

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 501 - L2 Version 4

Chandra X-Ray Center

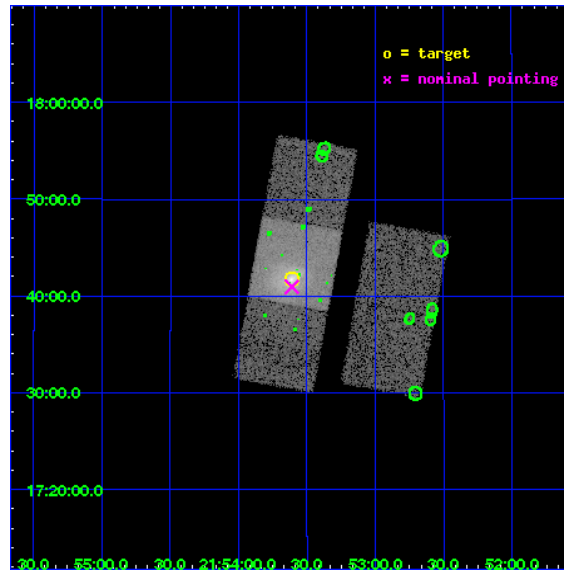
L2 Processing Date : Nov 21 2009

## 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 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>3</b>	<b>Point Sources</b>	<b>17</b>
<b>A</b>	<b>Summary</b>	<b>18</b>
A.1	Status . . . . .	18
A.2	Comments . . . . .	18

# 1 Front

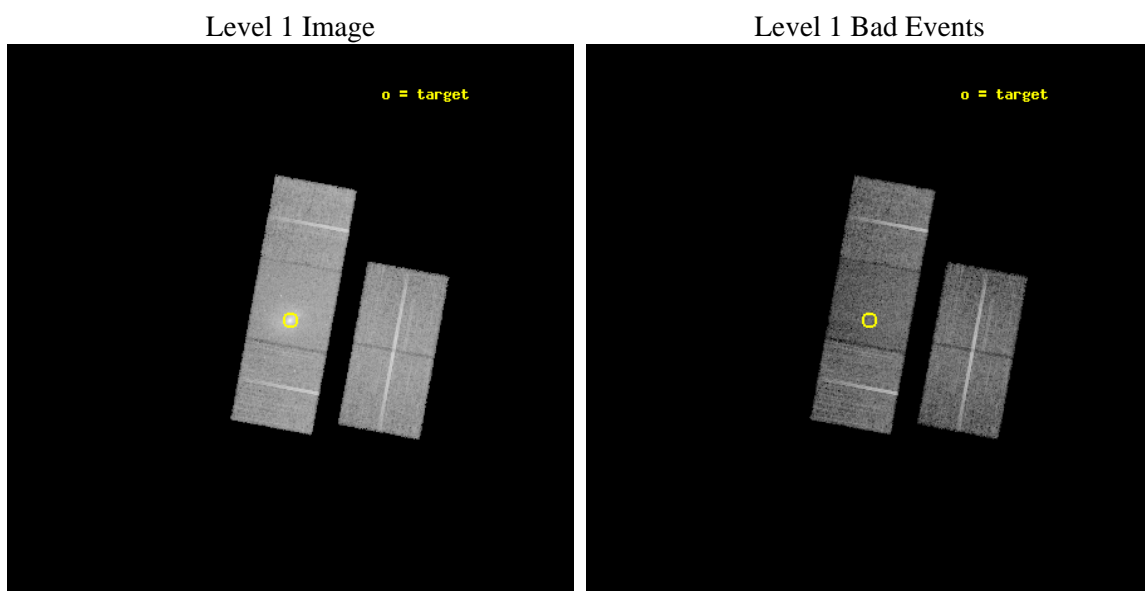
seq_num	800009	Sequence number
obs_id	501	Observation id
title	THE MASSIVE COOLING FLOW IN A2390	Proposal title
observer	Professor Andrew Fabian	Principal investigator
object	A2390	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	328.402083	Observer's specified target RA
dec_targ	17.695833	Observer's specified target Dec
ra_nom	328.40254529131	Nominal RA
dec_nom	17.682721470061	Nominal Dec
roll_nom	280.51029008396	Nominal Roll
revision	4	Processing version of data
ontime	9163.8889131621	Sum of GTIs [s]
livetime	9047.8502339121	Livetime [s]
ontime2	9163.8478731588	Sum of GTIs [s]
ontime3	9163.7657931596	Sum of GTIs [s]
ontime6	9163.8068331629	Sum of GTIs [s]
ontime7	9163.8889131621	Sum of GTIs [s]
ontime8	9163.7247531638	Sum of GTIs [s]
l2events	94068	Number of level 2 events



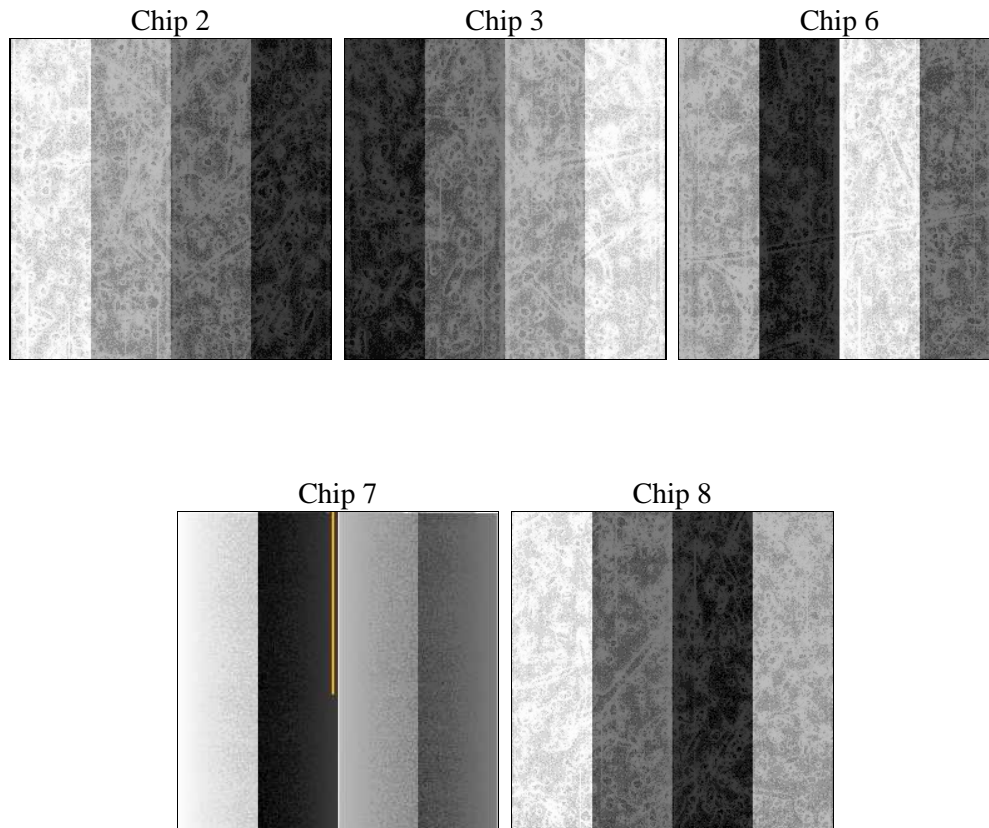
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	10000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	9163.8889131621	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime2	9163.8478731588	Sum of GTIs [s]
date	2009-11-21T10:01:22	Date and time of file creation	ontime3	9163.7657931596	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	9163.8068331629	Sum of GTIs [s]
			ontime7	9163.8889131621	Sum of GTIs [s]
			ontime8	9163.7247531638	Sum of GTIs [s]
			l1events	476958	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	85950	85512	89704	116600	99192
rejected events	77630	77018	79864	54934	82633
rejected %	90%	90%	89%	47%	83%

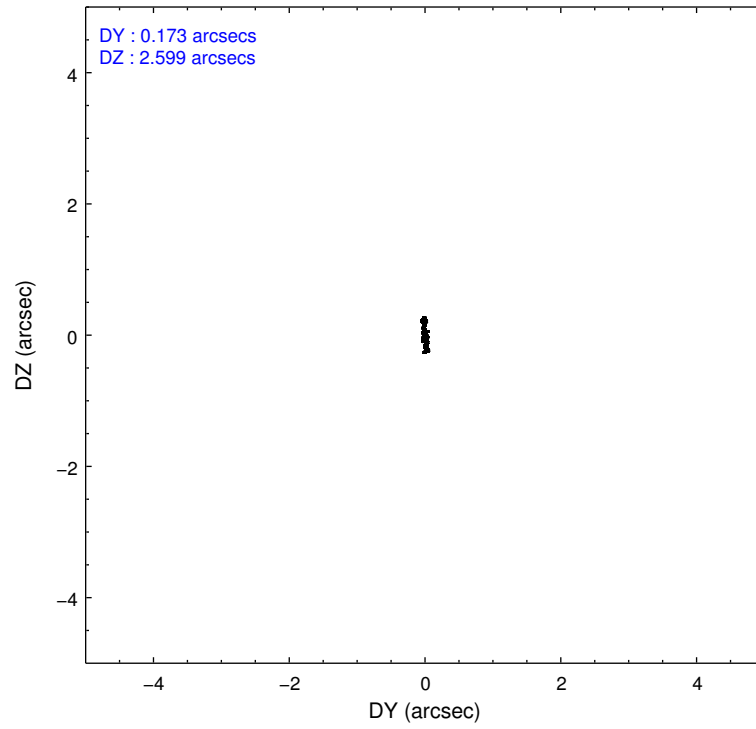
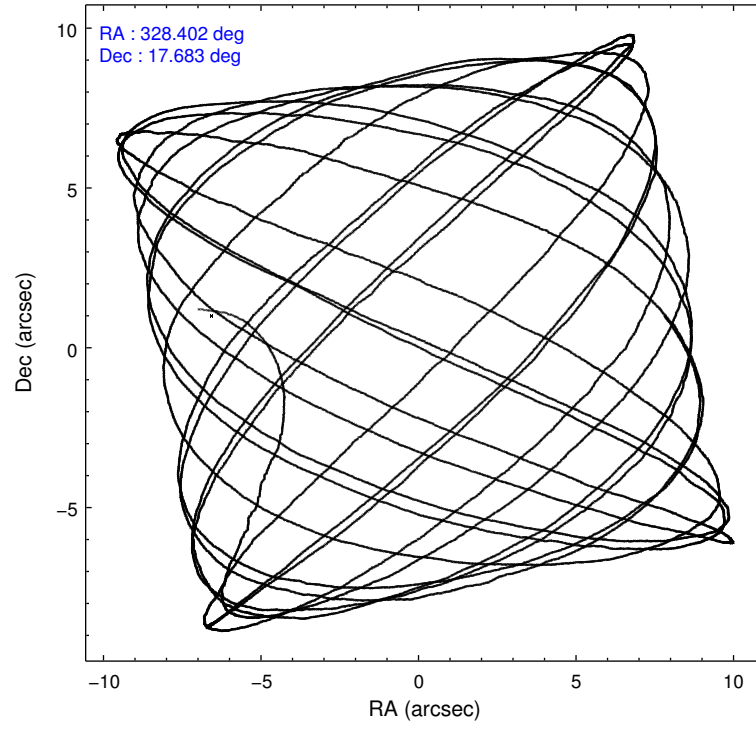
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1843	1835	2439	9534	3874
	2%	2%	2%	8%	3%
grade 1 events	14	20	20	56	23
	0%	0%	0%	0%	0%
grade 2 events	3259	3351	3662	14532	5481
	3%	3%	4%	12%	5%
grade 3 events	569	558	579	5356	1350
	0%	0%	0%	4%	1%
grade 4 events	544	488	546	4693	1192
	0%	0%	0%	4%	1%
grade 5 events	1450	1558	1811	5453	2329
	1%	1%	2%	4%	2%
grade 6 events	2109	2271	2622	27600	4671
	2%	2%	2%	23%	4%
grade 7 events	76162	75431	78025	49376	80272
	88%	88%	86%	42%	80%

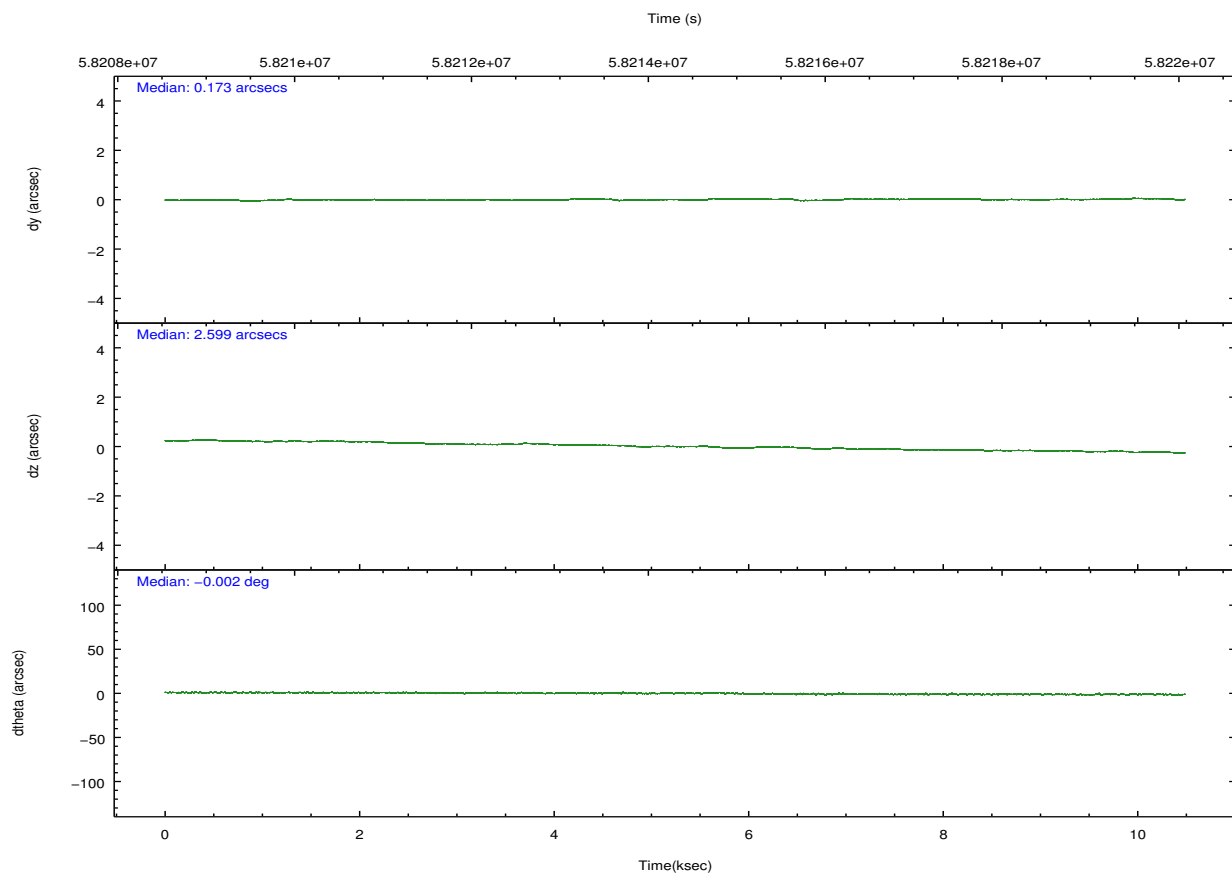
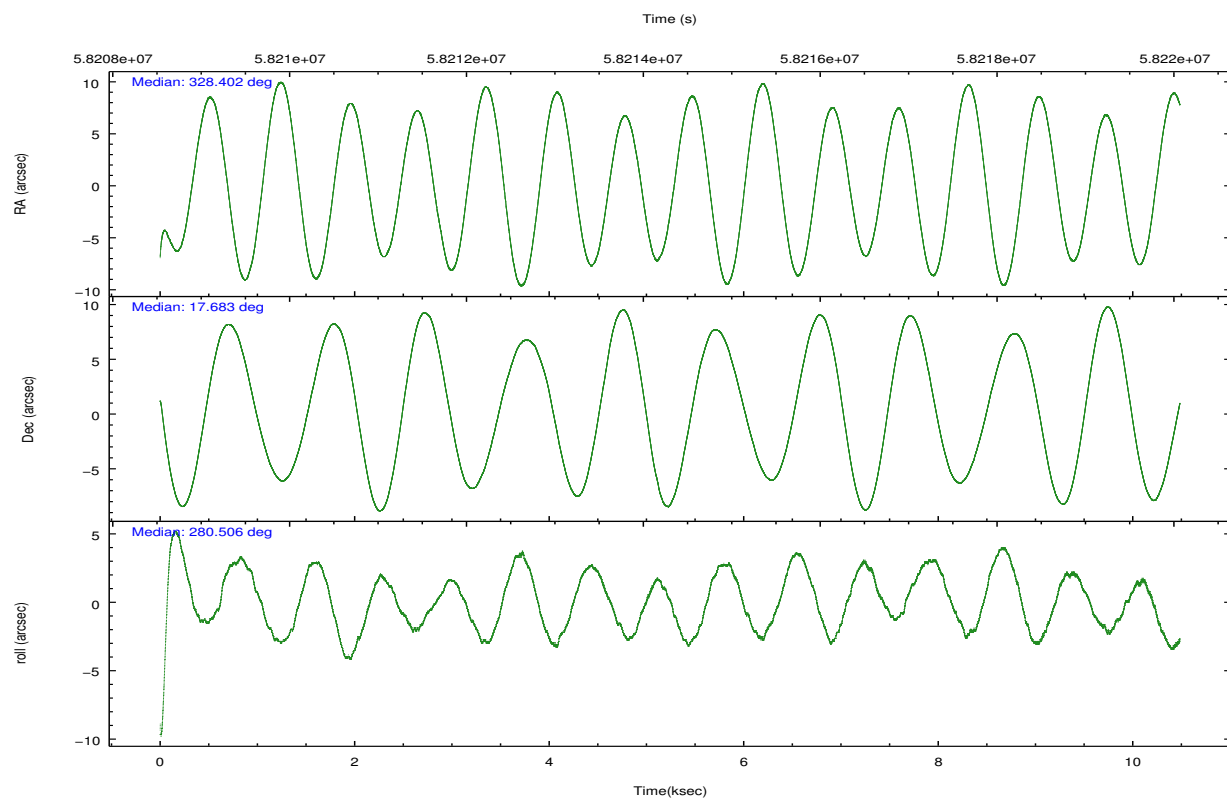


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-23678	ACIS-23678	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	328.383829	328.4025452913077	Subarray requested	NONE	NONE
Pointing Dec	17.703840	17.68272147006104	Alternating exposures requested	N	N
Pointing Roll	280.359361	280.5102900839623	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1425803651734			
SIM translation stage offset (mm)	0	0.01005778216563158			
Observation start time	58209546.184000	58208504.446962			
Observation start date	1999-11-05T17:18:02	1999-11-05T17:01:44			
Observation end time	58219546.184000	58220273.497386			
Observation end date	1999-11-05T20:04:42	1999-11-05T20:17:53			
Read mode	TIMED	TIMED			

## 2.3 Aspect



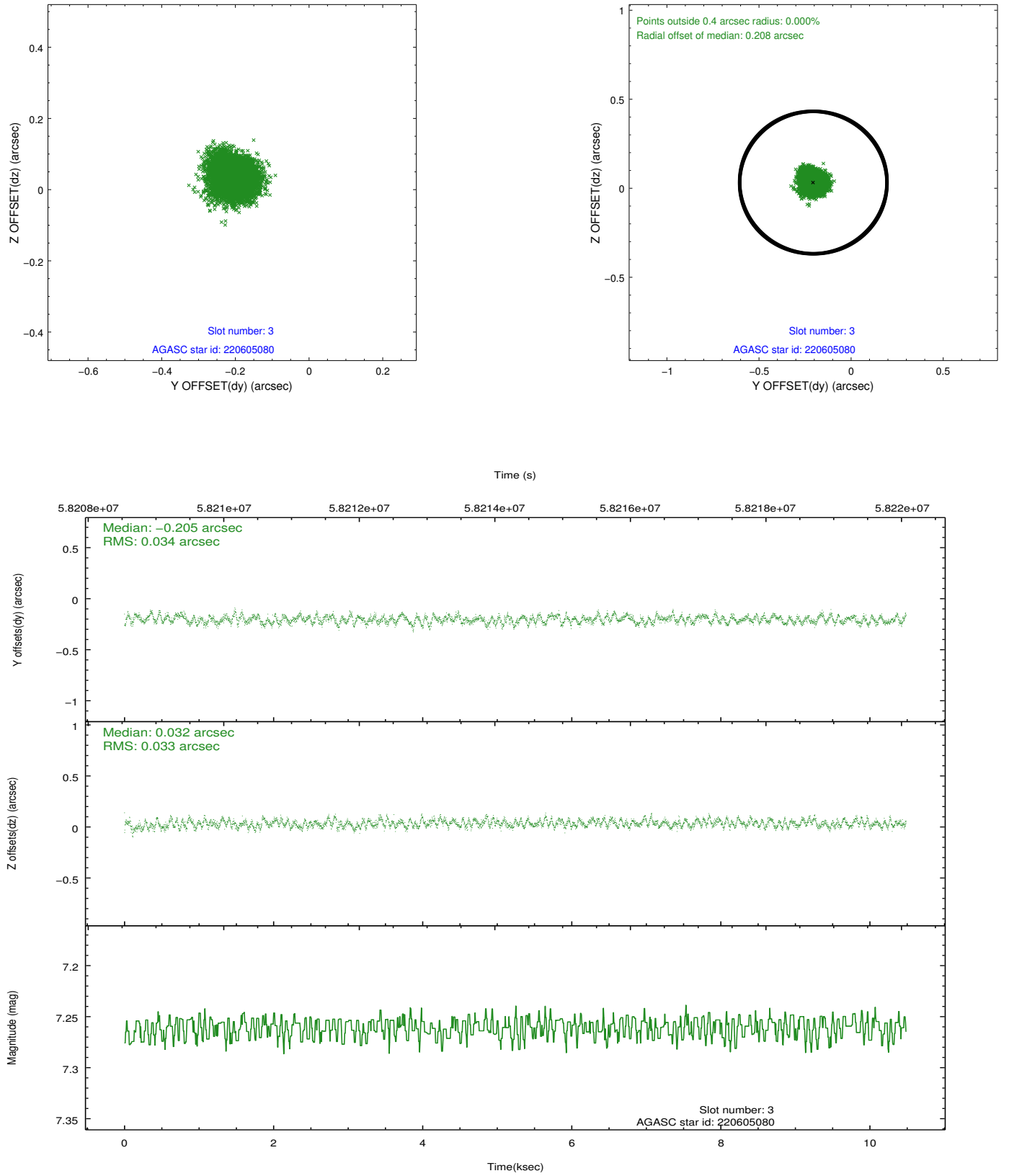


Slot Statistics

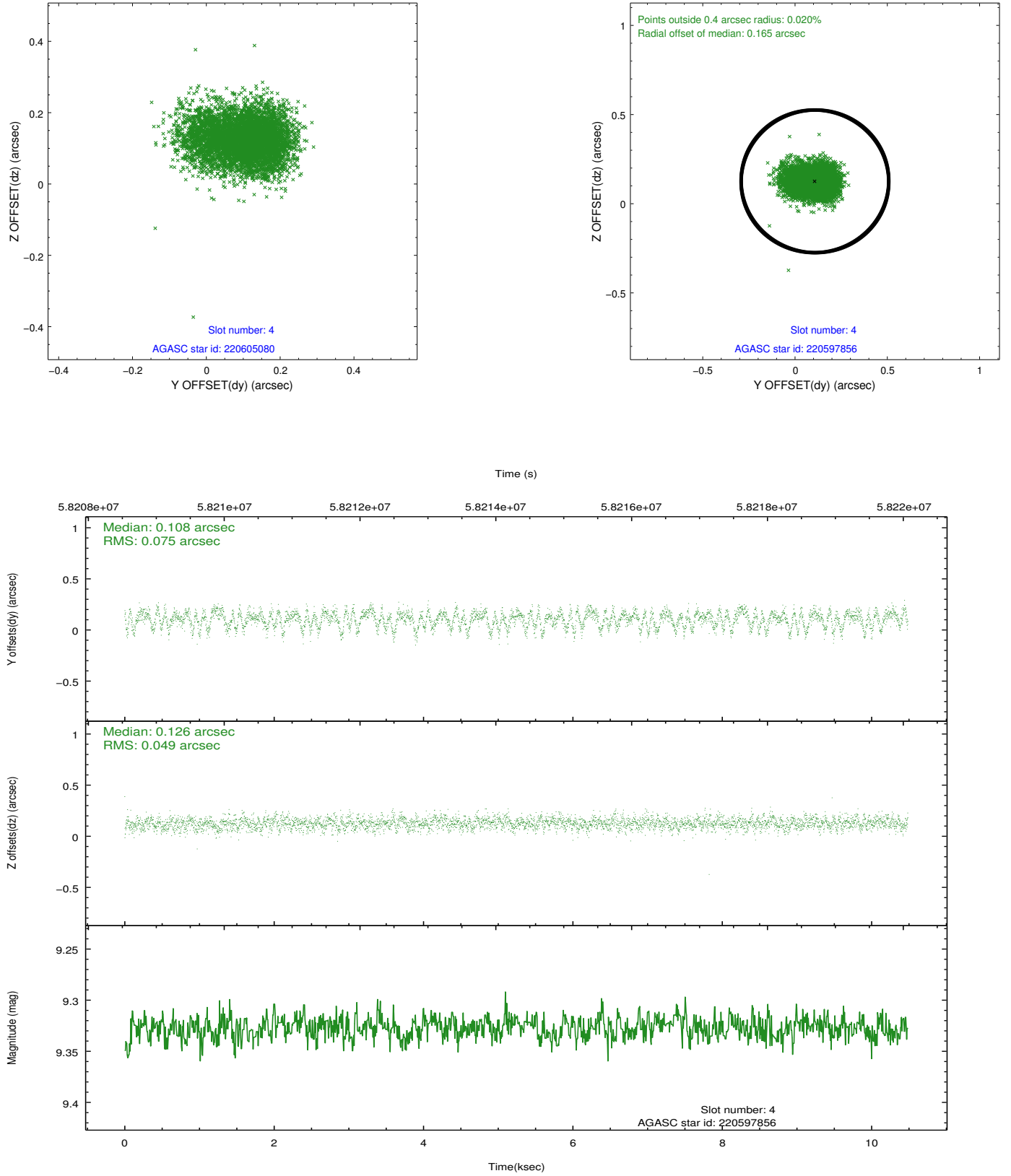
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	5116	0.001	-0.009	0.008	0.013	0.000000	0.000000	-752.79	-1723.58
1	FID	ACIS-S-4	7.21	5115	0.051	0.002	0.006	0.010	0.000000	0.000000	2160.52	184.64
2	FID	ACIS-S-5	7.24	5116	-0.083	0.015	0.008	0.013	0.000000	0.000000	-1805.44	178.65
3	GUIDE	220605080	7.26	5115	-0.205	0.032	0.051	0.080	328.570760	18.022857	-1014.70	836.86
4	GUIDE	220597856	9.33	5113	0.108	0.126	0.094	0.155	329.110726	17.405179	1502.30	2265.10
5	GUIDE	218891280	9.45	5112	-0.005	-0.103	0.088	0.144	327.918129	17.875218	-894.83	-1457.21
6	GUIDE	220608888	9.67	5109	-0.118	0.093	0.090	0.149	328.198741	18.292633	-2198.89	-240.69
7	GUIDE	220608024	9.78	5111	0.228	-0.152	0.132	0.212	328.017372	16.973507	2358.79	-1713.10

## 2.4 Star Slots

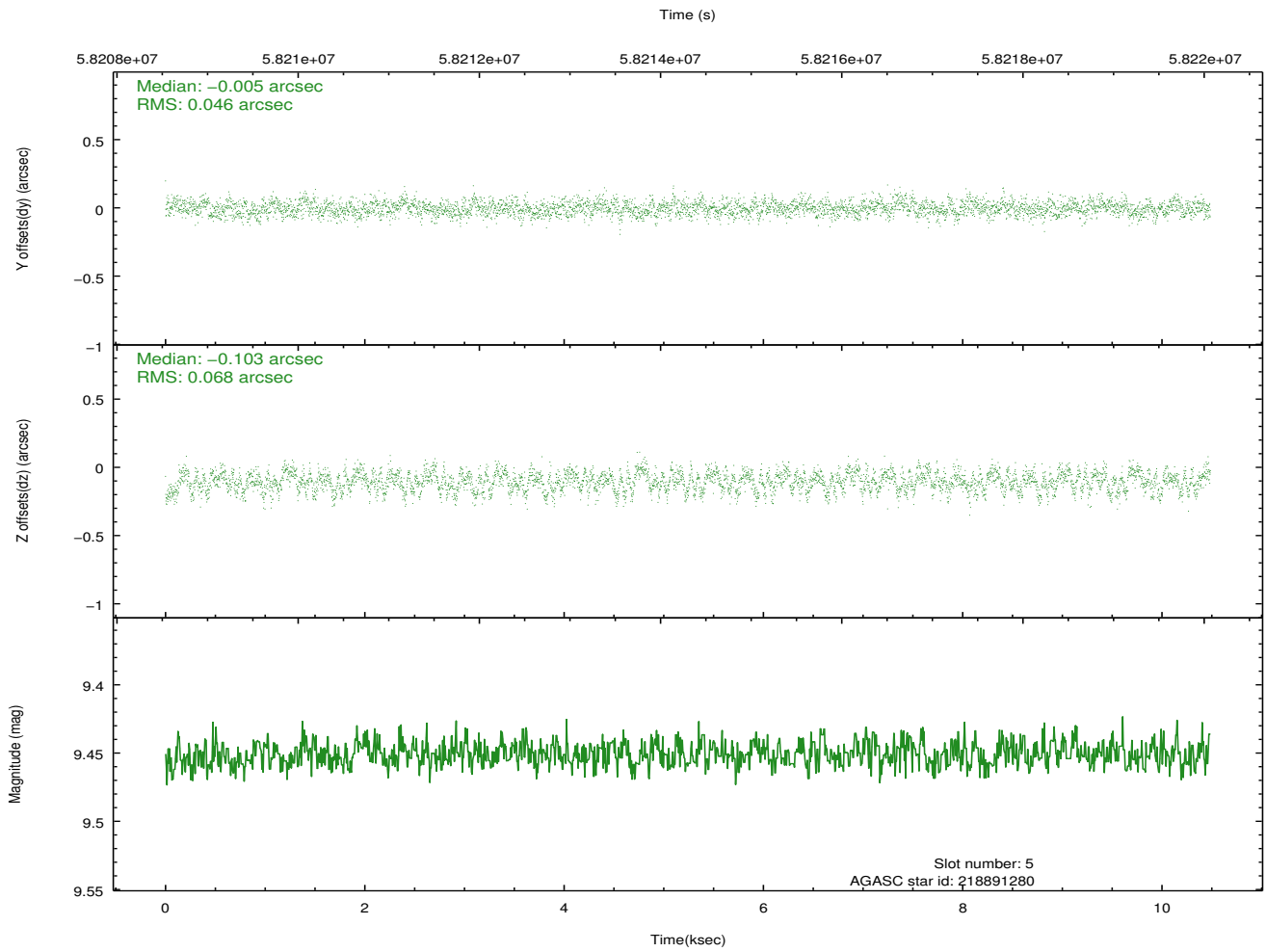
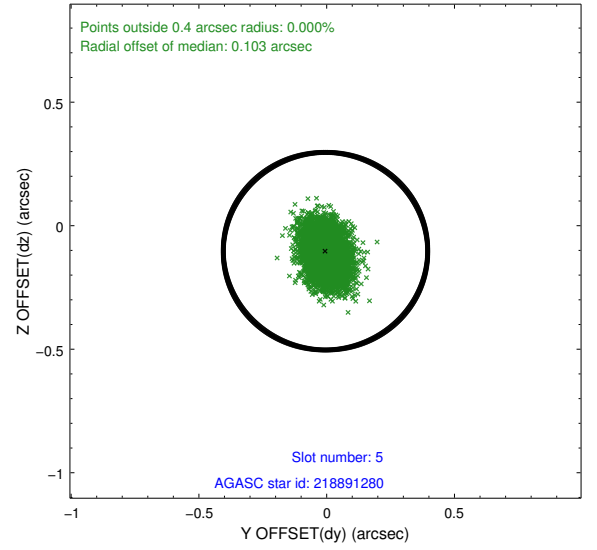
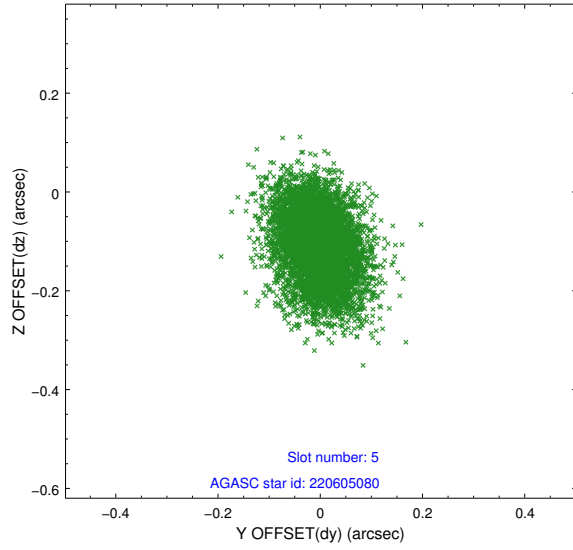
### 2.4.1 Slot 3



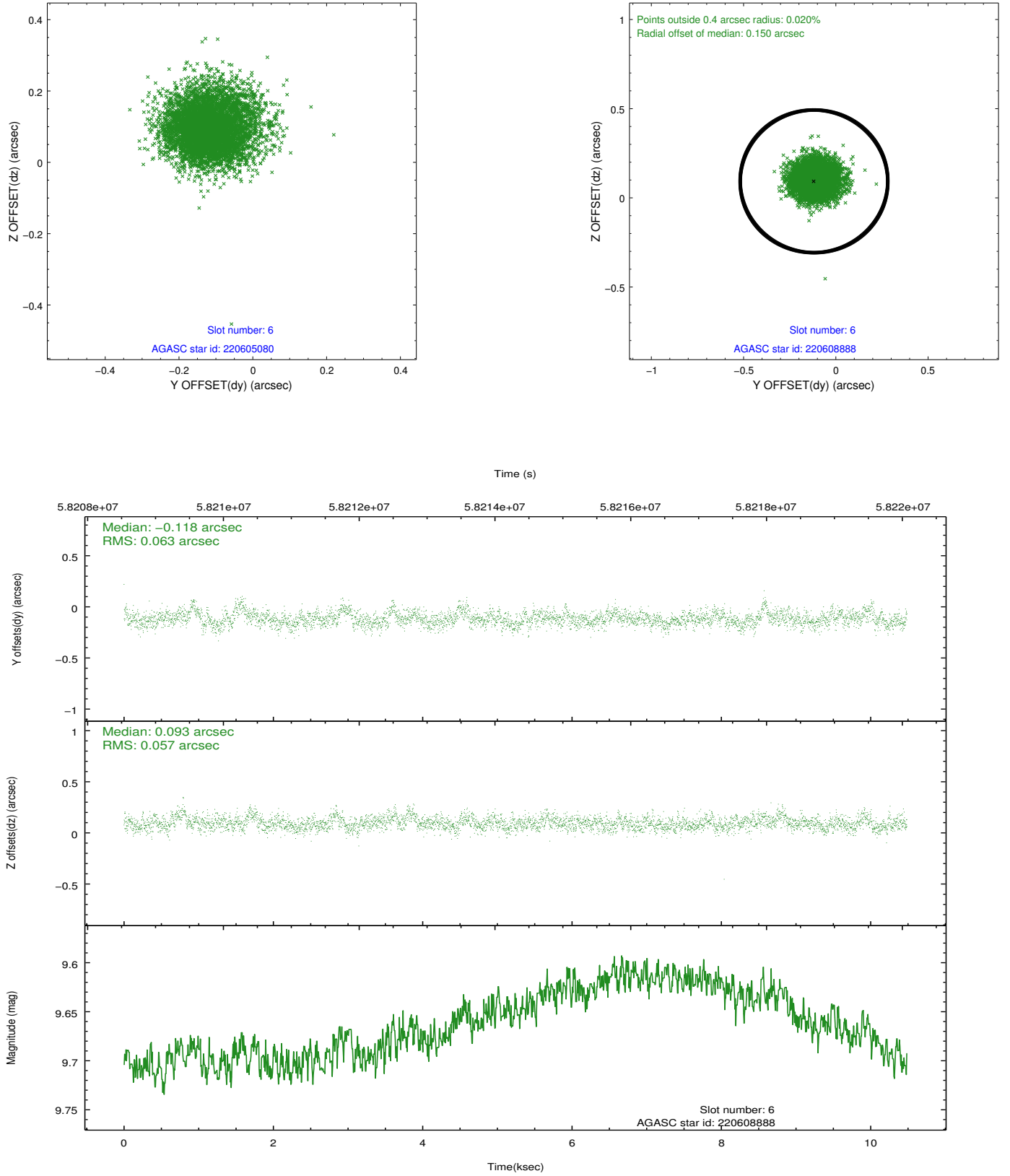
## 2.4.2 Slot 4



### 2.4.3 Slot 5

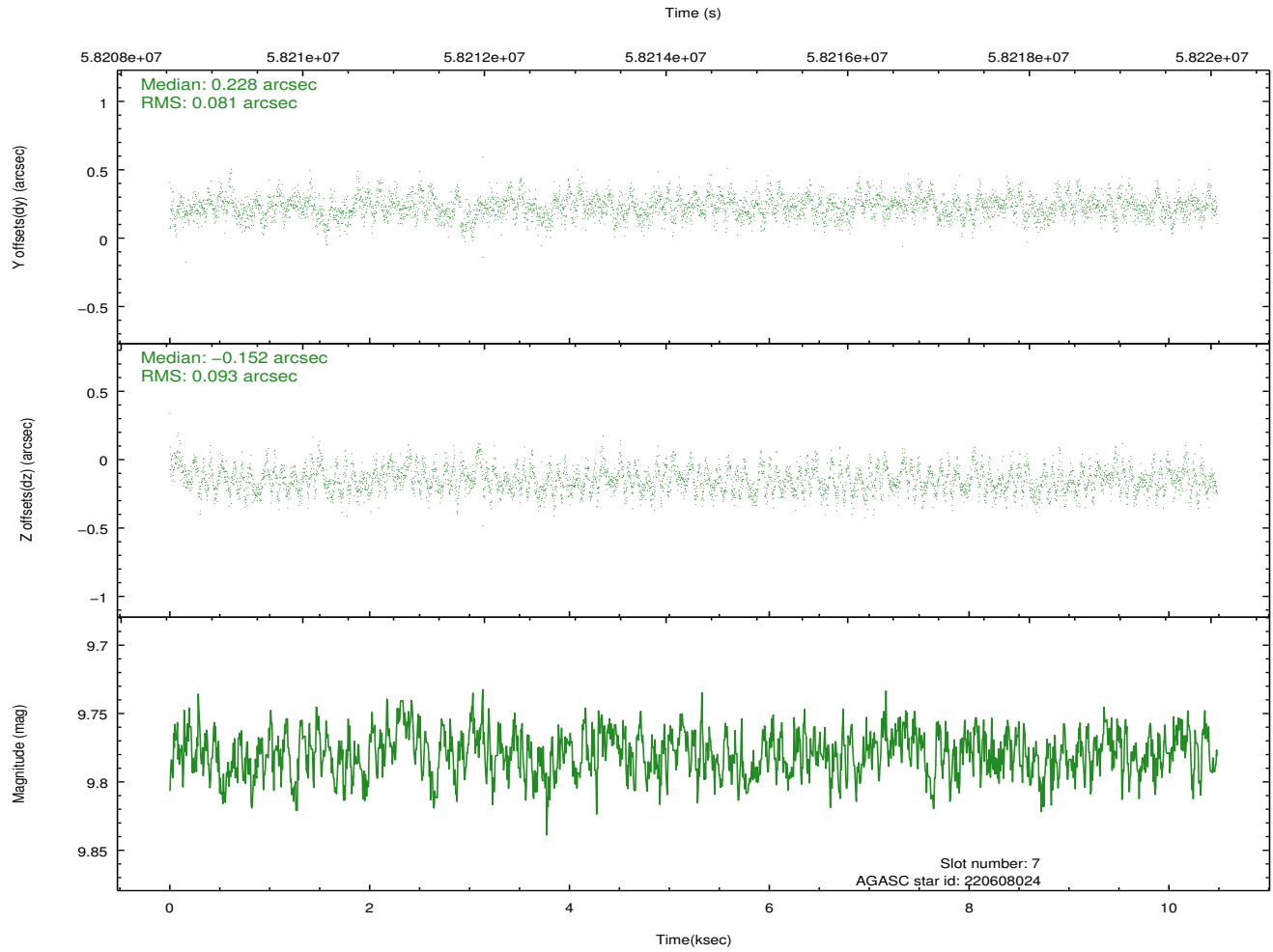
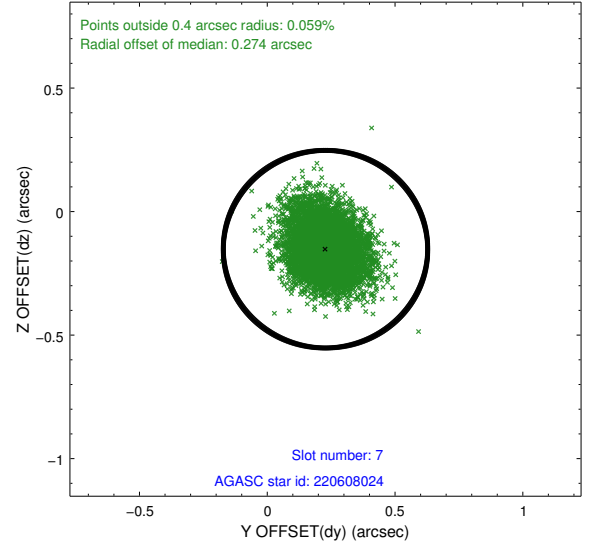
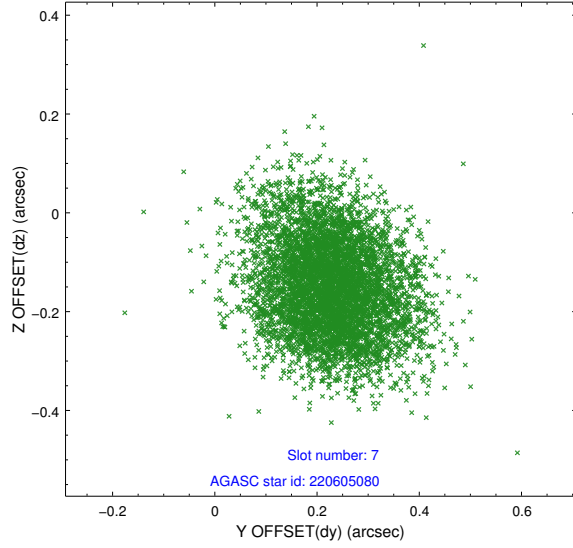


## 2.4.4 Slot 6



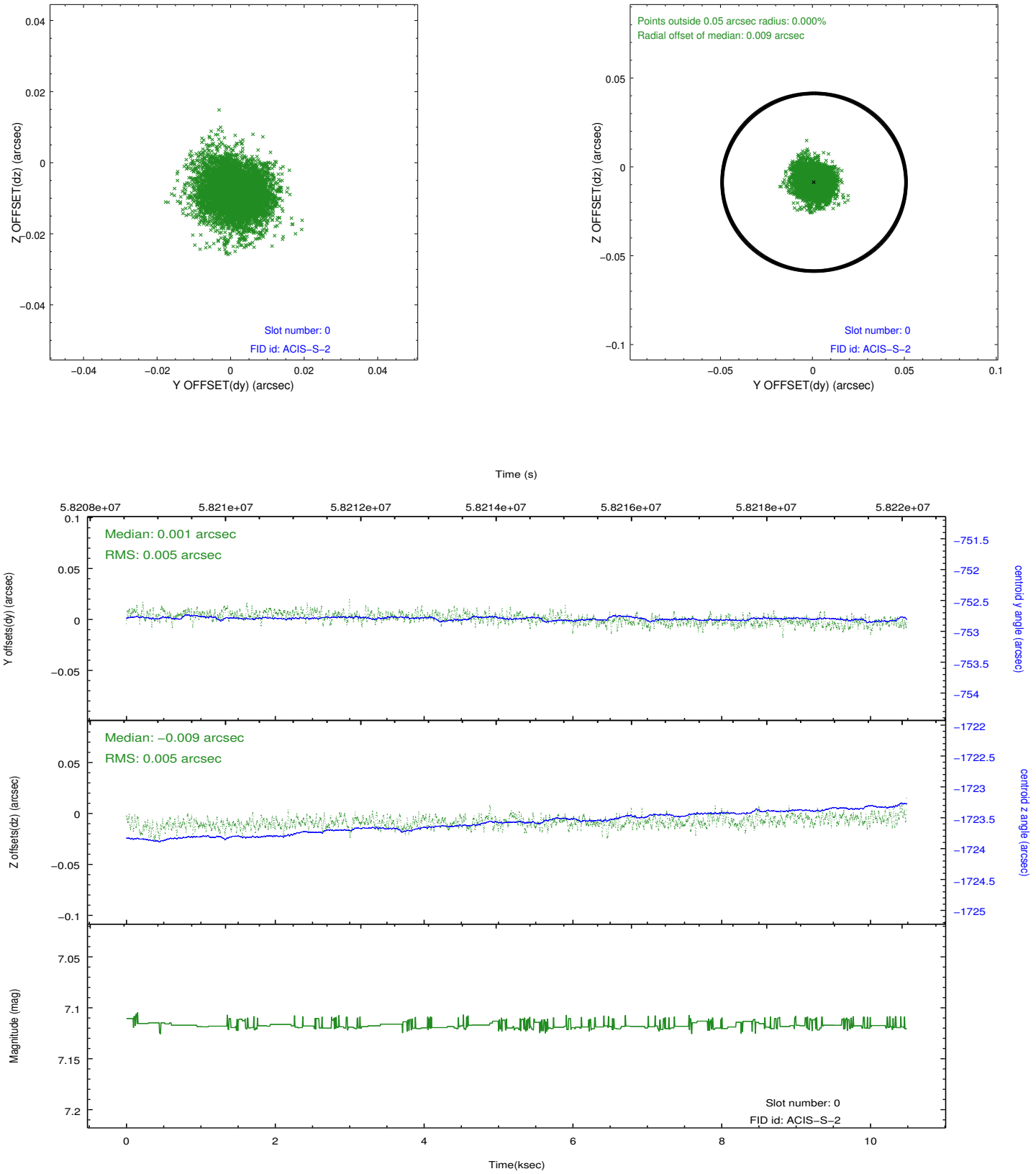


## 2.4.5 Slot 7

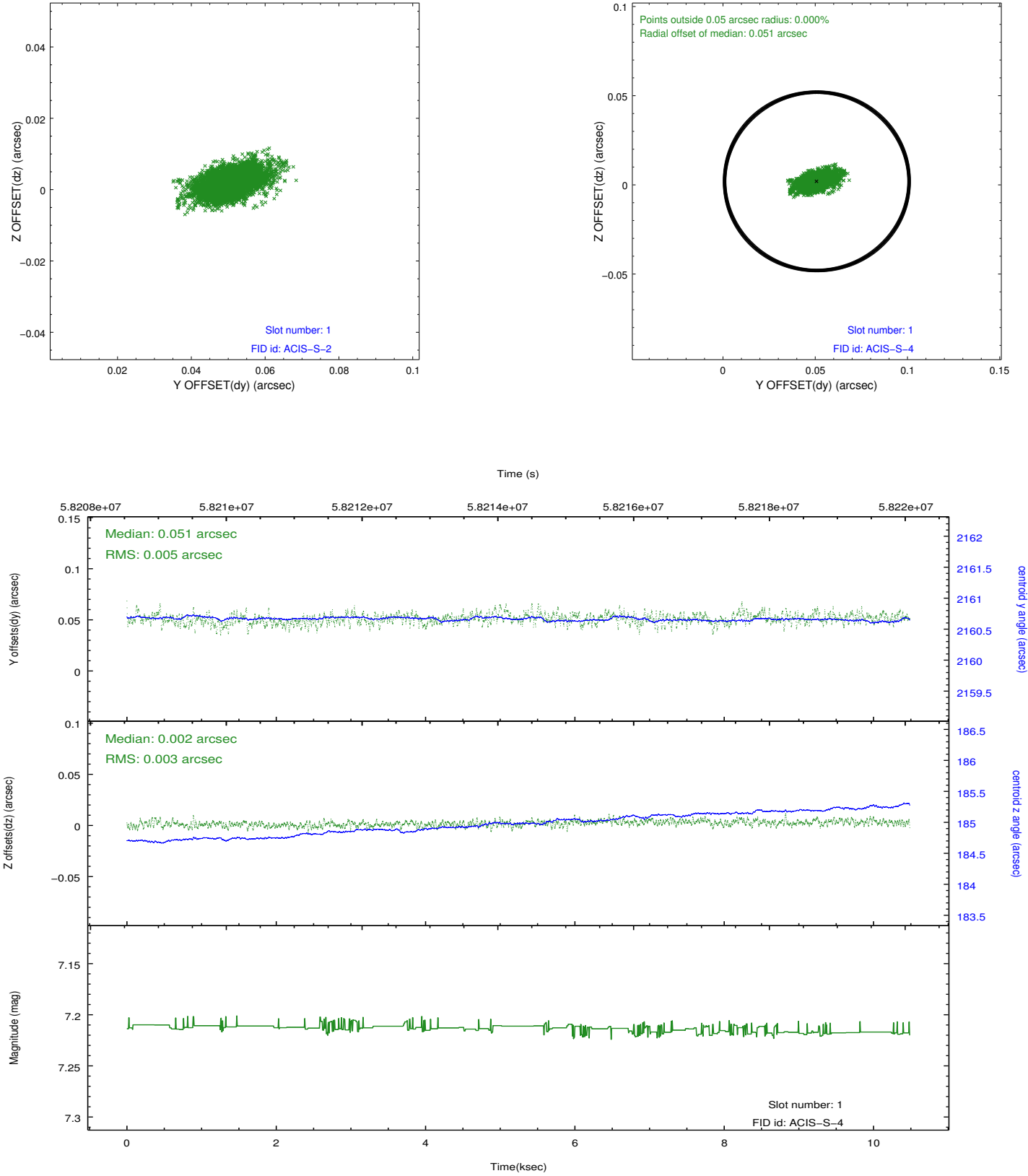


## 2.5 FID Slots

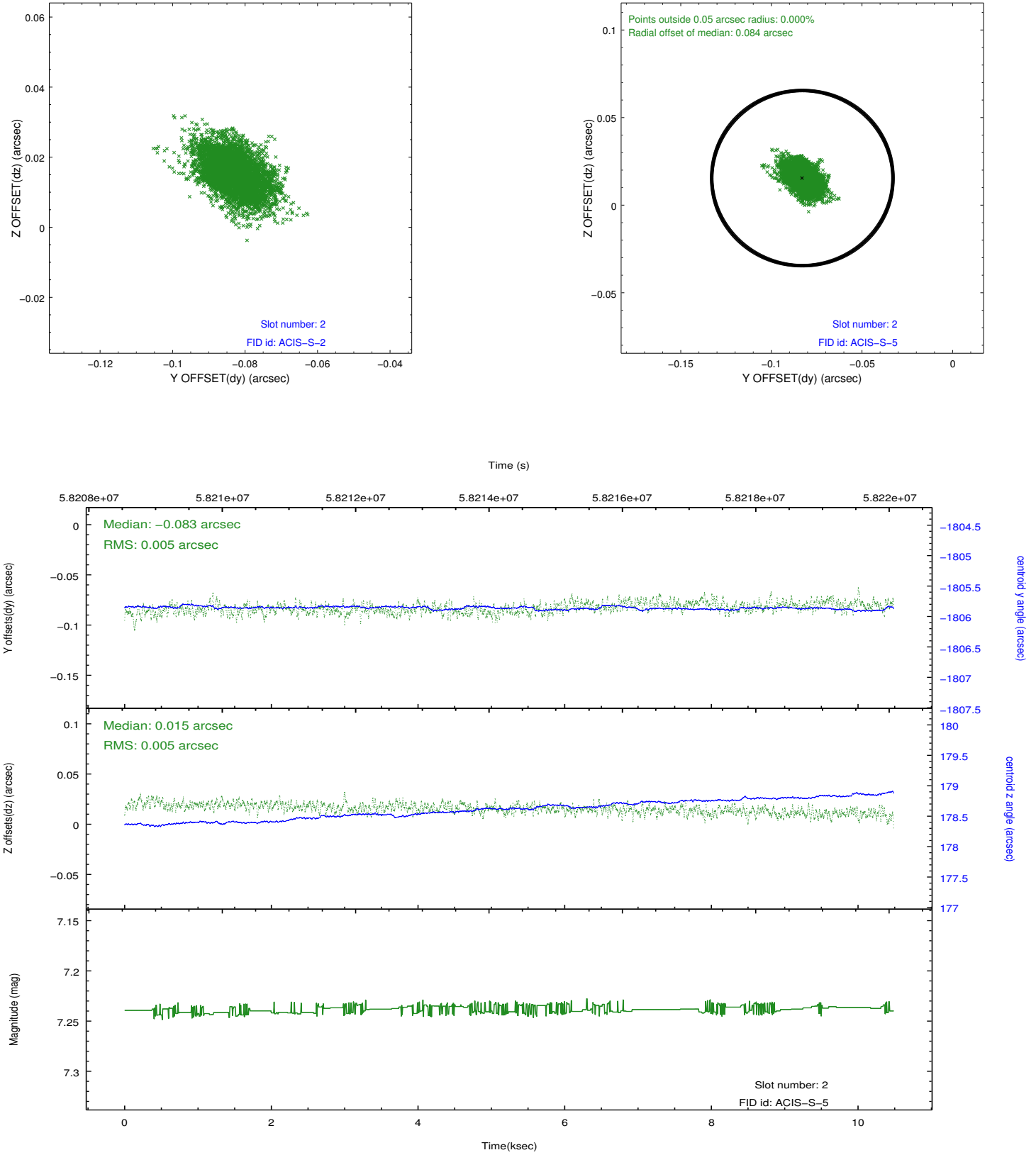
### 2.5.1 Slot 0



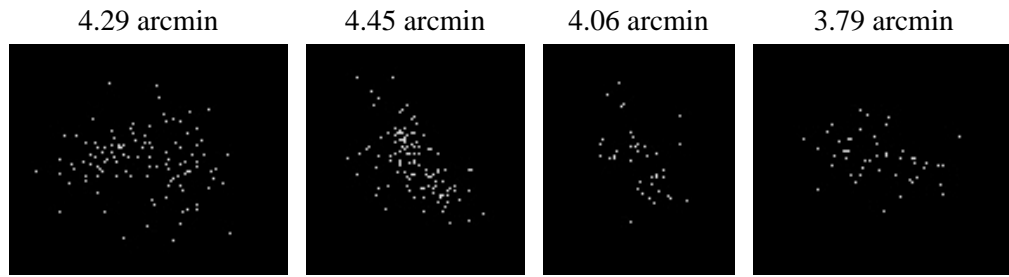
## 2.5.2 Slot 1



## 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.01.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.164

## A.2 Comments

Focal plane temperature is approximately -110 C degrees during this observation. ACIS has not been calibrated at this temperature, because the focal plan temperature of -119.7 C degrees became the standard shortly

after the start of the mission. Both front and back illuminated chips are affected.

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.

This reprocessing

of the data applies no CTI correction because none is available for this temperature.