

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 10951 - L2 Version 3
Chandra X-Ray Center

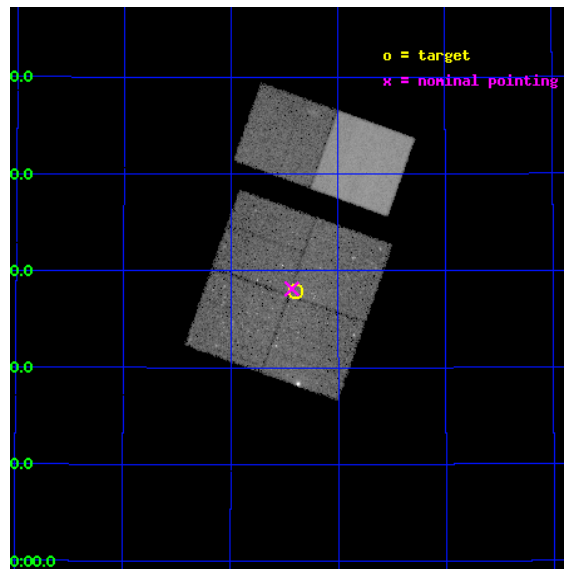
L2 Processing Date : Jun 21 2012

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1 Front

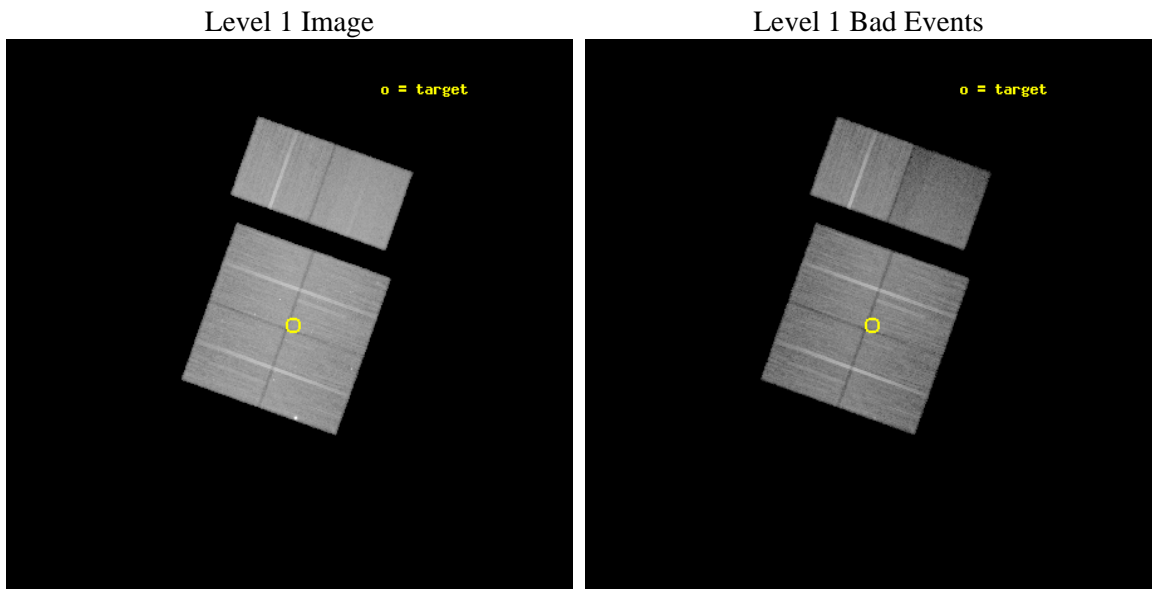
seq_num	200583	Sequence number
obs_id	10951	Observation id
title	The Chandra Cygnus OB2 Survey	Proposal title
observer	Dr. Jeremy Drake	Principal investigator
object	Cygnus OB2	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	308.099334	Observer's specified target RA [deg]
dec_targ	41.46441	Observer's specified target Dec [deg]
ra_nom	308.10796158859	Nominal RA [deg]
dec_nom	41.469251975438	Nominal Dec [deg]
roll_nom	19.630768558644	Nominal Roll [deg]
revision	3	Processing version of data
ontime	29545.599889994	Sum of GTIs [s]
livetime	29171.475713962	Livetime [s]
ontime0	29542.35891974	Sum of GTIs [s]
ontime1	29545.599889994	Sum of GTIs [s]
ontime2	29542.358889759	Sum of GTIs [s]
ontime3	29545.599889994	Sum of GTIs [s]
ontime6	29545.599889994	Sum of GTIs [s]
ontime7	29545.599889994	Sum of GTIs [s]
l2events	231477	Number of level 2 events



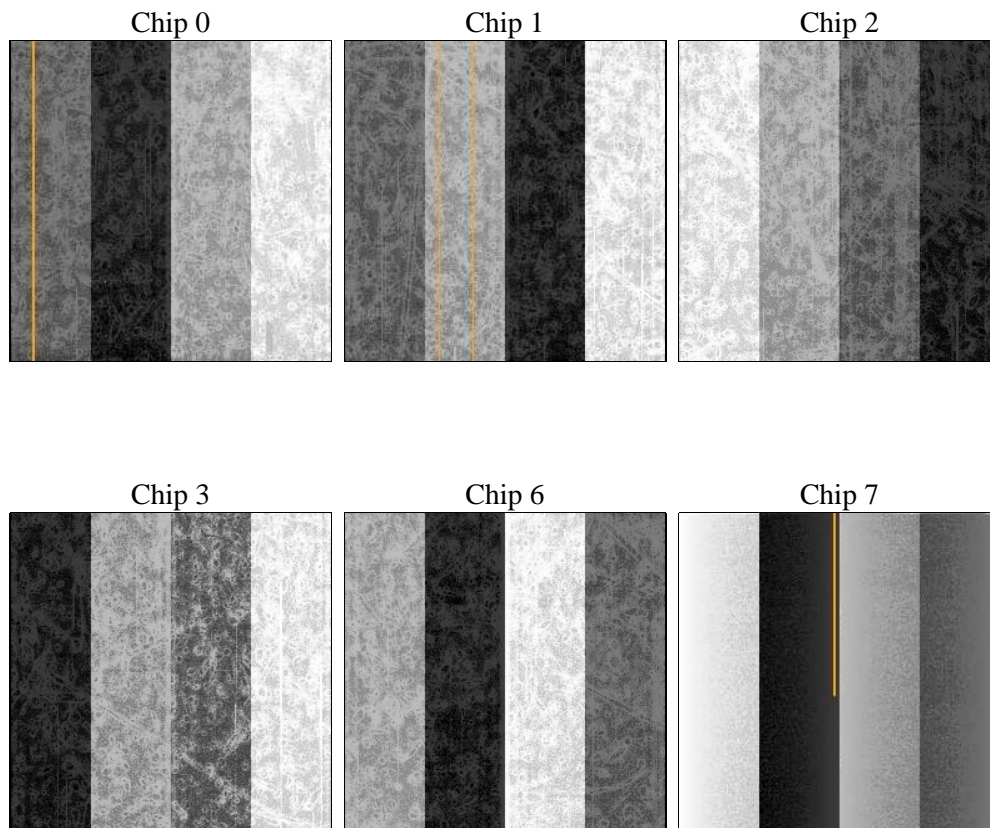
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29545.599889994	Sum of GTIs [s]
caldsver	4.4.10	 	ontime0	29542.35891974	Sum of GTIs [s]
date	2012-06-21T17:32:08	Date and time of file creation	ontime1	29545.599889994	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	29542.358889759	Sum of GTIs [s]
			ontime3	29545.599889994	Sum of GTIs [s]
			ontime6	29545.599889994	Sum of GTIs [s]
			ontime7	29545.599889994	Sum of GTIs [s]
			l1events	1343413	Number of level 1 events

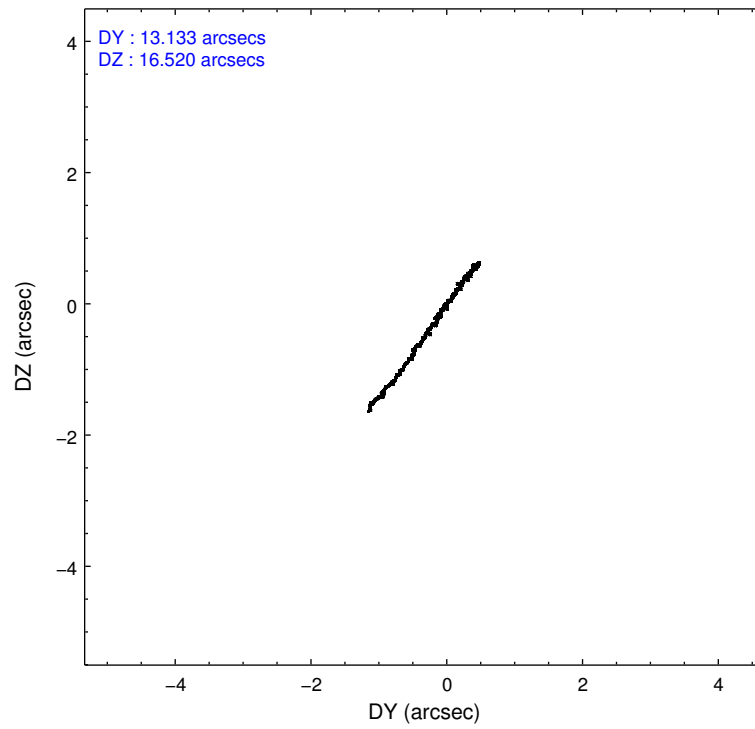
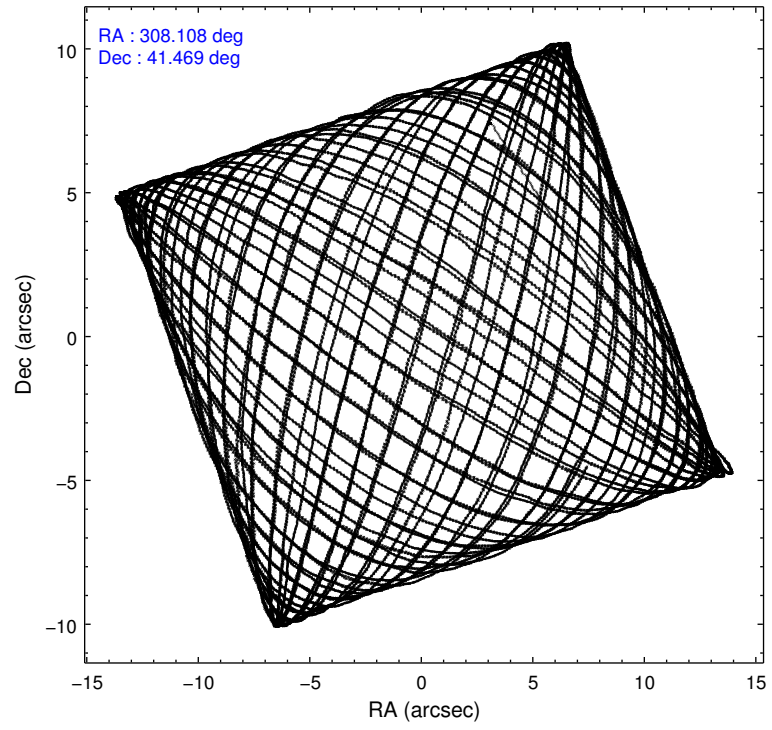
2.1.4 Events

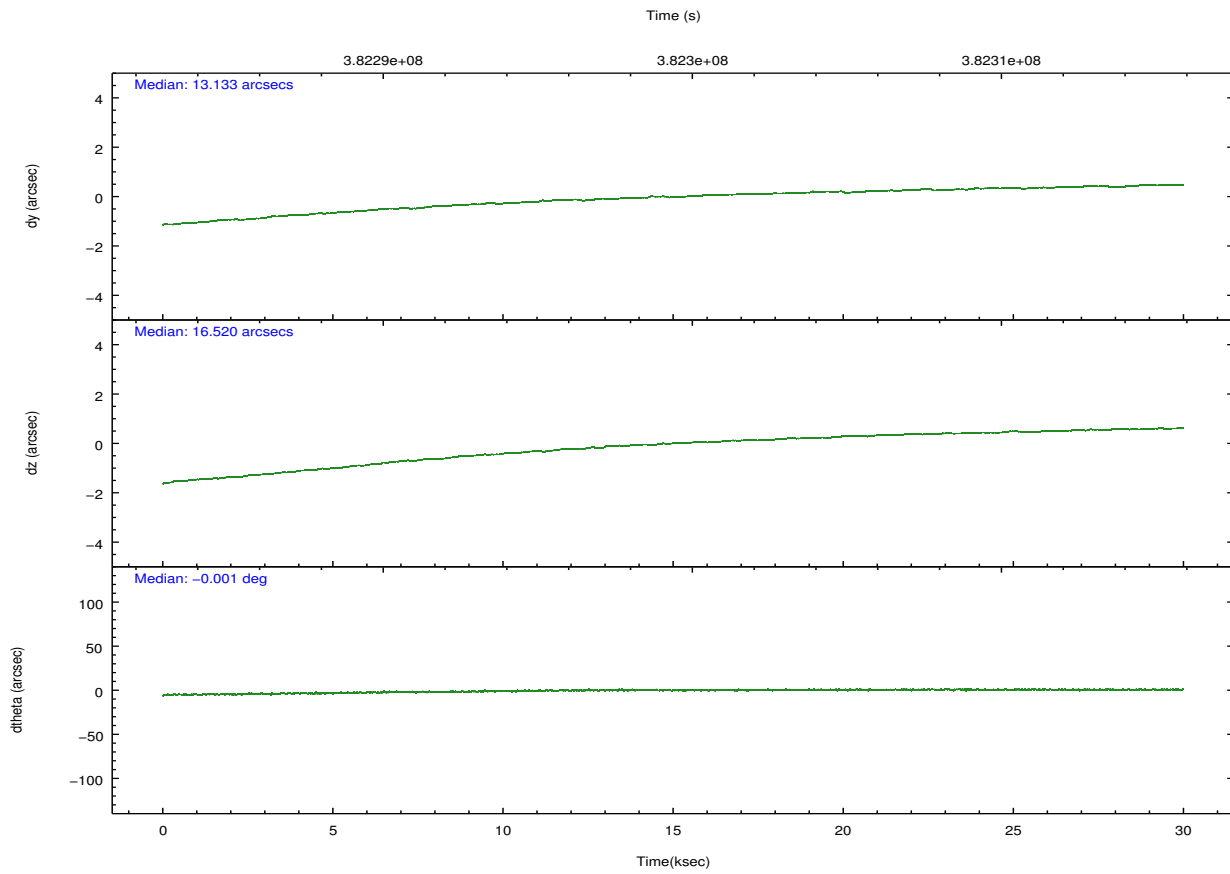
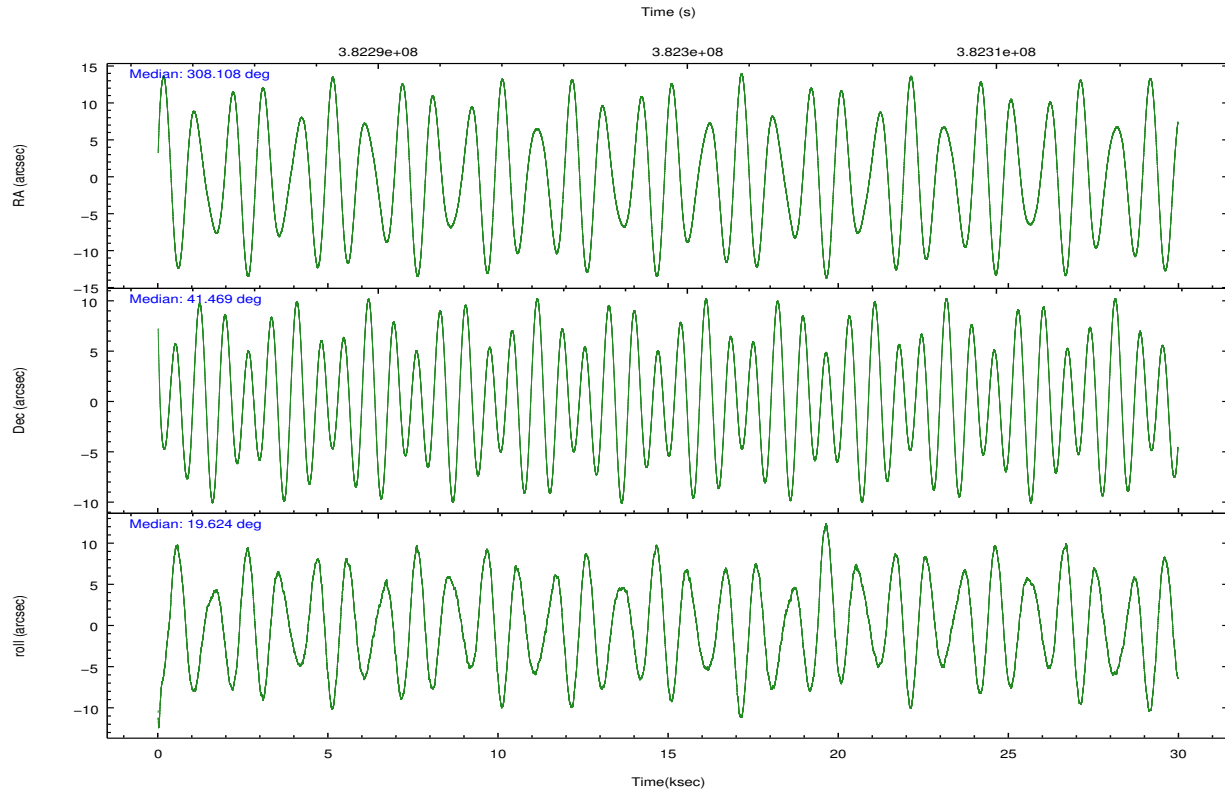
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	209780	214496	232576	228617	231617	226327	grade 0 events	13603	19025	11851	12208	9688	11719
rejected events	179904	177243	205560	201717	206240	114463		6%	8%	5%	5%	4%	5%
rejected %	85%	82%	88%	88%	89%	50%	grade 1 events	156	176	163	166	142	384
								0%	0%	0%	0%	0%	0%
							grade 2 events	6445	6889	6056	5494	5747	24136
								3%	3%	2%	2%	2%	10%
							grade 3 events	2734	3077	2413	2552	2553	10475
								1%	1%	1%	1%	1%	4%
							grade 4 events	2585	3030	2557	2528	2521	10045
								1%	1%	1%	1%	1%	4%
							grade 5 events	7037	7915	6955	8155	8405	24054
								3%	3%	2%	3%	3%	10%
							grade 6 events	4516	5246	4145	4122	4872	55512
								2%	2%	1%	1%	2%	24%
							grade 7 events	172704	169138	198436	193392	197689	90002
								82%	78%	85%	84%	85%	39%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	308.084312	308.1079615885935	CCD I2 on	Y	Y
[deg] Pointing Dec	41.448244	41.46925197543823	CCD I3 on	Y	Y
[deg] Pointing Roll	19.437744	19.63076855864355	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	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	382284869.184000	382283715.73105	CCD S5 on	N	N
Observation start date	2010-02-11T14:13:23	2010-02-11T13:55:15	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	382314369.184000	382314503.14511	On-chip summing requested	N	N
Observation end date	2010-02-11T22:25:03	2010-02-11T22:28:23	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



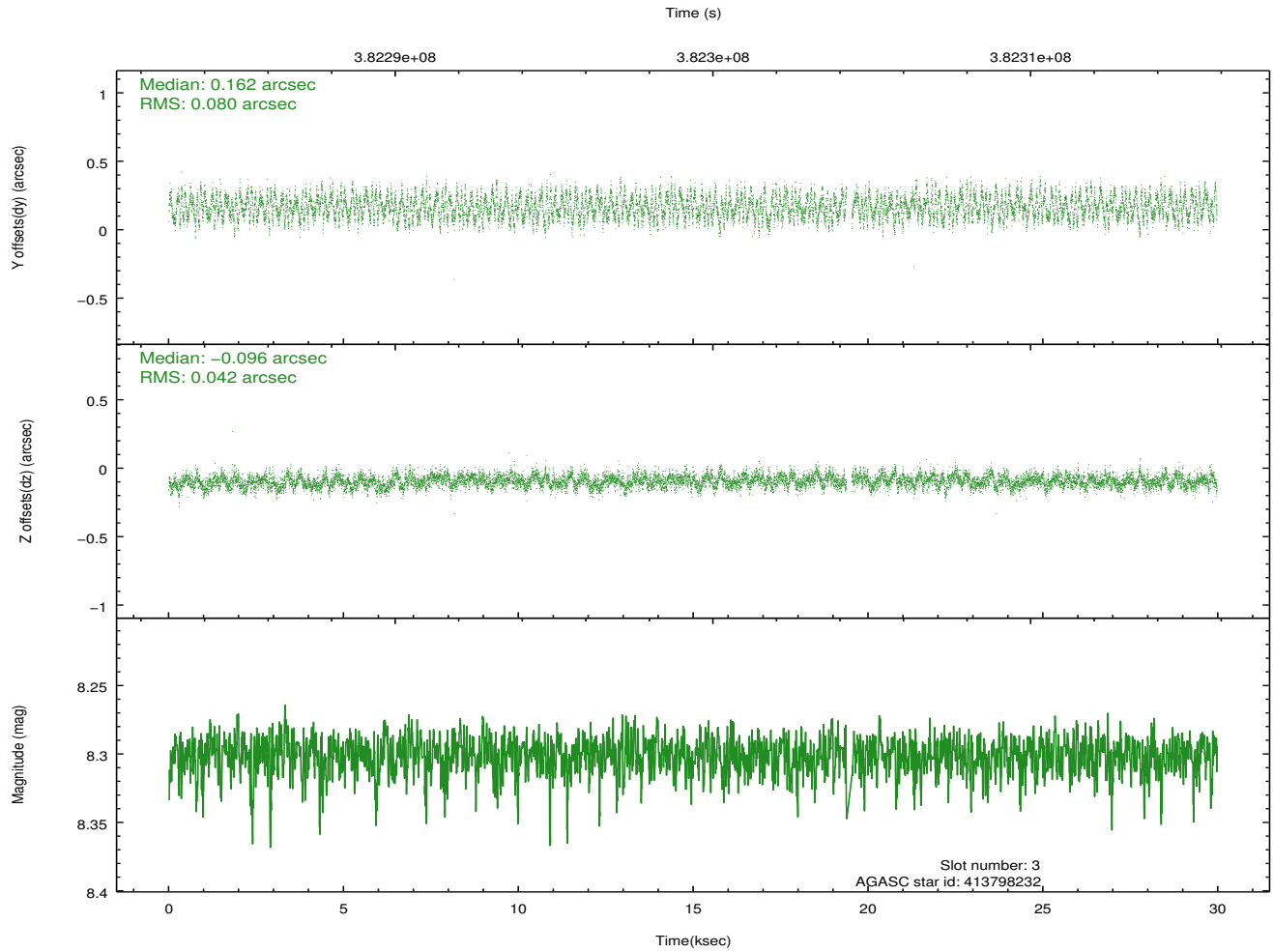
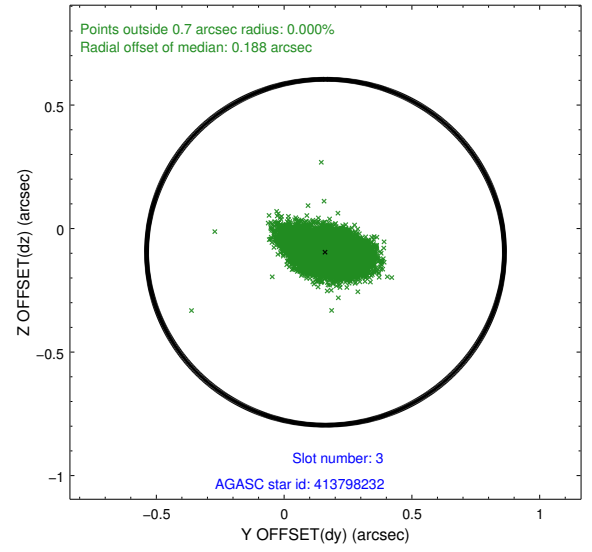
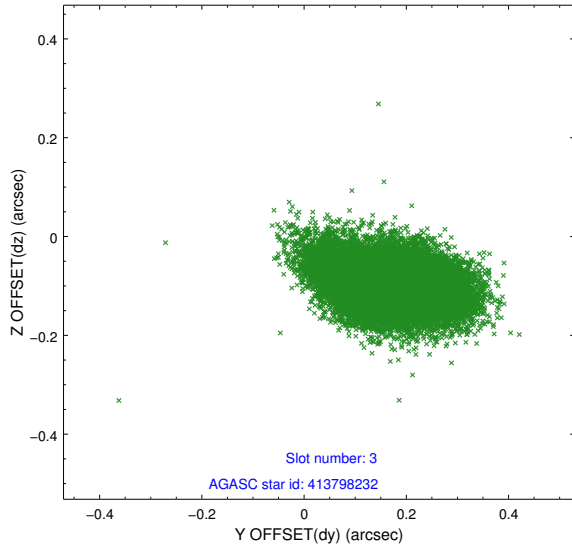


Slot Statistics

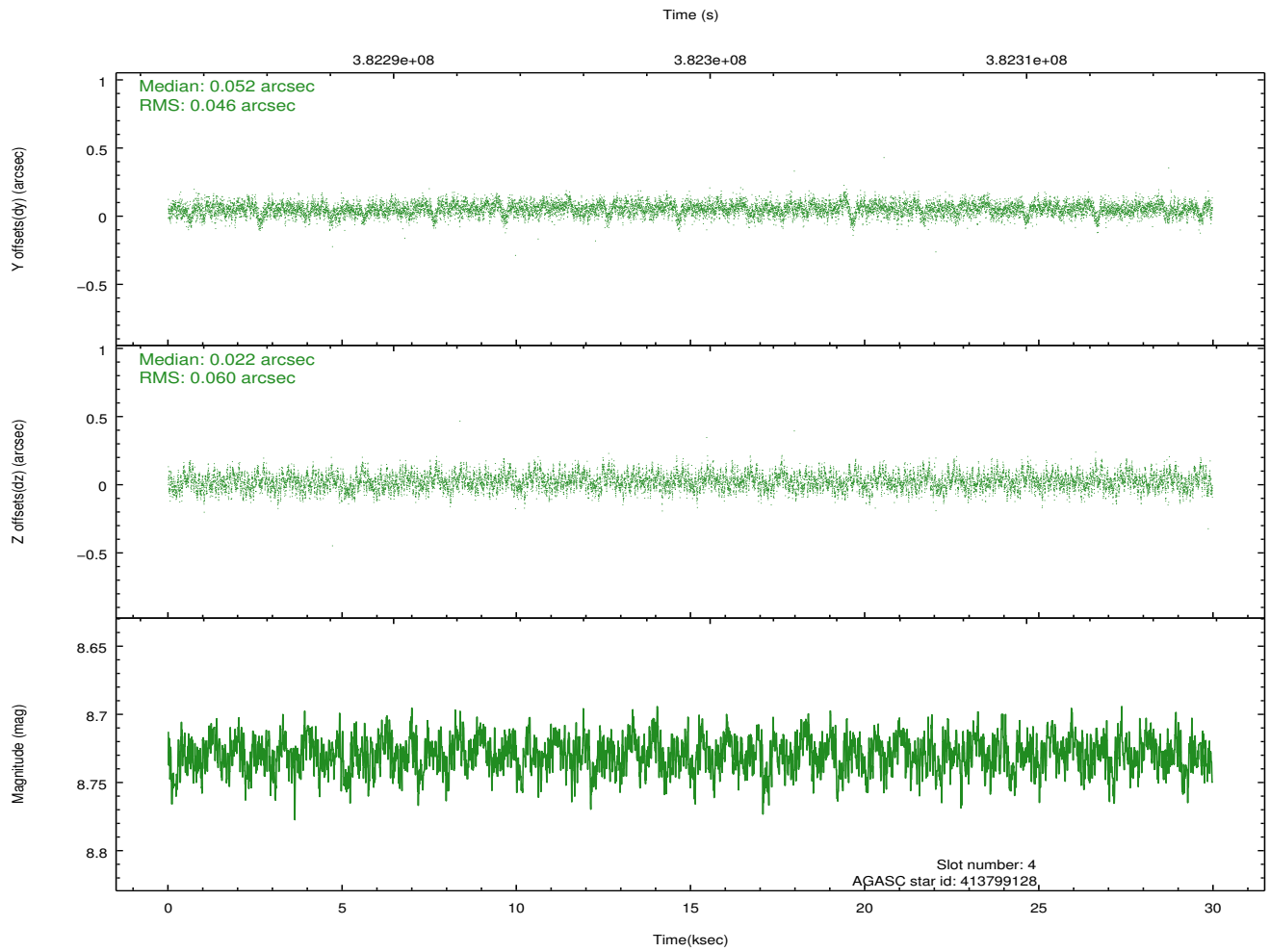
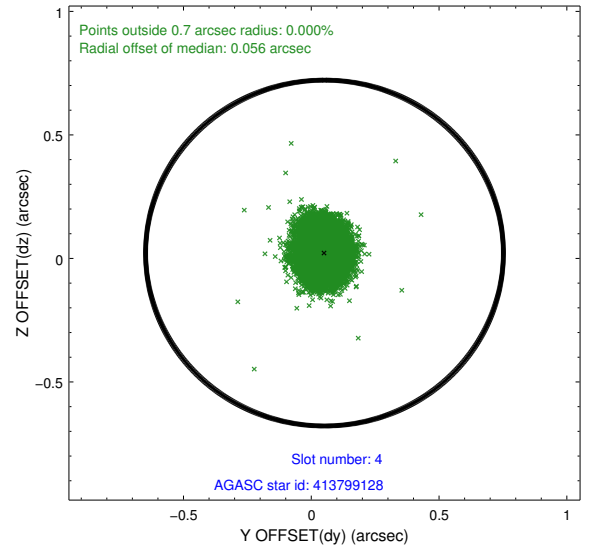
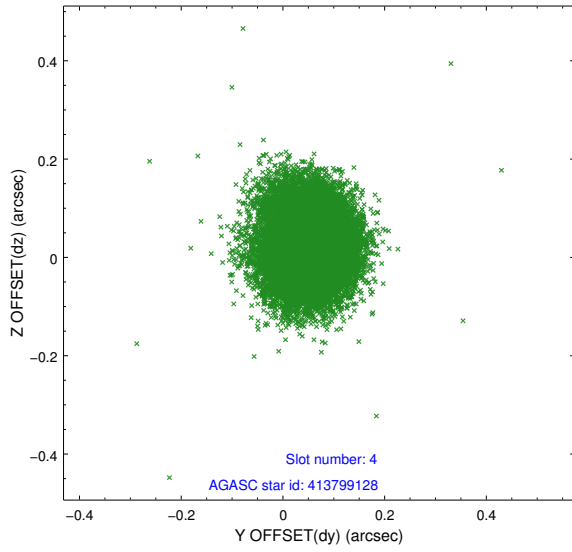
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.01	7310	0.064	-0.040	0.018	0.050	0.000000	0.000000	926.54	-840.02
1	FID	ACIS-I-5	7.01	7310	-0.200	0.067	0.023	0.042	0.000000	0.000000	-1821.76	1057.57
2	FID	ACIS-I-6	7.00	7311	0.049	0.046	0.012	0.018	0.000000	0.000000	392.03	1702.11
3	GUIDE	413798232	8.30	14543	0.162	-0.096	0.096	0.156	309.116117	41.044272	2163.90	-2287.99
4	GUIDE	413799128	8.73	14614	0.052	0.022	0.081	0.130	307.948219	41.110579	-751.72	-1023.25
5	GUIDE	413805792	7.33	14619	-0.133	0.084	0.062	0.095	307.778748	40.858024	-1490.77	-1725.11
6	GUIDE	414324232	8.31	14610	0.018	-0.013	0.062	0.101	308.637806	41.996627	2054.94	1373.58
7	GUIDE	414324952	9.03	14526	-0.101	0.005	0.120	0.183	307.998954	42.060645	518.61	2155.33

2.4 Star Slots

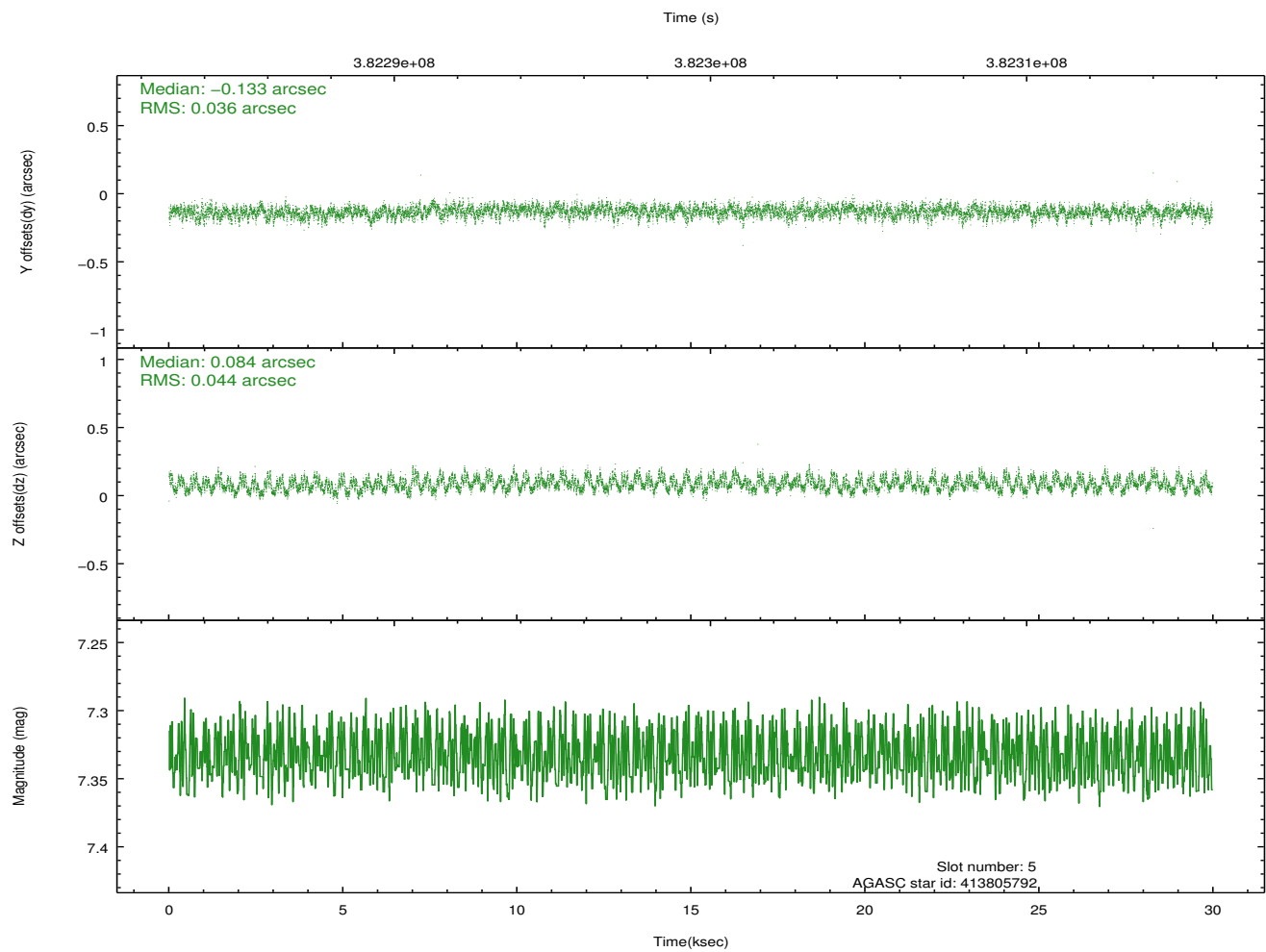
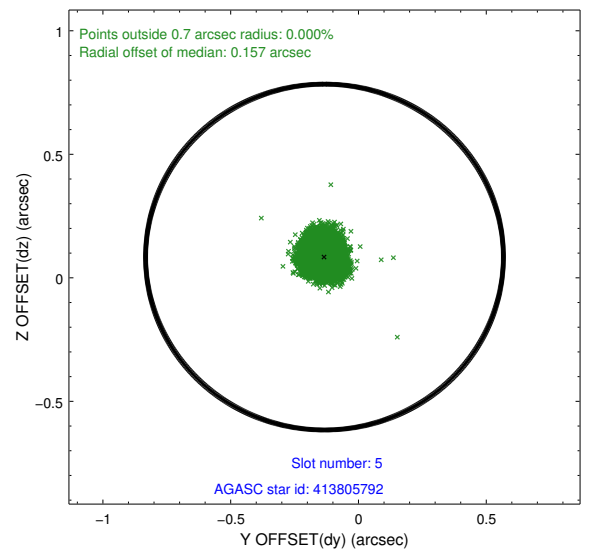
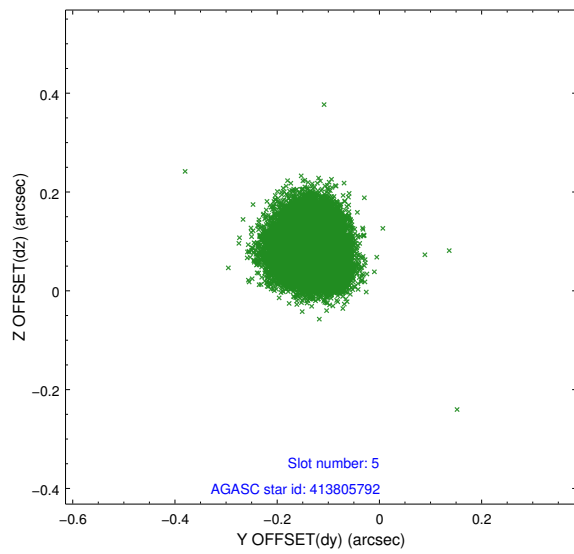
2.4.1 Slot 3



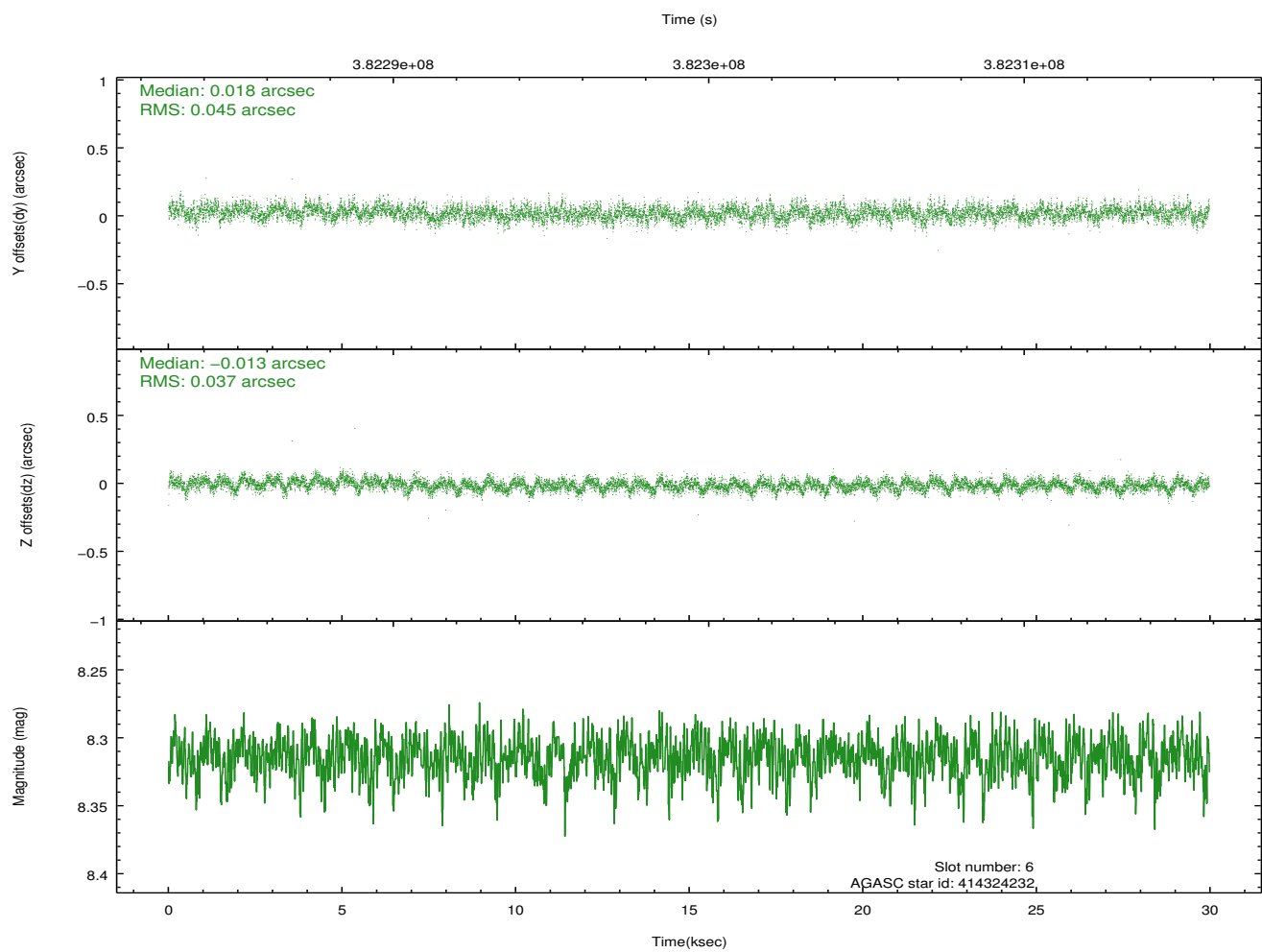
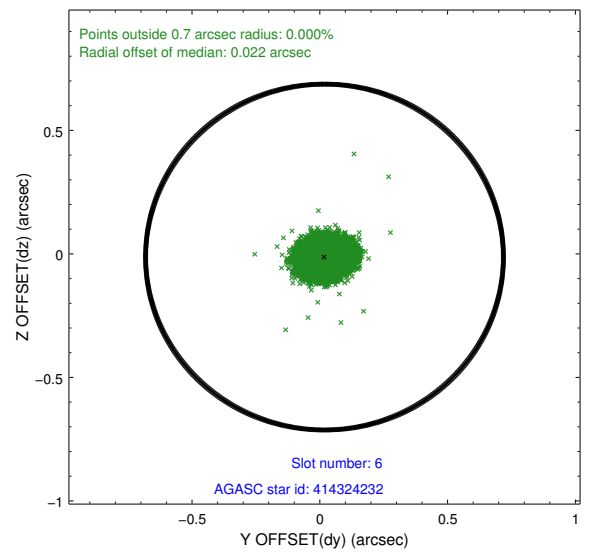
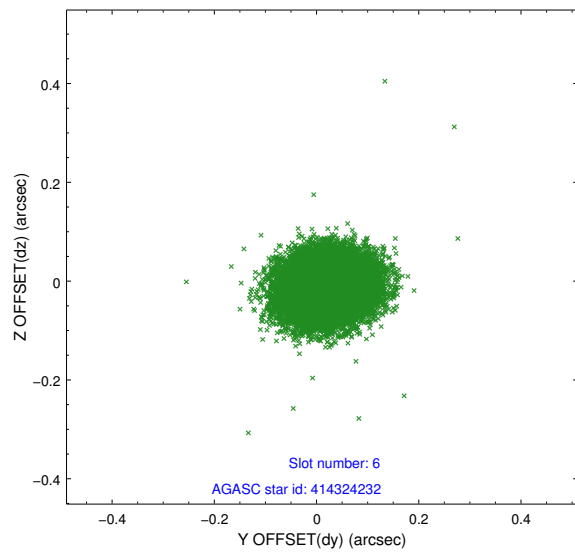
2.4.2 Slot 4



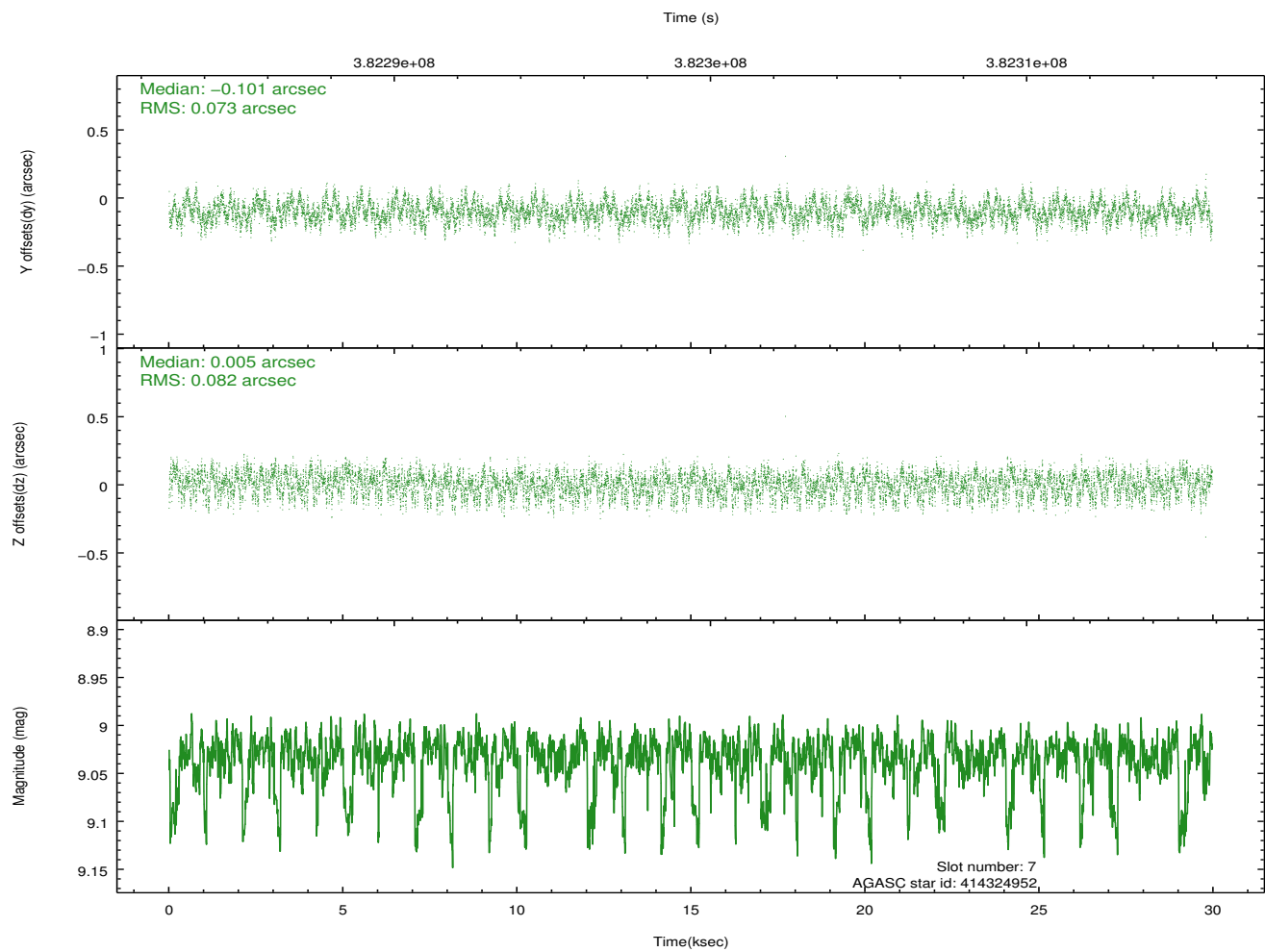
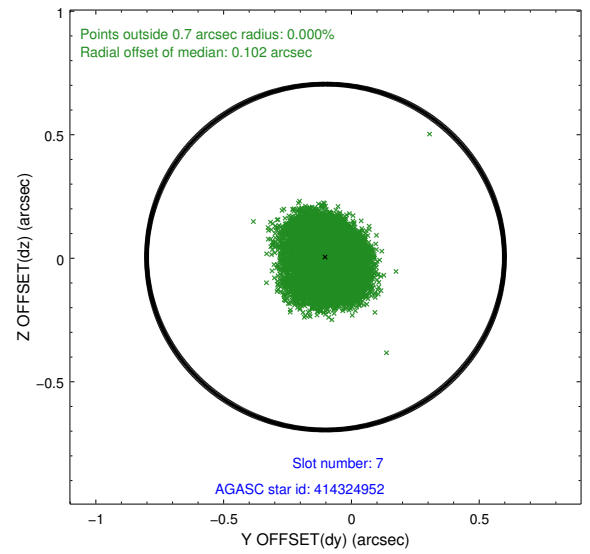
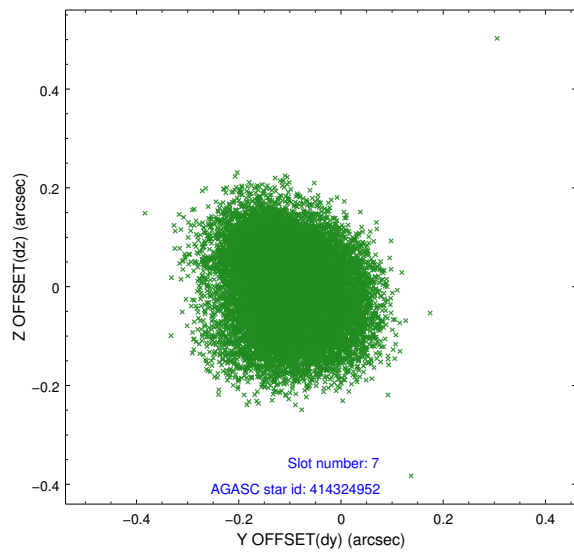
2.4.3 Slot 5



2.4.4 Slot 6

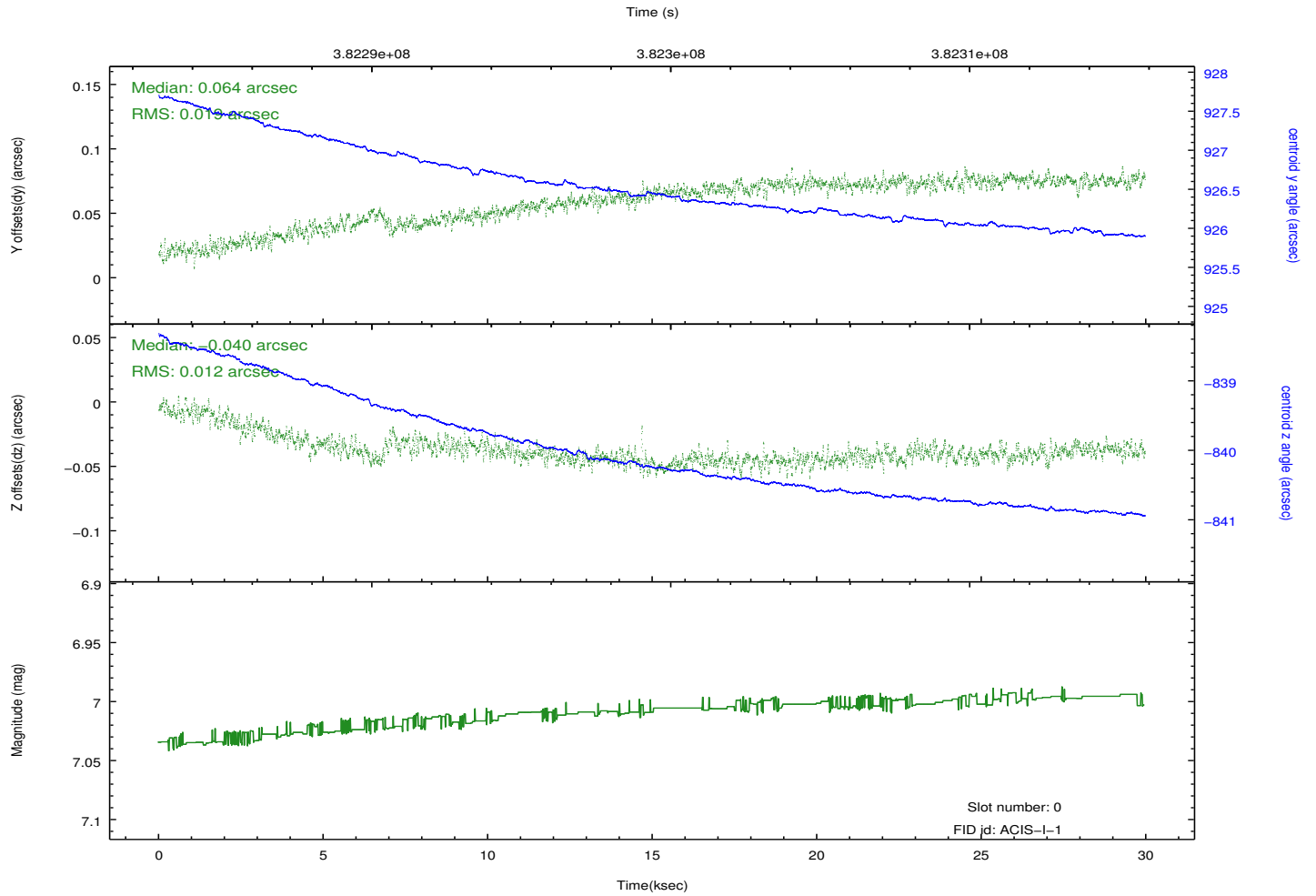
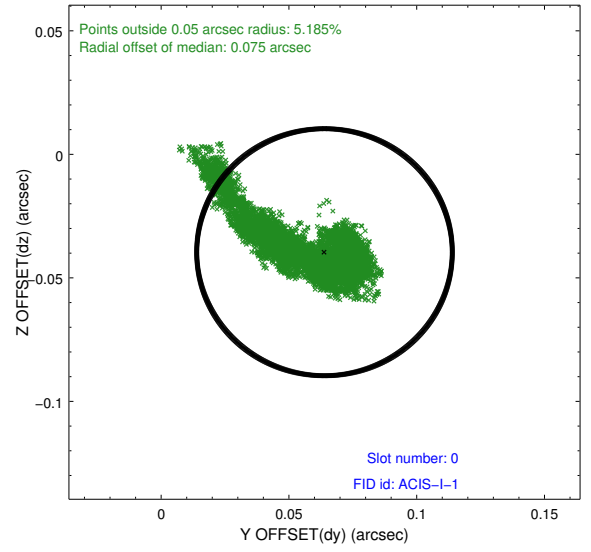
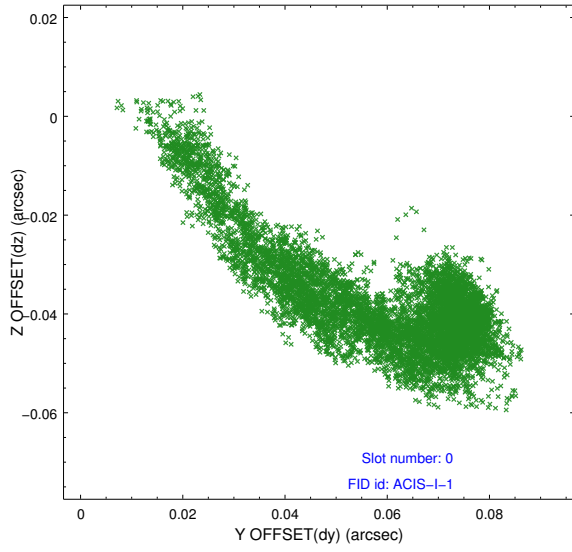


2.4.5 Slot 7

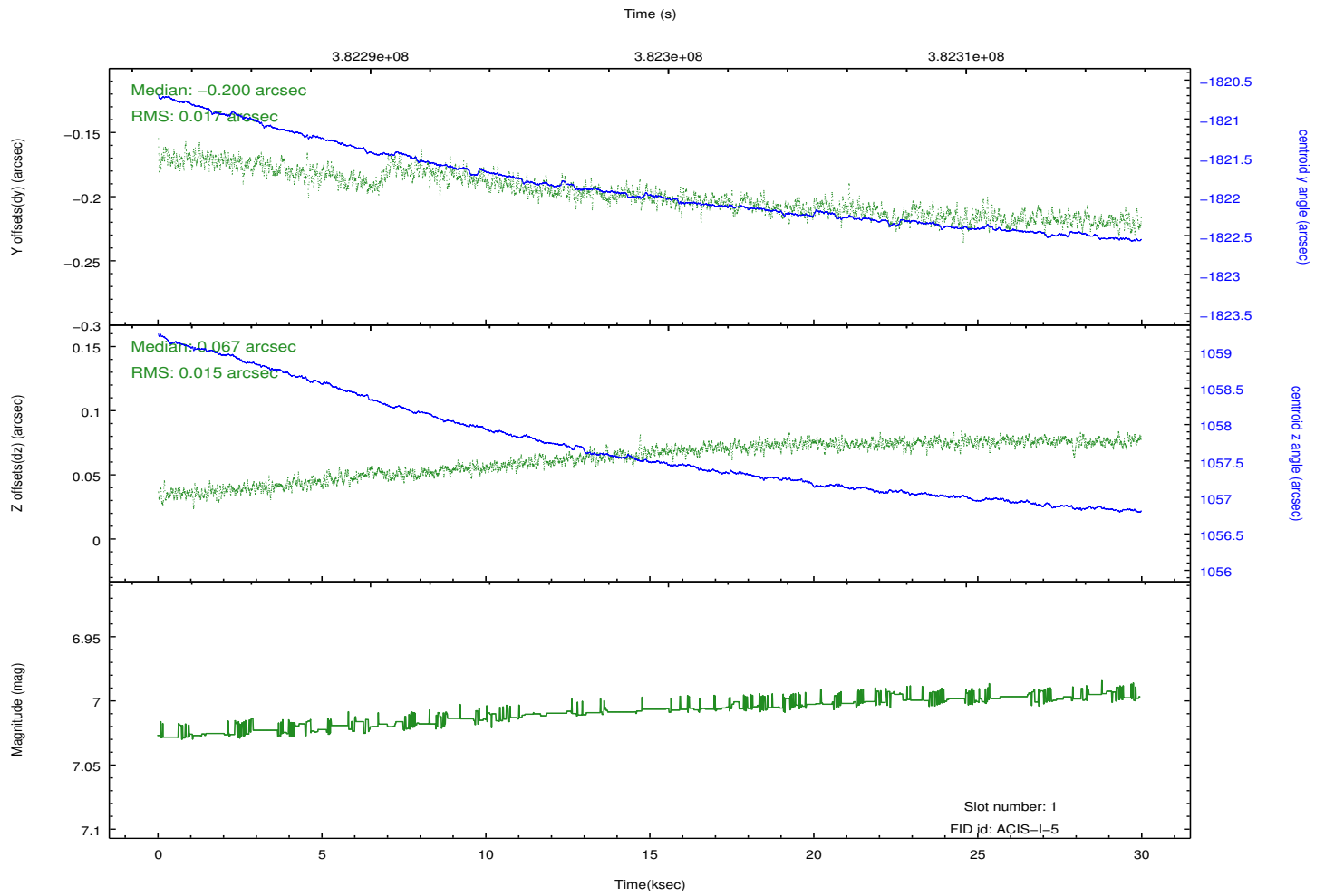
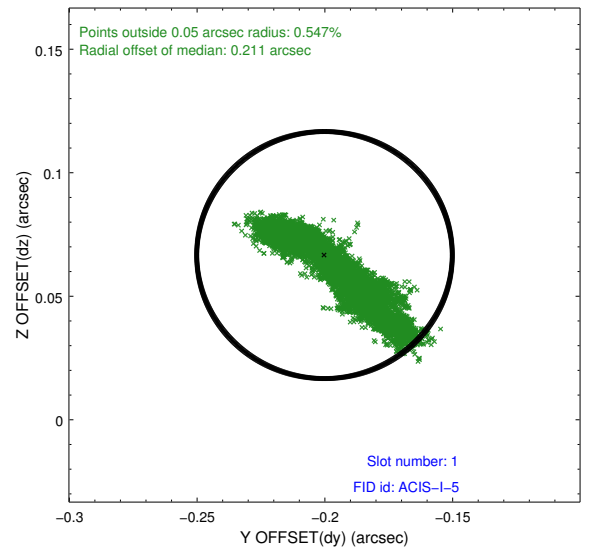
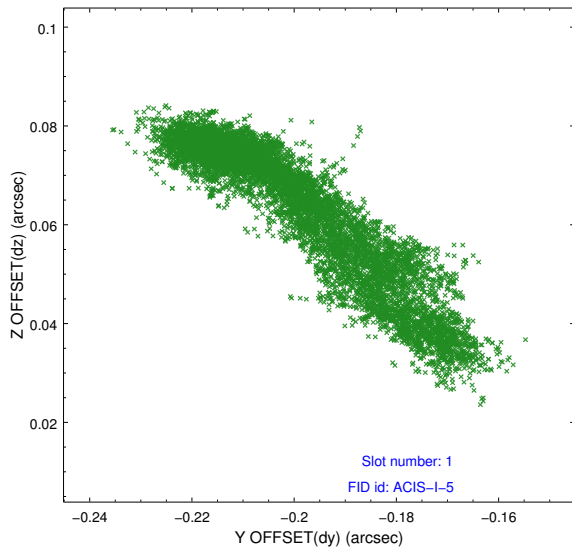


2.5 FID Slots

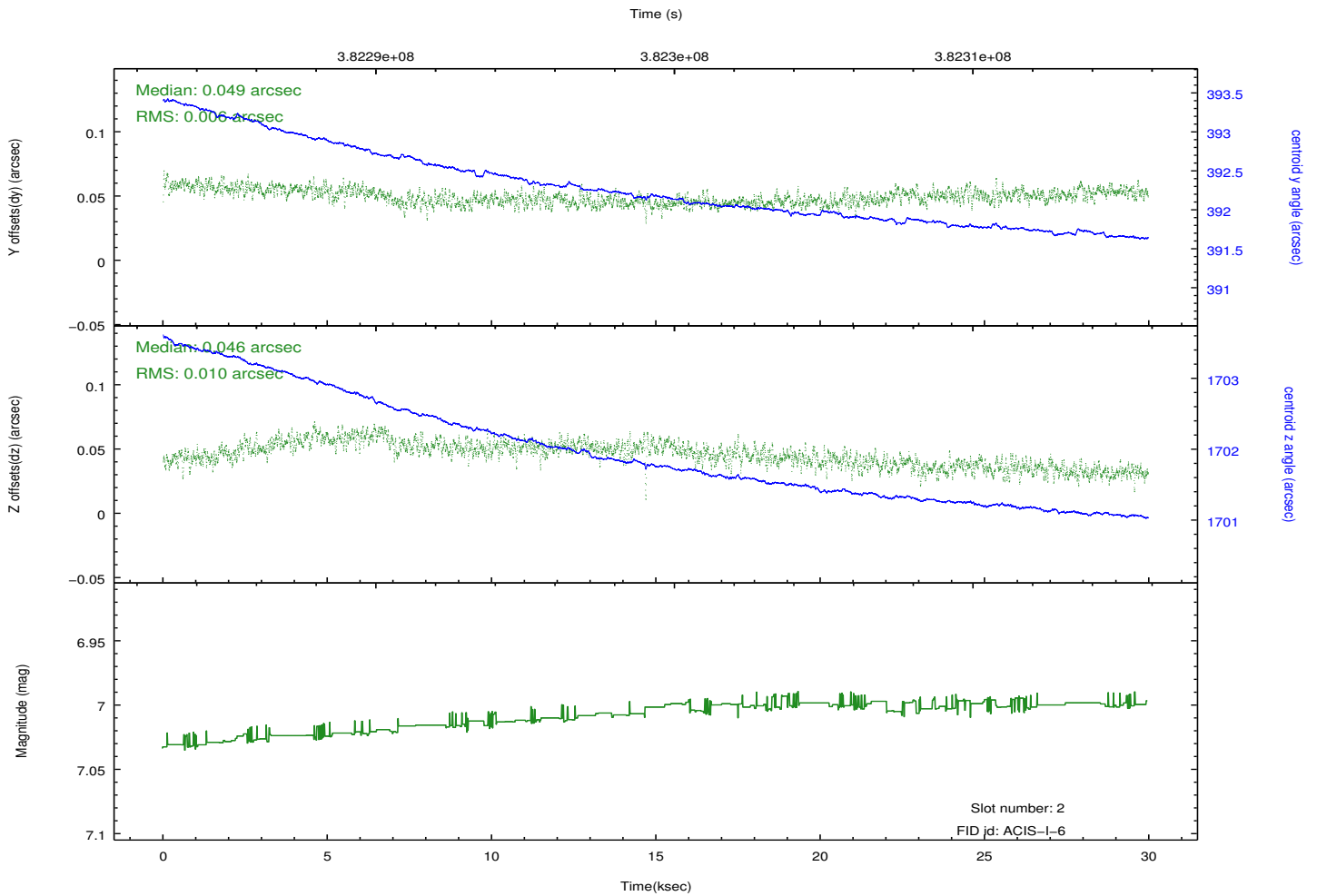
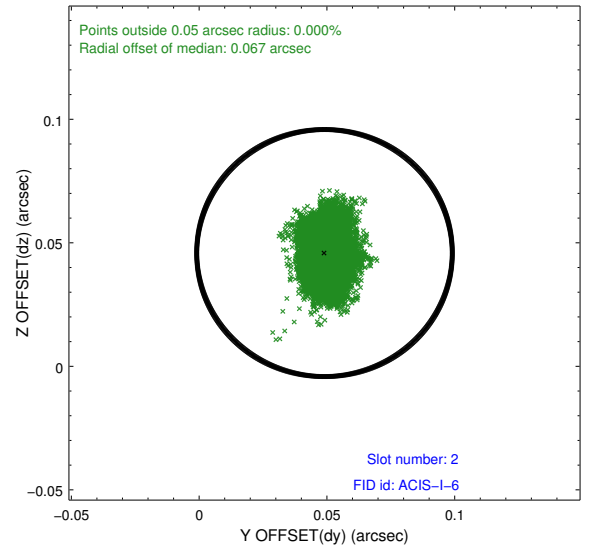
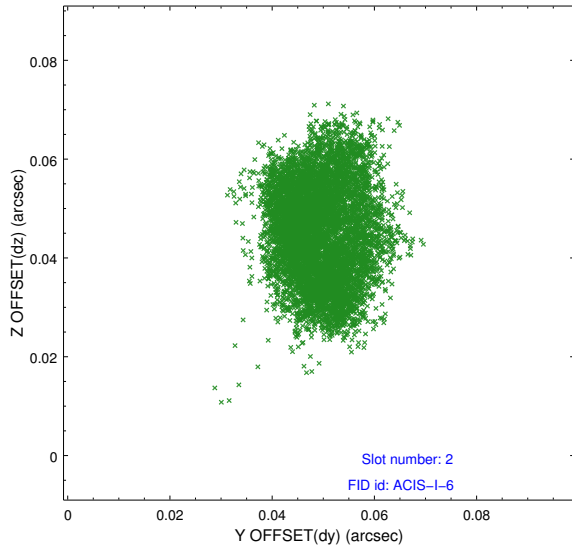
2.5.1 Slot 0



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)	2012.06.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.5455998

A.2 Comments

Roll preference met.

=====

Spatial regions of the original bias maps for CCD = 0 and 2 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias maps for CCD = 0 and 2 have been reconstructed for this processing to remove this anomaly using scaled data from comparable bias maps from other observations. The pixels affected by the anomaly are bounded by sky coords:

CCD 0:

(308.30628,41.47800), (308.30495,41.48083), (308.27562,41.47304), (308.28038,41.47113)

CCD 2:

(308.20538,41.58448), (308.20317,41.58910), (308.07220,41.55418), (308.07442,41.54956)