

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 7312 - L2 Version 3  
Chandra X-Ray Center

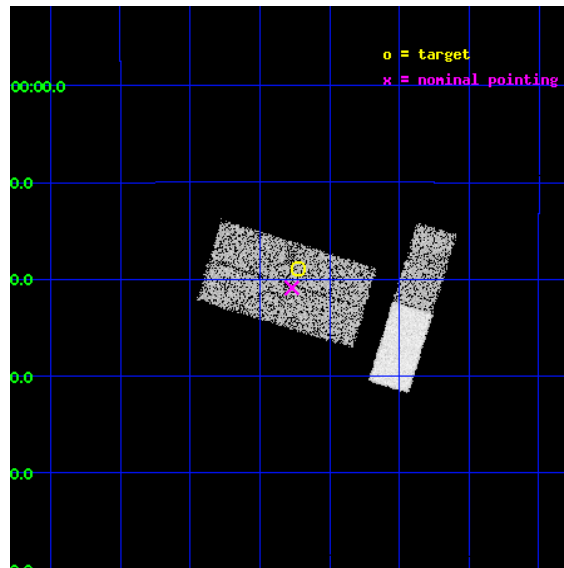
L2 Processing Date : Apr 20 2012

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# 1 Front

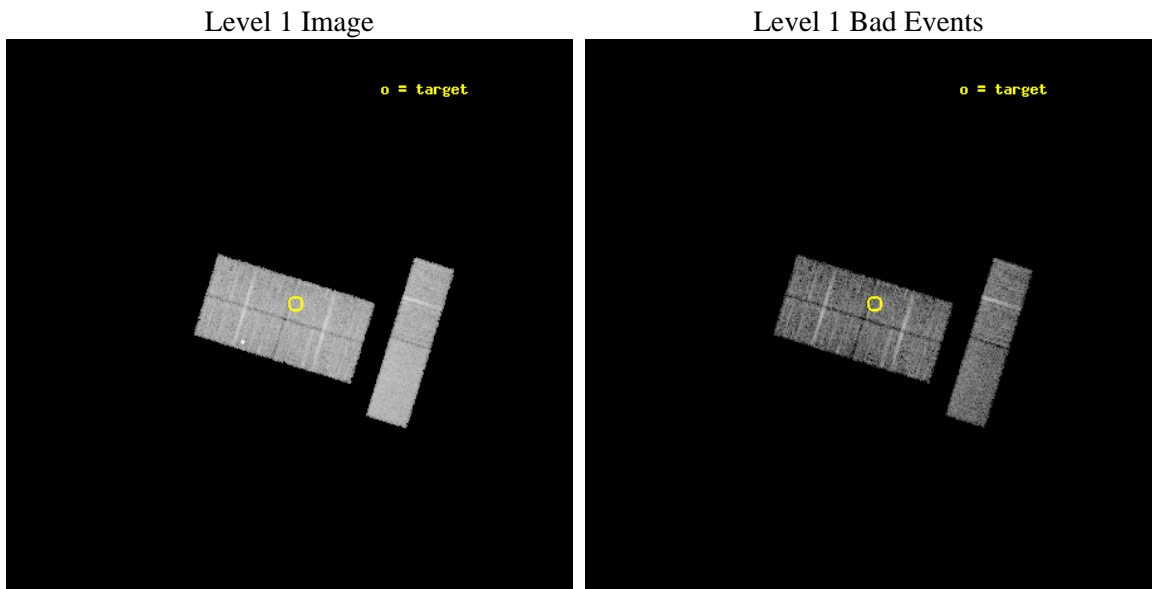
seq_num	100062	Sequence number
obs_id	7312	Observation id
title	Search for charge exchange induced X-ray emission in the Venusian exosphere	Proposal title
observer	Dr. Peter Predehl	Principal investigator
object	Venus	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	322.305523	Observer's specified target RA [deg]
dec_targ	-13.315878	Observer's specified target Dec [deg]
ra_nom	322.31763444055	Nominal RA [deg]
dec_nom	-13.34838446608	Nominal Dec [deg]
roll_nom	107.18324438005	Nominal Roll [deg]
revision	3	Processing version of data
ontime	6388.2000423074	Sum of GTIs [s]
livetime	6245.7958958813	Livetime [s]
ontime0	6388.2000423074	Sum of GTIs [s]
ontime1	6386.3590521216	Sum of GTIs [s]
ontime2	6388.2000423074	Sum of GTIs [s]
ontime3	6388.2000423074	Sum of GTIs [s]
ontime6	6388.2000423074	Sum of GTIs [s]
ontime7	6388.2000423074	Sum of GTIs [s]
l2events	31276	Number of level 2 events



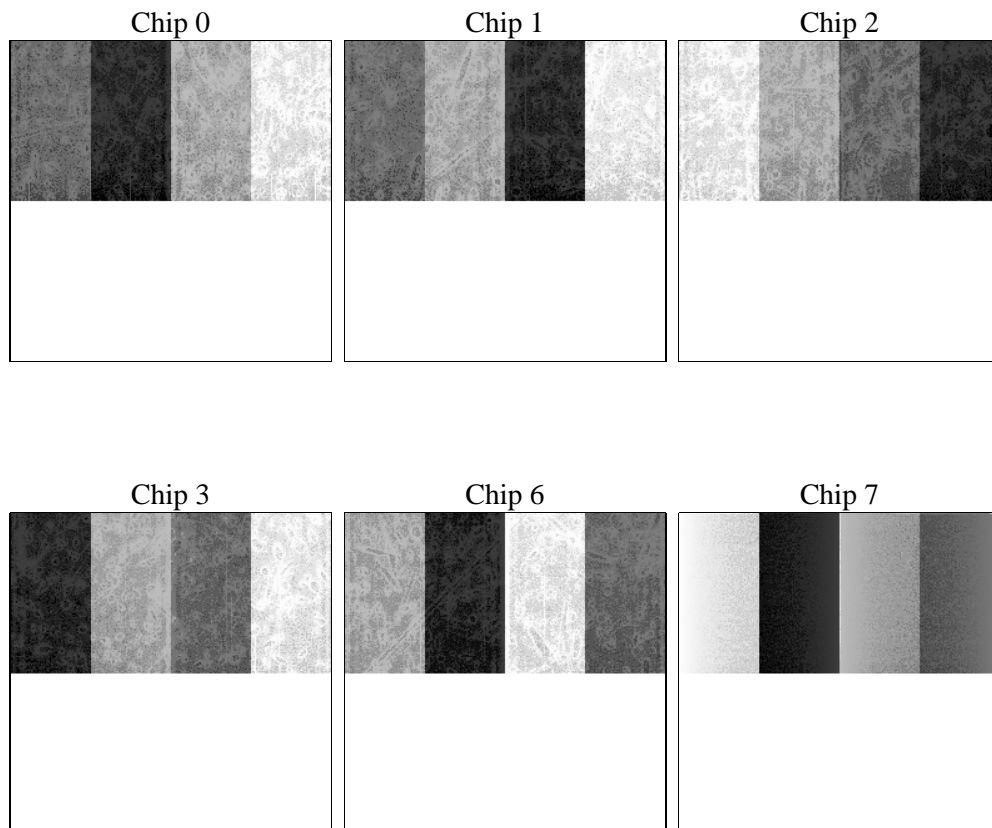
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6200.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	6388.2000423074	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	6388.2000423074	Sum of GTIs [s]
date	2012-04-20T21:46:47	Date and time of file creation	ontime1	6386.3590521216	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	6388.2000423074	Sum of GTIs [s]
			ontime3	6388.2000423074	Sum of GTIs [s]
			ontime6	6388.2000423074	Sum of GTIs [s]
			ontime7	6388.2000423074	Sum of GTIs [s]
			l1events	201240	Number of level 1 events

### 2.1.4 Events

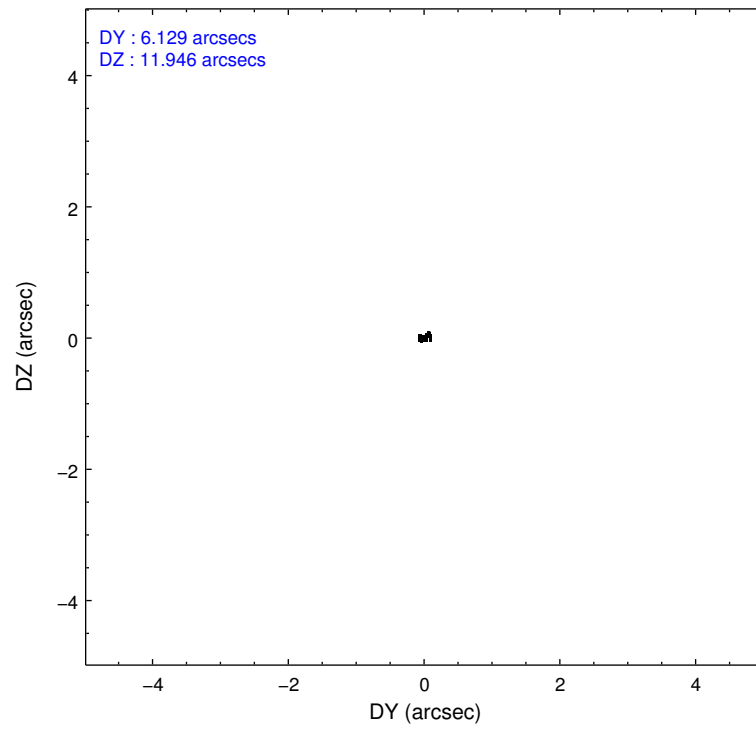
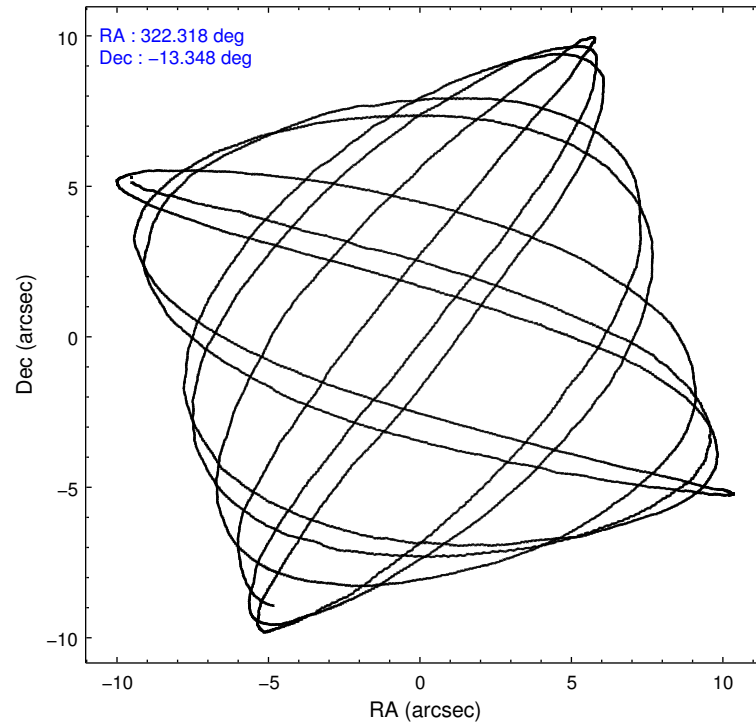
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	29269	31911	32415	31829	34050	41766	grade 0 events	1626	2755	1717	1562	1399	1575
rejected events	25664	27034	28682	28351	30416	25341		5%	8%	5%	4%	4%	3%
rejected %	87%	84%	88%	89%	89%	60%	grade 1 events	29	20	28	28	16	52
								0%	0%	0%	0%	0%	0%
							grade 2 events	748	870	715	664	773	3461
								2%	2%	2%	2%	2%	8%
							grade 3 events	396	413	450	424	433	1614
								1%	1%	1%	1%	1%	3%
							grade 4 events	386	406	403	377	459	1677
								1%	1%	1%	1%	1%	4%
							grade 5 events	1247	1323	1256	1529	1569	4084
								4%	4%	3%	4%	4%	9%
							grade 6 events	645	685	630	610	782	8882
								2%	2%	1%	1%	2%	21%
							grade 7 events	24192	25439	27216	26635	28619	20421
								82%	79%	83%	83%	84%	48%

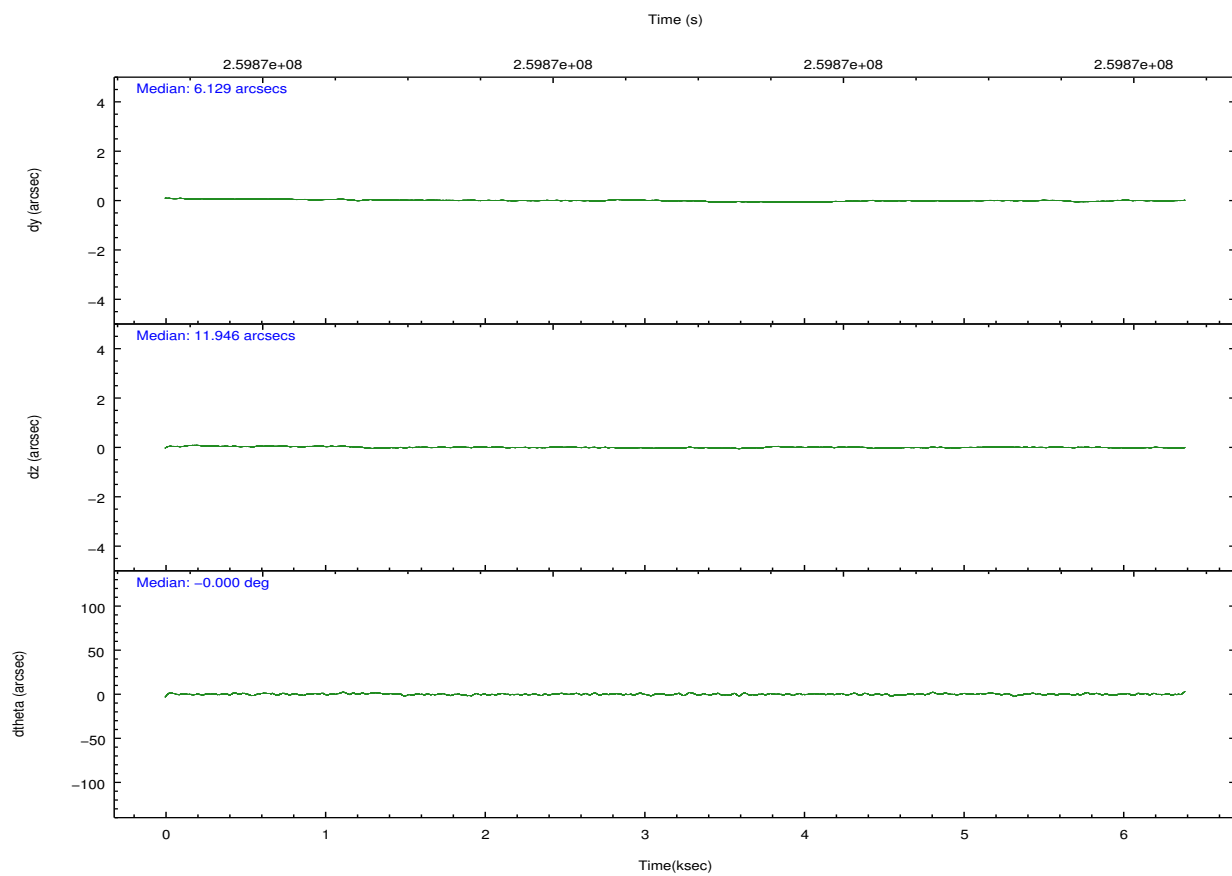
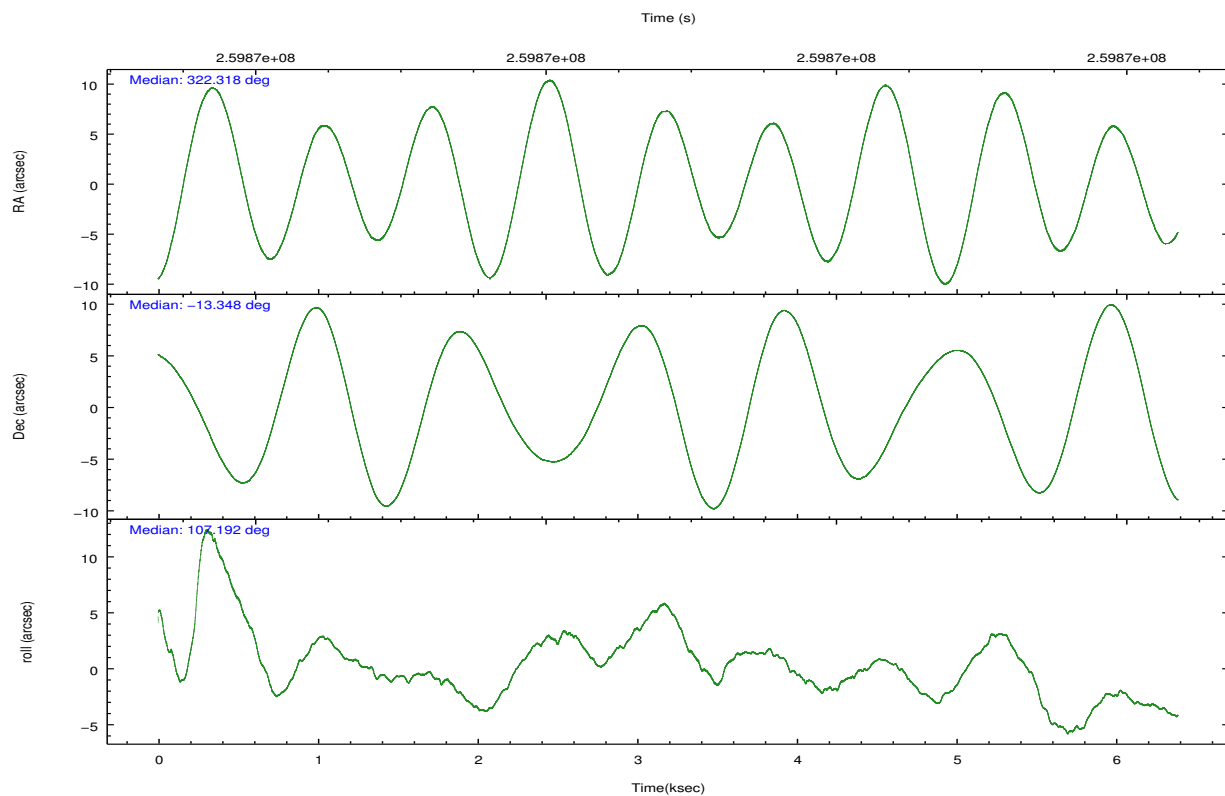


## 2.2 Compared Parameters

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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	322.338382	322.3176344405543	Subarray requested	CUSTOM	1/2
[deg] Pointing Dec	-13.366934	-13.34838446607962	Subarray start row	513	513
[deg] Pointing Roll	106.979353	107.1832443800479	Subarray row count	512	512
[s] Window start time (MET)	258076865.184000	258076865.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	261705665.184000	261705665.184000	[s] Primary exposure time	0.000000	1.8
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	259867832.184000	259867456.73486			
Observation start date	2006-03-27T17:29:27	2006-03-27T17:24:16			
[s] Observation end time (MET)	259874032.184000	259874166.38517			
Observation end date	2006-03-27T19:12:47	2006-03-27T19:16:06			
Read mode	TIMED	TIMED			

## 2.3 Aspect



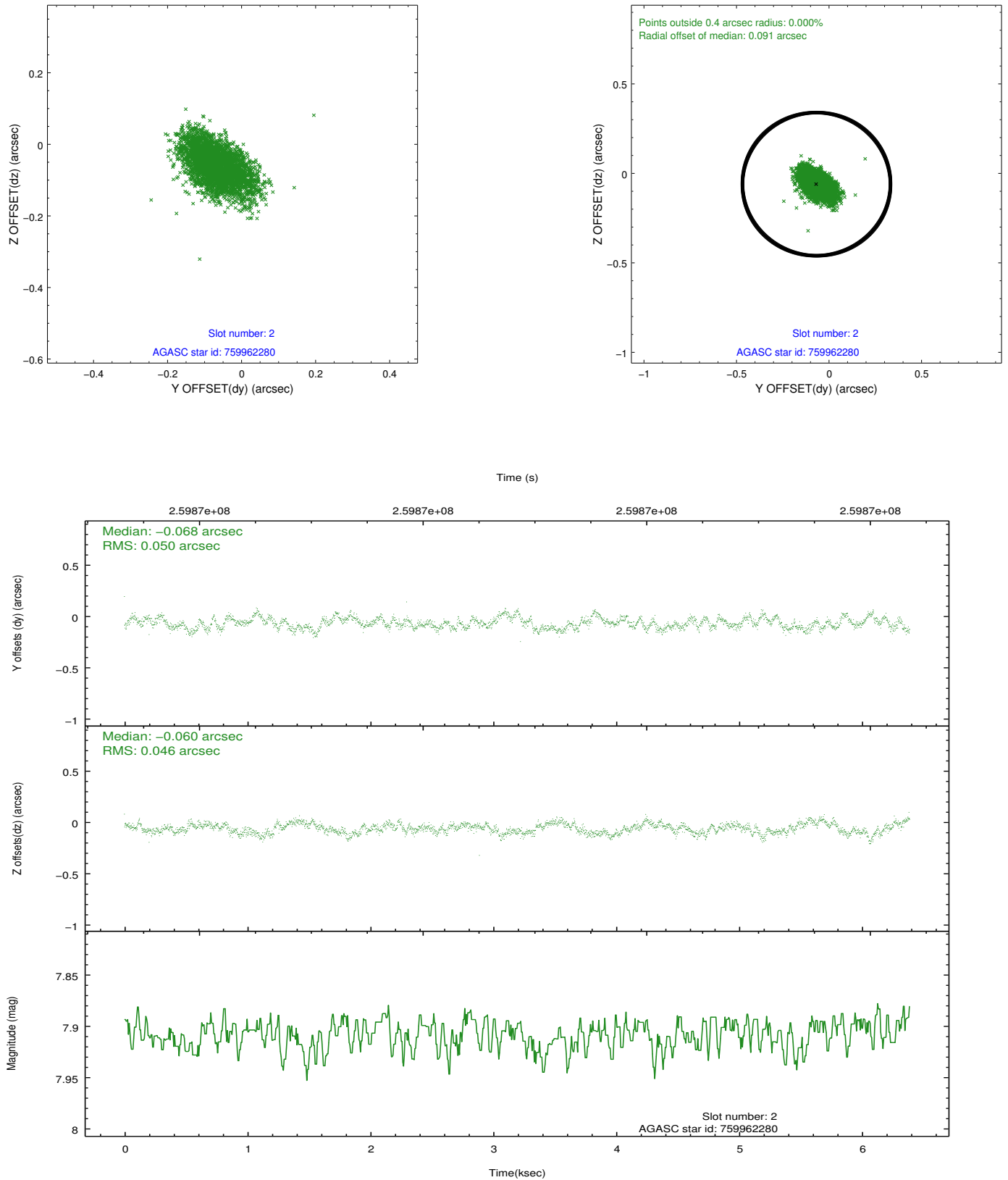


Slot Statistics

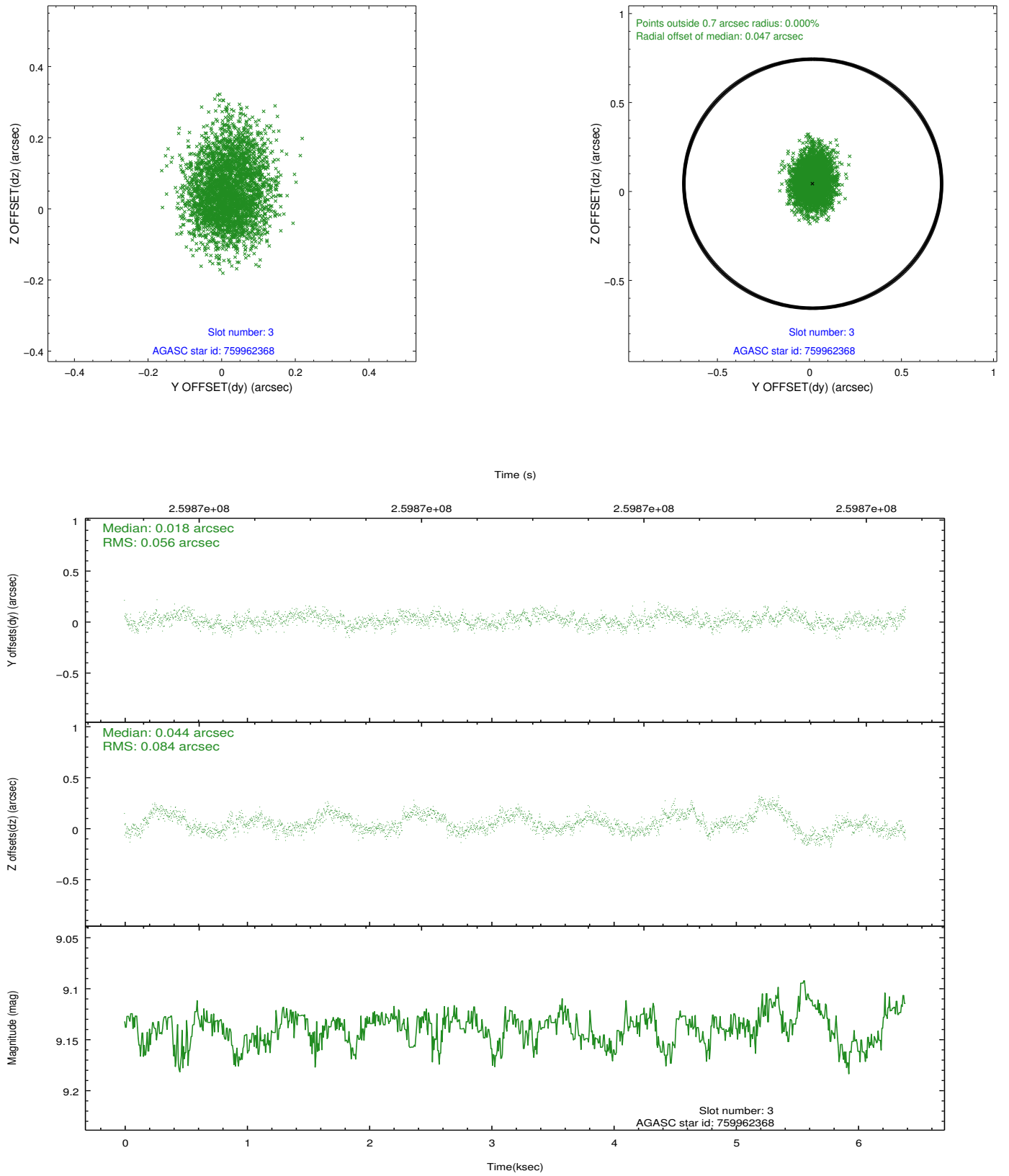
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.14	1559	0.023	-0.076	0.006	0.013	0.000000	0.000000	-760.60	-841.89
1	FID	ACIS-I-5	7.23	1559	-0.086	0.124	0.006	0.013	0.000000	0.000000	-1815.17	1061.73
2	GUIDE	759962280	7.91	3117	-0.068	-0.060	0.071	0.120	322.001957	-13.698366	-798.70	1474.21
3	GUIDE	759962368	9.14	3114	0.018	0.044	0.106	0.178	322.267195	-13.797795	-1411.23	691.68
4	GUIDE	759962544	9.39	3112	0.171	-0.042	0.092	0.145	322.119077	-13.952845	-1794.16	1349.20
5	GUIDE	759962960	8.44	3118	-0.173	-0.069	0.075	0.121	321.922663	-13.562736	-251.14	1597.89
6	GUIDE	759963784	9.88	3099	0.049	0.119	0.123	0.202	322.079300	-13.771695	-1129.55	1292.71
7	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

## 2.4 Star Slots

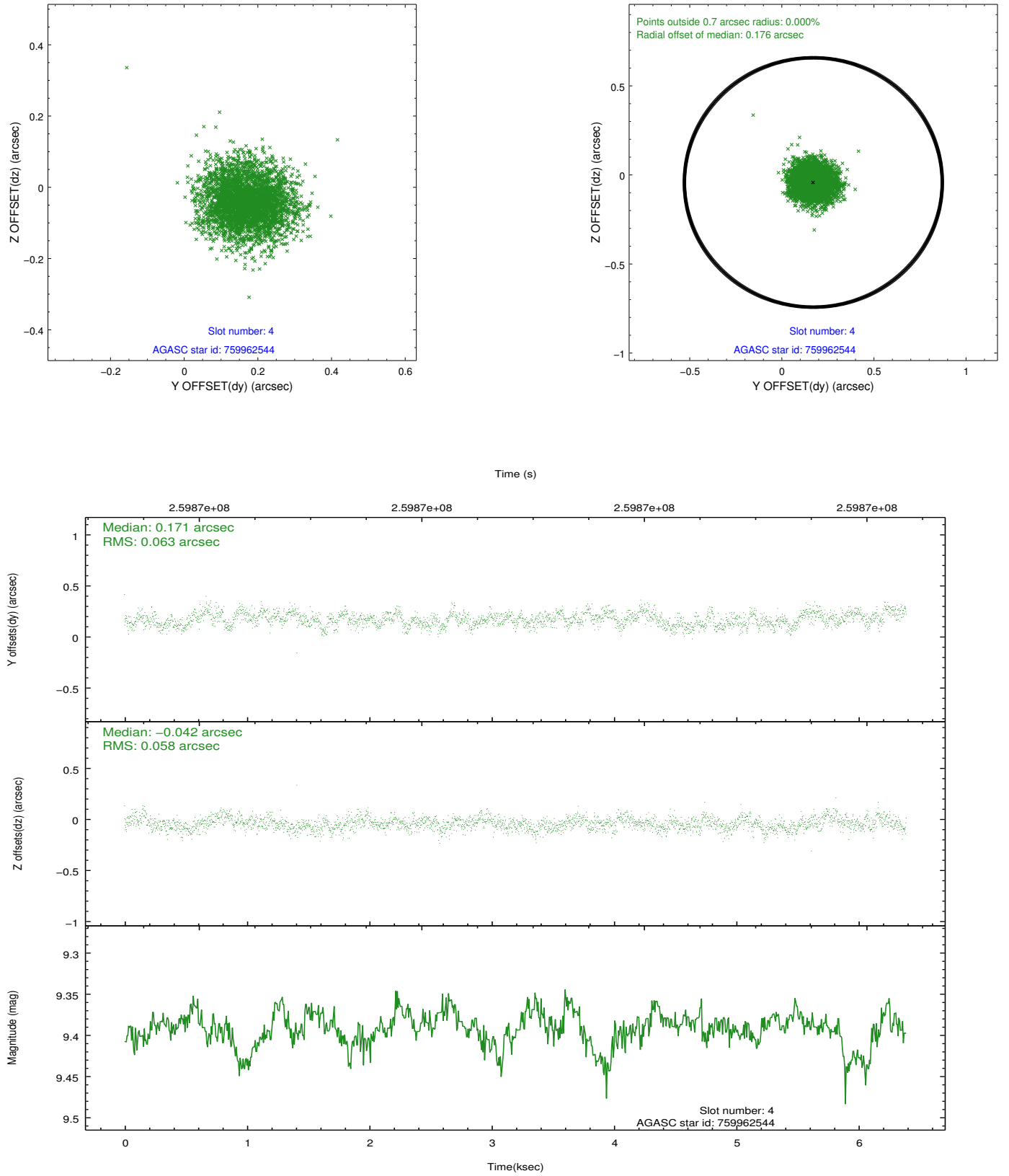
### 2.4.1 Slot 2



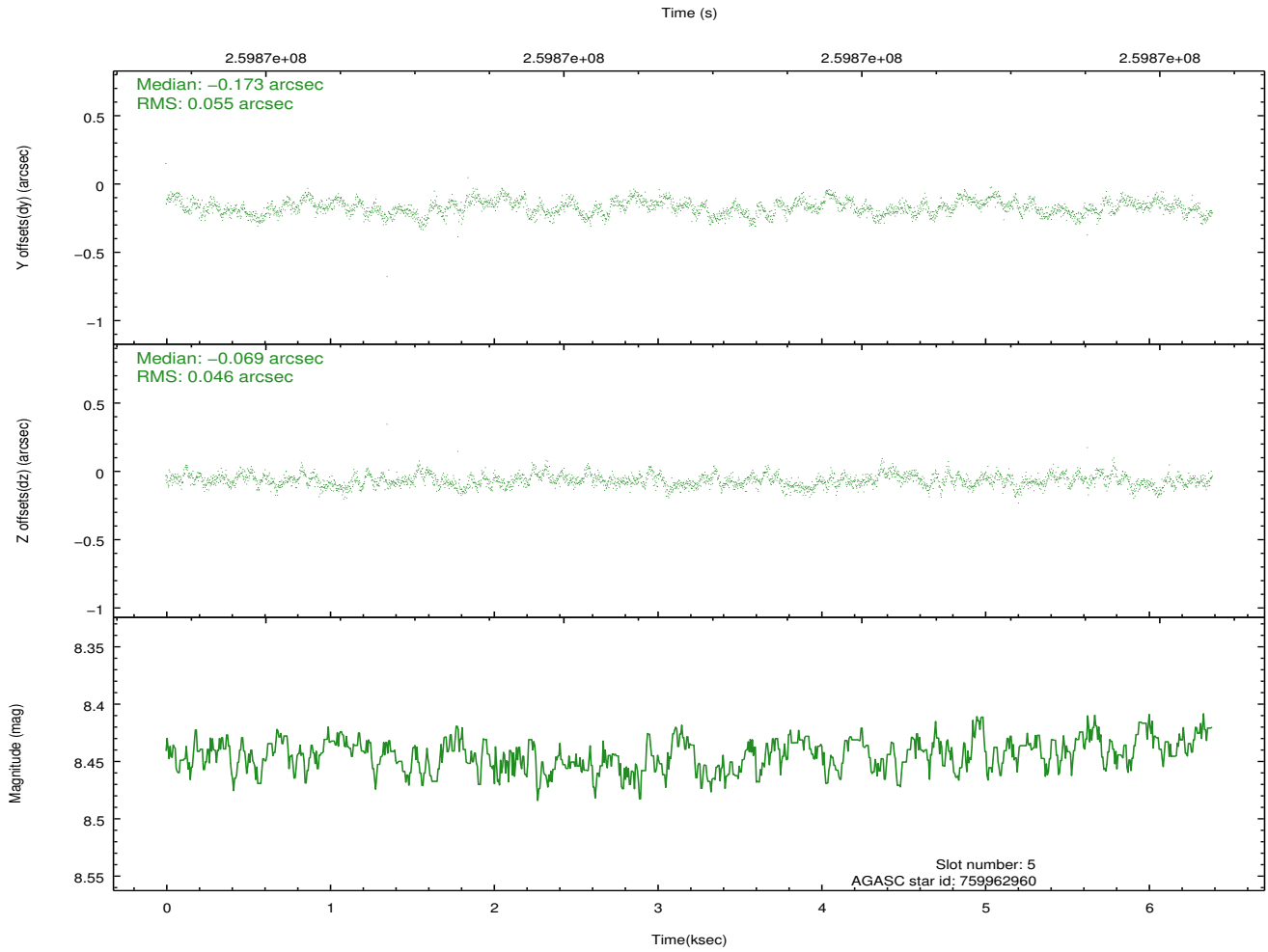
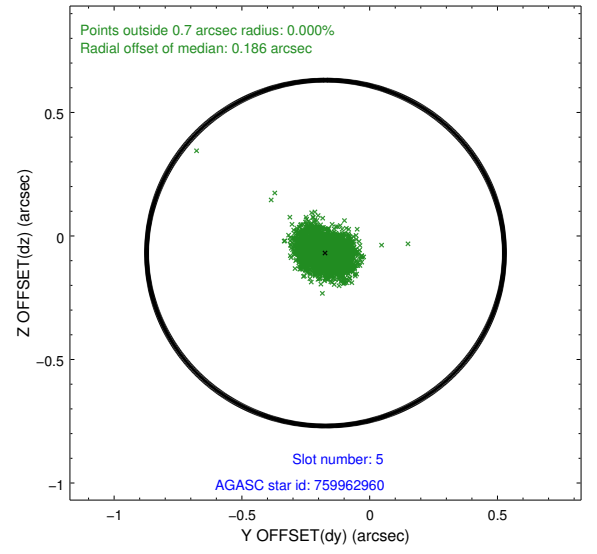
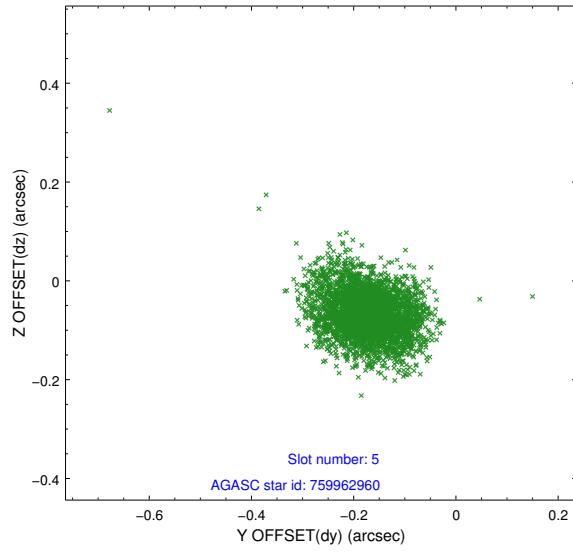
## 2.4.2 Slot 3



### 2.4.3 Slot 4

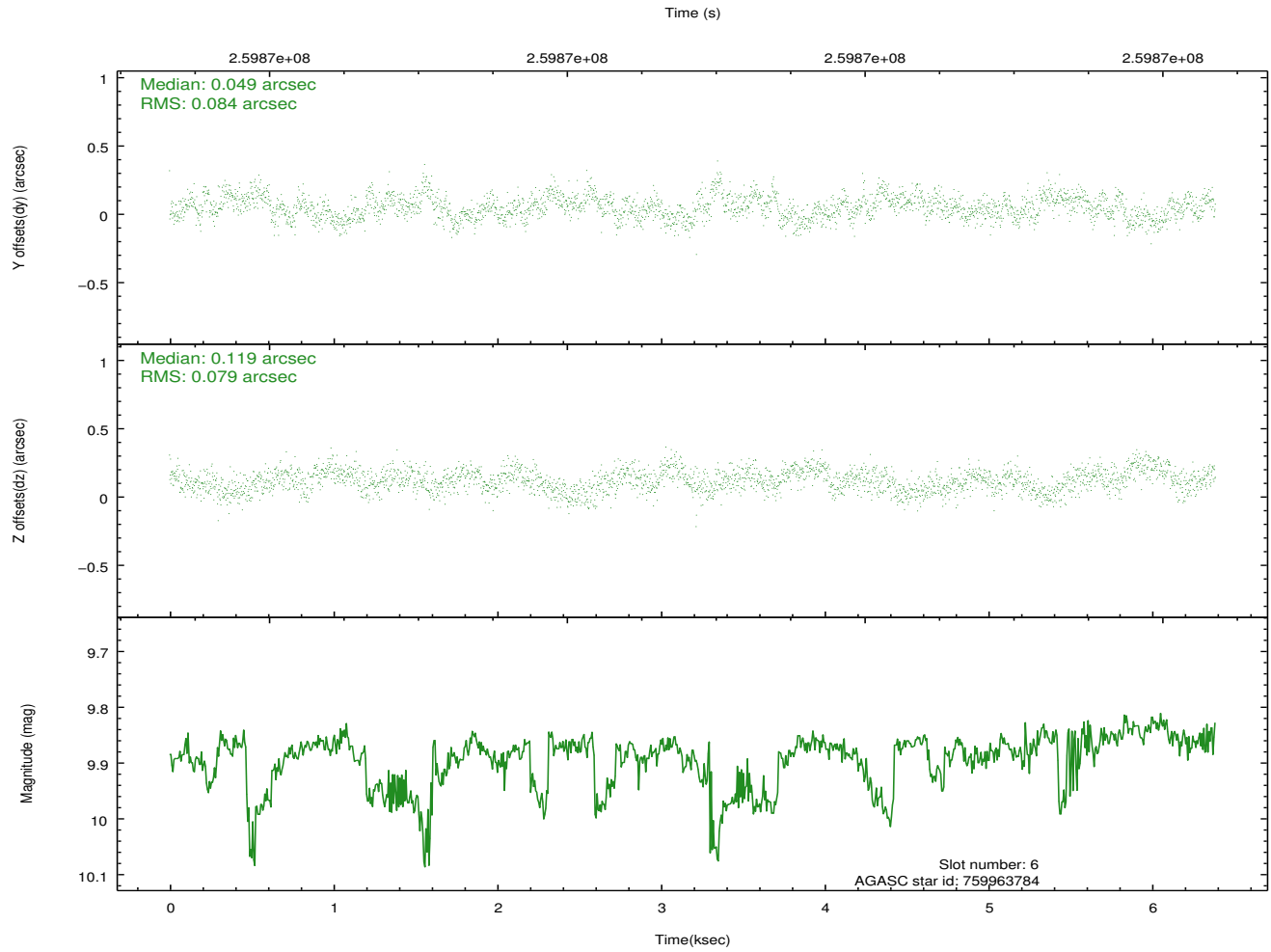
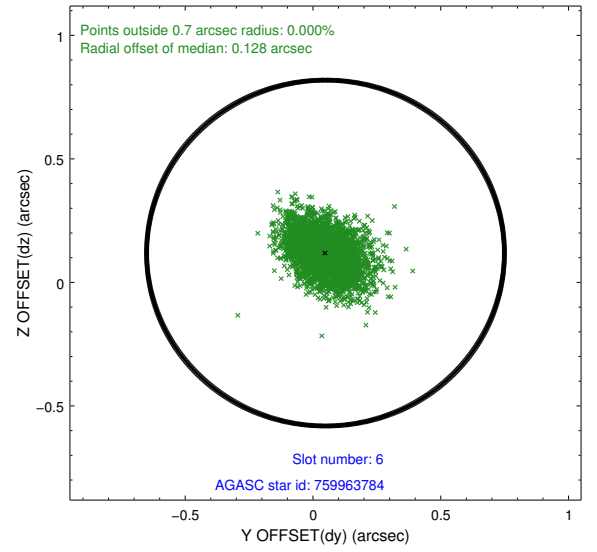
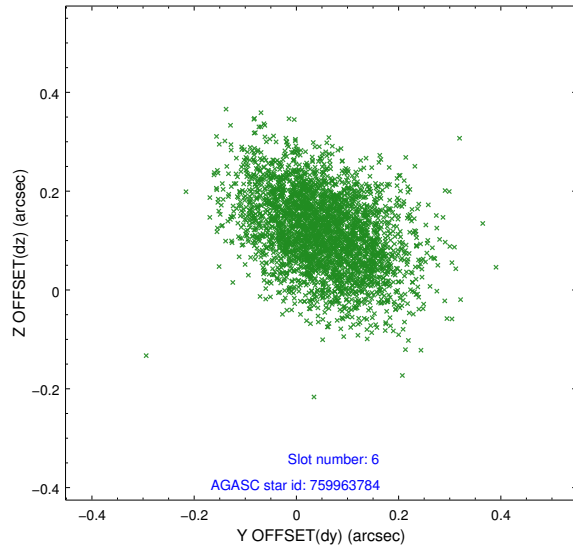


## 2.4.4 Slot 5



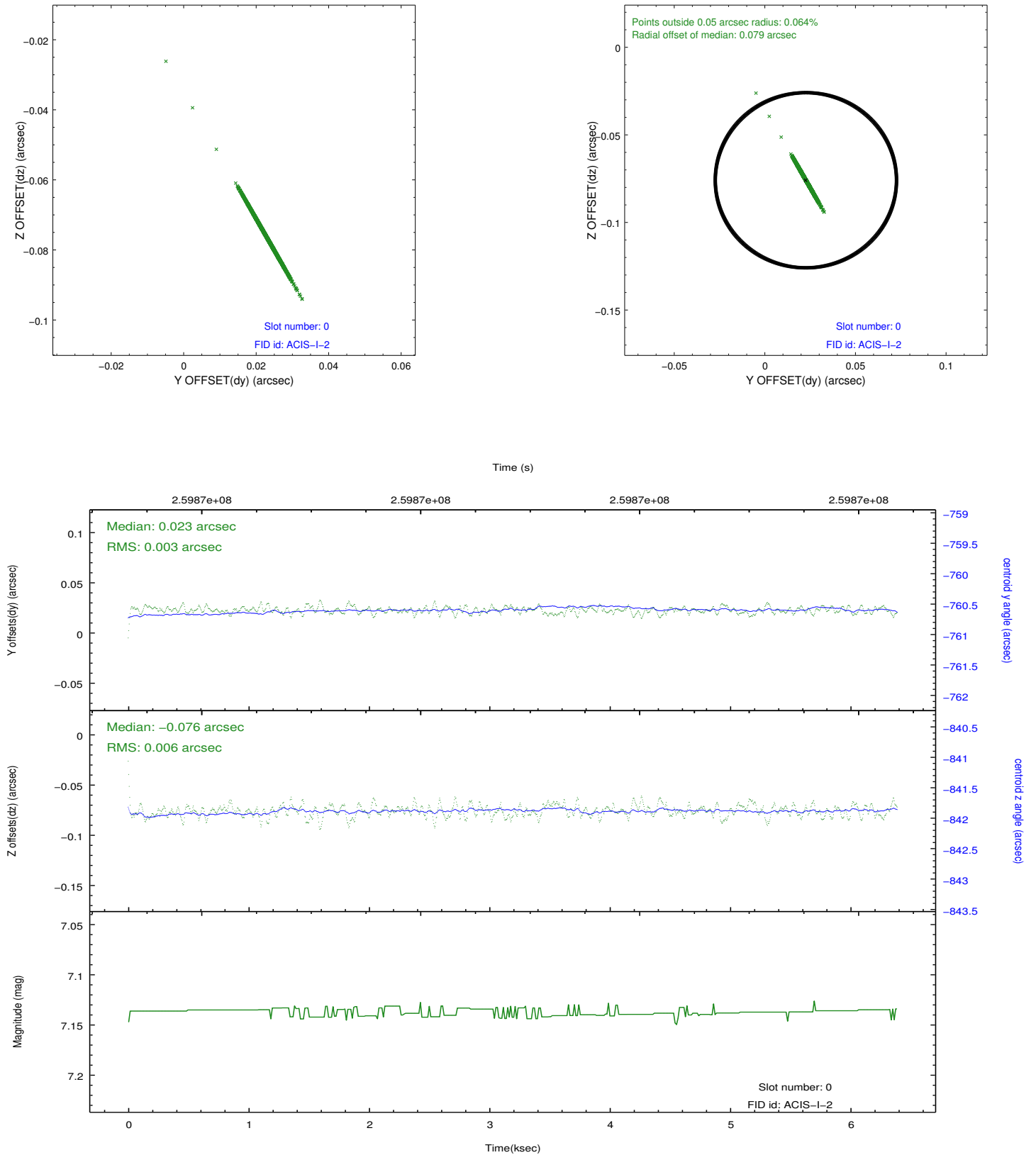


## 2.4.5 Slot 6

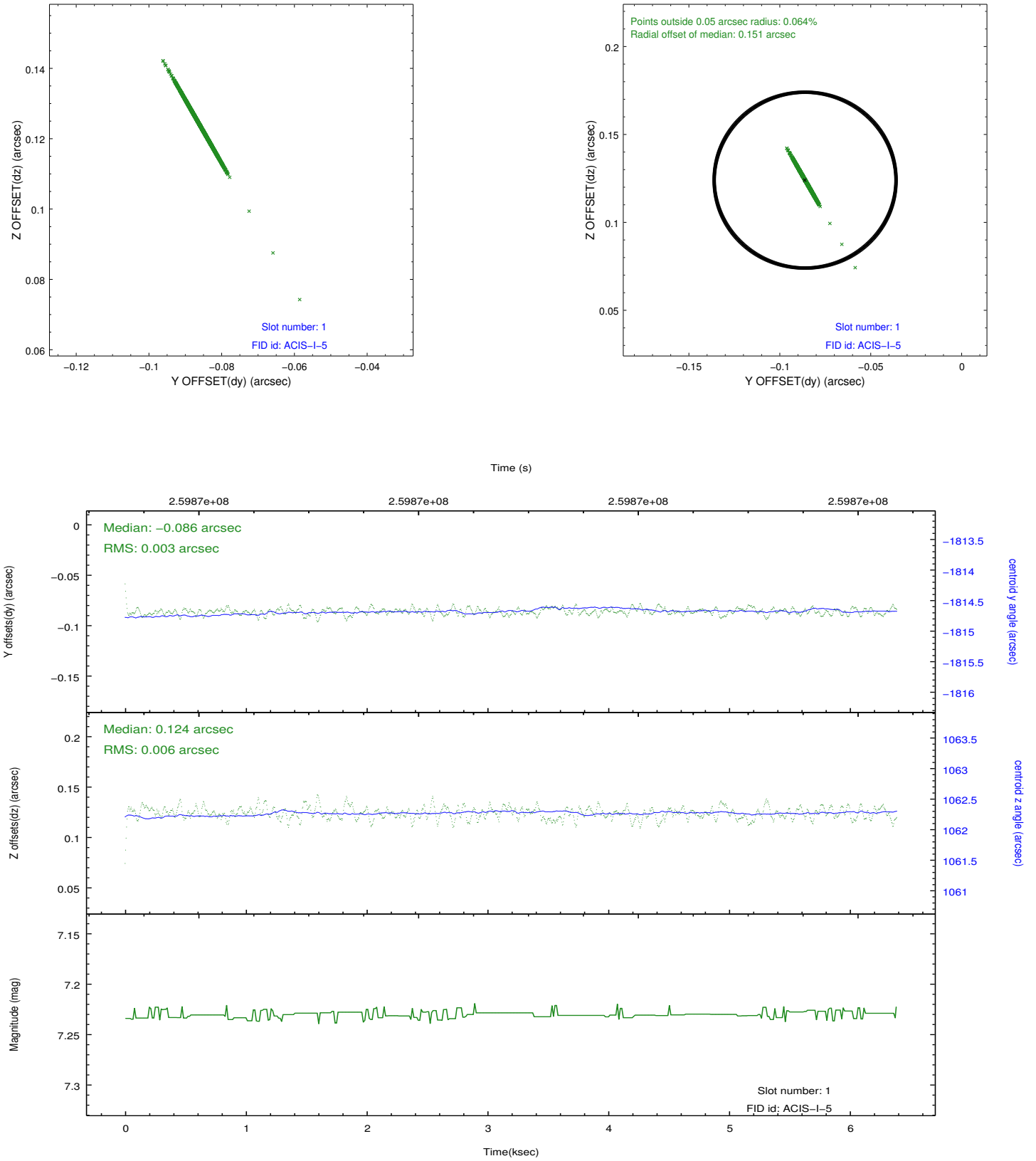


## 2.5 FID Slots

### 2.5.1 Slot 0



## 2.5.2 Slot 1



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.04.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.38820004

### A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.

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Window constraint met.