

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10138 - L2 Version 2  
Chandra X-Ray Center

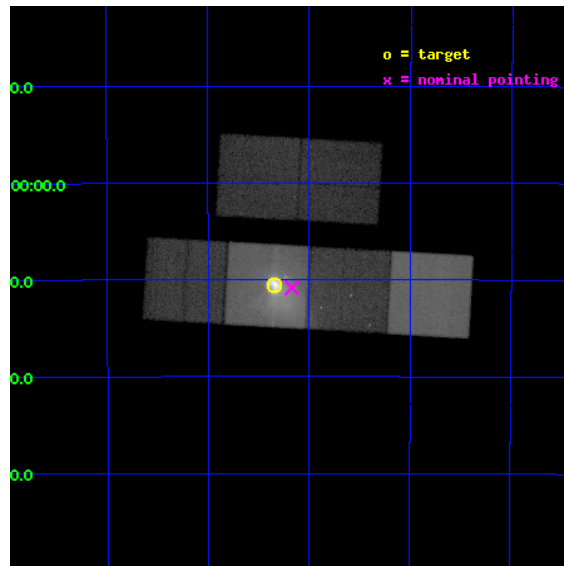
L2 Processing Date : Jun 30 2012

## 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

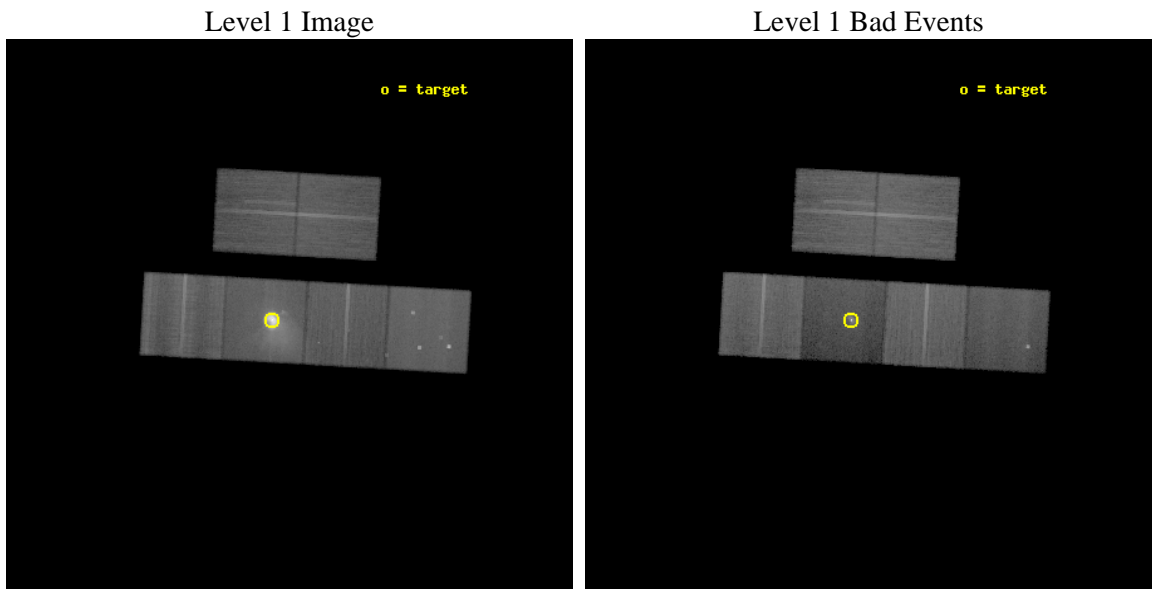
seq_num	501065	Sequence number
obs_id	10138	Observation id
title	The Unique Dynamical Vela Pulsar Wind Nebula	Proposal title
observer	Dr. George Pavlov	Principal investigator
object	Vela PWN	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	128.83625	Observer's specified target RA [deg]
dec_targ	-45.176583	Observer's specified target Dec [deg]
ra_nom	128.79281767687	Nominal RA [deg]
dec_nom	-45.180807285324	Nominal Dec [deg]
roll_nom	183.23881887319	Nominal Roll [deg]
revision	2	Processing version of data
ontime	39308.799853623	Sum of GTIs [s]
livetime	38811.048160959	Livetime [s]
ontime2	39308.799853623	Sum of GTIs [s]
ontime3	39308.799853623	Sum of GTIs [s]
ontime5	39308.799853623	Sum of GTIs [s]
ontime6	39308.799853623	Sum of GTIs [s]
ontime7	39308.799853623	Sum of GTIs [s]
ontime8	39308.799853623	Sum of GTIs [s]
l2events	991318	Number of level 2 events



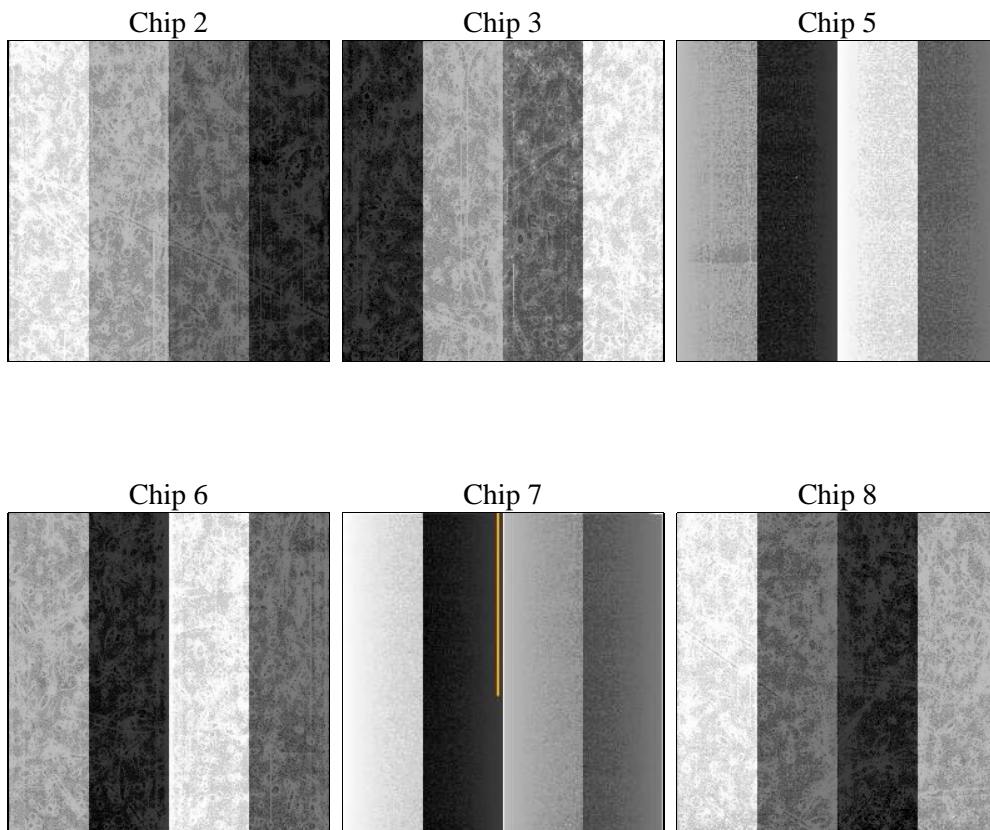
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	39261.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	39308.799853623	Sum of GTIs [s]
caldbver	4.5.0	&#160	ontime2	39308.799853623	Sum of GTIs [s]
date	2012-06-30T15:44:38	Date and time of file creation	ontime3	39308.799853623	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	39308.799853623	Sum of GTIs [s]
			ontime6	39308.799853623	Sum of GTIs [s]
			ontime7	39308.799853623	Sum of GTIs [s]
			ontime8	39308.799853623	Sum of GTIs [s]
			l1events	2299334	Number of level 1 events

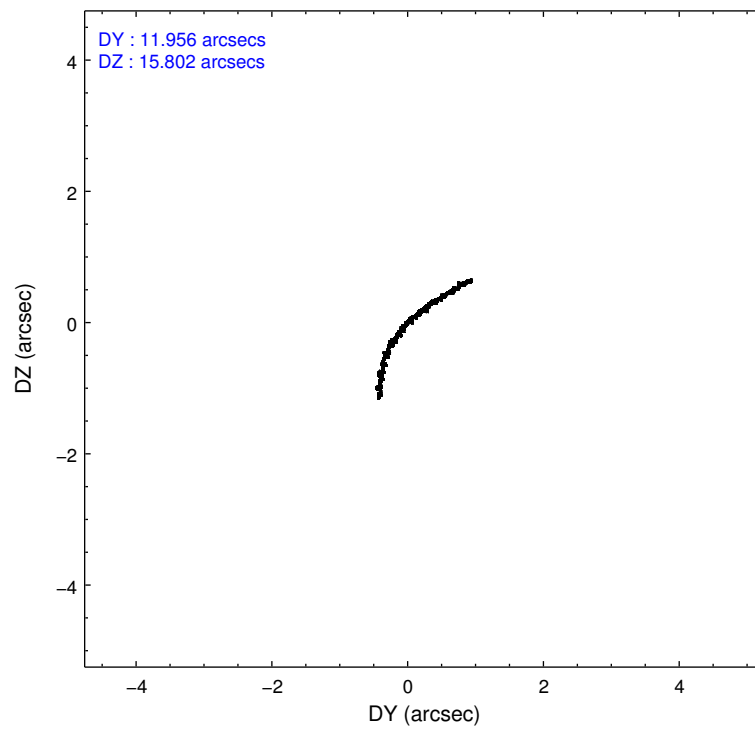
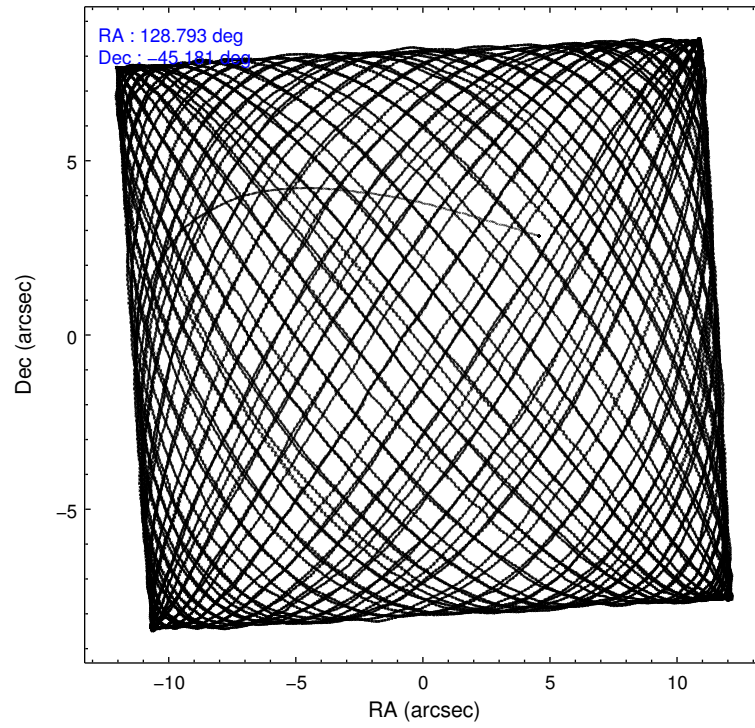
### 2.1.4 Events

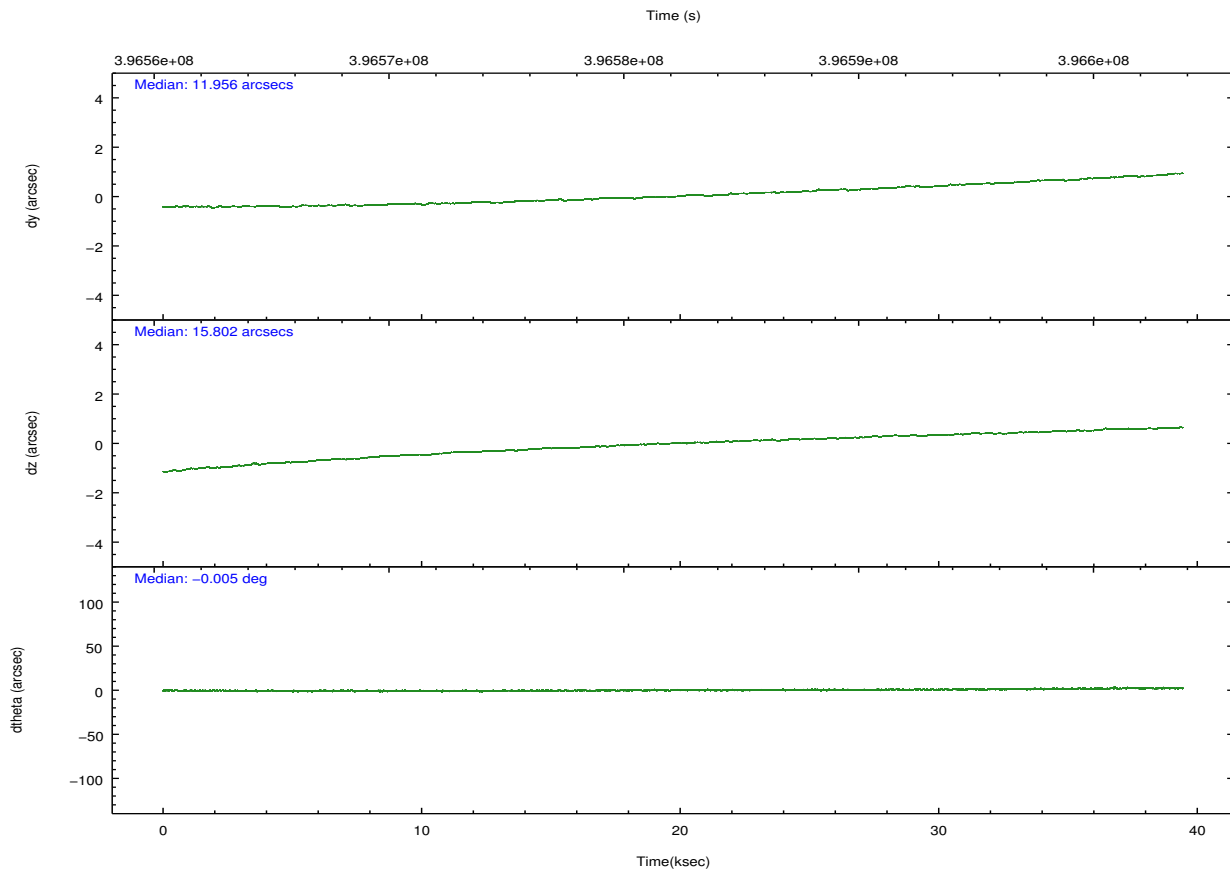
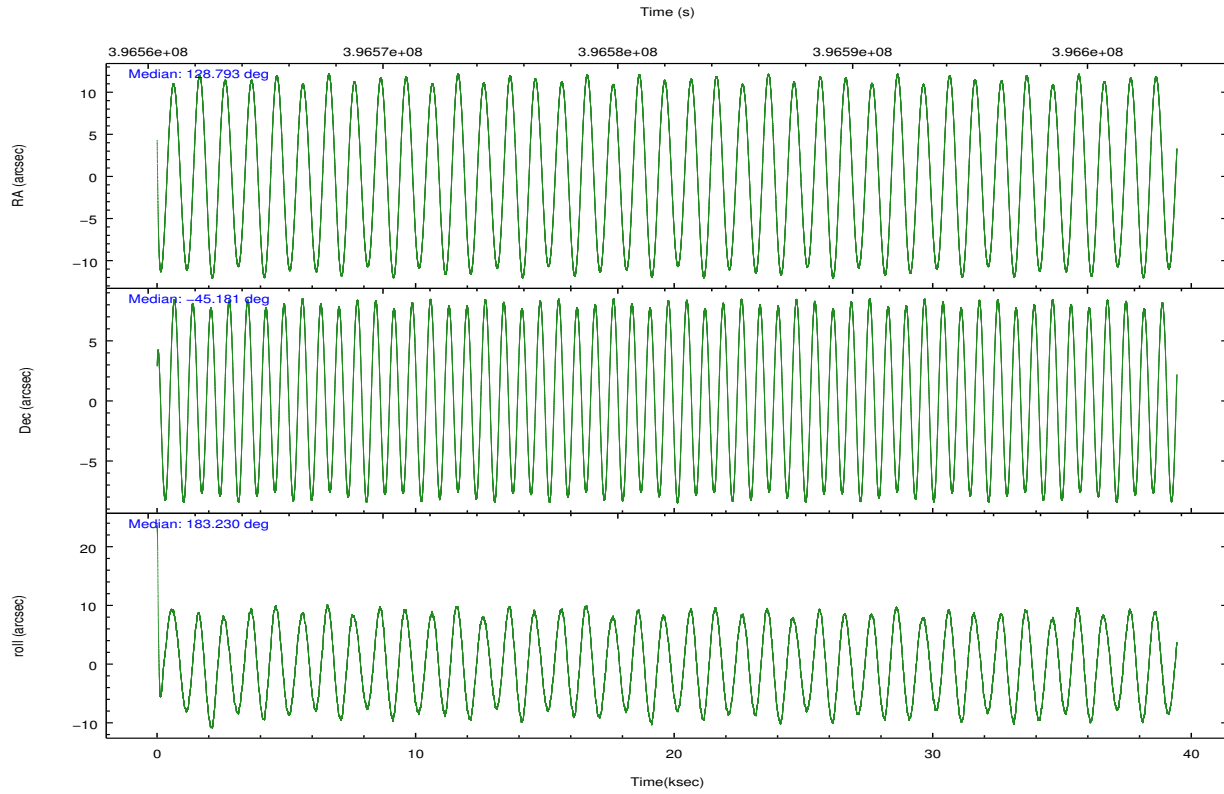
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	294240	266698	365417	298213	728771	345995	grade 0 events	25009	25330	50004	42565	175132	47099
rejected events	251136	224119	137588	233483	120029	228973		8%	9%	13%	14%	24%	13%
rejected %	85%	84%	37%	78%	16%	66%	grade 1 events	274	211	810	286	1565	352
								0%	0%	0%	0%	0%	0%
							grade 2 events	7752	6592	68482	9282	153500	23947
								2%	2%	18%	3%	21%	6%
							grade 3 events	2852	3070	11451	3657	65706	10784
								0%	1%	3%	1%	9%	3%
							grade 4 events	3012	2975	10853	3612	64947	9766
								1%	1%	2%	1%	8%	2%
							grade 5 events	6784	7828	24907	7995	28593	12715
								2%	2%	6%	2%	3%	3%
							grade 6 events	4480	4615	87062	5619	149500	25430
								1%	1%	23%	1%	20%	7%
							grade 7 events	244077	216077	111848	225197	89828	215902
								82%	81%	30%	75%	12%	62%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	128.824977	128.7928176768654	CCD I2 on	O2	Y
[deg] Pointing Dec	-45.165493	-45.18080728532399	CCD I3 on	Y	Y
[deg] Pointing Roll	183.104990	183.2388188731924	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	396562553.184000	396561362.73261	CCD S5 on	N	N
Observation start date	2010-07-26T20:14:47	2010-07-26T19:56:02	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	396601814.184000	396602822.44723	On-chip summing requested	N	N
Observation end date	2010-07-27T07:09:08	2010-07-27T07:27:02	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



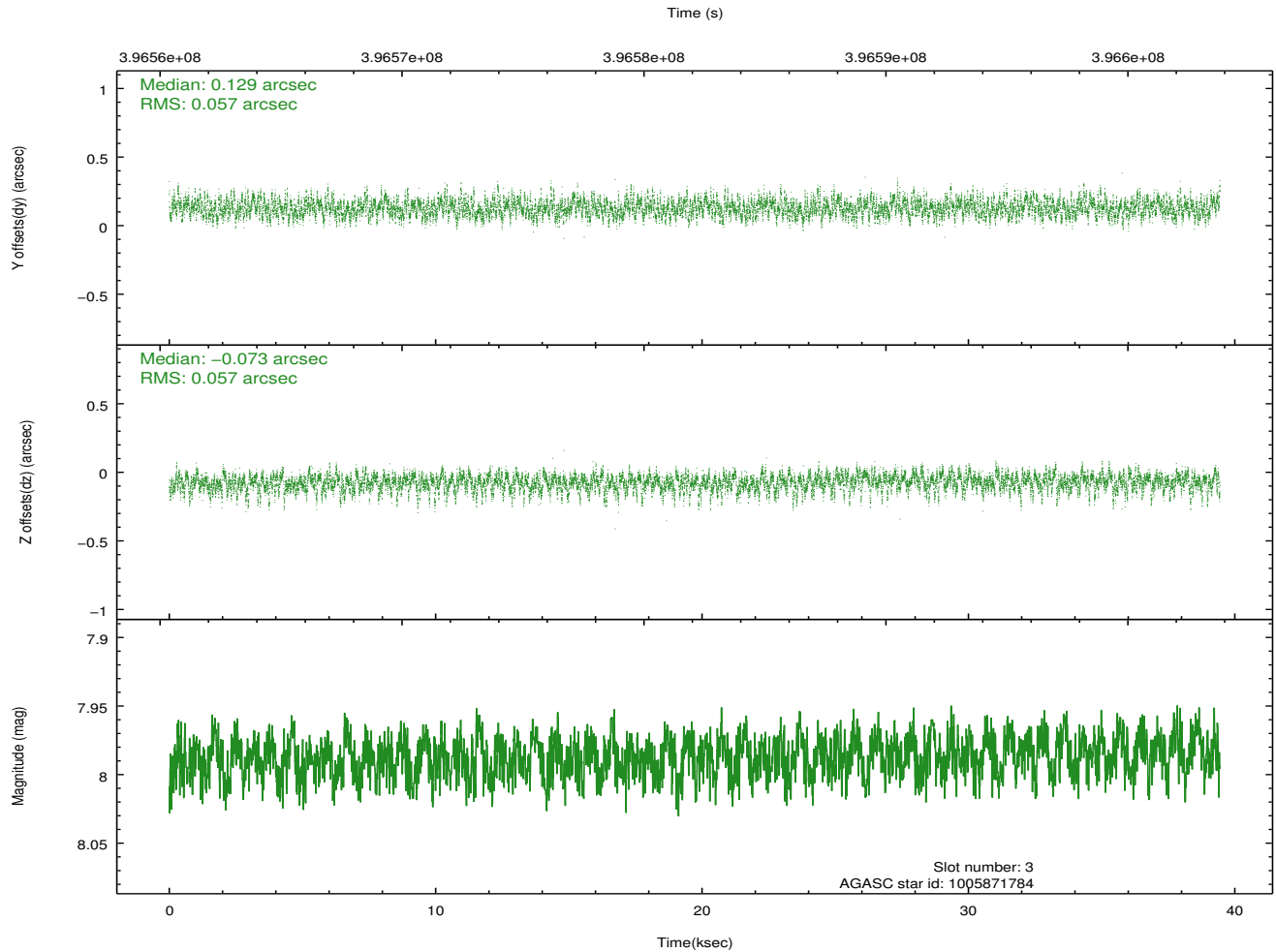
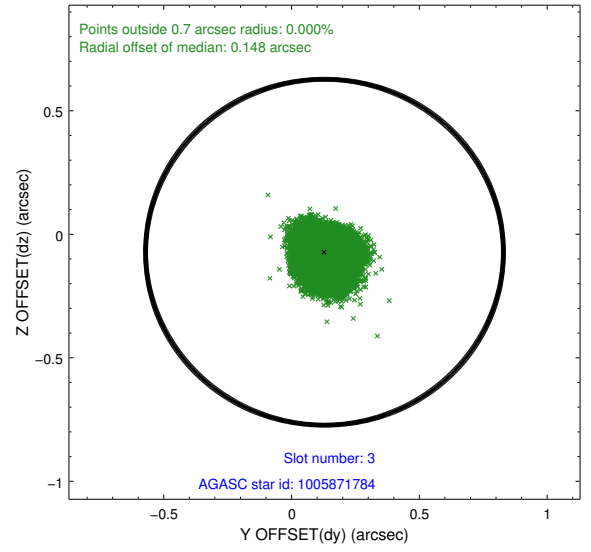
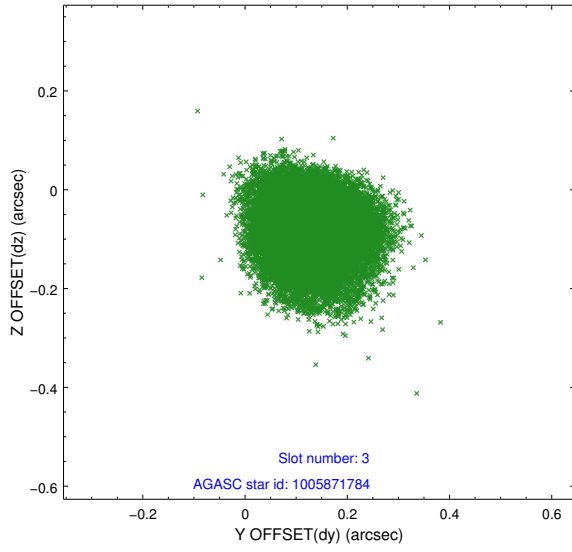


### Slot Statistics

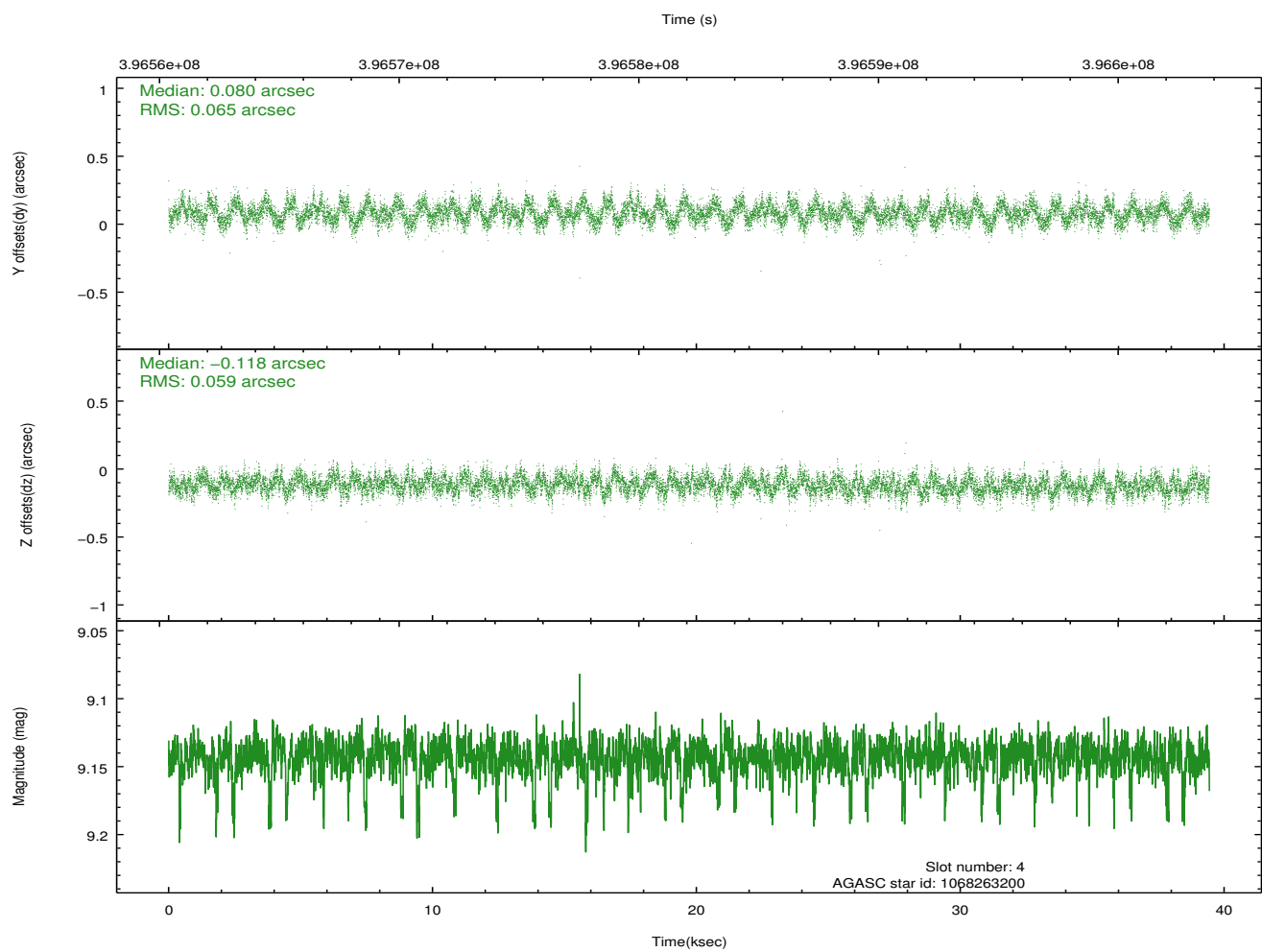
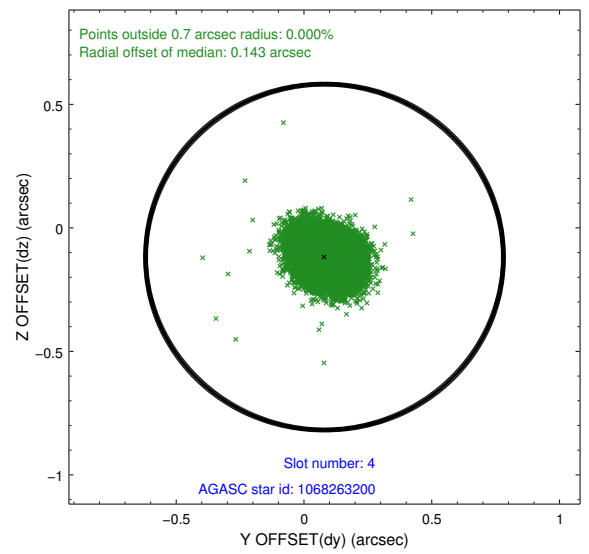
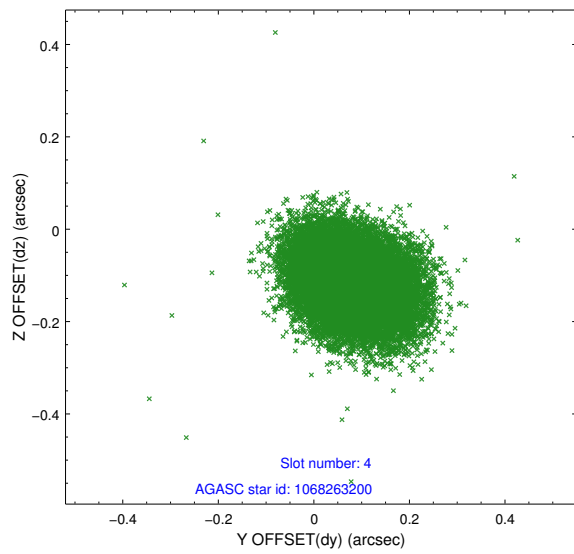
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.97	9619	0.041	-0.064	0.027	0.052	0.000000	0.000000	931.15	-1732.75
1	FID	ACIS-S-4	6.97	9619	0.095	0.027	0.012	0.027	0.000000	0.000000	2148.61	171.47
2	FID	ACIS-S-5	7.00	9621	-0.161	0.048	0.019	0.033	0.000000	0.000000	-1817.91	165.09
3	GUIDE	1005871784	7.99	19233	0.129	-0.073	0.086	0.140	128.533947	-44.544833	625.45	-2270.11
4	GUIDE	1068263200	9.14	19227	0.080	-0.118	0.093	0.151	128.222628	-45.344390	1557.40	566.17
5	GUIDE	1068270344	8.51	19237	-0.048	0.073	0.072	0.117	128.097487	-45.785157	1945.21	2137.27
6	GUIDE	1005862984	8.79	19227	-0.170	0.129	0.071	0.117	128.482680	-44.577316	762.56	-2159.68
7	GUIDE	1005861048	8.39	19228	0.004	-0.006	0.082	0.134	128.669106	-44.528323	276.00	-2311.78

## 2.4 Star Slots

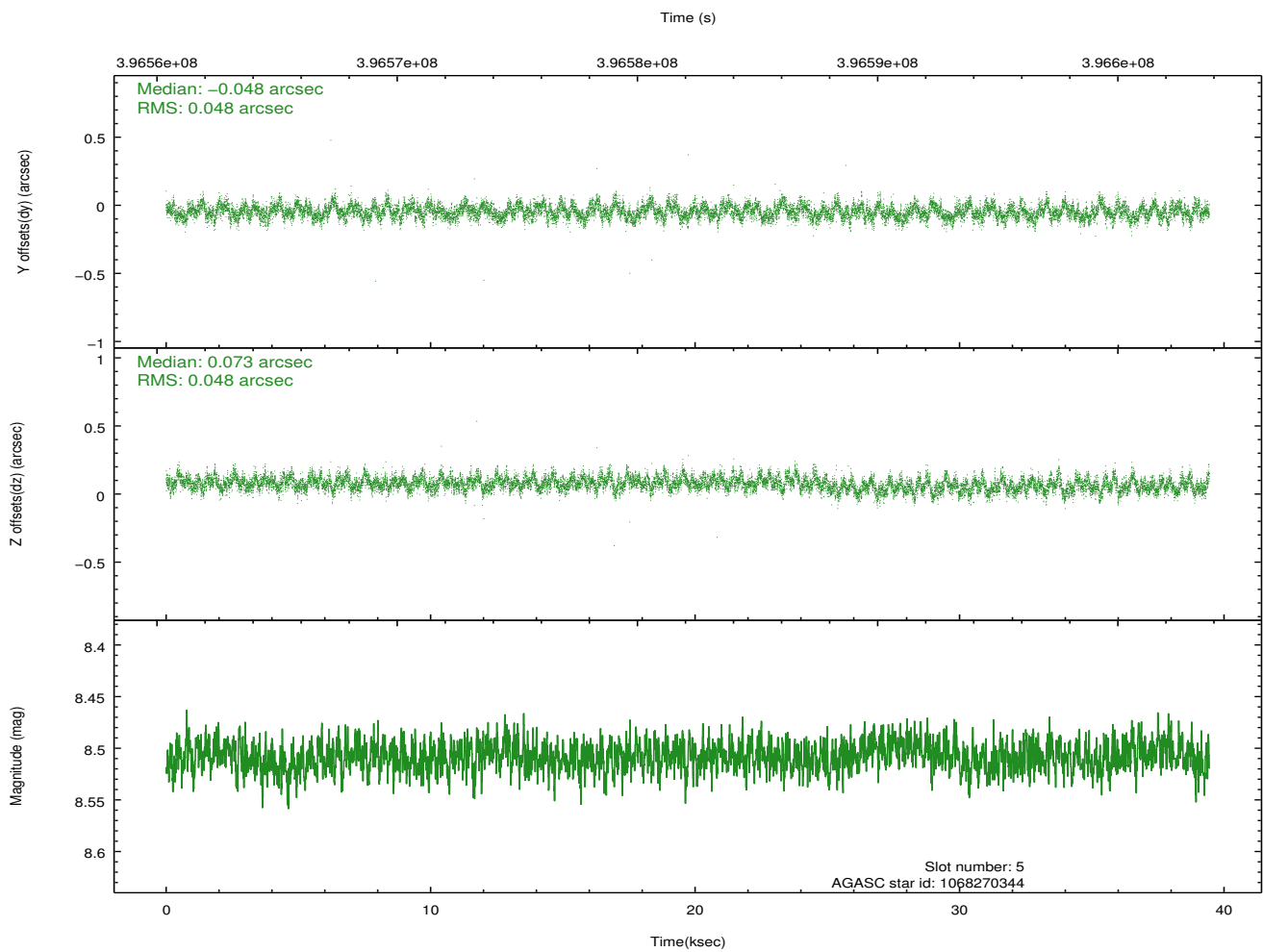
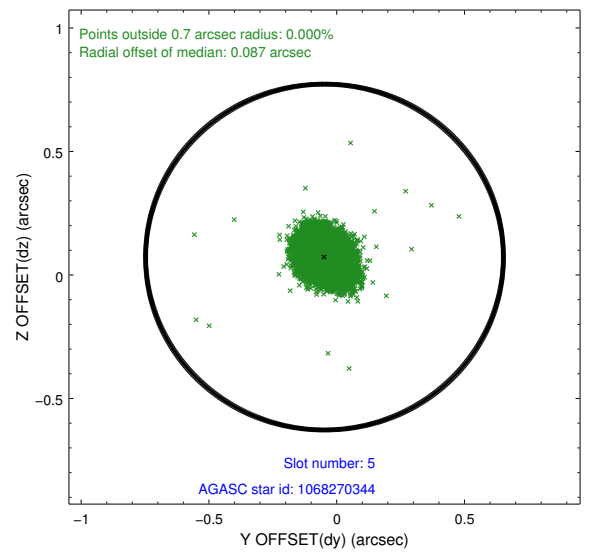
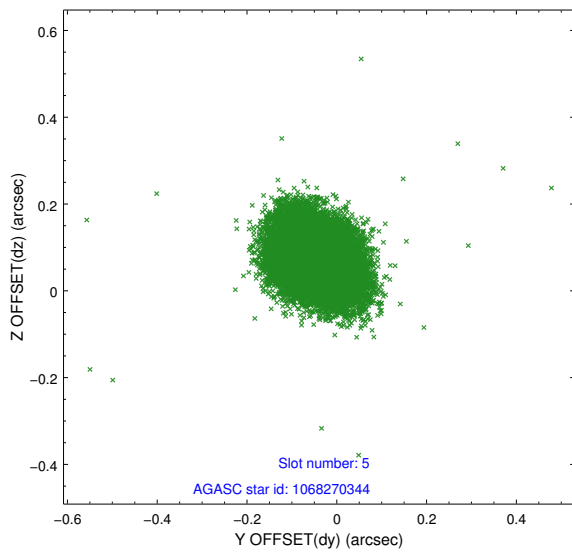
### 2.4.1 Slot 3



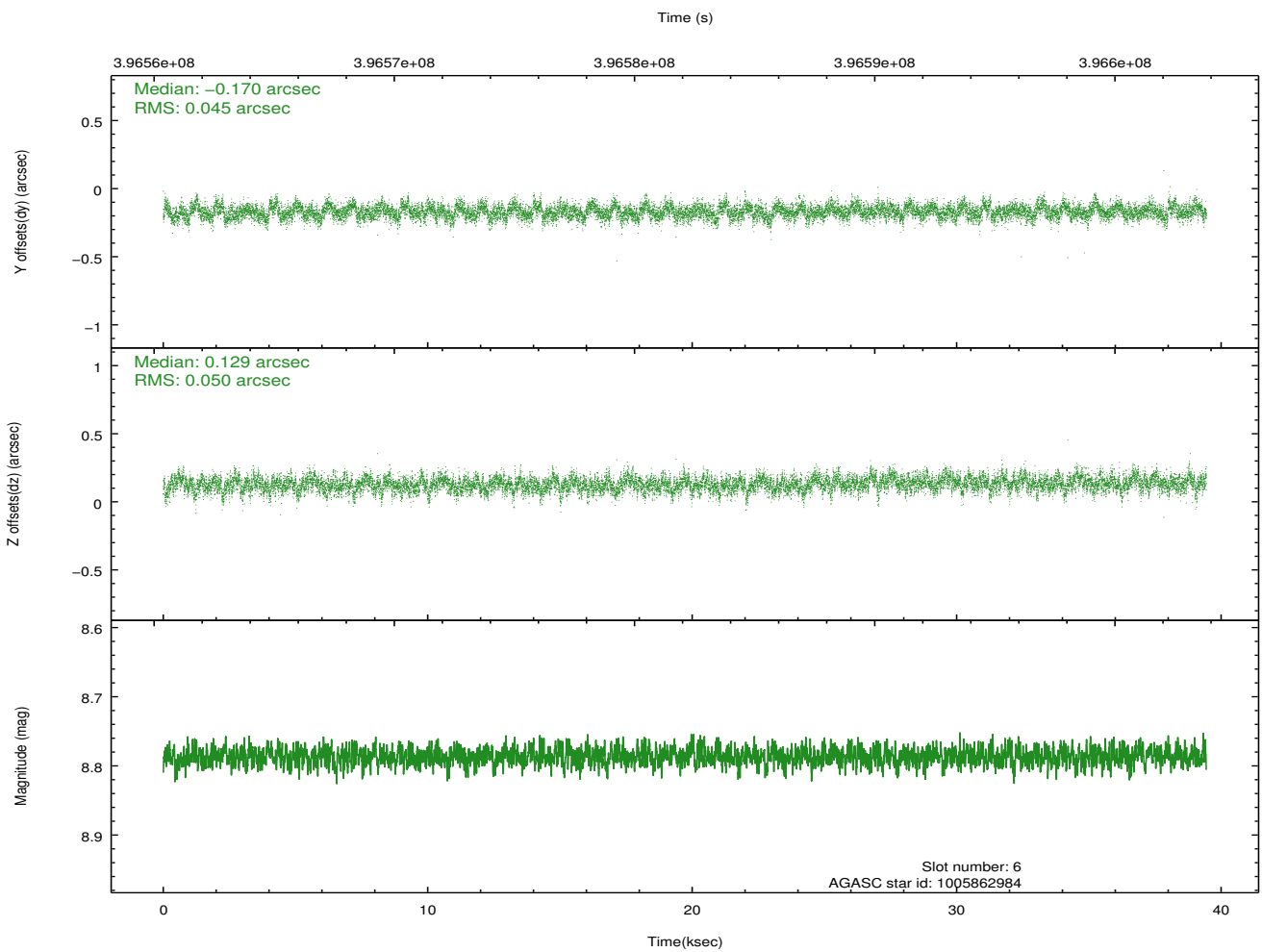
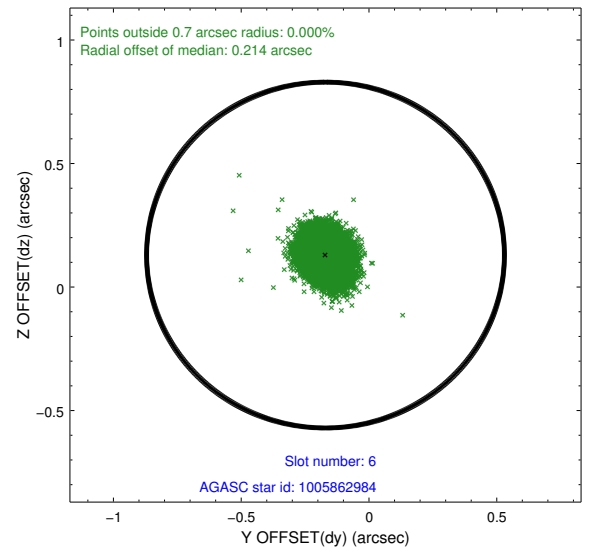
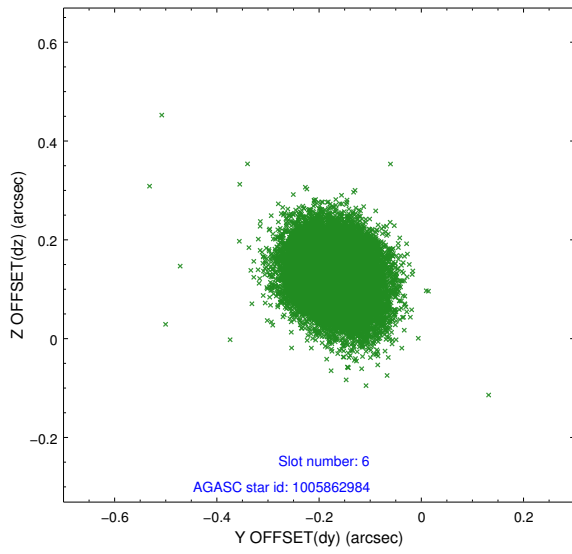
## 2.4.2 Slot 4



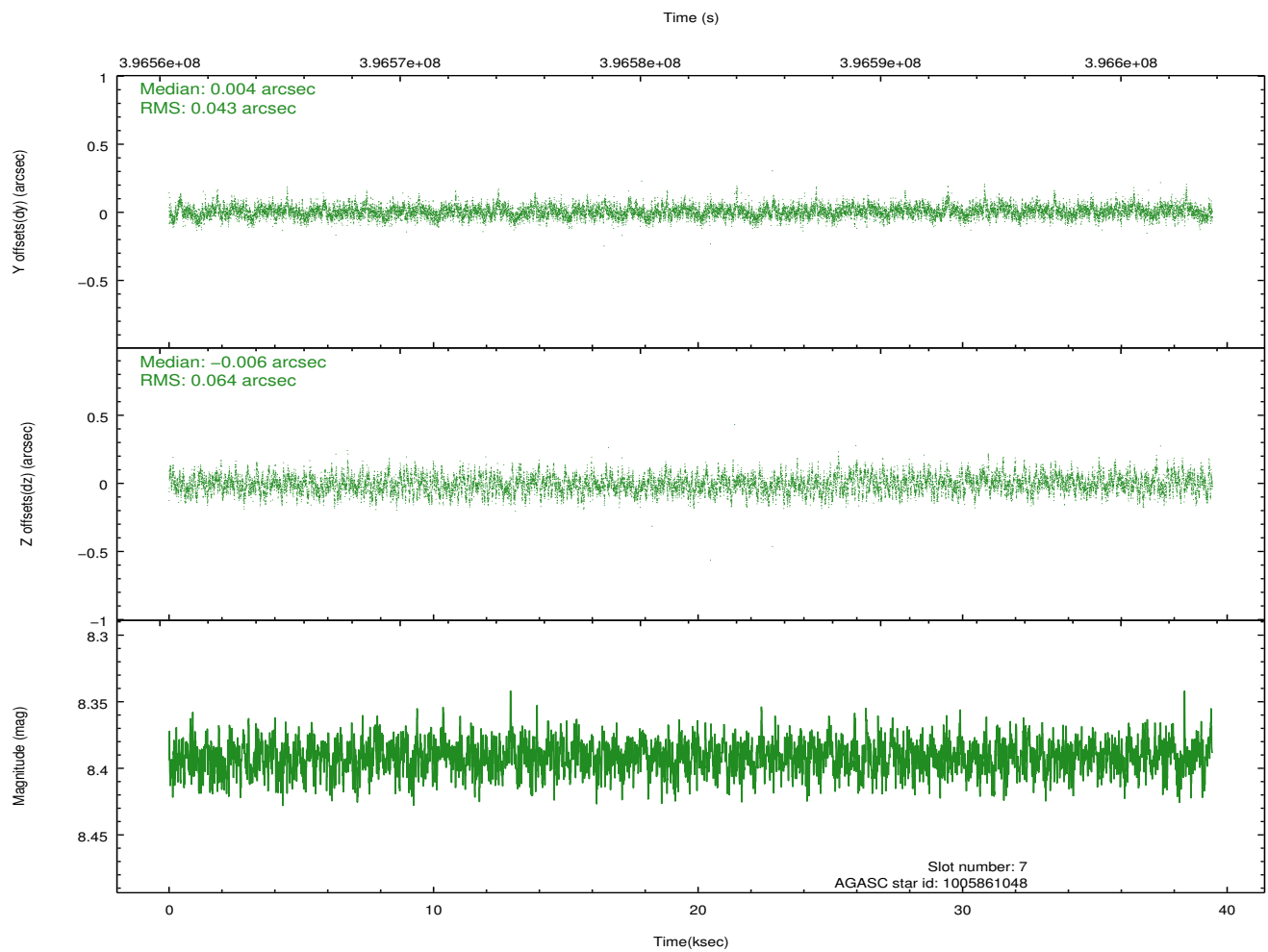
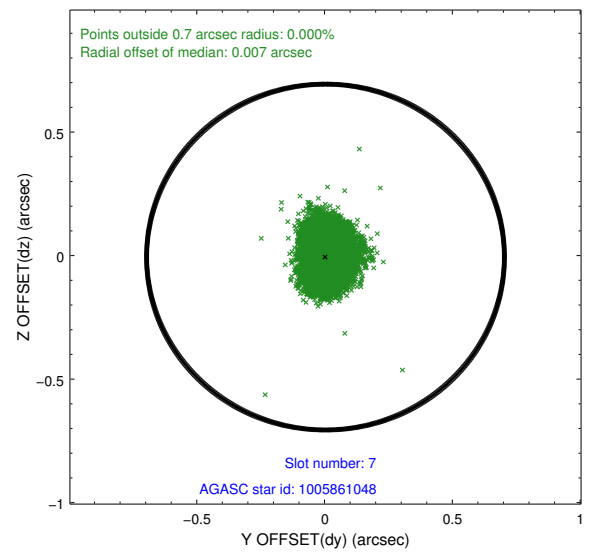
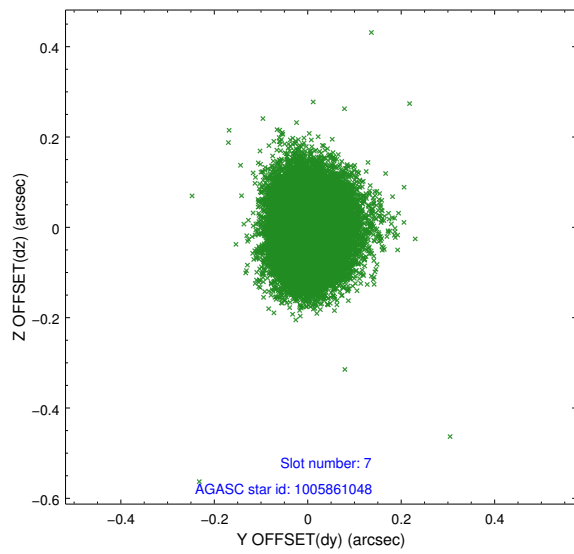
### 2.4.3 Slot 5



## 2.4.4 Slot 6

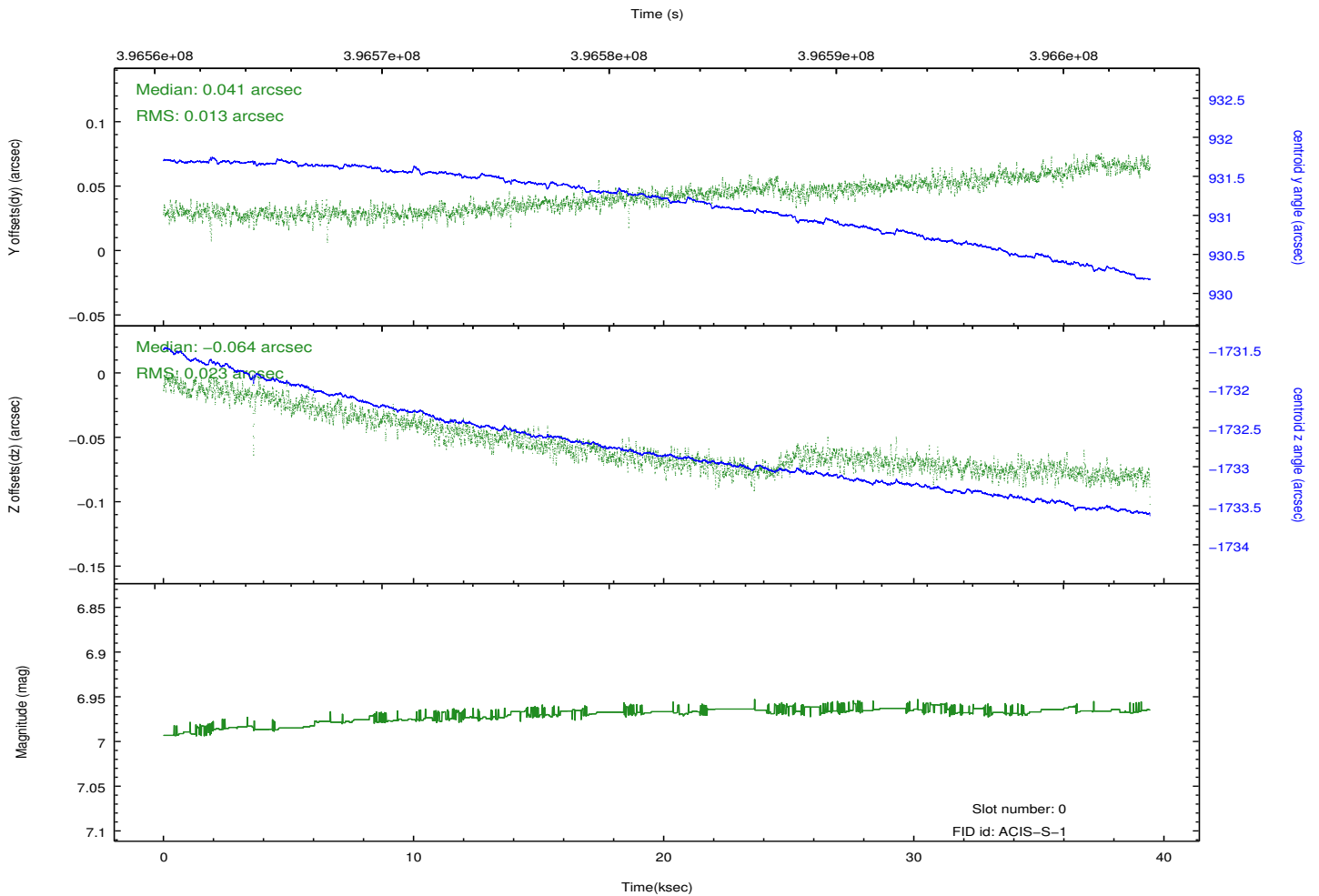
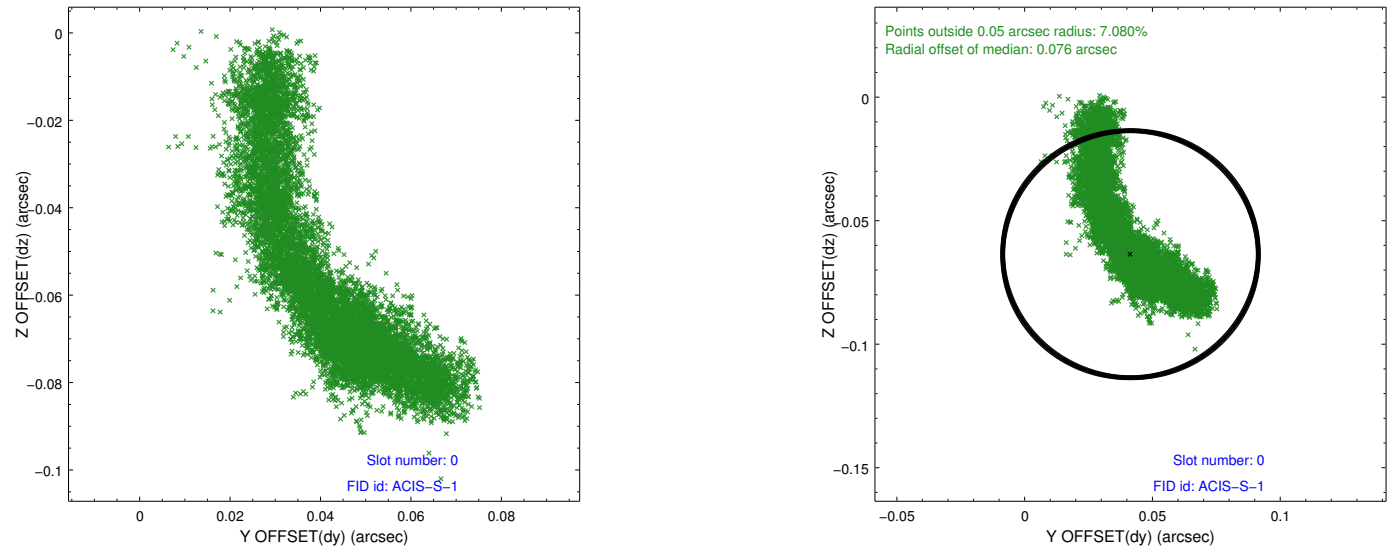


## 2.4.5 Slot 7

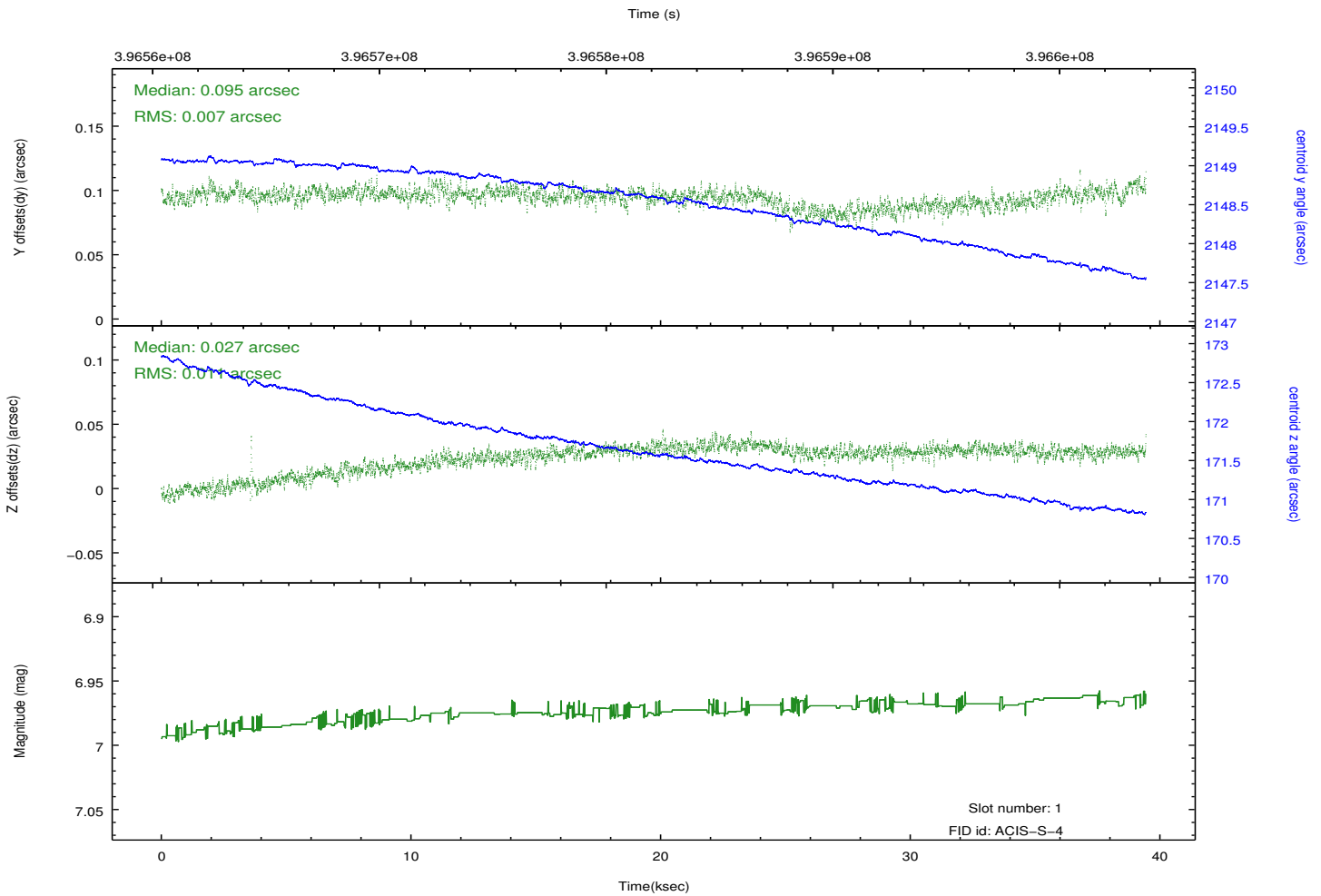
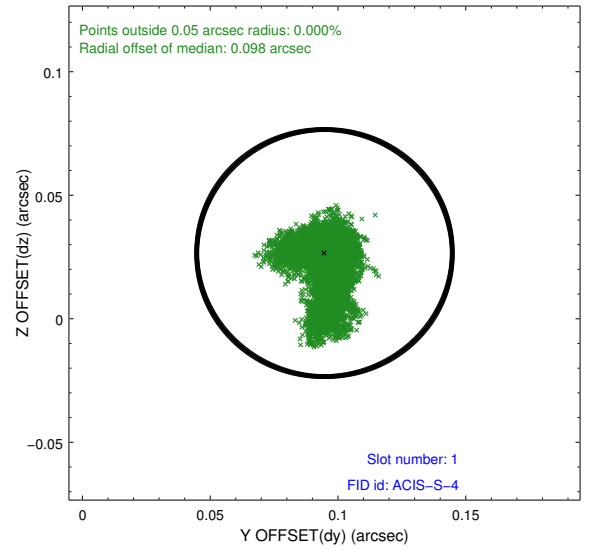
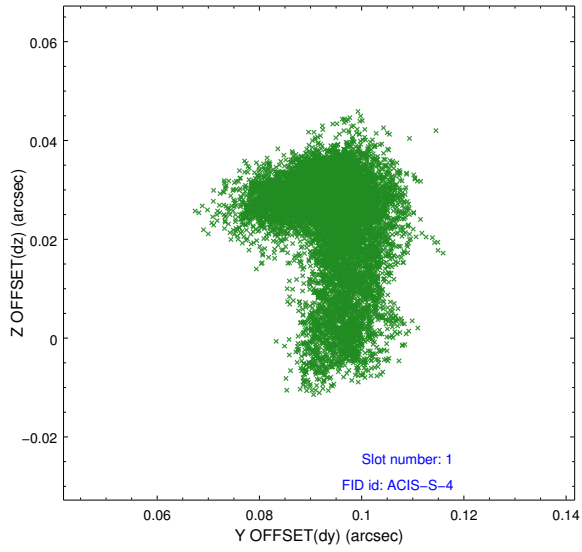


## 2.5 FID Slots

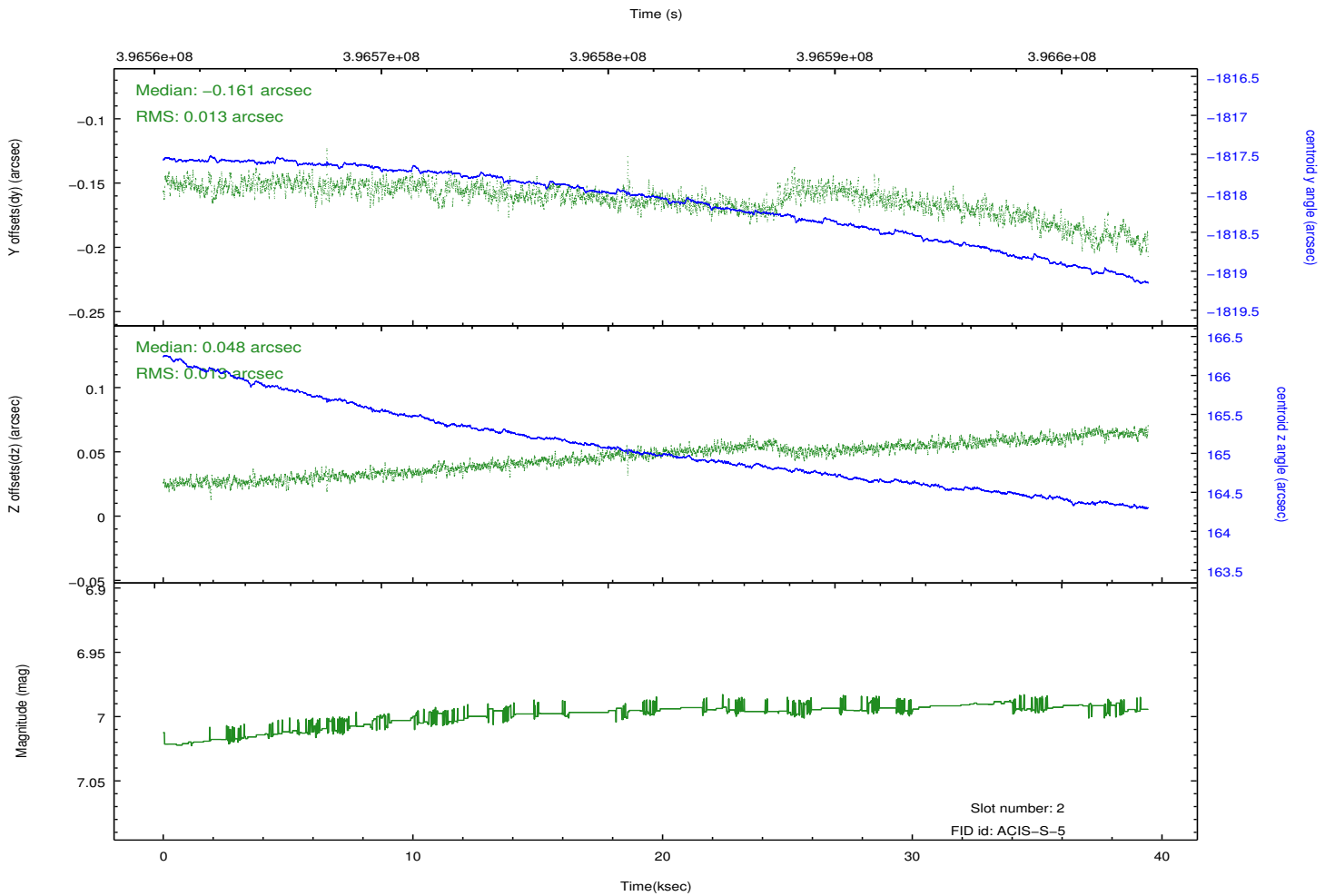
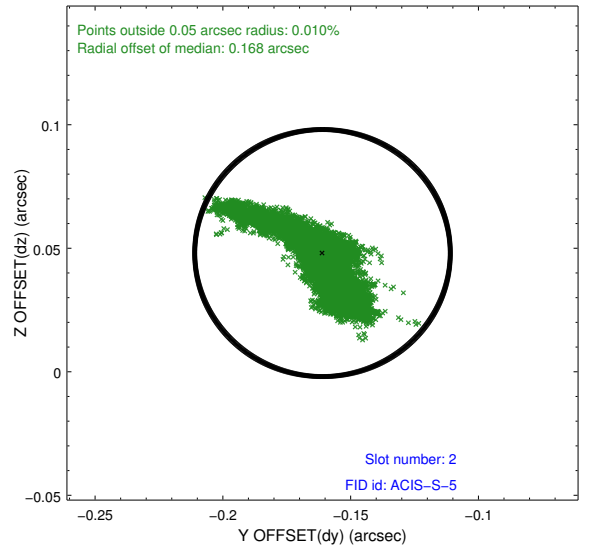
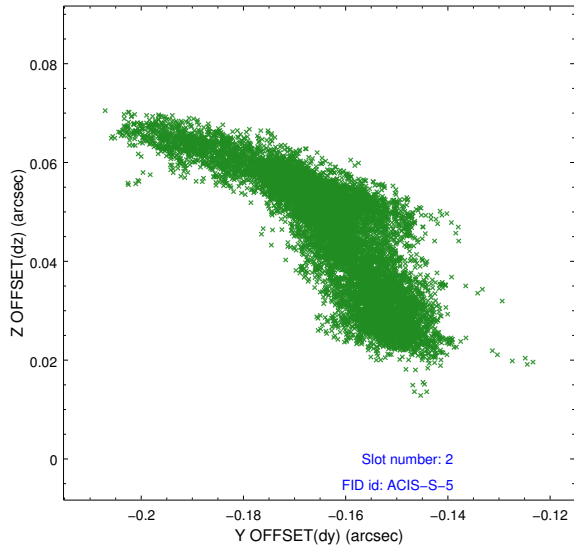
### 2.5.1 Slot 0



## 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)	2012.07.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.308799853623

### **A.2 Comments**