

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 12321 - L2 Version 2  
Chandra X-Ray Center

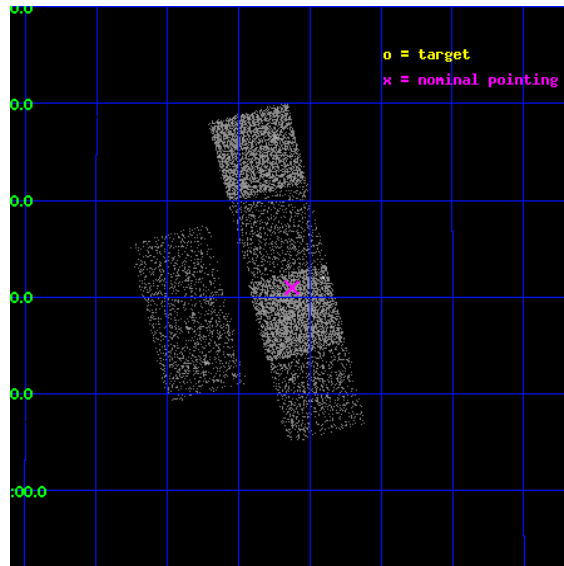
L2 Processing Date : Jul 6 2012

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# 1 Front

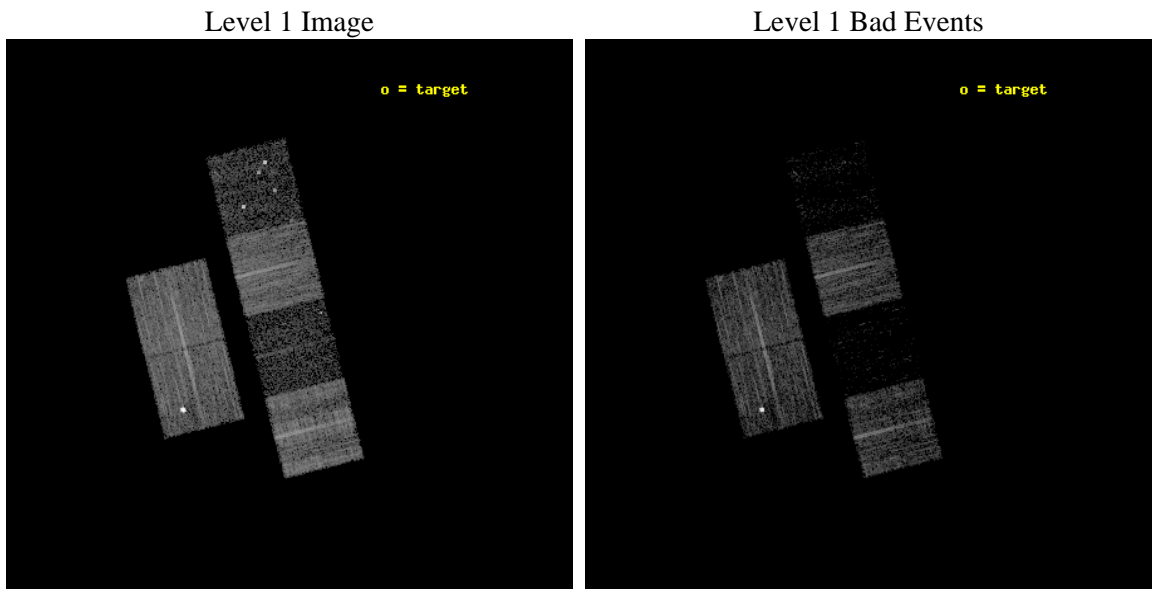
seq_num	100078	Sequence number
obs_id	12321	Observation id
title	Comet 103P/Hartley 2 During the EPOXI Spacecraft Encounter	Proposa
observer	Dr. Carey Lisse	Principal investigator
object	103P/Hartley 2	Source name
dtycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	106.306208	Observer's specified target RA [deg]
dec_targ	7.21925	Observer's specified target Dec [deg]
ra_nom	106.78172963777	Nominal RA [deg]
dec_nom	6.3494576054636	Nominal Dec [deg]
roll_nom	76.027978780312	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6460.7999759912	Sum of GTIs [s]
lvertime	6378.9894364686	Livetime [s]
ontime2	6460.7999759912	Sum of GTIs [s]
ontime3	6460.7999759912	Sum of GTIs [s]
ontime5	6460.7999759912	Sum of GTIs [s]
ontime6	6460.7999759912	Sum of GTIs [s]
ontime7	6460.7999759912	Sum of GTIs [s]
ontime8	6460.7999759912	Sum of GTIs [s]
l2events	12364	Number of level 2 events



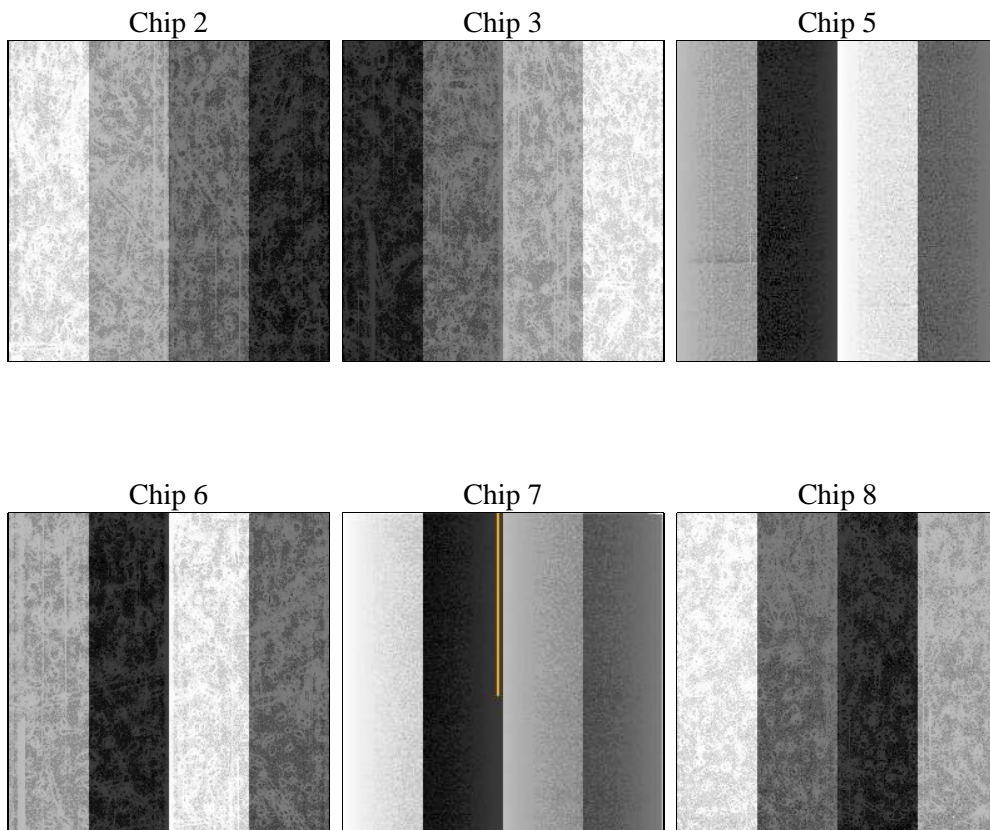
## 2 OBI

### 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	6460.7999759912	Sum of GTIs [s]
caldbver	4.5.0	&#160	ontime2	6460.7999759912	Sum of GTIs [s]
date	2012-07-06T12:22:39	Date and time of file creation	ontime3	6460.7999759912	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	6460.7999759912	Sum of GTIs [s]
			ontime6	6460.7999759912	Sum of GTIs [s]
			ontime7	6460.7999759912	Sum of GTIs [s]
			ontime8	6460.7999759912	Sum of GTIs [s]
			l1events	159349	Number of level 1 events

### 2.1.4 Events

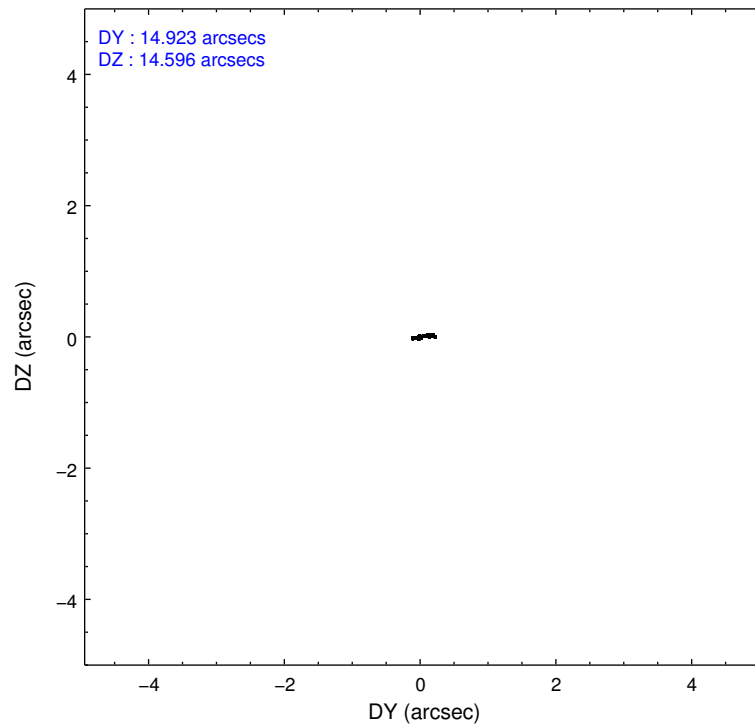
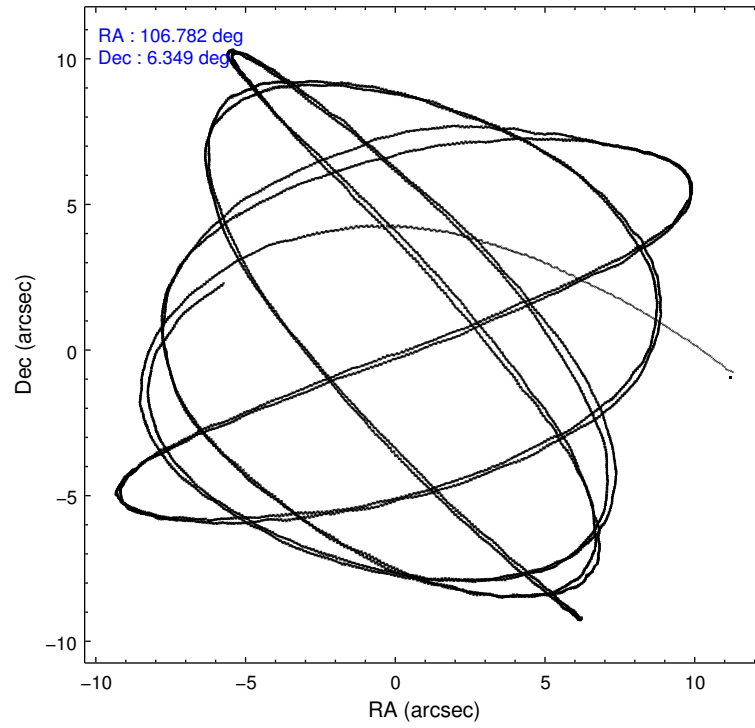
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	33431	41919	11275	31022	6451	35251
rejected events	31925	35057	2609	29603	1438	24854
rejected %	95%	83%	23%	95%	22%	70%

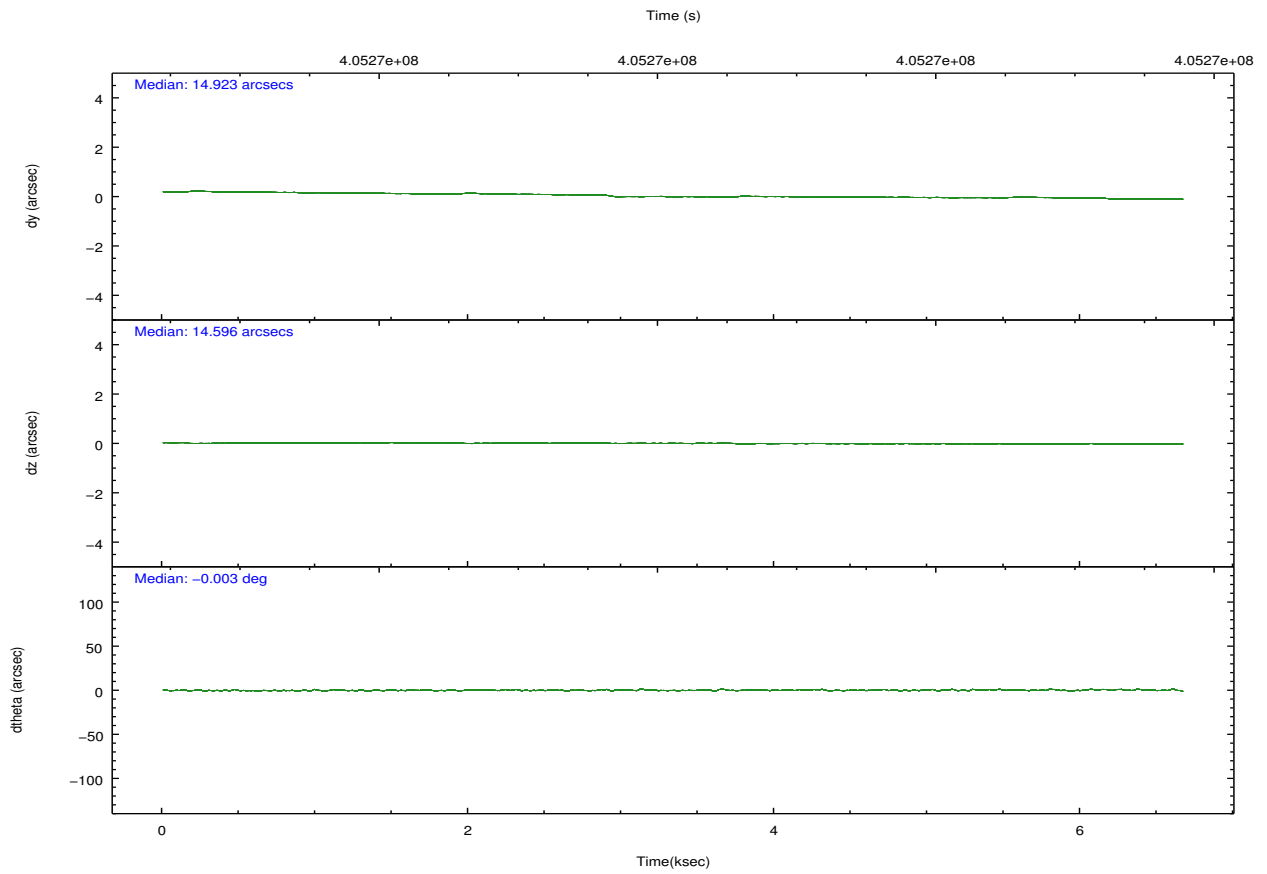
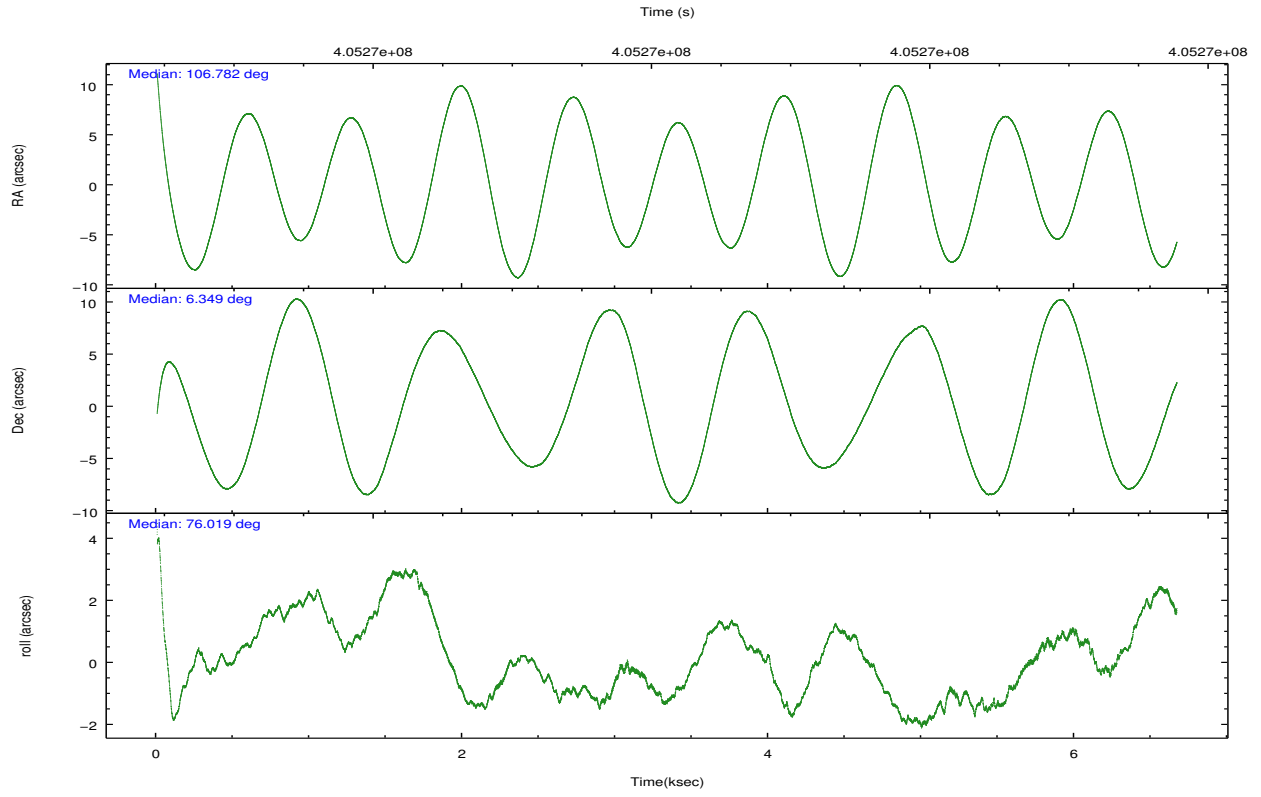
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	597	6406	4000	728	1847	3049
	1%	15%	35%	2%	28%	8%
grade 1 events	16	7692	144	10	53	38
	0%	18%	1%	0%	0%	0%
grade 2 events	417	167	3364	295	1550	2503
	1%	0%	29%	0%	24%	7%
grade 3 events	163	176	480	172	609	1185
	0%	0%	4%	0%	9%	3%
grade 4 events	180	160	463	184	574	1009
	0%	0%	4%	0%	8%	2%
grade 5 events	51	82	416	25	182	193
	0%	0%	3%	0%	2%	0%
grade 6 events	181	91	513	71	533	2927
	0%	0%	4%	0%	8%	8%
grade 7 events	31826	27145	1895	29537	1103	24347
	95%	64%	16%	95%	17%	69%

## 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	106.789764	106.781729637774	Subarray requested	NONE	NONE
[deg] Pointing Dec	6.323358	6.349457605463637	Alternating exposures requested	N	N
[deg] Pointing Roll	75.870451	76.02797878031234	[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)	405264945.184000	405263984.22917			
Observation start date	2010-11-04T13:34:39	2010-11-04T13:19:44			
[s] Observation end time (MET)	405271445.184000	405271579.47956			
Observation end date	2010-11-04T15:22:59	2010-11-04T15:26:19			
Read mode	TIMED	TIMED			

## 2.3 Aspect



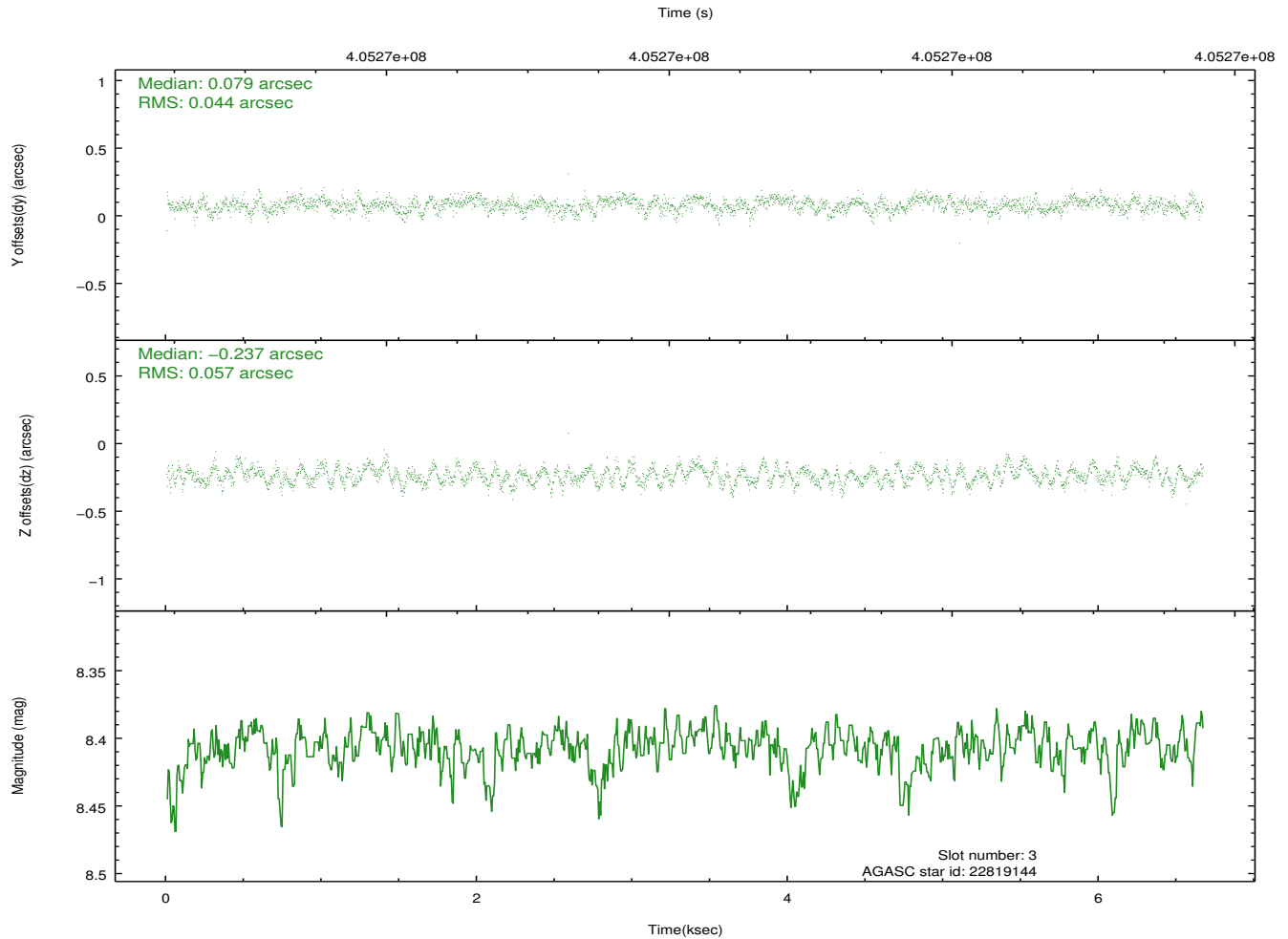
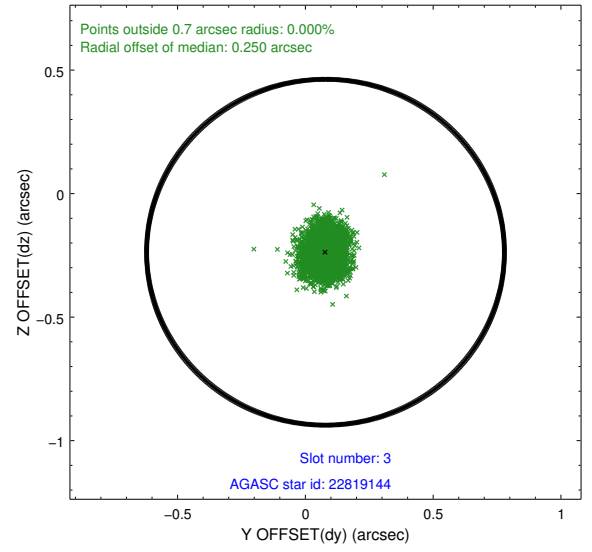
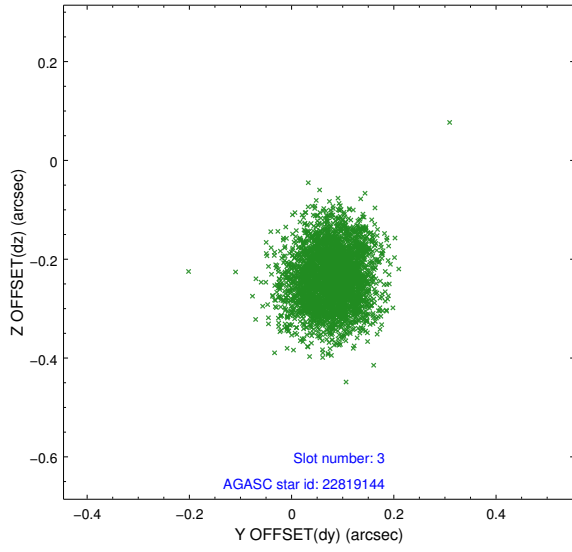


### Slot Statistics

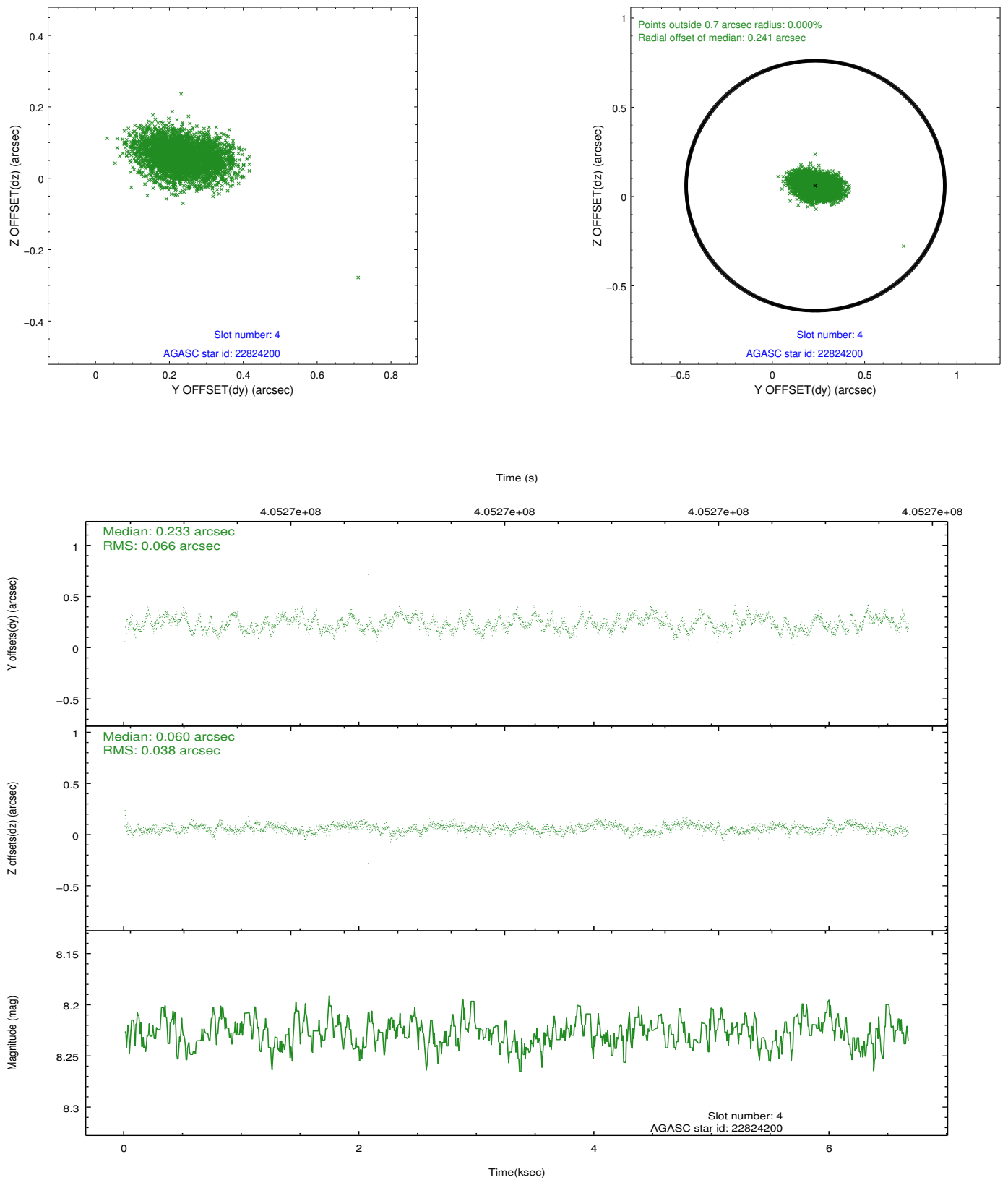
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.98	1626	-0.023	-0.063	0.006	0.011	0.000000	0.000000	-767.97	-1735.97
1	FID	ACIS-S-5	7.09	1627	-0.114	-0.009	0.007	0.011	0.000000	0.000000	-1821.56	165.17
2	FID	ACIS-S-6	7.21	1626	0.112	0.080	0.006	0.010	0.000000	0.000000	392.85	810.13
3	GUIDE	22819144	8.41	3251	0.079	-0.237	0.078	0.123	106.157619	6.307278	-606.68	2179.24
4	GUIDE	22824200	8.23	3251	0.233	0.060	0.082	0.131	106.494056	5.889873	-1771.13	646.23
5	GUIDE	22966024	9.03	3249	-0.178	0.264	0.103	0.166	107.353977	6.445107	918.98	-1849.56
6	GUIDE	22815056	9.01	3252	-0.084	-0.268	0.102	0.166	106.201271	6.655763	648.38	2332.18
7	GUIDE	22958816	8.59	3252	-0.058	0.185	0.103	0.162	107.406283	6.846244	2365.63	-1676.02

## 2.4 Star Slots

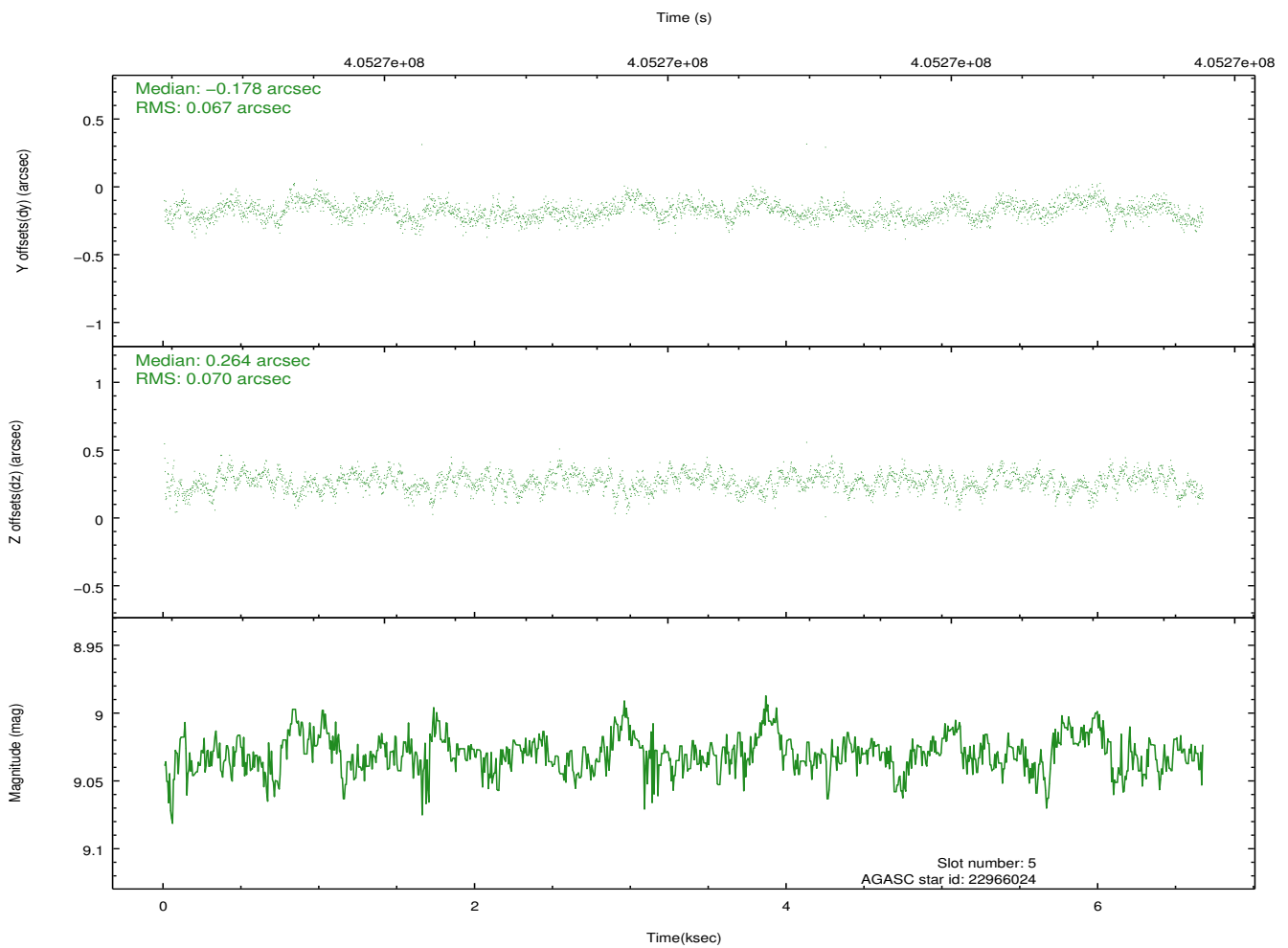
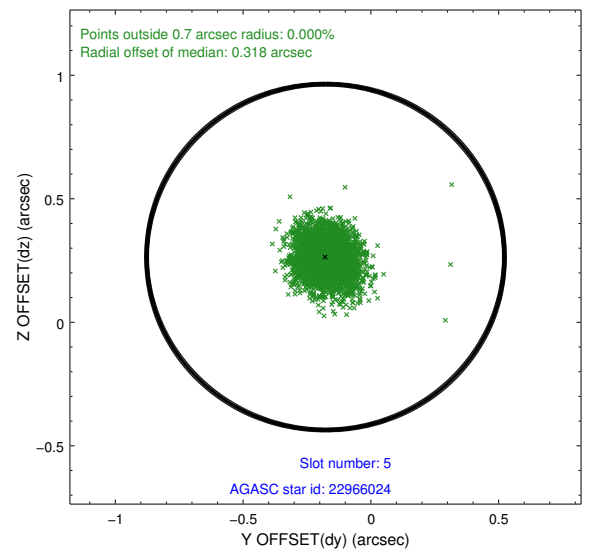
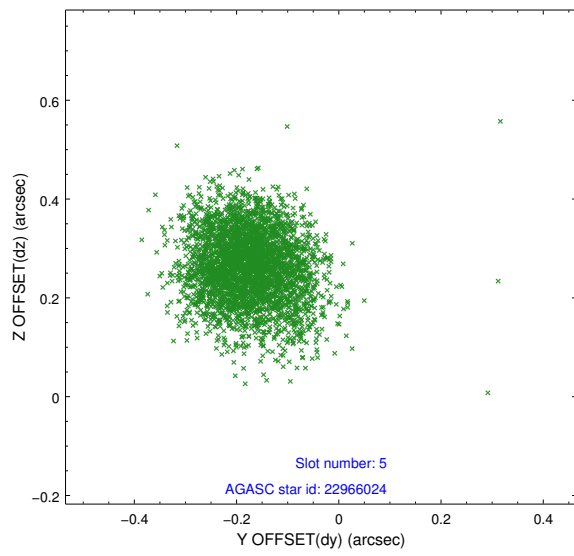
### 2.4.1 Slot 3



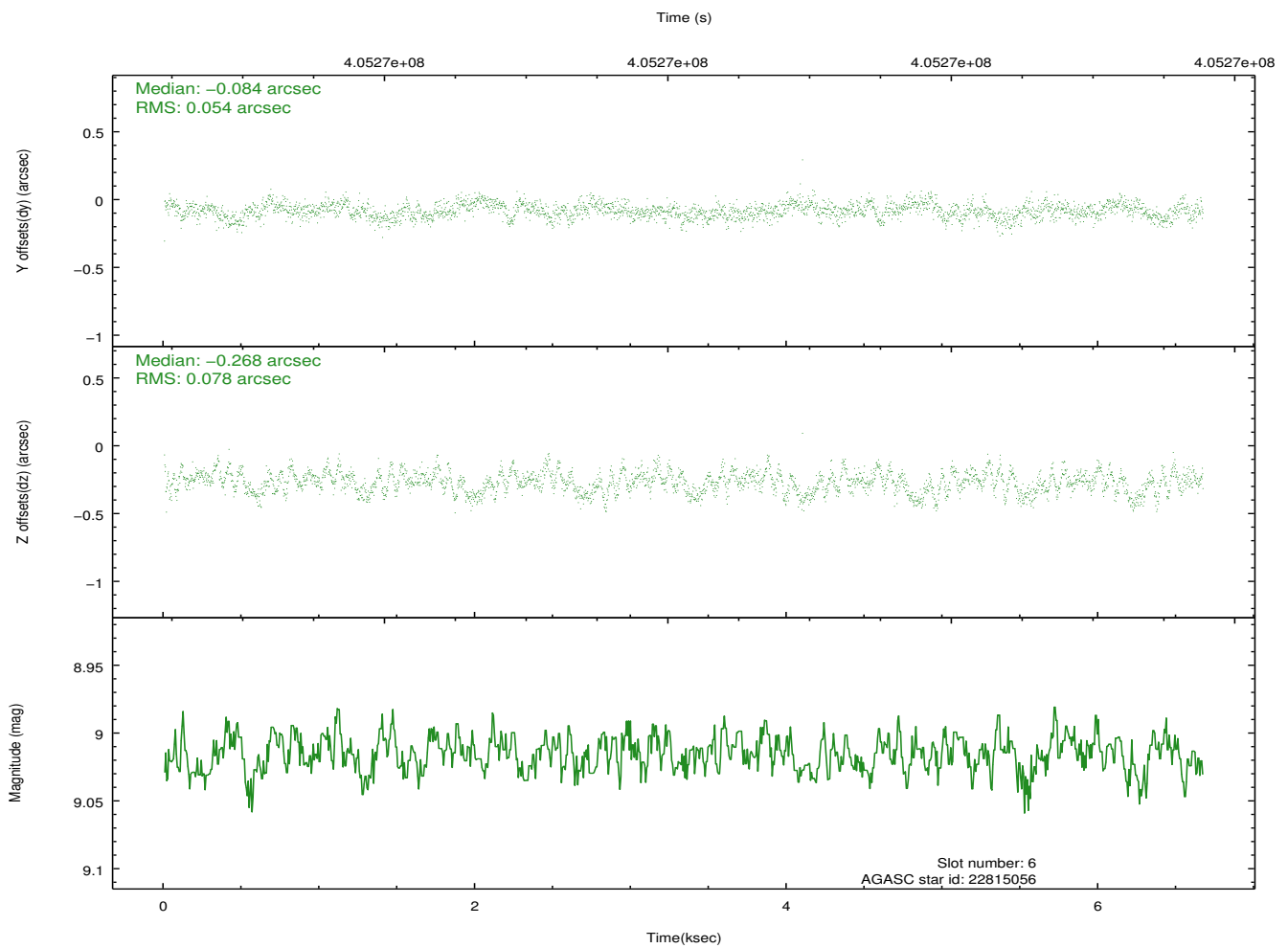
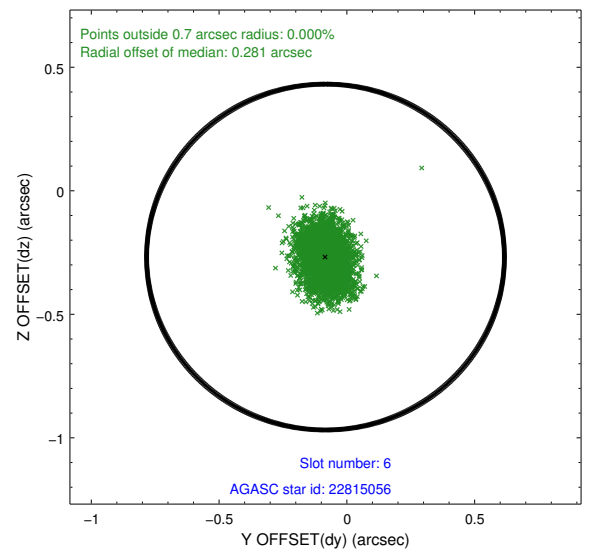
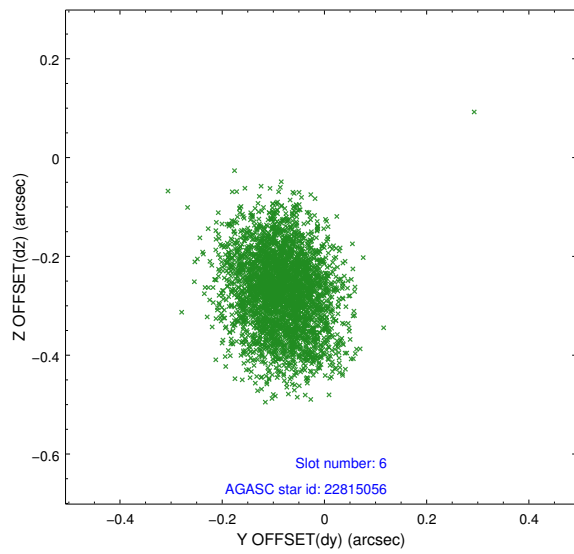
## 2.4.2 Slot 4



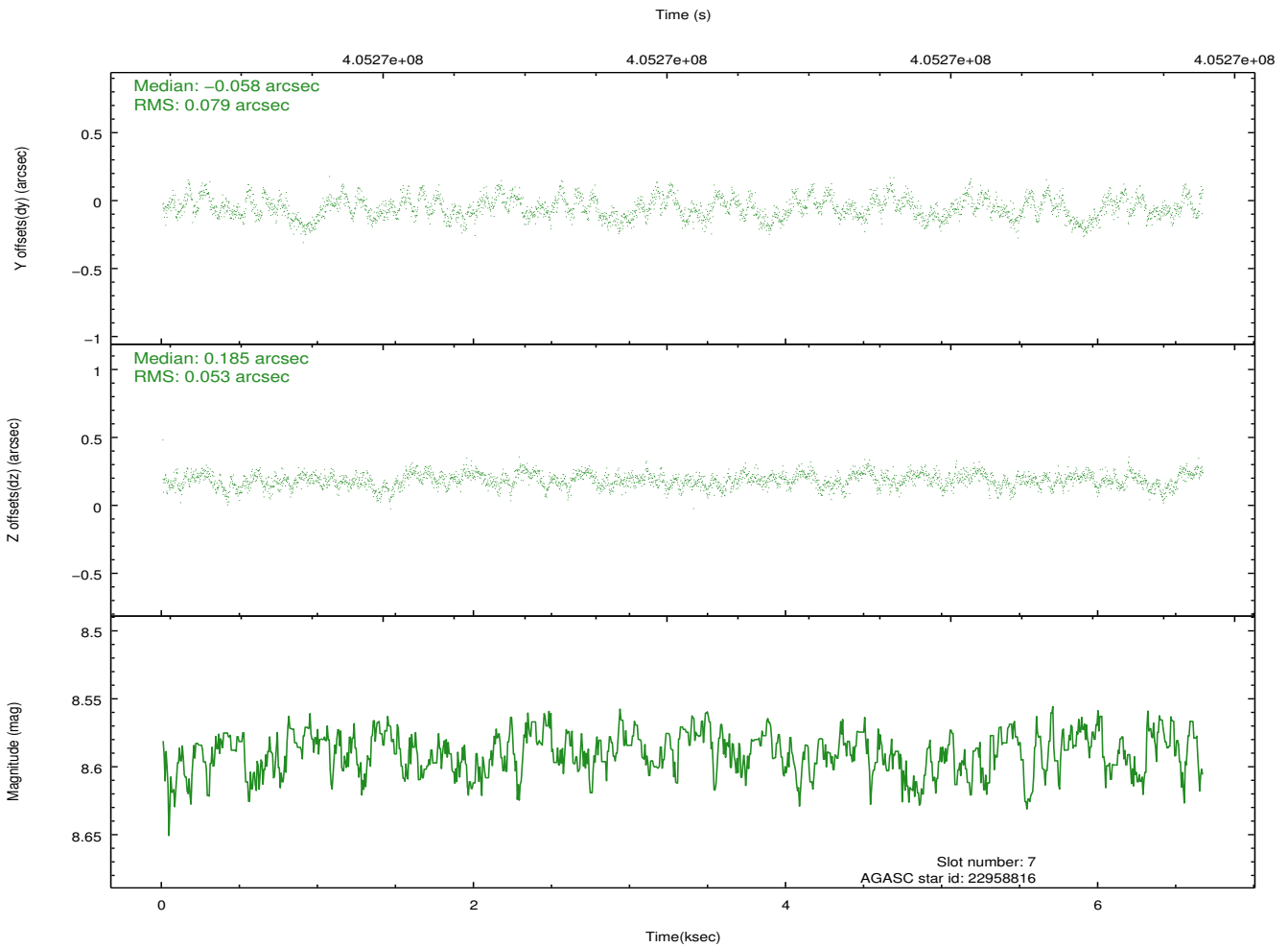
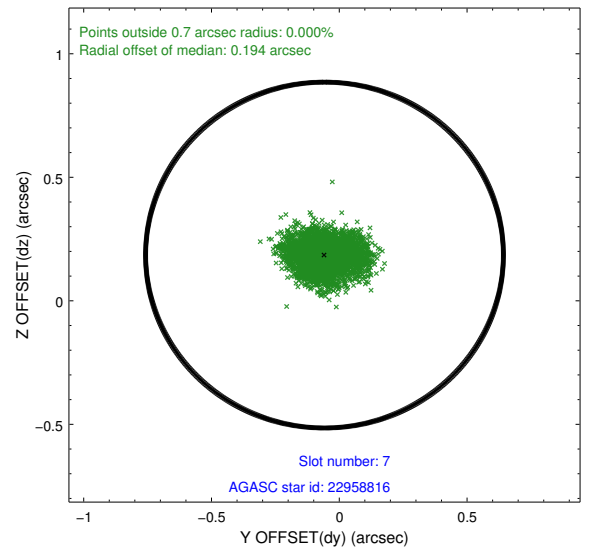
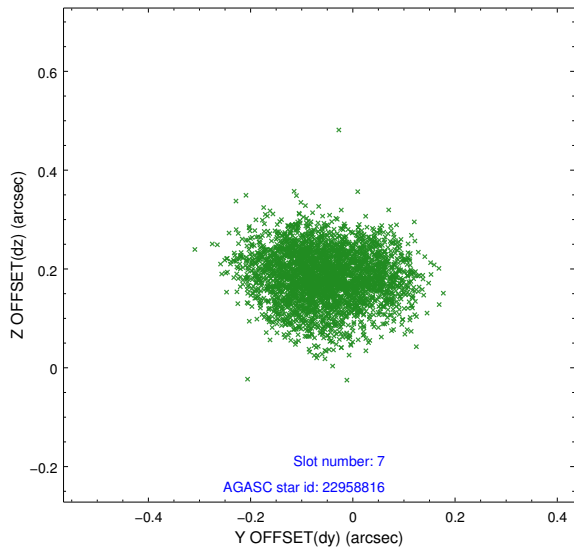
### 2.4.3 Slot 5



## 2.4.4 Slot 6

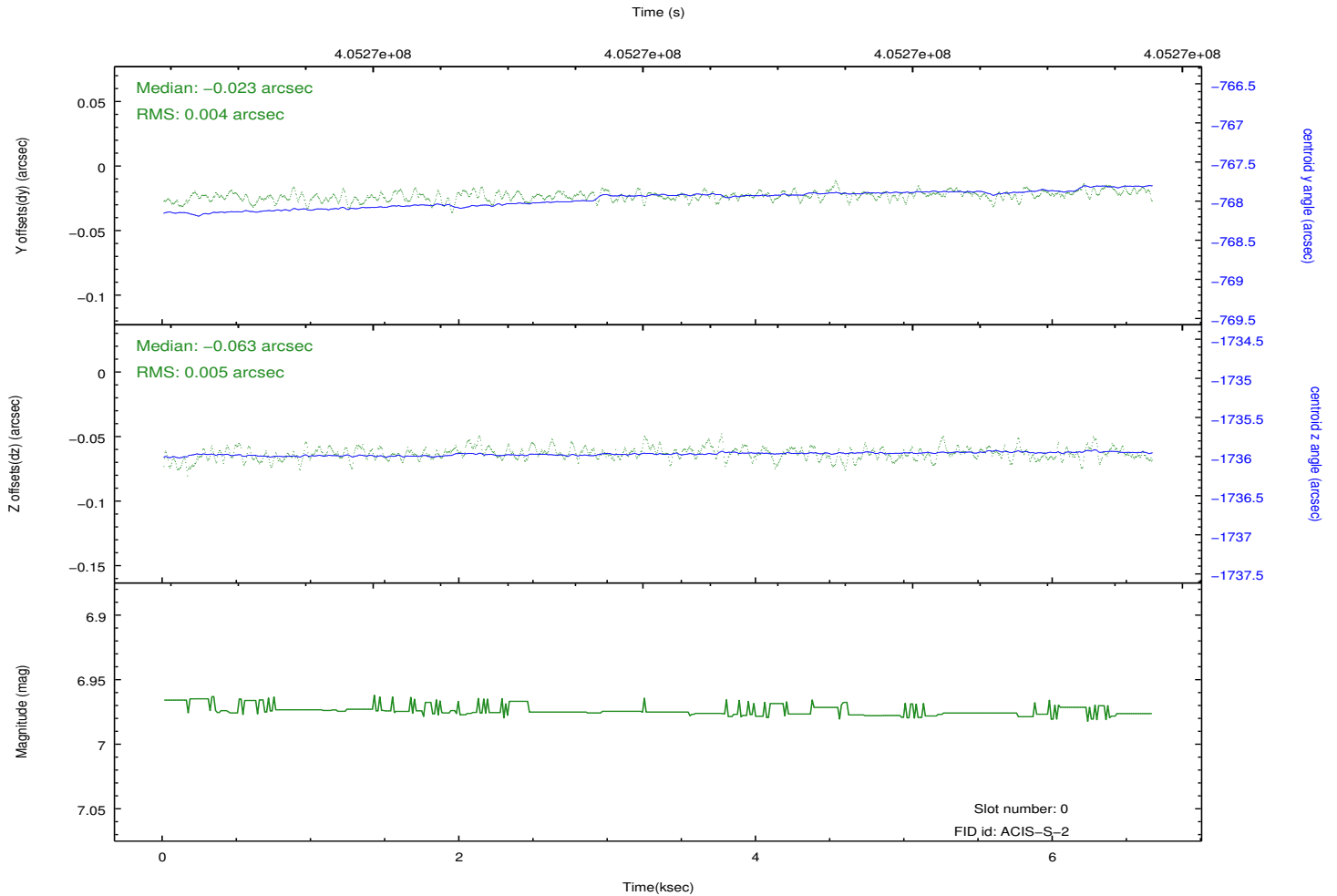
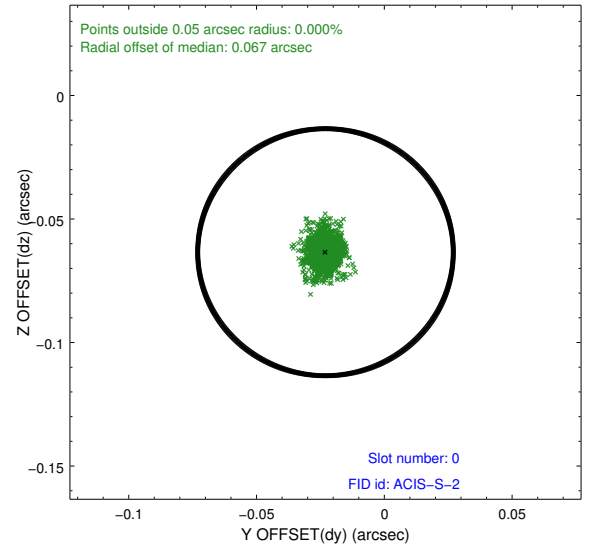
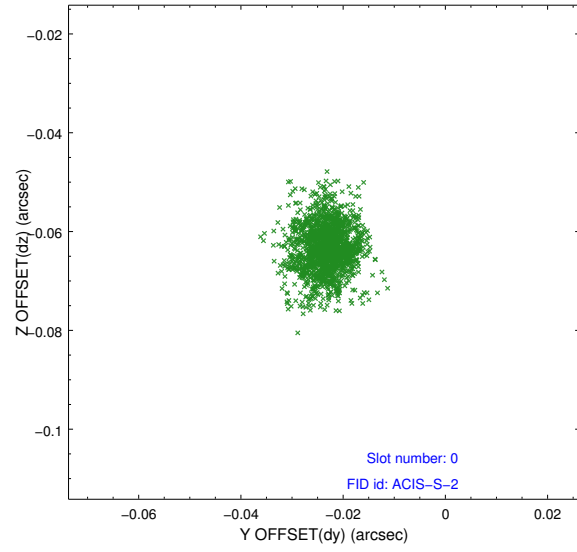


### 2.4.5 Slot 7

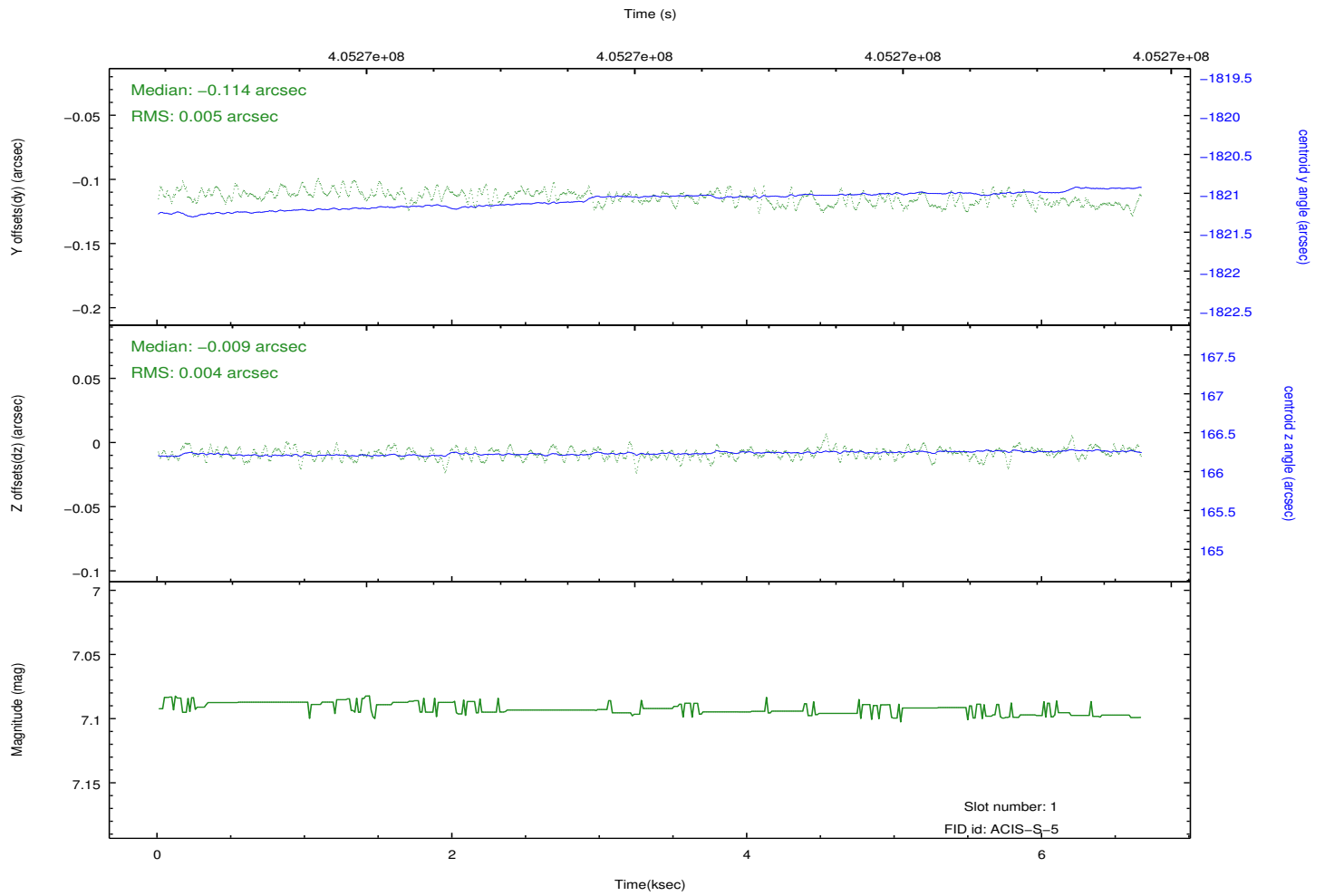
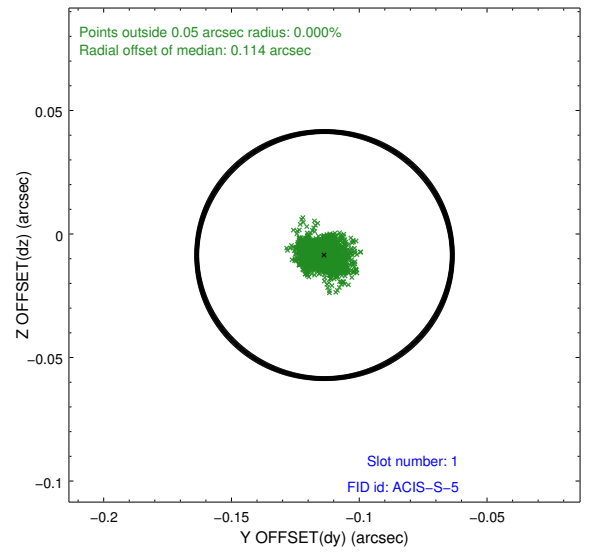
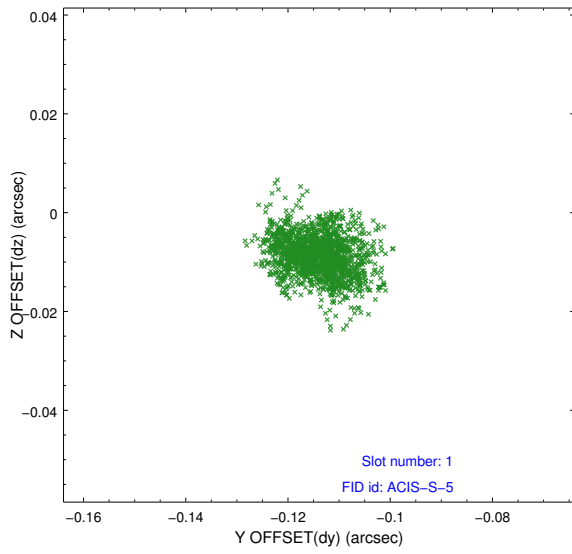


## 2.5 FID Slots

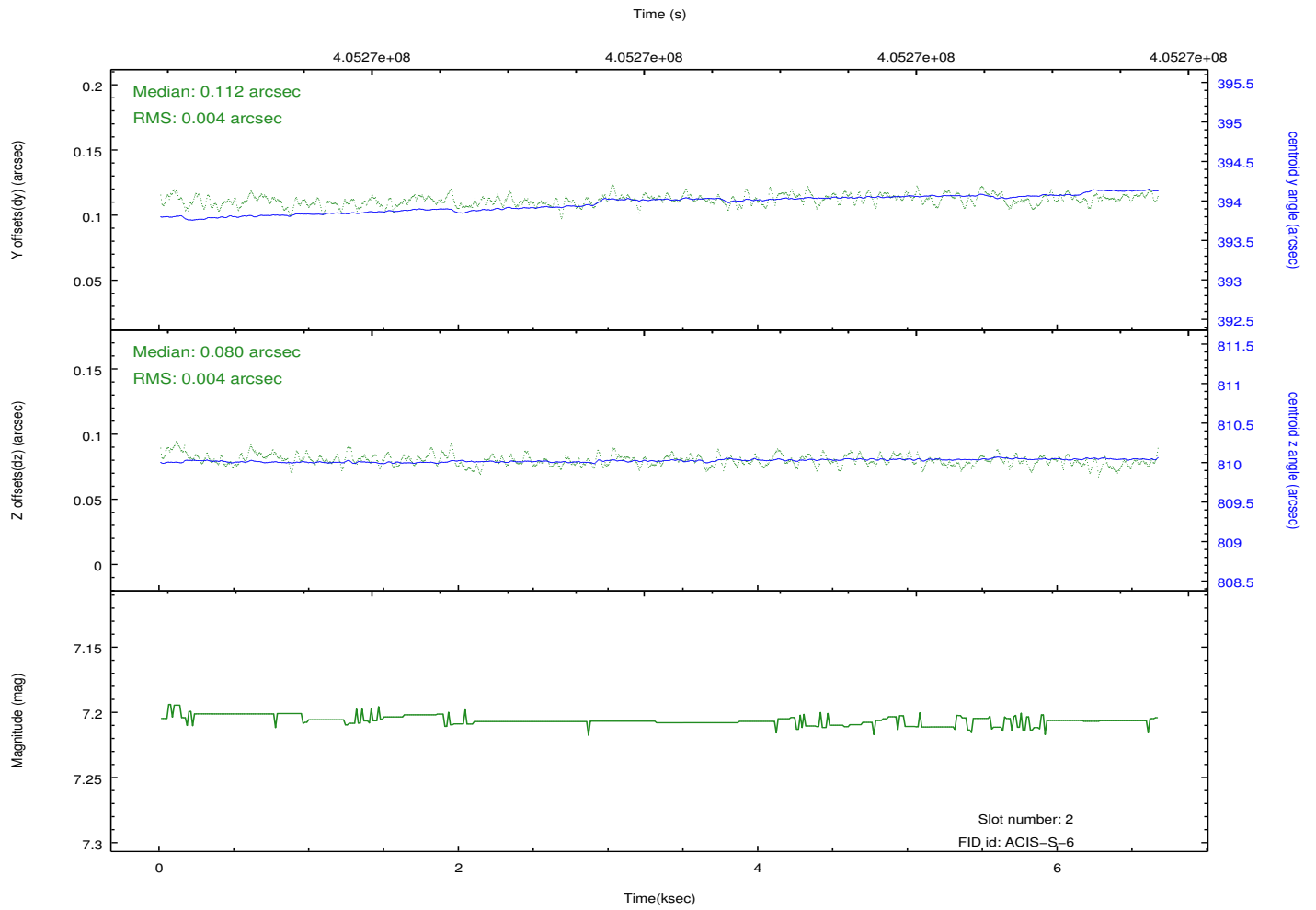
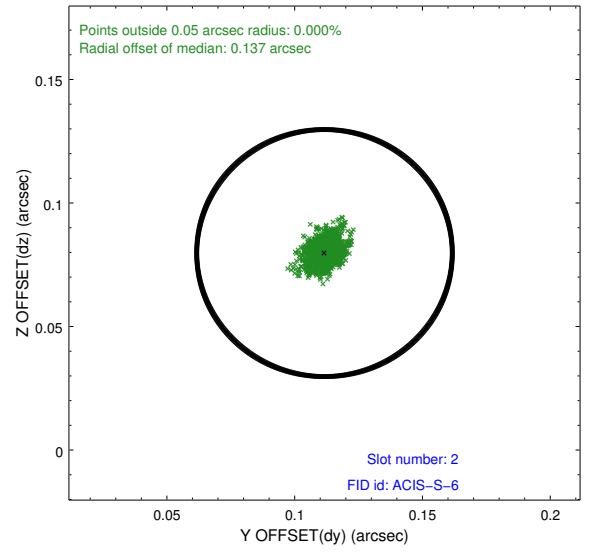
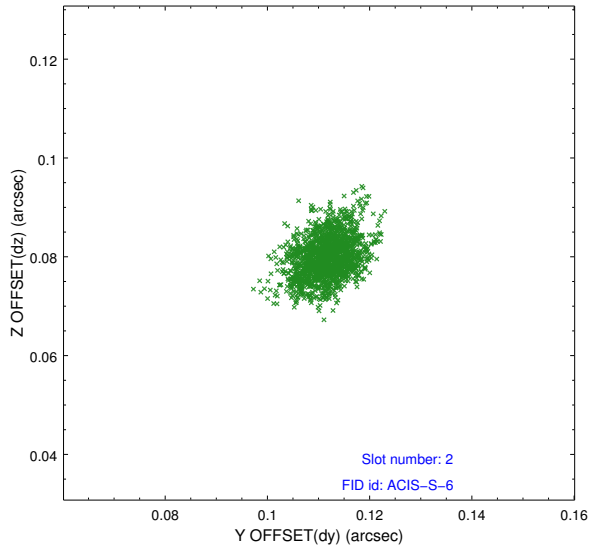
### 2.5.1 Slot 0



## 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	6.4607999759912

## A.2 Comments

The comet was moving with respect to the satellite during the observation. Users will need to run the CIAO tool `sso_freeze` or a similar tool to reproject the events into a coordinate system for which the comet is fixed.

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Window constraint met.