

# V&V Reference Report

## L2 ASCDS Version : 7.6.10

Observation 1786 - L2 Version 4  
Chandra X-Ray Center

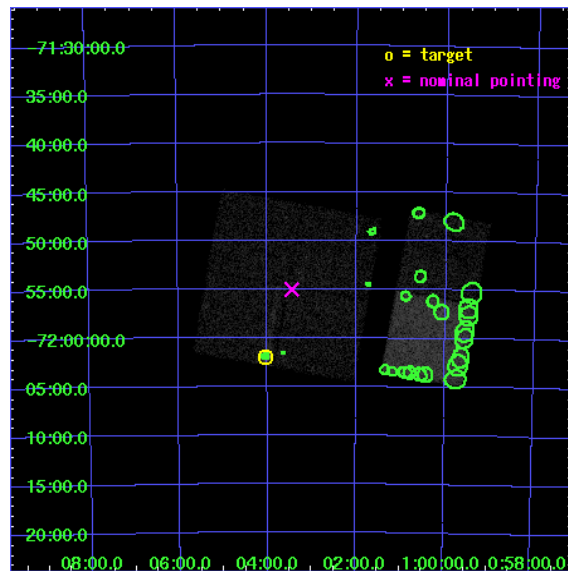
L2 Processing Date : Nov 20 2008

## 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

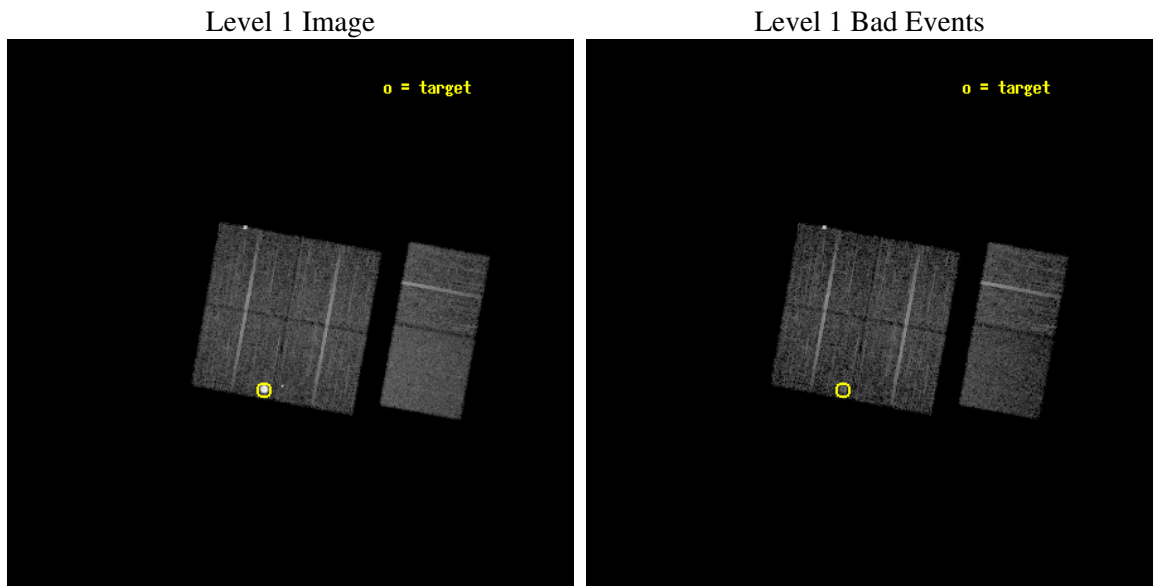
seq_num	590212
obs_id	1786
title	ACIS CHIP RESPONSE TO LINES WITH E=0.6-1.5 KEV
observer	Dr. CXC Calibration
object	E0102-72.3 [Chip I1, T=110, Offsets=-7,-1,0]
dtcycle	0
cycle	P
ra_targ	16.01
dec_targ	-72.032028
ra_nom	15.861463710488
dec_nom	-71.917184909401
roll_nom	100.37173751674
revision	4
ontime	7680.0000071526
livetime	7582.7512227212
ontime0	7680.0000071526
ontime1	7680.0000071526
ontime2	7680.0000071526
ontime3	7676.7590469122
ontime6	7680.0000071526
ontime7	7680.0000071526
l2events	73534



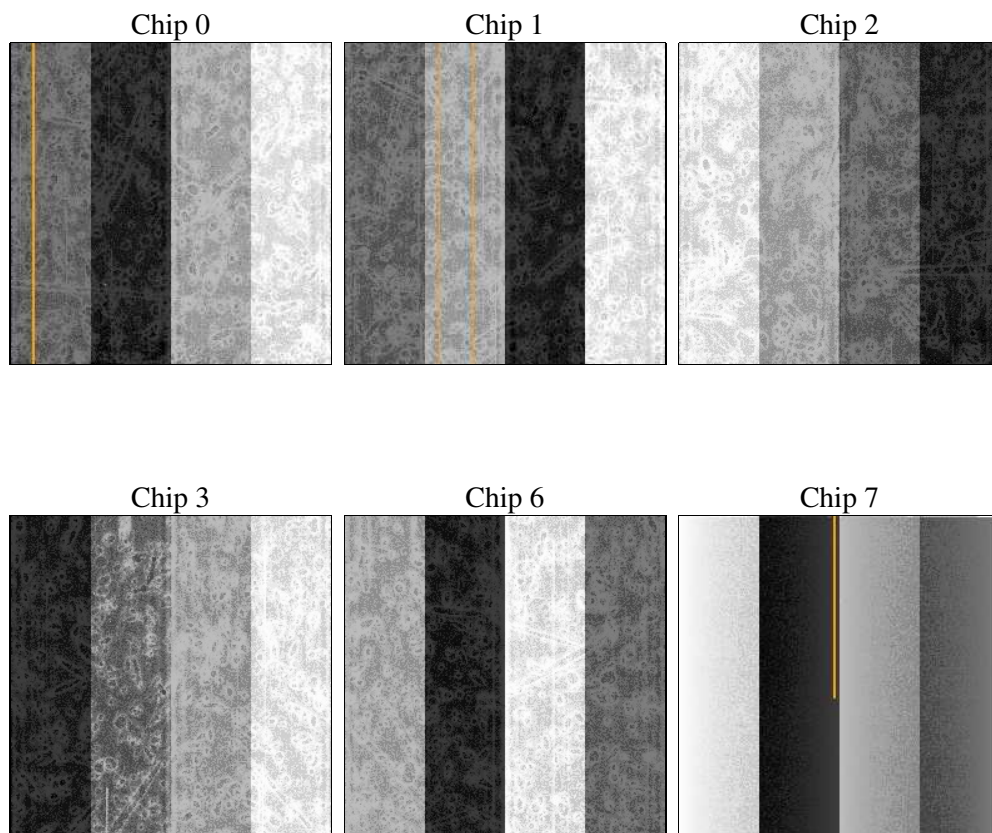
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.11.9
caldsver	3.5.0
date	2008-11-20T15:13:33
revision	4

sched_exp_time	7920.000000
ontime	7680.0000071526
ontime0	7680.0000071526
ontime1	7680.0000071526
ontime2	7680.0000071526
ontime3	7676.7590469122
ontime6	7680.0000071526
ontime7	7680.0000071526
l1events	348472

### 2.1.4 Events

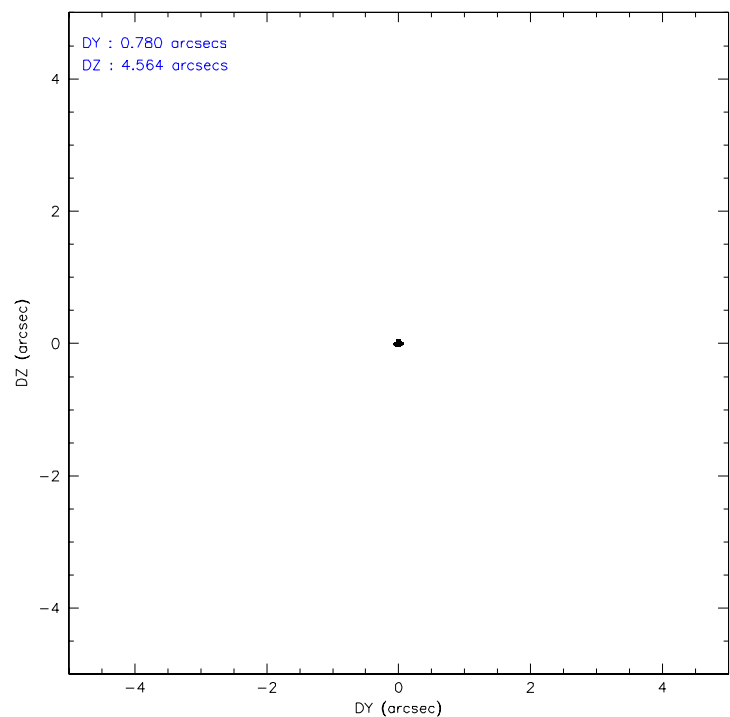
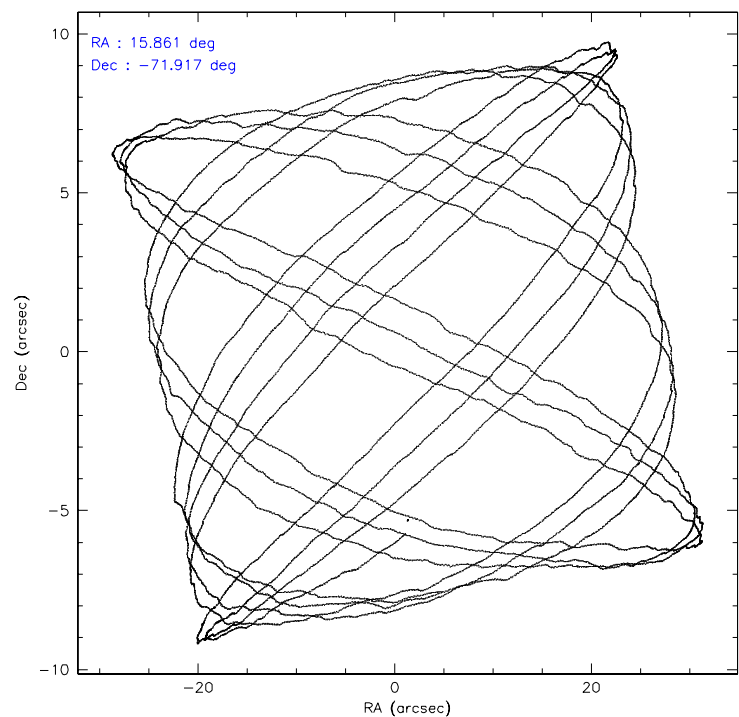
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	49850	74742	53711	53502	55494	61173
rejected events	44482	44049	48422	47226	49875	37705
rejected %	89%	58%	90%	88%	89%	61%

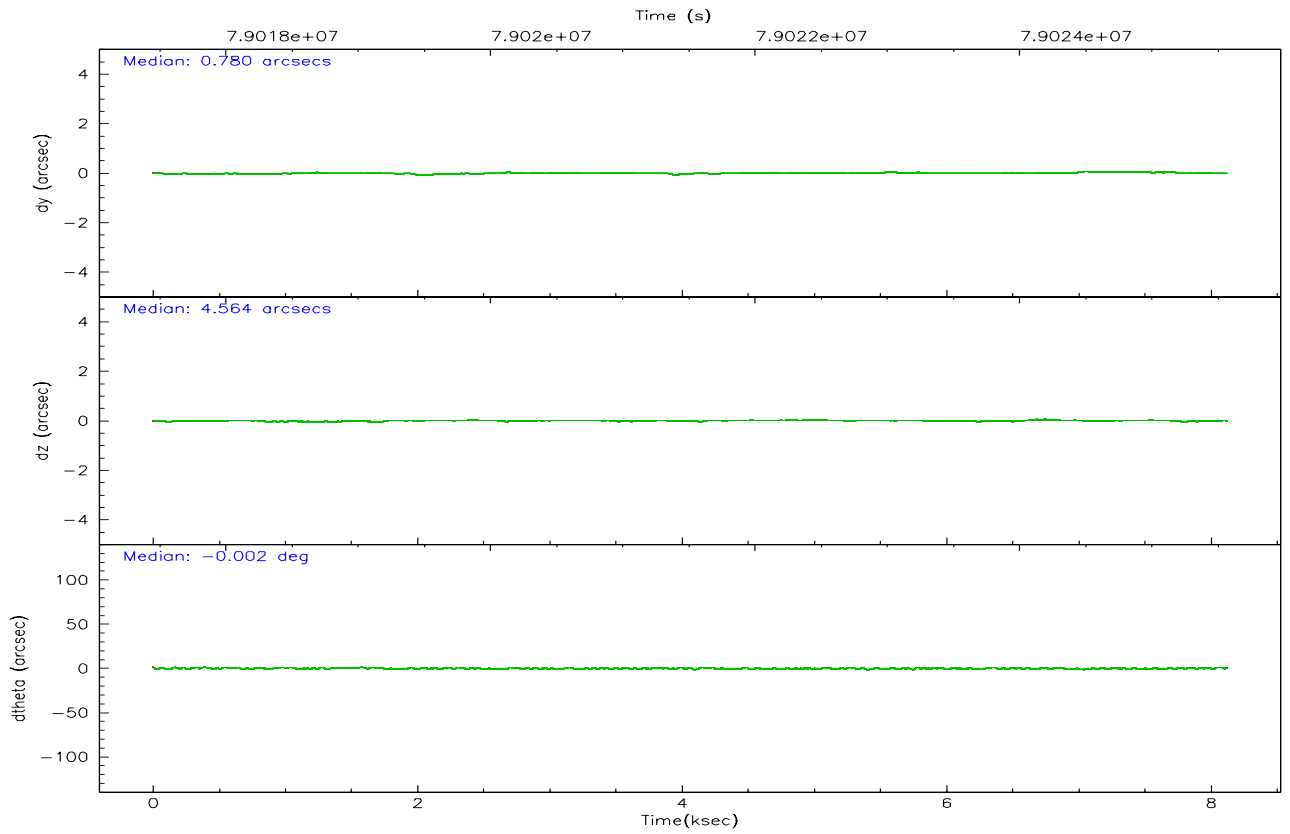
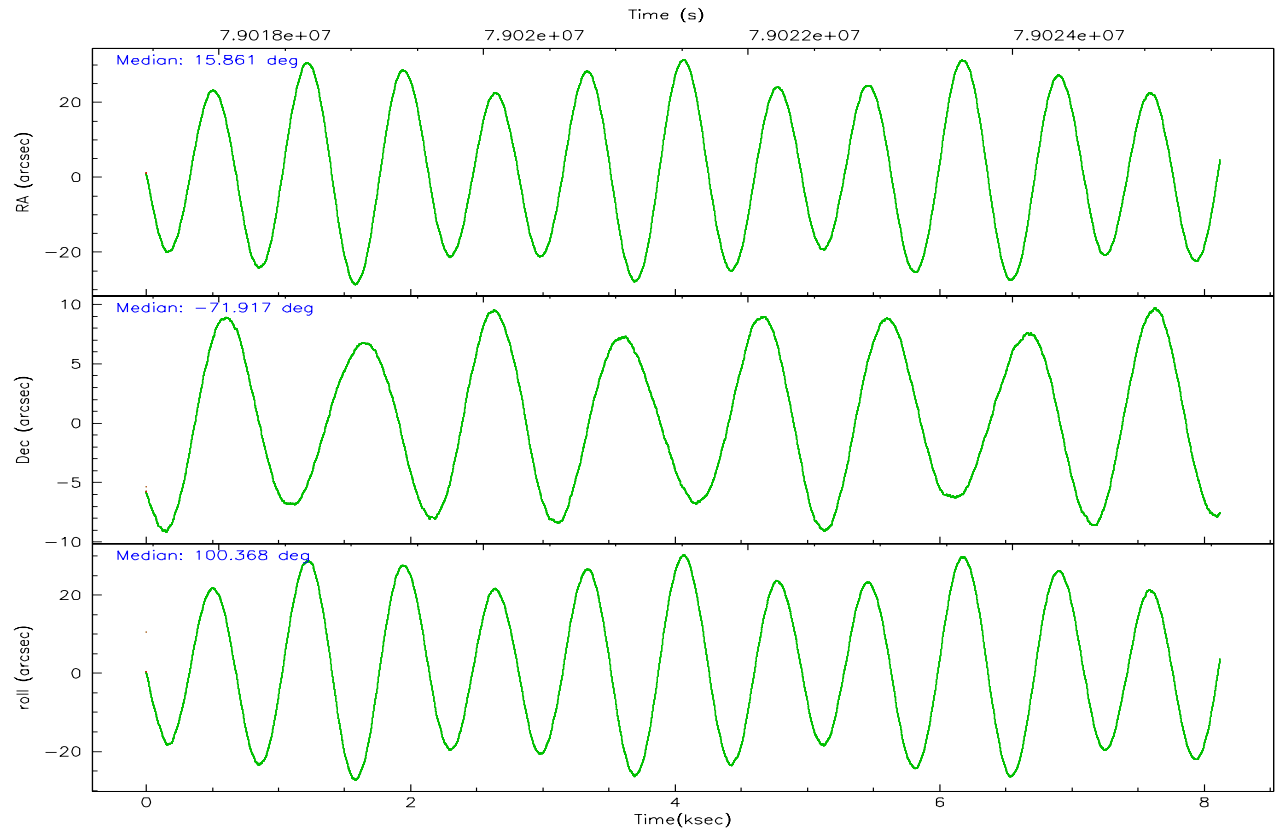
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	1312	23355	1216	1920	1211	1712
	2%	31%	2%	3%	2%	2%
grade 1 events	2293	166	12	16	7	25
	4%	0%	0%	0%	0%	0%
grade 2 events	2009	3945	2094	2289	2142	5082
	4%	5%	3%	4%	3%	8%
grade 3 events	382	927	361	350	337	1387
	0%	1%	0%	0%	0%	2%
grade 4 events	336	835	351	332	355	1285
	0%	1%	0%	0%	0%	2%
grade 5 events	1072	1225	1014	1156	1252	3737
	2%	1%	1%	2%	2%	6%
grade 6 events	1339	1656	1272	1394	1578	14028
	2%	2%	2%	2%	2%	22%
grade 7 events	41107	42633	47391	46045	48612	33917
	82%	57%	88%	86%	87%	55%

## 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	15.918927	15.86146371048757	Subarray requested	NONE	NONE
Pointing Dec	-71.938220	-71.91718490940144	Alternating exposures requested	N	N
Pointing Roll	100.217675	100.3717375167421	Primary exposure time	3.200000	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	79017649.184000	79017273.185379			
Observation start date	2000-07-03T13:19:45	2000-07-03T13:14:33			
Observation end time	79025569.184000	79025702.78568999			
Observation end date	2000-07-03T15:31:45	2000-07-03T15:35:02			
Read mode	TIMED	TIMED			

## 2.3 Aspect





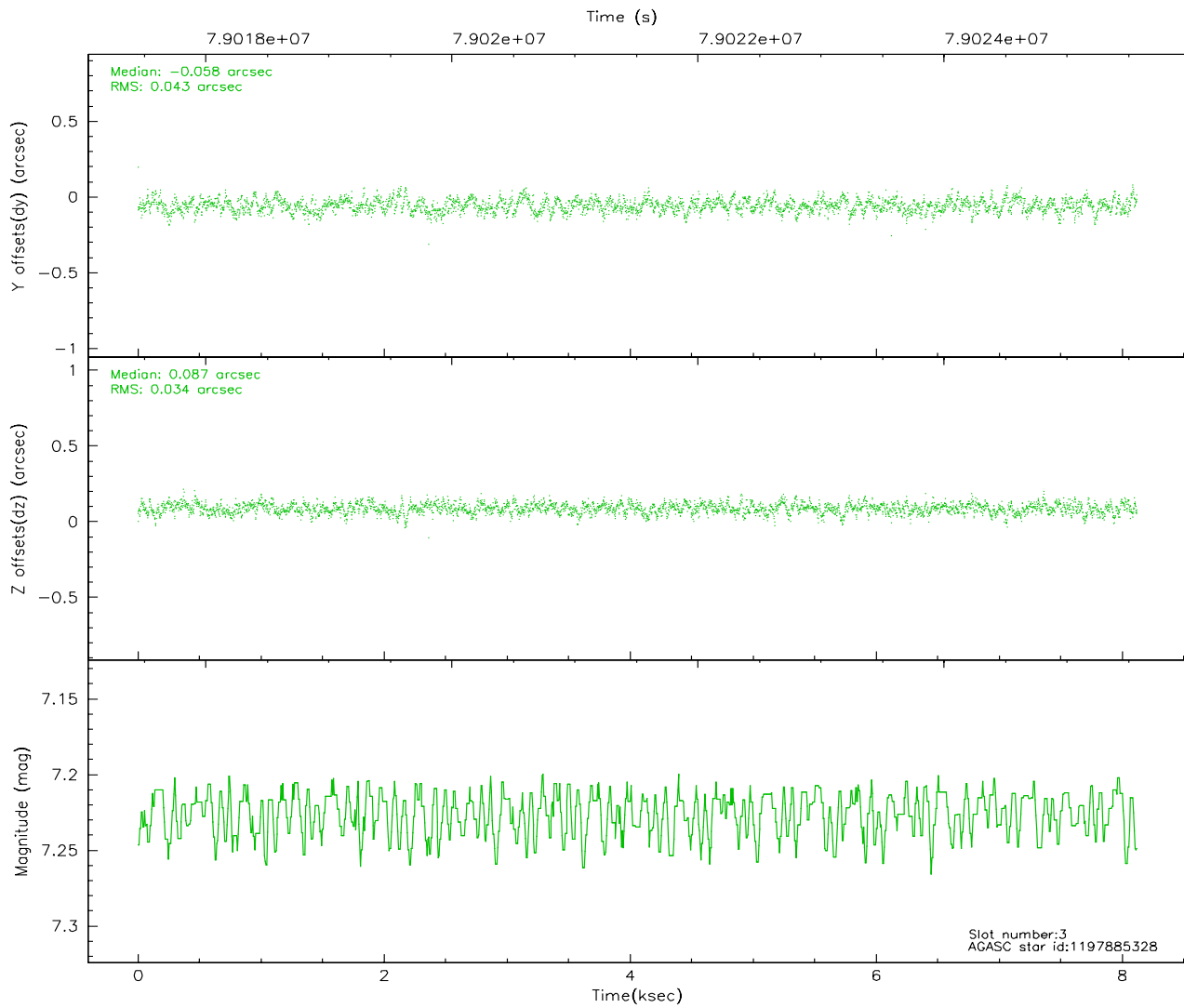
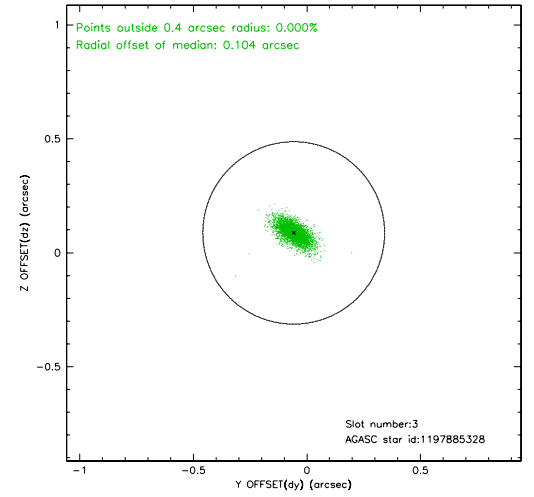
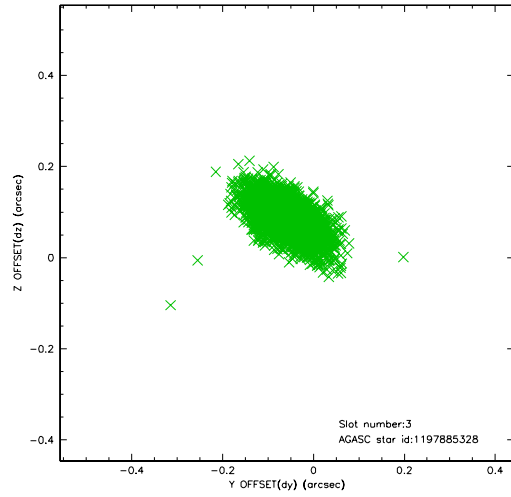
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.15	1982	-0.020	-0.002	0.008	0.014	0.000000	0.000000	-755.11	-834.26
1	FID	ACIS-I-4	7.19	1982	-0.072	0.022	0.005	0.009	0.000000	0.000000	2158.58	1071.60
2	FID	ACIS-I-5	7.23	1982	-0.009	0.050	0.008	0.013	0.000000	0.000000	-1808.04	1070.25
3	GUIDE	1197885328	7.22	3963	-0.058	0.087	0.056	0.099	16.283090	-71.733943	649.90	-535.64
4	GUIDE	1197750936	7.57	3963	-0.078	-0.117	0.060	0.102	15.387940	-71.549550	1482.06	346.38
5	GUIDE	1197750640	9.74	3963	0.105	-0.018	0.094	0.157	15.758835	-72.088048	-498.85	269.13
6	GUIDE	1197878768	9.62	3961	-0.061	0.095	0.104	0.169	16.656786	-71.304581	2088.98	-1242.54
7	GUIDE	1197749664	9.57	3962	0.092	-0.041	0.086	0.144	15.809015	-72.366369	-1494.84	389.88

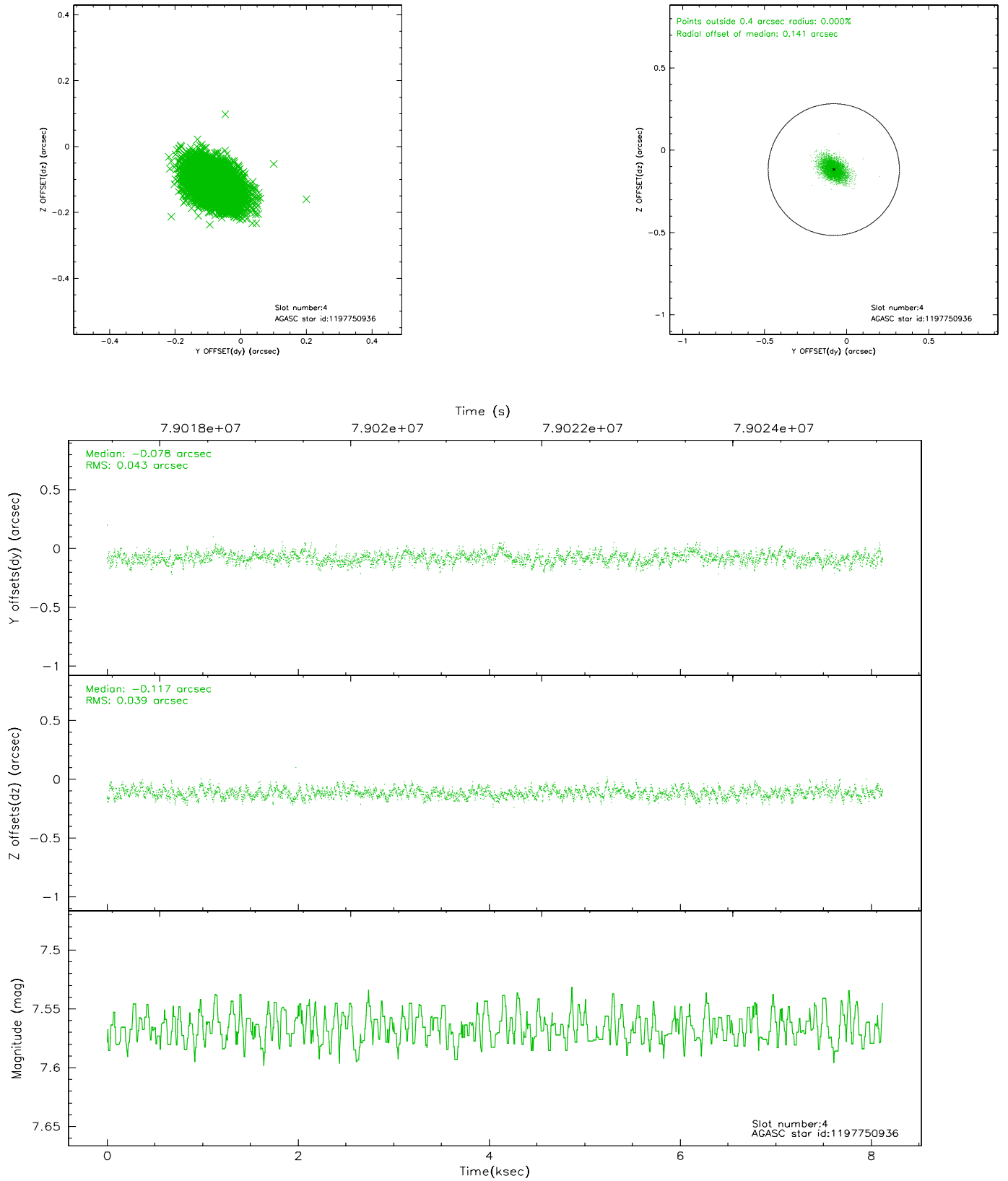


## 2.4 Star Slots

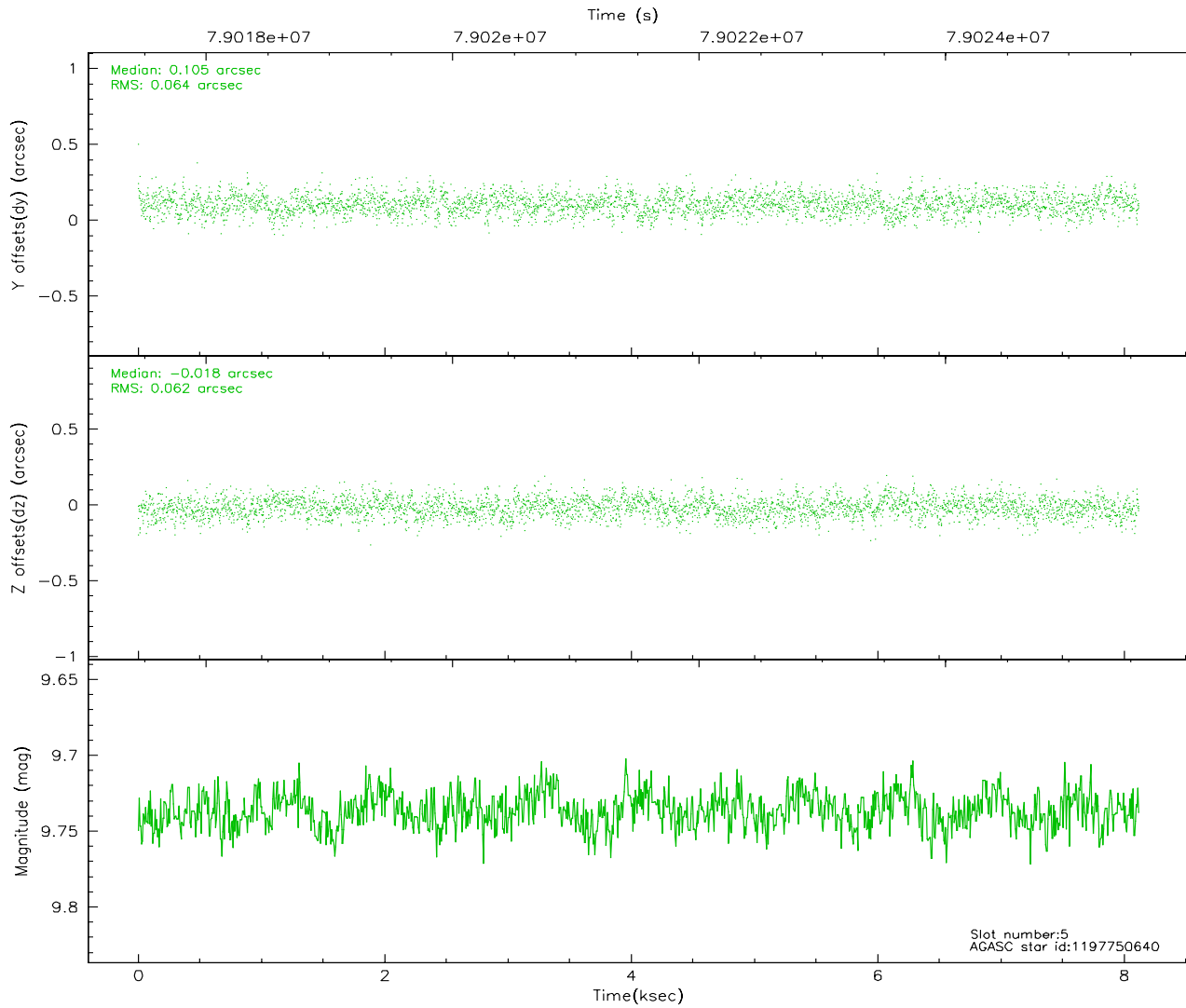
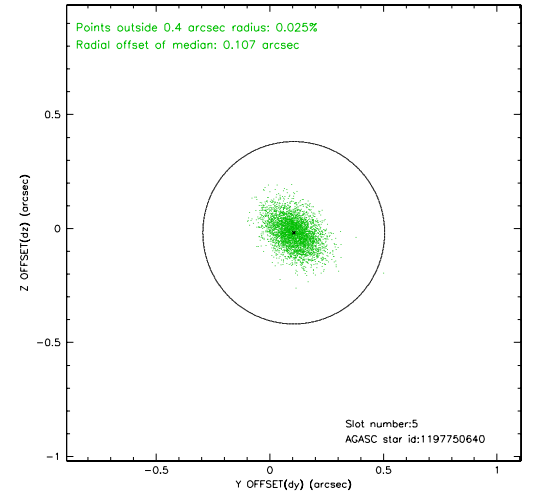
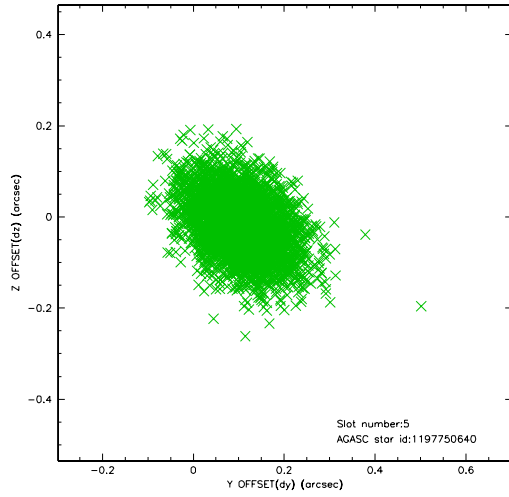
### 2.4.1 Slot 3



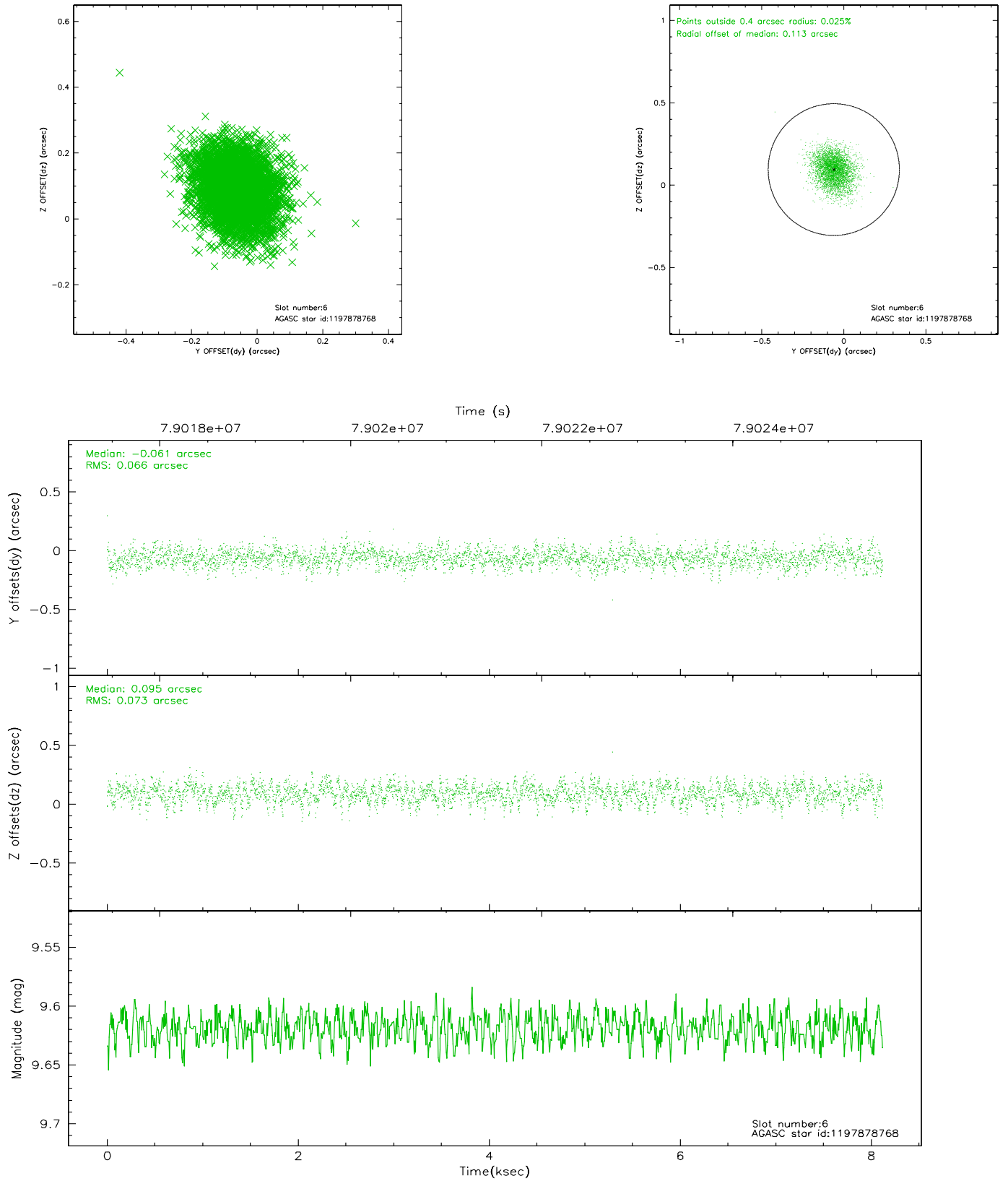
## 2.4.2 Slot 4



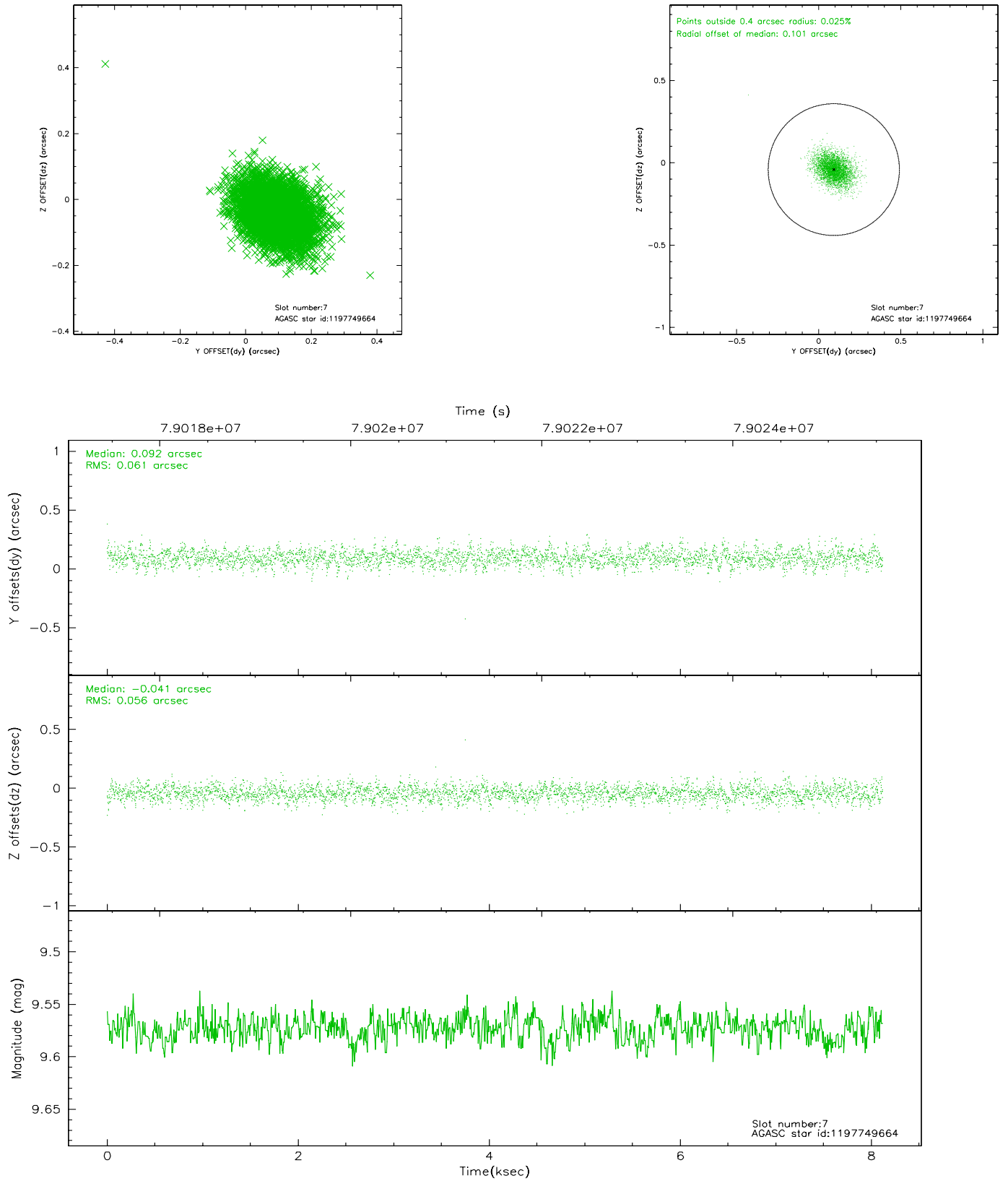
### 2.4.3 Slot 5



## 2.4.4 Slot 6

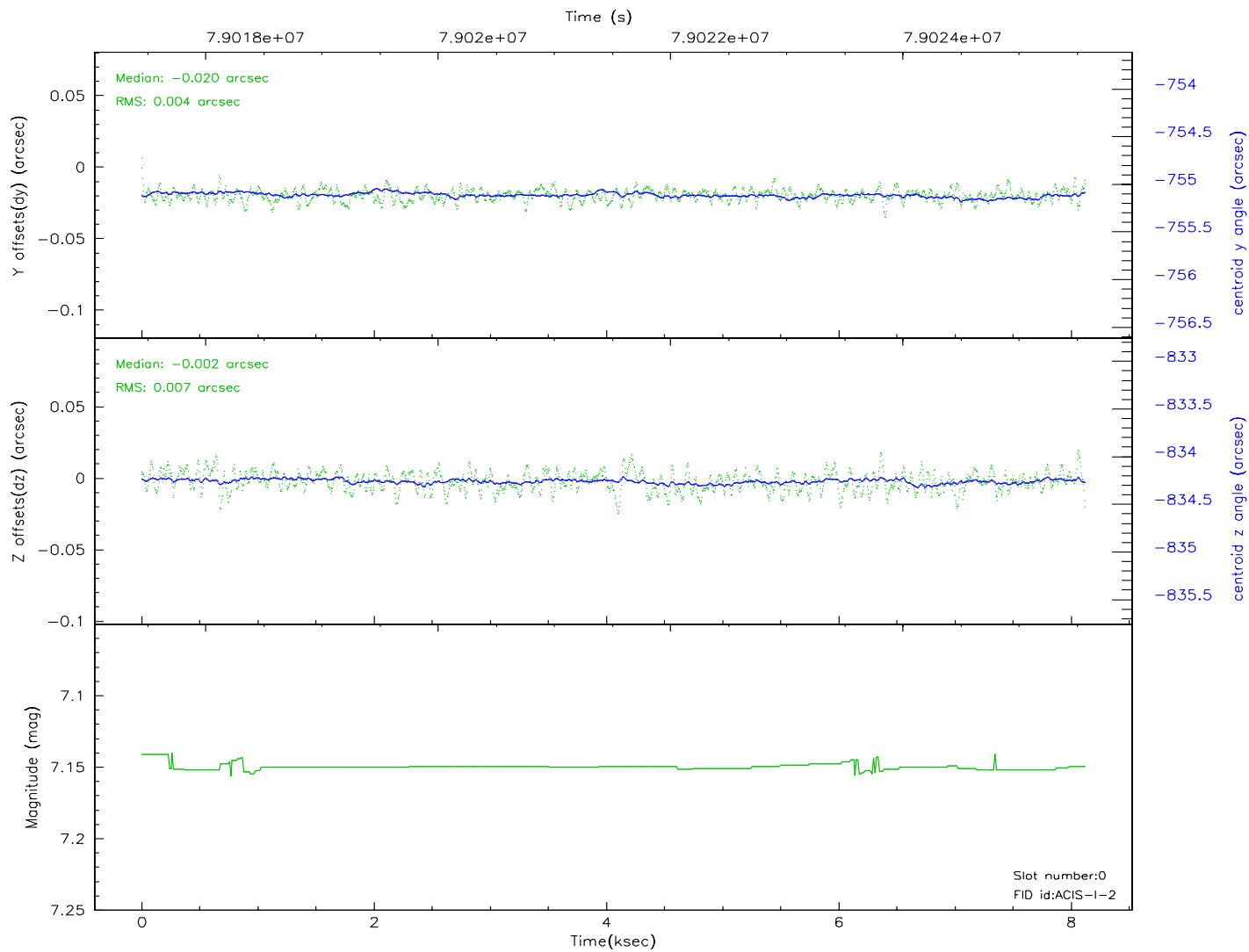
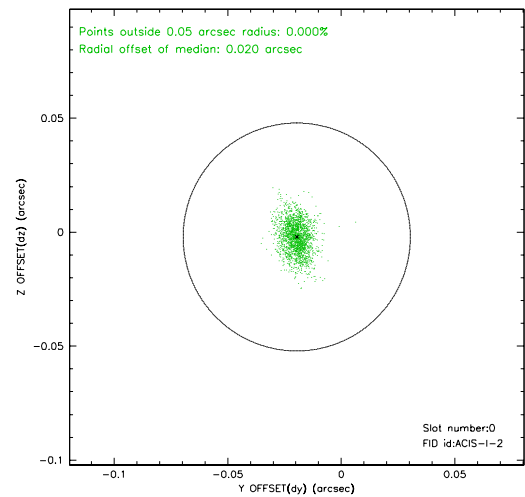
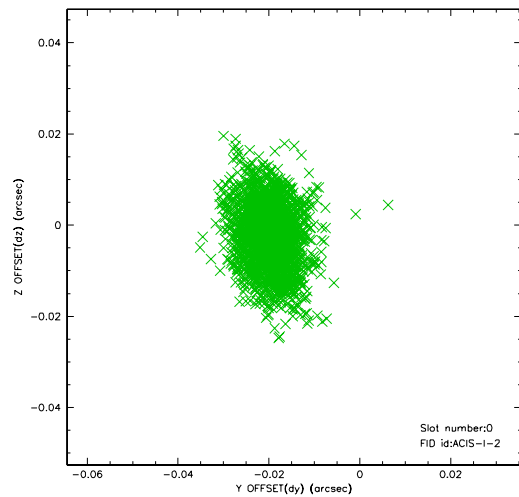


## 2.4.5 Slot 7

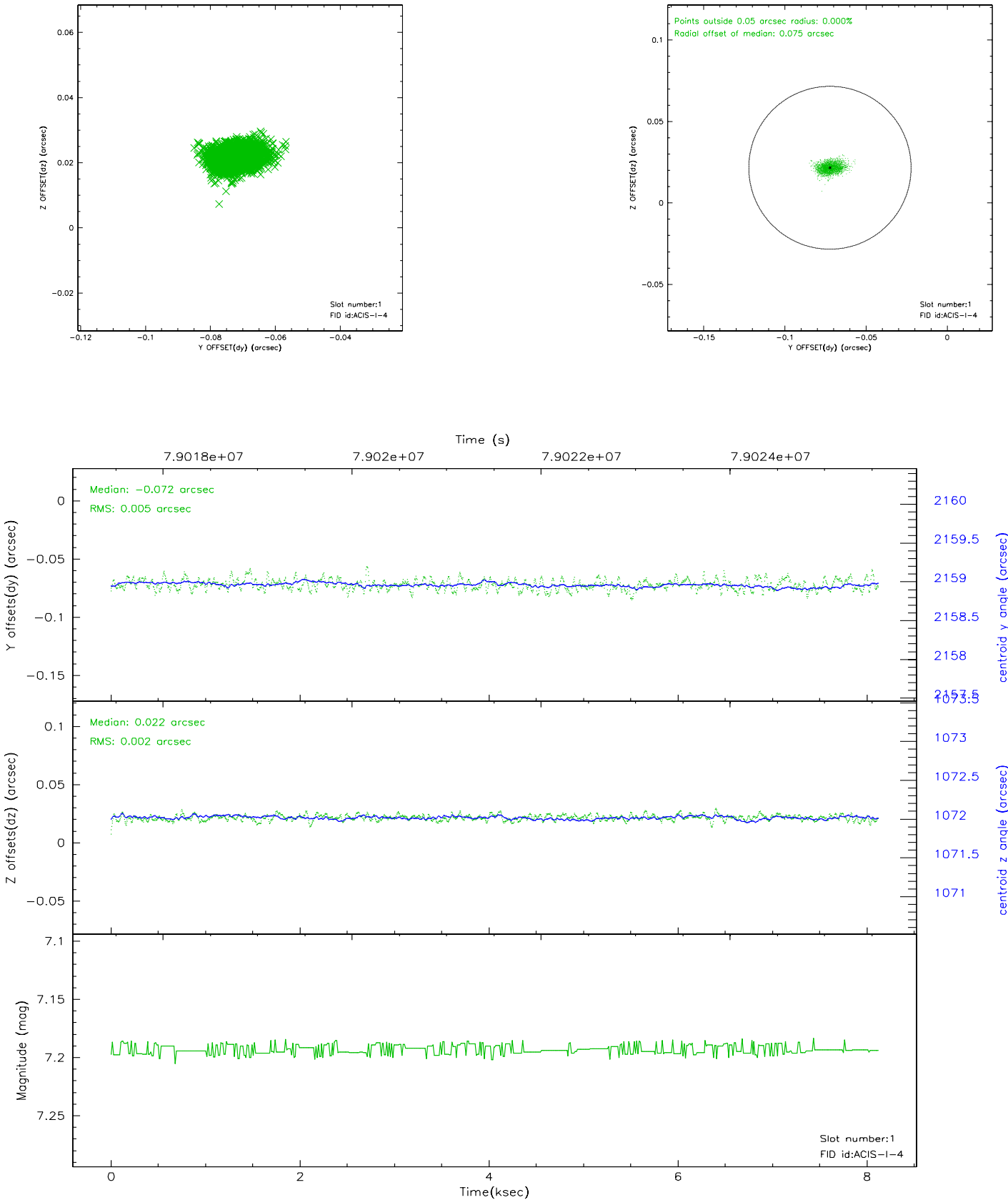


## 2.5 FID Slots

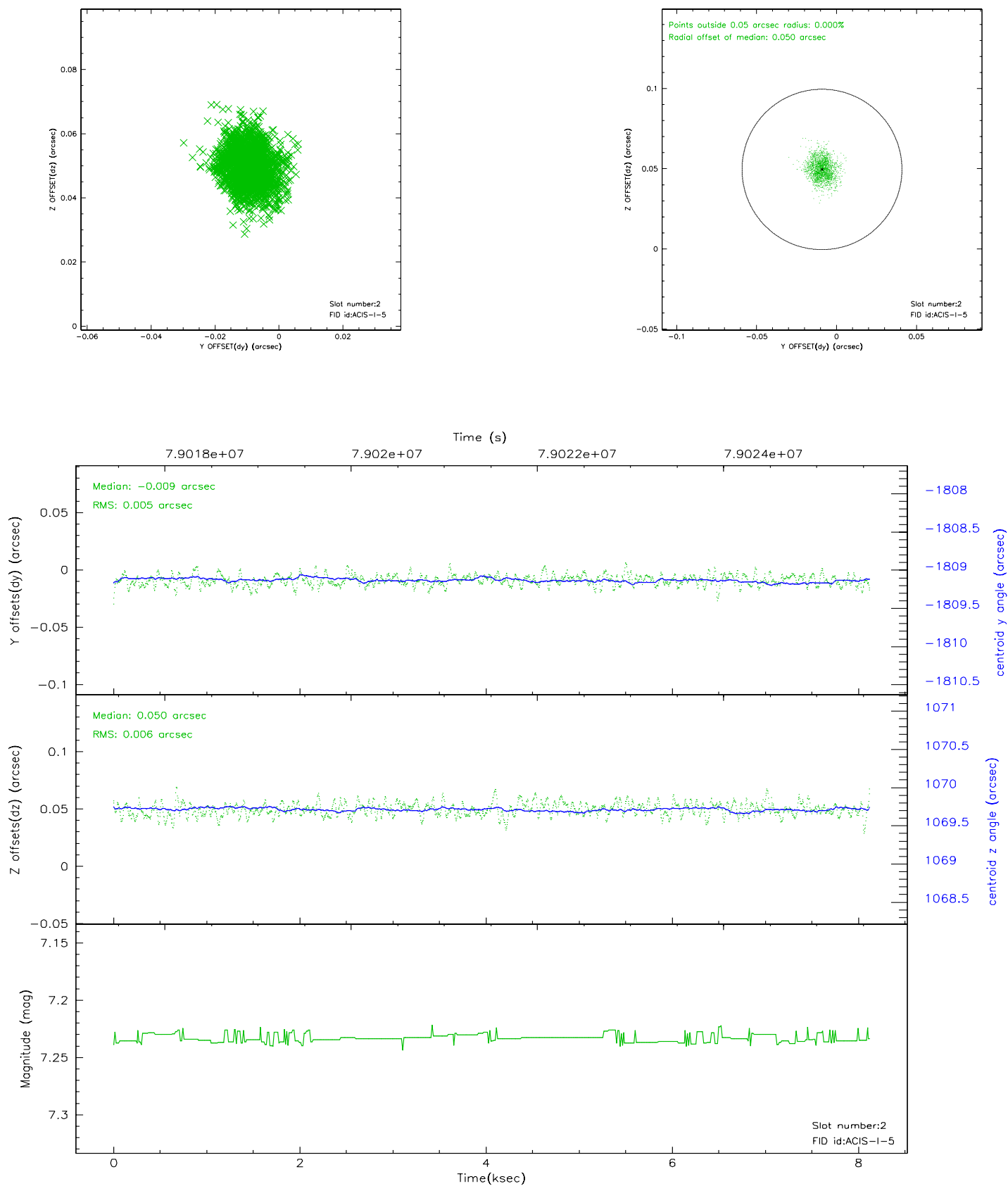
### 2.5.1 Slot 0



2.5.2 Slot 1

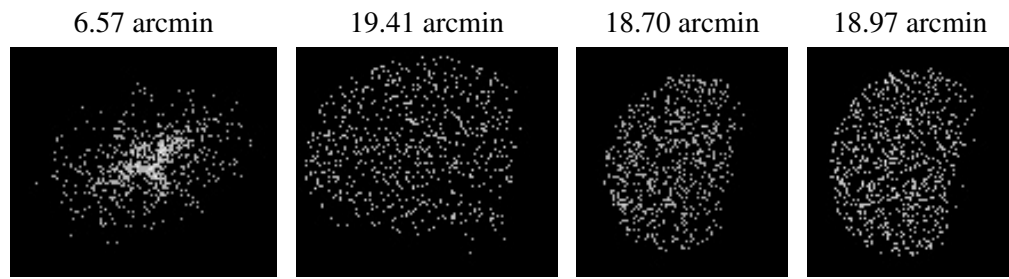


### 2.5.3 Slot 2





### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2008.11.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.686

## A.2 Comments

This calibration observation was acquired with the focal plane temperature raised from -120C to -110C, for attempted recalibration of ACIS for the

1999-09-16 through 2000-01-28 period.

=====

This reprocessing of the data

applies no

CTI correction because none is available for that temperature.

=====

Focal plane temperature is warmer than -118.7 C degrees during the entire

observation. This temperature is the upper limit of the verified ACIS calibration for the front-illuminated chips. The focal plane temperature

is warmer than -116.7 degrees C for approximately the entire observation.

This temperature is the upper limit of the verified ACIS calibration for the back-illuminated chips.

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.