

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12398 - L2 Version 2
Chandra X-Ray Center

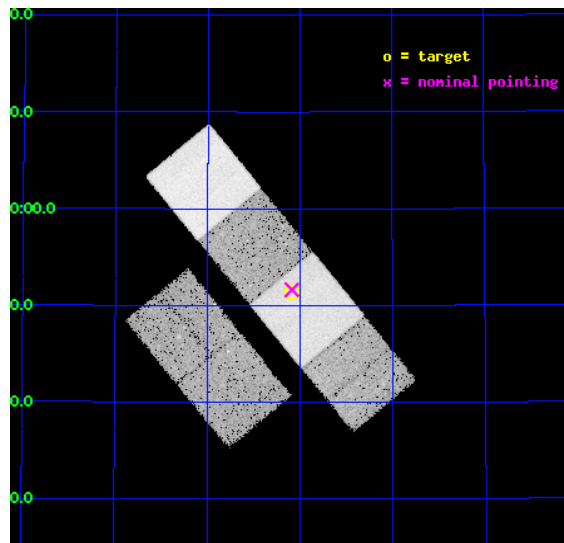
L2 Processing Date : Feb 4 2012

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1 Front

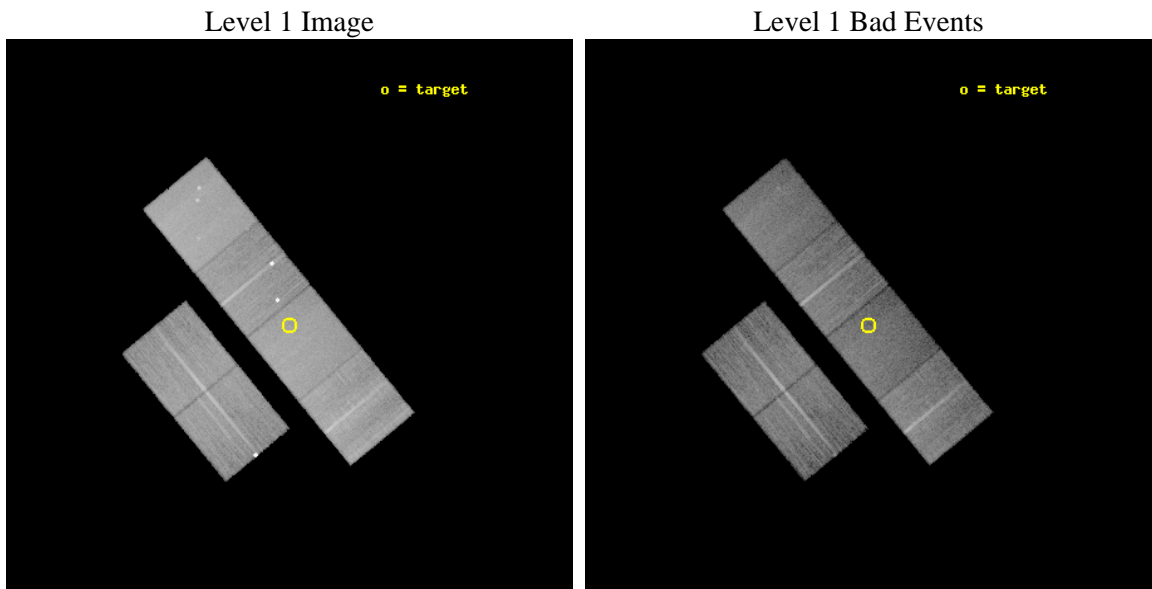
seq_num	200732	Sequence number
obs_id	12398	Observation id
title	Magnetically Sleepy Stars: An X-ray Survey of Candidate Stars in Extended Magnetic Minima	Proposal title
observer	Dr. Steven Saar	Principal investigator
object	HD 179958	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	288.020833	Observer's specified target RA [deg]
dec_targ	49.85575	Observer's specified target Dec [deg]
ra_nom	288.02185004914	Nominal RA [deg]
dec_nom	49.860530642885	Nominal Dec [deg]
roll_nom	50.594362123924	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20047.999925375	Sum of GTIs [s]
livetime	19794.140078864	Livetime [s]
ontime2	20041.518034458	Sum of GTIs [s]
ontime3	20047.999925375	Sum of GTIs [s]
ontime5	20047.999925375	Sum of GTIs [s]
ontime6	20047.999925375	Sum of GTIs [s]
ontime7	20047.999925375	Sum of GTIs [s]
ontime8	20047.999925375	Sum of GTIs [s]
l2events	232767	Number of level 2 events



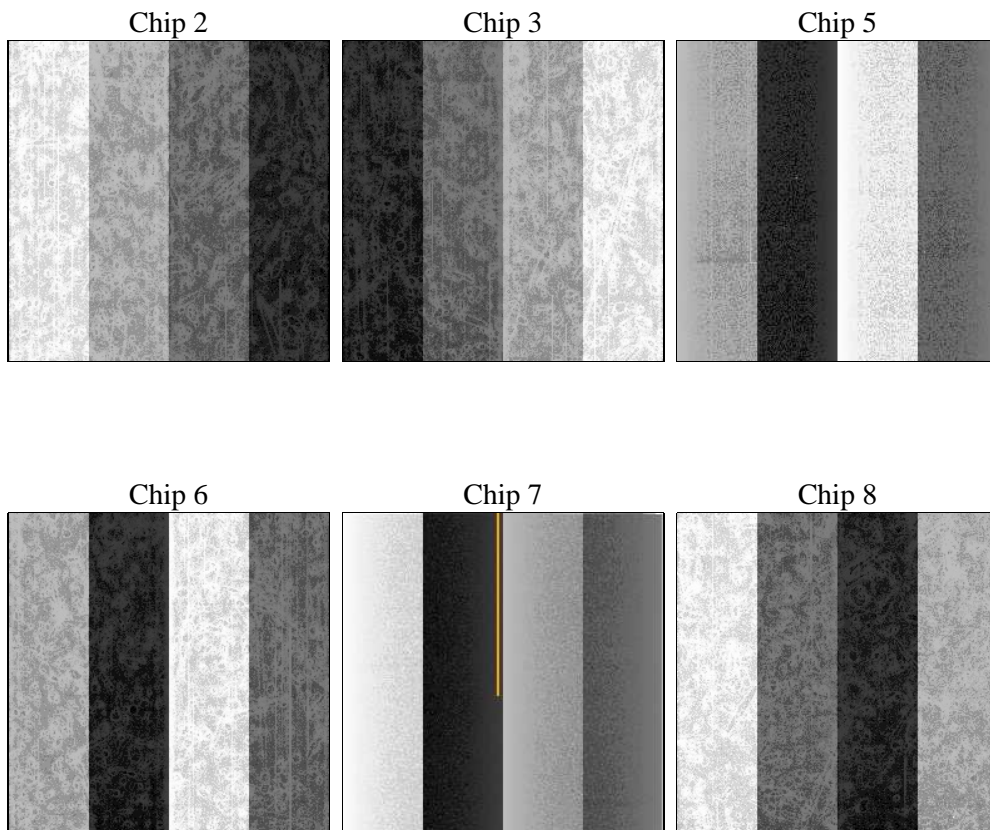
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.659000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	20047.999925375	Sum of GTIs [s]
caldbver	4.4.7	 	ontime2	20041.518034458	Sum of GTIs [s]
date	2012-02-04T20:08:39	Date and time of file creation	ontime3	20047.999925375	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	20047.999925375	Sum of GTIs [s]
			ontime6	20047.999925375	Sum of GTIs [s]
			ontime7	20047.999925375	Sum of GTIs [s]
			ontime8	20047.999925375	Sum of GTIs [s]
			l1events	1024391	Number of level 1 events

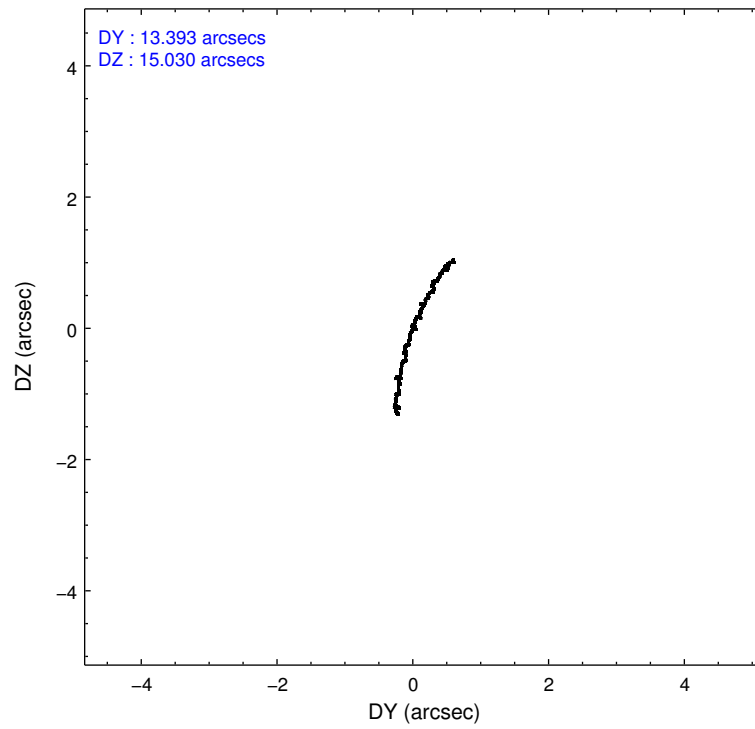
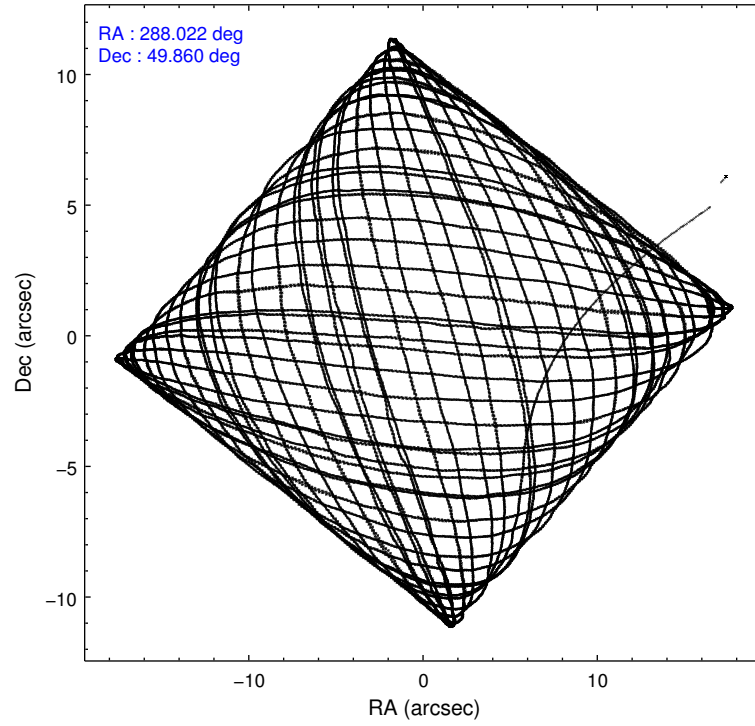
2.1.4 Events

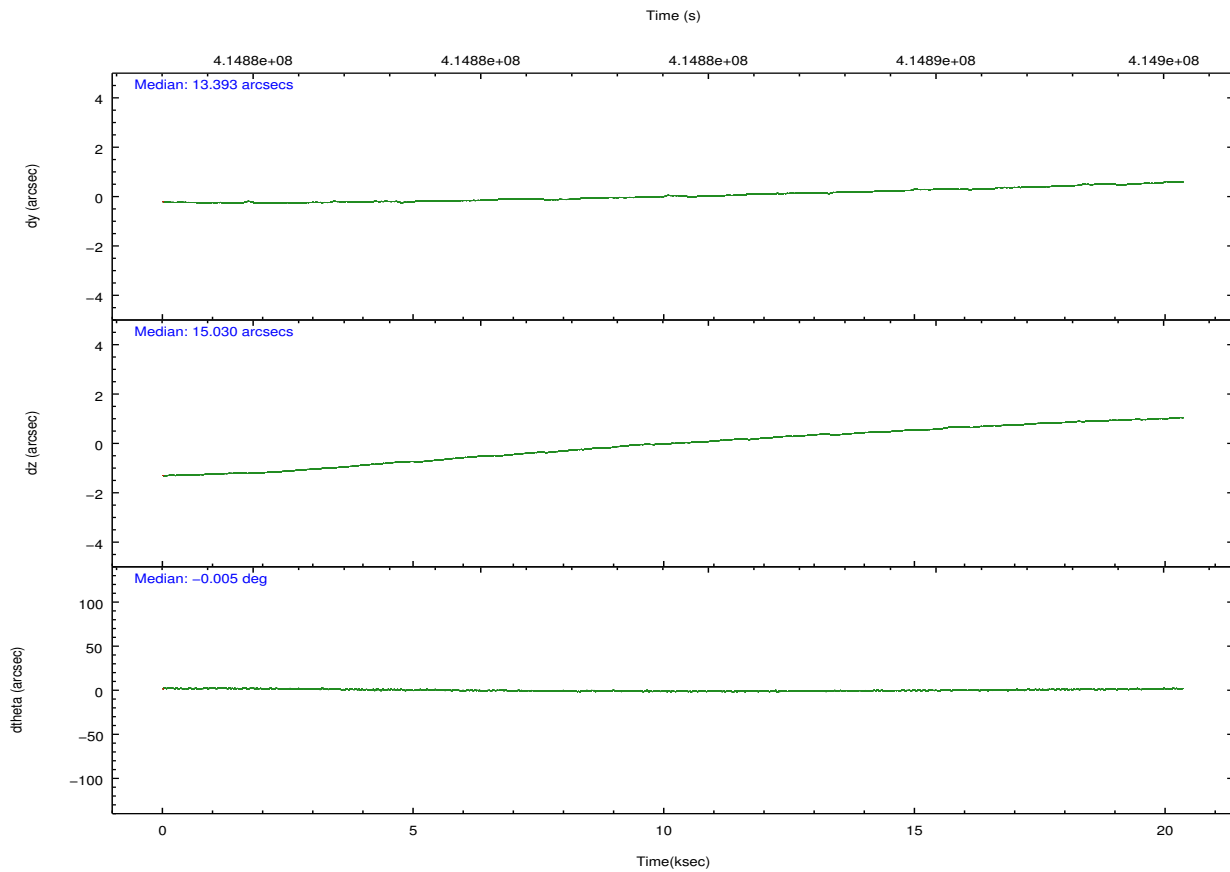
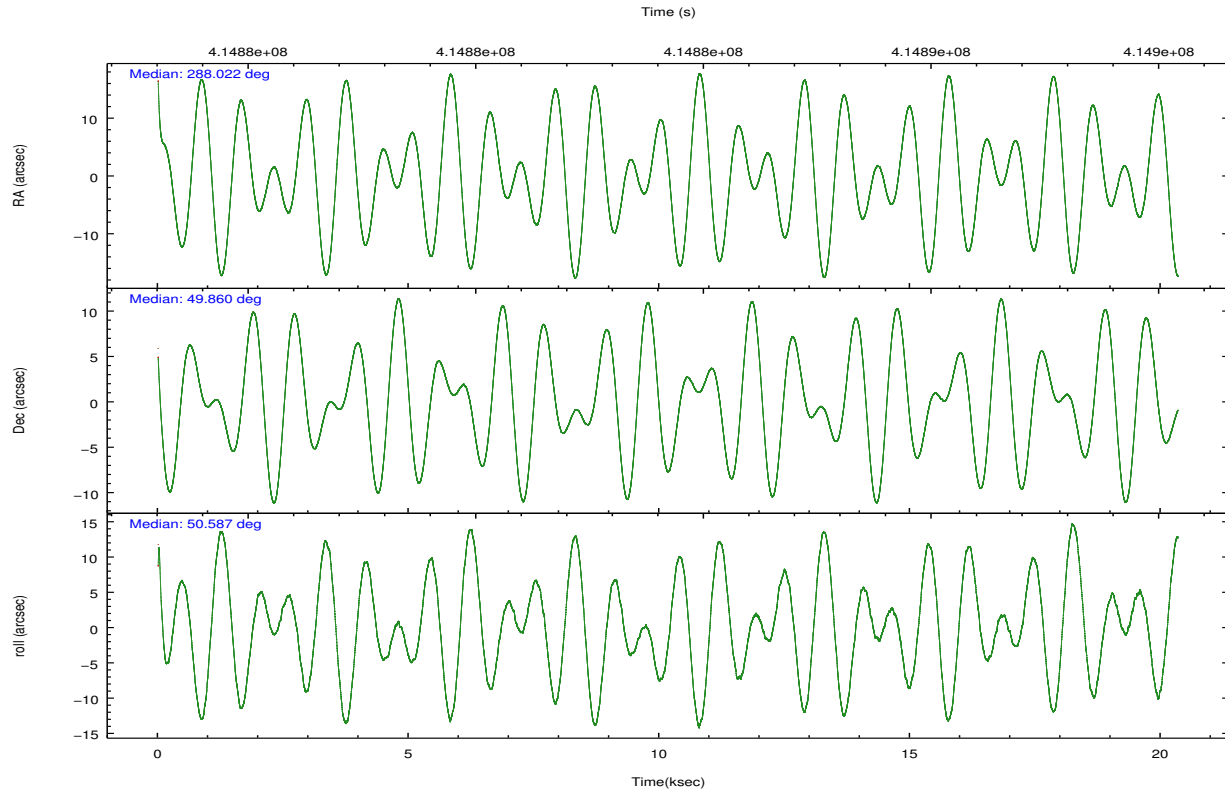
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	146249	143268	215872	154366	177244	187392	grade 0 events	5582	10812	8544	11503	7027	14416
rejected events	130592	121698	110737	126432	98213	138756		3%	7%	3%	7%	3%	7%
rejected %	89%	84%	51%	81%	55%	74%	grade 1 events	85	99	500	99	202	141
								0%	0%	0%	0%	0%	0%
							grade 2 events	3876	4437	32075	9444	16254	11339
								2%	3%	14%	6%	9%	6%
							grade 3 events	1605	1637	3861	1692	6846	5170
								1%	1%	1%	1%	3%	2%
							grade 4 events	1538	1651	3656	1652	6644	4927
								1%	1%	1%	1%	3%	2%
							grade 5 events	5723	6562	16093	6497	18095	9526
								3%	4%	7%	4%	10%	5%
							grade 6 events	3057	3038	57010	3648	42270	12818
								2%	2%	26%	2%	23%	6%
							grade 7 events	124783	115032	94133	119831	79906	129055
								85%	80%	43%	77%	45%	68%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	288.015485	288.0218500491424	CCD I2 on	O2	Y
[deg] Pointing Dec	49.833515	49.86053064288518	CCD I3 on	O3	Y
[deg] Pointing Roll	50.442591	50.59436212392362	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O5	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O1	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	O4	Y
[s] Observation start time (MET)	414874403.184000	414873312.57537	CCD S5 on	N	N
Observation start date	2011-02-23T18:52:17	2011-02-23T18:35:12	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	414894404.184000	414894629.50147	On-chip summing requested	N	N
Observation end date	2011-02-24T00:25:38	2011-02-24T00:30:29	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



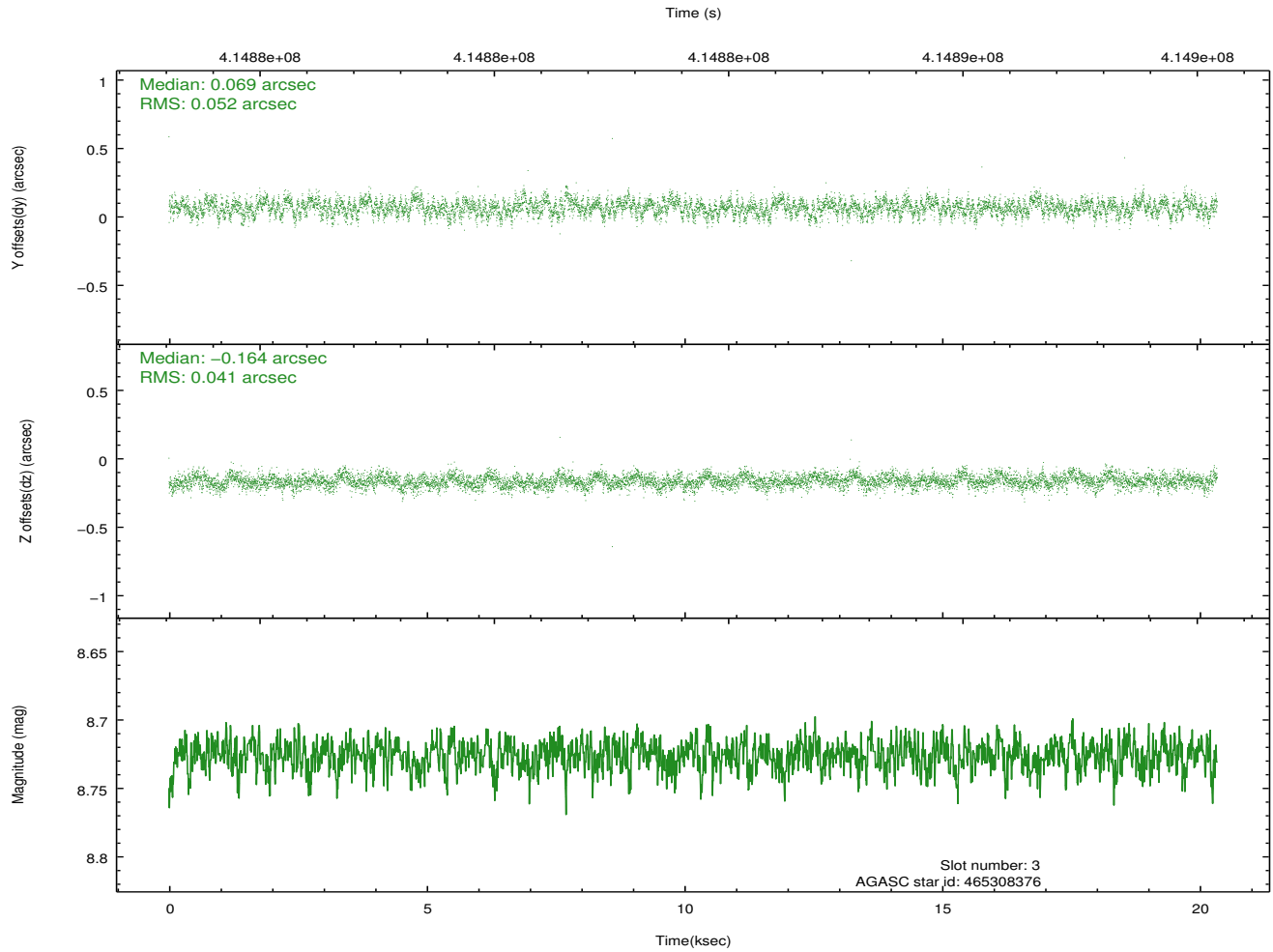
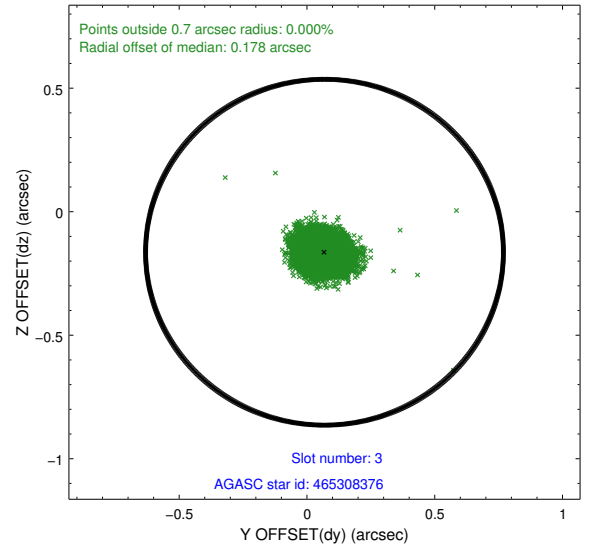
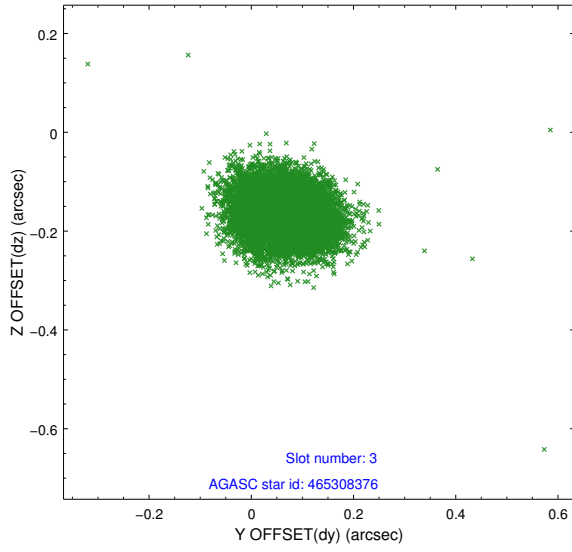


Slot Statistics

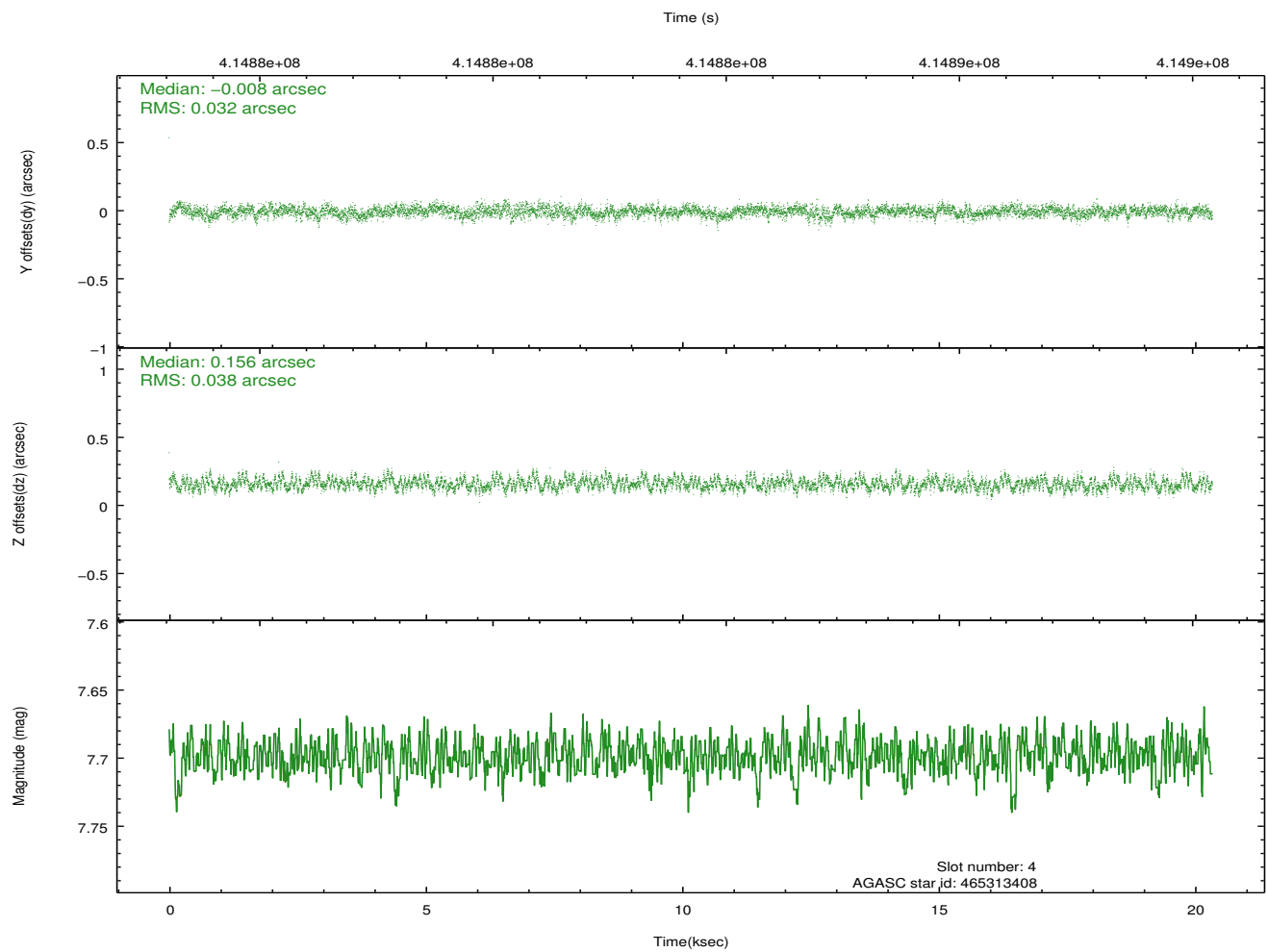
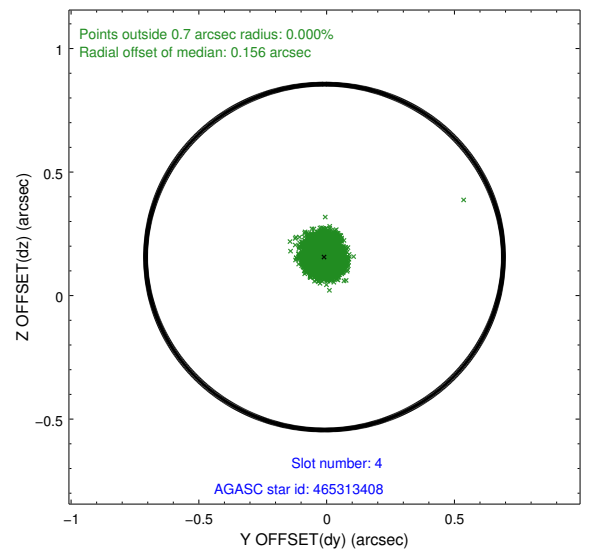
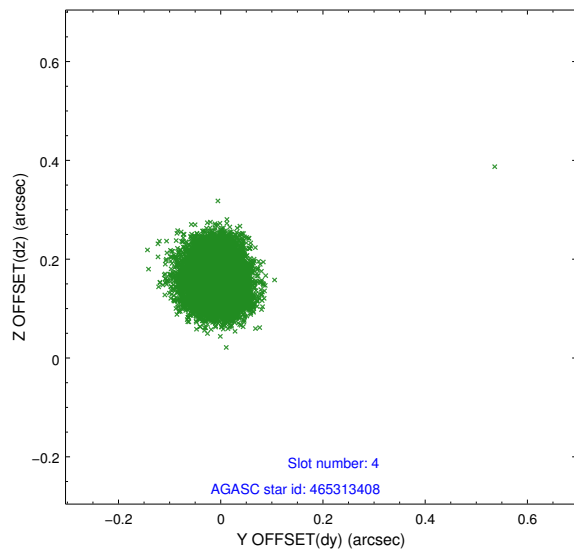
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.02	4962	-0.058	-0.039	0.016	0.033	0.000000	0.000000	-766.41	-1736.38
1	FID	ACIS-S-4	7.11	4962	0.192	0.038	0.018	0.029	0.000000	0.000000	2147.01	172.02
2	FID	ACIS-S-5	7.14	4962	-0.166	0.008	0.018	0.031	0.000000	0.000000	-1819.16	165.83
3	GUIDE	465308376	8.73	9919	0.069	-0.164	0.069	0.113	286.891588	49.840608	-1627.00	2040.44
4	GUIDE	465313408	7.70	9918	-0.008	0.156	0.053	0.084	287.851668	49.136262	-2180.52	-1300.41
5	GUIDE	465316376	7.54	9923	0.014	0.034	0.097	0.161	289.327112	49.850228	2005.89	-2292.28
6	GUIDE	465318696	7.66	9918	-0.050	-0.141	0.070	0.112	287.489694	49.680812	-1200.46	596.69
7	GUIDE	465318840	7.99	9914	-0.021	0.112	0.065	0.103	288.066473	49.646906	-442.11	-518.97

2.4 Star Slots

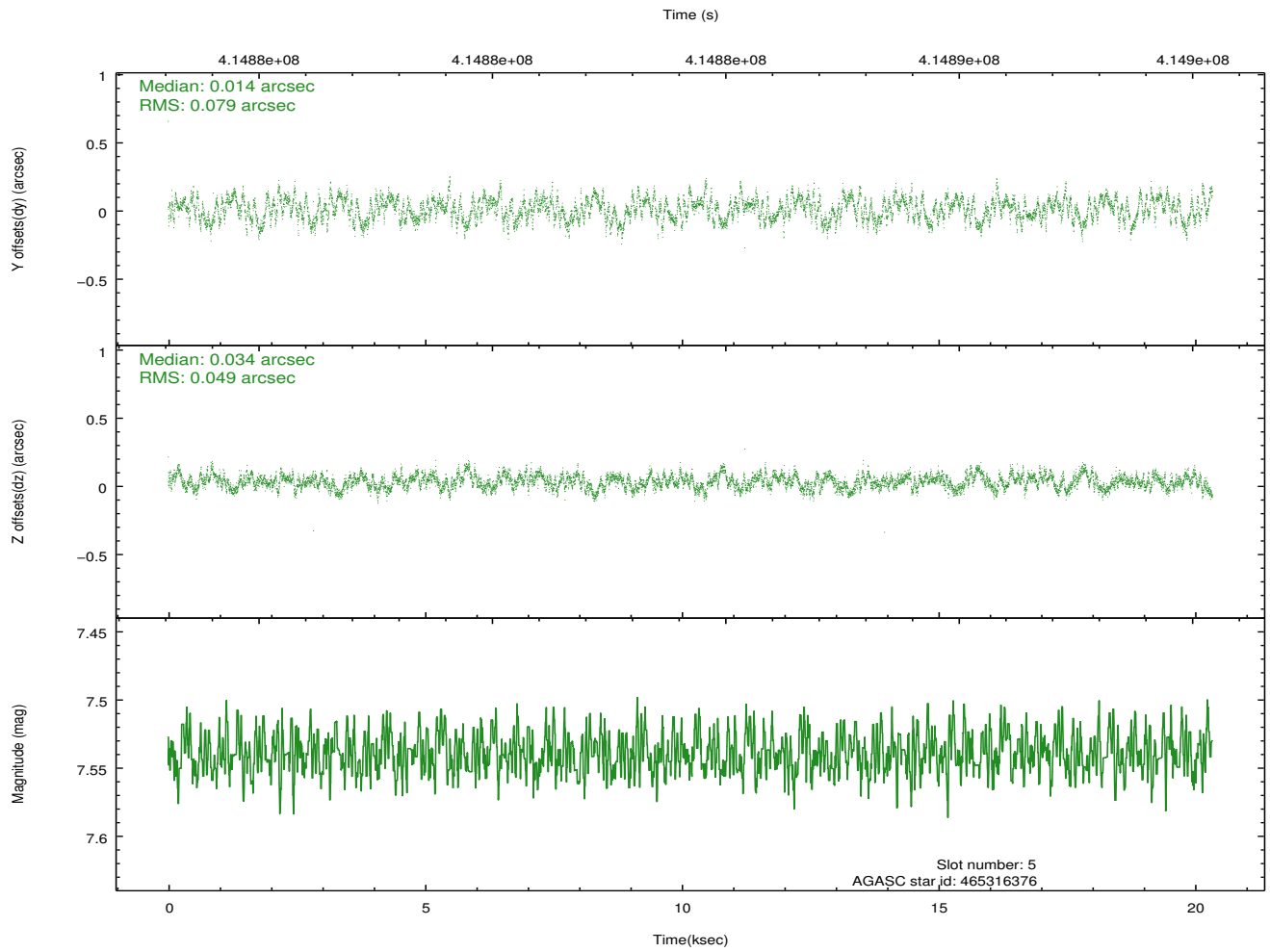
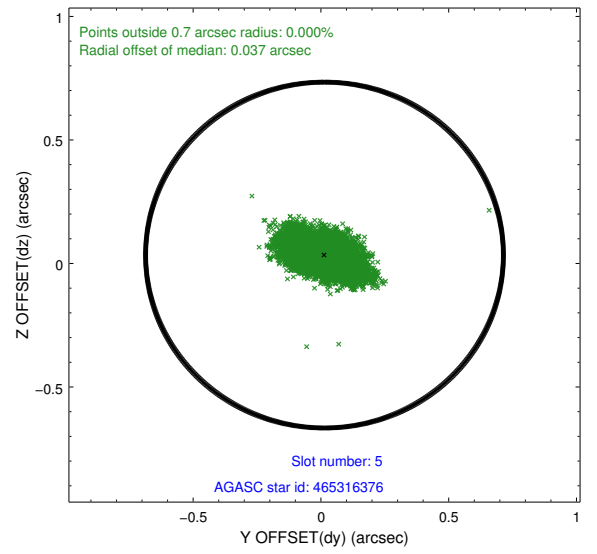
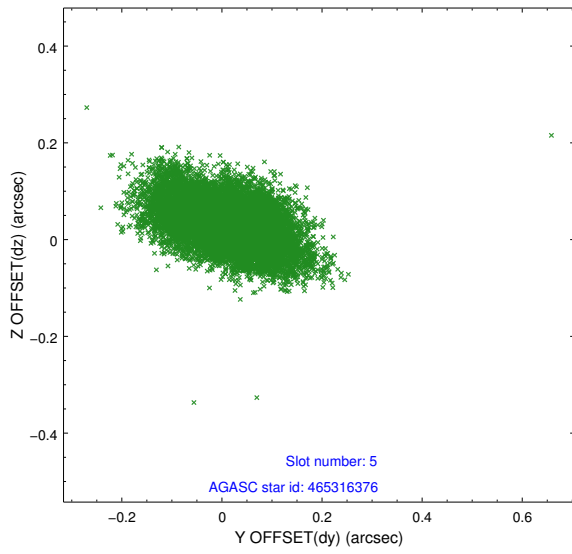
2.4.1 Slot 3



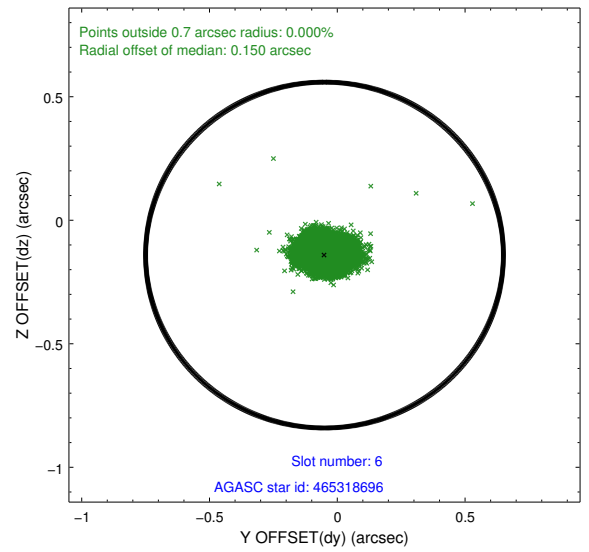
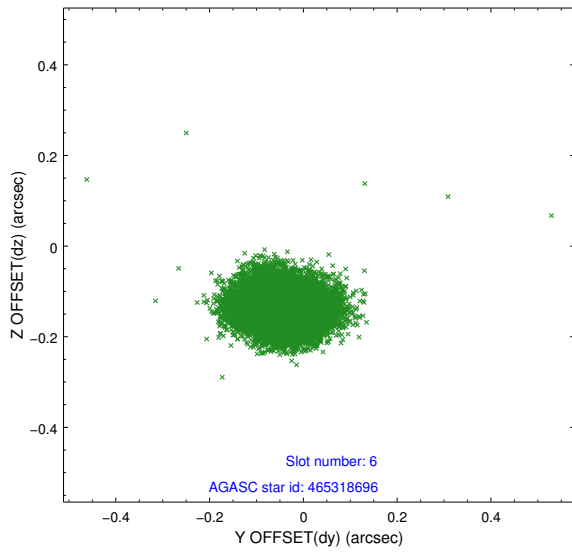
2.4.2 Slot 4



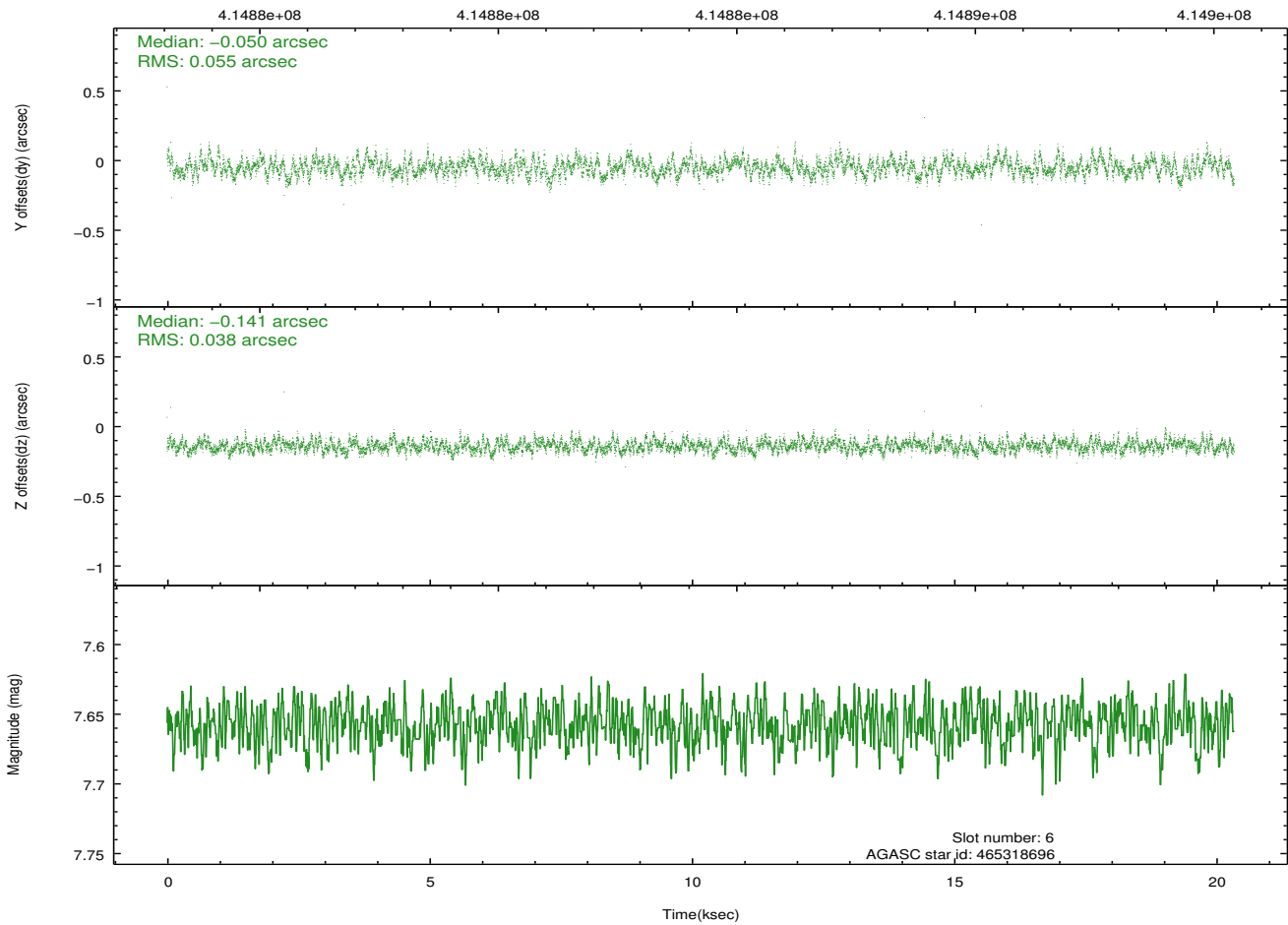
2.4.3 Slot 5



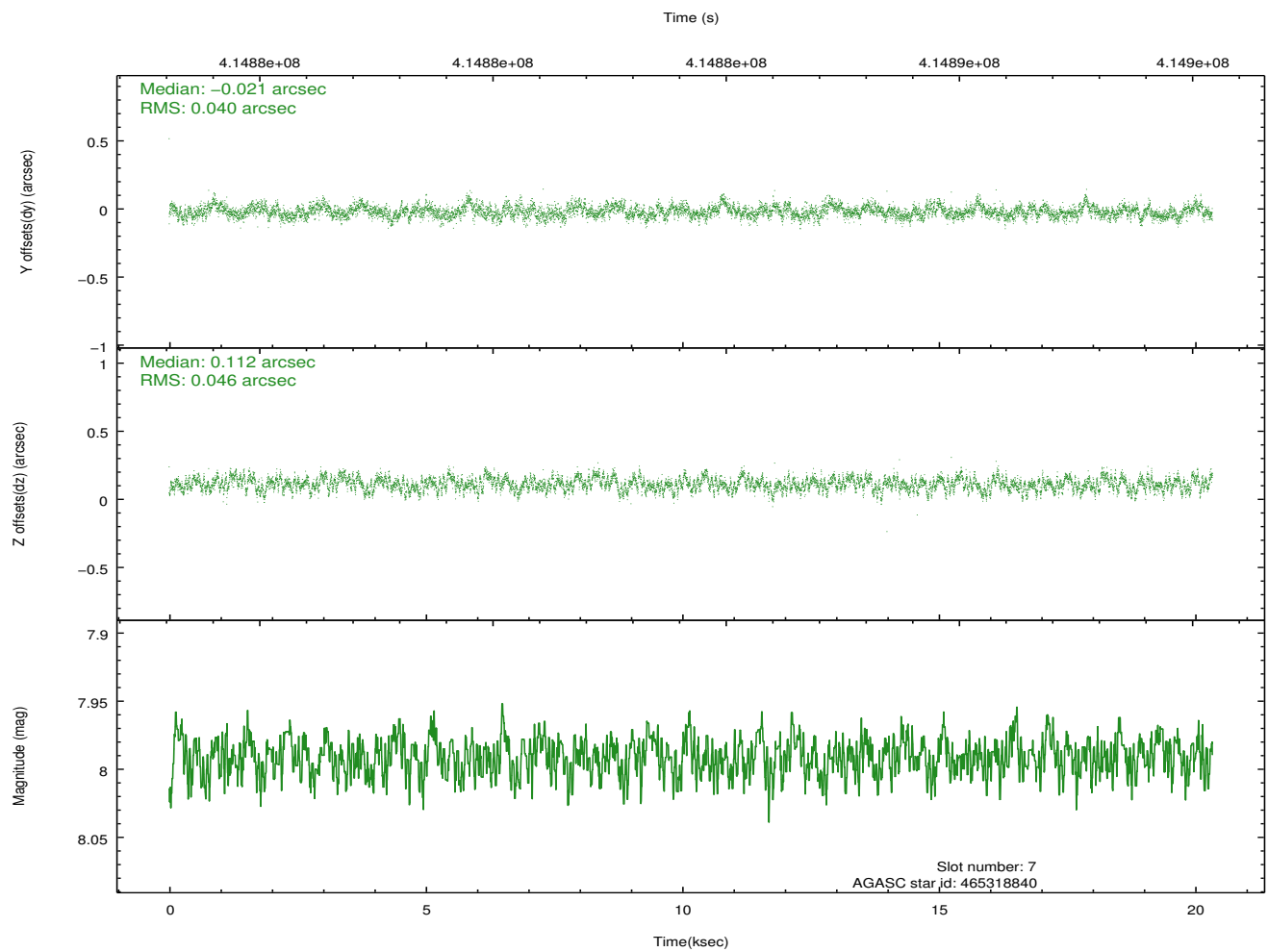
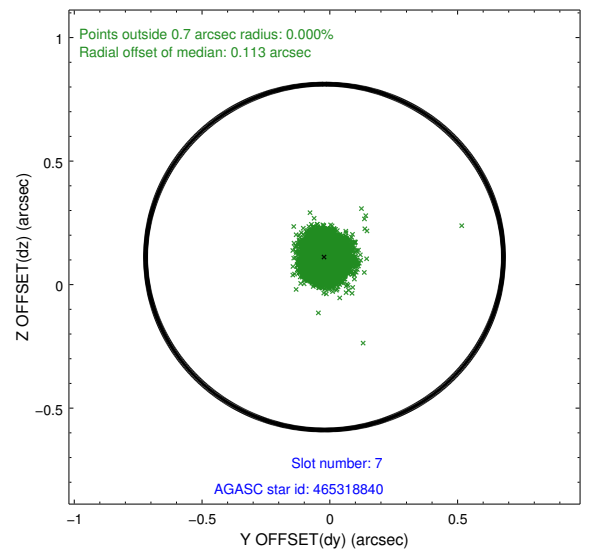
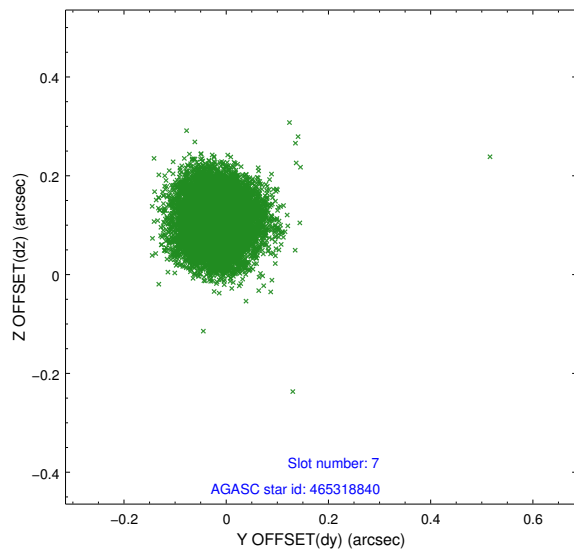
2.4.4 Slot 6



Time (s)

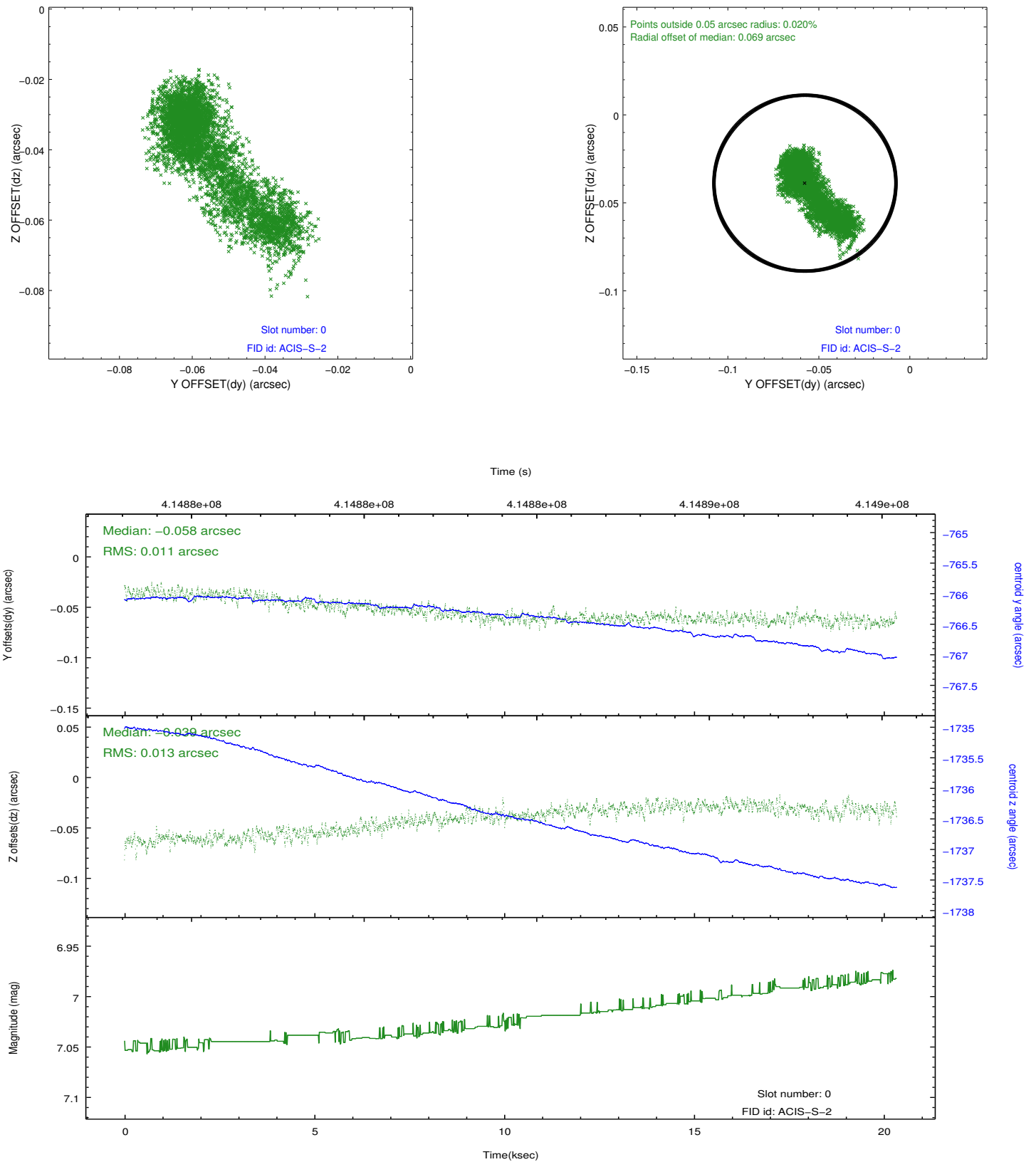


2.4.5 Slot 7

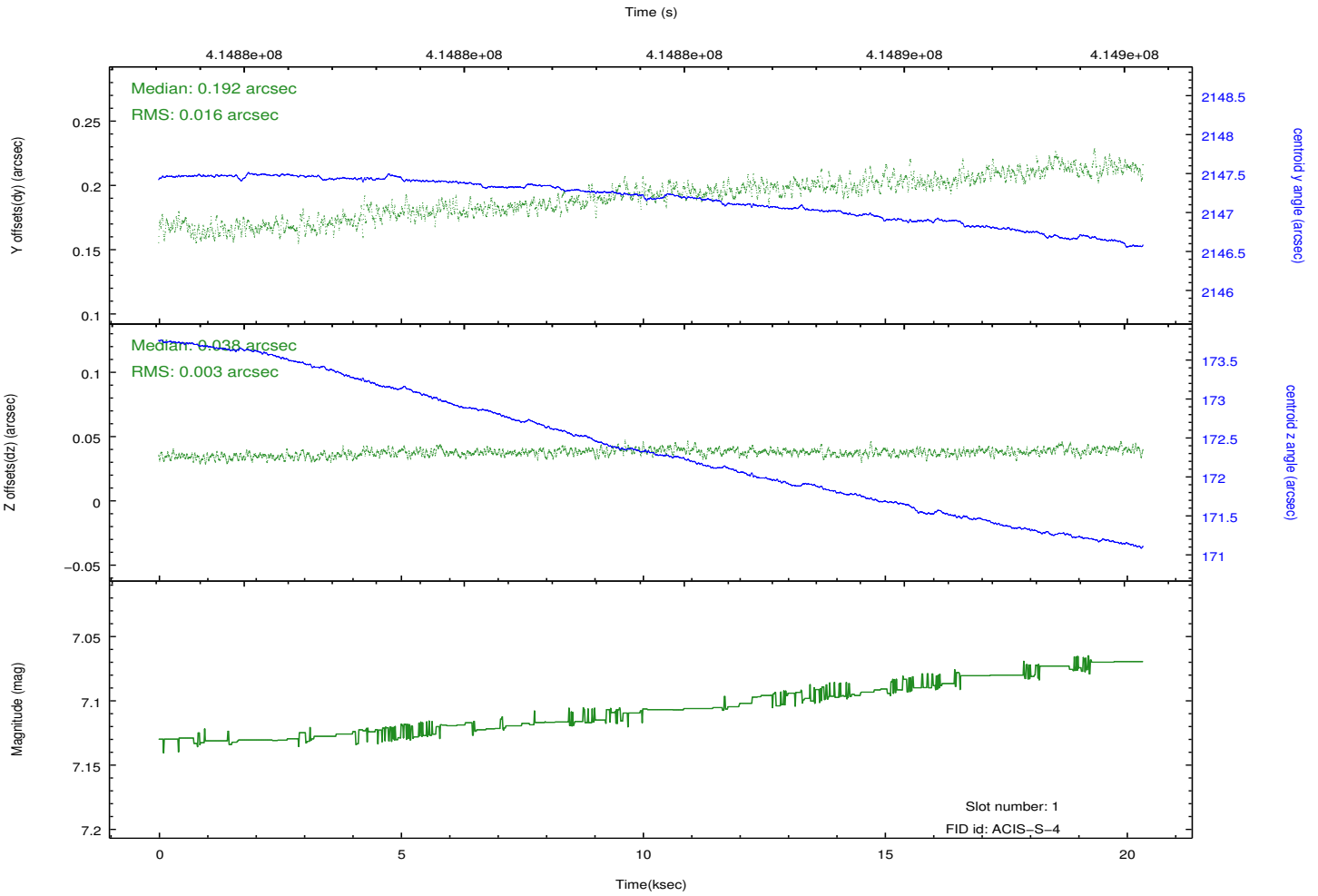
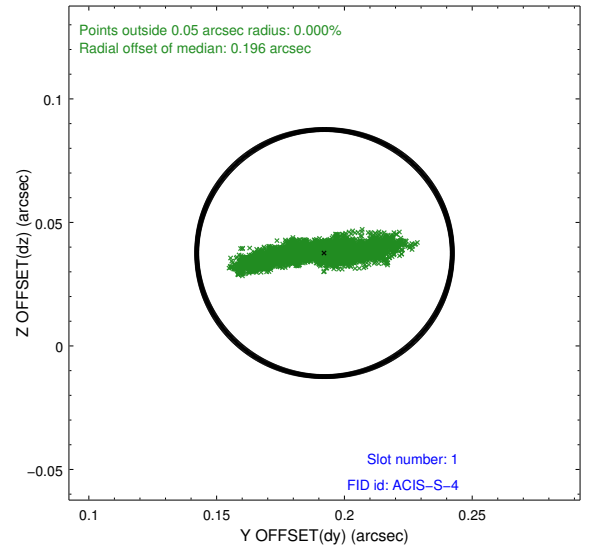
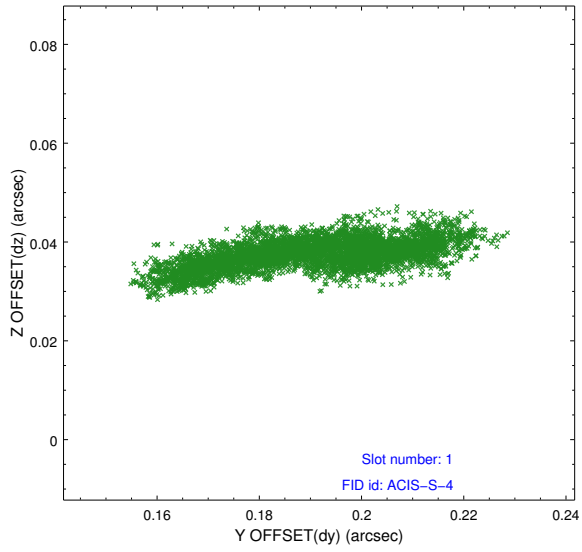


2.5 FID Slots

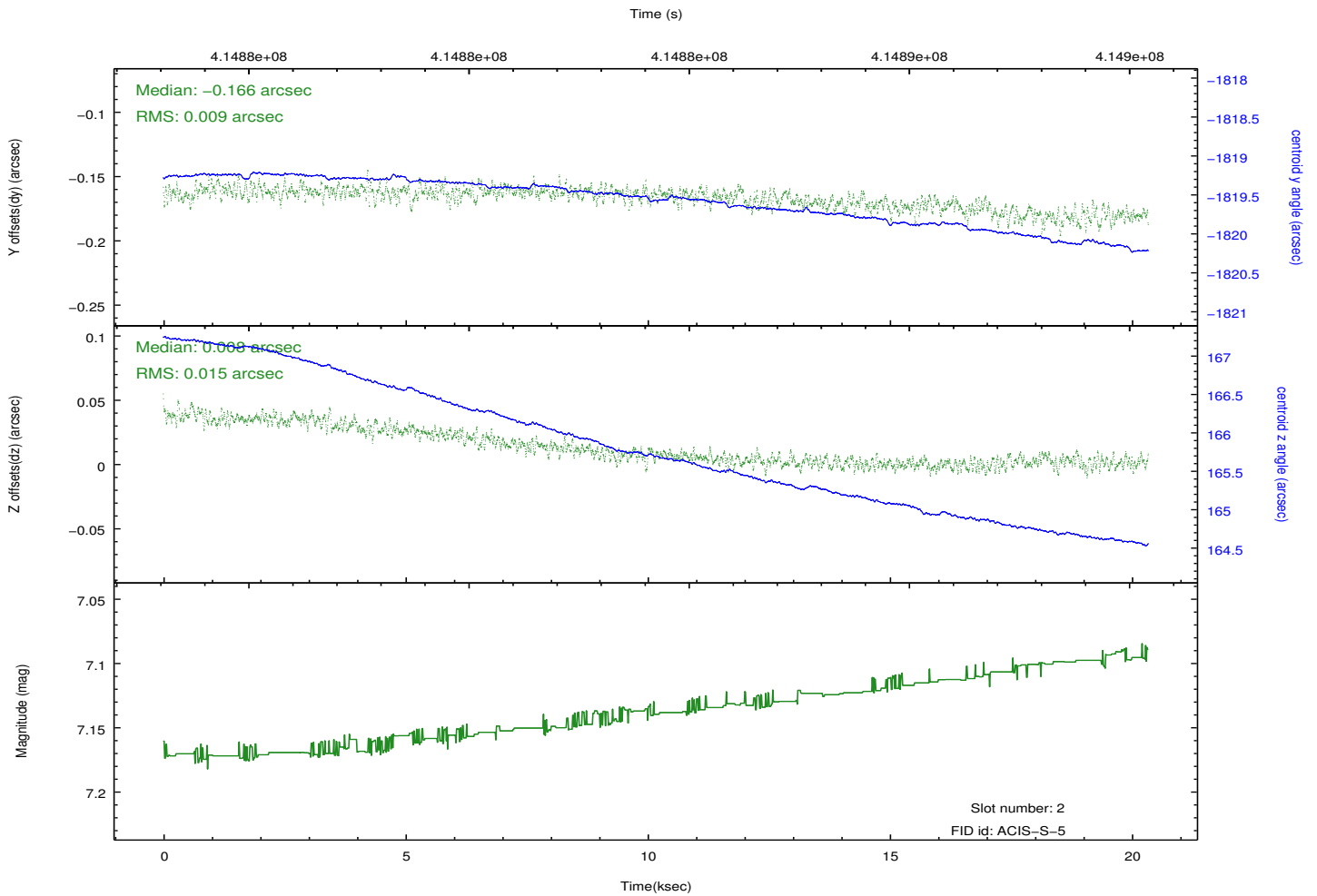
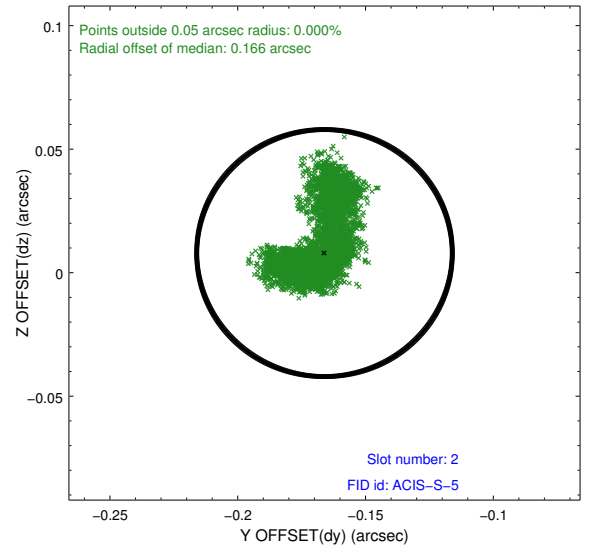
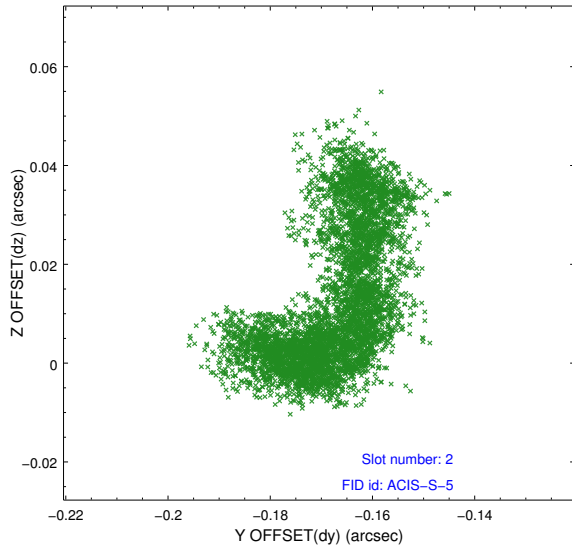
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.047999925375

A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSEr algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.