

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 1068 - L2 Version 3

Chandra X-Ray Center

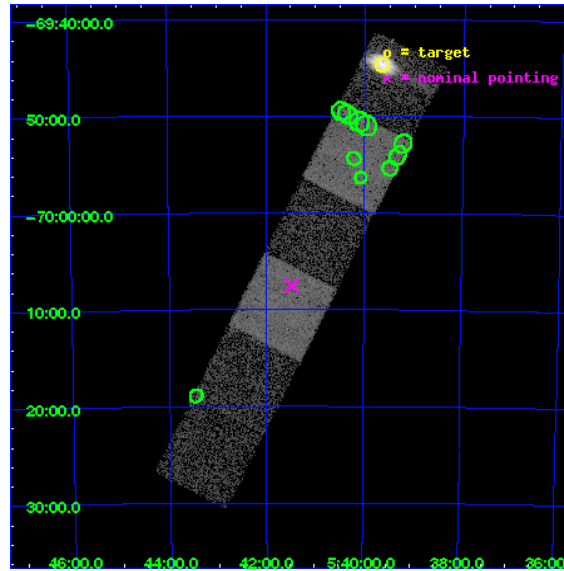
L2 Processing Date : Dec 16 2009

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# 1 Front

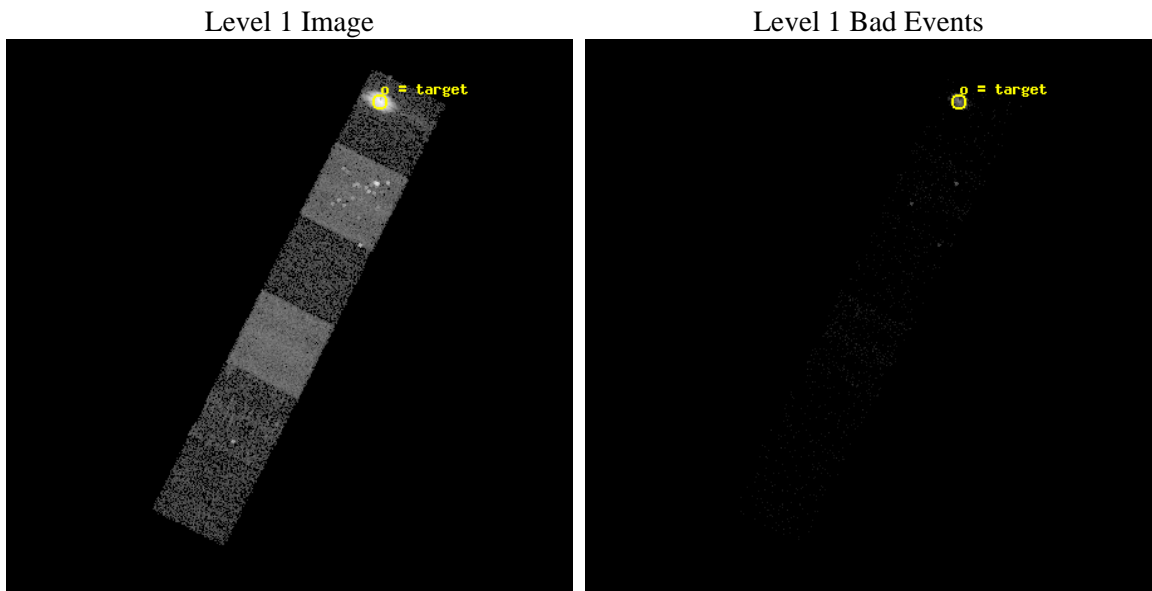
seq_num	480018	Sequence number
obs_id	1068	Observation id
title	&#160	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	LMC X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.914583	Observer's specified target RA
dec_targ	-69.743611	Observer's specified target Dec
ra_nom	85.368613324065	Nominal RA
dec_nom	-70.125850133808	Nominal Dec
roll_nom	116.86954725367	Nominal Roll
revision	3	Processing version of data
ontime	1756.8000016361	Sum of GTIs [s]
livetime	1734.5543421975	Livetime [s]
ontime4	1756.8000016361	Sum of GTIs [s]
ontime5	1756.8000016361	Sum of GTIs [s]
ontime6	1756.8000016361	Sum of GTIs [s]
ontime7	1756.8000016361	Sum of GTIs [s]
ontime8	1756.8000016361	Sum of GTIs [s]
ontime9	1756.8000016361	Sum of GTIs [s]
l2events	114772	Number of level 2 events



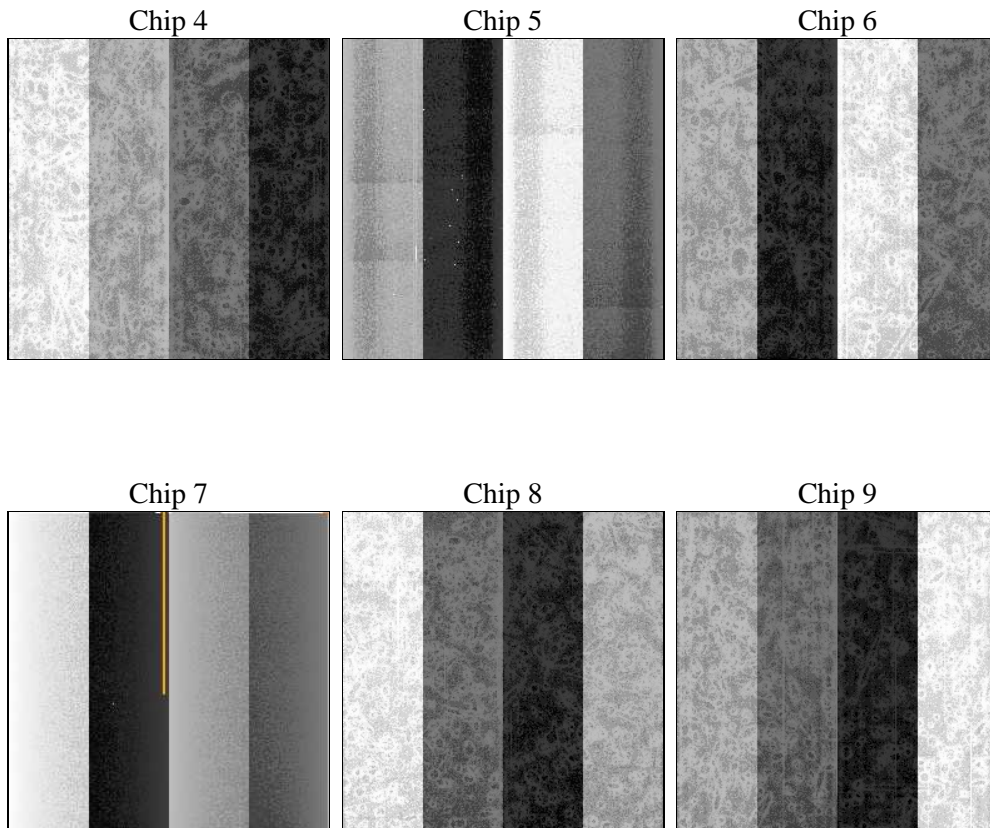
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	1756.8000016361	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime4	1756.8000016361	Sum of GTIs [s]
date	2009-12-16T05:53:44	Date and time of file creation	ontime5	1756.8000016361	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	1756.8000016361	Sum of GTIs [s]
			ontime7	1756.8000016361	Sum of GTIs [s]
			ontime8	1756.8000016361	Sum of GTIs [s]
			ontime9	1756.8000016361	Sum of GTIs [s]
			l1events	134401	Number of level 1 events

### 2.1.4 Events

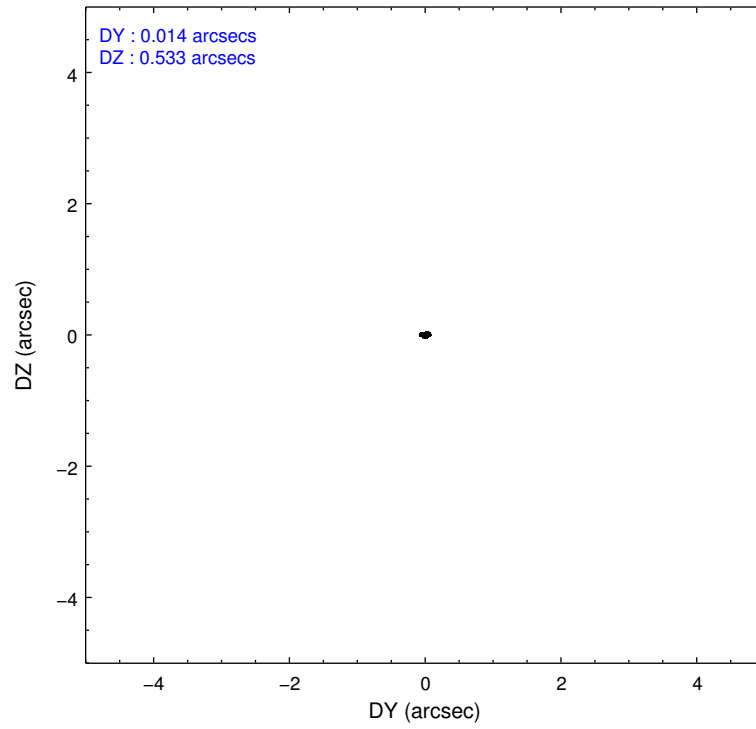
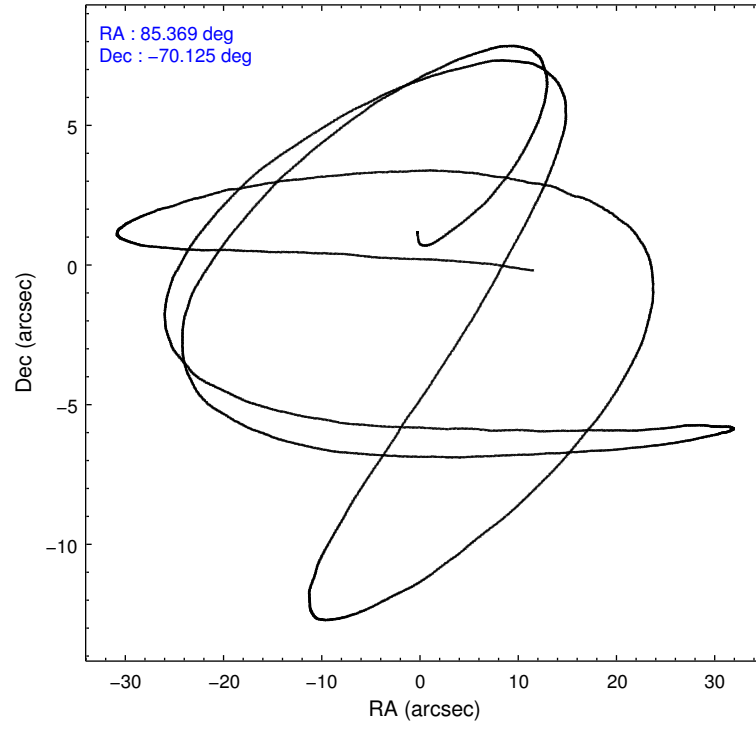
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	67097	28065	5398	22128	6947	4766
rejected events	2260	1646	1086	2199	1125	1059
rejected %	3%	5%	20%	9%	16%	22%

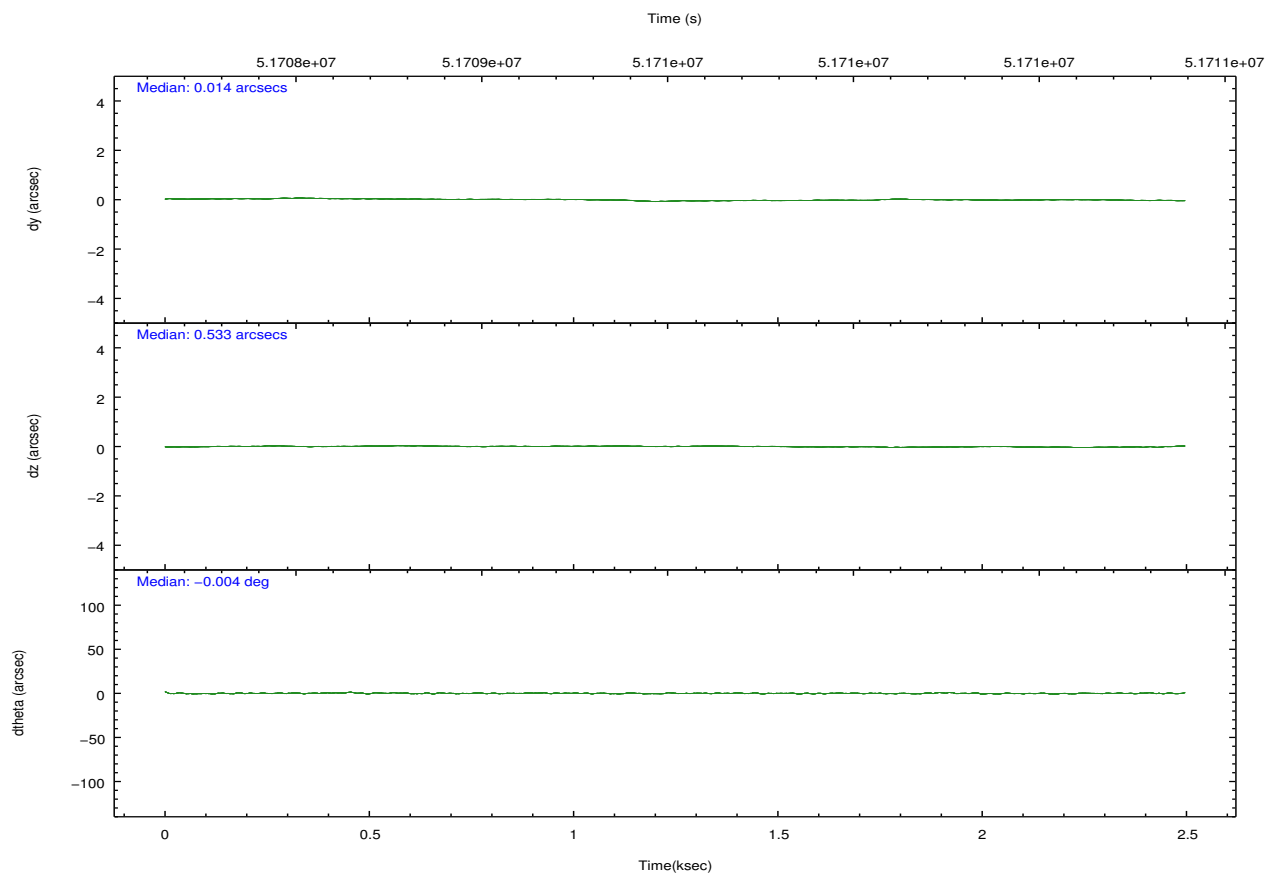
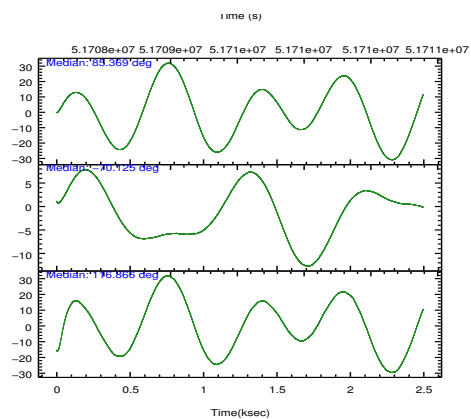
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	49360	6731	1653	1523	2117	1280
	73%	23%	30%	6%	30%	26%
grade 1 events	694	120	10	11	16	9
	1%	0%	0%	0%	0%	0%
grade 2 events	8237	4405	1048	2515	1377	858
	12%	15%	19%	11%	19%	18%
grade 3 events	2393	1451	232	1470	408	241
	3%	5%	4%	6%	5%	5%
grade 4 events	2488	1366	221	1264	406	234
	3%	4%	4%	5%	5%	4%
grade 5 events	1316	1435	1063	2109	1091	1033
	1%	5%	19%	9%	15%	21%
grade 6 events	2609	12557	1171	13236	1532	1111
	3%	44%	21%	59%	22%	23%
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-456789	ACIS-456789	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	85.436370	85.36861332406549	Subarray requested	NONE	NONE
Pointing Dec	-70.141585	-70.12585013380848	Alternating exposures requested	N	N
Pointing Roll	116.776726	116.8695472536689	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	51708769.184000	51707819.420221			
Observation start date	1999-08-22T11:31:45	1999-08-22T11:16:59			
Observation end time	51710769.184000	51710895.957832			
Observation end date	1999-08-22T12:05:05	1999-08-22T12:08:15			
Read mode	TIMED	TIMED			

## 2.3 Aspect





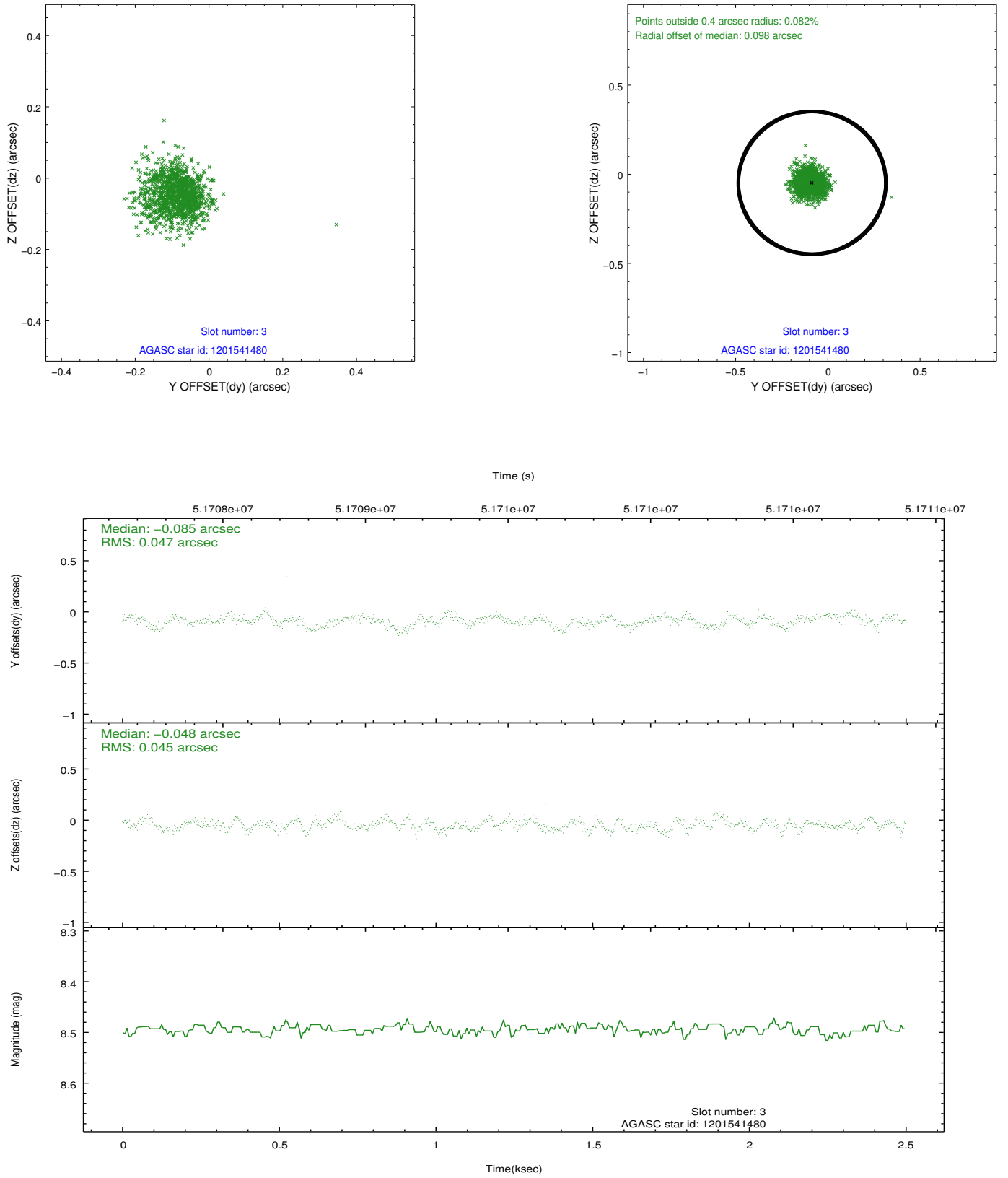
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.20	1219	0.006	0.056	0.006	0.011	0.000000	0.000000	943.40	-1717.50
1	FID	ACIS-S-4	7.22	1219	0.113	-0.037	0.006	0.010	0.000000	0.000000	2161.62	185.25
2	FID	ACIS-S-5	7.25	1219	-0.146	-0.006	0.006	0.011	0.000000	0.000000	-1803.95	180.36
3	GUIDE	1201541480	8.49	1217	-0.085	-0.048	0.068	0.112	87.080483	-70.345903	-1578.34	-1433.14
4	GUIDE	1201542672	8.18	1218	0.056	-0.028	0.053	0.086	84.492488	-69.957531	1105.86	744.72
5	GUIDE	1201407840	7.96	1218	-0.090	-0.017	0.071	0.103	83.696303	-70.172201	831.43	1961.29
6	GUIDE	1201542312	9.75	1219	-0.021	0.091	0.092	0.144	86.031967	-70.422284	-1229.23	-182.36
7	GUIDE	1201540568	9.96	1217	0.133	0.003	0.118	0.199	85.901764	-70.070643	-32.97	-623.46

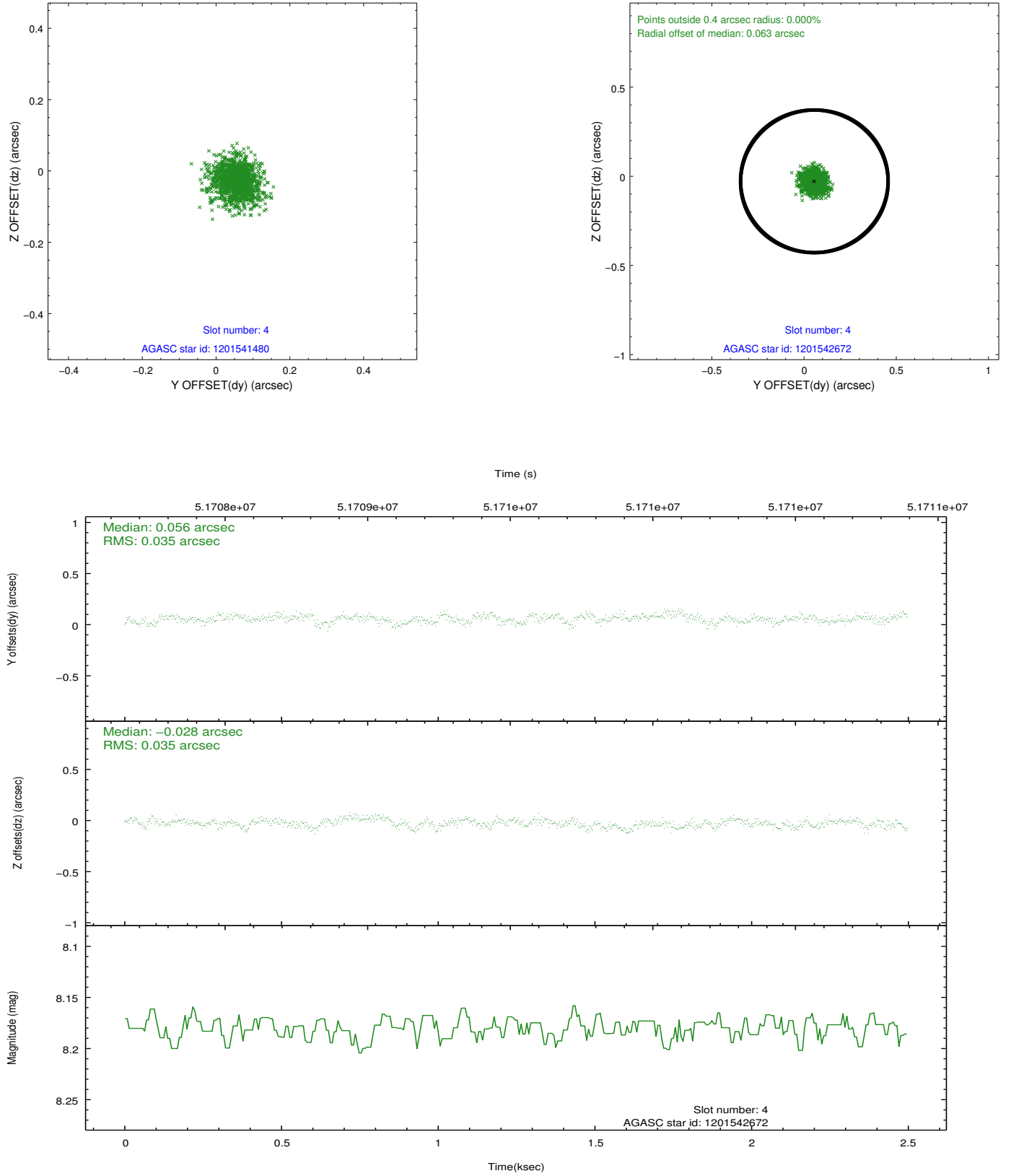


## 2.4 Star Slots

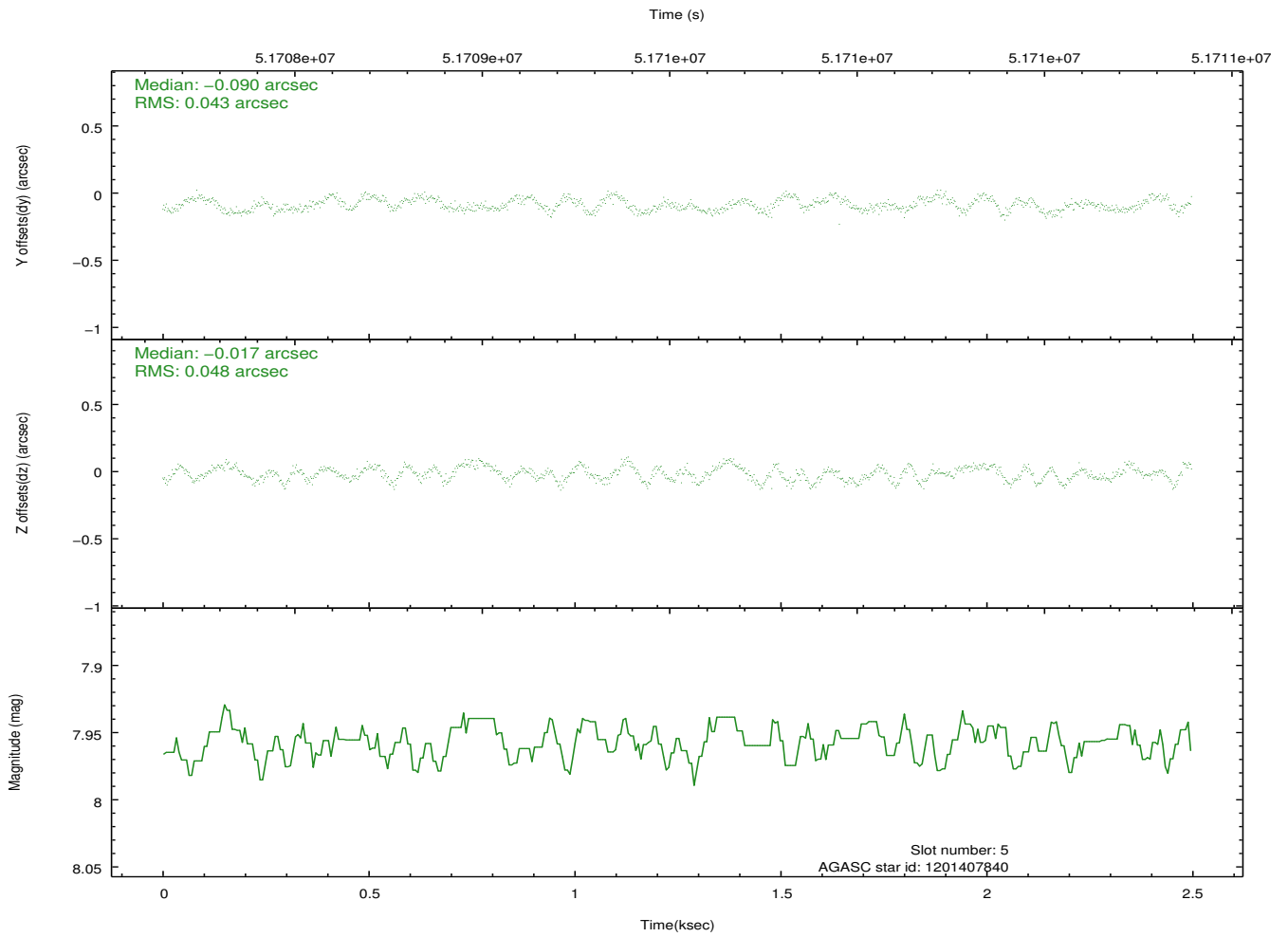
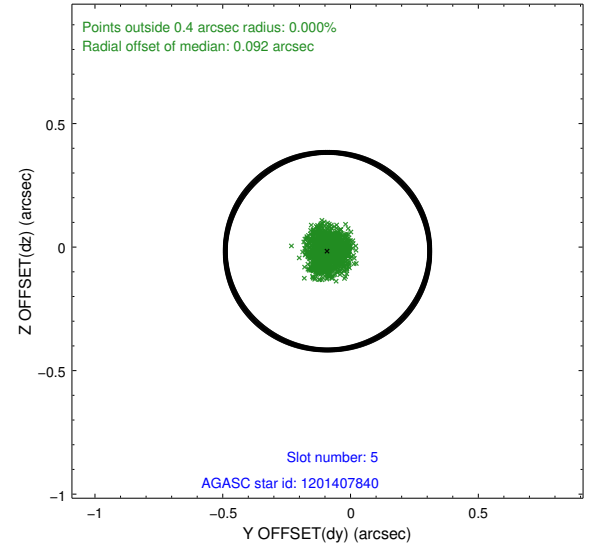
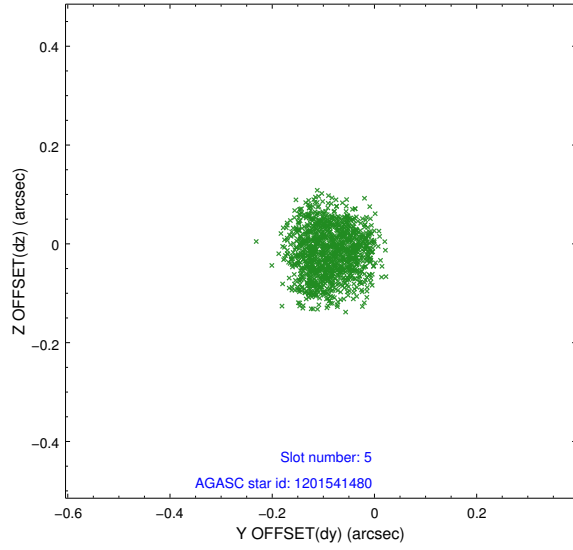
### 2.4.1 Slot 3



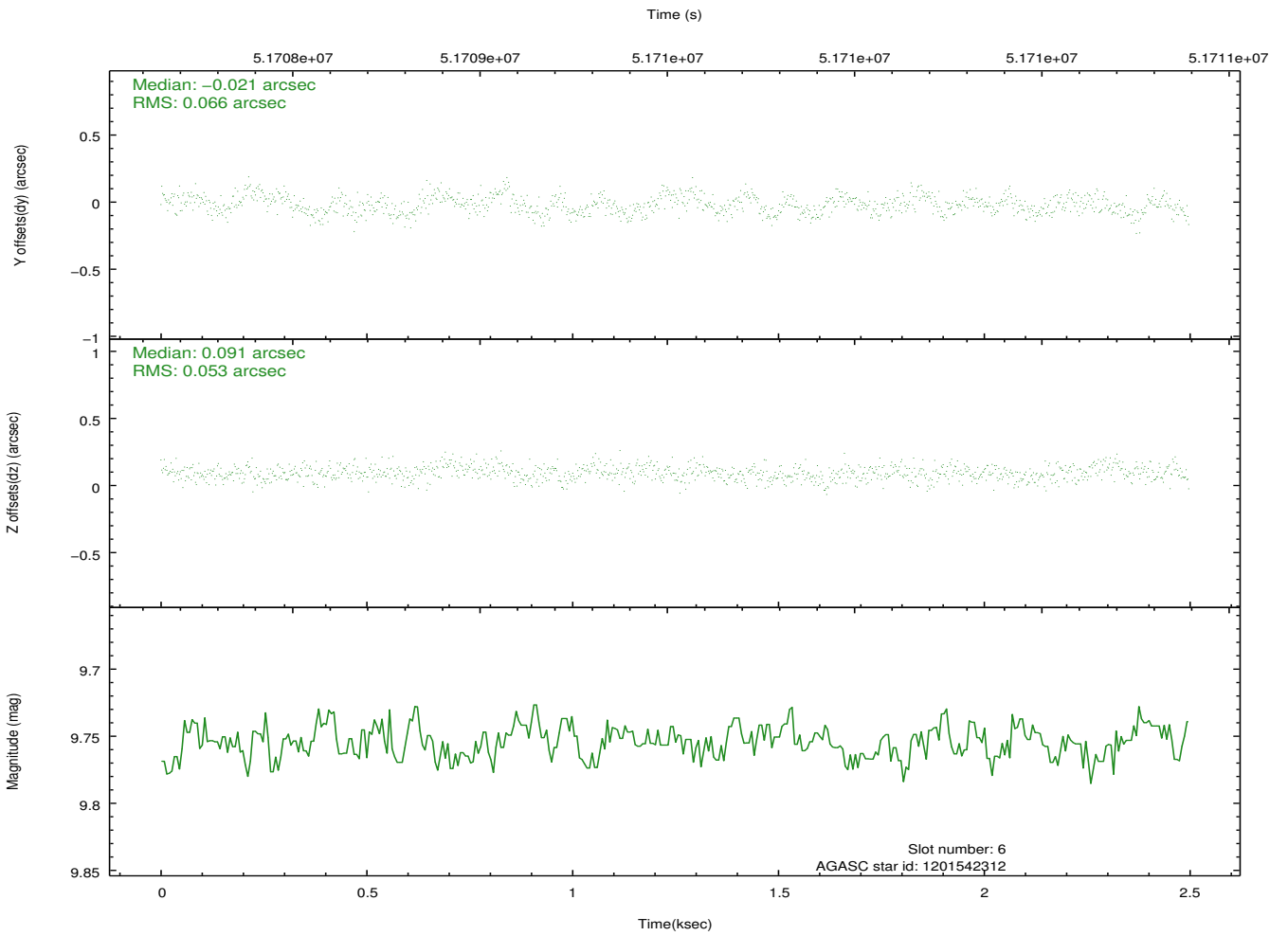
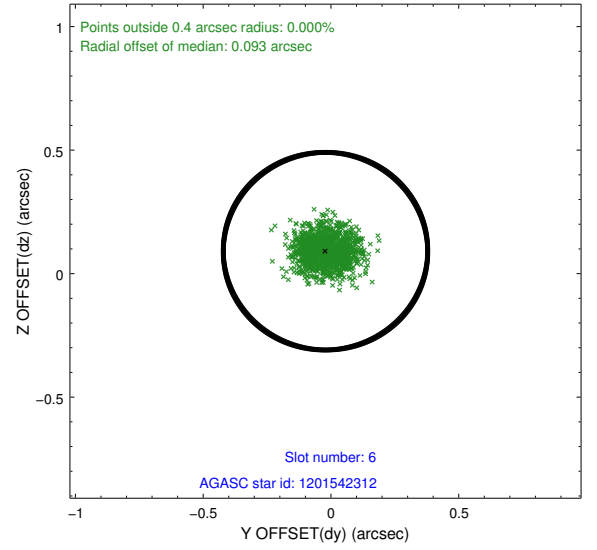
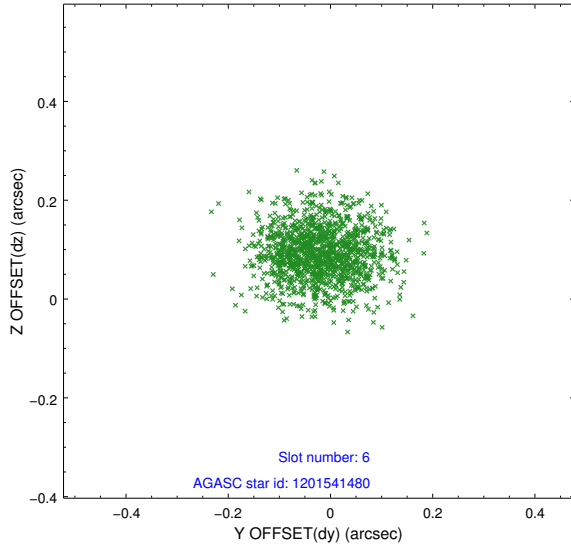
## 2.4.2 Slot 4



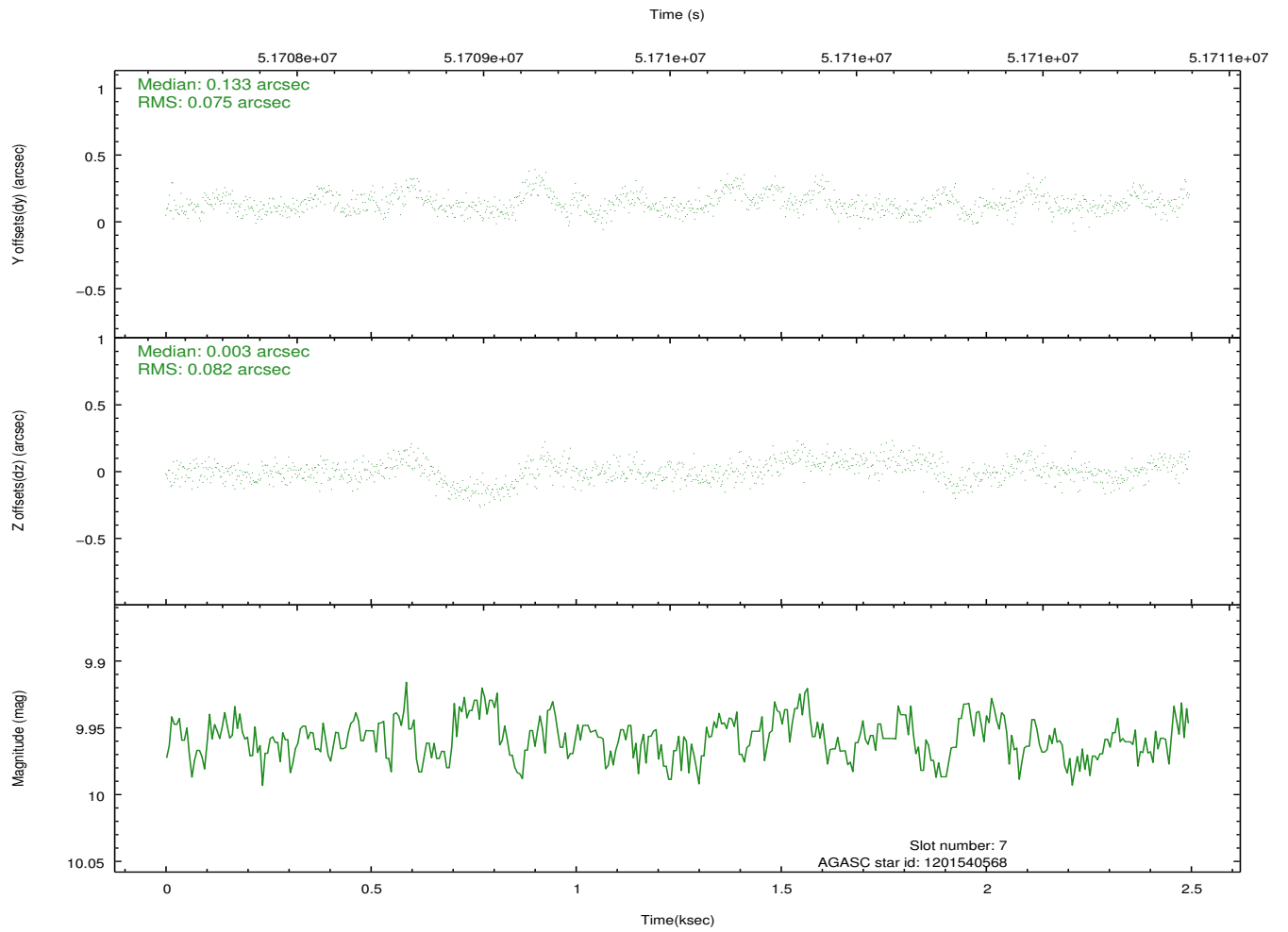
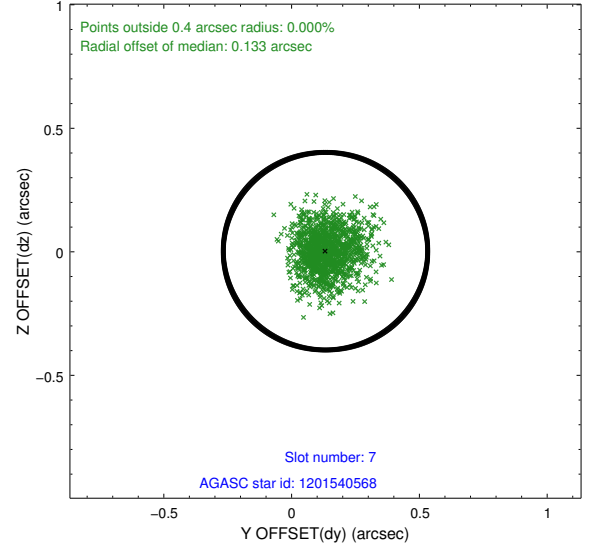
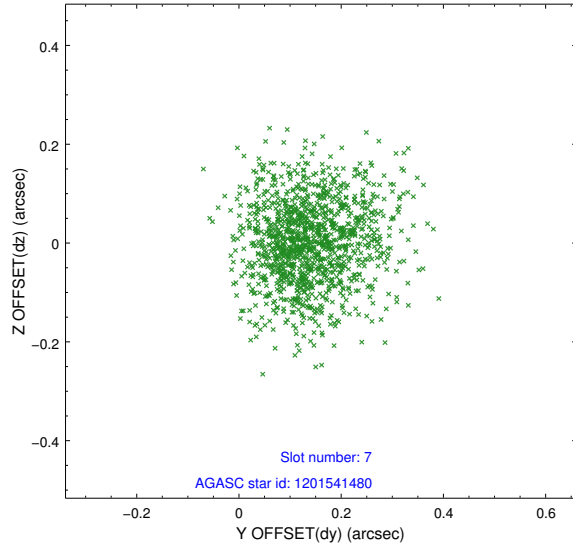
### 2.4.3 Slot 5



## 2.4.4 Slot 6

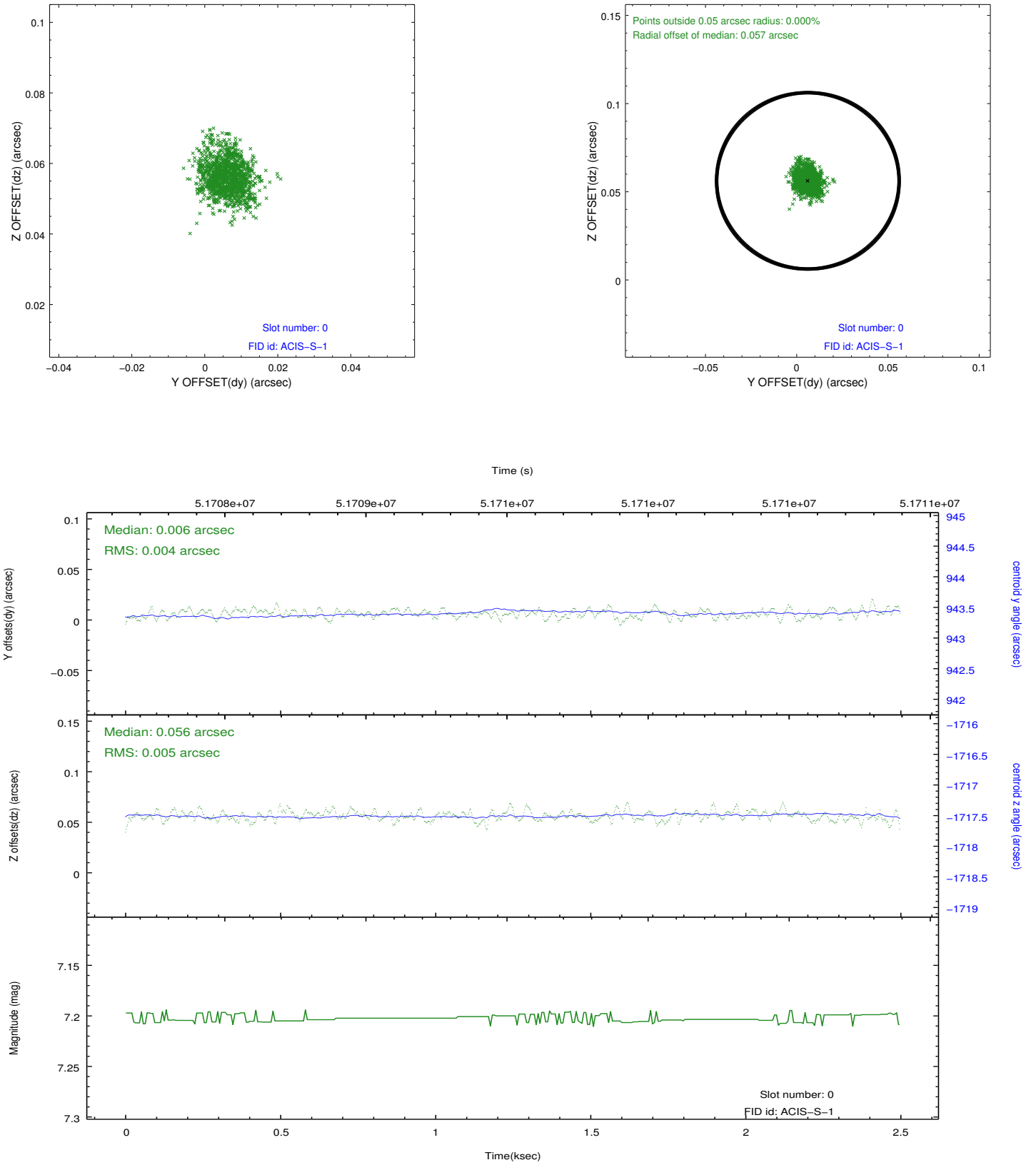


## 2.4.5 Slot 7

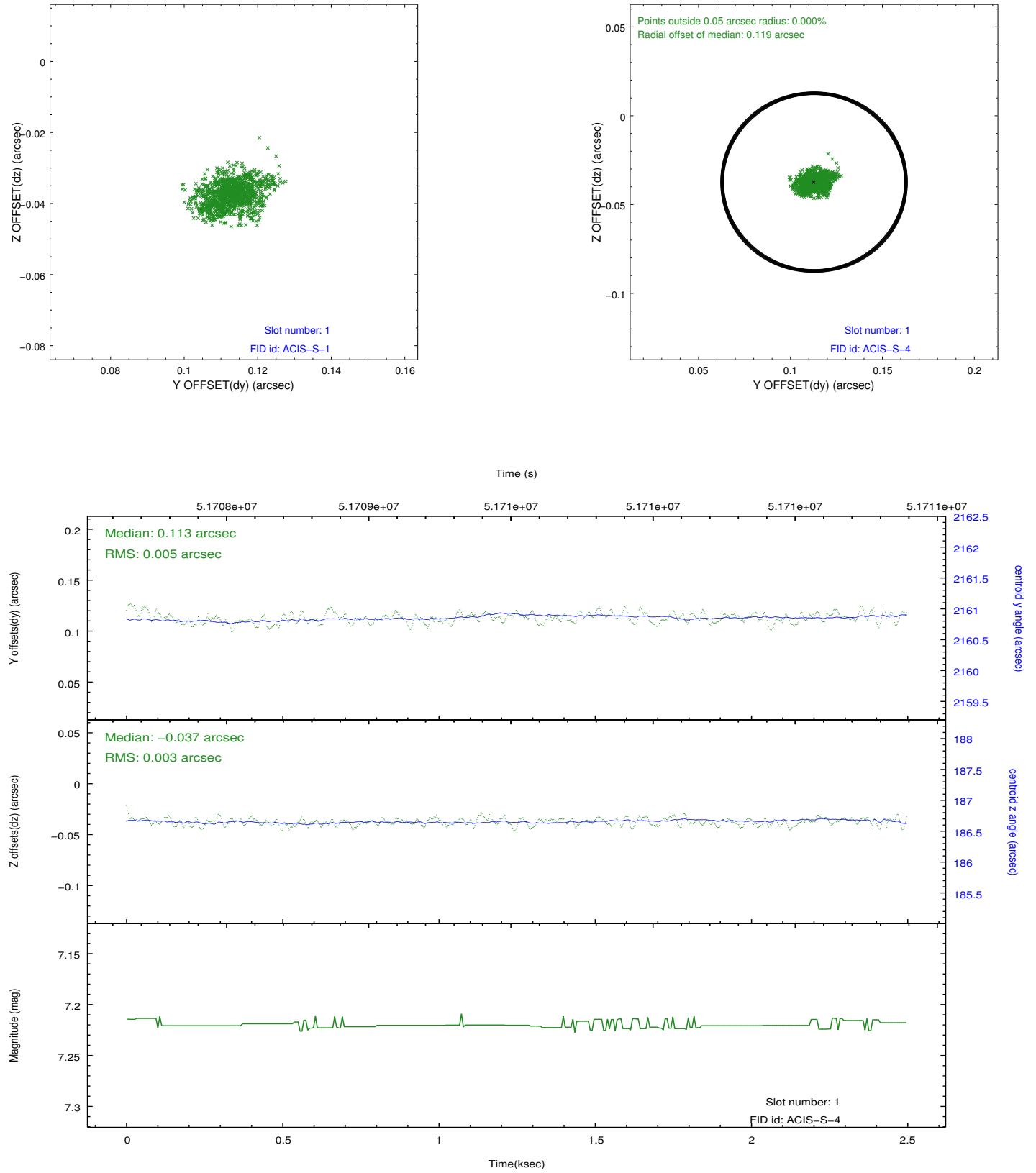


## 2.5 FID Slots

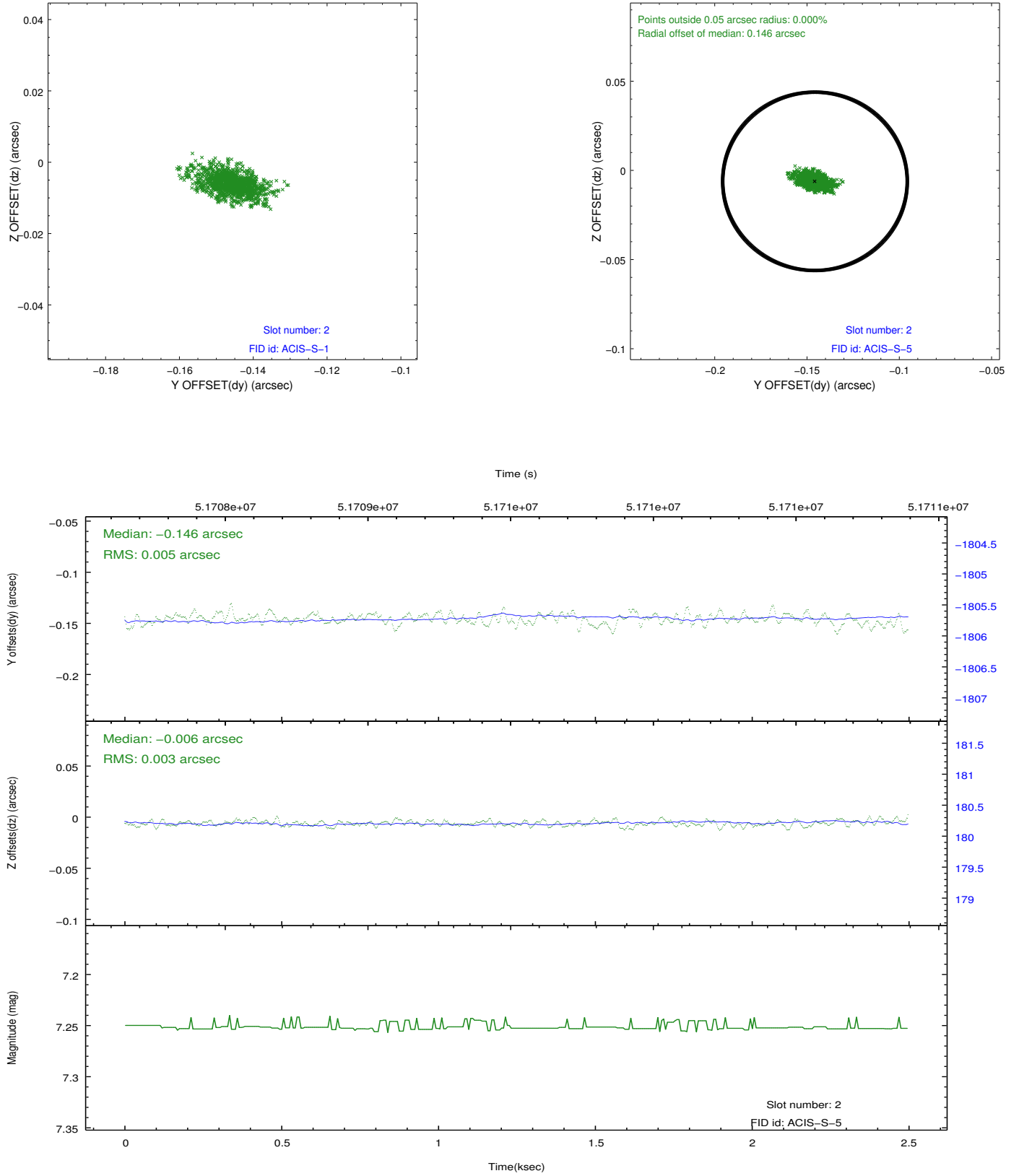
### 2.5.1 Slot 0



## 2.5.2 Slot 1

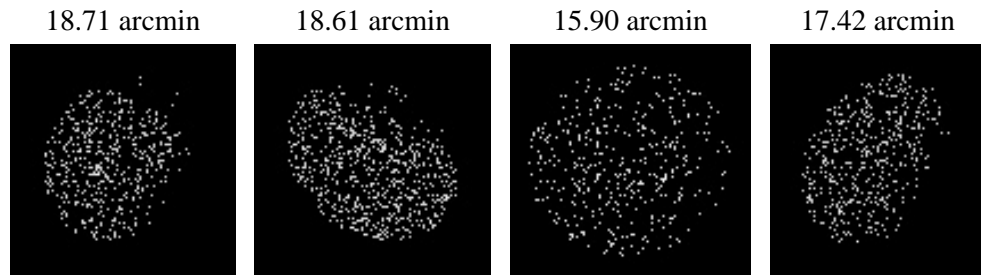


## 2.5.3 Slot 2





### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.05.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.76

## A.2 Comments

Source extremely off-axis, on chip S0.

===

Charge time for this ObsId remains at previous value of 1.76 ksec, although with the current processing the charge time would have been 1.75 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.