

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13207 - L2 Version 2
Chandra X-Ray Center

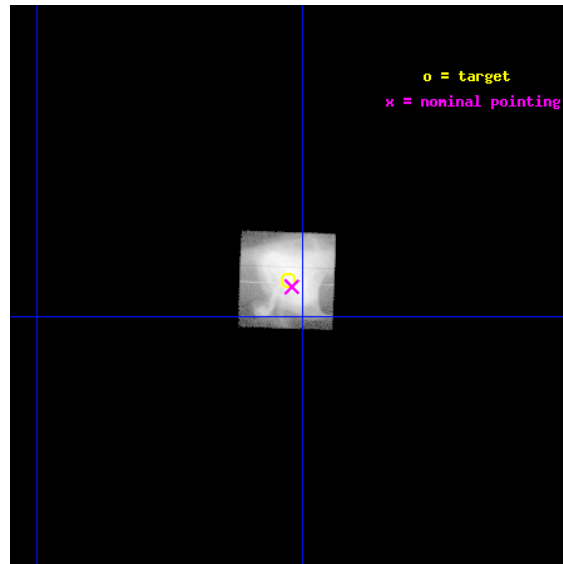
L2 Processing Date : Feb 8 2012

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1 Front

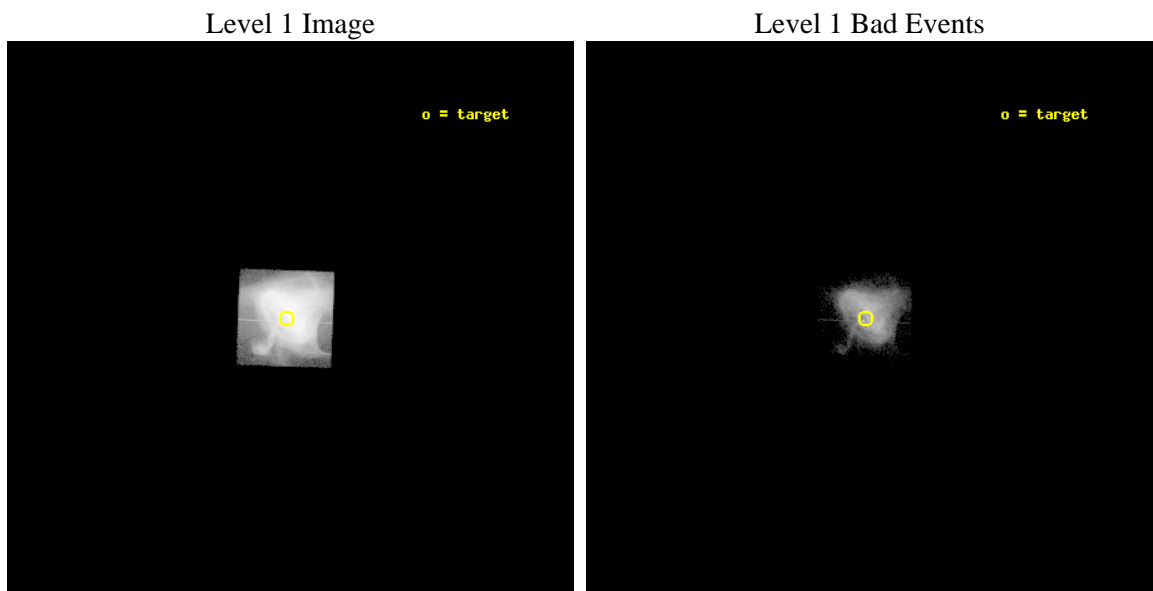
seq_num	501545	Sequence number
obs_id	13207	Observation id
title	Monitoring of the Crab Nebula	Proposal title
observer	Dr. Martin Weisskopf	Principal investigator
object	Crab	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.631667	Observer's specified target RA [deg]
dec_targ	22.015667	Observer's specified target Dec [deg]
ra_nom	83.630030406936	Nominal RA [deg]
dec_nom	22.012821249517	Nominal Dec [deg]
roll_nom	272.03588571709	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3342.1461990476	Sum of GTIs [s]
liveltime	582.6005297646	Livetime [s]
ontime7	3342.1461990476	Sum of GTIs [s]
l2events	1698249	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	5000.654000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	3342.1461990476	Sum of GTIs [s]
caldsver	4.4.7	 	ontime7	3342.1461990476	Sum of GTIs [s]
date	2012-02-08T03:50:45	Date and time of file creation	l1events	1889360	Number of level 1 events
revision	2	Processing version of data			

2.1.3 Events

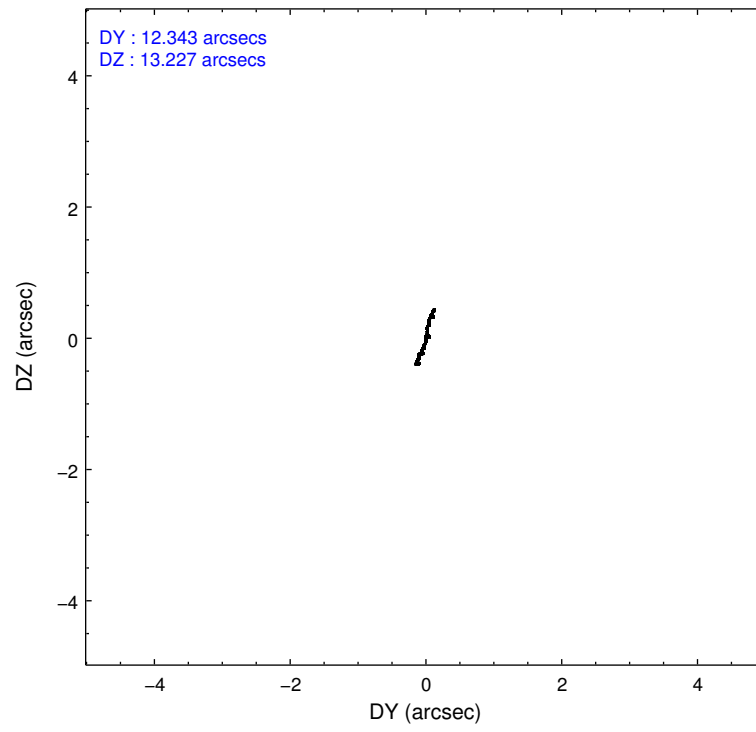
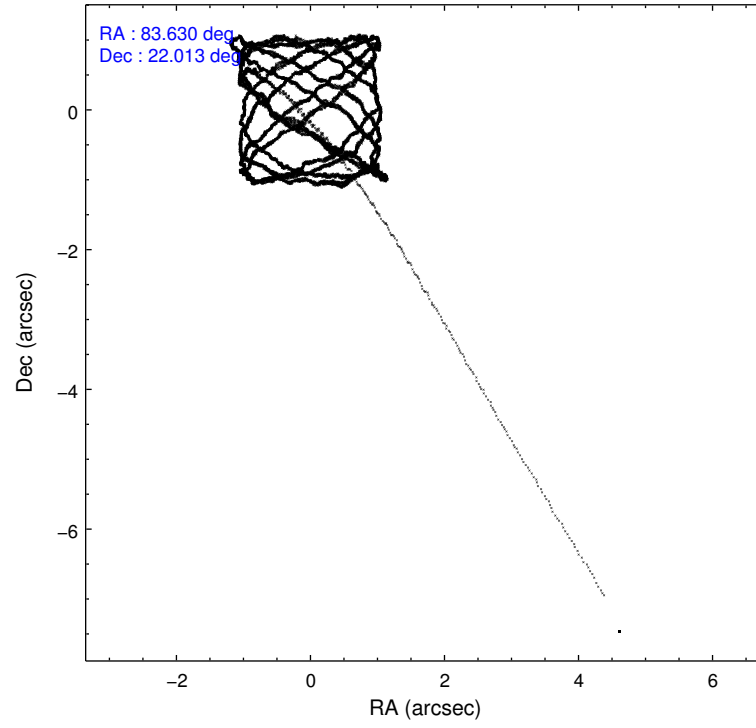
	ccd 7
level 1 events	1889360
rejected events	167003
rejected %	8%

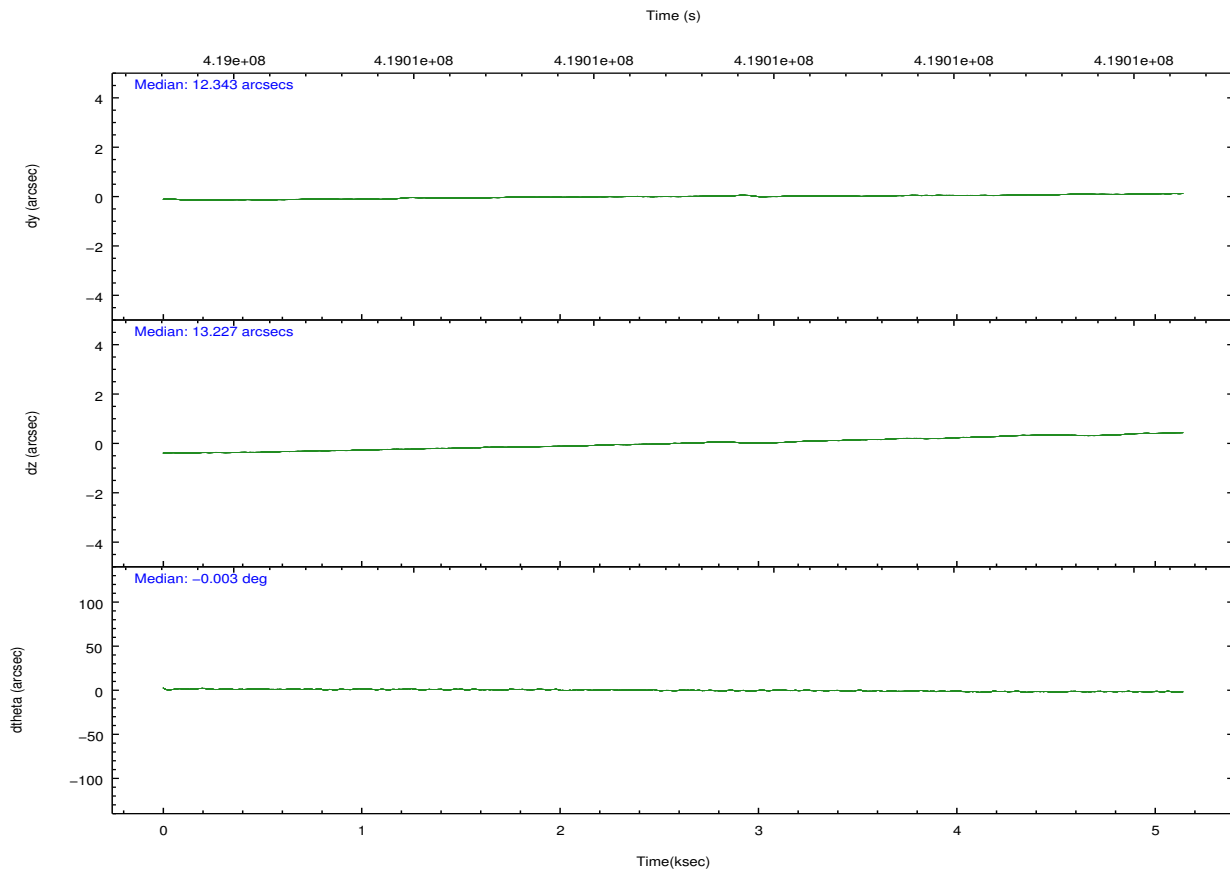
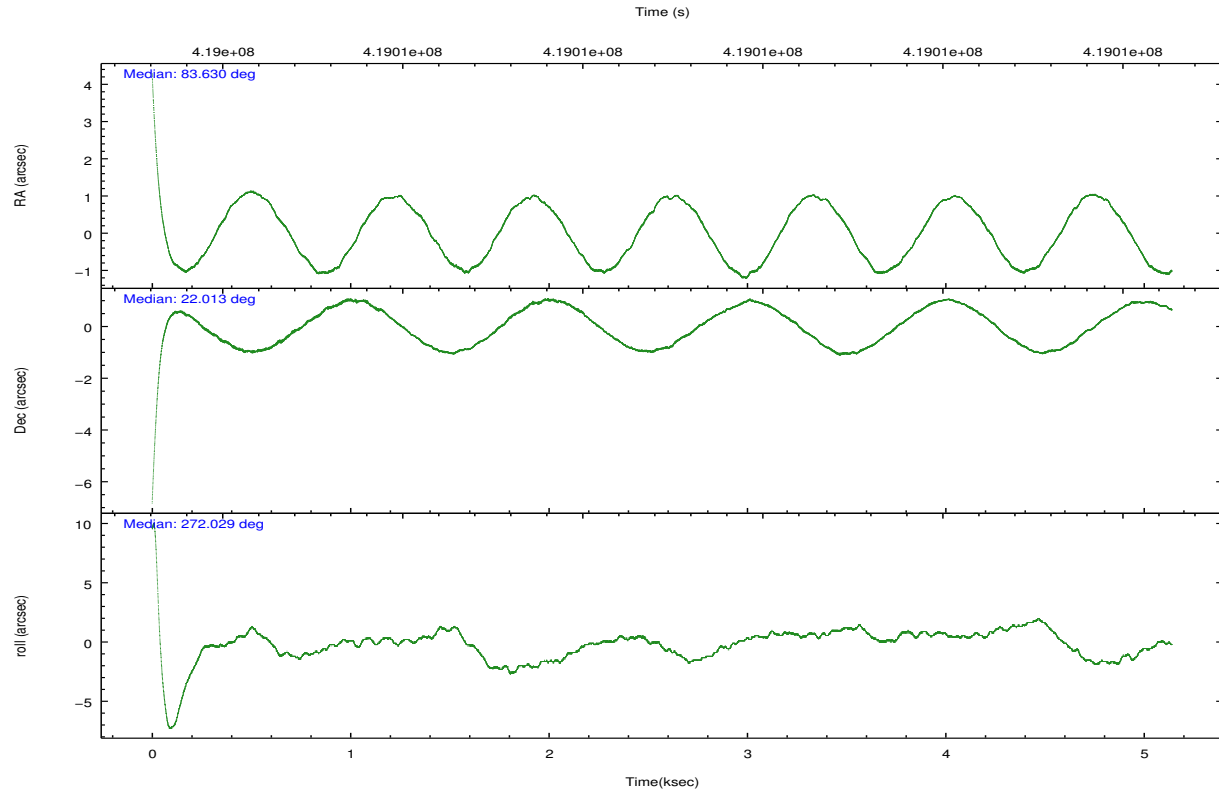
	ccd 7
grade 0 events	389521
	20%
grade 1 events	21956
	1%
grade 2 events	466604
	24%
grade 3 events	196291
	10%
grade 4 events	193223
	10%
grade 5 events	61633
	3%
grade 6 events	477912
	25%
grade 7 events	82220
	4%

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	83.614043	83.63003040693634	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	22.035812	22.01282124951688	Subarray start row	125	125
[deg] Pointing Roll	271.885207	272.0358857170891	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	-185.036523	-185.0334916724035			
[mm] SIM translation stage offset	-5.096	-5.099030910604284			
[s] Observation start time (MET)	419005003.184000	419003787.06438			
Observation start date	2011-04-12T14:15:37	2011-04-12T13:56:27			
[s] Observation end time (MET)	419010004.184000	419010228.16471			
Observation end date	2011-04-12T15:38:58	2011-04-12T15:43:48			
Read mode	TIMED	TIMED			

2.3 Aspect



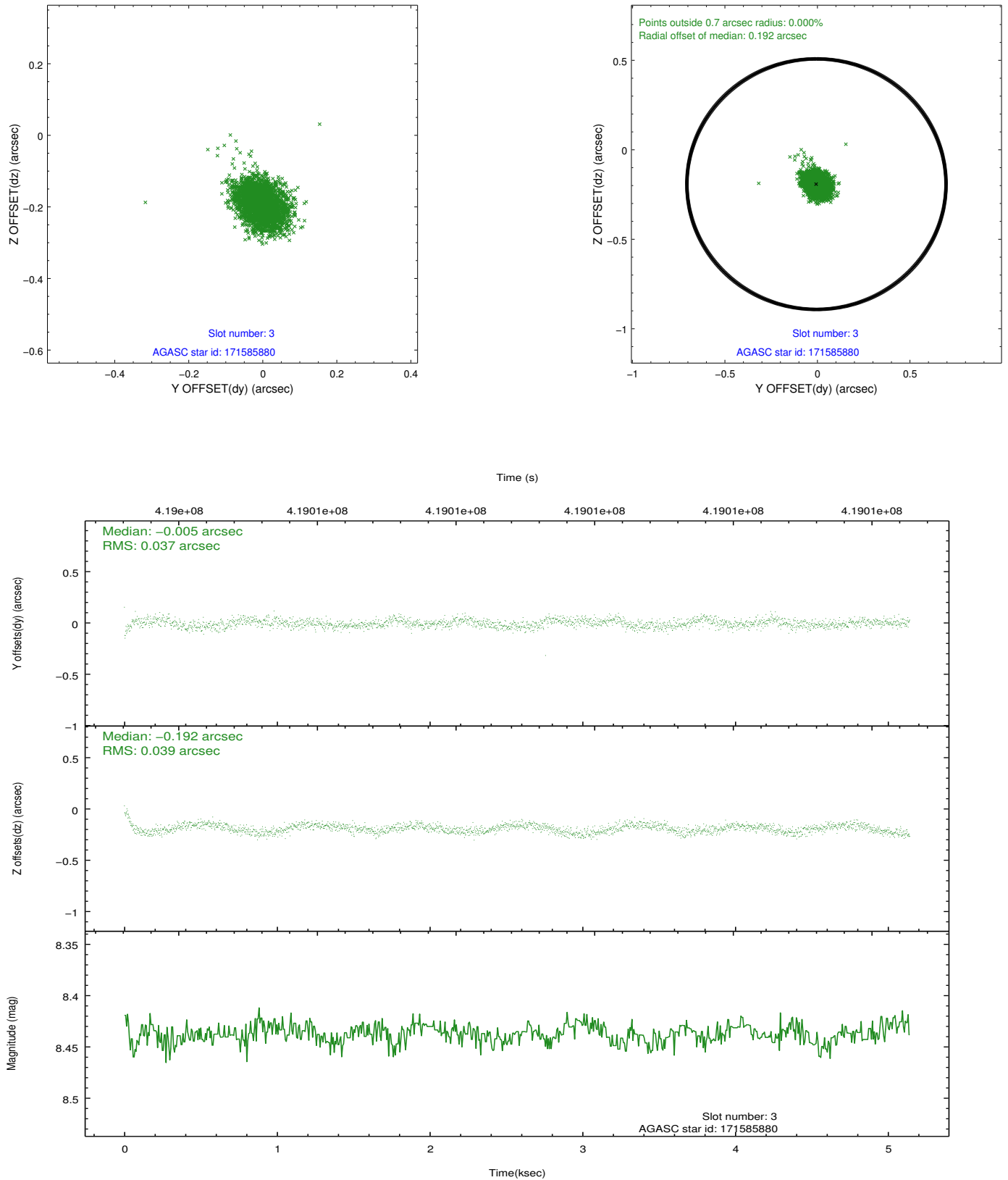


Slot Statistics

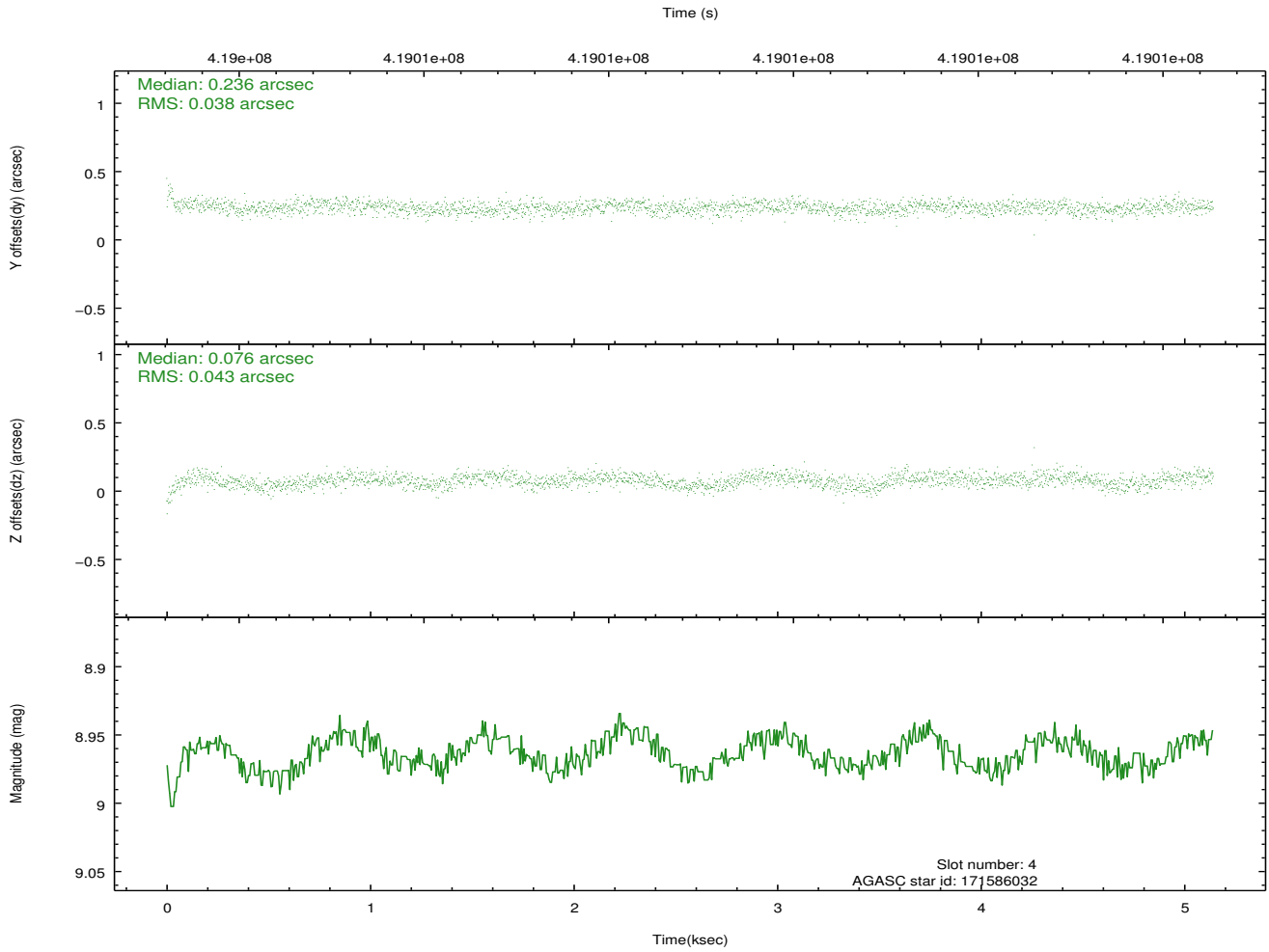
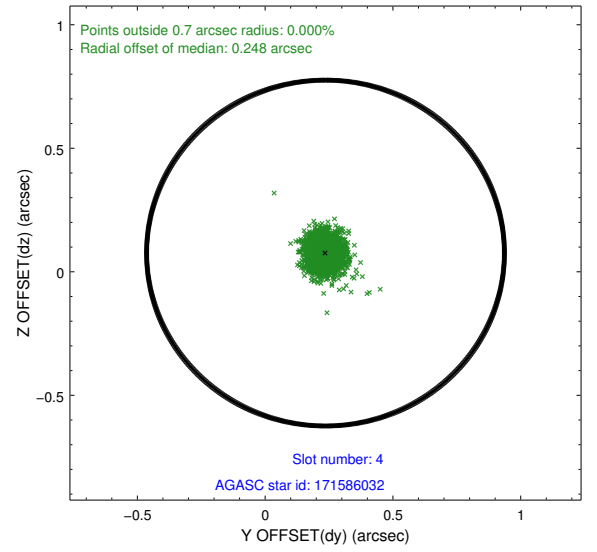
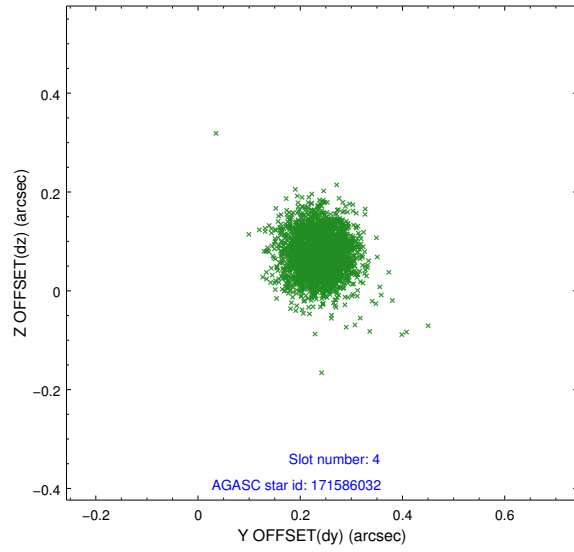
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.95	1254	-0.068	-0.130	0.011	0.020	0.000000	0.000000	-764.97	-1839.81
1	FID	ACIS-S-4	7.04	1254	0.189	0.067	0.007	0.013	0.000000	0.000000	2148.06	67.52
2	FID	ACIS-S-5	7.07	1254	-0.151	0.071	0.010	0.018	0.000000	0.000000	-1816.35	62.59
3	GUIDE	171585880	8.44	2509	-0.005	-0.192	0.056	0.089	83.676260	22.176319	-498.47	223.92
4	GUIDE	171586032	8.96	2509	0.236	0.076	0.060	0.097	83.950197	22.083225	-134.70	1126.80
5	GUIDE	171721904	9.23	2509	-0.023	0.089	0.086	0.135	84.272676	22.116922	-224.33	2205.92
6	GUIDE	243941560	8.34	2509	-0.283	0.038	0.047	0.077	83.733264	22.568598	-1904.02	460.01
7	GUIDE	171597832	9.23	2493	0.074	-0.012	0.113	0.172	83.183230	21.366702	2357.83	-1522.14

2.4 Star Slots

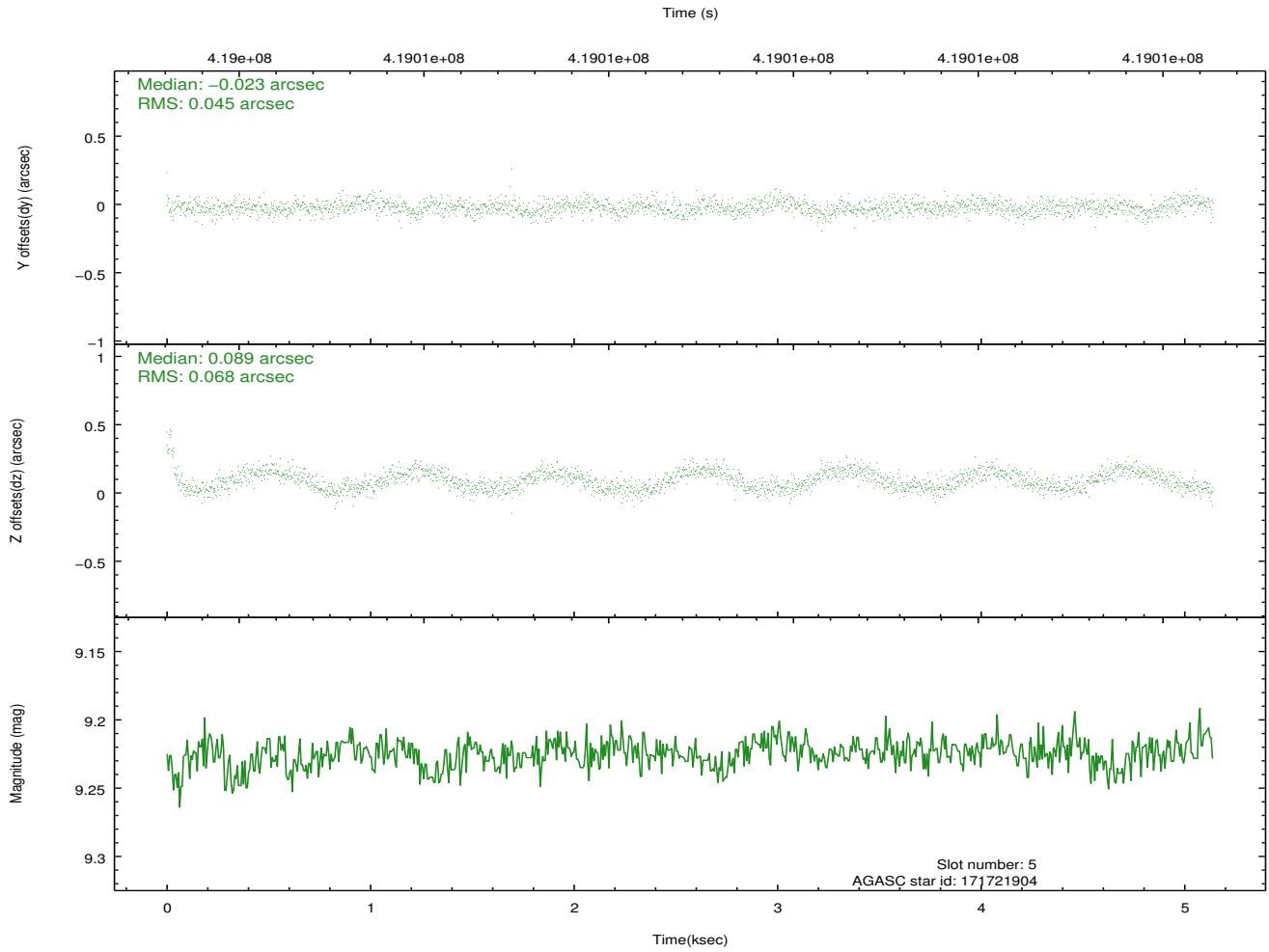
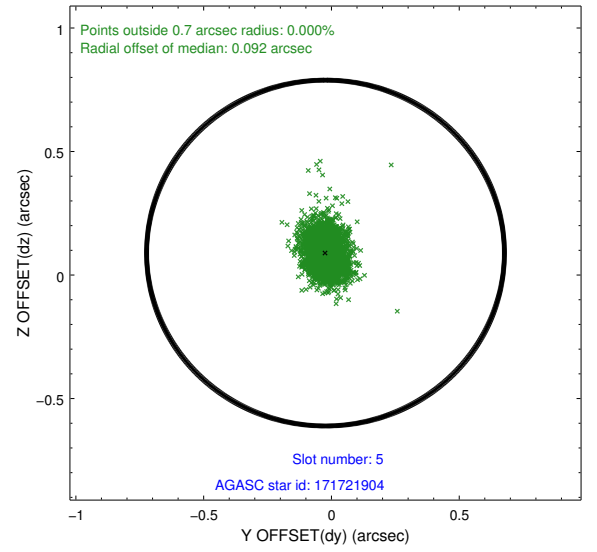
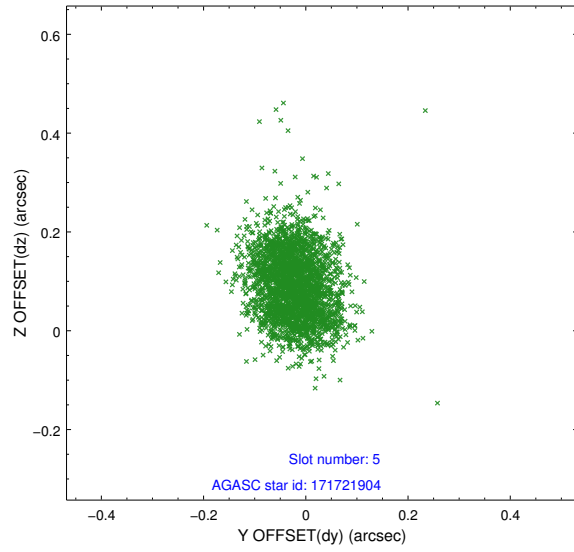
2.4.1 Slot 3



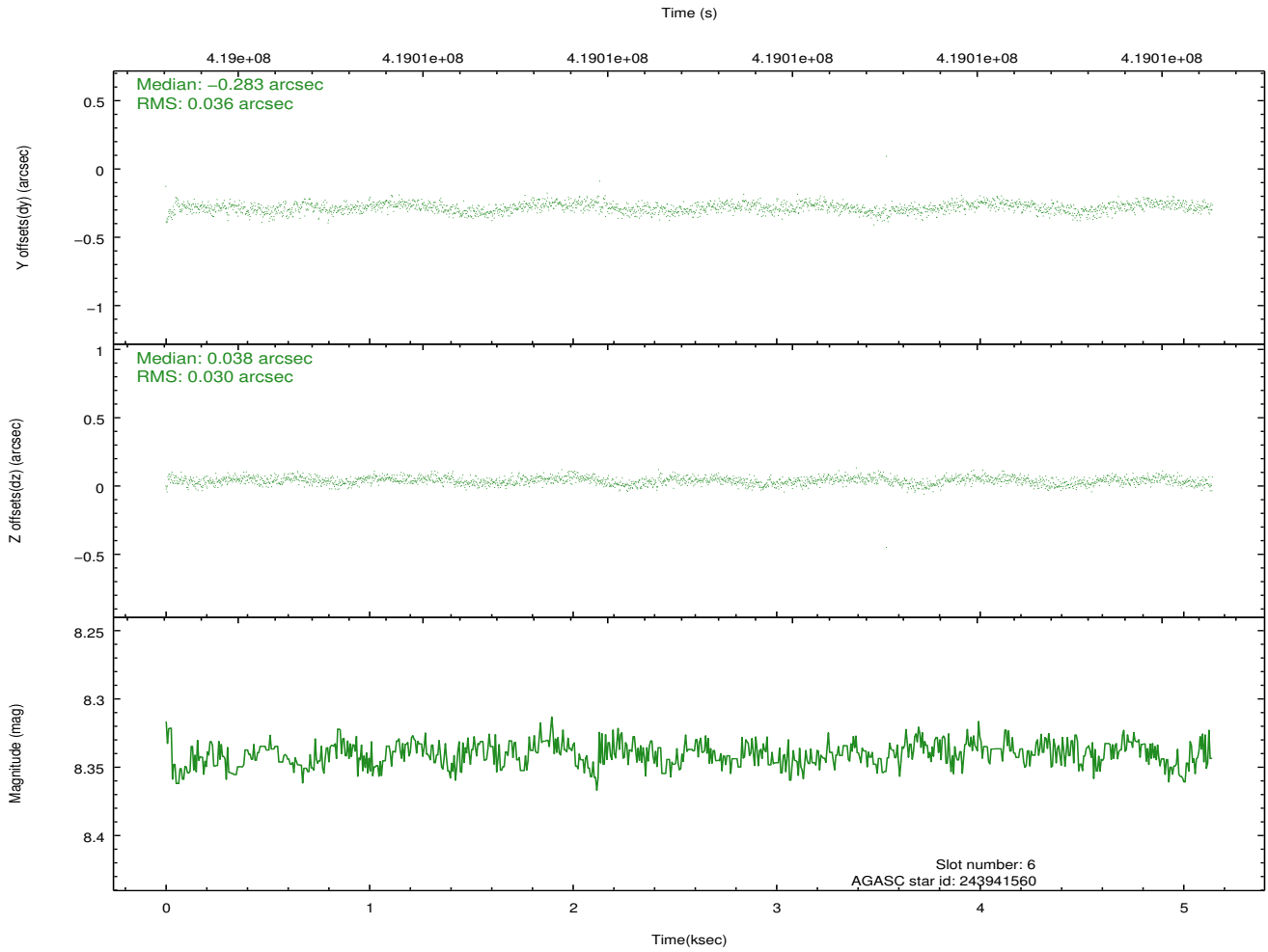
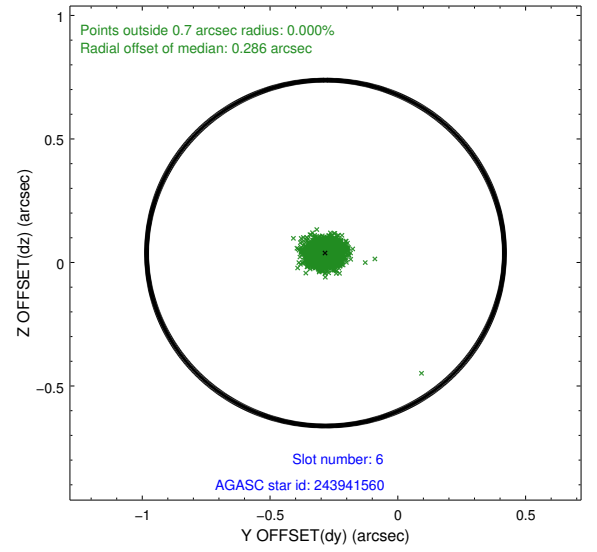
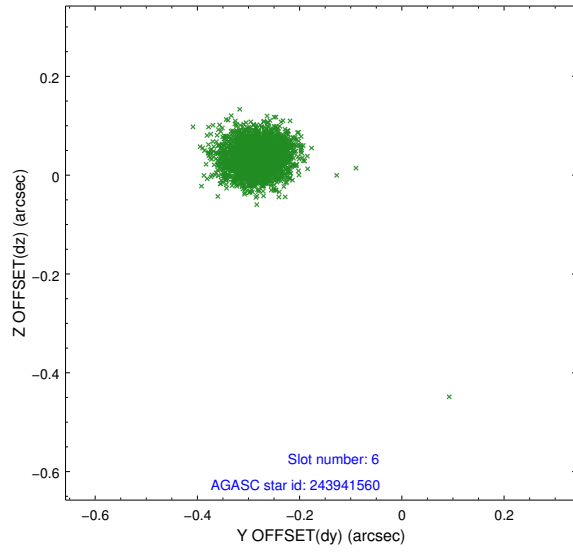
2.4.2 Slot 4



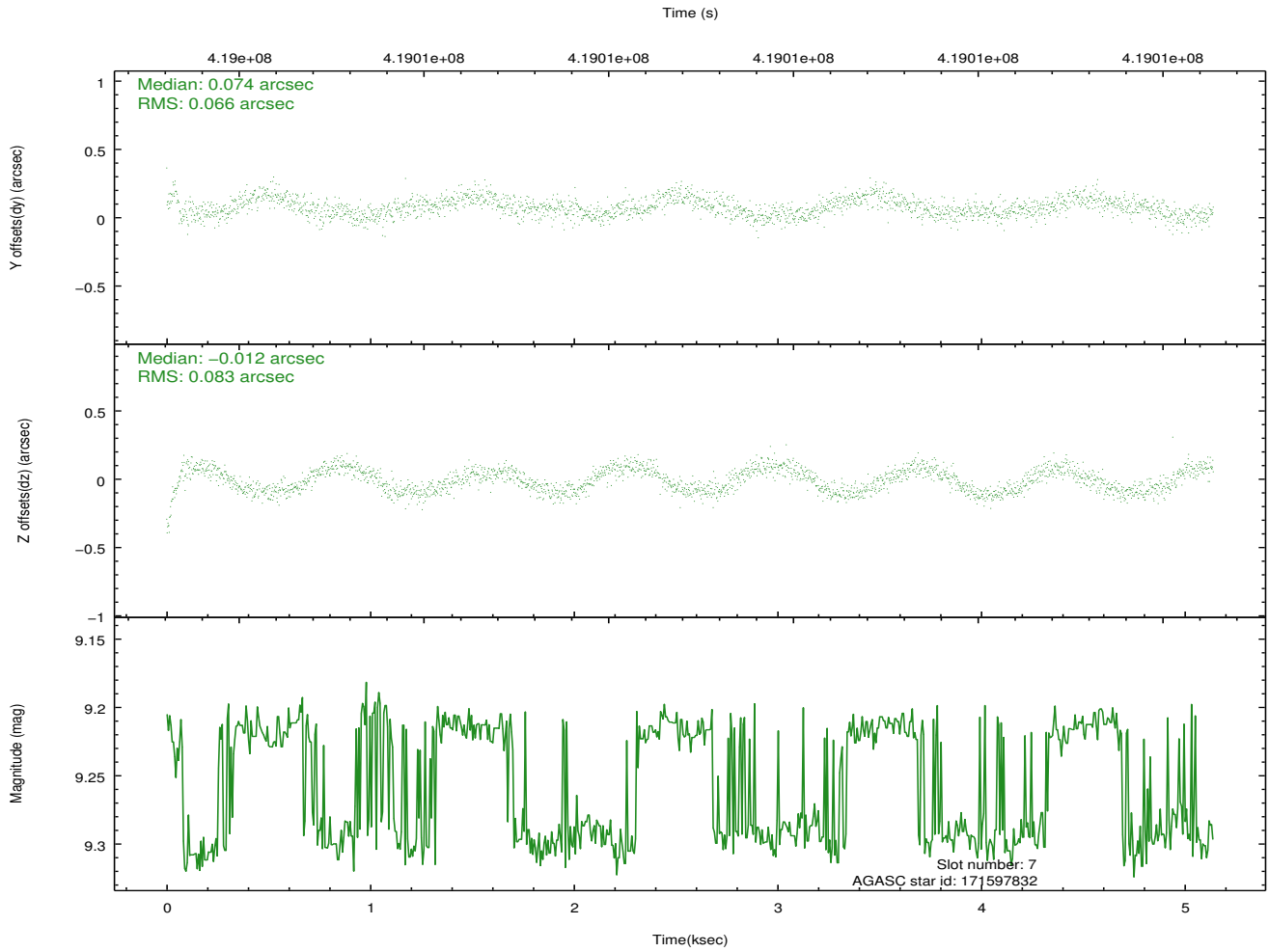
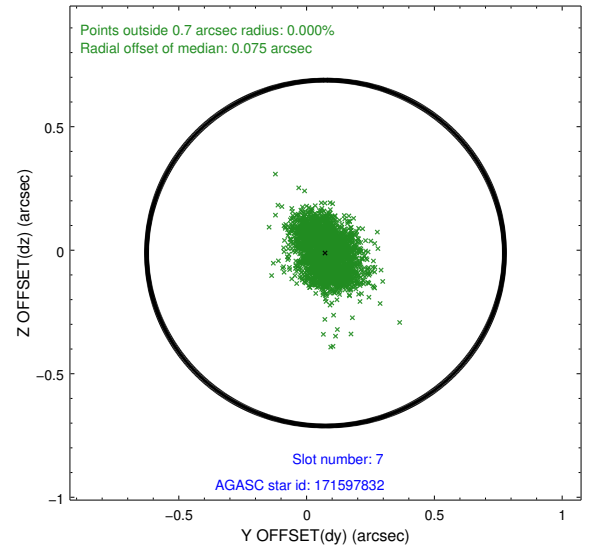
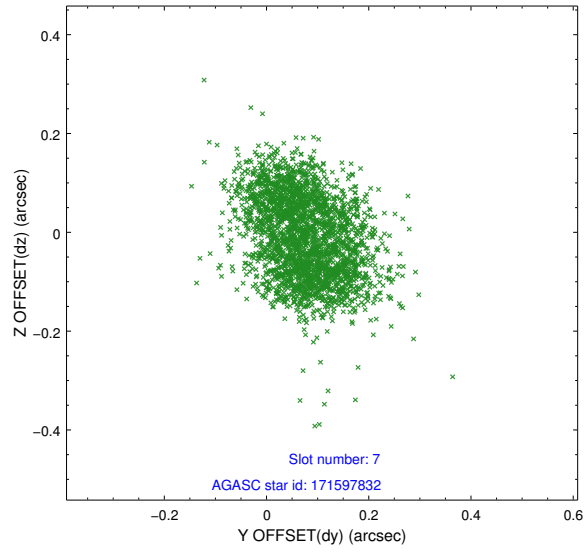
2.4.3 Slot 5



2.4.4 Slot 6

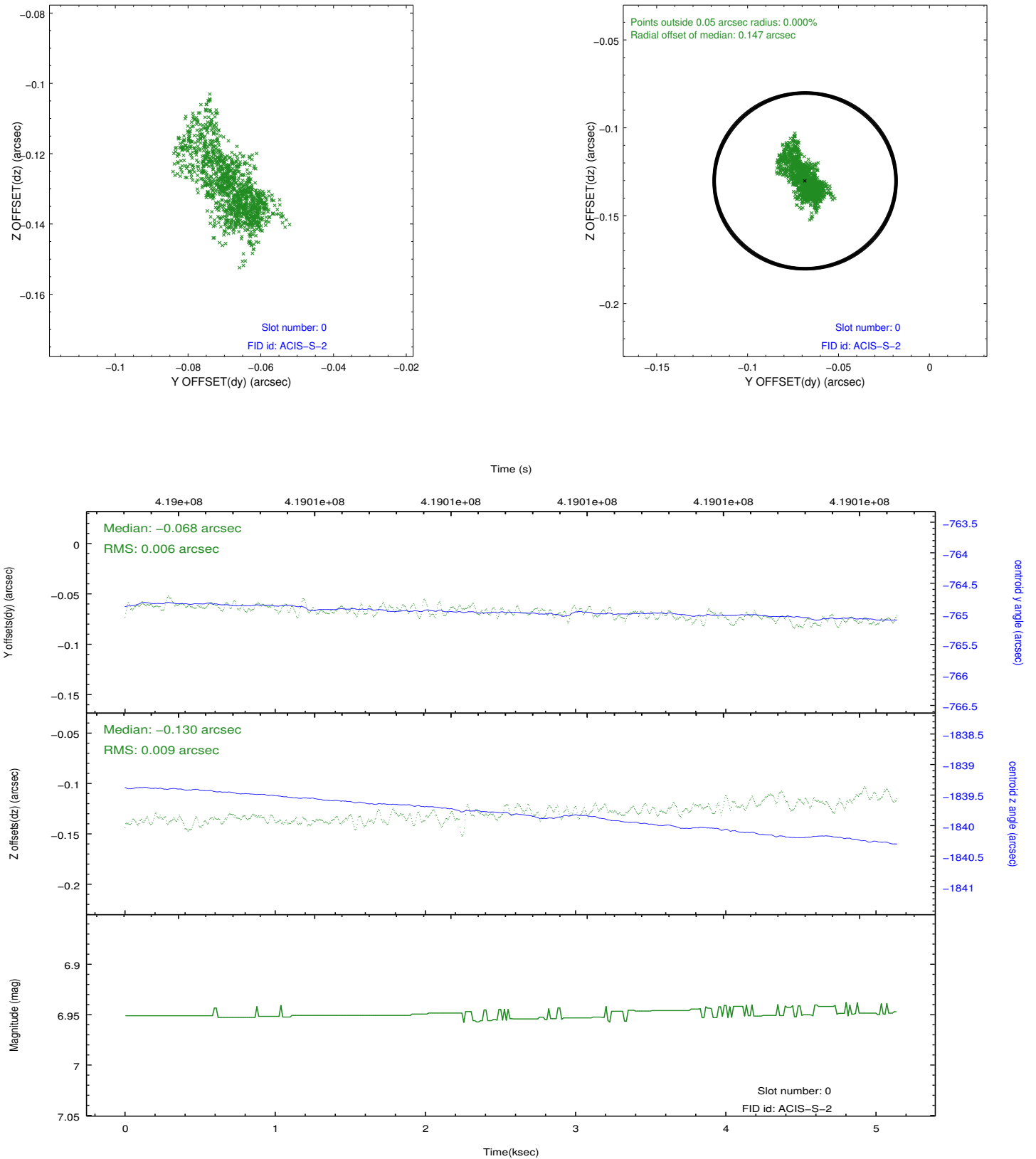


2.4.5 Slot 7

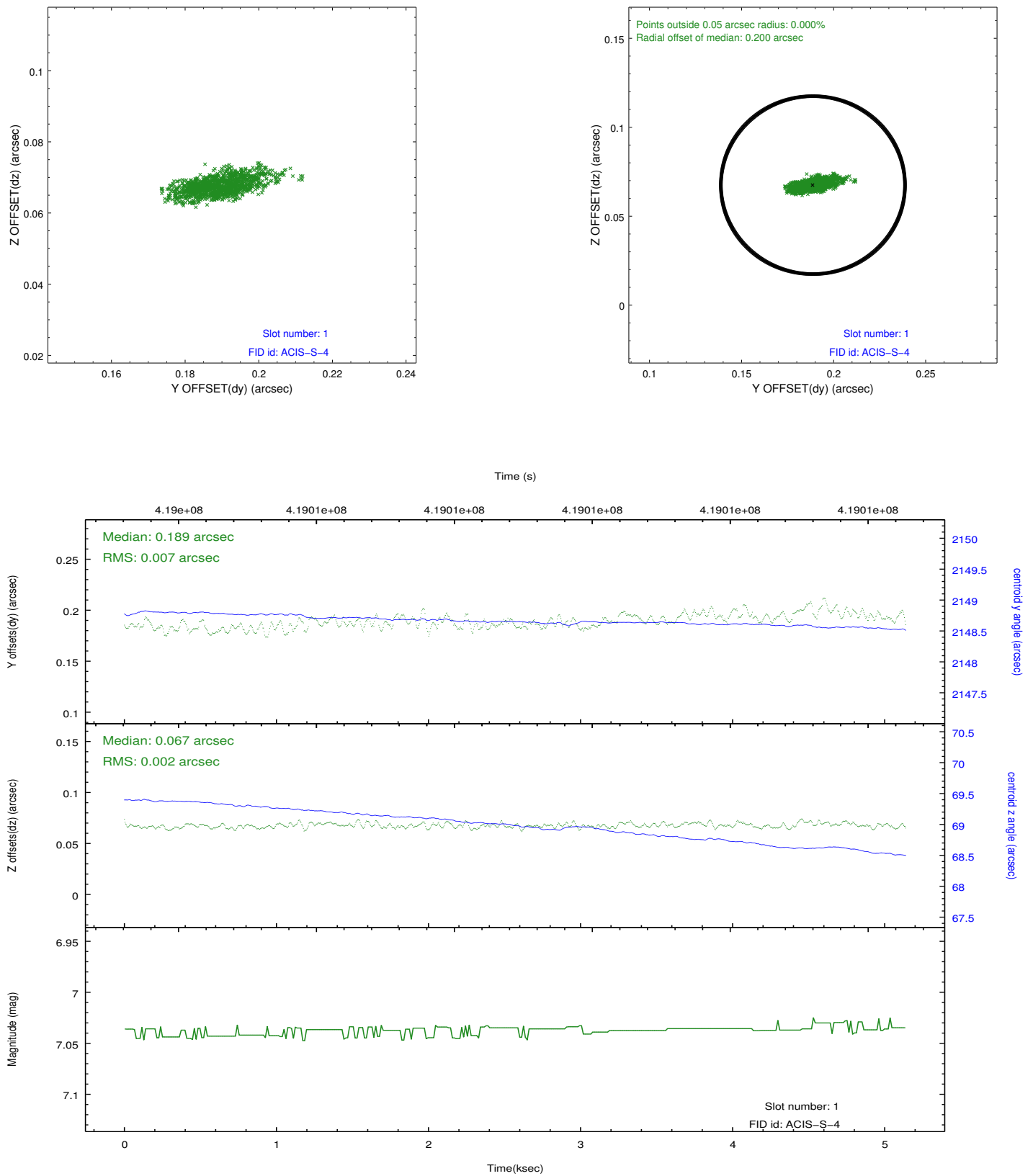


2.5 FID Slots

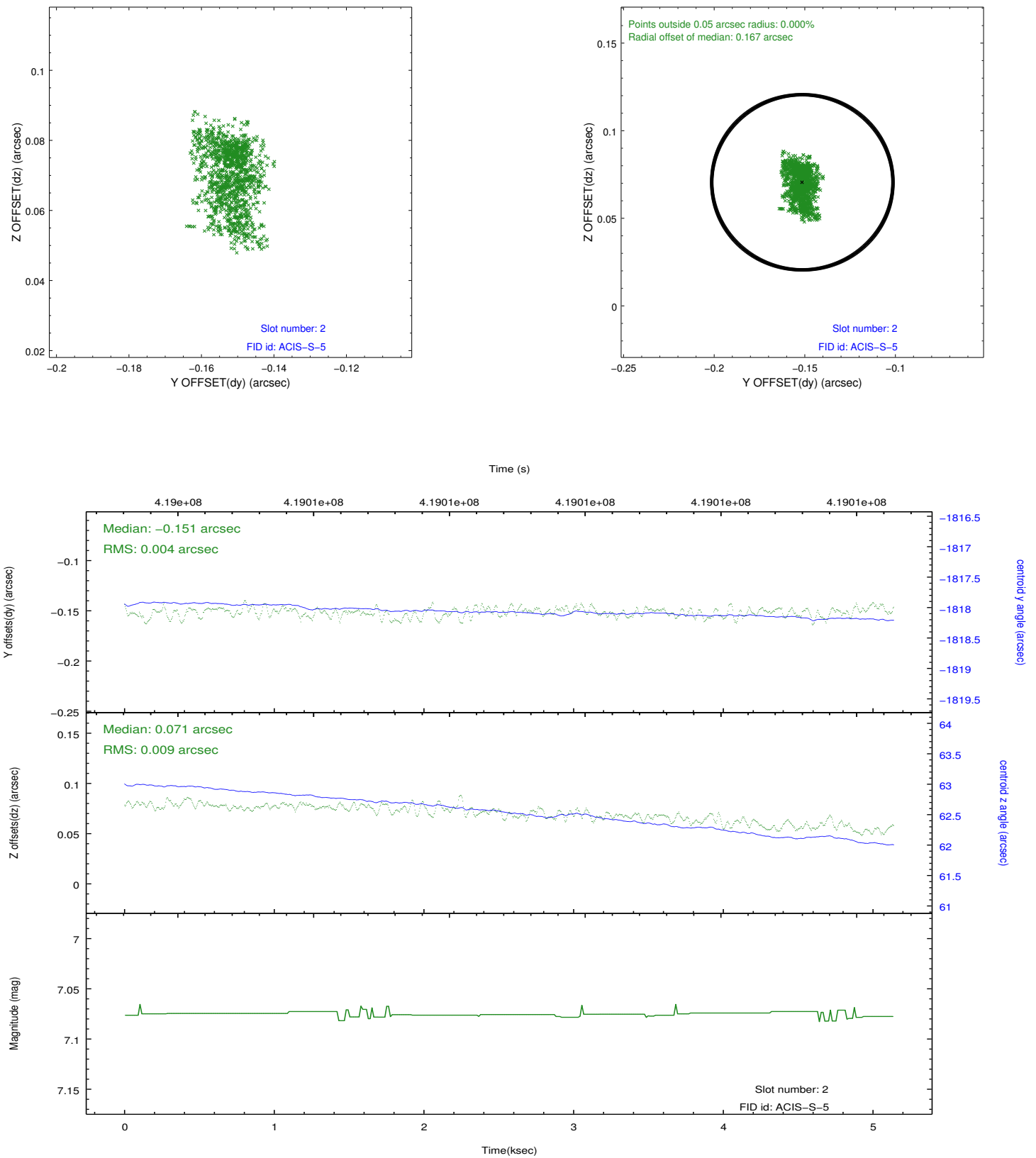
2.5.1 Slot 0



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)	2012.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5

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.

=====

Charge time: ONTIME of 3342.1462 seconds is less than 85% of expected scheduled time of 5000 seconds This is due to telemetry saturation, since the source is so bright. Charge time was adjusted to the elapsed time of 5000s.

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Monitor constraint met.