

V&V Reference Report

L2 ASCDS Version : 8.1.2

Observation 138 - L2 Version 2

Chandra X-Ray Center

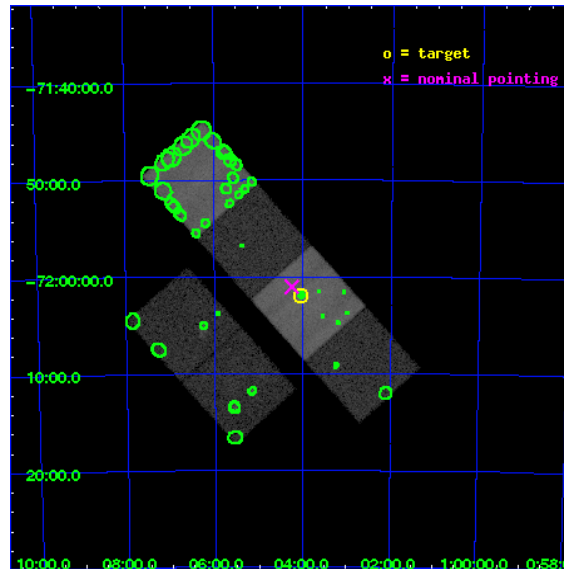
L2 Processing Date : Dec 17 2009

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1 Front

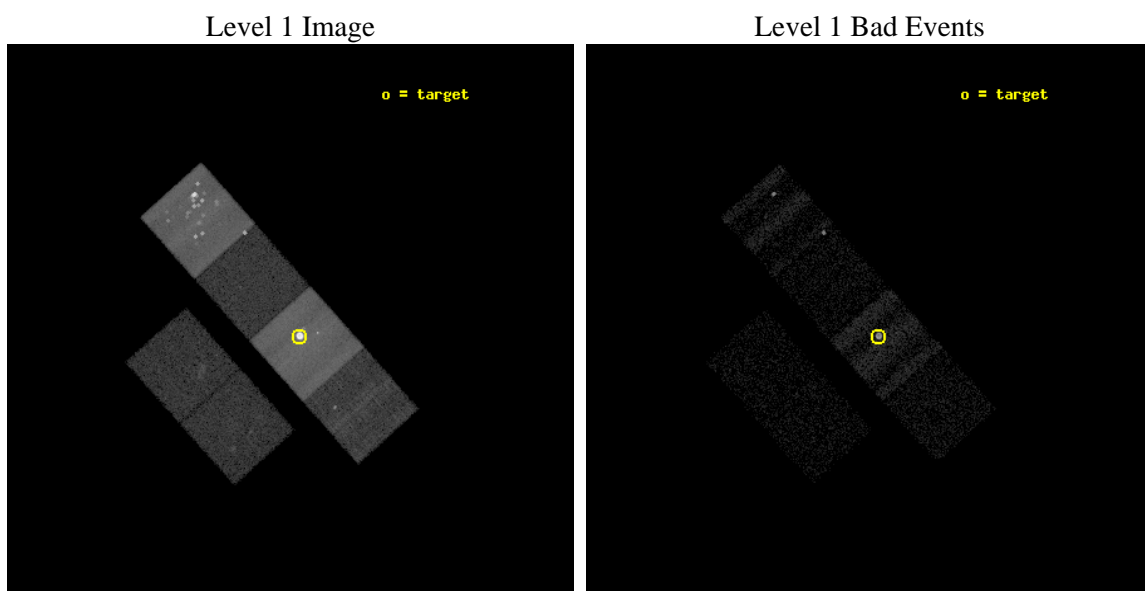
seq_num	590006	Sequence number
obs_id	138	Observation id
title	ACIS CHIP RESPONSE TO LINES WITH E=0.6-1.5 KEV	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72.3 [Chip S3, T=100, Offsets=-1,0,0]	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA
dec_targ	-72.032028	Observer's specified target Dec
ra_nom	16.061935130821	Nominal RA
dec_nom	-72.017486356111	Nominal Dec
roll_nom	48.215518770577	Nominal Roll
revision	2	Processing version of data
ontime	9756.8000090867	Sum of GTIs [s]
livetime	9633.253532532	Livetime [s]
ontime2	9701.7035358548	Sum of GTIs [s]
ontime3	9717.9085264131	Sum of GTIs [s]
ontime5	9756.8000090867	Sum of GTIs [s]
ontime6	9740.5952379331	Sum of GTIs [s]
ontime7	9756.8000090867	Sum of GTIs [s]
ontime8	9730.8722475693	Sum of GTIs [s]
l2events	369840	Number of level 2 events



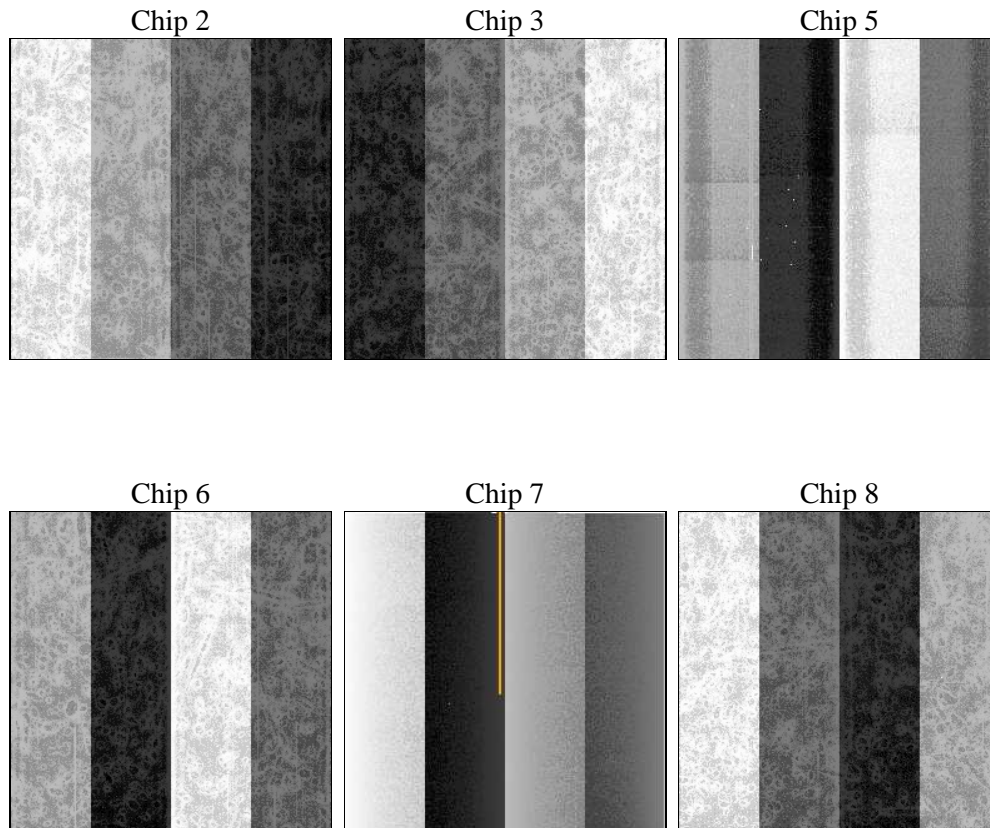
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	9756.8000090867	Sum of GTIs [s]
caldsver	4.1.4	 	ontime2	9701.7035358548	Sum of GTIs [s]
date	2009-12-17T04:10:52	Date and time of file creation	ontime3	9717.9085264131	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	9756.8000090867	Sum of GTIs [s]
			ontime6	9740.5952379331	Sum of GTIs [s]
			ontime7	9756.8000090867	Sum of GTIs [s]
			ontime8	9730.8722475693	Sum of GTIs [s]
			l1events	471792	Number of level 1 events

2.1.4 Events

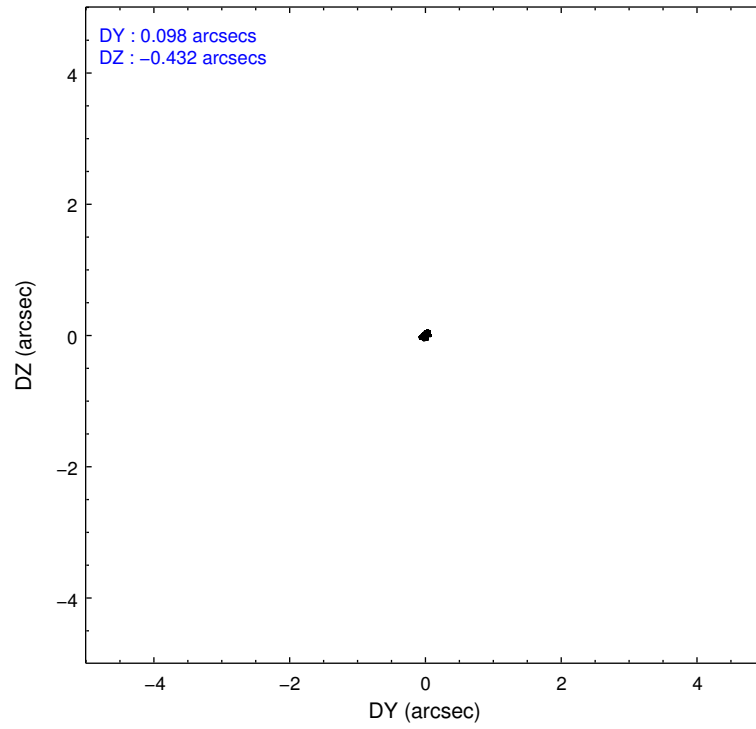
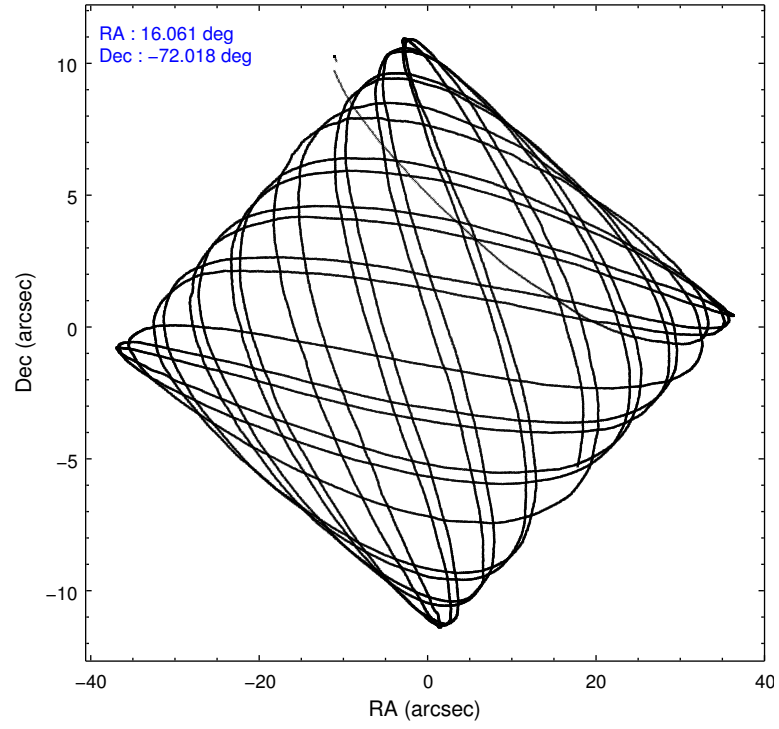
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	22495	22583	150557	25573	216871	33713
rejected events	5124	5281	9314	5649	14856	6345
rejected %	22%	23%	6%	22%	6%	18%

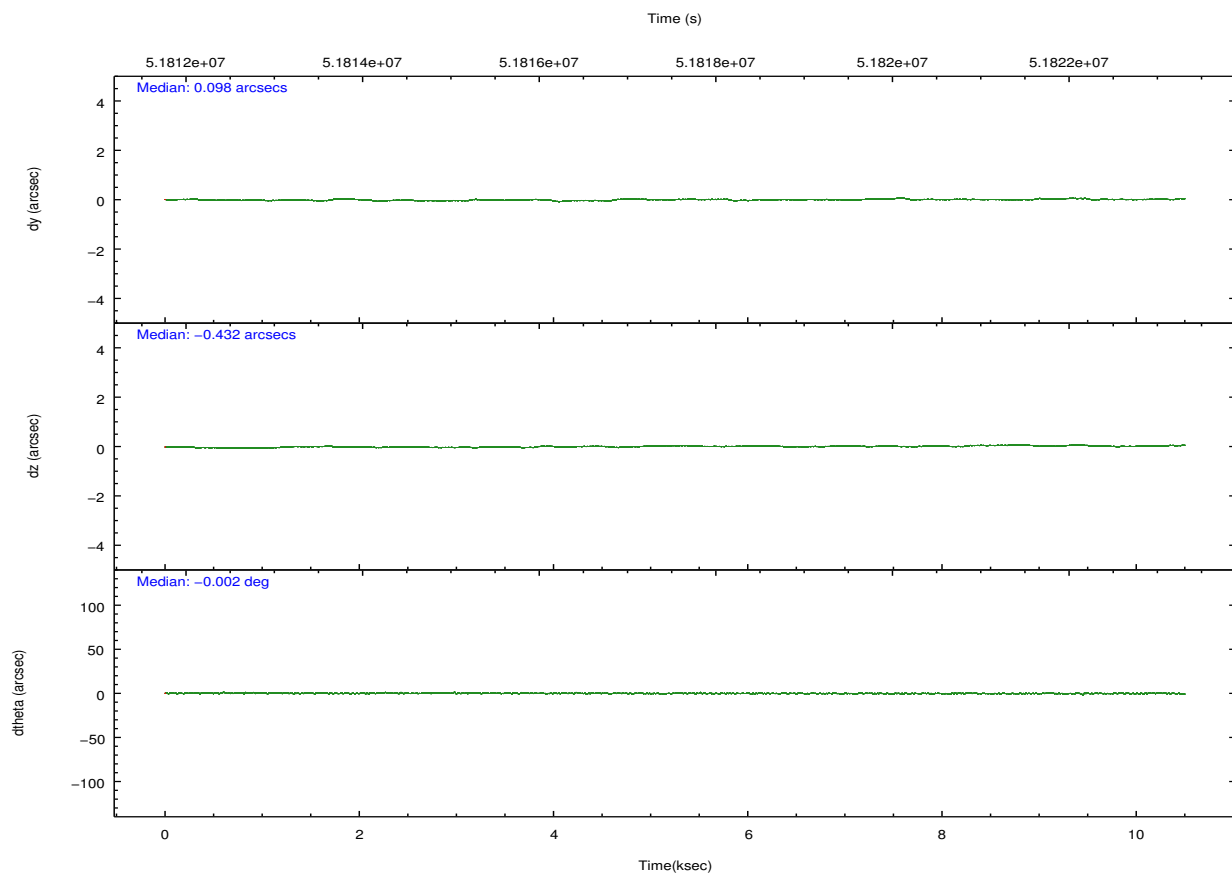
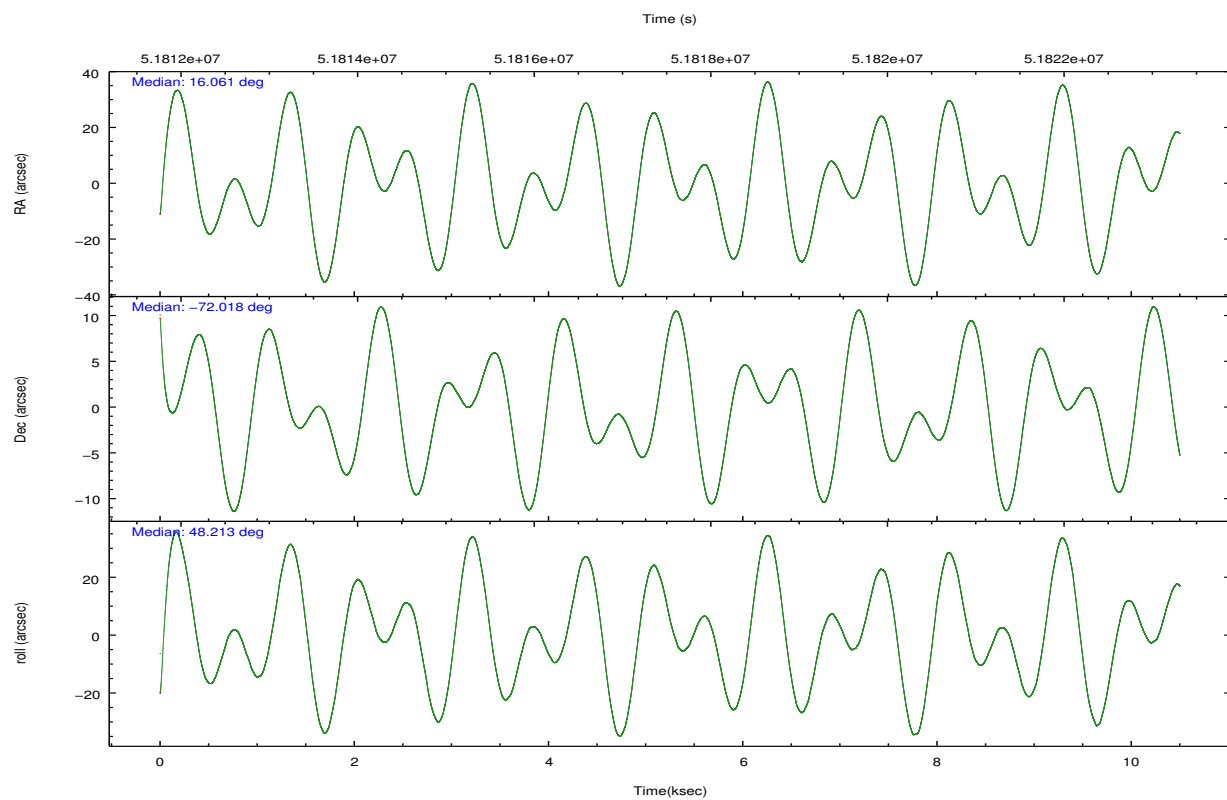
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	5558	5637	36171	6072	40558	8565
	24%	24%	24%	23%	18%	25%
grade 1 events	39	38	875	23	940	74
	0%	0%	0%	0%	0%	0%
grade 2 events	3901	3778	22792	4984	37595	6768
	17%	16%	15%	19%	17%	20%
grade 3 events	1354	1367	7635	1249	21394	2020
	6%	6%	5%	4%	9%	5%
grade 4 events	1175	1298	6770	1214	18521	1831
	5%	5%	4%	4%	8%	5%
grade 5 events	5082	5238	8401	5622	13858	6267
	22%	23%	5%	21%	6%	18%
grade 6 events	5386	5227	67913	6409	84005	8188
	23%	23%	45%	25%	38%	24%
grade 7 events	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	16.042000	16.061935130821	Subarray requested	NONE	NONE
Pointing Dec	-72.044469	-72.01748635611109	Alternating exposures requested	N	N
Pointing Roll	48.039943	48.21551877057669	Primary exposure time	0.000000	3.2
Window start time	49852864.184000	49852864.184000			
Window stop time	55036864.184000	55036864.184000			
SIM focus pos (mm)	-0.684267	-0.865731118321573			
SIM defocus (mm)	0	-0.1814636570216768			
SIM translation stage pos (mm)	-190.132523	-190.1199515274594			
SIM translation stage offset (mm)	0	-0.012571055548392			
Observation start time	51812791.184000	51811242.948943			
Observation start date	1999-08-23T16:25:27	1999-08-23T16:00:42			
Observation end time	51822791.184000	51822917.186863			
Observation end date	1999-08-23T19:12:07	1999-08-23T19:15:17			
Read mode	TIMED	TIMED			

2.3 Aspect



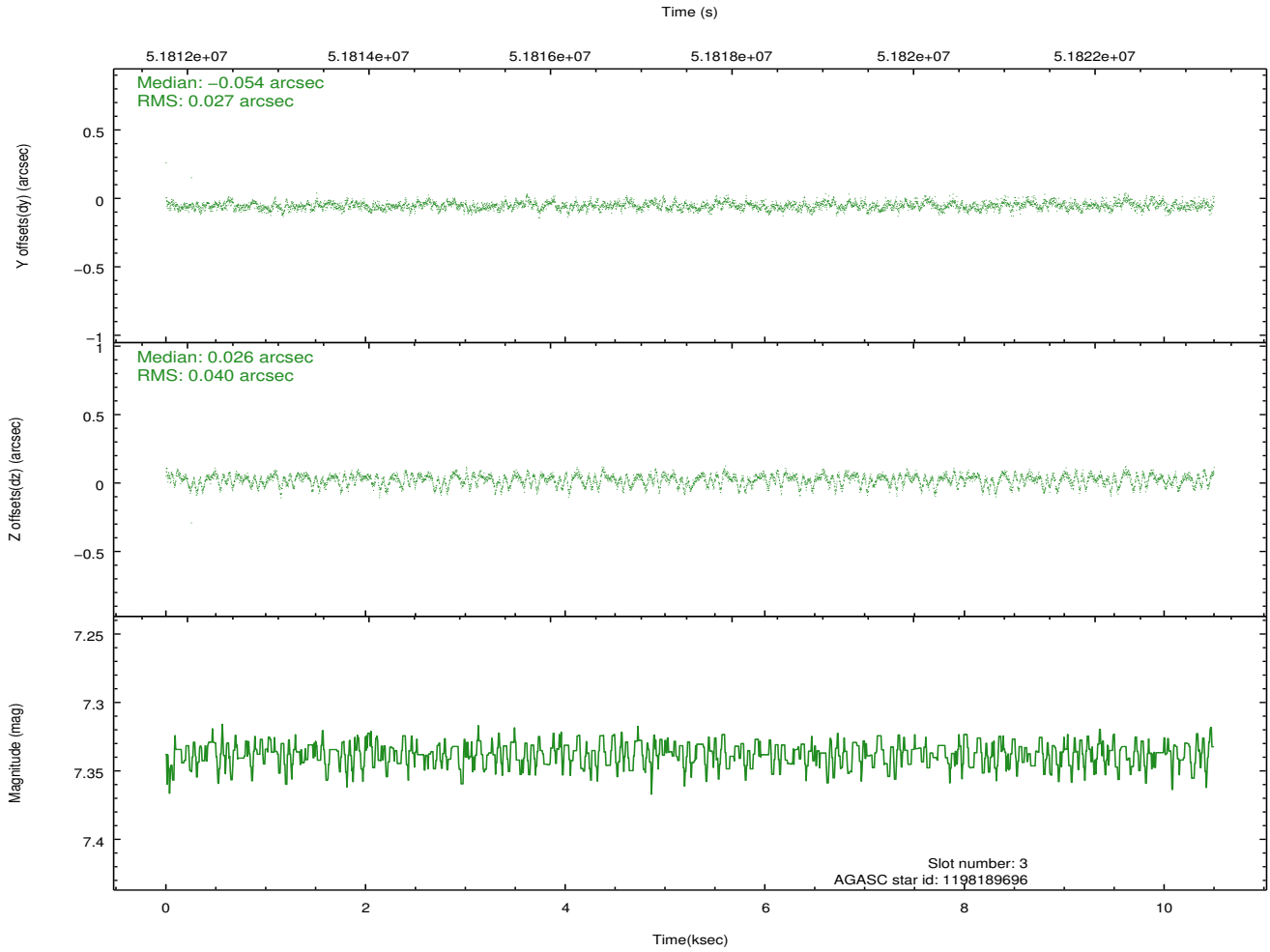
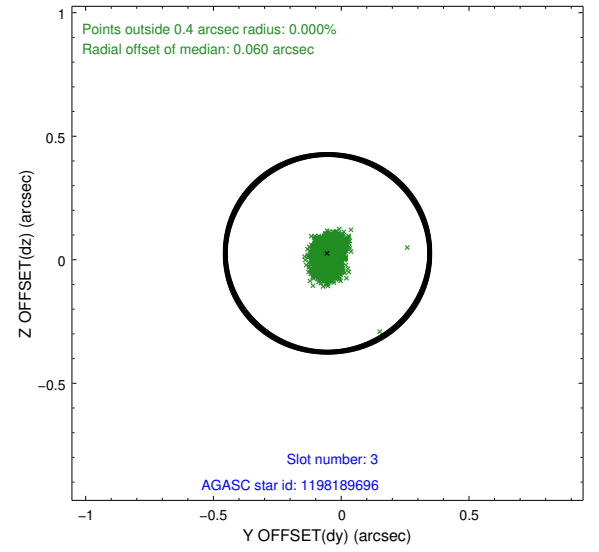
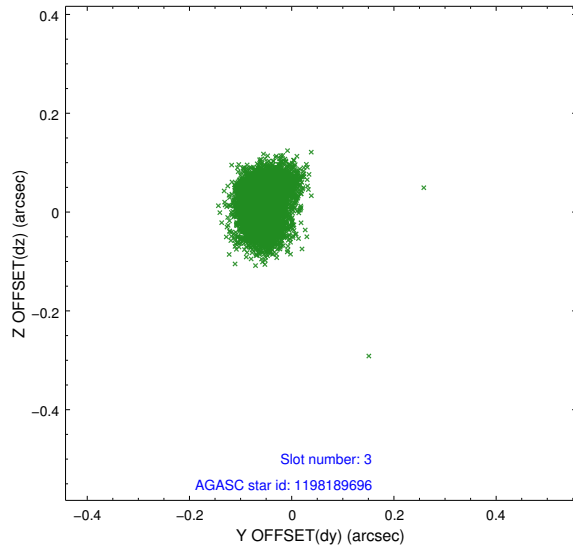


Slot Statistics

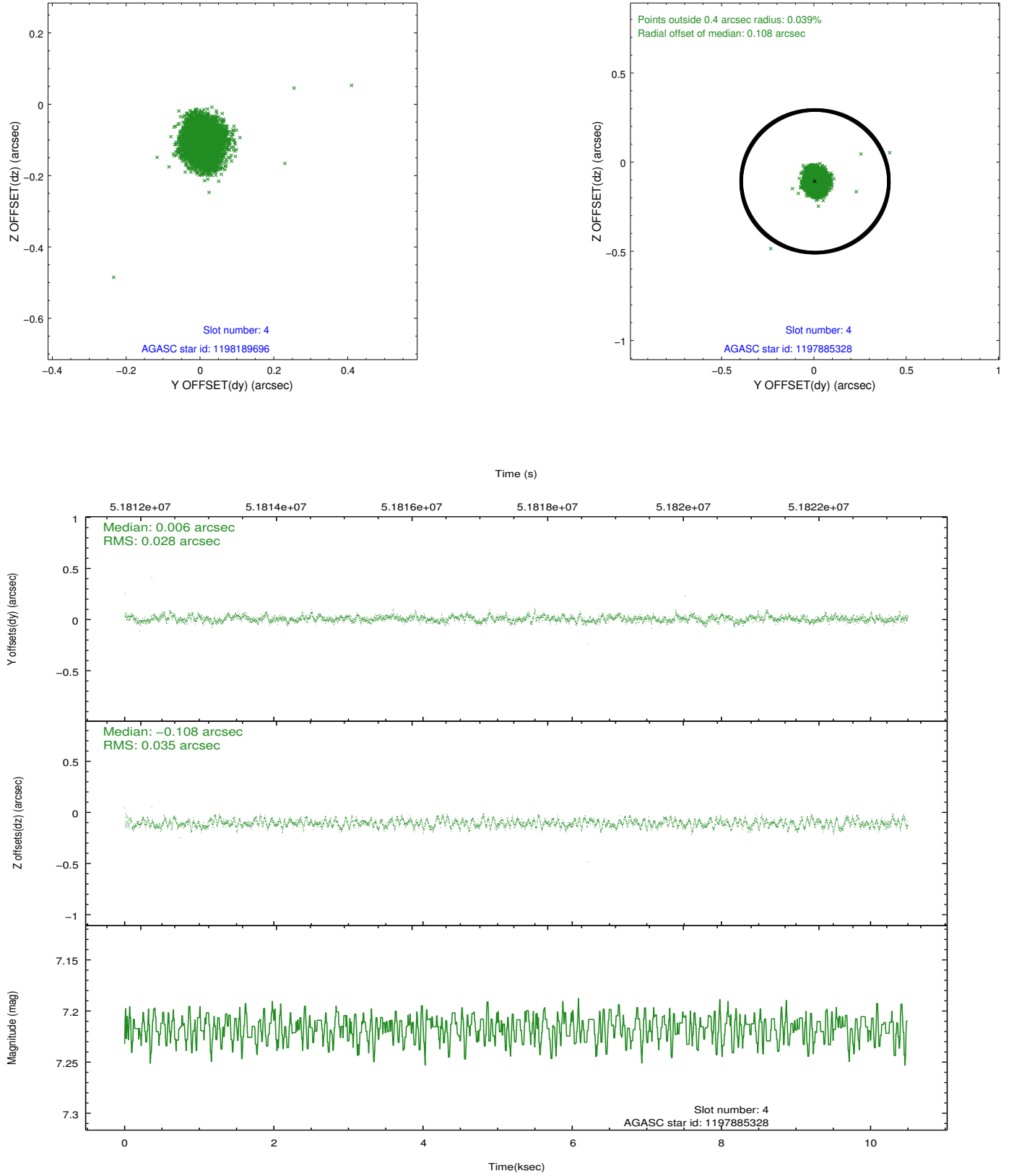
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-3	7.36	5123	-0.030	0.032	0.007	0.012	0.000000	0.000000	60.46	-1849.94
1	FID	ACIS-S-4	7.22	5123	0.138	0.002	0.007	0.013	0.000000	0.000000	2160.81	187.28
2	FID	ACIS-S-5	7.25	5123	-0.136	-0.025	0.007	0.013	0.000000	0.000000	-1805.37	181.26
3	GUIDE	1198189696	7.34	5123	-0.054	0.026	0.050	0.087	15.223750	-72.697522	-2337.92	-924.91
4	GUIDE	1197885328	7.22	5122	0.006	-0.108	0.047	0.074	16.283090	-71.733943	1012.80	544.13
5	GUIDE	1197750936	7.55	5123	-0.064	0.005	0.052	0.084	15.387940	-71.549550	824.30	1742.45
6	GUIDE	1197884536	8.50	5123	0.070	0.048	0.051	0.083	17.160729	-71.835289	1391.53	-437.87
7	GUIDE	1197749664	9.58	5118	0.042	0.035	0.075	0.120	15.809015	-72.366369	-1031.11	-586.71

2.4 Star Slots

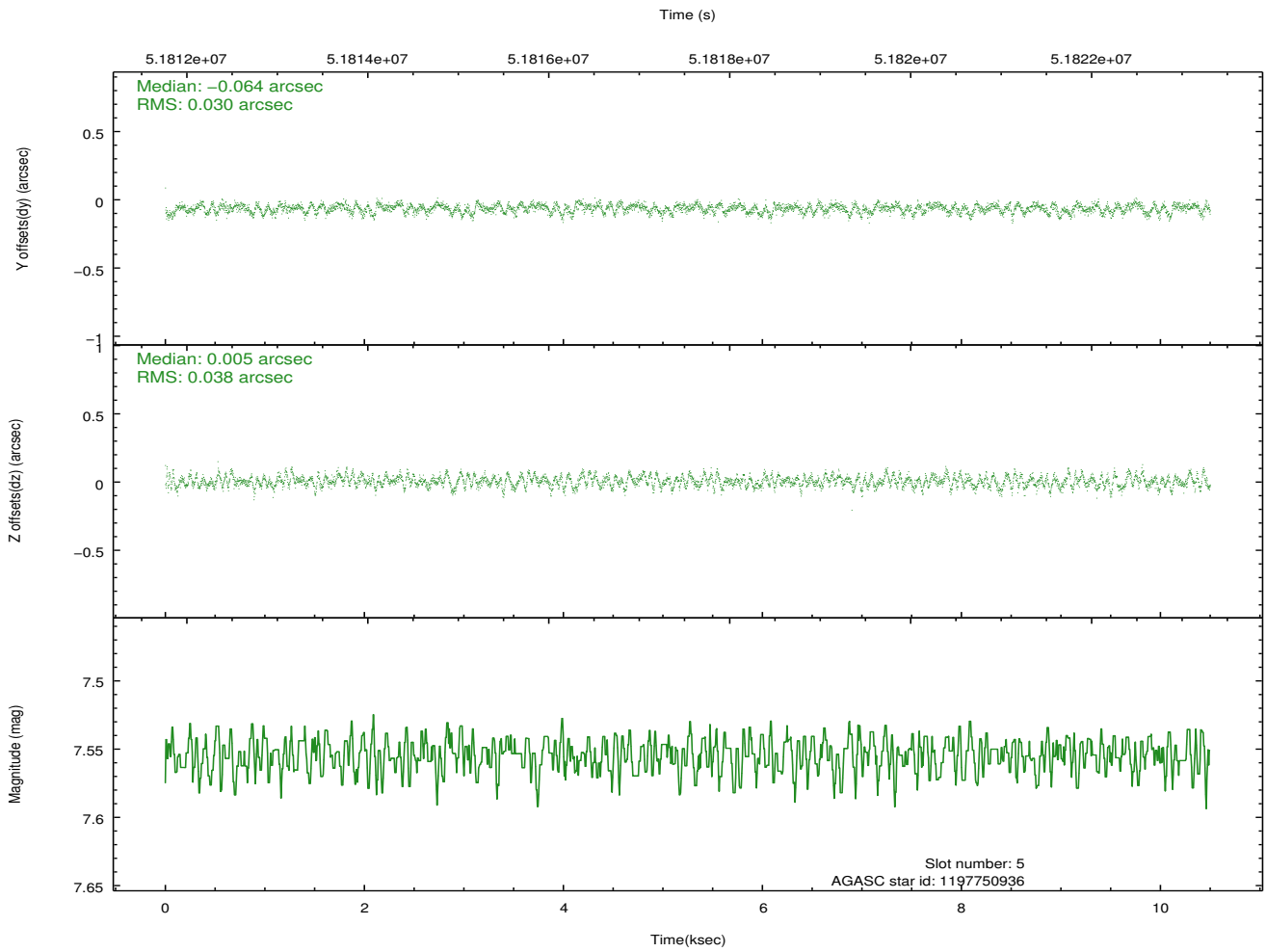
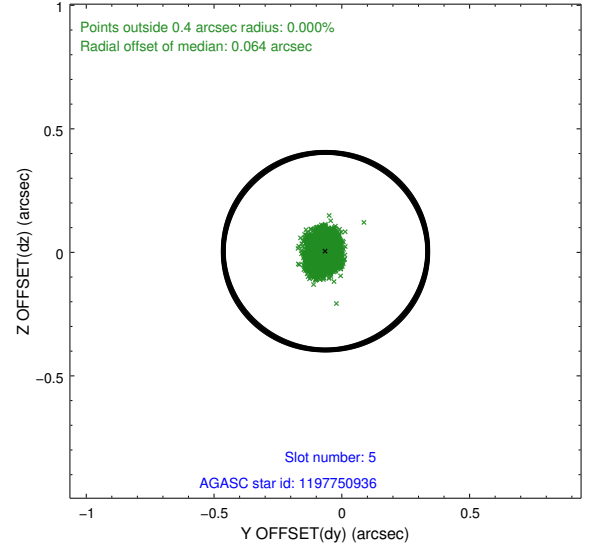
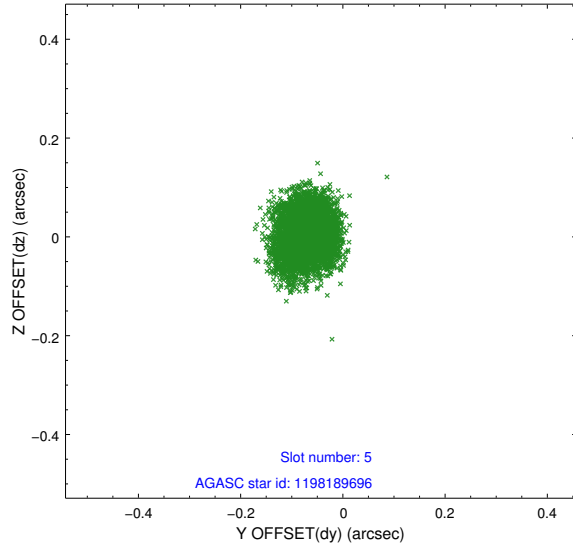
2.4.1 Slot 3



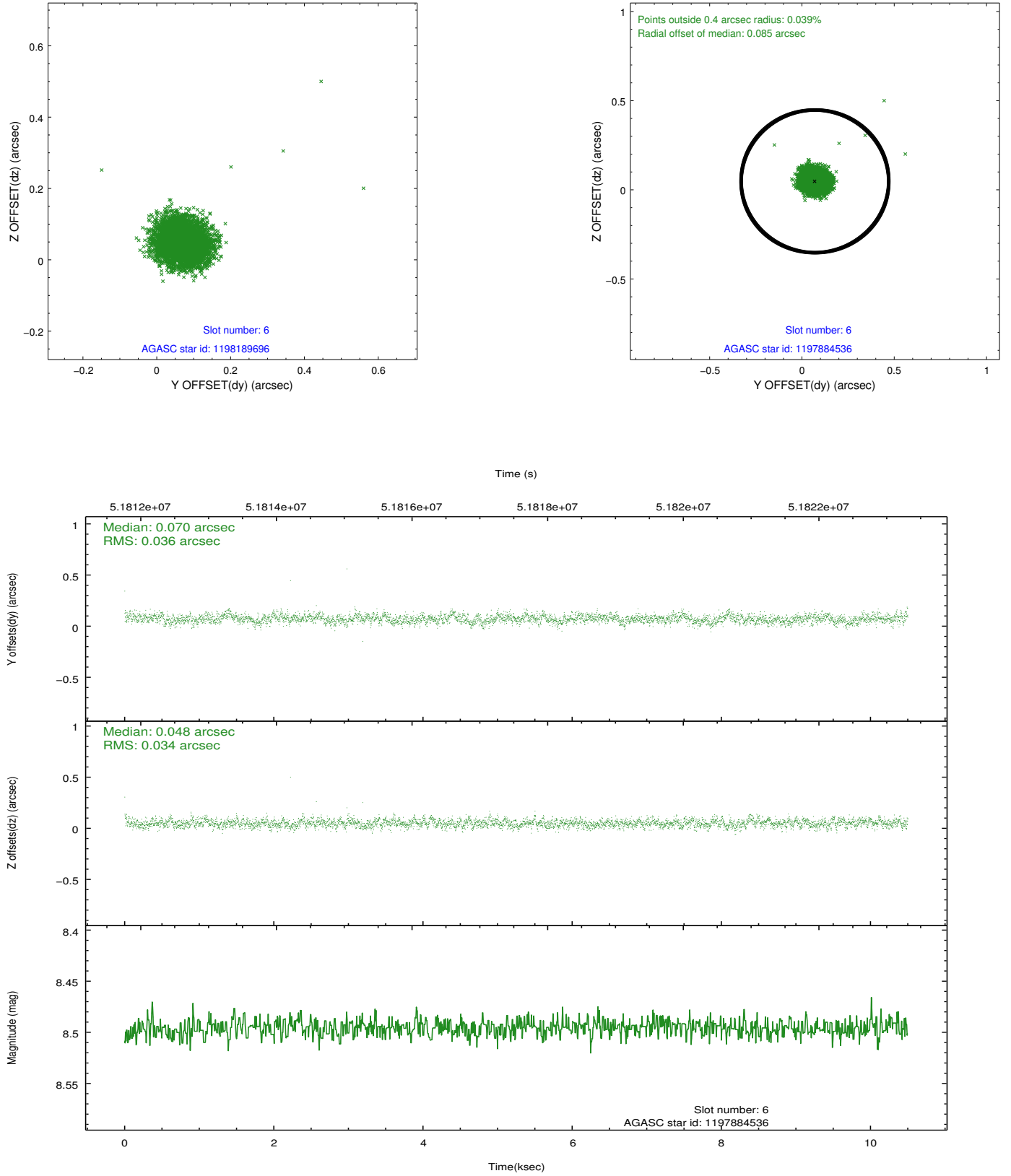
2.4.2 Slot 4



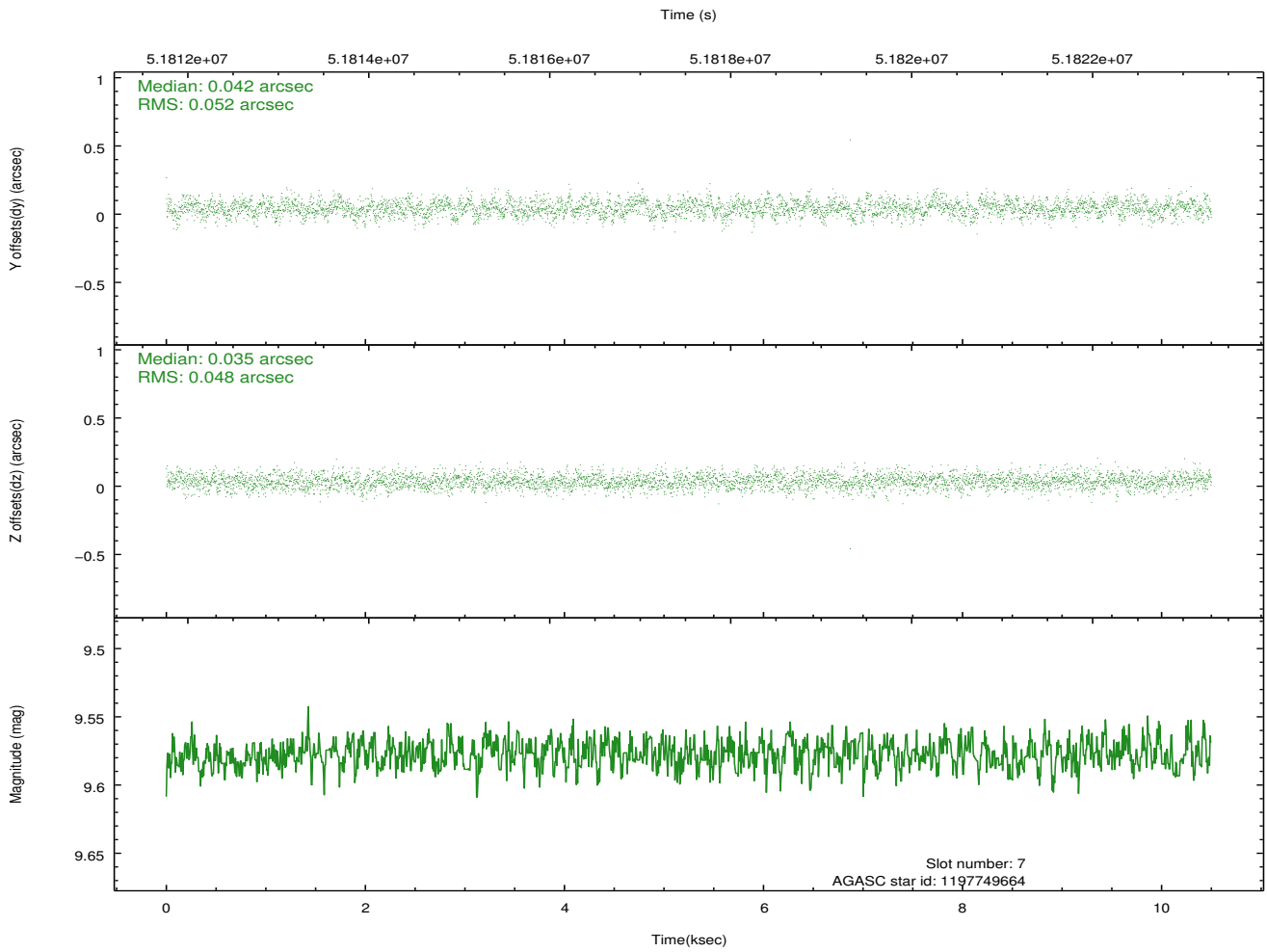
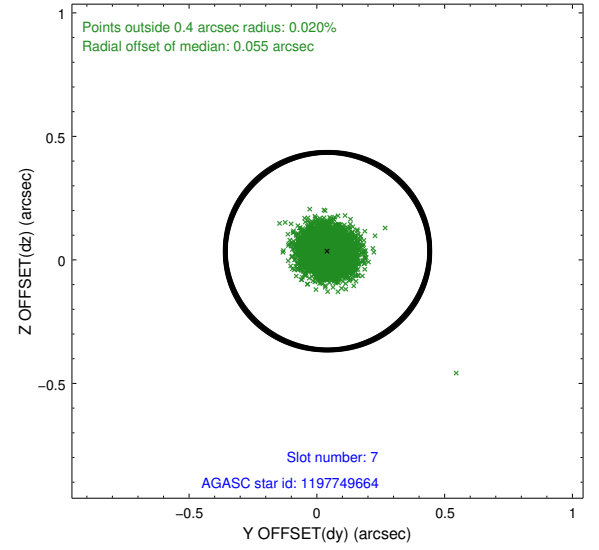
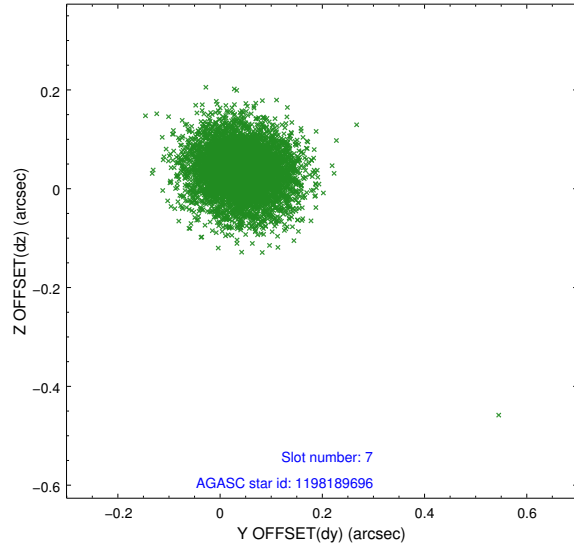
2.4.3 Slot 5



2.4.4 Slot 6

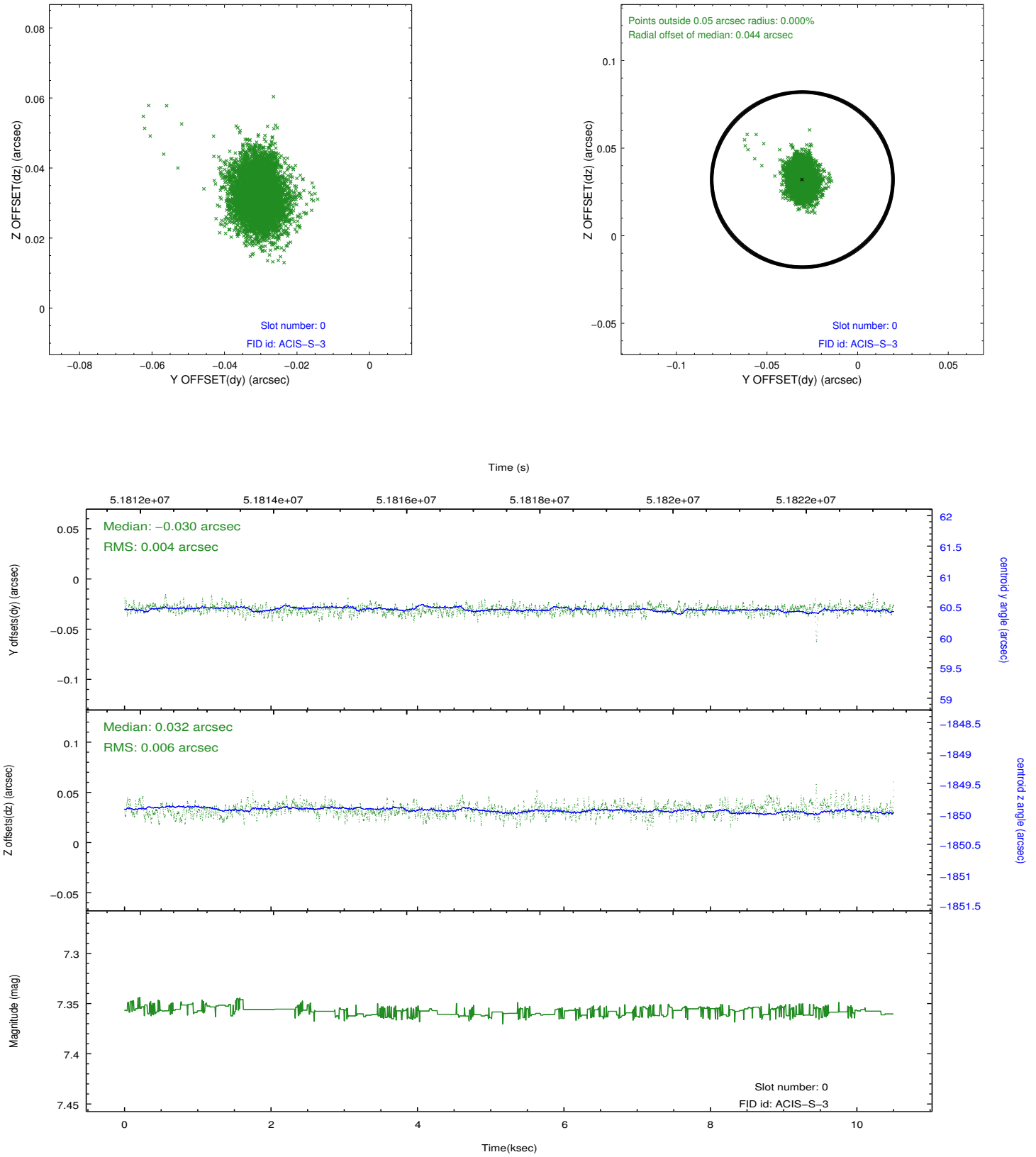


2.4.5 Slot 7

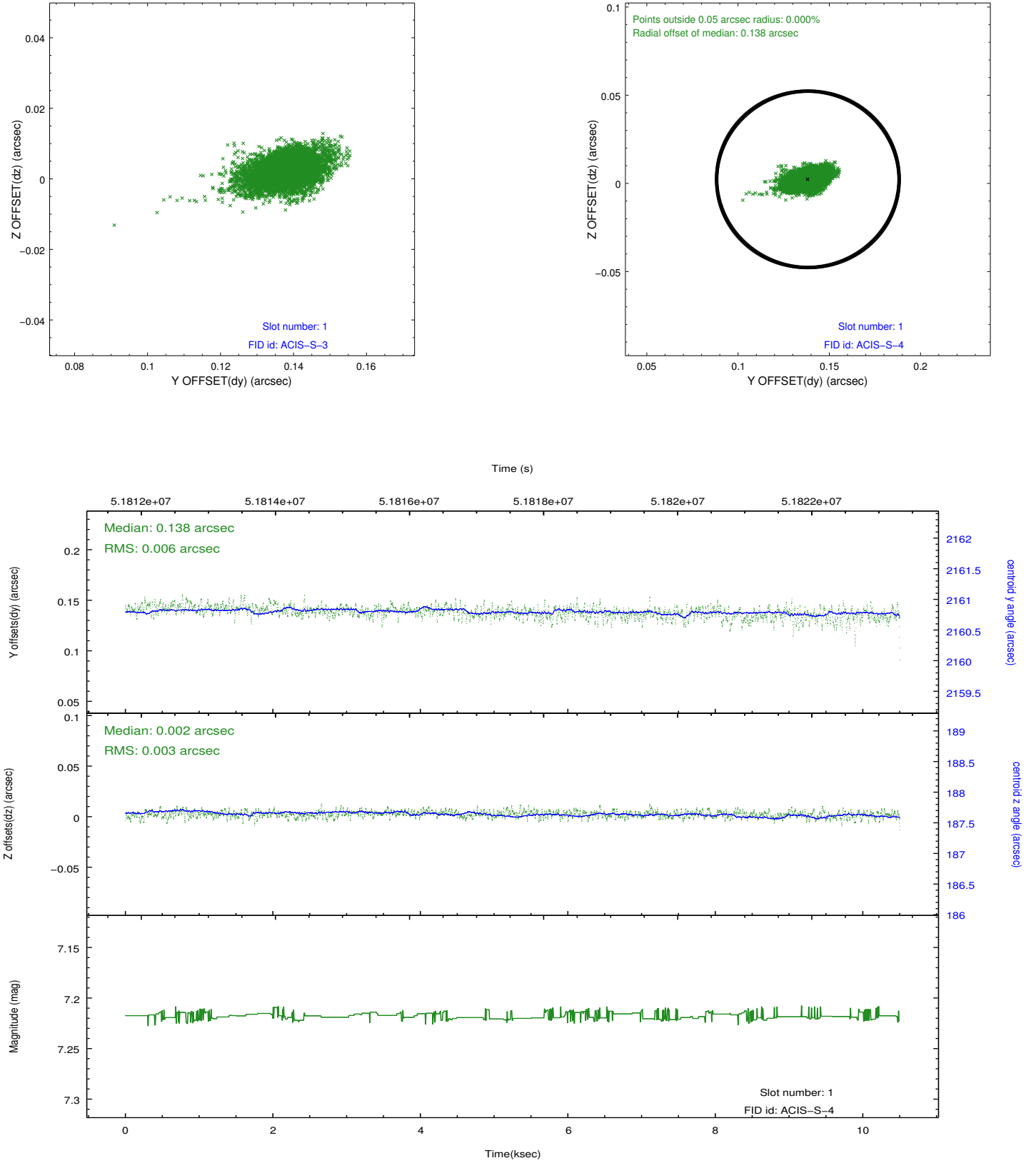


2.5 FID Slots

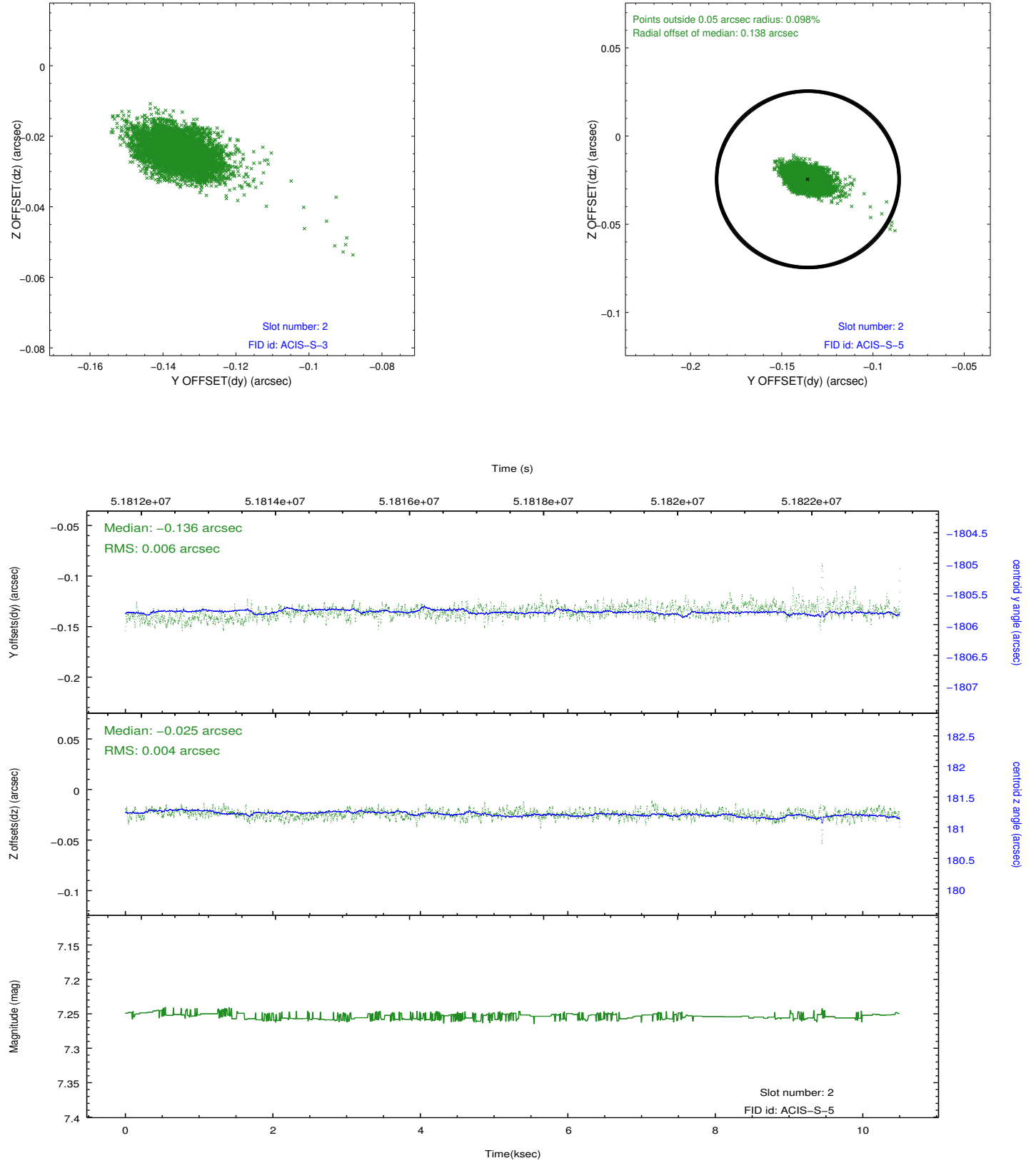
2.5.1 Slot 0



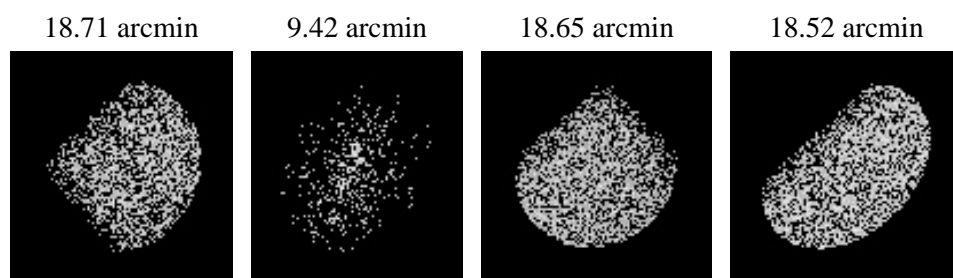
2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.76

A.2 Comments

ACIS ship response to soft X-rays. ===

High radiation events 4-5 ksec and again at 7 ksec into the observation.

===

The focal plane temperature is approximately -100 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.