

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 18087 - L2 Version 1  
Chandra X-Ray Center

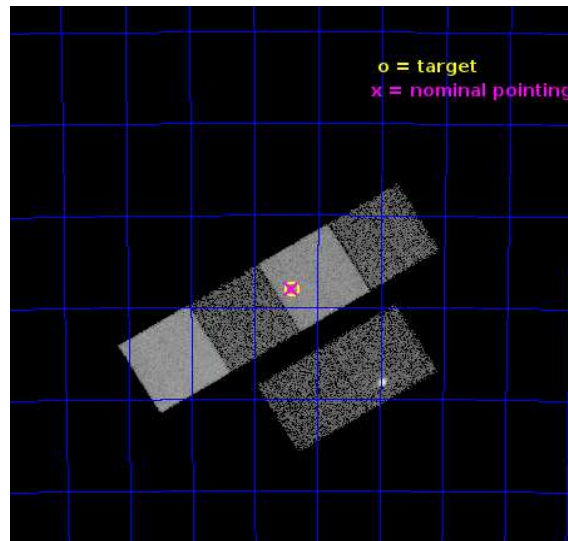
L2 Processing Date : May 4 2016

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# 1 Front

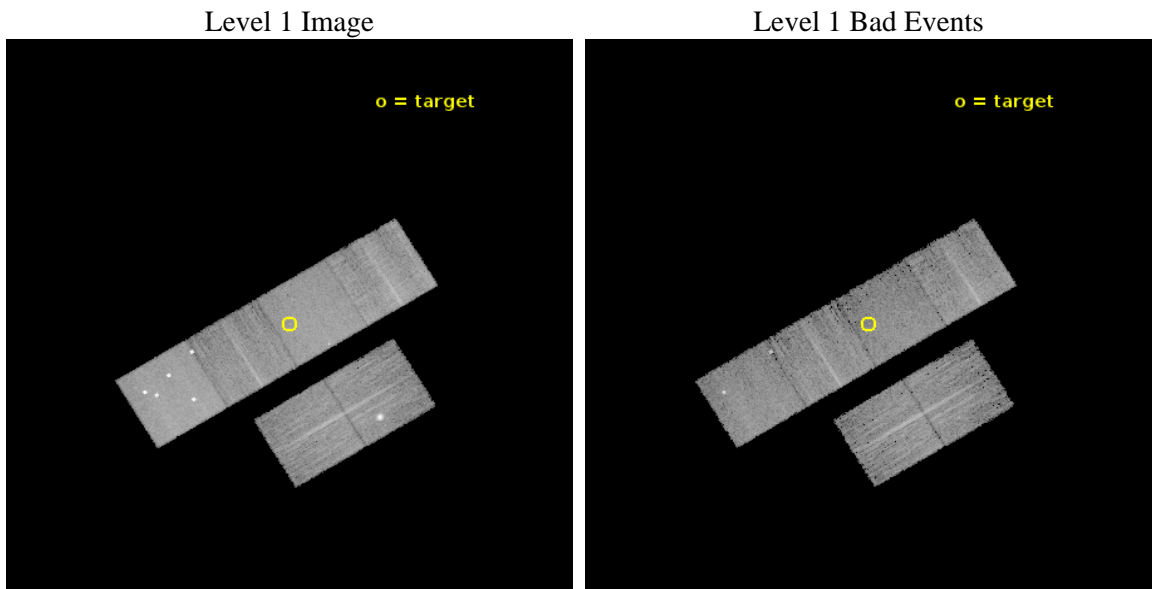
seq_num	901201	Sequence number
obs_id	18087	Observation id
title	Follow-up of Serendipitous NuSTAR Sources in the Galactic Plane	Pr
observer	John Tomsick	Principal investigator
object	3XMM J130323.9-634806	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	195.849583	Observer's specified target RA [deg]
dec_targ	-63.801944	Observer's specified target Dec [deg]
ra_nom	195.85382576201	Nominal RA [deg]
dec_nom	-63.800197971901	Nominal Dec [deg]
roll_nom	328.74539494197	Nominal Roll [deg]
revision	1	Processing version of data
ontime	9953.9801988602	Sum of GTIs [s]
livetime	9827.9369080149	Livetime [s]
ontime2	9954.0212388039	Sum of GTIs [s]
ontime3	9953.8570787907	Sum of GTIs [s]
ontime5	9953.9391587973	Sum of GTIs [s]
ontime6	9953.8981188536	Sum of GTIs [s]
ontime7	9953.9801988602	Sum of GTIs [s]
ontime8	9953.816038847	Sum of GTIs [s]
l2events	107731	Number of level 2 events



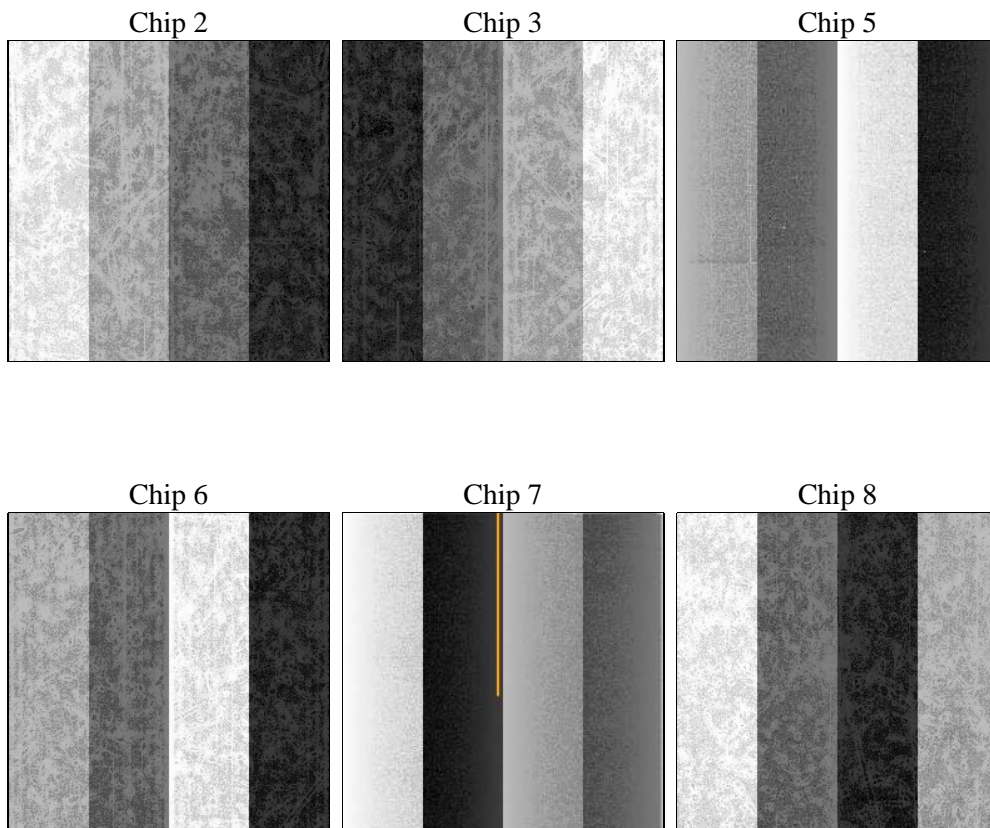
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	9953.9801988602	Sum of GTIs [s]
caldbver	4.7.1	&#160	ontime2	9954.0212388039	Sum of GTIs [s]
date	2016-05-04T04:21:26	Date and time of file creation	ontime3	9953.8570787907	Sum of GTIs [s]
revision	1	Processing version of data	ontime5	9953.9391587973	Sum of GTIs [s]
			ontime6	9953.8981188536	Sum of GTIs [s]
			ontime7	9953.9801988602	Sum of GTIs [s]
			ontime8	9953.816038847	Sum of GTIs [s]
			l1events	461303	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	63624	62535	112550	62630	80482	79482	grade 0 events	2438	5839	11732	2464	2979	5743
rejected events	57058	51355	52857	55327	45582	59384		3%	9%	10%	3%	3%	7%
rejected %	89%	82%	46%	88%	56%	74%	grade 1 events	48	51	1151	20	84	57
								0%	0%	1%	0%	0%	0%
							grade 2 events	1480	1939	16665	1783	7362	4941
								2%	3%	14%	2%	9%	6%
							grade 3 events	690	898	2567	662	2711	1984
								1%	1%	2%	1%	3%	2%
							grade 4 events	678	898	1905	662	2682	1881
								1%	1%	1%	1%	3%	2%
							grade 5 events	2565	2970	6986	2800	7685	4316
								4%	4%	6%	4%	9%	5%
							grade 6 events	1286	1613	26867	1736	19186	5555
								2%	2%	23%	2%	23%	6%
							grade 7 events	54439	48327	44677	52503	37793	55005
								85%	77%	39%	83%	46%	69%

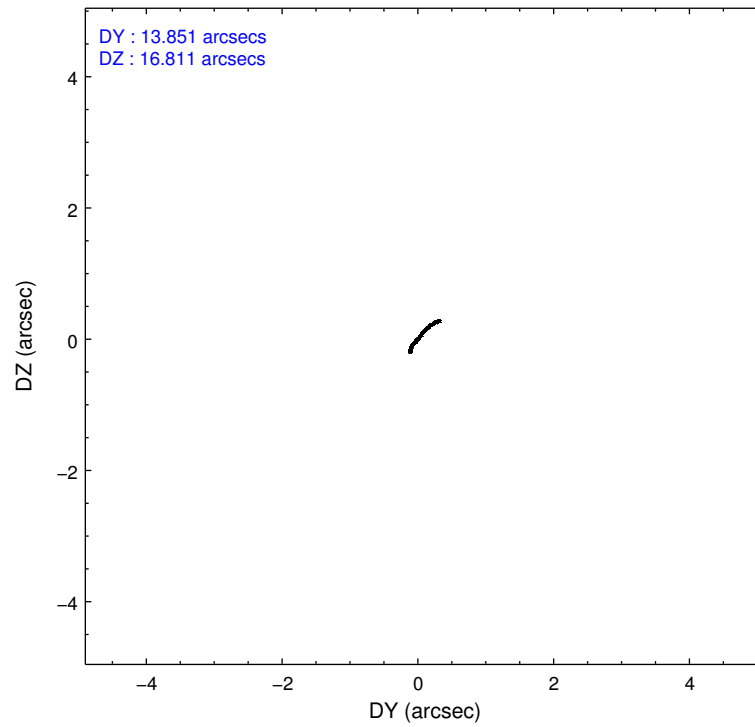
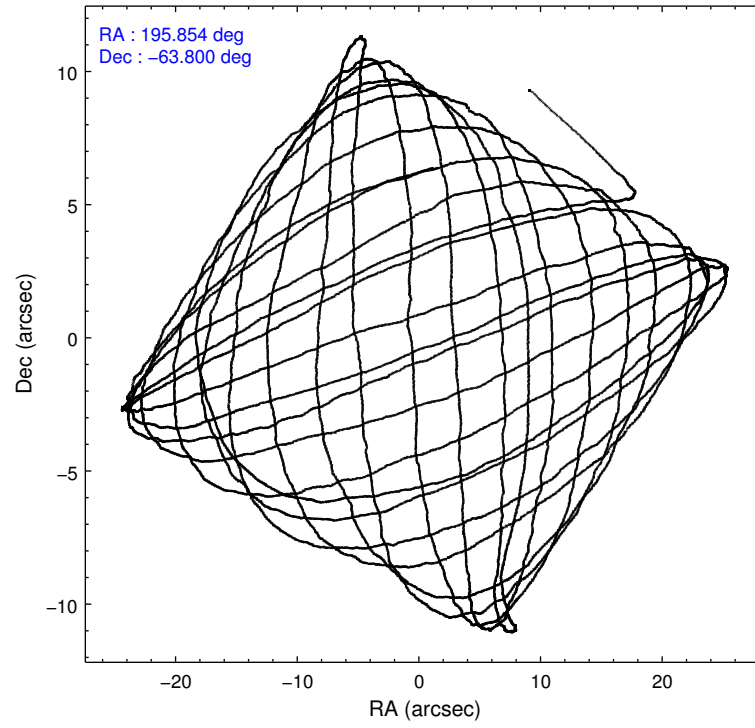


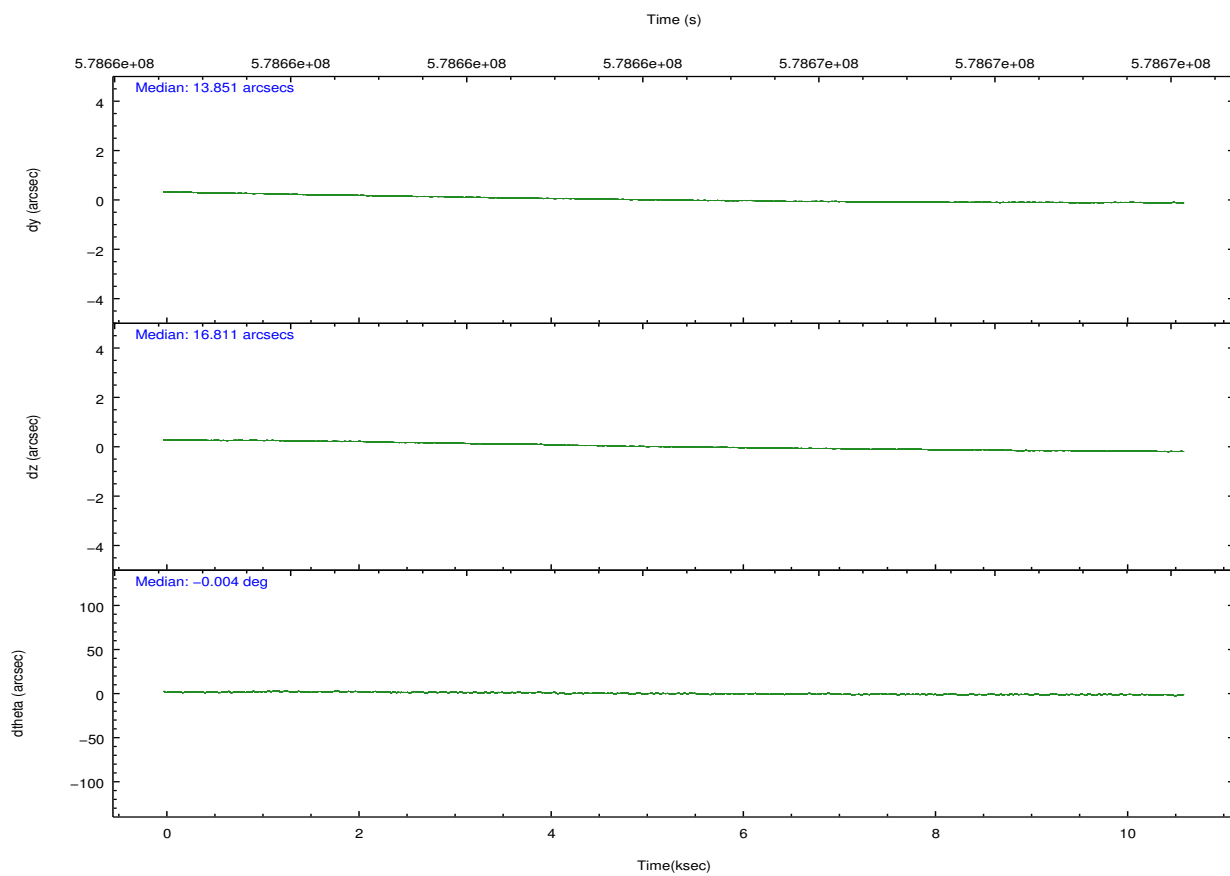
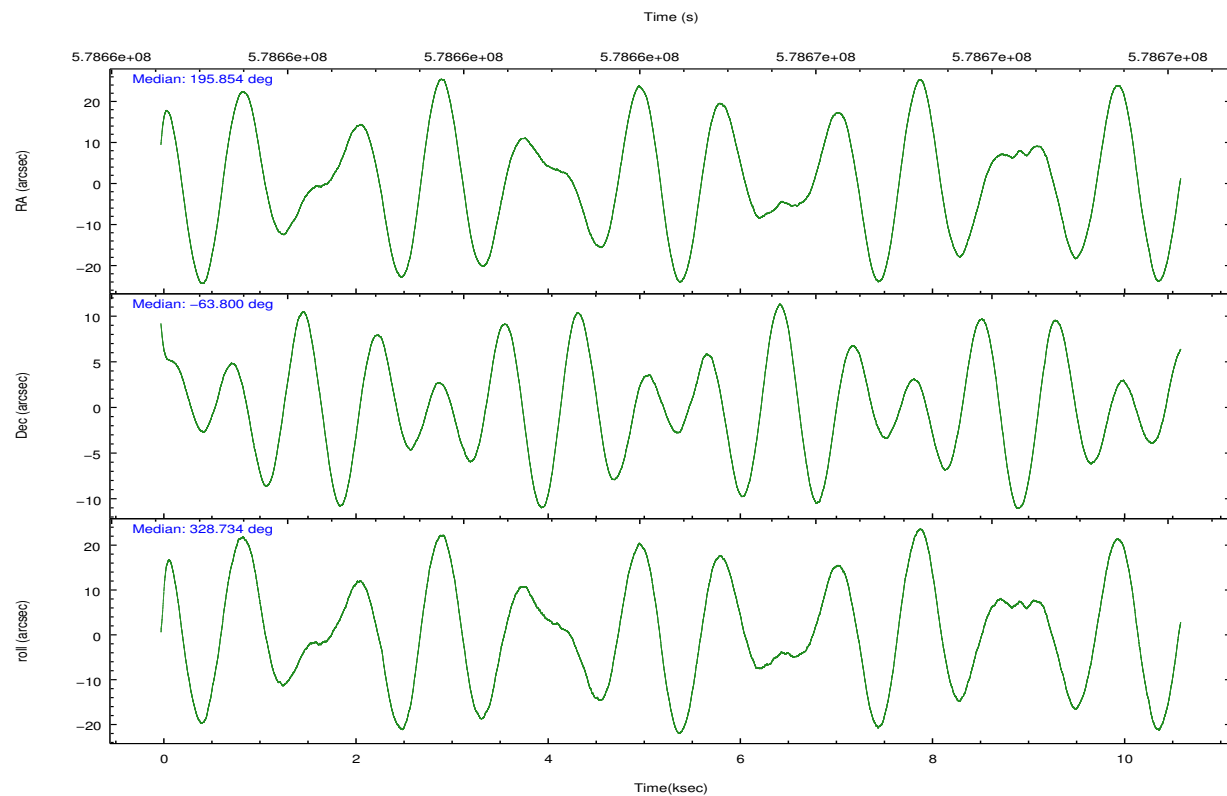
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-235678	ACIS-235678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	195.791749	195.8538257620082
[deg] Pointing Dec	-63.799989	-63.80019797190127
[deg] Pointing Roll	328.533082	328.7453949419698
[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)	578659655.184000	578658325.33302
Observation start date	2016-05-03T10:46:27	2016-05-03T10:25:25
[s] Observation end time (MET)	578669655.184000	578671100.9337699
Observation end date	2016-05-03T13:33:07	2016-05-03T13:58:20
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	O2	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	O1	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	Y
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



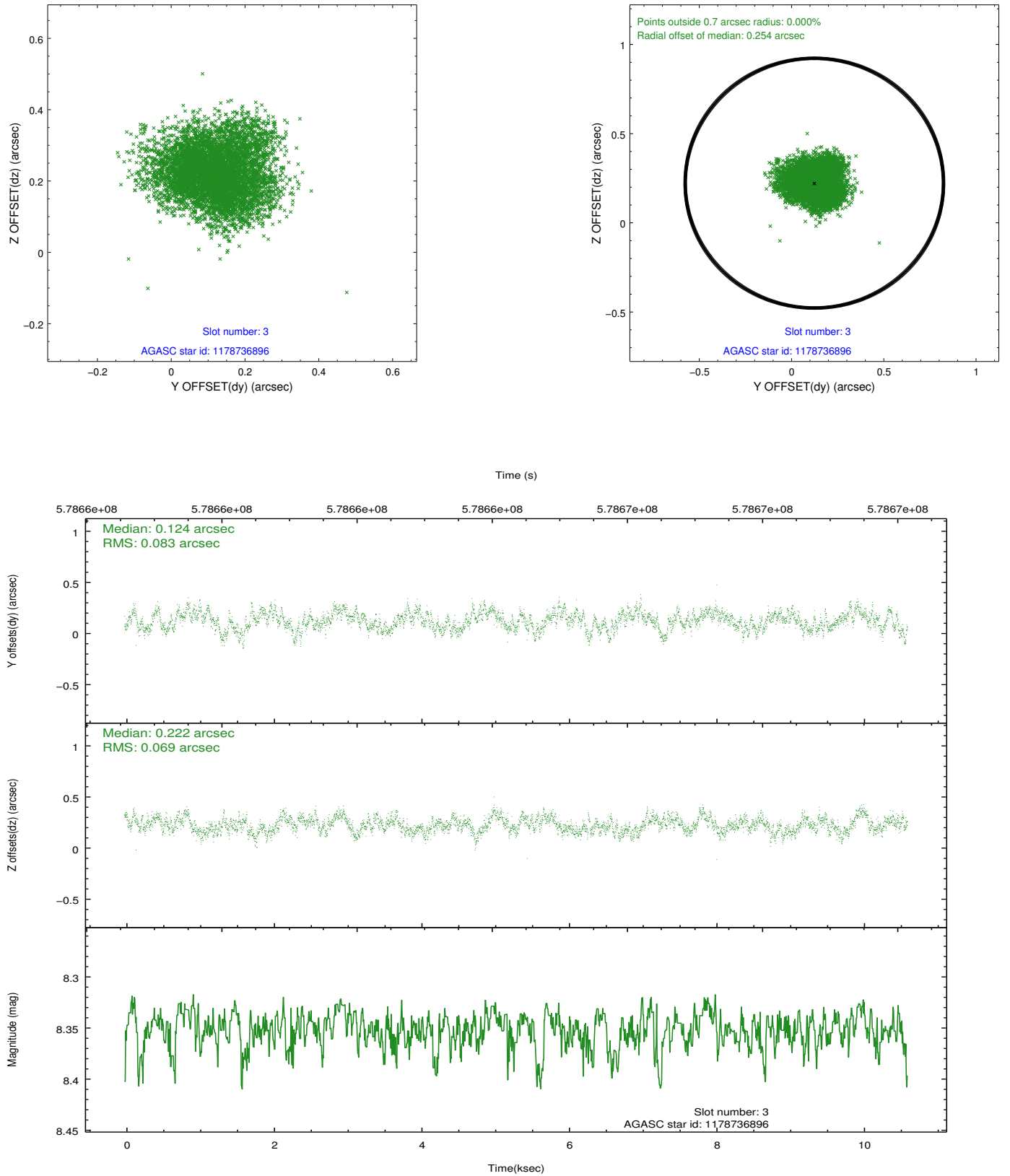


### Slot Statistics

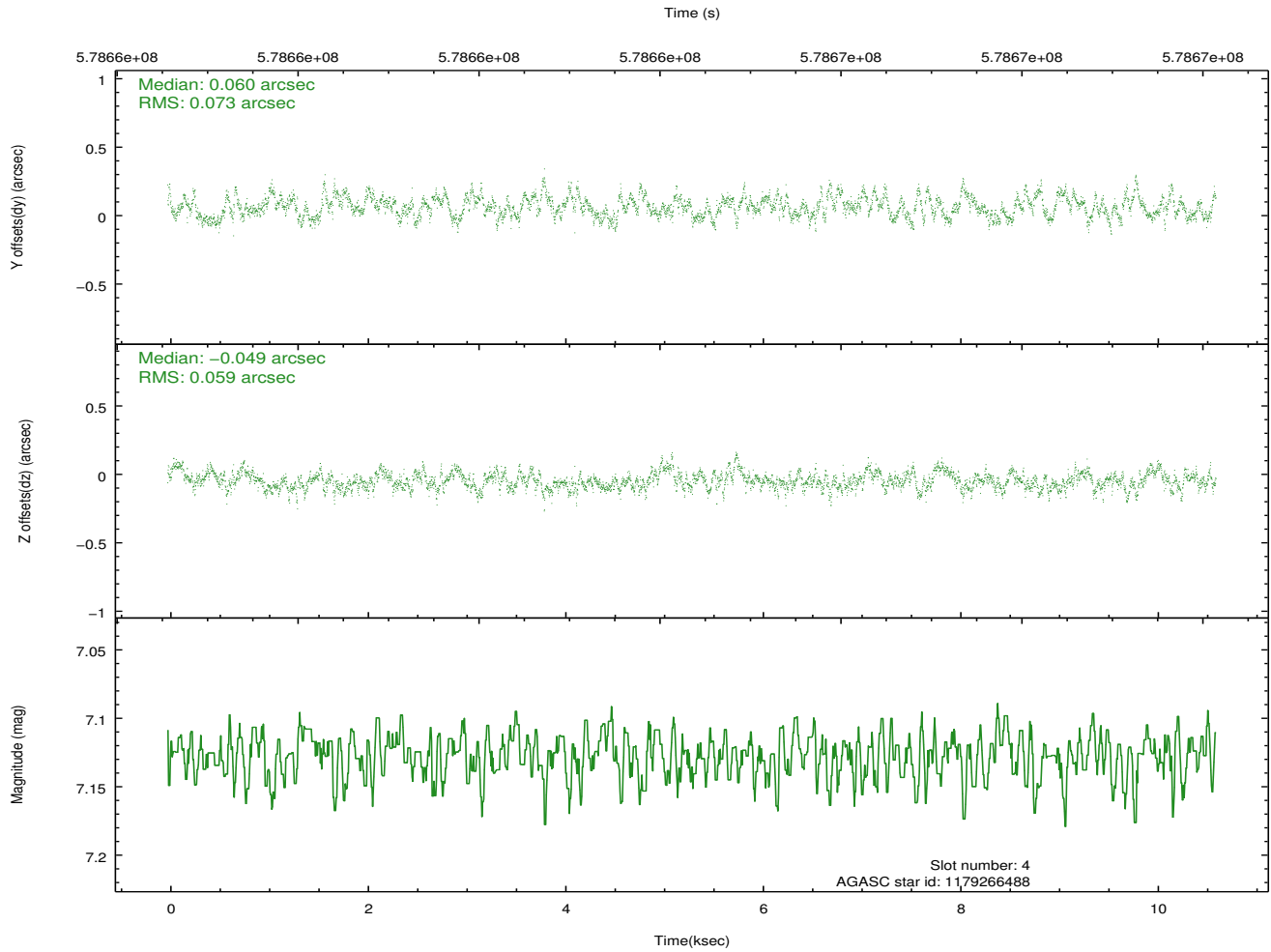
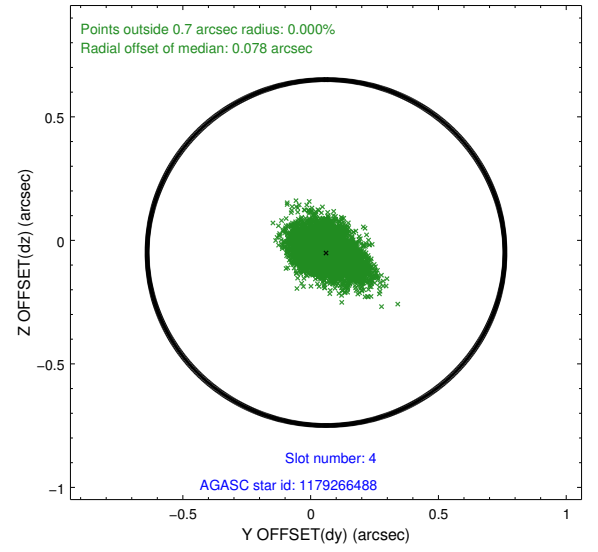
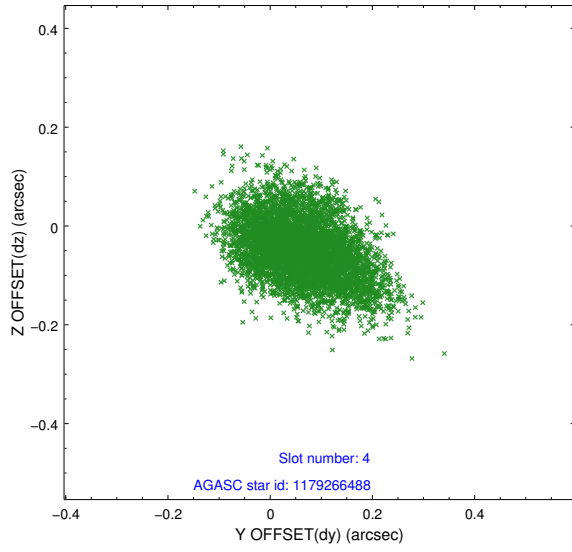
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.11	2589	-0.147	-0.103	0.013	0.020	0.000000	0.000000	-766.96	-1738.32
1	FID		ACIS-S-4	7.22	2588	0.432	0.098	0.010	0.016	0.000000	0.000000	2146.66	169.87
2	FID		ACIS-S-5	7.24	2590	-0.316	0.013	0.010	0.016	0.000000	0.000000	-1819.35	163.99
3	GUIDE	used	1178736896	8.35	5176	0.124	0.222	0.116	0.182	194.755483	-63.640622	-1704.53	-386.41
4	GUIDE	used	1179266488	7.13	5178	0.060	-0.049	0.100	0.163	196.258505	-64.441584	1825.60	-1593.88
5	GUIDE	used	1178735320	8.43	5177	0.024	-0.009	0.144	0.233	195.346776	-62.925070	-2264.59	2303.27
6	GUIDE	used	1178734856	8.24	5177	-0.103	-0.322	0.249	0.340	195.759625	-63.178913	-1212.08	1880.10
7	GUIDE	used	1179267848	7.95	5176	-0.119	0.180	0.070	0.116	195.158124	-64.292418	84.50	-2031.79

## 2.4 Star Slots

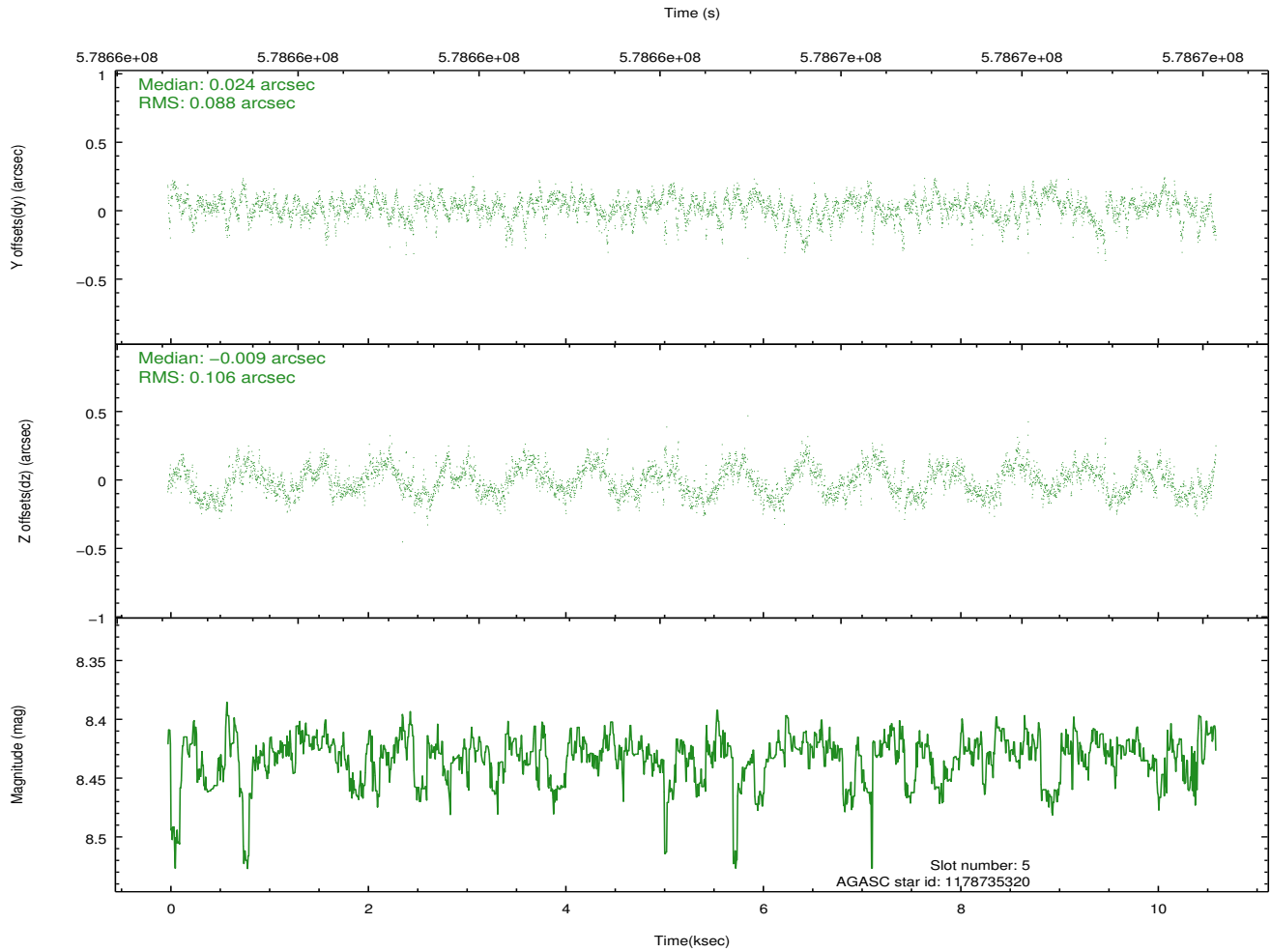
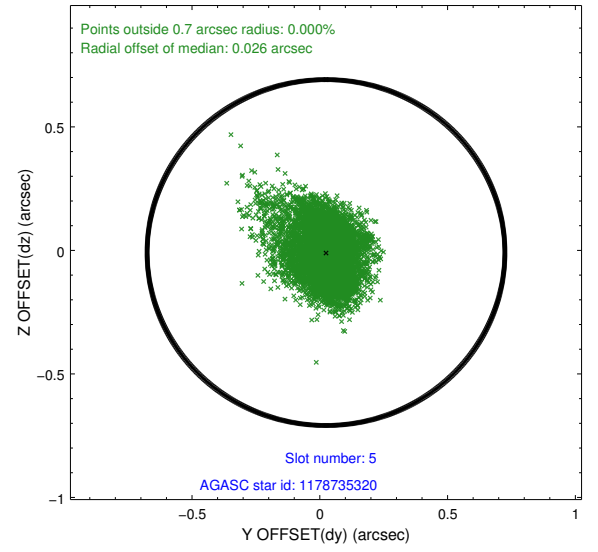
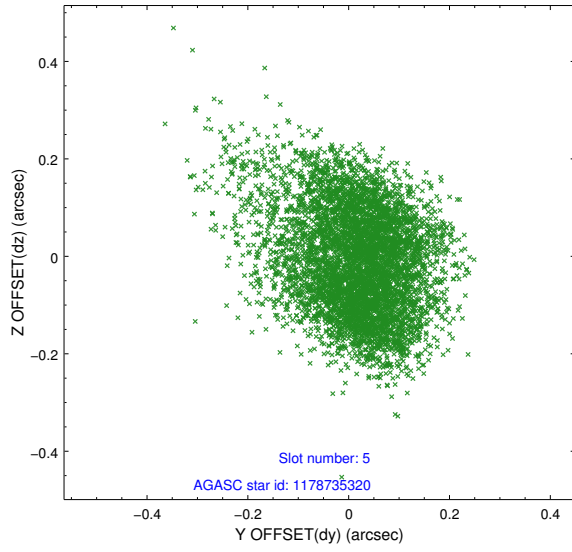
### 2.4.1 Slot 3



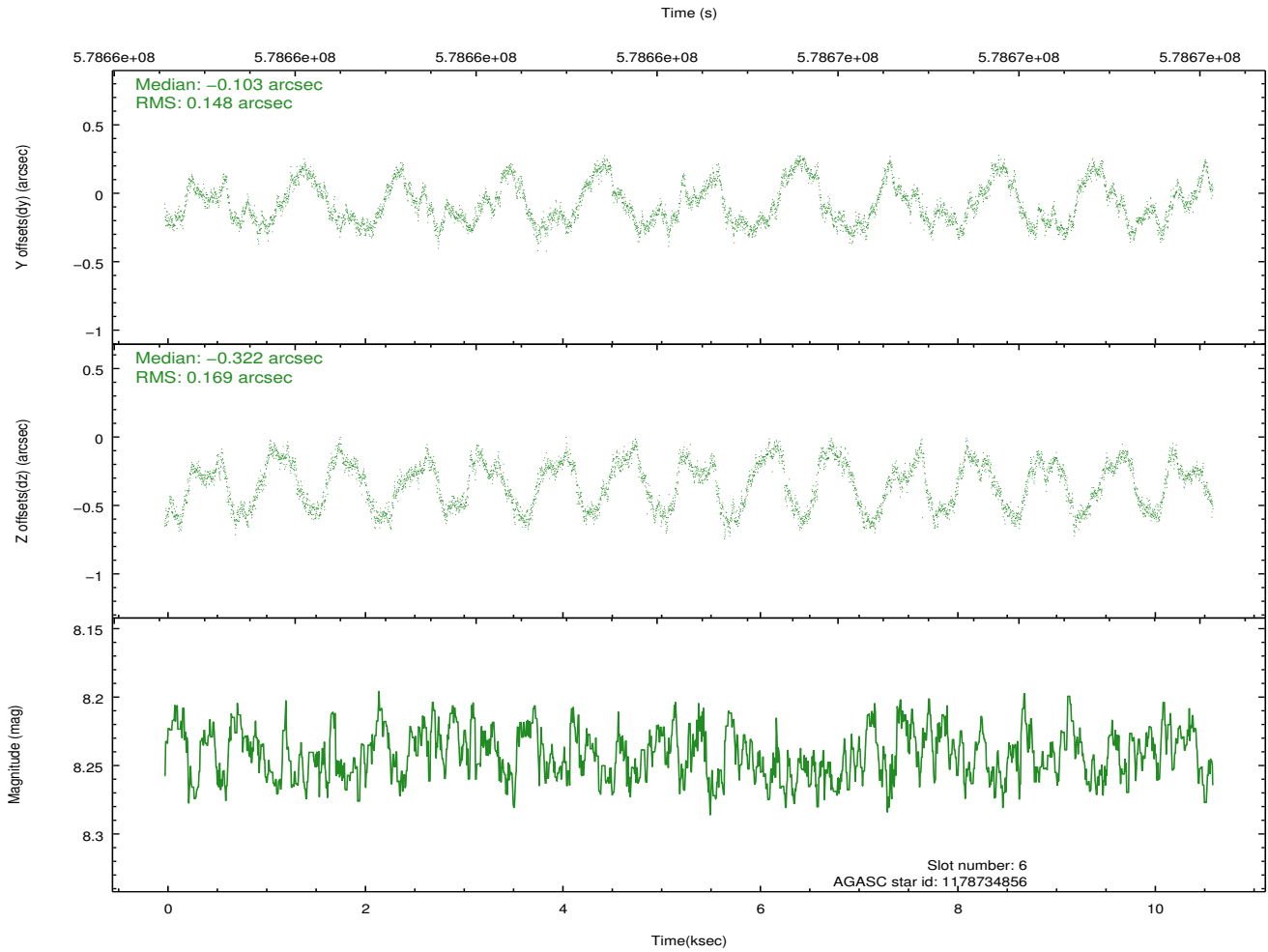
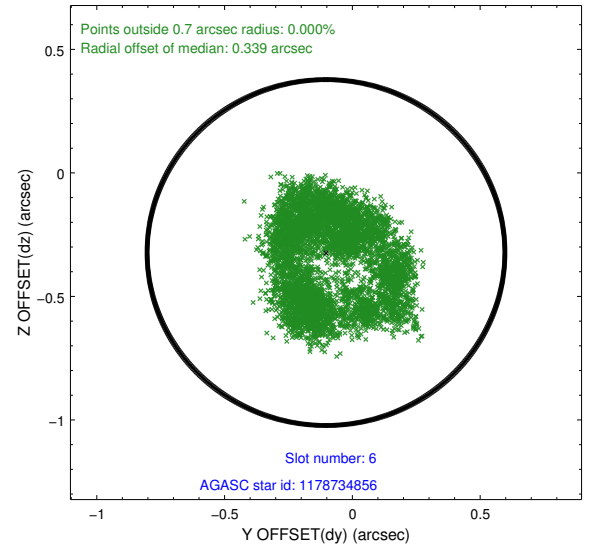
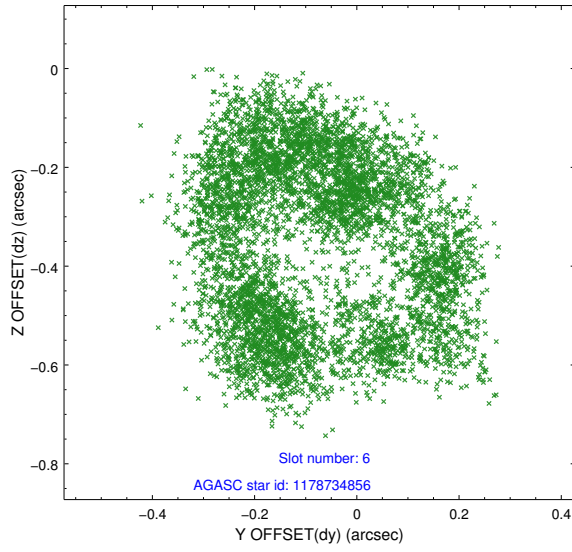
## 2.4.2 Slot 4



### 2.4.3 Slot 5

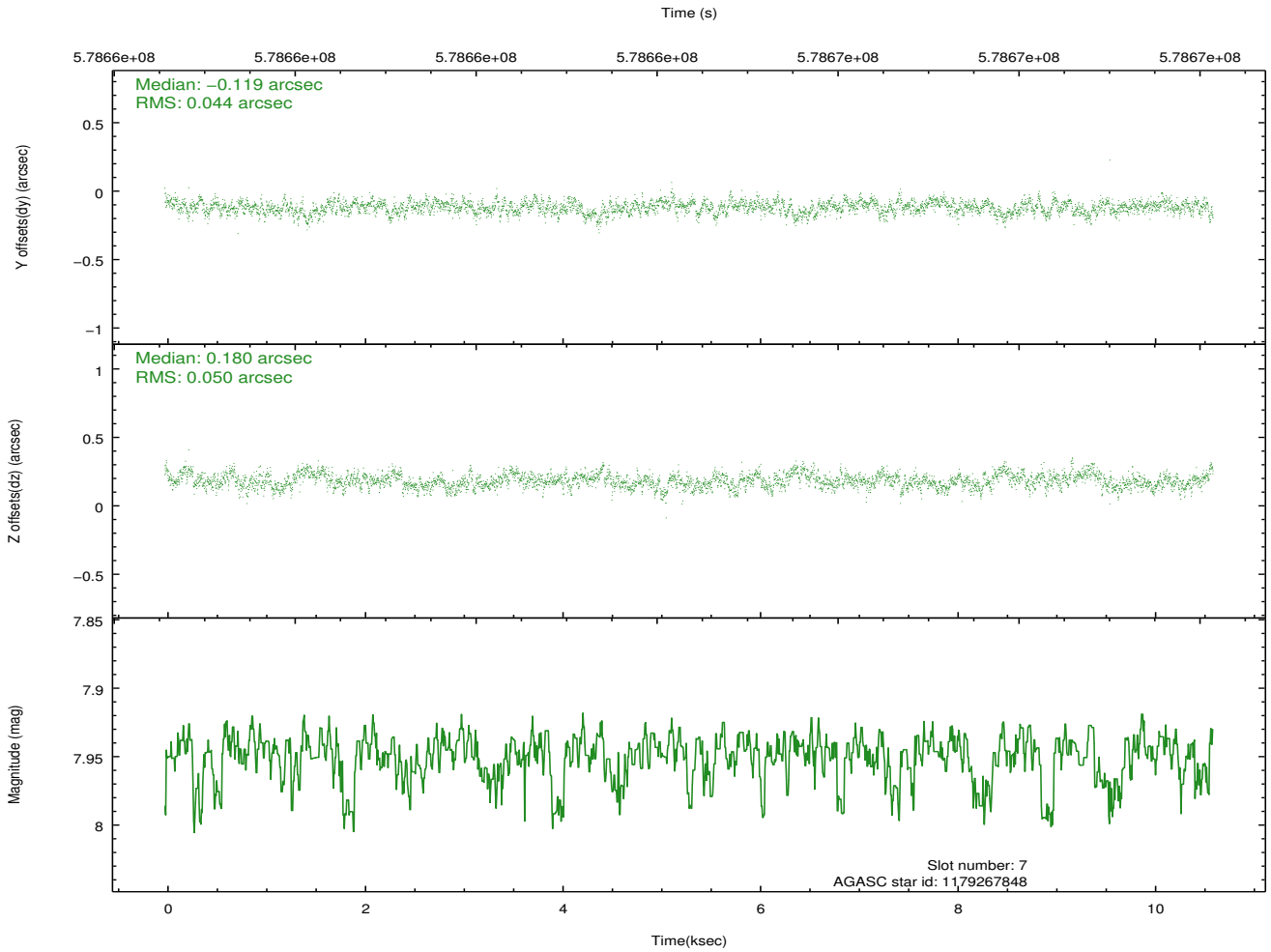
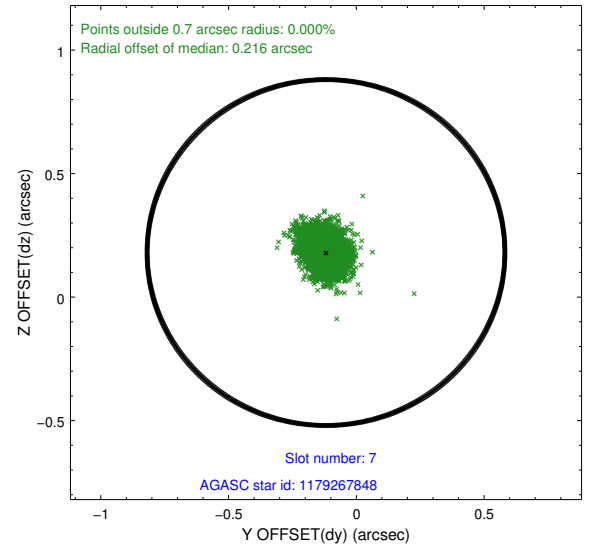
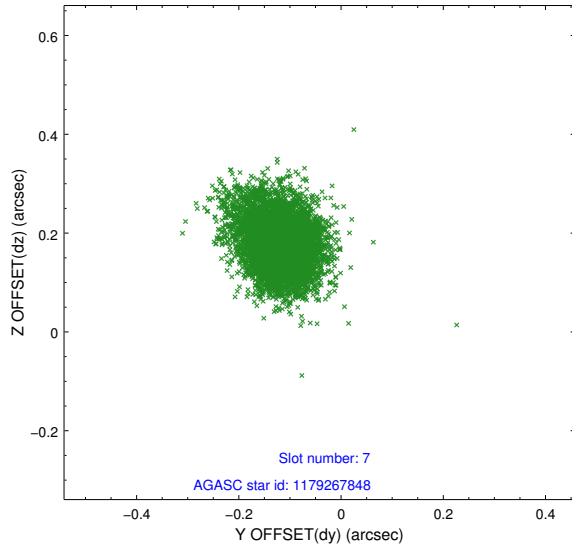


## 2.4.4 Slot 6



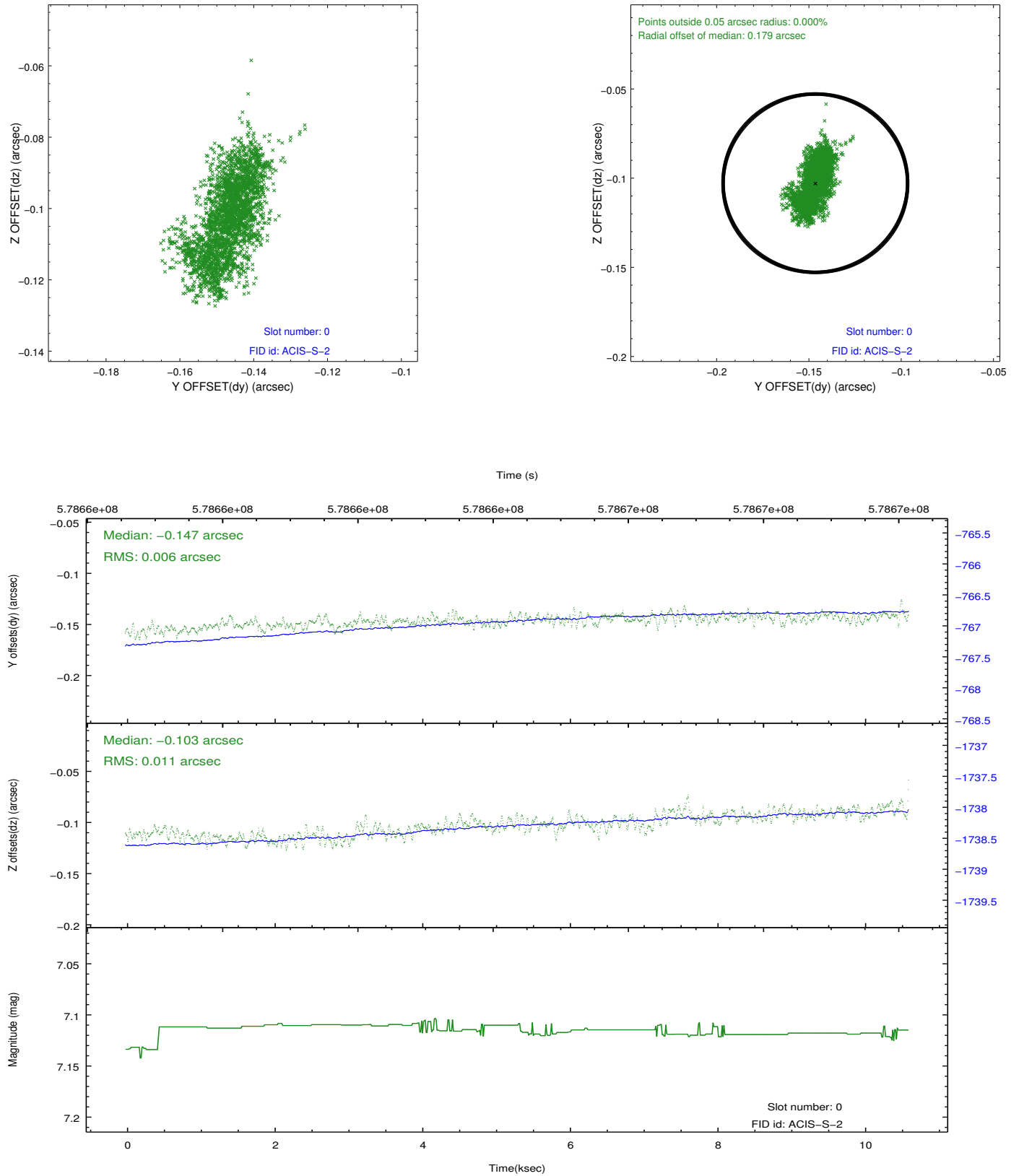


## 2.4.5 Slot 7

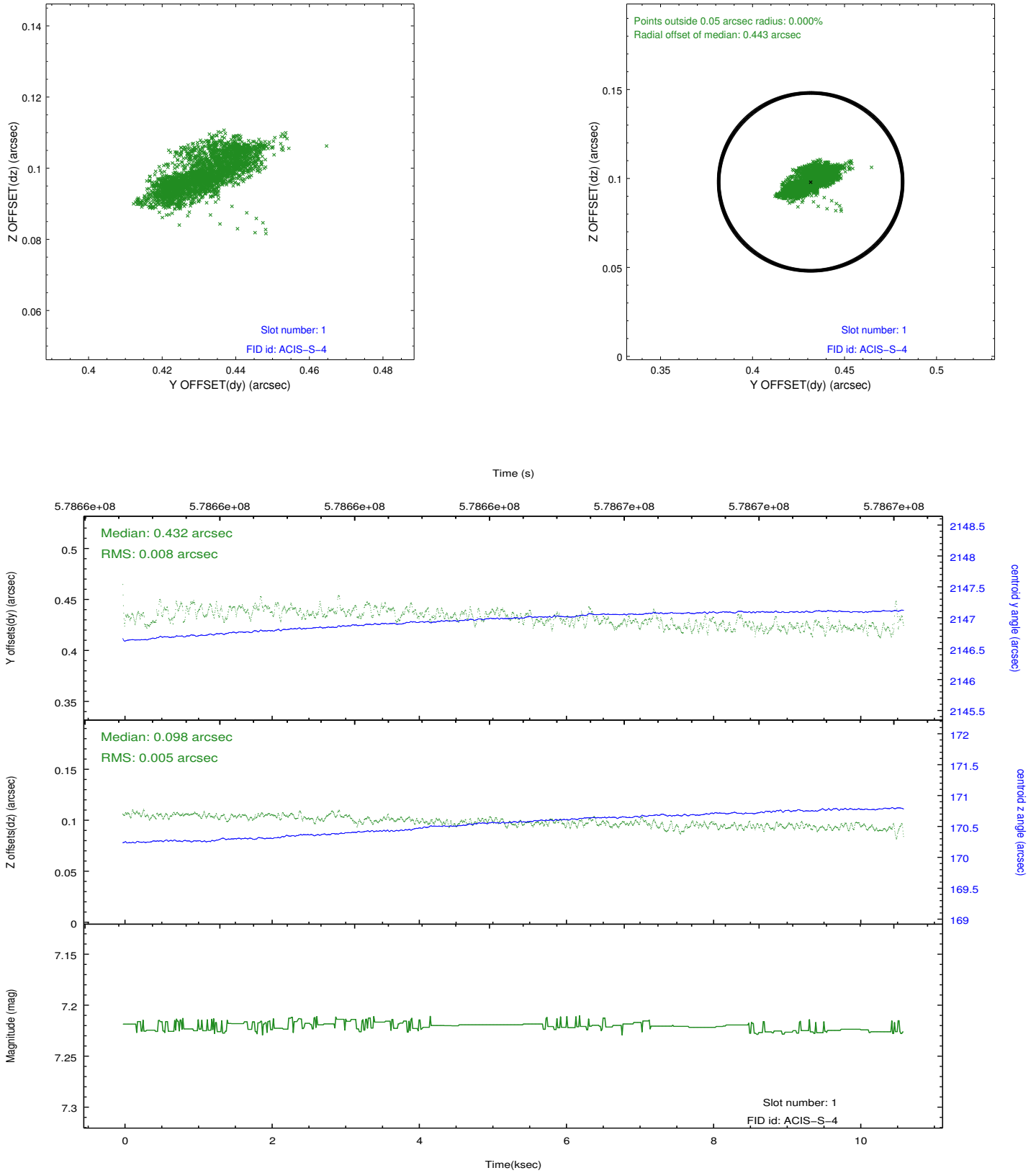


## 2.5 FID Slots

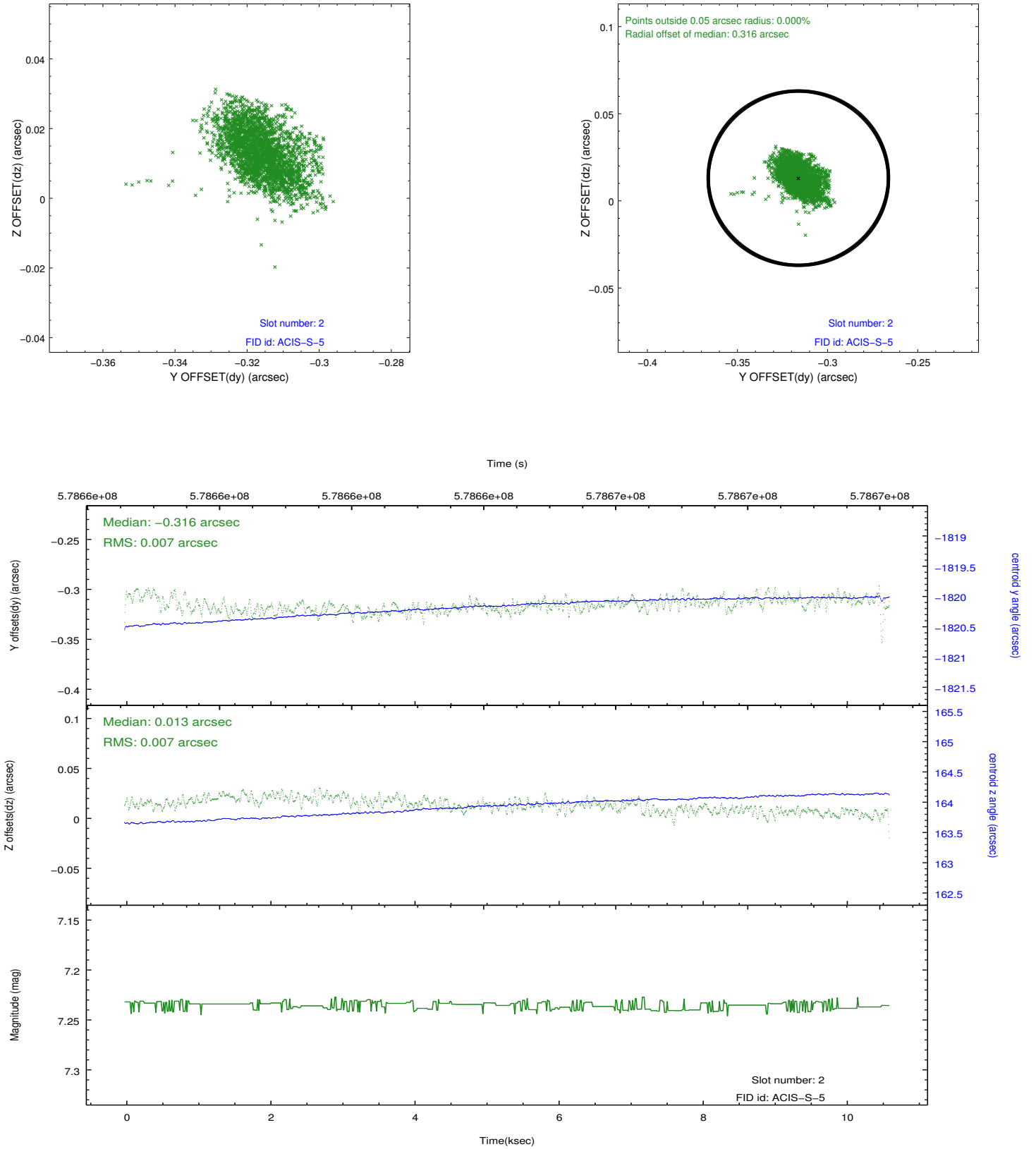
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.05.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.9539801988602

### A.2 Comments