

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 14363 - L2 Version 2  
Chandra X-Ray Center

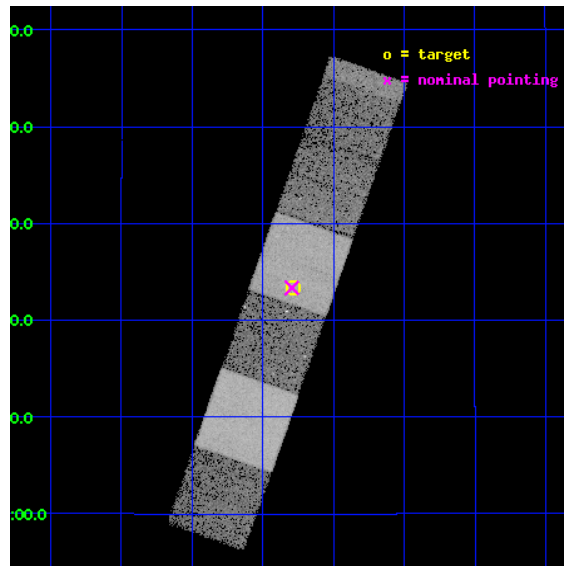
L2 Processing Date : Feb 27 2012

## 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

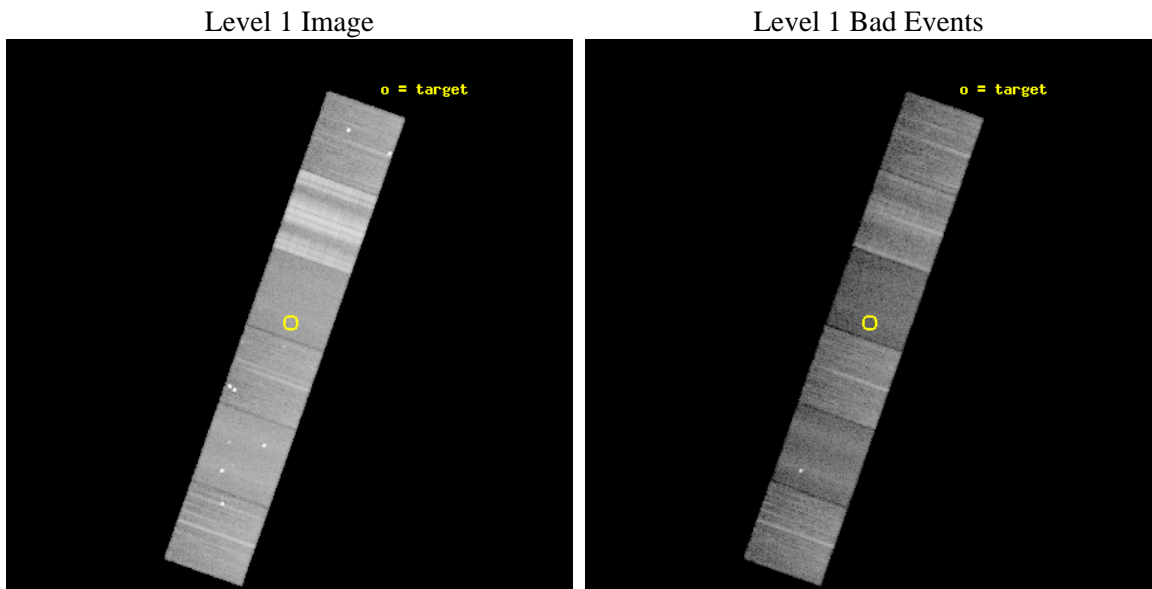
seq_num	401426	Sequence number
obs_id	14363	Observation id
title	First X-ray Observations of Four New Fermi-Associated Black-Widow Pulsars	Proposal title
observer	Prof. Maura McLaughlin	Principal investigator
object	J0023+09	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	5.820417	Observer's specified target RA [deg]
dec_targ	9.389944	Observer's specified target Dec [deg]
ra_nom	5.8234301466674	Nominal RA [deg]
dec_nom	9.3892226082309	Nominal Dec [deg]
roll_nom	289.44360944128	Nominal Roll [deg]
revision	2	Processing version of data
ontime	12955.834021568	Sum of GTIs [s]
livetime	12791.779450121	Livetime [s]
ontime4	12955.875061572	Sum of GTIs [s]
ontime5	12955.792981565	Sum of GTIs [s]
ontime6	12955.751941562	Sum of GTIs [s]
ontime7	12955.834021568	Sum of GTIs [s]
ontime8	12955.710901558	Sum of GTIs [s]
ontime9	12955.669861555	Sum of GTIs [s]
l2events	159626	Number of level 2 events



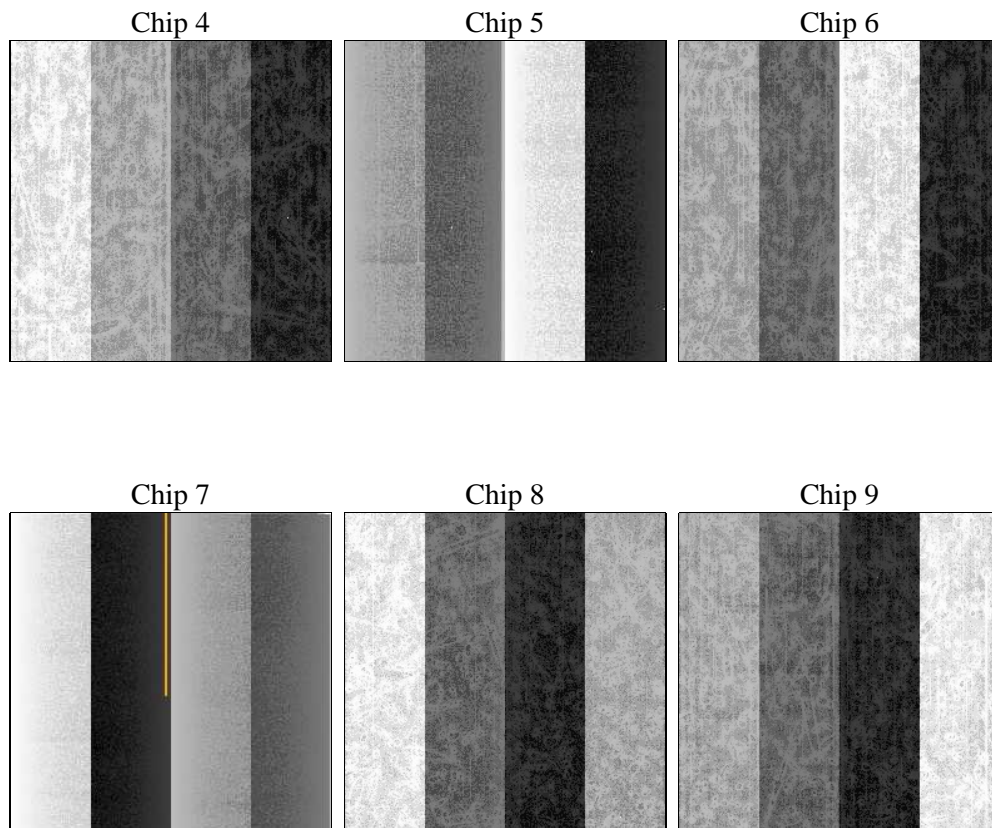
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	13000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	12955.834021568	Sum of GTIs [s]
caldbver	4.4.8	&#160	ontime4	12955.875061572	Sum of GTIs [s]
date	2012-02-27T12:51:39	Date and time of file creation	ontime5	12955.792981565	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	12955.751941562	Sum of GTIs [s]
			ontime7	12955.834021568	Sum of GTIs [s]
			ontime8	12955.710901558	Sum of GTIs [s]
			ontime9	12955.669861555	Sum of GTIs [s]
			l1events	1048970	Number of level 1 events

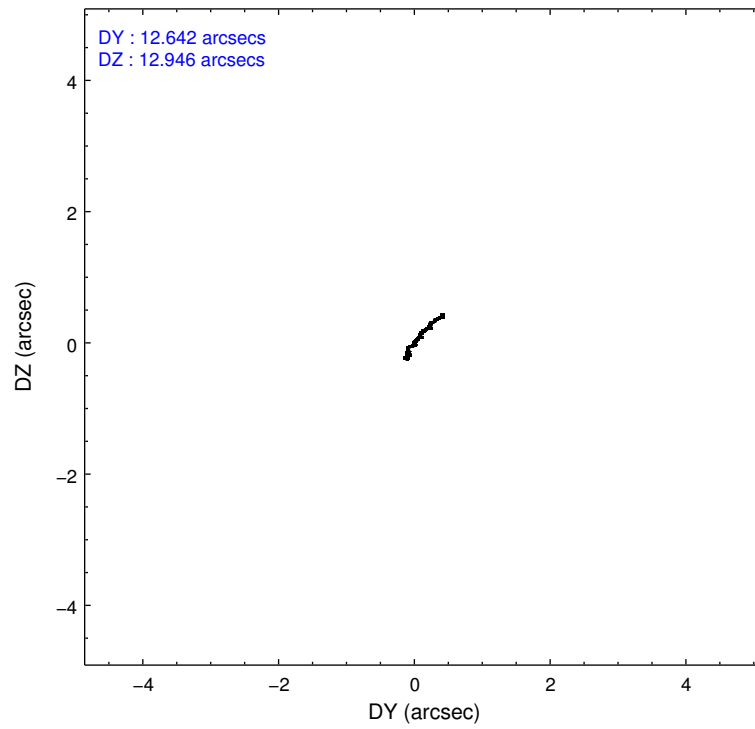
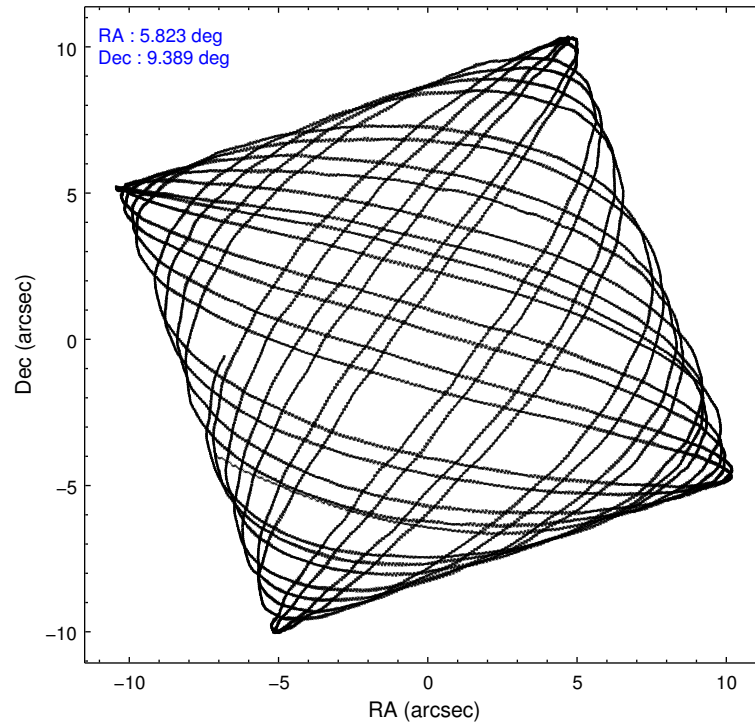
### 2.1.4 Events

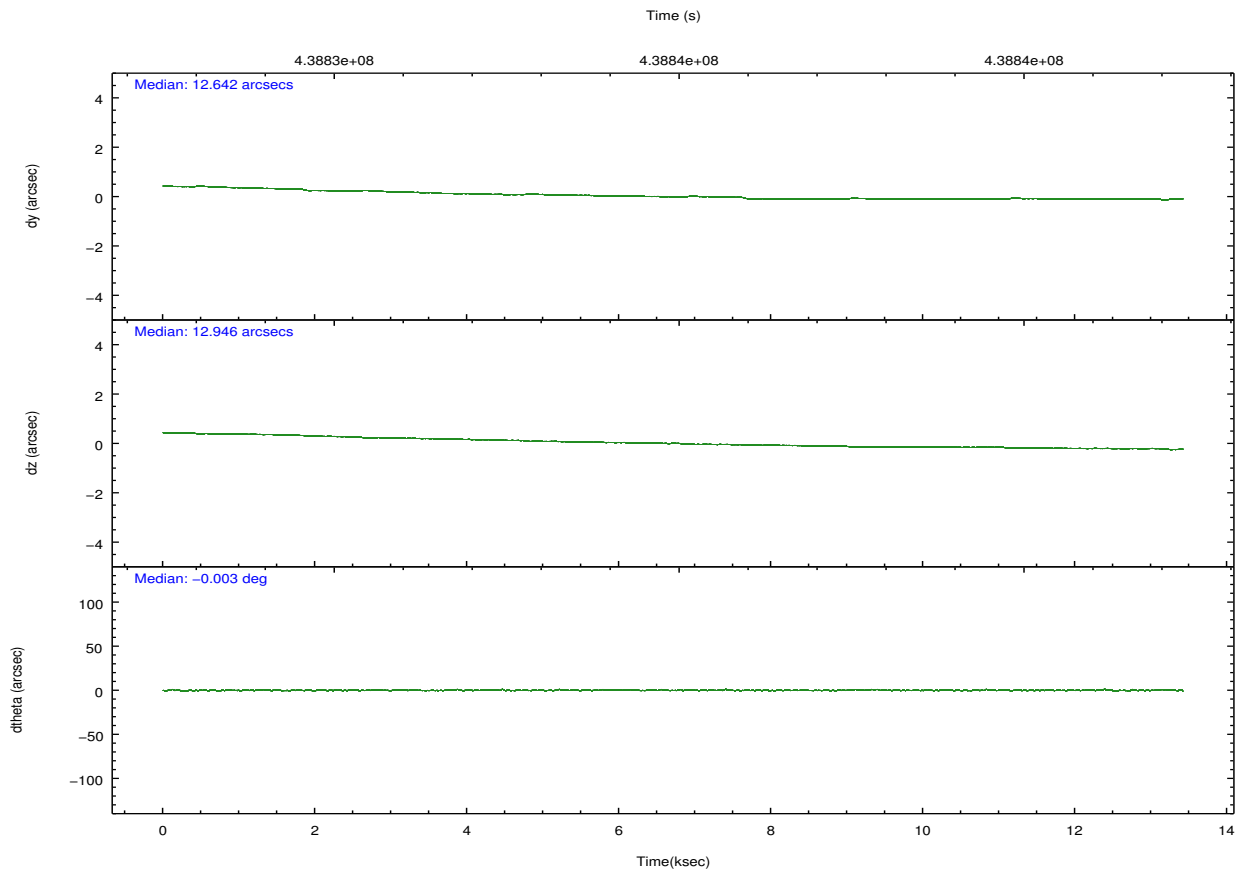
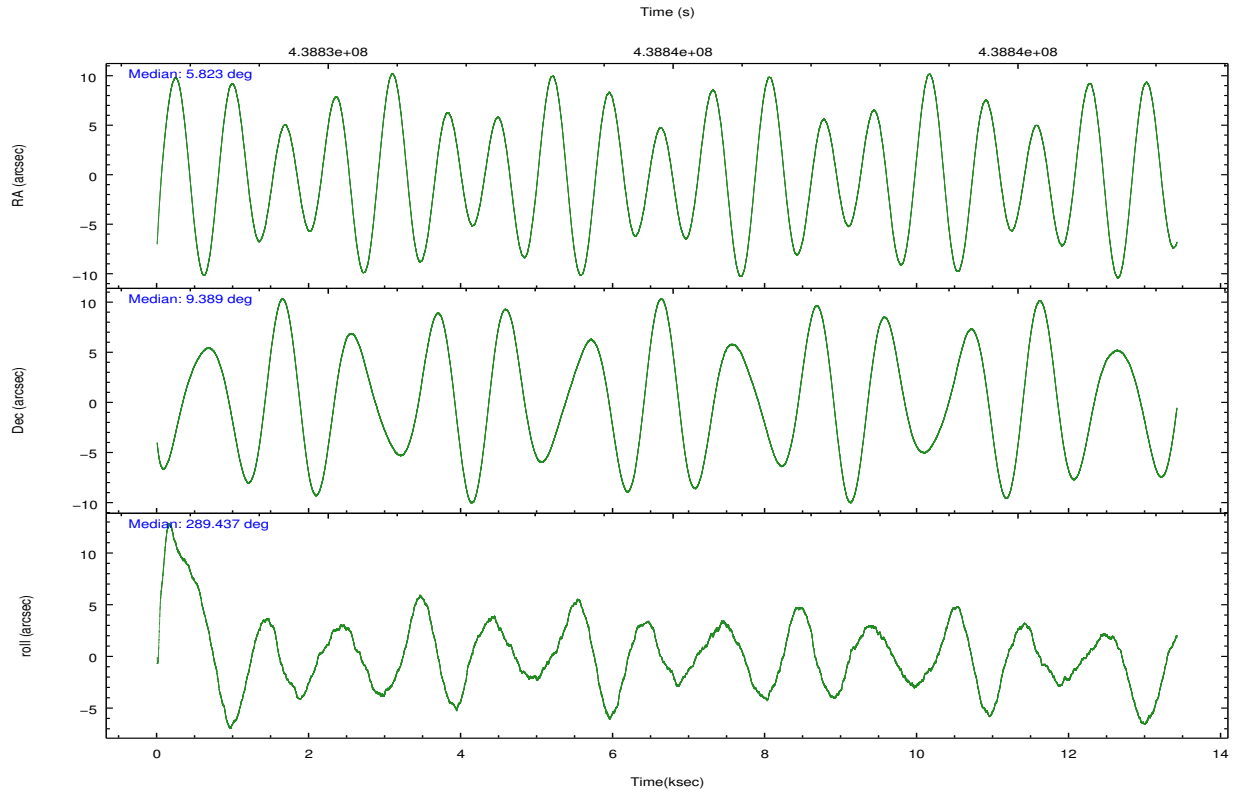
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	137644	157051	140614	116801	370931	125929	grade 0 events	13047	9826	14364	5292	75750	12800
rejected events	113004	81237	117790	63369	131688	104541		9%	6%	10%	4%	20%	10%
rejected %	82%	51%	83%	54%	35%	83%	grade 1 events	202	403	110	257	720	131
								0%	0%	0%	0%	0%	0%
							grade 2 events	6595	24311	4209	12817	30789	3806
								4%	15%	2%	10%	8%	3%
							grade 3 events	1335	3794	1050	4756	45451	1128
								0%	2%	0%	4%	12%	0%
							grade 4 events	1477	3582	1016	4945	40380	983
								1%	2%	0%	4%	10%	0%
							grade 5 events	4007	10654	3956	11502	8251	4335
								2%	6%	2%	9%	2%	3%
							grade 6 events	2208	34334	2195	25658	46971	2690
								1%	21%	1%	21%	12%	2%
							grade 7 events	108773	70147	113714	51574	122619	100056
								79%	44%	80%	44%	33%	79%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	5.802104	5.823430146667425	CCD I2 on	N	N
[deg] Pointing Dec	9.406758	9.389222608230945	CCD I3 on	N	N
[deg] Pointing Roll	289.290470	289.4436094412766	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	438828617.184000	438827537.10341	CCD S5 on	Y	Y
Observation start date	2011-11-28T00:49:11	2011-11-28T00:32:17	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	438841617.184000	438842681.47921	On-chip summing requested	N	N
Observation end date	2011-11-28T04:25:51	2011-11-28T04:44:41	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



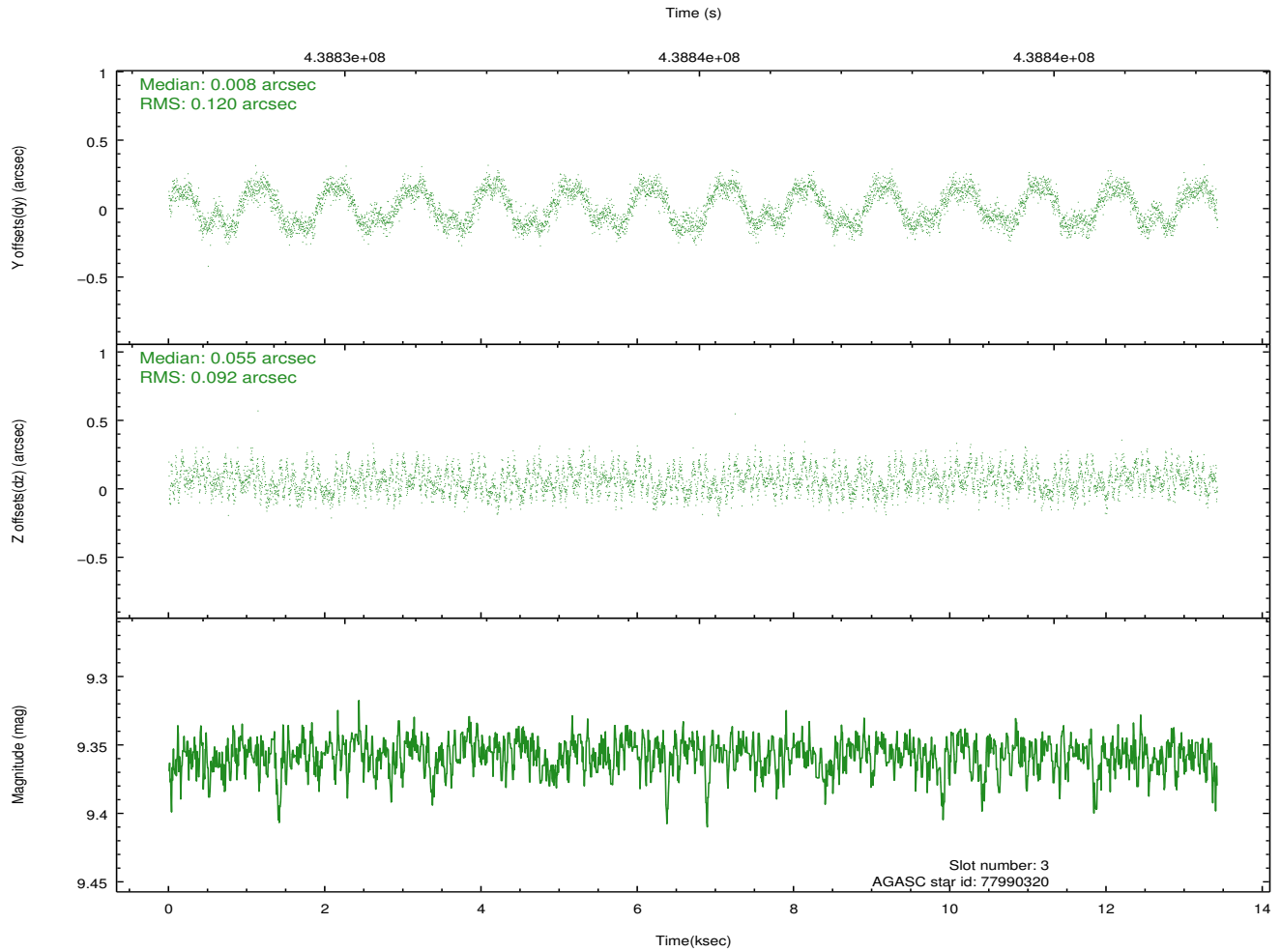
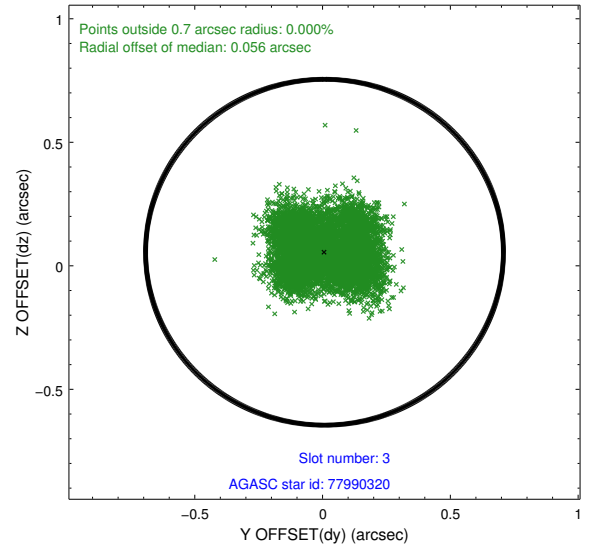
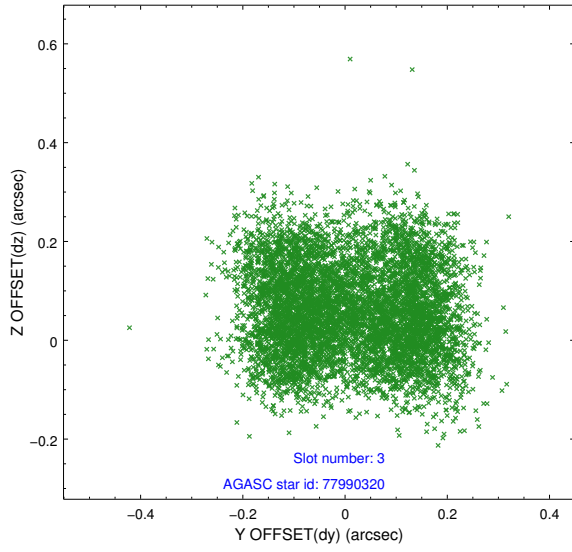


### Slot Statistics

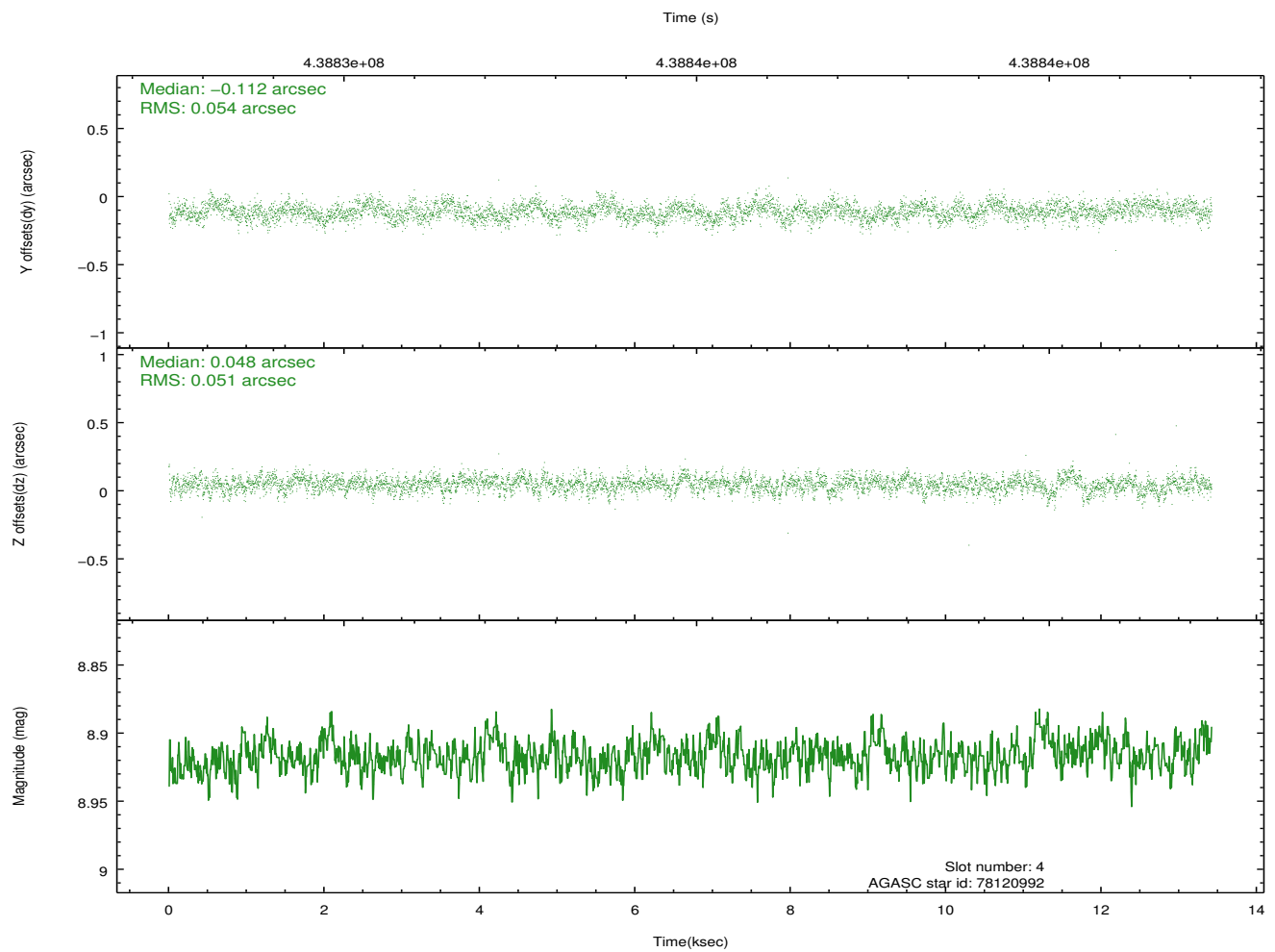
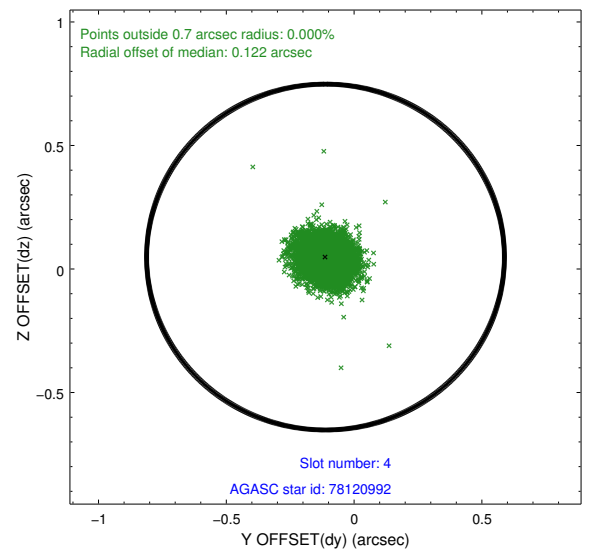
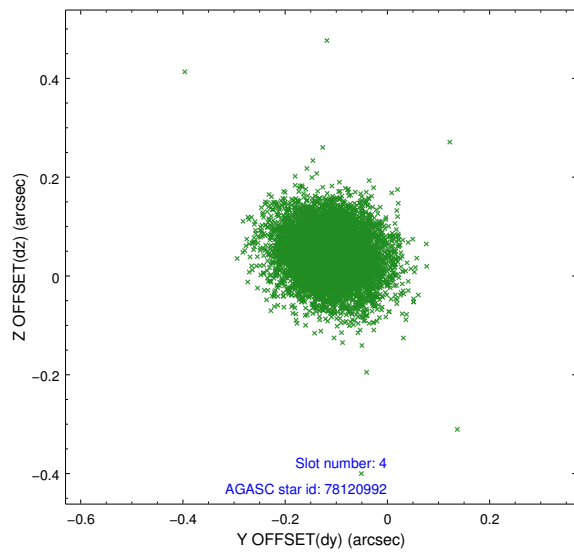
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.94	3273	-0.029	-0.037	0.009	0.016	0.000000	0.000000	-765.65	-1734.33
1	FID	ACIS-S-4	7.03	3273	0.174	0.024	0.012	0.024	0.000000	0.000000	2147.70	173.81
2	FID	ACIS-S-5	7.07	3273	-0.177	0.022	0.010	0.018	0.000000	0.000000	-1818.16	167.94
3	GUIDE	77990320	9.36	6544	0.008	0.055	0.167	0.237	5.063398	9.526426	-1273.79	-2330.25
4	GUIDE	78120992	8.92	6546	-0.112	0.048	0.079	0.129	5.942530	9.618887	-554.13	722.85
5	GUIDE	78122976	9.22	6540	0.054	-0.024	0.113	0.178	5.365325	9.007528	843.75	-1939.59
6	GUIDE	78125632	8.72	6542	-0.049	-0.025	0.116	0.173	6.329588	9.068017	1769.32	1367.56
7	GUIDE	78128936	8.64	6541	0.087	-0.052	0.087	0.135	5.980713	9.027947	1497.31	149.35

## 2.4 Star Slots

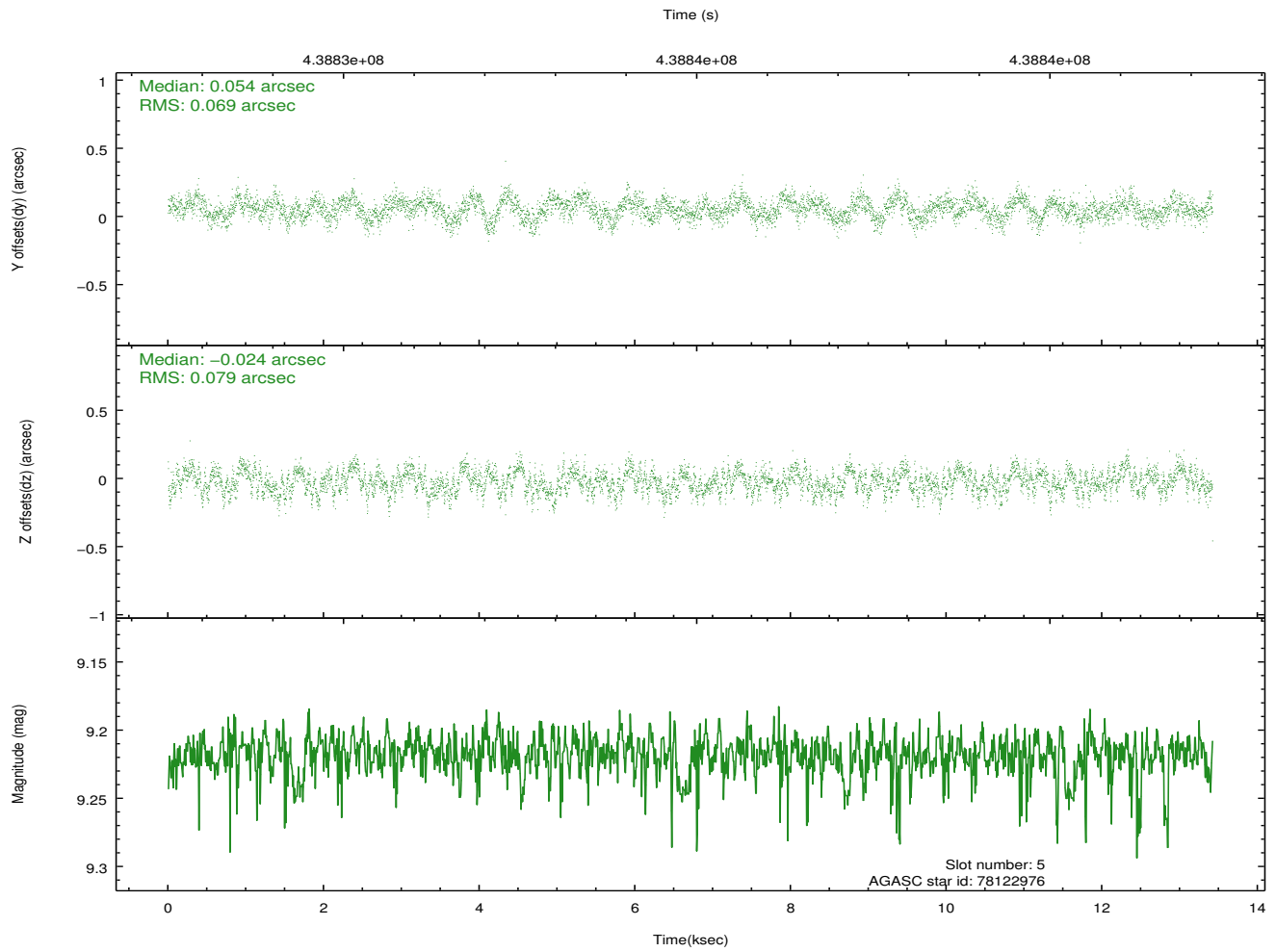
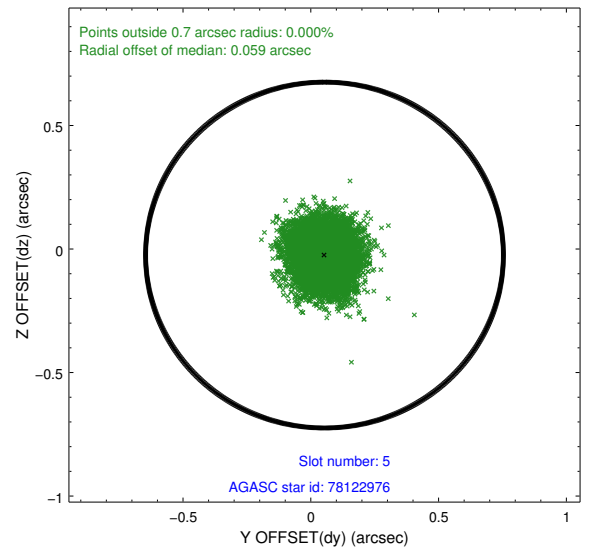
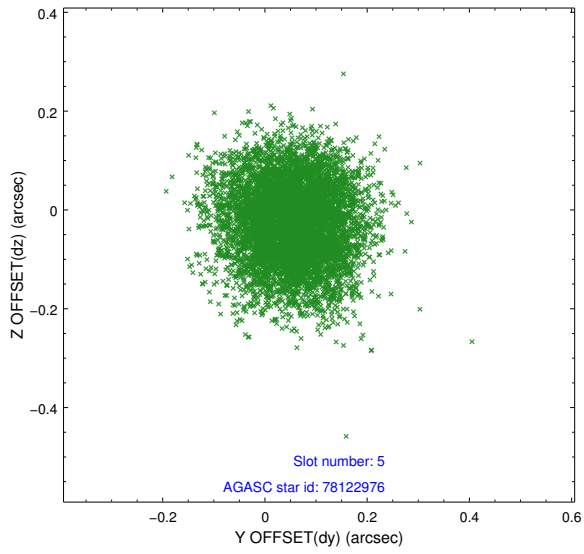
### 2.4.1 Slot 3



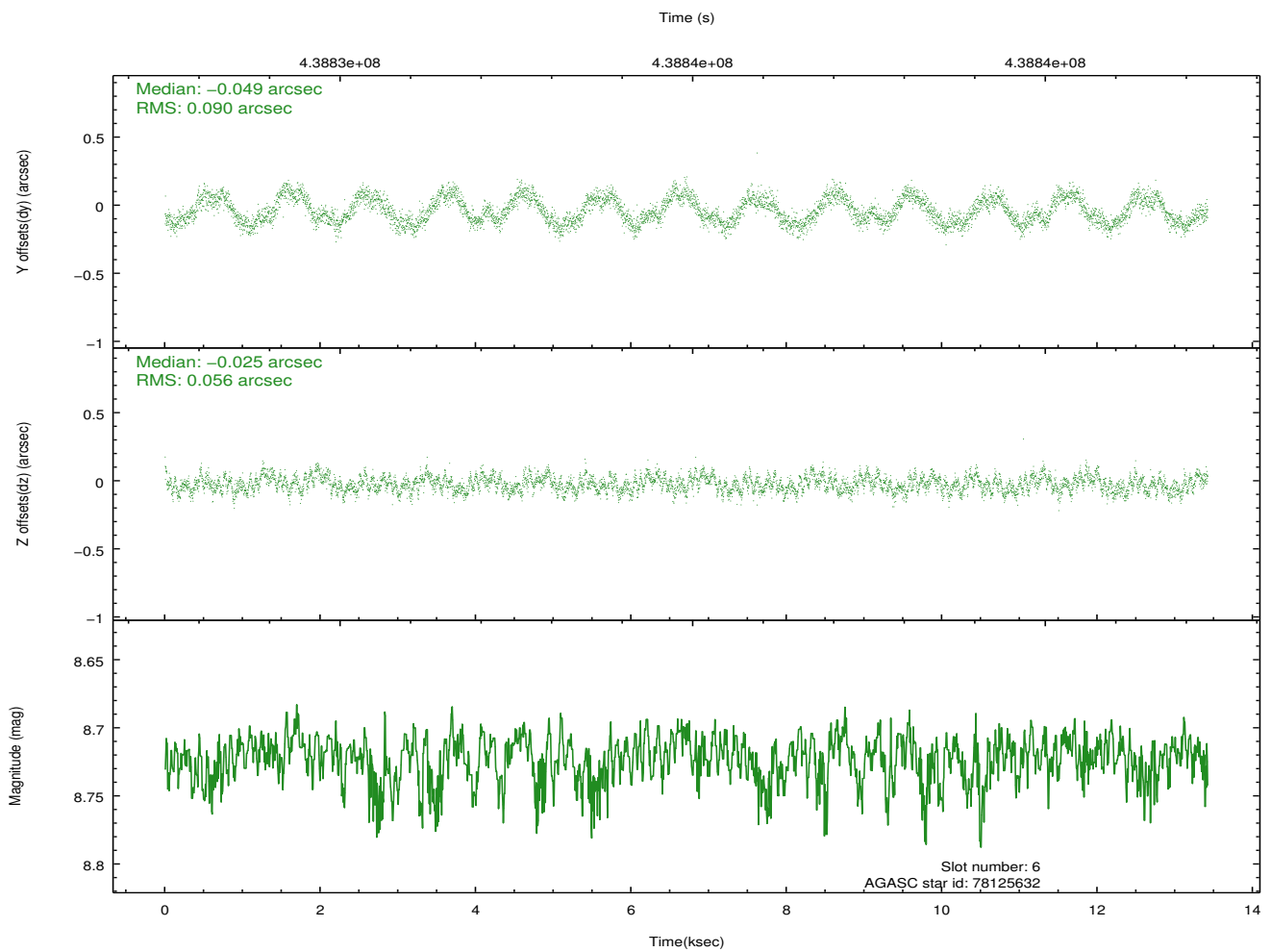
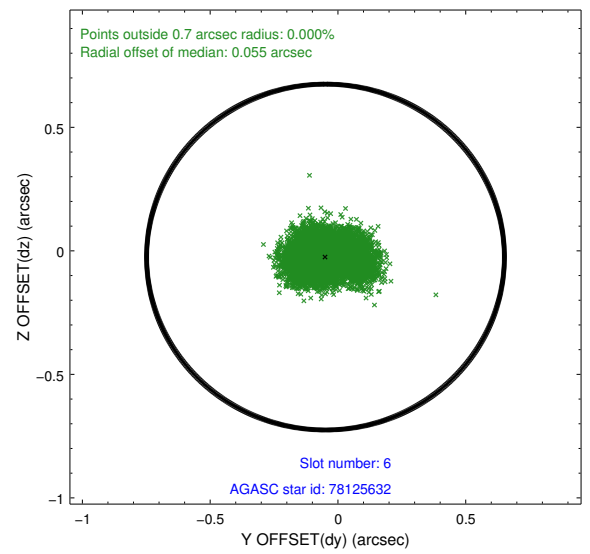
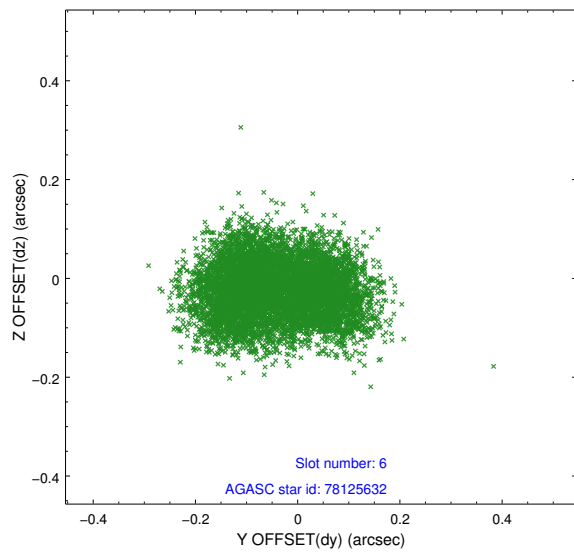
## 2.4.2 Slot 4



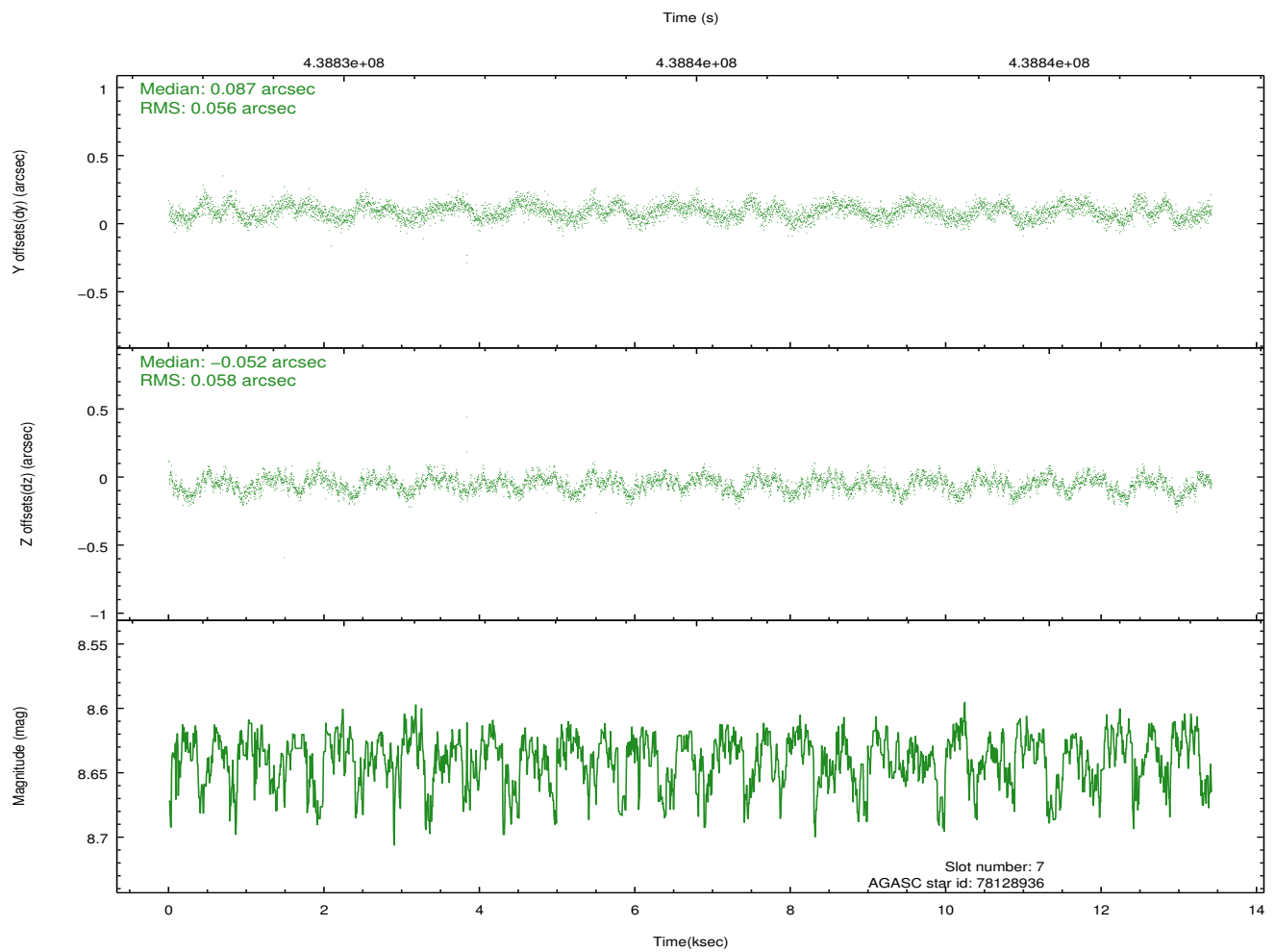
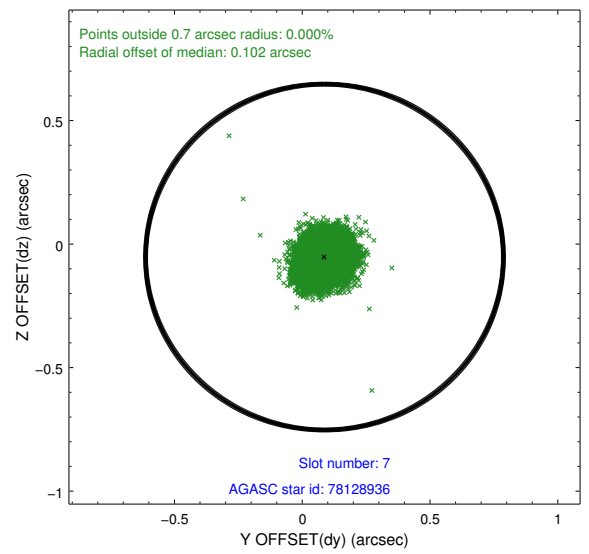
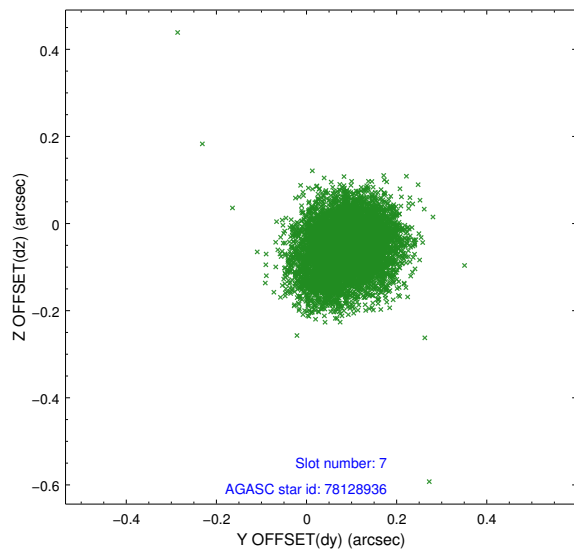
### 2.4.3 Slot 5



## 2.4.4 Slot 6

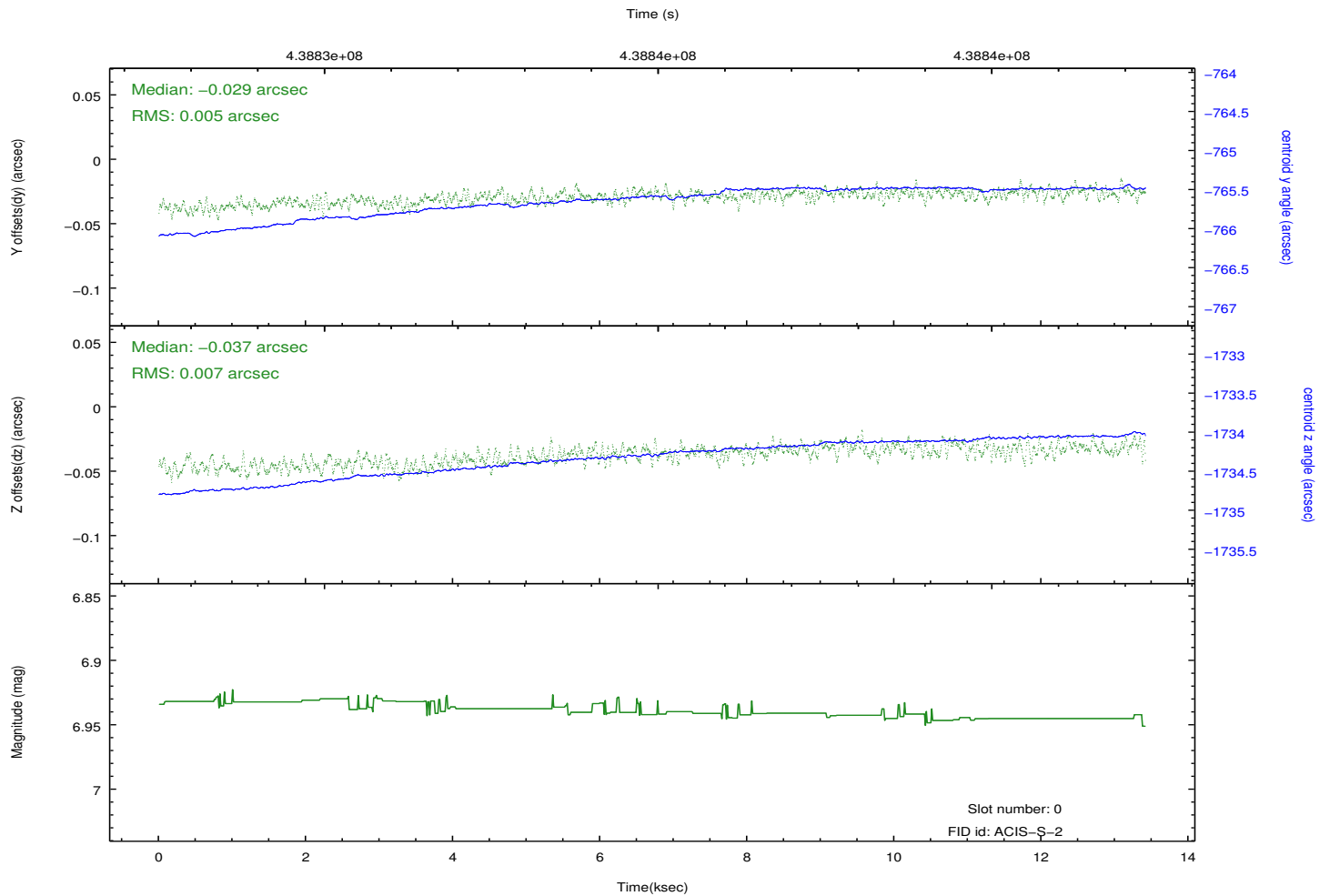
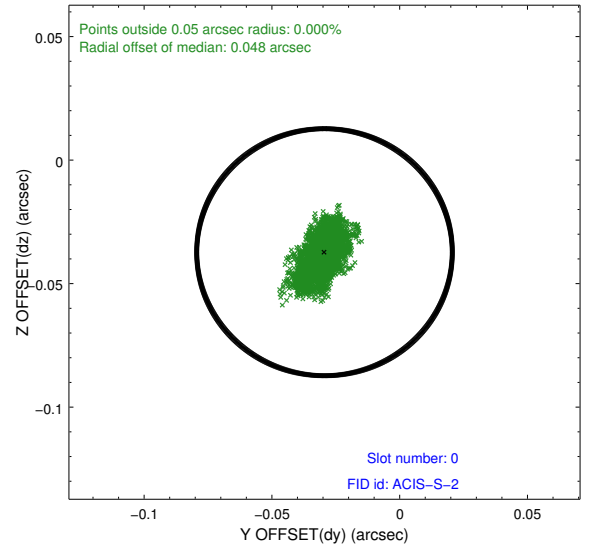
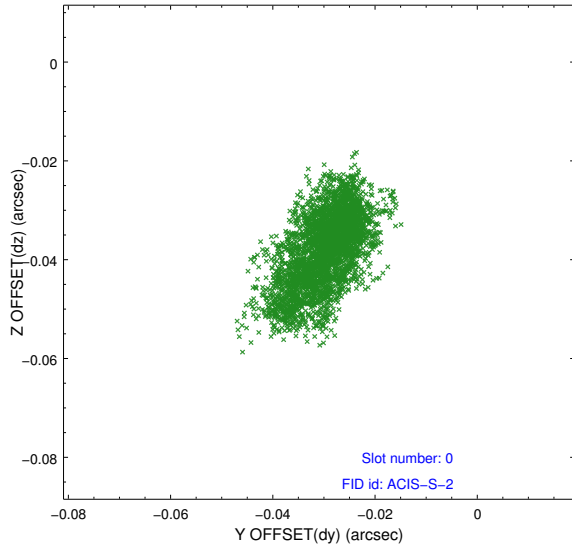


## 2.4.5 Slot 7

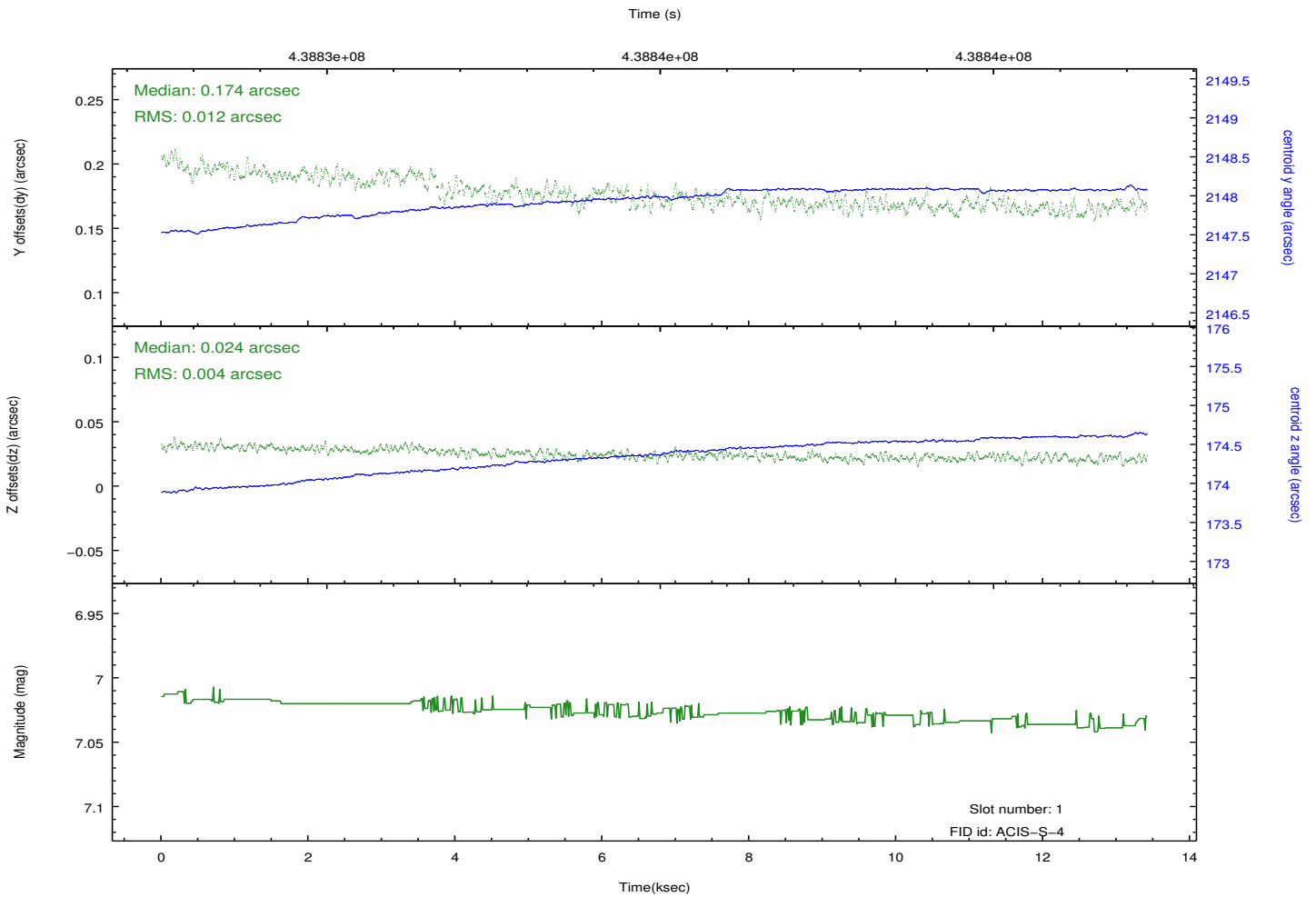
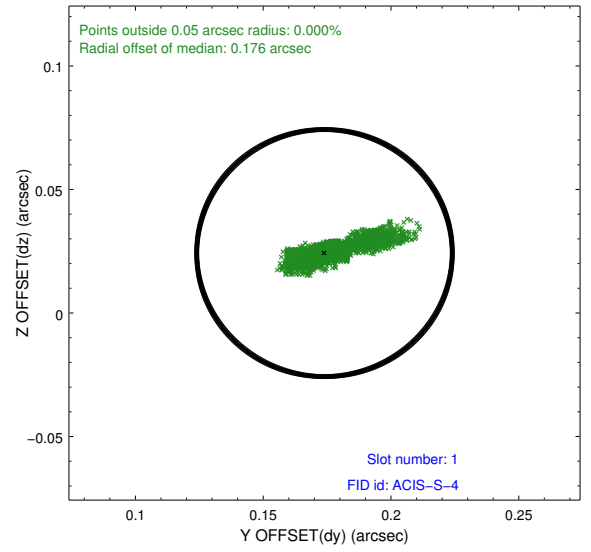
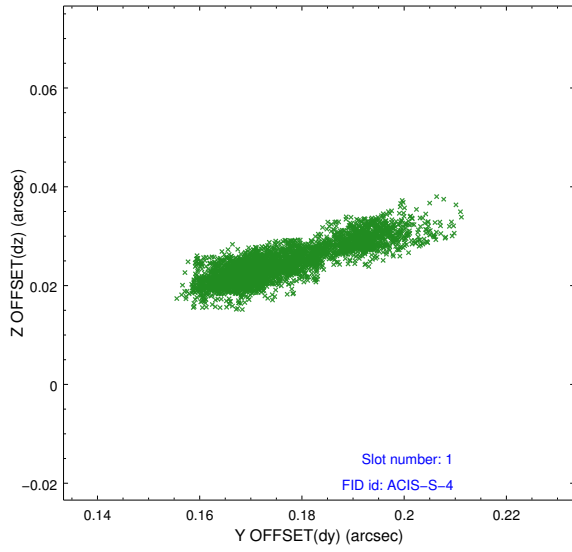


## 2.5 FID Slots

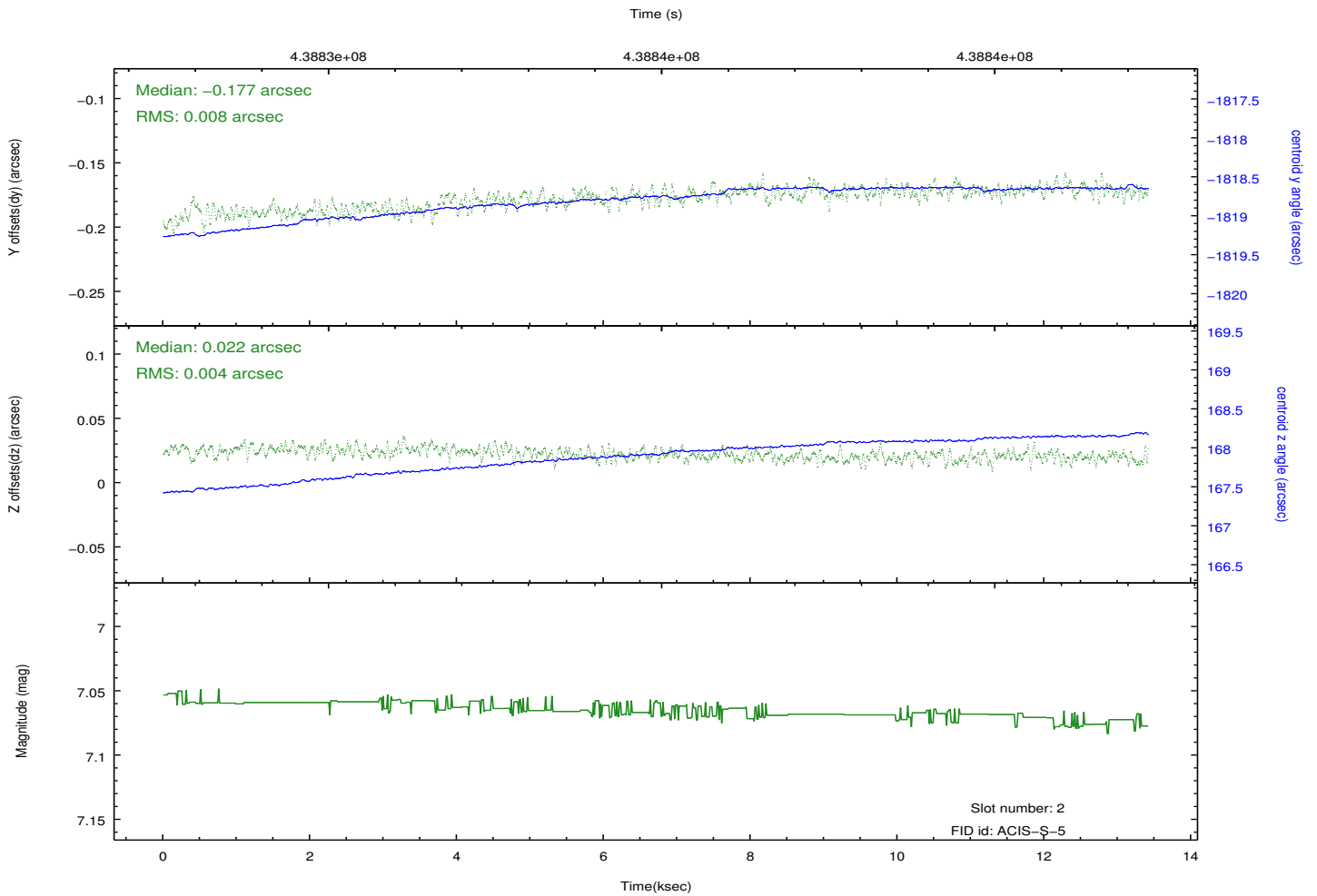
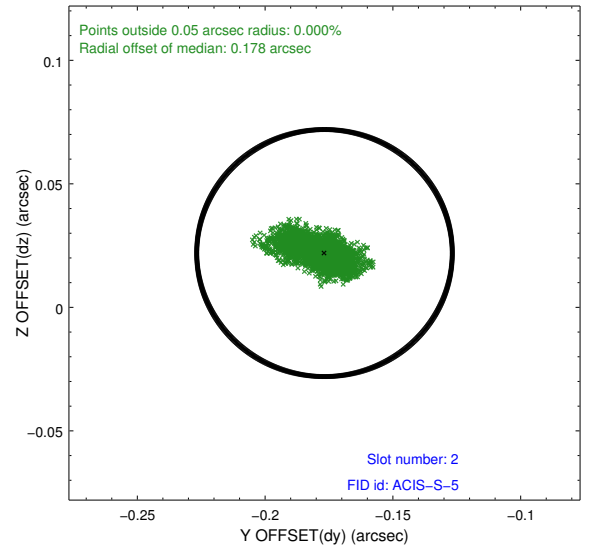
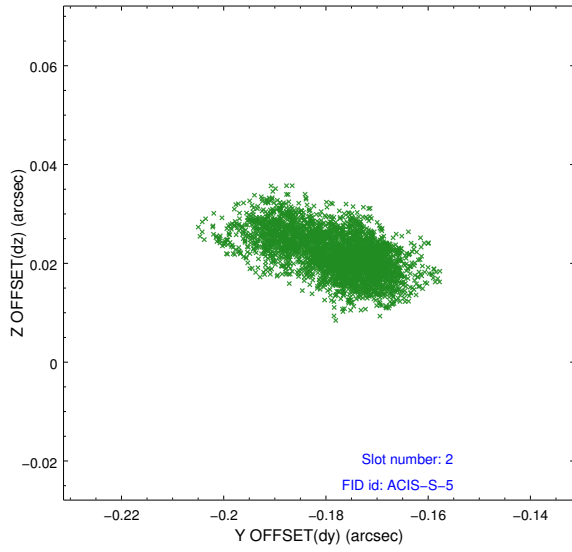
### 2.5.1 Slot 0



## 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)	2012.02.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.95583401525

## A.2 Comments