

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 13595 - L2 Version 2
Chandra X-Ray Center

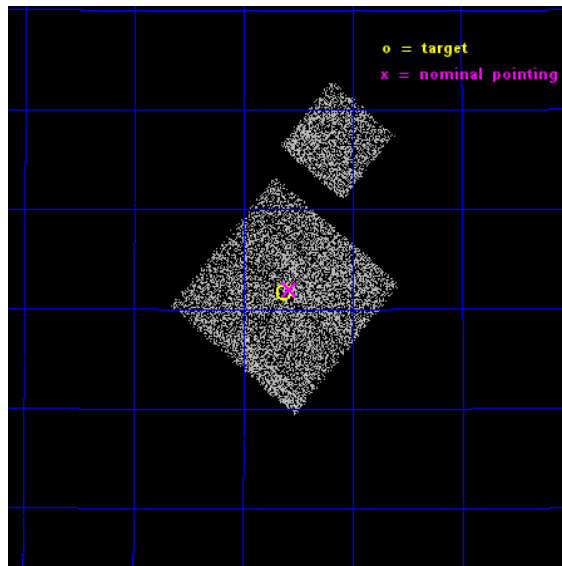
L2 Processing Date : Nov 27 2014

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

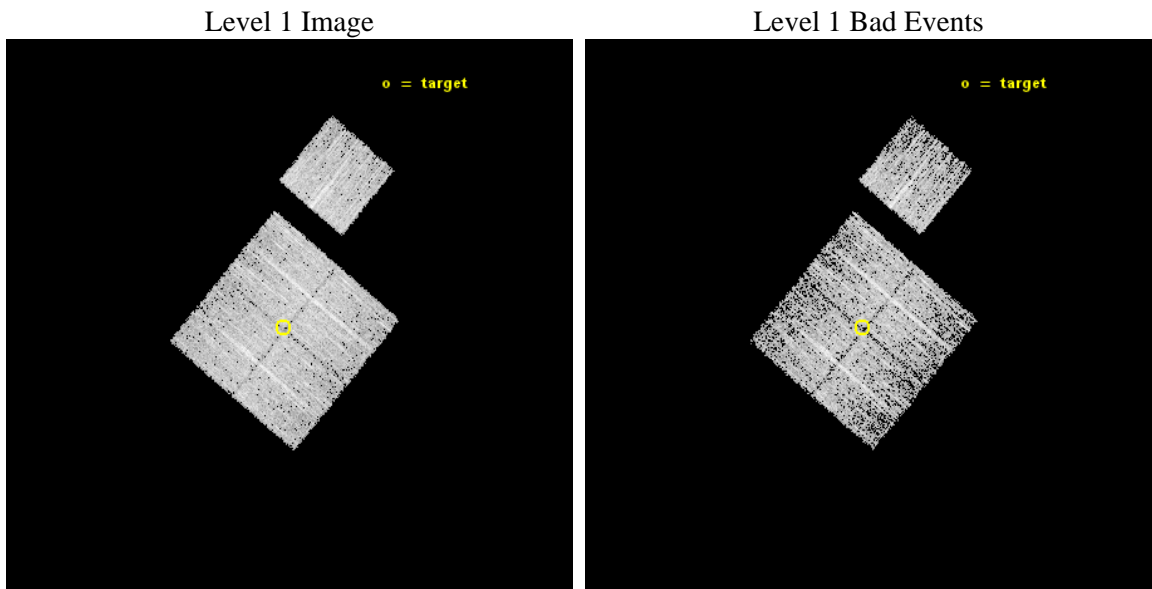
seq_num	801156	Sequence number
obs_id	13595	Observation id
title	To The Outer Limits of Clusters with Chandra and Suzaku	Proposal t
observer	Dr. Eric Miller	Principal investigator
object	A1068	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	160.15636	Observer's specified target RA [deg]
dec_targ	40.193457	Observer's specified target Dec [deg]
ra_nom	160.14446936568	Nominal RA [deg]
dec_nom	40.199890875833	Nominal Dec [deg]
roll_nom	40.028661567527	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5080.2698709369	Sum of GTIs [s]
livetime	5013.8924050328	Livetime [s]
ontime0	5080.2288309336	Sum of GTIs [s]
ontime1	5080.2698709369	Sum of GTIs [s]
ontime2	5080.3109109402	Sum of GTIs [s]
ontime3	5080.3519509435	Sum of GTIs [s]
ontime6	5080.1877909303	Sum of GTIs [s]
l2events	13946	Number of level 2 events



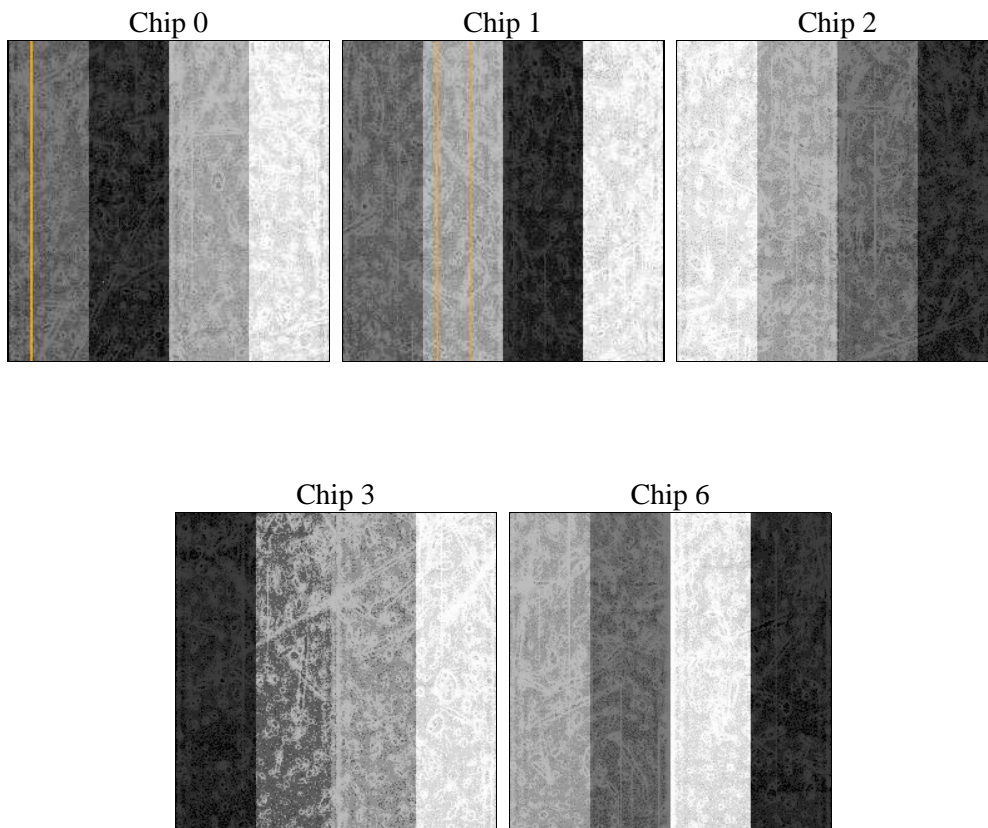
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	5080.2698709369	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	5080.2288309336	Sum of GTIs [s]
date	2014-11-27T22:47:35	Date and time of file creation	ontime1	5080.2698709369	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	5080.3109109402	Sum of GTIs [s]
			ontime3	5080.3519509435	Sum of GTIs [s]
			ontime6	5080.1877909303	Sum of GTIs [s]
			l1events	131590	Number of level 1 events

2.1.4 Events

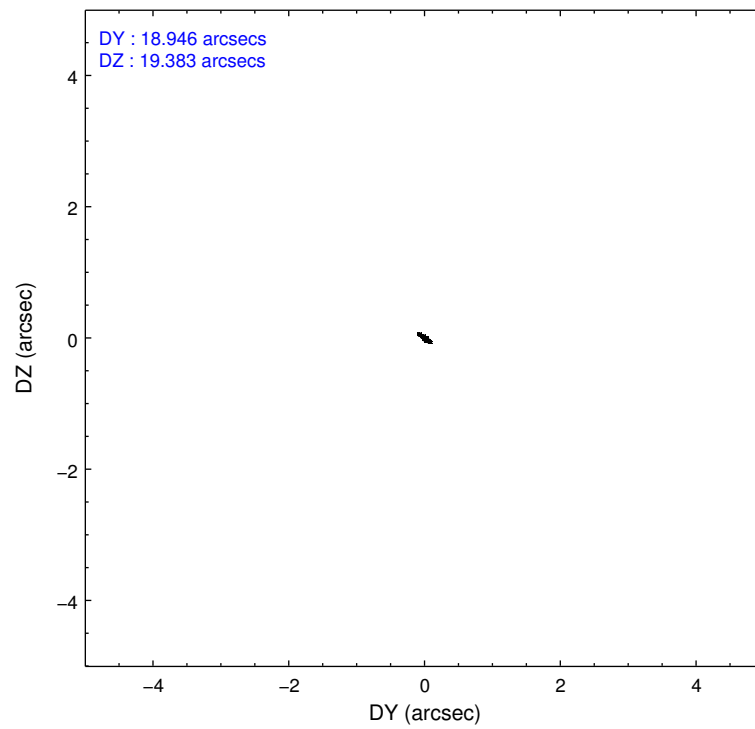
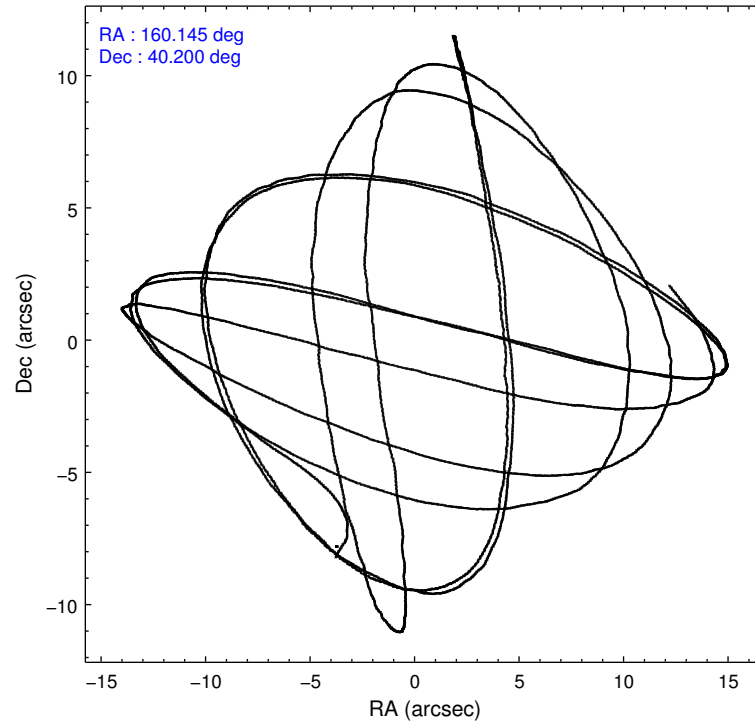
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	24411	25145	28270	26167	27597
rejected events	21146	21507	25119	22959	24404
rejected %	86%	85%	88%	87%	88%

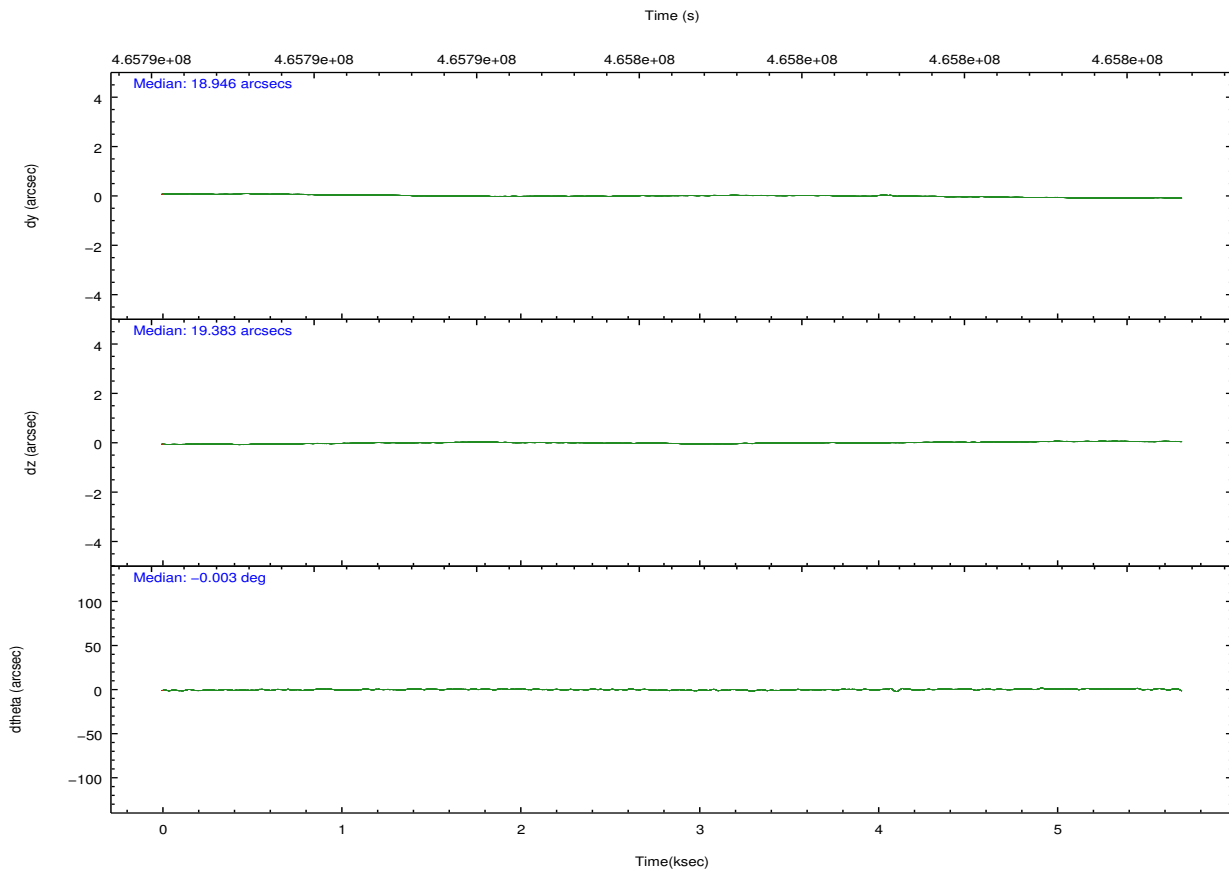
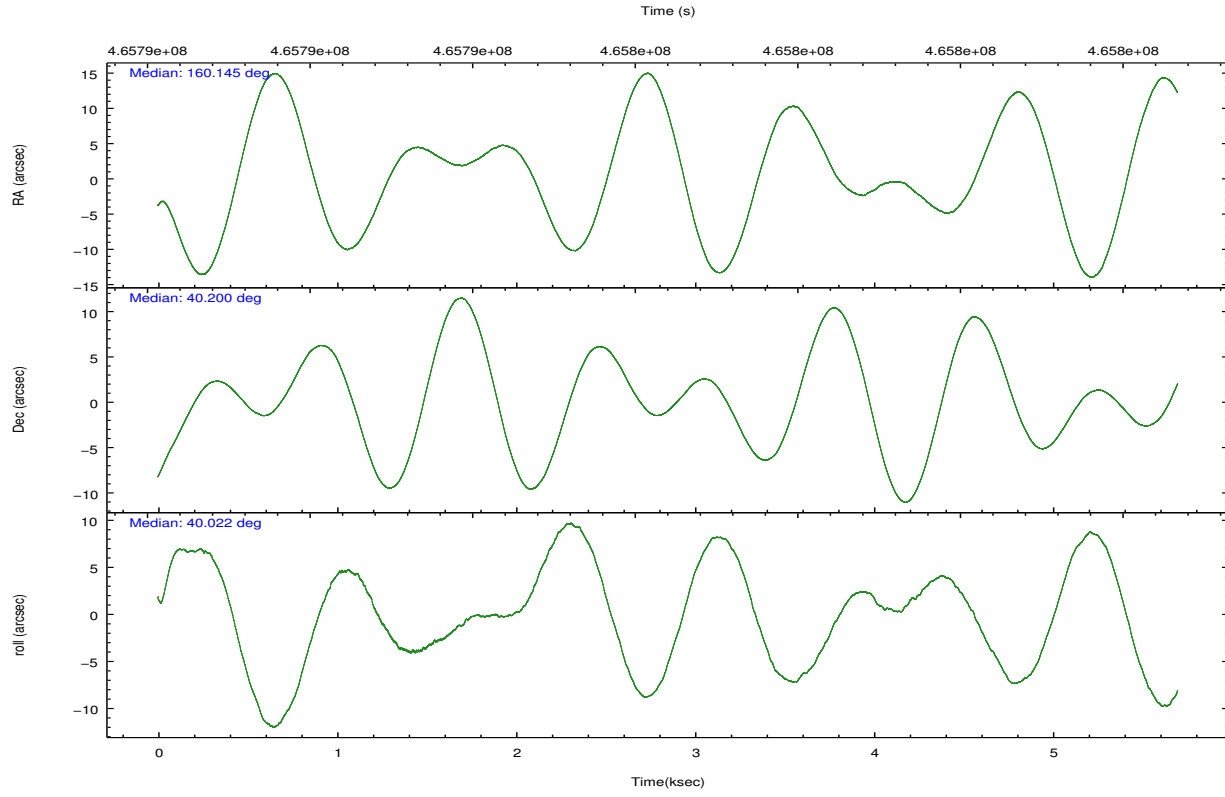
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1126	1318	1123	1200	1054
	4%	5%	3%	4%	3%
grade 1 events	18	22	24	21	17
	0%	0%	0%	0%	0%
grade 2 events	839	904	769	712	703
	3%	3%	2%	2%	2%
grade 3 events	322	330	320	328	313
	1%	1%	1%	1%	1%
grade 4 events	320	332	327	335	336
	1%	1%	1%	1%	1%
grade 5 events	1256	1360	1180	1413	1410
	5%	5%	4%	5%	5%
grade 6 events	665	757	619	637	792
	2%	3%	2%	2%	2%
grade 7 events	19865	20122	23908	21521	22972
	81%	80%	84%	82%	83%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	160.132369	160.1444693656818	CCD I2 on	Y	Y
[deg] Pointing Dec	40.174058	40.19989087583347	CCD I3 on	Y	Y
[deg] Pointing Roll	39.827800	40.02866156752724	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	465793046.184000	465791849.14546	CCD S5 on	N	N
Observation start date	2012-10-05T02:56:19	2012-10-05T02:37:29	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	465798046.184000	465798180.0583	On-chip summing requested	N	N
Observation end date	2012-10-05T04:19:39	2012-10-05T04:23:00	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



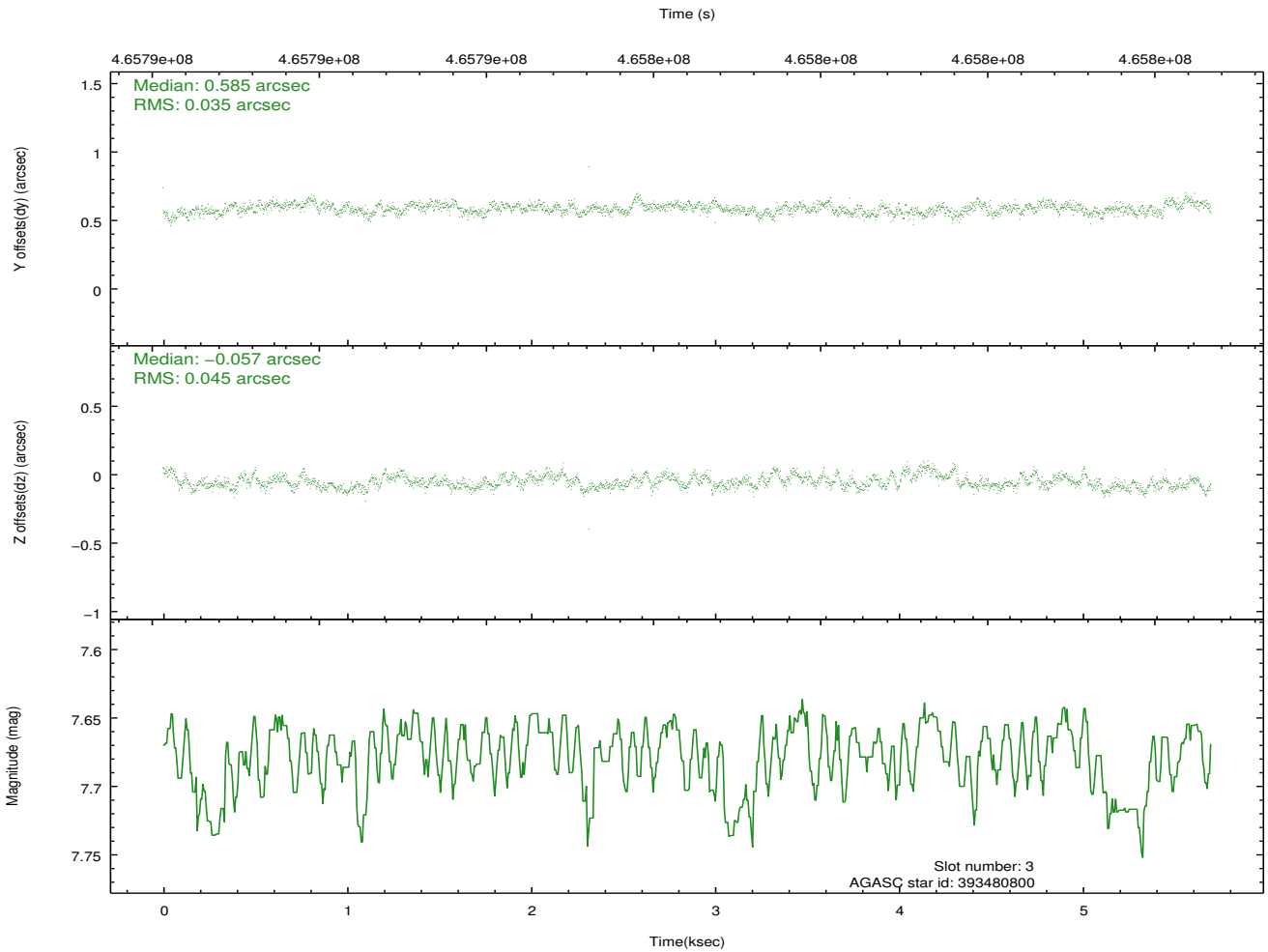
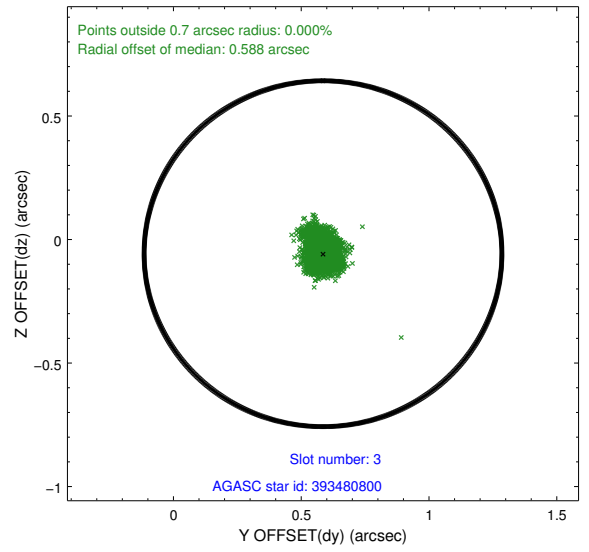
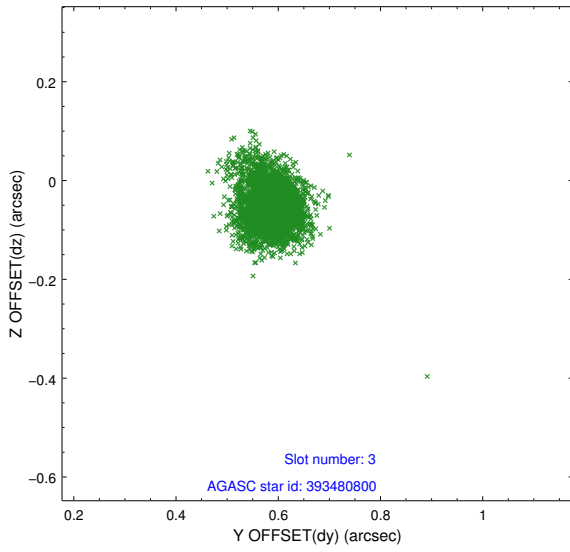


Slot Statistics

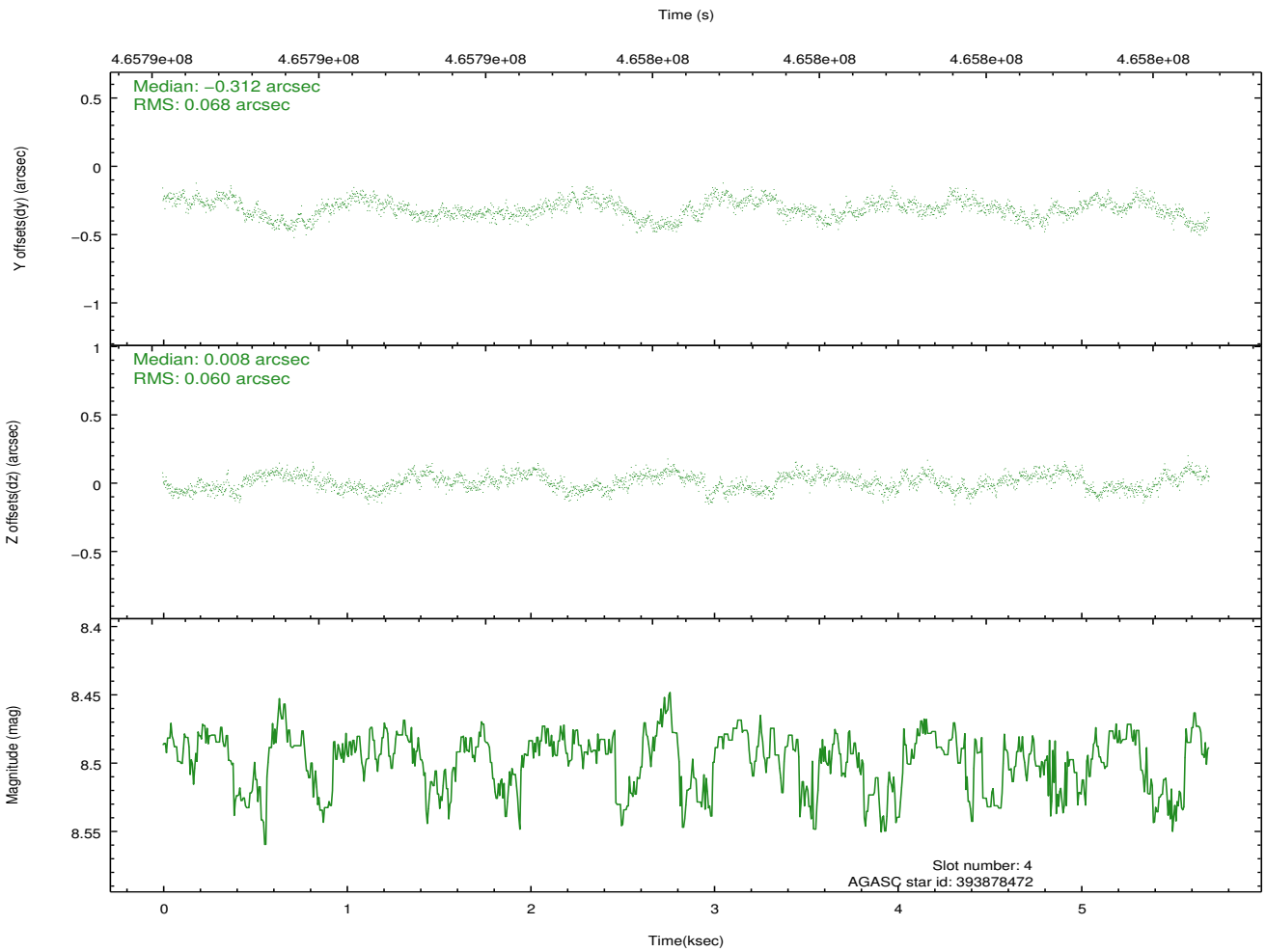
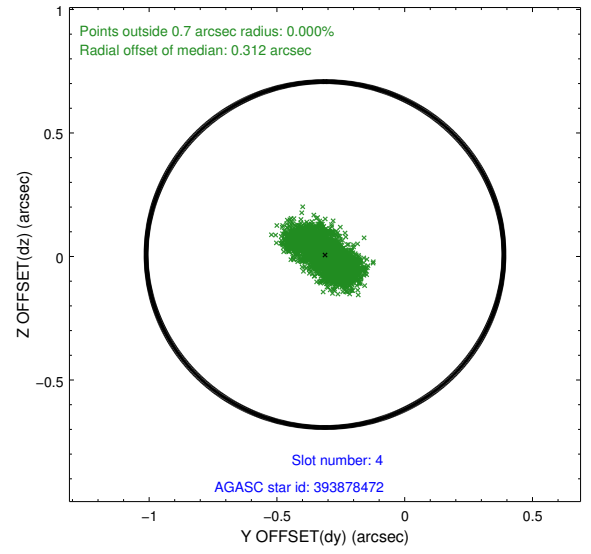
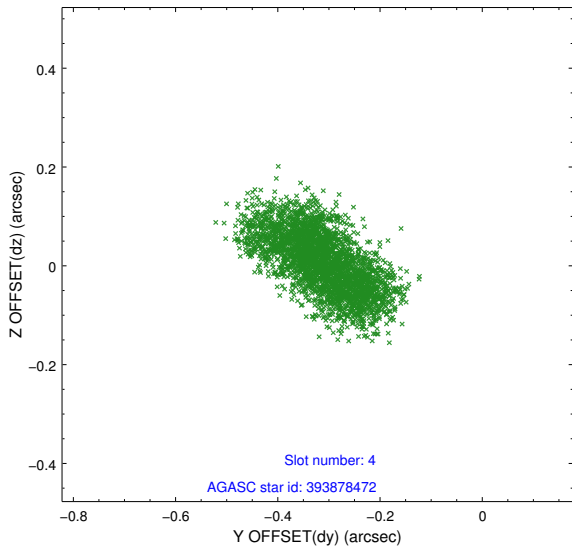
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.03	1390	0.026	0.035	0.006	0.011	0.000000	0.000000	920.45	-843.04
1	FID		ACIS-I-5	7.03	1391	-0.242	0.030	0.005	0.010	0.000000	0.000000	-1827.39	1053.86
2	FID		ACIS-I-6	7.04	1391	0.125	0.005	0.006	0.011	0.000000	0.000000	384.89	1699.57
3	GUIDE	used	393480800	7.68	2781	0.585	-0.057	0.059	0.099	159.955558	39.404672	-2150.47	-1811.67
4	GUIDE	used	393878472	8.49	2781	-0.312	0.008	0.099	0.156	159.653339	40.322119	-667.10	1253.89
5	GUIDE	used	394407680	9.13	2761	0.206	-0.564	0.121	0.193	160.045368	40.603600	807.89	1340.35
6	GUIDE	used	394408056	8.79	2780	0.446	-0.301	0.094	0.162	160.831918	40.198761	1540.07	-1156.94
7	GUIDE	used	394414344	8.40	2778	-0.916	0.908	0.111	0.170	161.050764	39.919307	1368.48	-2317.27

2.4 Star Slots

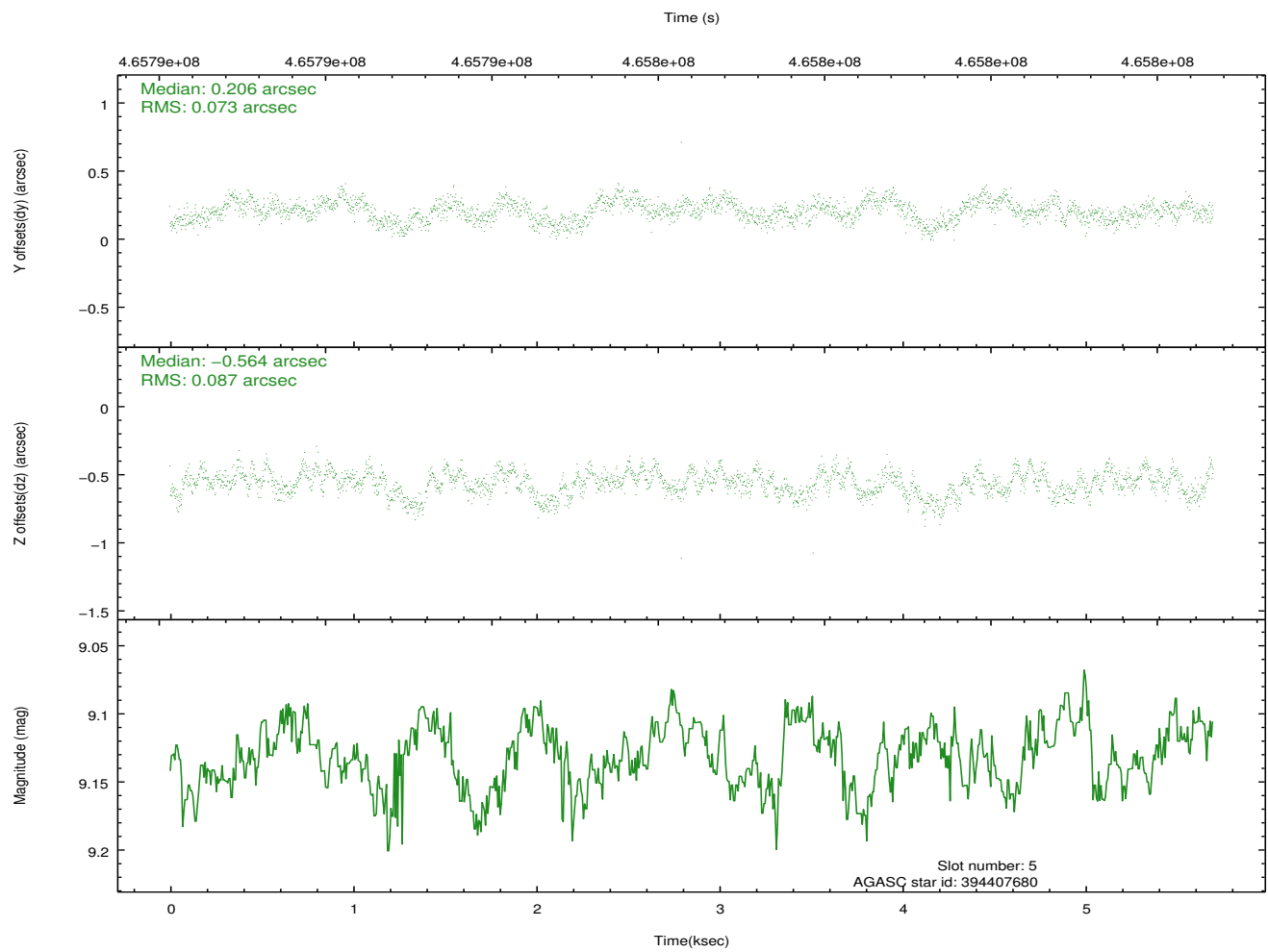
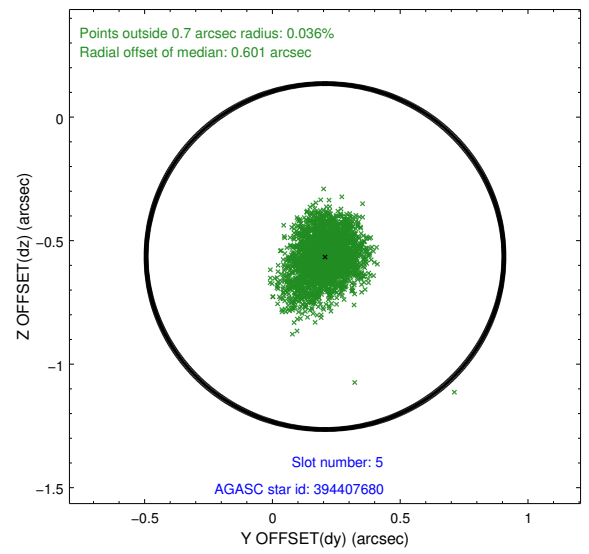
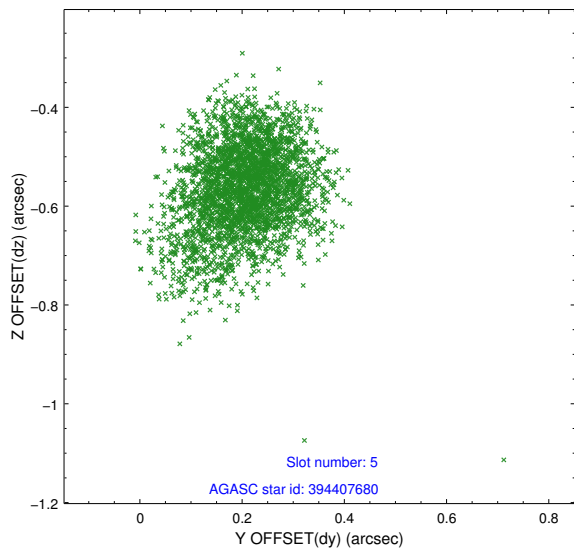
2.4.1 Slot 3



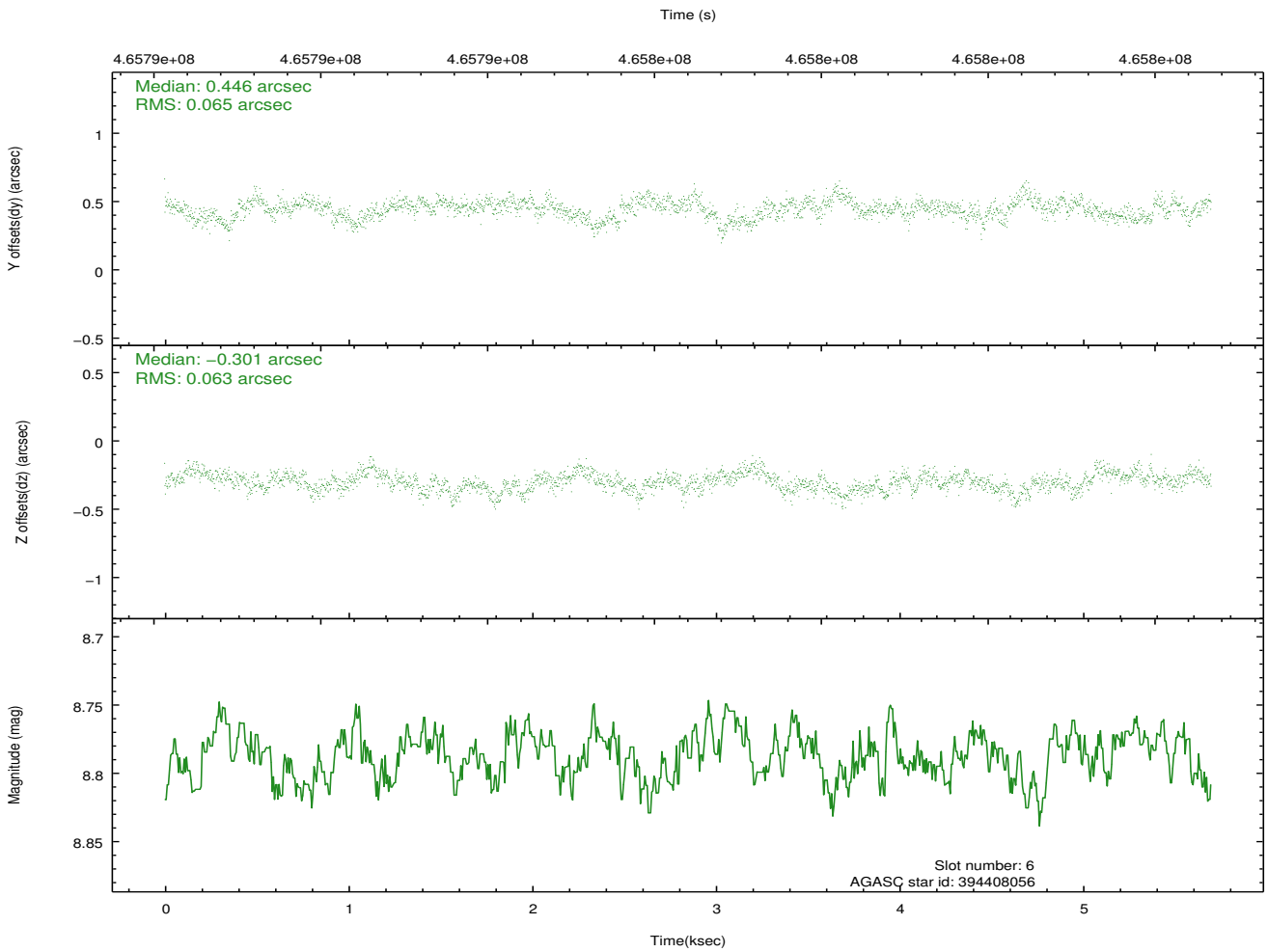
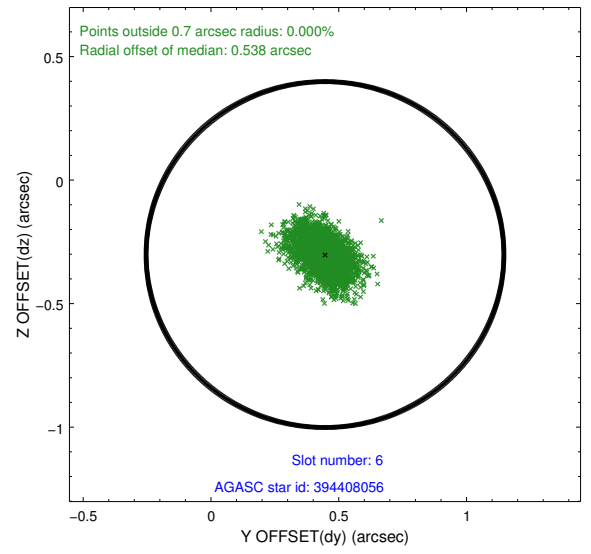
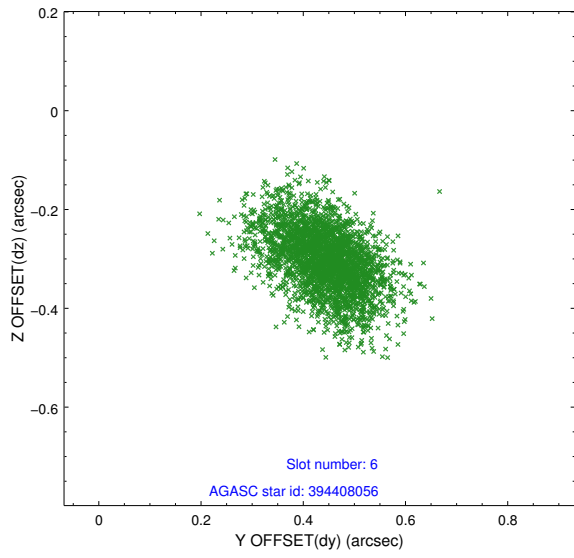
2.4.2 Slot 4



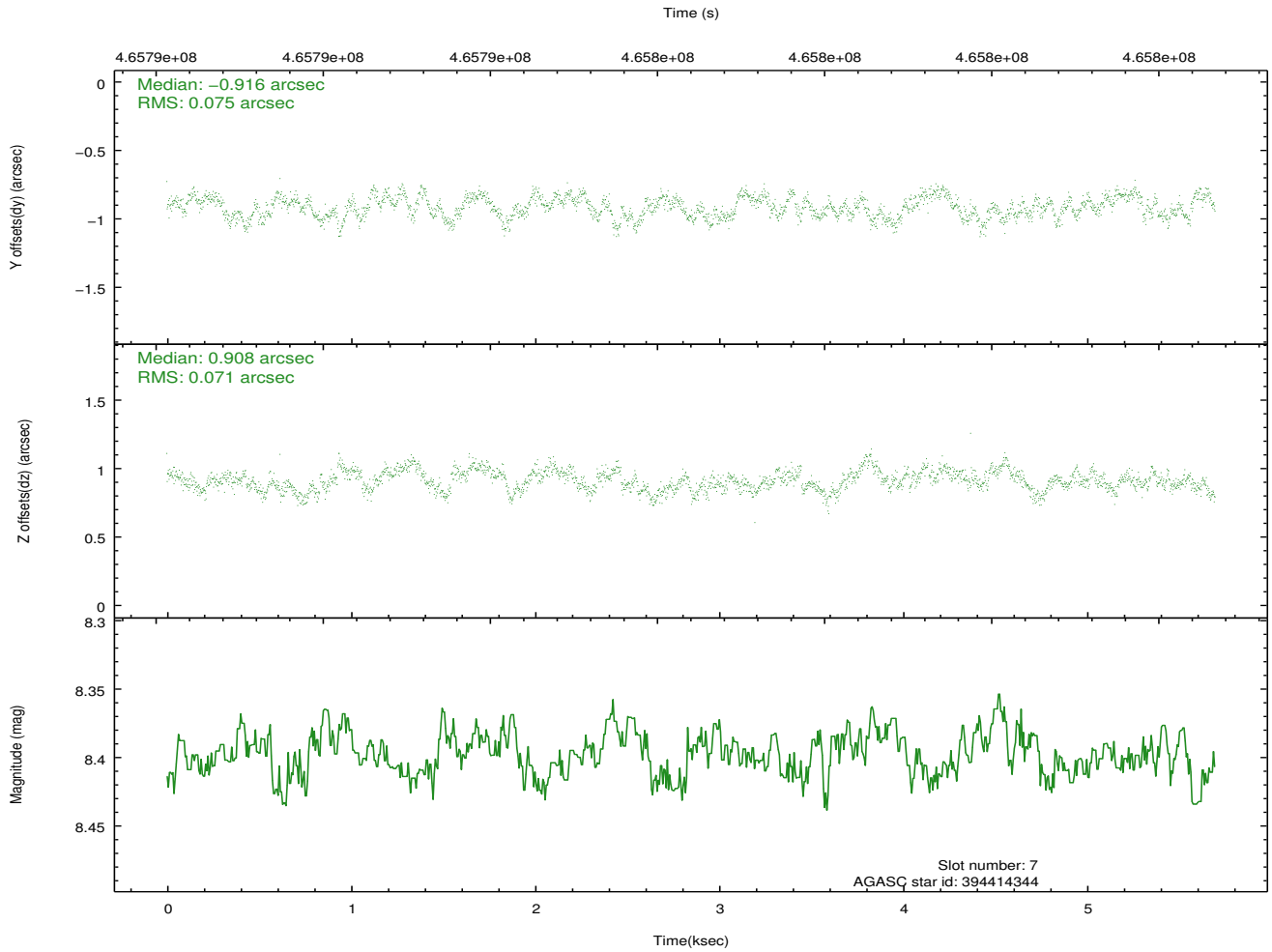
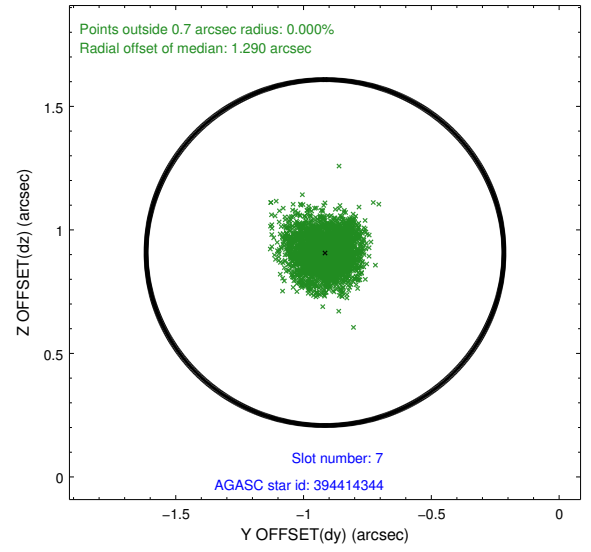
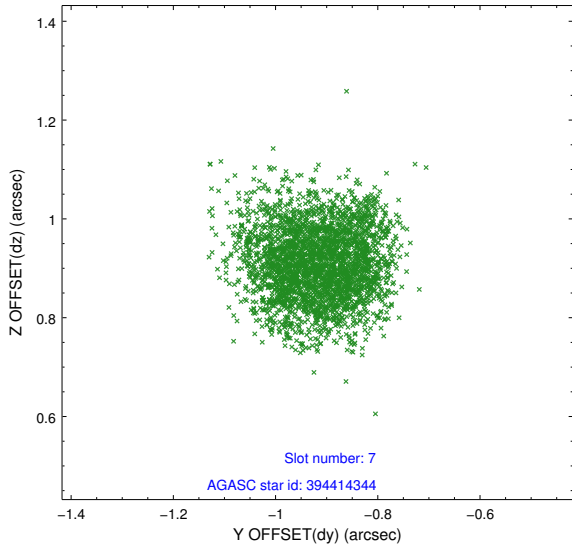
2.4.3 Slot 5



2.4.4 Slot 6

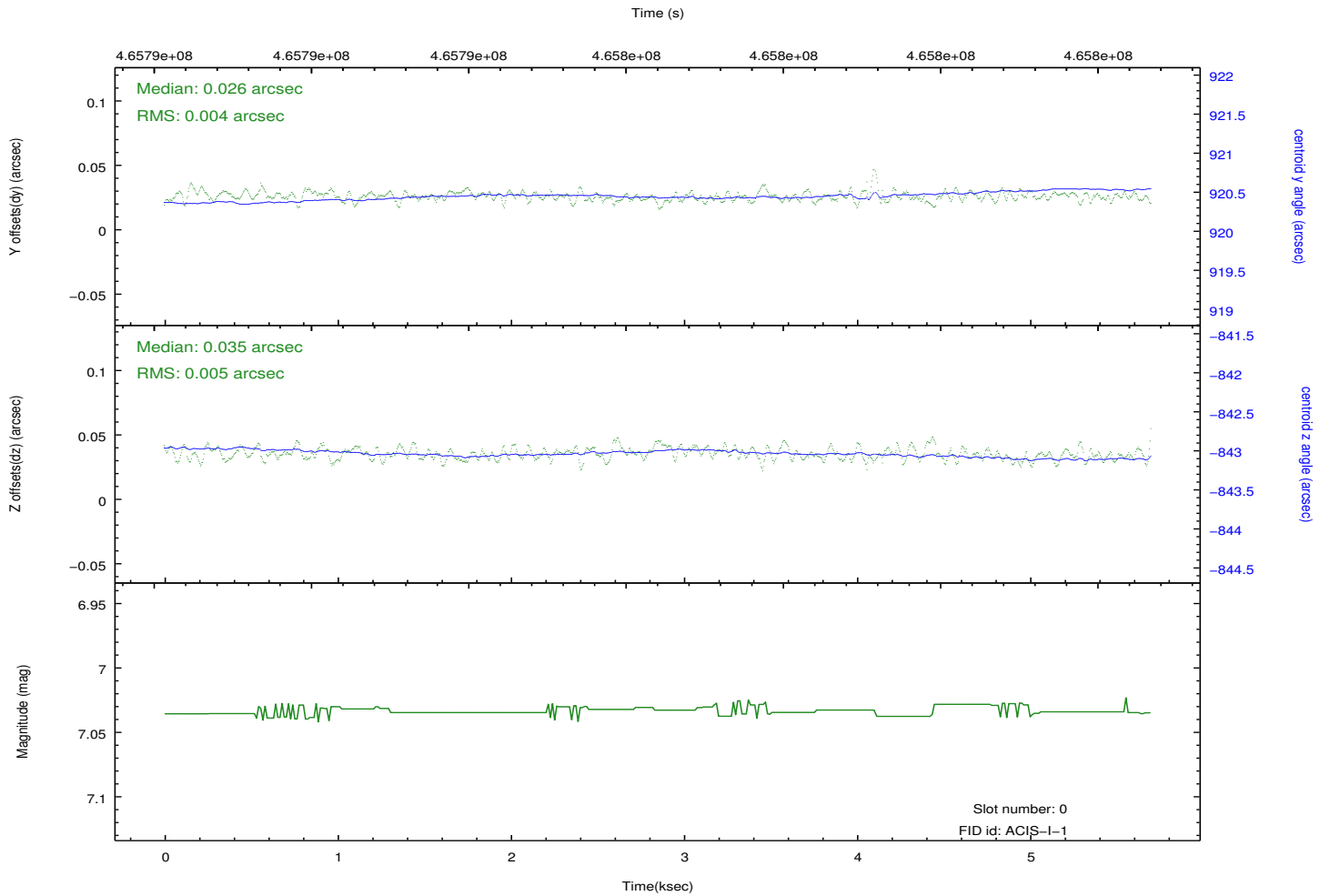
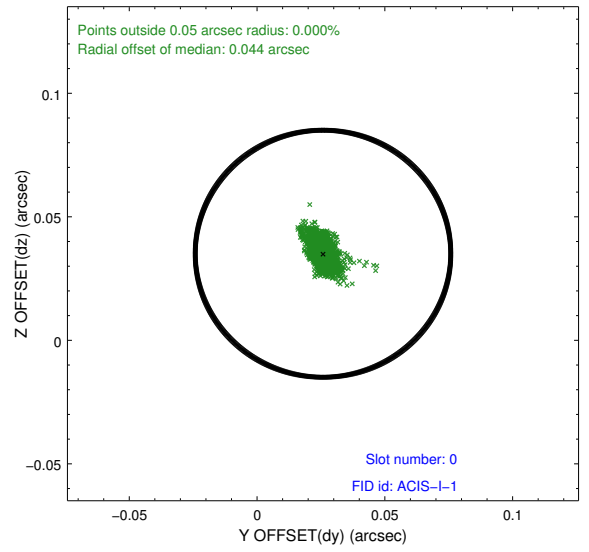
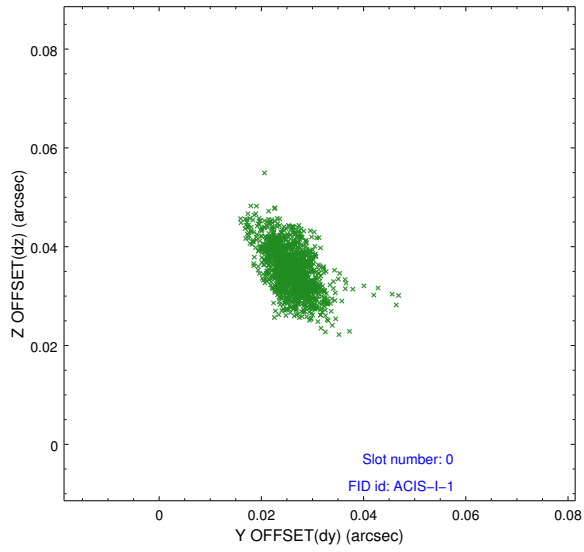


2.4.5 Slot 7

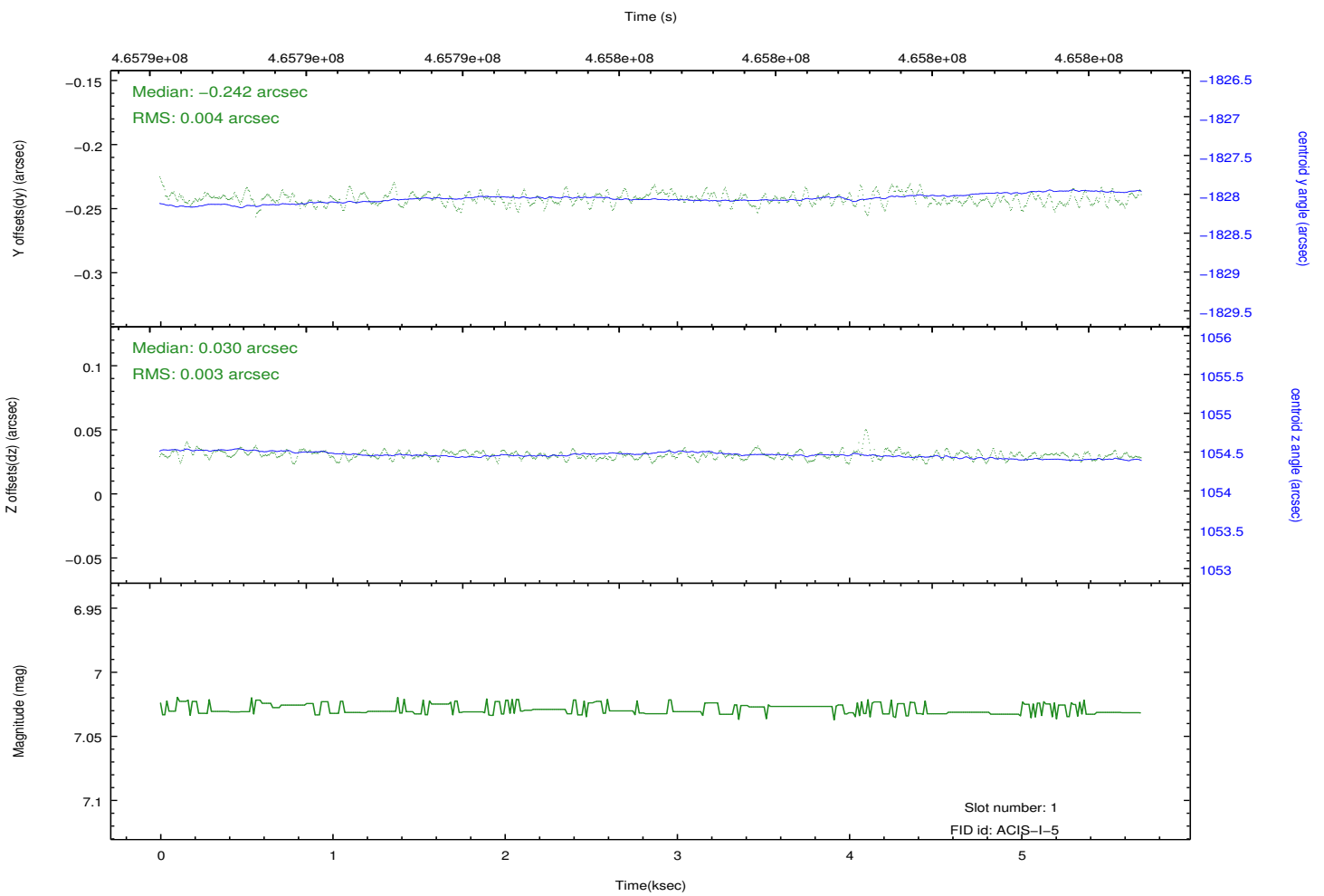
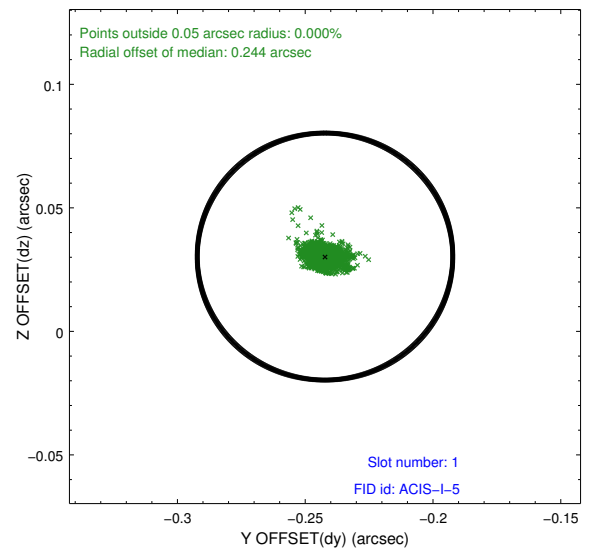
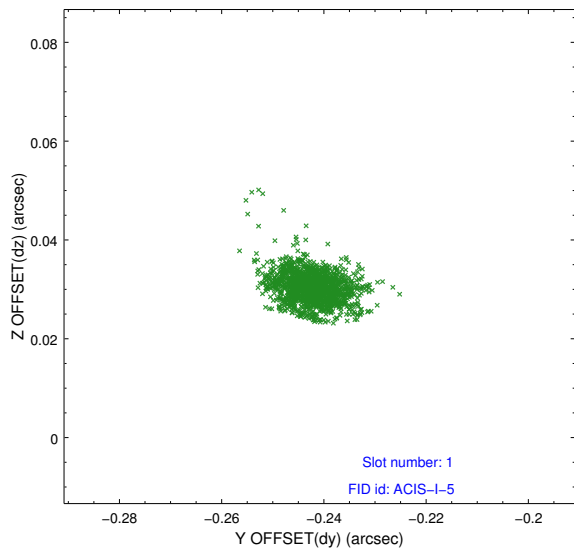


2.5 FID Slots

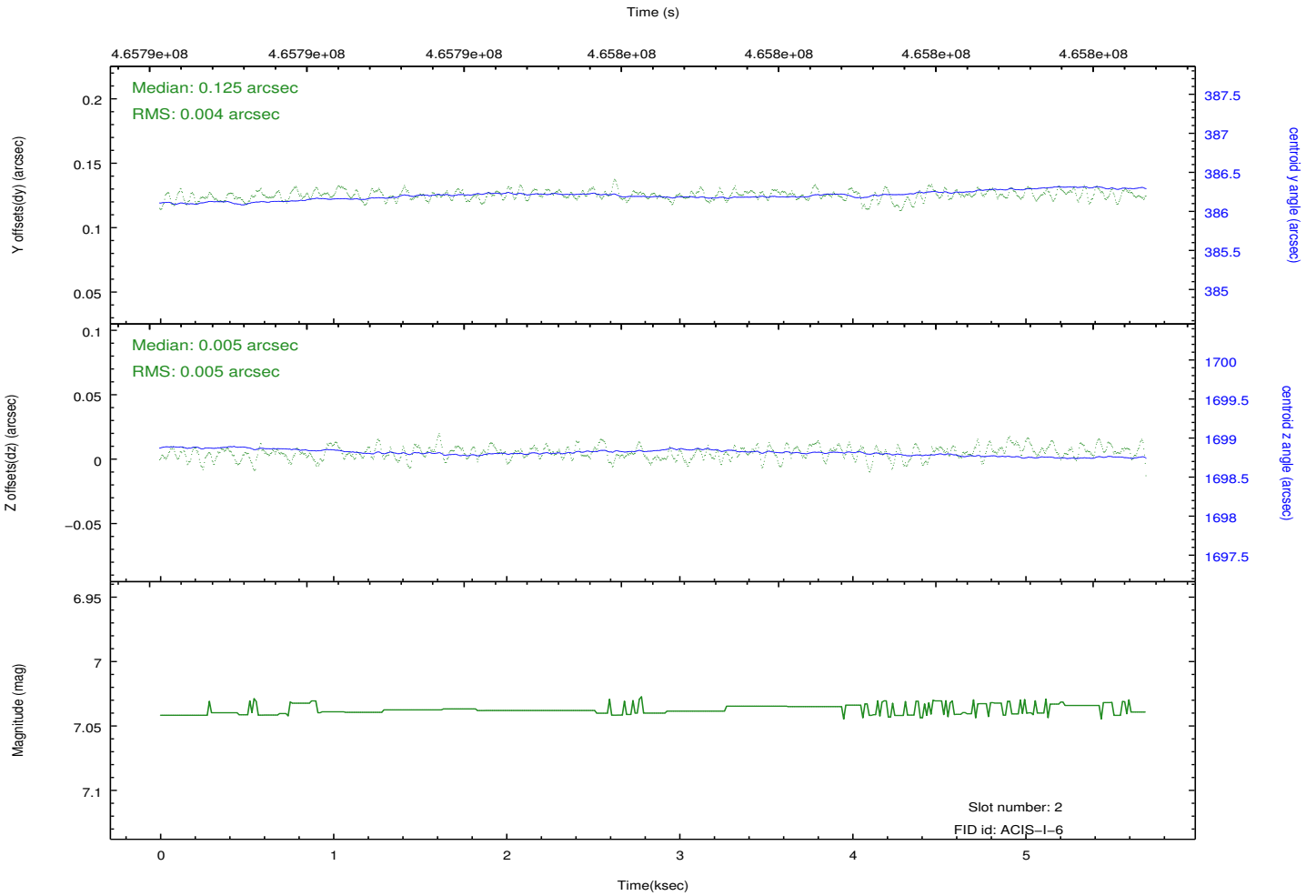
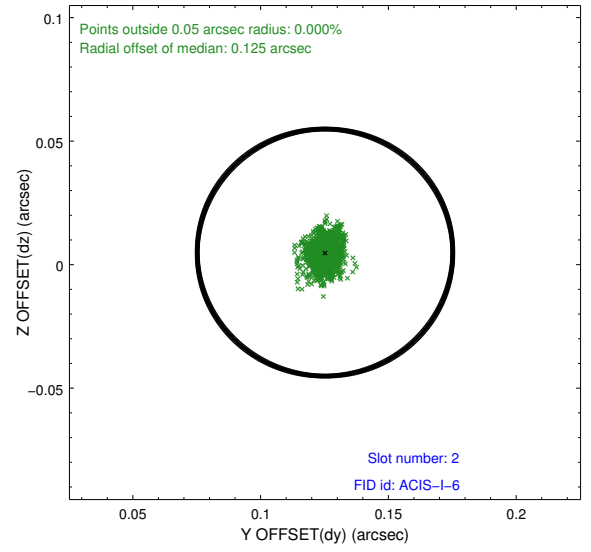
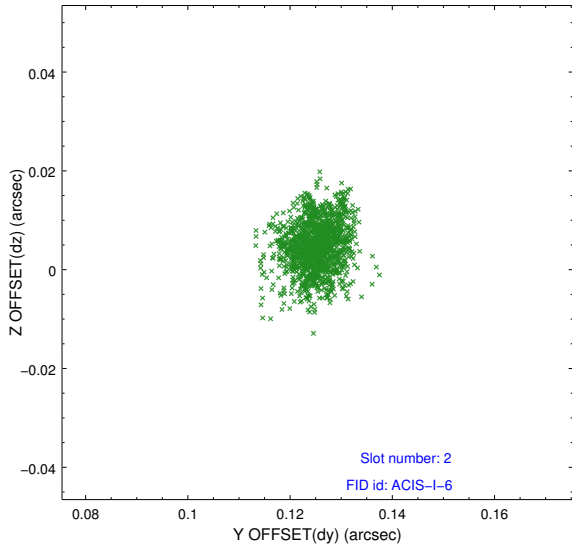
2.5.1 Slot 0



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)	2014.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.0802698709369

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.