

# V&V Reference Report

## L2 ASCDS Version : 7.6.10

Observation 1780 - L2 Version 4  
Chandra X-Ray Center

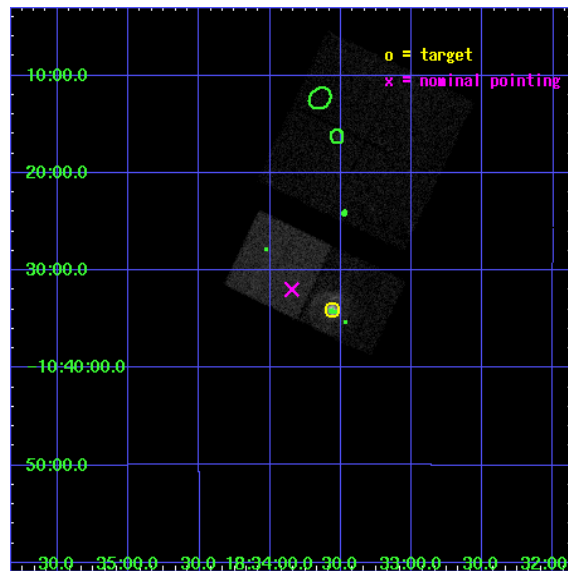
L2 Processing Date : Nov 19 2008

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# 1 Front

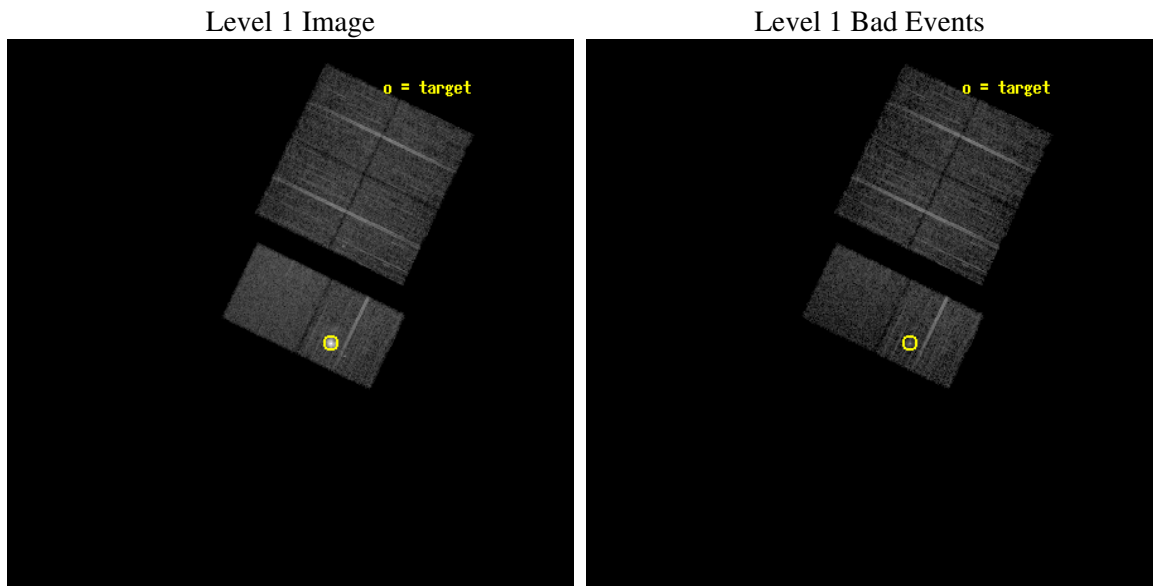
seq_num	590206
obs_id	1780
title	HRC RESPONSE TO CONTINUUM SOURCE.
observer	Dr. CXC Calibration
object	G21.5-0.9 [Chip S2, T=110, Offsets=5,0,1]
dtcycle	0
cycle	P
ra_targ	278.389583
dec_targ	-10.568528
ra_nom	278.4614298576
dec_nom	-10.532877922371
roll_nom	205.65699308244
revision	4
ontime	7318.4000068158
livetime	7225.7300193181
ontime0	7318.4000068158
ontime1	7315.1590365767
ontime2	7318.4000068158
ontime3	7318.4000068158
ontime6	7318.4000068158
ontime7	7318.4000068158
l2events	68959



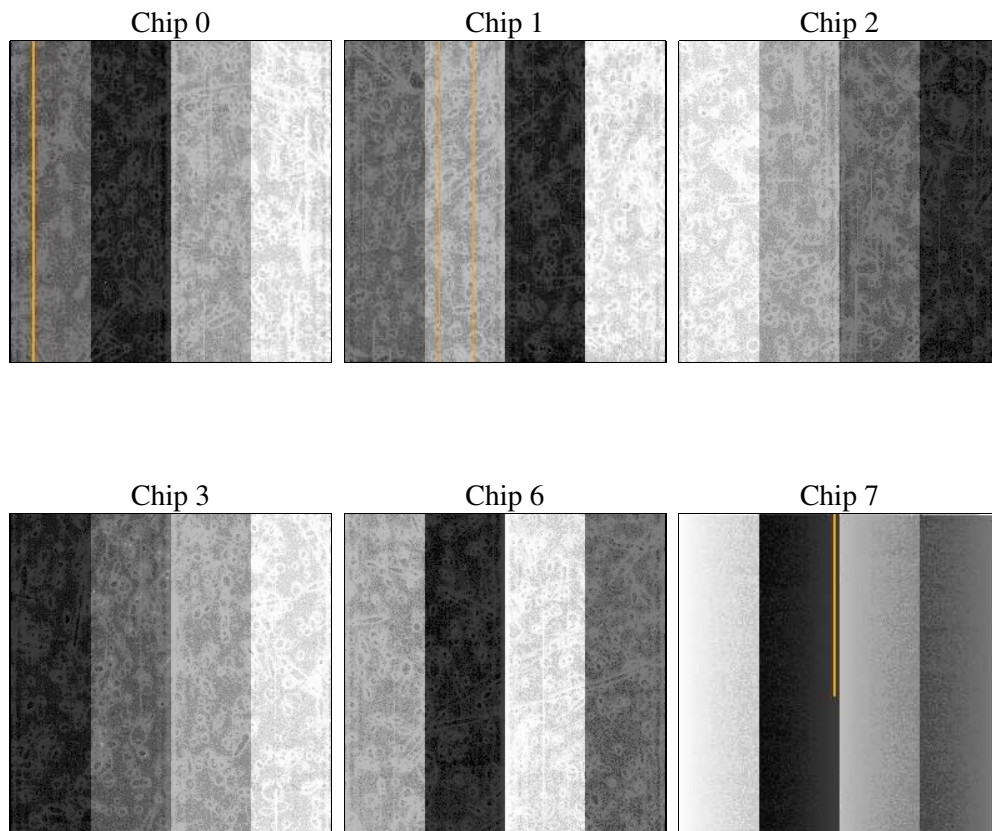
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.11.9
caldsver	3.5.0
date	2008-11-19T16:21:57
revision	4

sched_exp_time	7560.000000
ontime	7318.4000068158
ontime0	7318.4000068158
ontime1	7315.1590365767
ontime2	7318.4000068158
ontime3	7318.4000068158
ontime6	7318.4000068158
ontime7	7318.4000068158
l1events	331503

### 2.1.4 Events

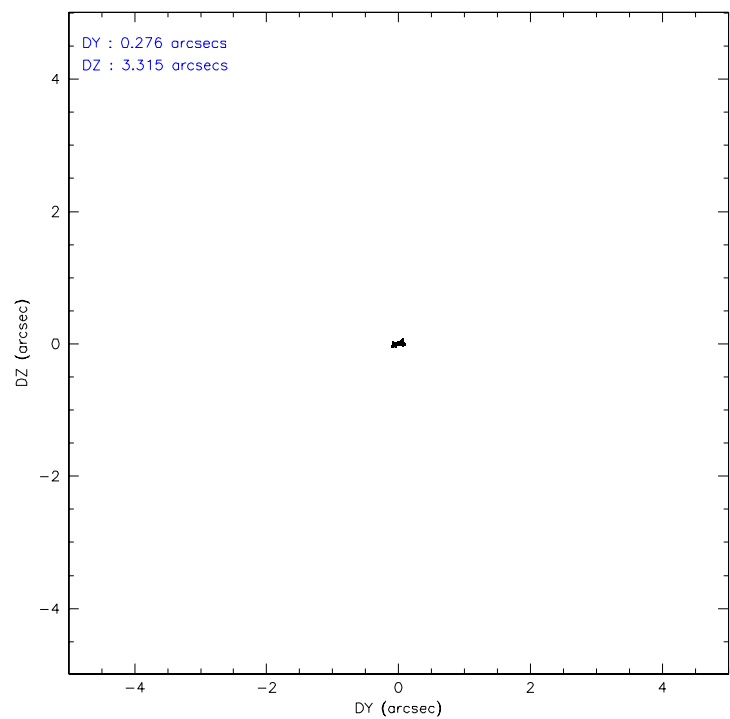
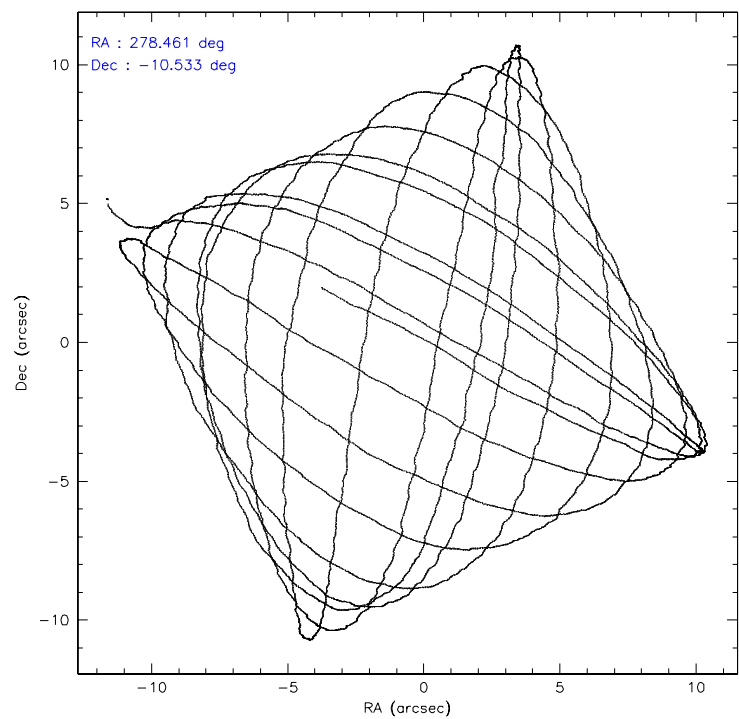
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	49572	45546	52277	49962	76346	57800
rejected events	43879	40057	46955	44674	48250	35487
rejected %	88%	87%	89%	89%	63%	61%

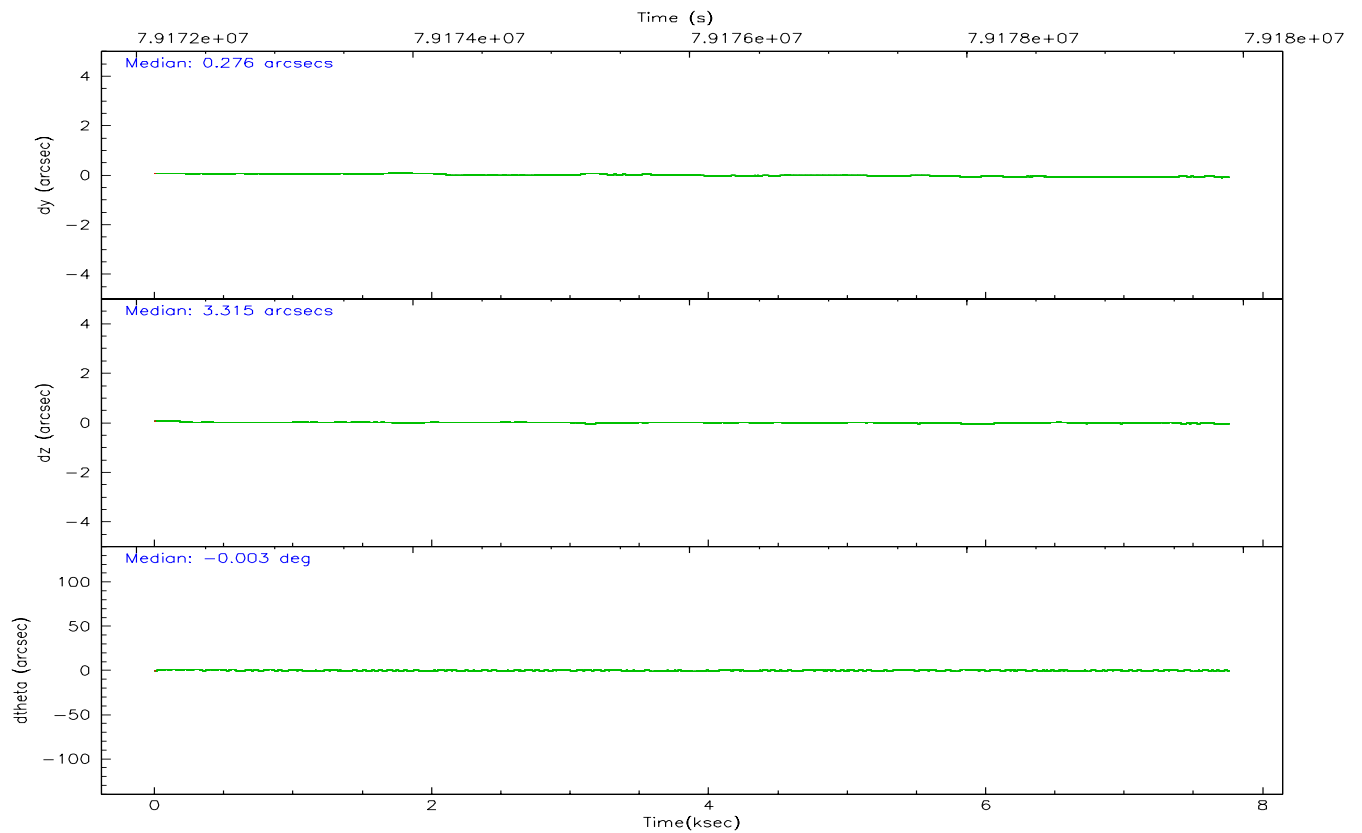
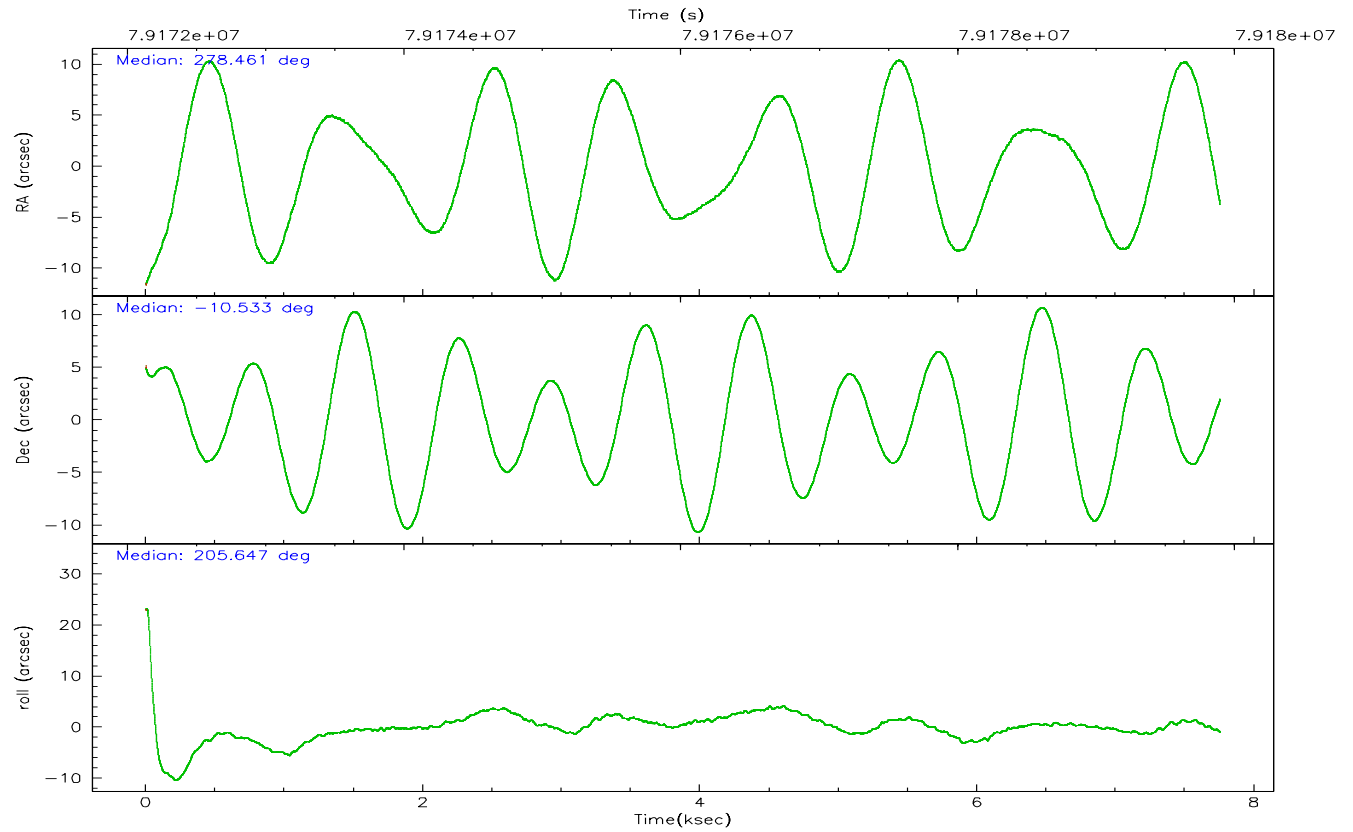
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	1506	1327	1191	1192	15803	1401
	3%	2%	2%	2%	20%	2%
grade 1 events	11	8	5	13	97	20
	0%	0%	0%	0%	0%	0%
grade 2 events	2154	2032	2224	2111	6949	4833
	4%	4%	4%	4%	9%	8%
grade 3 events	393	408	331	308	1168	1346
	0%	0%	0%	0%	1%	2%
grade 4 events	356	414	319	337	1186	1239
	0%	0%	0%	0%	1%	2%
grade 5 events	1116	1118	867	1036	1256	3538
	2%	2%	1%	2%	1%	6%
grade 6 events	1290	1315	1260	1343	3021	13521
	2%	2%	2%	2%	3%	23%
grade 7 events	42746	38924	46080	43622	46866	31902
	86%	85%	88%	87%	61%	55%

## 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	278.476986	278.4614298576047	Subarray requested	NONE	NONE
Pointing Dec	-10.510193	-10.53287792237104	Alternating exposures requested	N	N
Pointing Roll	205.503144	205.656993082435	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-185.067123	-185.0737207172285			
SIM translation stage offset (mm)	-5.0654	-5.058801865779316			
Observation start time	79172336.184000	79171960.041081			
Observation start date	2000-07-05T08:17:52	2000-07-05T08:12:40			
Observation end time	79179896.184000	79180029.86637799			
Observation end date	2000-07-05T10:23:52	2000-07-05T10:27:09			
Read mode	TIMED	TIMED			

## 2.3 Aspect





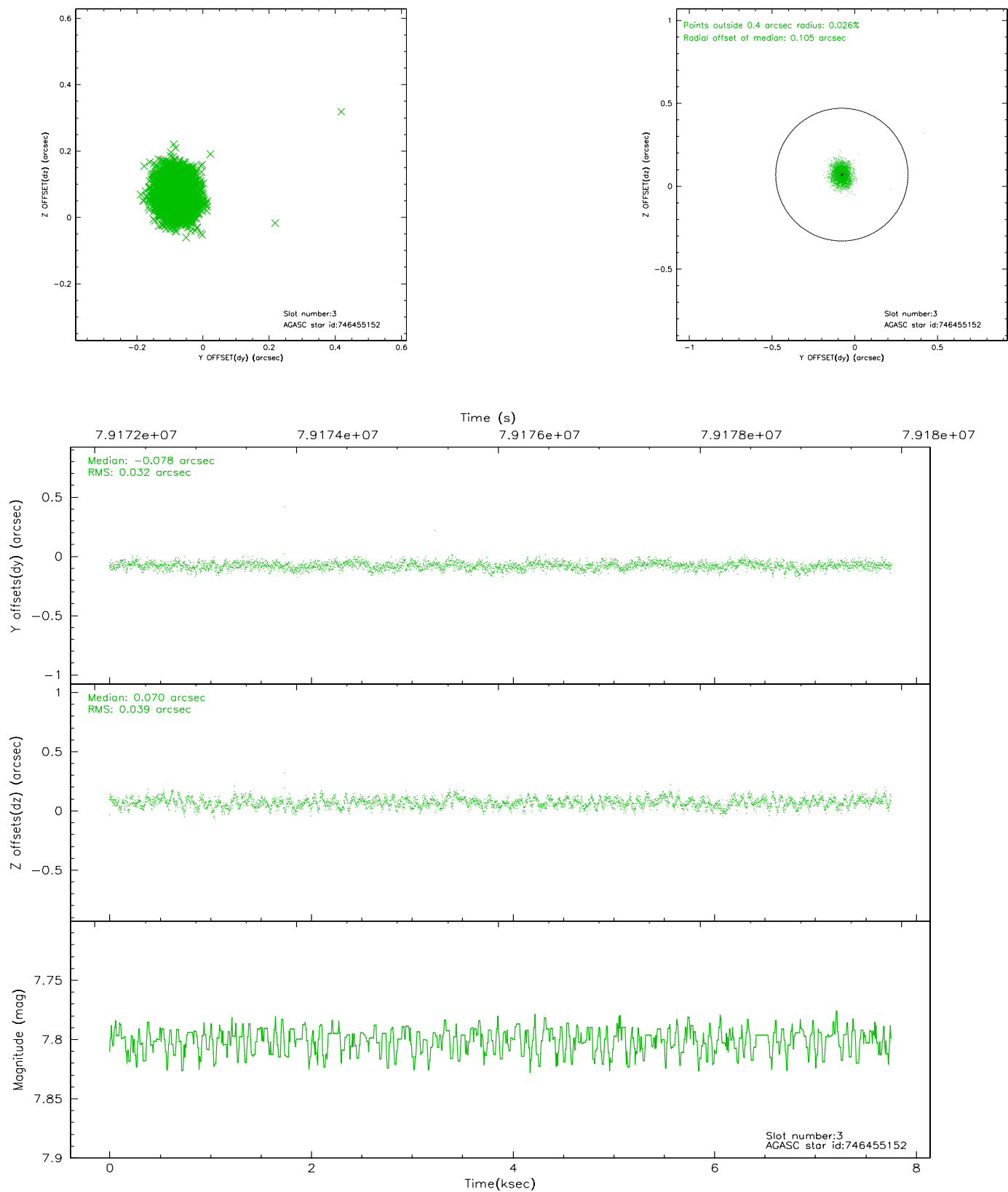
### Slot Statistics

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	1892	0.025	0.107	0.006	0.010	0.000000	0.000000	943.51	-1824.25
1	FID	ACIS-S-4	7.19	1892	0.012	-0.082	0.006	0.010	0.000000	0.000000	2161.37	78.87
2	FID	ACIS-S-5	7.23	1892	-0.063	-0.013	0.005	0.009	0.000000	0.000000	-1804.45	73.48
3	GUIDE	746455152	7.80	3784	-0.078	0.070	0.052	0.084	278.447893	-9.976732	-733.56	-1777.34
4	GUIDE	746462456	8.38	3783	-0.068	-0.015	0.062	0.107	278.652171	-10.530173	-528.88	332.01
5	GUIDE	746462392	8.55	3783	-0.068	-0.070	0.087	0.150	279.038421	-10.890715	-1201.43	2093.01
6	GUIDE	746455112	8.94	3782	0.198	-0.018	0.068	0.113	278.266531	-10.703234	971.04	308.10
7	GUIDE	746460328	9.80	3780	0.021	0.030	0.093	0.154	278.603974	-9.898096	-1354.62	-1794.50

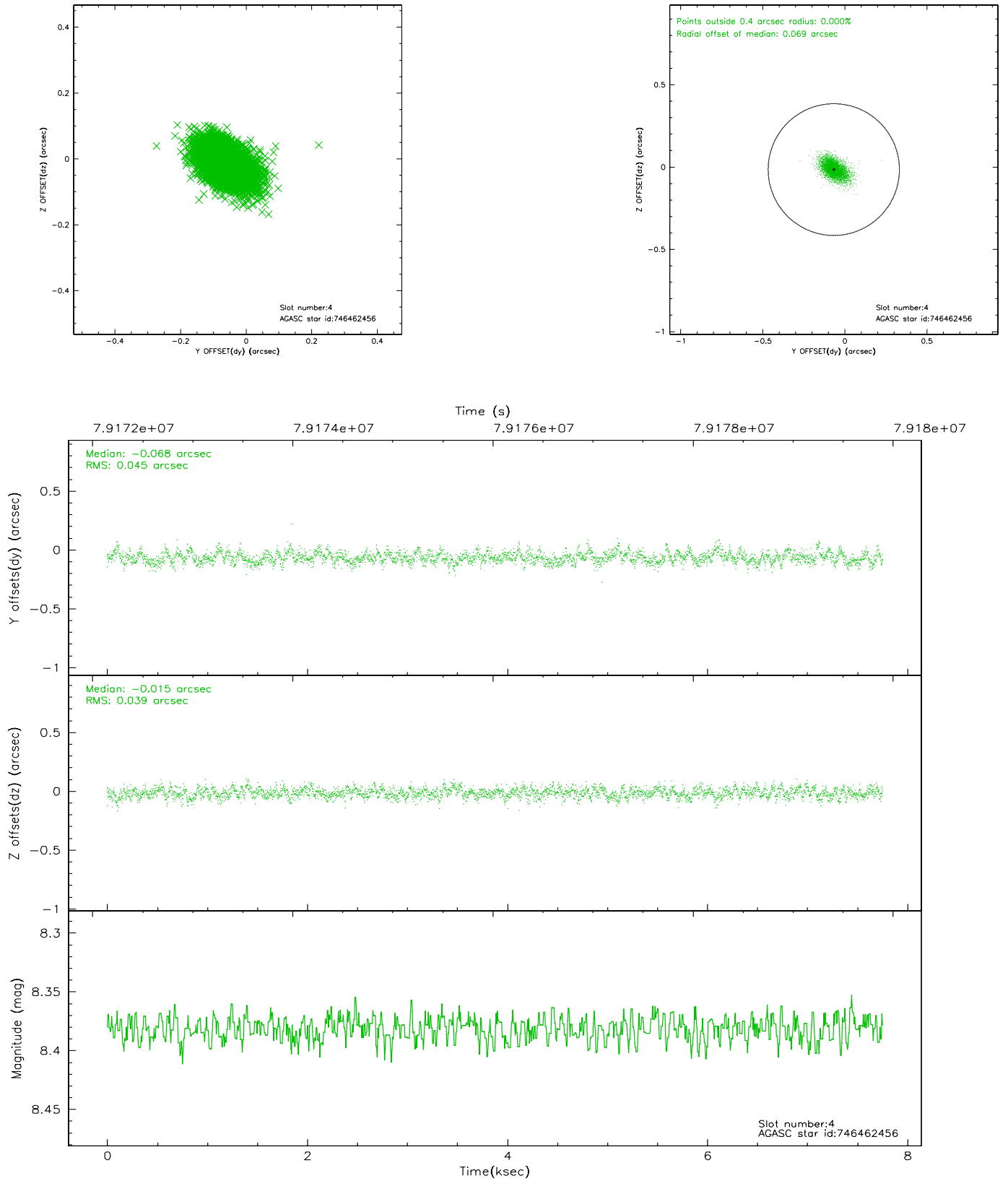


## 2.4 Star Slots

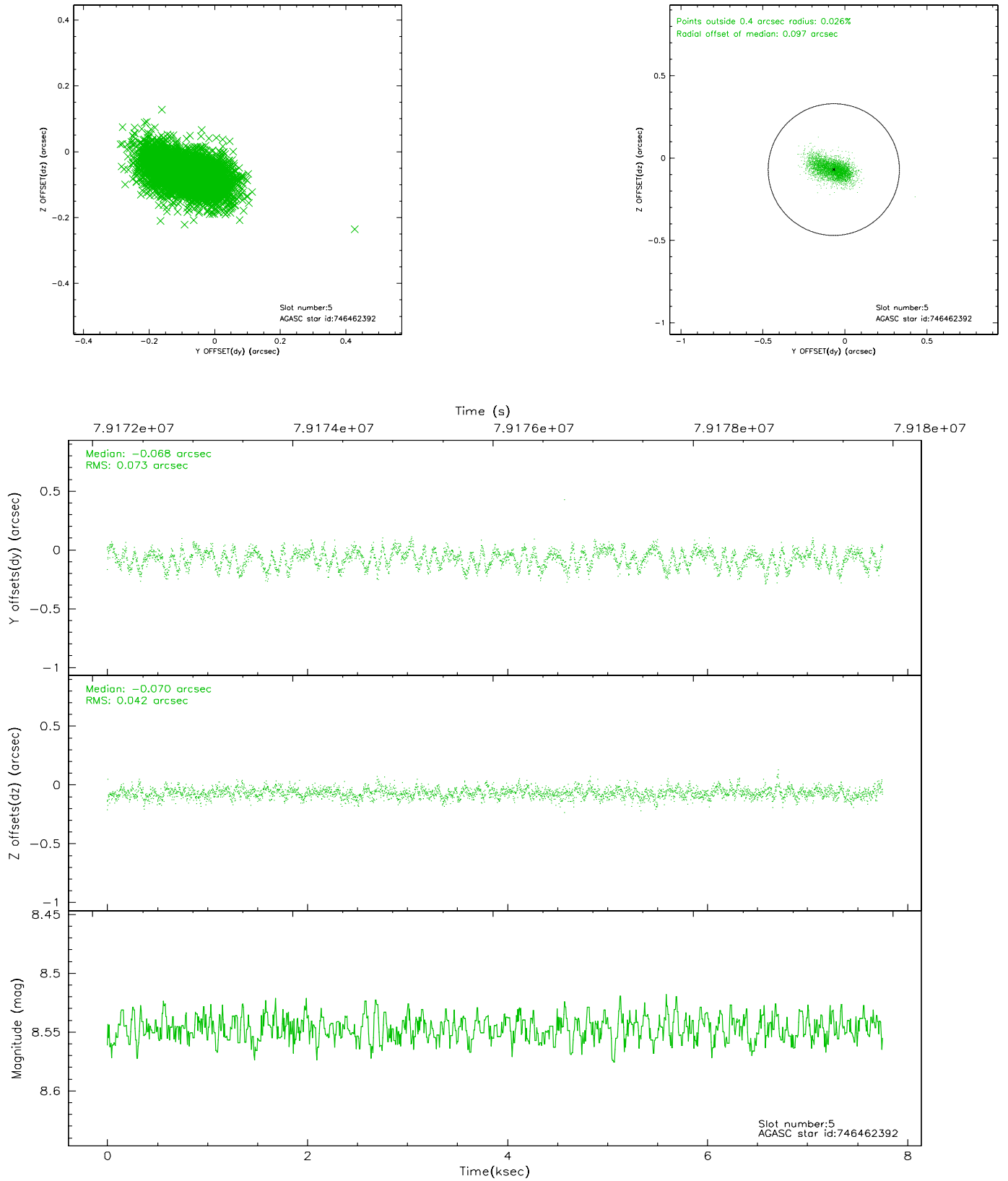
### 2.4.1 Slot 3



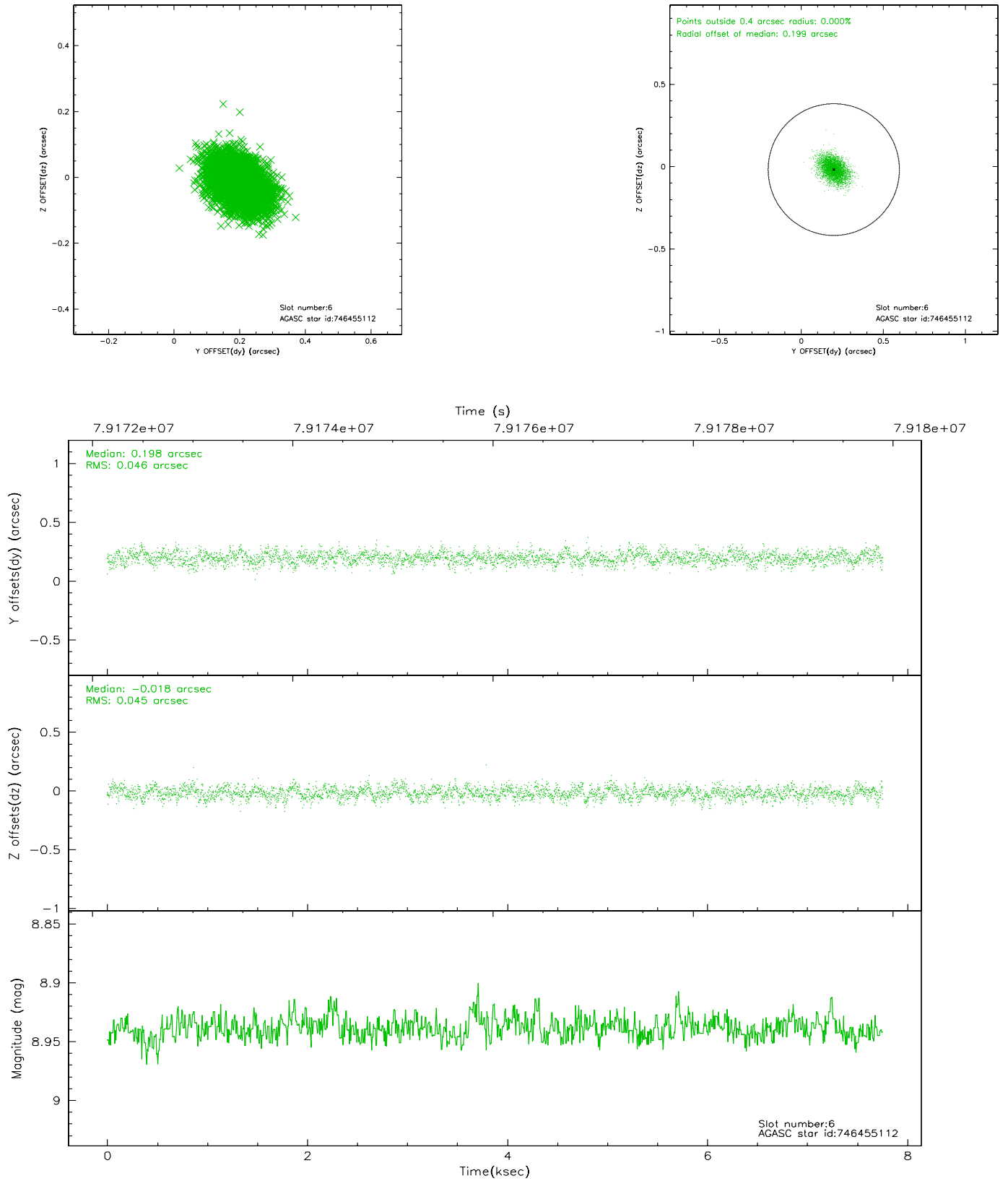
## 2.4.2 Slot 4



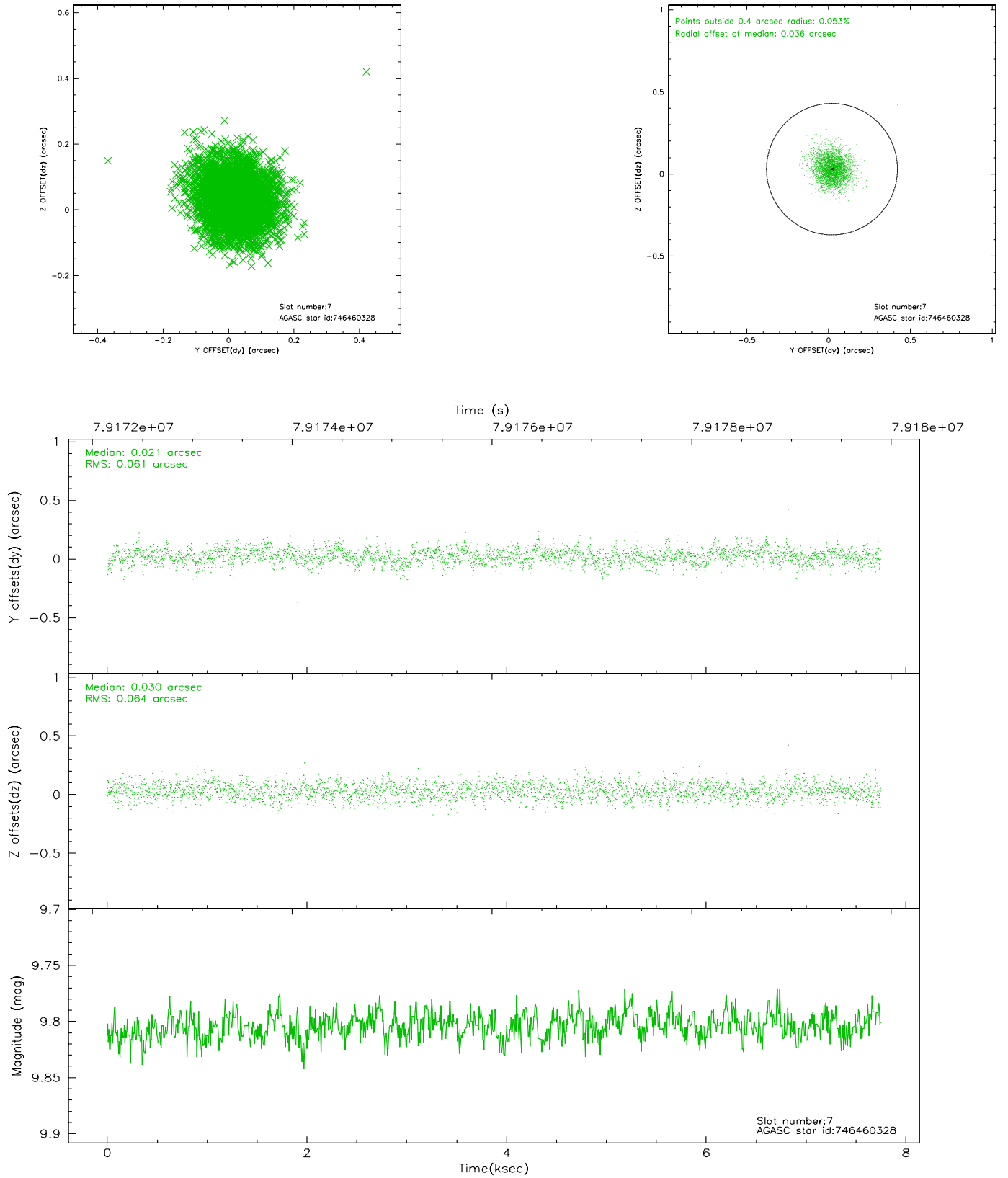
### 2.4.3 Slot 5



## 2.4.4 Slot 6

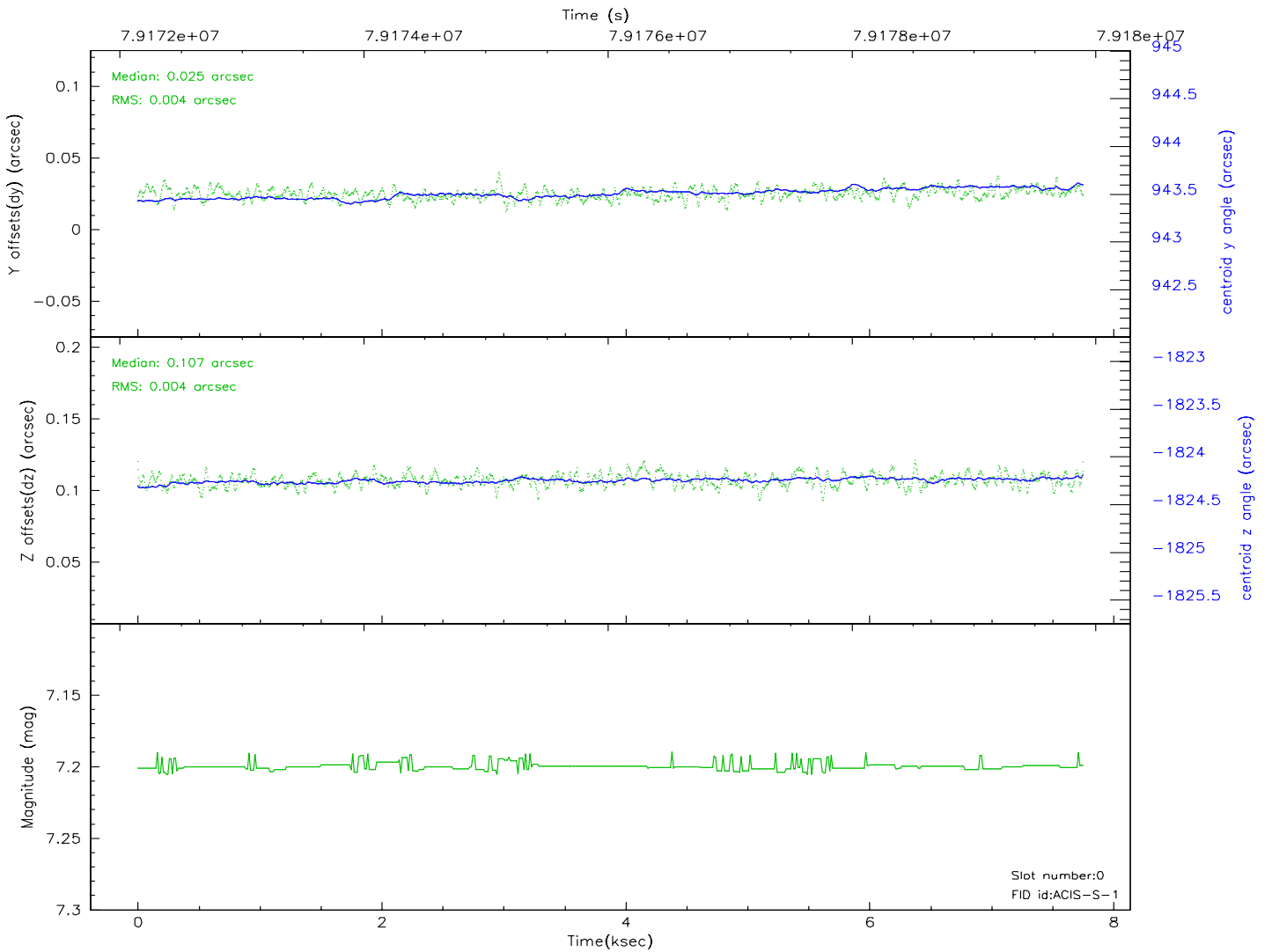
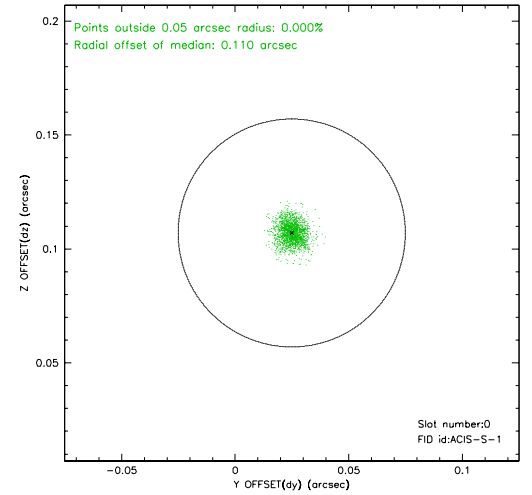
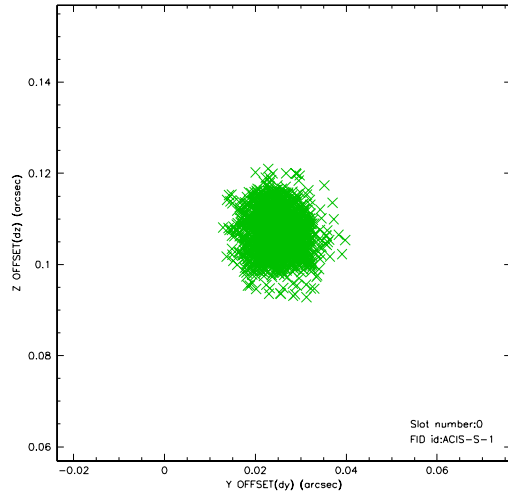


## 2.4.5 Slot 7

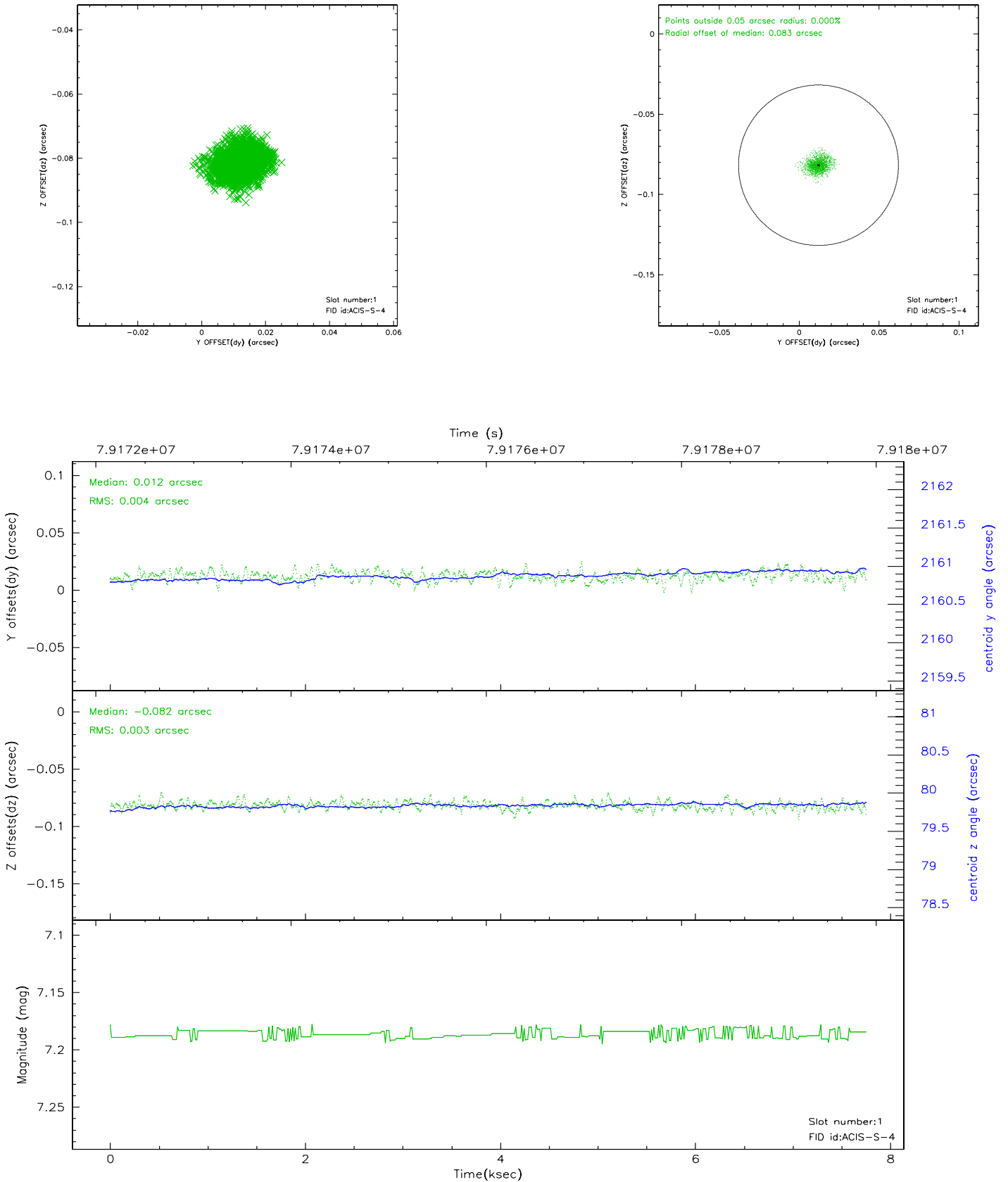


## 2.5 FID Slots

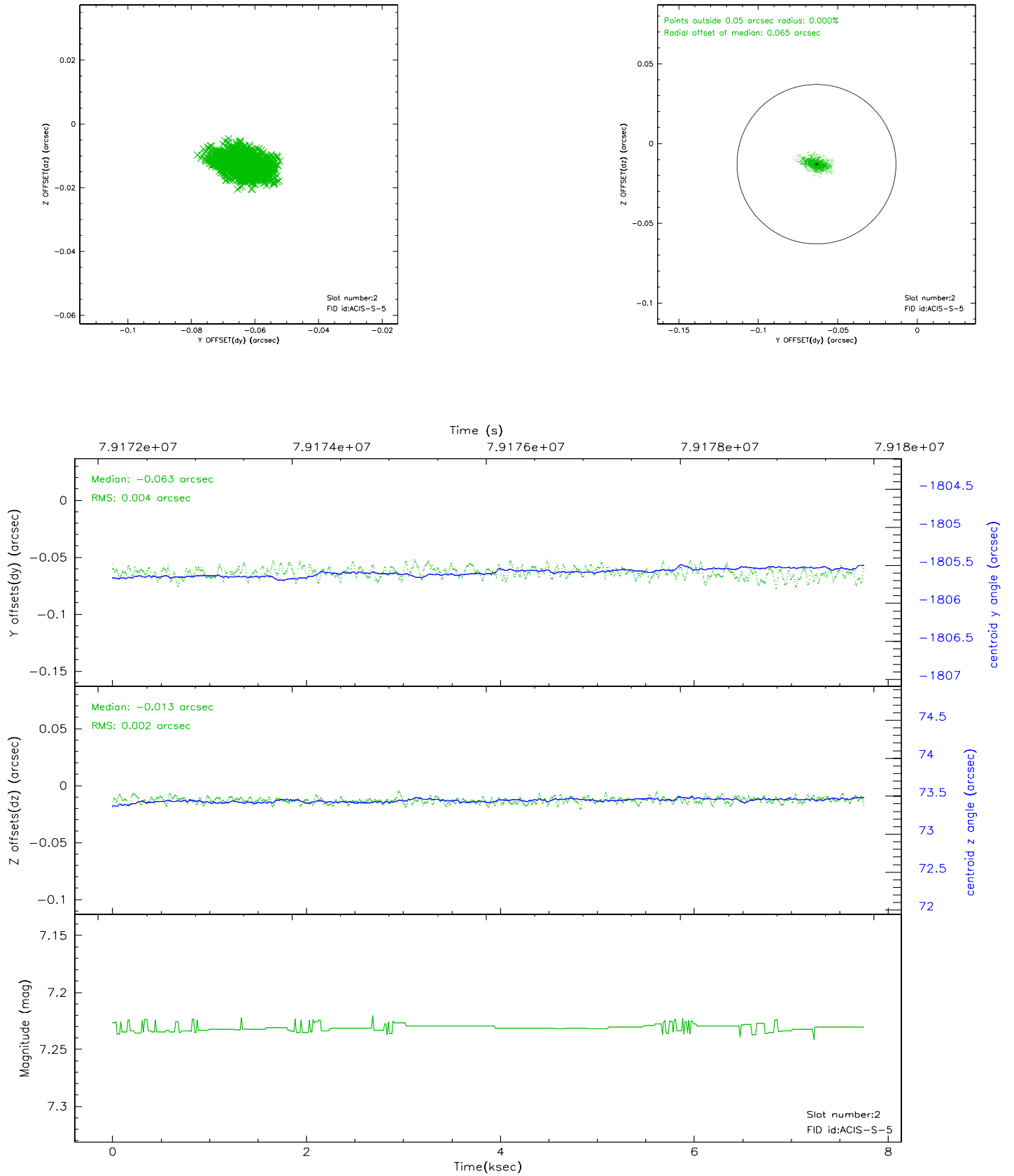
### 2.5.1 Slot 0



## 2.5.2 Slot 1

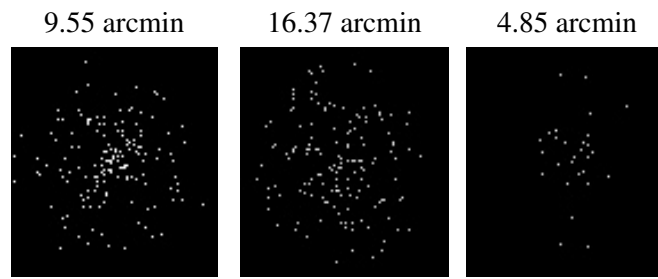


### 2.5.3 Slot 2





### 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	7.324

## A.2 Comments

Charge time for this ObsId remains at original value of 7.324 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.