

V&V Reference Report

L2 ASCDS Version : 8.1.1

Observation 509 - L2 Version 4

Chandra X-Ray Center

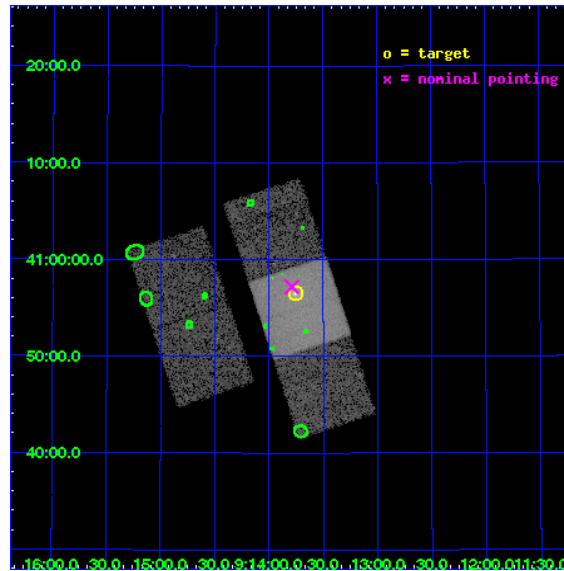
L2 Processing Date : Nov 21 2009

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
2.4.5	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

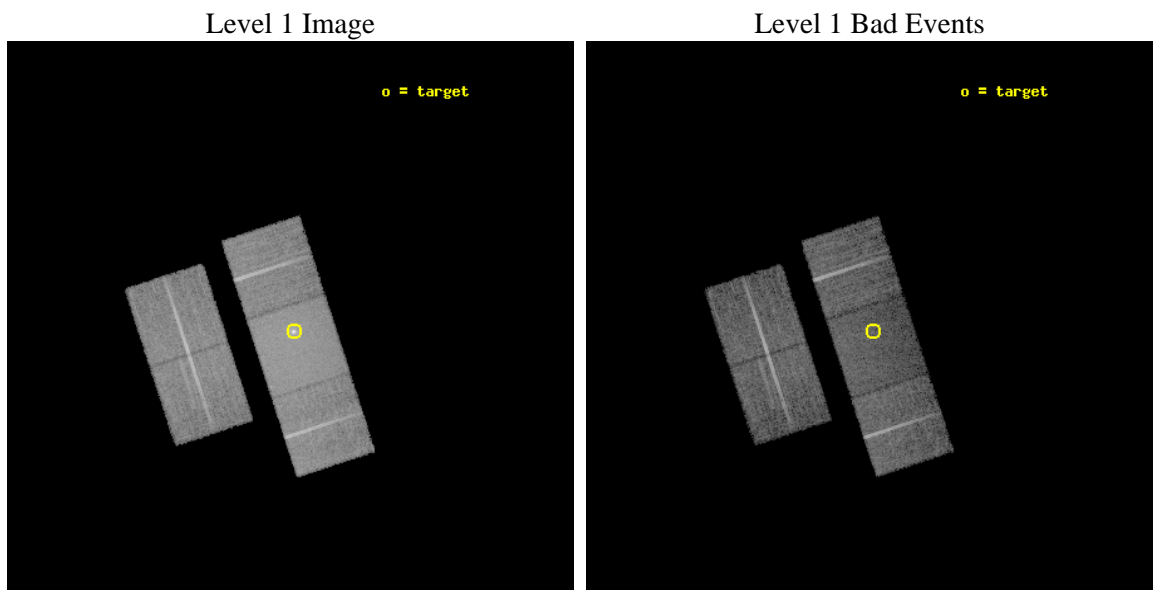
seq_num	800017	Sequence number
obs_id	509	Observation id
title	THE MASSIVE COOLING FLOW IN IRAS09104_4109	Proposal title
observer	Professor Andrew Fabian	Principal investigator
object	IRAS 09104	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	138.439583	Observer's specified target RA
dec_targ	40.941389	Observer's specified target Dec
ra_nom	138.44736359963	Nominal RA
dec_nom	40.953126896506	Nominal Dec
roll_nom	71.982003458214	Nominal Roll
revision	4	Processing version of data
ontime	9164.8000085354	Sum of GTIs [s]
livetime	9048.7497924473	Livetime [s]
ontime2	9164.8000085354	Sum of GTIs [s]
ontime3	9164.8000085354	Sum of GTIs [s]
ontime6	9164.8000085354	Sum of GTIs [s]
ontime7	9164.8000085354	Sum of GTIs [s]
ontime8	9164.8000085354	Sum of GTIs [s]
l2events	101381	Number of level 2 events



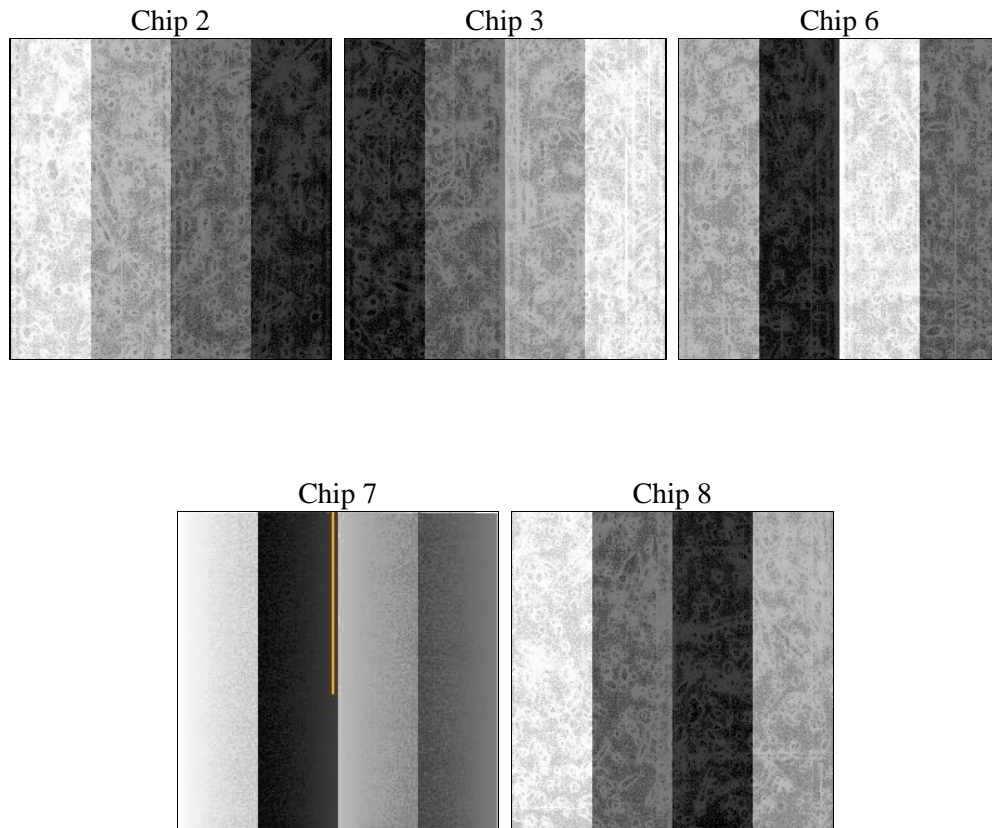
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	10000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	9164.8000085354	Sum of GTIs [s]
caldsver	4.1.4	 	ontime2	9164.8000085354	Sum of GTIs [s]
date	2009-11-21T09:47:23	Date and time of file creation	ontime3	9164.8000085354	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	9164.8000085354	Sum of GTIs [s]
			ontime7	9164.8000085354	Sum of GTIs [s]
			ontime8	9164.8000085354	Sum of GTIs [s]
			l1events	481298	Number of level 1 events

2.1.4 Events

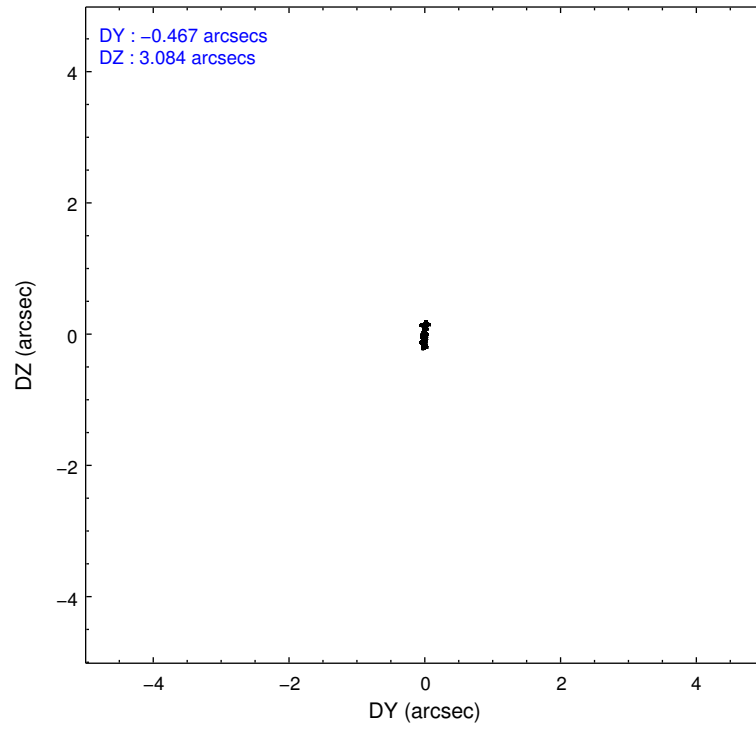
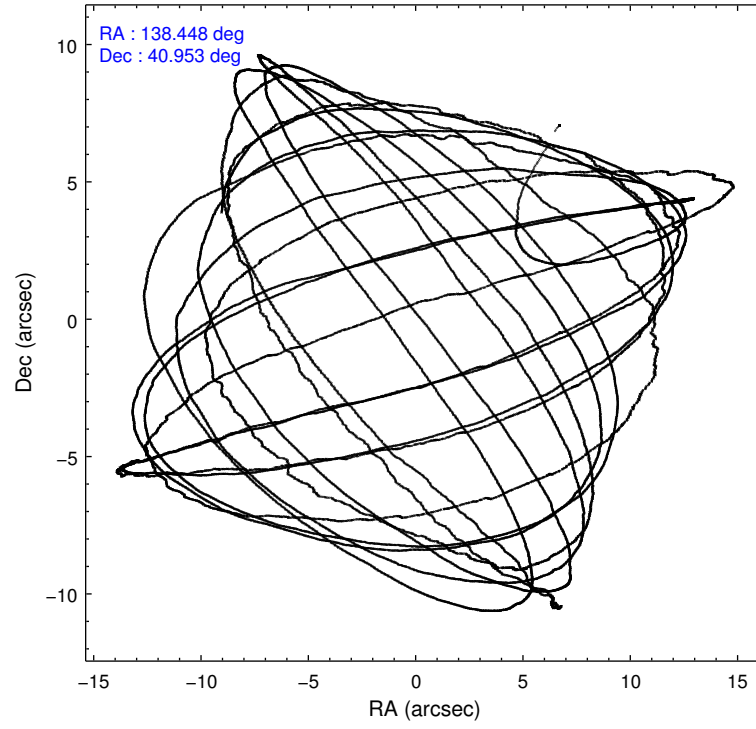
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	85496	84160	86076	128090	97476
rejected events	77591	75938	77257	57414	80987
rejected %	90%	90%	89%	44%	83%

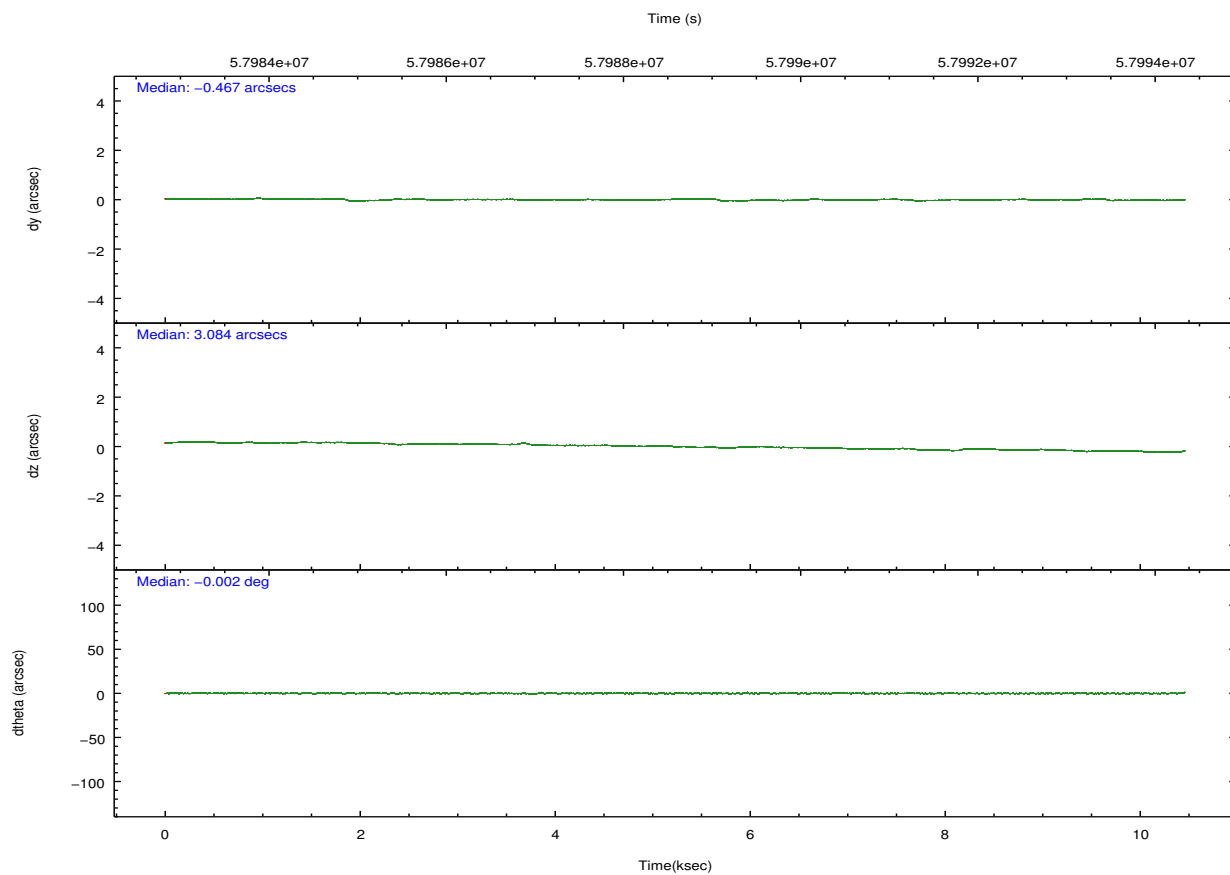
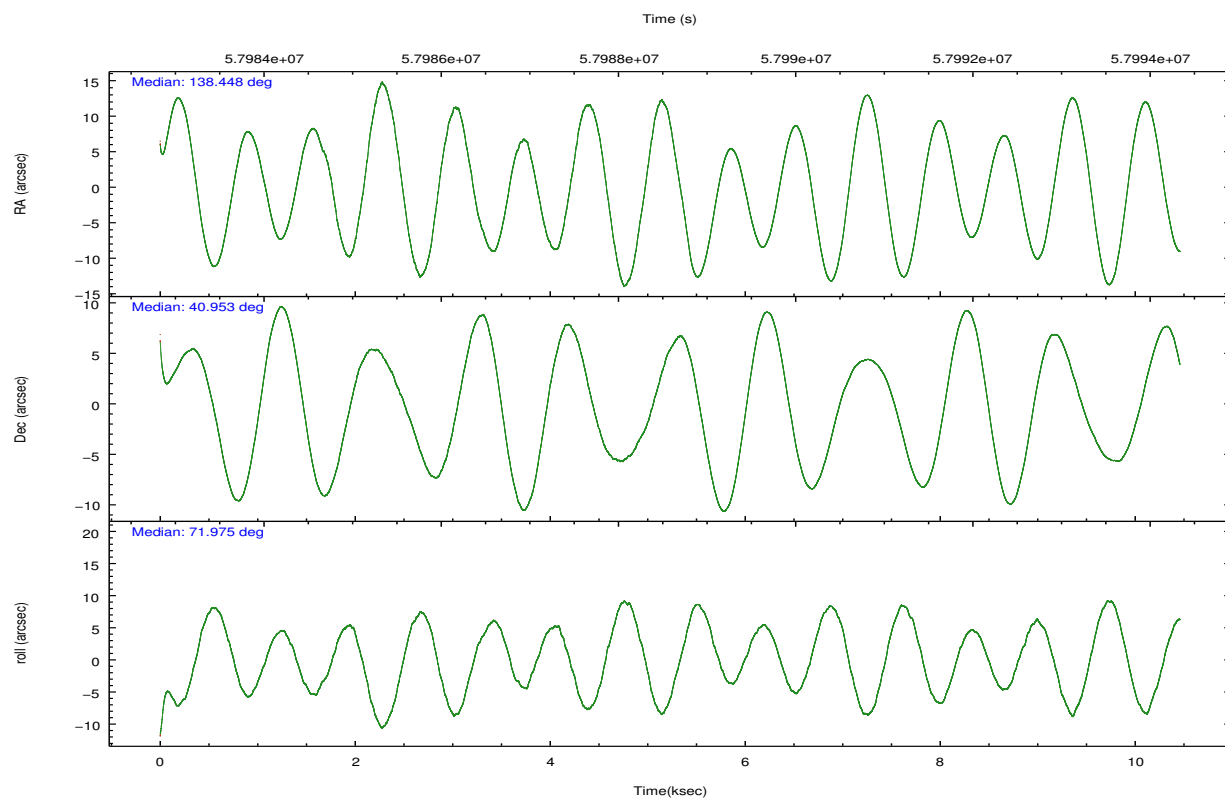
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1897	1860	1973	8557	3915
	2%	2%	2%	6%	4%
grade 1 events	15	18	21	48	28
	0%	0%	0%	0%	0%
grade 2 events	3155	3381	3600	14934	5453
	3%	4%	4%	11%	5%
grade 3 events	541	512	518	5108	1348
	0%	0%	0%	3%	1%
grade 4 events	492	473	502	4732	1275
	0%	0%	0%	3%	1%
grade 5 events	1437	1576	1617	5731	2271
	1%	1%	1%	4%	2%
grade 6 events	1822	1996	2226	37391	4502
	2%	2%	2%	29%	4%
grade 7 events	76137	74344	75619	51589	78684
	89%	88%	87%	40%	80%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-23678	ACIS-23678	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	138.454737	138.4473635996293	Subarray requested	NONE	NONE
Pointing Dec	40.926049	40.95312689650638	Alternating exposures requested	N	N
Pointing Roll	71.820546	71.98200345821419	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	57983810.184000	57982703.60131			
Observation start date	1999-11-03T02:35:46	1999-11-03T02:18:23			
Observation end time	57993810.184000	57994298.914229			
Observation end date	1999-11-03T05:22:26	1999-11-03T05:31:38			
Read mode	TIMED	TIMED			

2.3 Aspect



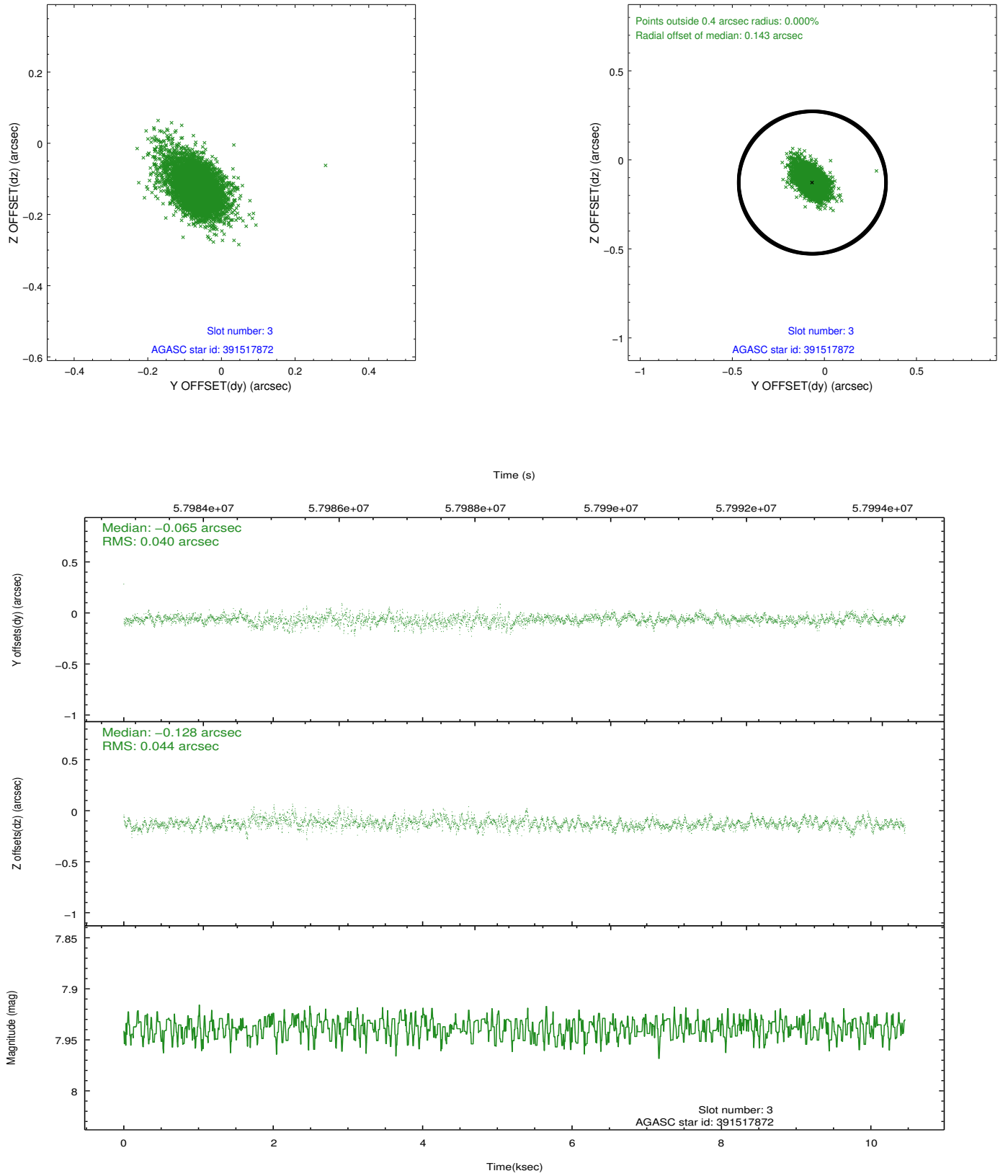


Slot Statistics

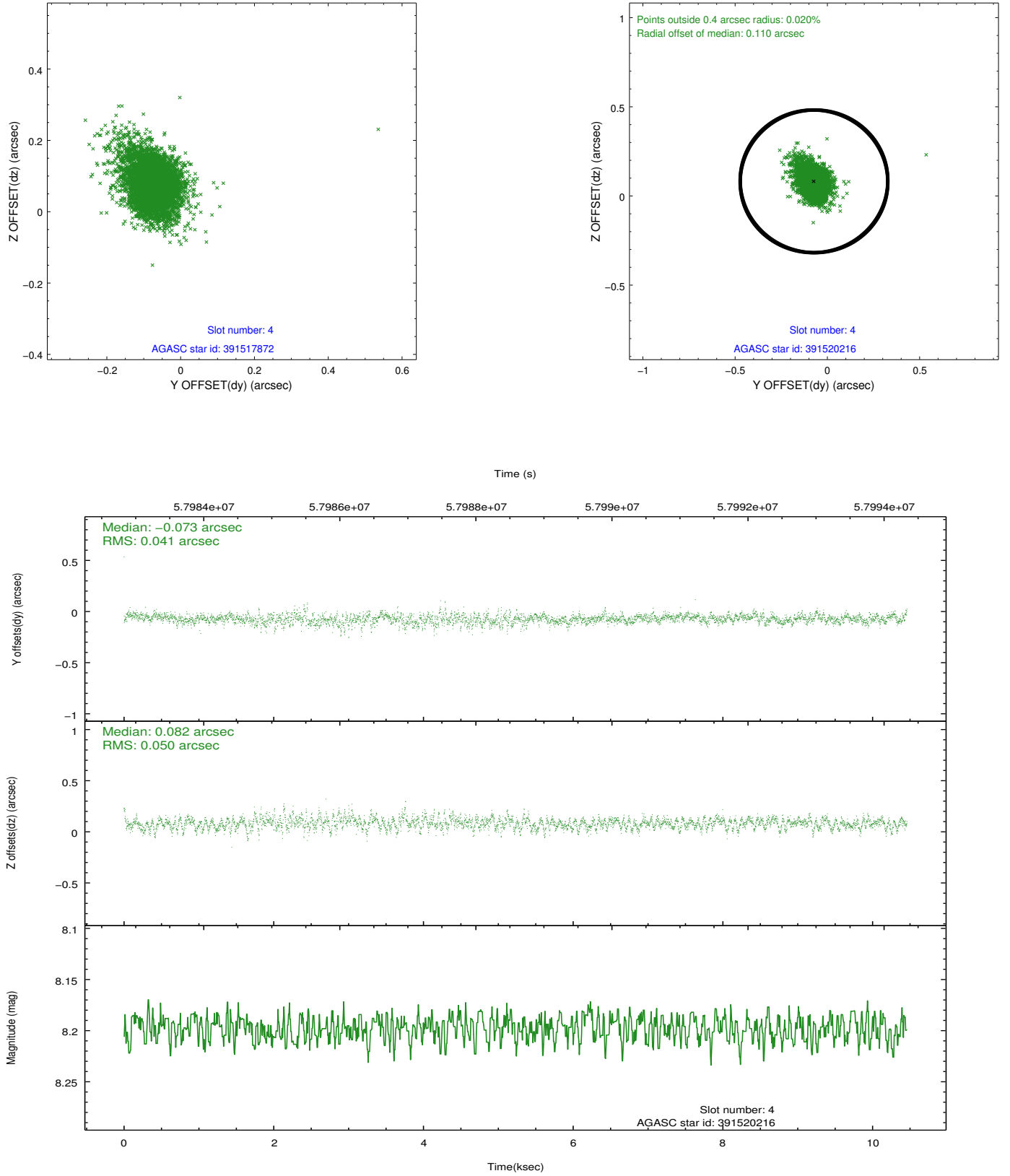
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	5103	0.019	-0.006	0.007	0.011	0.000000	0.000000	-752.13	-1724.12
1	FID	ACIS-S-4	7.21	5103	0.038	-0.007	0.005	0.010	0.000000	0.000000	2161.16	184.08
2	FID	ACIS-S-5	7.24	5103	-0.088	0.022	0.007	0.011	0.000000	0.000000	-1804.78	178.12
3	GUIDE	391517872	7.94	5103	-0.065	-0.128	0.059	0.110	138.276370	40.886498	-287.23	417.35
4	GUIDE	391520216	8.20	5101	-0.073	0.082	0.064	0.115	139.043850	40.808937	104.61	-1654.21
5	GUIDE	391517968	9.38	5101	0.058	-0.132	0.085	0.145	138.171498	40.733468	-899.40	518.16
6	GUIDE	391514504	9.50	5098	-0.124	0.077	0.088	0.147	139.002719	41.119774	1129.68	-1192.05
7	GUIDE	391512768	9.70	5095	0.208	0.097	0.108	0.176	138.595943	40.243488	-2213.52	-1135.09

2.4 Star Slots

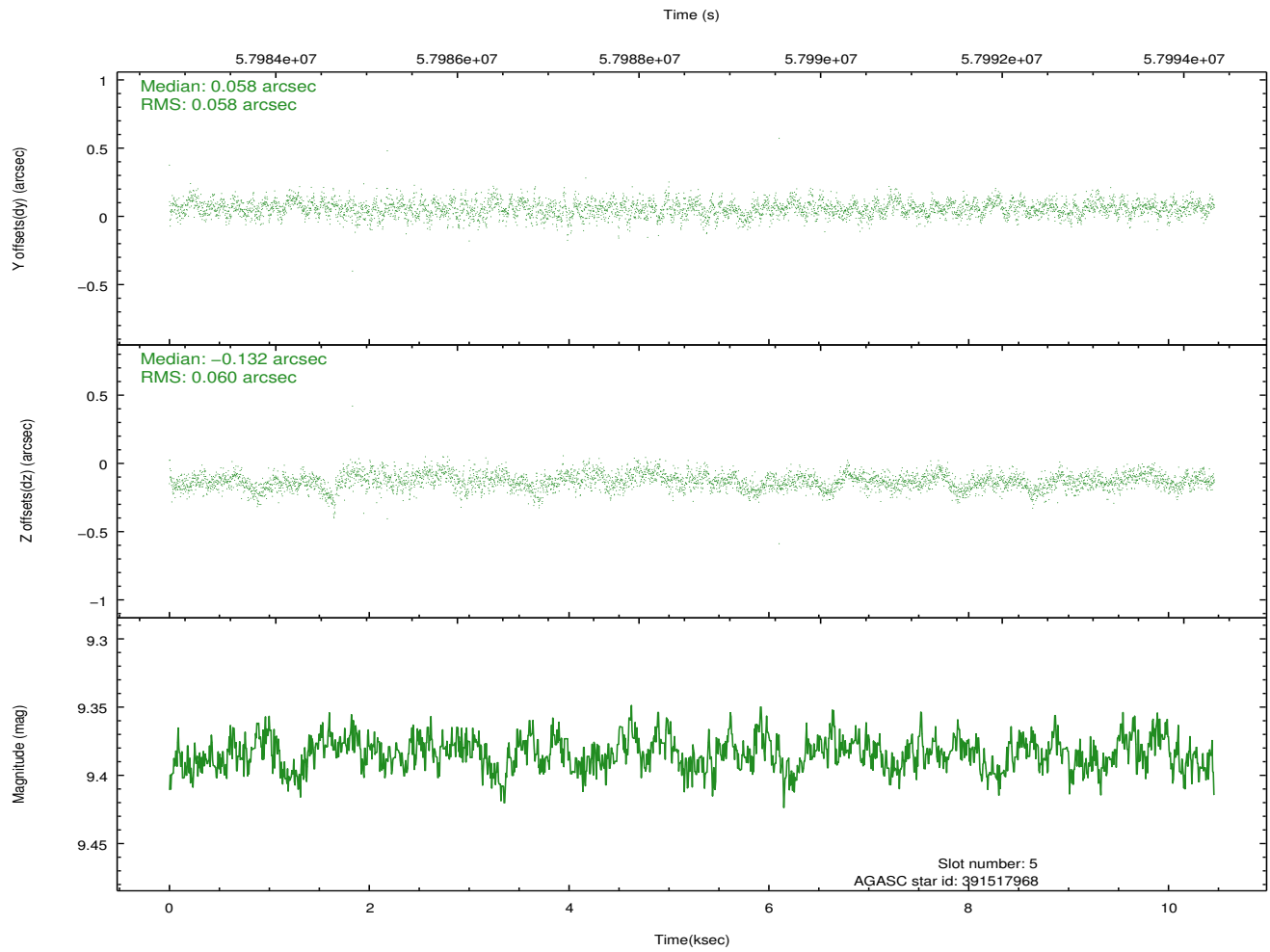
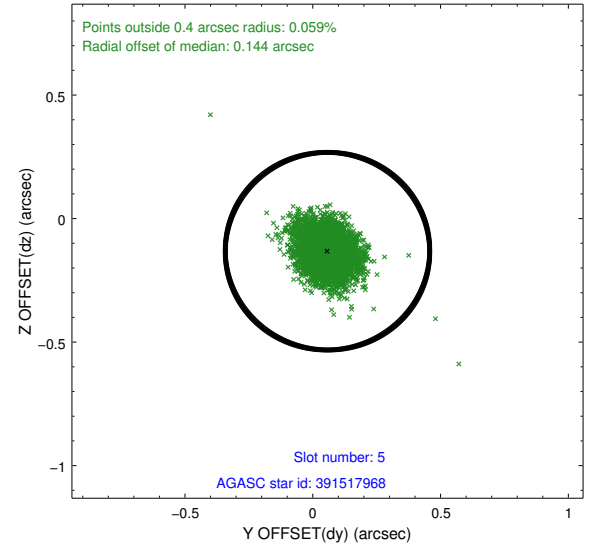
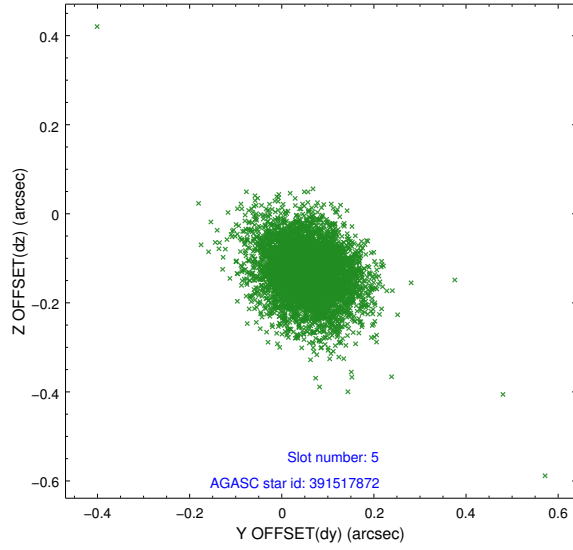
2.4.1 Slot 3



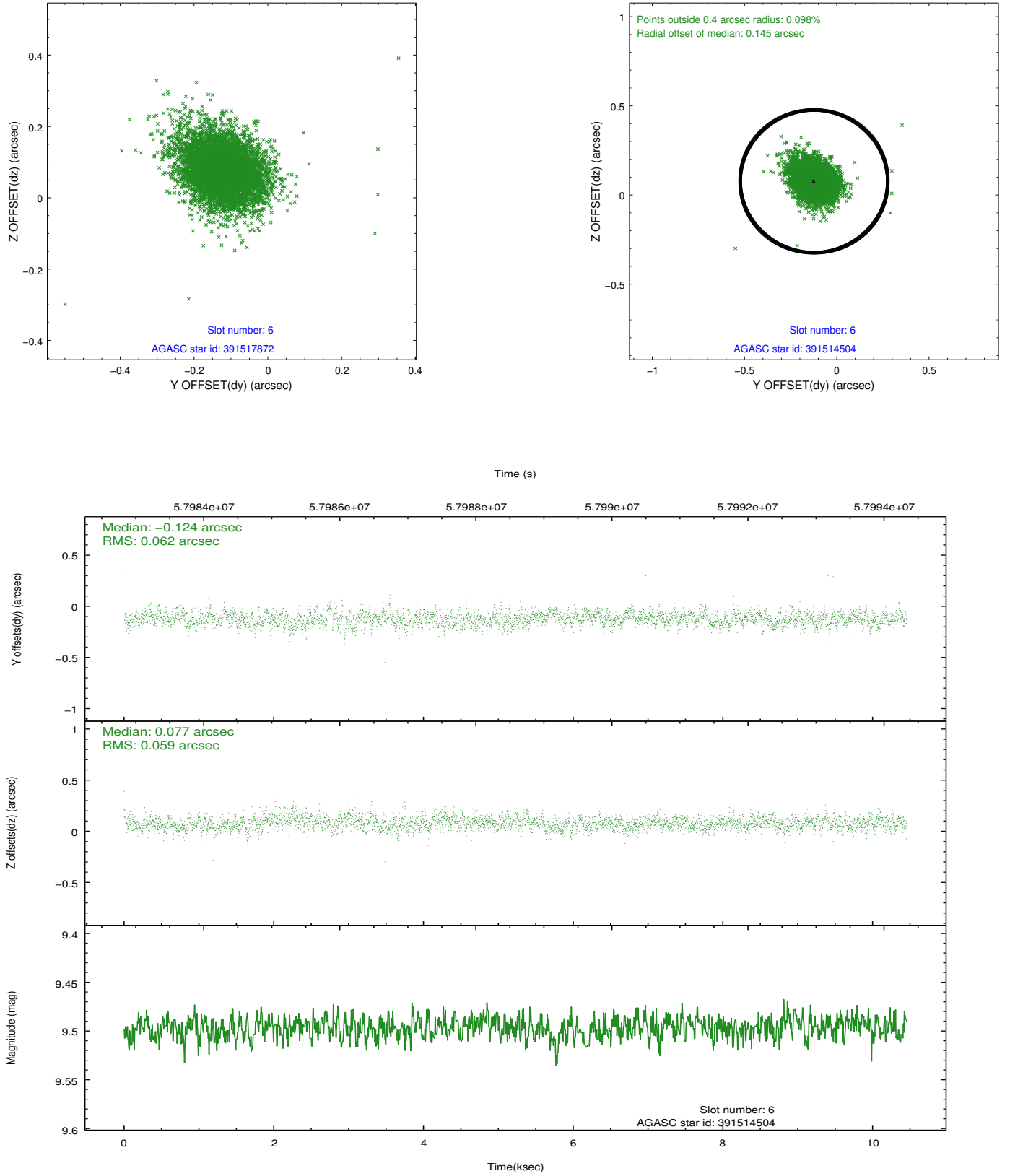
2.4.2 Slot 4



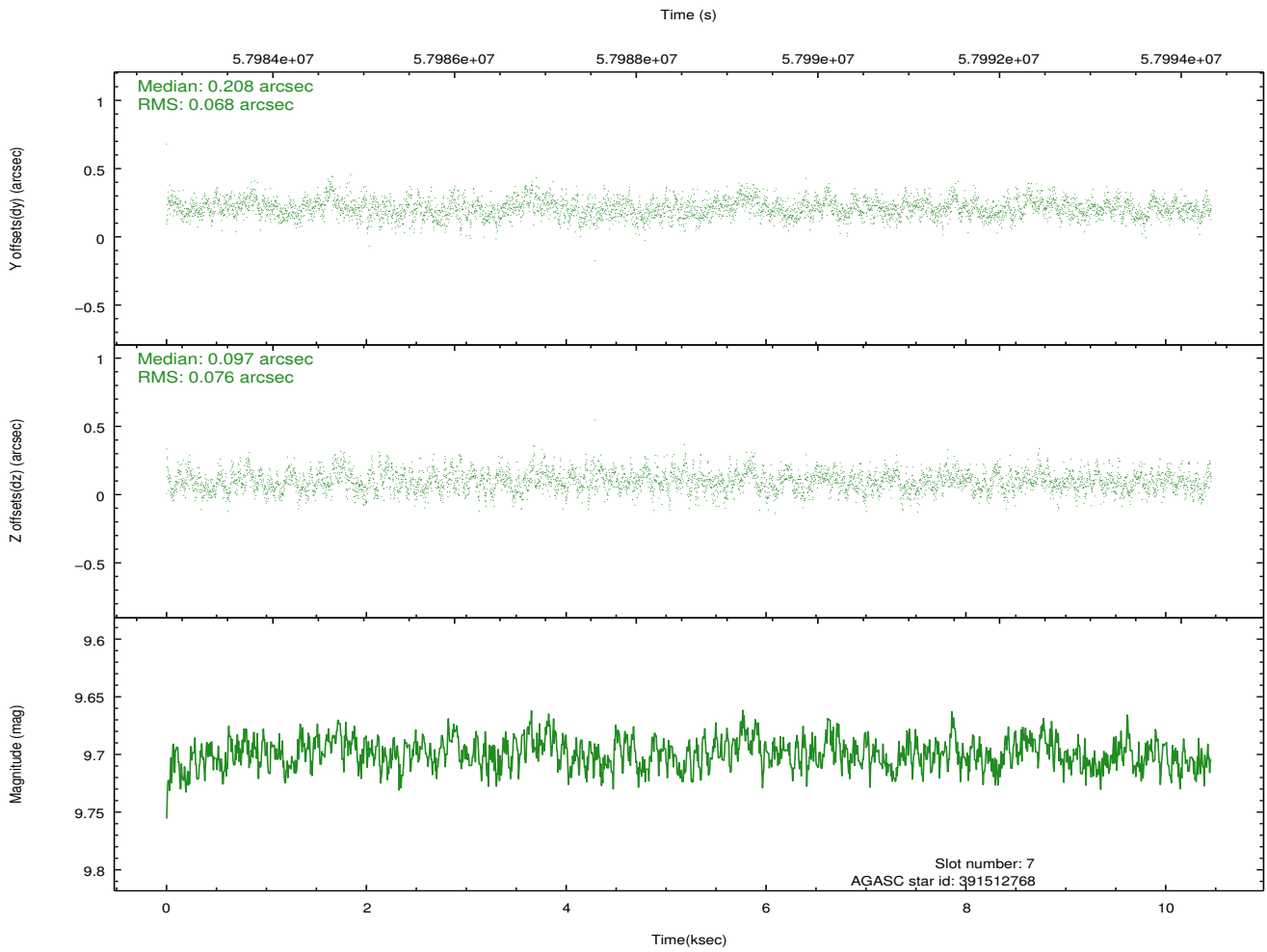
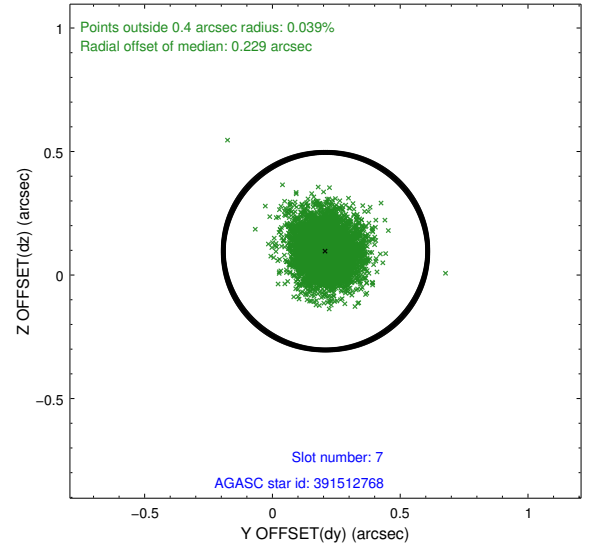
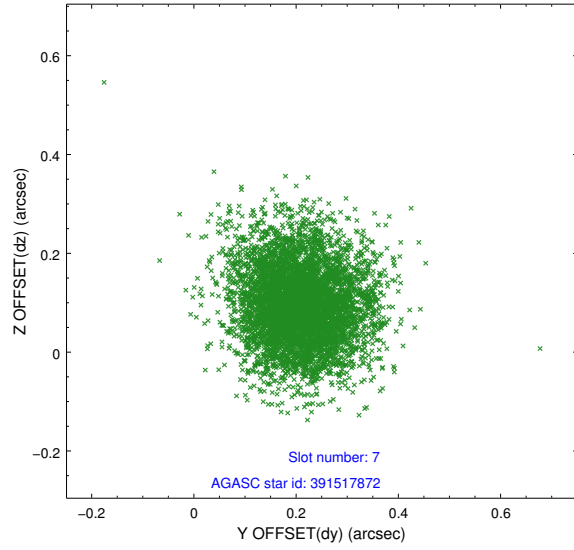
2.4.3 Slot 5



2.4.4 Slot 6

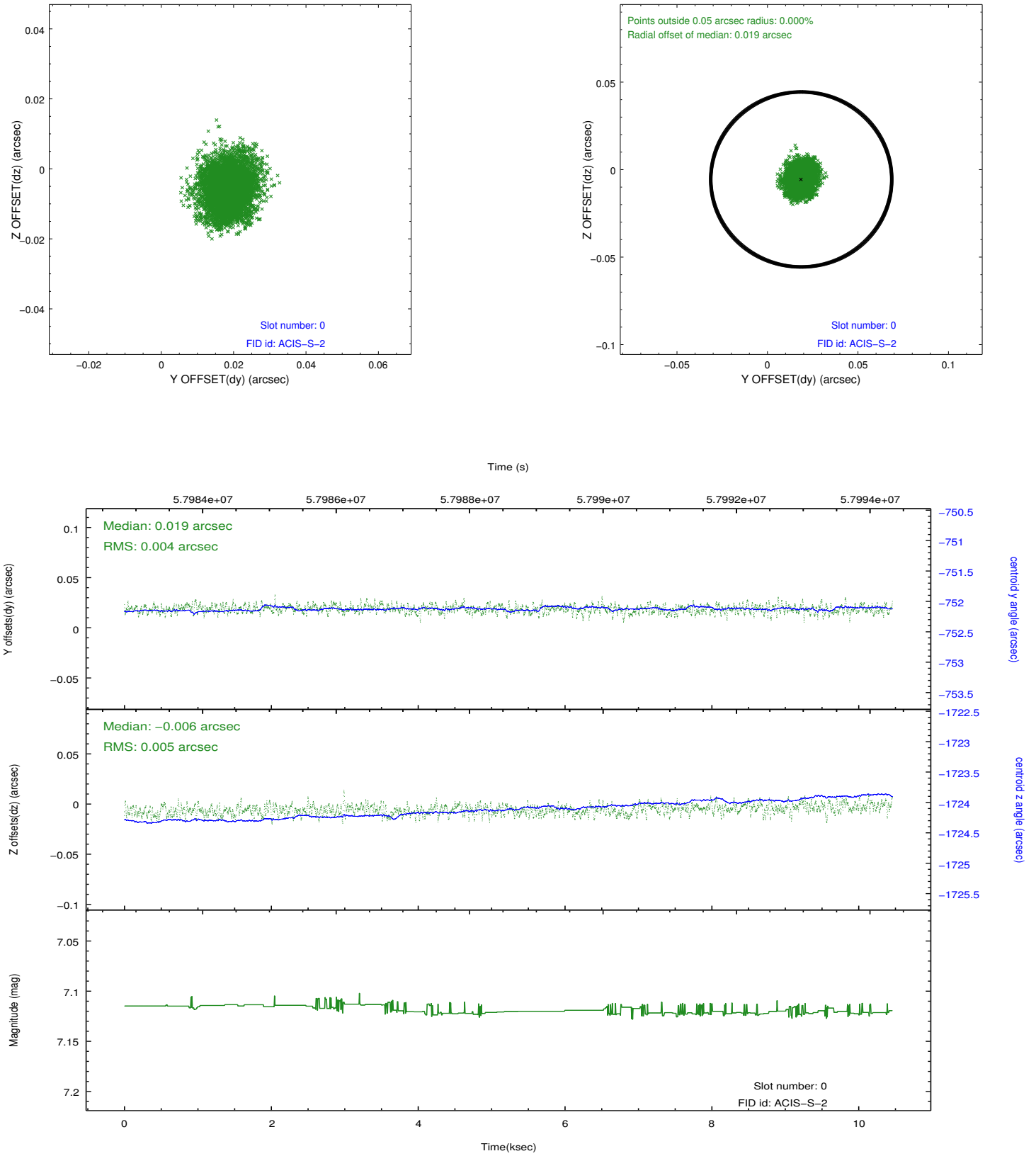


2.4.5 Slot 7

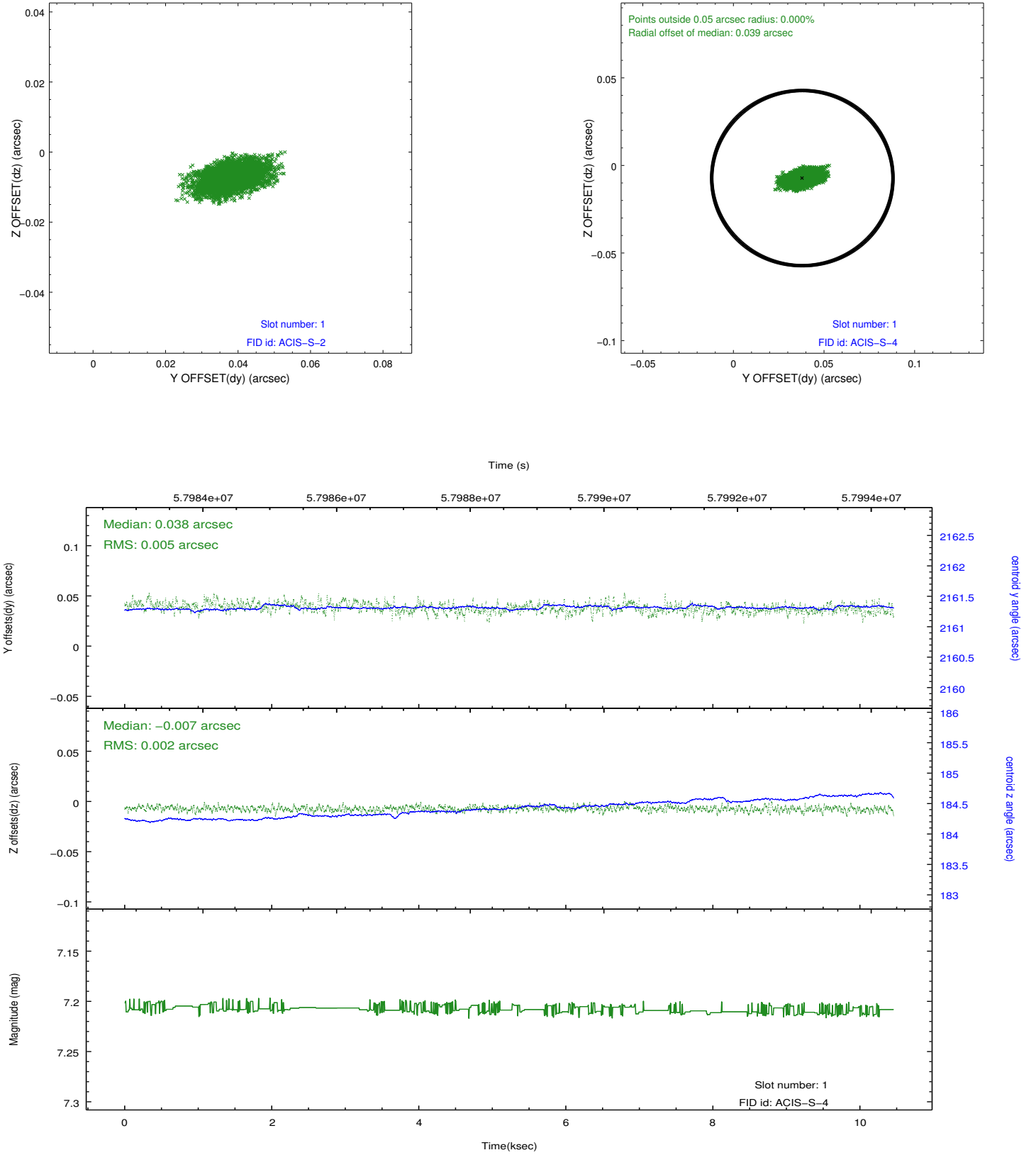


2.5 FID Slots

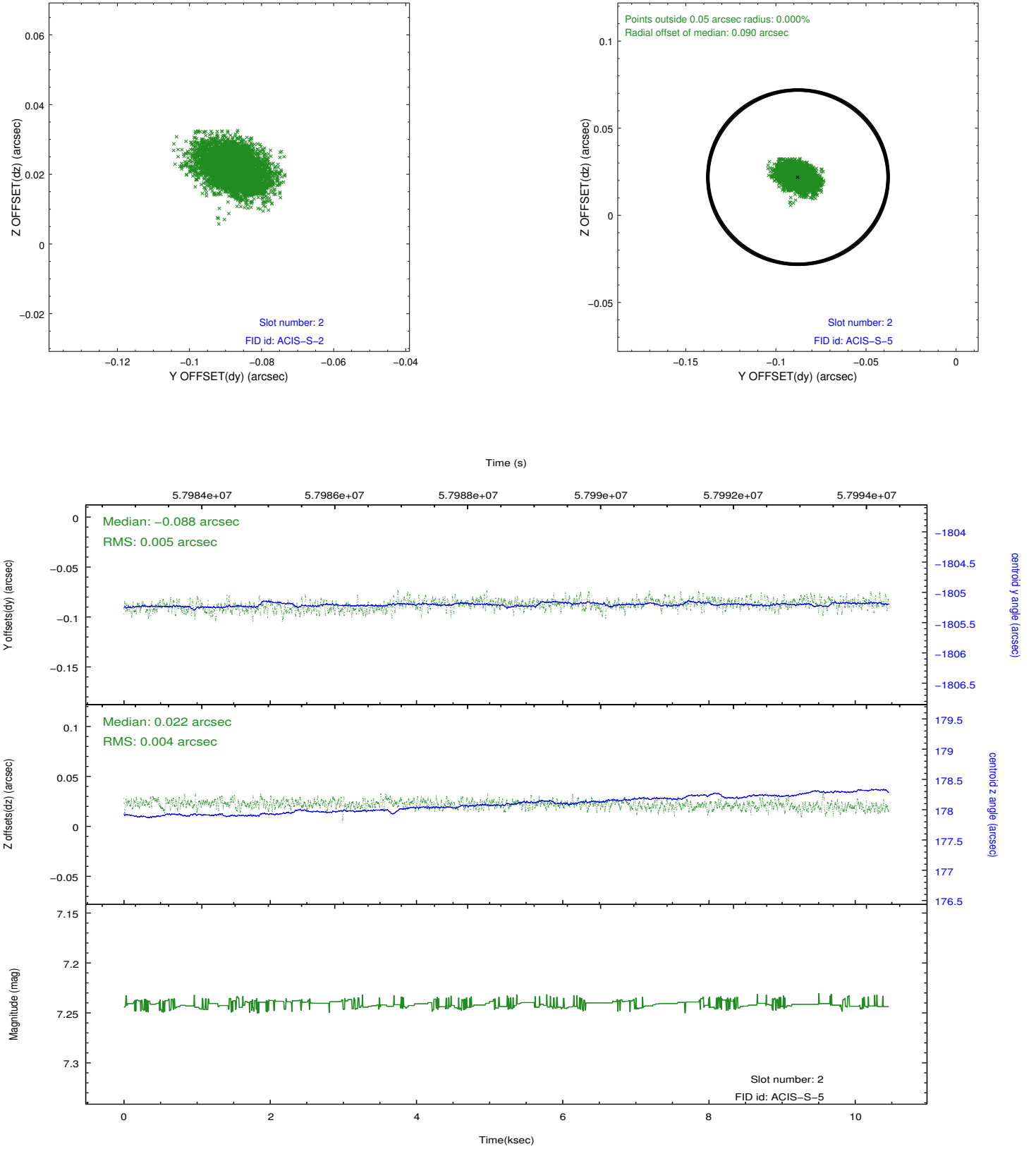
2.5.1 Slot 0



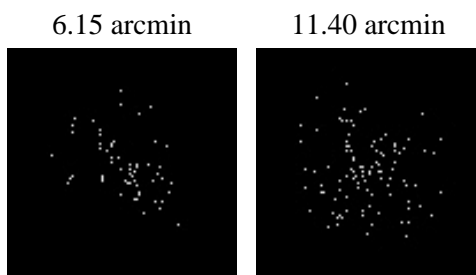
2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.02.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.168

A.2 Comments

The focal plane temperature is approximately -110 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.