

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10710 - L2 Version 2  
Chandra X-Ray Center

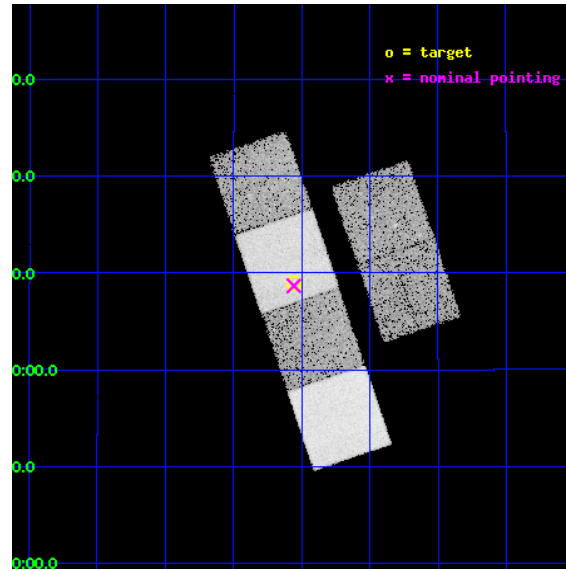
L2 Processing Date : Jun 7 2012

## 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	501166	Sequence number
obs_id	10710	Observation id
title	Long GRB Jet Breaks	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	GRB 090423	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.8883	Observer's specified target RA [deg]
dec_targ	18.14937	Observer's specified target Dec [deg]
ra_nom	148.88944001258	Nominal RA [deg]
dec_nom	18.144641251053	Nominal Dec [deg]
roll_nom	251.15625505999	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15041.896241307	Sum of GTIs [s]
livetime	14851.426693957	Livetime [s]
ontime2	15041.937281311	Sum of GTIs [s]
ontime3	15038.532131076	Sum of GTIs [s]
ontime5	15041.855201304	Sum of GTIs [s]
ontime6	15041.814161301	Sum of GTIs [s]
ontime7	15041.896241307	Sum of GTIs [s]
ontime8	15041.732081294	Sum of GTIs [s]
l2events	176106	Number of level 2 events

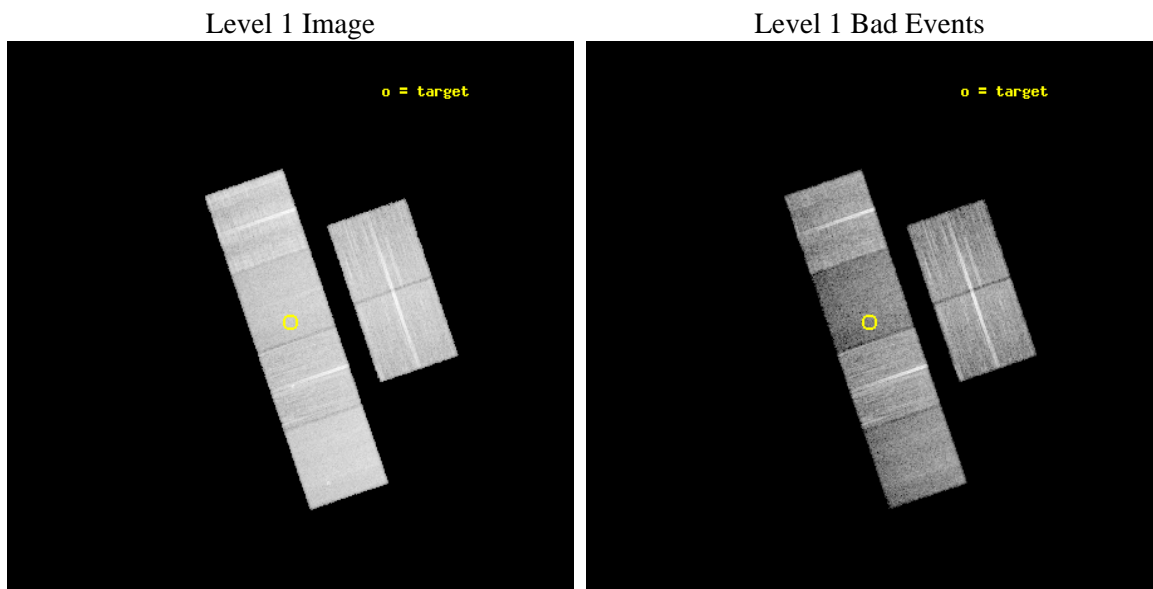




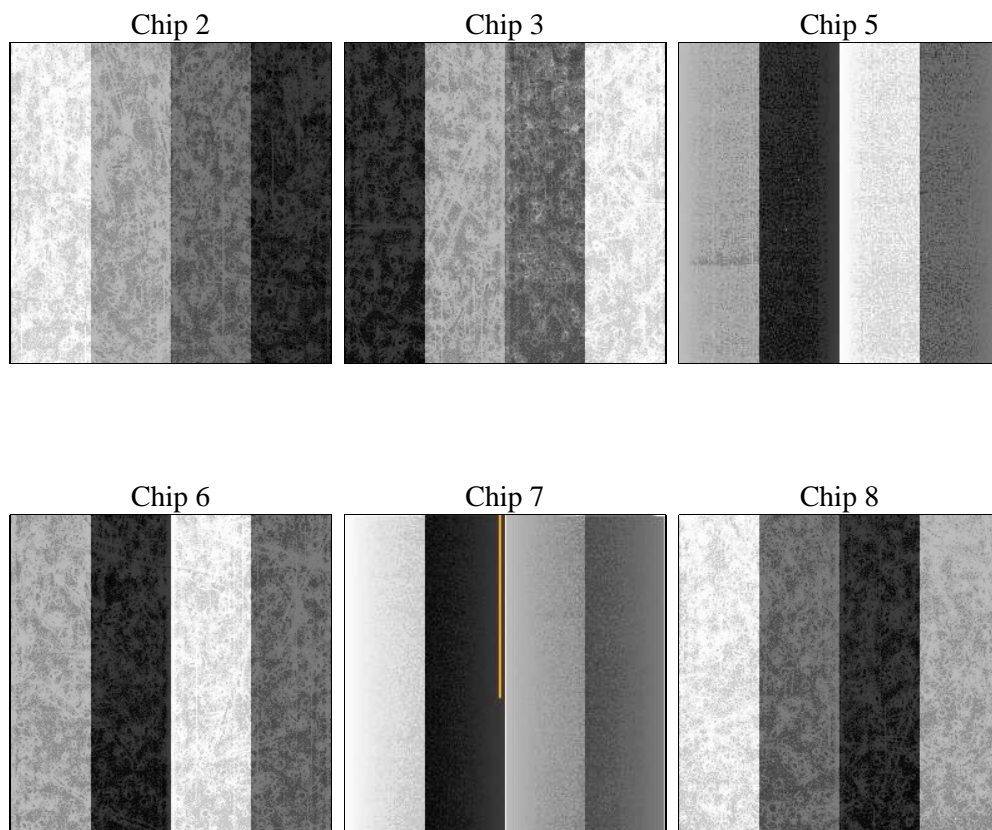
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	15041.896241307	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime2	15041.937281311	Sum of GTIs [s]
date	2012-06-07T17:05:38	Date and time of file creation	ontime3	15038.532131076	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	15041.855201304	Sum of GTIs [s]
			ontime6	15041.814161301	Sum of GTIs [s]
			ontime7	15041.896241307	Sum of GTIs [s]
			ontime8	15041.732081294	Sum of GTIs [s]
			l1events	796453	Number of level 1 events

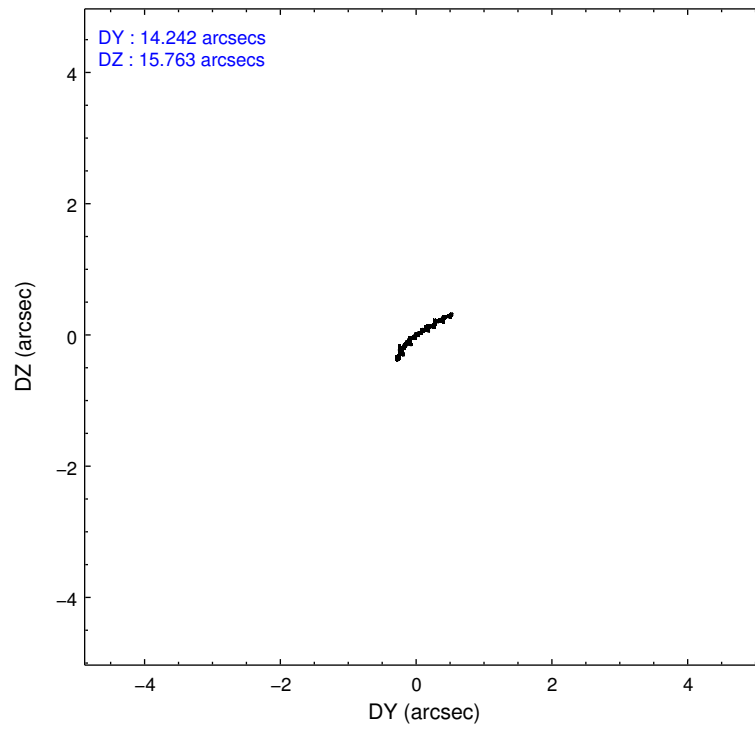
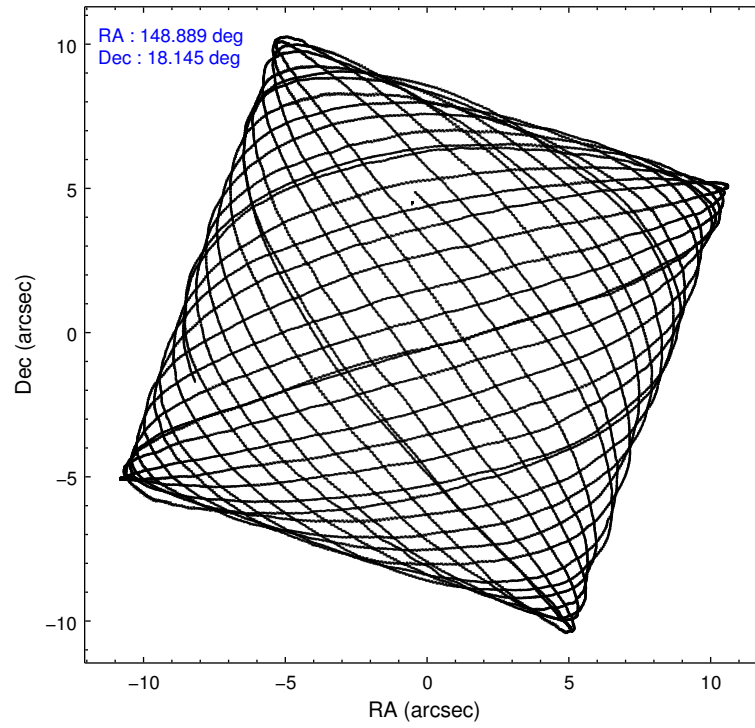
### 2.1.4 Events

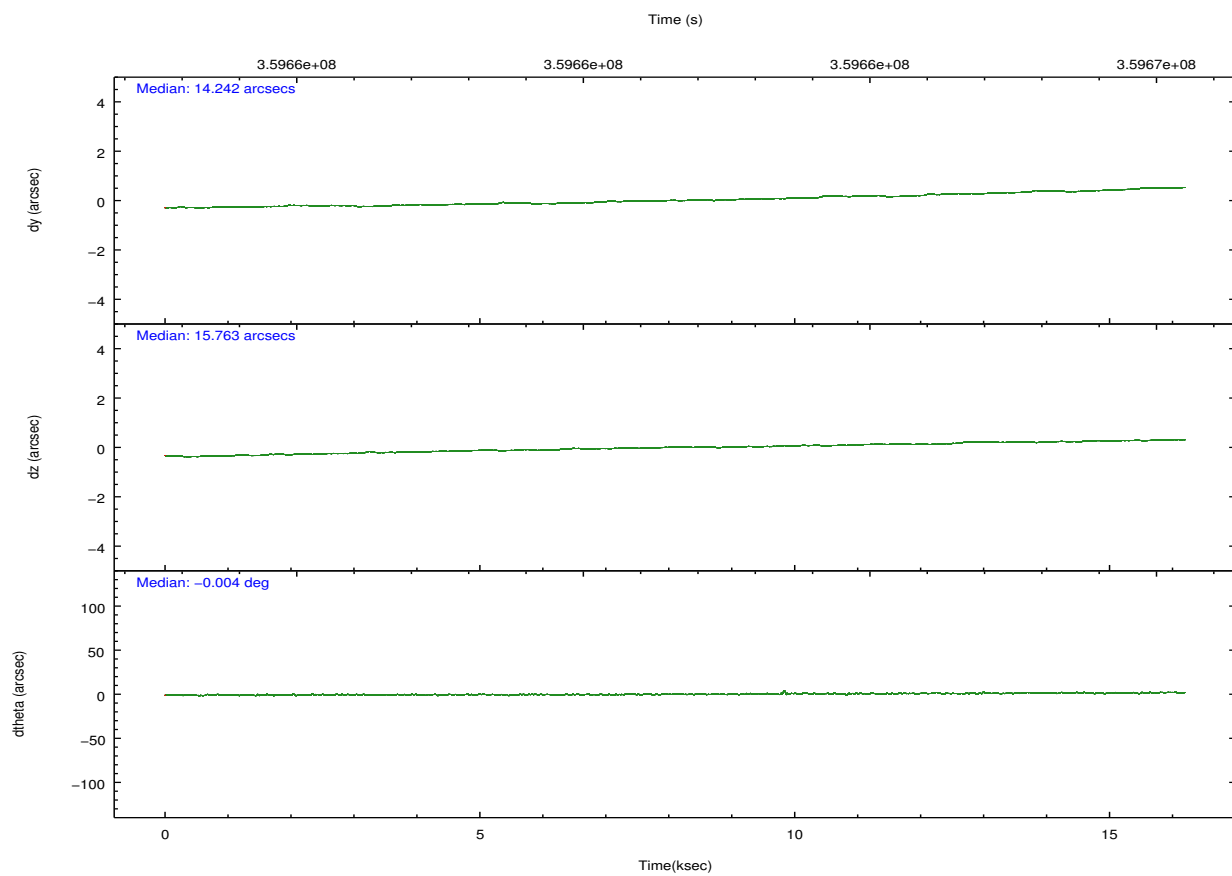
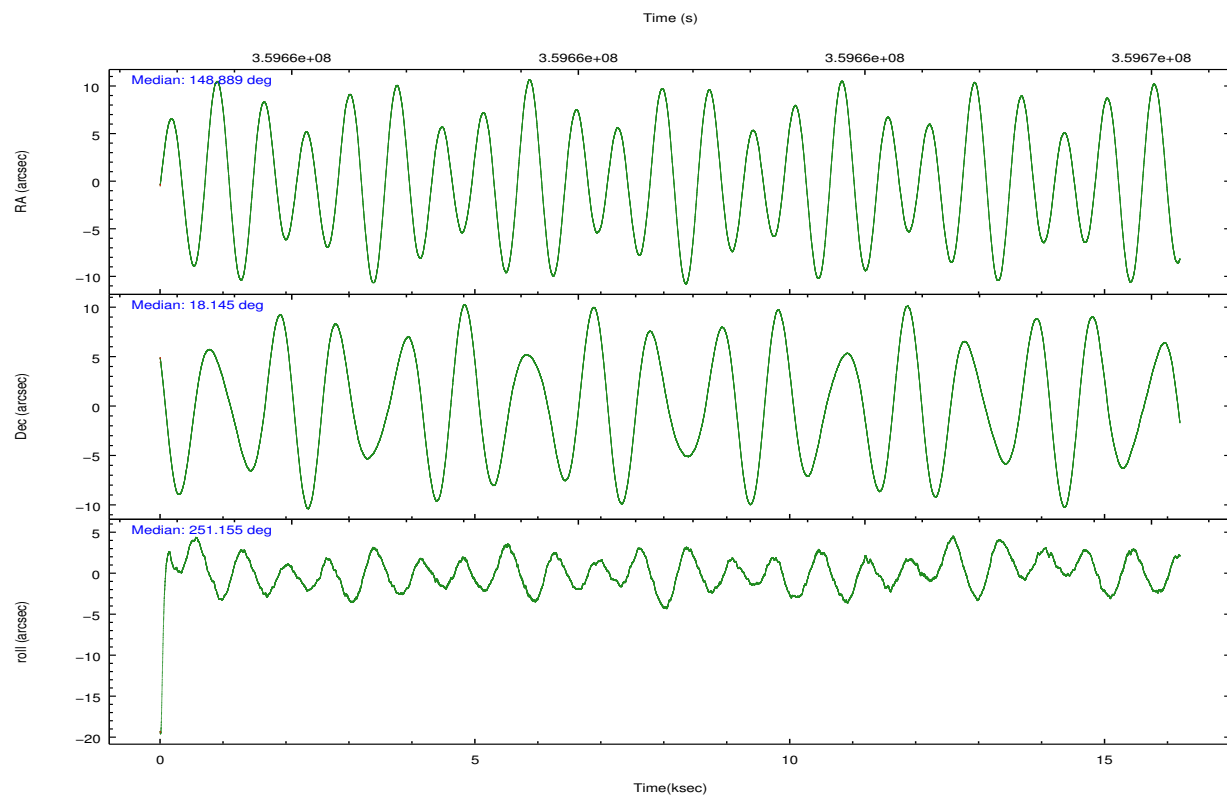
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	129016	117893	153154	127274	117919	151197	grade 0 events	4277	4203	5902	4998	5993	10696
rejected events	117226	106724	73362	114355	59640	112731		3%	3%	3%	3%	5%	7%
rejected %	90%	90%	47%	89%	50%	74%	grade 1 events	82	73	331	66	212	120
								0%	0%	0%	0%	0%	0%
							grade 2 events	2883	2420	24842	2887	12480	9211
								2%	2%	16%	2%	10%	6%
							grade 3 events	1227	1225	3585	1279	5405	4294
								0%	1%	2%	1%	4%	2%
							grade 4 events	1285	1200	3401	1285	5393	3887
								0%	1%	2%	1%	4%	2%
							grade 5 events	3599	4136	12509	4274	12701	6434
								2%	3%	8%	3%	10%	4%
							grade 6 events	2125	2123	42105	2474	29028	10387
								1%	1%	27%	1%	24%	6%
							grade 7 events	113538	102513	60479	110011	46707	106168
								88%	86%	39%	86%	39%	70%

## 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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	148.883481	148.8894400125816	CCD I2 on	O2	Y
[deg] Pointing Dec	18.171390	18.14464125105301	CCD I3 on	O3	Y
[deg] Pointing Roll	251.001497	251.156255059992	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	O5	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	O4	Y
[s] Observation start time (MET)	359654521.184000	359652174.30587	CCD S5 on	N	N
Observation start date	2009-05-25T16:00:55	2009-05-25T15:22:54	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	359669521.184000	359670586.38179	On-chip summing requested	N	N
Observation end date	2009-05-25T20:10:55	2009-05-25T20:29:46	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



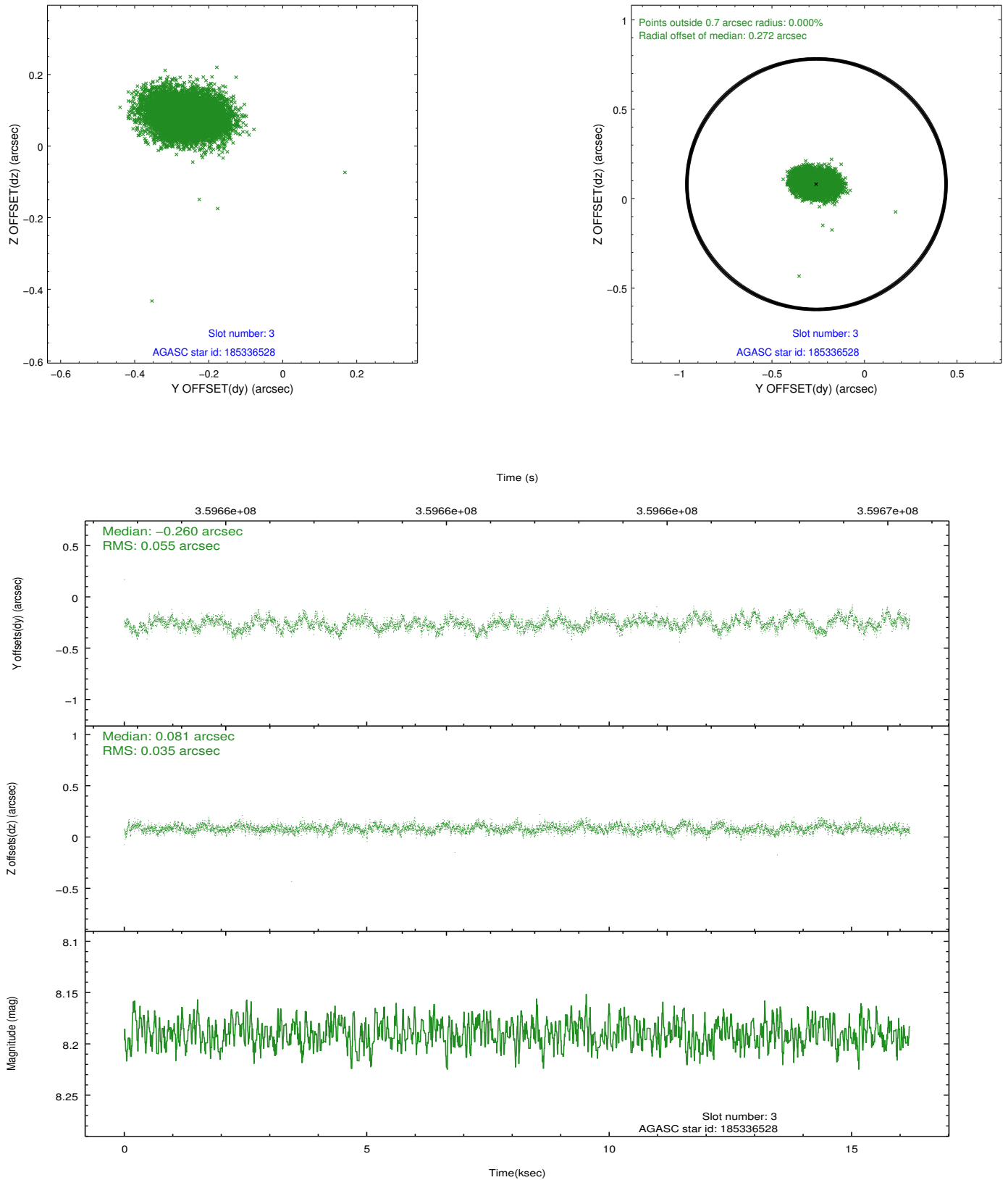


### Slot Statistics

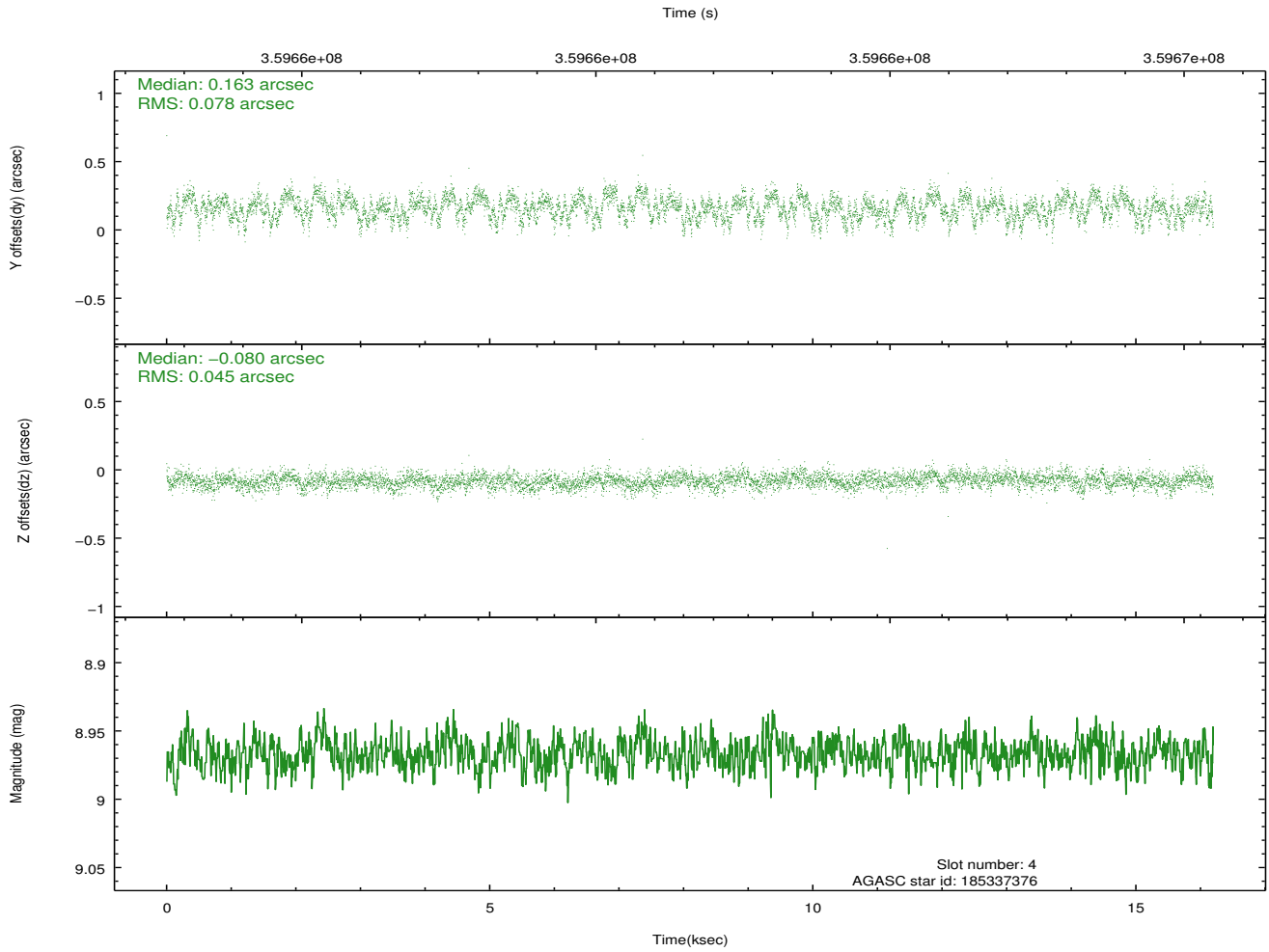
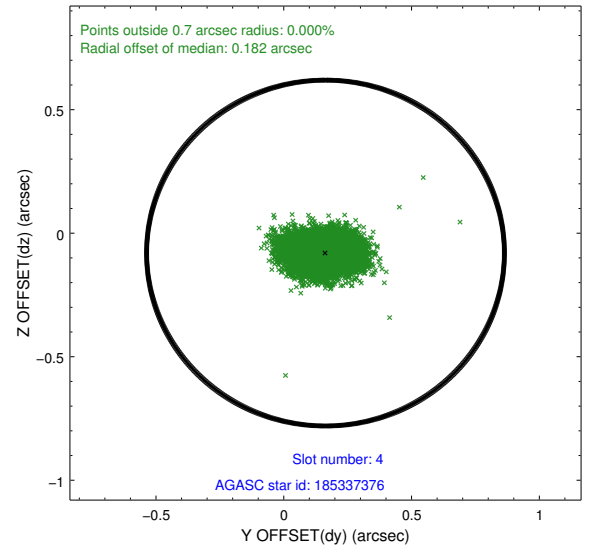
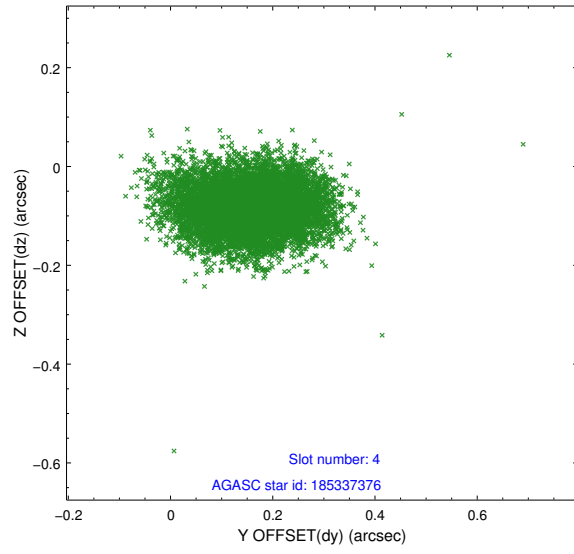
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.86	3951	-0.059	0.005	0.010	0.016	0.000000	0.000000	-767.28	-1737.14
1	FID	ACIS-S-4	6.94	3951	0.159	0.027	0.013	0.020	0.000000	0.000000	2146.08	171.10
2	FID	ACIS-S-5	6.96	3951	-0.132	-0.024	0.015	0.024	0.000000	0.000000	-1819.86	165.00
3	GUIDE	185336528	8.19	7900	-0.260	0.081	0.068	0.114	148.892720	18.821206	-2221.49	-731.32
4	GUIDE	185337376	8.97	7897	0.163	-0.080	0.095	0.155	148.106056	17.934285	1669.20	-2241.44
5	GUIDE	185339440	8.60	7897	0.105	0.118	0.070	0.111	148.983258	17.541515	2033.64	1062.12
6	GUIDE	185342864	9.36	7884	0.219	0.011	0.118	0.195	148.362201	17.656961	2331.78	-1088.24
7	GUIDE	185337696	8.61	7895	-0.224	-0.129	0.078	0.127	148.432118	18.944409	-2132.20	-2359.95

## 2.4 Star Slots

### 2.4.1 Slot 3

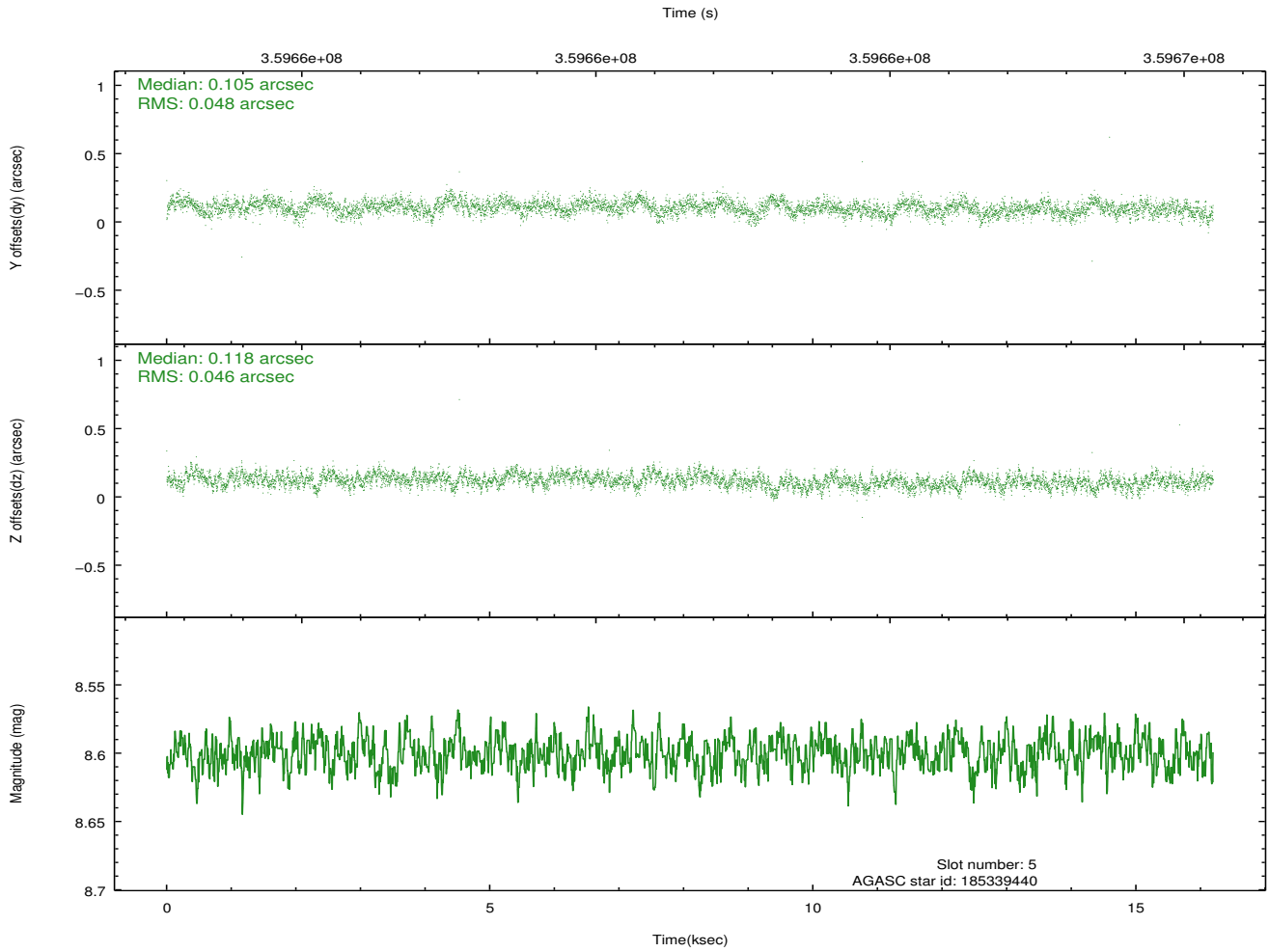
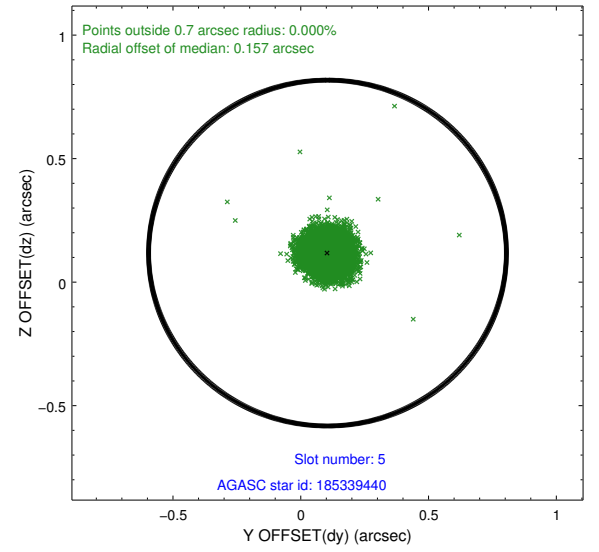
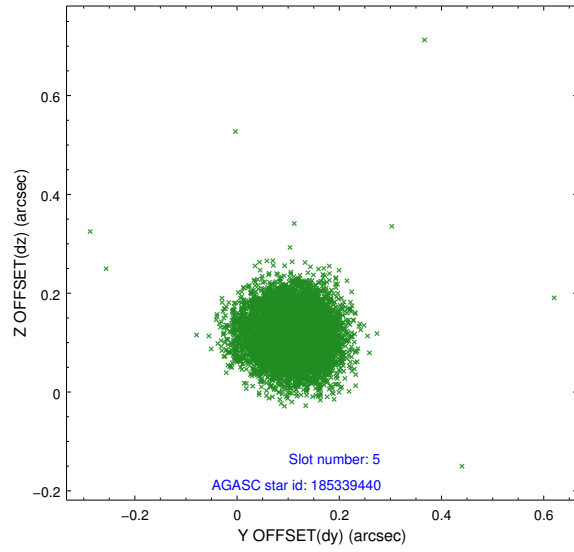


## 2.4.2 Slot 4

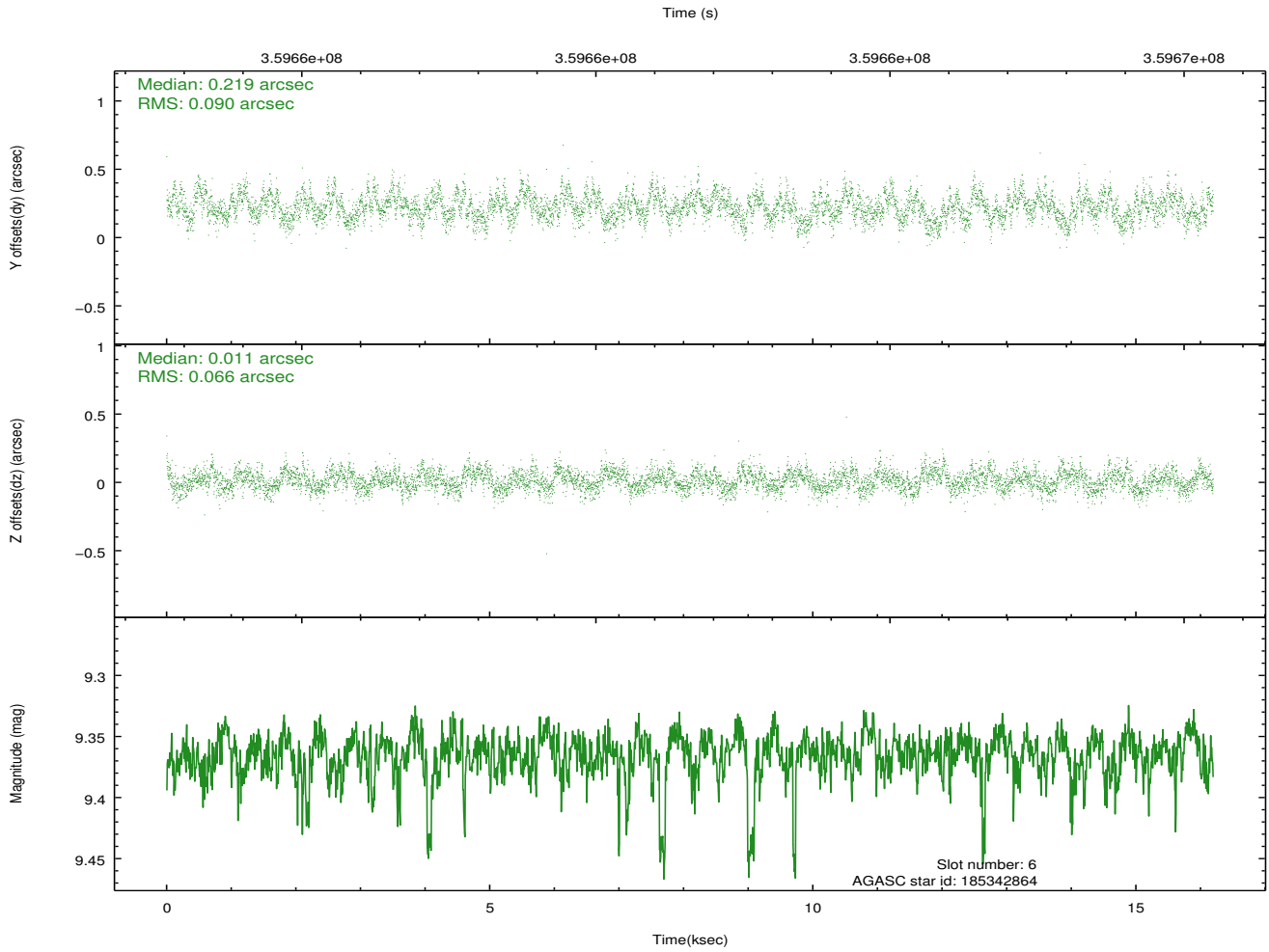
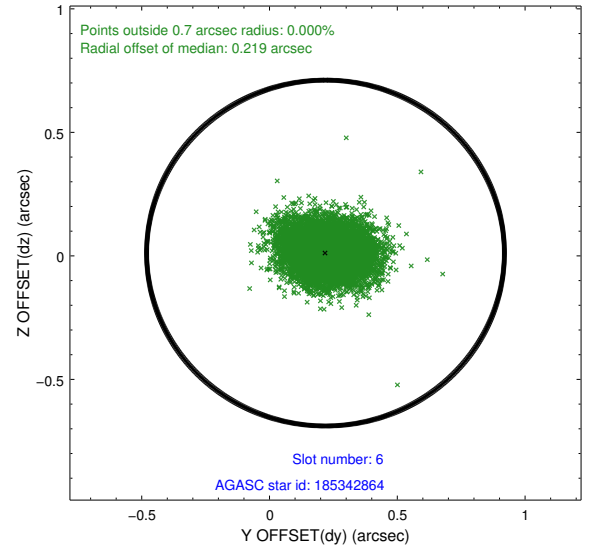
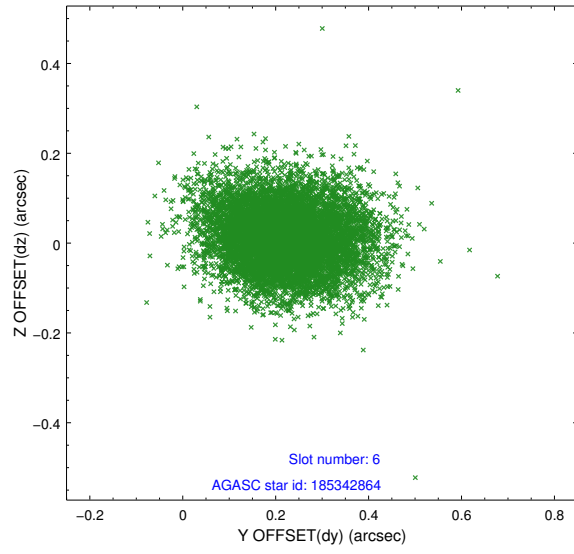




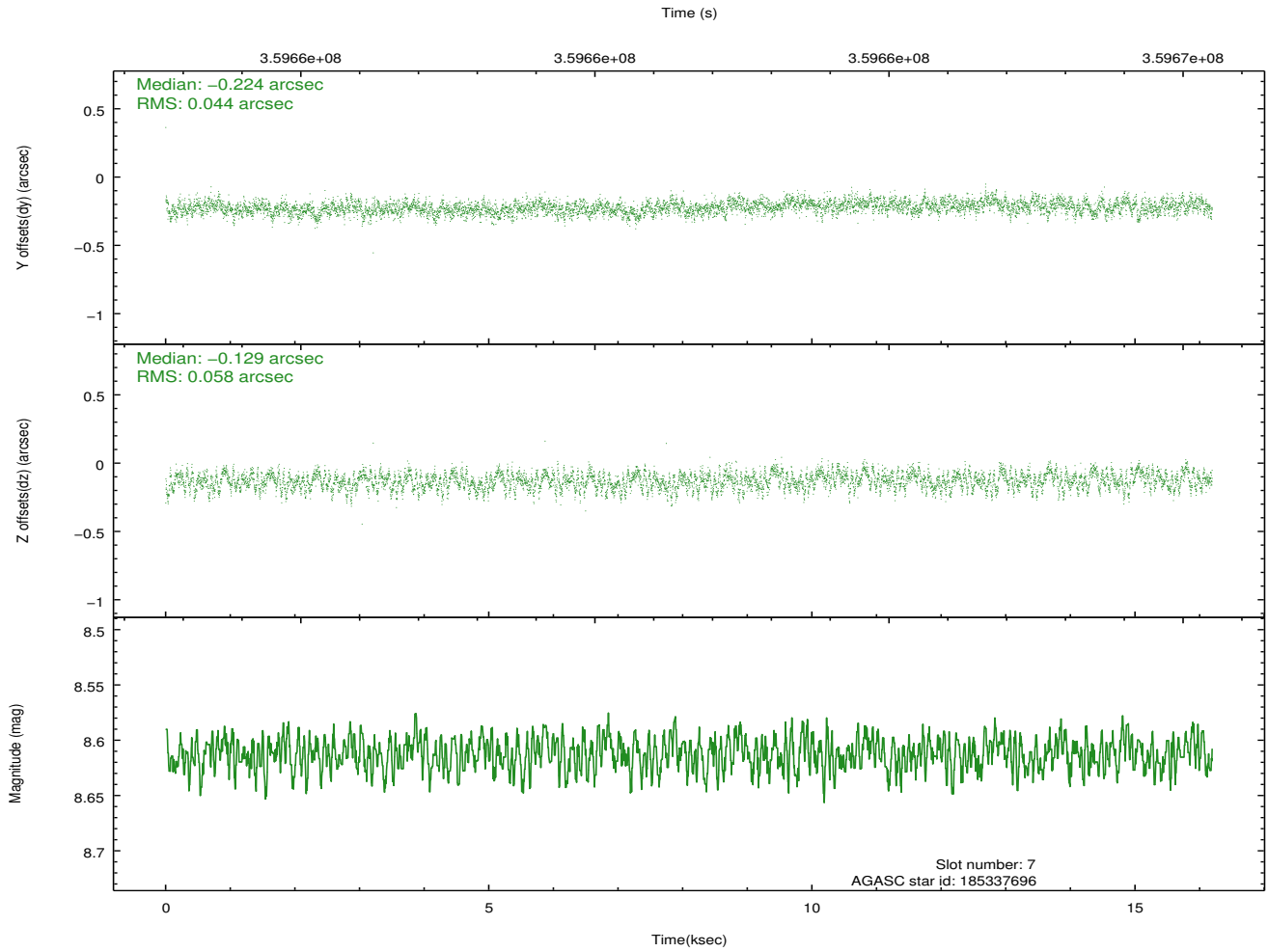
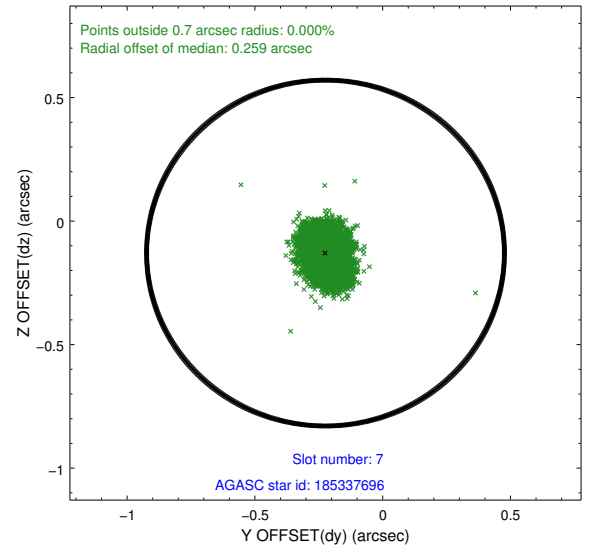
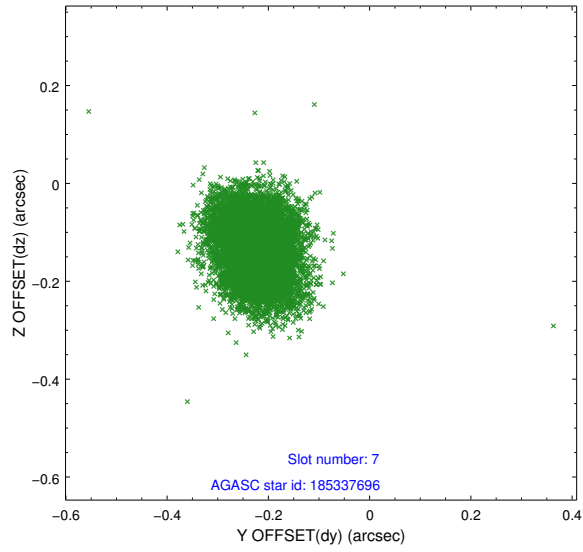
### 2.4.3 Slot 5



## 2.4.4 Slot 6

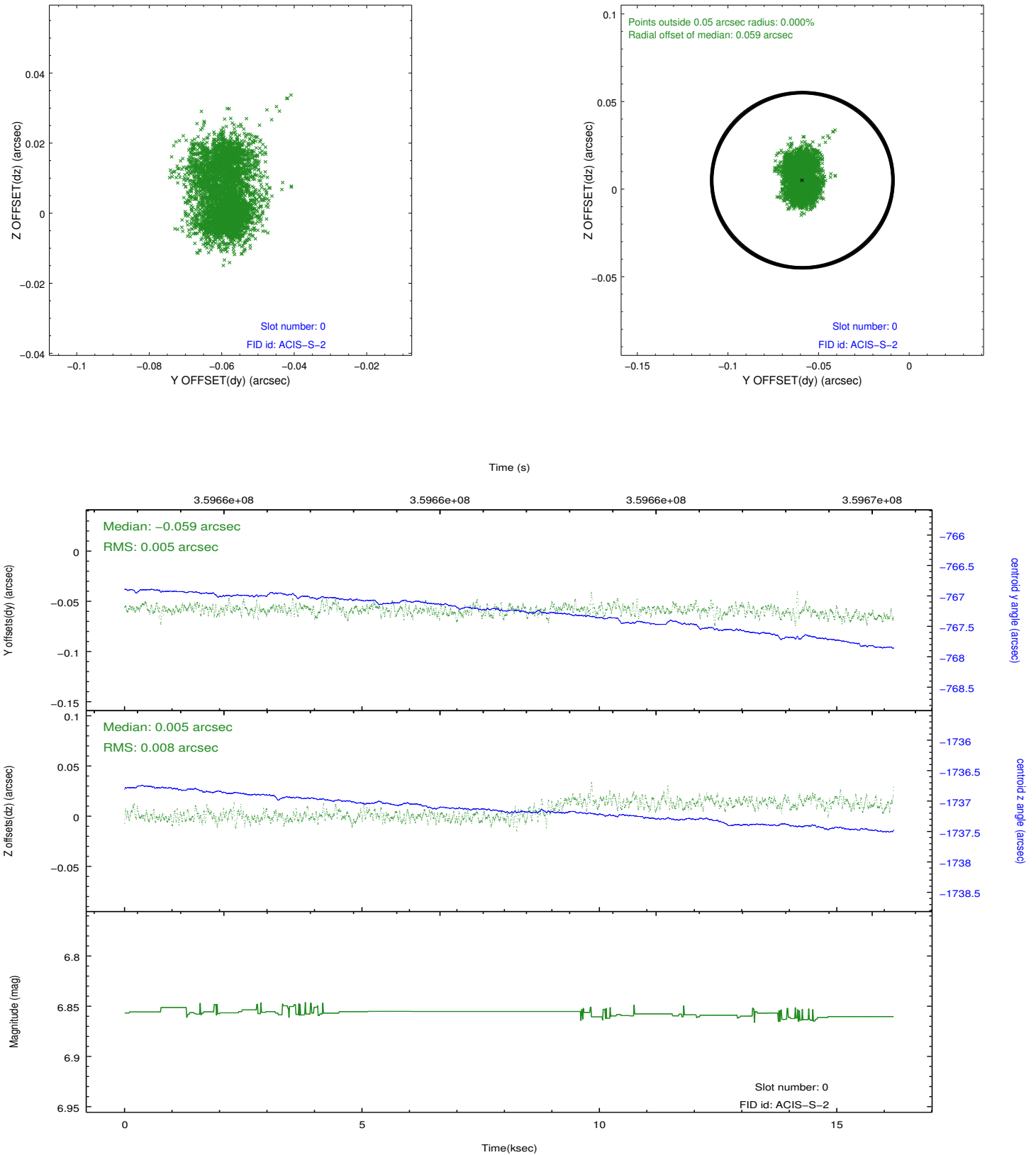


## 2.4.5 Slot 7

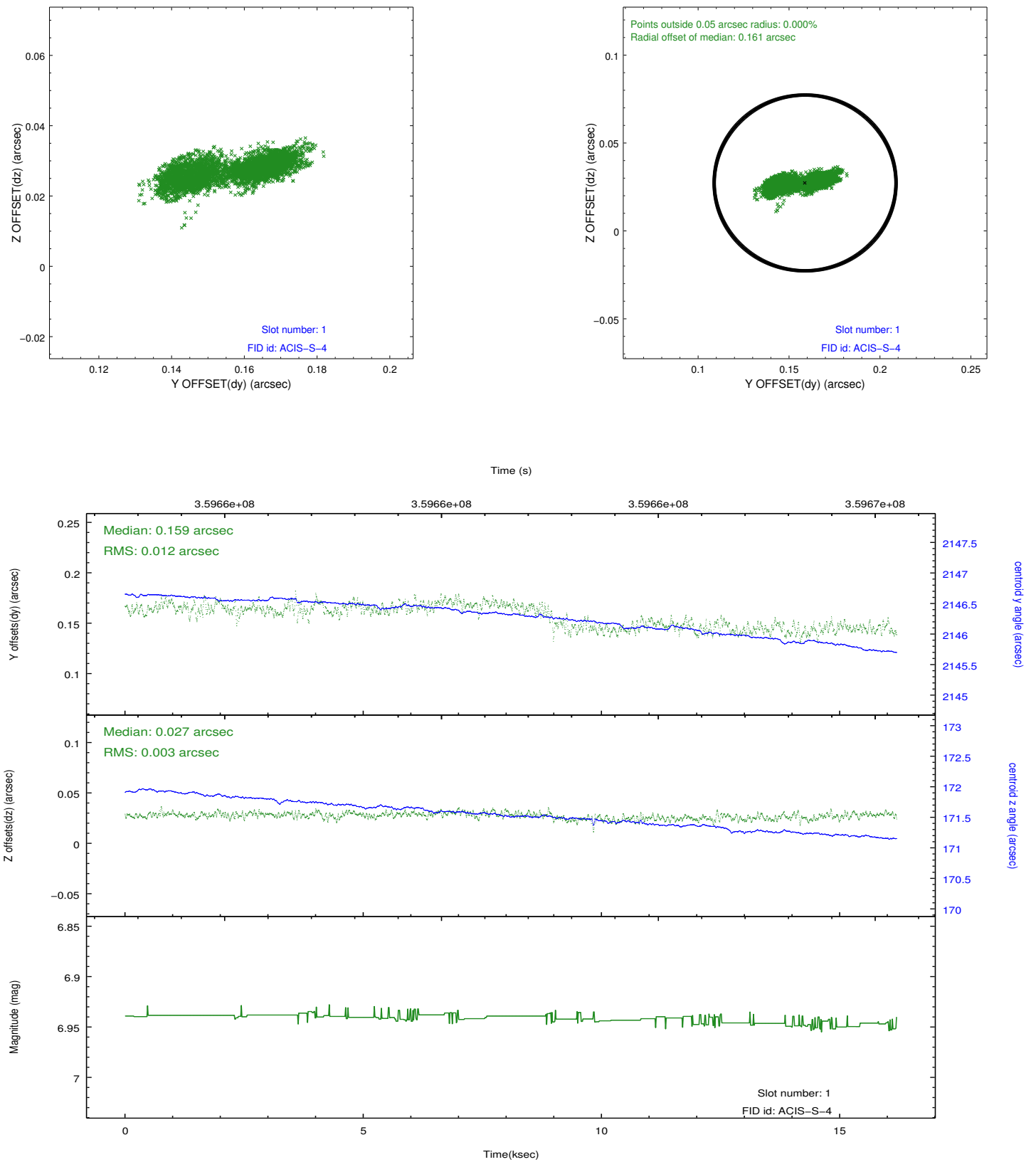


## 2.5 FID Slots

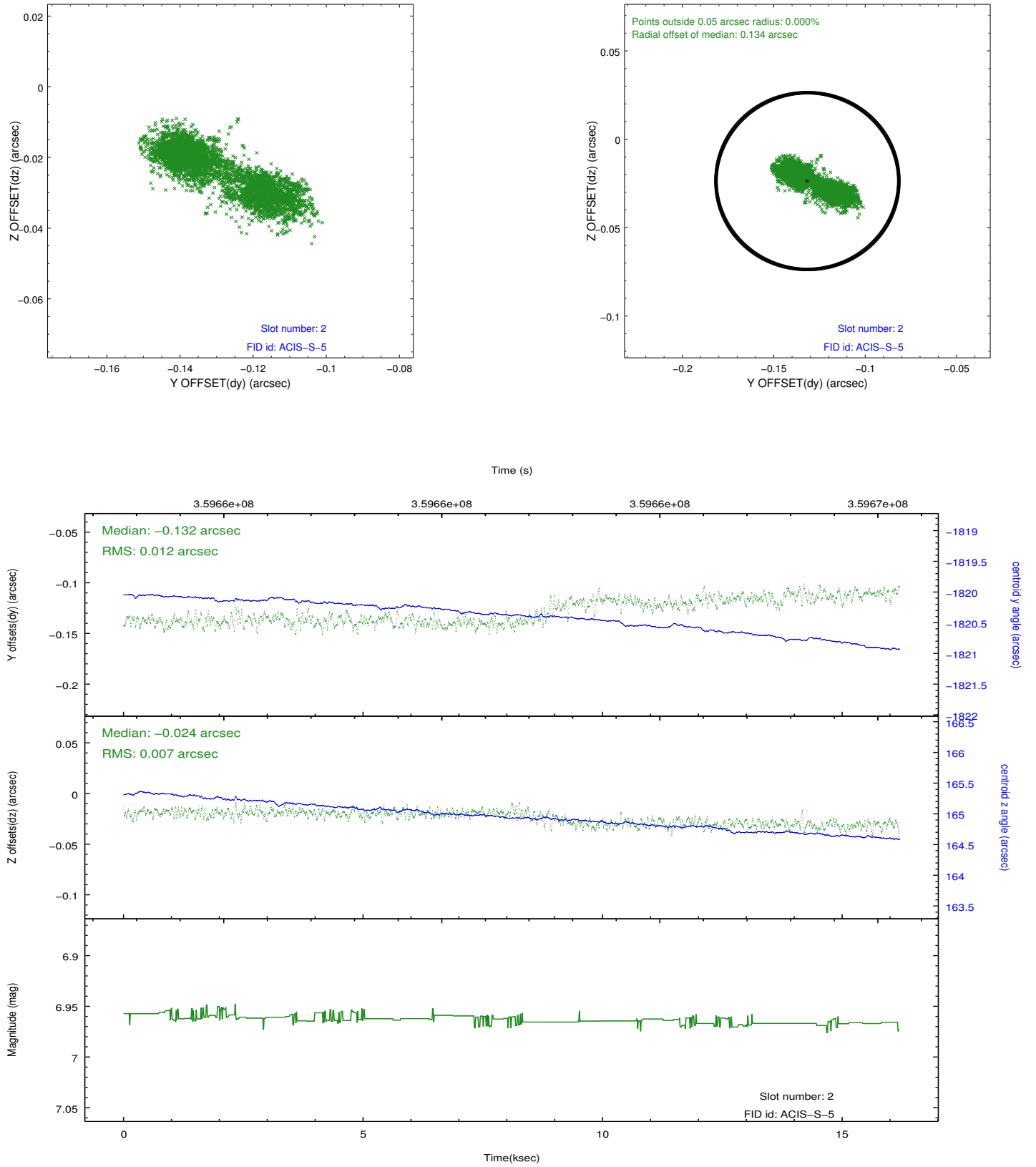
### 2.5.1 Slot 0



## 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)	2012.06.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.0431999

### A.2 Comments

Monitoring interval met.