

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 7610 - L2 Version 4
Chandra X-Ray Center

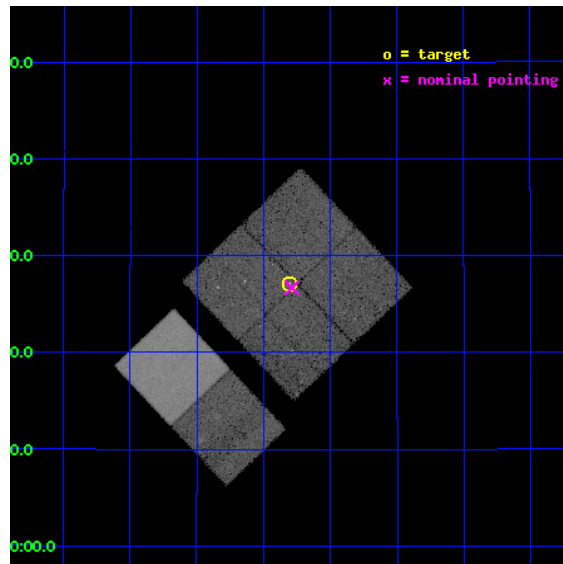
L2 Processing Date : Apr 27 2012

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1 Front

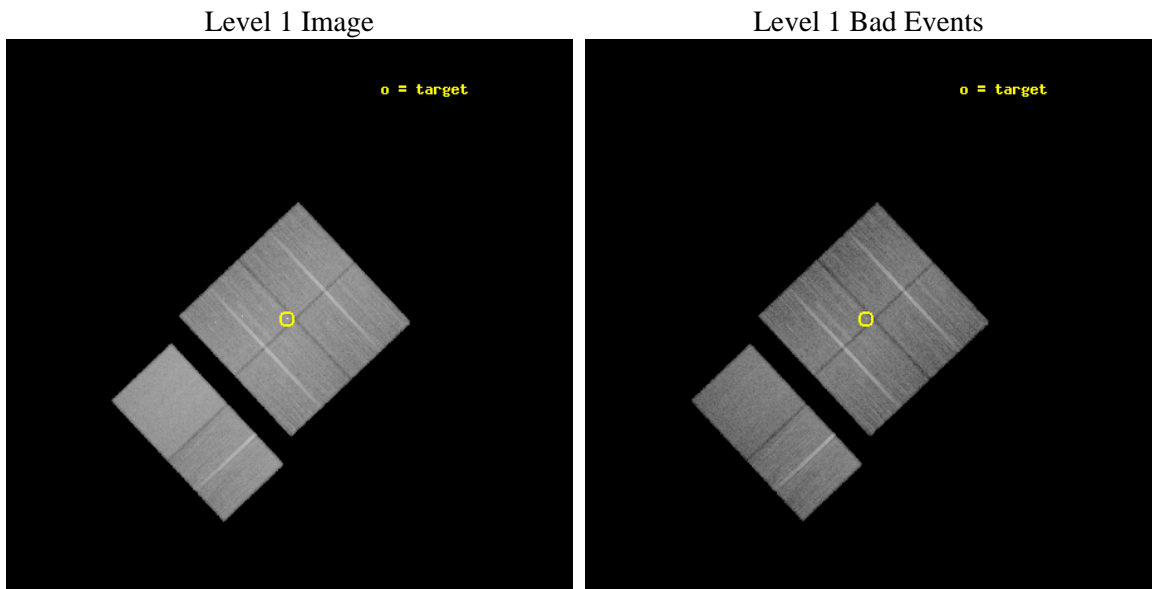
seq_num	500740	Sequence number
obs_id	7610	Observation id
title	Astrometric Study of Isolated Neutron Stars	Proposal title
observer	Dr Christian Motch	Principal investigator
object	RX J1308.6+2127	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	197.200833	Observer's specified target RA [deg]
dec_targ	21.451889	Observer's specified target Dec [deg]
ra_nom	197.19702588143	Nominal RA [deg]
dec_nom	21.444641603749	Nominal Dec [deg]
roll_nom	226.71010456244	Nominal Roll [deg]
revision	4	Processing version of data
ontime	20166.35895431	Sum of GTIs [s]
livetime	19911.000374507	Livetime [s]
ontime0	20169.599924922	Sum of GTIs [s]
ontime1	20169.599924922	Sum of GTIs [s]
ontime2	20169.599924922	Sum of GTIs [s]
ontime3	20166.35895431	Sum of GTIs [s]
ontime6	20169.599924922	Sum of GTIs [s]
ontime7	20169.599924922	Sum of GTIs [s]
l2events	209951	Number of level 2 events



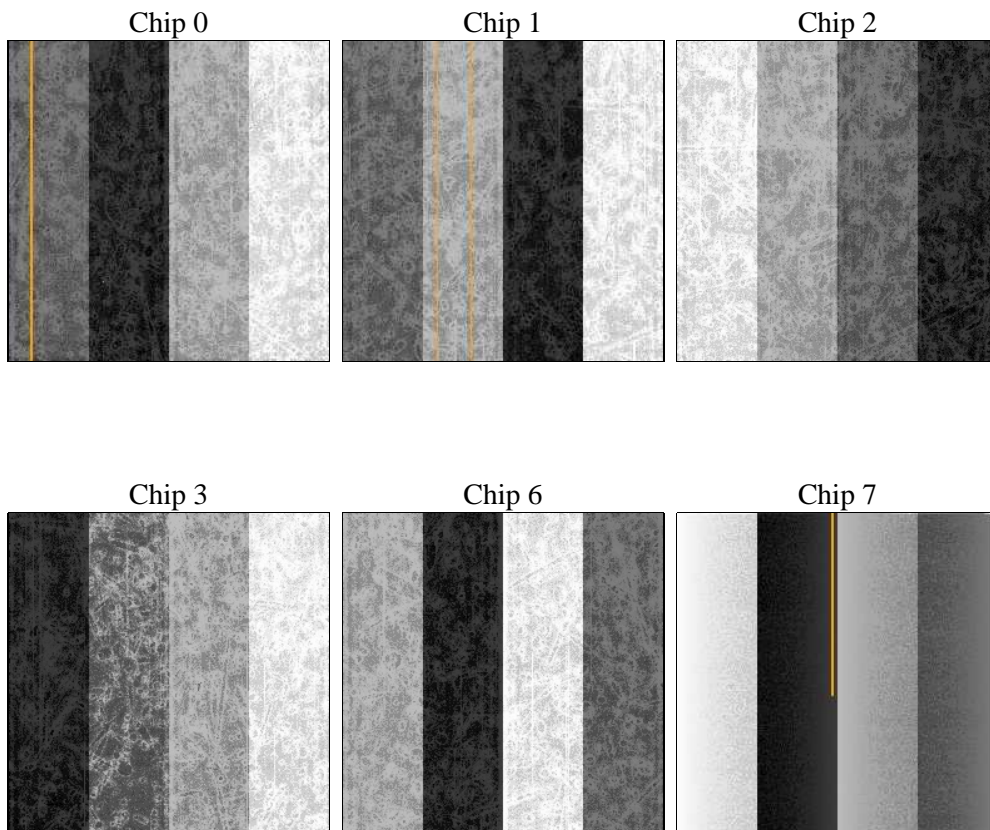
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	20166.35895431	Sum of GTIs [s]
caldbver	4.4.9	 	ontime0	20169.599924922	Sum of GTIs [s]
date	2012-04-27T19:15:58	Date and time of file creation	ontime1	20169.599924922	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	20169.599924922	Sum of GTIs [s]
			ontime3	20166.35895431	Sum of GTIs [s]
			ontime6	20169.599924922	Sum of GTIs [s]
			ontime7	20169.599924922	Sum of GTIs [s]
			l1events	1263584	Number of level 1 events

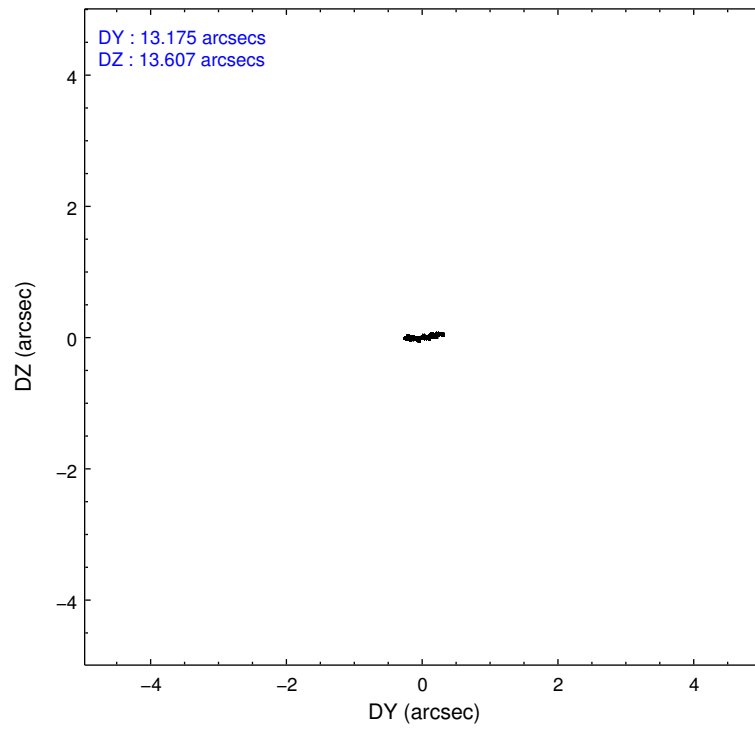
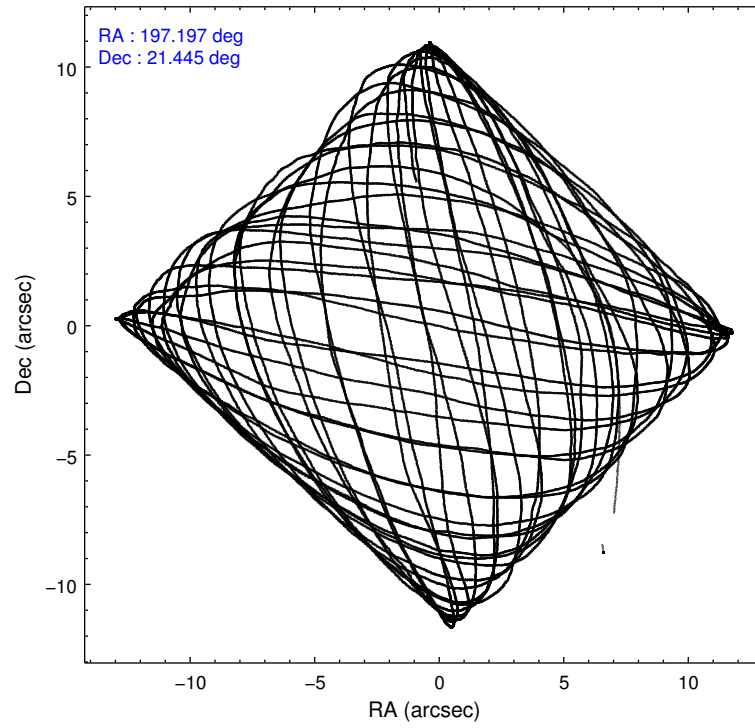
2.1.4 Events

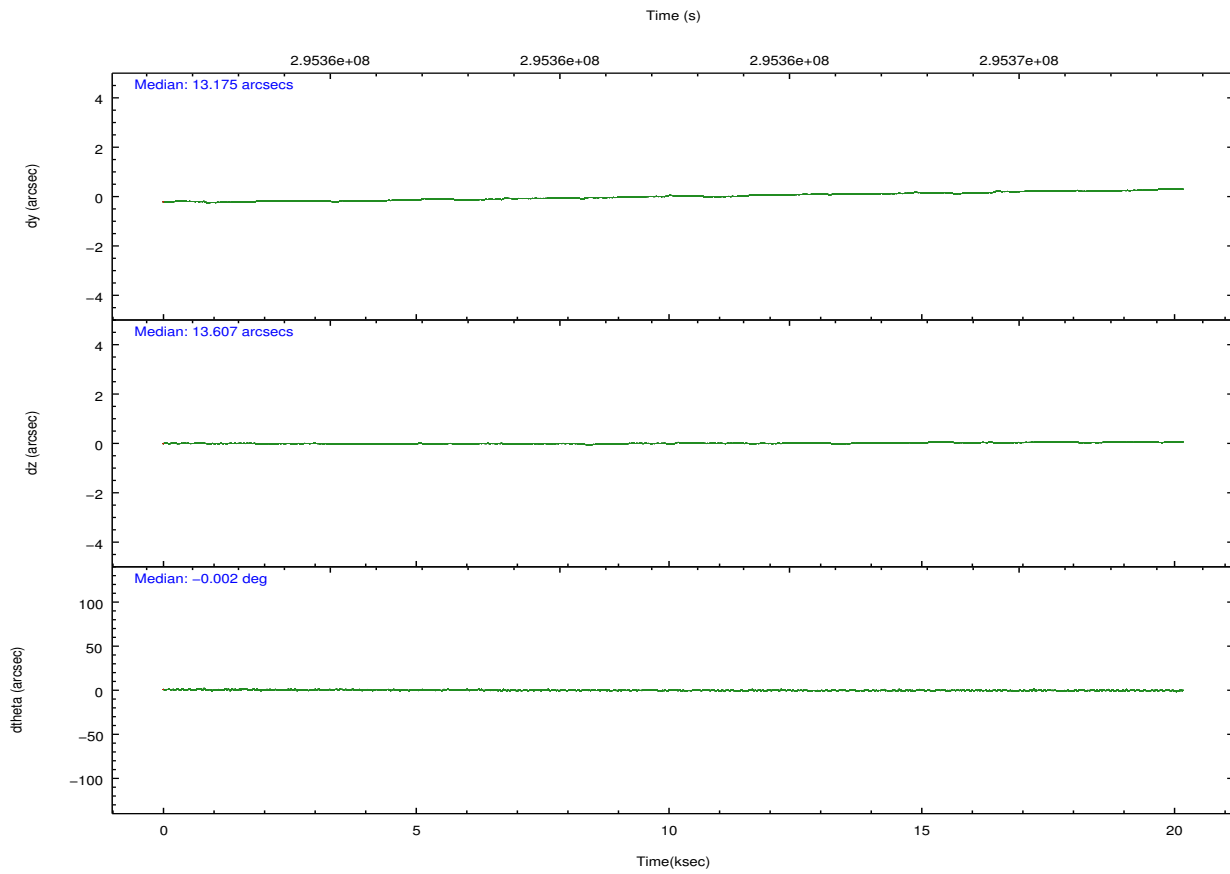
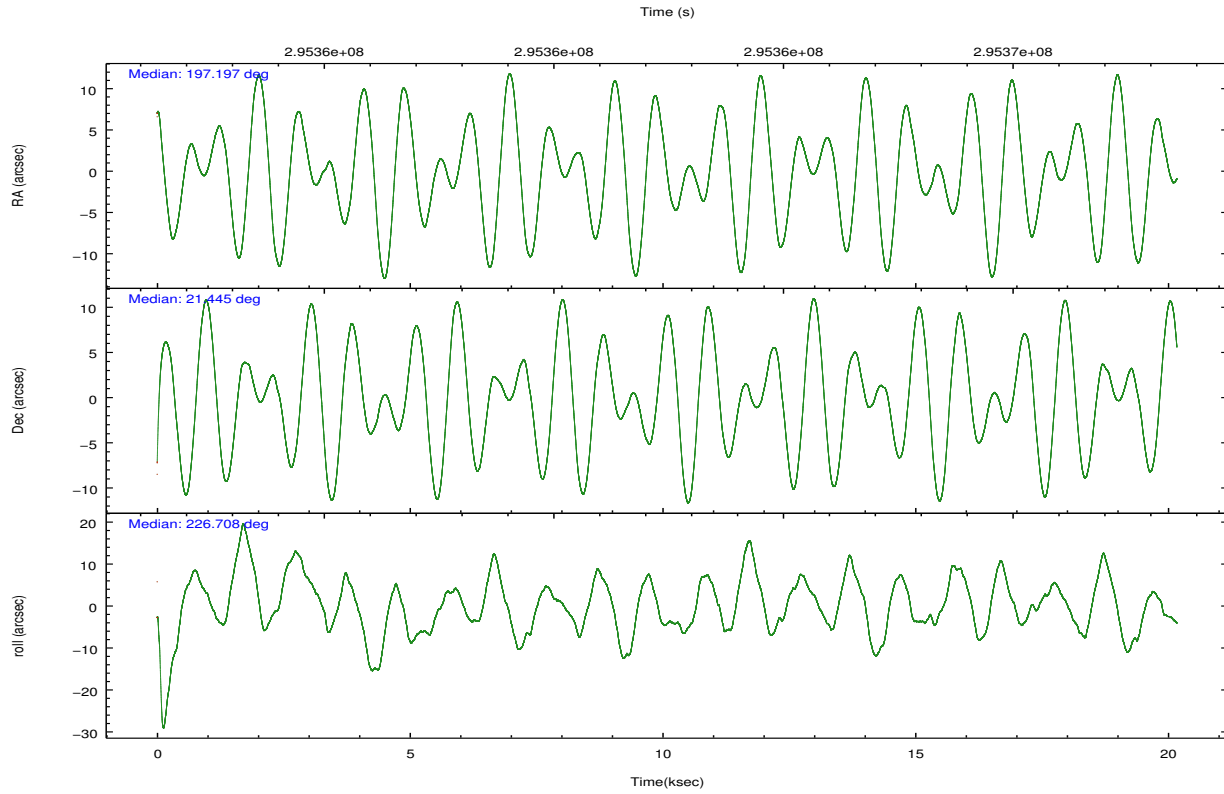
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	187574	184005	202935	204369	208975	275726	grade 0 events	10094	9358	9499	12891	9283	9594
rejected events	164338	159853	180958	178487	185709	165539		5%	5%	4%	6%	4%	3%
rejected %	87%	86%	89%	87%	88%	60%	grade 1 events	109	98	134	235	118	289
								0%	0%	0%	0%	0%	0%
							grade 2 events	5408	5873	4892	4930	5403	23283
								2%	3%	2%	2%	2%	8%
							grade 3 events	2277	2358	2098	2293	2266	9663
								1%	1%	1%	1%	1%	3%
							grade 4 events	2124	2402	2199	2277	2221	9495
								1%	1%	1%	1%	1%	3%
							grade 5 events	7872	8496	7598	9341	9615	25851
								4%	4%	3%	4%	4%	9%
							grade 6 events	4148	4994	4009	4247	4908	61932
								2%	2%	1%	2%	2%	22%
							grade 7 events	155542	150426	172506	168155	175161	135619
								82%	81%	85%	82%	83%	49%

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	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	197.203697	197.1970258814317	CCD I2 on	Y	Y
[deg] Pointing Dec	21.471412	21.44464160374858	CCD I3 on	Y	Y
[deg] Pointing Roll	226.498957	226.7101045624362	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	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	295352550.184000	295350999.63251	CCD S5 on	N	N
Observation start date	2007-05-12T10:21:25	2007-05-12T09:56:39	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	295372550.184000	295373238.03357	On-chip summing requested	N	N
Observation end date	2007-05-12T15:54:45	2007-05-12T16:07:18	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



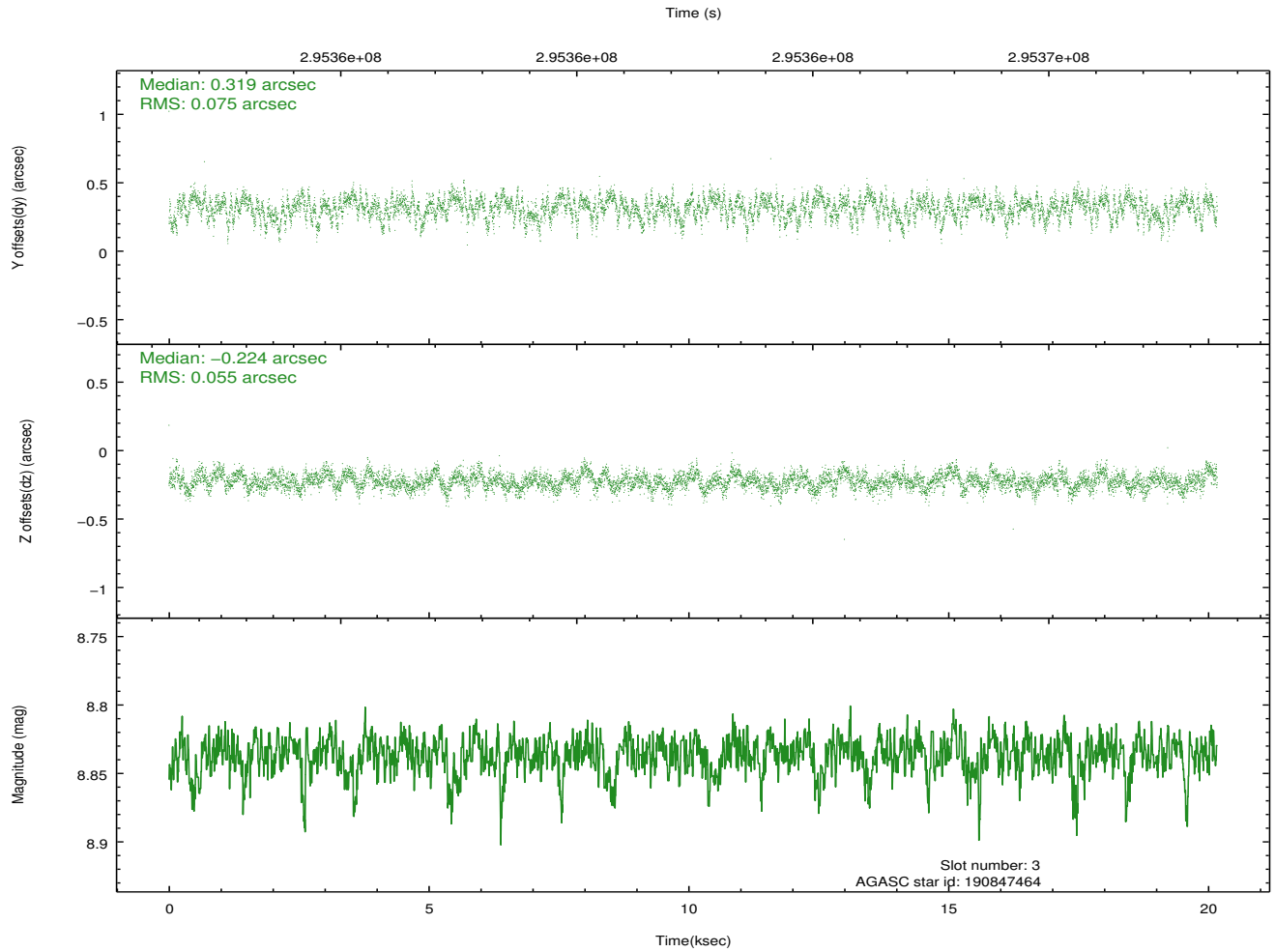
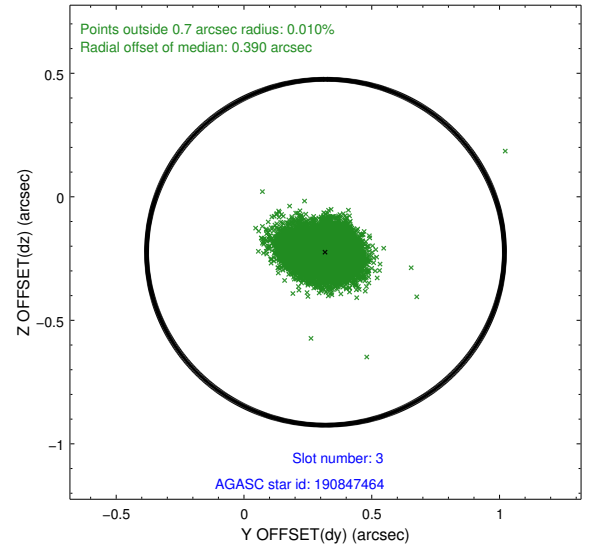
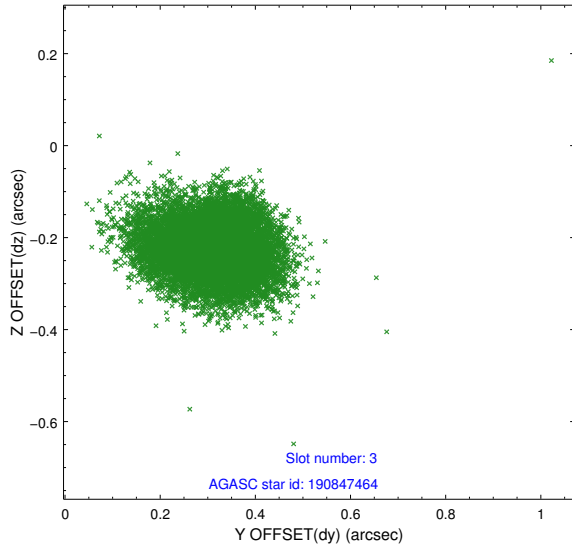


Slot Statistics

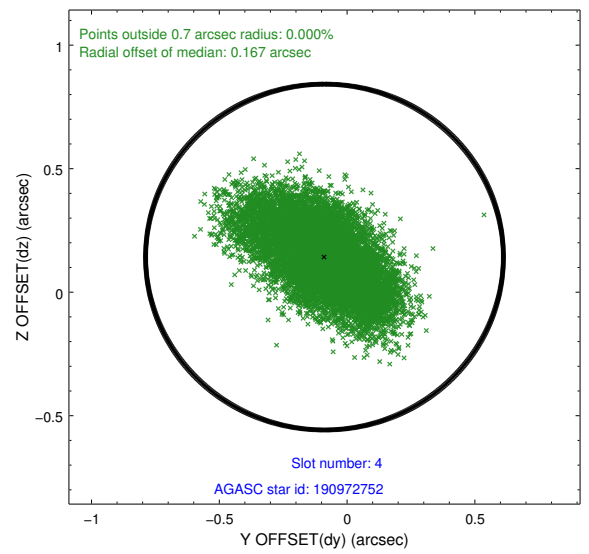
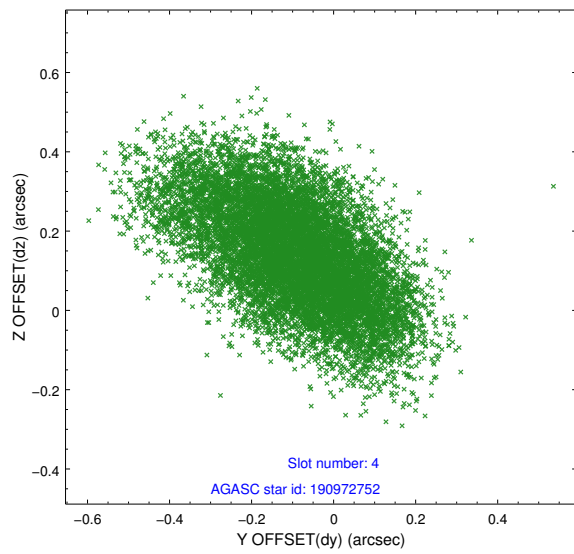
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.23	4921	0.043	0.001	0.006	0.011	0.000000	0.000000	926.38	-837.17
1	FID	ACIS-I-5	7.23	4920	-0.222	0.048	0.007	0.013	0.000000	0.000000	-1821.91	1060.25
2	FID	ACIS-I-6	7.24	4920	0.088	0.021	0.007	0.012	0.000000	0.000000	391.75	1704.96
3	GUIDE	190847464	8.84	9834	0.319	-0.224	0.098	0.159	196.264668	21.493955	2100.62	-2343.74
4	GUIDE	190972752	10.31	9820	-0.088	0.142	0.209	0.351	197.567107	21.351082	-524.87	1181.33
5	GUIDE	190973928	9.82	9813	-0.078	0.075	0.164	0.274	197.904188	21.564389	-1860.43	1467.44
6	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	190972784	9.63	9822	-0.158	-0.005	0.126	0.207	197.351360	22.226147	-2309.70	-1512.33

2.4 Star Slots

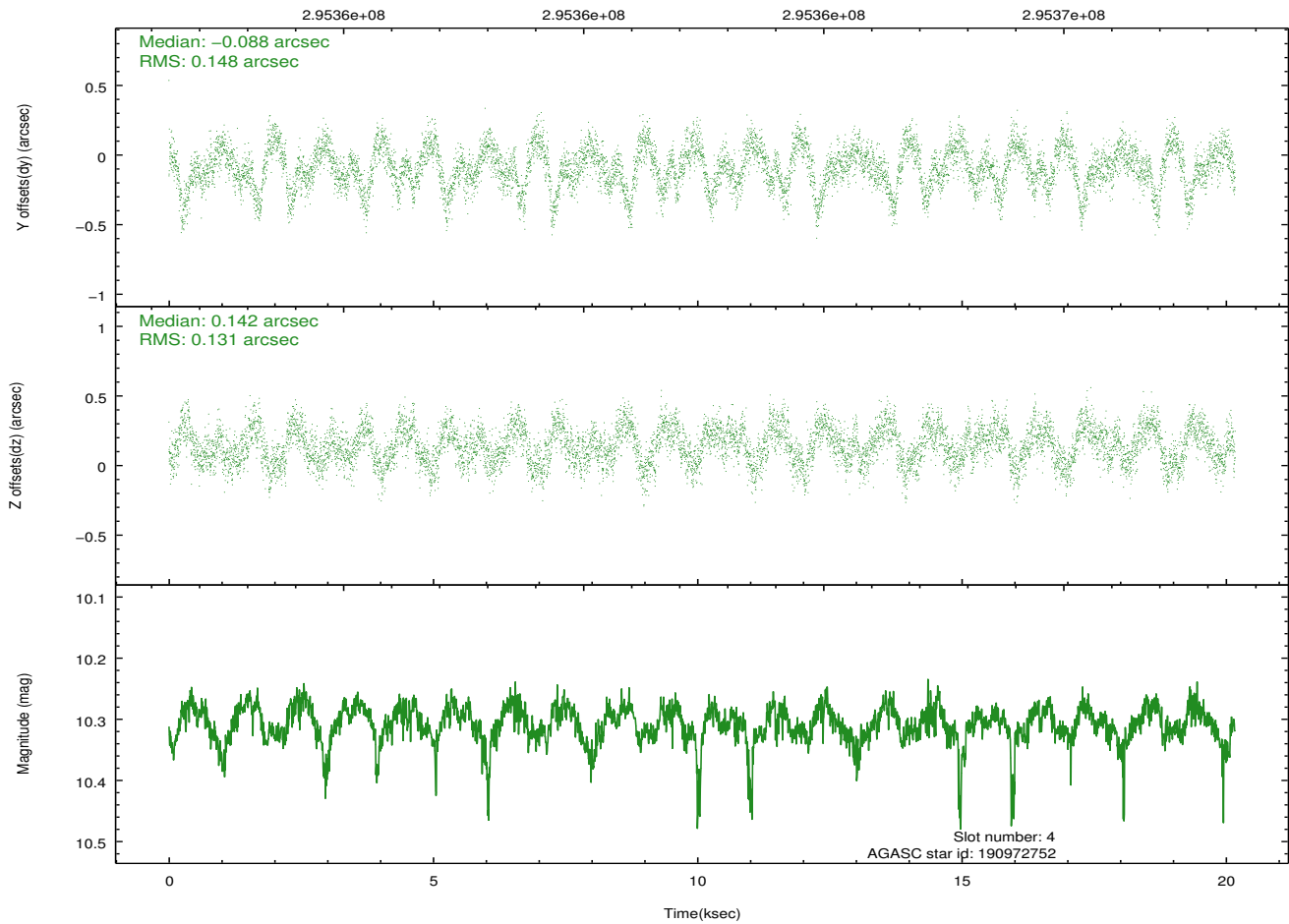
2.4.1 Slot 3



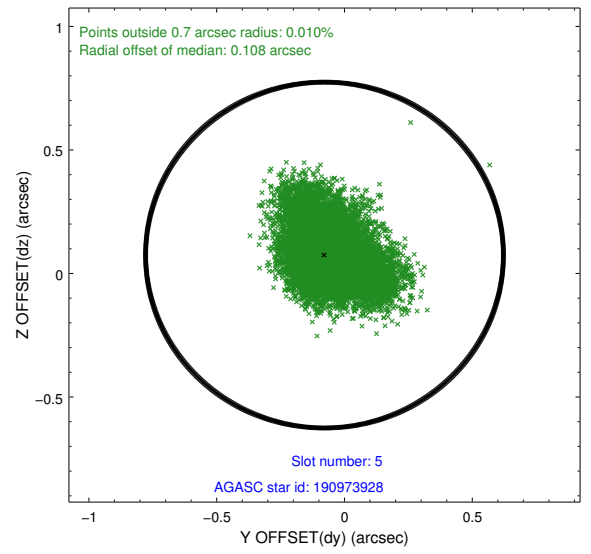
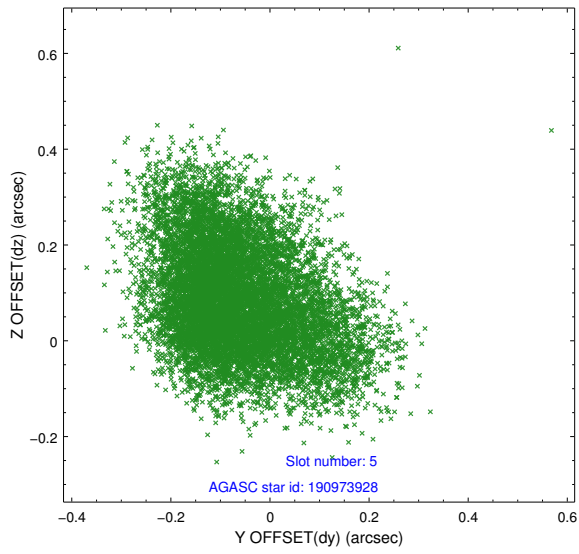
2.4.2 Slot 4



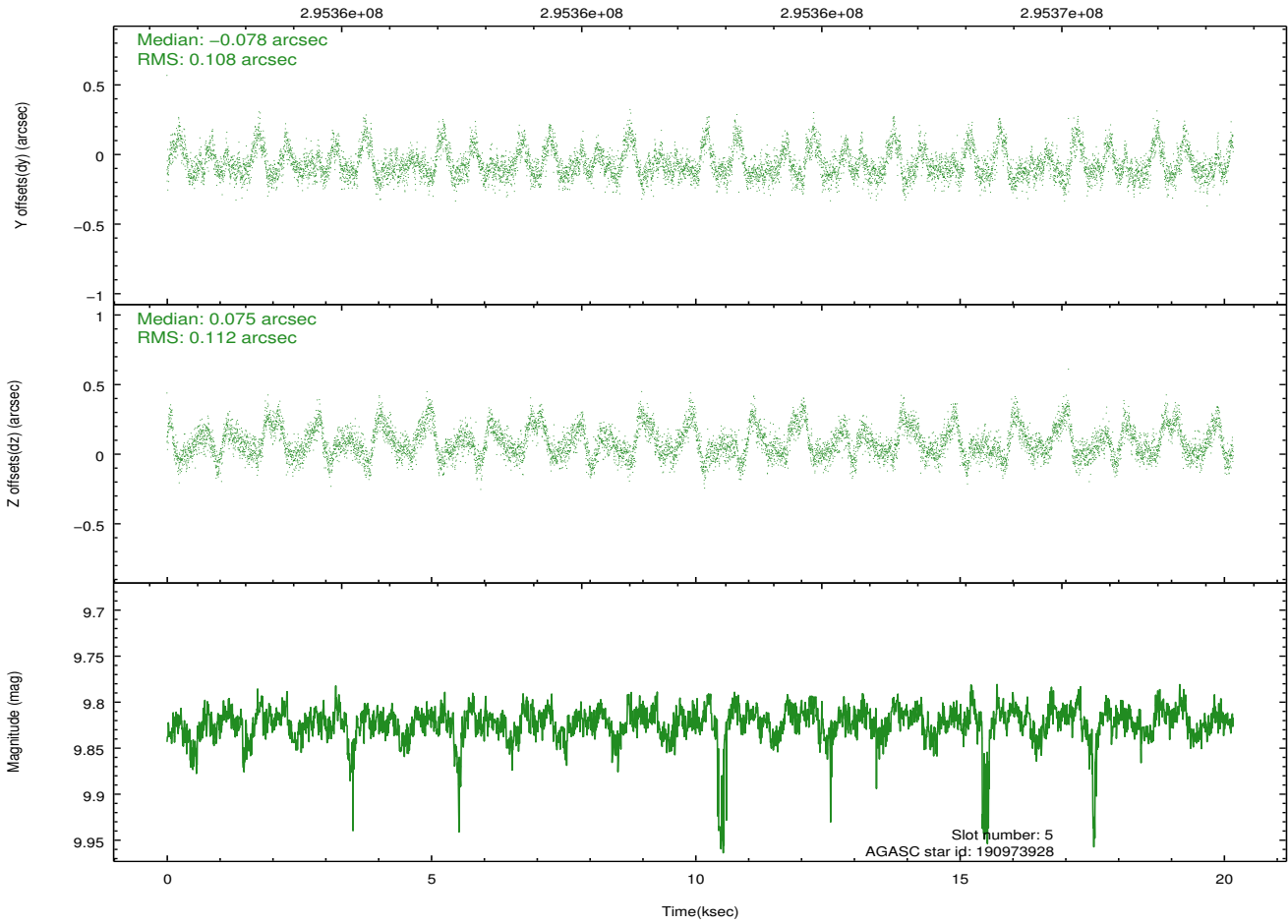
Time (s)



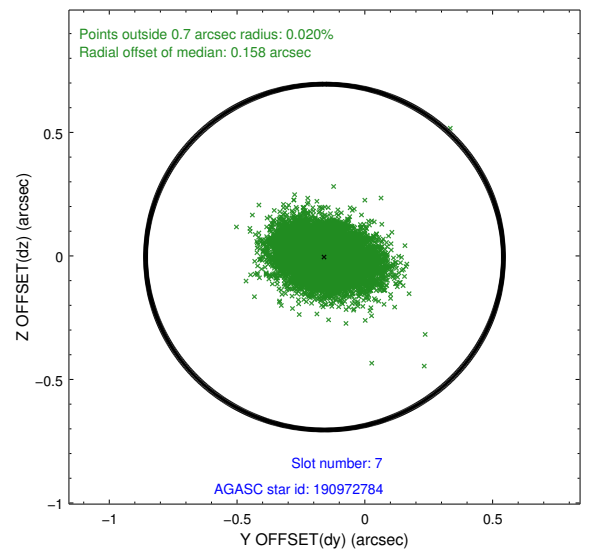
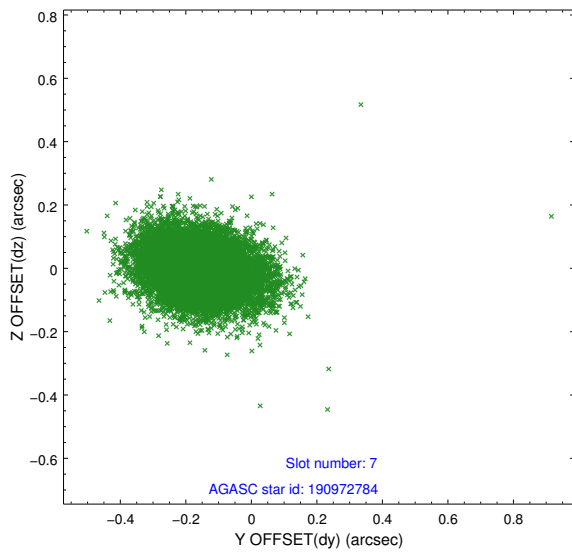
2.4.3 Slot 5



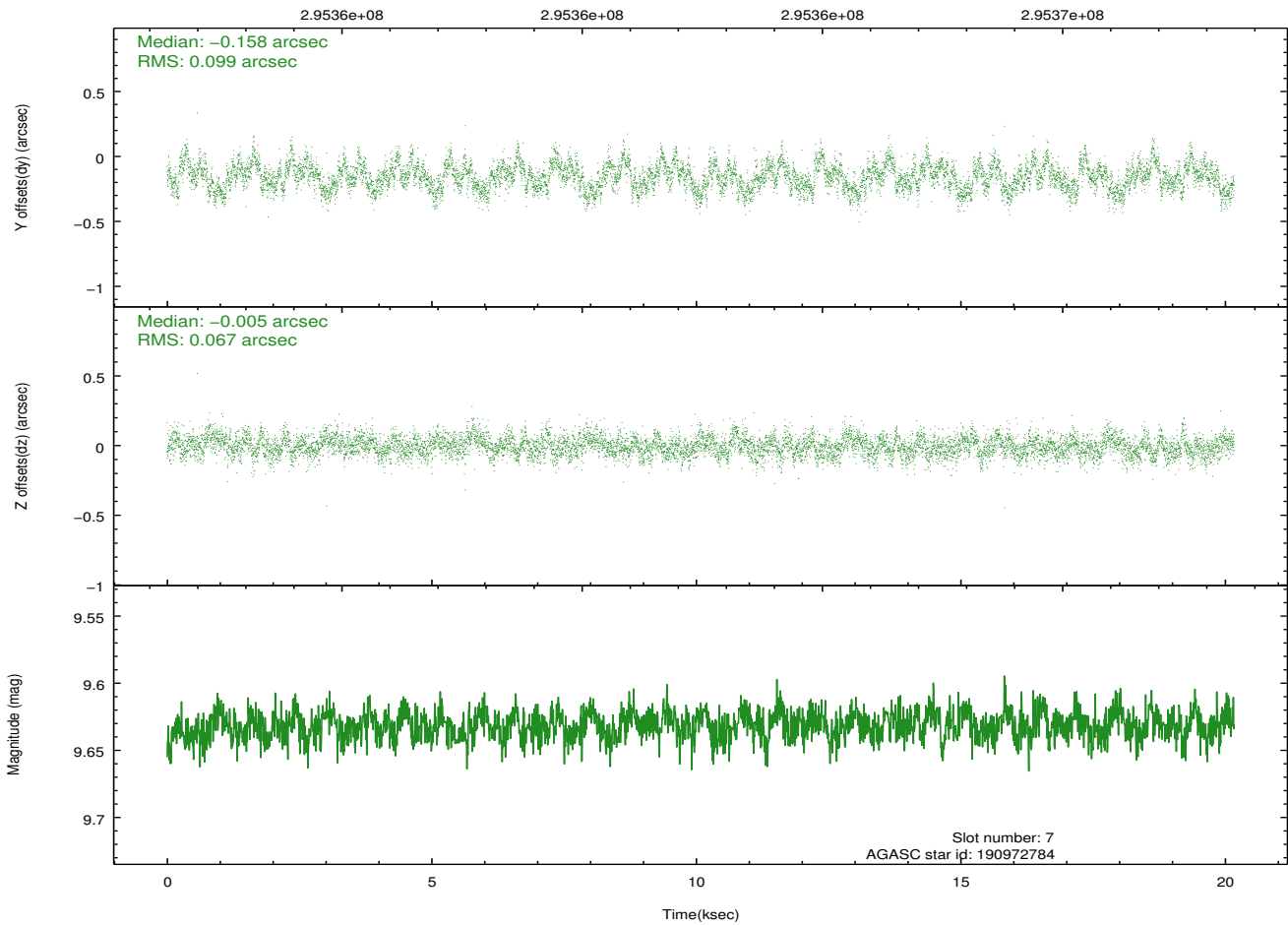
Time (s)



2.4.4 Slot 7

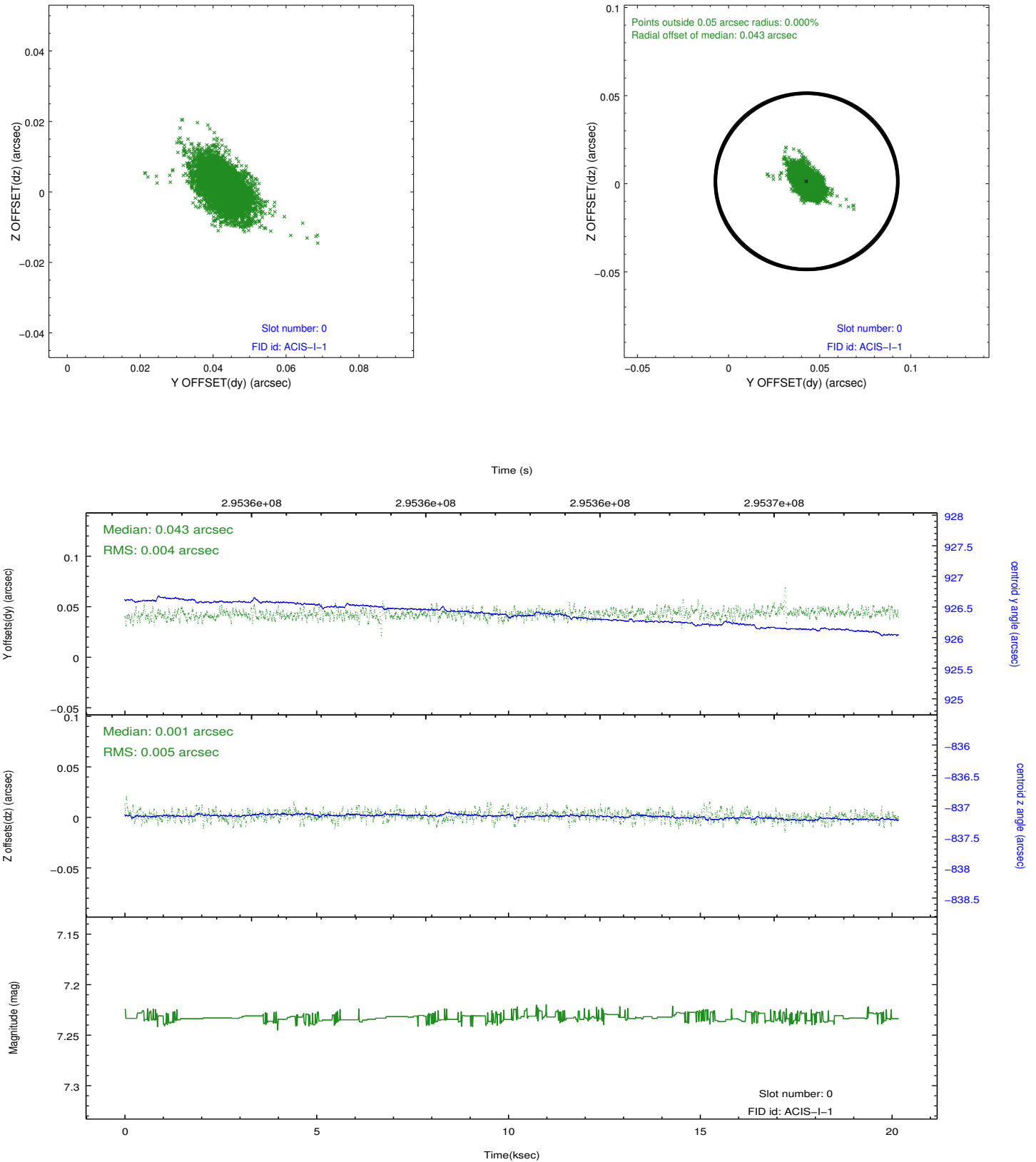


Time (s)

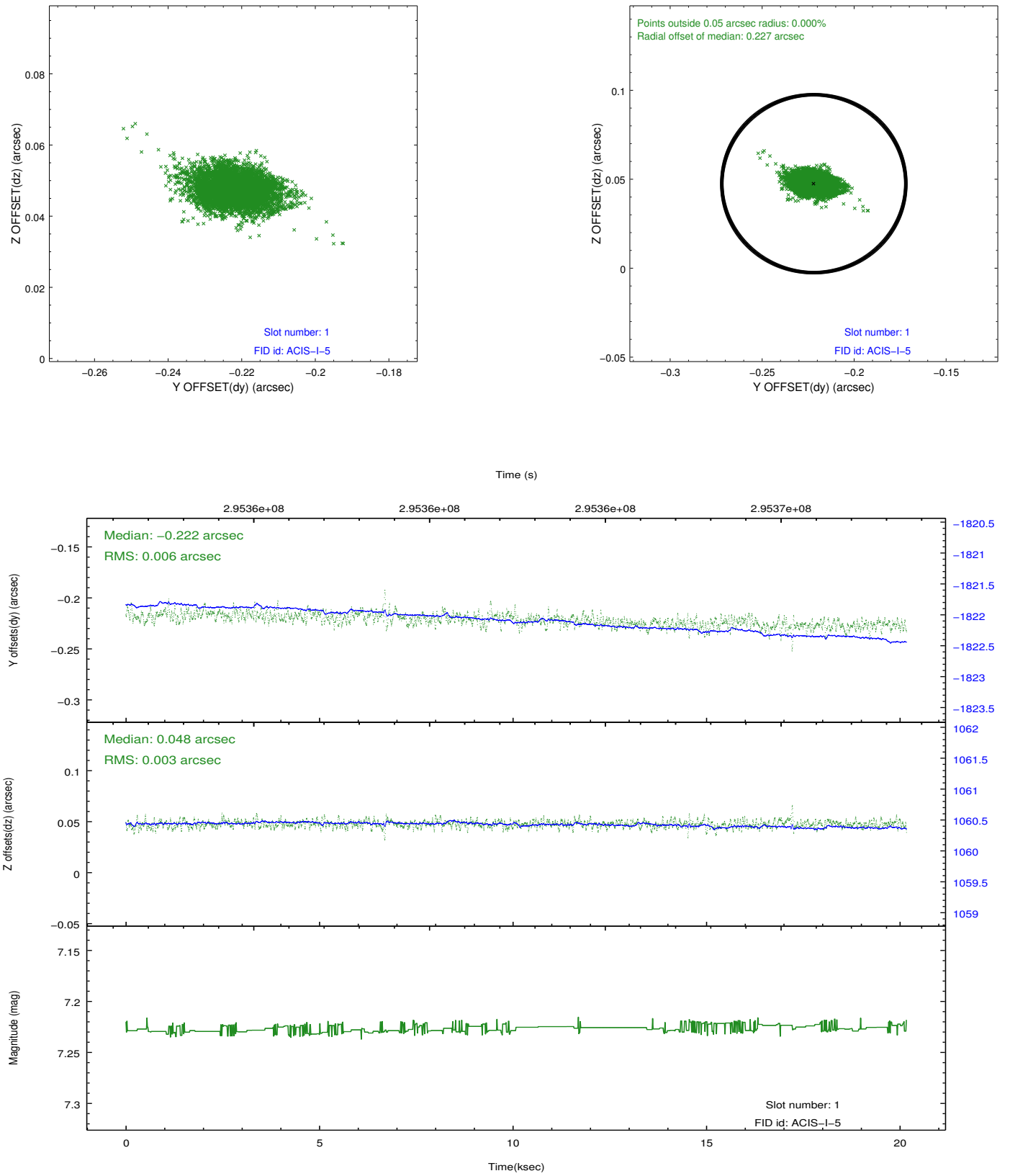


2.5 FID Slots

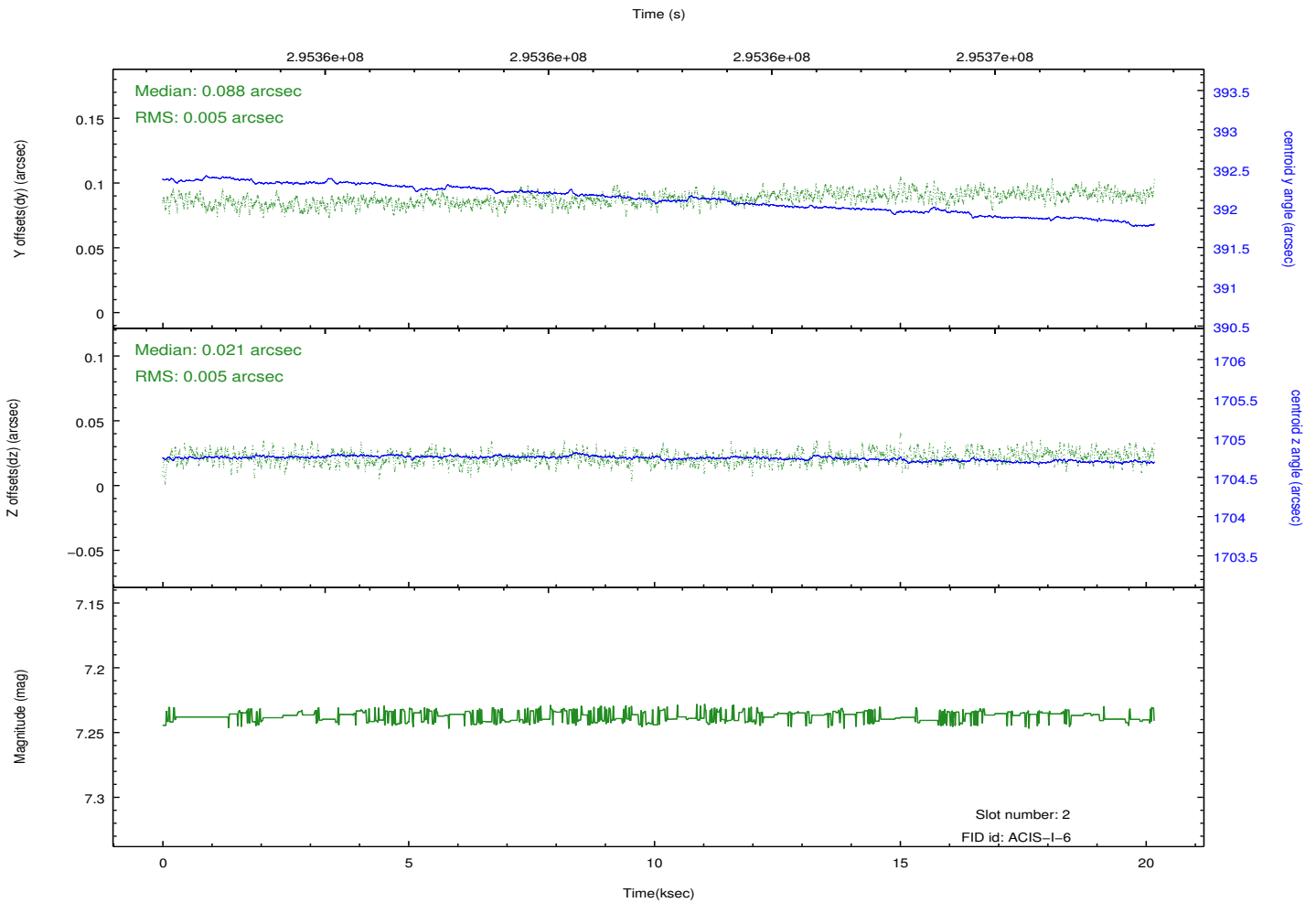
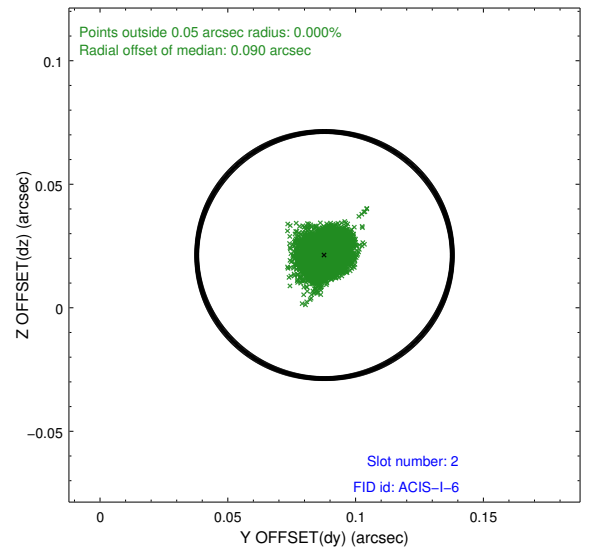
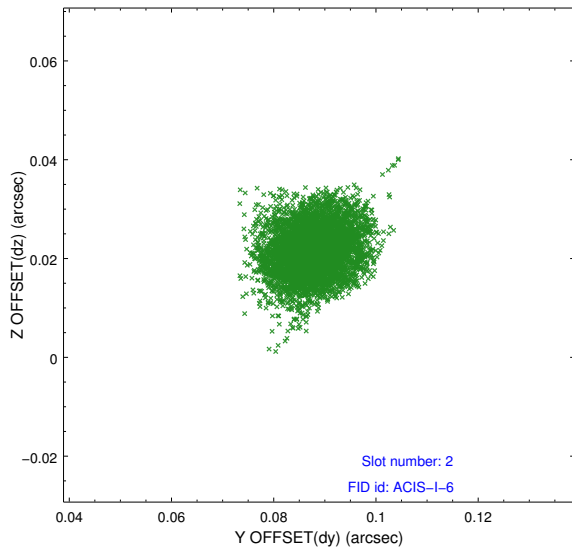
2.5.1 Slot 0



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)	2012.05.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.1663589

A.2 Comments

Window preference met. Roll preference met.

=====

The guide star in slot 6 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.

=====

A spatial region of the original bias map for CCD = 1 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 = 1 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:
(197.26446,21.54070), (197.26264,21.54229), (197.21410,21.49437), (197.21762,21.49447)