

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12709 - L2 Version 2  
Chandra X-Ray Center

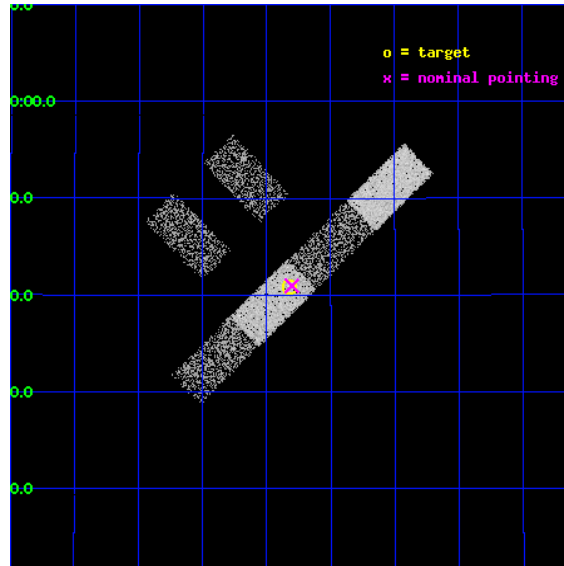
L2 Processing Date : Feb 6 2012

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# 1 Front

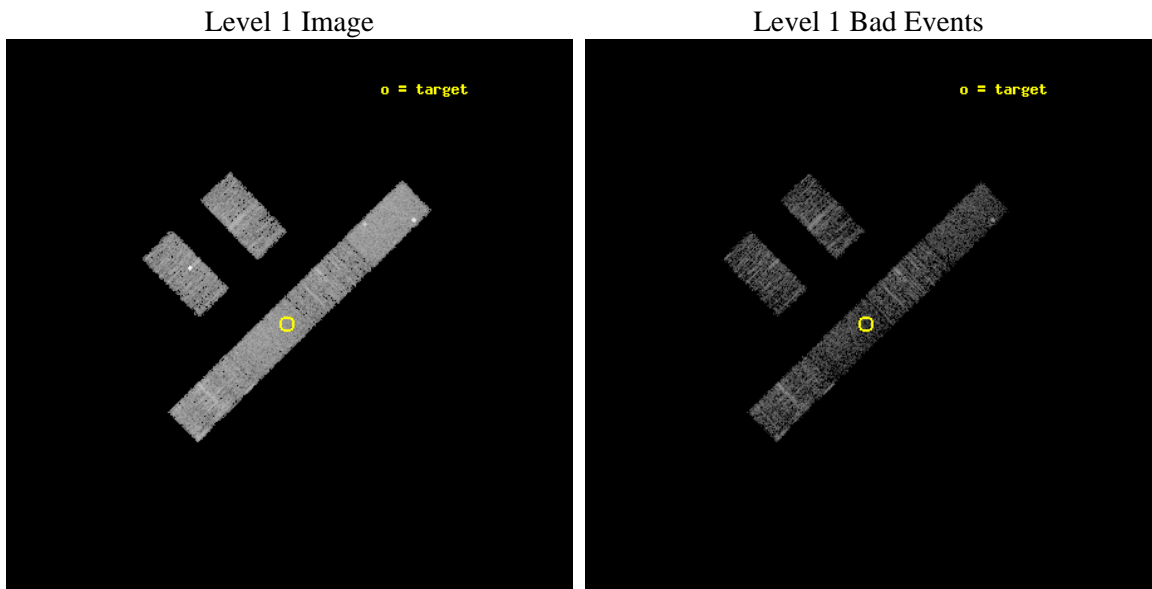
seq_num	702345	Sequence number
obs_id	12709	Observation id
title	The Nature of Weak-Line Quasars at Low Redshift	Proposal title
observer	Prof. William Brandt	Principal investigator
object	SDSS J1252+2640	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	193.08125	Observer's specified target RA [deg]
dec_targ	26.681639	Observer's specified target Dec [deg]
ra_nom	193.07592777767	Nominal RA [deg]
dec_nom	26.68260273573	Nominal Dec [deg]
roll_nom	135.53313504945	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3497.3306696415	Sum of GTIs [s]
livetime	3419.3690551833	Livetime [s]
ontime2	3495.53066957	Sum of GTIs [s]
ontime3	3497.2075496316	Sum of GTIs [s]
ontime5	3497.2896296382	Sum of GTIs [s]
ontime6	3497.2485896349	Sum of GTIs [s]
ontime7	3497.3306696415	Sum of GTIs [s]
ontime8	3497.1665096283	Sum of GTIs [s]
l2events	20702	Number of level 2 events



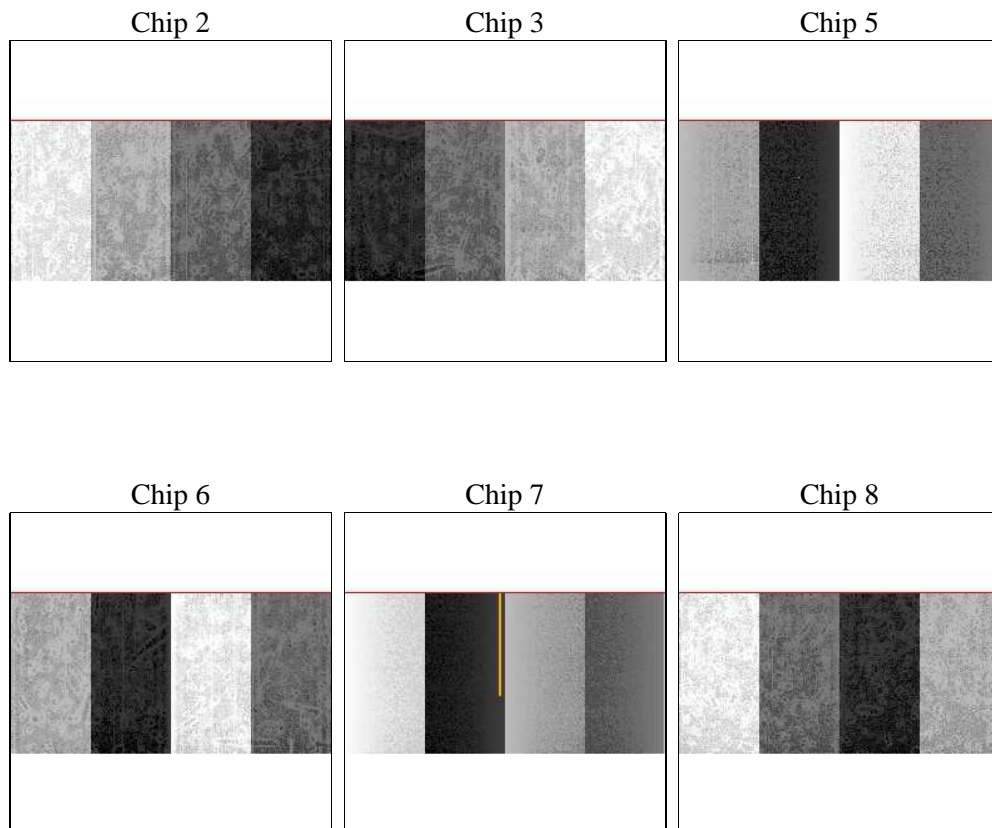
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	3400.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	3497.3306696415	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime2	3495.53066957	Sum of GTIs [s]
date	2012-02-06T06:20:52	Date and time of file creation	ontime3	3497.2075496316	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	3497.2896296382	Sum of GTIs [s]
			ontime6	3497.2485896349	Sum of GTIs [s]
			ontime7	3497.3306696415	Sum of GTIs [s]
			ontime8	3497.1665096283	Sum of GTIs [s]
			l1events	93708	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	13100	14463	19657	13079	15620	17789
rejected events	11704	11345	9460	11578	8395	13152
rejected %	89%	78%	48%	88%	53%	73%

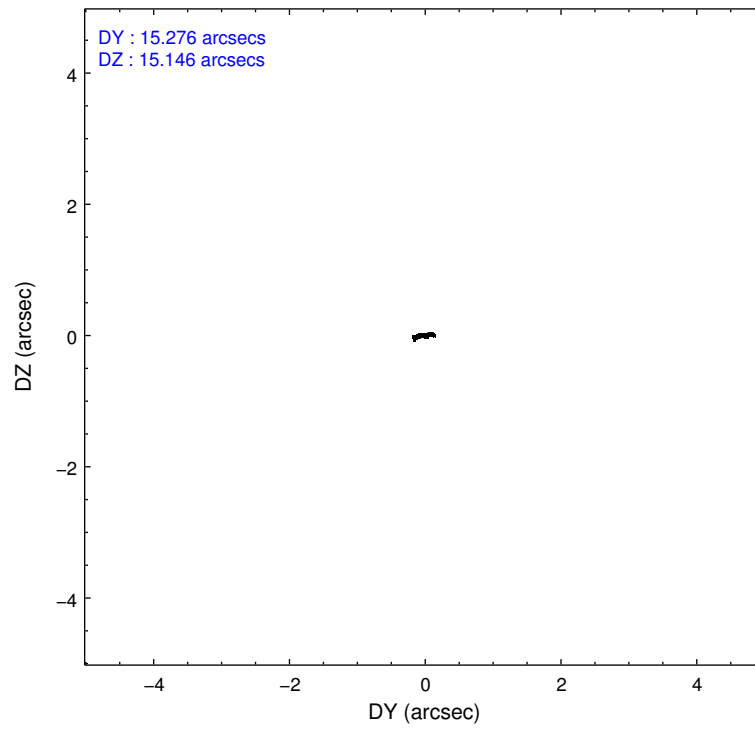
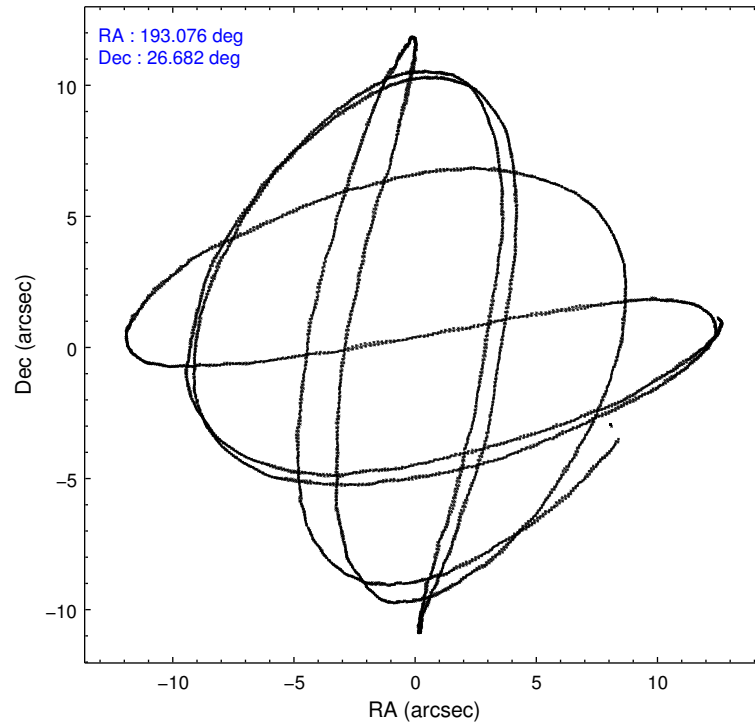
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	504	424	1755	470	698	1295
	3%	2%	8%	3%	4%	7%
grade 1 events	4	7	175	3	19	4
	0%	0%	0%	0%	0%	0%
grade 2 events	304	2116	2937	333	1487	1030
	2%	14%	14%	2%	9%	5%
grade 3 events	160	178	409	174	721	511
	1%	1%	2%	1%	4%	2%
grade 4 events	190	143	366	175	694	486
	1%	0%	1%	1%	4%	2%
grade 5 events	495	569	1501	565	1584	812
	3%	3%	7%	4%	10%	4%
grade 6 events	238	261	4739	349	3628	1316
	1%	1%	24%	2%	23%	7%
grade 7 events	11205	10765	7775	11010	6789	12335
	85%	74%	39%	84%	43%	69%

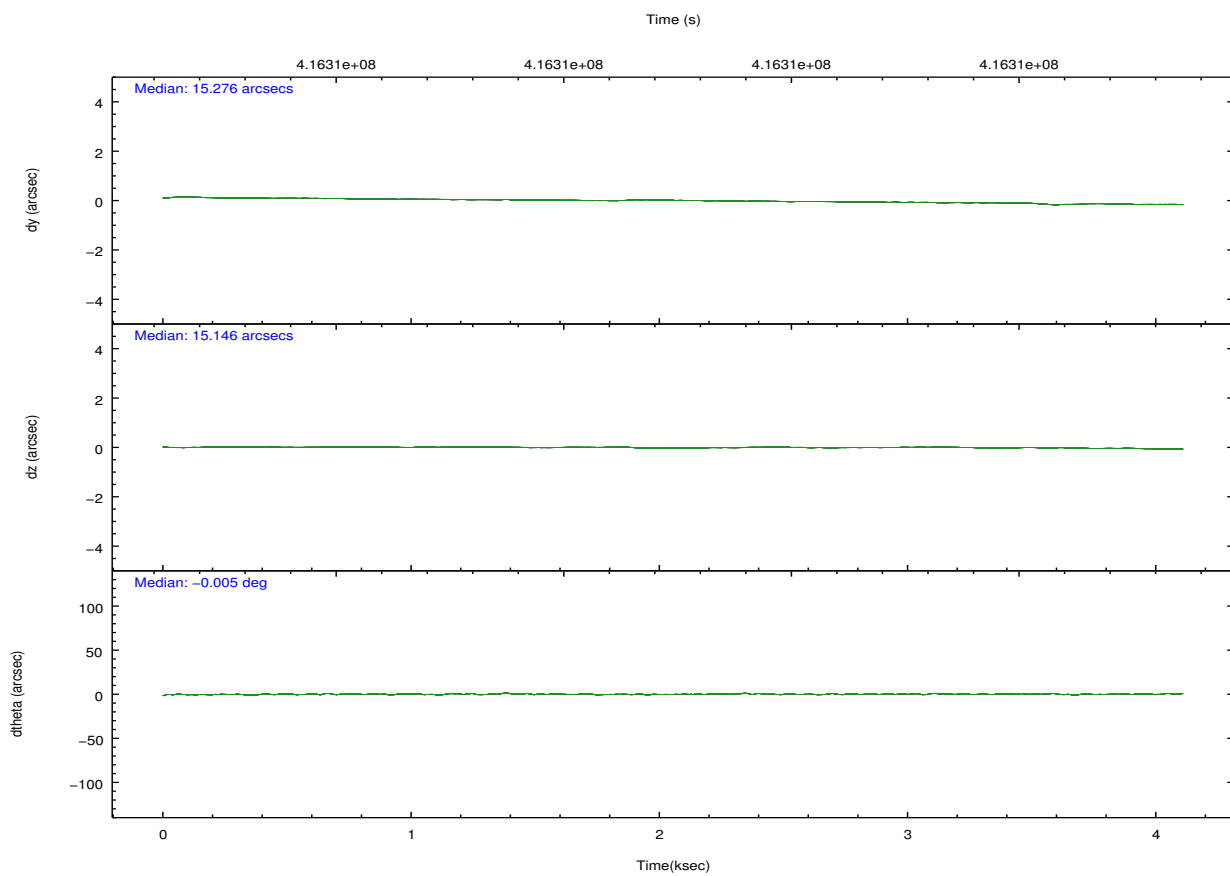
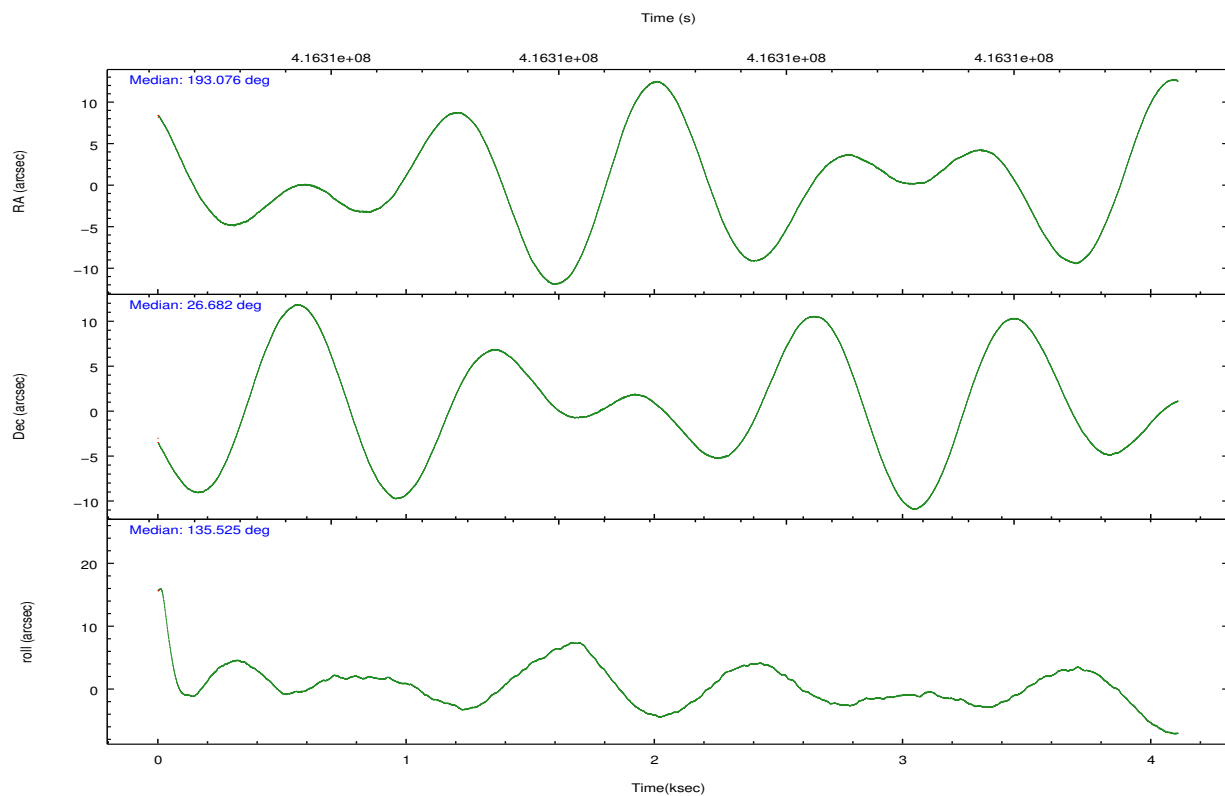


## 2.2 Compared Parameters

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	193.105693	193.0759277776711	CCD I2 on	O2	Y
[deg] Pointing Dec	26.676240	26.68260273572995	CCD I3 on	O1	Y
[deg] Pointing Roll	135.363074	135.5331350494469	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	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)	416311141.184000	416310076.16228	CCD S5 on	N	N
Observation start date	2011-03-12T09:57:55	2011-03-12T09:41:16	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	416314541.184000	416315171.95004	On-chip summing requested	N	N
Observation end date	2011-03-12T10:54:35	2011-03-12T11:06:11	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.8

## 2.3 Aspect



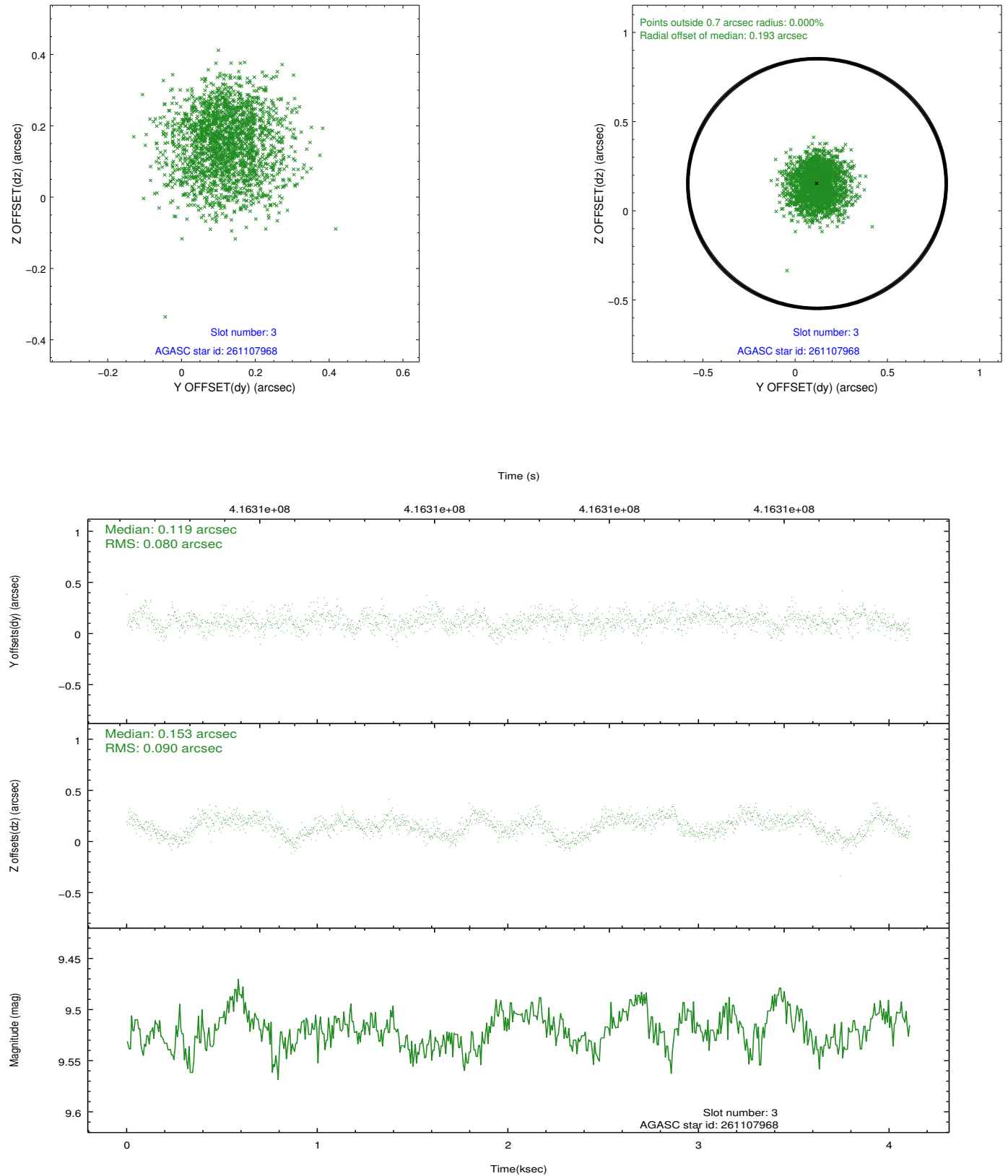


### Slot Statistics

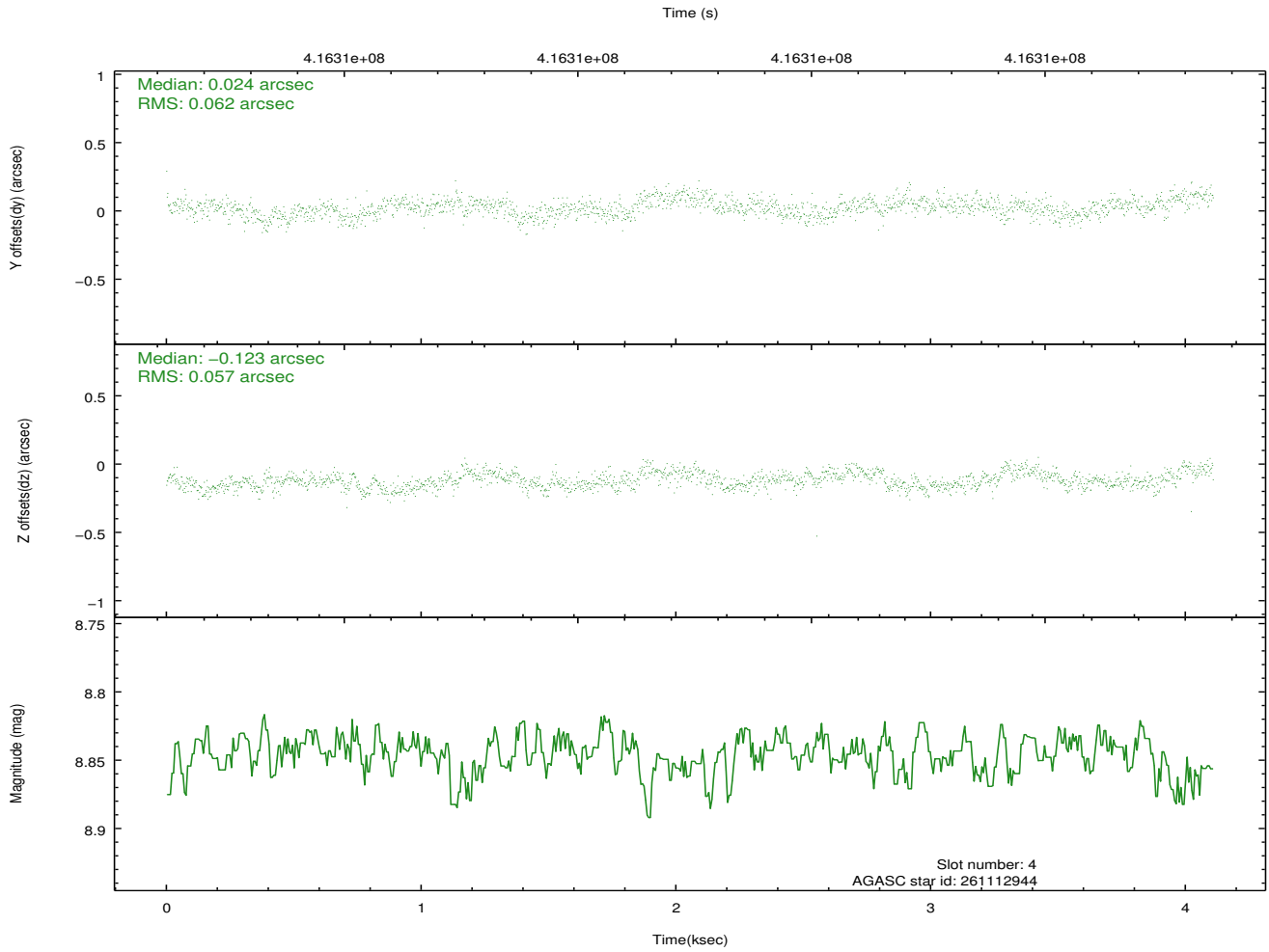
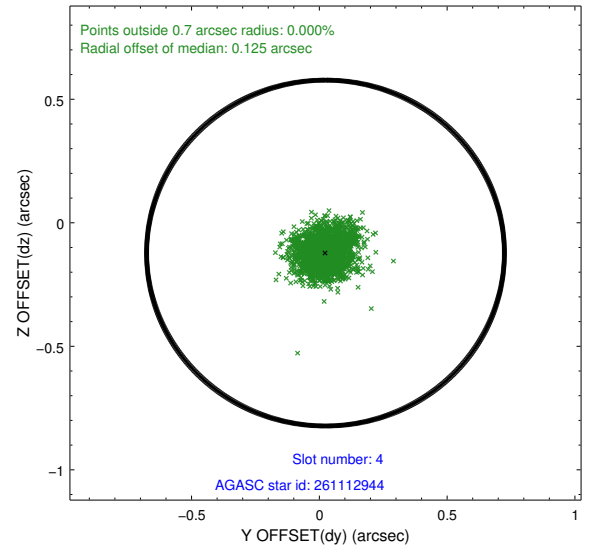
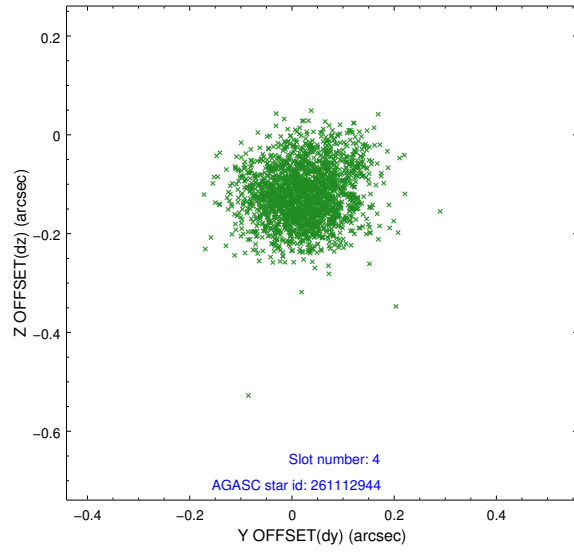
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.94	1002	-0.106	-0.023	0.012	0.019	0.000000	0.000000	-768.33	-1736.55
1	FID	ACIS-S-4	7.03	1003	0.203	0.057	0.013	0.022	0.000000	0.000000	2144.54	170.47
2	FID	ACIS-S-5	7.05	1003	-0.127	-0.025	0.013	0.022	0.000000	0.000000	-1819.27	165.74
3	GUIDE	261107968	9.52	2001	0.119	0.153	0.130	0.202	192.297173	26.884890	2381.20	1283.79
4	GUIDE	261112944	8.85	1993	0.024	-0.123	0.090	0.144	192.142022	26.597008	2018.00	2377.02
5	GUIDE	261233568	9.91	2005	0.059	-0.239	0.137	0.223	192.638833	26.205858	-115.20	2263.52
6	GUIDE	261494480	6.67	2005	-0.080	0.024	0.081	0.127	193.482276	26.779993	-597.10	-1116.77
7	GUIDE	261507448	9.54	2002	-0.127	0.194	0.124	0.199	192.816574	27.341077	2340.63	-1054.71

## 2.4 Star Slots

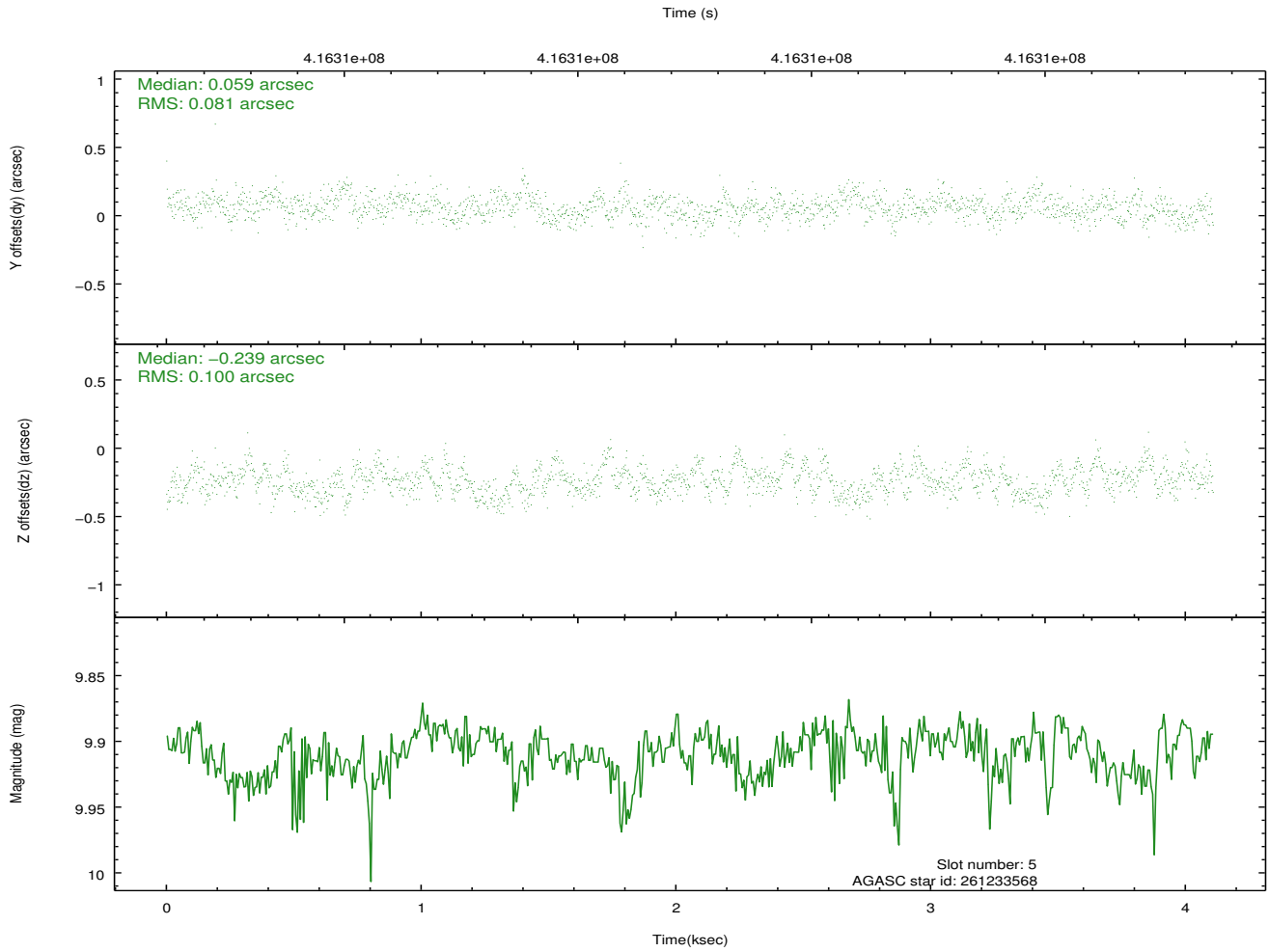
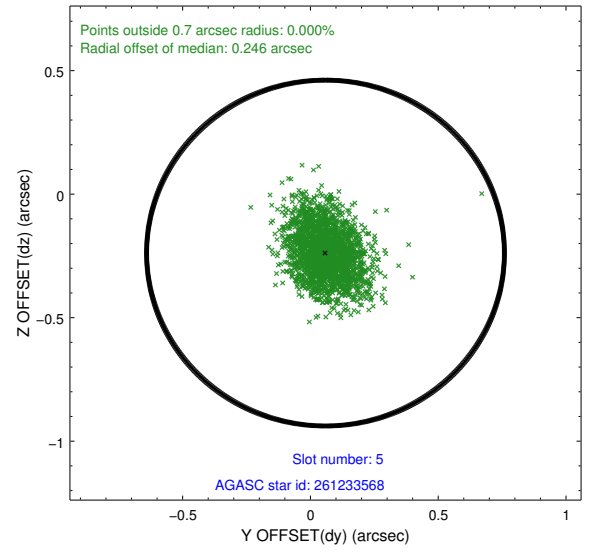
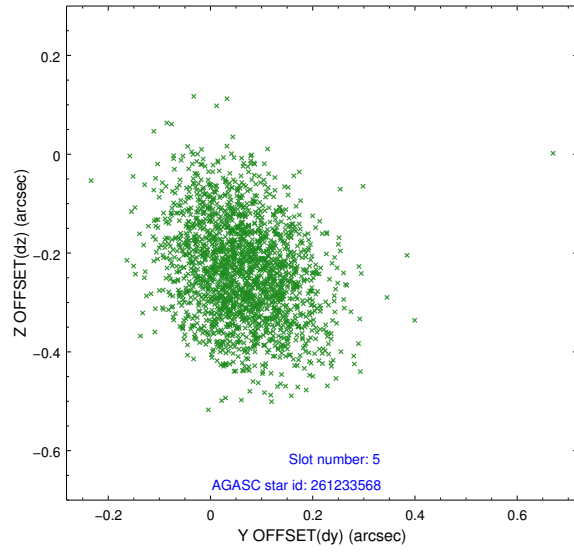
### 2.4.1 Slot 3



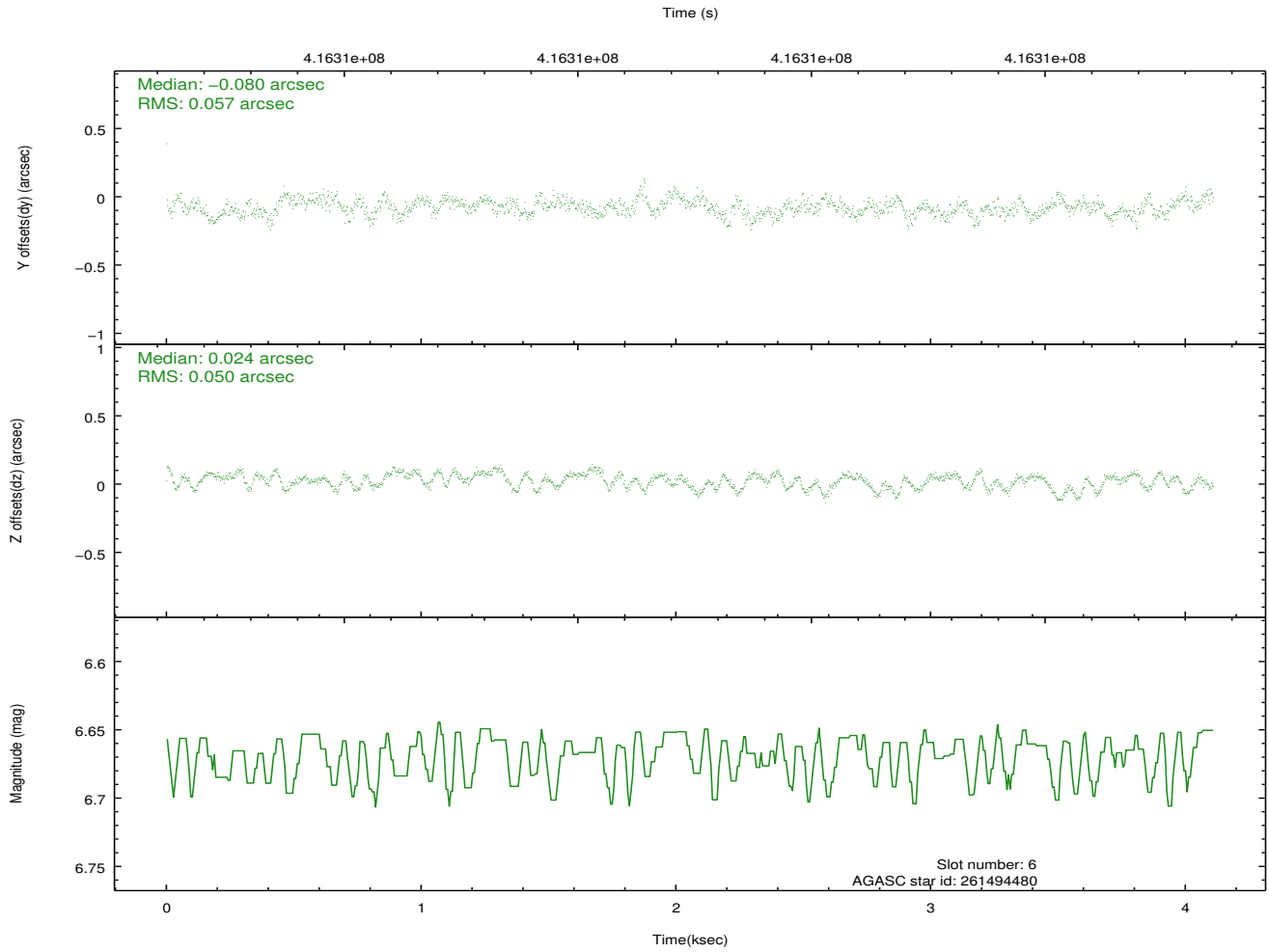
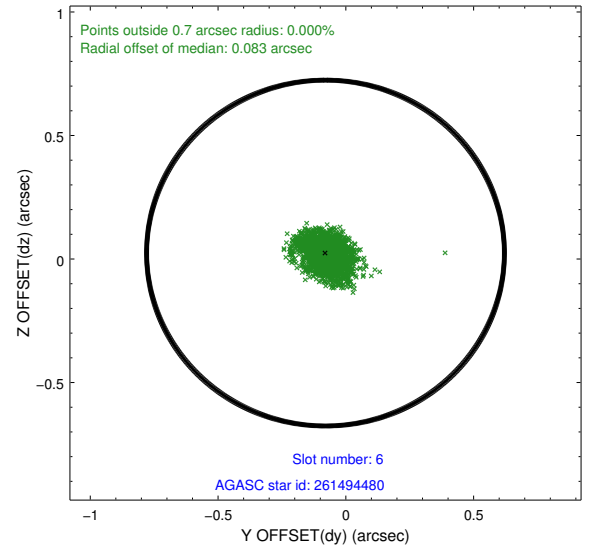
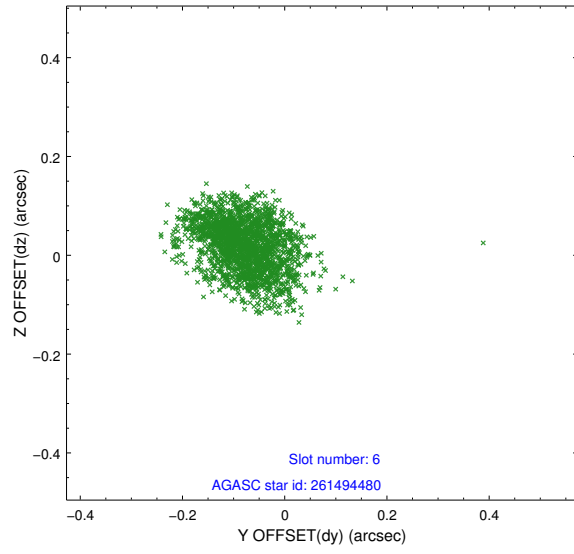
## 2.4.2 Slot 4



### 2.4.3 Slot 5

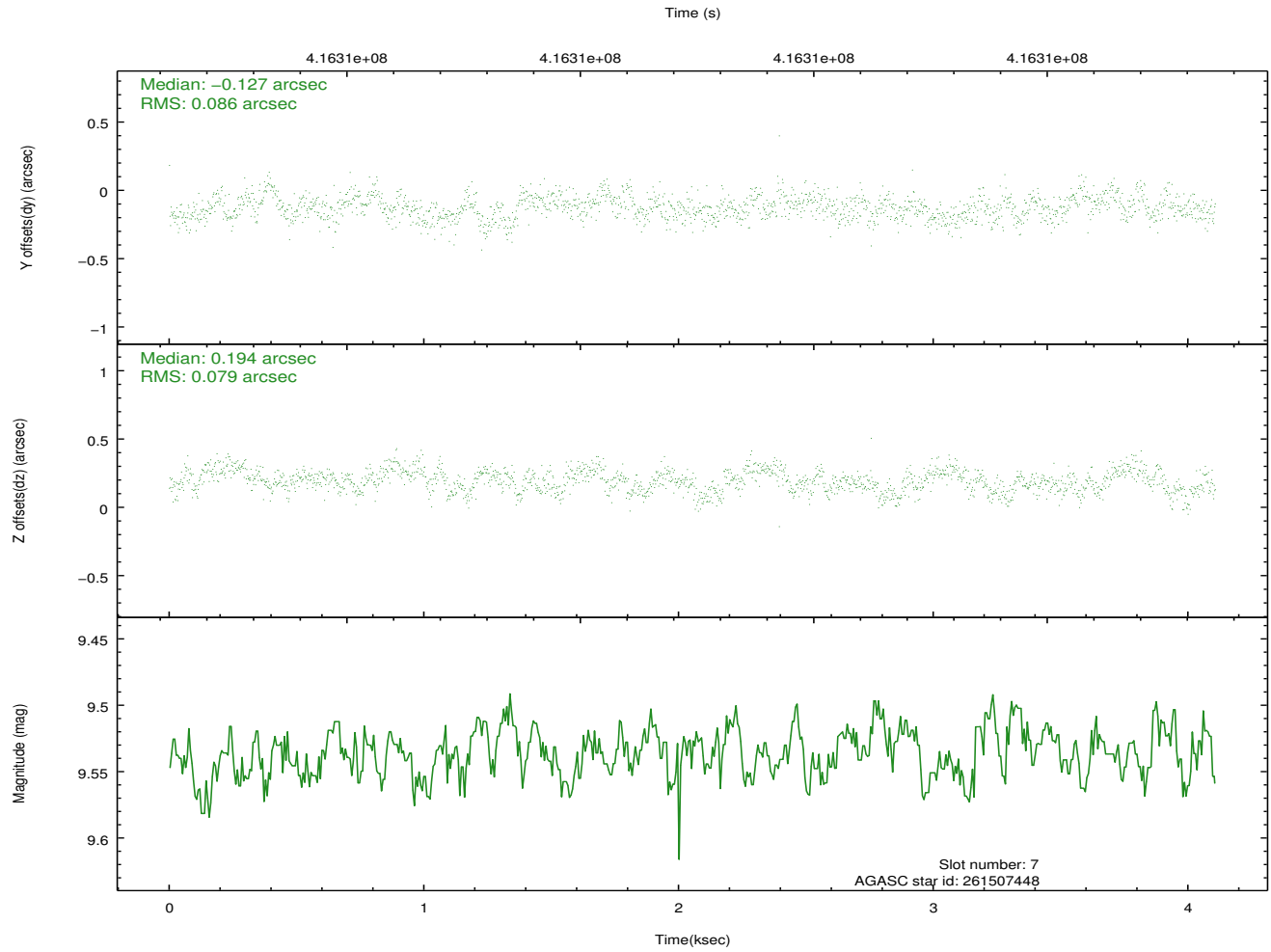
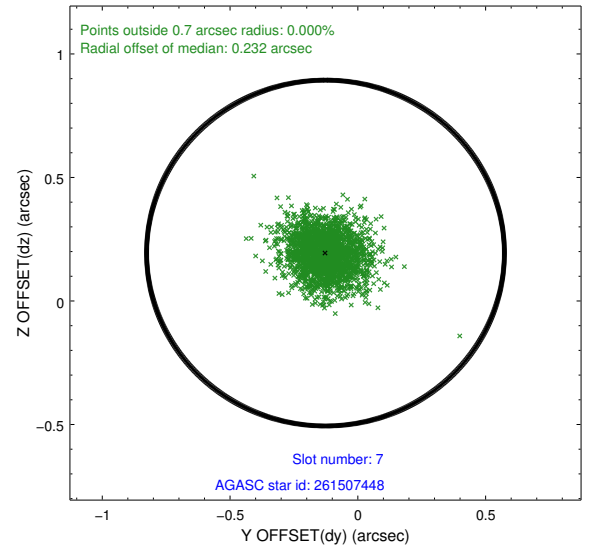
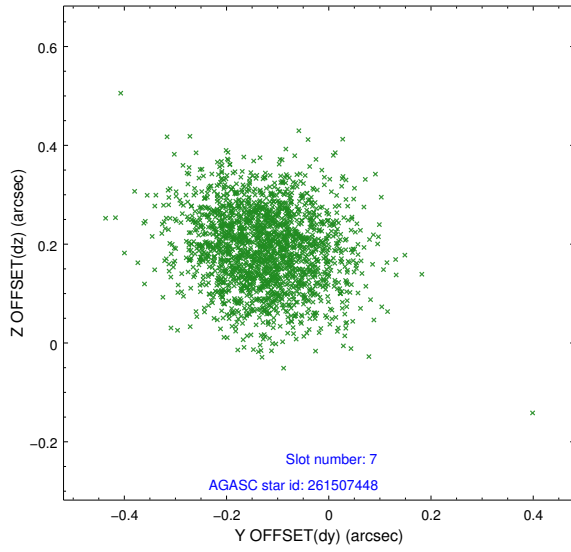


## 2.4.4 Slot 6



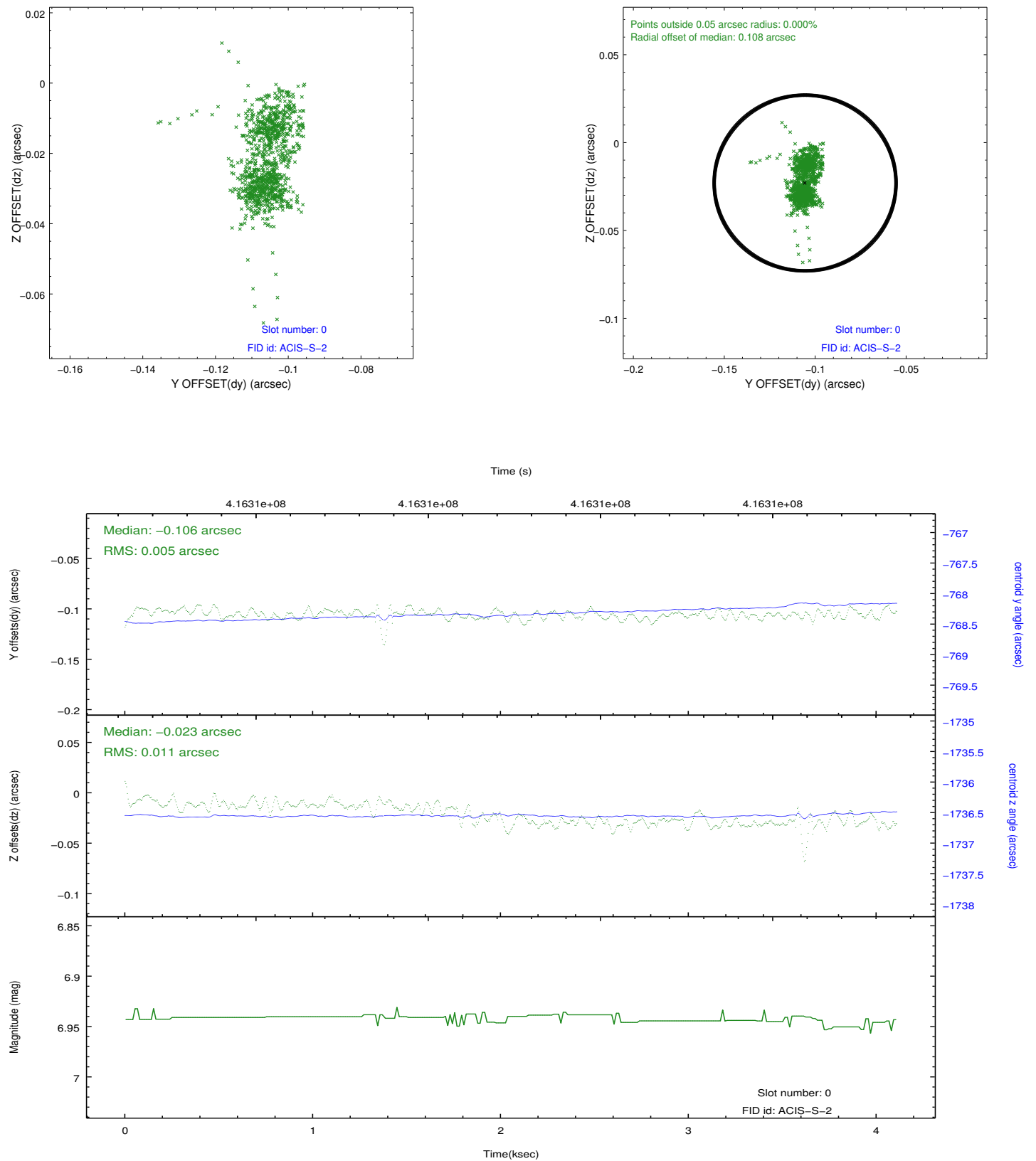


## 2.4.5 Slot 7

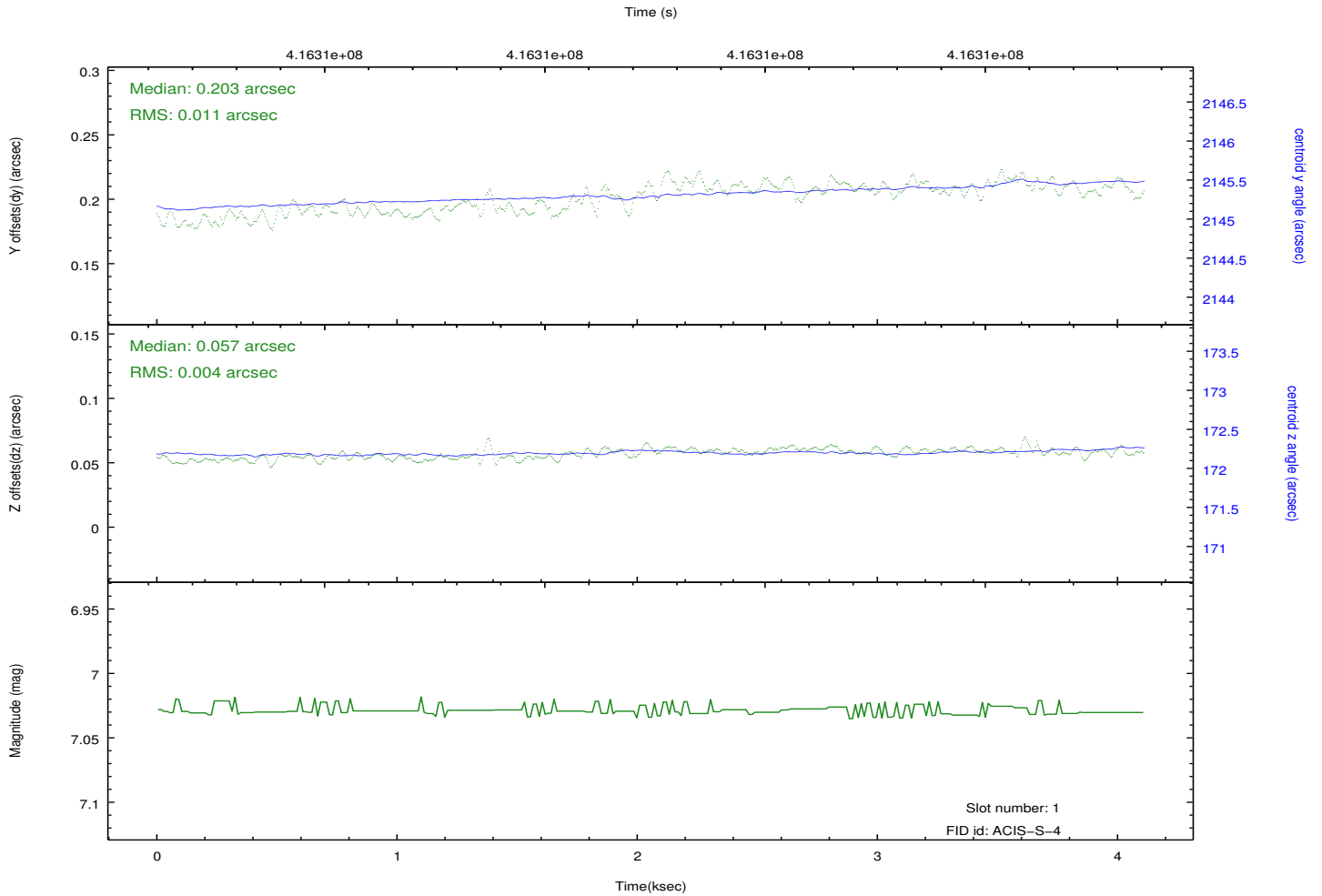
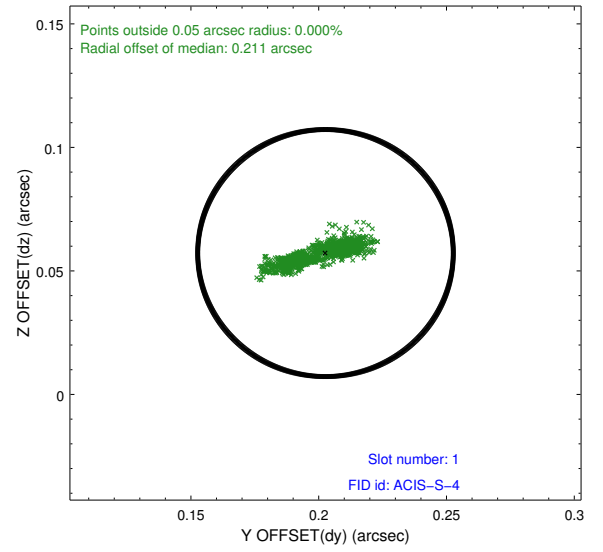
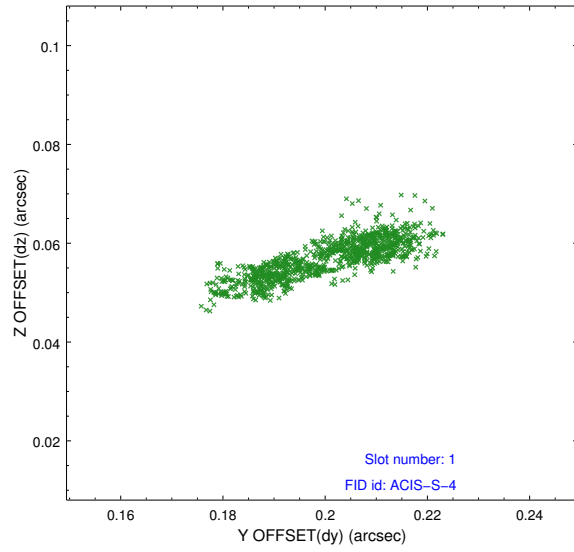


## 2.5 FID Slots

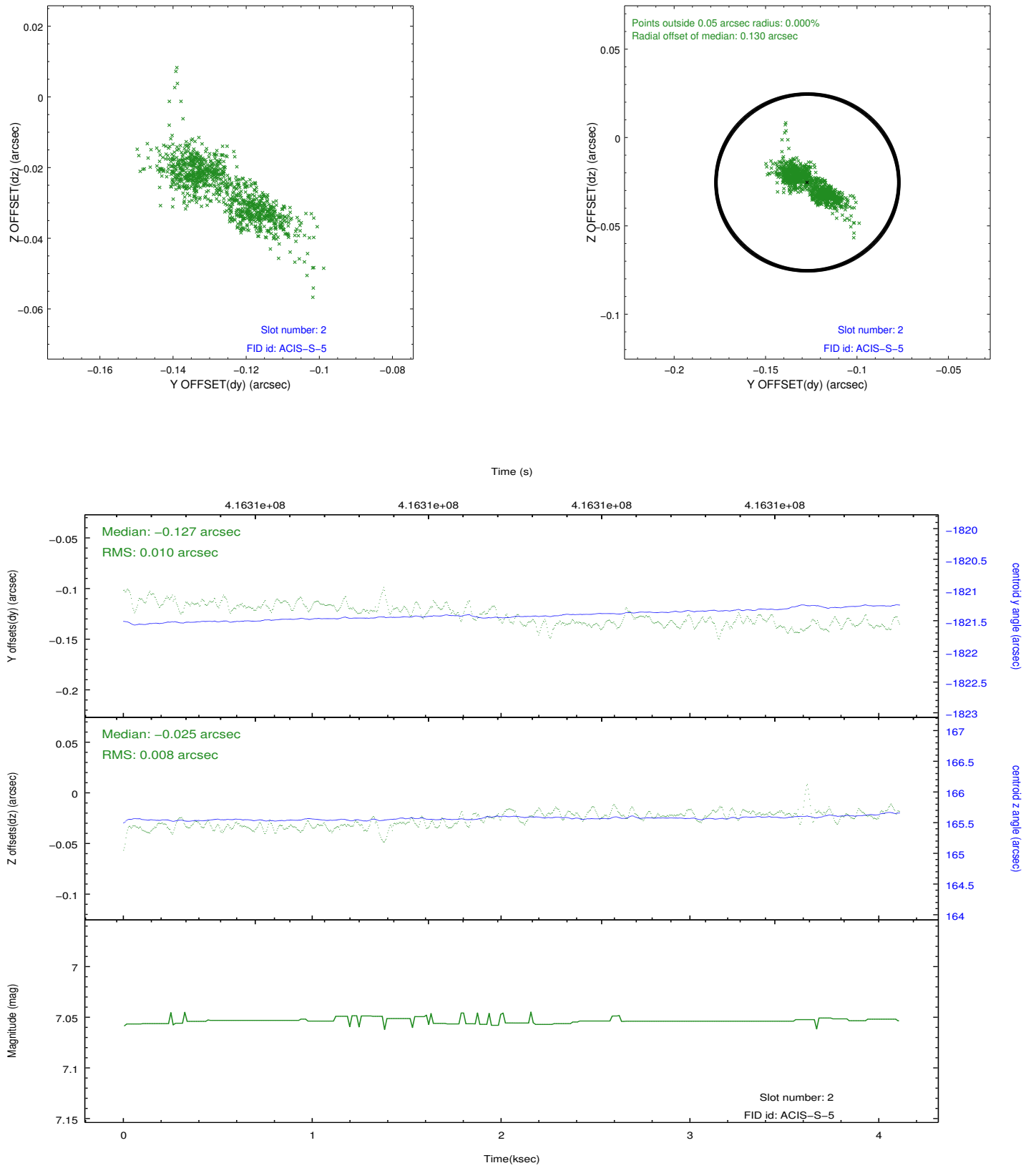
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.02.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.4973306645751

## 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.