

# V&V Reference Report

## L2 ASCDS Version : 7.6.10

Observation 1781 - L2 Version 4  
Chandra X-Ray Center

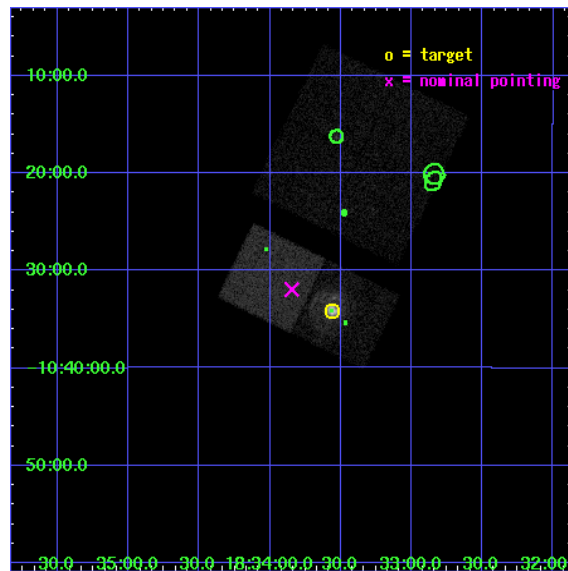
L2 Processing Date : Nov 19 2008

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# 1 Front

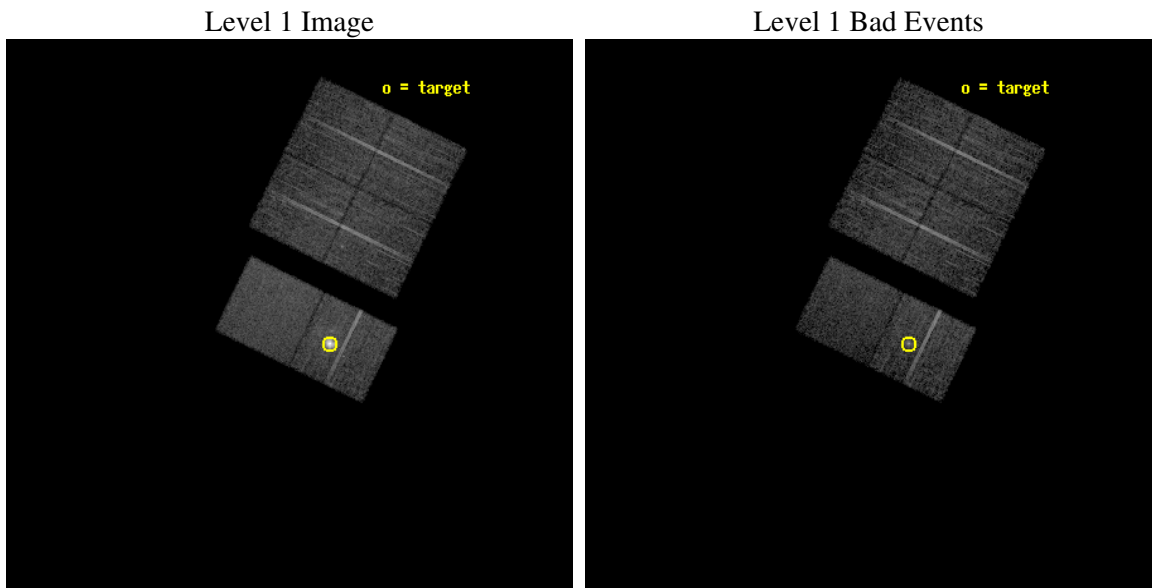
seq_num	590207
obs_id	1781
title	HRC RESPONSE TO CONTINUUM SOURCE.
observer	Dr. CXC Calibration
object	G21.5-0.9 [Chip S2, T=110, Offsets=5,0,0]
dtcycle	0
cycle	P
ra_targ	278.389583
dec_targ	-10.568528
ra_nom	278.46121307673
dec_nom	-10.53243263397
roll_nom	206.01693070185
revision	4
ontime	7318.4000068158
livetime	7225.7300193181
ontime0	7318.4000068158
ontime1	7318.4000068158
ontime2	7318.4000068158
ontime3	7318.4000068158
ontime6	7318.4000068158
ontime7	7318.4000068158
l2events	68192



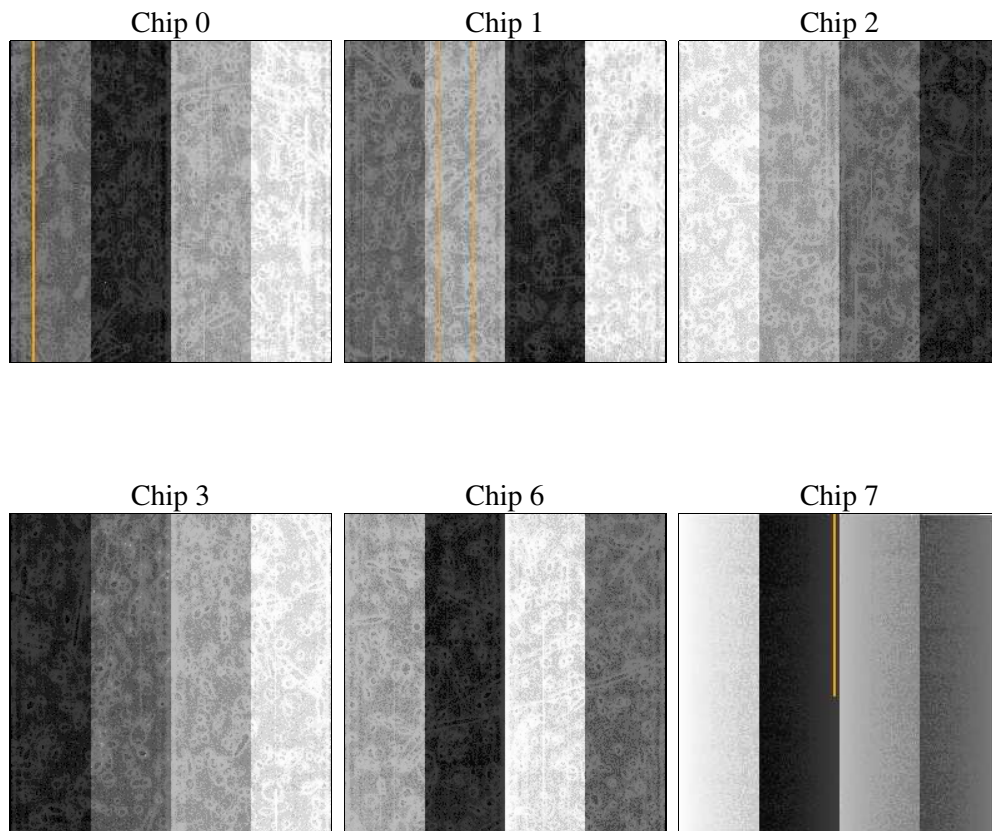
## 2 OBI

### 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	2008-11-19T16:11:59
revision	4

sched_exp_time	7560.000000
ontime	7318.4000068158
ontime0	7318.4000068158
ontime1	7318.4000068158
ontime2	7318.4000068158
ontime3	7318.4000068158
ontime6	7318.4000068158
ontime7	7318.4000068158
l1events	331490

### 2.1.4 Events

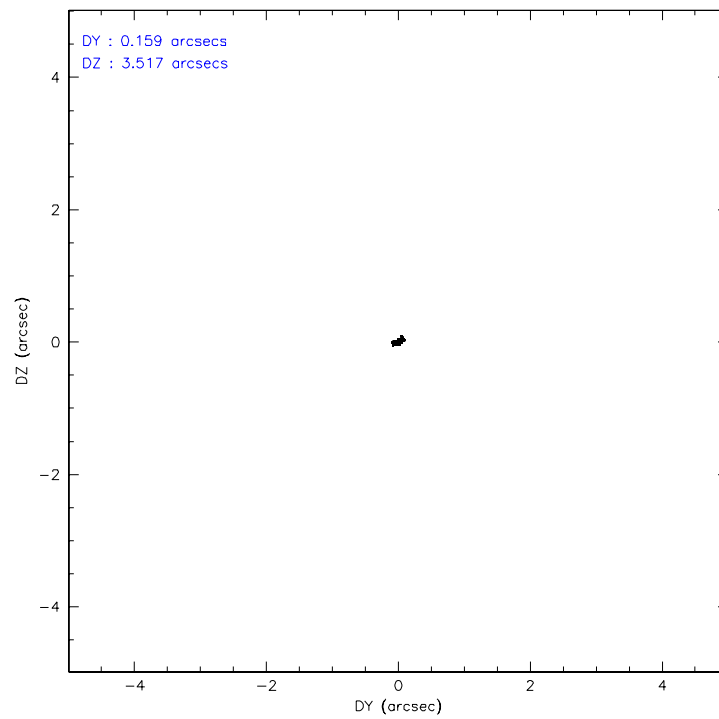
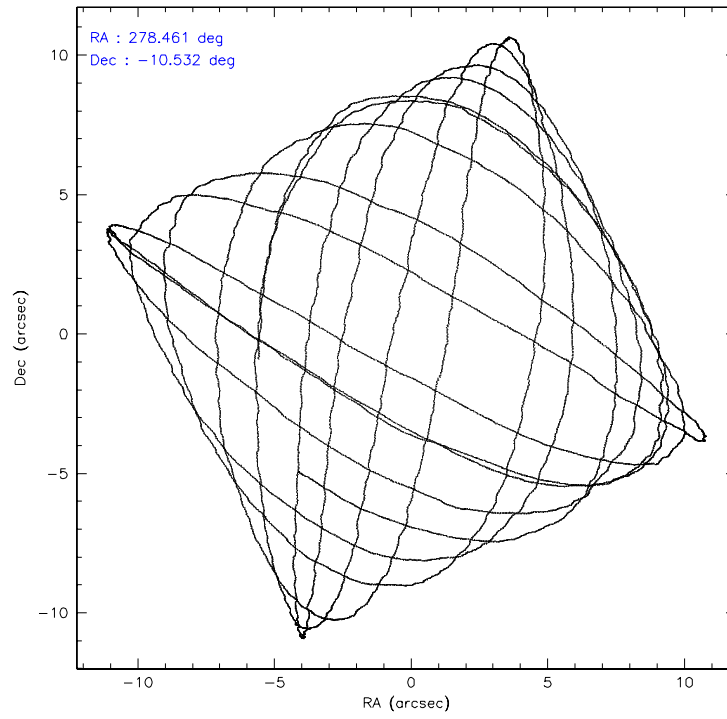
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	51224	46183	50627	50596	75113	57747
rejected events	45720	40664	45275	45404	47495	35669
rejected %	89%	88%	89%	89%	63%	61%

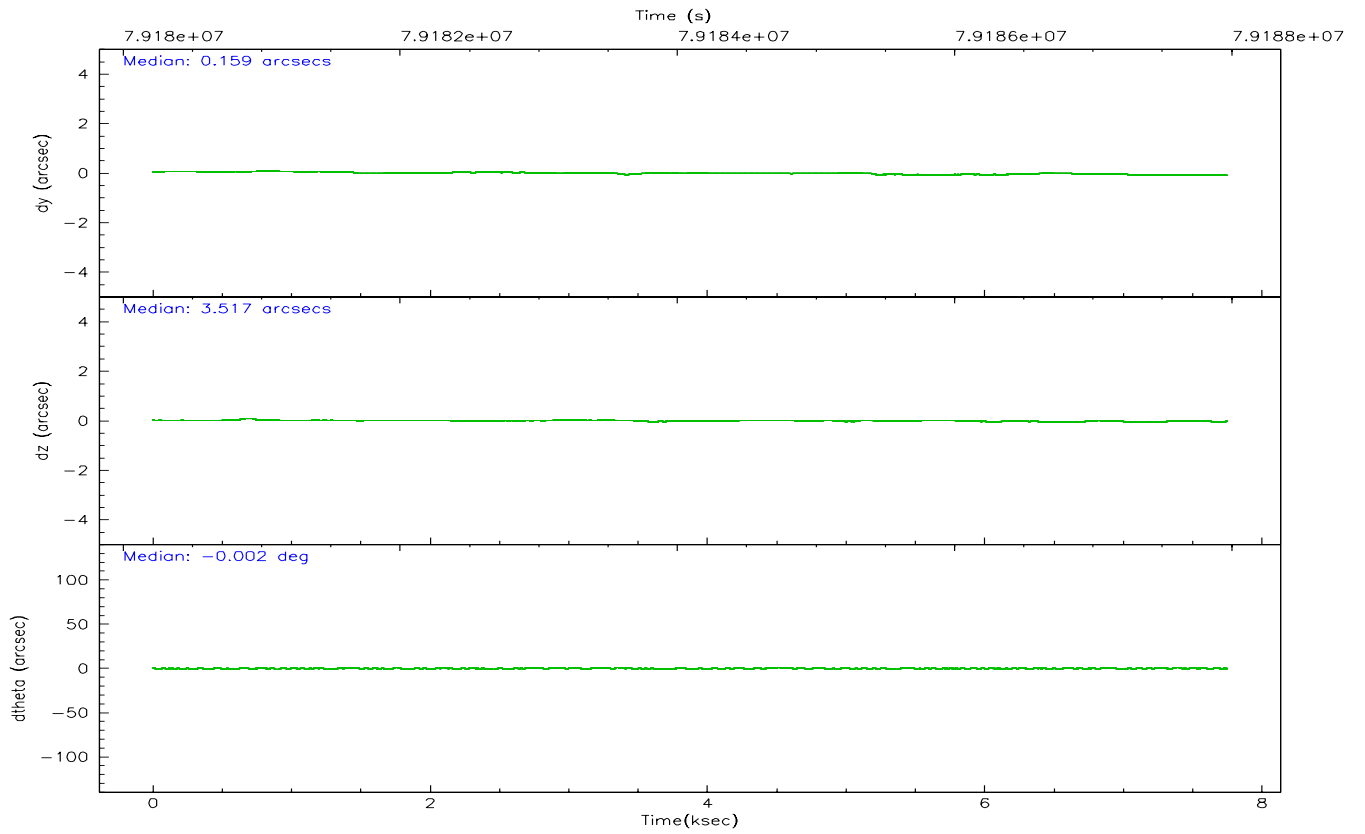
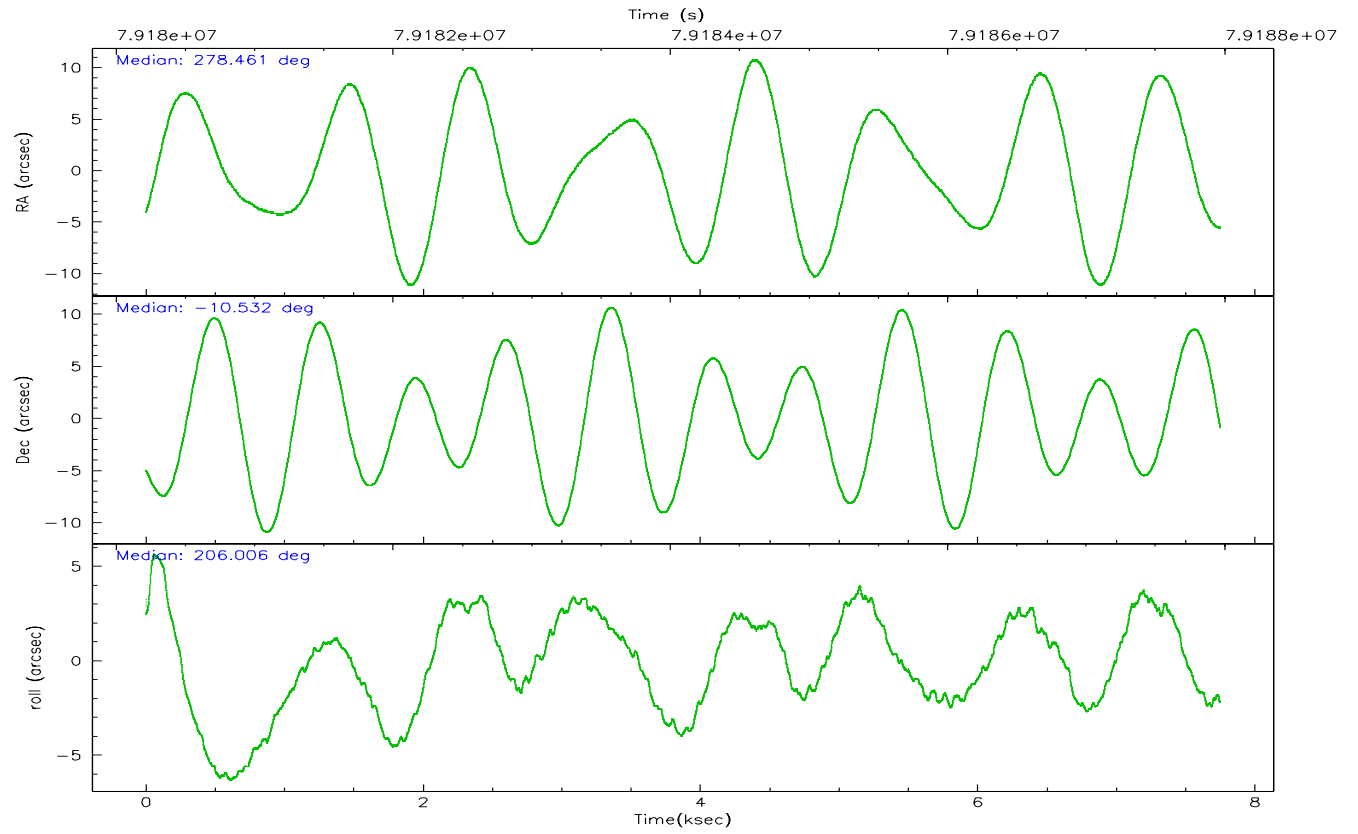
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	1397	1328	1260	1135	11354	1371
	2%	2%	2%	2%	15%	2%
grade 1 events	10	9	6	3	77	22
	0%	0%	0%	0%	0%	0%
grade 2 events	2077	2027	2279	2146	11321	4764
	4%	4%	4%	4%	15%	8%
grade 3 events	398	415	288	327	875	1424
	0%	0%	0%	0%	1%	2%
grade 4 events	363	372	307	301	865	1236
	0%	0%	0%	0%	1%	2%
grade 5 events	1089	1084	881	1032	1308	3558
	2%	2%	1%	2%	1%	6%
grade 6 events	1272	1382	1222	1286	3232	13309
	2%	2%	2%	2%	4%	23%
grade 7 events	44618	39566	44384	44366	46081	32063
	87%	85%	87%	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	278.476606	278.4612130767251	Subarray requested	NONE	NONE
Pointing Dec	-10.509650	-10.53243263396975	Alternating exposures requested	N	N
Pointing Roll	205.863107	206.0169307018545	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)	-189.459123	-189.4561722878476			
SIM translation stage offset (mm)	-0.6734	-0.6763502951602334			
Observation start time	79180406.184000	79180029.86637799			
Observation start date	2000-07-05T10:32:22	2000-07-05T10:27:09			
Observation end time	79187966.184000	79188099.69167601			
Observation end date	2000-07-05T12:38:22	2000-07-05T12:41:39			
Read mode	TIMED	TIMED			

## 2.3 Aspect



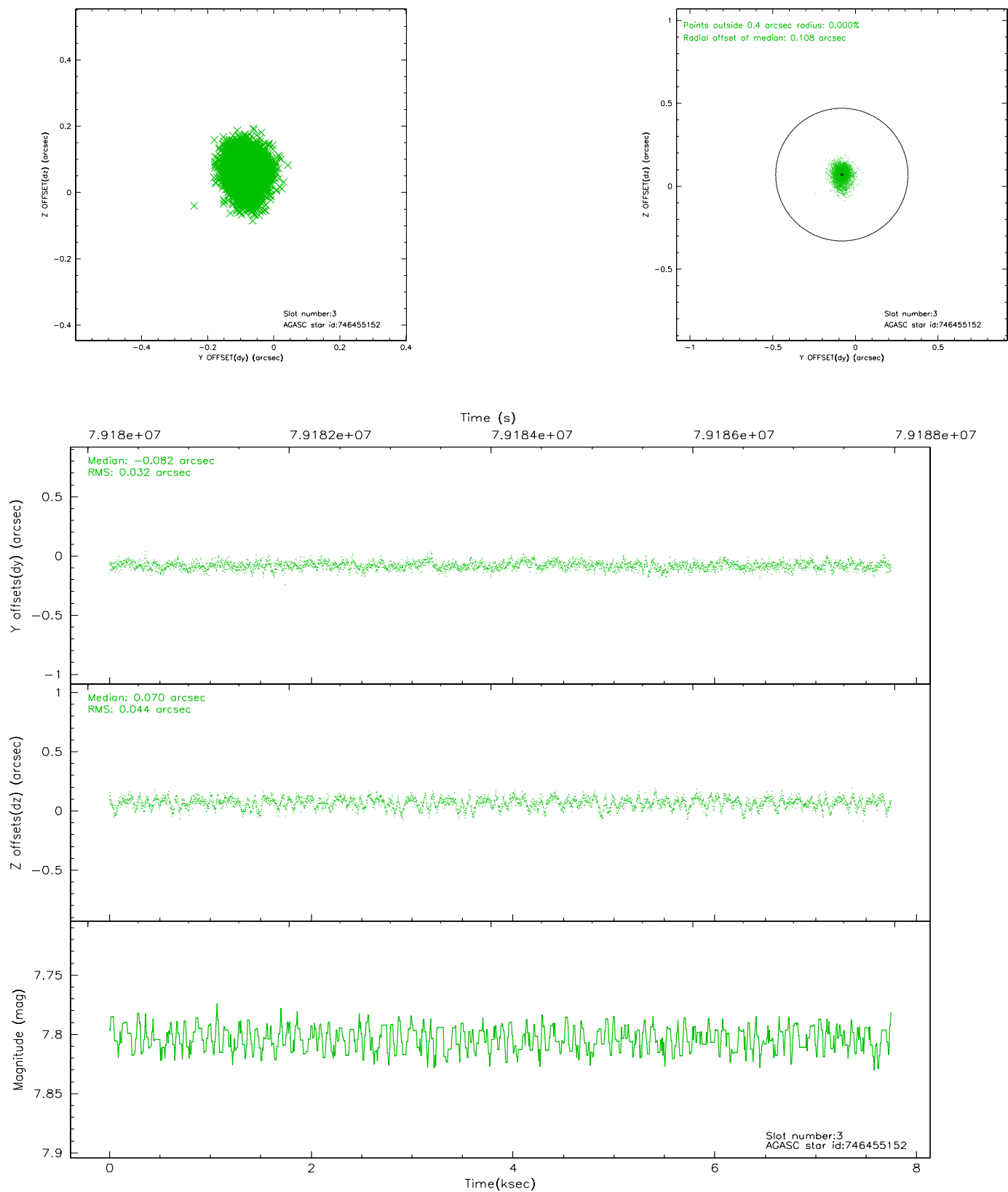


### Slot Statistics

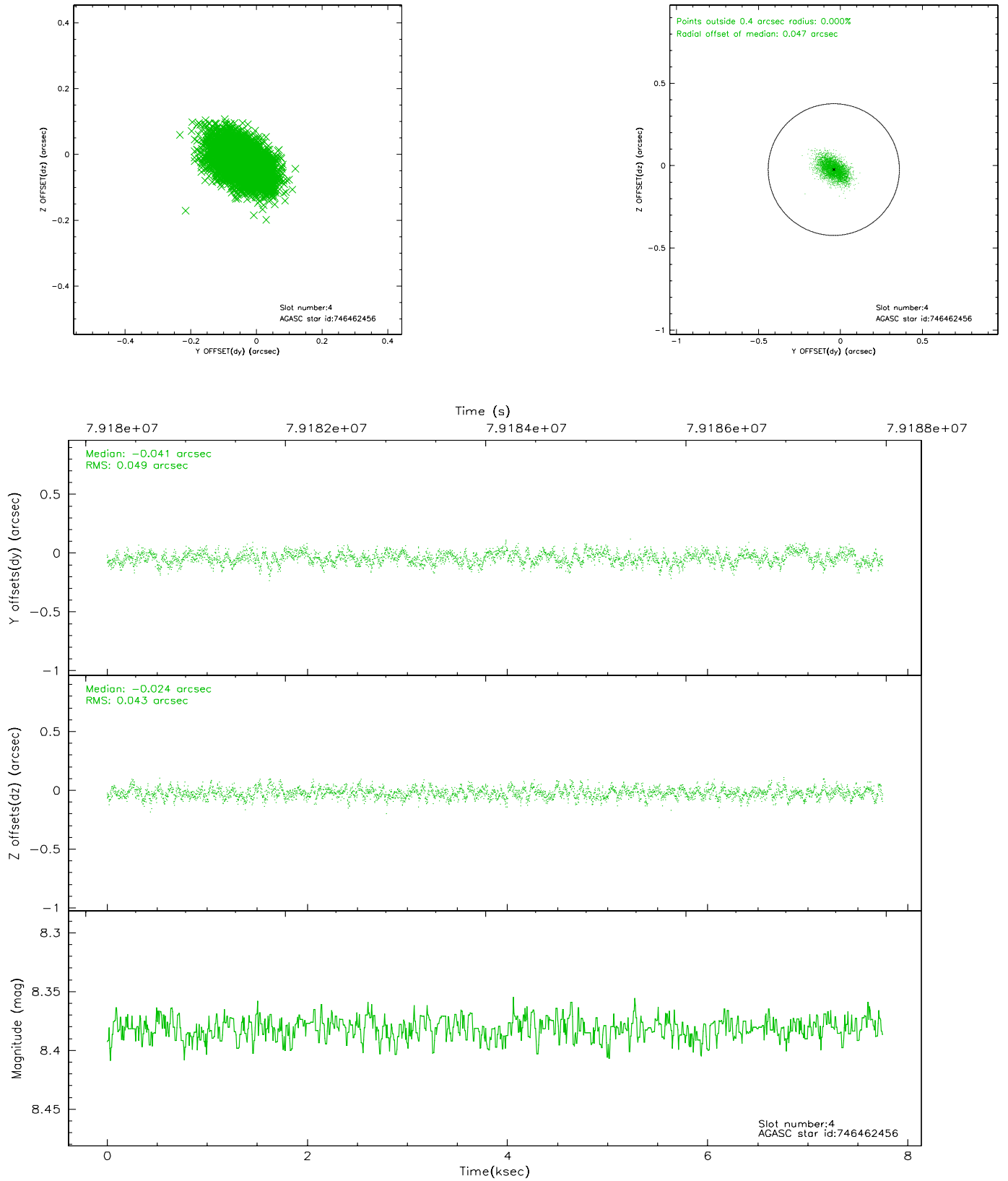
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-3	7.36	1890	-0.035	-0.063	0.007	0.012	0.000000	0.000000	60.44	-1867.80
1	FID	ACIS-S-4	7.20	1889	0.021	0.049	0.005	0.009	0.000000	0.000000	2160.73	168.97
2	FID	ACIS-S-5	7.24	1888	-0.014	0.024	0.006	0.011	0.000000	0.000000	-1804.58	163.62
3	GUIDE	746455152	7.80	3777	-0.082	0.070	0.057	0.095	278.447893	-9.976732	-744.93	-1770.34
4	GUIDE	746462456	8.38	3781	-0.041	-0.024	0.069	0.114	278.652171	-10.530173	-527.02	337.68
5	GUIDE	746462392	8.55	3781	-0.120	-0.072	0.078	0.131	279.038421	-10.890715	-1188.58	2102.87
6	GUIDE	746455112	8.93	3780	0.210	-0.040	0.064	0.107	278.266531	-10.703234	972.71	304.37
7	GUIDE	746460328	9.81	3775	0.025	0.068	0.100	0.166	278.603974	-9.898096	-1366.08	-1783.55

## 2.4 Star Slots

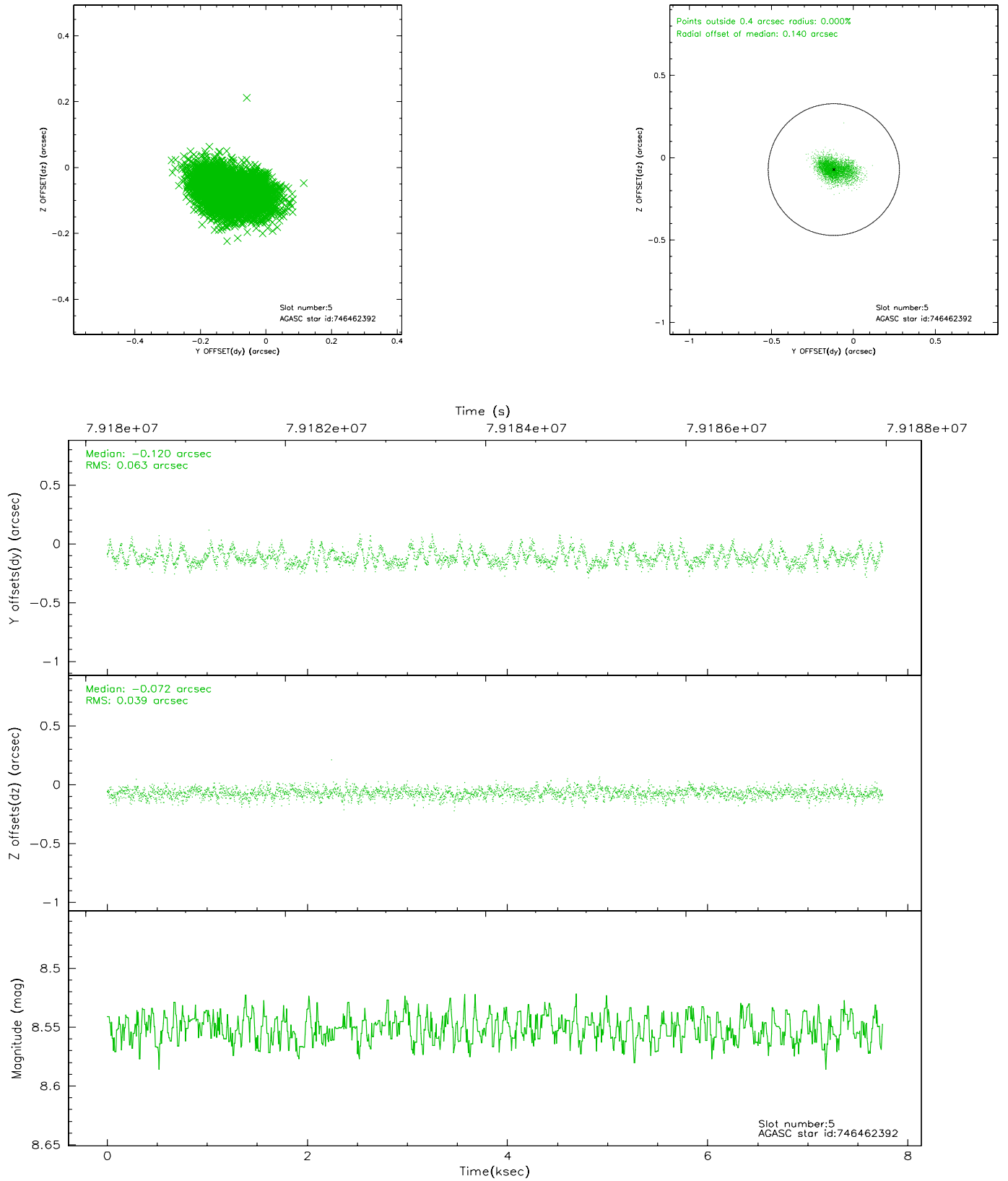
### 2.4.1 Slot 3



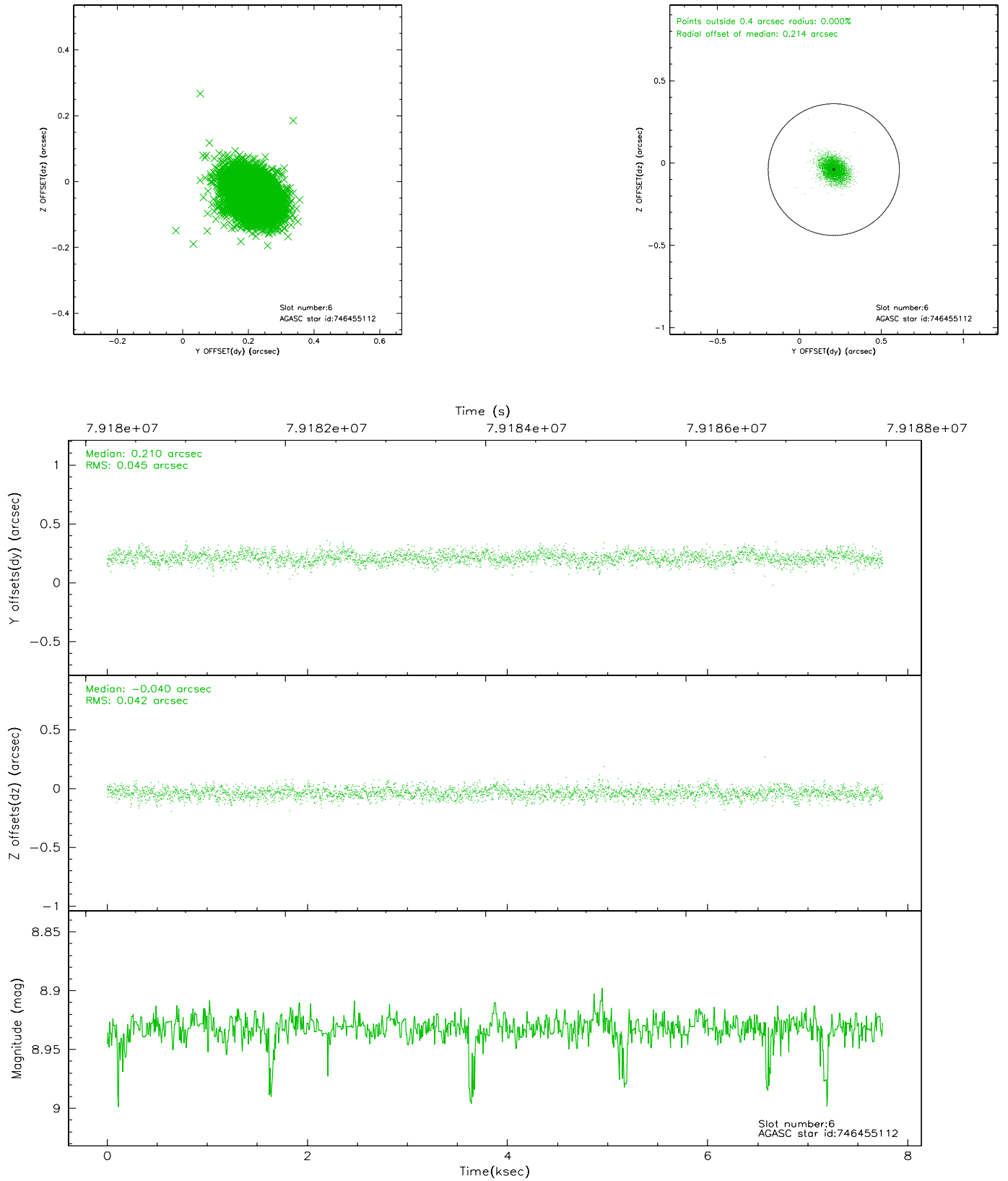
## 2.4.2 Slot 4



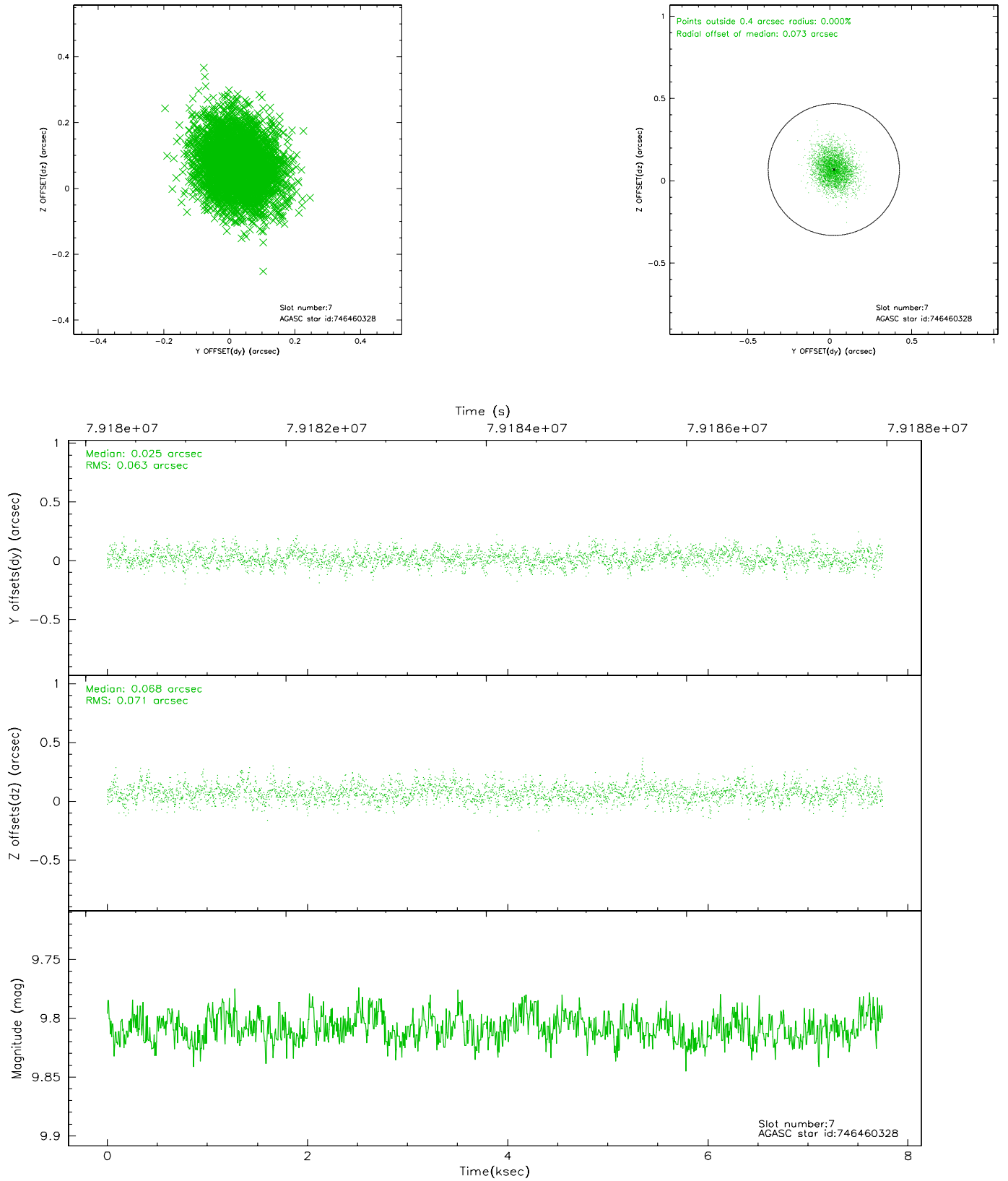
### 2.4.3 Slot 5



## 2.4.4 Slot 6

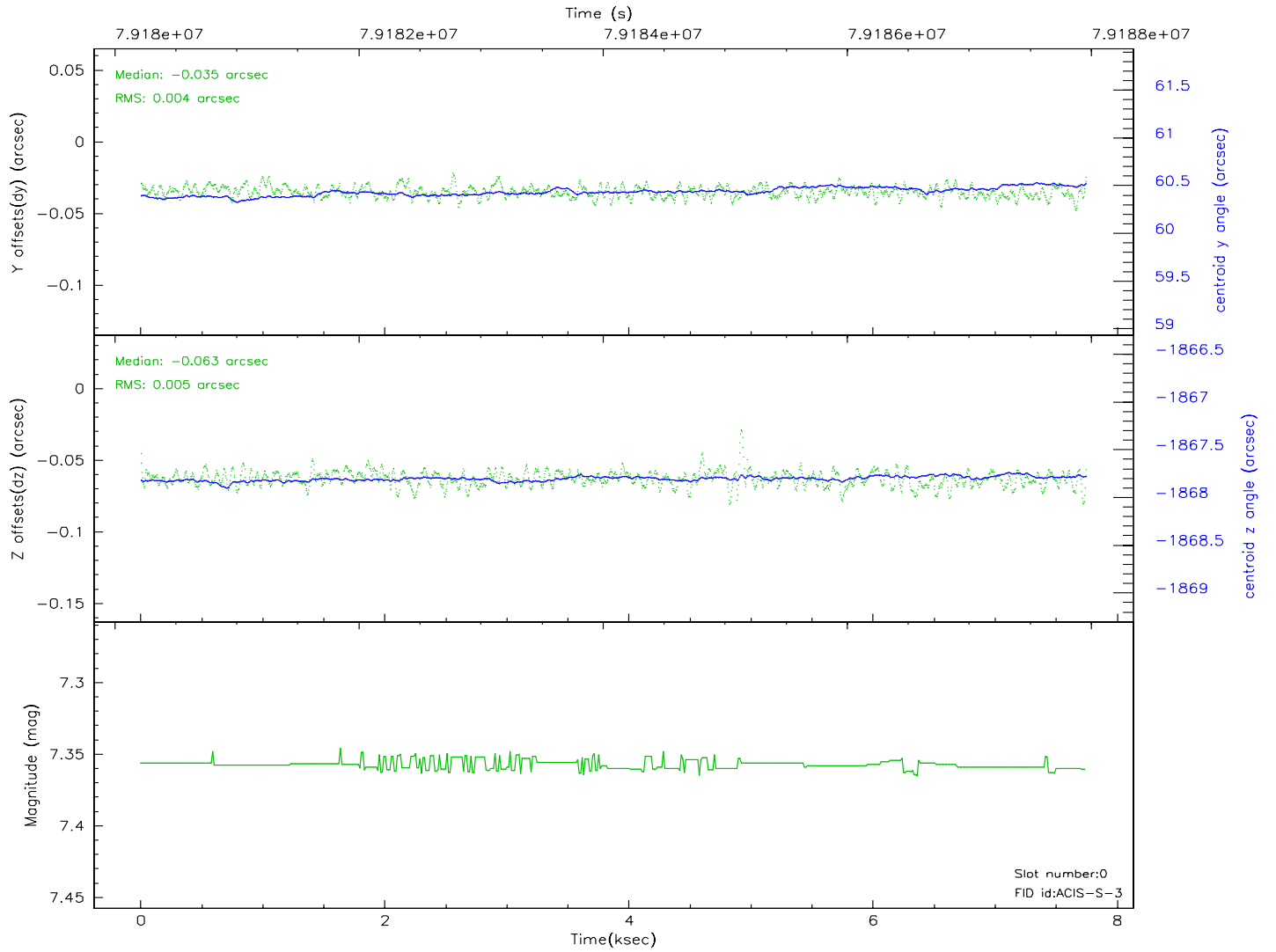
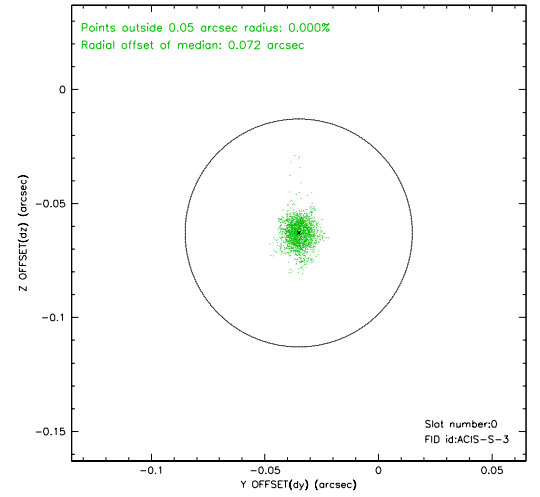
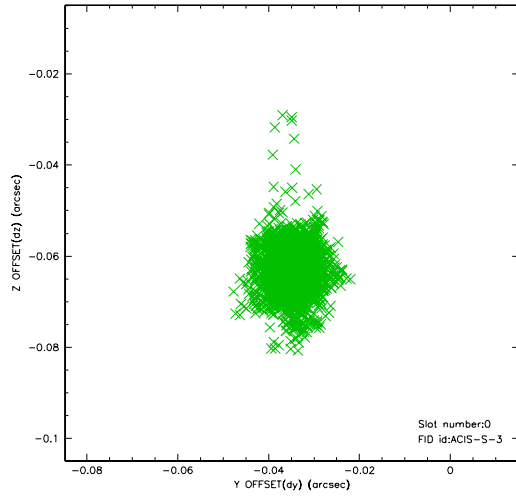


## 2.4.5 Slot 7

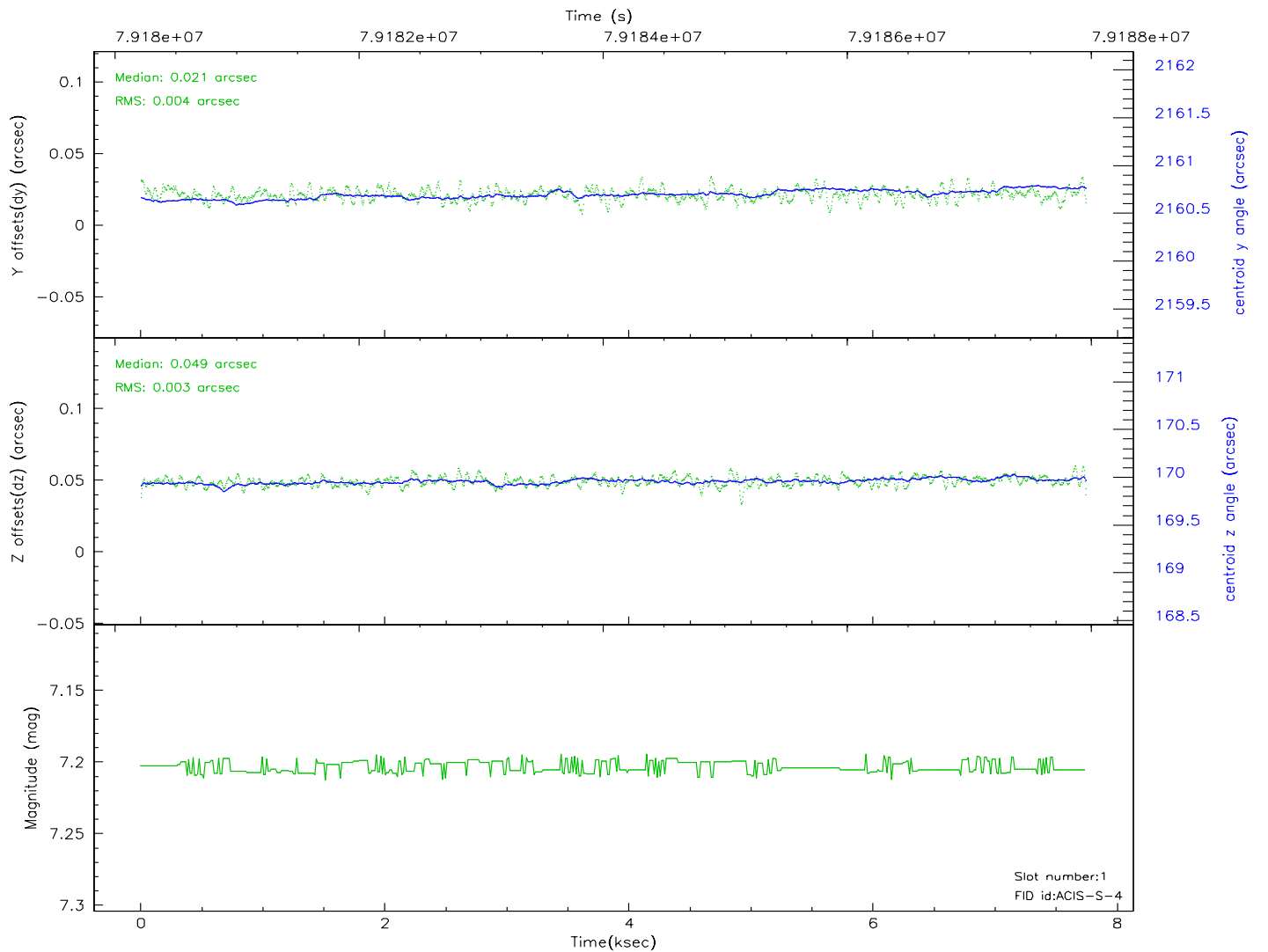
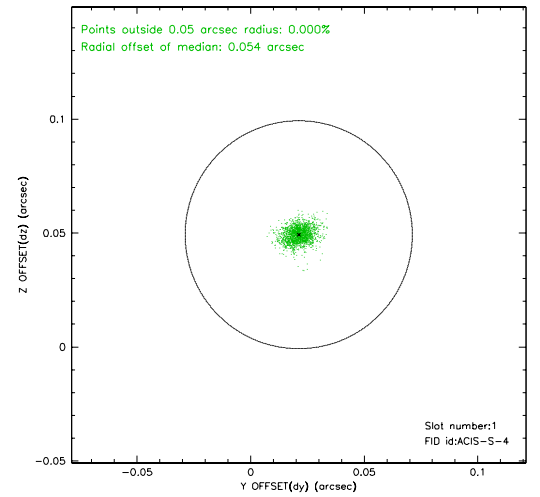
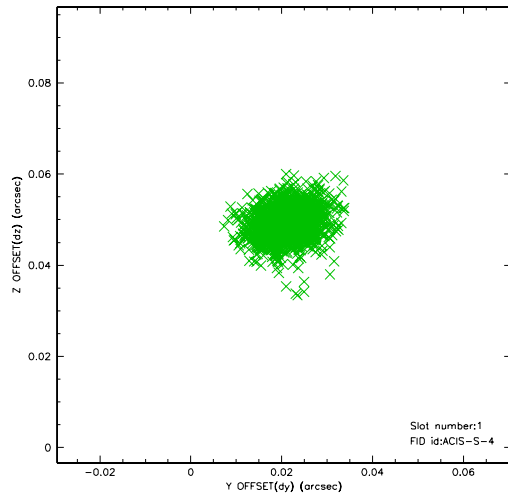


## 2.5 FID Slots

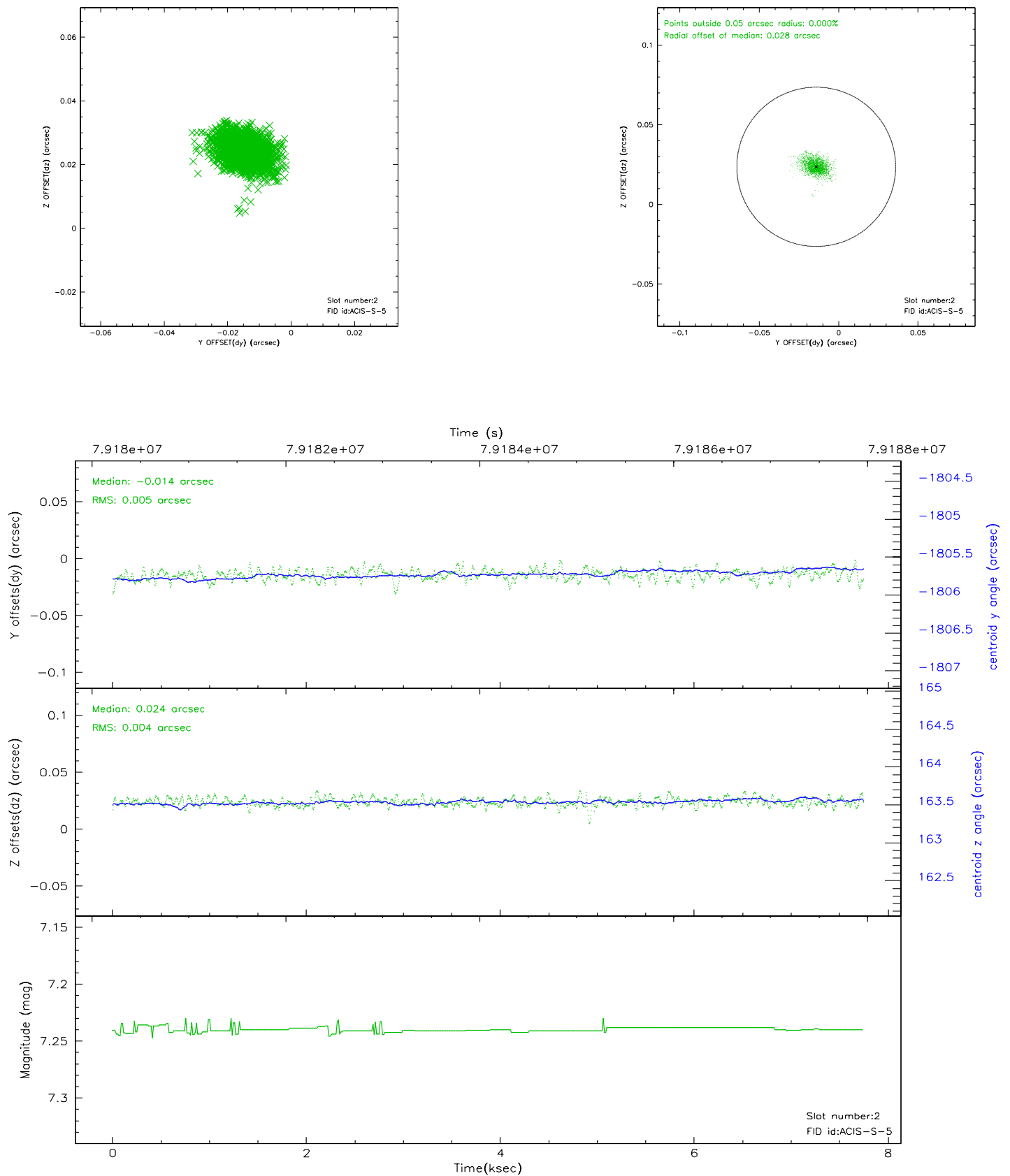
### 2.5.1 Slot 0



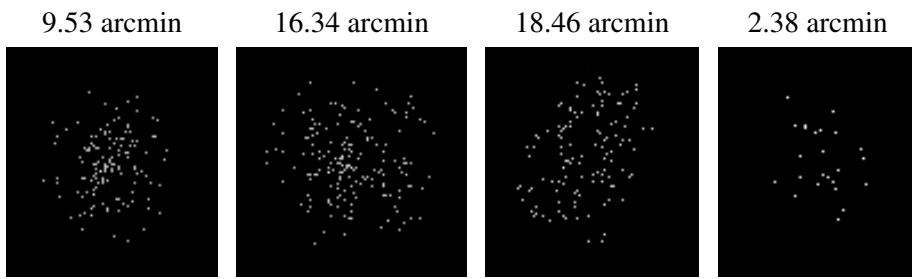
## 2.5.2 Slot 1



### 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.