

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 5307 - L2 Version 4  
Chandra X-Ray Center

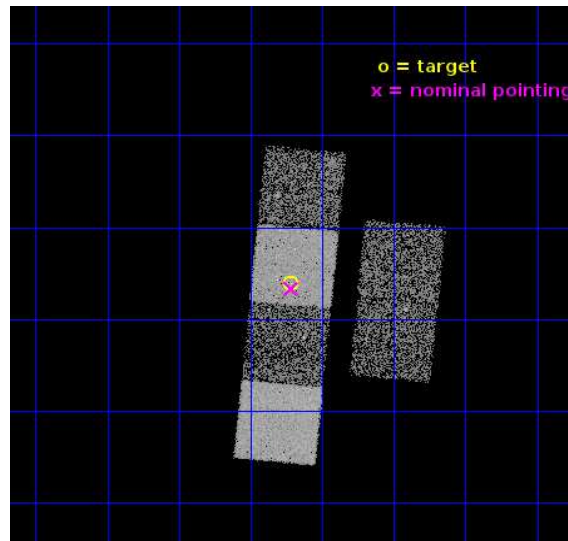
L2 Processing Date : Jul 9 2015

## 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

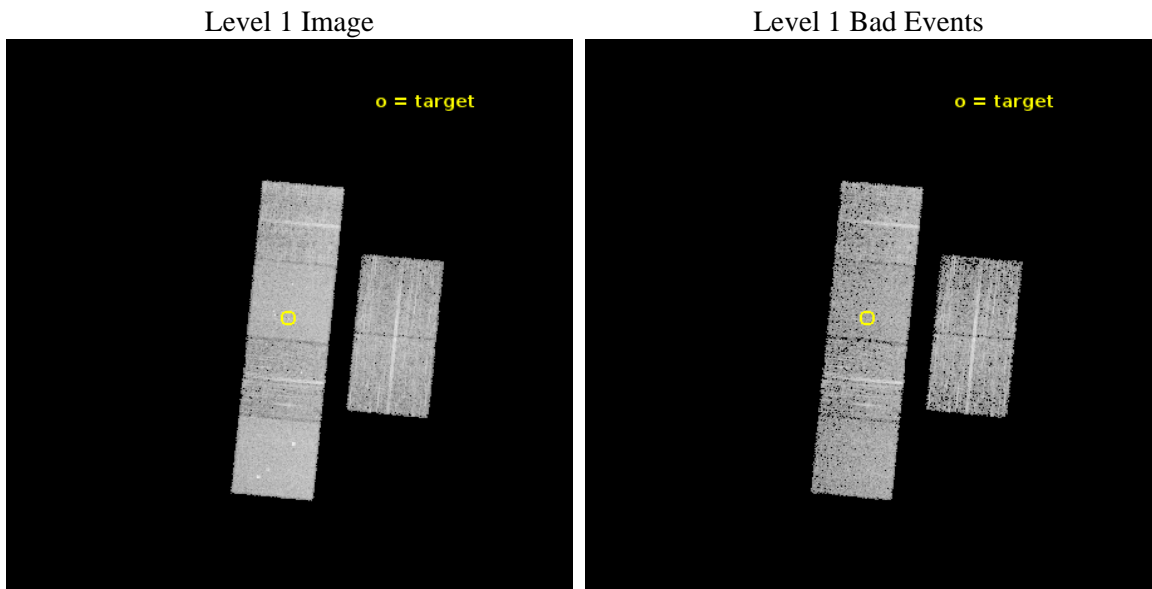
seq_num	200297	Sequence number
obs_id	5307	Observation id
title	A Star is Born: X-ray Imaging of the Onset of an FU Ori Outburst	P
observer	Dr. Joel Kastner	Principal investigator
object	IRAS05436-0007	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	86.554583	Observer's specified target RA [deg]
dec_targ	-0.101389	Observer's specified target Dec [deg]
ra_nom	86.553867470437	Nominal RA [deg]
dec_nom	-0.11114466899432	Nominal Dec [deg]
roll_nom	275.49381290505	Nominal Roll [deg]
revision	4	Processing version of data
ontime	5560.893681854	Sum of GTIs [s]
livetime	5490.4782976862	Livetime [s]
ontime2	5560.893681854	Sum of GTIs [s]
ontime3	5560.893681854	Sum of GTIs [s]
ontime5	5560.893681854	Sum of GTIs [s]
ontime6	5560.893681854	Sum of GTIs [s]
ontime7	5560.893681854	Sum of GTIs [s]
ontime8	5560.893681854	Sum of GTIs [s]
l2events	59249	Number of level 2 events



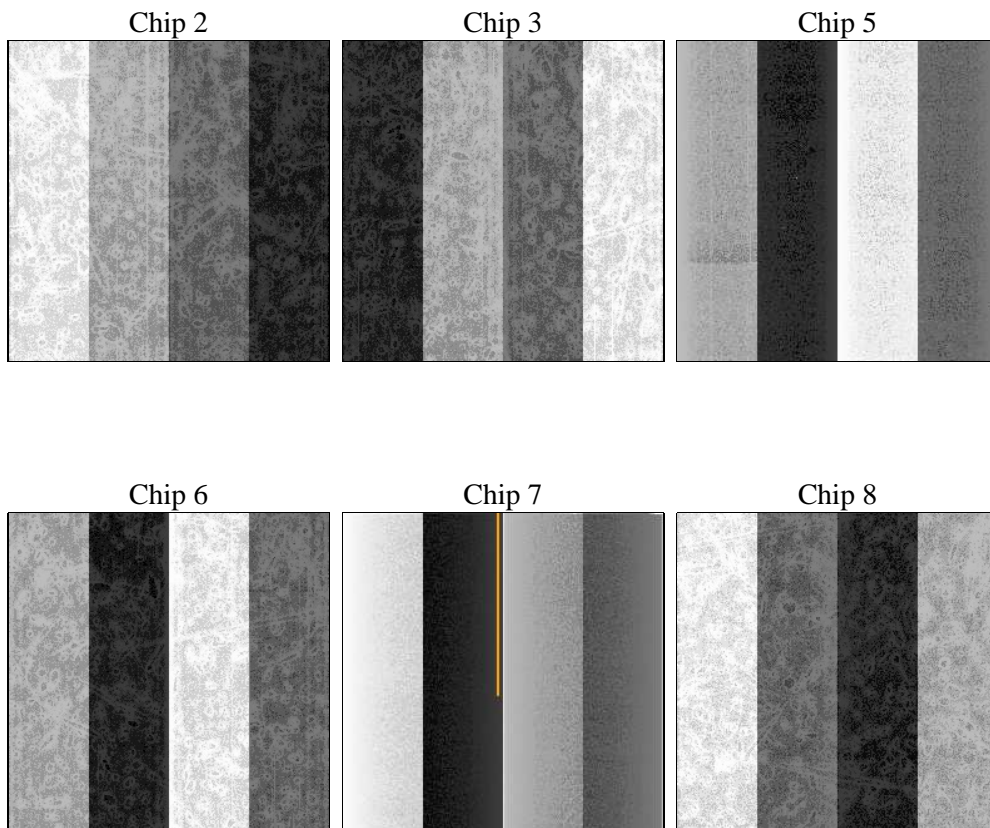
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5425.288000	[s] Scheduled observation exposure time
ascdsver	10.4.1	Processing system revision	ontime	5560.893681854	Sum of GTIs [s]
caldsver	4.6.8	&#160	ontime2	5560.893681854	Sum of GTIs [s]
date	2015-07-09T19:56:11	Date and time of file creation	ontime3	5560.893681854	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	5560.893681854	Sum of GTIs [s]
			ontime6	5560.893681854	Sum of GTIs [s]
			ontime7	5560.893681854	Sum of GTIs [s]
			ontime8	5560.893681854	Sum of GTIs [s]
			l1events	276833	Number of level 1 events

### 2.1.4 Events

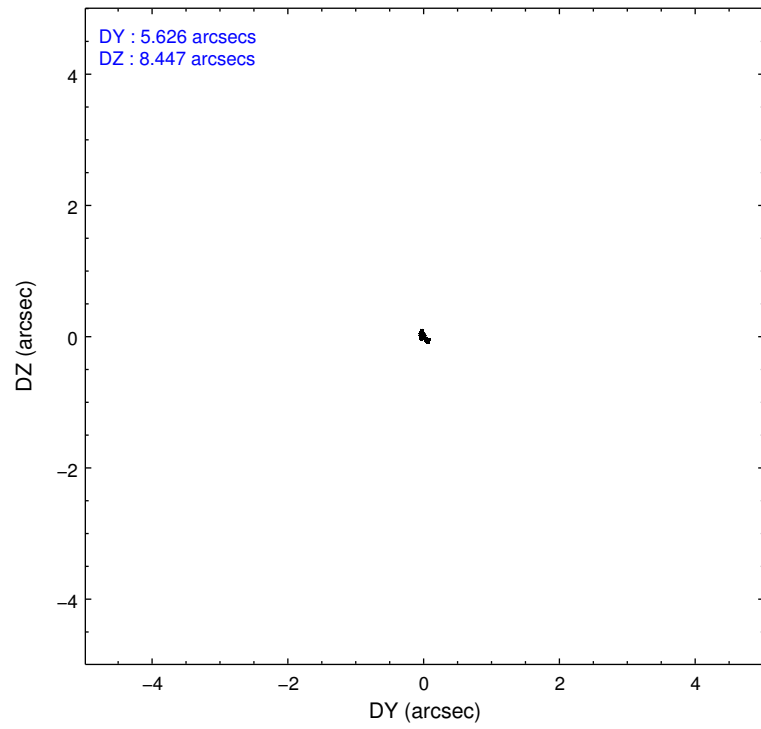
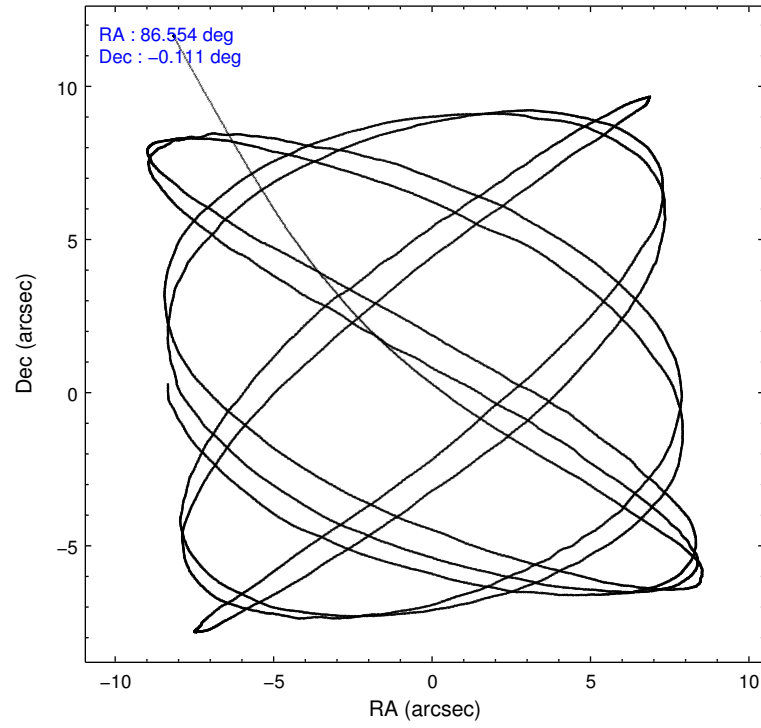
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	40337	37518	58118	38968	52685	49207	grade 0 events	2035	1902	2506	1963	1929	3187
rejected events	35977	33294	33089	34439	32316	39570		5%	5%	4%	5%	3%	6%
rejected %	89%	88%	56%	88%	61%	80%	grade 1 events	29	19	80	23	51	33
								0%	0%	0%	0%	0%	0%
							grade 2 events	929	873	7793	994	4137	2280
								2%	2%	13%	2%	7%	4%
							grade 3 events	421	432	982	461	1900	1093
								1%	1%	1%	1%	3%	2%
							grade 4 events	445	423	983	445	1975	1080
								1%	1%	1%	1%	3%	2%
							grade 5 events	1633	1684	4191	1749	4919	2314
								4%	4%	7%	4%	9%	4%
							grade 6 events	752	790	14203	900	11568	2521
								1%	2%	24%	2%	21%	5%
							grade 7 events	34093	31395	27380	32433	26206	36699
								84%	83%	47%	83%	49%	74%

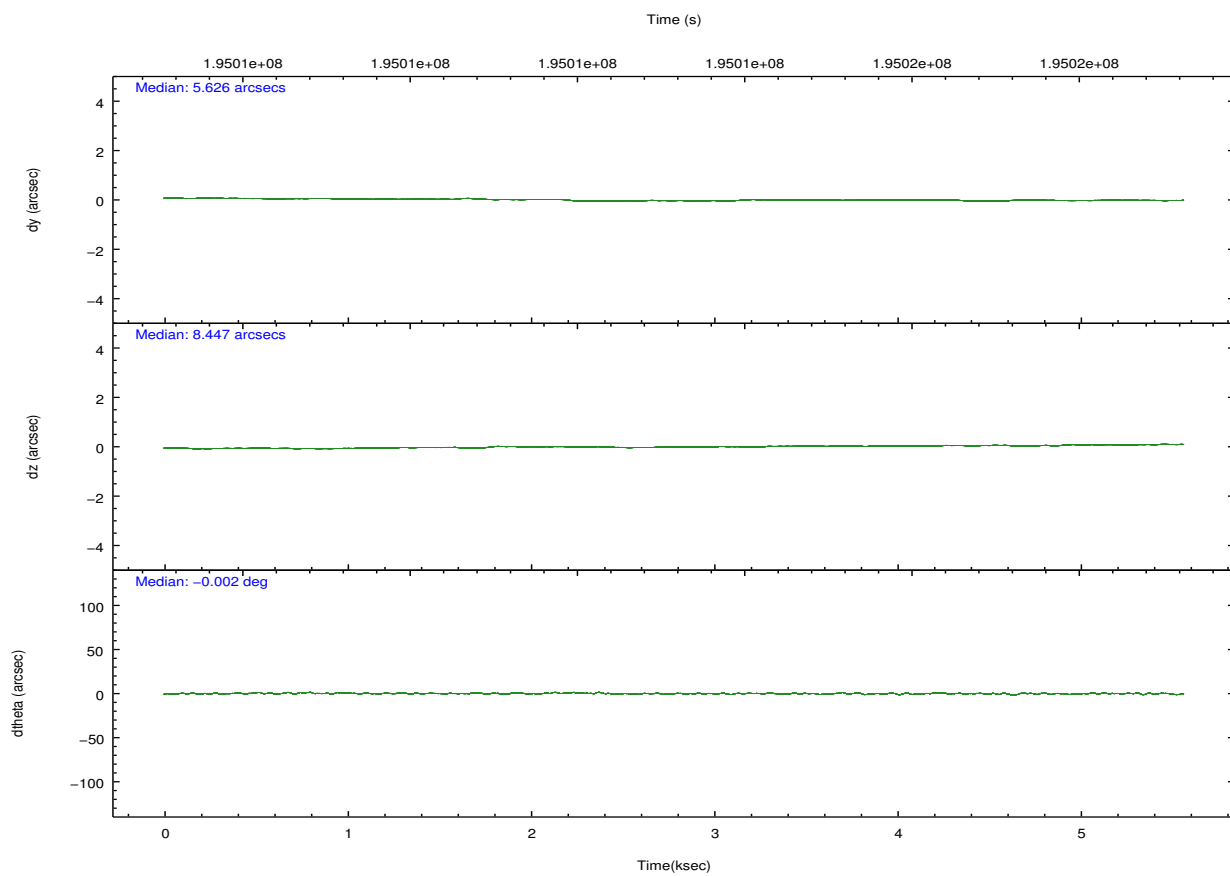
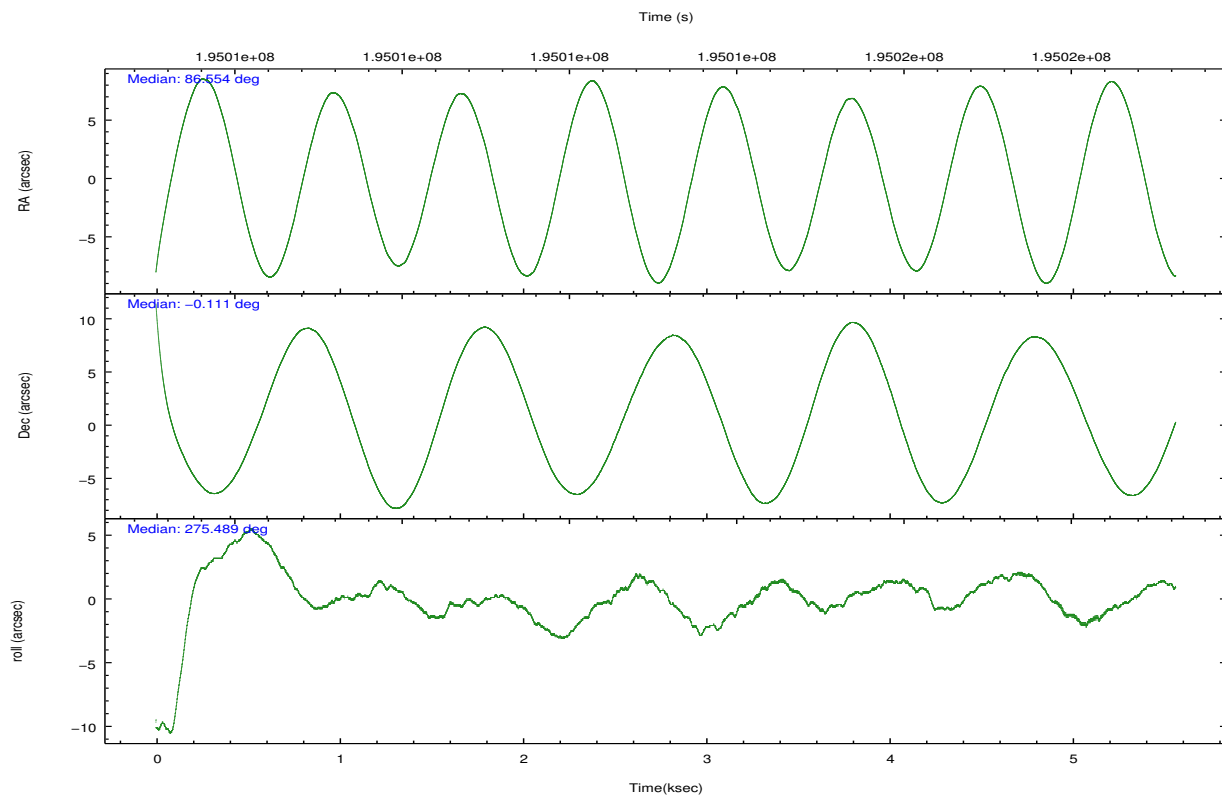


## 2.2 Compared Parameters

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	86.537703	86.55386747043732	Subarray requested	NONE	NONE
[deg] Pointing Dec	-0.089068	-0.1111446689943232	Alternating exposures requested	N	N
[deg] Pointing Roll	275.337159	275.4938129050509	[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)	195010934.184000	195009740.85977			
Observation start date	2004-03-07T01:41:10	2004-03-07T01:22:20			
[s] Observation end time (MET)	195016359.184000	195018246.31014			
Observation end date	2004-03-07T03:11:35	2004-03-07T03:44:06			
Read mode	TIMED	TIMED			

## 2.3 Aspect



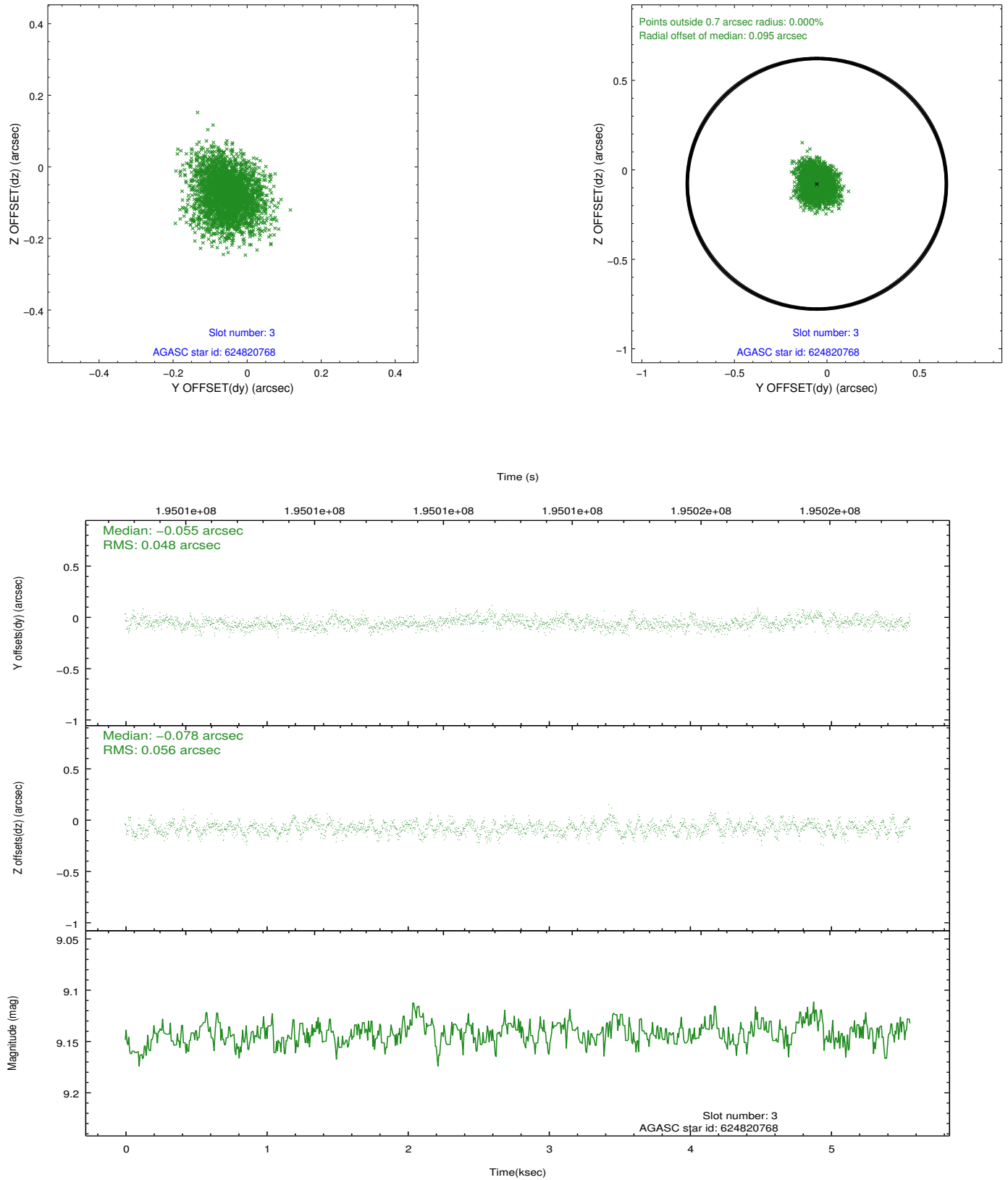


### Slot Statistics

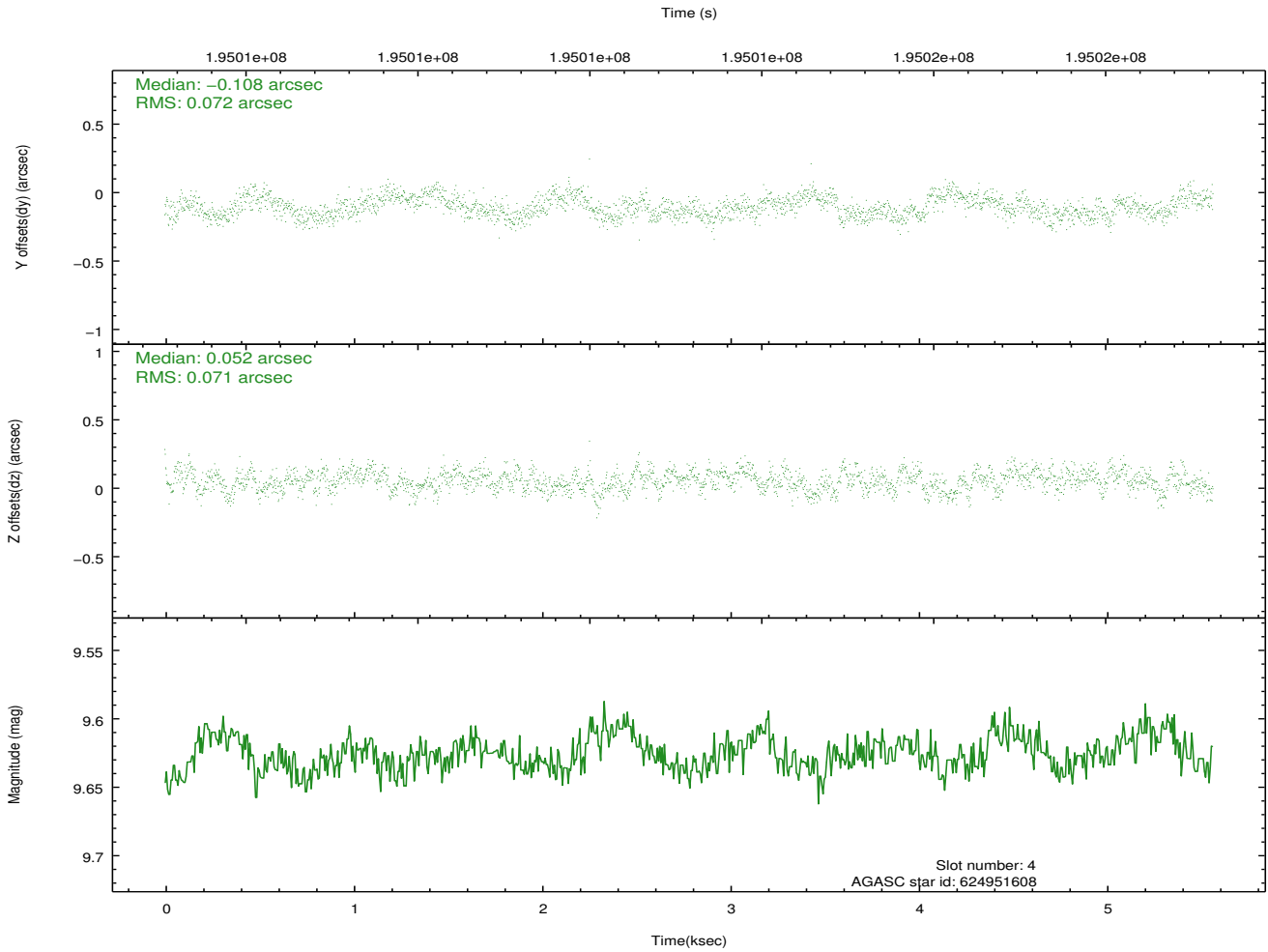
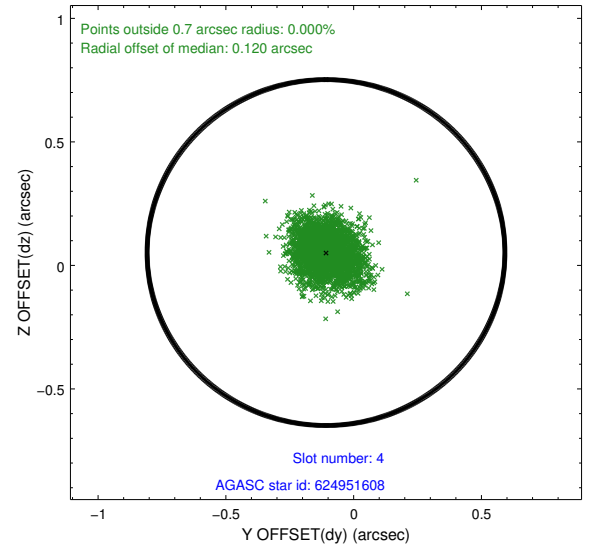
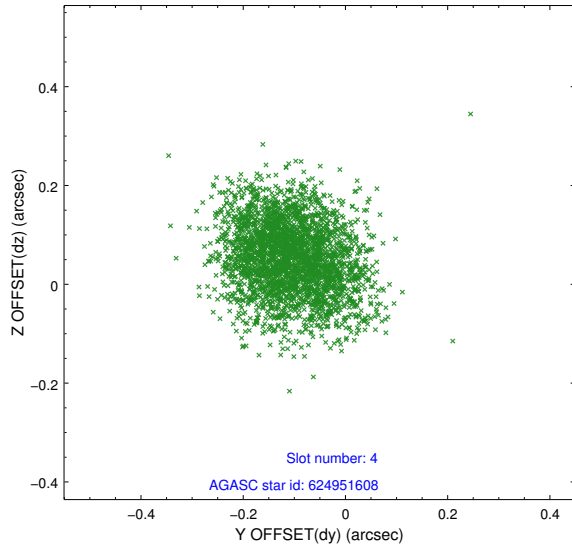
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.10	1358	0.003	-0.034	0.006	0.010	0.000000	0.000000	-758.40	-1729.61
1	FID		ACIS-S-5	7.23	1358	-0.065	0.021	0.007	0.011	0.000000	0.000000	-1812.01	171.34
2	FID		ACIS-S-6	7.35	1358	0.035	0.021	0.005	0.010	0.000000	0.000000	402.16	816.40
3	GUIDE	used	624820768	9.14	2712	-0.055	-0.078	0.080	0.128	86.202480	-0.061953	-209.52	-1192.67
4	GUIDE	used	624951608	9.63	2715	-0.108	0.052	0.109	0.171	86.354222	-0.045842	-216.63	-643.68
5	GUIDE	used	624953040	8.69	2715	-0.041	0.164	0.054	0.087	87.231595	-0.668980	2311.03	2293.26
6	GUIDE	used	624954088	9.60	2712	0.124	0.001	0.104	0.170	86.606399	-0.671650	2112.06	52.08
7	GUIDE	used	624954400	9.19	2713	0.071	-0.140	0.083	0.136	86.607838	-0.762568	2438.30	25.84

## 2.4 Star Slots

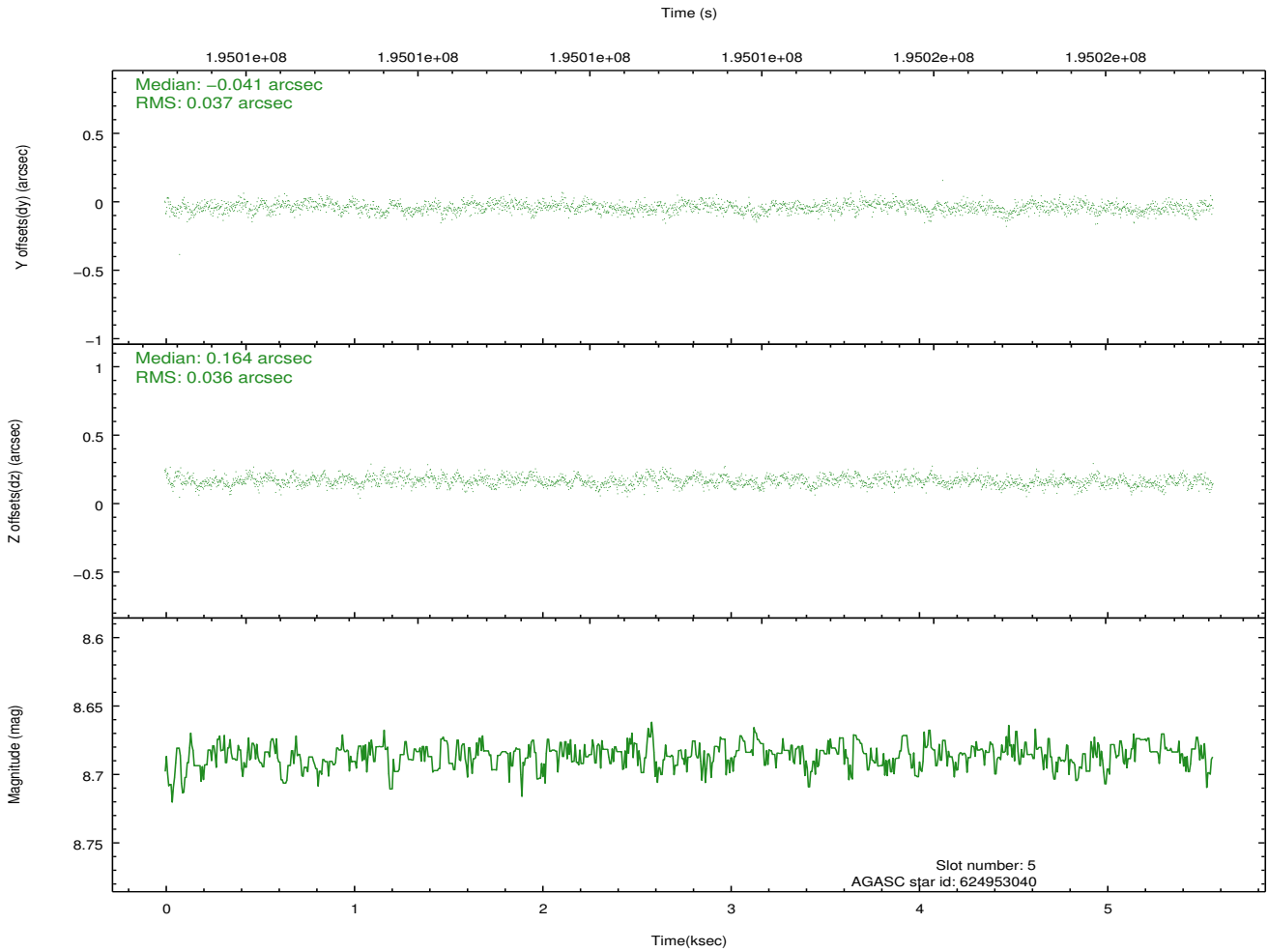
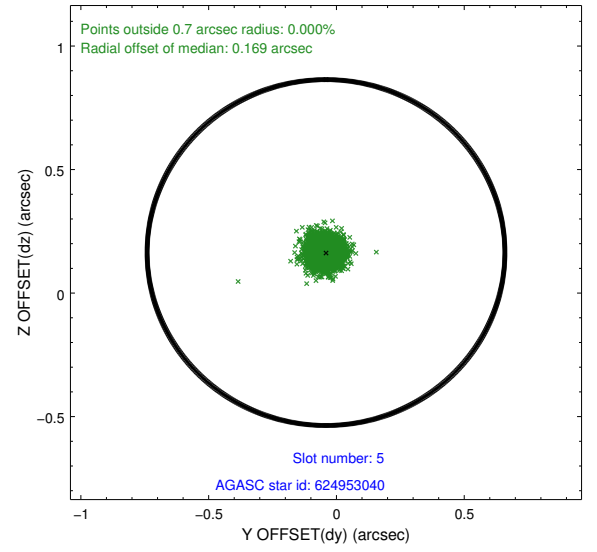
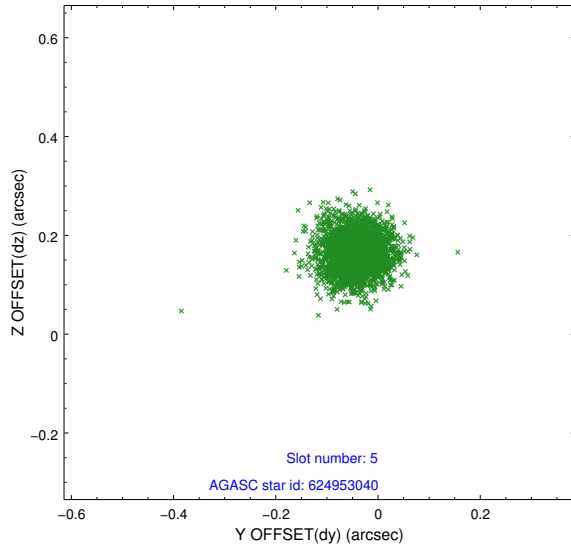
### 2.4.1 Slot 3



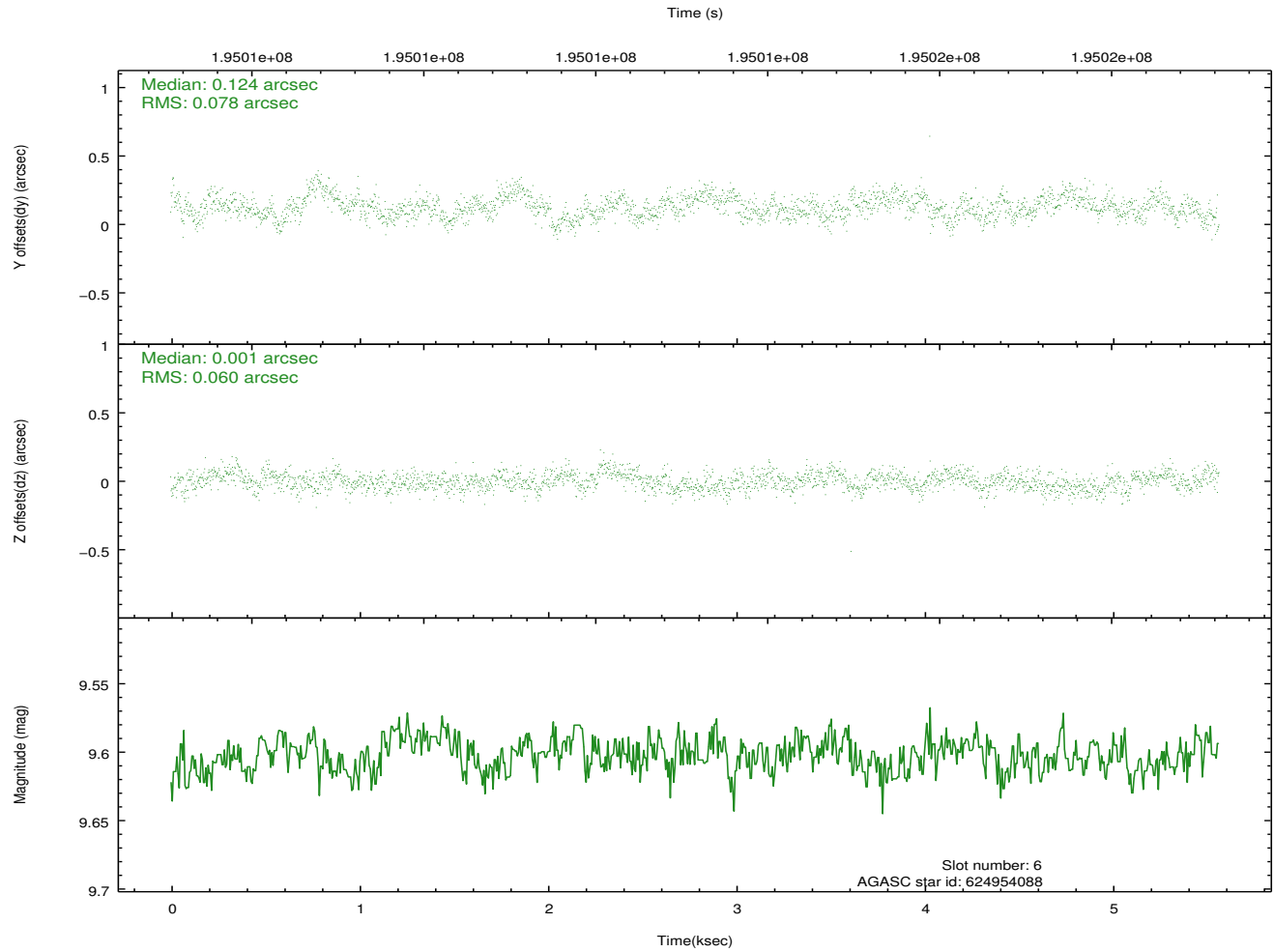
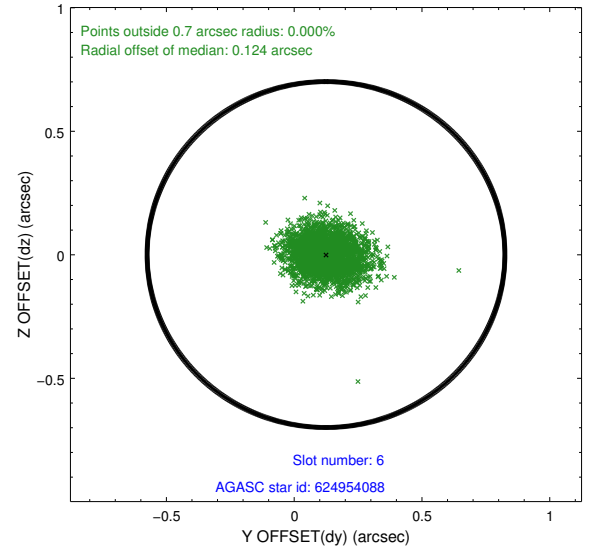
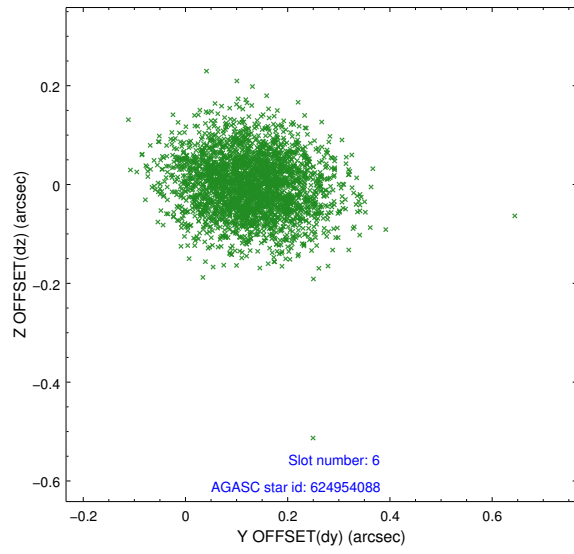
## 2.4.2 Slot 4



### 2.4.3 Slot 5

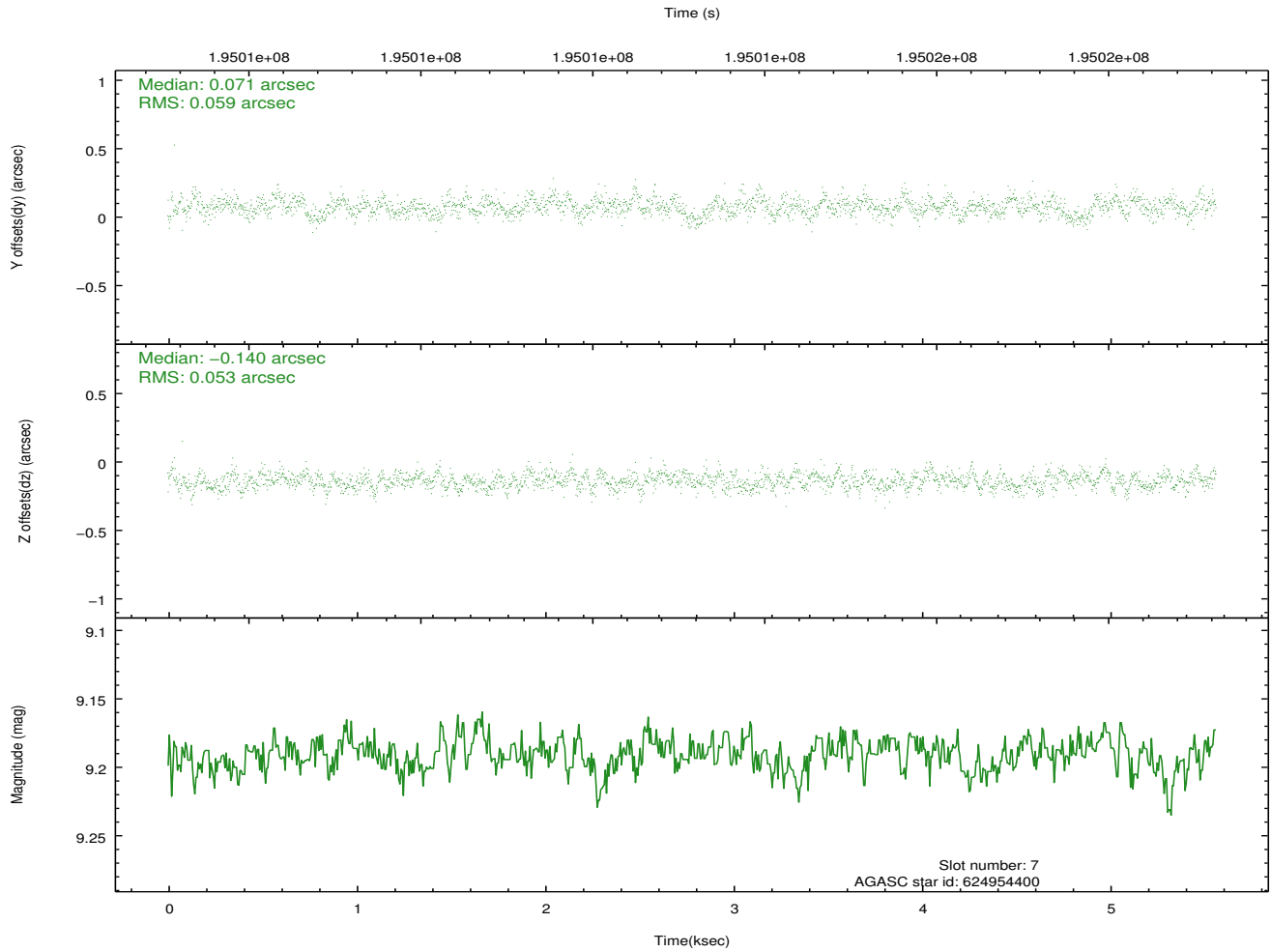
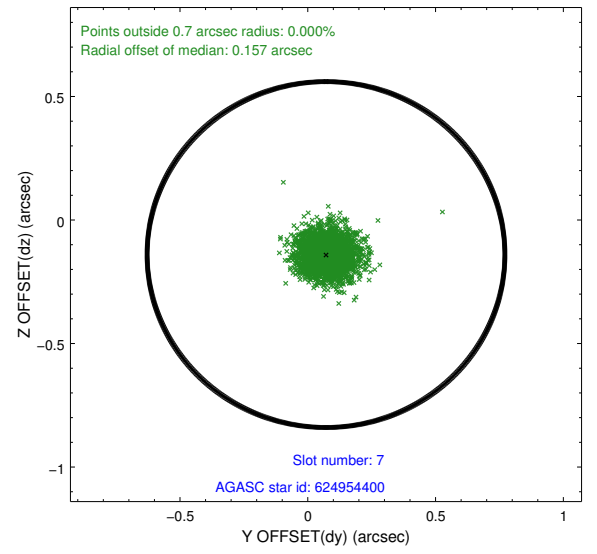
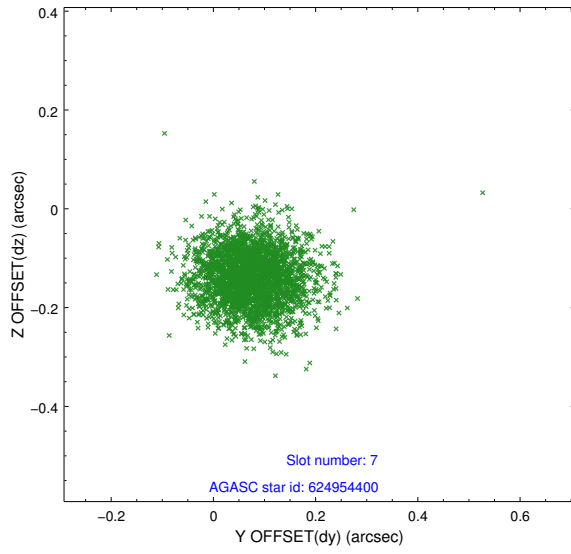


## 2.4.4 Slot 6



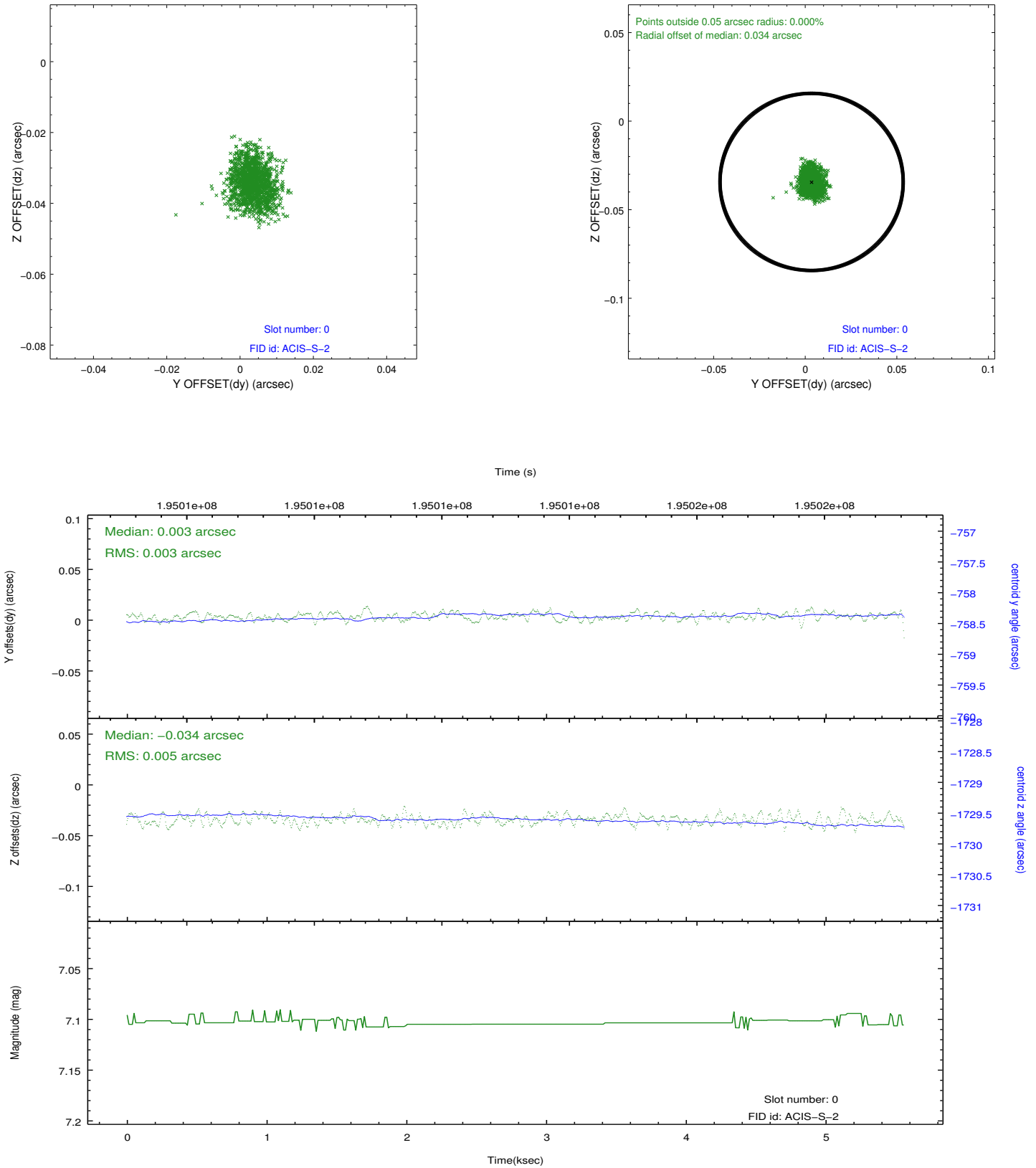


## 2.4.5 Slot 7

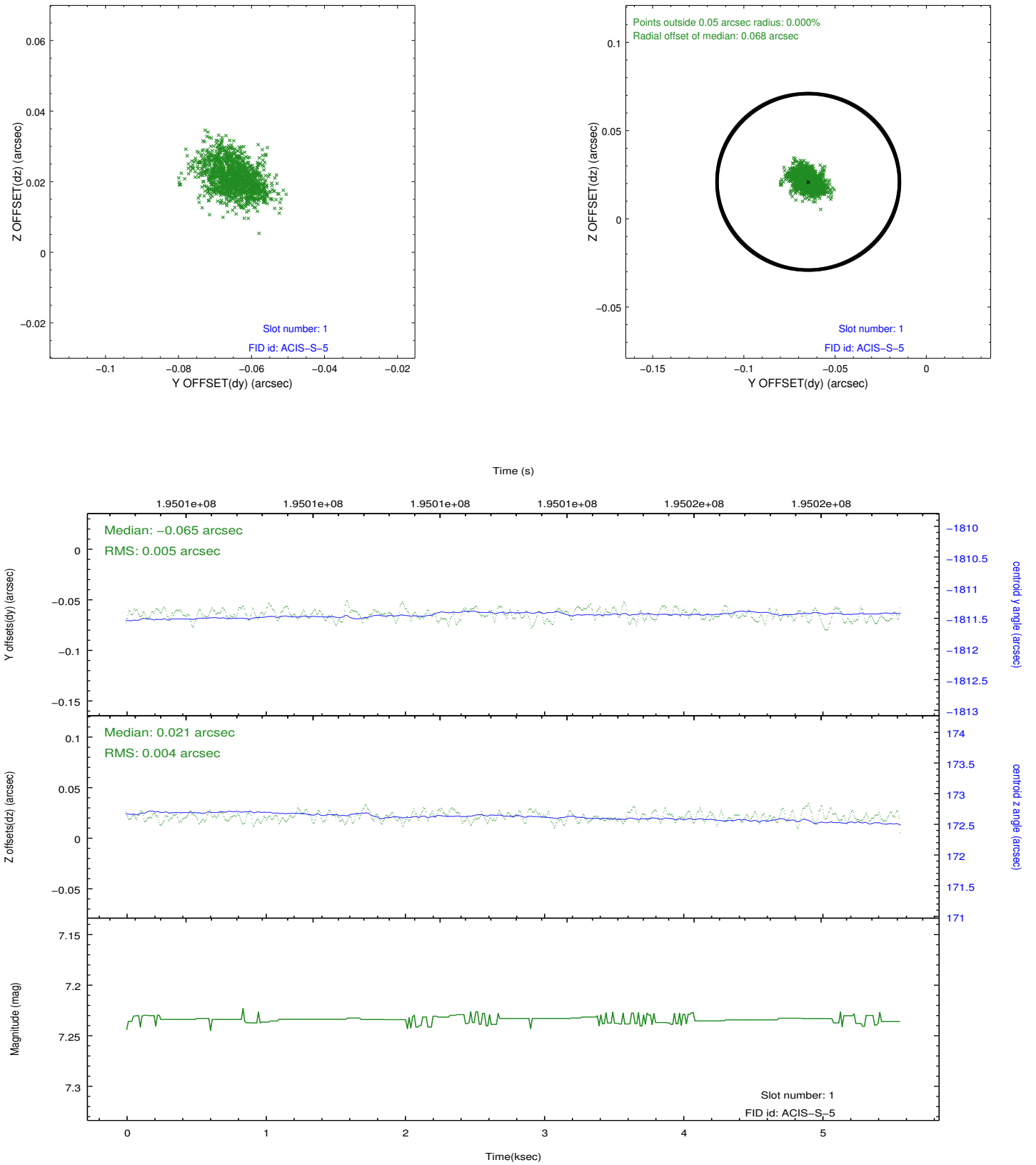


## 2.5 FID Slots

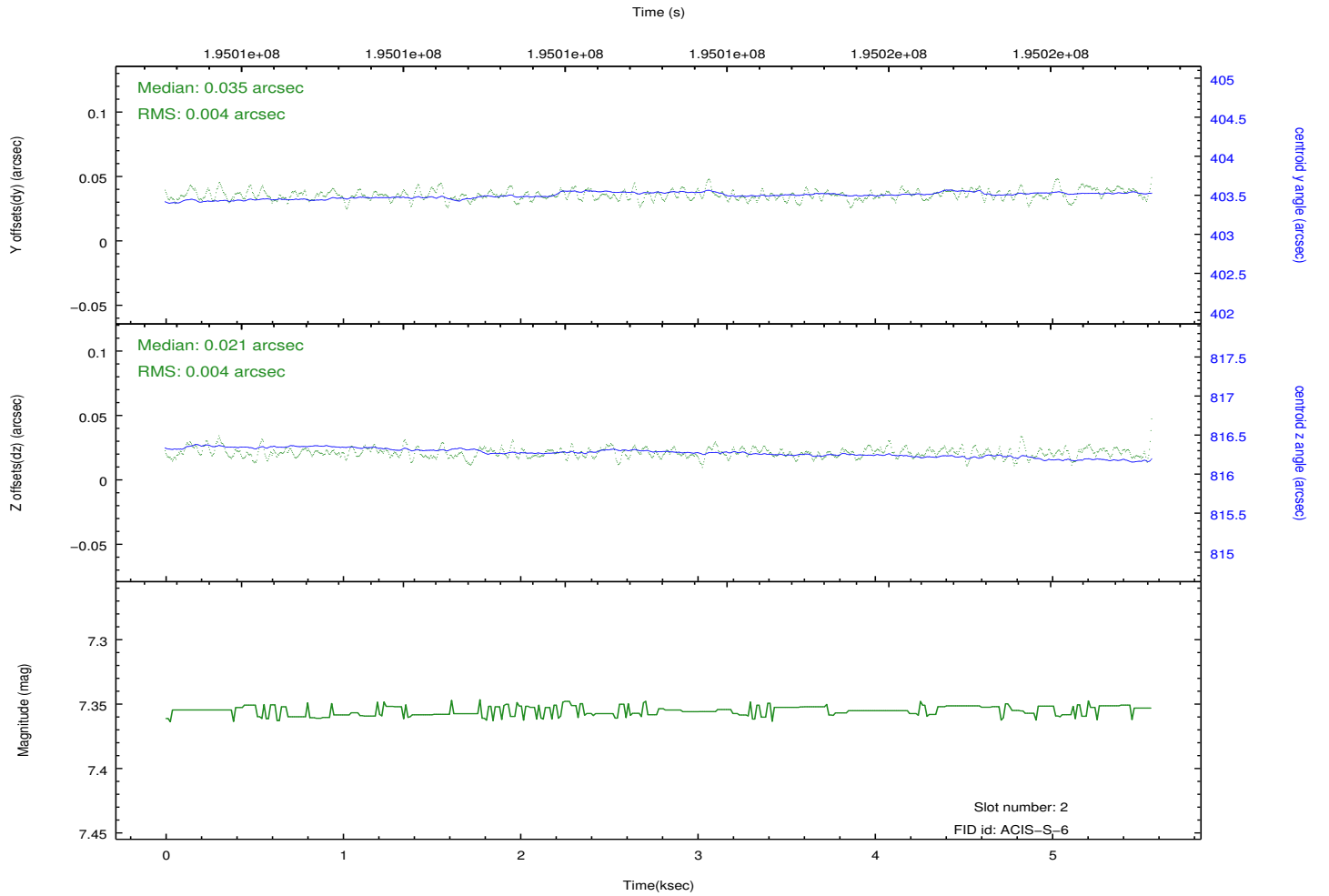
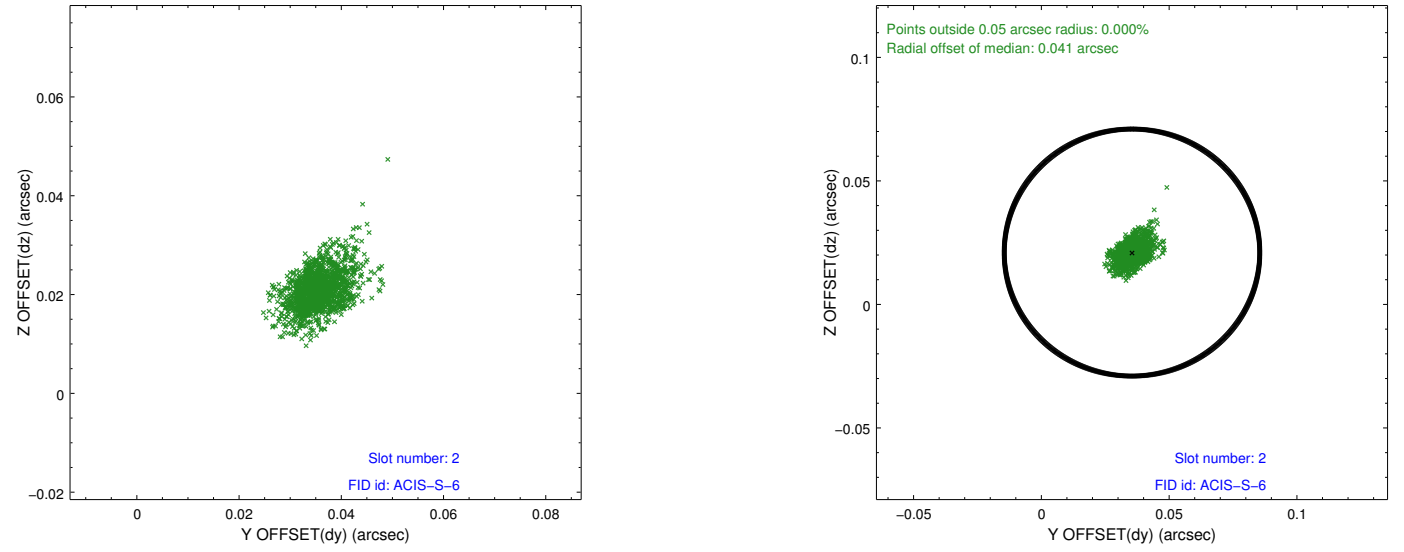
### 2.5.1 Slot 0



## 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)	2015.07.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.561

## A.2 Comments

Because an aspect solution is determined in a finite time interval, a small number of events registered within the delta time before the first aspect solution do not have proper sky coordinates. We apply a manual workaround to exclude those events with incorrect sky positions until the complete s/w resolution is obtained.