

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 1059 - L2 Version 2

Chandra X-Ray Center

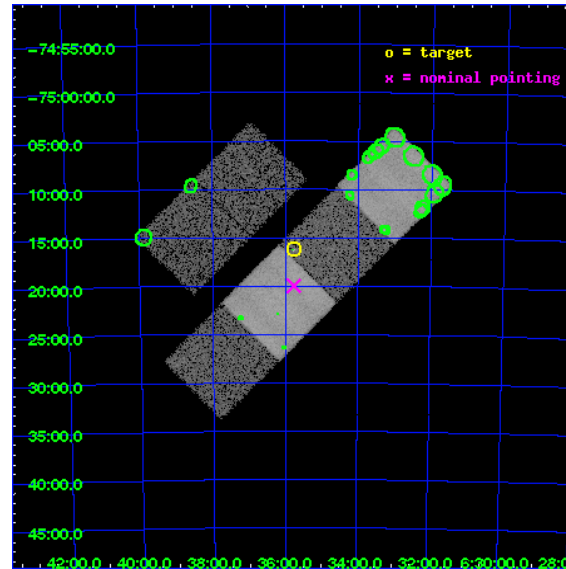
L2 Processing Date : Dec 14 2009

## 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 7 . . . . .	12
2.5	FID Slots . . . . .	13
2.5.1	Slot 0 . . . . .	13
2.5.2	Slot 1 . . . . .	14
2.5.3	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

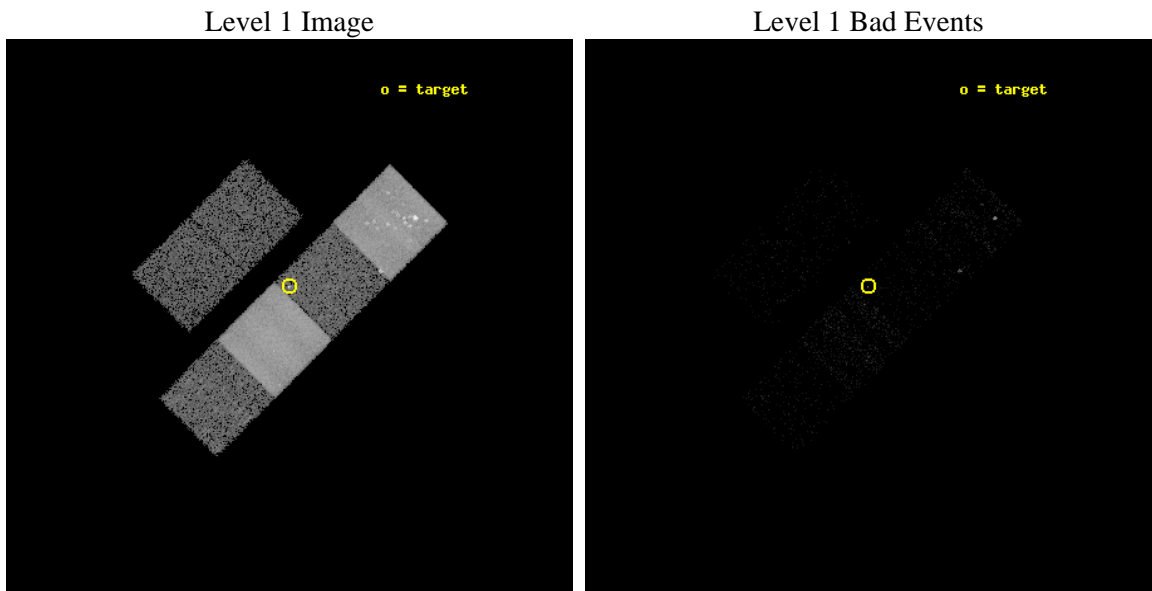
seq_num	780009	Sequence number
obs_id	1059	Observation id
title	&#160	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	PKS0637-752	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	98.94	Observer's specified target RA
dec_targ	-75.27	Observer's specified target Dec
ra_nom	98.940698528903	Nominal RA
dec_nom	-75.333025099106	Nominal Dec
roll_nom	134.93155425095	Nominal Roll
revision	2	Processing version of data
ontime	1758.7997610942	Sum of GTIs [s]
livetime	1736.5287794971	Livetime [s]
ontime2	1758.9228810966	Sum of GTIs [s]
ontime3	1758.8818410933	Sum of GTIs [s]
ontime5	1758.9639210925	Sum of GTIs [s]
ontime6	1758.7997610942	Sum of GTIs [s]
ontime7	1759.0049610958	Sum of GTIs [s]
ontime8	1758.8408010975	Sum of GTIs [s]
l2events	151159	Number of level 2 events



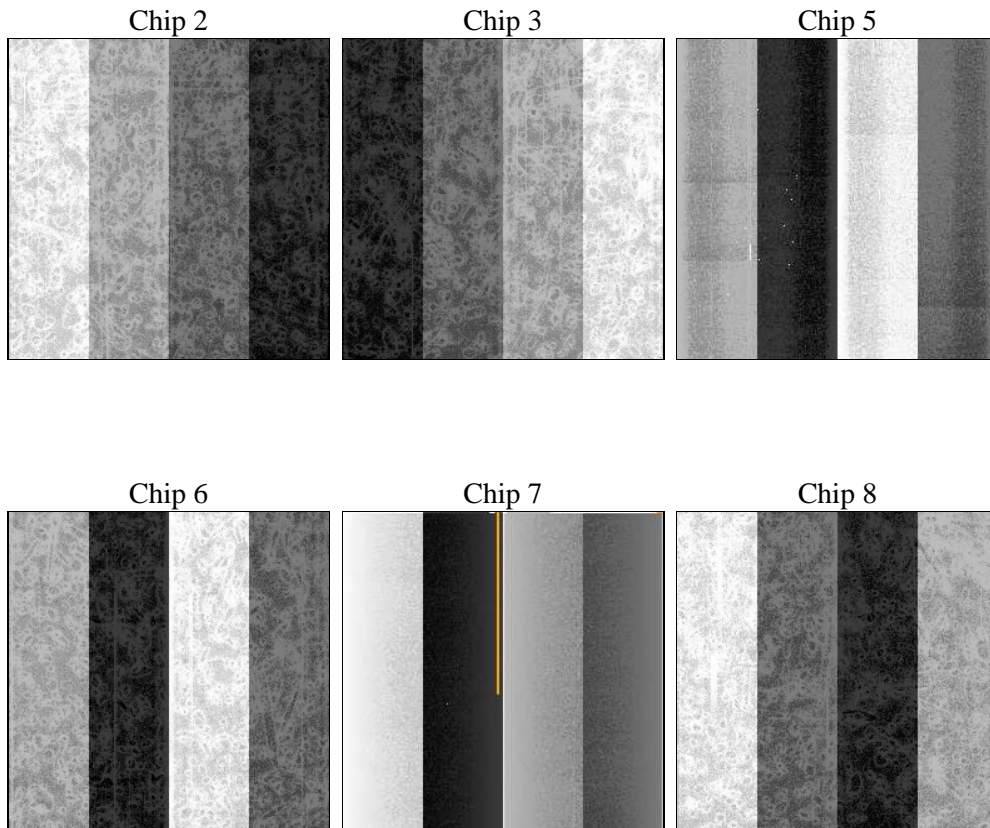
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	1758.7997610942	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime2	1758.9228810966	Sum of GTIs [s]
date	2009-12-14T07:32:27	Date and time of file creation	ontime3	1758.8818410933	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	1758.9639210925	Sum of GTIs [s]
			ontime6	1758.7997610942	Sum of GTIs [s]
			ontime7	1759.0049610958	Sum of GTIs [s]
			ontime8	1758.8408010975	Sum of GTIs [s]
			l1events	172529	Number of level 1 events

### 2.1.4 Events

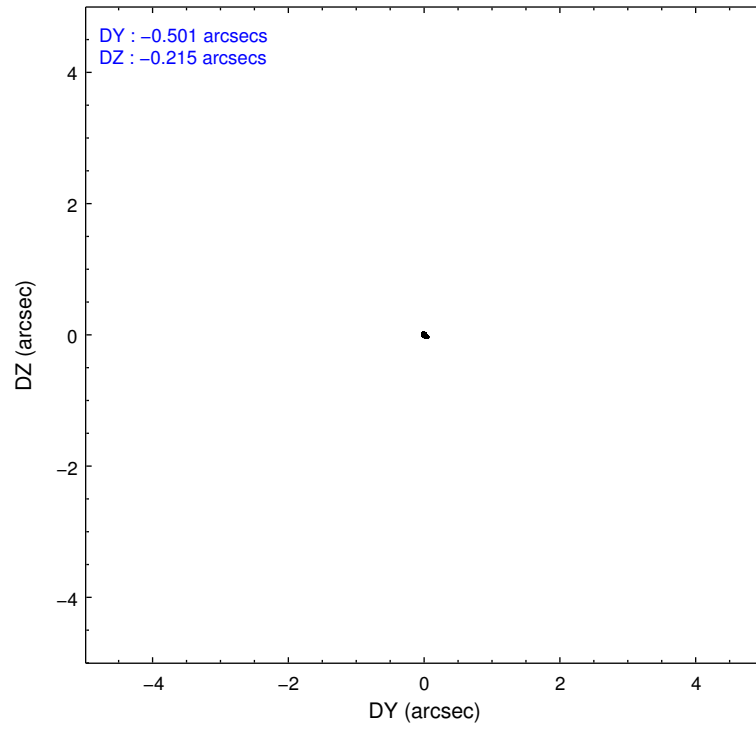
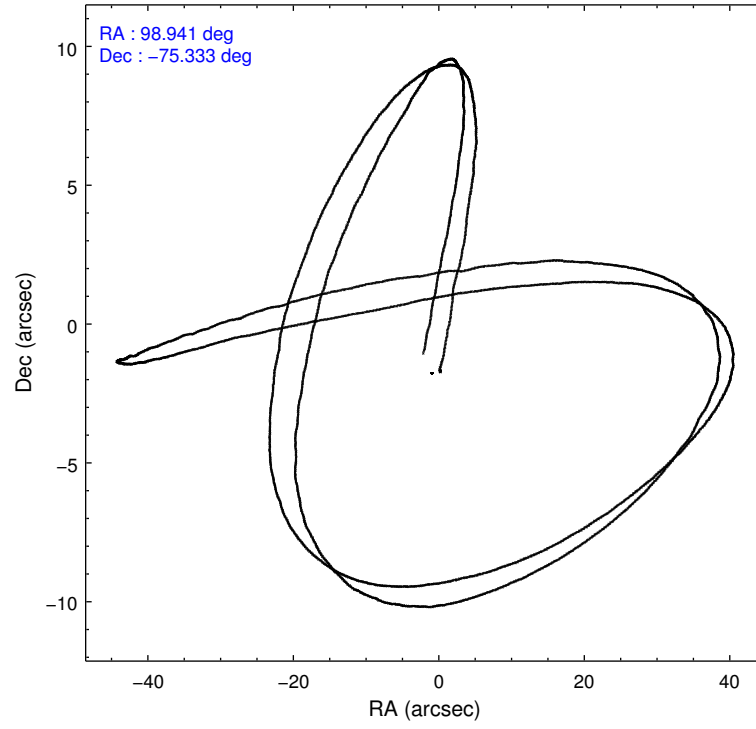
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	7704	7704	67819	11522	67121	10659
rejected events	1097	1225	2399	1397	2804	1427
rejected %	14%	15%	3%	12%	4%	13%

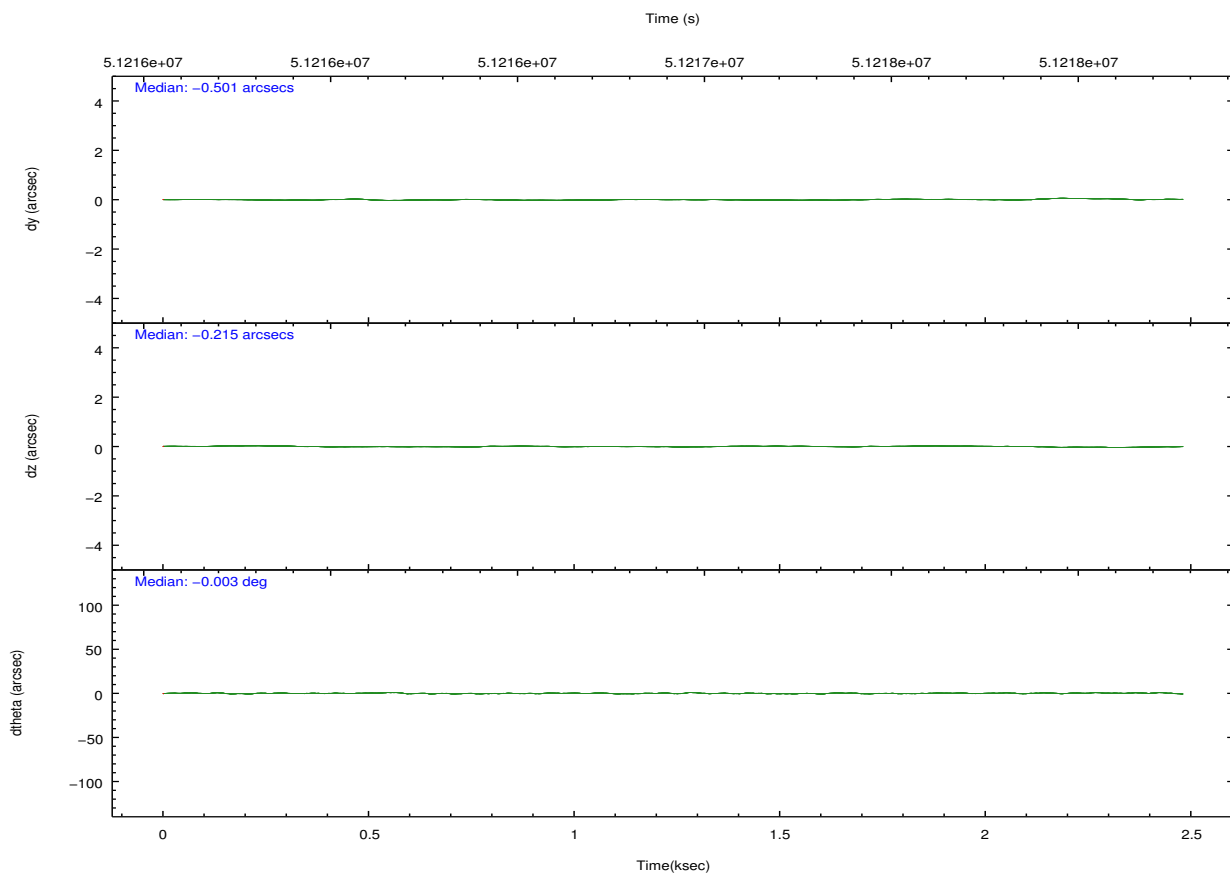
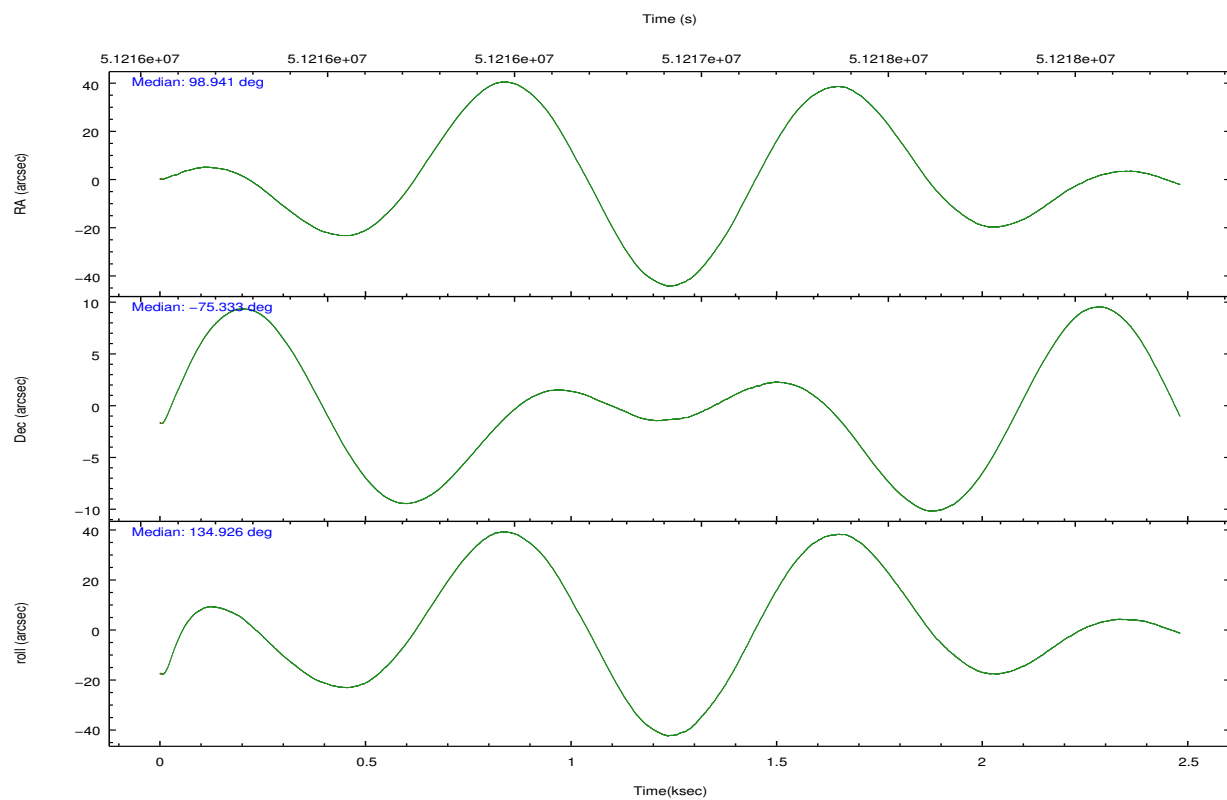
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	3383	3296	11132	6052	4956	4716
	43%	42%	16%	52%	7%	44%
grade 1 events	19	27	62	44	16	27
	0%	0%	0%	0%	0%	0%
grade 2 events	1249	1235	9456	1747	7846	1875
	16%	16%	13%	15%	11%	17%
grade 3 events	394	343	5075	444	4510	482
	5%	4%	7%	3%	6%	4%
grade 4 events	357	370	4540	424	4036	460
	4%	4%	6%	3%	6%	4%
grade 5 events	1071	1190	2044	1340	2623	1388
	13%	15%	3%	11%	3%	13%
grade 6 events	1231	1243	35355	1471	43133	1711
	15%	16%	52%	12%	64%	16%
grade 7 events	0	0	155	0	1	0
	0%	0%	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-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Observation mode	POINTING	POINTING	Number of optional ACIS chips dropped	0	0
Pointing RA	99.046013	98.94069852890293	On-chip summing requested	N	N
Pointing Dec	-75.341032	-75.33302509910573	Subarray requested	NONE	NONE
Pointing Roll	134.876921	134.9315542509486	Alternating exposures requested	N	N
SIM focus pos (mm)	-1.180069	-1.346558362777969	Primary exposure time	0.000000	3.2
SIM defocus (mm)	-0.495802	-0.6622909014780725			
SIM translation stage pos (mm)	-190.132523	-190.1325231039672			
SIM translation stage offset (mm)	0	5.209593894051068e-07			
Observation start time	51216167.184000	51215503.756469			
Observation start date	1999-08-16T18:41:43	1999-08-16T18:31:43			
Observation end time	51218167.184000	51218283.556567			
Observation end date	1999-08-16T19:15:03	1999-08-16T19:18:03			
Read mode	TIMED	TIMED			

## 2.3 Aspect





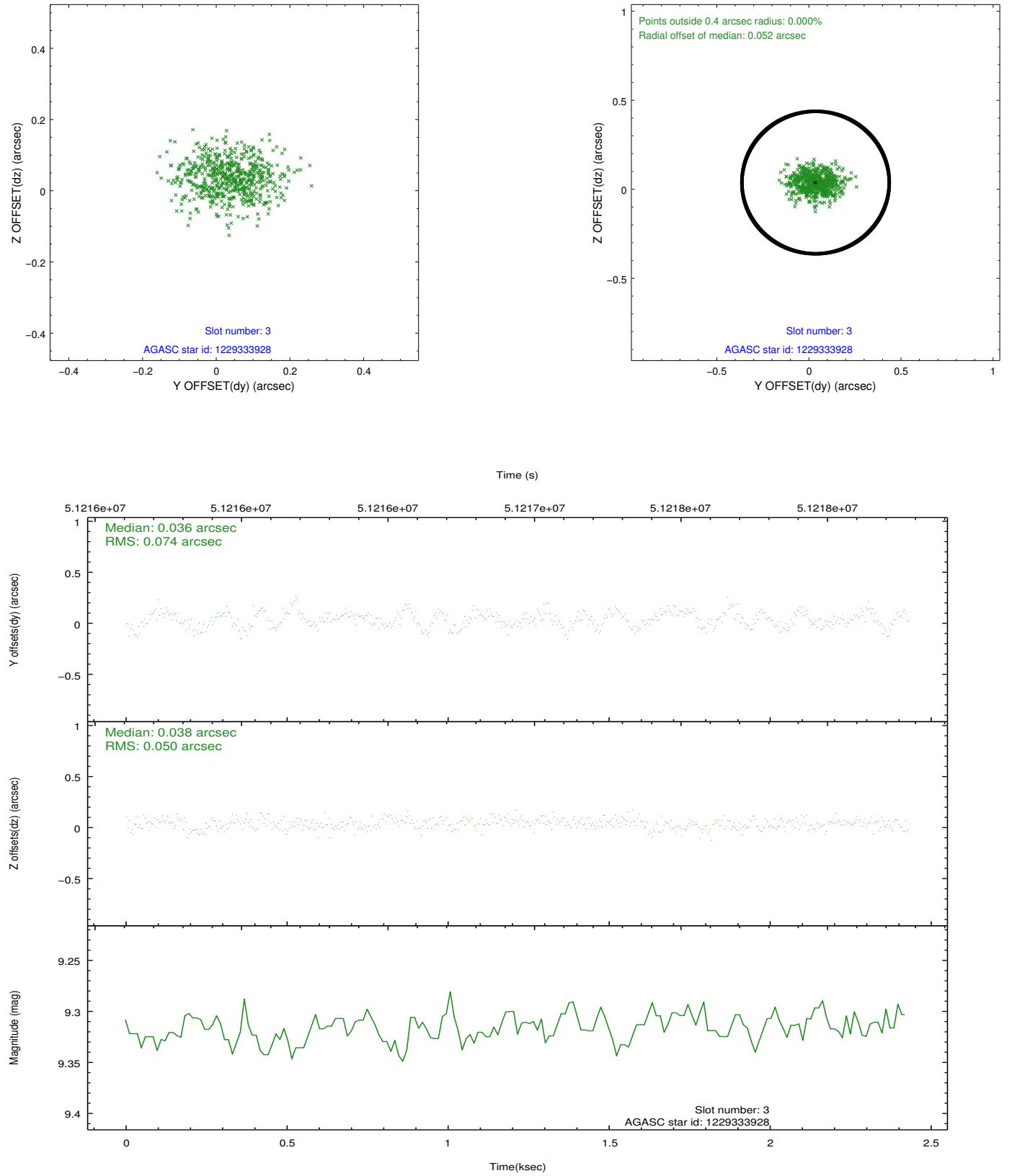
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.13	605	-0.025	-0.035	0.007	0.011	0.000000	0.000000	-752.06	-1720.81
1	FID	ACIS-S-4	7.21	606	0.152	0.021	0.005	0.011	0.000000	0.000000	2160.08	184.86
2	FID	ACIS-S-5	7.25	606	-0.159	0.023	0.006	0.010	0.000000	0.000000	-1801.56	181.59
3	GUIDE	1229333928	9.32	593	0.036	0.038	0.095	0.158	98.960049	-75.793847	-1103.40	1205.62
4	GUIDE	1204427552	9.97	606	-0.069	0.249	0.121	0.197	98.426081	-74.700454	2044.03	-1203.62
5	GUIDE	1229333040	9.78	605	0.014	-0.073	0.110	0.174	99.562583	-75.788185	-1462.65	813.13
6	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	1204427384	9.90	604	0.021	-0.211	0.138	0.218	98.538441	-74.593615	2243.86	-1550.14

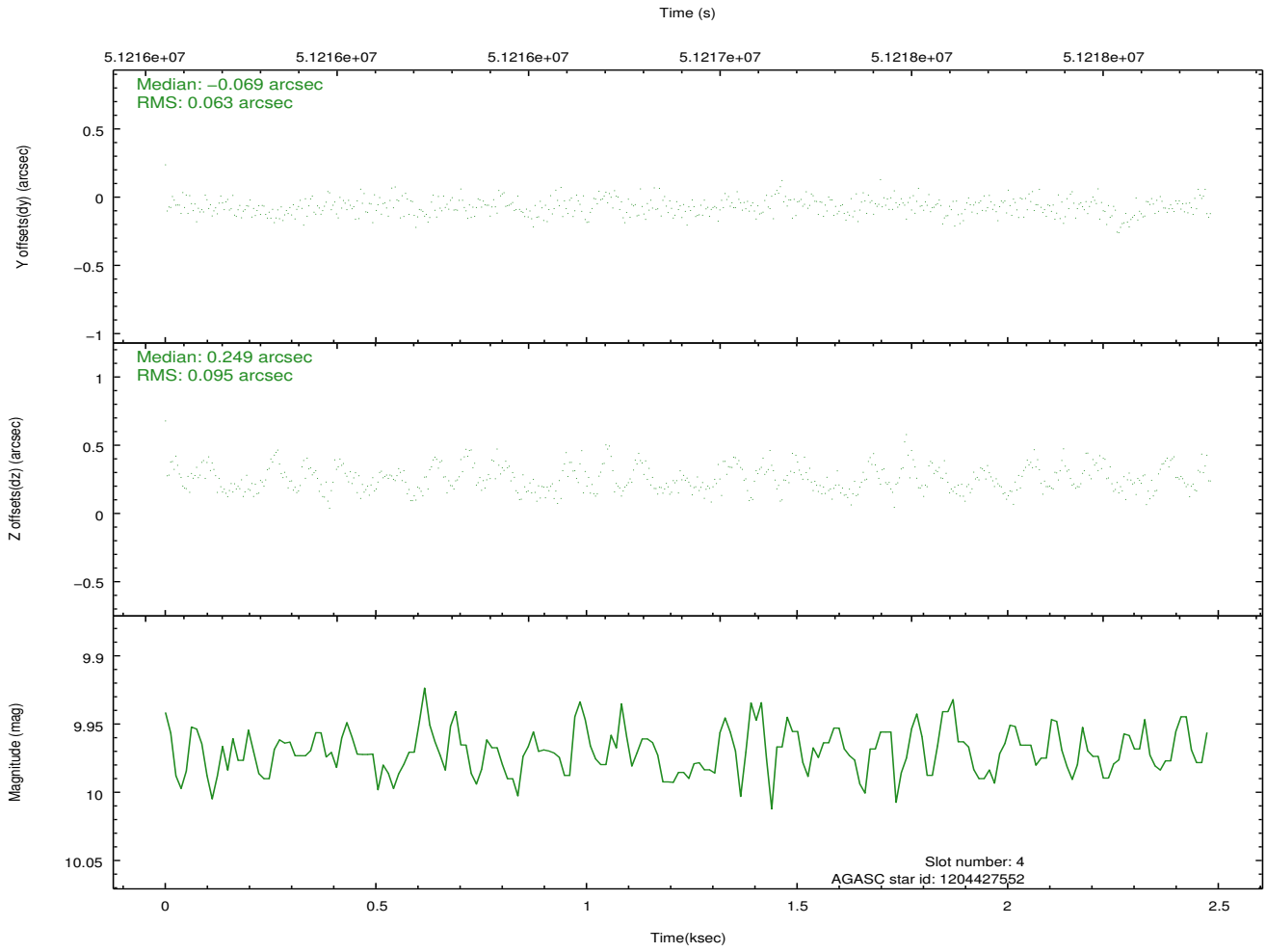
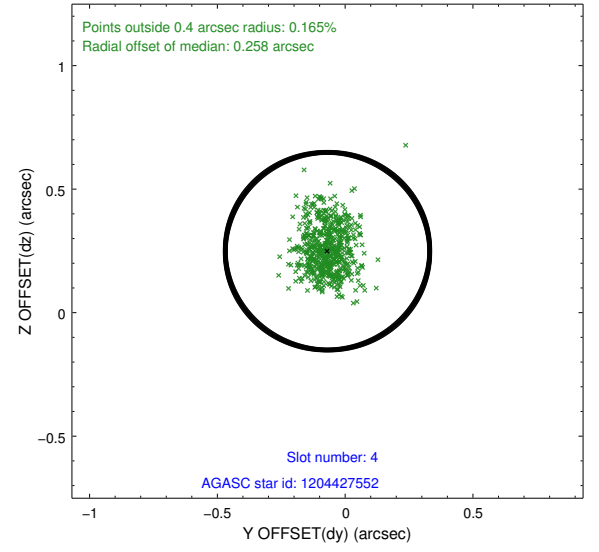
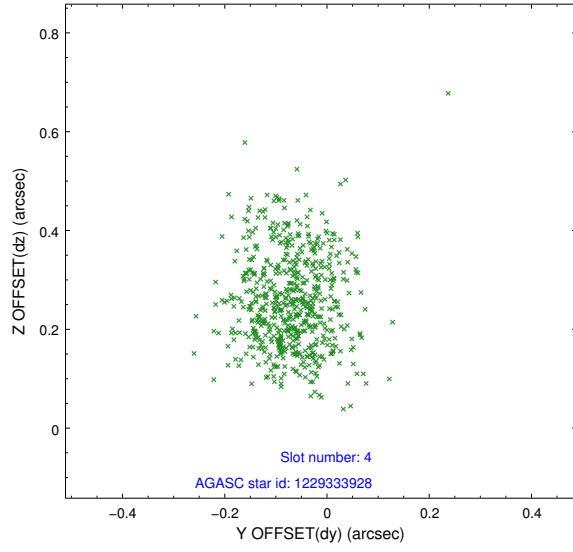


## 2.4 Star Slots

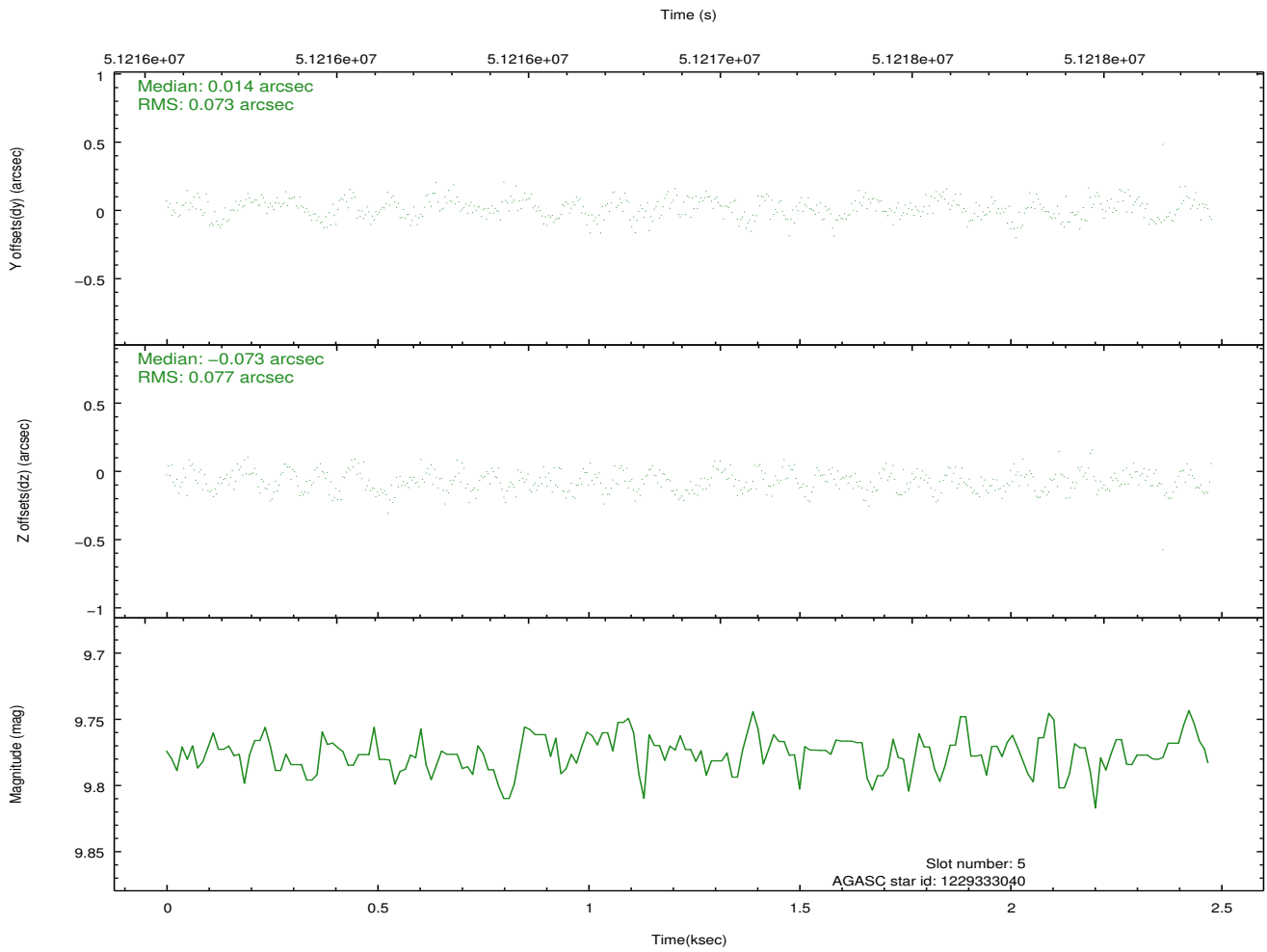
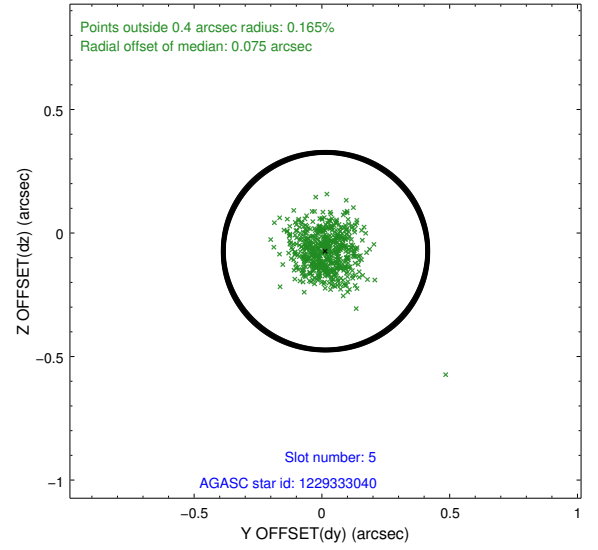
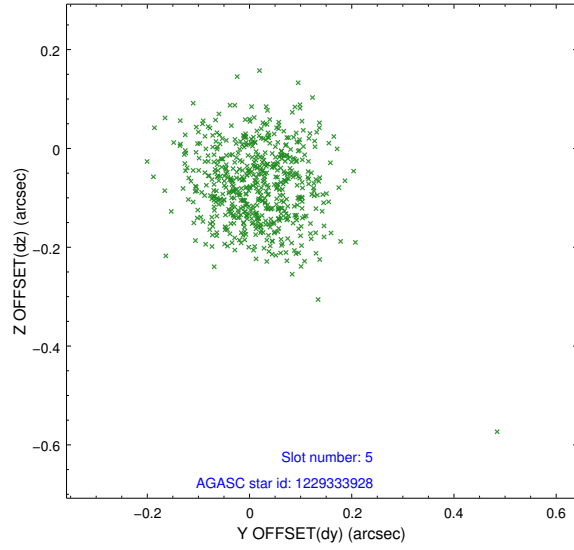
### 2.4.1 Slot 3



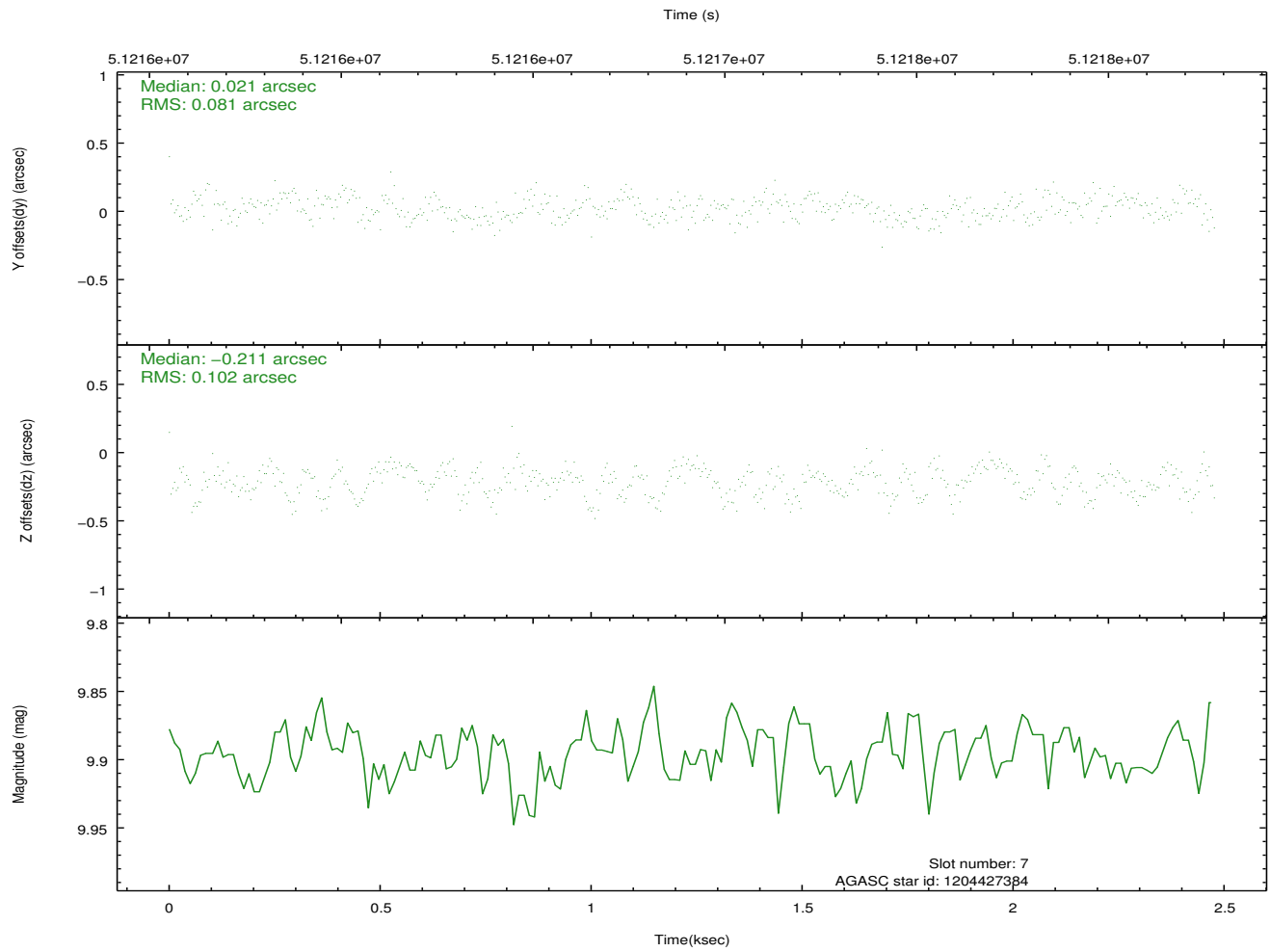
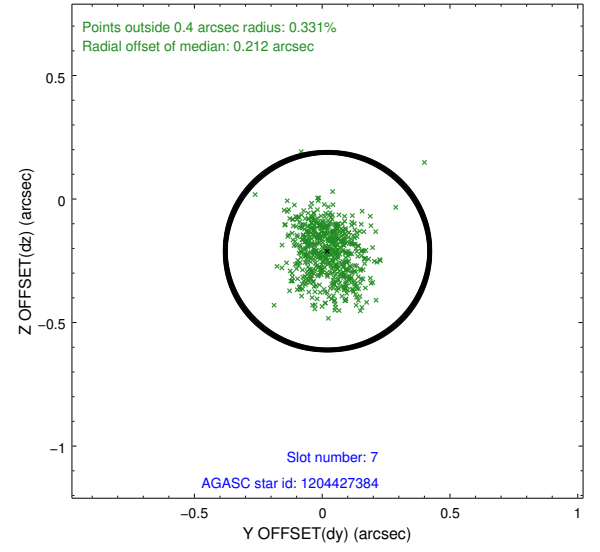
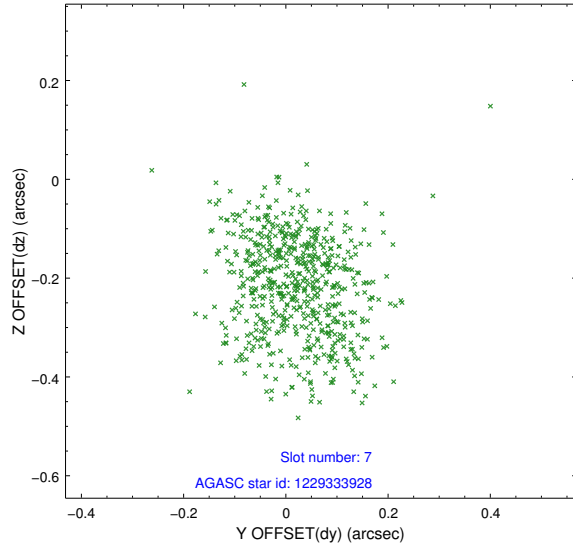
## 2.4.2 Slot 4



### 2.4.3 Slot 5

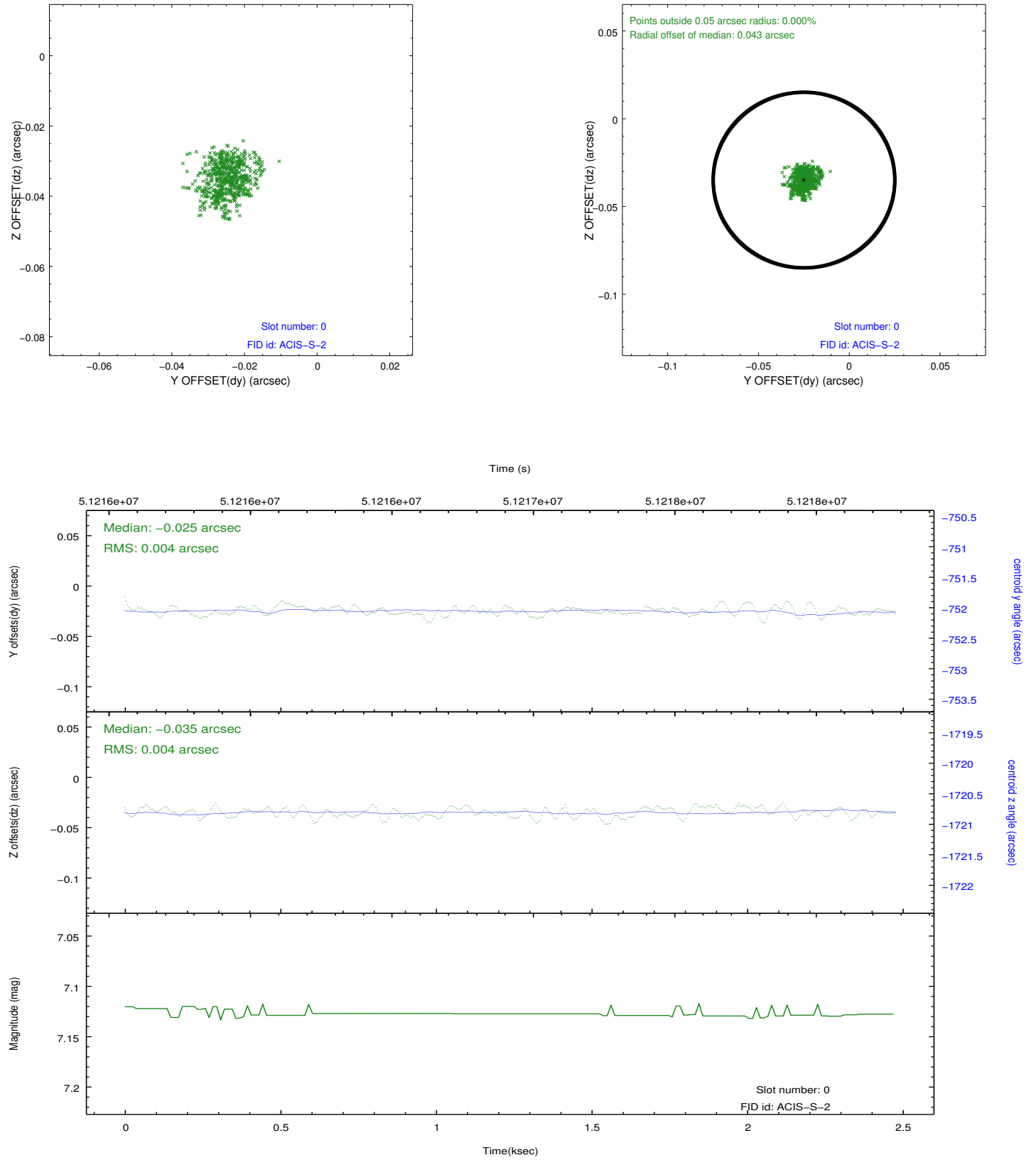


## 2.4.4 Slot 7

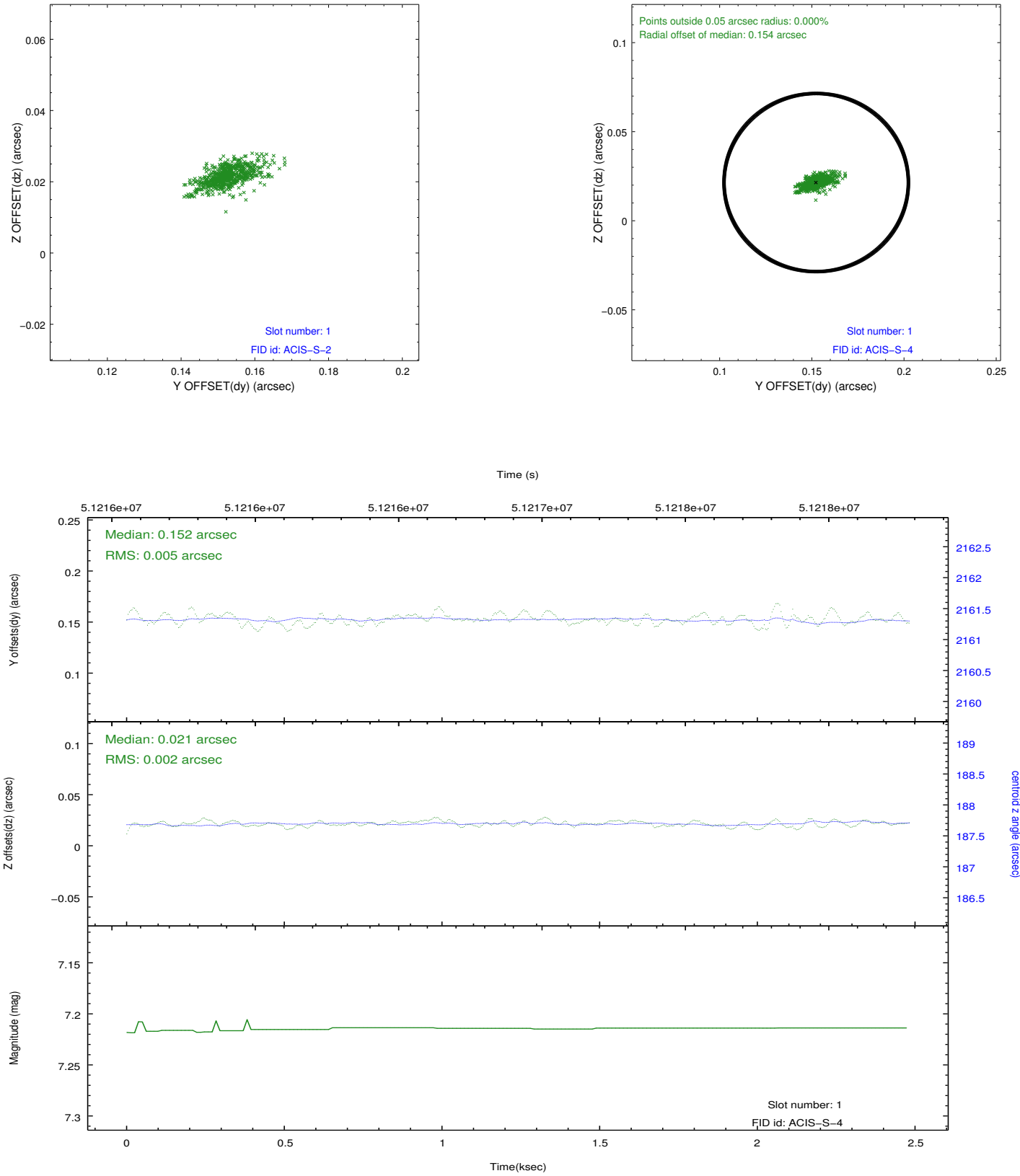


## 2.5 FID Slots

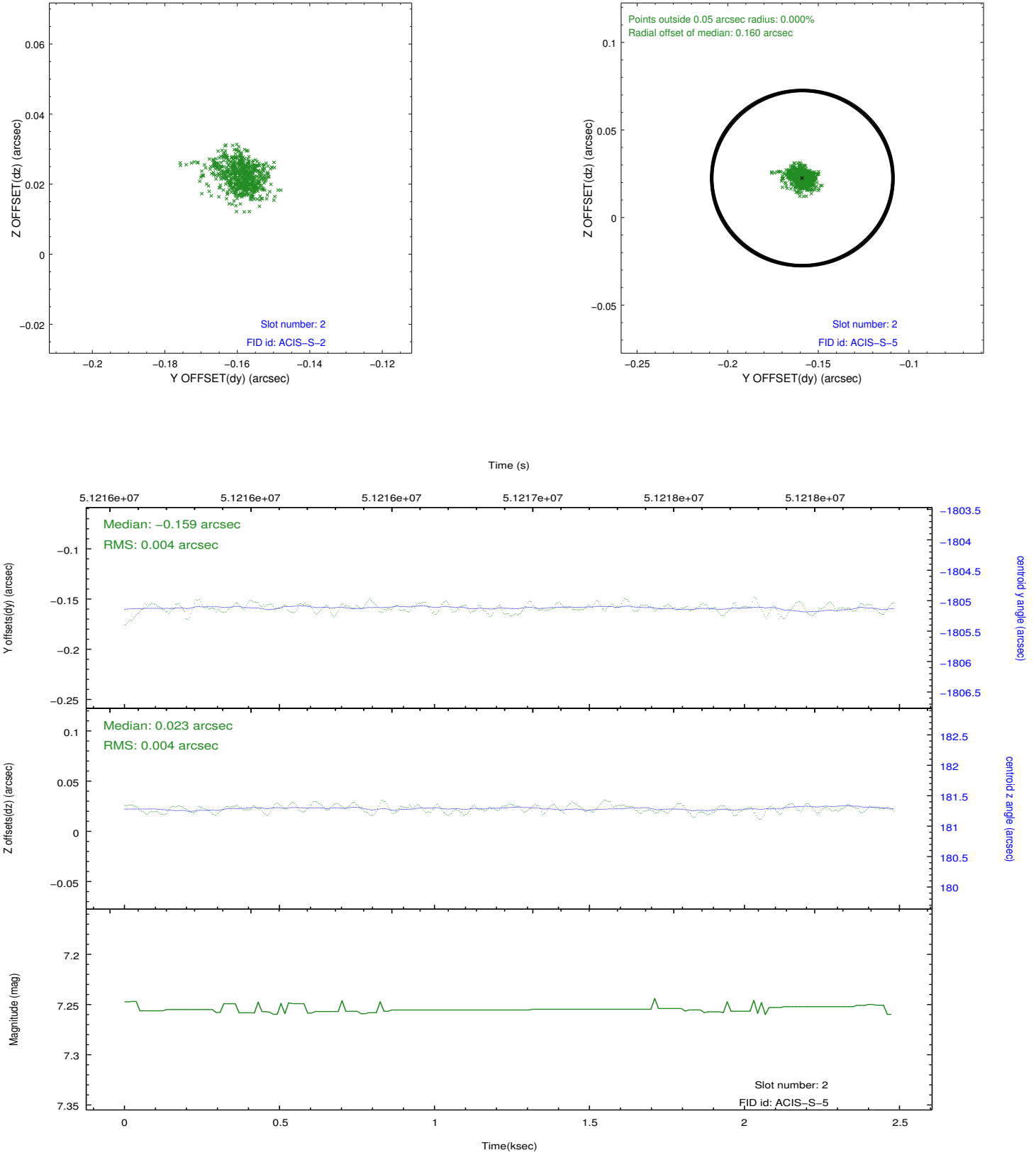
### 2.5.1 Slot 0



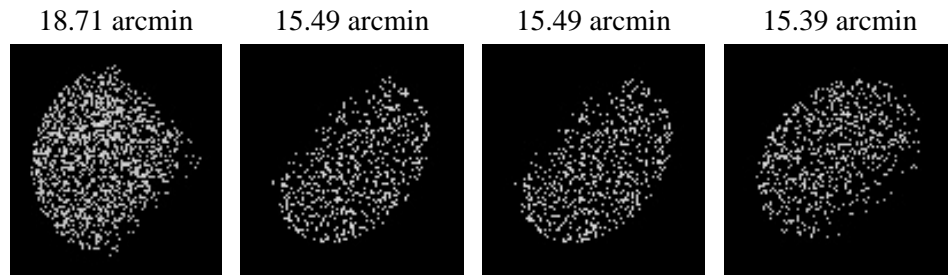
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.05.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.76

## A.2 Comments

ACIS-S Crude Optical Axis Determination

Yoff = -3.0, Zoff = 2.8. Target very off-axis.

===

Guide star in slot 6 was not acquired.

===

High radiation environment contributes to enhanced count rate.

=== 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.