

# V&V Reference Report

## L2 ASCDS Version : 7.6.10

Observation 1775 - L2 Version 4  
Chandra X-Ray Center

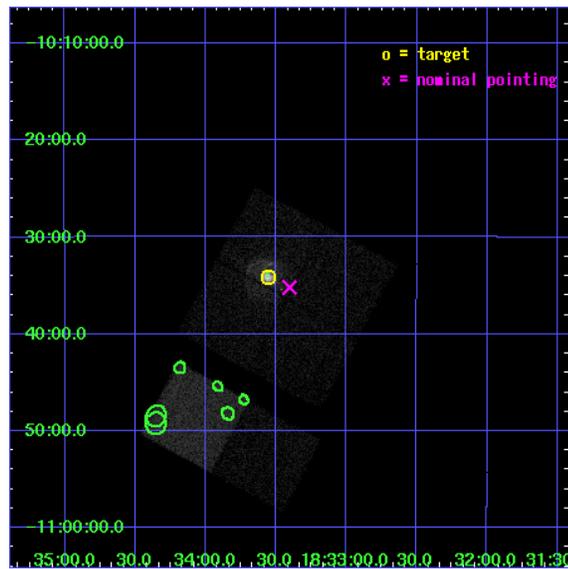
L2 Processing Date : Nov 18 2008

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>3</b>	<b>Point Sources</b>	<b>17</b>
<b>A</b>	<b>Summary</b>	<b>18</b>
A.1	Status . . . . .	18
A.2	Comments . . . . .	18

# 1 Front

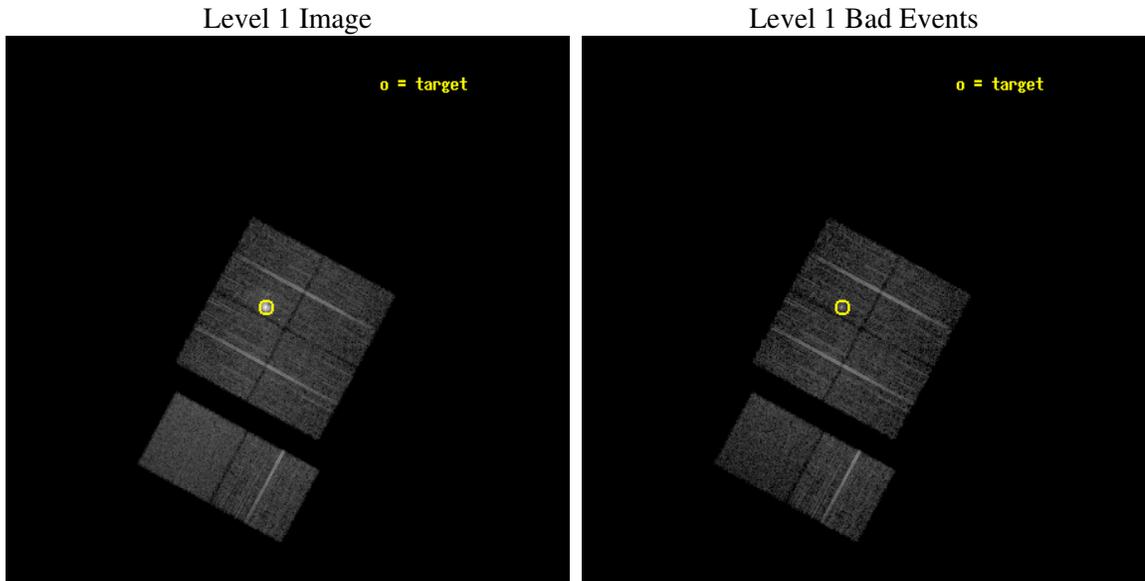
seq_num	590201
obs_id	1775
title	HRC RESPONSE TO CONTINUUM SOURCE.
observer	Dr. CXC Calibration
object	G21.5-0.9 [Chip I1, T=110, Offsets=-2,0,-1]
dtcycle	0
cycle	P
ra_targ	278.389583
dec_targ	-10.568528
ra_nom	278.35090342396
dec_nom	-10.586719662612
roll_nom	208.35155611721
revision	4
ontime	7318.4000068158
livetime	7225.7300193181
ontime0	7318.4000068158
ontime1	7318.4000068158
ontime2	7318.4000068158
ontime3	7318.4000068158
ontime6	7318.4000068158
ontime7	7318.4000068158
l2events	67832



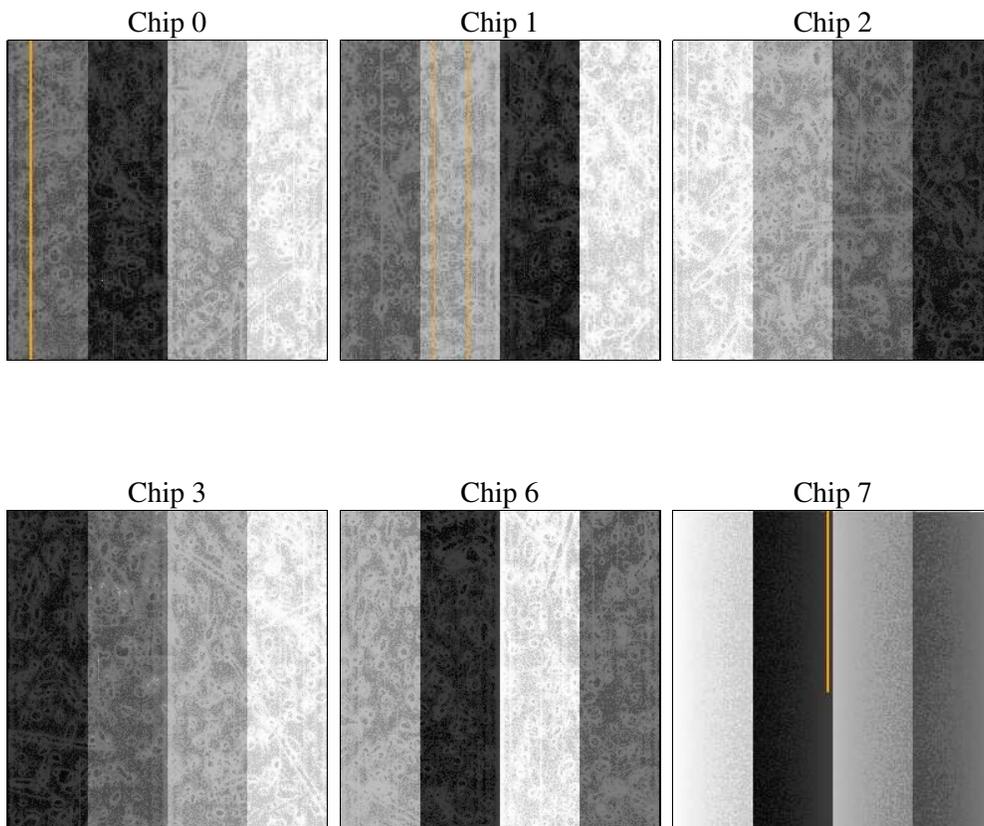
## 2 OBI

### 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	2008-11-18T23:21:48
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	332328

### 2.1.4 Events

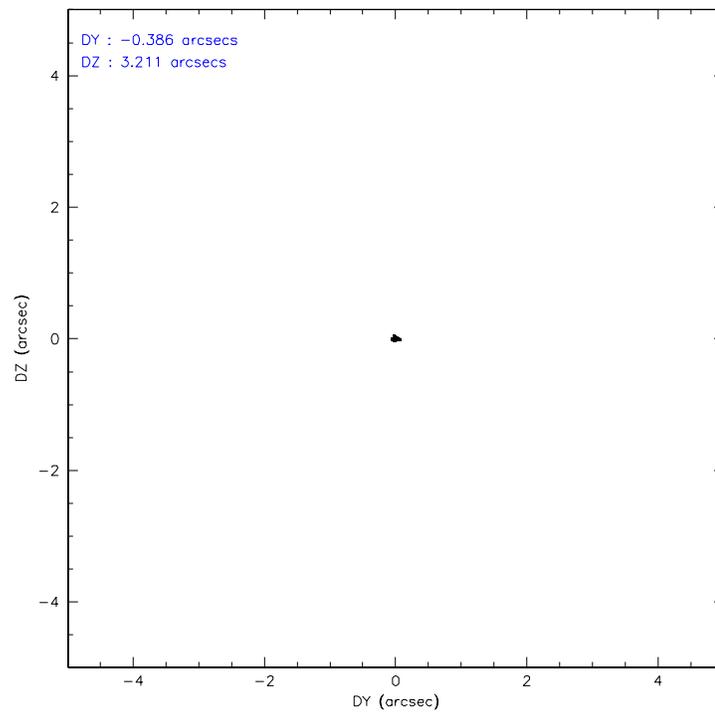
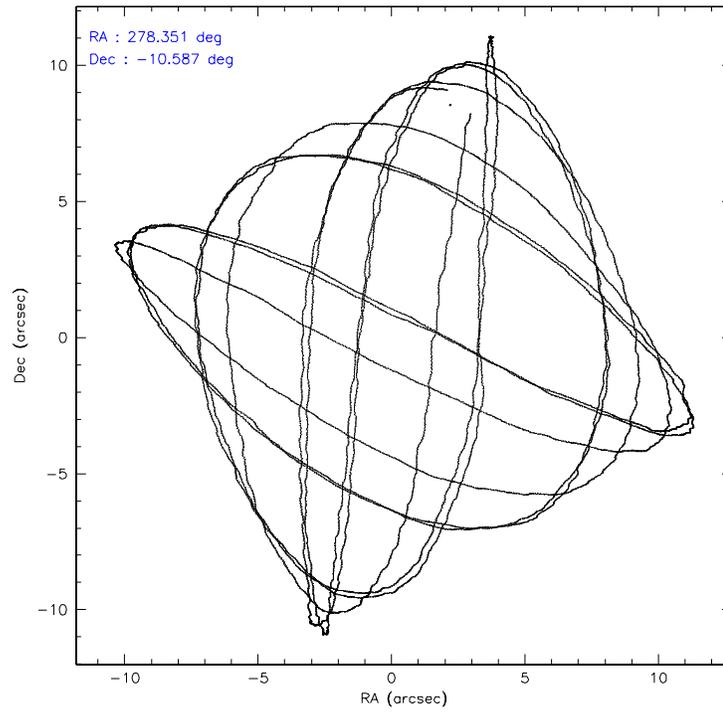
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	46610	69448	51980	53450	54497	56343
rejected events	40959	42358	46881	46888	49165	35126
rejected %	87%	60%	90%	87%	90%	62%

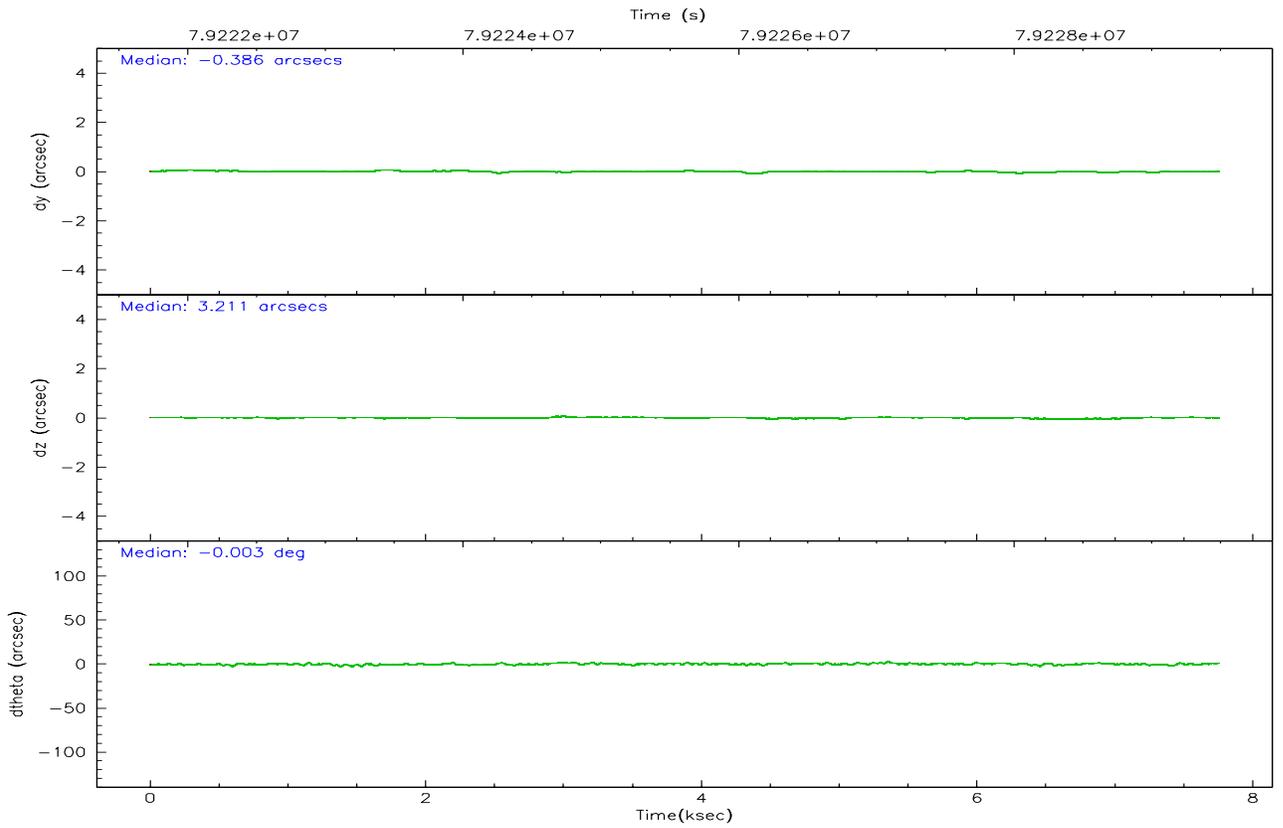
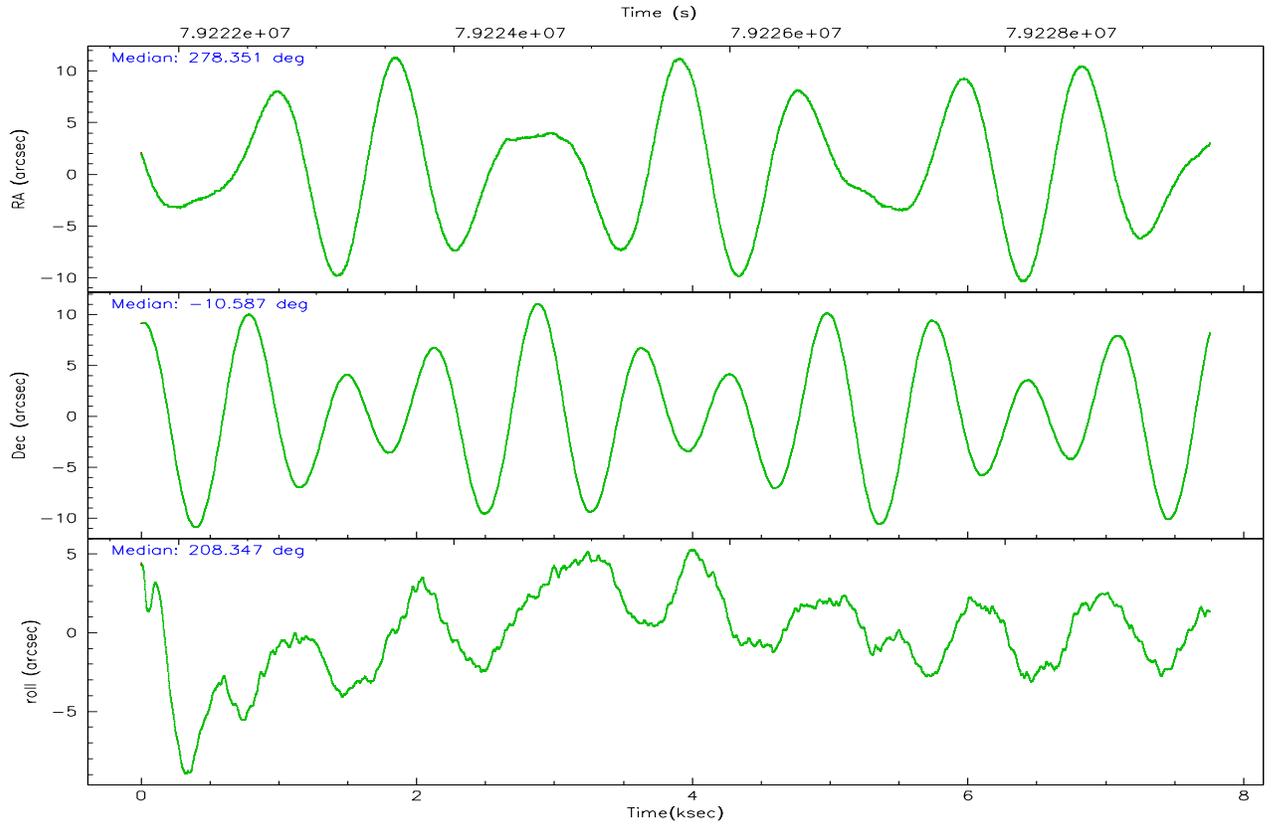
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	1479	11070	1143	1848	1060	1186
	3%	15%	2%	3%	1%	2%
grade 1 events	15	92	10	14	16	34
	0%	0%	0%	0%	0%	0%
grade 2 events	2186	10983	2068	2576	2061	4582
	4%	15%	3%	4%	3%	8%
grade 3 events	376	957	303	358	347	1248
	0%	1%	0%	0%	0%	2%
grade 4 events	354	904	316	359	316	1183
	0%	1%	0%	0%	0%	2%
grade 5 events	998	1348	909	1049	1216	3485
	2%	1%	1%	1%	2%	6%
grade 6 events	1258	3206	1275	1427	1552	13033
	2%	4%	2%	2%	2%	23%
grade 7 events	39944	40888	45956	45819	47929	31592
	85%	58%	88%	85%	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	278.365774	278.3509034239561	Subarray requested	NONE	NONE
Pointing Dec	-10.563291	-10.58671966261191	Alternating exposures requested	N	N
Pointing Roll	208.145595	208.3515561172132	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)	-238.277263	-238.2741181829365			
SIM translation stage offset (mm)	4.6848	4.681665180006831			
Observation start time	79221926.184000	79221550.055408			
Observation start date	2000-07-05T22:04:22	2000-07-05T21:59:10			
Observation end time	79229486.184000	79229619.880706			
Observation end date	2000-07-06T00:10:22	2000-07-06T00:13:39			
Read mode	TIMED	TIMED			

## 2.3 Aspect



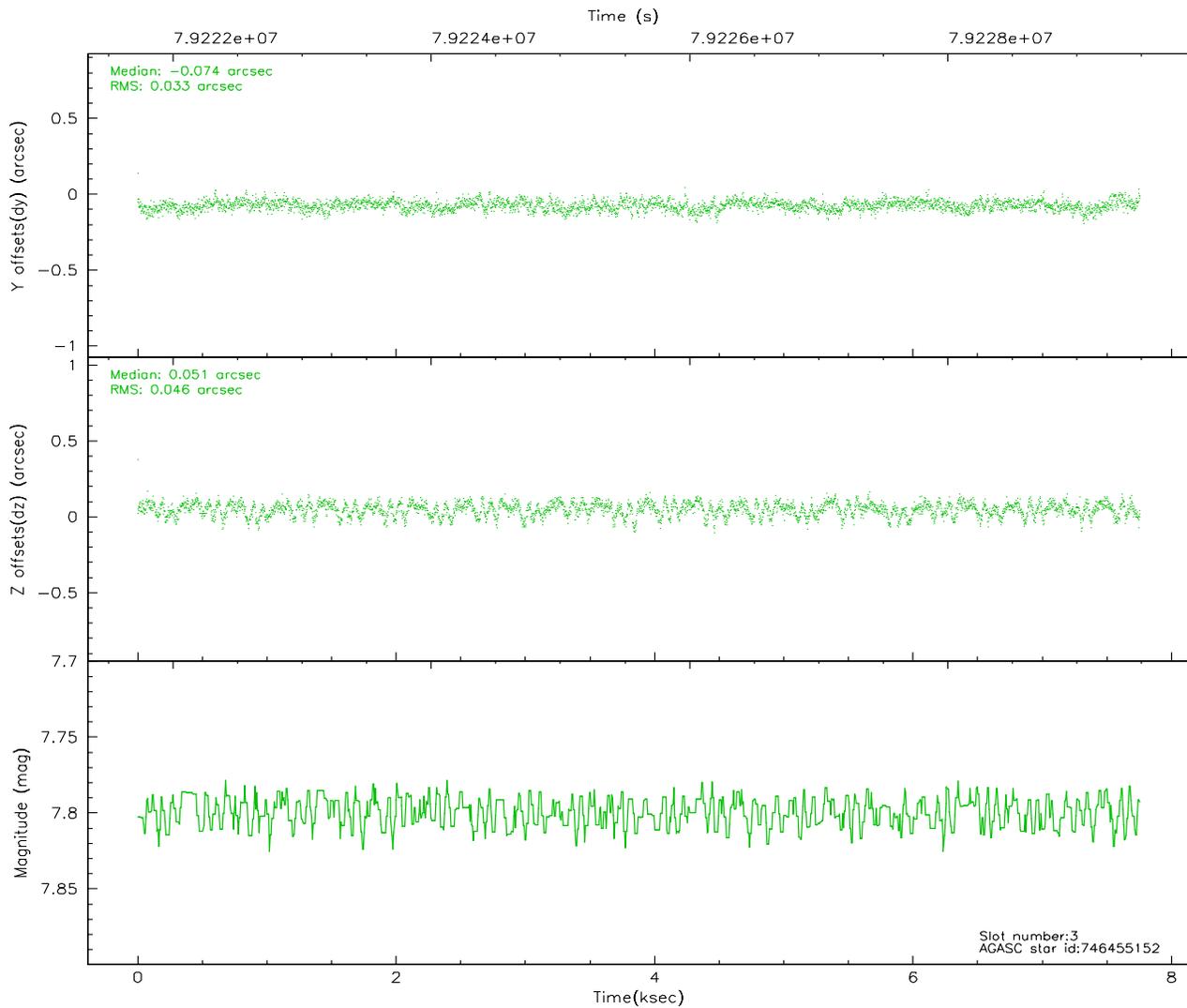
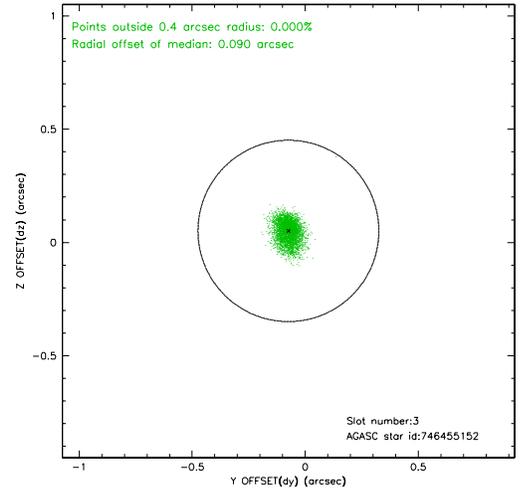
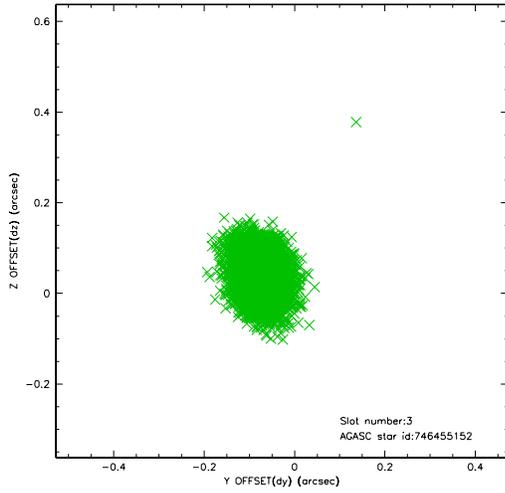


### Slot Statistics

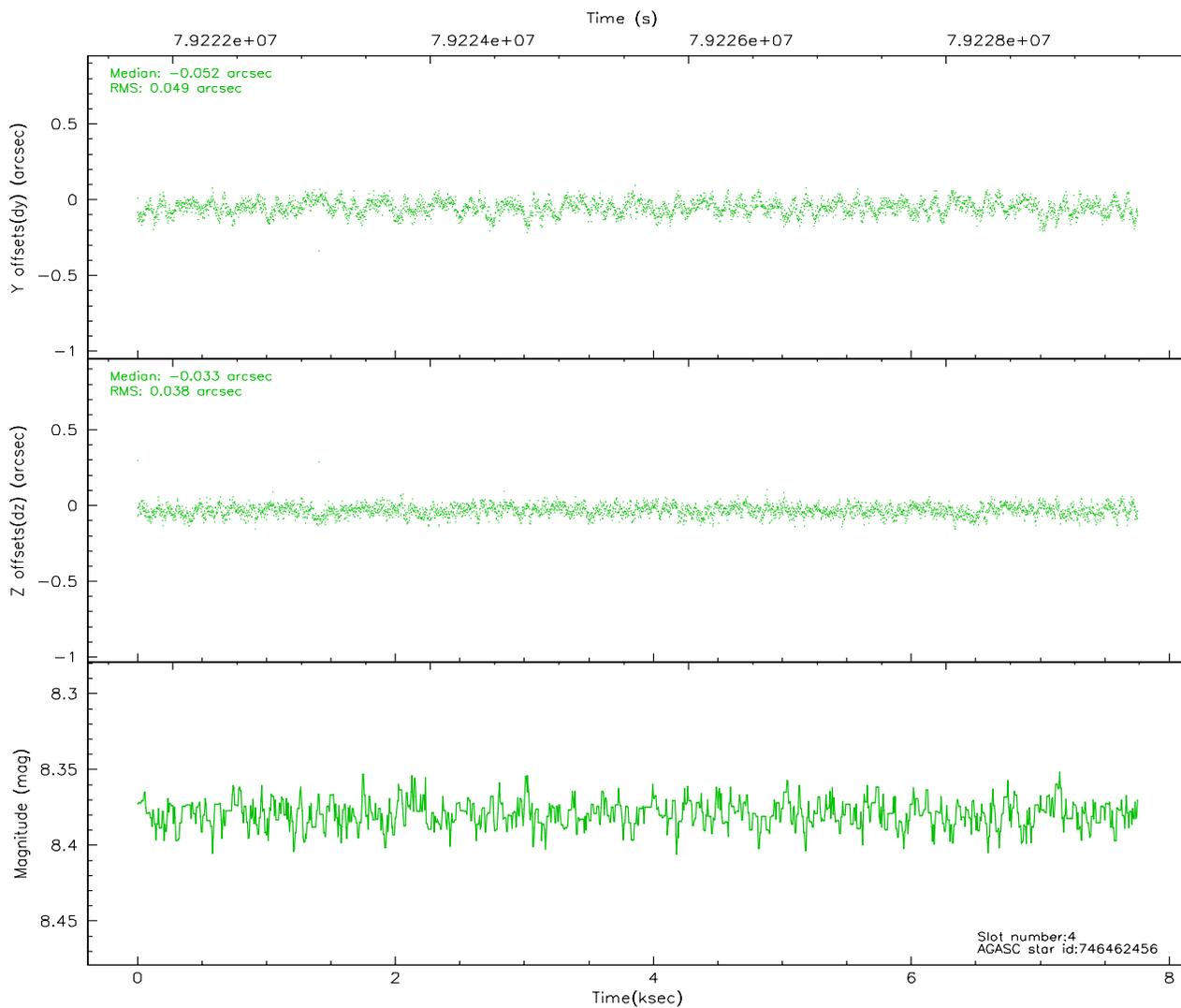
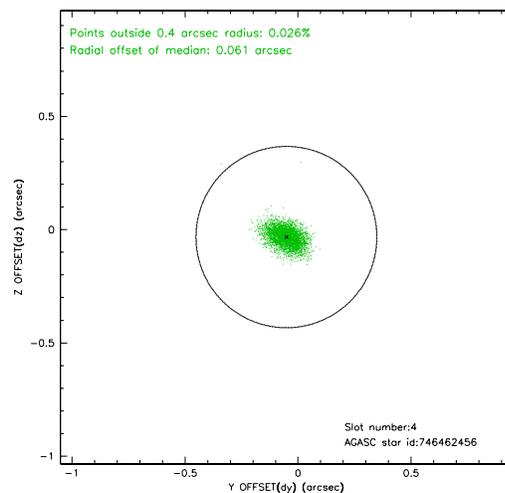
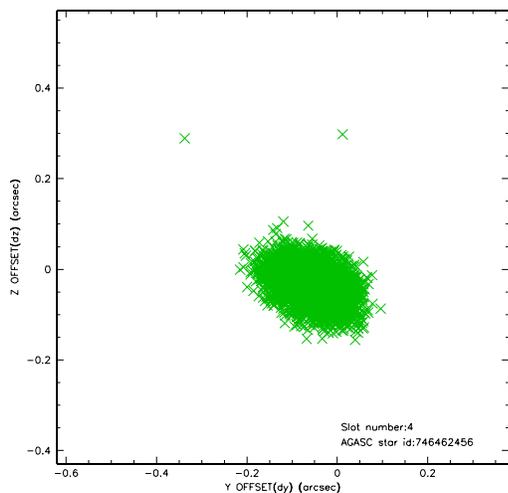
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.16	1891	-0.056	-0.045	0.012	0.022	0.000000	0.000000	-753.61	-737.27
1	FID	ACIS-I-4	7.20	1892	-0.048	0.050	0.008	0.013	0.000000	0.000000	2160.12	1168.76
2	FID	ACIS-I-5	7.23	1892	0.003	0.064	0.012	0.022	0.000000	0.000000	-1806.71	1167.98
3	GUIDE	746455152	7.80	3783	-0.074	0.051	0.060	0.098	278.447893	-9.976732	-1252.76	-1723.91
4	GUIDE	746462456	8.38	3782	-0.052	-0.033	0.065	0.106	278.652171	-10.530173	-950.23	373.66
5	GUIDE	746455112	8.93	3776	0.207	-0.105	0.070	0.116	278.266531	-10.703234	547.10	279.42
6	GUIDE	746460328	9.81	3780	0.001	0.023	0.091	0.147	278.603974	-9.898096	-1874.09	-1712.12
7	GUIDE	746995400	9.50	3780	-0.082	0.067	0.090	0.143	278.078957	-11.289885	2126.27	1829.76

## 2.4 Star Slots

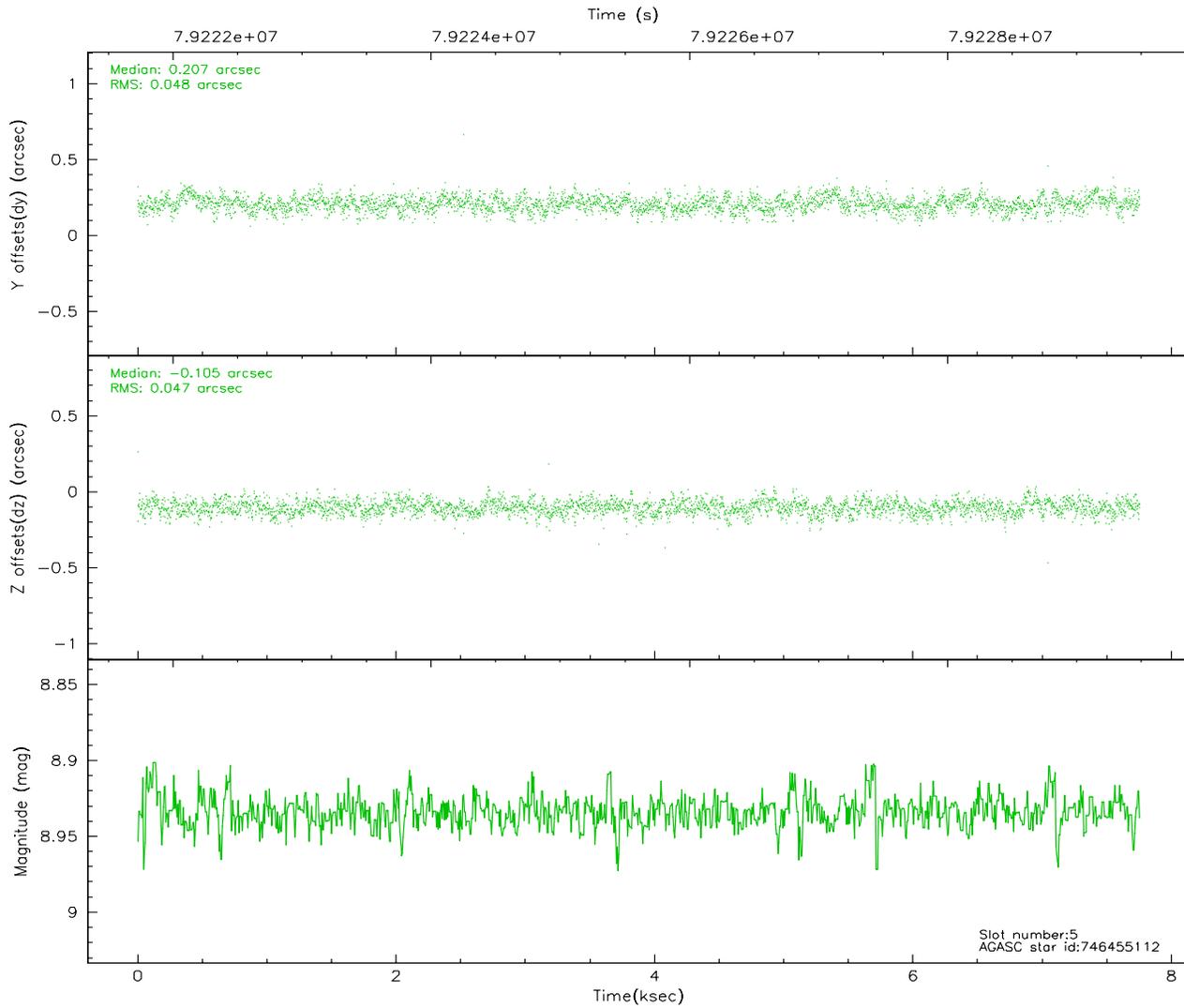
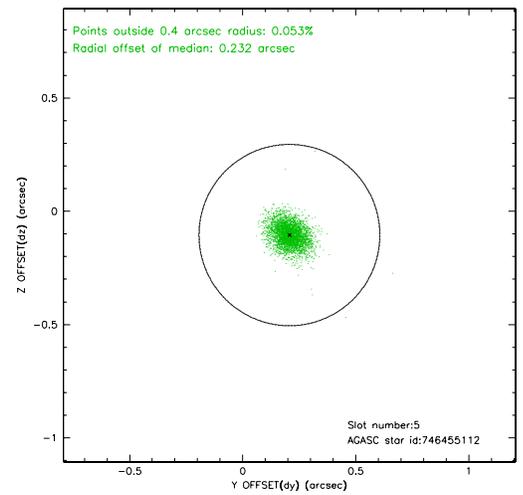
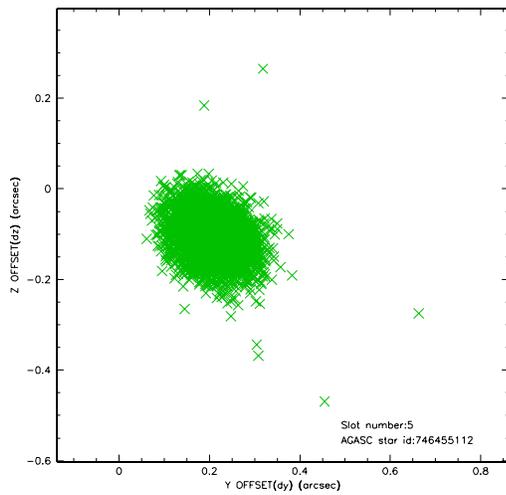
### 2.4.1 Slot 3



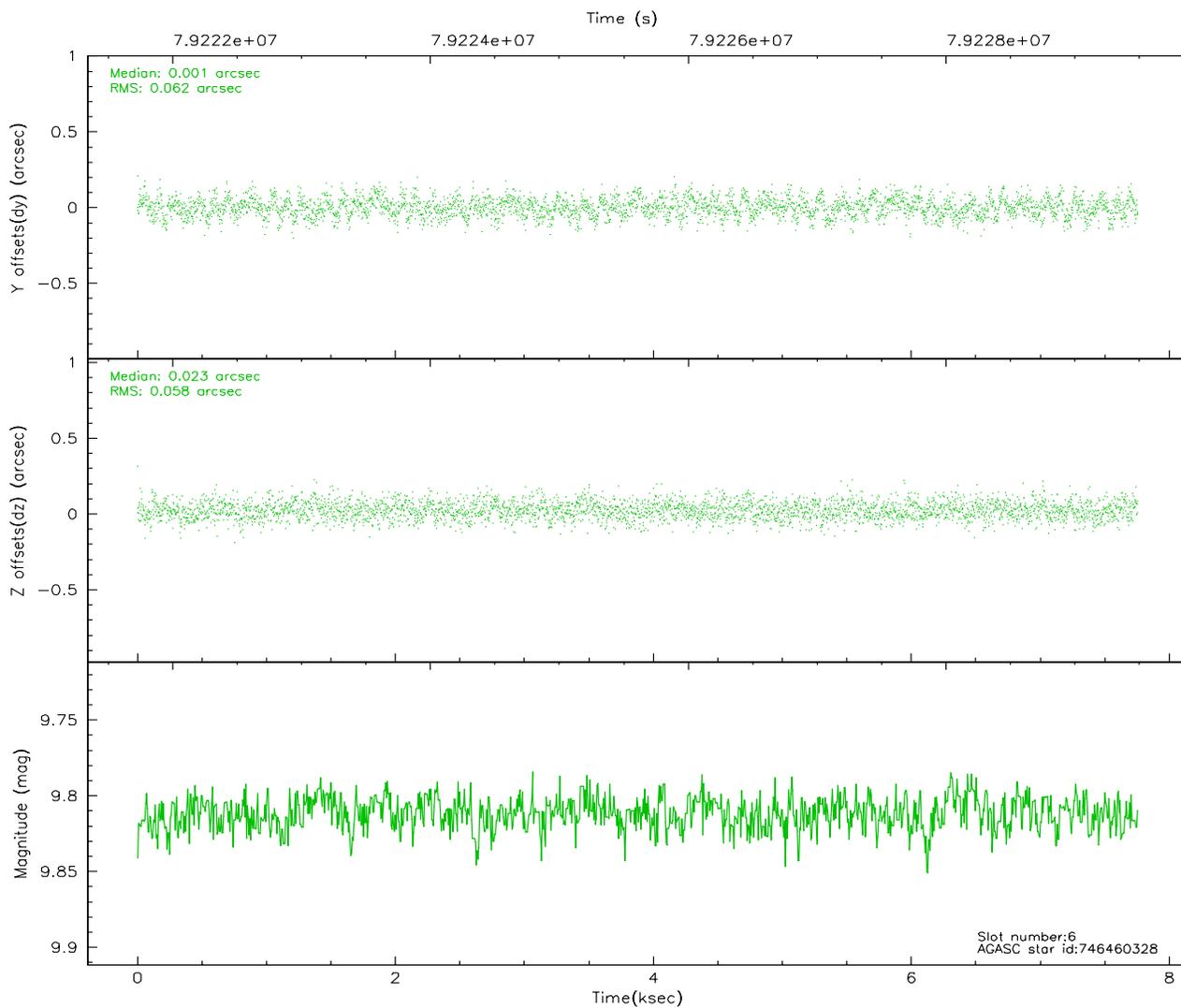
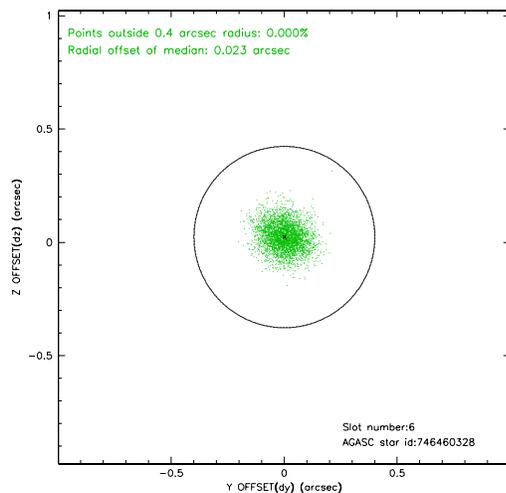
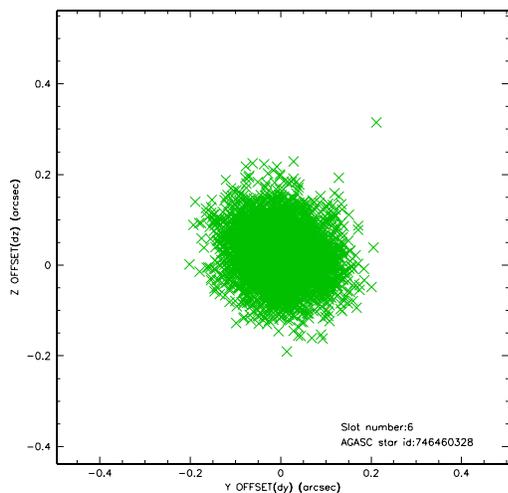
## 2.4.2 Slot 4



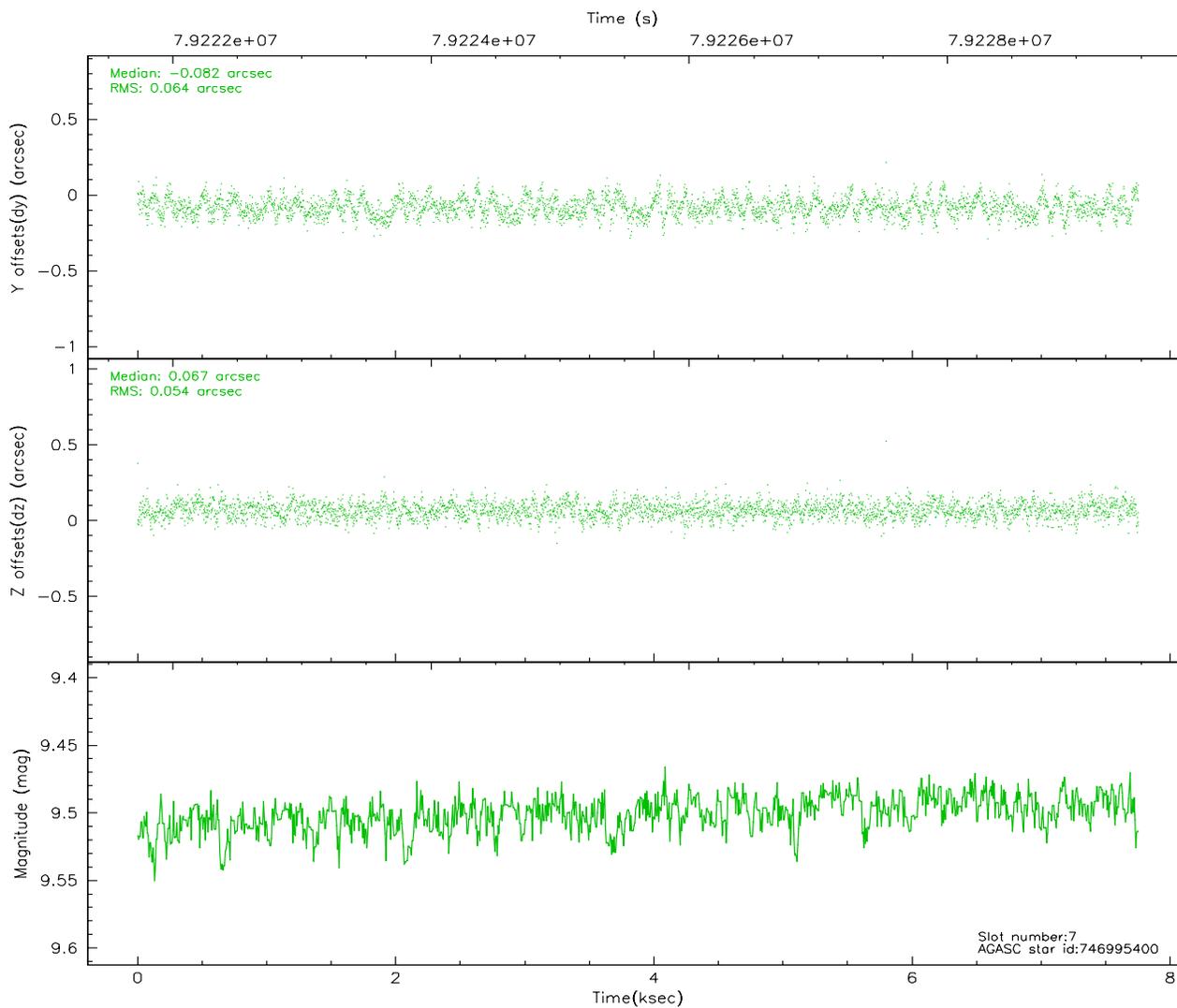
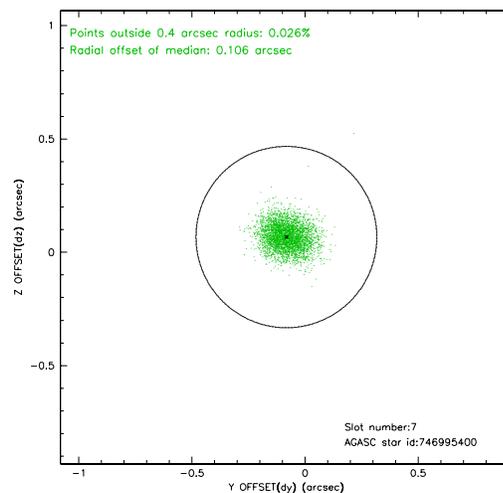
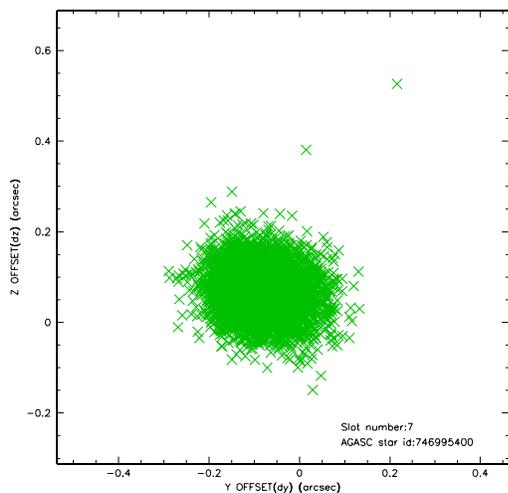
### 2.4.3 Slot 5



### 2.4.4 Slot 6

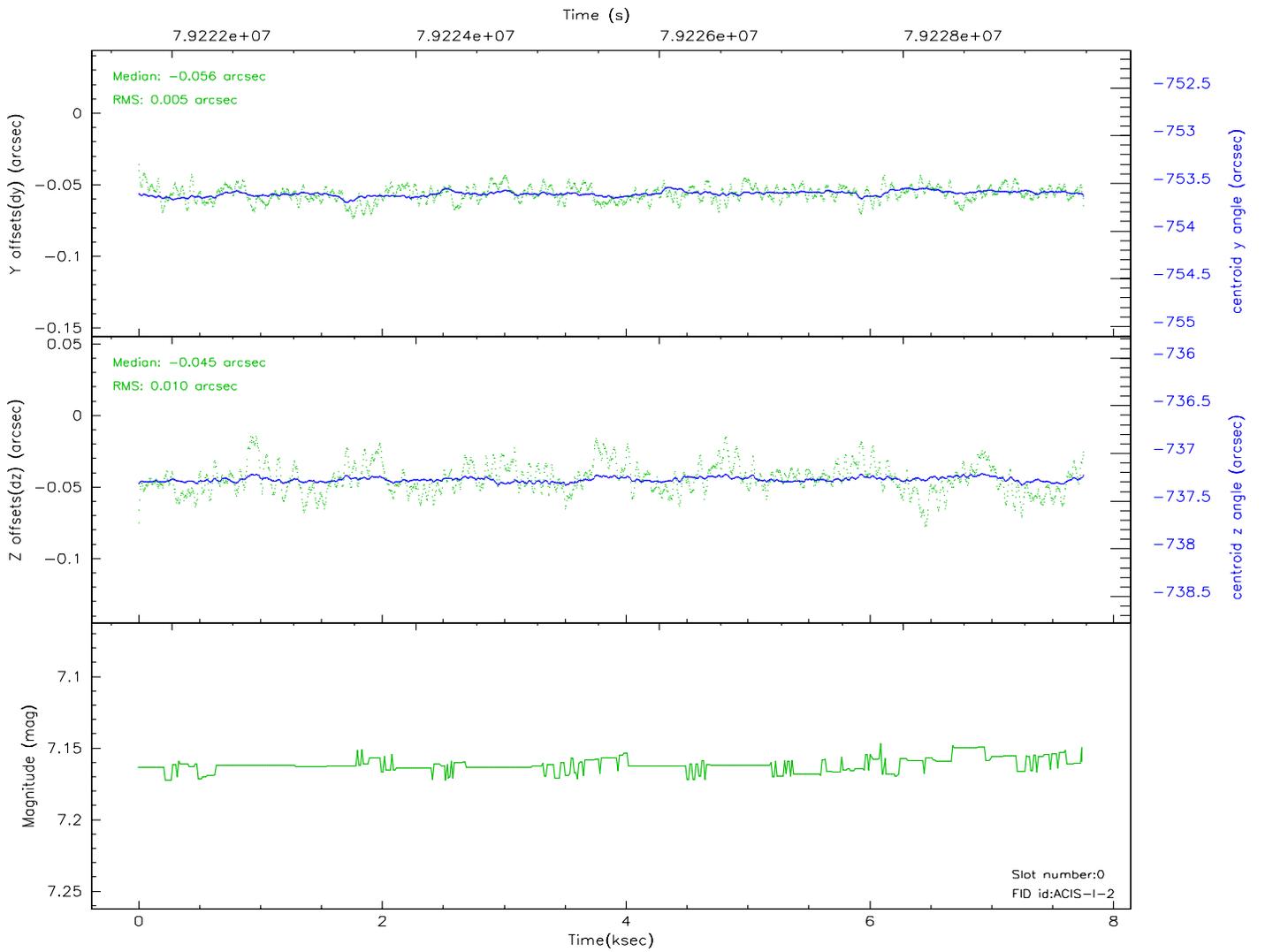
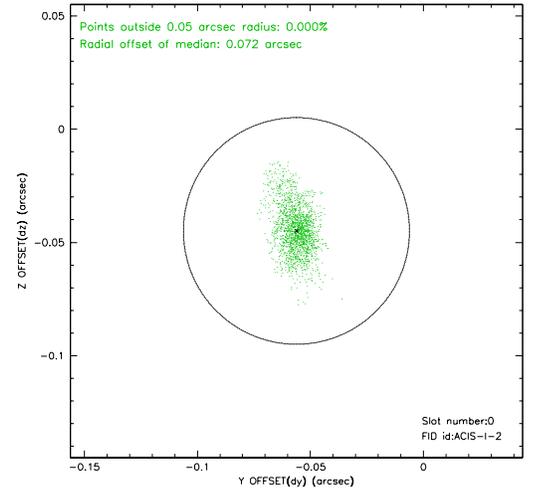
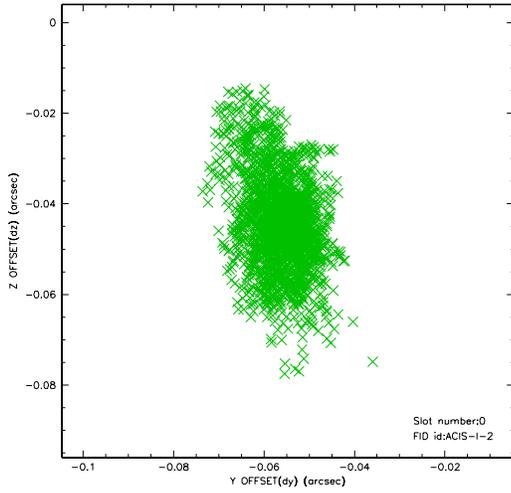


## 2.4.5 Slot 7

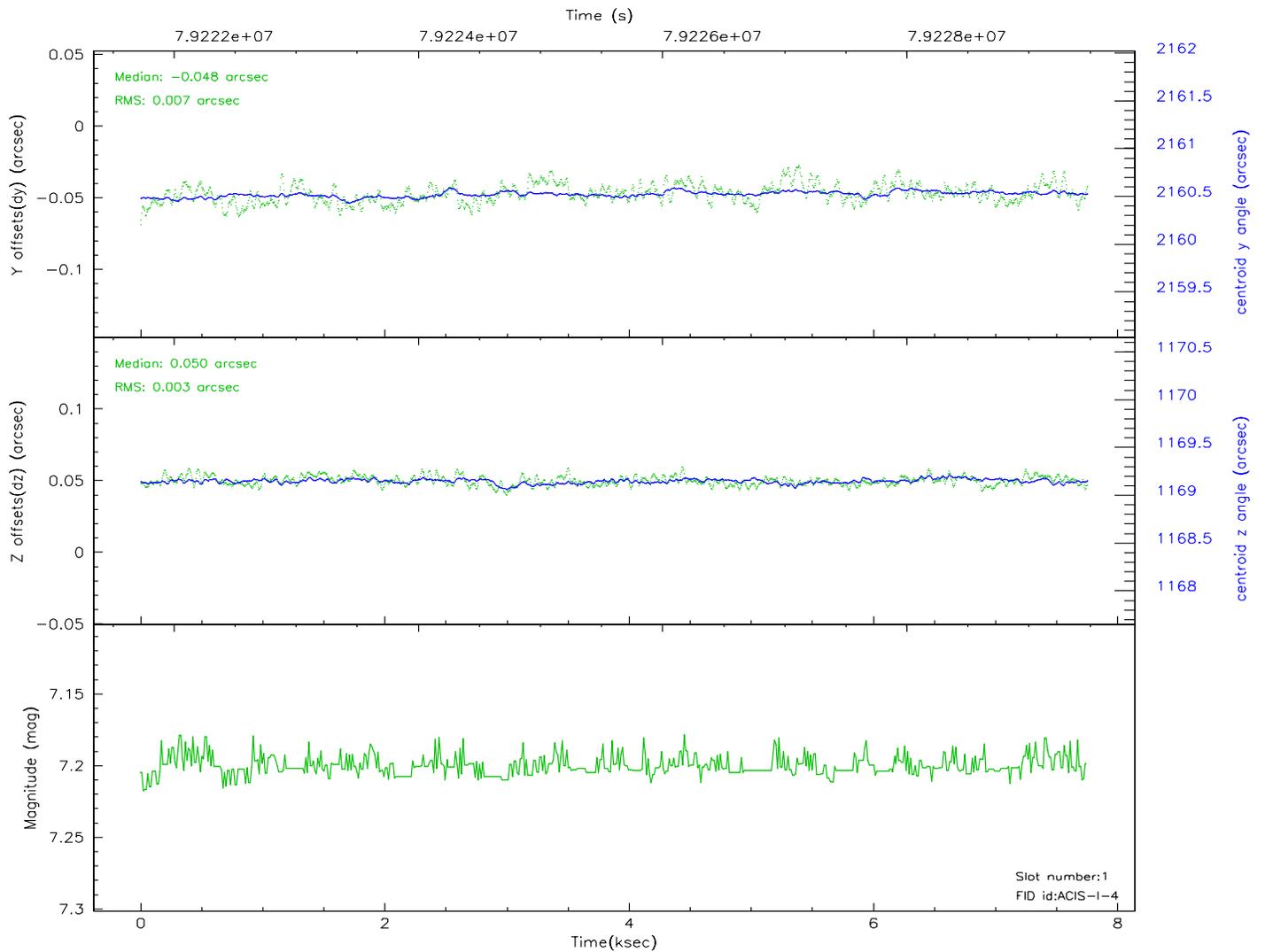
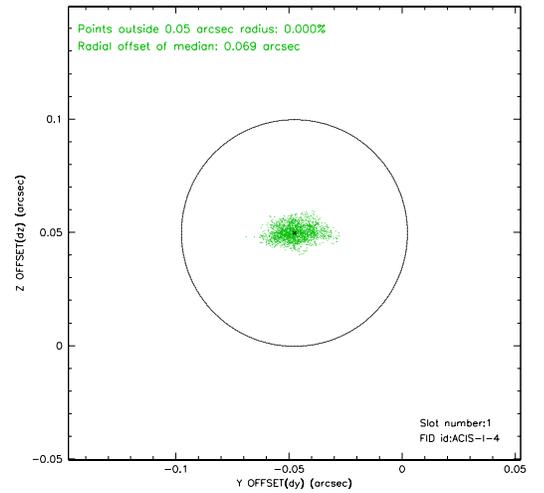
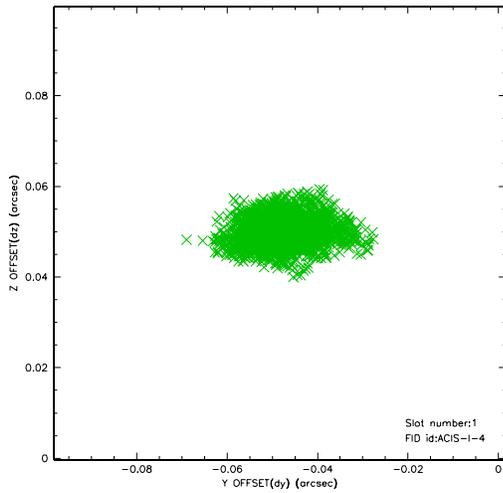


## 2.5 FID Slots

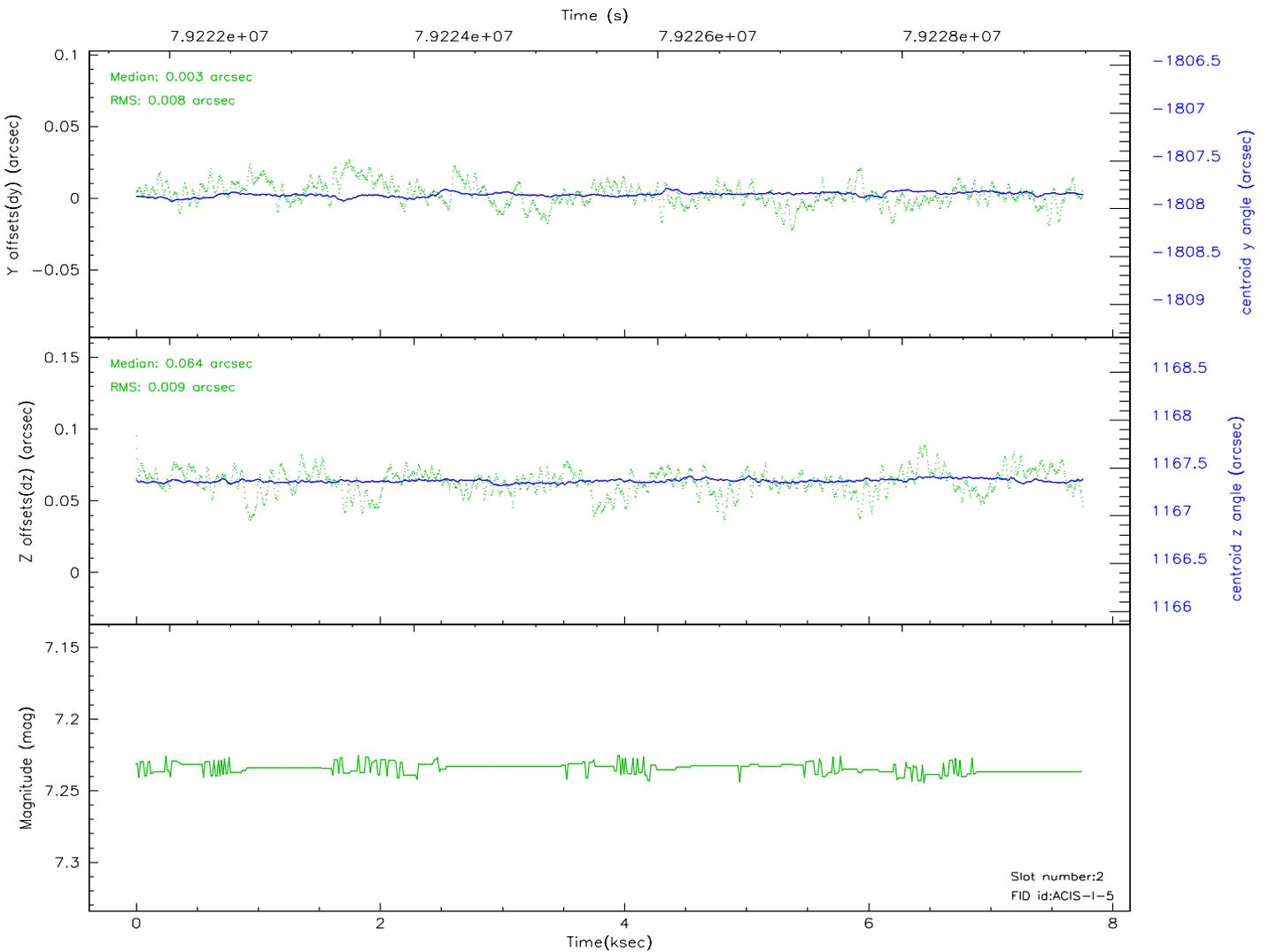
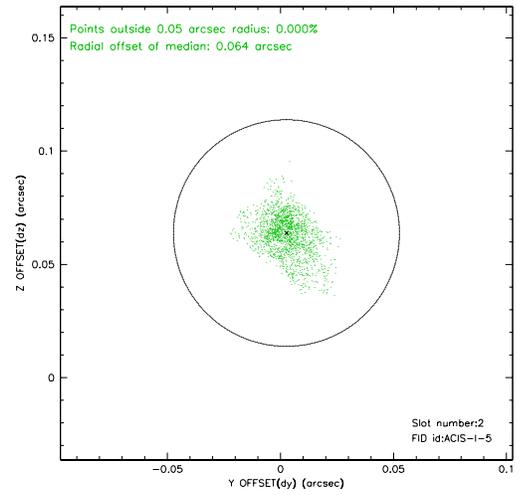
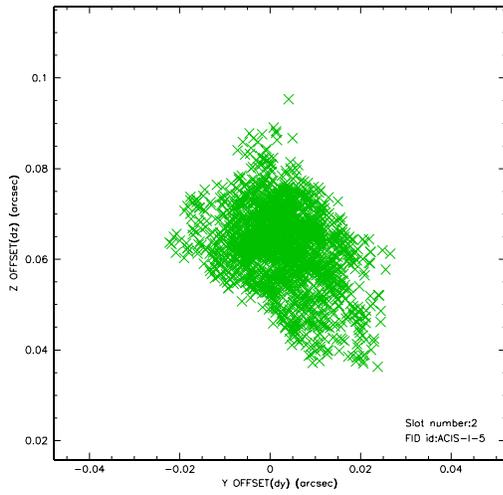
### 2.5.1 Slot 0



## 2.5.2 Slot 1

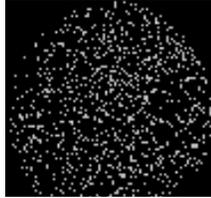


### 2.5.3 Slot 2



### 3 Point Sources

19.82 arcmin



# 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.