

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 1078 - L2 Version 3

Chandra X-Ray Center

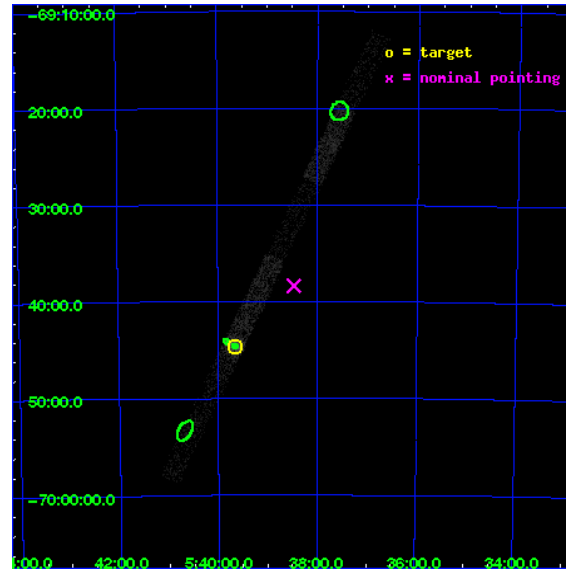
L2 Processing Date : Dec 16 2009

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# 1 Front

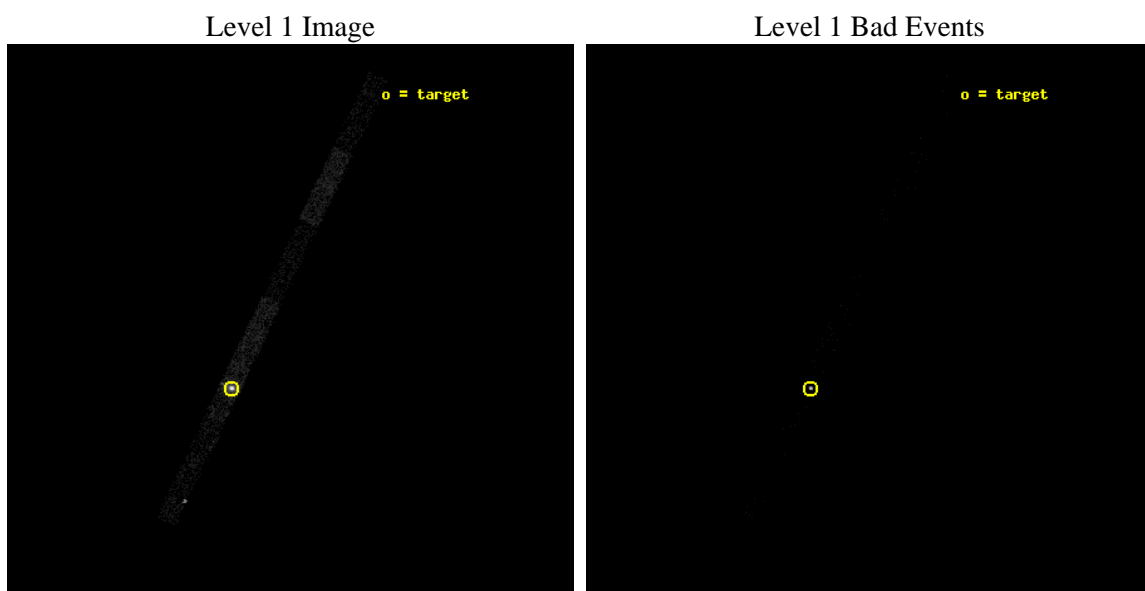
seq_num	480028	Sequence number
obs_id	1078	Observation id
title	&#160	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	LMC X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.914583	Observer's specified target RA
dec_targ	-69.743611	Observer's specified target Dec
ra_nom	84.617574175943	Nominal RA
dec_nom	-69.639469110788	Nominal Dec
roll_nom	115.78503267	Nominal Roll
revision	3	Processing version of data
ontime	762.00000189245	Sum of GTIs [s]
livetime	736.80139421045	Livetime [s]
ontime4	762.00000189245	Sum of GTIs [s]
ontime5	762.00000189245	Sum of GTIs [s]
ontime6	762.00000189245	Sum of GTIs [s]
ontime7	762.00000189245	Sum of GTIs [s]
ontime8	762.00000189245	Sum of GTIs [s]
ontime9	762.00000189245	Sum of GTIs [s]
l2events	30814	Number of level 2 events



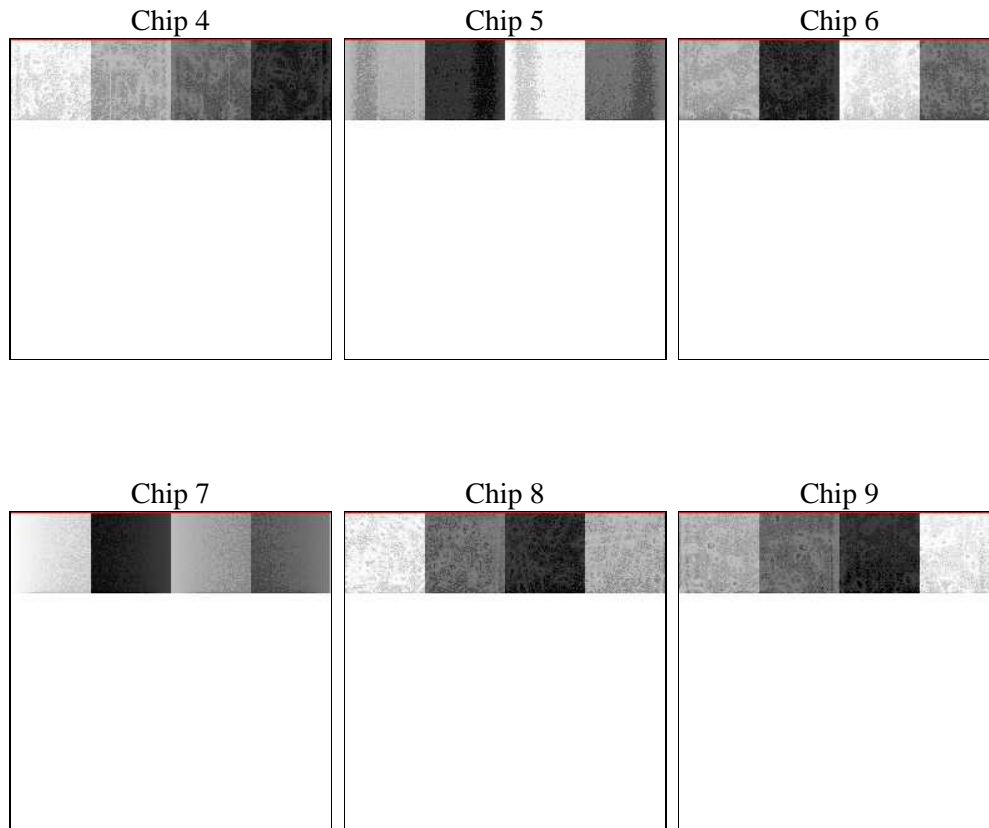
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	762.00000189245	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime4	762.00000189245	Sum of GTIs [s]
date	2009-12-16T06:58:39	Date and time of file creation	ontime5	762.00000189245	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	762.00000189245	Sum of GTIs [s]
			ontime7	762.00000189245	Sum of GTIs [s]
			ontime8	762.00000189245	Sum of GTIs [s]
			ontime9	762.00000189245	Sum of GTIs [s]
			l1events	37432	Number of level 1 events

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	415	1484	395	1546	32528	1064
rejected events	91	137	75	204	4981	103
rejected %	21%	9%	18%	13%	15%	9%

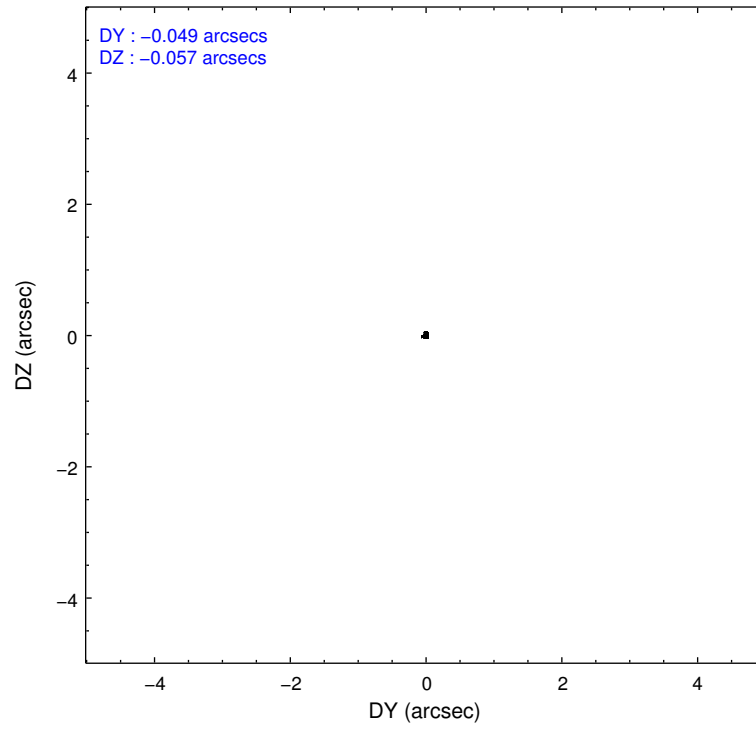
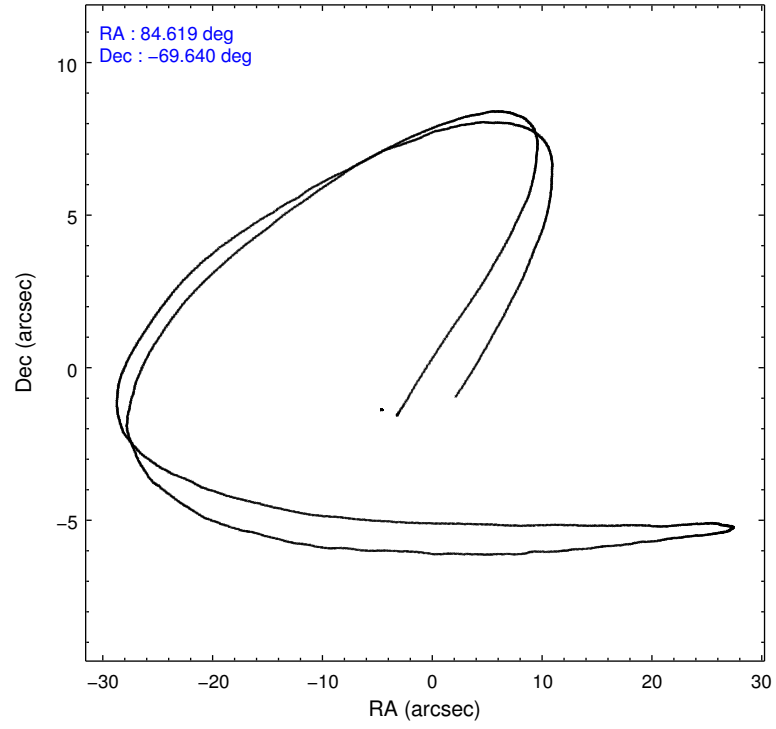
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	83	80	69	88	17912	88
	20%	5%	17%	5%	55%	8%
grade 1 events	1	3	1	1	2959	1
	0%	0%	0%	0%	9%	0%
grade 2 events	70	160	94	230	4781	694
	16%	10%	23%	14%	14%	65%
grade 3 events	32	91	22	87	1619	32
	7%	6%	5%	5%	4%	3%
grade 4 events	32	68	31	96	1571	24
	7%	4%	7%	6%	4%	2%
grade 5 events	88	128	74	194	1935	100
	21%	8%	18%	12%	5%	9%
grade 6 events	109	954	104	850	1751	125
	26%	64%	26%	54%	5%	11%
grade 7 events	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%

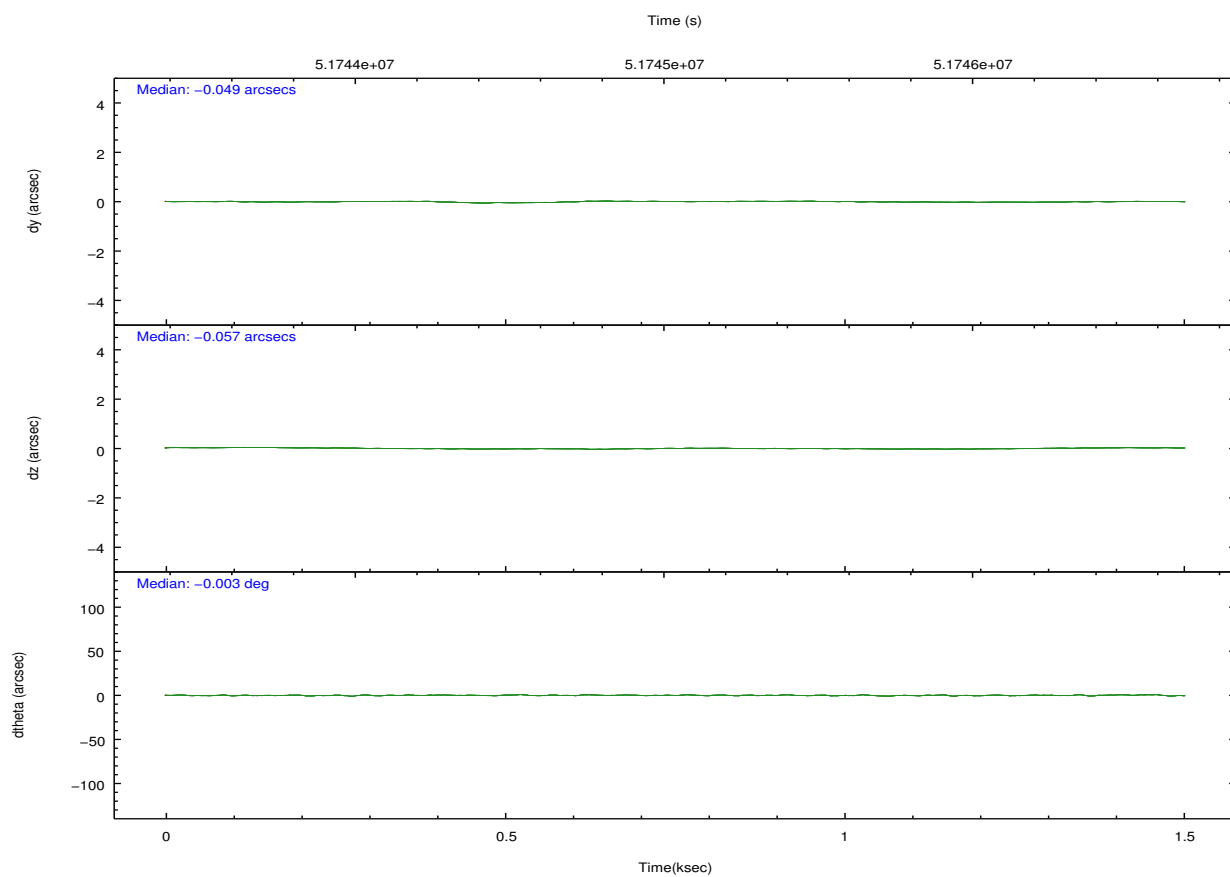
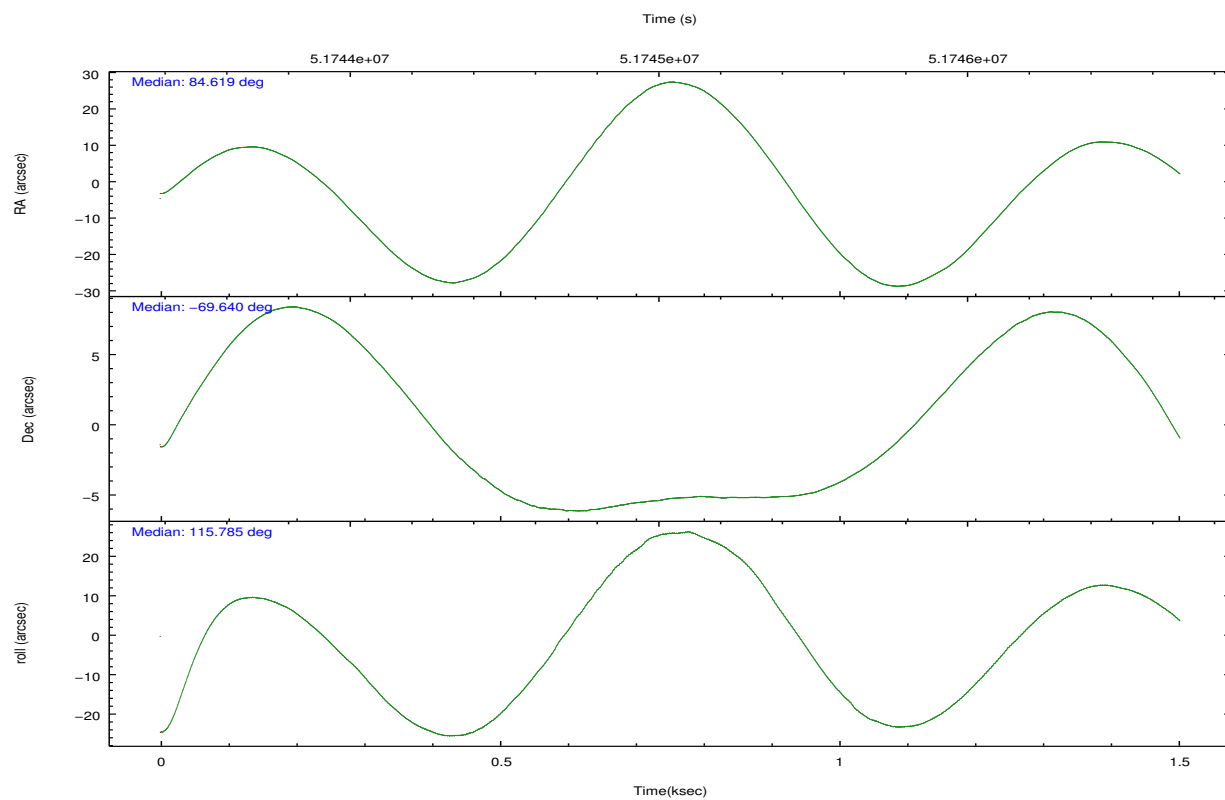
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
Pointing RA	84.682478	84.61757417594309
Pointing Dec	-69.655924	-69.63946911078816
Pointing Roll	115.689435	115.7850326700035
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	51744769.184000	51744095.709027
Observation start date	1999-08-22T21:31:45	1999-08-22T21:21:35
Observation end time	51745769.184000	51745895.609092
Observation end date	1999-08-22T21:48:25	1999-08-22T21:51:35
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	1/4
Subarray start row	0	768
Subarray row count	1024	256
Alternating exposures requested	N	N
Primary exposure time	0.000000	1.2

## 2.3 Aspect





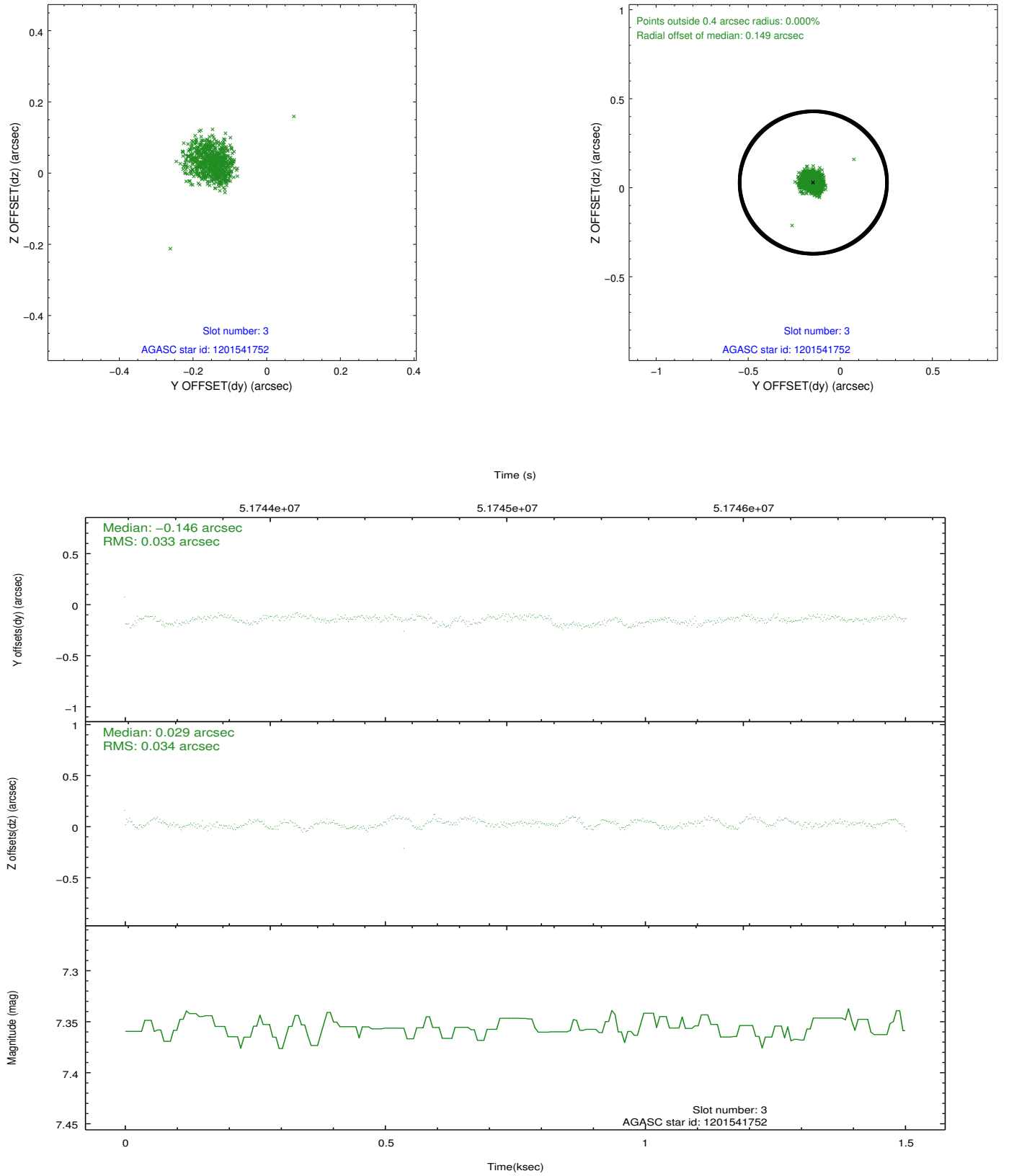
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	734	-0.031	-0.022	0.006	0.011	0.000000	0.000000	-752.55	-1721.31
1	FID	ACIS-S-4	7.22	734	0.136	0.021	0.006	0.011	0.000000	0.000000	2159.92	184.94
2	FID	ACIS-S-5	7.25	734	-0.137	0.010	0.006	0.011	0.000000	0.000000	-1802.71	181.09
3	GUIDE	1201541752	7.36	734	-0.146	0.029	0.050	0.077	85.373891	-70.033762	-1600.12	-172.78
4	GUIDE	1200883536	9.90	733	0.007	0.037	0.119	0.200	83.119228	-69.218429	2258.21	1128.81
5	GUIDE	1201406992	9.26	734	0.116	-0.012	0.067	0.109	83.682859	-69.471866	1136.59	857.35
6	GUIDE	1201540776	9.60	734	0.013	0.012	0.082	0.140	85.107945	-69.858480	-887.27	-155.81
7	GUIDE	1201540568	9.96	733	0.014	-0.065	0.112	0.178	85.901764	-70.070643	-2010.05	-693.47

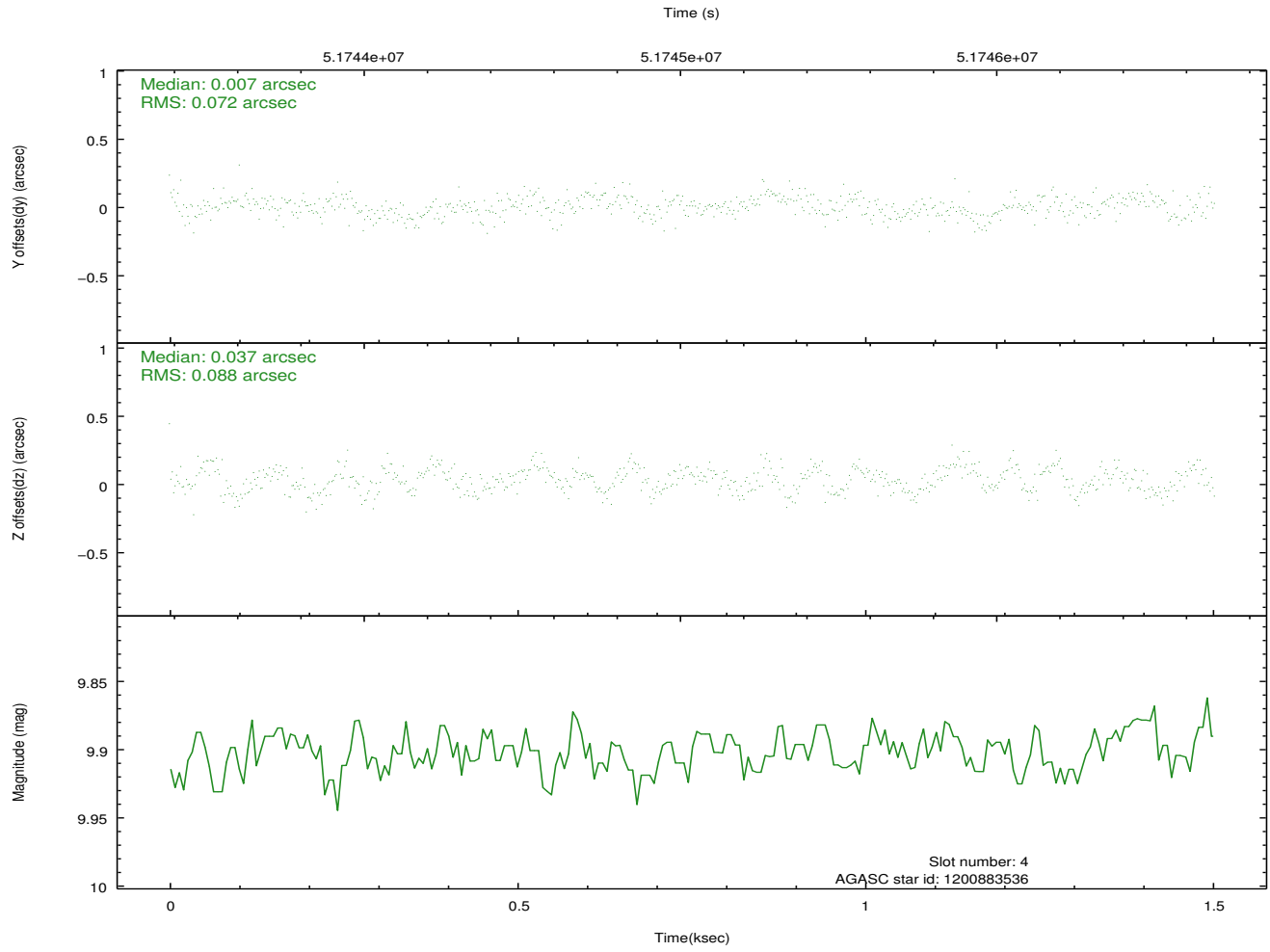
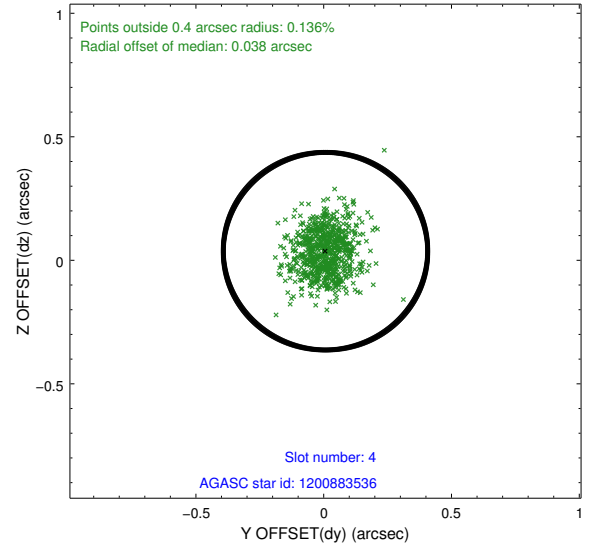
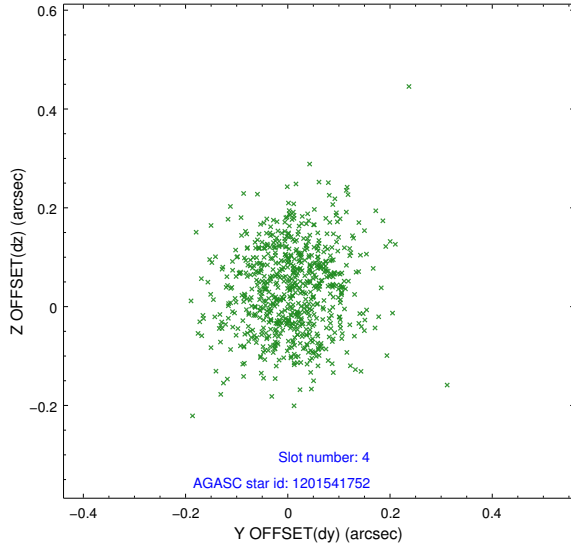


## 2.4 Star Slots

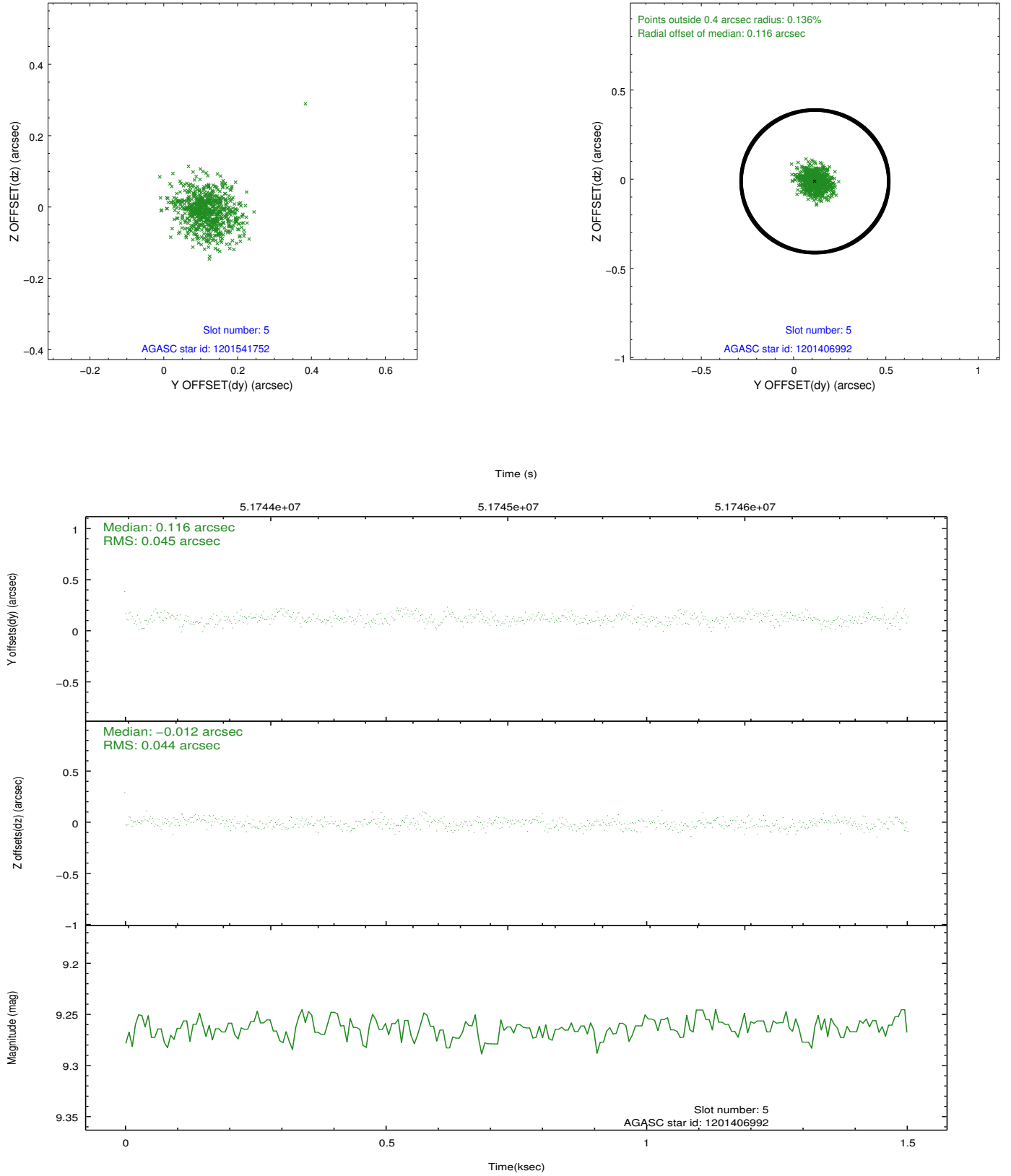
### 2.4.1 Slot 3



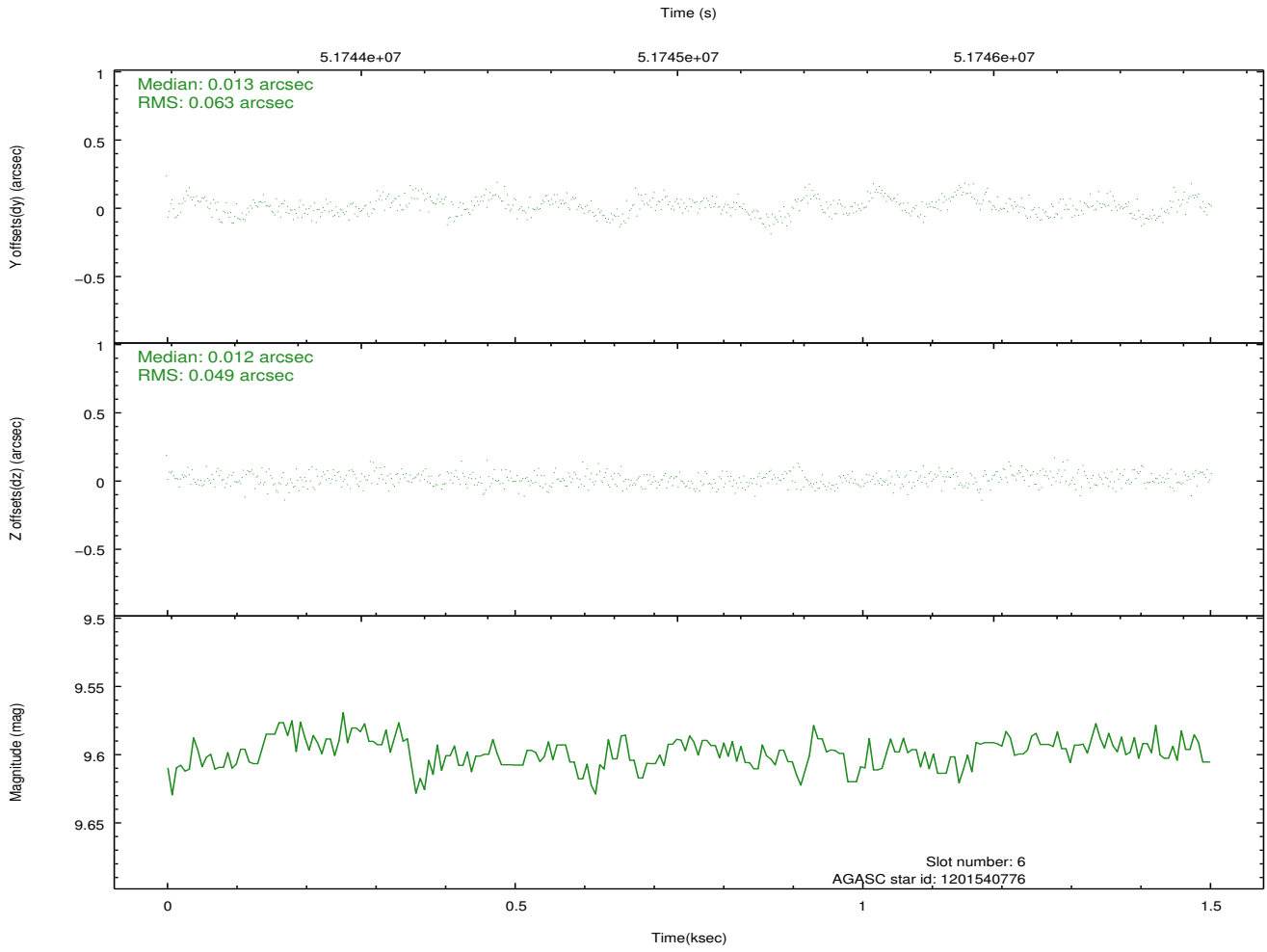
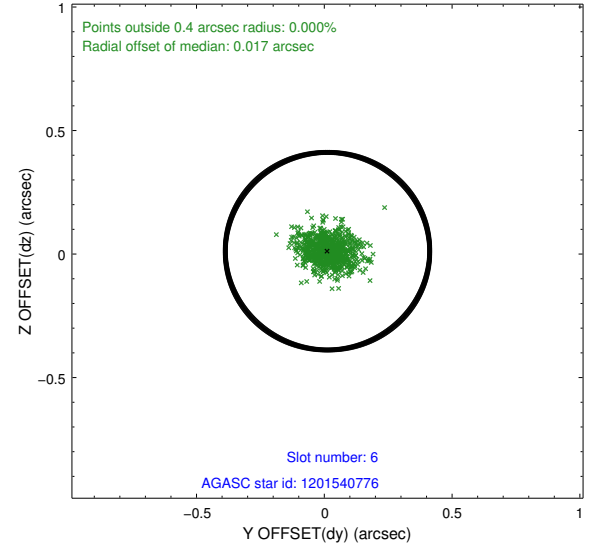
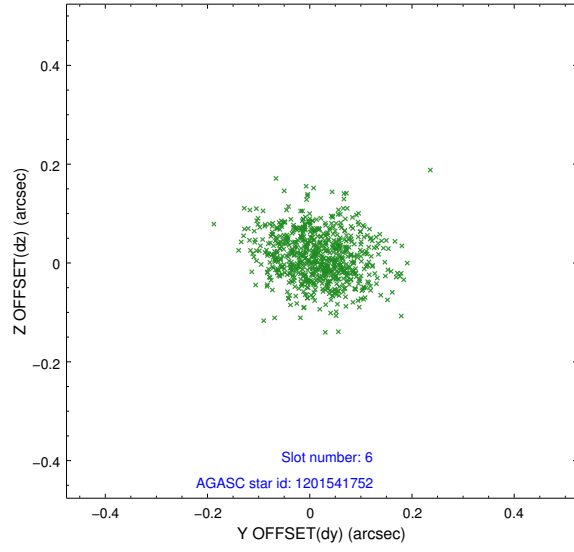
## 2.4.2 Slot 4



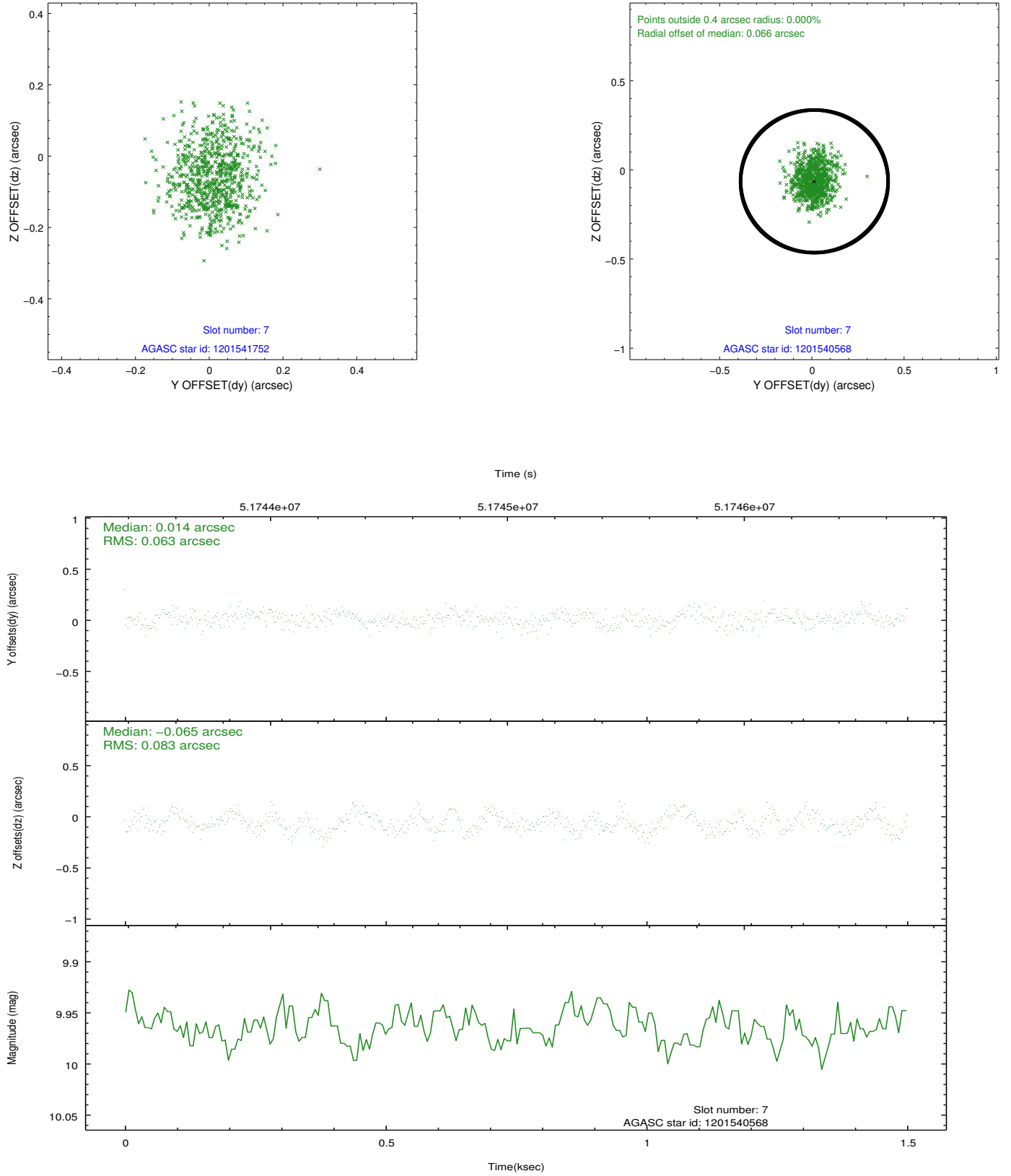
### 2.4.3 Slot 5



## 2.4.4 Slot 6

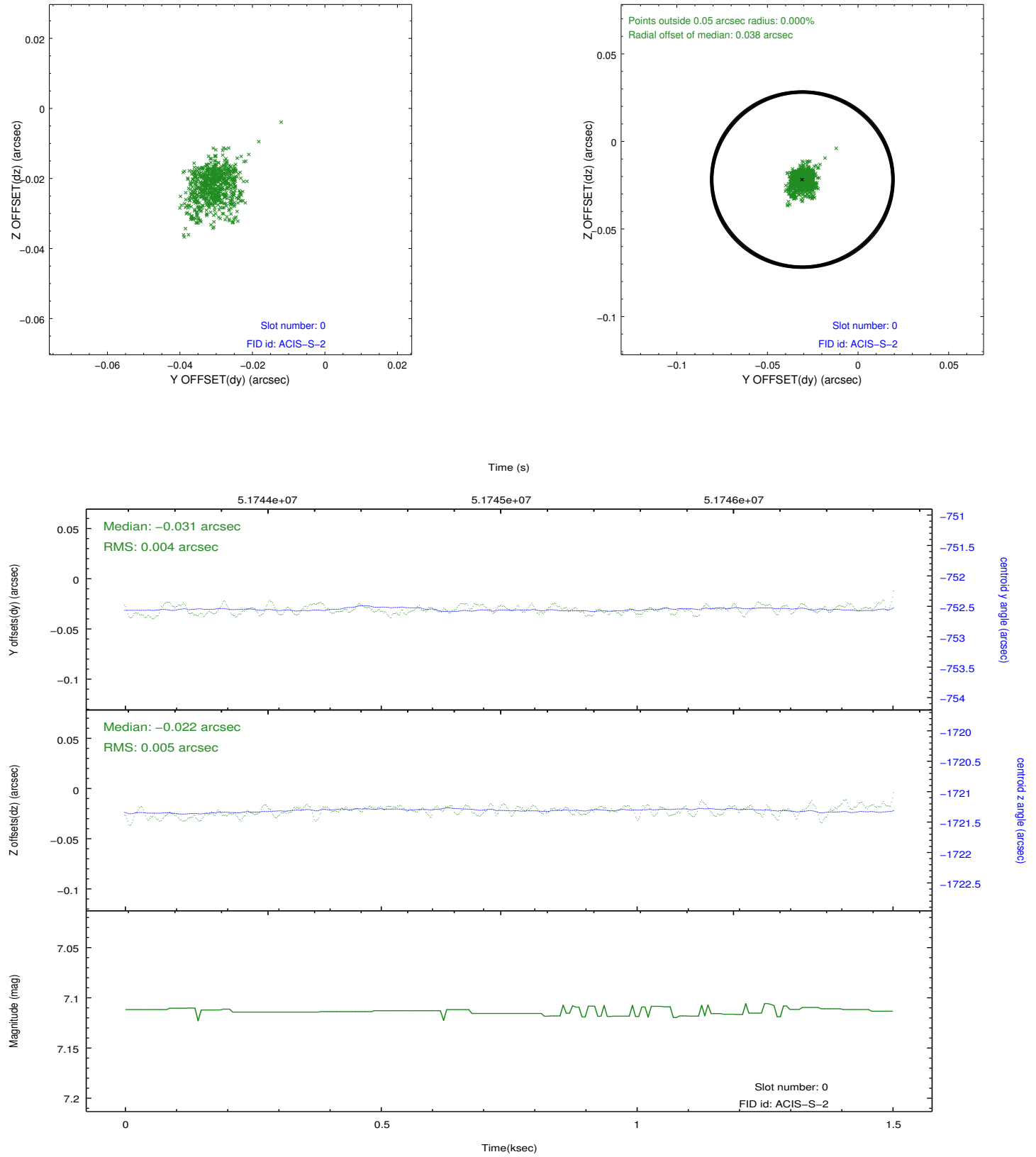


## 2.4.5 Slot 7

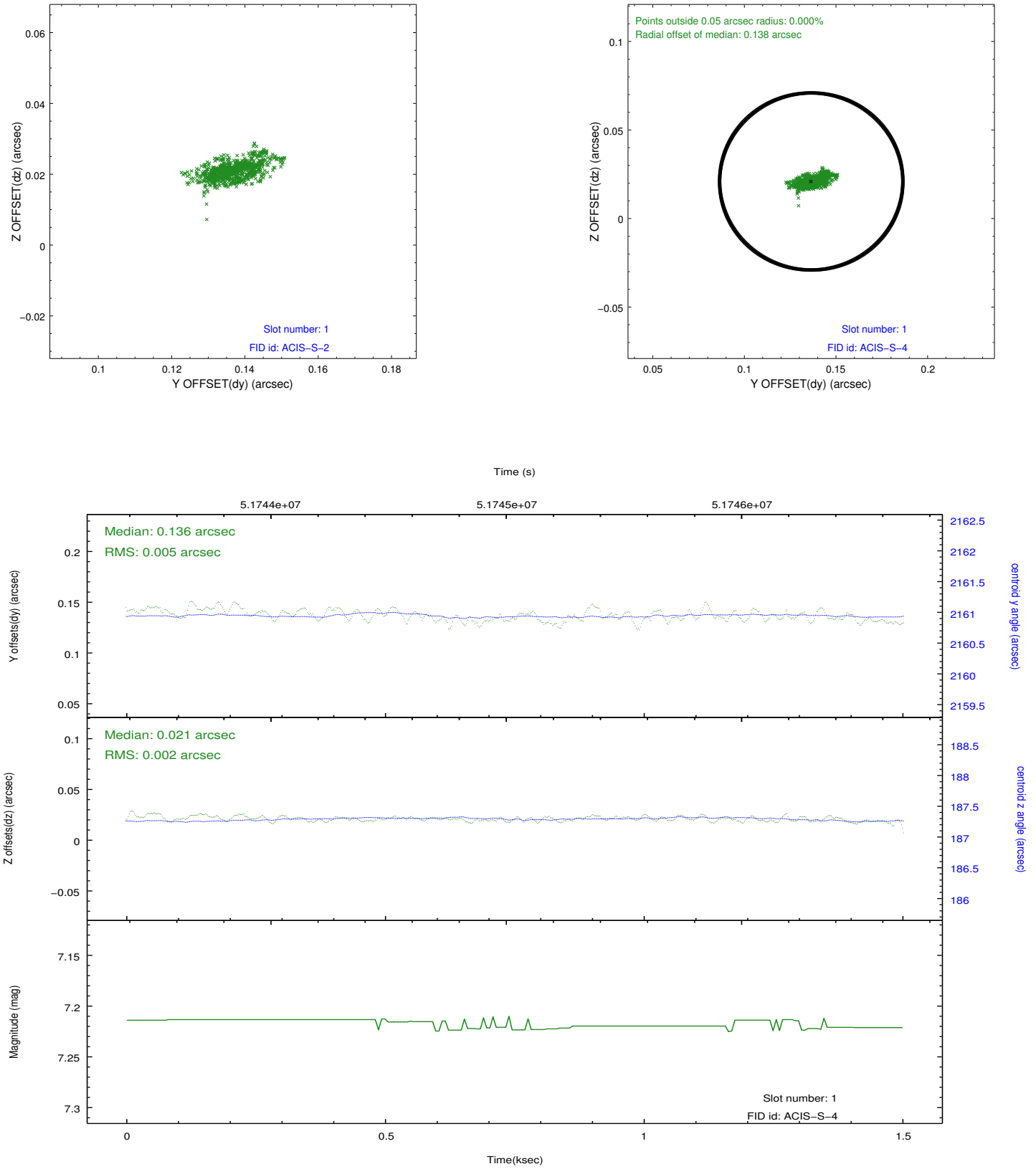


## 2.5 FID Slots

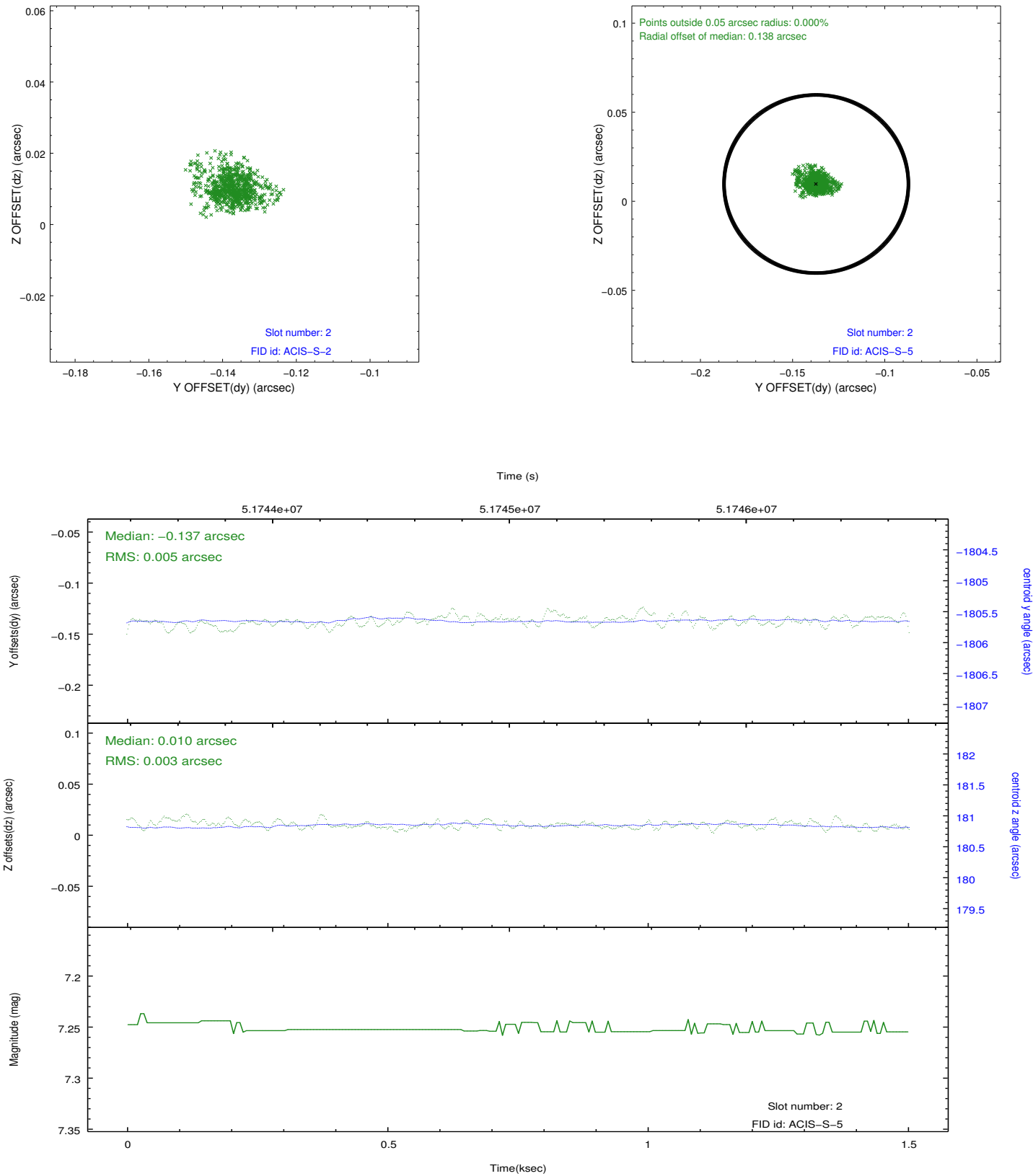
### 2.5.1 Slot 0



## 2.5.2 Slot 1

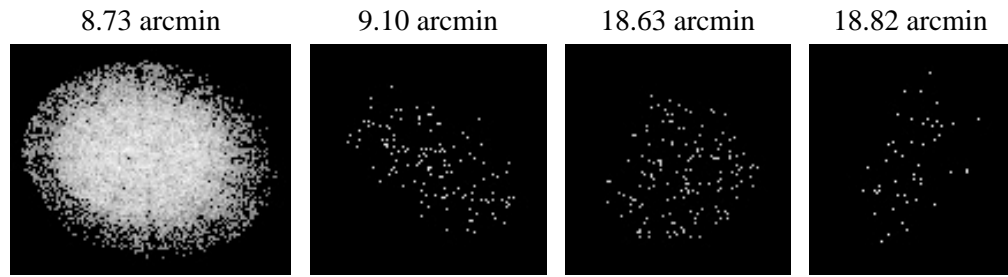


### 2.5.3 Slot 2





### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.07.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	0.763

## A.2 Comments

Target is very off-axis on S4. Subarray was used but not documented in OCAT. Aim point is off the 1/4 subarray, but target is on.

===

Charge time for this ObsId remains at previous value of 0.763 ksec, although with the current processing the charge time would have been 0.762 ksec.

==

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.