

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 13208 - L2 Version 2  
Chandra X-Ray Center

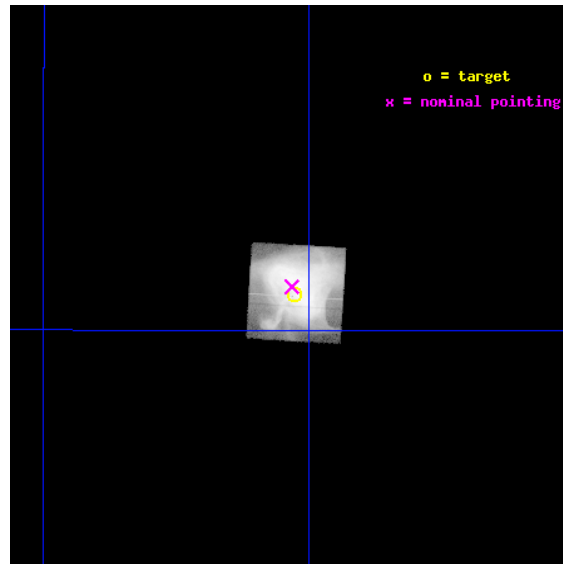
L2 Processing Date : Feb 19 2012

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# 1 Front

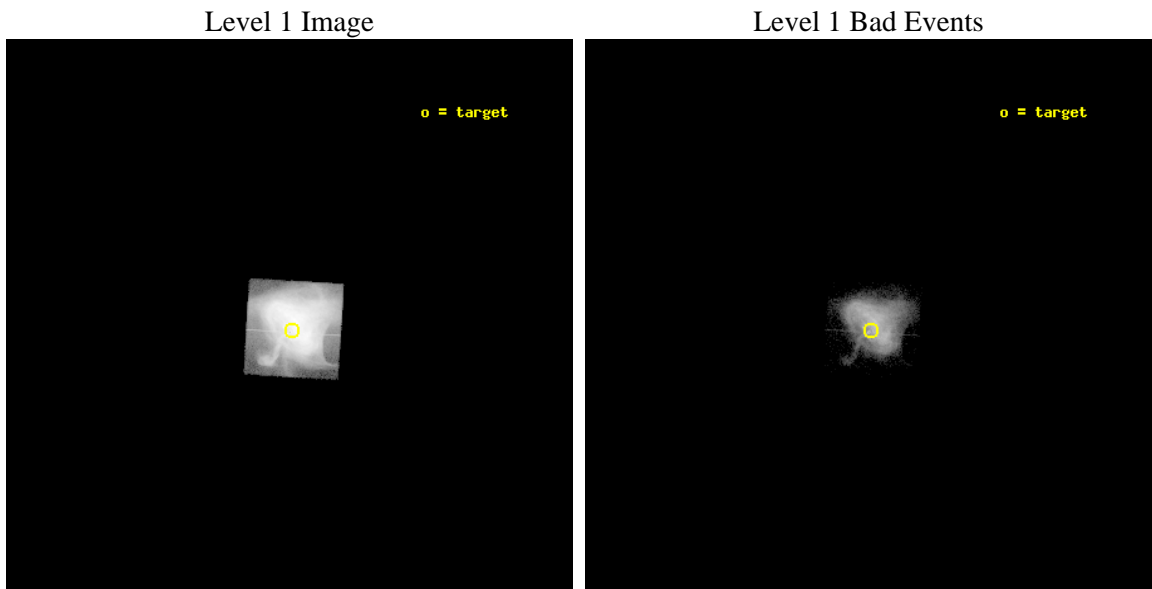
seq_num	501546	Sequence number
obs_id	13208	Observation id
title	Monitoring of the Crab Nebula	Proposal title
observer	Dr. Martin Weisskopf	Principal investigator
object	Crab	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.631667	Observer's specified target RA [deg]
dec_targ	22.015667	Observer's specified target Dec [deg]
ra_nom	83.633209437277	Nominal RA [deg]
dec_nom	22.018549976009	Nominal Dec [deg]
roll_nom	93.492229532018	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3360.7444541454	Sum of GTIs [s]
livetime	585.63838813394	Livetime [s]
ontime7	3360.7444541454	Sum of GTIs [s]
l2events	1707262	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	3360.7444541454	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime7	3360.7444541454	Sum of GTIs [s]
date	2012-02-20T00:07:51	Date and time of file creation	l1events	1888605	Number of level 1 events
revision	2	Processing version of data			

### 2.1.3 Events

	<b>ccd 7</b>
level 1 events	1888605
rejected events	167868
rejected %	8%

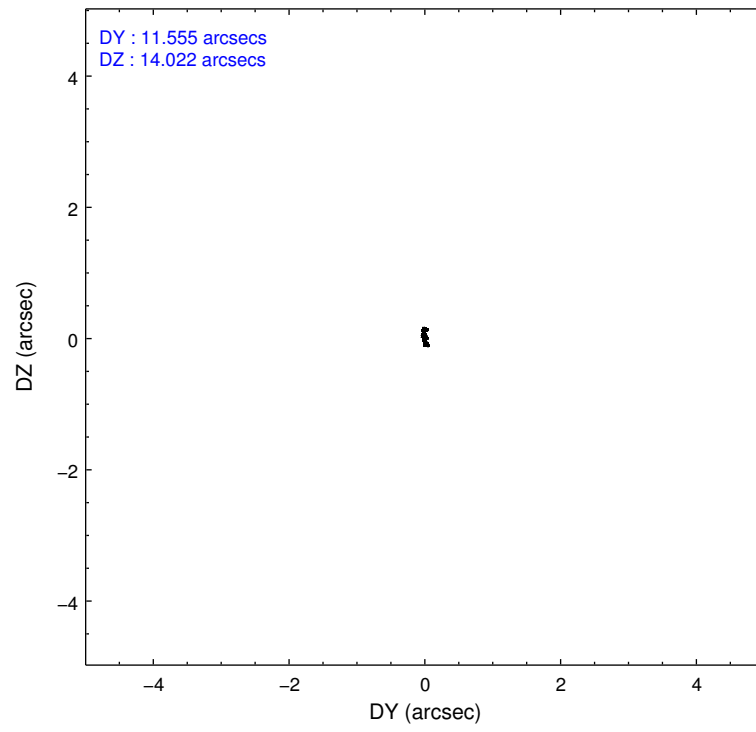
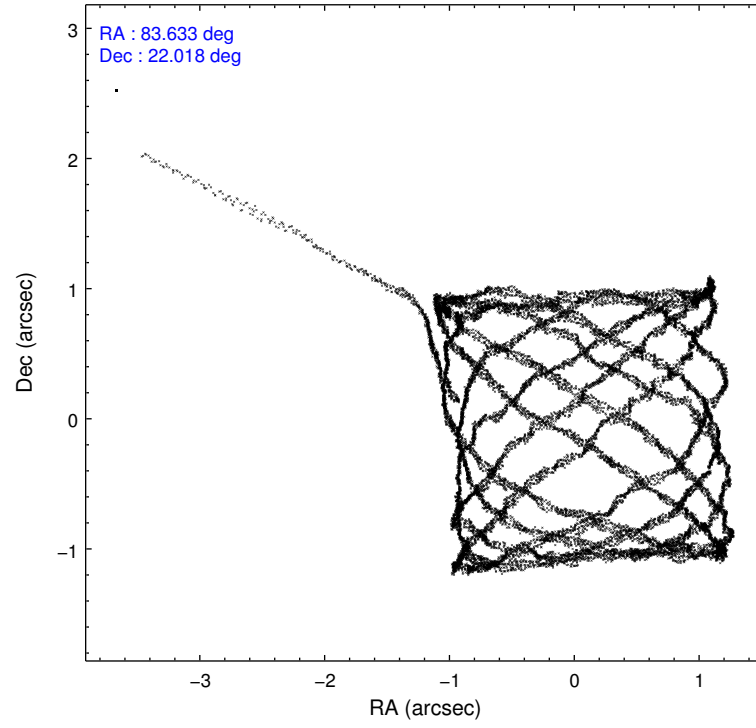
	<b>ccd 7</b>
grade 0 events	371643
	19%
grade 1 events	21020
	1%
grade 2 events	468396
	24%
grade 3 events	193021
	10%
grade 4 events	191527
	10%
grade 5 events	61561
	3%
grade 6 events	496734
	26%
grade 7 events	84703
	4%

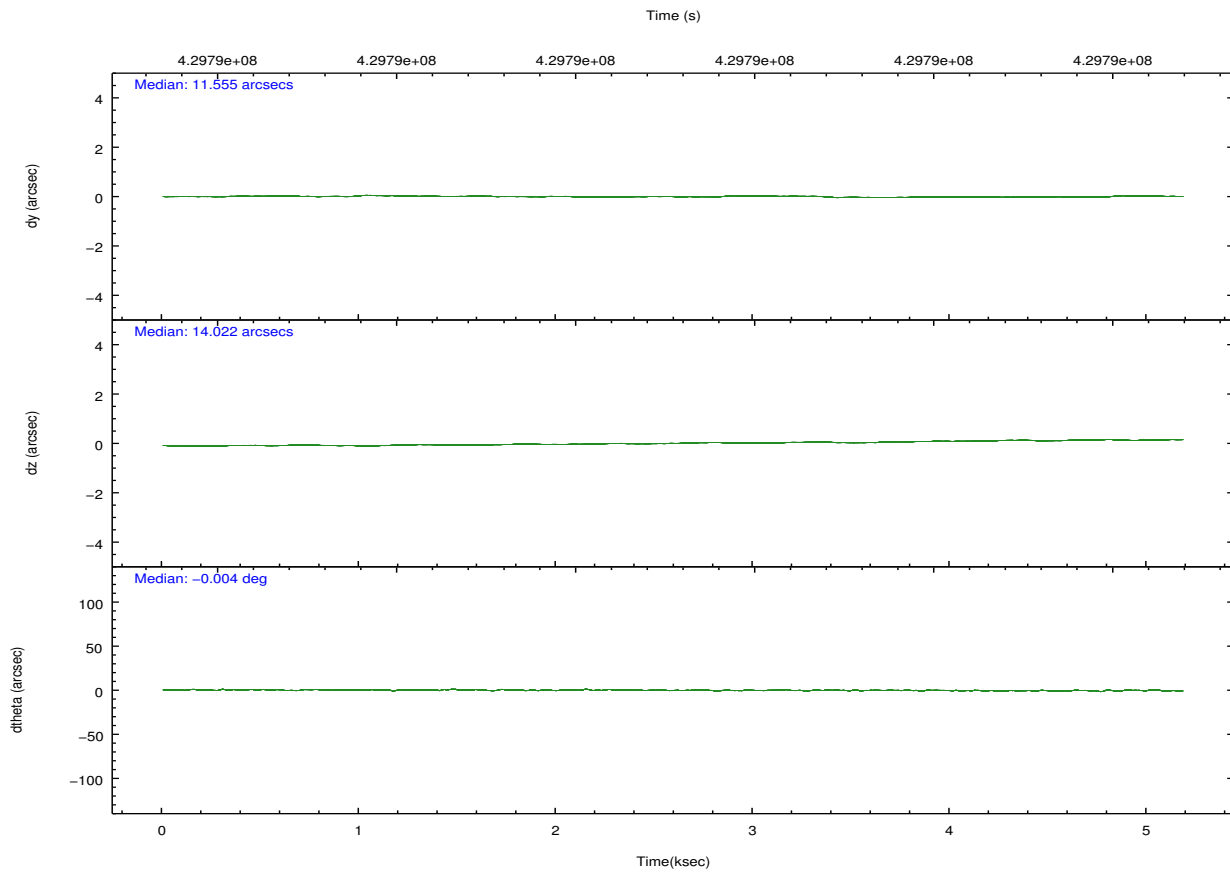
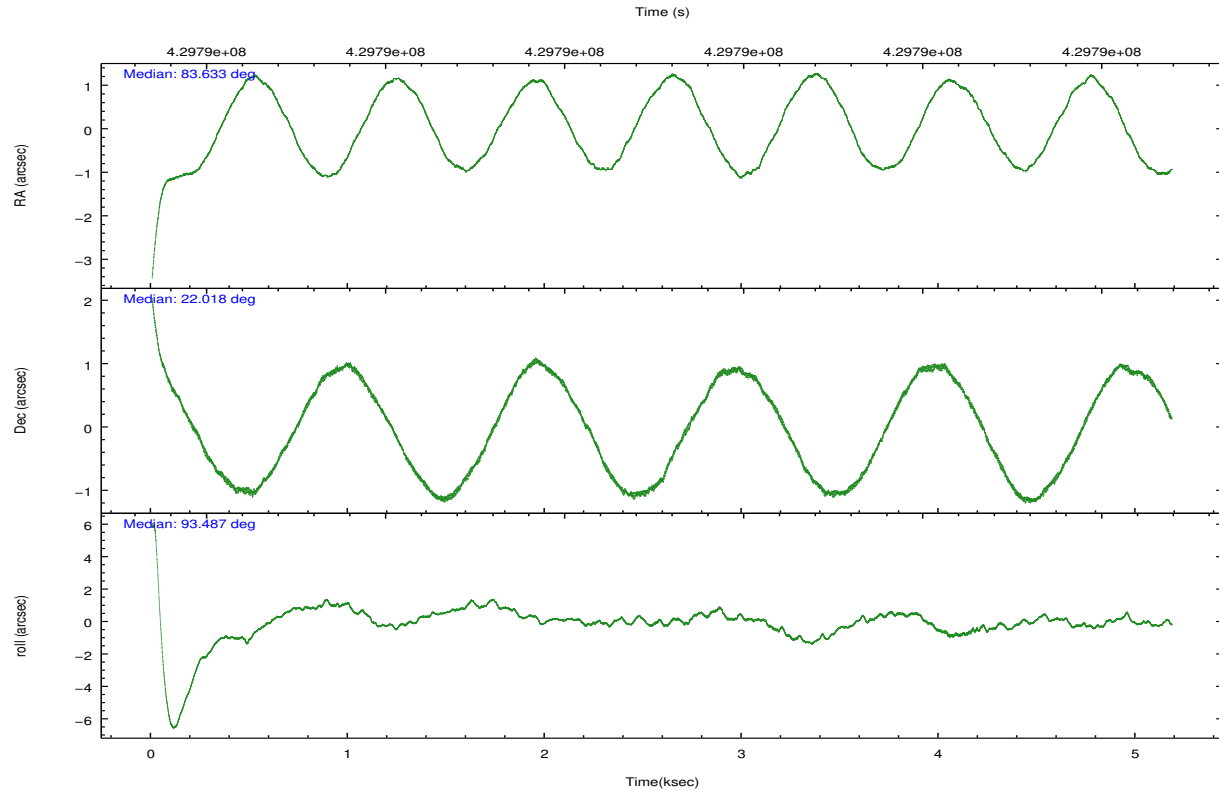


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	GRADED	GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	83.649836	83.6332094372773	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	21.995949	22.01854997600942	Subarray start row	135	135
[deg] Pointing Roll	93.329355	93.49222953201806	Subarray row count	300	300
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.2
[mm] SIM translation stage pos	-185.276523	-185.2723516260517			
[mm] SIM translation stage offset	-4.856	-4.860170956956097			
[s] Observation start time (MET)	429786142.184000	429785582.36619			
Observation start date	2011-08-15T09:01:16	2011-08-15T08:53:02			
[s] Observation end time (MET)	429791142.184000	429792169.52903			
Observation end date	2011-08-15T10:24:36	2011-08-15T10:42:49			
Read mode	TIMED	TIMED			

## 2.3 Aspect



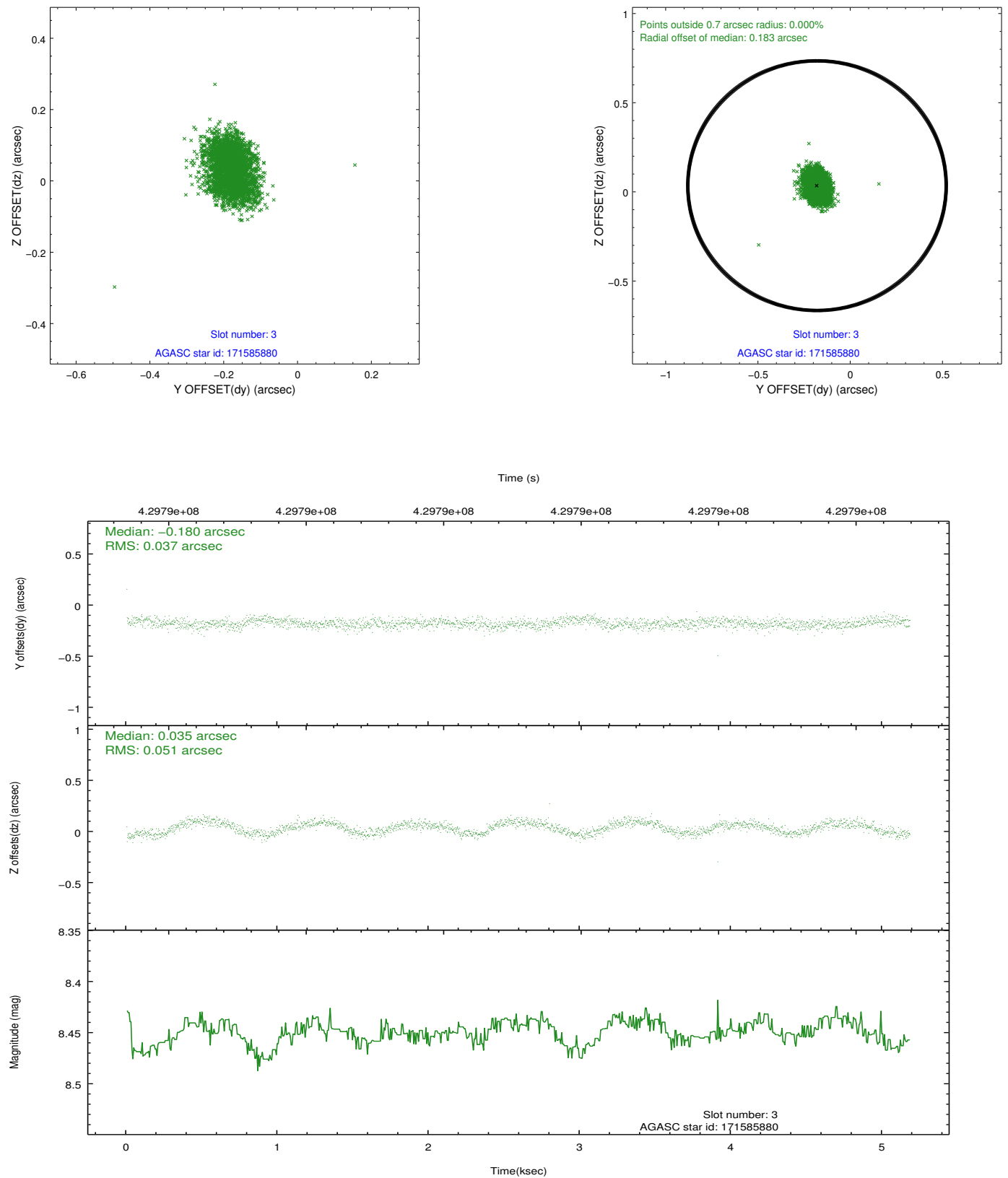


### Slot Statistics

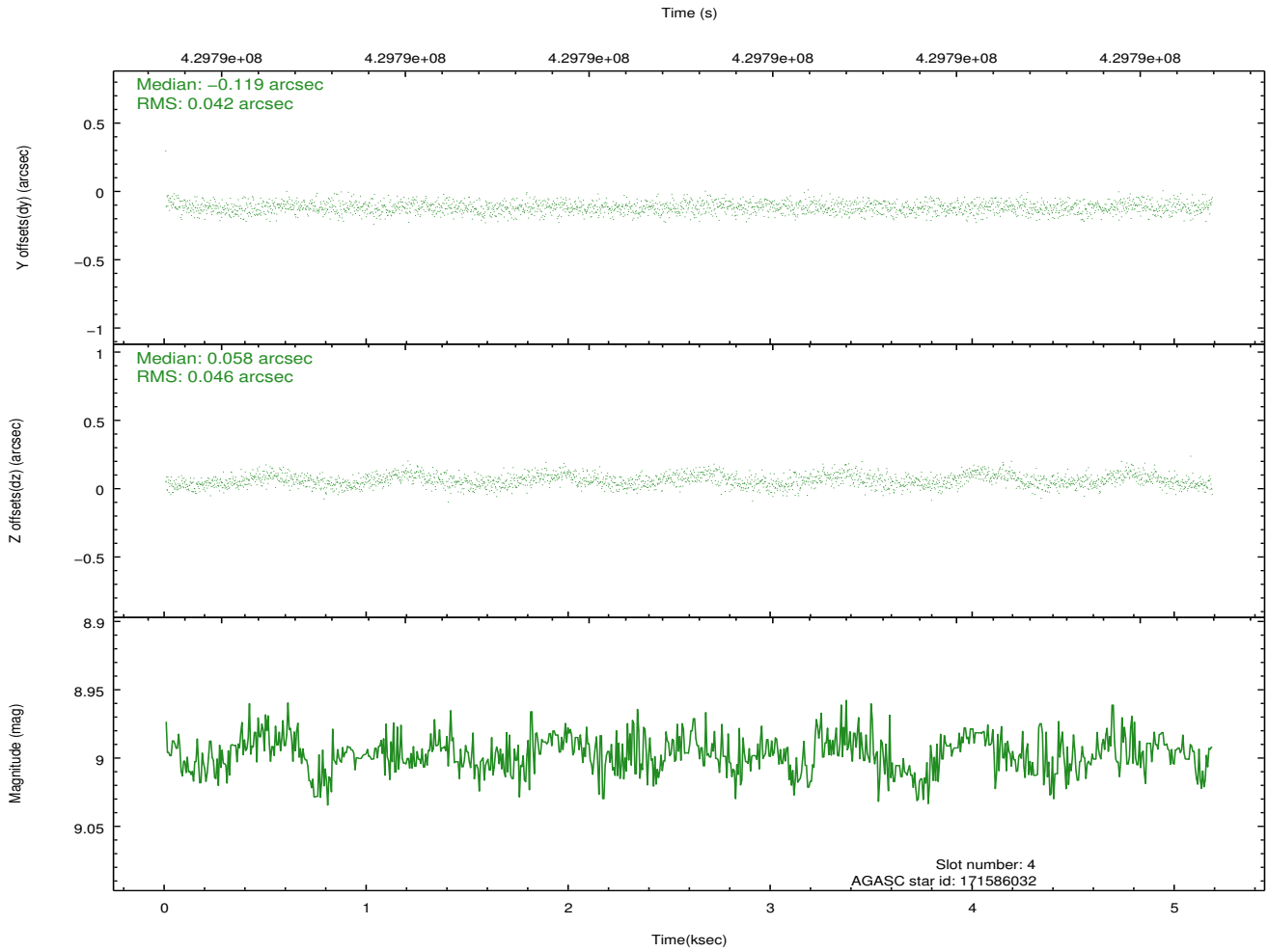
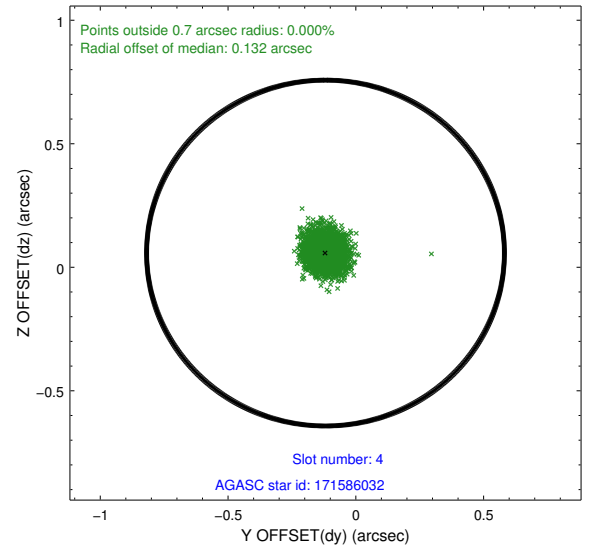
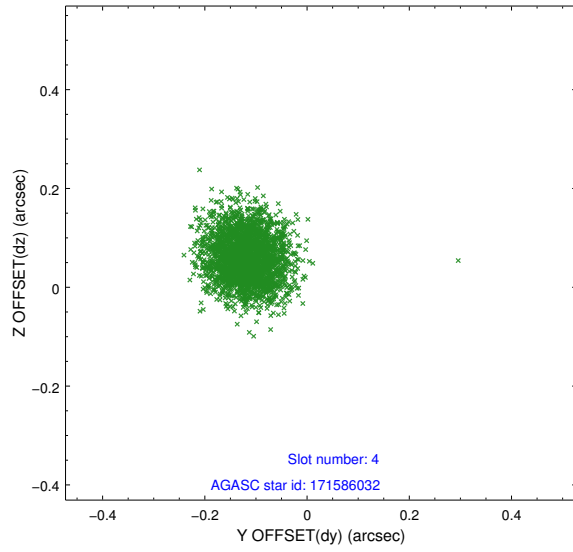
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.84	1264	-0.091	-0.047	0.007	0.012	0.000000	0.000000	-764.20	-1835.65
1	FID	ACIS-S-4	6.92	1264	0.195	0.056	0.005	0.010	0.000000	0.000000	2148.85	71.61
2	FID	ACIS-S-5	6.95	1264	-0.135	-0.002	0.007	0.011	0.000000	0.000000	-1815.57	66.59
3	GUIDE	171585880	8.45	2526	-0.180	0.035	0.068	0.104	83.676260	22.176319	643.21	-125.51
4	GUIDE	171586032	9.00	2524	-0.119	0.058	0.066	0.104	83.950197	22.083225	256.93	-1018.50
5	GUIDE	171597832	9.14	2523	0.412	-0.285	0.076	0.130	83.183230	21.366702	-2167.68	1692.38
6	GUIDE	171721904	9.19	2527	-0.075	0.024	0.097	0.149	84.272676	22.116922	317.87	-2098.49
7	GUIDE	243941560	8.31	2526	-0.033	0.166	0.050	0.083	83.733264	22.568598	2042.21	-396.90

## 2.4 Star Slots

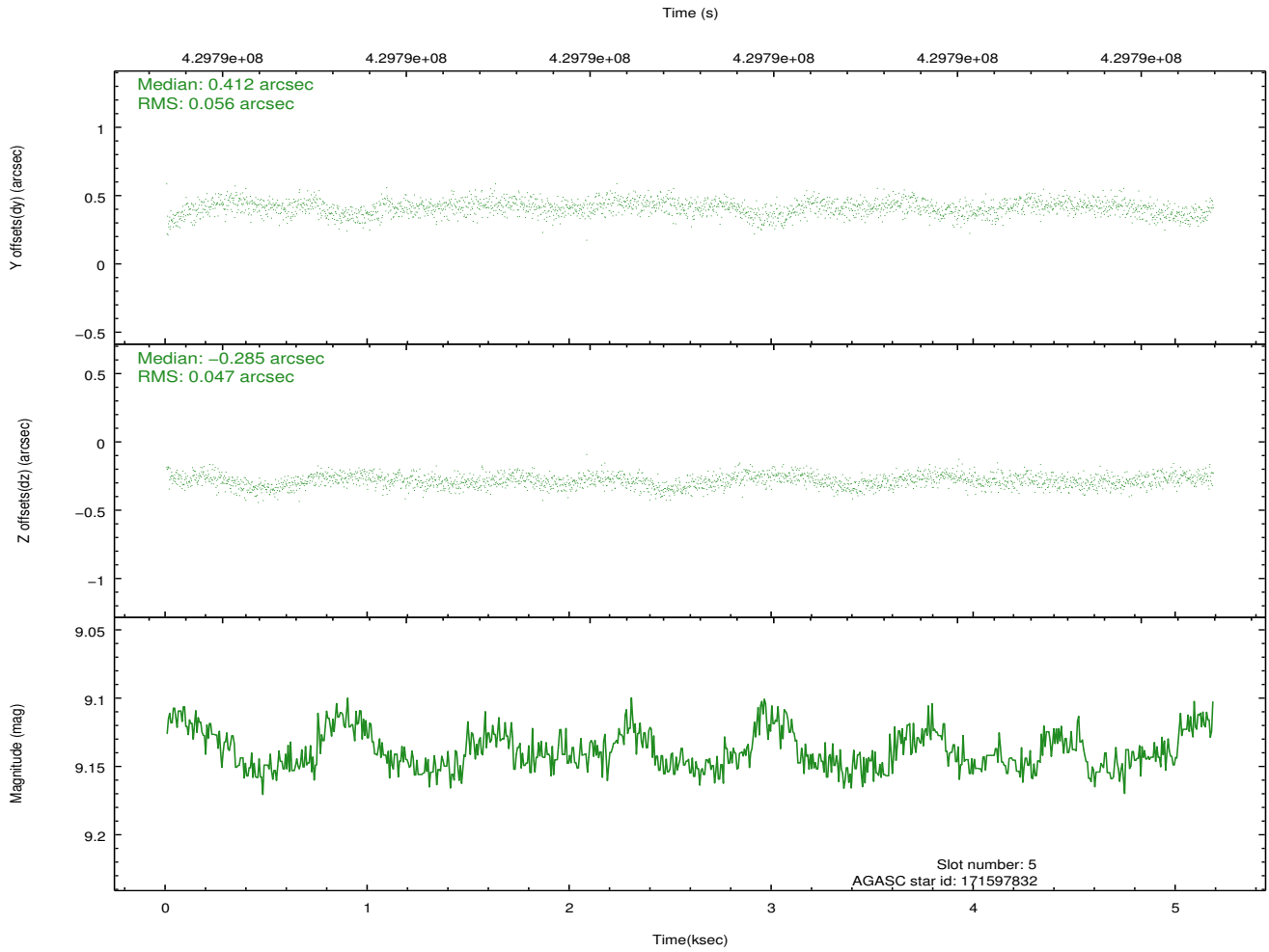
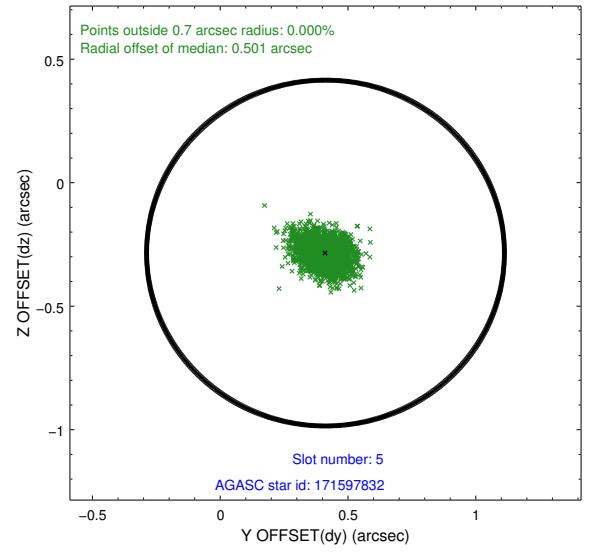
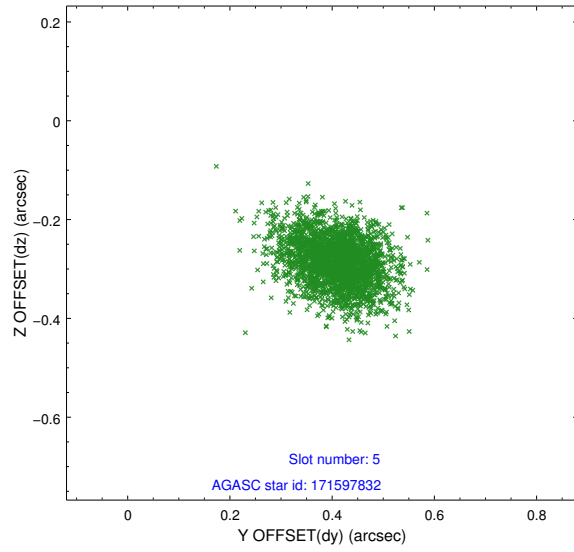
### 2.4.1 Slot 3



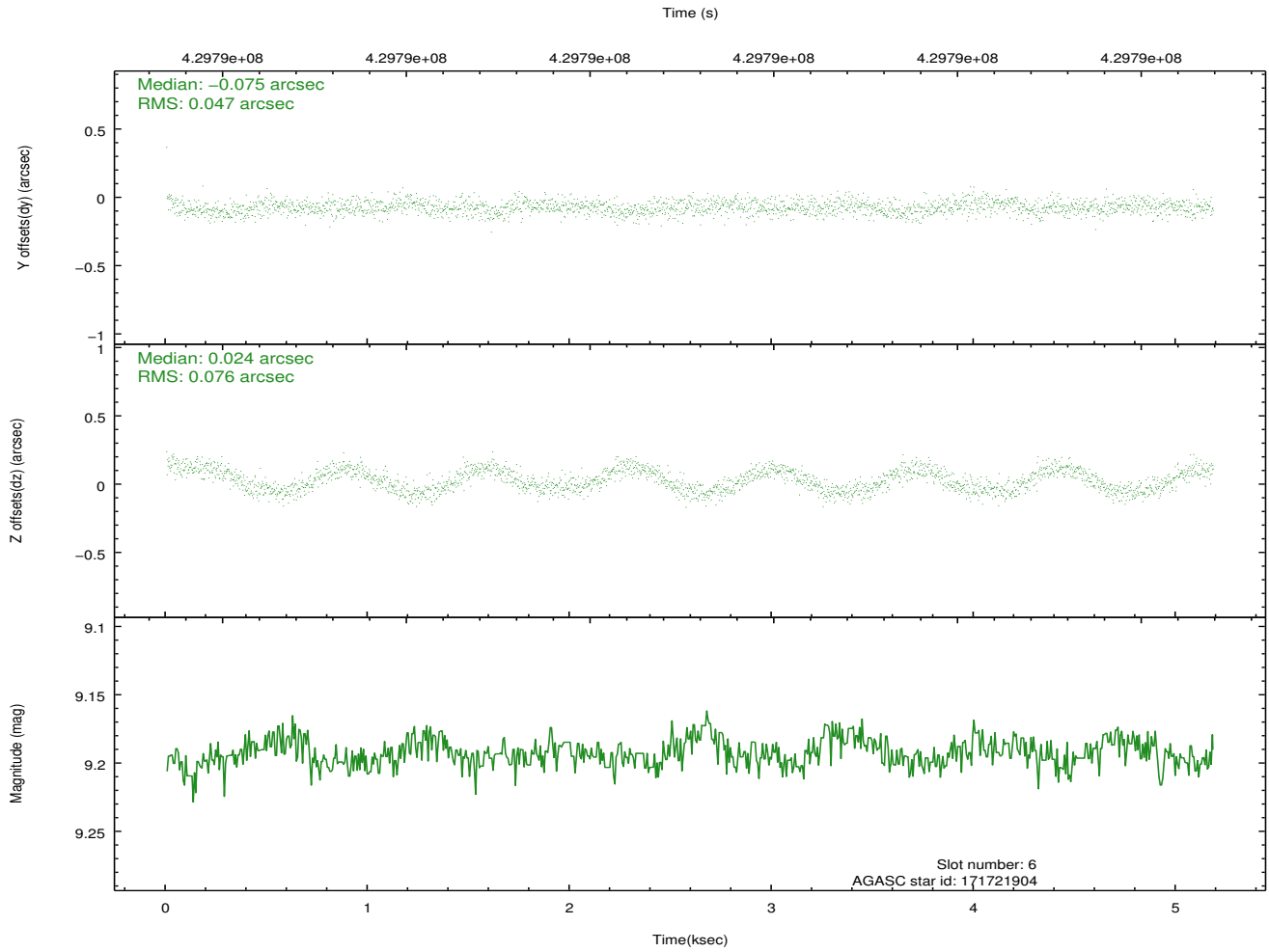
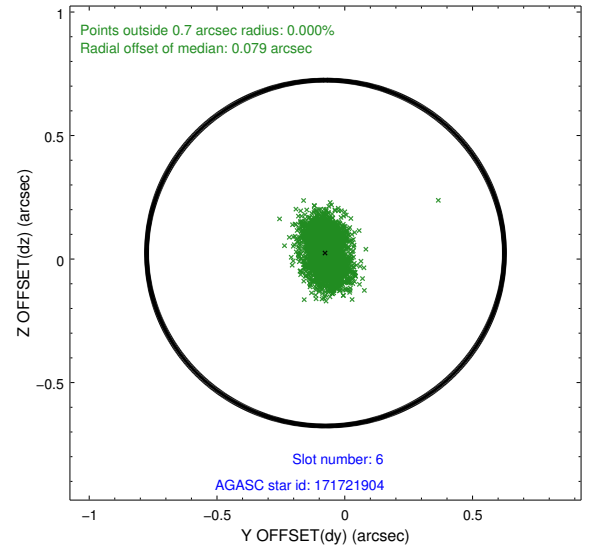
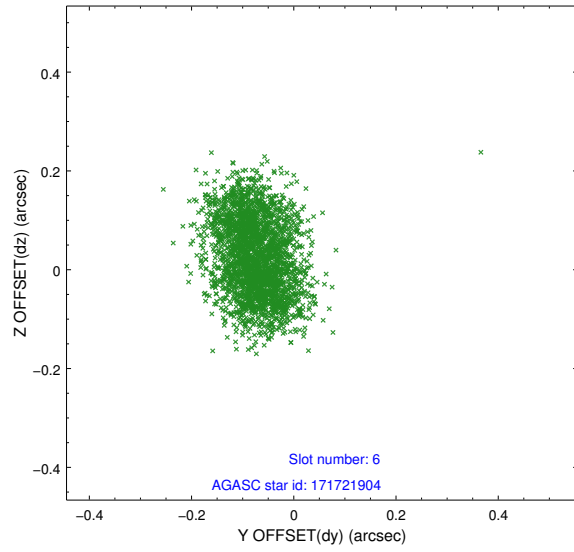
## 2.4.2 Slot 4



### 2.4.3 Slot 5

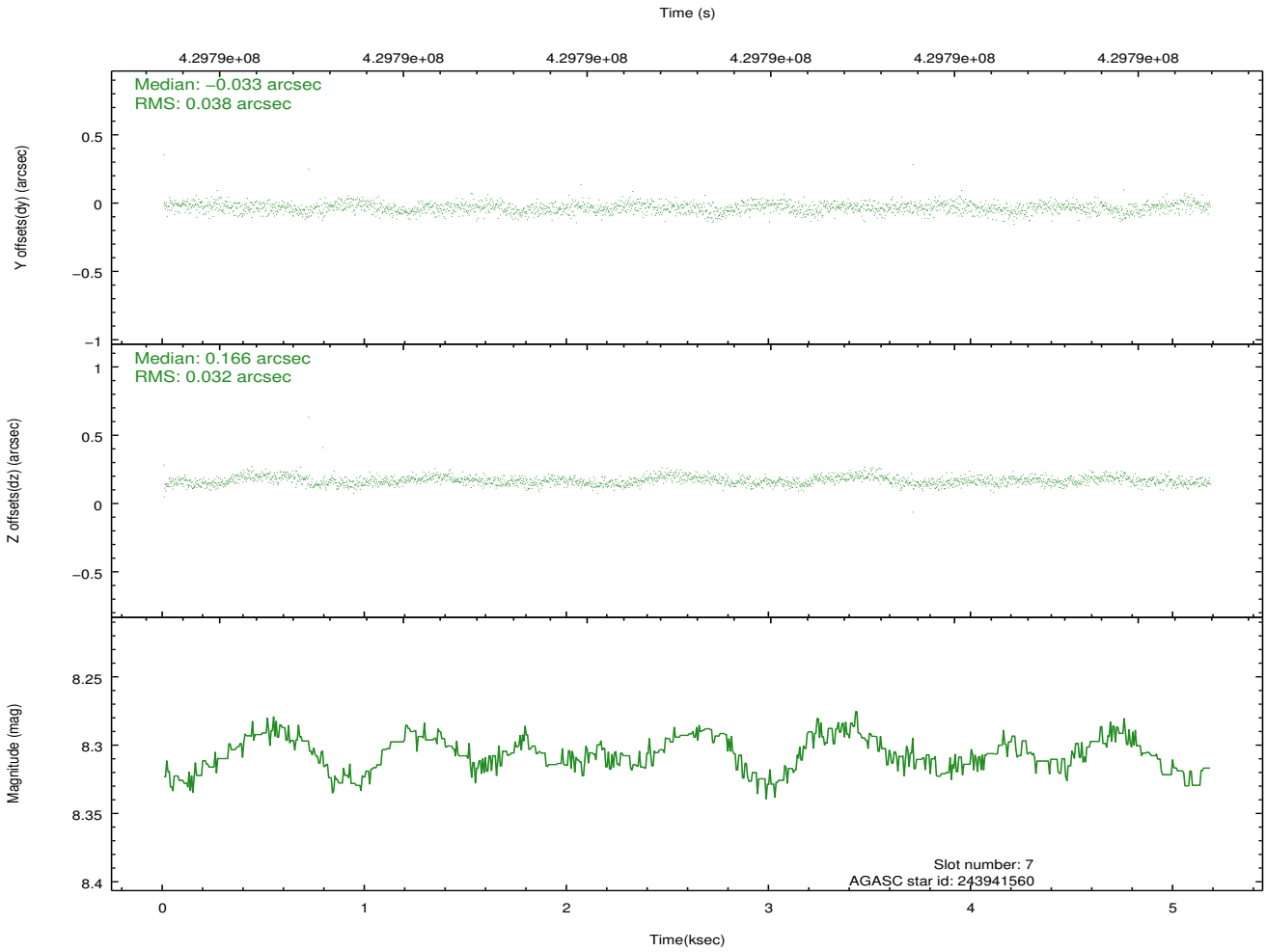
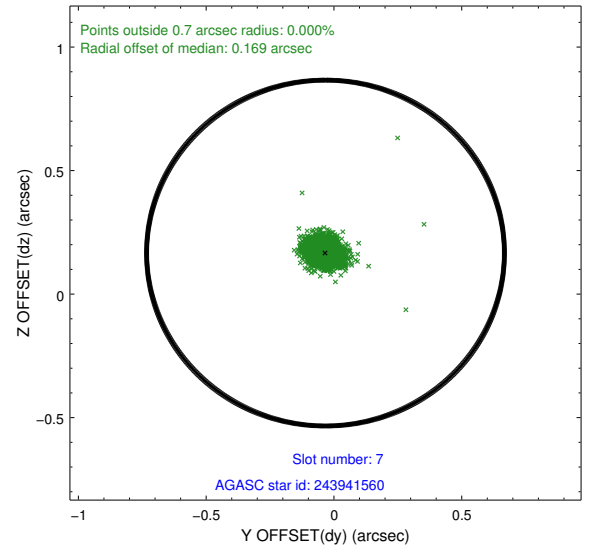
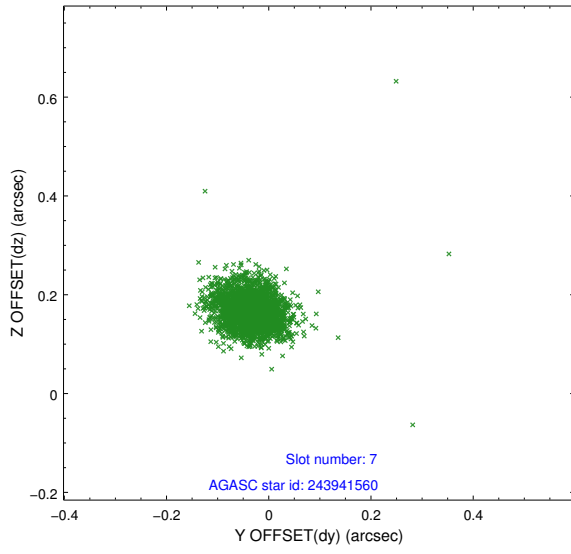


## 2.4.4 Slot 6



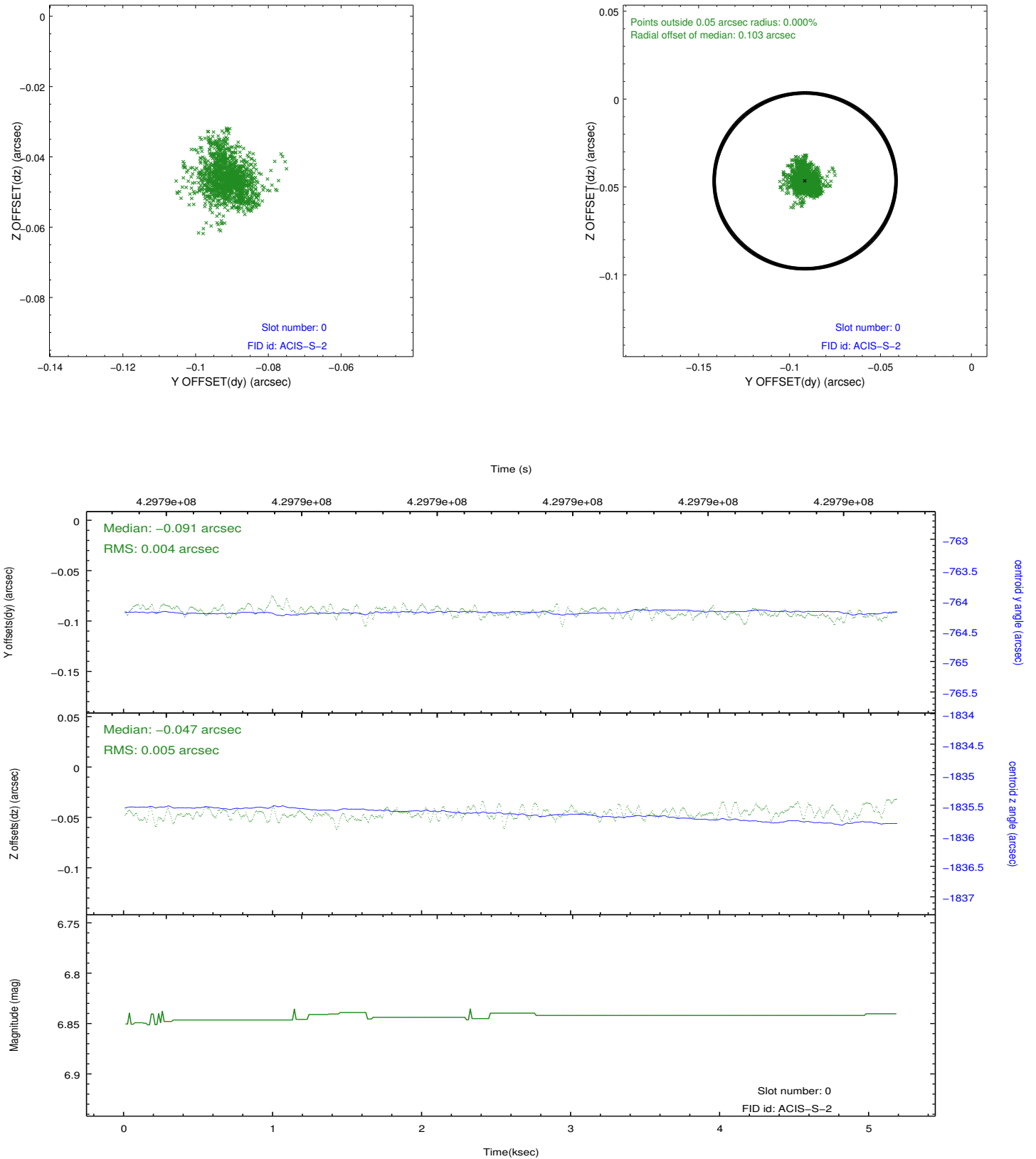


## 2.4.5 Slot 7

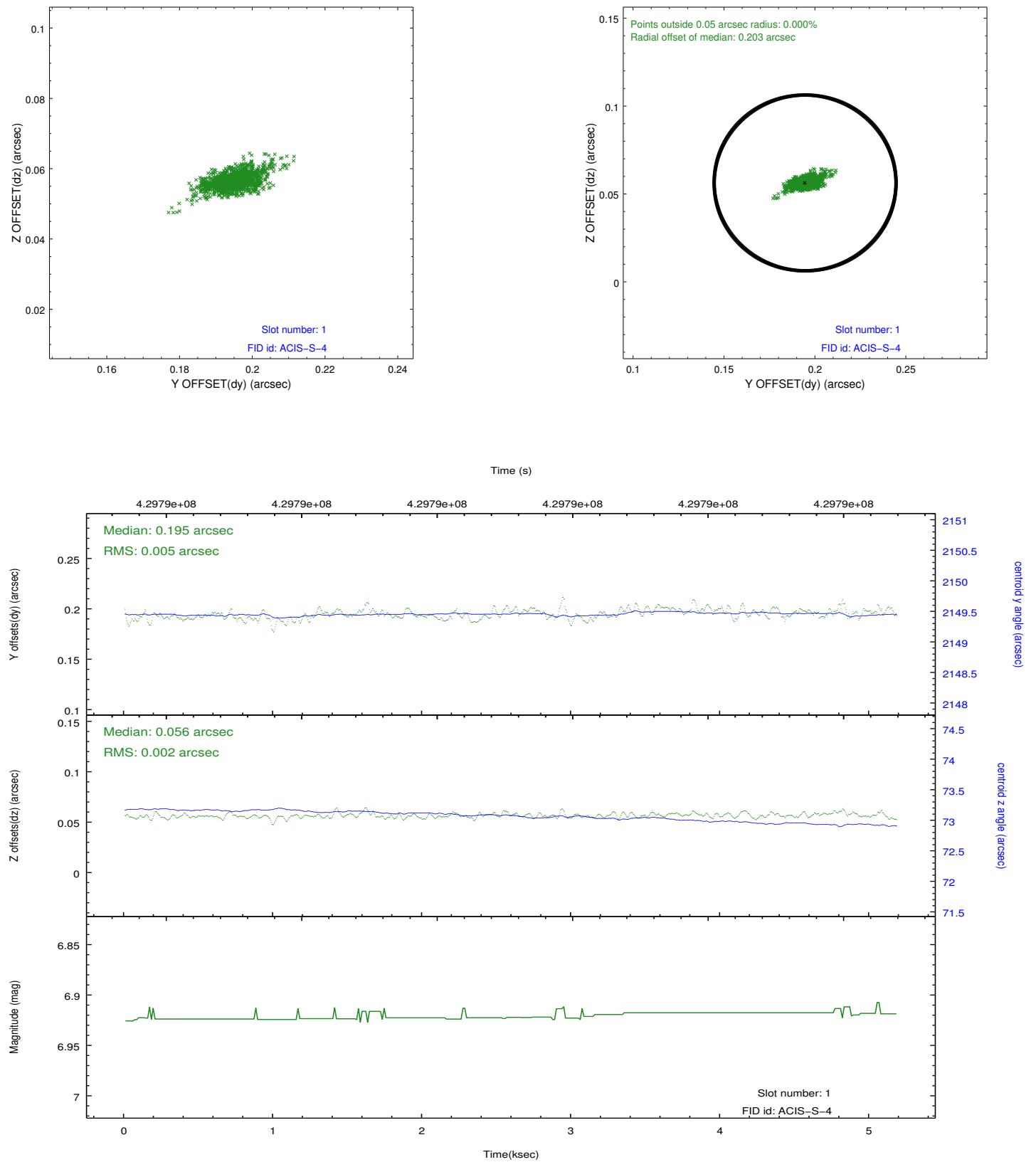


## 2.5 FID Slots

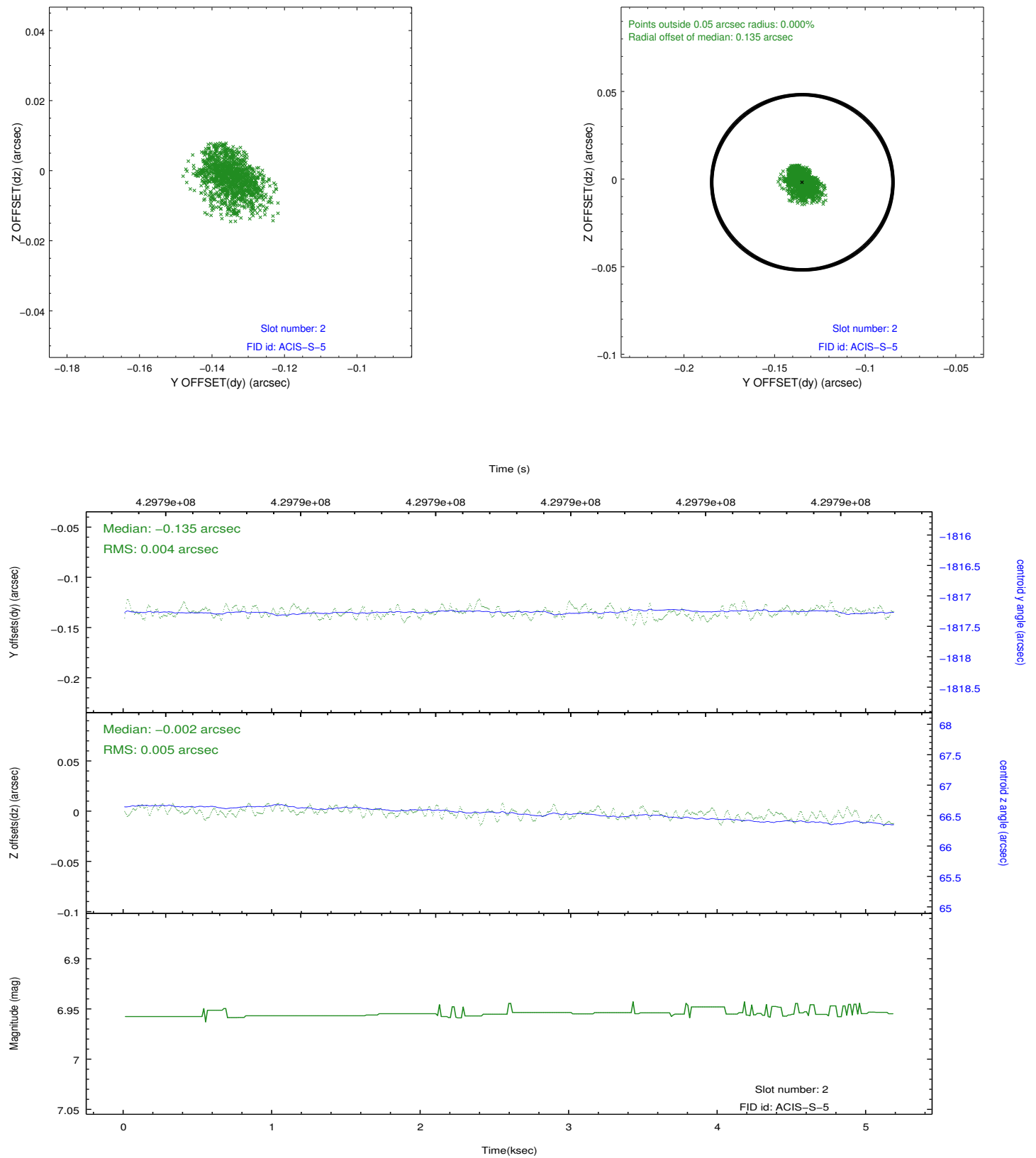
### 2.5.1 Slot 0



## 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)	2012.02.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5

## A.2 Comments

This observation has significant telemetry saturation. The ONTIME is therefore less than the requested 5000 seconds.

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A non-standard dither amplitude of 1 arcsec was used.

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Charge time: ONTIME of 3360.7444530129 seconds is less than 85% of expected scheduled time of 5000 seconds The LIVETIME of 585.638 s is much shorter than the ONTIME of 3360.744 s because the frame time of 0.2 s is shorter than the minimum time that it takes to read out the detector (about 0.9 s) in the specified configuration. Therefore, there is a flush of 0.90588 s preceeding each frame. This flush time is dead time. The source appears to be bright enough to saturate telemetry. Since an image of the source is apparent in the bad events, the source is most likely piled.