

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 787 - L2 Version 4

Chandra X-Ray Center

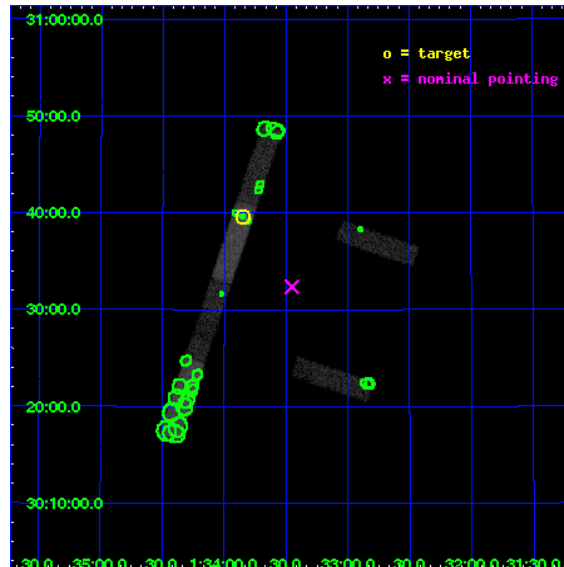
L2 Processing Date : Dec 2 2009

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# 1 Front

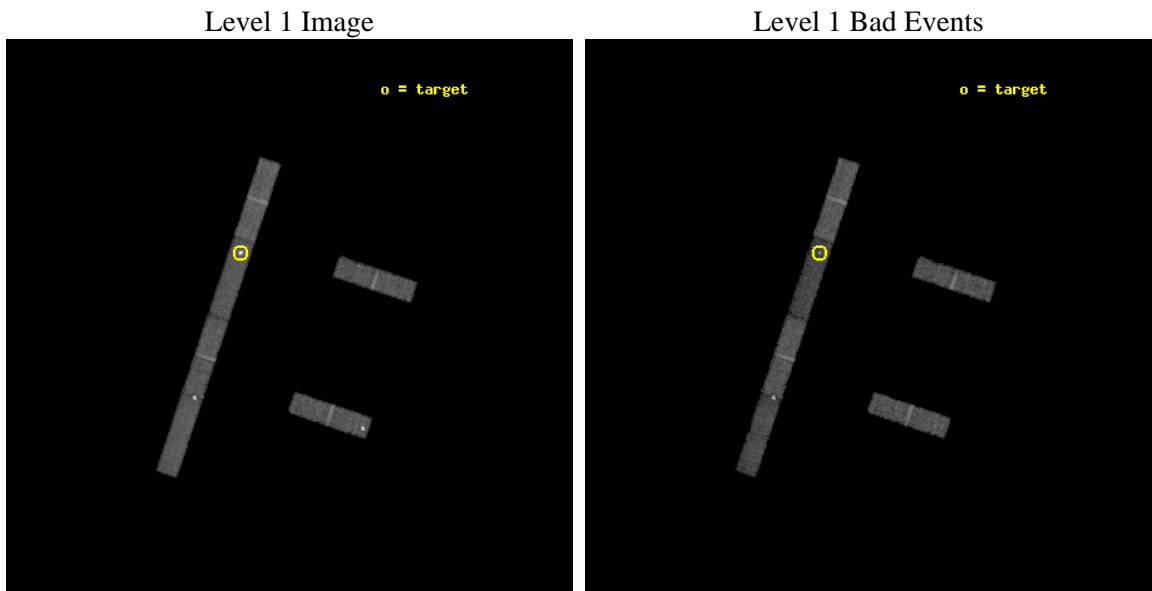
seq_num	600090	Sequence number
obs_id	787	Observation id
title	THE X-RAY SOURCE POPULATION OF M33	Proposal title
observer	Dr. Jonathan McDowell	Principal investigator
object	M33 X-8	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	23.461667	Observer's specified target RA
dec_targ	30.660167	Observer's specified target Dec
ra_nom	23.363166702393	Nominal RA
dec_nom	30.539426090463	Nominal Dec
roll_nom	288.5621849958	Nominal Roll
revision	4	Processing version of data
ontime	9656.0	Sum of GTIs [s]
livetime	9275.3400445708	Livetime [s]
ontime2	9656.0	Sum of GTIs [s]
ontime3	9656.0	Sum of GTIs [s]
ontime5	9654.9589899257	Sum of GTIs [s]
ontime6	9654.9589899257	Sum of GTIs [s]
ontime7	9656.0	Sum of GTIs [s]
ontime8	9656.0	Sum of GTIs [s]
l2events	61576	Number of level 2 events



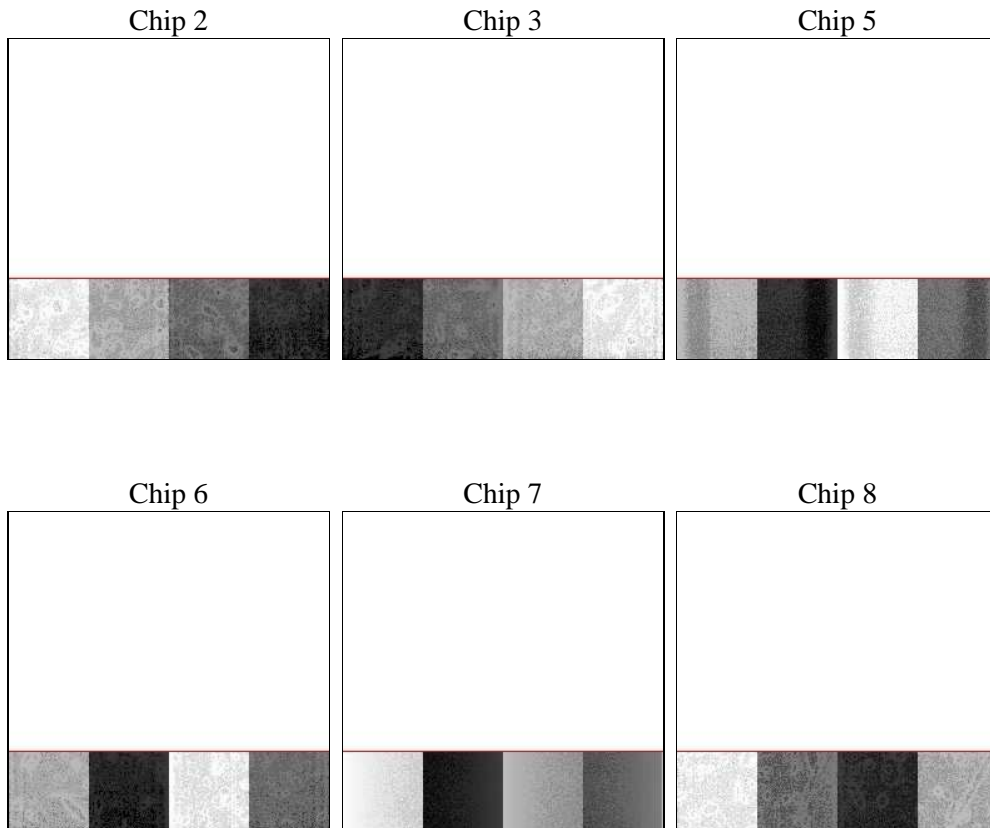
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	9656.0	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime2	9656.0	Sum of GTIs [s]
date	2009-12-02T08:47:31	Date and time of file creation	ontime3	9656.0	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	9654.9589899257	Sum of GTIs [s]
			ontime6	9654.9589899257	Sum of GTIs [s]
			ontime7	9656.0	Sum of GTIs [s]
			ontime8	9656.0	Sum of GTIs [s]
			l1events	215818	Number of level 1 events

### 2.1.4 Events

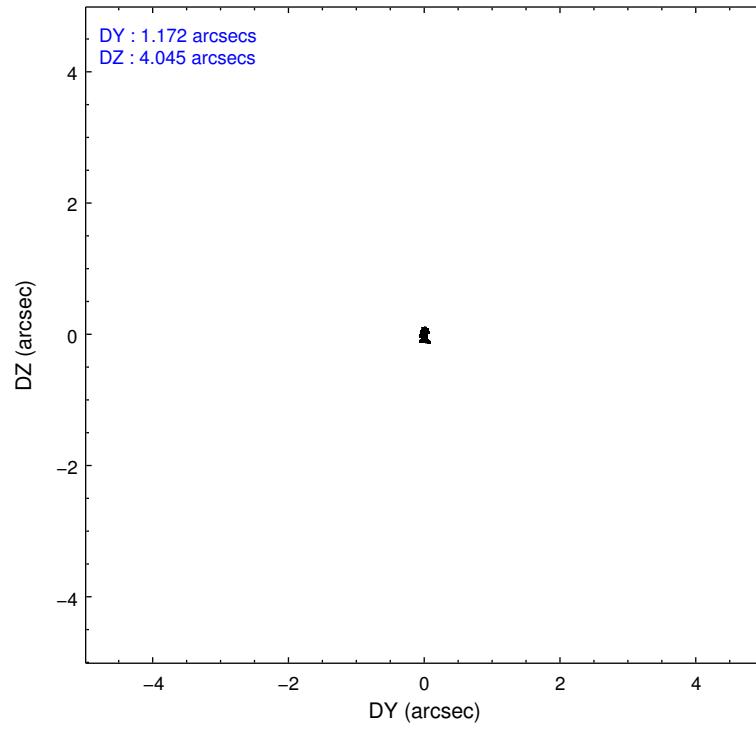
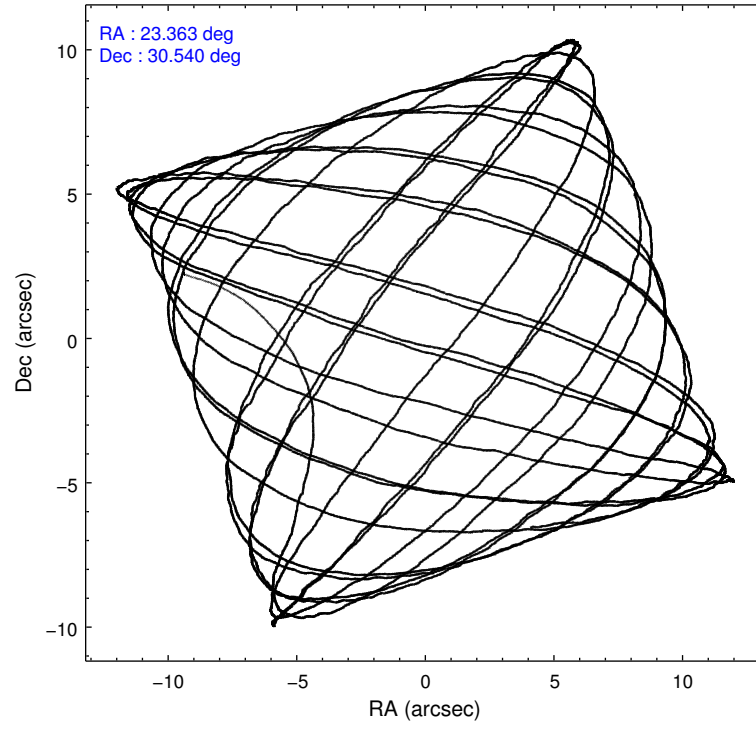
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	36152	26345	34657	28708	52495	37461	grade 0 events	1095	1251	2236	1342	8037	2655
rejected events	23992	23119	17860	25213	13819	29946		3%	4%	6%	4%	15%	7%
rejected %	66%	87%	51%	87%	26%	79%	grade 1 events	5	7	875	20	102	13
								0%	0%	2%	0%	0%	0%
							grade 2 events	705	754	3054	860	9125	1610
								1%	2%	8%	2%	17%	4%
							grade 3 events	9450	388	1395	372	4593	891
								26%	1%	4%	1%	8%	2%
							grade 4 events	368	373	1370	375	4302	838
								1%	1%	3%	1%	8%	2%
							grade 5 events	517	491	3056	615	1872	826
								1%	1%	8%	2%	3%	2%
							grade 6 events	543	460	8743	547	12625	1521
								1%	1%	25%	1%	24%	4%
							grade 7 events	23469	22621	13928	24577	11839	29107
								64%	85%	40%	85%	22%	77%

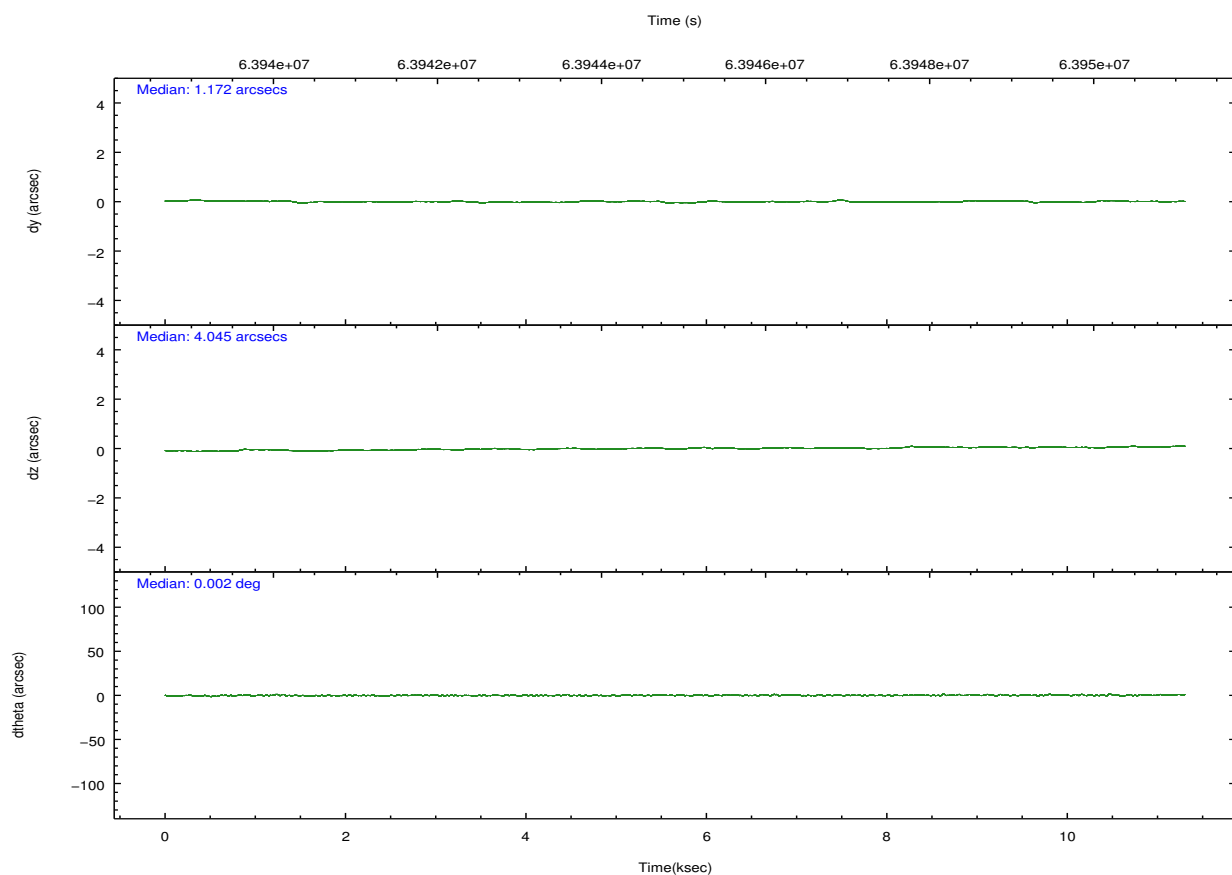
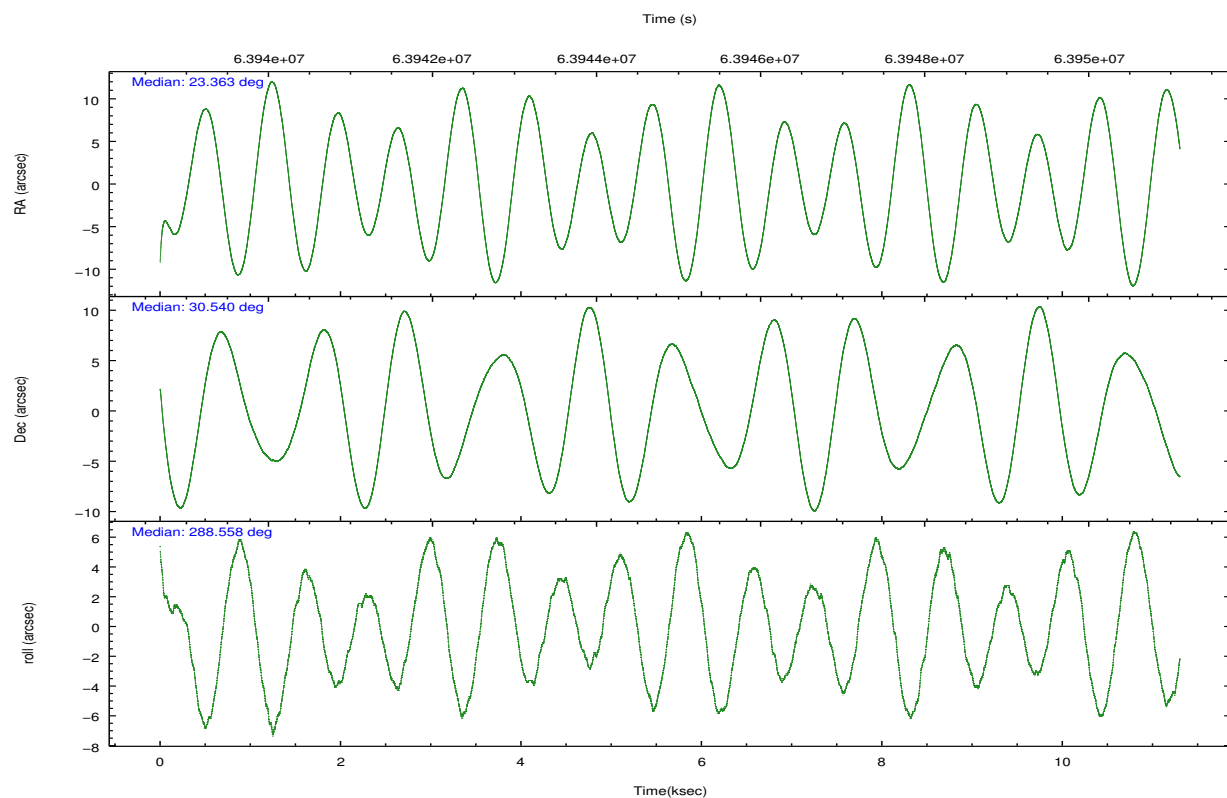


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-235678	ACIS-235678	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	23.339209	23.36316670239279	Subarray requested	CUSTOM	1/4
Pointing Dec	30.557694	30.5394260904632	Subarray start row	1	1
Pointing Roll	288.417728	288.5621849958022	Subarray row count	256	256
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.000000	1
SIM translation stage pos (mm)	-201.832523	-201.8266035715228			
SIM translation stage offset (mm)	11.7	11.69408098851497			
Observation start time	63939685.184000	63938076.304309			
Observation start date	2000-01-11T01:00:21	2000-01-11T00:34:36			
Observation end time	63949685.184000	63950681.754767			
Observation end date	2000-01-11T03:47:01	2000-01-11T04:04:41			
Read mode	TIMED	TIMED			

## 2.3 Aspect



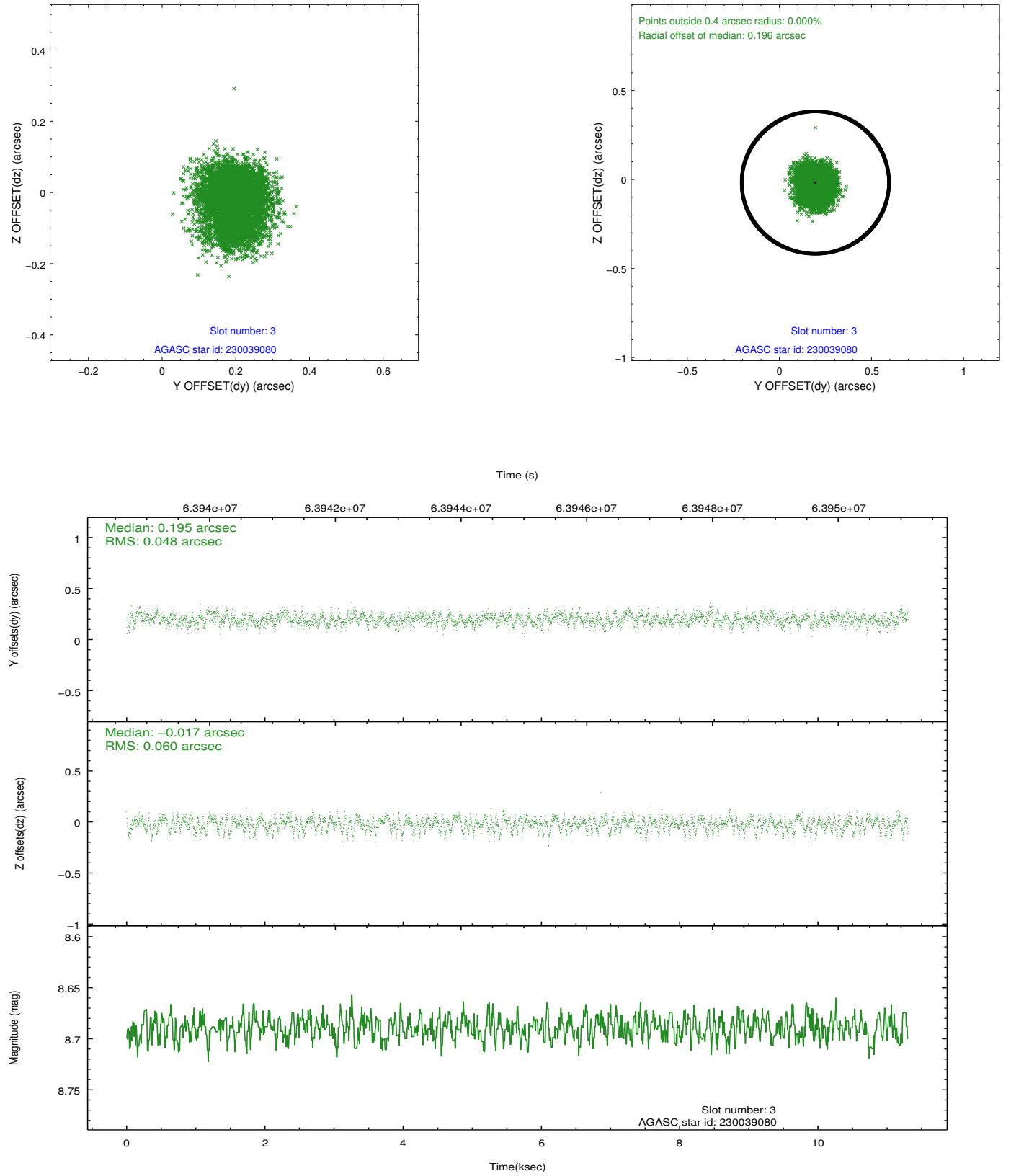


Slot Statistics

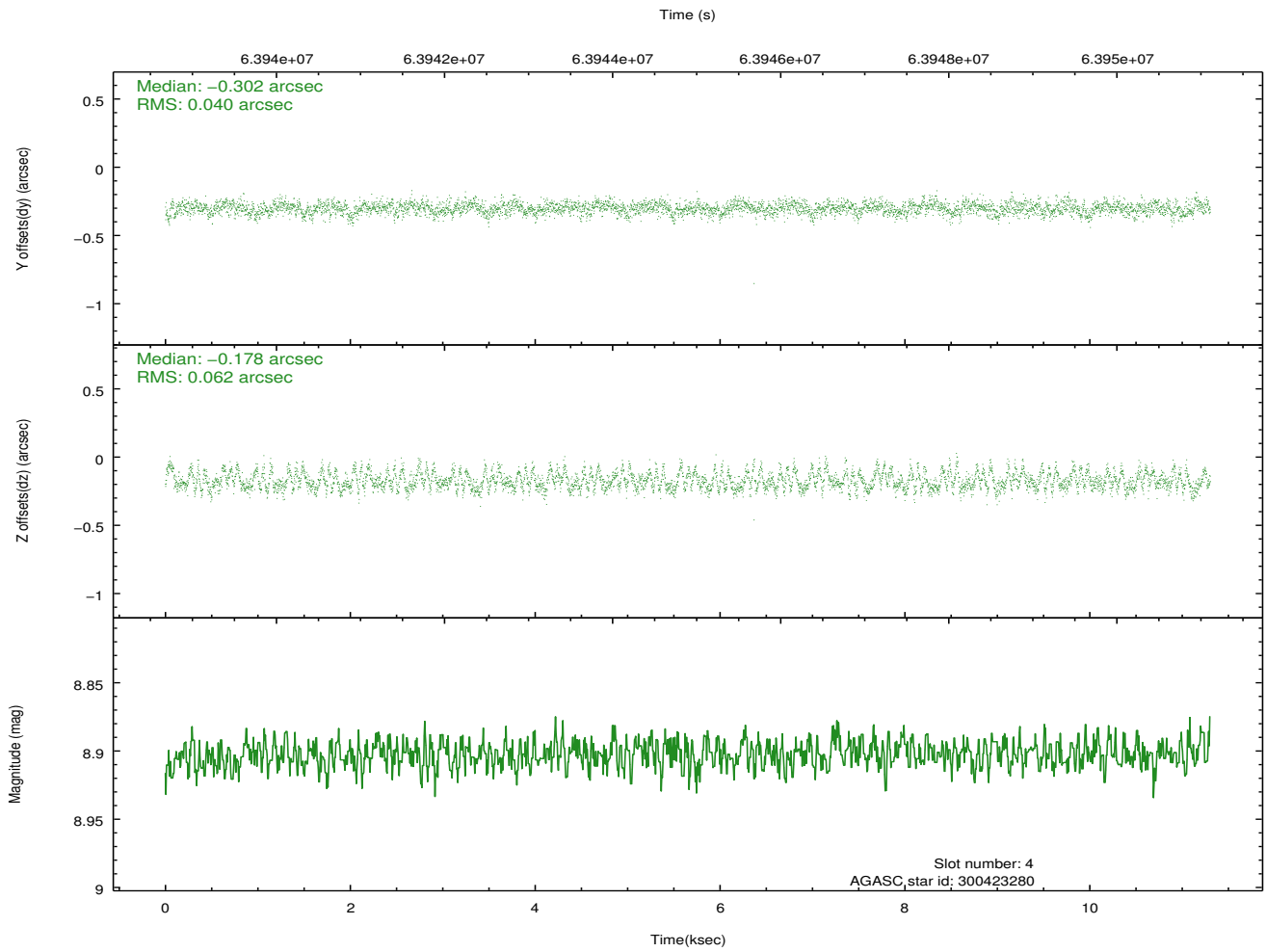
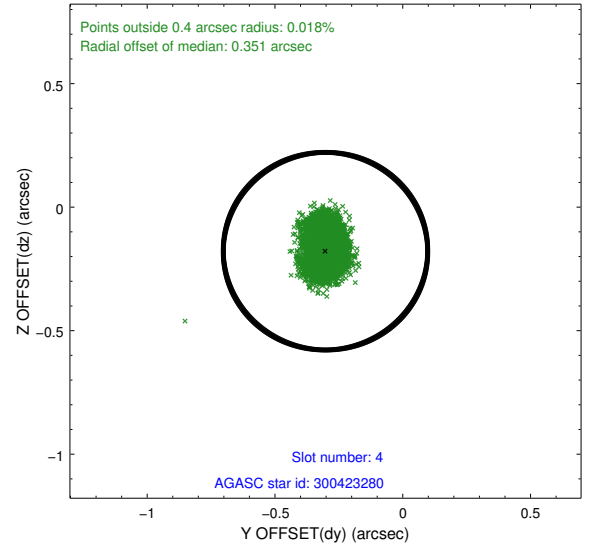
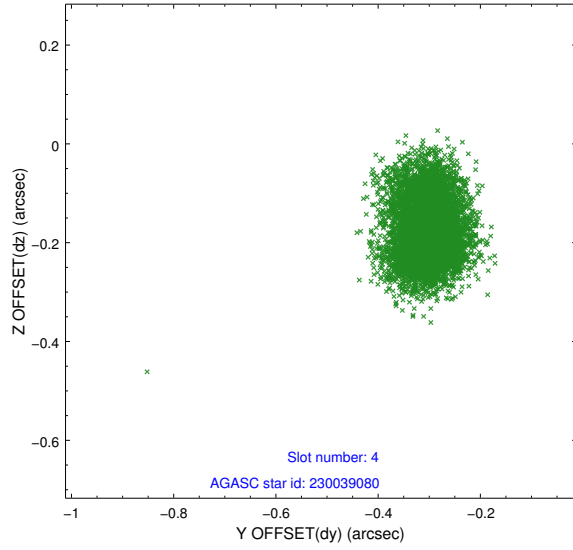
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.15	2757	0.125	0.145	0.007	0.011	0.000000	0.000000	-754.48	-1483.77
1	FID	ACIS-S-4	7.24	2756	-0.057	-0.099	0.006	0.010	0.000000	0.000000	2158.60	423.83
2	FID	ACIS-S-5	7.23	2755	-0.098	-0.037	0.007	0.011	0.000000	0.000000	-1806.78	418.46
3	GUIDE	230039080	8.69	5512	0.195	-0.017	0.082	0.132	23.320866	29.887774	2271.51	-815.54
4	GUIDE	300423280	8.90	5514	-0.302	-0.178	0.078	0.127	22.470839	30.803648	-1696.90	-2264.39
5	GUIDE	300558192	9.59	5509	-0.102	0.183	0.090	0.145	23.821763	30.670988	82.71	1547.93
6	GUIDE	230038816	9.78	5508	0.210	0.015	0.098	0.156	23.414377	29.978866	2052.45	-434.88
7	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

## 2.4 Star Slots

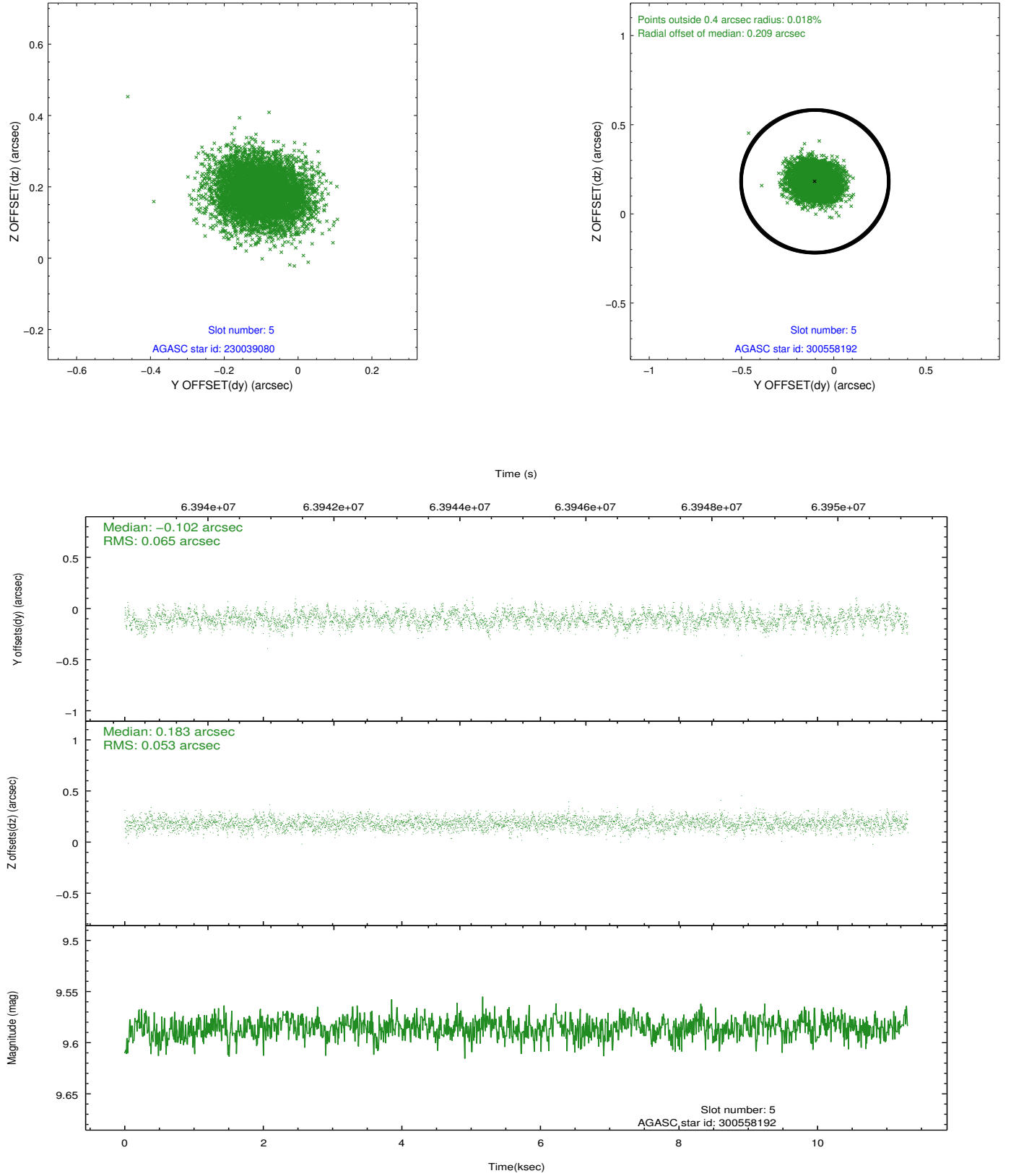
### 2.4.1 Slot 3



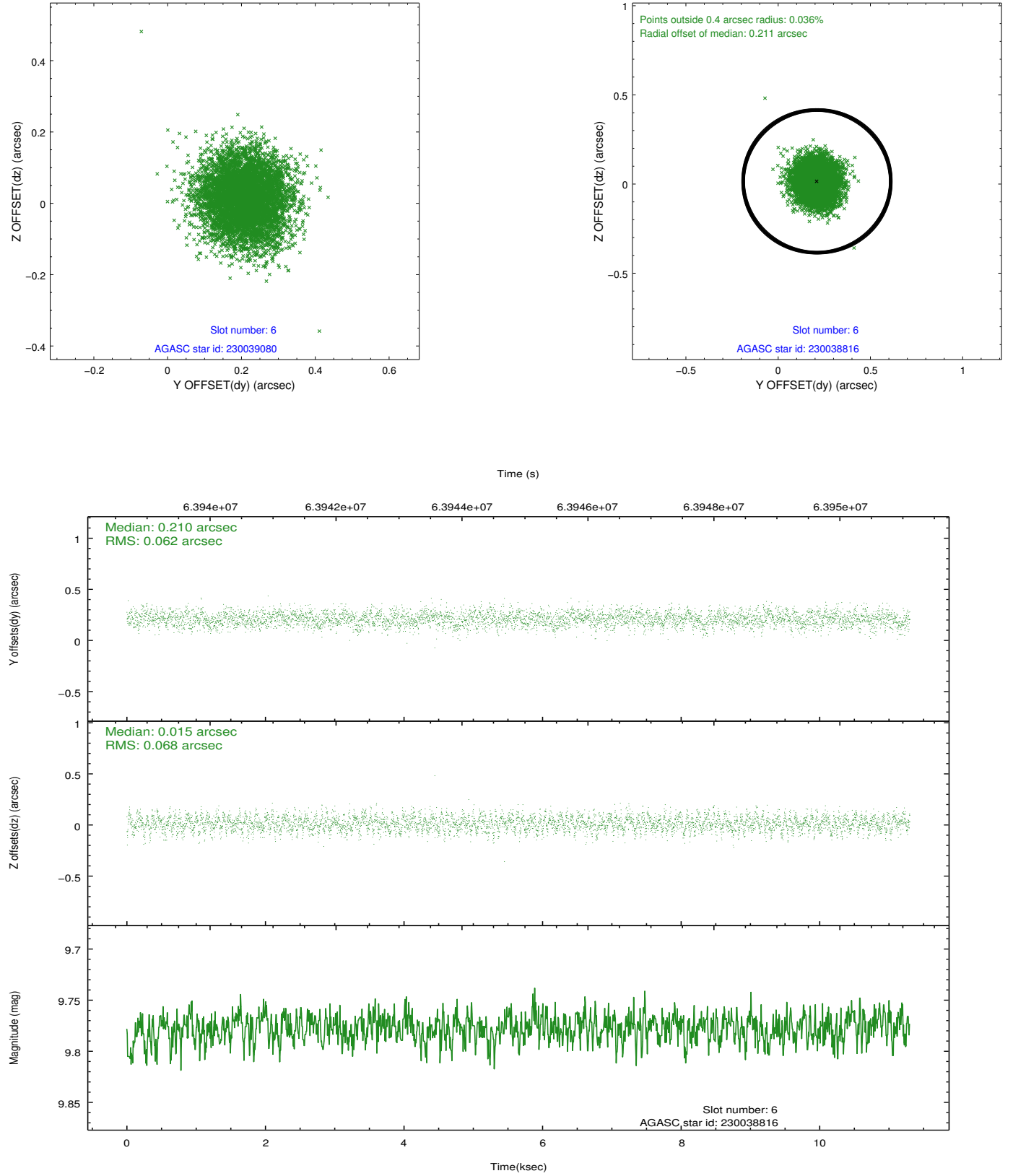
## 2.4.2 Slot 4



### 2.4.3 Slot 5



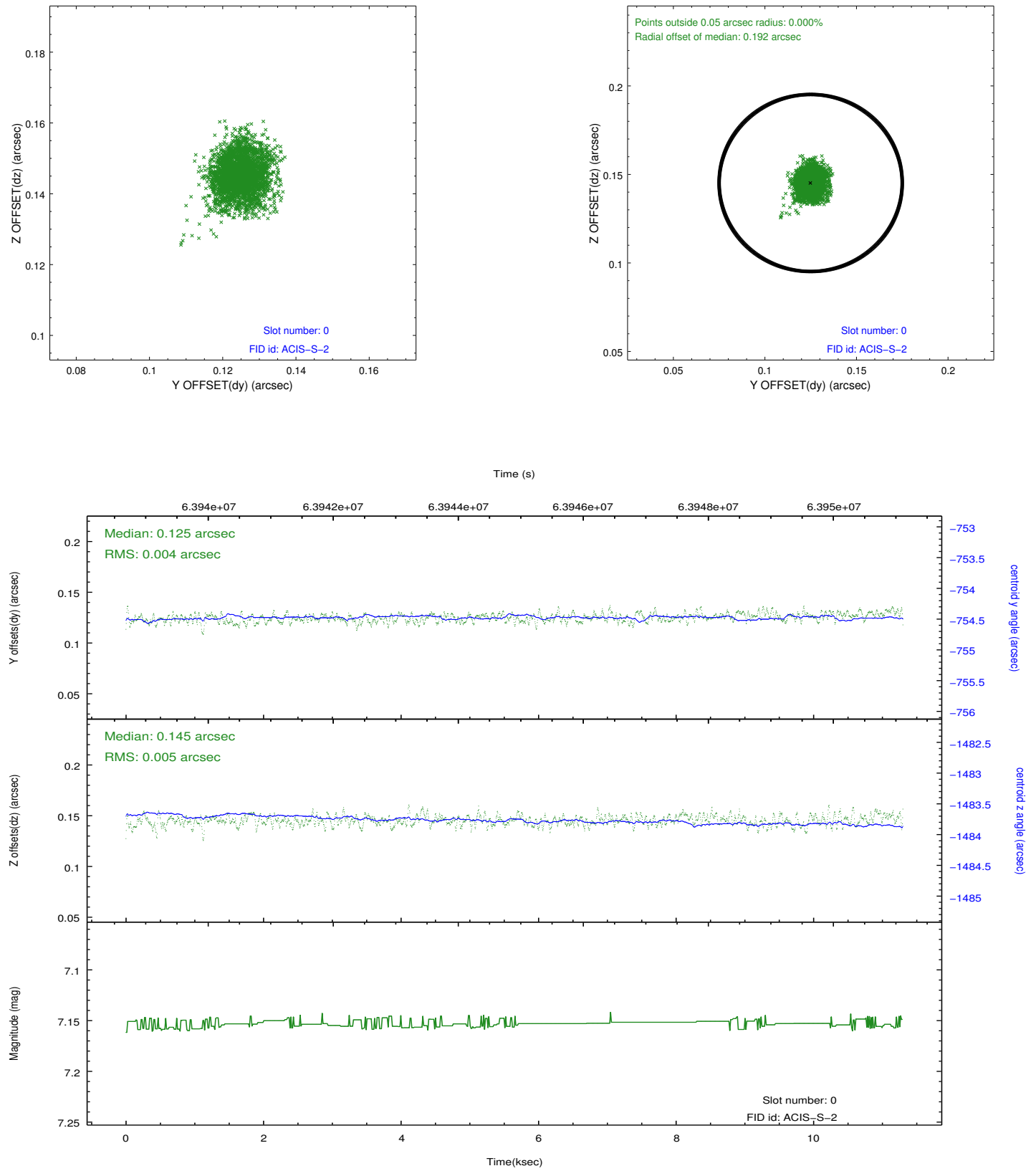
## 2.4.4 Slot 6



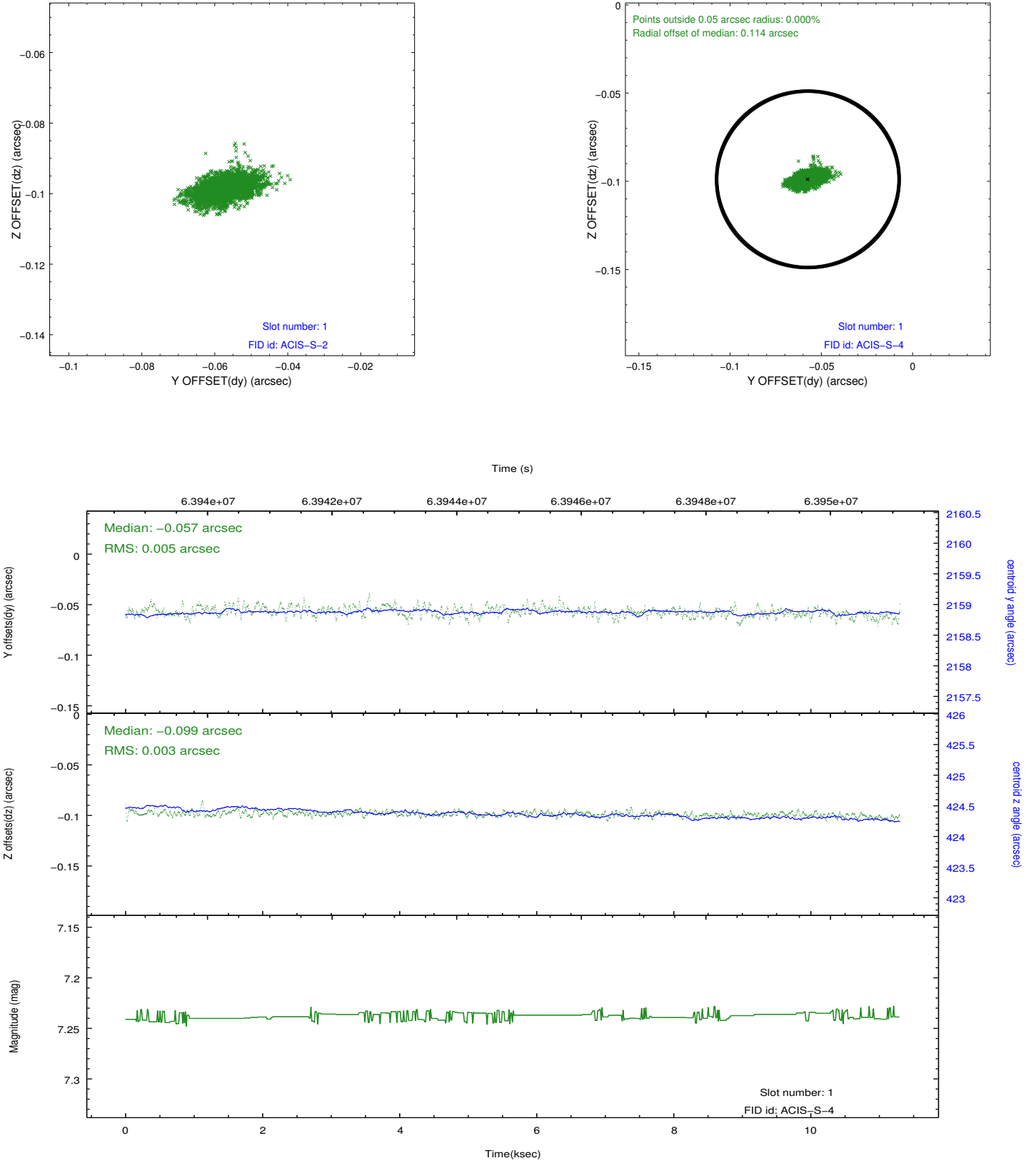


## 2.5 FID Slots

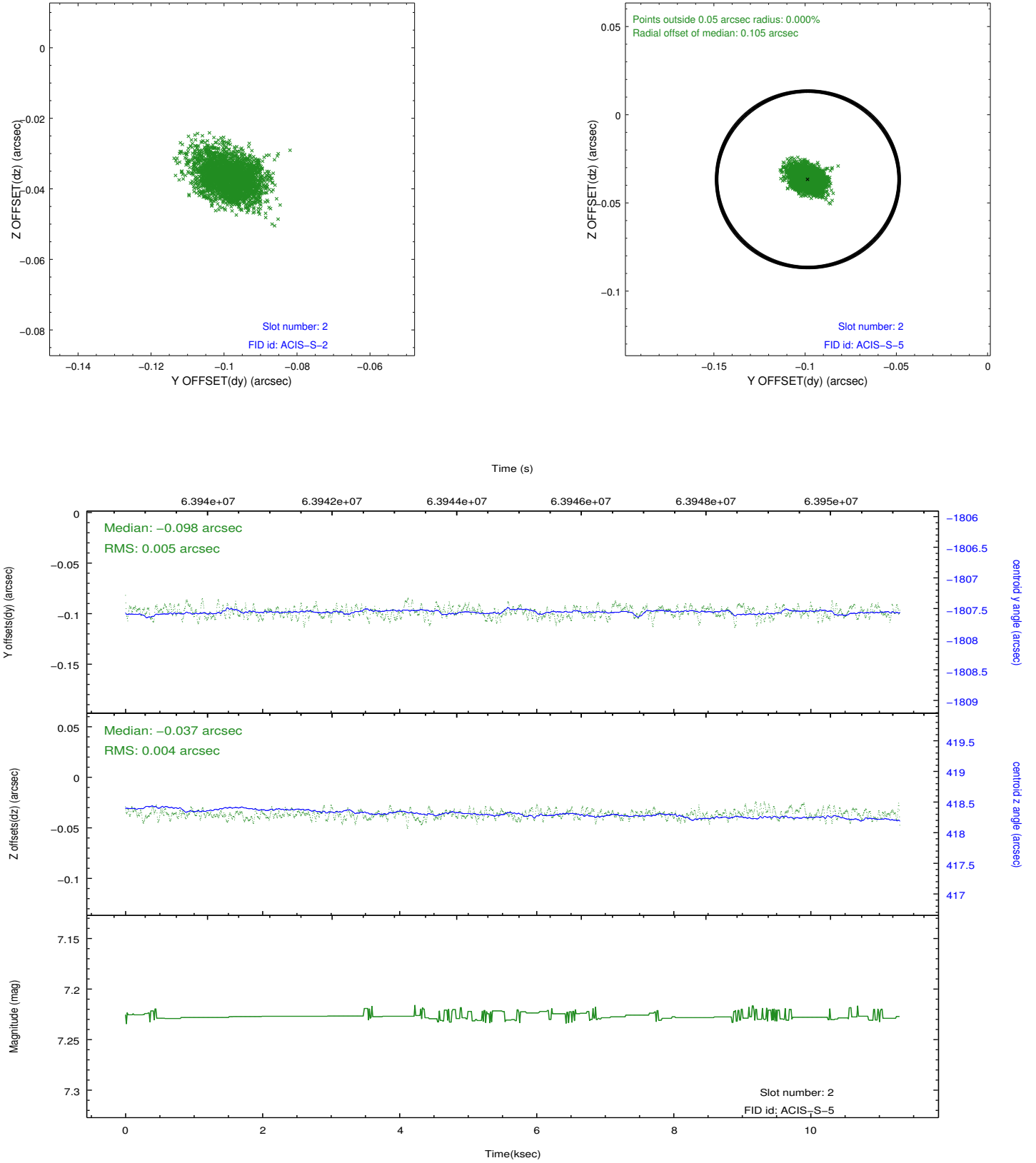
### 2.5.1 Slot 0



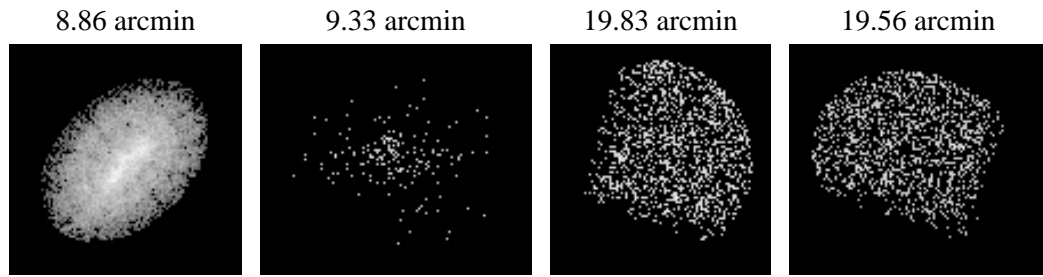
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2009.12.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.657

## A.2 Comments

Slot 7 was not utilized in this observation.

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Focal plane temperature is warmer than -118.7 C degrees during the entire observation. This temperature is the upper limit of the verified ACIS calibration for the front-illuminated chips. The focal plane temperature is also warmer than -116.7 degrees C for the entire observation. This temperature is the upper limit of the verified ACIS calibration for the back-illuminated chips. 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.