

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 96 - L2 Version 4  
Chandra X-Ray Center

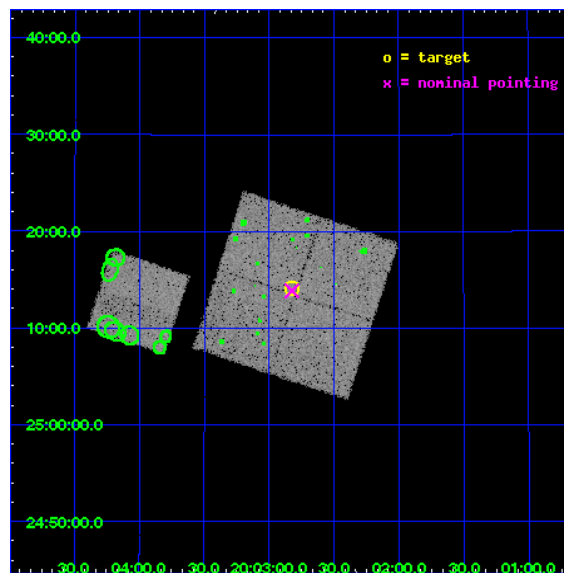
L2 Processing Date : Nov 21 2009

## 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

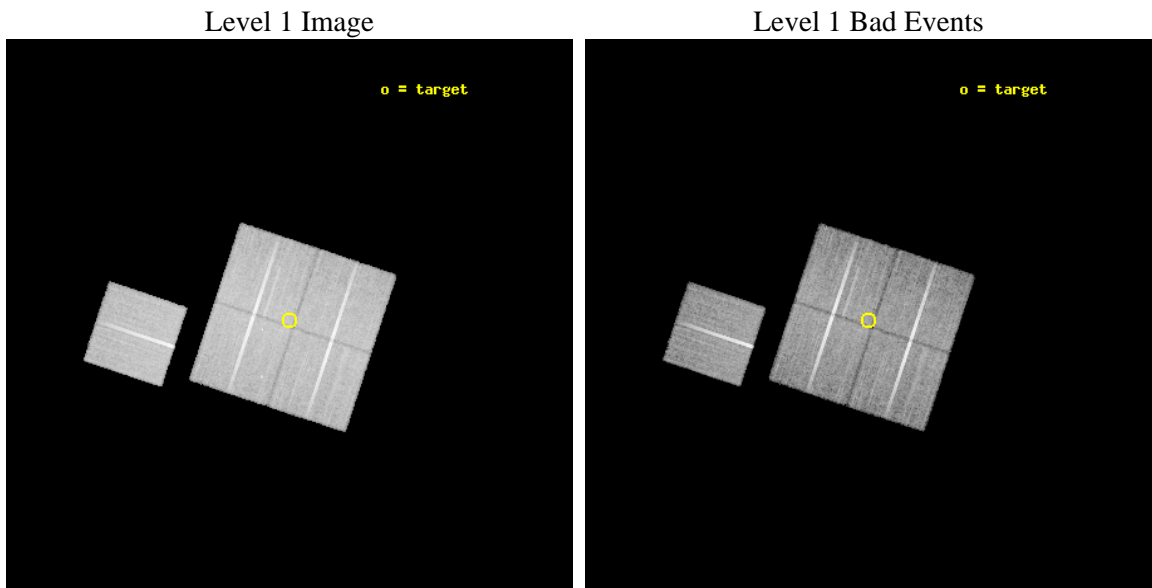
seq_num	400009	Sequence number
obs_id	96	Observation id
title	BLACK HOLE EVENT HORIZONS	Proposal title
observer	Dr Steve Murray	Principal investigator
object	GS 2000+25	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	300.706667	Observer's specified target RA
dec_targ	25.236472	Observer's specified target Dec
ra_nom	300.70619743862	Nominal RA
dec_nom	25.231199807384	Nominal Dec
roll_nom	288.32601084256	Nominal Roll
revision	4	Processing version of data
ontime	19179.790043943	Sum of GTIs [s]
liveltime	18936.923993723	Livetime [s]
ontime0	19179.954203941	Sum of GTIs [s]
ontime1	19179.913163938	Sum of GTIs [s]
ontime2	19179.872123942	Sum of GTIs [s]
ontime3	19179.790043943	Sum of GTIs [s]
ontime6	19173.349183515	Sum of GTIs [s]
l2events	74926	Number of level 2 events



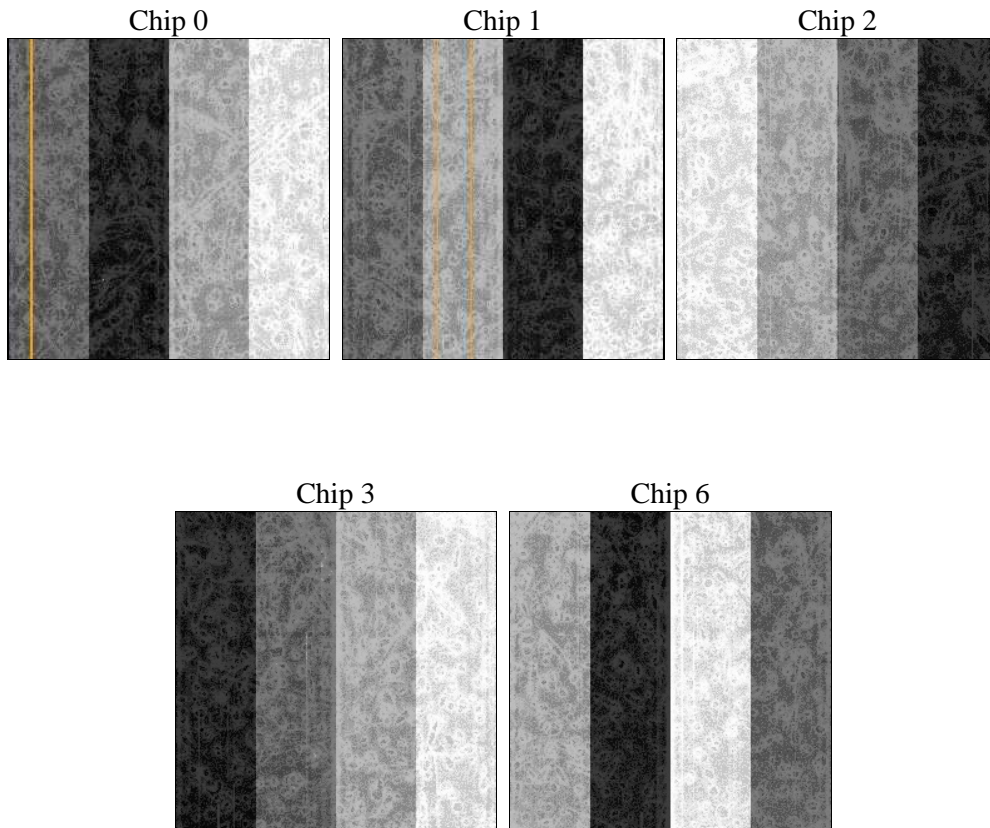
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	20000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	19179.790043943	Sum of GTIs [s]
caldbver	4.1.4	&#160	ontime0	19179.954203941	Sum of GTIs [s]
date	2009-11-21T10:35:37	Date and time of file creation	ontime1	19179.913163938	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	19179.872123942	Sum of GTIs [s]
			ontime3	19179.790043943	Sum of GTIs [s]
			ontime6	19173.349183515	Sum of GTIs [s]
			l1events	867635	Number of level 1 events

### 2.1.4 Events

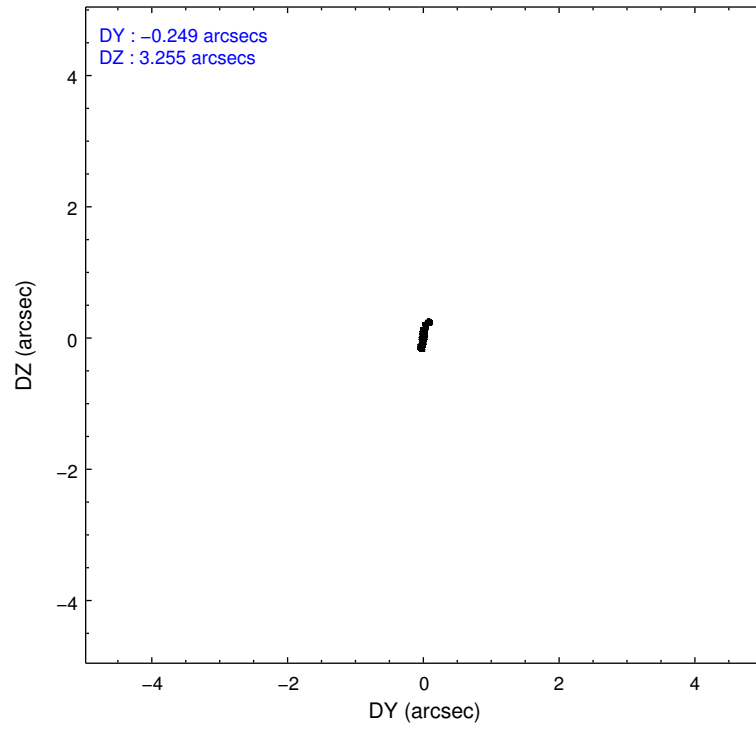
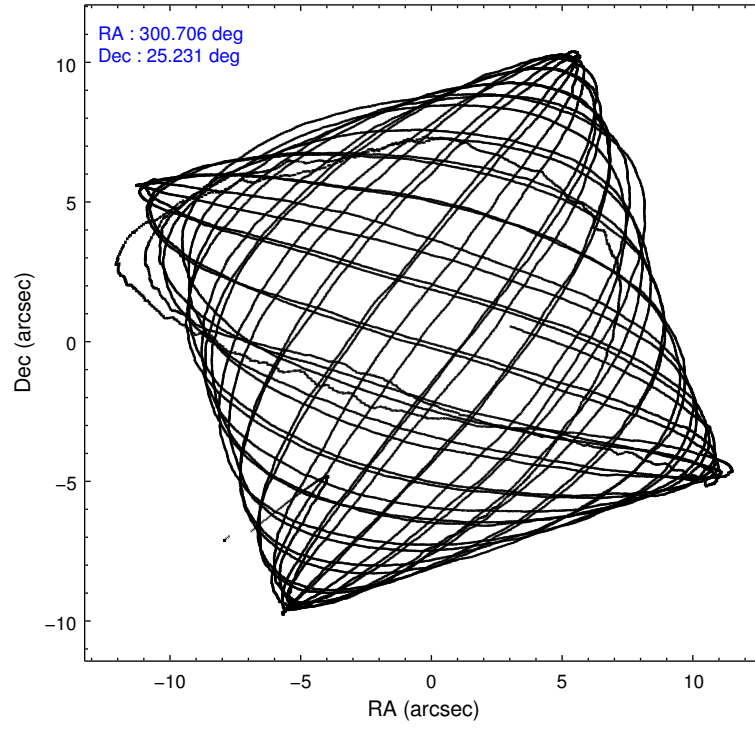
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	166627	164025	177583	177600	181800
rejected events	149757	146522	161283	161166	165588
rejected %	89%	89%	90%	90%	91%

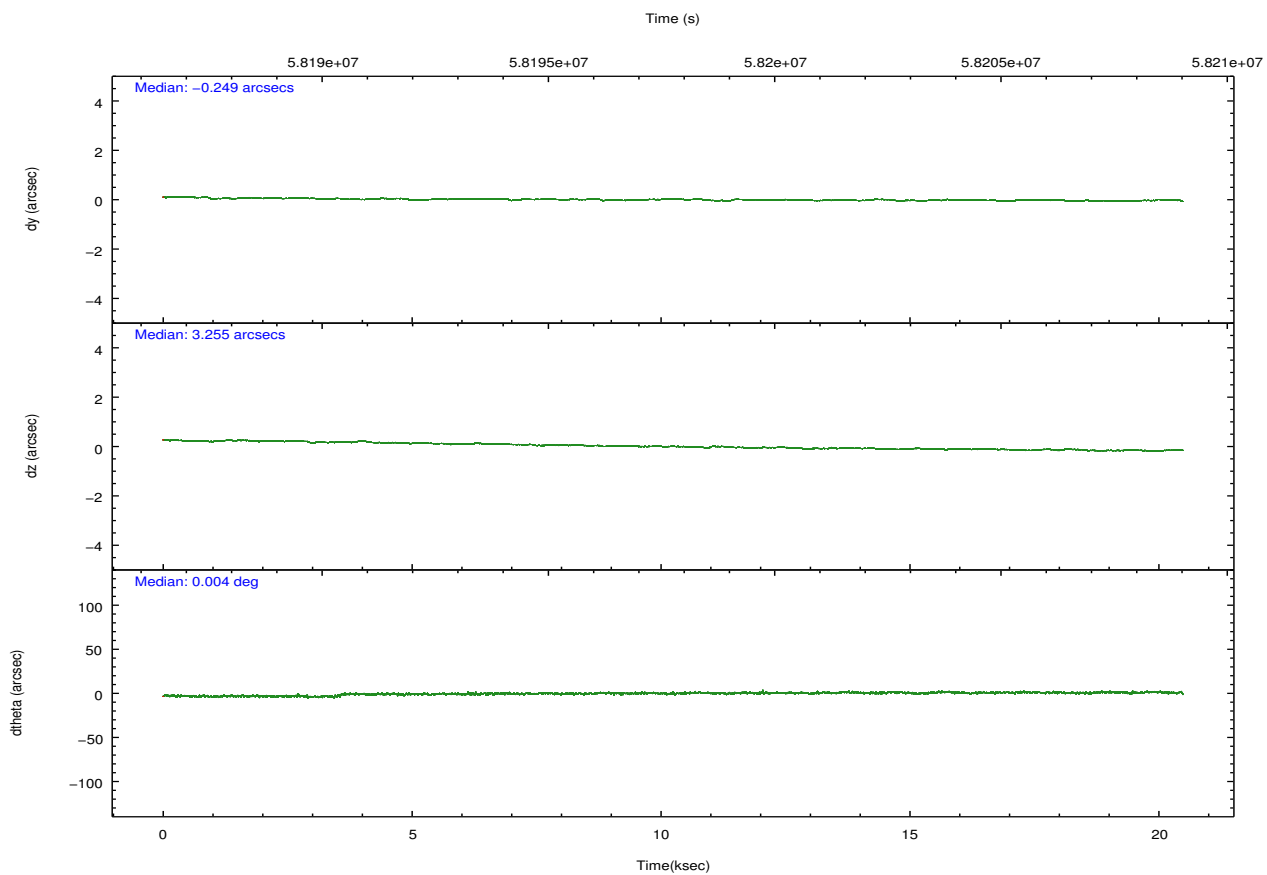
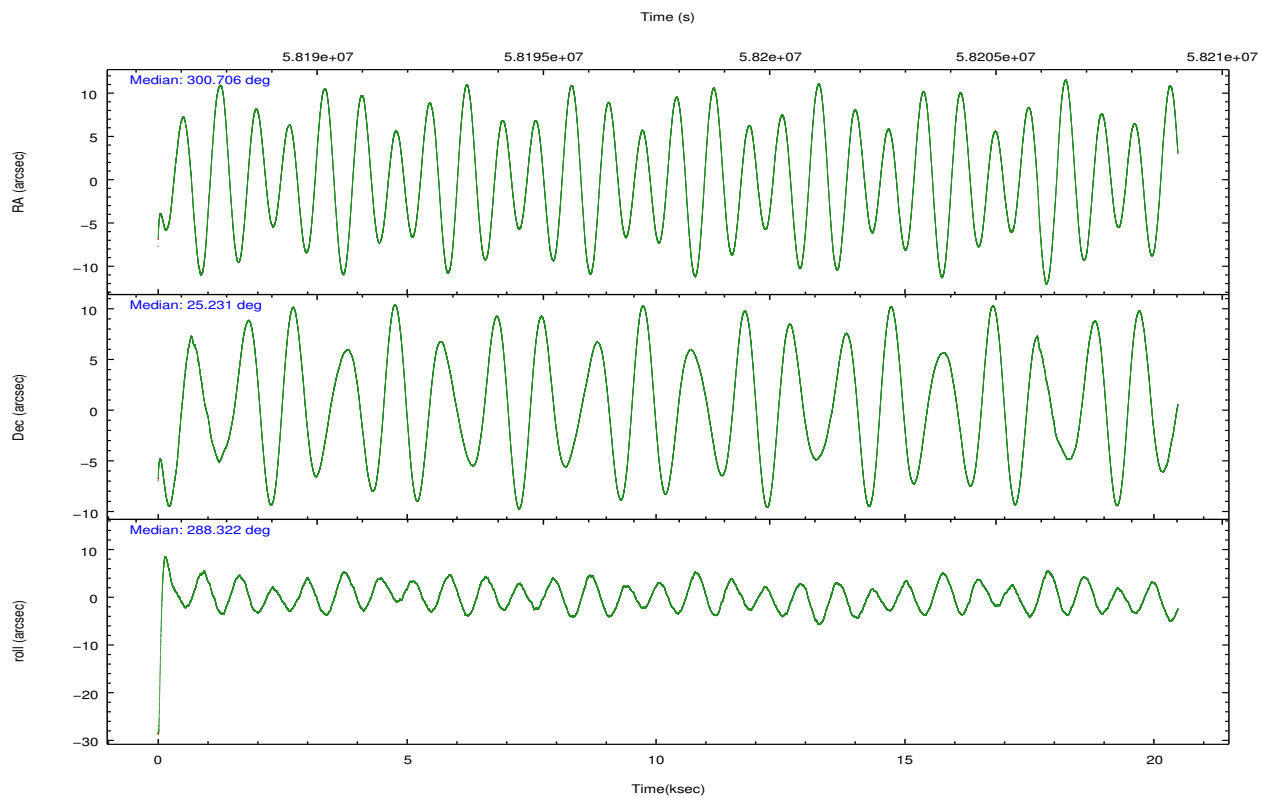
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3871	3887	3883	3675	2968
	2%	2%	2%	2%	1%
grade 1 events	38	44	34	28	22
	0%	0%	0%	0%	0%
grade 2 events	6600	6354	6470	6516	6389
	3%	3%	3%	3%	3%
grade 3 events	1293	1448	1045	1089	1153
	0%	0%	0%	0%	0%
grade 4 events	1145	1387	1087	1033	1166
	0%	0%	0%	0%	0%
grade 5 events	3357	3528	2892	3202	3488
	2%	2%	1%	1%	1%
grade 6 events	3963	4429	3817	4123	4540
	2%	2%	2%	2%	2%
grade 7 events	146360	142948	158355	157934	162074
	87%	87%	89%	88%	89%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-01236	ACIS-01236	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	300.683559	300.7061974386181	Subarray requested	NONE	NONE
Pointing Dec	25.249969	25.23119980738391	Alternating exposures requested	N	N
Pointing Roll	288.126994	288.3260108425614	Primary exposure time	0.000000	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	58187996.184000	58186992.258685			
Observation start date	1999-11-05T11:18:52	1999-11-05T11:03:12			
Observation end time	58207996.184000	58208504.446962			
Observation end date	1999-11-05T16:52:12	1999-11-05T17:01:44			
Read mode	TIMED	TIMED			

## 2.3 Aspect



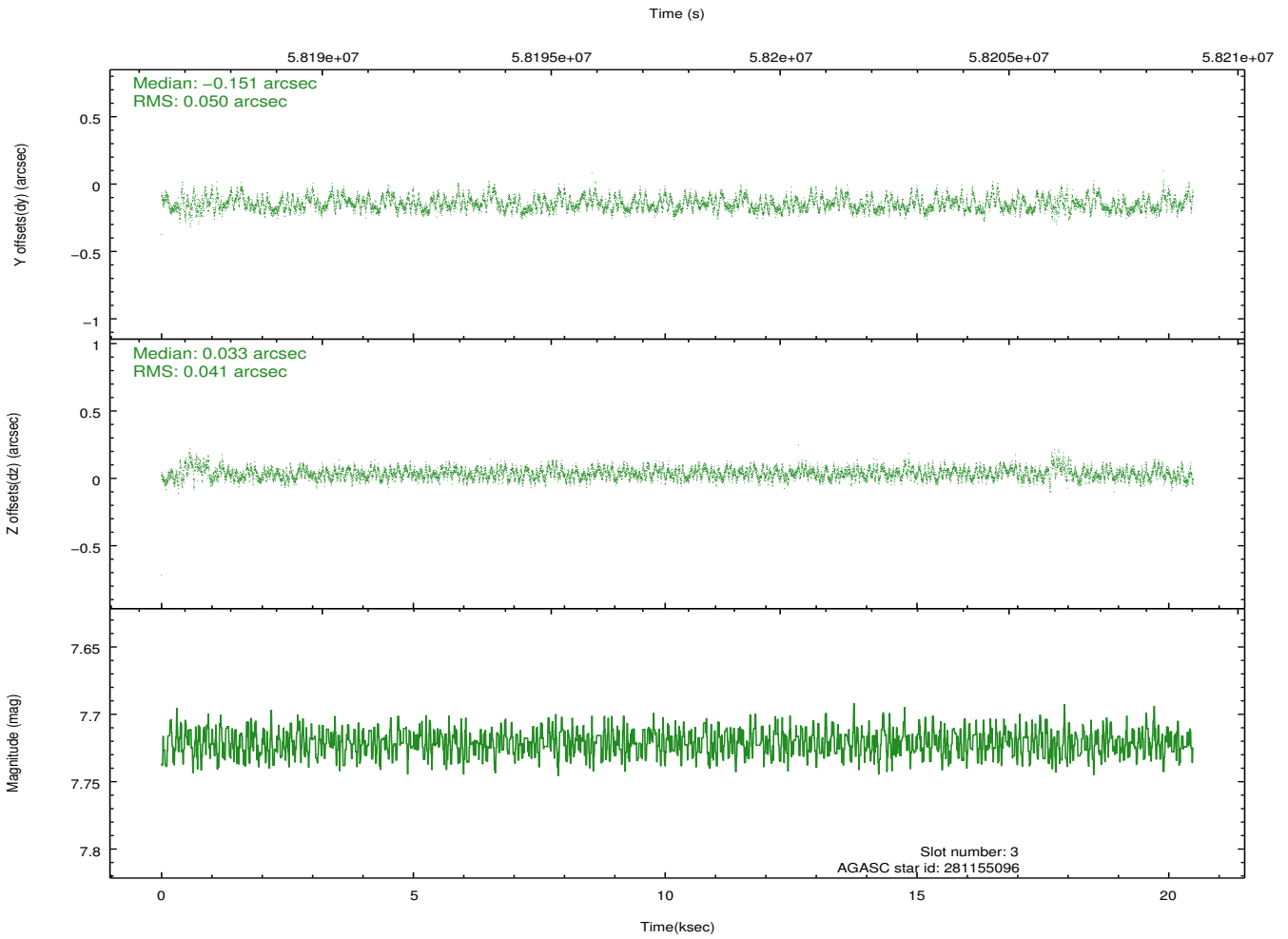
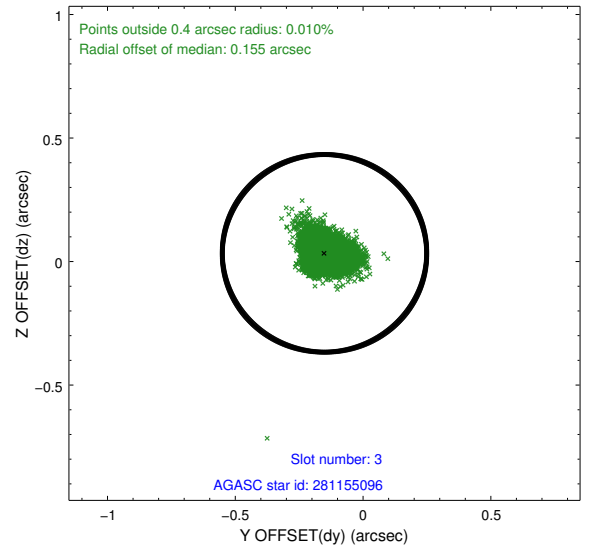
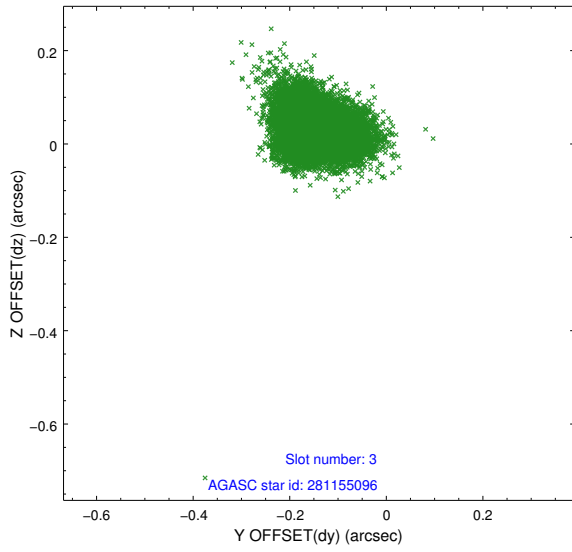


### Slot Statistics

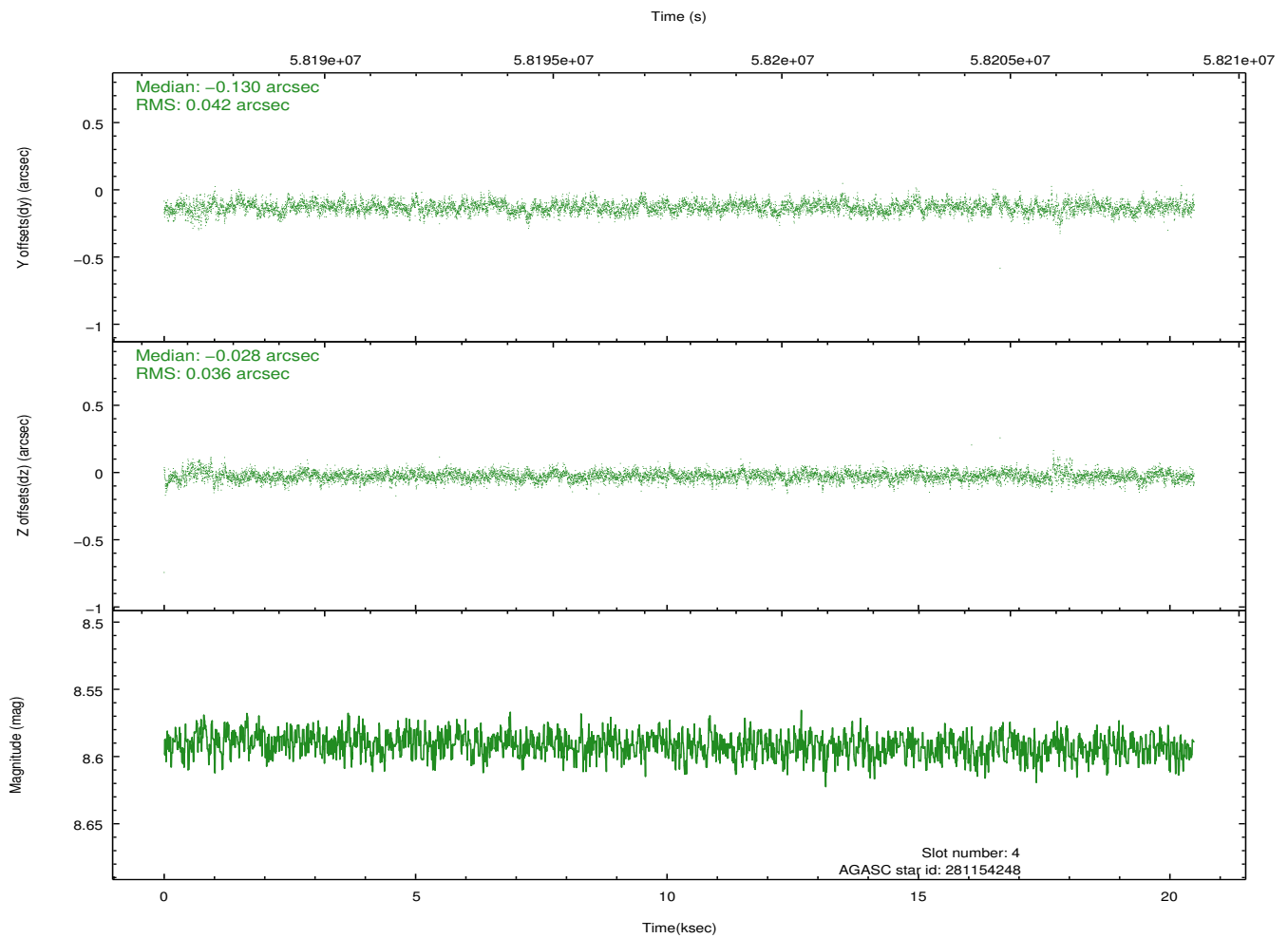
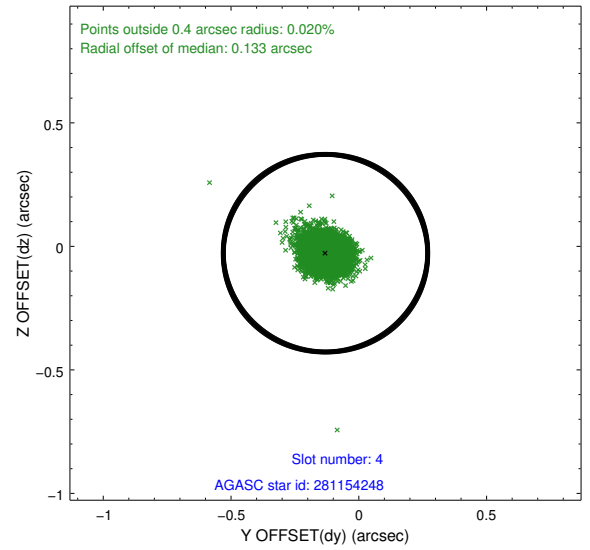
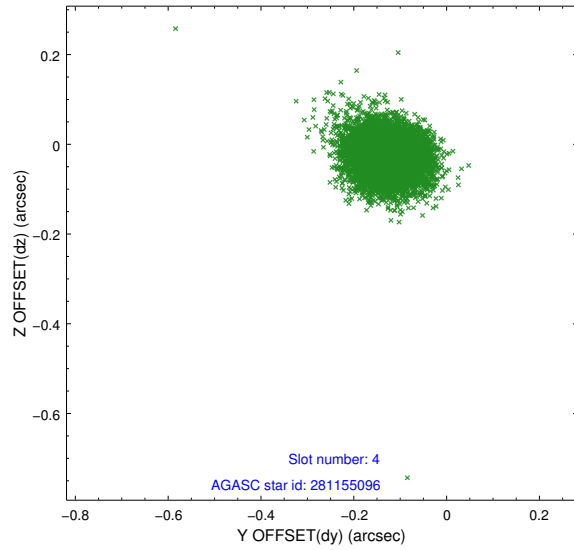
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.19	9991	-0.022	0.080	0.011	0.020	0.000000	0.000000	-754.16	-832.76
1	FID	ACIS-I-4	7.25	9988	0.120	0.001	0.009	0.020	0.000000	0.000000	2160.24	1073.01
2	FID	ACIS-I-5	7.23	9989	-0.199	-0.012	0.013	0.026	0.000000	0.000000	-1807.94	1071.29
3	GUIDE	281155096	7.72	9983	-0.151	0.033	0.068	0.110	301.041857	25.790230	-1488.30	1709.92
4	GUIDE	281154248	8.59	9983	-0.130	-0.028	0.057	0.096	300.318122	25.680244	-1842.23	-643.79
5	GUIDE	281150288	9.53	9970	0.213	-0.048	0.090	0.150	300.994976	24.822935	1777.03	489.68
6	GUIDE	281152864	9.55	9981	0.163	0.182	0.116	0.192	301.292696	24.798363	2161.00	1388.46
7	GUIDE	281162440	9.57	9979	-0.101	-0.141	0.110	0.172	299.906162	25.209284	-654.76	-2449.18

## 2.4 Star Slots

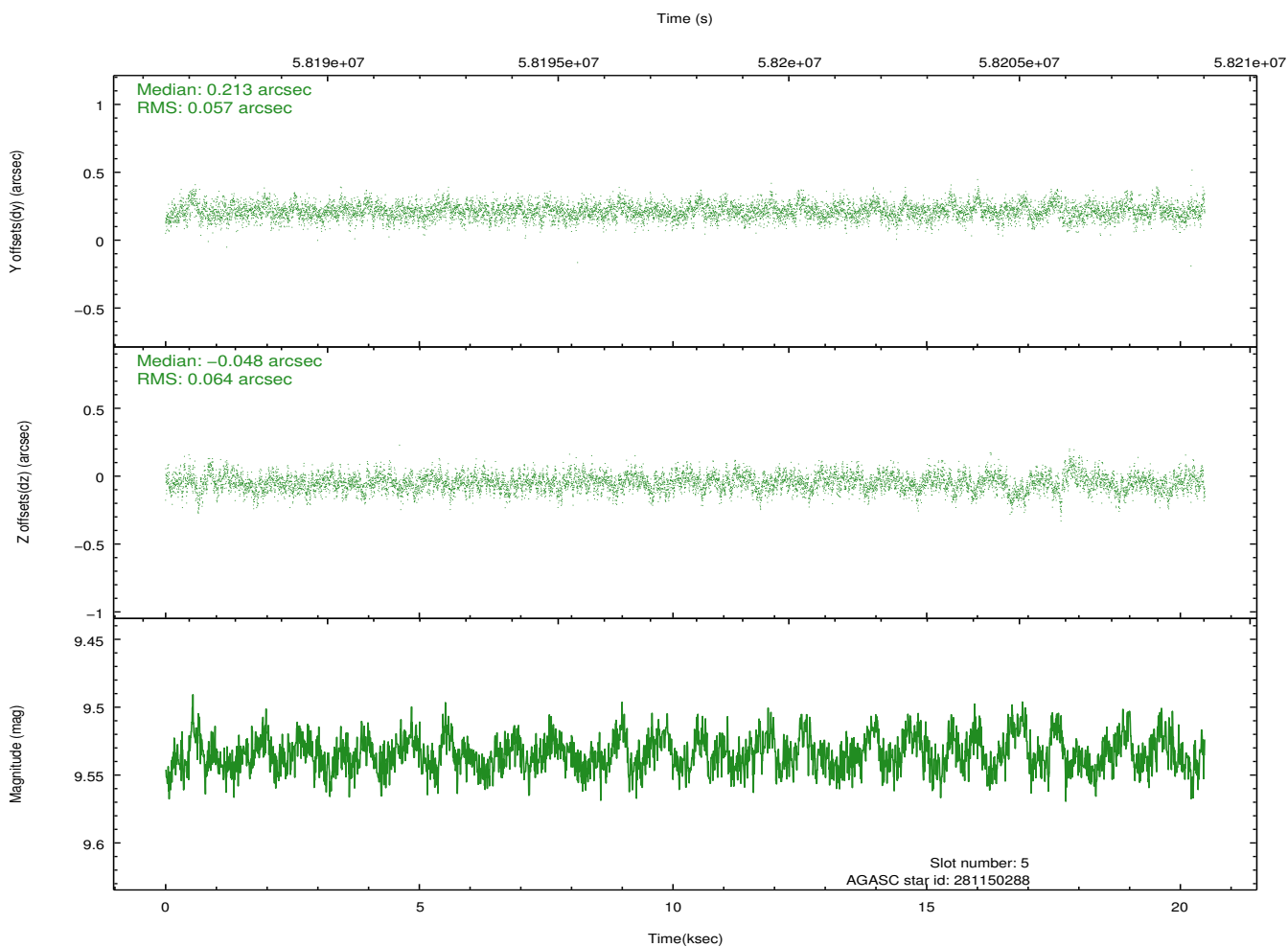
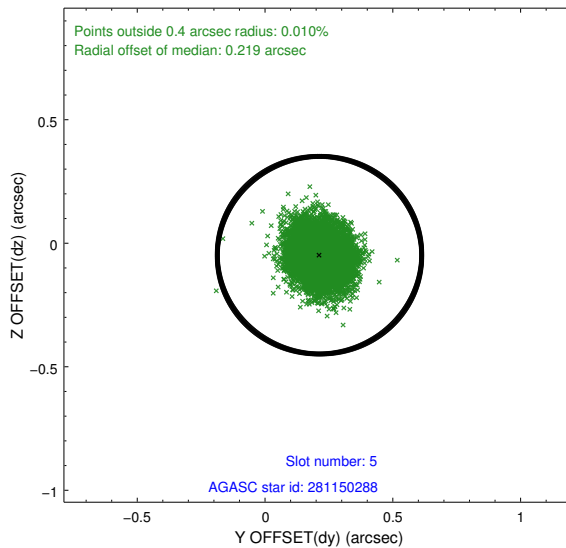
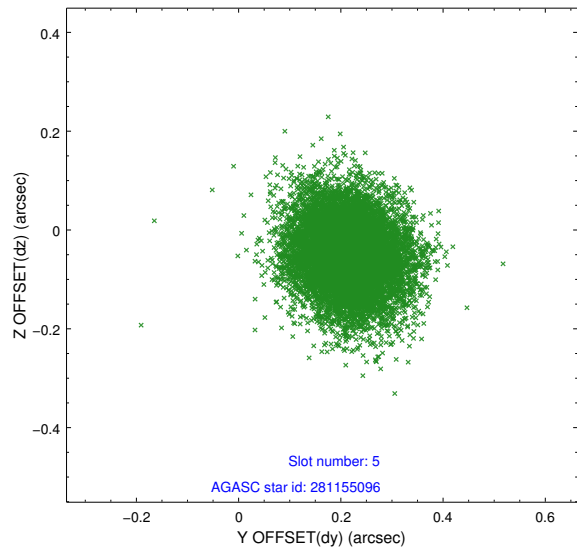
### 2.4.1 Slot 3



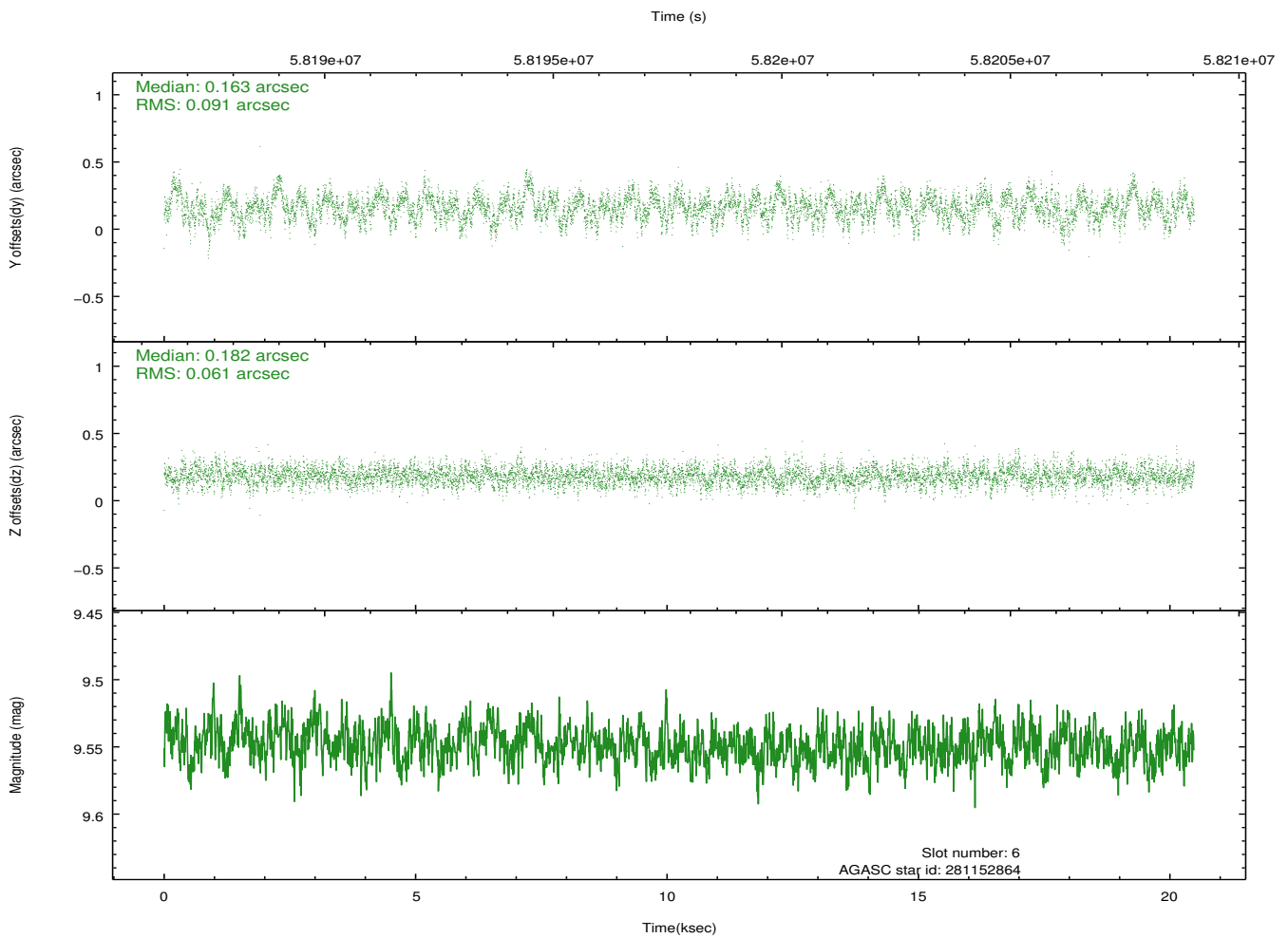
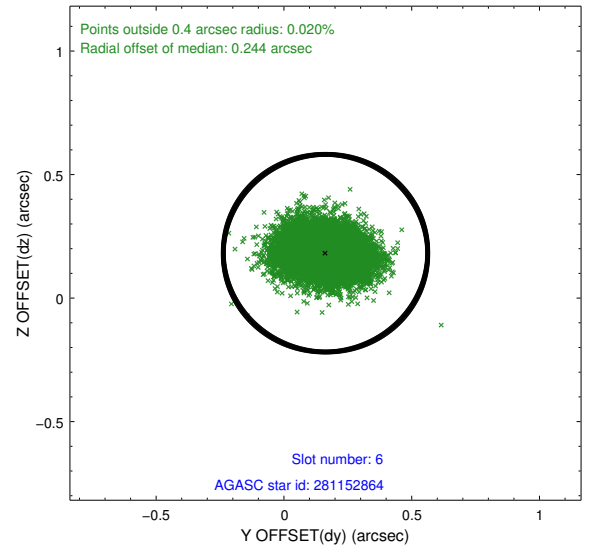
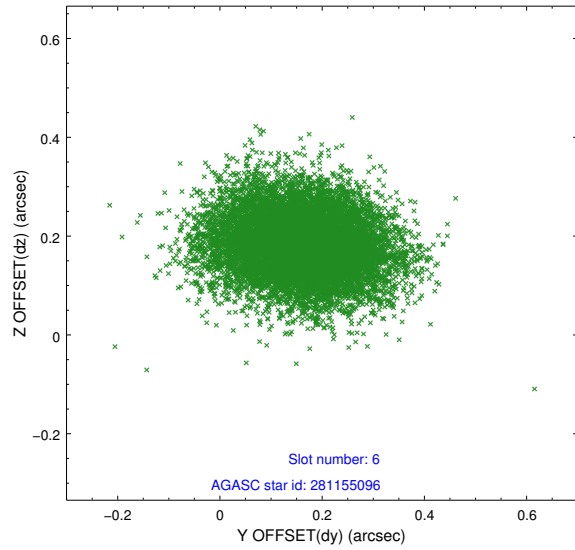
## 2.4.2 Slot 4



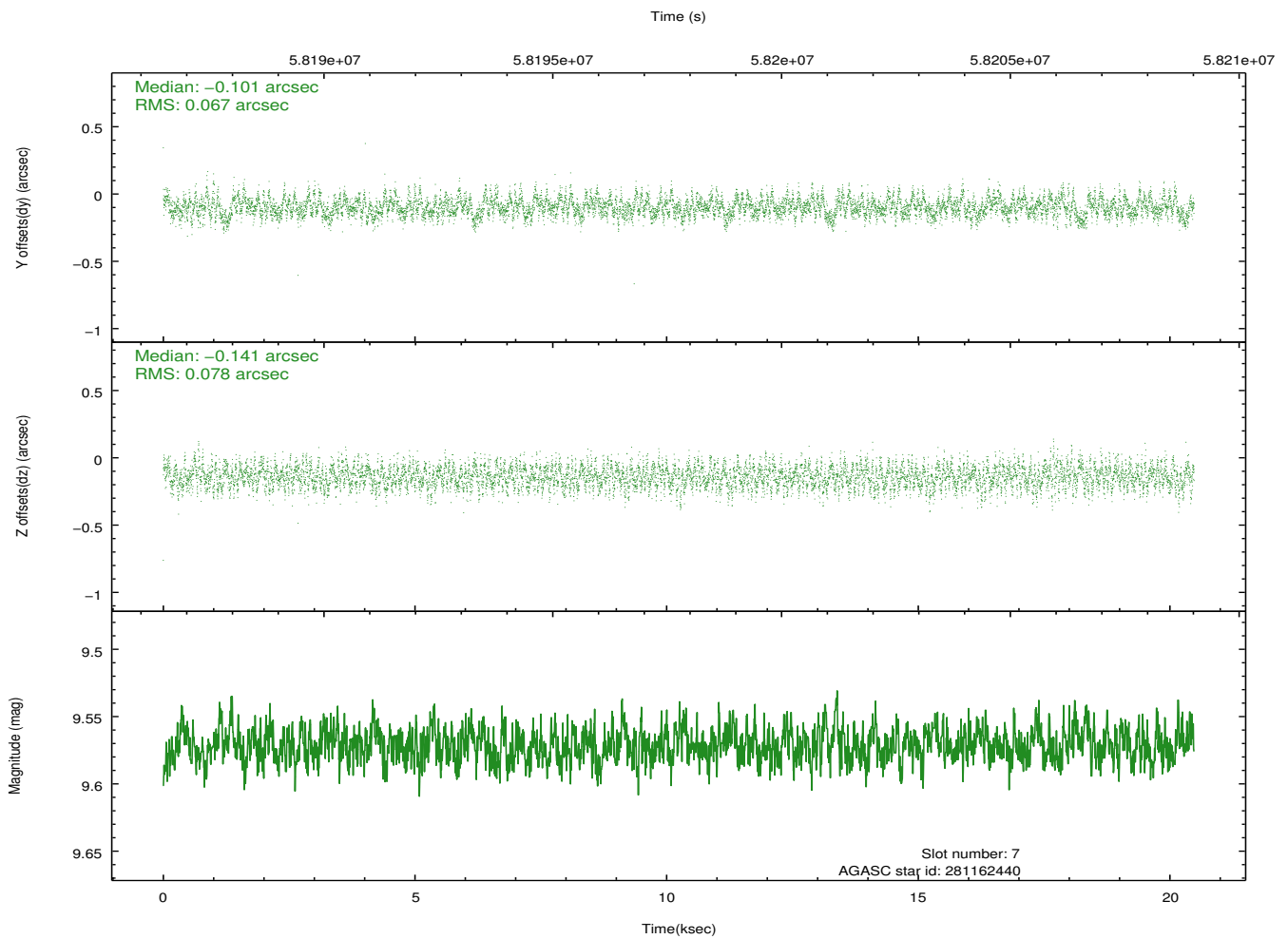
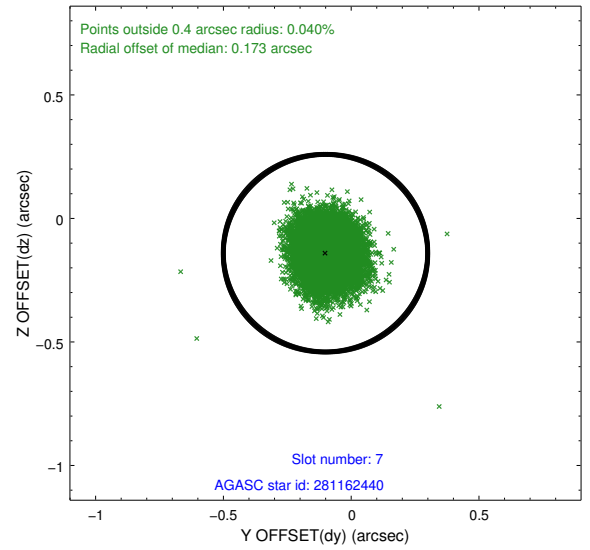
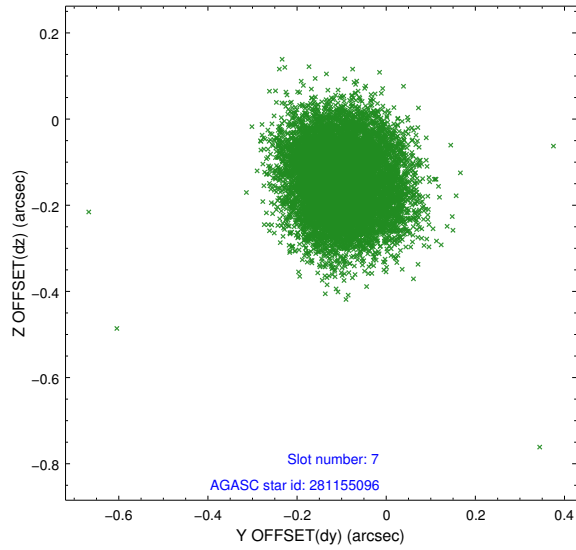
### 2.4.3 Slot 5



## 2.4.4 Slot 6

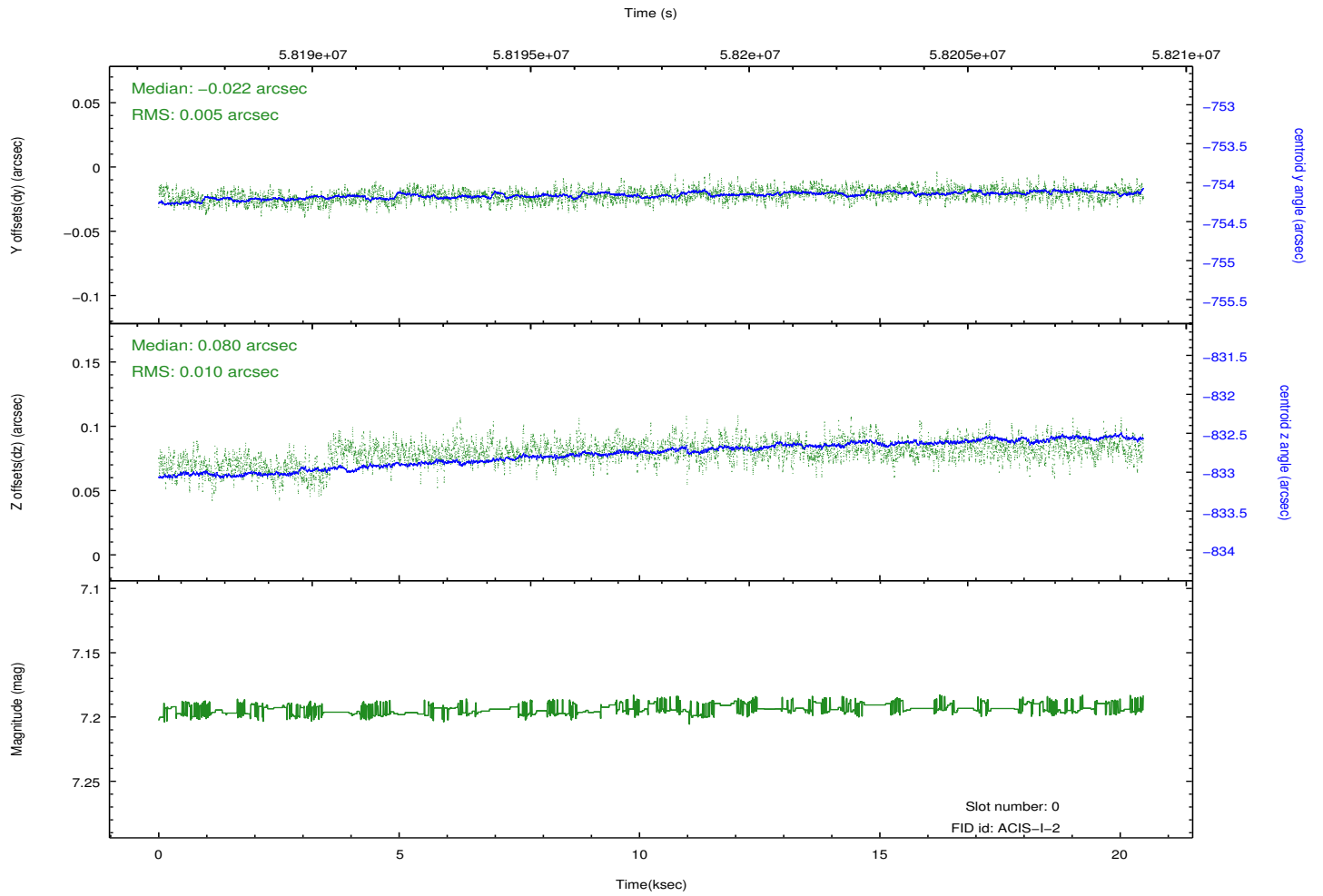
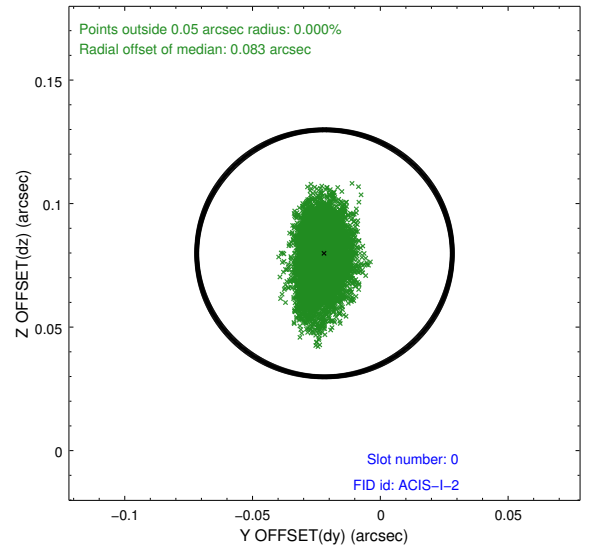
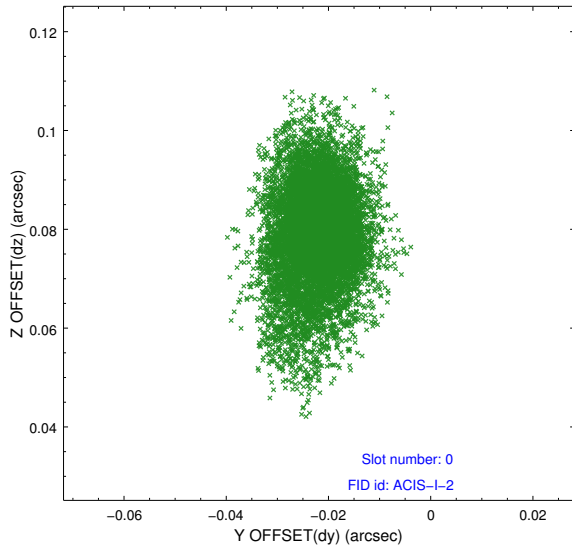


## 2.4.5 Slot 7

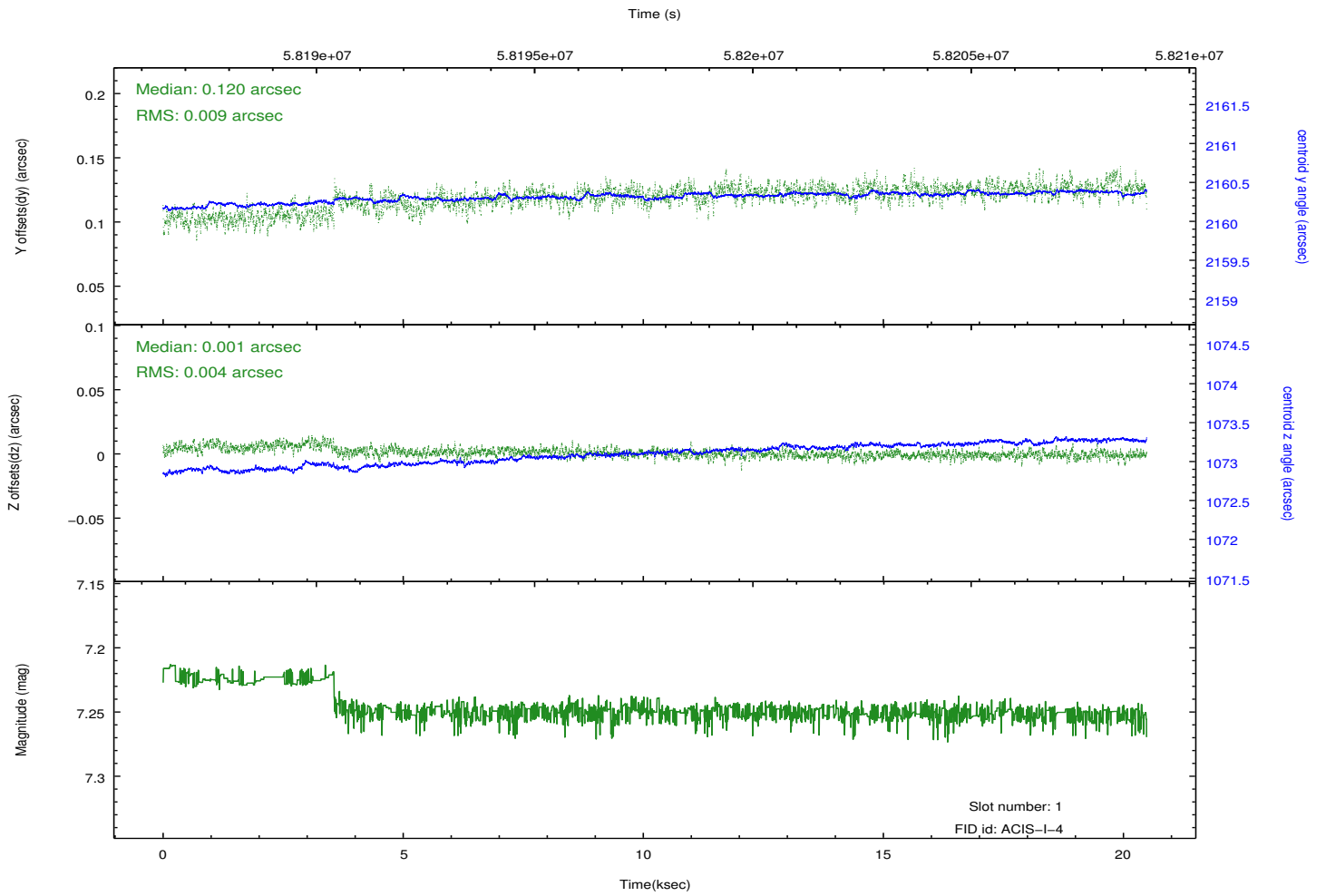
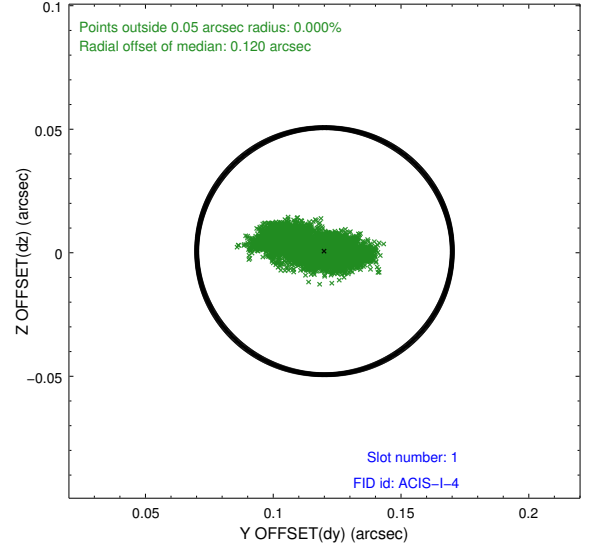
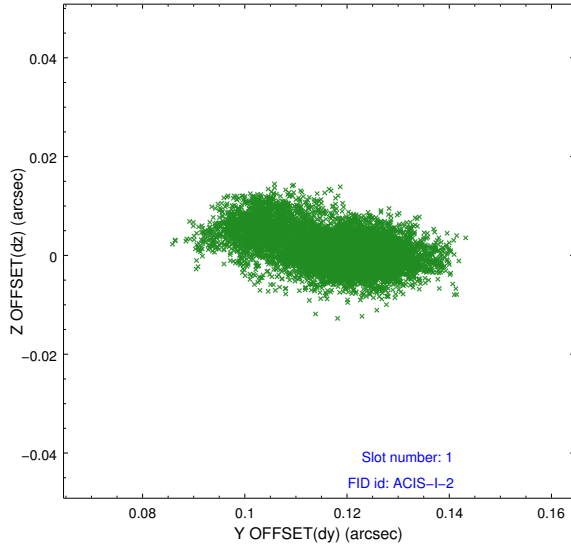


## 2.5 FID Slots

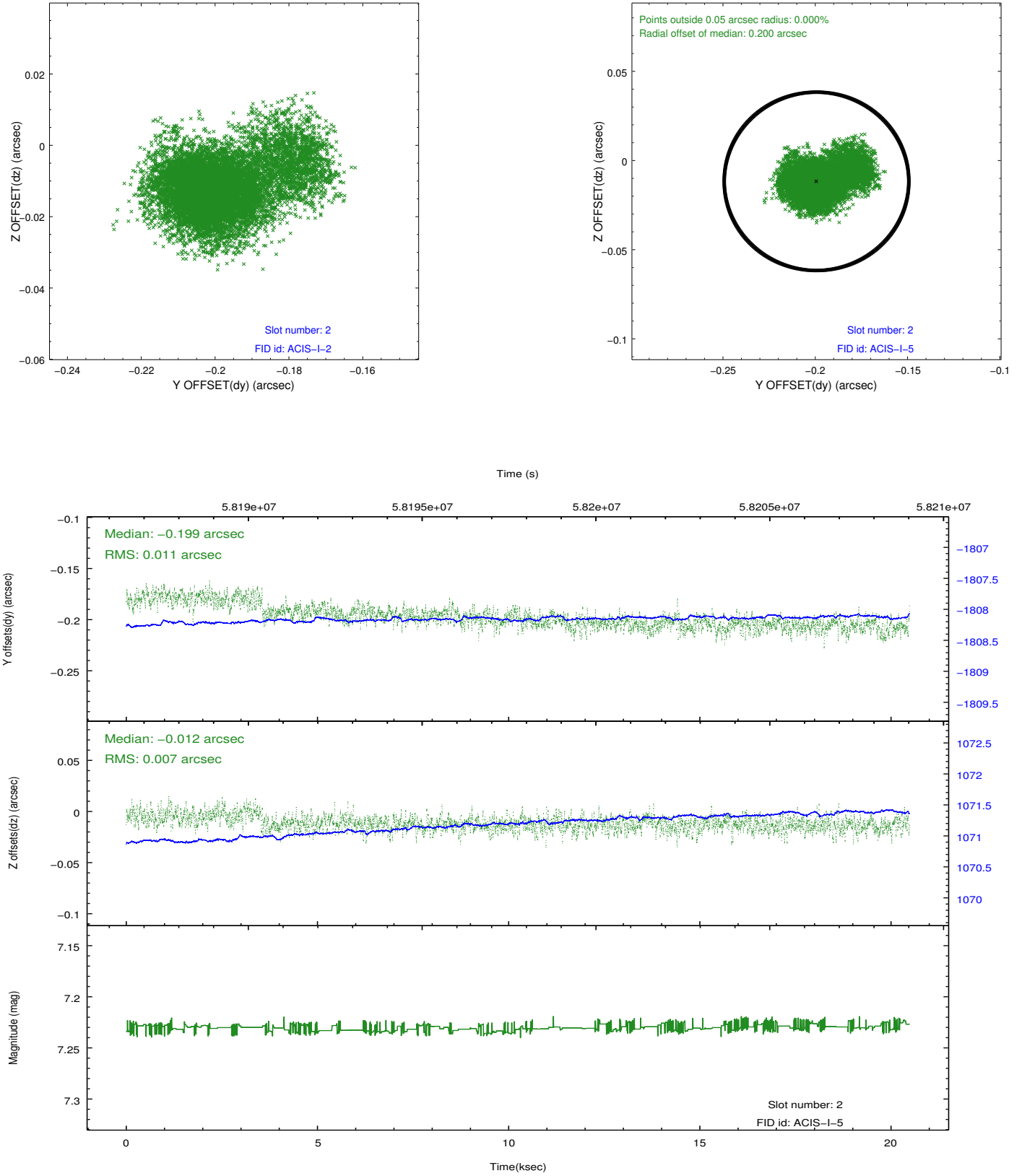
### 2.5.1 Slot 0



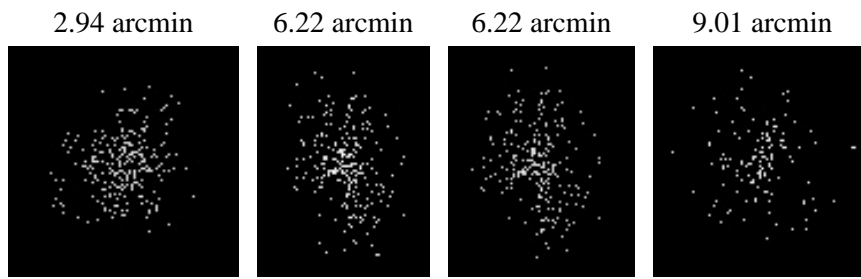
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2009.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.078

## A.2 Comments

Charge time for this ObsId remains at original value of 19.078 ksec, although with the current processing the charge time would have been 19.180 ksec.

=====

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 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.

=====

This reprocessing of the data applies no CTI correction because none is available for that temperature.