

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 5136 - L2 Version 3  
Chandra X-Ray Center

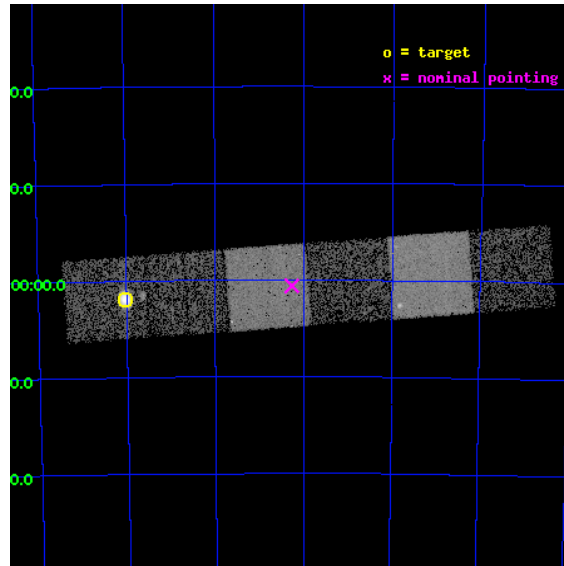
L2 Processing Date : Nov 30 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
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
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

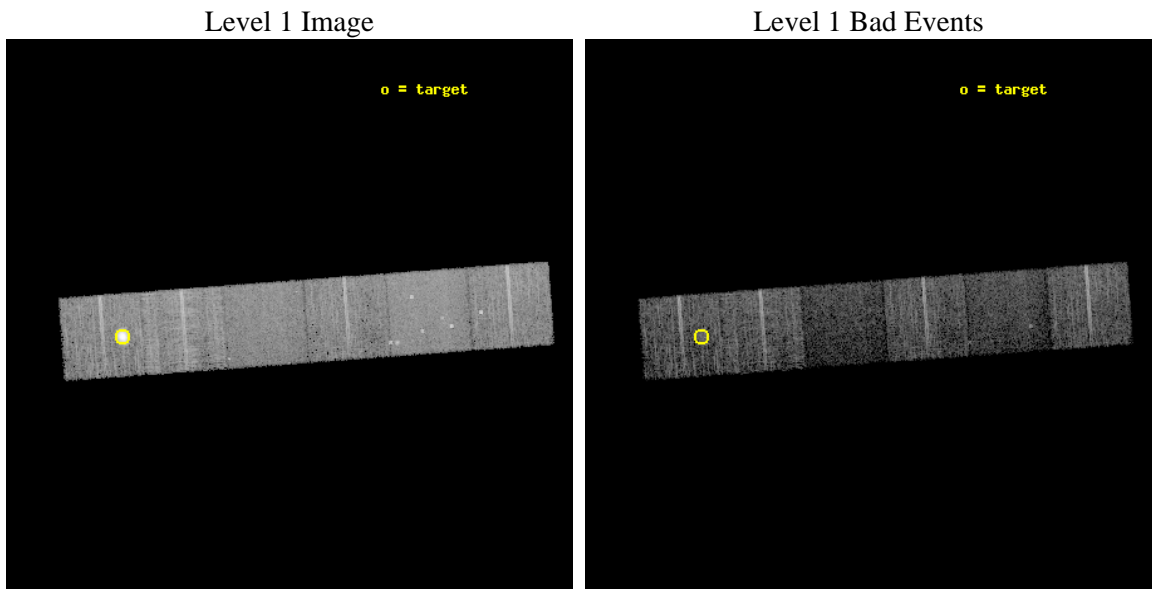
seq_num	590334	Sequence number
obs_id	5136	Observation id
title	AO5B ACIS-S Calibration Observations of E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72[S5,-120,-17.29,0,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	15.06602448565	Nominal RA [deg]
dec_nom	-72.010103244615	Nominal Dec [deg]
roll_nom	175.72994299804	Nominal Roll [deg]
revision	3	Processing version of data
ontime	8041.3795872033	Sum of GTIs [s]
livetime	7939.5547969326	Livetime [s]
ontime4	8041.58478719	Sum of GTIs [s]
ontime5	8041.5027071834	Sum of GTIs [s]
ontime6	8041.4616671801	Sum of GTIs [s]
ontime7	8041.5437471867	Sum of GTIs [s]
ontime8	8038.179656893	Sum of GTIs [s]
ontime9	8041.3795872033	Sum of GTIs [s]
l2events	85063	Number of level 2 events



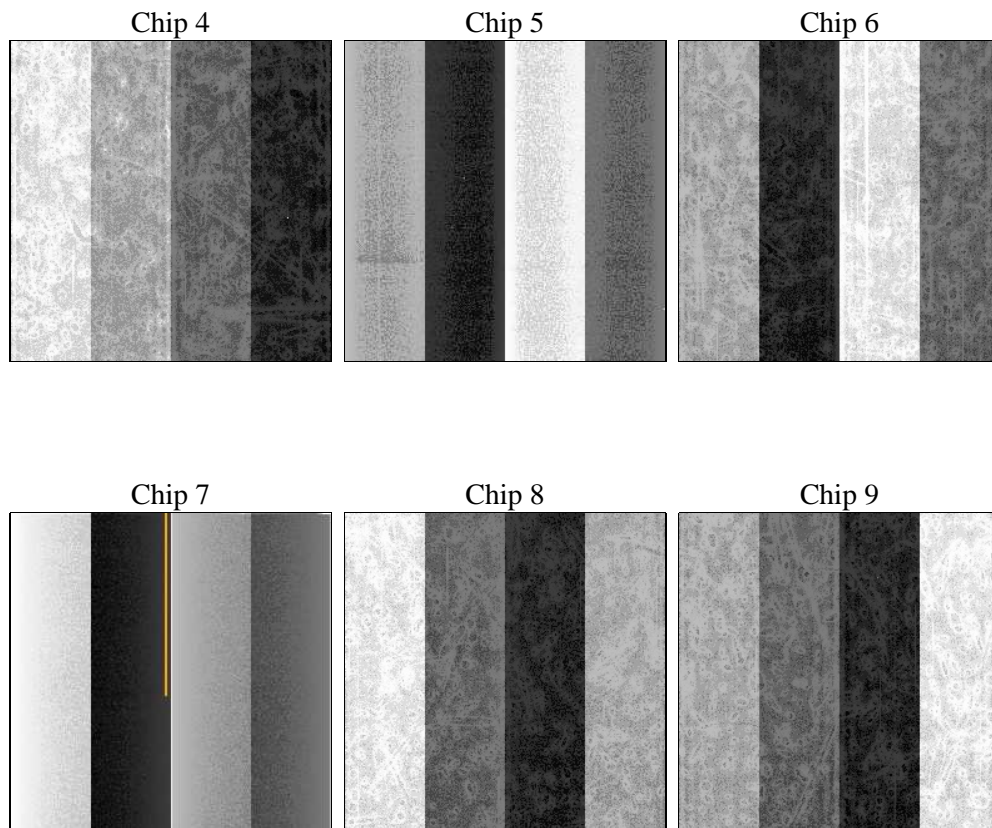
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8289.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	8041.3795872033	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime4	8041.58478719	Sum of GTIs [s]
date	2012-11-30T14:00:51	Date and time of file creation	ontime5	8041.5027071834	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	8041.4616671801	Sum of GTIs [s]
			ontime7	8041.5437471867	Sum of GTIs [s]
			ontime8	8038.179656893	Sum of GTIs [s]
			ontime9	8041.3795872033	Sum of GTIs [s]
			l1events	320373	Number of level 1 events

### 2.1.4 Events

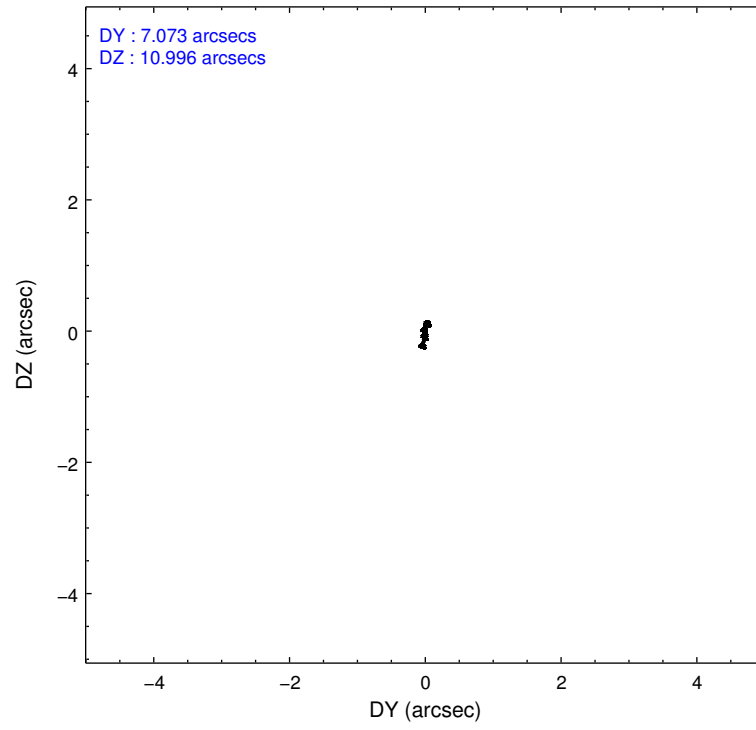
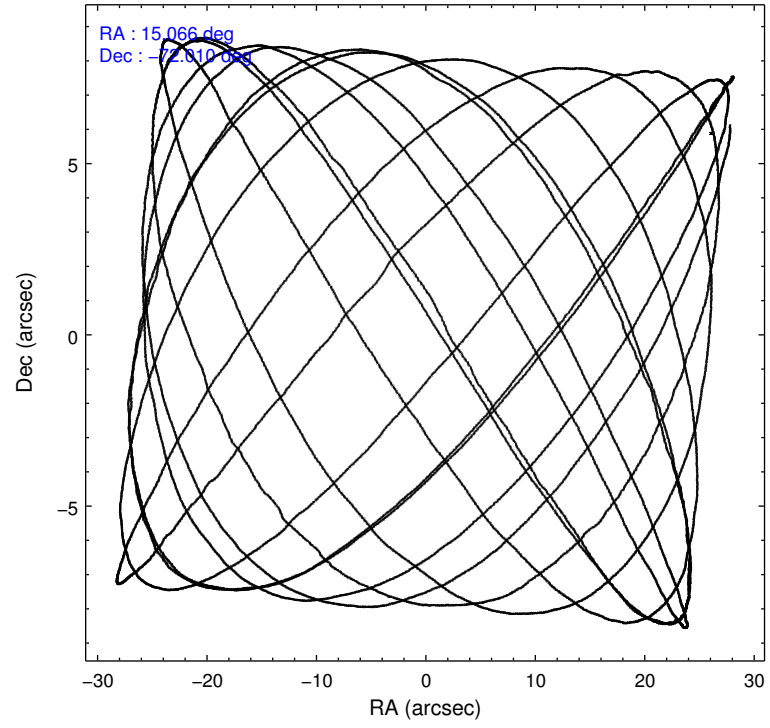
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	51523	56071	44892	43381	58798	65708	grade 0 events	2661	3537	1994	2375	4655	20805
rejected events	45867	26308	40029	21404	44306	39720		5%	6%	4%	5%	7%	31%
rejected %	89%	46%	89%	49%	75%	60%	grade 1 events	41	80	27	53	50	112
								0%	0%	0%	0%	0%	0%
							grade 2 events	1152	8749	976	4693	2912	2455
								2%	15%	2%	10%	4%	3%
							grade 3 events	546	1498	534	2232	1759	864
								1%	2%	1%	5%	2%	1%
							grade 4 events	528	1428	528	2167	1698	823
								1%	2%	1%	4%	2%	1%
							grade 5 events	1414	4470	1479	4588	2270	1647
								2%	7%	3%	10%	3%	2%
							grade 6 events	773	14582	834	10523	3470	1064
								1%	26%	1%	24%	5%	1%
							grade 7 events	44408	21727	38520	16750	41984	37938
								86%	38%	85%	38%	71%	57%

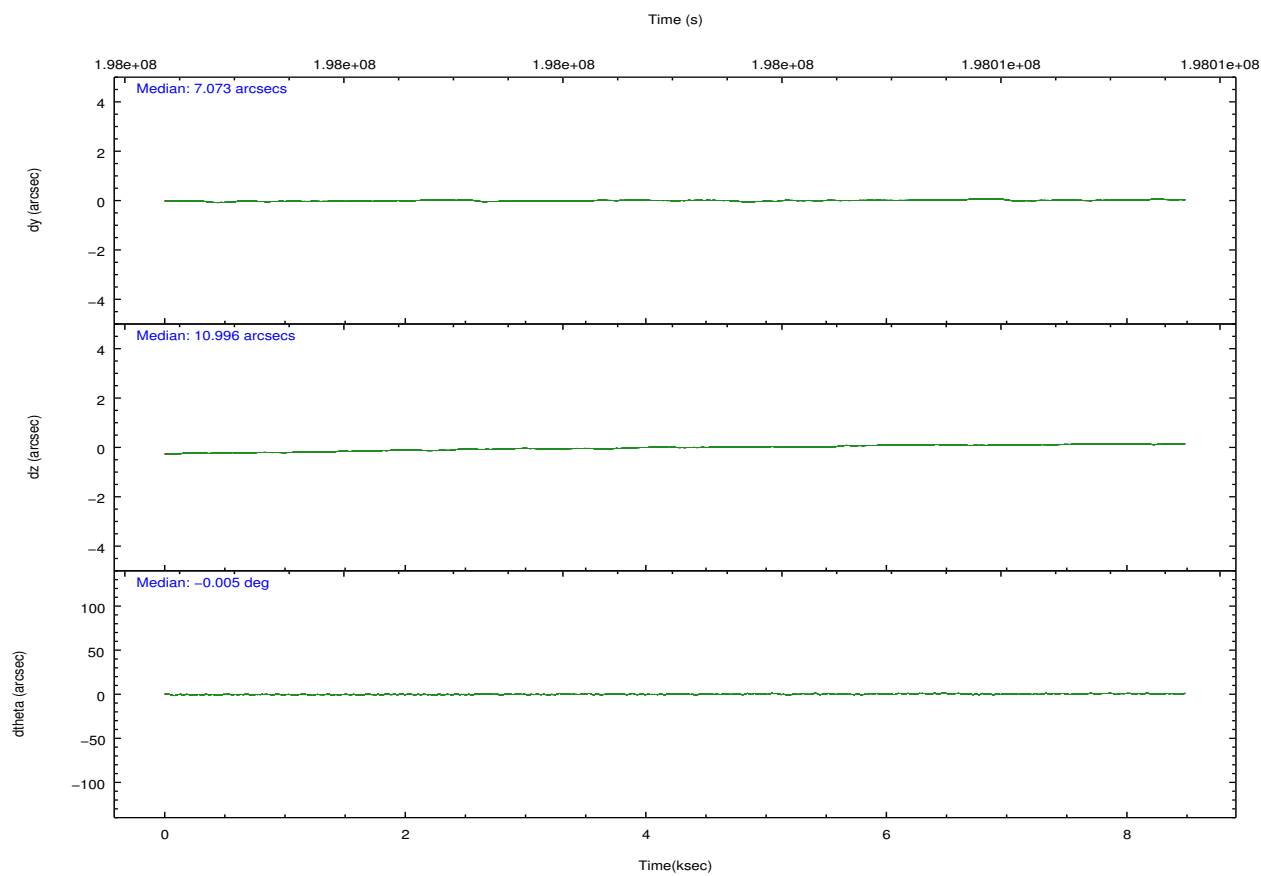
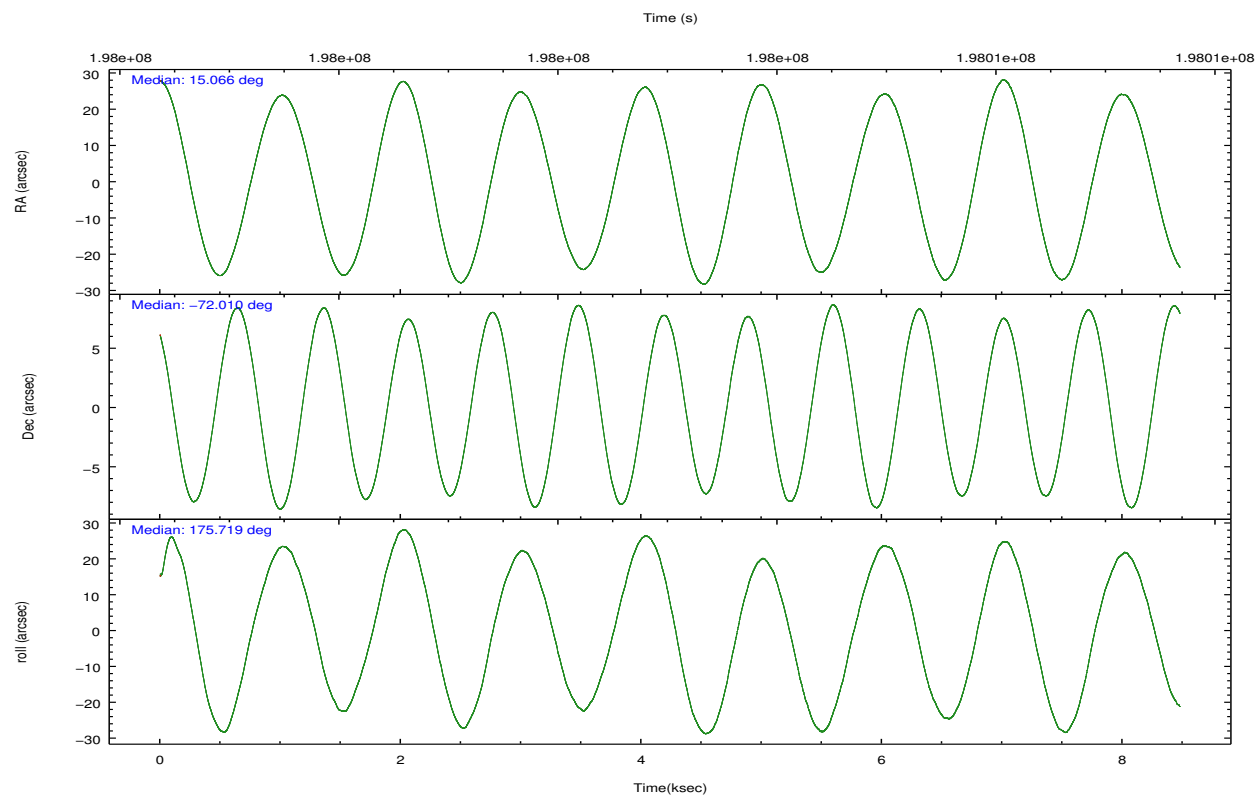


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	15.144881	15.06602448564981	Subarray requested	NONE	NONE
[deg] Pointing Dec	-71.997922	-72.01010324461458	Alternating exposures requested	N	N
[deg] Pointing Roll	175.648343	175.7299429980384	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	197164864.184000	197164864.184000			
[s] Window stop time (MET)	199670464.184000	199670464.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	197998977.184000	197998601.52853			
Observation start date	2004-04-10T15:41:53	2004-04-10T15:36:41			
[s] Observation end time (MET)	198007266.184000	198007400.64142			
Observation end date	2004-04-10T18:00:02	2004-04-10T18:03:20			
Read mode	TIMED	TIMED			

## 2.3 Aspect



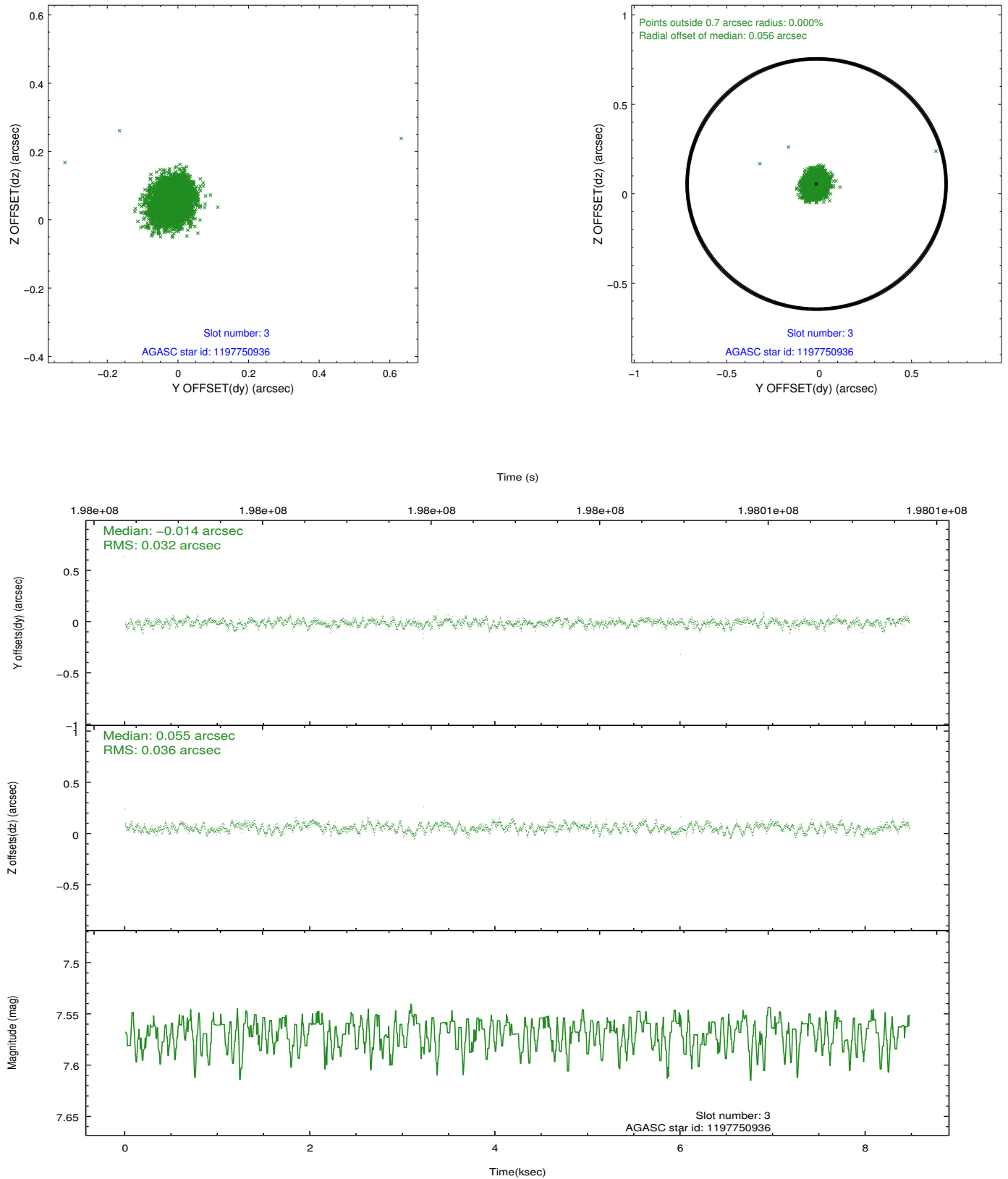


### Slot Statistics

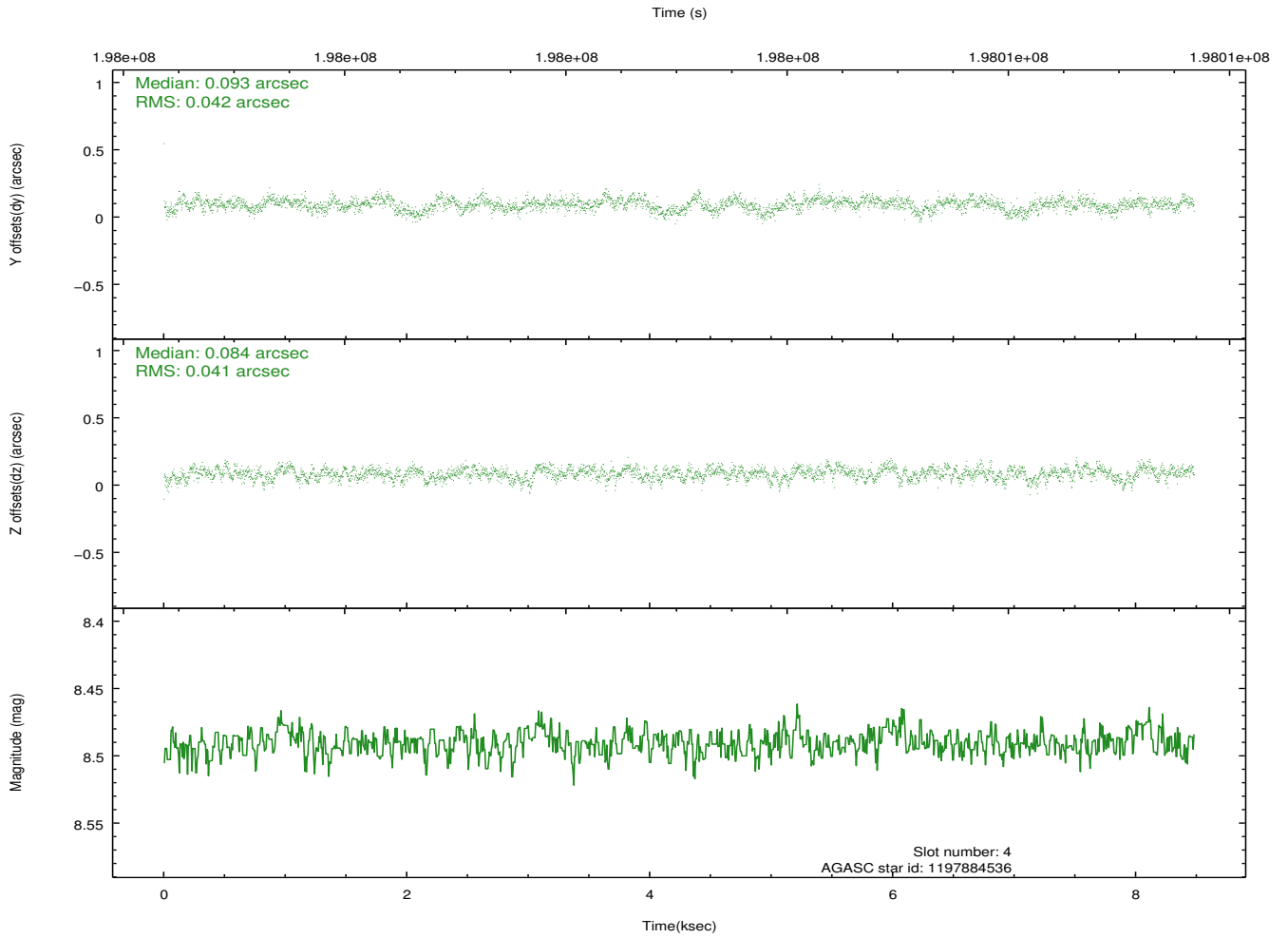
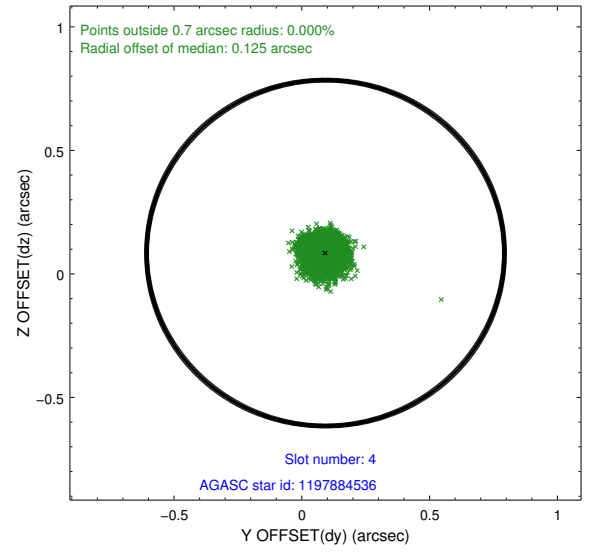
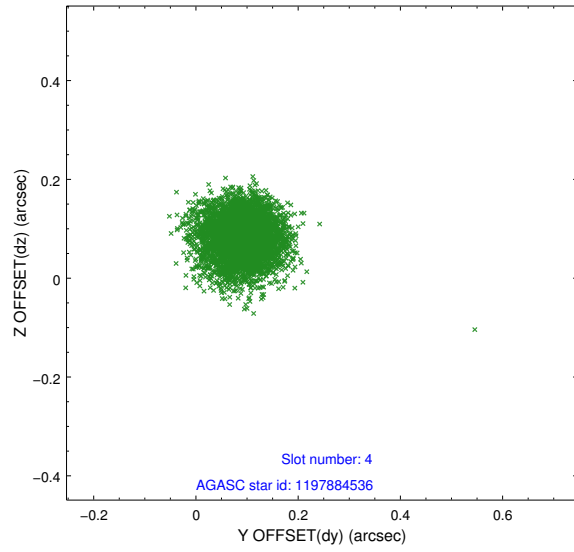
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	2069	-0.042	-0.002	0.006	0.010	0.000000	0.000000	-759.84	-1732.26
1	FID	ACIS-S-4	7.20	2069	0.062	0.021	0.005	0.009	0.000000	0.000000	2153.22	175.62
2	FID	ACIS-S-5	7.23	2068	-0.052	-0.009	0.006	0.010	0.000000	0.000000	-1811.88	169.94
3	GUIDE	1197750936	7.57	4136	-0.014	0.055	0.051	0.078	15.387940	-71.549550	-153.18	-1629.41
4	GUIDE	1197884536	8.49	4137	0.093	0.084	0.063	0.100	17.160729	-71.835289	-2213.43	-718.14
5	GUIDE	1197884712	8.30	4134	0.019	-0.059	0.059	0.096	16.087398	-72.252690	-1101.88	844.03
6	GUIDE	1197885328	7.24	4137	-0.041	0.060	0.058	0.090	16.283090	-71.733943	-1209.60	-1032.82
7	GUIDE	1198190968	10.01	4133	-0.056	-0.142	0.108	0.179	15.749622	-72.545972	-801.52	1920.80

## 2.4 Star Slots

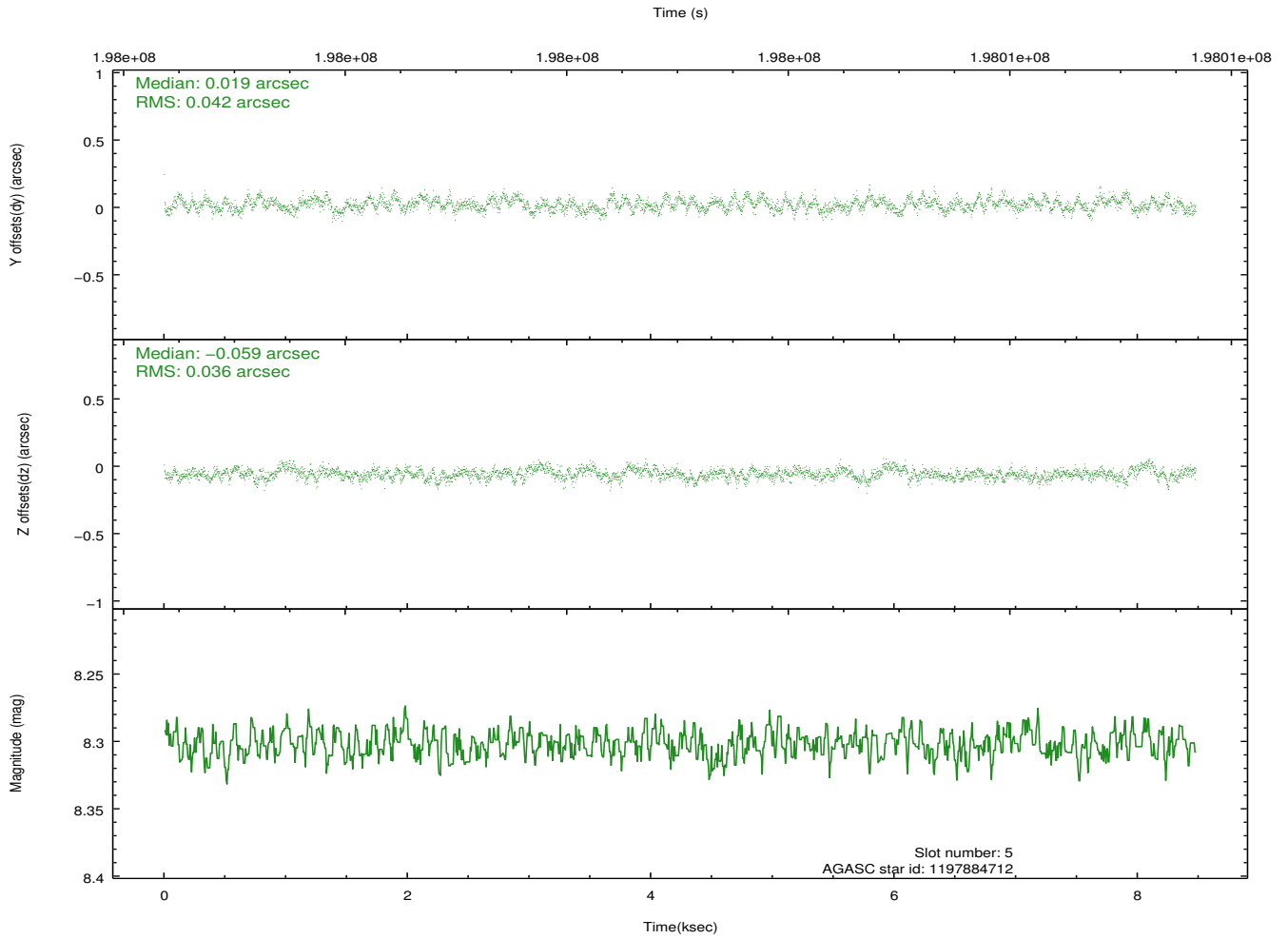
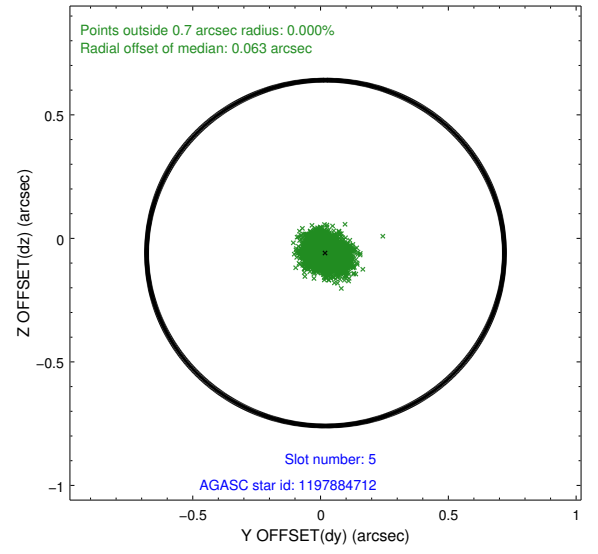
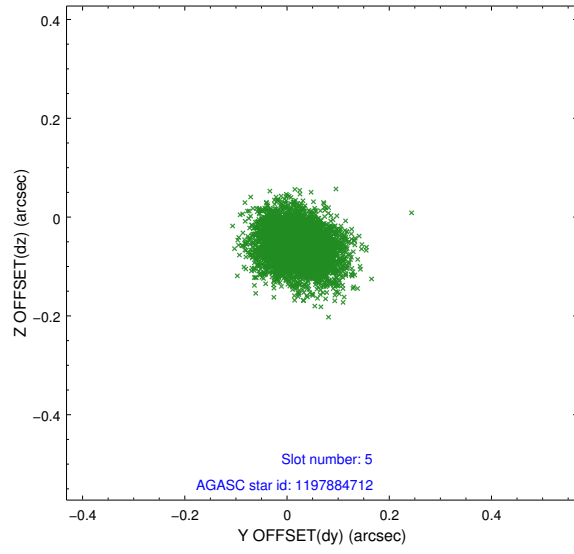
### 2.4.1 Slot 3



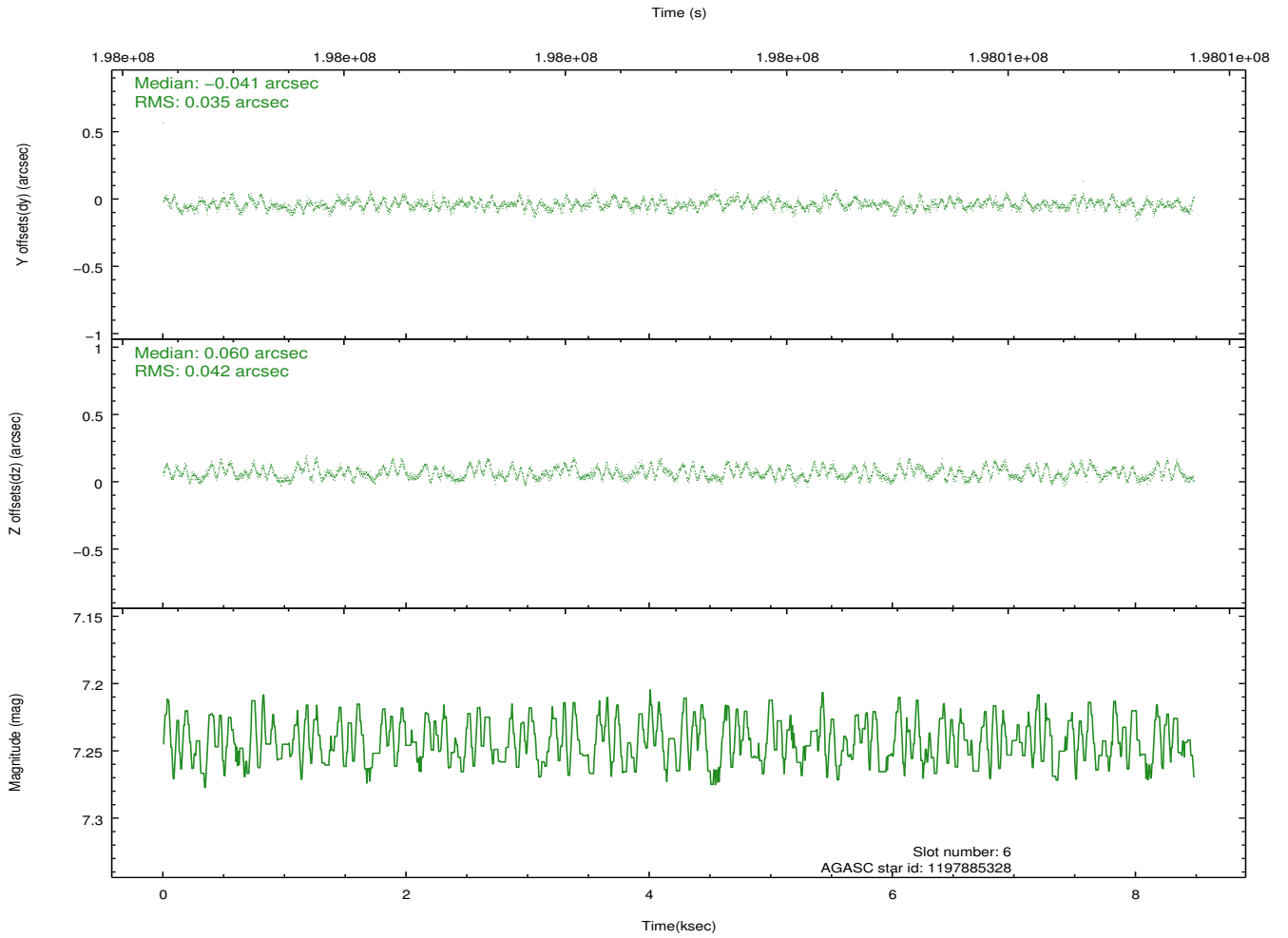
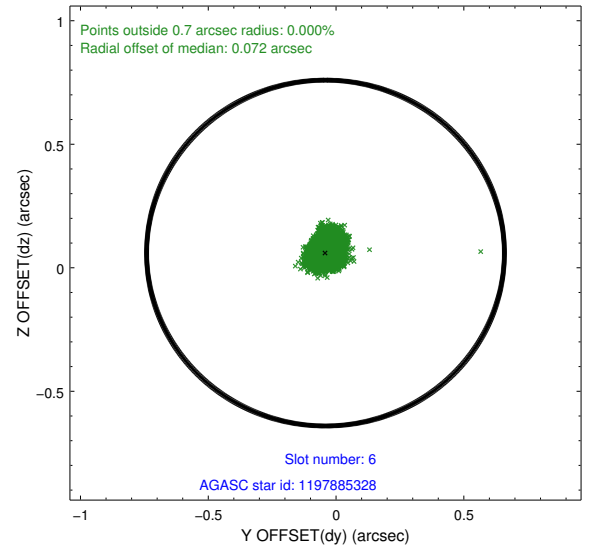
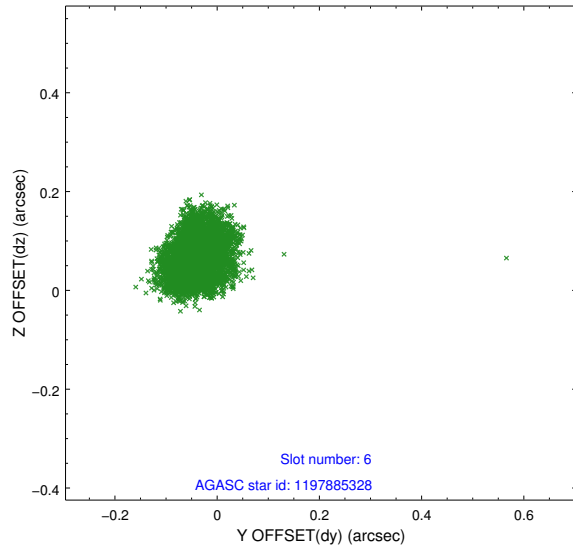
## 2.4.2 Slot 4



### 2.4.3 Slot 5

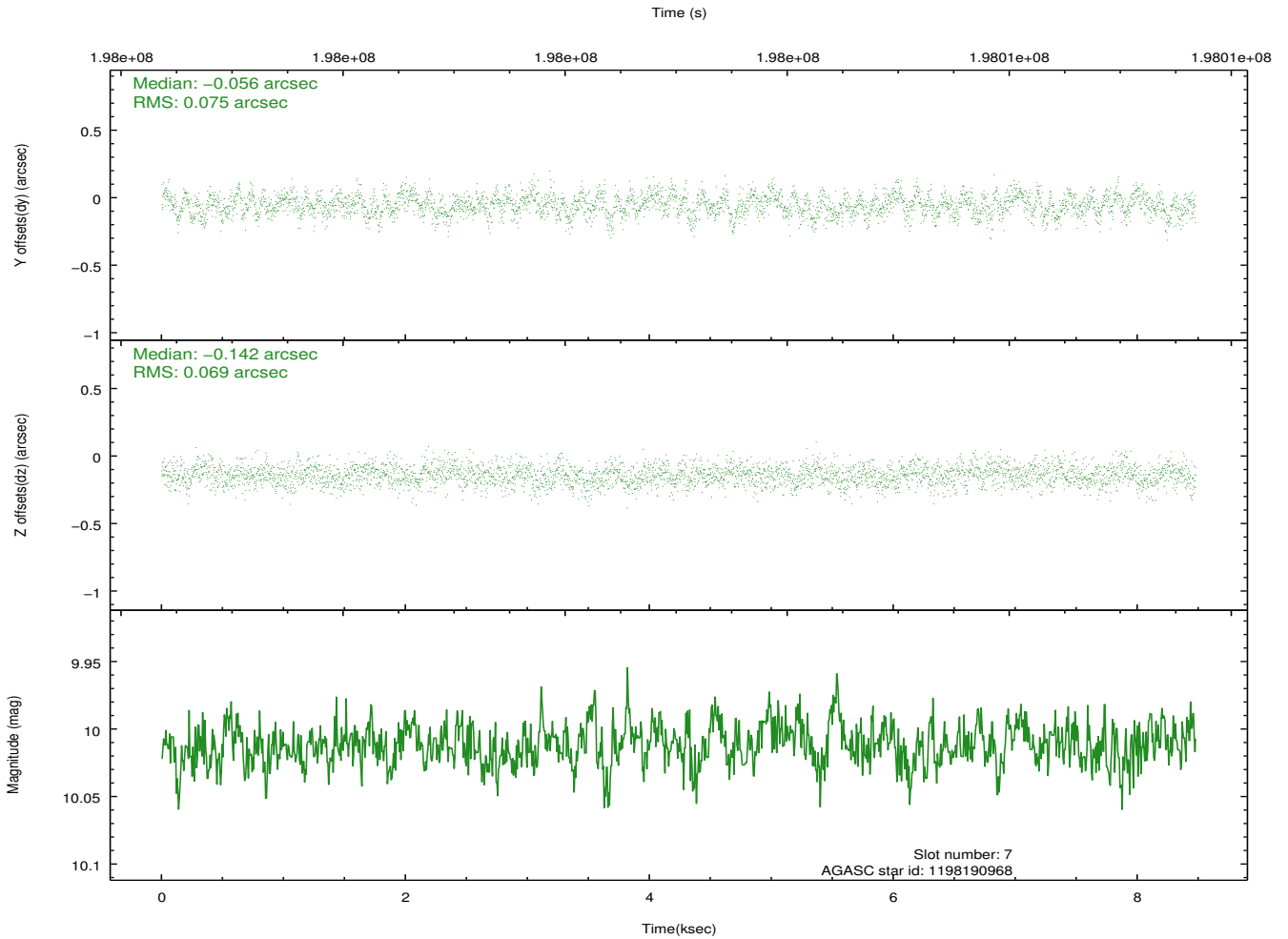
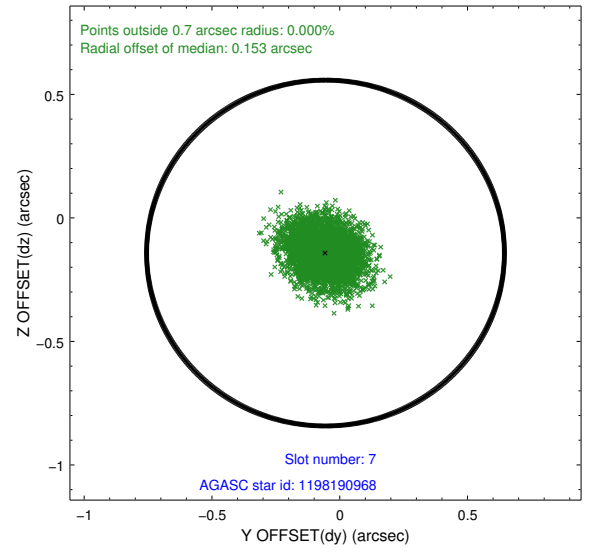
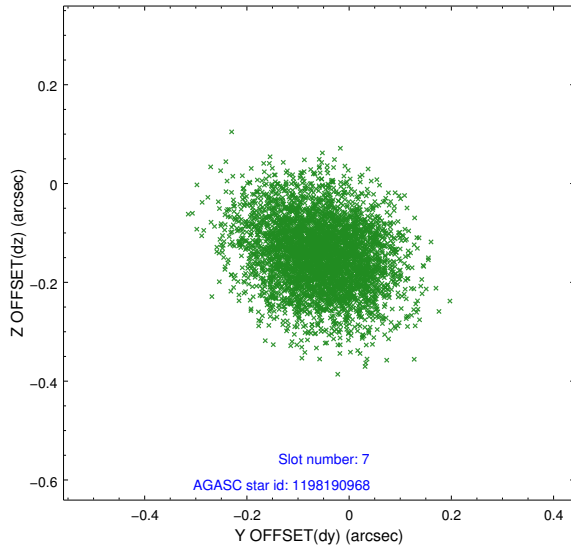


## 2.4.4 Slot 6



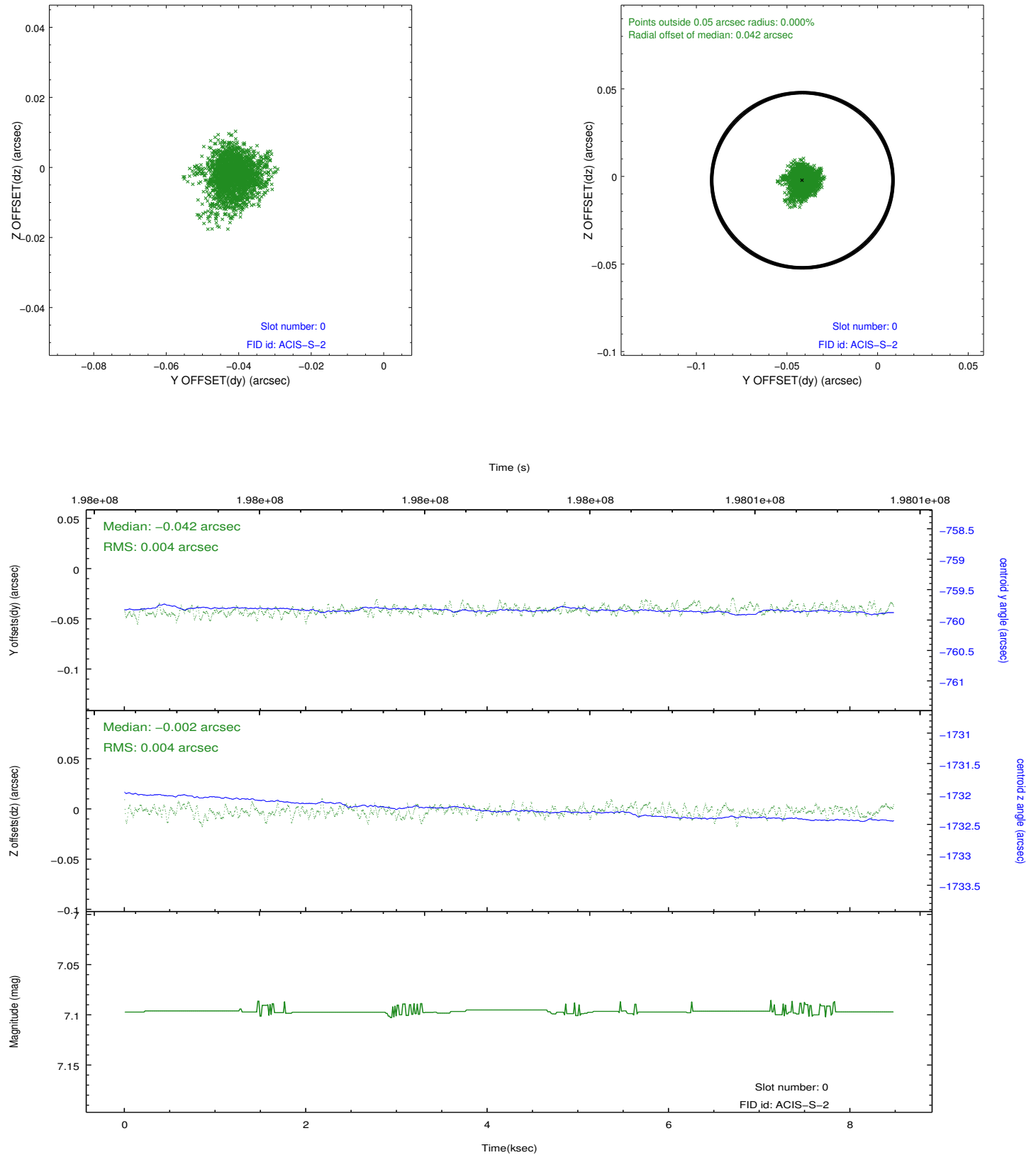


## 2.4.5 Slot 7

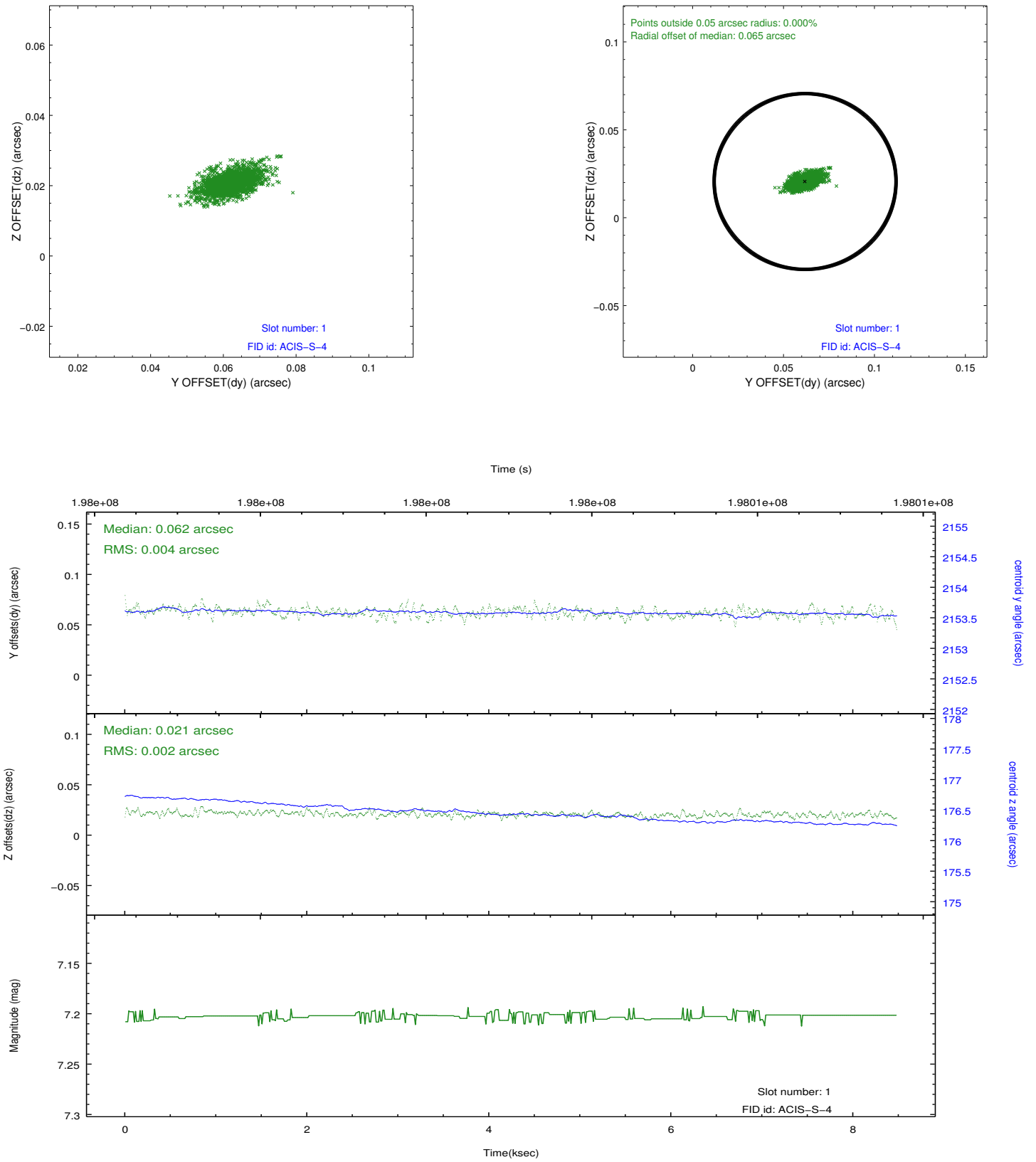


## 2.5 FID Slots

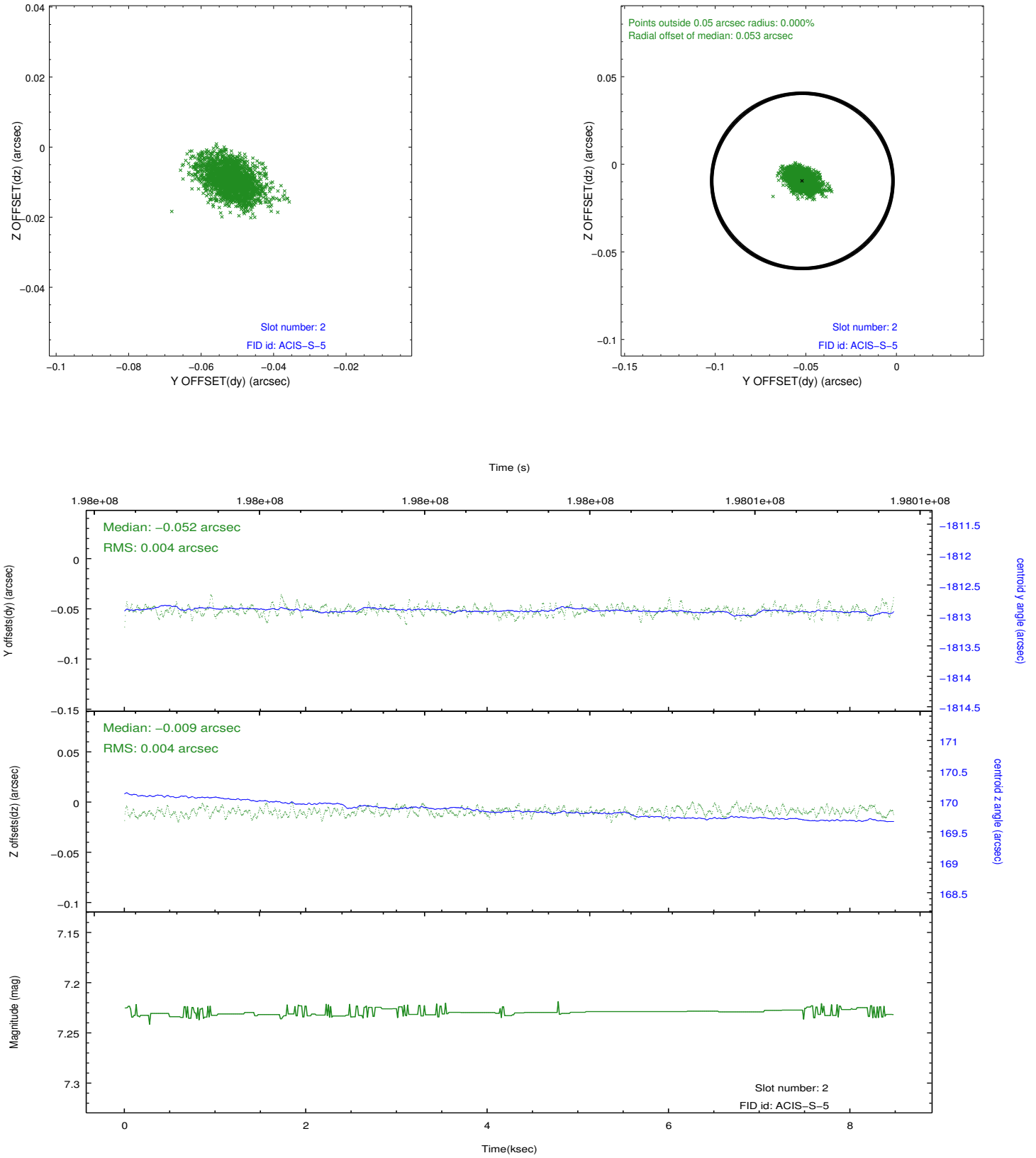
### 2.5.1 Slot 0



## 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)	2012.12.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.045

### A.2 Comments

Window constraint met.