

V&V Reference Report

L2 ASCDS Version : 8.1.2

Observation 159 - L2 Version 3
Chandra X-Ray Center

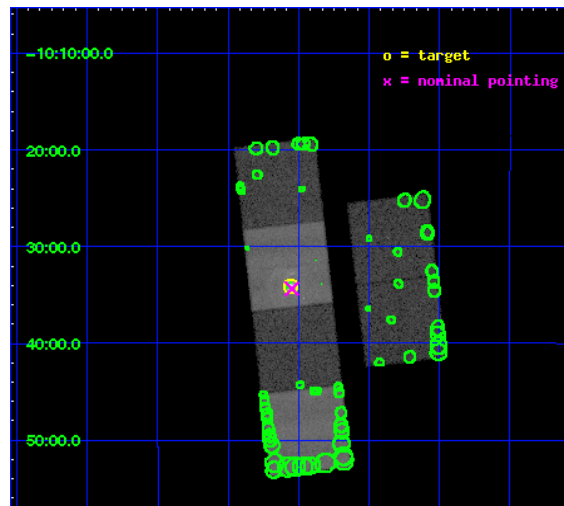
L2 Processing Date : Dec 16 2009

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	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
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
3	Point Sources	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

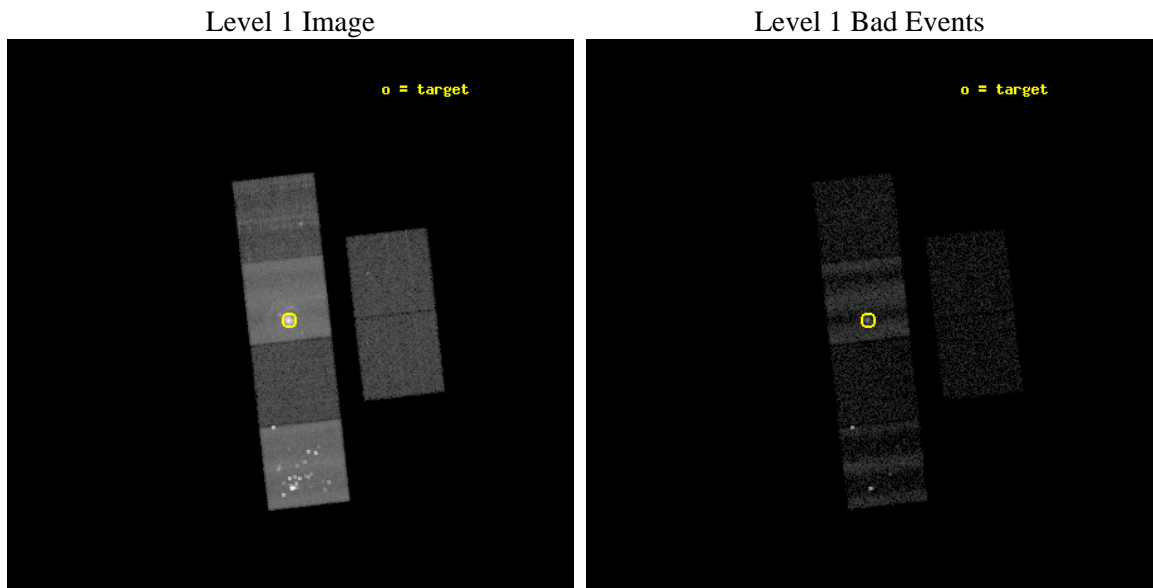
seq_num	590027	Sequence number
obs_id	159	Observation id
title	ACIS CHIP RESPONSE TO A CONTINUUM SOURCE	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-0.9 [Chip S3, T=100, Offsets=0,0,0 Std Cand]	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA
dec_targ	-10.568528	Observer's specified target Dec
ra_nom	278.38680336177	Nominal RA
dec_nom	-10.573076999136	Nominal Dec
roll_nom	263.60423527361	Nominal Roll
revision	3	Processing version of data
ontime	15036.297354698	Sum of GTIs [s]
livetime	14845.898703822	Livetime [s]
ontime2	15036.215274699	Sum of GTIs [s]
ontime3	15036.174234696	Sum of GTIs [s]
ontime5	15036.256314695	Sum of GTIs [s]
ontime6	15036.092154697	Sum of GTIs [s]
ontime7	15036.297354698	Sum of GTIs [s]
ontime8	15029.651274264	Sum of GTIs [s]
l2events	340095	Number of level 2 events



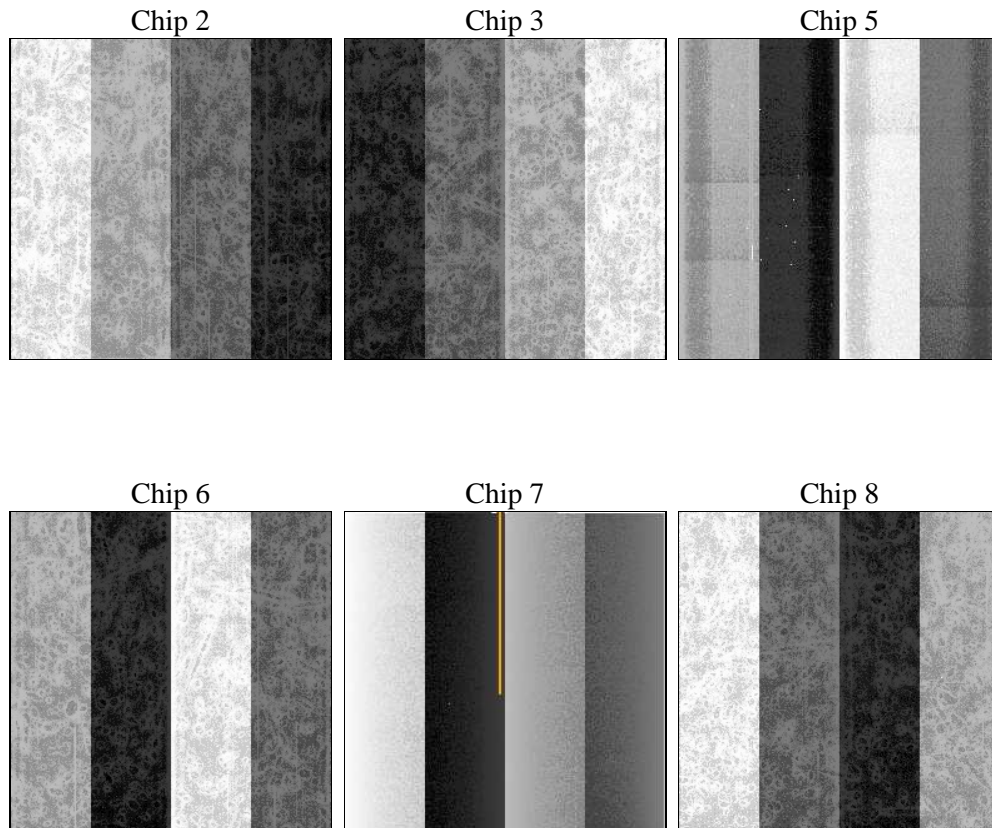
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	15036.297354698	Sum of GTIs [s]
caldbver	4.1.4	 	ontime2	15036.215274699	Sum of GTIs [s]
date	2009-12-16T08:31:32	Date and time of file creation	ontime3	15036.174234696	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	15036.256314695	Sum of GTIs [s]
			ontime6	15036.092154697	Sum of GTIs [s]
			ontime7	15036.297354698	Sum of GTIs [s]
			ontime8	15029.651274264	Sum of GTIs [s]
			l1events	490239	Number of level 1 events

2.1.4 Events

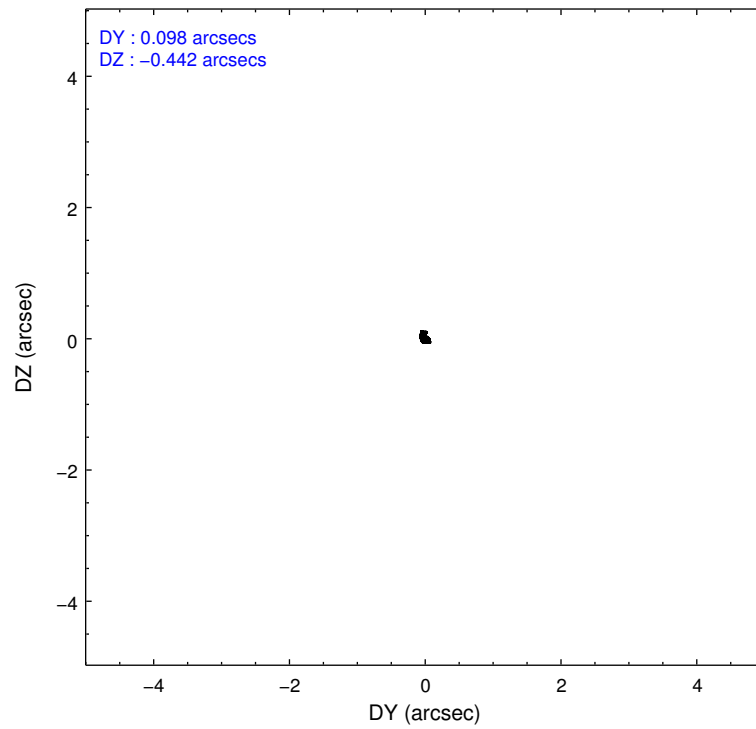
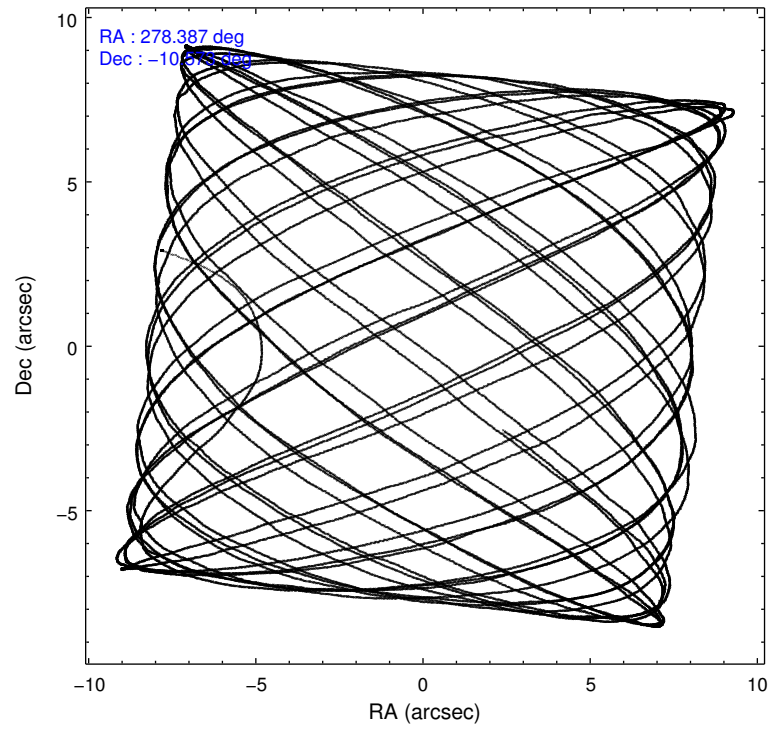
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	30763	31282	176544	34055	170390	47205
rejected events	7858	8188	13754	8746	18851	9695
rejected %	25%	26%	7%	25%	11%	20%

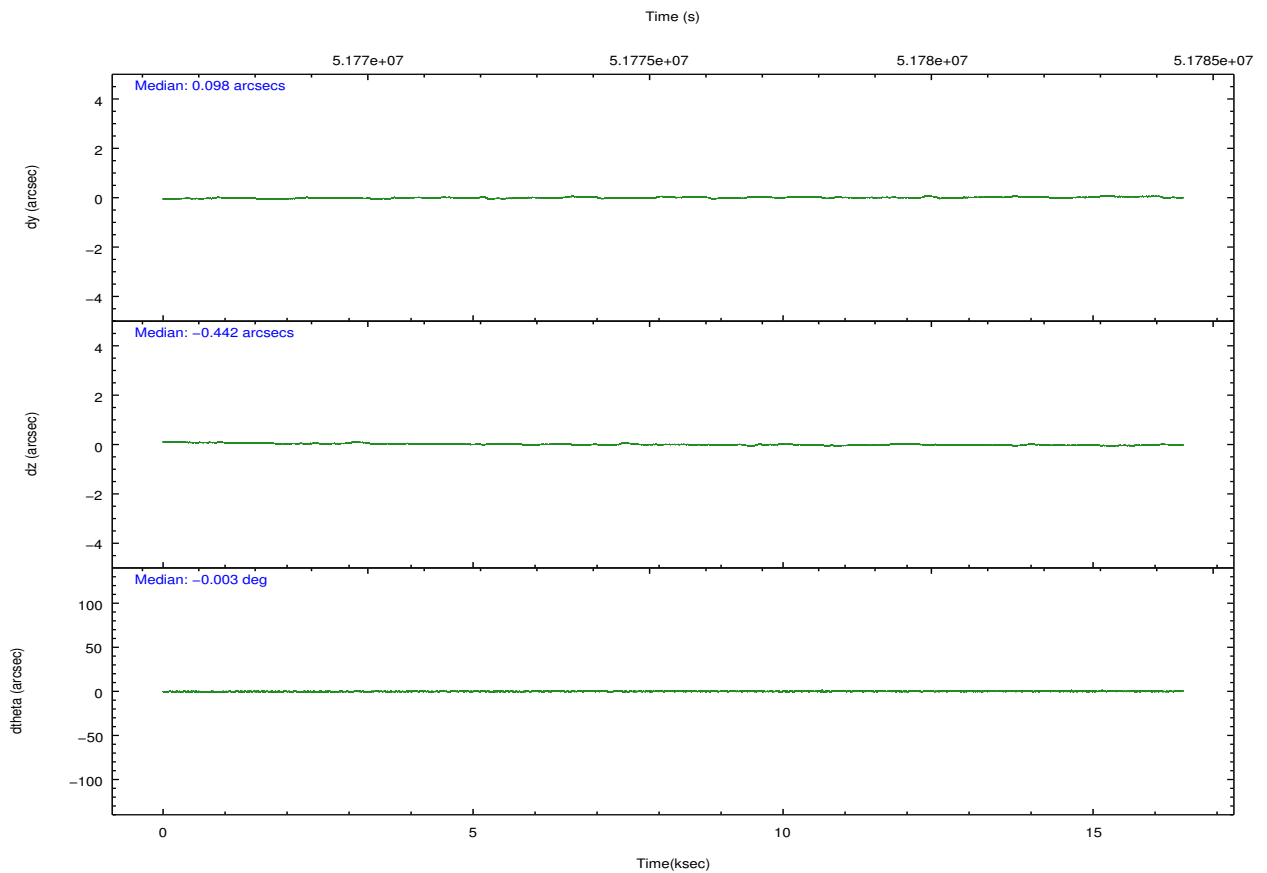
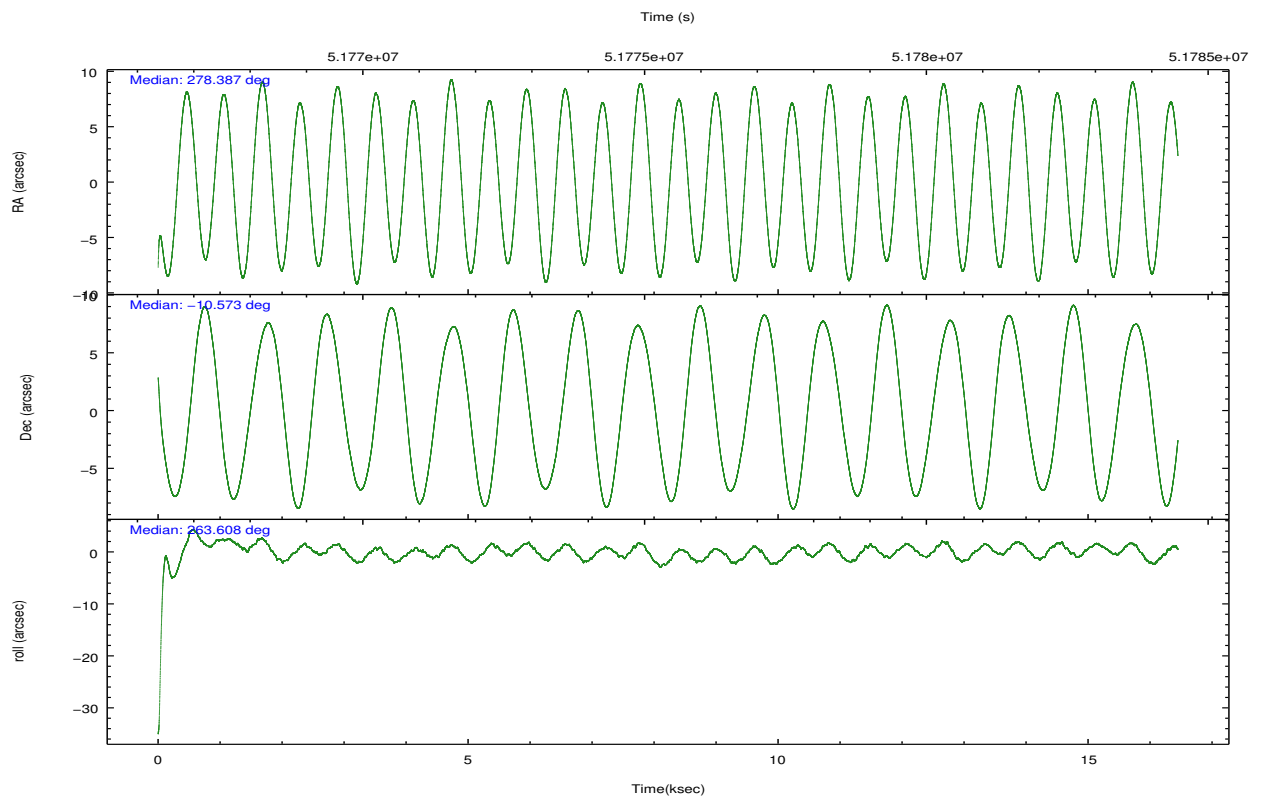
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	5712	6037	47952	5998	13309	9545
	18%	19%	27%	17%	7%	20%
grade 1 events	49	45	1221	48	153	85
	0%	0%	0%	0%	0%	0%
grade 2 events	5059	5000	27867	5924	22735	9568
	16%	15%	15%	17%	13%	20%
grade 3 events	2033	2032	6686	1893	15620	2994
	6%	6%	3%	5%	9%	6%
grade 4 events	1818	1841	5700	1809	12192	2818
	5%	5%	3%	5%	7%	5%
grade 5 events	7802	8135	12338	8685	18632	9600
	25%	26%	6%	25%	10%	20%
grade 6 events	8290	8192	74676	9698	87749	12595
	26%	26%	42%	28%	51%	26%
grade 7 events	0	0	104	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	278.375994	278.3868033617699	Subarray requested	NONE	NONE
Pointing Dec	-10.547534	-10.57307699913613	Alternating exposures requested	N	N
Pointing Roll	263.445651	263.6042352736097	Primary exposure time	0.000000	3.2
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	51767641.184000	51766050.184817			
Observation start date	1999-08-23T03:52:57	1999-08-23T03:27:30			
Observation end time	51783641.184000	51783768.335455			
Observation end date	1999-08-23T08:19:37	1999-08-23T08:22:48			
Read mode	TIMED	TIMED			

2.3 Aspect



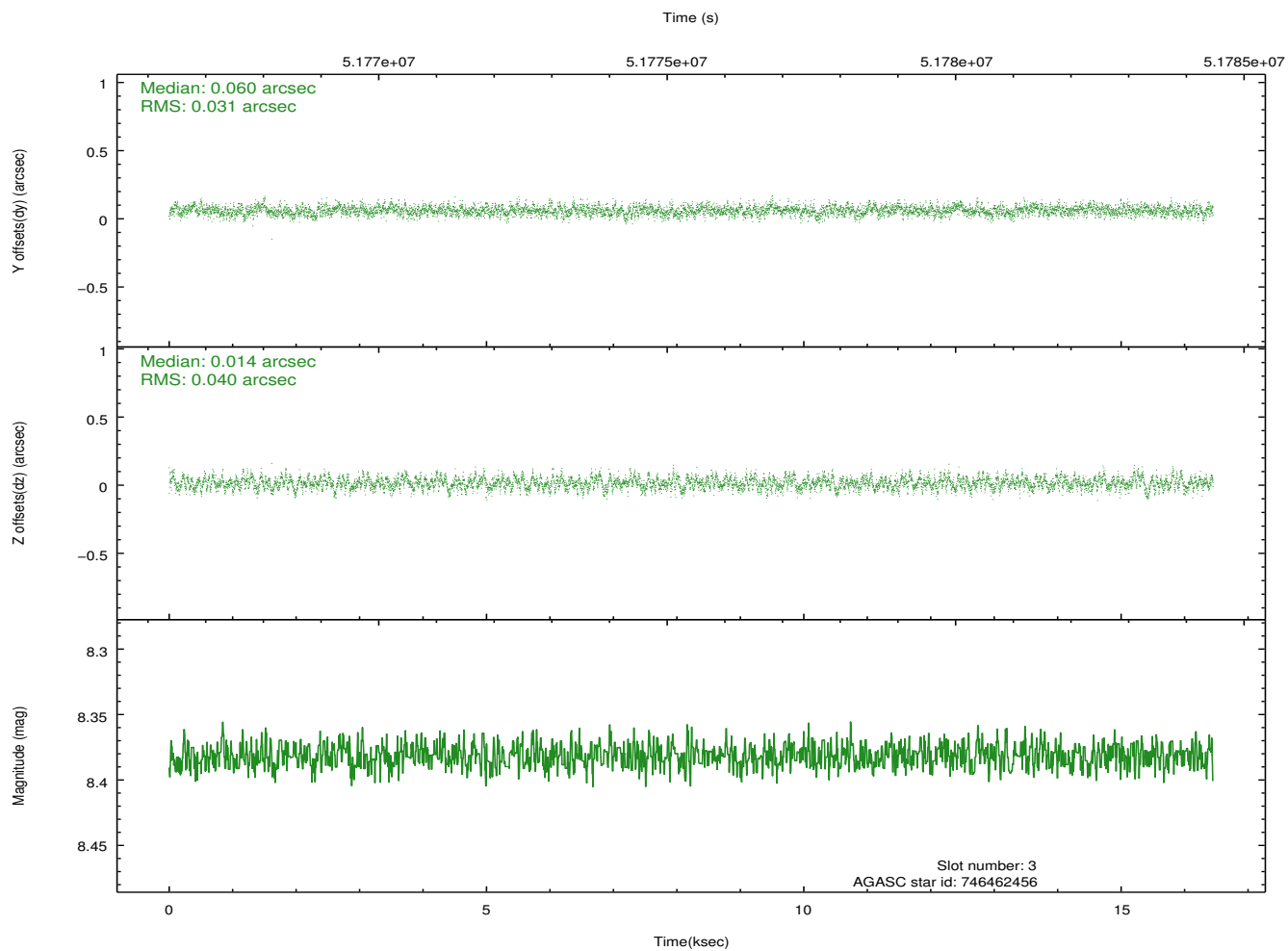
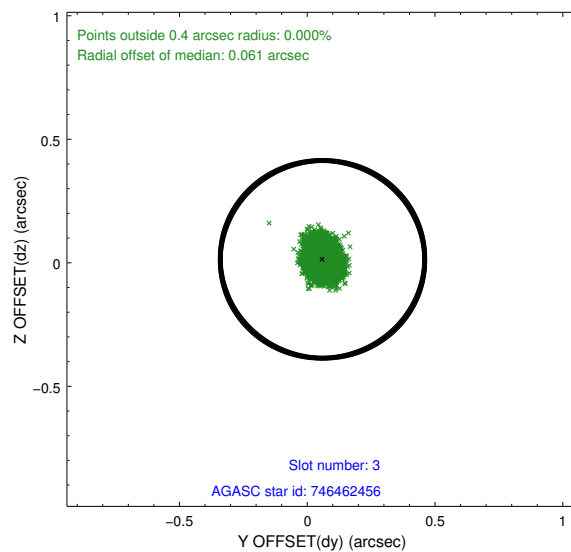
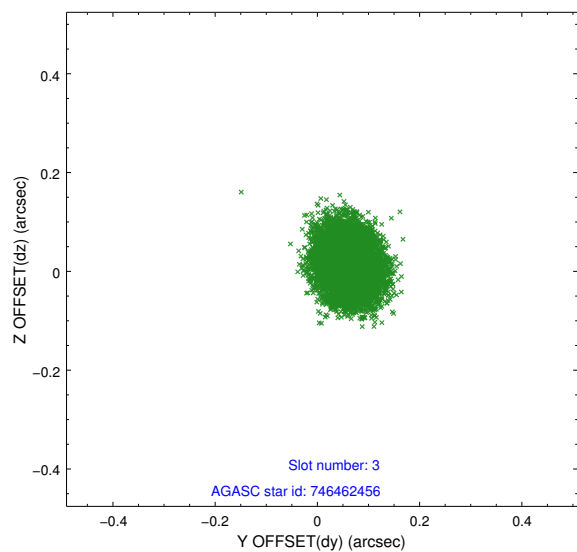


Slot Statistics

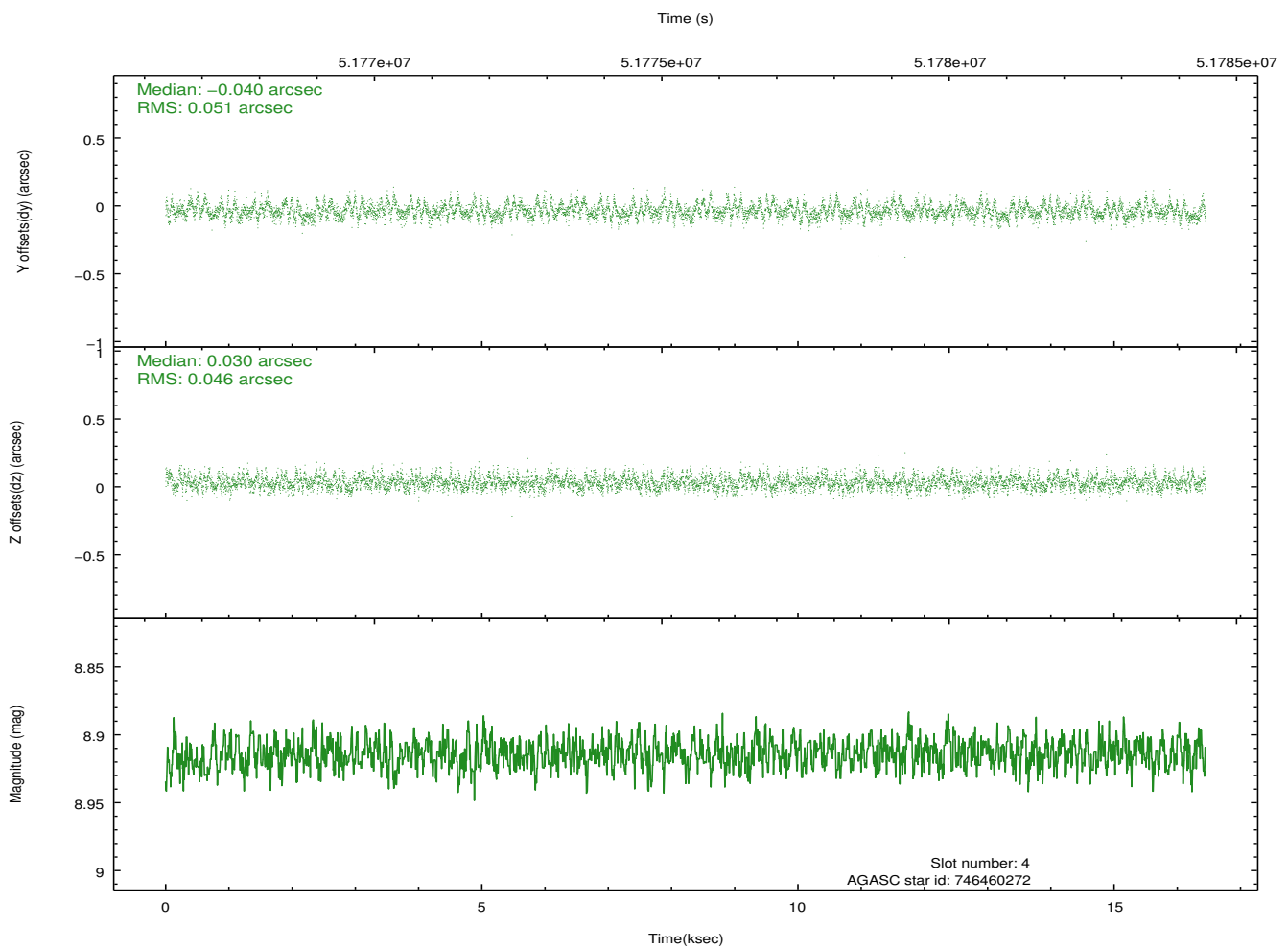
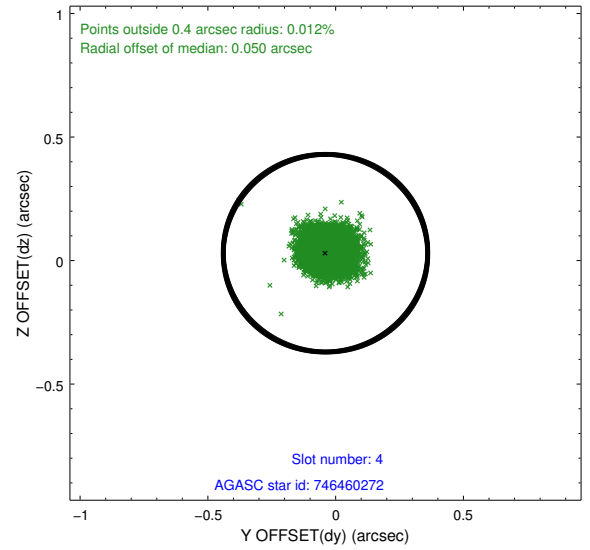
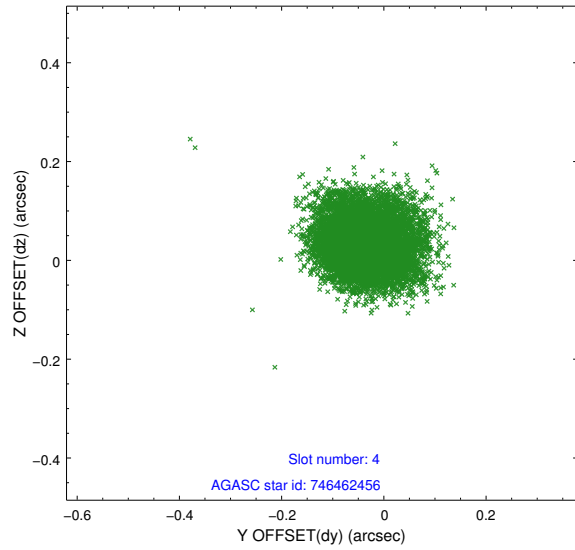
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	8025	-0.030	-0.029	0.007	0.011	0.000000	0.000000	-752.72	-1720.92
1	FID	ACIS-S-4	7.22	8024	0.137	0.022	0.006	0.010	0.000000	0.000000	2160.70	187.46
2	FID	ACIS-S-5	7.25	8024	-0.139	0.015	0.006	0.011	0.000000	0.000000	-1805.53	181.28
3	GUIDE	746462456	8.38	8021	0.060	0.014	0.054	0.086	278.652171	-10.530173	-173.32	964.56
4	GUIDE	746460272	8.91	8023	-0.040	0.030	0.072	0.118	278.847488	-10.152127	-1603.78	1498.39
5	GUIDE	746460328	9.80	7943	-0.045	-0.030	0.123	0.188	278.603974	-9.898096	-2415.12	537.33
6	GUIDE	746461728	9.79	7943	0.021	-0.016	0.091	0.146	278.986921	-10.530755	-304.98	2142.14
7	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

2.4 Star Slots

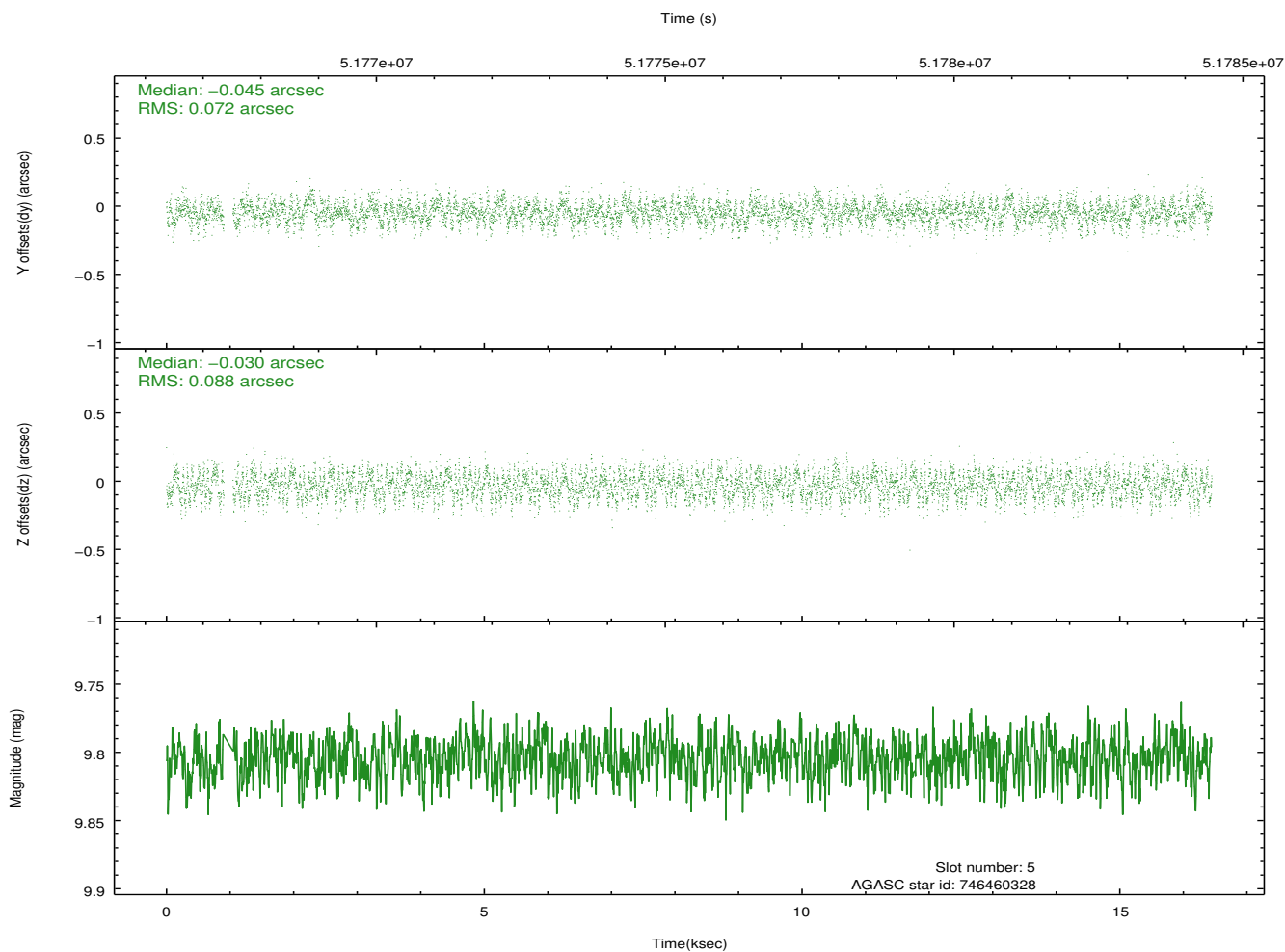
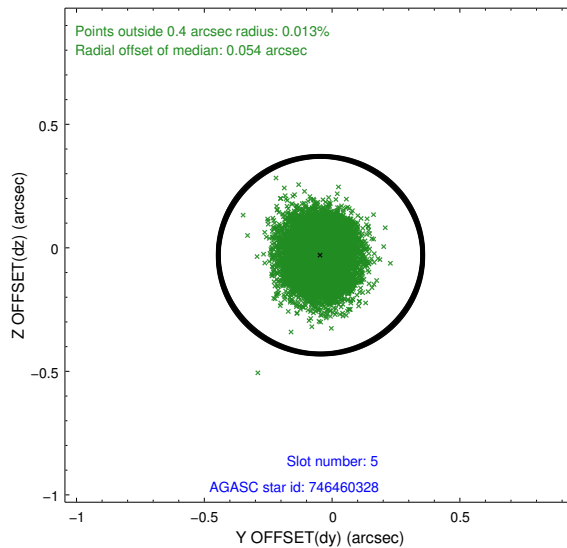
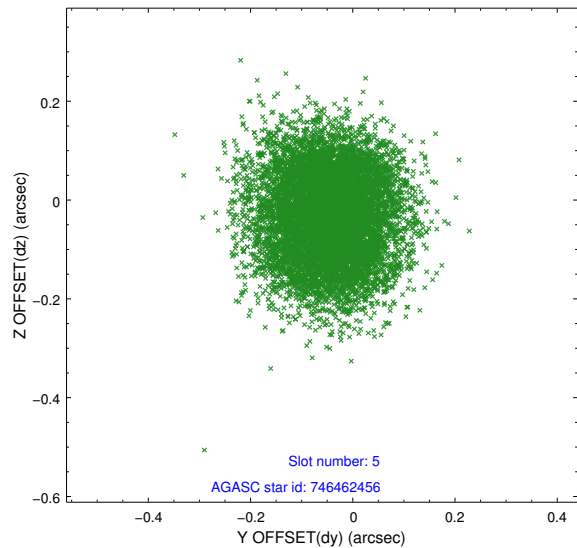
2.4.1 Slot 3



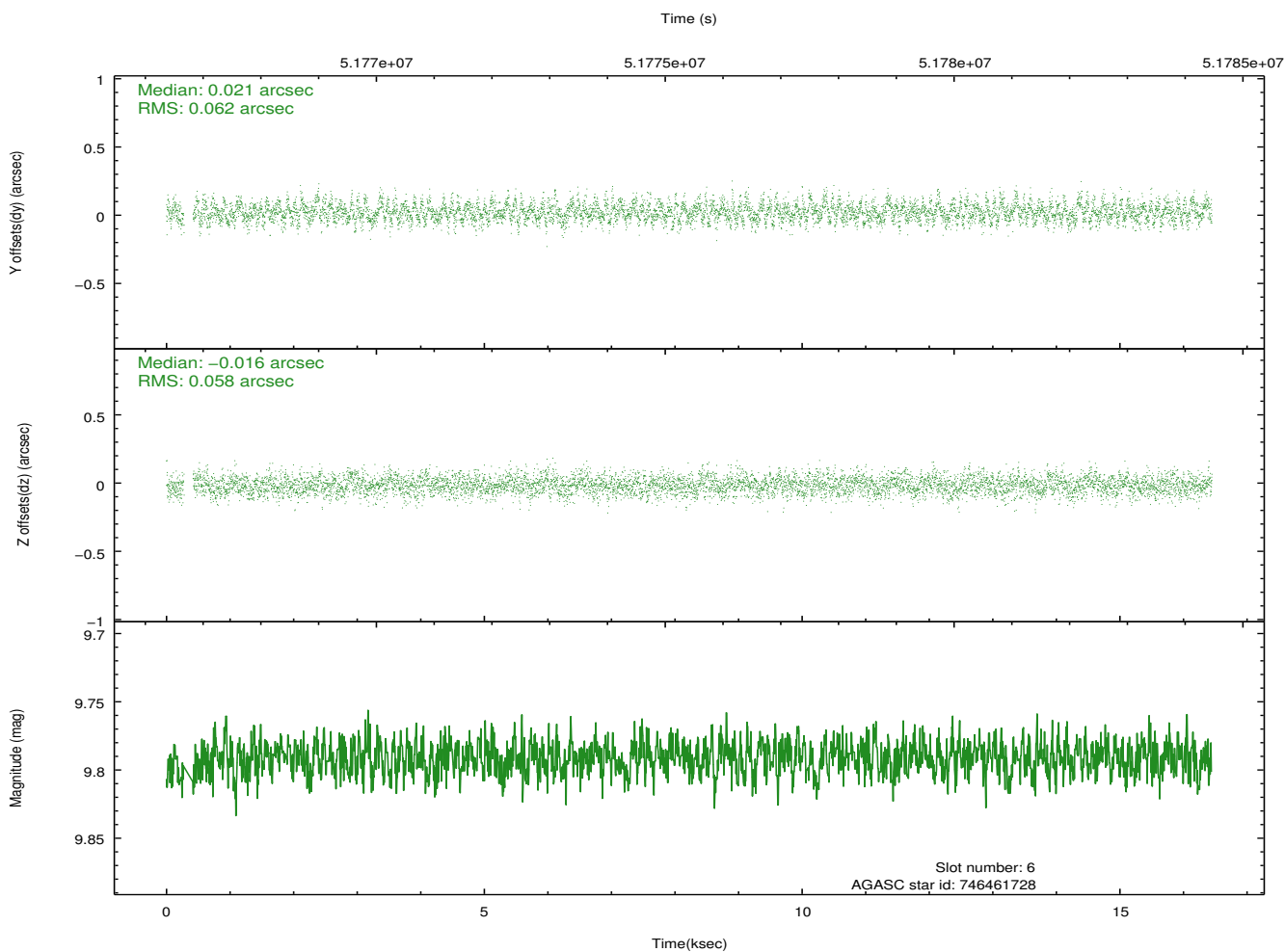
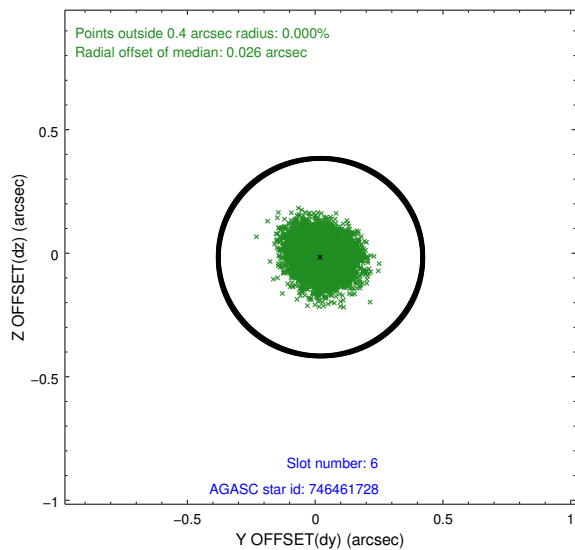
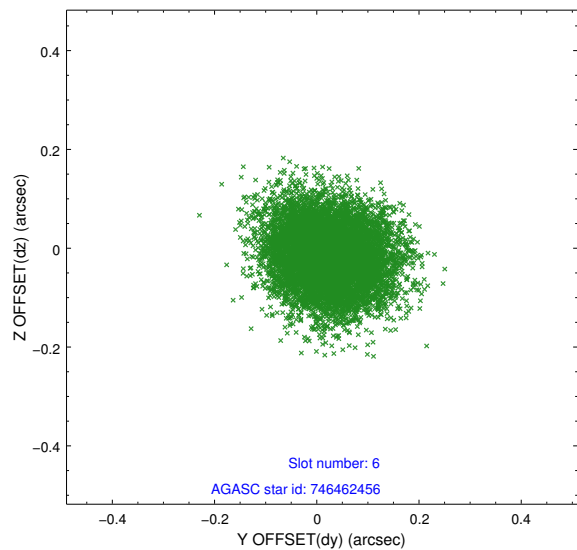
2.4.2 Slot 4



2.4.3 Slot 5

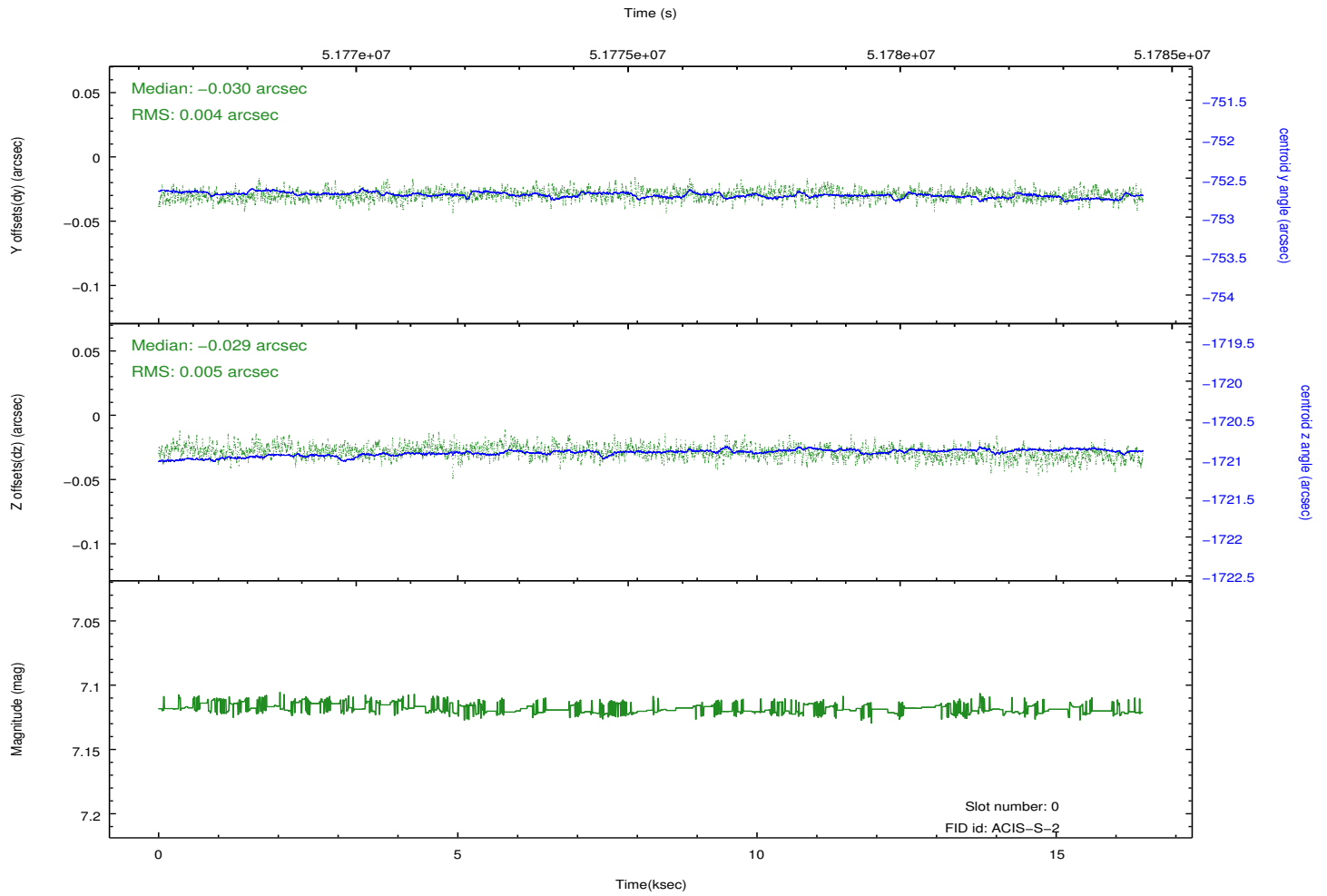
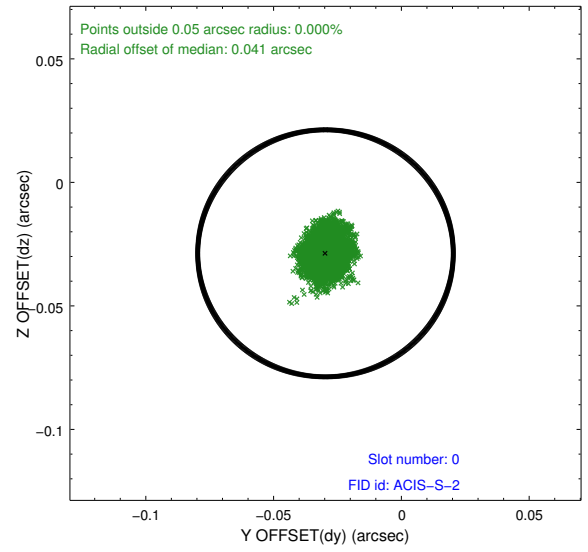
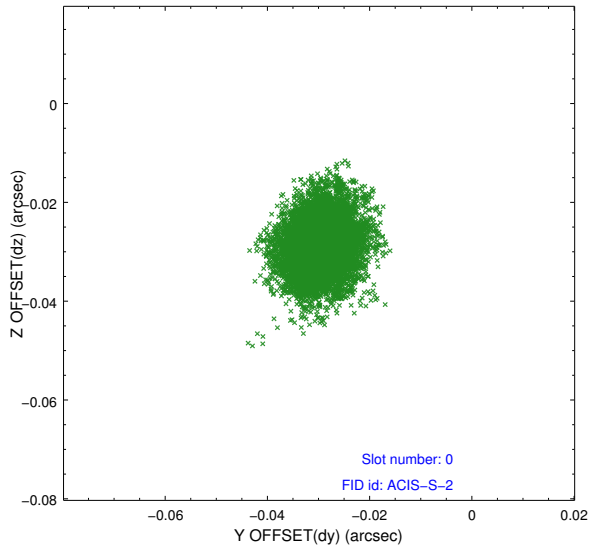


2.4.4 Slot 6

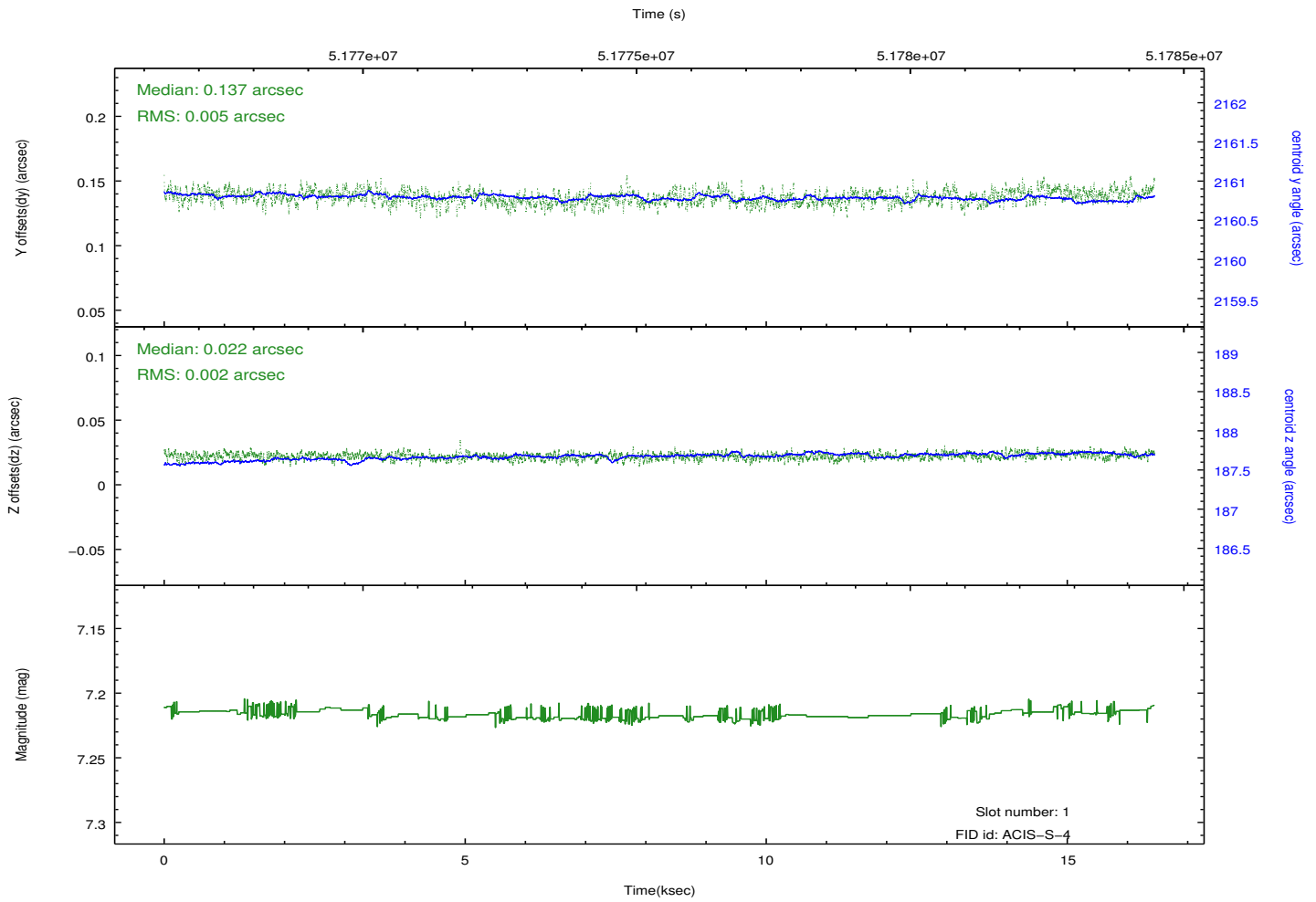
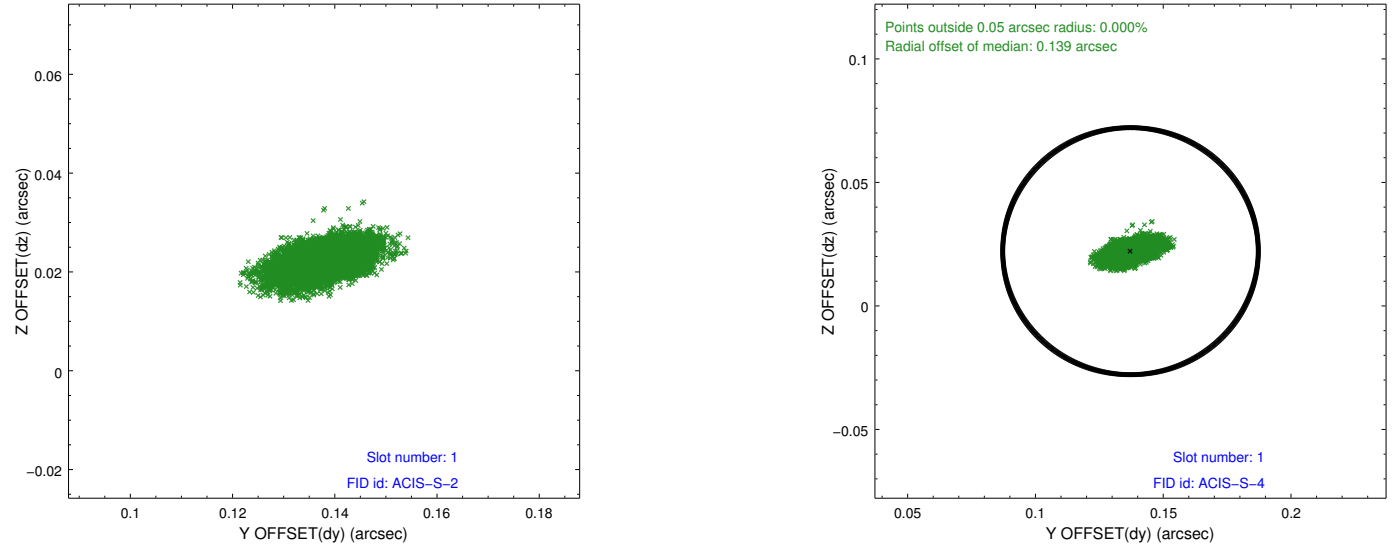


2.5 FID Slots

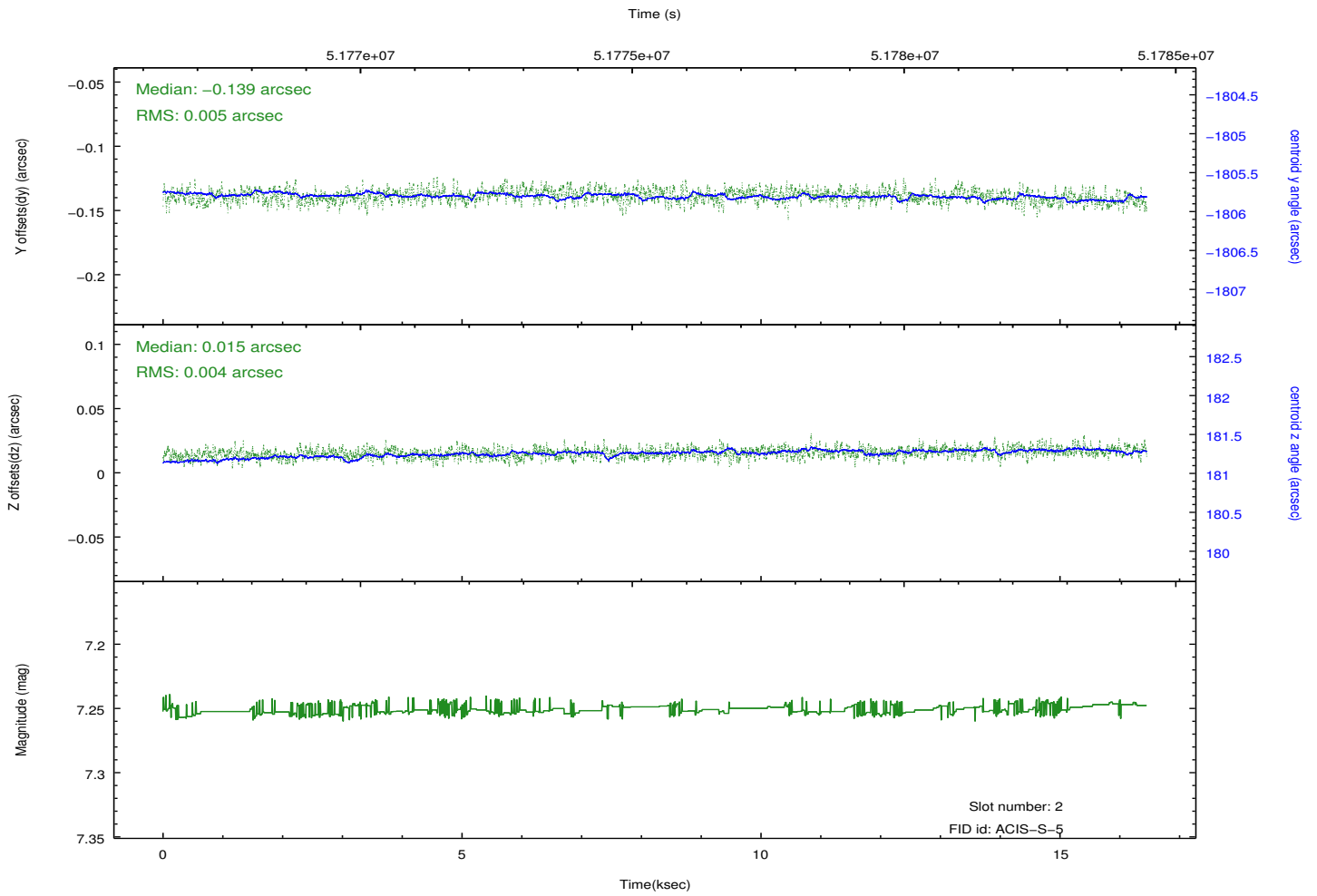
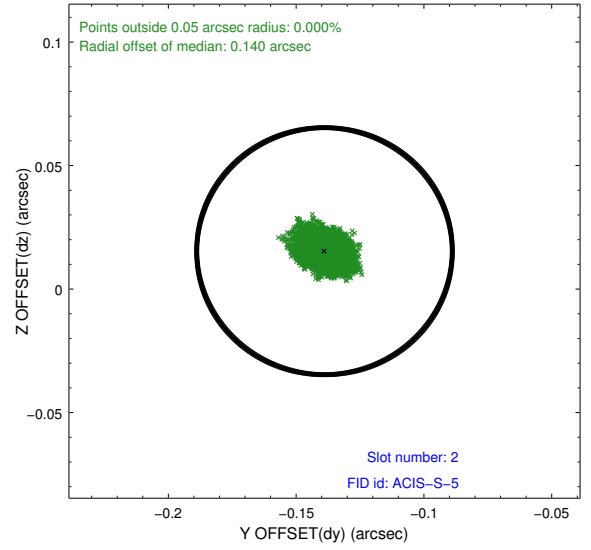
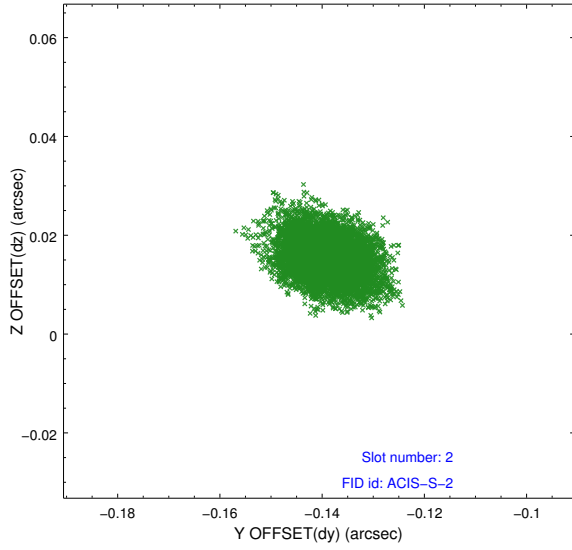
2.5.1 Slot 0



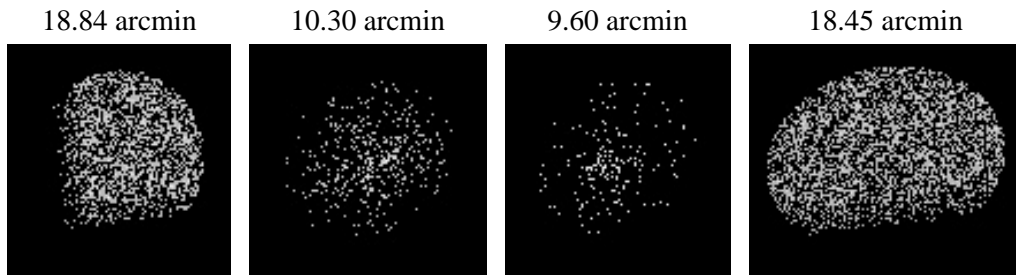
2.5.2 Slot 1



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	15.027

A.2 Comments

ACIS chip response to a continuum source. Standard candle observation.

==

The guide star in slot 7 was never acquired for this observation. The aspect solution is not expected to be degraded by the loss of one guide star.===

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.