

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 208 - L2 Version 3

Chandra X-Ray Center

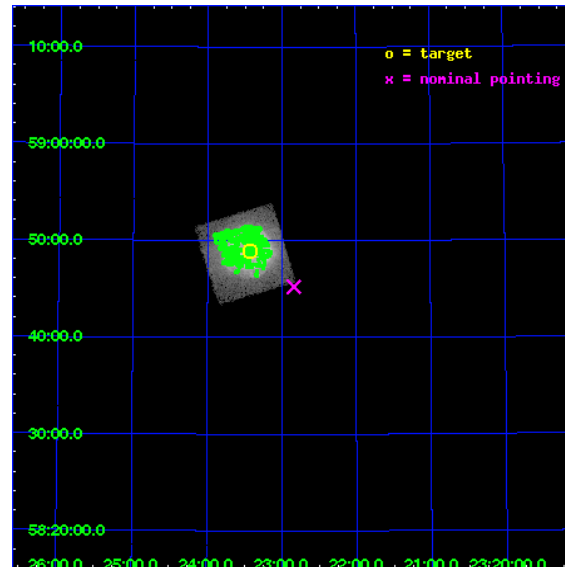
L2 Processing Date : Dec 17 2009

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 2 . . . . .	15
<b>3</b>	<b>Point Sources</b>	<b>16</b>
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

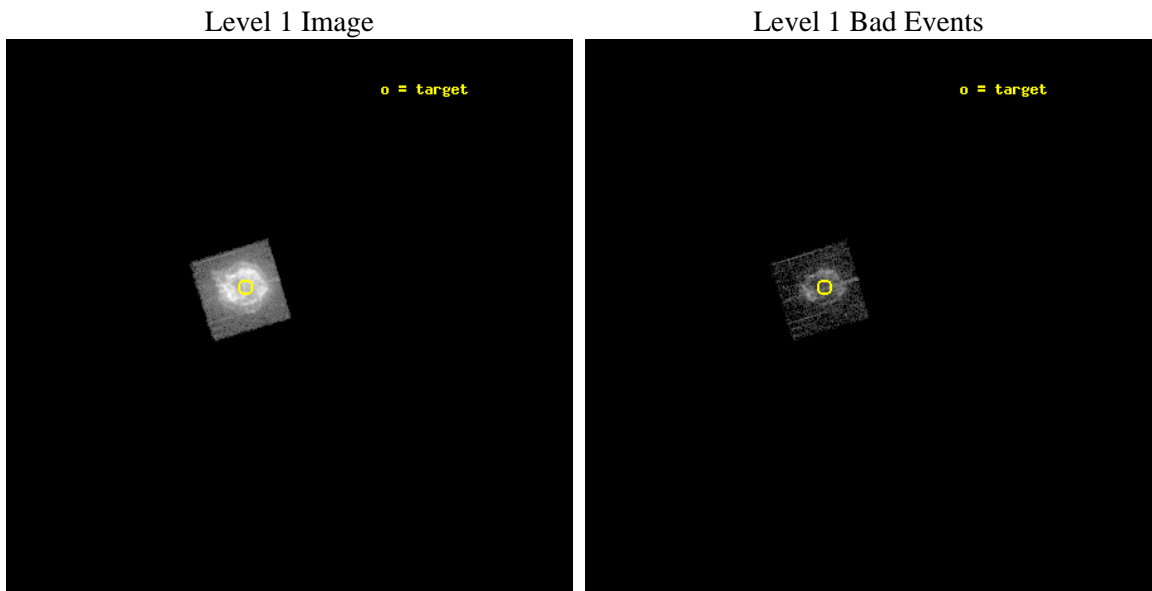
seq_num	590076	Sequence number
obs_id	208	Observation id
title	ACIS CHIP RESPONSE TO CAS A, JAN. 99	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	CAS A [Chip I1, T=100, Offsets=-3,-5,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	350.8575	Observer's specified target RA
dec_targ	58.814833	Observer's specified target Dec
ra_nom	350.70905664171	Nominal RA
dec_nom	58.753789304128	Nominal Dec
roll_nom	163.07272102357	Nominal Roll
revision	3	Processing version of data
ontime	1884.3071295395	Sum of GTIs [s]
livetime	1860.4468980718	Livetime [s]
ontime0	2351.0460013151	Sum of GTIs [s]
ontime1	1884.3071295395	Sum of GTIs [s]
ontime2	2350.963921316	Sum of GTIs [s]
ontime3	2350.9228813201	Sum of GTIs [s]
ontime6	2350.8818413168	Sum of GTIs [s]
ontime7	2351.0870413184	Sum of GTIs [s]
l2events	404575	Number of level 2 events



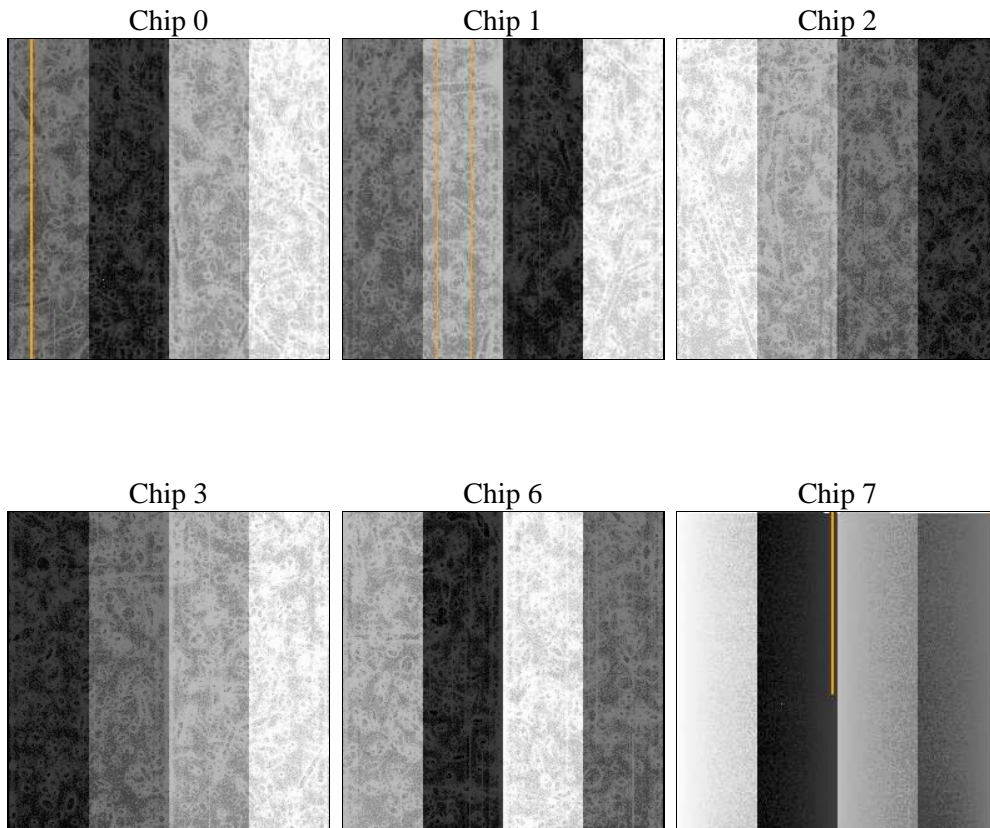
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	2000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	1884.3071295395	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime0	2351.0460013151	Sum of GTIs [s]
date	2009-12-17T07:24:02	Date and time of file creation	ontime1	1884.3071295395	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	2350.963921316	Sum of GTIs [s]
			ontime3	2350.9228813201	Sum of GTIs [s]
			ontime6	2350.8818413168	Sum of GTIs [s]
			ontime7	2351.0870413184	Sum of GTIs [s]
			l1events	442085	Number of level 1 events

### 2.1.4 Events

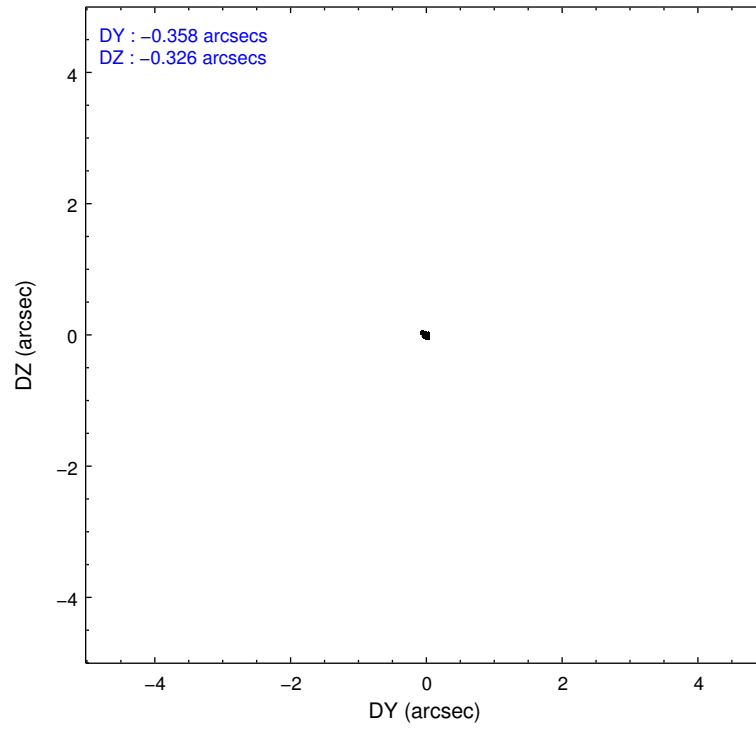
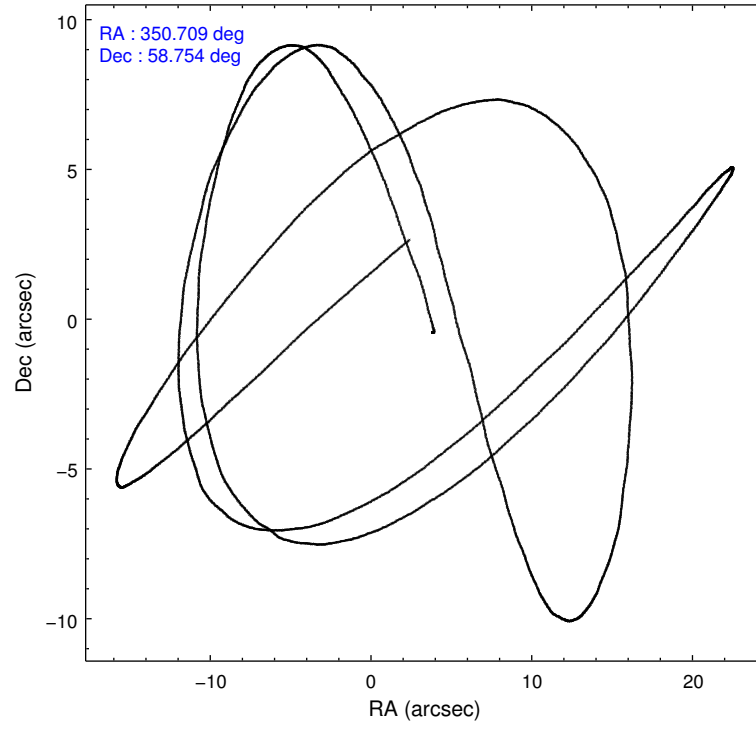
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	0	442085	0	0	0	0
rejected events	0	32588	0	0	0	0
rejected %	0%	7%	0%	0%	0%	0%

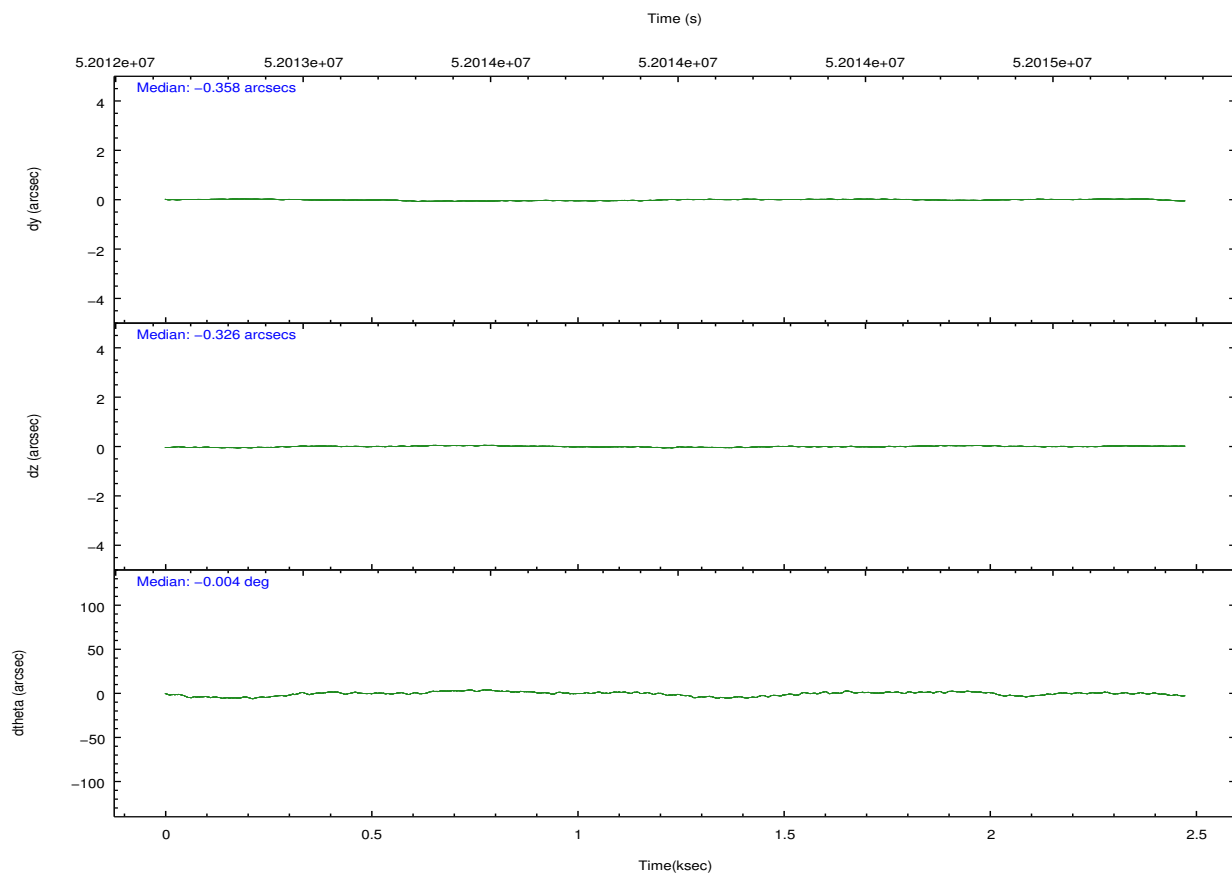
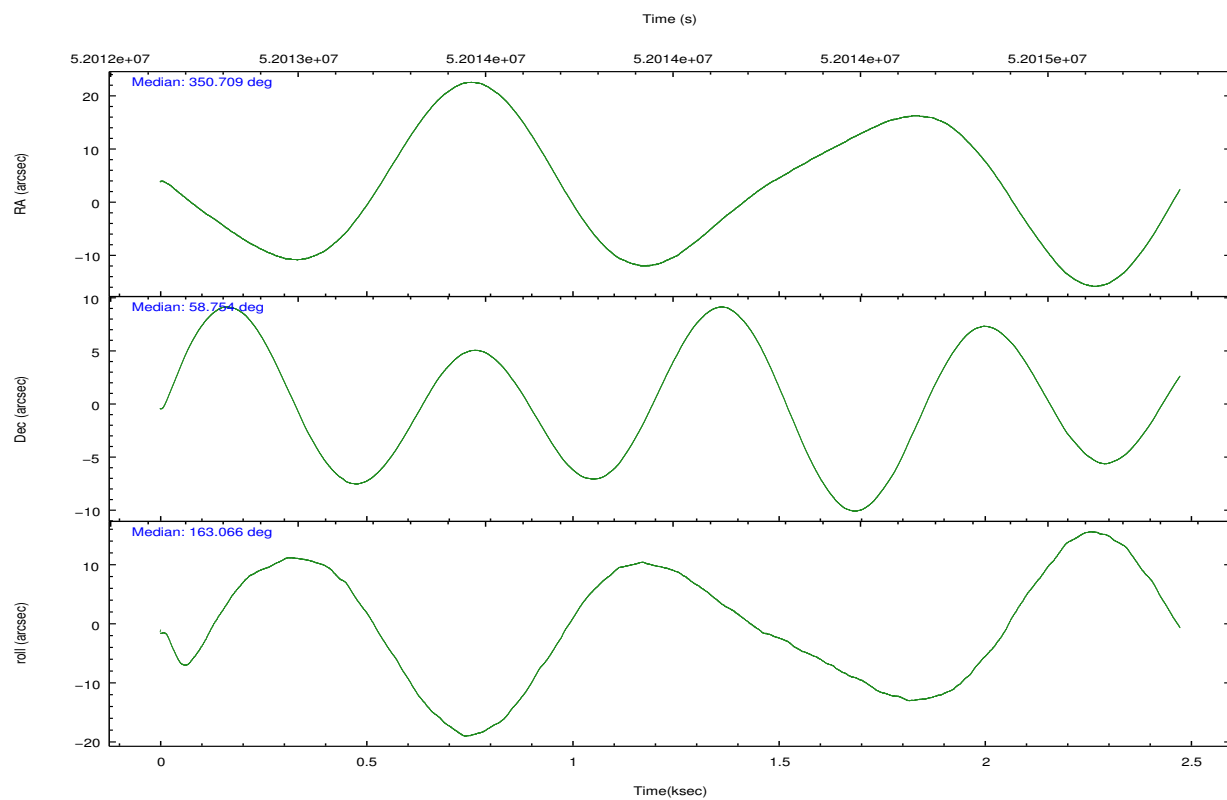
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	0	325875	0	0	0	0
	0%	73%	0%	0%	0%	0%
grade 1 events	0	5034	0	0	0	0
	0%	1%	0%	0%	0%	0%
grade 2 events	0	45613	0	0	0	0
	0%	10%	0%	0%	0%	0%
grade 3 events	0	14510	0	0	0	0
	0%	3%	0%	0%	0%	0%
grade 4 events	0	14207	0	0	0	0
	0%	3%	0%	0%	0%	0%
grade 5 events	0	3194	0	0	0	0
	0%	0%	0%	0%	0%	0%
grade 6 events	0	10669	0	0	0	0
	0%	2%	0%	0%	0%	0%
grade 7 events	0	22983	0	0	0	0
	0%	5%	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-1	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
Pointing RA	350.762310	350.7090566417128	CCD I2 on	N	Y
Pointing Dec	58.759290	58.75378930412845	CCD I3 on	N	Y
Pointing Roll	162.818493	163.0727210235671	CCD S0 on	N	N
Window start time	49852864.184000	49852864.184000	CCD S1 on	N	N
Window stop time	55036864.184000	55036864.184000	CCD S2 on	N	Y
SIM focus pos (mm)	-0.782348	-0.7362356599963374	CCD S3 on	N	Y
SIM defocus (mm)	0	0.04611255558364913	CCD S4 on	N	N
SIM translation stage pos (mm)	-233.592463	-233.5874344608287	CCD S5 on	N	N
SIM translation stage offset (mm)	0	-0.005018542100998502	Number of optional ACIS chips dropped	0	0
Observation start time	52013229.184000	52012563.206186	On-chip summing requested	N	N
Observation start date	1999-08-26T00:06:05	1999-08-25T23:56:03	Subarray requested	NONE	NONE
Observation end time	52015229.184000	52015362.993786	Alternating exposures requested	N	N
Observation end date	1999-08-26T00:39:25	1999-08-26T00:42:42	Primary exposure time	0.000000	3.2
Read mode	TIMED	TIMED			

## 2.3 Aspect





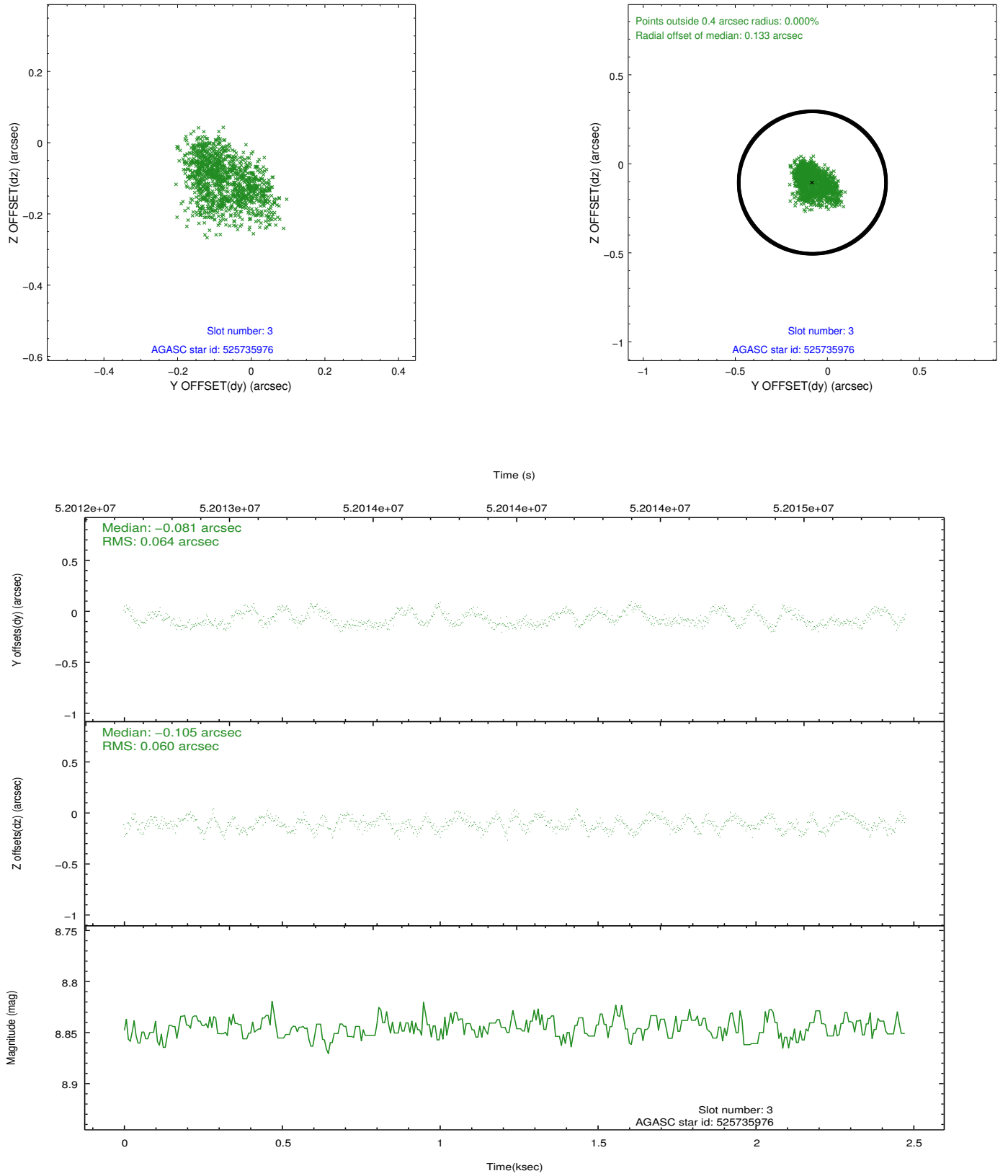
Slot Statistics

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	1208	-0.029	0.018	0.011	0.019	0.000000	0.000000	-753.92	-829.24
1	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
2	FID	ACIS-I-5	7.23	1208	-0.034	0.031	0.010	0.019	0.000000	0.000000	-1808.64	1073.98
3	GUIDE	525735976	8.85	1208	-0.081	-0.105	0.094	0.147	350.142956	58.277622	607.82	1998.00
4	GUIDE	525732528	9.37	1205	-0.023	0.092	0.092	0.155	351.607241	59.298932	-907.53	-2322.23
5	GUIDE	525606576	9.45	1197	-0.057	-0.043	0.095	0.149	349.543555	58.678895	2097.26	928.94
6	GUIDE	525734296	9.49	1207	0.072	-0.018	0.083	0.138	351.276372	58.418153	-1287.25	884.32
7	GUIDE	525737880	9.78	1206	0.086	0.067	0.097	0.156	351.070641	59.208299	-67.12	-1712.35

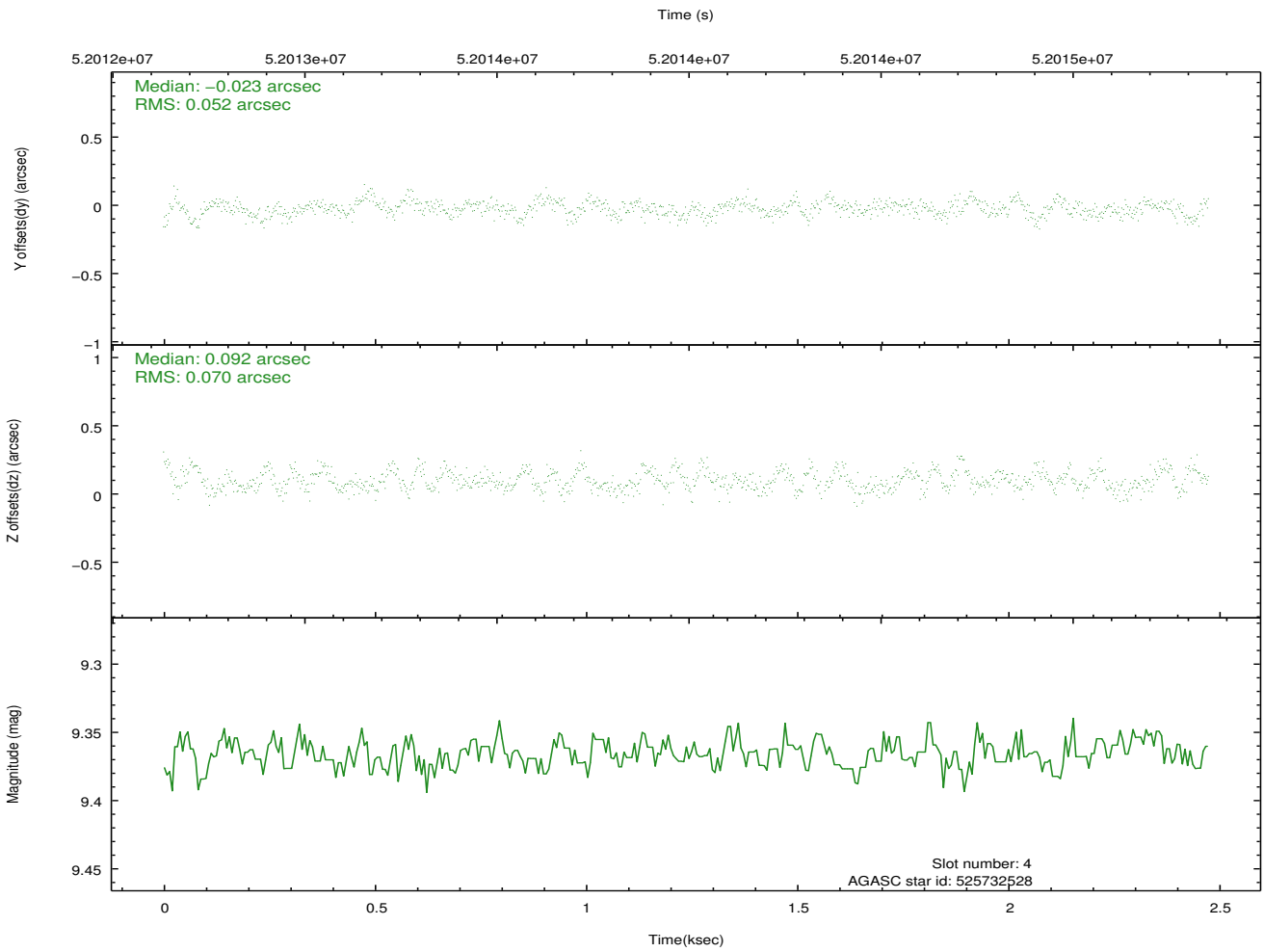
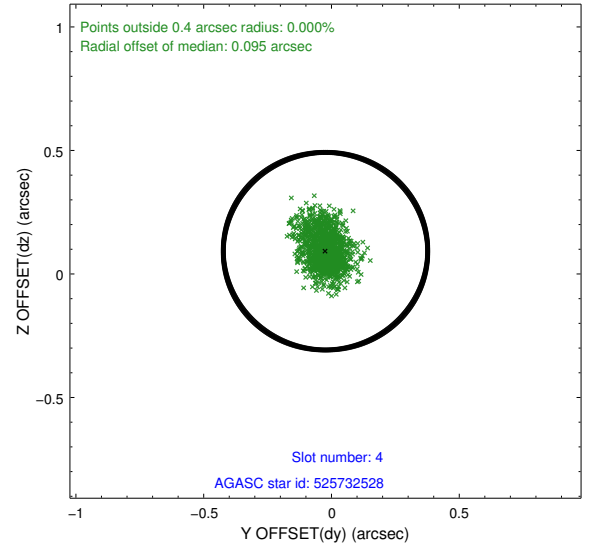
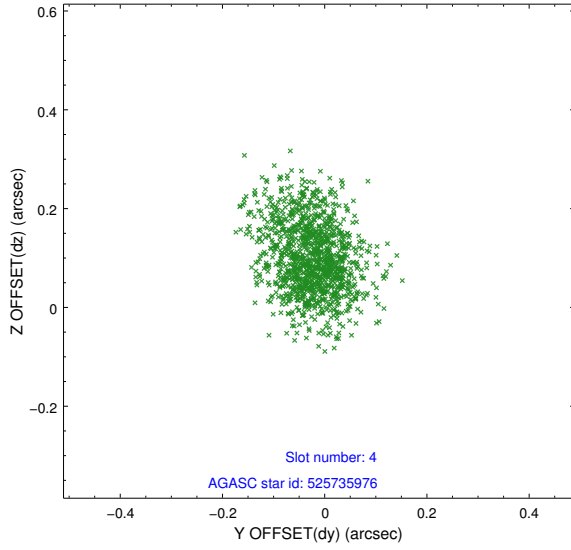


## 2.4 Star Slots

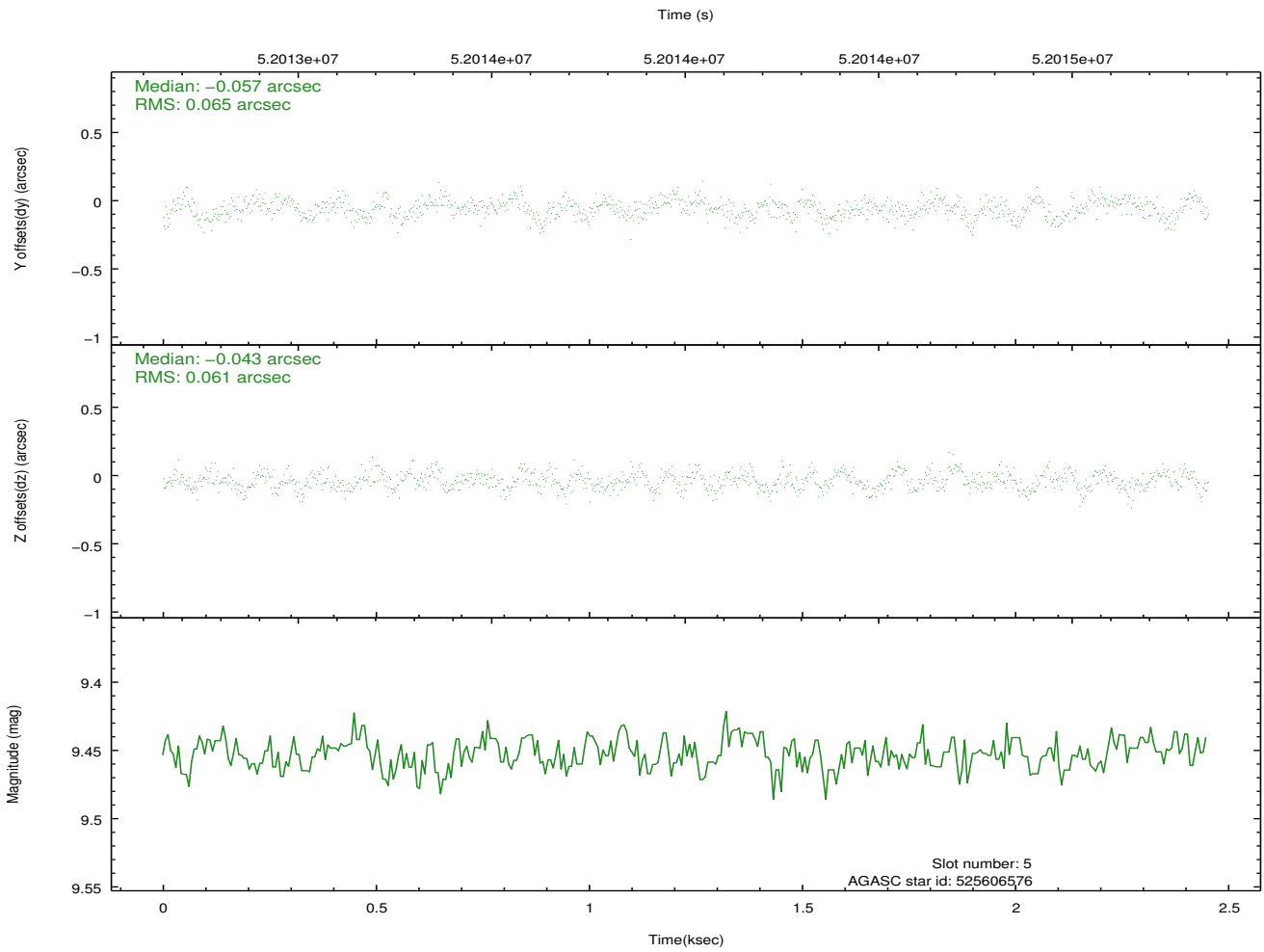
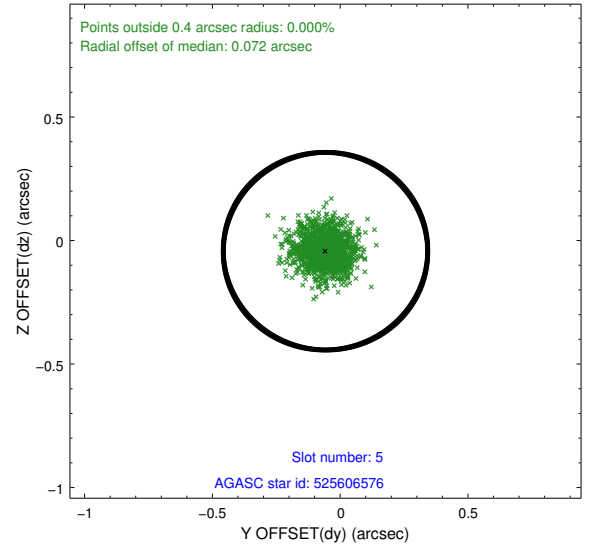
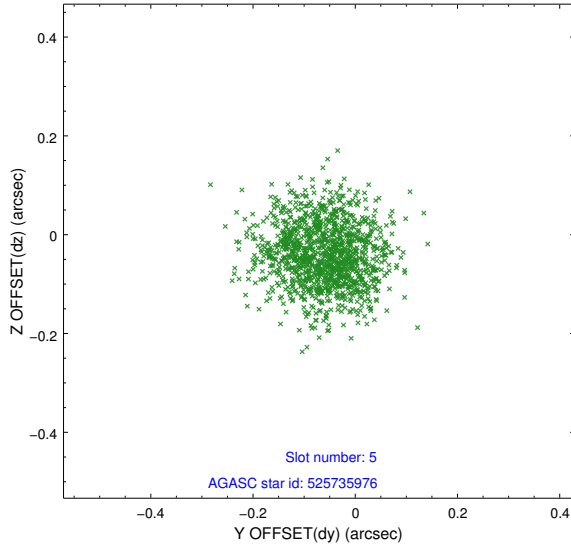
### 2.4.1 Slot 3



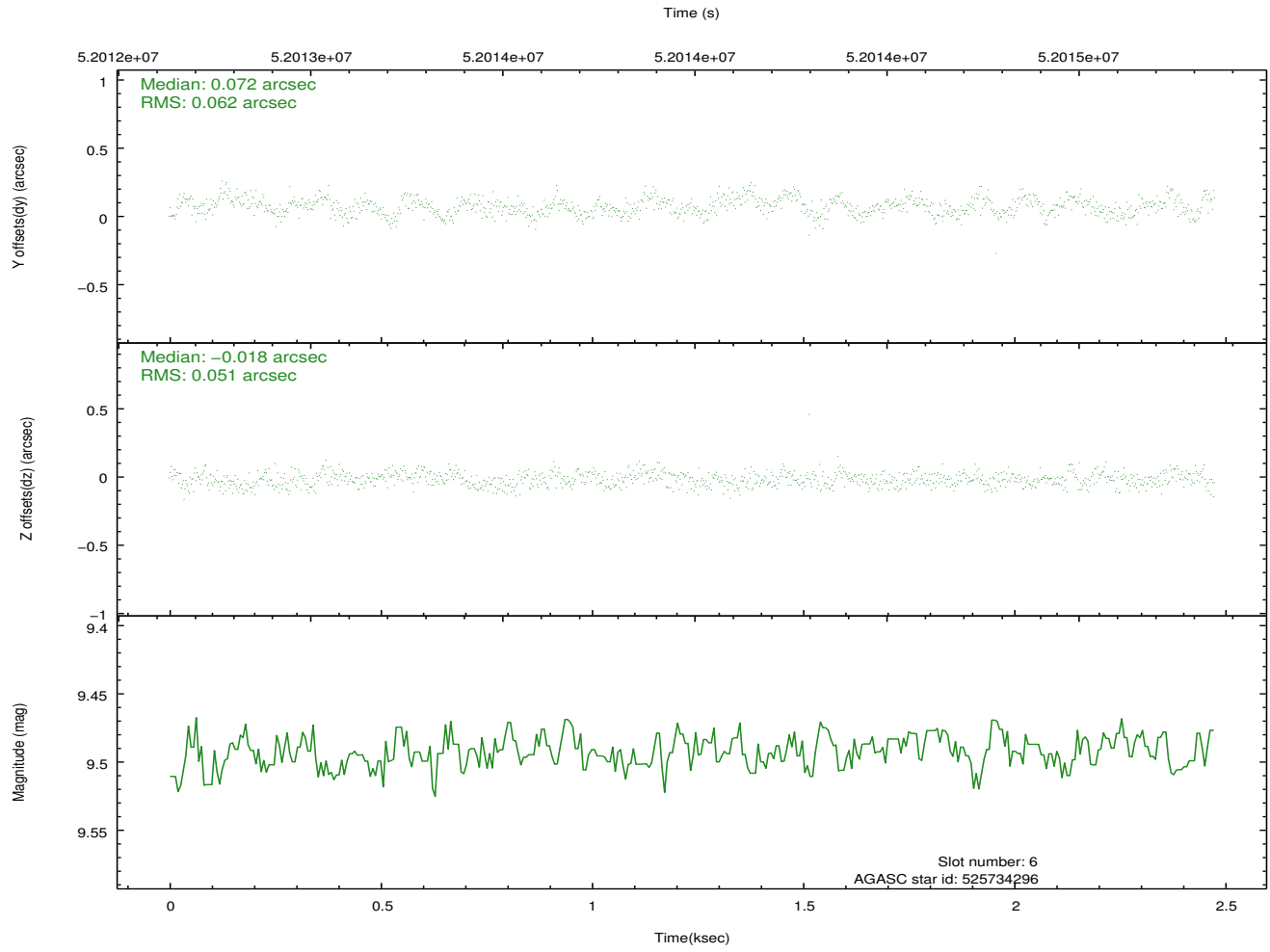
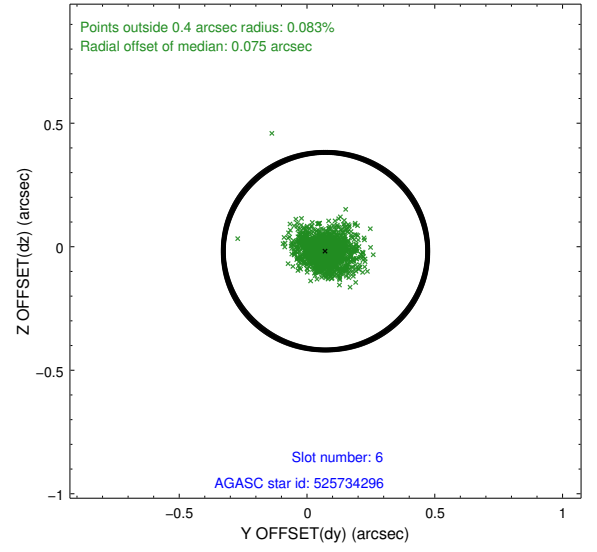
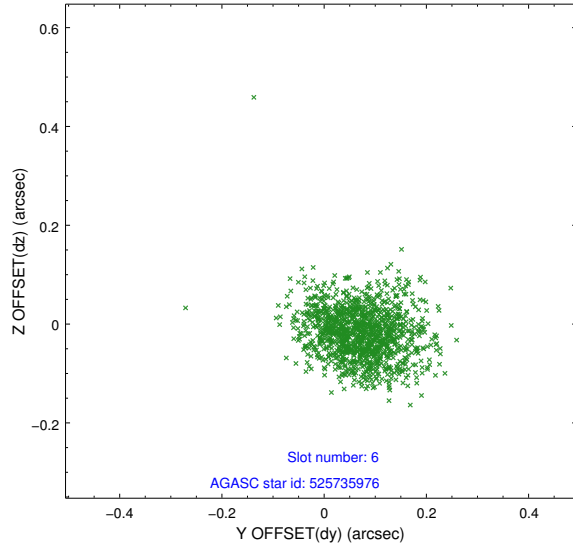
## 2.4.2 Slot 4



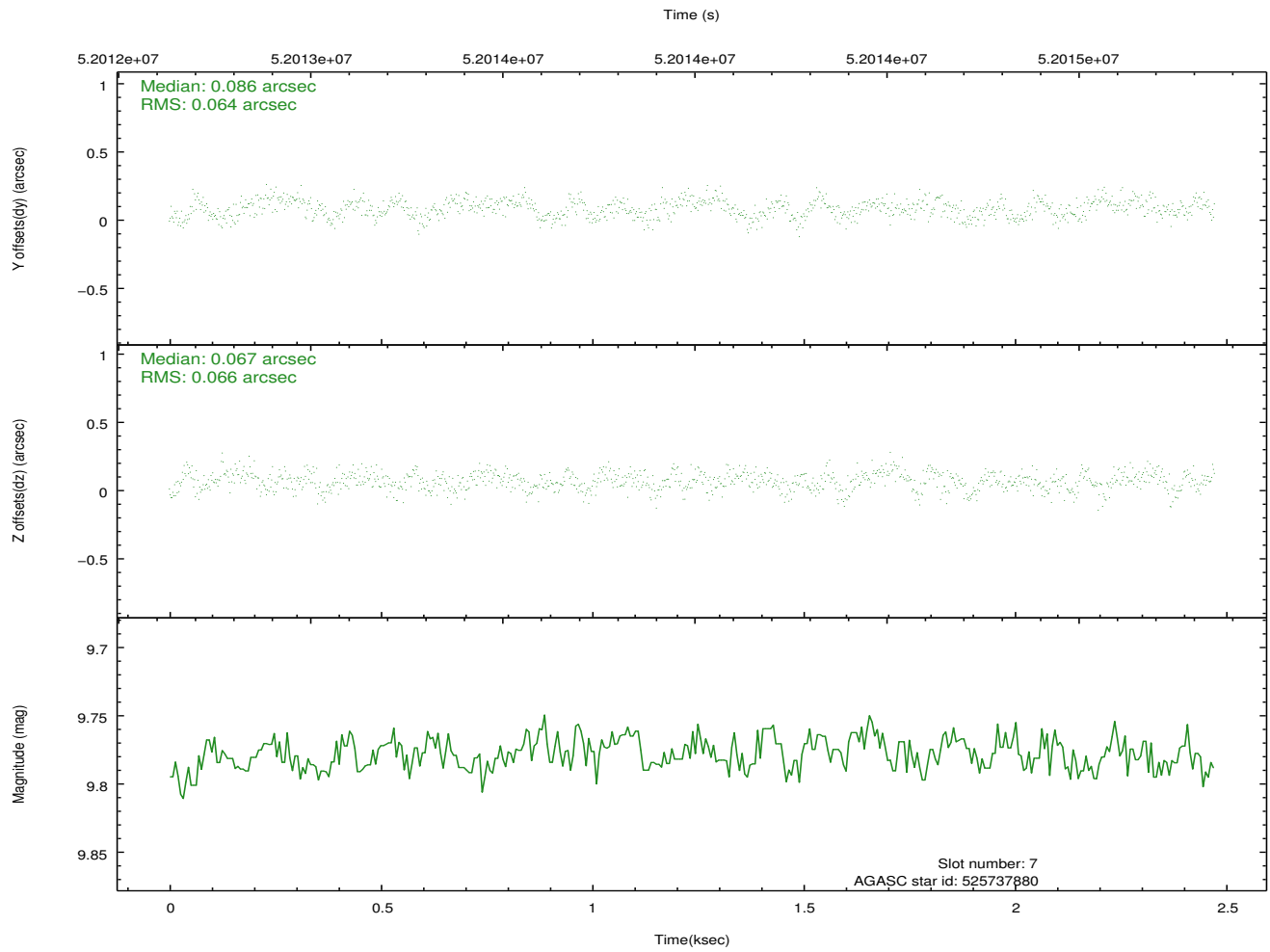
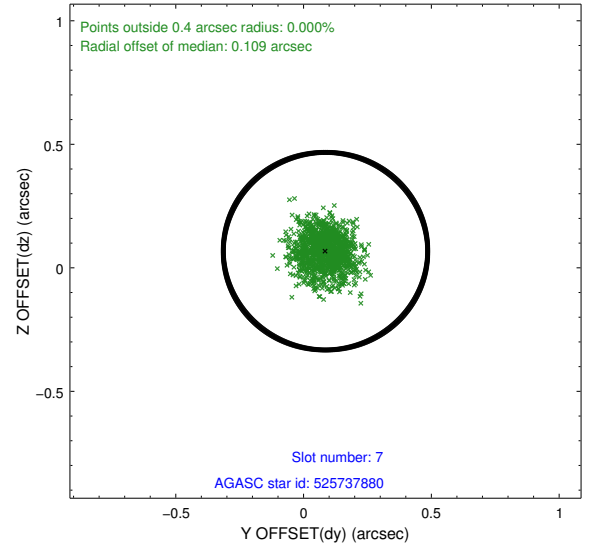
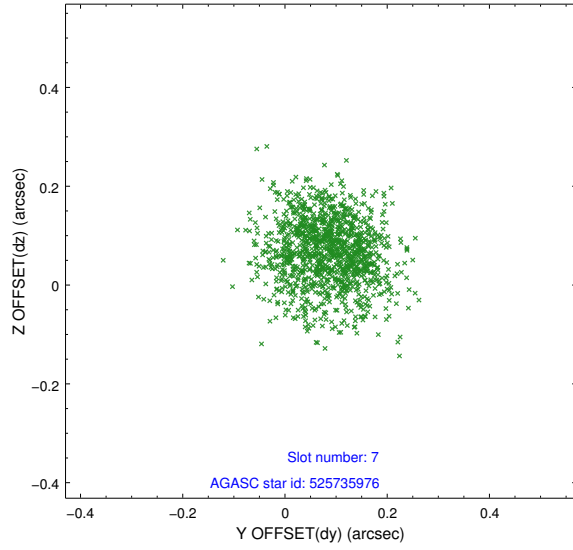
### 2.4.3 Slot 5



## 2.4.4 Slot 6

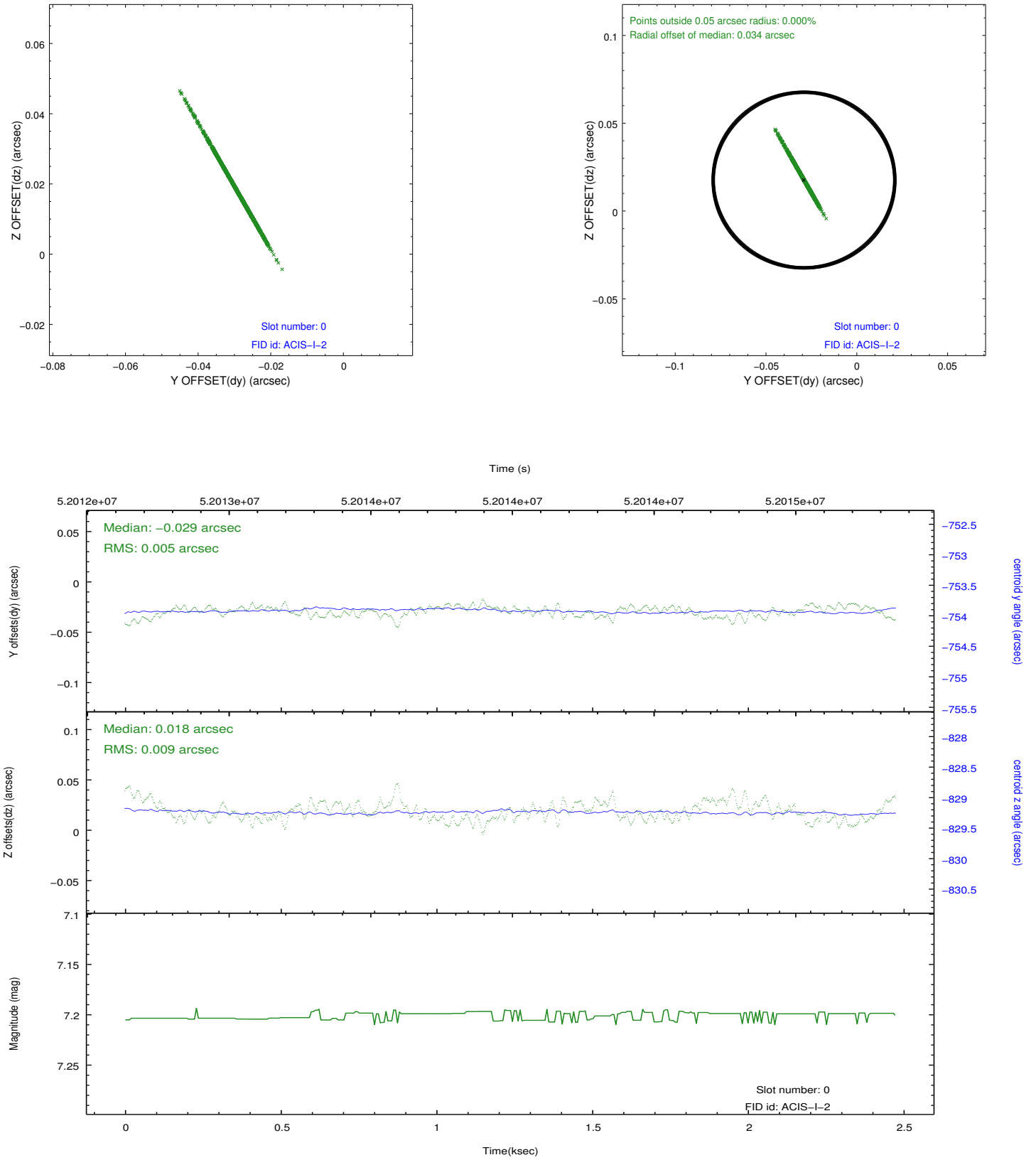


## 2.4.5 Slot 7

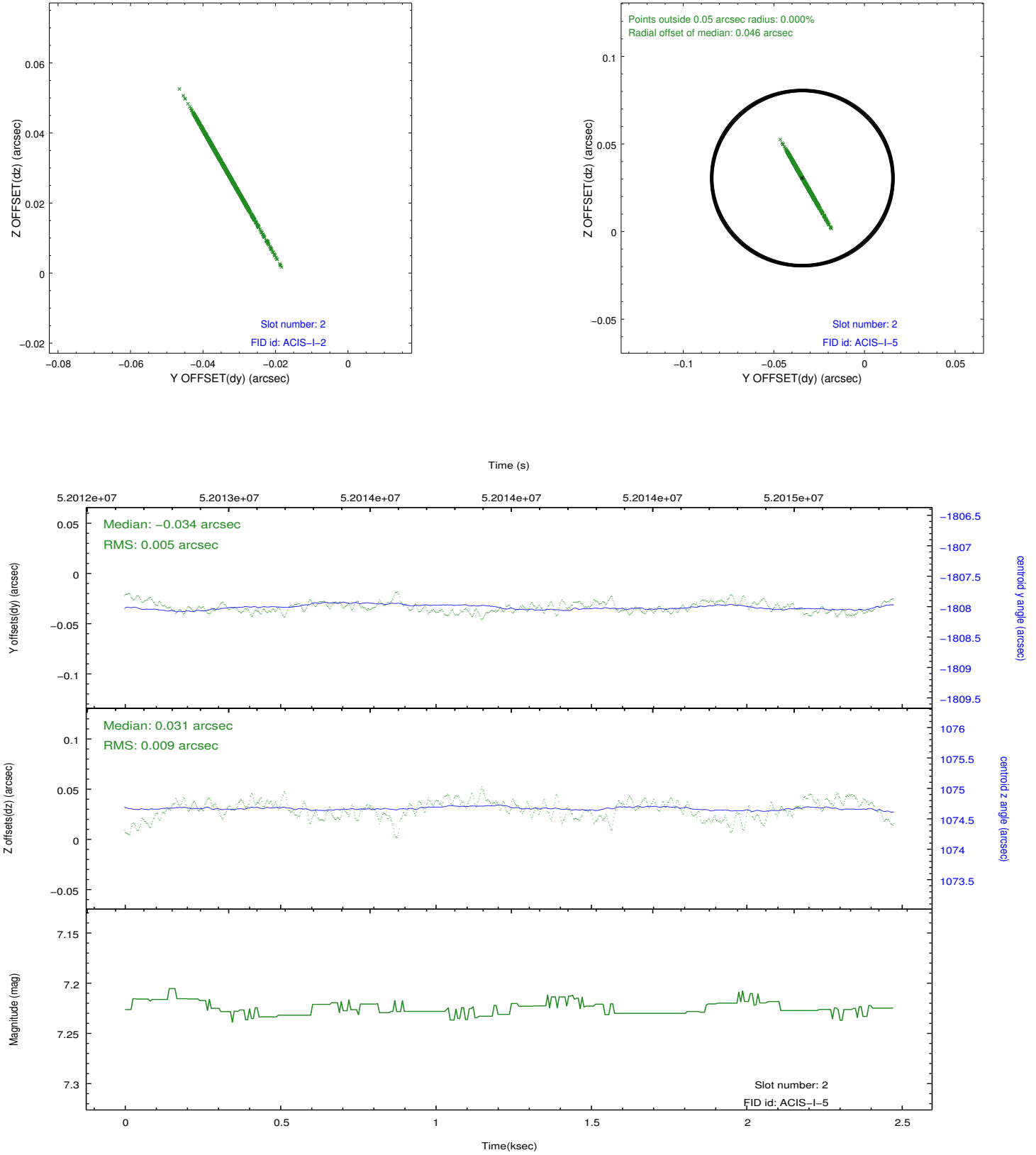


## 2.5 FID Slots

### 2.5.1 Slot 0



## 2.5.2 Slot 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	1.884

## A.2 Comments

Off-axis ACIS effective area measurement with Cas A on chip I1. Only I1 chip is read out.

===

Window preference met.

==

Slot 1 was not utilized in this observation.

===

Pileup throughout most of the observation.

===

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.