

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 1443 - L2 Version 4  
Chandra X-Ray Center

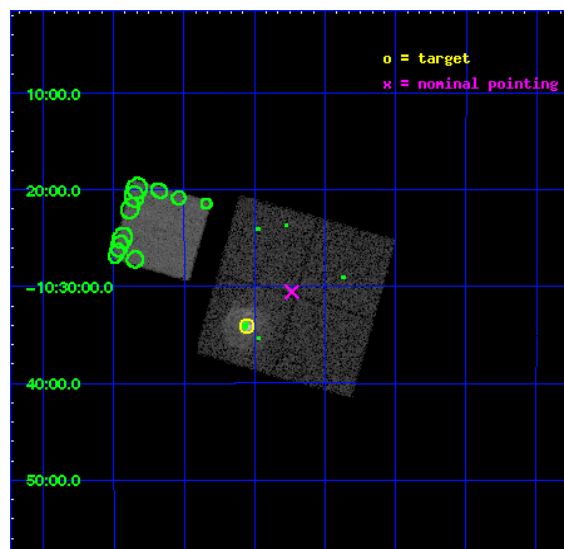
L2 Processing Date : Nov 24 2009

## 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
2.5	FID Slots . . . . .	13
2.5.1	Slot 0 . . . . .	13
2.5.2	Slot 1 . . . . .	14
2.5.3	Slot 2 . . . . .	15
<b>3</b>	<b>Point Sources</b>	<b>16</b>
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

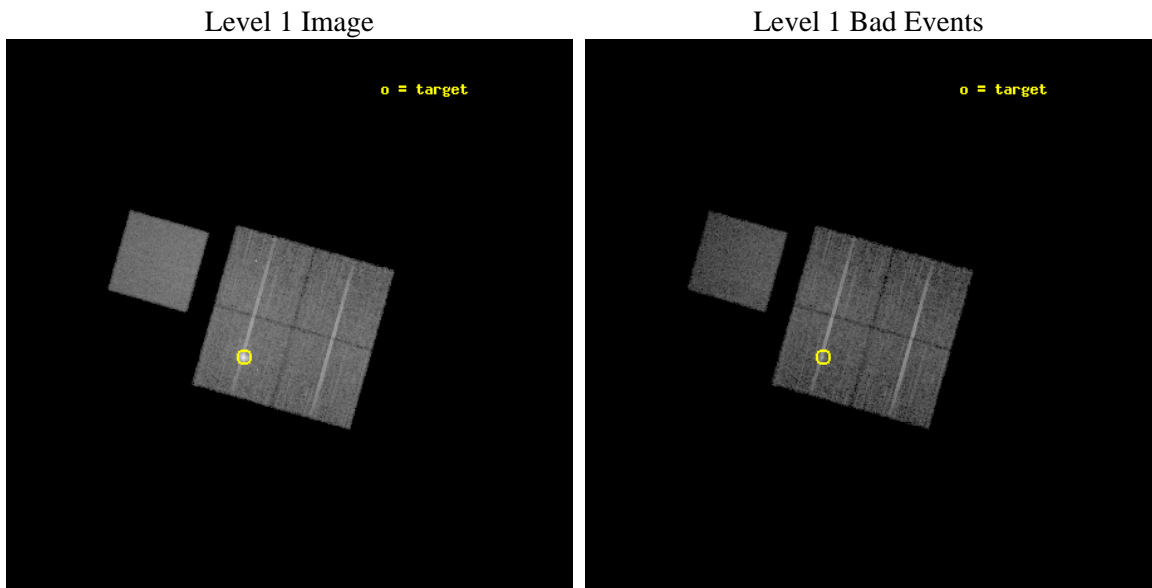
seq_num	580393	Sequence number
obs_id	1443	Observation id
title	ACIS CHIP RESPONSE TO A CONTINUUM SOURCE	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-0.9 [Chip I2, T=110, Offsets=5,3,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA
dec_targ	-10.568528	Observer's specified target Dec
ra_nom	278.3088856199	Nominal RA
dec_nom	-10.509315073947	Nominal Dec
roll_nom	285.88353350952	Nominal Roll
revision	4	Processing version of data
ontime	9776.0000091046	Sum of GTIs [s]
livetime	9652.2104105888	Livetime [s]
ontime0	9776.0000091046	Sum of GTIs [s]
ontime1	9776.0000091046	Sum of GTIs [s]
ontime2	9776.0000091046	Sum of GTIs [s]
ontime3	9776.0000091046	Sum of GTIs [s]
ontime7	9776.0000091046	Sum of GTIs [s]
l2events	92426	Number of level 2 events



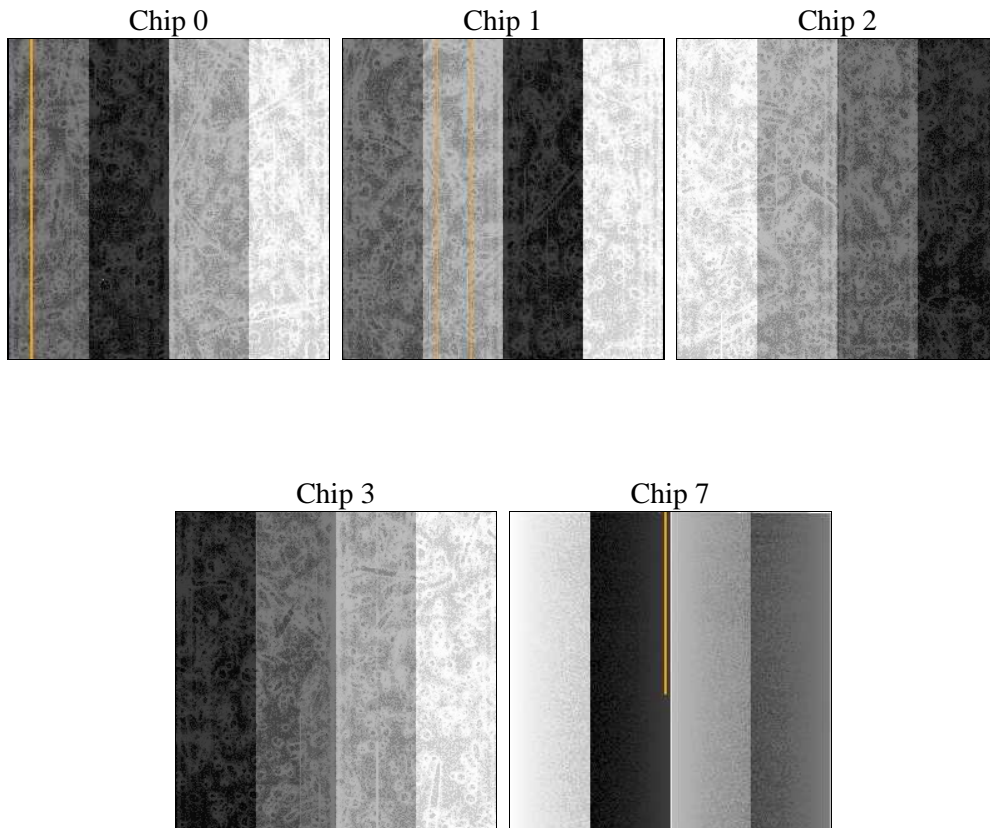
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	9776.0000091046	Sum of GTIs [s]
caldbver	4.1.4	&#160	ontime0	9776.0000091046	Sum of GTIs [s]
date	2009-11-24T10:55:33	Date and time of file creation	ontime1	9776.0000091046	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	9776.0000091046	Sum of GTIs [s]
			ontime3	9776.0000091046	Sum of GTIs [s]
			ontime7	9776.0000091046	Sum of GTIs [s]
			l1events	445461	Number of level 1 events

### 2.1.4 Events

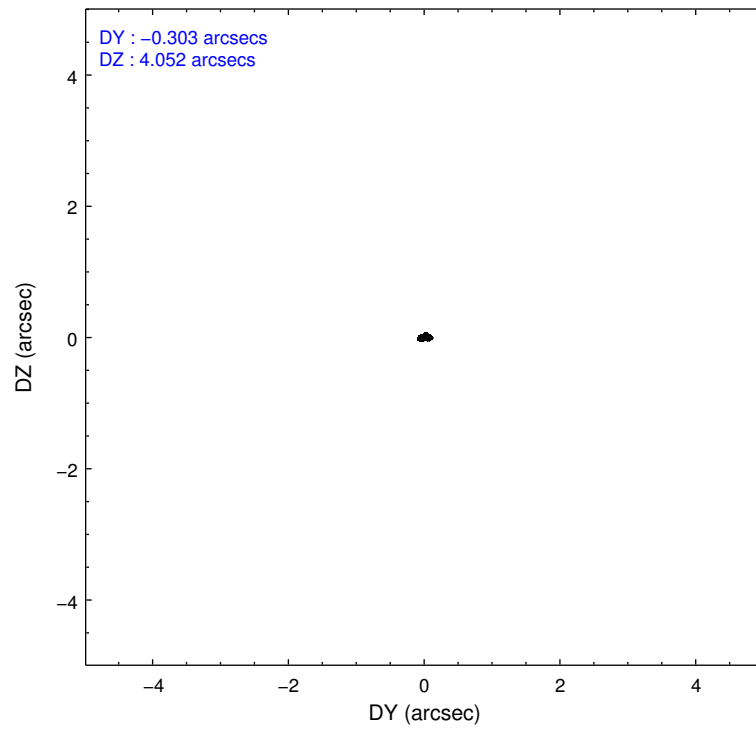
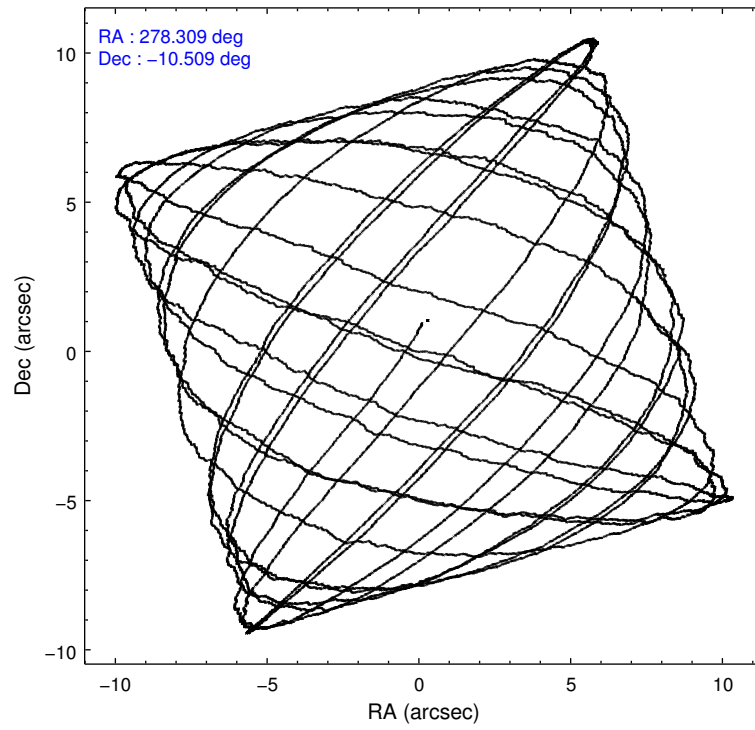
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	79478	77017	111665	87786	89515
rejected events	70574	67915	76090	78281	55197
rejected %	88%	88%	68%	89%	61%

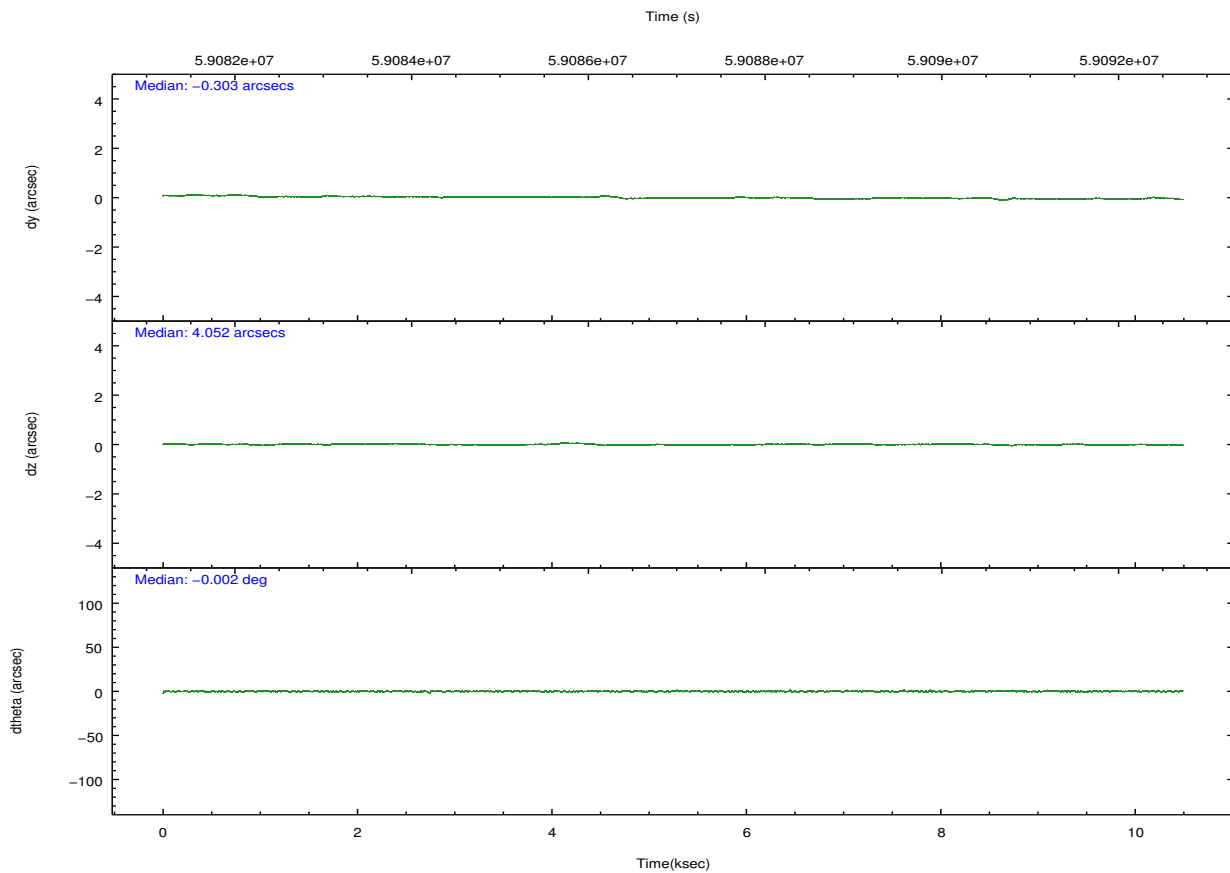
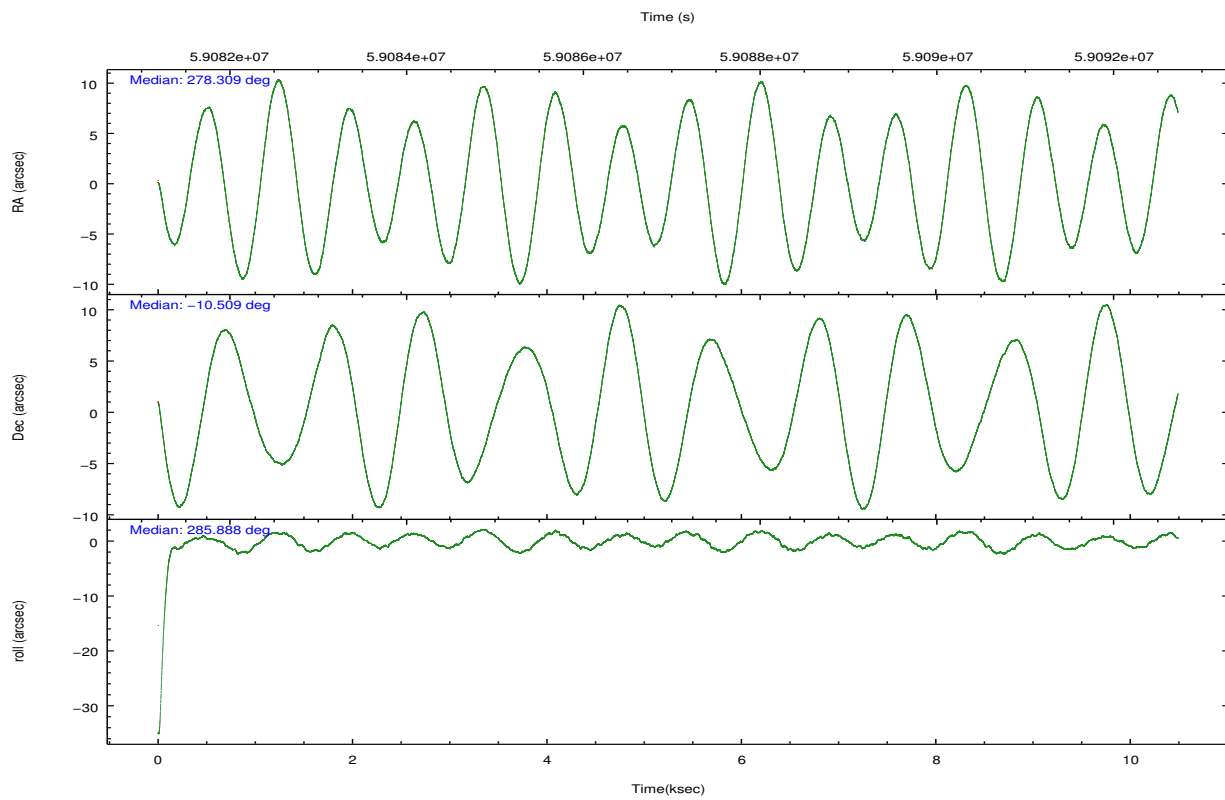
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	2421	2319	14019	2795	2217
	3%	3%	12%	3%	2%
grade 1 events	20	21	108	18	35
	0%	0%	0%	0%	0%
grade 2 events	3269	3365	15427	3575	7272
	4%	4%	13%	4%	8%
grade 3 events	633	662	1143	538	1998
	0%	0%	1%	0%	2%
grade 4 events	587	643	1133	566	1771
	0%	0%	1%	0%	1%
grade 5 events	1621	1782	1677	1565	5171
	2%	2%	1%	1%	5%
grade 6 events	1998	2122	3874	2039	21092
	2%	2%	3%	2%	23%
grade 7 events	68929	66103	74284	76690	49959
	86%	85%	66%	87%	55%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-01237	ACIS-01237	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	278.288900	278.3088856199018	Subarray requested	NONE	NONE
Pointing Dec	-10.489682	-10.50931507394673	Alternating exposures requested	N	N
Pointing Roll	285.671246	285.8835335095158	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)	-233.592463	-233.5874344608287			
SIM translation stage offset (mm)	0	-0.005018542100998502			
Observation start time	59082202.184000	59081536.440993			
Observation start date	1999-11-15T19:42:18	1999-11-15T19:32:16			
Observation end time	59092202.184000	59092341.991383			
Observation end date	1999-11-15T22:28:58	1999-11-15T22:32:21			
Read mode	TIMED	TIMED			

## 2.3 Aspect



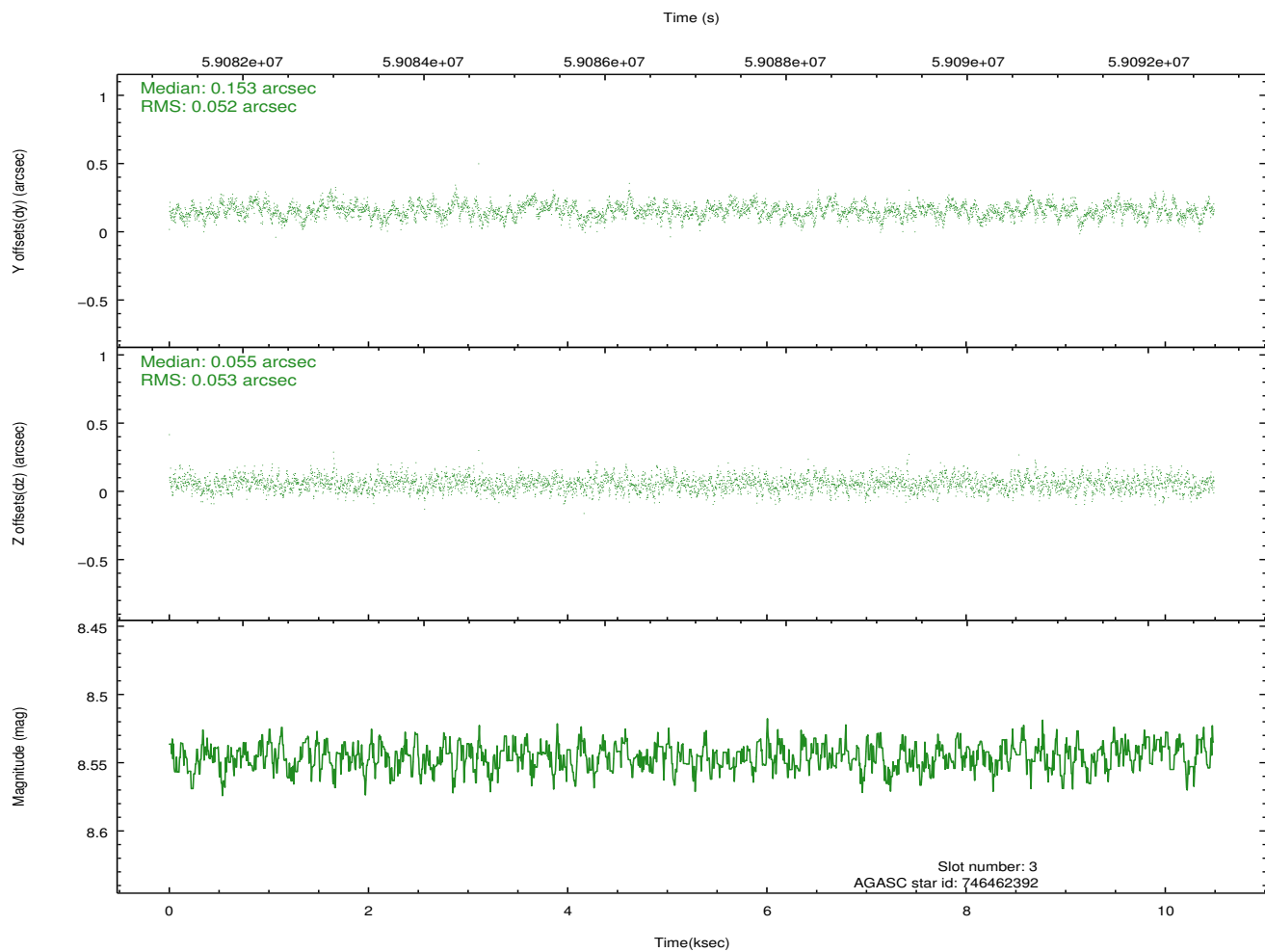
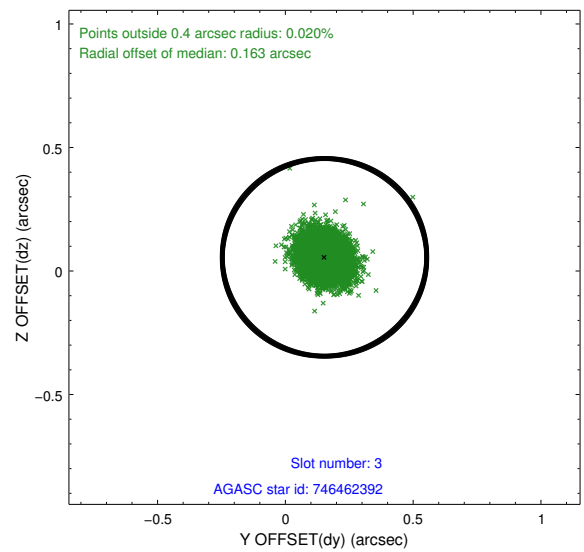
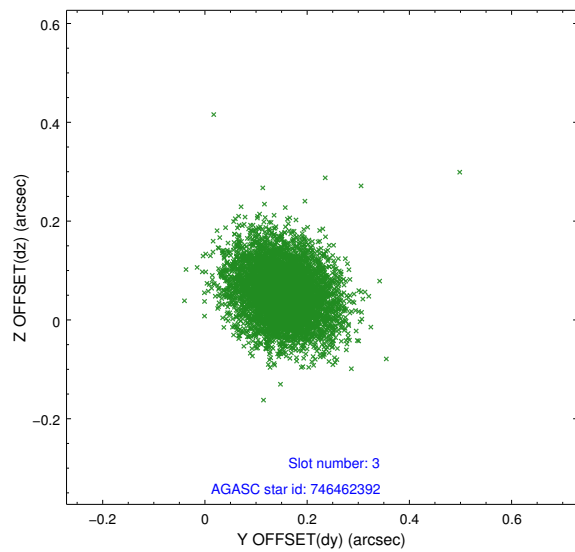


### Slot Statistics

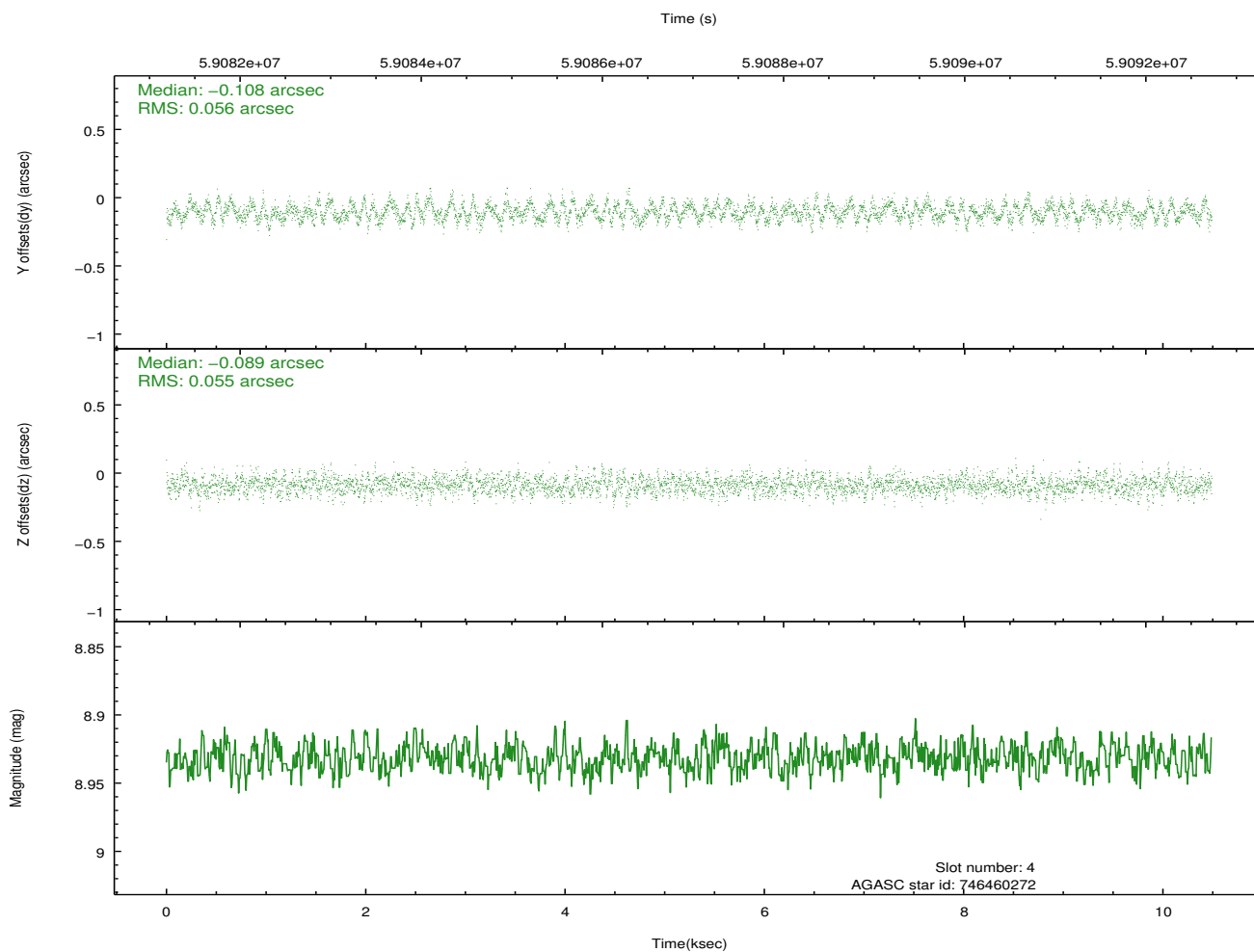
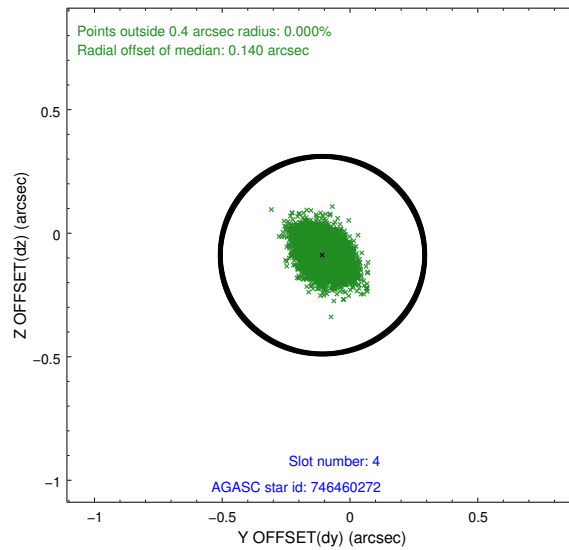
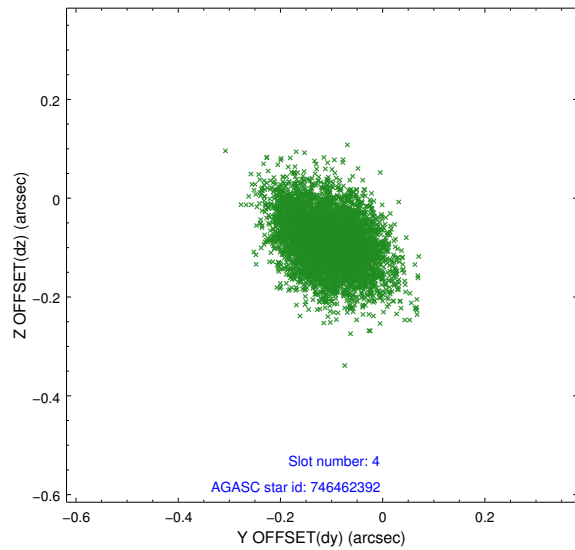
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.25	5118	-0.011	0.062	0.006	0.010	0.000000	0.000000	940.17	-827.31
1	FID	ACIS-I-5	7.23	5118	-0.085	0.040	0.006	0.010	0.000000	0.000000	-1807.92	1070.07
2	FID	ACIS-I-6	7.26	5117	0.005	-0.031	0.006	0.011	0.000000	0.000000	405.55	1714.70
3	GUIDE	746462392	8.55	5115	0.153	0.055	0.079	0.126	279.038421	-10.890715	2108.94	2160.82
4	GUIDE	746460272	8.93	5117	-0.108	-0.089	0.083	0.136	278.847488	-10.152127	-633.50	2234.52
5	GUIDE	746460328	9.81	5117	-0.045	0.067	0.126	0.199	278.603974	-9.898096	-1748.56	1652.16
6	GUIDE	746461728	9.78	5112	0.002	-0.037	0.132	0.206	278.986921	-10.530755	811.94	2338.77
7	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

## 2.4 Star Slots

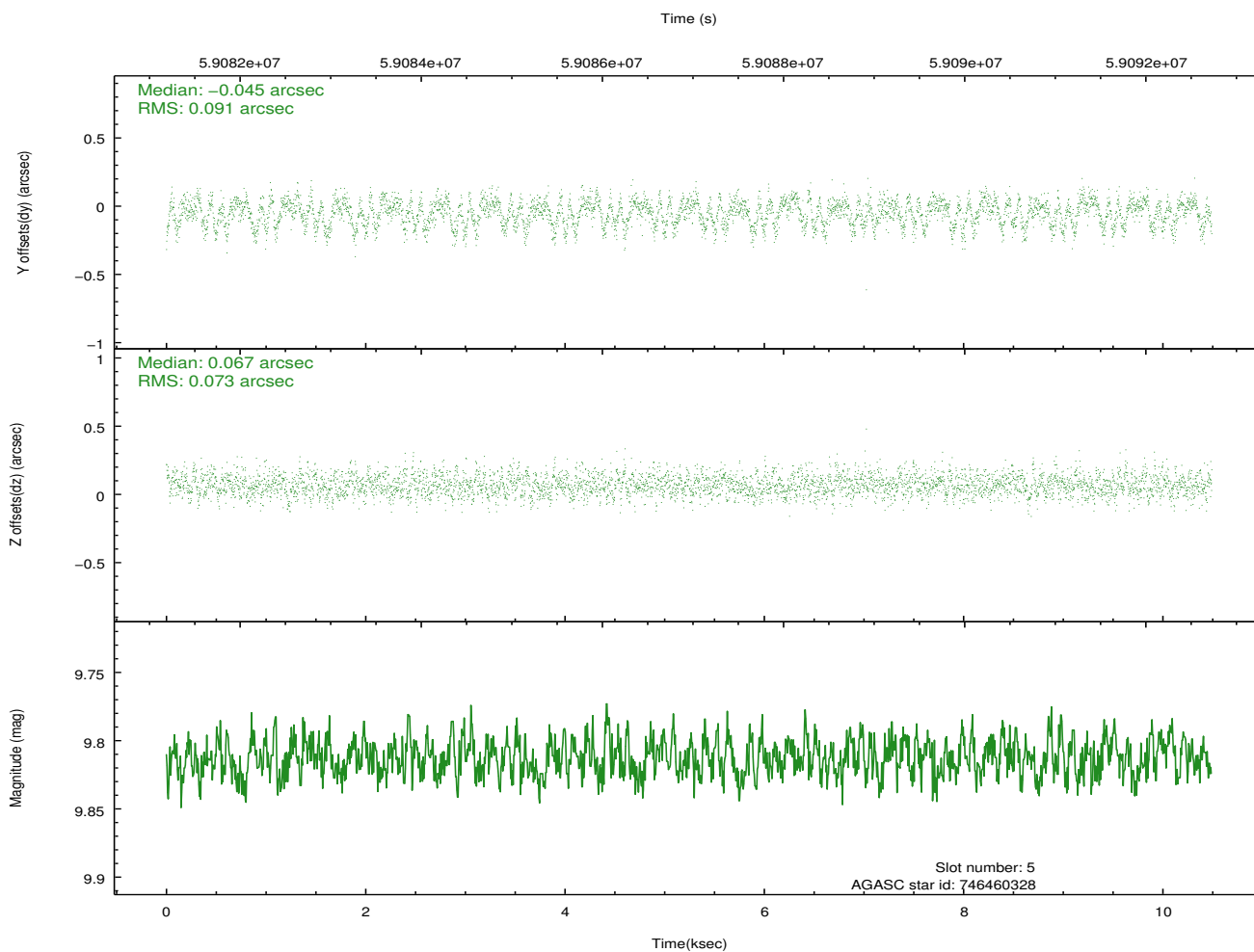
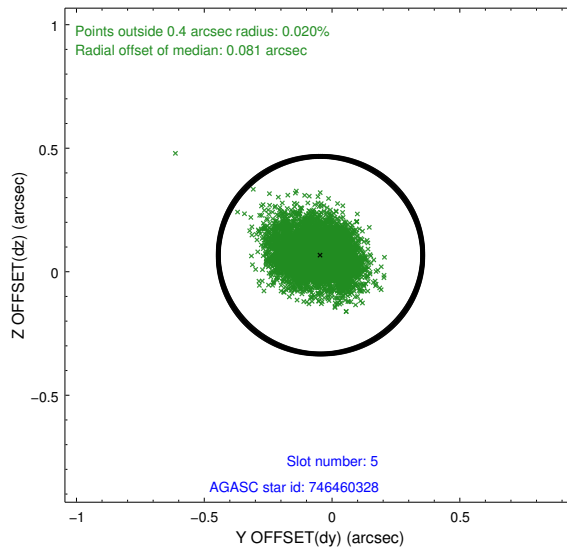
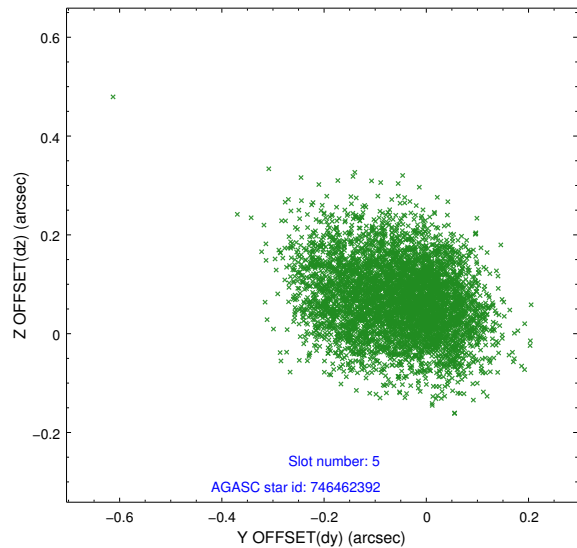
### 2.4.1 Slot 3



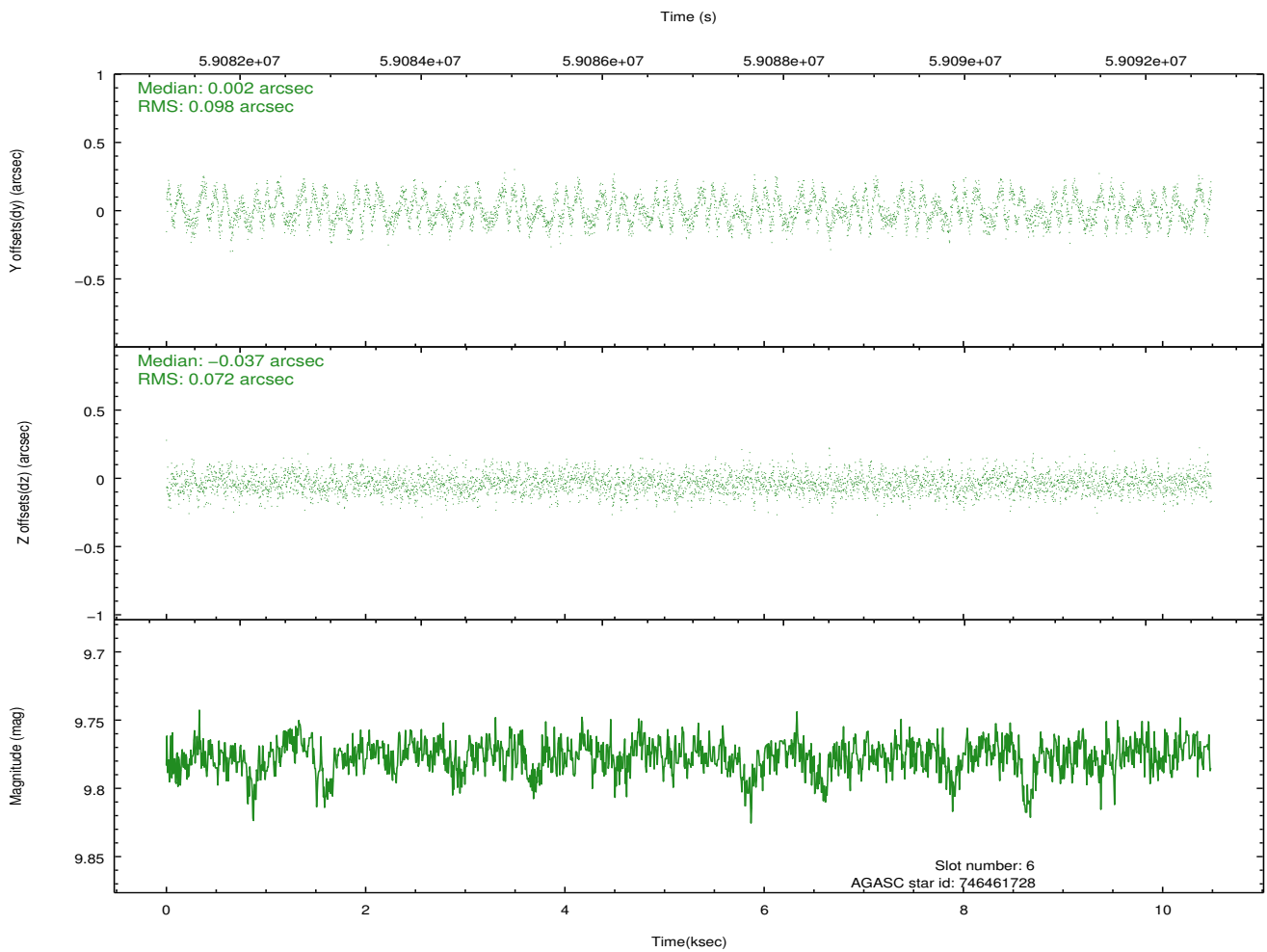
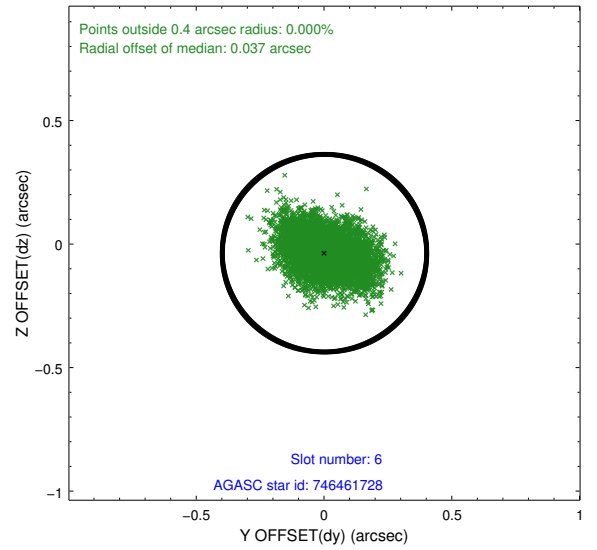
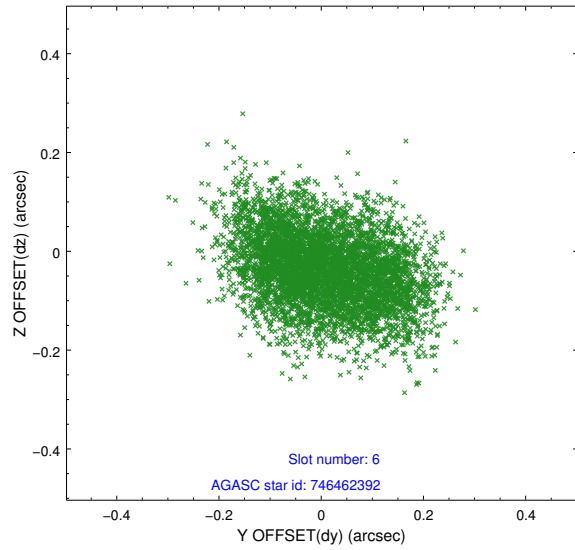
## 2.4.2 Slot 4



### 2.4.3 Slot 5

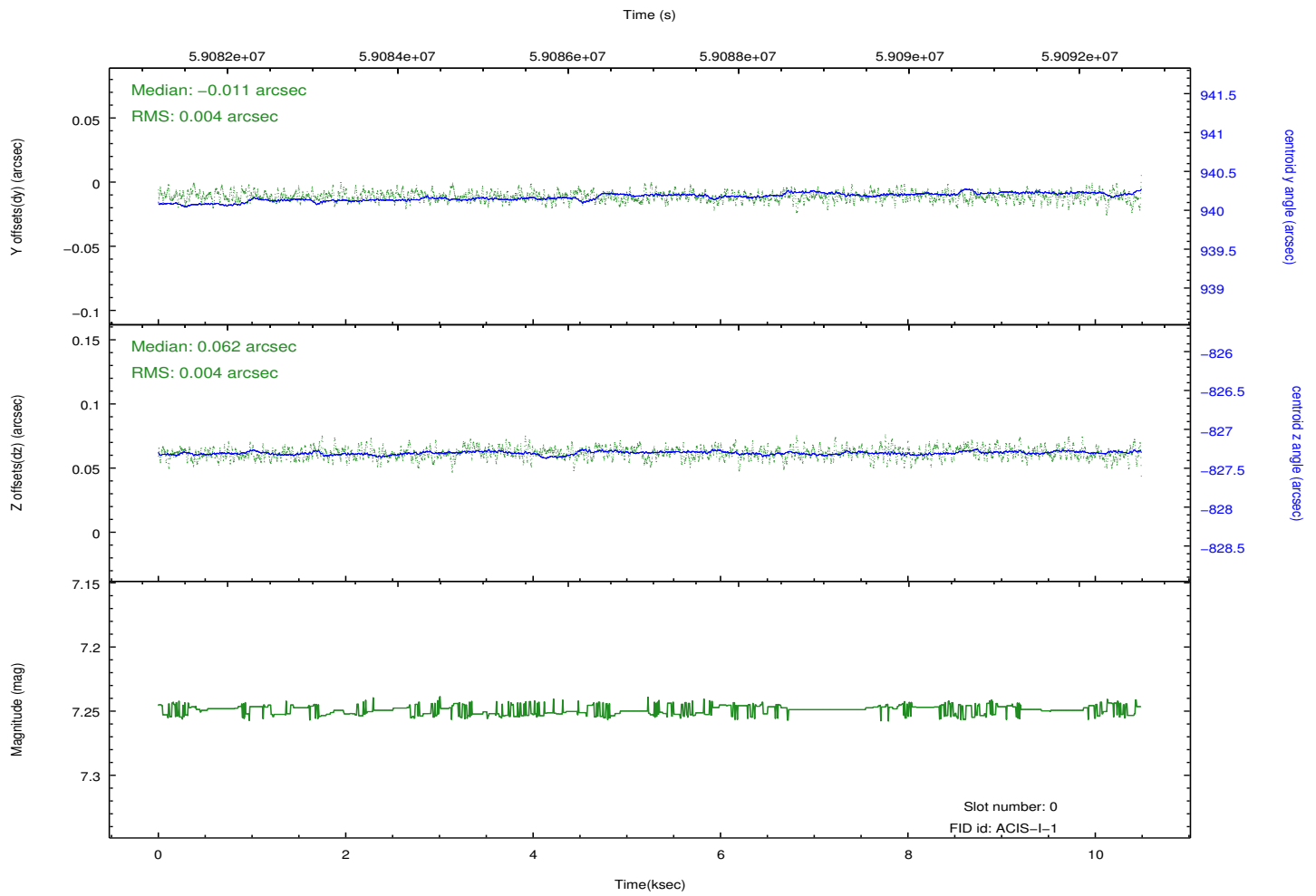
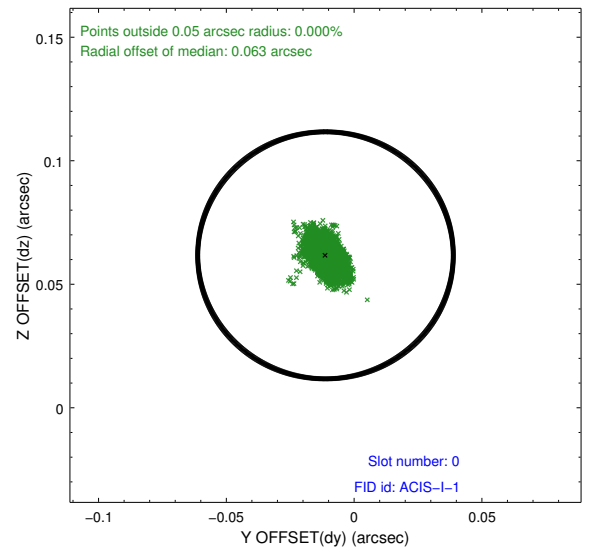
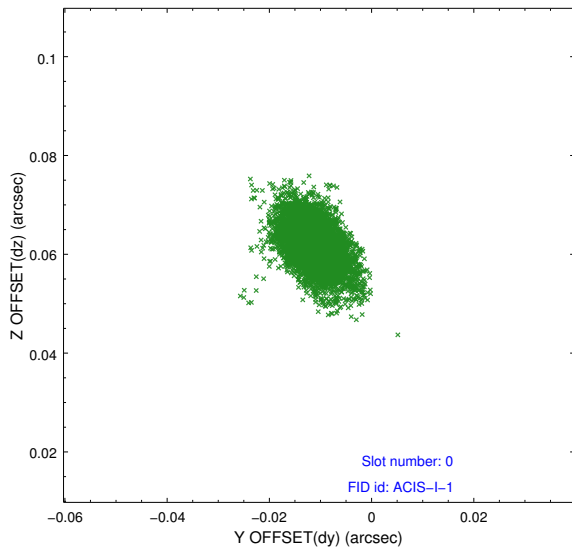


## 2.4.4 Slot 6

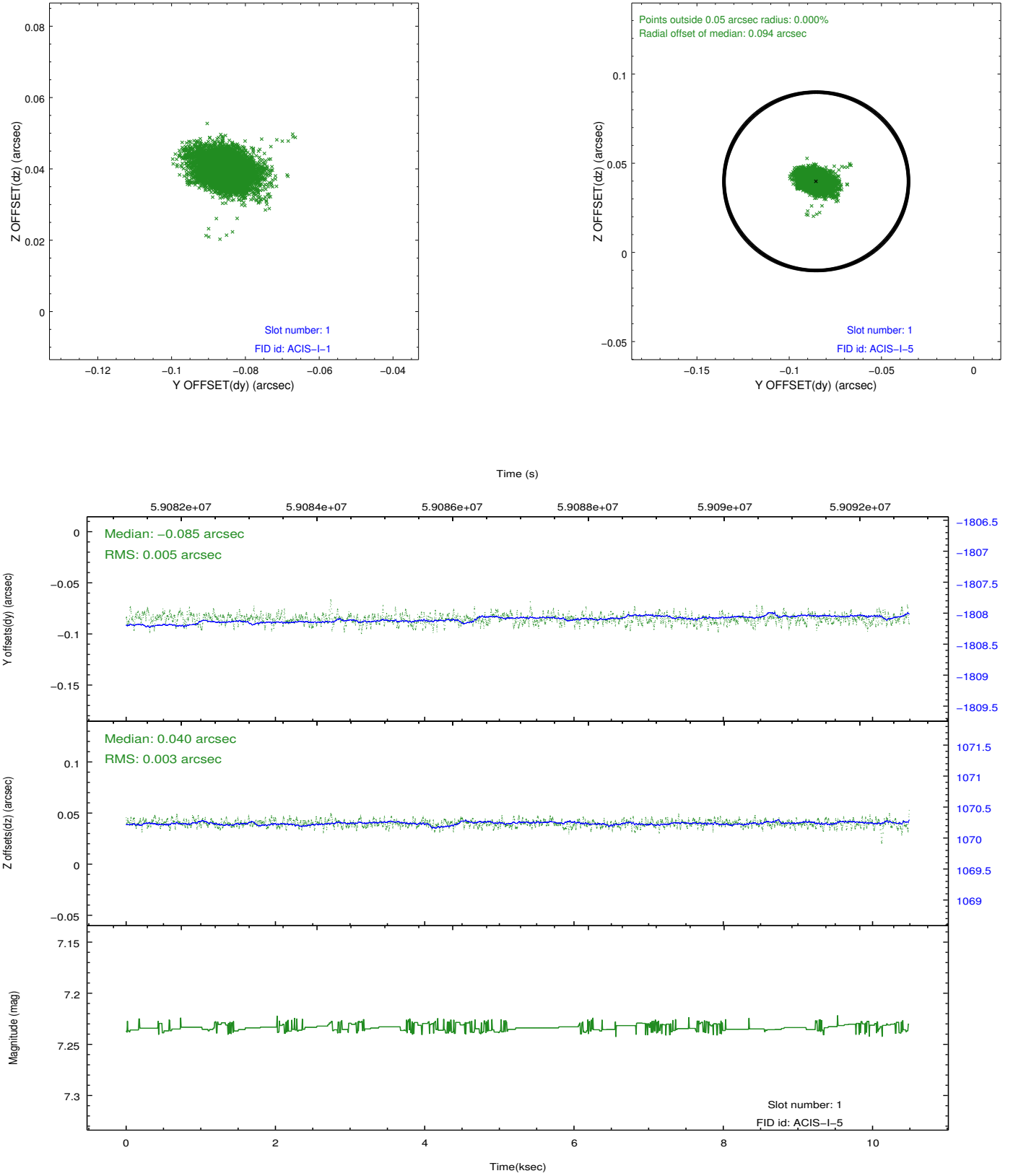


## 2.5 FID Slots

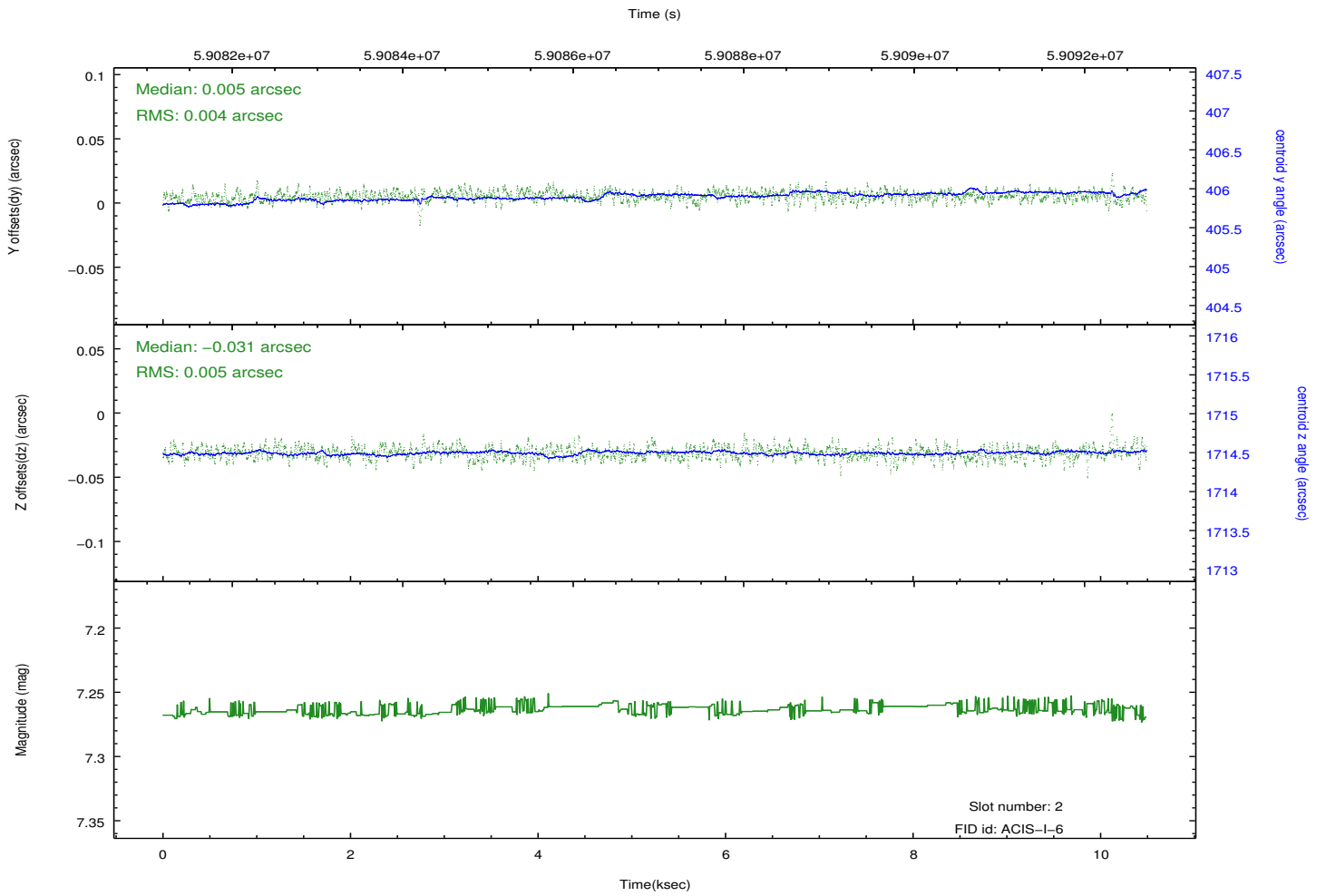
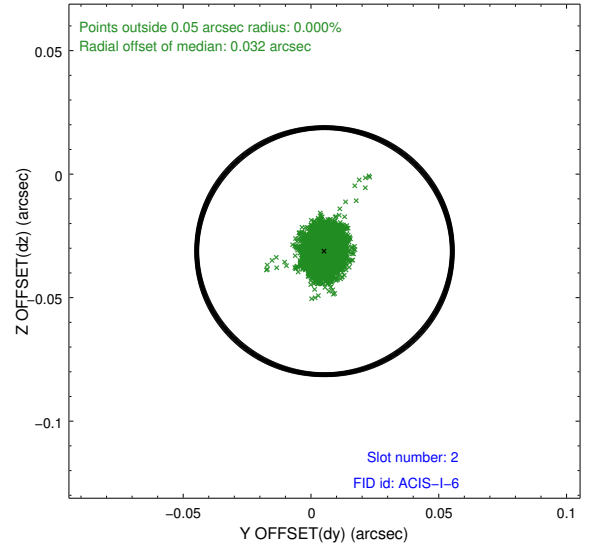
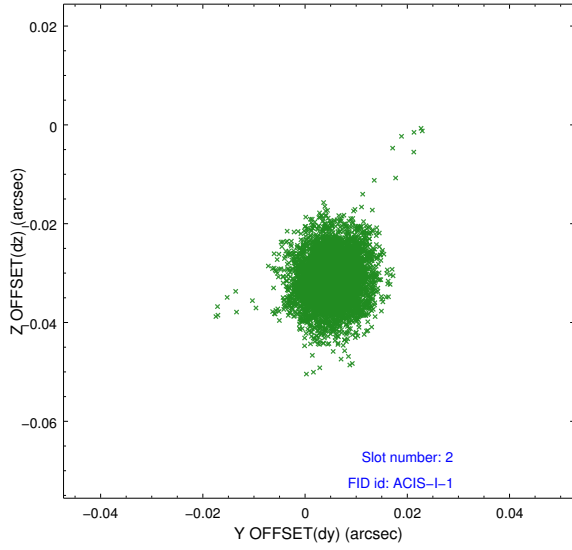
### 2.5.1 Slot 0



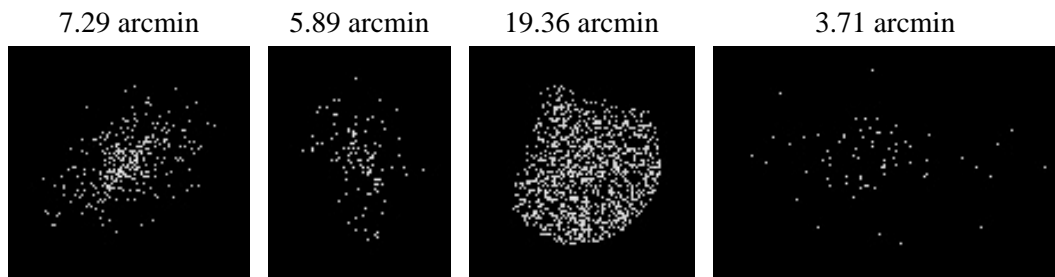
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.03.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.779

## A.2 Comments

Off-axis effective area measurement on chip I2.

===

Slot 7 was not utilized in this observation.

==

The focal plane temperature is approximately -110 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T\_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

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.