

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 14453 - L2 Version 2
Chandra X-Ray Center

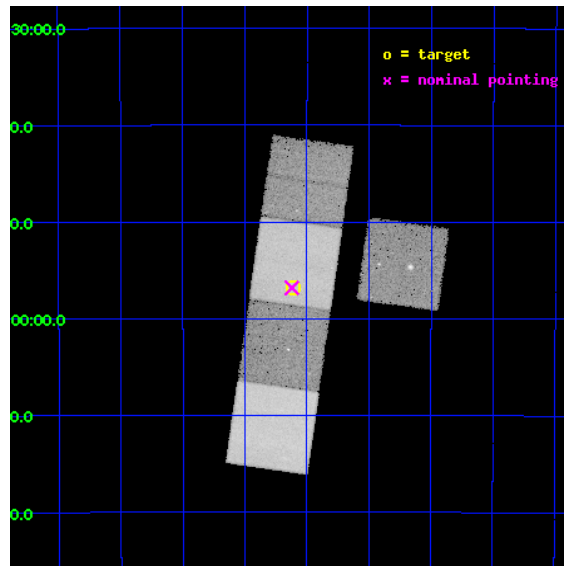
L2 Processing Date : Jul 10 2012

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1 Front

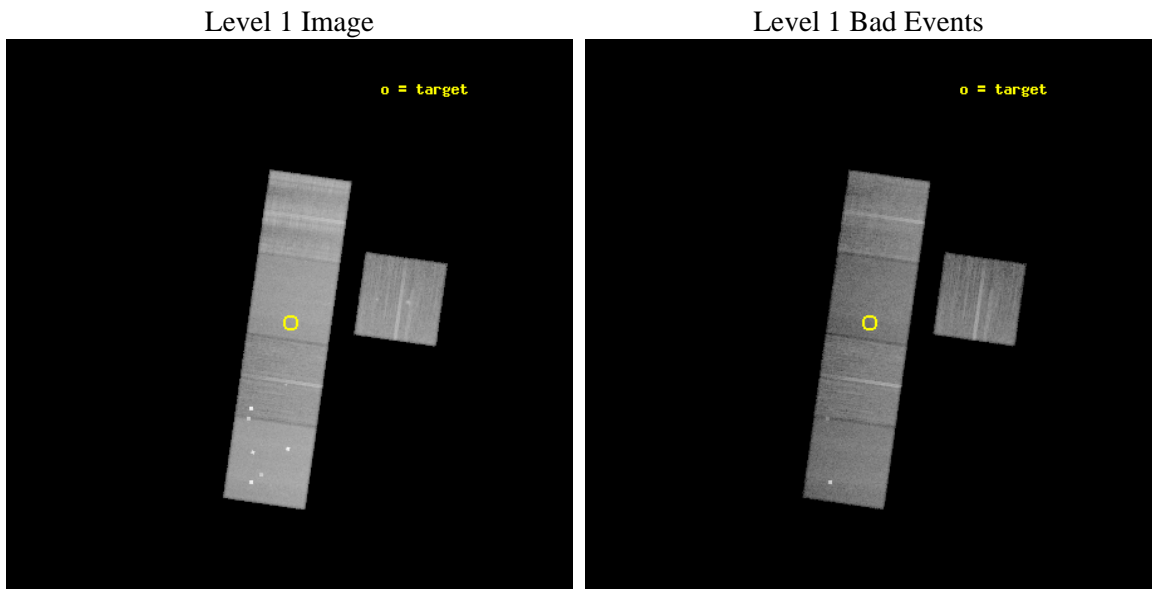
seq_num	401397	Sequence number
obs_id	14453	Observation id
title	Investigating neutron star crustal cooling in MXB 1659-29	Proposal
observer	Dr Edward Cackett	Principal investigator
object	MXB 1659-29	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	255.527083	Observer's specified target RA [deg]
dec_targ	-29.945583	Observer's specified target Dec [deg]
ra_nom	255.53027278481	Nominal RA [deg]
dec_nom	-29.946834319542	Nominal Dec [deg]
roll_nom	278.15822393473	Nominal Roll [deg]
revision	2	Processing version of data
ontime	34061.990145504	Sum of GTIs [s]
livetime	33616.945168181	Livetime [s]
ontime3	34061.867025495	Sum of GTIs [s]
ontime5	34061.949105501	Sum of GTIs [s]
ontime6	34061.908065498	Sum of GTIs [s]
ontime7	34061.990145504	Sum of GTIs [s]
ontime8	34058.68495518	Sum of GTIs [s]
l2events	327036	Number of level 2 events



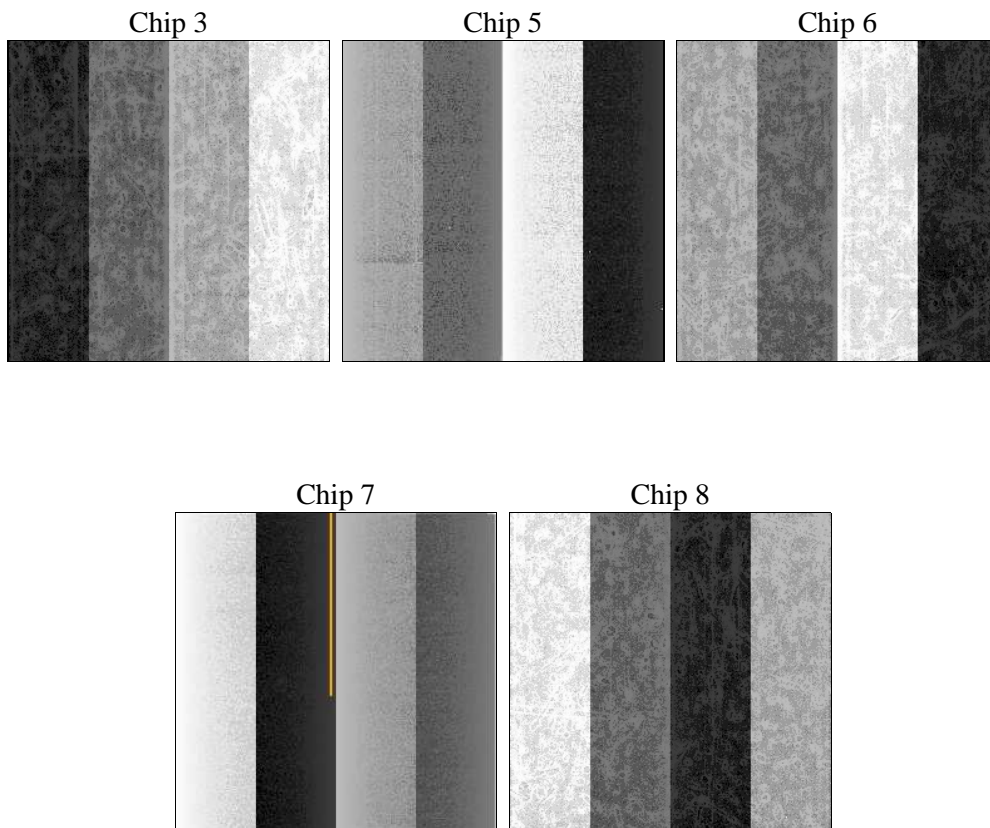
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	34000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	34061.990145504	Sum of GTIs [s]
caldbver	4.5.0	 	ontime3	34061.867025495	Sum of GTIs [s]
date	2012-07-10T20:42:48	Date and time of file creation	ontime5	34061.949105501	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	34061.908065498	Sum of GTIs [s]
			ontime7	34061.990145504	Sum of GTIs [s]
			ontime8	34058.68495518	Sum of GTIs [s]
			l1events	1312439	Number of level 1 events

2.1.4 Events

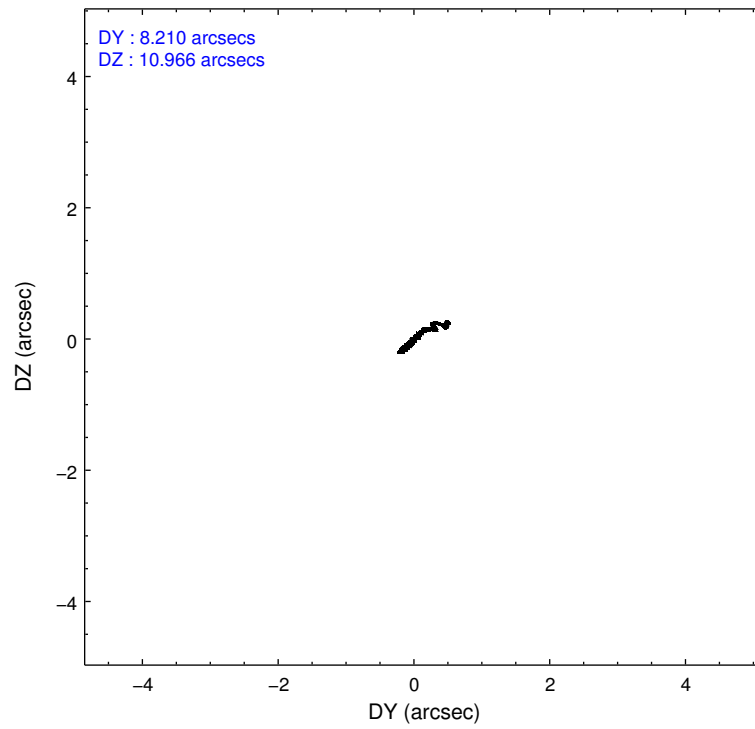
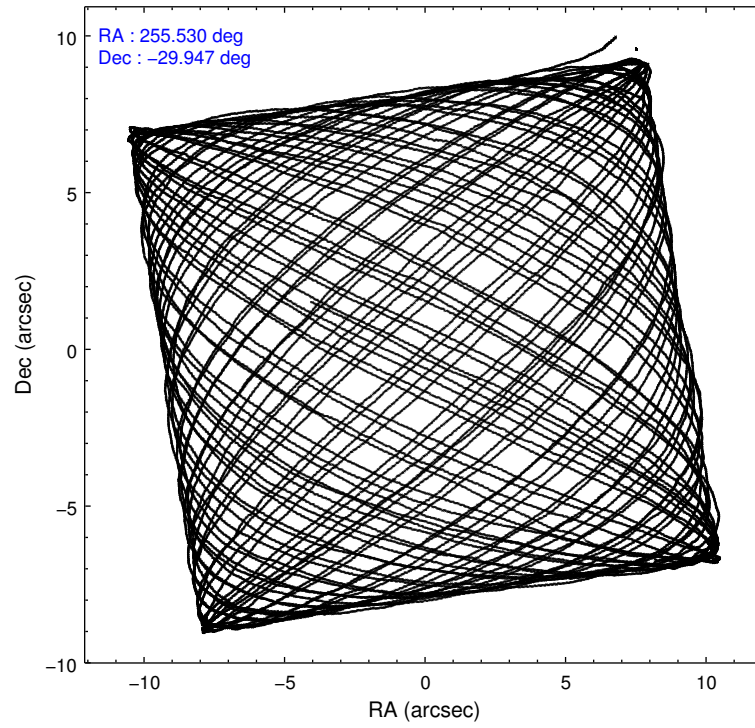
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	190206	334019	215843	258395	313976
rejected events	166637	163417	179023	141926	196569
rejected %	87%	48%	82%	54%	62%

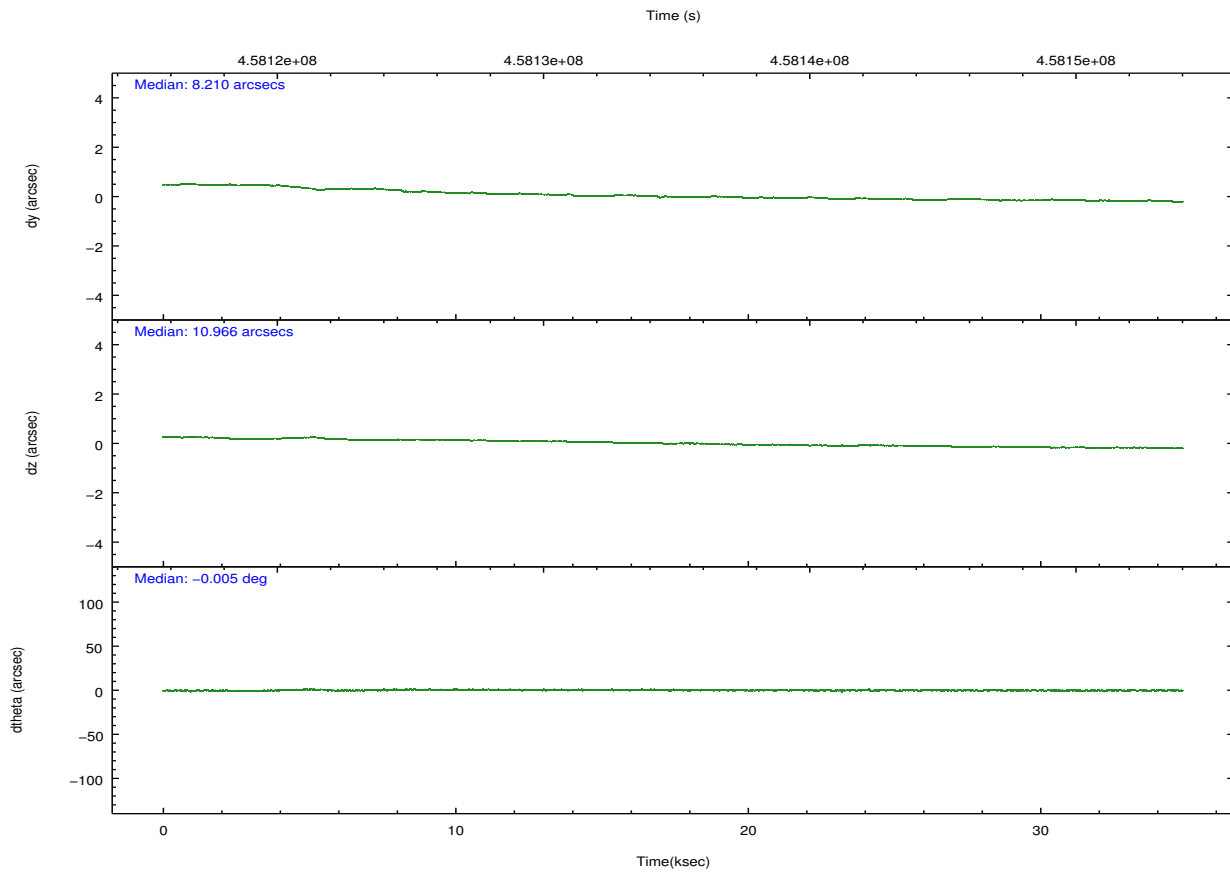
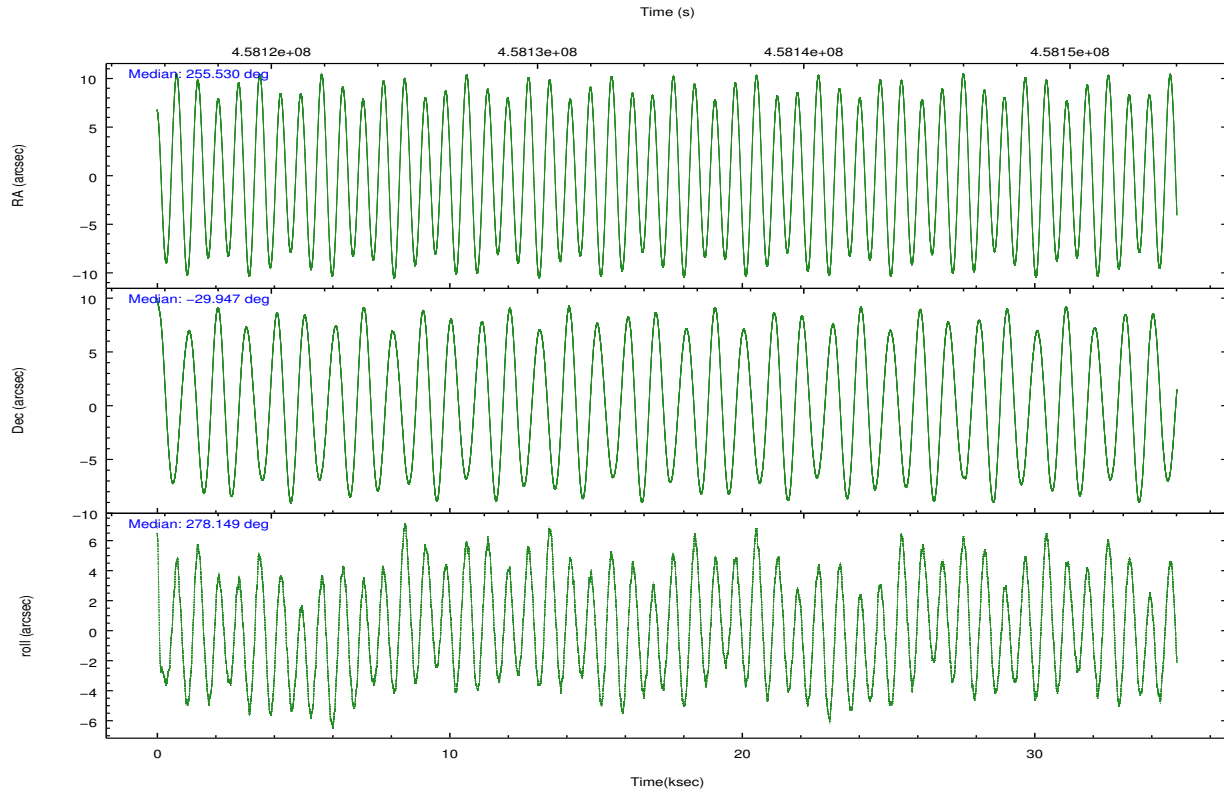
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	9637	28549	20928	11766	35010
	5%	8%	9%	4%	11%
grade 1 events	110	902	158	296	314
	0%	0%	0%	0%	0%
grade 2 events	4944	50277	5791	24460	22435
	2%	15%	2%	9%	7%
grade 3 events	2301	6301	2447	10127	16495
	1%	1%	1%	3%	5%
grade 4 events	2297	6091	2373	10051	14887
	1%	1%	1%	3%	4%
grade 5 events	9345	25333	9593	26118	14262
	4%	7%	4%	10%	4%
grade 6 events	4399	79420	5293	60098	28643
	2%	23%	2%	23%	9%
grade 7 events	157173	137146	169260	115479	181930
	82%	41%	78%	44%	57%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	255.510437	255.5302727848111	CCD I2 on	O1	N
[deg] Pointing Dec	-29.925561	-29.94683431954242	CCD I3 on	O2	Y
[deg] Pointing Roll	277.991694	278.1582239347308	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	458118302.184000	458116627.72239	CCD S5 on	N	N
Observation start date	2012-07-08T07:03:55	2012-07-08T06:37:07	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	458152302.184000	458152850.19933	On-chip summing requested	N	N
Observation end date	2012-07-08T16:30:35	2012-07-08T16:40:50	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



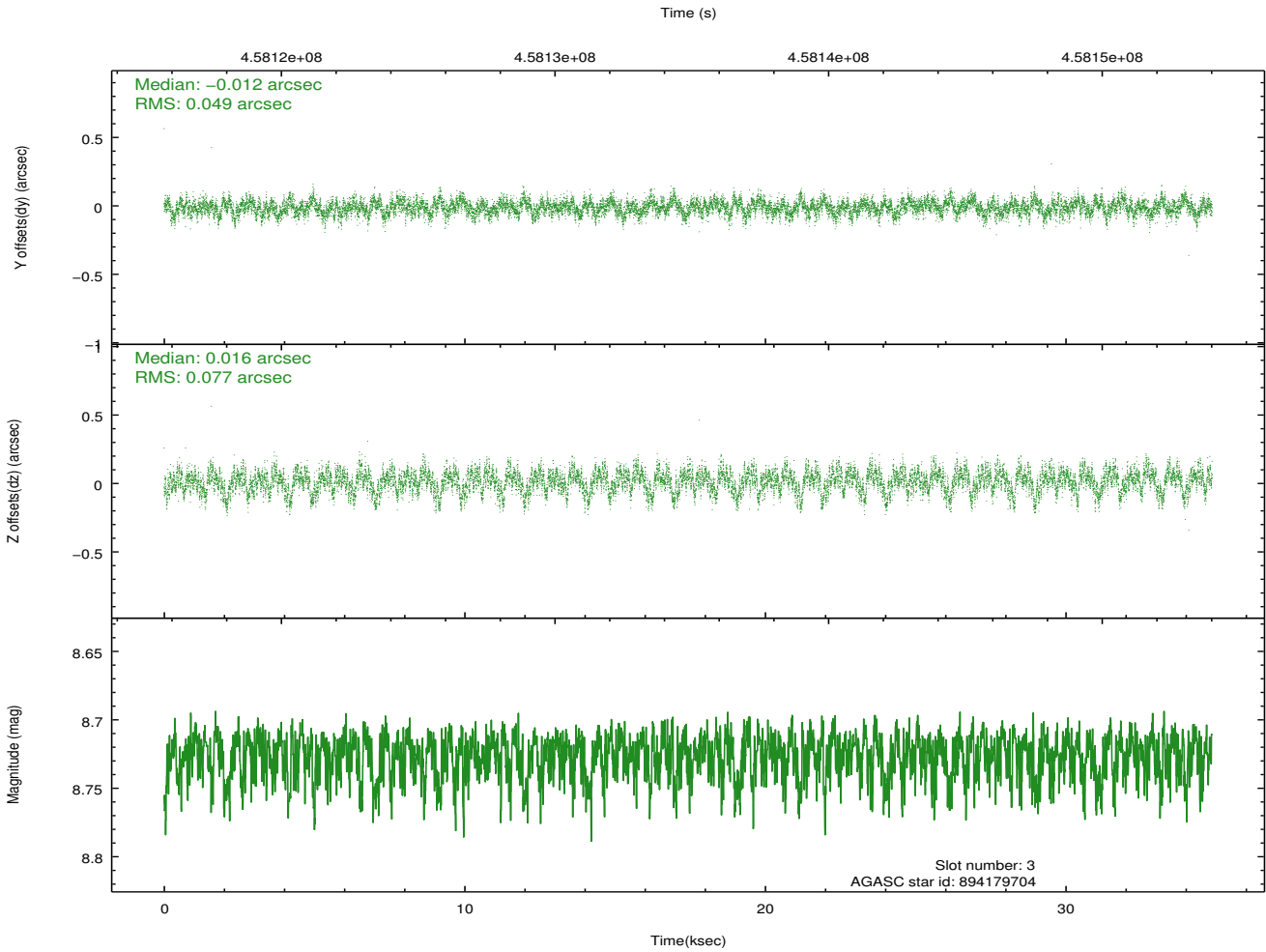
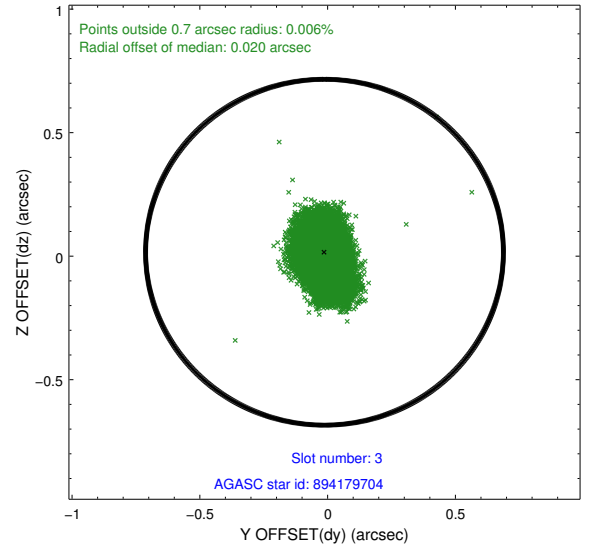
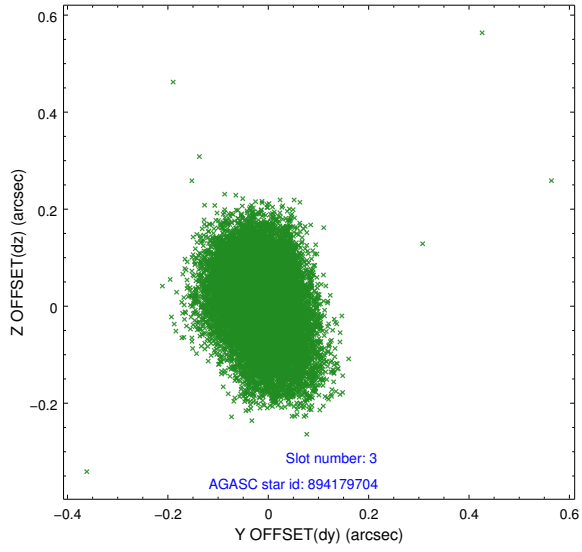


Slot Statistics

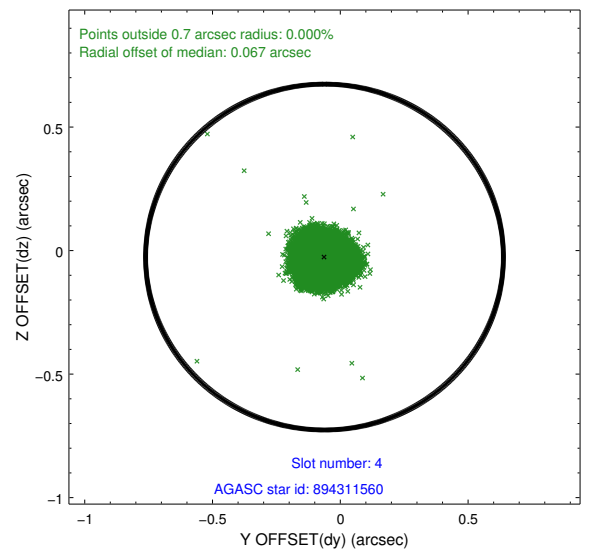
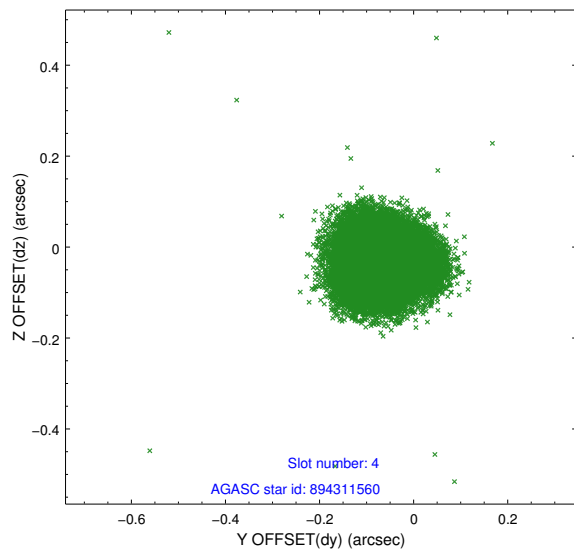
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.97	8505	-0.063	-0.018	0.008	0.012	0.000000	0.000000	-761.10	-1732.28
1	FID	ACIS-S-4	7.06	8505	0.203	0.035	0.011	0.019	0.000000	0.000000	2152.40	176.25
2	FID	ACIS-S-5	7.08	8505	-0.171	-0.009	0.014	0.023	0.000000	0.000000	-1814.02	169.88
3	GUIDE	894179704	8.73	16999	-0.012	0.016	0.095	0.163	254.813840	-29.808957	-711.06	-2097.31
4	GUIDE	894311560	8.25	17006	-0.062	-0.026	0.081	0.121	255.968048	-29.561250	-1096.78	1600.84
5	GUIDE	894314544	8.58	17000	0.084	0.010	0.064	0.103	255.921805	-29.699914	-623.19	1386.67
6	GUIDE	964692016	9.26	16986	-0.008	0.007	0.122	0.189	256.158728	-30.198595	1259.76	1860.23
7	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

2.4 Star Slots

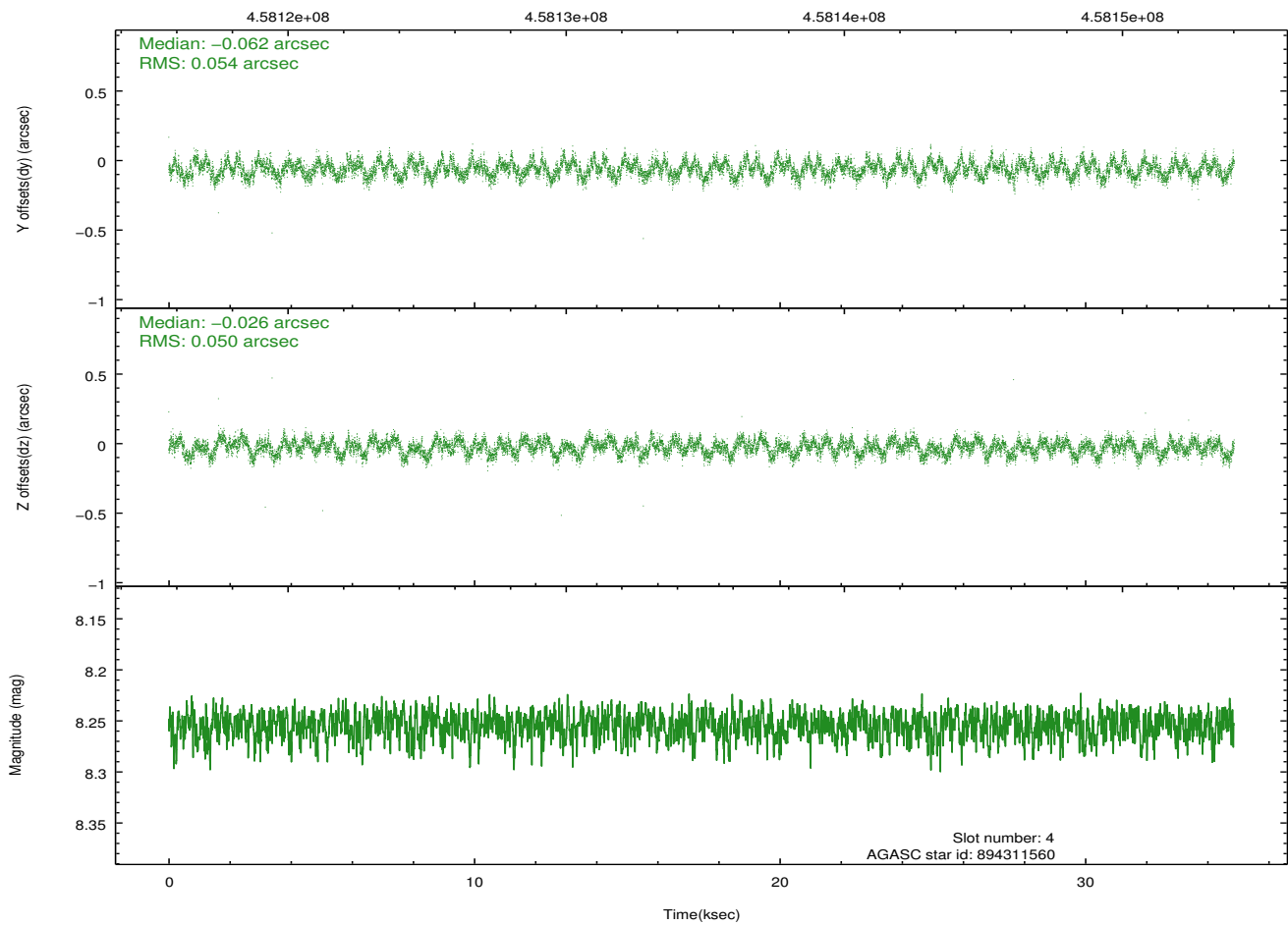
2.4.1 Slot 3



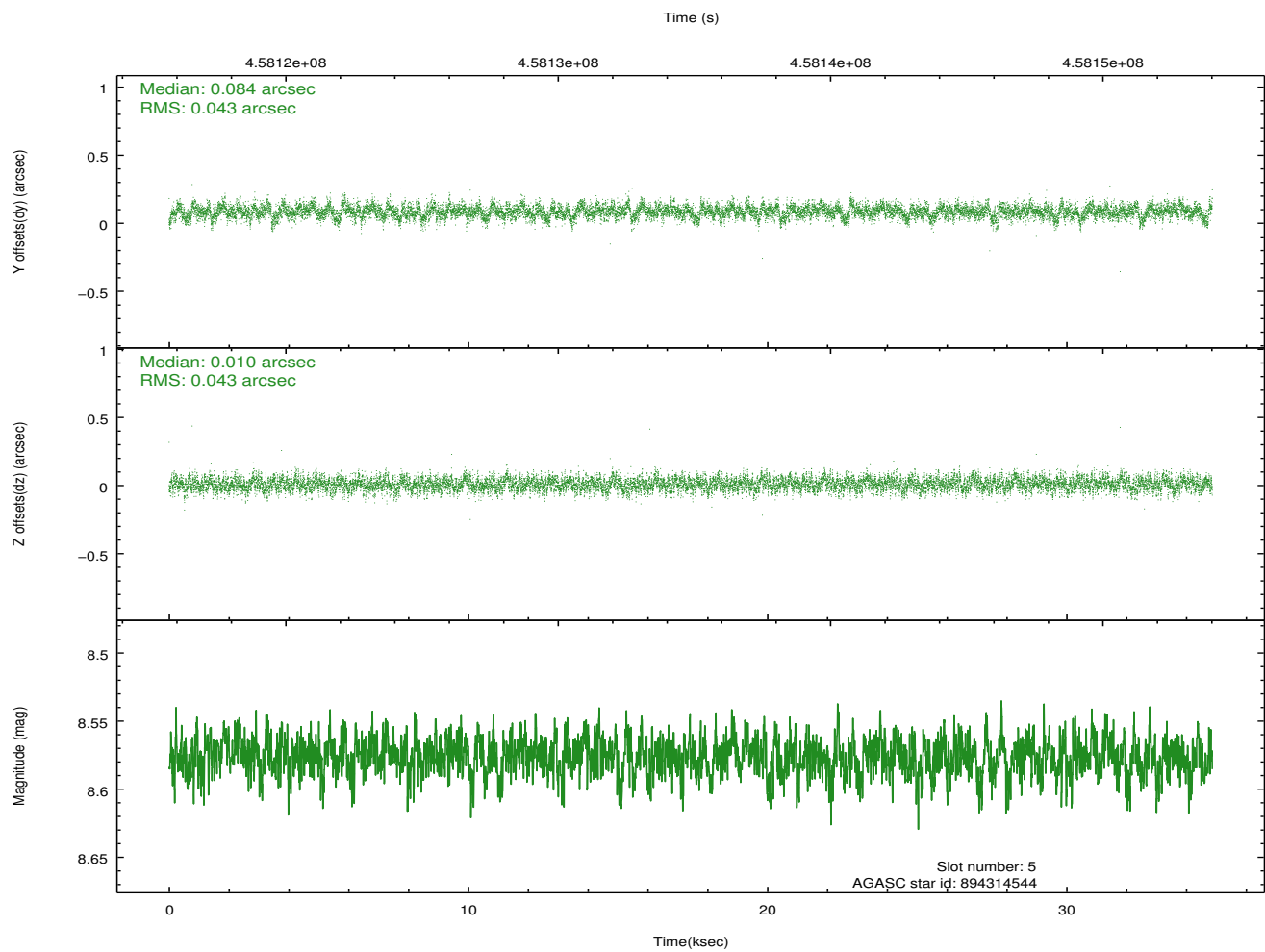
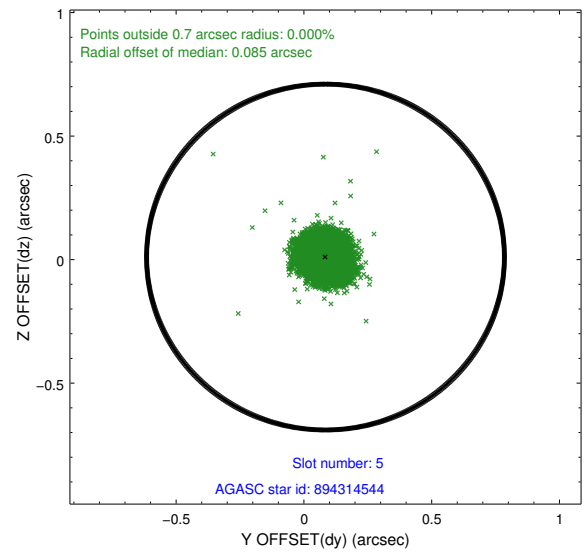
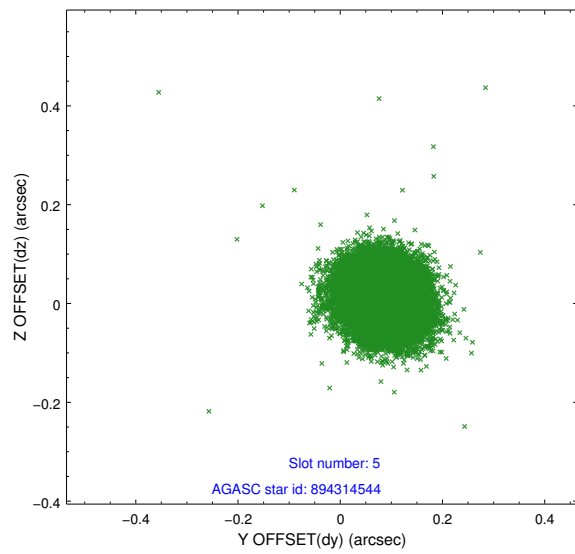
2.4.2 Slot 4



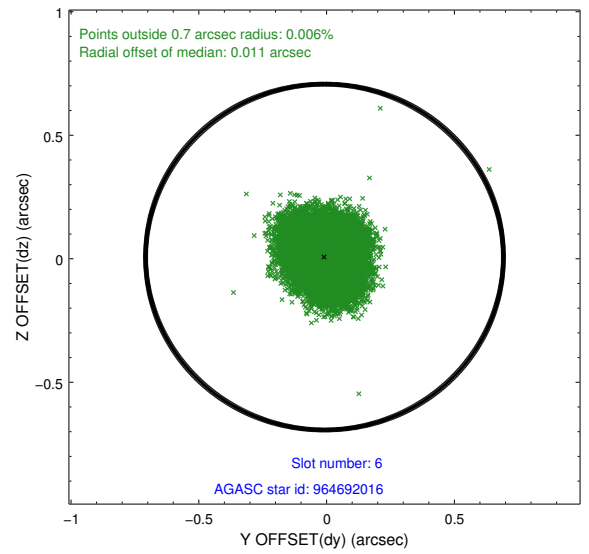
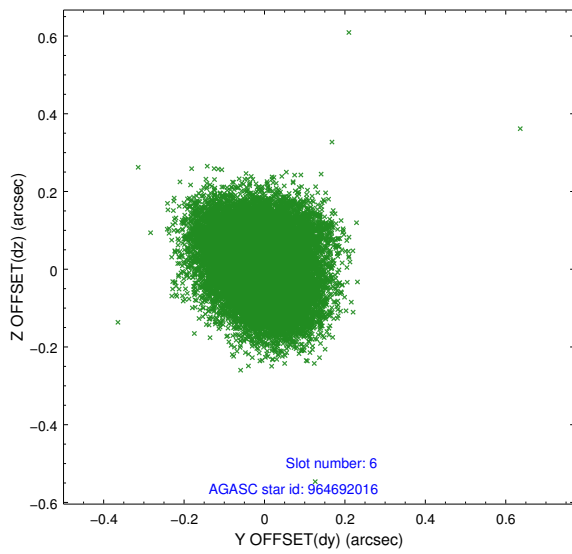
Time (s)



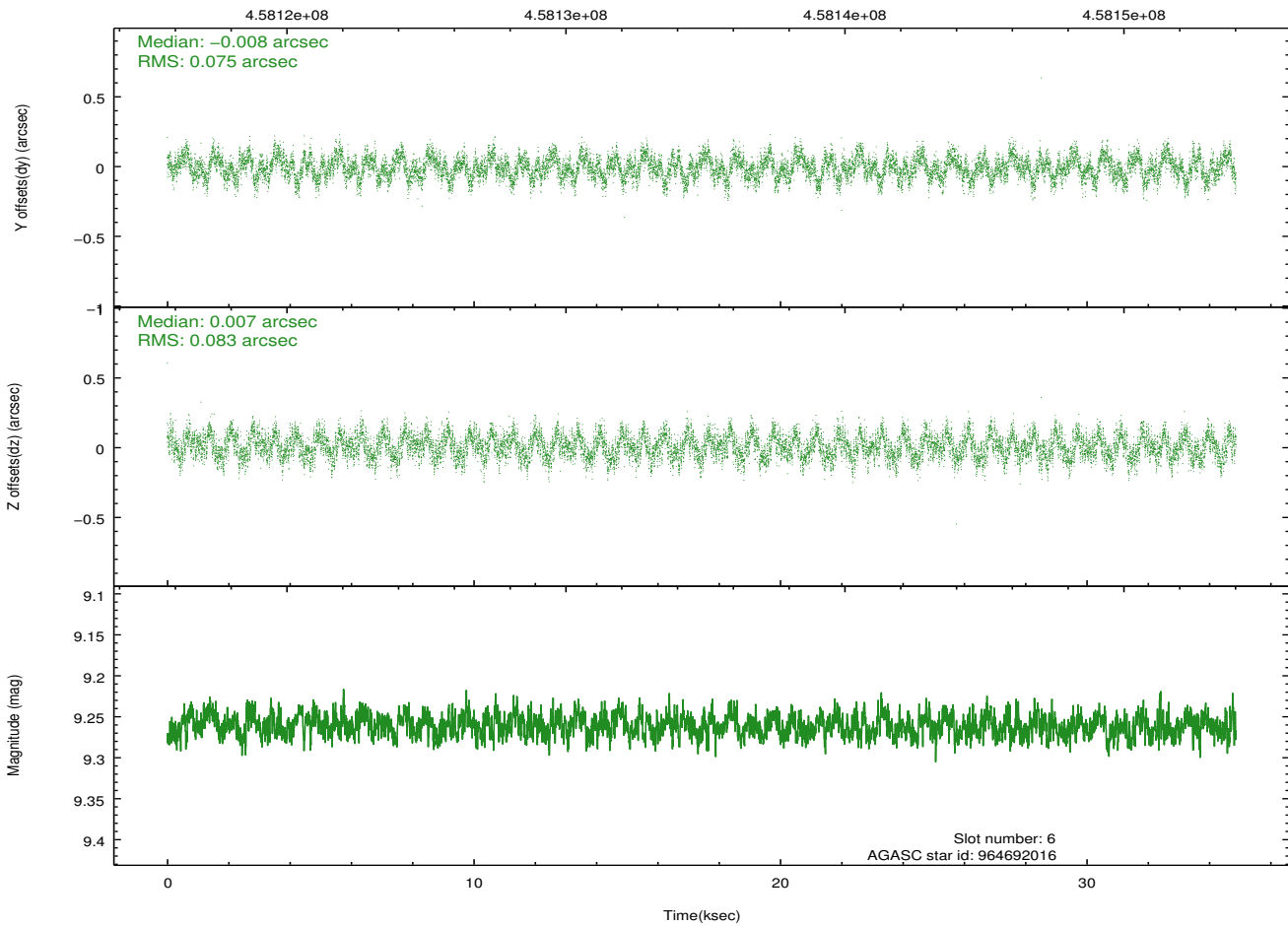
2.4.3 Slot 5



2.4.4 Slot 6

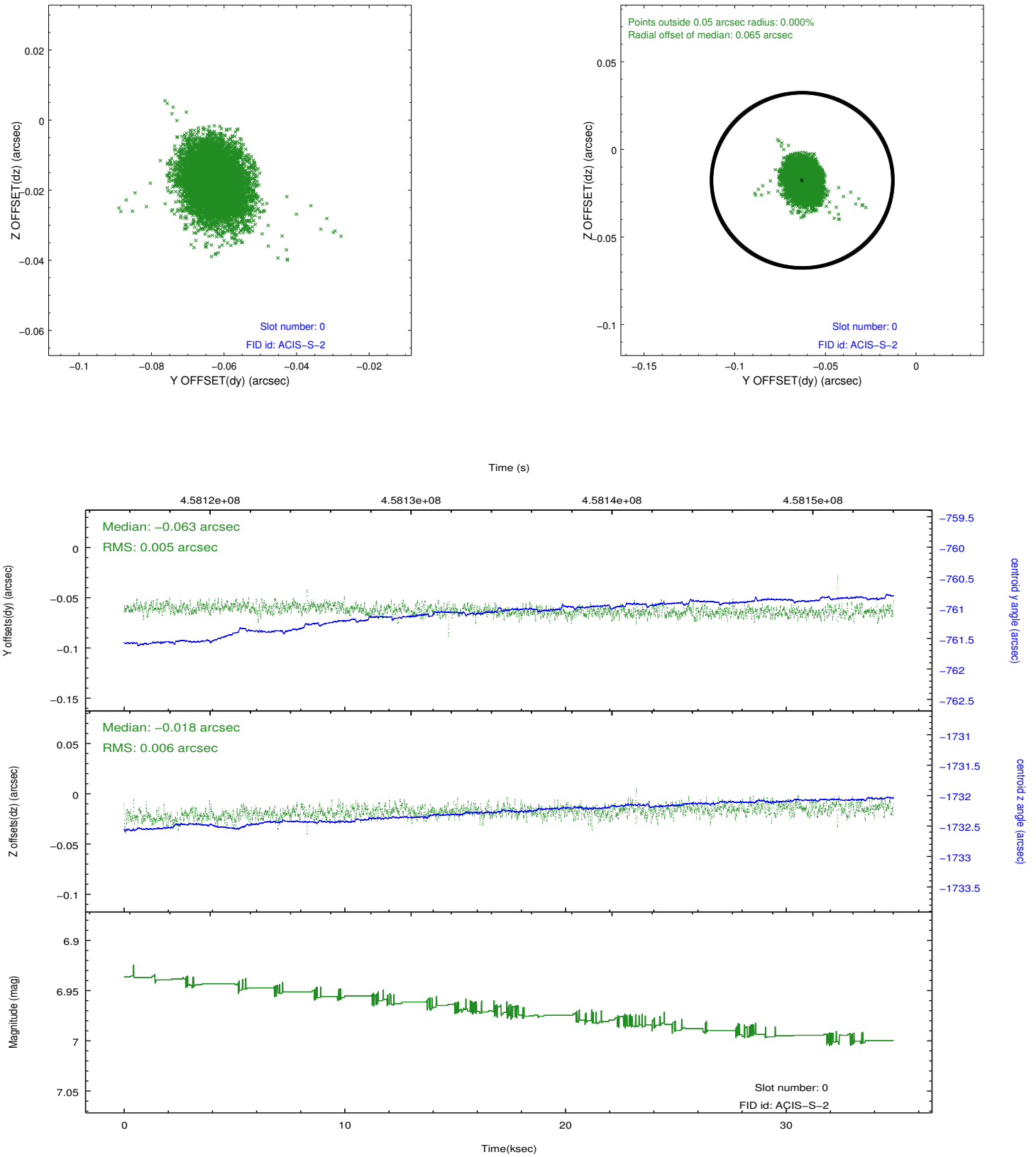


Time (s)

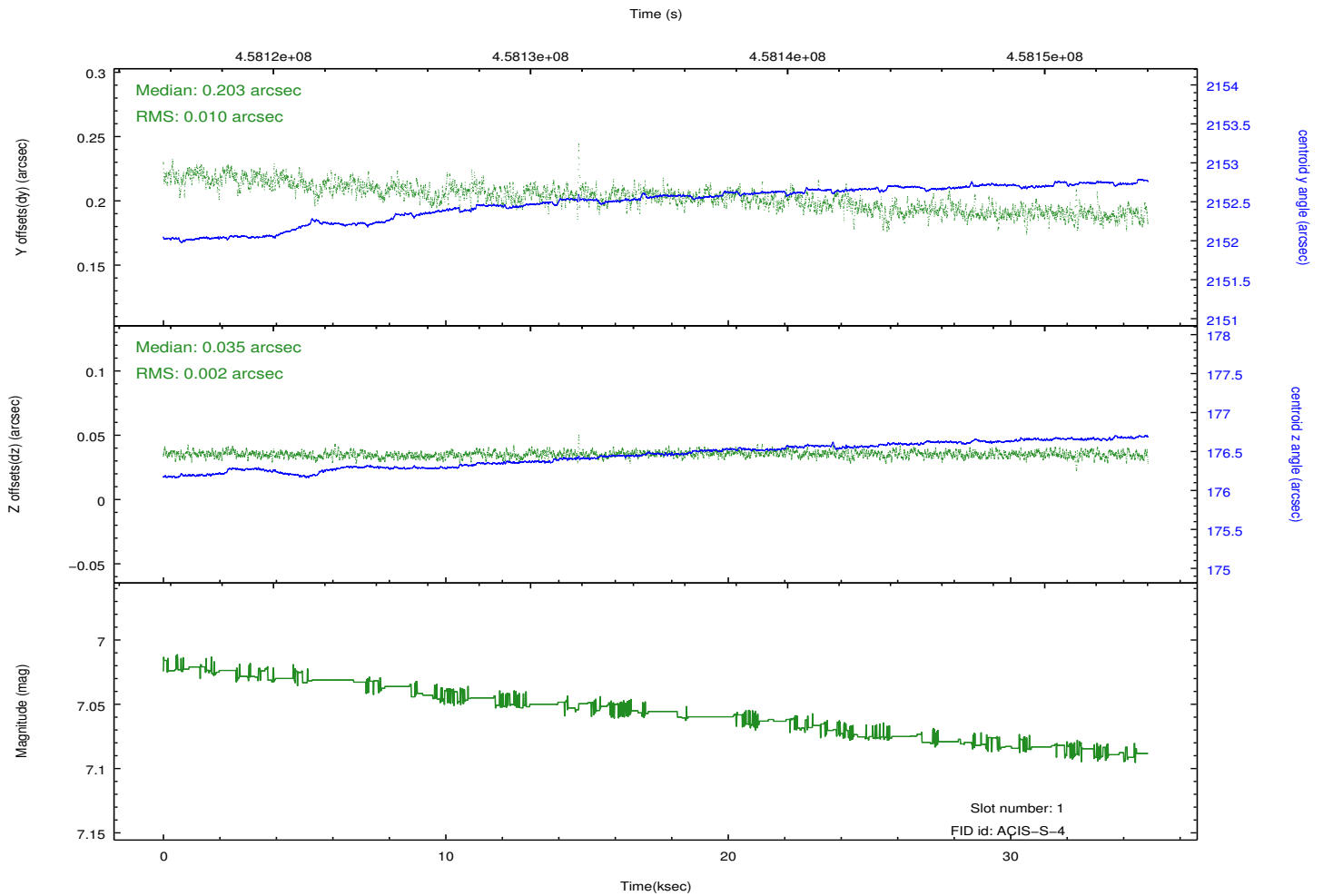
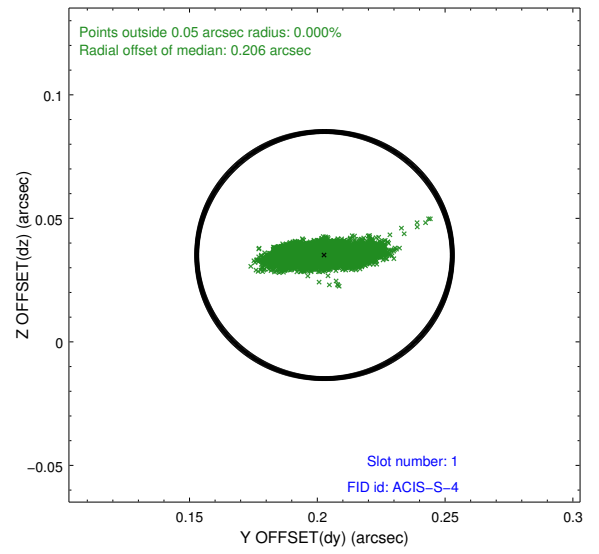
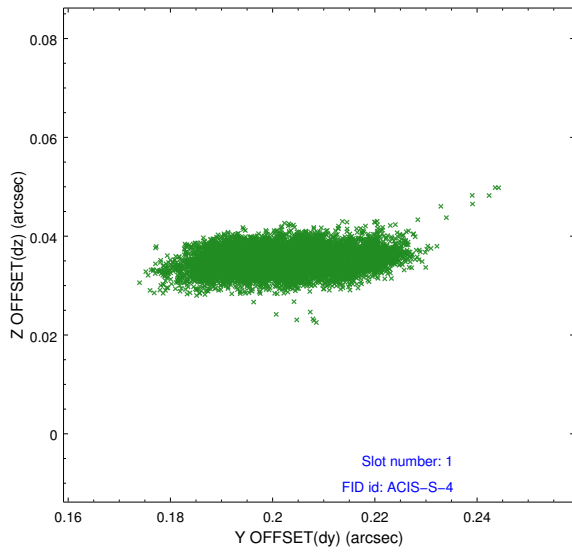


2.5 FID Slots

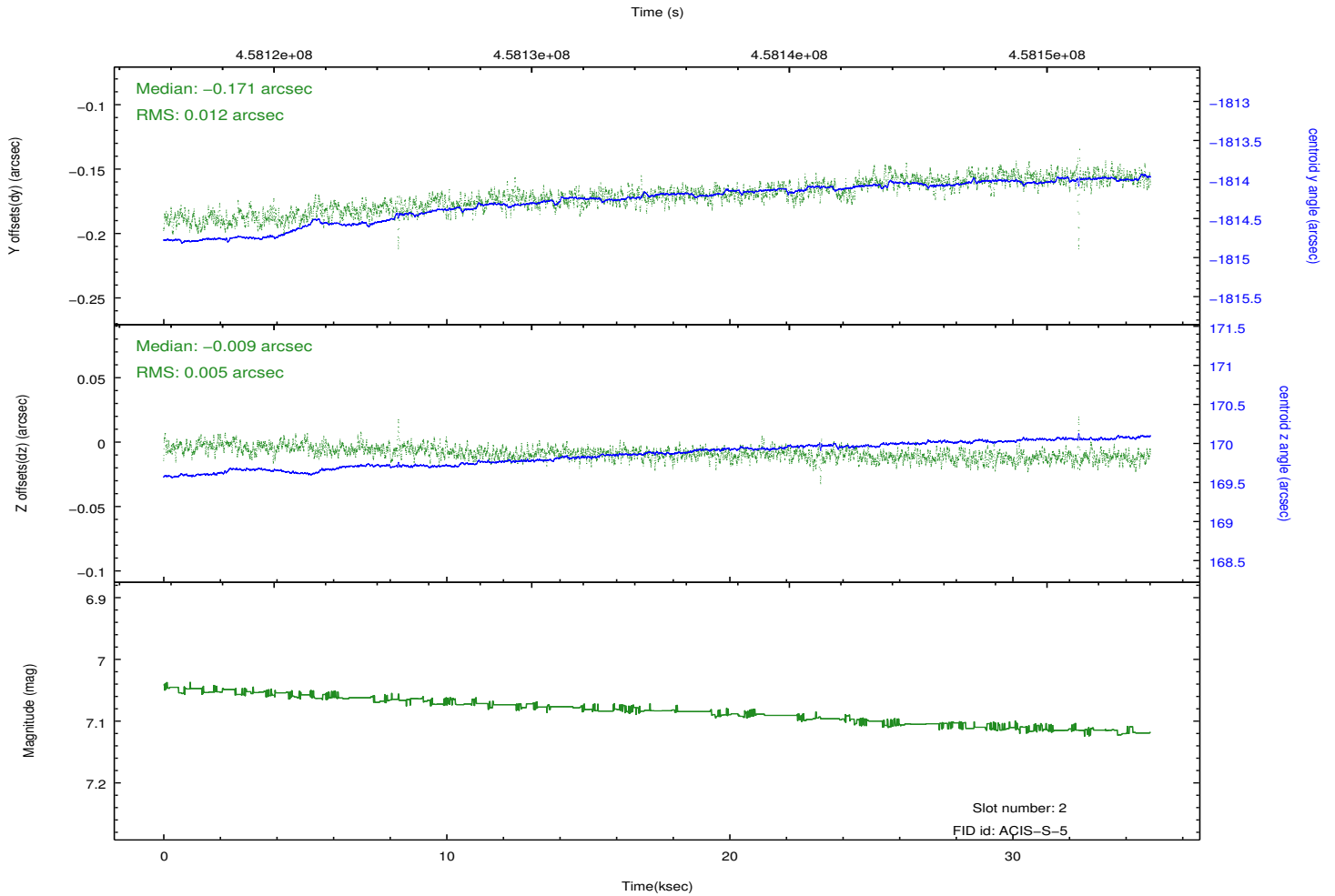
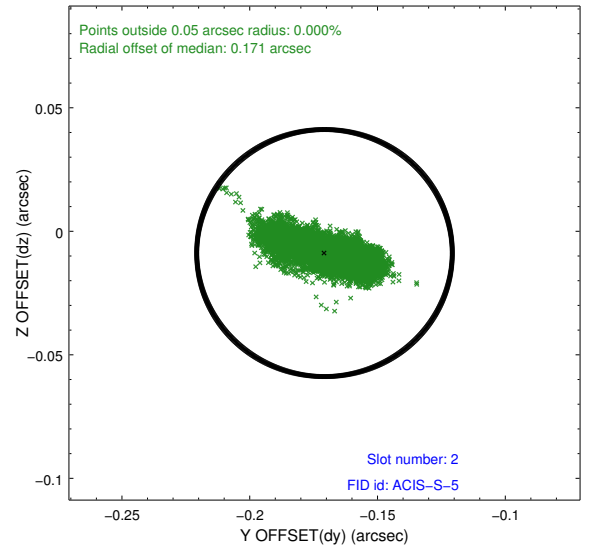
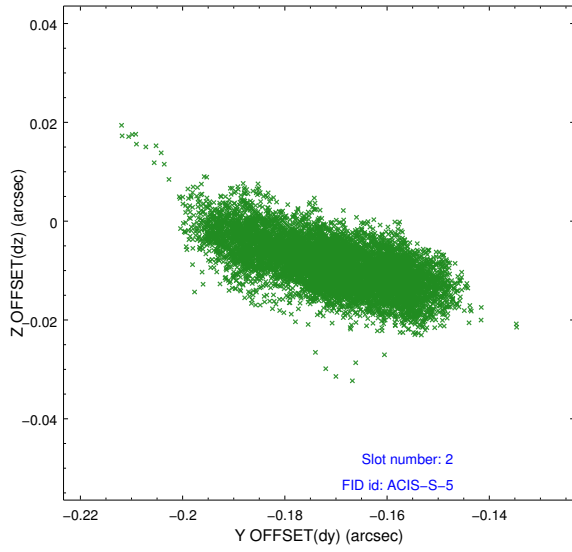
2.5.1 Slot 0



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)	2012.07.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.061990145504

A.2 Comments

Optional chip CCD I2 not used.

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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 guide star from the solution.