

V&V Reference Report

L2 ASCDS Version : 10.5.4

Observation 17733 - L2 Version 1
Chandra X-Ray Center

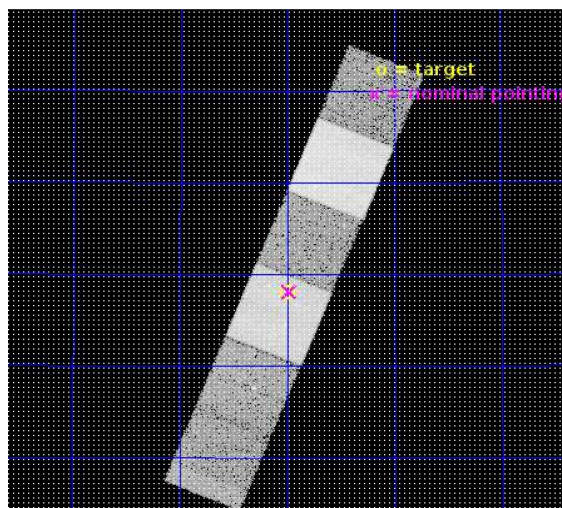
L2 Processing Date : Apr 28 2017

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1 Front

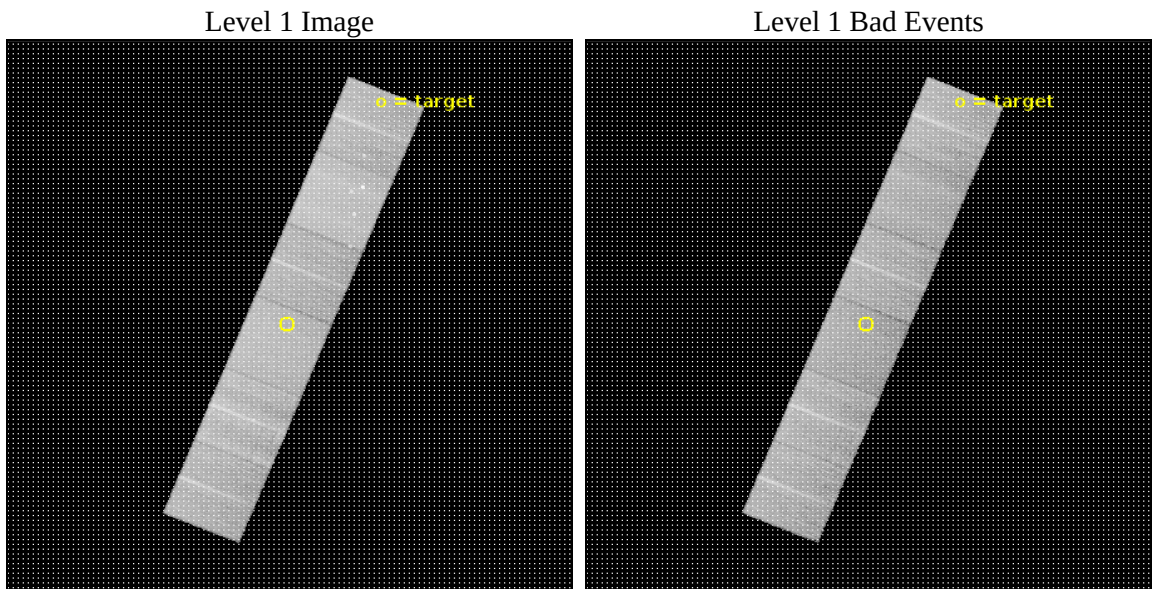
seq_num	201044	Sequence number
obs_id	17733	Observation id
title	Creating a gold-standard sample of ages and activity for old cool stars	Proposal title
observer	Katja Poppenhaeger	Principal investigator
object	Kepler-444	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	289.750833	Observer's specified target RA [deg]
dec_targ	41.633944	Observer's specified target Dec [deg]
ra_nom	289.74511096727	Nominal RA [deg]
dec_nom	41.635154169737	Nominal Dec [deg]
roll_nom	112.16041801453	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20441.505919337	Sum of GTIs [s]
livetime	20182.663262989	Livetime [s]
ontime4	20435.064827681	Sum of GTIs [s]
ontime5	20441.464879274	Sum of GTIs [s]
ontime6	20441.423839331	Sum of GTIs [s]
ontime7	20441.505919337	Sum of GTIs [s]
ontime8	20441.382799268	Sum of GTIs [s]
ontime9	20441.341759324	Sum of GTIs [s]
l2events	233659	Number of level 2 events



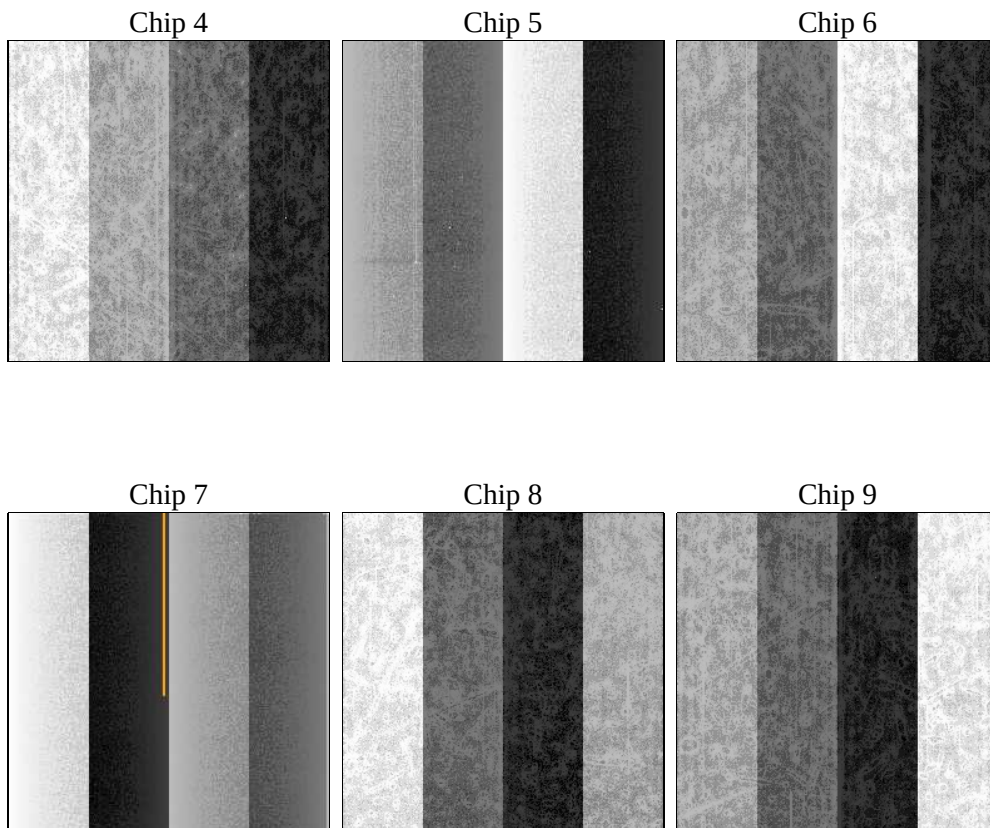
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20500.000000	[s] Scheduled observation exposure time
ascdsver	10.5.4	Processing system revision	ontime	20441.505919337	Sum of GTIs [s]
caldsver	4.7.3	 	ontime4	20435.064827681	Sum of GTIs [s]
date	2017-04-28T21:35:58	Date and time of file creation	ontime5	20441.464879274	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	20441.423839331	Sum of GTIs [s]
			ontime7	20441.505919337	Sum of GTIs [s]
			ontime8	20441.382799268	Sum of GTIs [s]
			ontime9	20441.341759324	Sum of GTIs [s]
			l1events	1043191	Number of level 1 events

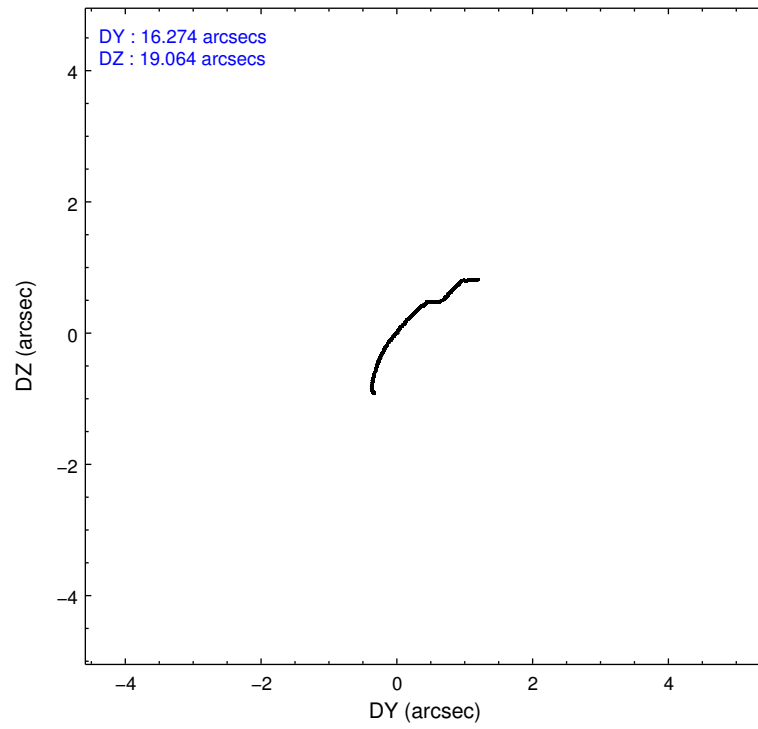
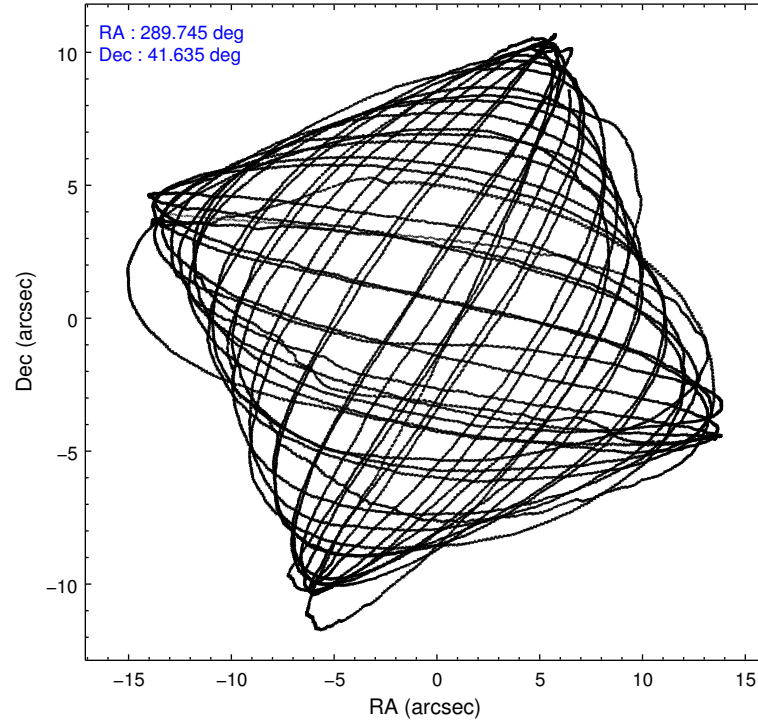
2.1.4 Events

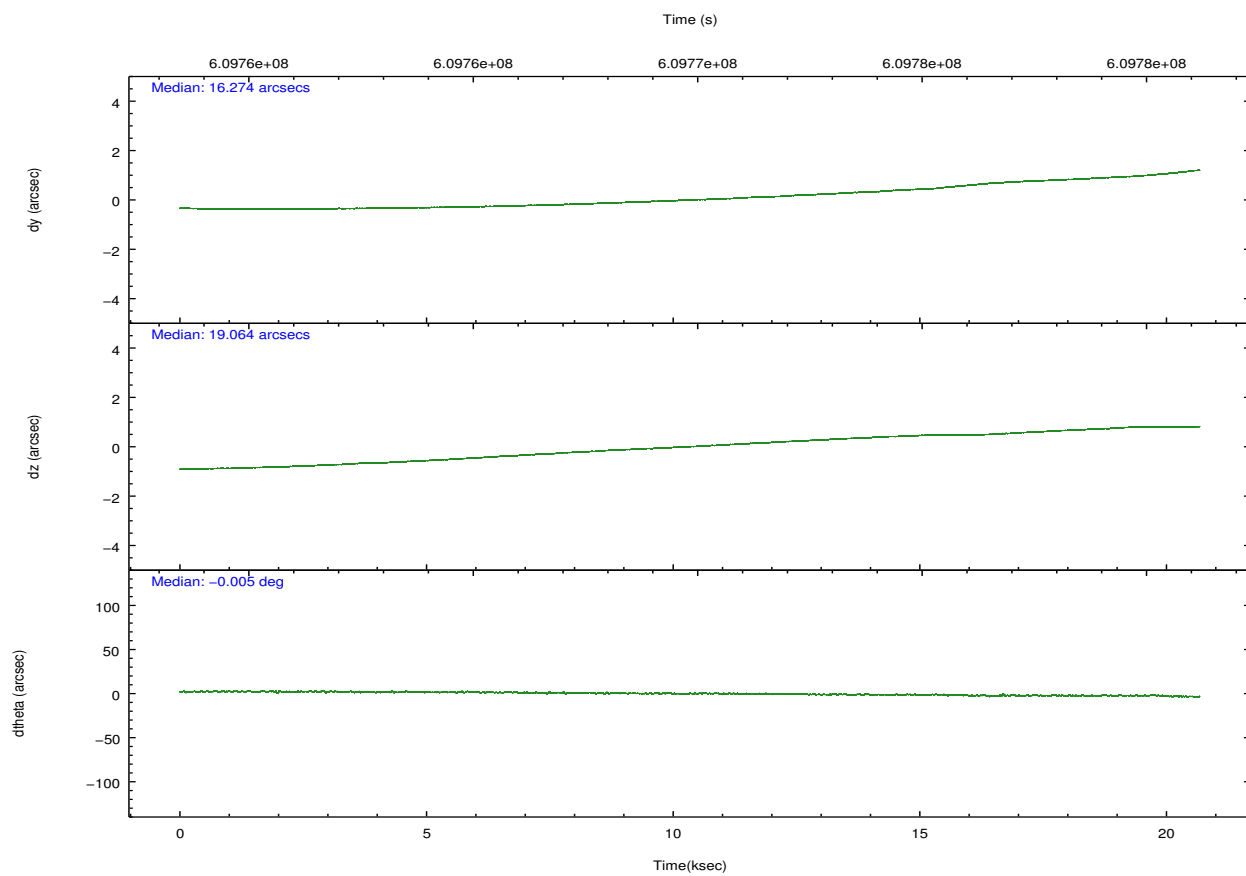
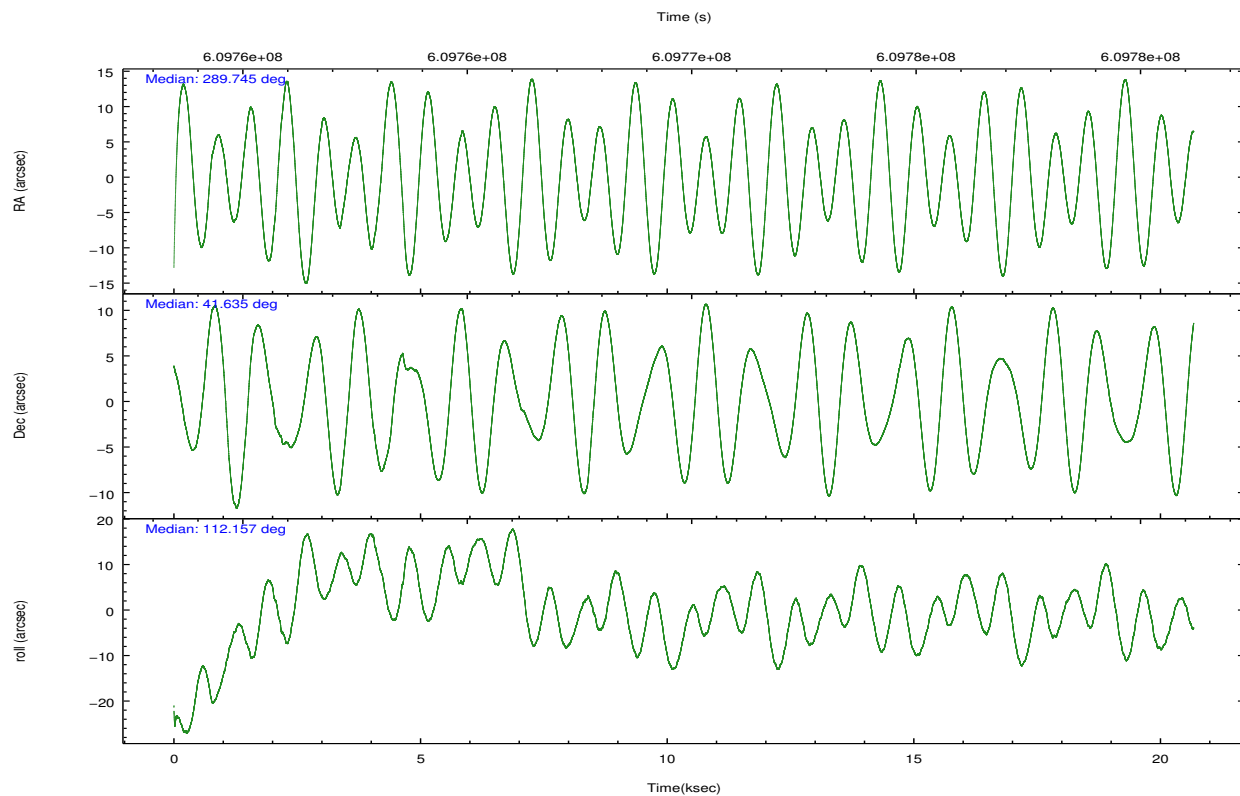
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	167875	225470	144901	179765	182307	142873	grade 0 events	6462	8931	4898	6246	13234	5755
rejected events	151391	116555	128889	102755	136116	126292		3%	3%	3%	3%	7%	4%
rejected %	90%	51%	88%	57%	74%	88%	grade 1 events	150	699	69	231	120	103
								0%	0%	0%	0%	0%	0%
							grade 2 events	3698	33658	4105	16497	11210	3815
								2%	14%	2%	9%	6%	2%
							grade 3 events	1801	3128	1410	5550	4662	1579
								1%	1%	0%	3%	2%	1%
							grade 4 events	1721	3141	1389	5545	4342	1609
								1%	1%	0%	3%	2%	1%
							grade 5 events	6616	14536	6088	16751	9511	7113
								3%	6%	4%	9%	5%	4%
							grade 6 events	2804	60095	4212	43194	12748	3829
								1%	26%	2%	24%	6%	2%
							grade 7 events	144623	101282	122730	85751	126480	119070
								86%	44%	84%	47%	69%	83%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	289.774387	289.7451109672705	CCD I2 on	N	N
[deg] Pointing Dec	41.618629	41.63515416973671	CCD I3 on	N	N
[deg] Pointing Roll	111.984357	112.1604180145294	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O5	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O4	Y
[s] Observation start time (MET)	609759677.184000	609758611.65149	CCD S5 on	O2	Y
Observation start date	2017-04-28T09:40:08	2017-04-28T09:23:31	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	609780177.184000	609780716.29027	On-chip summing requested	N	N
Observation end date	2017-04-28T15:21:48	2017-04-28T15:31:56	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



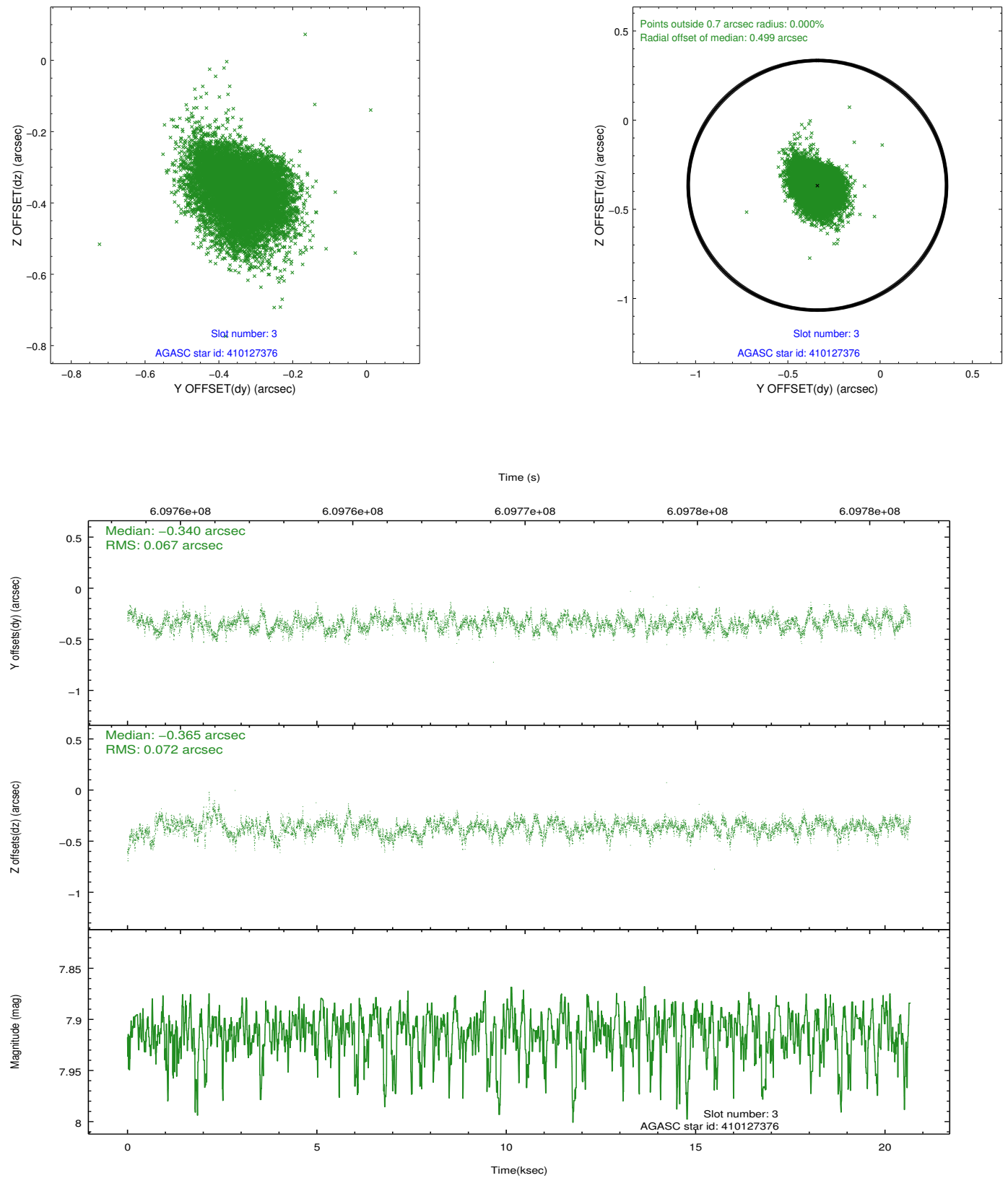


Slot Statistics

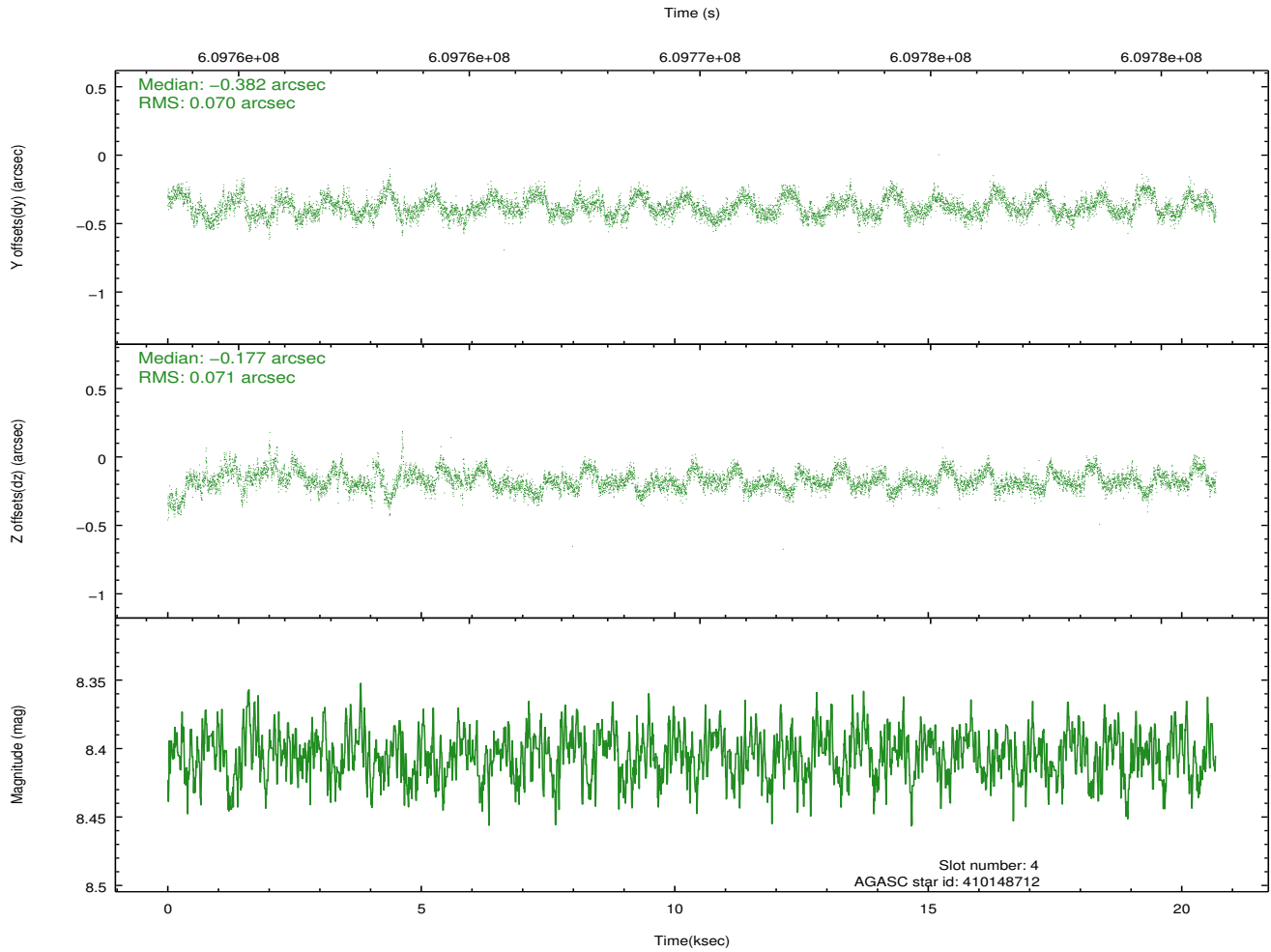
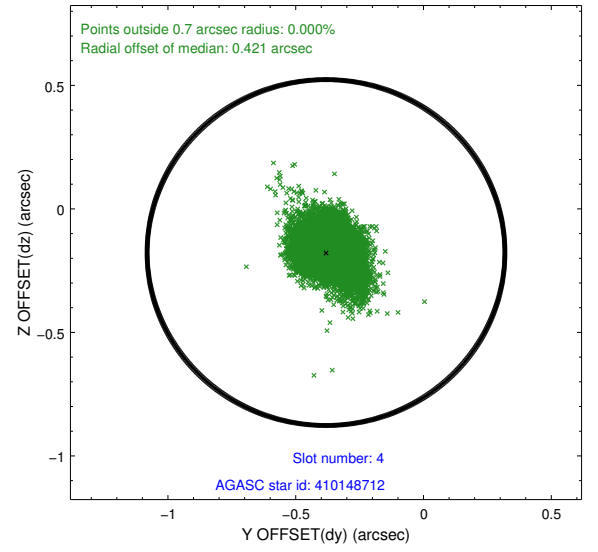
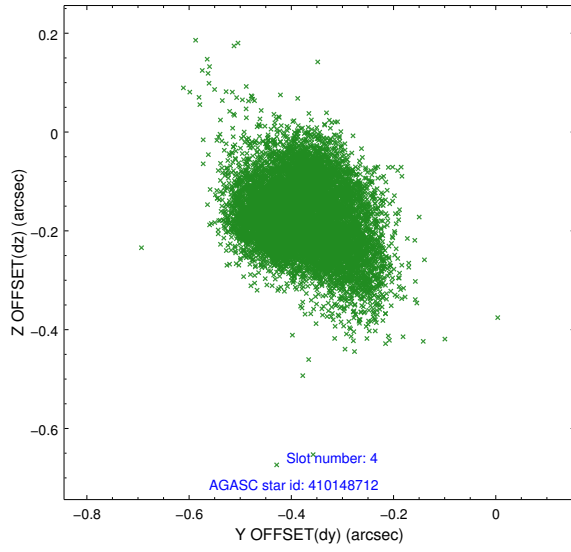
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.15	5043	-0.216	-0.145	0.020	0.027	0.000000	0.000000	-769.61	-1740.64
1	FID		ACIS-S-4	7.26	5043	0.525	0.144	0.010	0.015	0.000000	0.000000	2144.30	168.00
2	FID		ACIS-S-5	7.25	5042	-0.341	0.010	0.014	0.021	0.000000	0.000000	-1822.38	161.68
3	GUIDE	used	410127376	7.91	10085	-0.340	-0.365	0.104	0.167	289.545272	42.006289	1524.36	45.48
4	GUIDE	used	410148712	8.40	10083	-0.382	-0.177	0.105	0.173	289.425952	42.024521	1705.61	316.59
5	GUIDE	used	410150512	8.59	10083	-0.157	-0.278	0.089	0.149	289.443153	41.410233	-357.45	1109.64
6	GUIDE	used	411840600	7.78	10086	0.348	0.360	0.092	0.157	290.889021	41.283462	-2228.84	-2351.22
7	GUIDE	used	411840320	9.25	10072	0.537	0.459	0.183	0.288	290.759998	41.433657	-1600.36	-2221.24

2.4 Star Slots

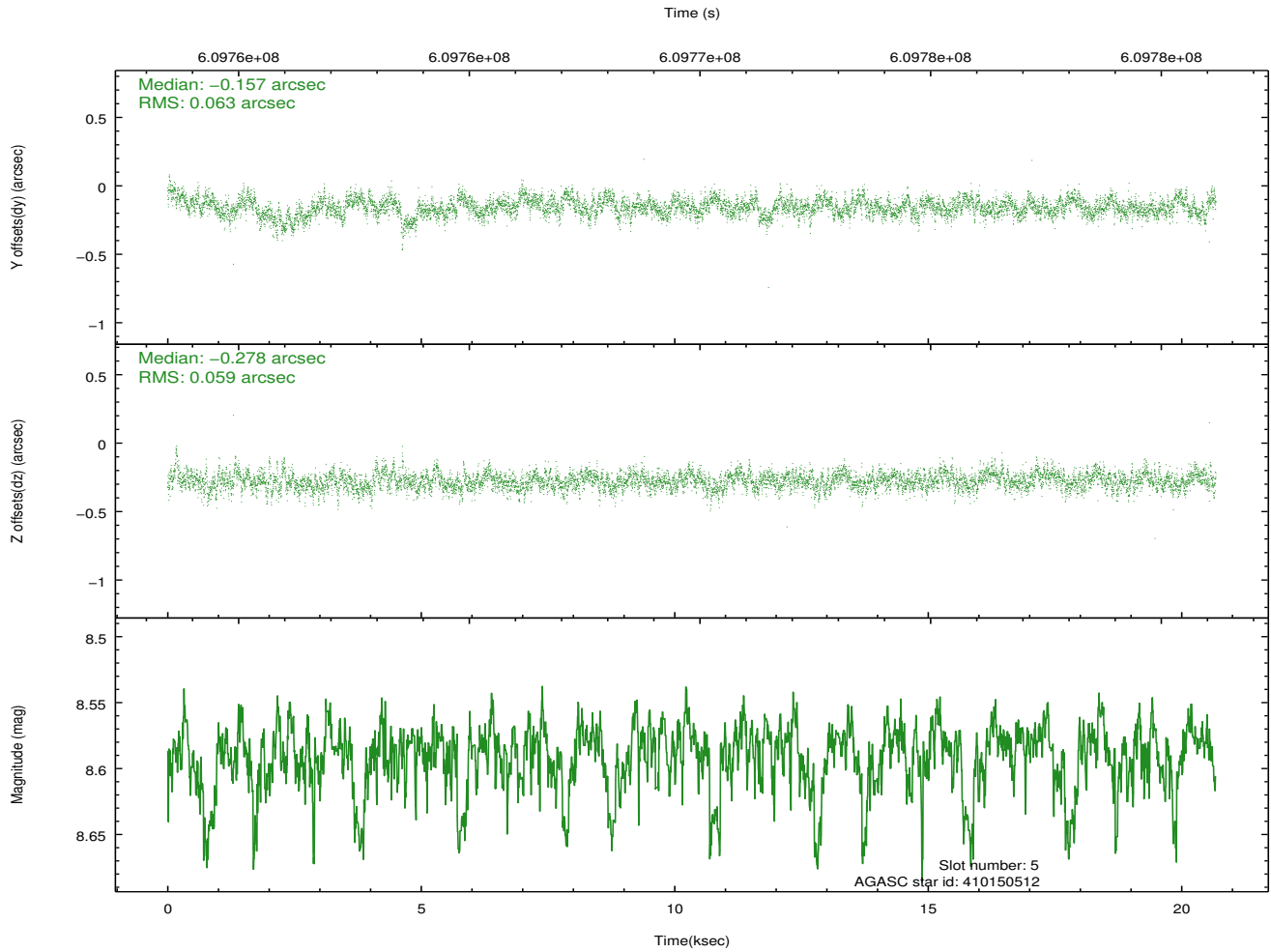
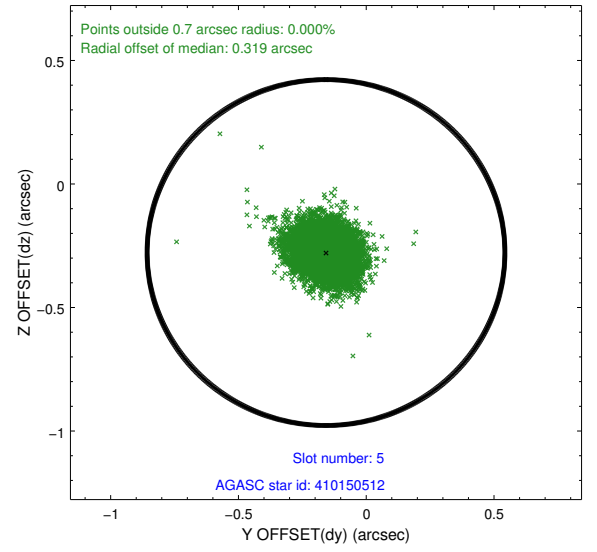
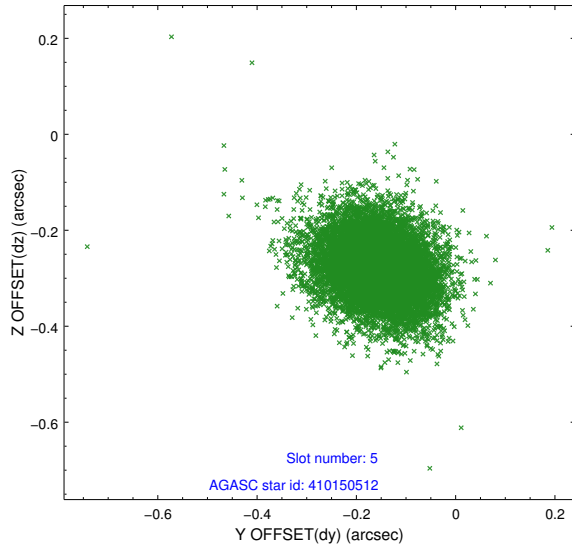
2.4.1 Slot 3



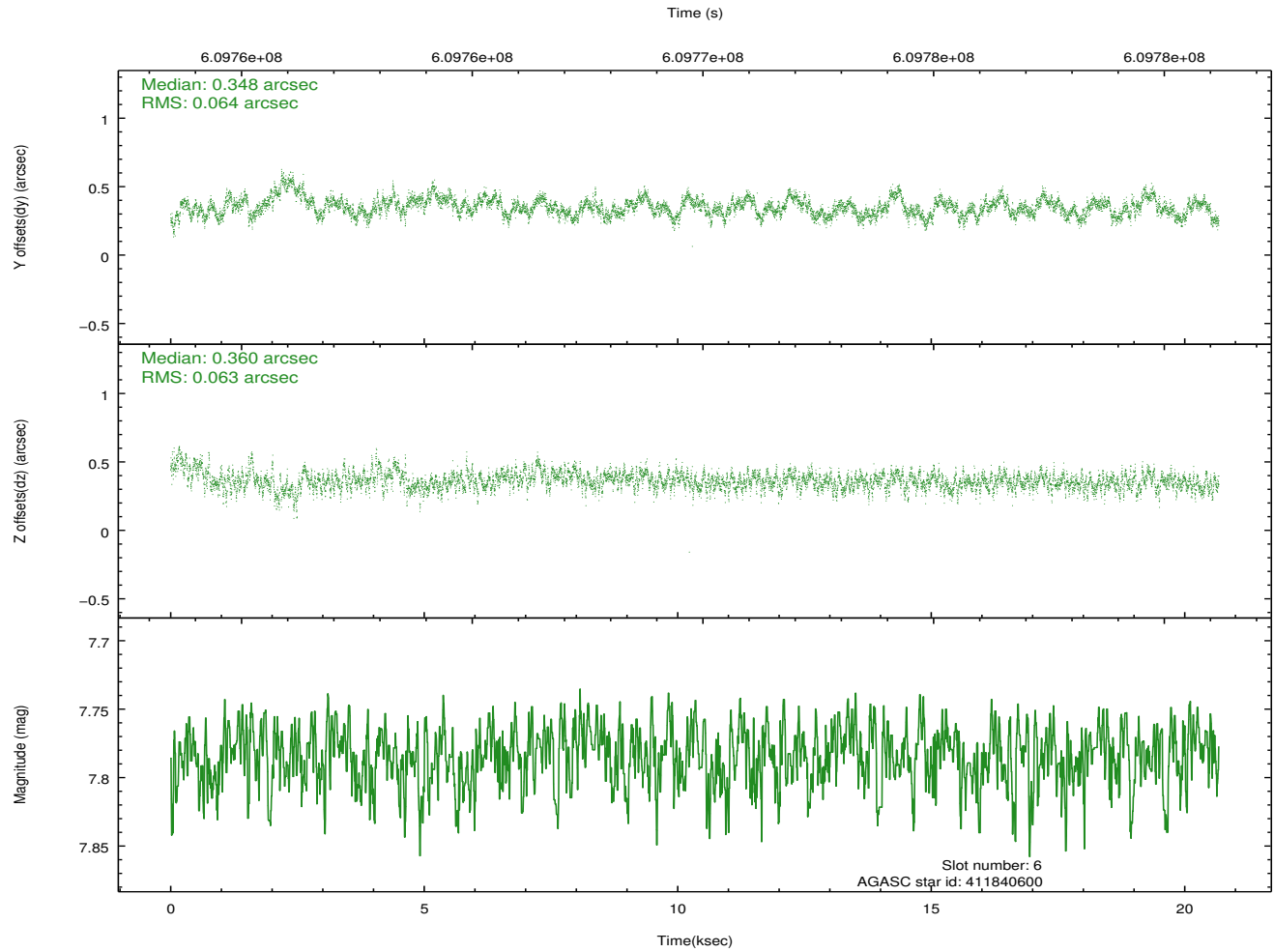
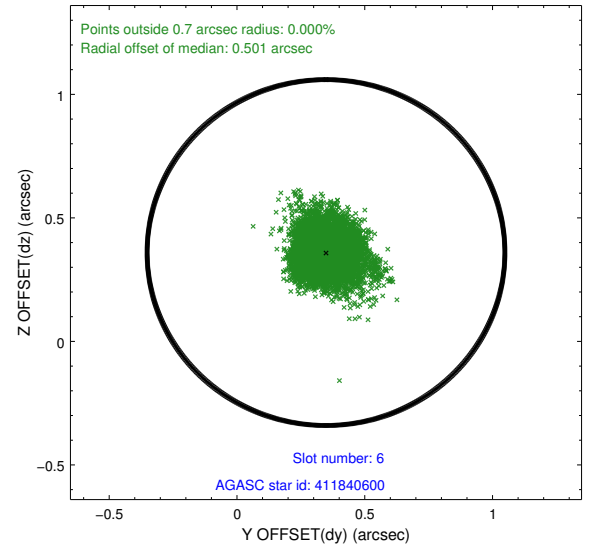
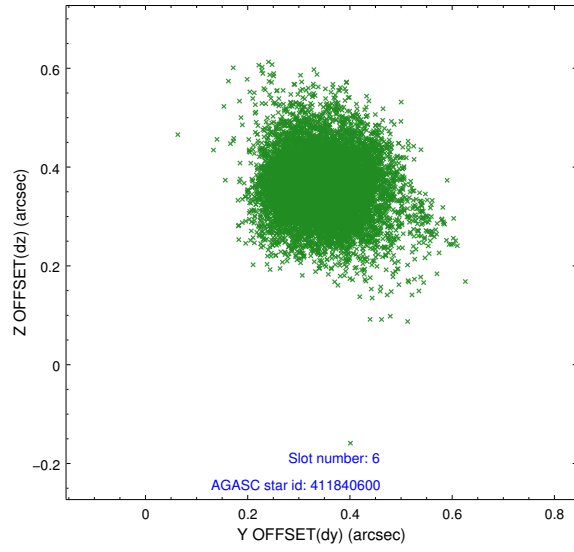
2.4.2 Slot 4



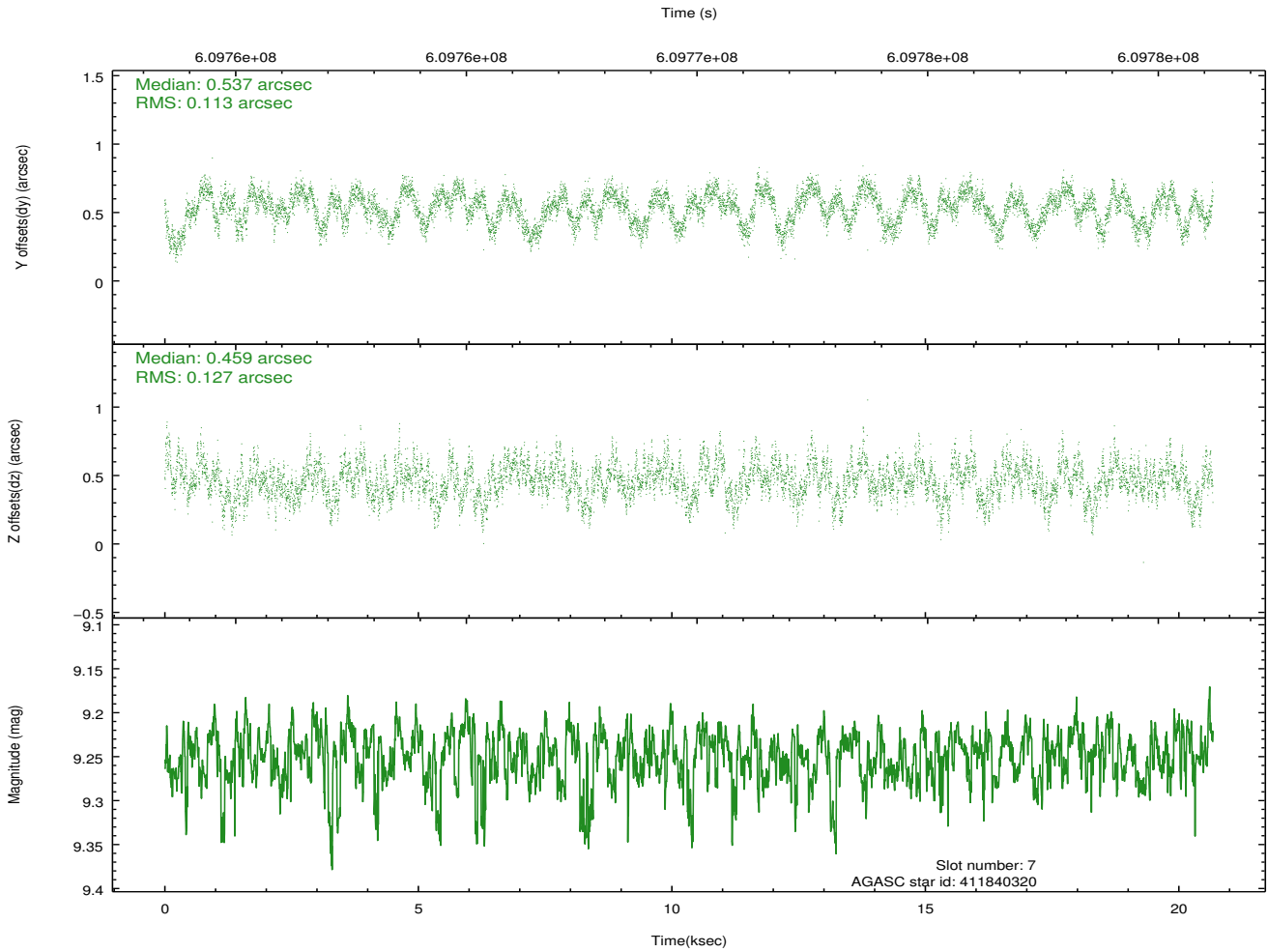
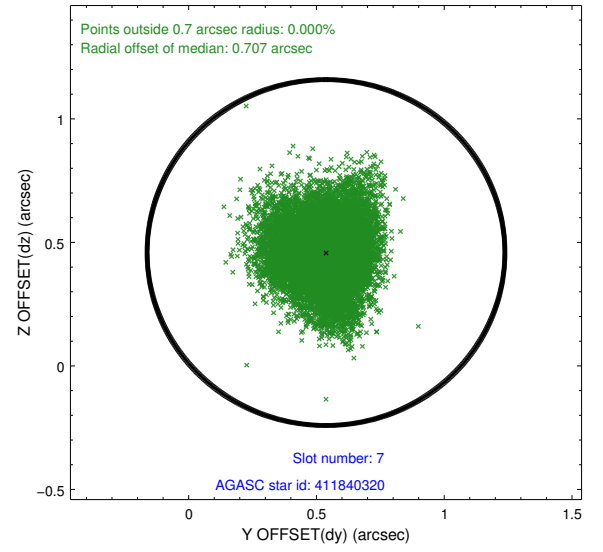
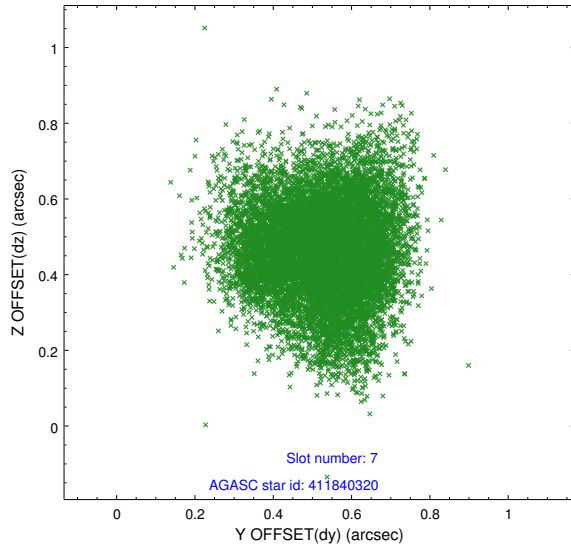
2.4.3 Slot 5



2.4.4 Slot 6

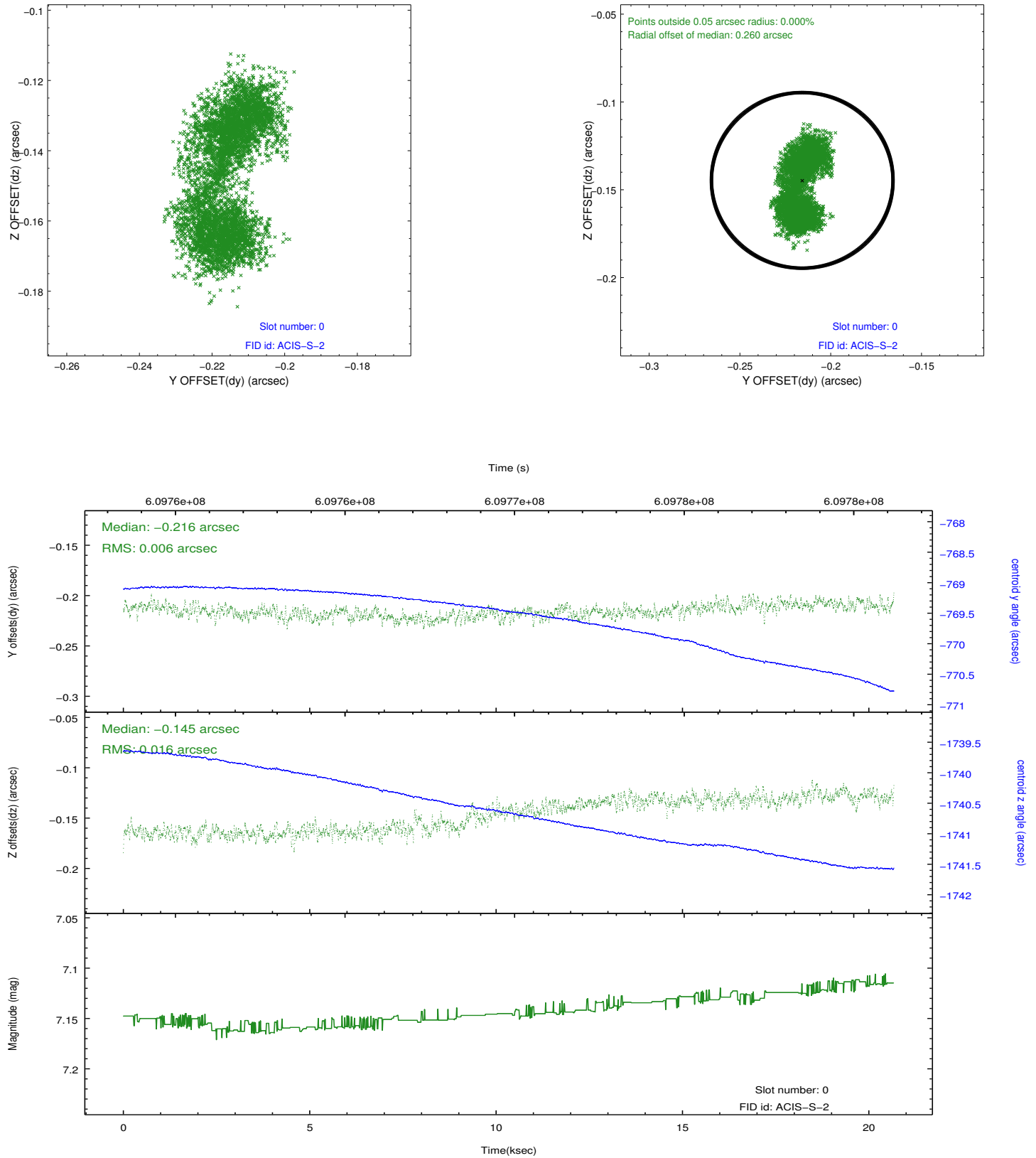


2.4.5 Slot 7

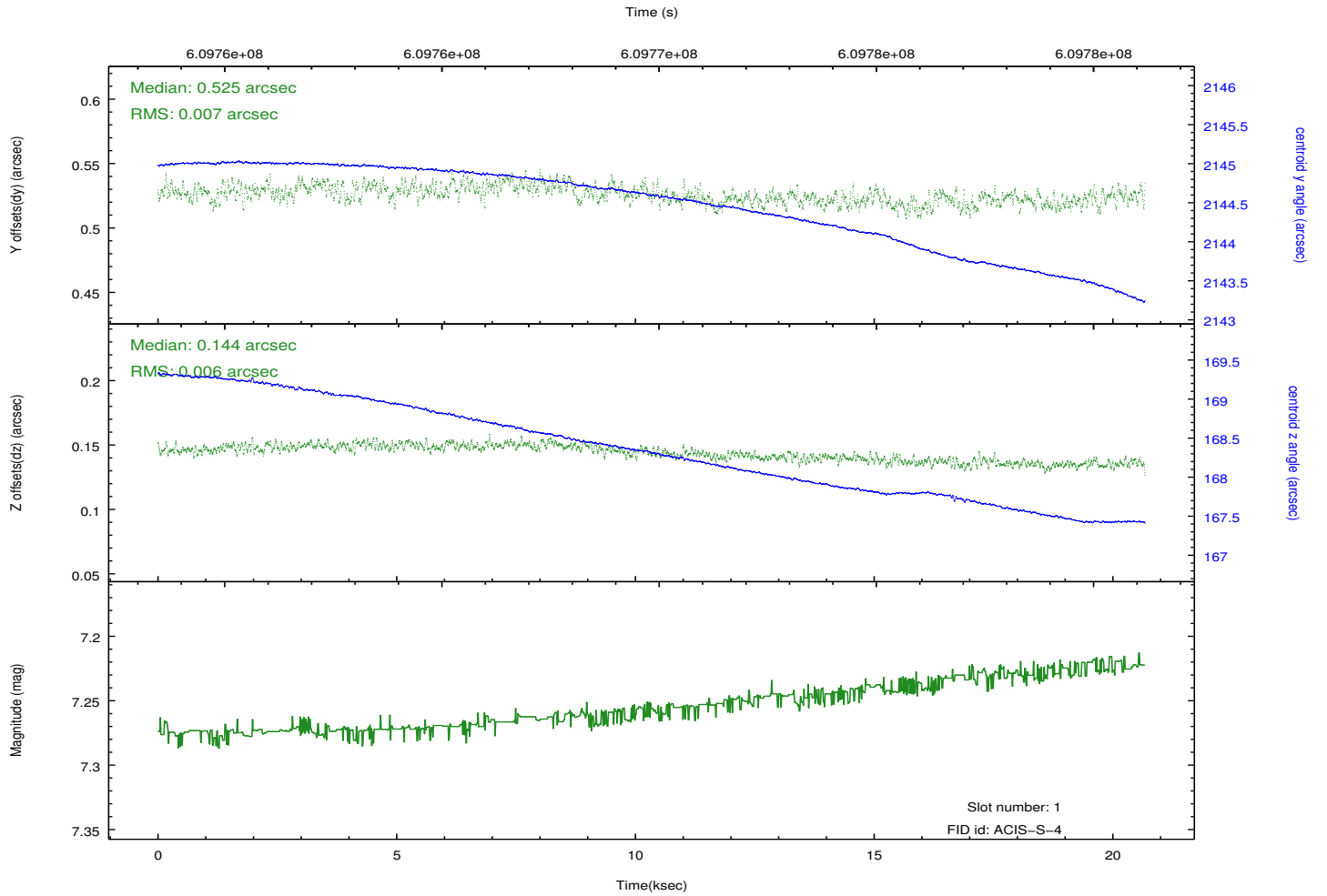
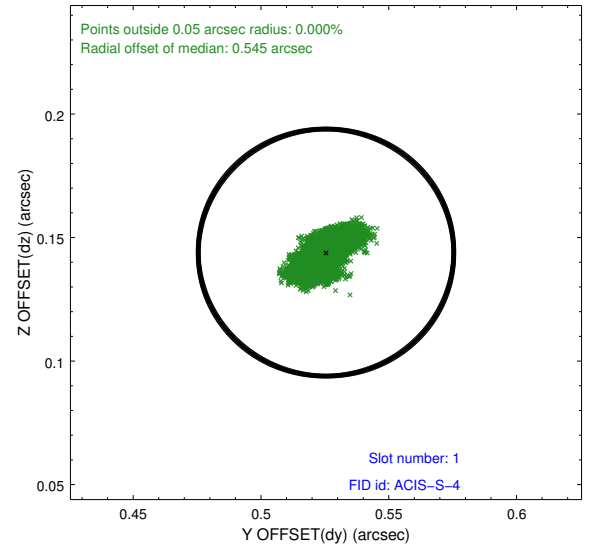
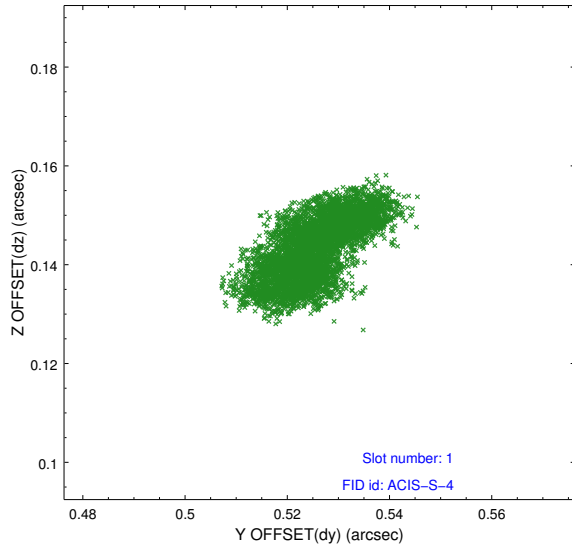


2.5 FID Slots

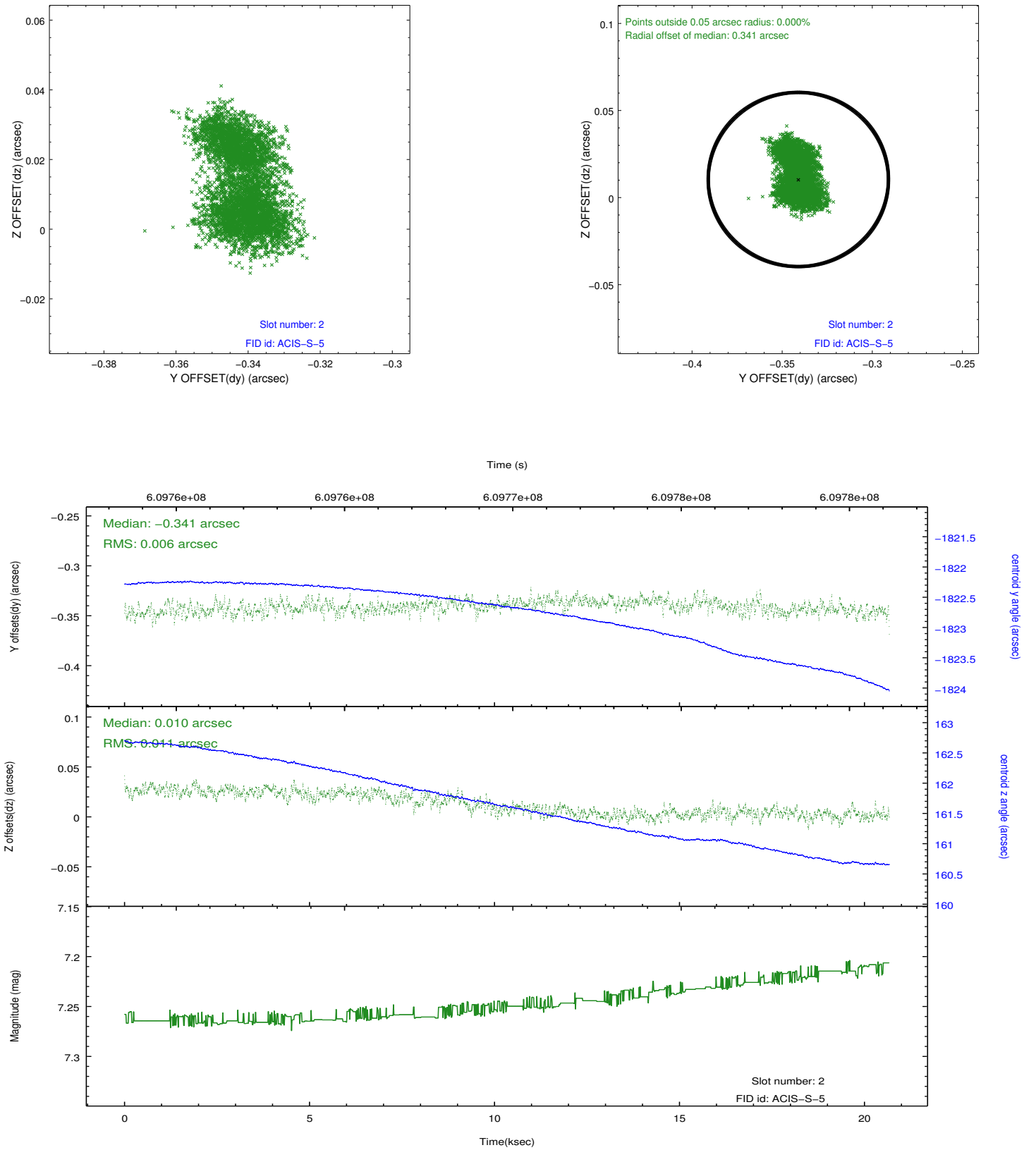
2.5.1 Slot 0



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)	2017.05.01
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	20.441505919337

A.2 Comments

A spatial region of the original bias map for CCD = 6 suffers 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 = 6 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.