

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2404 - L2 Version 3  
Chandra X-Ray Center

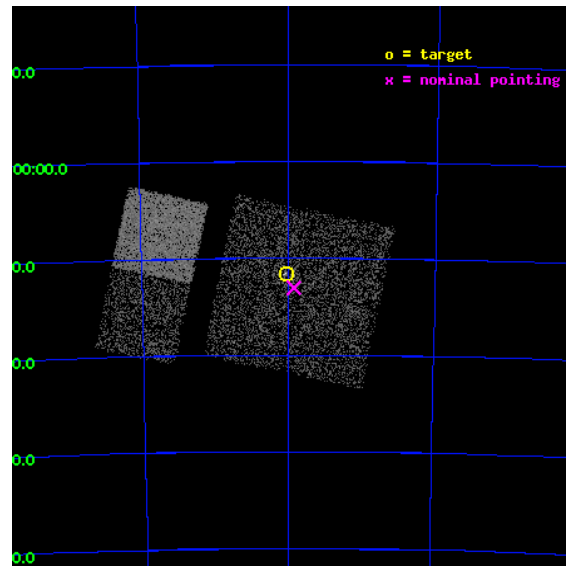
L2 Processing Date : Sep 17 2012

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# 1 Front

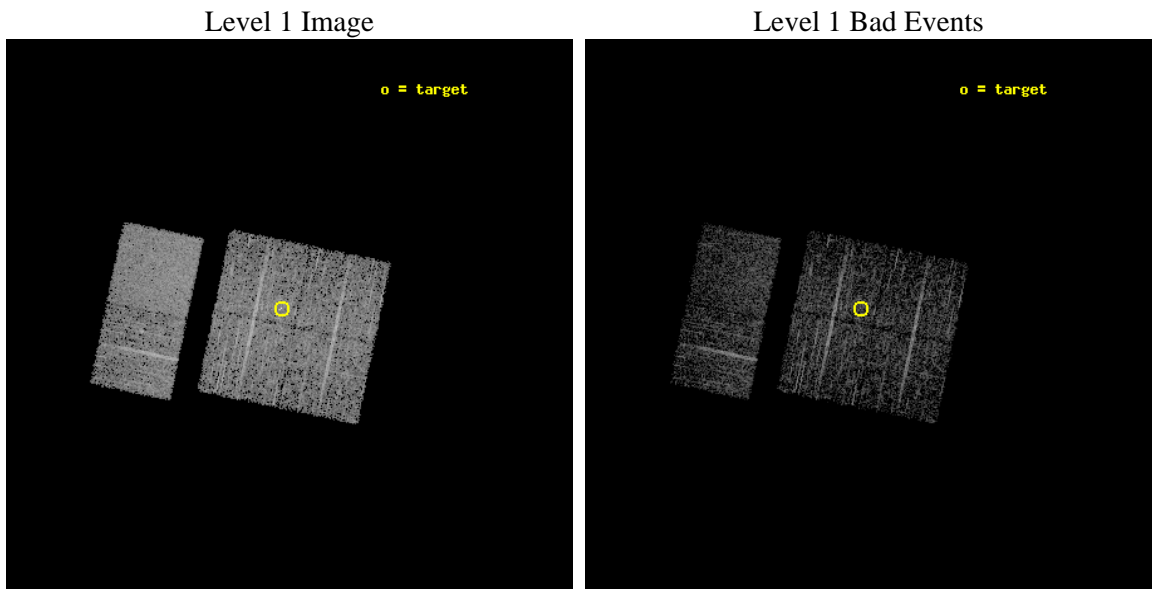
seq_num	200128	Sequence number
obs_id	2404	Observation id
title	OBSERVATION OF SCO-CEN OUTLYERS	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	HD104237	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	180.02125	Observer's specified target RA [deg]
dec_targ	-78.193056	Observer's specified target Dec [deg]
ra_nom	179.95346142118	Nominal RA [deg]
dec_nom	-78.217476389932	Nominal Dec [deg]
roll_nom	281.77433031092	Nominal Roll [deg]
revision	3	Processing version of data
ontime	2995.2000027746	Sum of GTIs [s]
livetime	2957.2729768465	Livetime [s]
ontime0	2995.2000027746	Sum of GTIs [s]
ontime1	2995.2000027746	Sum of GTIs [s]
ontime2	2995.2000027746	Sum of GTIs [s]
ontime3	2995.2000027746	Sum of GTIs [s]
ontime6	2995.2000027746	Sum of GTIs [s]
ontime7	2995.2000027746	Sum of GTIs [s]
l2events	20074	Number of level 2 events



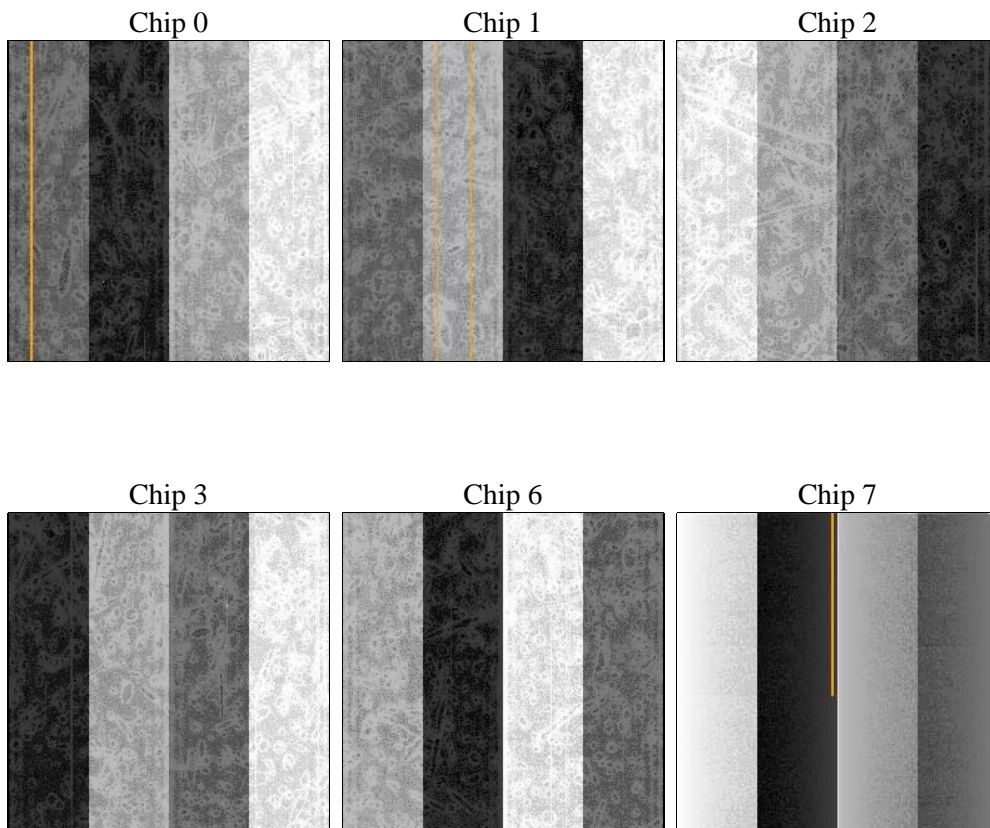
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2920.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	2995.2000027746	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime0	2995.2000027746	Sum of GTIs [s]
date	2012-09-17T17:48:57	Date and time of file creation	ontime1	2995.2000027746	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	2995.2000027746	Sum of GTIs [s]
			ontime3	2995.2000027746	Sum of GTIs [s]
			ontime6	2995.2000027746	Sum of GTIs [s]
			ontime7	2995.2000027746	Sum of GTIs [s]
			l1events	120619	Number of level 1 events

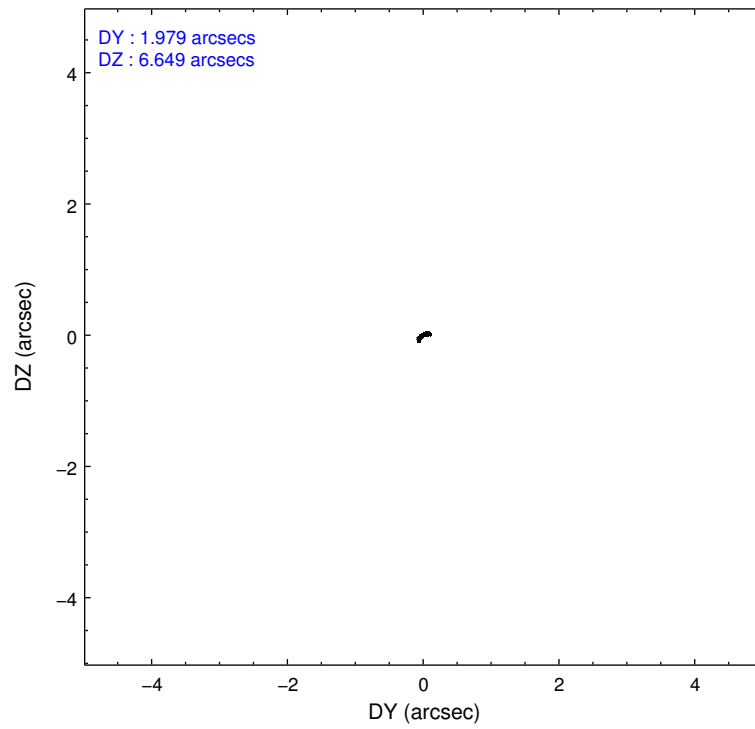
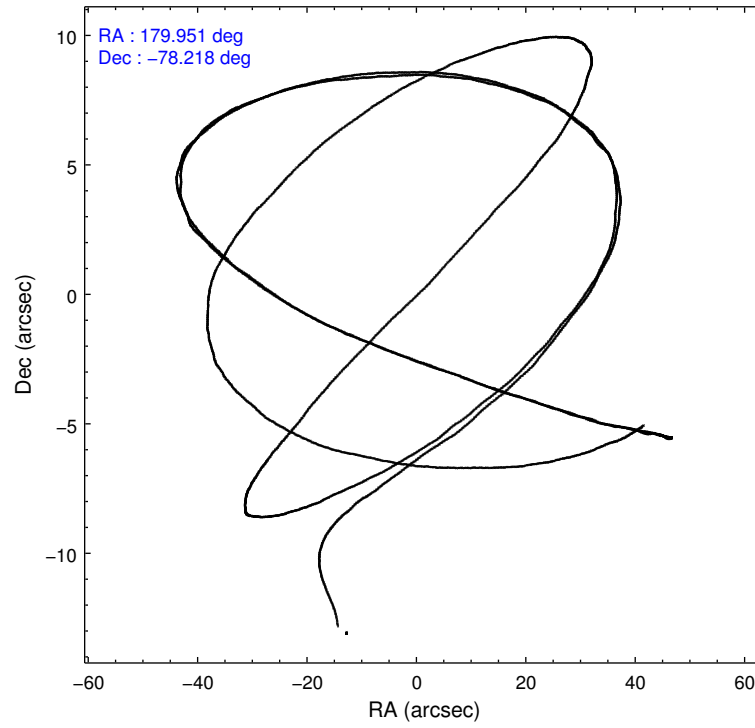
### 2.1.4 Events

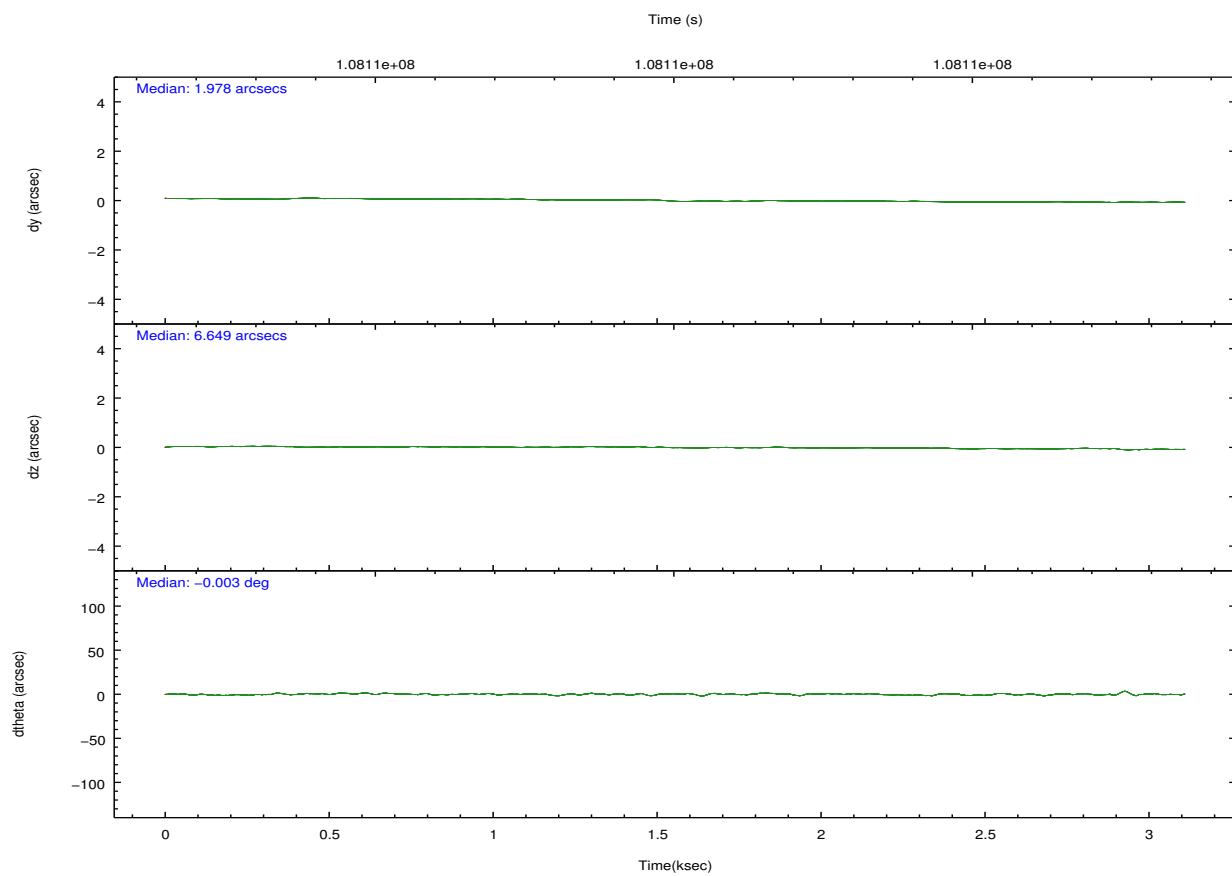
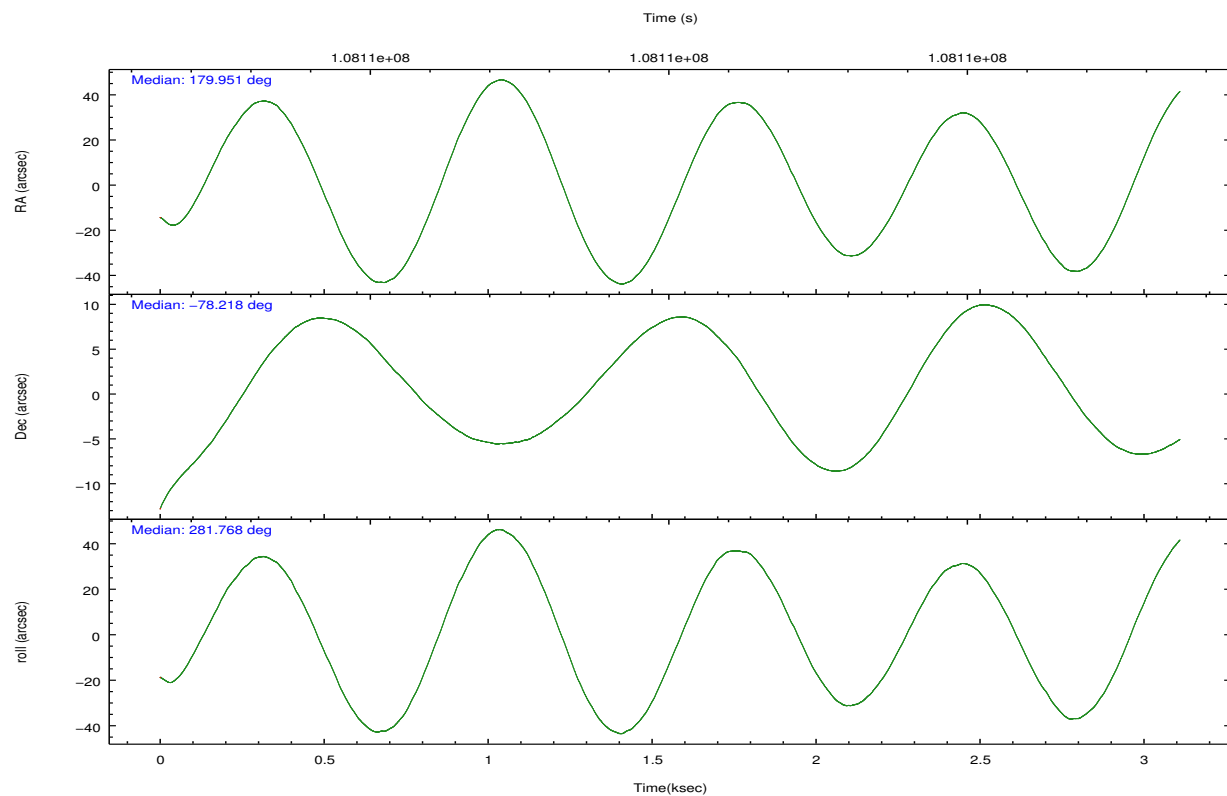
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	17108	18105	20901	19701	19516	25288	grade 0 events	906	944	942	1419	1008	946
rejected events	14893	15773	18722	16980	17219	14953		5%	5%	4%	7%	5%	3%
rejected %	87%	87%	89%	86%	88%	59%	grade 1 events	8	11	8	21	9	16
								0%	0%	0%	0%	0%	0%
							grade 2 events	492	455	471	503	440	2031
								2%	2%	2%	2%	2%	8%
							grade 3 events	191	263	197	196	194	952
								1%	1%	0%	0%	0%	3%
							grade 4 events	219	243	209	211	221	935
								1%	1%	0%	1%	1%	3%
							grade 5 events	693	677	636	742	895	2362
								4%	3%	3%	3%	4%	9%
							grade 6 events	410	432	364	394	437	5491
								2%	2%	1%	1%	2%	21%
							grade 7 events	14189	15080	18074	16215	16312	12555
								82%	83%	86%	82%	83%	49%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	179.863825	179.9534614211803	Subarray requested	NONE	NONE
[deg] Pointing Dec	-78.196926	-78.21747638993151	Alternating exposures requested	N	N
[deg] Pointing Roll	281.477899	281.7743303109233	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	108106638.184000	108105615.01982			
Observation start date	2001-06-05T05:36:14	2001-06-05T05:20:15			
[s] Observation end time (MET)	108109558.184000	108110100.42			
Observation end date	2001-06-05T06:24:54	2001-06-05T06:35:00			
Read mode	TIMED	TIMED			

## 2.3 Aspect



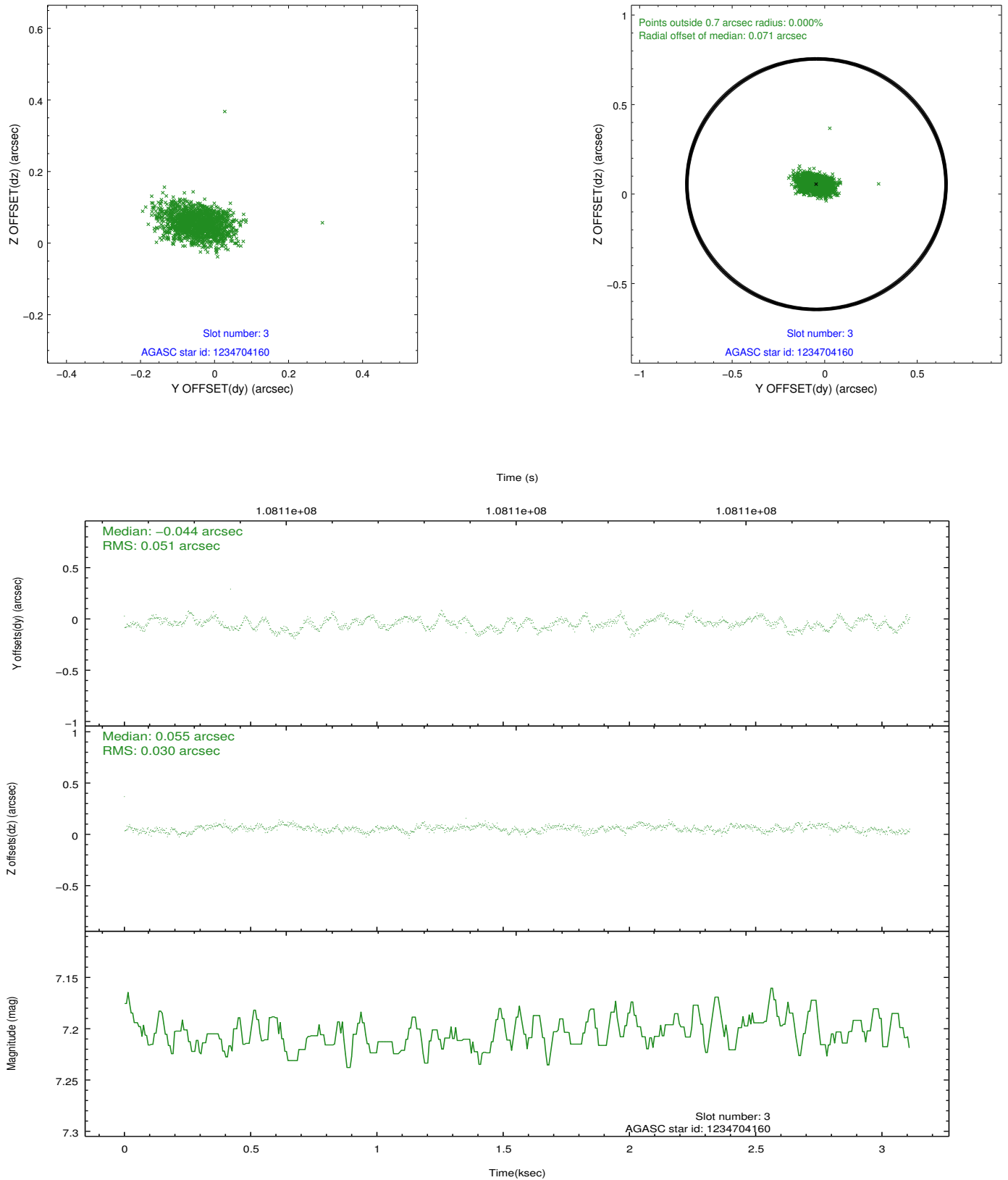


Slot Statistics

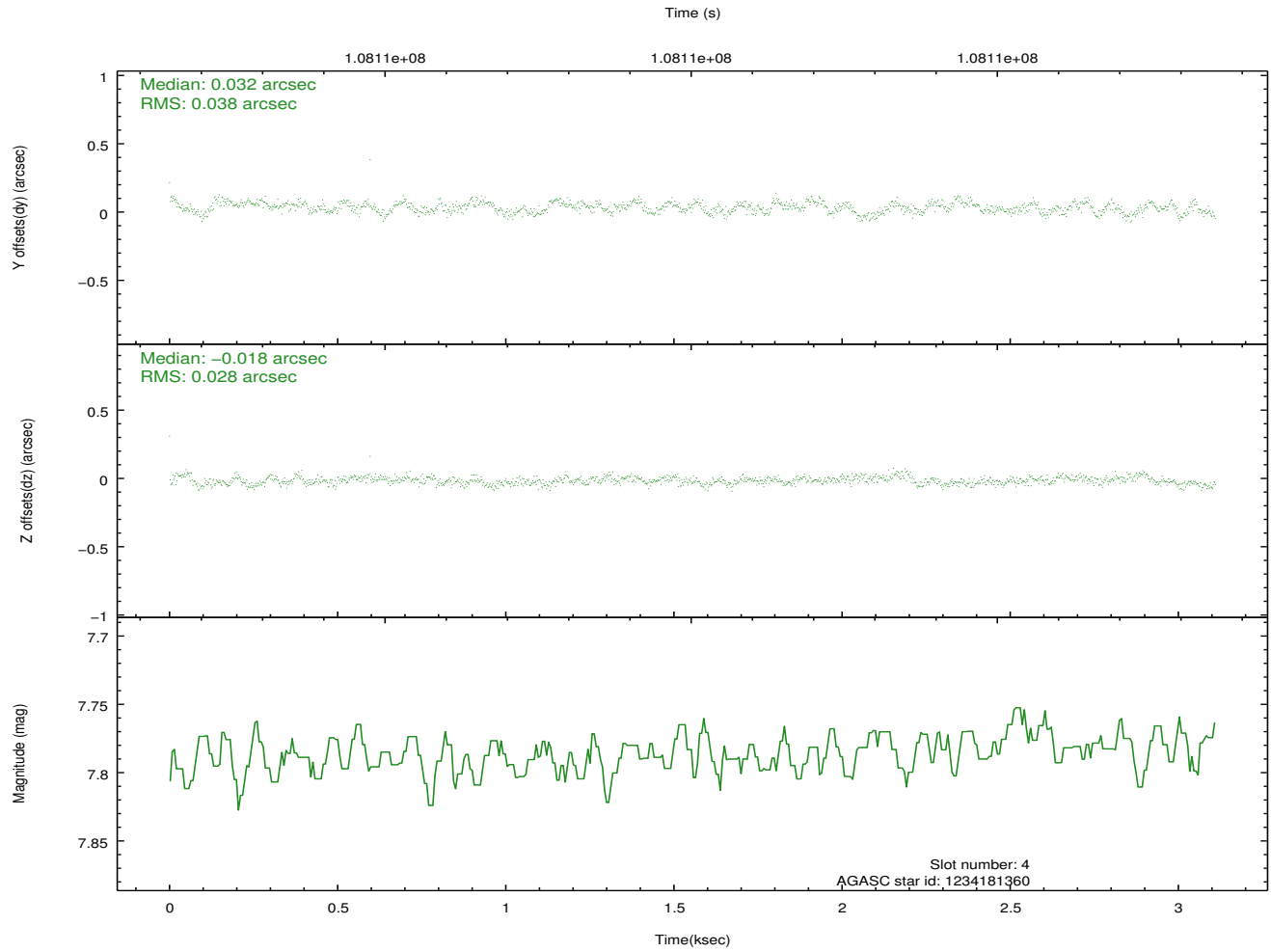
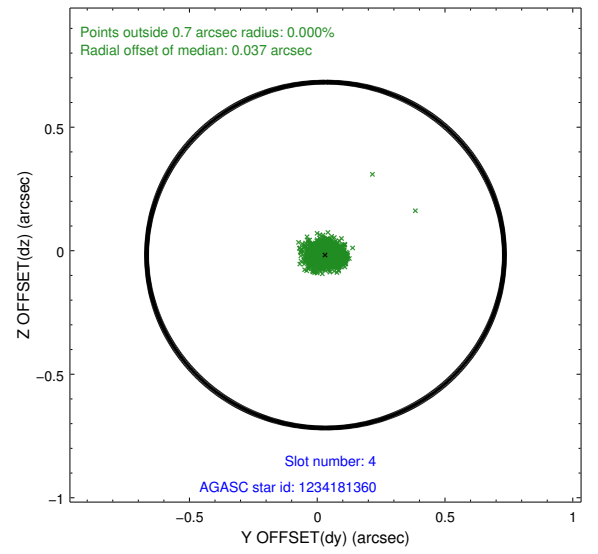
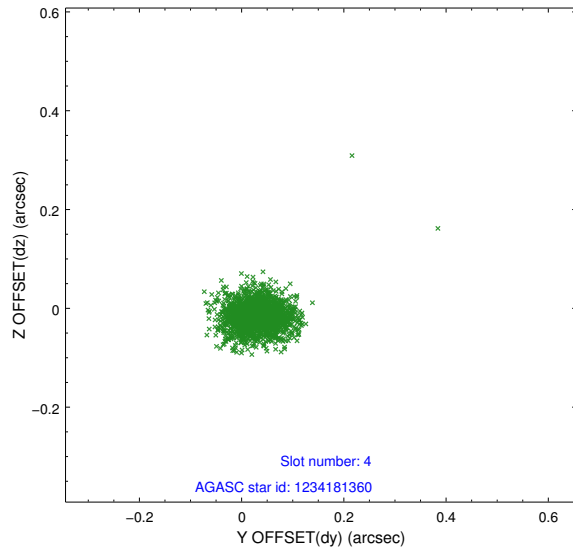
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.15	759	-0.041	-0.072	0.009	0.016	0.000000	0.000000	-756.37	-836.47
1	FID	ACIS-I-4	7.18	759	-0.016	0.050	0.007	0.013	0.000000	0.000000	2156.77	1068.82
2	FID	ACIS-I-5	7.23	759	-0.042	0.090	0.010	0.015	0.000000	0.000000	-1807.57	1069.02
3	GUIDE	1234704160	7.20	1518	-0.044	0.055	0.061	0.103	182.282049	-78.781313	2432.81	1235.56
4	GUIDE	1234181360	7.79	1518	0.032	-0.018	0.049	0.080	181.773022	-78.741114	2209.87	923.15
5	GUIDE	1234045984	8.05	1517	-0.039	0.017	0.062	0.103	176.913419	-77.887125	-1479.86	-1970.70
6	GUIDE	1234051504	8.91	1515	0.003	0.037	0.081	0.127	176.787849	-77.903787	-1436.94	-2075.07
7	GUIDE	1234188184	9.08	1516	0.048	-0.090	0.097	0.156	182.228918	-77.688140	-1399.05	2135.89

## 2.4 Star Slots

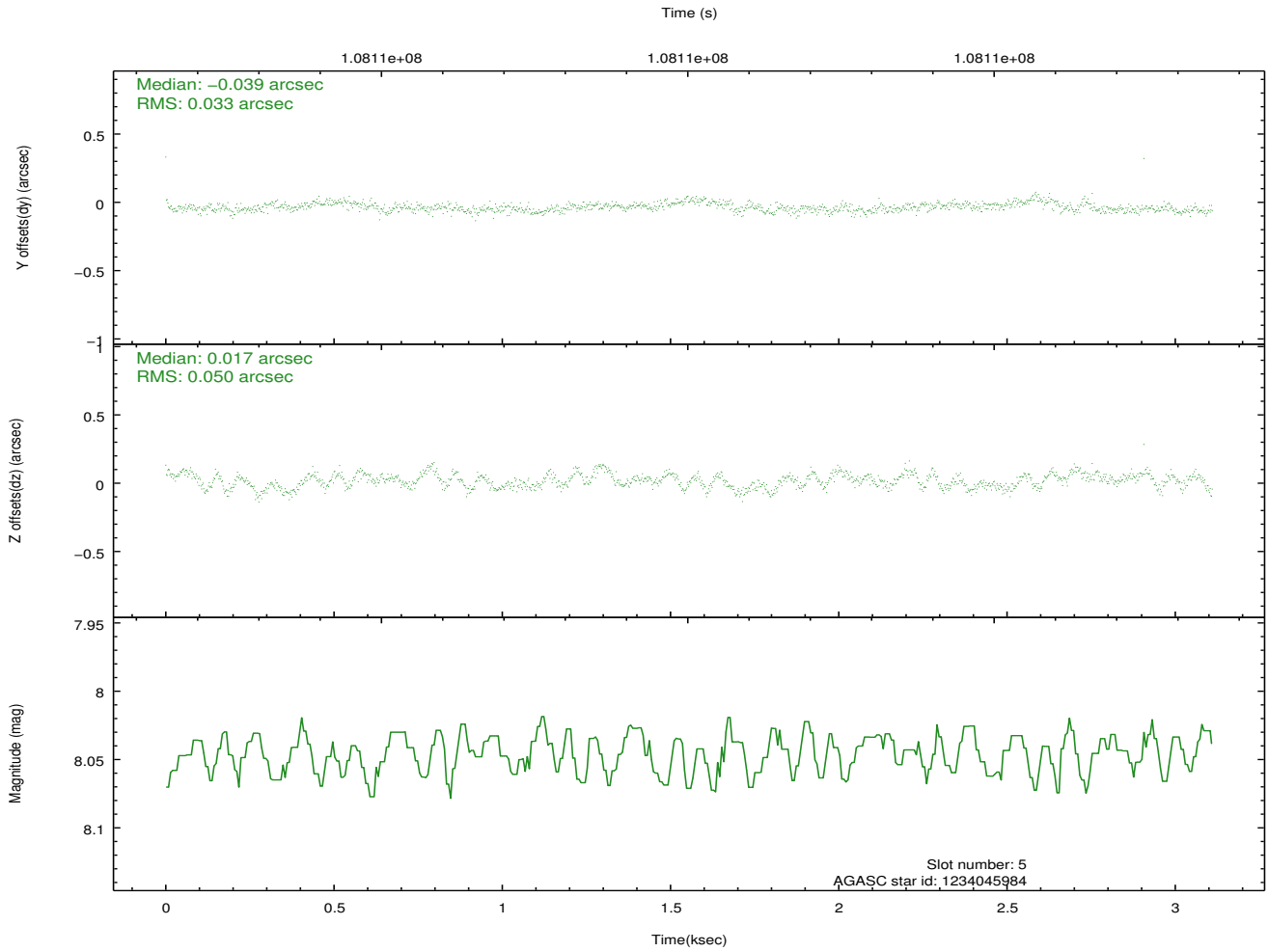
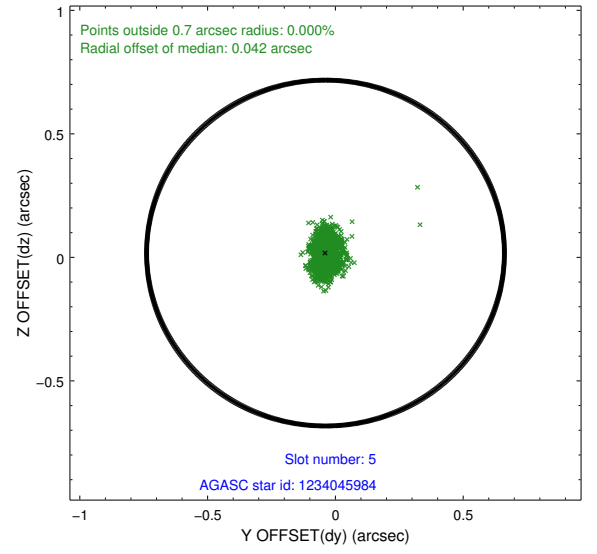
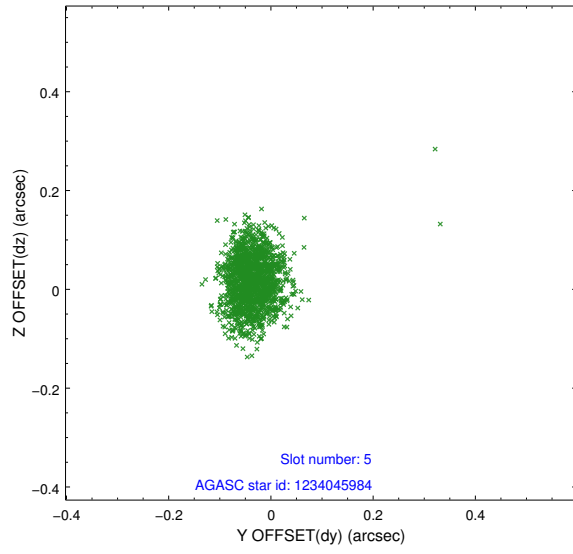
### 2.4.1 Slot 3



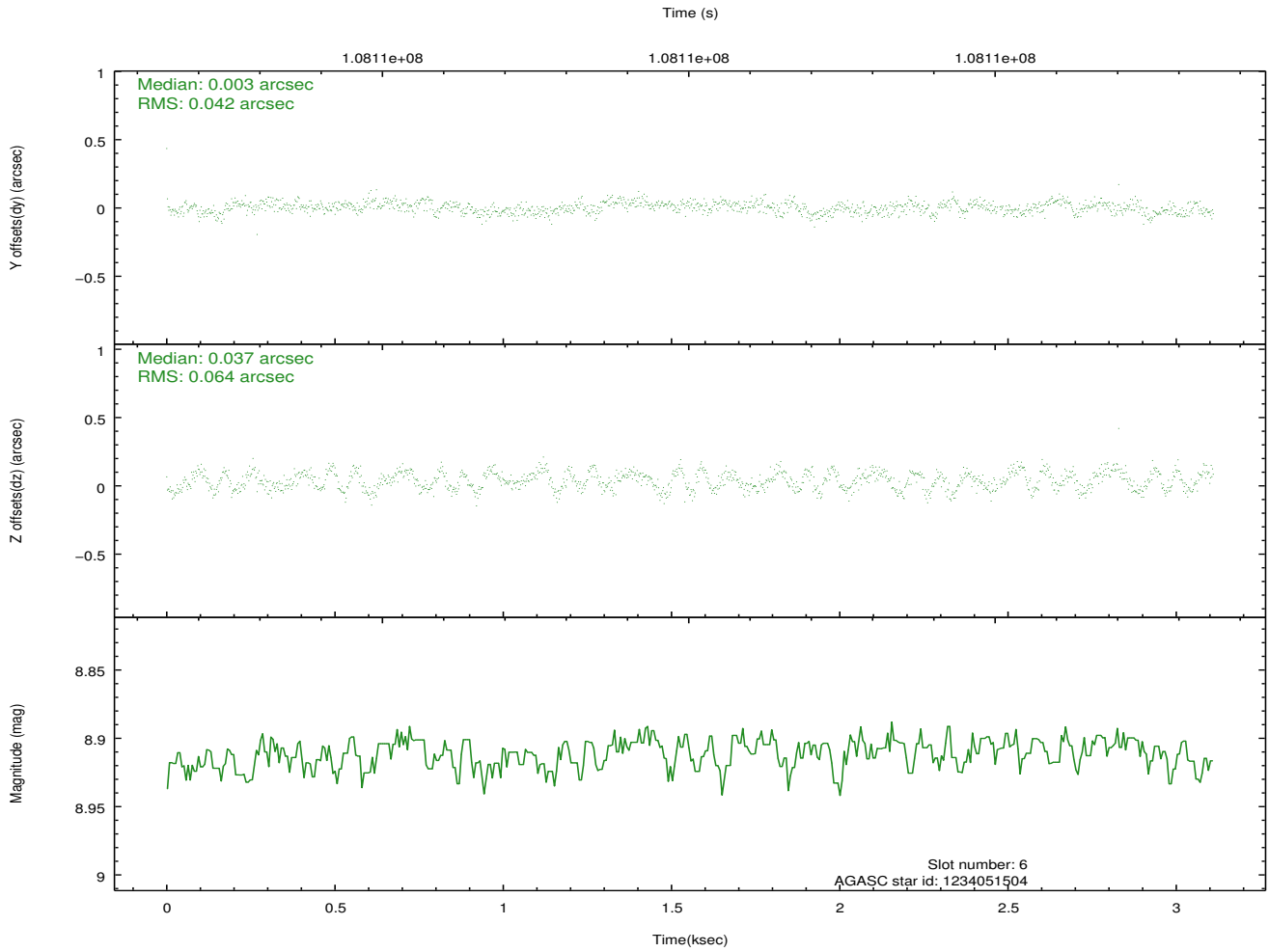
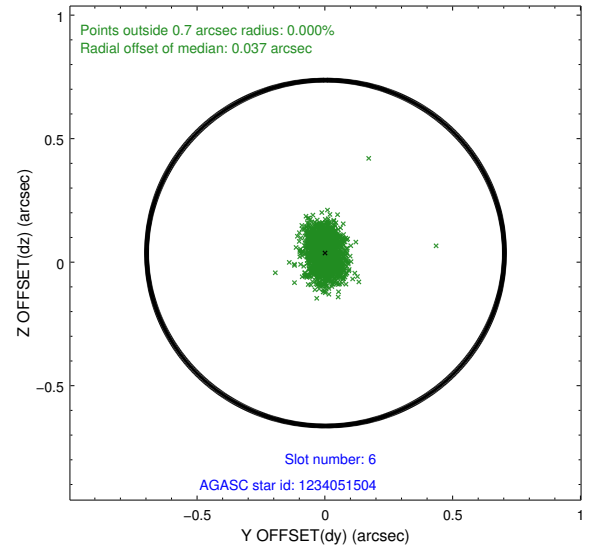
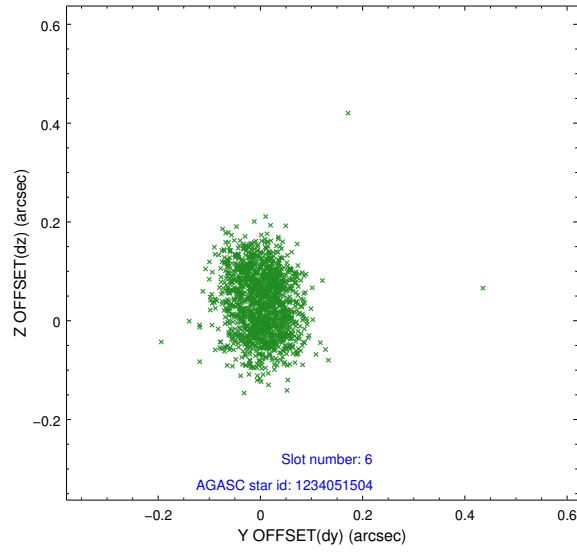
## 2.4.2 Slot 4



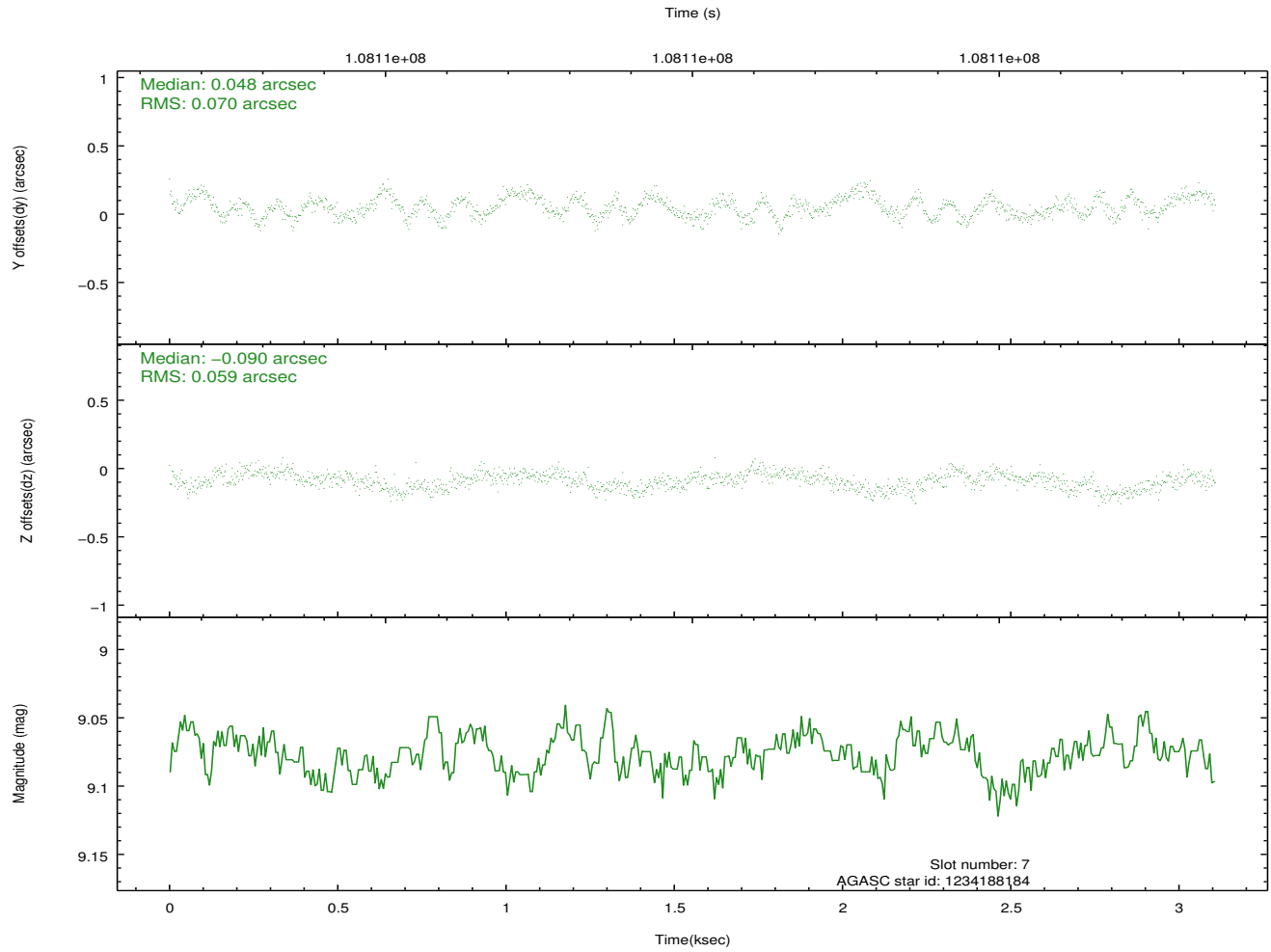
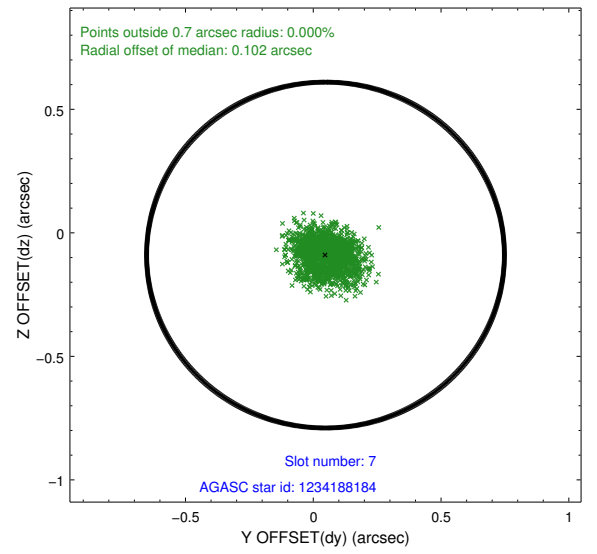
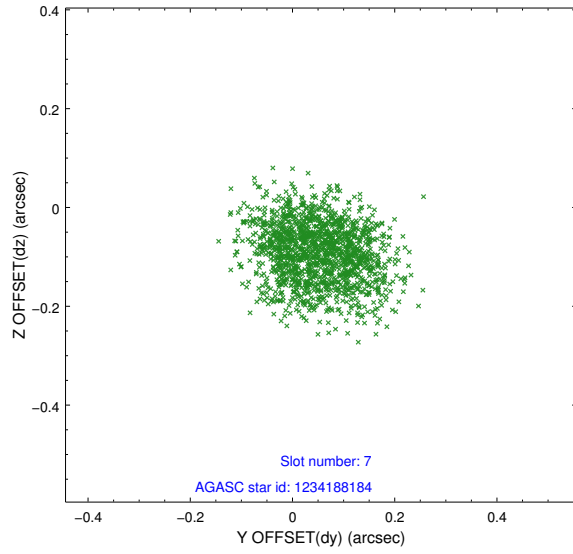
### 2.4.3 Slot 5



## 2.4.4 Slot 6

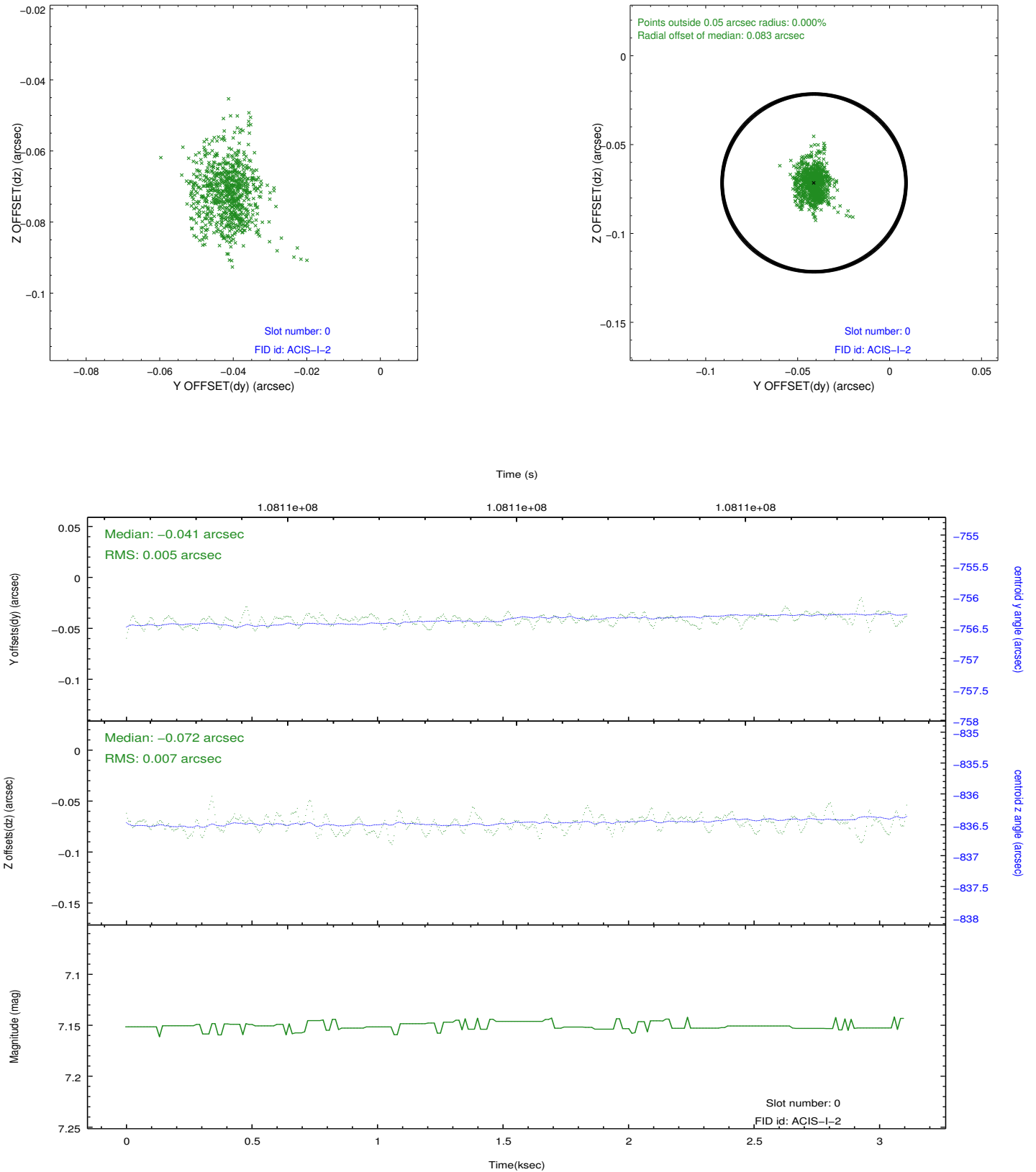


## 2.4.5 Slot 7

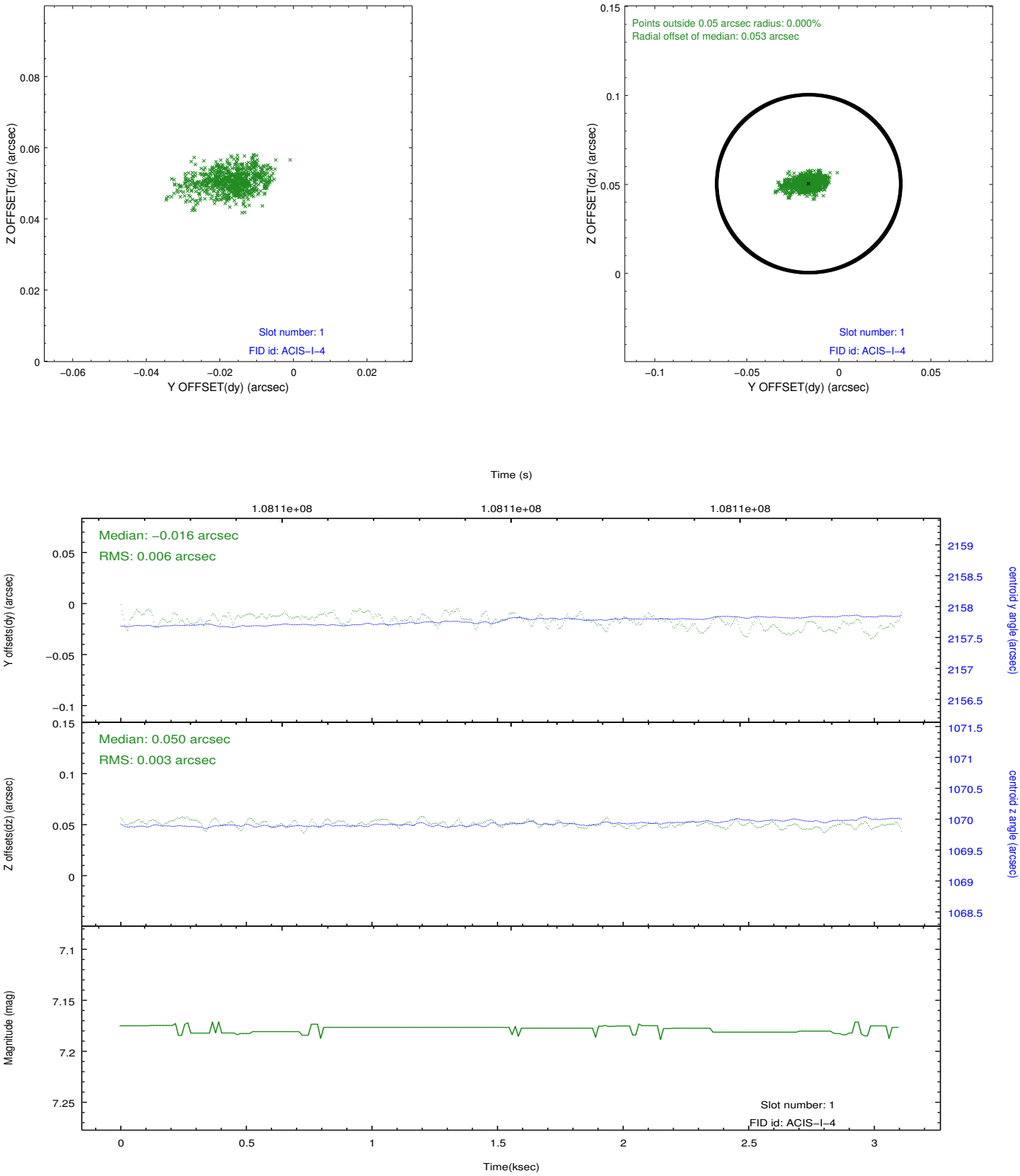


## 2.5 FID Slots

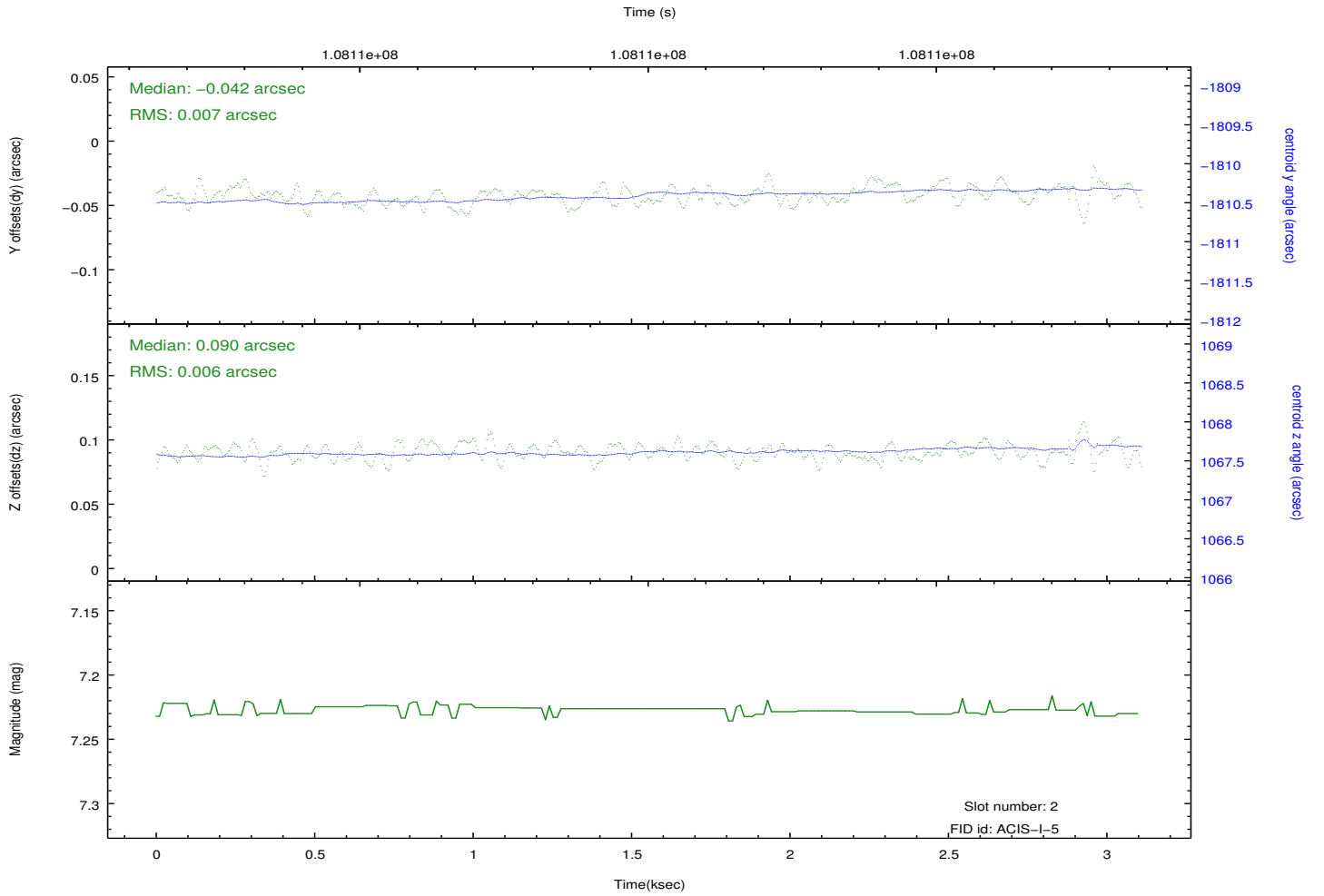
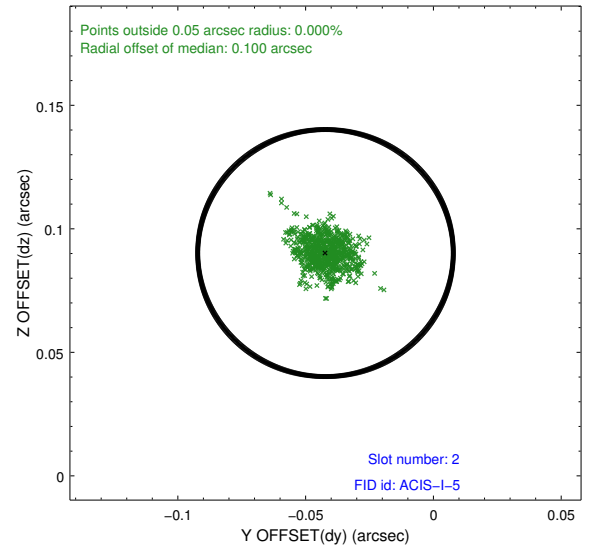
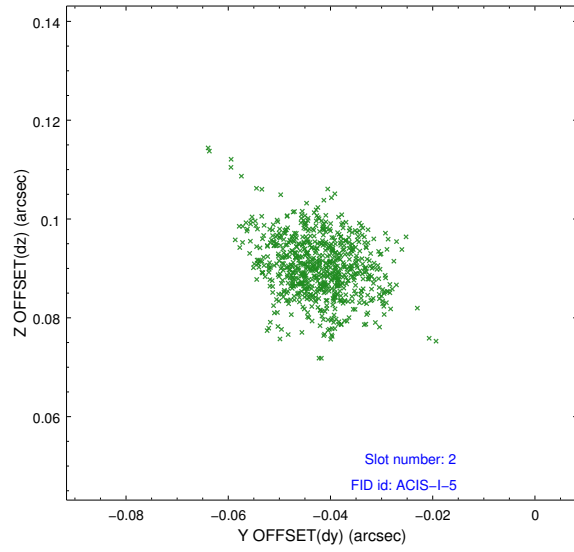
### 2.5.1 Slot 0



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)	2012.09.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.998

### A.2 Comments