

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 14817 - L2 Version 2
Chandra X-Ray Center

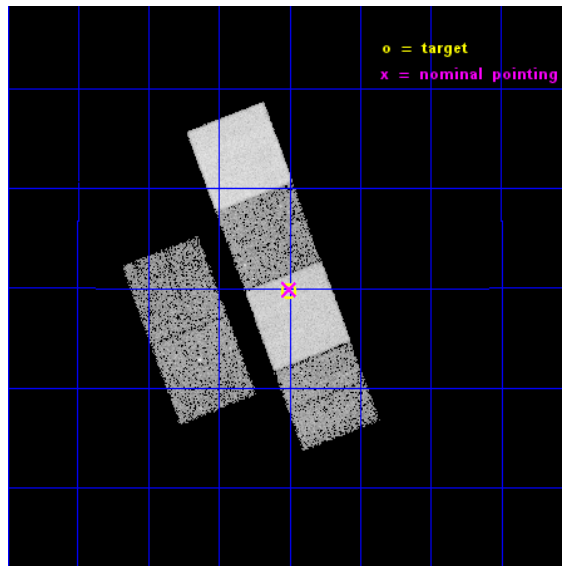
L2 Processing Date : Dec 8 2014

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1 Front

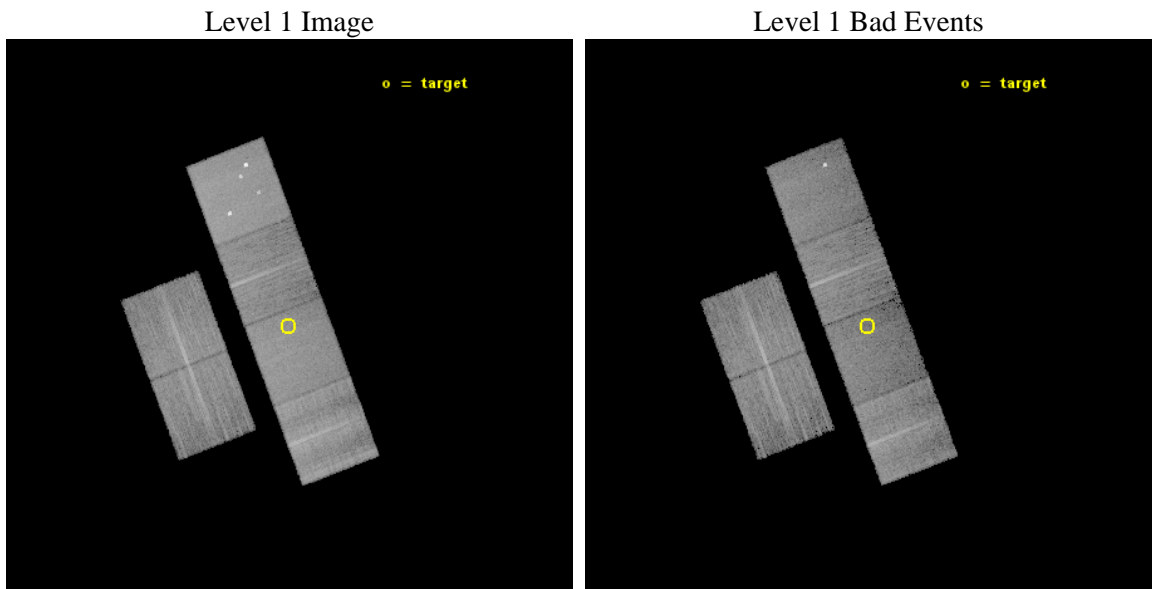
seq_num	501945	Sequence number
obs_id	14817	Observation id
title	Constraining the Energetics of Fermi-LAT GRBs with Chandra	Proposa
observer	Dr Judith Racusin	Principal investigator
object	GRB 131108A	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	156.50187	Observer's specified target RA [deg]
dec_targ	9.66225	Observer's specified target Dec [deg]
ra_nom	156.50002226032	Nominal RA [deg]
dec_nom	9.664676443382	Nominal Dec [deg]
roll_nom	69.156952071922	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20163.199924946	Sum of GTIs [s]
livetime	19907.881346675	Livetime [s]
ontime2	20159.958944619	Sum of GTIs [s]
ontime3	20156.717904568	Sum of GTIs [s]
ontime5	20163.199924946	Sum of GTIs [s]
ontime6	20159.958954632	Sum of GTIs [s]
ontime7	20163.199924946	Sum of GTIs [s]
ontime8	20163.199924946	Sum of GTIs [s]
l2events	151330	Number of level 2 events



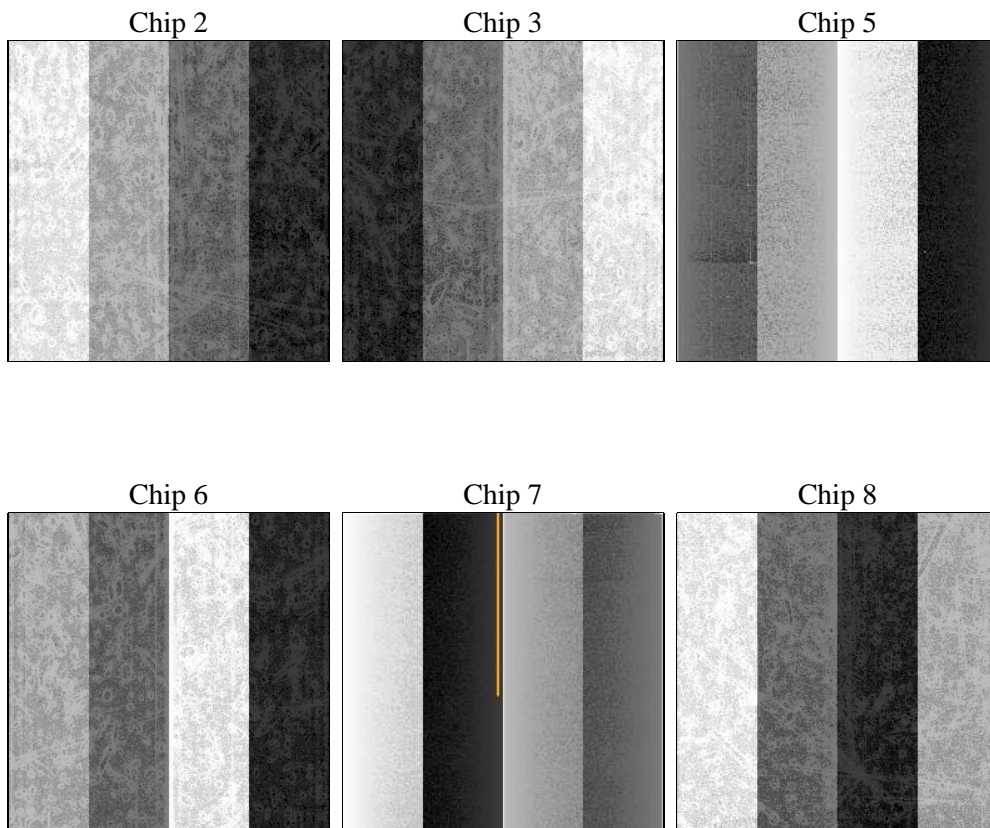
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20200.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	20163.199924946	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	20159.958944619	Sum of GTIs [s]
date	2014-12-08T05:24:04	Date and time of file creation	ontime3	20156.717904568	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	20163.199924946	Sum of GTIs [s]
			ontime6	20159.958954632	Sum of GTIs [s]
			ontime7	20163.199924946	Sum of GTIs [s]
			ontime8	20163.199924946	Sum of GTIs [s]
			l1events	639134	Number of level 1 events

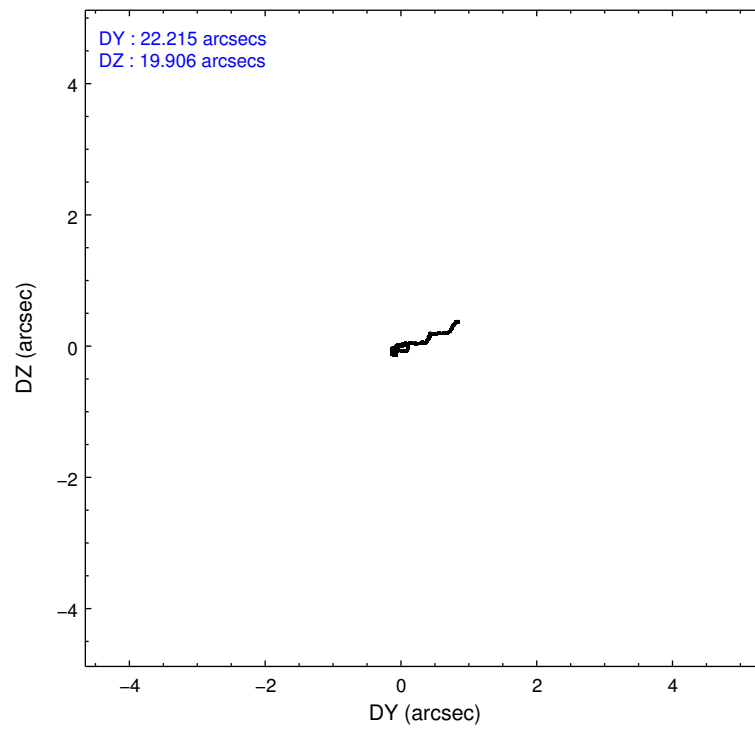
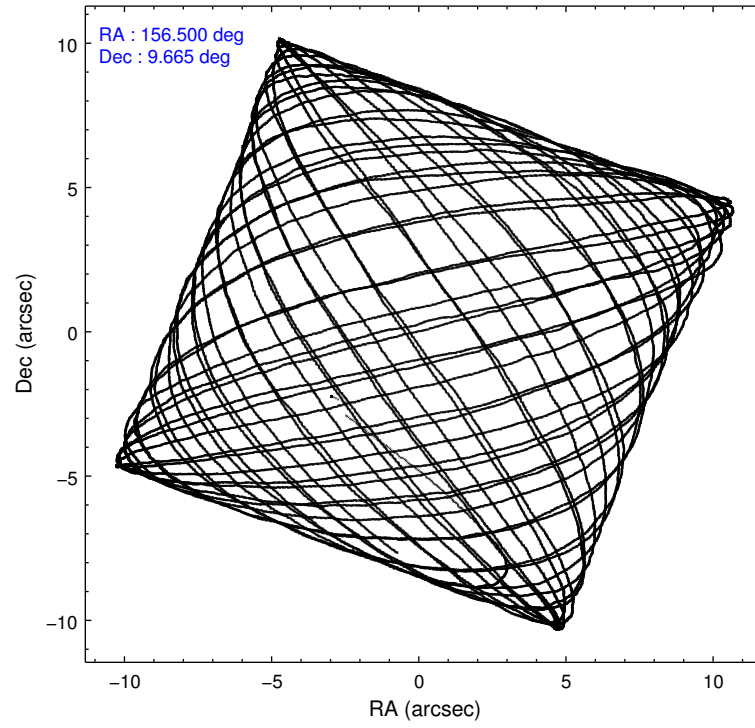
2.1.4 Events

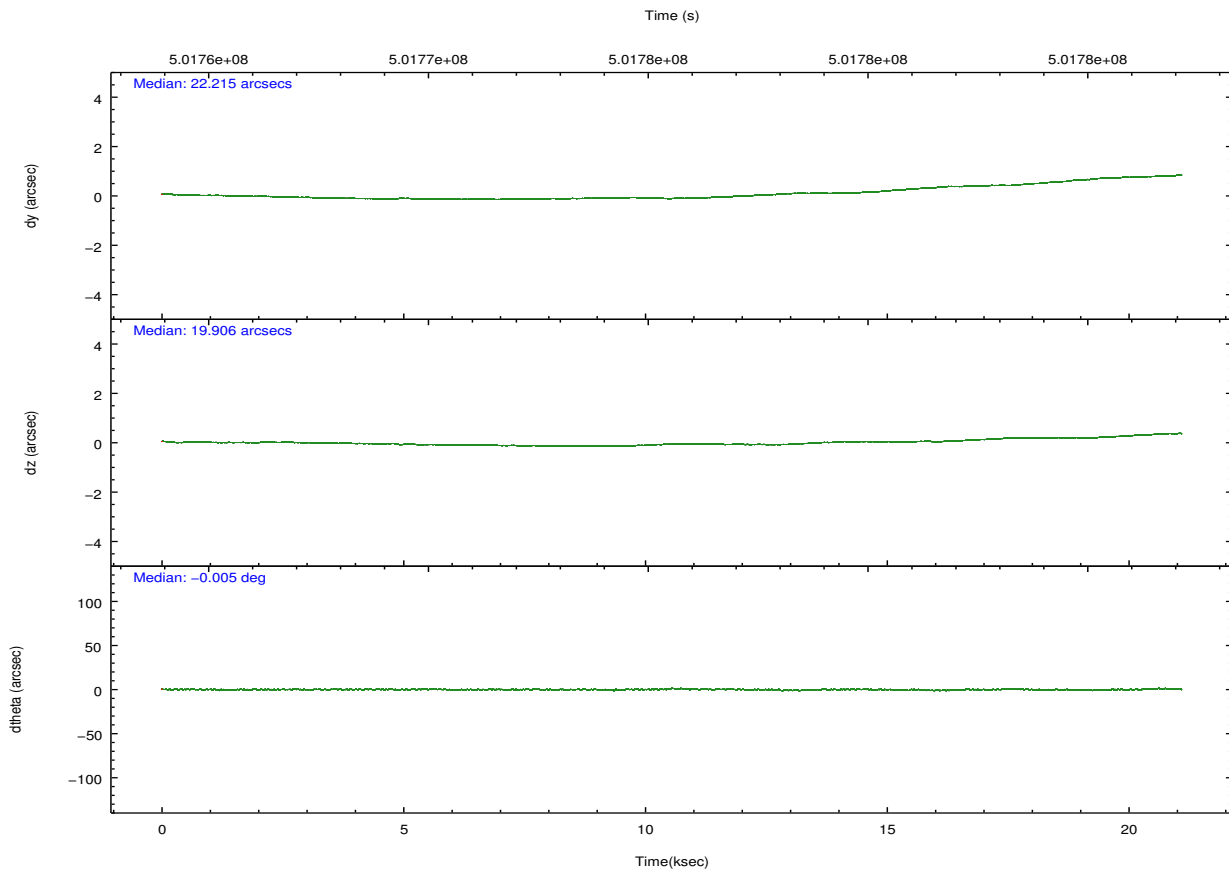
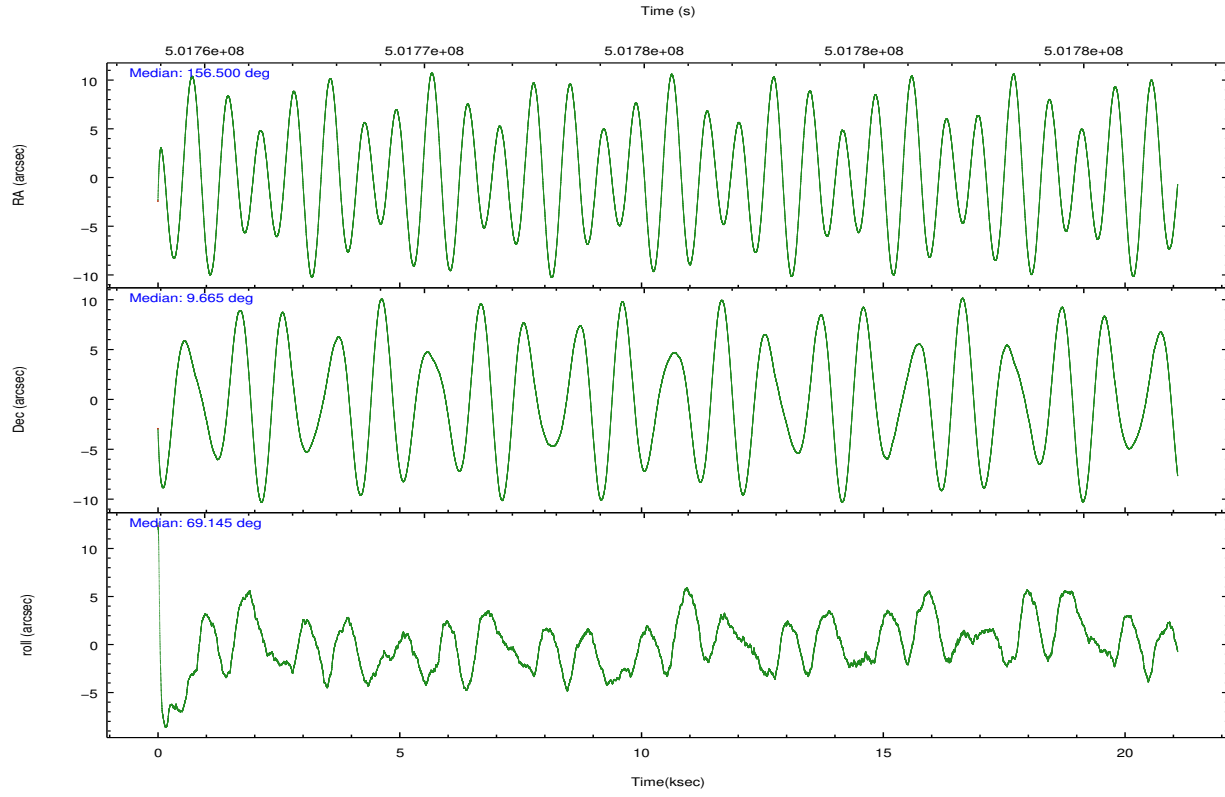
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	93362	86100	147131	87149	105759	119633	grade 0 events	3620	3687	11832	3825	4834	9164
rejected events	83163	76109	69278	76284	56075	86254		3%	4%	8%	4%	4%	7%
rejected %	89%	88%	47%	87%	53%	72%	grade 1 events	52	47	453	42	175	86
								0%	0%	0%	0%	0%	0%
							grade 2 events	2602	2232	23874	2480	10430	7963
								2%	2%	16%	2%	9%	6%
							grade 3 events	983	1029	2831	1058	4481	3605
								1%	1%	1%	1%	4%	3%
							grade 4 events	1041	1010	2613	1146	4375	3466
								1%	1%	1%	1%	4%	2%
							grade 5 events	3487	4024	11566	4094	11300	6227
								3%	4%	7%	4%	10%	5%
							grade 6 events	1953	2034	36720	2360	25571	9185
								2%	2%	24%	2%	24%	7%
							grade 7 events	79624	72037	57242	72144	44593	79937
								85%	83%	38%	82%	42%	66%

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	156.504821	156.5000222603198	CCD I2 on	O4	Y
[deg] Pointing Dec	9.637750	9.664676443382042	CCD I3 on	O5	Y
[deg] Pointing Roll	68.999510	69.15695207192188	CCD S0 on	N	N
[s] Window start time (MET)	501724867.184000	501724867.184000	CCD S1 on	O1	Y
[s] Window stop time (MET)	502156807.184000	502156807.184000	CCD S2 on	O2	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	O3	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)	501765880.184000	501764305.53326	On-chip summing requested	N	N
Observation start date	2013-11-25T11:23:33	2013-11-25T10:58:25	Subarray requested	NONE	NONE
[s] Observation end time (MET)	501786080.184000	501786884.747	Alternating exposures requested	N	N
Observation end date	2013-11-25T17:00:13	2013-11-25T17:14:44	[s] Primary exposure time	0.000000	3.2
Read mode	TIMED	TIMED			

2.3 Aspect





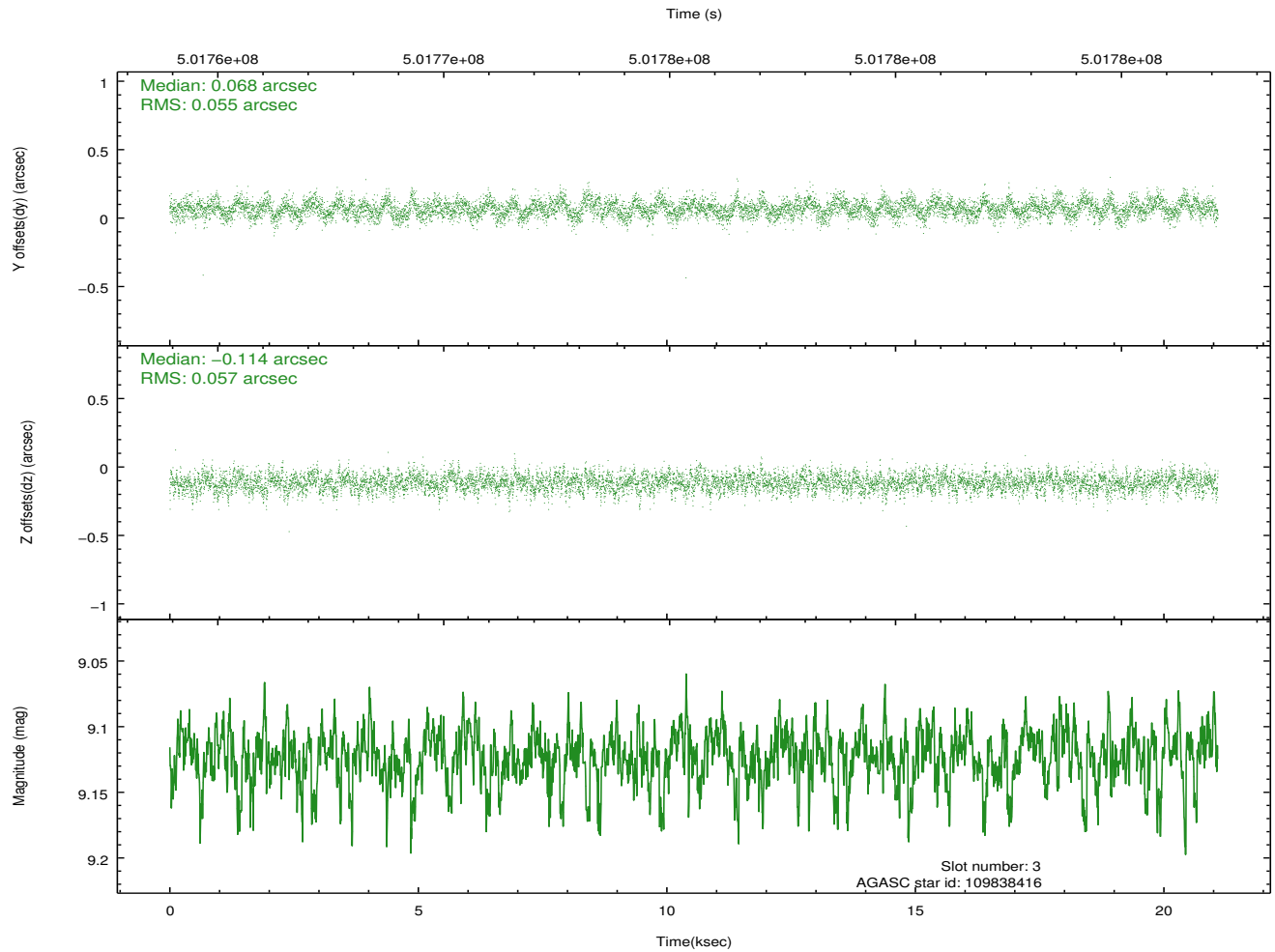
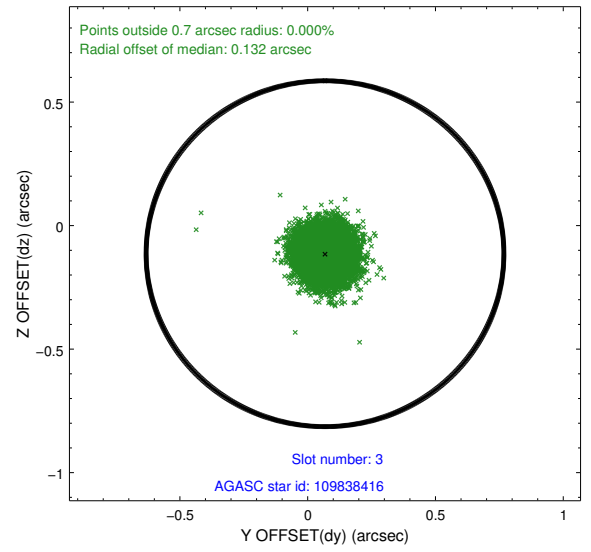
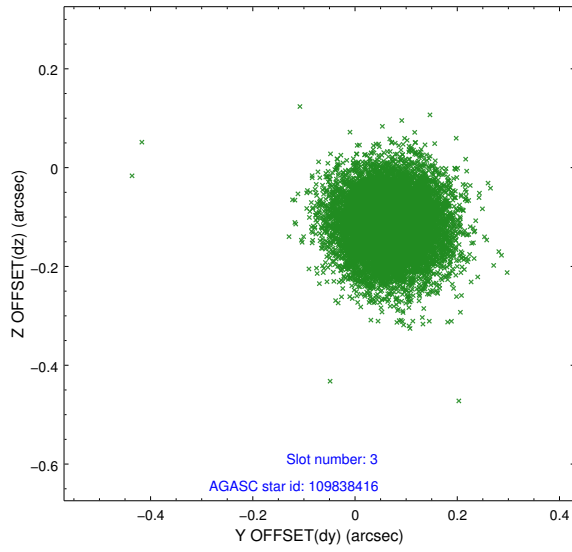
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.90	5145	-0.124	-0.017	0.009	0.014	0.000000	0.000000	-775.61	-1741.46
1	FID		ACIS-S-4	6.99	5144	0.275	0.065	0.010	0.034	0.000000	0.000000	2137.97	166.95
2	FID		ACIS-S-5	7.01	5145	-0.183	-0.039	0.012	0.028	0.000000	0.000000	-1828.32	160.68
3	GUIDE	used	109838416	9.12	10283	0.068	-0.114	0.084	0.135	156.441357	9.917351	859.50	571.01
4	GUIDE	used	109840200	7.33	10289	-0.080	-0.243	0.076	0.120	156.258344	9.982308	844.96	1260.45
5	GUIDE	used	109840520	6.52	10288	0.072	0.369	0.079	0.139	156.912459	9.762394	938.81	-1188.68
6	GUIDE	used	109842832	9.13	10280	-0.005	0.330	0.139	0.218	156.927091	9.878529	1347.40	-1086.78
7	GUIDE	used	110238496	9.09	10284	-0.055	-0.335	0.113	0.184	156.324509	10.346564	2154.03	1510.55

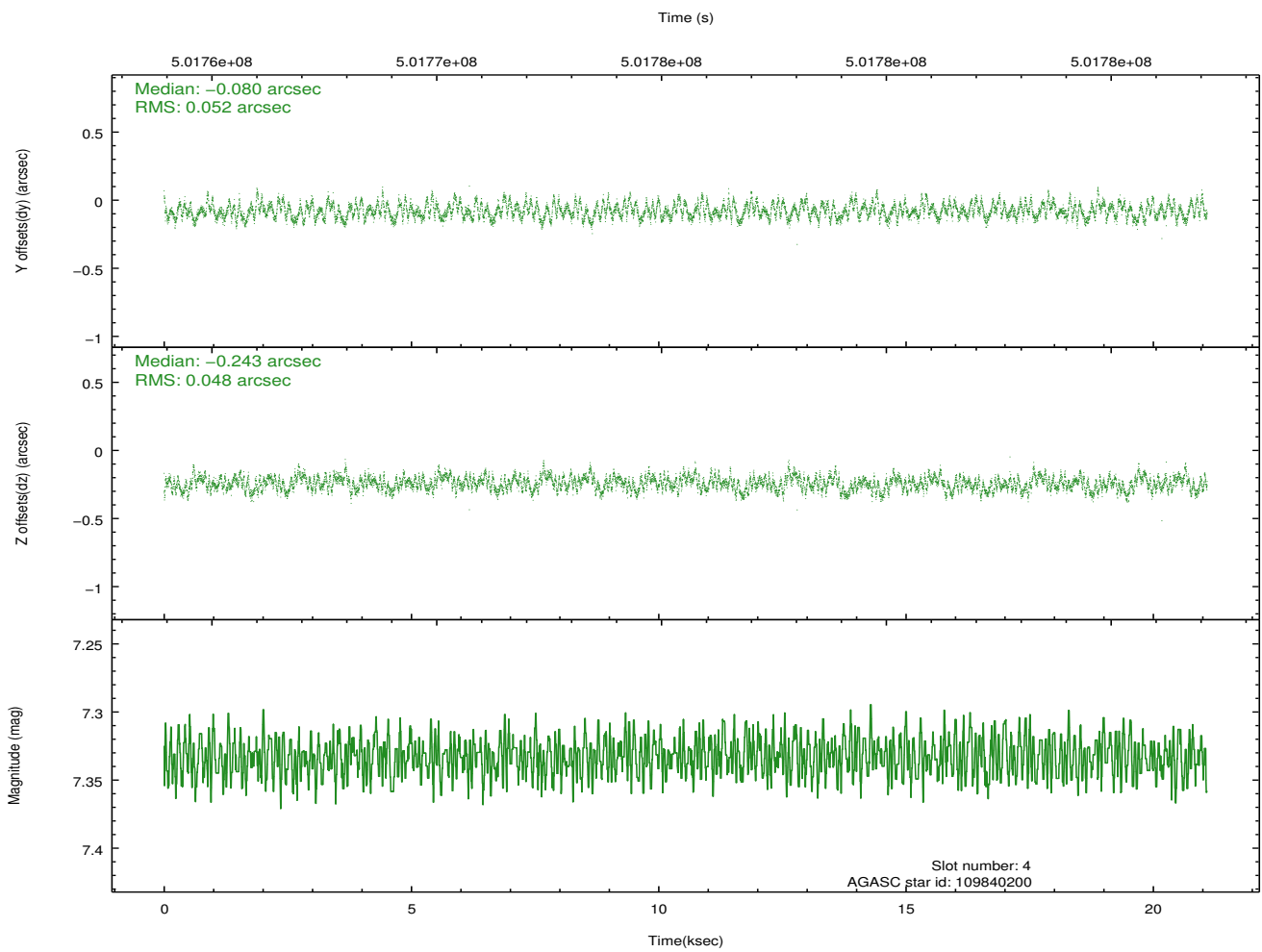
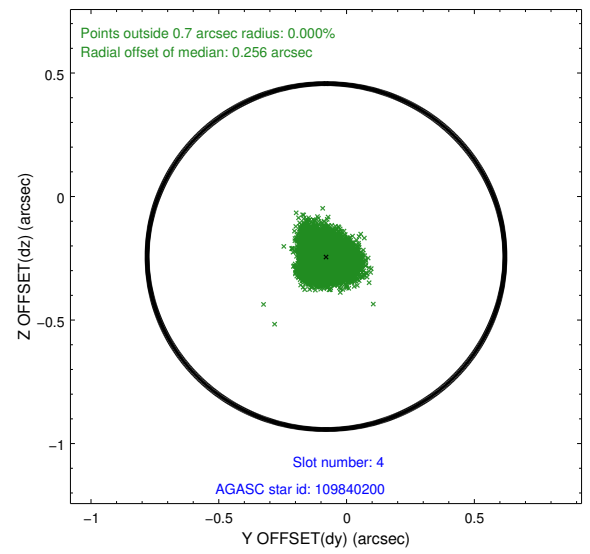
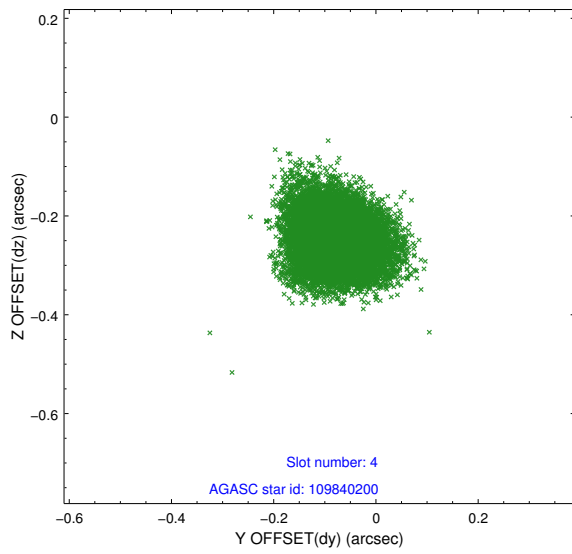
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2.4 Star Slots

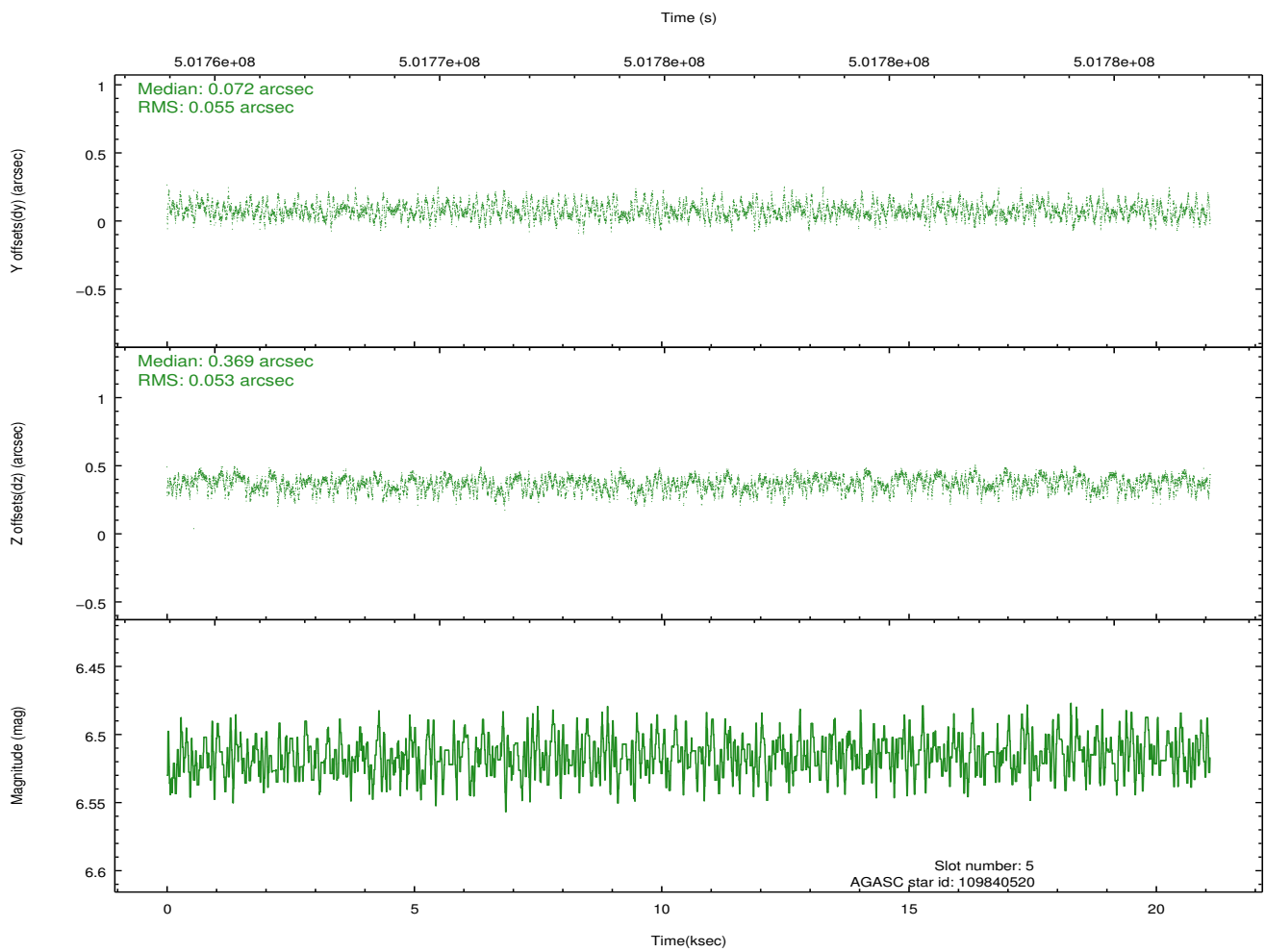
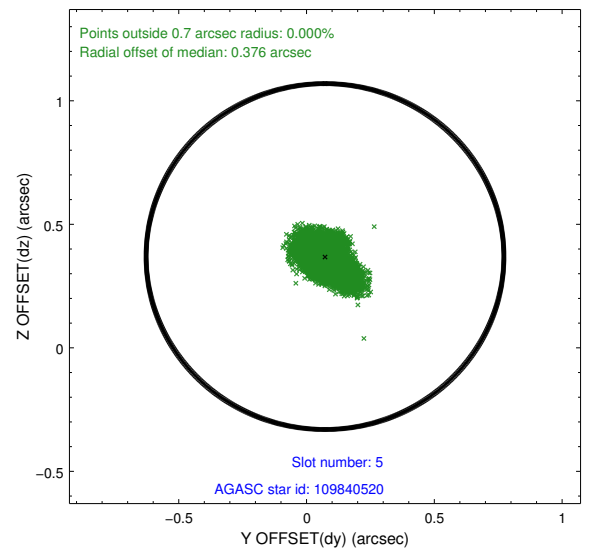
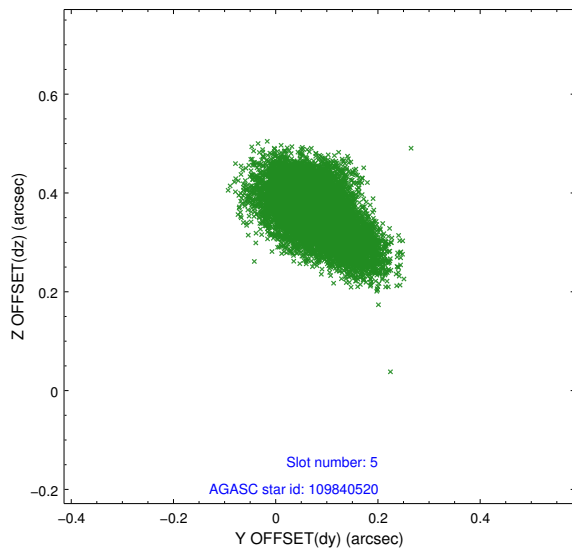
2.4.1 Slot 3



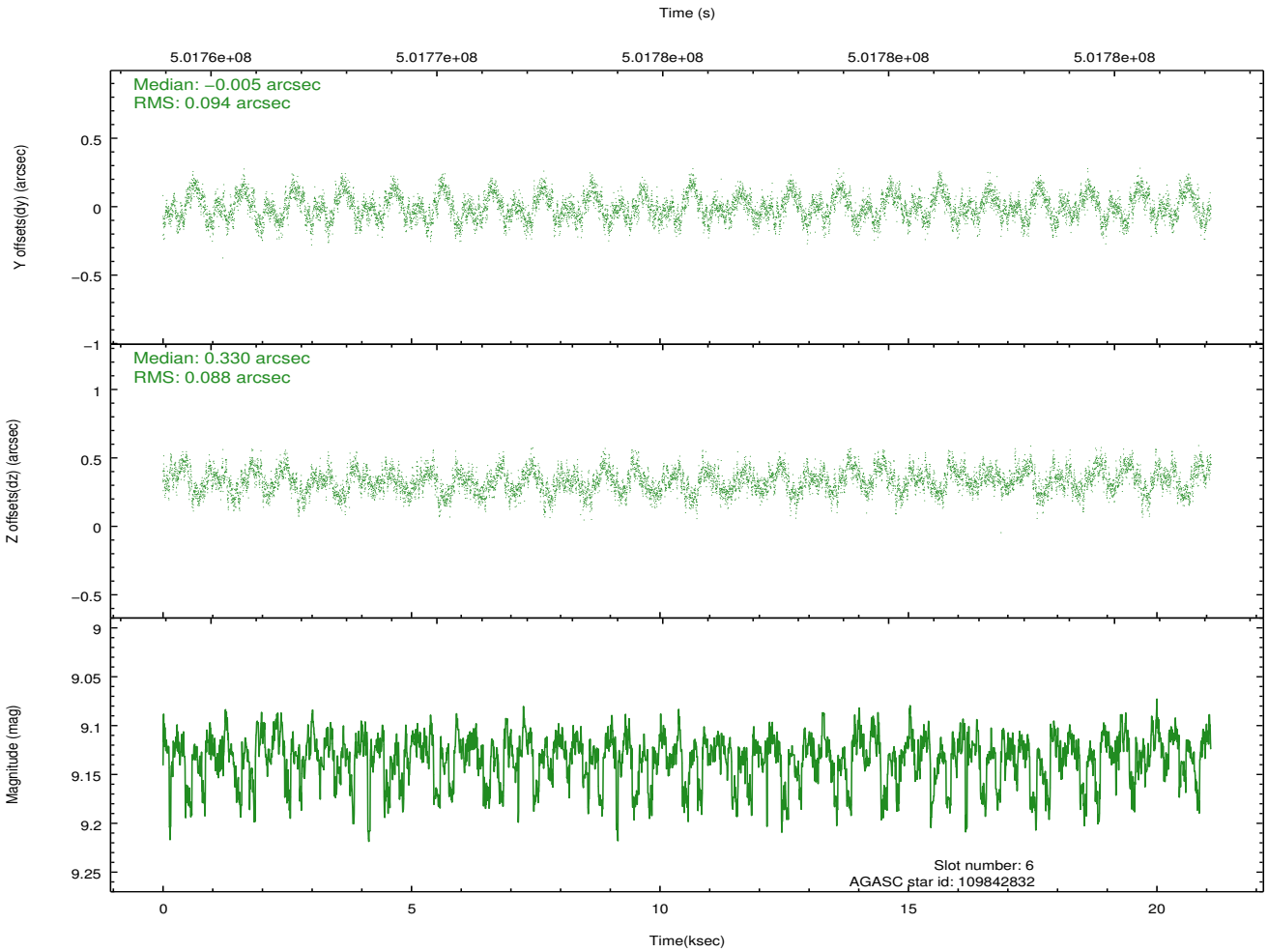
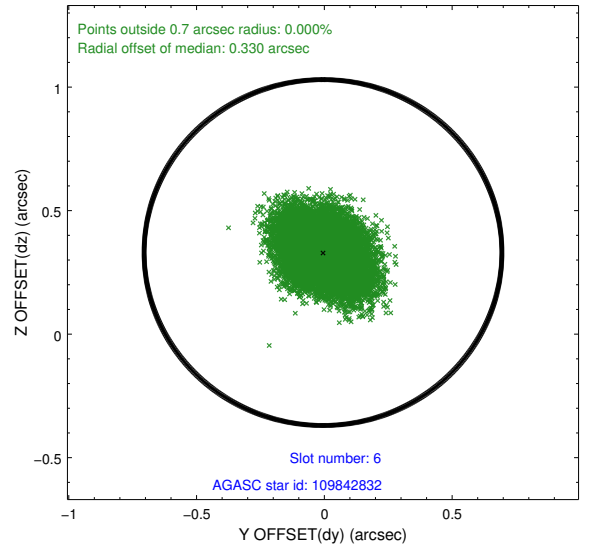
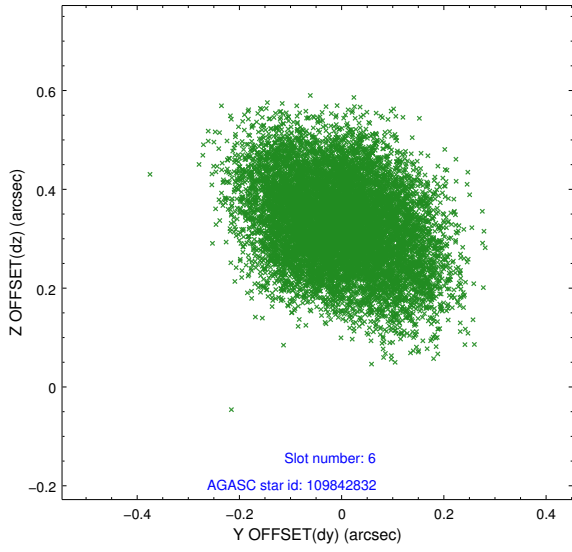
2.4.2 Slot 4



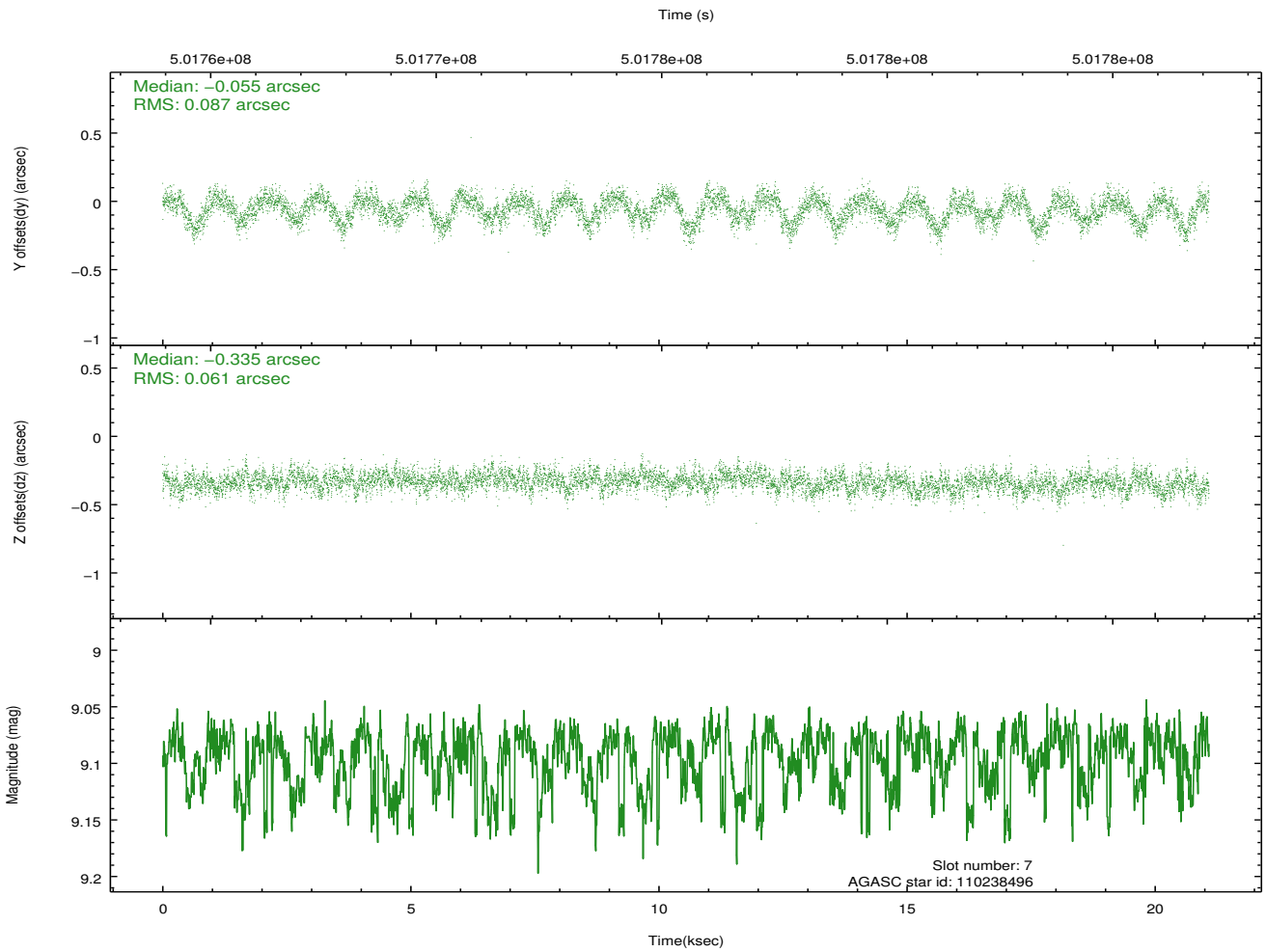
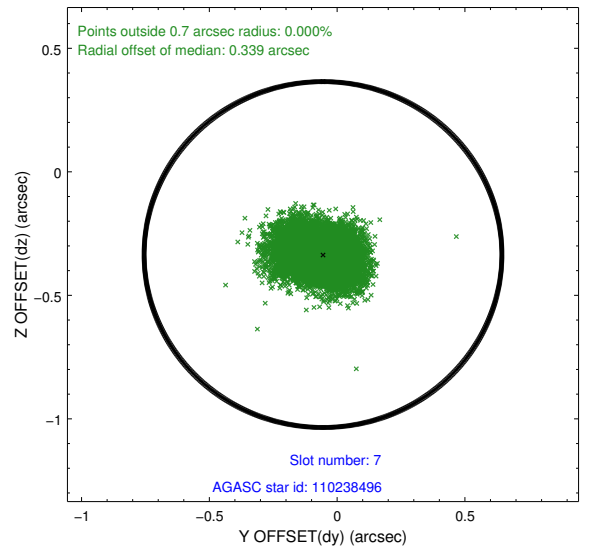
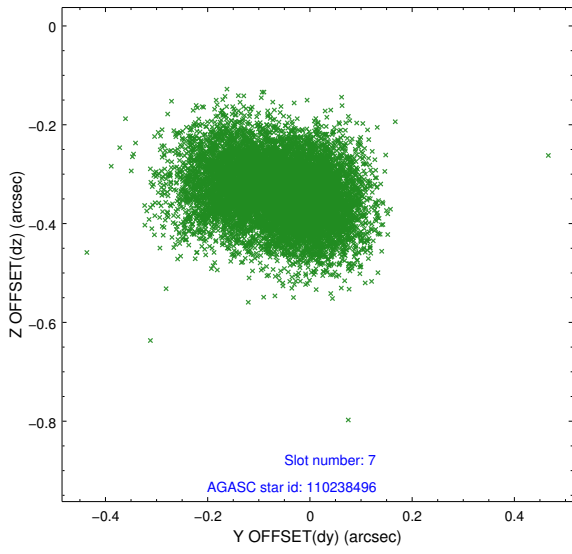
2.4.3 Slot 5



2.4.4 Slot 6

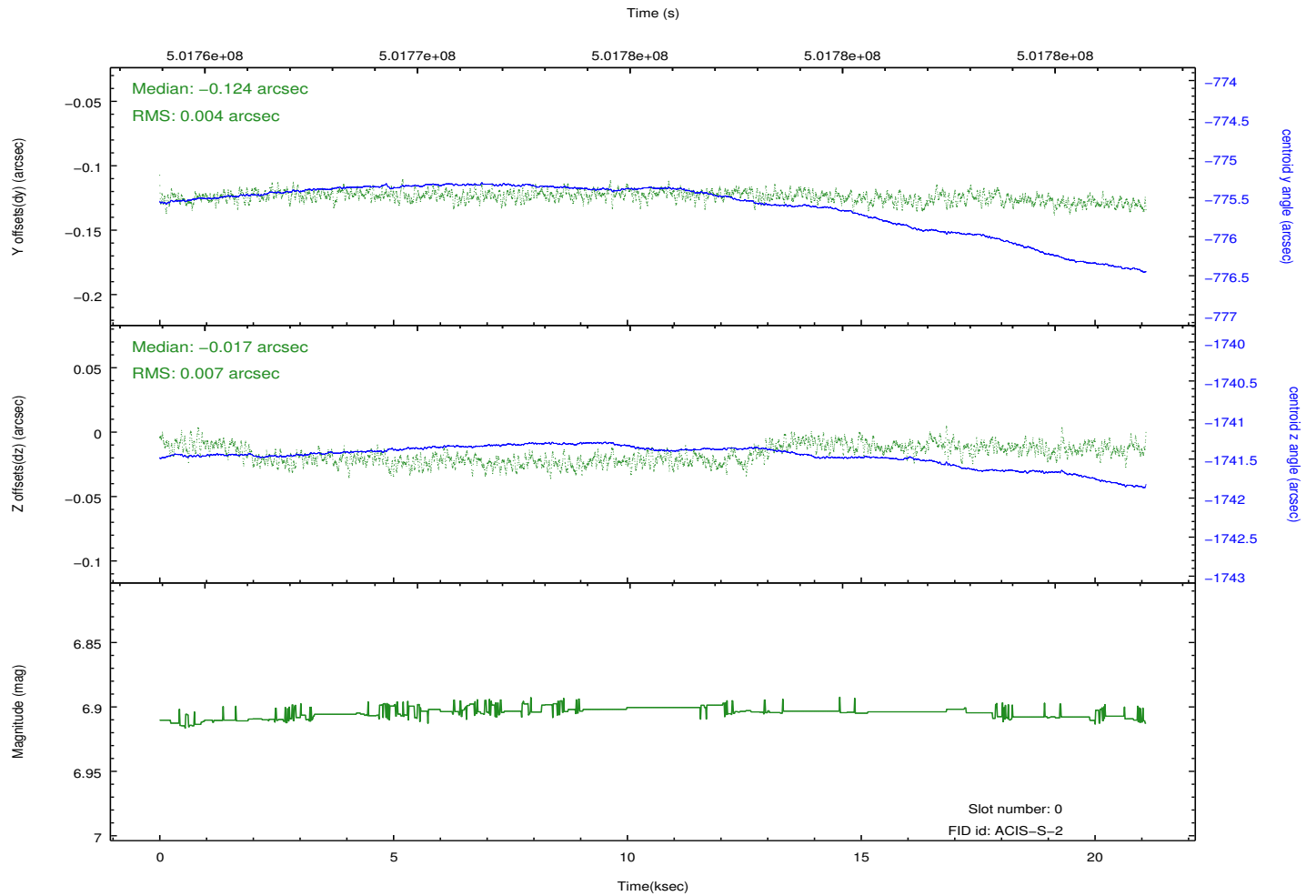
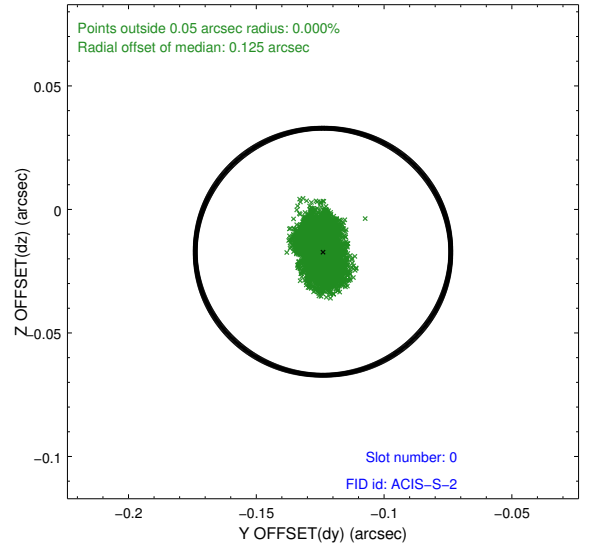
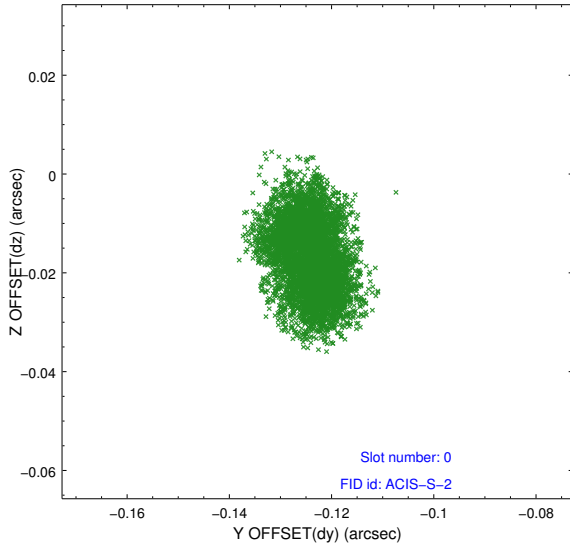


2.4.5 Slot 7

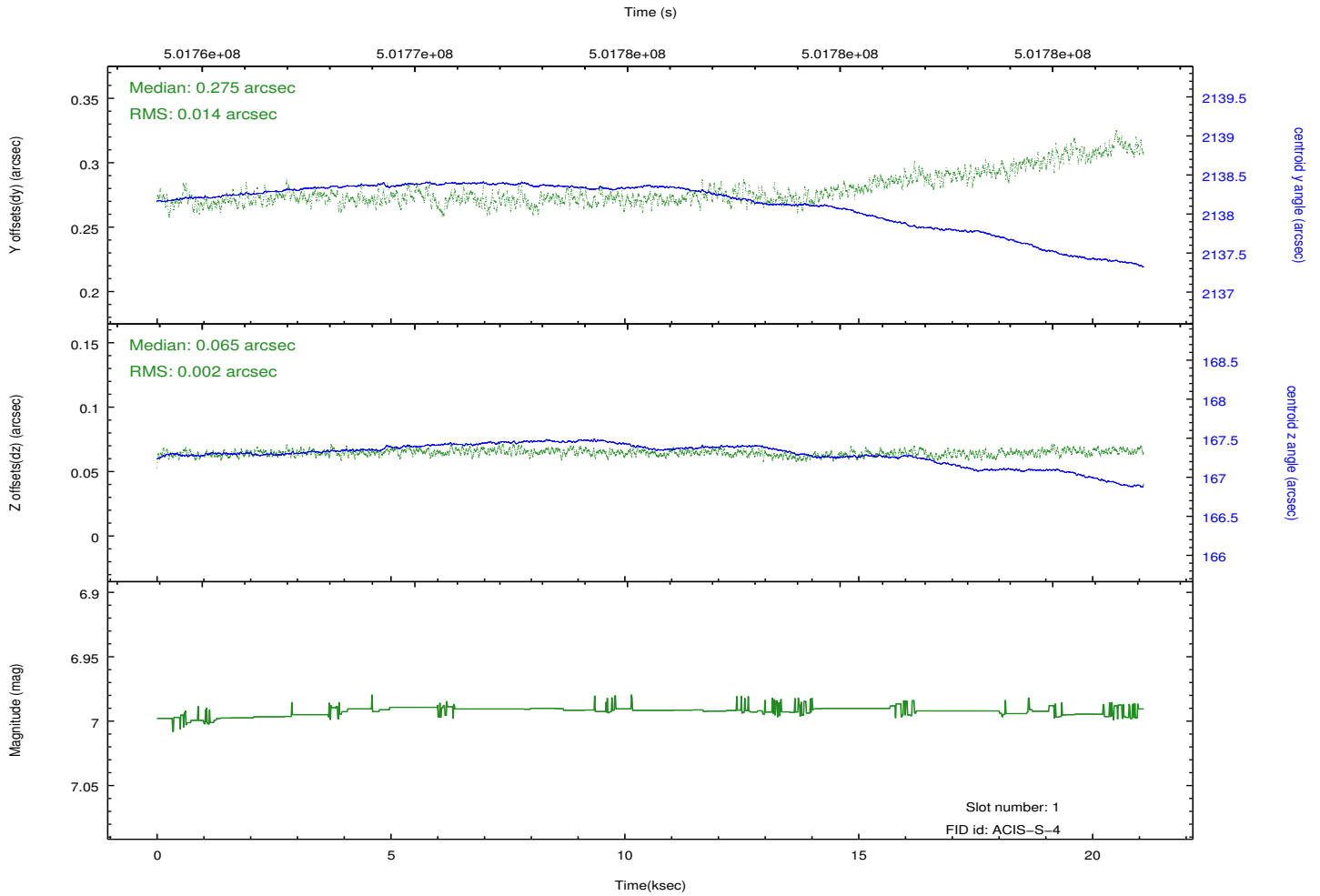
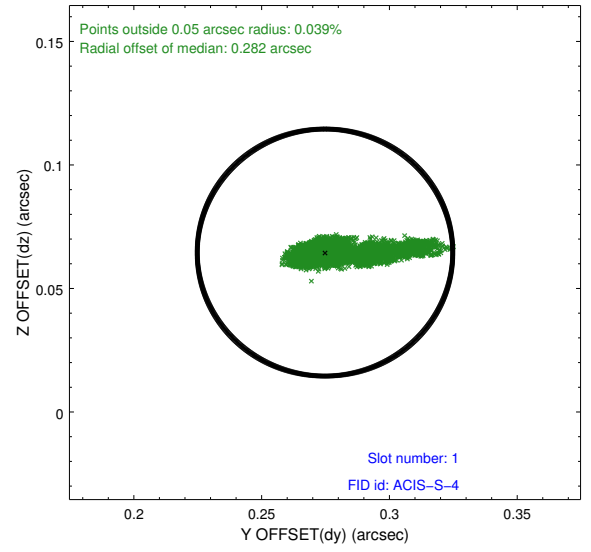
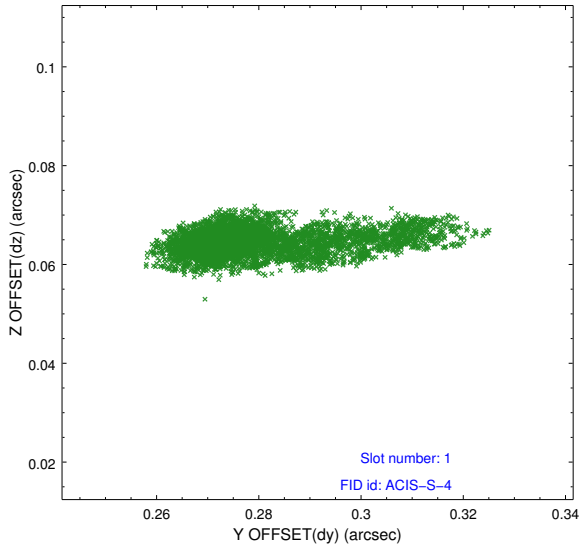


2.5 FID Slots

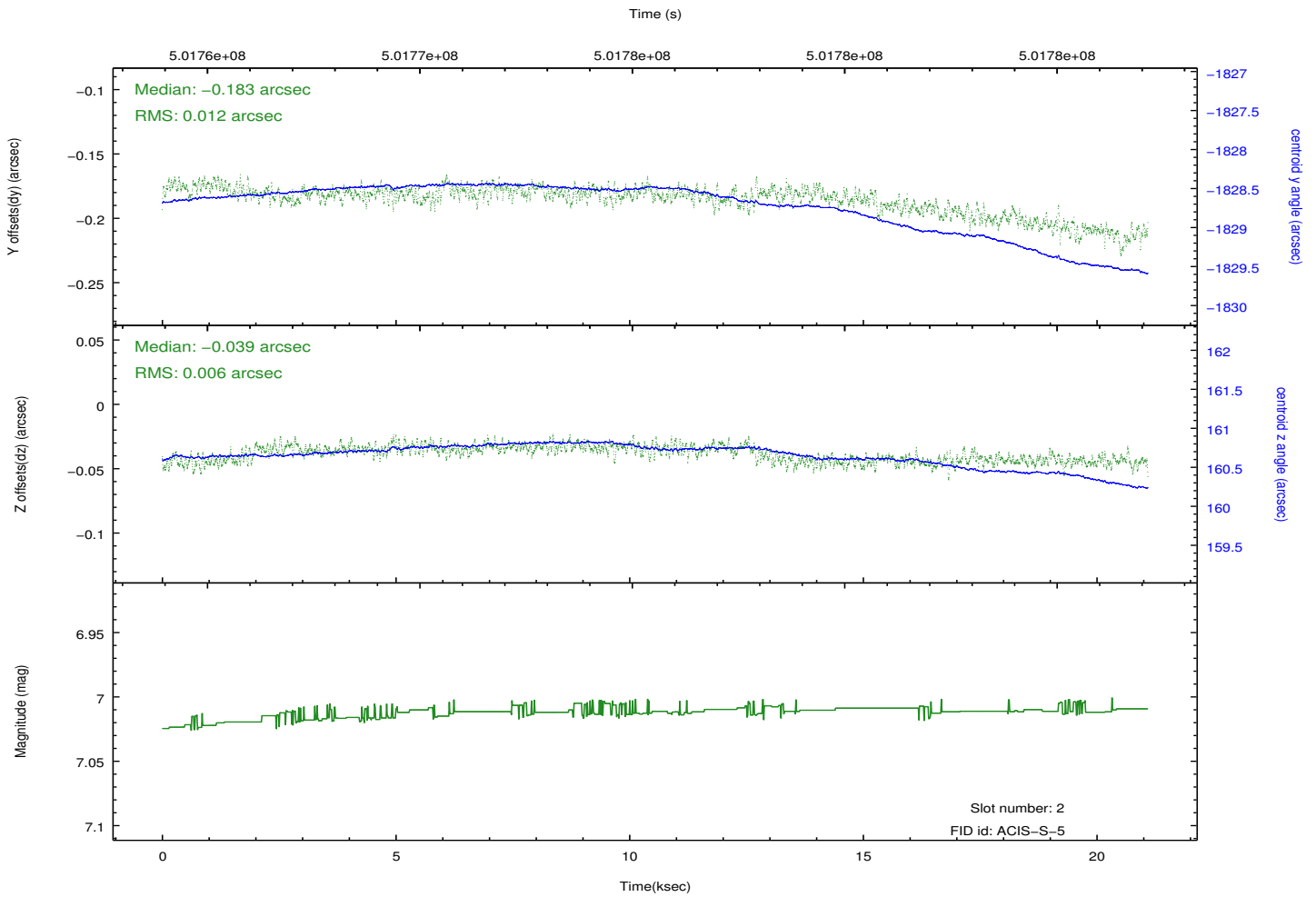
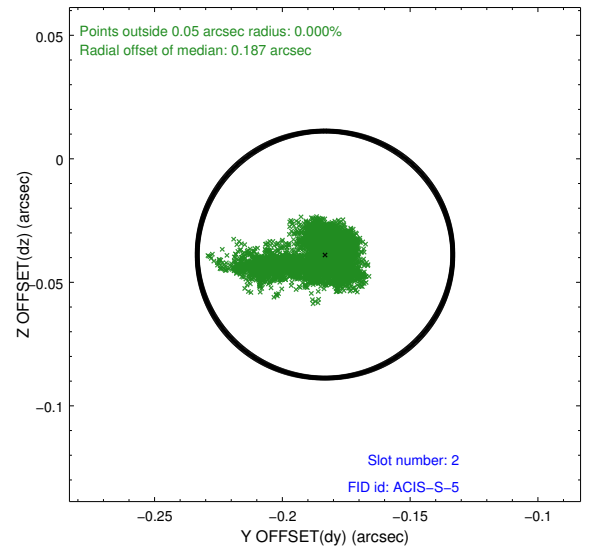
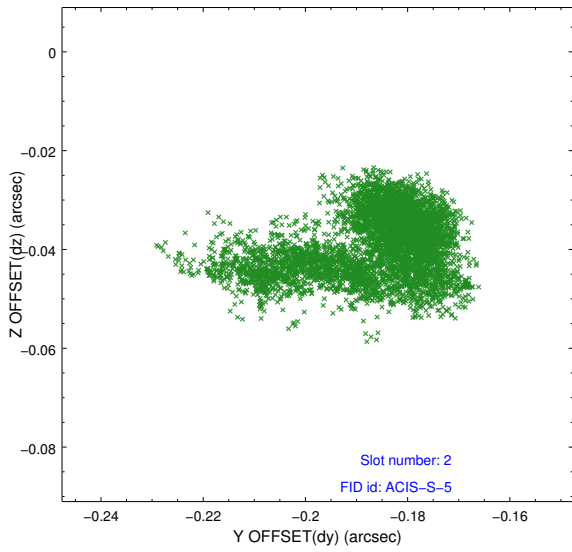
2.5.1 Slot 0



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)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.163199924946

A.2 Comments

Window preference met.

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.