

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 5540 - L2 Version 4
Chandra X-Ray Center

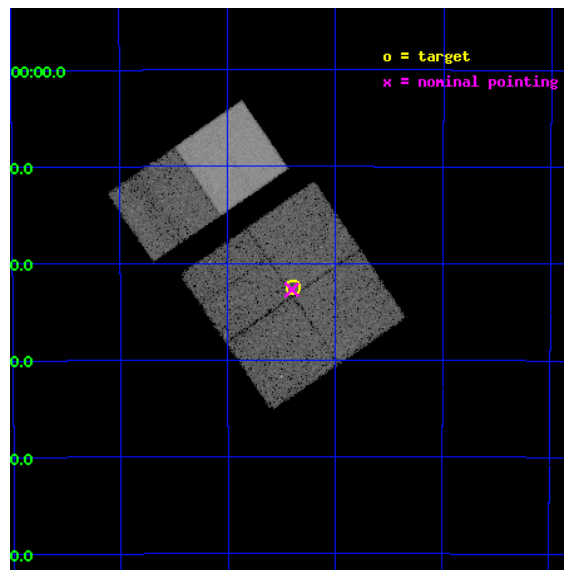
L2 Processing Date : Apr 15 2013

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1 Front

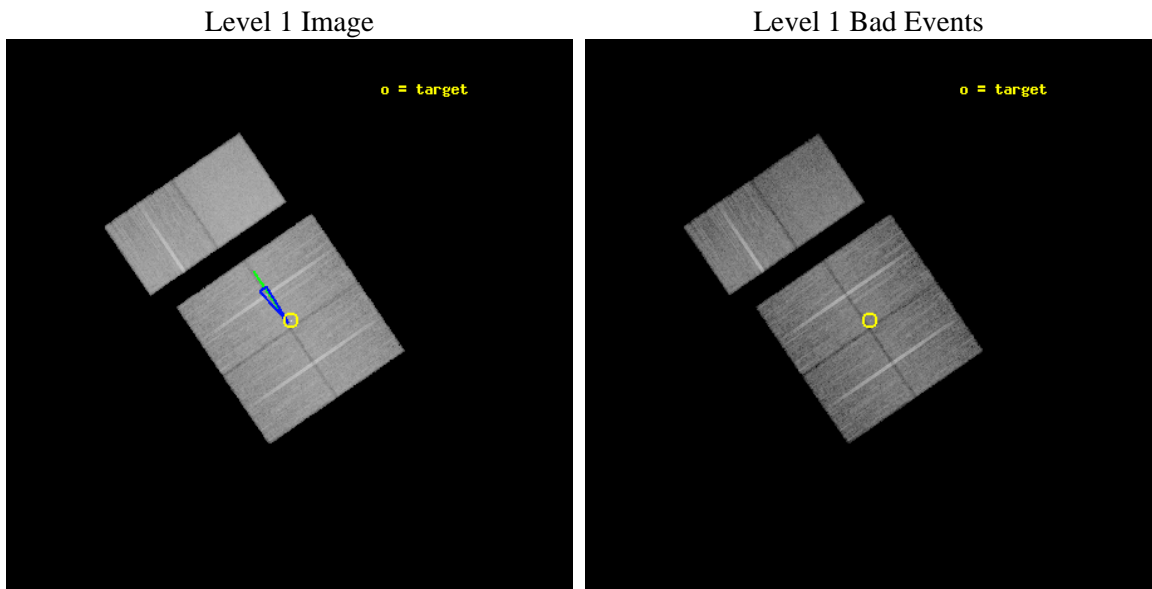
seq_num	500533	Sequence number
obs_id	5540	Observation id
title	Astrometric study of isolated neutron stars	Proposal title
observer	Dr Christian Motch	Principal investigator
object	RX J0806.4-4123	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	121.5975	Observer's specified target RA [deg]
dec_targ	-41.37525	Observer's specified target Dec [deg]
ra_nom	121.6008293576	Nominal RA [deg]
dec_nom	-41.379153035005	Nominal Dec [deg]
roll_nom	325.62701530929	Nominal Roll [deg]
revision	4	Processing version of data
ontime	19958.275635511	Sum of GTIs [s]
livetime	19705.551931983	Livetime [s]
ontime0	19958.152515531	Sum of GTIs [s]
ontime1	19958.193555504	Sum of GTIs [s]
ontime2	19958.234595507	Sum of GTIs [s]
ontime3	19958.275635511	Sum of GTIs [s]
ontime6	19955.116715342	Sum of GTIs [s]
ontime7	19958.316675514	Sum of GTIs [s]
l2events	157246	Number of level 2 events



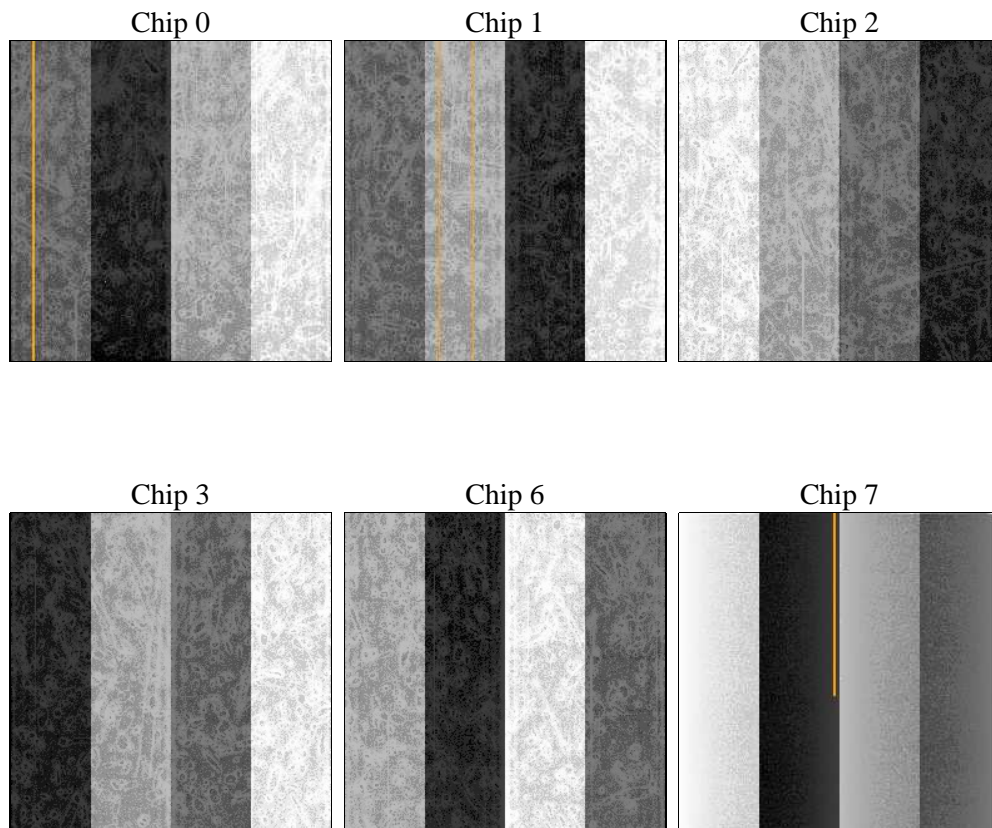
2 OBI

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	8.5.1.1	Processing system revision	ontime	19958.275635511	Sum of GTIs [s]
caldsver	4.5.6	 	ontime0	19958.152515531	Sum of GTIs [s]
date	2013-04-15T20:17:56	Date and time of file creation	ontime1	19958.193555504	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	19958.234595507	Sum of GTIs [s]
			ontime3	19958.275635511	Sum of GTIs [s]
			ontime6	19955.116715342	Sum of GTIs [s]
			ontime7	19958.316675514	Sum of GTIs [s]
			l1events	894631	Number of level 1 events

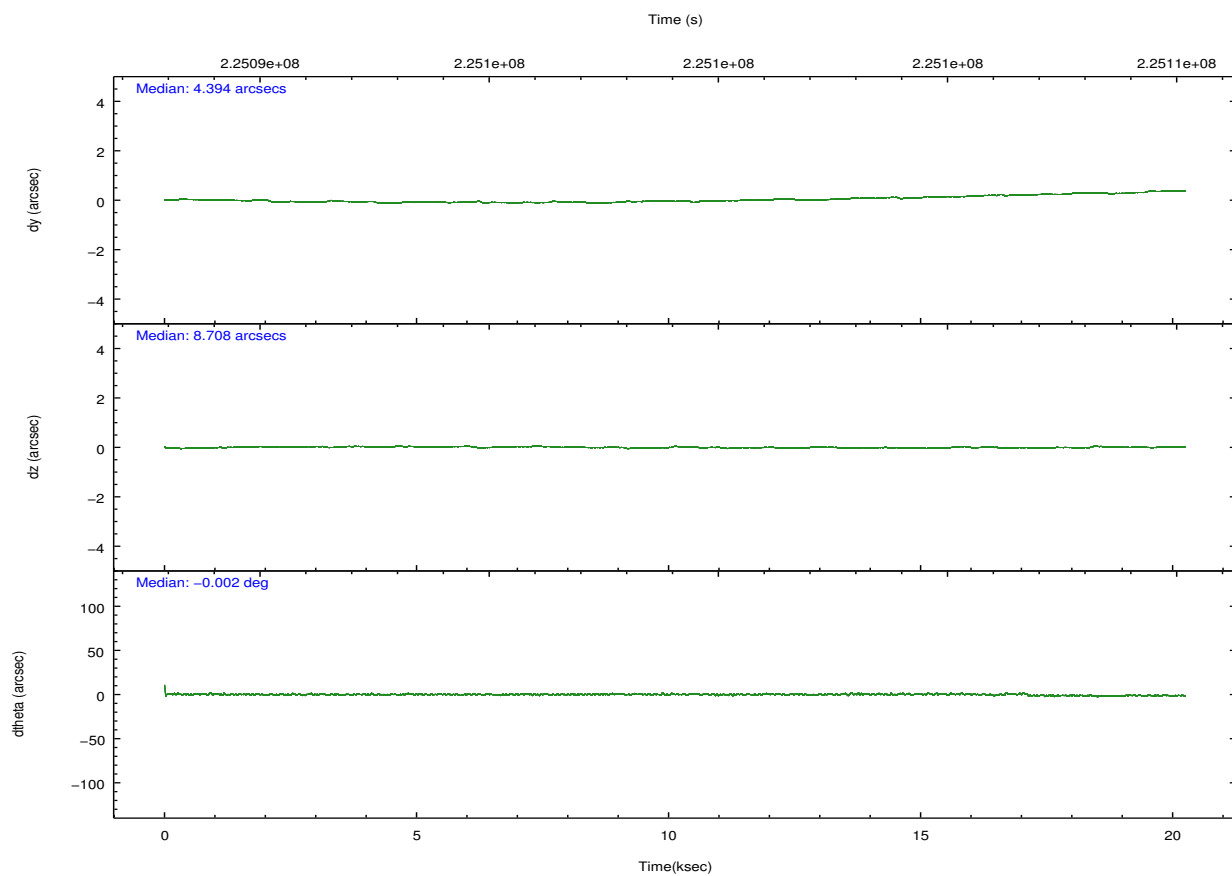
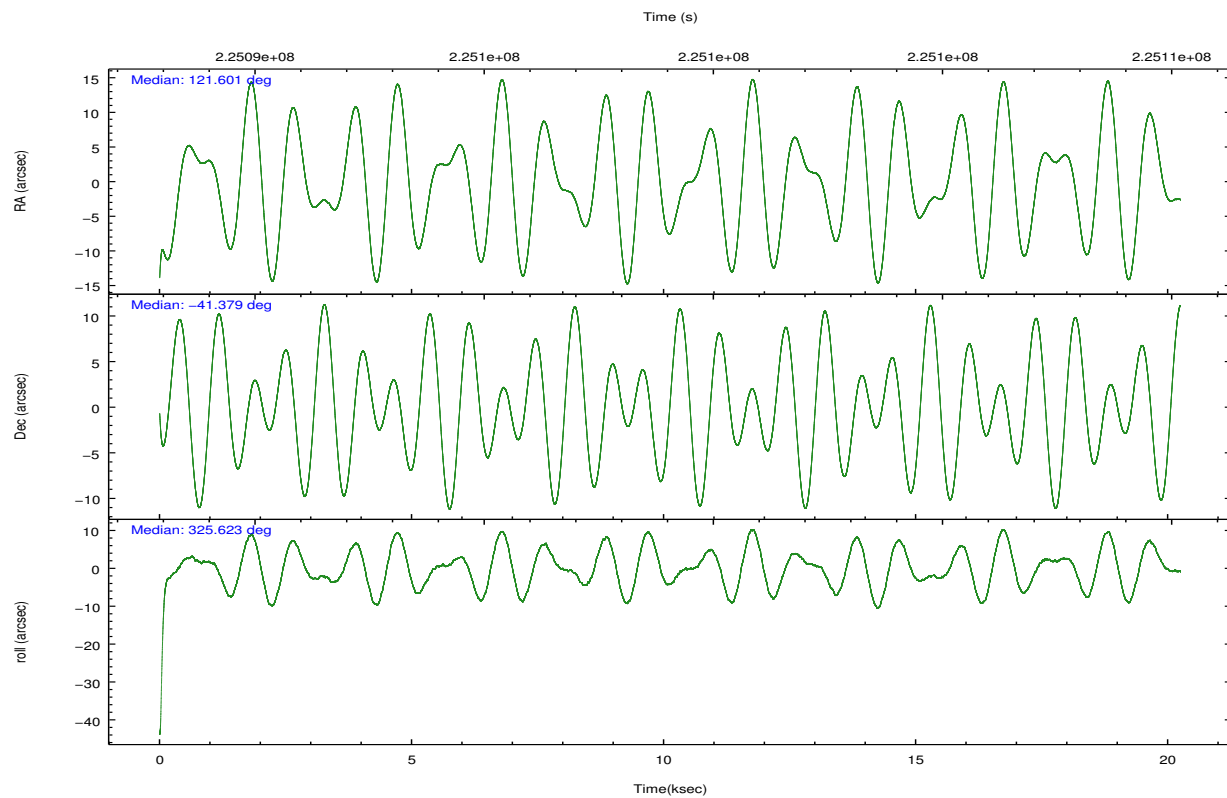
2.1.4 Events

	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	129293	133182	141999	141752	153119	195286	grade 0 events	7749	7314	7733	8458	6948	7162
rejected events	111191	114271	124580	123128	135361	114805		5%	5%	5%	5%	4%	3%
rejected %	85%	85%	87%	86%	88%	58%	grade 1 events	81	89	94	110	85	208
								0%	0%	0%	0%	0%	0%
							grade 2 events	3948	4339	3610	3704	4002	16028
								3%	3%	2%	2%	2%	8%
							grade 3 events	1662	1712	1593	1727	1690	7107
								1%	1%	1%	1%	1%	3%
							grade 4 events	1604	1747	1624	1684	1634	7037
								1%	1%	1%	1%	1%	3%
							grade 5 events	5894	6154	5784	6474	6954	18615
								4%	4%	4%	4%	4%	9%
							grade 6 events	3143	3805	2867	3059	3488	43172
								2%	2%	2%	2%	2%	22%
							grade 7 events	105212	108022	118694	116536	128318	95957
								81%	81%	83%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	121.564440	121.6008293575951	Subarray requested	NONE	NONE
[deg] Pointing Dec	-41.377175	-41.3791530350053	Alternating exposures requested	N	N
[deg] Pointing Roll	325.394294	325.6270153092945	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	322.440000	322.440000			
[deg] Roll tolerance	5.000000	5.000000			
Roll constraint allows 180D rotation	N	N			
[s] Window start time (MET)	223603264.184000	223603264.184000			
[s] Window stop time (MET)	227232004.184000	227232004.184000			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	225089183.184000	225088181.16252			
Observation start date	2005-02-18T04:45:19	2005-02-18T04:29:41			
[s] Observation end time (MET)	225109183.184000	225109775.351			
Observation end date	2005-02-18T10:18:39	2005-02-18T10:29:35			

2.3 Aspect

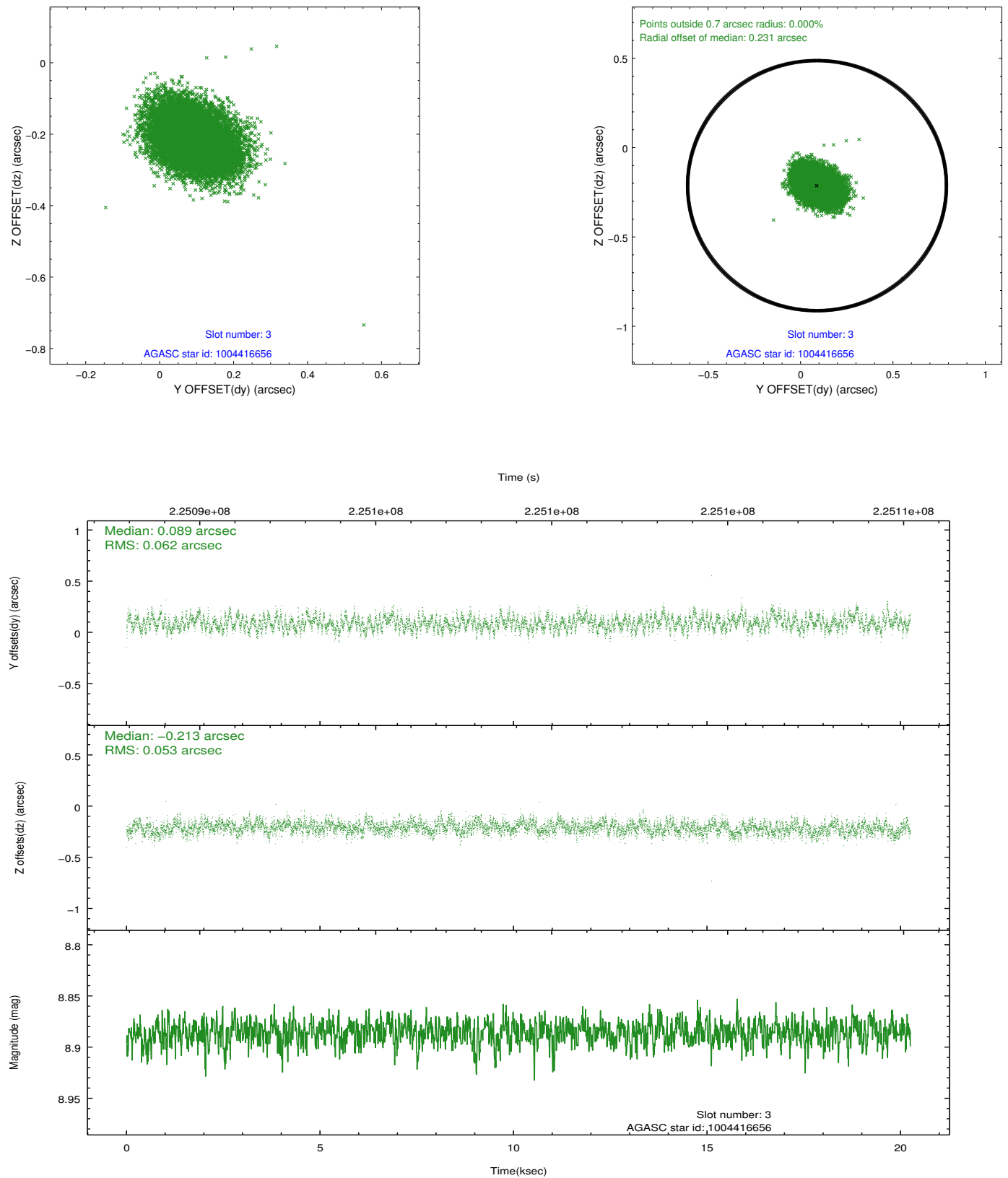


Slot Statistics

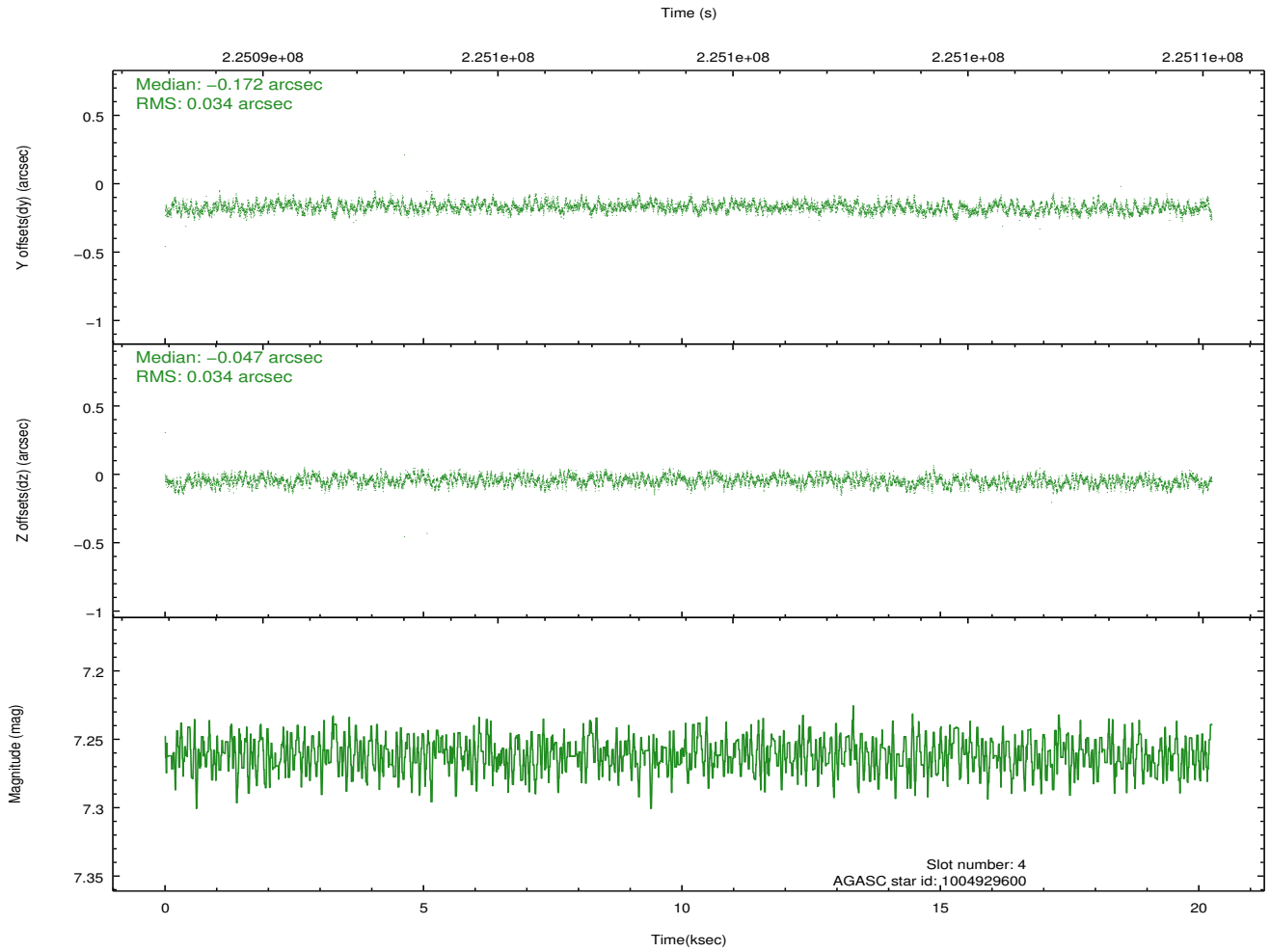
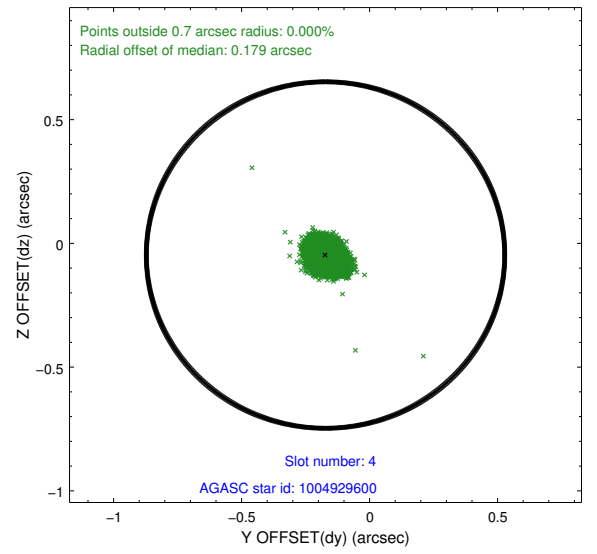
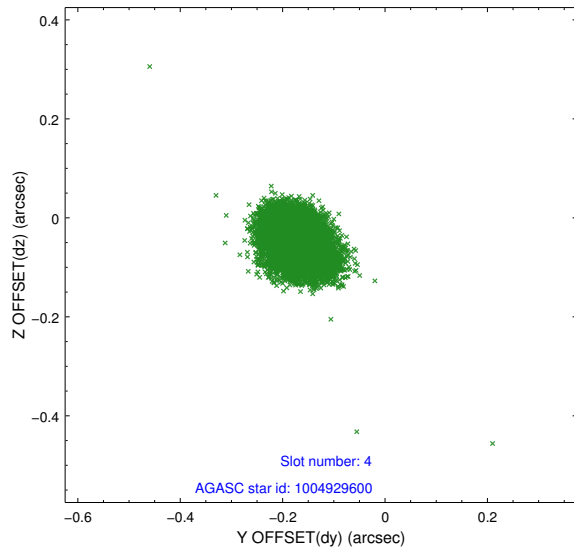
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	4939	-0.011	0.032	0.011	0.019	0.000000	0.000000	935.31	-832.11
1	FID	ACIS-I-4	7.17	4940	0.136	0.007	0.018	0.035	0.000000	0.000000	2155.60	1067.57
2	FID	ACIS-I-5	7.22	4940	-0.223	0.032	0.017	0.038	0.000000	0.000000	-1812.66	1065.67
3	GUIDE	1004416656	8.89	9878	0.089	-0.213	0.086	0.140	121.697217	-40.742577	-998.97	2085.77
4	GUIDE	1004929600	7.26	9880	-0.172	-0.047	0.051	0.082	122.465633	-41.276185	1807.50	1674.06
5	GUIDE	1004973776	7.04	9876	-0.079	0.030	0.041	0.066	121.821280	-41.735378	1301.33	-669.88
6	GUIDE	1004973784	7.64	9880	0.150	0.054	0.069	0.113	121.932741	-41.812272	1704.77	-729.41
7	GUIDE	1004412976	9.36	9863	0.014	0.175	0.080	0.132	120.810429	-41.043846	-2361.00	-182.21

2.4 Star Slots

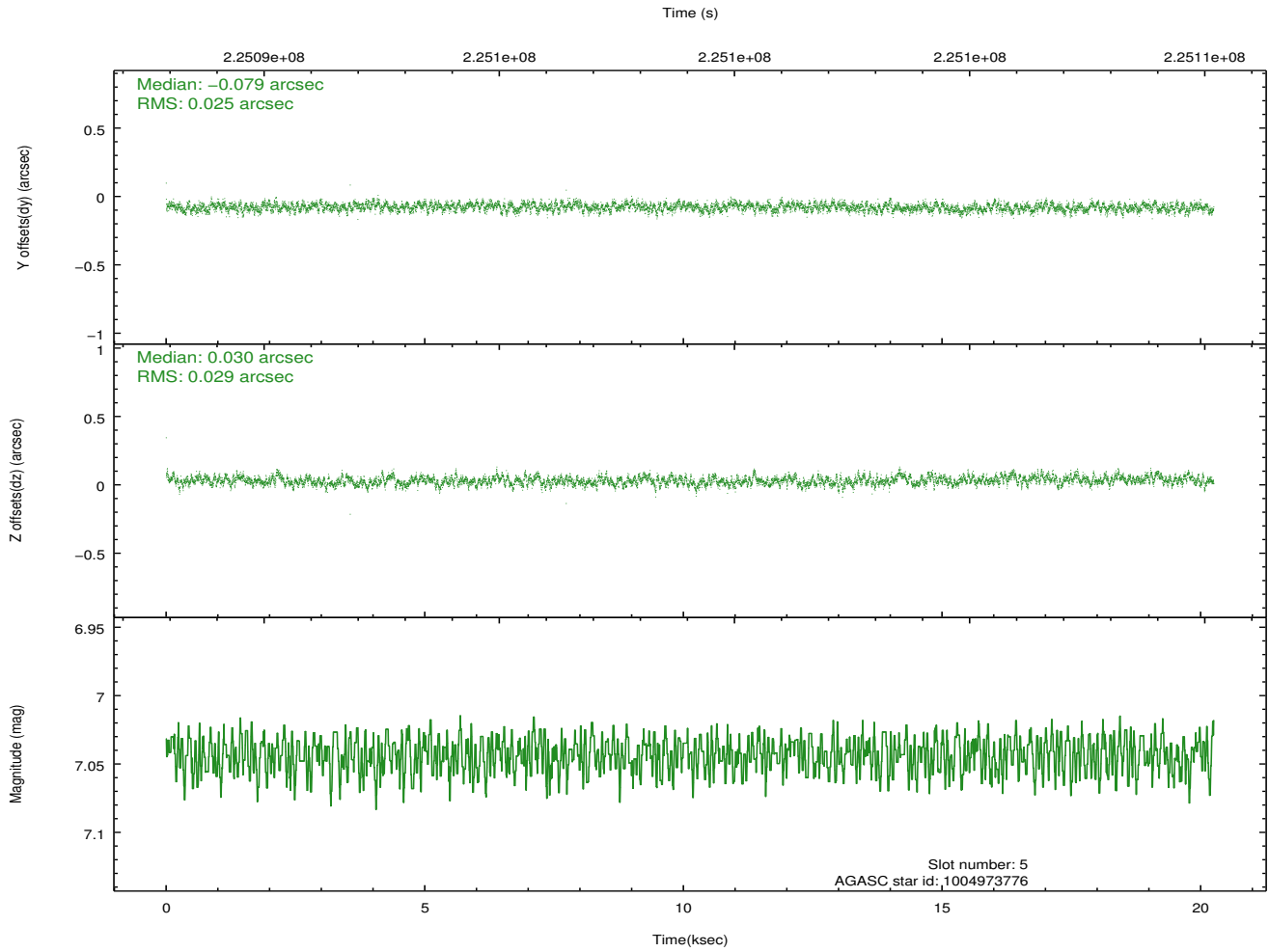
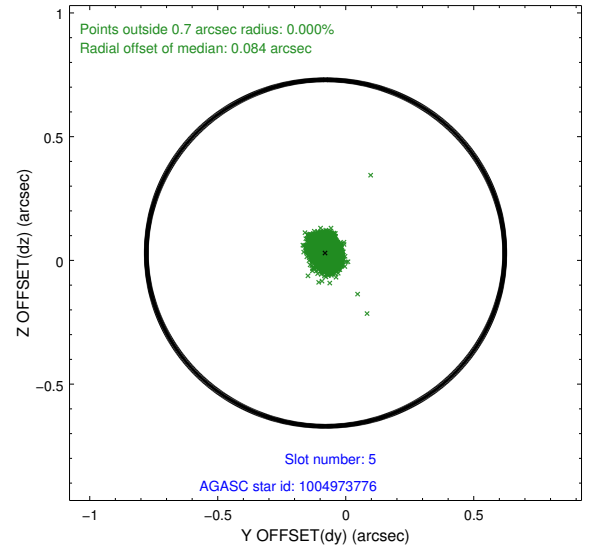
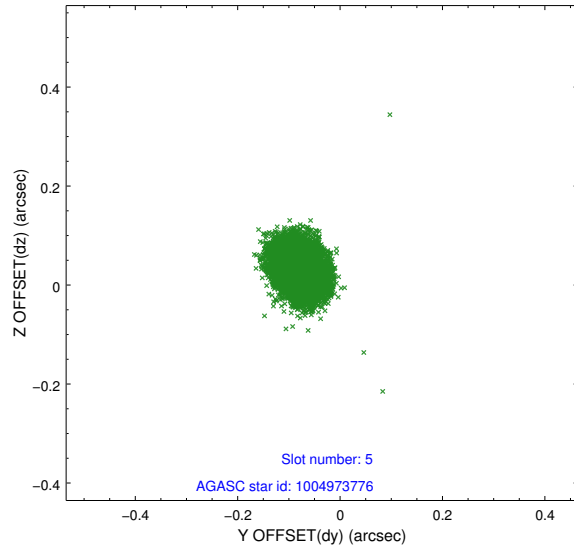
2.4.1 Slot 3



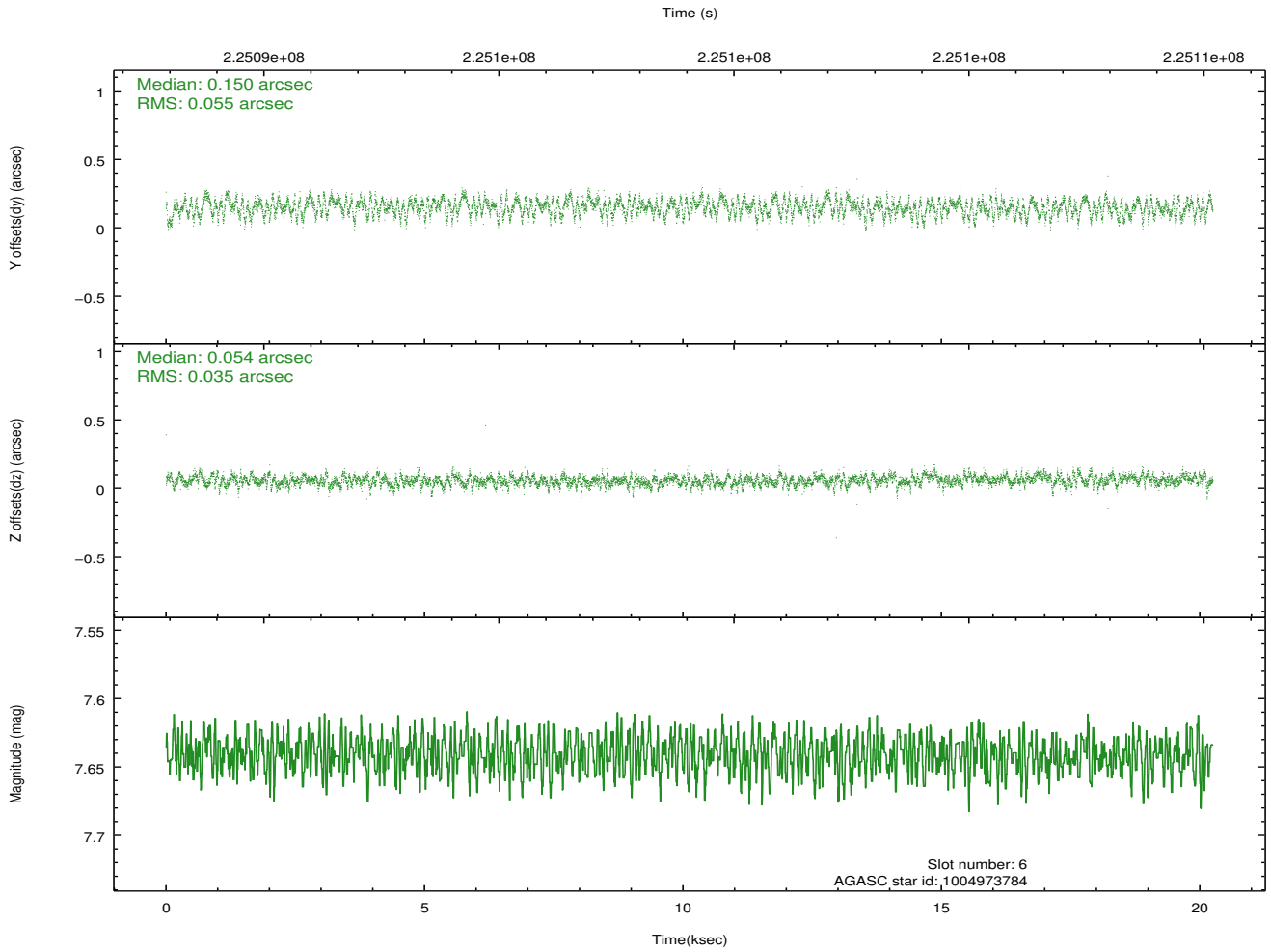
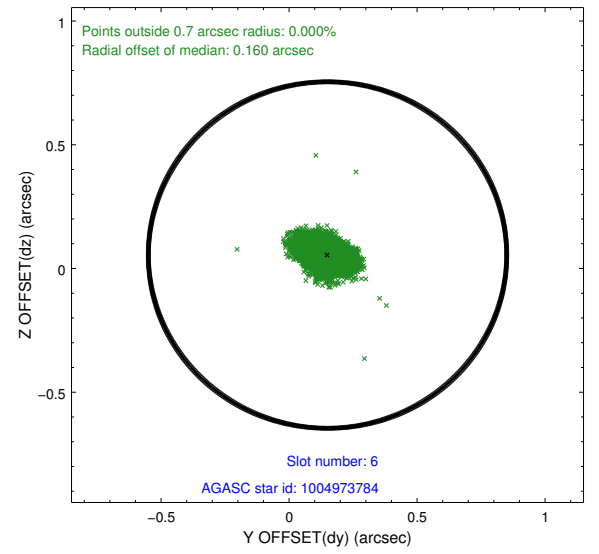
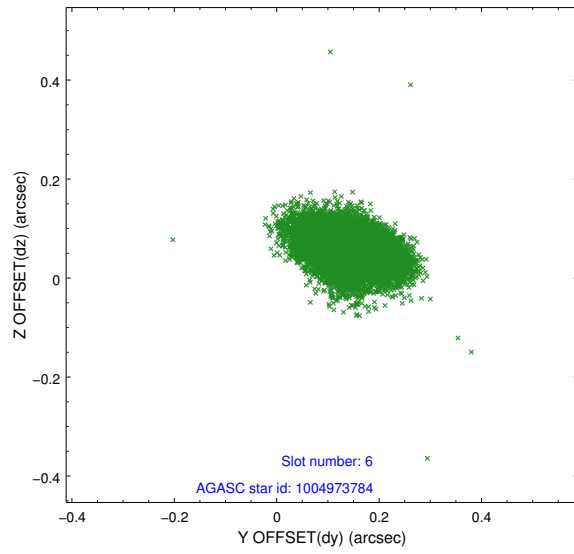
2.4.2 Slot 4



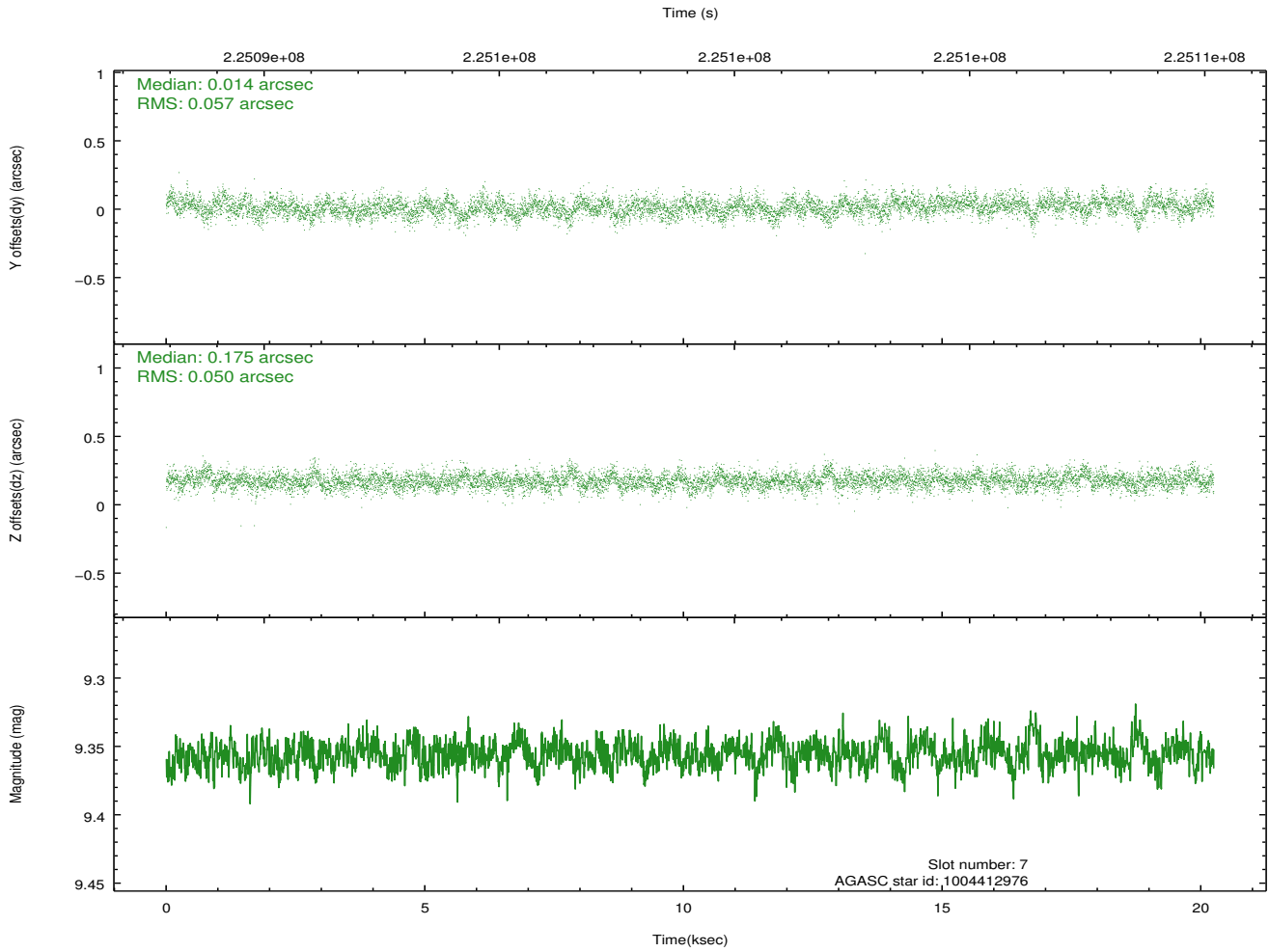
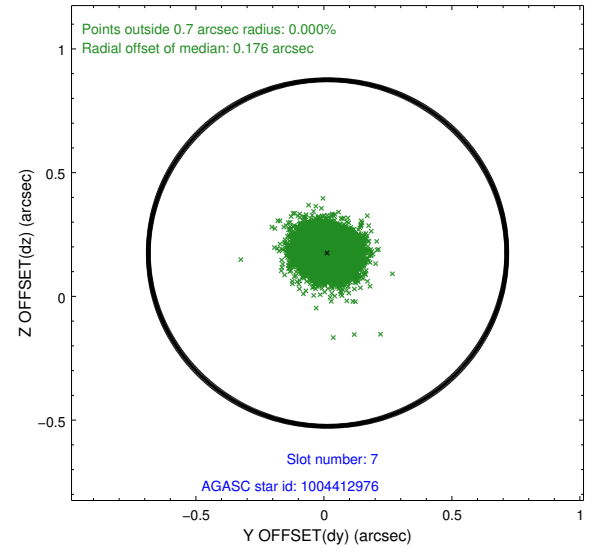
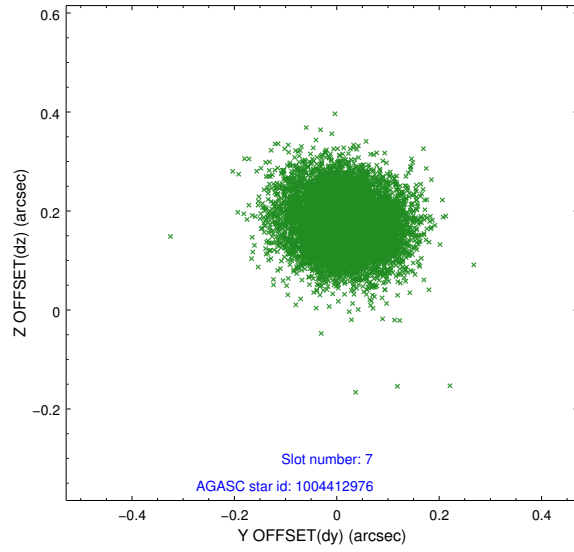
2.4.3 Slot 5



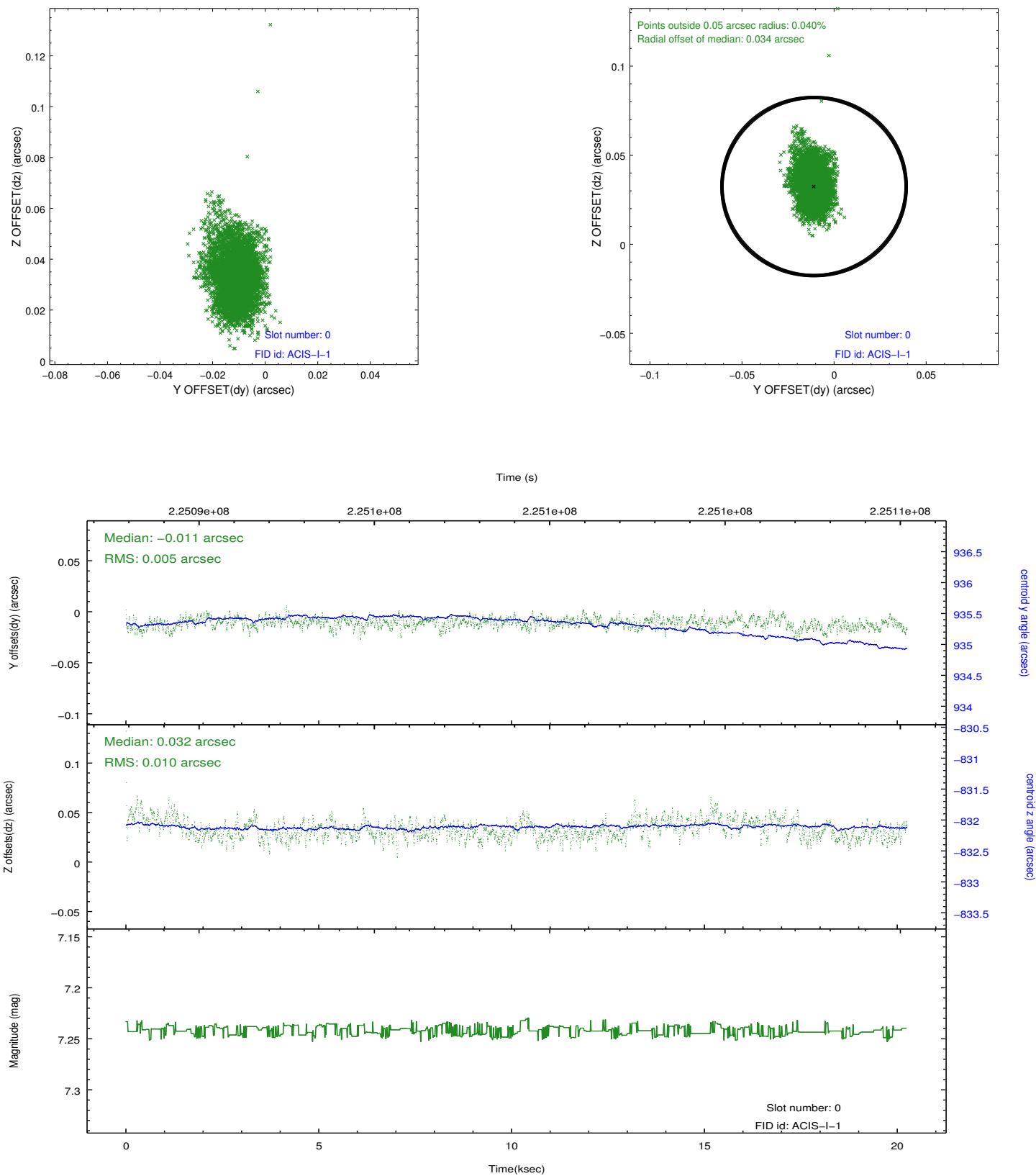
2.4.4 Slot 6



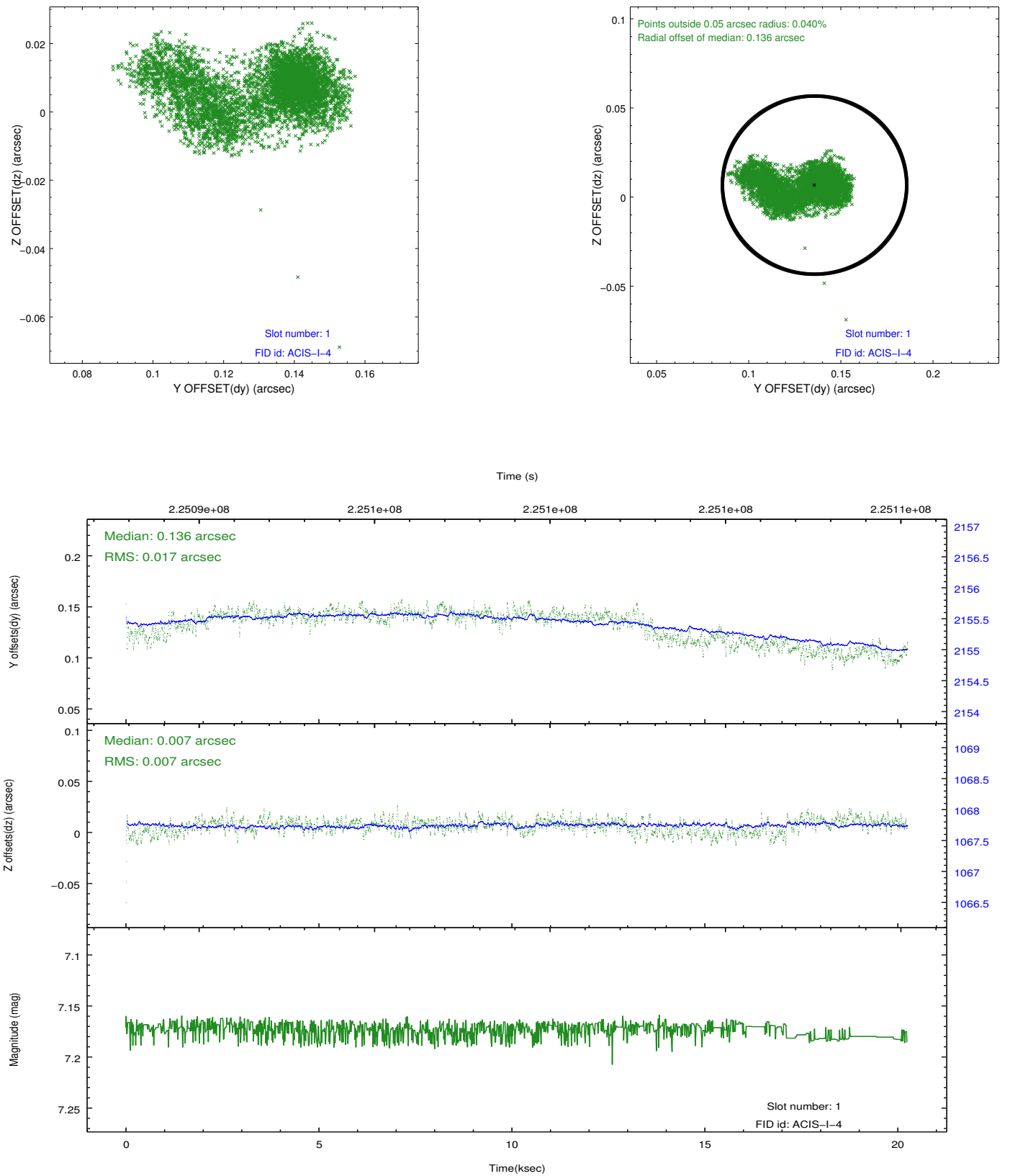
2.4.5 Slot 7



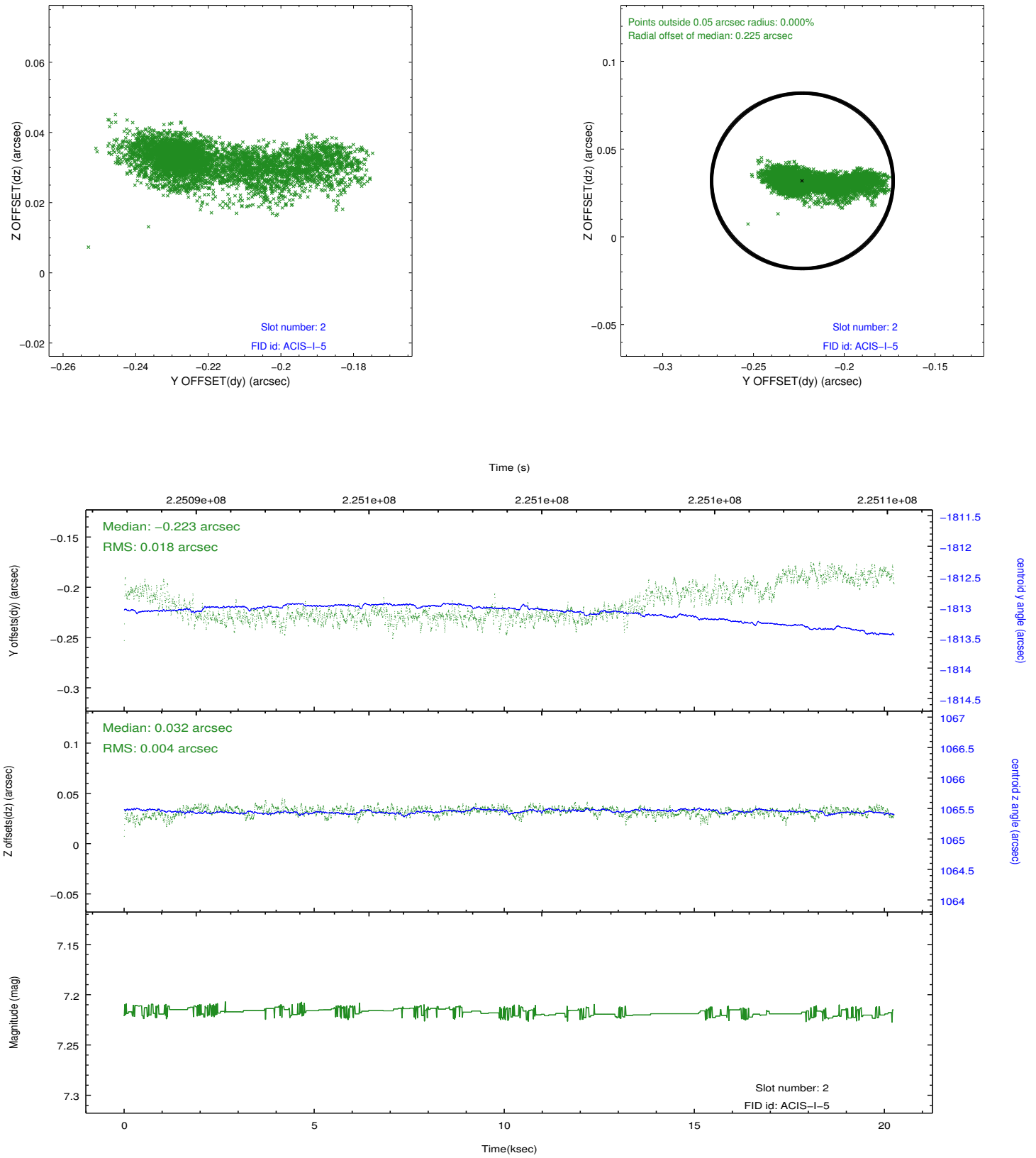
2.5.1 Slot 0



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)	2013.04.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.95839

A.2 Comments

Window and roll constraints satisfied.

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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:
(121.39790,-41.42340),(121.39441,-41.42722),(121.50824,-41.48578),(121.51173,-41.48195)