

# V&V Reference Report

## L2 ASCDS Version : 10.4

Observation 17246 - L2 Version 1  
Chandra X-Ray Center

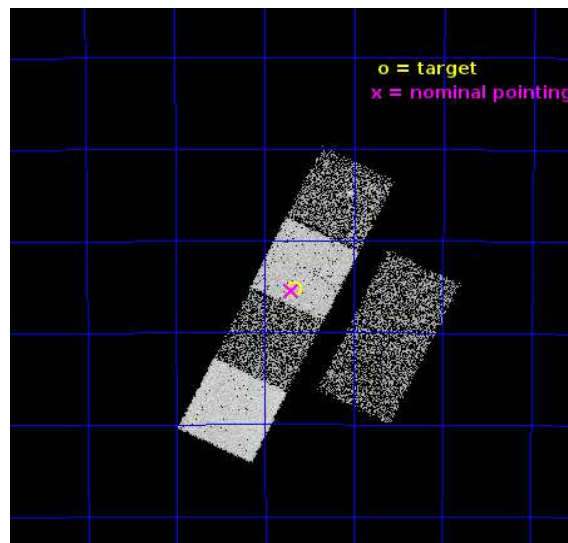
L2 Processing Date : Jun 12 2015

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# 1 Front

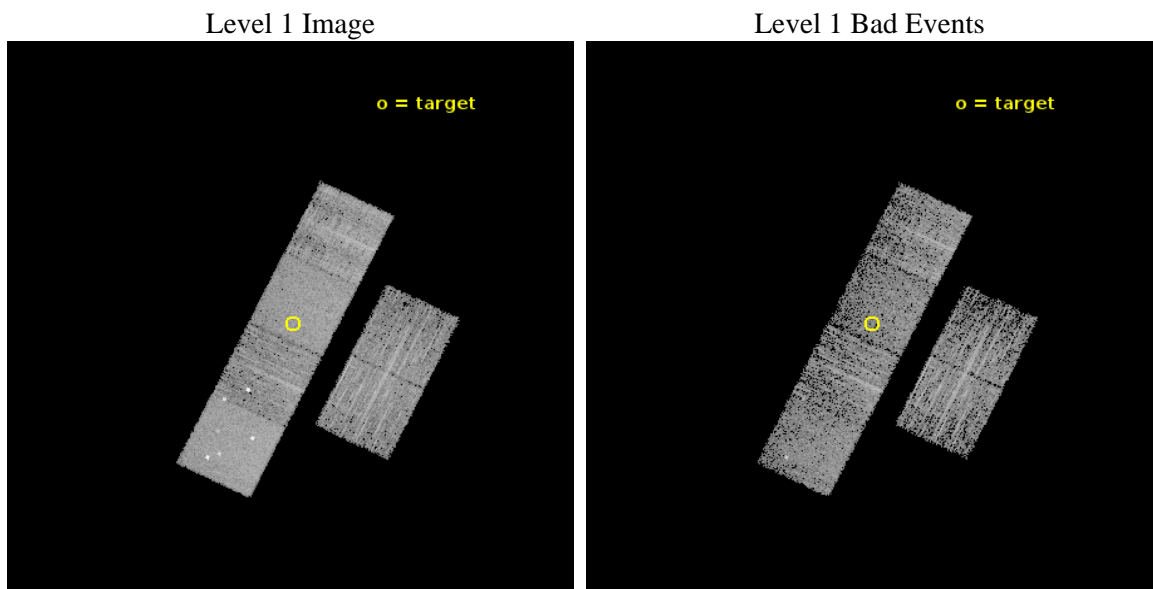
seq_num	901142	Sequence number
obs_id	17246	Observation id
title	Follow-up of Serendipitous NuSTAR Sources in the Galactic Plane	Pr
observer	Dr. John Tomsick	Principal investigator
object	Swift J145440.2-513518	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	223.6675	Observer's specified target RA [deg]
dec_targ	-51.5885	Observer's specified target Dec [deg]
ra_nom	223.67545168528	Nominal RA [deg]
dec_nom	-51.590757219105	Nominal Dec [deg]
roll_nom	296.16285658286	Nominal Roll [deg]
revision	1	Processing version of data
ontime	4937.600073576	Sum of GTIs [s]
livetime	4875.0772083785	Livetime [s]
ontime2	4937.600073576	Sum of GTIs [s]
ontime3	4934.3590232134	Sum of GTIs [s]
ontime5	4937.600073576	Sum of GTIs [s]
ontime6	4937.600073576	Sum of GTIs [s]
ontime7	4937.600073576	Sum of GTIs [s]
ontime8	4937.600073576	Sum of GTIs [s]
l2events	44938	Number of level 2 events



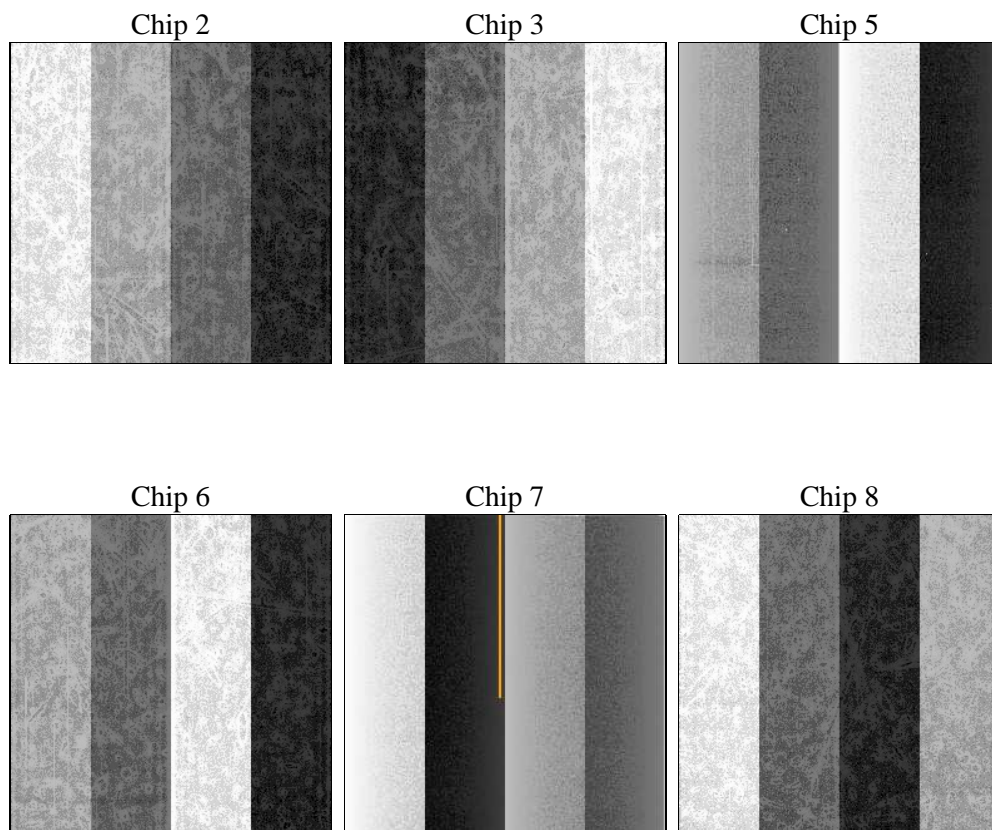
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.4	Processing system revision	ontime	4937.600073576	Sum of GTIs [s]
caldbver	4.6.7	&#160	ontime2	4937.600073576	Sum of GTIs [s]
date	2015-06-13T00:13:28	Date and time of file creation	ontime3	4934.3590232134	Sum of GTIs [s]
revision	1	Processing version of data	ontime5	4937.600073576	Sum of GTIs [s]
			ontime6	4937.600073576	Sum of GTIs [s]
			ontime7	4937.600073576	Sum of GTIs [s]
			ontime8	4937.600073576	Sum of GTIs [s]
			l1events	197674	Number of level 1 events

### 2.1.4 Events

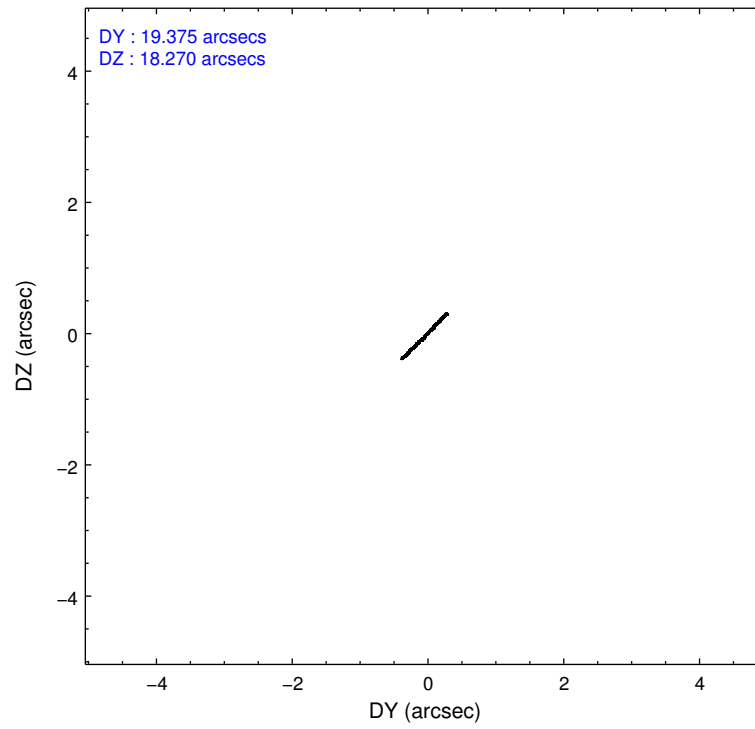
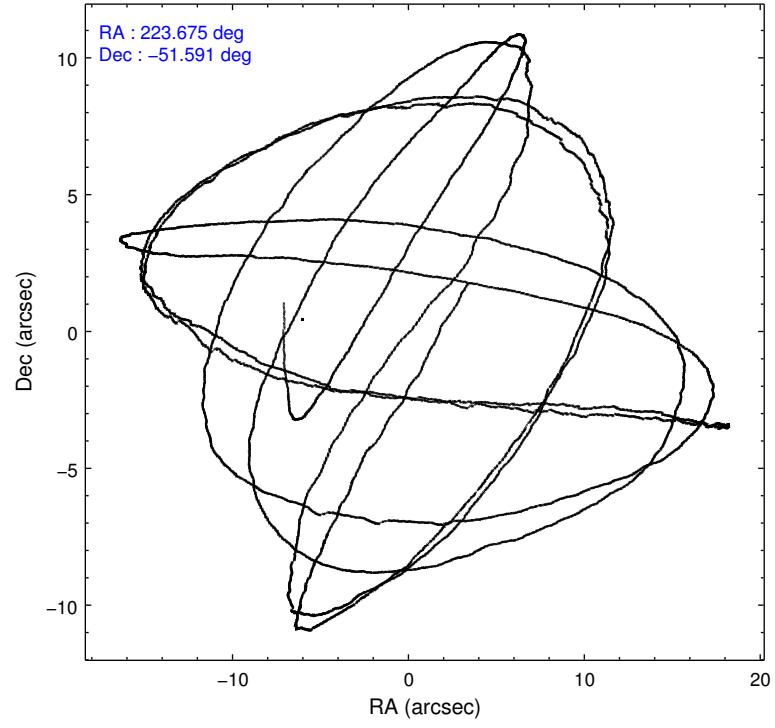
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	29144	24431	45426	28216	34957	35500	grade 0 events	1017	1001	3705	2535	1266	2862
rejected events	26177	21630	22306	23626	19725	25467		3%	4%	8%	8%	3%	8%
rejected %	89%	88%	49%	83%	56%	71%	grade 1 events	17	15	164	17	52	20
								0%	0%	0%	0%	0%	0%
							grade 2 events	741	605	6940	721	3182	2313
								2%	2%	15%	2%	9%	6%
							grade 3 events	307	293	803	329	1298	1113
								1%	1%	1%	1%	3%	3%
							grade 4 events	278	319	715	313	1254	1040
								0%	1%	1%	1%	3%	2%
							grade 5 events	1152	1302	3250	1301	3526	1990
								3%	5%	7%	4%	10%	5%
							grade 6 events	624	587	10976	697	8239	2707
								2%	2%	24%	2%	23%	7%
							grade 7 events	25008	20309	18873	22303	16140	23455
								85%	83%	41%	79%	46%	66%

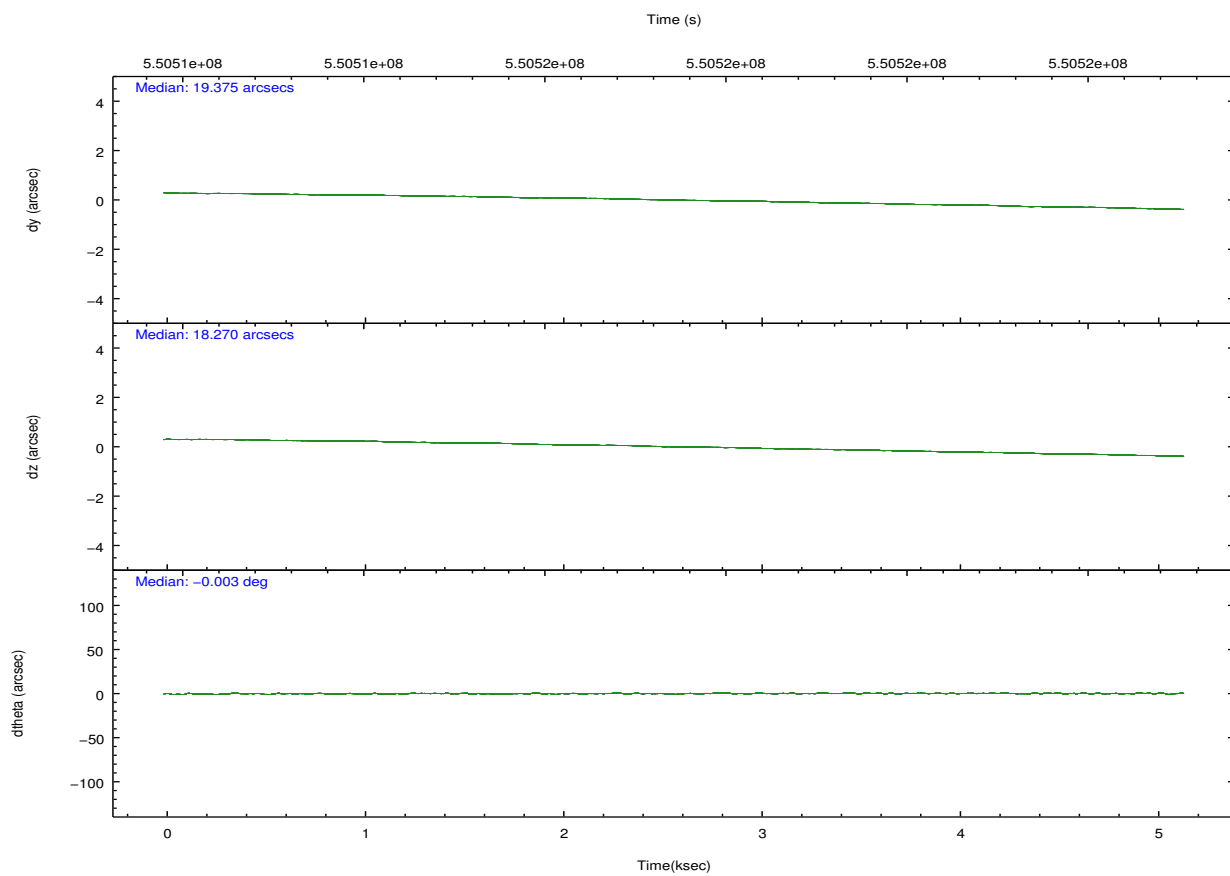
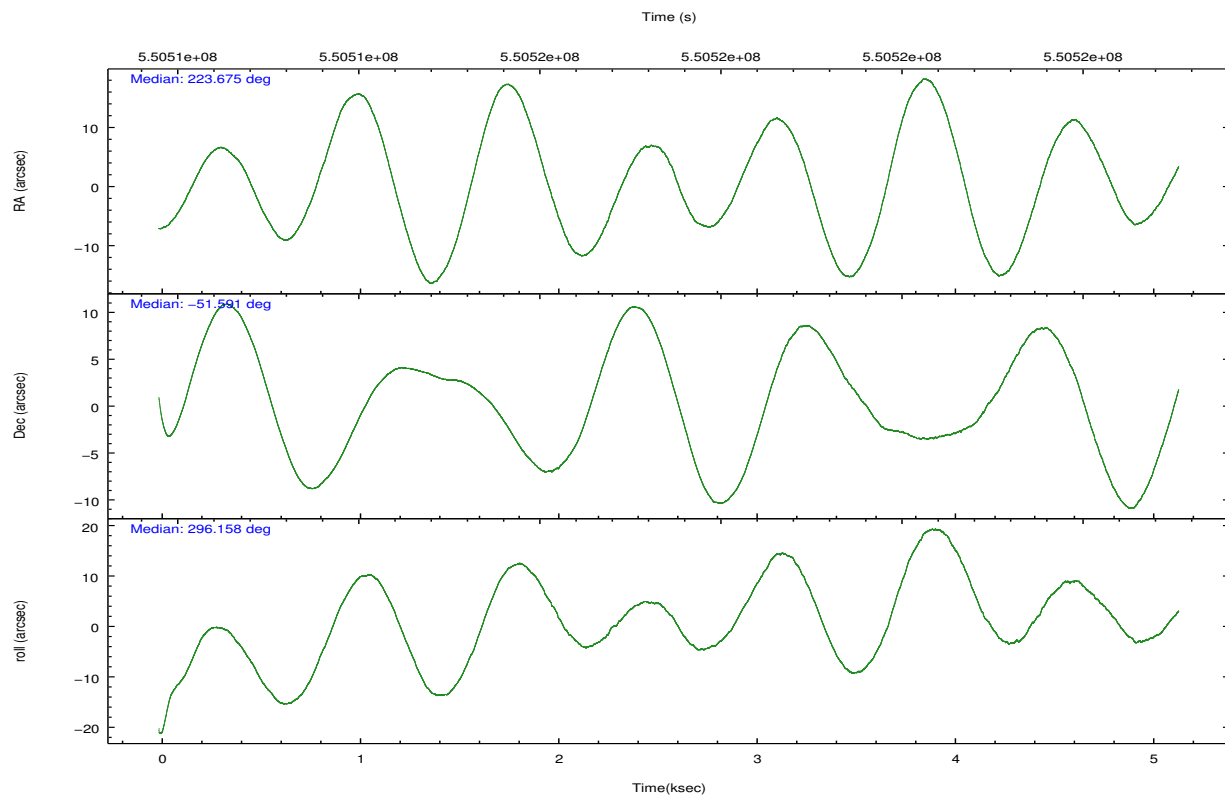


## 2.2 Compared Parameters

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	223.638445	223.6754516852779	CCD I2 on	O2	Y
[deg] Pointing Dec	-51.575799	-51.59075721910508	CCD I3 on	Y	Y
[deg] Pointing Roll	295.977240	296.1628565828554	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	550513278.184000	550512160.23859	CCD S5 on	N	N
Observation start date	2015-06-12T16:20:11	2015-06-12T16:02:40	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	550518278.184000	550519165.60148	On-chip summing requested	N	N
Observation end date	2015-06-12T17:43:31	2015-06-12T17:59:25	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



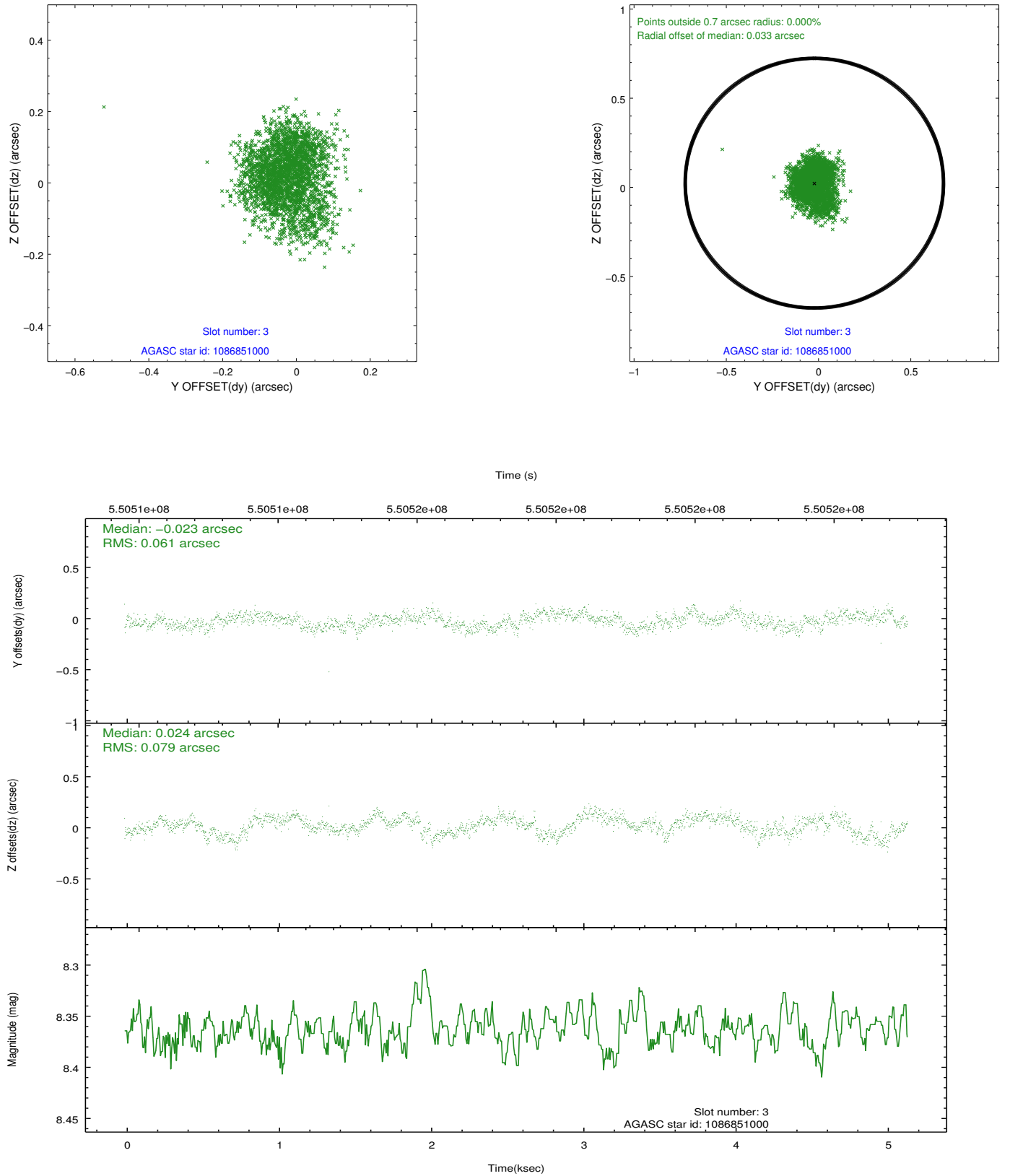


### Slot Statistics

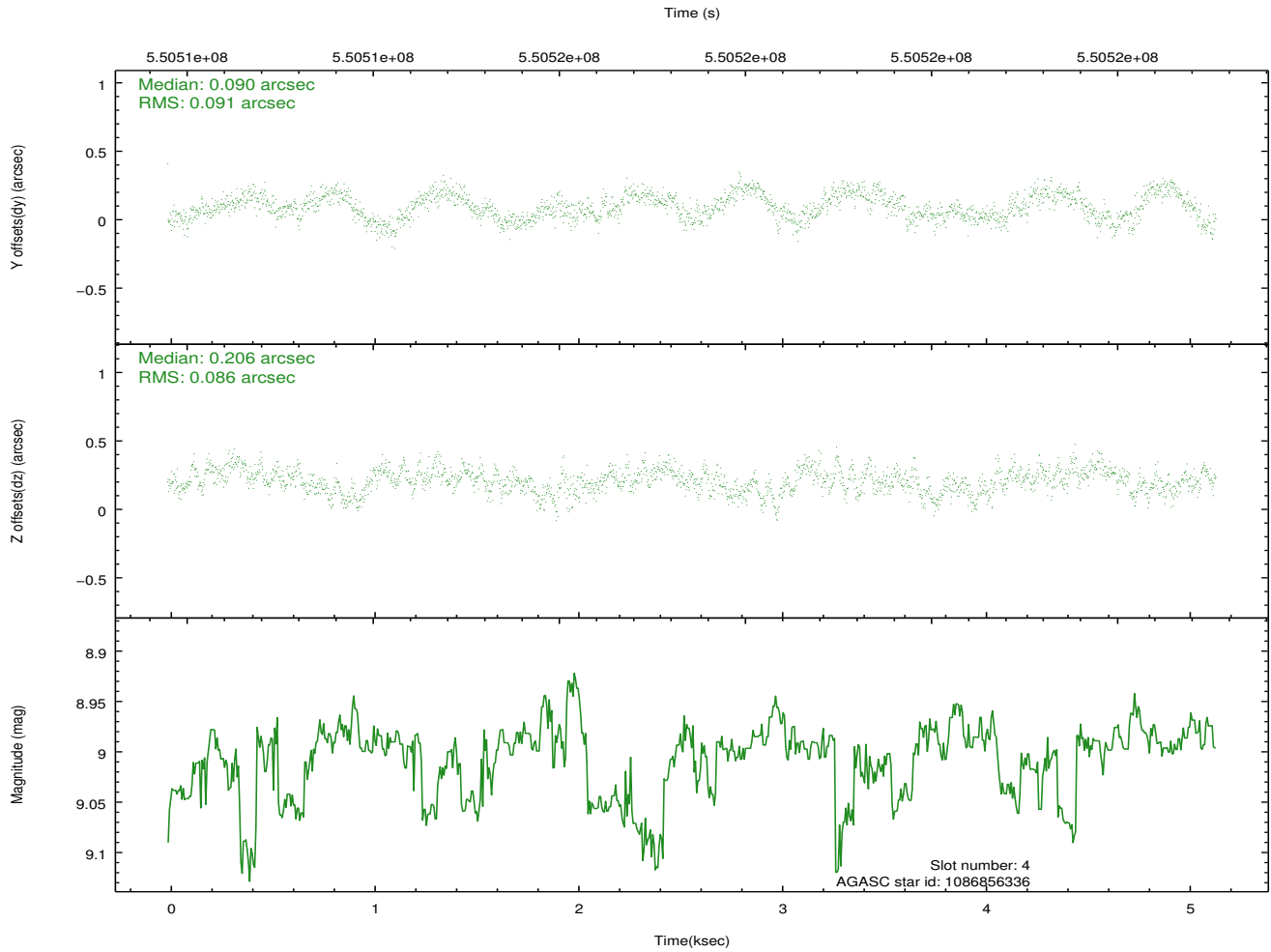
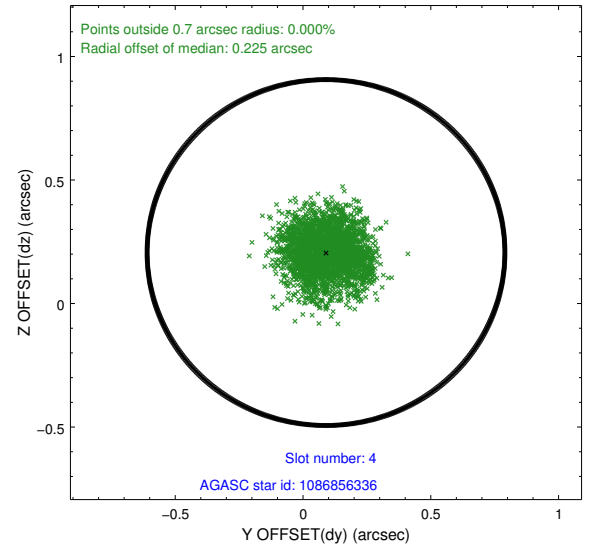
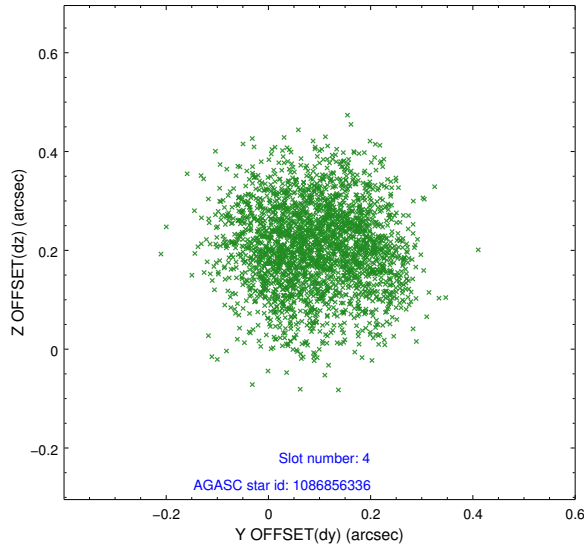
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.96	1255	-0.138	-0.093	0.009	0.015	0.000000	0.000000	-772.61	-1739.81
1	FID		ACIS-S-4	7.05	1255	0.367	0.091	0.007	0.013	0.000000	0.000000	2140.66	167.58
2	FID		ACIS-S-5	7.07	1255	-0.261	0.010	0.009	0.015	0.000000	0.000000	-1824.04	162.58
3	GUIDE	used	1086851000	8.36	2509	-0.023	0.024	0.107	0.171	223.817046	-52.110707	1905.04	-488.42
4	GUIDE	used	1086856336	9.00	2507	0.090	0.206	0.137	0.207	223.231450	-51.457949	-776.99	-636.51
5	GUIDE	used	1086865384	8.85	2509	0.050	0.049	0.115	0.194	223.743370	-51.003842	-1746.59	1115.07
6	GUIDE	used	1086849280	8.78	2510	0.055	0.038	0.128	0.216	223.162744	-52.276771	1812.82	-2048.23
7	GUIDE	used	1086863152	7.25	2509	-0.176	-0.320	0.112	0.178	224.830393	-51.576133	1189.63	2386.03

## 2.4 Star Slots

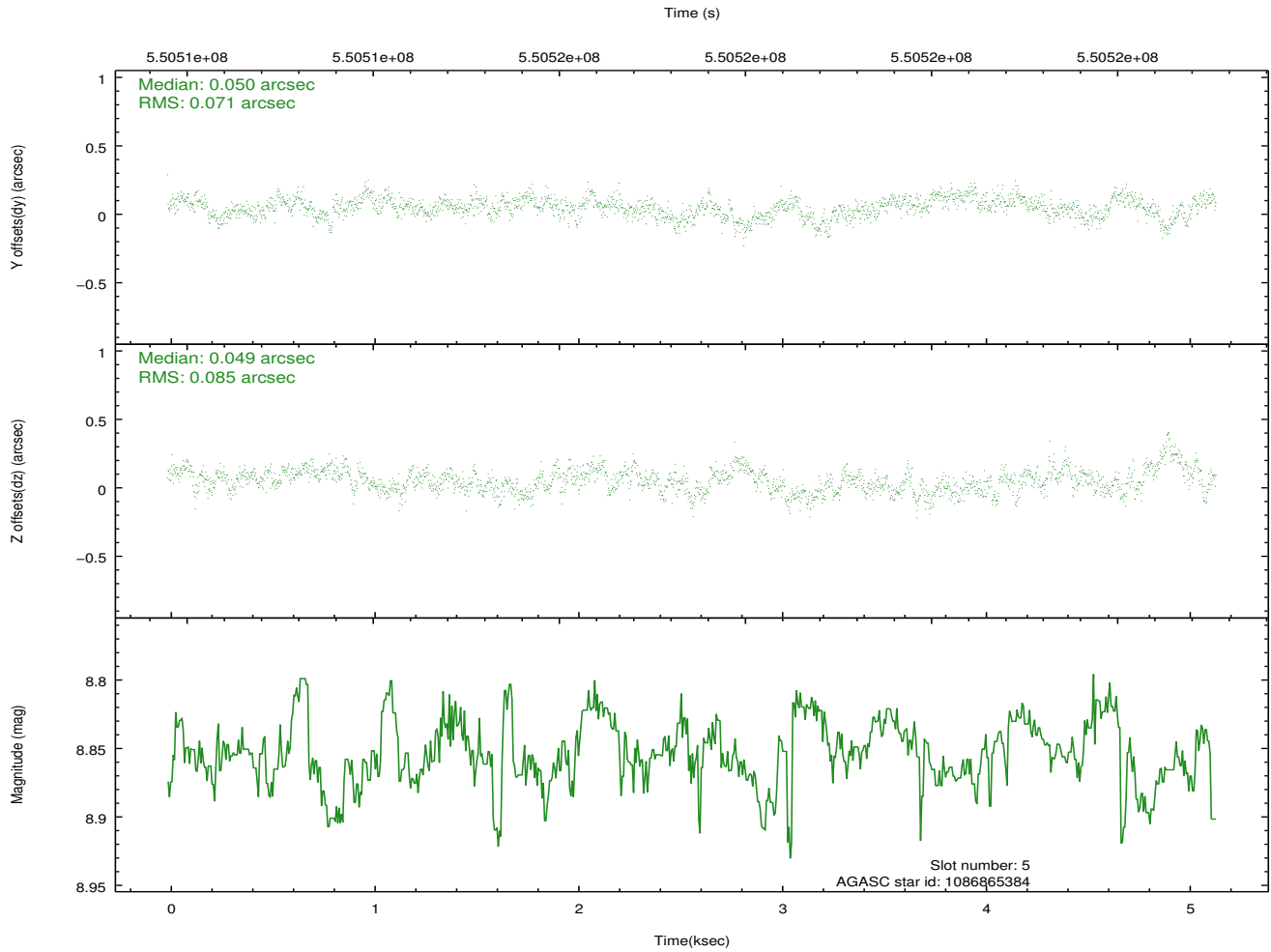
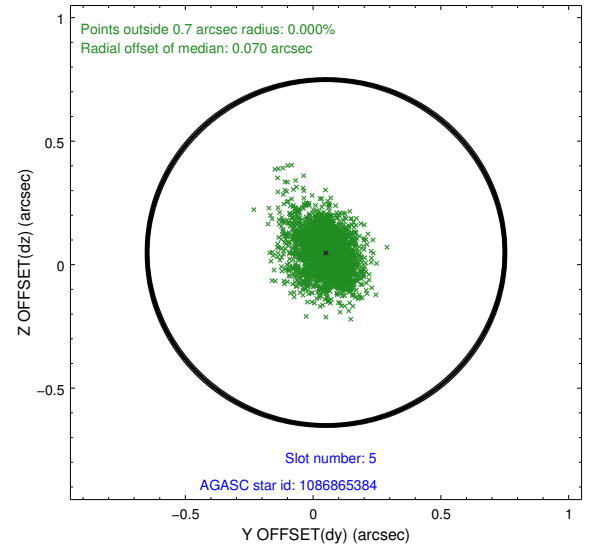
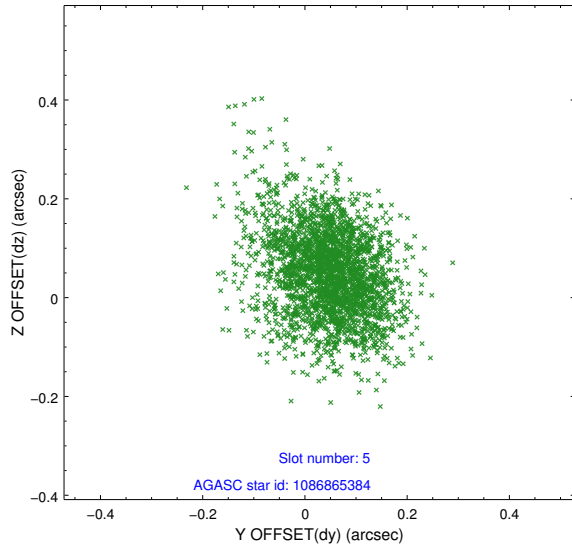
### 2.4.1 Slot 3



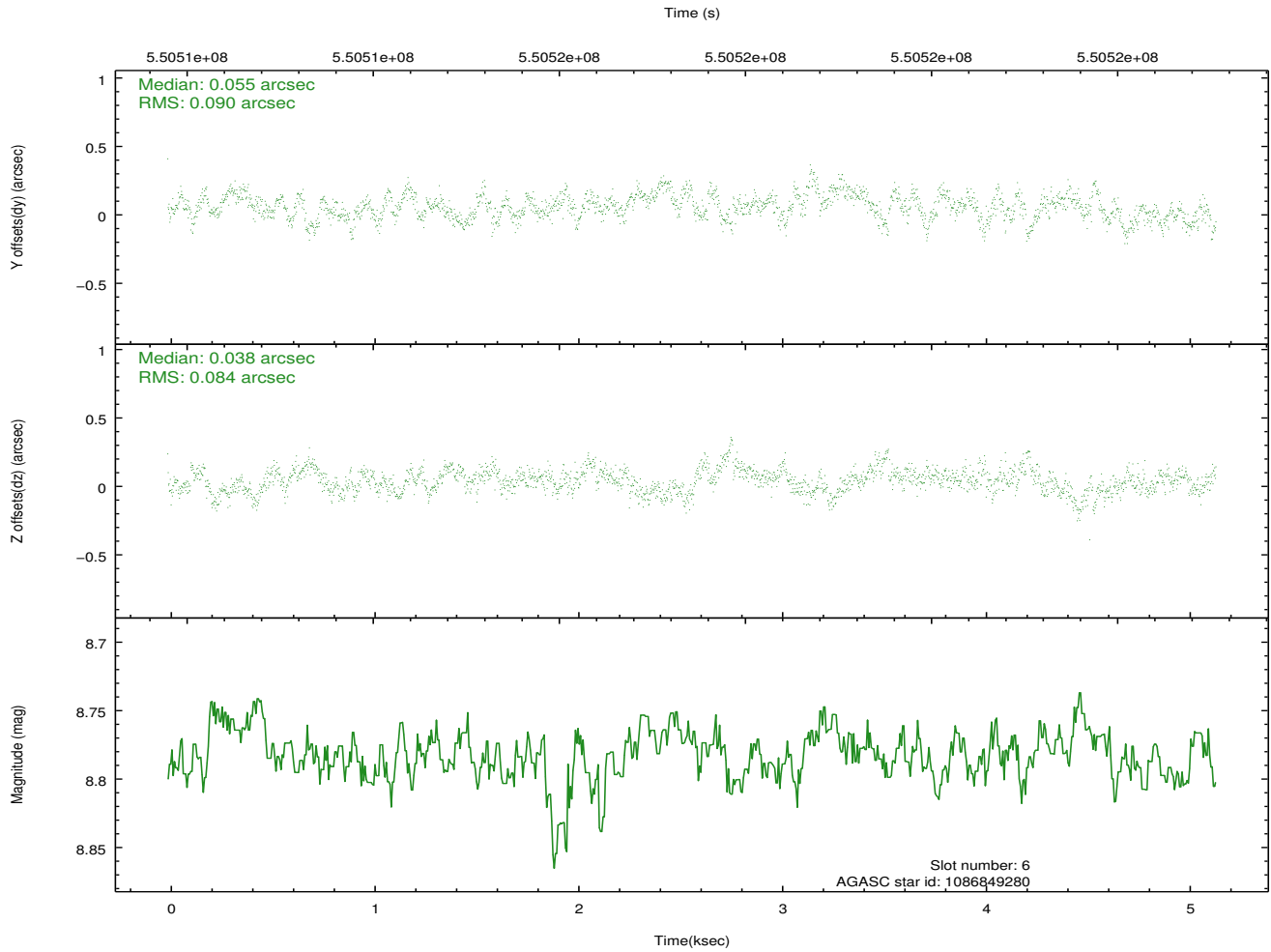
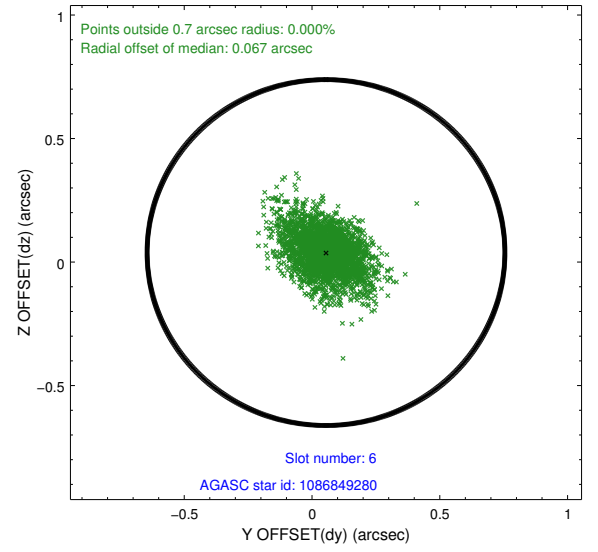
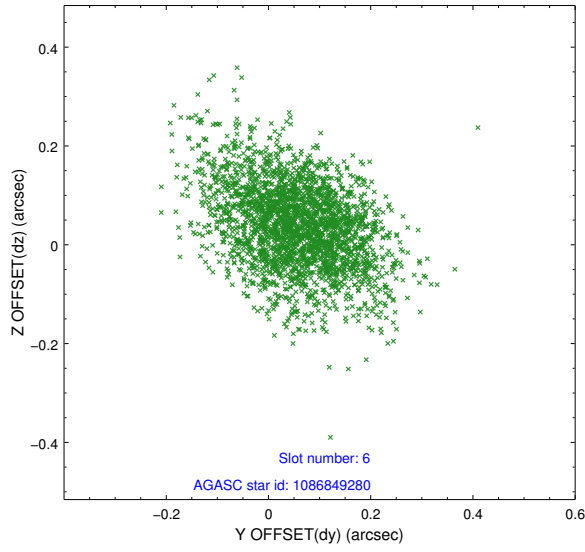
## 2.4.2 Slot 4



### 2.4.3 Slot 5

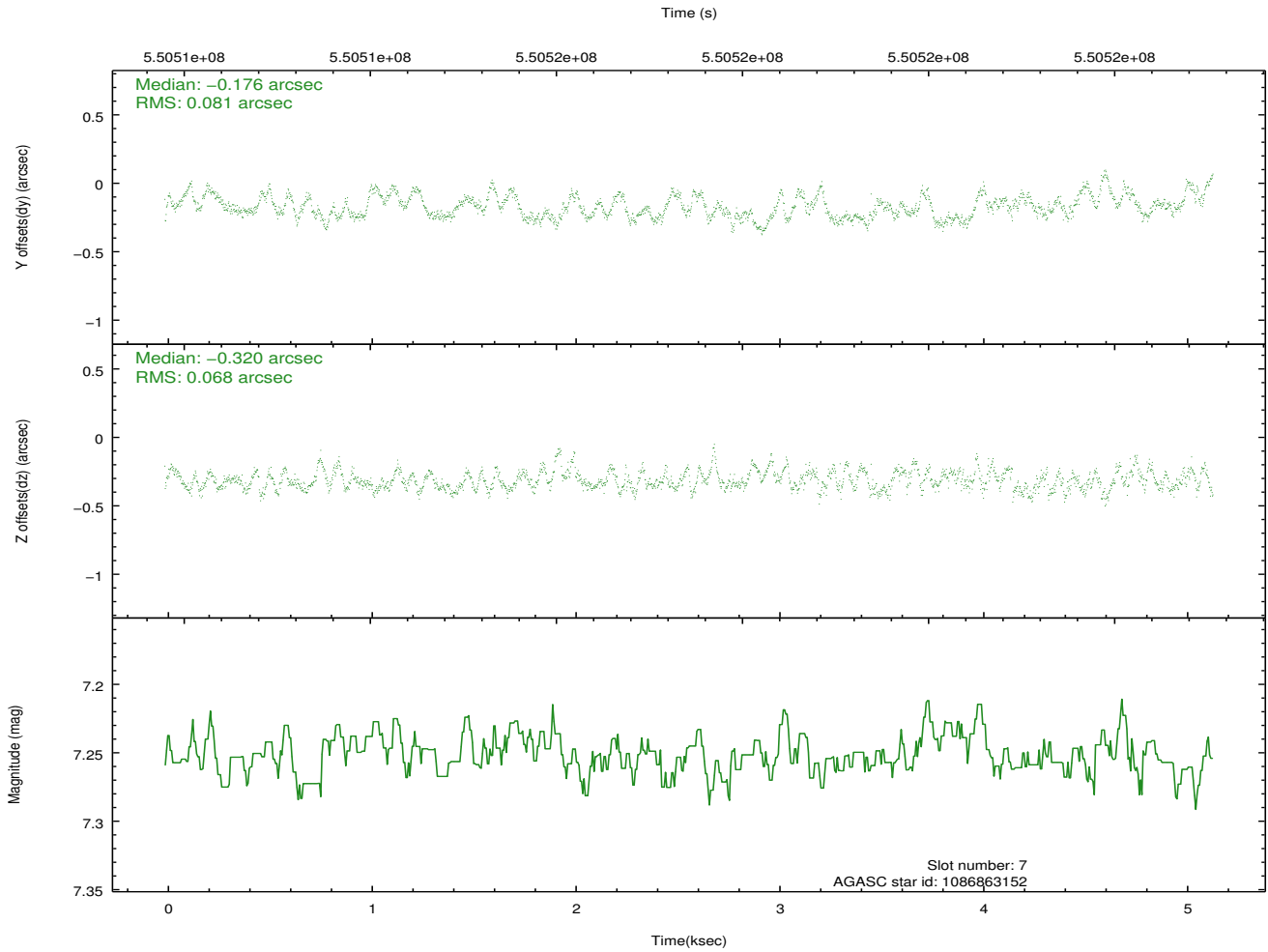
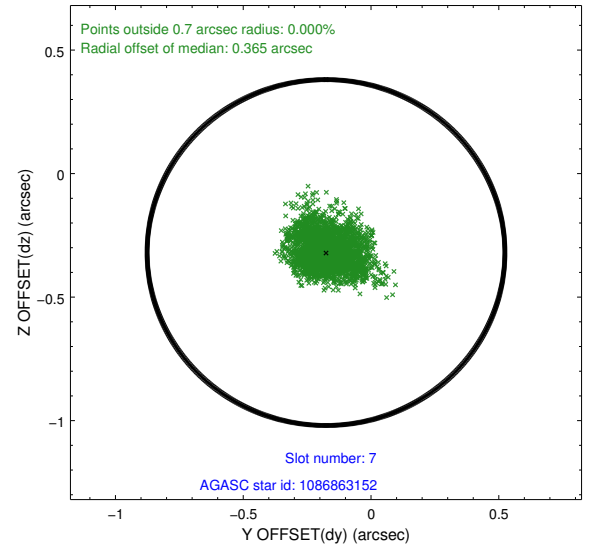
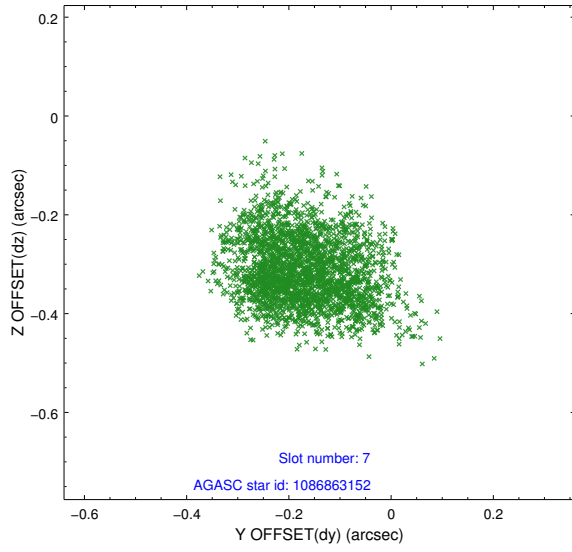


## 2.4.4 Slot 6



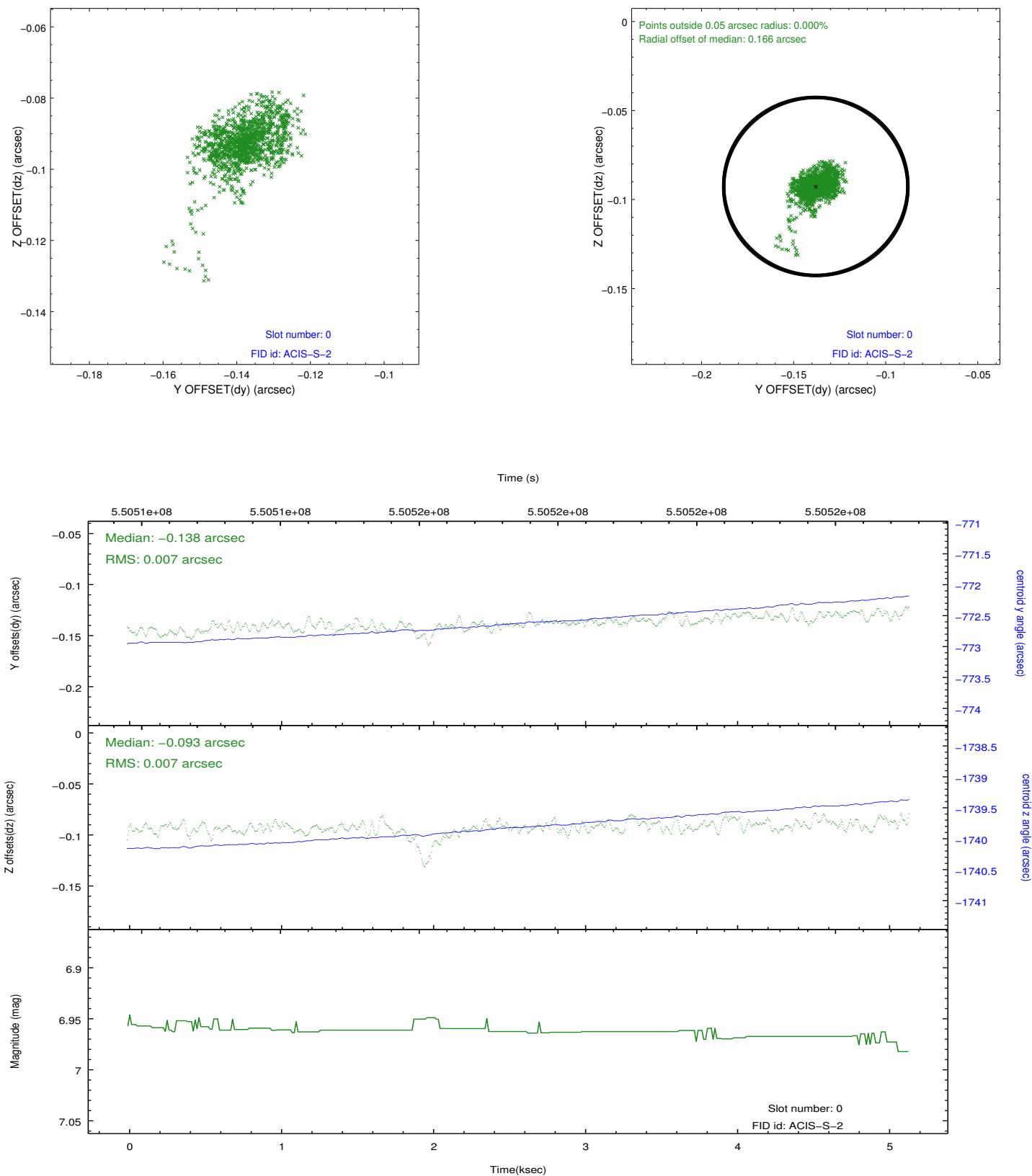


## 2.4.5 Slot 7

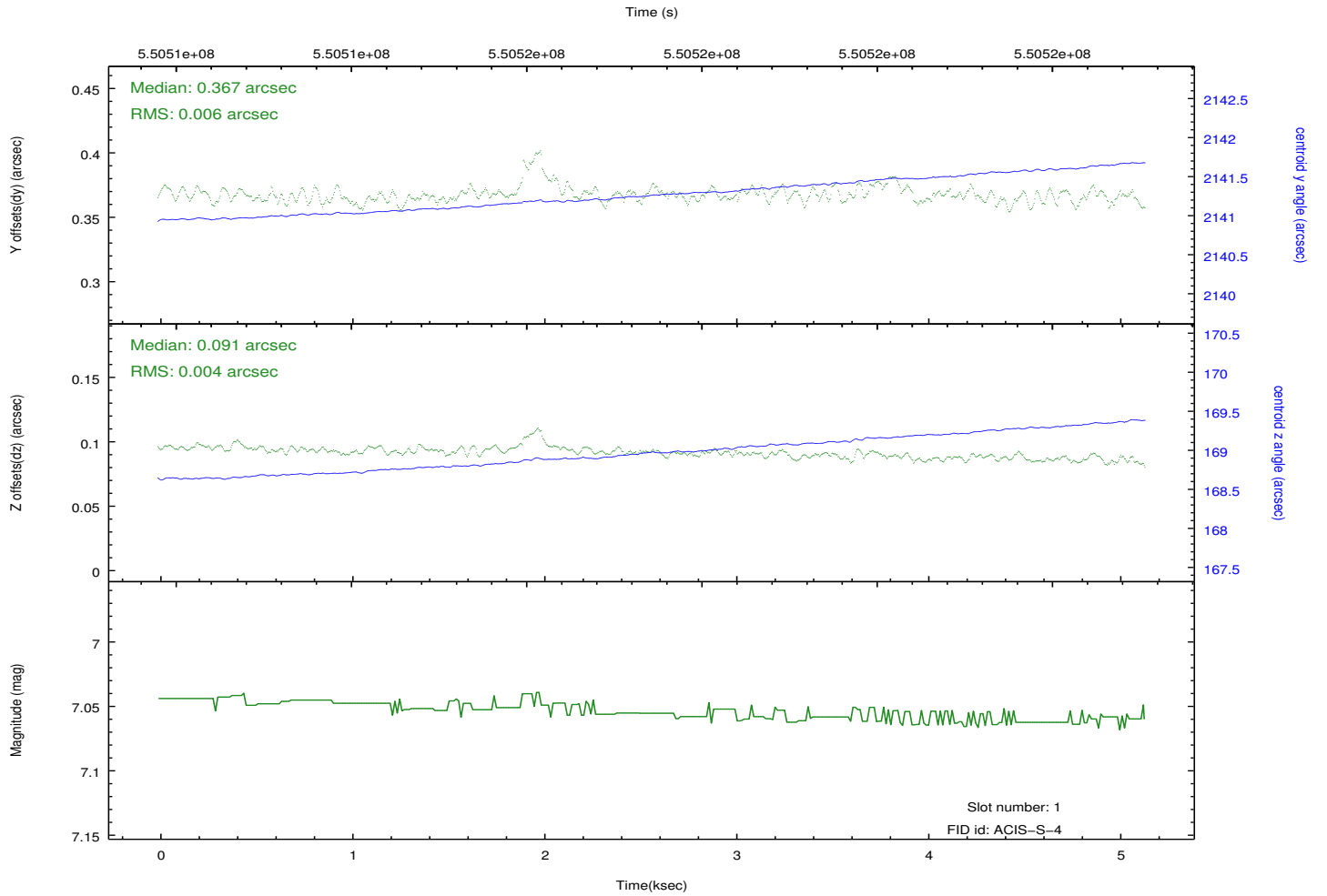
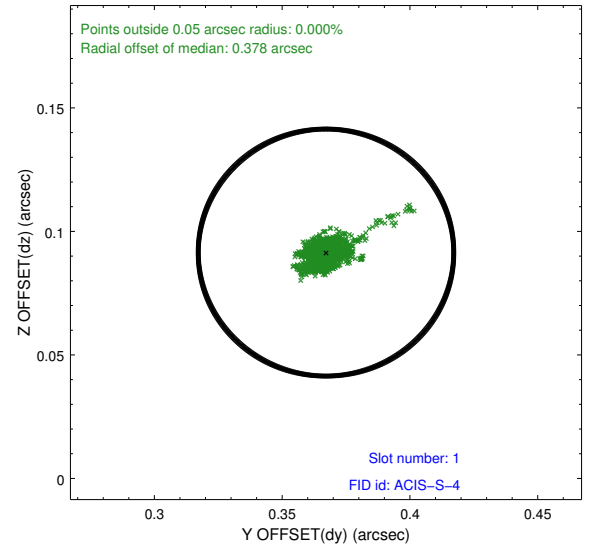
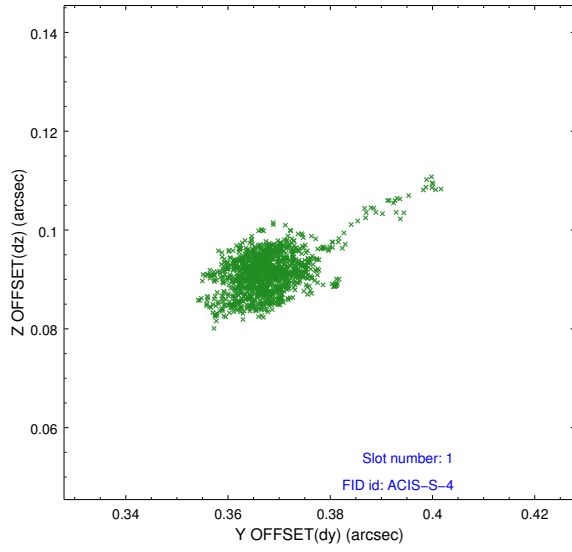


## 2.5 FID Slots

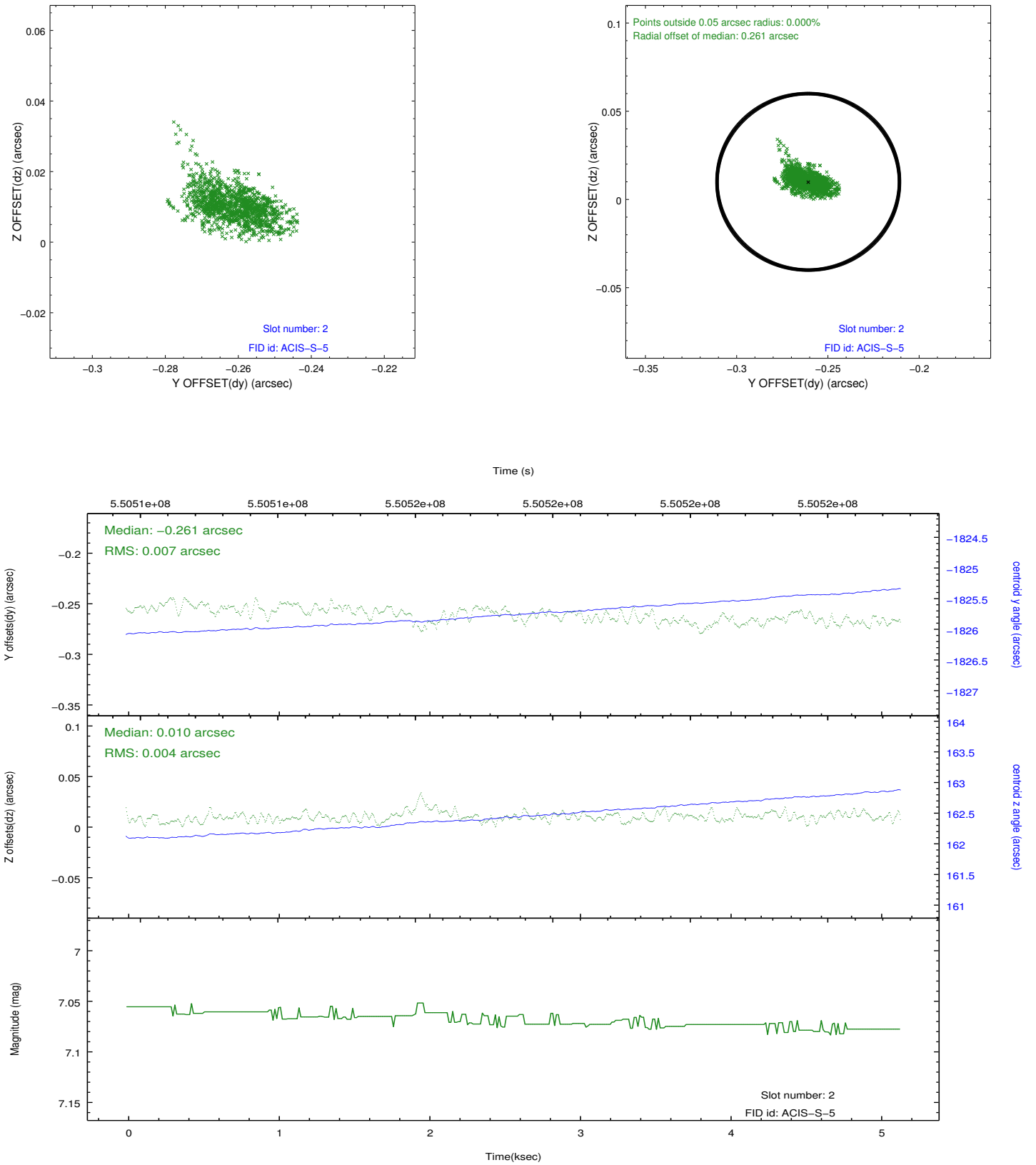
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2015.06.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.937600073576

### A.2 Comments