

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12397 - L2 Version 2
Chandra X-Ray Center

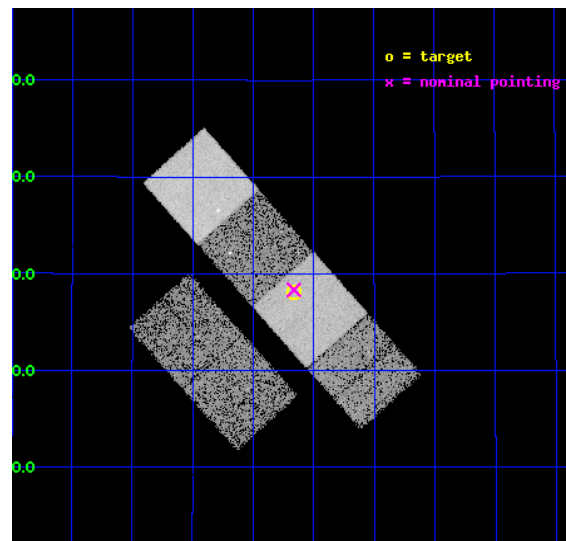
L2 Processing Date : Feb 2 2012

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

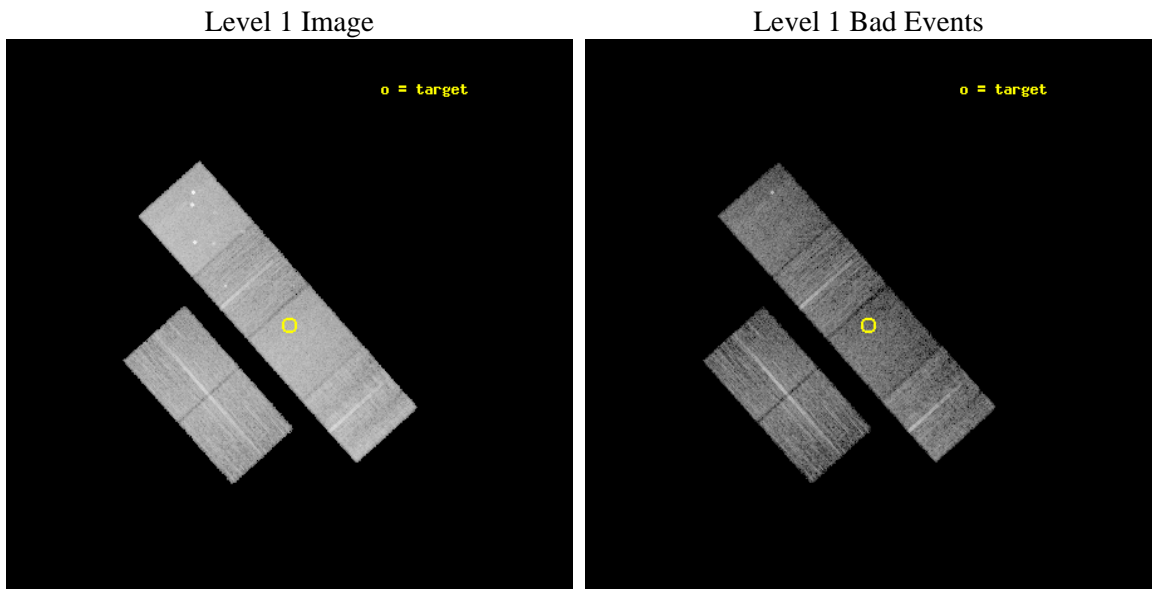
seq_num	200731	Sequence number
obs_id	12397	Observation id
title	Magnetically Sleepy Stars: An X-ray Survey of Candidate Stars in Extended Magnetic Minima	Proposal title
observer	Dr. Steven Saar	Principal investigator
object	HD 157214	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	260.165	Observer's specified target RA [deg]
dec_targ	32.467722	Observer's specified target Dec [deg]
ra_nom	260.16605133961	Nominal RA [deg]
dec_nom	32.472510127286	Nominal Dec [deg]
roll_nom	48.181504710992	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10050.013421953	Sum of GTIs [s]
livetime	9922.7541006124	Livetime [s]
ontime2	10050.054461956	Sum of GTIs [s]
ontime3	10049.890301943	Sum of GTIs [s]
ontime5	10049.972381949	Sum of GTIs [s]
ontime6	10049.931341946	Sum of GTIs [s]
ontime7	10050.013421953	Sum of GTIs [s]
ontime8	10049.84926194	Sum of GTIs [s]
l2events	118486	Number of level 2 events



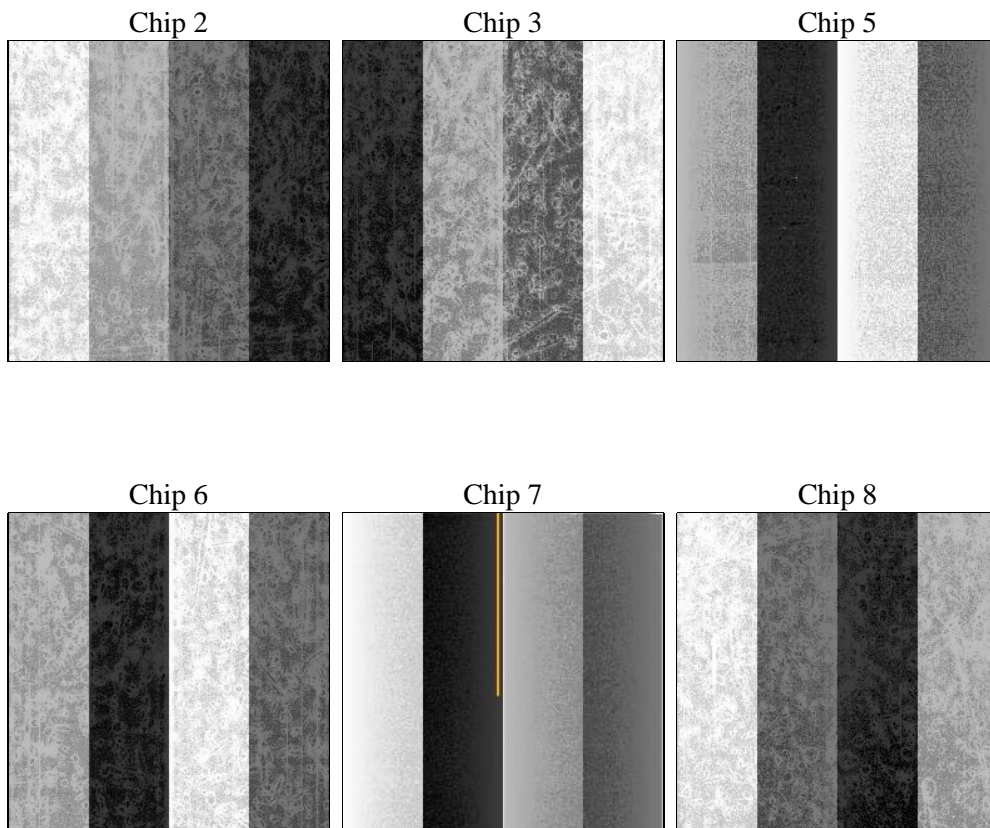
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	10050.013421953	Sum of GTIs [s]
caldsver	4.4.7	 	ontime2	10050.054461956	Sum of GTIs [s]
date	2012-02-02T22:53:32	Date and time of file creation	ontime3	10049.890301943	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	10049.972381949	Sum of GTIs [s]
			ontime6	10049.931341946	Sum of GTIs [s]
			ontime7	10050.013421953	Sum of GTIs [s]
			ontime8	10049.84926194	Sum of GTIs [s]
			l1events	506663	Number of level 1 events

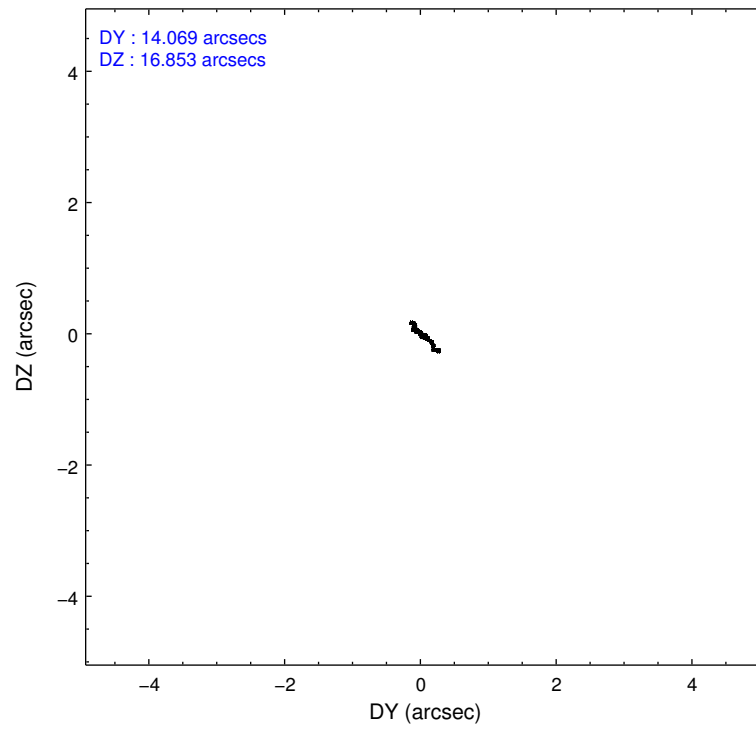
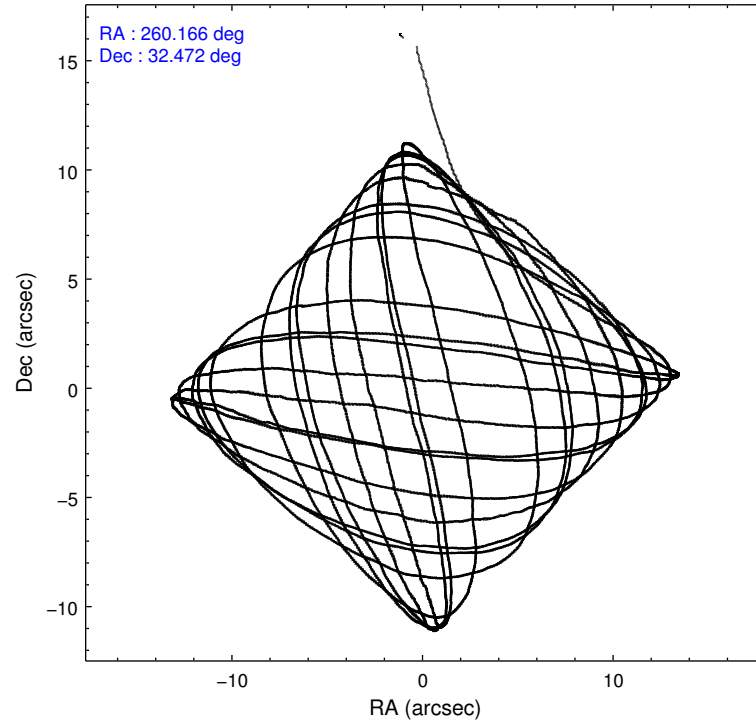
2.1.4 Events

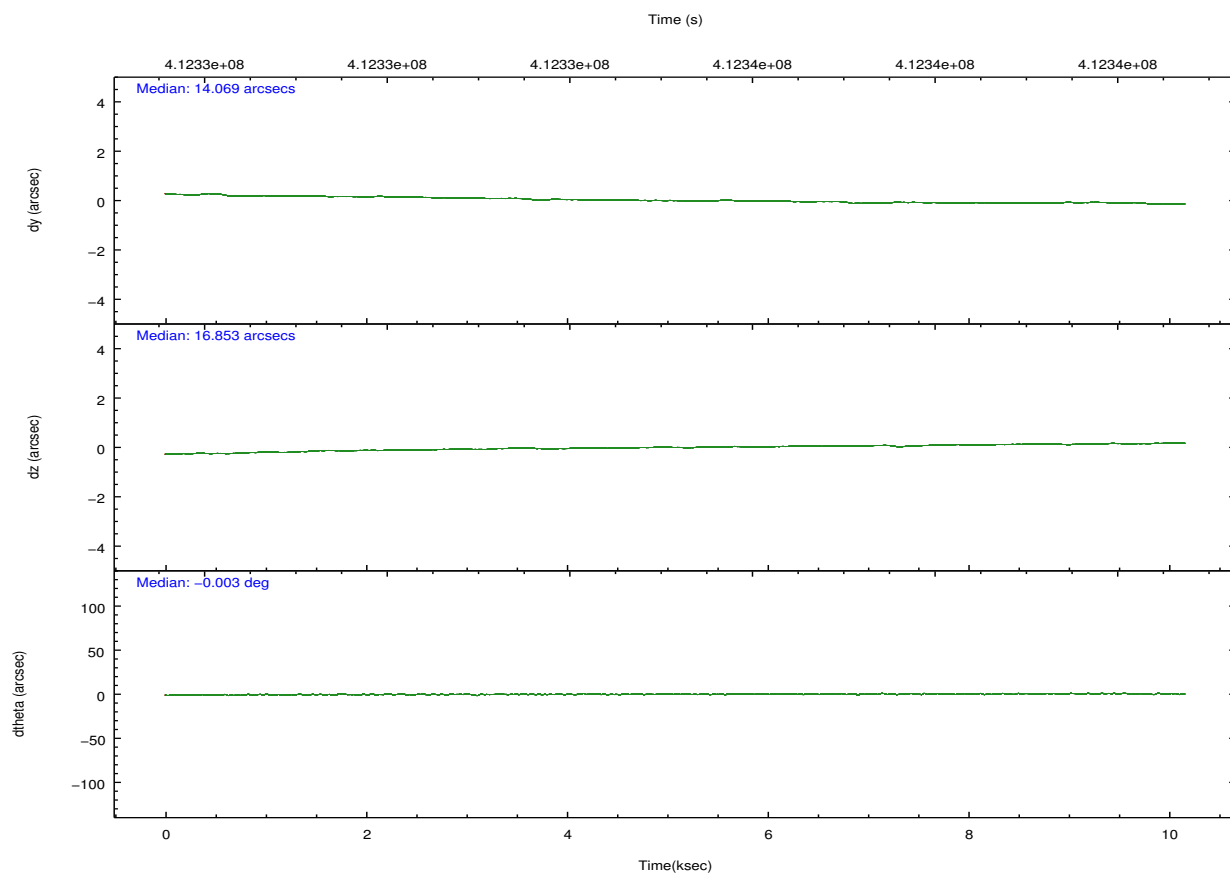
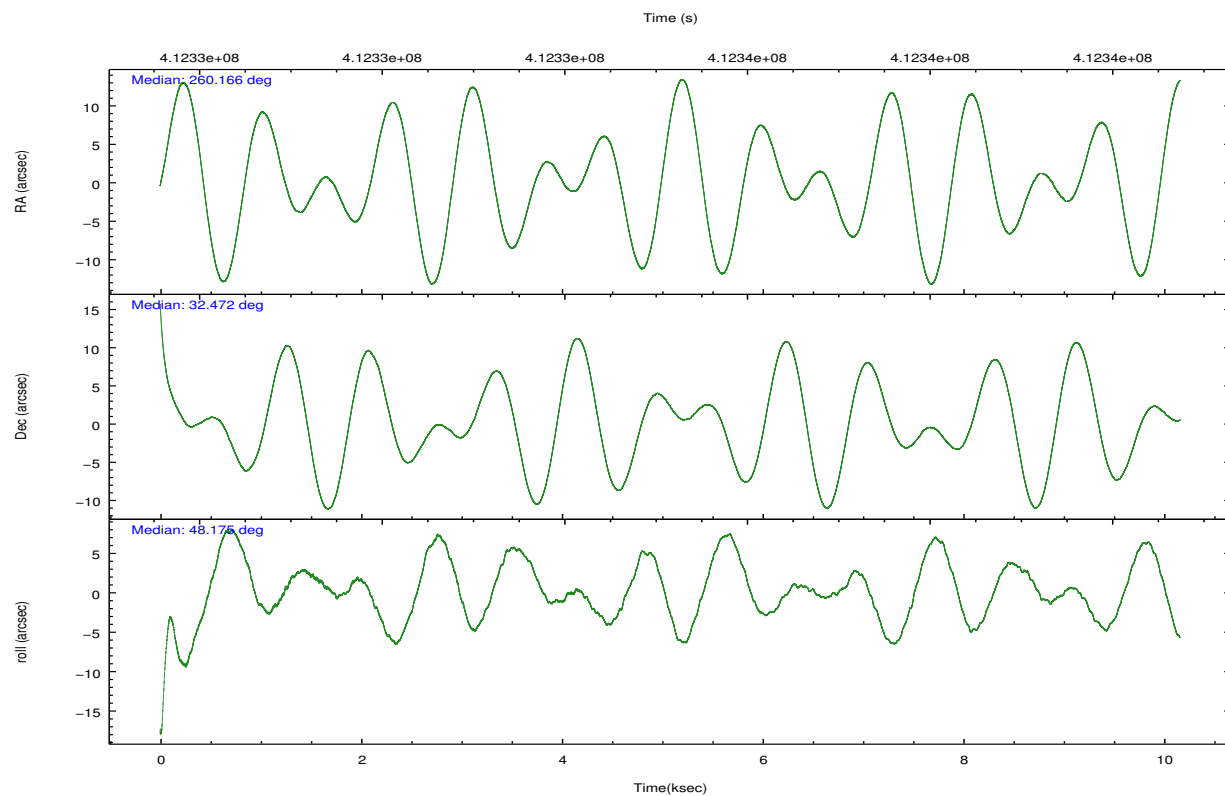
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	73735	70163	110593	70960	88301	92911	grade 0 events	2770	2627	5826	3105	3713	7383
rejected events	65814	62758	55664	62545	48218	68138		3%	3%	5%	4%	4%	7%
rejected %	89%	89%	50%	88%	54%	73%	grade 1 events	50	40	215	37	104	76
								0%	0%	0%	0%	0%	0%
							grade 2 events	2016	1668	16902	1858	8044	5786
								2%	2%	15%	2%	9%	6%
							grade 3 events	844	777	2085	819	3656	2620
								1%	1%	1%	1%	4%	2%
							grade 4 events	758	815	1956	848	3545	2467
								1%	1%	1%	1%	4%	2%
							grade 5 events	2838	3309	8559	3351	9404	4742
								3%	4%	7%	4%	10%	5%
							grade 6 events	1536	1520	28176	1792	21142	6525
								2%	2%	25%	2%	23%	7%
							grade 7 events	62923	59407	46874	59150	38693	63312
								85%	84%	42%	83%	43%	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	260.159806	260.1660513396138	CCD I2 on	O2	Y
[deg] Pointing Dec	32.445653	32.47251012728621	CCD I3 on	O3	Y
[deg] Pointing Roll	48.028253	48.18150471099233	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)	412330230.184000	412328959.04369	CCD S5 on	N	N
Observation start date	2011-01-25T08:09:24	2011-01-25T07:49:19	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	412340230.184000	412340863.39431	On-chip summing requested	N	N
Observation end date	2011-01-25T10:56:04	2011-01-25T11:07:43	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



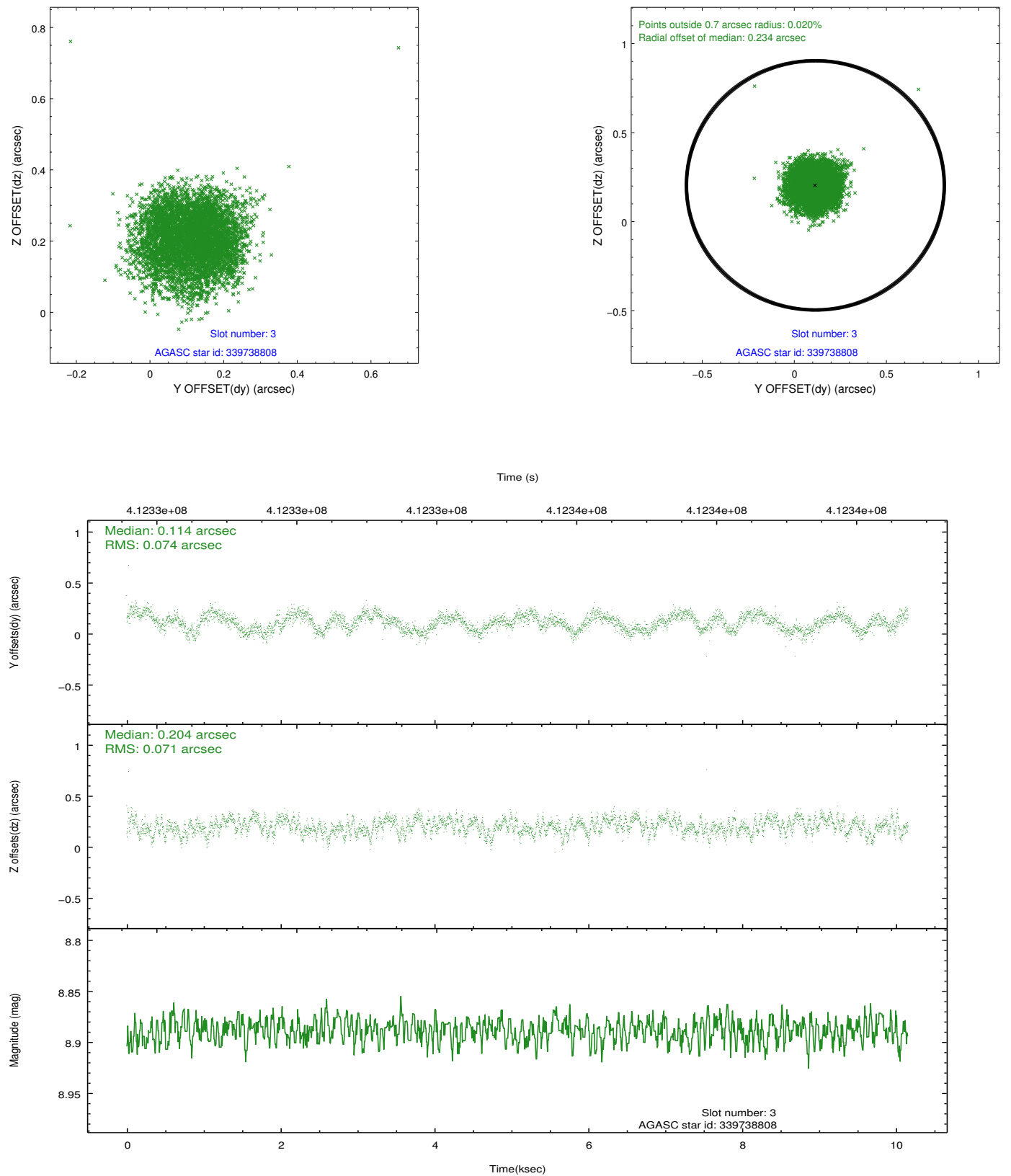


Slot Statistics

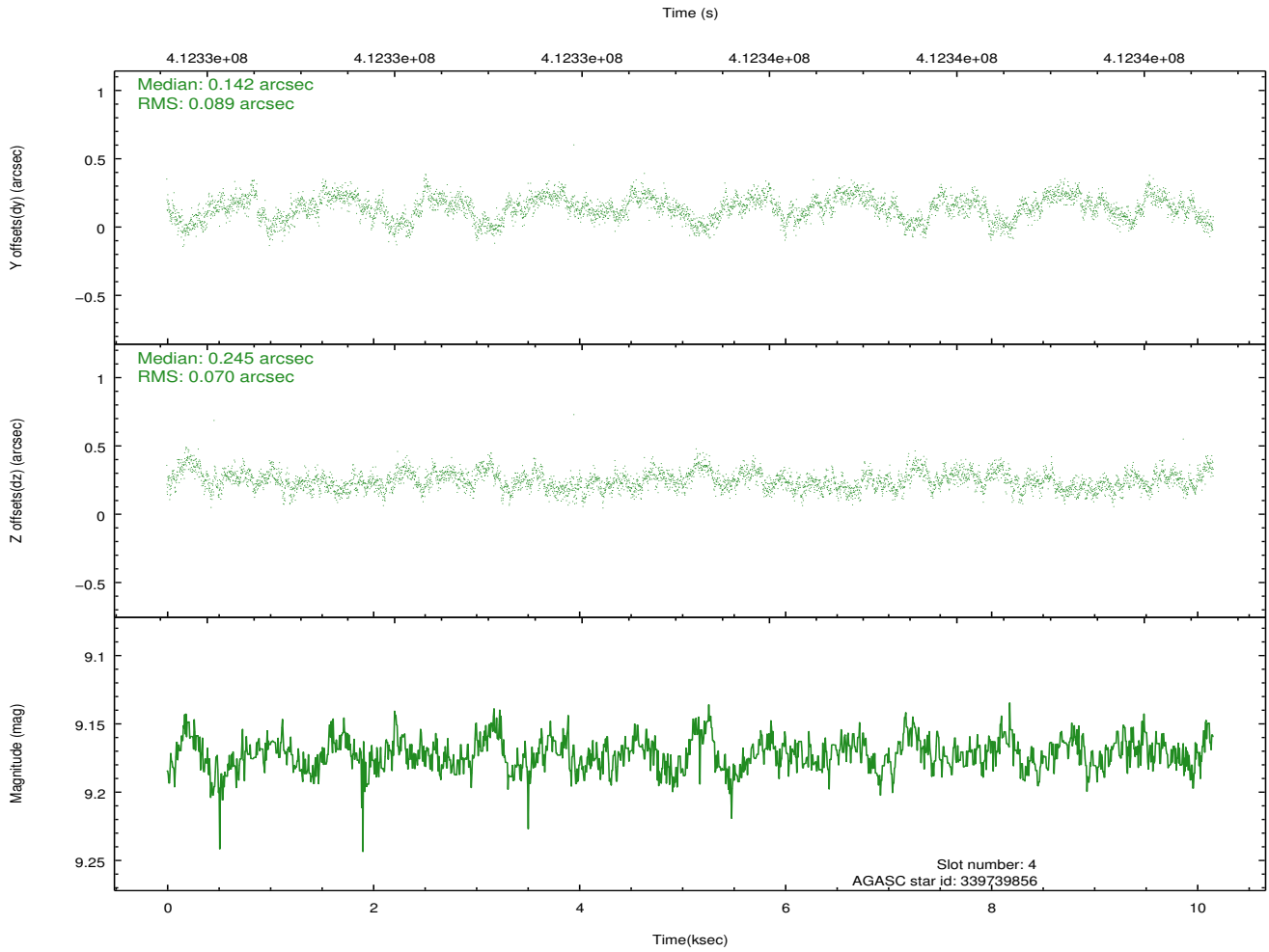
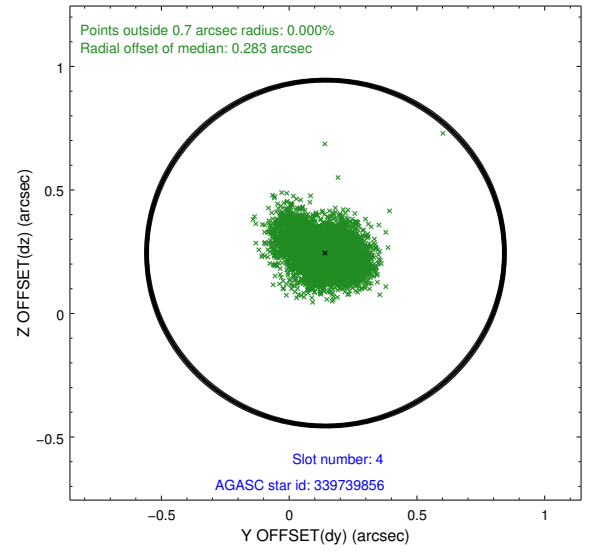
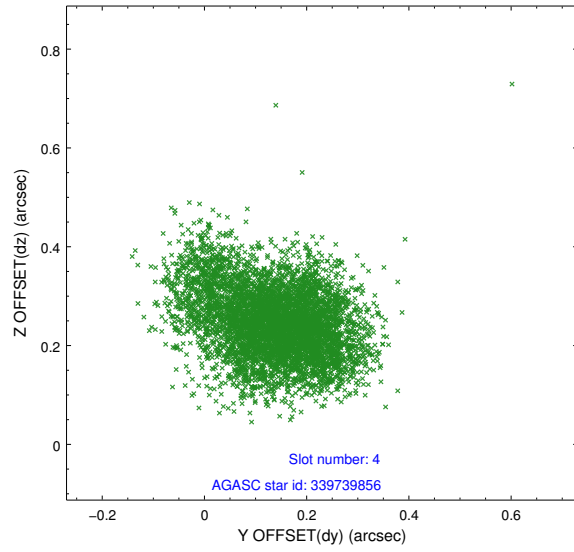
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.92	2479	-0.046	-0.027	0.010	0.017	0.000000	0.000000	-767.11	-1738.28
1	FID	ACIS-S-4	6.99	2479	0.177	0.030	0.008	0.014	0.000000	0.000000	2146.18	169.68
2	FID	ACIS-S-5	7.03	2478	-0.162	0.006	0.008	0.015	0.000000	0.000000	-1819.38	163.96
3	GUIDE	339738808	8.89	4956	0.114	0.204	0.111	0.168	260.388344	31.860977	-1096.75	-1926.90
4	GUIDE	339739856	9.17	4956	0.142	0.245	0.120	0.198	260.043055	31.783835	-2009.96	-1327.99
5	GUIDE	340269152	7.47	4955	0.063	-0.103	0.085	0.129	260.189436	32.674396	672.05	483.69
6	GUIDE	340273440	7.16	4957	-0.172	-0.226	0.084	0.138	259.702156	32.864734	197.46	2039.14
7	GUIDE	340273736	8.50	4955	-0.131	-0.128	0.079	0.126	259.934490	33.195208	1552.05	2310.51

2.4 Star Slots

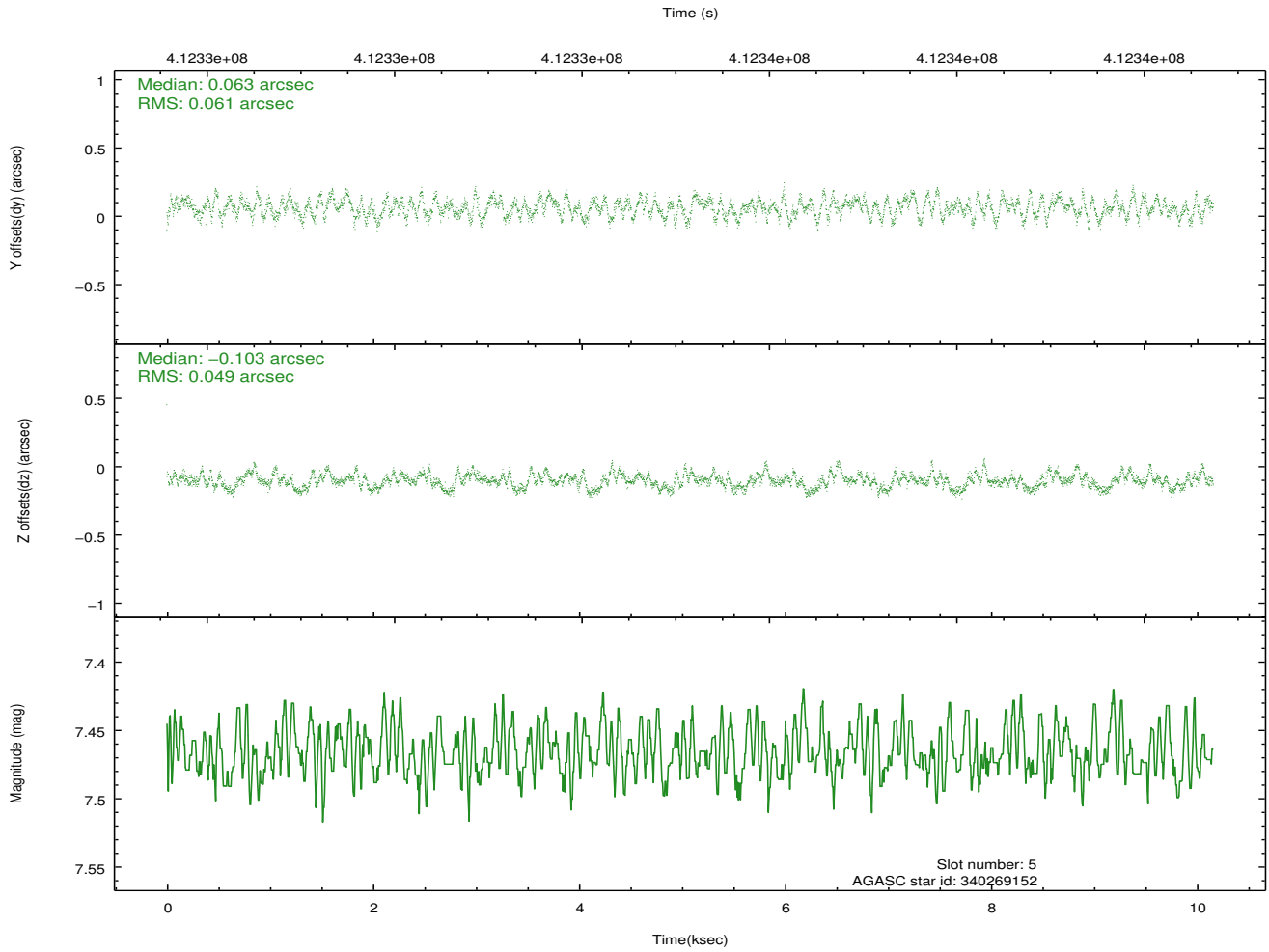
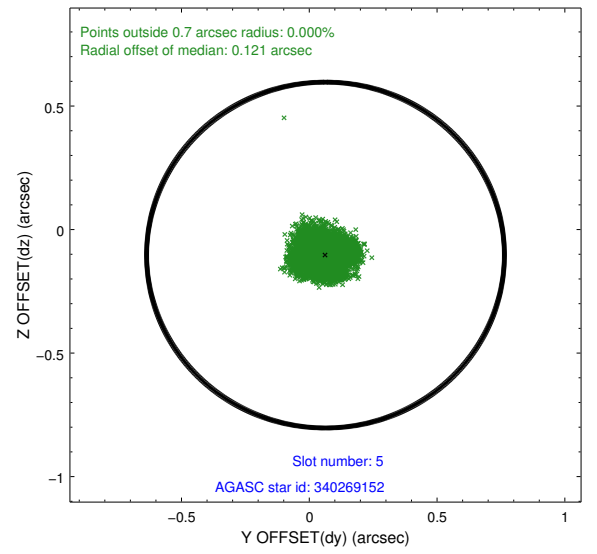
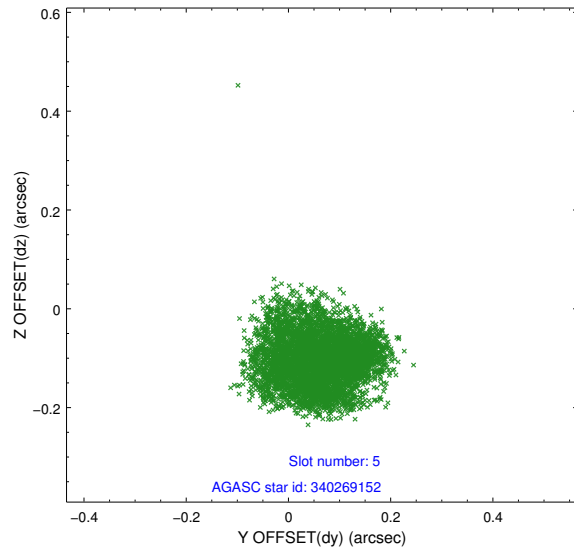
2.4.1 Slot 3



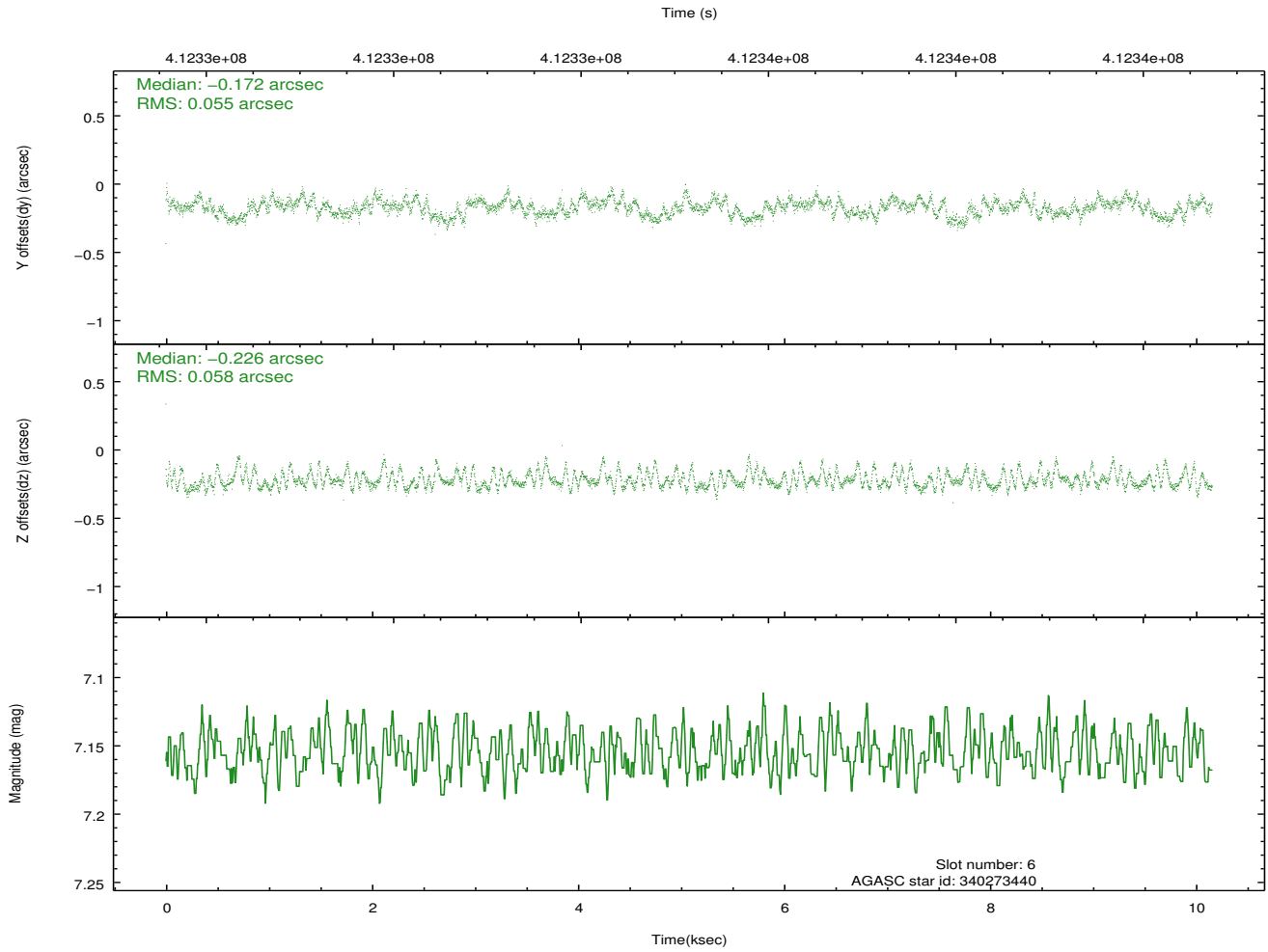
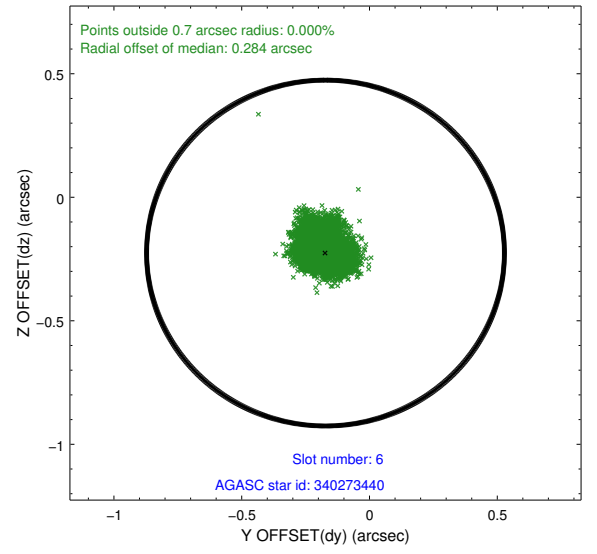
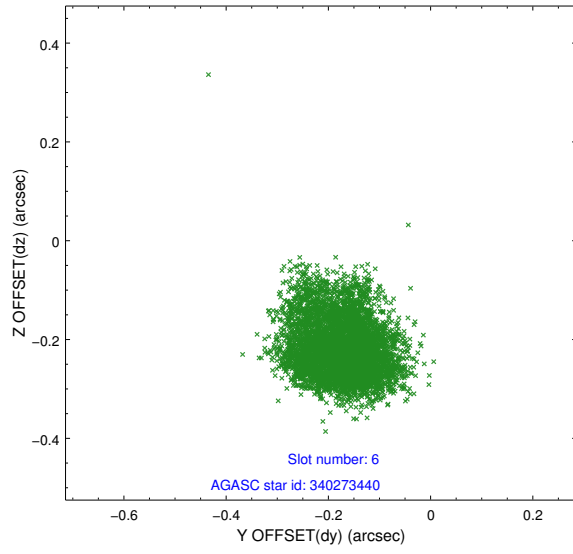
2.4.2 Slot 4



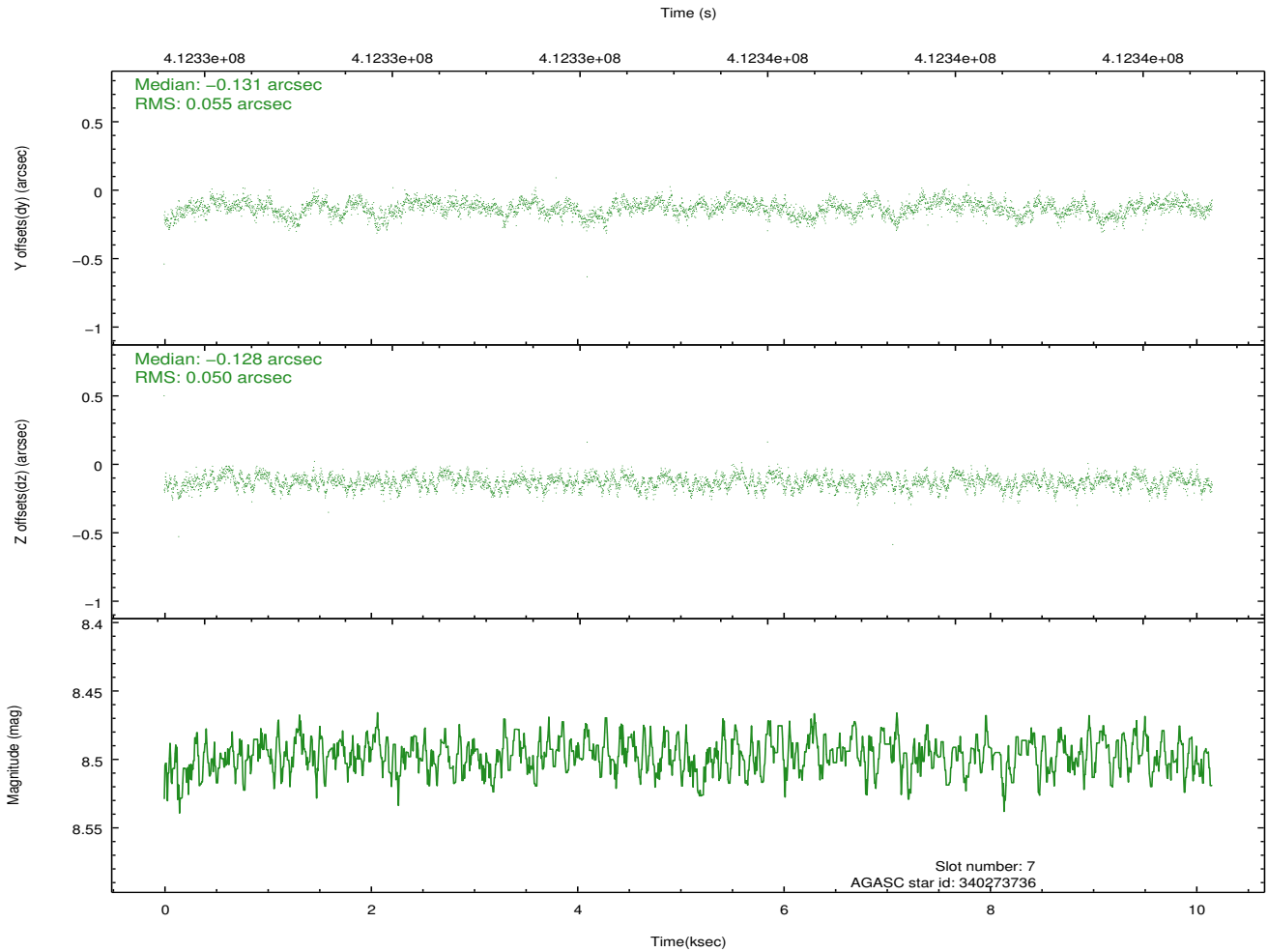
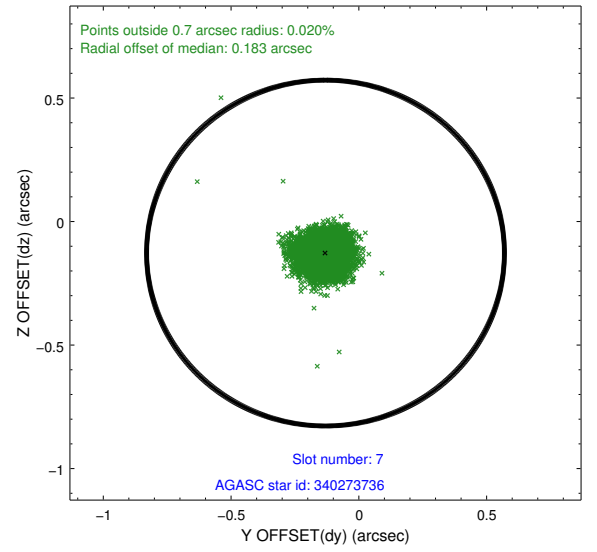
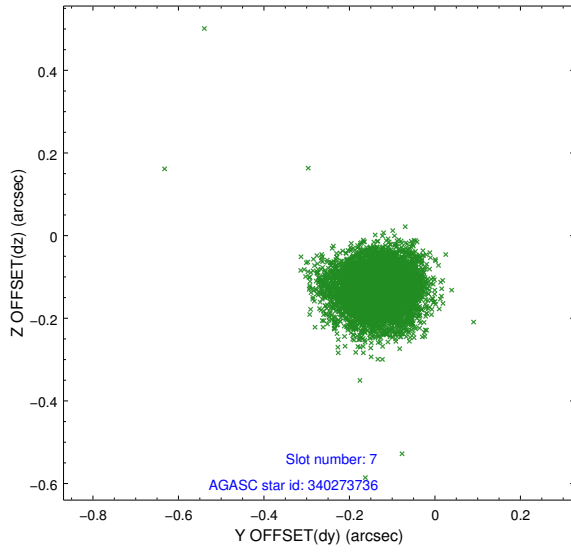
2.4.3 Slot 5



2.4.4 Slot 6

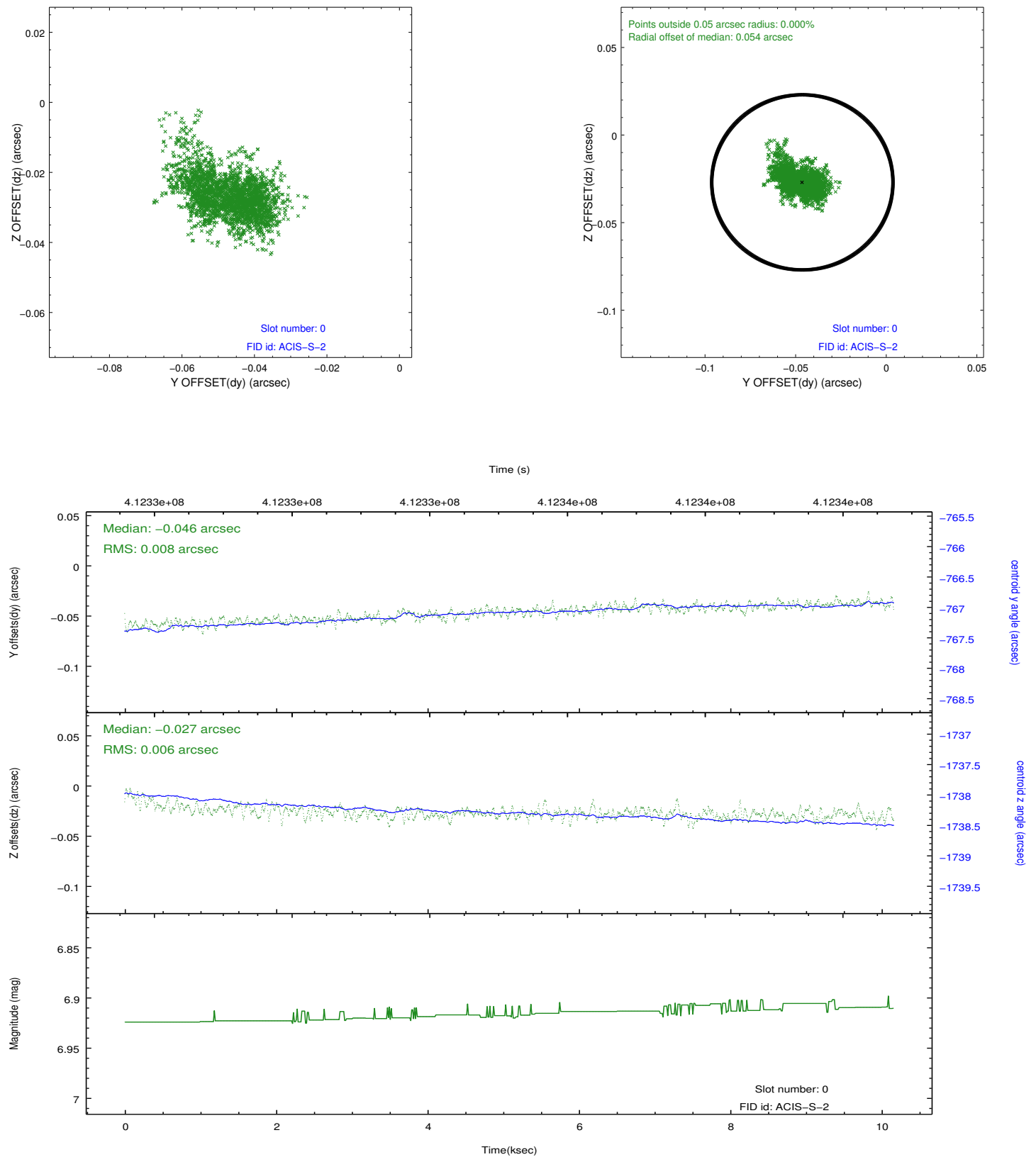


2.4.5 Slot 7

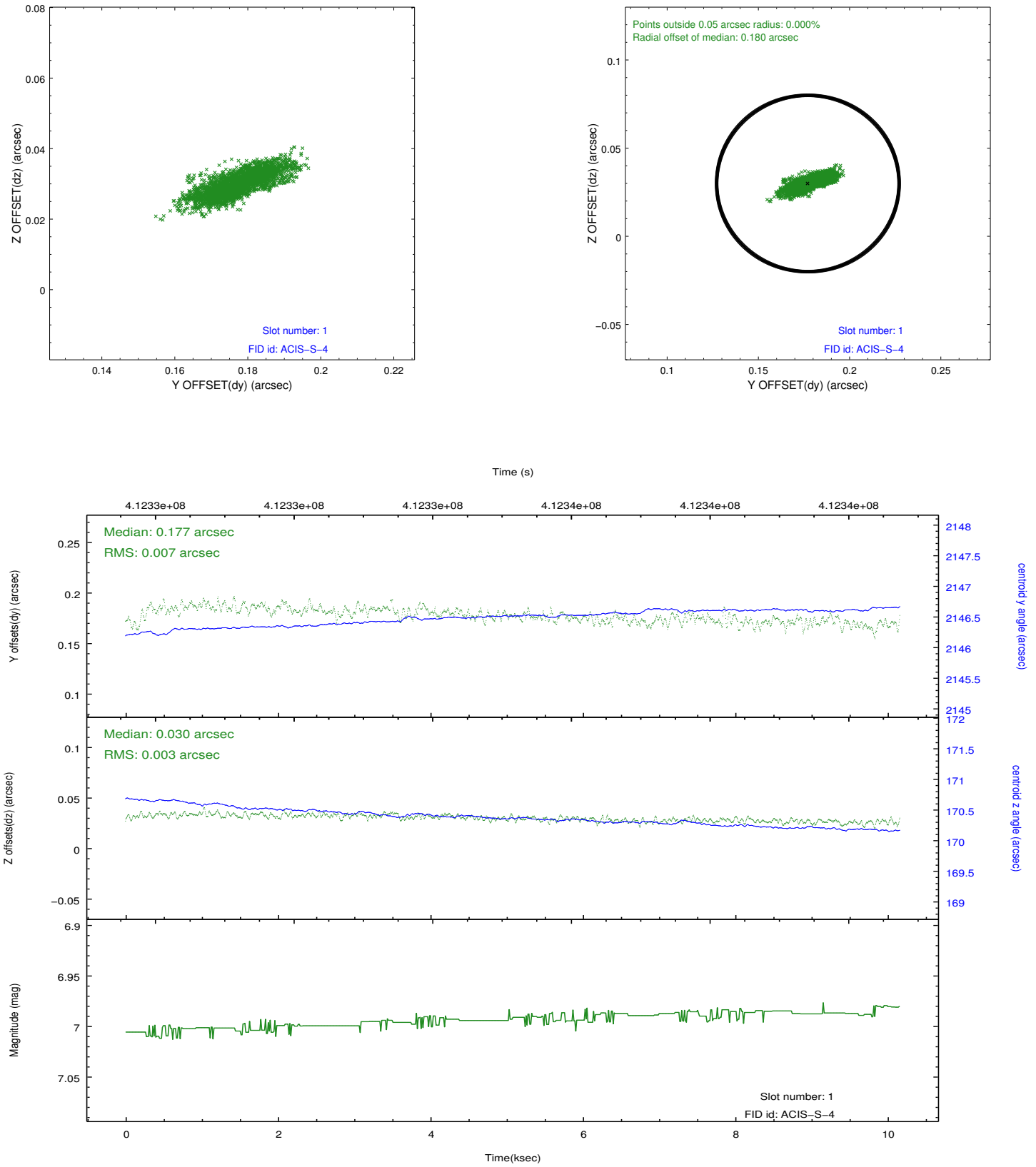


2.5 FID Slots

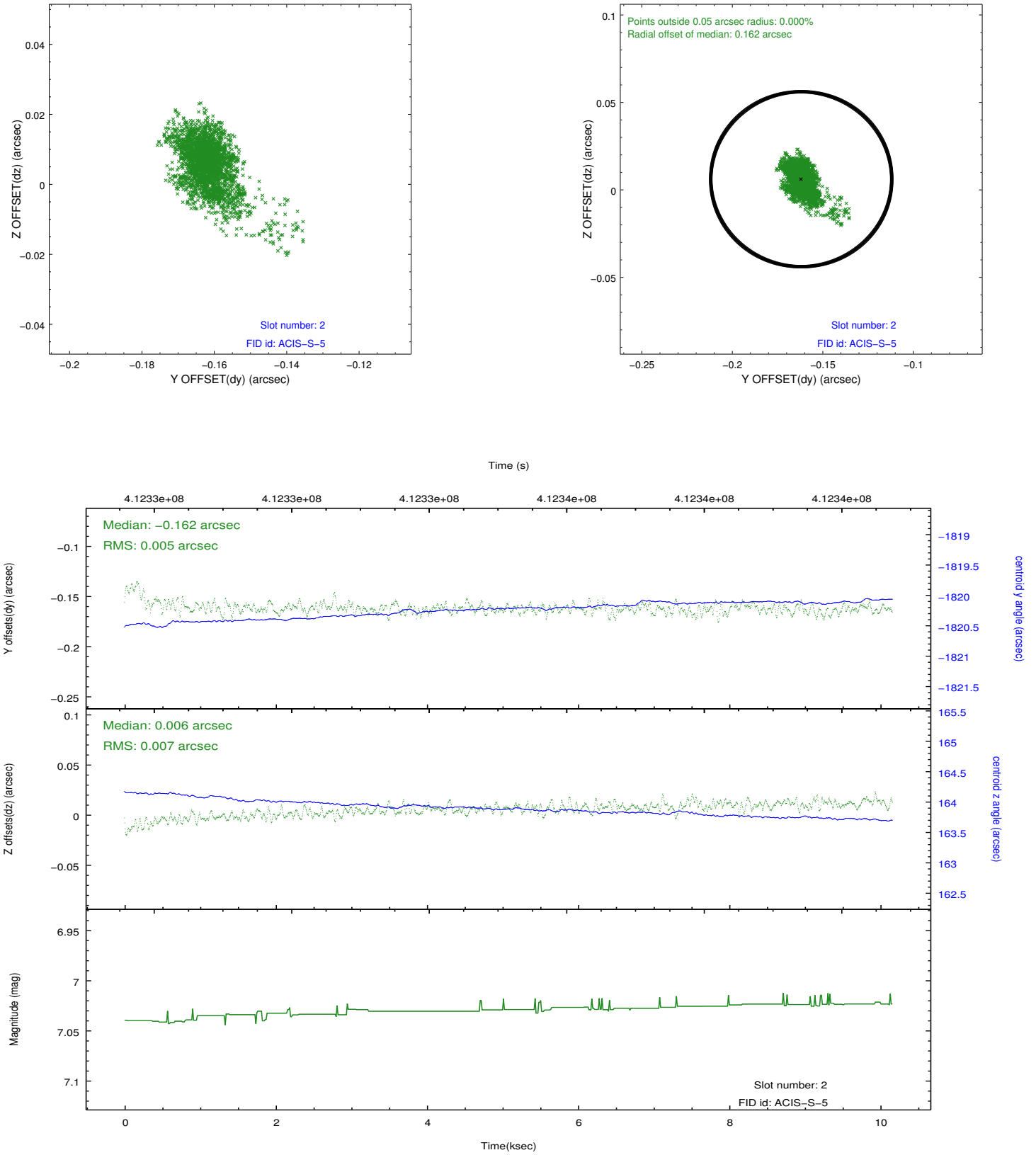
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.02.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.050013424218

A.2 Comments

Bright object is not at requested coordinates. Requested coordinates are at ra=17:20:39.60, dec=+32:28:03.80, which are correct for HD 157214. However, there seem to be no counts at this location. Instead, a fairly bright object appears at ra=17:20:39.705, dec=+32:27:52.50.

====

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.