

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3044 - L2 Version 3  
Chandra X-Ray Center

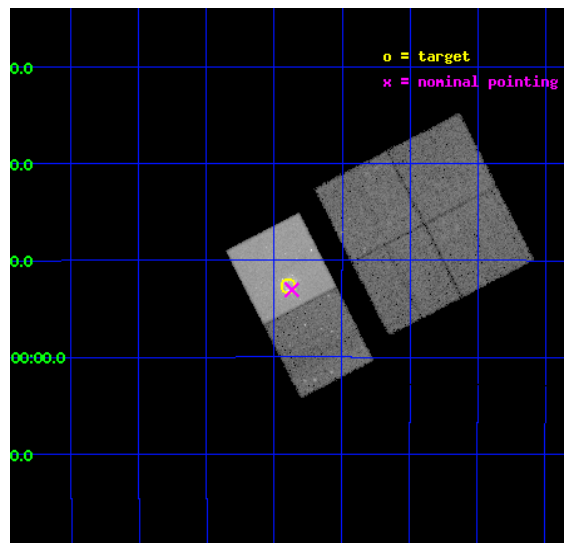
L2 Processing Date : Oct 11 2012

## 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

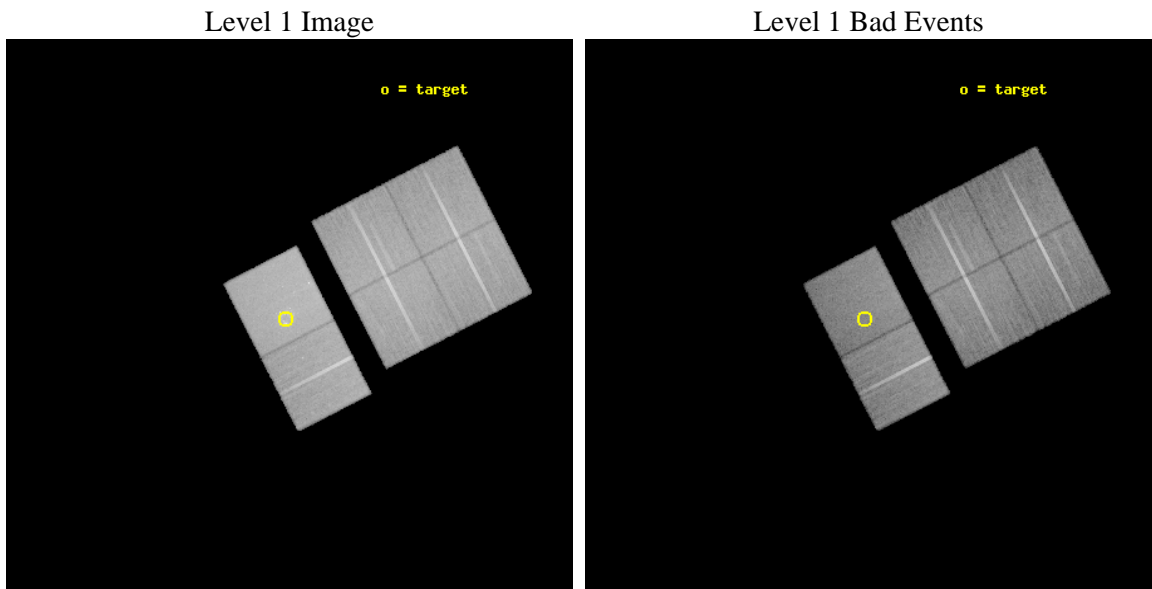
seq_num	700483	Sequence number
obs_id	3044	Observation id
title	AN IN-DEPTH STUDY OF THE X-RAY SOURCE POPULATION AND HOT ISM OF THE ANTENNAE GALAXIES	Proposal title
observer	Dr. Giuseppina Fabbiano	Principal investigator
object	NGC 4038/NGC 4039	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	180.47375	Observer's specified target RA [deg]
dec_targ	-18.876528	Observer's specified target Dec [deg]
ra_nom	180.46752523842	Nominal RA [deg]
dec_nom	-18.884239554994	Nominal Dec [deg]
roll_nom	242.82461389201	Nominal Roll [deg]
revision	3	Processing version of data
ontime	36963.199862301	Sum of GTIs [s]
livetime	36495.149569078	Livetime [s]
ontime0	36963.199862301	Sum of GTIs [s]
ontime1	36963.13085708	Sum of GTIs [s]
ontime2	36963.171897054	Sum of GTIs [s]
ontime3	36963.199862301	Sum of GTIs [s]
ontime6	36963.199862301	Sum of GTIs [s]
ontime7	36963.199862301	Sum of GTIs [s]
l2events	267561	Number of level 2 events



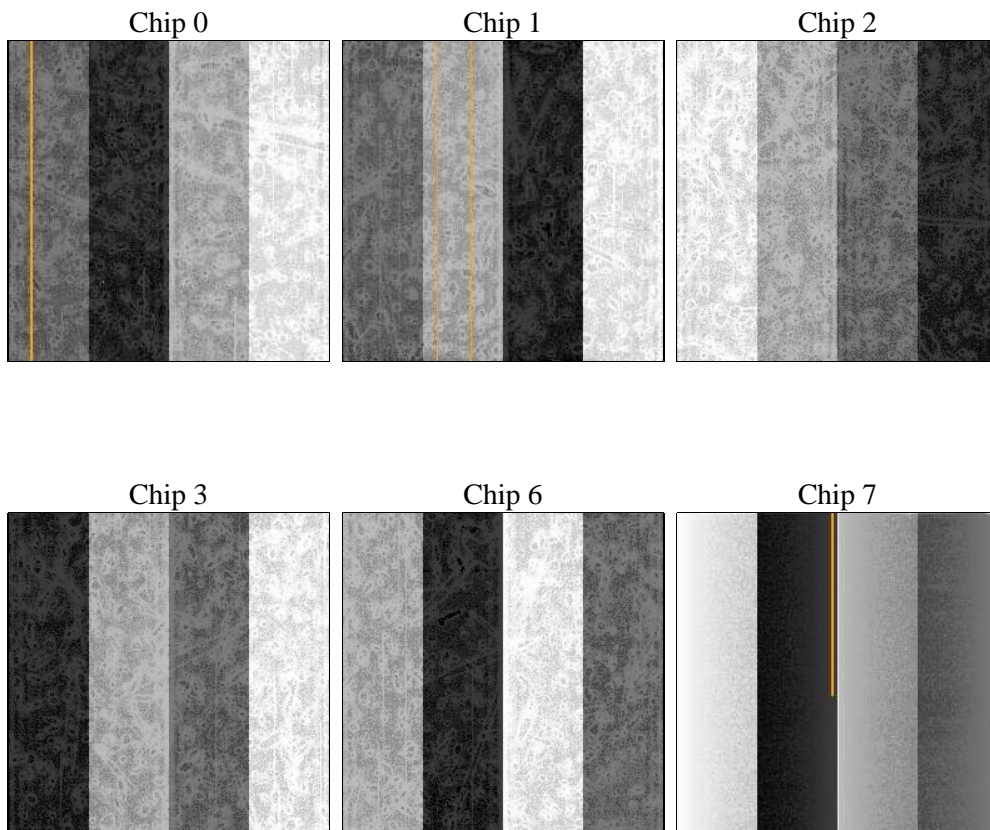
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	36963.199862301	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime0	36963.199862301	Sum of GTIs [s]
date	2012-10-11T13:52:56	Date and time of file creation	ontime1	36963.13085708	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	36963.171897054	Sum of GTIs [s]
			ontime3	36963.199862301	Sum of GTIs [s]
			ontime6	36963.199862301	Sum of GTIs [s]
			ontime7	36963.199862301	Sum of GTIs [s]
			l1events	1509423	Number of level 1 events

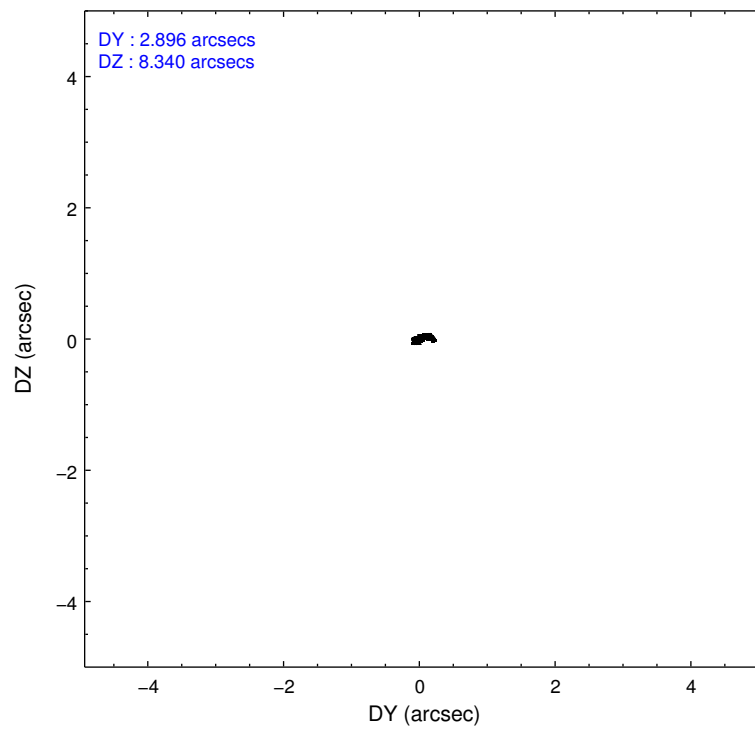
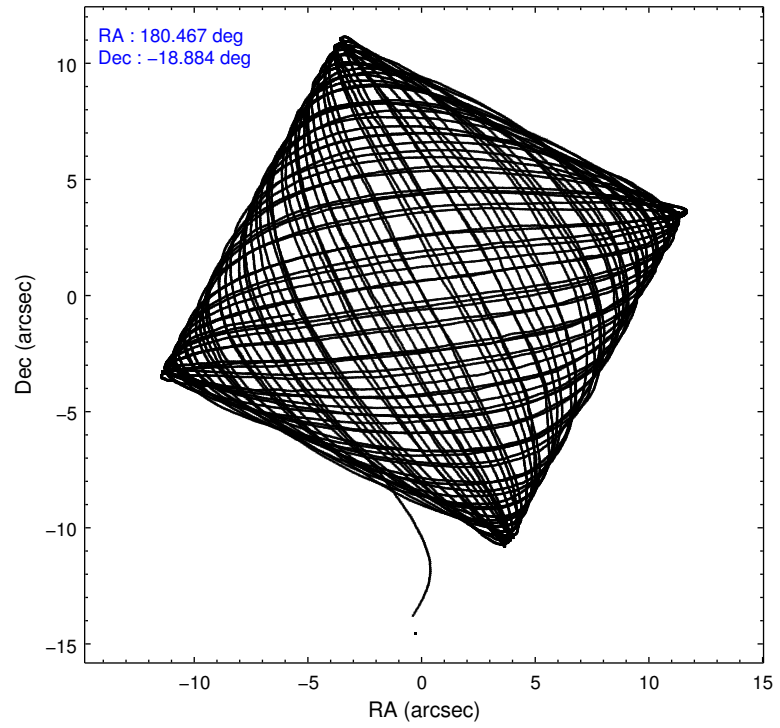
### 2.1.4 Events

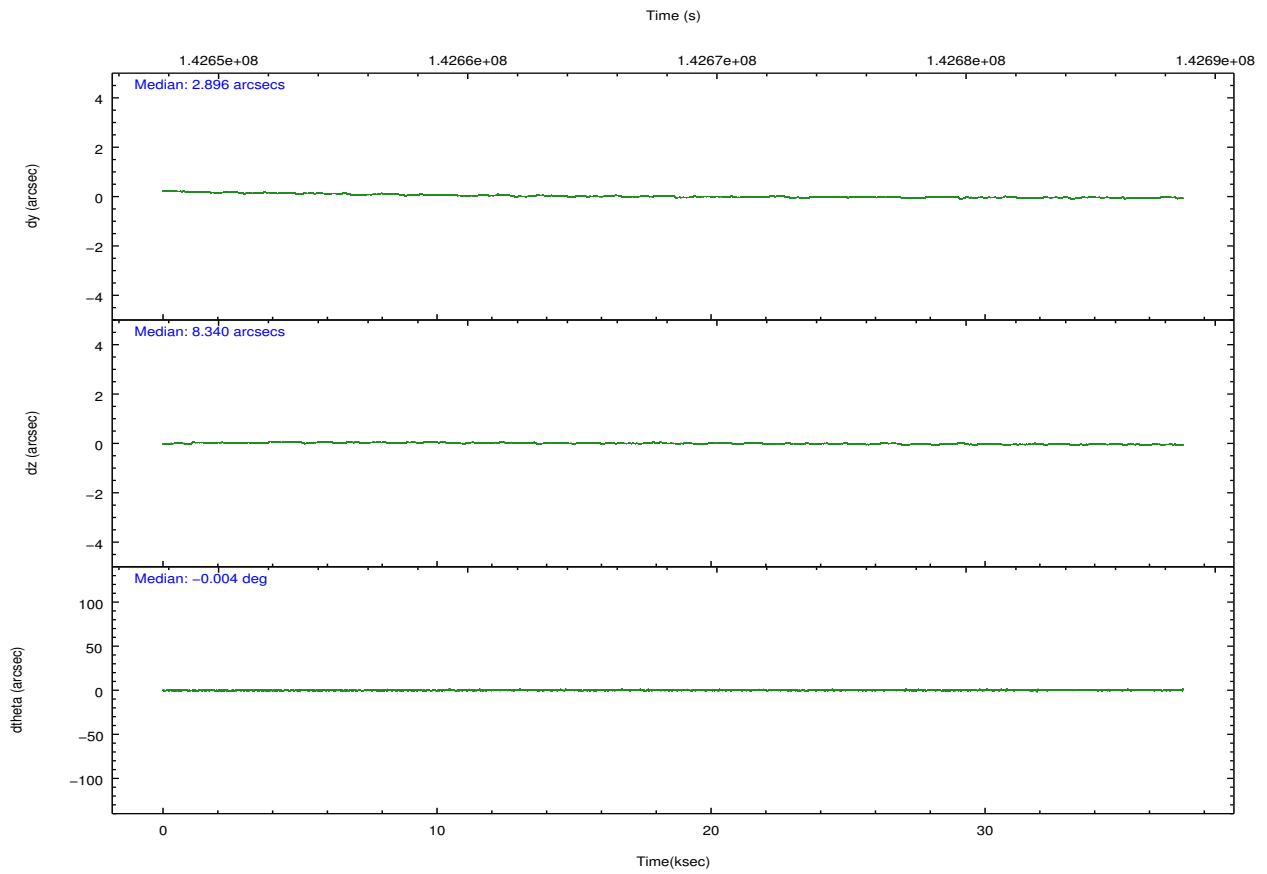
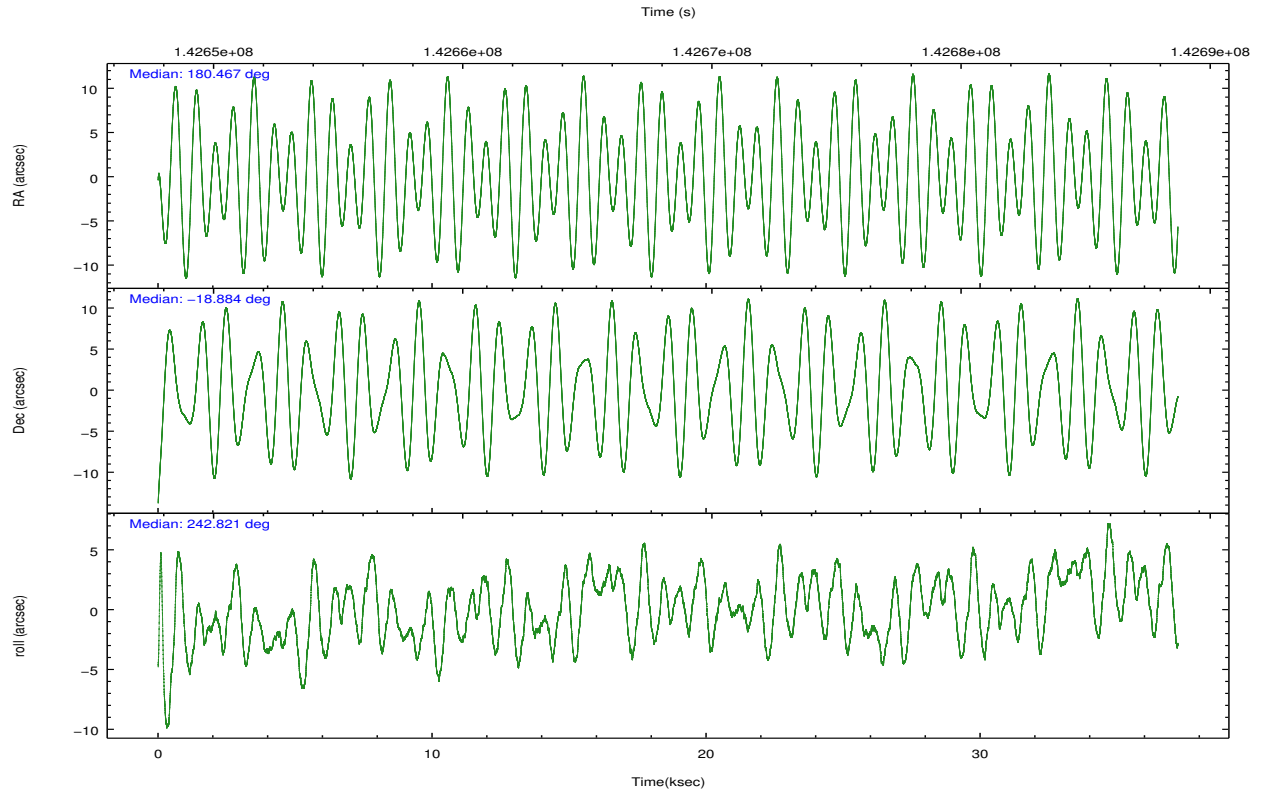
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	230418	217028	242312	239888	248179	331598	grade 0 events	12003	11747	12107	12102	11818	17343
rejected events	201339	187675	213863	211521	218883	184783		5%	5%	4%	5%	4%	5%
rejected %	87%	86%	88%	88%	88%	55%	grade 1 events	140	97	118	107	126	334
								0%	0%	0%	0%	0%	0%
							grade 2 events	6361	6035	6324	5699	6027	30065
								2%	2%	2%	2%	2%	9%
							grade 3 events	2839	3001	2629	2756	2895	13735
								1%	1%	1%	1%	1%	4%
							grade 4 events	2614	2986	2587	2691	2718	13530
								1%	1%	1%	1%	1%	4%
							grade 5 events	9403	9707	8407	10082	10717	30726
								4%	4%	3%	4%	4%	9%
							grade 6 events	5268	5586	4804	5124	5846	72155
								2%	2%	1%	2%	2%	21%
							grade 7 events	191790	177869	205336	201327	208032	153710
								83%	81%	84%	83%	83%	46%

## 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	180.465752	180.4675252384249	Subarray requested	NONE	NONE
[deg] Pointing Dec	-18.857054	-18.88423955499356	Alternating exposures requested	N	N
[deg] Pointing Roll	242.667408	242.8246138920062	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	142649852.184000	142648881.05347			
Observation start date	2002-07-10T00:56:28	2002-07-10T00:41:21			
[s] Observation end time (MET)	142686852.184000	142687662.95506			
Observation end date	2002-07-10T11:13:08	2002-07-10T11:27:42			
Read mode	TIMED	TIMED			

## 2.3 Aspect



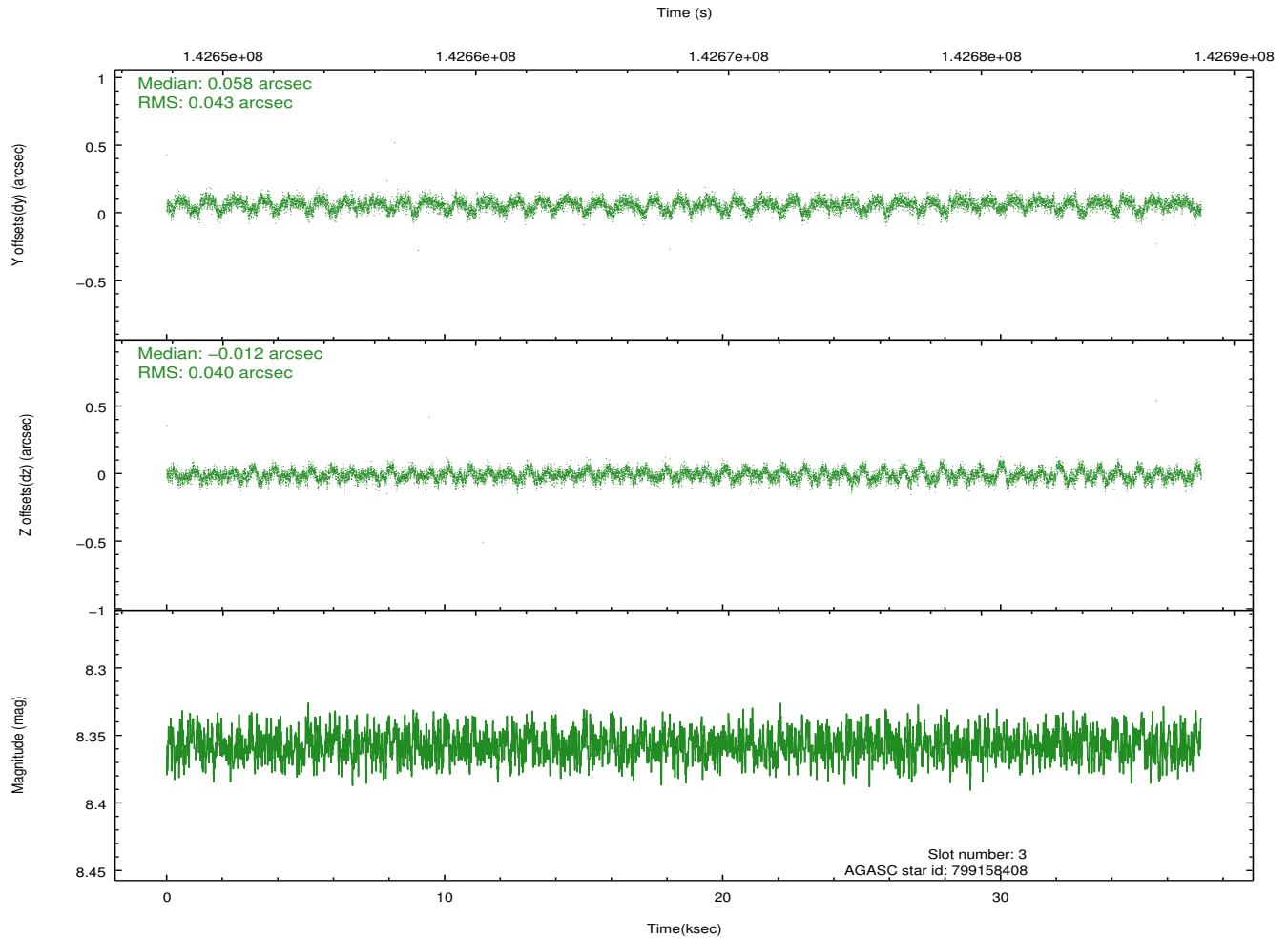
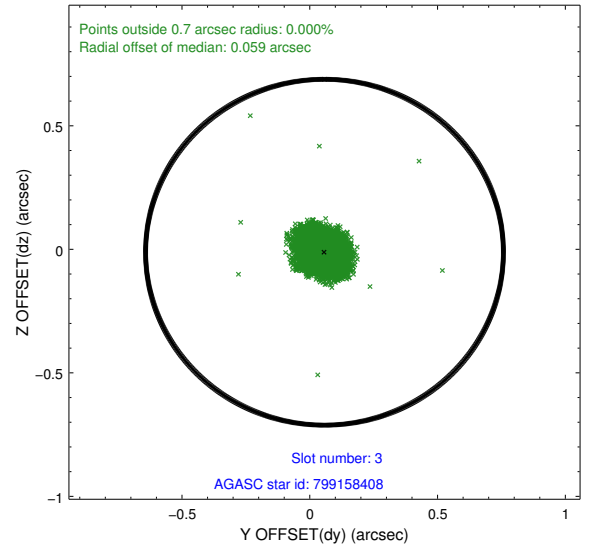
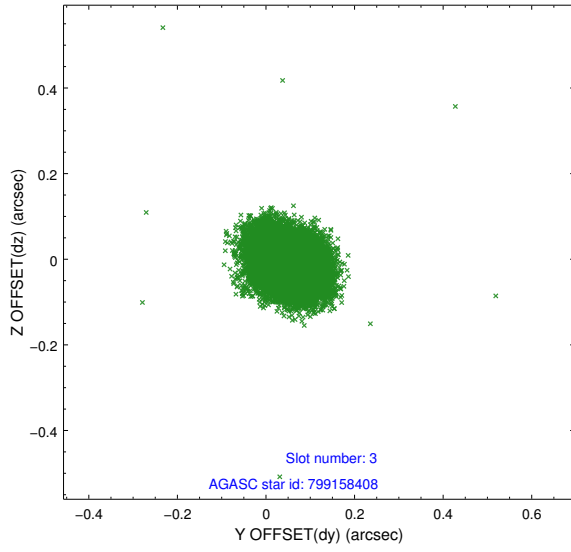


### Slot Statistics

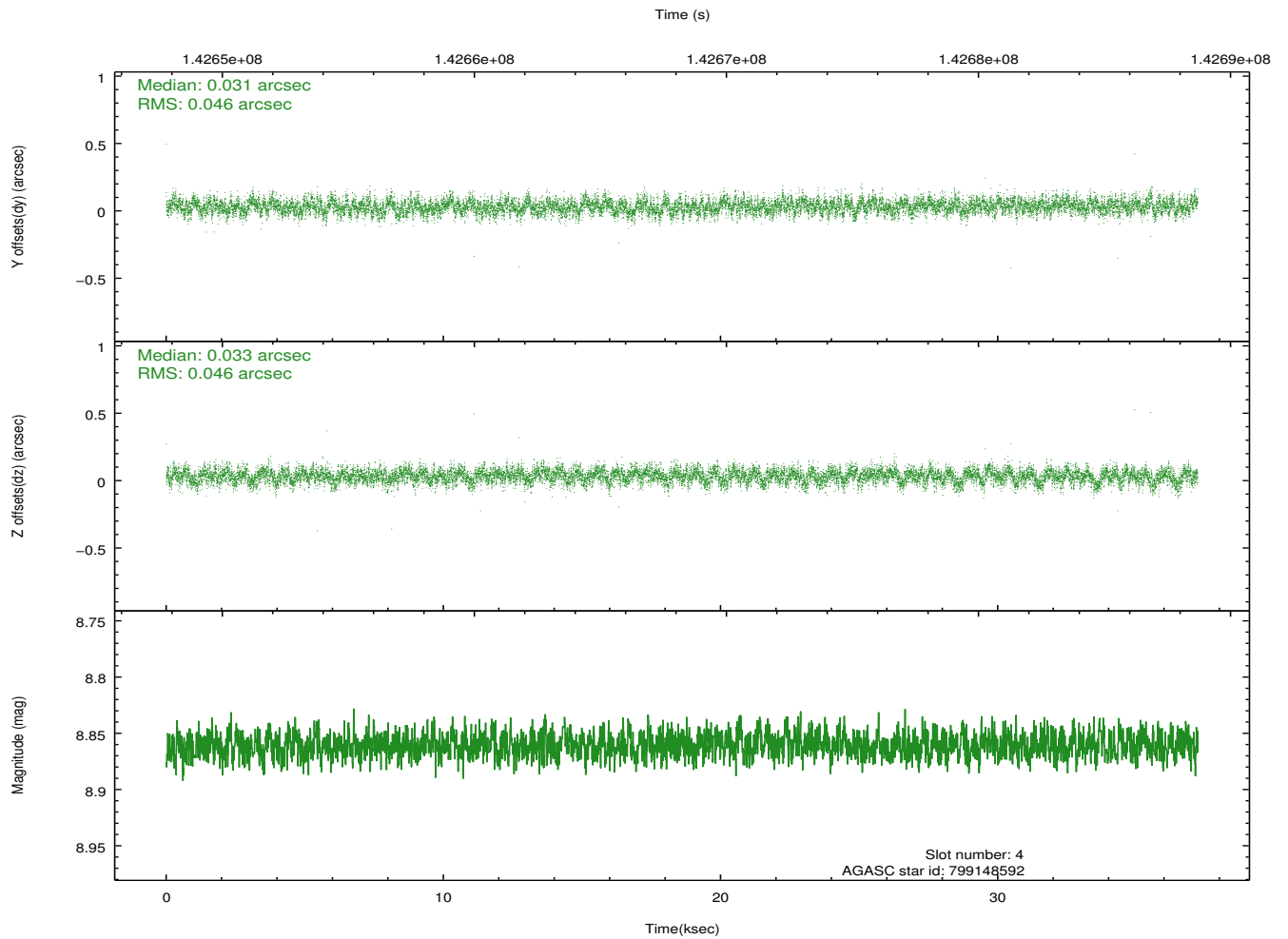
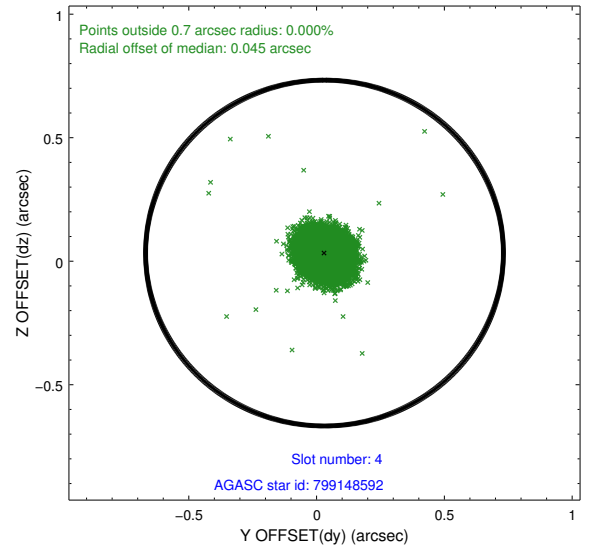
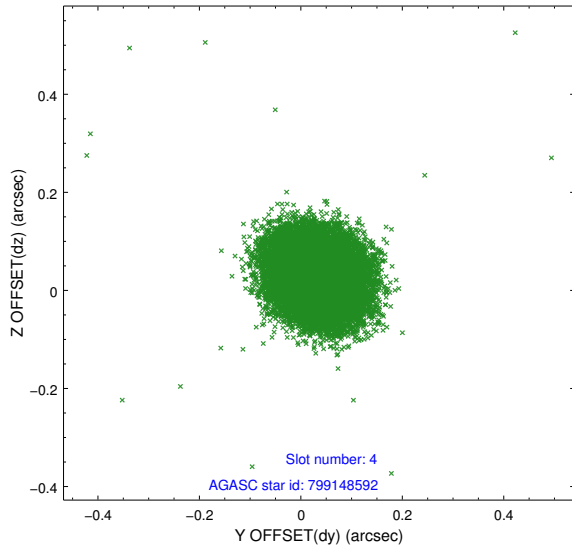
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	9076	-0.009	-0.006	0.007	0.011	0.000000	0.000000	-755.58	-1729.49
1	FID	ACIS-S-4	7.20	9075	-0.018	0.006	0.007	0.014	0.000000	0.000000	2157.69	178.95
2	FID	ACIS-S-5	7.24	9076	-0.004	0.009	0.008	0.015	0.000000	0.000000	-1808.37	172.69
3	GUIDE	799158408	8.36	18147	0.058	-0.012	0.062	0.099	180.413548	-19.338934	1622.73	639.88
4	GUIDE	799148592	8.86	18148	0.031	0.033	0.068	0.111	180.422651	-18.791183	-142.94	-238.68
5	GUIDE	799156912	9.57	18142	0.149	0.265	0.098	0.158	180.669836	-19.643386	2197.69	1915.99
6	GUIDE	799149552	9.62	18137	-0.089	-0.091	0.112	0.181	179.918855	-18.889841	963.04	-1598.45
7	GUIDE	799152736	9.10	18143	-0.141	-0.196	0.091	0.144	180.259335	-18.516494	-765.10	-1188.27

## 2.4 Star Slots

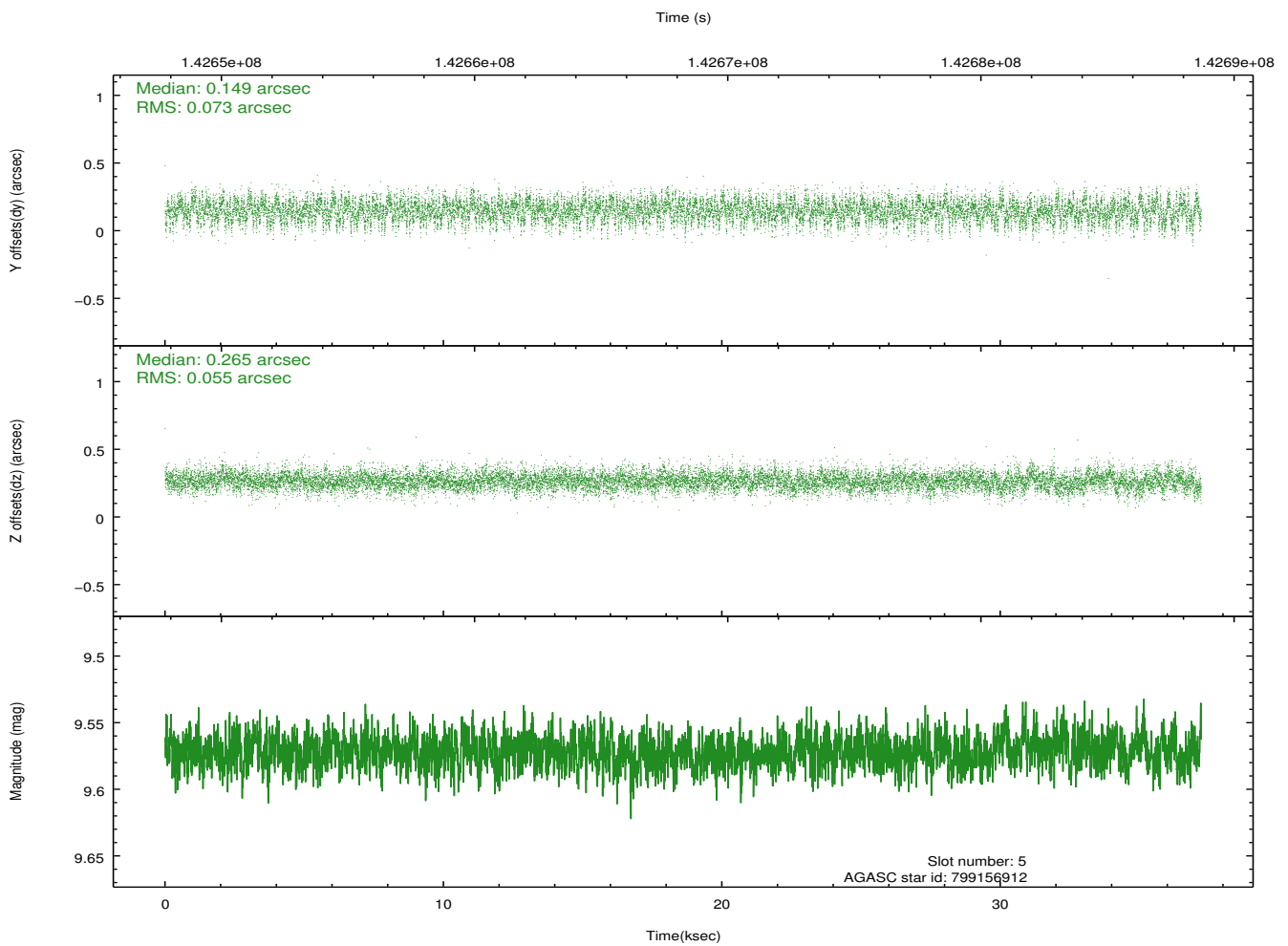
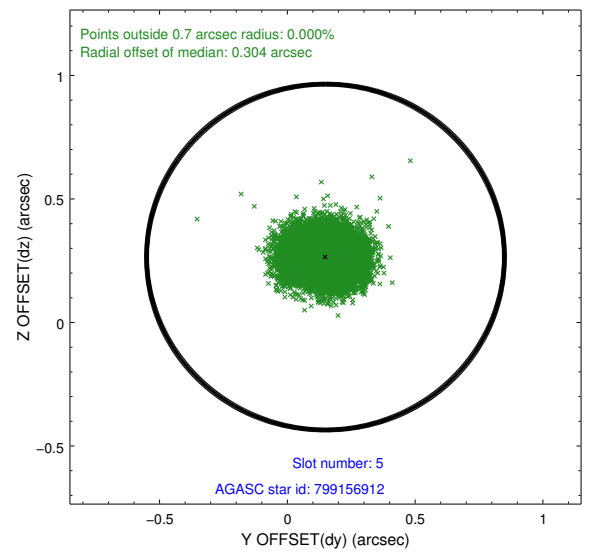
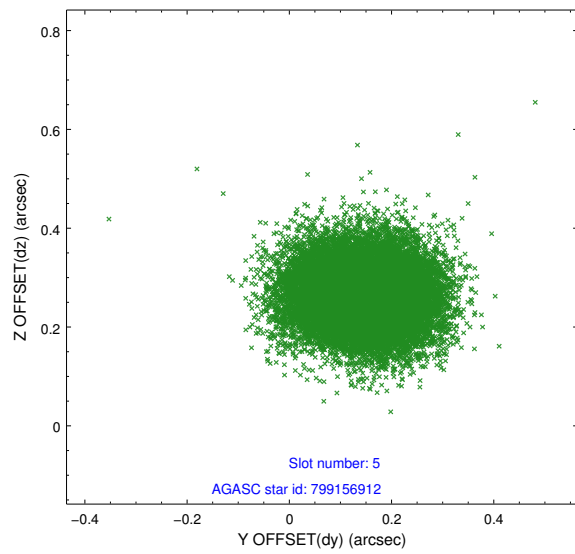
### 2.4.1 Slot 3



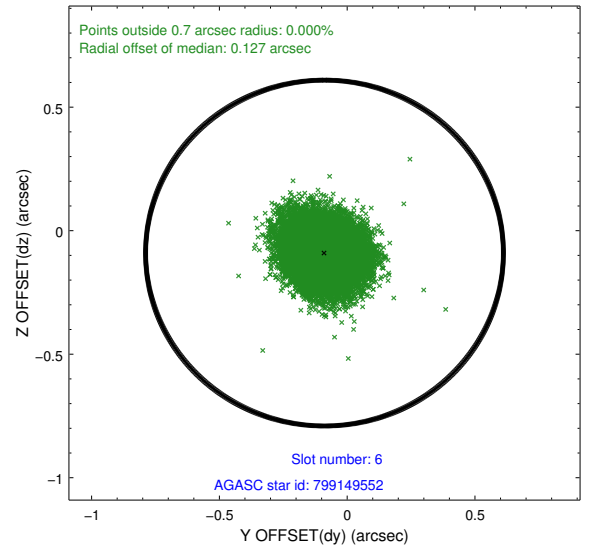
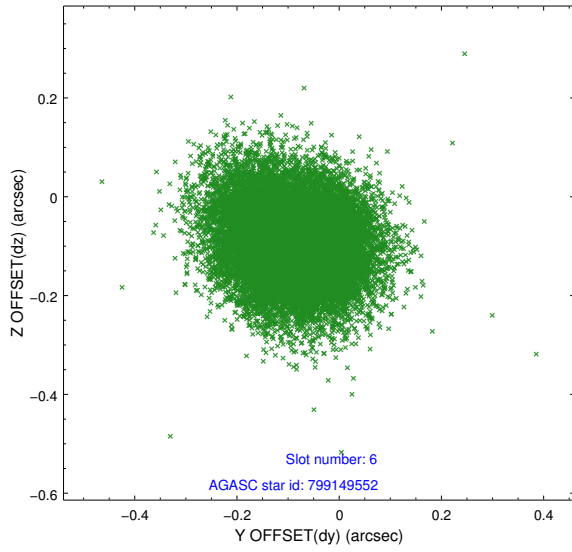
## 2.4.2 Slot 4



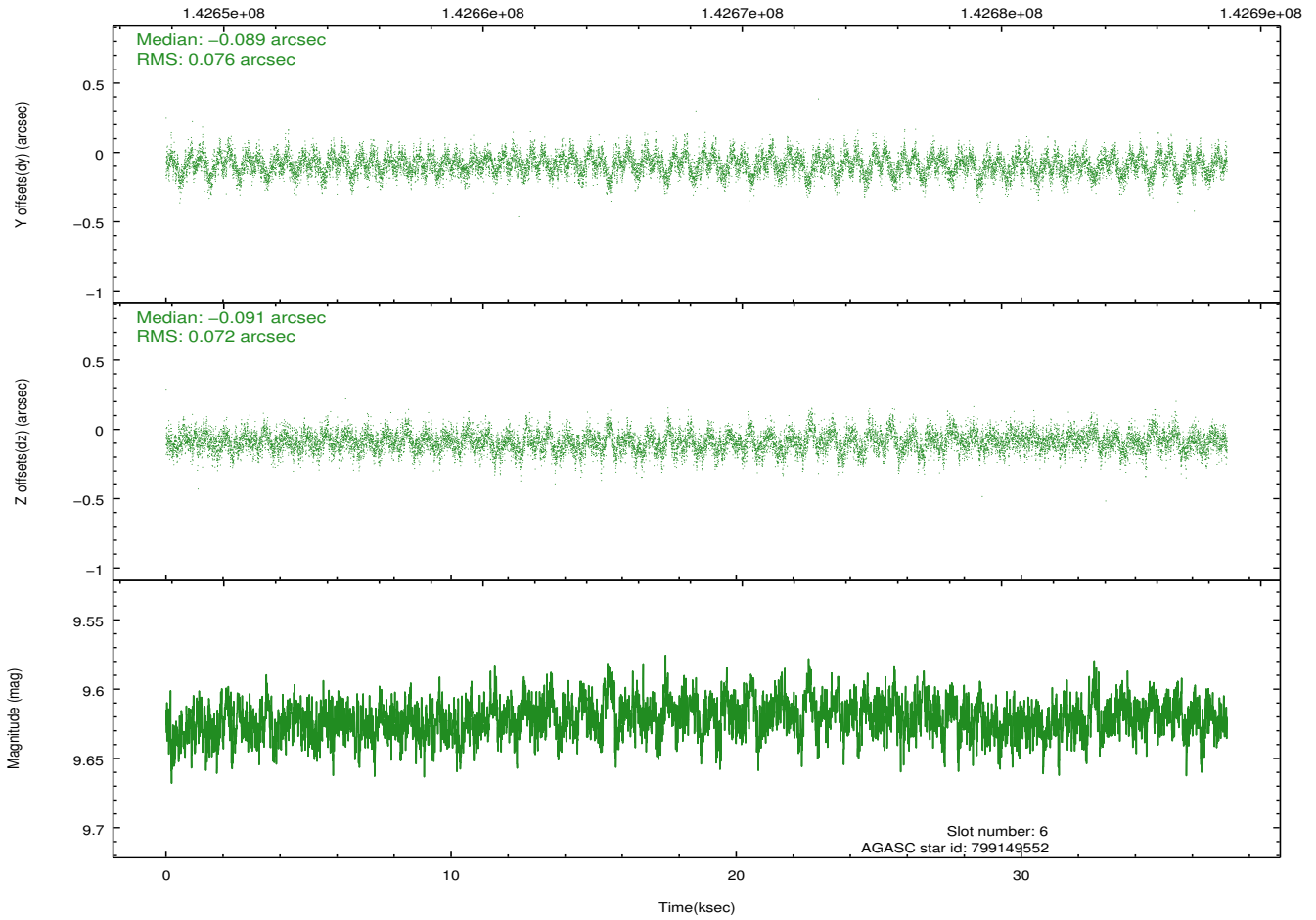
### 2.4.3 Slot 5



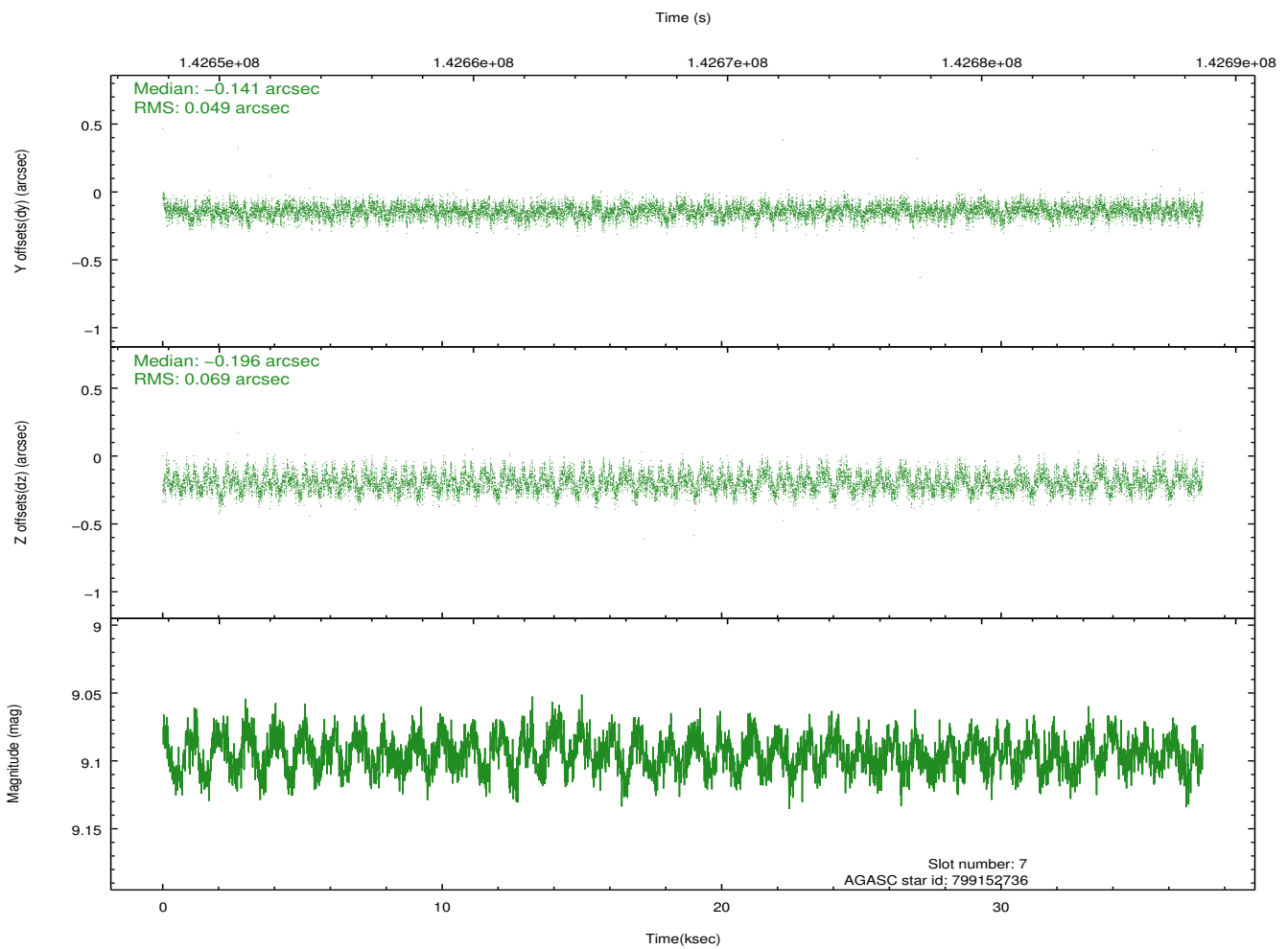
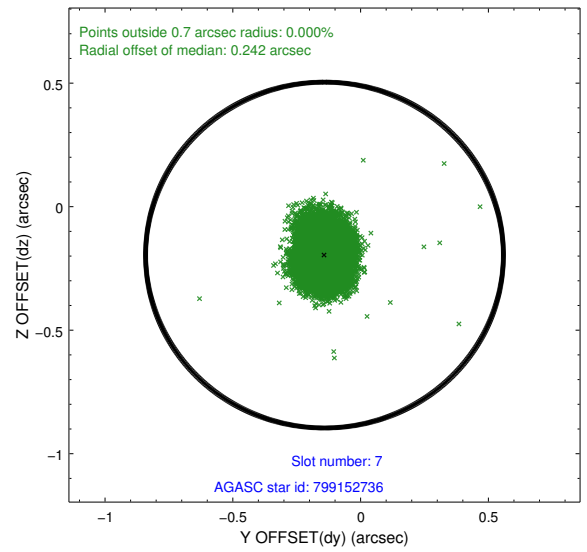
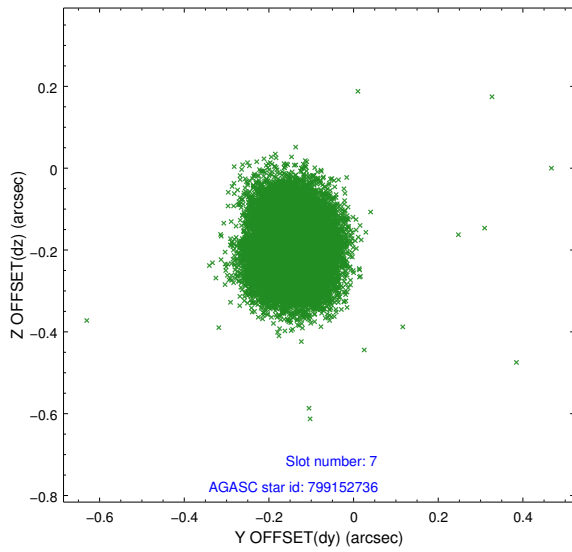
## 2.4.4 Slot 6



Time (s)

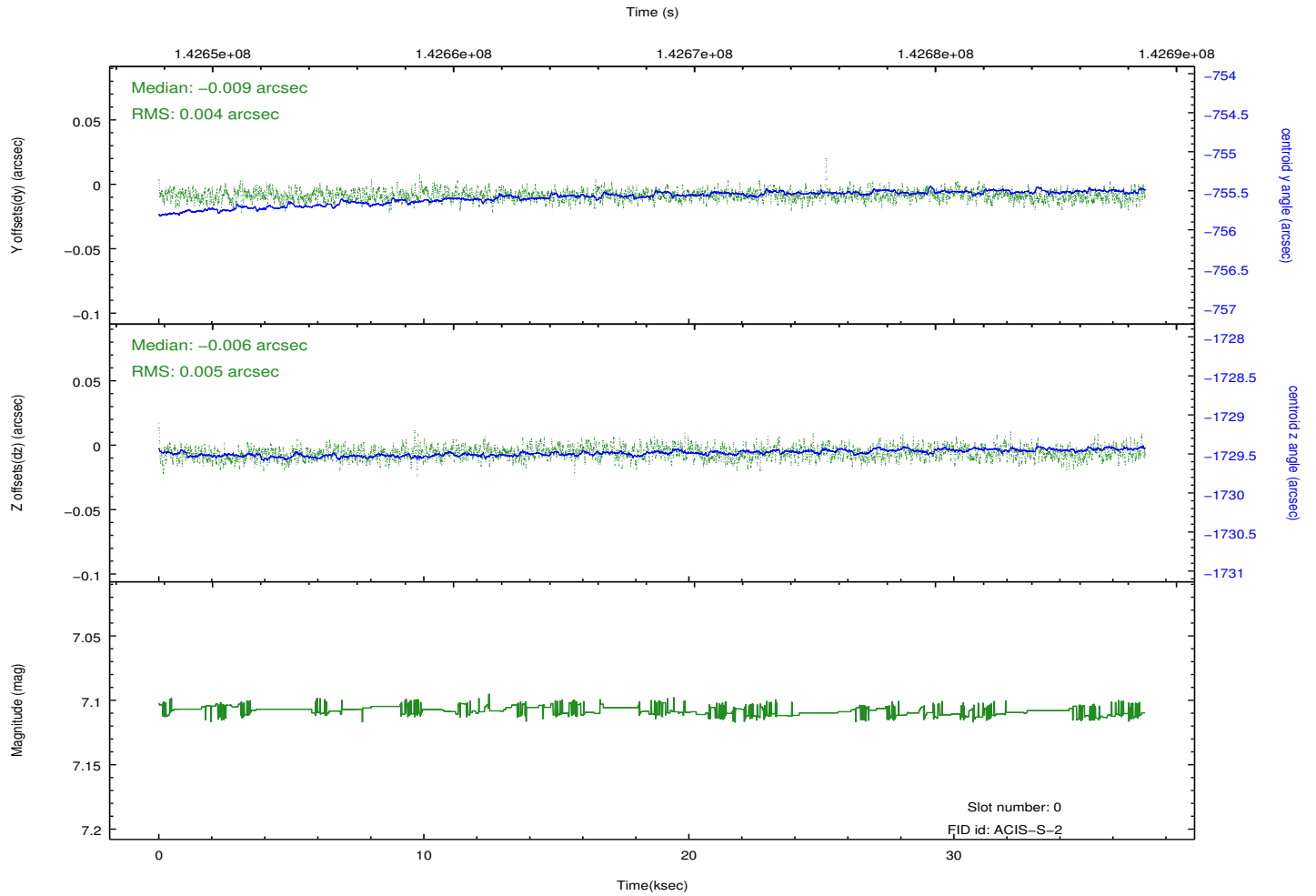
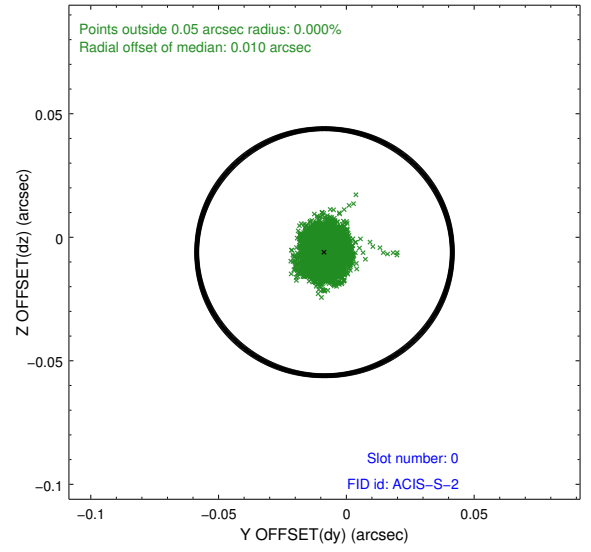
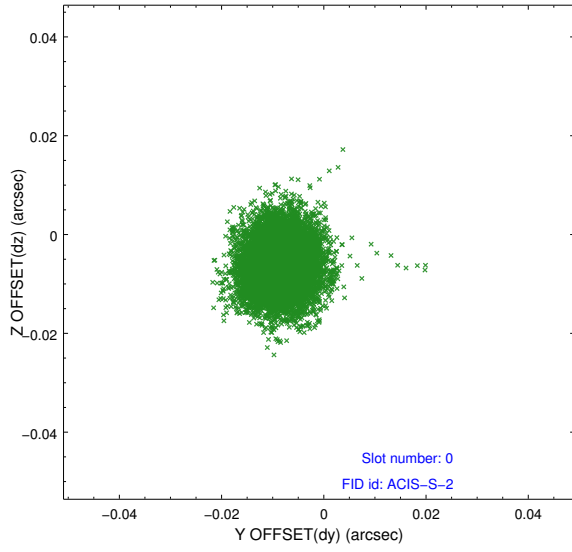


## 2.4.5 Slot 7

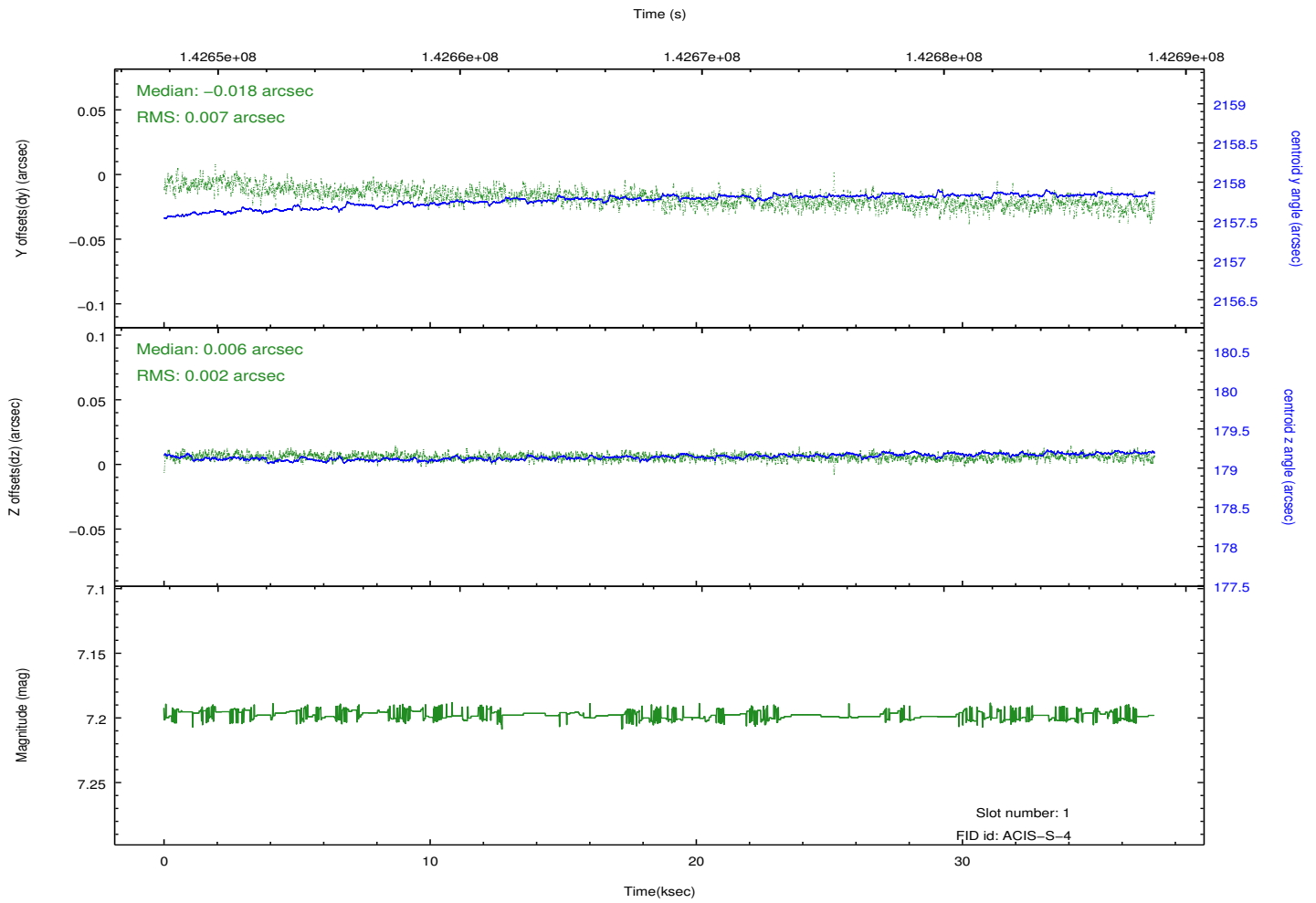
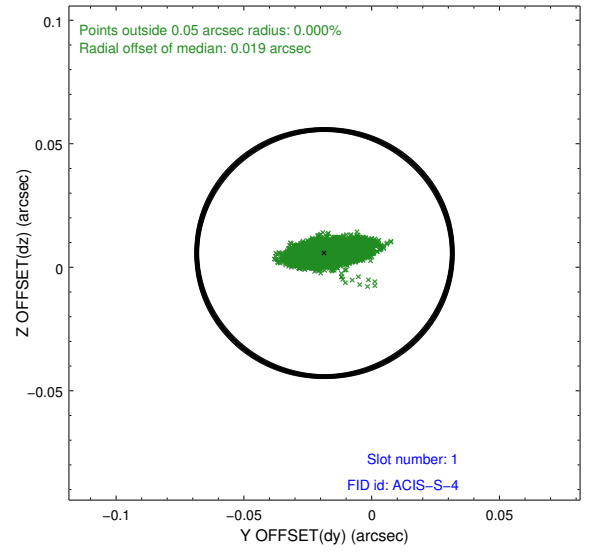
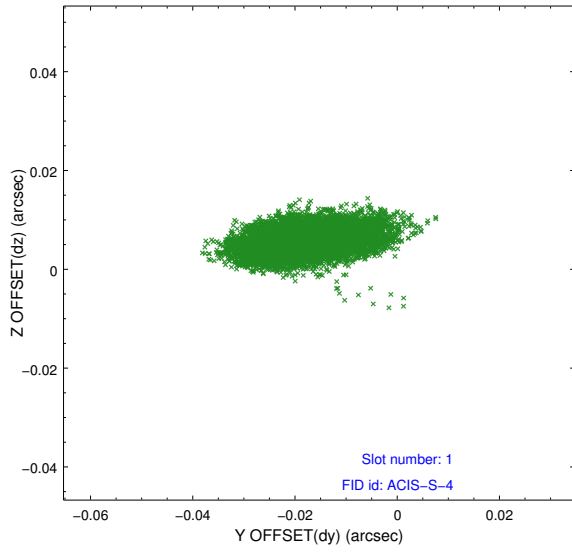


## 2.5 FID Slots

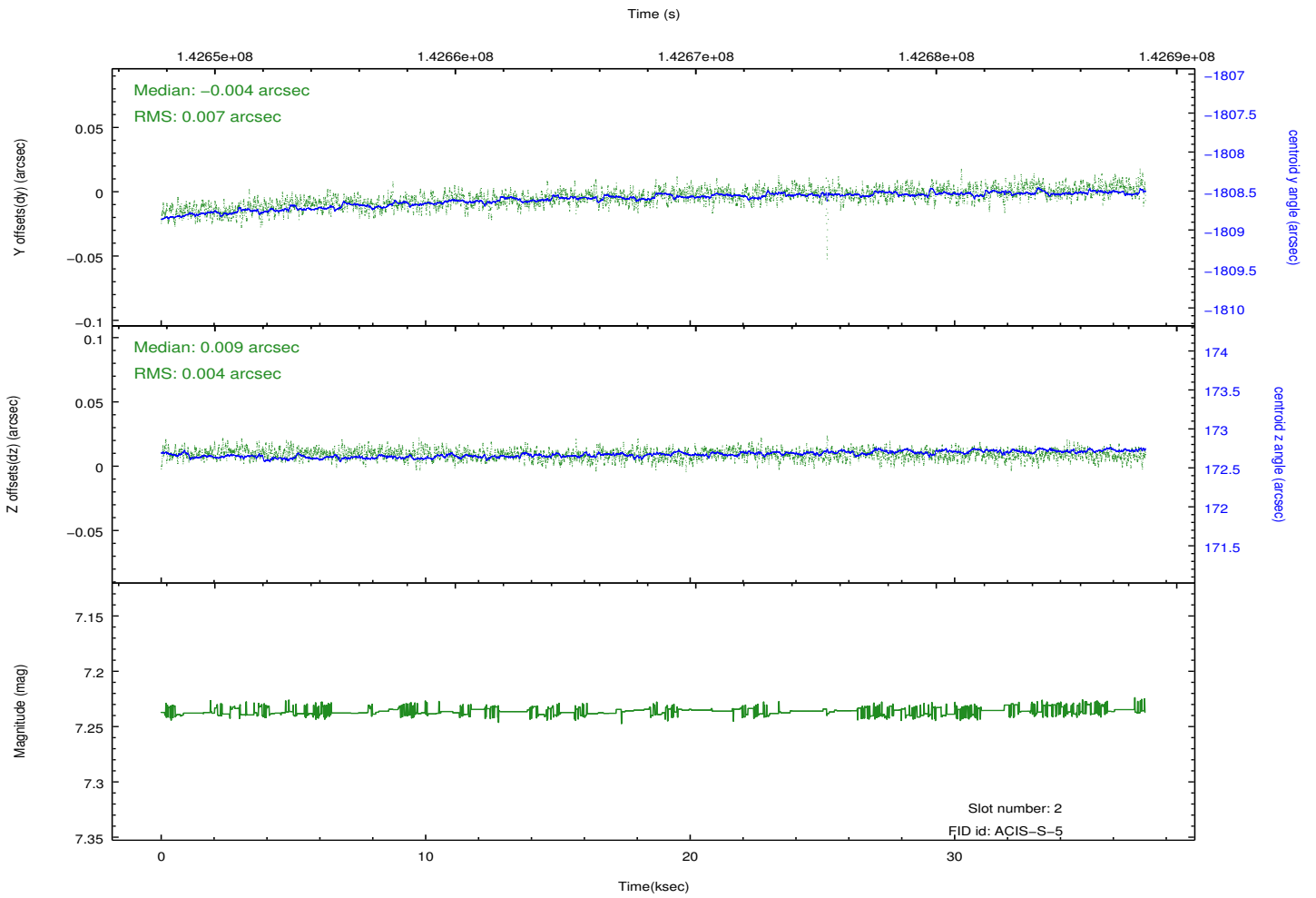
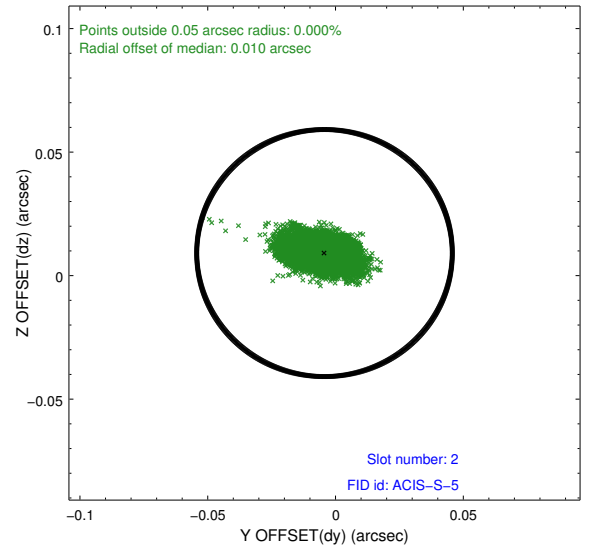
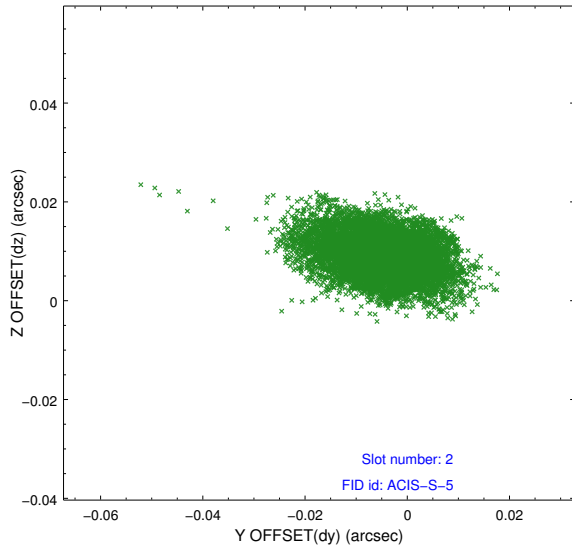
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.10.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.966

## A.2 Comments