

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 1087 - L2 Version 3

Chandra X-Ray Center

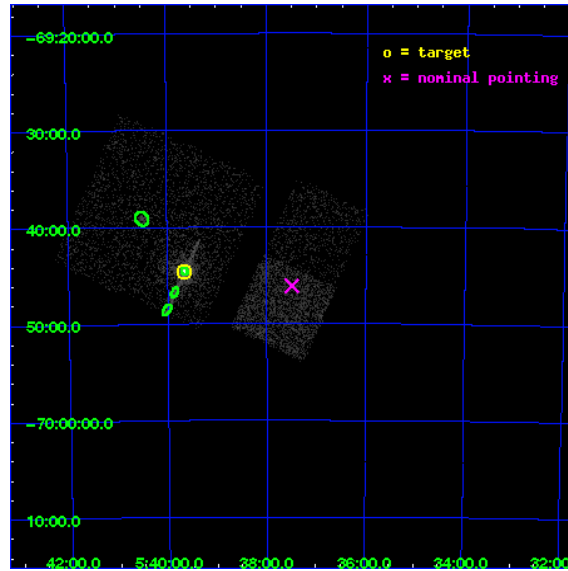
L2 Processing Date : Dec 17 2009

## 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 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

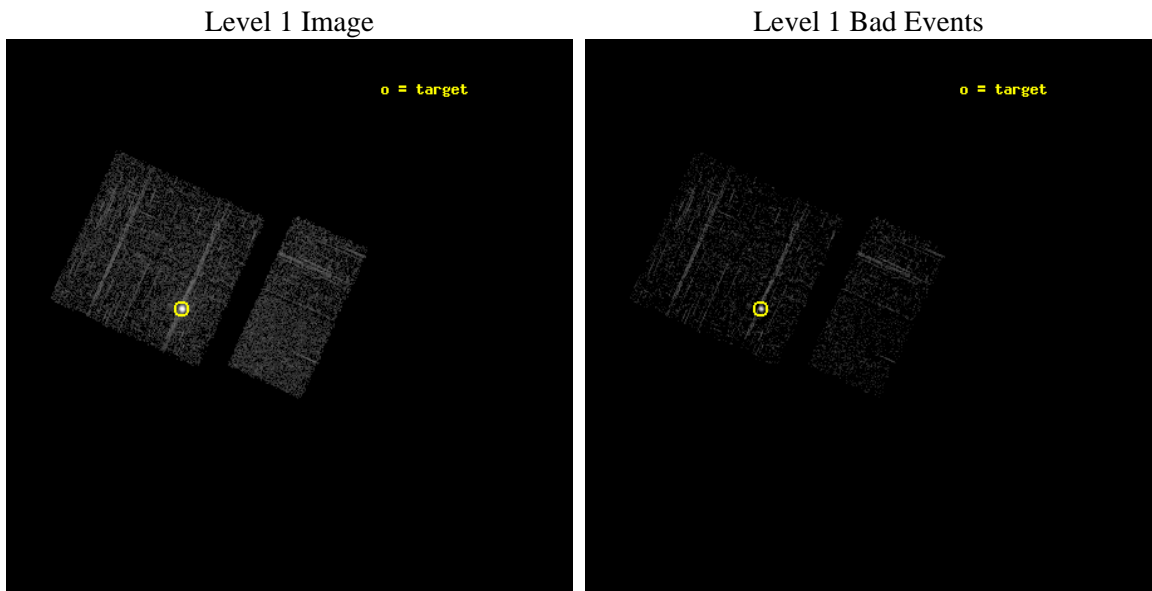
seq_num	480037	Sequence number
obs_id	1087	Observation id
title	&#160	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	LMC X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.914583	Observer's specified target RA
dec_targ	-69.743611	Observer's specified target Dec
ra_nom	84.372750536795	Nominal RA
dec_nom	-69.768619233087	Nominal Dec
roll_nom	114.48856515041	Nominal Roll
revision	3	Processing version of data
ontime	752.00000070035	Sum of GTIs [s]
livetime	742.47772389145	Livetime [s]
ontime0	752.00000070035	Sum of GTIs [s]
ontime1	752.00000070035	Sum of GTIs [s]
ontime2	752.00000070035	Sum of GTIs [s]
ontime3	752.00000070035	Sum of GTIs [s]
ontime6	752.00000070035	Sum of GTIs [s]
ontime7	752.00000070035	Sum of GTIs [s]
l2events	30037	Number of level 2 events



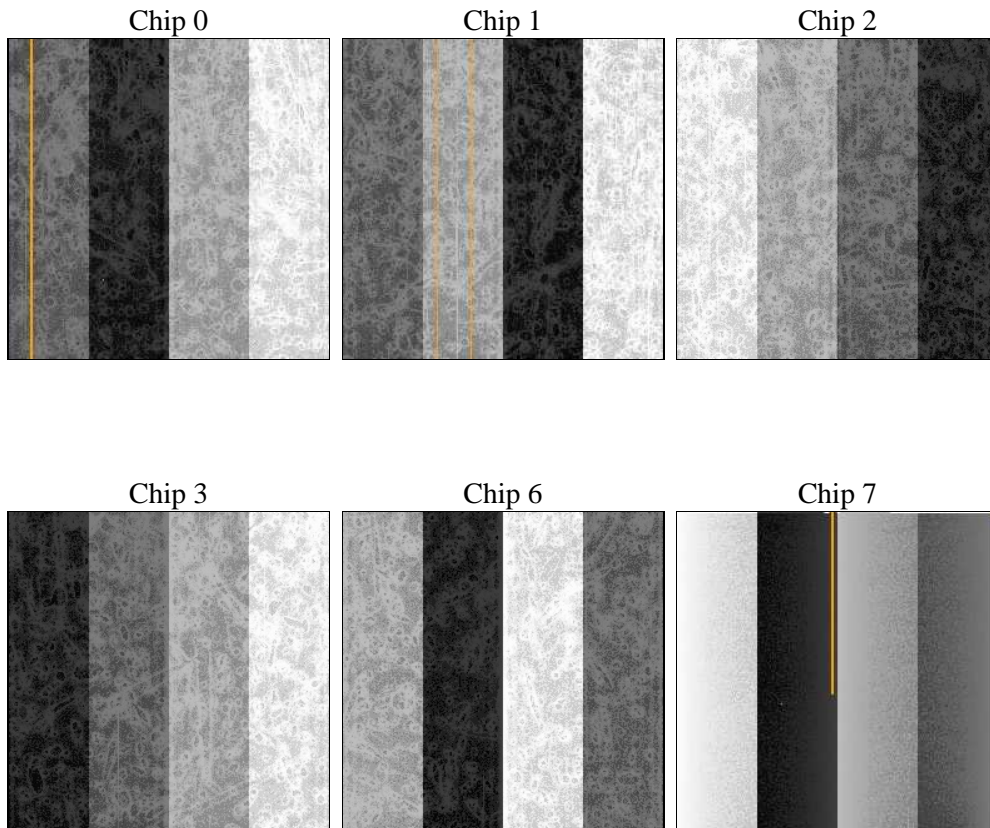
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	752.00000070035	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime0	752.00000070035	Sum of GTIs [s]
date	2009-12-17T06:13:14	Date and time of file creation	ontime1	752.00000070035	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	752.00000070035	Sum of GTIs [s]
			ontime3	752.00000070035	Sum of GTIs [s]
			ontime6	752.00000070035	Sum of GTIs [s]
			ontime7	752.00000070035	Sum of GTIs [s]
			l1events	74049	Number of level 1 events

### 2.1.4 Events

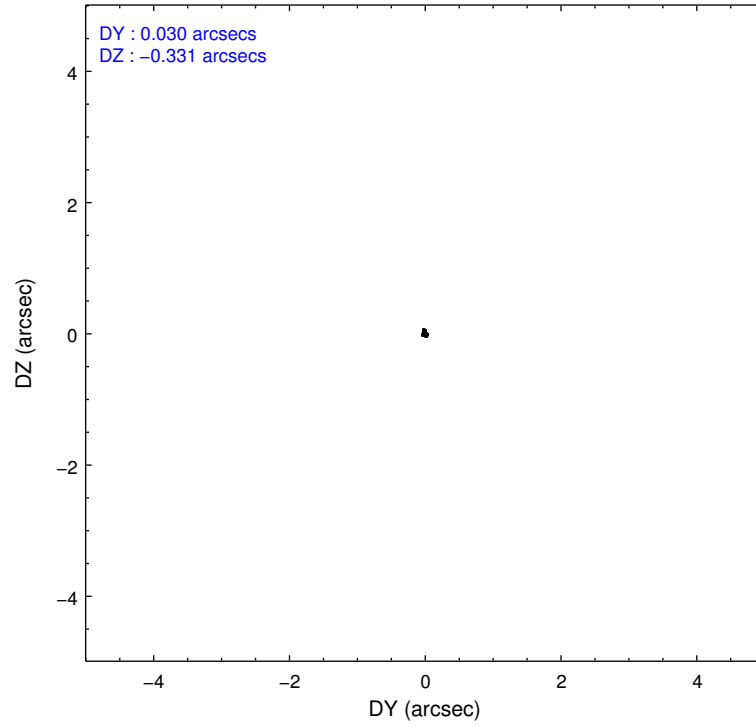
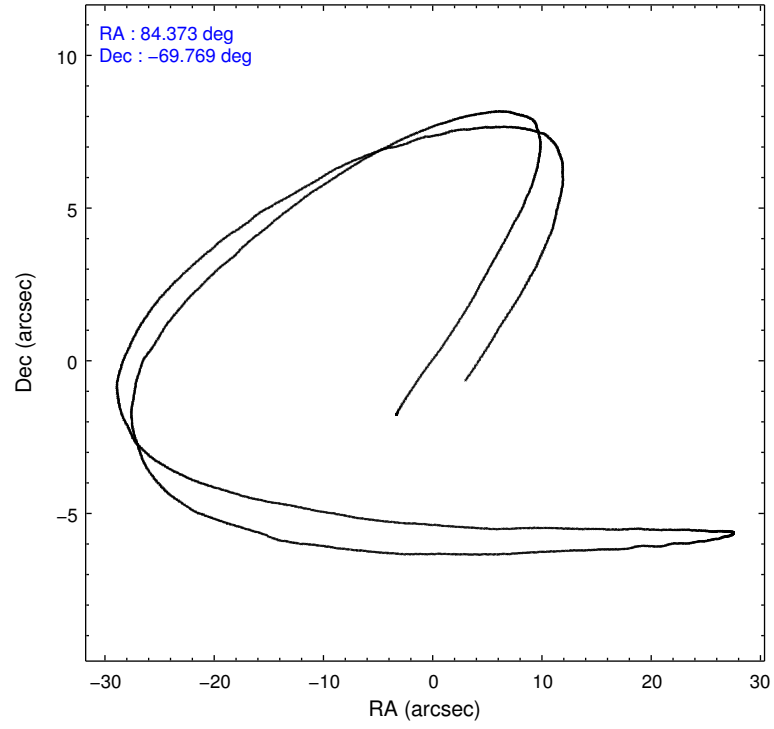
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	7447	7625	7154	36352	7704	7767
rejected events	6598	6587	6291	12100	6877	4528
rejected %	88%	86%	87%	33%	89%	58%

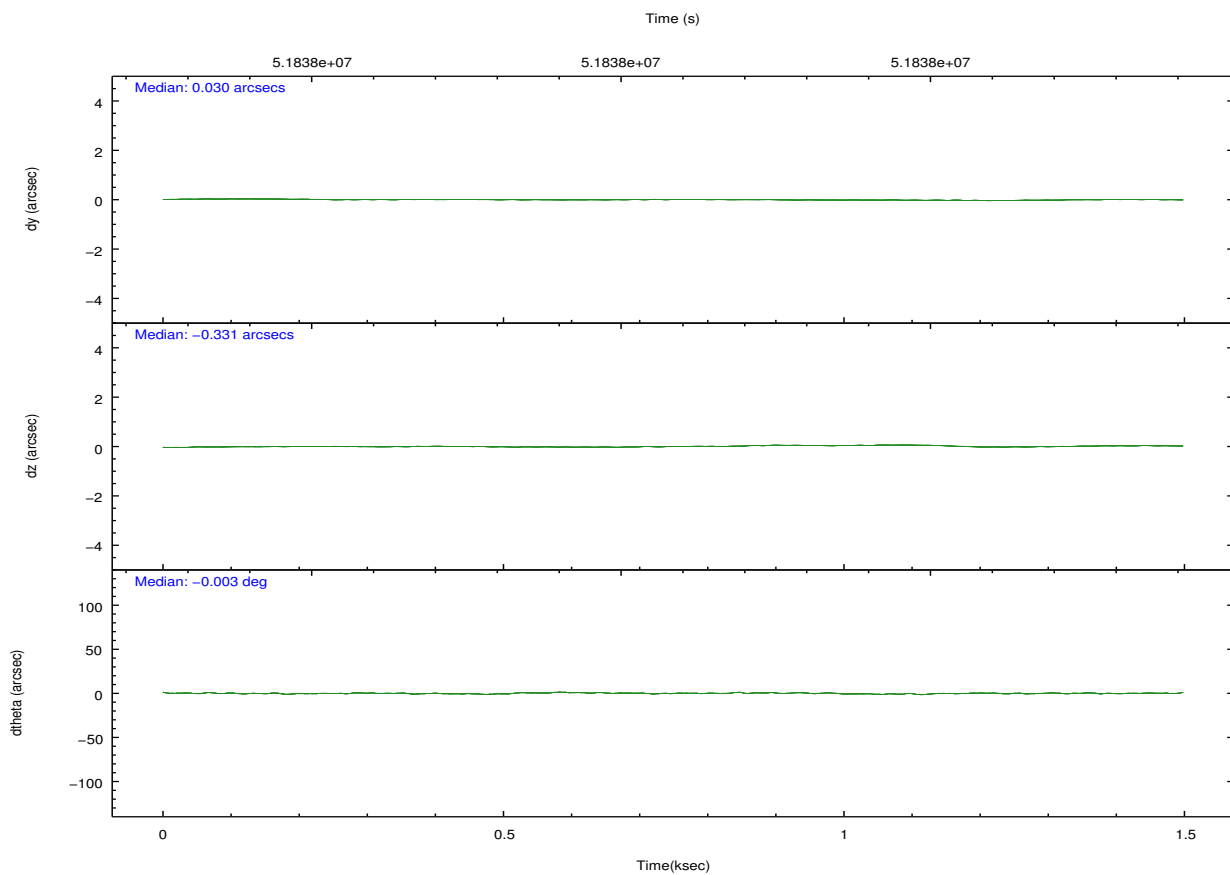
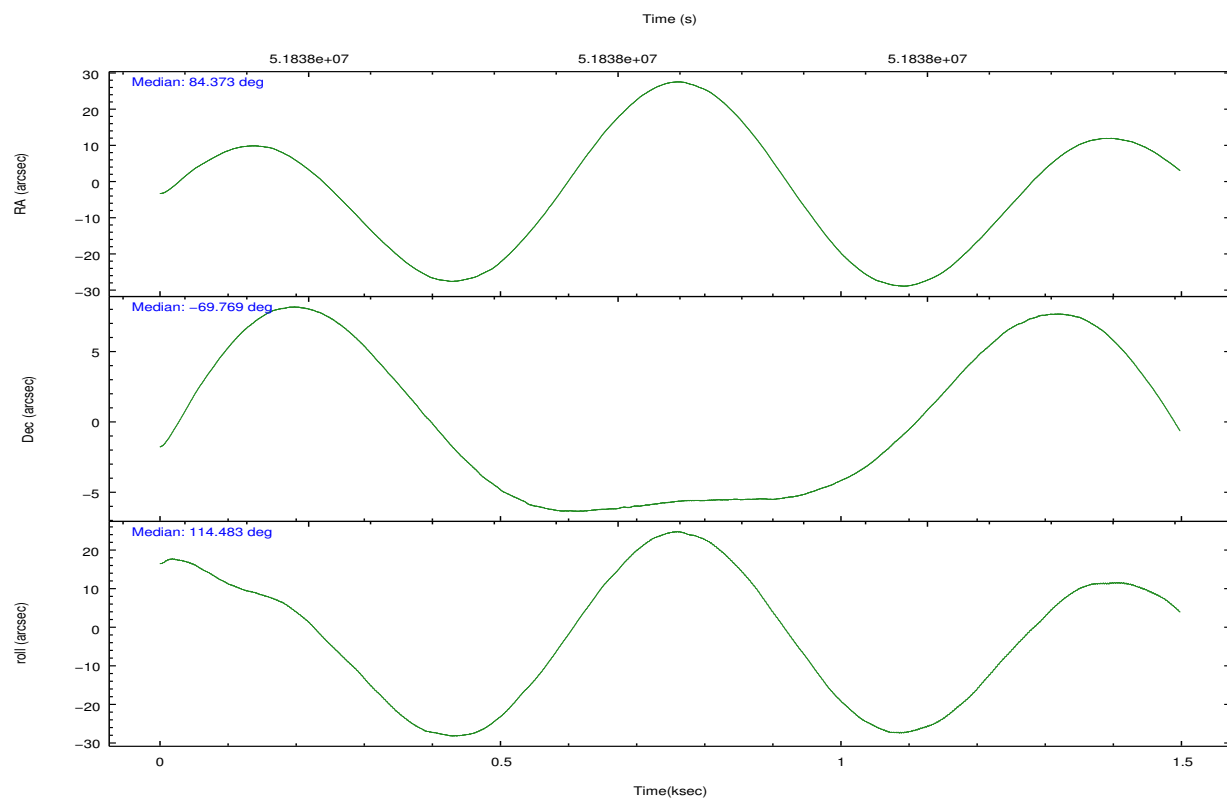
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	395	557	453	16271	399	284
	5%	7%	6%	44%	5%	3%
grade 1 events	3	3	4	2413	2	3
	0%	0%	0%	6%	0%	0%
grade 2 events	184	185	155	3937	182	642
	2%	2%	2%	10%	2%	8%
grade 3 events	72	90	76	1427	71	311
	0%	1%	1%	3%	0%	4%
grade 4 events	70	81	77	1410	53	254
	0%	1%	1%	3%	0%	3%
grade 5 events	194	187	150	1698	160	499
	2%	2%	2%	4%	2%	6%
grade 6 events	139	137	107	1415	126	1767
	1%	1%	1%	3%	1%	22%
grade 7 events	6390	6385	6132	7781	6711	4007
	85%	83%	85%	21%	87%	51%

## 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	84.436951	84.37275053679471	Subarray requested	NONE	NONE
Pointing Dec	-69.785569	-69.76861923308707	Alternating exposures requested	N	N
Pointing Roll	114.392134	114.4885651504092	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.865731118321573			
SIM defocus (mm)	0	-0.1814636570216768			
SIM translation stage pos (mm)	-190.132523	-190.1199515274594			
SIM translation stage offset (mm)	0	-0.012571055548392			
Observation start time	51837835.184000	51837161.612376			
Observation start date	1999-08-23T23:22:51	1999-08-23T23:12:41			
Observation end time	51838835.184000	51838961.512441			
Observation end date	1999-08-23T23:39:31	1999-08-23T23:42:41			
Read mode	TIMED	TIMED			

## 2.3 Aspect





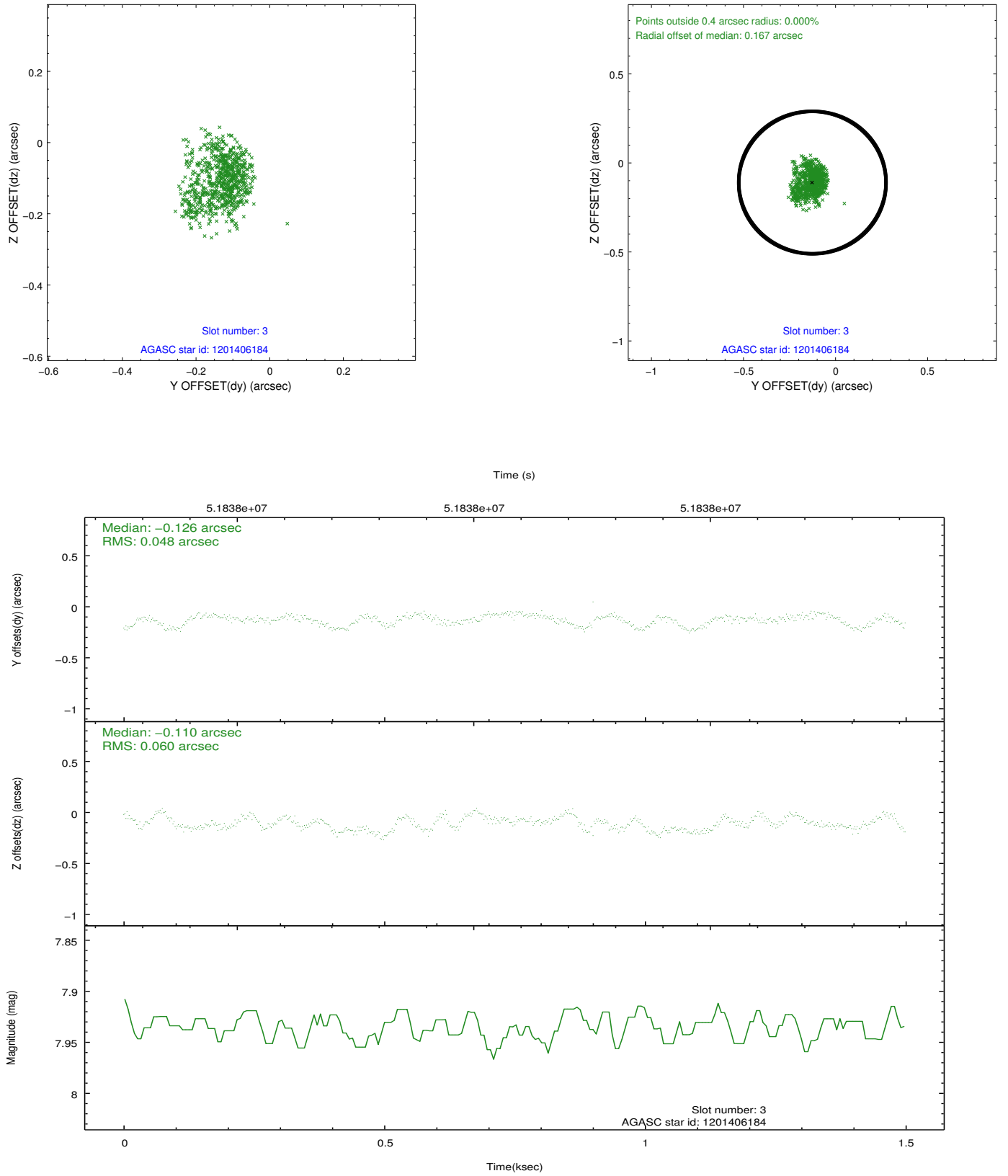
Slot Statistics

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	732	-0.028	-0.031	0.007	0.011	0.000000	0.000000	-752.64	-1721.04
1	FID	ACIS-S-4	7.21	732	0.140	0.022	0.007	0.013	0.000000	0.000000	2159.84	185.21
2	FID	ACIS-S-5	7.24	732	-0.143	0.017	0.009	0.015	0.000000	0.000000	-1802.79	181.39
3	GUIDE	1201406184	7.94	732	-0.126	-0.110	0.083	0.131	82.503234	-69.975517	325.69	2468.99
4	GUIDE	1201541752	7.35	732	-0.122	0.075	0.064	0.103	85.373891	-70.033762	-1298.09	-672.50
5	GUIDE	1201406992	9.27	732	0.216	-0.017	0.072	0.121	83.682859	-69.471866	1413.67	402.69
6	BAD	1201542416	10.09	123	0.065	0.110	0.120	0.188	85.297276	-70.356353	-2300.96	-87.88
7	GUIDE	1201540776	9.60	730	0.042	0.053	0.081	0.133	85.107945	-69.858480	-590.82	-646.90

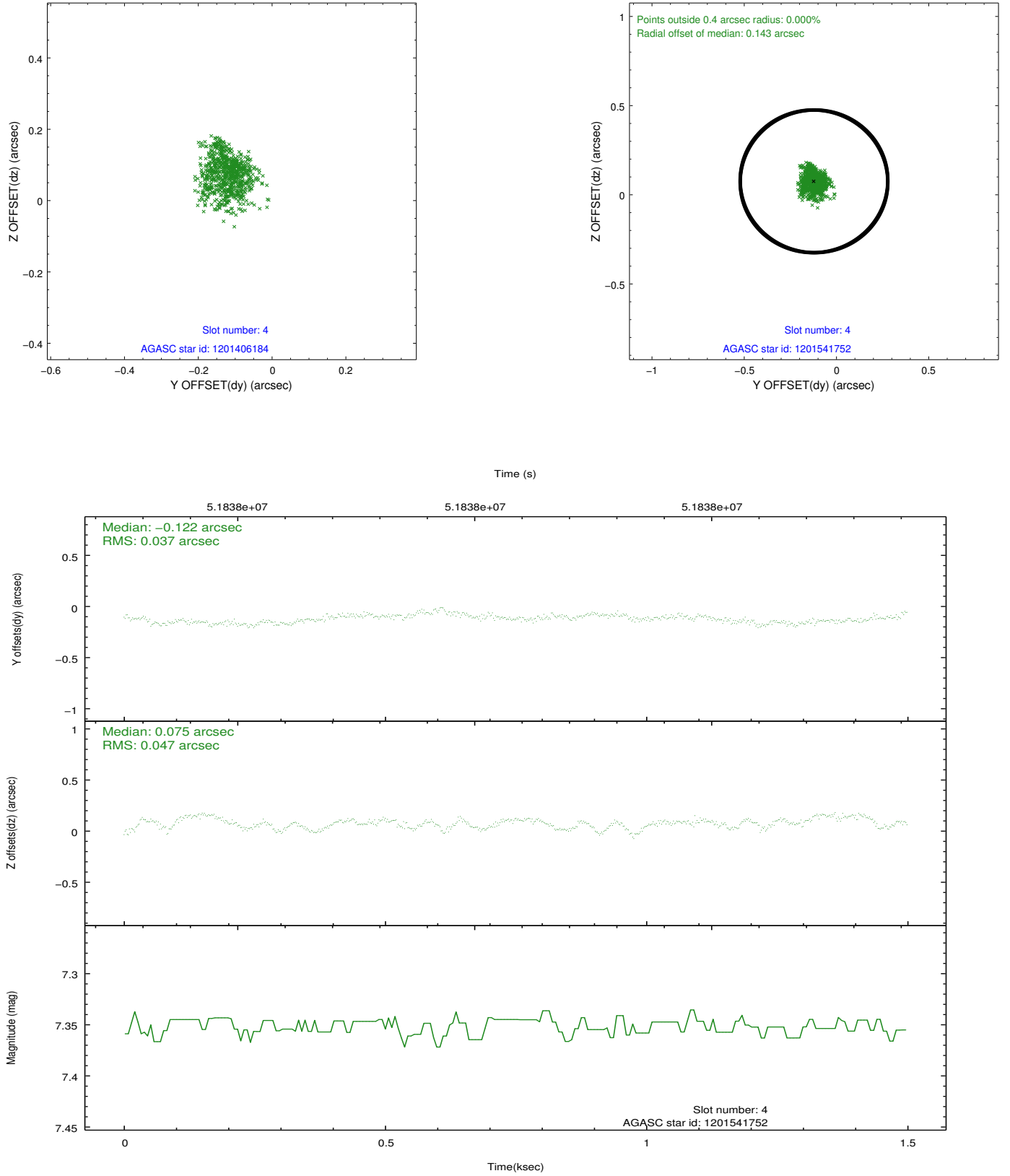


## 2.4 Star Slots

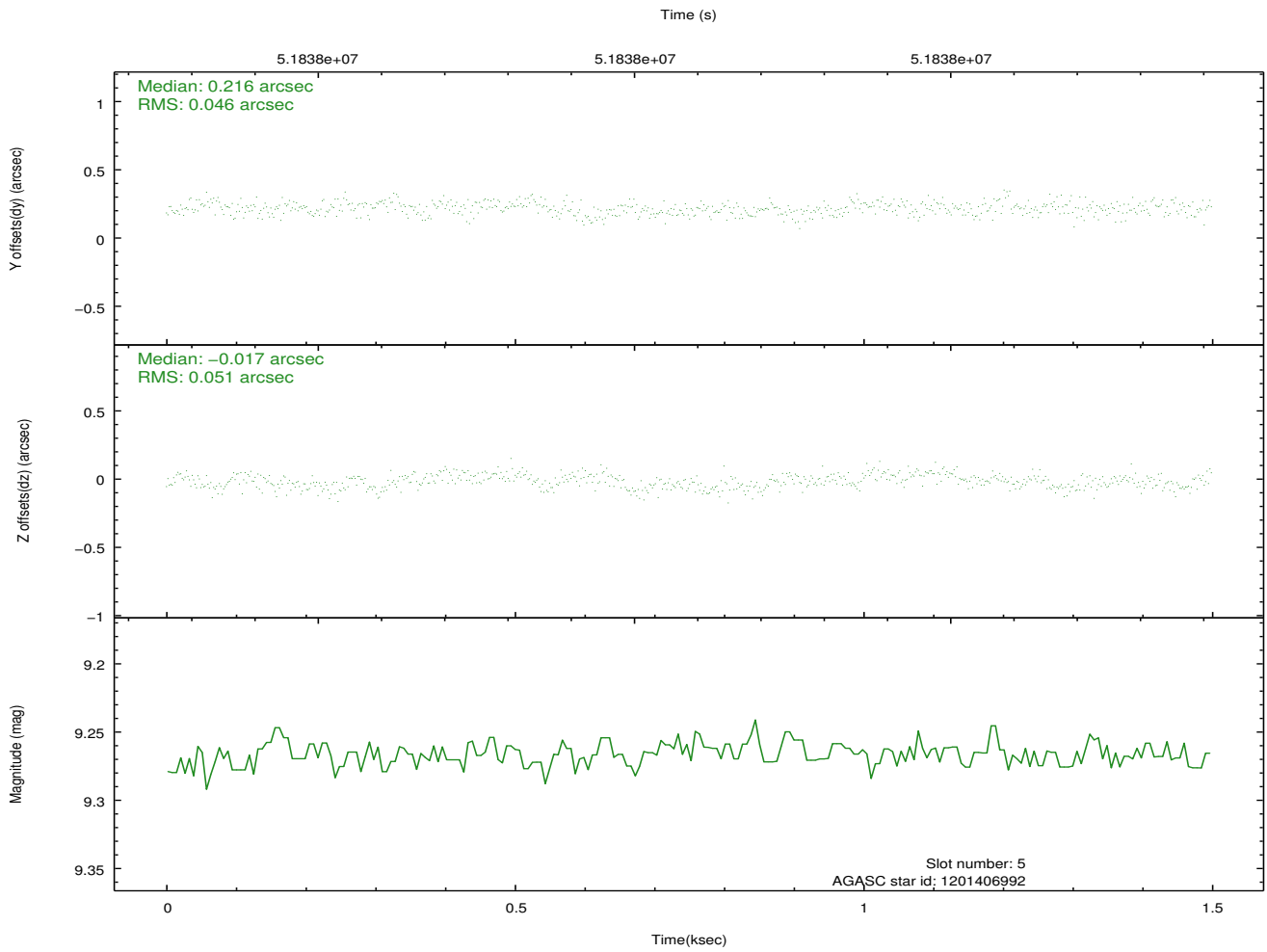
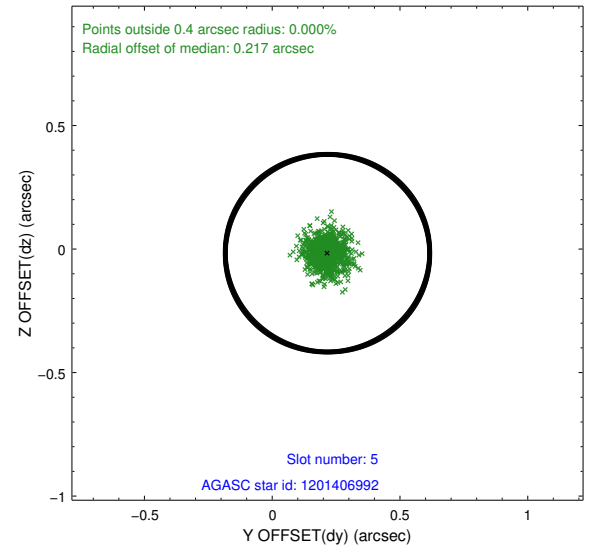
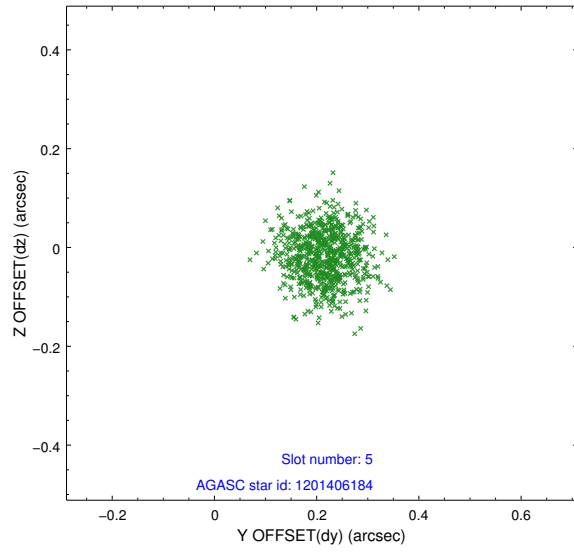
### 2.4.1 Slot 3



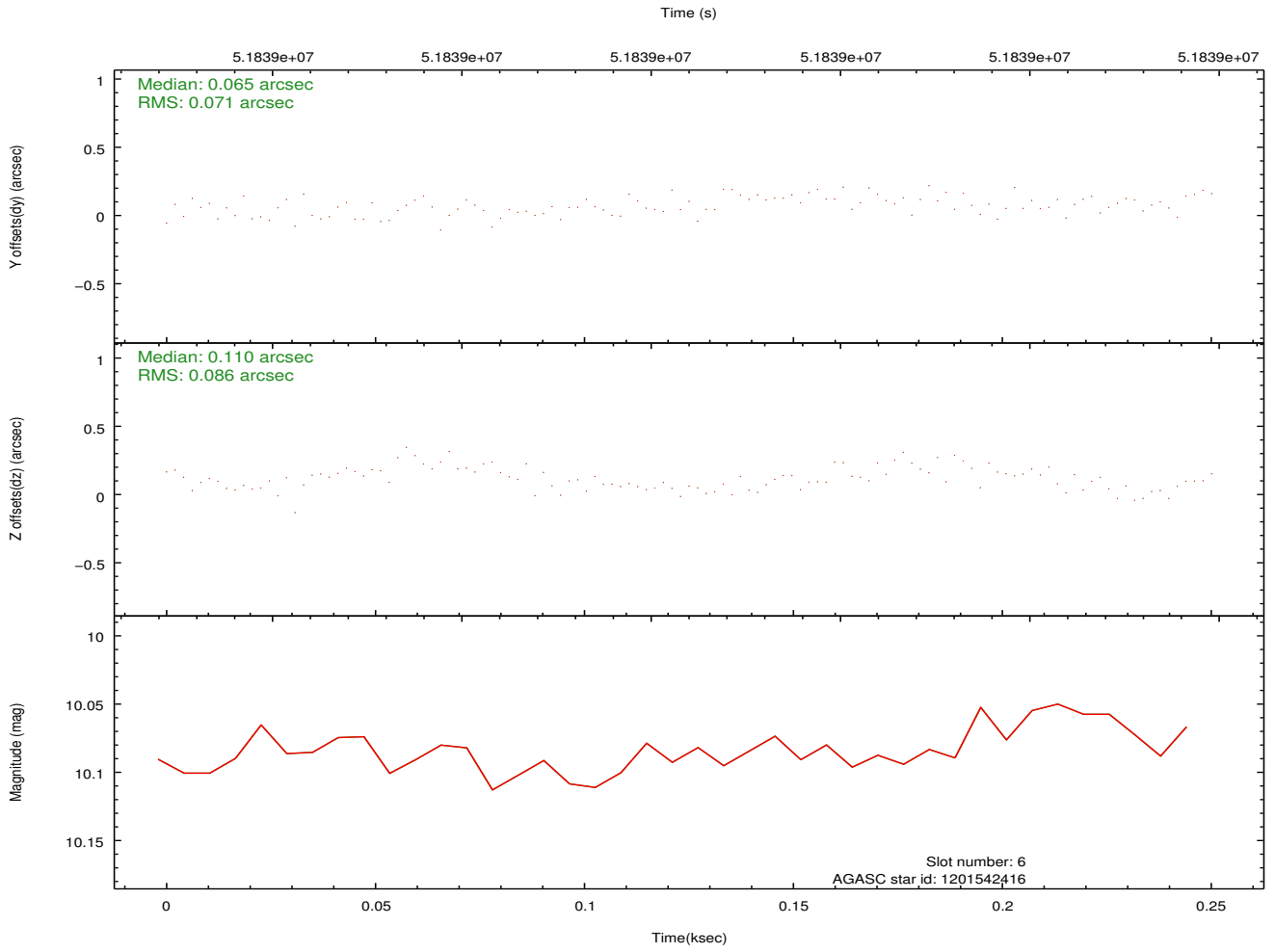
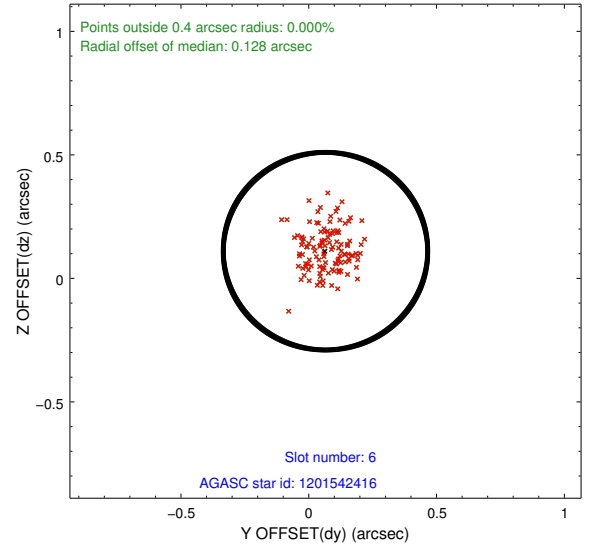
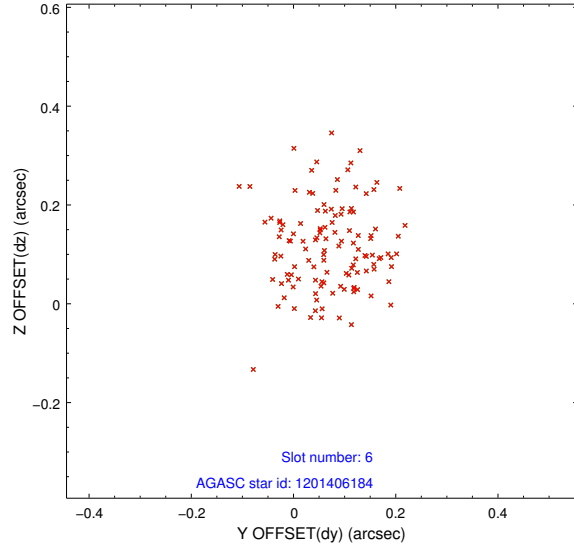
## 2.4.2 Slot 4



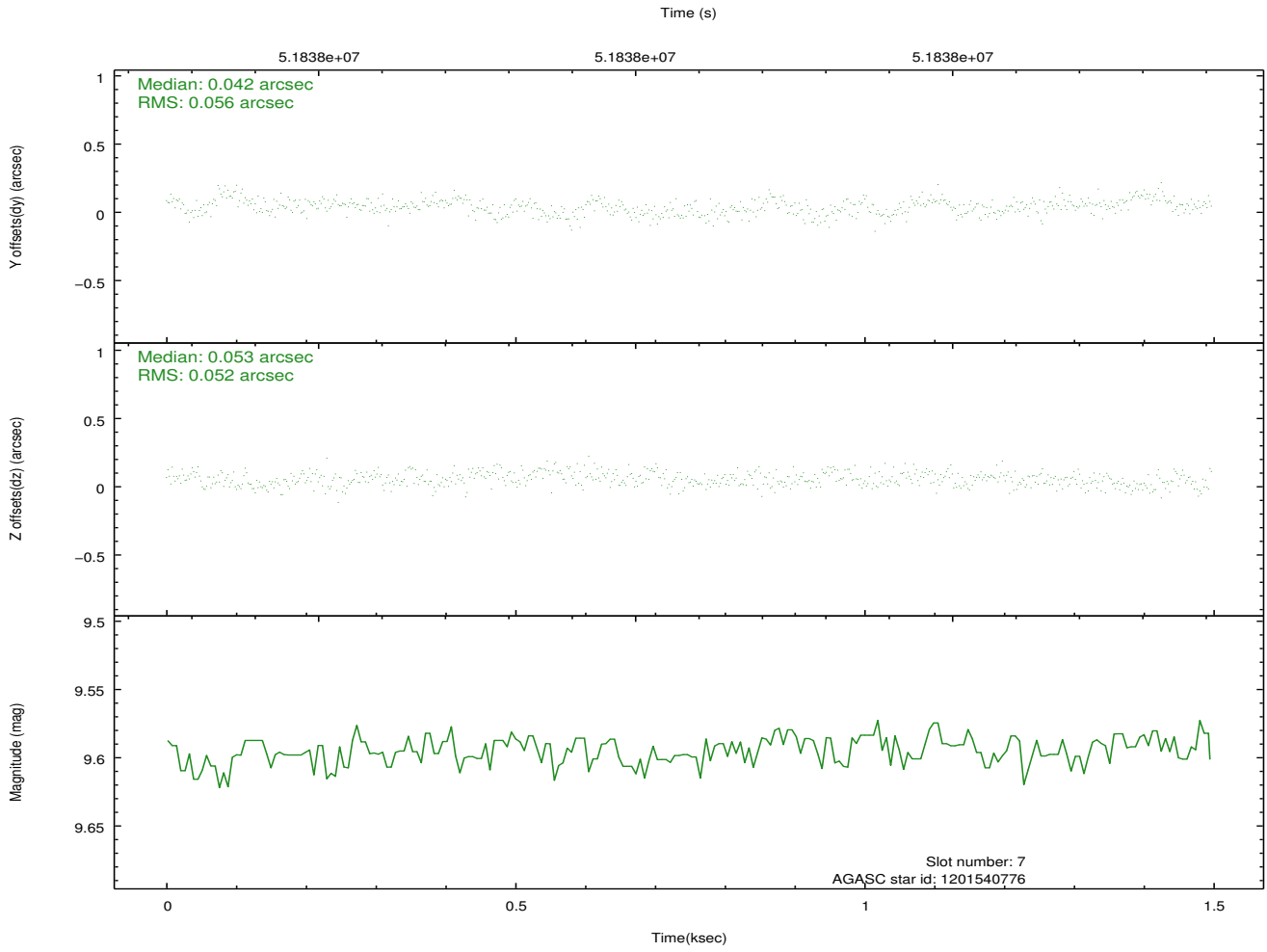
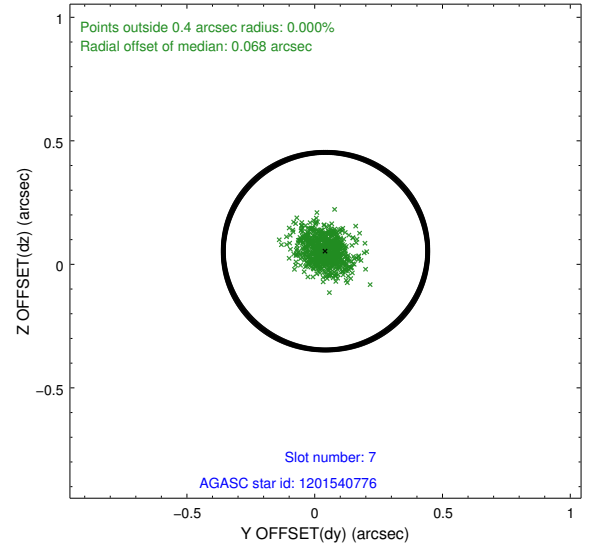
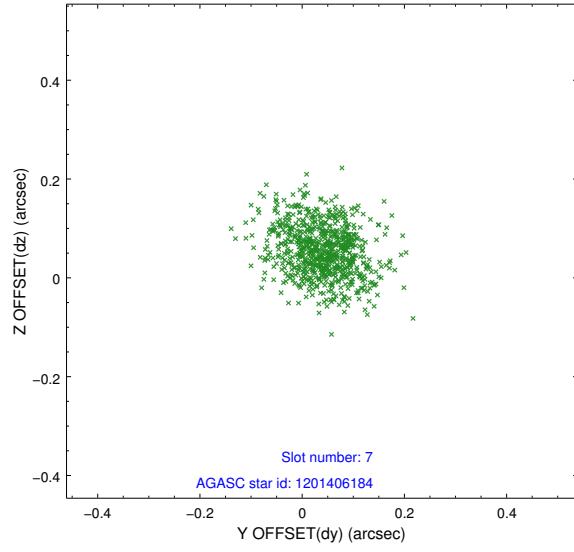
### 2.4.3 Slot 5



## 2.4.4 Slot 6

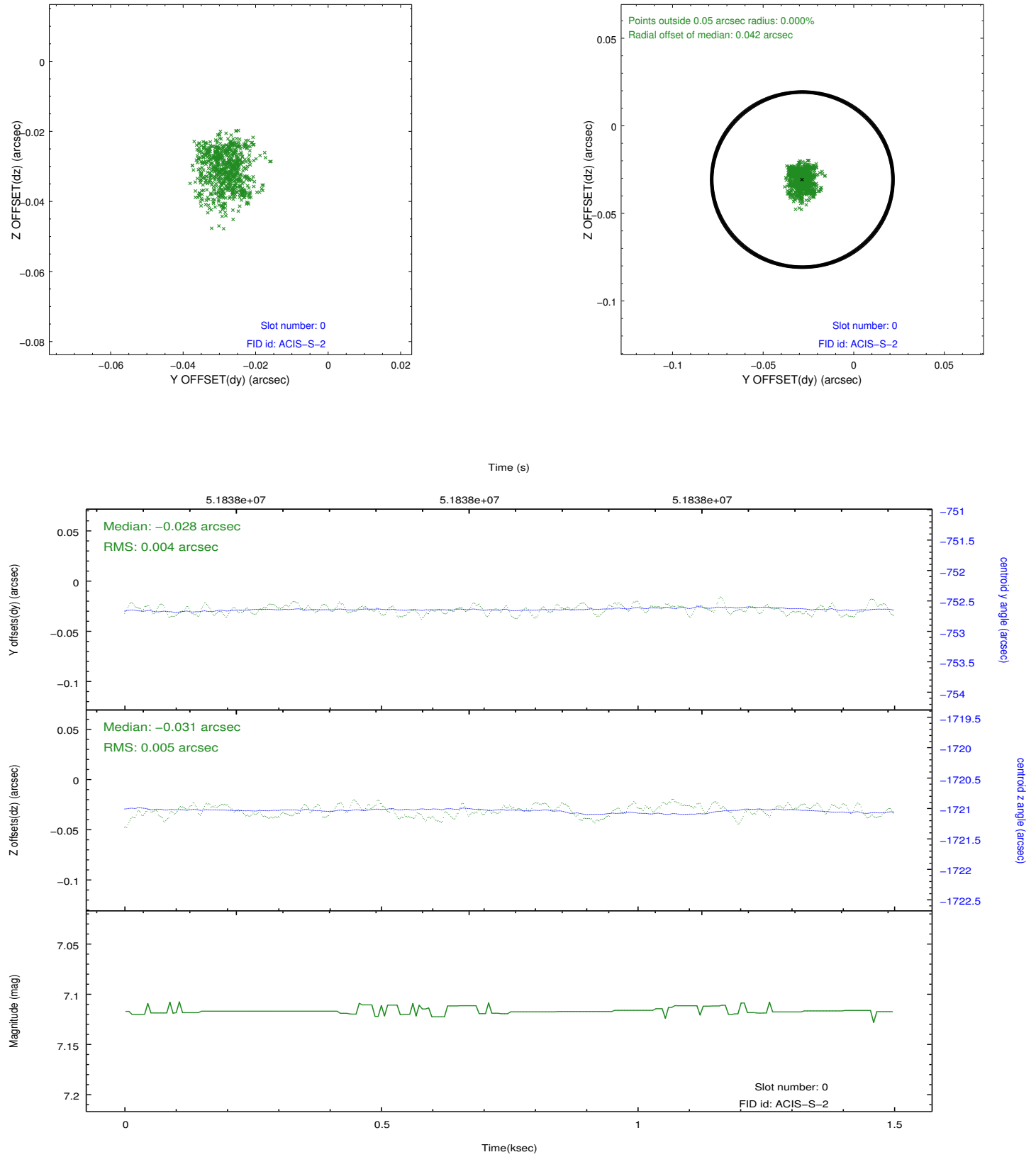


## 2.4.5 Slot 7

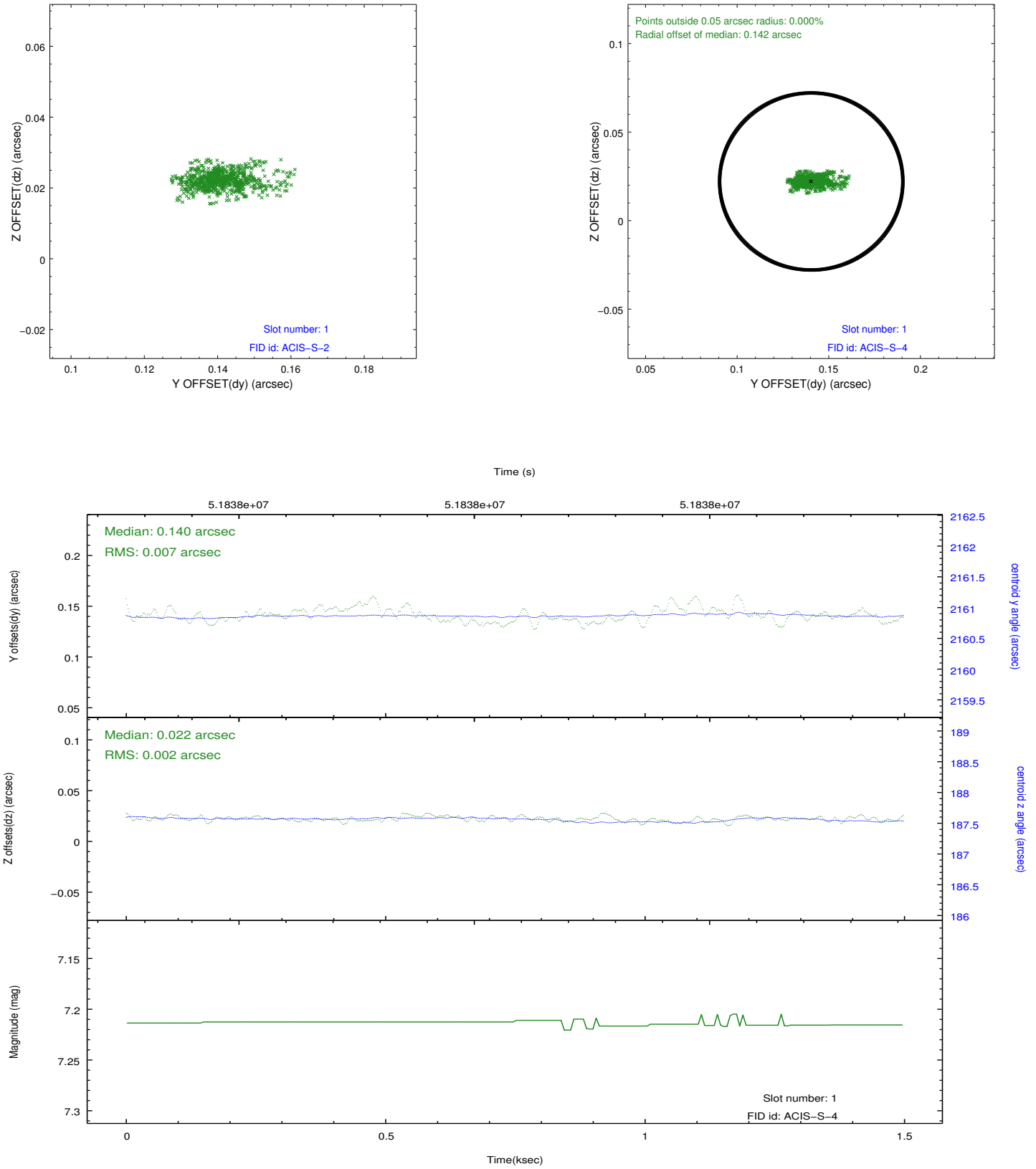


## 2.5 FID Slots

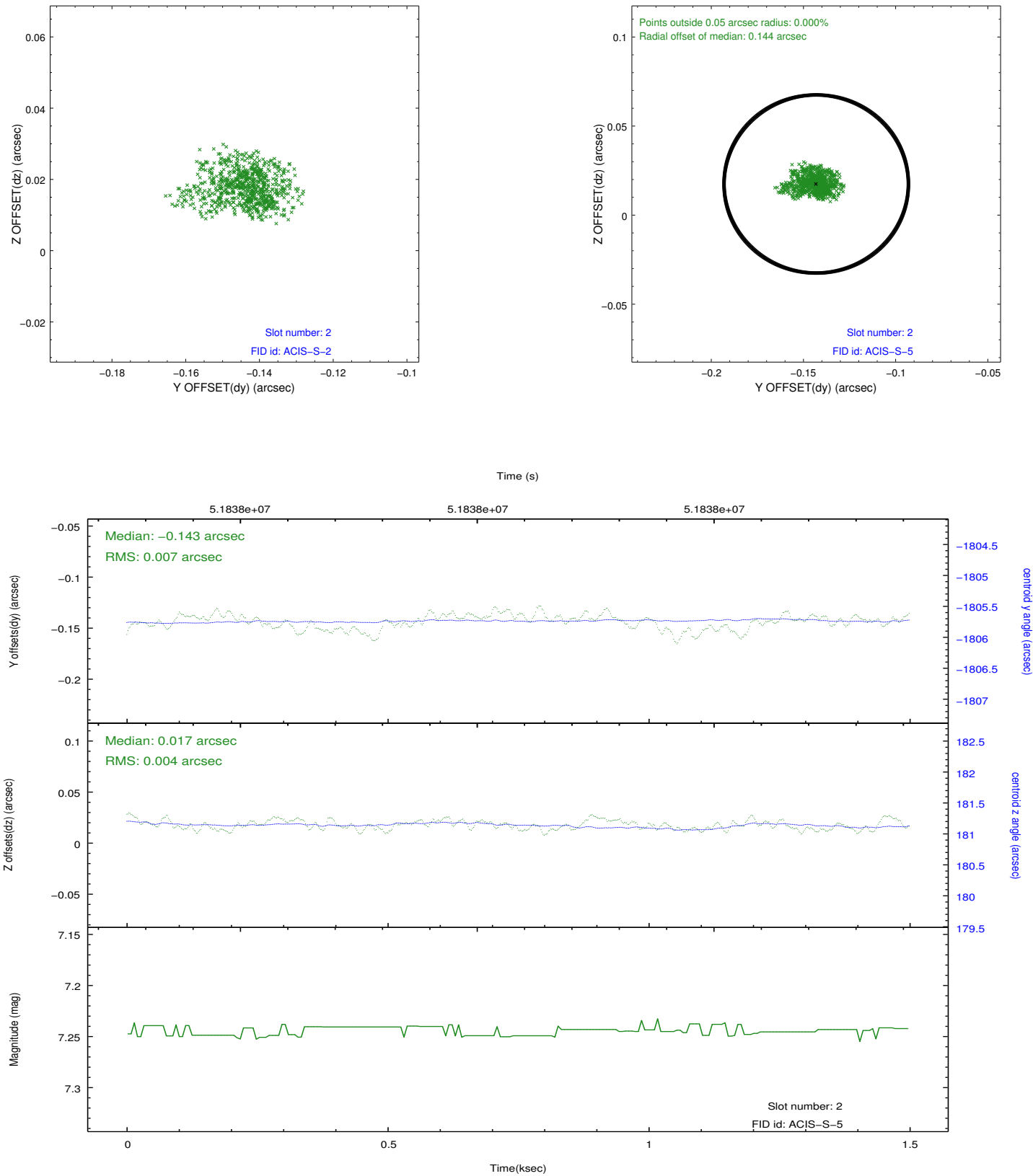
### 2.5.1 Slot 0



## 2.5.2 Slot 1

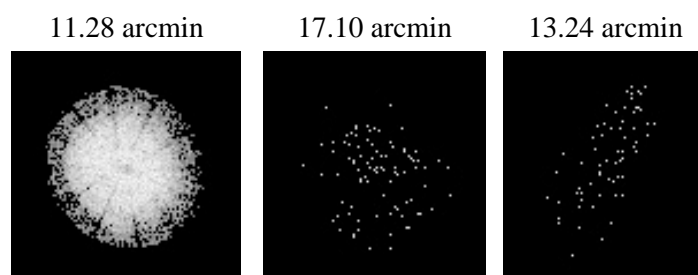


### 2.5.3 Slot 2





### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.07.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	0.752

## A.2 Comments

Target is very off-axis on I3.

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The guide star in slot 6 was removed from the aspect solution due to poor data quality. The aspect solution is not expected to be degraded by removing one guide star from the solution.

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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.