

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12676 - L2 Version 2
Chandra X-Ray Center

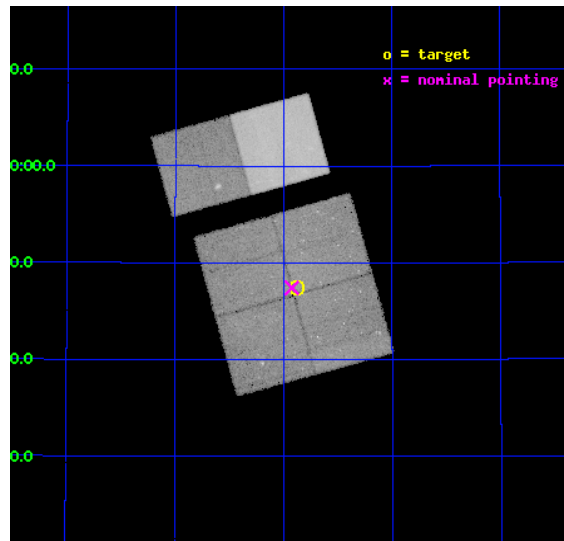
L2 Processing Date : Feb 1 2012

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

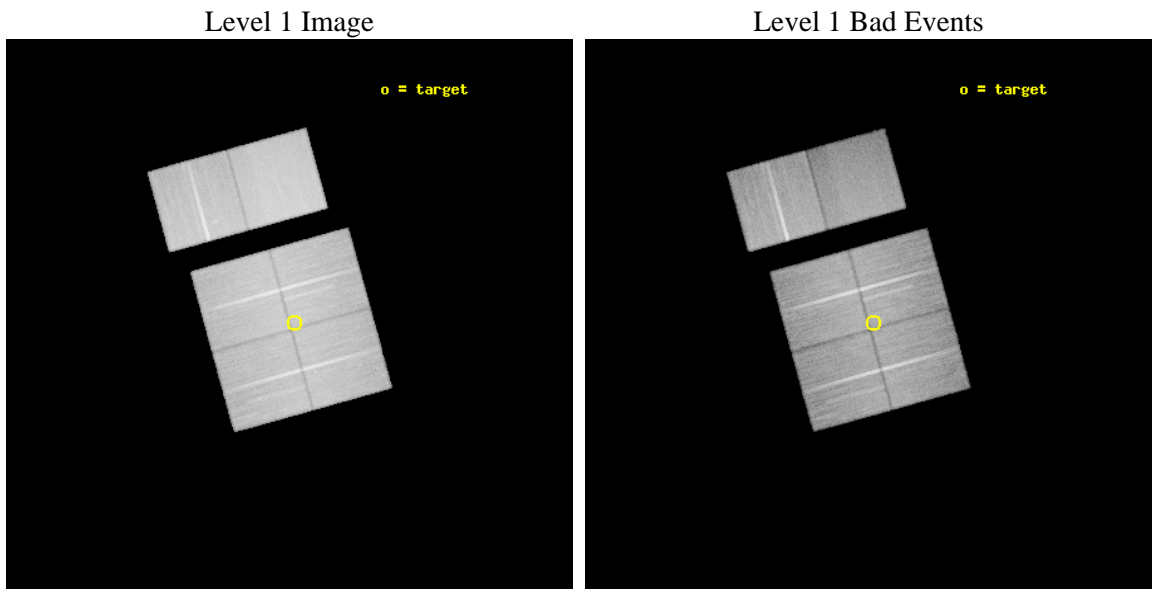
seq_num	501509	Sequence number
obs_id	12676	Observation id
title	VER J2019+407: UNIDENTIFIED TEV SOURCE IN THE GAMMA-CYGNI SNR	Prop
observer	Dr. Mark Theiling	Principal investigator
object	VER J2019+407	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	304.97	Observer's specified target RA [deg]
dec_targ	40.79	Observer's specified target Dec [deg]
ra_nom	304.98068223944	Nominal RA [deg]
dec_nom	40.790263153168	Nominal Dec [deg]
roll_nom	344.5490837958	Nominal Roll [deg]
revision	2	Processing version of data
ontime	47356.799823642	Sum of GTIs [s]
livetime	46757.139509433	Livetime [s]
ontime0	47353.439460218	Sum of GTIs [s]
ontime1	47353.480480313	Sum of GTIs [s]
ontime2	47356.762510598	Sum of GTIs [s]
ontime3	47356.799823642	Sum of GTIs [s]
ontime6	47356.799823642	Sum of GTIs [s]
ontime7	47356.799823642	Sum of GTIs [s]
l2events	400498	Number of level 2 events



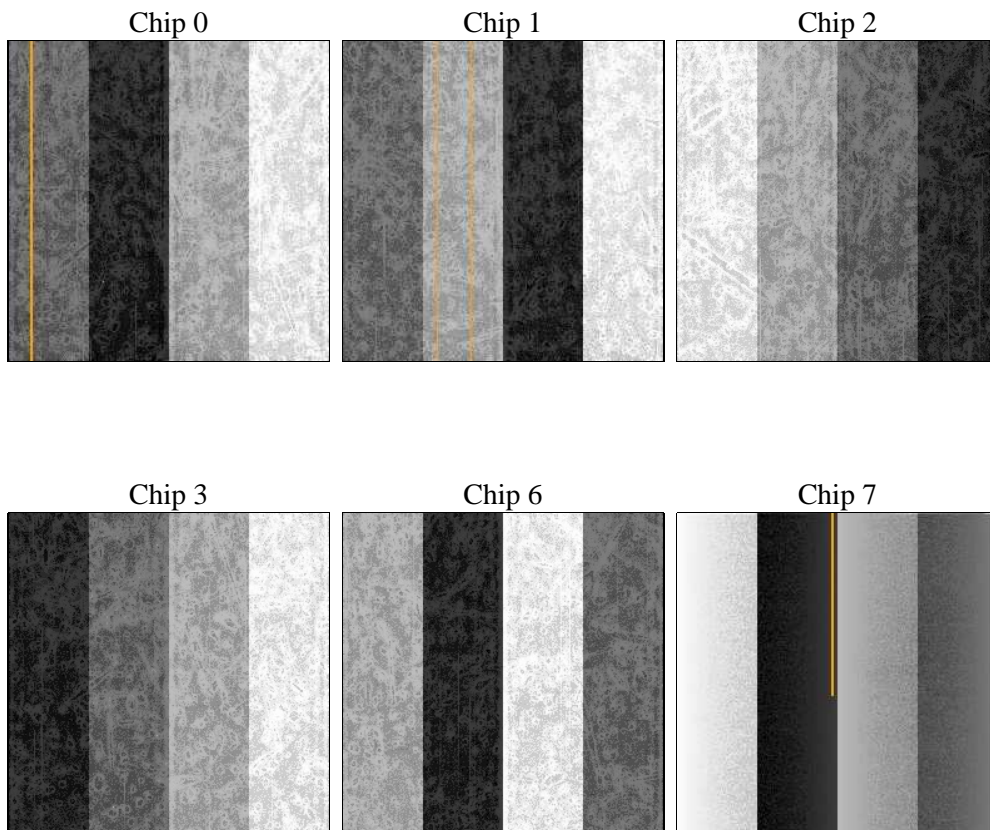
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	47600.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	47356.799823642	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	47353.439460218	Sum of GTIs [s]
date	2012-02-01T11:37:17	Date and time of file creation	ontime1	47353.480480313	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	47356.762510598	Sum of GTIs [s]
			ontime3	47356.799823642	Sum of GTIs [s]
			ontime6	47356.799823642	Sum of GTIs [s]
			ontime7	47356.799823642	Sum of GTIs [s]
			l1events	2093471	Number of level 1 events

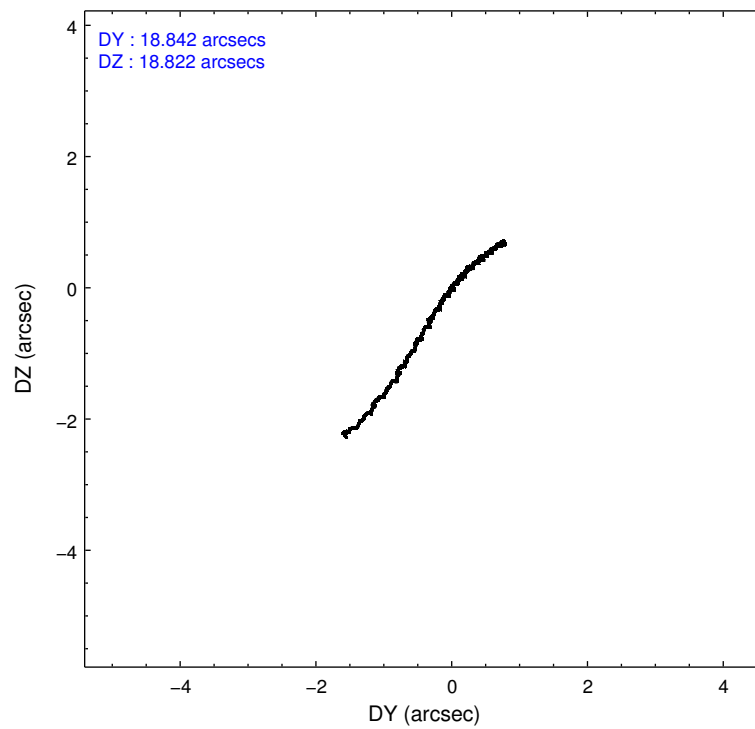
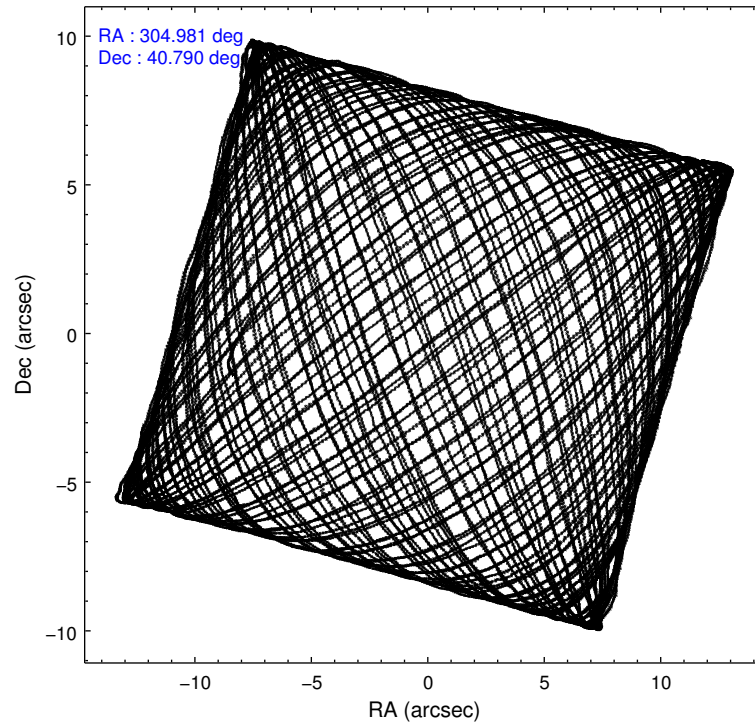
2.1.4 Events

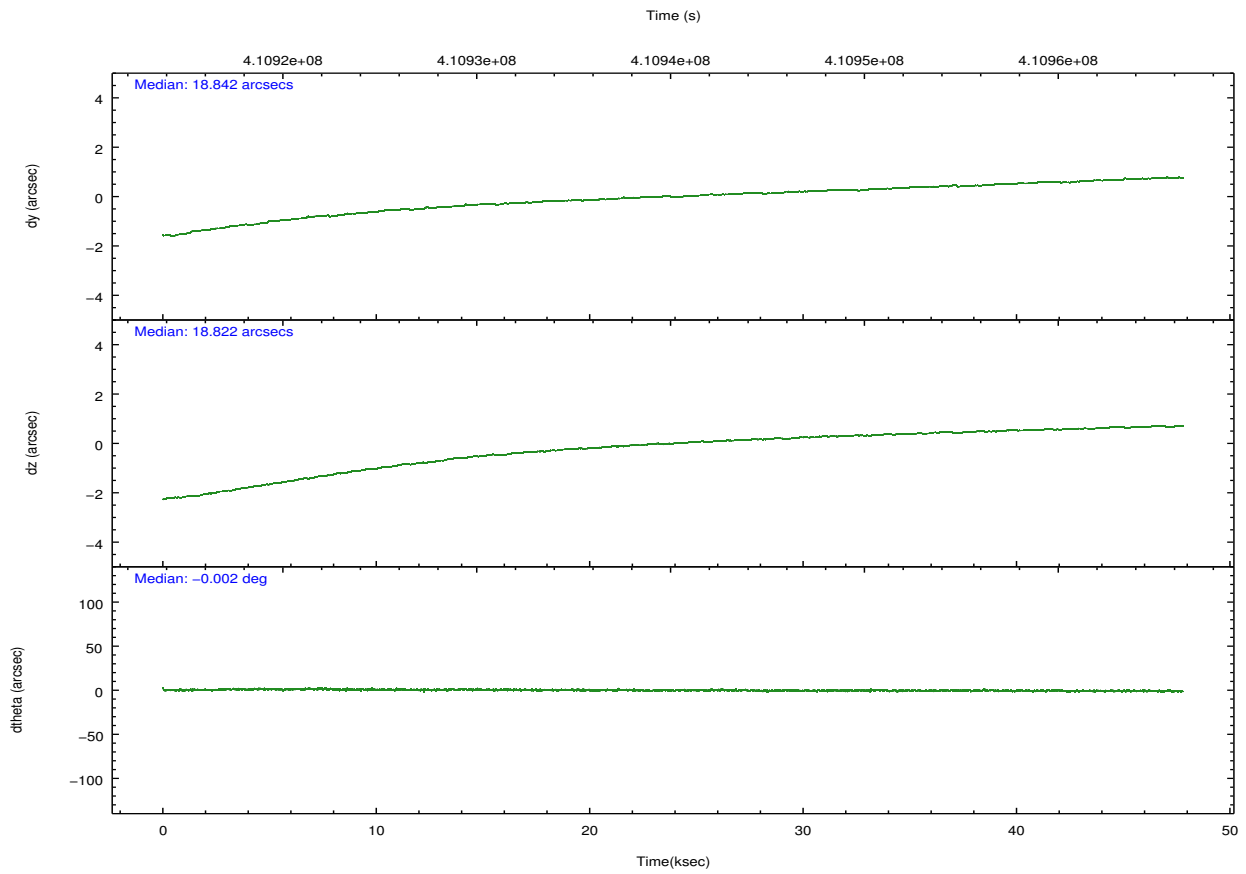
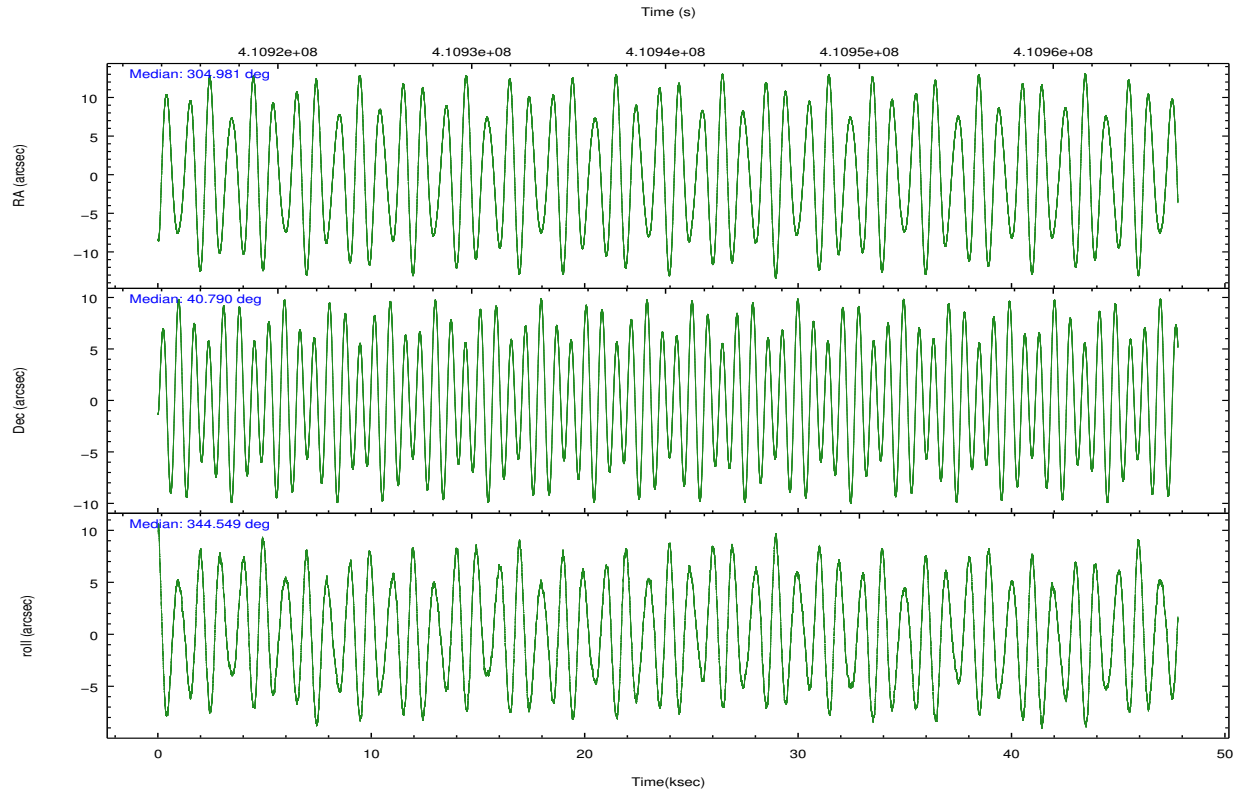
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	310305	317645	347159	340580	351868	425914	grade 0 events	21353	22388	23830	24877	18767	21253
rejected events	263248	267072	298415	291606	307371	226874		6%	7%	6%	7%	5%	4%
rejected %	84%	84%	85%	85%	87%	53%	grade 1 events	232	199	251	261	230	499
								0%	0%	0%	0%	0%	0%
							grade 2 events	10104	10679	9773	8859	9260	41854
								3%	3%	2%	2%	2%	9%
							grade 3 events	4255	4423	3885	4036	4019	17951
								1%	1%	1%	1%	1%	4%
							grade 4 events	3921	4434	4091	3975	3916	17825
								1%	1%	1%	1%	1%	4%
							grade 5 events	13985	14629	13229	15603	15853	43222
								4%	4%	3%	4%	4%	10%
							grade 6 events	7425	8653	7167	7228	8535	100172
								2%	2%	2%	2%	2%	23%
							grade 7 events	249030	252240	284933	275741	291288	183138
								80%	79%	82%	80%	82%	42%

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	304.945554	304.9806822394401	CCD I2 on	Y	Y
[deg] Pointing Dec	40.783238	40.79026315316813	CCD I3 on	Y	Y
[deg] Pointing Roll	344.363345	344.5490837958021	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)	410916422.184000	410915623.88315	CCD S5 on	N	N
Observation start date	2011-01-08T23:25:56	2011-01-08T23:13:43	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	410964022.184000	410964856.17319	On-chip summing requested	N	N
Observation end date	2011-01-09T12:39:16	2011-01-09T12:54:16	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



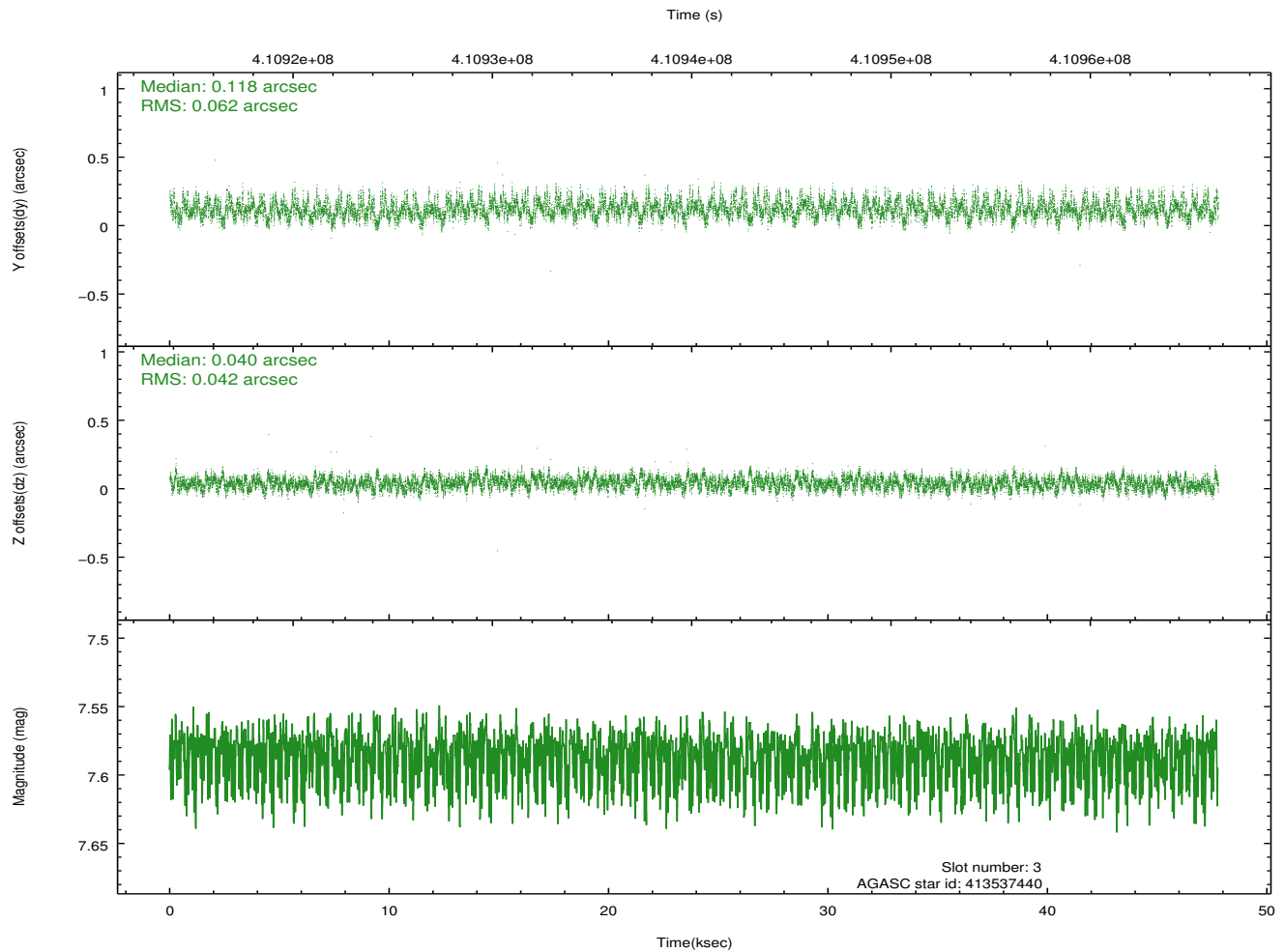
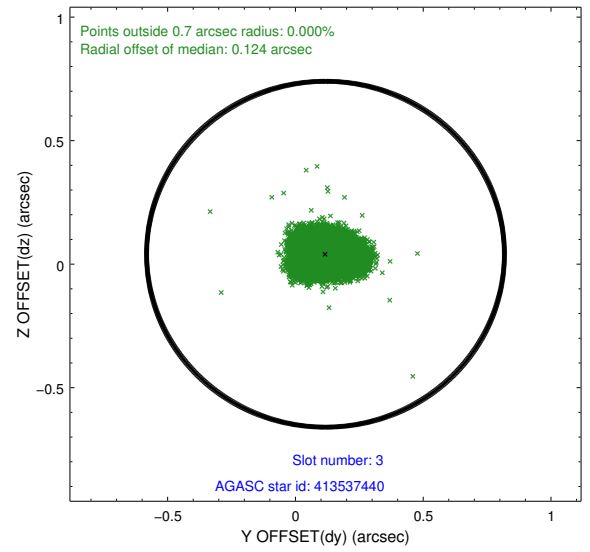
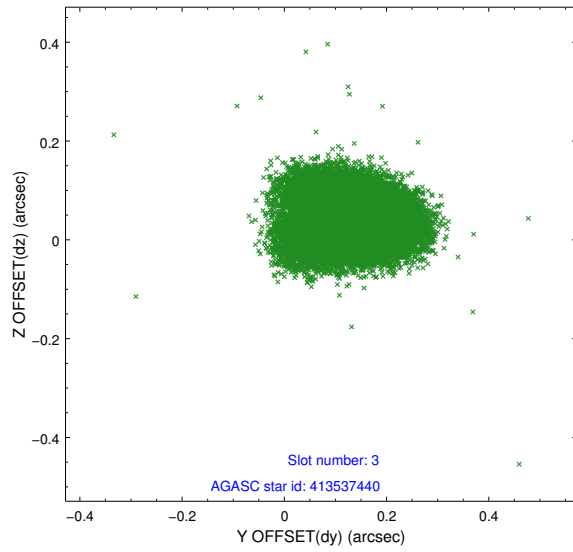


Slot Statistics

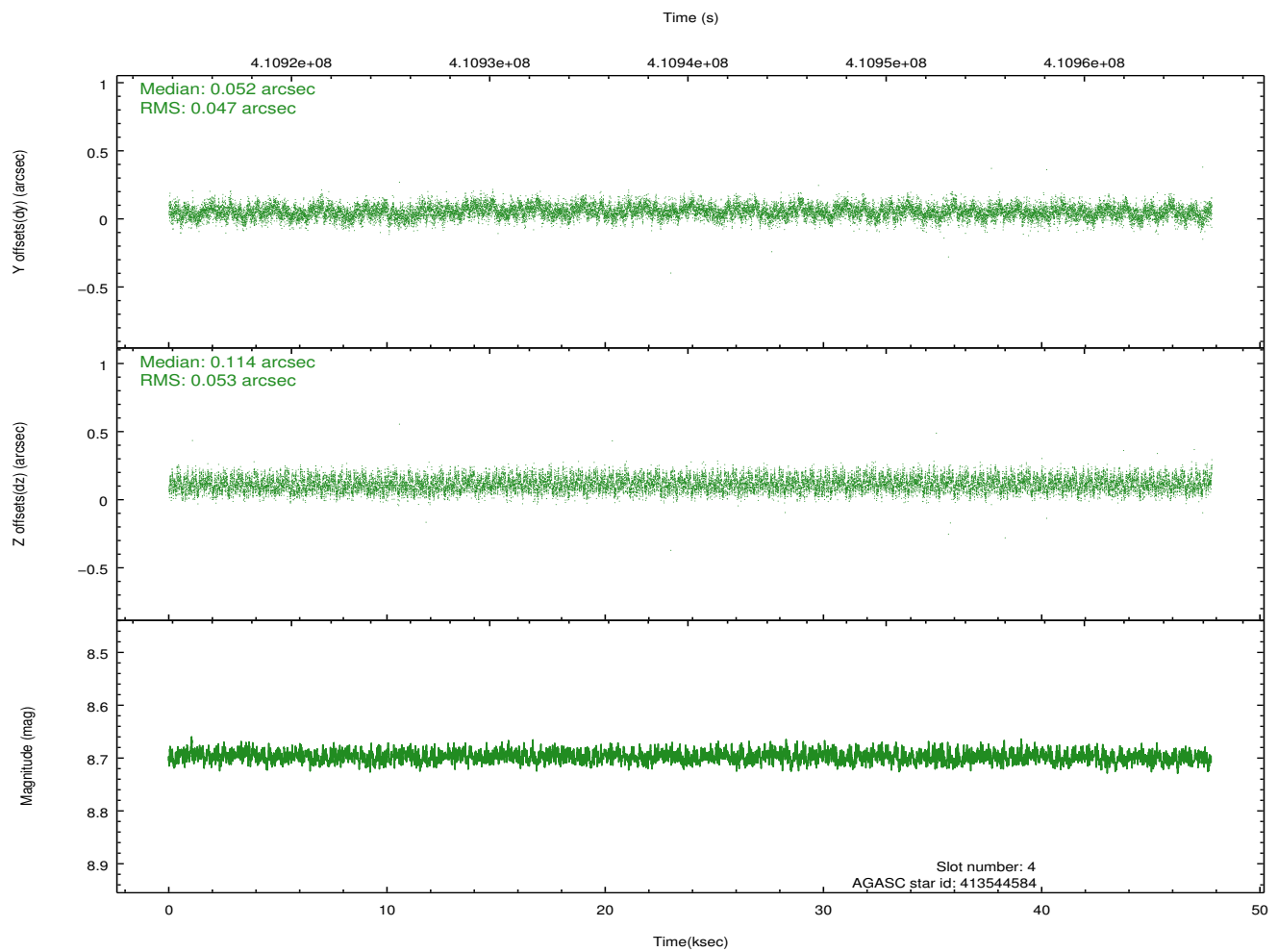
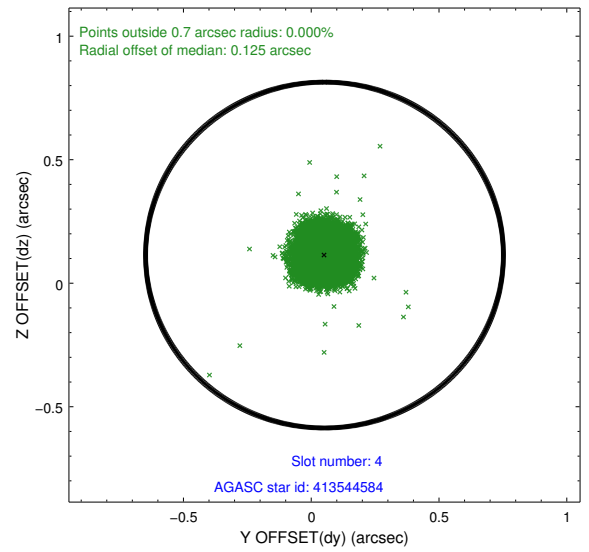
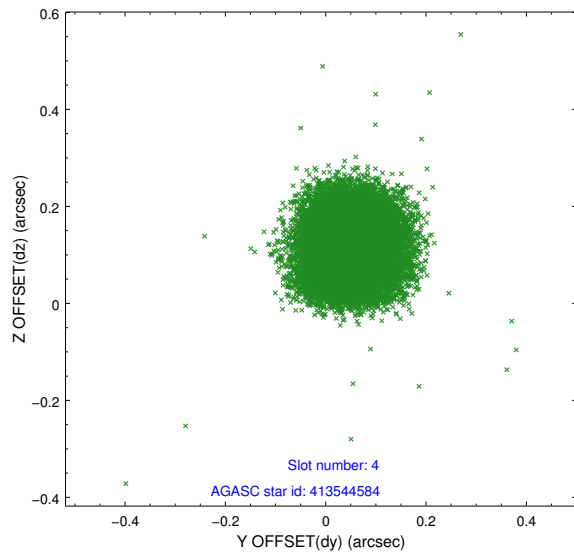
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	6.92	11655	0.016	-0.058	0.017	0.030	0.000000	0.000000	-773.54	-848.66
1	FID	ACIS-I-5	6.99	11655	-0.222	0.068	0.012	0.026	0.000000	0.000000	-1827.87	1055.32
2	FID	ACIS-I-6	7.01	11655	0.113	0.059	0.020	0.034	0.000000	0.000000	386.28	1699.80
3	GUIDE	413537440	7.59	23305	0.118	0.040	0.079	0.131	304.302199	40.591389	-1508.91	-1132.91
4	GUIDE	413544584	8.70	23297	0.052	0.114	0.076	0.119	304.249535	40.843713	-1885.87	-293.95
5	GUIDE	413670112	8.37	23294	0.111	-0.100	0.061	0.097	305.512031	40.741077	1527.74	275.02
6	GUIDE	413676032	8.21	23306	-0.140	-0.027	0.072	0.121	305.794948	40.874960	2134.66	952.00
7	GUIDE	413677168	8.42	23293	-0.147	-0.030	0.085	0.132	305.357598	41.194322	675.46	1728.55

2.4 Star Slots

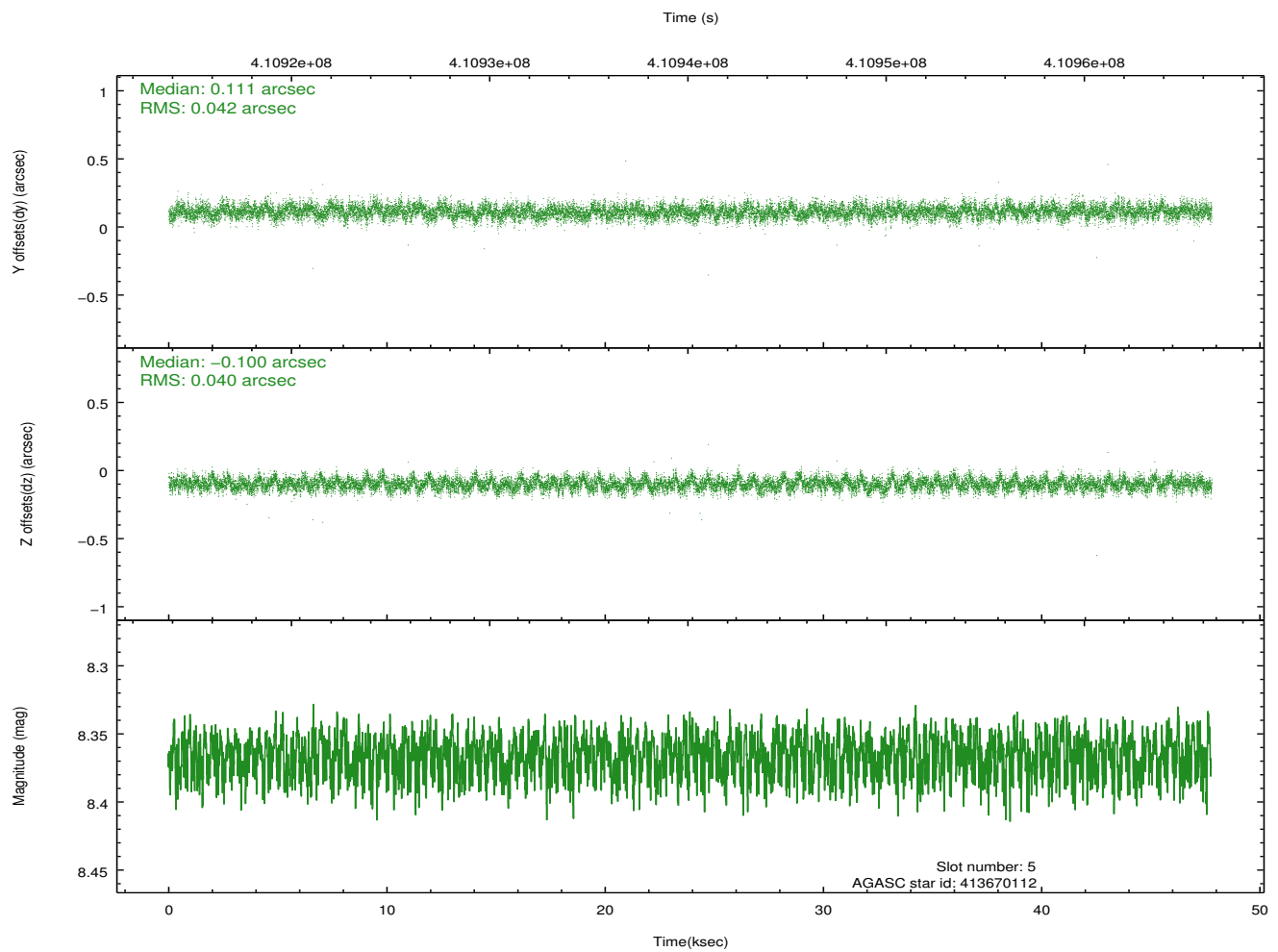
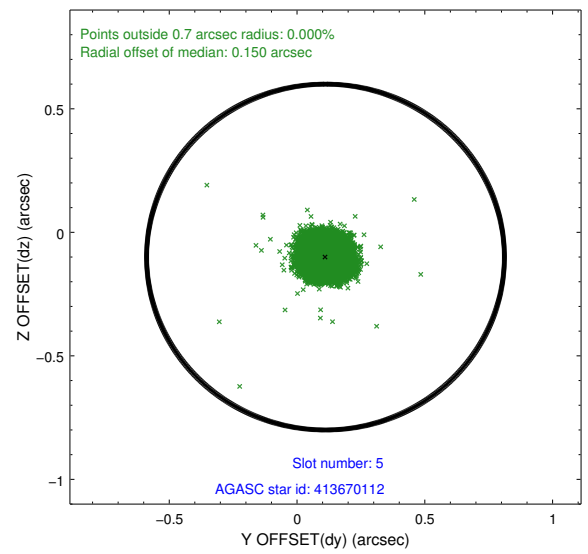
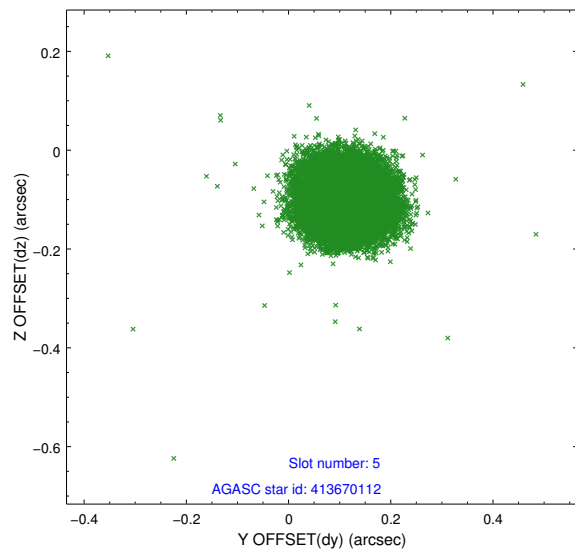
2.4.1 Slot 3



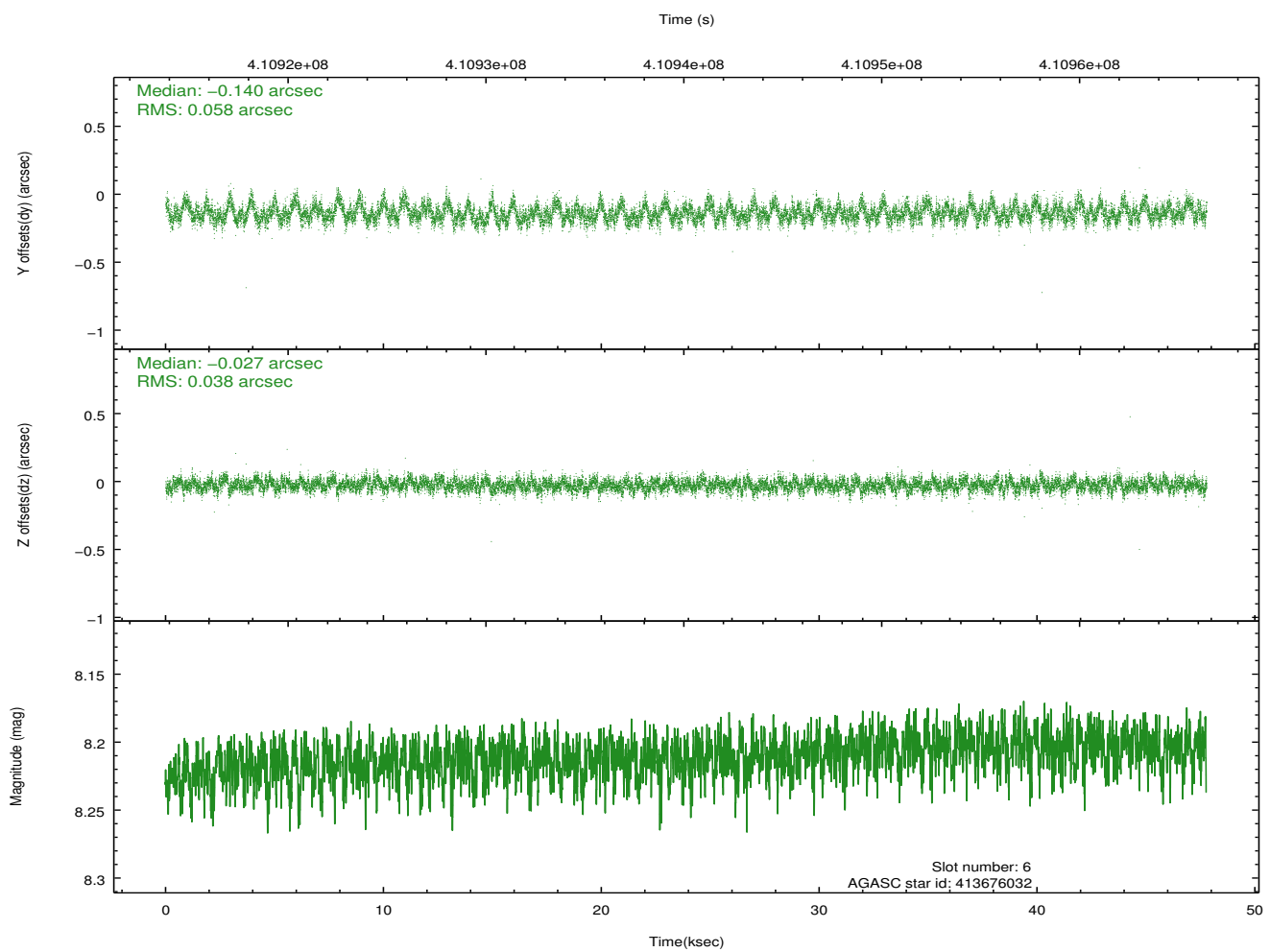
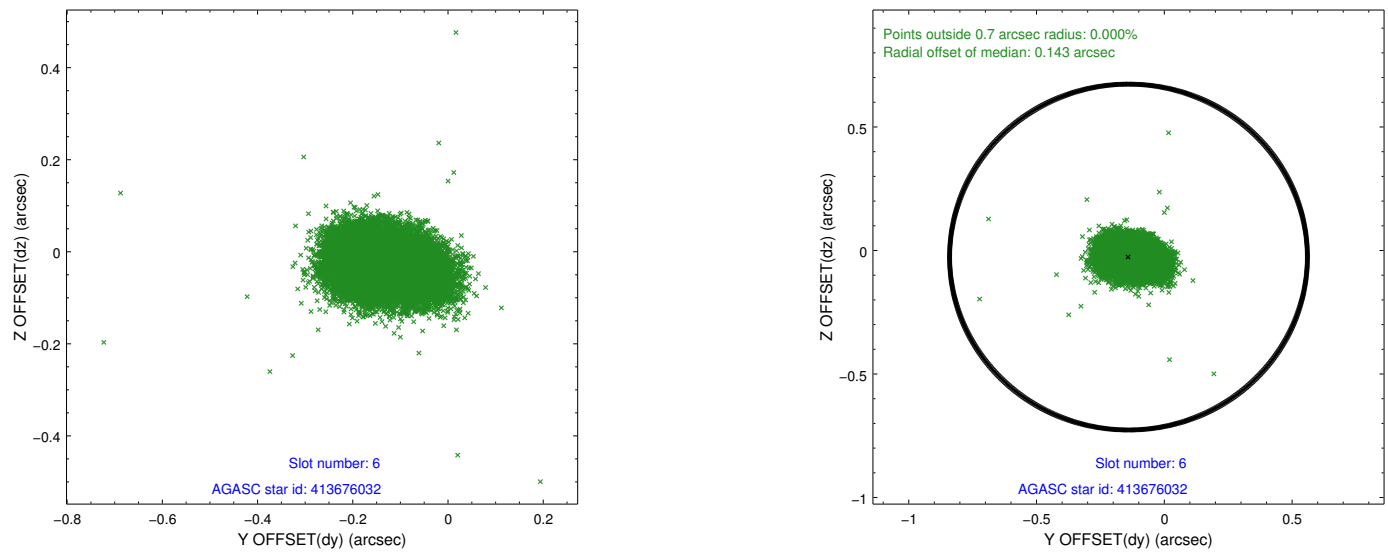
2.4.2 Slot 4



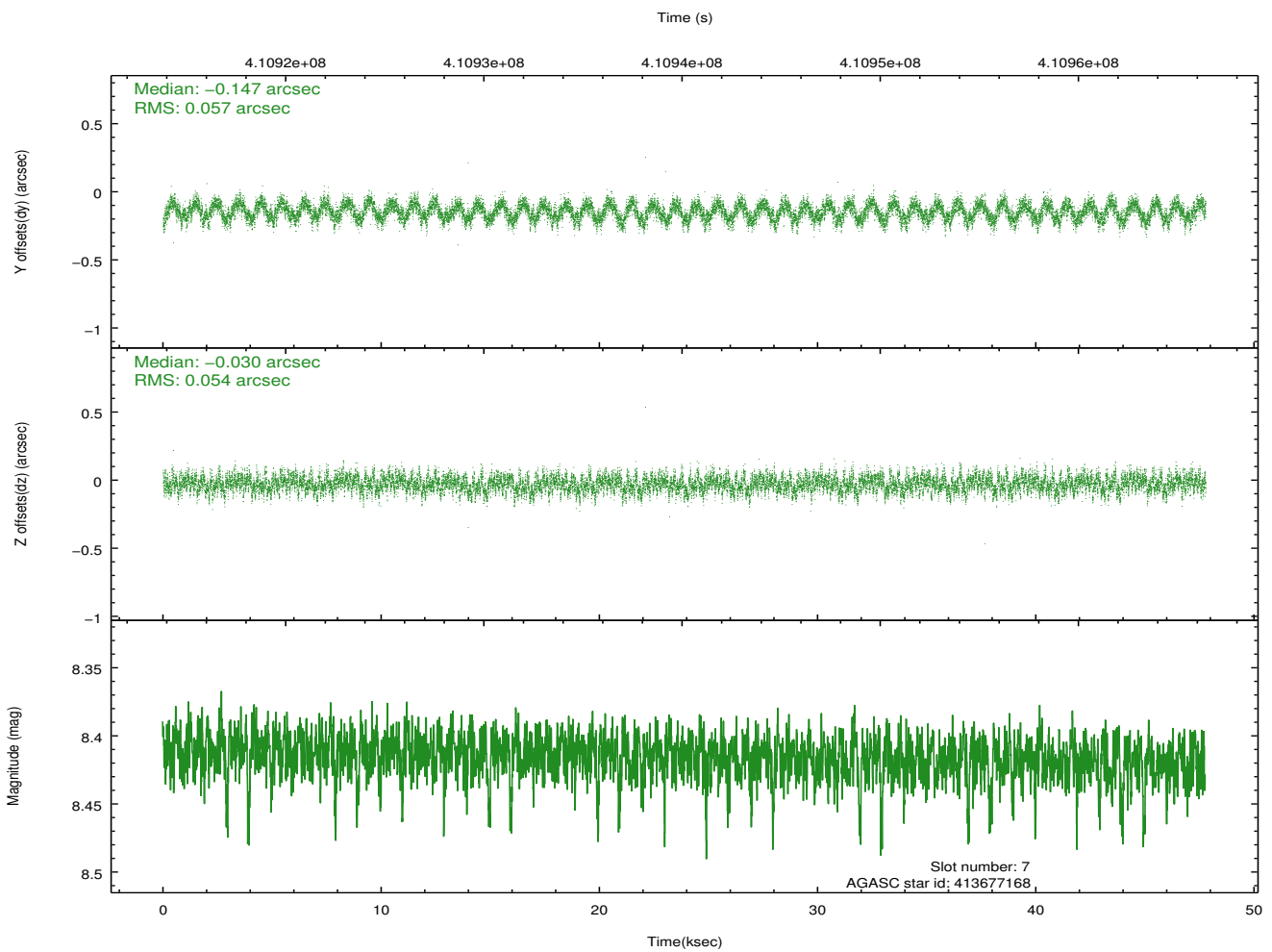
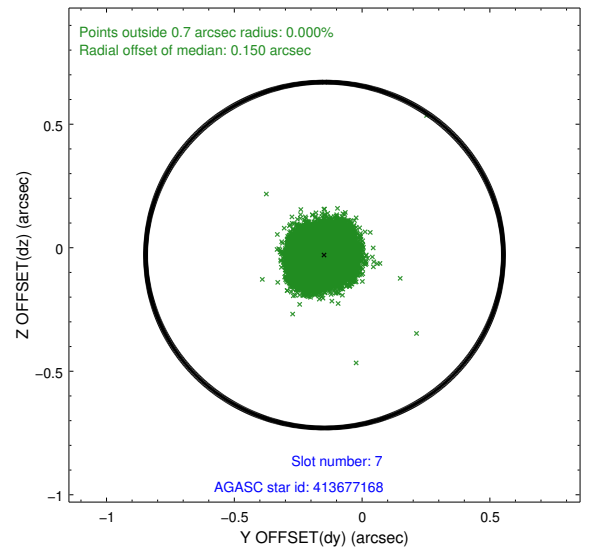
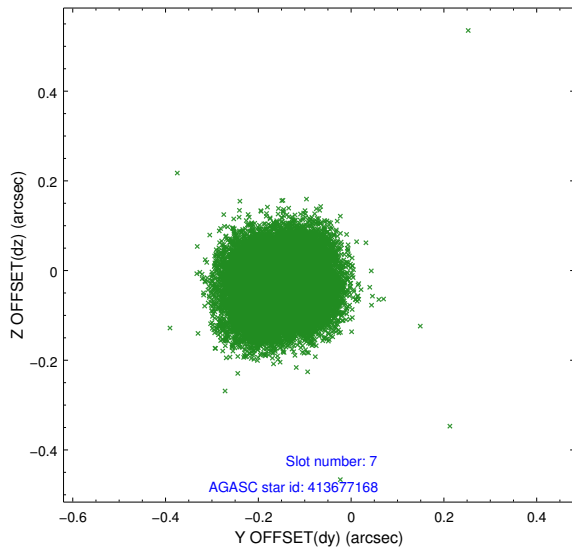
2.4.3 Slot 5



2.4.4 Slot 6

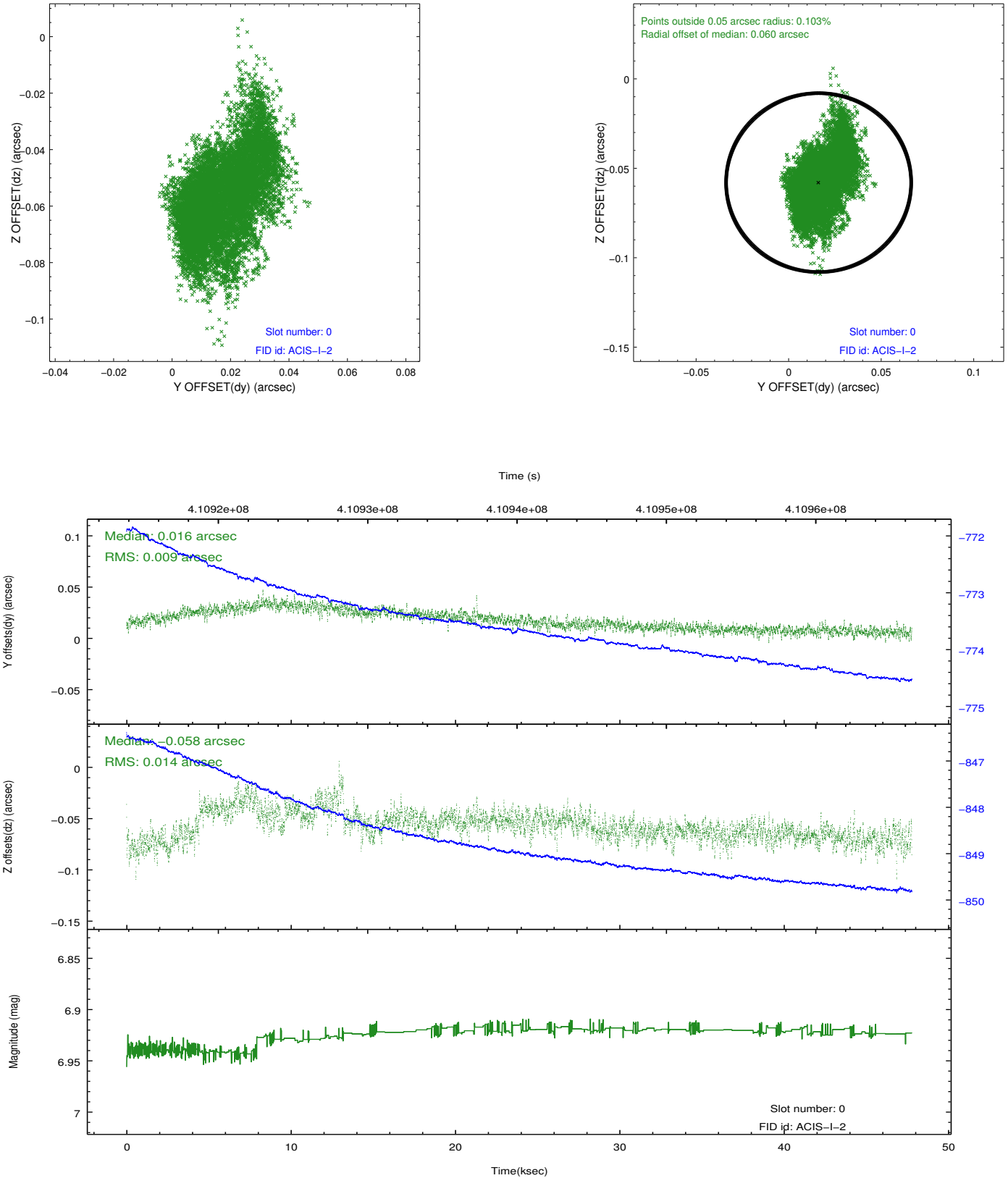


2.4.5 Slot 7

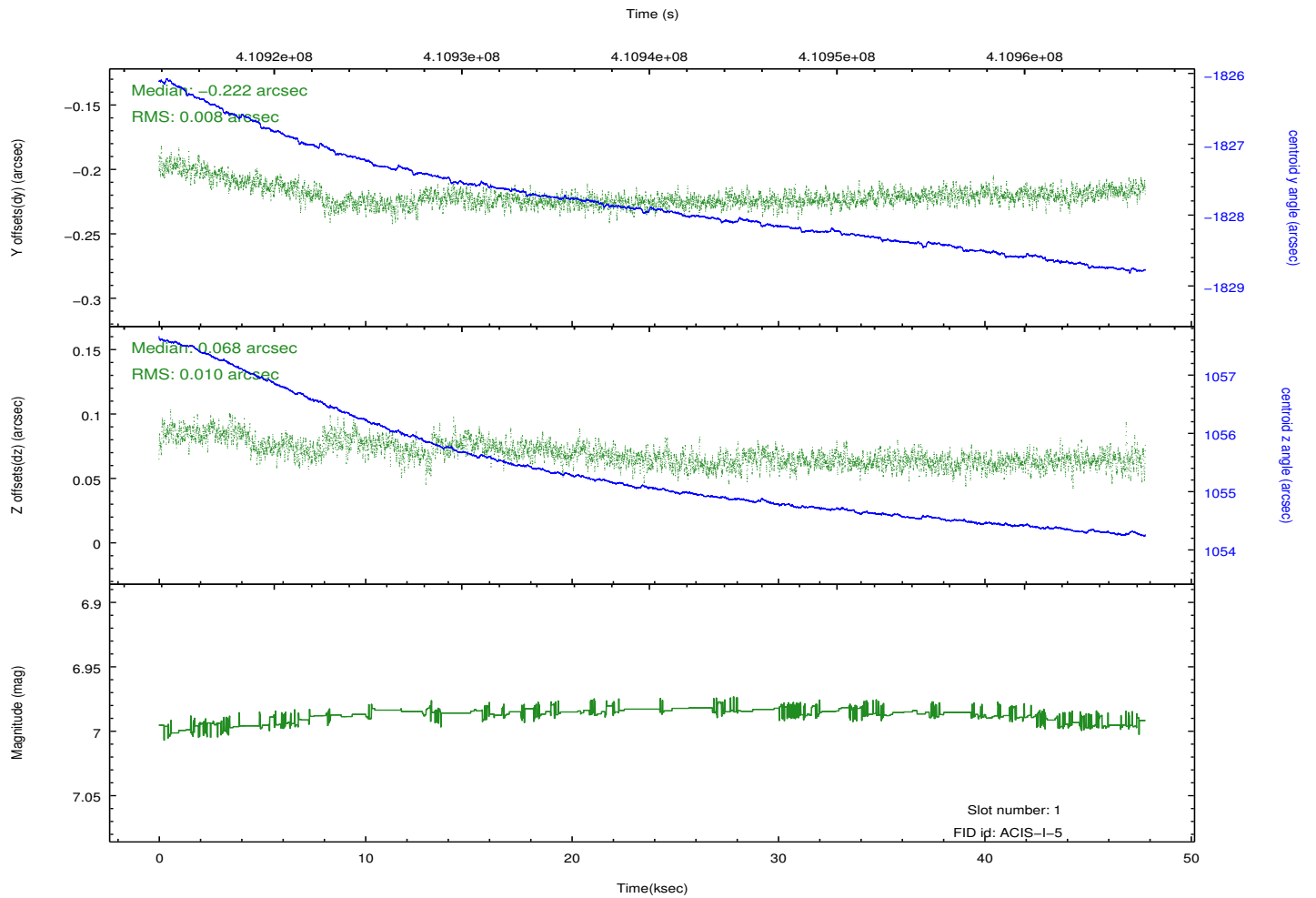
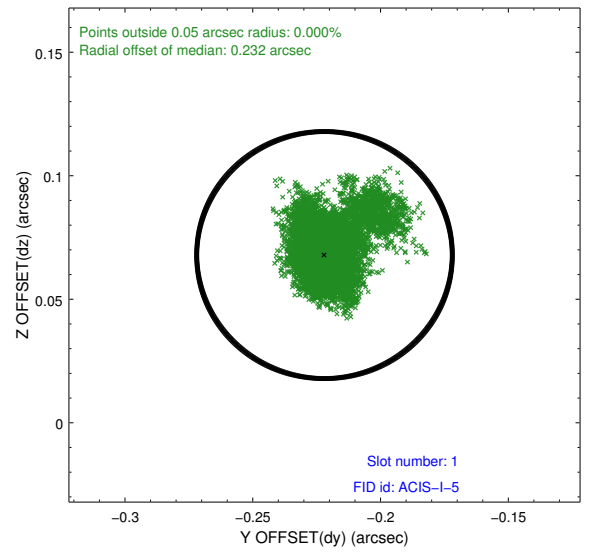
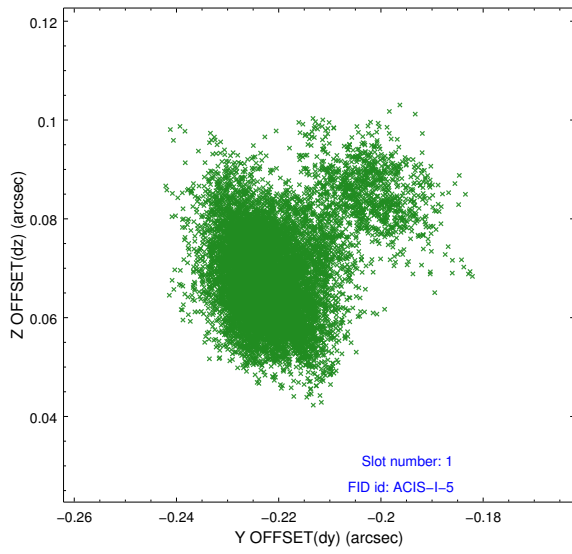


2.5 FID Slots

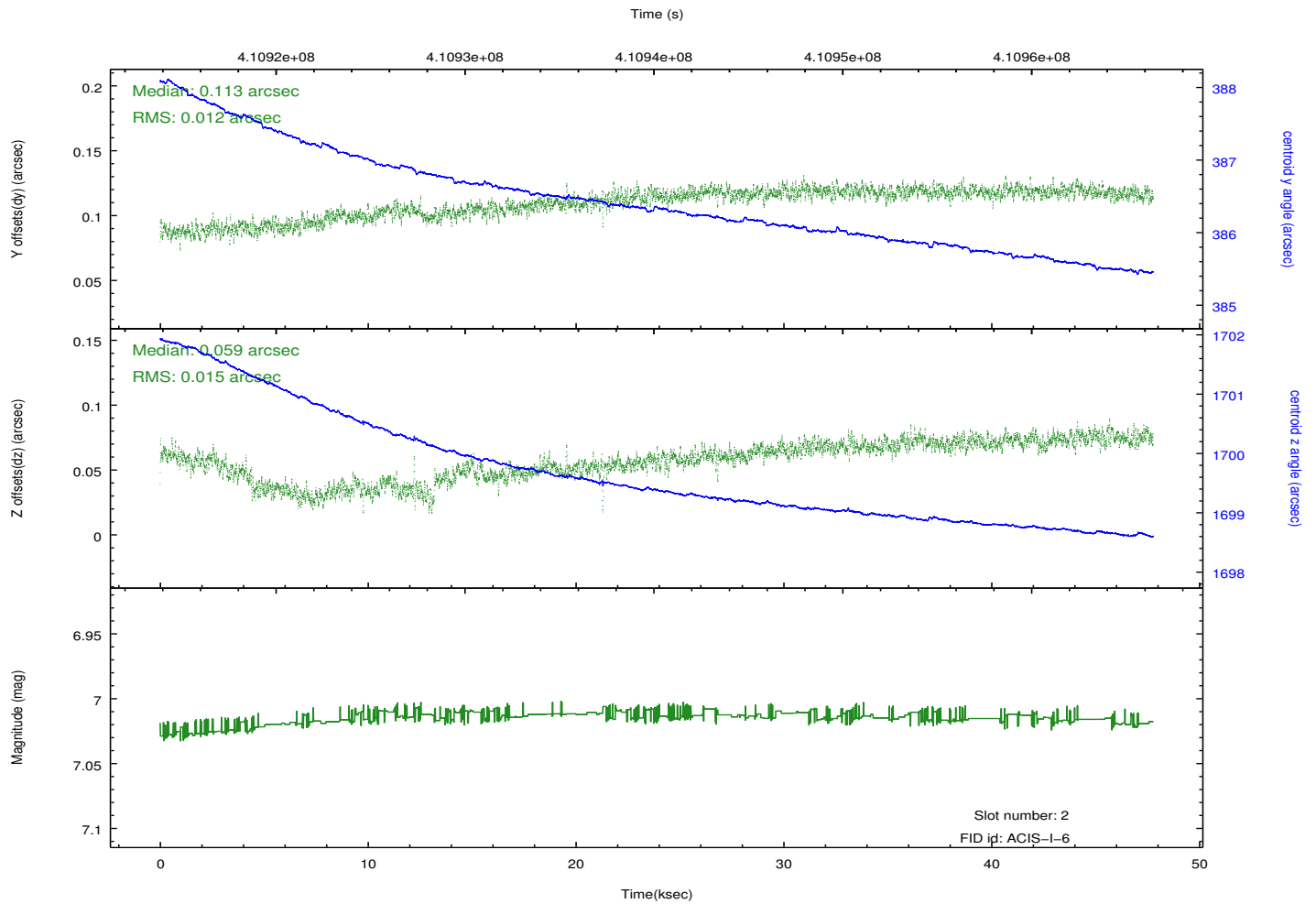
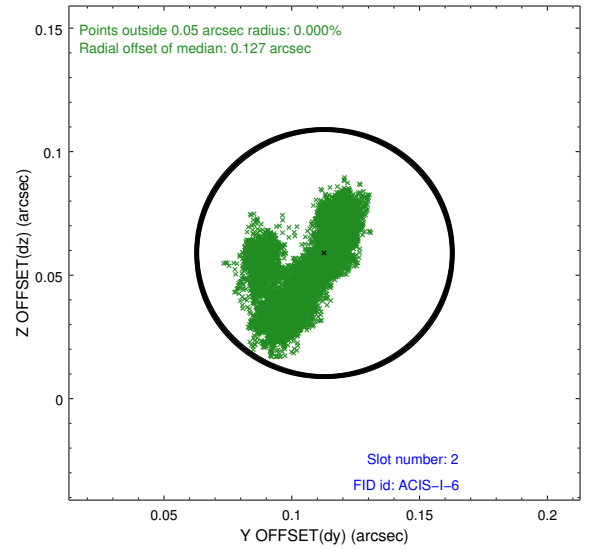
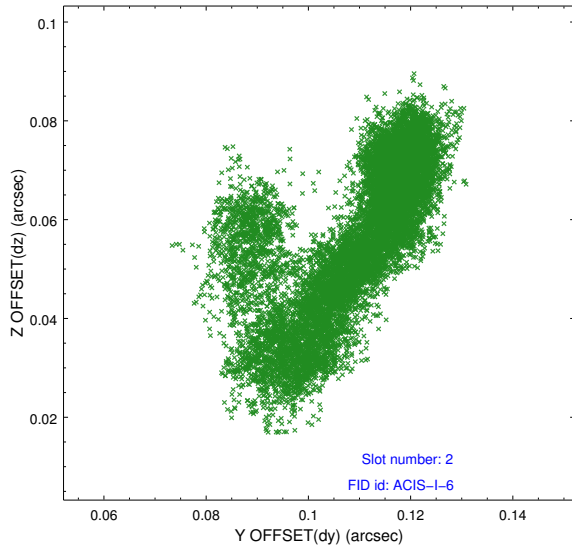
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.02.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	47.356799823642

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.