

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 1444 - L2 Version 4

Chandra X-Ray Center

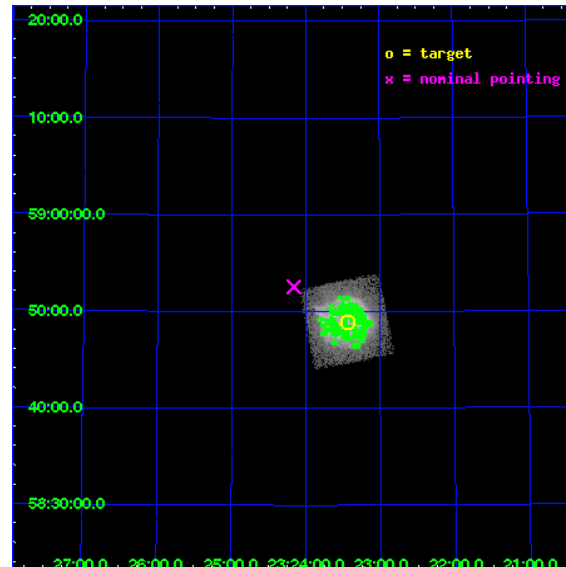
L2 Processing Date : Nov 24 2009

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# 1 Front

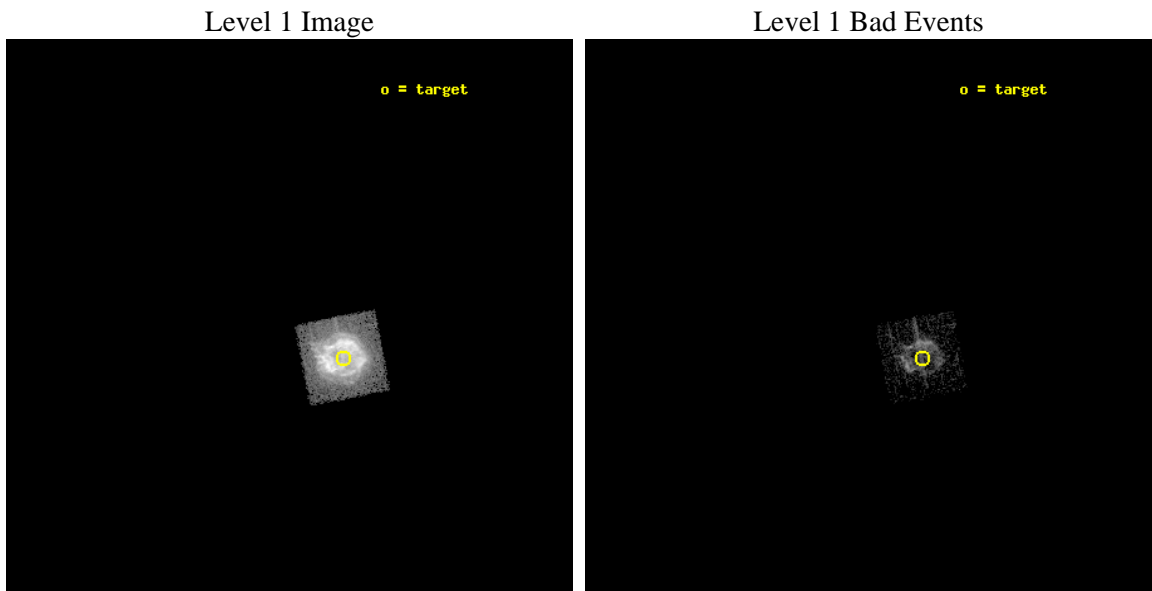
seq_num	580394	Sequence number
obs_id	1444	Observation id
title	ACIS CHIP RESPONSE TO CAS A, JAN. 99	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	CAS A [Chip I0, T=110, Offsets=5,-5,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	350.8575	Observer's specified target RA
dec_targ	58.814833	Observer's specified target Dec
ra_nom	351.04037255227	Nominal RA
dec_nom	58.876119843153	Nominal Dec
roll_nom	259.1151122535	Nominal Roll
revision	4	Processing version of data
ontime	903.96169210225	Sum of GTIs [s]
livetime	892.51518485647	Livetime [s]
ontime0	903.96169210225	Sum of GTIs [s]
ontime1	1033.6000009626	Sum of GTIs [s]
ontime2	1033.6000009626	Sum of GTIs [s]
ontime3	1033.6000009626	Sum of GTIs [s]
ontime6	1033.6000009626	Sum of GTIs [s]
ontime7	1033.6000009626	Sum of GTIs [s]
l2events	191794	Number of level 2 events



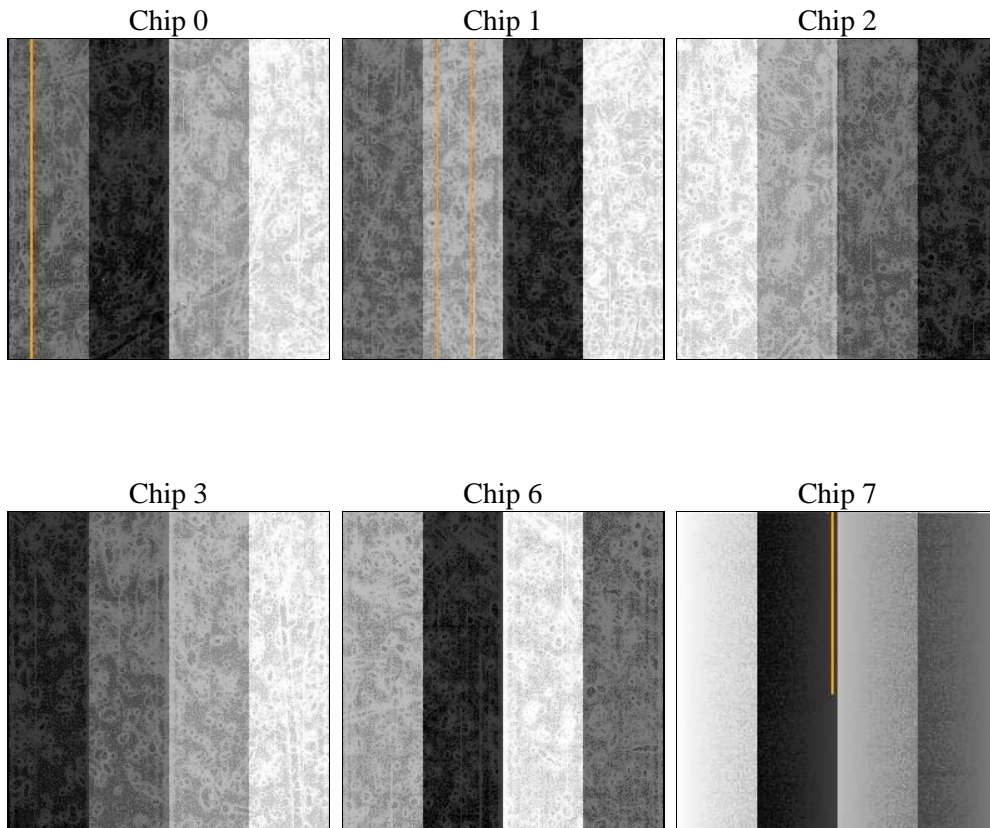
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	903.96169210225	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime0	903.96169210225	Sum of GTIs [s]
date	2009-11-24T12:51:47	Date and time of file creation	ontime1	1033.6000009626	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	1033.6000009626	Sum of GTIs [s]
			ontime3	1033.6000009626	Sum of GTIs [s]
			ontime6	1033.6000009626	Sum of GTIs [s]
			ontime7	1033.6000009626	Sum of GTIs [s]
			l1events	208514	Number of level 1 events

### 2.1.4 Events

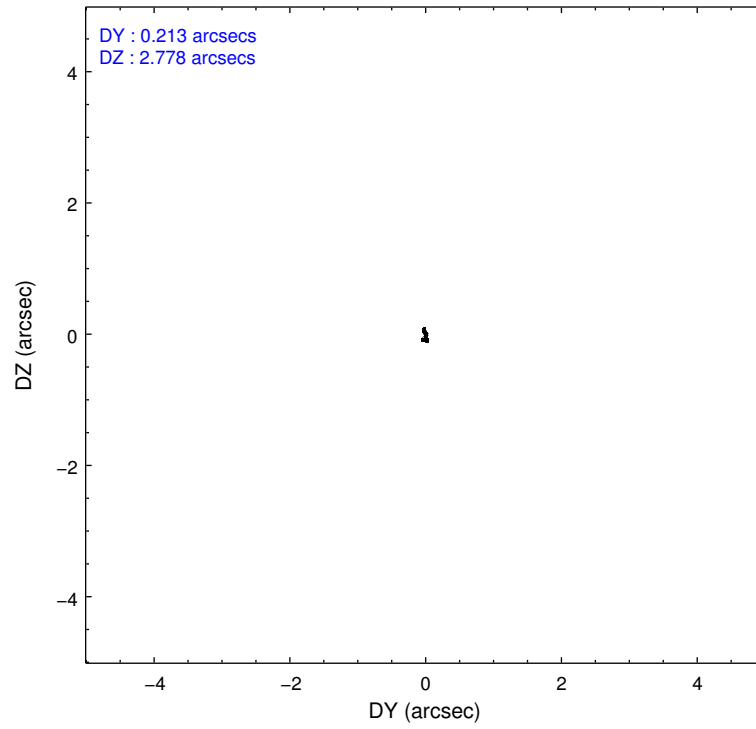
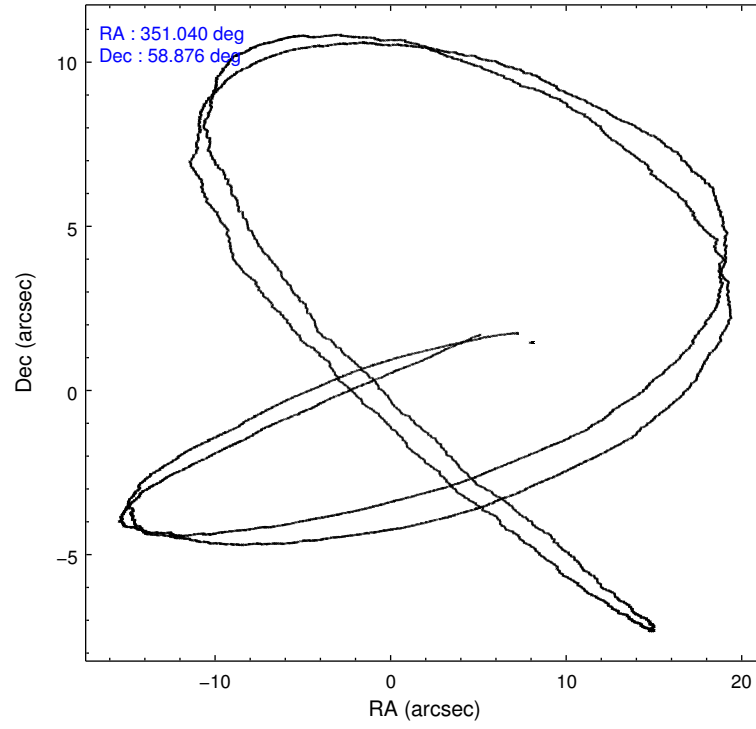
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	208514	0	0	0	0	0
rejected events	15152	0	0	0	0	0
rejected %	7%	0%	0%	0%	0%	0%

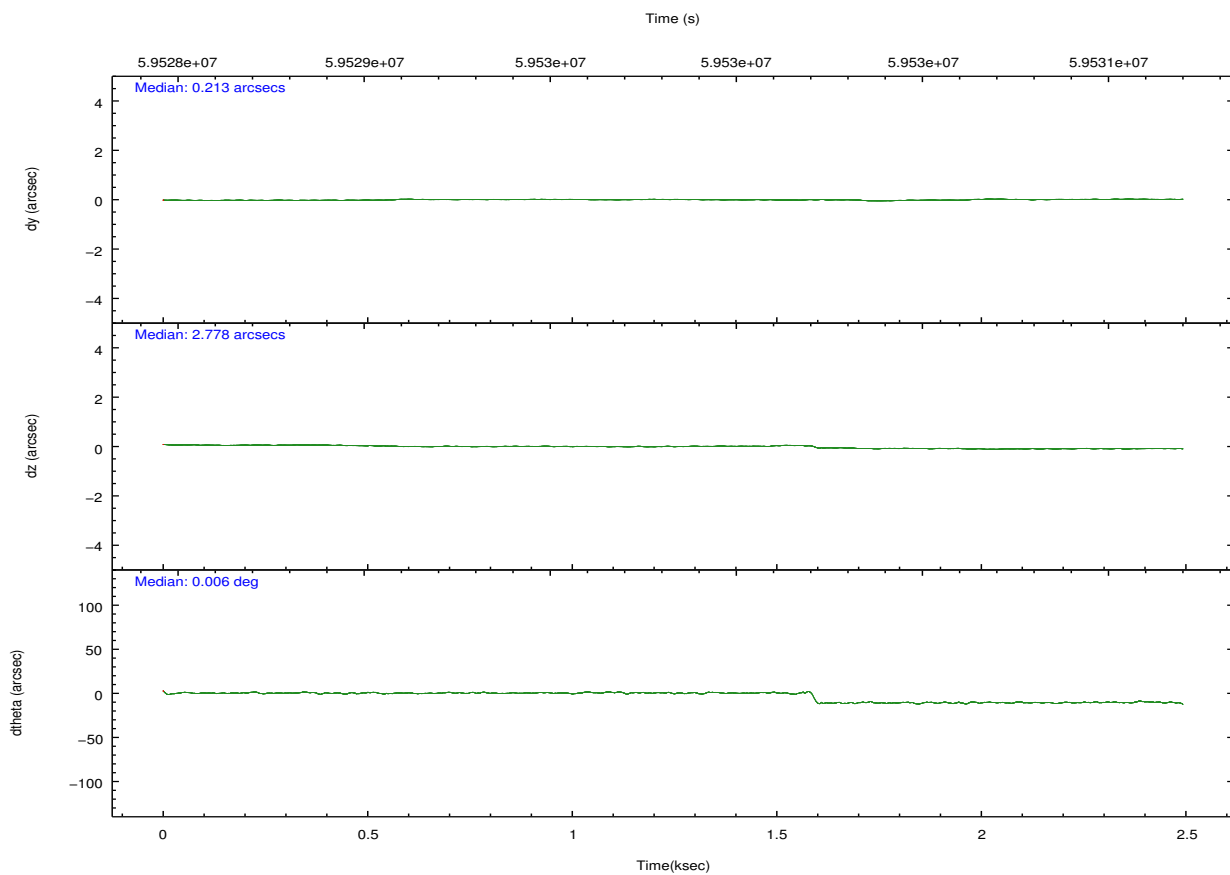
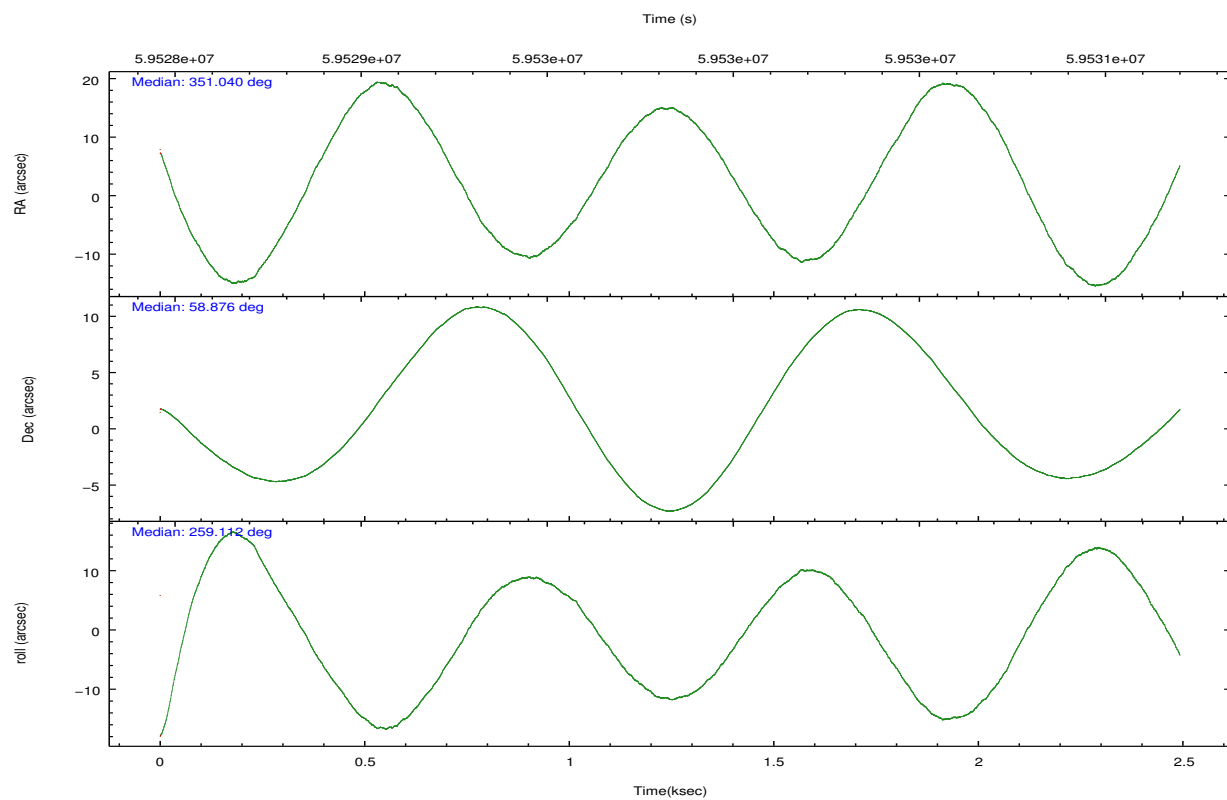
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	137546	0	0	0	0	0
	65%	0%	0%	0%	0%	0%
grade 1 events	1821	0	0	0	0	0
	0%	0%	0%	0%	0%	0%
grade 2 events	40533	0	0	0	0	0
	19%	0%	0%	0%	0%	0%
grade 3 events	5371	0	0	0	0	0
	2%	0%	0%	0%	0%	0%
grade 4 events	5462	0	0	0	0	0
	2%	0%	0%	0%	0%	0%
grade 5 events	1701	0	0	0	0	0
	0%	0%	0%	0%	0%	0%
grade 6 events	5766	0	0	0	0	0
	2%	0%	0%	0%	0%	0%
grade 7 events	10314	0	0	0	0	0
	4%	0%	0%	0%	0%	0%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
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
Pointing RA	351.023841	351.0403725522734	Subarray requested	NONE	NONE
Pointing Dec	58.902695	58.87611984315286	Alternating exposures requested	N	N
Pointing Roll	258.920599	259.1151122534975	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	59529077.184000	59528411.344641			
Observation start date	1999-11-20T23:50:13	1999-11-20T23:40:11			
Observation end time	59531077.184000	59531211.644742			
Observation end date	1999-11-21T00:23:33	1999-11-21T00:26:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect



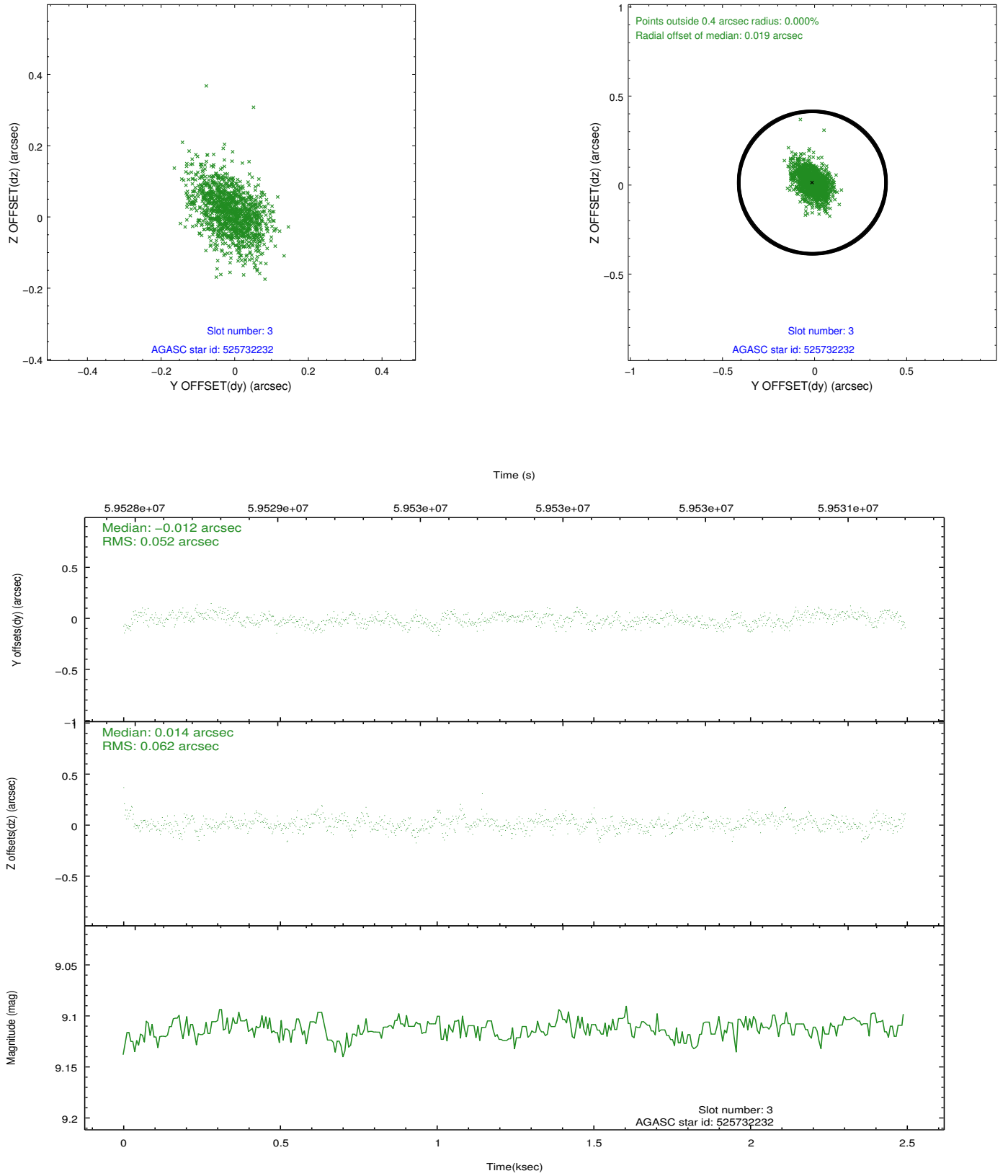


Slot Statistics

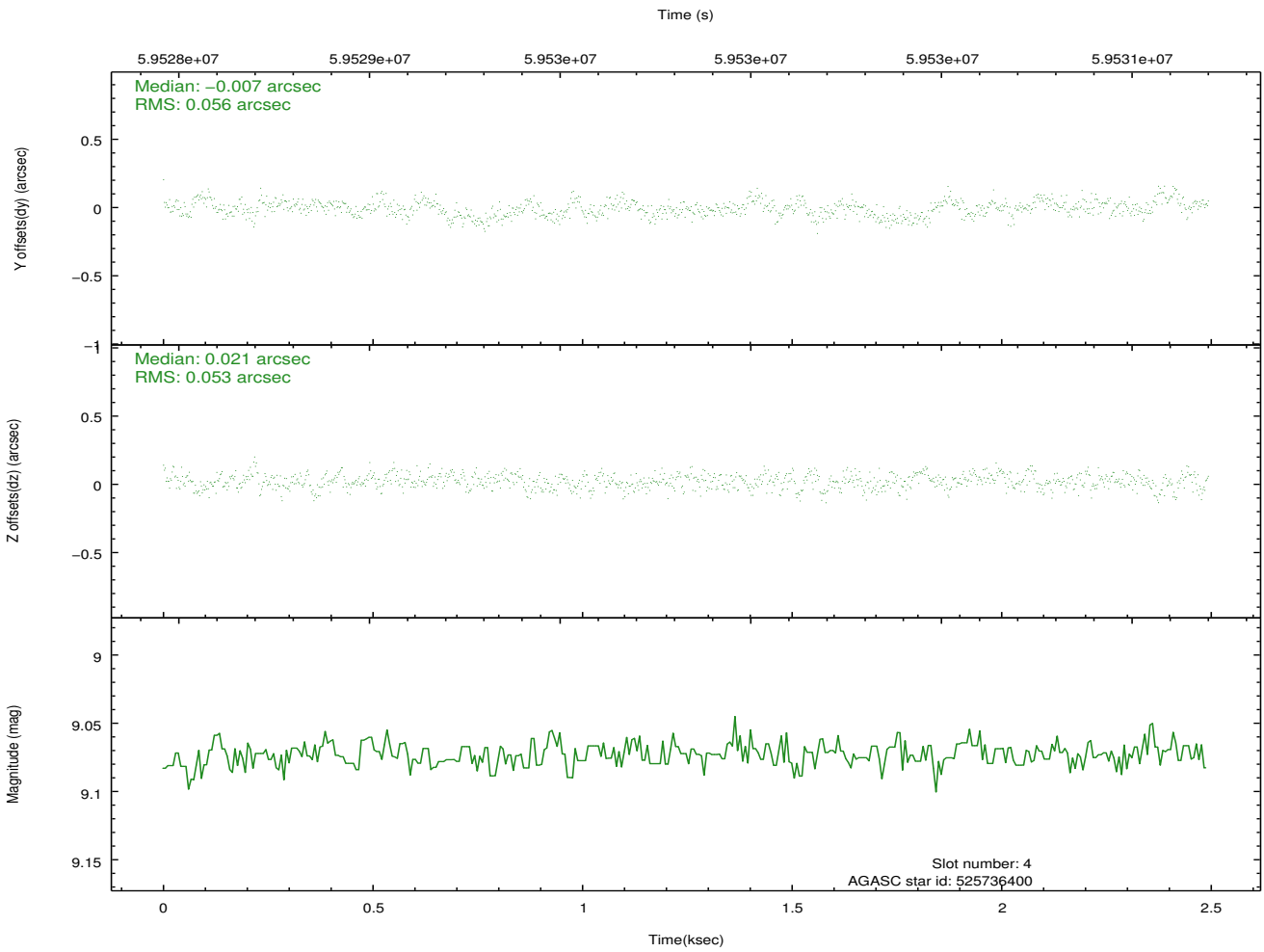
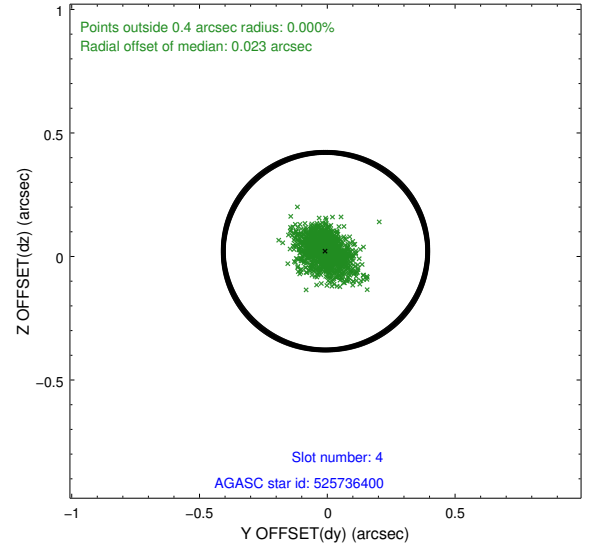
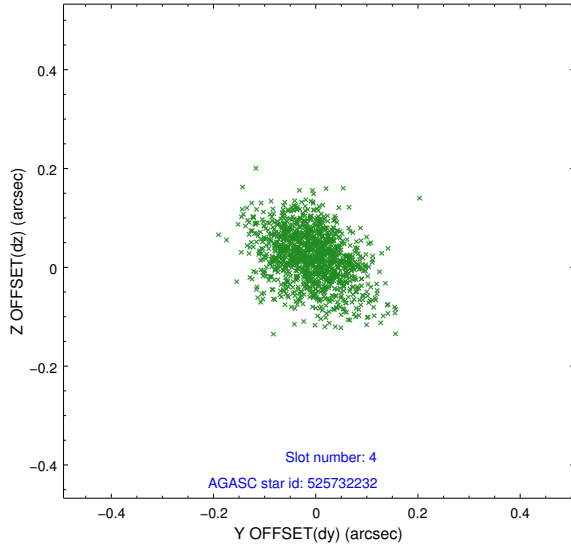
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.20	1217	0.001	0.094	0.050	0.066	0.000000	0.000000	-754.62	-832.23
1	FID	ACIS-I-4	7.26	1217	0.091	-0.015	0.031	0.037	0.000000	0.000000	2159.21	1072.91
2	FID	ACIS-I-5	7.23	1217	-0.196	-0.009	0.050	0.060	0.000000	0.000000	-1806.82	1072.61
3	GUIDE	525732232	9.11	1217	-0.012	0.014	0.083	0.143	351.669550	58.757012	276.81	1283.69
4	GUIDE	525736400	9.07	1217	-0.007	0.021	0.081	0.138	350.974563	59.175145	-945.25	-275.86
5	GUIDE	525609504	9.09	1216	0.043	-0.008	0.108	0.168	349.896632	58.356658	2319.68	-1714.21
6	GUIDE	525731480	9.50	1217	0.010	-0.041	0.089	0.142	351.647209	58.687294	533.00	1291.92
7	GUIDE	525737208	9.37	1215	-0.036	0.018	0.117	0.180	351.154109	59.407897	-1830.89	-113.54

## 2.4 Star Slots

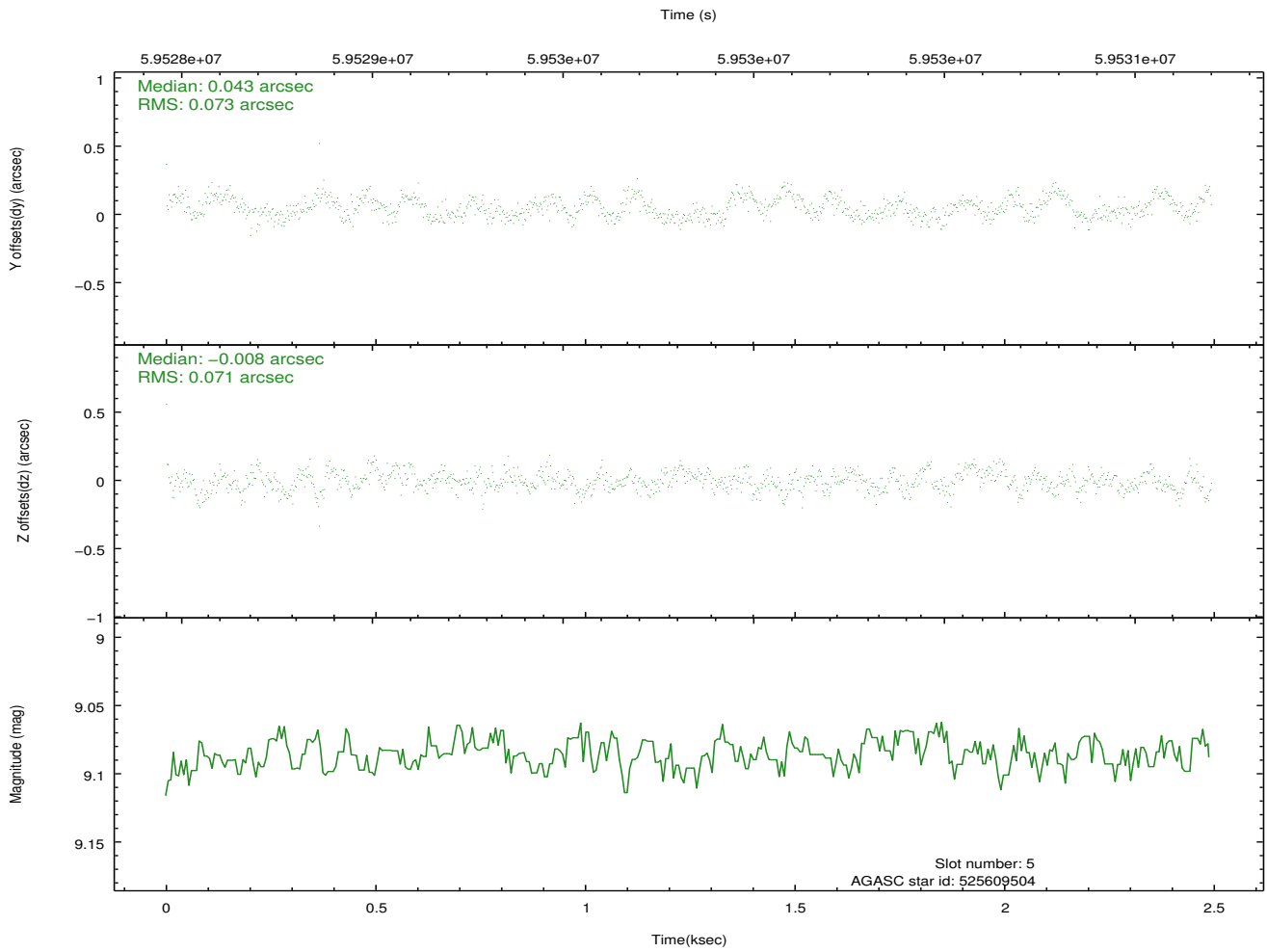
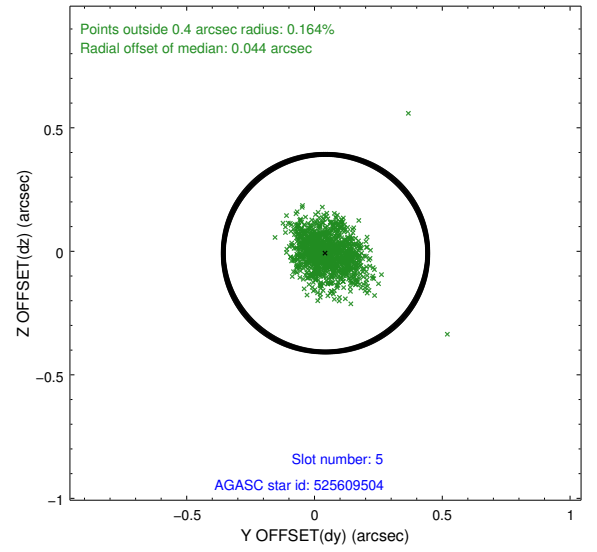
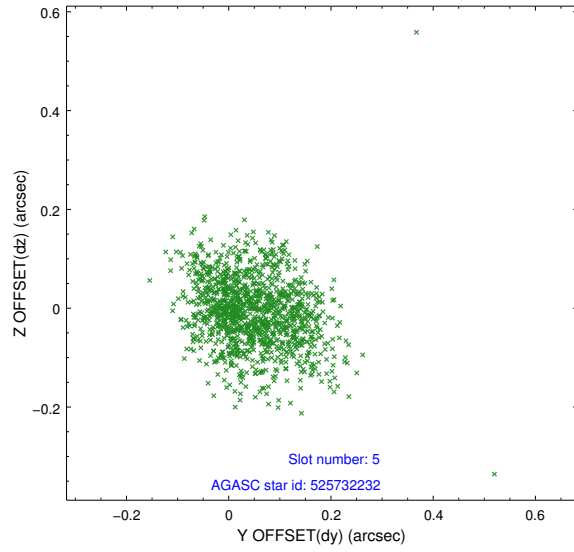
### 2.4.1 Slot 3



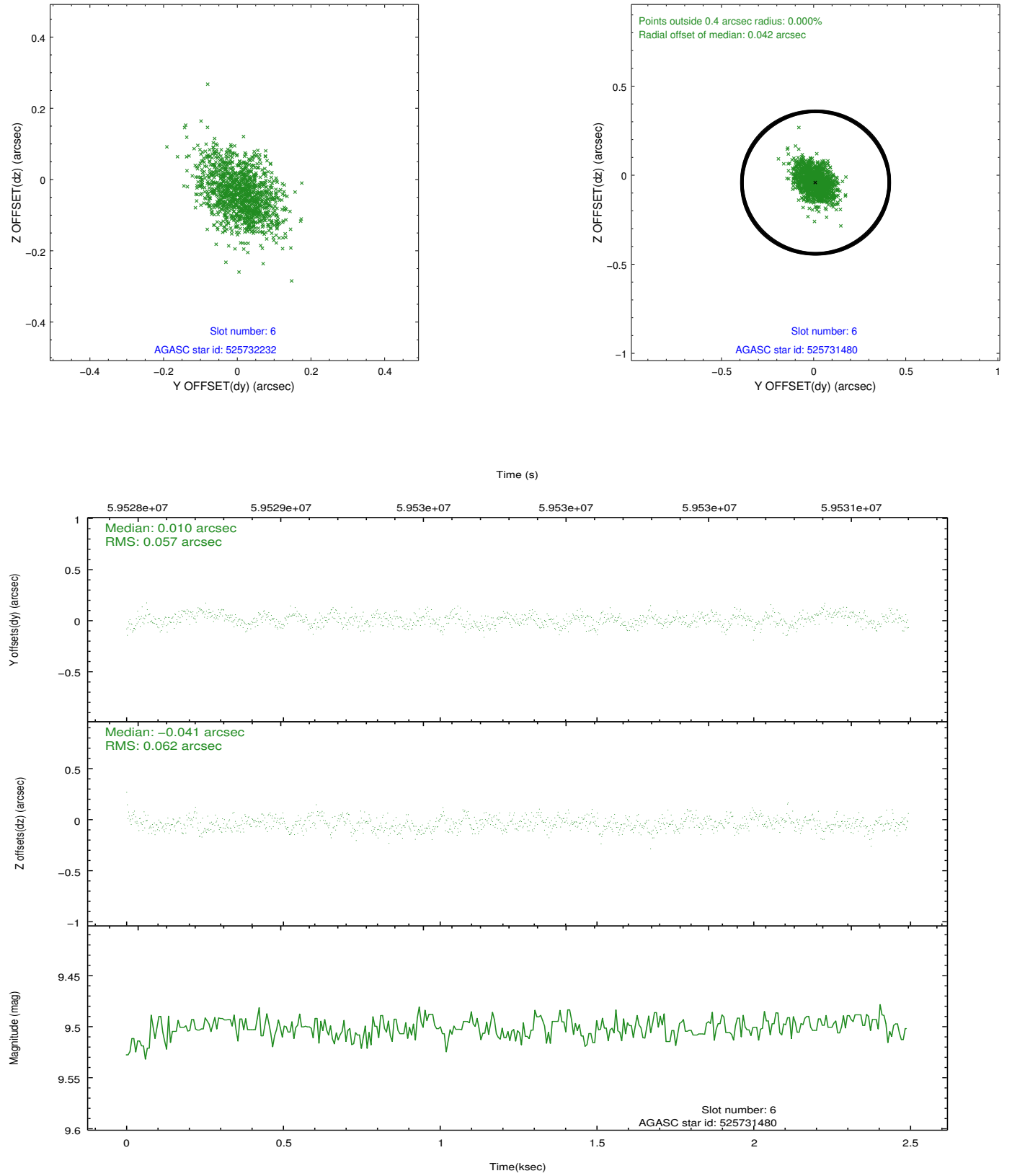
## 2.4.2 Slot 4



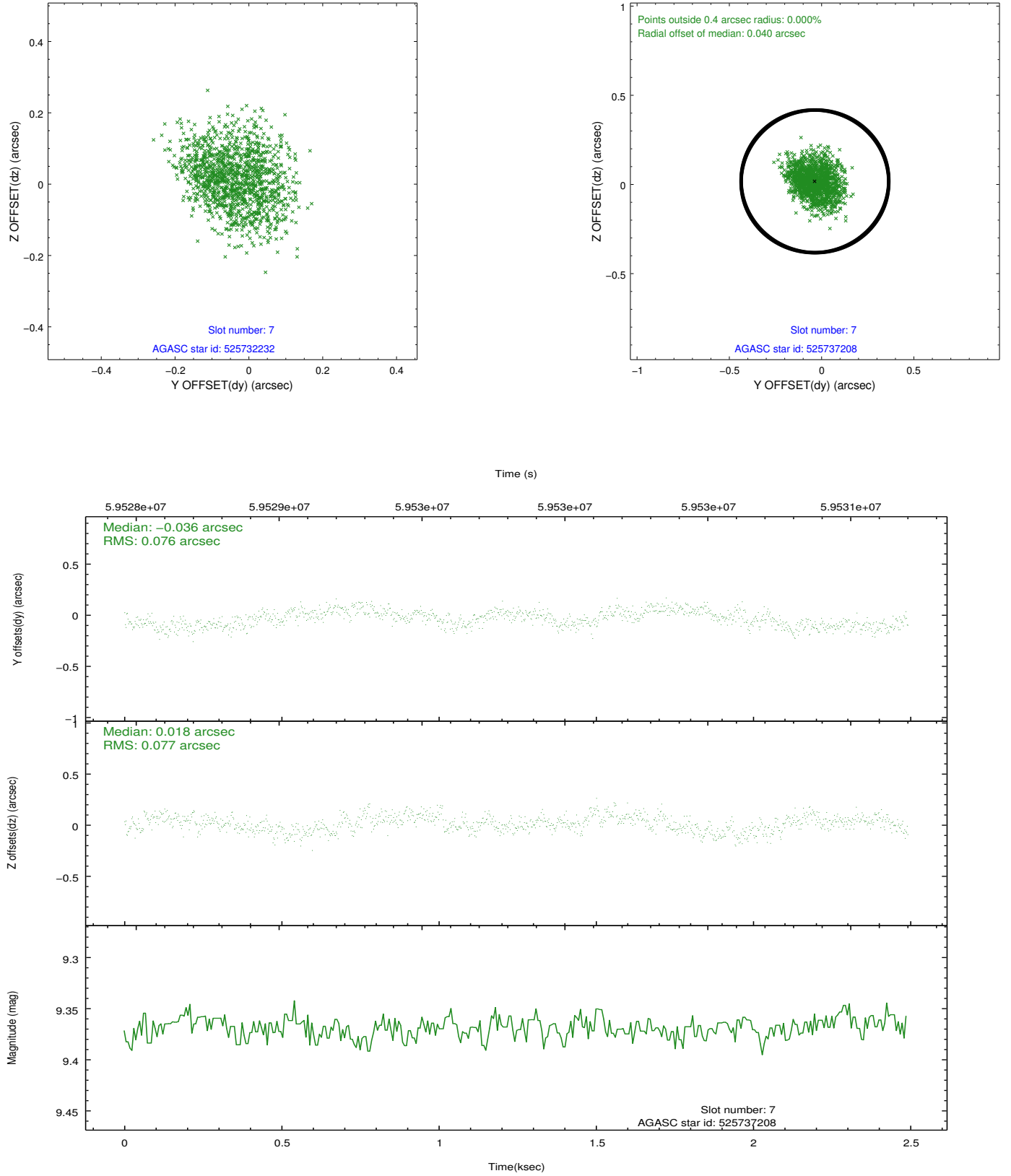
### 2.4.3 Slot 5



## 2.4.4 Slot 6

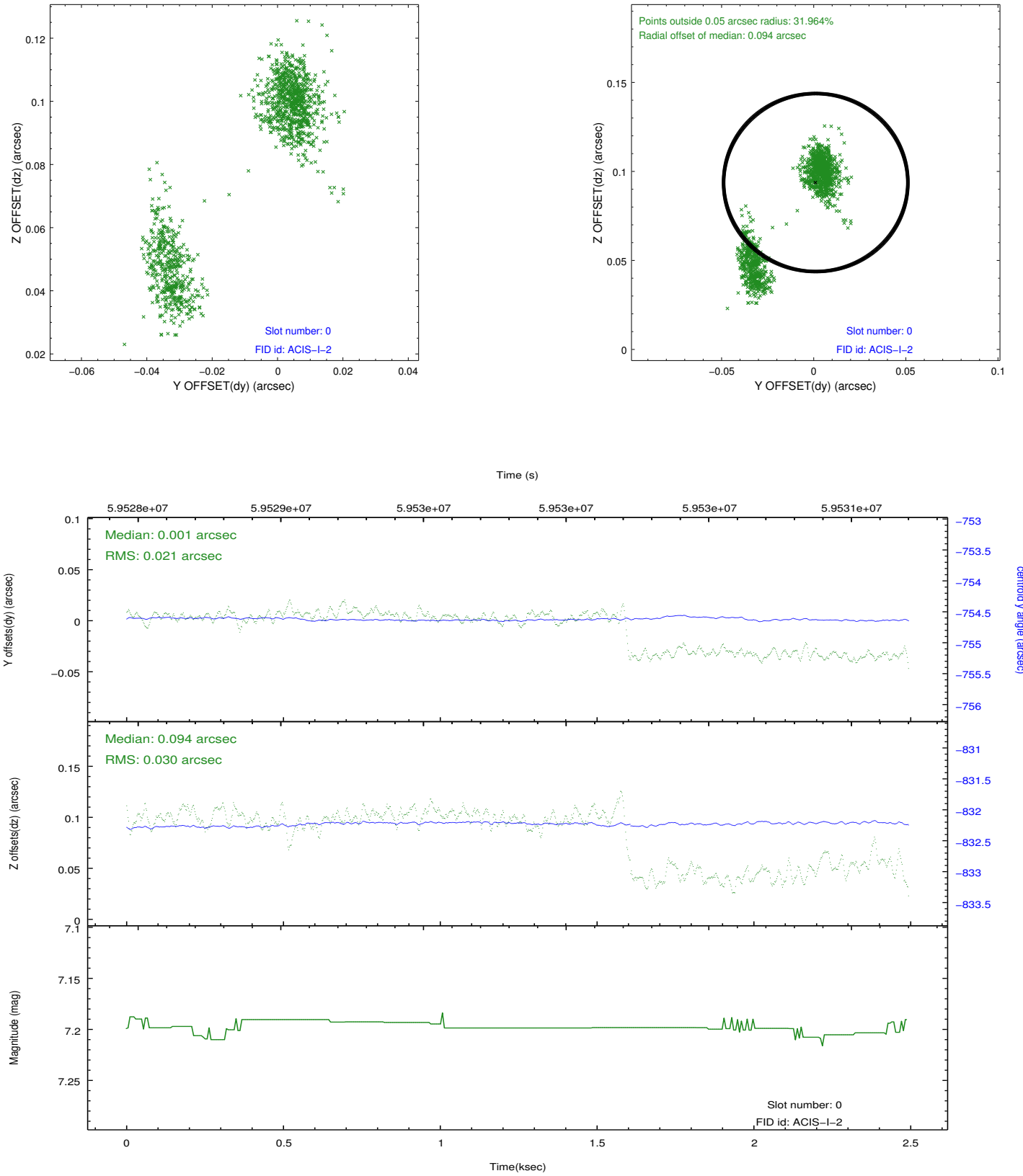


## 2.4.5 Slot 7

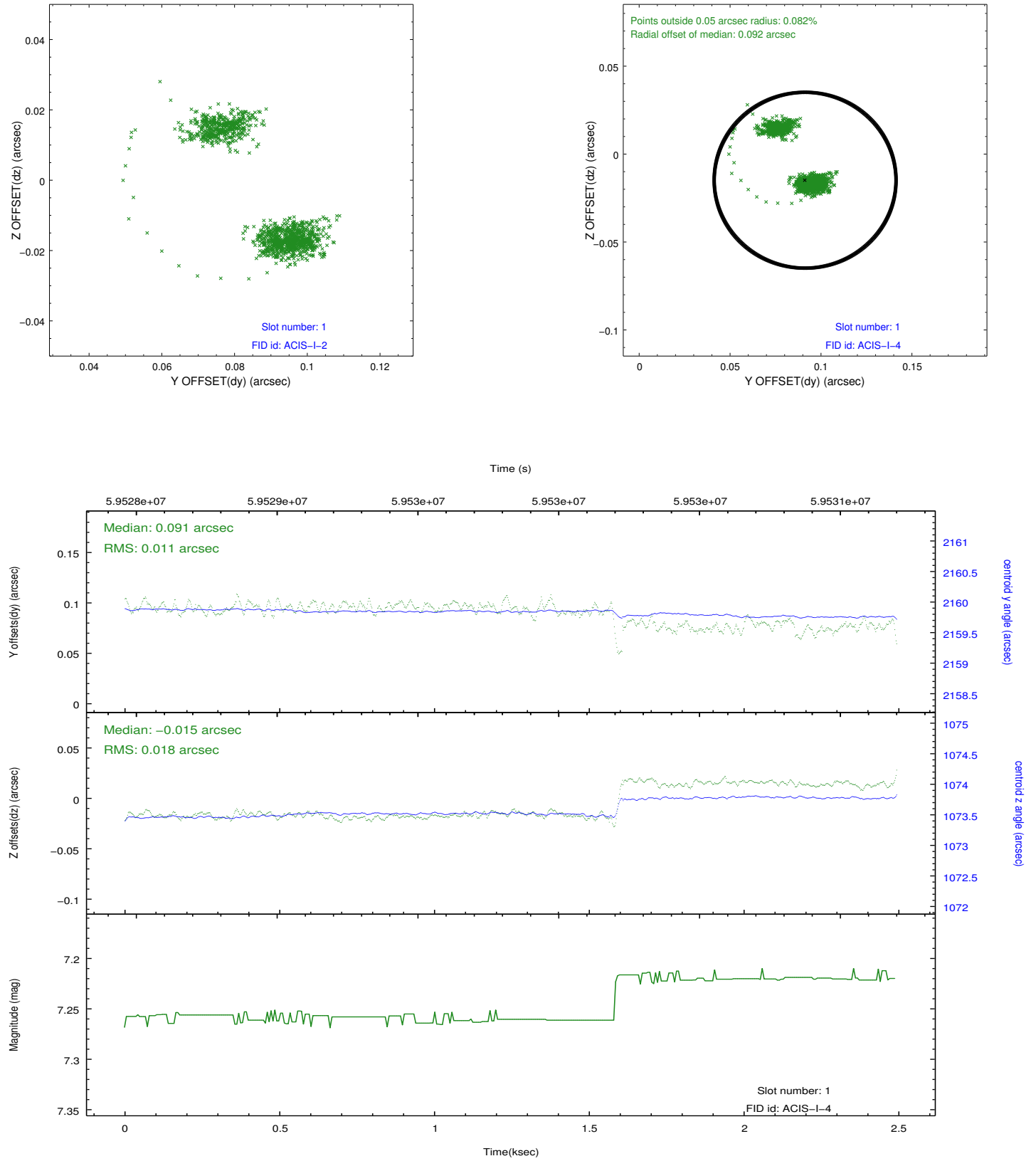


## 2.5 FID Slots

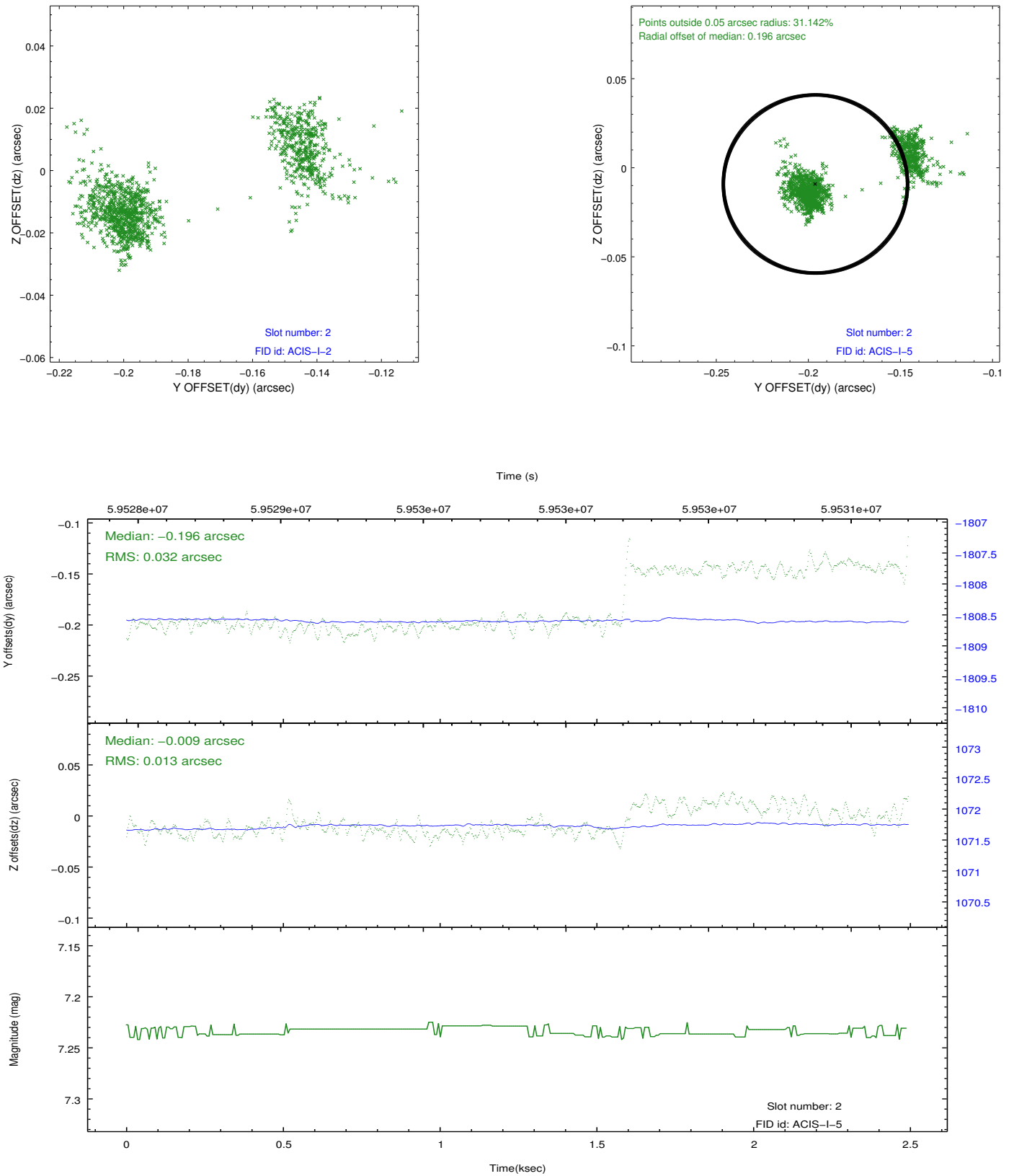
### 2.5.1 Slot 0



## 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	0.908

## A.2 Comments

Off-axis ACIS response to Cas A on chip I0. Only I0 chip was read out.

===

SIM dtheta value has a 10 arcsec jump approximately 1.6 ksec into the observation. This produces an offset in the fid light positions for the data after that time.

===

Pileup in most of observation.

===

Charge time for this ObsId remains at previous value of 0.908 ksec, although with the current processing the charge time would have been 0.093 ksec.

==

=====

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.