

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 1079 - L2 Version 3

Chandra X-Ray Center

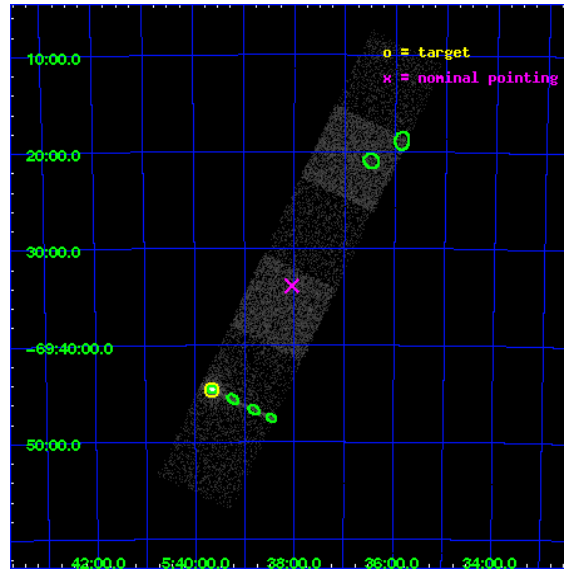
L2 Processing Date : Dec 16 2009

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# 1 Front

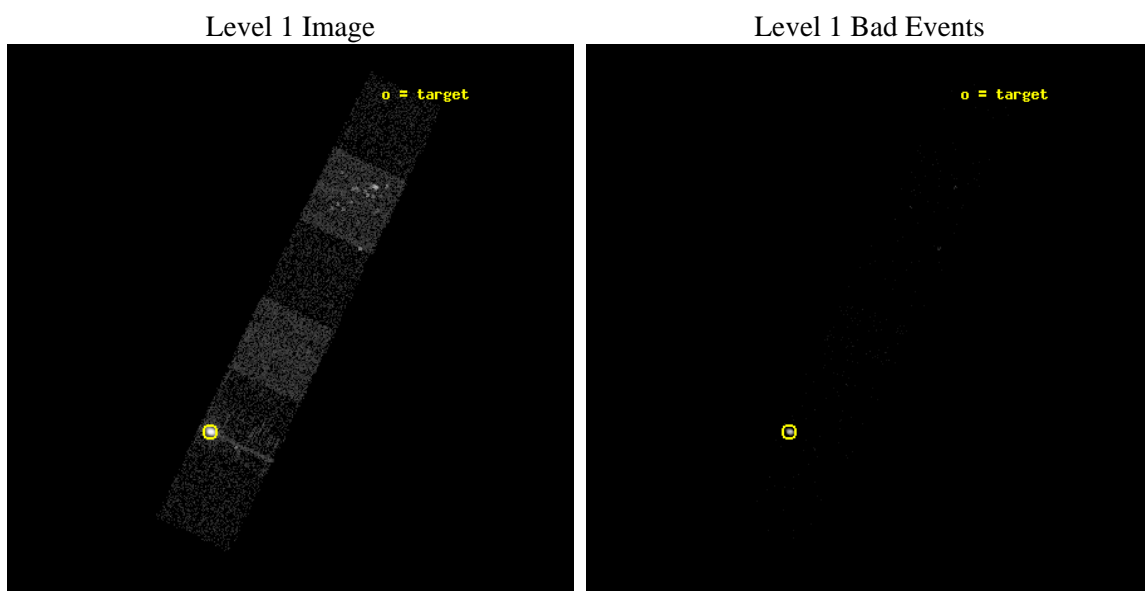
seq_num	480029	Sequence number
obs_id	1079	Observation id
title	&#160	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	LMC X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.914583	Observer's specified target RA
dec_targ	-69.743611	Observer's specified target Dec
ra_nom	84.512519873348	Nominal RA
dec_nom	-69.564792682793	Nominal Dec
roll_nom	115.88952456412	Nominal Roll
revision	3	Processing version of data
ontime	758.40000070632	Sum of GTIs [s]
livetime	748.79668324372	Livetime [s]
ontime4	758.40000070632	Sum of GTIs [s]
ontime5	758.40000070632	Sum of GTIs [s]
ontime6	758.40000070632	Sum of GTIs [s]
ontime7	758.40000070632	Sum of GTIs [s]
ontime8	758.40000070632	Sum of GTIs [s]
ontime9	758.40000070632	Sum of GTIs [s]
l2events	45189	Number of level 2 events



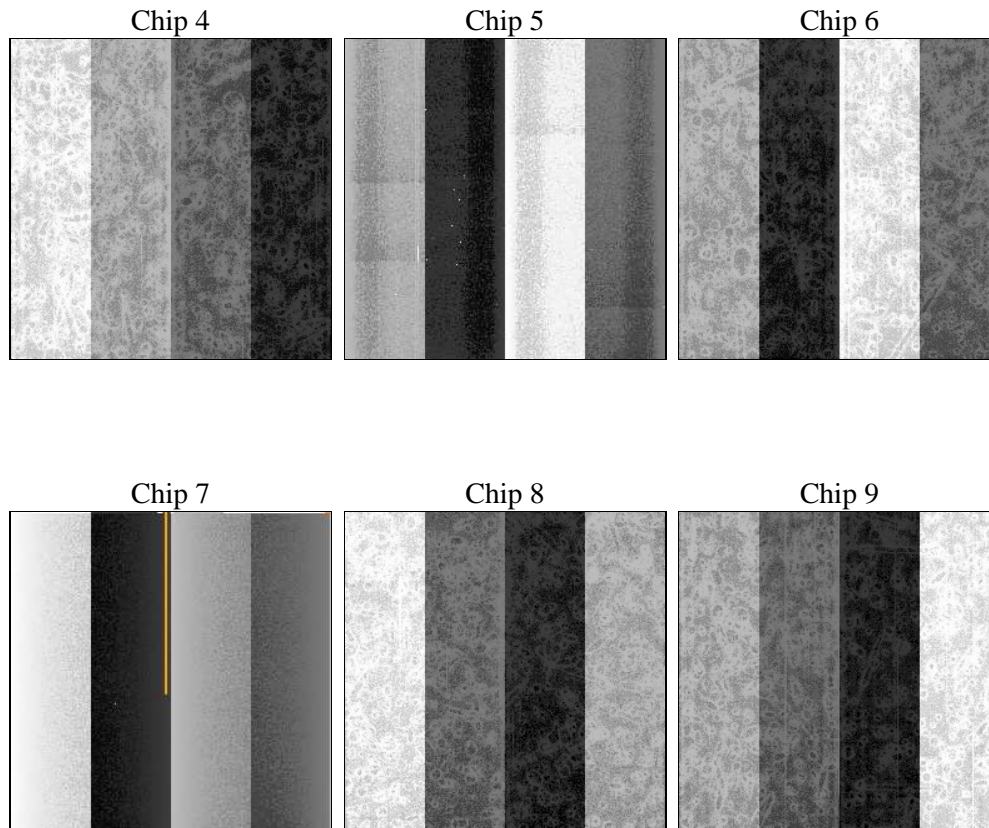
## 2 OBI

### 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	758.40000070632	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime4	758.40000070632	Sum of GTIs [s]
date	2009-12-16T06:08:54	Date and time of file creation	ontime5	758.40000070632	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	758.40000070632	Sum of GTIs [s]
			ontime7	758.40000070632	Sum of GTIs [s]
			ontime8	758.40000070632	Sum of GTIs [s]
			ontime9	758.40000070632	Sum of GTIs [s]
			l1events	56484	Number of level 1 events

### 2.1.4 Events

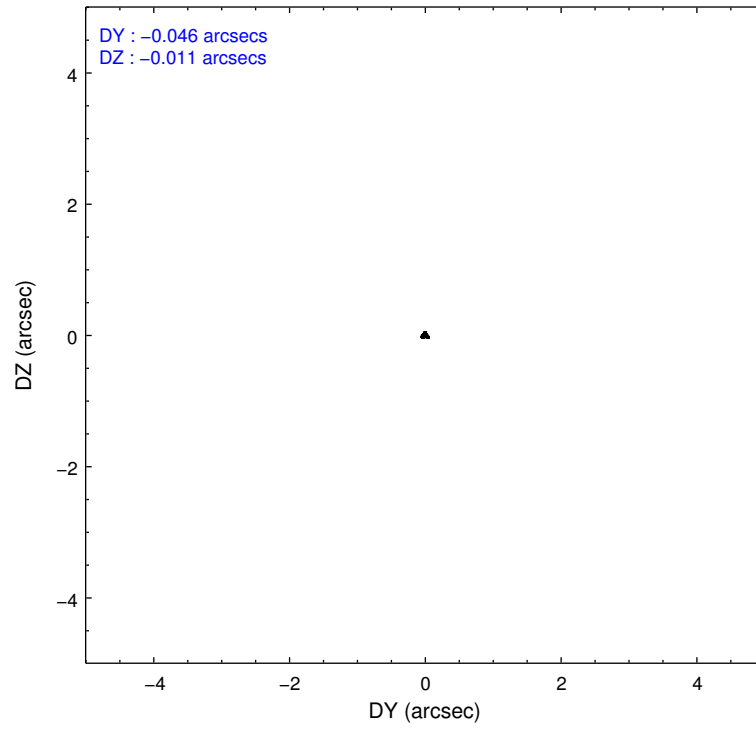
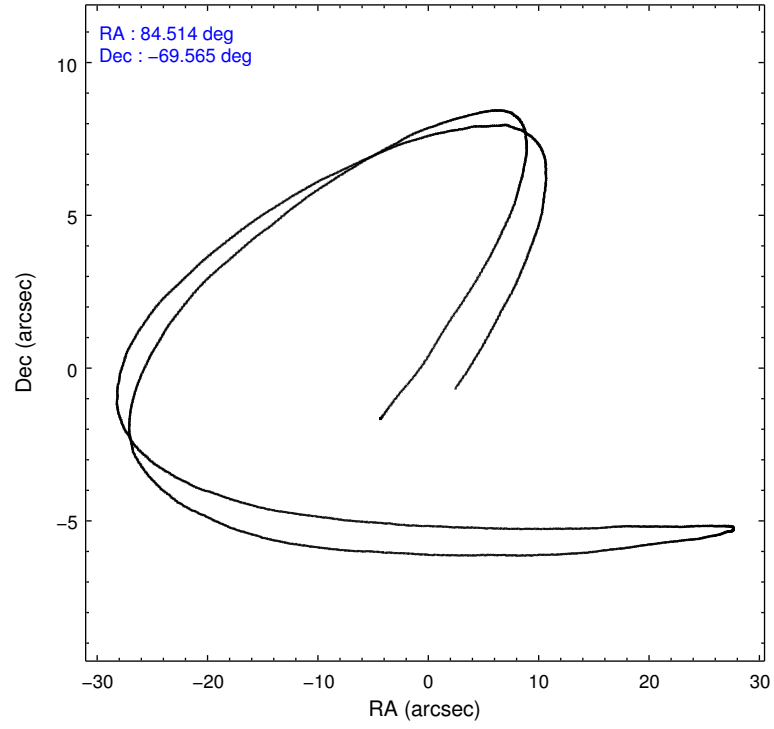
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	1668	9172	1914	6248	35765	1717
rejected events	383	645	448	900	4028	415
rejected %	22%	7%	23%	14%	11%	24%

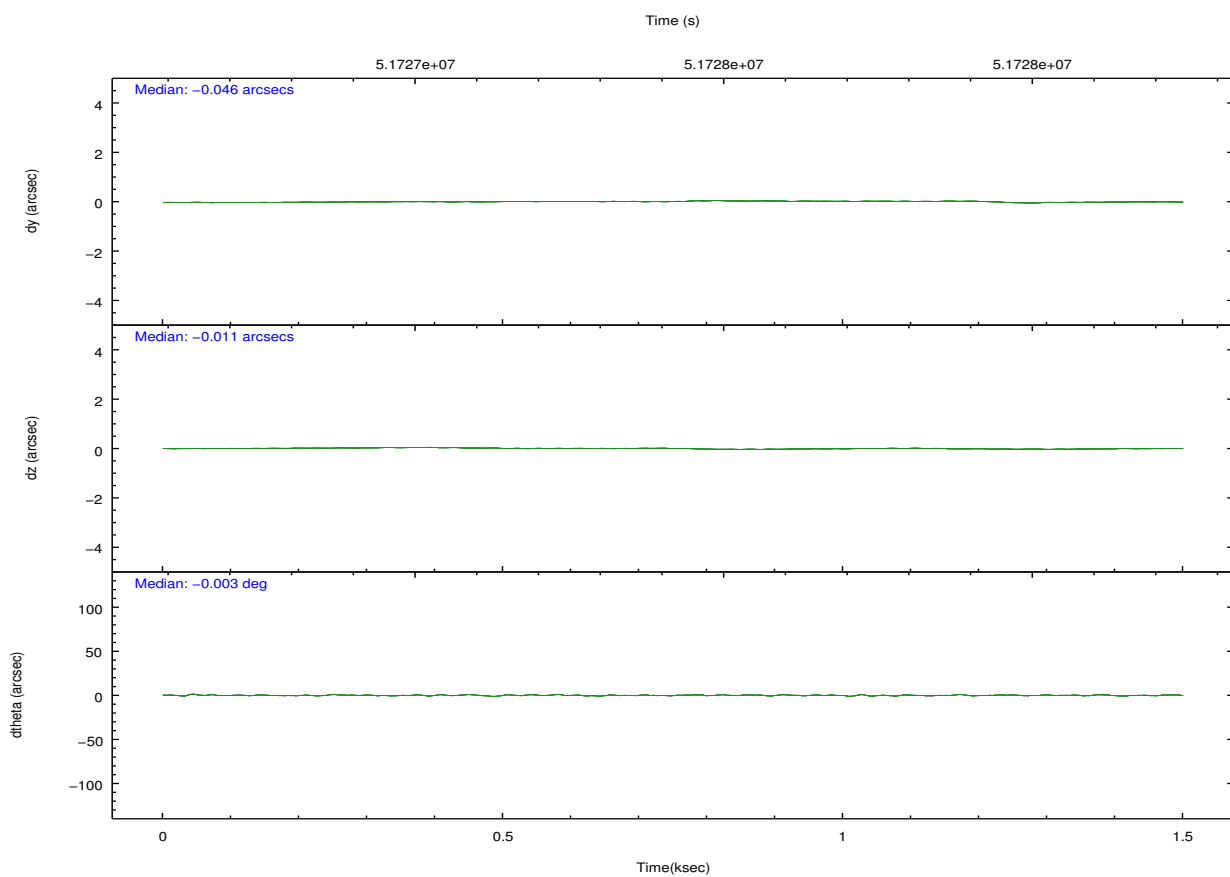
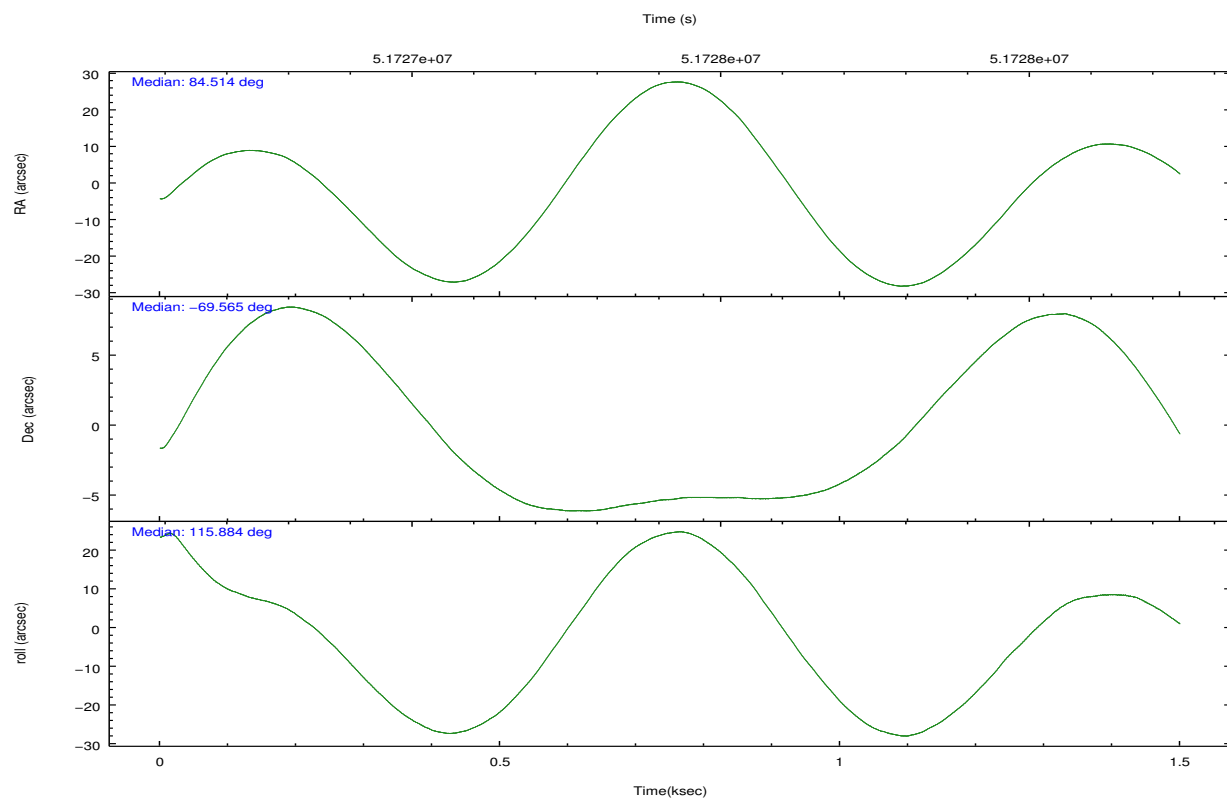
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	447	2470	464	357	21183	400
	26%	26%	24%	5%	59%	23%
grade 1 events	5	46	1	7	2080	0
	0%	0%	0%	0%	5%	0%
grade 2 events	301	1468	301	683	5605	284
	18%	16%	15%	10%	15%	16%
grade 3 events	82	387	100	407	1557	100
	4%	4%	5%	6%	4%	5%
grade 4 events	82	334	94	331	1538	104
	4%	3%	4%	5%	4%	6%
grade 5 events	374	561	435	876	1717	399
	22%	6%	22%	14%	4%	23%
grade 6 events	377	3906	519	3587	2085	430
	22%	42%	27%	57%	5%	25%
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	84.577276	84.51251987334776	Subarray requested	NONE	NONE
Pointing Dec	-69.581211	-69.56479268279251	Alternating exposures requested	N	N
Pointing Roll	115.793523	115.8895245641159	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	51727169.184000	51726495.433393			
Observation start date	1999-08-22T16:38:25	1999-08-22T16:28:15			
Observation end time	51728169.184000	51728295.845958			
Observation end date	1999-08-22T16:55:05	1999-08-22T16:58:15			
Read mode	TIMED	TIMED			

## 2.3 Aspect





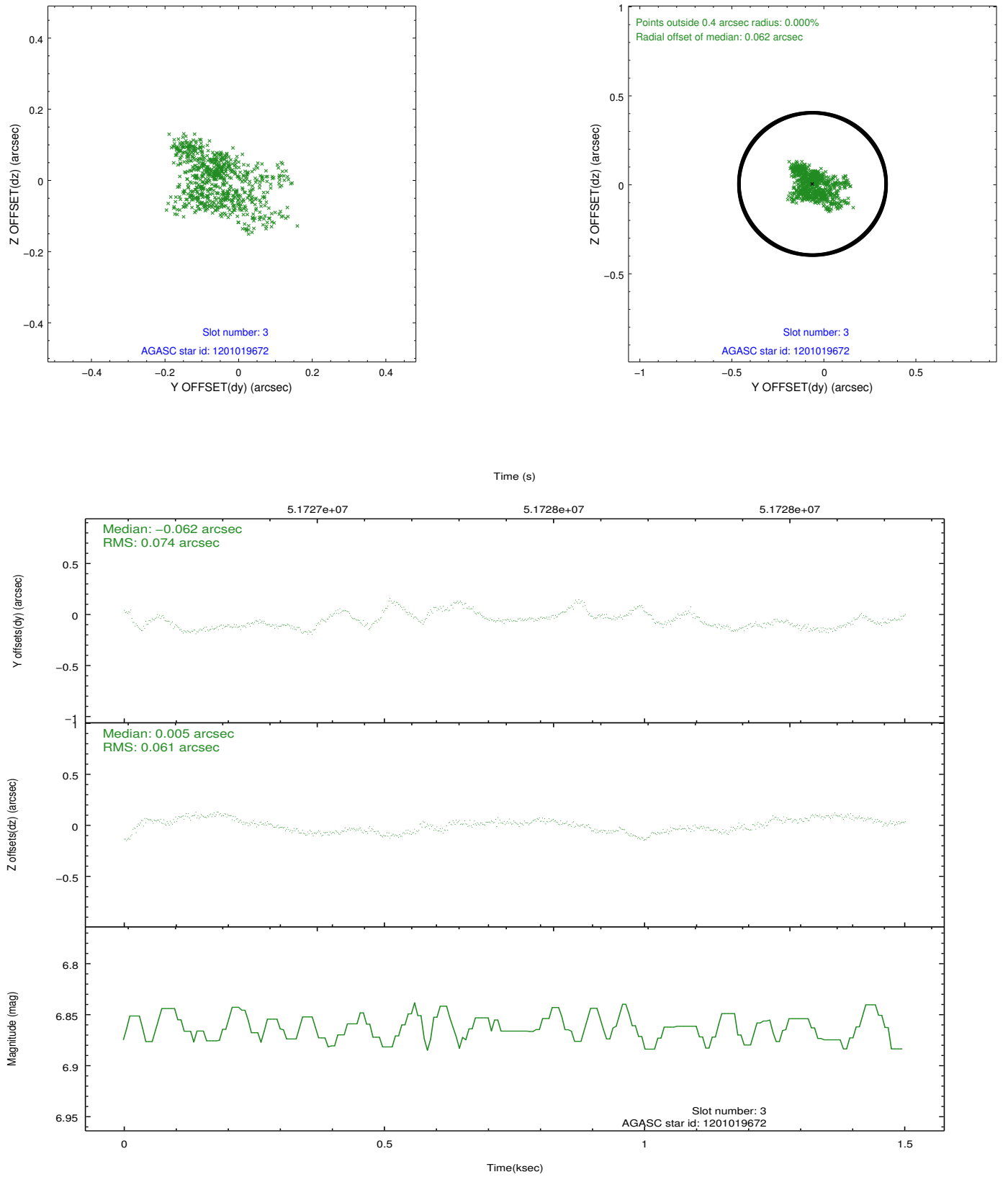
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-4	7.22	733	0.126	-0.056	0.006	0.010	0.000000	0.000000	2160.93	187.18
1	FID	ACIS-S-5	7.26	733	-0.141	-0.041	0.005	0.010	0.000000	0.000000	-1802.71	180.99
2	FID	ACIS-S-6	7.36	733	-0.013	0.111	0.007	0.010	0.000000	0.000000	406.80	824.82
3	GUIDE	1201019672	6.86	733	-0.062	0.005	0.101	0.173	85.312192	-68.770187	2205.38	-2128.96
4	GUIDE	1201407840	7.97	733	-0.067	-0.033	0.064	0.100	83.696303	-70.172201	-1453.42	1896.04
5	GUIDE	1200883536	9.90	733	0.058	-0.020	0.111	0.171	83.119228	-69.218429	1962.58	1122.27
6	GUIDE	1201406992	9.26	731	0.125	0.027	0.082	0.129	83.682859	-69.471866	839.39	851.96
7	GUIDE	1200886544	9.58	732	-0.057	0.028	0.093	0.145	82.995430	-69.160893	2219.58	1179.69

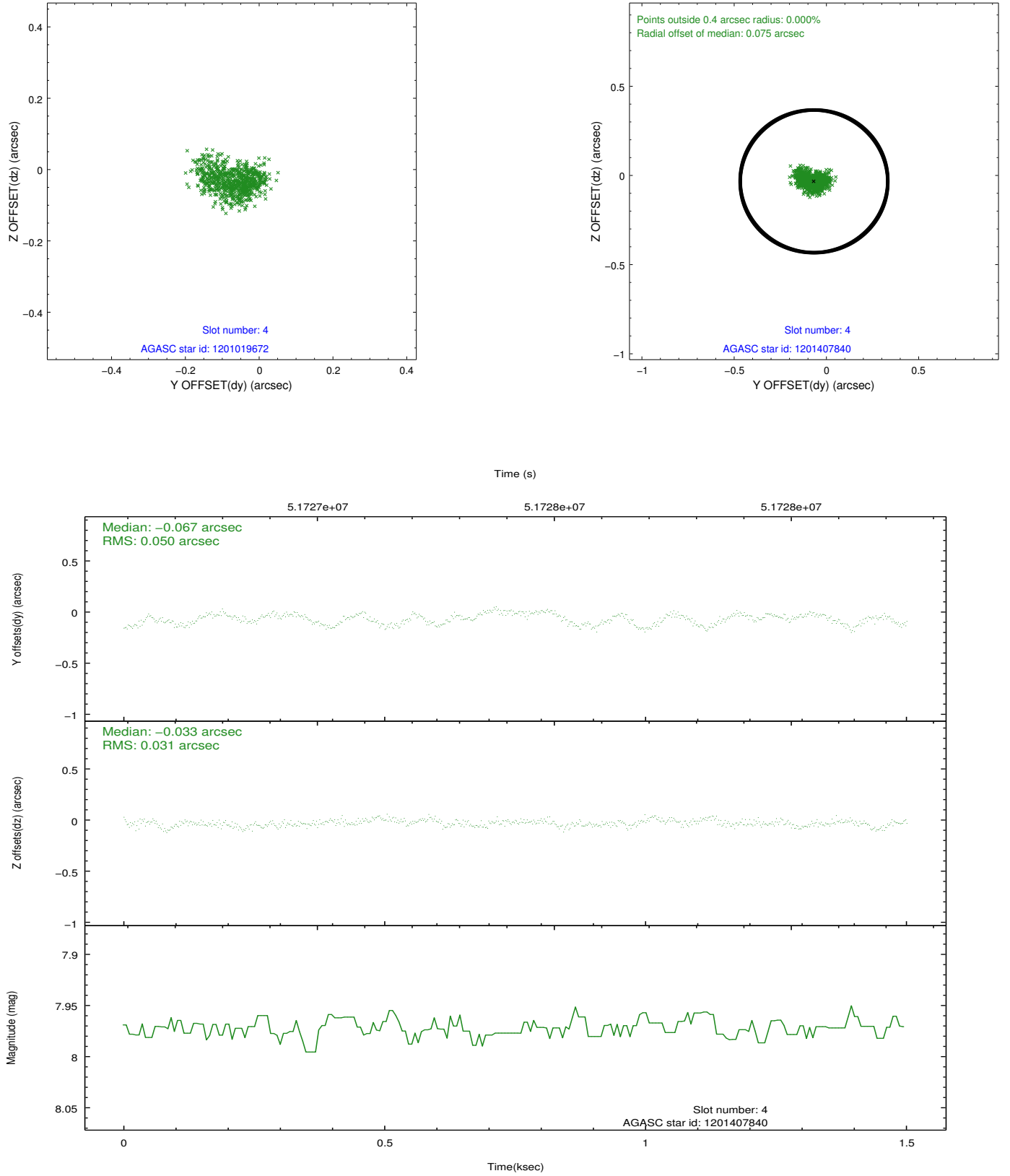


## 2.4 Star Slots

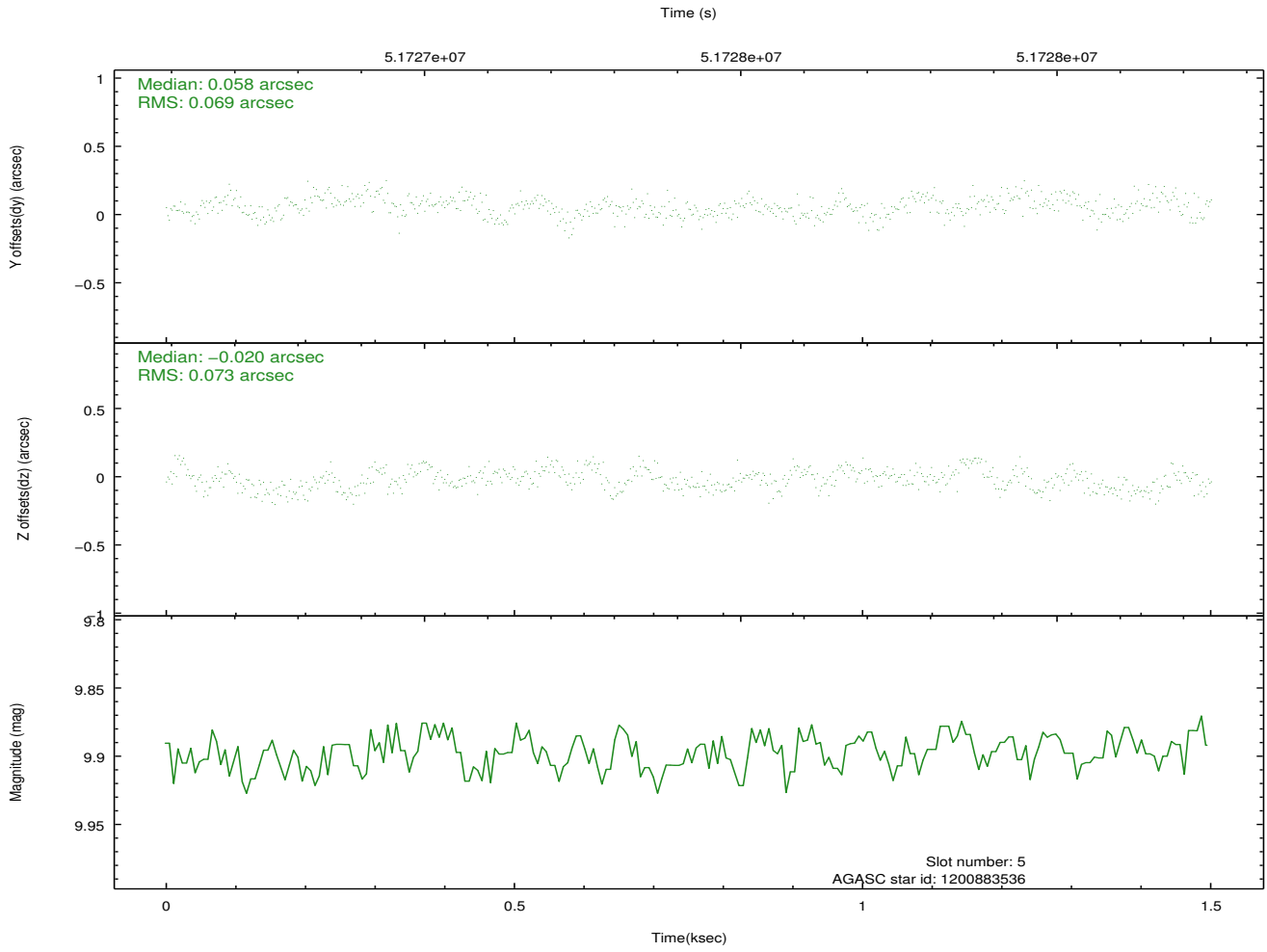
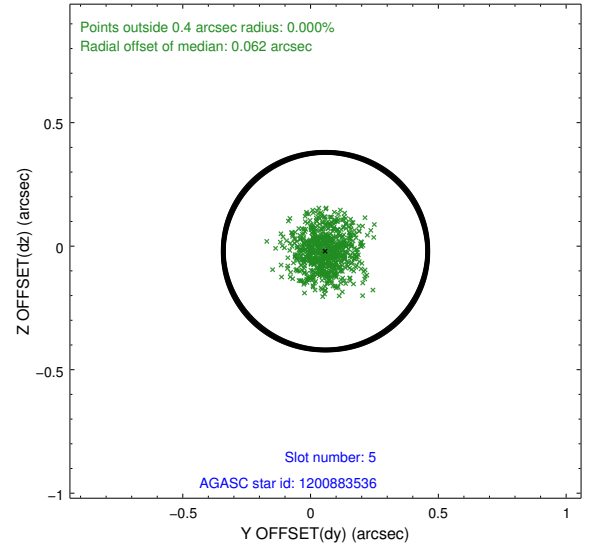
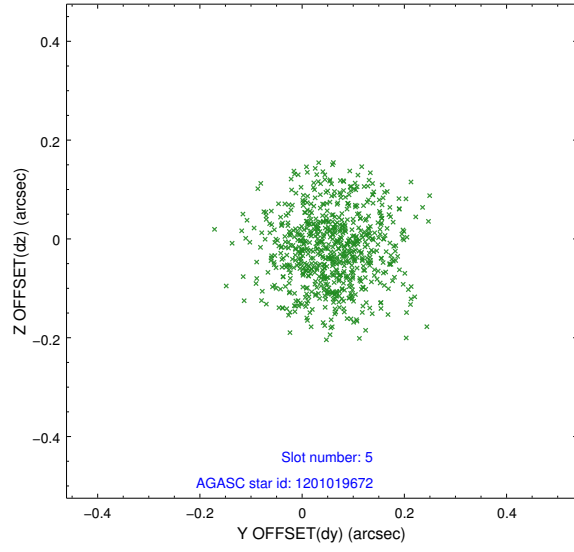
### 2.4.1 Slot 3



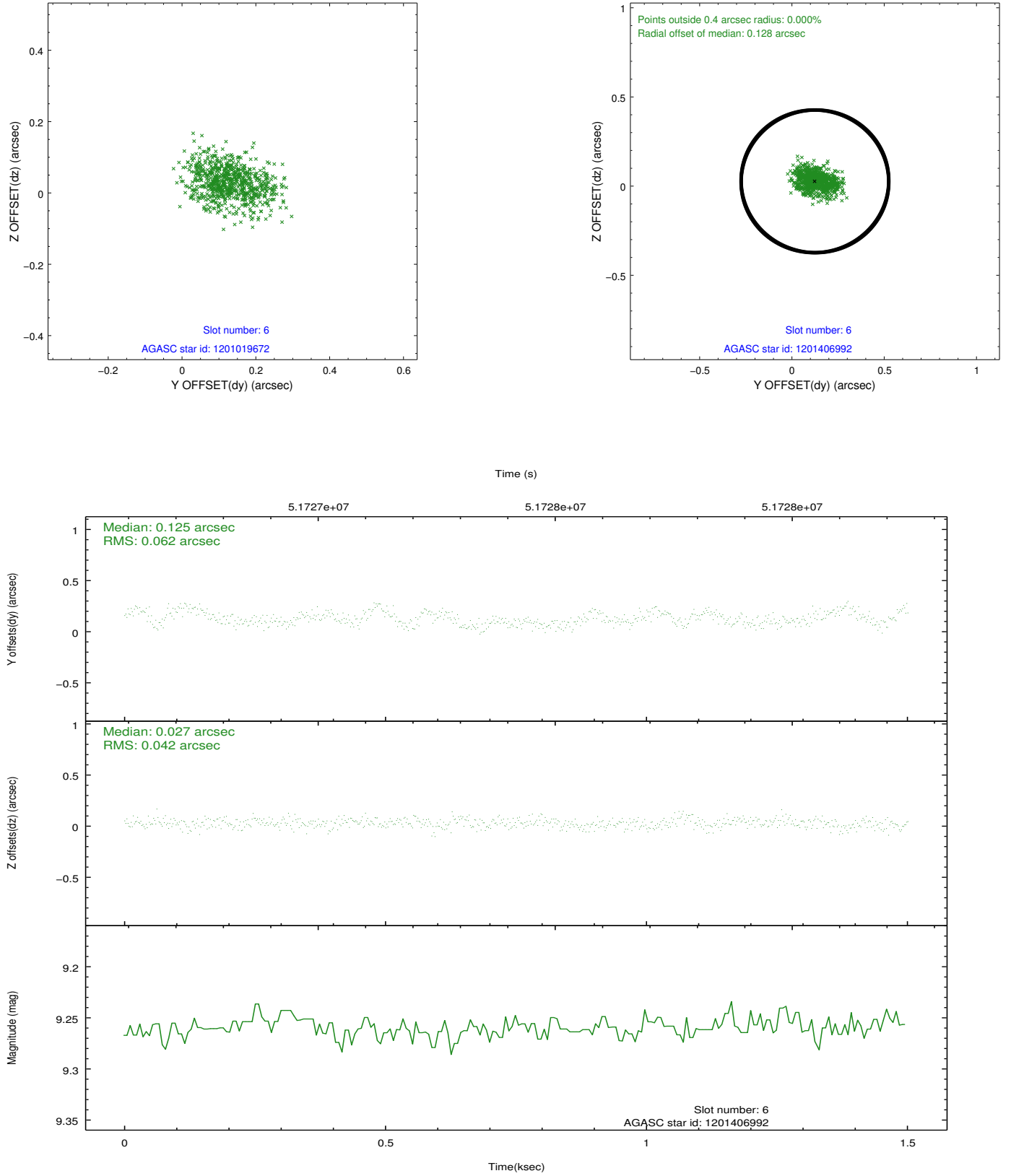
## 2.4.2 Slot 4



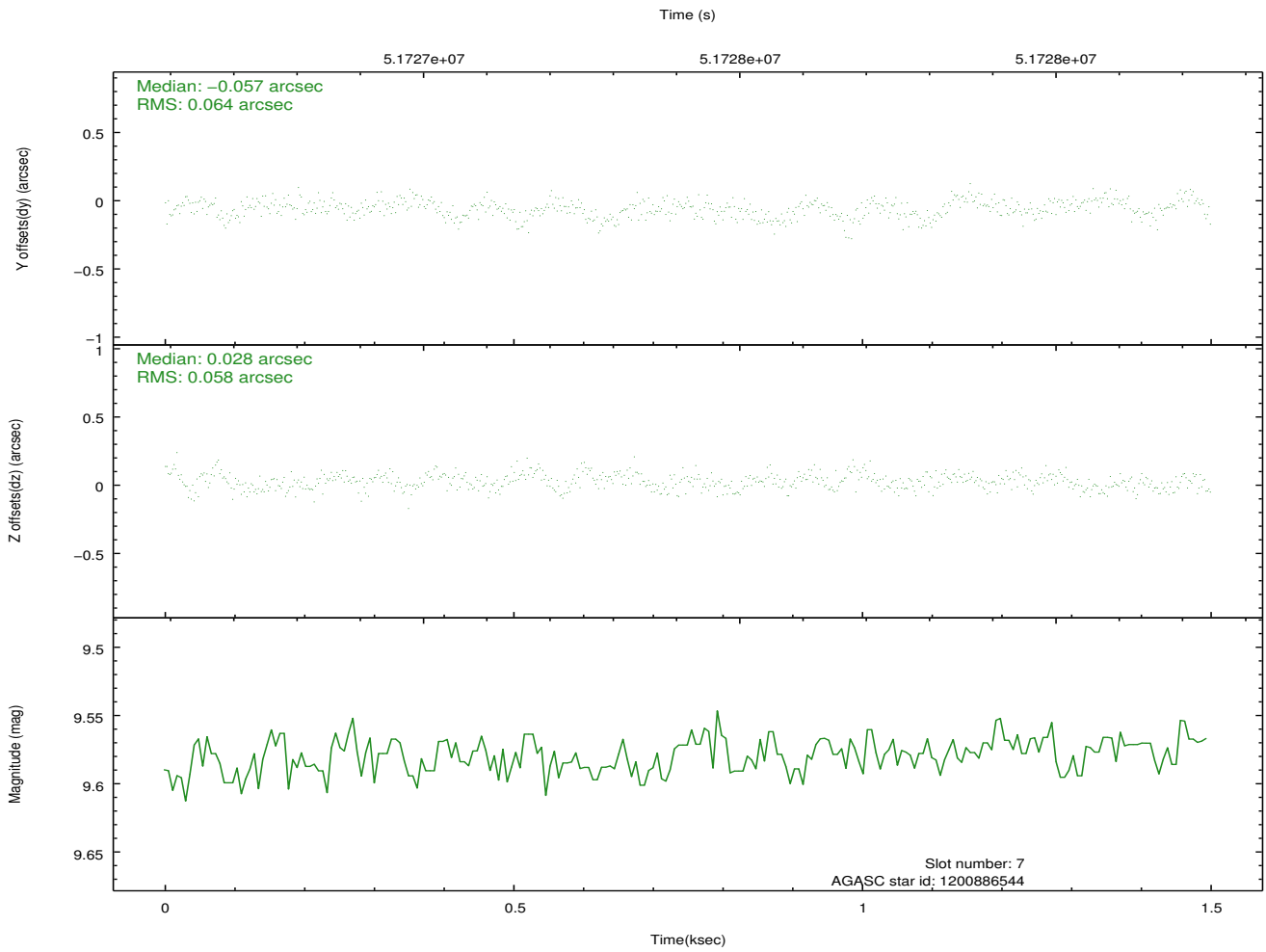
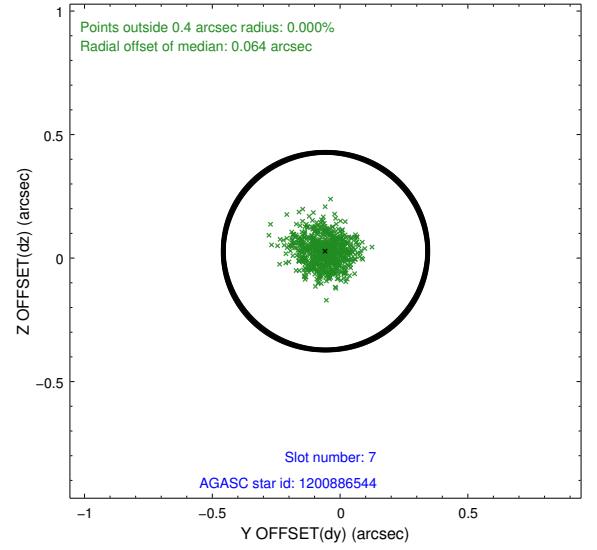
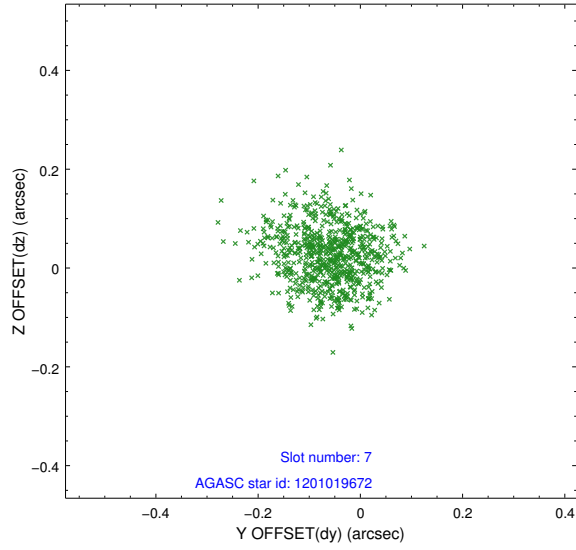
### 2.4.3 Slot 5



## 2.4.4 Slot 6

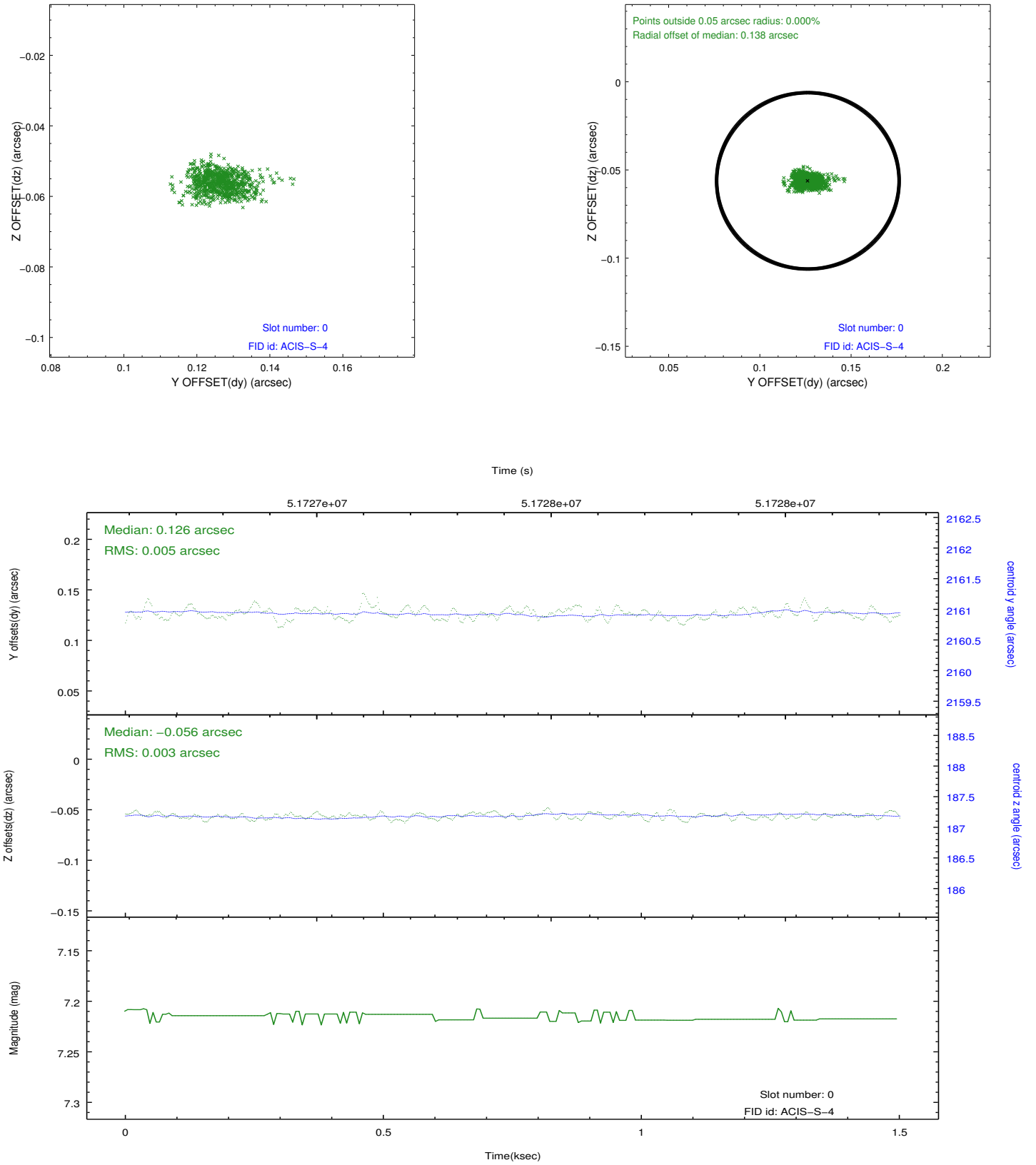


## 2.4.5 Slot 7

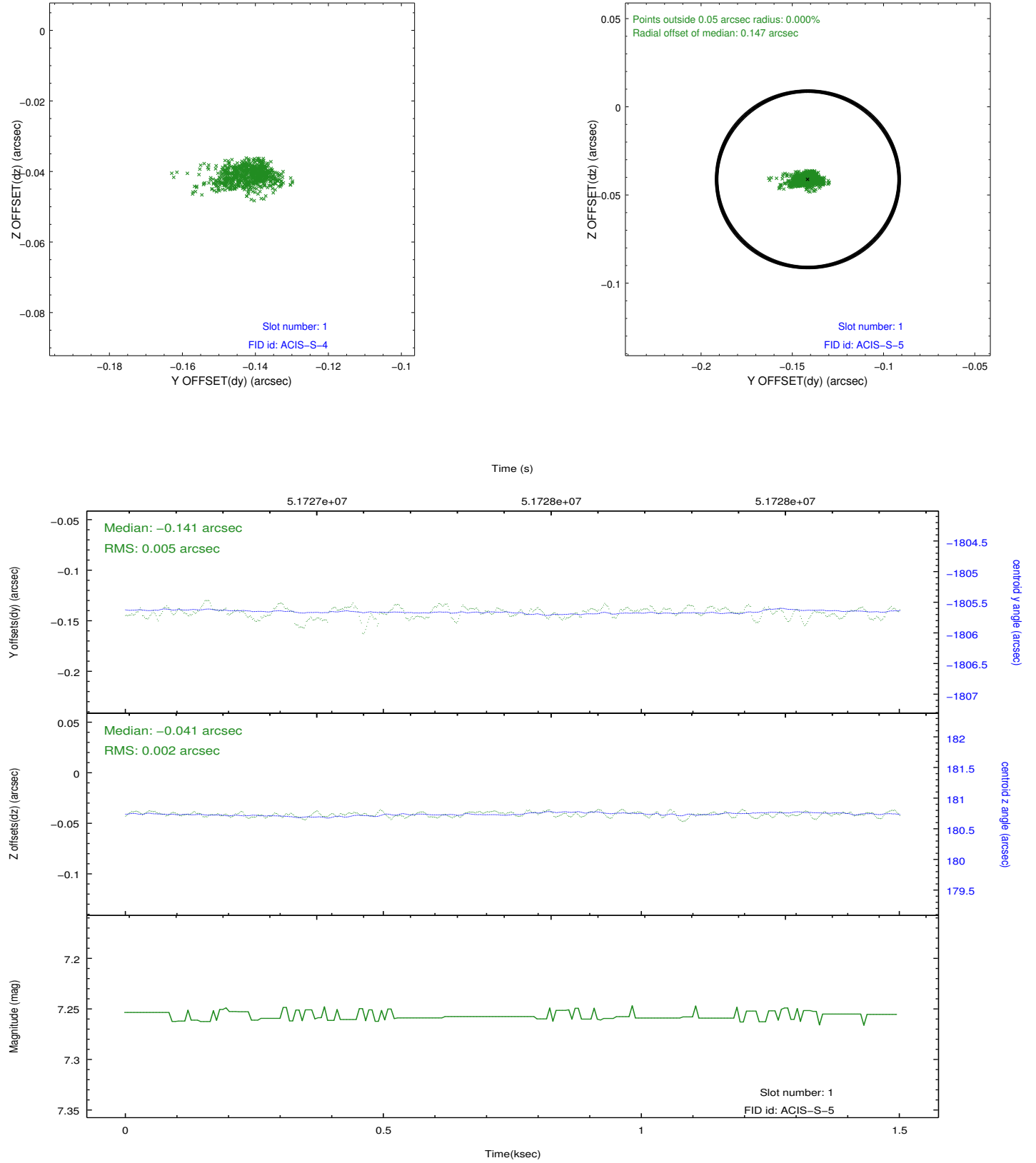


## 2.5 FID Slots

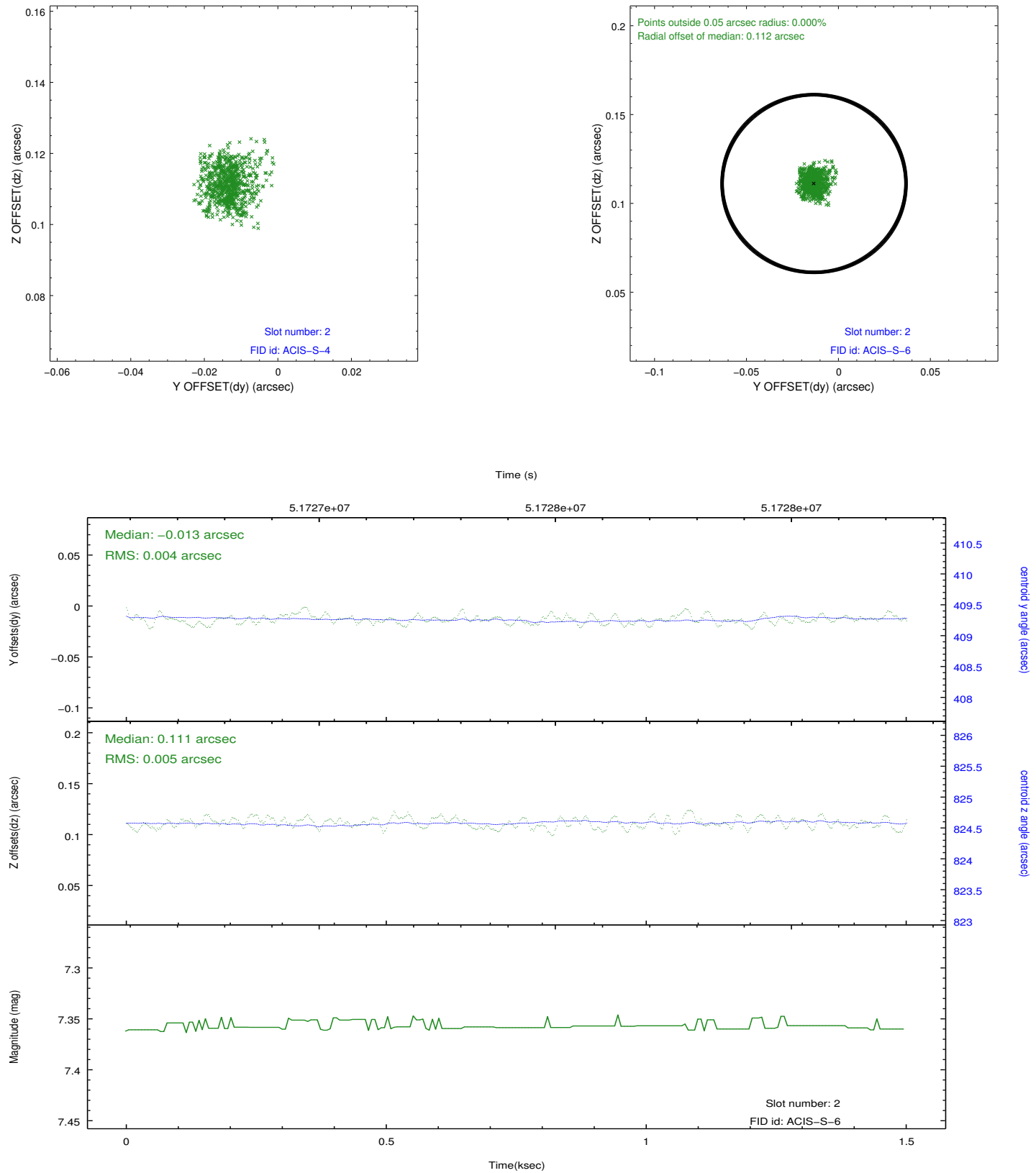
### 2.5.1 Slot 0



## 2.5.2 Slot 1

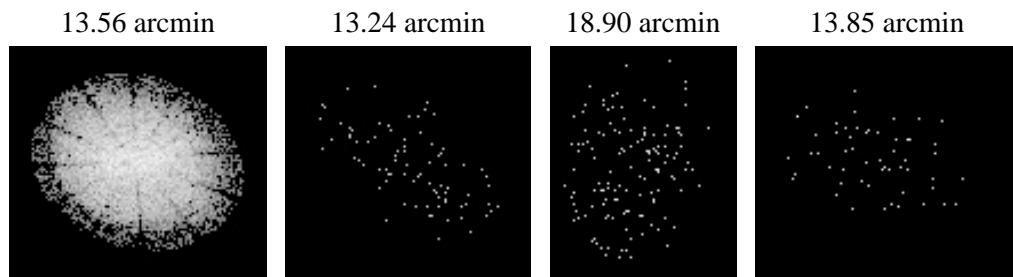


### 2.5.3 Slot 2





### 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	0.761

## A.2 Comments

Target is very off-axis on S4.

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Charge time for this ObsId remains at previous value of 0.761 ksec, although with the current processing the charge time would have been 0.758 ksec.

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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.