

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13172 - L2 Version 2  
Chandra X-Ray Center

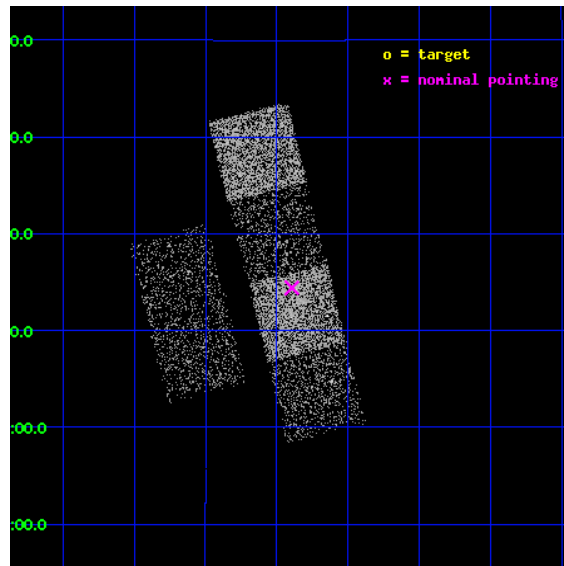
L2 Processing Date : Jul 6 2012

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# 1 Front

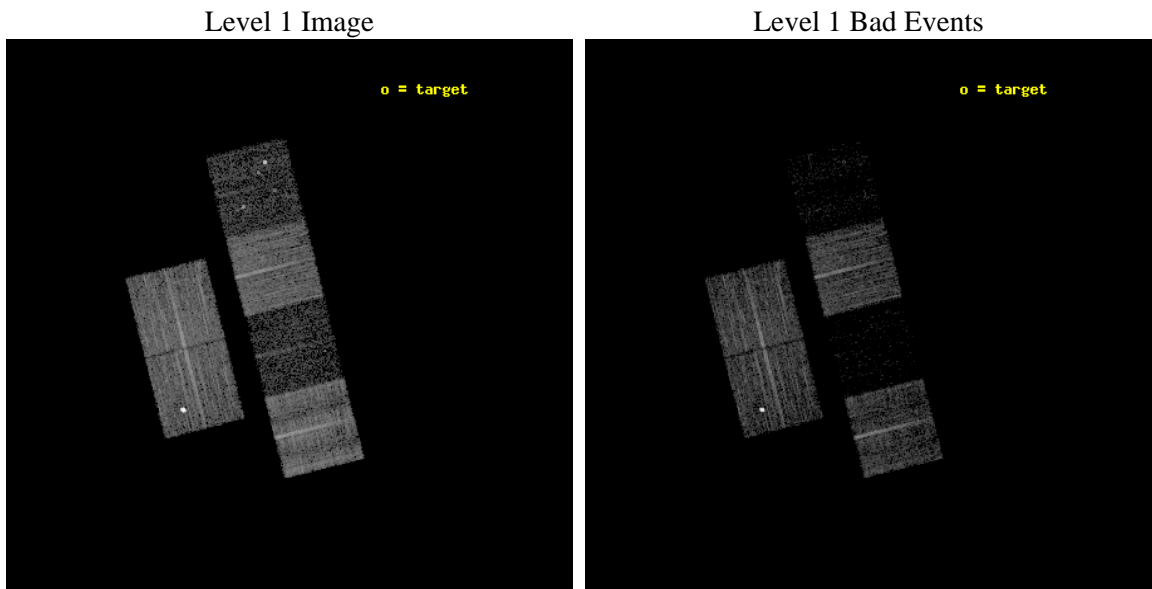
seq_num	100086	Sequence number
obs_id	13172	Observation id
title	Comet 103P/Hartley 2 During the EPOXI Spacecraft Encounter	Proposa
observer	Dr. Carey Lisse	Principal investigator
object	103P/Hartley 2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	106.306208	Observer's specified target RA [deg]
dec_targ	7.21925	Observer's specified target Dec [deg]
ra_nom	106.84838037452	Nominal RA [deg]
dec_nom	6.2402259323528	Nominal Dec [deg]
roll_nom	75.958318014849	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6687.9999751449	Sum of GTIs [s]
livetime	6603.3124924295	Livetime [s]
ontime2	6687.9999751449	Sum of GTIs [s]
ontime3	6684.7589348555	Sum of GTIs [s]
ontime5	6687.9999751449	Sum of GTIs [s]
ontime6	6687.9999751449	Sum of GTIs [s]
ontime7	6687.9999751449	Sum of GTIs [s]
ontime8	6687.9999751449	Sum of GTIs [s]
l2events	12646	Number of level 2 events



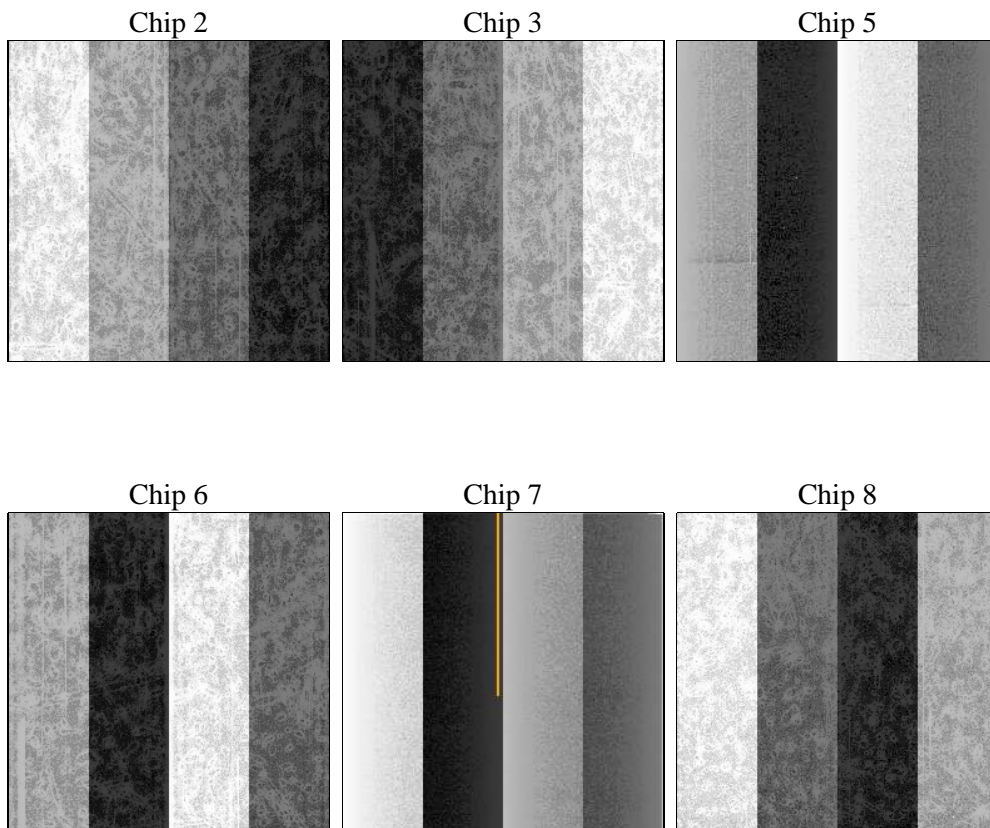
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	6687.9999751449	Sum of GTIs [s]
caldbver	4.5.0	&#160	ontime2	6687.9999751449	Sum of GTIs [s]
date	2012-07-06T12:23:33	Date and time of file creation	ontime3	6684.7589348555	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	6687.9999751449	Sum of GTIs [s]
			ontime6	6687.9999751449	Sum of GTIs [s]
			ontime7	6687.9999751449	Sum of GTIs [s]
			ontime8	6687.9999751449	Sum of GTIs [s]
			l1events	168046	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	36970	45516	9859	32198	6313	37190
rejected events	35368	38523	2969	30741	1461	25956
rejected %	95%	84%	30%	95%	23%	69%

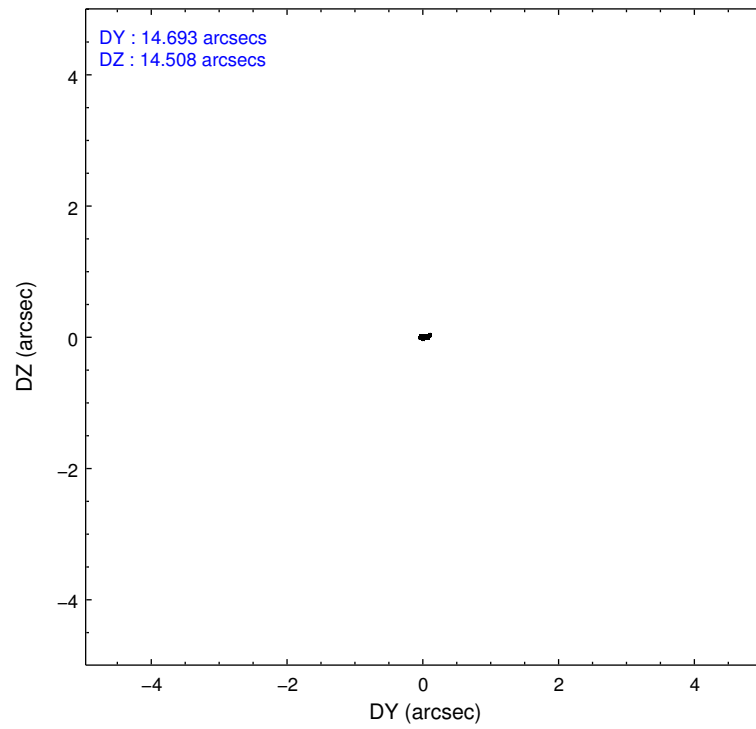
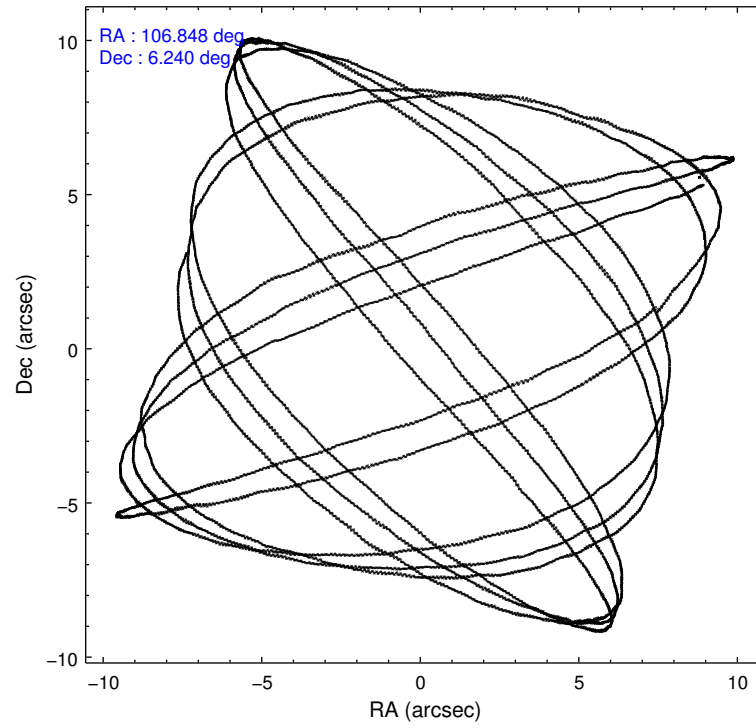
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	672	6716	2604	763	1840	3362
	1%	14%	26%	2%	29%	9%
grade 1 events	11	8197	156	13	46	28
	0%	18%	1%	0%	0%	0%
grade 2 events	443	180	3118	287	1549	2606
	1%	0%	31%	0%	24%	7%
grade 3 events	191	176	489	176	574	1440
	0%	0%	4%	0%	9%	3%
grade 4 events	211	168	520	193	553	1297
	0%	0%	5%	0%	8%	3%
grade 5 events	63	94	408	33	175	208
	0%	0%	4%	0%	2%	0%
grade 6 events	158	109	528	118	569	3012
	0%	0%	5%	0%	9%	8%
grade 7 events	35221	29876	2036	30615	1007	25237
	95%	65%	20%	95%	15%	67%

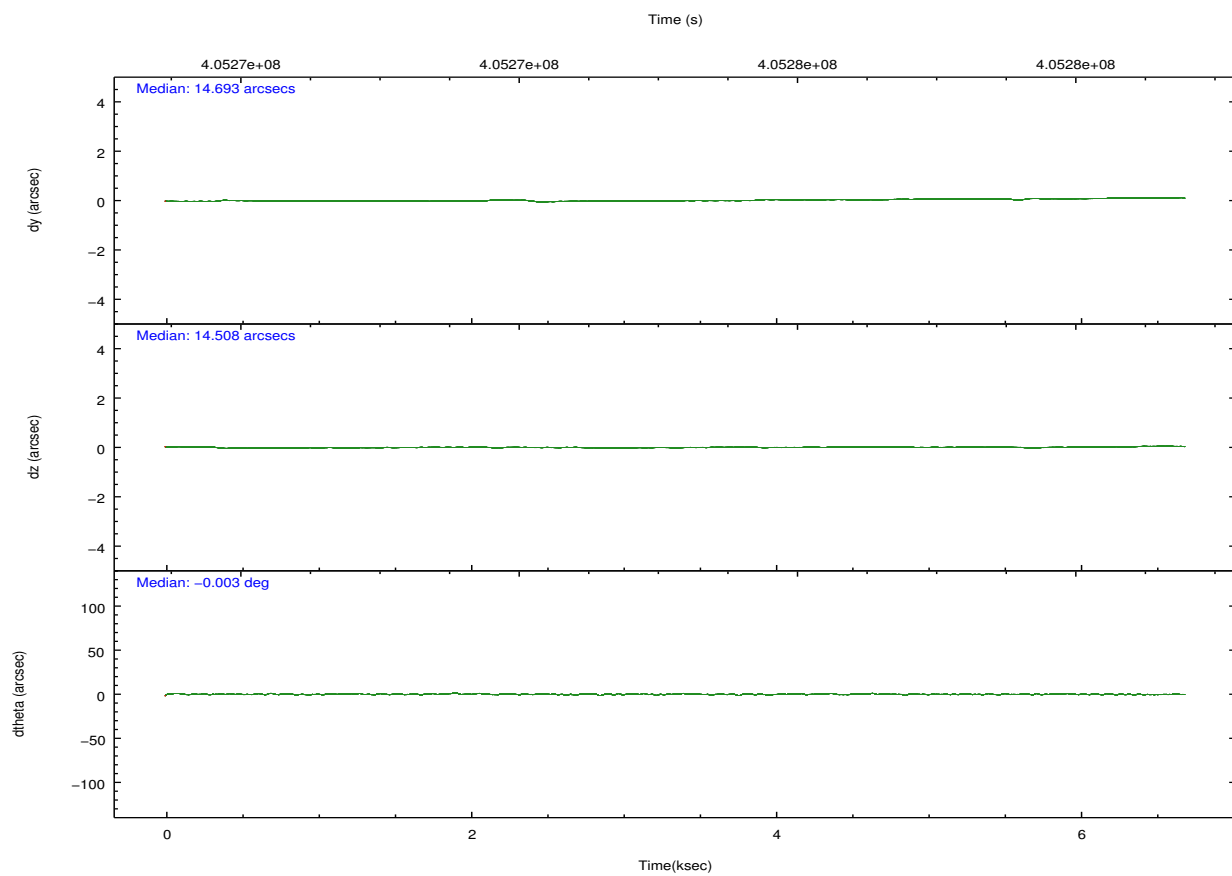
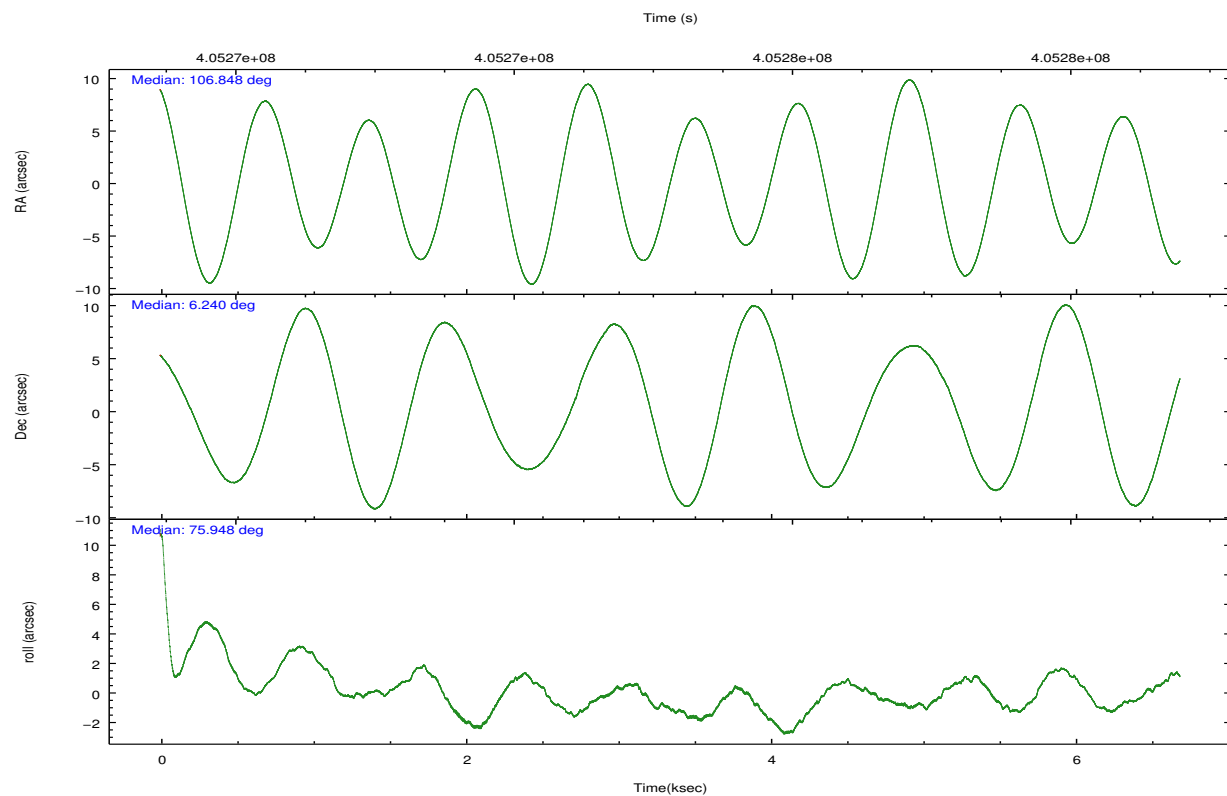


## 2.2 Compared Parameters

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	106.856353	106.8483803745154	Subarray requested	NONE	NONE
[deg] Pointing Dec	6.214108	6.24022593235278	Alternating exposures requested	N	N
[deg] Pointing Roll	75.800811	75.95831801484927	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	405179766.184000	405179766.184000			
[s] Window stop time (MET)	405352566.184000	405352566.184000			
[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)	405271955.184000	405271579.47956			
Observation start date	2010-11-04T15:31:29	2010-11-04T15:26:19			
[s] Observation end time (MET)	405278455.184000	405278589.45492			
Observation end date	2010-11-04T17:19:49	2010-11-04T17:23:09			
Read mode	TIMED	TIMED			

## 2.3 Aspect



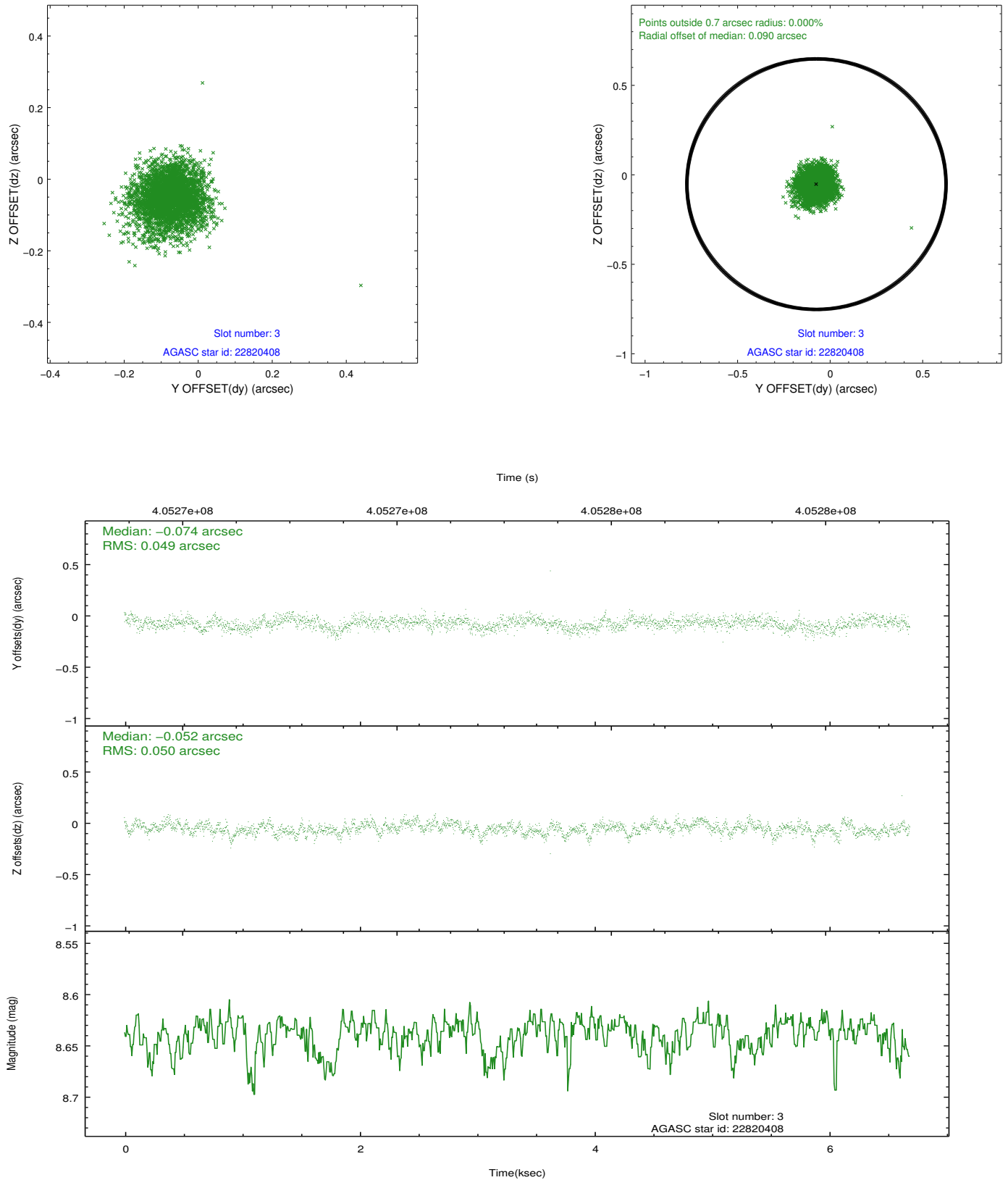


### Slot Statistics

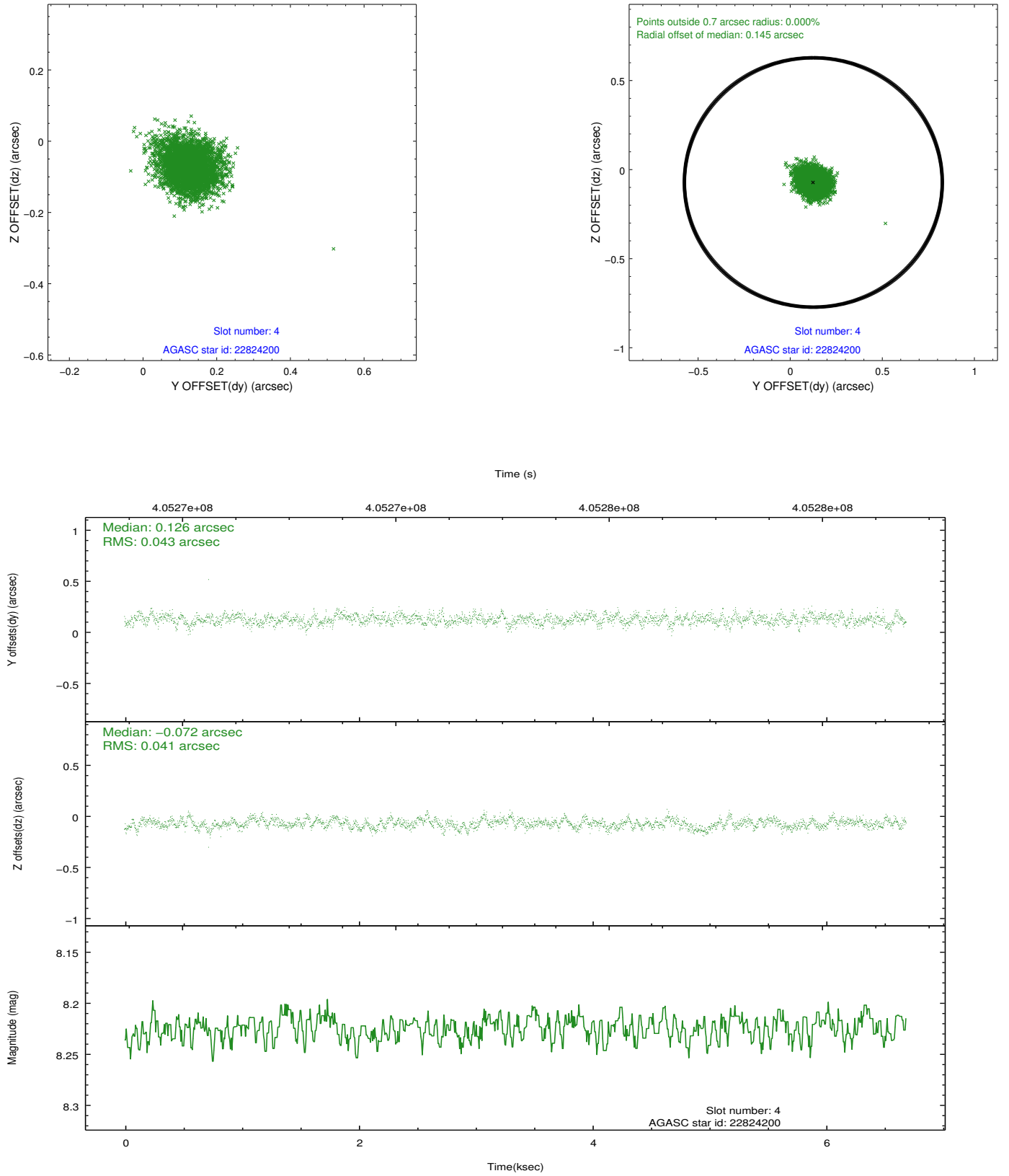
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.98	1632	-0.139	-0.097	0.005	0.009	0.000000	0.000000	-767.84	-1735.91
1	FID	ACIS-S-4	7.06	1632	0.146	0.073	0.006	0.010	0.000000	0.000000	2145.35	171.79
2	FID	ACIS-S-6	7.21	1632	-0.034	0.031	0.006	0.010	0.000000	0.000000	395.40	810.17
3	GUIDE	22820408	8.64	3261	-0.074	-0.052	0.074	0.121	106.724221	6.101405	-508.91	358.95
4	GUIDE	22824200	8.22	3264	0.126	-0.072	0.063	0.103	106.494056	5.889873	-1449.20	971.29
5	GUIDE	22825056	8.70	3263	0.080	0.034	0.091	0.146	106.637689	6.140981	-447.01	694.54
6	GUIDE	22825224	7.99	3264	0.007	-0.077	0.071	0.112	106.522122	6.119749	-622.37	1076.77
7	GUIDE	22966024	9.03	3257	-0.139	0.164	0.097	0.152	107.353977	6.445107	1244.15	-1520.78

## 2.4 Star Slots

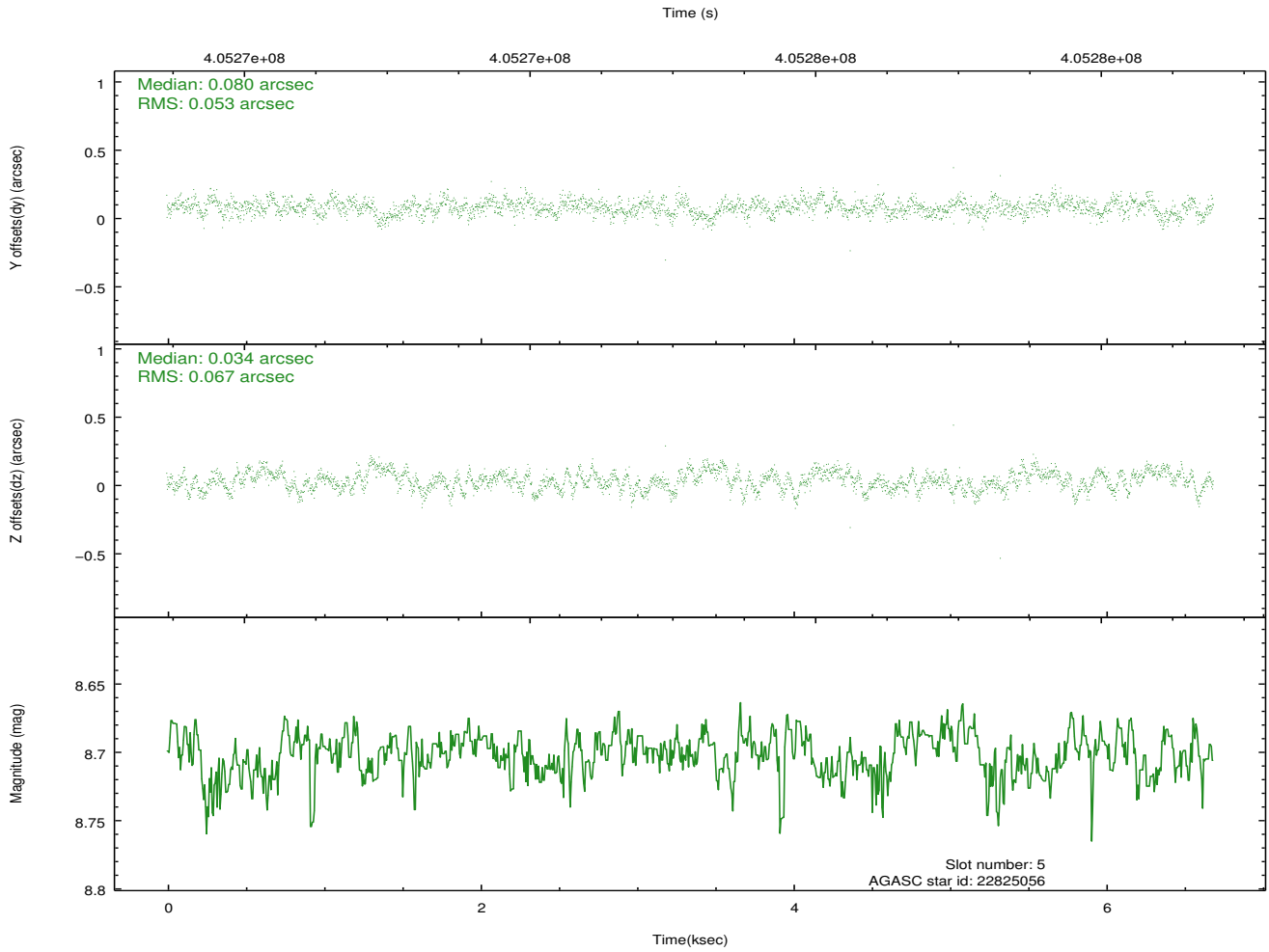
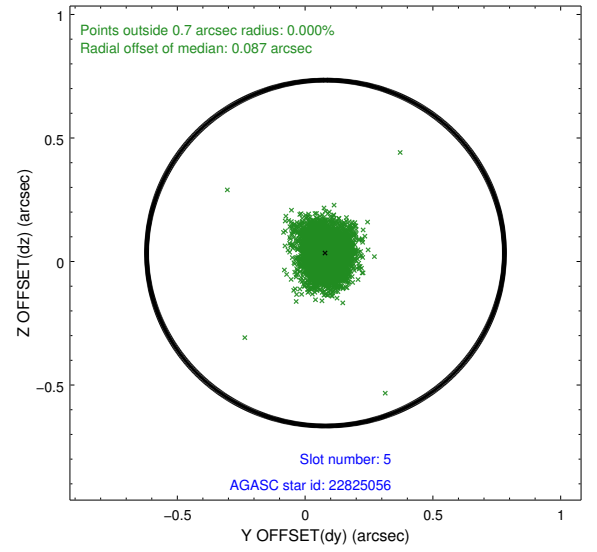
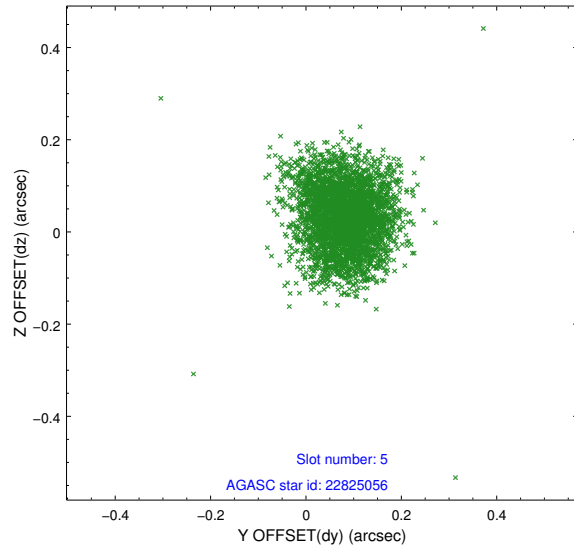
### 2.4.1 Slot 3



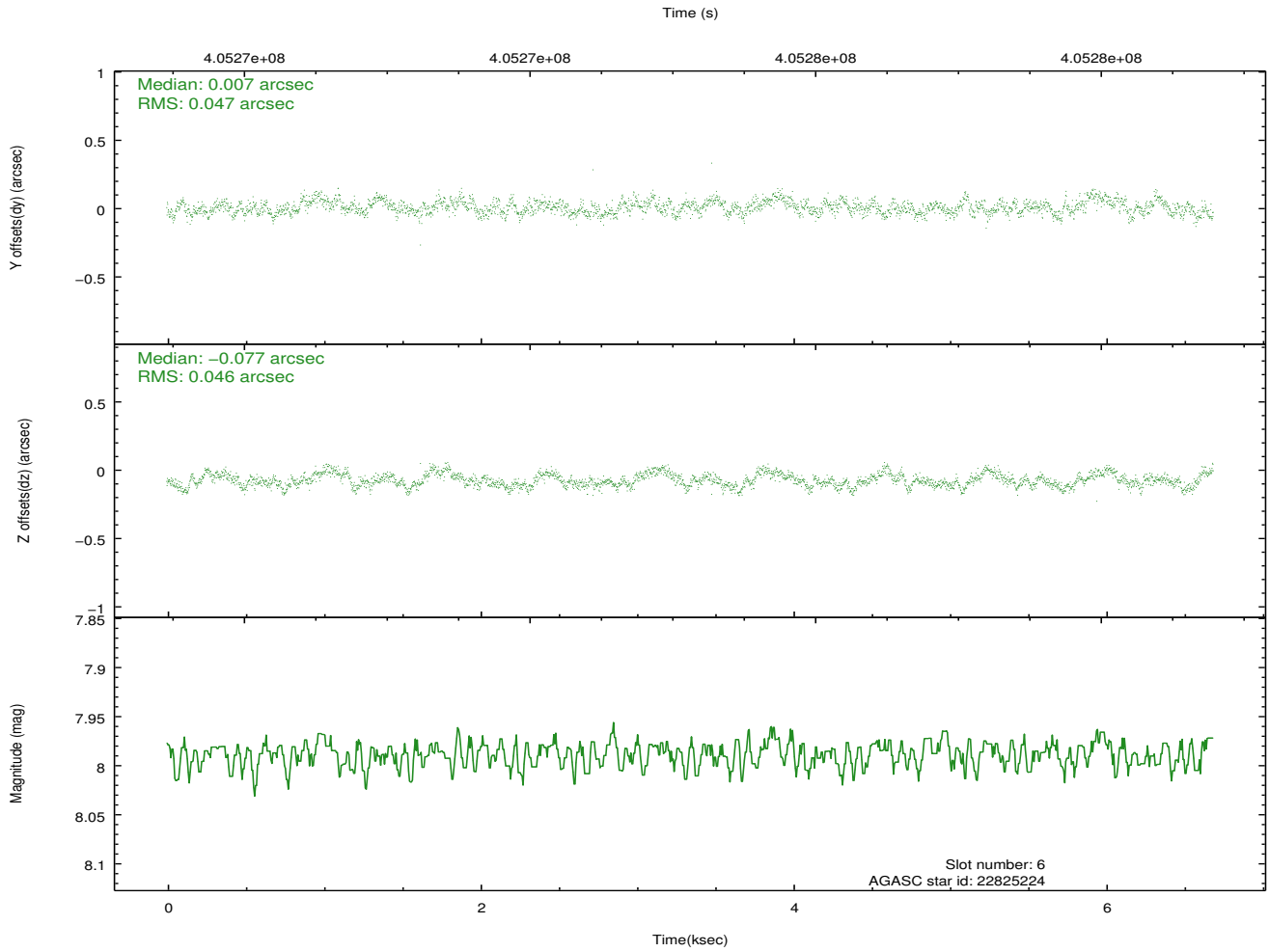
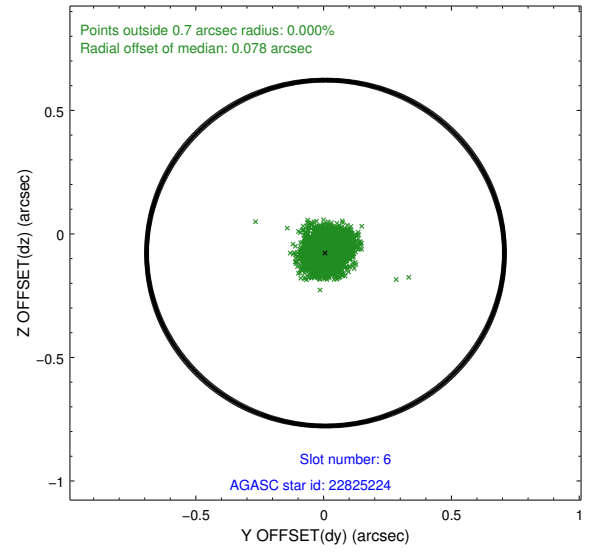
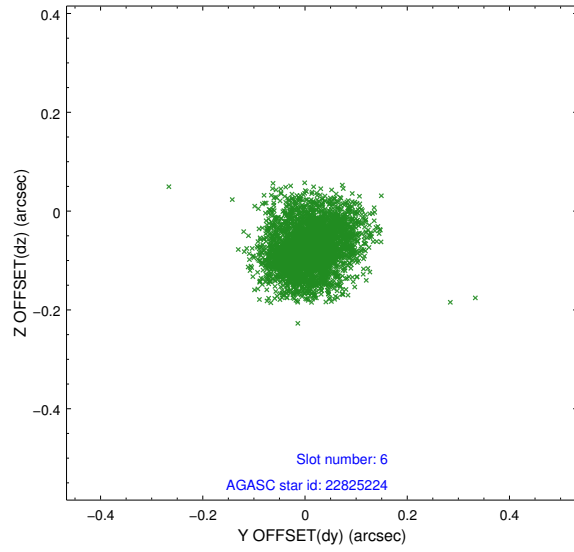
## 2.4.2 Slot 4



### 2.4.3 Slot 5

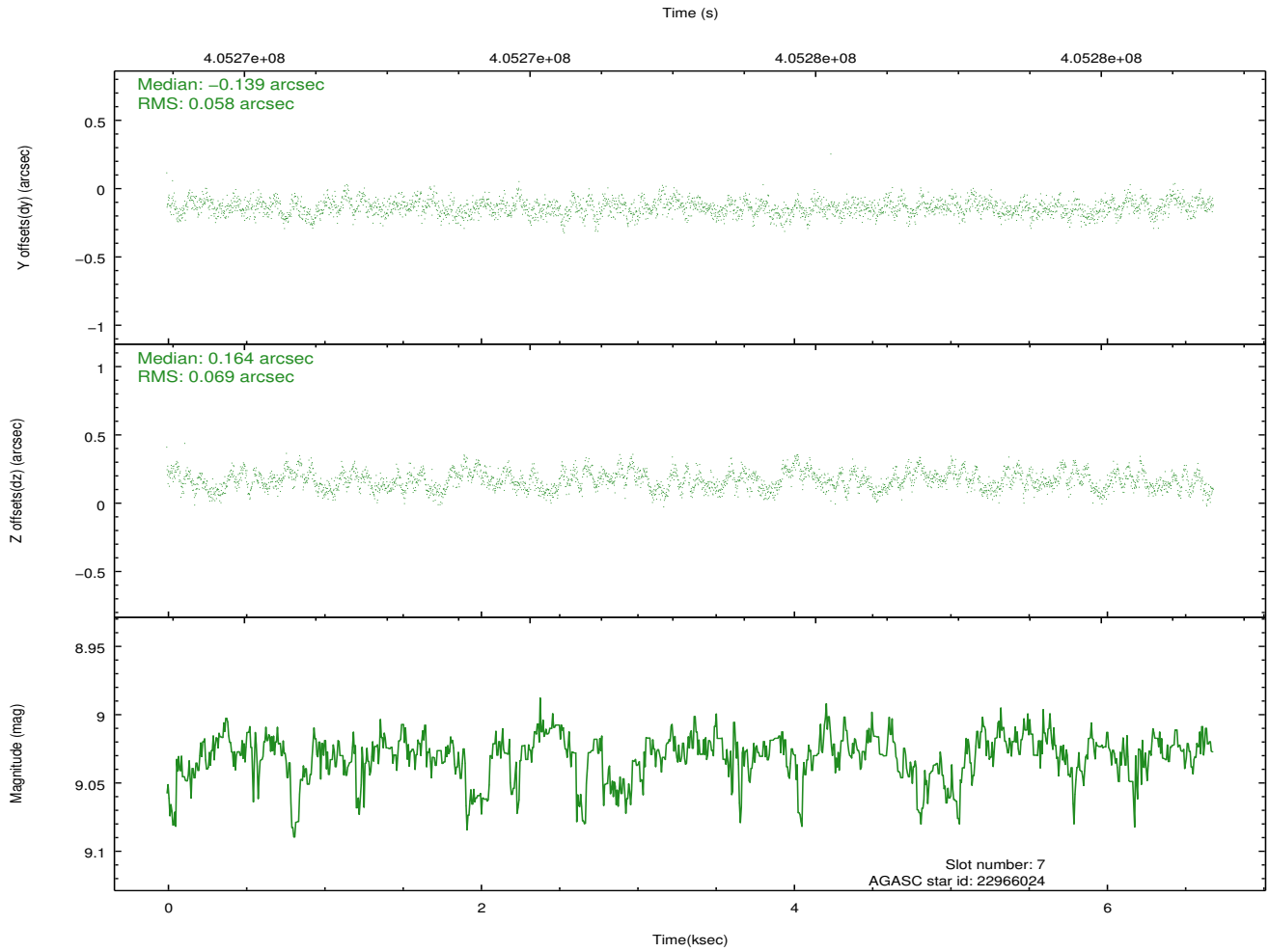
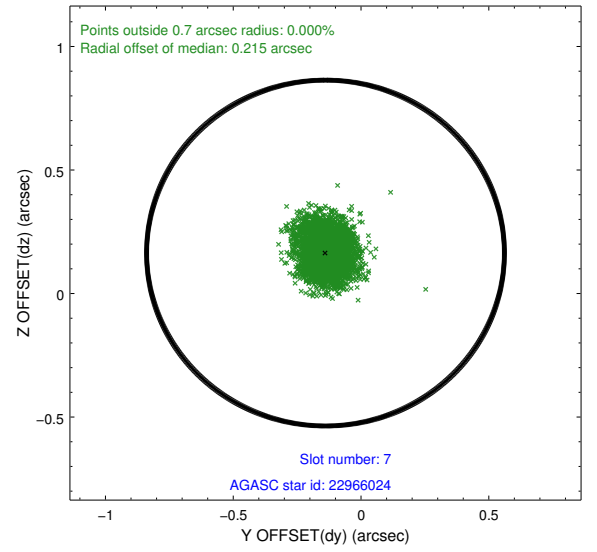
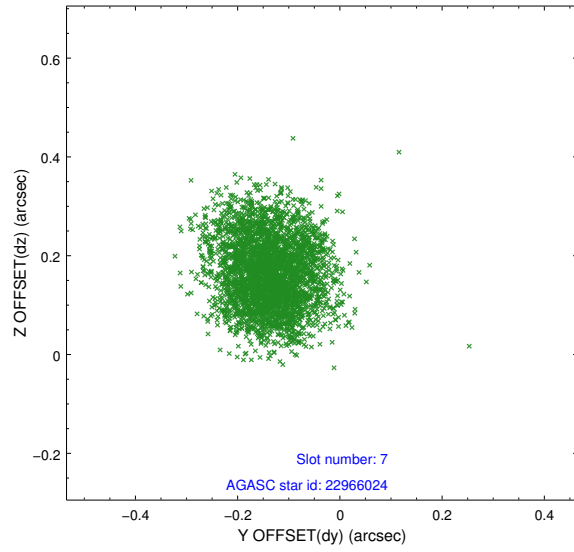


## 2.4.4 Slot 6



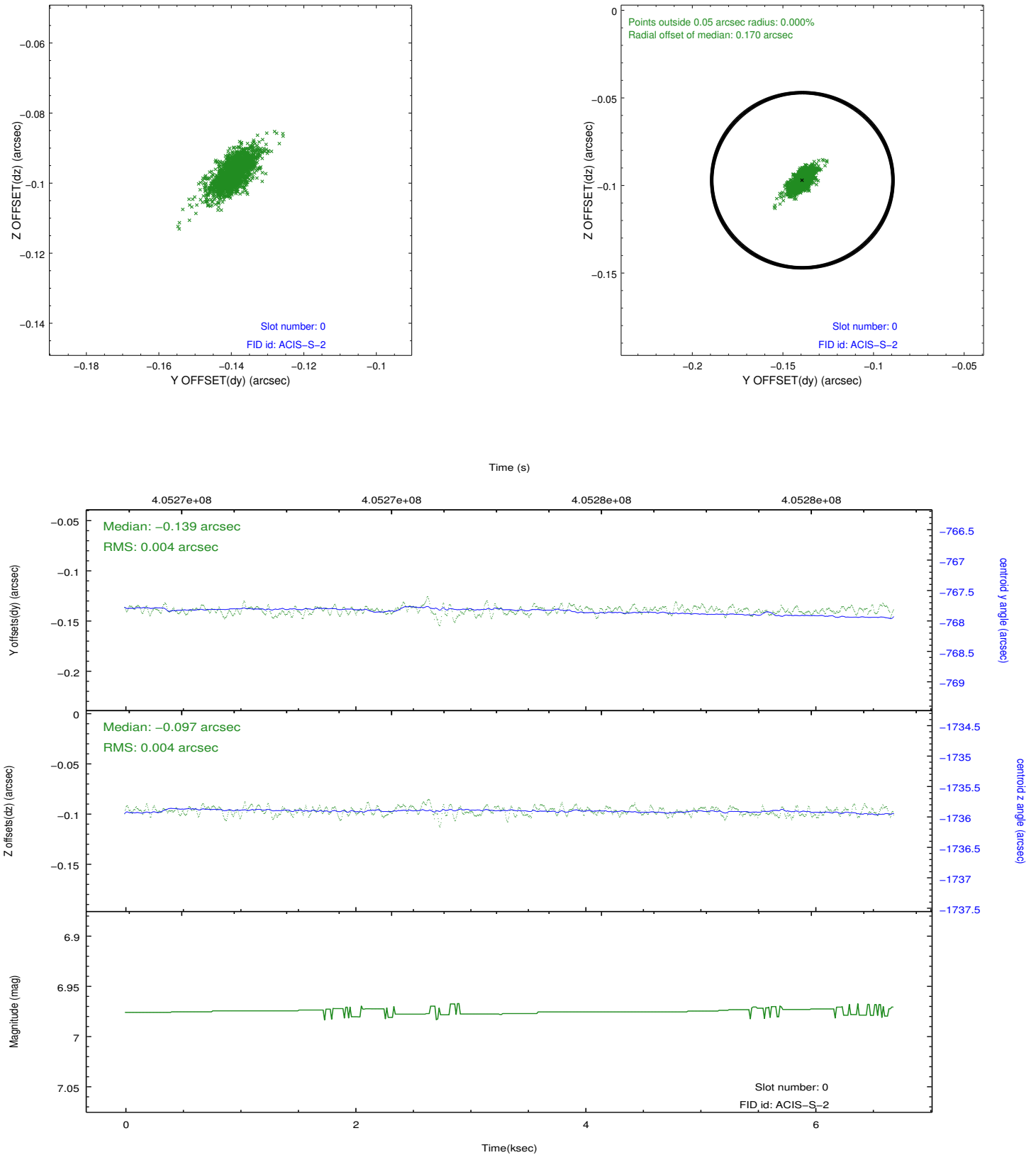


## 2.4.5 Slot 7

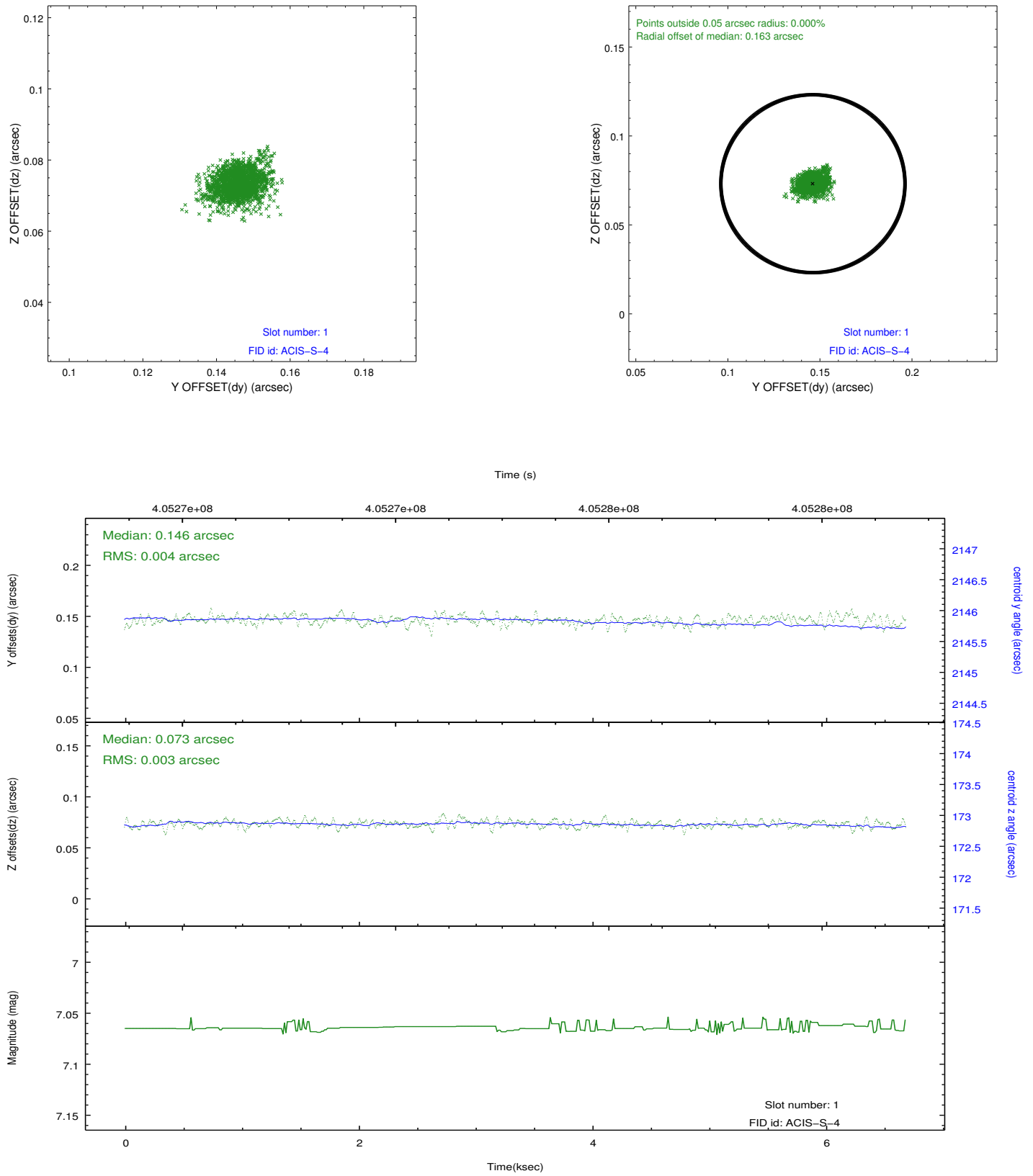


## 2.5 FID Slots

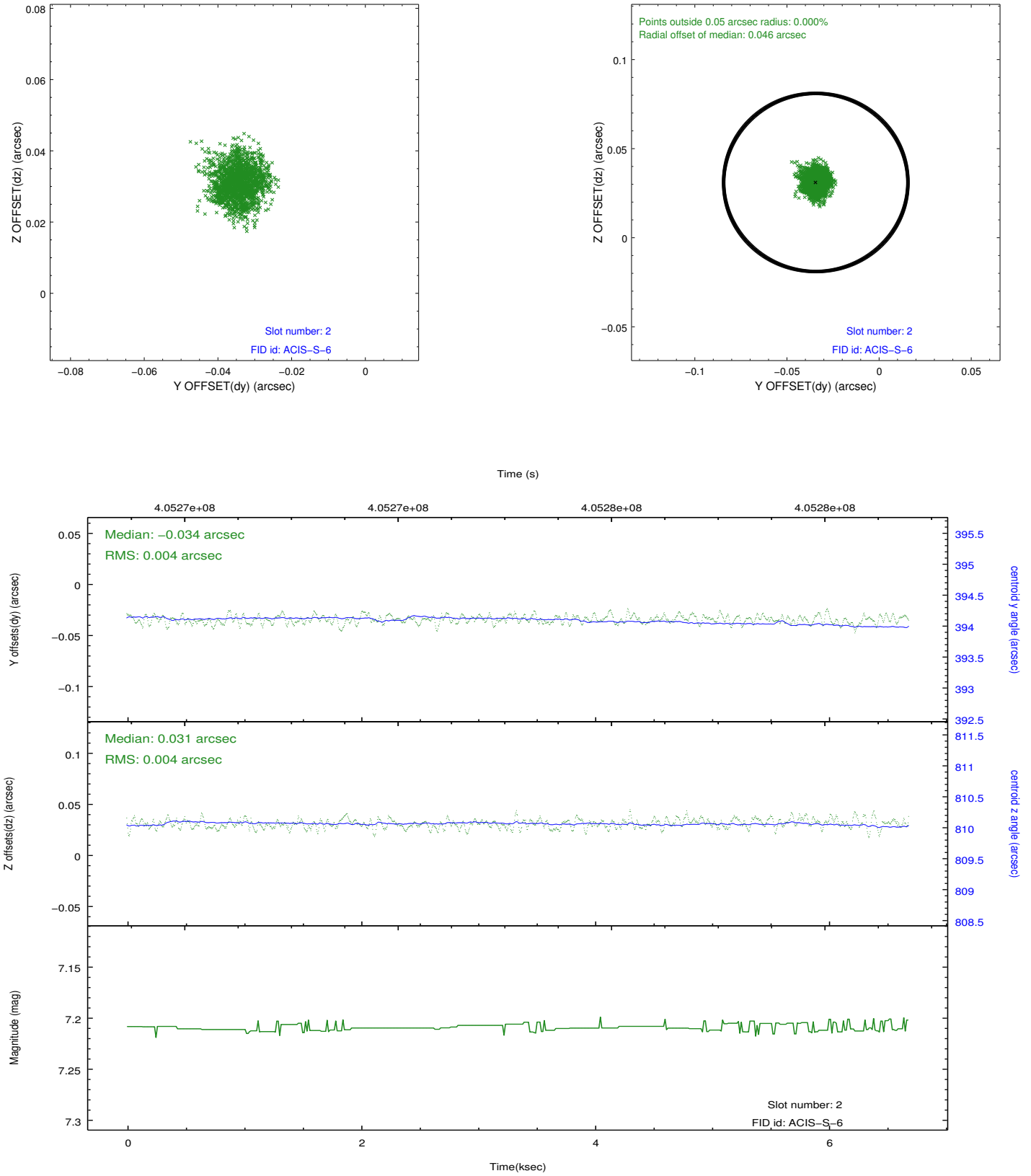
### 2.5.1 Slot 0



## 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)	2012.07.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.6879999751449

## A.2 Comments

The comet was moving with respect to the satellite during this observation. In order to analyze the data, the user should run `sso_freeze` or a similar software package that reprojects the events into the coordinate system of the comet.

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Window constraint met.