

V&V Reference Report

L2 ASCDS Version : 10.2.4

Observation 16014 - L2 Version 2
Chandra X-Ray Center

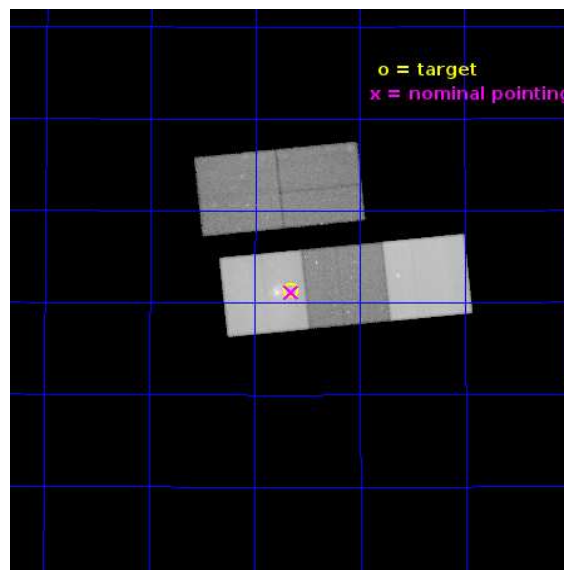
L2 Processing Date : Sep 15 2014

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1 Front

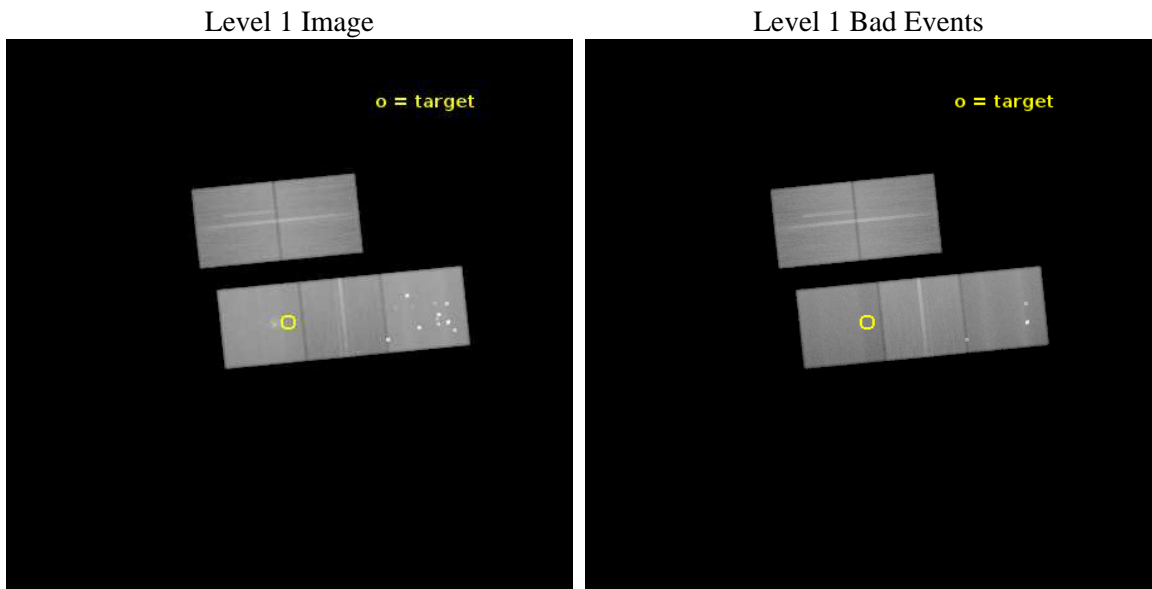
seq_num	601102	Sequence number
obs_id	16014	Observation id
title	A Study of Hydrodynamic Instabilities in the Major Merger of Galaxy Groups NGC7618 and UGC12491	Proposal title
observer	Dr. Marie Machacek	Principal investigator
object	NGC7618	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	349.916	Observer's specified target RA [deg]
dec_targ	42.855	Observer's specified target Dec [deg]
ra_nom	349.91330571361	Nominal RA [deg]
dec_nom	42.852592473707	Nominal Dec [deg]
roll_nom	174.15845960417	Nominal Roll [deg]
revision	2	Processing version of data
ontime	120999.2009306	Sum of GTIs [s]
livetime	119418.25729212	Livetime [s]
ontime2	120992.91882974	Sum of GTIs [s]
ontime3	120986.63680917	Sum of GTIs [s]
ontime5	120999.2009306	Sum of GTIs [s]
ontime6	120989.77776957	Sum of GTIs [s]
ontime7	120999.2009306	Sum of GTIs [s]
l2events	1382483	Number of level 2 events



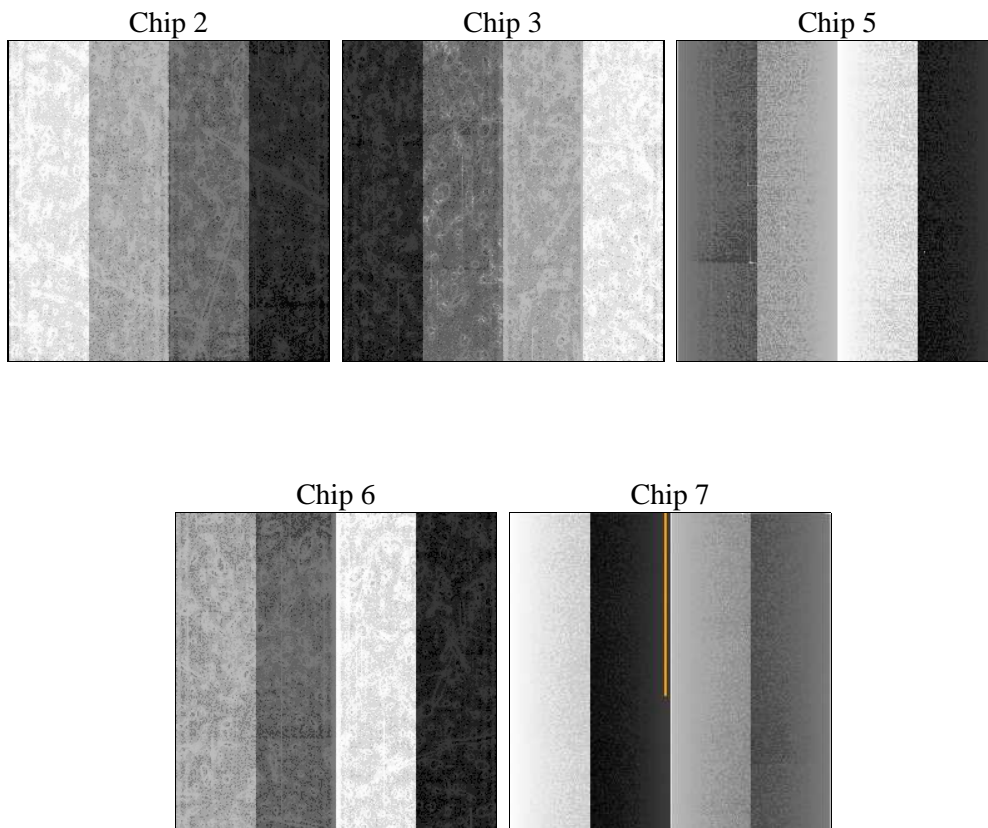
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	120931.465000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	120999.2009306	Sum of GTIs [s]
caldbver	4.6.3	 	ontime2	120992.91882974	Sum of GTIs [s]
date	2014-09-15T19:23:53	Date and time of file creation	ontime3	120986.63680917	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	120999.2009306	Sum of GTIs [s]
			ontime6	120989.77776957	Sum of GTIs [s]
			ontime7	120999.2009306	Sum of GTIs [s]
			l1events	4976827	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	850446	804959	1428007	875558	1017857	grade 0 events	49039	41319	176131	52194	62750
rejected events	737856	706783	627732	754674	497933		5%	5%	12%	5%	6%
rejected %	86%	87%	43%	86%	48%	grade 1 events	533	459	3461	459	1494
							0%	0%	0%	0%	0%
						grade 2 events	24408	19287	238644	25878	118669
							2%	2%	16%	2%	11%
						grade 3 events	9200	9167	30261	9438	45817
							1%	1%	2%	1%	4%
						grade 4 events	10790	9237	25527	9442	45190
							1%	1%	1%	1%	4%
						grade 5 events	25780	30642	85731	30900	88812
							3%	3%	6%	3%	8%
						grade 6 events	19158	19171	329760	23933	247523
							2%	2%	23%	2%	24%
						grade 7 events	711538	675677	538492	723314	407602
							83%	83%	37%	82%	40%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	349.947266	349.9133057136139	Subarray requested	NONE	NONE
[deg] Pointing Dec	42.864152	42.85259247370722	Alternating exposures requested	N	N
[deg] Pointing Roll	173.978729	174.1584596041747	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	526737594.184000	526735880.68609			
Observation start date	2014-09-10T11:58:47	2014-09-10T11:31:20			
[s] Observation end time (MET)	526858526.184000	526858754.10542			
Observation end date	2014-09-11T21:34:19	2014-09-11T21:39:14			
Read mode	TIMED	TIMED			

2.3 Aspect

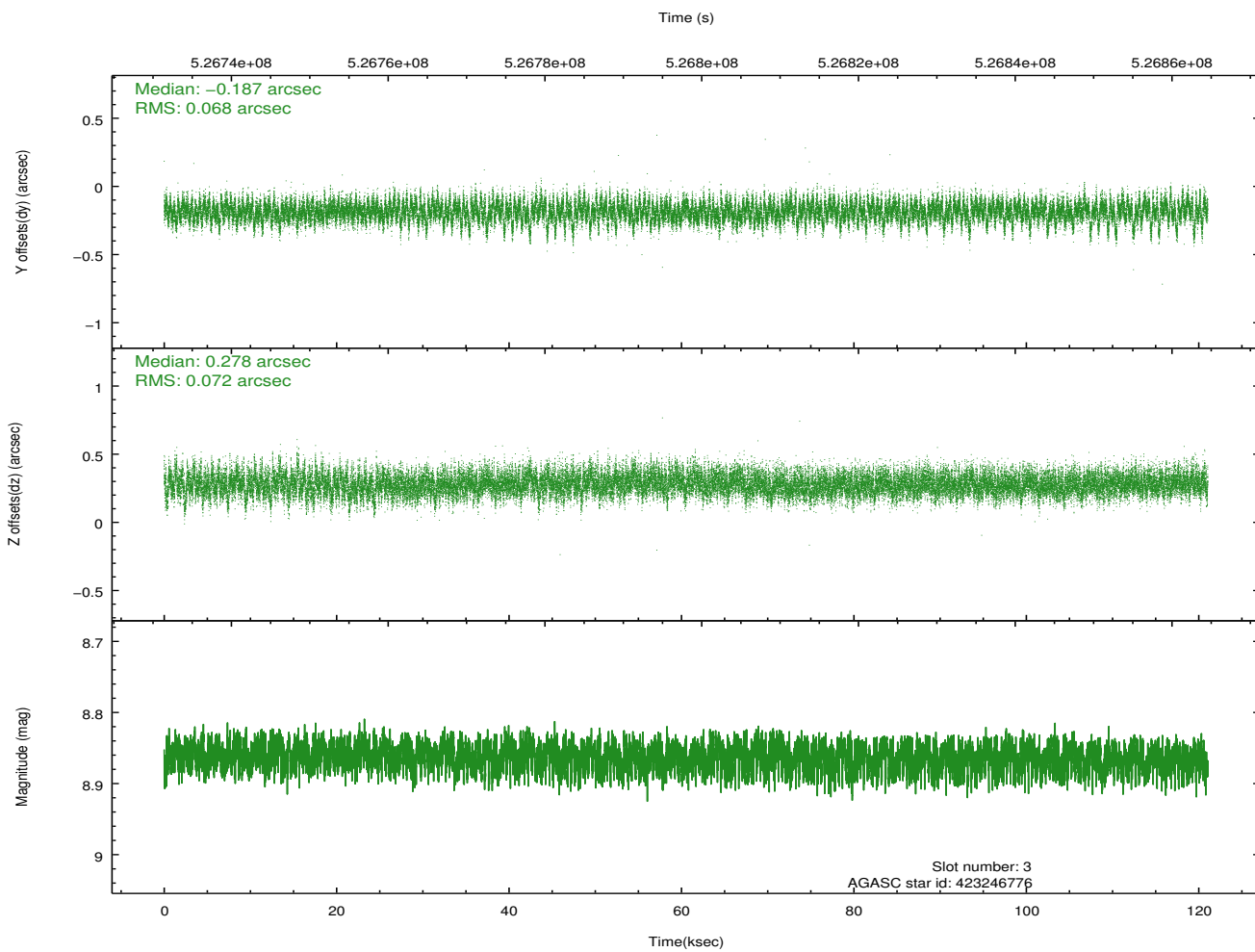
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.05	29525	-0.196	-0.029	0.024	0.036	0.000000	0.000000	-780.38	-1742.88
1	FID	ACIS-S-4	7.15	29524	0.400	0.103	0.030	0.069	0.000000	0.000000	2133.56	165.83
2	FID	ACIS-S-5	7.17	29518	-0.242	-0.061	0.040	0.054	0.000000	0.000000	-1833.40	159.23
3	GUIDE	423246776	8.86	59007	-0.187	0.278	0.105	0.170	349.847786	43.424046	470.70	-1976.70
4	GUIDE	424938224	8.85	59010	0.311	0.139	0.141	0.224	350.059175	43.180030	-171.87	-1161.47
5	GUIDE	422725368	8.97	59022	0.031	-0.485	0.135	0.211	349.914849	42.252732	-145.91	2198.68
6	GUIDE	423248432	8.88	59009	-0.127	0.012	0.103	0.171	349.086899	43.199426	2373.75	-974.39
7	GUIDE	423239648	8.33	59027	-0.035	0.049	0.106	0.171	349.461087	43.553312	1522.62	-2336.99

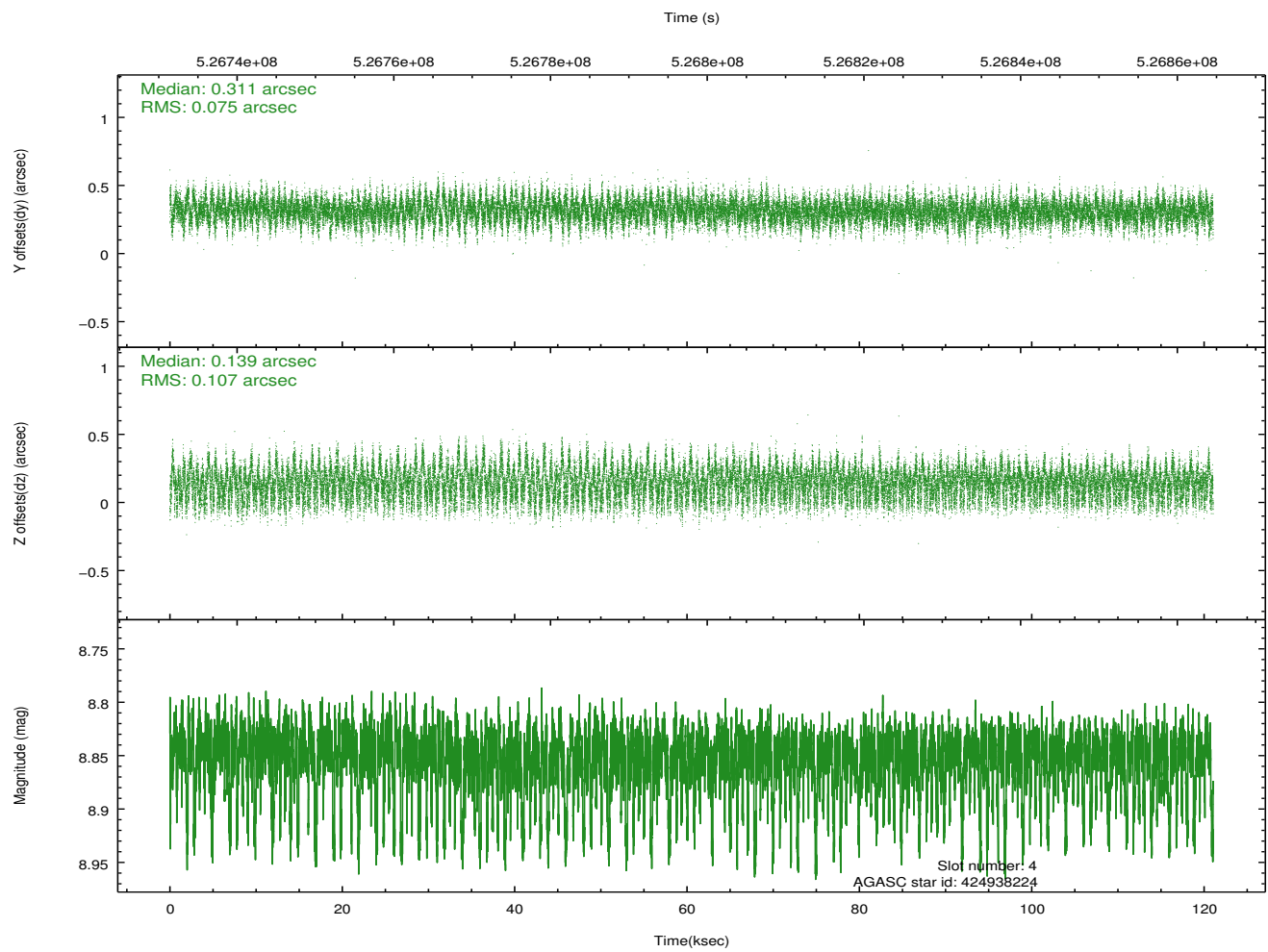
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2.4 Star Slots

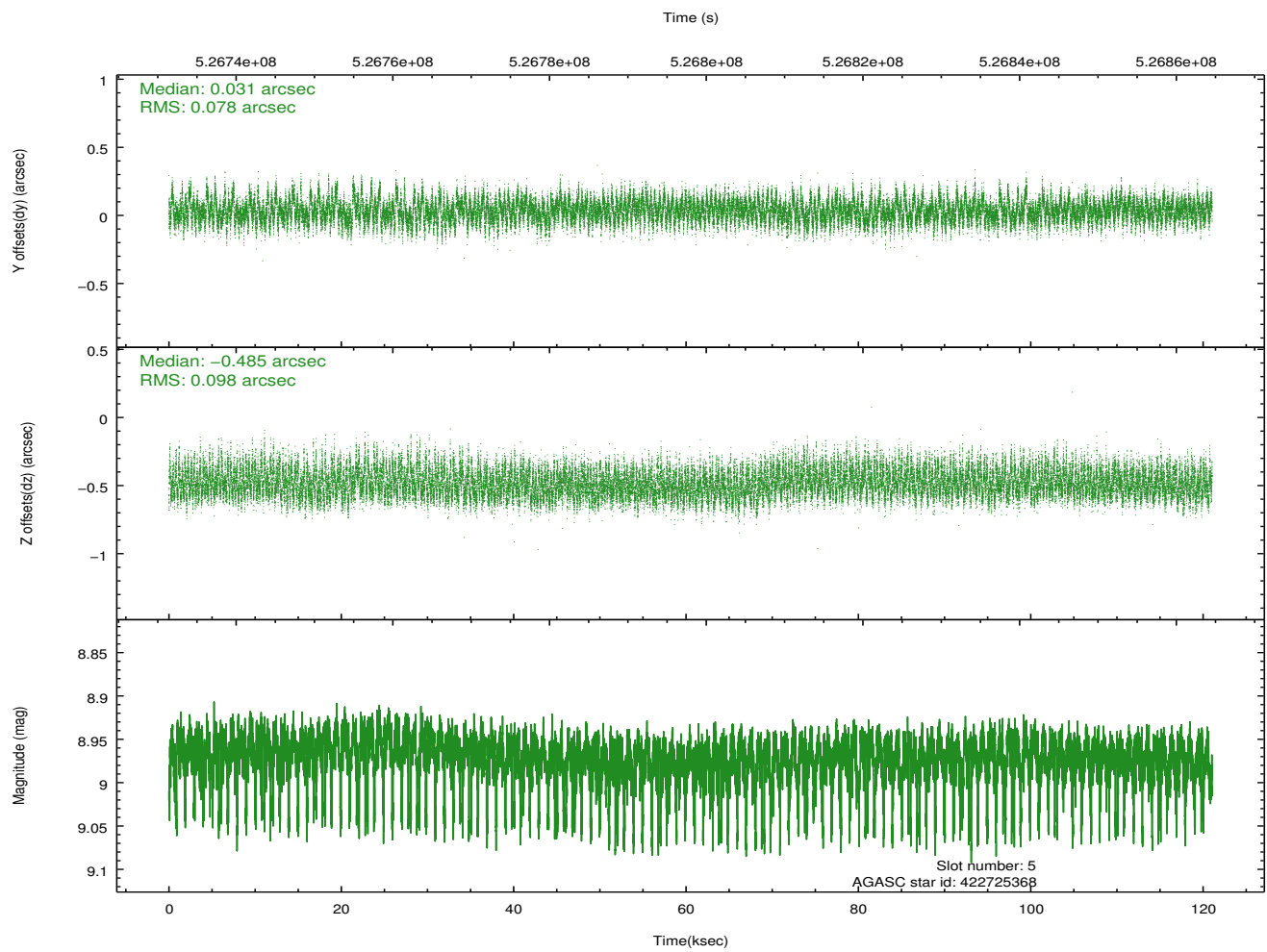
2.4.1 Slot 3



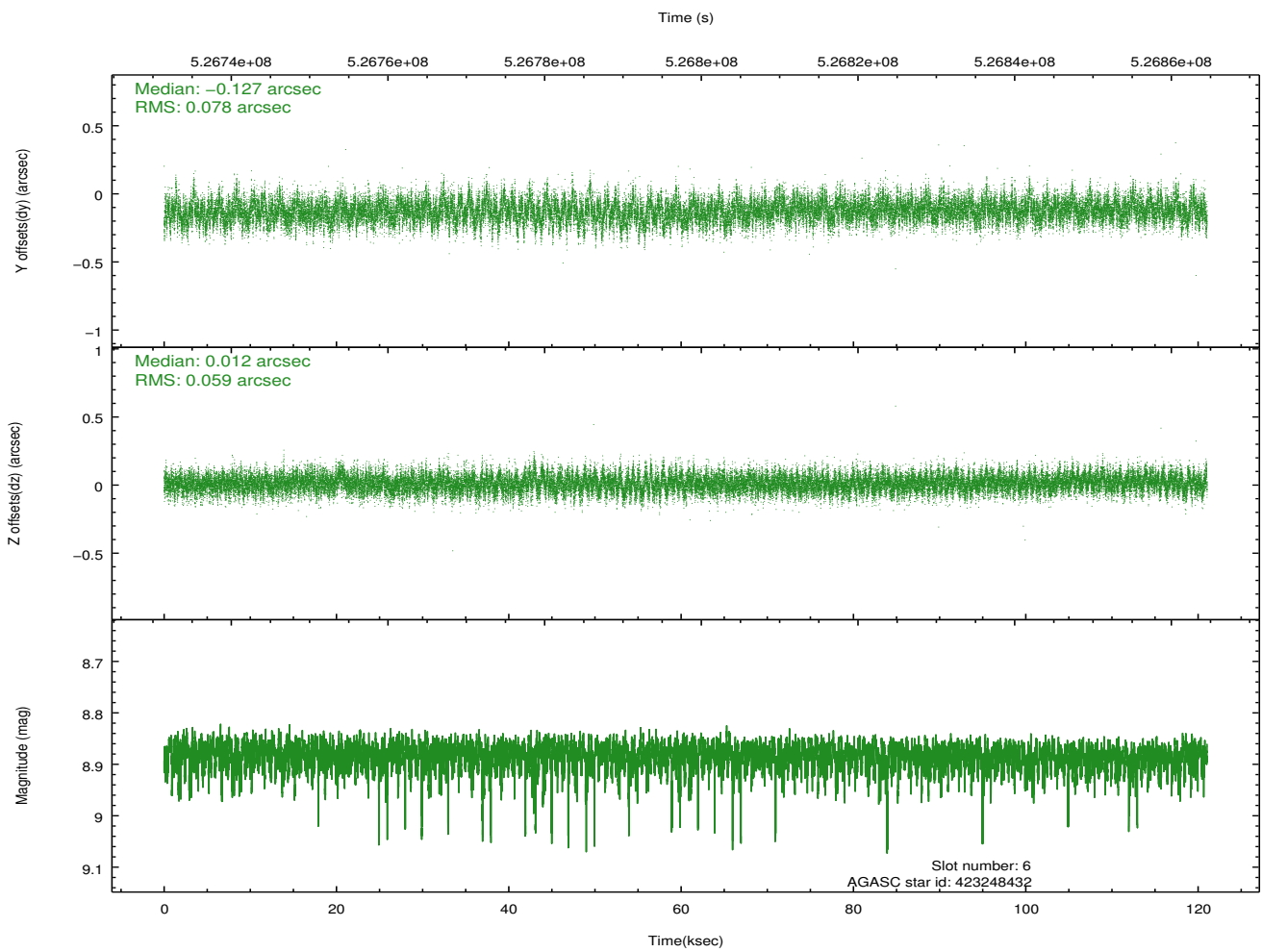
2.4.2 Slot 4



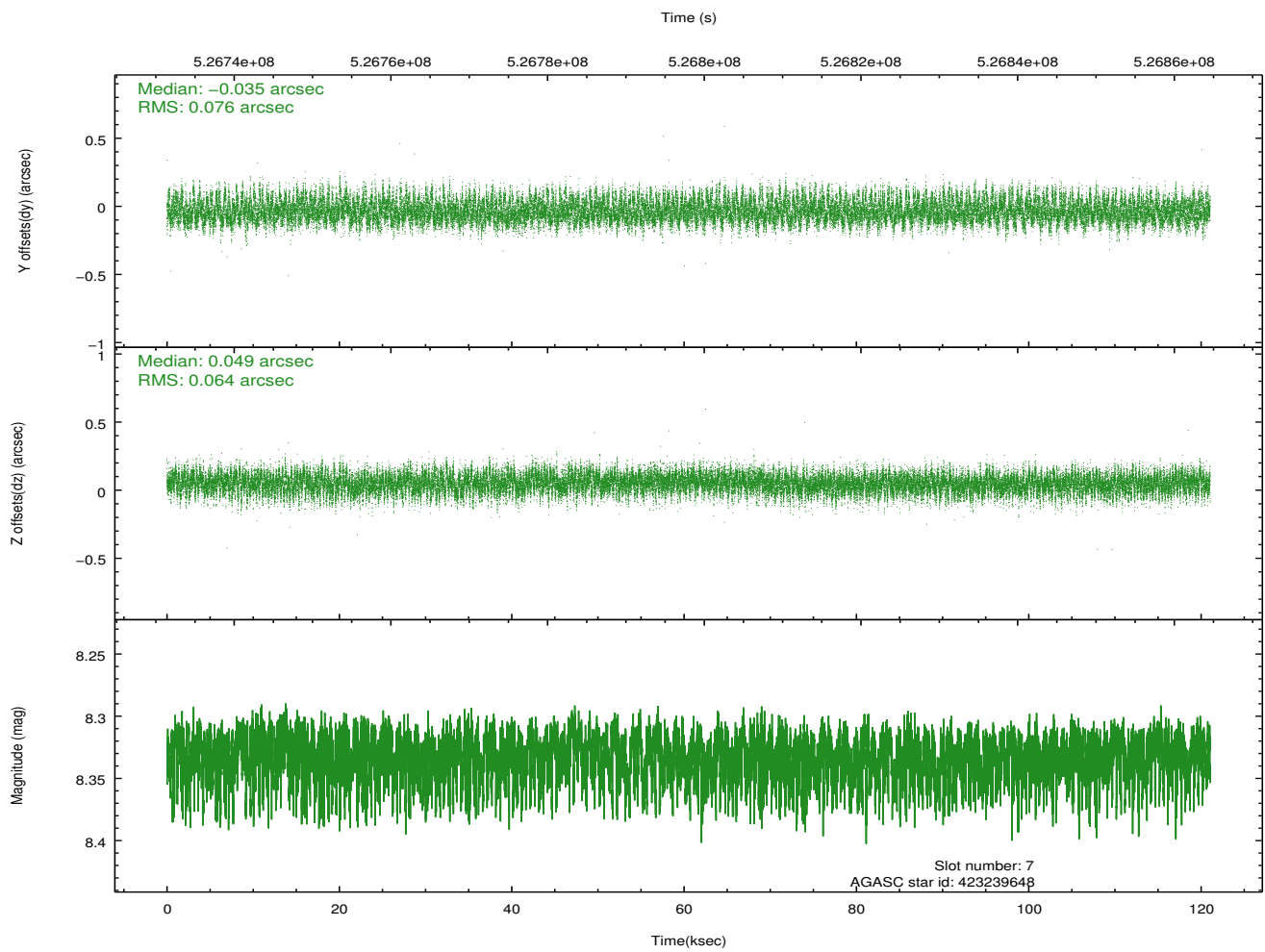
2.4.3 Slot 5



2.4.4 Slot 6

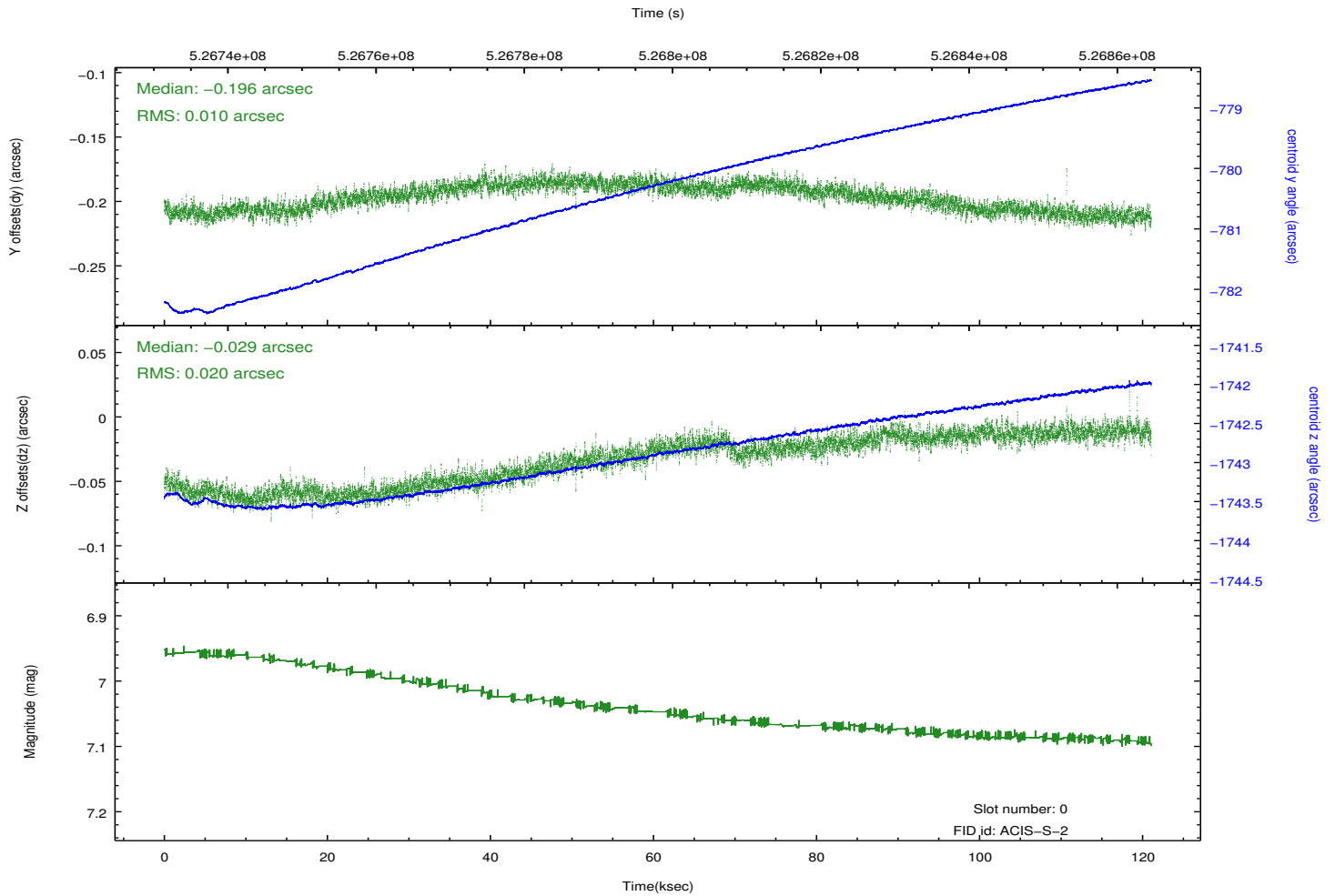
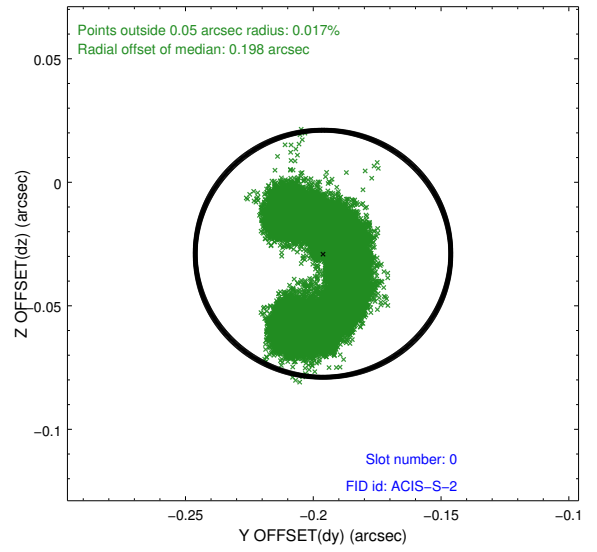
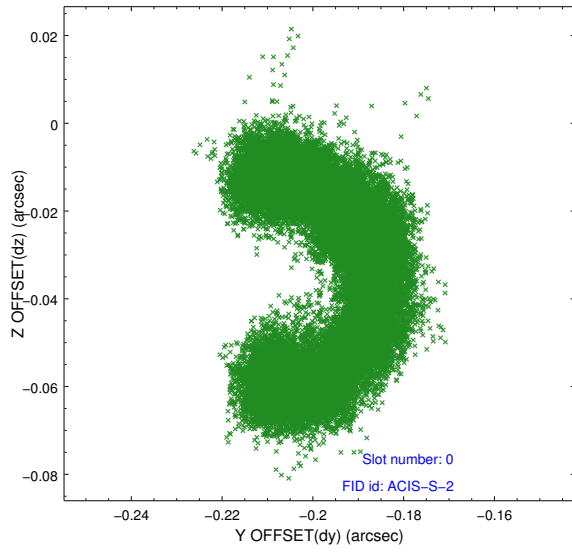


2.4.5 Slot 7

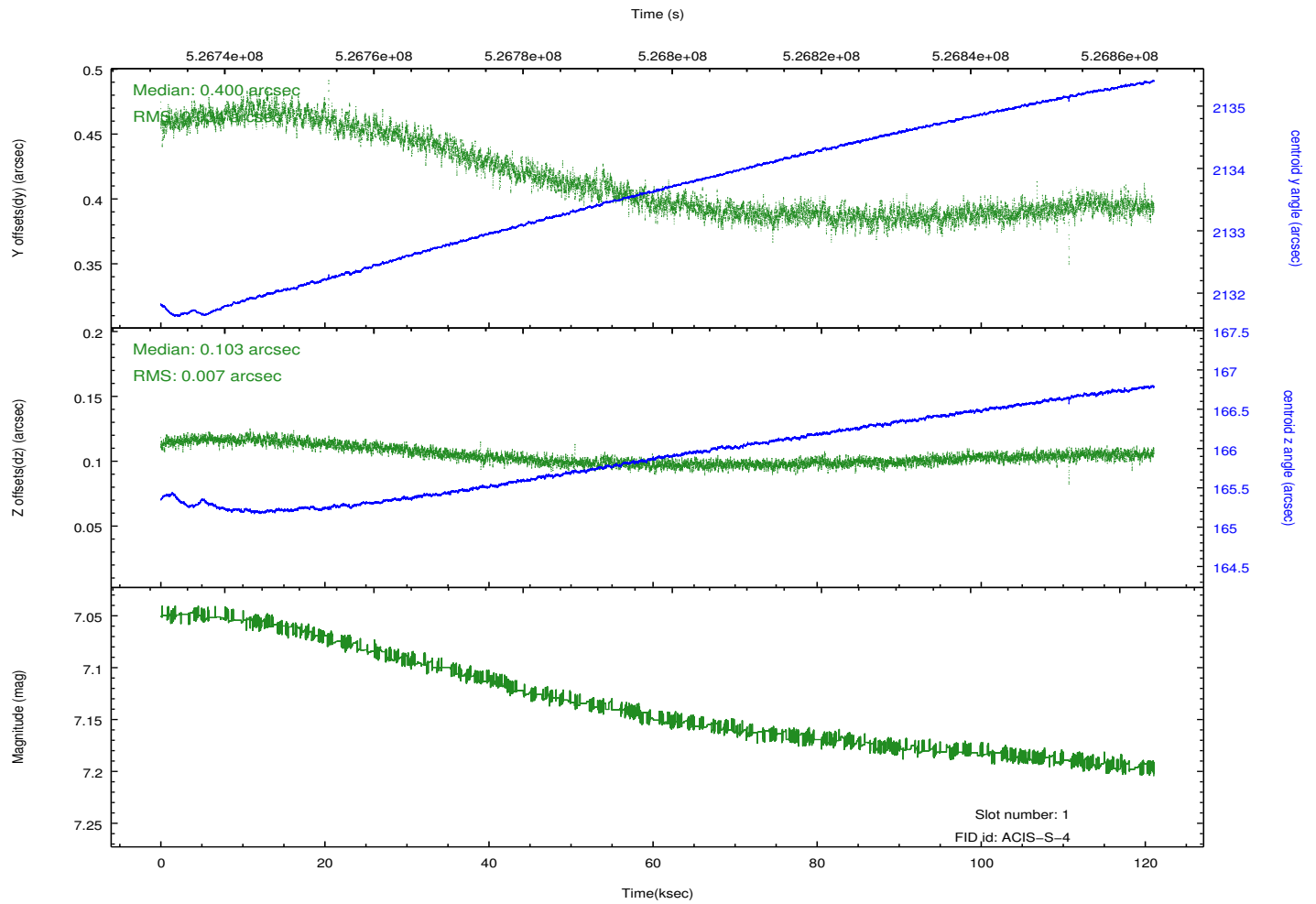
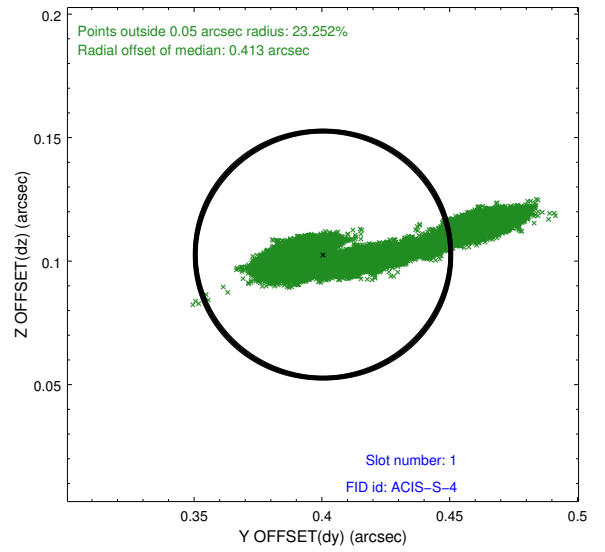
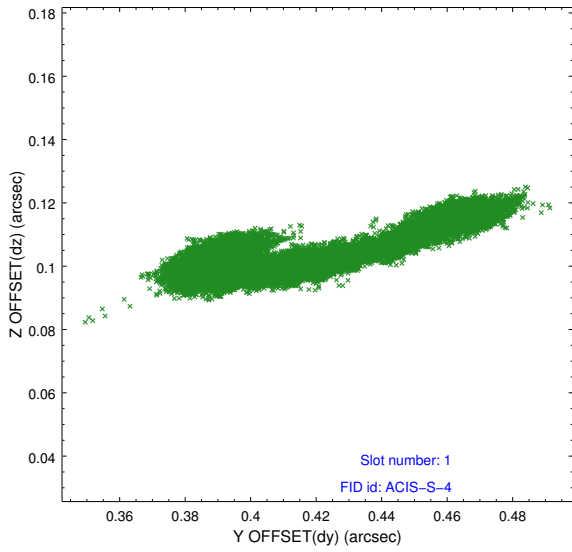


2.5 FID Slots

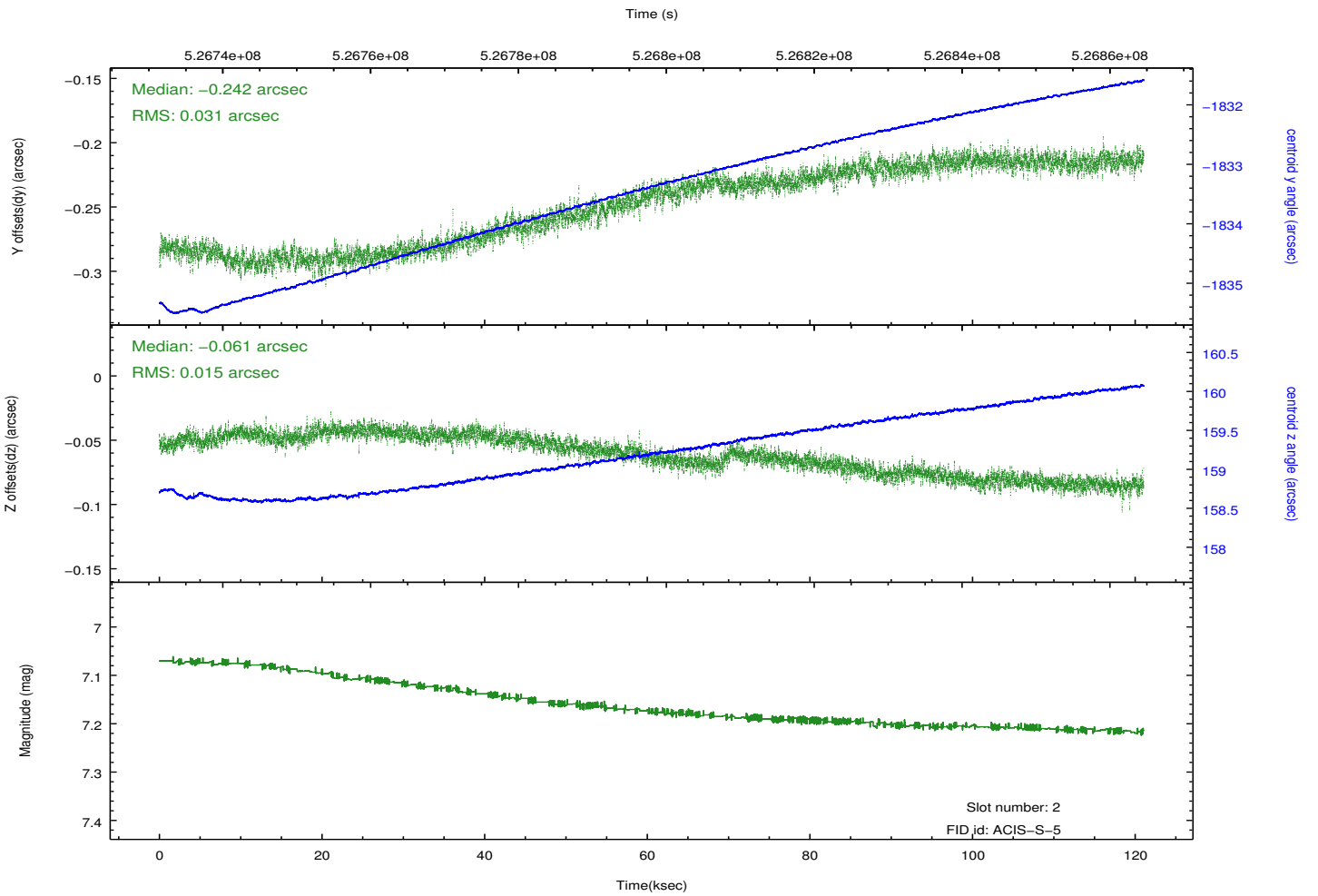
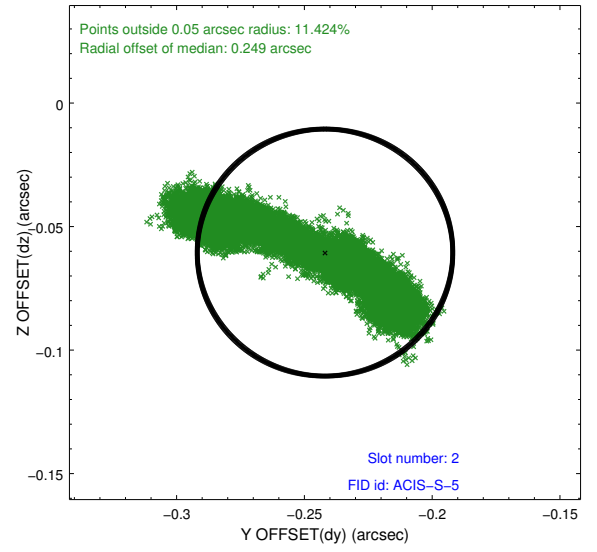
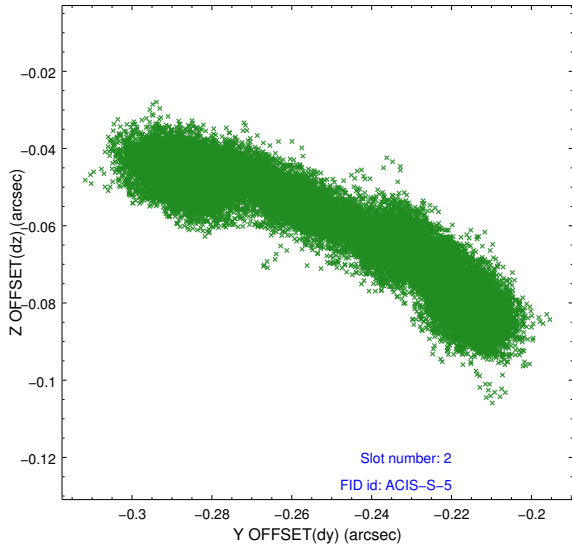
2.5.1 Slot 0



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)	2014.09.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	120.9992009306

A.2 Comments

A spatial region of the original bias map for CCD = 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 map for CCD = 2 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords: (349.75291, 43.07278), (349.75243, 43.06925), (349.83933, 43.06284), (349.84092, 43.06628).