

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 1233 - L2 Version 4

Chandra X-Ray Center

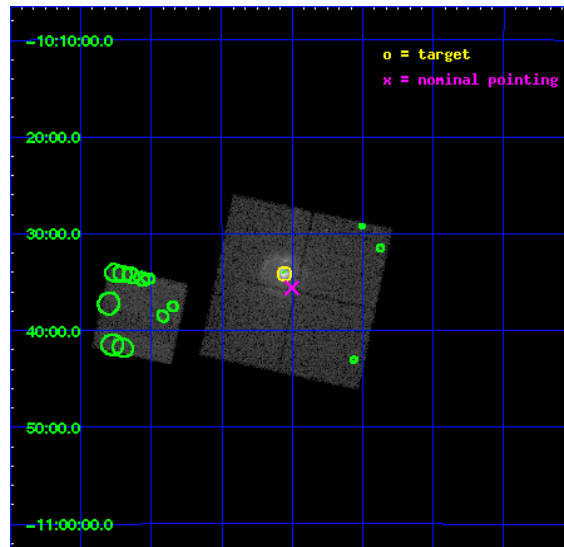
L2 Processing Date : Nov 21 2009

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# 1 Front

seq_num	580183	Sequence number
obs_id	1233	Observation id
title	ACIS CHIP RESPONSE TO A CONTINUUM SOURCE	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-0.9 [Chip I3, T=110, Offsets=-1,1,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA
dec_targ	-10.568528	Observer's specified target Dec
ra_nom	278.37551782795	Nominal RA
dec_nom	-10.593500425816	Nominal Dec
roll_nom	282.19004204266	Nominal Roll
revision	4	Processing version of data
ontime	14179.090200029	Sum of GTIs [s]
livetime	13999.546022293	Livetime [s]
ontime0	14179.200013205	Sum of GTIs [s]
ontime1	14179.200013205	Sum of GTIs [s]
ontime2	14179.172280028	Sum of GTIs [s]
ontime3	14179.090200029	Sum of GTIs [s]
ontime6	14179.131240025	Sum of GTIs [s]
l2events	117267	Number of level 2 events

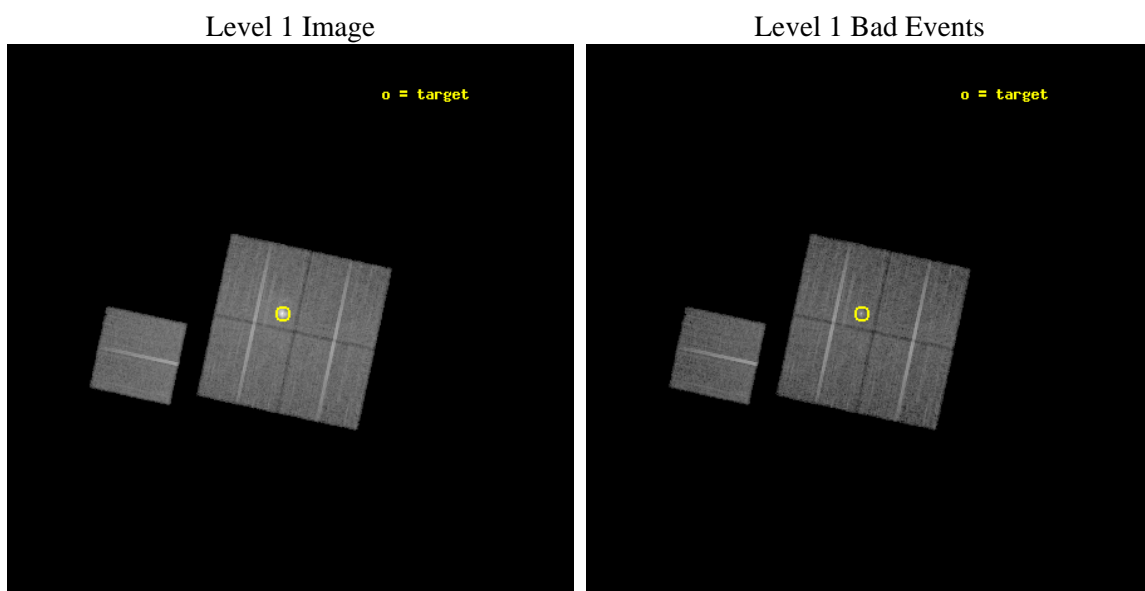




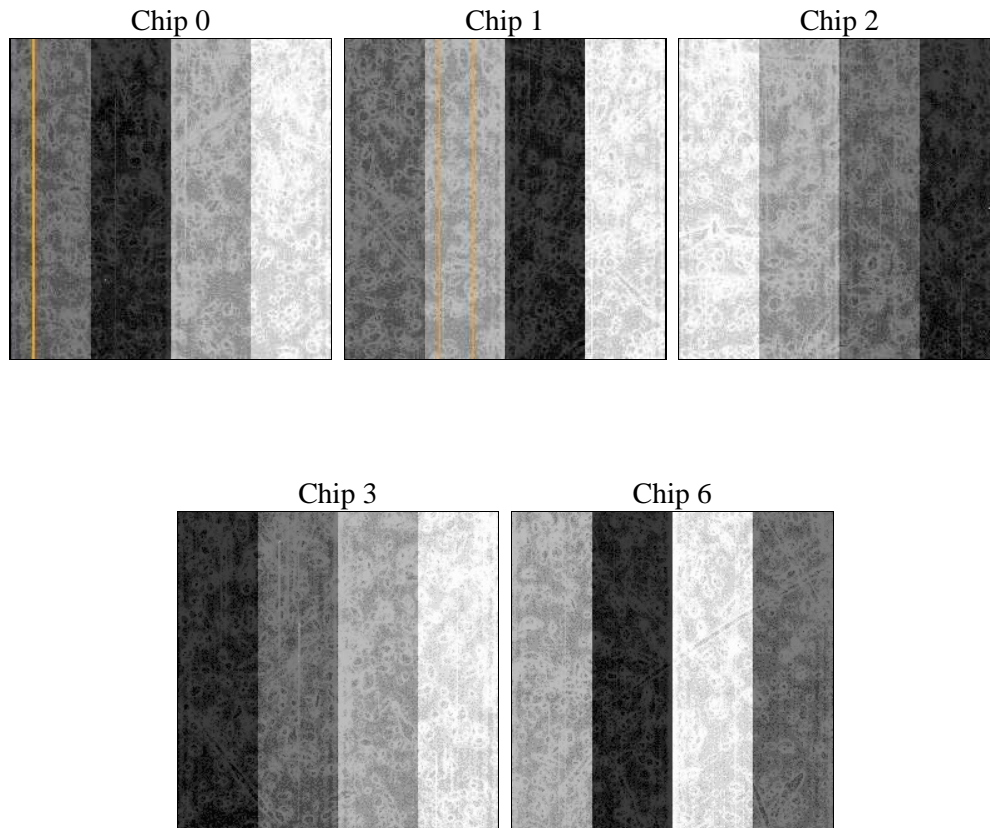
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	15000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	14179.090200029	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime0	14179.200013205	Sum of GTIs [s]
date	2009-11-21T10:35:11	Date and time of file creation	ontime1	14179.200013205	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	14179.172280028	Sum of GTIs [s]
			ontime3	14179.090200029	Sum of GTIs [s]
			ontime6	14179.131240025	Sum of GTIs [s]
			l1events	701529	Number of level 1 events

### 2.1.4 Events

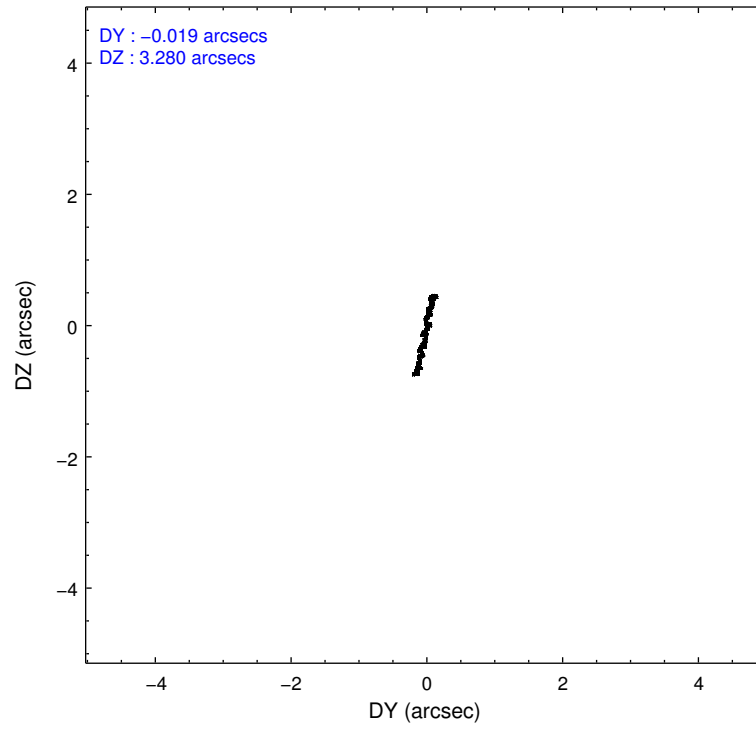
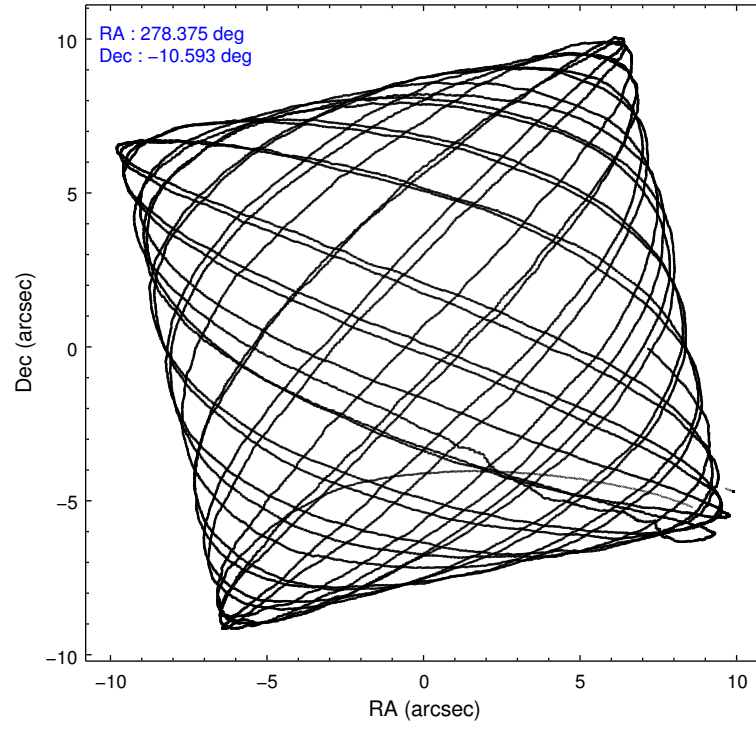
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	126516	123685	136155	177044	138129
rejected events	110939	106159	120188	122144	118490
rejected %	87%	85%	88%	68%	85%

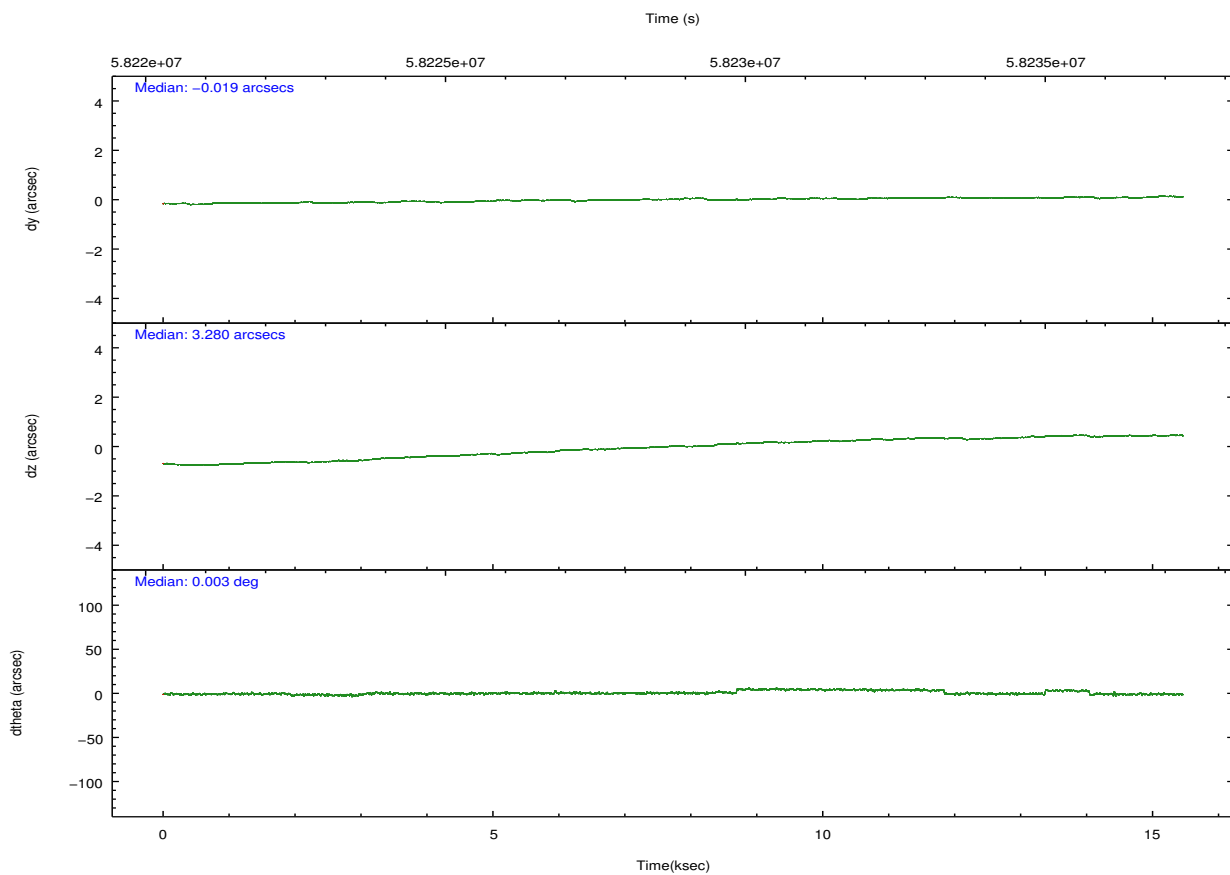
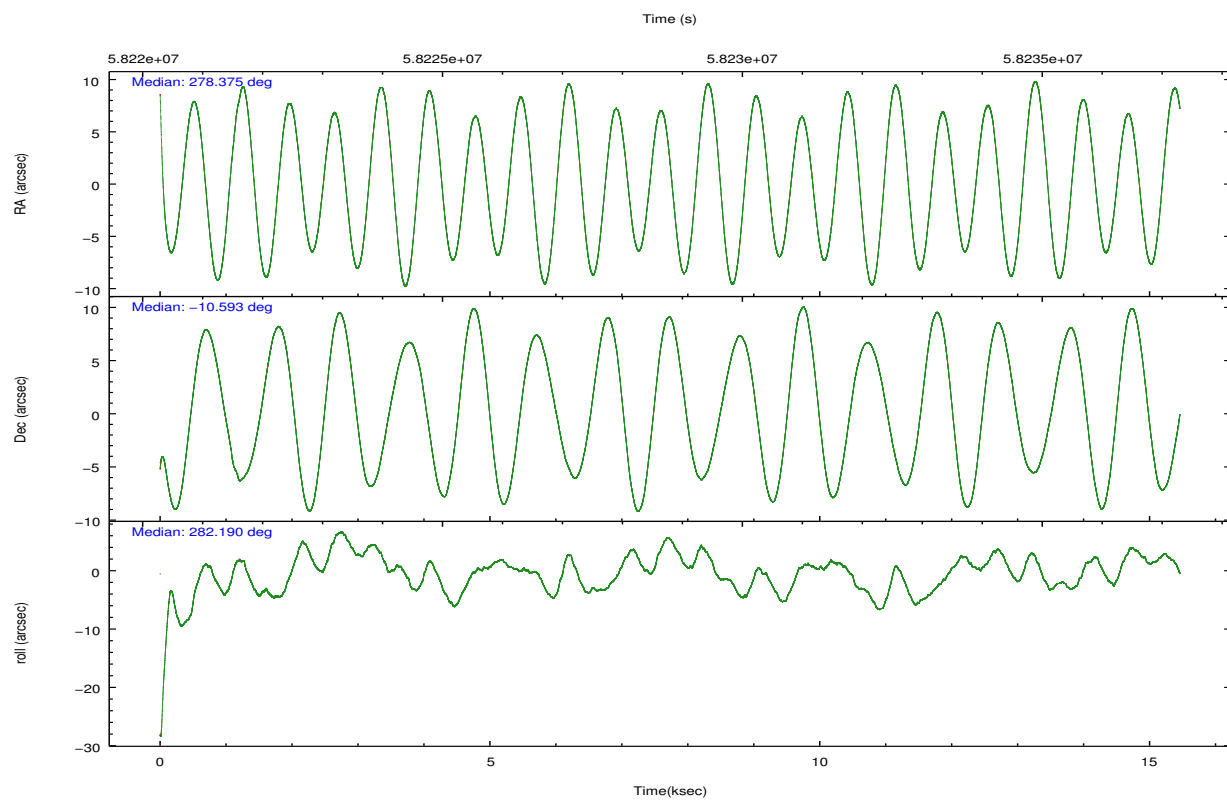
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4734	5244	4513	15543	5525
	3%	4%	3%	8%	3%
grade 1 events	41	31	41	112	27
	0%	0%	0%	0%	0%
grade 2 events	6119	6739	6797	30013	8942
	4%	5%	4%	16%	6%
grade 3 events	914	1080	827	1416	837
	0%	0%	0%	0%	0%
grade 4 events	877	1103	859	1365	816
	0%	0%	0%	0%	0%
grade 5 events	2507	2525	2213	2933	2620
	1%	2%	1%	1%	1%
grade 6 events	2940	3366	2979	6583	3527
	2%	2%	2%	3%	2%
grade 7 events	108384	103597	117926	119079	115835
	85%	83%	86%	67%	83%

## 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	278.356838	278.375517827949	Subarray requested	NONE	NONE
Pointing Dec	-10.572629	-10.59350042581563	Alternating exposures requested	N	N
Pointing Roll	281.977934	282.1900420426602	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	58221525.184000	58220273.497386			
Observation start date	1999-11-05T20:37:41	1999-11-05T20:17:53			
Observation end time	58236525.184000	58237813.29802			
Observation end date	1999-11-06T00:47:41	1999-11-06T01:10:13			
Read mode	TIMED	TIMED			

## 2.3 Aspect



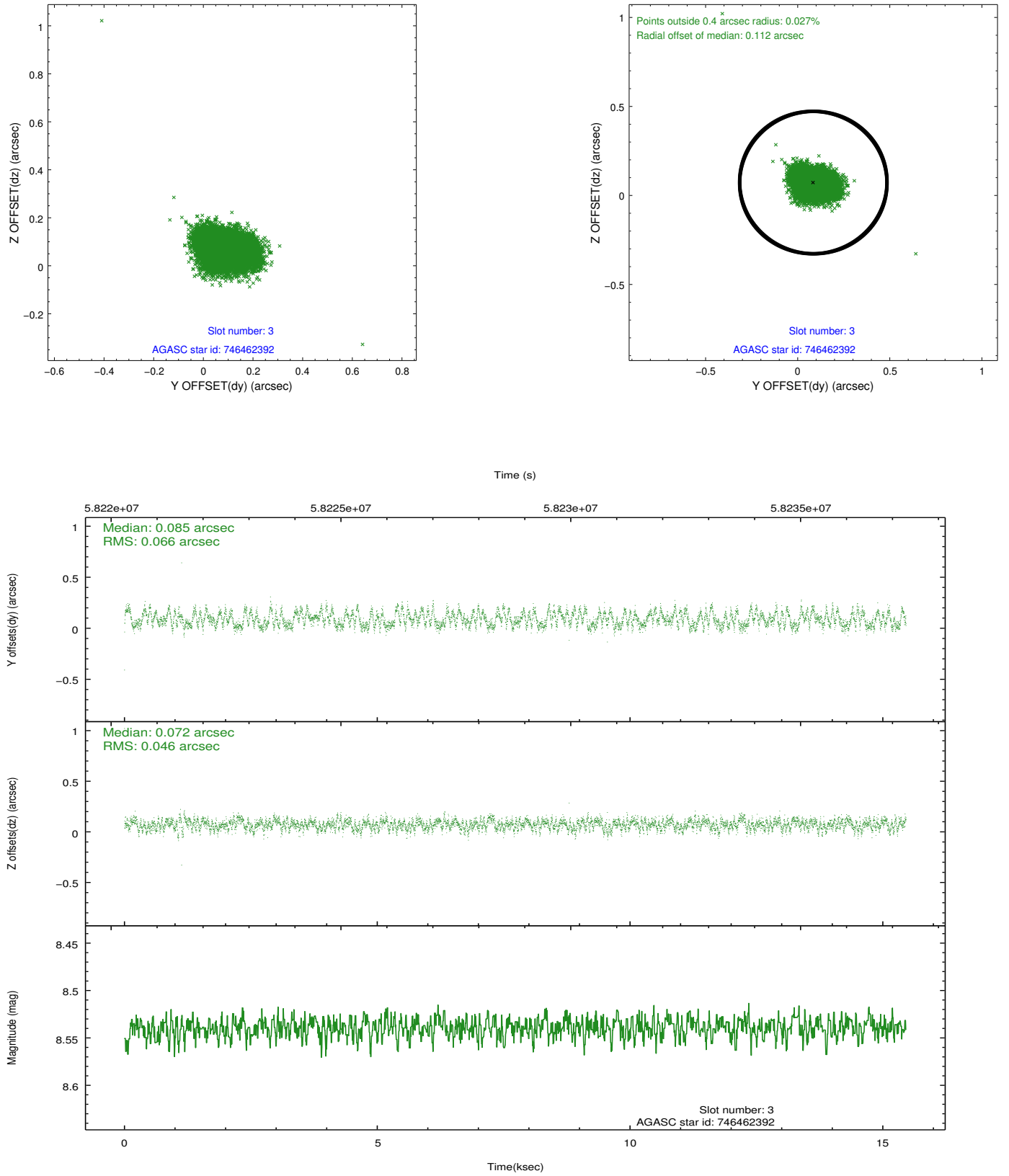


Slot Statistics

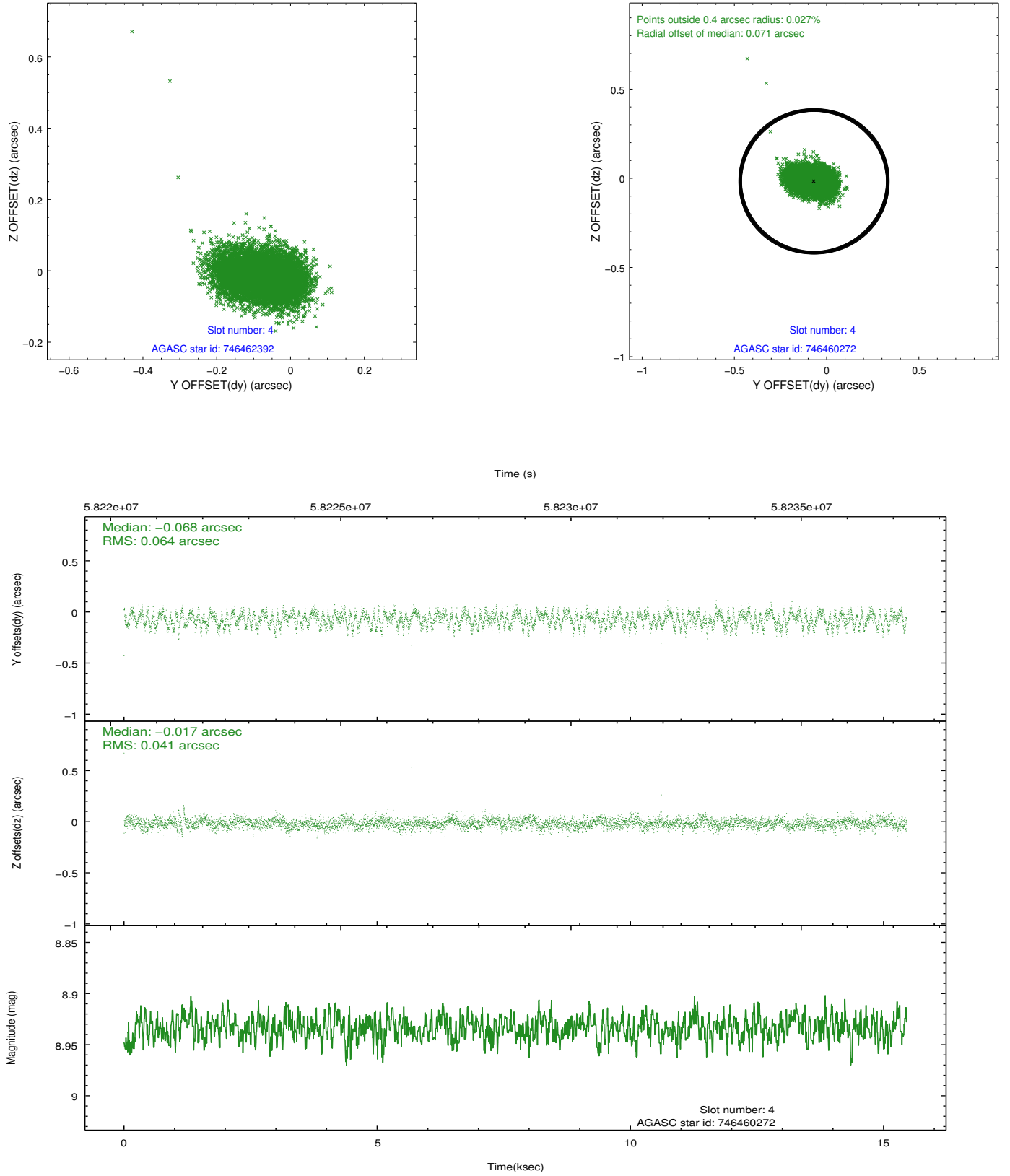
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.19	7538	-0.034	0.057	0.027	0.040	0.000000	0.000000	-754.37	-832.74
1	FID	ACIS-I-4	7.23	7542	0.107	0.014	0.019	0.034	0.000000	0.000000	2159.96	1073.09
2	FID	ACIS-I-5	7.23	7542	-0.175	-0.001	0.020	0.028	0.000000	0.000000	-1808.09	1071.36
3	GUIDE	746462392	8.54	7539	0.085	0.072	0.086	0.131	279.038421	-10.890715	1623.51	2119.02
4	GUIDE	746460272	8.93	7539	-0.068	-0.017	0.080	0.129	278.847488	-10.152127	-1118.02	2015.09
5	GUIDE	746460328	9.82	7536	-0.141	0.092	0.135	0.203	278.603974	-9.898096	-2192.99	1361.77
6	GUIDE	746995400	9.53	7524	0.156	-0.178	0.132	0.203	278.078957	-11.289885	2323.19	-1495.64
7	GUIDE	746461728	9.79	7540	-0.023	0.025	0.116	0.189	278.986921	-10.530755	318.41	2212.26

## 2.4 Star Slots

### 2.4.1 Slot 3

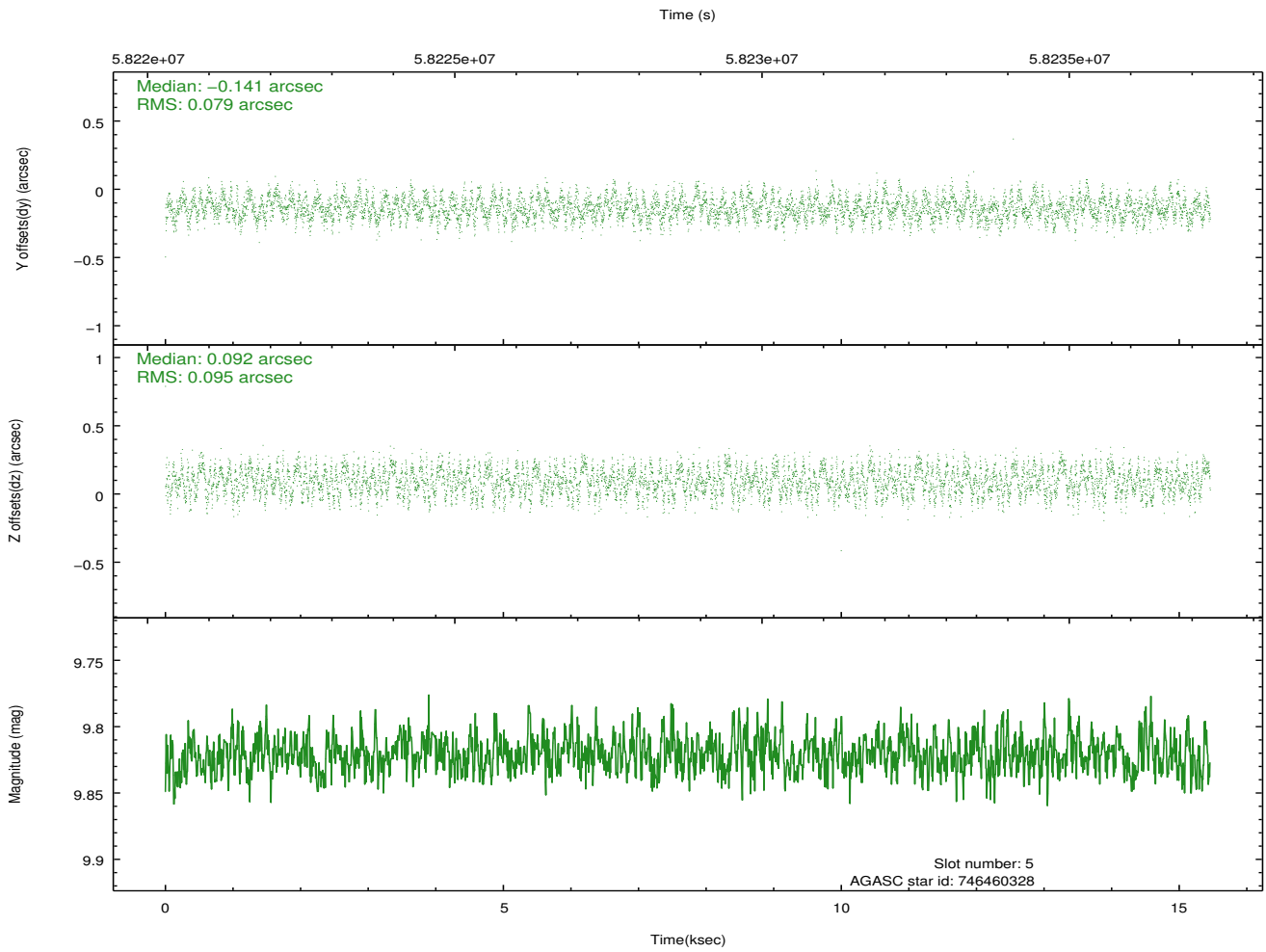
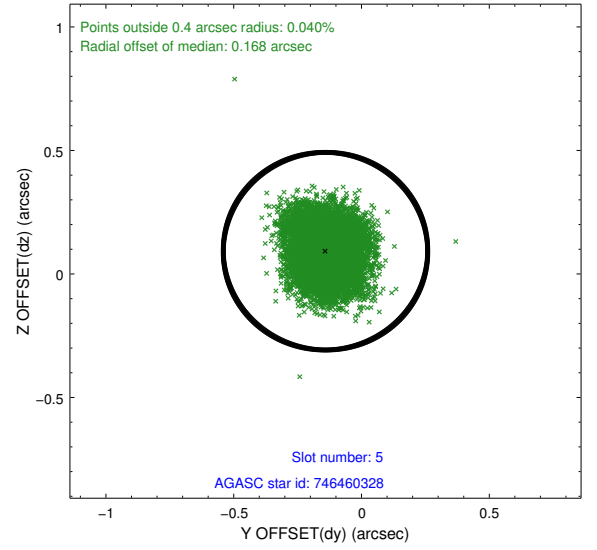
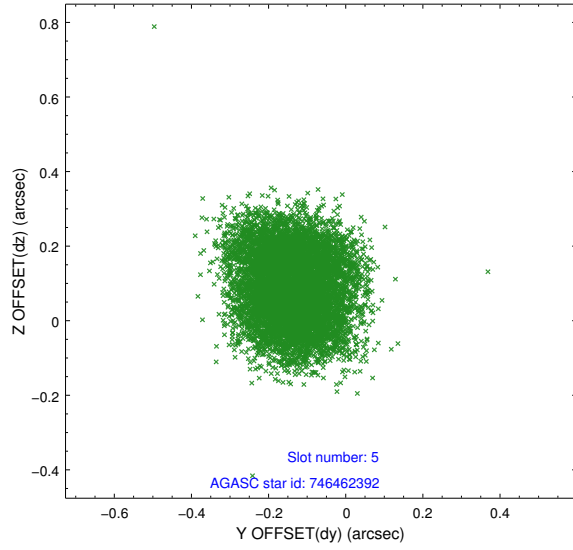


## 2.4.2 Slot 4

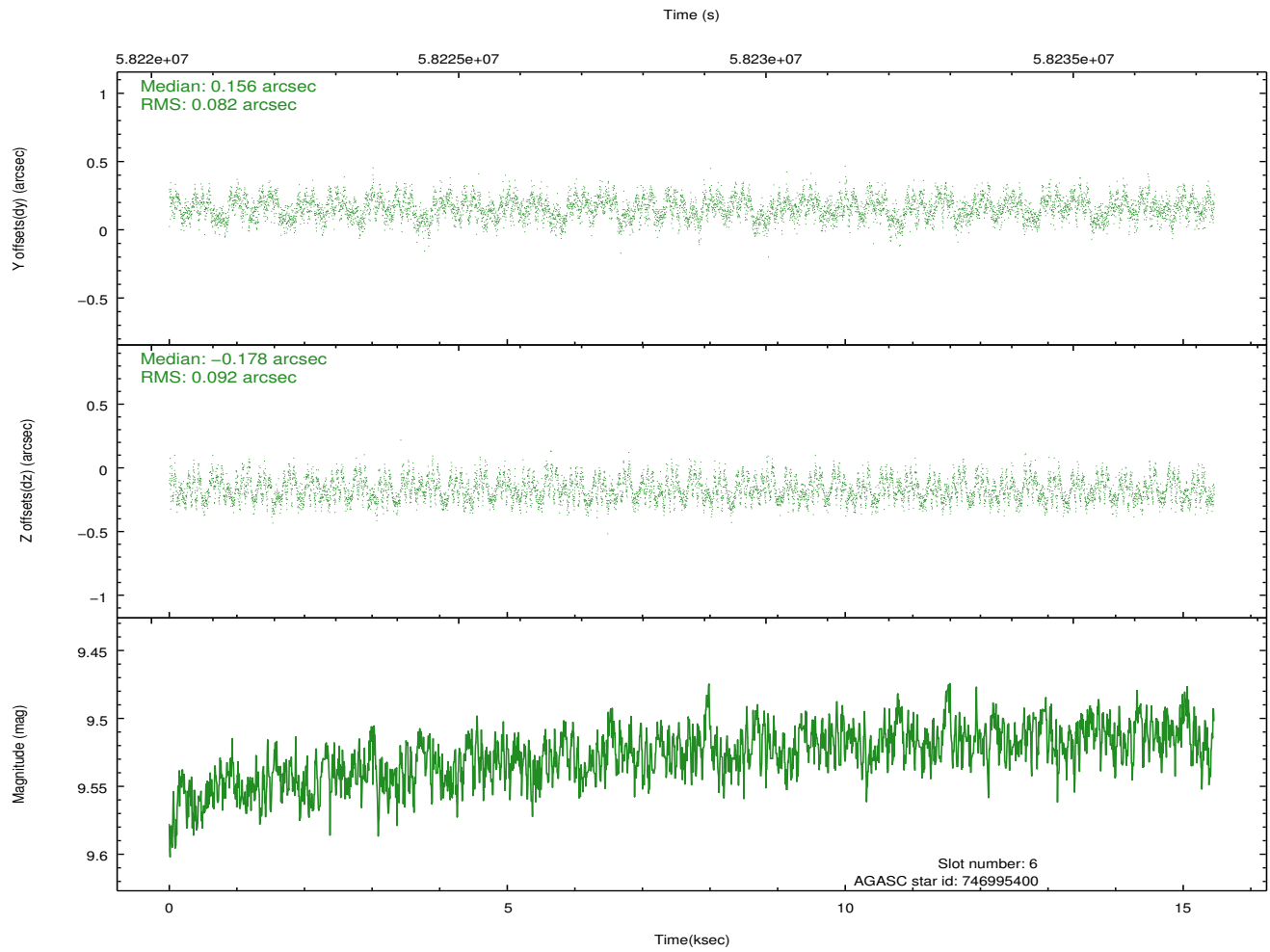
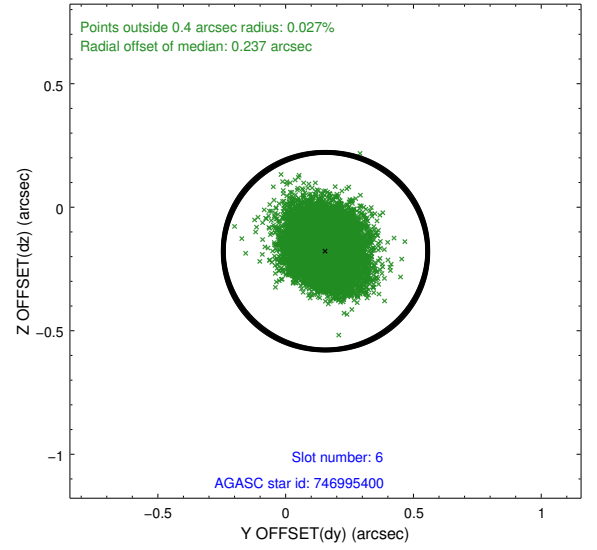
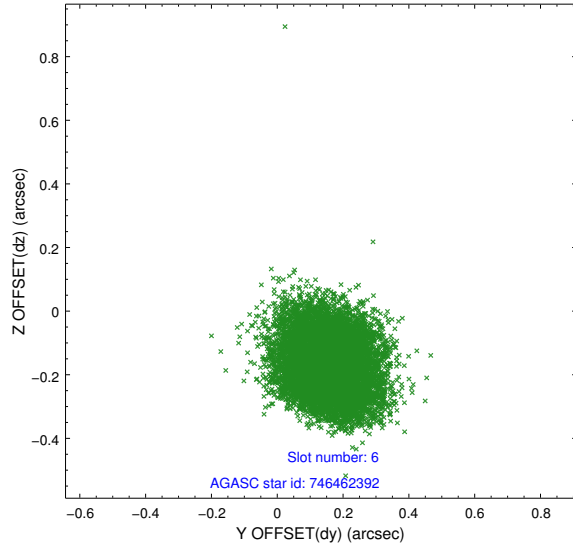




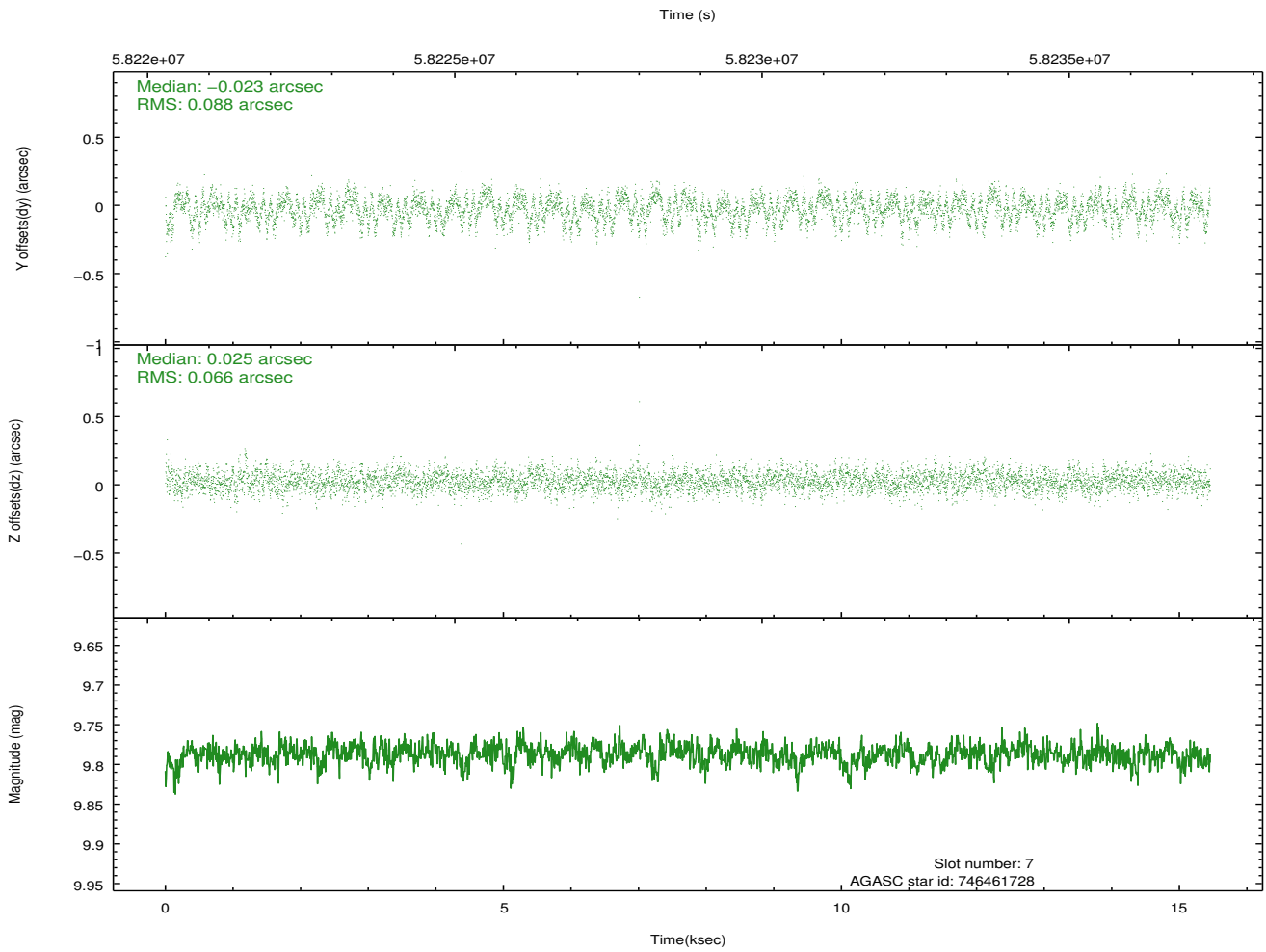
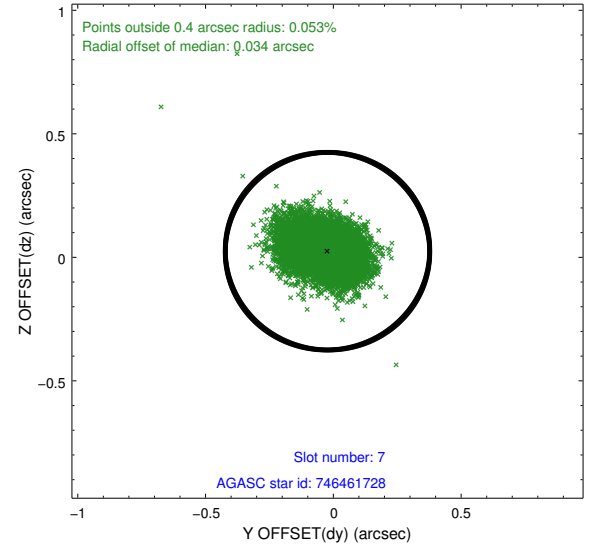
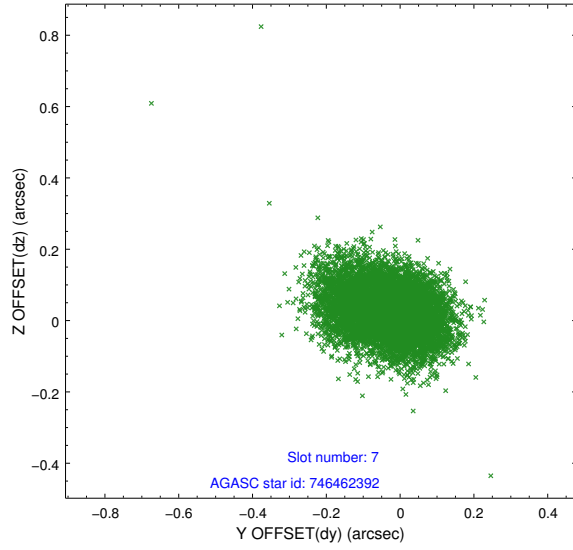
### 2.4.3 Slot 5



## 2.4.4 Slot 6

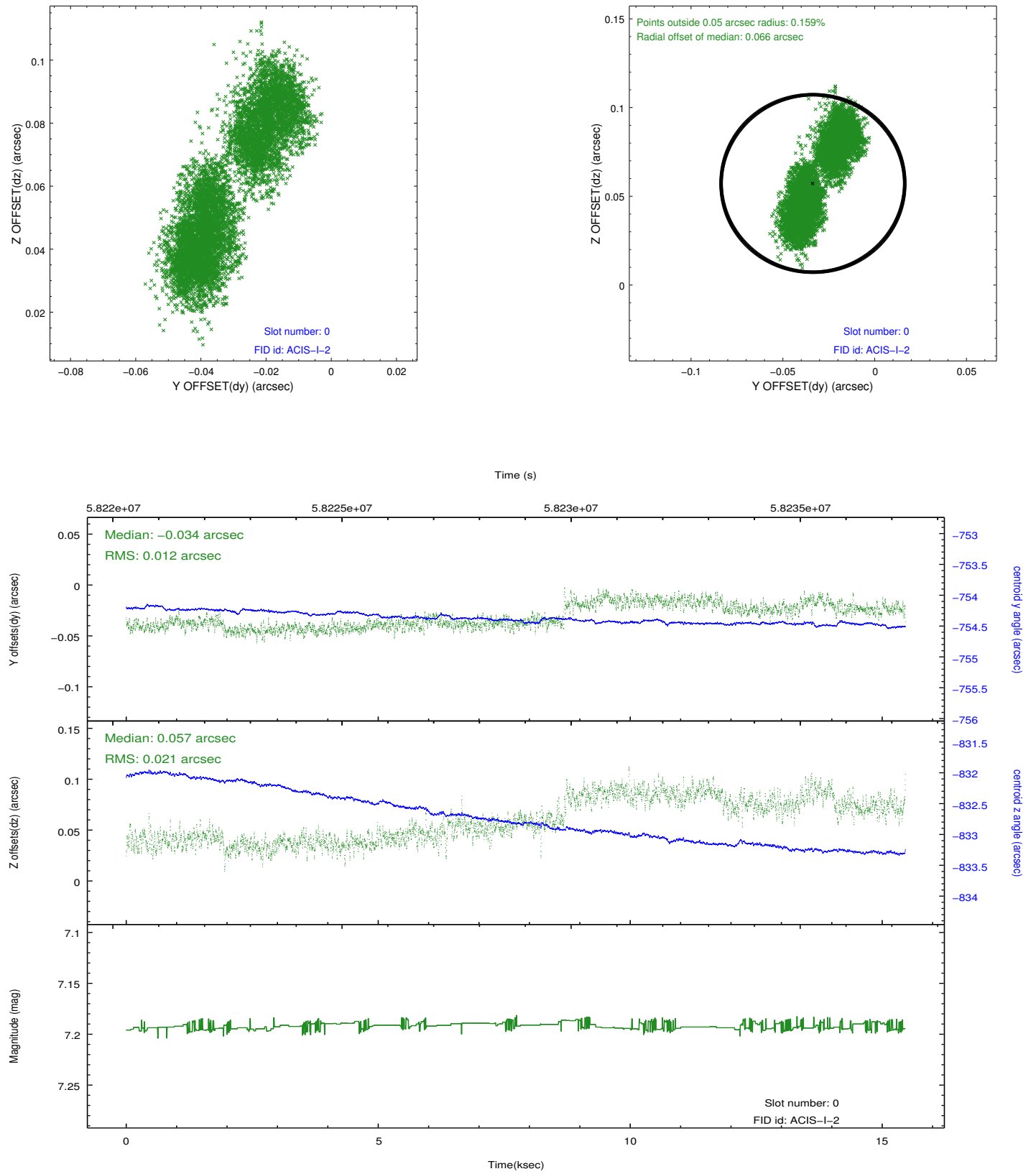


## 2.4.5 Slot 7

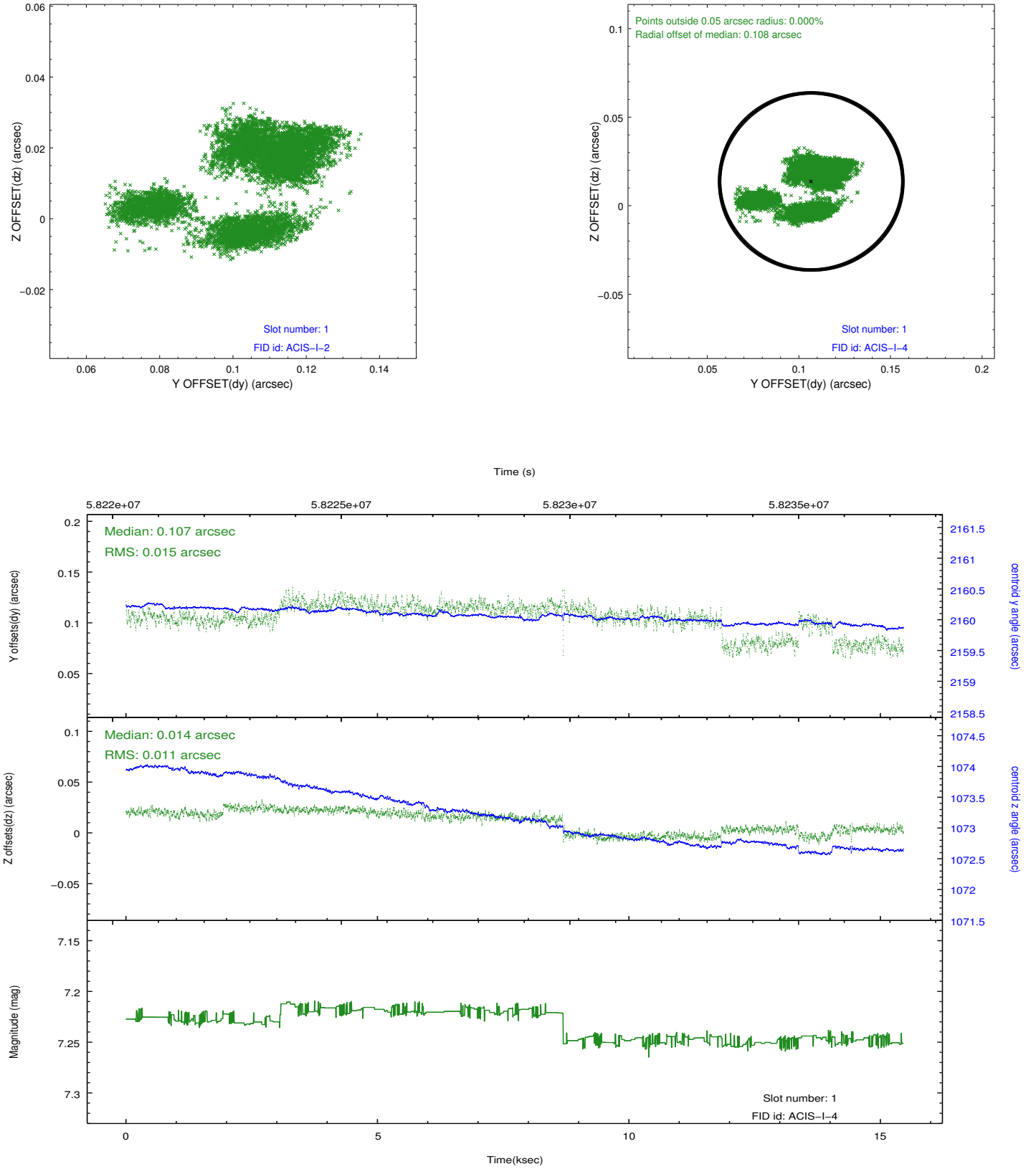


## 2.5 FID Slots

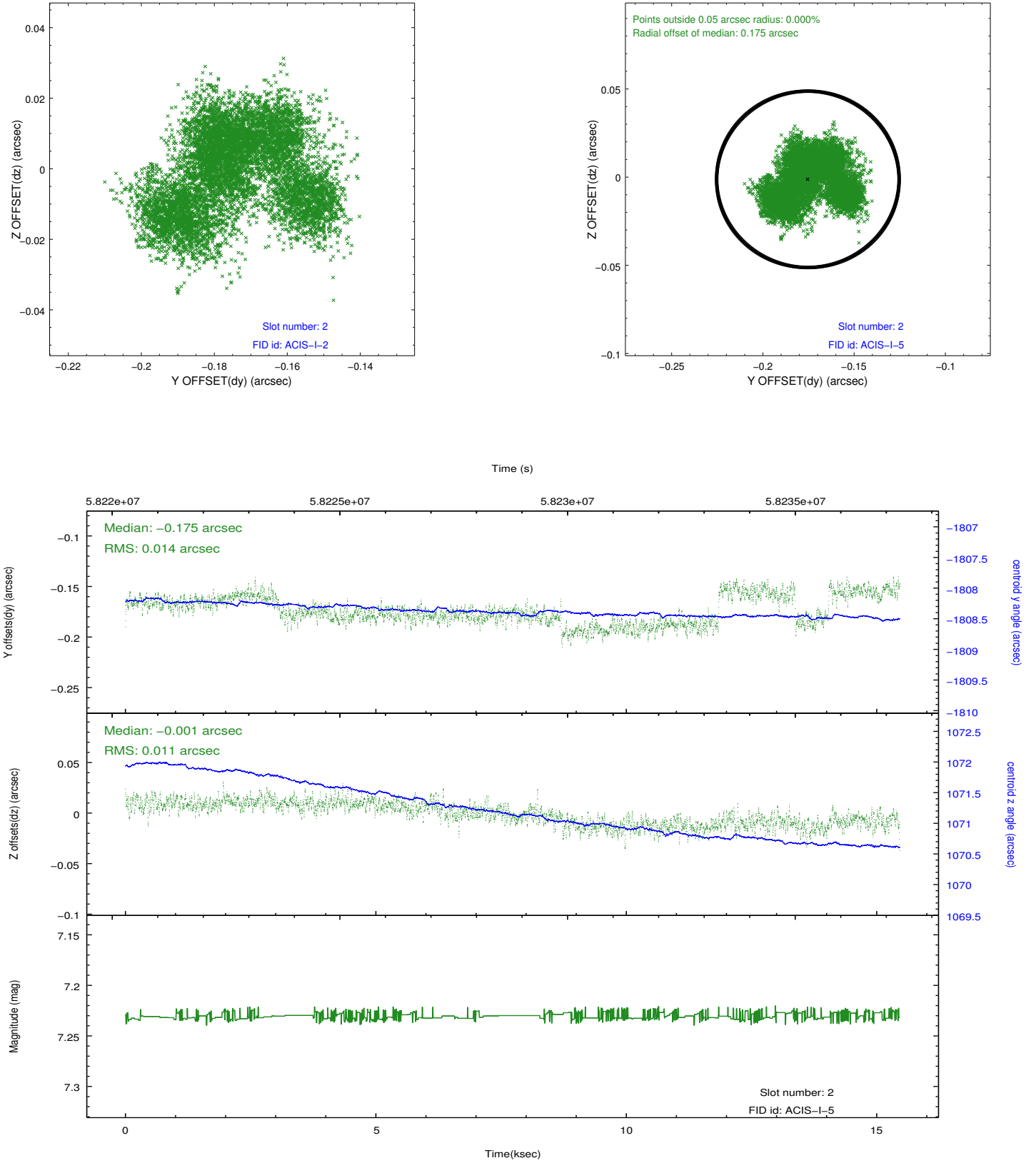
### 2.5.1 Slot 0



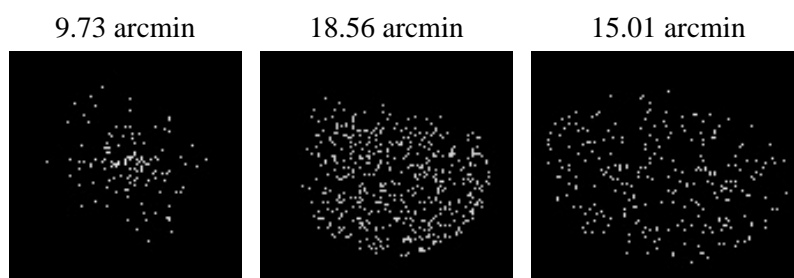
## 2.5.2 Slot 1



### 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	14.175

## A.2 Comments

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.