

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 134 - L2 Version 3

Chandra X-Ray Center

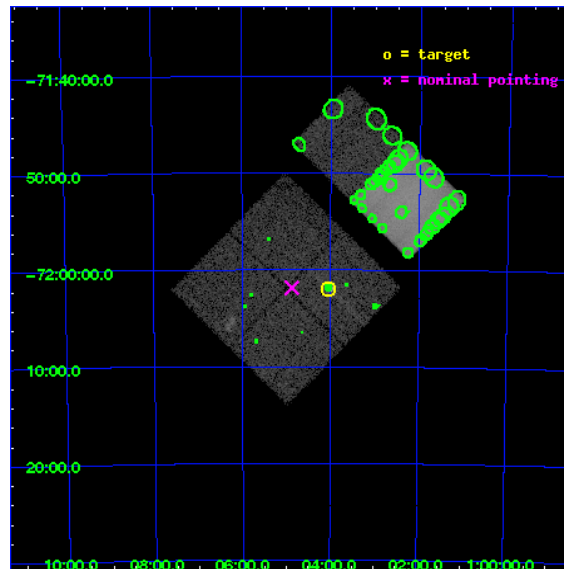
L2 Processing Date : Dec 17 2009

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# 1 Front

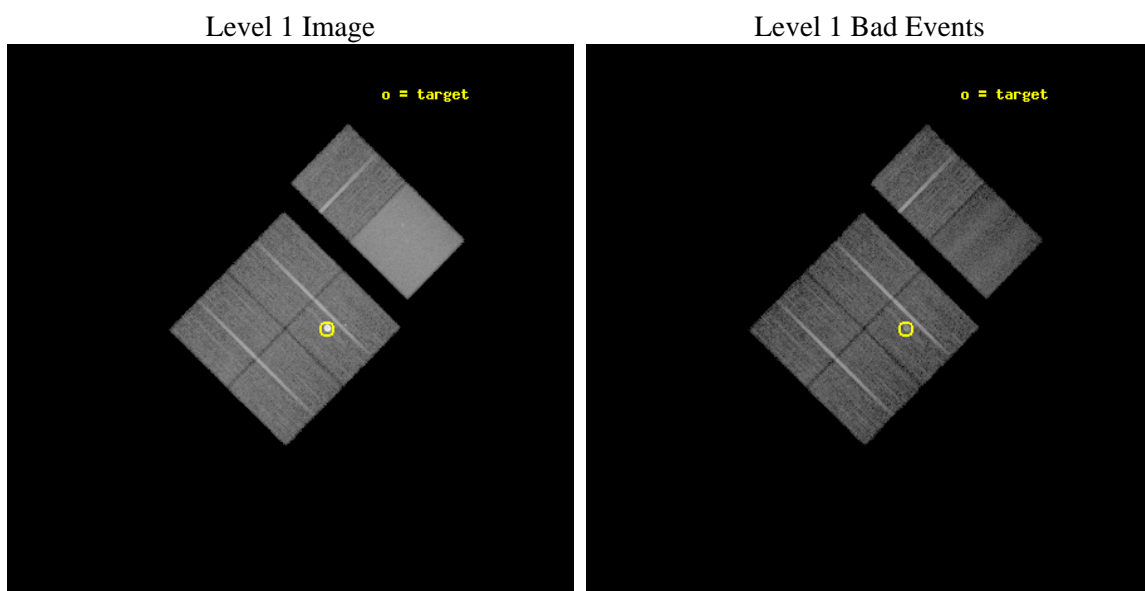
seq_num	590002	Sequence number
obs_id	134	Observation id
title	ACIS CHIP RESPONSE TO LINES WITH E=0.6-1.5 KEV	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72.3 [Chip I3, T=100, Offsets=-2,2,0 Line R]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA
dec_targ	-72.032028	Observer's specified target Dec
ra_nom	16.218344518922	Nominal RA
dec_nom	-72.030879026391	Nominal Dec
roll_nom	44.488146391192	Nominal Roll
revision	3	Processing version of data
ontime	9753.6000090837	Sum of GTIs [s]
livetime	9630.0940528559	Livetime [s]
ontime0	9753.6000090837	Sum of GTIs [s]
ontime1	9753.6000090837	Sum of GTIs [s]
ontime2	9753.6000090837	Sum of GTIs [s]
ontime3	9753.6000090837	Sum of GTIs [s]
ontime6	9753.6000090837	Sum of GTIs [s]
ontime7	9753.6000090837	Sum of GTIs [s]
l2events	243472	Number of level 2 events



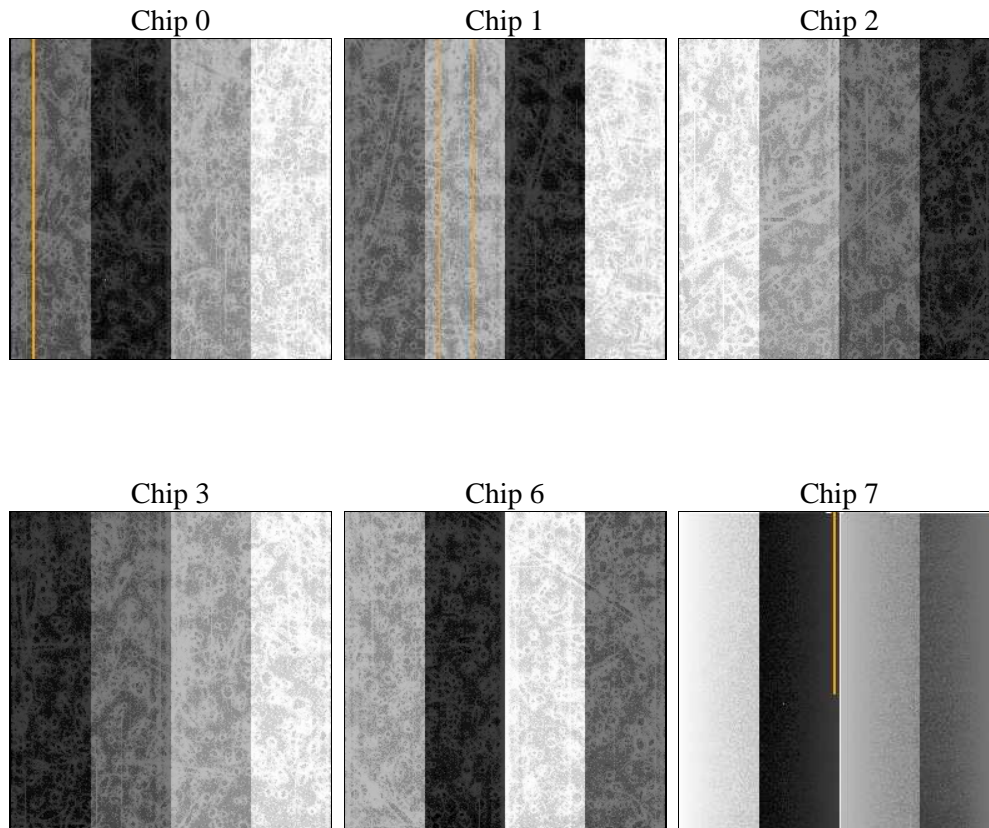
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	9753.6000090837	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime0	9753.6000090837	Sum of GTIs [s]
date	2009-12-17T09:47:33	Date and time of file creation	ontime1	9753.6000090837	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	9753.6000090837	Sum of GTIs [s]
			ontime3	9753.6000090837	Sum of GTIs [s]
			ontime6	9753.6000090837	Sum of GTIs [s]
			ontime7	9753.6000090837	Sum of GTIs [s]
			l1events	755414	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	96022	94739	99169	141604	99505	224375	grade 0 events	4641	4834	3720	39545	4104	19046
rejected events	84883	82939	89241	90156	87828	69524		4%	5%	3%	27%	4%	8%
rejected %	88%	87%	89%	63%	88%	30%	grade 1 events	46	48	30	479	25	78
								0%	0%	0%	0%	0%	0%
							grade 2 events	2713	2739	2698	6153	3601	25434
								2%	2%	2%	4%	3%	11%
							grade 3 events	903	1019	789	1700	734	14500
								0%	1%	0%	1%	0%	6%
							grade 4 events	878	1042	772	1646	738	12800
								0%	1%	0%	1%	0%	5%
							grade 5 events	2232	2327	2033	2502	2243	7419
								2%	2%	2%	1%	2%	3%
							grade 6 events	2006	2168	1950	2416	2500	83093
								2%	2%	1%	1%	2%	37%
							grade 7 events	82603	80562	87177	87163	85560	62005
								86%	85%	87%	61%	85%	27%

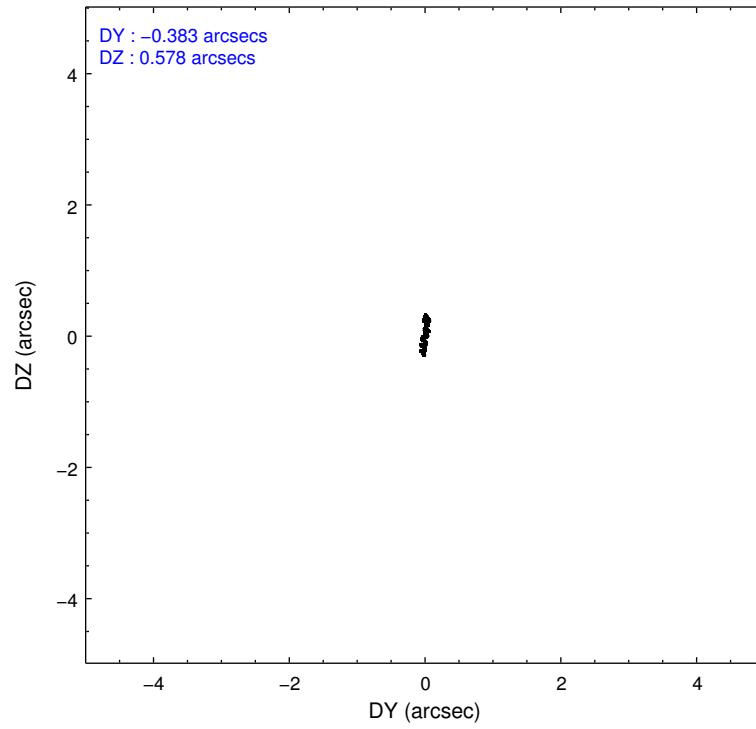
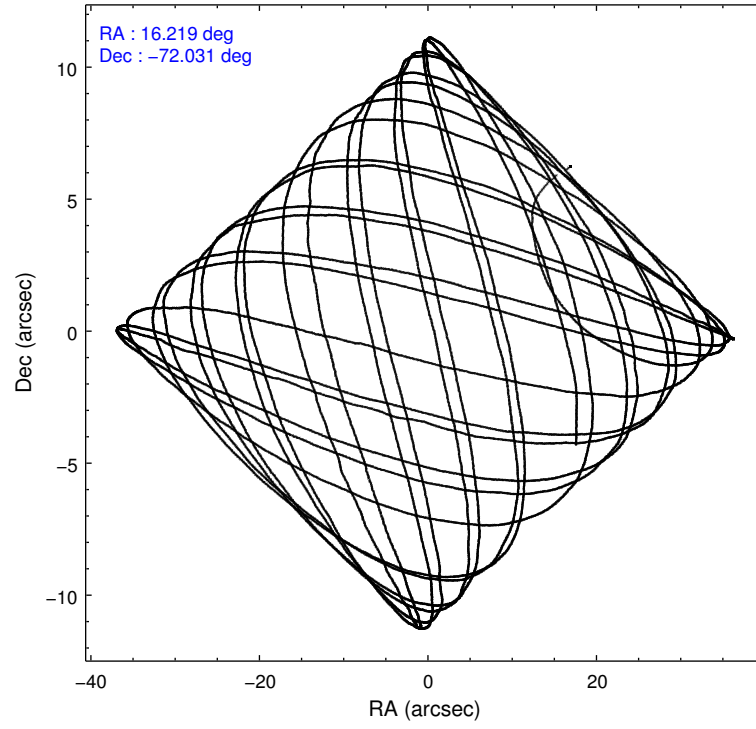


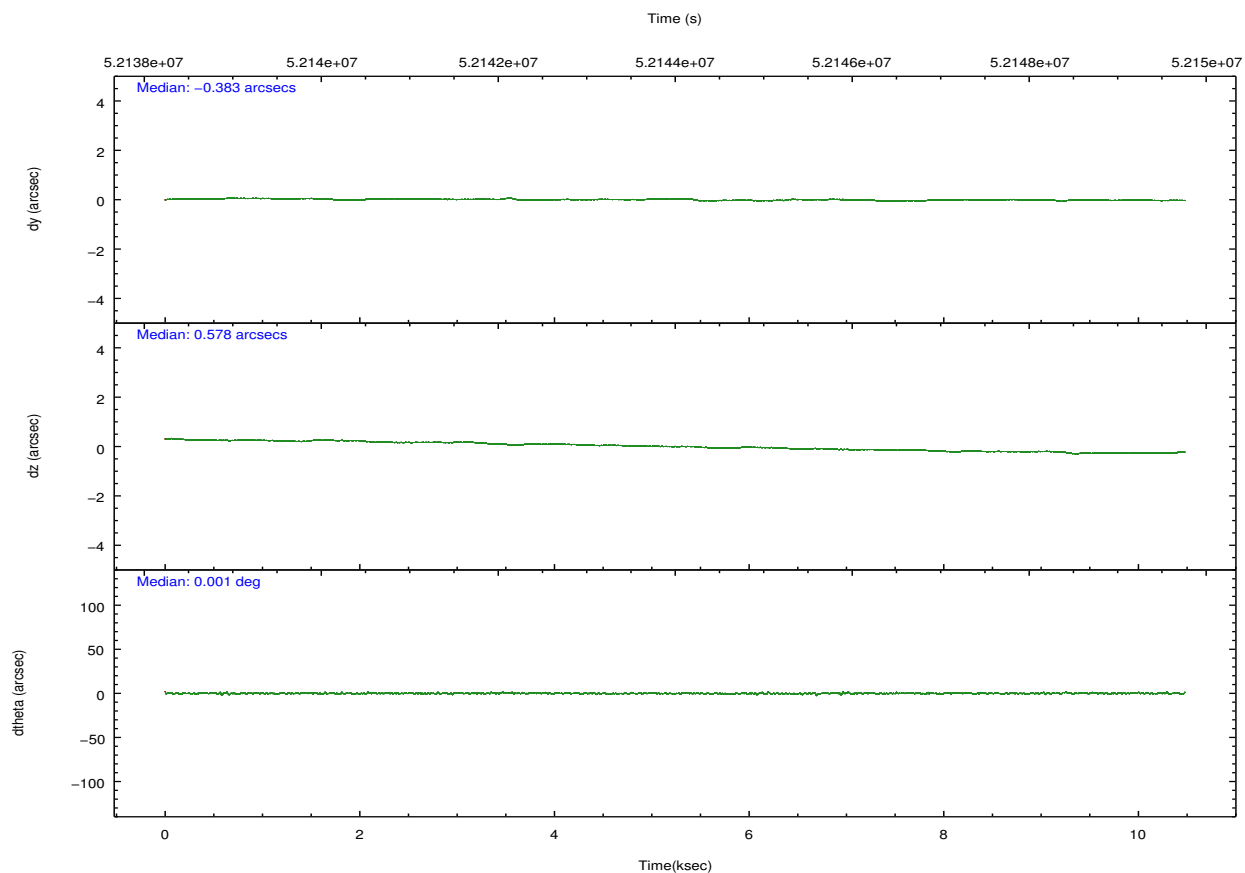
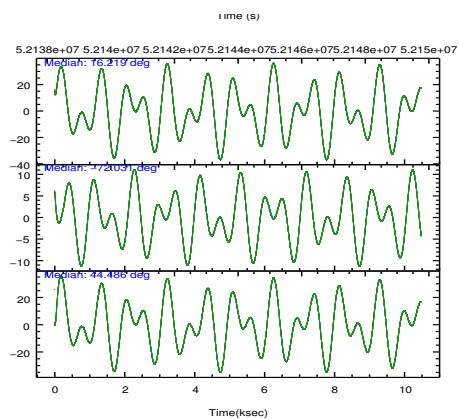
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
Pointing RA	16.191551	16.21834451892155
Pointing Dec	-72.057585	-72.03087902639101
Pointing Roll	44.253991	44.4881463911924
Window start time	49852864.184000	49852864.184000
Window stop time	55036864.184000	55036864.184000
SIM focus pos (mm)	-0.782348	-0.7809083437167272
SIM defocus (mm)	0	0.001439871863259334
SIM translation stage pos (mm)	-233.592463	-233.5874344608287
SIM translation stage offset (mm)	0	-0.005018542100998502
Observation start time	52139238.184000	52138113.923201
Observation start date	1999-08-27T11:06:14	1999-08-27T10:48:33
Observation end time	52149238.184000	52149372.523606
Observation end date	1999-08-27T13:52:54	1999-08-27T13:56:12
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
Primary exposure time	0.000000	3.2

## 2.3 Aspect



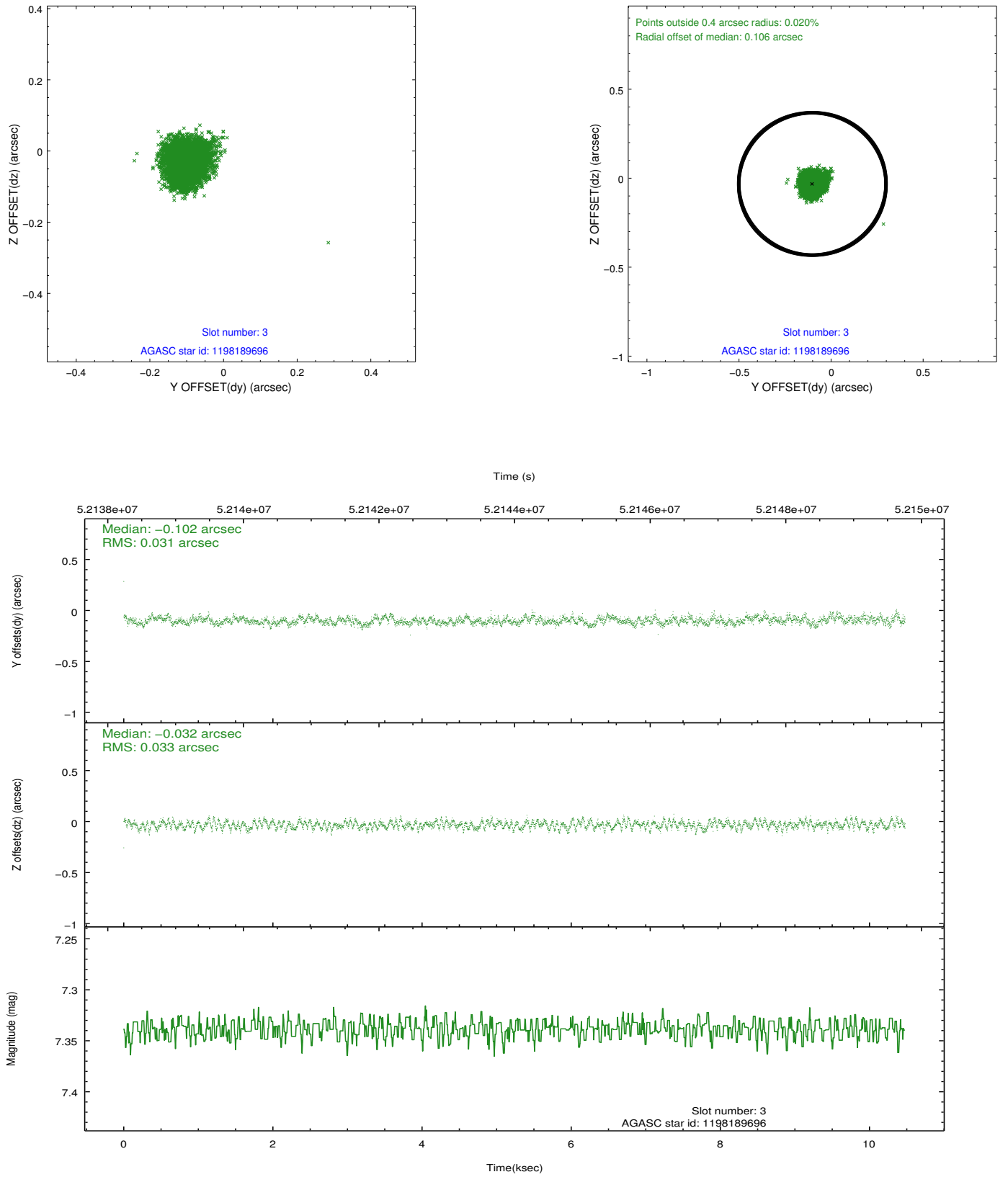


Slot Statistics

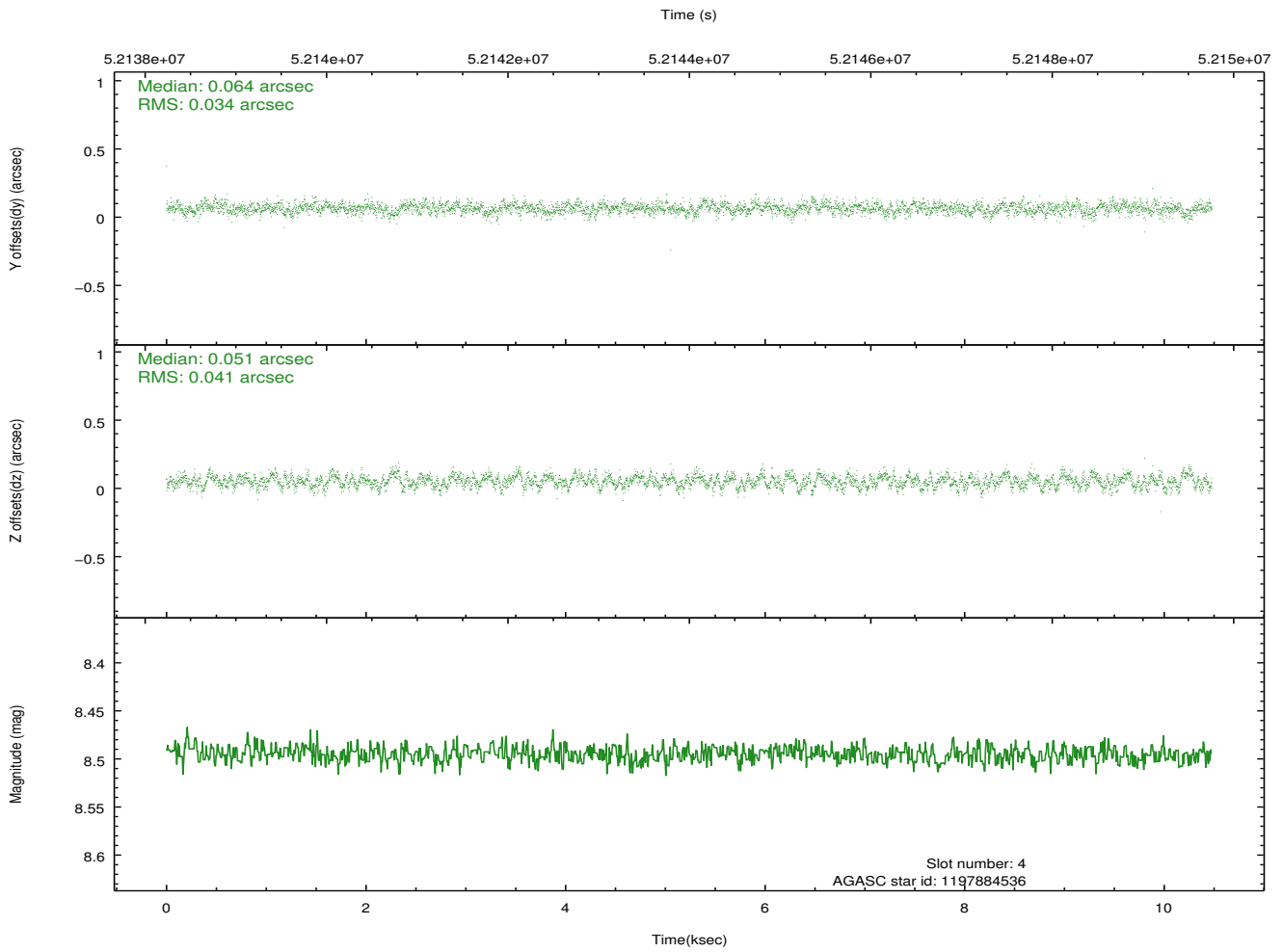
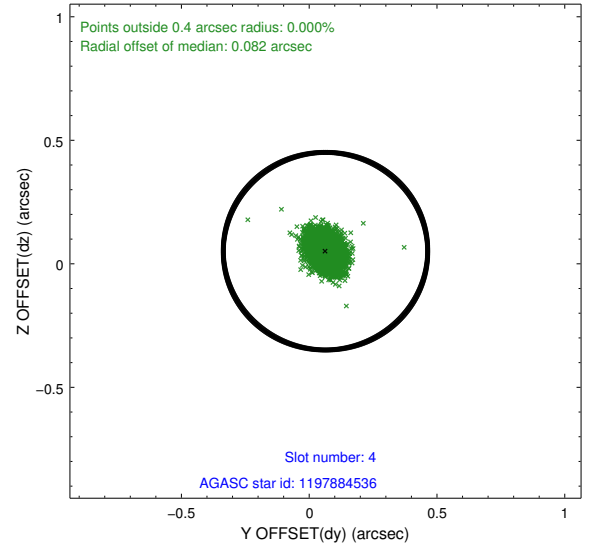
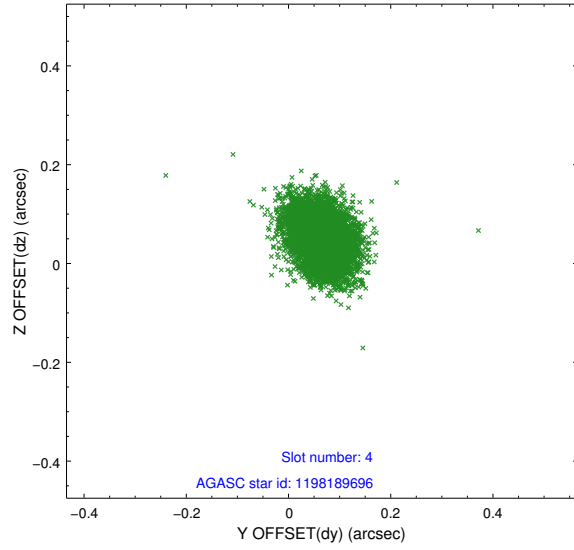
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.21	5112	-0.037	0.041	0.012	0.020	0.000000	0.000000	-753.98	-830.08
1	FID	ACIS-I-4	7.23	5112	0.117	0.018	0.008	0.015	0.000000	0.000000	2160.25	1075.83
2	FID	ACIS-I-5	7.23	5112	-0.181	0.009	0.011	0.016	0.000000	0.000000	-1807.63	1074.07
3	GUIDE	1198189696	7.34	5112	-0.102	-0.032	0.049	0.076	15.223750	-72.697522	-2356.35	-932.11
4	GUIDE	1197884536	8.50	5112	0.064	0.051	0.057	0.091	17.160729	-71.835289	1330.39	-191.12
5	GUIDE	1197878768	9.63	5105	0.062	0.065	0.102	0.158	16.656786	-71.304581	2274.45	1566.75
6	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	1197885104	9.36	5106	-0.025	-0.088	0.085	0.136	17.845067	-72.189368	955.37	-1626.85

## 2.4 Star Slots

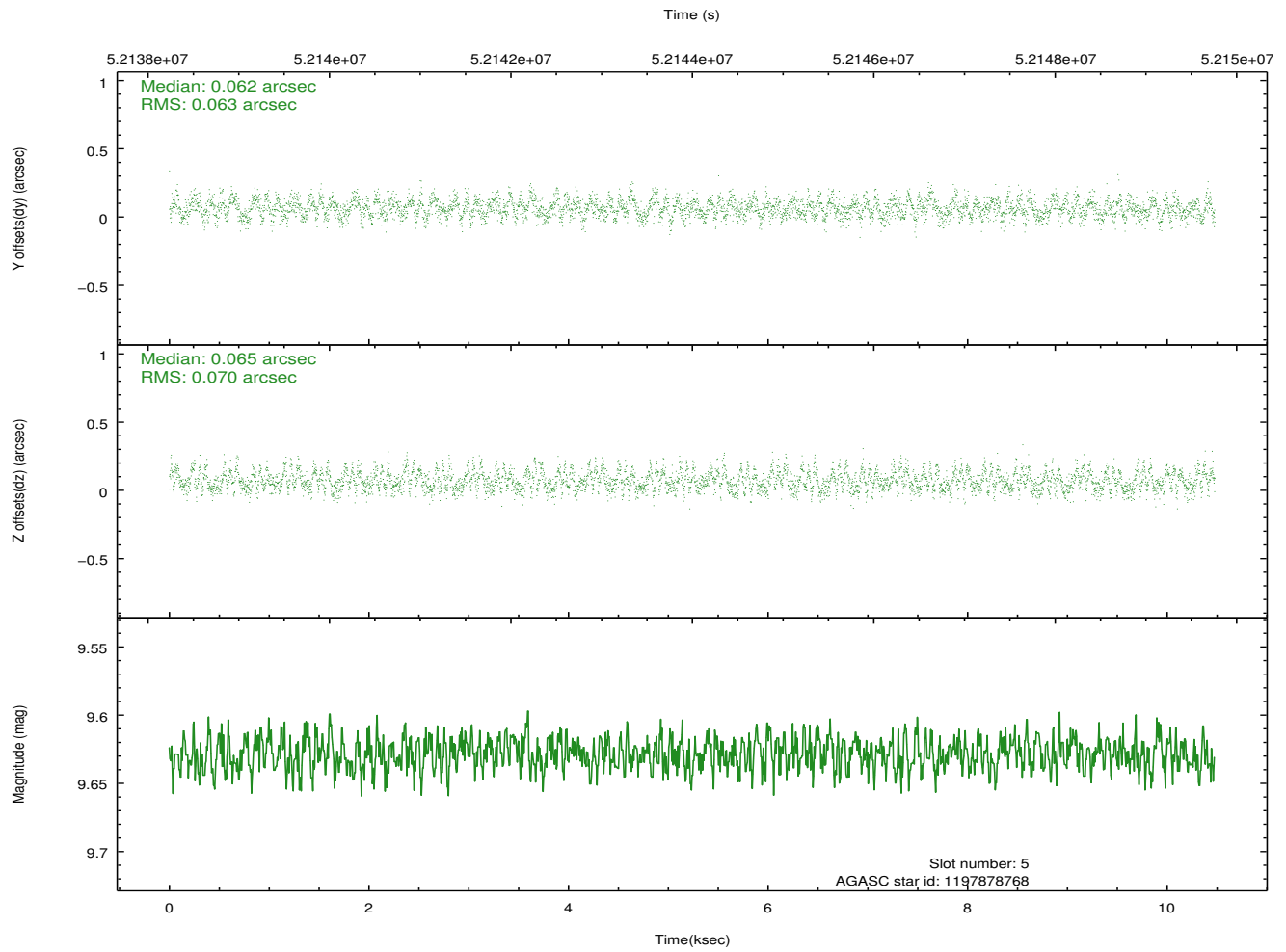
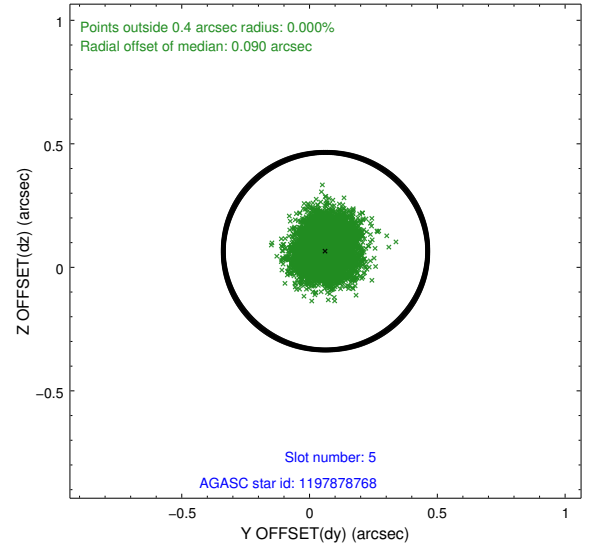
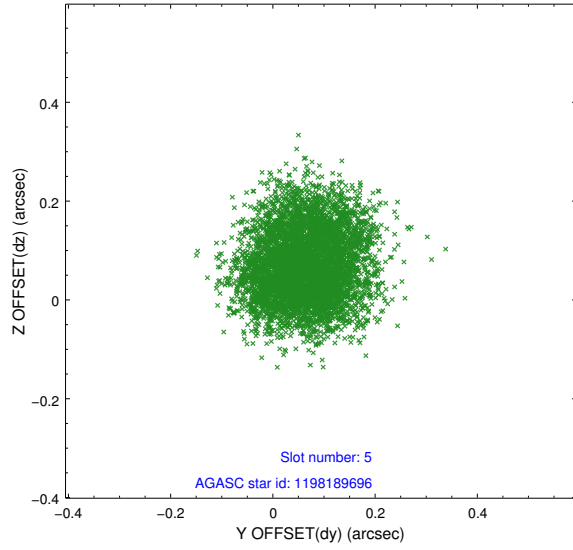
### 2.4.1 Slot 3



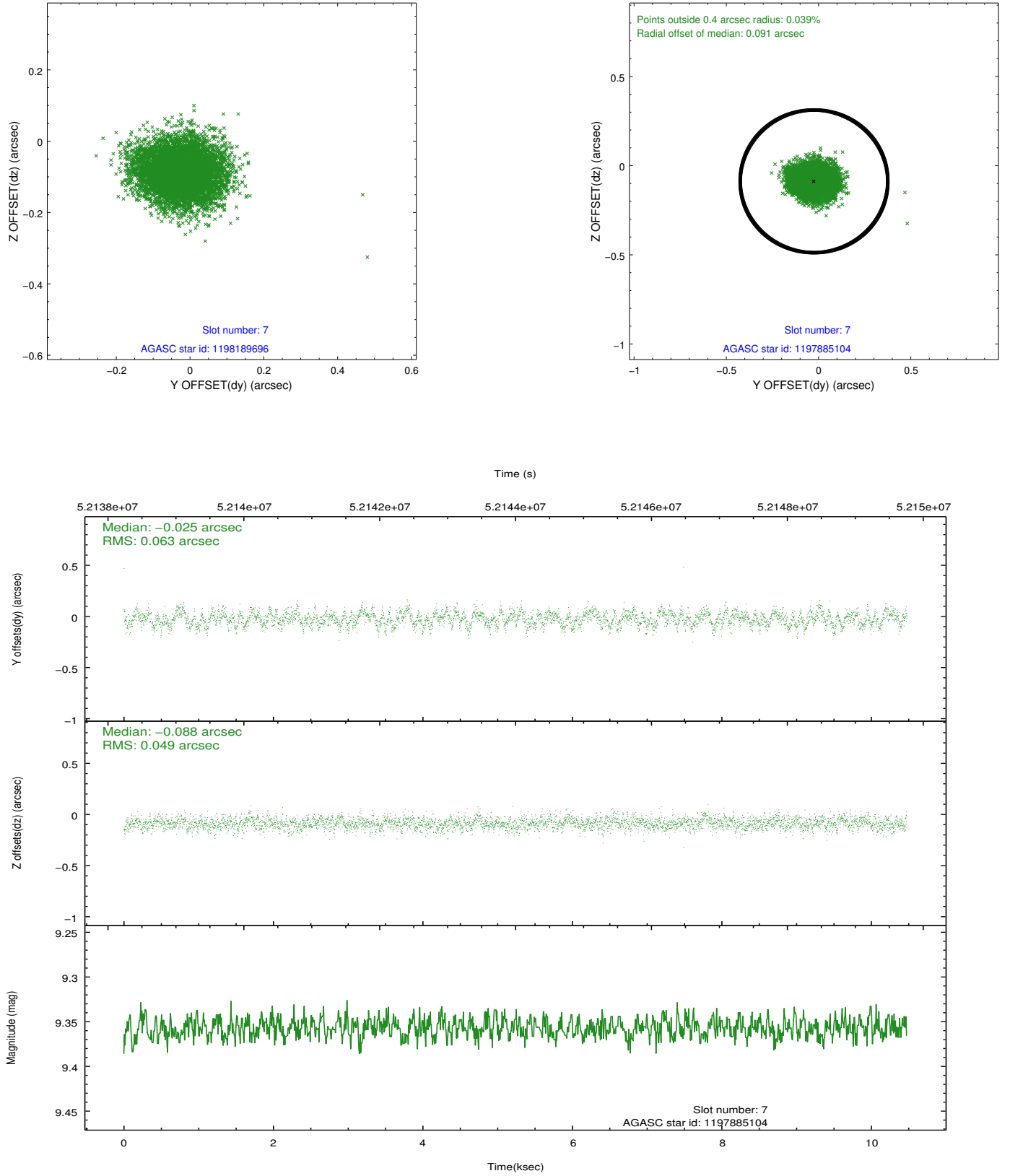
## 2.4.2 Slot 4



### 2.4.3 Slot 5



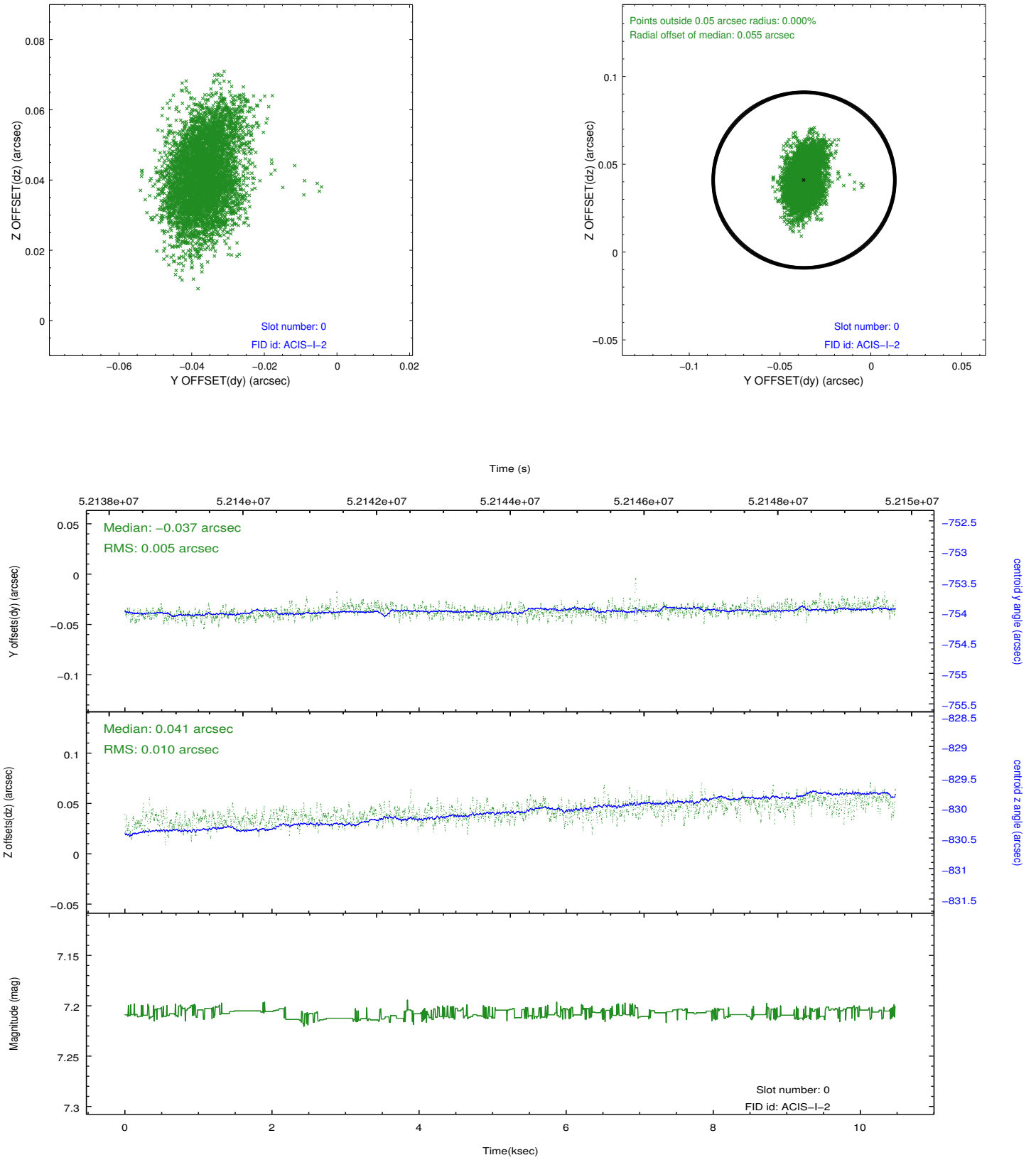
## 2.4.4 Slot 7



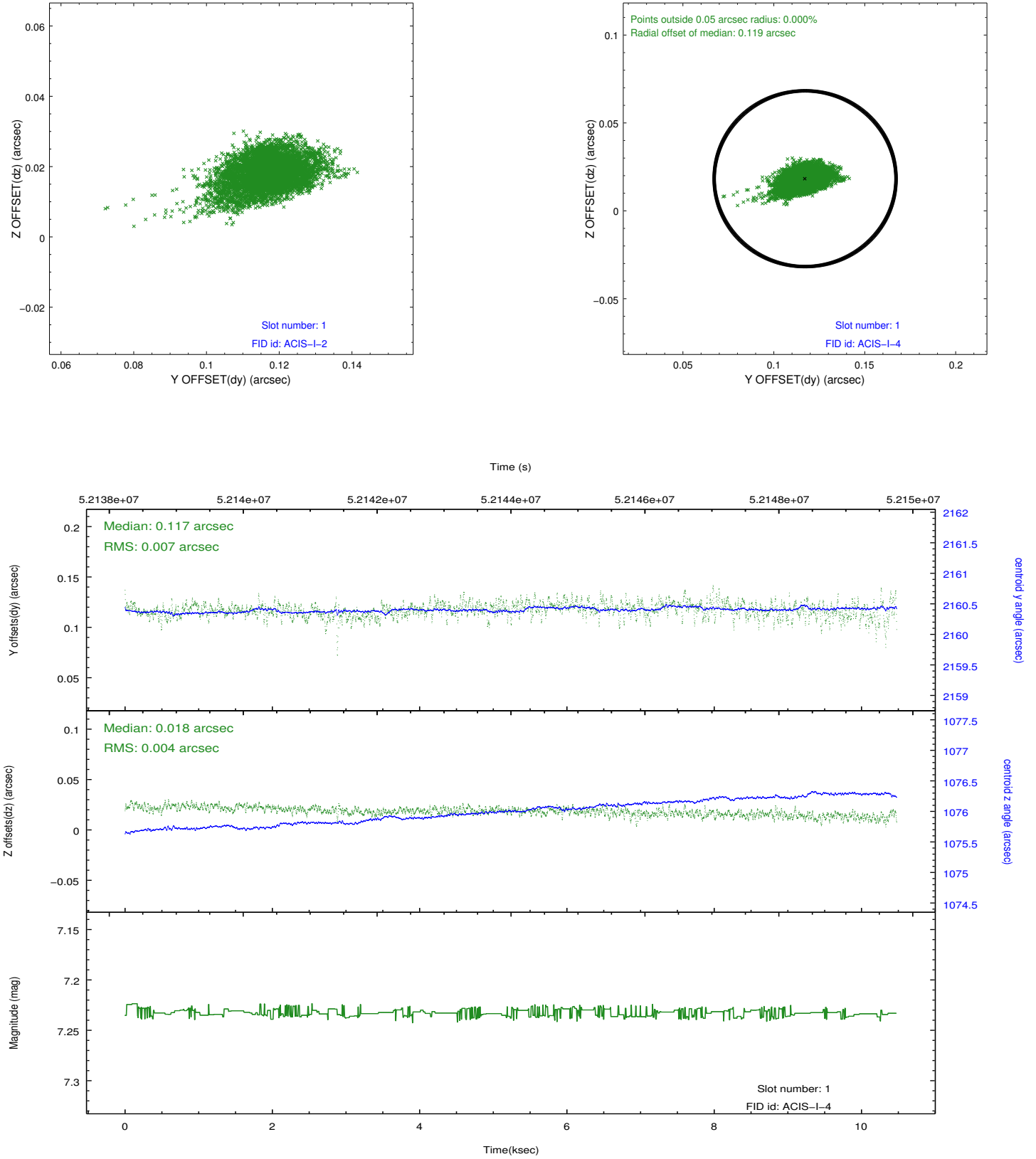


## 2.5 FID Slots

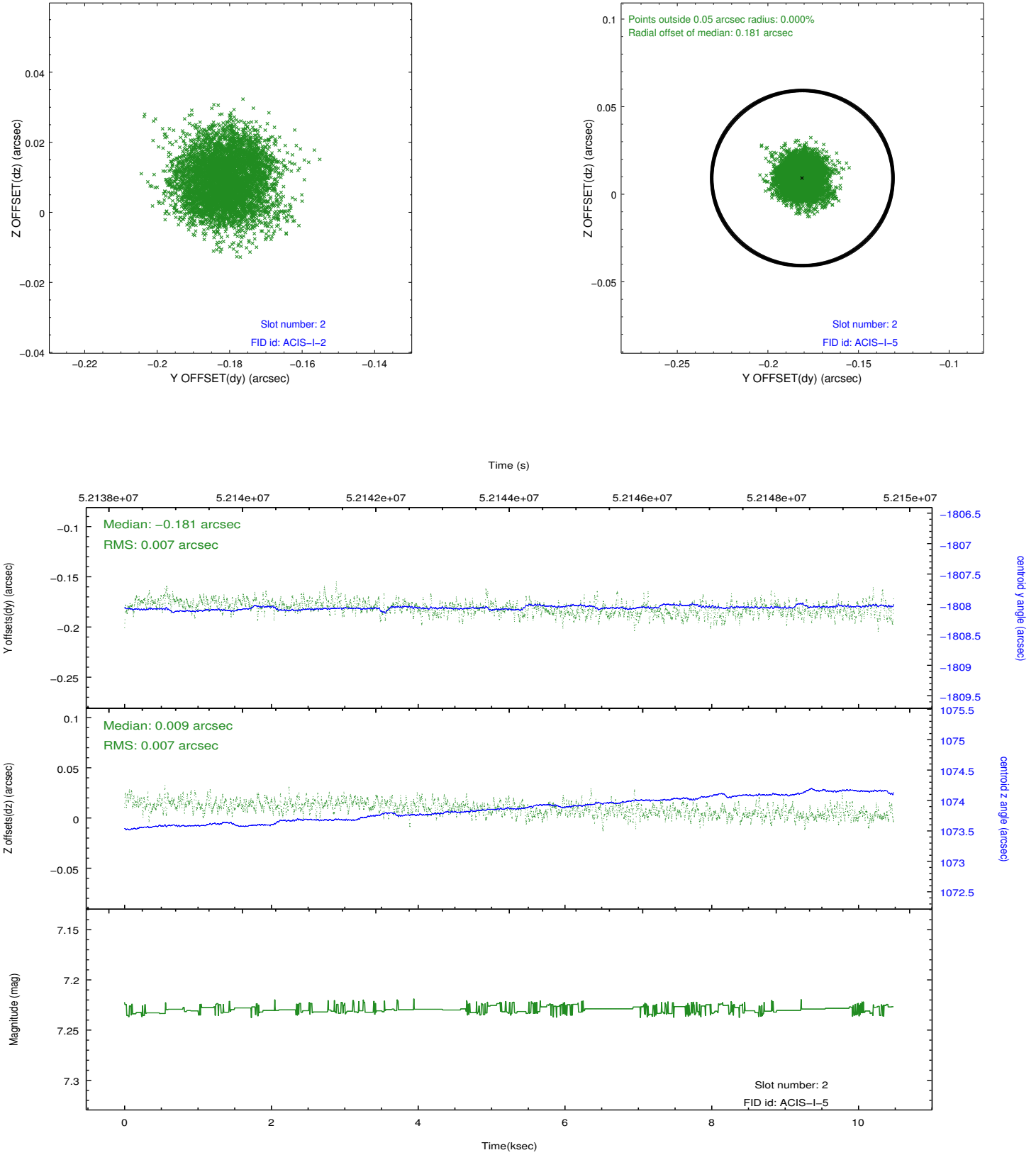
### 2.5.1 Slot 0



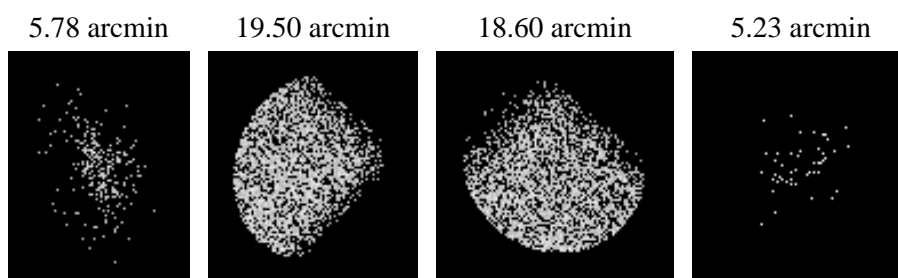
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.756

## A.2 Comments

ACIS chip response to soft X-rays.

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The guide star in slot 6 was not acquired for this observation. The aspect solution is not expected to be degraded by removing one guide star from the solution.===

The focal plane temperature is approximately -100 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T\_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.