

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12743 - L2 Version 2
Chandra X-Ray Center

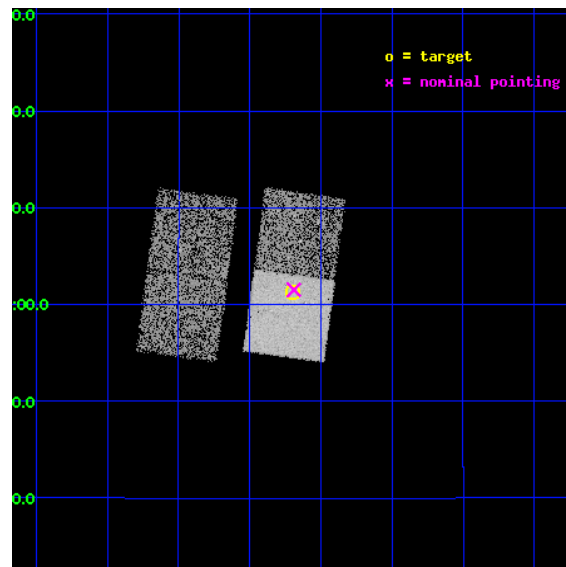
L2 Processing Date : Feb 8 2012

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

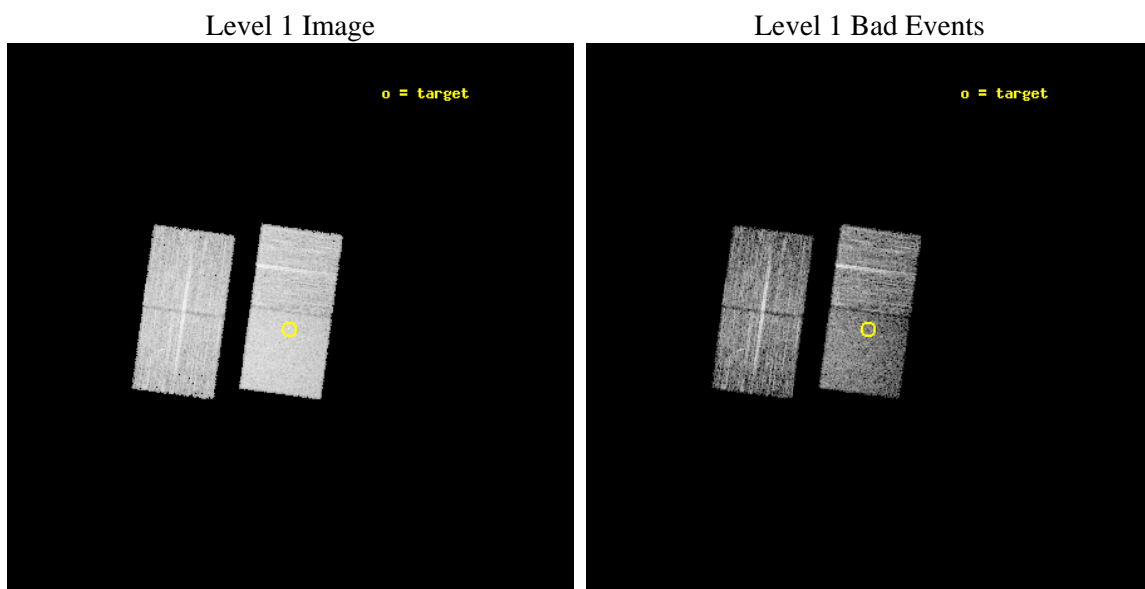
seq_num	702379	Sequence number
obs_id	12743	Observation id
title	Completing the Chandra 3C Snapshot Survey: Extragalactic Radio Sources with $z < 0.3$	Proposal title
observer	Dr. Daniel Harris	Principal investigator
object	3C 424	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	312.050417	Observer's specified target RA [deg]
dec_targ	7.021528	Observer's specified target Dec [deg]
ra_nom	312.04734382359	Nominal RA [deg]
dec_nom	7.0252833491015	Nominal Dec [deg]
roll_nom	97.740408051542	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8056.0980366468	Sum of GTIs [s]
livetime	7950.839184985	Livetime [s]
ontime2	8055.9749166369	Sum of GTIs [s]
ontime3	8049.7340258956	Sum of GTIs [s]
ontime6	8049.7751355767	Sum of GTIs [s]
ontime7	8056.0980366468	Sum of GTIs [s]
l2events	42777	Number of level 2 events



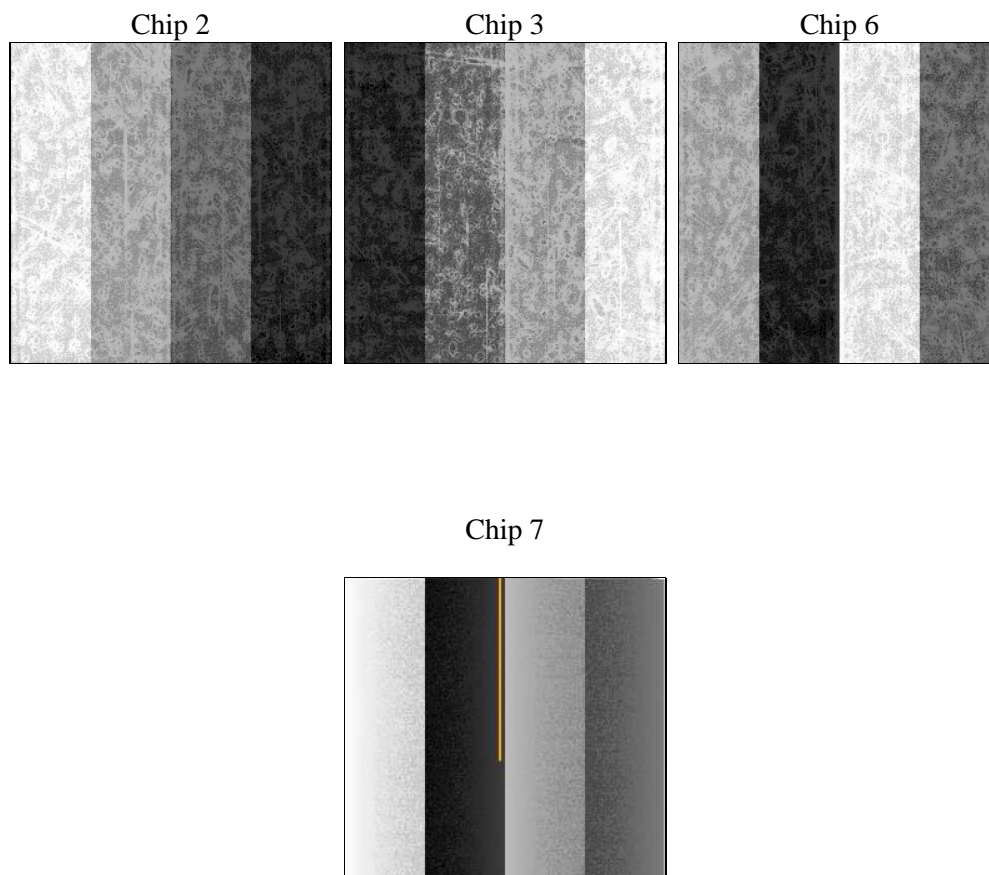
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	8056.0980366468	Sum of GTIs [s]
caldsver	4.4.7	 	ontime2	8055.9749166369	Sum of GTIs [s]
date	2012-02-08T03:27:46	Date and time of file creation	ontime3	8049.7340258956	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	8049.7751355767	Sum of GTIs [s]
			ontime7	8056.0980366468	Sum of GTIs [s]
			l1events	214797	Number of level 1 events

2.1.4 Events

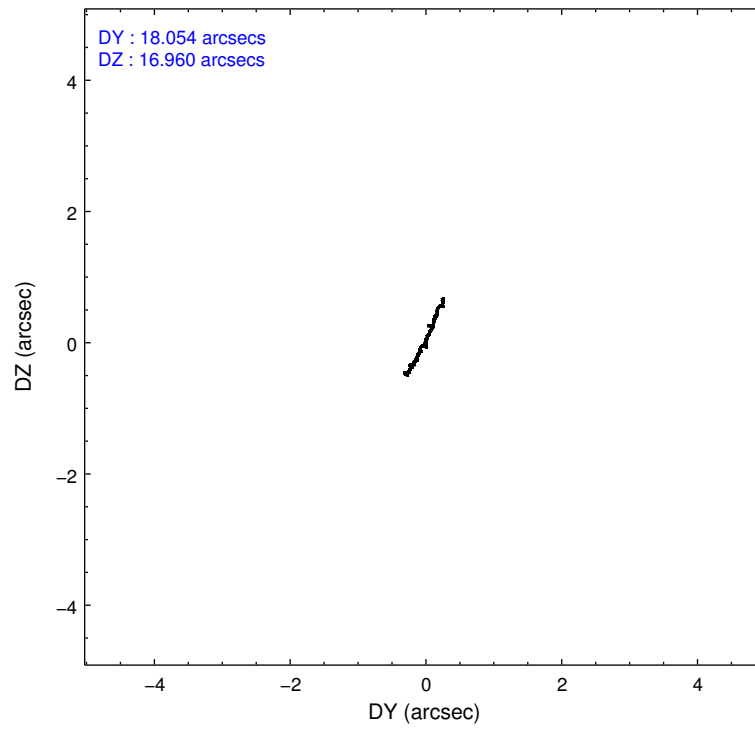
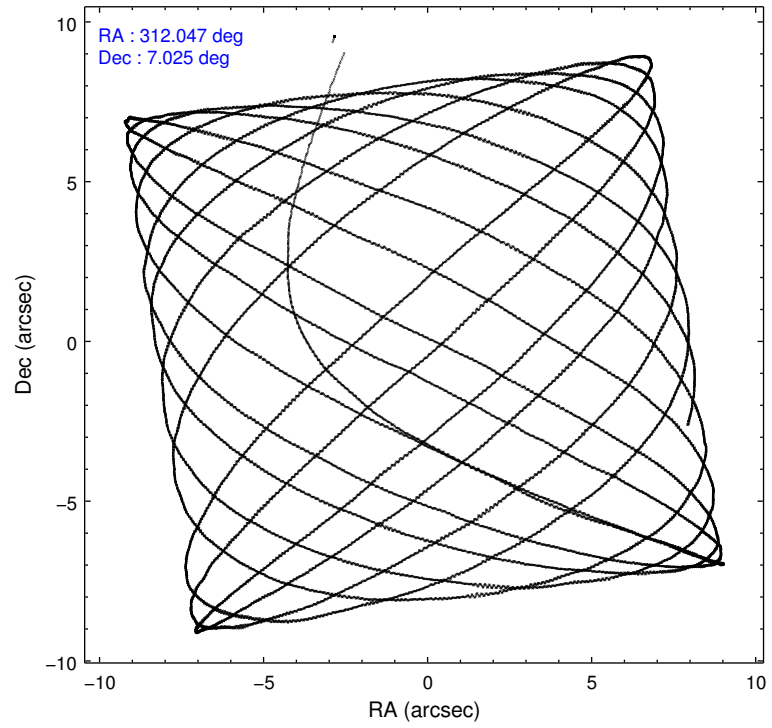
	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	48789	49633	52185	64190
rejected events	43066	44264	46261	35329
rejected %	88%	89%	88%	55%

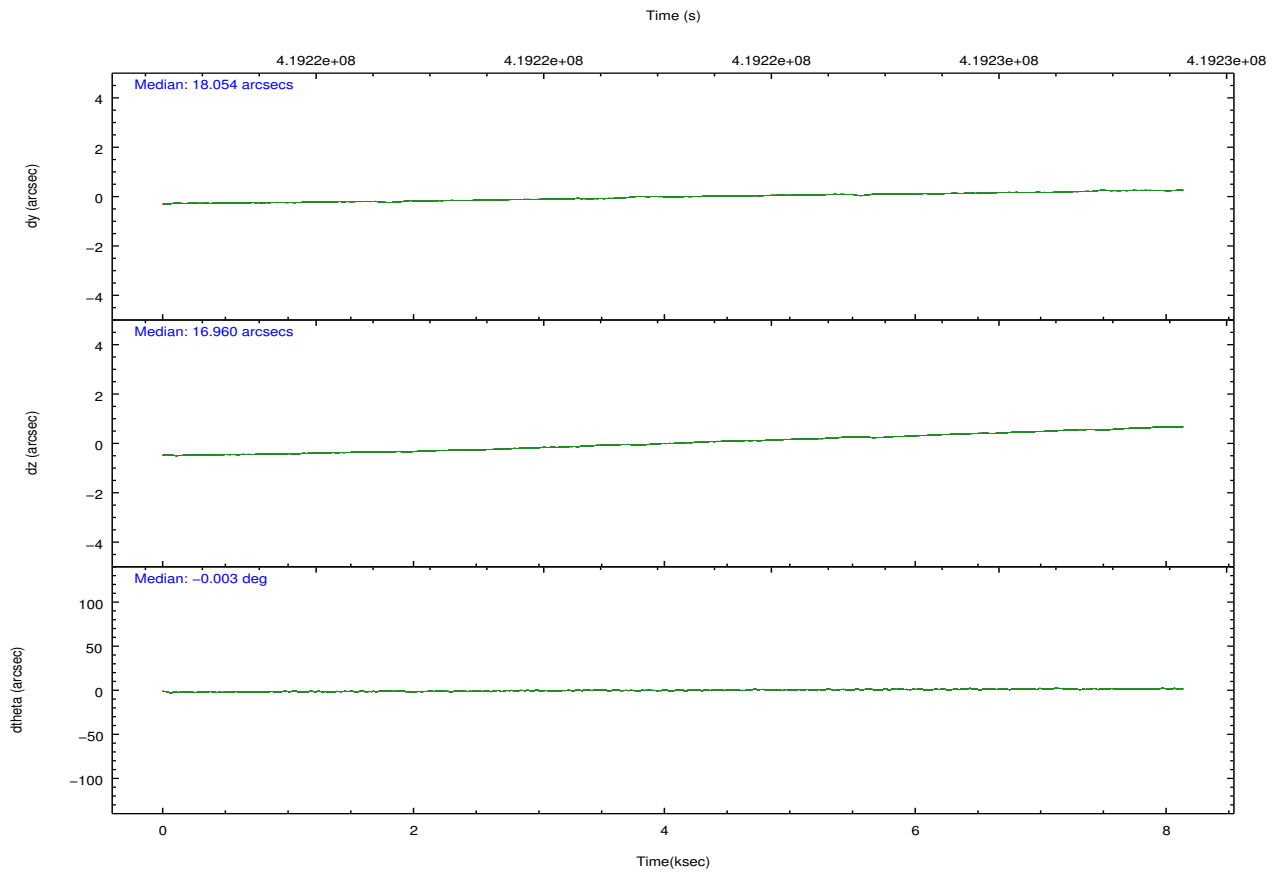
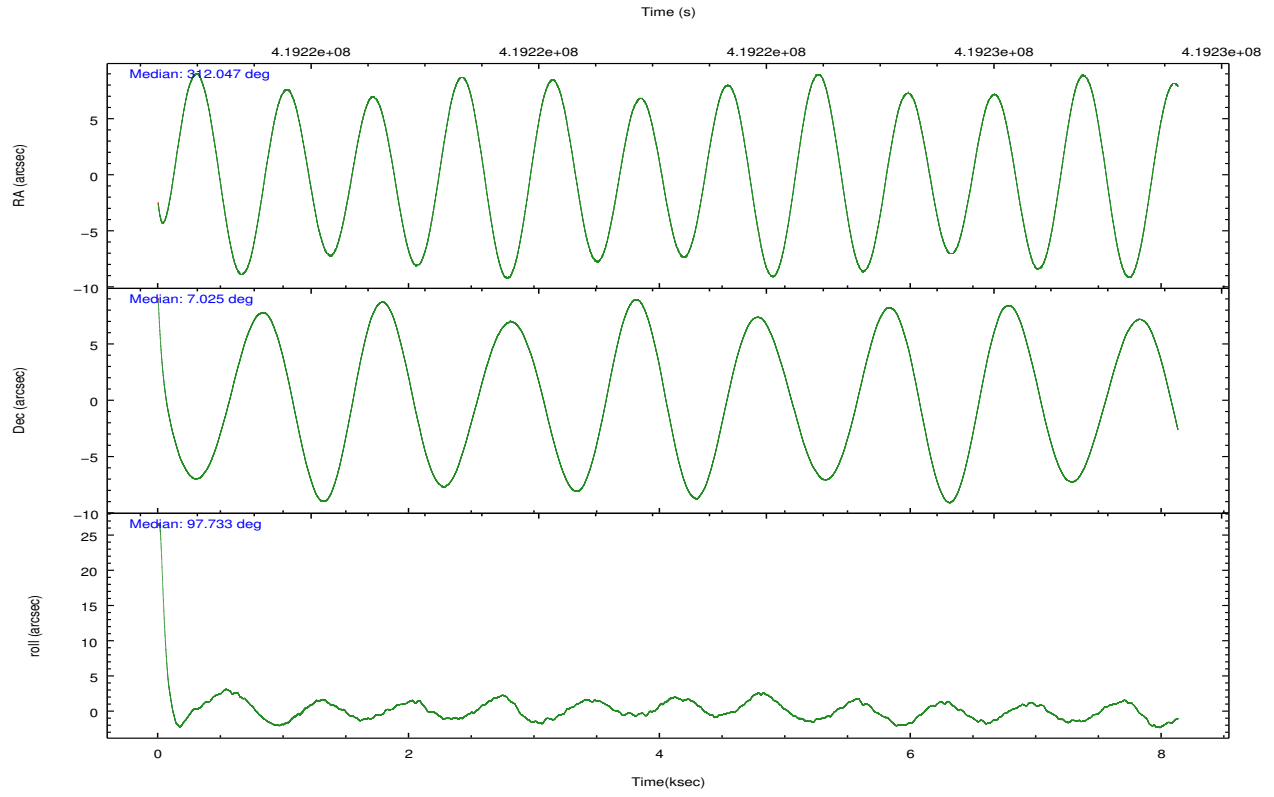
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2080	1804	2164	2665
	4%	3%	4%	4%
grade 1 events	22	22	24	88
	0%	0%	0%	0%
grade 2 events	1346	1176	1316	5901
	2%	2%	2%	9%
grade 3 events	576	605	627	2619
	1%	1%	1%	4%
grade 4 events	587	599	579	2597
	1%	1%	1%	4%
grade 5 events	2003	2436	2390	6678
	4%	4%	4%	10%
grade 6 events	1136	1185	1241	15087
	2%	2%	2%	23%
grade 7 events	41039	41806	43844	28555
	84%	84%	84%	44%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-2367	ACIS-2367	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	312.064475	312.0473438235933	CCD I2 on	O1	Y
[deg] Pointing Dec	7.003881	7.025283349101455	CCD I3 on	O2	Y
[deg] Pointing Roll	97.581657	97.74040805154166	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	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	N	N
[s] Observation start time (MET)	419219206.184000	419218212.9755	CCD S5 on	N	N
Observation start date	2011-04-15T01:45:40	2011-04-15T01:30:12	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	419227206.184000	419227991.98851	On-chip summing requested	N	N
Observation end date	2011-04-15T03:59:00	2011-04-15T04:13:11	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



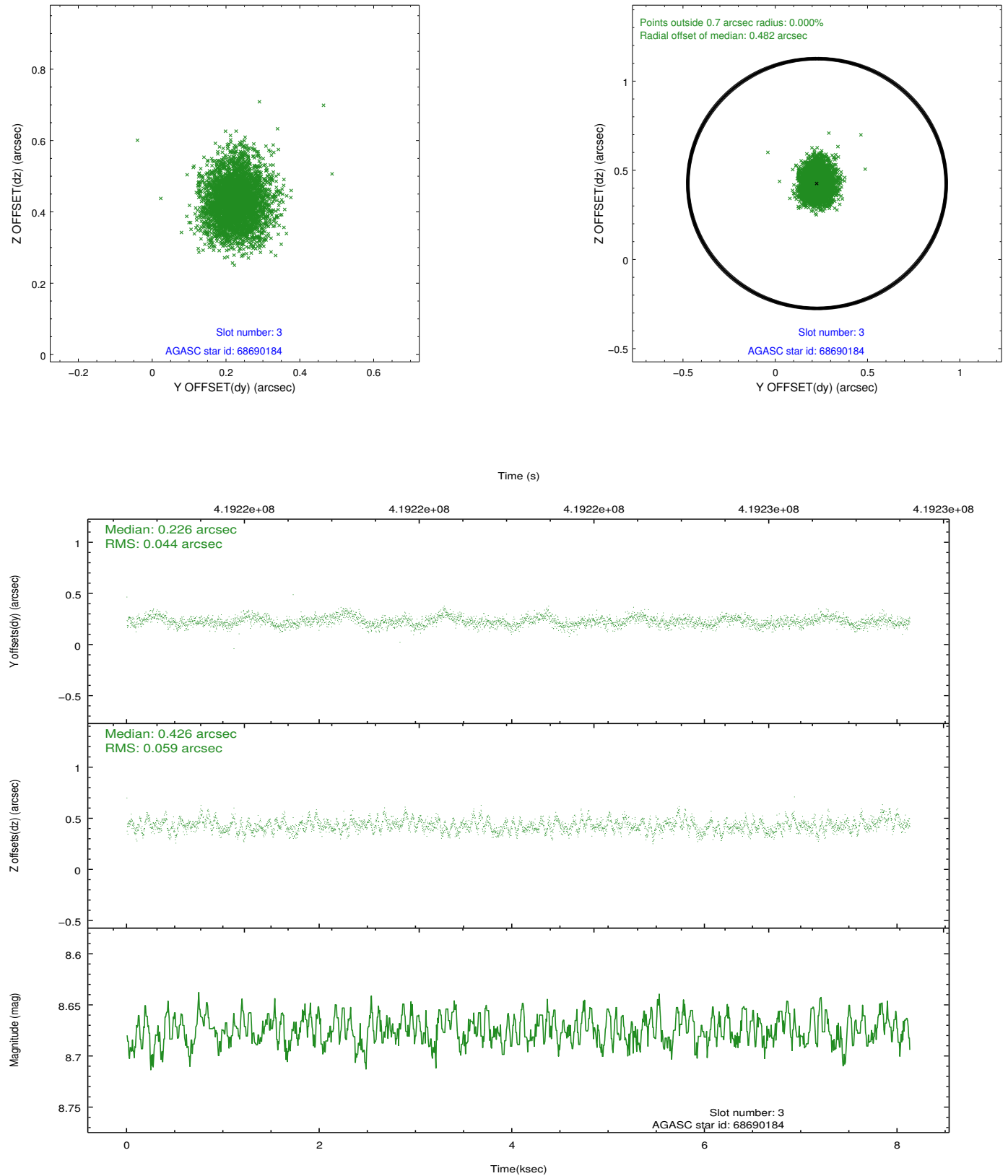


Slot Statistics

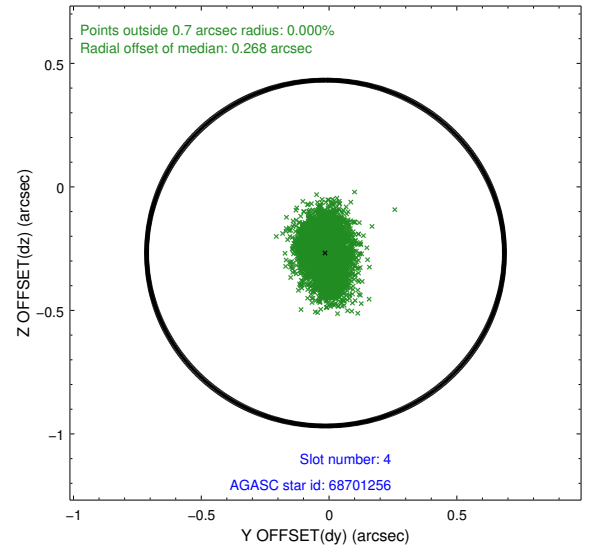
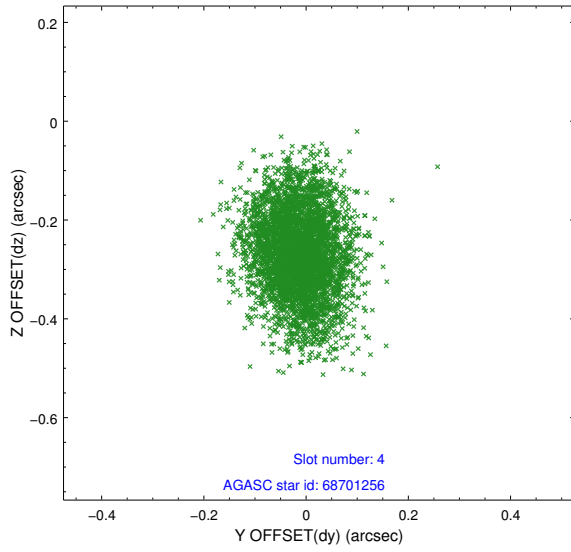
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.94	1984	-0.060	-0.023	0.015	0.023	0.000000	0.000000	-771.16	-1738.38
1	FID	ACIS-S-4	7.01	1984	0.185	0.035	0.008	0.013	0.000000	0.000000	2142.06	169.41
2	FID	ACIS-S-5	7.05	1982	-0.157	-0.003	0.016	0.024	0.000000	0.000000	-1823.20	163.87
3	GUIDE	68690184	8.67	3965	0.226	0.426	0.077	0.129	312.707729	6.797838	-1036.51	-2181.09
4	GUIDE	68701256	9.17	3965	-0.014	-0.268	0.100	0.169	311.626736	6.809413	-487.15	1642.77
5	GUIDE	68701288	8.99	3967	0.168	0.170	0.102	0.158	312.448456	6.876075	-636.26	-1298.96
6	GUIDE	142753112	7.04	3967	-0.233	0.045	0.075	0.112	312.089471	7.594229	2094.50	-368.96
7	GUIDE	68697144	7.40	3966	-0.148	-0.375	0.077	0.120	311.487514	7.379119	1612.51	1863.30

2.4 Star Slots

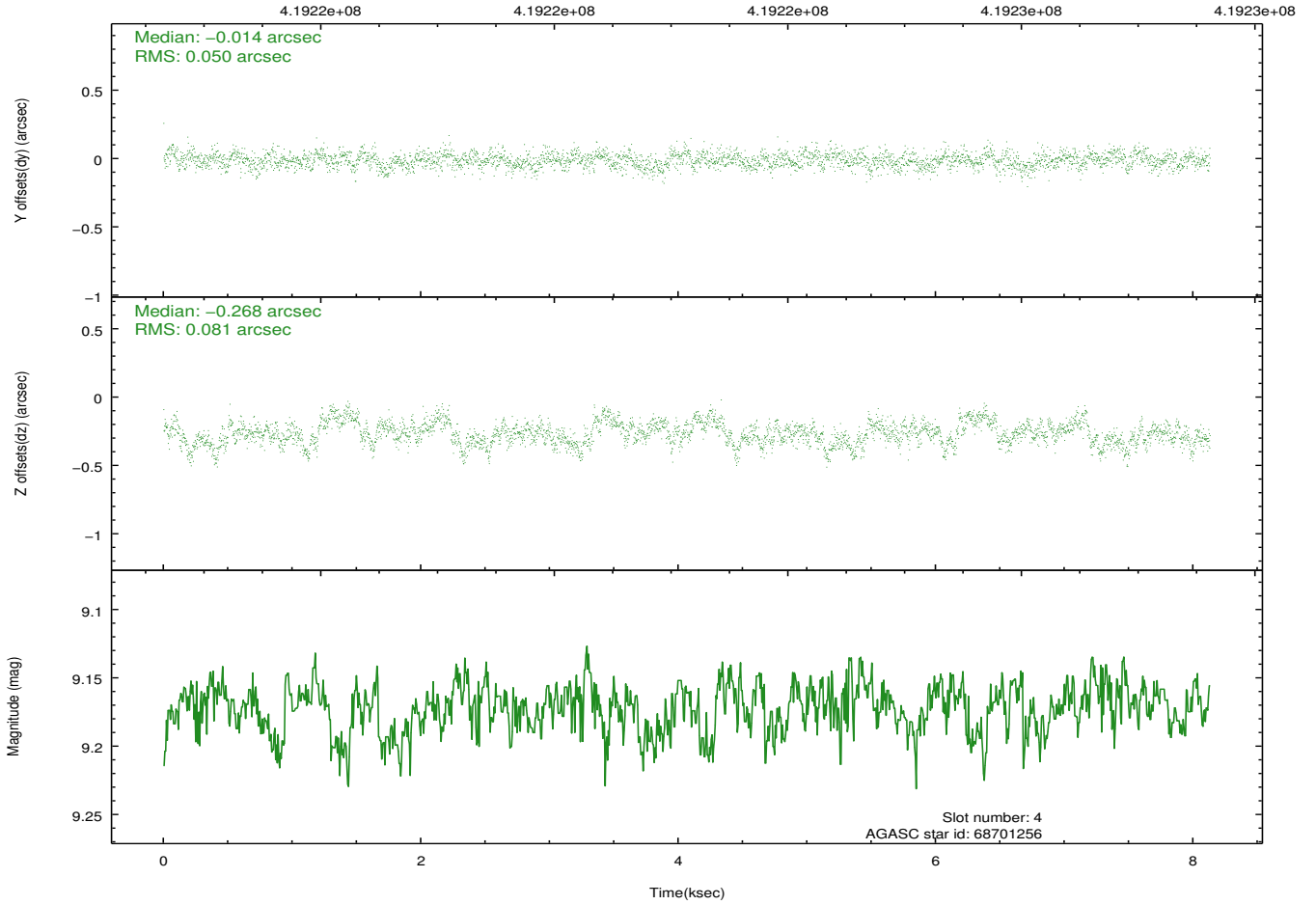
2.4.1 Slot 3



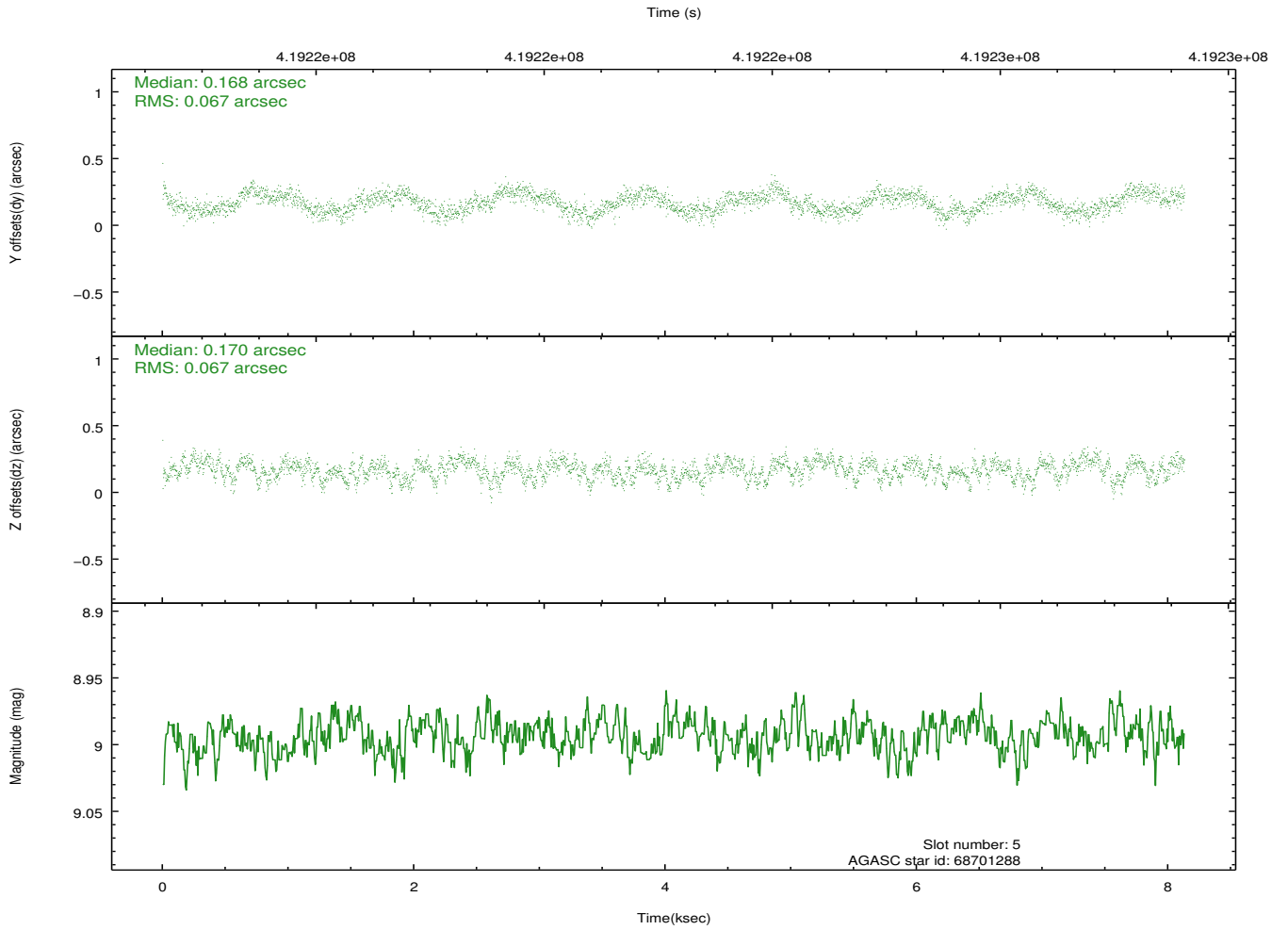
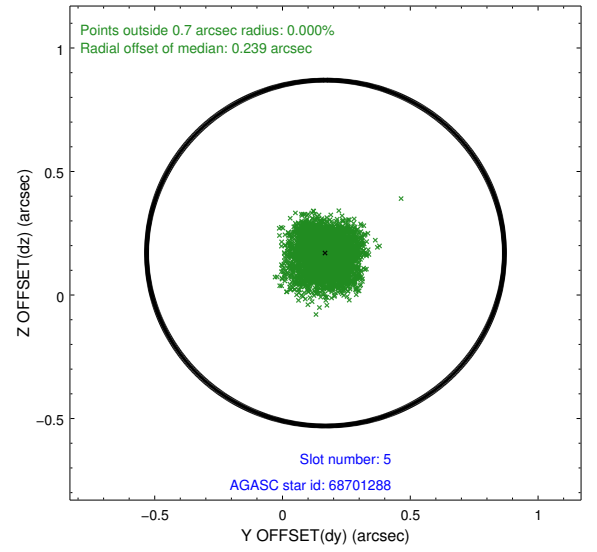
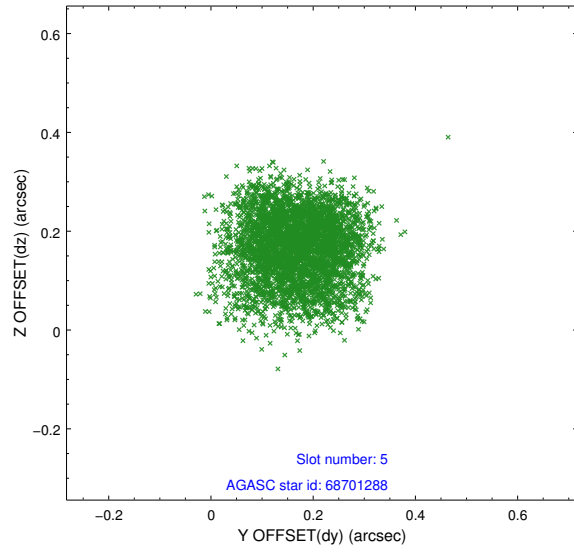
2.4.2 Slot 4



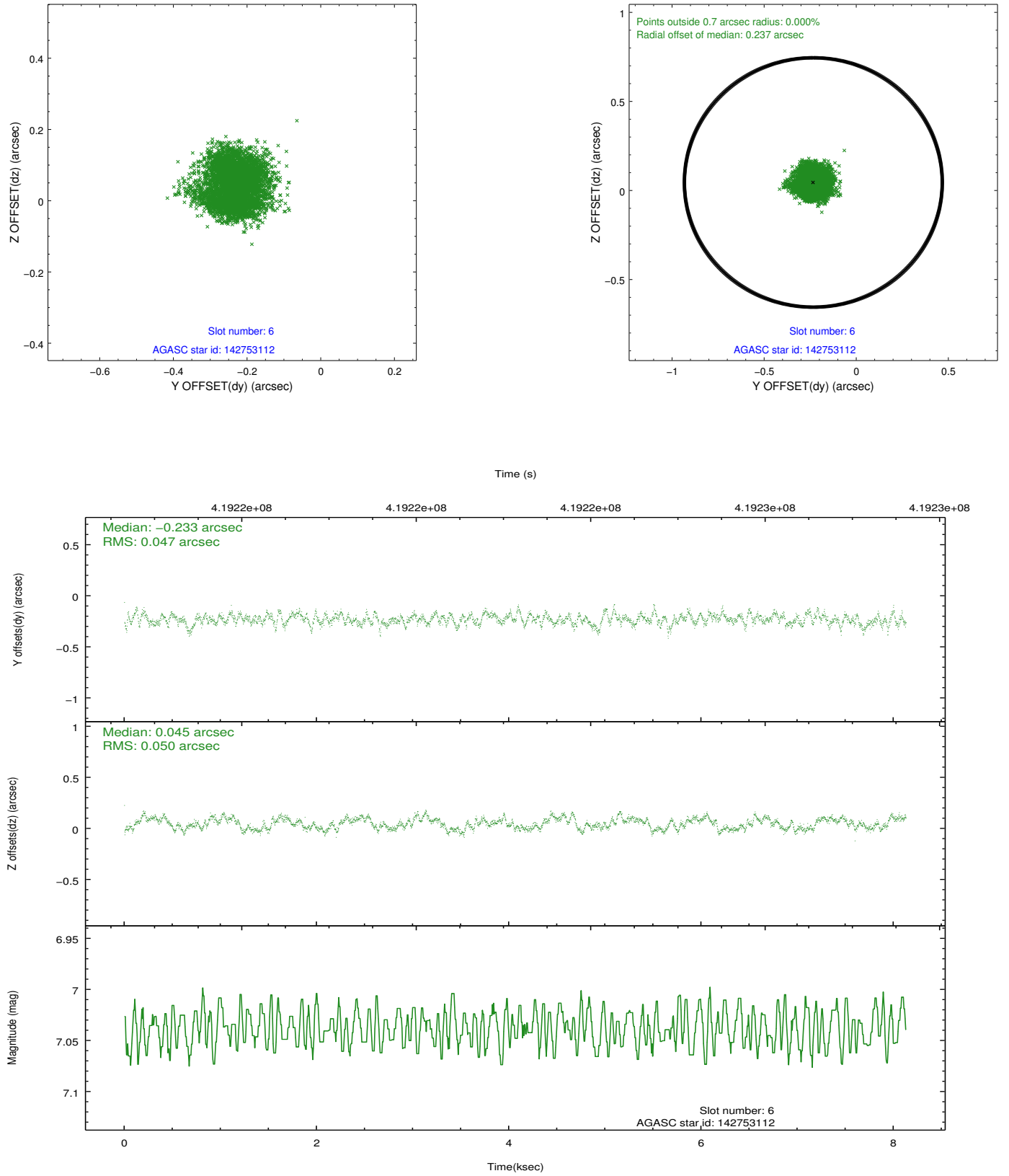
Time (s)



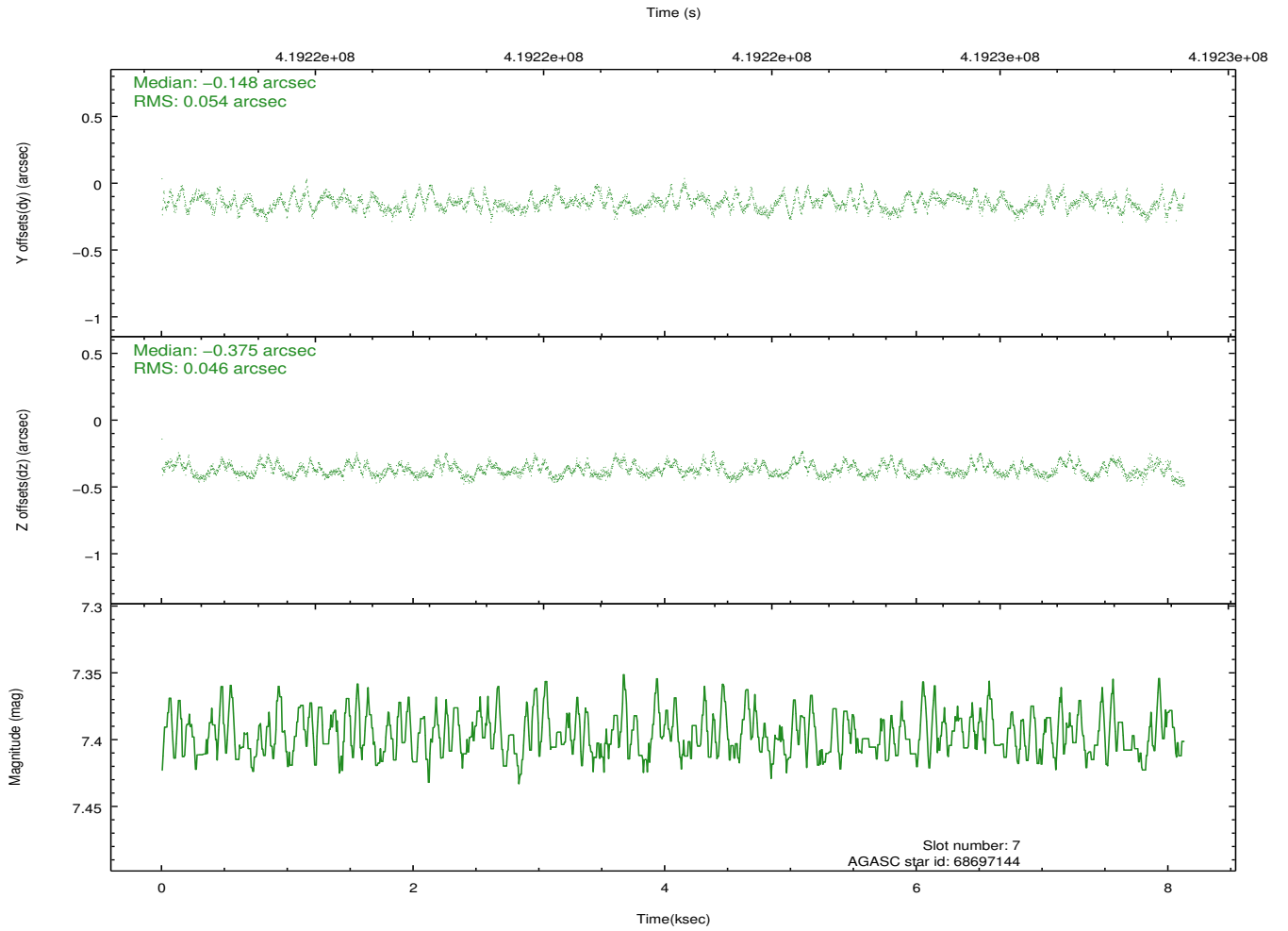
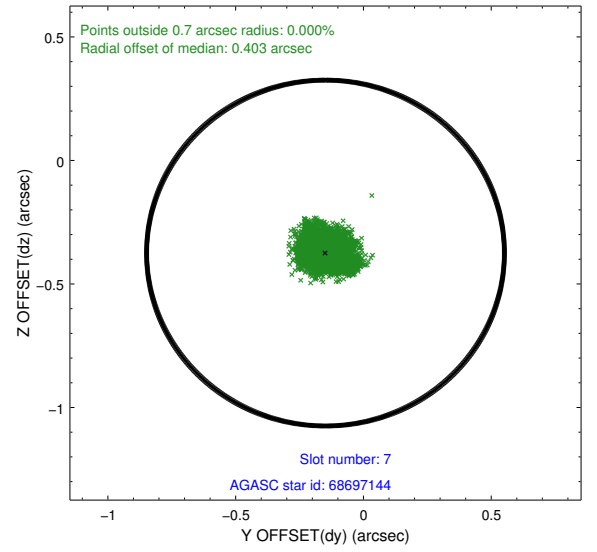
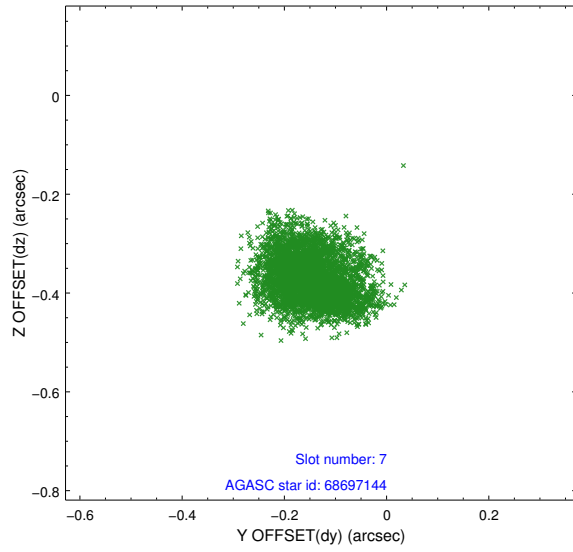
2.4.3 Slot 5



2.4.4 Slot 6

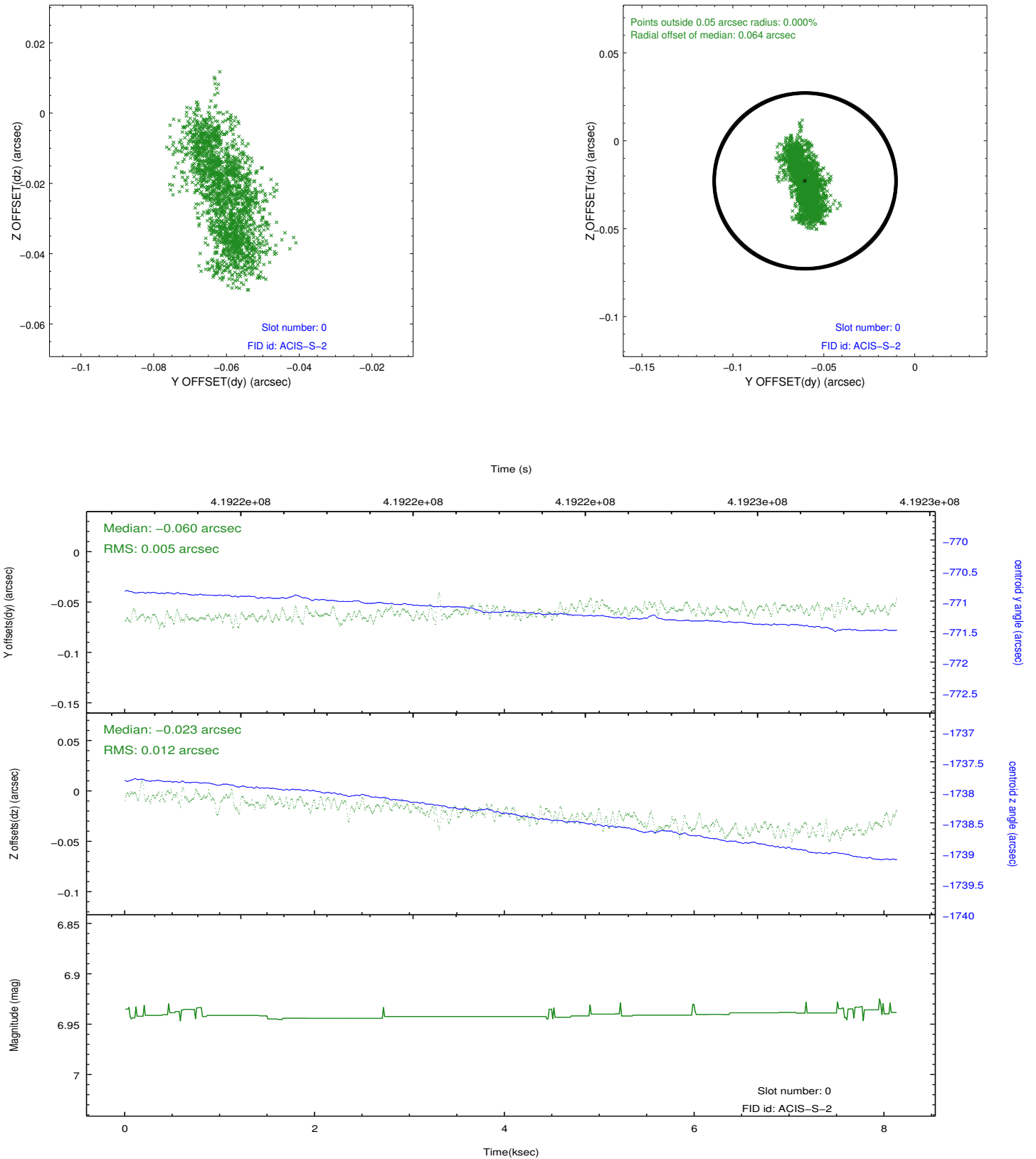


2.4.5 Slot 7

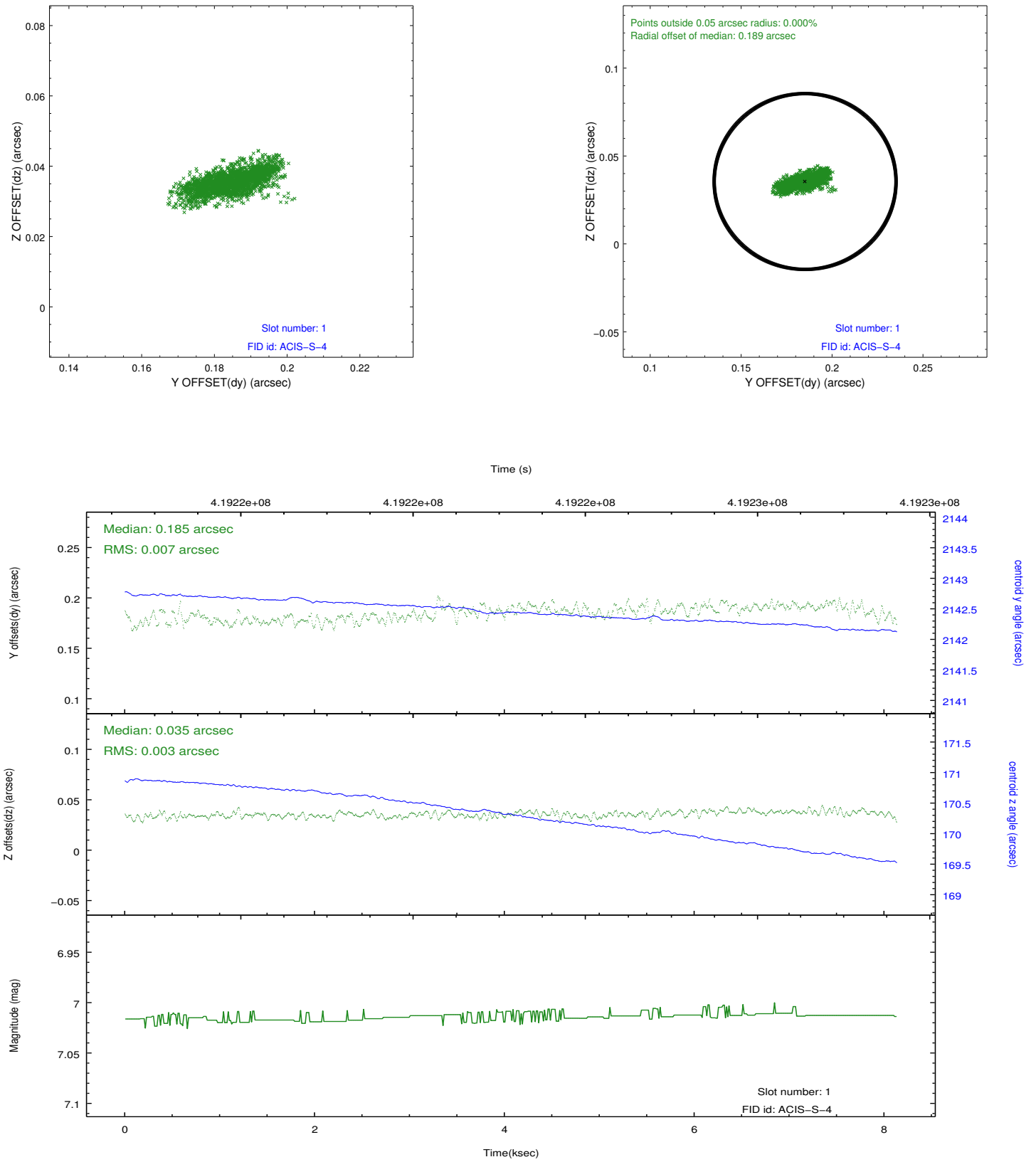


2.5 FID Slots

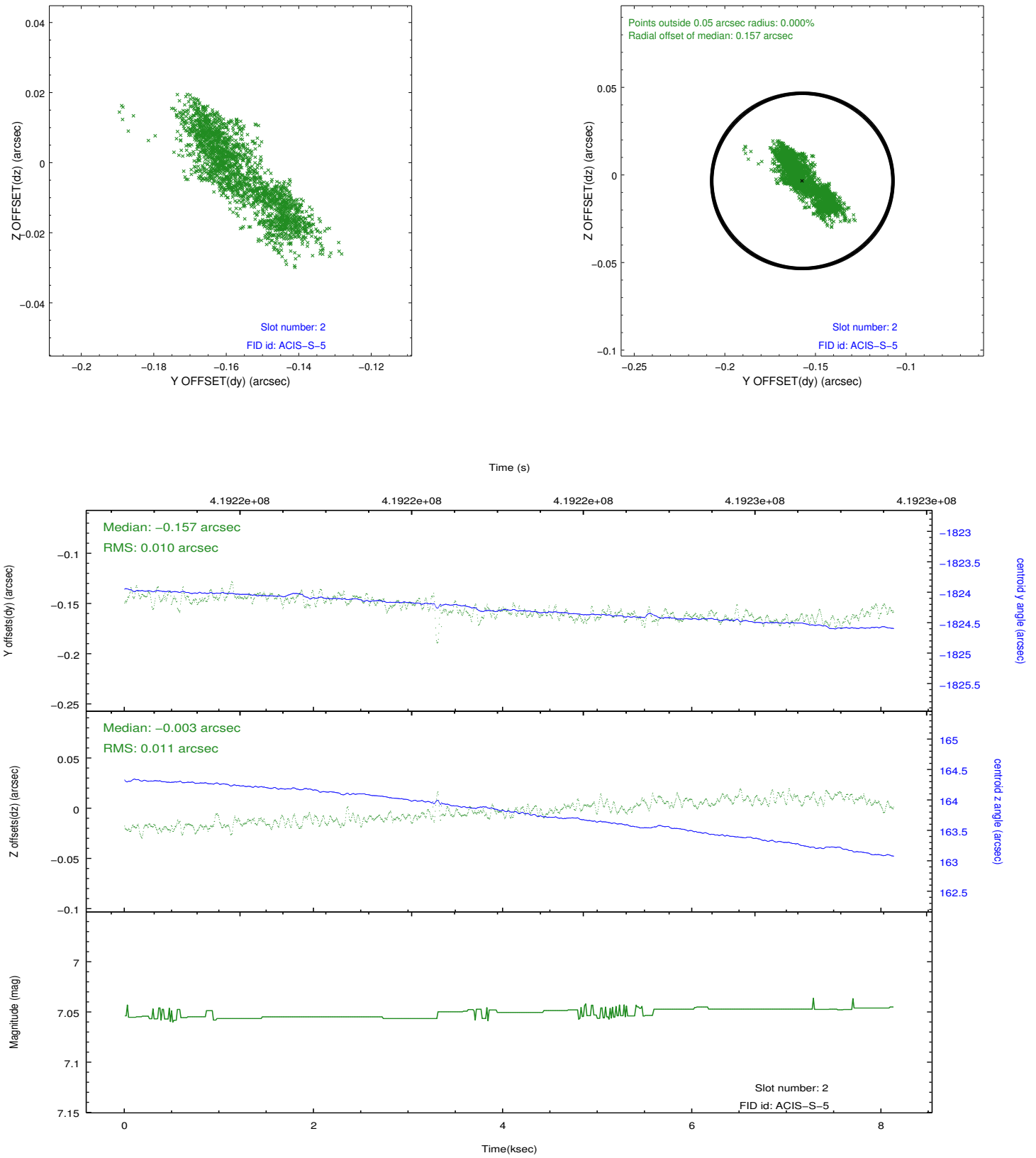
2.5.1 Slot 0



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)	2012.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.0560980435014

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.