

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 13596 - L2 Version 3
Chandra X-Ray Center

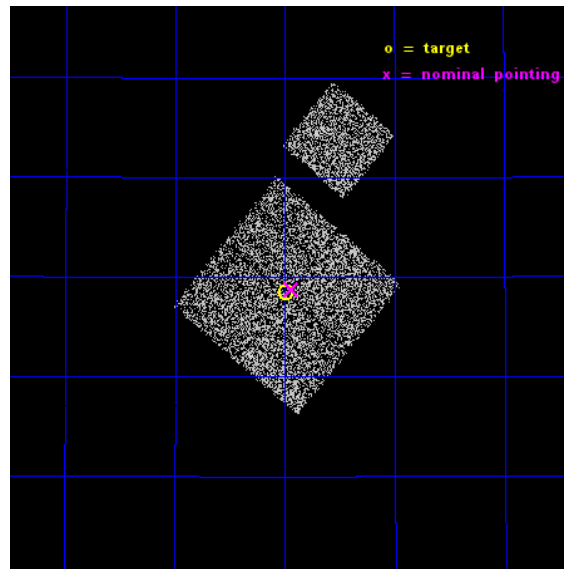
L2 Processing Date : Nov 29 2014

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
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

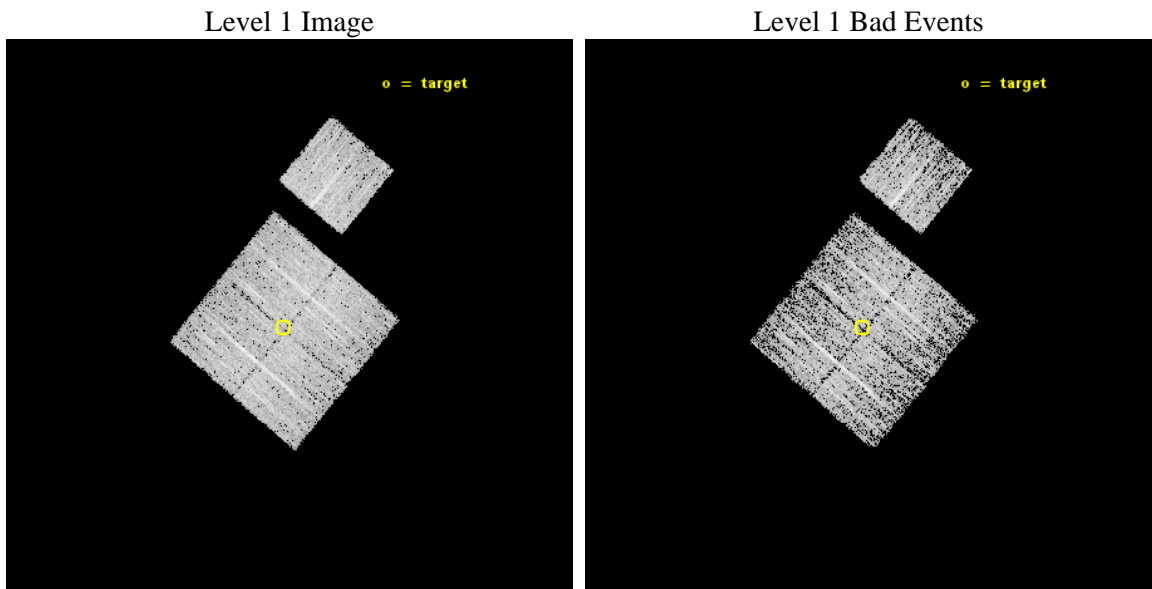
seq_num	801157	Sequence number
obs_id	13596	Observation id
title	To The Outer Limits of Clusters with Chandra and Suzaku	Proposal t
observer	Dr. Eric Miller	Principal investigator
object	A1068	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	160.49721	Observer's specified target RA [deg]
dec_targ	39.973071	Observer's specified target Dec [deg]
ra_nom	160.48539310884	Nominal RA [deg]
dec_nom	39.979529401999	Nominal Dec [deg]
roll_nom	39.822956594927	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4770.9000366926	Sum of GTIs [s]
livetime	4708.5647154277	Livetime [s]
ontime0	4770.9000366926	Sum of GTIs [s]
ontime1	4770.9000366926	Sum of GTIs [s]
ontime2	4770.9000366926	Sum of GTIs [s]
ontime3	4770.9000366926	Sum of GTIs [s]
ontime6	4770.9000366926	Sum of GTIs [s]
l2events	12661	Number of level 2 events



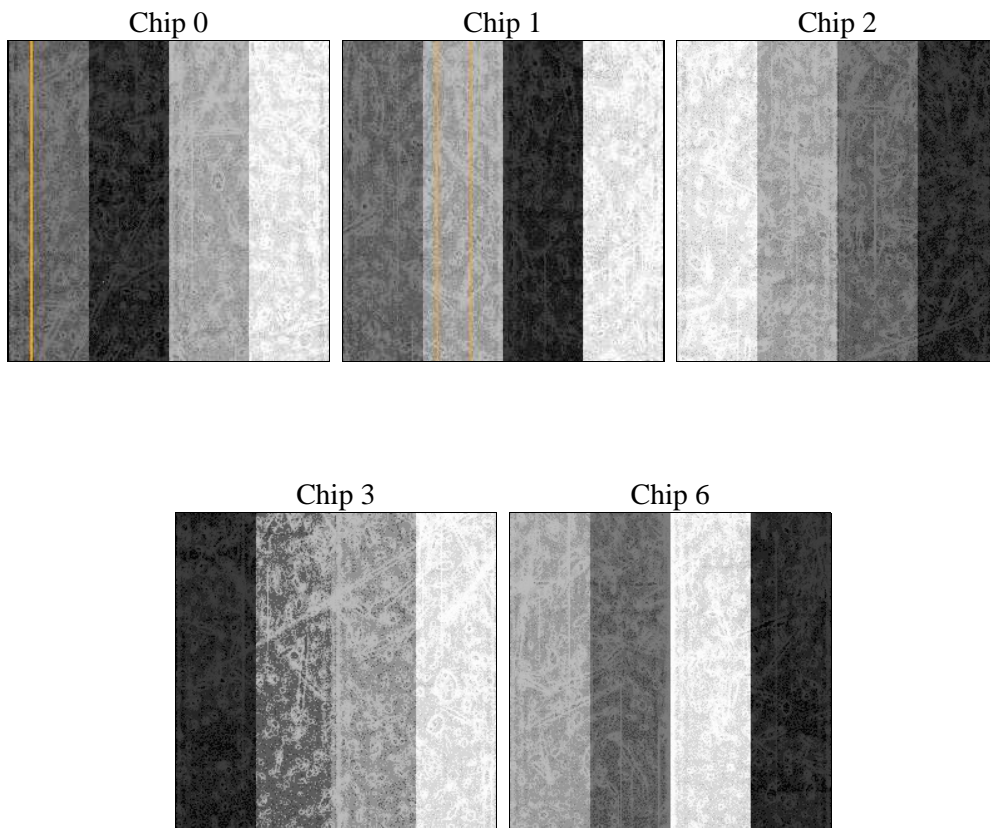
2 OBI

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	4770.9000366926	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	4770.9000366926	Sum of GTIs [s]
date	2014-11-28T12:02:39	Date and time of file creation	ontime1	4770.9000366926	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	4770.9000366926	Sum of GTIs [s]
			ontime3	4770.9000366926	Sum of GTIs [s]
			ontime6	4770.9000366926	Sum of GTIs [s]
			l1events	122345	Number of level 1 events

2.1.4 Events

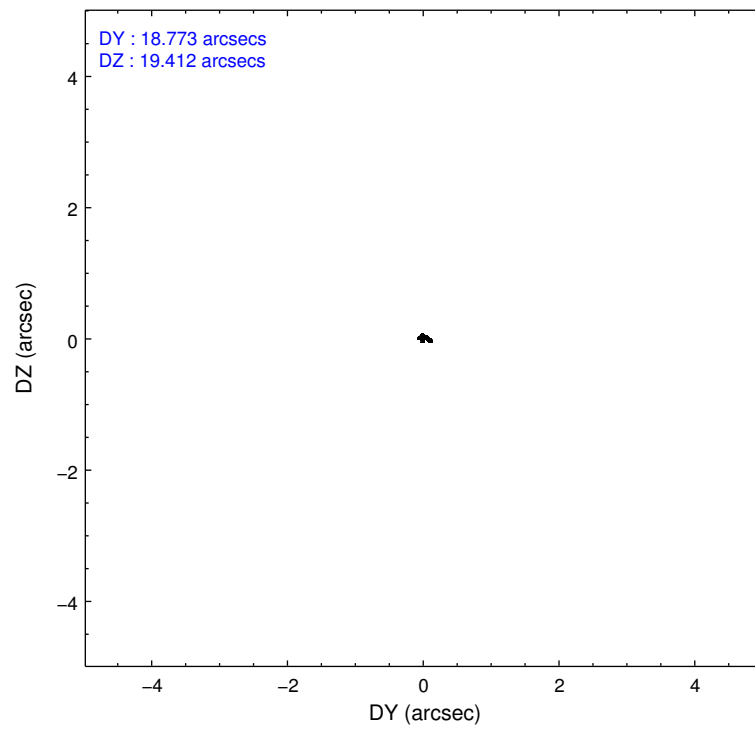
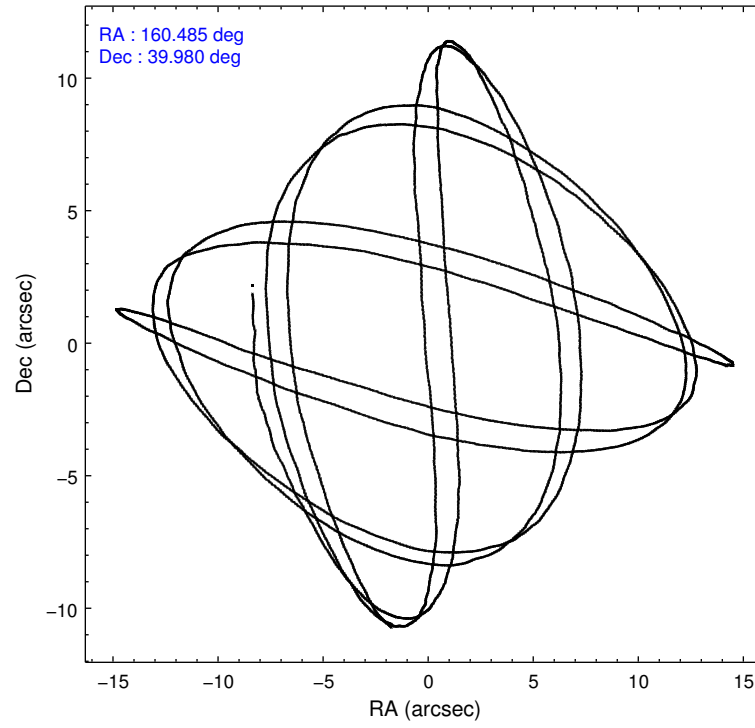
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	22935	24697	24958	23941	25814
rejected events	20068	21361	21995	21108	22795
rejected %	87%	86%	88%	88%	88%

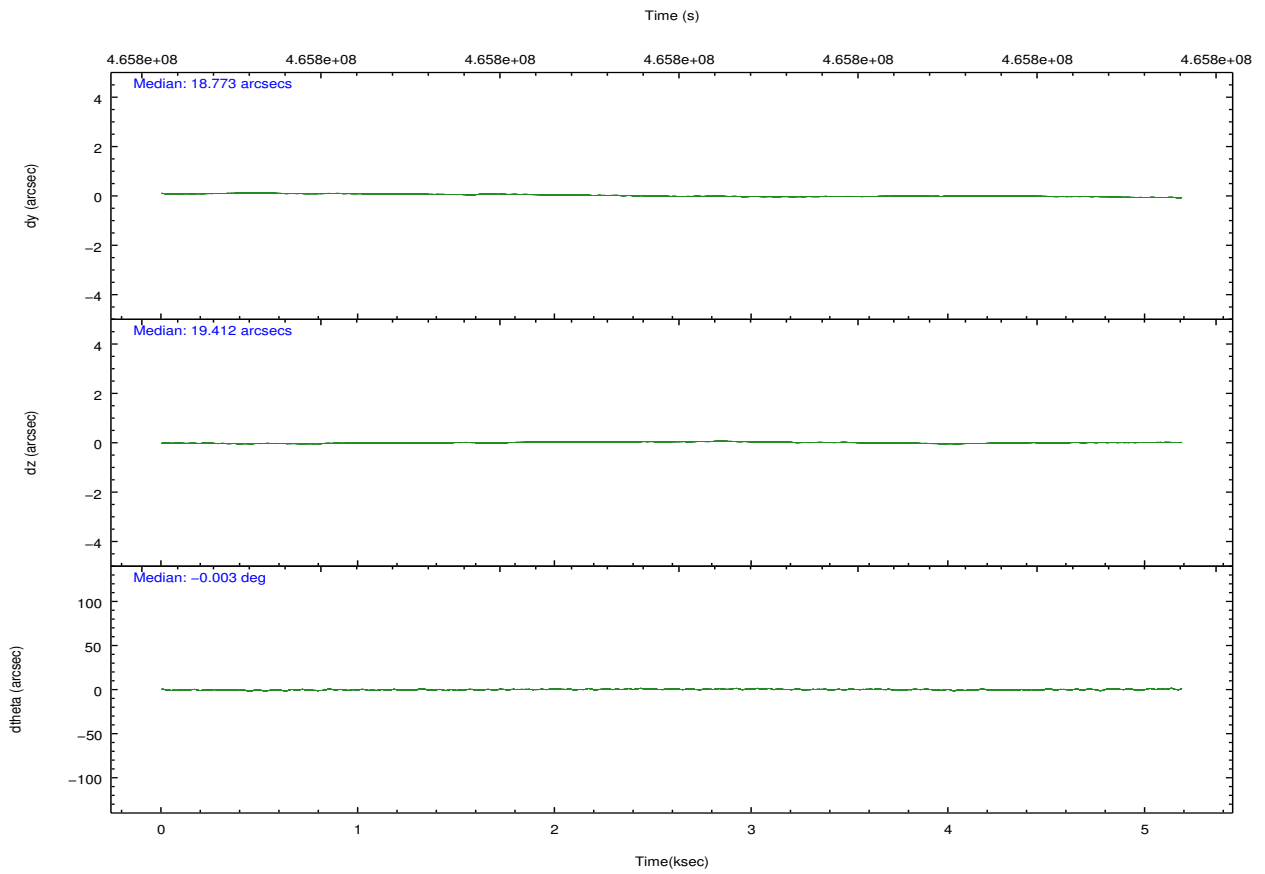
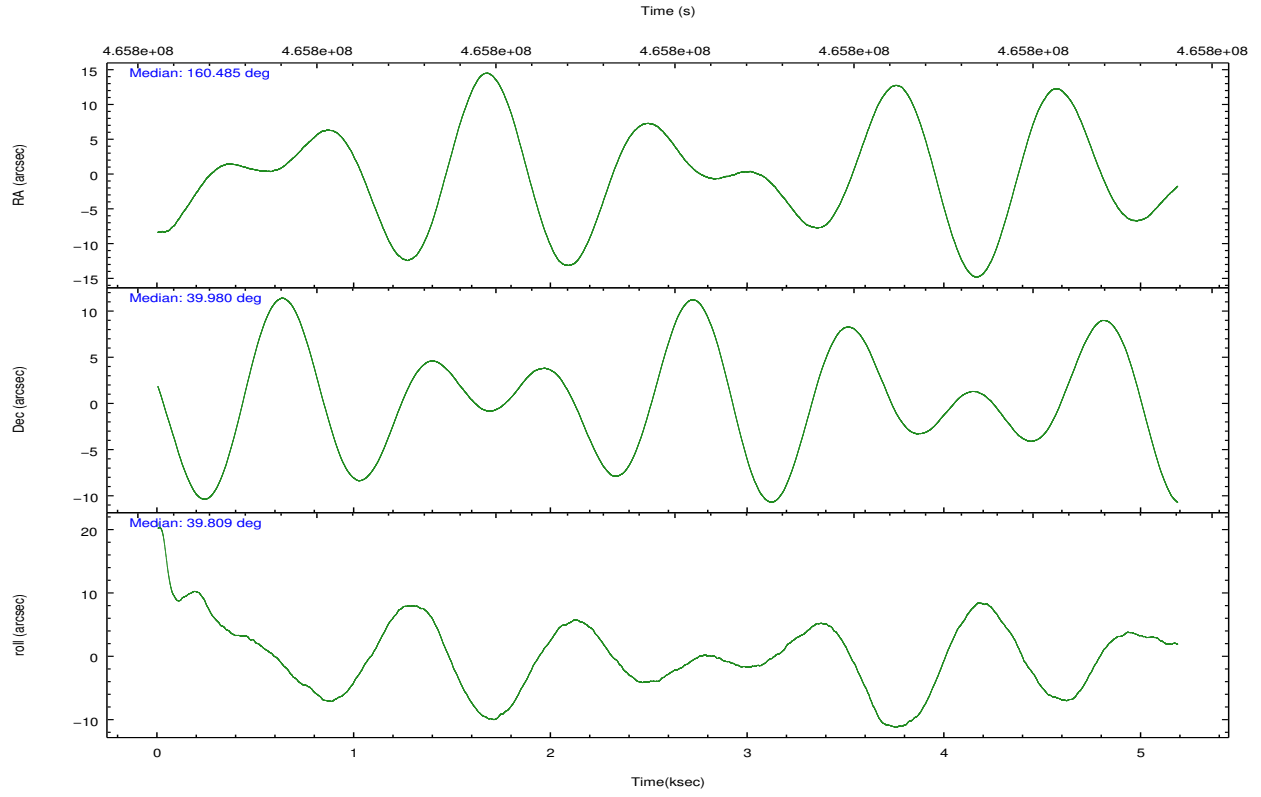
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	984	1180	1017	1026	1009
	4%	4%	4%	4%	3%
grade 1 events	11	12	17	26	18
	0%	0%	0%	0%	0%
grade 2 events	676	790	778	600	661
	2%	3%	3%	2%	2%
grade 3 events	320	321	300	303	312
	1%	1%	1%	1%	1%
grade 4 events	289	313	284	313	314
	1%	1%	1%	1%	1%
grade 5 events	1131	1208	1092	1315	1253
	4%	4%	4%	5%	4%
grade 6 events	603	735	587	597	727
	2%	2%	2%	2%	2%
grade 7 events	18921	20138	20883	19761	21520
	82%	81%	83%	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	160.473210	160.4853931088356	CCD I2 on	Y	Y
[deg] Pointing Dec	39.953736	39.97952940199875	CCD I3 on	Y	Y
[deg] Pointing Roll	39.622114	39.82295659492728	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)	465798556.184000	465798180.0583	CCD S5 on	N	N
Observation start date	2012-10-05T04:28:09	2012-10-05T04:23:00	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	465803556.184000	465803690.45859	On-chip summing requested	N	N
Observation end date	2012-10-05T05:51:29	2012-10-05T05:54:50	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





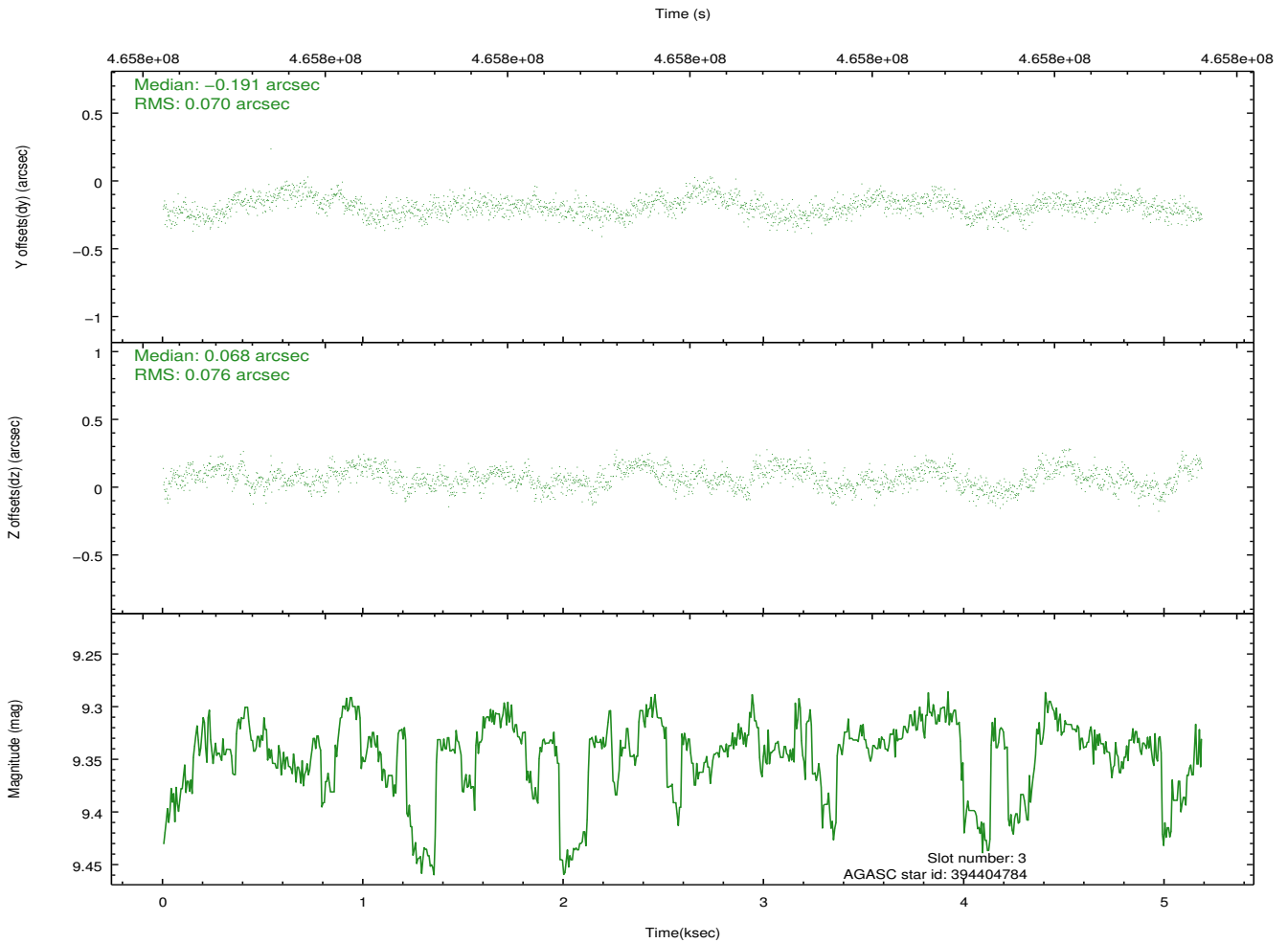
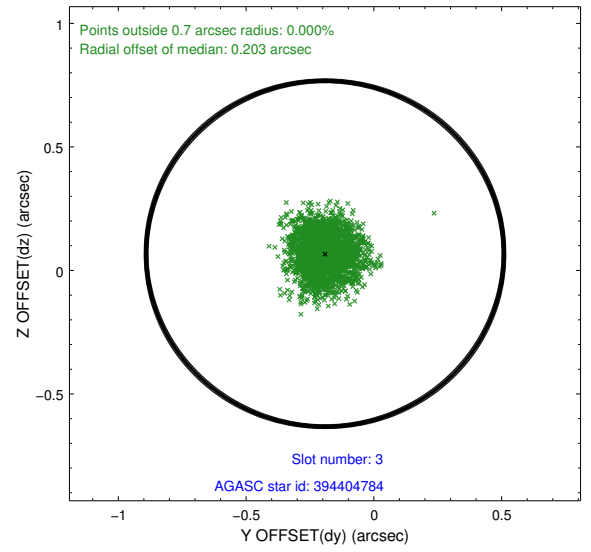
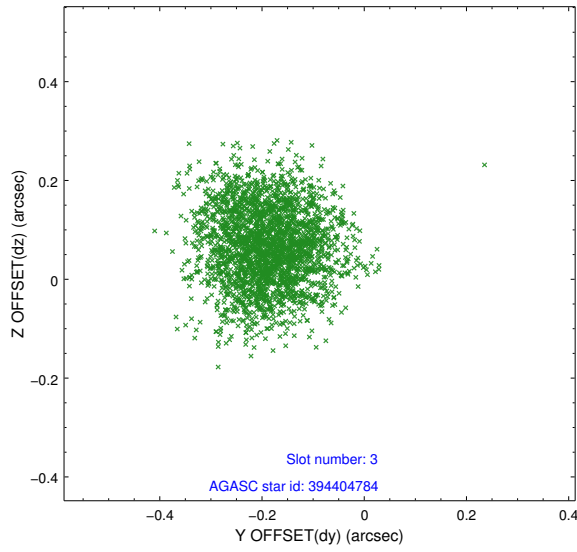
Slot Statistics

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	1265	0.023	0.037	0.006	0.009	0.000000	0.000000	920.60	-843.07
1	FID		ACIS-I-5	7.03	1265	-0.238	0.028	0.006	0.010	0.000000	0.000000	-1827.17	1053.76
2	FID		ACIS-I-6	7.04	1264	0.124	0.005	0.007	0.010	0.000000	0.000000	384.92	1699.61
3	GUIDE	used	394404784	9.34	2510	-0.191	0.068	0.112	0.173	160.584192	40.564898	1637.23	1501.59
4	GUIDE	used	394405296	8.74	2526	0.001	-0.032	0.087	0.142	160.050441	40.278361	-146.50	1643.12
5	GUIDE	used	394408056	8.78	2528	-0.007	-0.099	0.074	0.122	160.831918	40.198761	1324.17	52.80
6	GUIDE	used	394408776	9.29	2522	0.188	0.071	0.153	0.223	160.059246	40.119309	-497.38	1188.15
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

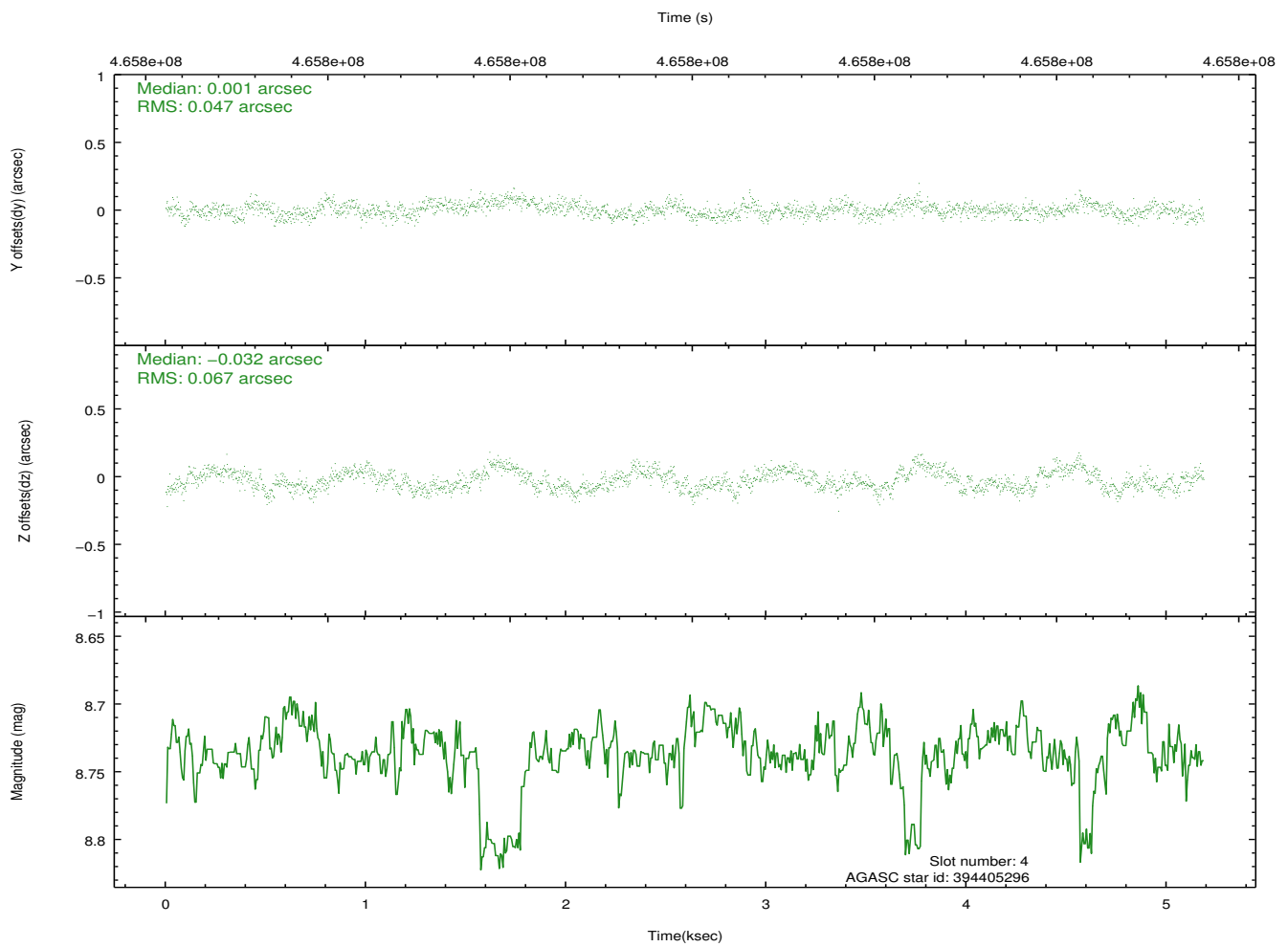
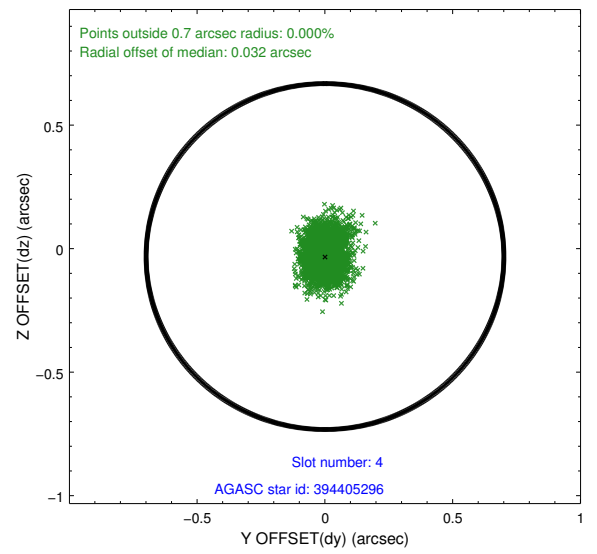
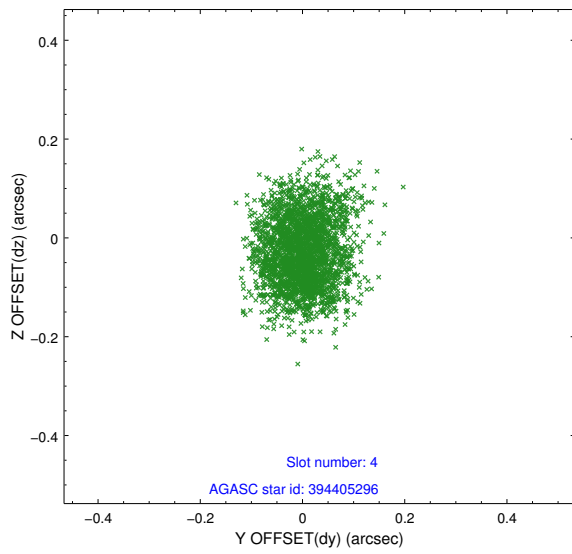
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2.4 Star Slots

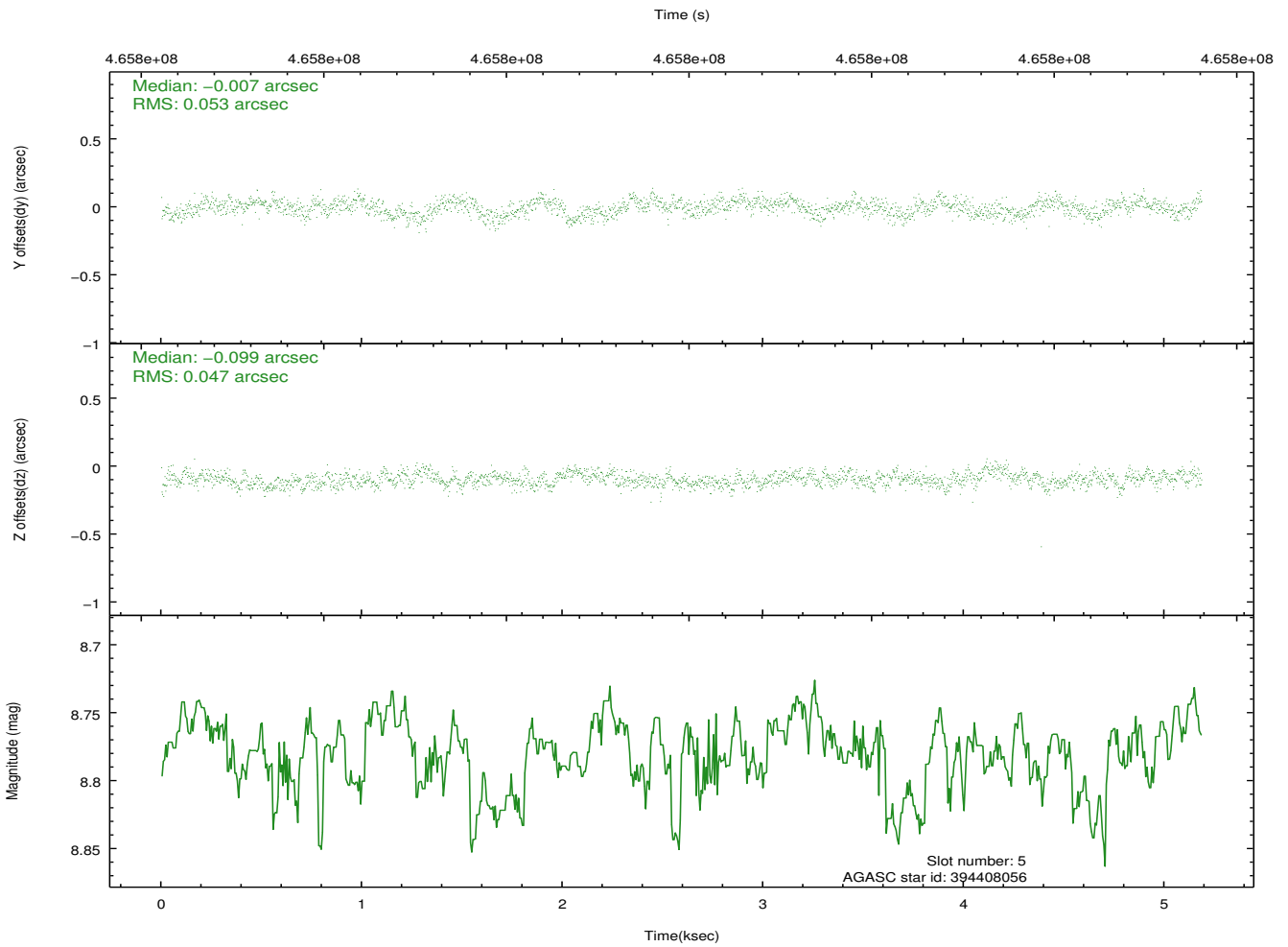
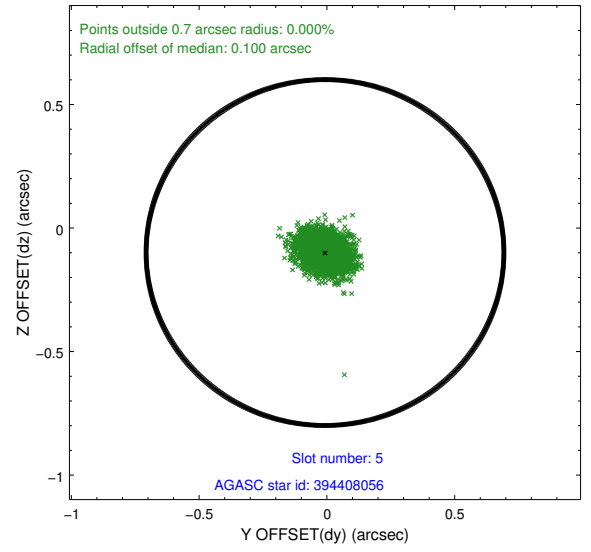
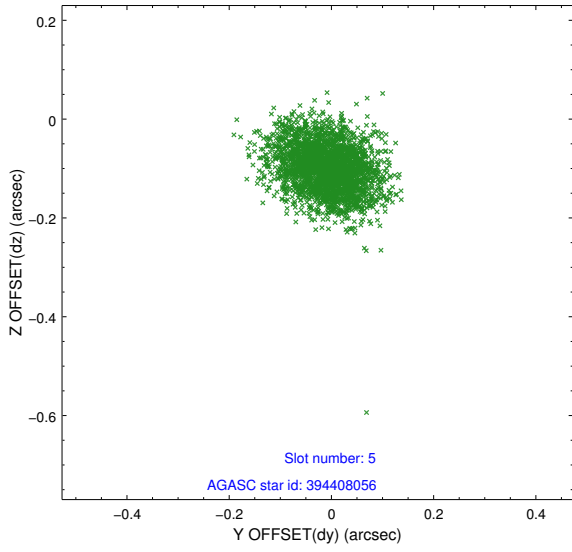
2.4.1 Slot 3



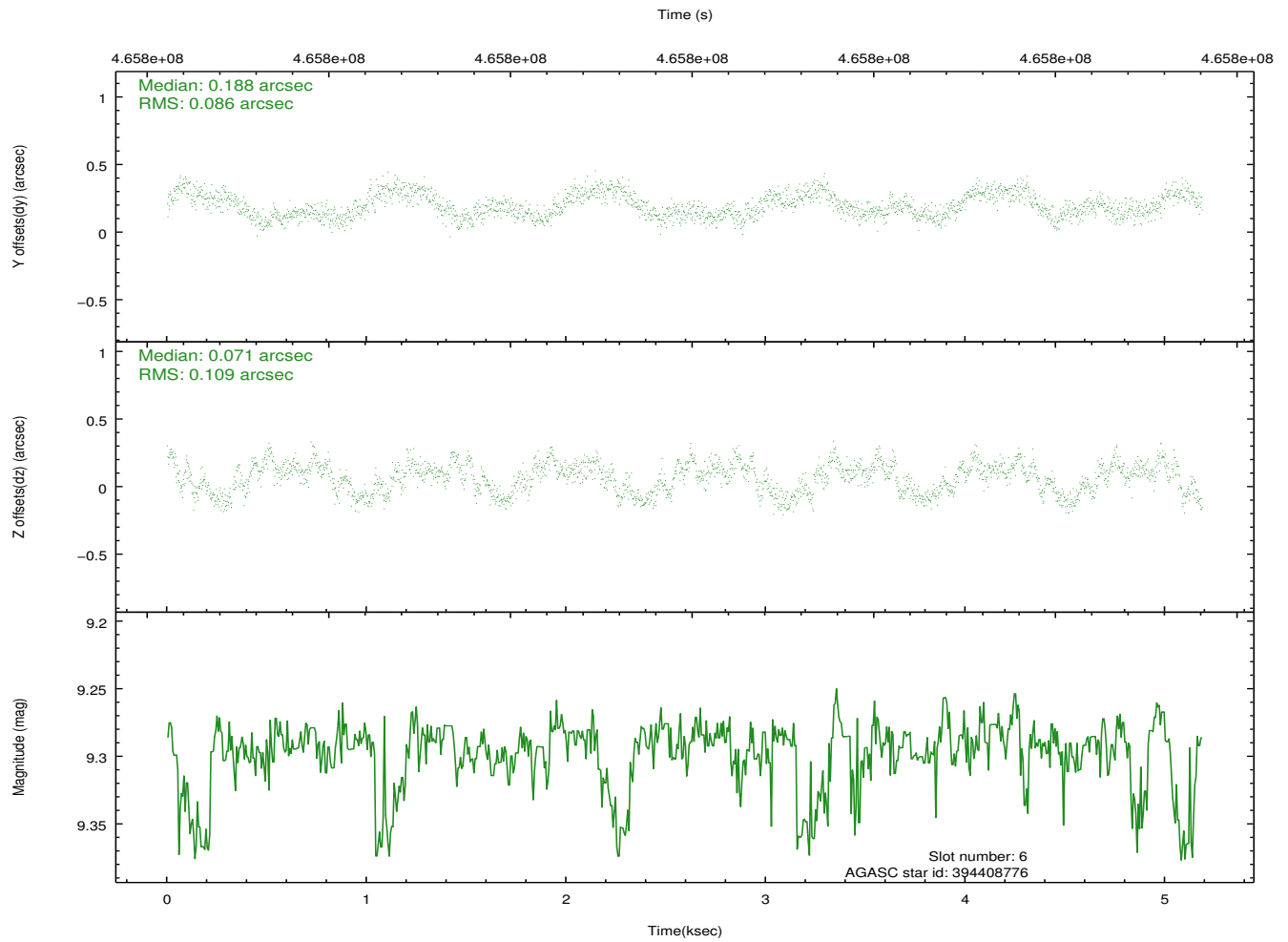
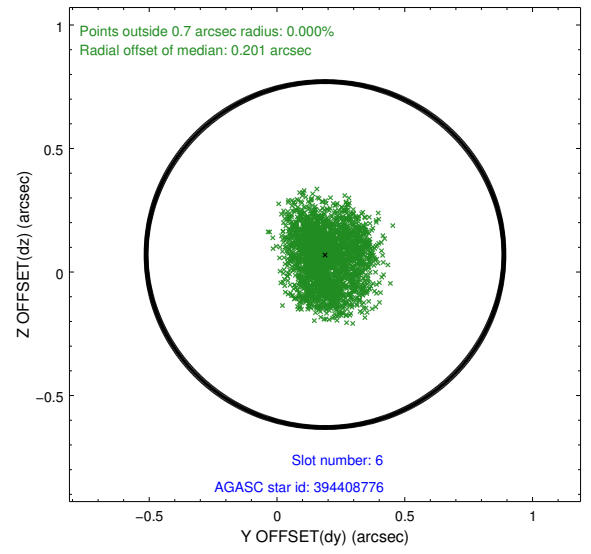
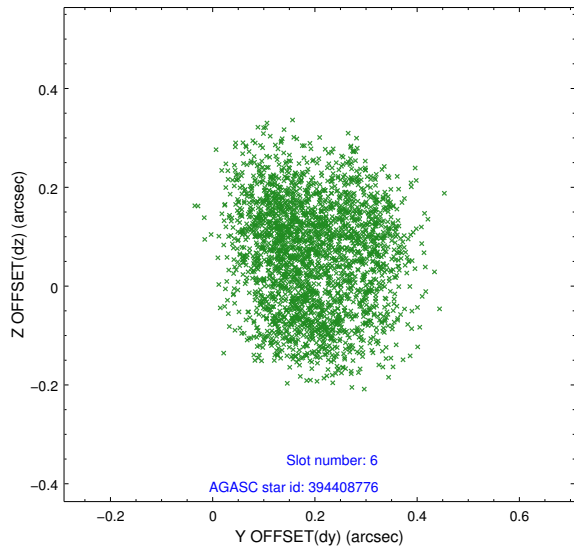
2.4.2 Slot 4



2.4.3 Slot 5

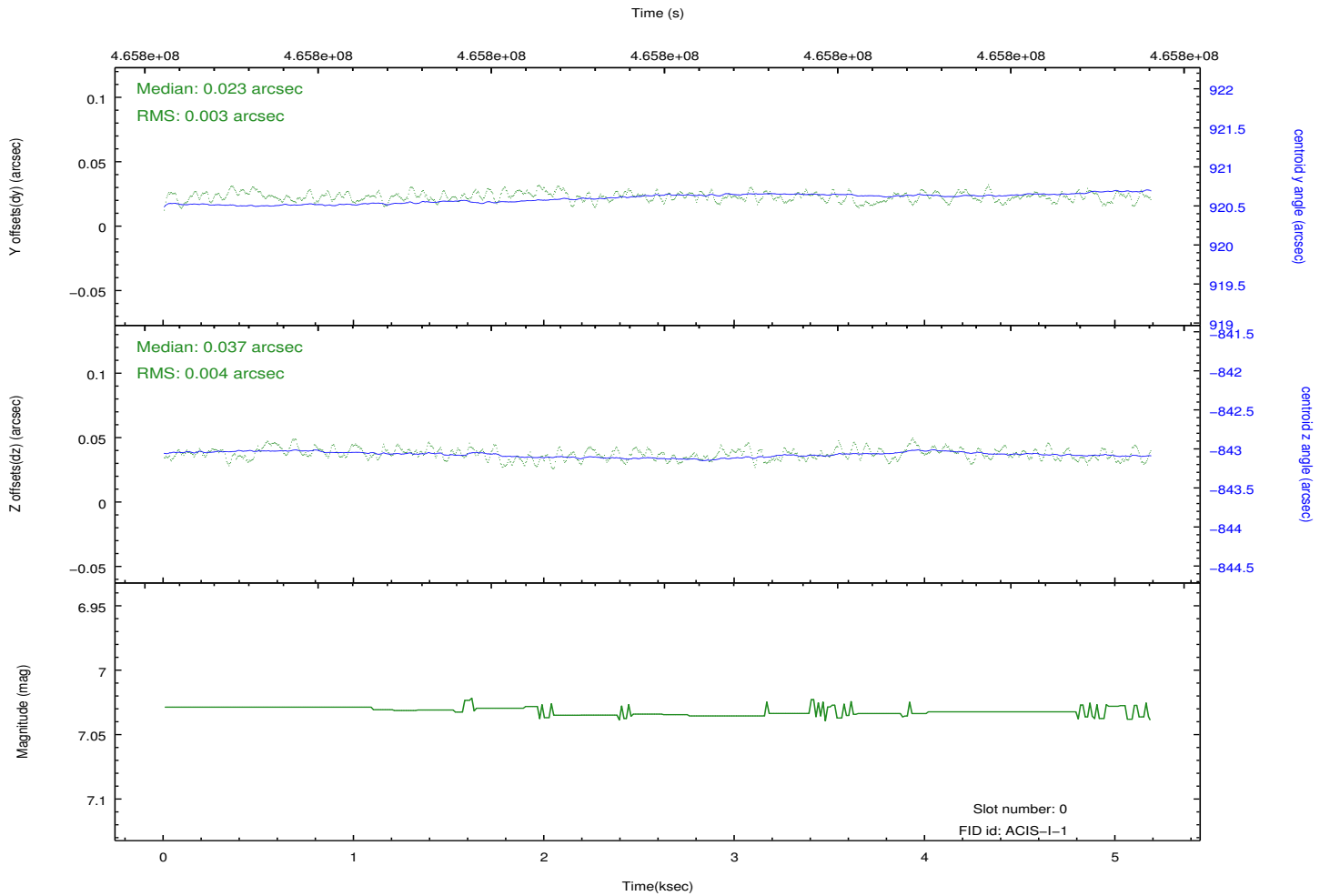
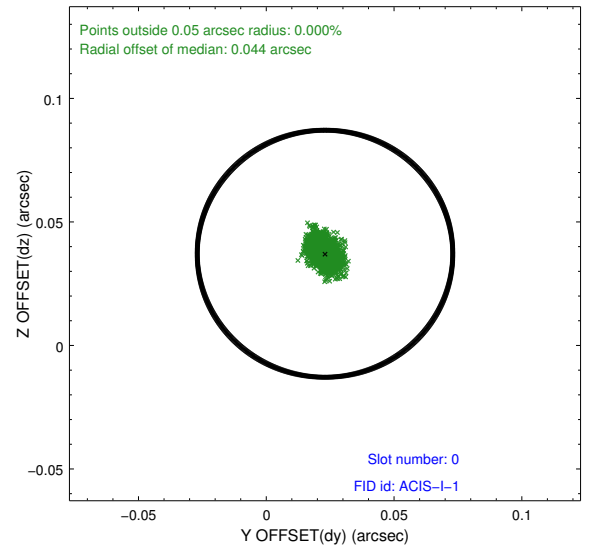
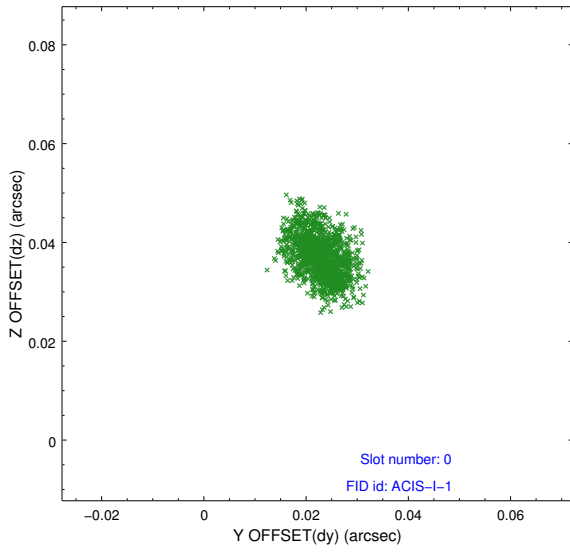


2.4.4 Slot 6

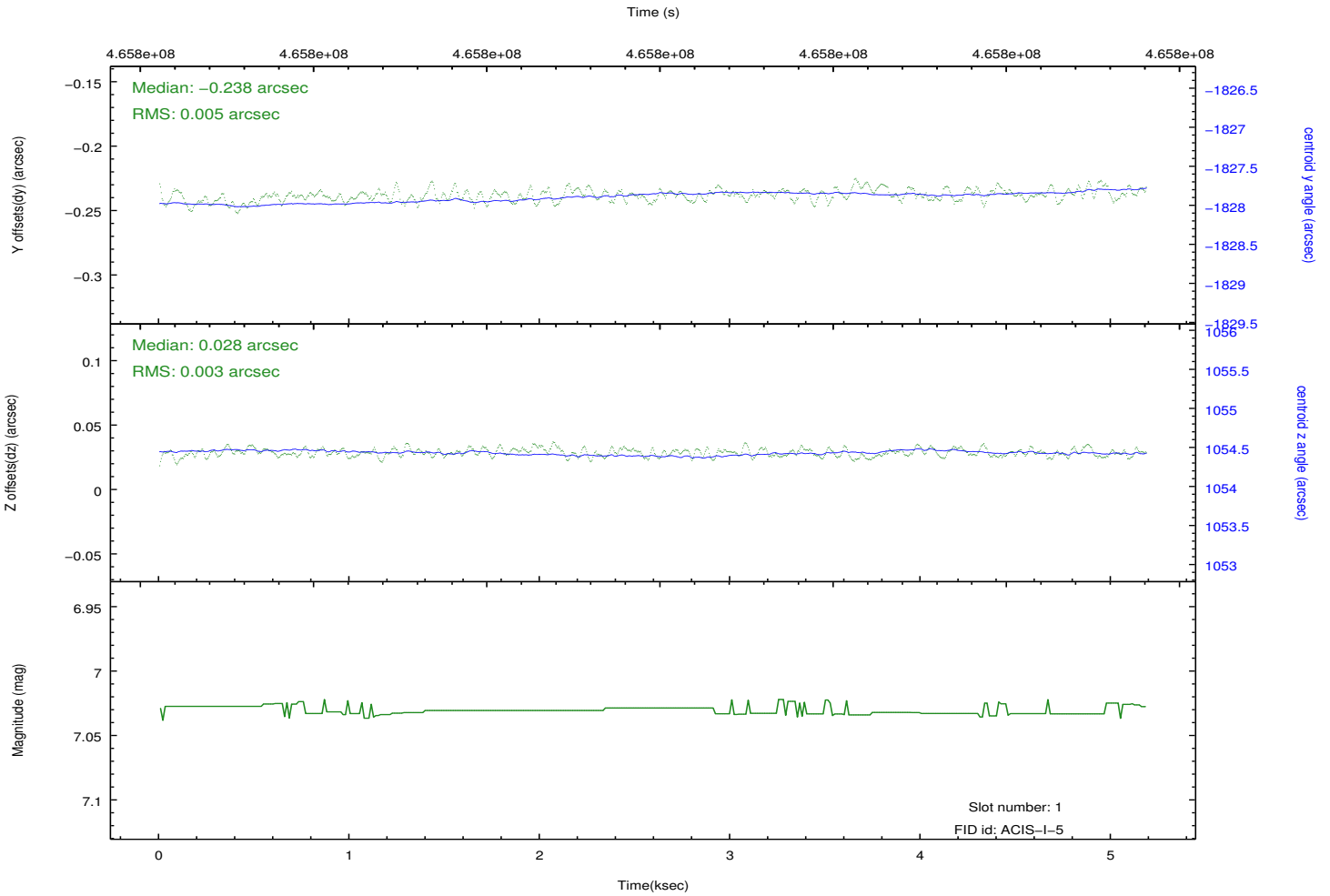
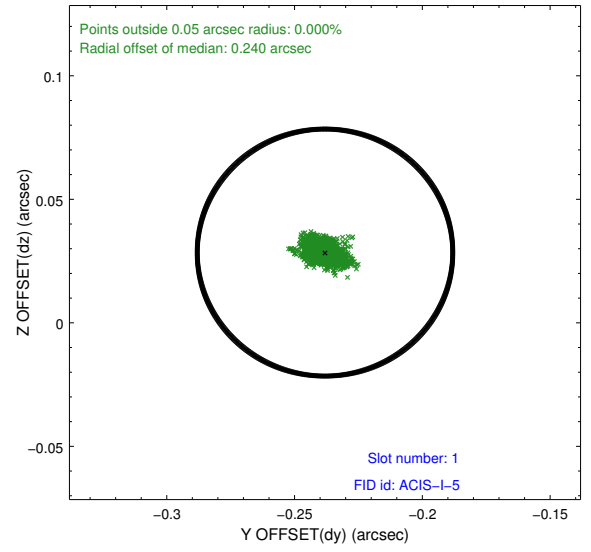
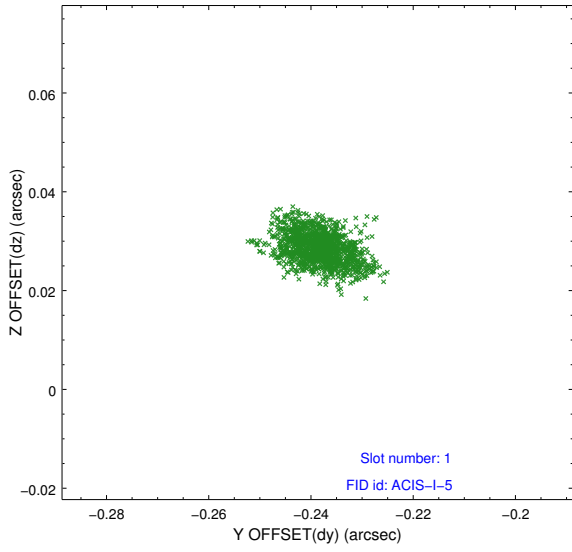


2.5 FID Slots

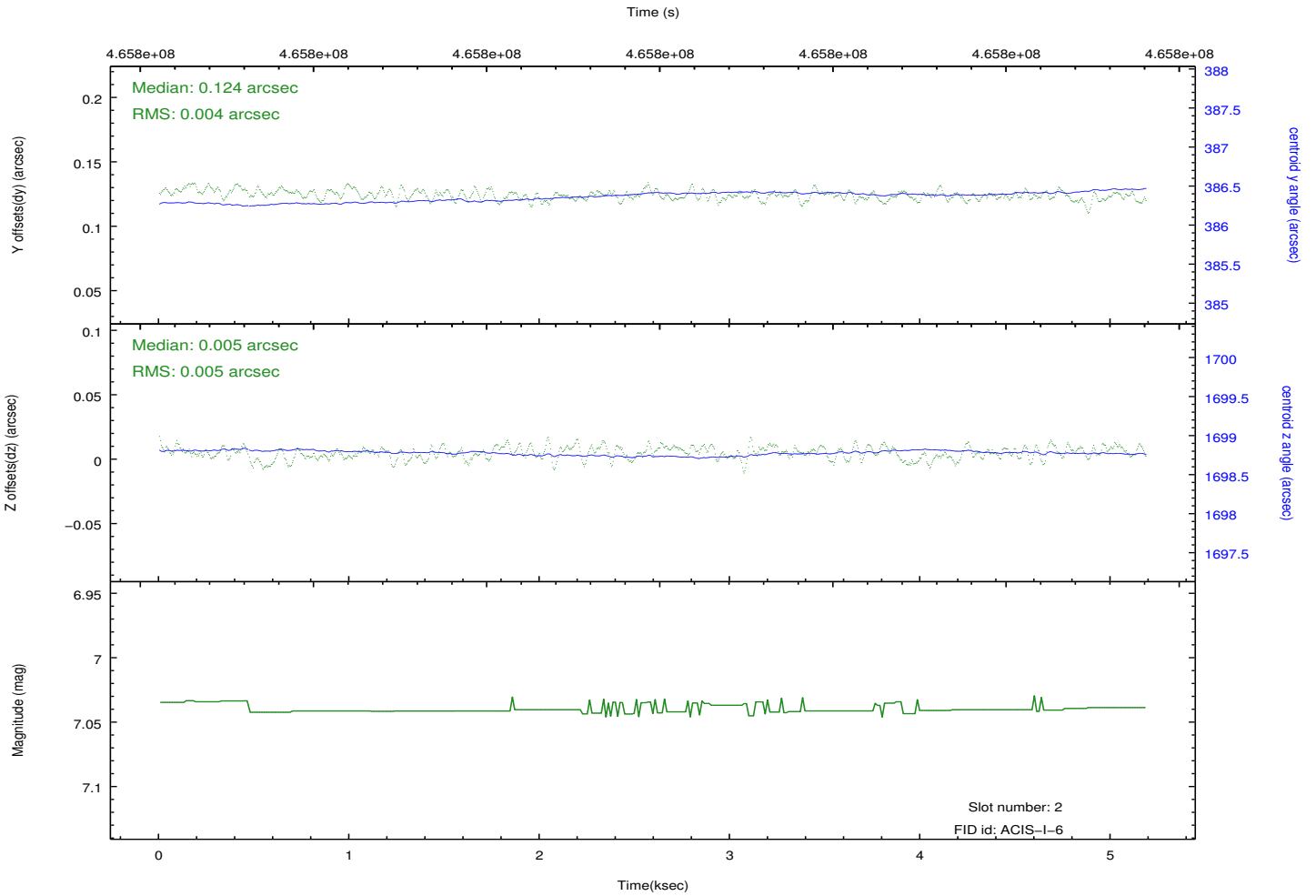
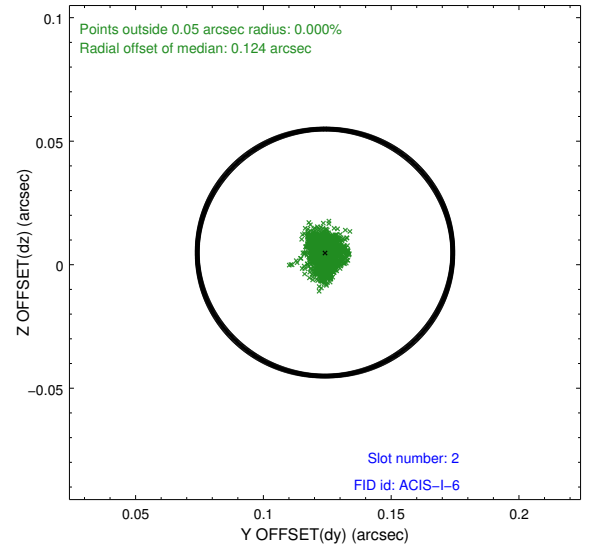
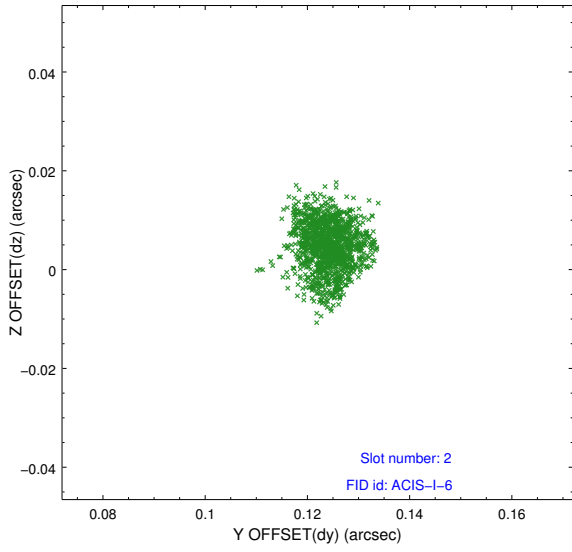
2.5.1 Slot 0



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	4.7709000366926

A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.

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.