

# V&V Reference Report

## L2 ASCDS Version : 8.5

Observation 4735 - L2 Version 3  
Chandra X-Ray Center

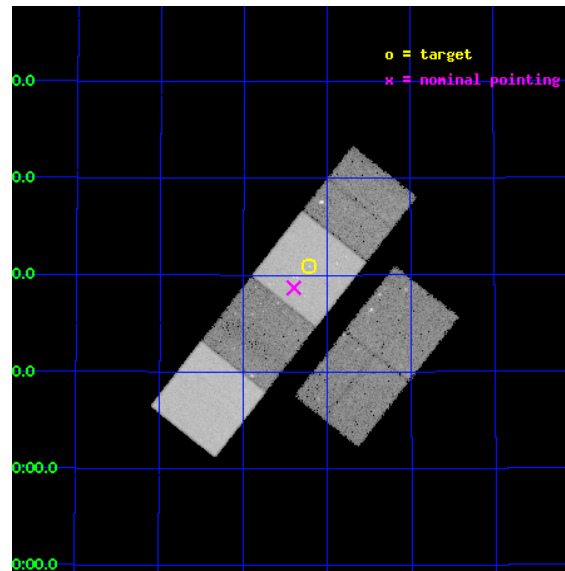
L2 Processing Date : Dec 8 2012

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# 1 Front

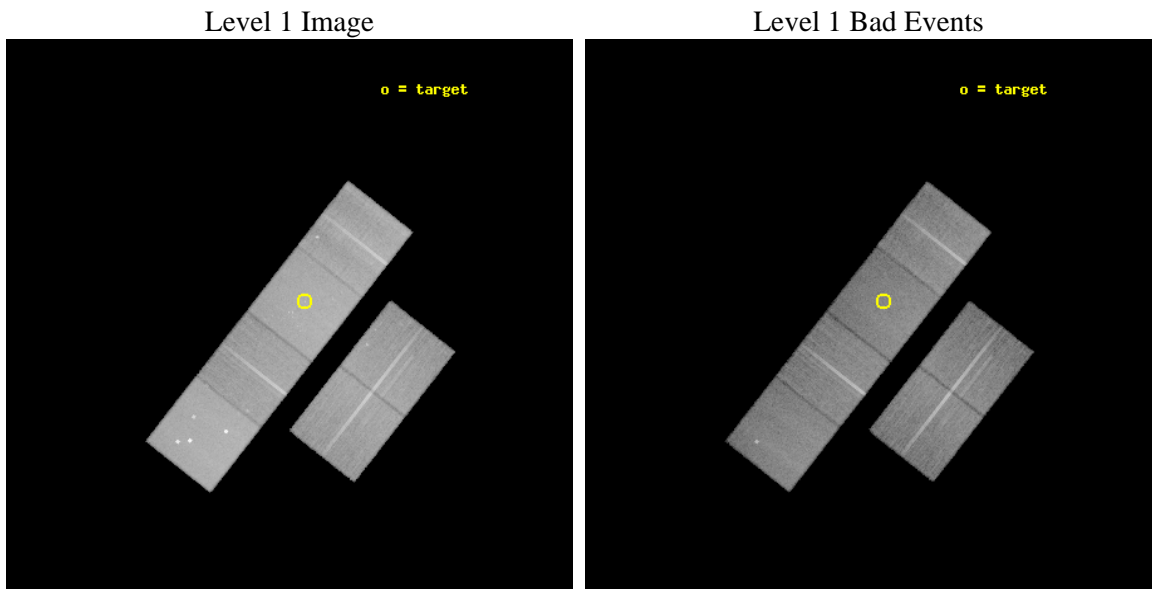
seq_num	600390	Sequence number
obs_id	4735	Observation id
title	An Ultra-Deep Study of M101	Proposal title
observer	Dr. K.D. Kuntz	Principal investigator
object	M101	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	210.80375	Observer's specified target RA [deg]
dec_targ	54.348778	Observer's specified target Dec [deg]
ra_nom	210.8497114696	Nominal RA [deg]
dec_nom	54.311724402829	Nominal Dec [deg]
roll_nom	308.11928497356	Nominal Roll [deg]
revision	3	Processing version of data
ontime	29148.799891412	Sum of GTIs [s]
livetime	28779.700235887	Livetime [s]
ontime2	29139.076970667	Sum of GTIs [s]
ontime3	29148.799891412	Sum of GTIs [s]
ontime5	29148.799891412	Sum of GTIs [s]
ontime6	29148.799891412	Sum of GTIs [s]
ontime7	29148.799891412	Sum of GTIs [s]
ontime8	29145.558901221	Sum of GTIs [s]
l2events	370950	Number of level 2 events



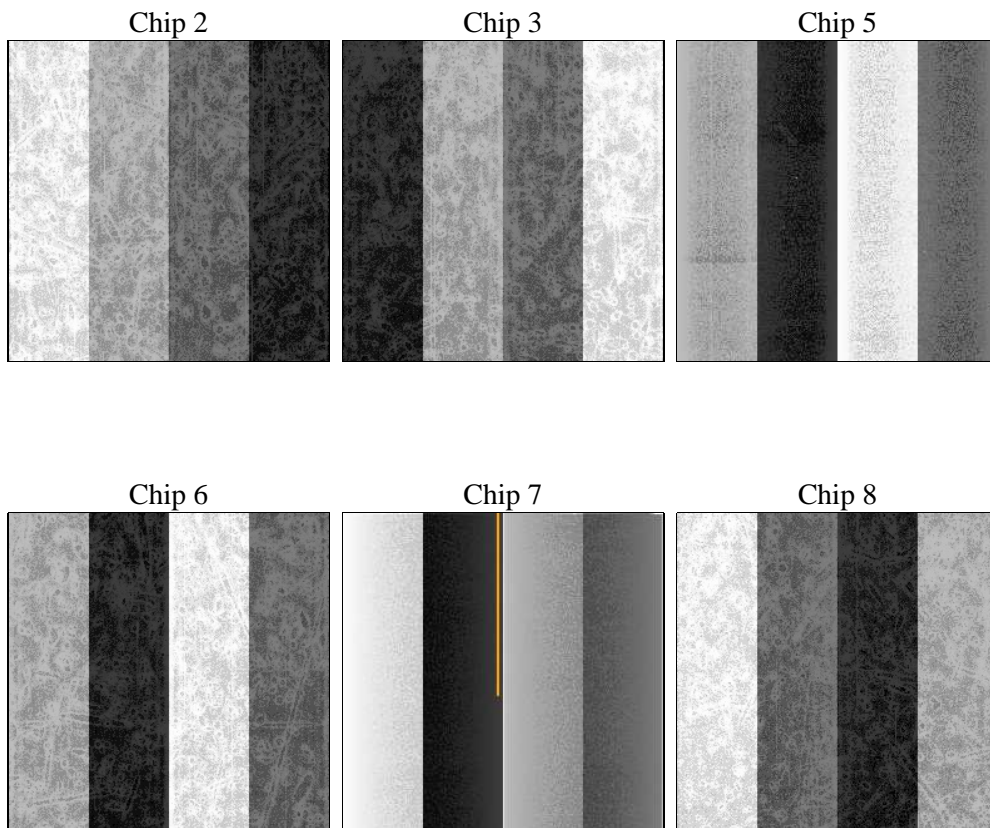
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	8.5	Processing system revision	ontime	29148.799891412	Sum of GTIs [s]
caldsver	4.5.4	&#160	ontime2	29139.076970667	Sum of GTIs [s]
date	2012-12-08T23:47:50	Date and time of file creation	ontime3	29148.799891412	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	29148.799891412	Sum of GTIs [s]
			ontime6	29148.799891412	Sum of GTIs [s]
			ontime7	29148.799891412	Sum of GTIs [s]
			ontime8	29145.558901221	Sum of GTIs [s]
			l1events	1638040	Number of level 1 events

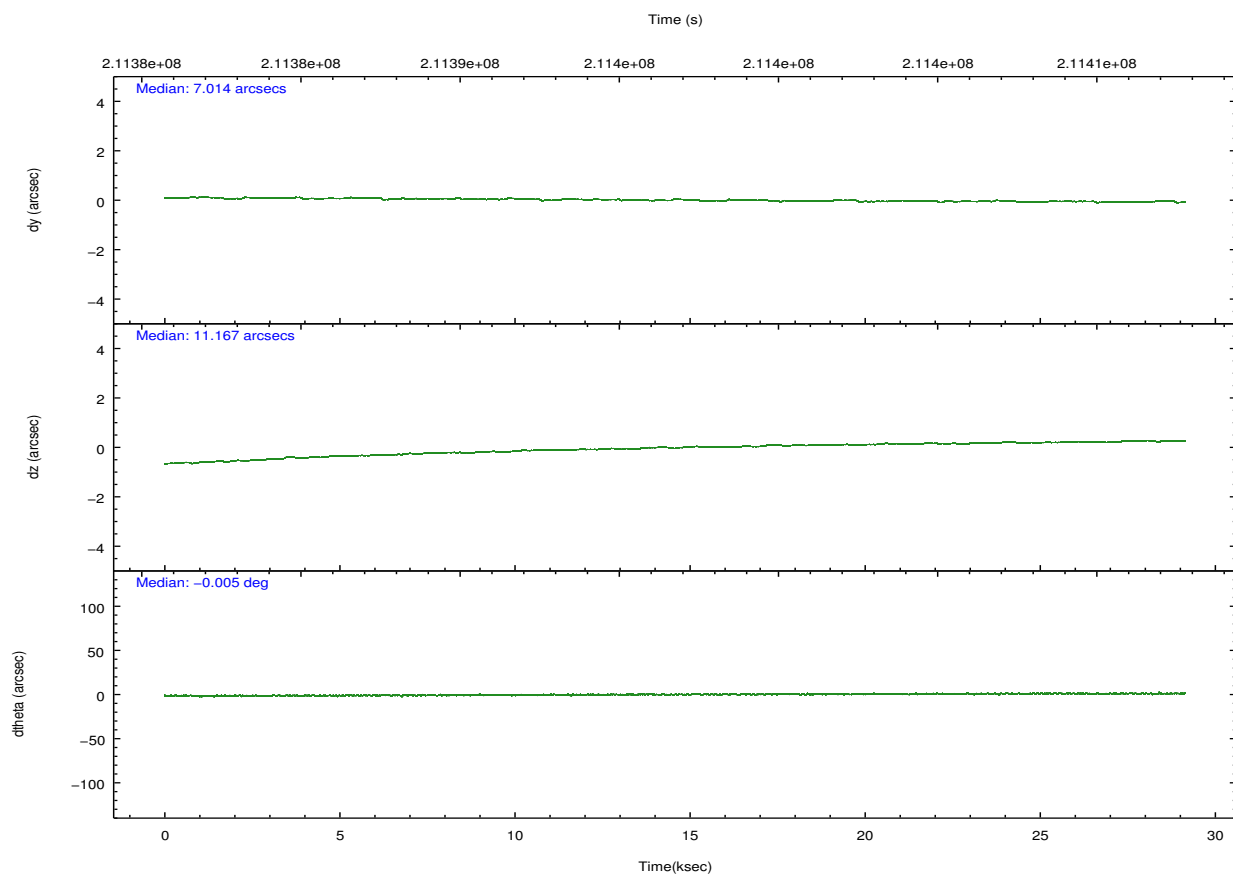
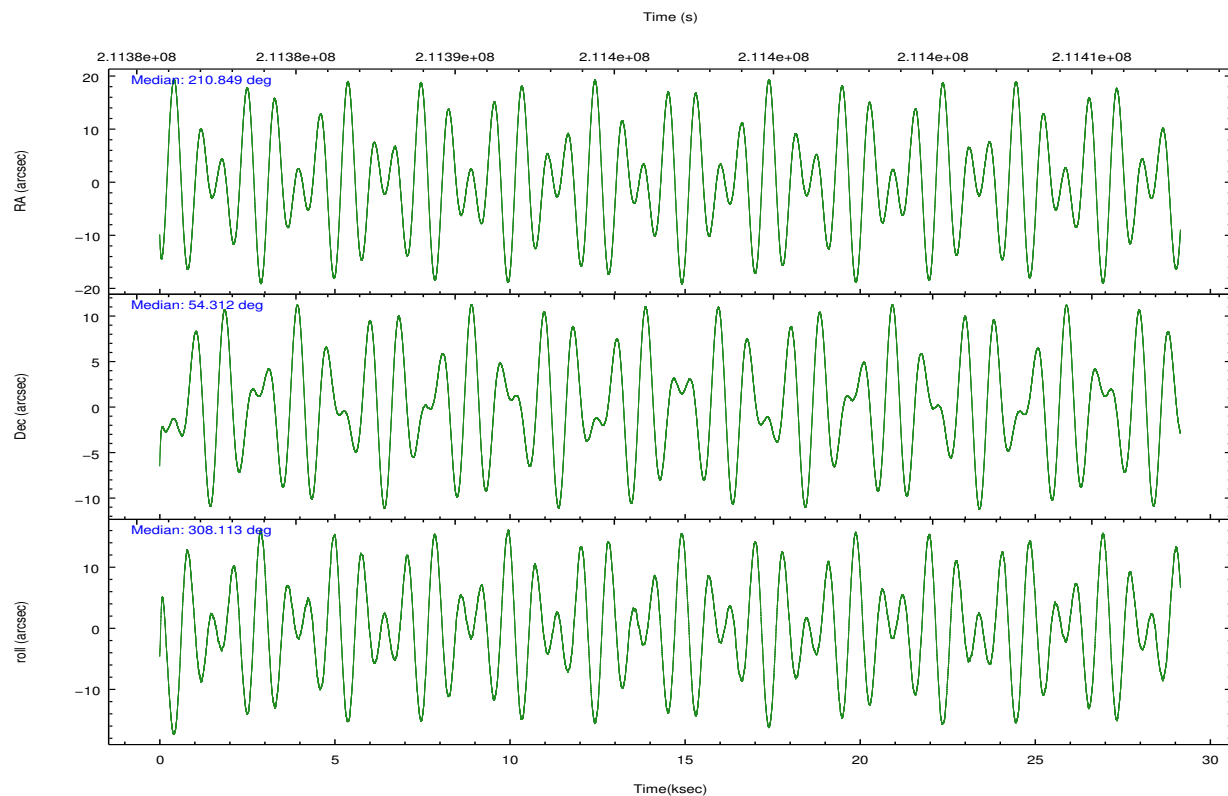
### 2.1.4 Events

	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	233231	218636	351604	234760	311684	288125	grade 0 events	12059	12034	26481	11299	13655	20548
rejected events	206138	191940	186089	207281	180057	225210		5%	5%	7%	4%	4%	7%
rejected %	88%	87%	52%	88%	57%	78%	grade 1 events	133	154	436	125	286	201
								0%	0%	0%	0%	0%	0%
							grade 2 events	5688	5099	46897	5583	26748	13674
								2%	2%	13%	2%	8%	4%
							grade 3 events	2639	2567	6332	2596	11814	6624
								1%	1%	1%	1%	3%	2%
							grade 4 events	2444	2552	5933	2608	11831	6211
								1%	1%	1%	1%	3%	2%
							grade 5 events	9014	10113	25384	10641	29933	13837
								3%	4%	7%	4%	9%	4%
							grade 6 events	4430	4609	80981	5571	68437	16256
								1%	2%	23%	2%	21%	5%
							grade 7 events	196824	181508	159160	196337	148980	210774
								84%	83%	45%	83%	47%	73%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	210.806153	210.8497114695964	Subarray requested	NONE	NONE
[deg] Pointing Dec	54.321537	54.31172440282851	Alternating exposures requested	N	N
[deg] Pointing Roll	307.998039	308.1192849735626	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	211382322.184000	211381171.24652			
Observation start date	2004-09-12T13:17:38	2004-09-12T12:59:31			
[s] Observation end time (MET)	211411322.184000	211411919.71039			
Observation end date	2004-09-12T21:20:58	2004-09-12T21:31:59			
Read mode	TIMED	TIMED			

## 2.3 Aspect

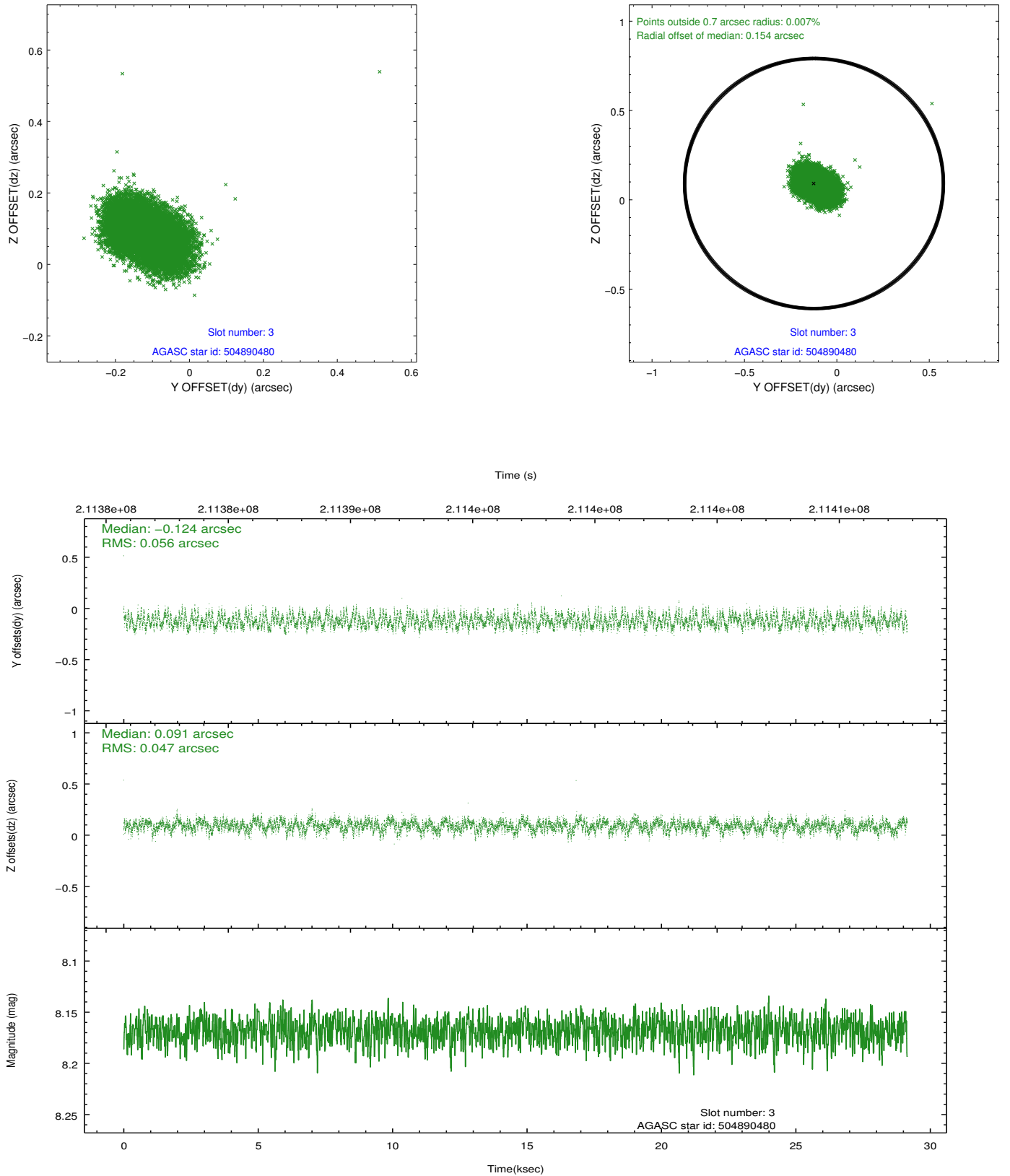


Slot Statistics

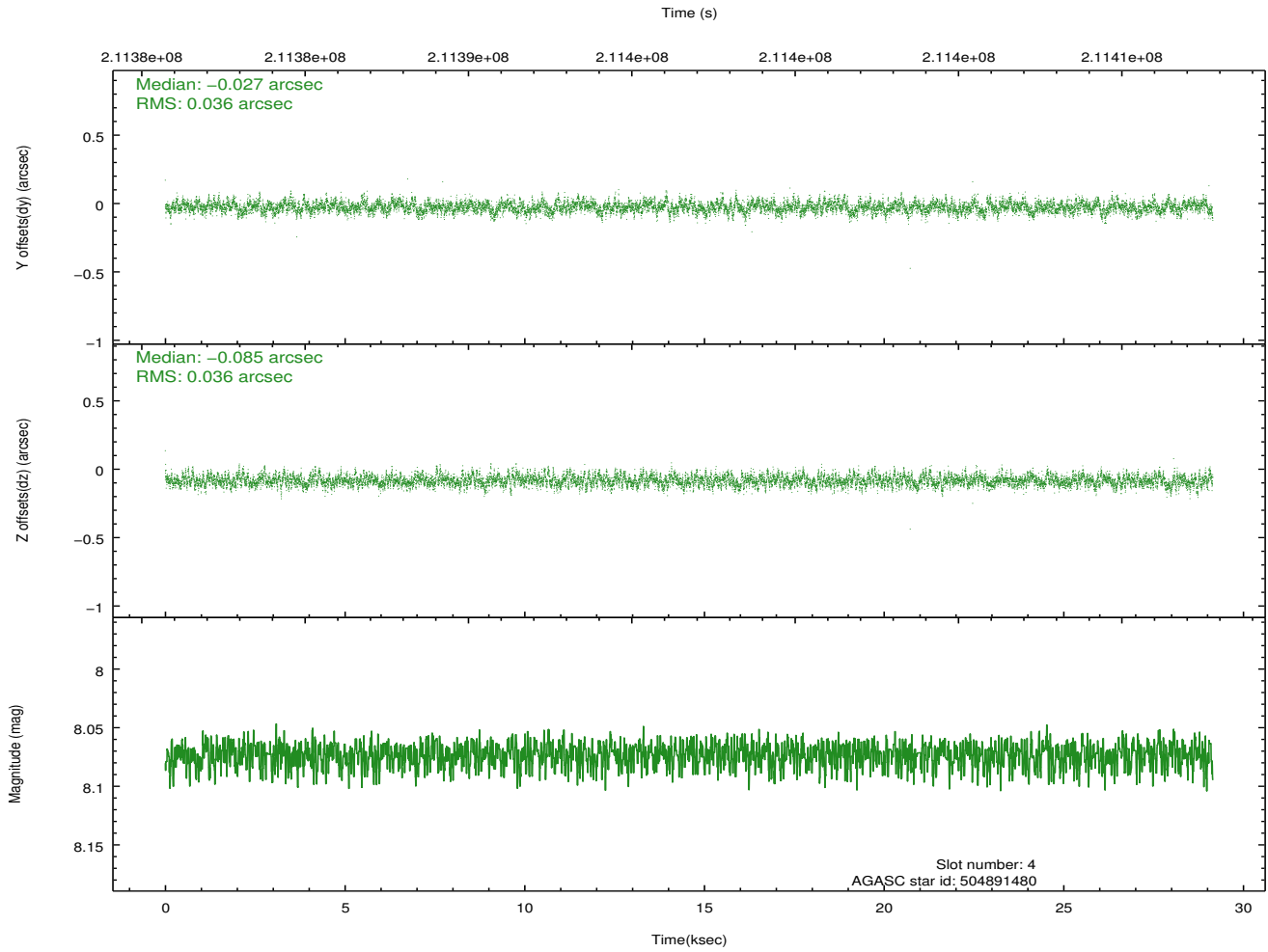
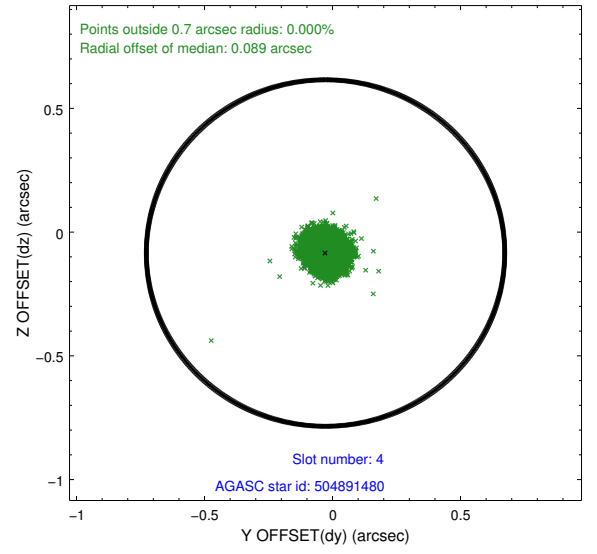
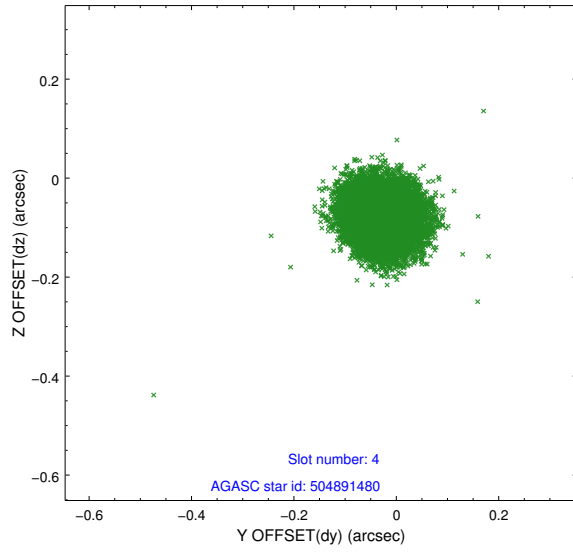
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	7110	-0.043	-0.010	0.008	0.012	0.000000	0.000000	-759.79	-1732.39
1	FID	ACIS-S-4	7.20	7110	0.066	0.023	0.007	0.014	0.000000	0.000000	2153.53	176.08
2	FID	ACIS-S-5	7.23	7109	-0.054	-0.005	0.007	0.012	0.000000	0.000000	-1812.57	169.76
3	GUIDE	504890480	8.17	14216	-0.124	0.091	0.078	0.124	210.132463	53.768436	681.77	-2351.30
4	GUIDE	504891480	8.07	14220	-0.027	-0.085	0.054	0.089	210.708012	54.666096	-1103.16	602.75
5	GUIDE	504894408	9.28	14207	-0.007	0.075	0.088	0.141	211.942794	54.047749	2240.42	1299.02
6	GUIDE	504894856	8.98	14214	0.019	-0.010	0.087	0.143	209.819510	54.132689	-756.20	-2049.11
7	GUIDE	505292416	9.30	14210	0.139	-0.072	0.097	0.159	210.920759	55.040479	-1894.52	1779.78

## 2.4 Star Slots

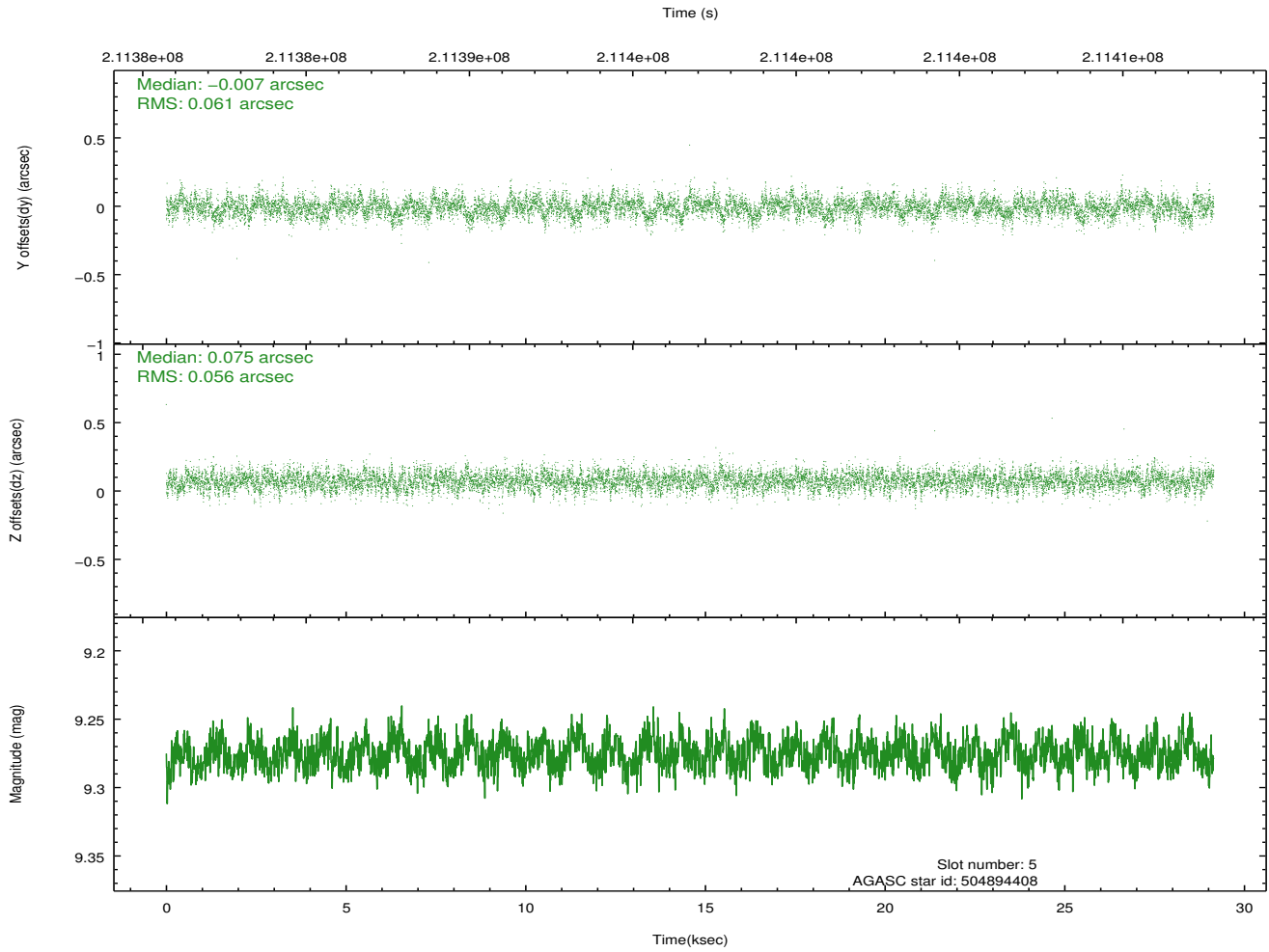
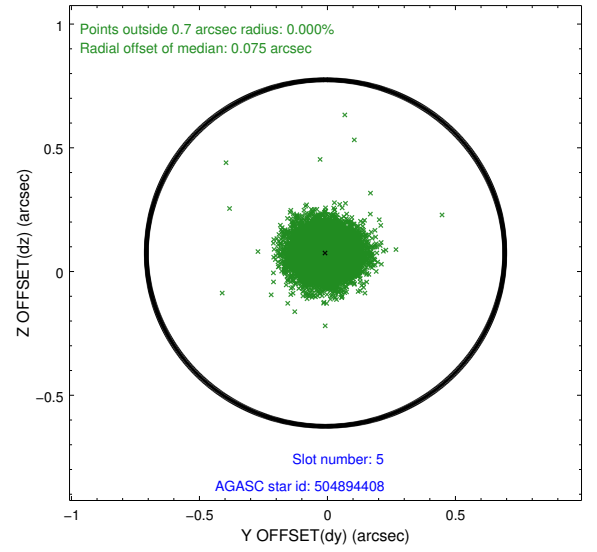
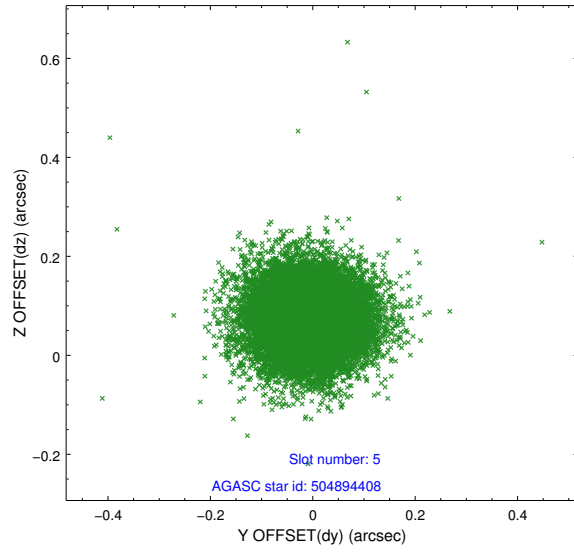
### 2.4.1 Slot 3



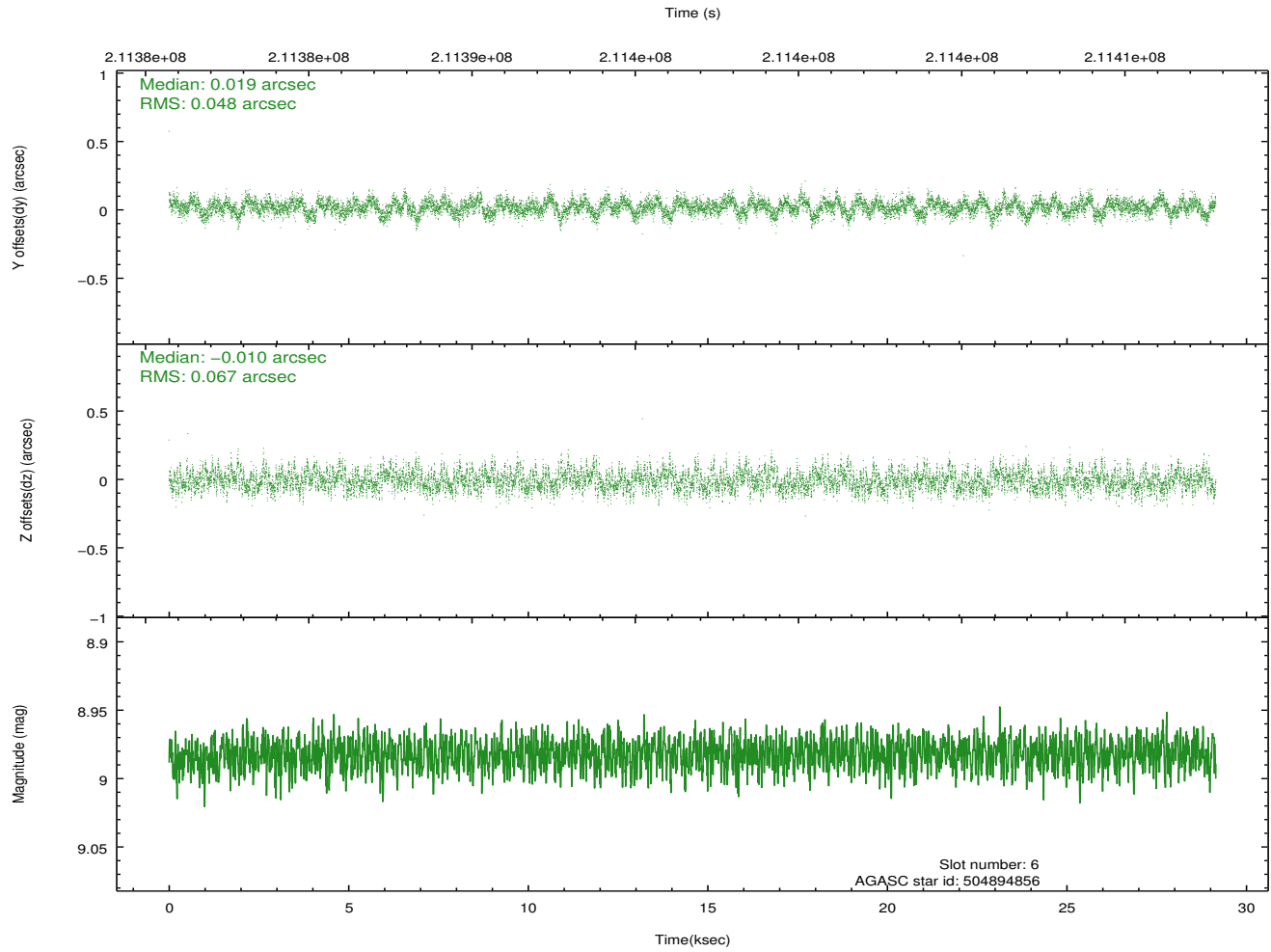
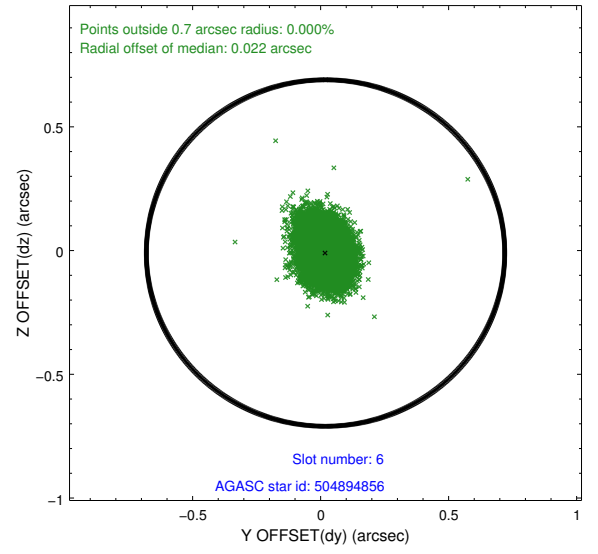
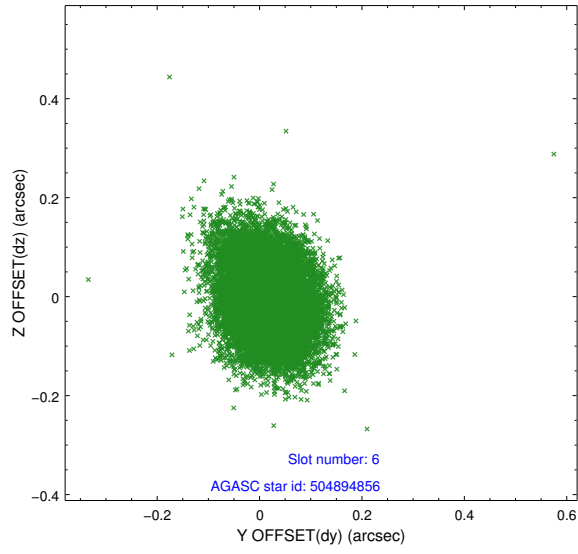
## 2.4.2 Slot 4



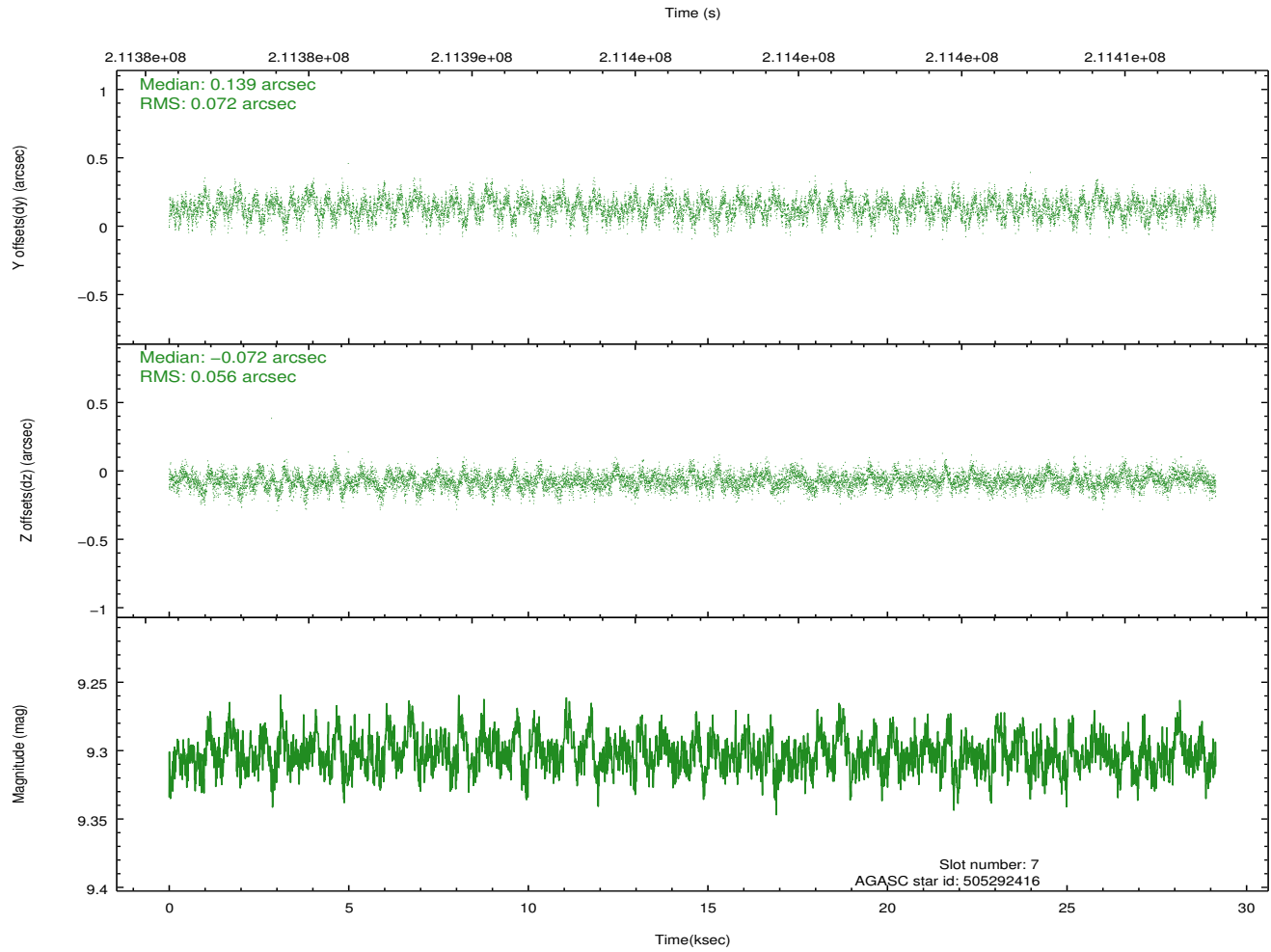
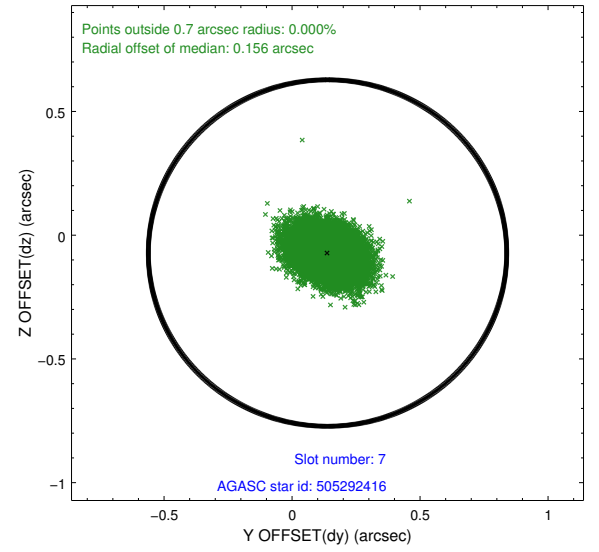
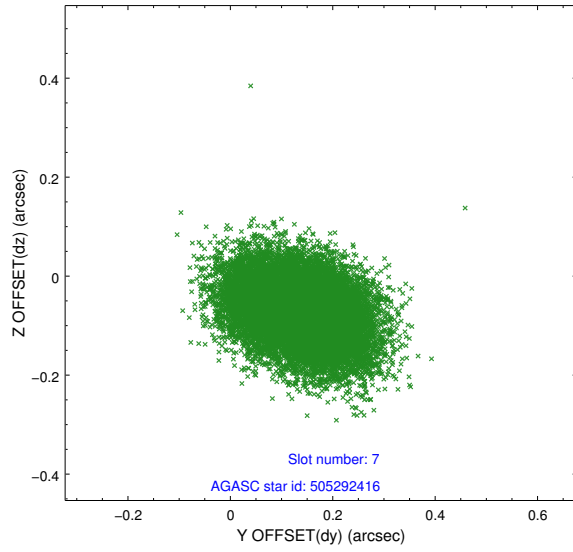
### 2.4.3 Slot 5



## 2.4.4 Slot 6

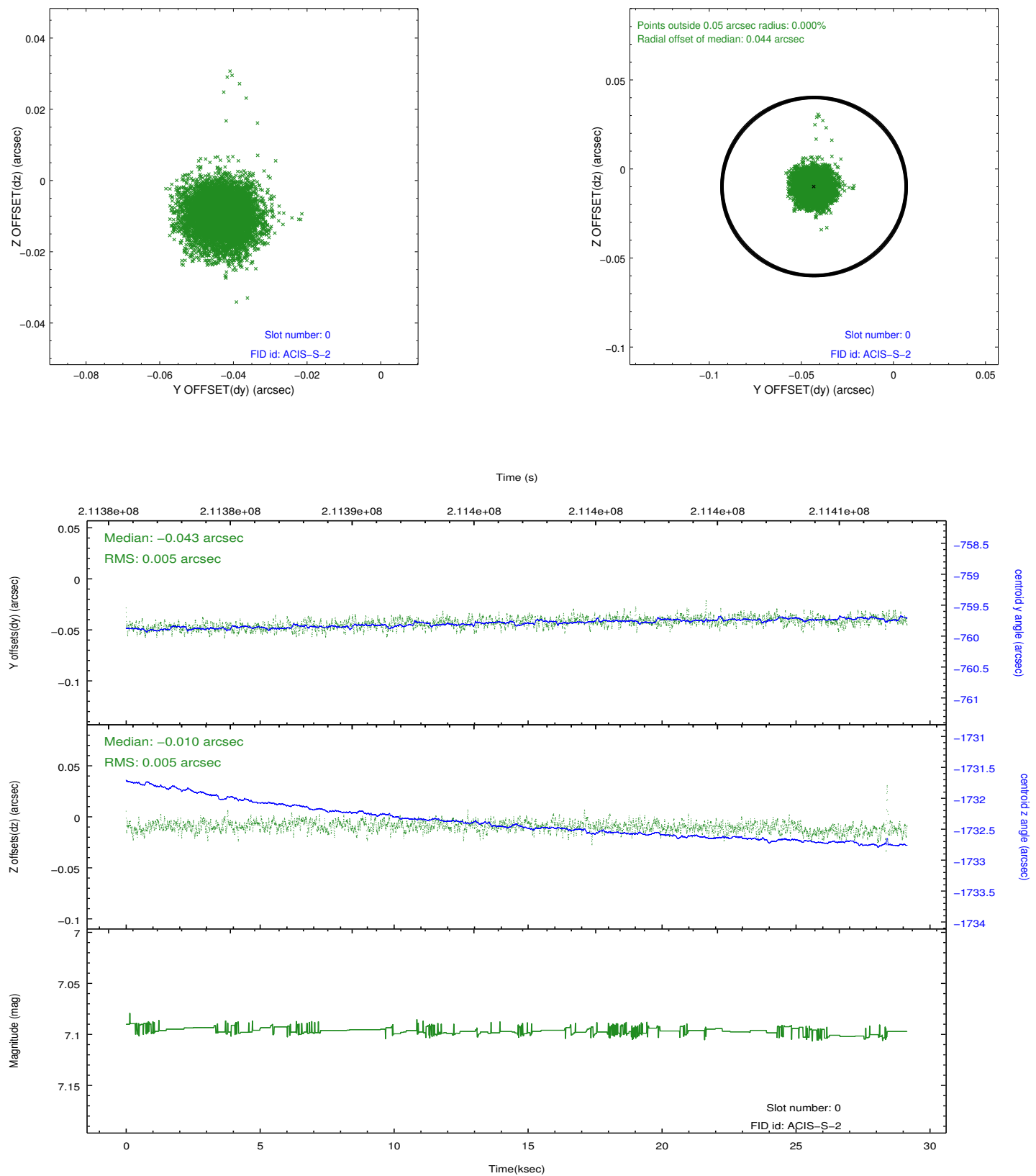


## 2.4.5 Slot 7

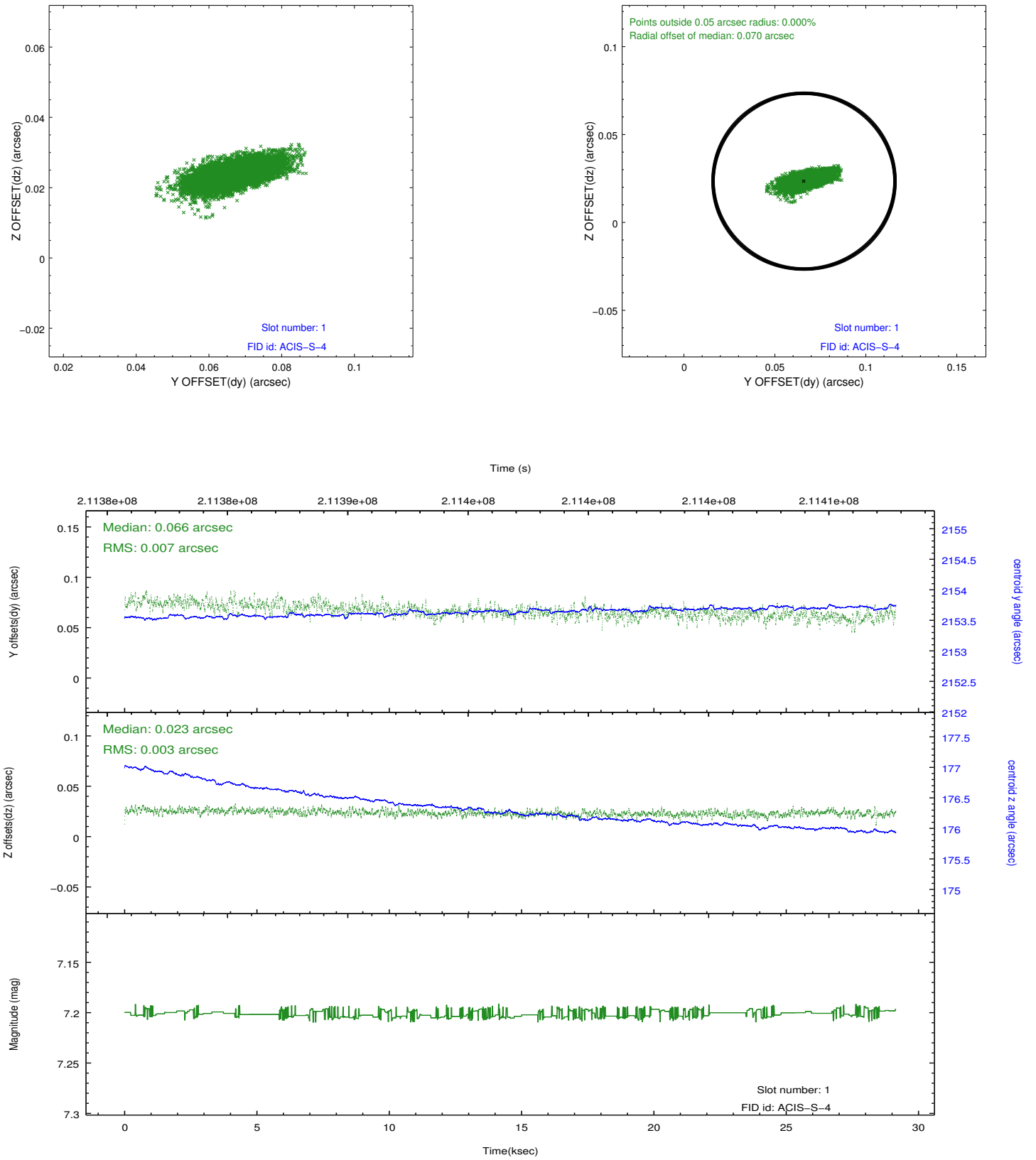


## 2.5 FID Slots

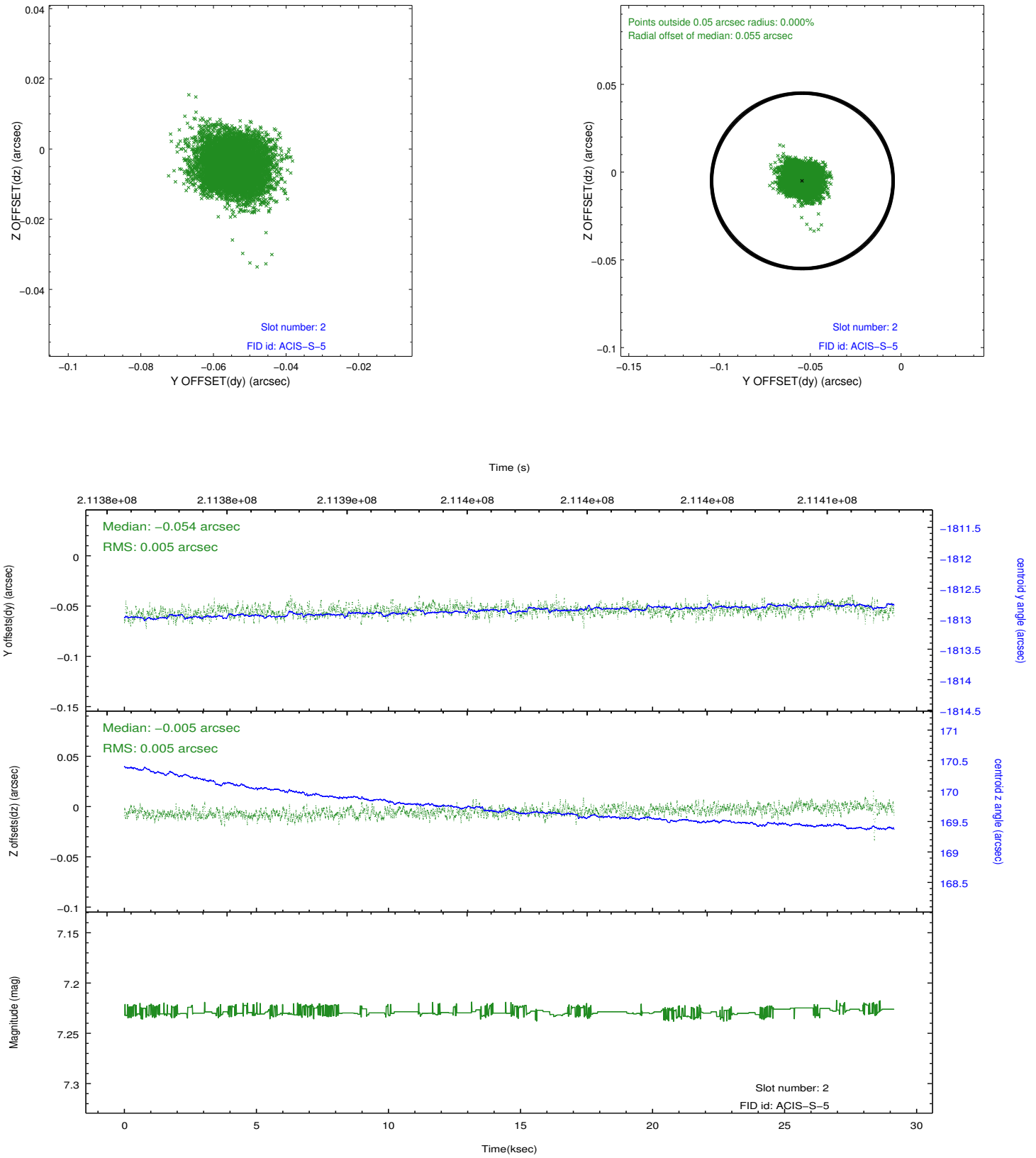
### 2.5.1 Slot 0



## 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)	2012.12.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.148

### A.2 Comments