

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 1994 - L2 Version 3
Chandra X-Ray Center

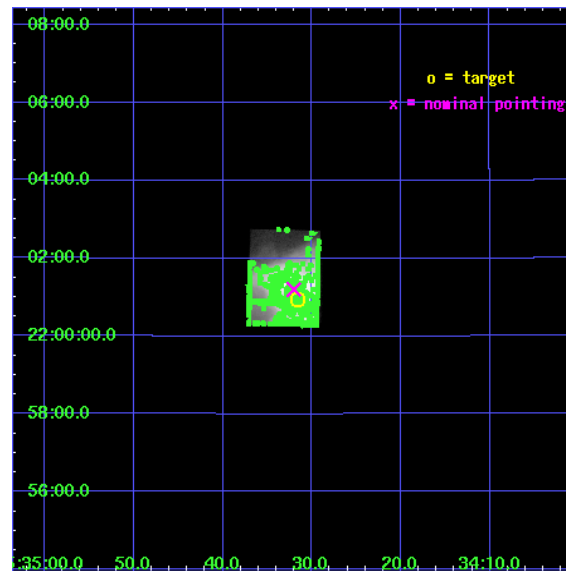
L2 Processing Date : Aug 22 2007

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Parameters	4
2.1.3	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Point Sources	17
A	Summary	18
A.1	Status	18
A.2	Comments	18

1 Front

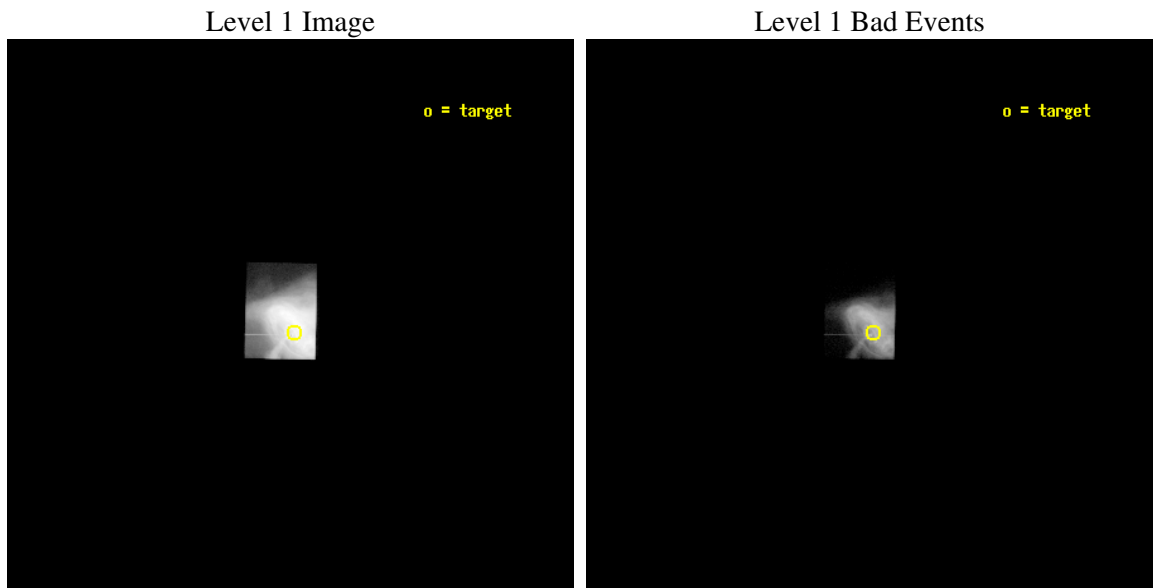
seq_num	500171
obs_id	1994
title	COORDINATED CHANDRA/HST OBSERVATIONS OF THE CRAB NEBULA
observer	PROF. JEFF HESTER
object	CRAB NEBULA
dtcycle	0
cycle	P
ra_targ	83.631667
dec_targ	22.015667
ra_nom	83.633465427449
dec_nom	22.019907606416
roll_nom	91.209601845056
revision	3
ontime	18534.276178911
livetime	3241.7315875942
ontime7	18534.276178911
l2events	8897826



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0
ascdsver	7.6.11
caldbver	3.4.0
date	2007-08-22T19:06:11
revision	3

sched_exp_time	25000.000000
ontime	18534.276178911
ontime7	18534.276178911
l1events	10194293

2.1.3 Events

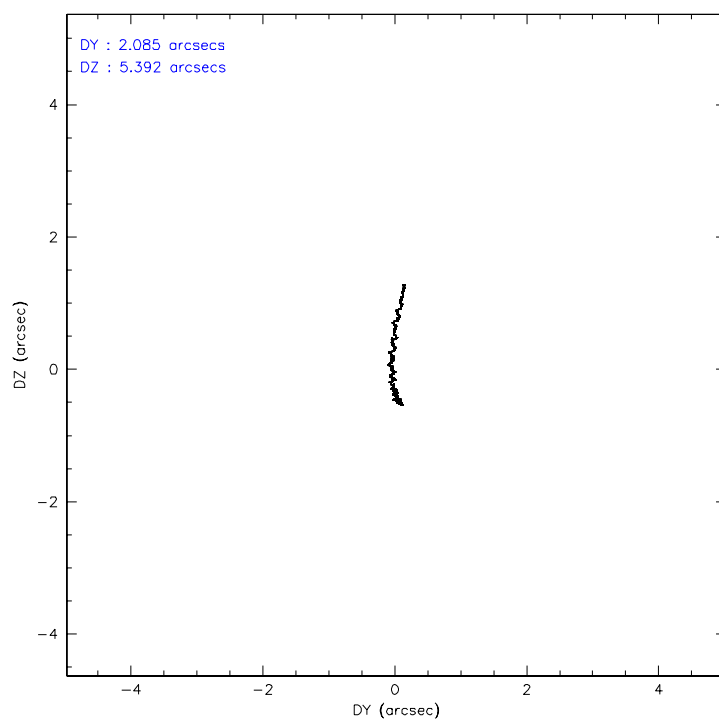
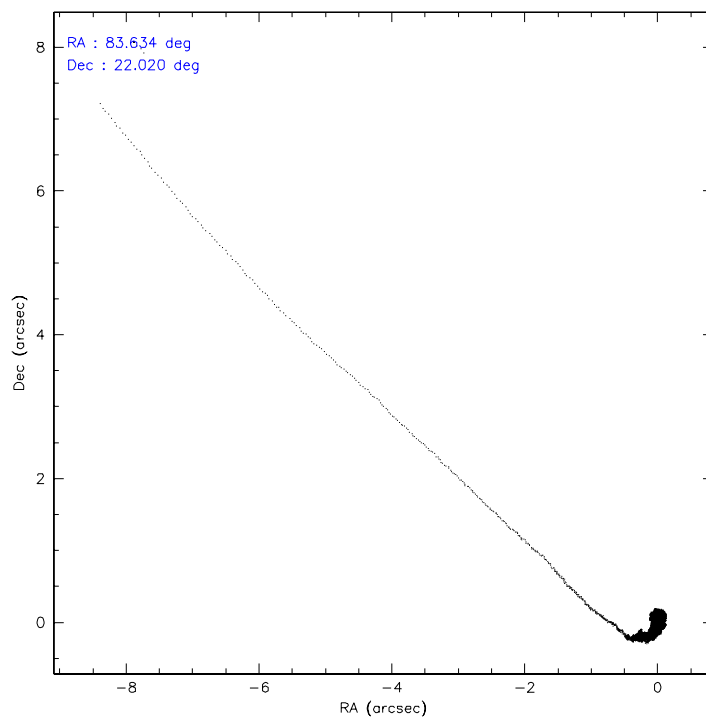
	ccd 7
level 1 events	10194293
rejected events	1207470
rejected %	11%

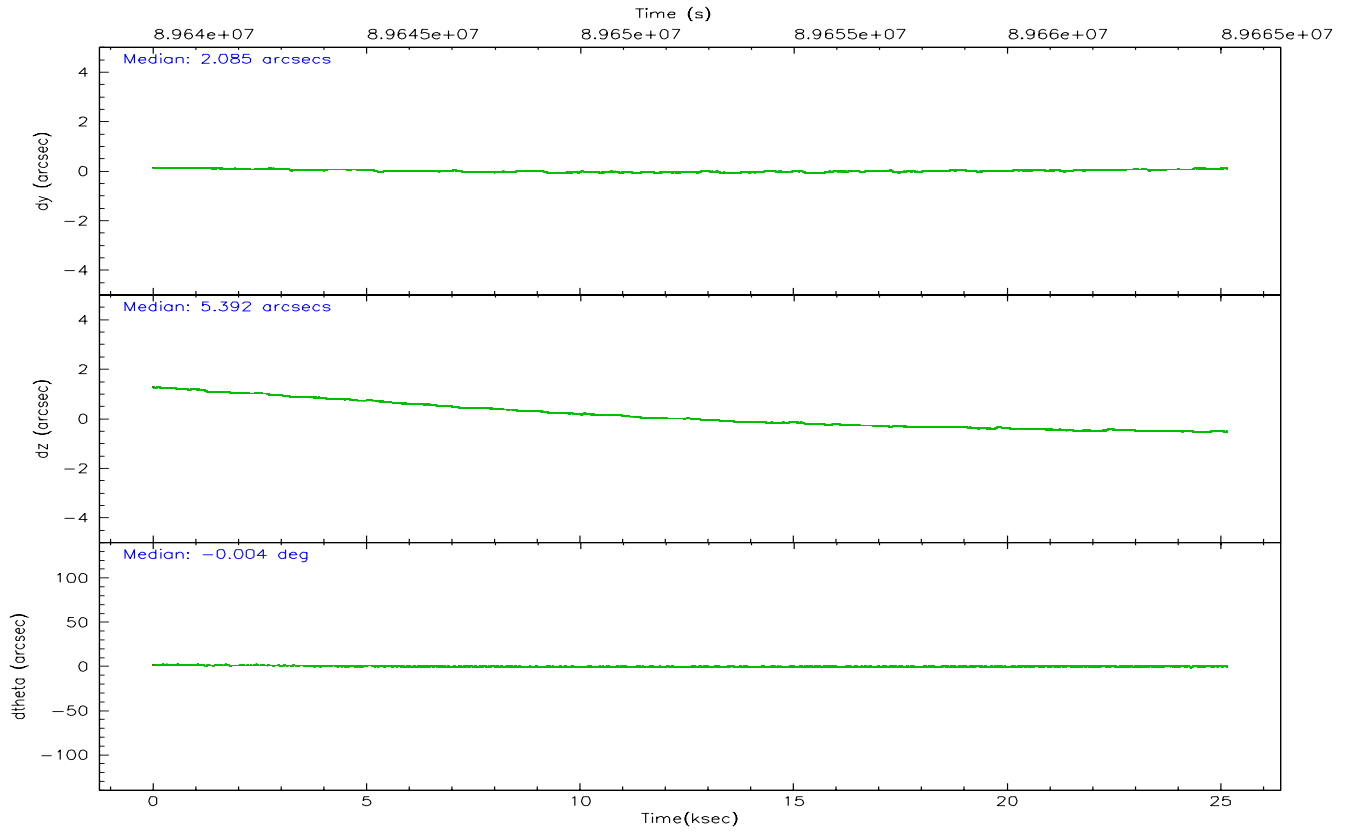
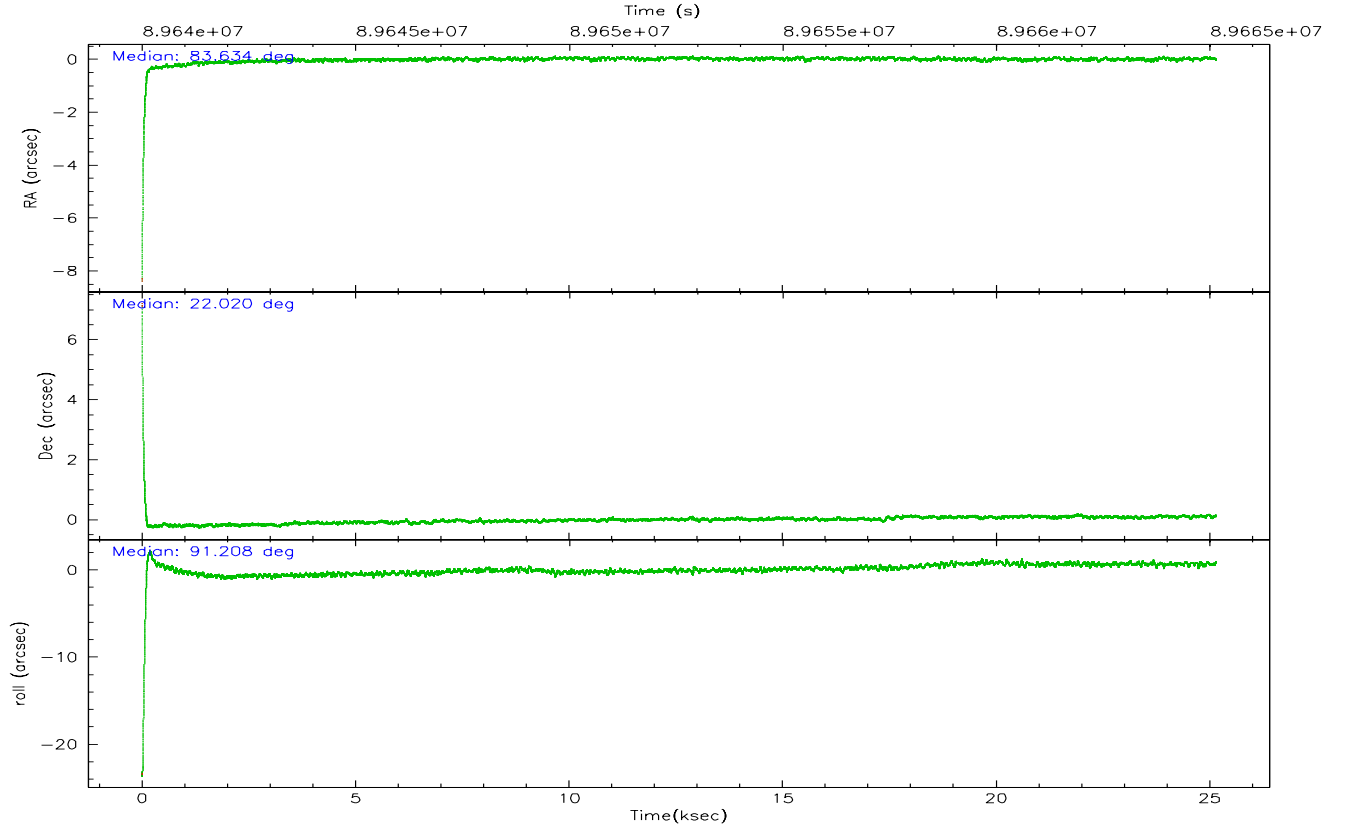
	ccd 7
grade 0 events	1972772
	19%
grade 1 events	148383
	1%
grade 2 events	2402411
	23%
grade 3 events	1043989
	10%
grade 4 events	1028731
	10%
grade 5 events	409631
	4%
grade 6 events	2604244
	25%
grade 7 events	584132
	5%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
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
Pointing RA	83.648943	83.6334654274492	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	21.996624	22.01990760641603	Subarray start row	29	29
Pointing Roll	91.047193	91.20960184505634	Subarray row count	300	300
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.000000	0.2
SIM translation stage pos (mm)	-182.132523	-182.1370004450064			
SIM translation stage offset (mm)	-8	-7.995522138001405			
Observation start time	89640145.184000	89639003.15835901			
Observation start date	2000-11-03T12:01:21	2000-11-03T11:43:23			
Observation end time	89665145.184000	89665836.634372			
Observation end date	2000-11-03T18:58:01	2000-11-03T19:10:36			
Read mode	TIMED	TIMED			

2.3 Aspect



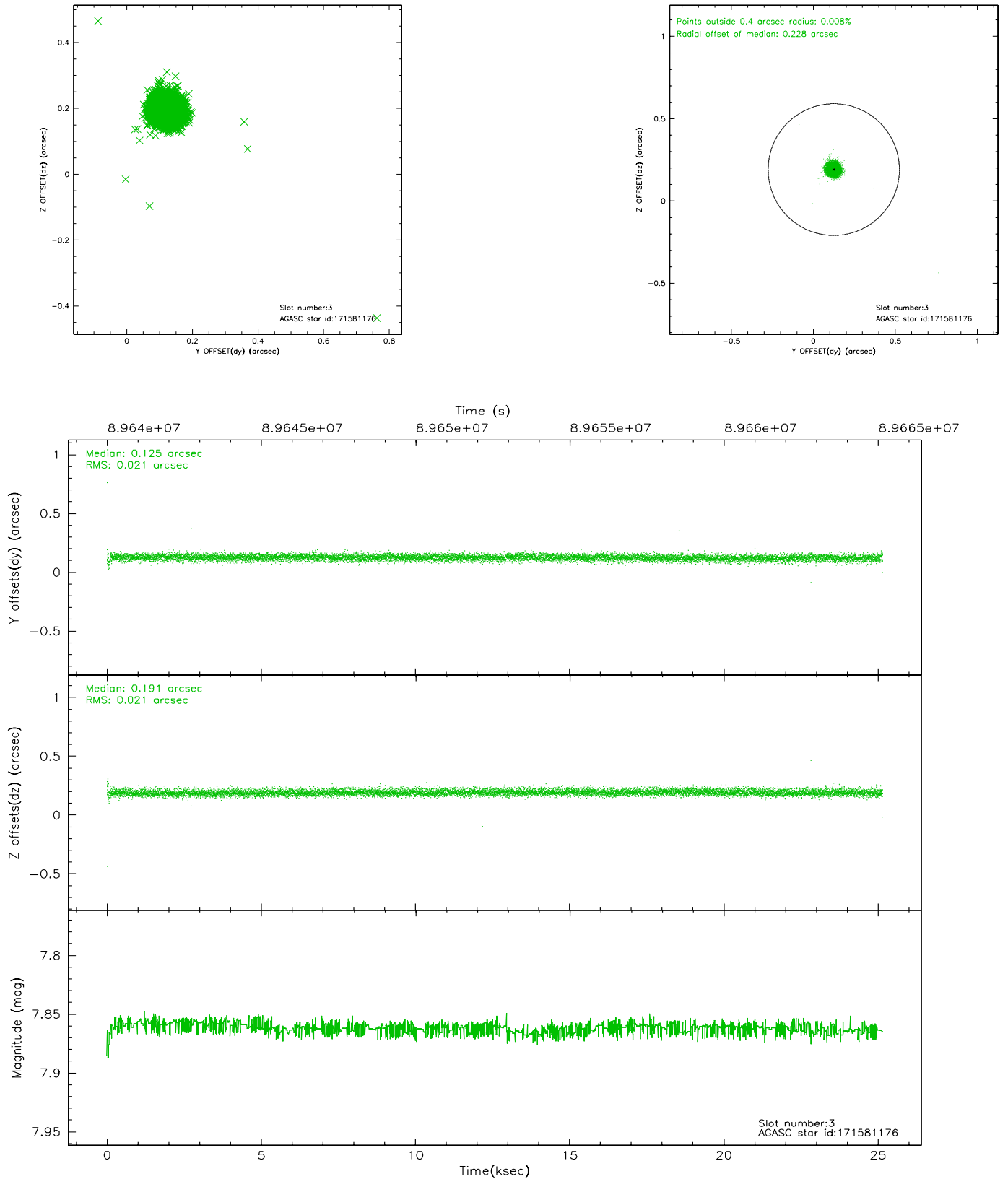


Slot Statistics

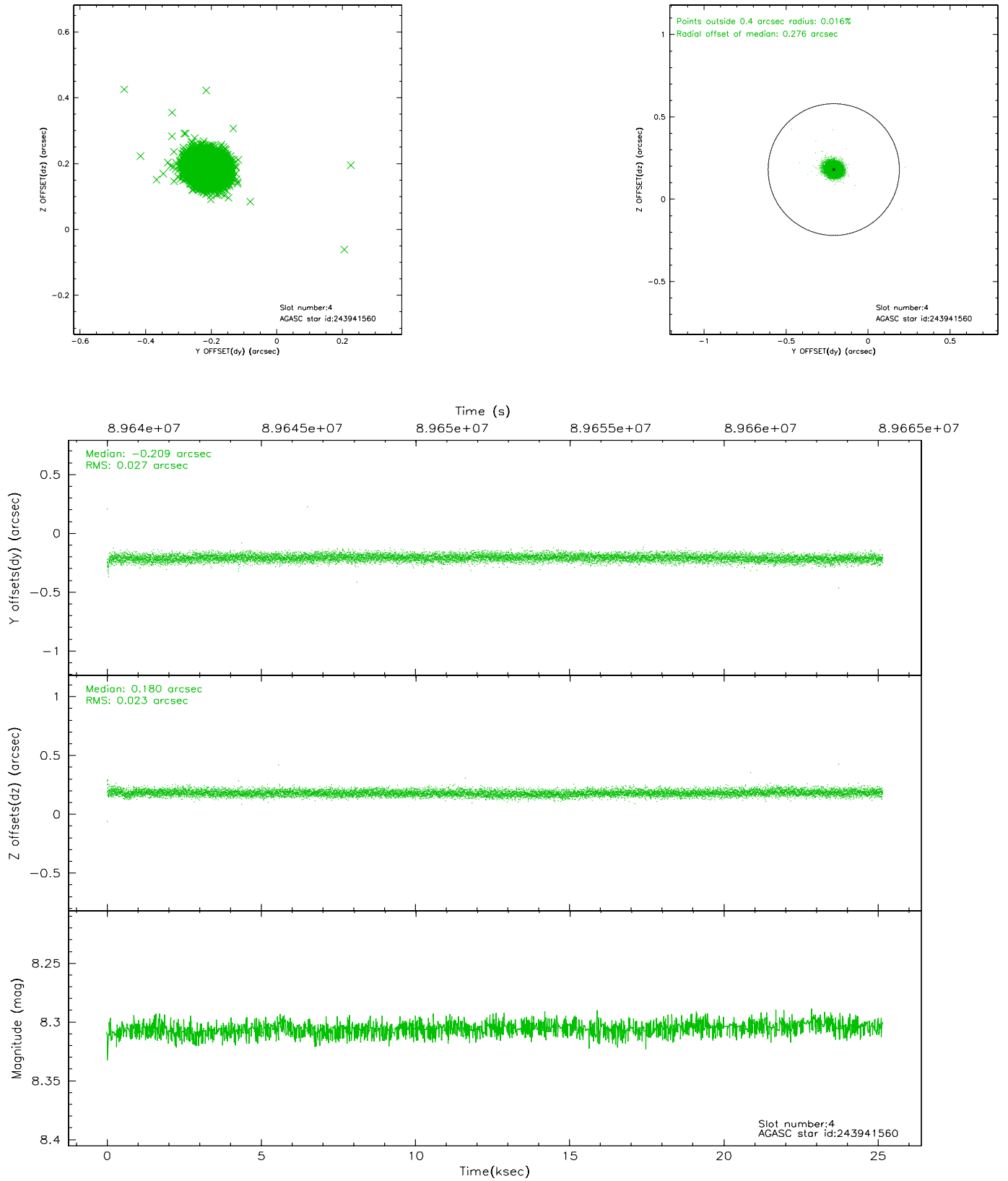
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	6135	-0.046	-0.051	0.013	0.031	0.000000	0.000000	-754.19	-1891.42
1	FID	ACIS-S-4	7.18	6135	-0.001	0.035	0.011	0.021	0.000000	0.000000	2159.08	16.99
2	FID	ACIS-S-5	7.23	6135	0.016	0.022	0.012	0.028	0.000000	0.000000	-1806.82	10.79
3	GUIDE	171581176	7.86	12270	0.125	0.191	0.029	0.048	83.918863	21.403256	-2150.77	-864.82
4	GUIDE	243941560	8.31	12267	-0.209	0.180	0.036	0.060	83.733264	22.568598	2053.94	-317.09
5	GUIDE	171586976	8.47	12268	-0.061	0.061	0.038	0.063	83.857953	22.438065	1577.42	-723.73
6	GUIDE	171586792	9.06	12262	-0.051	-0.193	0.052	0.084	83.501733	22.424168	1548.76	462.11
7	GUIDE	171597832	9.18	12265	0.198	-0.241	0.055	0.094	83.183230	21.366702	-2235.61	1602.91

2.4 Star Slots

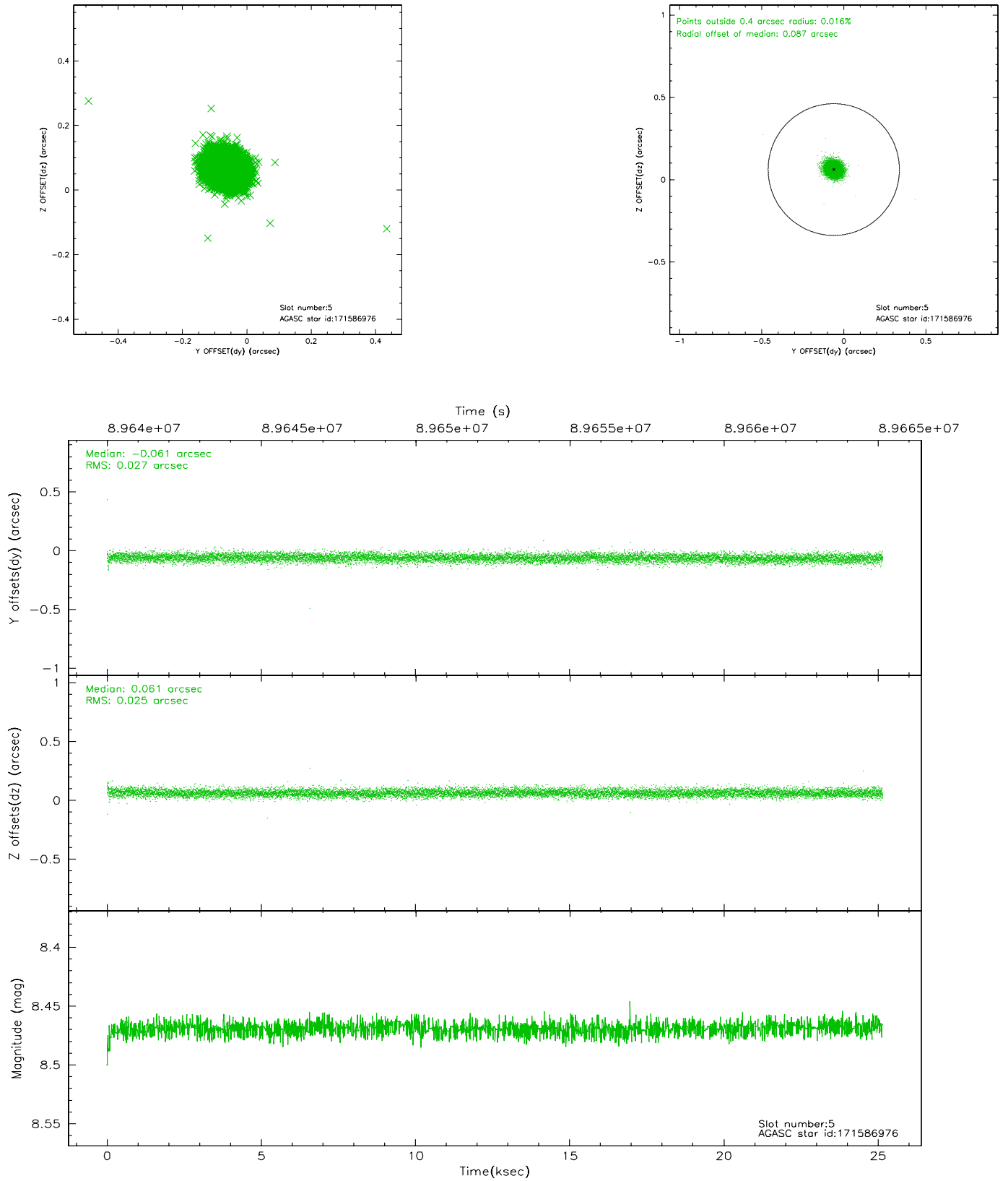
2.4.1 Slot 3



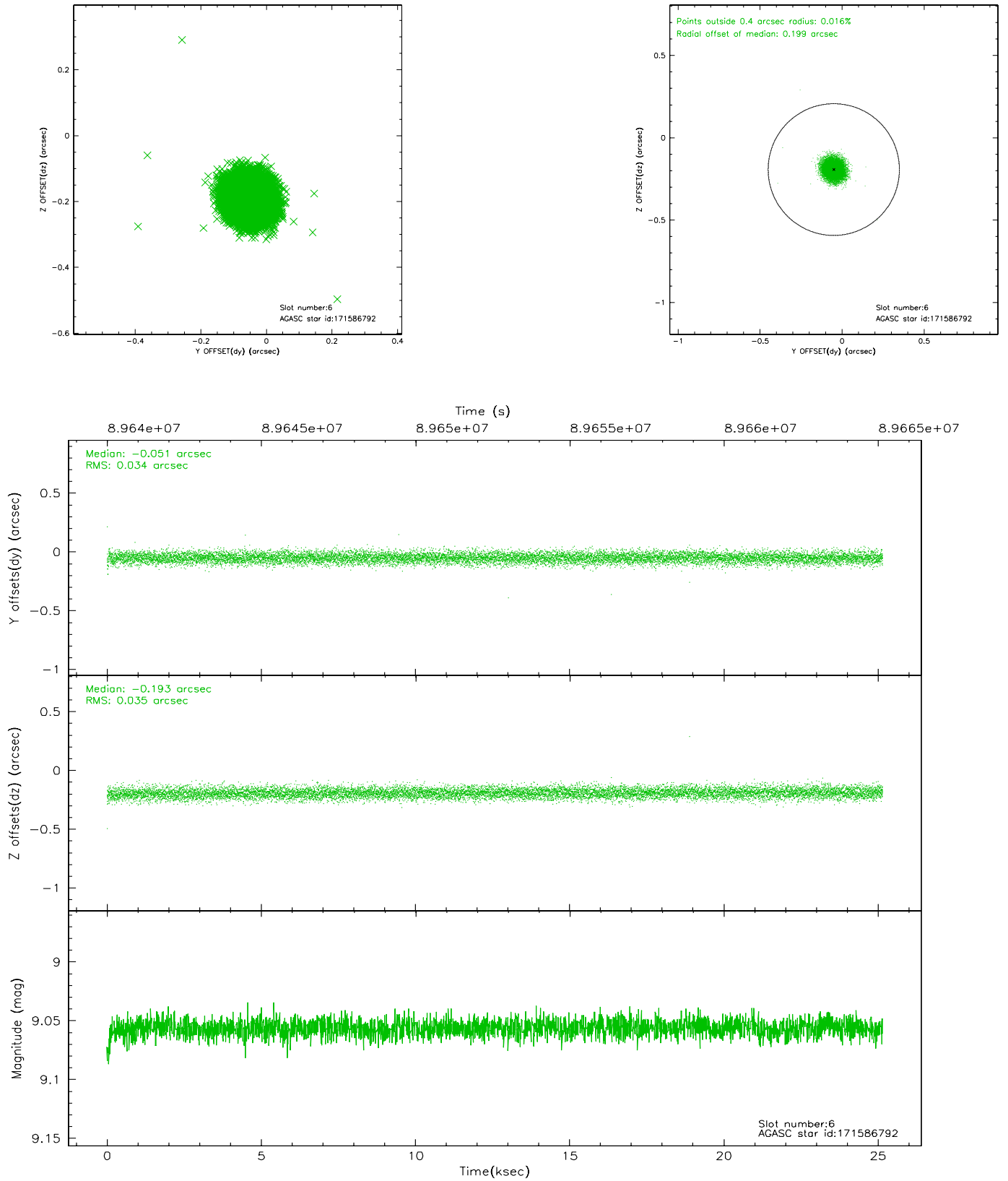
2.4.2 Slot 4



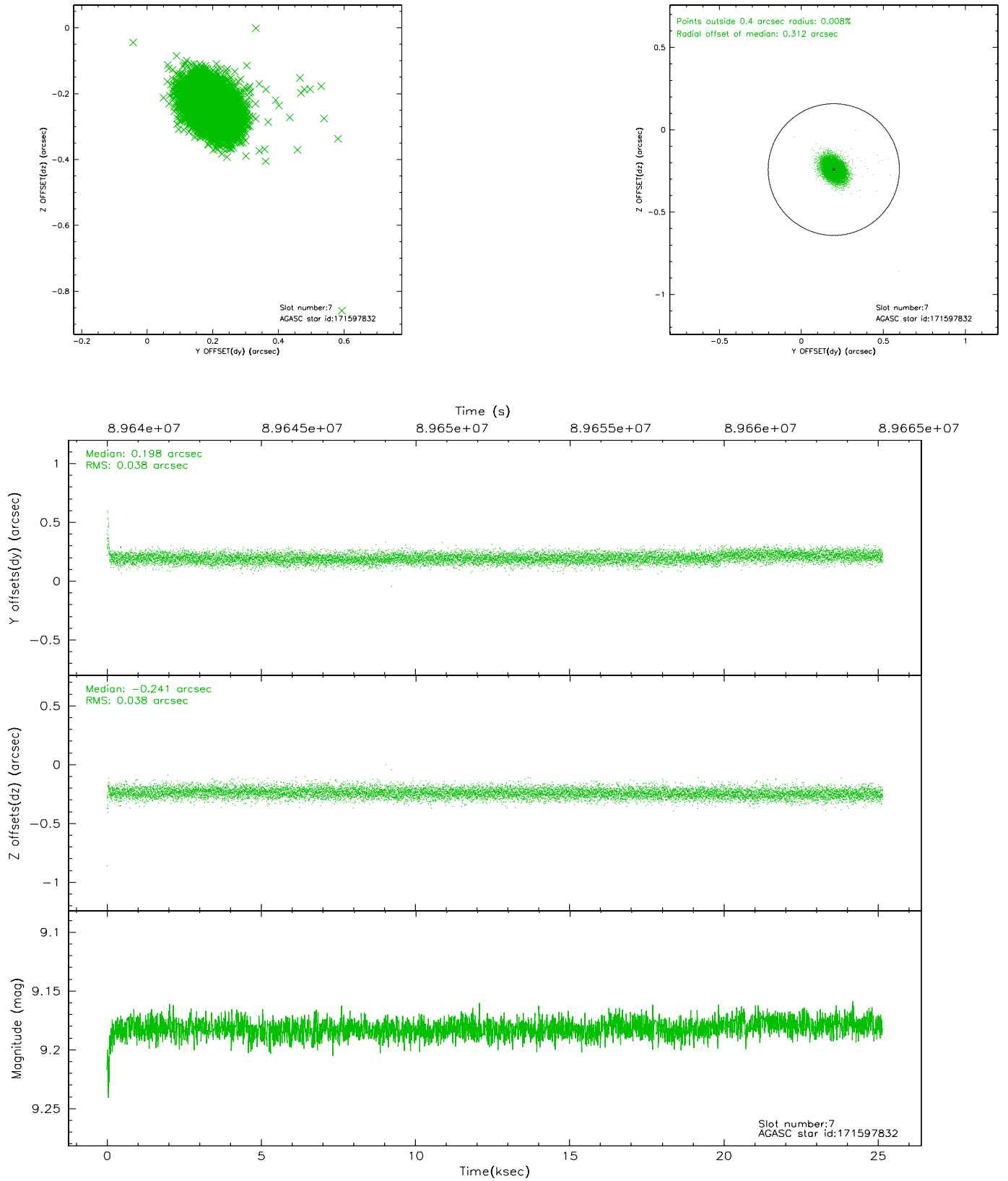
2.4.3 Slot 5



2.4.4 Slot 6

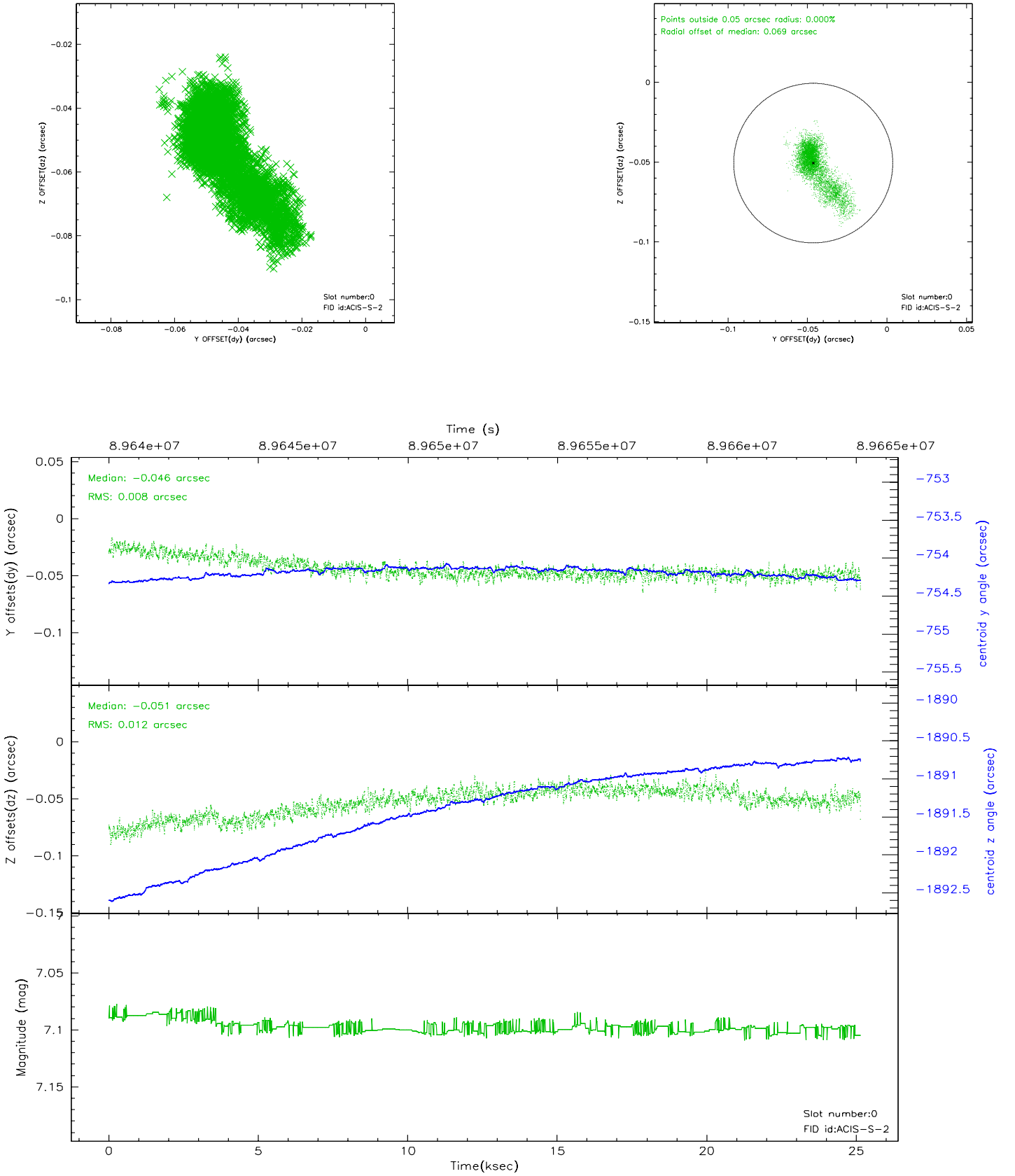


2.4.5 Slot 7

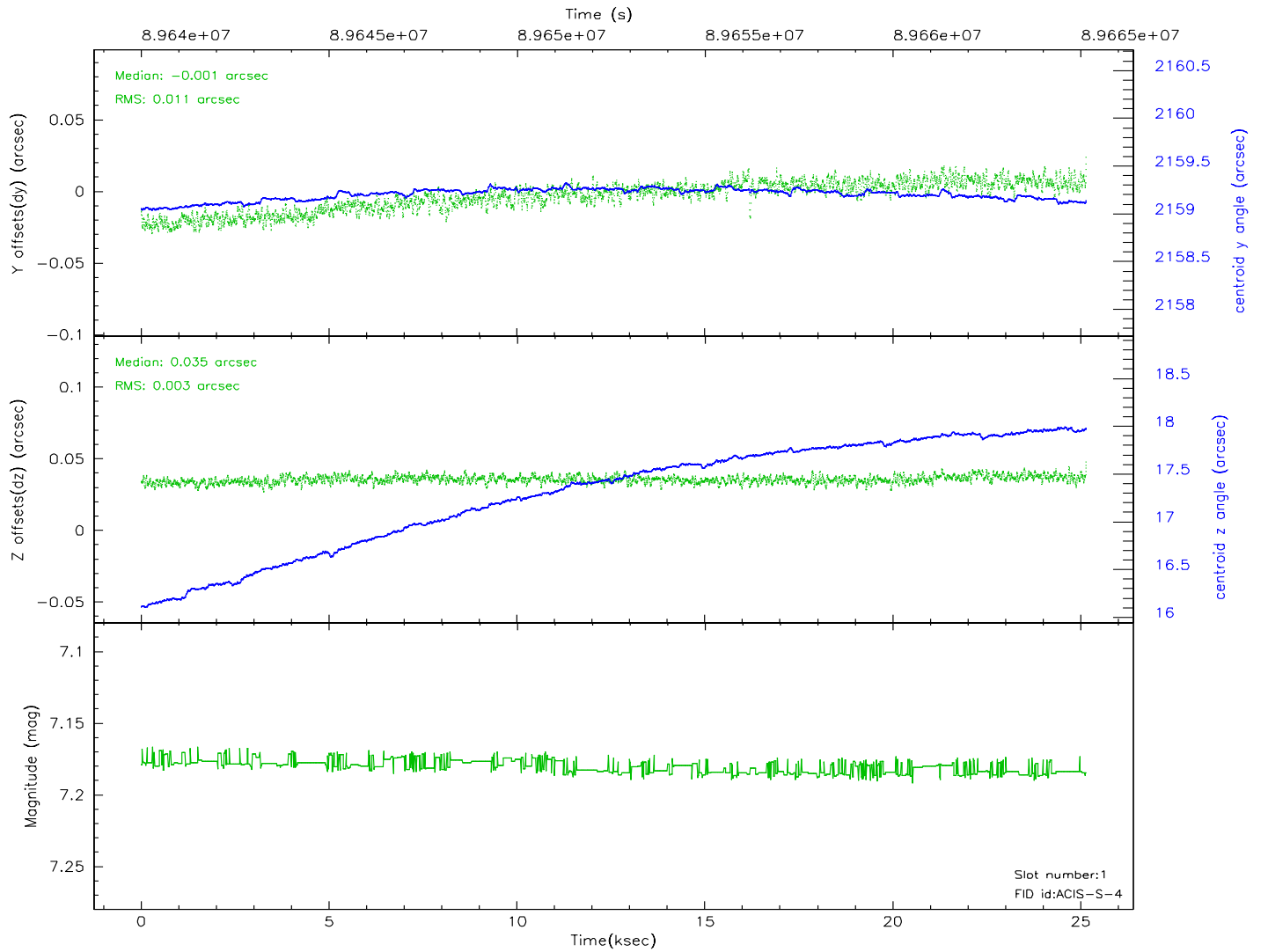
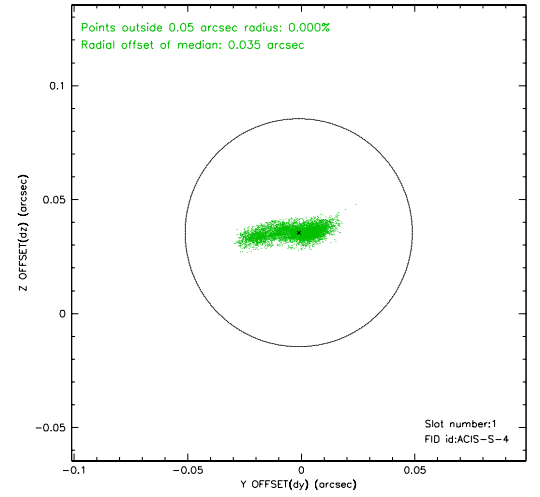
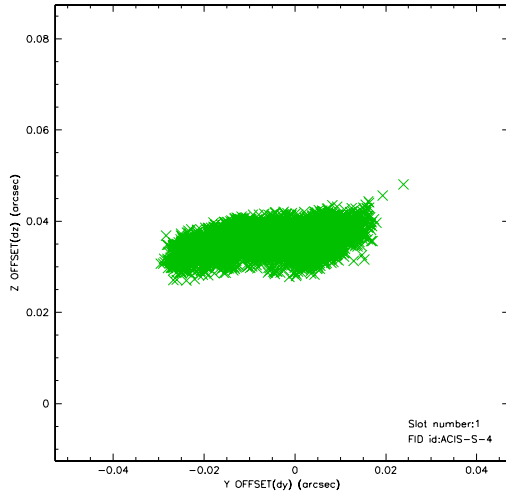


2.5 FID Slots

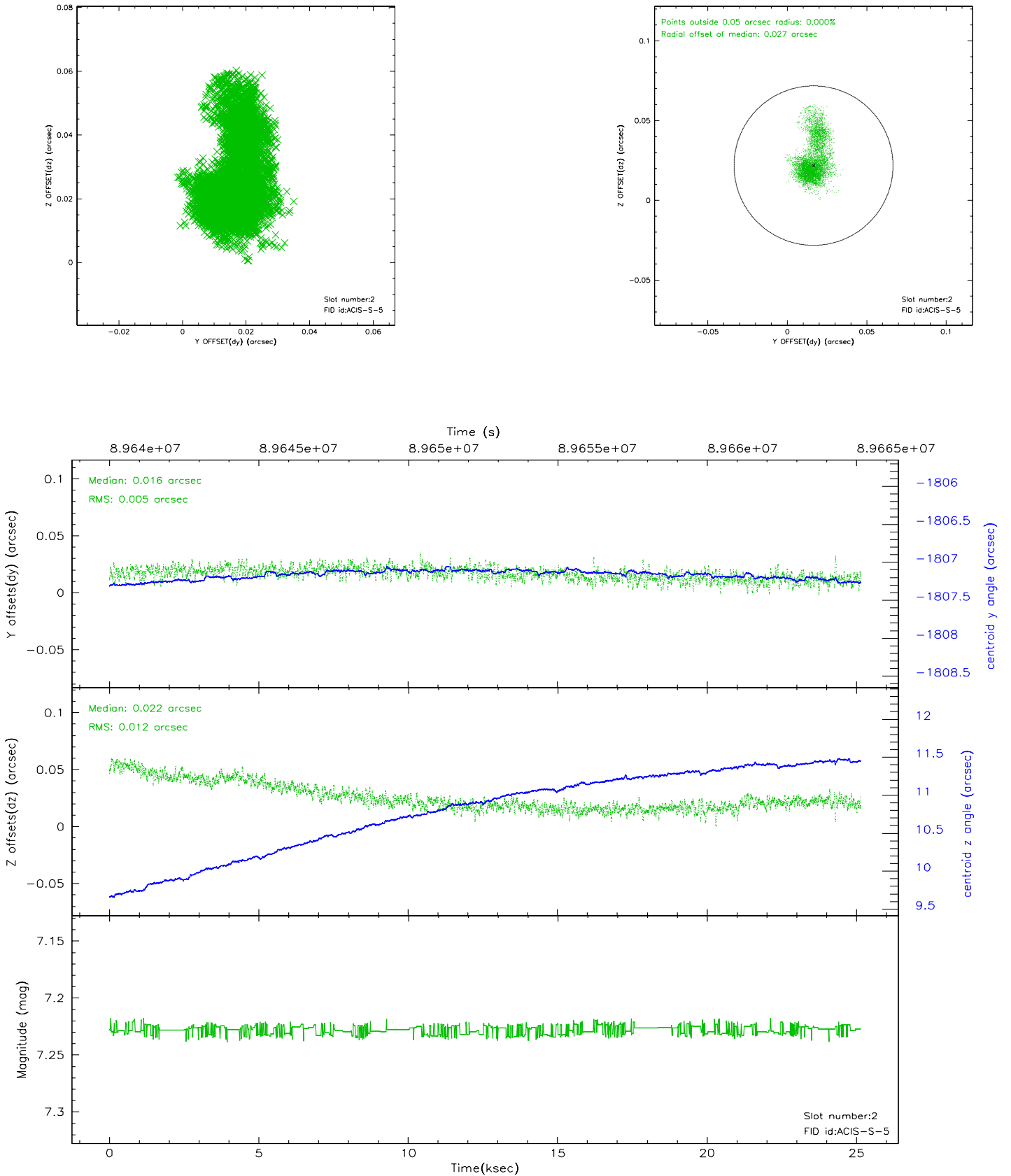
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources

A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.08.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.99

A.2 Comments

Charge time for this ObsId remains at original value of 23.99 ks,
although
with the current processing the charge time would have been 18.53 ksec.
=====

WARNING: incorrectly placed spatial inclusion window. Observation is a
subarray
on chip 7 starting at row 29 and ending at row 328. However, the
inclusion window used started at start column = 28, start row = 106,
which is opposite of
what was specified by the observer. This is an operational error
because the number of rows included in the spatial window is less than
the number of rows in the subarray, so part of the Crab nebula is not
included in the observation.

Manual modification of the window specification file was done to allow
processing to complete. =====

The readout streak from the piled up pulsar very nearly overlays the
node boundary of the CCD. The readout streak has a large number of
counts
per pixel, while the node boundary has 2 columns with pixels set to
zero.

=====

There are many dropped frames
due to telemetry saturation. The dropped exposures account for the
ontime
calculated as less than the requested exposure time.