

# V&V Reference Report

## L2 ASCDS Version : 7.6.10

Observation 1777 - L2 Version 4  
Chandra X-Ray Center

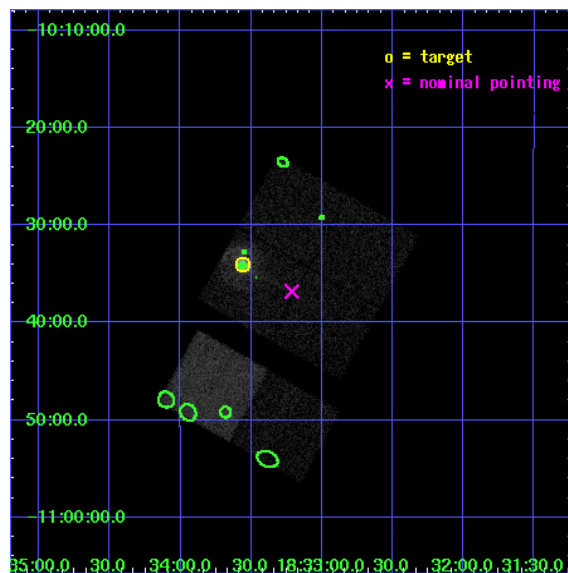
L2 Processing Date : Nov 18 2008

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# 1 Front

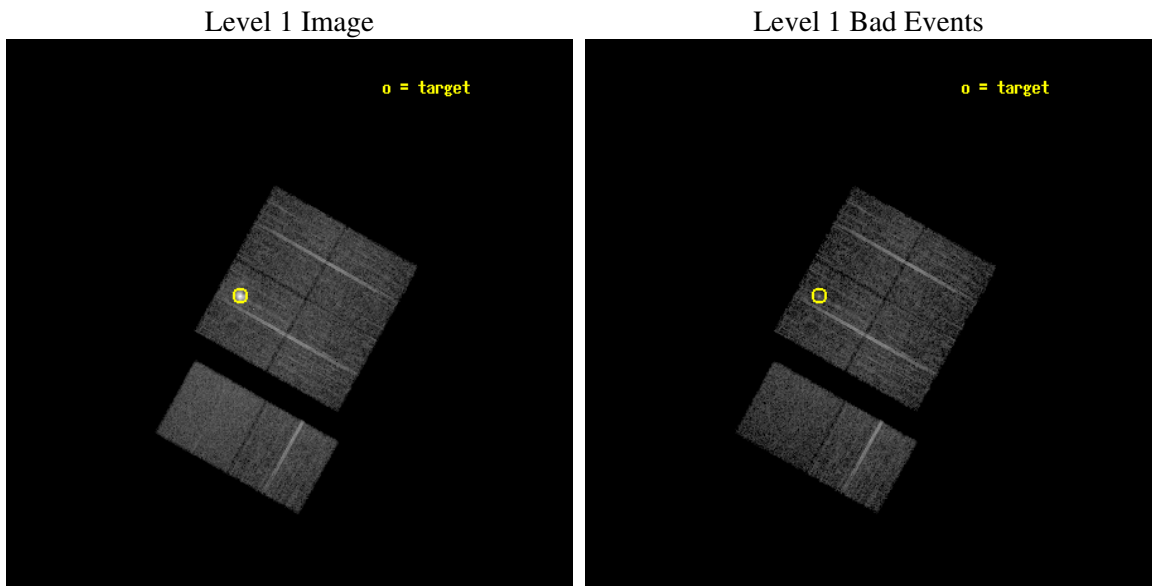
seq_num	590203
obs_id	1777
title	HRC RESPONSE TO CONTINUUM SOURCE.
observer	Dr. CXC Calibration
object	G21.5-0.9 [Chip I3, T=110, Offsets=-5,0,2]
dtcycle	0
cycle	P
ra_targ	278.389583
dec_targ	-10.568528
ra_nom	278.30303335742
dec_nom	-10.613583737937
roll_nom	209.24165637729
revision	4
ontime	7318.4000068158
livetime	7225.7300193181
ontime0	7318.4000068158
ontime1	7318.4000068158
ontime2	7315.1590365767
ontime3	7318.4000068158
ontime6	7315.1590365767
ontime7	7318.4000068158
l2events	67030



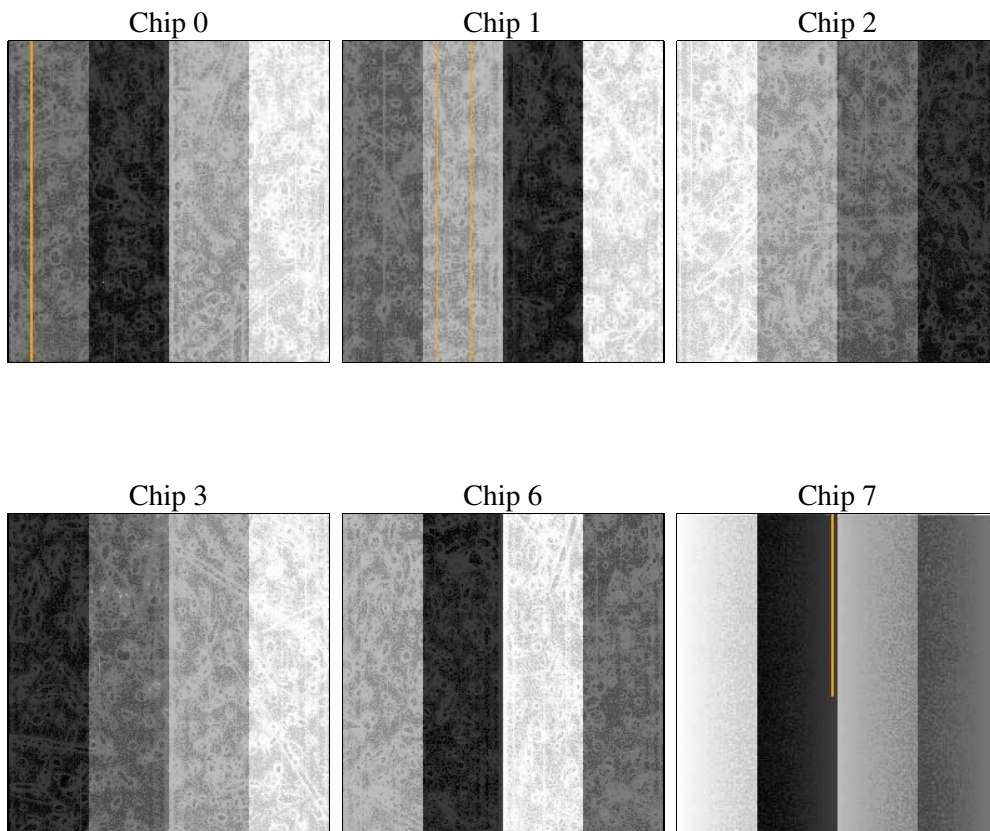
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.11.9
caldbver	3.5.0
date	2008-11-18T23:21:35
revision	4

sched_exp_time	7560.000000
ontime	7318.4000068158
ontime0	7318.4000068158
ontime1	7318.4000068158
ontime2	7315.1590365767
ontime3	7318.4000068158
ontime6	7315.1590365767
ontime7	7318.4000068158
llevents	324389

### 2.1.4 Events

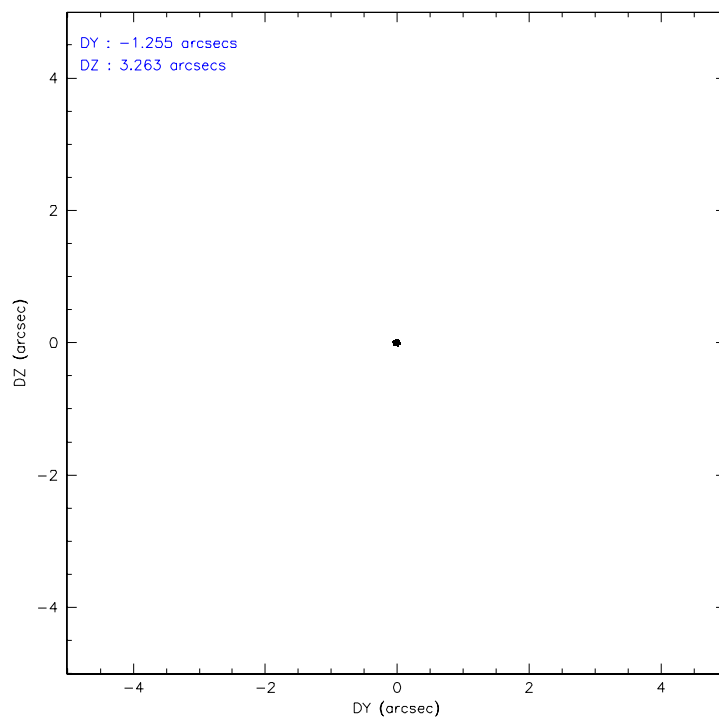
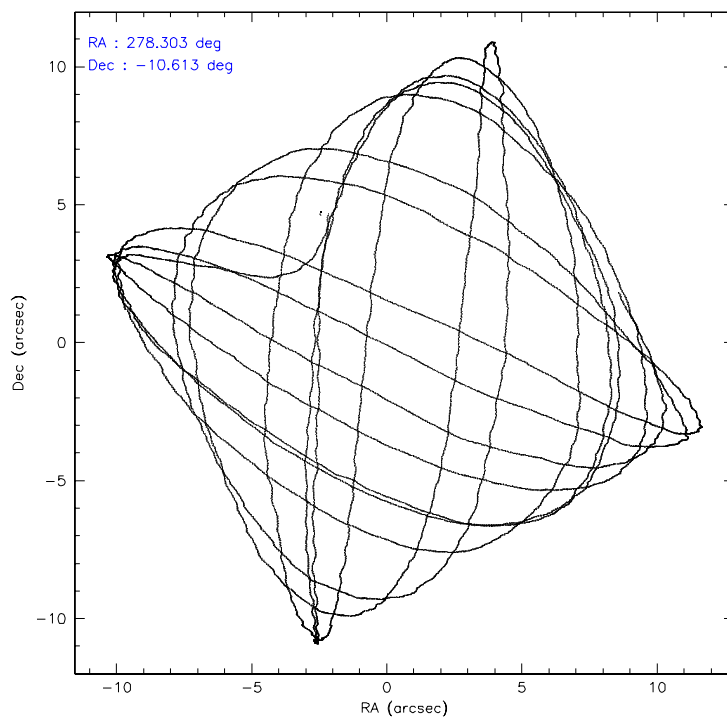
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	46402	46442	51871	71179	51271	57224
rejected events	40759	40353	46877	44486	46064	35674
rejected %	87%	86%	90%	62%	89%	62%

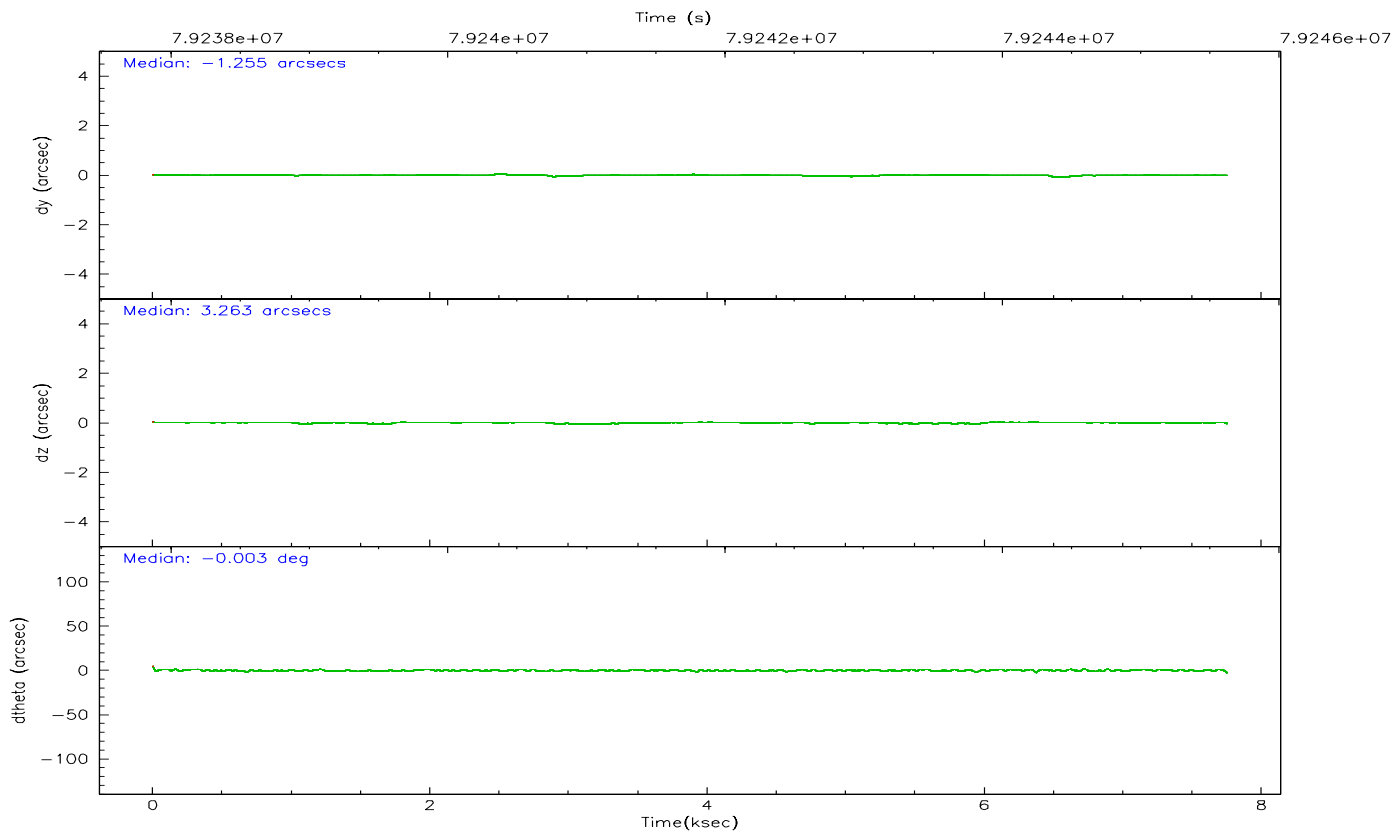
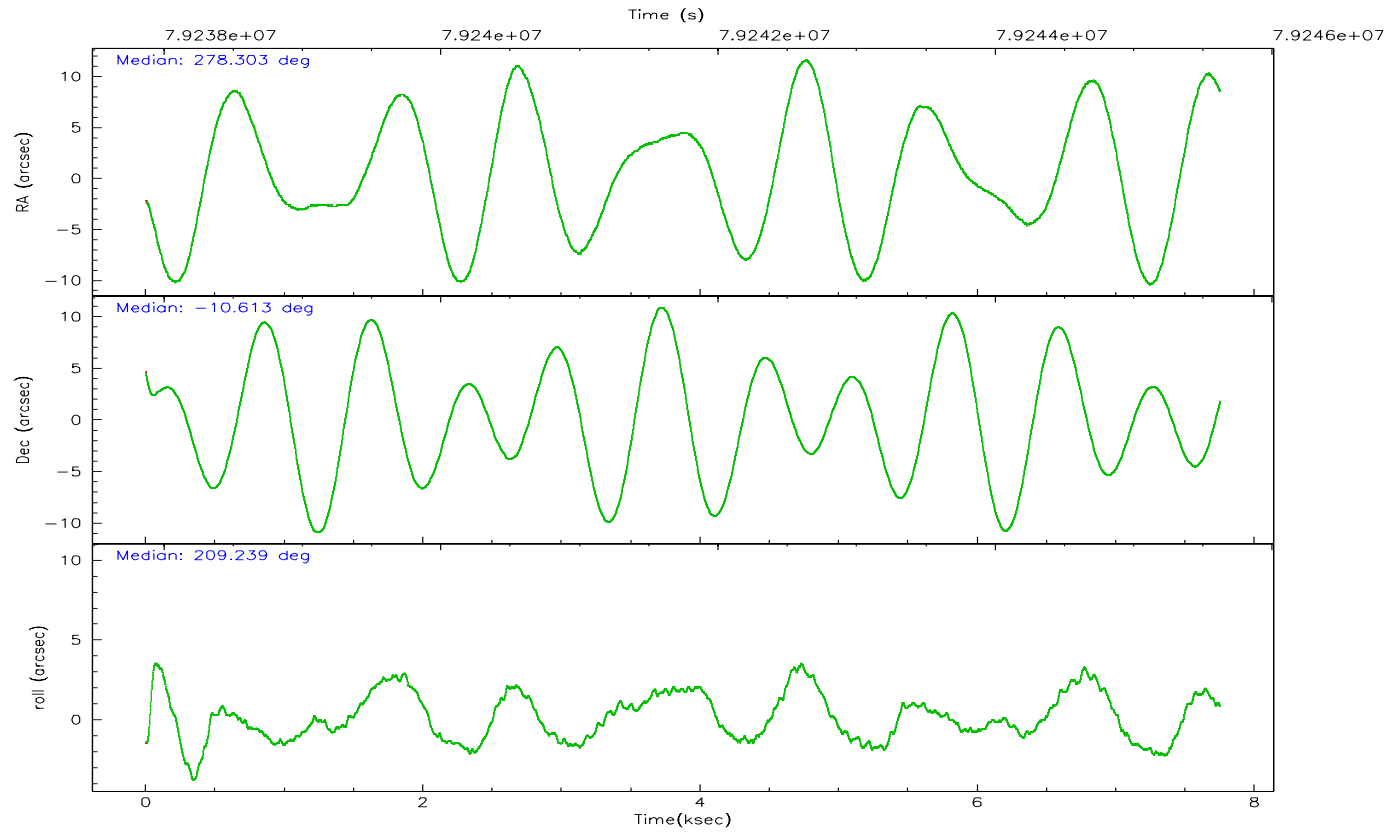
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	1504	1587	1162	16084	1079	1275
	3%	3%	2%	22%	2%	2%
grade 1 events	9	10	6	111	12	24
	0%	0%	0%	0%	0%	0%
grade 2 events	2078	2175	2004	5827	1999	4587
	4%	4%	3%	8%	3%	8%
grade 3 events	412	440	316	1143	312	1300
	0%	0%	0%	1%	0%	2%
grade 4 events	382	418	280	1152	343	1141
	0%	0%	0%	1%	0%	1%
grade 5 events	1044	1114	911	1183	1188	3534
	2%	2%	1%	1%	2%	6%
grade 6 events	1274	1478	1236	2507	1480	13266
	2%	3%	2%	3%	2%	23%
grade 7 events	39699	39220	45956	43172	44858	32097
	85%	84%	88%	60%	87%	56%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	278.317516	278.3030333574219	Subarray requested	NONE	NONE
Pointing Dec	-10.589946	-10.61358373793715	Alternating exposures requested	N	N
Pointing Roll	209.035629	209.2416563772853	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.782348	-0.7809083437167272			
SIM defocus (mm)	0	0.001439871863259334			
SIM translation stage pos (mm)	-226.272463	-226.2682626179875			
SIM translation stage offset (mm)	-7.32	-7.32419038494217			
Observation start time	79238066.184000	79237693.293503			
Observation start date	2000-07-06T02:33:22	2000-07-06T02:28:13			
Observation end time	79245626.184000	79245760.04380099			
Observation end date	2000-07-06T04:39:22	2000-07-06T04:42:40			
Read mode	TIMED	TIMED			

## 2.3 Aspect



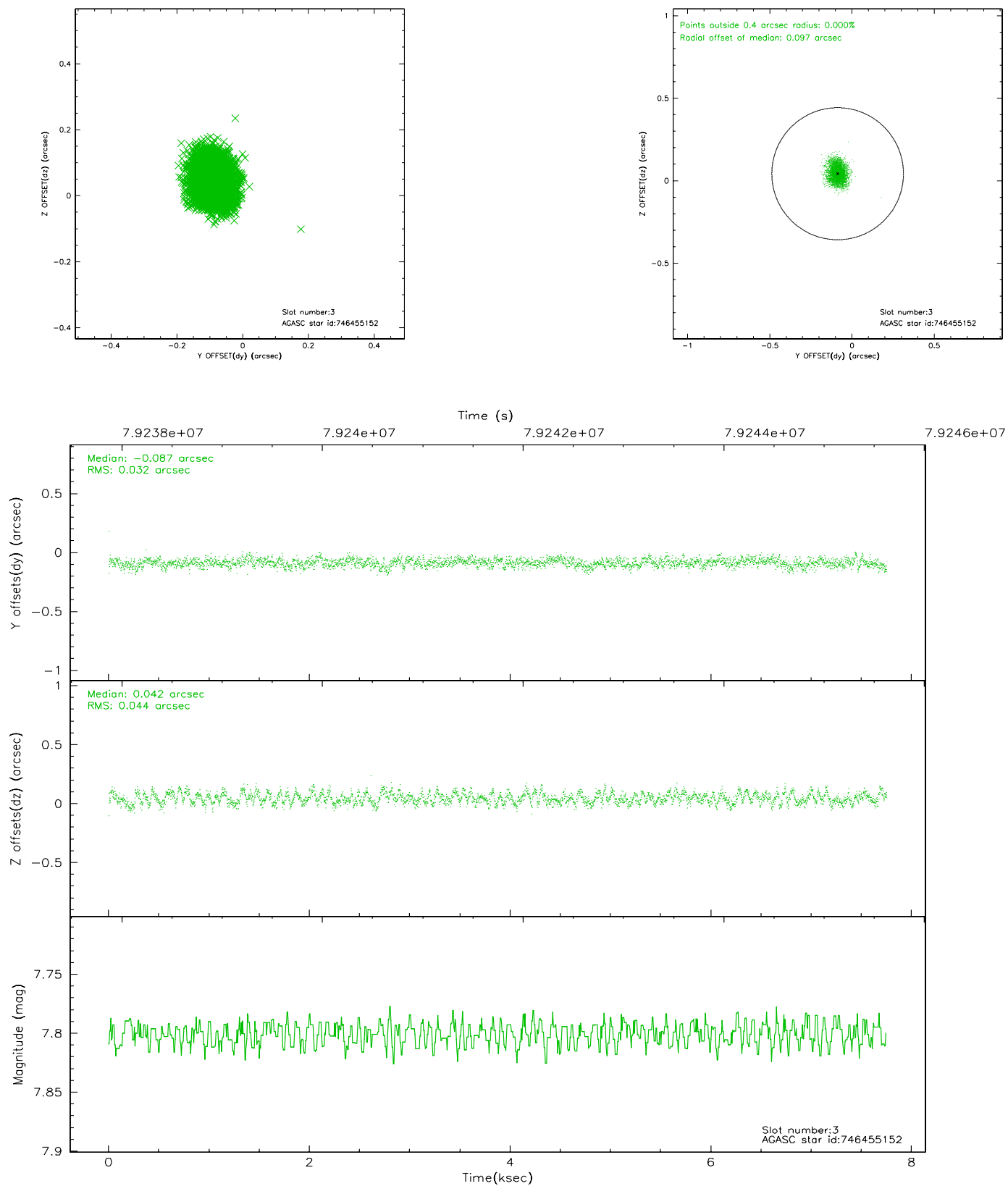


### Slot Statistics

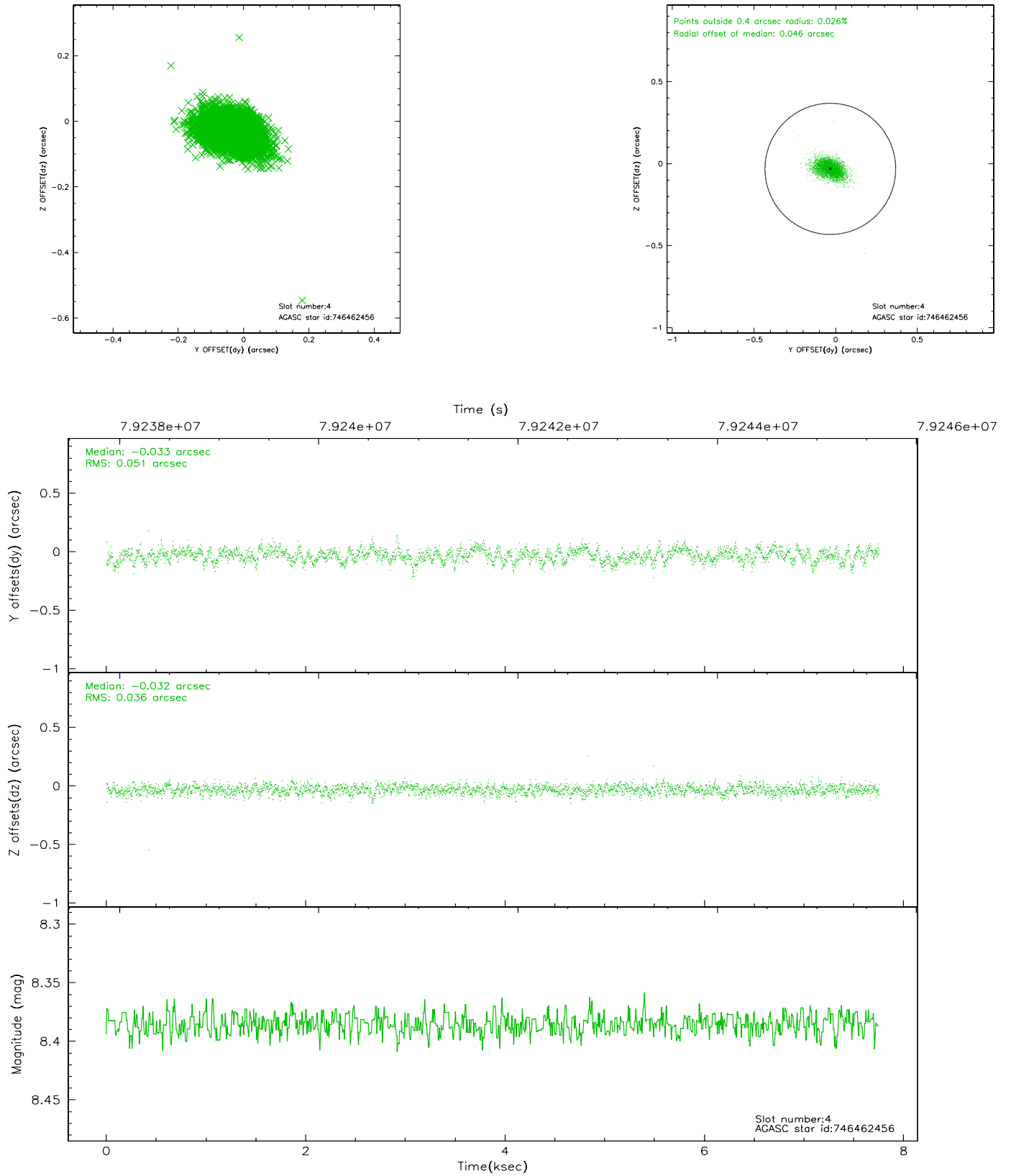
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.17	1891	-0.052	-0.036	0.008	0.015	0.000000	0.000000	-753.55	-982.35
1	FID	ACIS-I-4	7.15	1891	-0.048	0.047	0.006	0.009	0.000000	0.000000	2160.11	923.47
2	FID	ACIS-I-5	7.23	1891	-0.001	0.059	0.008	0.014	0.000000	0.000000	-1806.04	921.16
3	GUIDE	746455152	7.80	3780	-0.087	0.042	0.059	0.092	278.447893	-9.976732	-1475.39	-1704.90
4	GUIDE	746462456	8.39	3779	-0.033	-0.032	0.065	0.108	278.652171	-10.530173	-1139.95	387.66
5	GUIDE	746455112	8.93	3780	0.223	-0.111	0.069	0.117	278.266531	-10.703234	355.72	269.90
6	GUIDE	746460328	9.81	3778	-0.004	0.024	0.092	0.155	278.603974	-9.898096	-2096.50	-1683.36
7	GUIDE	746995400	9.48	3780	-0.099	0.074	0.096	0.155	278.078957	-11.289885	1959.01	1795.23

## 2.4 Star Slots

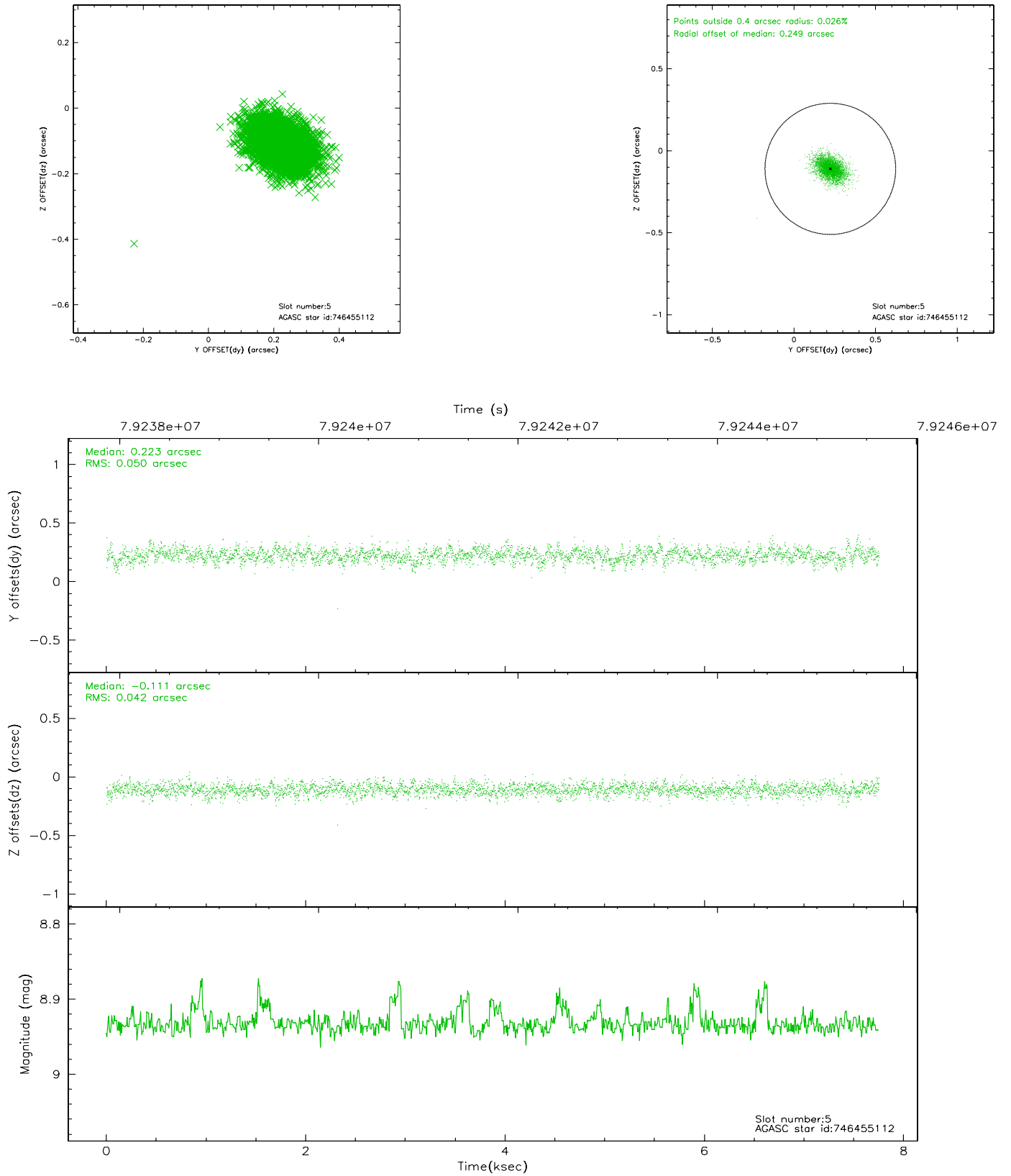
### 2.4.1 Slot 3



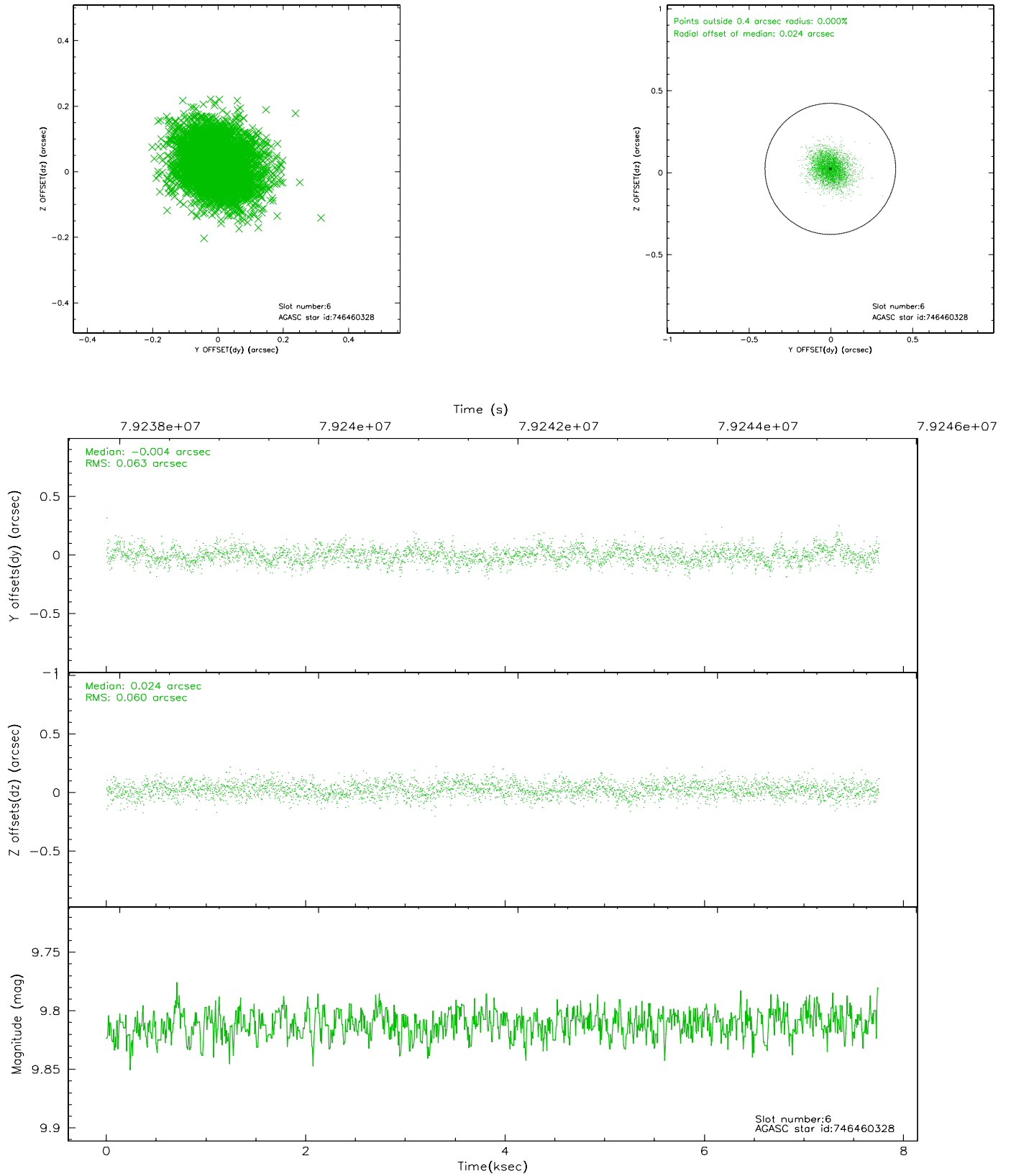
## 2.4.2 Slot 4



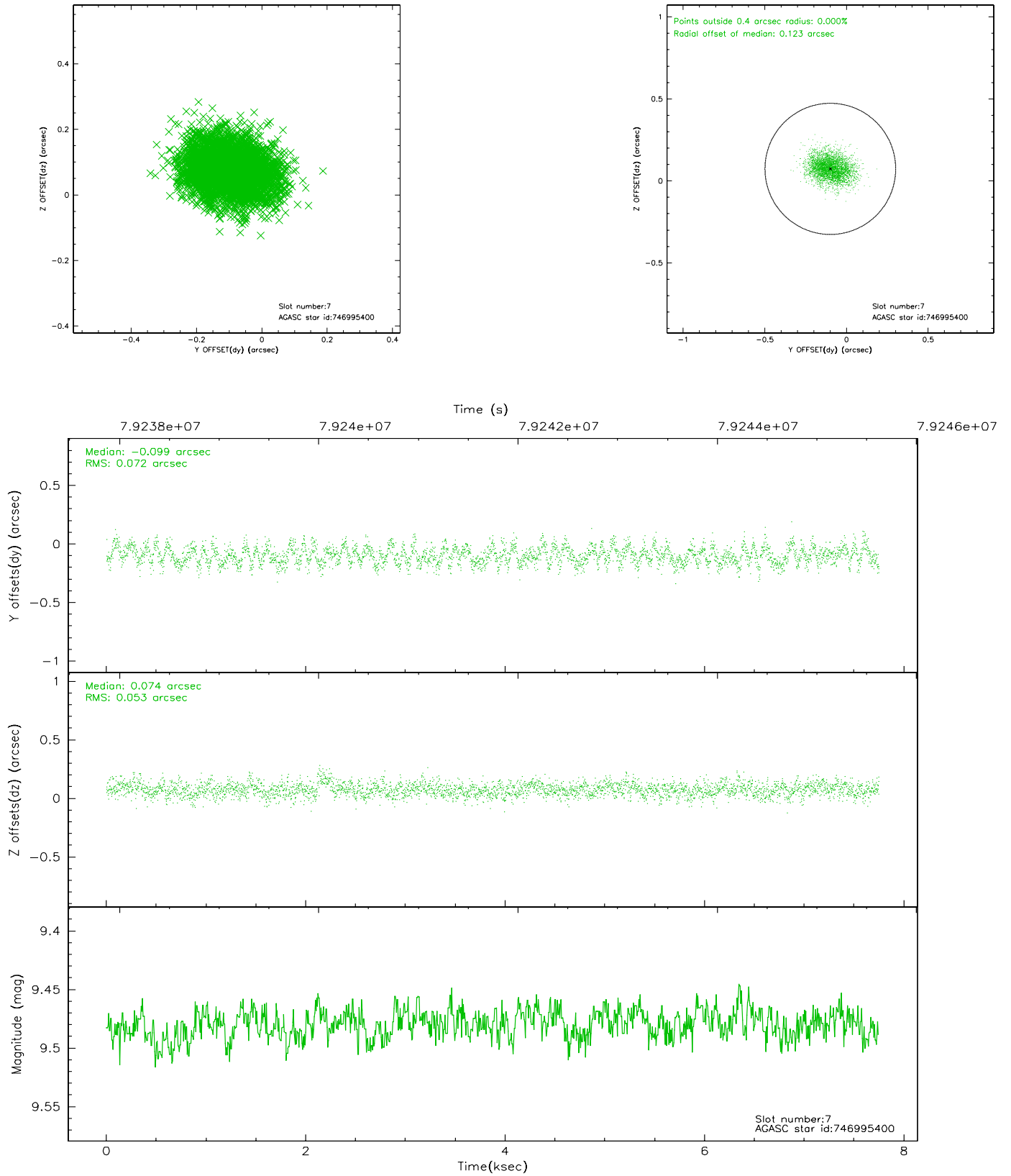
### 2.4.3 Slot 5



## 2.4.4 Slot 6

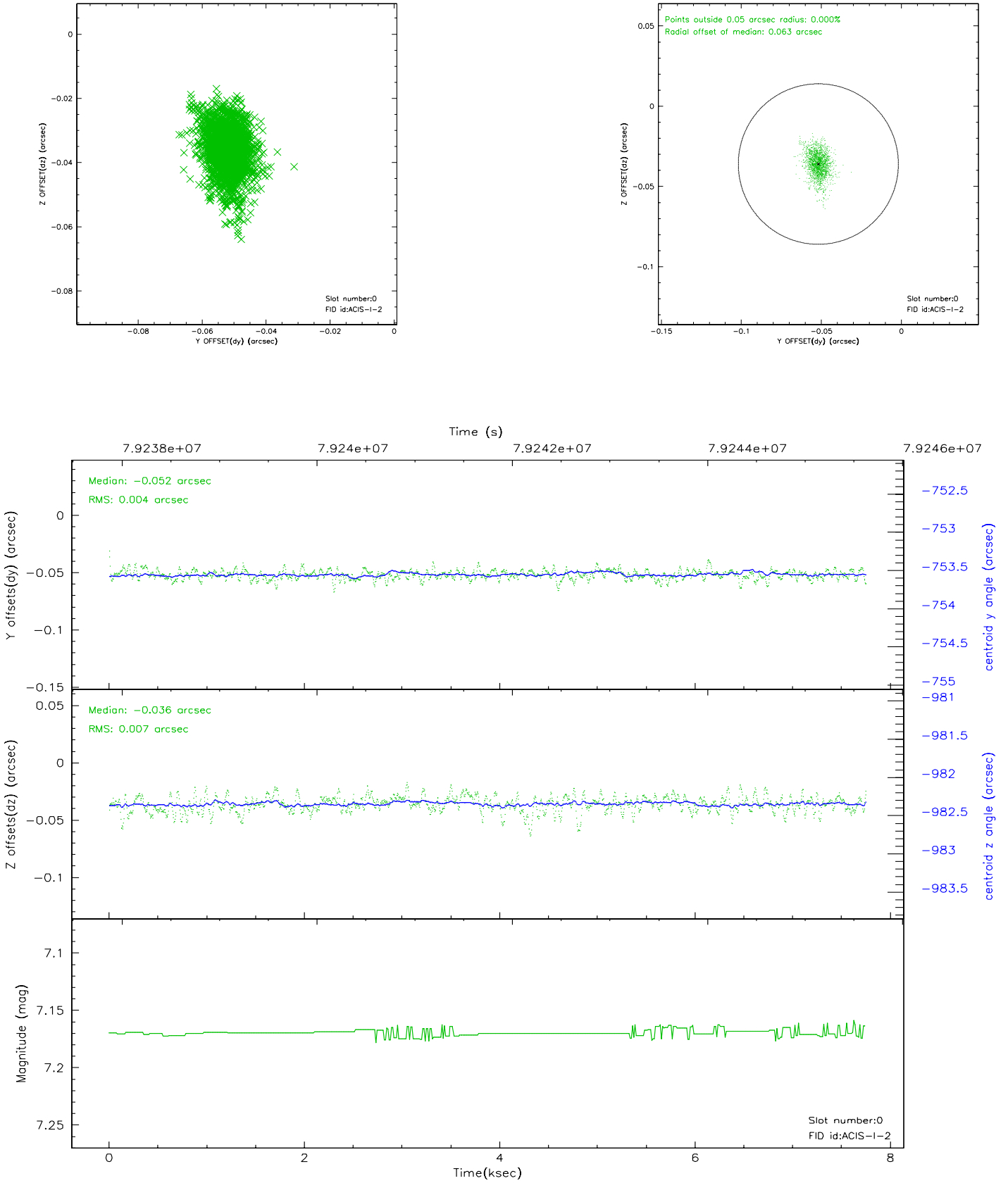


## 2.4.5 Slot 7

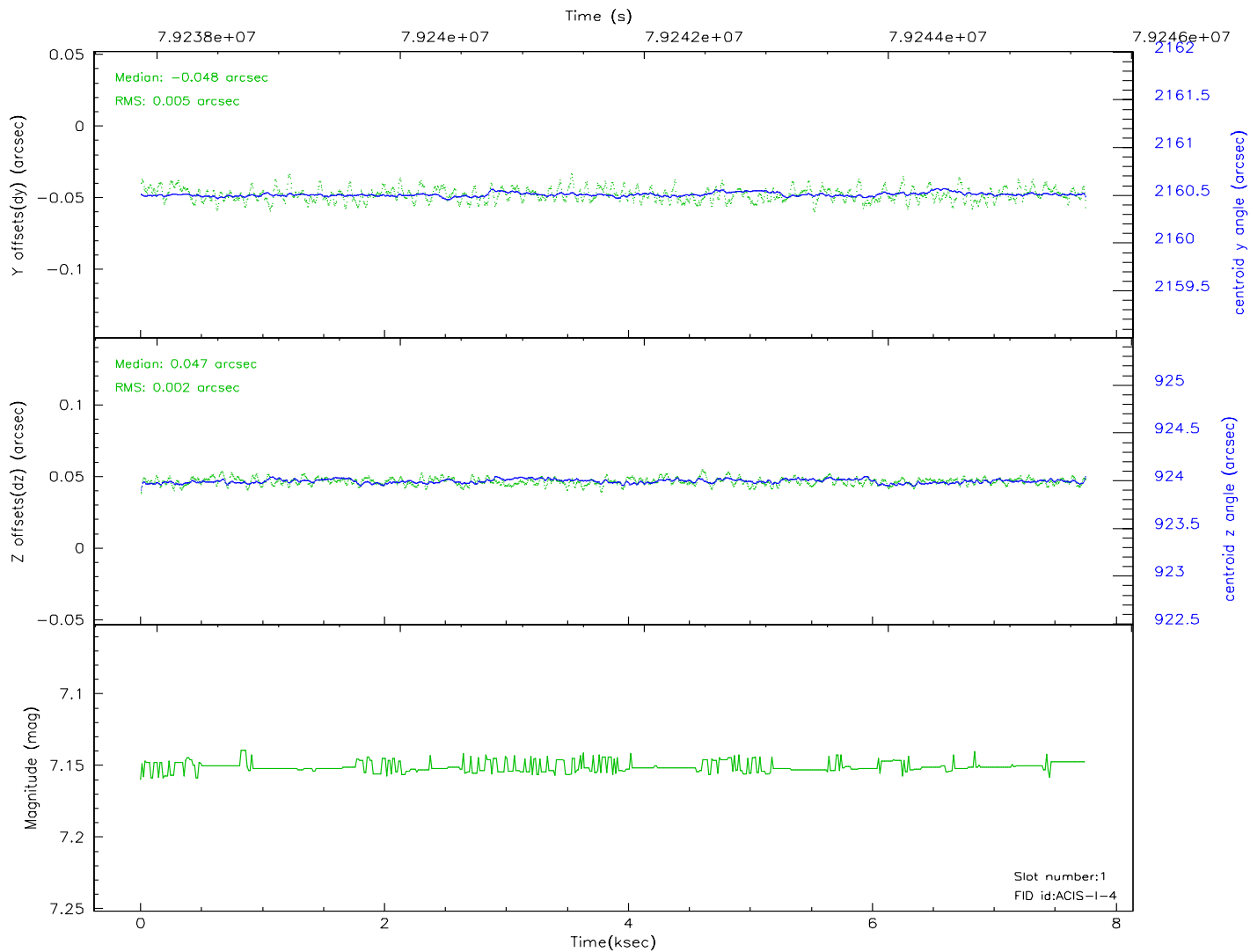
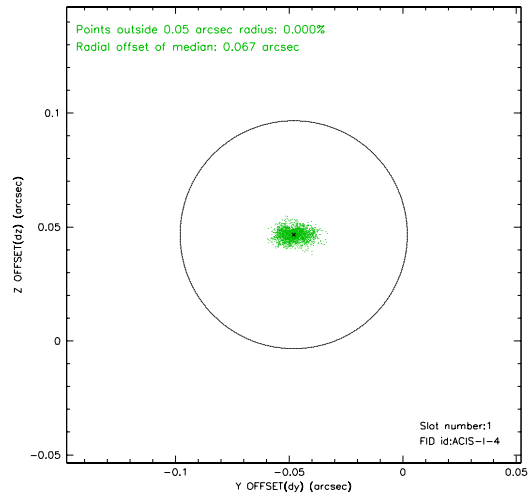
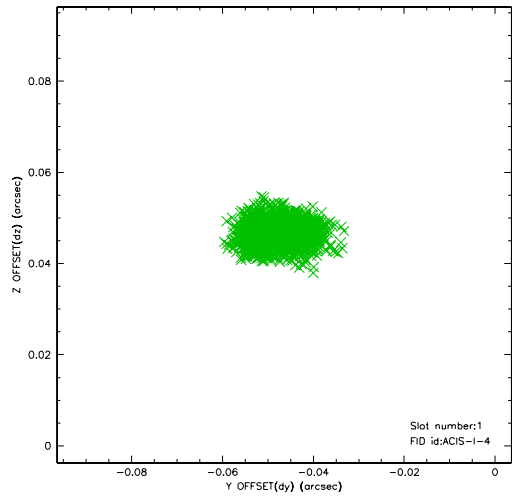


## 2.5 FID Slots

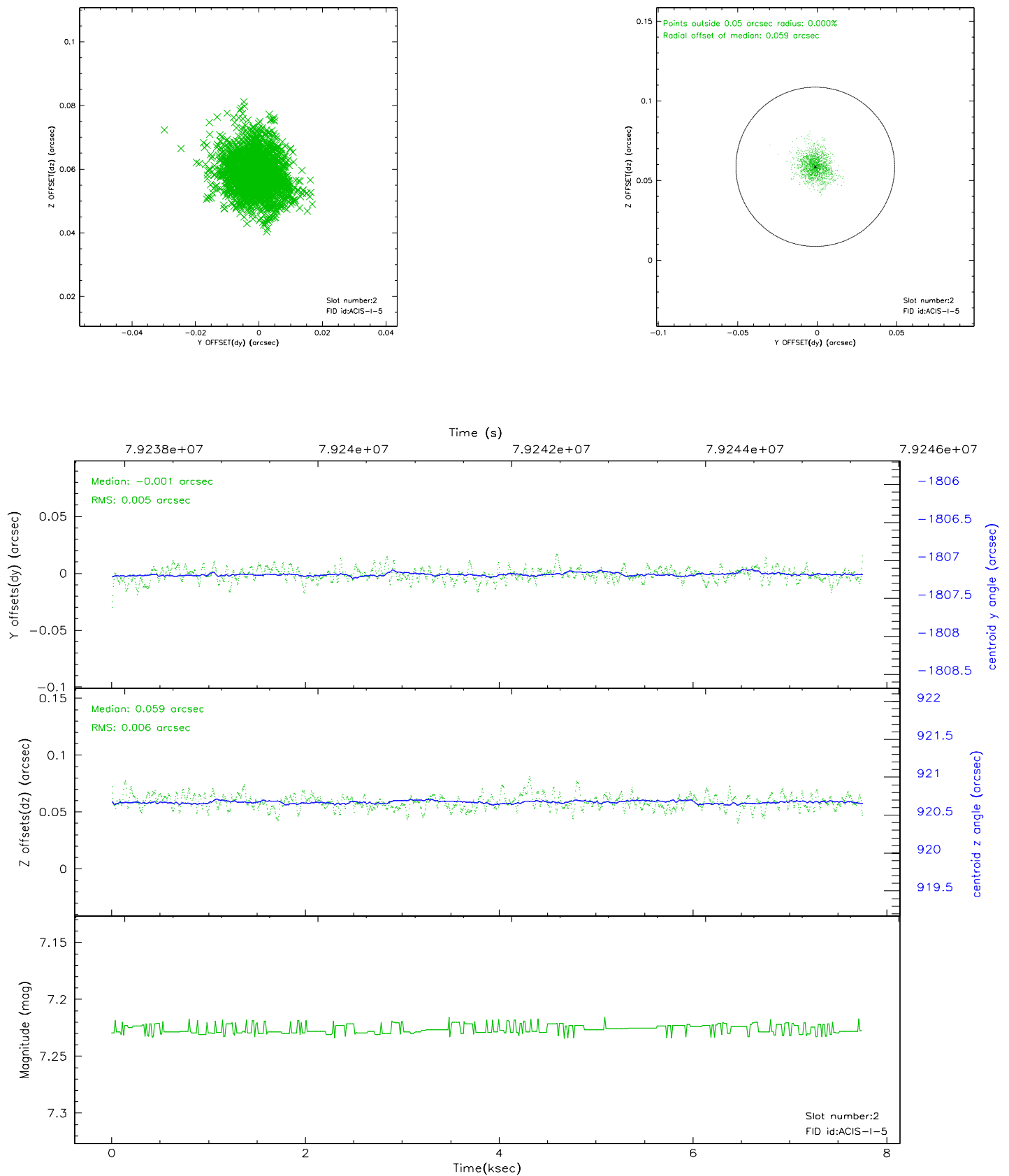
### 2.5.1 Slot 0



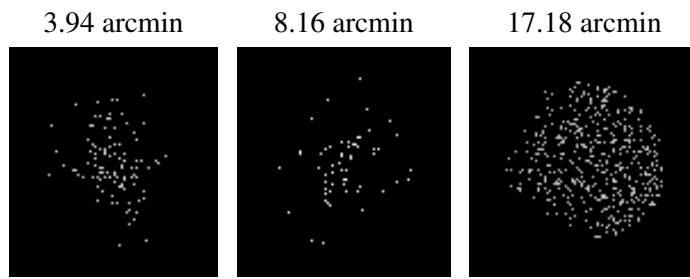
2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2008.11.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.321

## A.2 Comments

Charge time for this ObsId remains at original value of 7.321 ks, although with the current processing the charge time would have been 7.318 ksec.=====

This calibration observation was acquired with the focal plane temperature raised from -120C to -110C, for attempted recalibration of ACIS for the 1999-09-16 through 2000-01-28 period.  
=====

This reprocessing of the data applies no CTI correction because none is available for that temperature.  
=====

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 warmer than -116.7 degrees C for approximately 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.