

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 13012 - L2 Version 2  
Chandra X-Ray Center

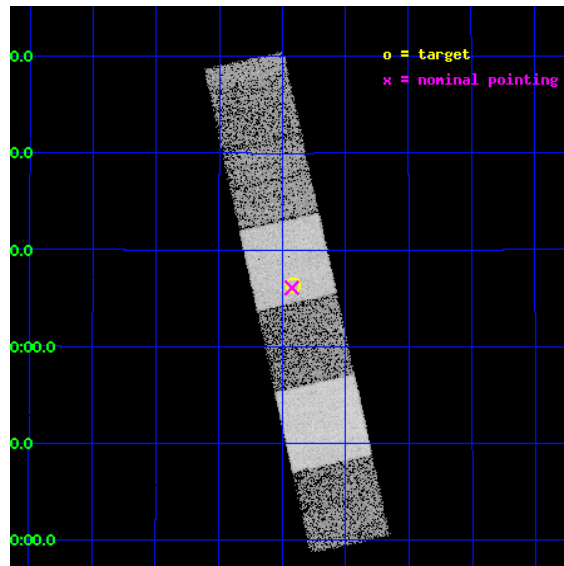
L2 Processing Date : Feb 8 2012

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# 1 Front

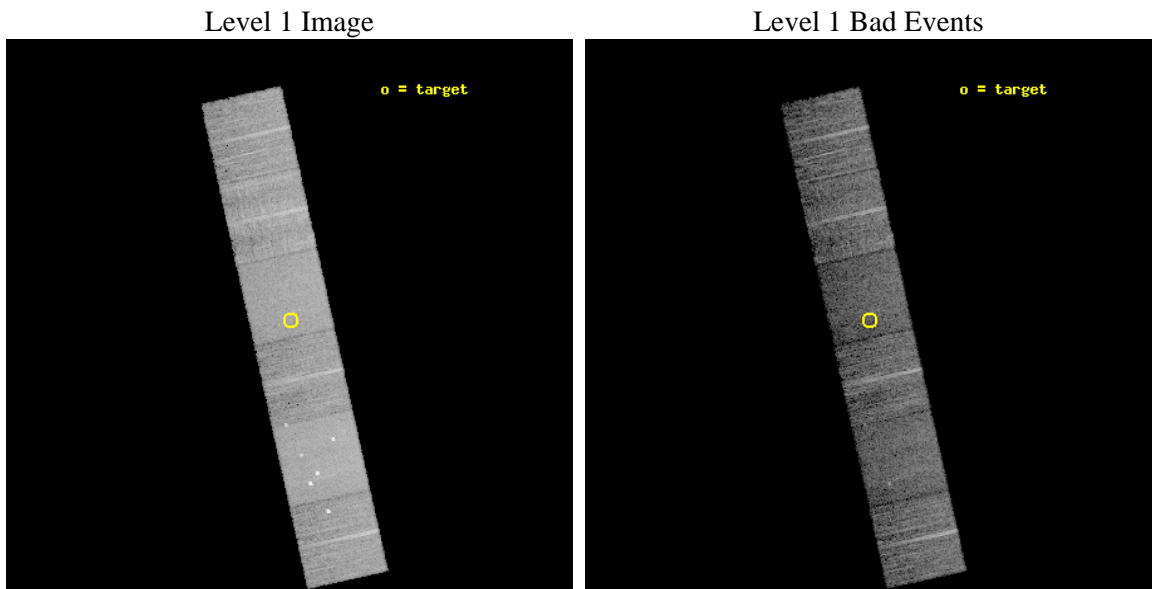
seq_num	600976	Sequence number
obs_id	13012	Observation id
title	Chandra Observations of Local Lyman Break Galaxy Analogs	Proposal
observer	Dr. Antara Basu-Zych	Principal investigator
object	J082355.0+280621.8	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	125.979167	Observer's specified target RA [deg]
dec_targ	28.106056	Observer's specified target Dec [deg]
ra_nom	125.98101991951	Nominal RA [deg]
dec_nom	28.10148403185	Nominal Dec [deg]
roll_nom	257.40553897373	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9007.9999665022	Sum of GTIs [s]
livetime	8893.9352469599	Livetime [s]
ontime4	9007.9999665022	Sum of GTIs [s]
ontime5	9007.9999665022	Sum of GTIs [s]
ontime6	9007.9999665022	Sum of GTIs [s]
ontime7	9007.9999665022	Sum of GTIs [s]
ontime8	9004.758996129	Sum of GTIs [s]
ontime9	9004.7589762807	Sum of GTIs [s]
l2events	99485	Number of level 2 events



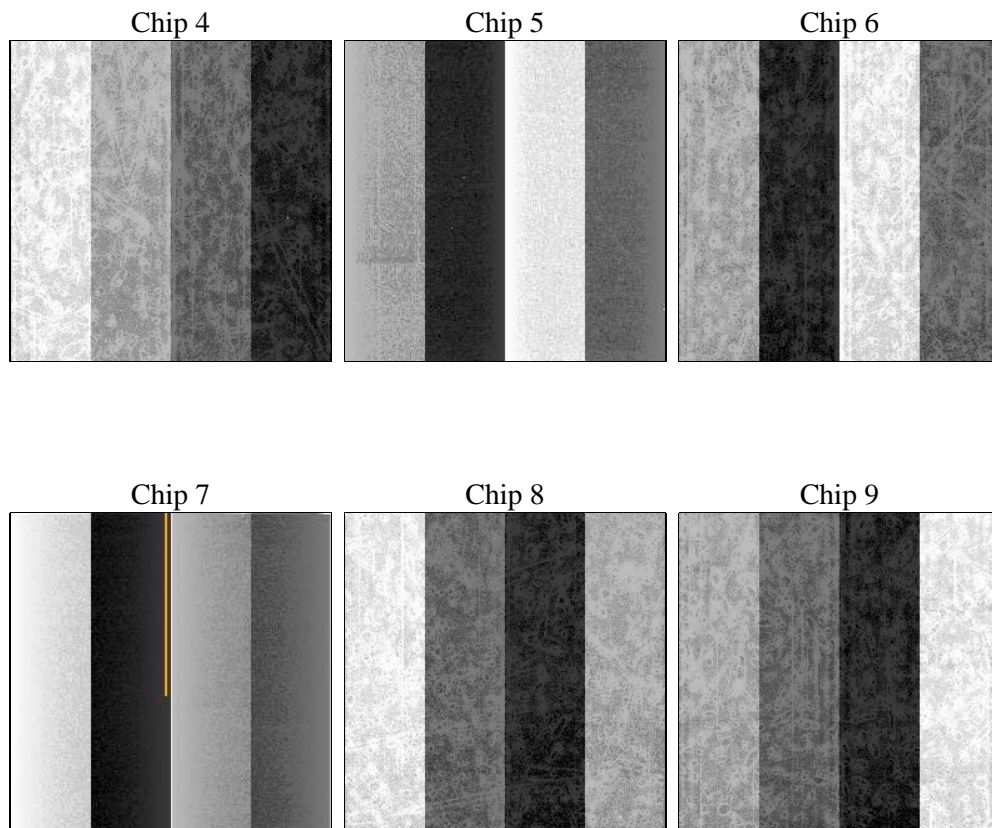
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8958.624000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	9007.9999665022	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime4	9007.9999665022	Sum of GTIs [s]
date	2012-02-08T22:31:48	Date and time of file creation	ontime5	9007.9999665022	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	9007.9999665022	Sum of GTIs [s]
			ontime7	9007.9999665022	Sum of GTIs [s]
			ontime8	9004.758996129	Sum of GTIs [s]
			ontime9	9004.7589762807	Sum of GTIs [s]
			l1events	431777	Number of level 1 events

### 2.1.4 Events

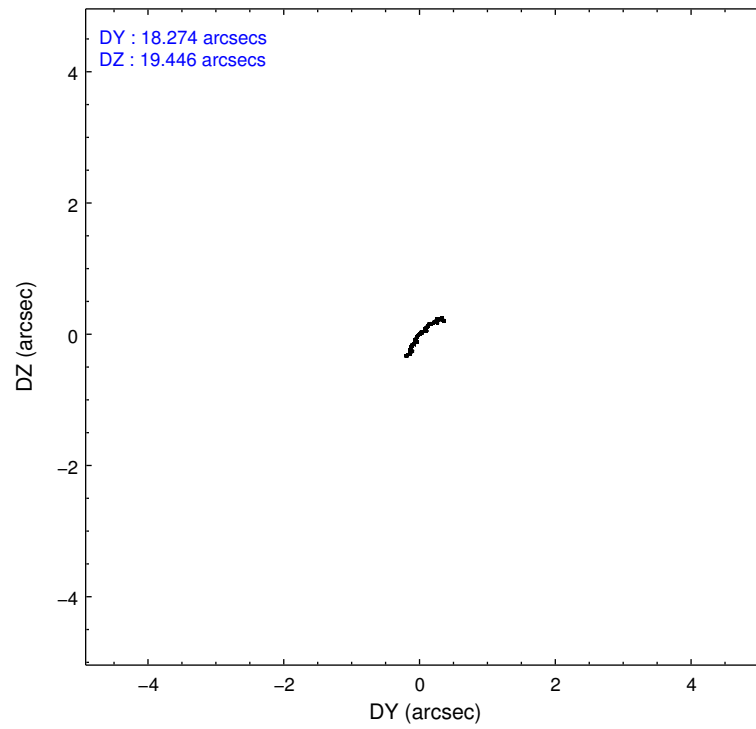
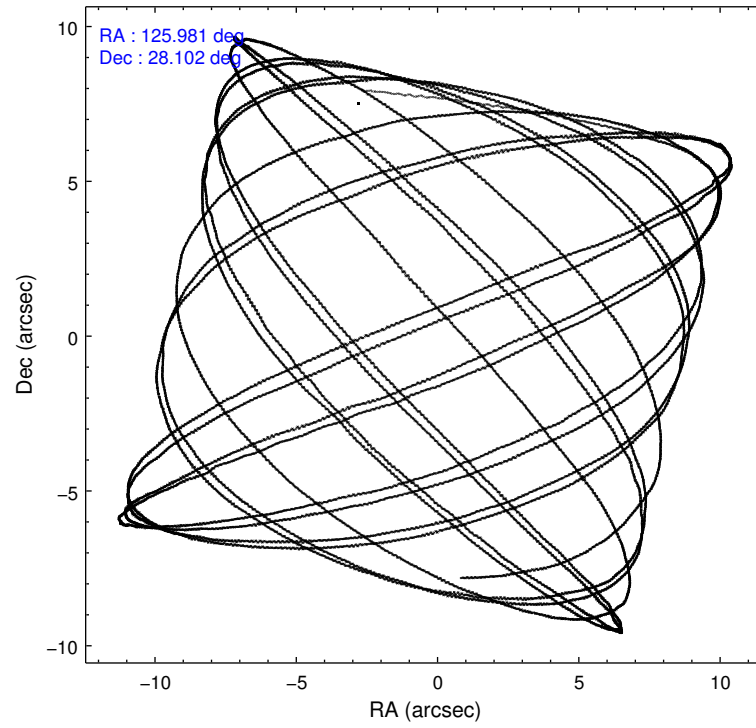
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	67643	95274	59464	73994	75653	59749	grade 0 events	4675	6887	2226	2973	6388	2683
rejected events	58605	46874	52889	40686	54913	52561		6%	7%	3%	4%	8%	4%
rejected %	86%	49%	88%	54%	72%	87%	grade 1 events	55	209	36	86	56	33
								0%	0%	0%	0%	0%	0%
							grade 2 events	1660	14523	1480	6937	4754	1557
								2%	15%	2%	9%	6%	2%
							grade 3 events	809	1669	655	2947	2107	757
								1%	1%	1%	3%	2%	1%
							grade 4 events	713	1519	718	2934	2008	732
								1%	1%	1%	3%	2%	1%
							grade 5 events	2726	6976	2611	7497	4058	3063
								4%	7%	4%	10%	5%	5%
							grade 6 events	1181	23822	1496	17534	5488	1463
								1%	25%	2%	23%	7%	2%
							grade 7 events	55824	39669	50242	33086	50794	49461
								82%	41%	84%	44%	67%	82%

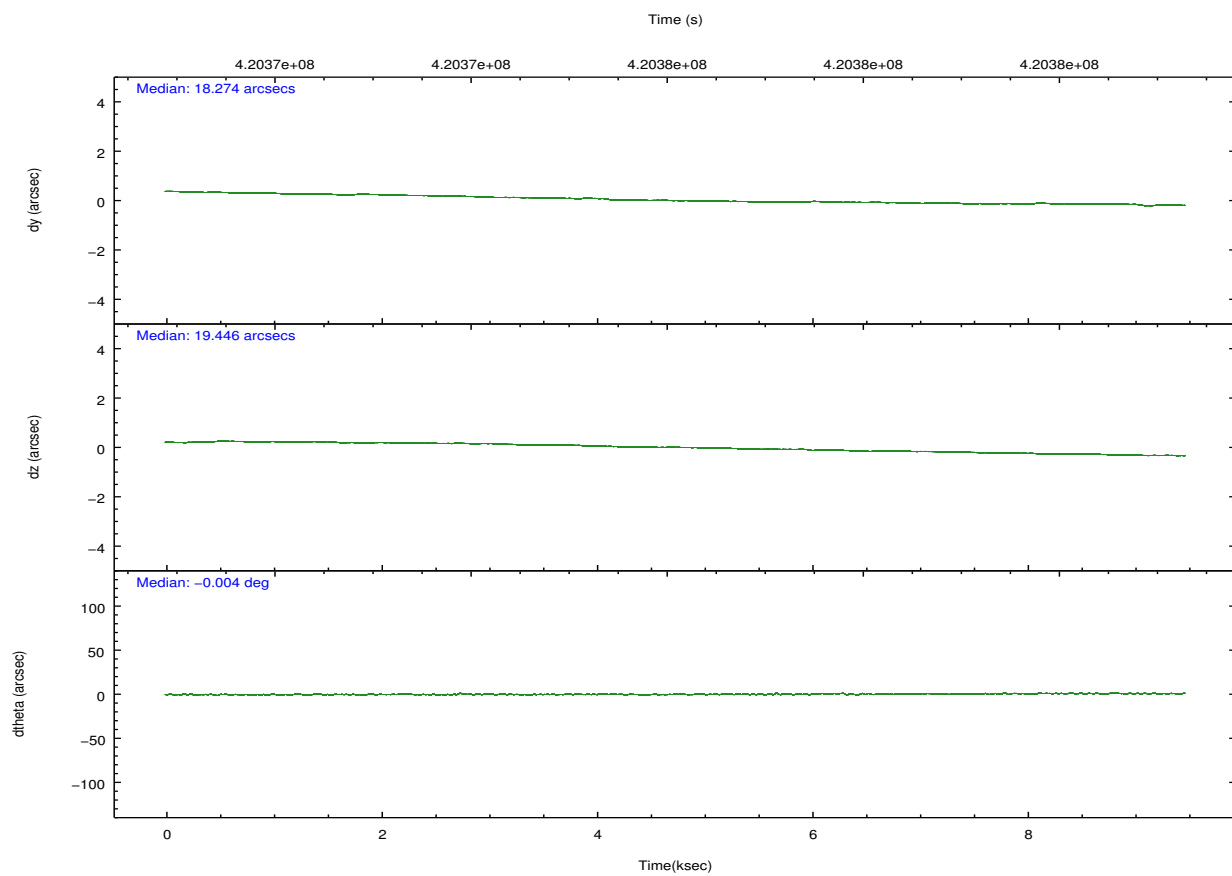
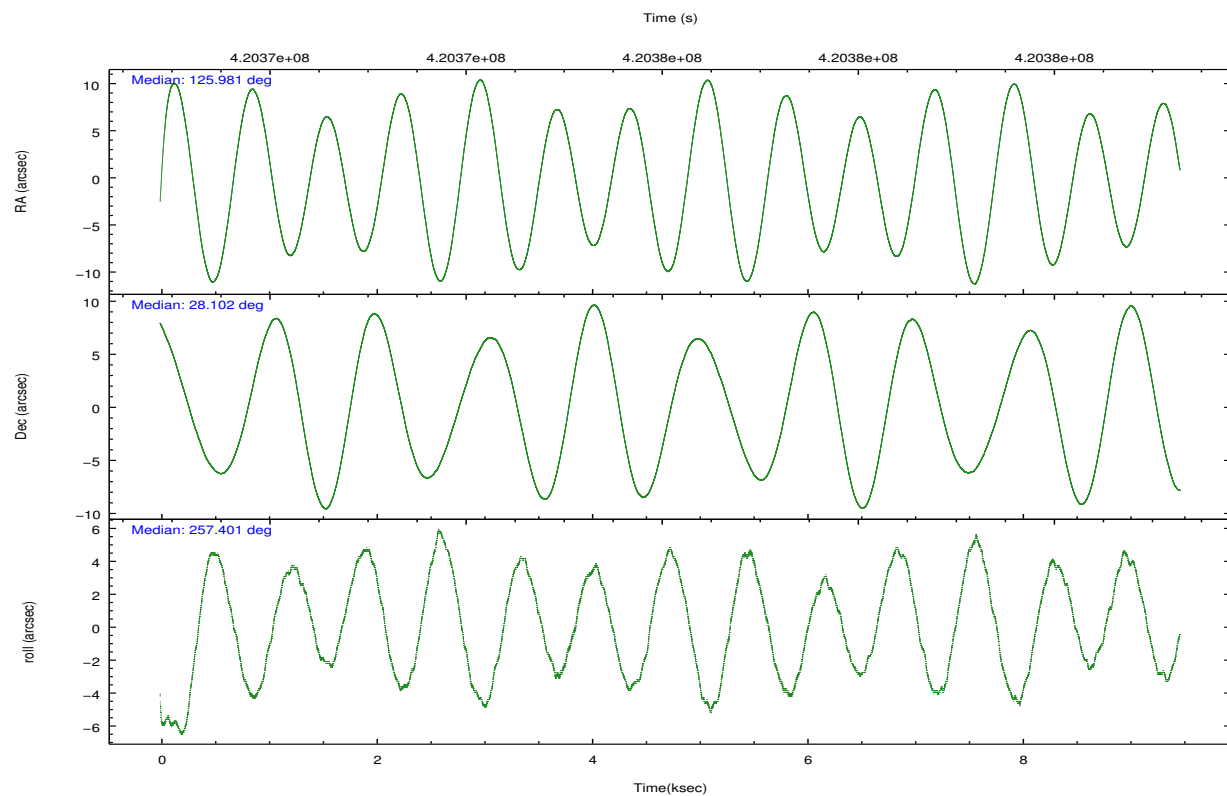


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	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	125.971288	125.98101991951	CCD I2 on	N	N
[deg] Pointing Dec	28.127450	28.10148403185036	CCD I3 on	N	N
[deg] Pointing Roll	257.253502	257.4055389737289	CCD S0 on	O3	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O2	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	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	Y	Y
[s] Observation start time (MET)	420371855.184000	420370686.64782	CCD S5 on	O1	Y
Observation start date	2011-04-28T09:56:29	2011-04-28T09:38:06	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	420380813.184000	420381039.66086	On-chip summing requested	N	N
Observation end date	2011-04-28T12:25:47	2011-04-28T12:30:39	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



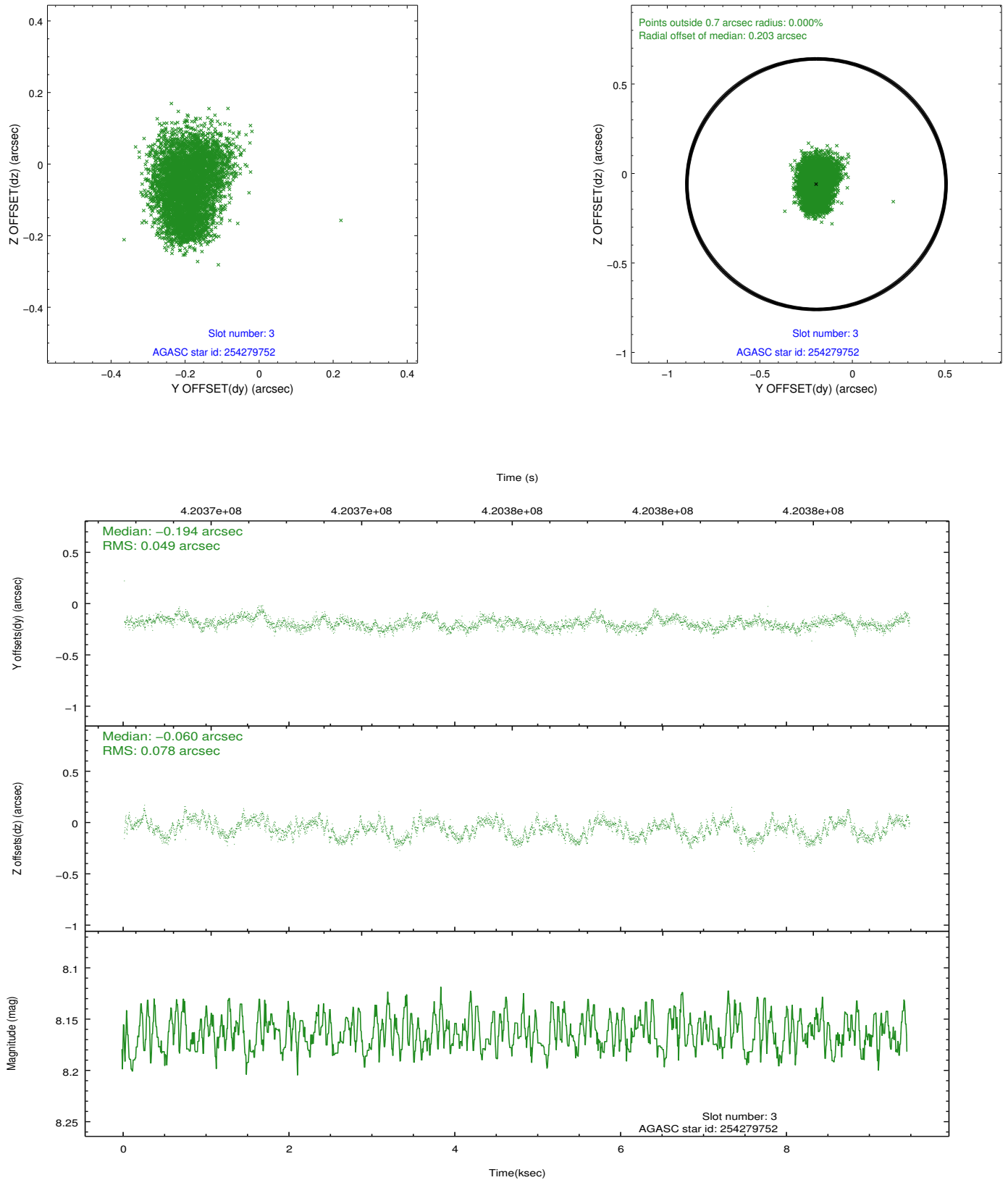


### Slot Statistics

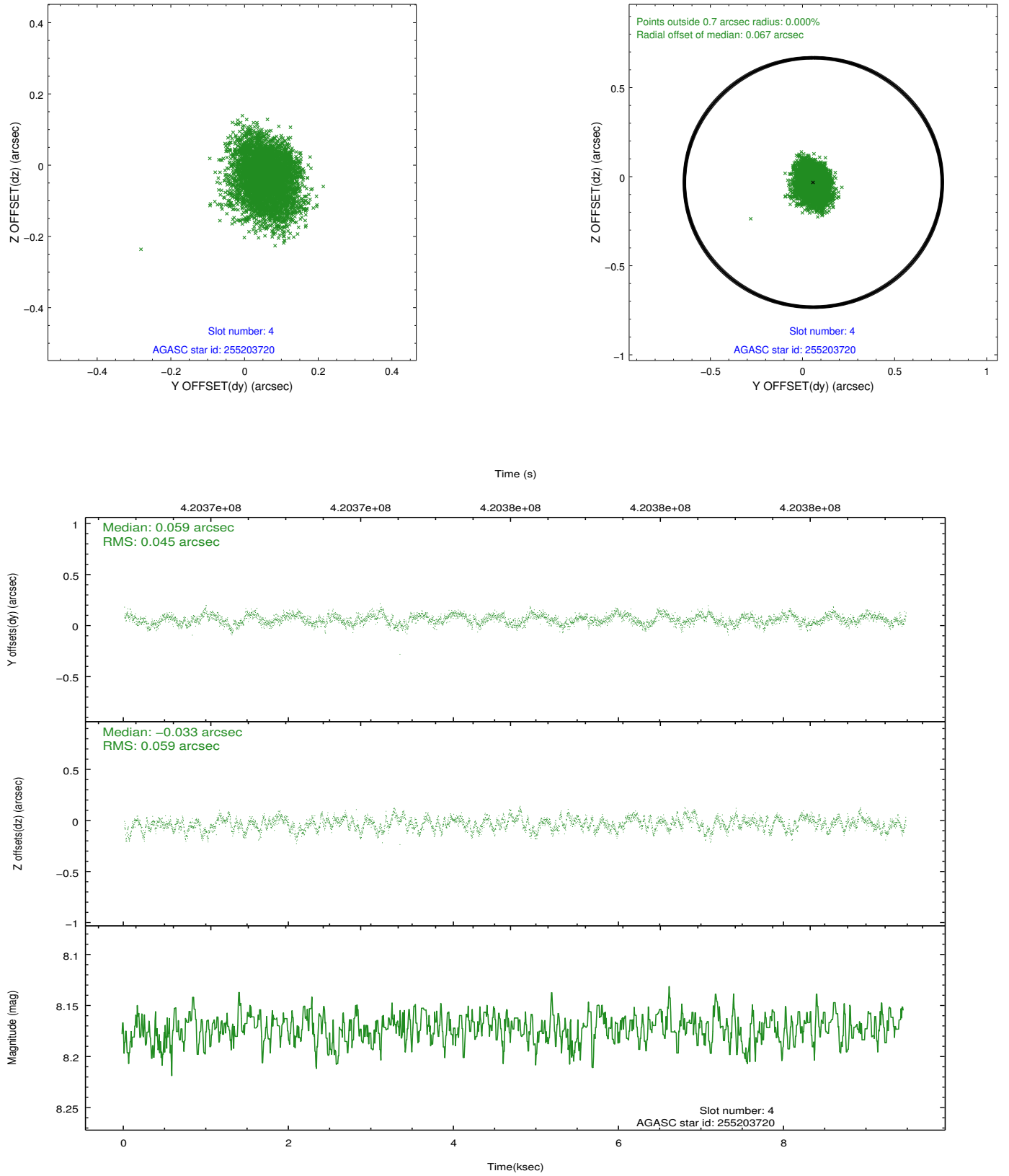
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.90	2309	-0.095	-0.042	0.011	0.021	0.000000	0.000000	-771.48	-1740.97
1	FID	ACIS-S-4	6.98	2310	0.228	0.057	0.007	0.013	0.000000	0.000000	2141.86	167.01
2	FID	ACIS-S-5	7.01	2310	-0.166	-0.006	0.010	0.021	0.000000	0.000000	-1823.66	161.27
3	GUIDE	254279752	8.16	4619	-0.194	-0.060	0.101	0.152	125.390930	28.817907	-2024.82	-2335.53
4	GUIDE	255203720	8.17	4621	0.059	-0.033	0.079	0.129	126.670508	28.063555	-272.38	2215.03
5	GUIDE	255204840	7.90	4620	0.247	0.110	0.079	0.132	125.701015	27.523786	2309.74	-361.61
6	GUIDE	255208912	7.34	4618	-0.028	-0.031	0.070	0.104	126.267746	27.548450	1823.84	1382.43
7	GUIDE	255199688	7.86	4620	-0.087	0.013	0.063	0.101	126.529946	28.402975	-1361.38	1505.94

## 2.4 Star Slots

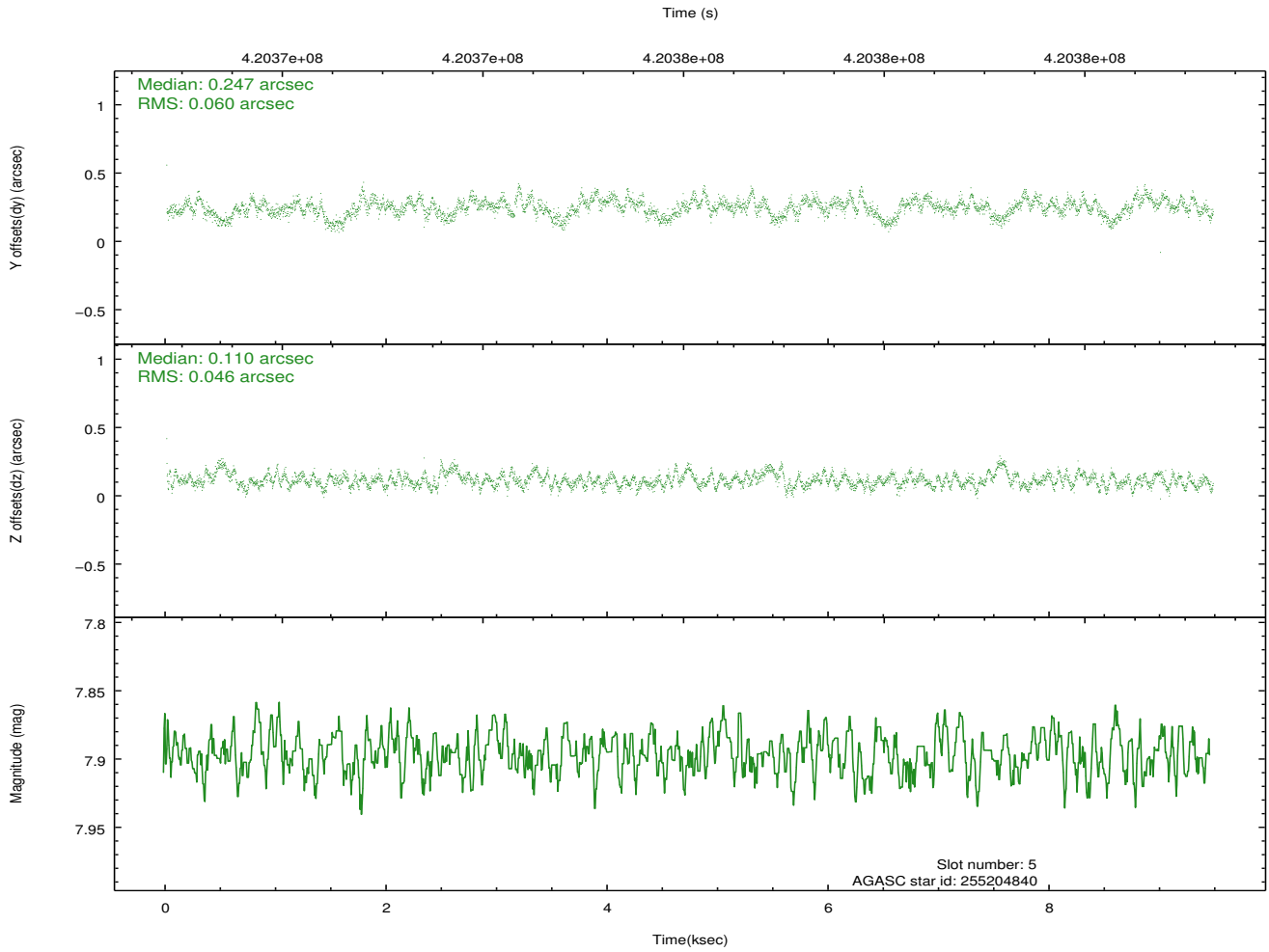
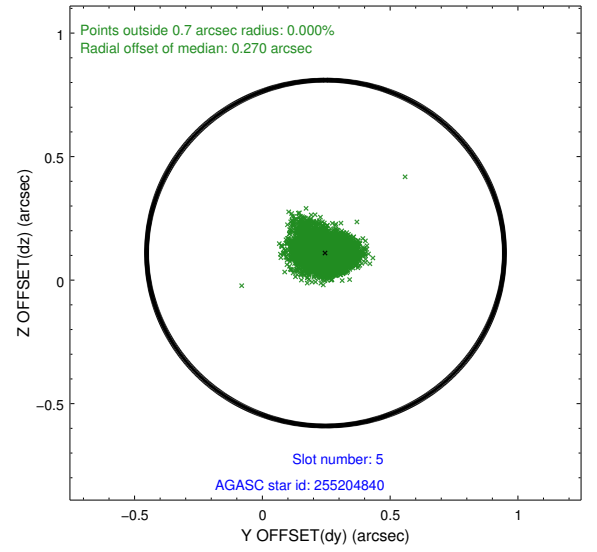
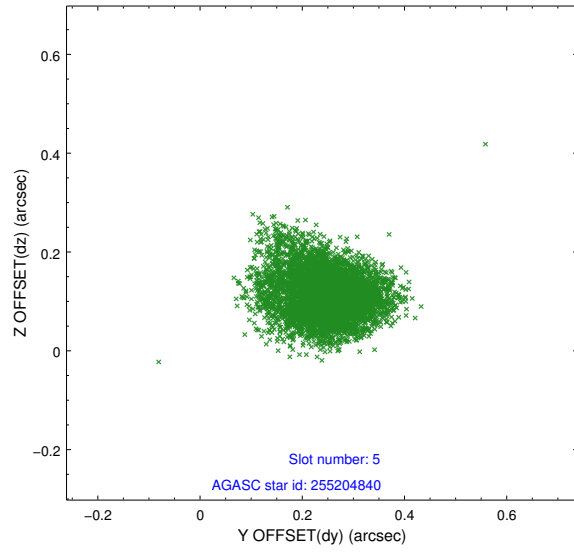
### 2.4.1 Slot 3



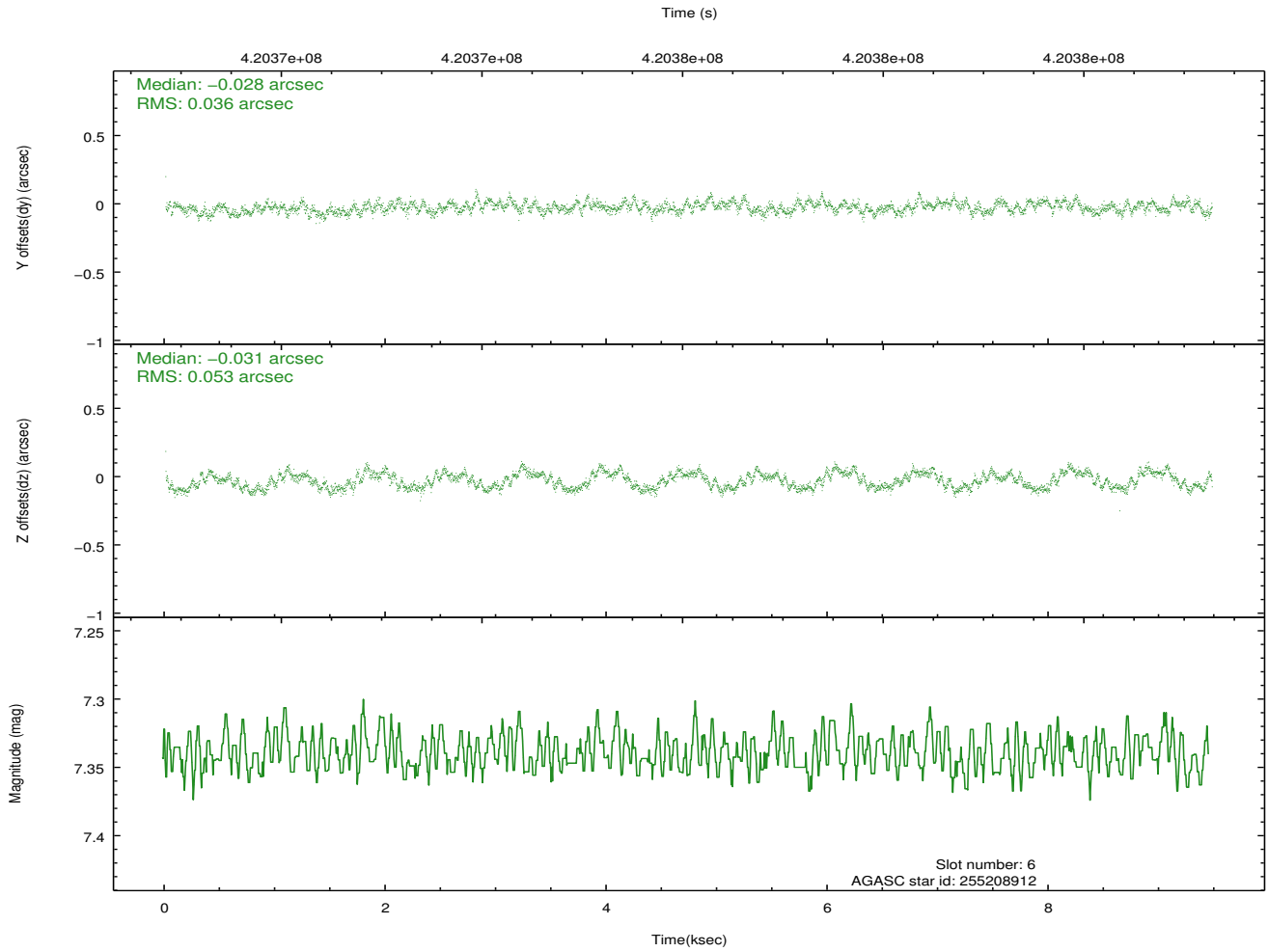
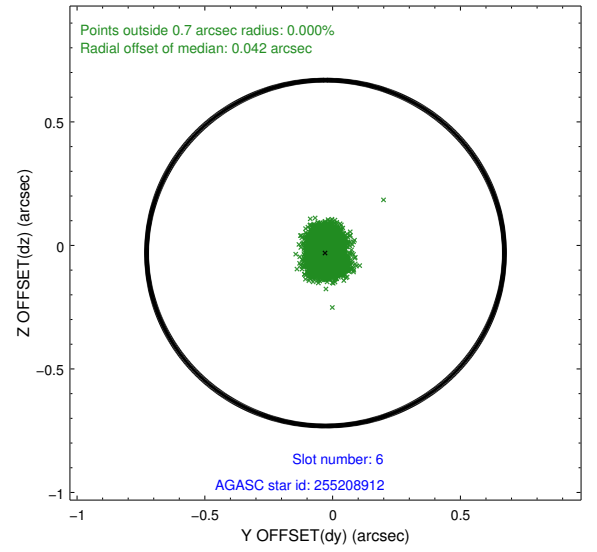
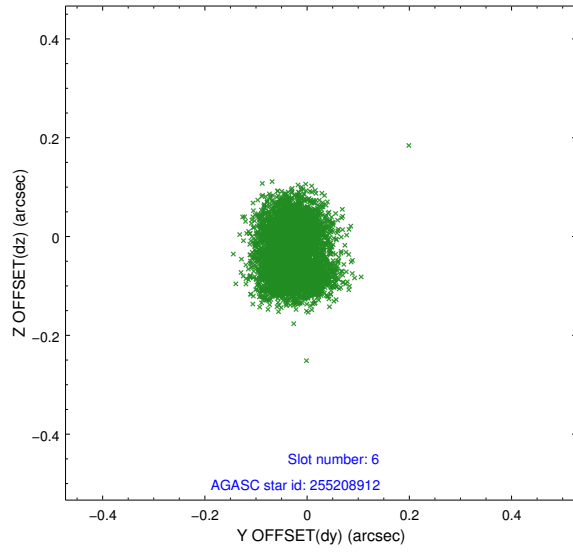
## 2.4.2 Slot 4



### 2.4.3 Slot 5

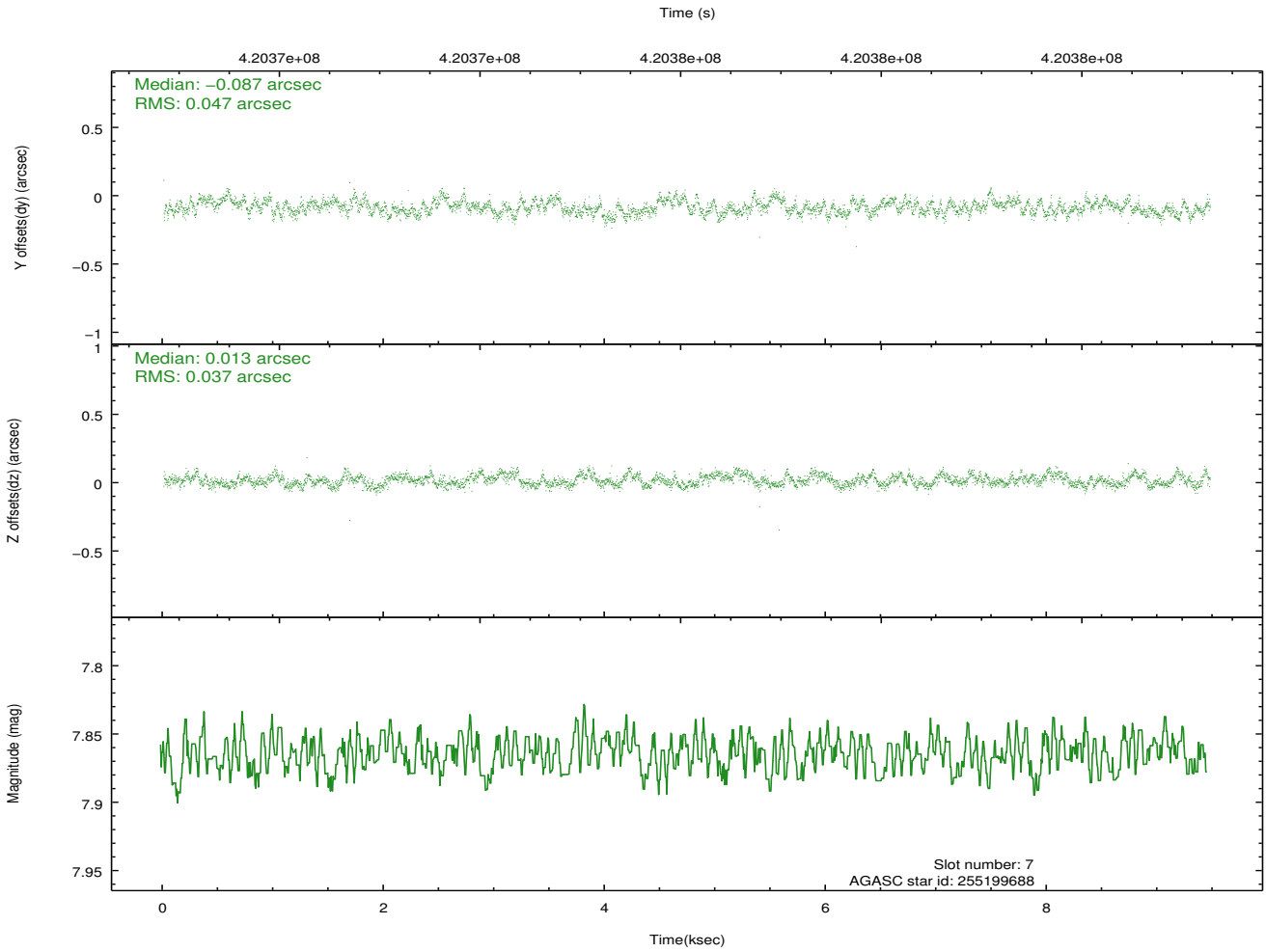
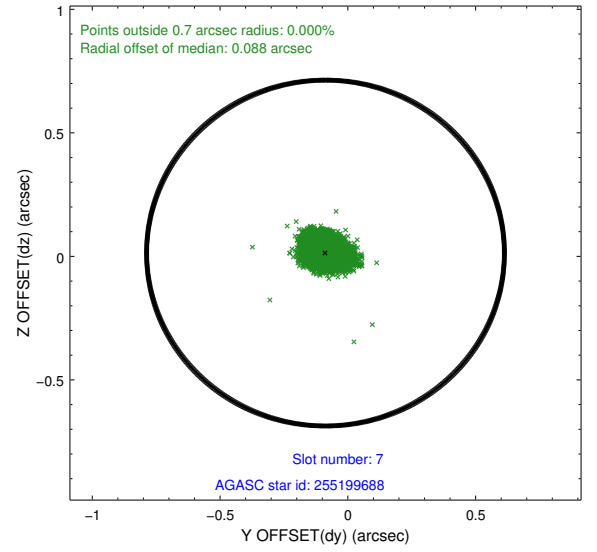
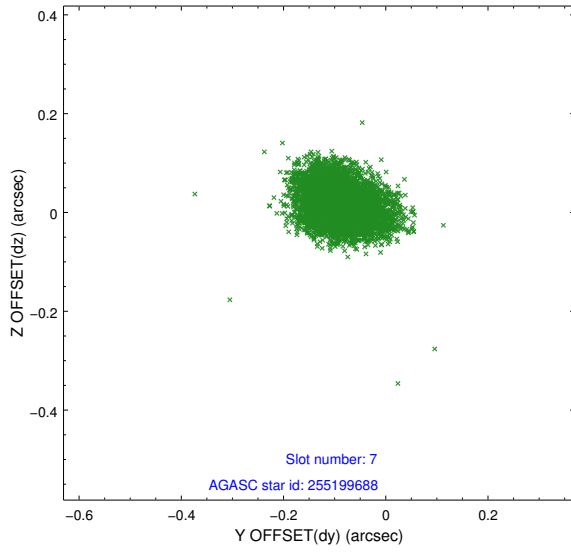


## 2.4.4 Slot 6



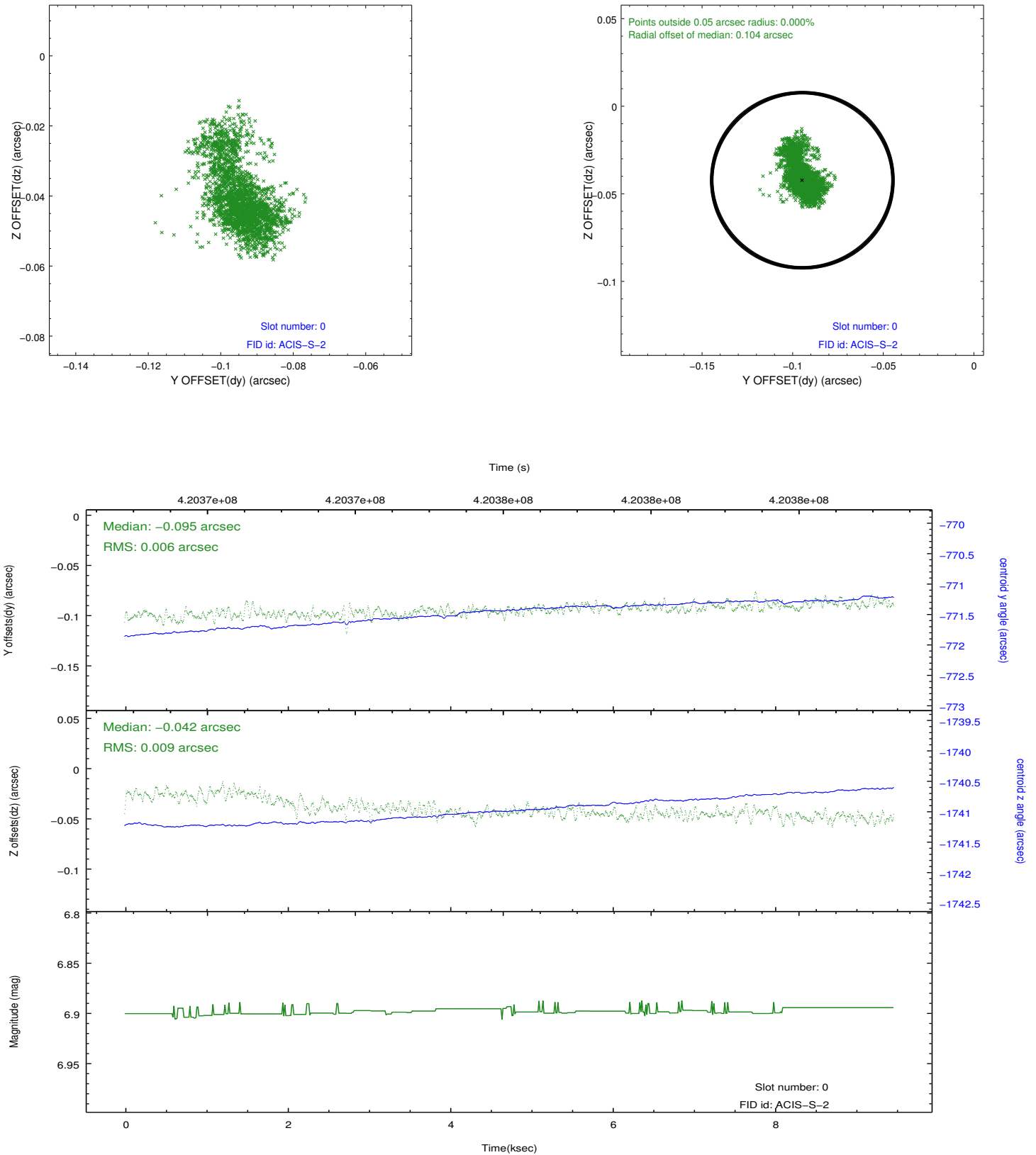


### 2.4.5 Slot 7

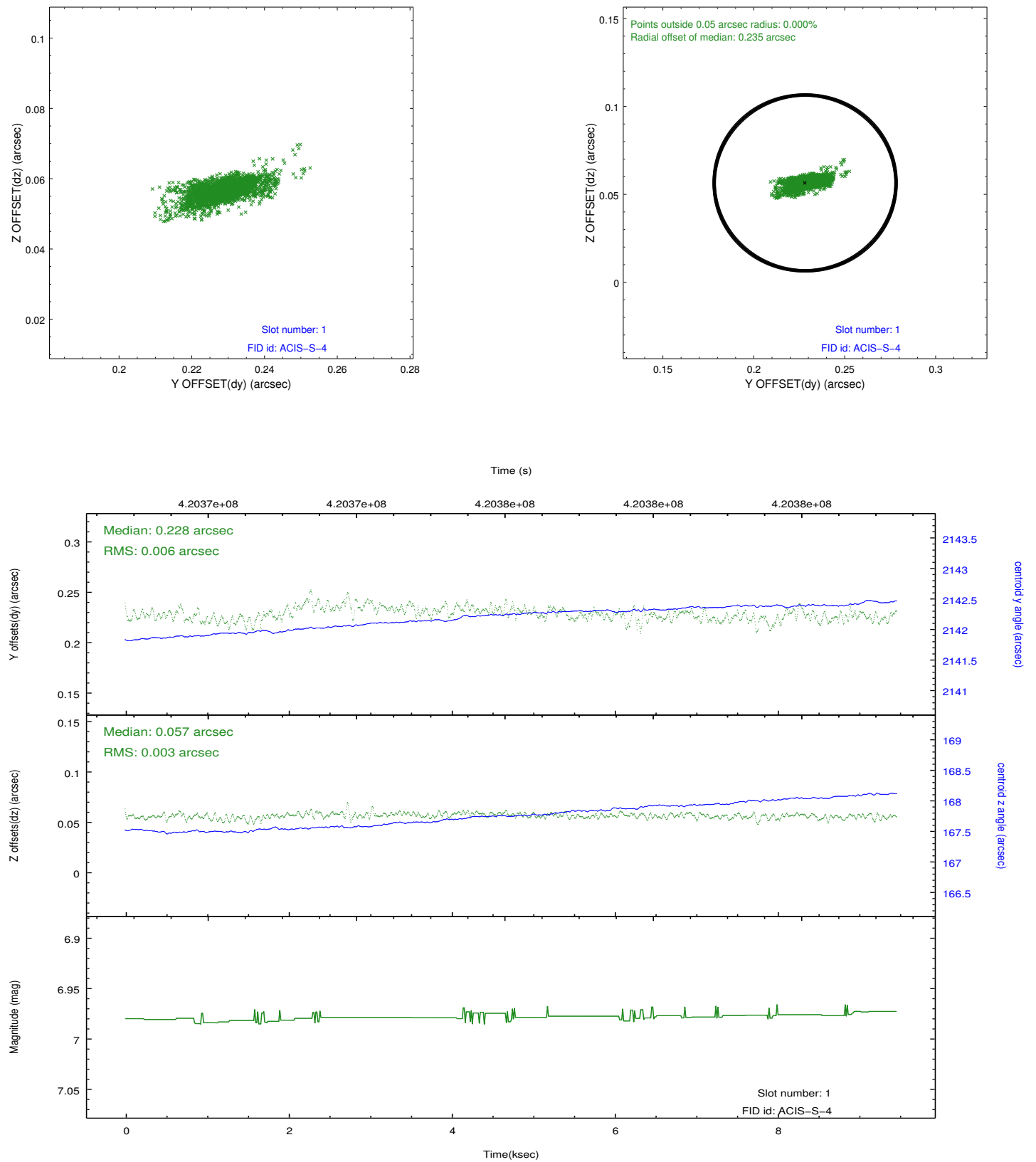


## 2.5 FID Slots

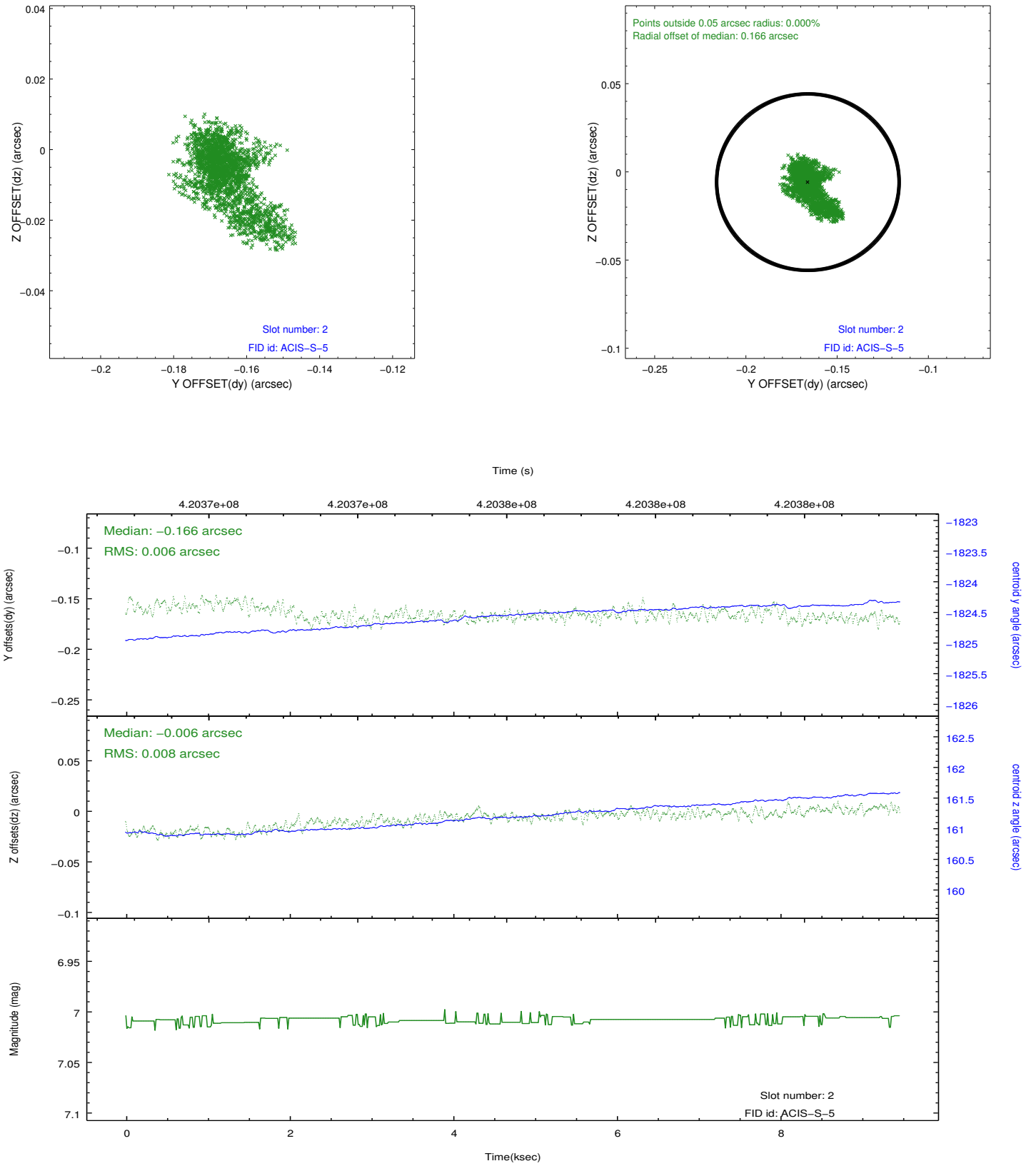
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.0079999665022

## 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.

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Joint Proposal: NRAO