

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 13095 - L2 Version 2  
Chandra X-Ray Center

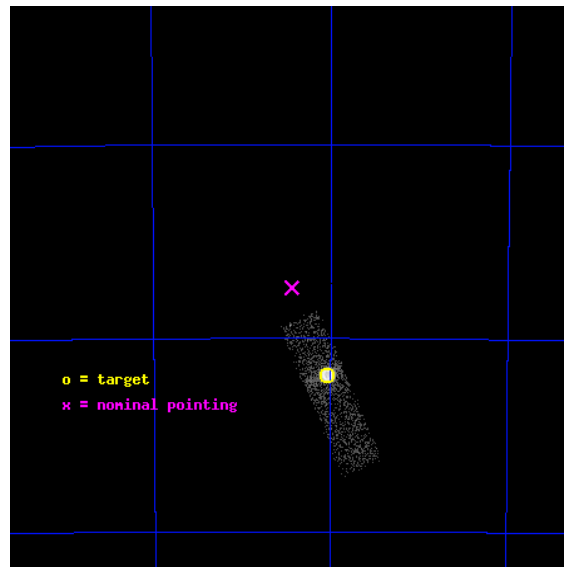
L2 Processing Date : Feb 3 2012

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# 1 Front

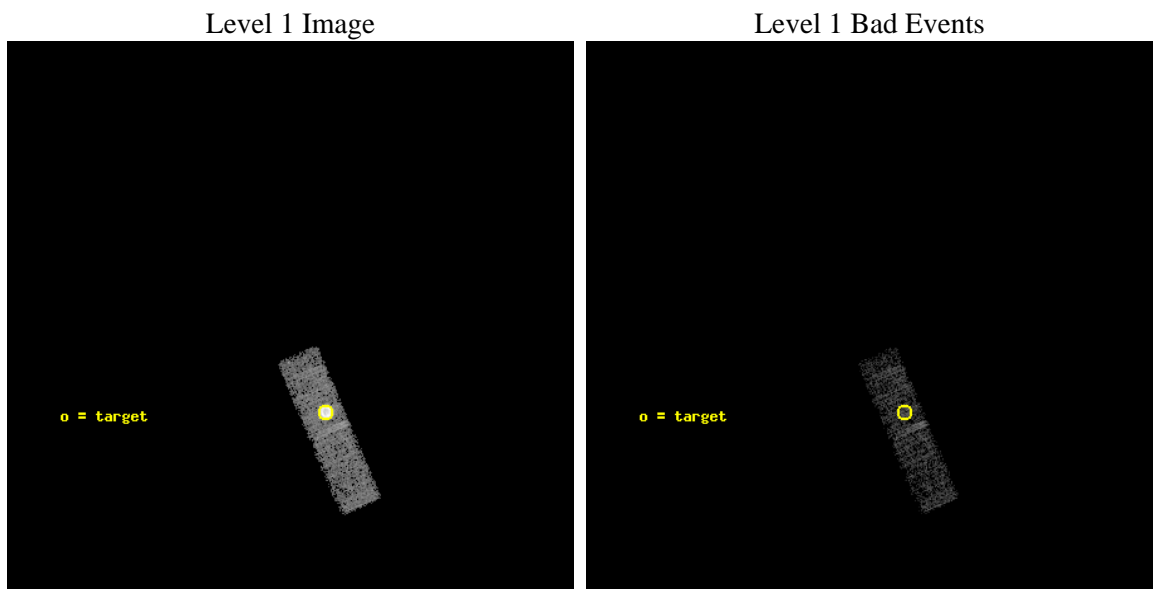
seq_num	590508	Sequence number
obs_id	13095	Observation id
title	AO-12 Calibration Observations of E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72 S2,-120,5.15,0,0	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.110097091417	Nominal RA [deg]
dec_nom	-71.956358769799	Nominal Dec [deg]
roll_nom	246.87246296138	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8026.3180595636	Sum of GTIs [s]
livetime	7634.6600014874	Livetime [s]
ontime6	8026.3180595636	Sum of GTIs [s]
l2events	24546	Number of level 2 events



## 2 OBI

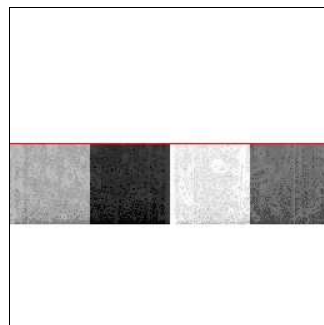
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 6



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	8026.3180595636	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime6	8026.3180595636	Sum of GTIs [s]
date	2012-02-03T14:21:00	Date and time of file creation	l1events	40986	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

	<b>ccd 6</b>
level 1 events	40986
rejected events	14401
rejected %	35%

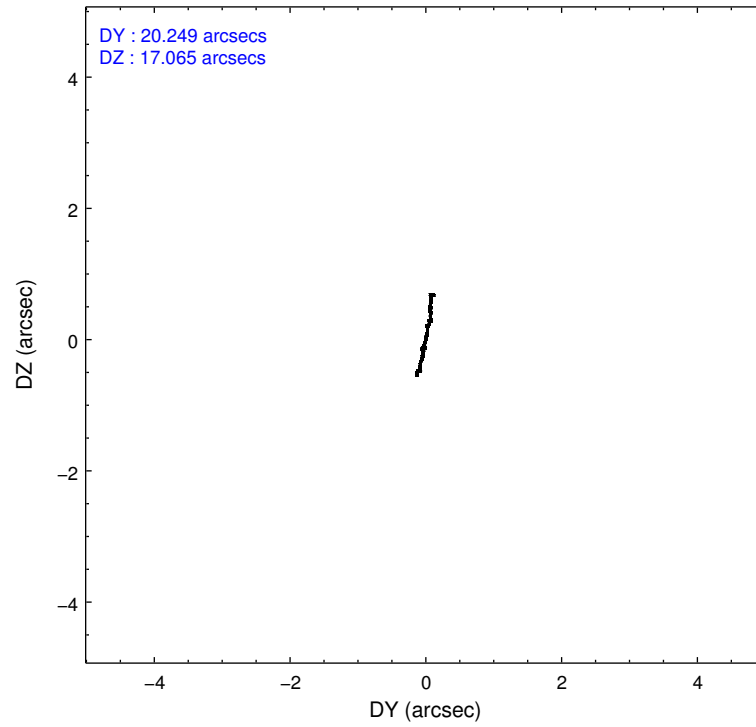
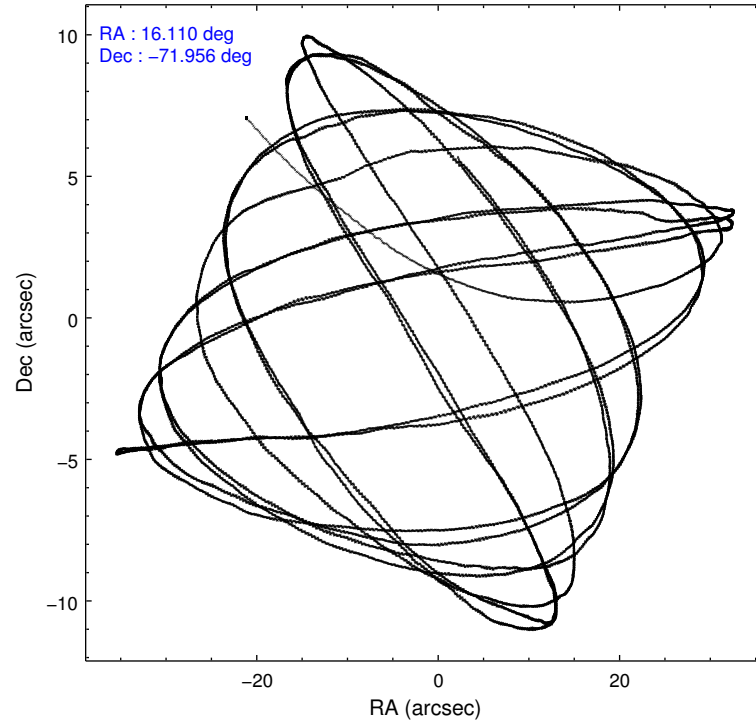
	<b>ccd 6</b>
grade 0 events	22838
	55%
grade 1 events	72
	0%
grade 2 events	1921
	4%
grade 3 events	720
	1%
grade 4 events	651
	1%
grade 5 events	584
	1%
grade 6 events	459
	1%
grade 7 events	13741
	33%

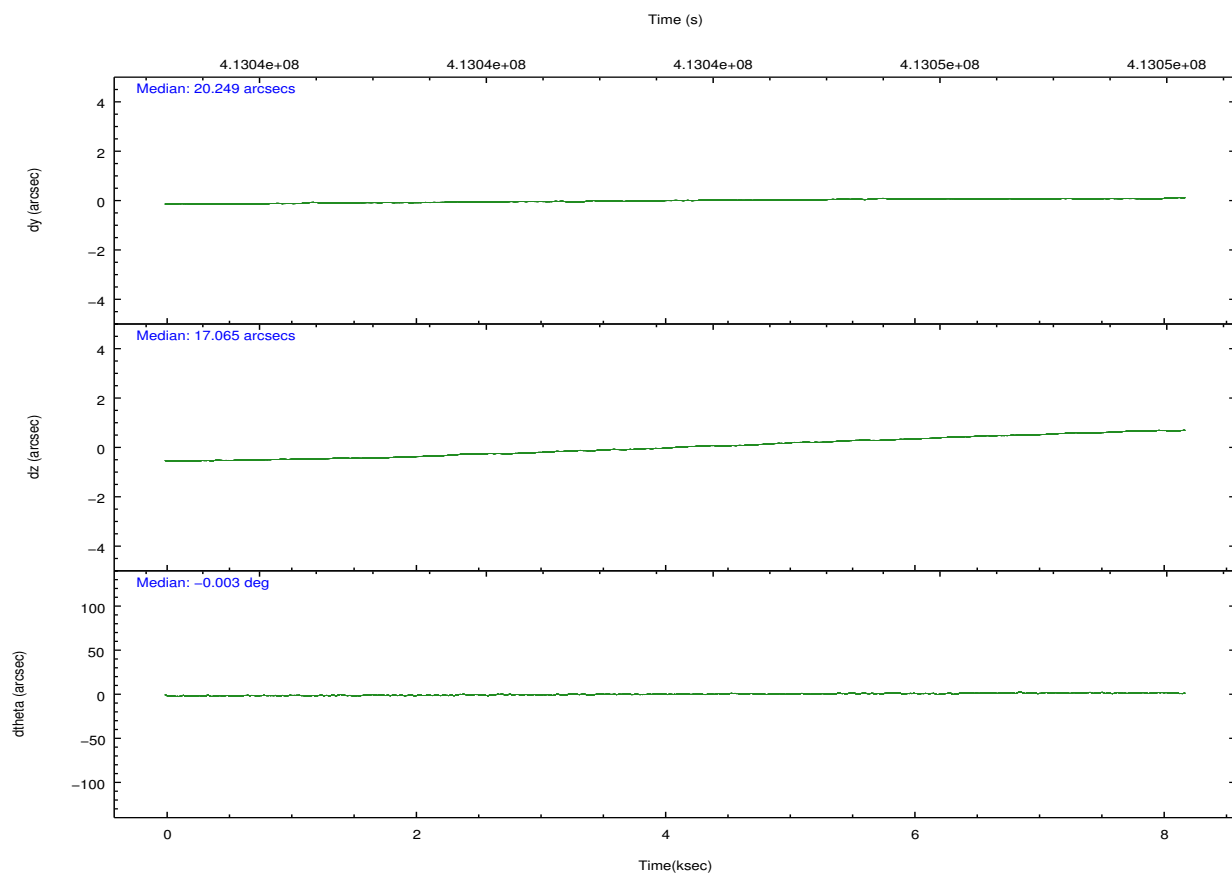
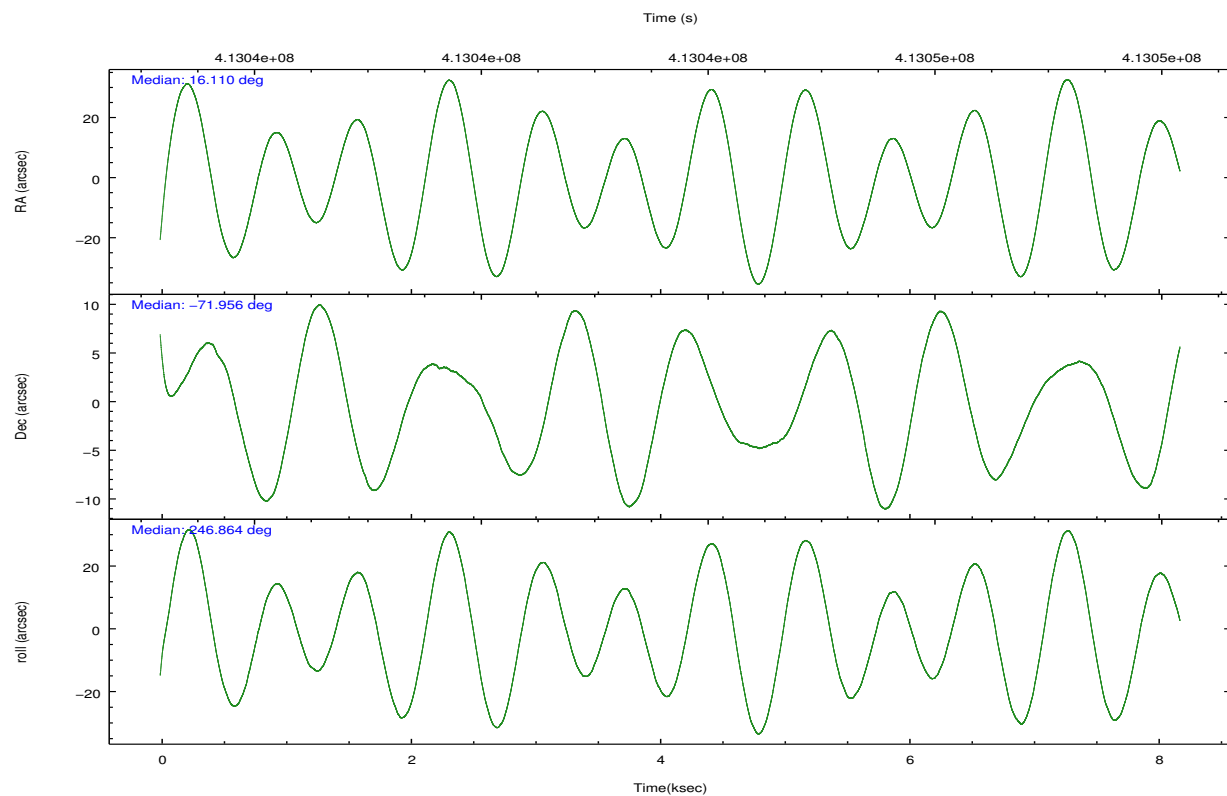


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-6	ACIS-6	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	16.098190	16.11009709141715	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	-71.929250	-71.95635876979898	Subarray start row	335	335
[deg] Pointing Roll	246.704504	246.8724629613809	Subarray row count	256	256
[s] Window start time (MET)	407548866.184000	407548866.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	420508866.184000	420508866.184000	[s] Primary exposure time	0.000000	0.8
[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)	413039750.184000	413038712.13042			
Observation start date	2011-02-02T13:14:44	2011-02-02T12:58:32			
[s] Observation end time (MET)	413047750.184000	413047884.3434			
Observation end date	2011-02-02T15:28:04	2011-02-02T15:31:24			
Read mode	TIMED	TIMED			

## 2.3 Aspect



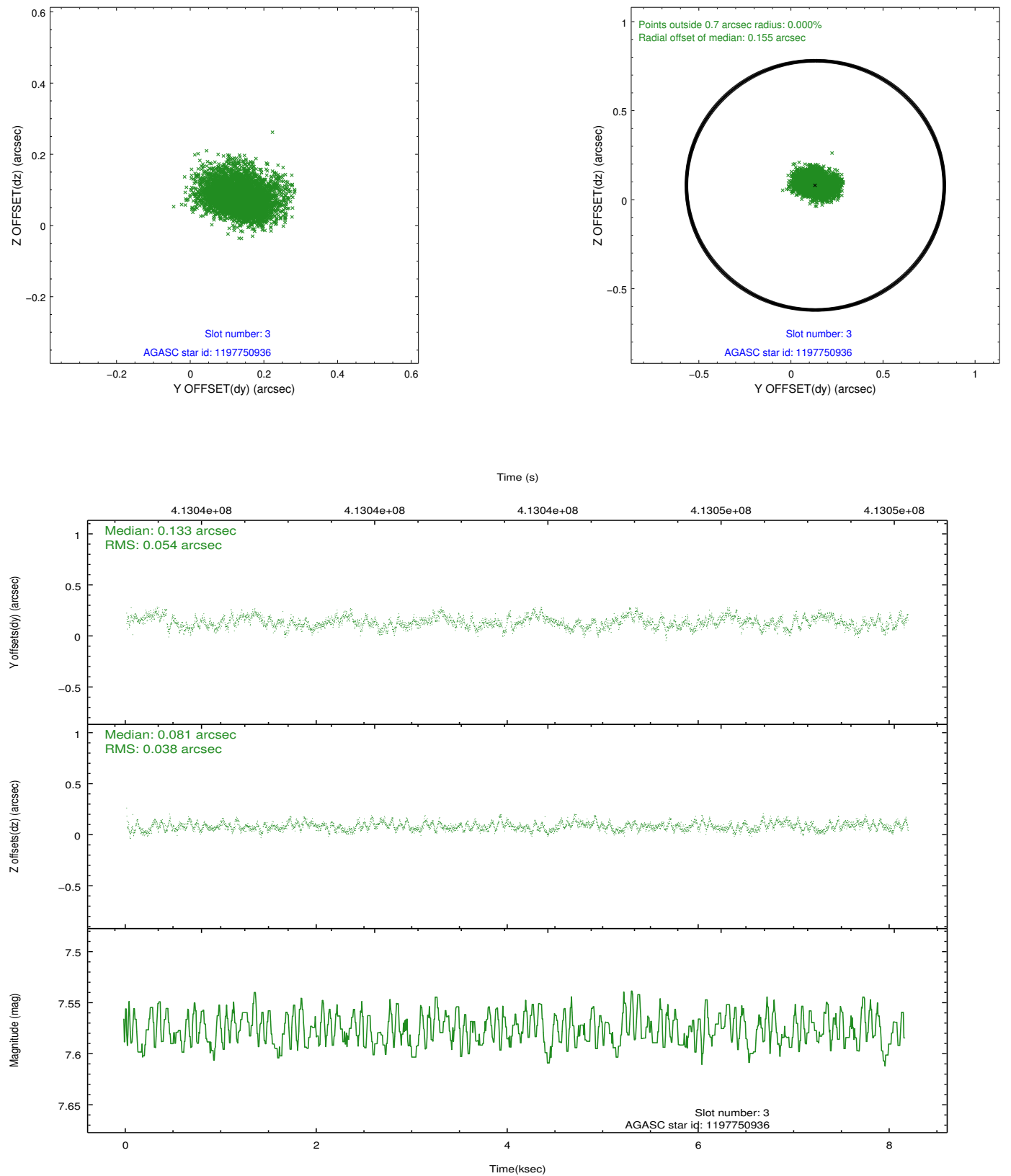


### Slot Statistics

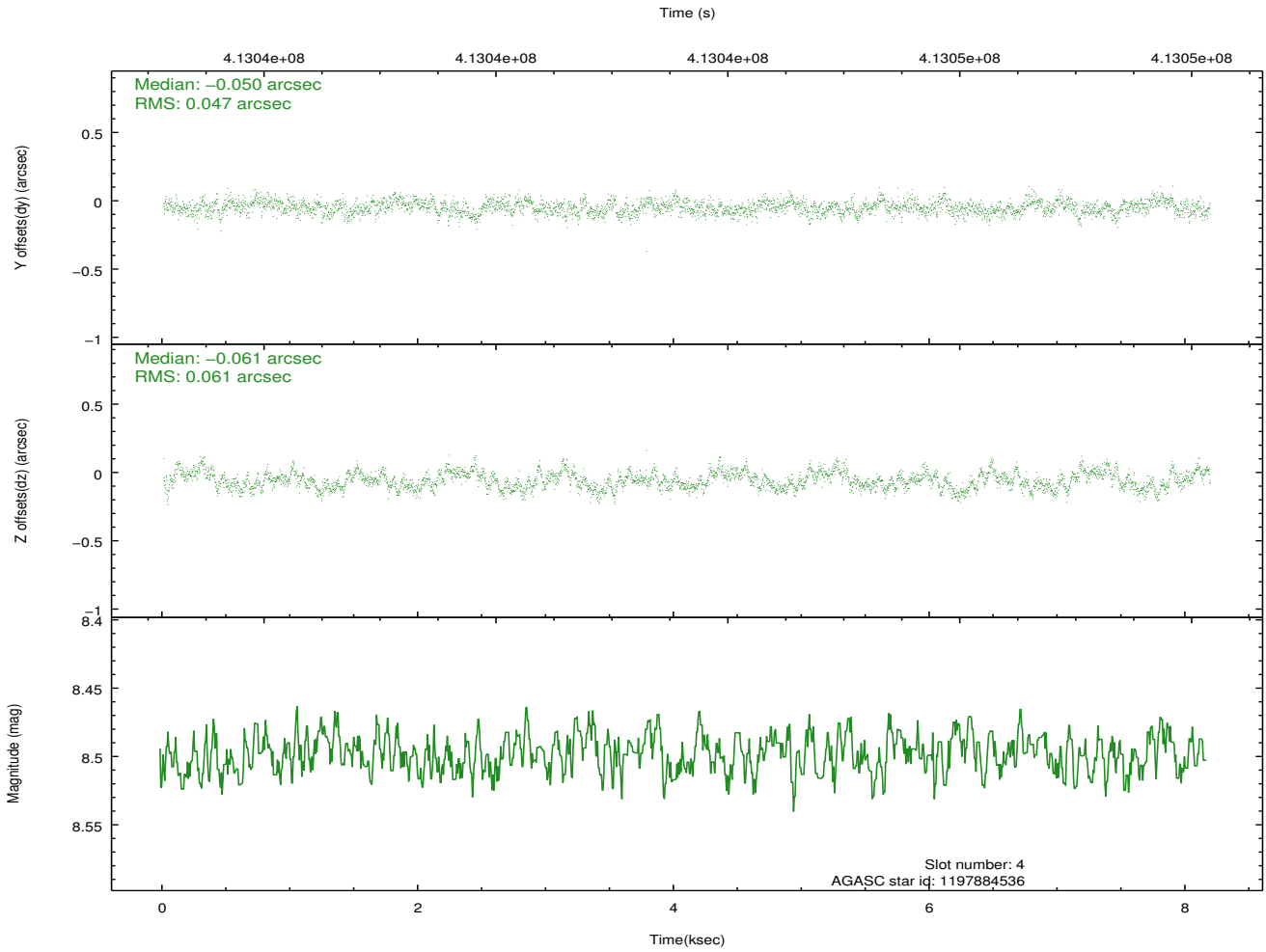
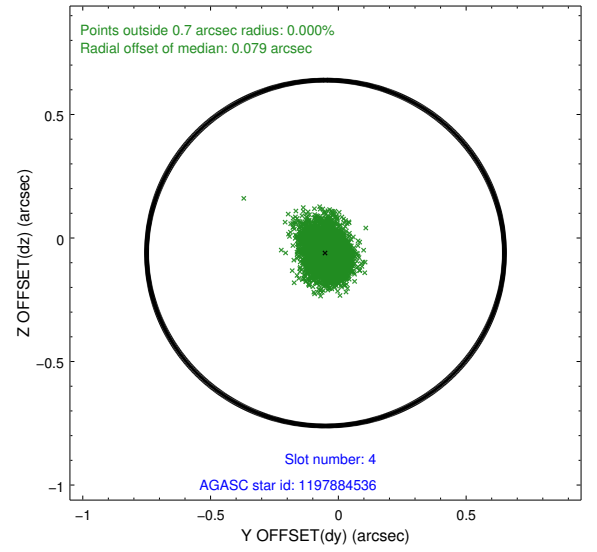
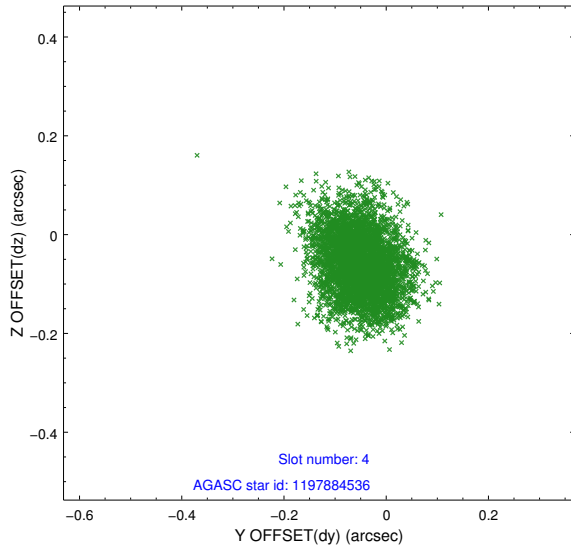
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.96	1996	-0.097	-0.040	0.016	0.024	0.000000	0.000000	-773.48	-1738.49
1	FID	ACIS-S-4	7.04	1996	0.222	0.058	0.007	0.014	0.000000	0.000000	2139.84	169.33
2	FID	ACIS-S-5	7.07	1995	-0.156	-0.009	0.015	0.022	0.000000	0.000000	-1825.47	163.78
3	GUIDE	1197750936	7.58	3992	0.133	0.081	0.071	0.115	15.387940	-71.549550	-930.03	-1281.90
4	GUIDE	1197884536	8.50	3991	-0.050	-0.061	0.082	0.131	17.160729	-71.835289	-772.66	964.90
5	GUIDE	1197884712	8.28	3993	0.025	-0.118	0.081	0.133	16.087398	-72.252690	1074.32	449.76
6	GUIDE	1198283128	7.77	3992	-0.167	-0.135	0.080	0.122	17.272580	-72.642428	1870.87	2178.76
7	GUIDE	1197885328	7.25	3991	0.057	0.230	0.072	0.128	16.283090	-71.733943	-728.03	-85.00

## 2.4 Star Slots

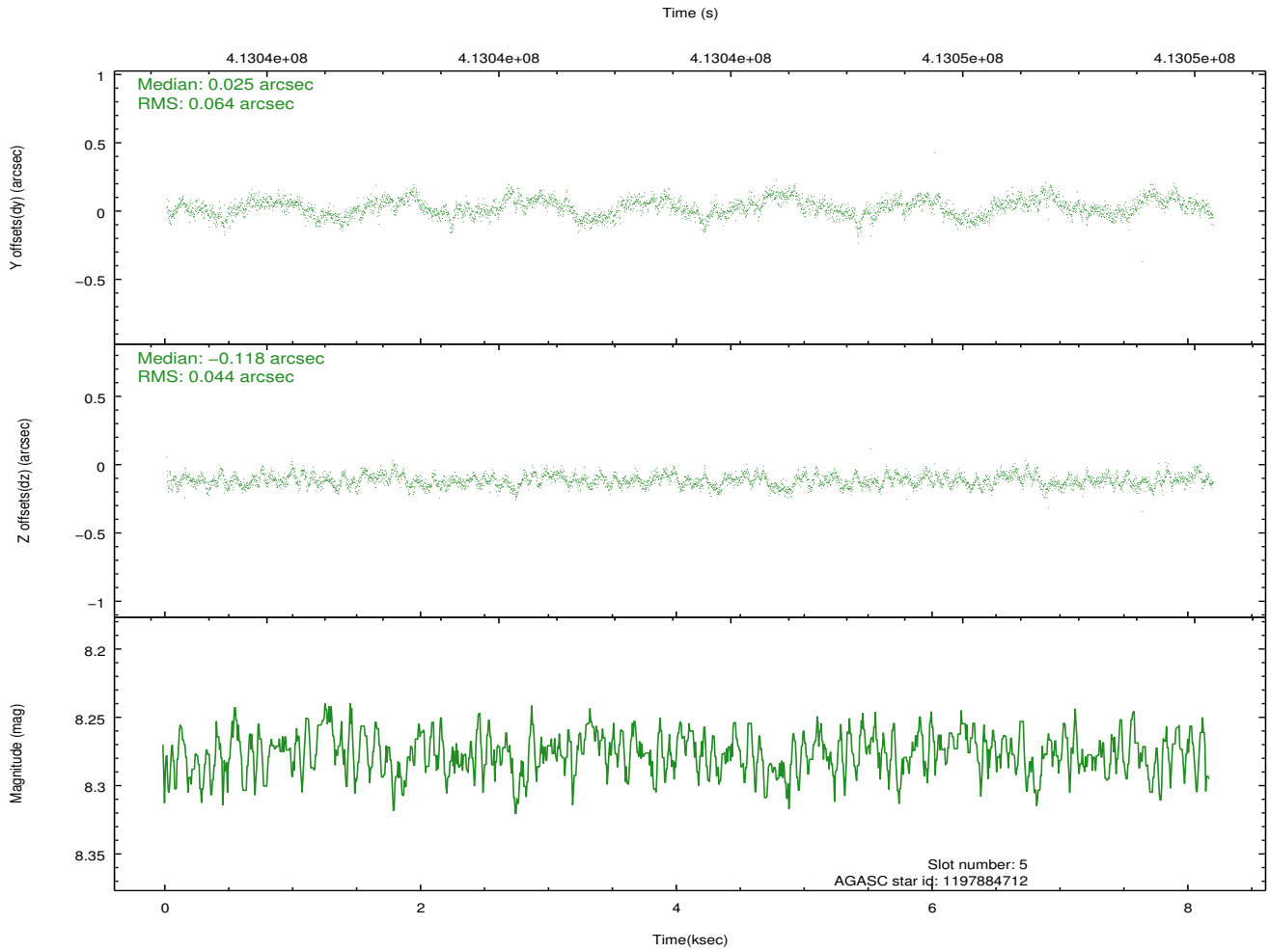
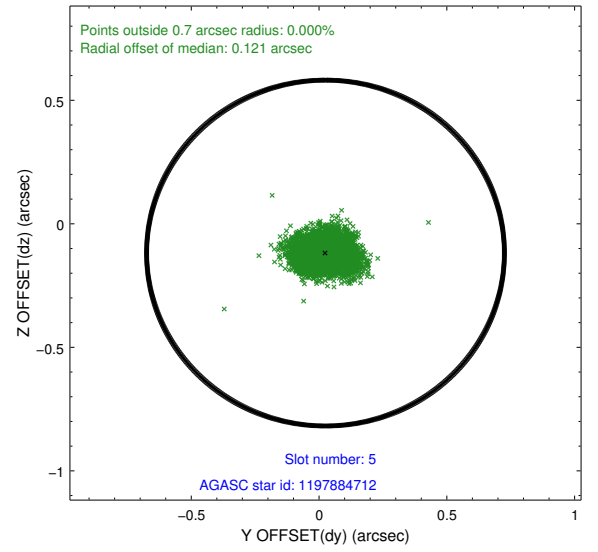
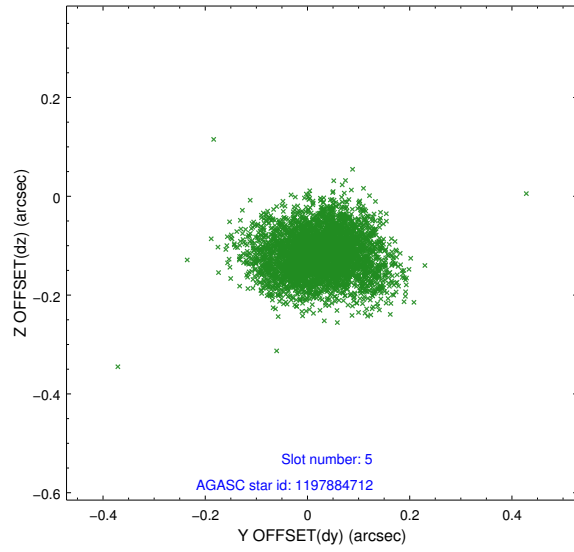
### 2.4.1 Slot 3



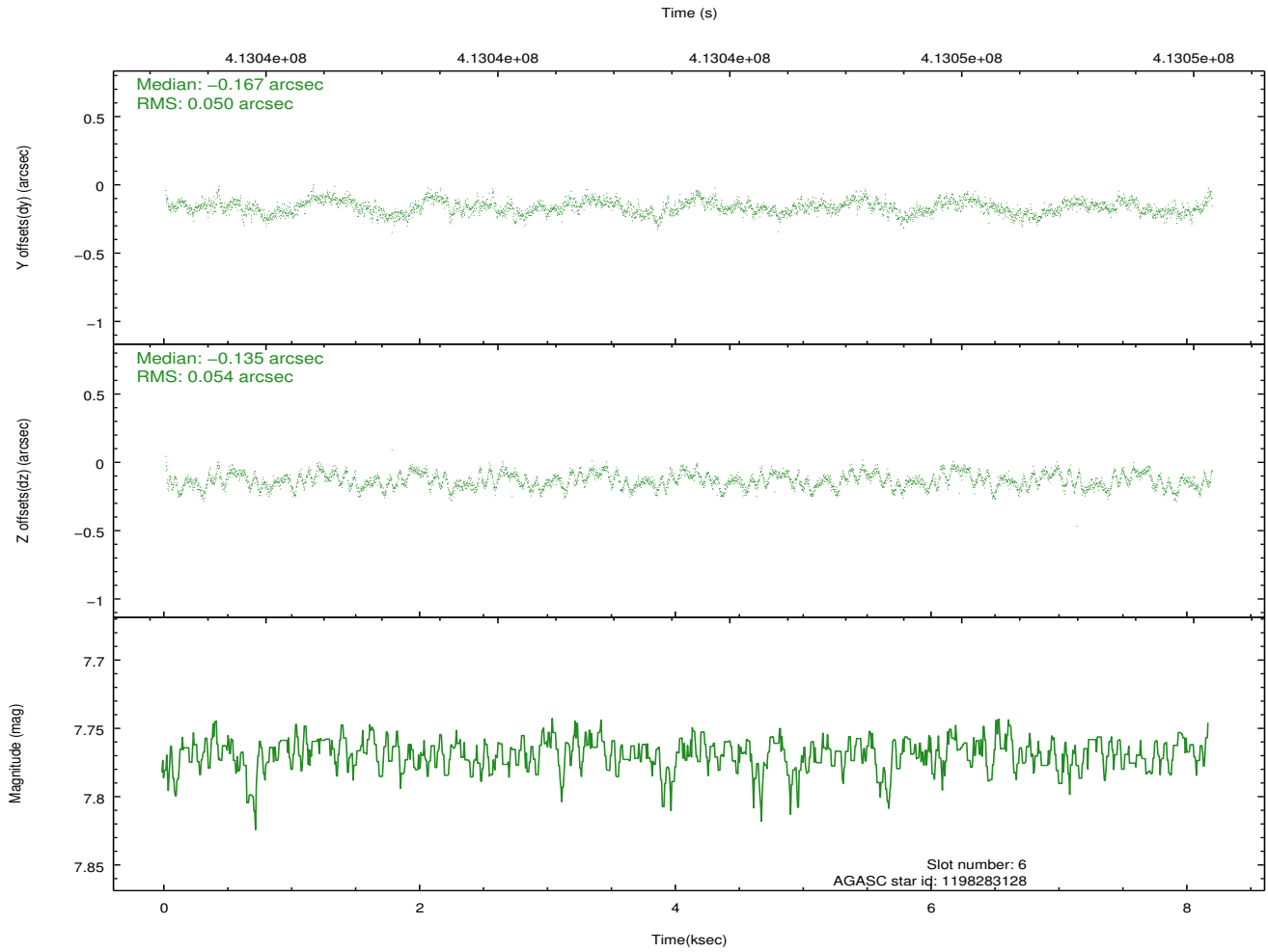
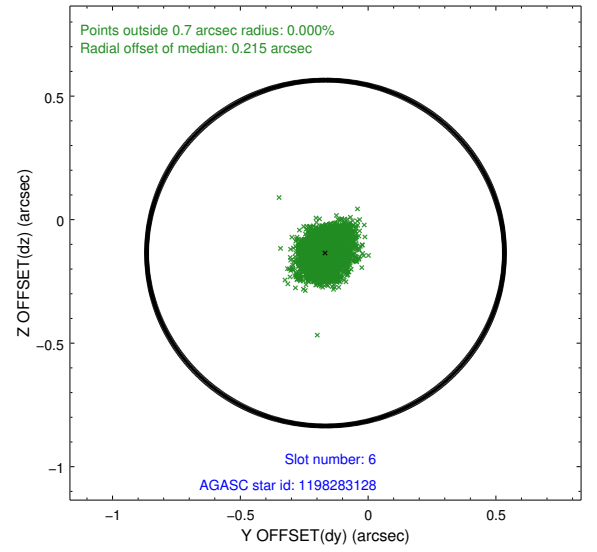
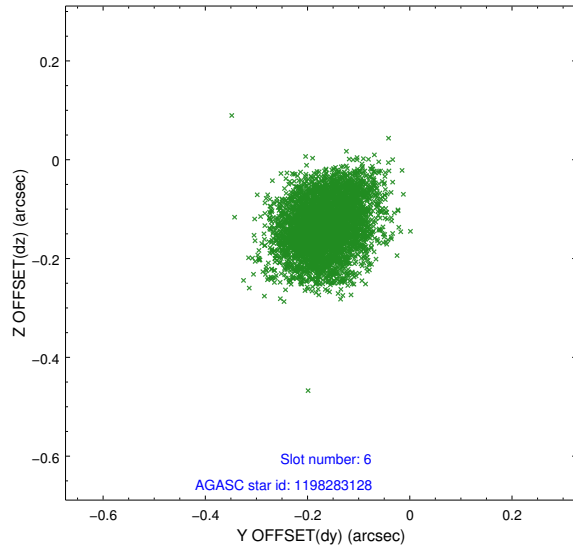
## 2.4.2 Slot 4



### 2.4.3 Slot 5

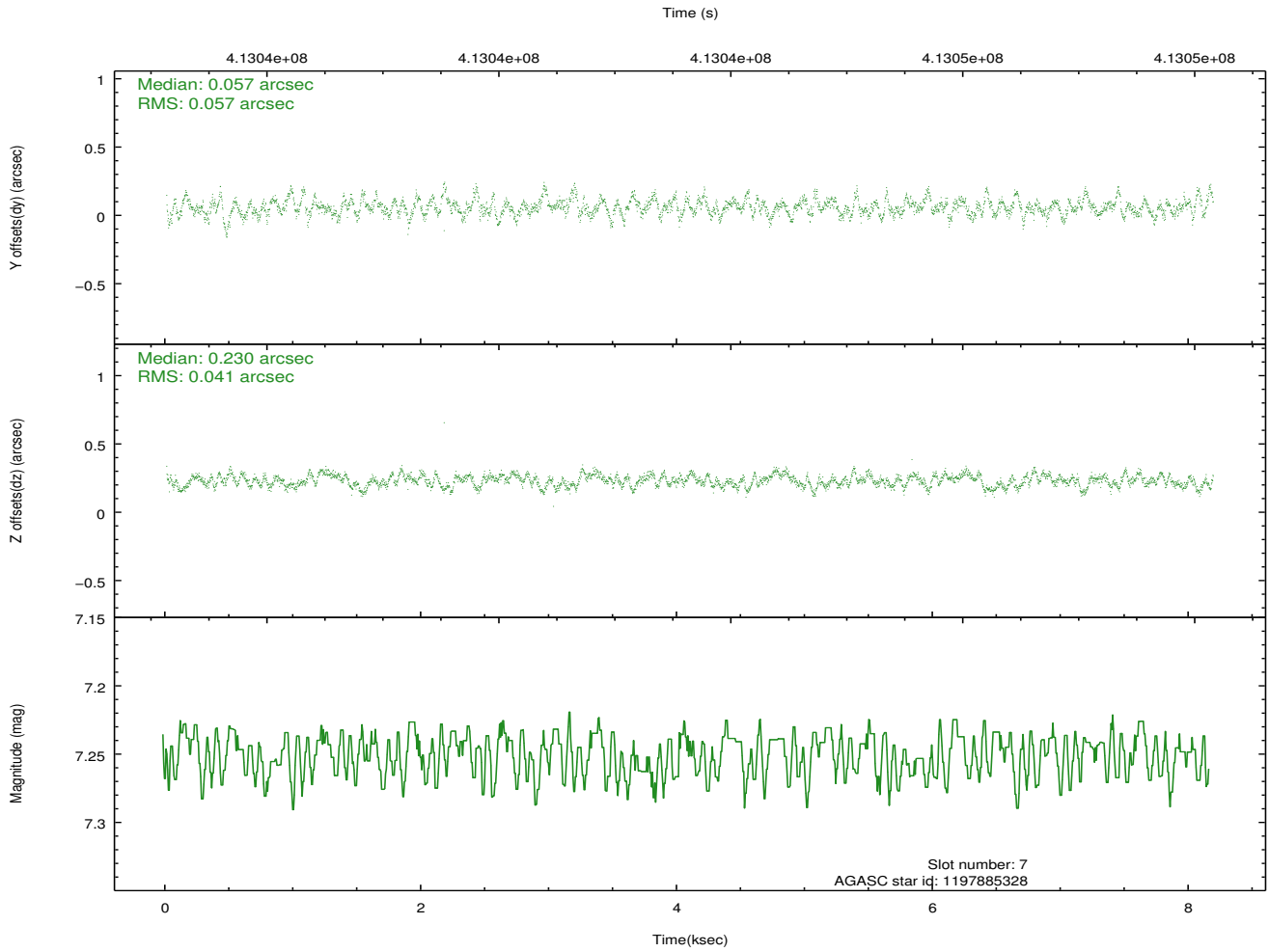
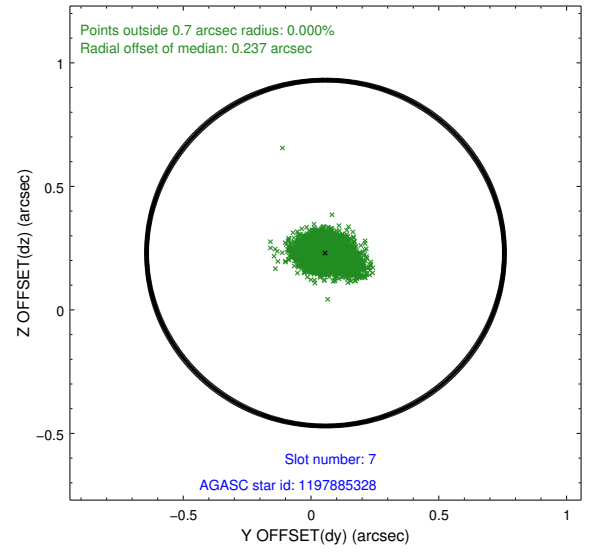
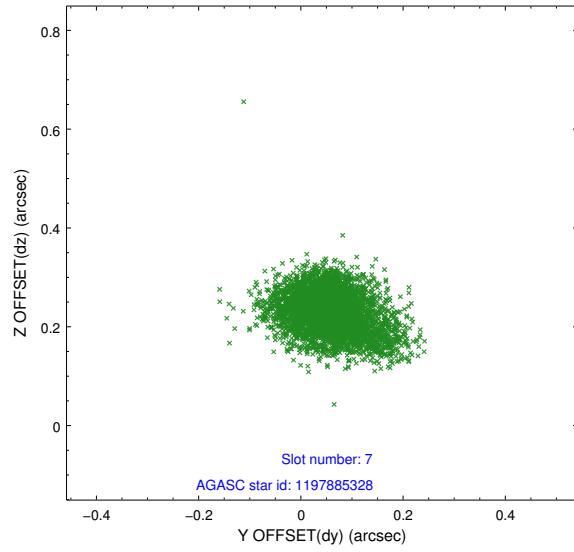


## 2.4.4 Slot 6



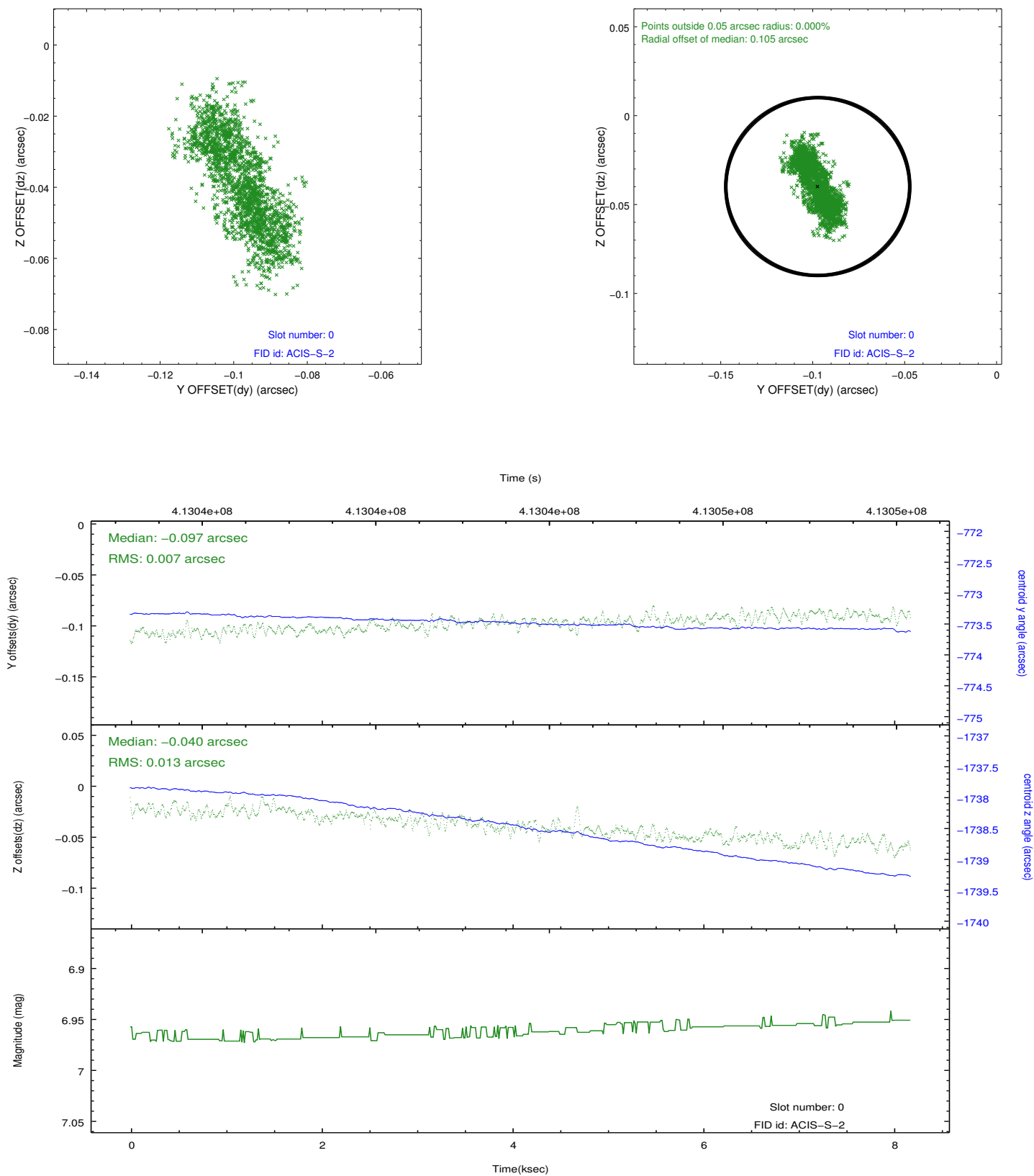


## 2.4.5 Slot 7

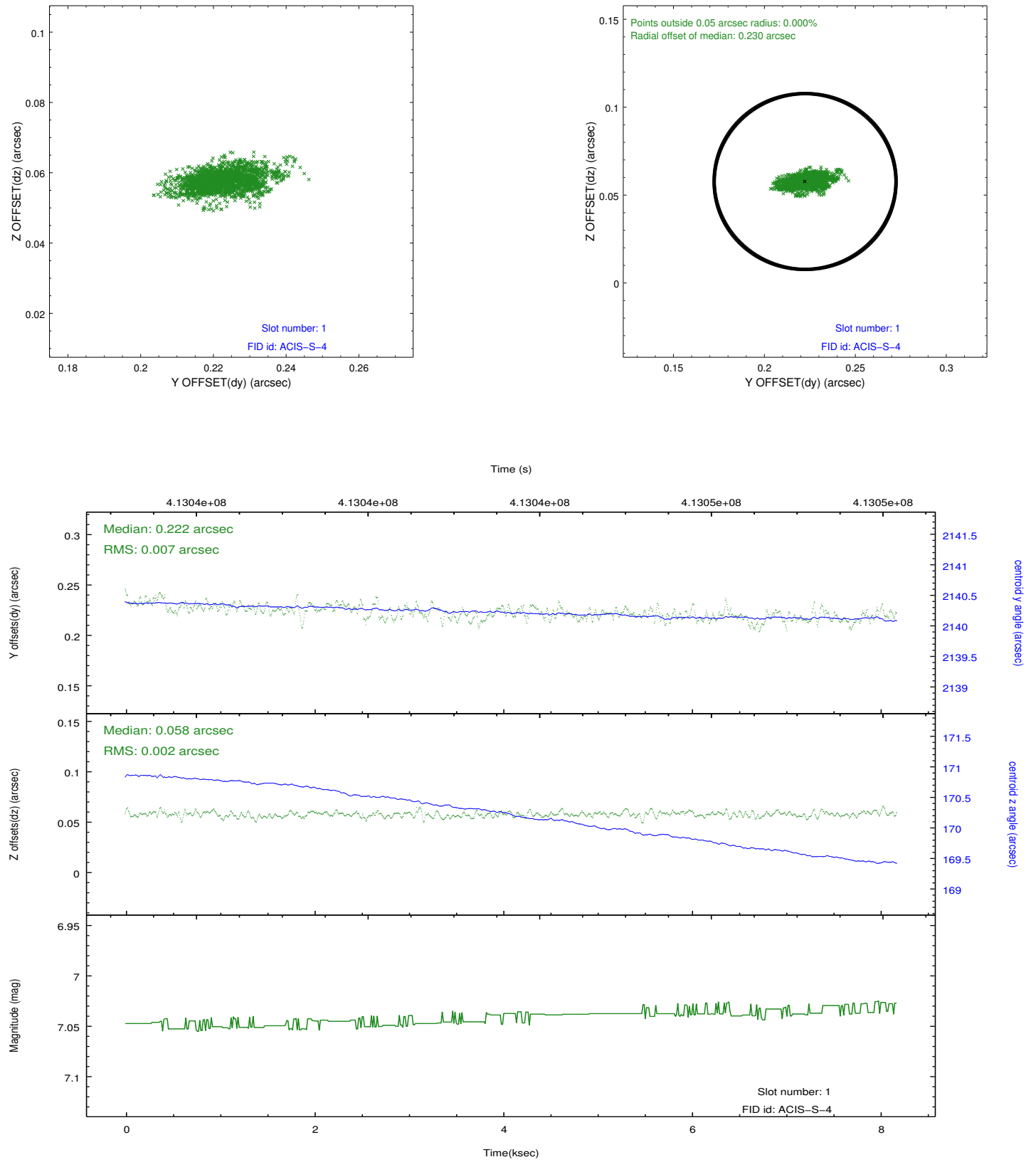


## 2.5 FID Slots

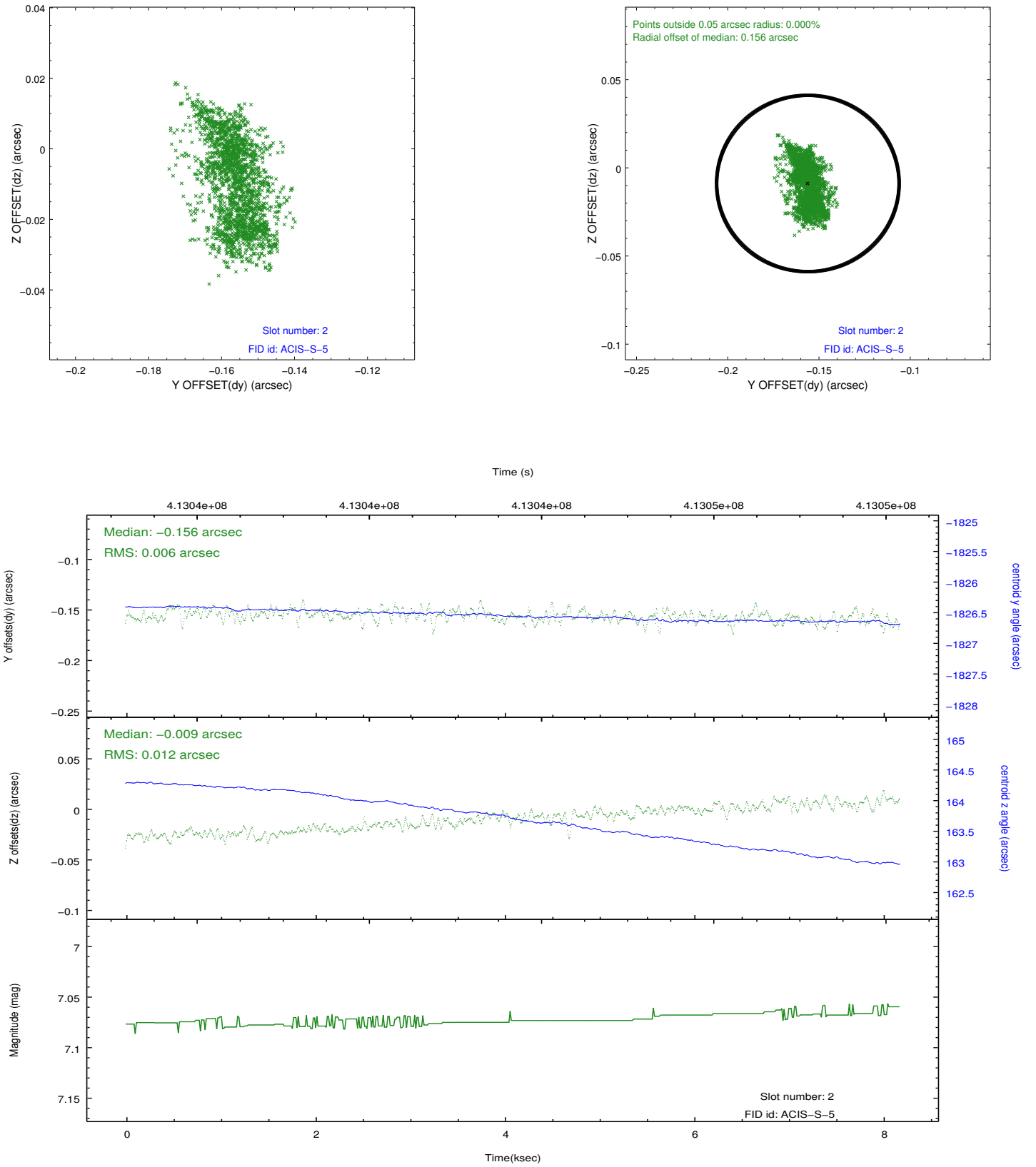
### 2.5.1 Slot 0



## 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)	2012.02.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.0263180596232

## A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.

=====

Window constraint met.