

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12386 - L2 Version 2
Chandra X-Ray Center

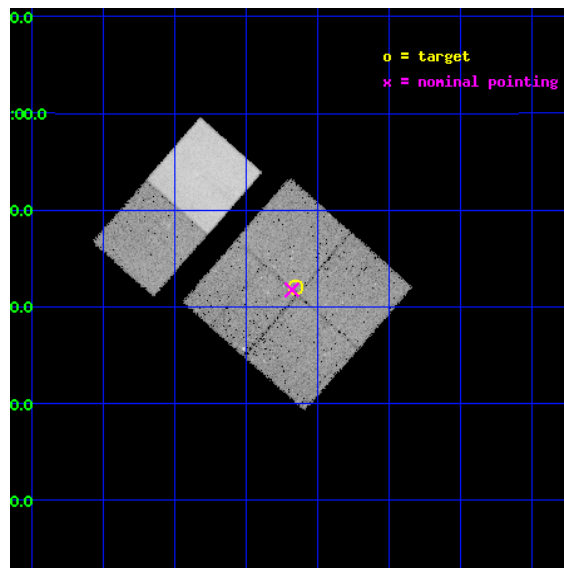
L2 Processing Date : Feb 2 2012

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1 Front

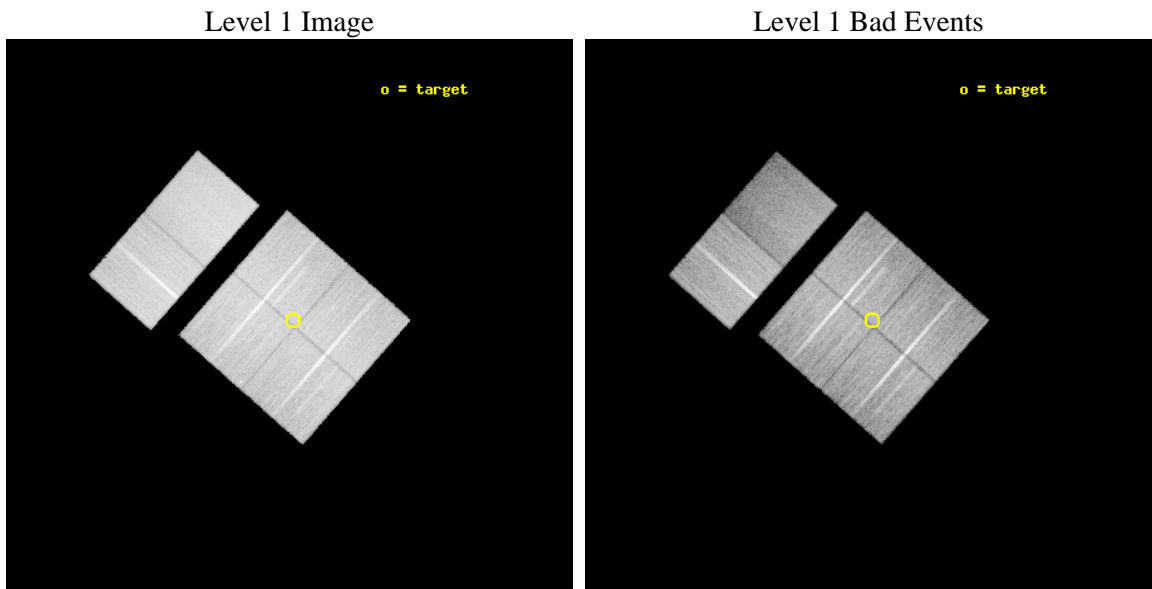
seq_num	200720	Sequence number
obs_id	12386	Observation id
title	Rosette: Understanding Star Formation in Molecular Cloud Complexes	
observer	Dr. Junfeng Wang	Principal investigator
object	RMC REFL9	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	98.787917	Observer's specified target RA [deg]
dec_targ	3.700278	Observer's specified target Dec [deg]
ra_nom	98.79483171731	Nominal RA [deg]
dec_nom	3.696069729391	Nominal Dec [deg]
roll_nom	311.30359465437	Nominal Roll [deg]
revision	2	Processing version of data
ontime	35052.310576022	Sum of GTIs [s]
livetime	34608.457113541	Livetime [s]
ontime0	35052.187456012	Sum of GTIs [s]
ontime1	35045.746455312	Sum of GTIs [s]
ontime2	35052.269536018	Sum of GTIs [s]
ontime3	35052.310576022	Sum of GTIs [s]
ontime6	35052.392656028	Sum of GTIs [s]
ontime7	35052.351616025	Sum of GTIs [s]
l2events	218838	Number of level 2 events



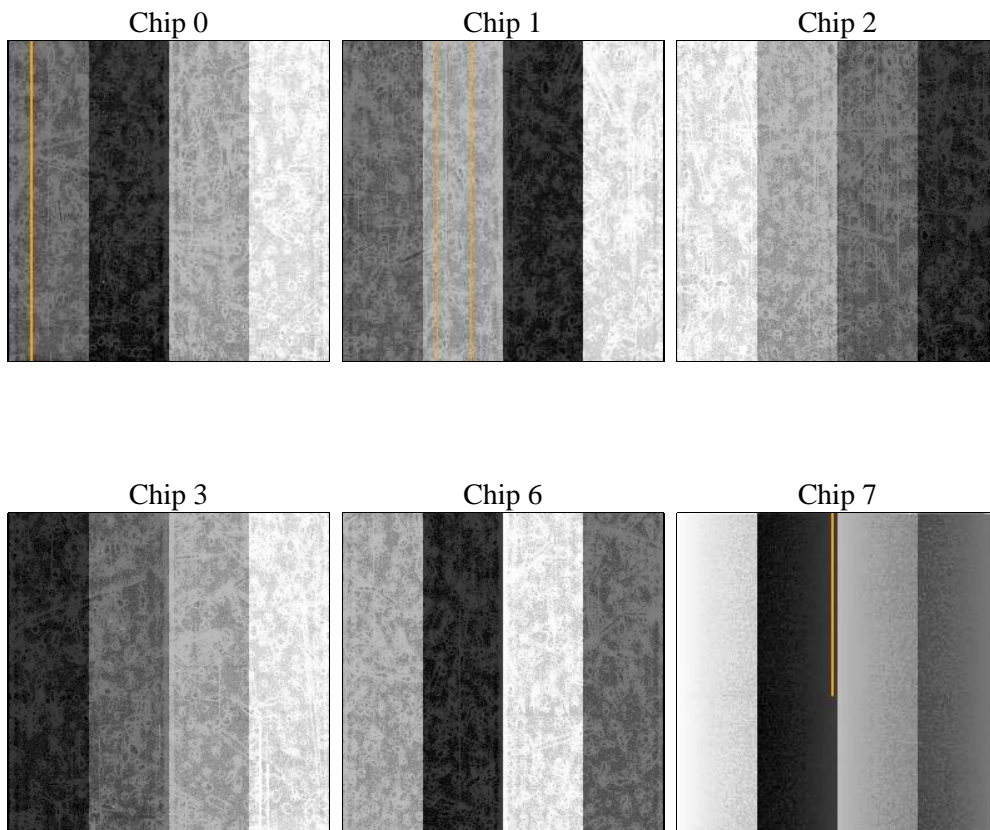
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	35052.310576022	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	35052.187456012	Sum of GTIs [s]
date	2012-02-02T06:56:58	Date and time of file creation	ontime1	35045.746455312	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	35052.269536018	Sum of GTIs [s]
			ontime3	35052.310576022	Sum of GTIs [s]
			ontime6	35052.392656028	Sum of GTIs [s]
			ontime7	35052.351616025	Sum of GTIs [s]
			l1events	1365060	Number of level 1 events

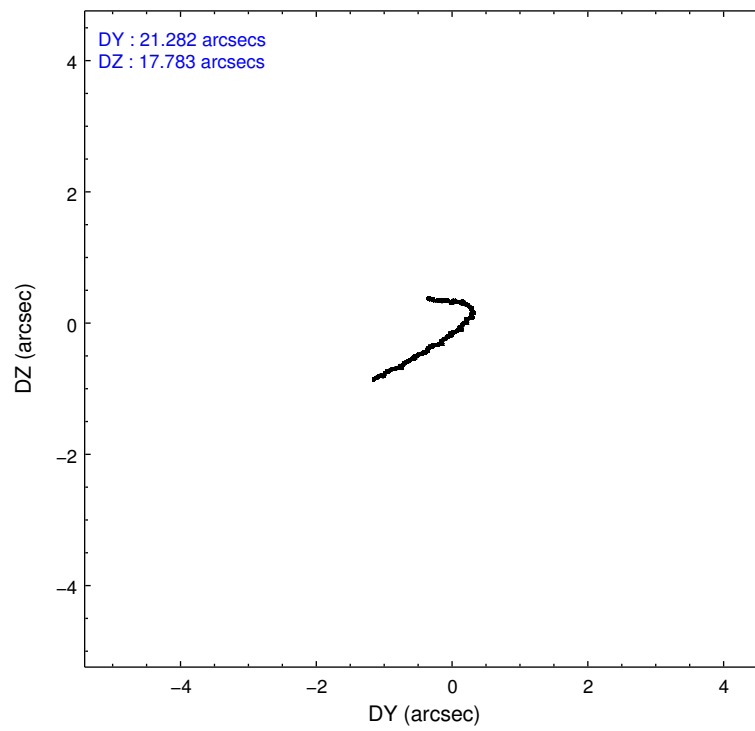
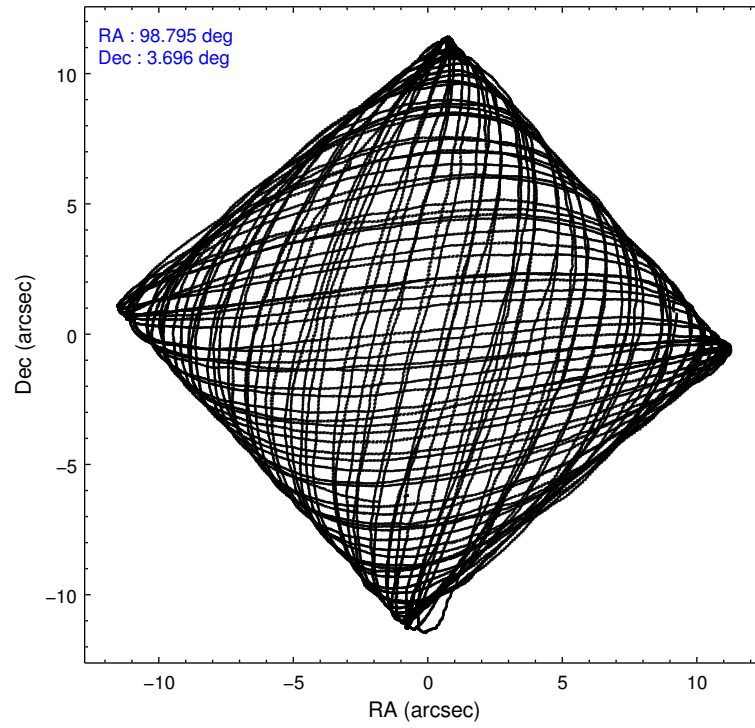
2.1.4 Events

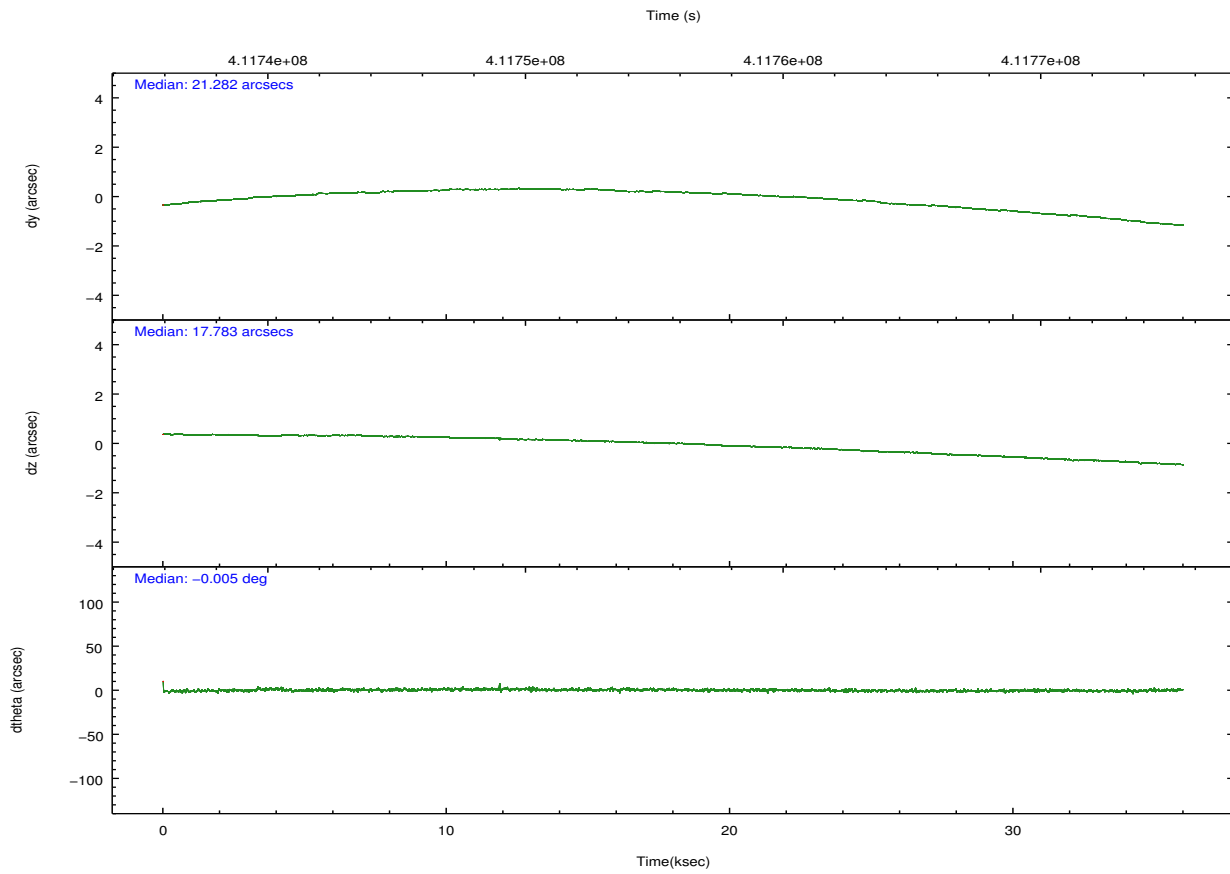
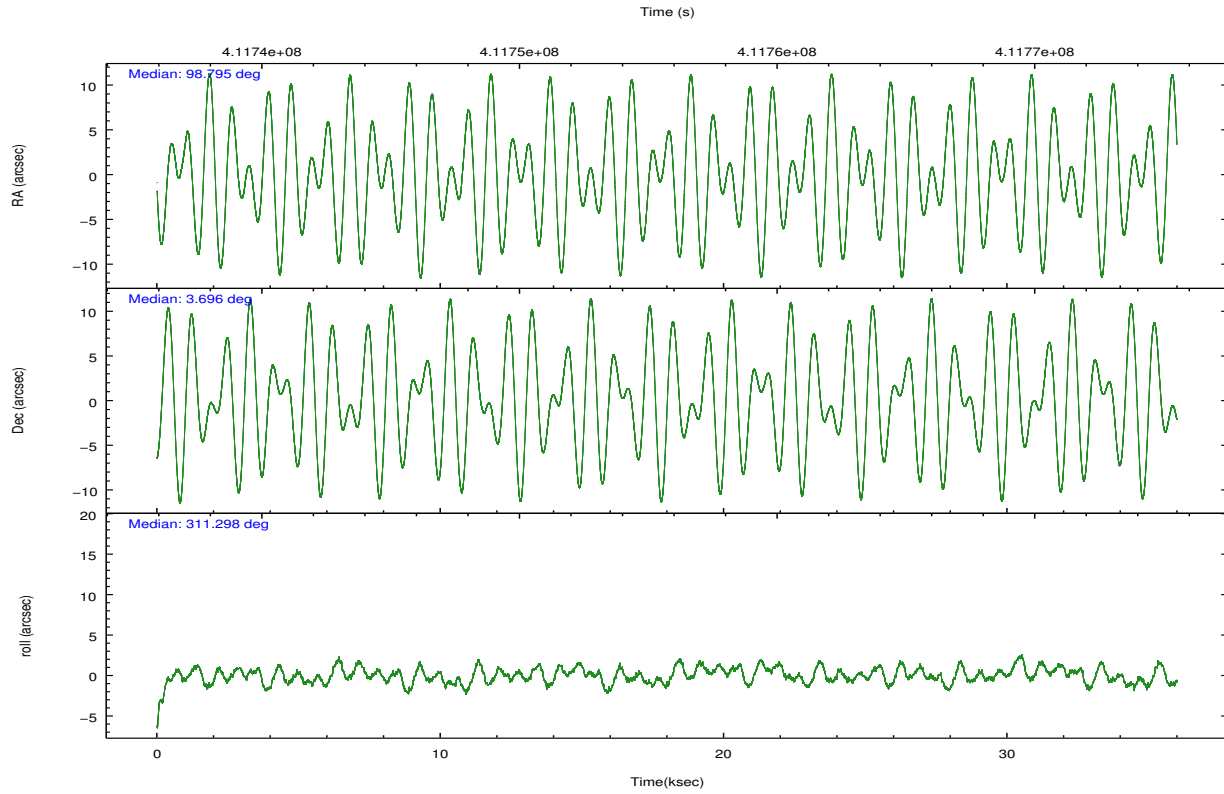
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	208843	209859	232462	224726	241792	247378	grade 0 events	8483	8590	9236	8531	8913	11895
rejected events	184394	184363	207623	201139	216058	128188		4%	4%	3%	3%	3%	4%
rejected %	88%	87%	89%	89%	89%	51%	grade 1 events	116	153	141	143	128	383
								0%	0%	0%	0%	0%	0%
							grade 2 events	6017	5943	6010	5204	6219	25440
								2%	2%	2%	2%	2%	10%
							grade 3 events	2718	2849	2564	2560	2521	10658
								1%	1%	1%	1%	1%	4%
							grade 4 events	2561	2726	2494	2558	2610	10756
								1%	1%	1%	1%	1%	4%
							grade 5 events	8389	8662	8034	9205	9413	26691
								4%	4%	3%	4%	3%	10%
							grade 6 events	4673	5393	4537	4740	5477	60468
								2%	2%	1%	2%	2%	24%
							grade 7 events	175886	175543	199446	191785	206511	101087
								84%	83%	85%	85%	85%	40%

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	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	98.768692	98.79483171730982	CCD I2 on	Y	Y
[deg] Pointing Dec	3.704774	3.696069729391016	CCD I3 on	Y	Y
[deg] Pointing Roll	311.096590	311.3035946543684	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	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	411738729.184000	411737300.82561	CCD S5 on	N	N
Observation start date	2011-01-18T11:51:03	2011-01-18T11:28:20	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	411773729.184000	411774779.44004	On-chip summing requested	N	N
Observation end date	2011-01-18T21:34:23	2011-01-18T21:52:59	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



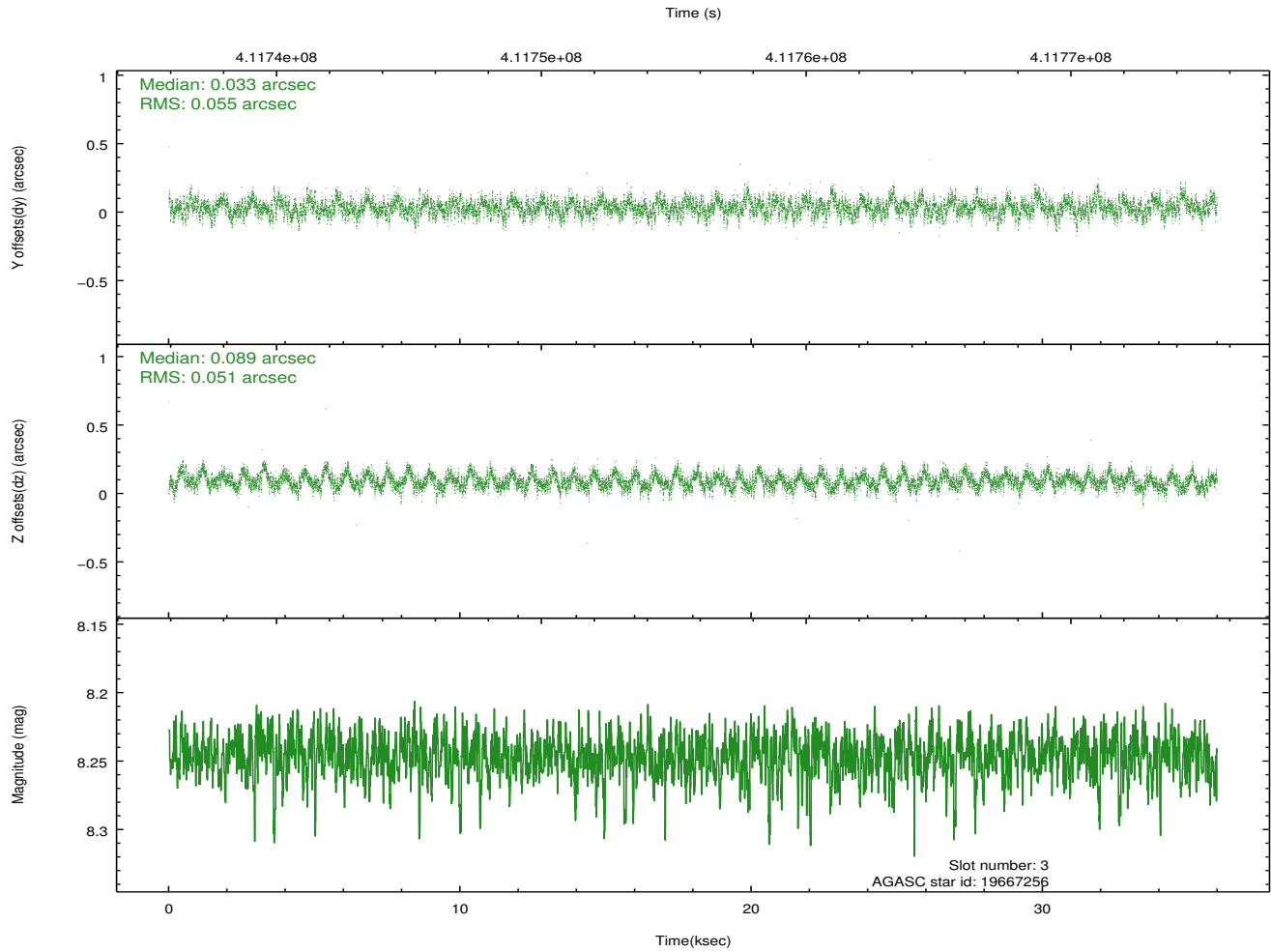
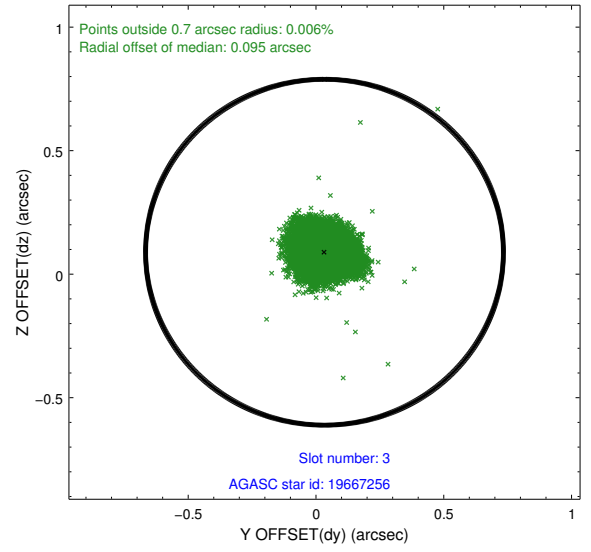
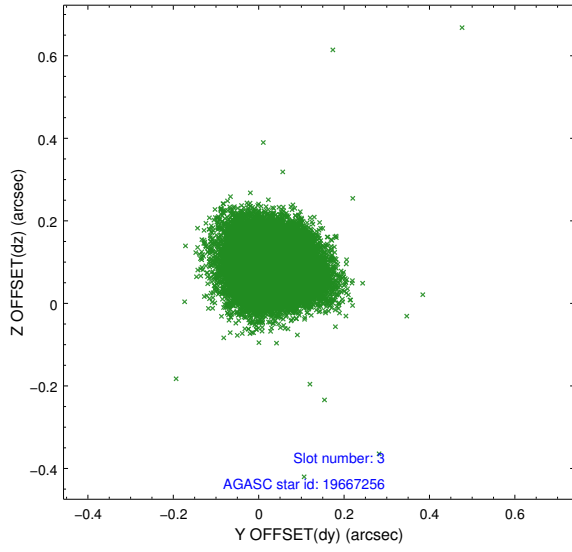


Slot Statistics

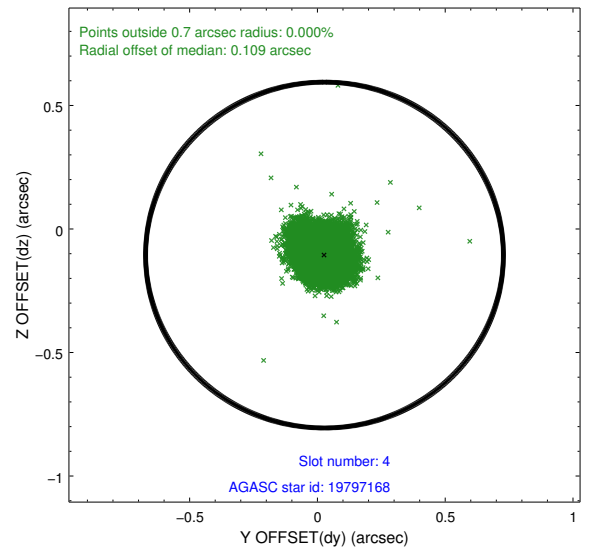
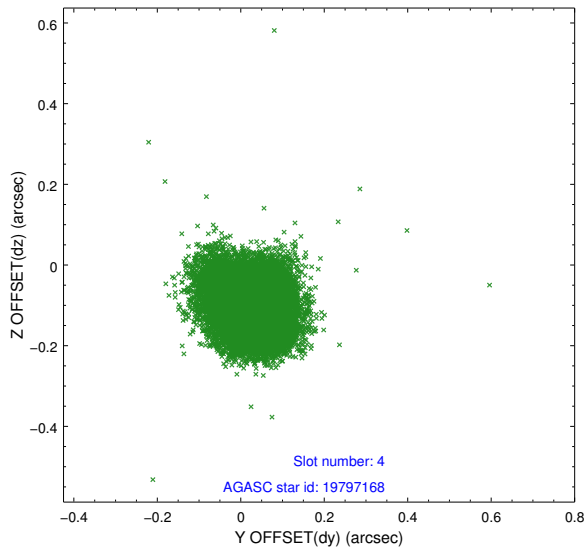
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.05	8778	-0.109	0.037	0.018	0.041	0.000000	0.000000	918.07	-841.28
1	FID	ACIS-I-2	6.96	8778	-0.130	-0.100	0.015	0.028	0.000000	0.000000	-776.02	-847.95
2	FID	ACIS-I-4	6.98	8777	0.141	0.132	0.016	0.023	0.000000	0.000000	2138.10	1058.65
3	GUIDE	19667256	8.25	17548	0.033	0.089	0.079	0.128	98.670406	3.073409	1481.13	-1760.06
4	GUIDE	19797168	8.45	17511	0.028	-0.106	0.080	0.128	99.505890	3.702817	1745.74	1991.83
5	GUIDE	20202848	7.46	17554	0.056	0.188	0.076	0.117	98.177906	3.814518	-1692.65	-1338.80
6	GUIDE	20203472	7.86	17551	0.031	-0.038	0.071	0.113	98.653479	4.344261	-2006.69	1201.50
7	GUIDE	20190400	8.62	17546	-0.150	-0.142	0.088	0.142	99.315929	3.998144	495.40	2175.79

2.4 Star Slots

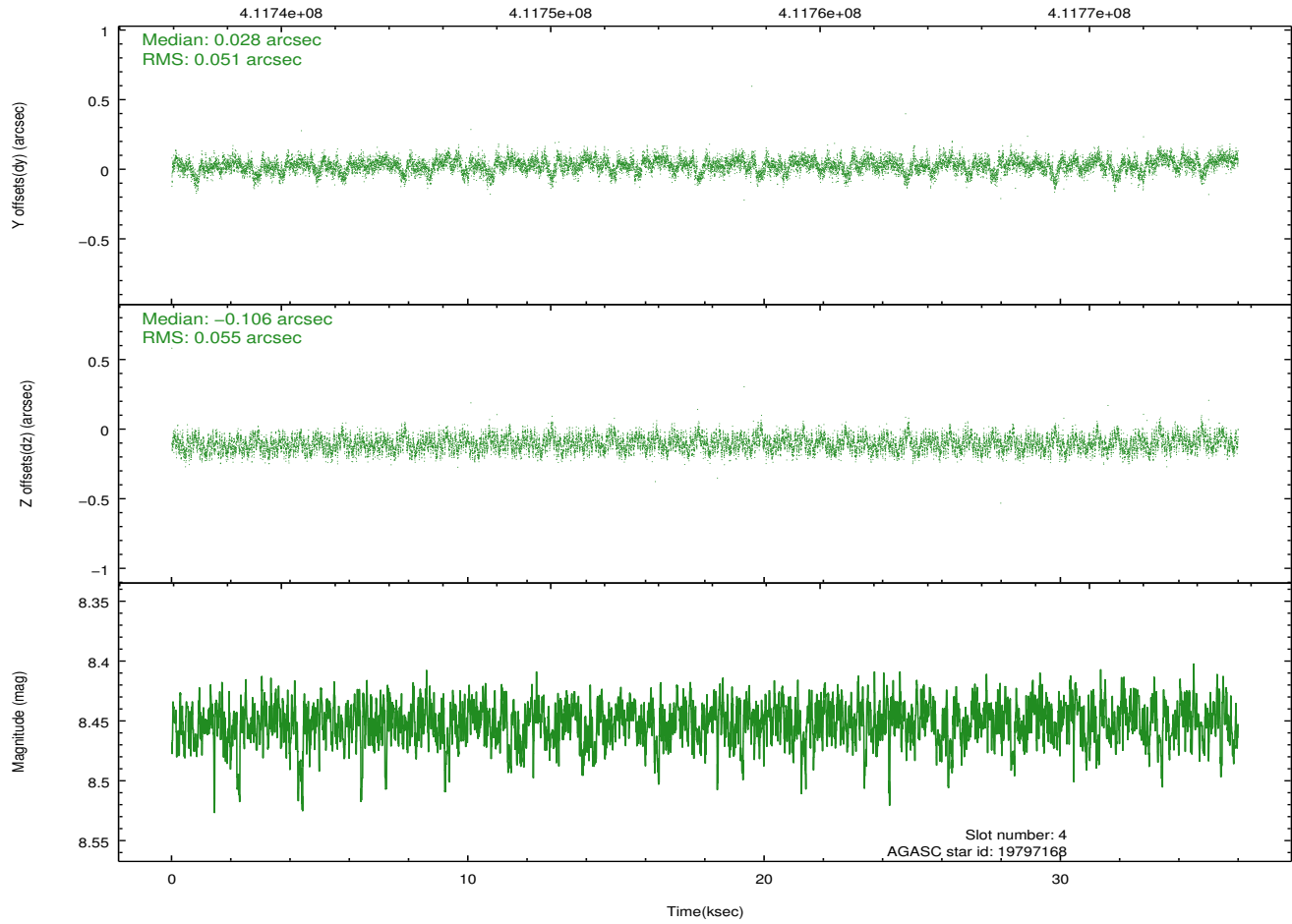
2.4.1 Slot 3



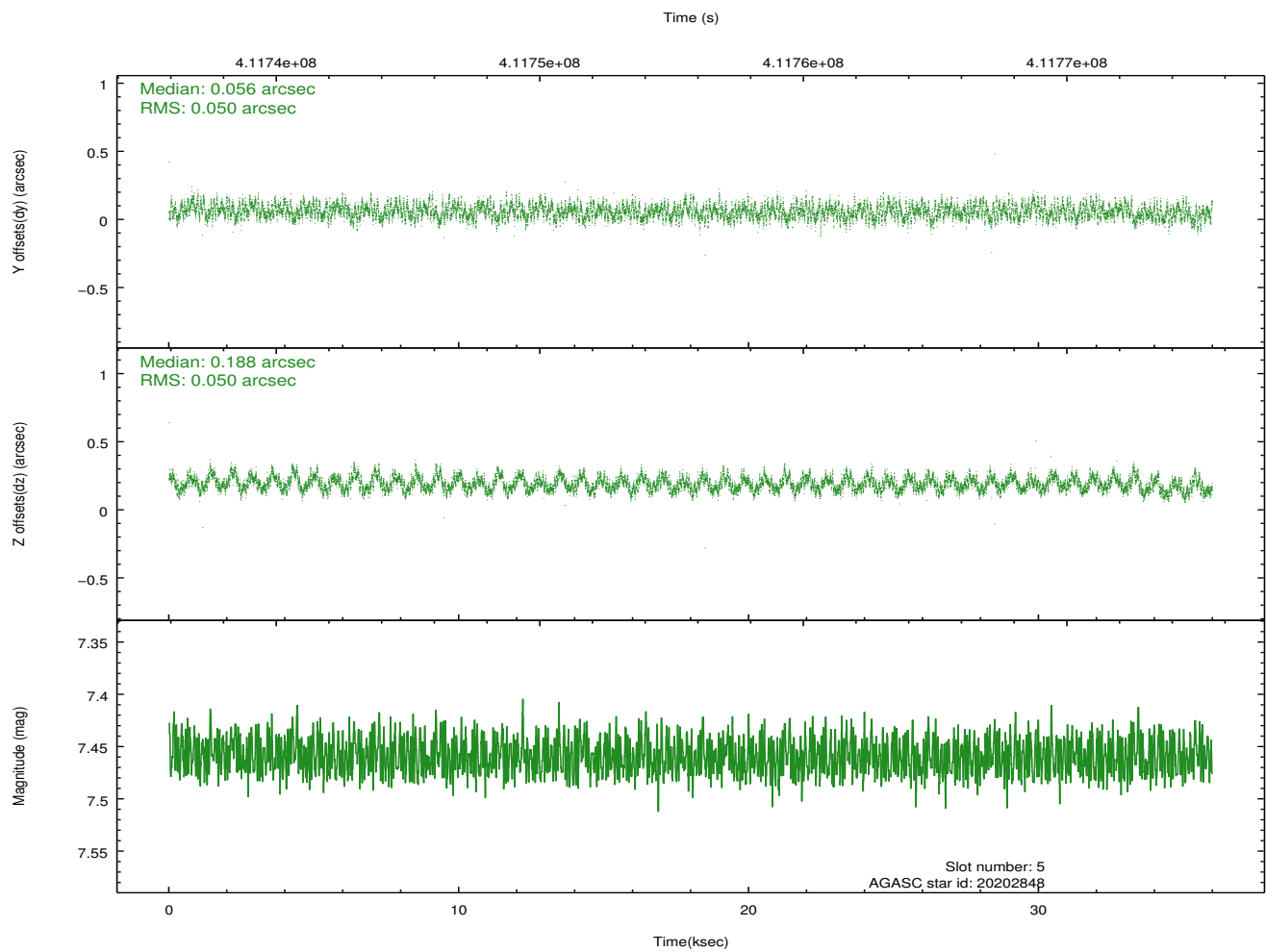
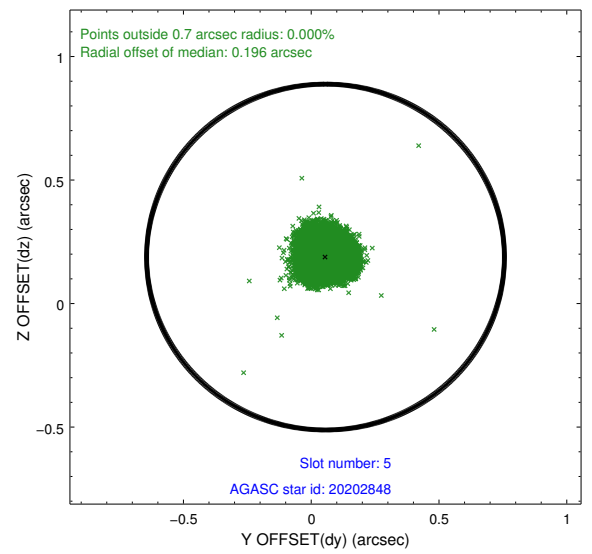
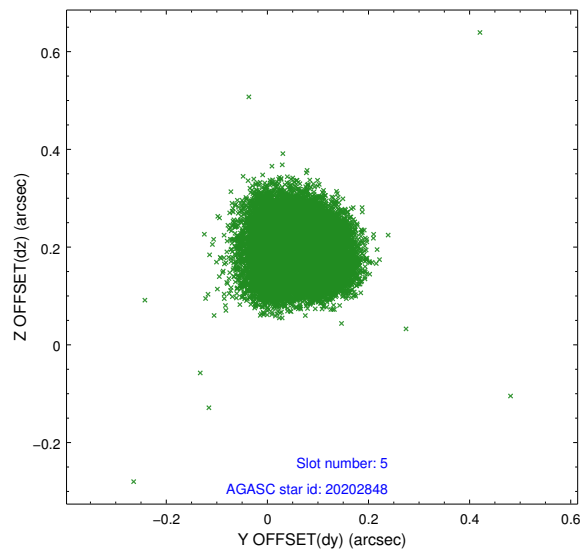
2.4.2 Slot 4



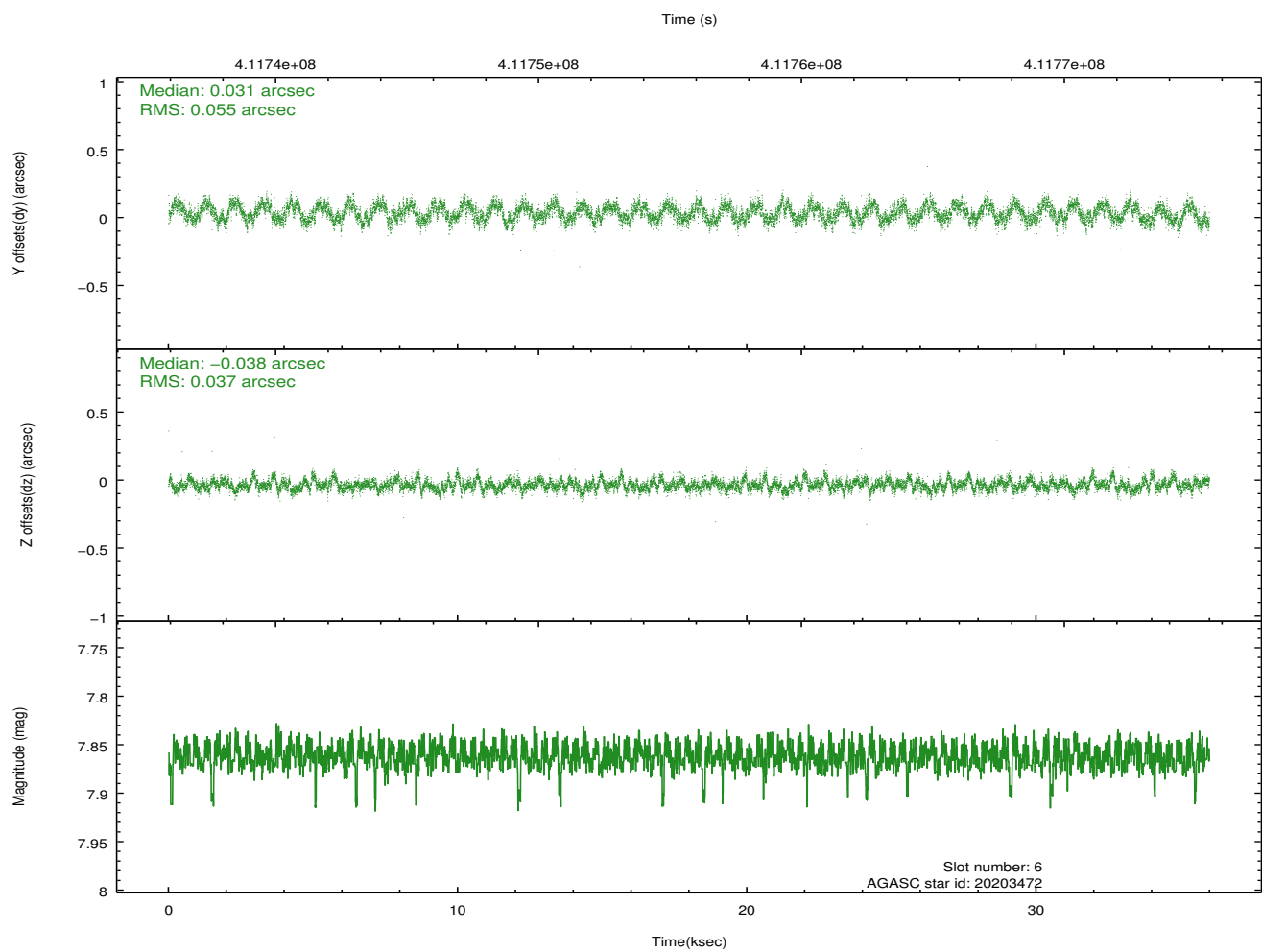
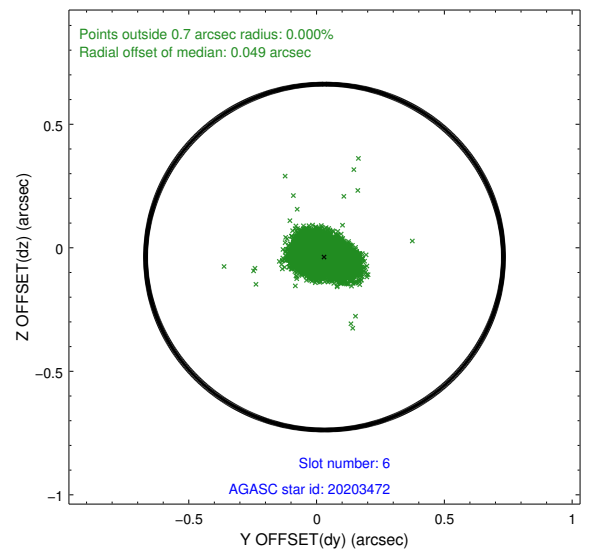
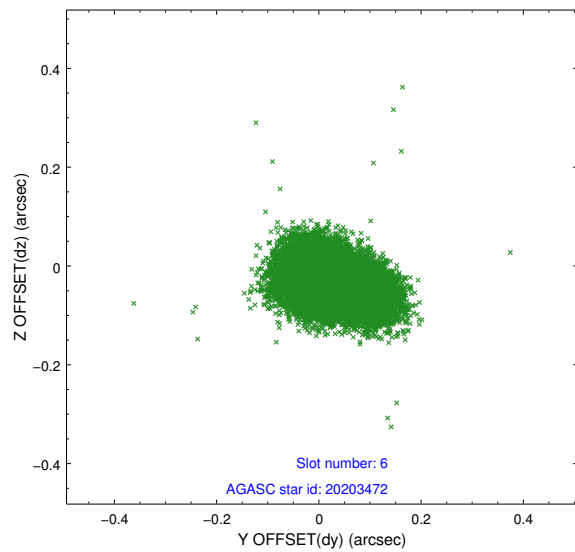
Time (s)



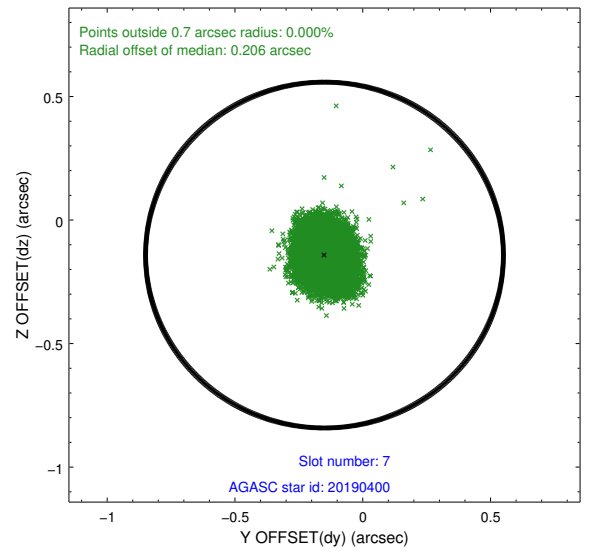
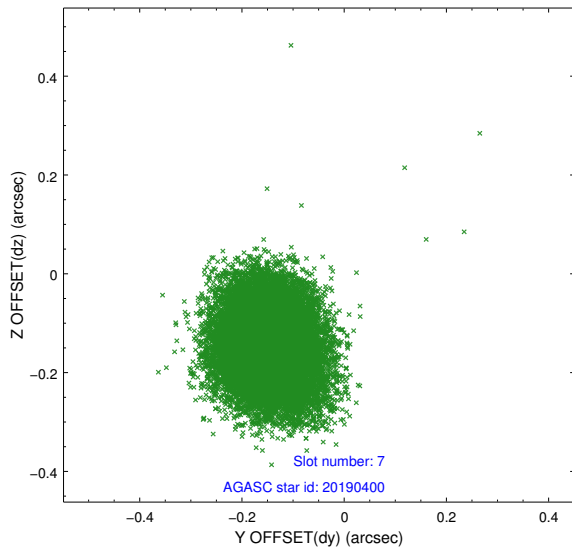
2.4.3 Slot 5



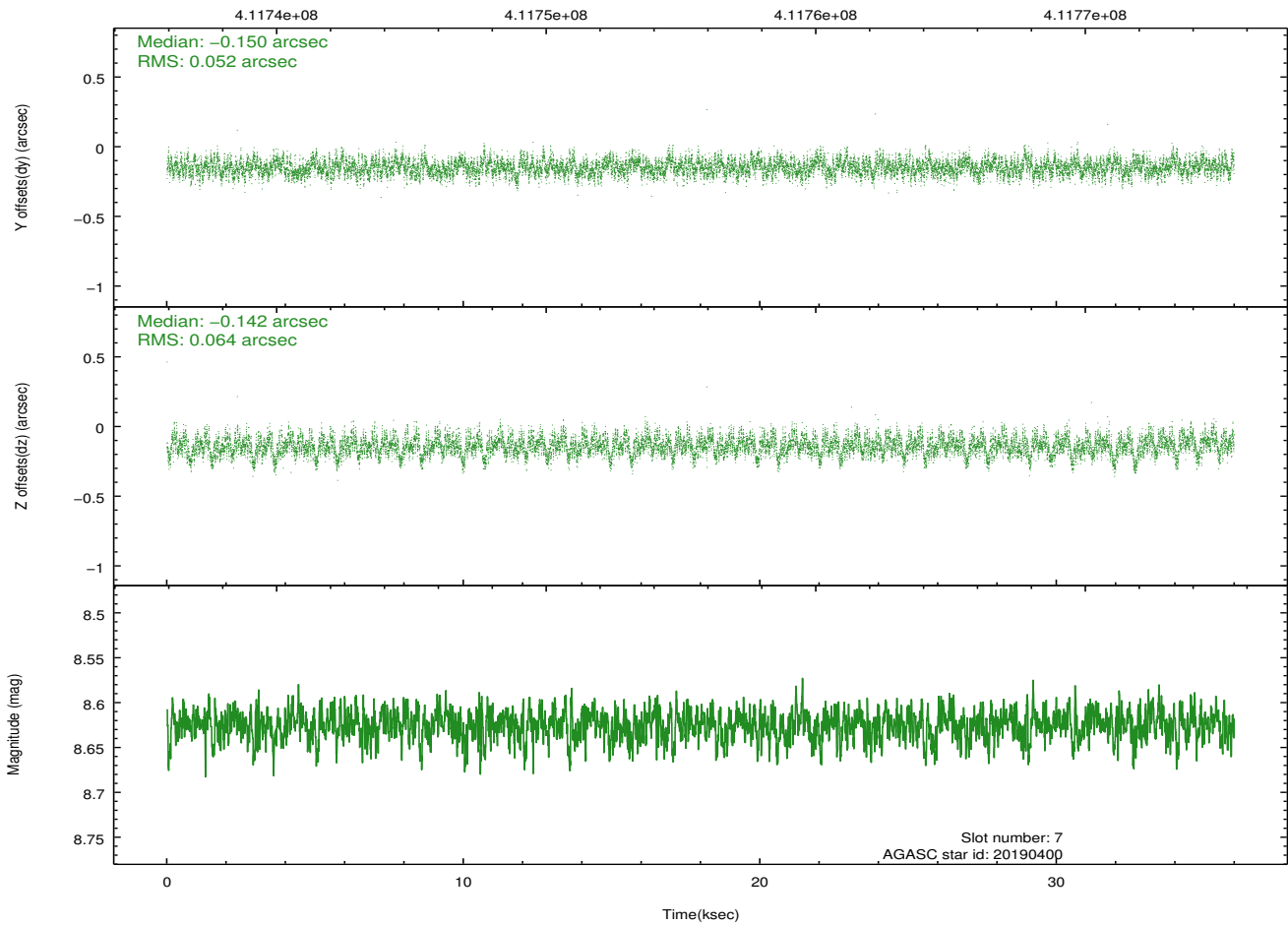
2.4.4 Slot 6



2.4.5 Slot 7

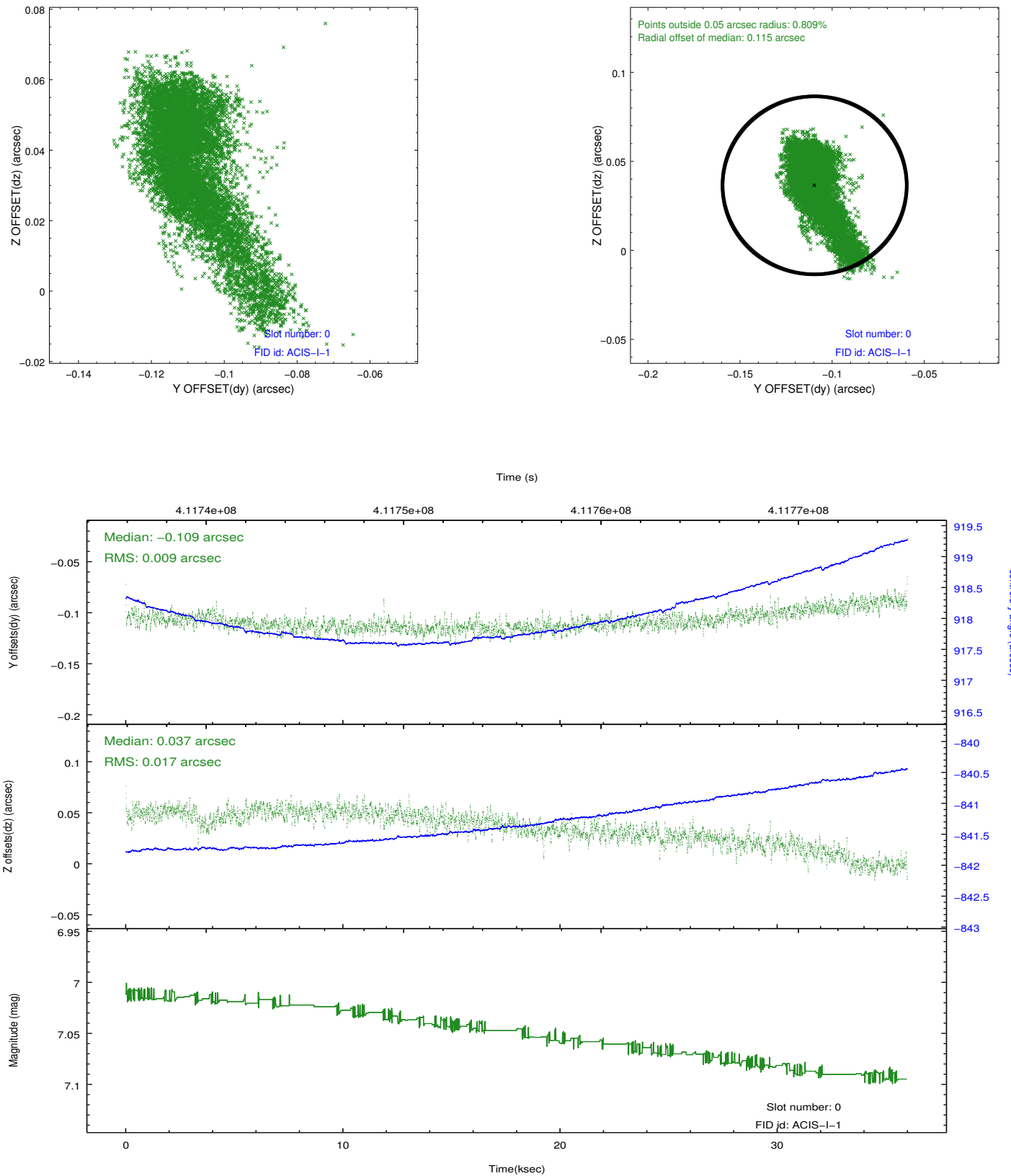


Time (s)

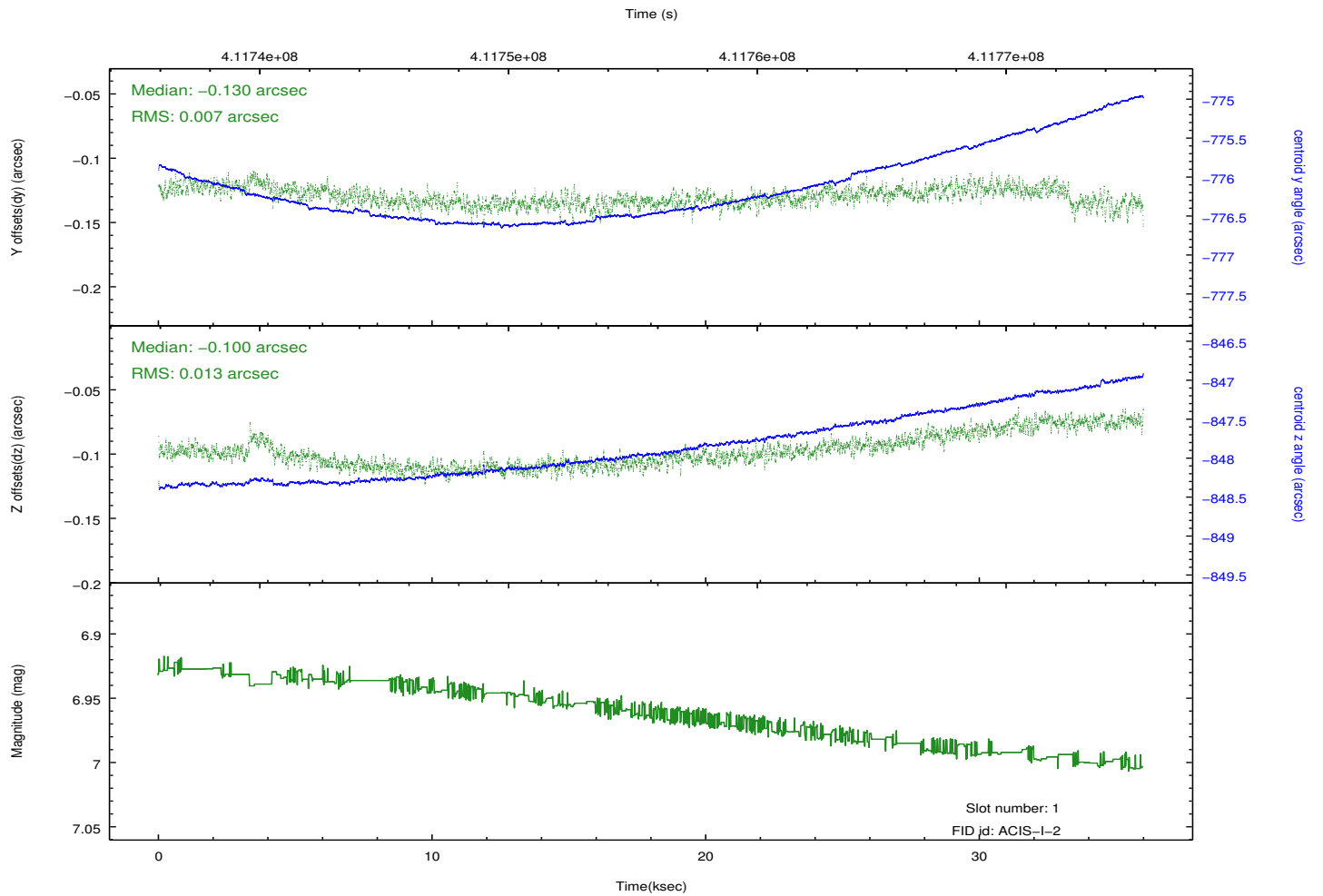
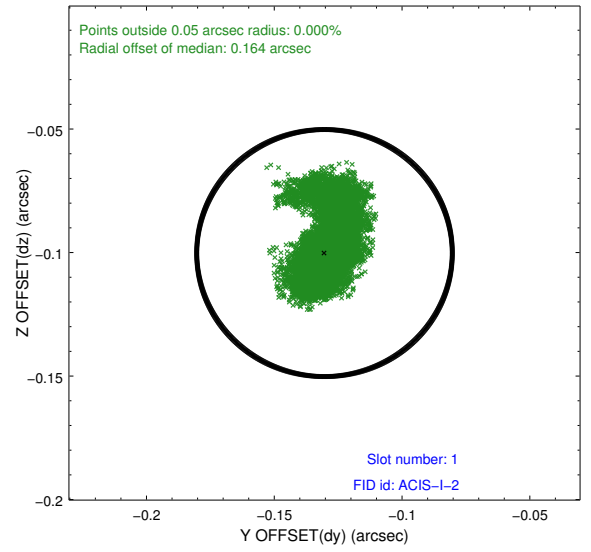
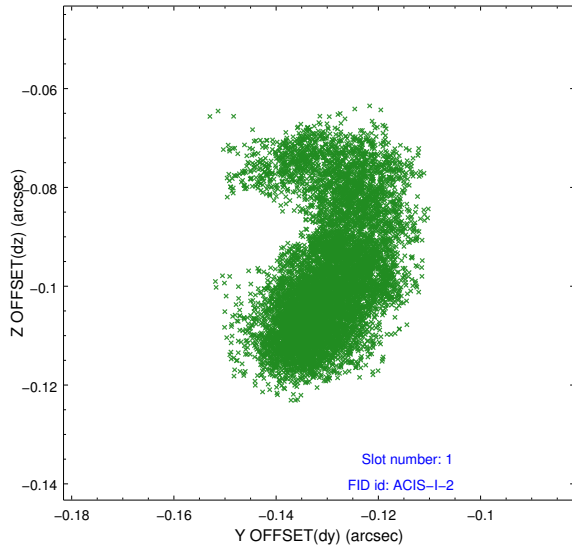


2.5 FID Slots

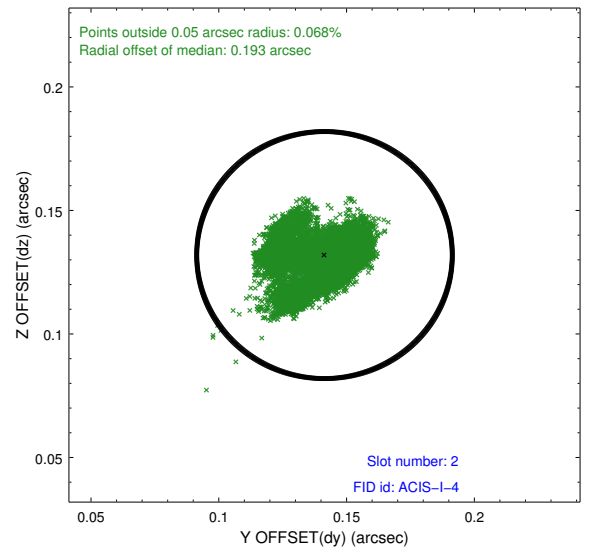
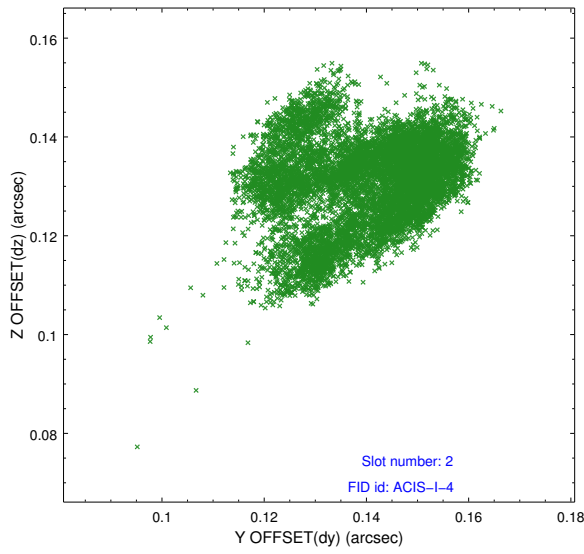
2.5.1 Slot 0



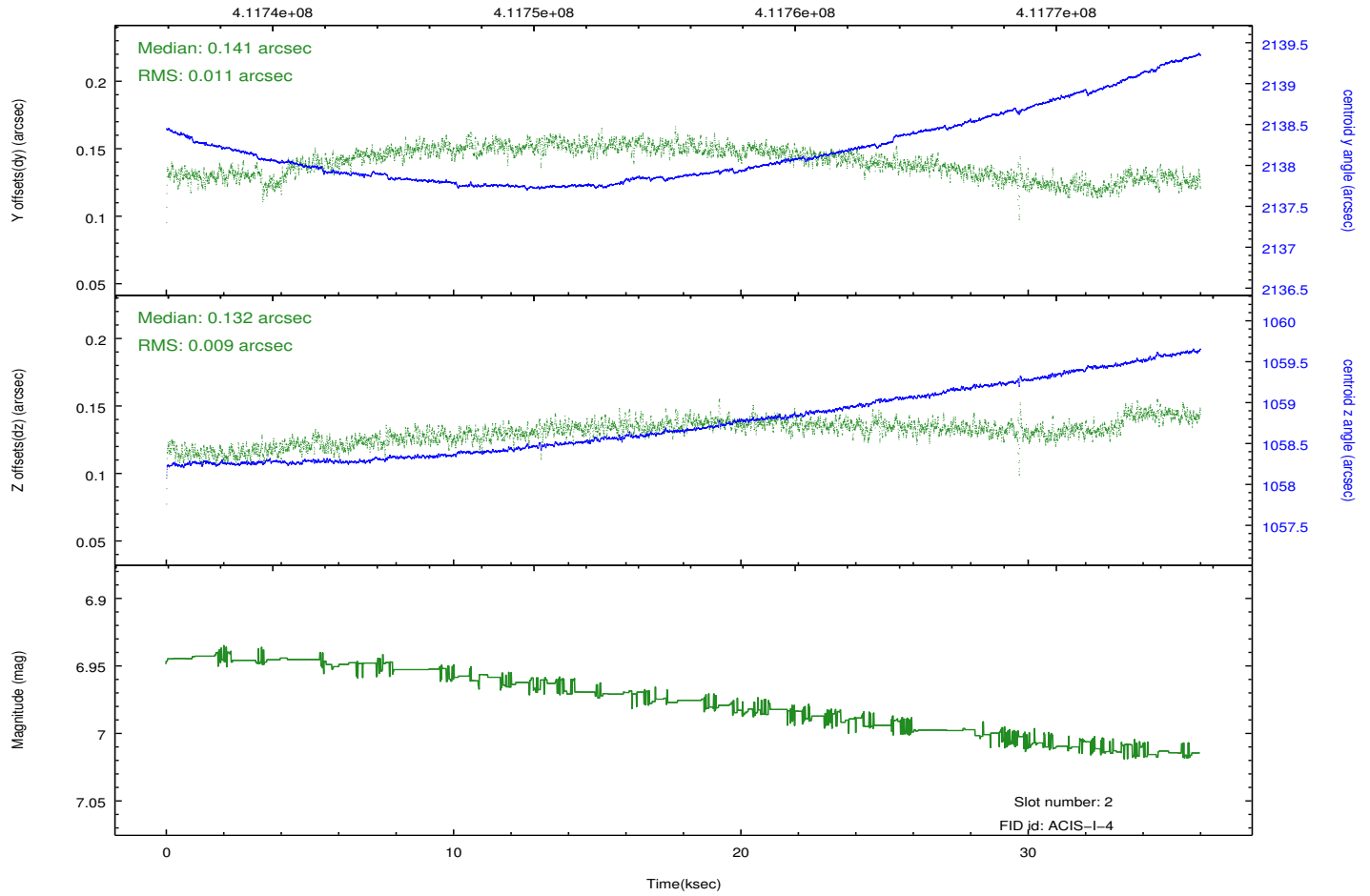
2.5.2 Slot 1



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	John Houck
V&V Date (YYYY-MM-DD)	2012.02.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.052310574472

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 EDSE 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.