

# V&V Reference Report

## L2 ASCDS Version : 7.6.8

Observation 4384 - L2 Version 001  
Chandra X-Ray Center

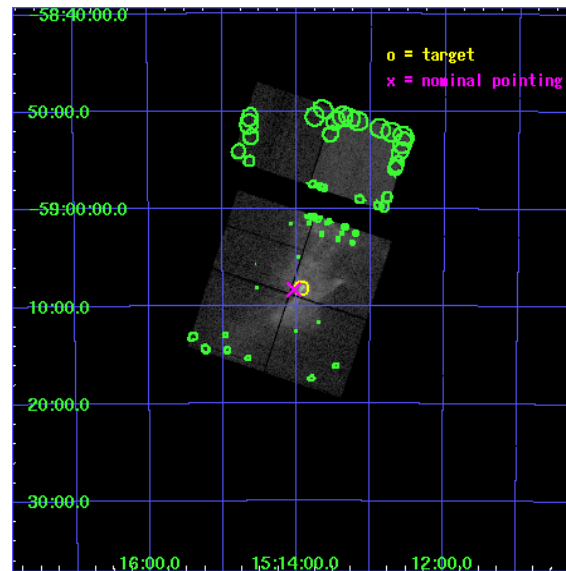
L2 Processing Date : Aug 1 2006

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# 1 Front

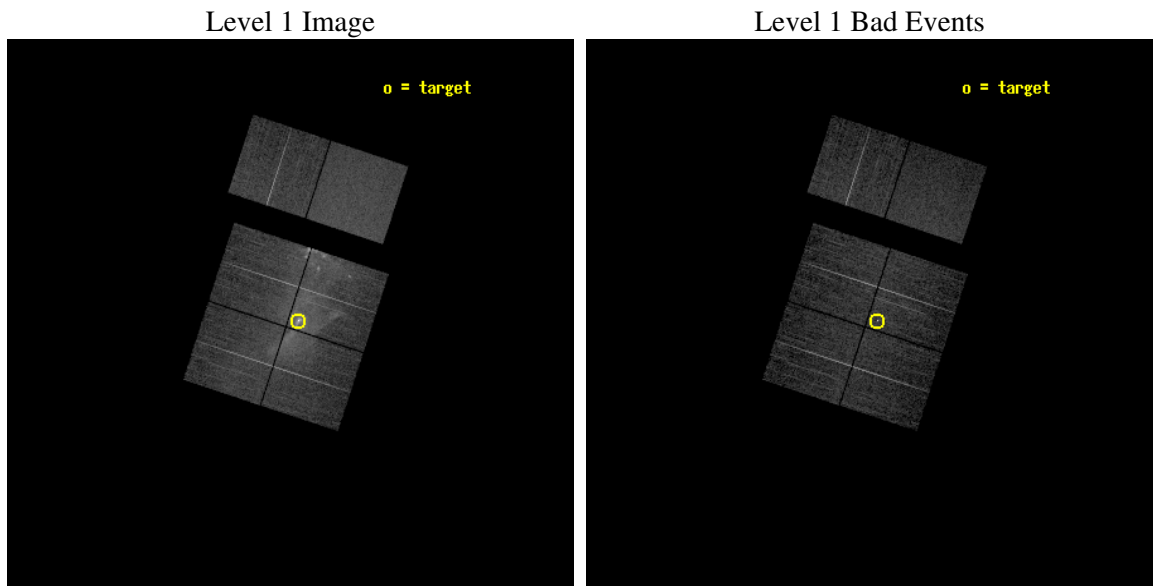
seq_num	500313
obs_id	4384
title	MULTI-EPOCH OBSERVATIONS OF PSR B1509-58 AND ITS NEBULA
observer	Prof. Bryan Gaensler
object	PSR B1509-58
dtcycle	0
cycle	P
ra_targ	228.481667
dec_targ	-59.135889
ra_nom	228.50909301391
dec_nom	-59.138436681668
roll_nom	18.226659071664
revision	2
ontime	10019.199962676
livetime	9892.3308199102
ontime0	10019.199962676
ontime1	10019.199962676
ontime2	10019.199962676
ontime3	10019.199962676
ontime6	10019.199962676
ontime7	10019.199962676
l2events	212865



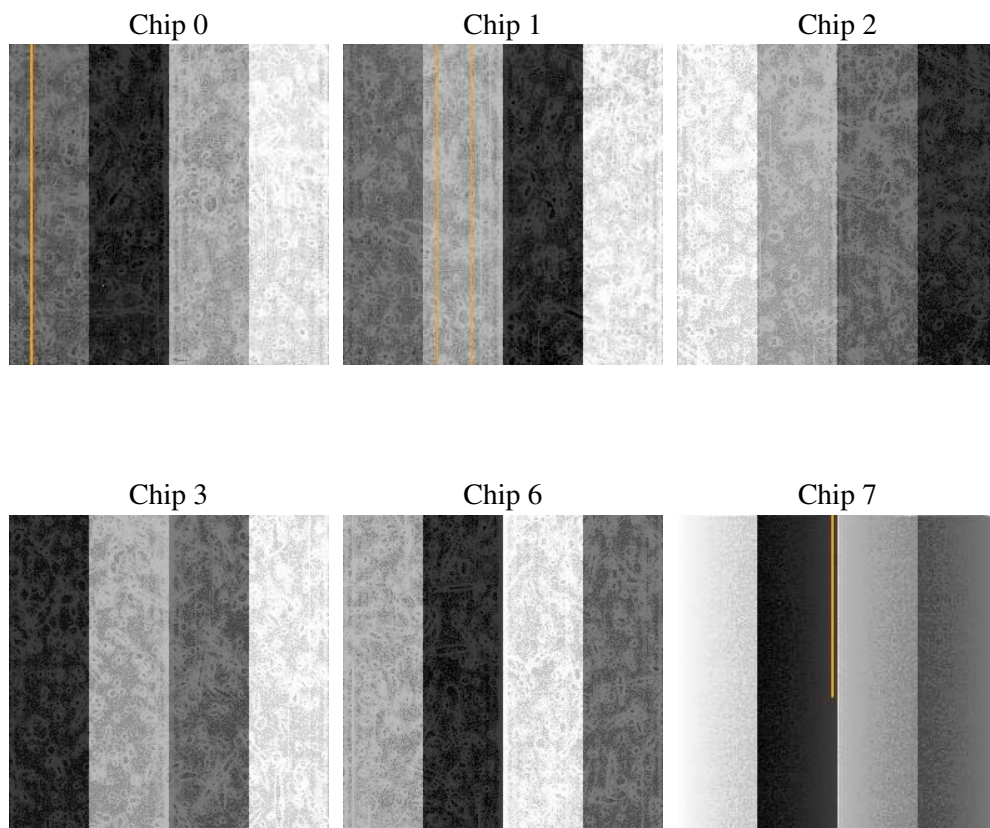
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.8
caldbver	3.2.2
date	2006-08-01T06:42:47
revision	2

sched_exp_time	9902.814000
ontime	10342.041807622
ontime0	10342.041807622
ontime1	10342.041807622
ontime2	10342.041807622
ontime3	10342.041807622
ontime6	10342.041807622
ontime7	10342.041807622
l1events	567461

### 2.1.4 Events

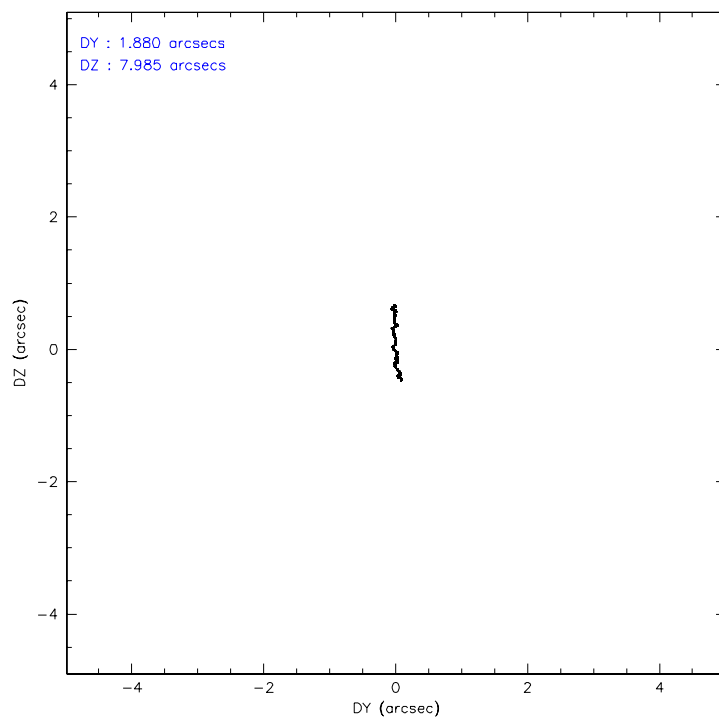
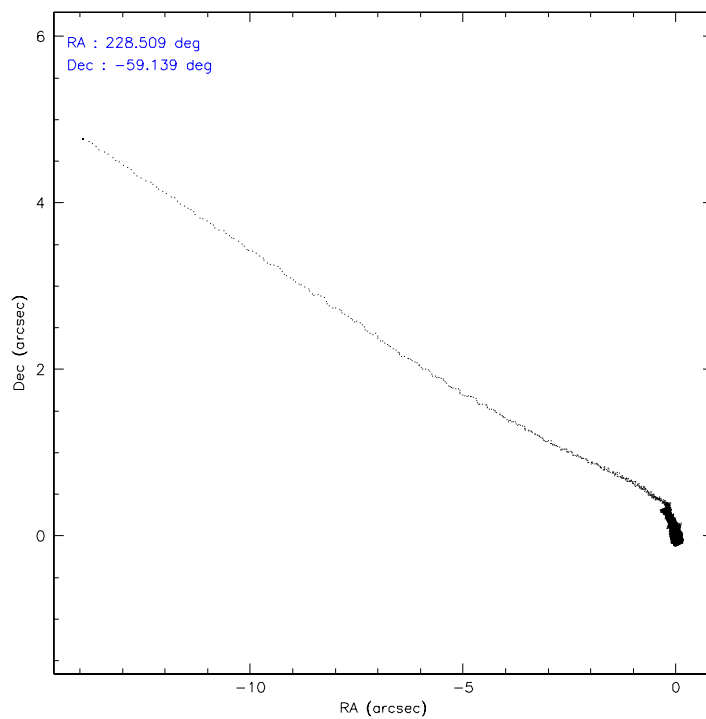
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	82583	84782	90345	128090	77156	104505
rejected events	53445	51994	59328	60000	60043	57356
rejected %	64%	61%	65%	46%	77%	54%

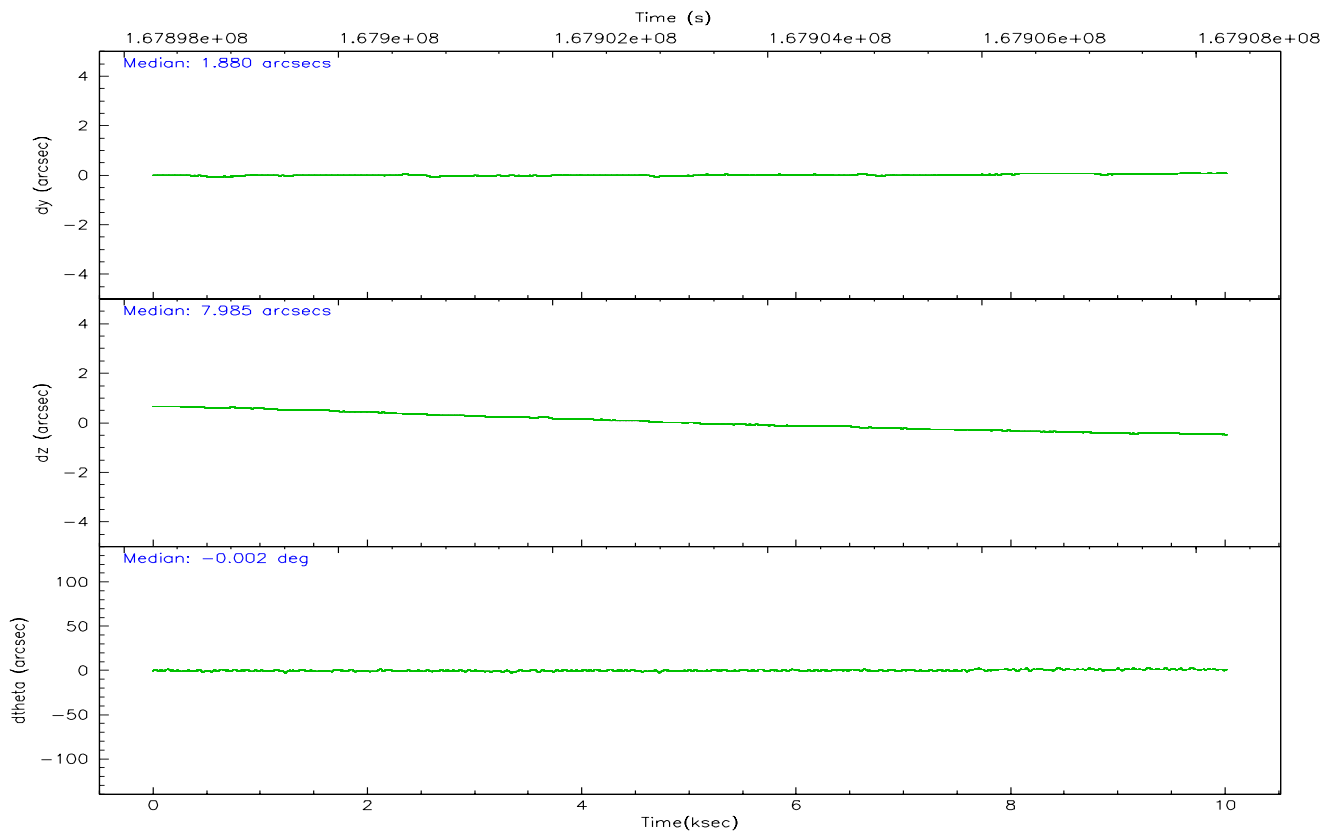
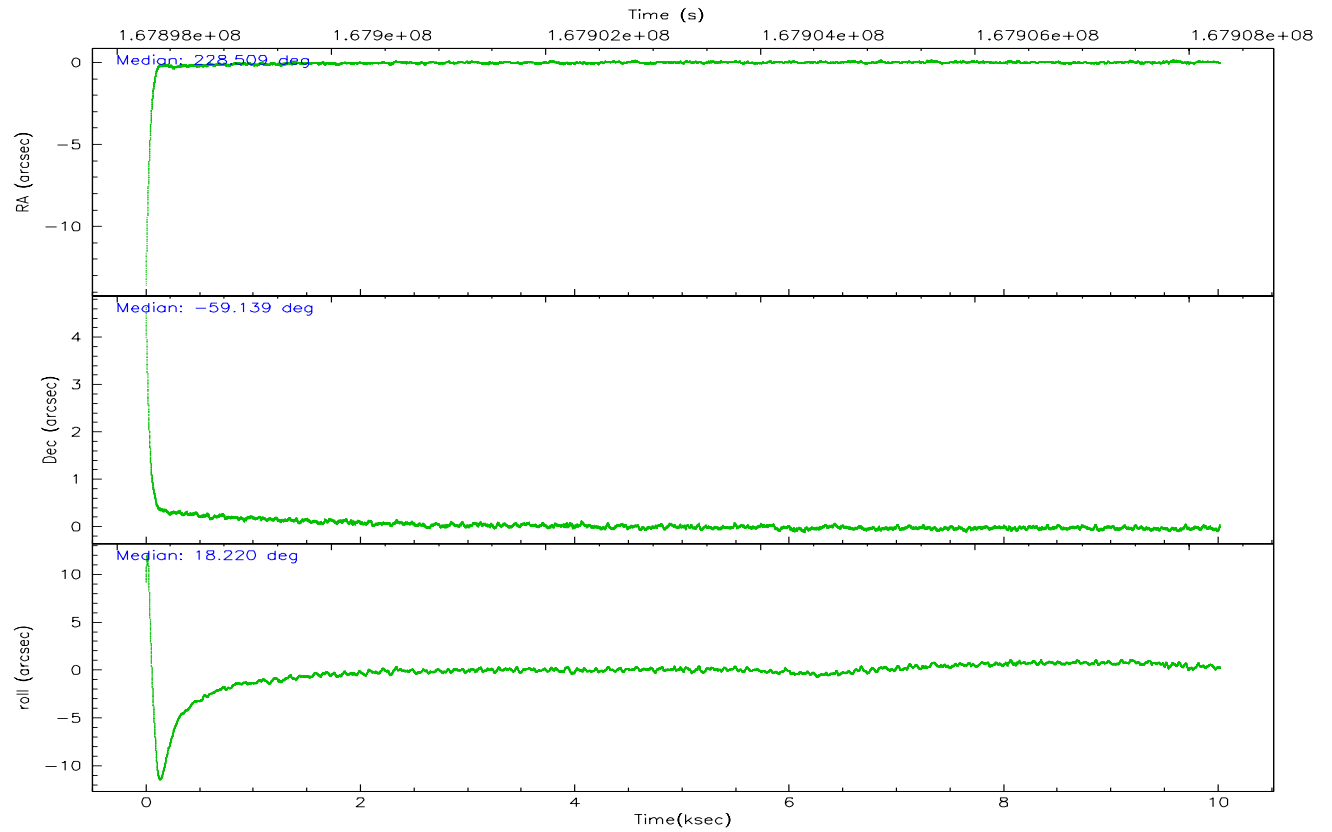
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	20418	22401	23043	51273	10698	3763
	24%	26%	25%	40%	13%	3%
grade 1 events	99	98	149	642	70	43
	0%	0%	0%	0%	0%	0%
grade 2 events	4050	4938	3932	8257	2769	11491
	4%	5%	4%	6%	3%	10%
grade 3 events	1552	1778	1556	3004	1102	2693
	1%	2%	1%	2%	1%	2%
grade 4 events	1499	1686	1479	3018	1101	2609
	1%	1%	1%	2%	1%	2%
grade 5 events	2649	2693	2642	3521	3027	5973
	3%	3%	2%	2%	3%	5%
grade 6 events	2495	2817	2188	3942	2225	28125
	3%	3%	2%	3%	2%	26%
grade 7 events	49821	48371	55356	54433	56164	49808
	60%	57%	61%	42%	72%	47%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	NONE	NONE
Pointing RA	228.473708	228.5090930139111	Alternating exposures requested	N	N
Pointing Dec	-59.158951	-59.13843668166796	Primary exposure time	0.000000	3.2
Pointing Roll	17.987554	18.22665907166356			
SIM focus pos (mm)	-0.782348	-0.7809083437167272			
SIM defocus (mm)	0	0.001439871863259334			
SIM translation stage pos (mm)	-233.592463	-233.5874344608287			
SIM translation stage offset (mm)	0	-0.005018542100998502			
Observation start time	167898390.184000	167897193.58084			
Observation start date	2003-04-28T06:25:26	2003-04-28T06:06:33			
Observation end time	167908292.184000	167908606.95633			
Observation end date	2003-04-28T09:10:28	2003-04-28T09:16:46			
Read mode	TIMED	TIMED			

## 2.3 Aspect





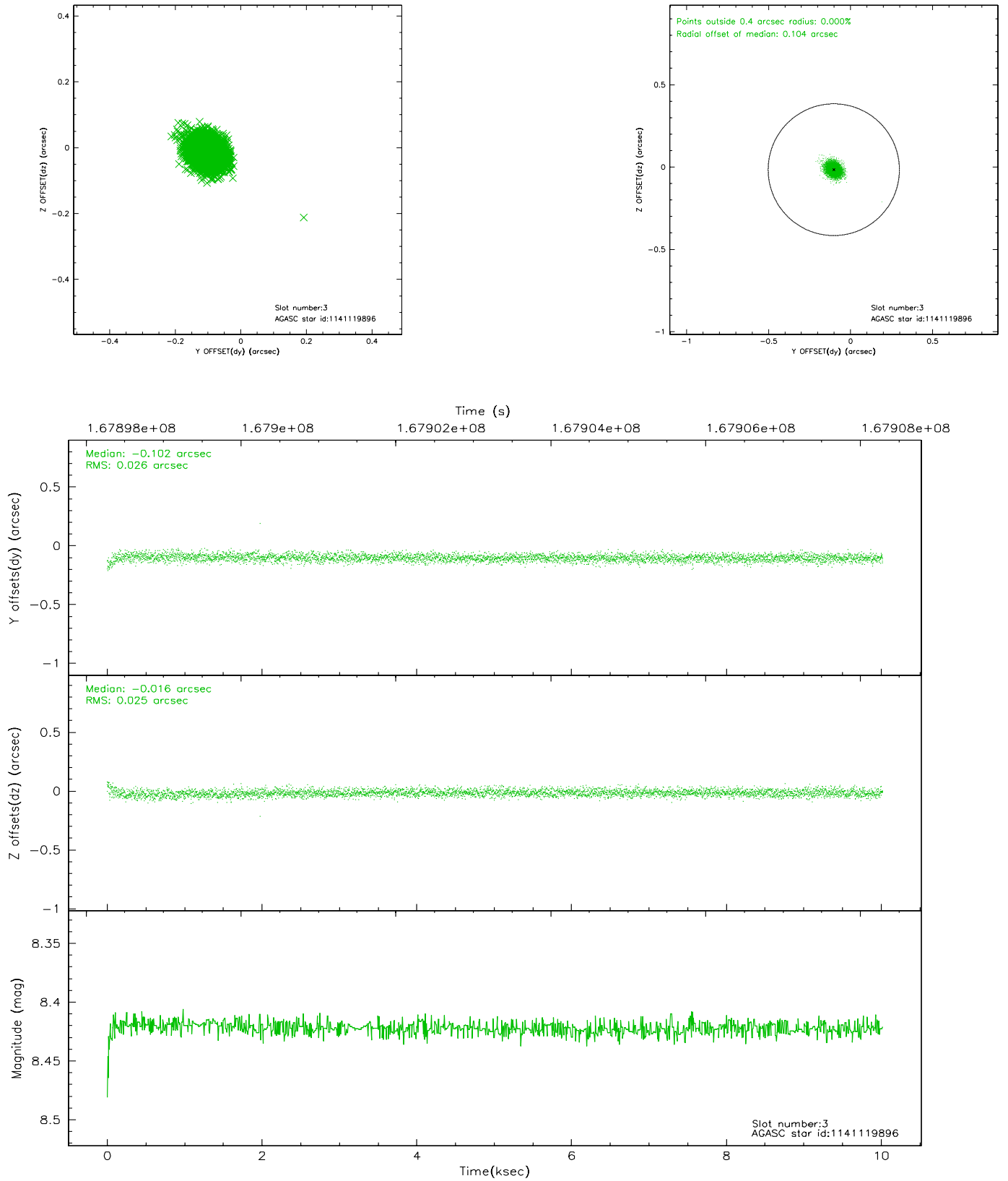
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	2445	-0.053	0.080	0.011	0.017	0.000000	0.000000	937.88	-831.37
1	FID	ACIS-I-4	7.19	2445	-0.023	0.034	0.013	0.020	0.000000	0.000000	2158.26	1068.11
2	FID	ACIS-I-6	7.26	2445	-0.019	-0.050	0.015	0.027	0.000000	0.000000	404.52	1710.83
3	GUIDE	1141119896	8.42	4890	-0.102	-0.016	0.038	0.063	229.637327	-59.405643	1747.98	-1520.55
4	GUIDE	1141114536	9.25	4889	0.120	-0.124	0.057	0.098	227.067565	-58.699394	-1998.58	2358.85
5	GUIDE	1141114296	9.22	4889	0.109	-0.094	0.057	0.099	227.097332	-58.697525	-1944.11	2350.03
6	GUIDE	1141116760	9.46	4889	-0.029	0.018	0.068	0.113	229.350077	-58.445284	2359.94	1924.43
7	GUIDE	1141116384	9.43	4886	-0.096	0.214	0.063	0.105	229.578291	-59.437206	1609.25	-1592.24

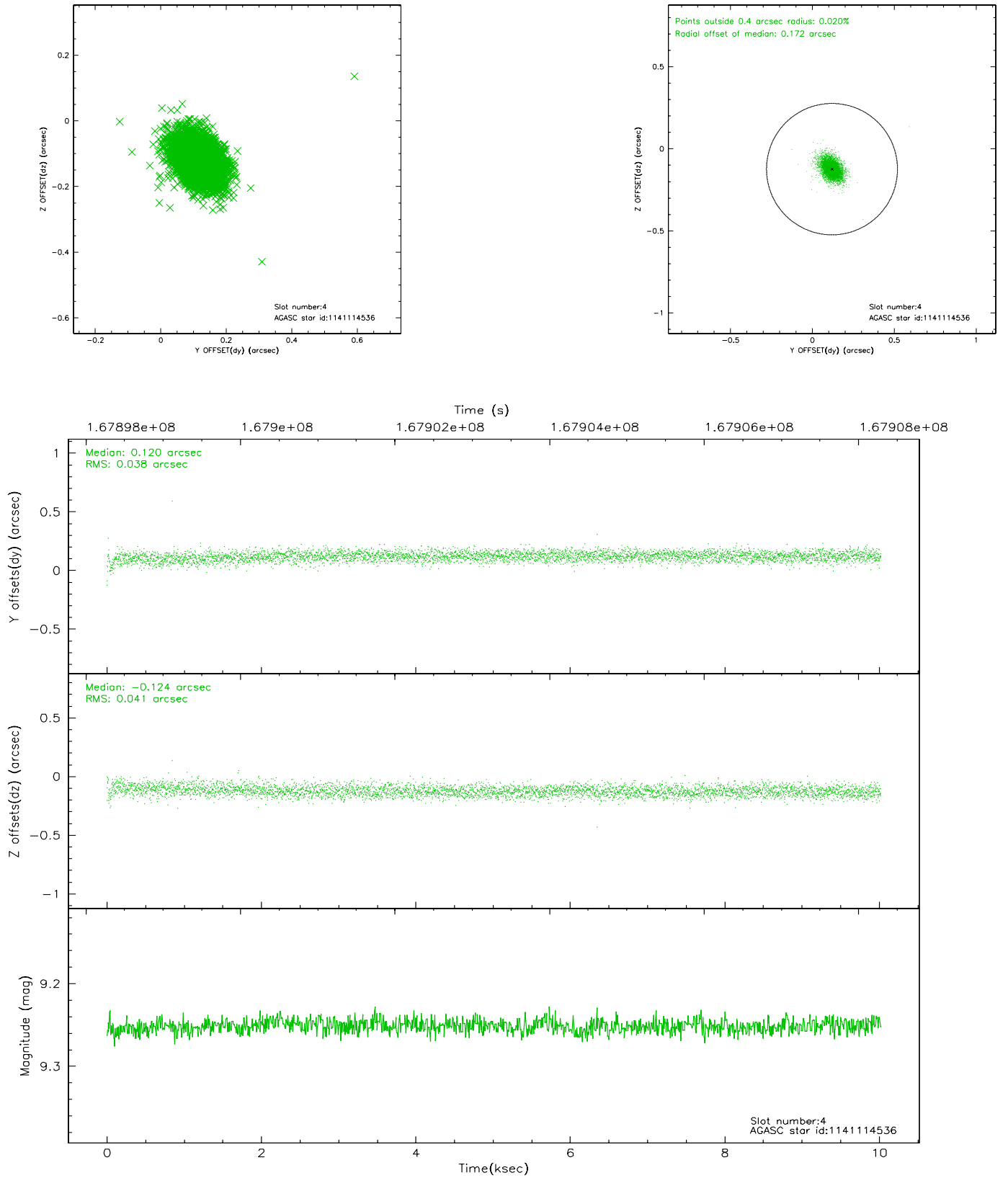


## 2.4 Star Slots

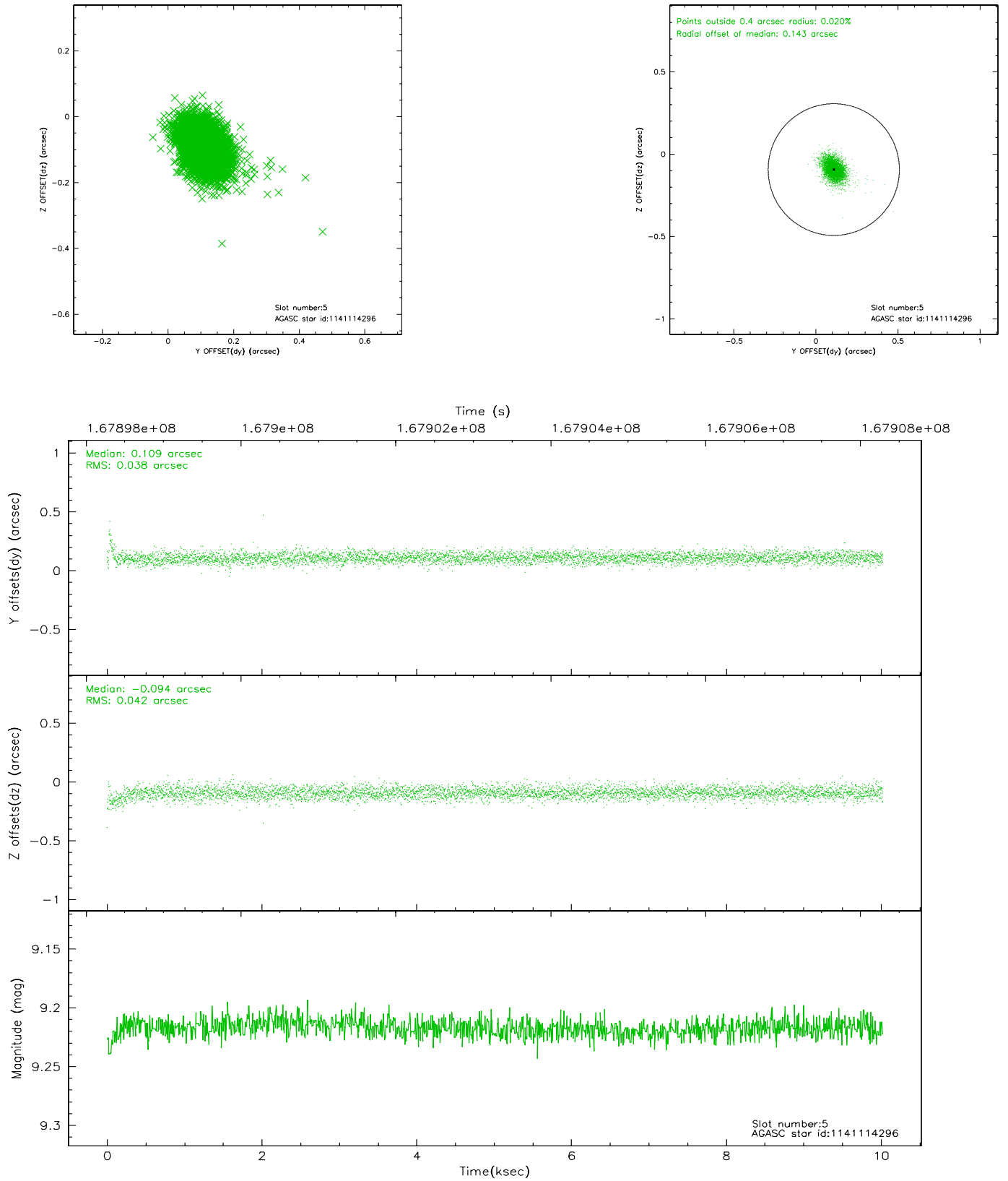
### 2.4.1 Slot 3



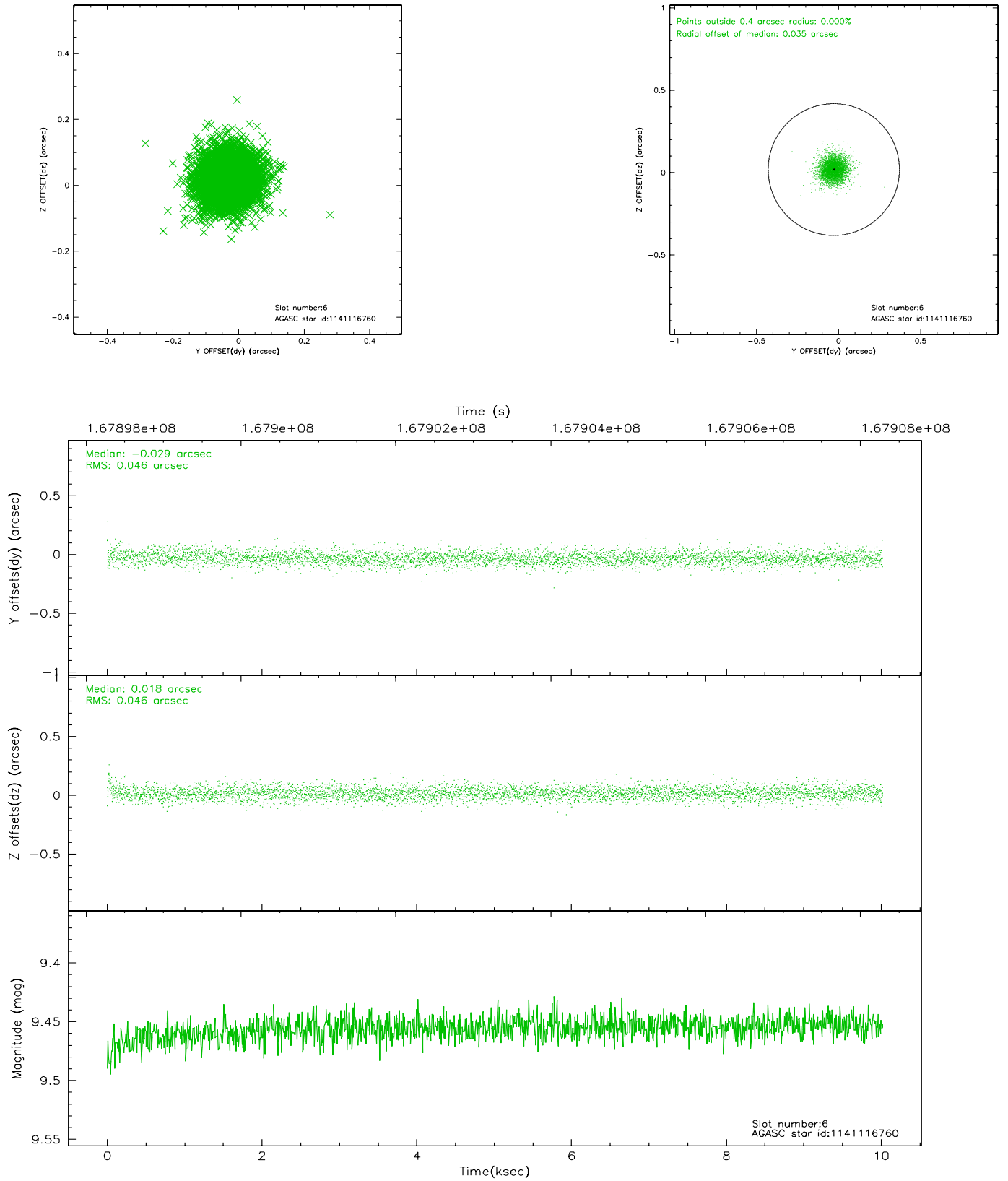
## 2.4.2 Slot 4



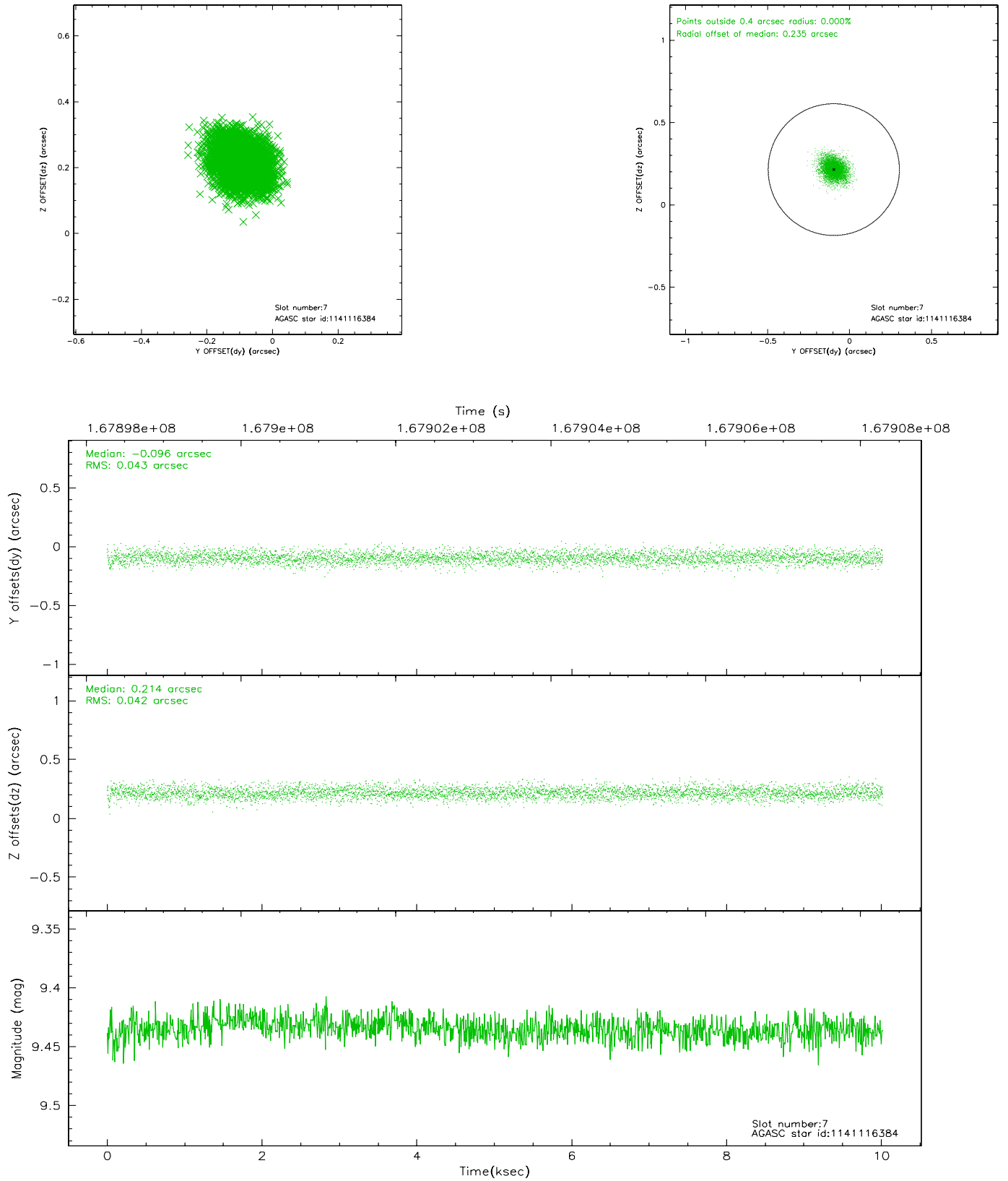
### 2.4.3 Slot 5



## 2.4.4 Slot 6

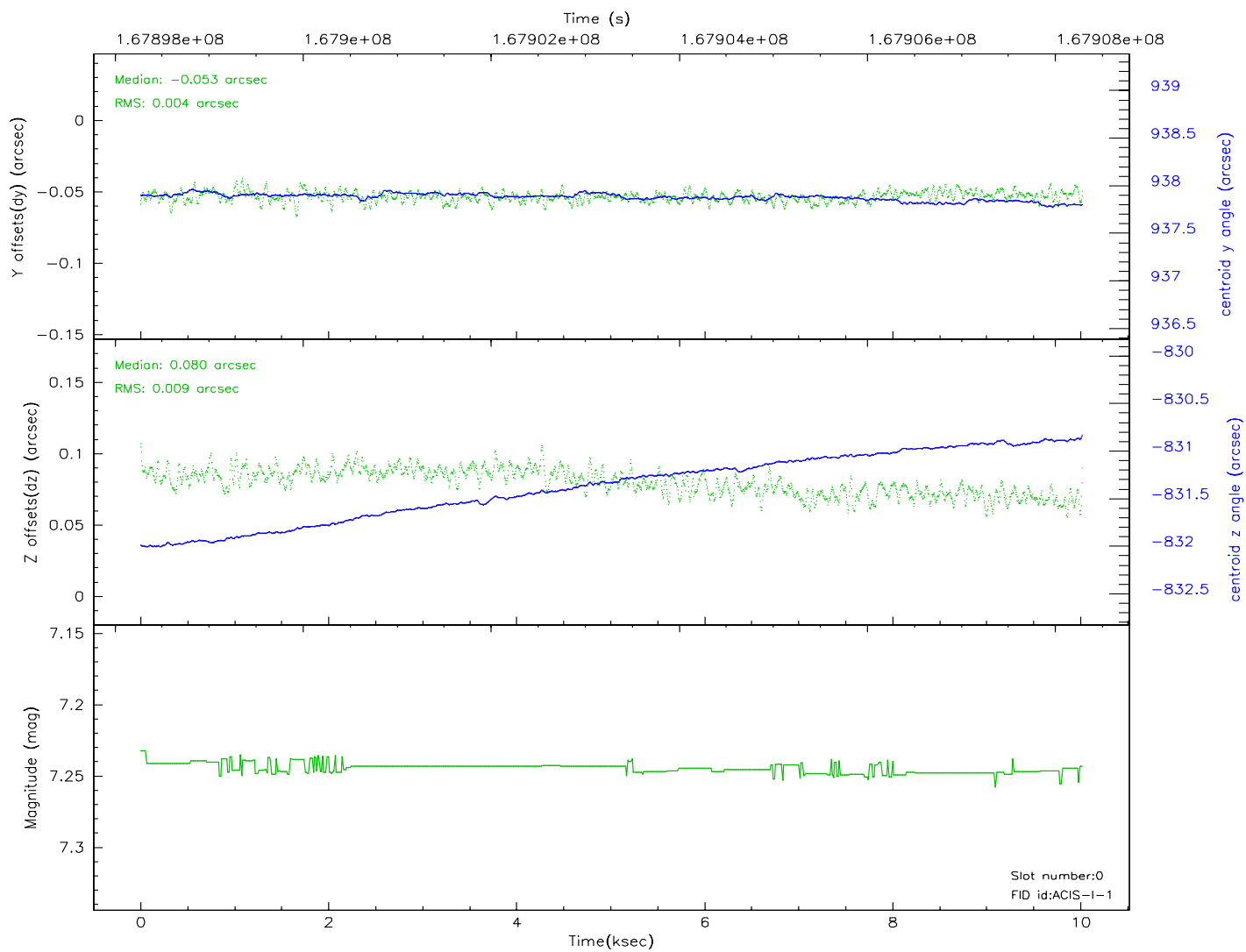
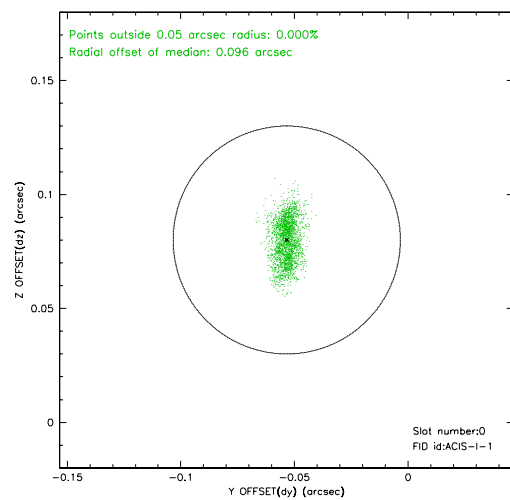
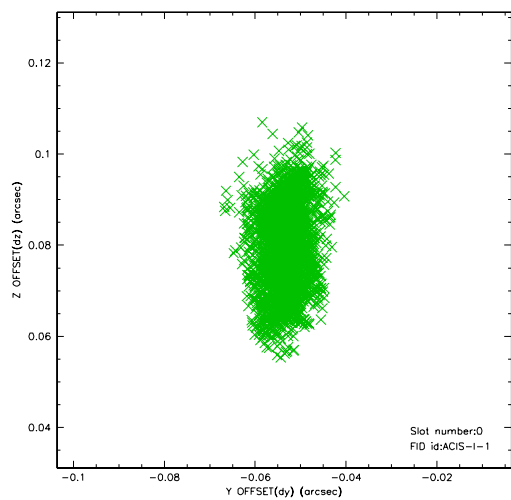


## 2.4.5 Slot 7

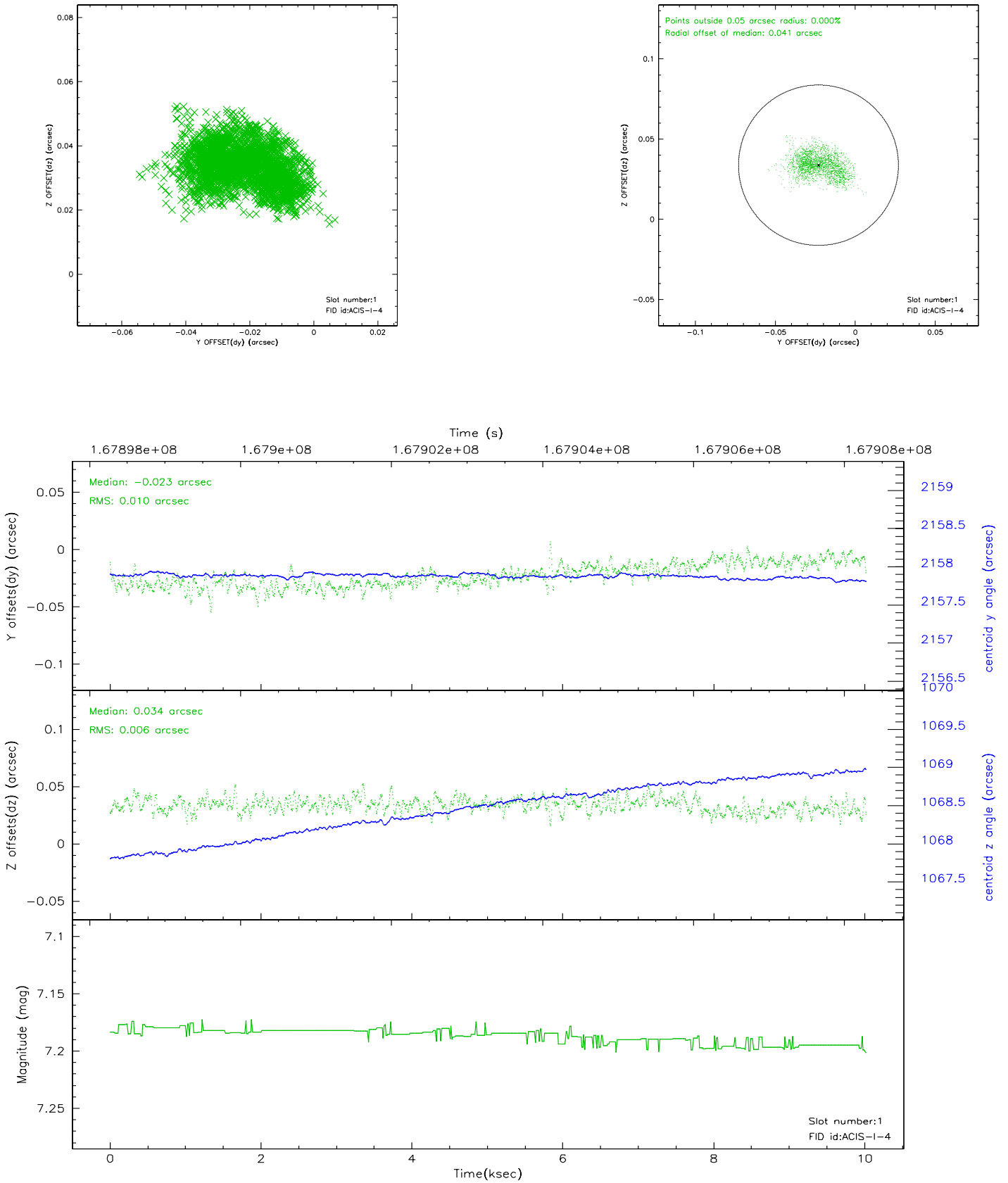


## 2.5 FID Slots

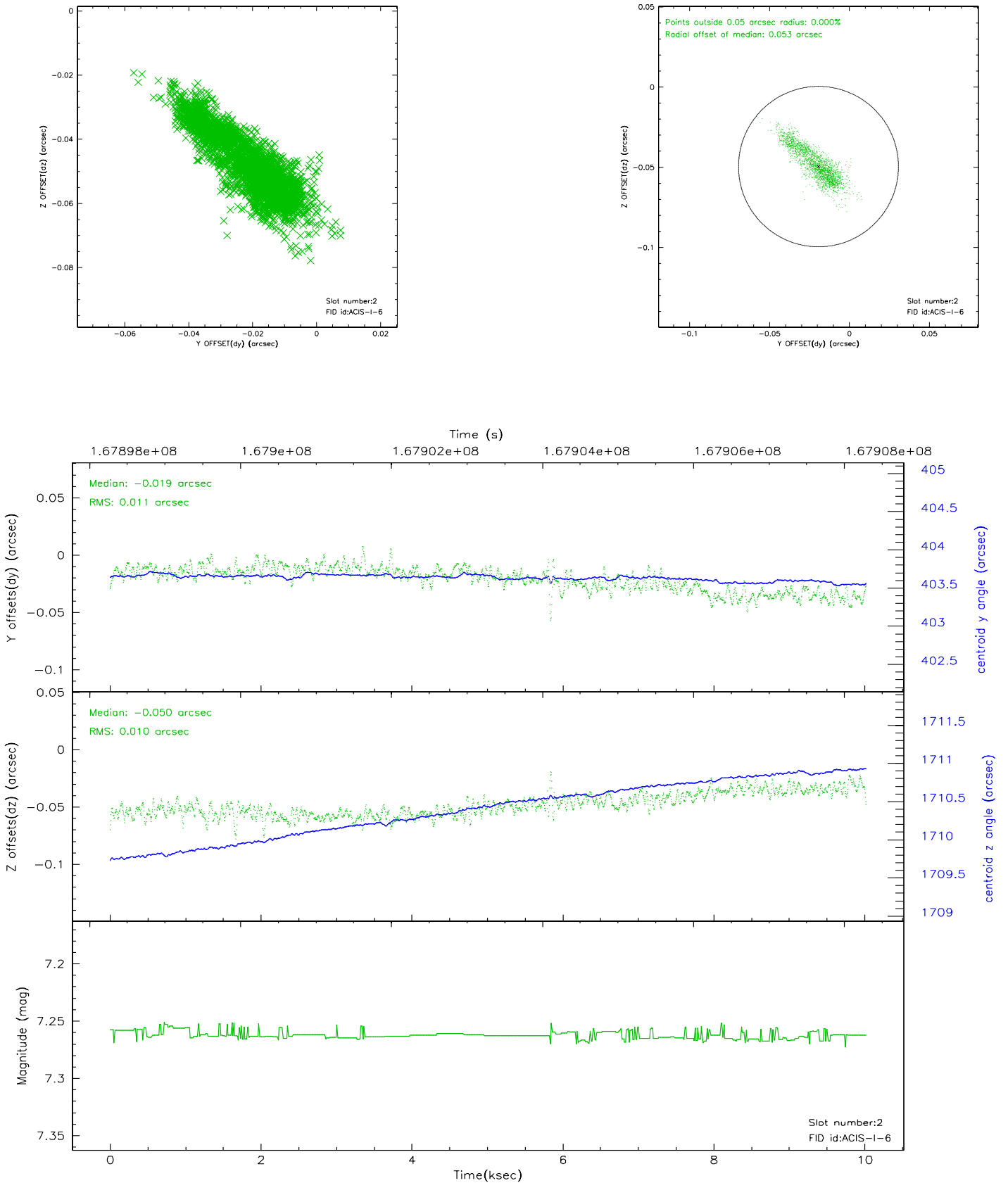
### 2.5.1 Slot 0



## 2.5.2 Slot 1

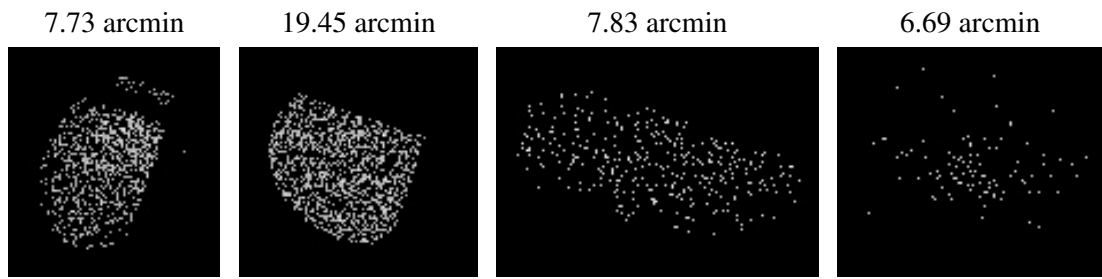


### 2.5.3 Slot 2





### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.08.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.019

## A.2 Comments

This observation was taken with NO dither due to an error in the spacecraft load. The pixel-to-pixel variations will be larger than they would be in dither mode. The chip boundaries are very sharp. Columns of pixels with little or not sensitivity on the CCD chips is not unusual. They are not usually seen when an observation is dithered.

An apparent spike in the radiation environment resulted in a small increase in the count rate about 8 ksec into the observation.