

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 1436 - L2 Version 4

Chandra X-Ray Center

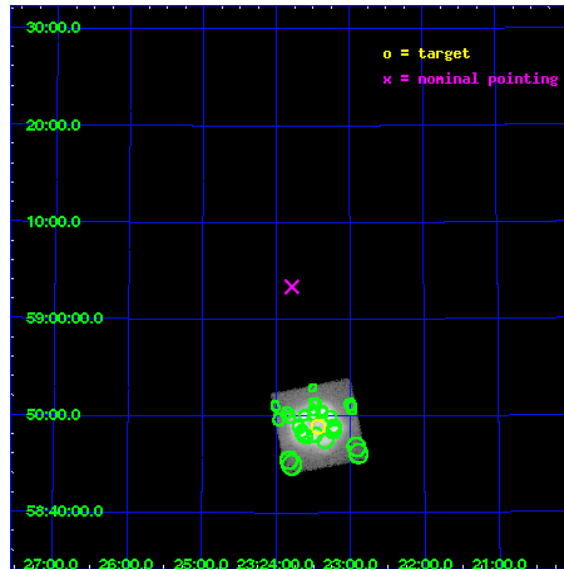
L2 Processing Date : Nov 24 2009

## 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

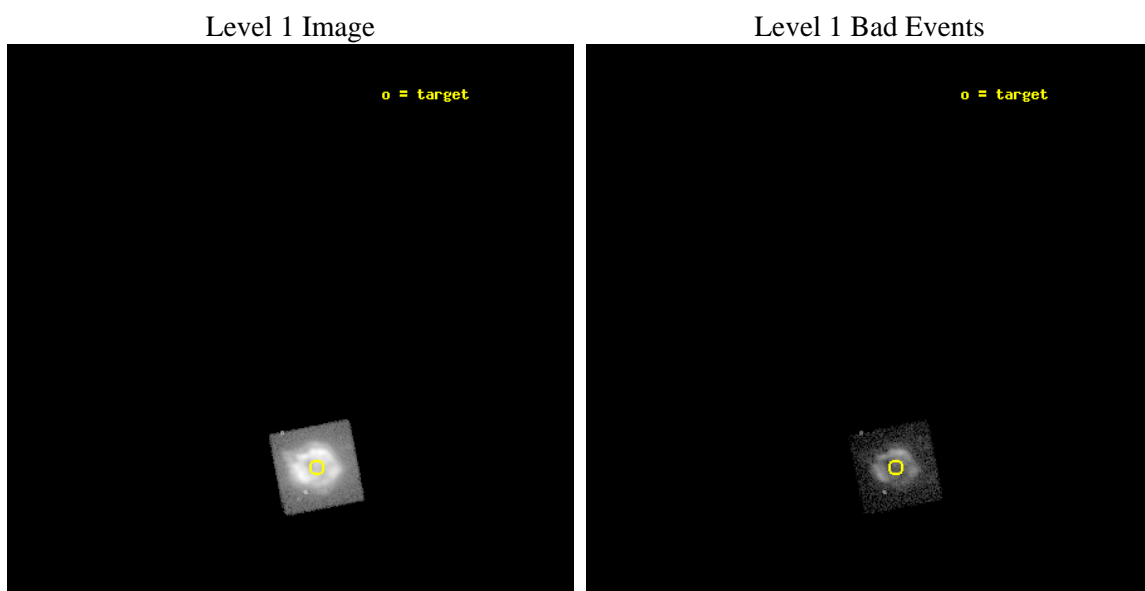
seq_num	580386	Sequence number
obs_id	1436	Observation id
title	ACIS CHIP RESPONSE TO CAS A, JAN. 99	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	CAS A [Chip S1, T=110, Offsets=15,0,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	350.8575	Observer's specified target RA
dec_targ	58.814833	Observer's specified target Dec
ra_nom	350.94673654683	Nominal RA
dec_nom	59.055924513177	Nominal Dec
roll_nom	258.85578813449	Nominal Roll
revision	4	Processing version of data
ontime	2049.2845650241	Sum of GTIs [s]
livetime	2023.3352899307	Livetime [s]
ontime4	2266.3869120032	Sum of GTIs [s]
ontime5	2049.2845650241	Sum of GTIs [s]
ontime6	2751.608465679	Sum of GTIs [s]
ontime7	2849.8417410254	Sum of GTIs [s]
ontime8	2710.3575712144	Sum of GTIs [s]
ontime9	2703.8346007615	Sum of GTIs [s]
l2events	488912	Number of level 2 events



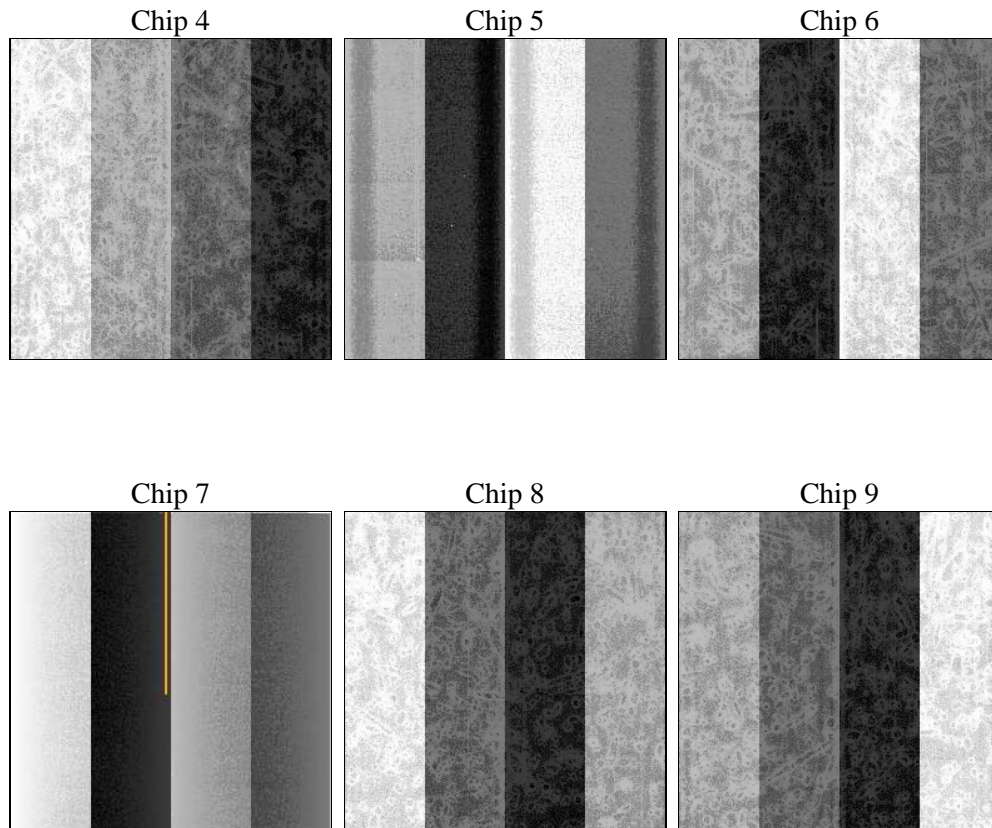
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2500.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	2049.2845650241	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime4	2266.3869120032	Sum of GTIs [s]
date	2009-11-24T12:41:42	Date and time of file creation	ontime5	2049.2845650241	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	2751.608465679	Sum of GTIs [s]
			ontime7	2849.8417410254	Sum of GTIs [s]
			ontime8	2710.3575712144	Sum of GTIs [s]
			ontime9	2703.8346007615	Sum of GTIs [s]
			l1events	537460	Number of level 1 events

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	0	537460	0	0	0	0
rejected events	0	42861	0	0	0	0
rejected %	0%	7%	0%	0%	0%	0%

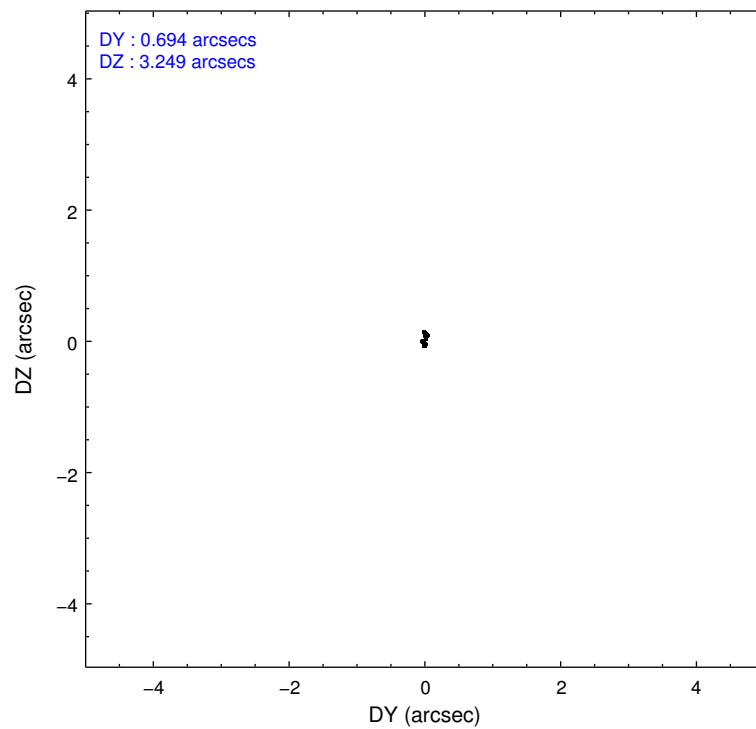
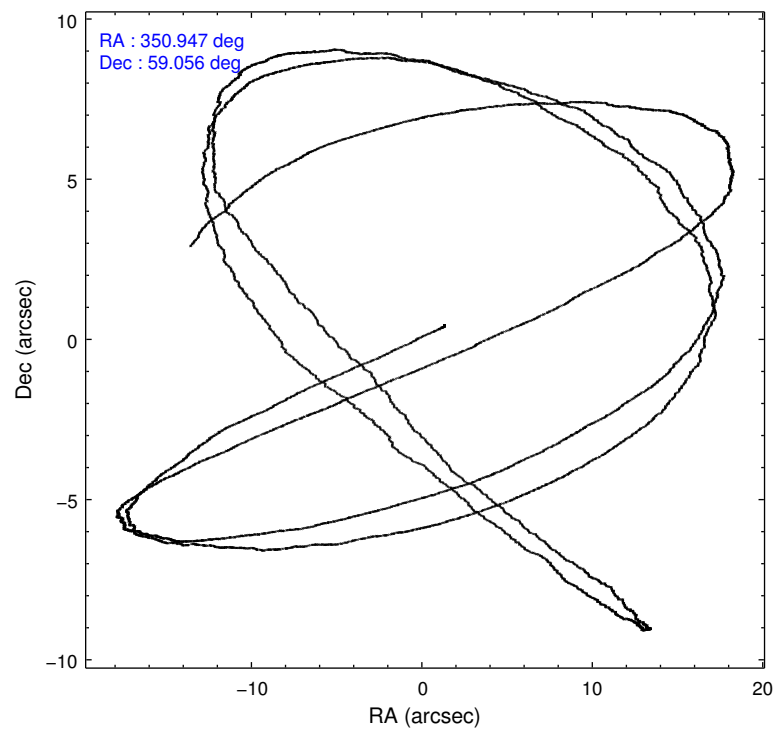
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	0	123529	0	0	0	0
	0%	22%	0%	0%	0%	0%
grade 1 events	0	1261	0	0	0	0
	0%	0%	0%	0%	0%	0%
grade 2 events	0	175007	0	0	0	0
	0%	32%	0%	0%	0%	0%
grade 3 events	0	40302	0	0	0	0
	0%	7%	0%	0%	0%	0%
grade 4 events	0	40337	0	0	0	0
	0%	7%	0%	0%	0%	0%
grade 5 events	0	11004	0	0	0	0
	0%	2%	0%	0%	0%	0%
grade 6 events	0	116958	0	0	0	0
	0%	21%	0%	0%	0%	0%
grade 7 events	0	29062	0	0	0	0
	0%	5%	0%	0%	0%	0%

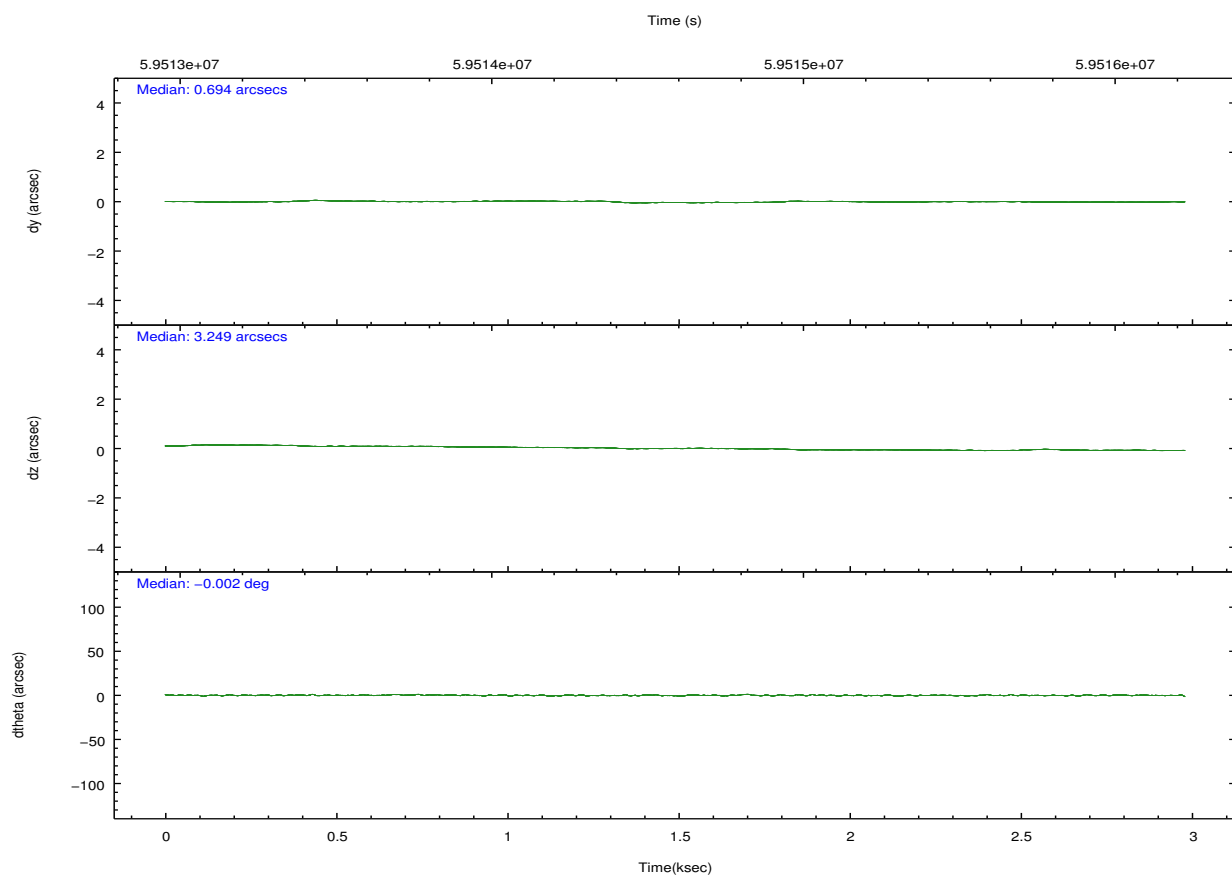
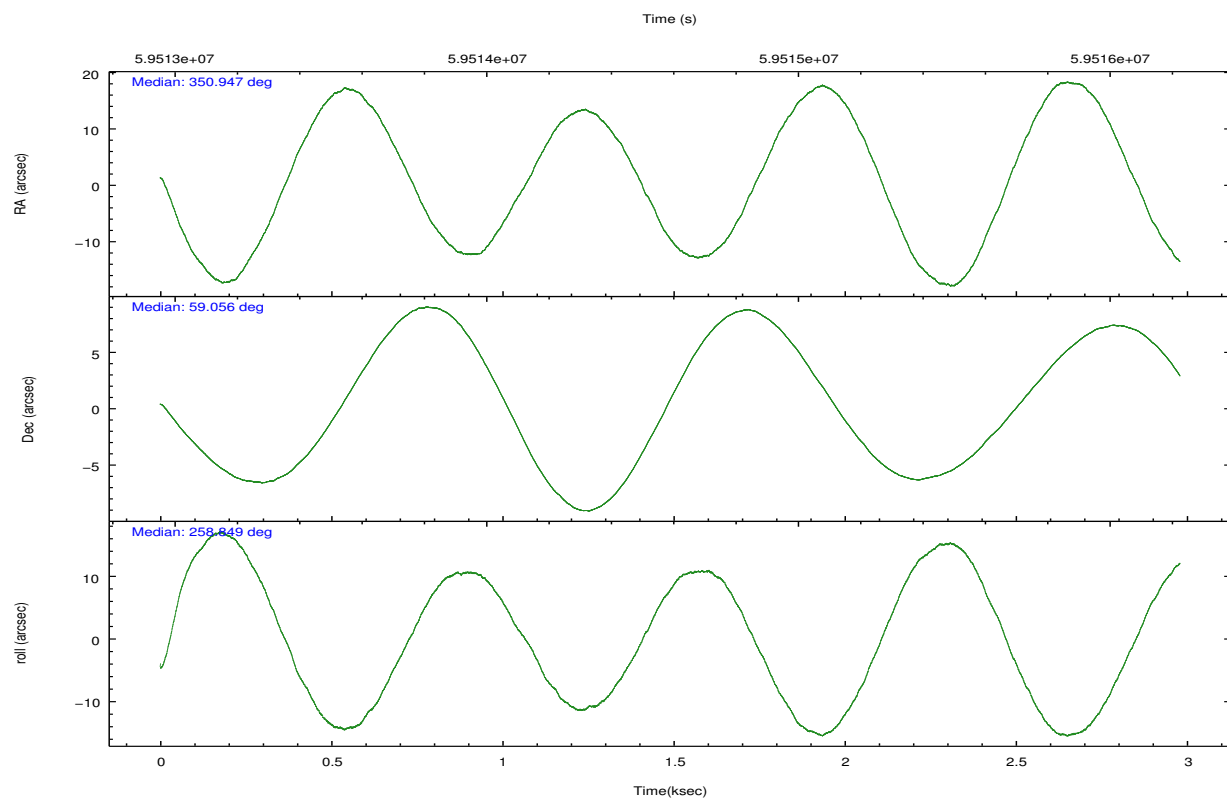


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	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	350.929618	350.9467365468317	Subarray requested	NONE	NONE
Pointing Dec	59.082037	59.05592451317683	Alternating exposures requested	N	N
Pointing Roll	258.713837	258.8557881344929	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	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	59513577.184000	59512911.29408			
Observation start date	1999-11-20T19:31:53	1999-11-20T19:21:51			
Observation end time	59516077.184000	59516211.7942			
Observation end date	1999-11-20T20:13:33	1999-11-20T20:16:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect



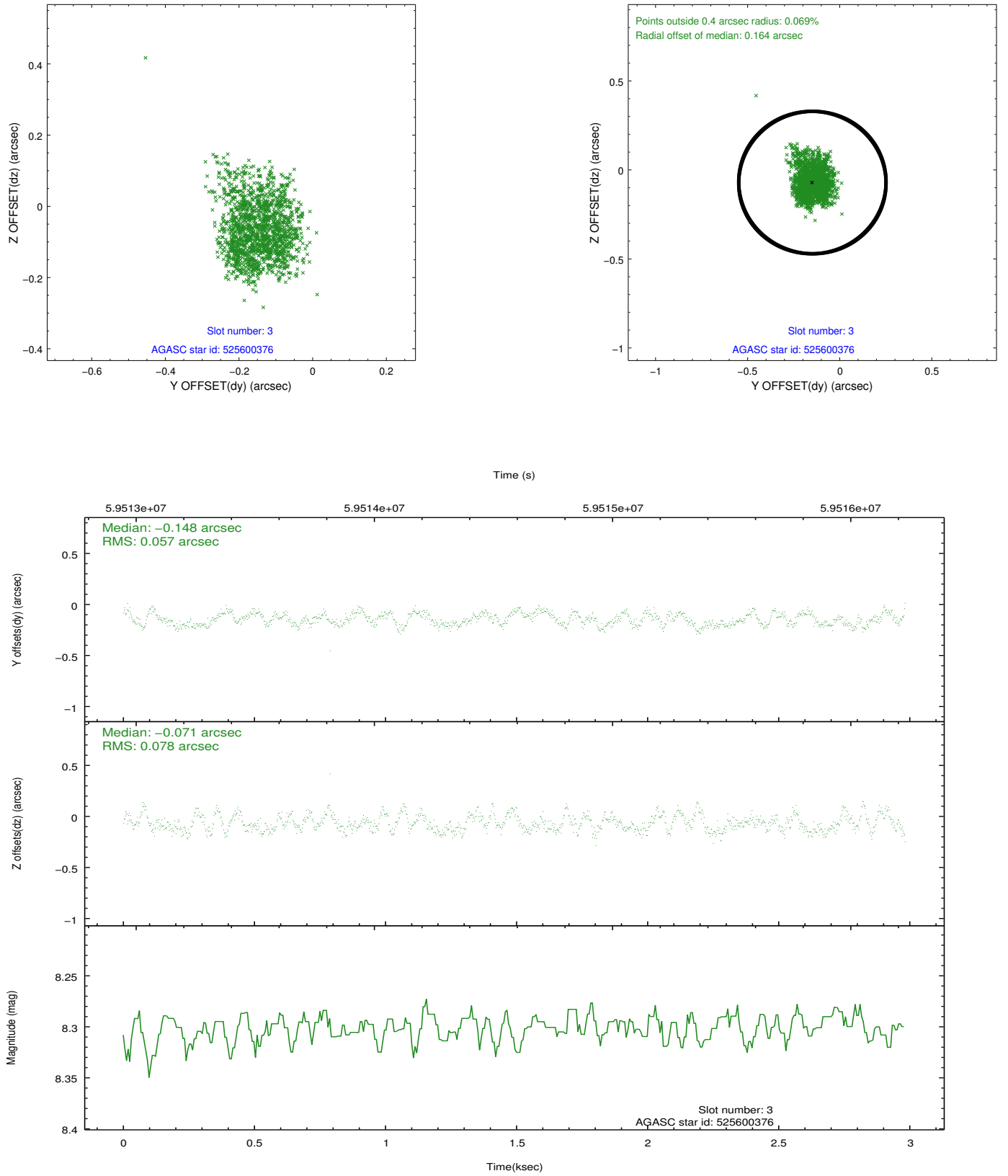


Slot Statistics

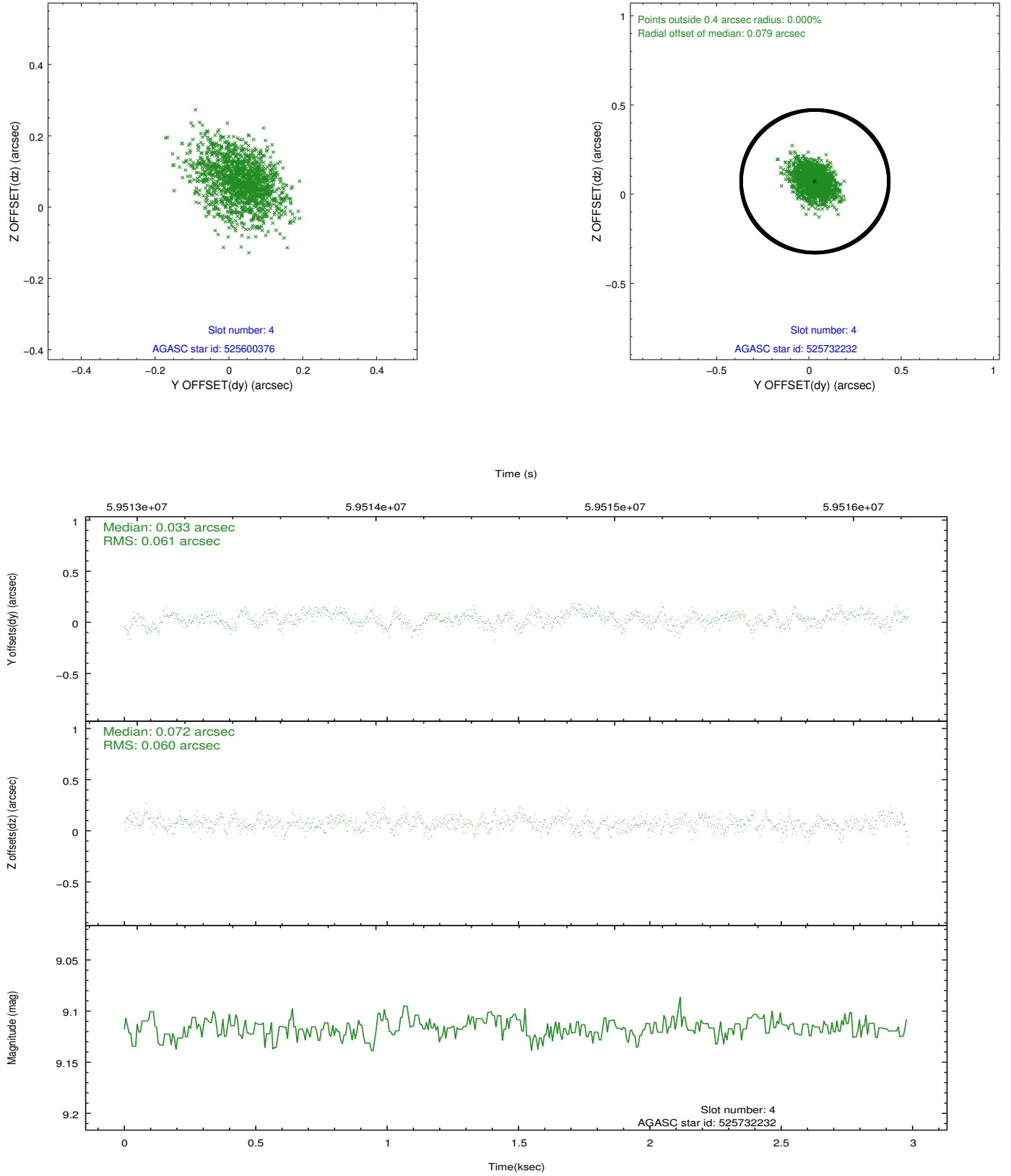
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	1455	0.009	-0.002	0.007	0.011	0.000000	0.000000	-753.33	-1724.30
1	FID	ACIS-S-4	7.21	1455	0.008	-0.004	0.006	0.010	0.000000	0.000000	2159.57	183.05
2	FID	ACIS-S-5	7.24	1455	-0.048	0.015	0.007	0.011	0.000000	0.000000	-1804.87	178.03
3	GUIDE	525600376	8.30	1455	-0.148	-0.071	0.102	0.164	349.956653	59.633357	-1611.77	-2127.48
4	GUIDE	525732232	9.12	1455	0.033	0.072	0.091	0.147	351.669550	58.757012	868.98	1581.30
5	GUIDE	525731480	9.50	1454	0.026	0.040	0.098	0.163	351.647209	58.687294	1124.90	1594.82
6	GUIDE	525606576	9.45	1455	0.117	-0.050	0.112	0.177	349.543555	58.678895	1906.41	-2263.34
7	GUIDE	525730528	9.24	1453	-0.029	0.004	0.108	0.180	352.080765	59.569479	-2147.70	1709.80

## 2.4 Star Slots

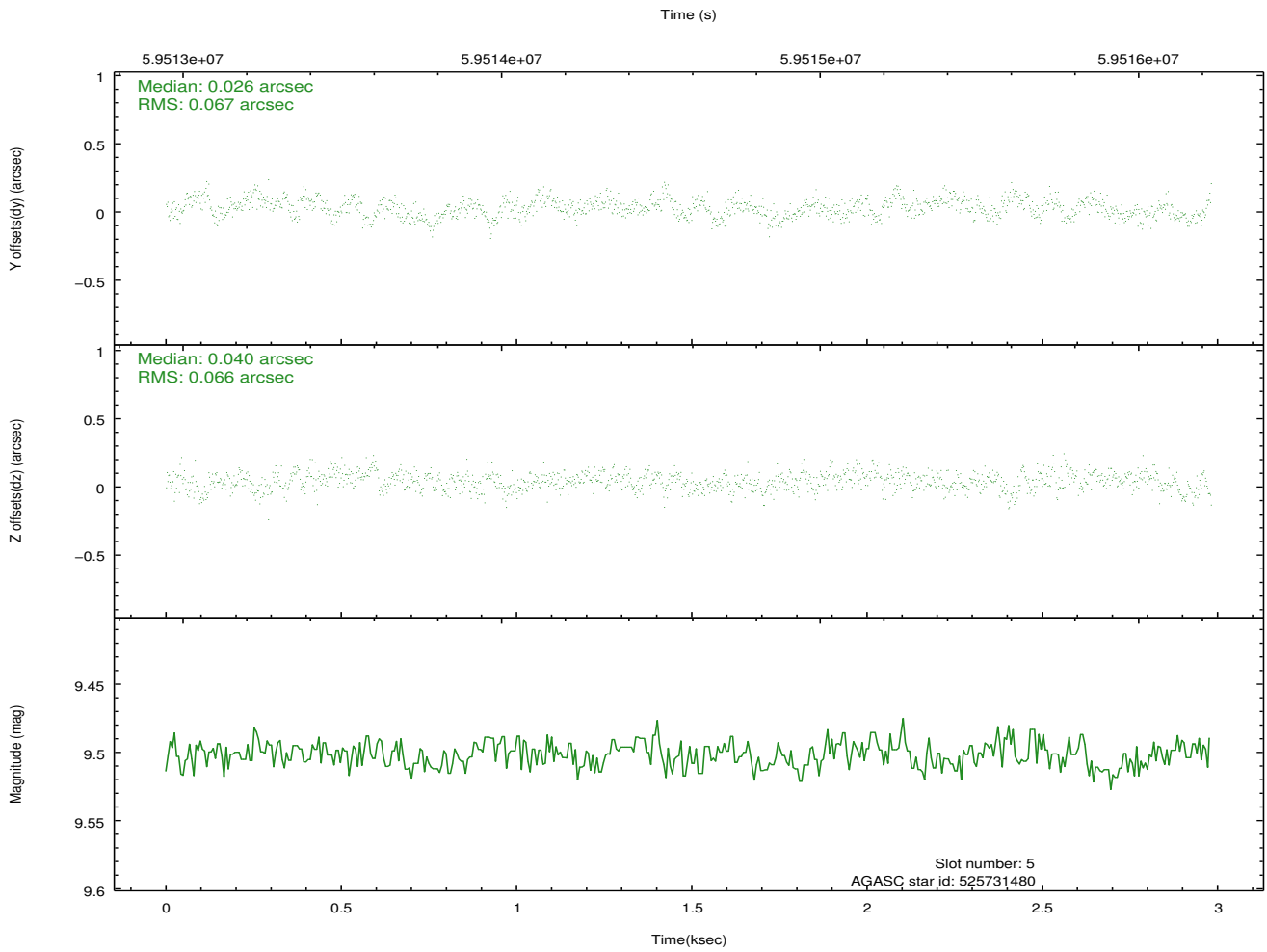
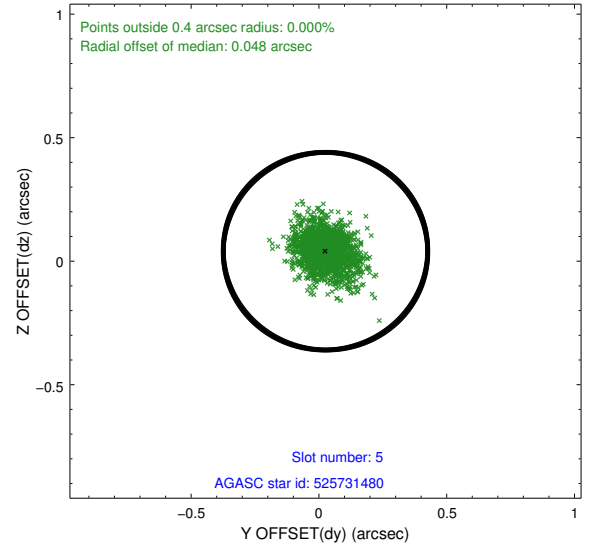
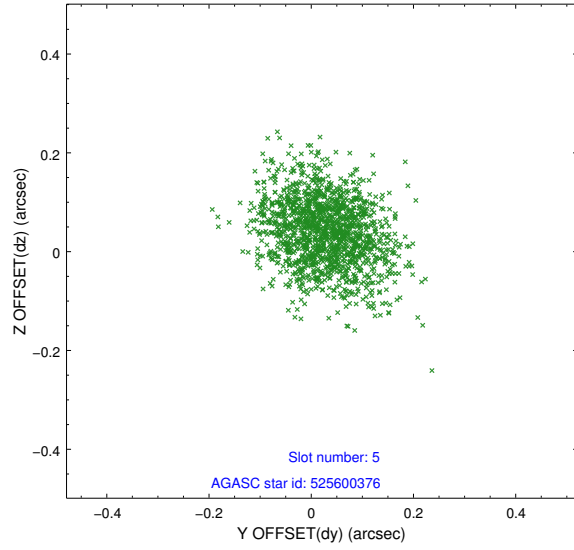
### 2.4.1 Slot 3



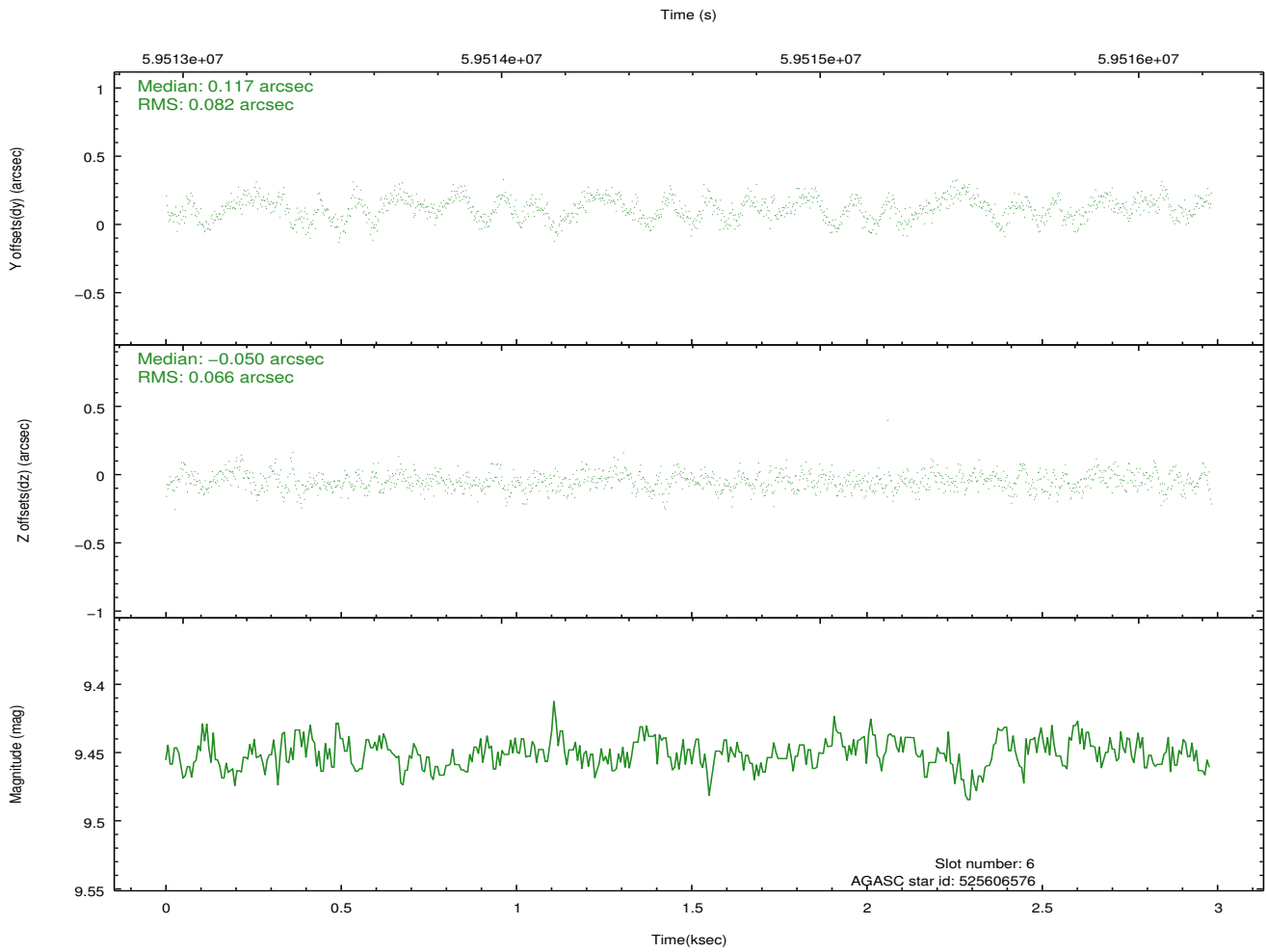
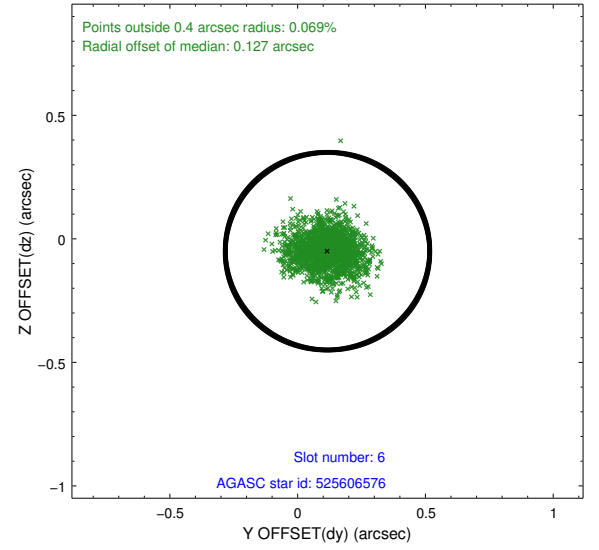
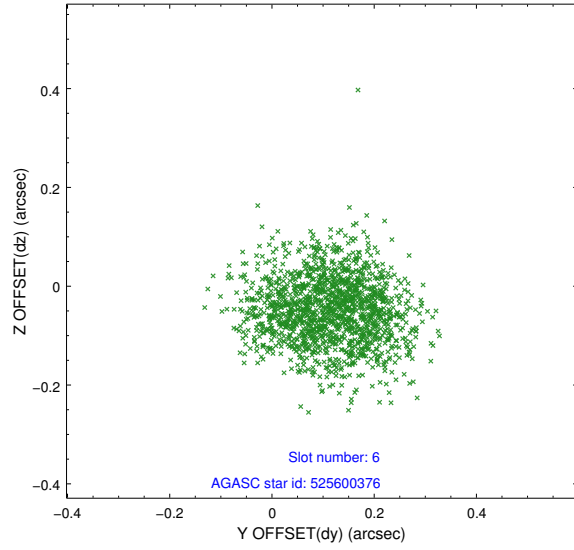
## 2.4.2 Slot 4



### 2.4.3 Slot 5

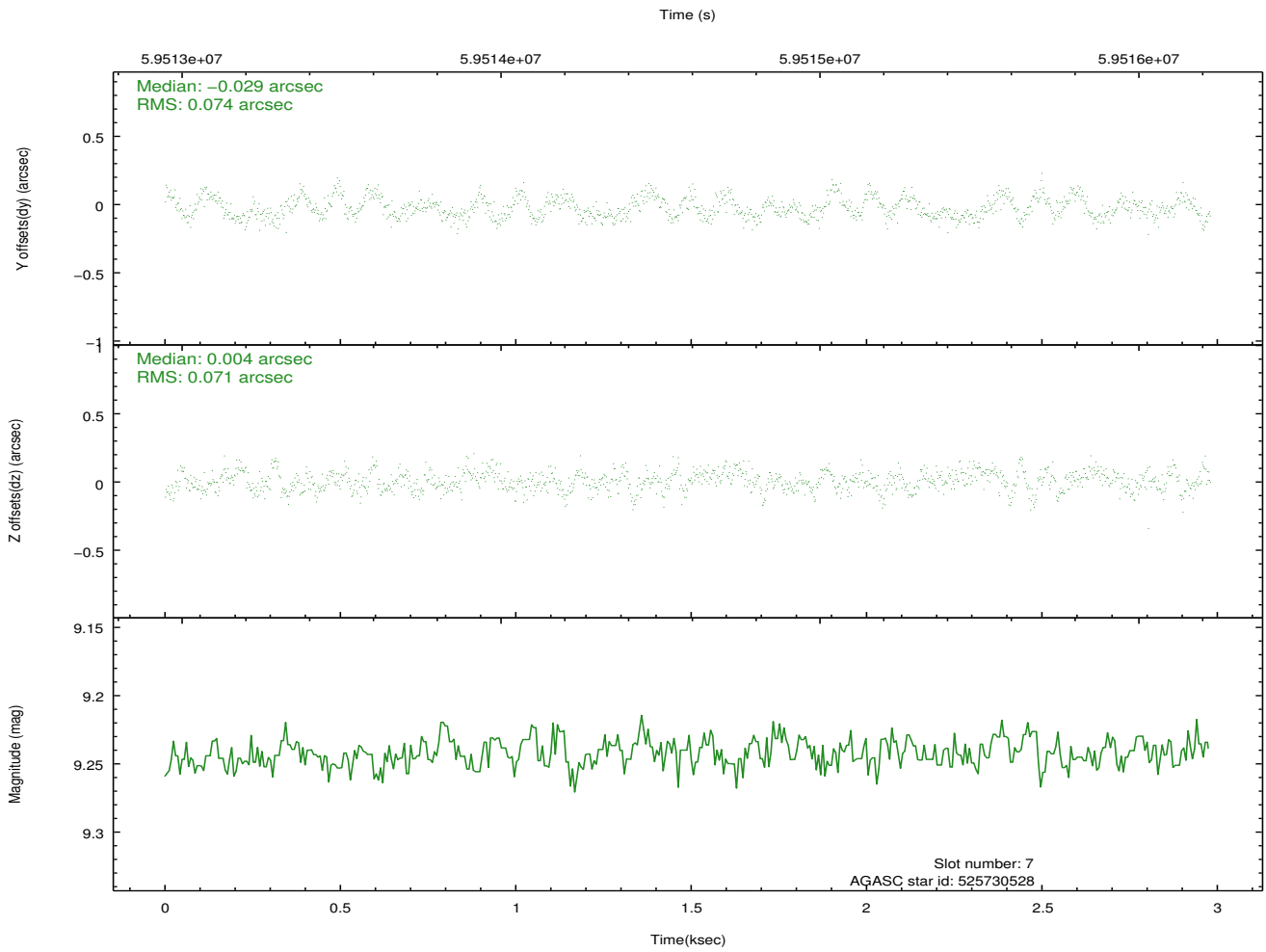
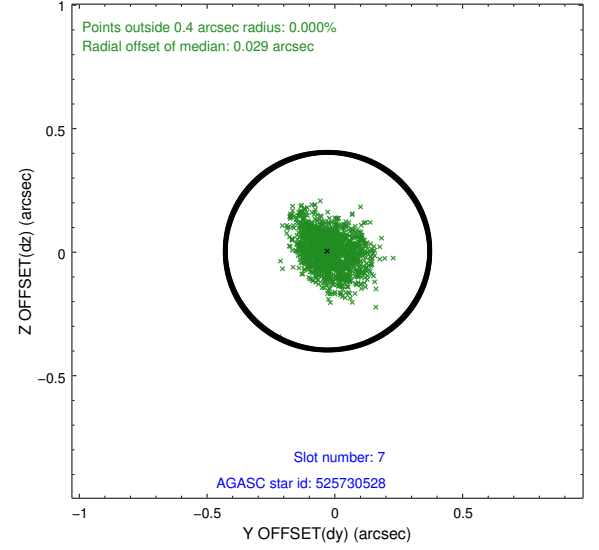
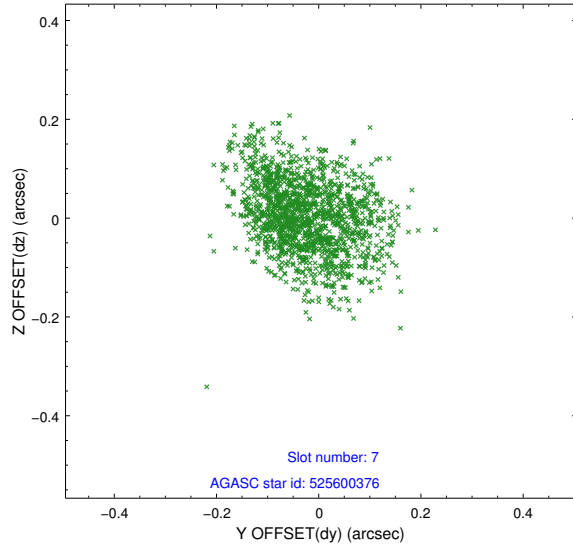


## 2.4.4 Slot 6



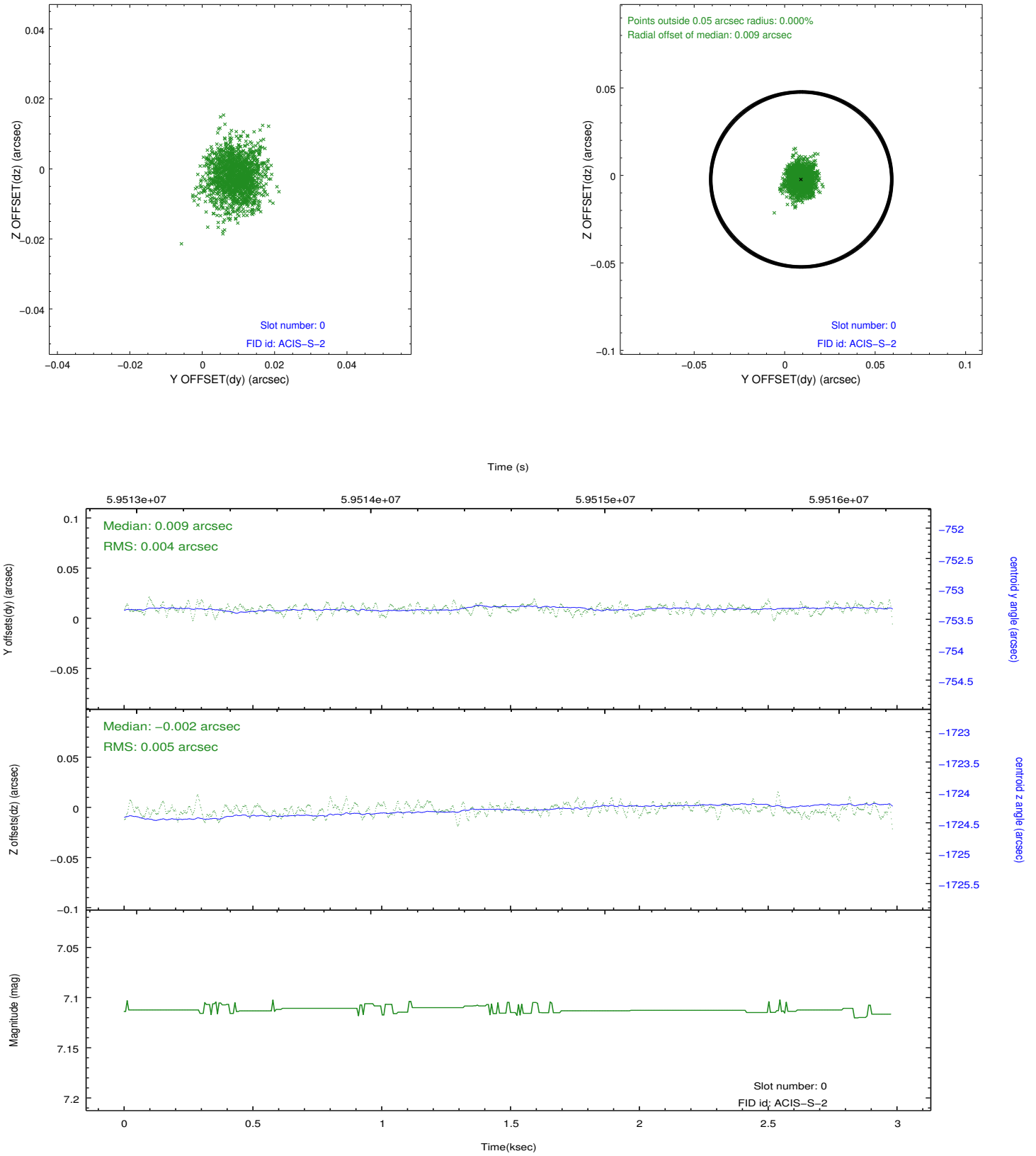


## 2.4.5 Slot 7

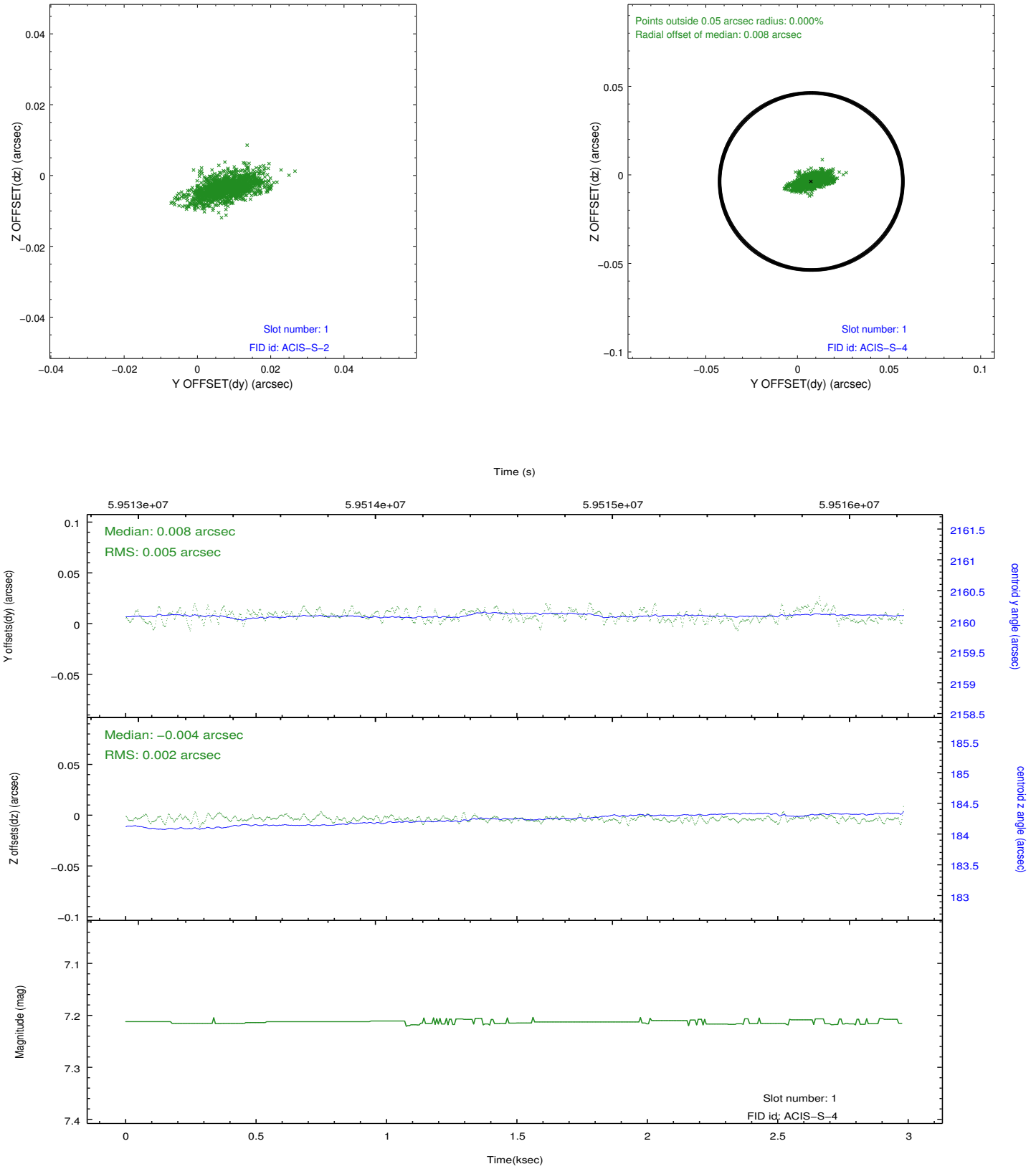


## 2.5 FID Slots

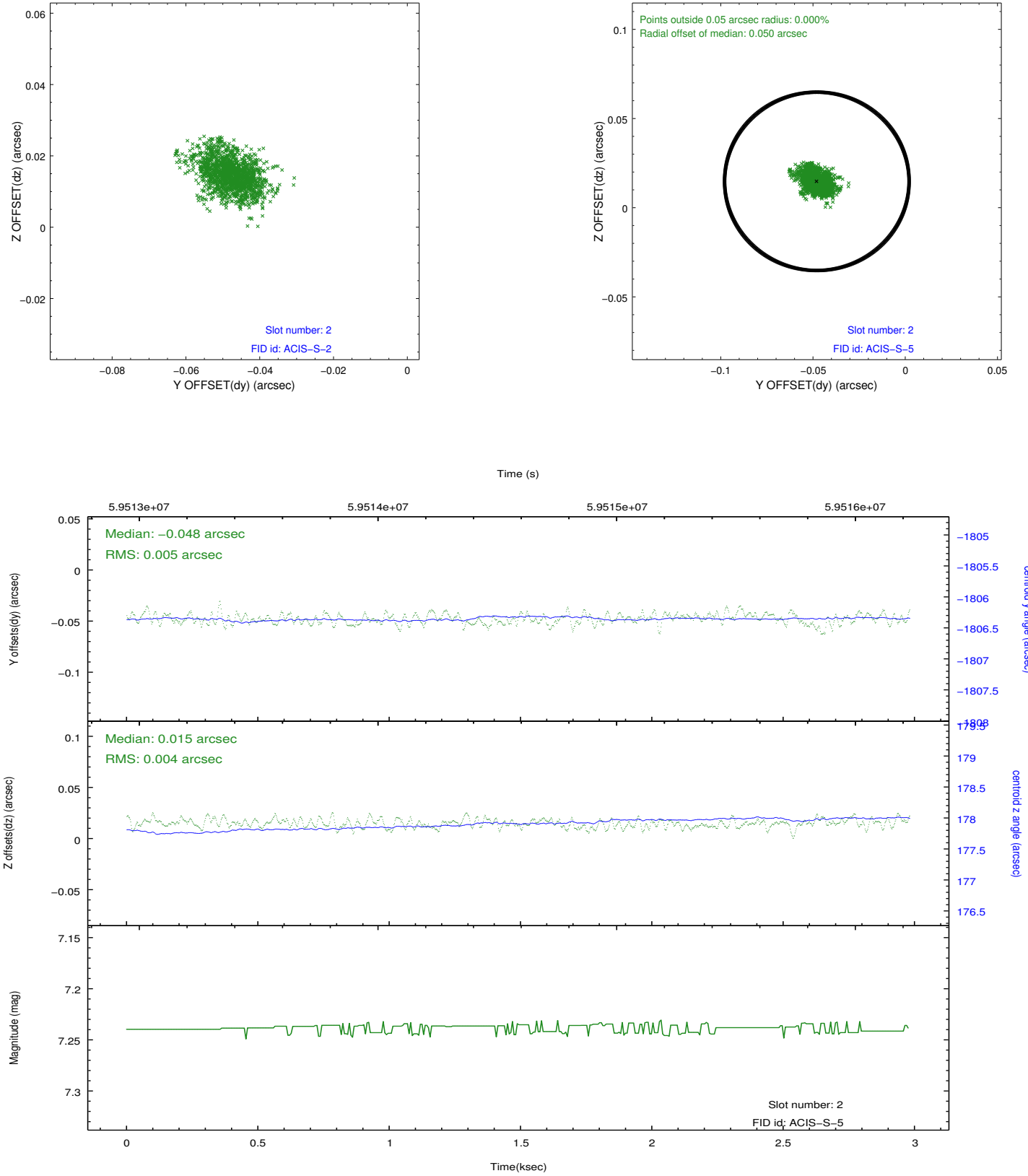
### 2.5.1 Slot 0



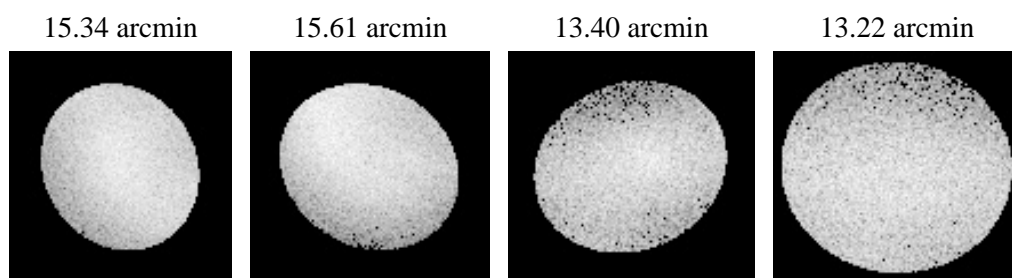
## 2.5.2 Slot 1



### 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	2.06

## A.2 Comments

ACIS response to Cas A on chip S1. Only S1 chip was read out.

===

Pileup present through most of observation.

===

Charge time for this ObsId remains at previous value of 2.06 ksec, although with the current processing the charge time would have been 2.04 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.