

V&V Reference Report

L2 ASCDS Version : 10.8.3

Observation 23212 - L2 Version 1
Chandra X-Ray Center

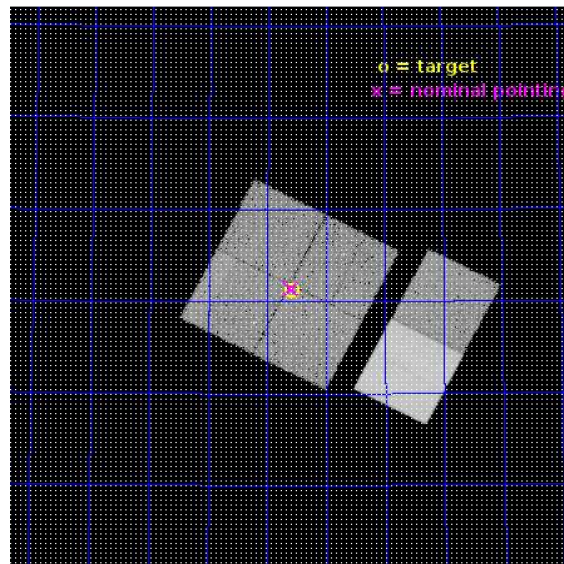
L2 Processing Date : Apr 8 2020

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1 Front

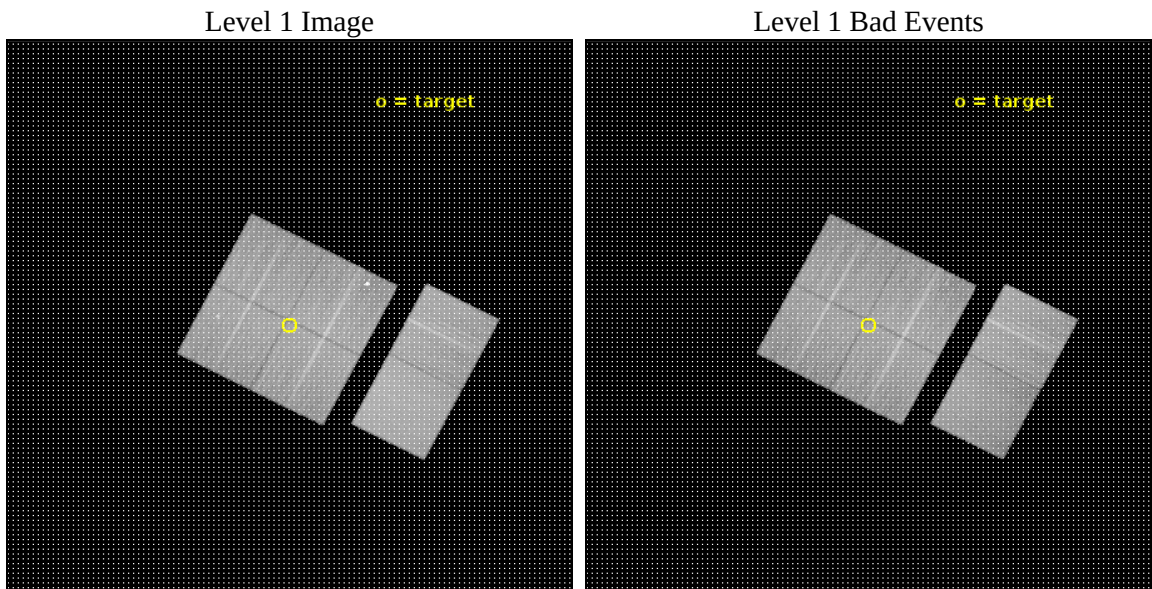
seq_num	901418	Sequence number
obs_id	23212	Observation id
title	Coordinated Ultra-Deep X-ray Monitoring of the JWST-NEP Time Domain Field	Proposal title
observer	Walter Maksym	Principal investigator
object	JWST-DTDF-9	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	260.644167	Observer's specified target RA [deg]
dec_targ	65.854361	Observer's specified target Dec [deg]
ra_nom	260.647677714	Nominal RA [deg]
dec_nom	65.857229928	Nominal Dec [deg]
roll_nom	117.215018119	Nominal Roll [deg]
revision	1	Processing version of data
ontime	29948.348036647	Sum of GTIs [s]
livetime	29569.124021077	Livetime [s]
ontime0	29948.224906683	Sum of GTIs [s]
ontime1	29948.265966654	Sum of GTIs [s]
ontime2	29951.548057079	Sum of GTIs [s]
ontime3	29948.348036647	Sum of GTIs [s]
ontime6	29948.430116773	Sum of GTIs [s]
ontime7	29951.630137086	Sum of GTIs [s]
l2events	232830	Number of level 2 events



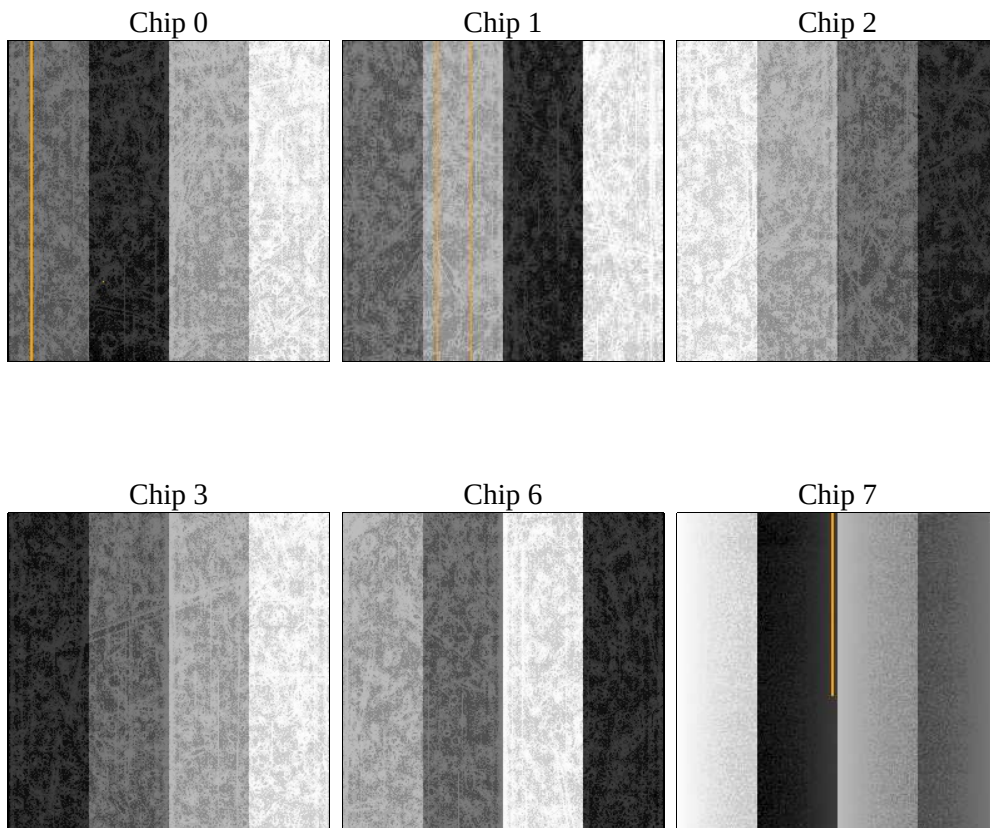
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.8.3	Processing system revision	ontime	29948.348036647	Sum of GTIs [s]
caldsver	4.9.1	 	ontime0	29948.224906683	Sum of GTIs [s]
date	2020-04-08T22:05:31	Date and time of file creation	ontime1	29948.265966654	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	29951.548057079	Sum of GTIs [s]
			ontime3	29948.348036647	Sum of GTIs [s]
			ontime6	29948.430116773	Sum of GTIs [s]
			ontime7	29951.630137086	Sum of GTIs [s]
			l1events	1459135	Number of level 1 events

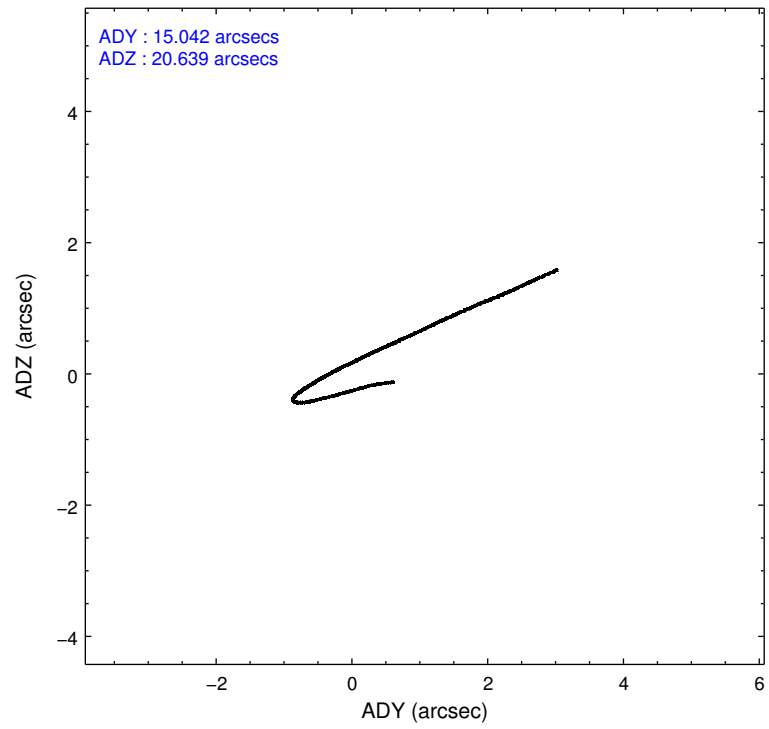
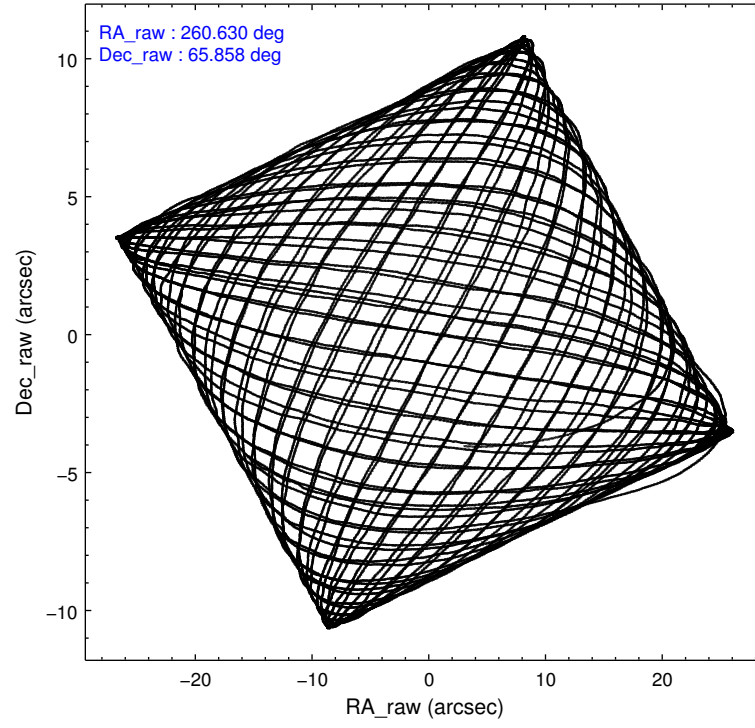
2.1.4 Events

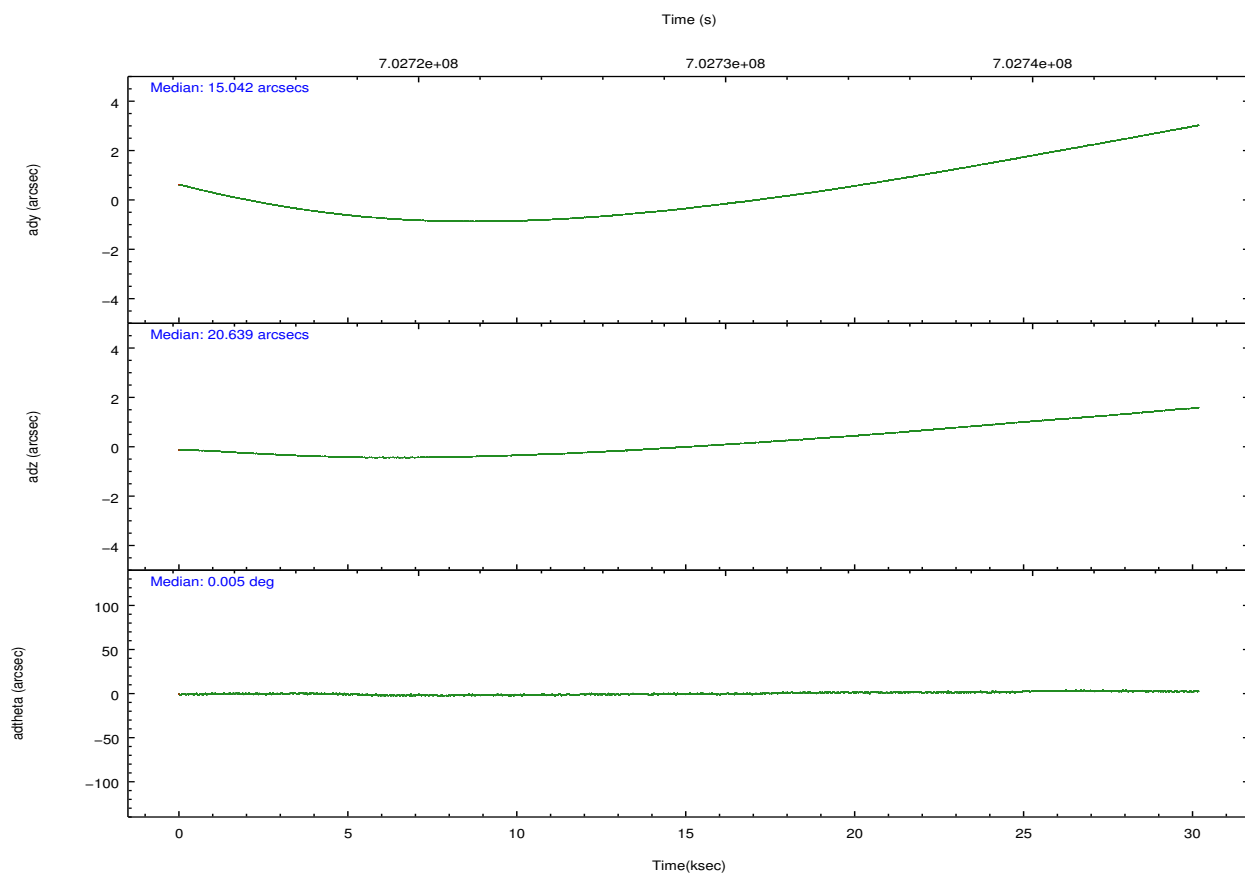
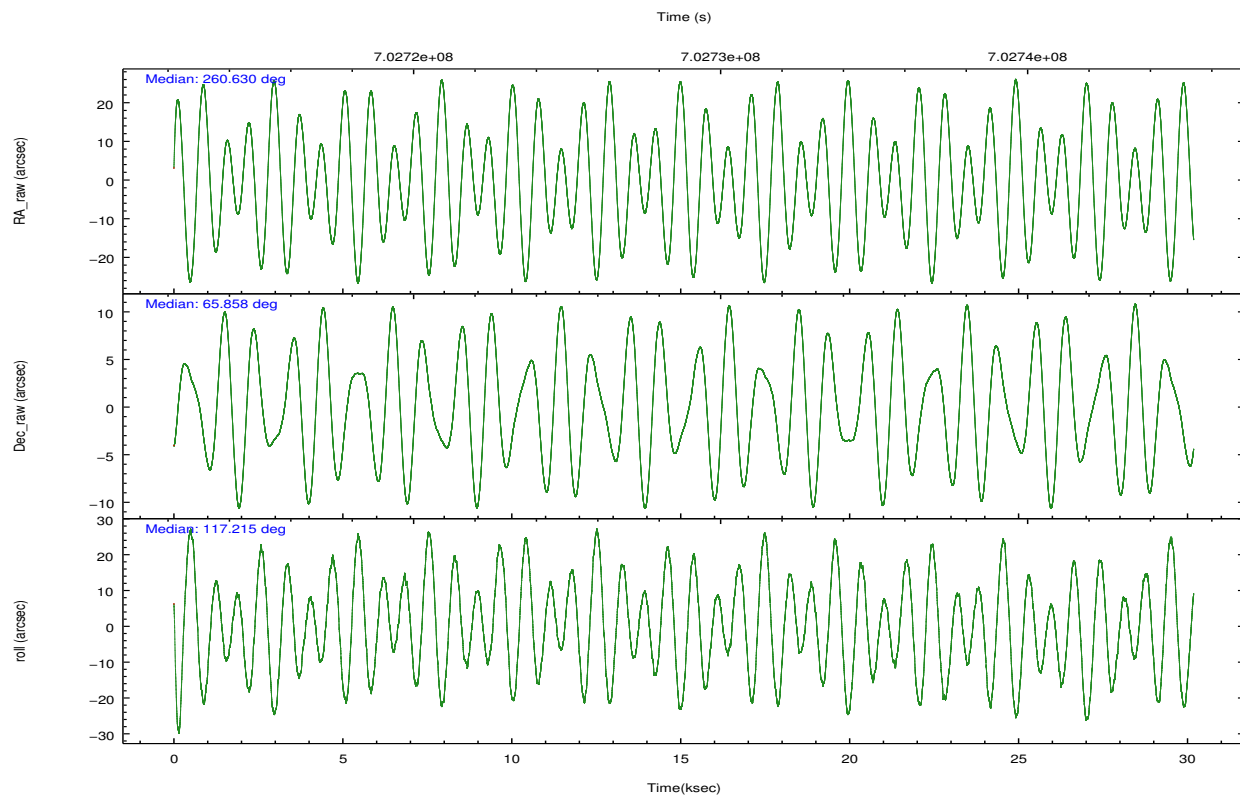
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	213098	220352	245470	227843	251984	300388	grade 0 events	8057	9986	17230	8227	8000	10530
rejected events	188310	191025	212575	203958	225562	171233		3%	4%	7%	3%	3%	3%
rejected %	88%	86%	86%	89%	89%	57%	grade 1 events	110	121	184	116	122	460
								0%	0%	0%	0%	0%	0%
							grade 2 events	6497	7837	5845	5393	7121	27740
								3%	3%	2%	2%	2%	9%
							grade 3 events	2439	2367	2430	2578	2275	9699
								1%	1%	0%	1%	0%	3%
							grade 4 events	2216	2273	2412	2489	2274	9523
								1%	1%	0%	1%	0%	3%
							grade 5 events	9334	9482	8770	10674	10289	28898
								4%	4%	3%	4%	4%	9%
							grade 6 events	5580	6868	4985	5201	6756	71678
								2%	3%	2%	2%	2%	23%
							grade 7 events	178865	181418	203614	193165	215147	141860
								83%	82%	82%	84%	85%	47%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	260.686257	260.647677714	CCD I2 on	Y	Y
[deg] Pointing Dec	65.843528	65.857229928	CCD I3 on	Y	Y
[deg] Pointing Roll	116.961593	117.215018119	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)	702713908.184000	702712824.5446	CCD S5 on	N	N
Observation start date	2020-04-08T06:17:19	2020-04-08T06:00:24	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	702743908.184000	702744708.19653	On-chip summing requested	N	N
Observation end date	2020-04-08T14:37:19	2020-04-08T14:51:48	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



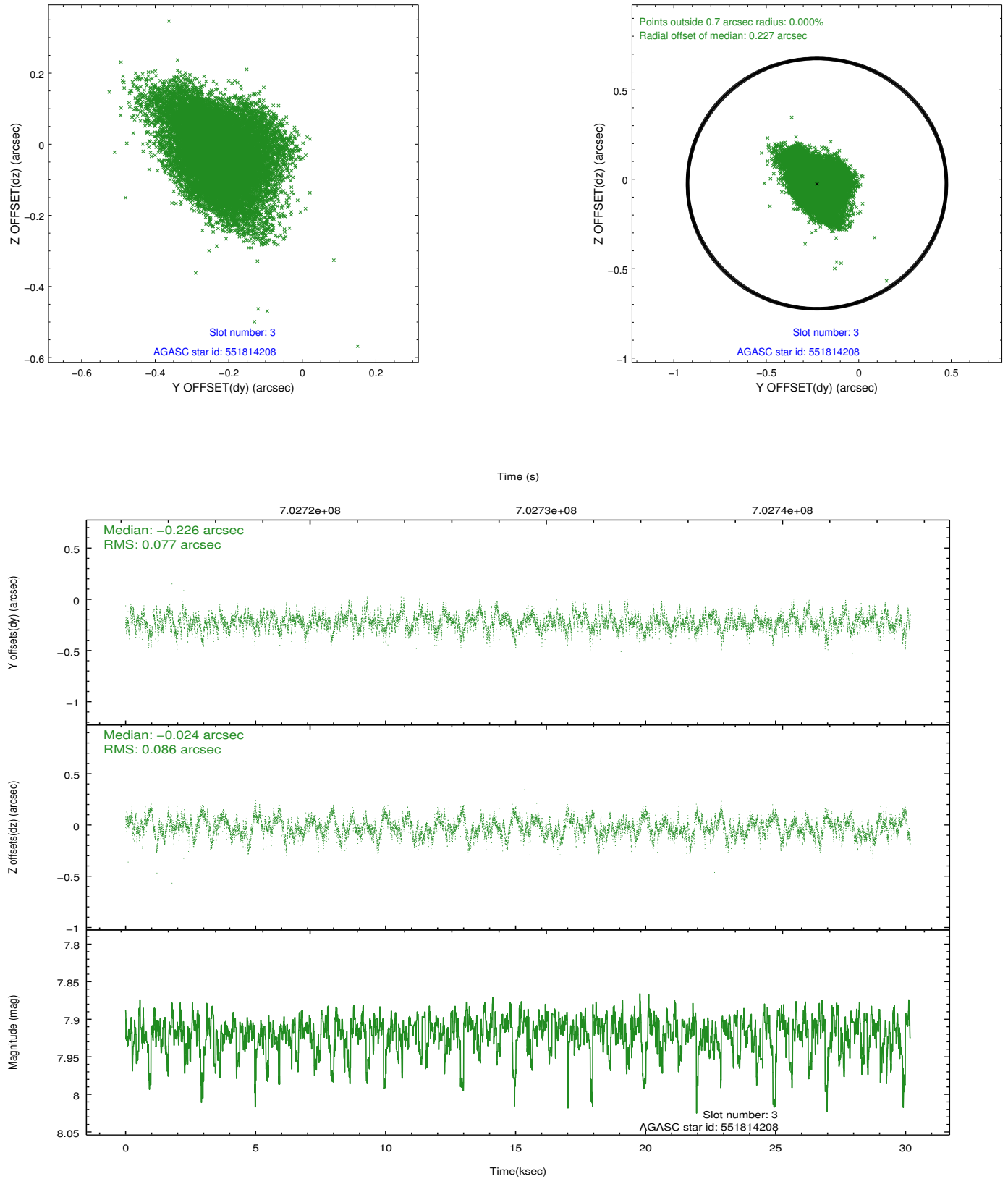


Slot Statistics

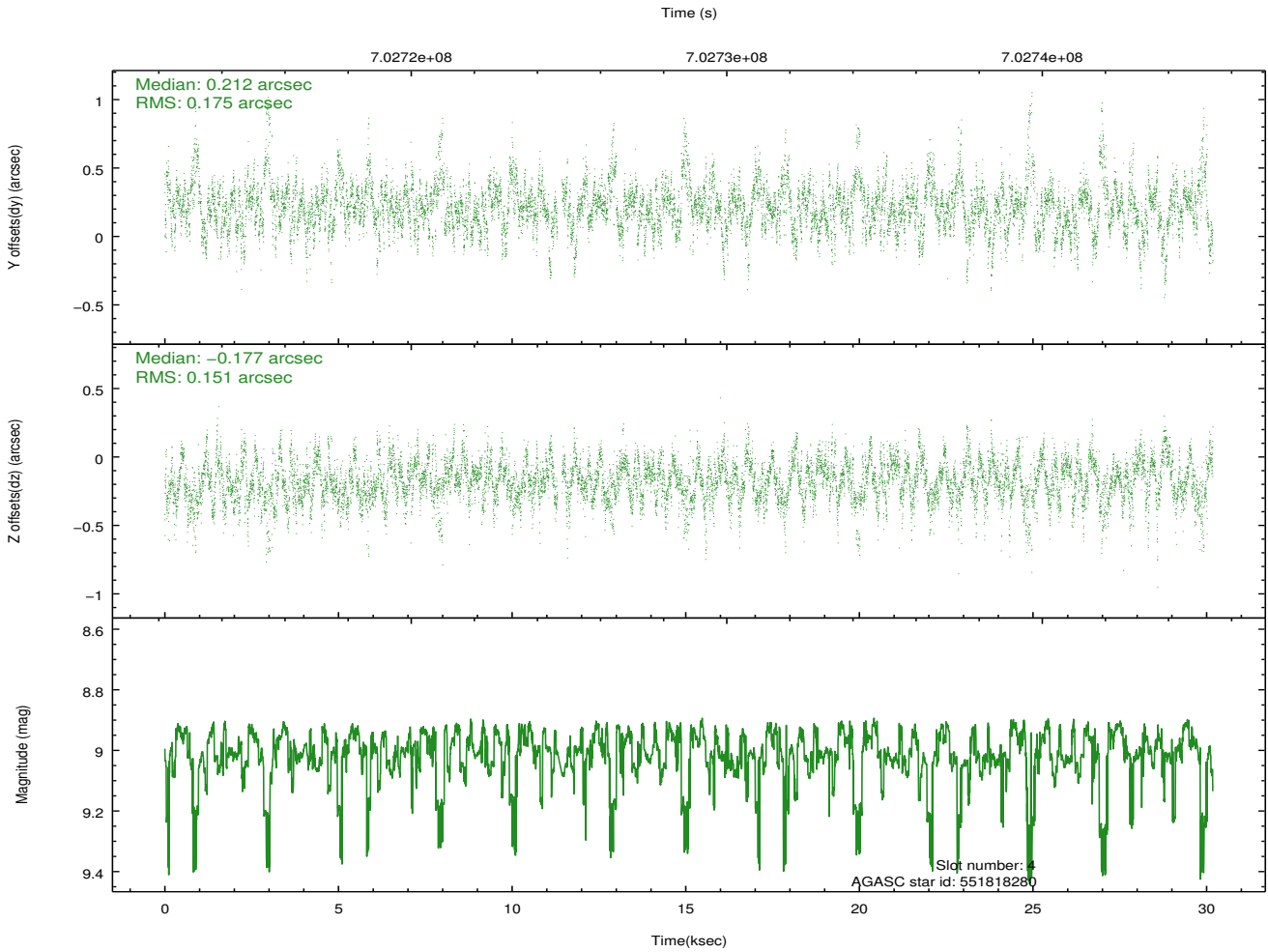
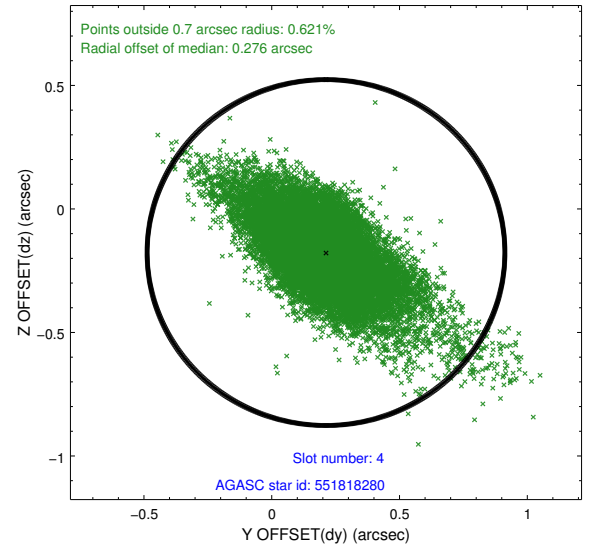
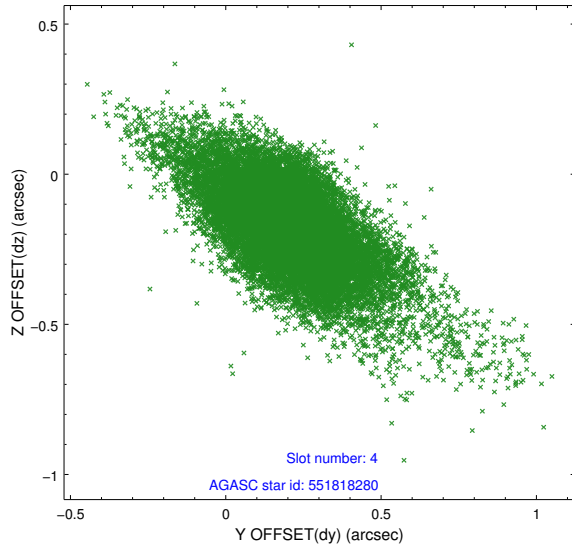
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.23	7362	1.000	0.263	-0.172	0.022	0.034	0.000000	0.000000	924.20	-844
1	FID		ACIS-I-5	7.22	7362	1.000	-0.320	0.228	0.021	0.036	0.000000	0.000000	-1824.22	1053
2	FID		ACIS-I-6	7.23	7362	1.000	-0.035	0.013	0.015	0.037	0.000000	0.000000	389.67	1697
3	GUIDE	used	551814208	7.92	14722	1.000	-0.226	-0.024	0.121	0.203	260.175311	65.639944	-306.41	1007
4	GUIDE	used	551818280	9.01	14503	1.000	0.212	-0.177	0.222	0.432	261.229817	66.633852	2187.20	-1982
5	GUIDE	used	551819264	8.45	14651	1.000	-0.207	-0.293	0.122	0.194	258.796618	66.086633	2068.18	2042
6	GUIDE	used	551951232	7.93	14717	1.000	-0.007	0.258	0.094	0.164	262.419848	65.894071	-960.52	-2369
7	GUIDE	used	551952296	8.73	14706	1.000	0.231	0.240	0.124	0.207	261.999680	65.847021	-847.42	-1738

2.4 Star Slots

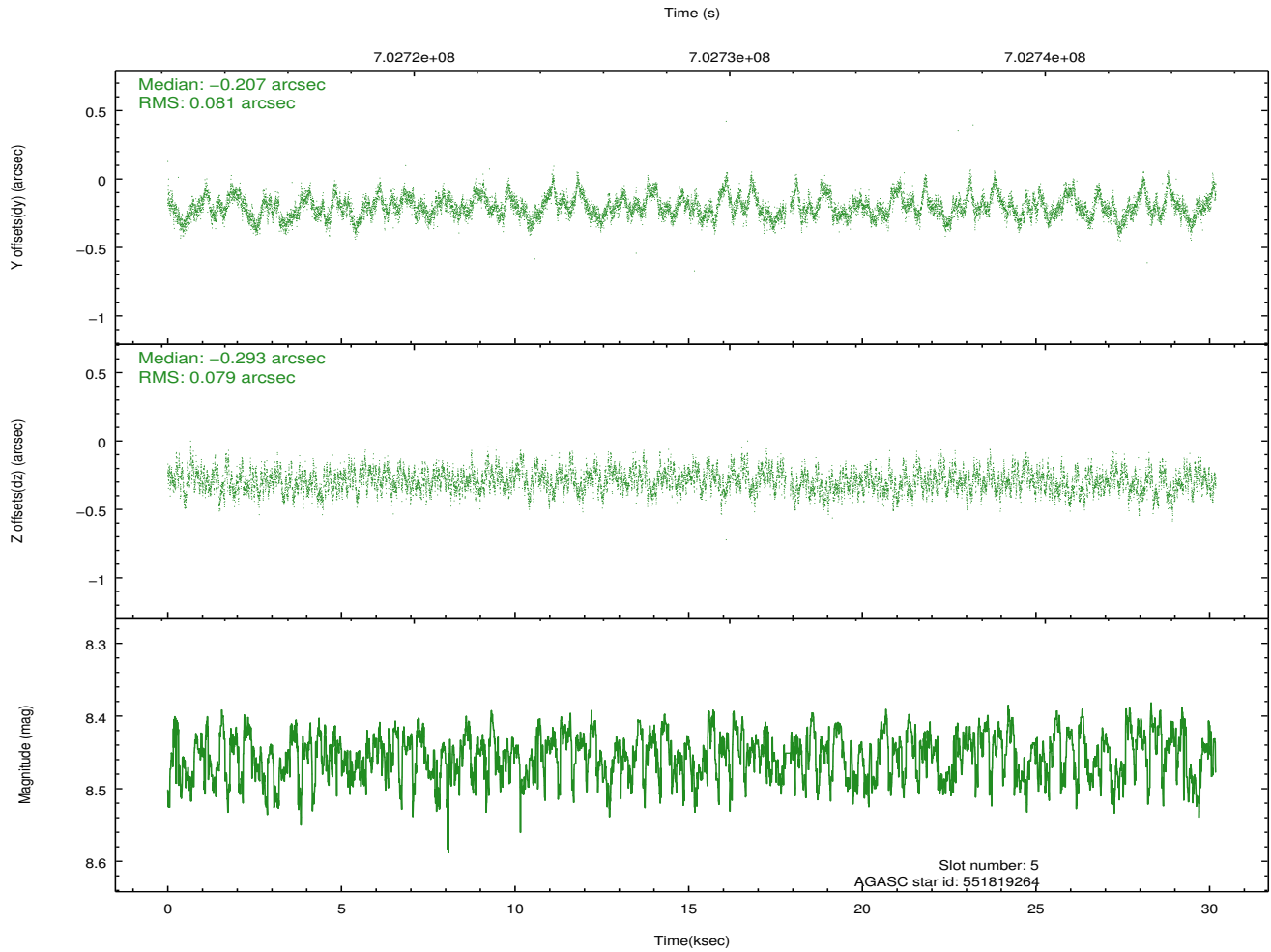
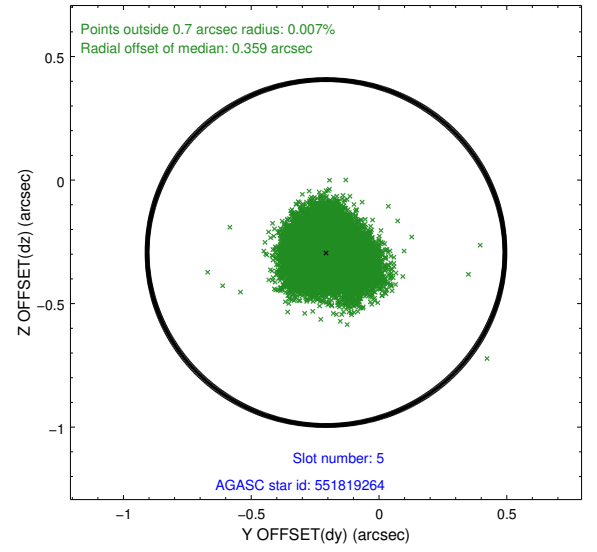
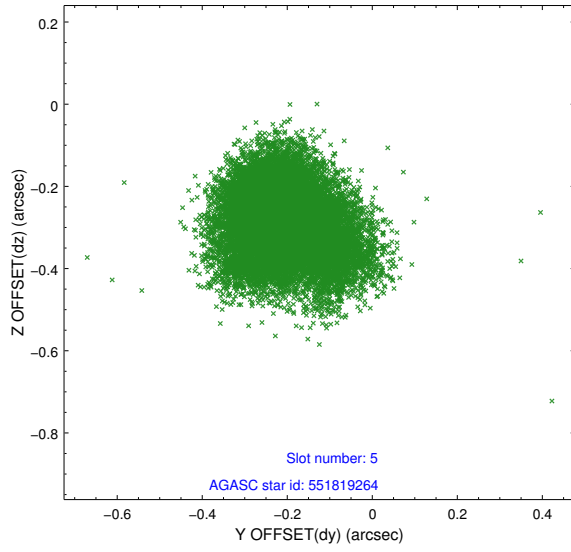
2.4.1 Slot 3



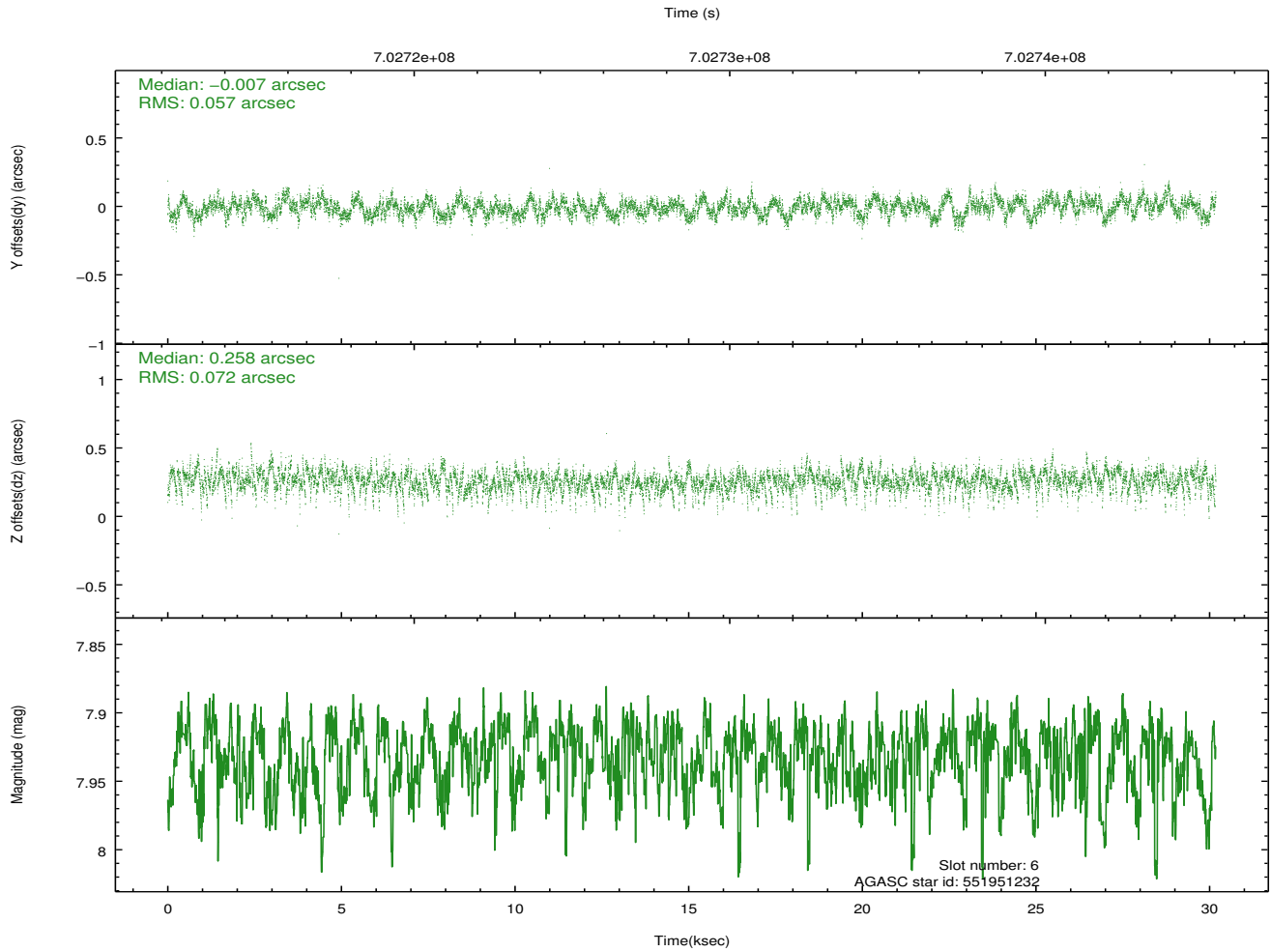
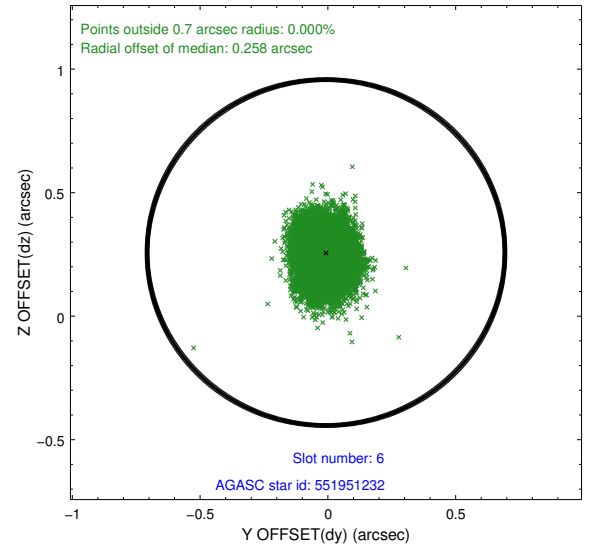
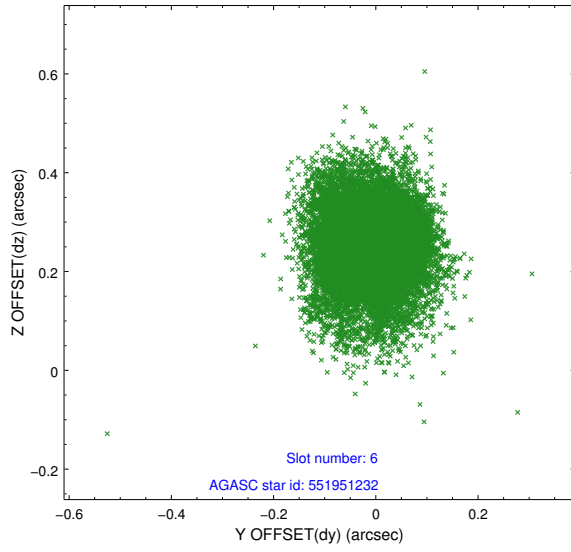
2.4.2 Slot 4



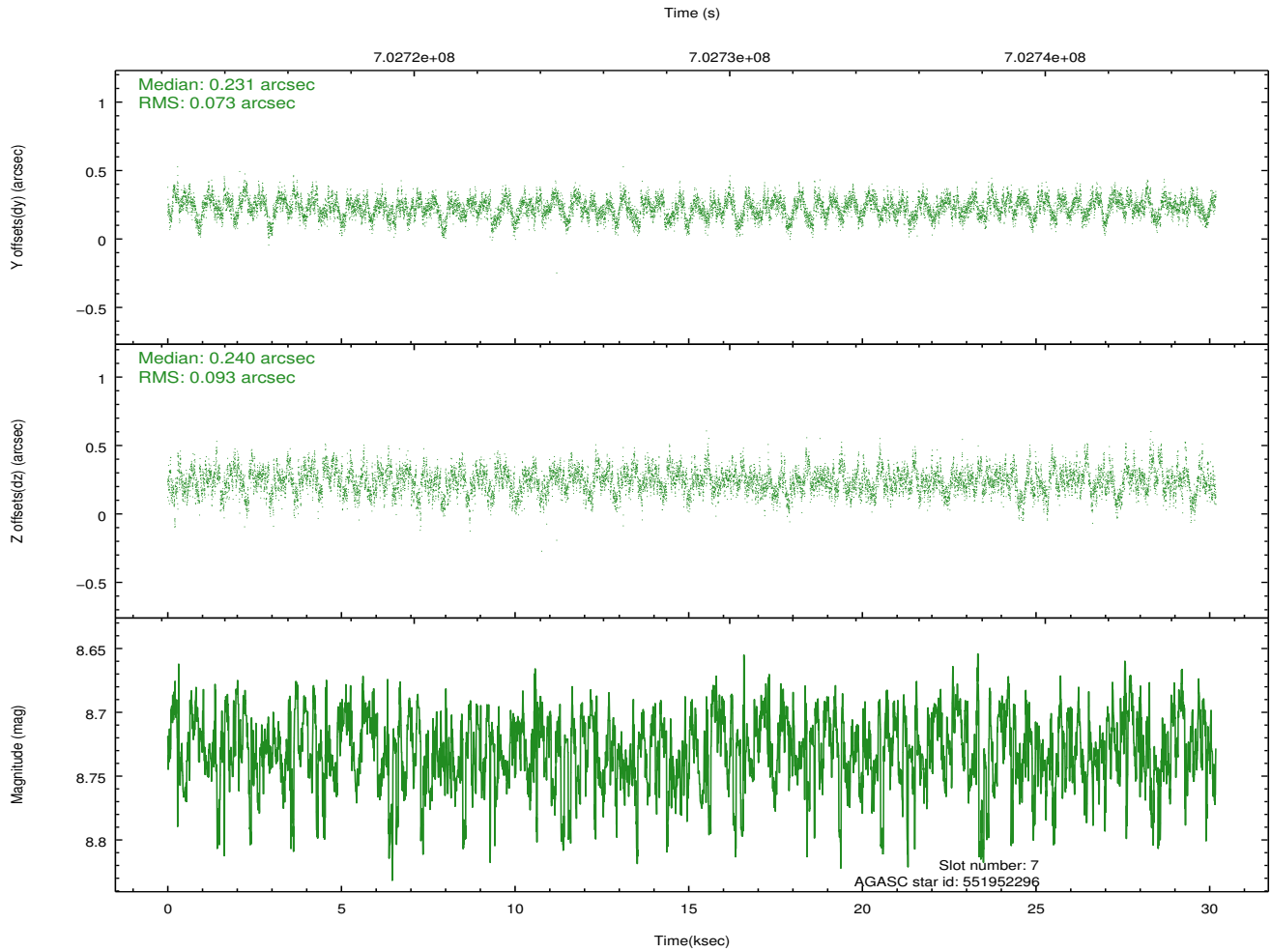
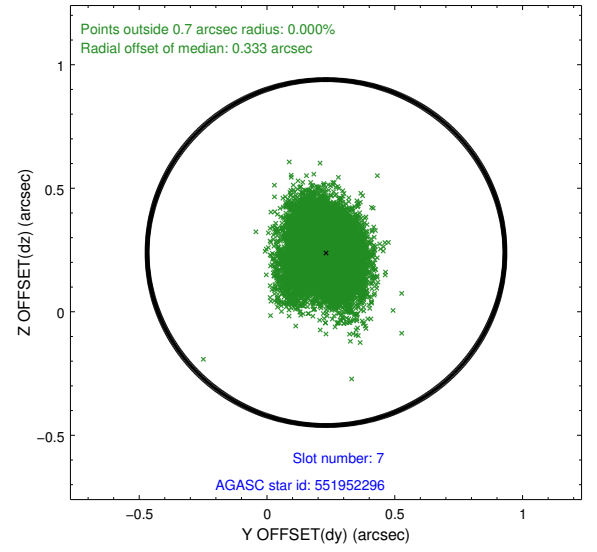
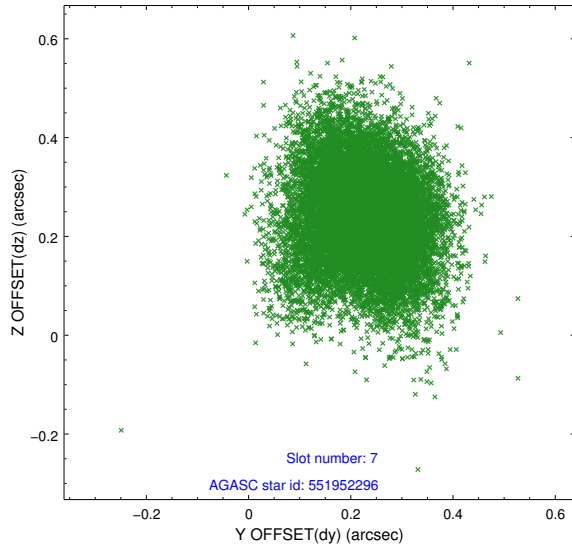
2.4.3 Slot 5



2.4.4 Slot 6

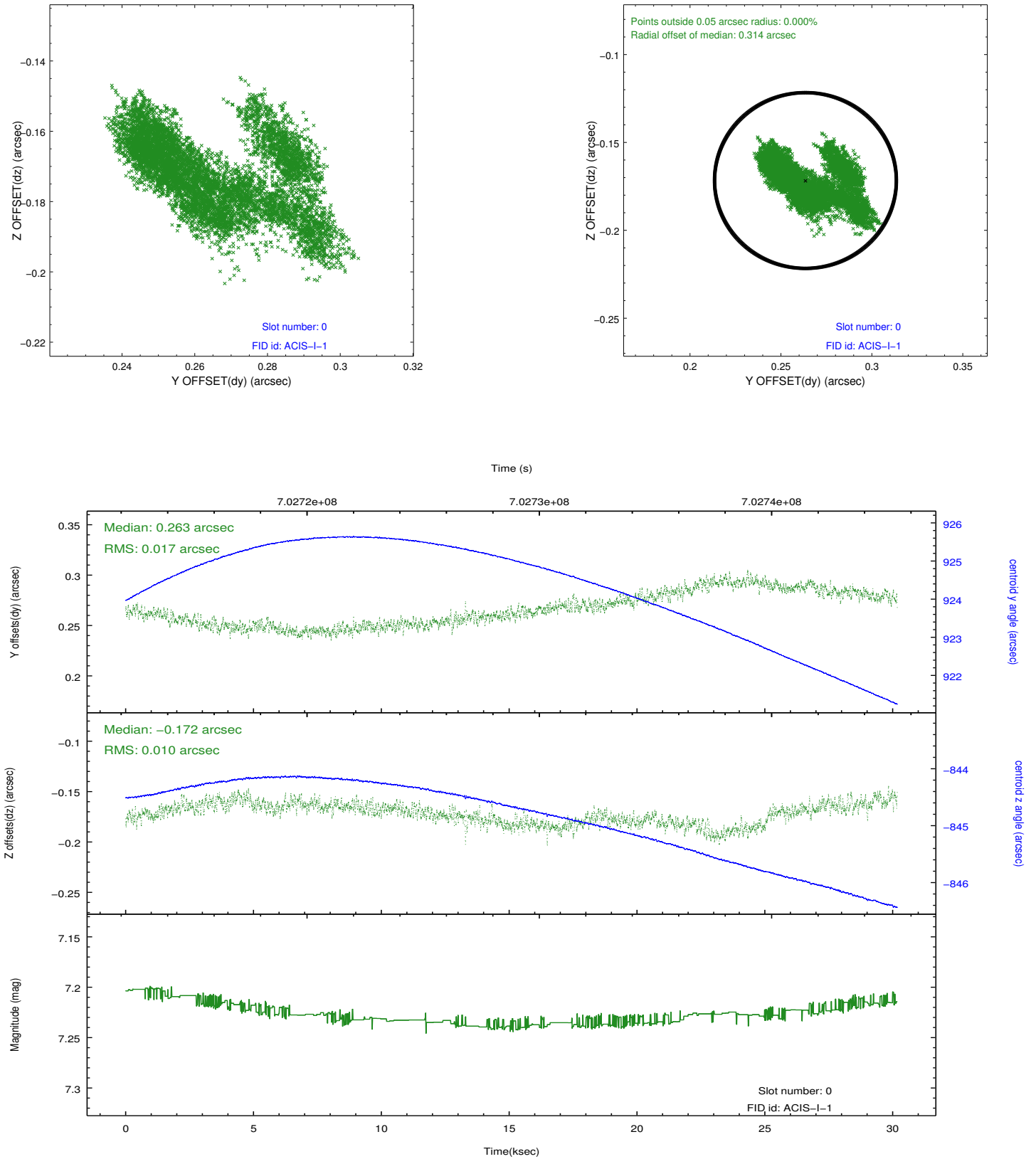


2.4.5 Slot 7

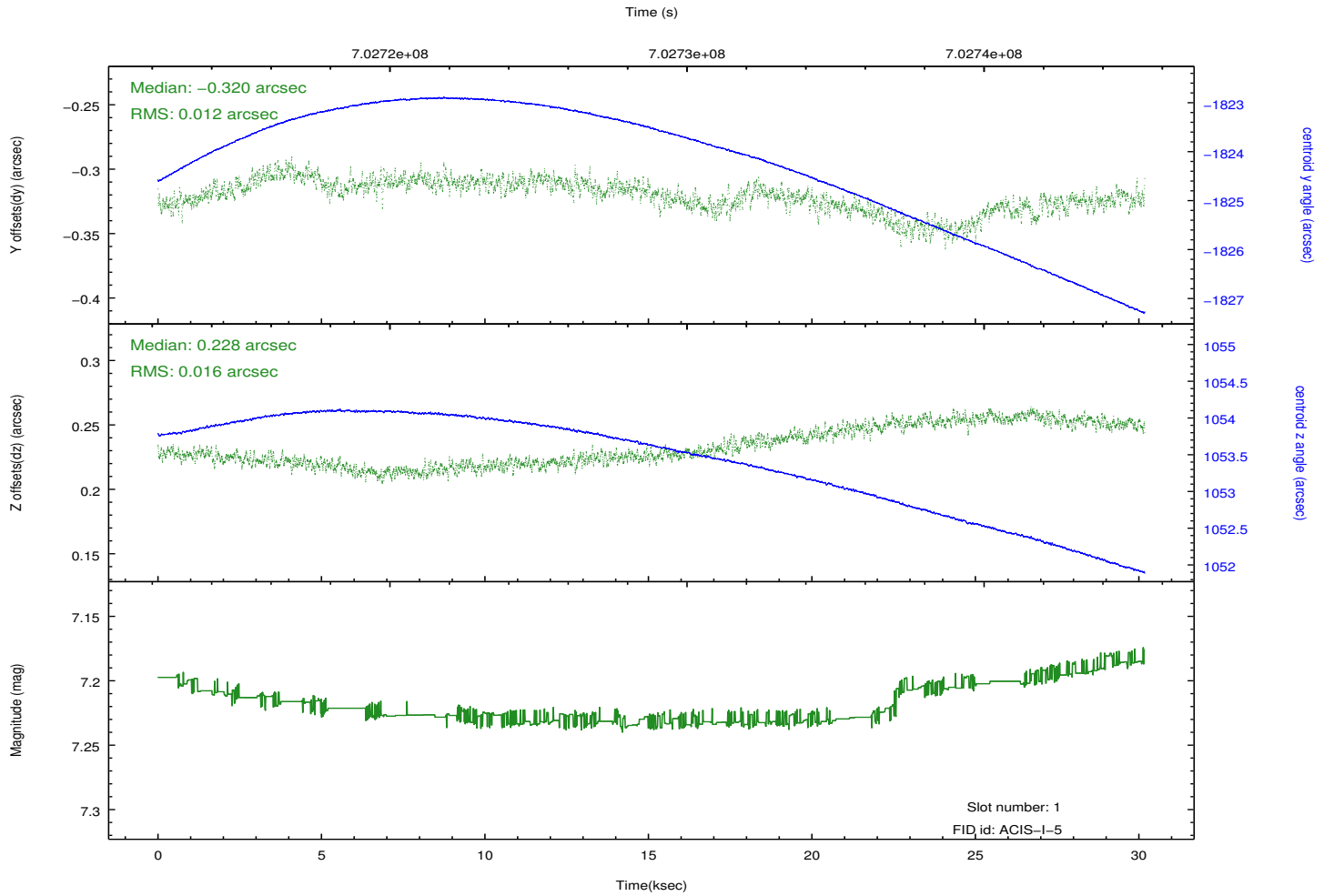
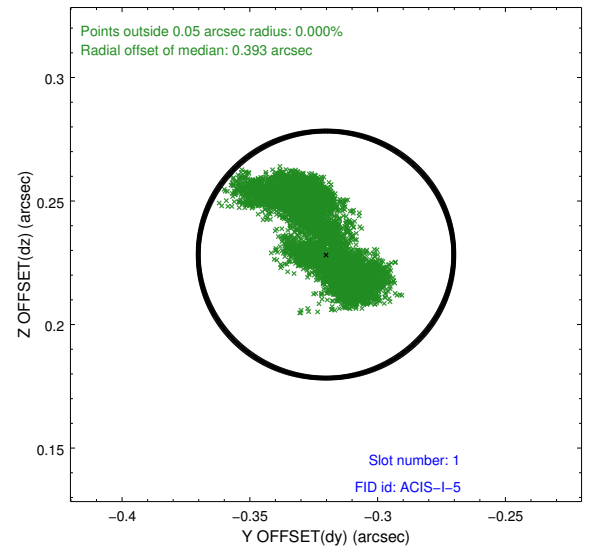
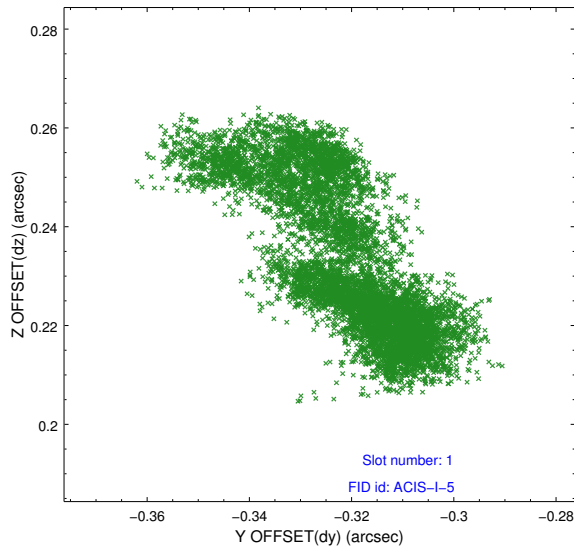


2.5 FID Slots

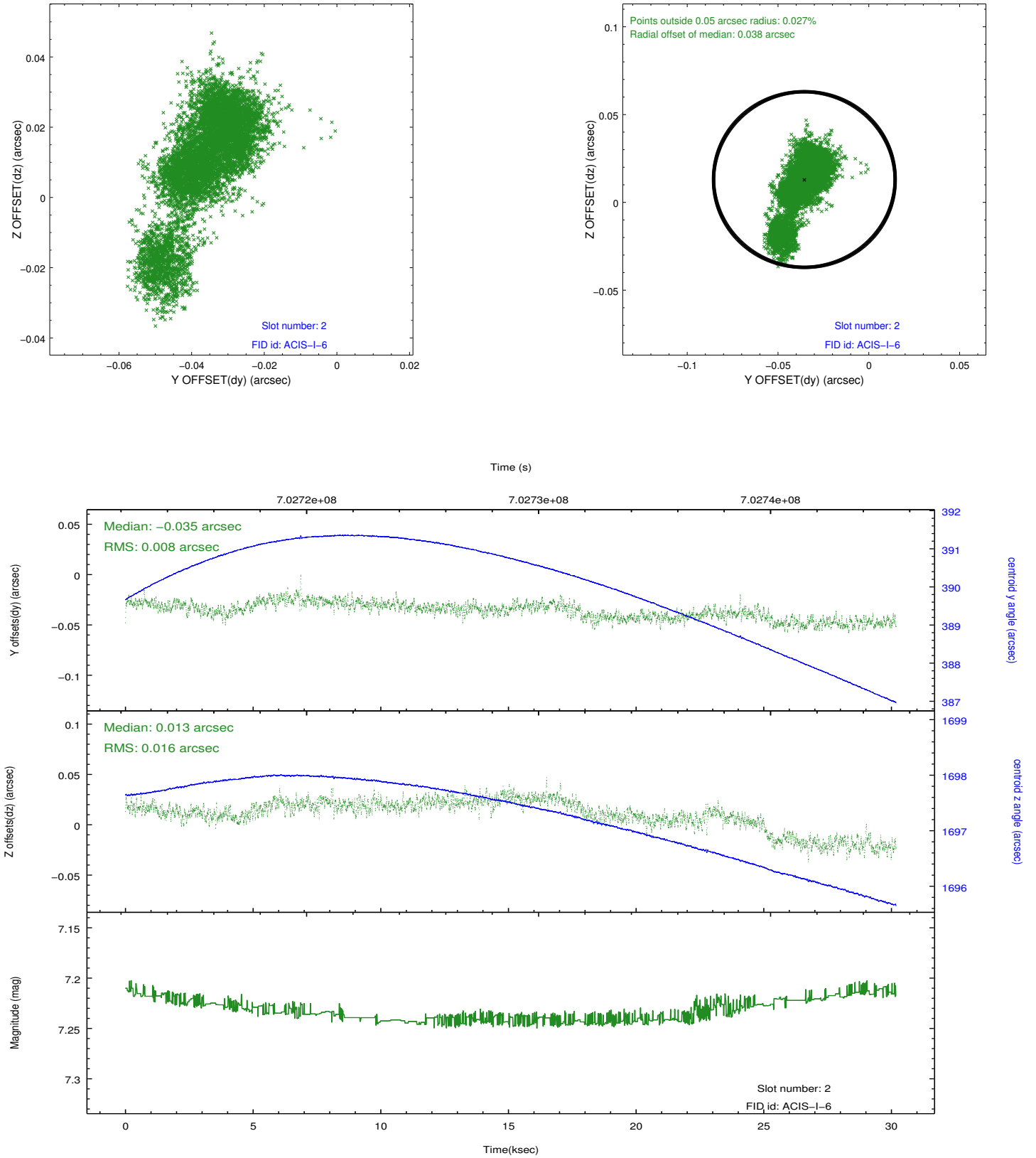
2.5.1 Slot 0



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)	2020.04.19
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	29.948348036647

A.2 Comments

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. In this case, the bias map for CCD = 1 could not be improved because no suitable data at a compatible temperature and time range are available to use as replacement values. The bias map used in this processing is the original bias map telemetered with the observation.