

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 1441 - L2 Version 4

Chandra X-Ray Center

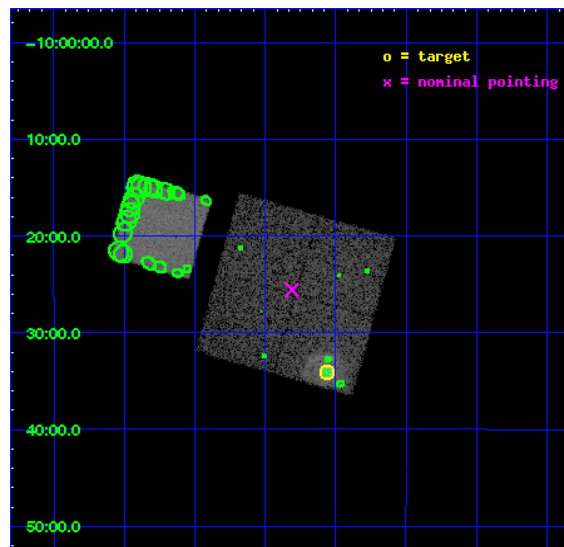
L2 Processing Date : Nov 24 2009

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# 1 Front

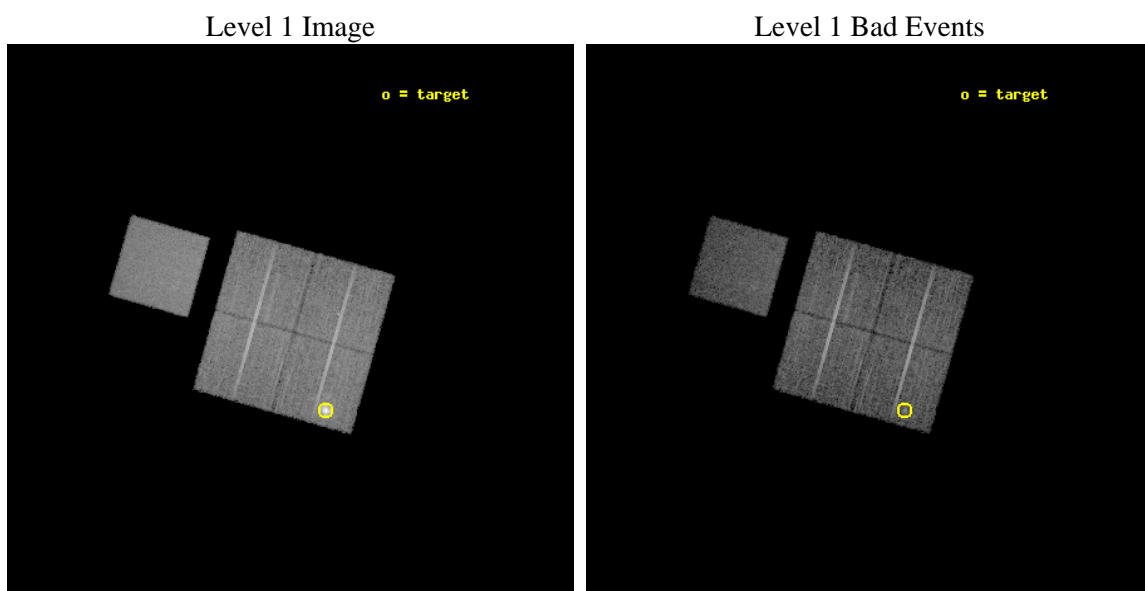
seq_num	580391	Sequence number
obs_id	1441	Observation id
title	ACIS CHIP RESPONSE TO A CONTINUUM SOURCE	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-0.9 [Chip I0, T=110, Offsets=7,-6,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA
dec_targ	-10.568528	Observer's specified target Dec
ra_nom	278.45262080922	Nominal RA
dec_nom	-10.426453252637	Nominal Dec
roll_nom	285.84291432115	Nominal Roll
revision	4	Processing version of data
ontime	9164.8000085354	Sum of GTIs [s]
livetime	9048.7497924473	Livetime [s]
ontime0	9164.8000085354	Sum of GTIs [s]
ontime1	9164.8000085354	Sum of GTIs [s]
ontime2	9164.8000085354	Sum of GTIs [s]
ontime3	9164.8000085354	Sum of GTIs [s]
ontime7	9164.8000085354	Sum of GTIs [s]
l2events	86200	Number of level 2 events



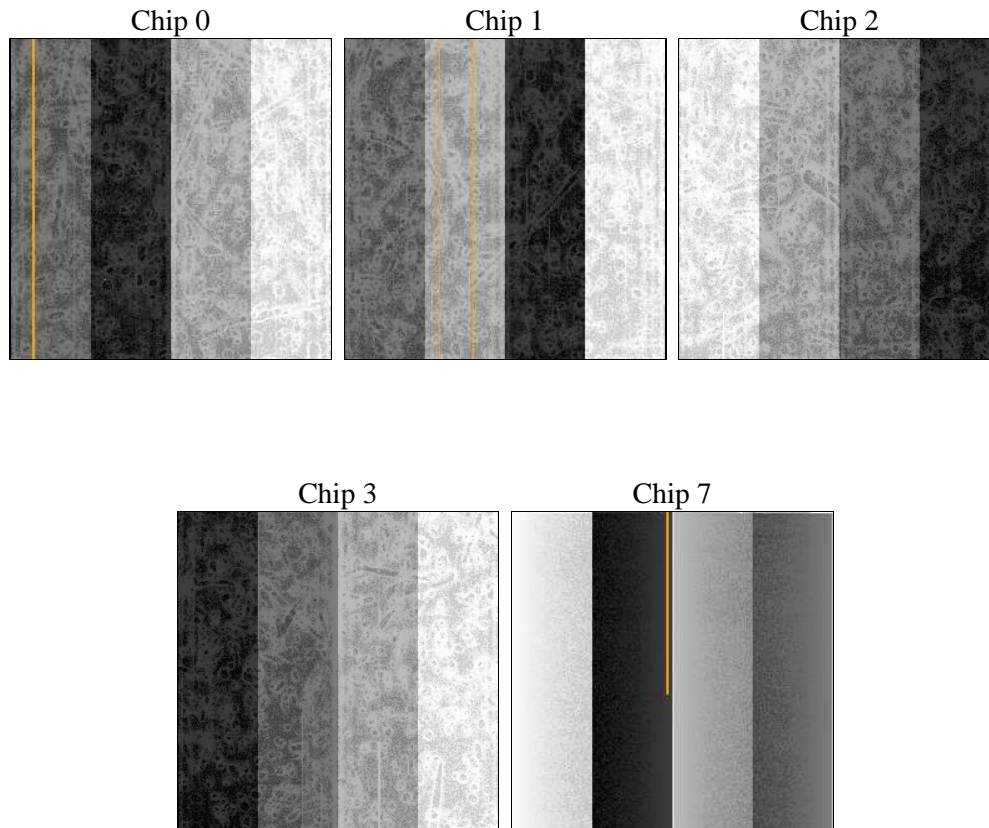
## 2 OBI

### 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	8.1.1	ASCDS version number	ontime	9164.8000085354	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime0	9164.8000085354	Sum of GTIs [s]
date	2009-11-24T10:58:32	Date and time of file creation	ontime1	9164.8000085354	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	9164.8000085354	Sum of GTIs [s]
			ontime3	9164.8000085354	Sum of GTIs [s]
			ontime7	9164.8000085354	Sum of GTIs [s]
			l1events	423721	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	100236	77456	79915	79451	86663
rejected events	68615	68176	72389	71682	52610
rejected %	68%	88%	90%	90%	60%

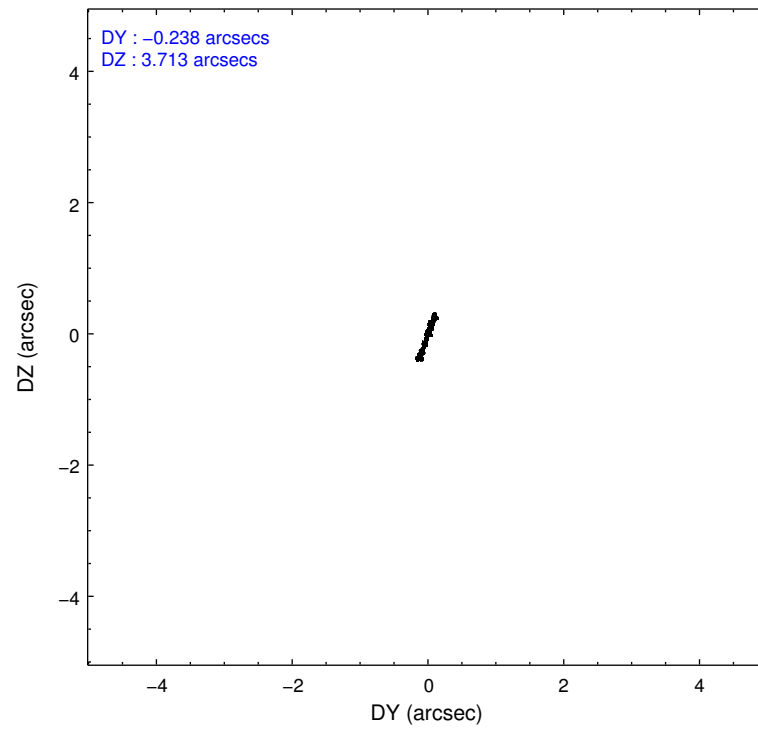
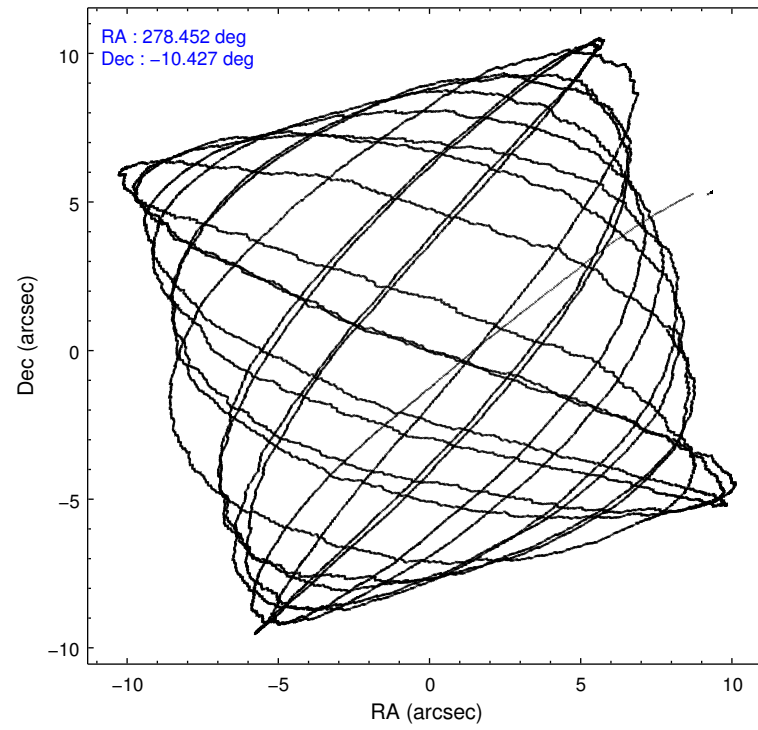
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	19299	2631	1916	1864	2416
	19%	3%	2%	2%	2%
grade 1 events	116	18	18	19	57
	0%	0%	0%	0%	0%
grade 2 events	6237	3276	2898	3050	7208
	6%	4%	3%	3%	8%
grade 3 events	1624	693	488	499	2072
	1%	0%	0%	0%	2%
grade 4 events	1483	660	465	498	1874
	1%	0%	0%	0%	2%
grade 5 events	1680	1687	1376	1478	4857
	1%	2%	1%	1%	5%
grade 6 events	3007	2026	1763	1863	20504
	2%	2%	2%	2%	23%
grade 7 events	66790	66465	70991	70180	47675
	66%	85%	88%	88%	55%

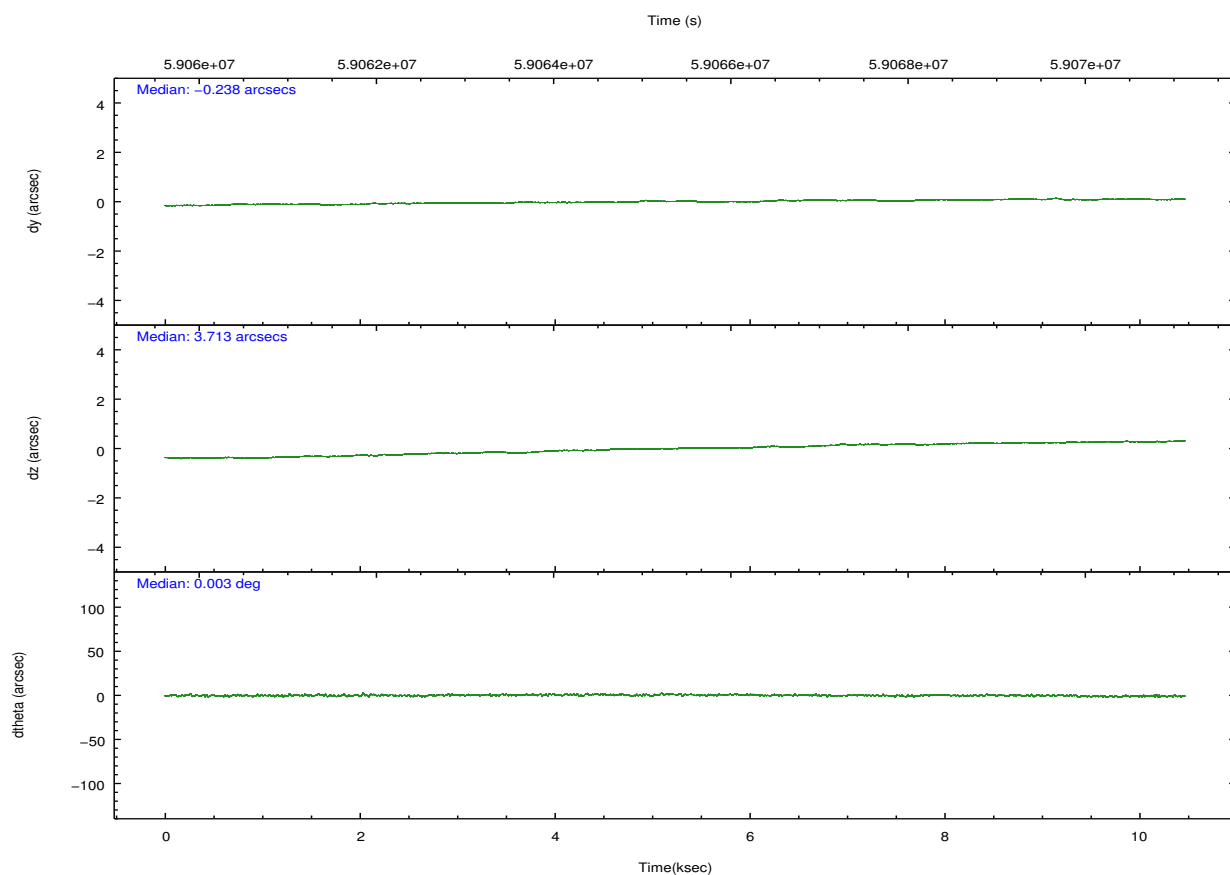
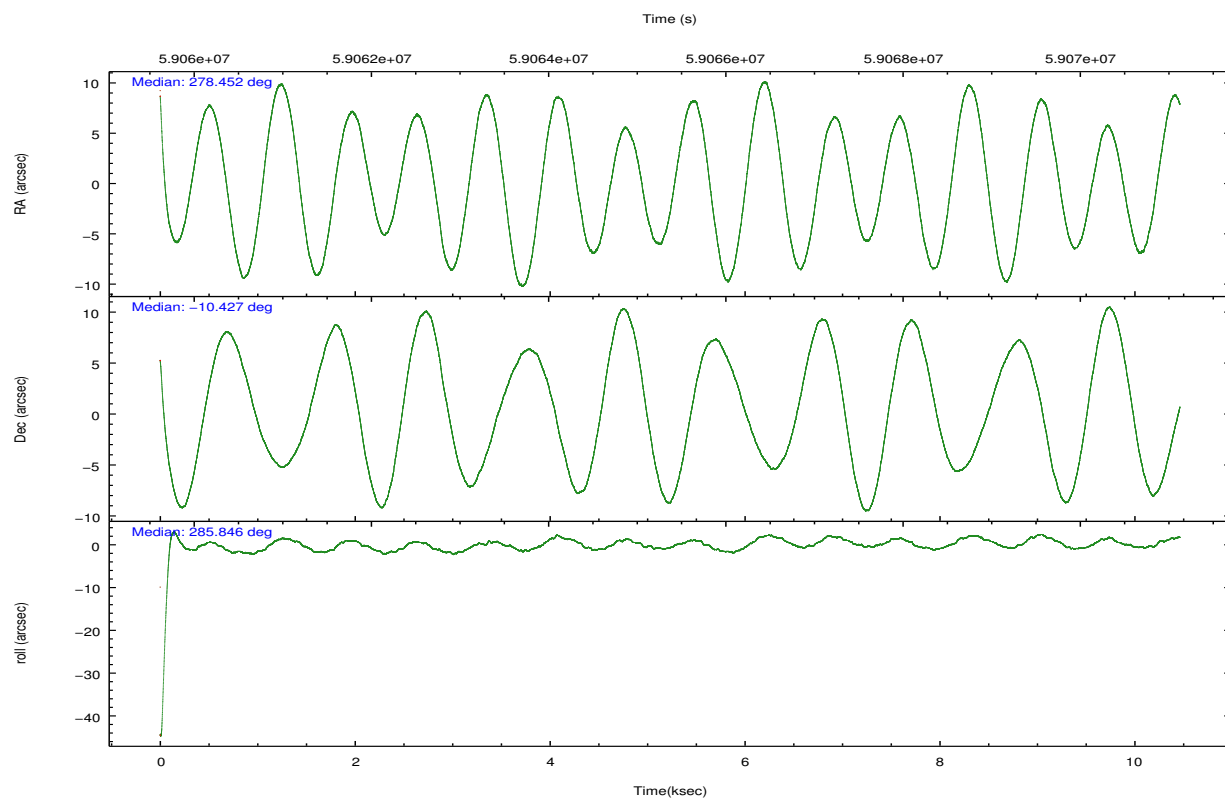


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-01237	ACIS-01237	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
Pointing RA	278.432644	278.4526208092216	Subarray requested	NONE	NONE
Pointing Dec	-10.406813	-10.42645325263738	Alternating exposures requested	N	N
Pointing Roll	285.630684	285.8429143211488	Primary exposure time	0.000000	3.2
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	59060602.184000	59059535.327698			
Observation start date	1999-11-15T13:42:18	1999-11-15T13:25:35			
Observation end time	59070602.184000	59070736.528103			
Observation end date	1999-11-15T16:28:58	1999-11-15T16:32:16			
Read mode	TIMED	TIMED			

## 2.3 Aspect



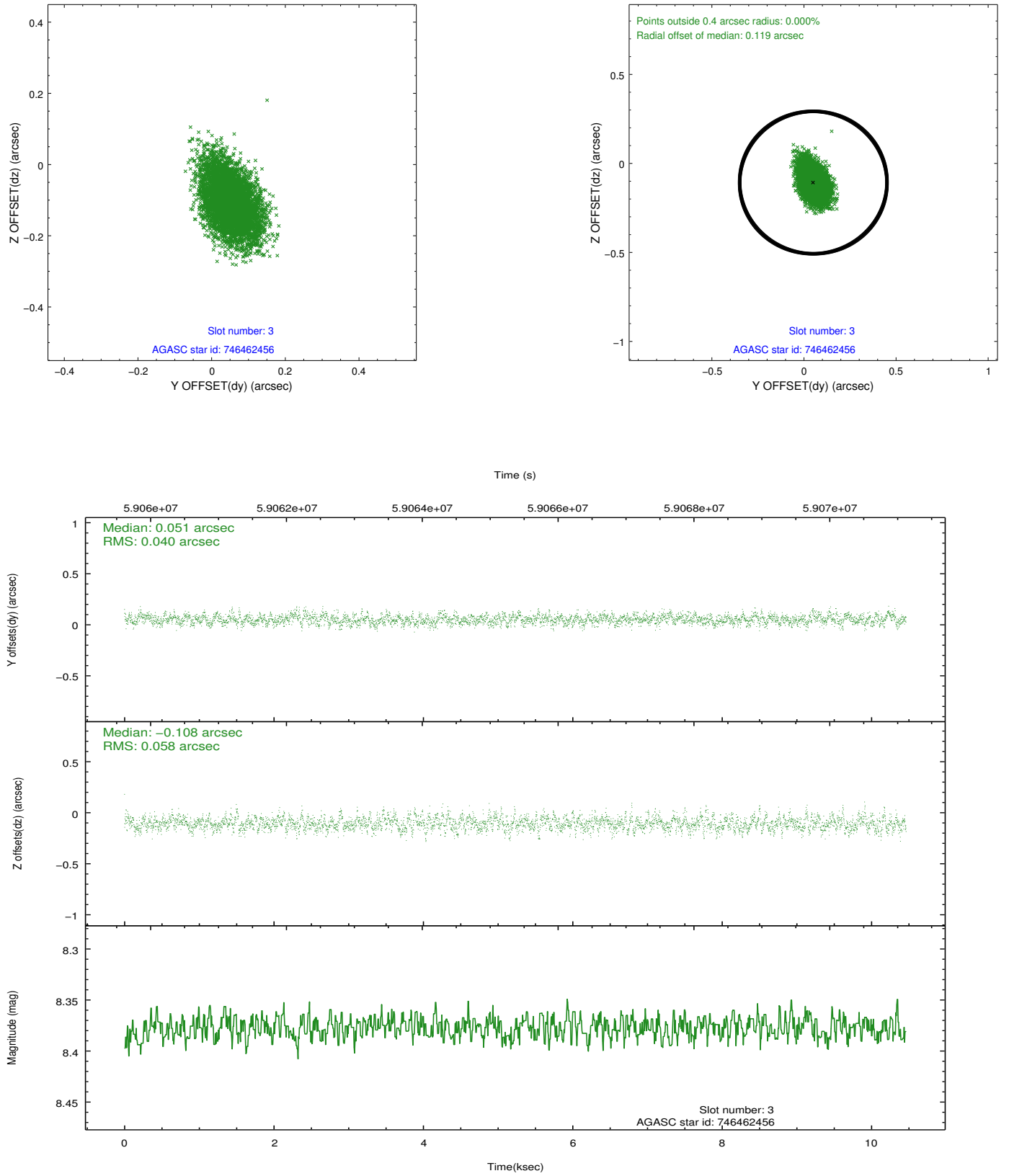


Slot Statistics

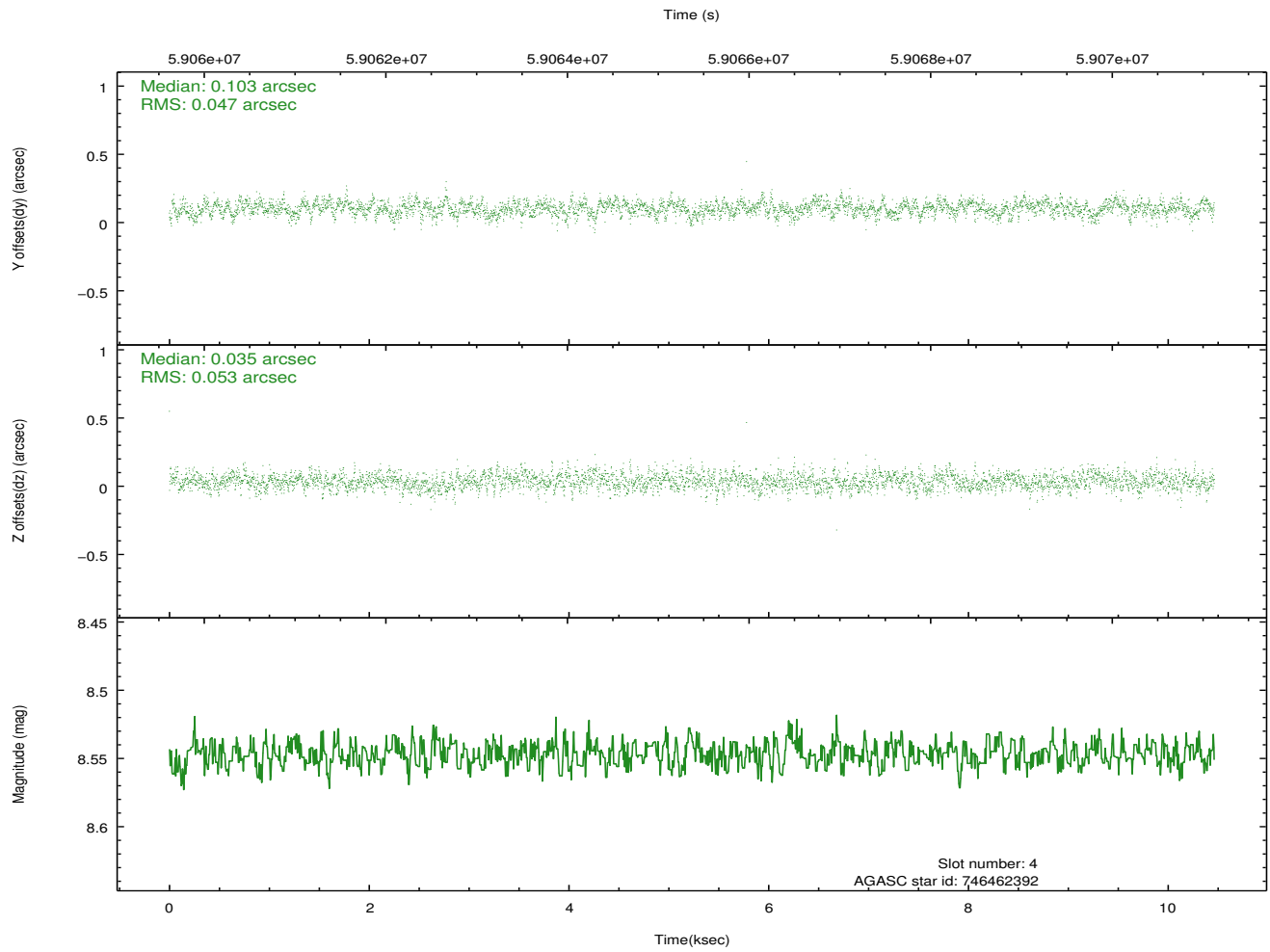
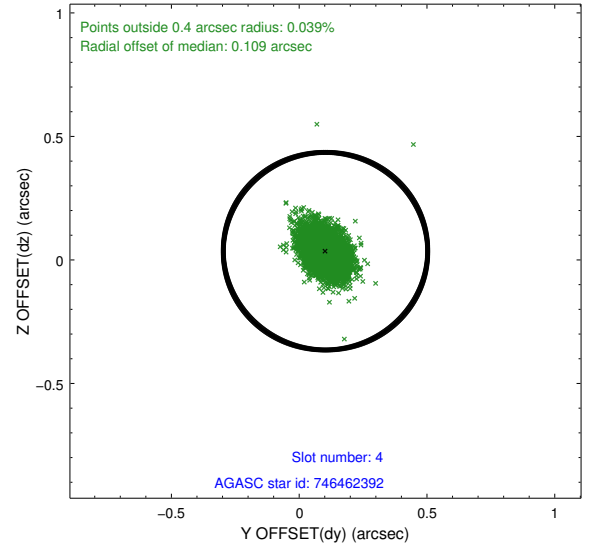
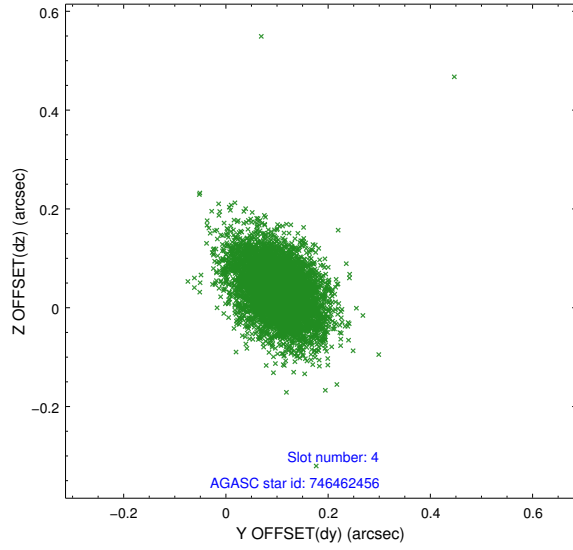
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.19	5104	-0.025	0.081	0.013	0.026	0.000000	0.000000	-754.16	-833.20
1	FID	ACIS-I-4	7.24	5105	0.105	0.002	0.009	0.015	0.000000	0.000000	2160.14	1072.53
2	FID	ACIS-I-5	7.23	5105	-0.181	-0.014	0.011	0.018	0.000000	0.000000	-1807.73	1070.94
3	GUIDE	746462456	8.38	5103	0.051	-0.108	0.072	0.127	278.652171	-10.530173	637.23	628.97
4	GUIDE	746462392	8.55	5104	0.103	0.035	0.073	0.123	279.038421	-10.890715	2256.84	1593.09
5	GUIDE	746460272	8.92	5100	-0.084	0.011	0.078	0.131	278.847488	-10.152127	-485.63	1663.41
6	GUIDE	746460328	9.80	5100	-0.114	0.022	0.119	0.191	278.603974	-9.898096	-1600.08	1079.58
7	GUIDE	746461728	9.77	5099	0.041	0.039	0.111	0.180	278.986921	-10.530755	959.65	1769.35

## 2.4 Star Slots

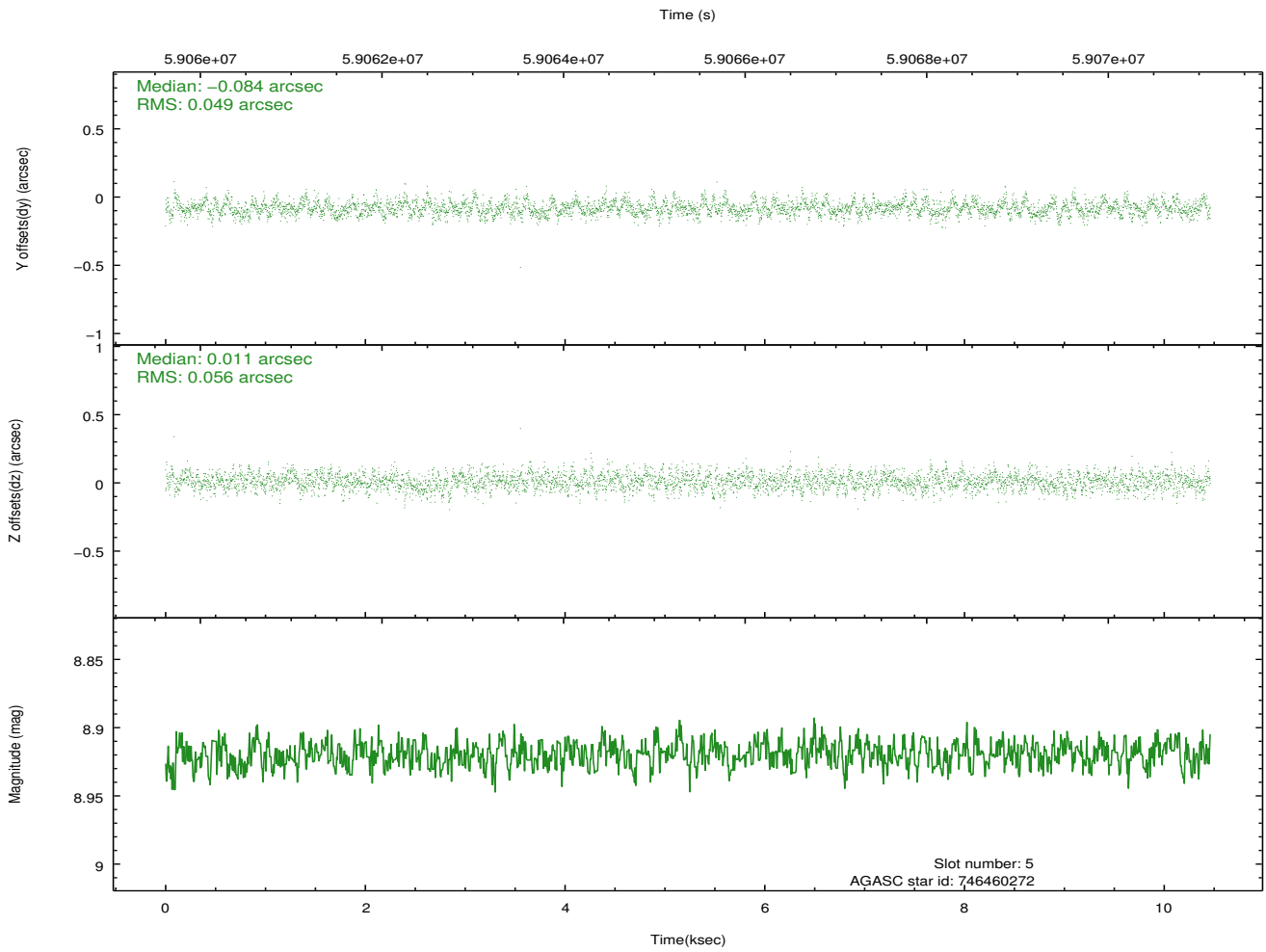
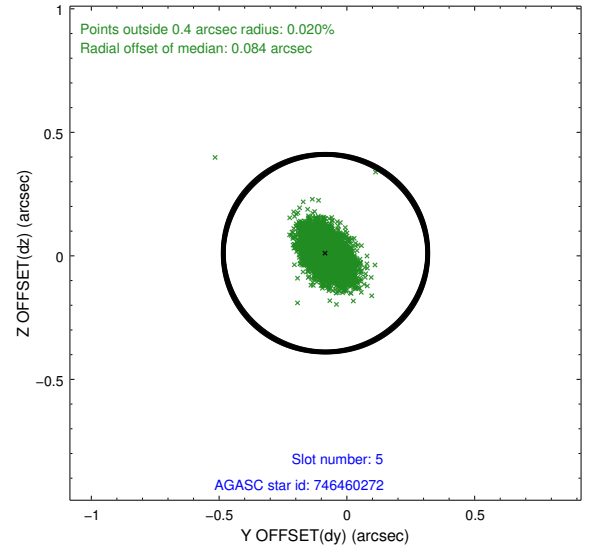
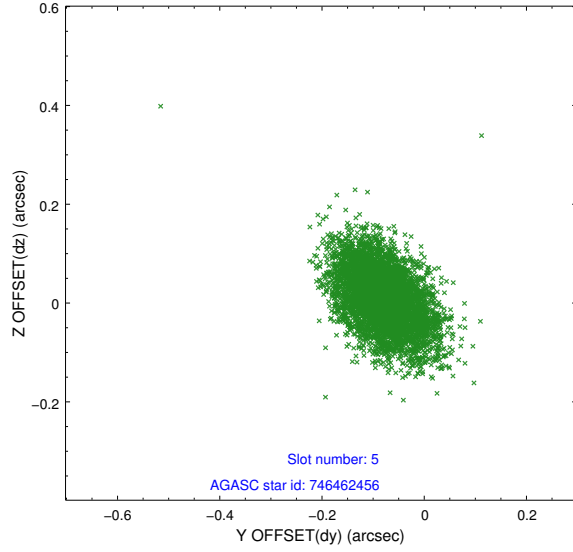
### 2.4.1 Slot 3



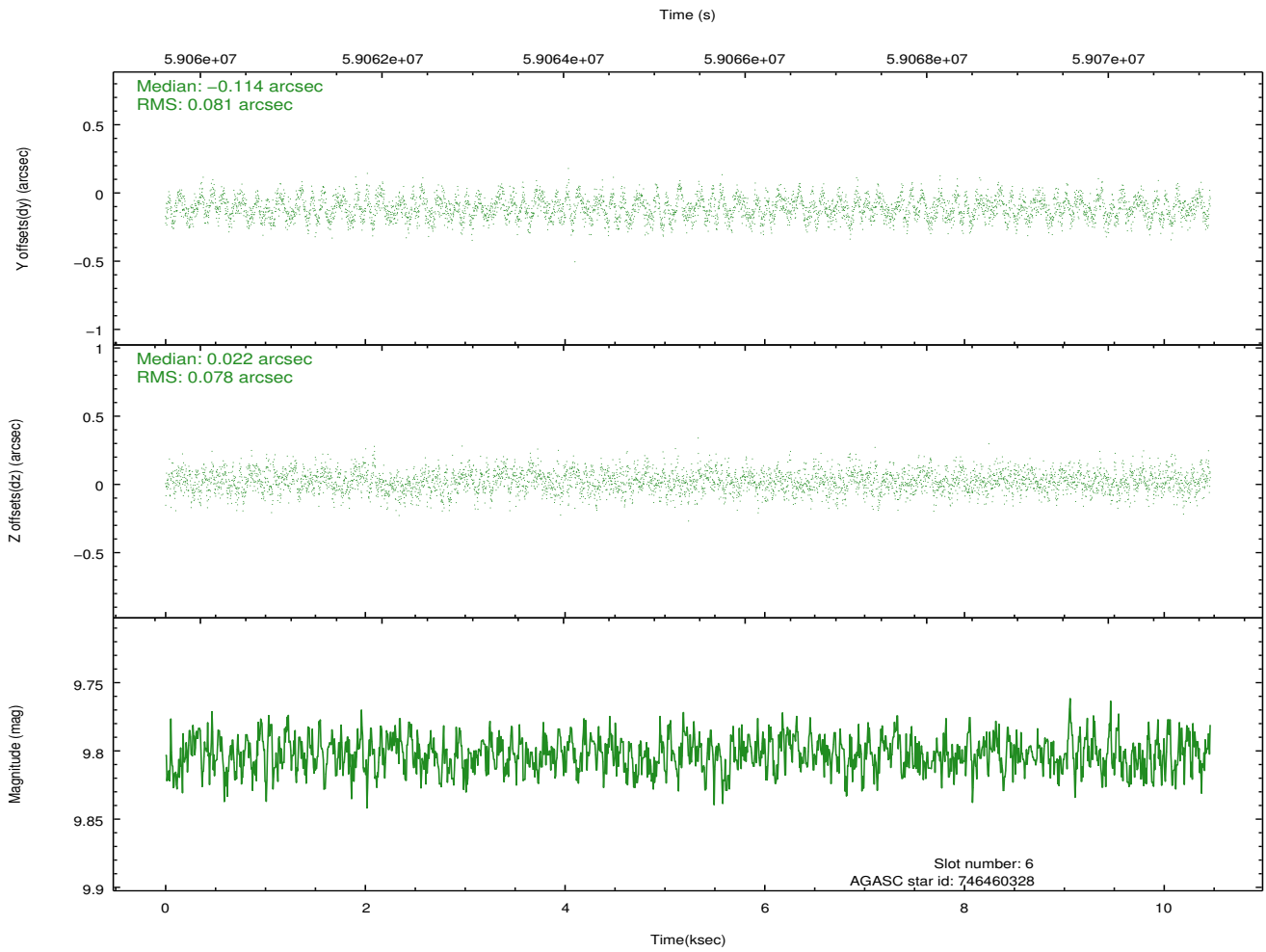
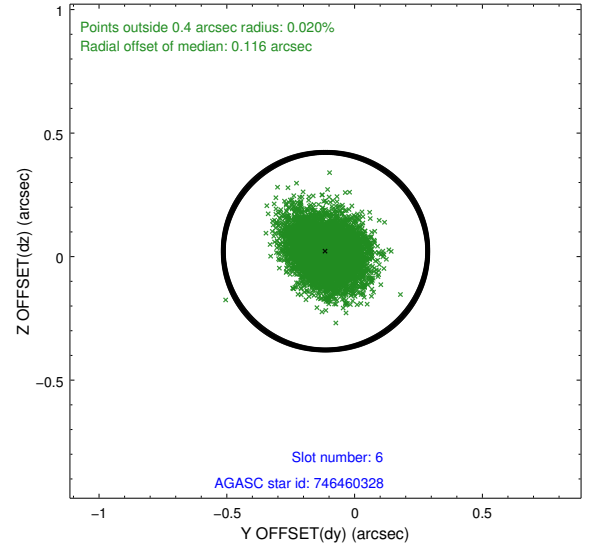
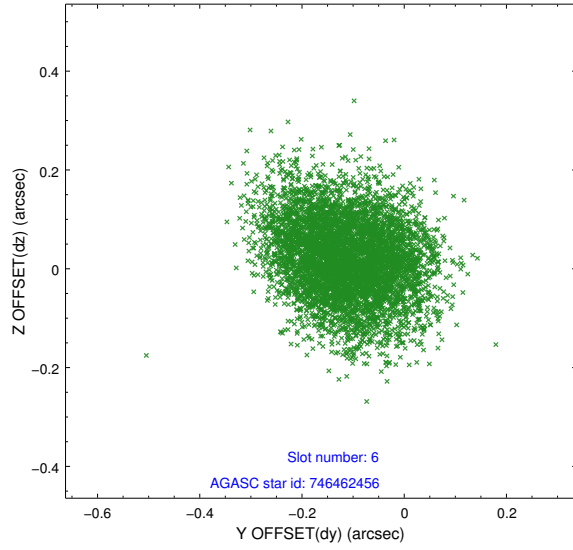
## 2.4.2 Slot 4



### 2.4.3 Slot 5

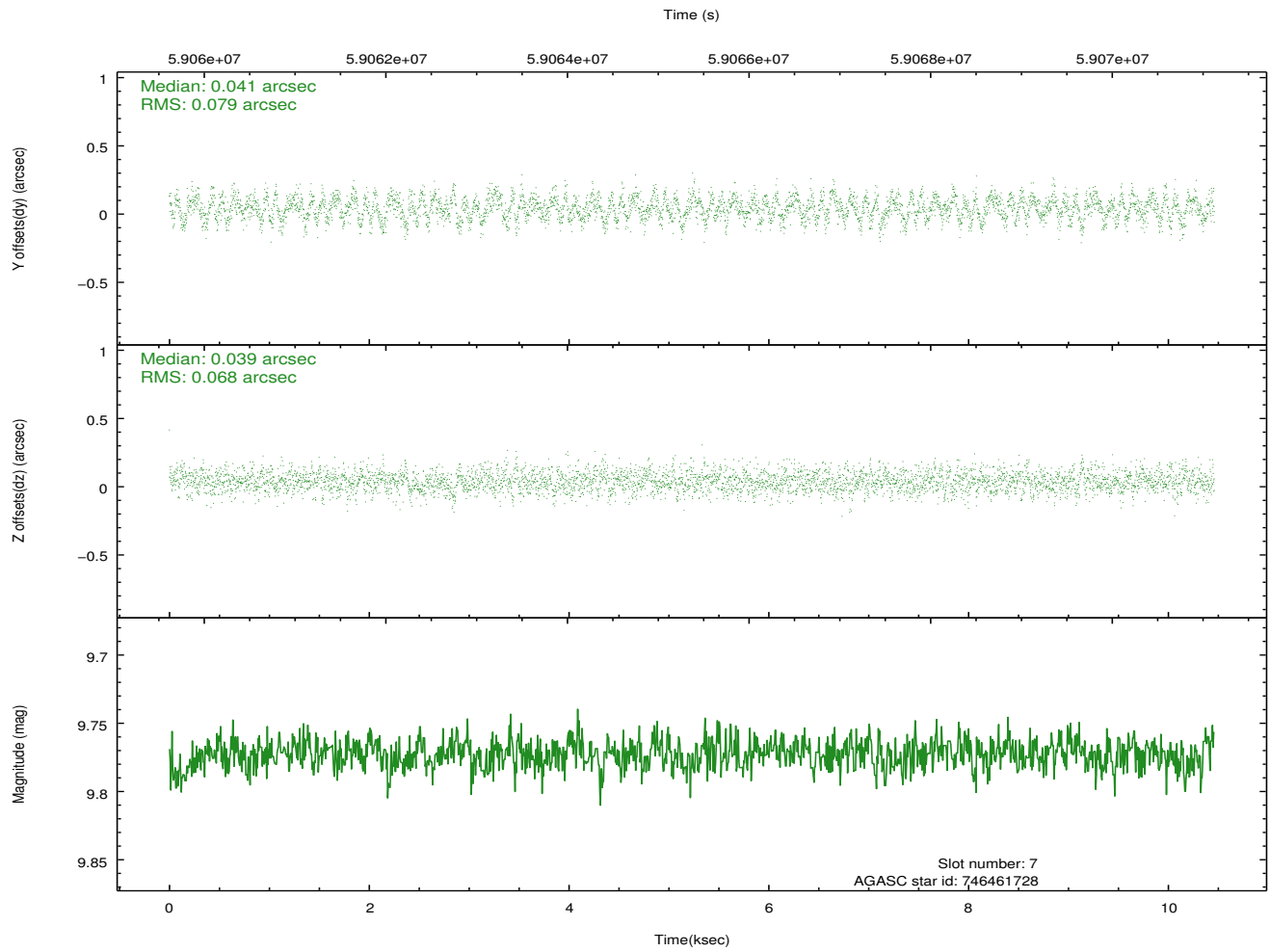
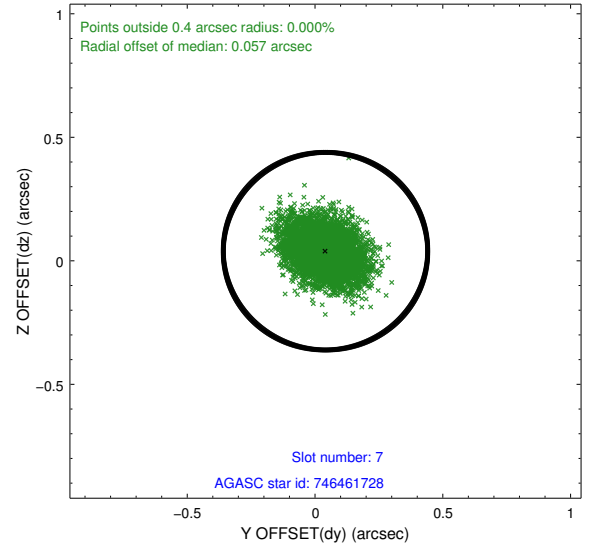
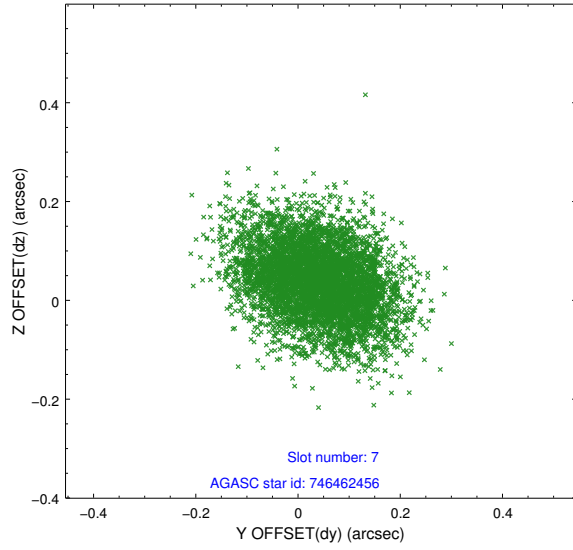


## 2.4.4 Slot 6



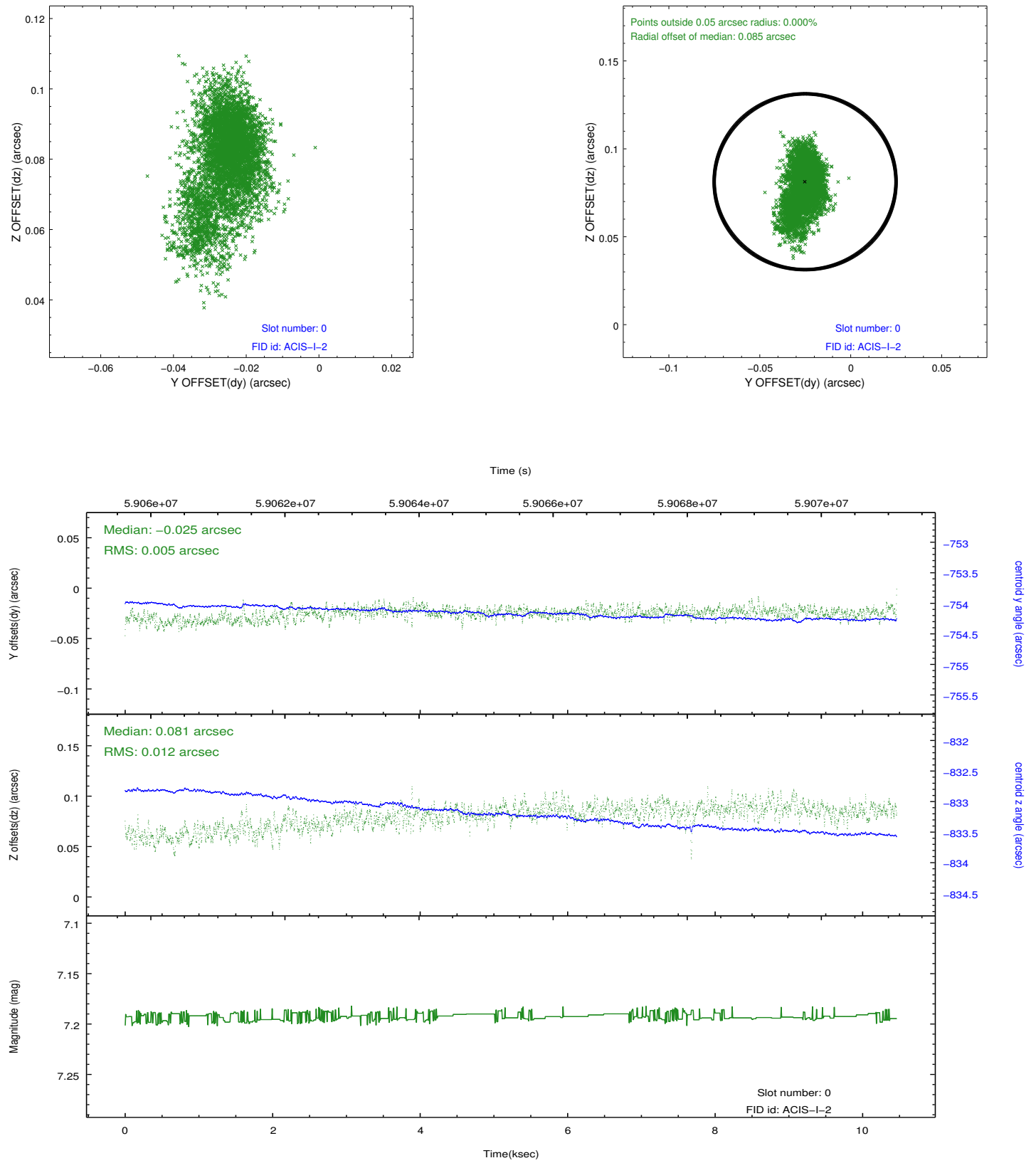


## 2.4.5 Slot 7

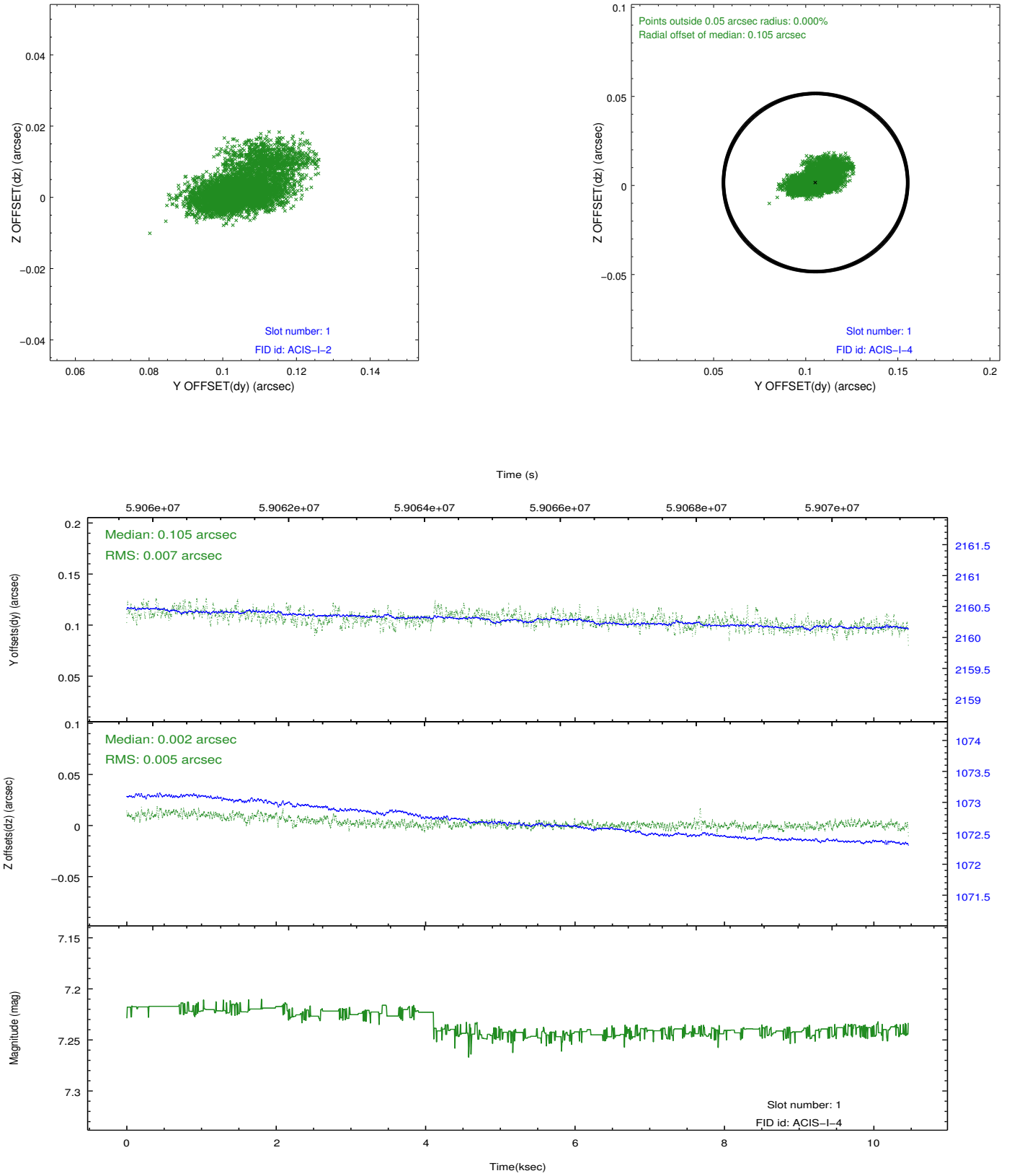


## 2.5 FID Slots

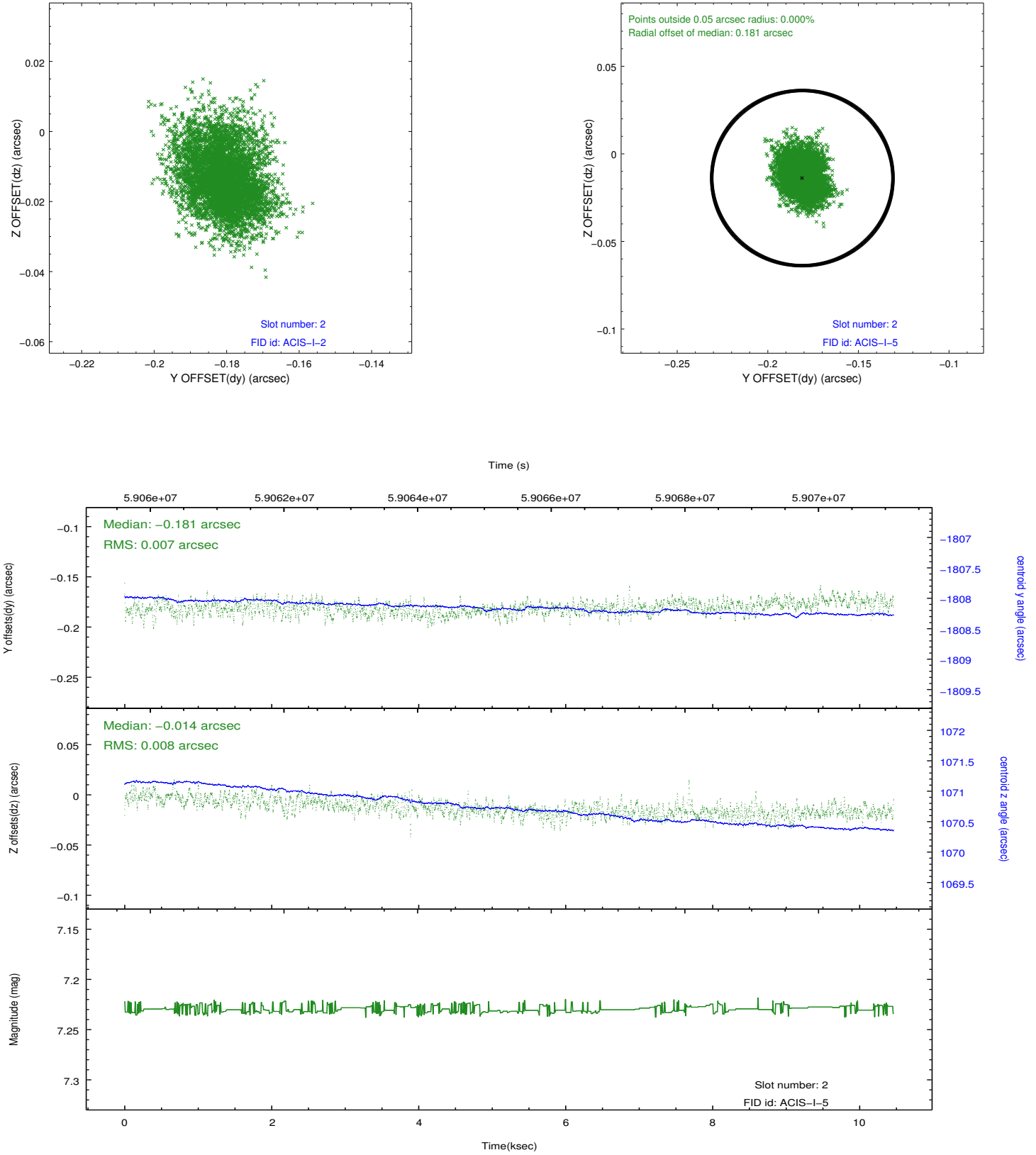
### 2.5.1 Slot 0



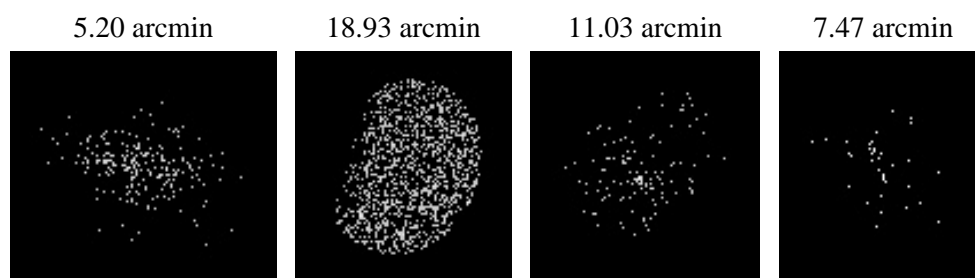
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.03.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.168

## A.2 Comments

Off-axis effective area measurement on chip I0.

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The focal plane temperature is approximately -110 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.