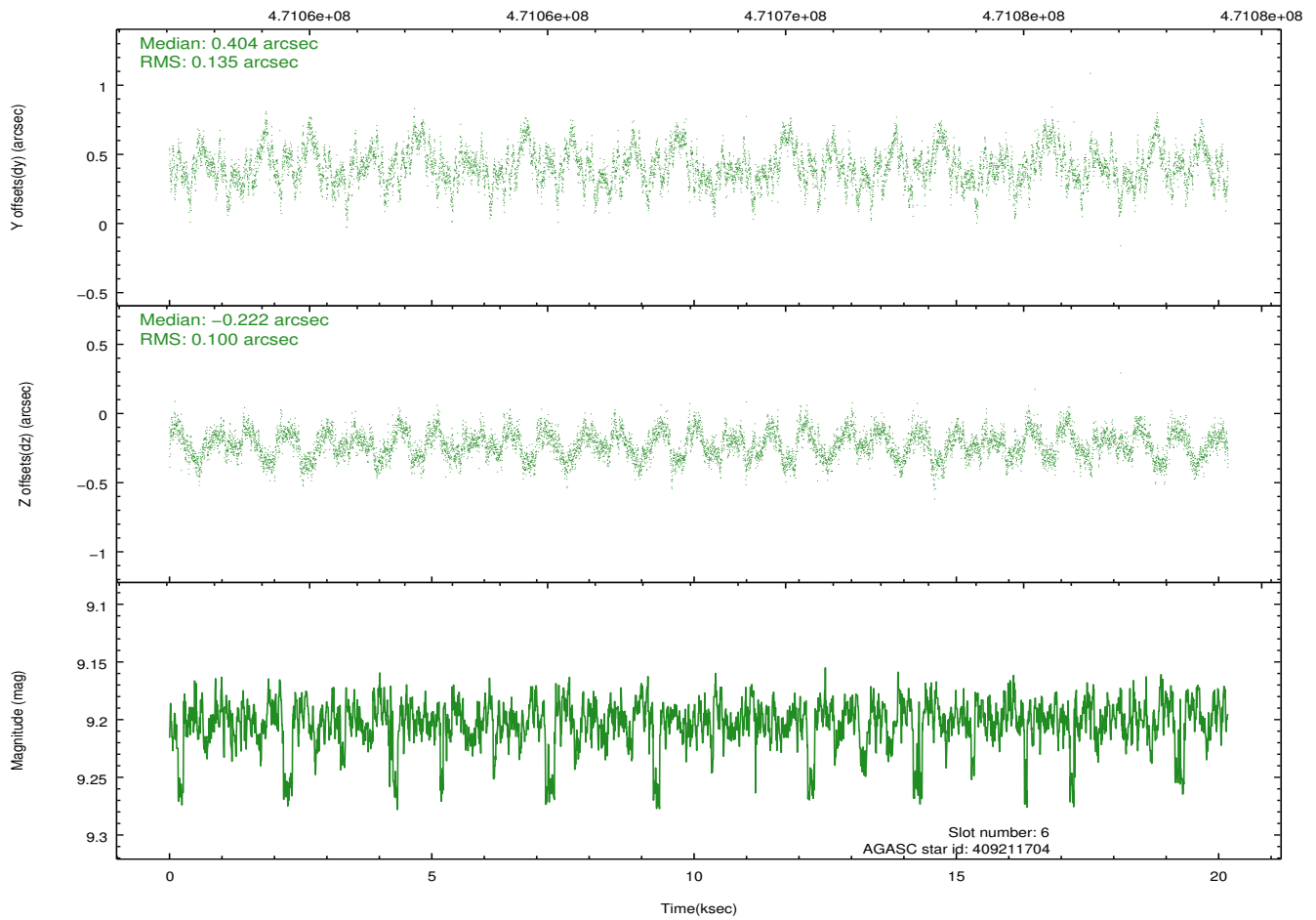
Time (s)



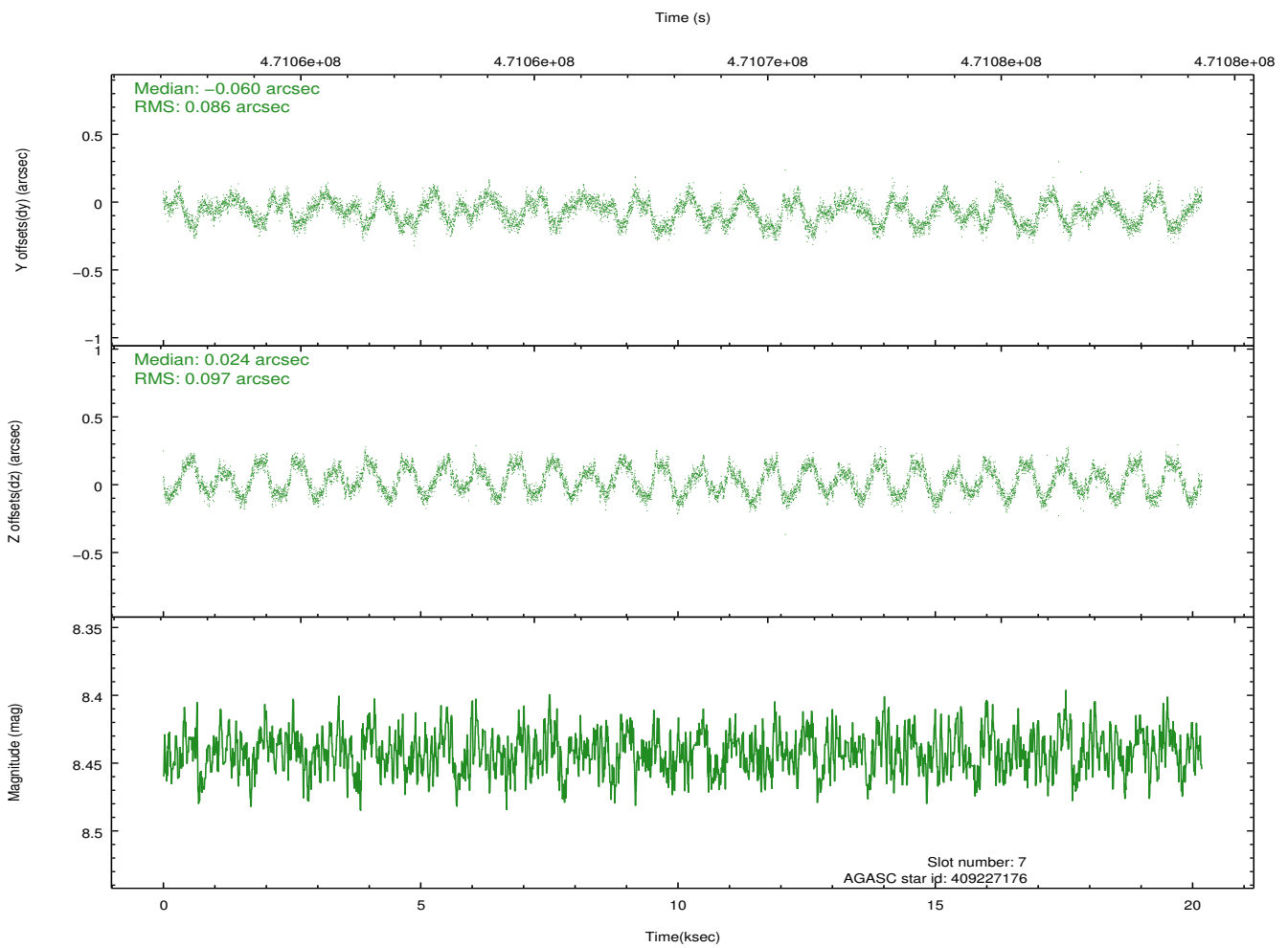
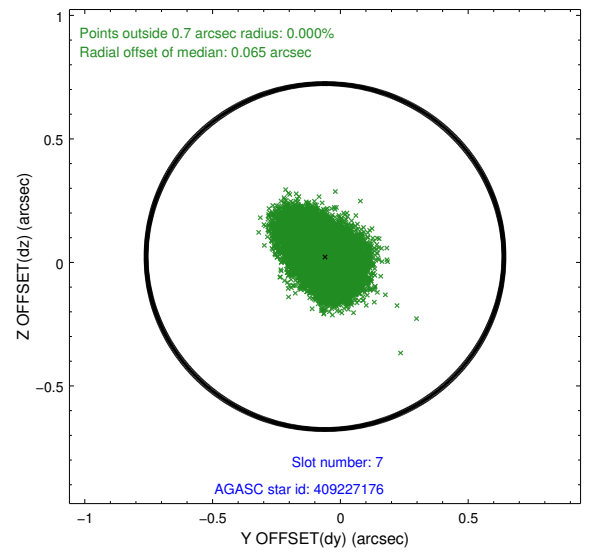
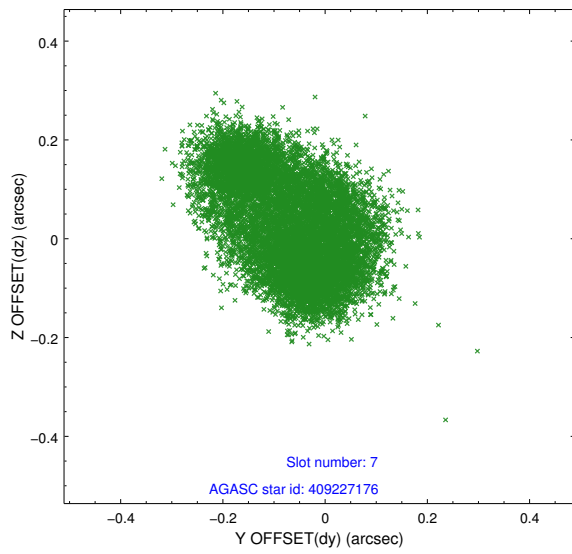
2.4.4 Slot 6



Time (s)

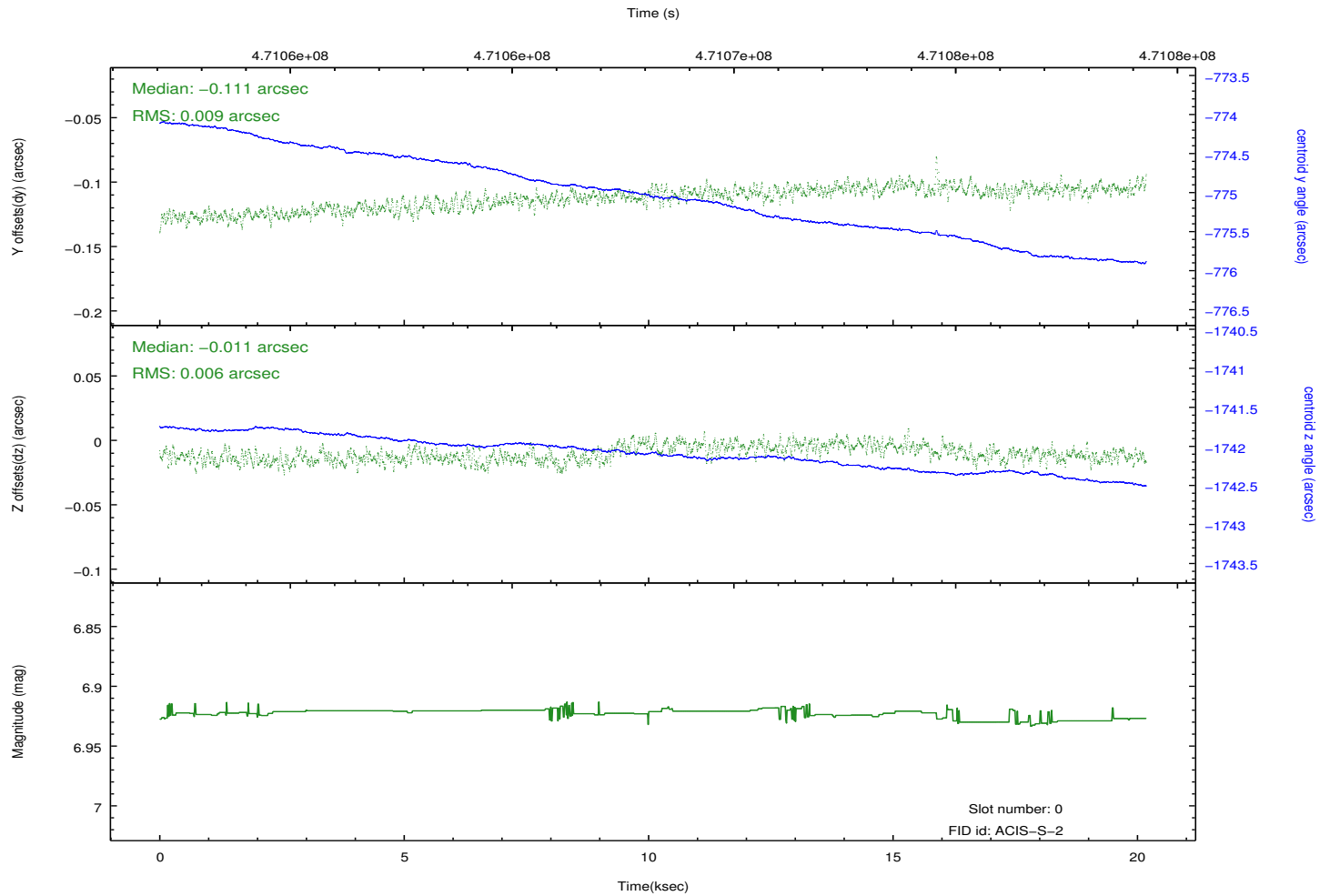
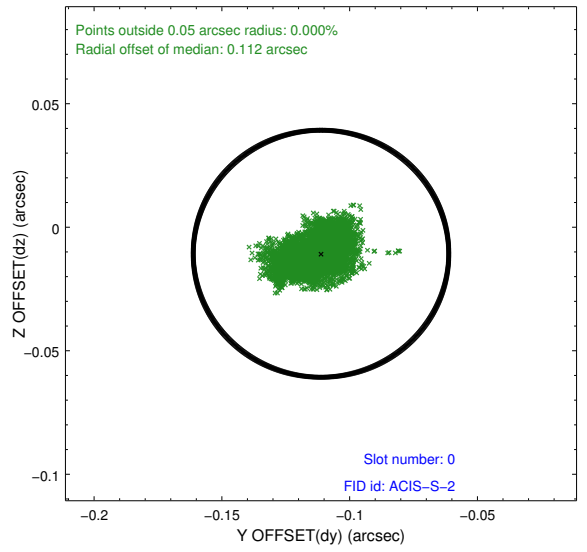
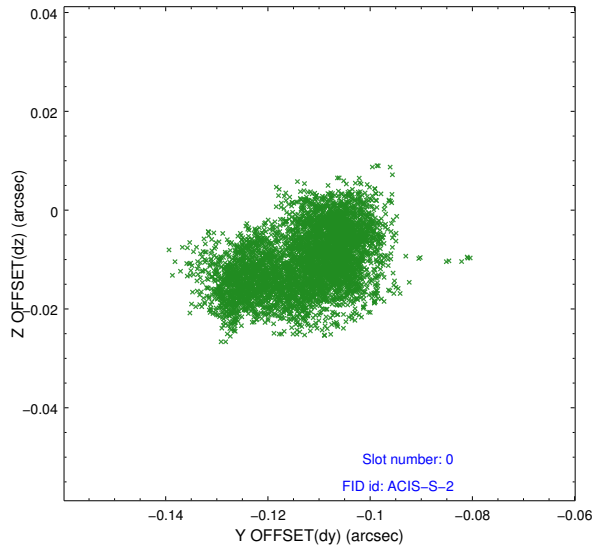


2.4.5 Slot 7

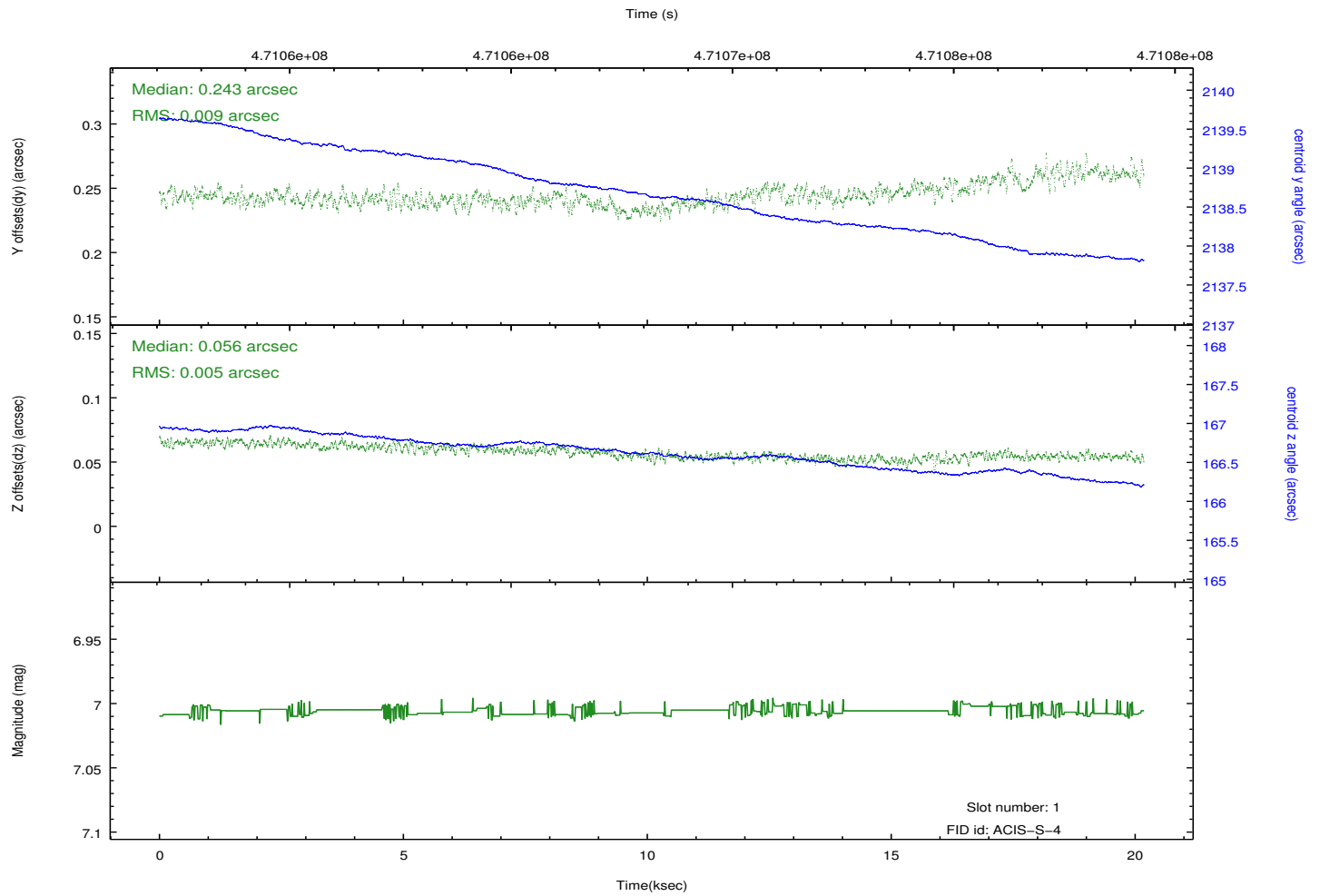
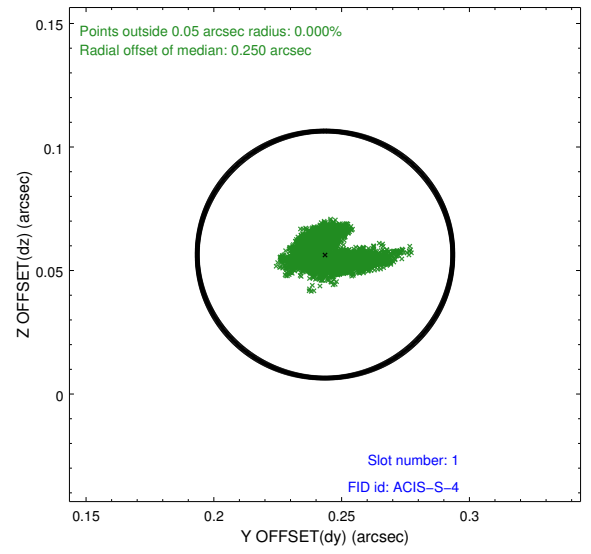
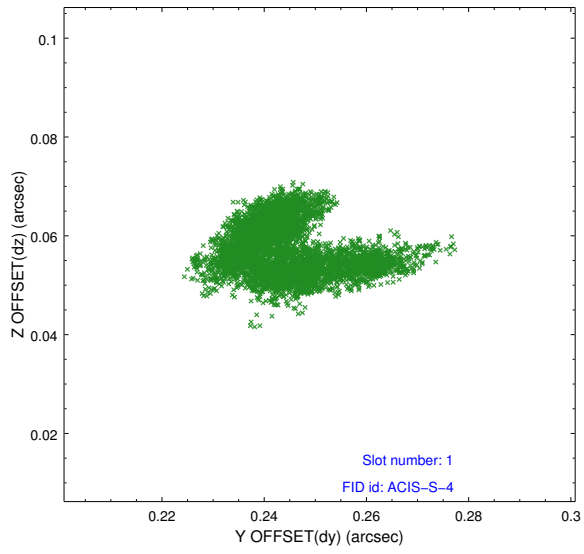


2.5 FID Slots

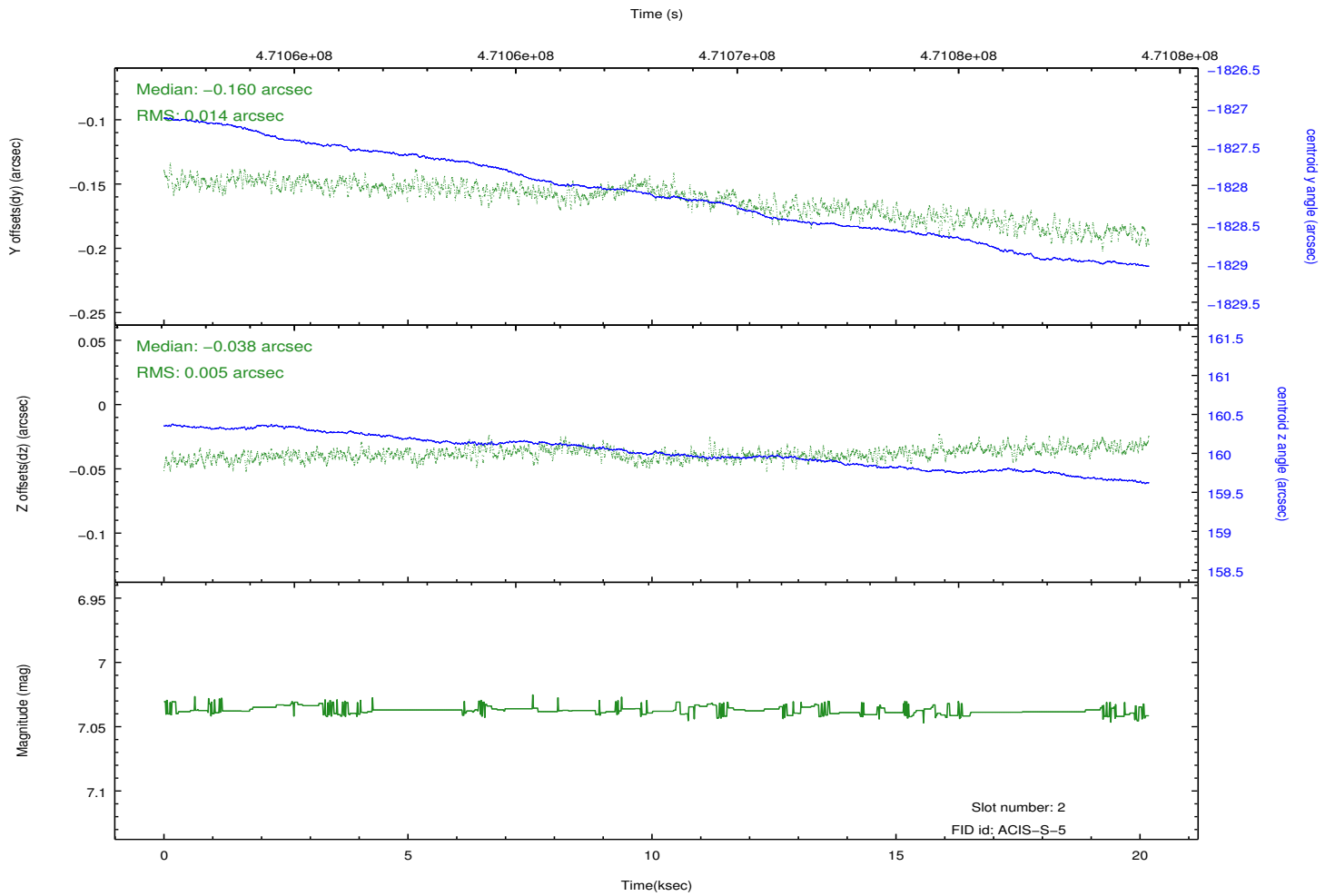
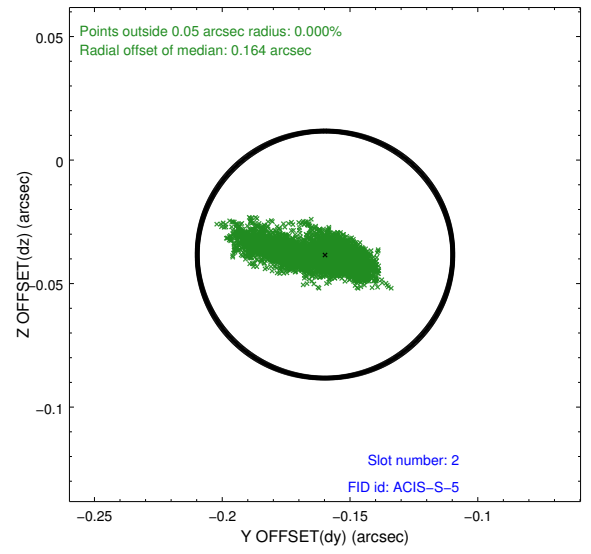
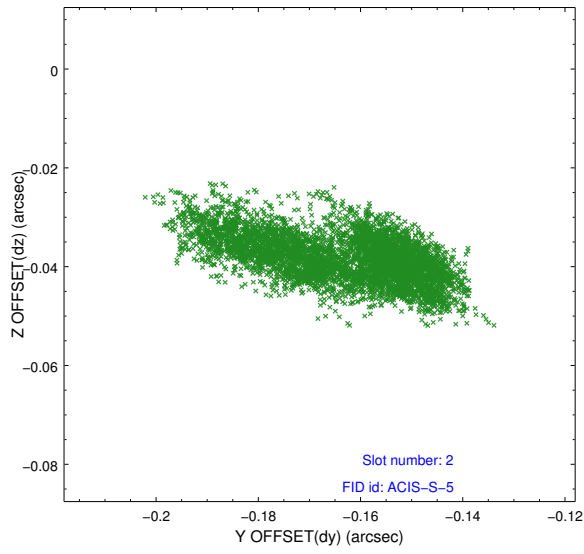
2.5.1 Slot 0



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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.066300154328

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.