

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2293 - L2 Version 4  
Chandra X-Ray Center

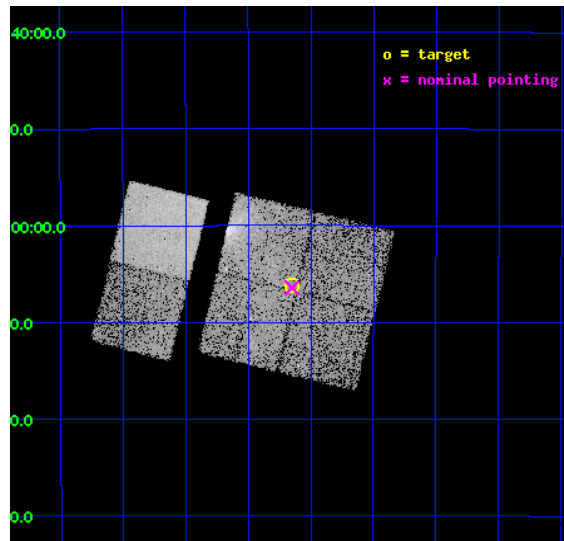
L2 Processing Date : Oct 19 2012

## 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>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

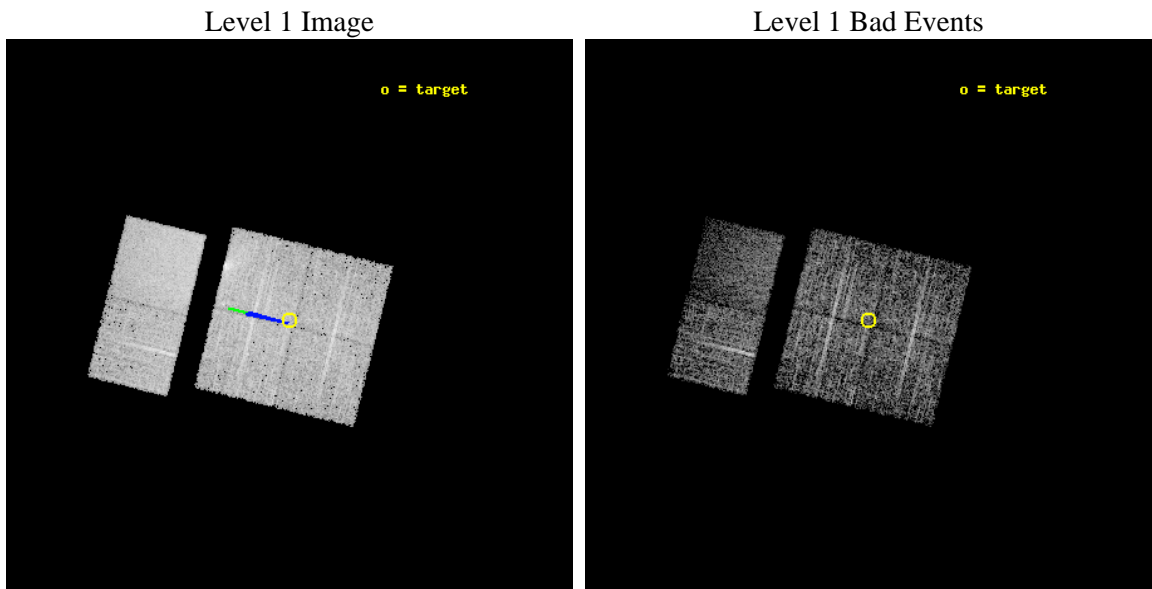
seq_num	900120	Sequence number
obs_id	2293	Observation id
title	CHANDRA SURVEY OF THE GALACTIC RIDGE AROUND THE MILKY WAY CENTER	P
observer	Prof. Q. Daniel Wang	Principal investigator
object	GCS 17	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.2887	Observer's specified target RA [deg]
dec_targ	-29.1026	Observer's specified target Dec [deg]
ra_nom	266.28789403936	Nominal RA [deg]
dec_nom	-29.107301977218	Nominal Dec [deg]
roll_nom	283.80730024458	Nominal Roll [deg]
revision	4	Processing version of data
ontime	11257.60001047	Sum of GTIs [s]
livetime	11115.049500624	Livetime [s]
ontime0	11257.60001047	Sum of GTIs [s]
ontime1	11257.60001047	Sum of GTIs [s]
ontime2	11257.60001047	Sum of GTIs [s]
ontime3	11257.60001047	Sum of GTIs [s]
ontime6	11257.60001047	Sum of GTIs [s]
ontime7	11257.60001047	Sum of GTIs [s]
l2events	72213	Number of level 2 events



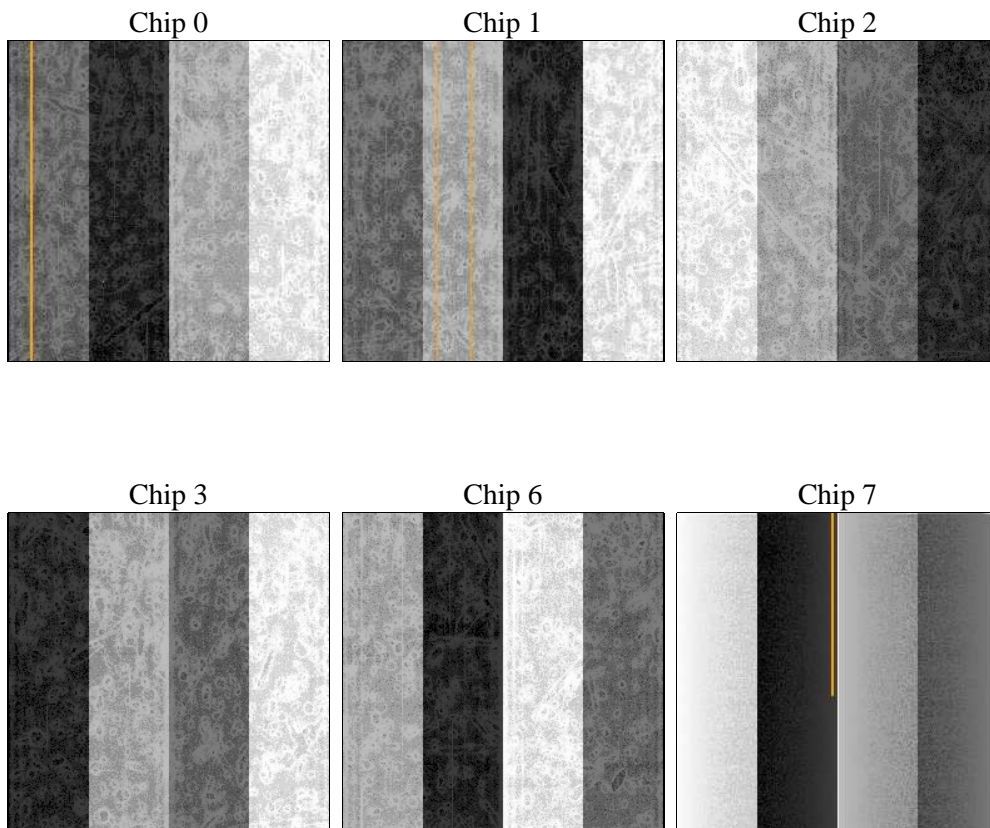
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	11500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	11257.60001047	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime0	11257.60001047	Sum of GTIs [s]
date	2012-10-19T18:08:24	Date and time of file creation	ontime1	11257.60001047	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	11257.60001047	Sum of GTIs [s]
			ontime3	11257.60001047	Sum of GTIs [s]
			ontime6	11257.60001047	Sum of GTIs [s]
			ontime7	11257.60001047	Sum of GTIs [s]
			l1events	216426	Number of level 1 events

### 2.1.4 Events

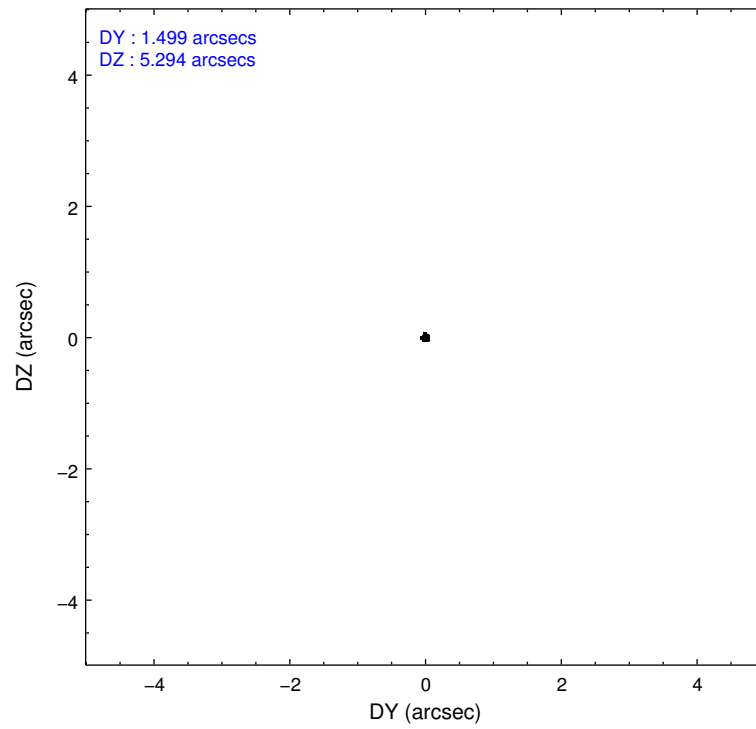
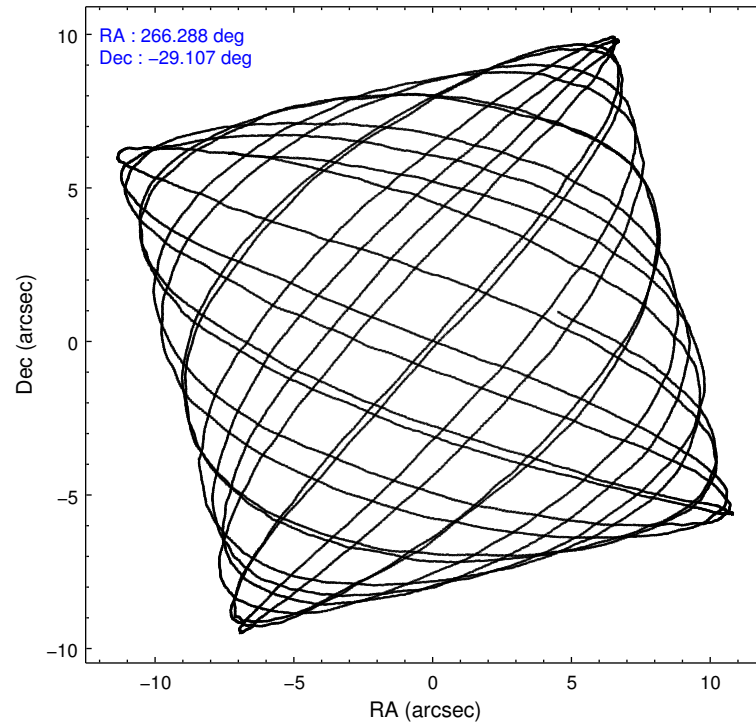
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	29556	30892	36054	41028	33224	45672	grade 0 events	4011	4114	6039	9120	4206	3505
rejected events	22009	22979	25846	25912	25483	18033		13%	13%	16%	22%	12%	7%
rejected %	74%	74%	71%	63%	76%	39%	grade 1 events	24	25	47	61	41	44
								0%	0%	0%	0%	0%	0%
							grade 2 events	1399	1463	1687	2480	1357	5848
								4%	4%	4%	6%	4%	12%
							grade 3 events	562	587	655	973	570	2699
								1%	1%	1%	2%	1%	5%
							grade 4 events	562	596	679	924	537	2766
								1%	1%	1%	2%	1%	6%
							grade 5 events	1189	1294	1062	1311	1356	4281
								4%	4%	2%	3%	4%	9%
							grade 6 events	1016	1154	1152	1624	1075	12826
								3%	3%	3%	3%	3%	28%
							grade 7 events	20793	21659	24733	24535	24082	13703
								70%	70%	68%	59%	72%	30%

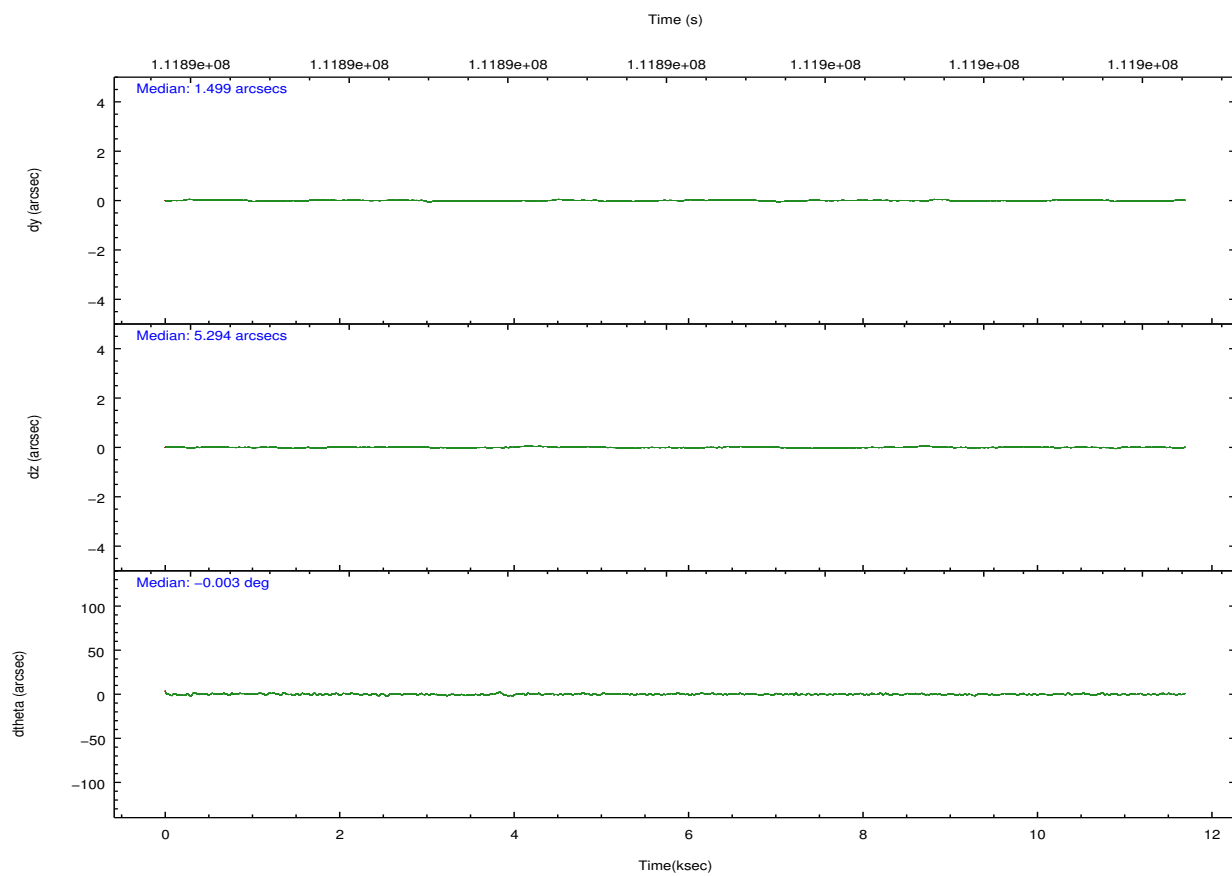
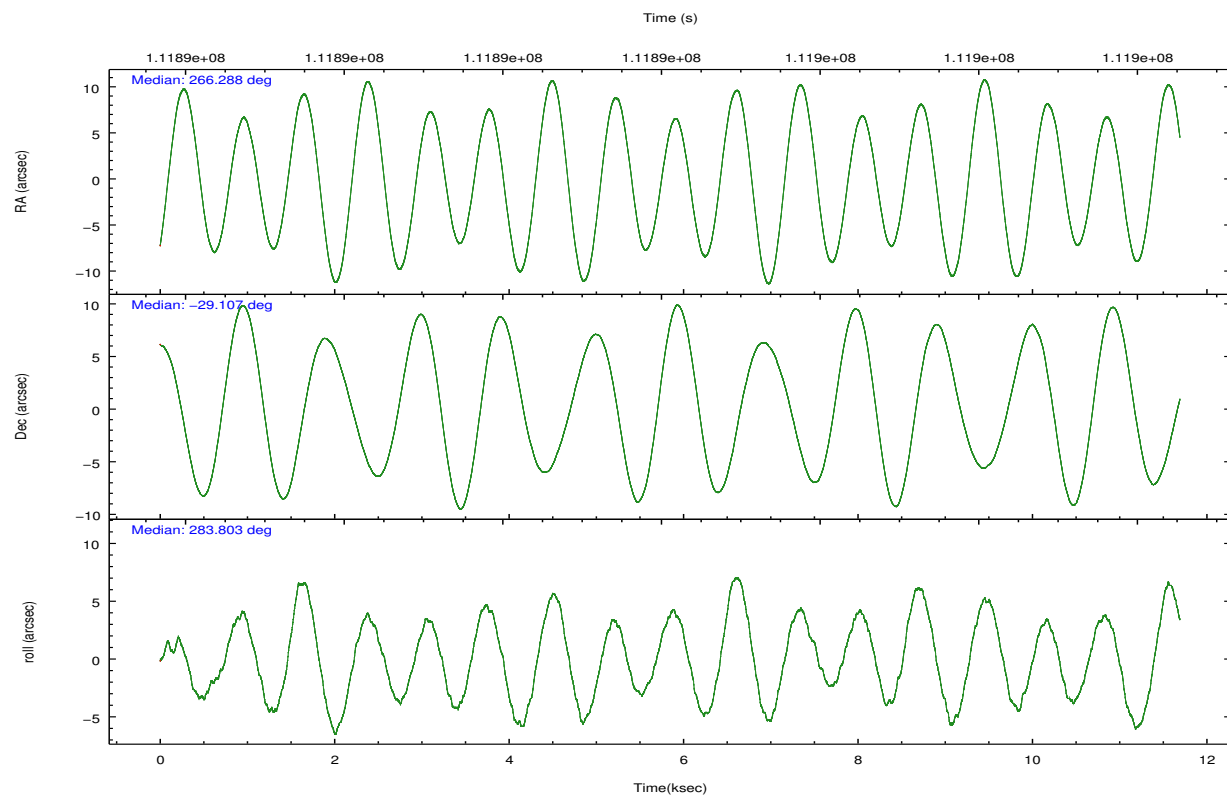


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
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
[deg] Pointing RA	266.266069	266.287894039362	Subarray requested	NONE	NONE
[deg] Pointing Dec	-29.087487	-29.10730197721799	Alternating exposures requested	N	N
[deg] Pointing Roll	283.587999	283.8073002445834	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	283.600000	283.600000			
[deg] Roll tolerance	2.000000	2.000000			
Roll constraint allows 180D rotation	N	N			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	111888454.184000	111888078.36748			
Observation start date	2001-07-19T00:06:30	2001-07-19T00:01:18			
[s] Observation end time (MET)	111899954.184000	111900088.29295			
Observation end date	2001-07-19T03:18:10	2001-07-19T03:21:28			
Read mode	TIMED	TIMED			

## 2.3 Aspect



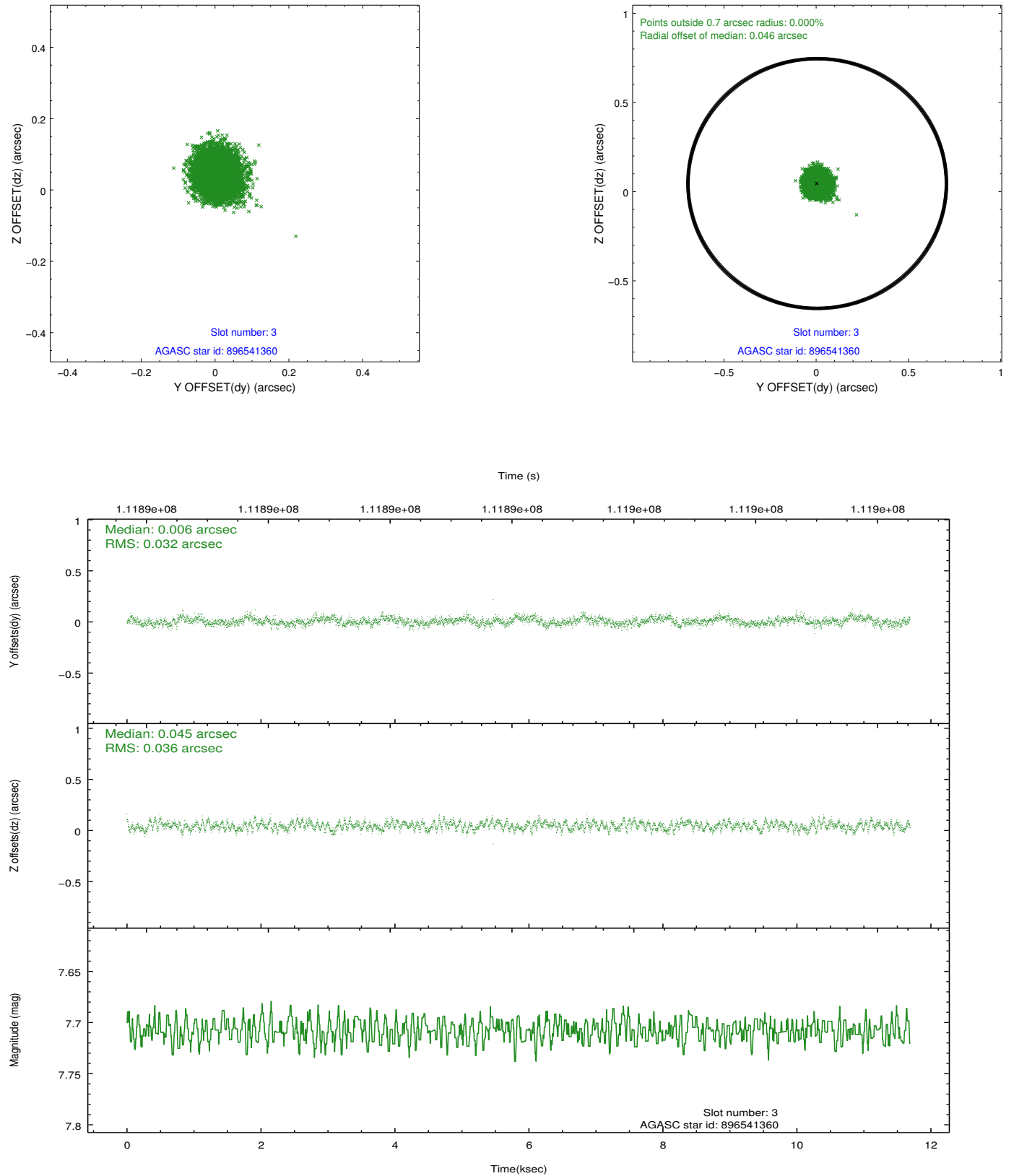


### Slot Statistics

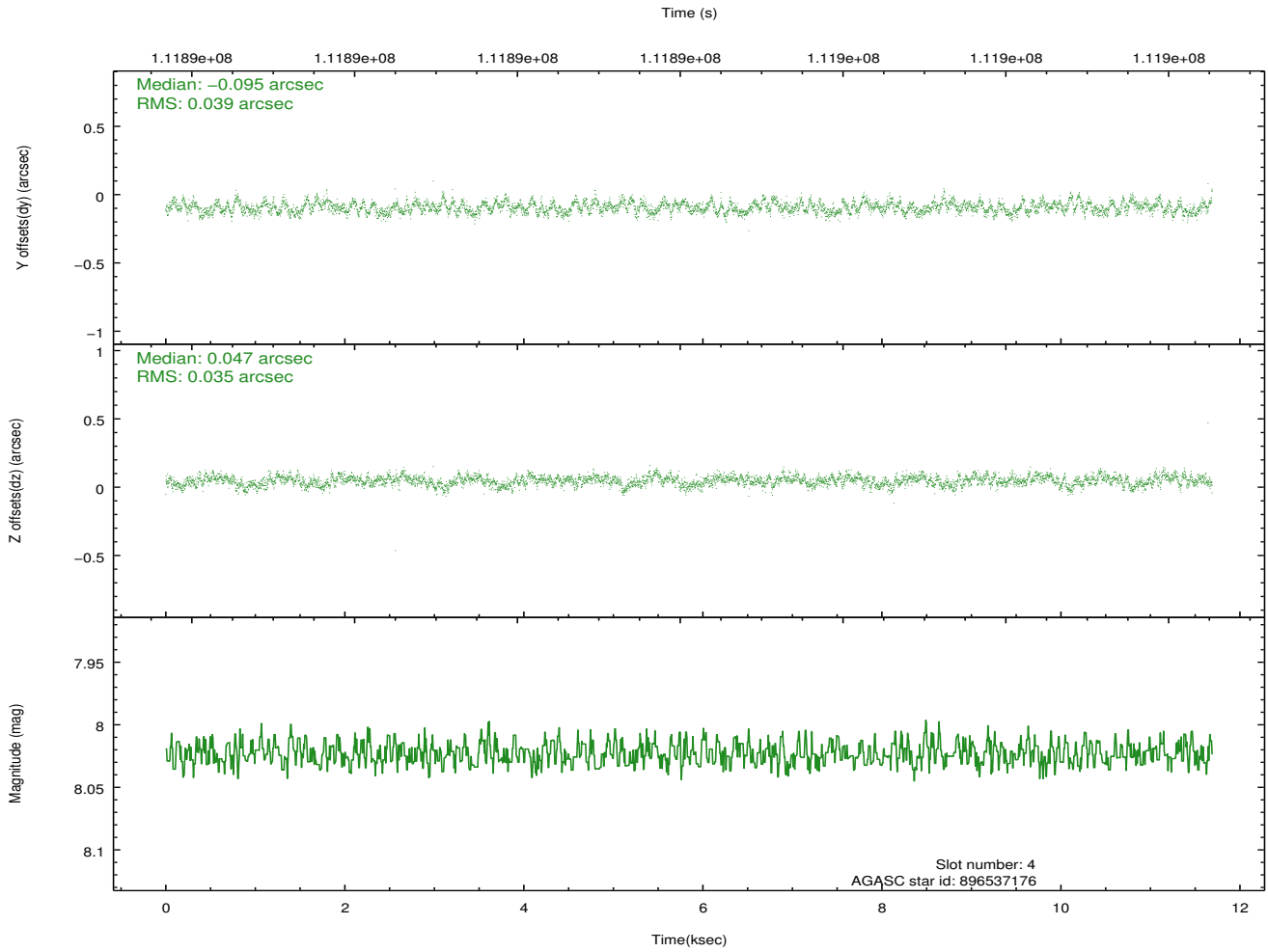
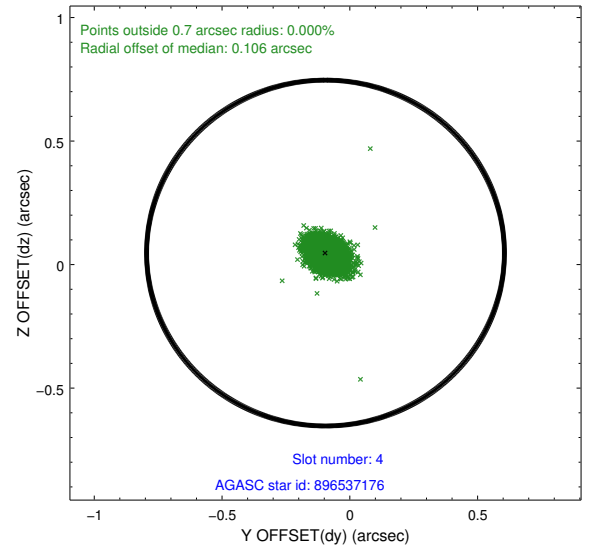
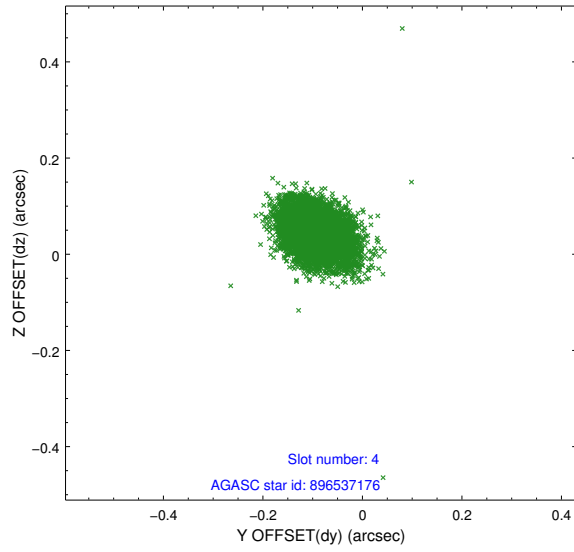
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.15	2852	-0.023	-0.050	0.009	0.016	0.000000	0.000000	-755.85	-835.07
1	FID	ACIS-I-4	7.19	2852	-0.031	0.036	0.006	0.011	0.000000	0.000000	2157.99	1071.01
2	FID	ACIS-I-5	7.23	2851	-0.047	0.083	0.009	0.015	0.000000	0.000000	-1809.16	1069.35
3	GUIDE	896541360	7.71	5702	0.006	0.045	0.051	0.082	266.684478	-29.453744	1592.87	964.85
4	GUIDE	896537176	8.02	5703	-0.095	0.047	0.054	0.088	266.498272	-28.678259	-1258.00	1059.07
5	GUIDE	896540808	7.50	5704	0.022	0.043	0.046	0.075	265.985401	-29.308604	568.53	-1043.30
6	GUIDE	896536320	8.97	5701	0.099	-0.121	0.060	0.100	266.369048	-29.307026	845.38	128.38
7	GUIDE	896405288	9.45	5701	-0.034	-0.009	0.099	0.160	265.652078	-28.763879	-1581.64	-1610.89

## 2.4 Star Slots

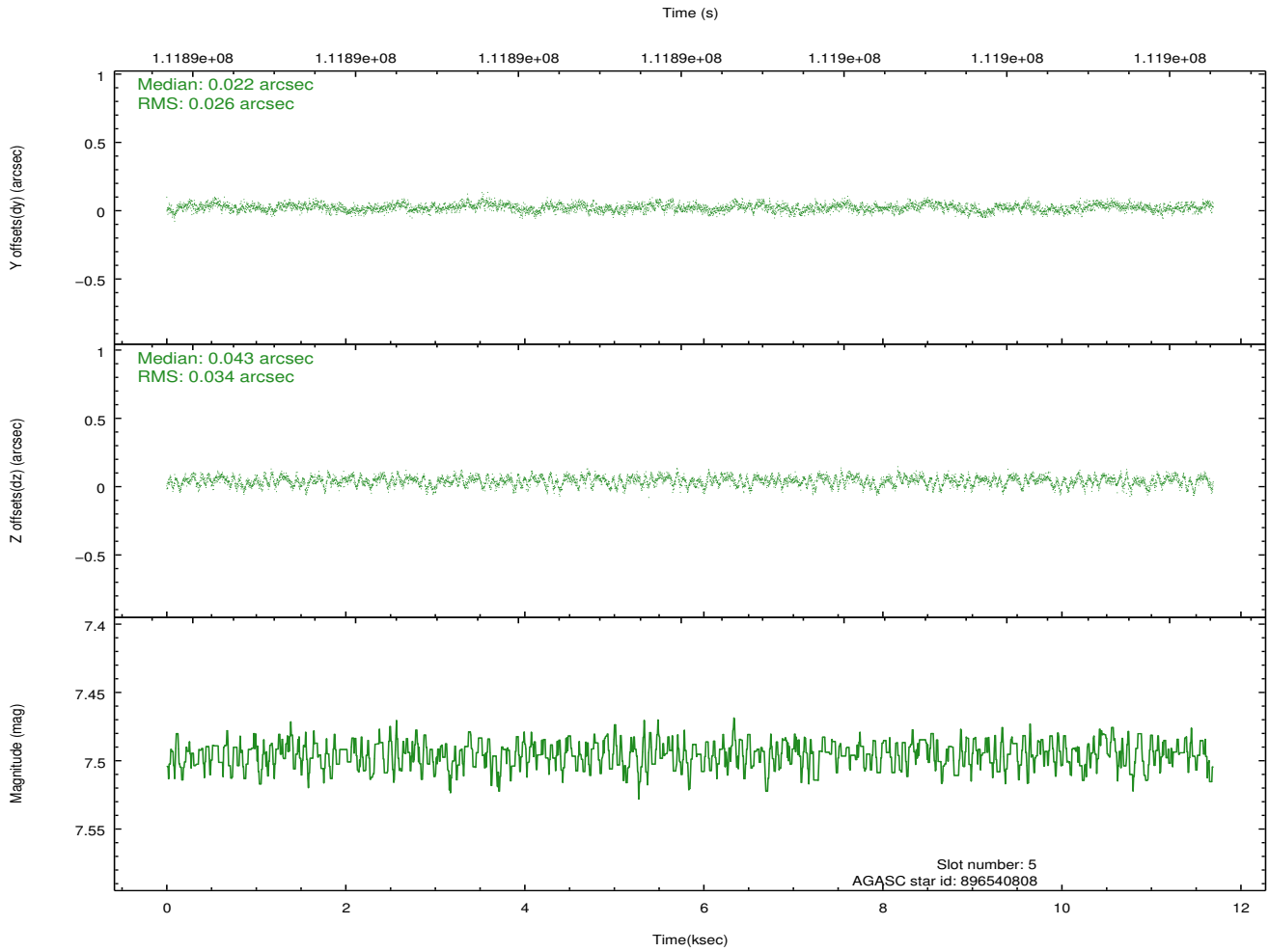
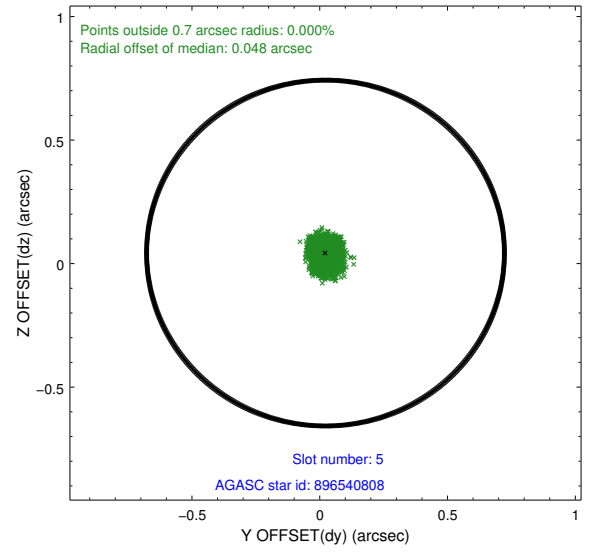
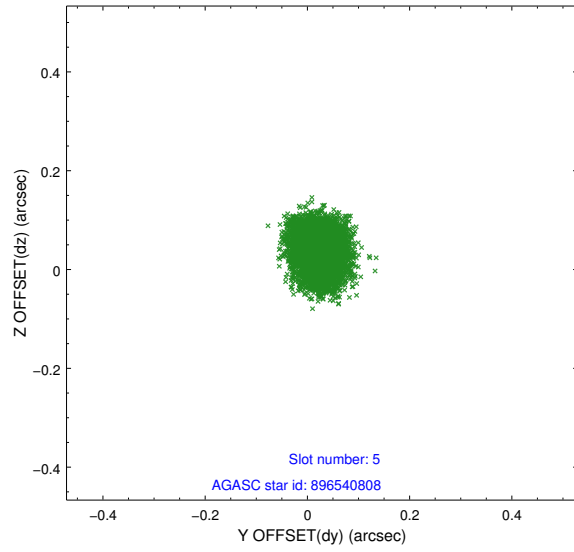
### 2.4.1 Slot 3



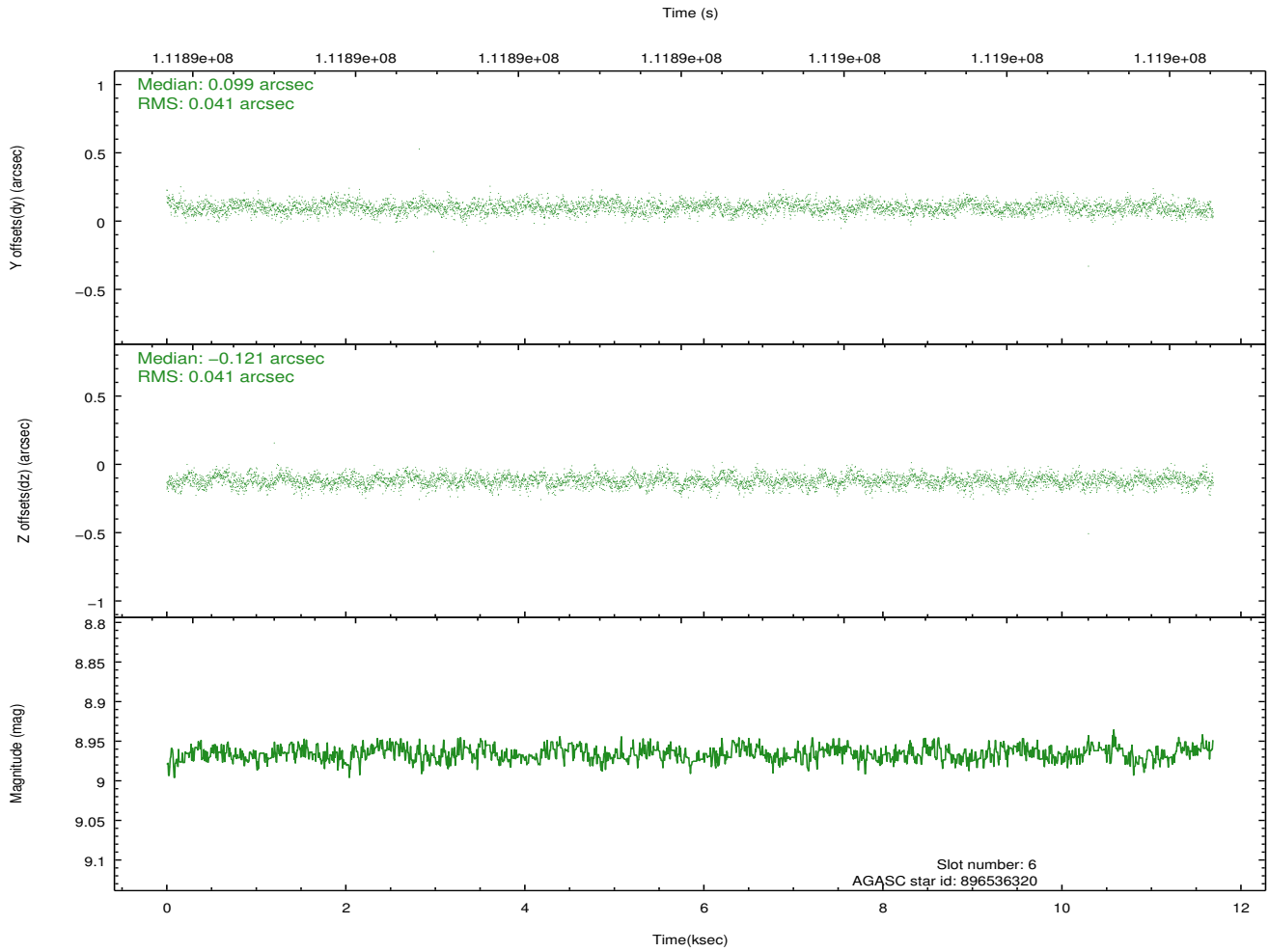
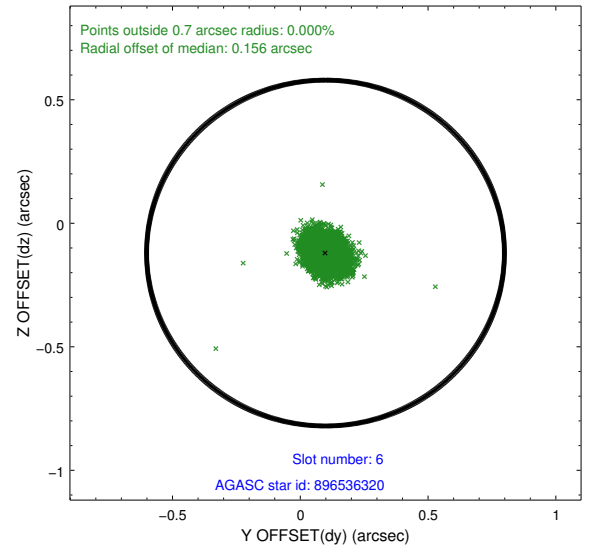
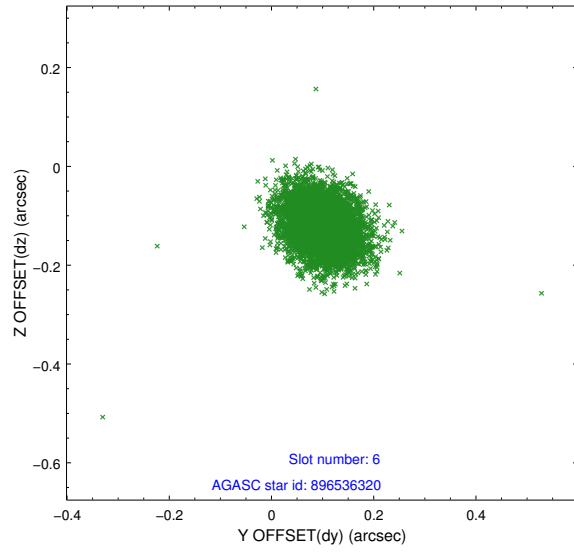
## 2.4.2 Slot 4



### 2.4.3 Slot 5

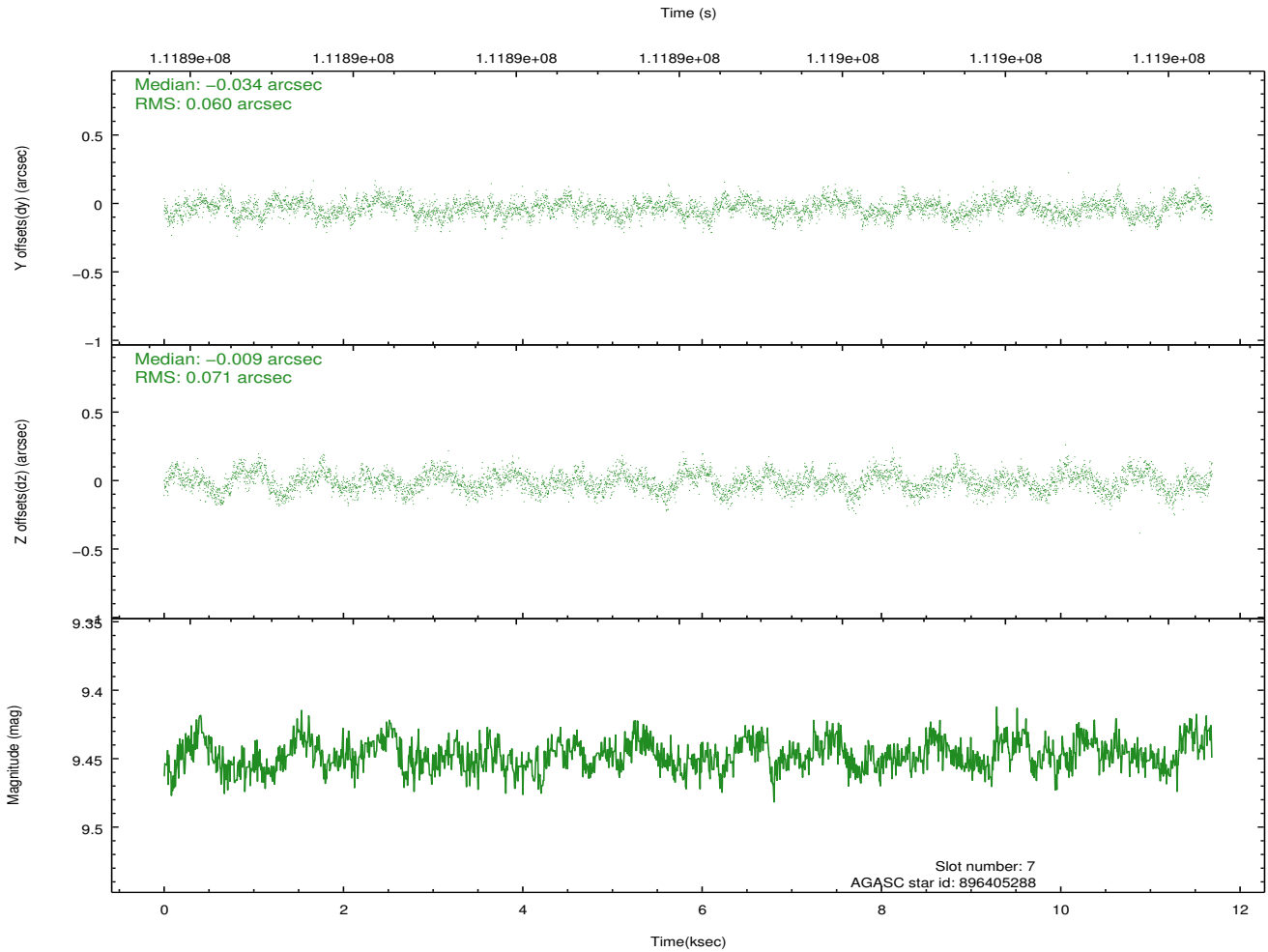
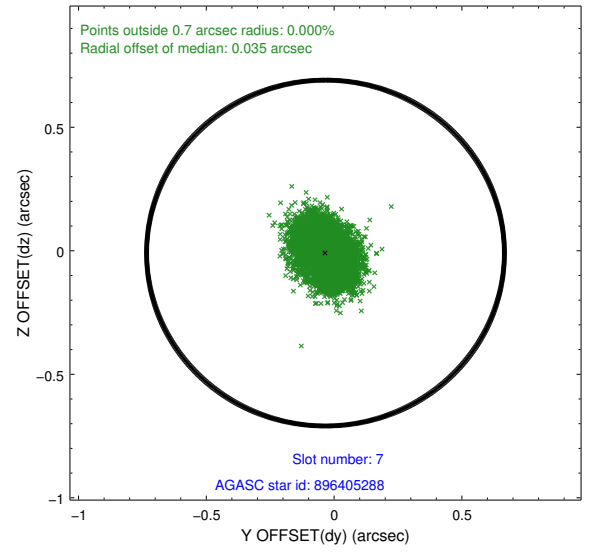
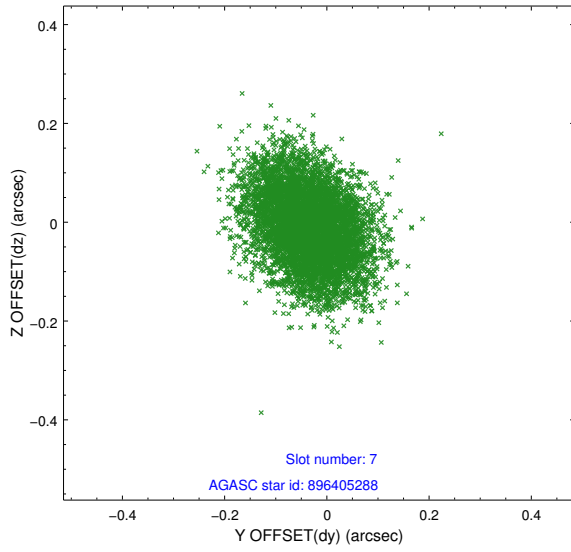


## 2.4.4 Slot 6



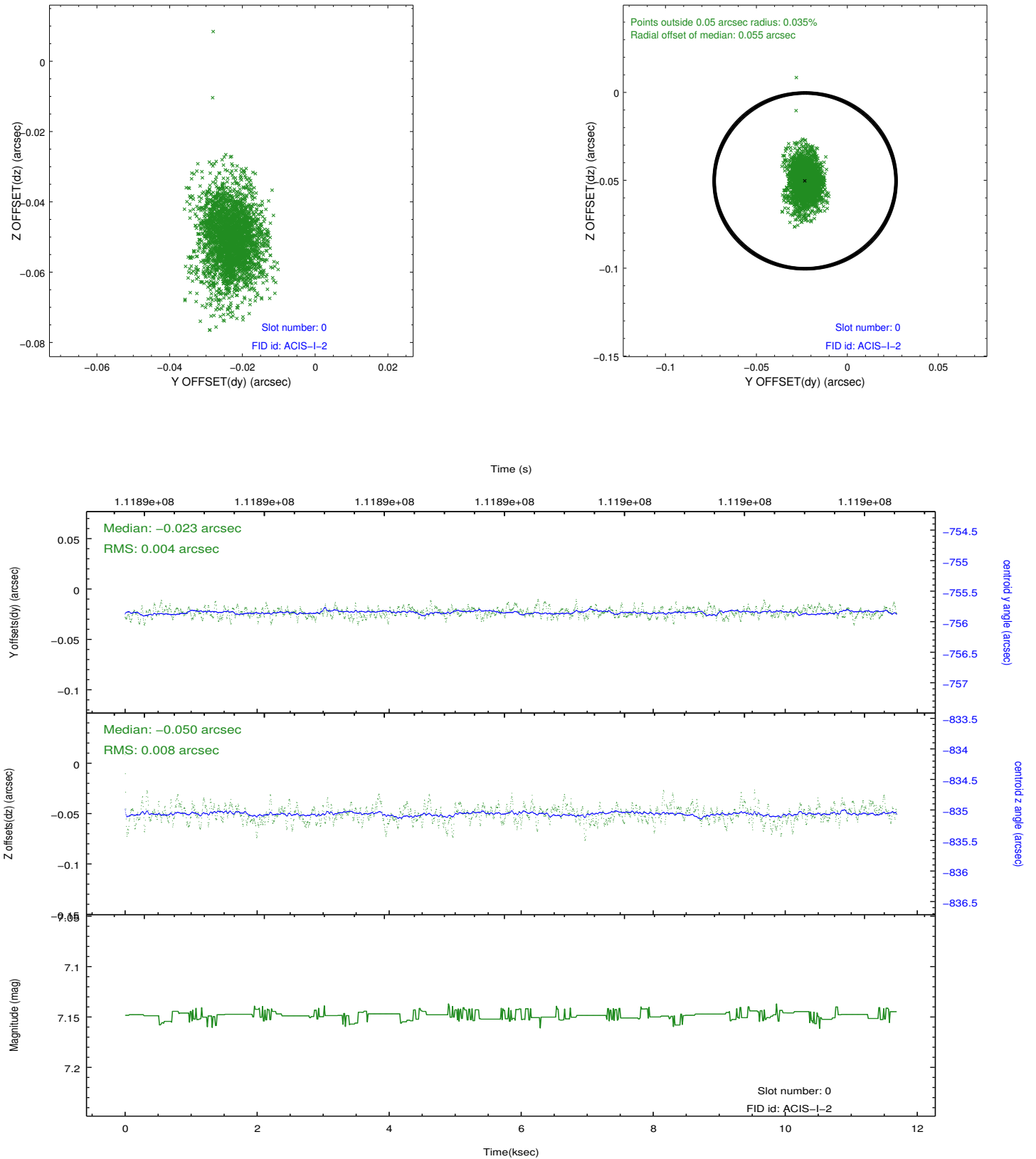


## 2.4.5 Slot 7

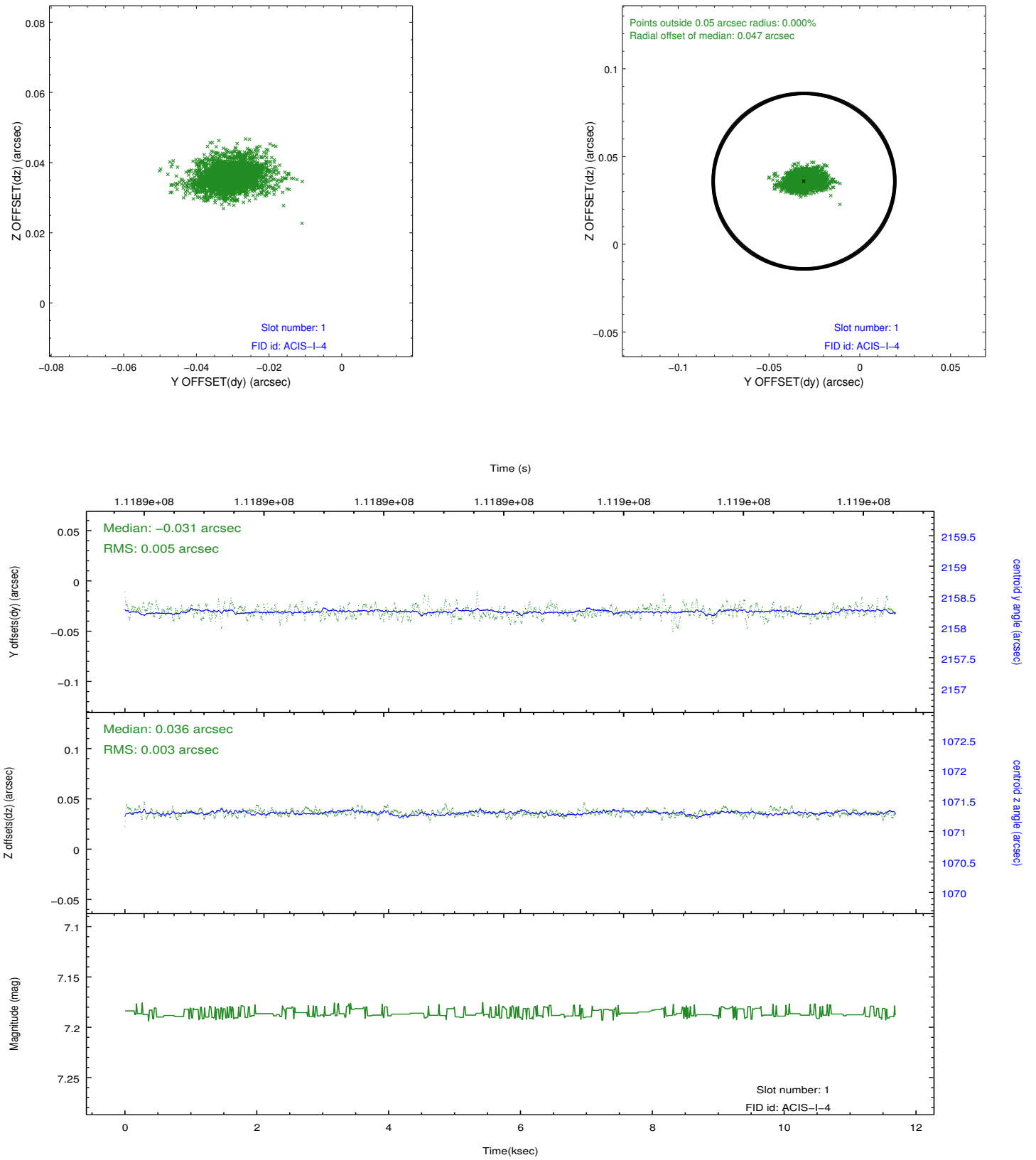


## 2.5 FID Slots

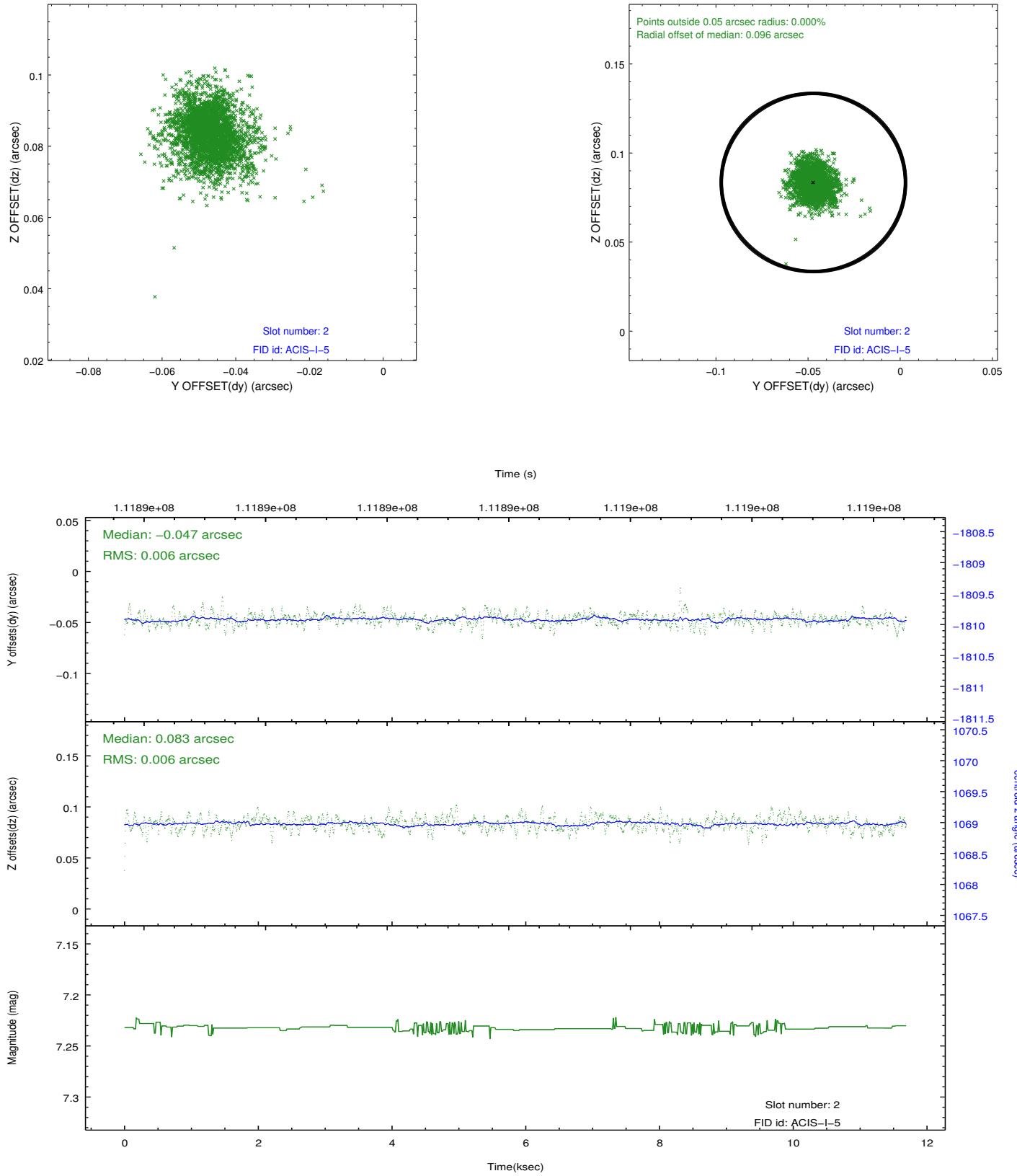
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.10.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	11.3

## A.2 Comments

Charge time for this ObsId remains at previous value of 11.3 ks although with the current processing the charge time would have been 11.26 ksec.

Roll constraint met.

=====

A spatial region of the original bias map for CCD = 1 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 1 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:

(266.17713,-28.99122),(266.17289,-28.99213),(266.17731,-29.00789),(266.18154,-29.00698)