

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 1517 - L2 Version 3  
Chandra X-Ray Center

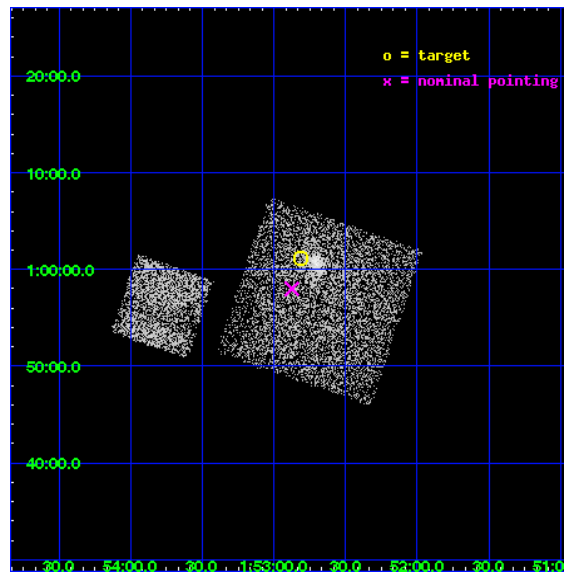
L2 Processing Date : Dec 4 2009

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# 1 Front

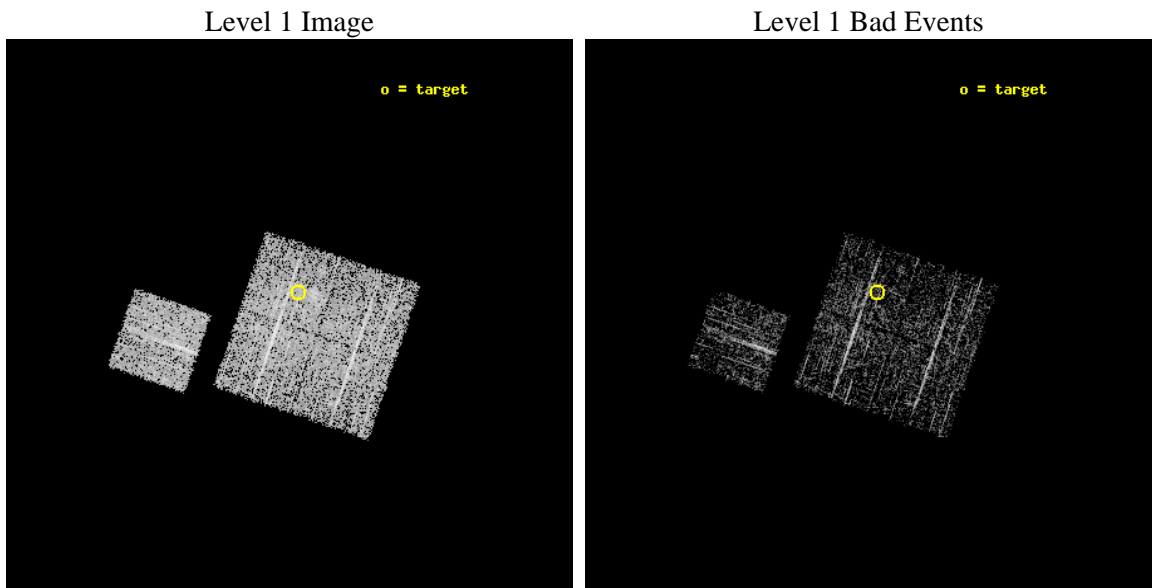
seq_num	800031	Sequence number
obs_id	1517	Observation id
title	DETERMINATION OF H0/Q0	Proposal title
observer	DR. LEON VANSPEYBROECK	Principal investigator
object	A267	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	28.202917	Observer's specified target RA
dec_targ	1.019	Observer's specified target Dec
ra_nom	28.218700725022	Nominal RA
dec_nom	0.96658823859723	Nominal Dec
roll_nom	288.92019656851	Nominal Roll
revision	3	Processing version of data
ontime	1240.4229397178	Sum of GTIs [s]
livetime	1224.715957562	Livetime [s]
ontime0	1240.5870997161	Sum of GTIs [s]
ontime1	1240.5460597128	Sum of GTIs [s]
ontime2	1240.5050197169	Sum of GTIs [s]
ontime3	1240.4229397178	Sum of GTIs [s]
ontime6	1240.4639797136	Sum of GTIs [s]
l2events	12876	Number of level 2 events



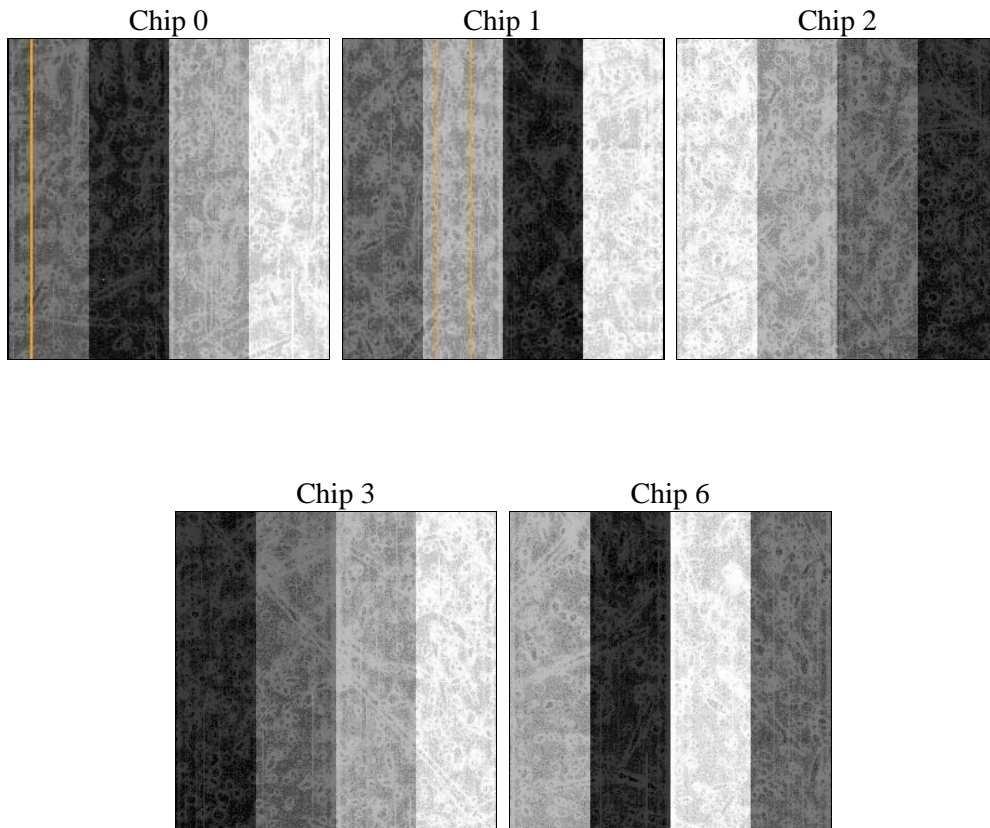
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2076.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	1240.4229397178	Sum of GTIs [s]
caldbver	4.1.4	&#160	ontime0	1240.5870997161	Sum of GTIs [s]
date	2009-12-05T00:53:28	Date and time of file creation	ontime1	1240.5460597128	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	1240.5050197169	Sum of GTIs [s]
			ontime3	1240.4229397178	Sum of GTIs [s]
			ontime6	1240.4639797136	Sum of GTIs [s]
			l1events	61681	Number of level 1 events

### 2.1.4 Events

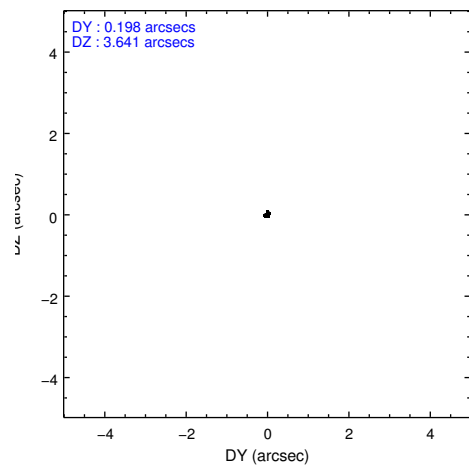
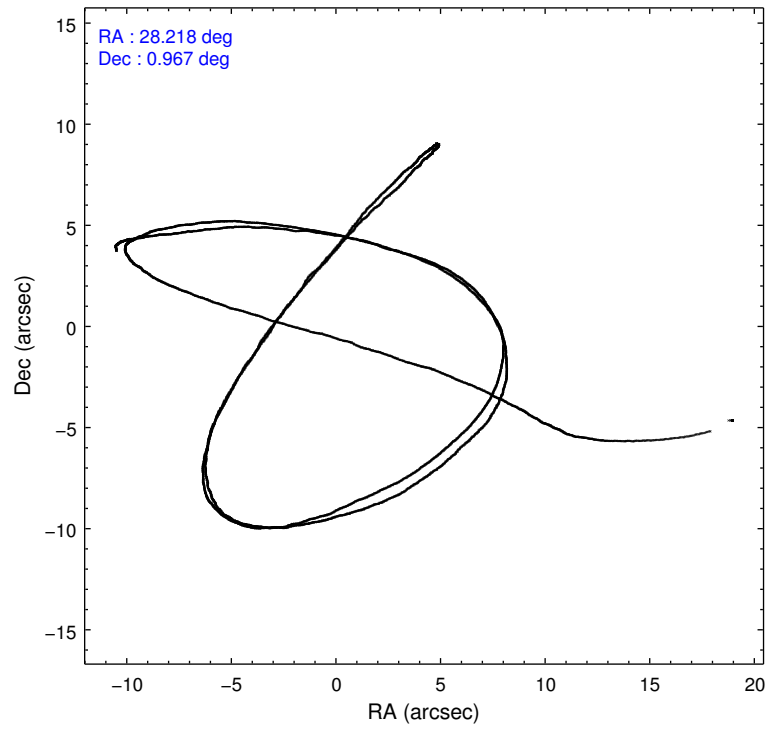
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	11318	11454	12900	12067	13942
rejected events	9088	9045	10720	9149	10183
rejected %	80%	78%	83%	75%	73%

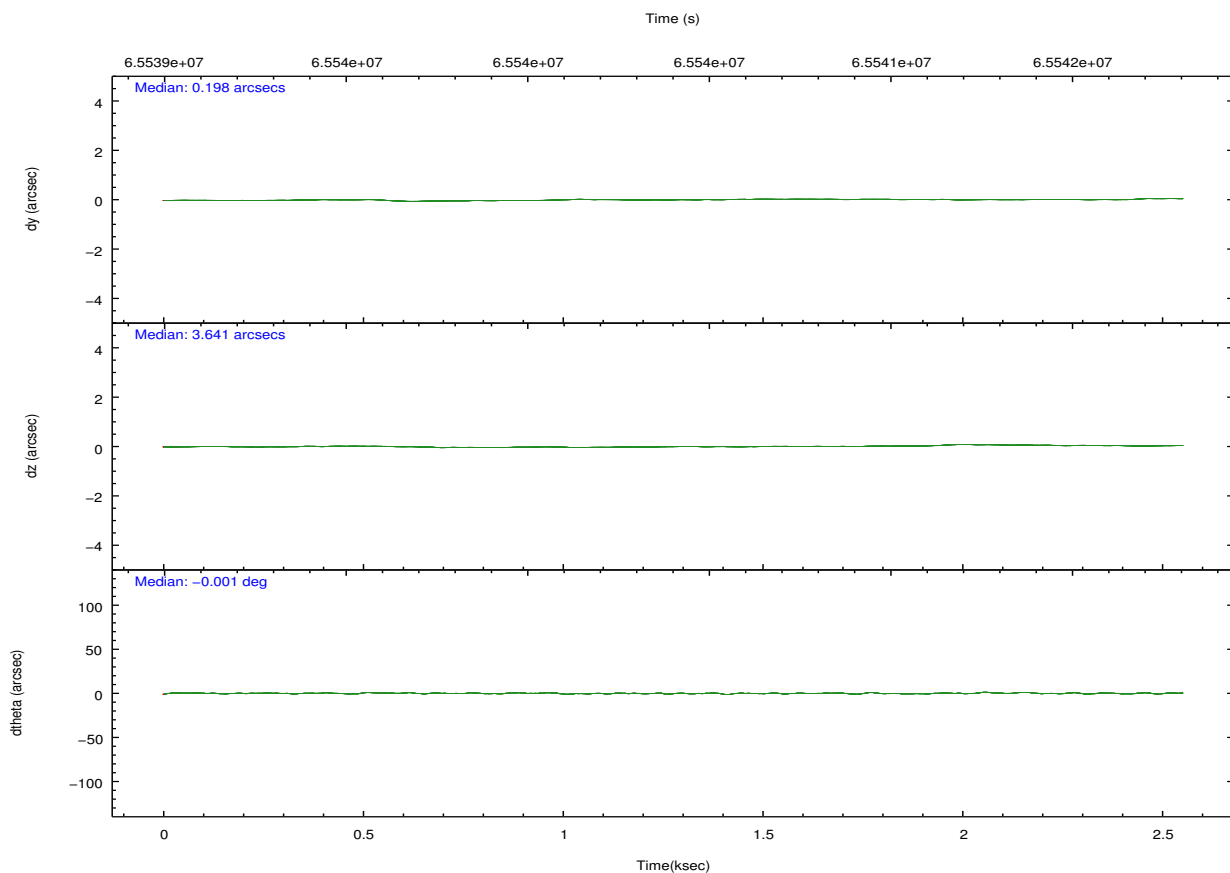
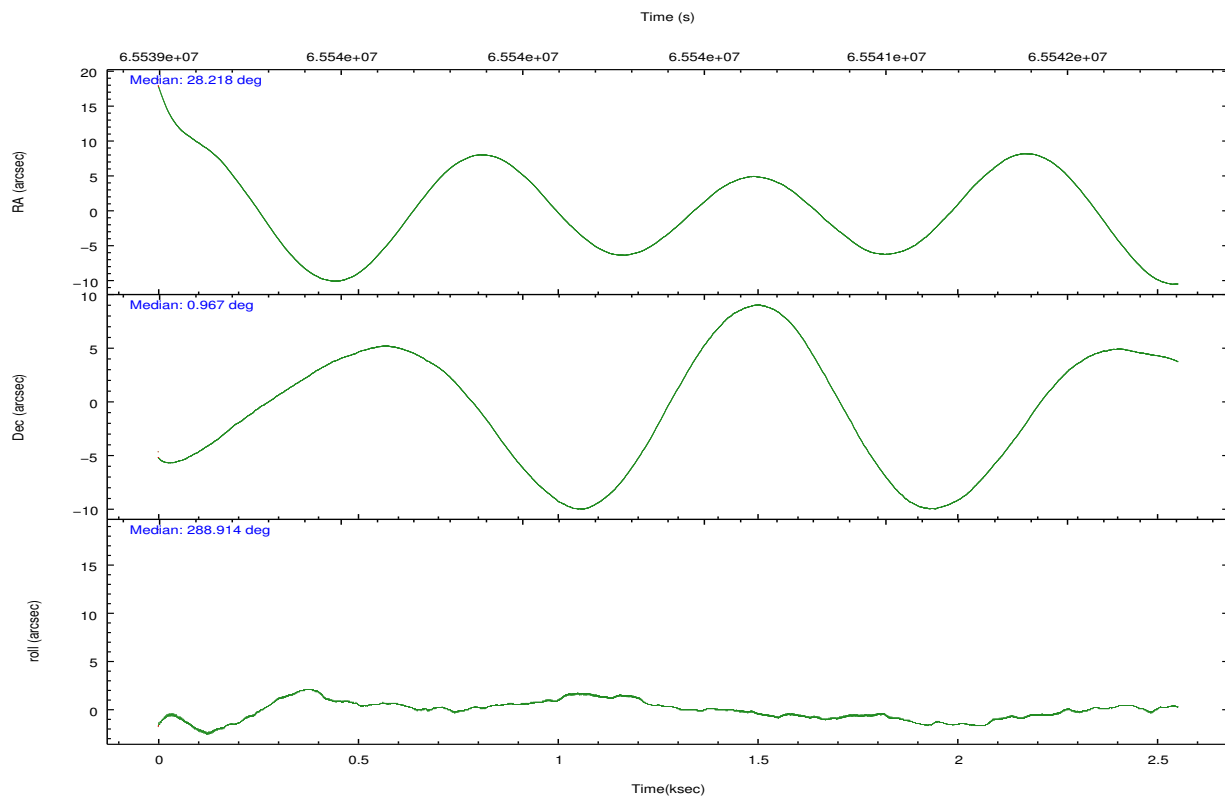
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	662	666	571	1085	1178
	5%	5%	4%	8%	8%
grade 1 events	3	4	3	7	3
	0%	0%	0%	0%	0%
grade 2 events	1161	1247	1191	1399	2140
	10%	10%	9%	11%	15%
grade 3 events	78	84	52	80	66
	0%	0%	0%	0%	0%
grade 4 events	64	98	65	65	75
	0%	0%	0%	0%	0%
grade 5 events	208	206	209	224	212
	1%	1%	1%	1%	1%
grade 6 events	271	315	304	295	307
	2%	2%	2%	2%	2%
grade 7 events	8871	8834	10505	8912	9961
	78%	77%	81%	73%	71%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	28.197911	28.21870072502184	Subarray requested	NONE	NONE
Pointing Dec	0.984926	0.9665882385972273	Alternating exposures requested	N	N
Pointing Roll	288.711863	288.9201965685148	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	-225.7829997647864			
SIM translation stage offset (mm)	0	-7.809453238143249			
Observation start time	65539599.184000	65538421.674967			
Observation start date	2000-01-29T13:25:35	2000-01-29T13:07:01			
Observation end time	65541675.184000	65542313.600109			
Observation end date	2000-01-29T14:00:11	2000-01-29T14:11:53			
Read mode	TIMED	TIMED			

## 2.3 Aspect



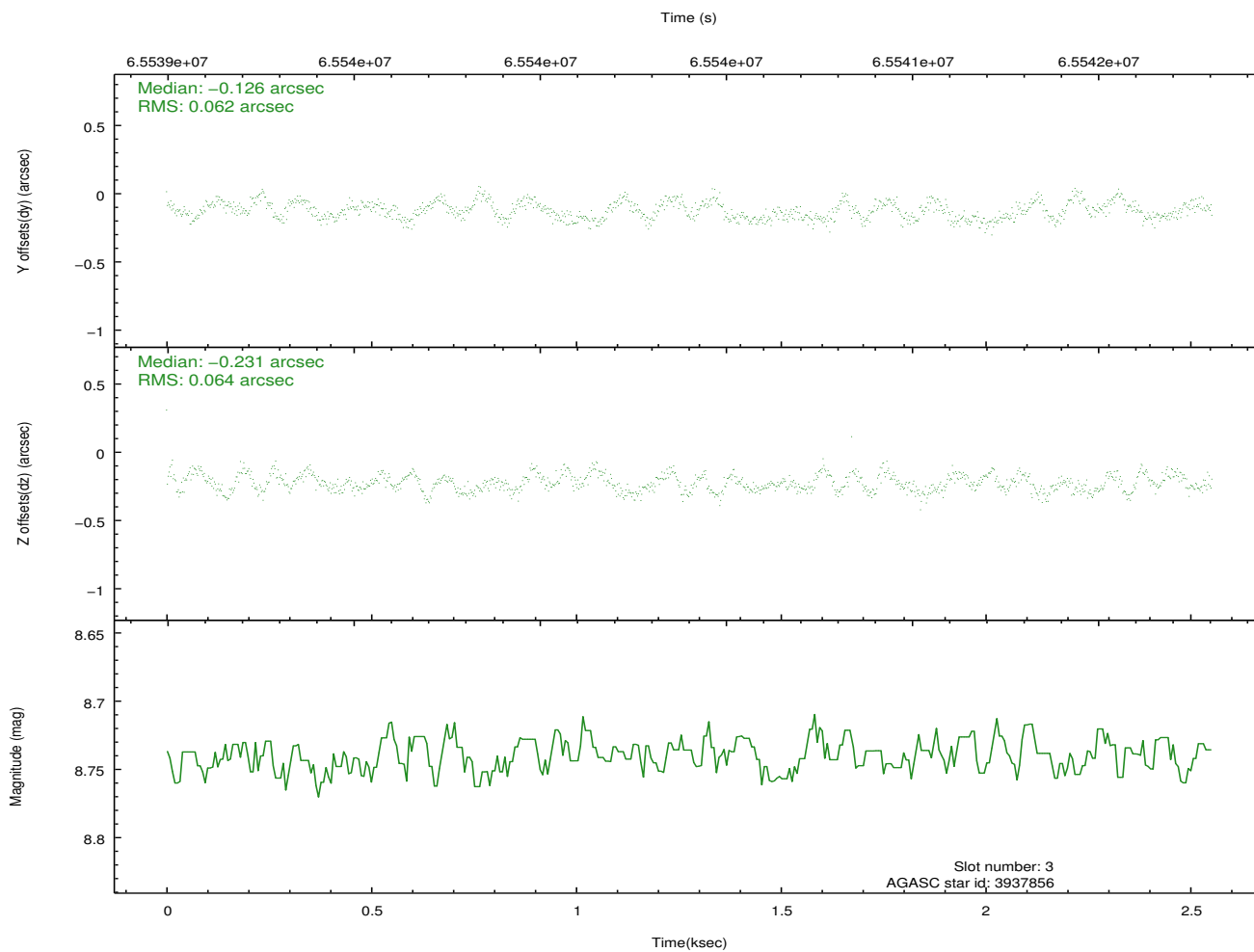
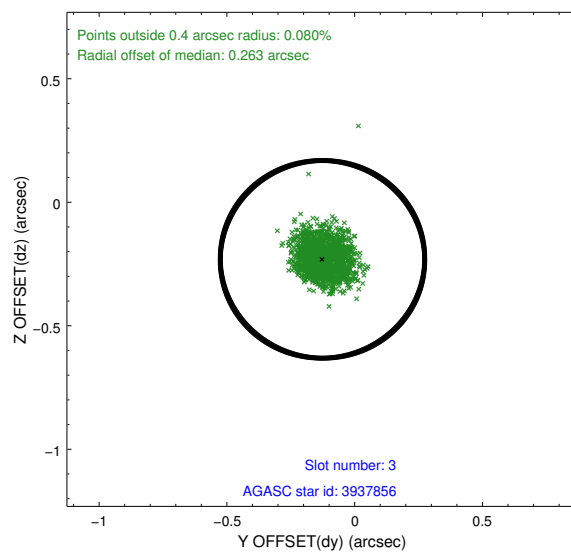
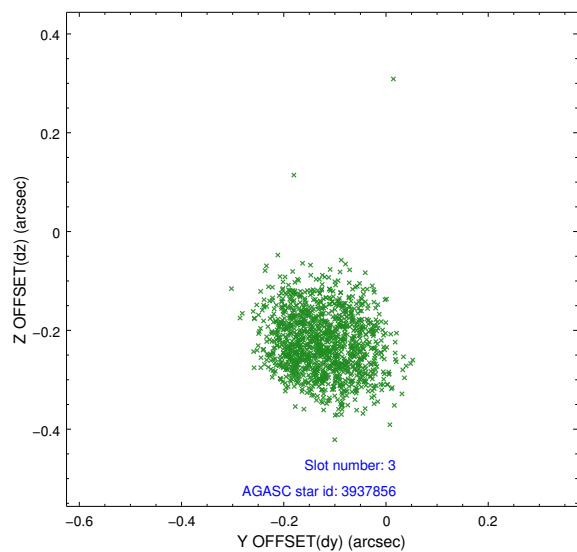


### Slot Statistics

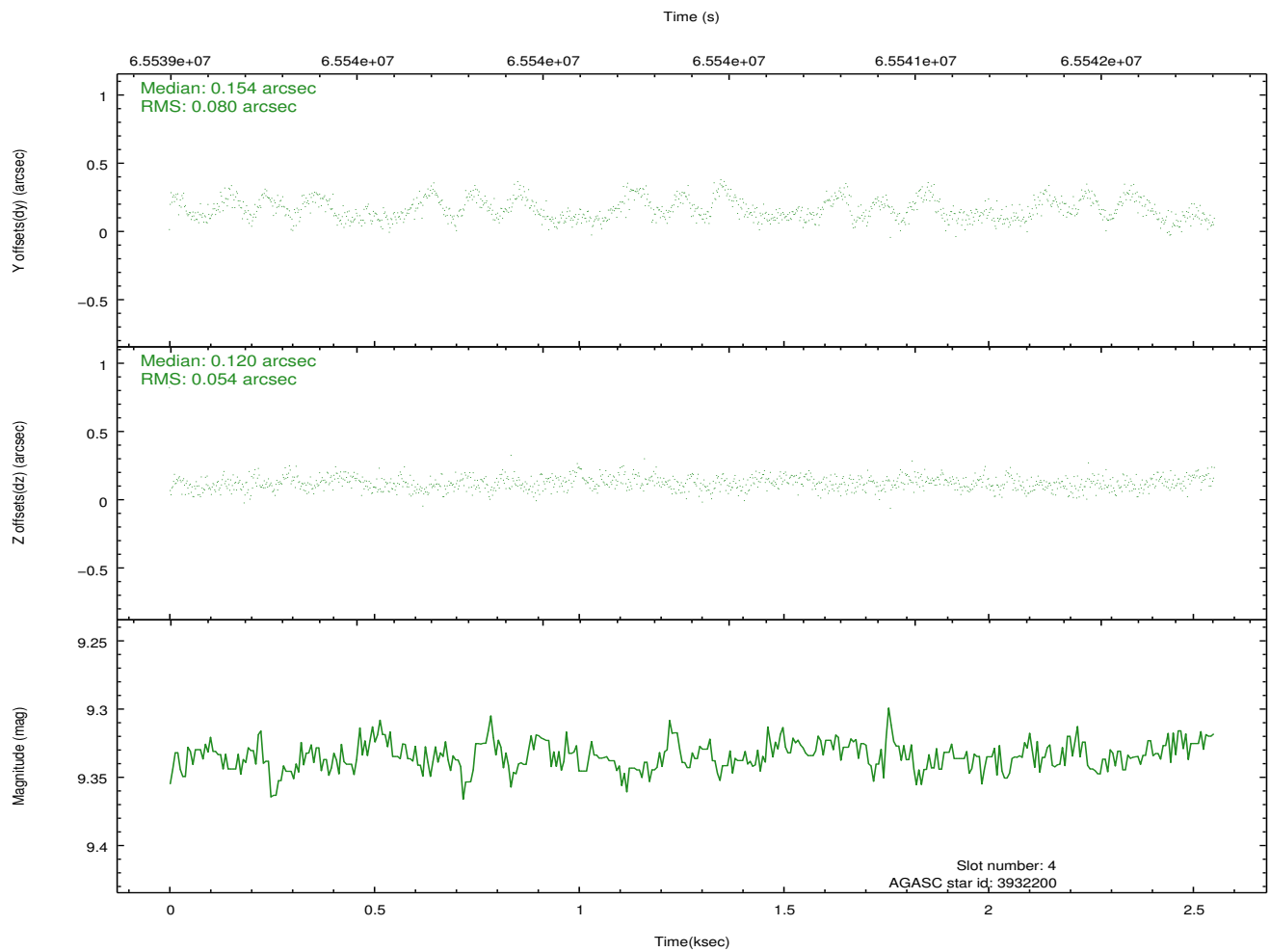
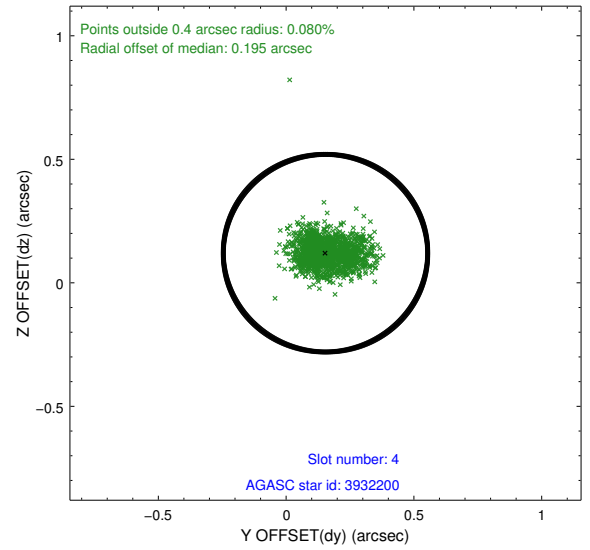
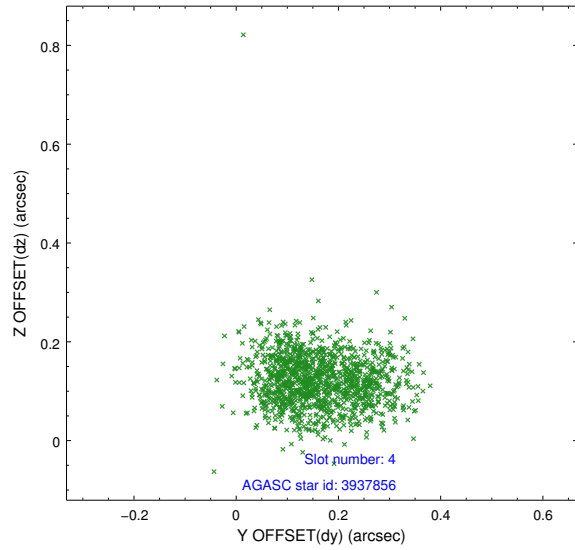
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	623	0.057	-0.029	0.006	0.011	0.000000	0.000000	939.58	-987.31
1	FID	ACIS-I-5	7.23	623	-0.184	0.067	0.006	0.011	0.000000	0.000000	-1807.33	908.80
2	FID	ACIS-I-6	7.26	623	0.036	0.032	0.007	0.011	0.000000	0.000000	402.40	1556.12
3	GUIDE	3937856	8.74	1245	-0.126	-0.231	0.094	0.144	27.502239	0.986318	-807.39	-2370.03
4	GUIDE	3932200	9.33	1245	0.154	0.120	0.099	0.163	28.826564	0.608712	2008.84	1707.74
5	GUIDE	3939496	9.43	1245	-0.133	0.026	0.114	0.179	28.618478	1.661921	-1820.92	2216.92
6	GUIDE	3939408	9.60	1245	-0.078	0.037	0.113	0.185	28.595614	1.577682	-1563.03	2042.17
7	GUIDE	3933704	9.71	1244	0.188	0.041	0.087	0.147	28.709871	0.783788	1276.56	1515.35

## 2.4 Star Slots

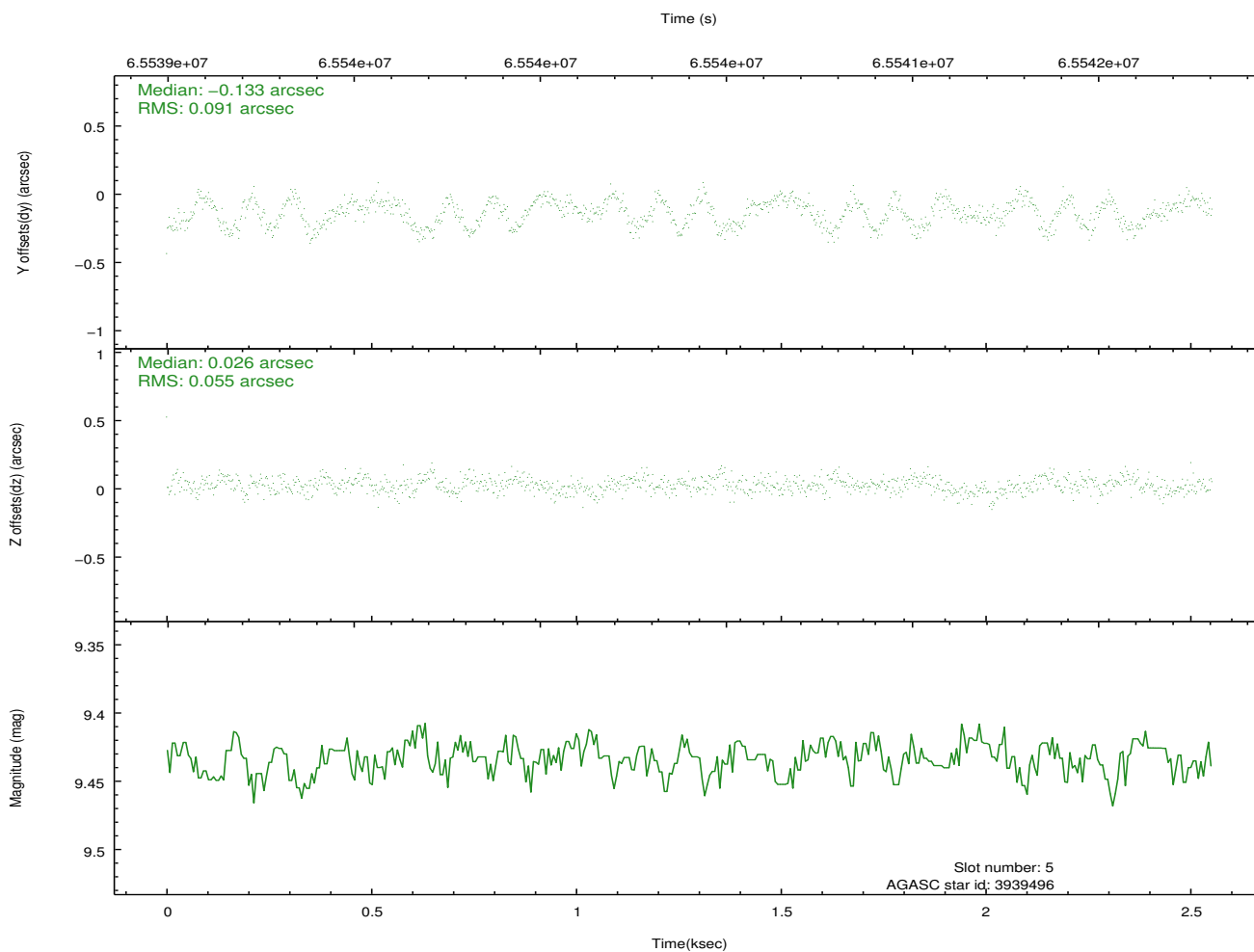
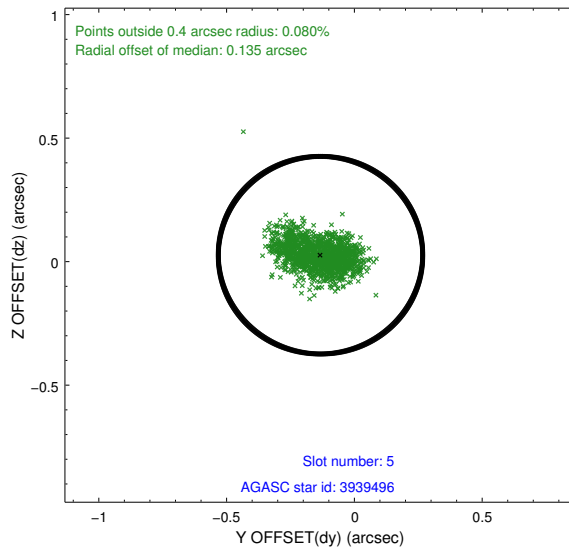
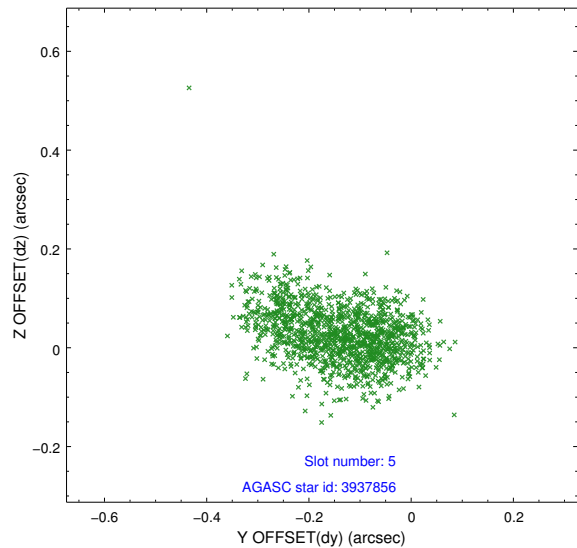
### 2.4.1 Slot 3



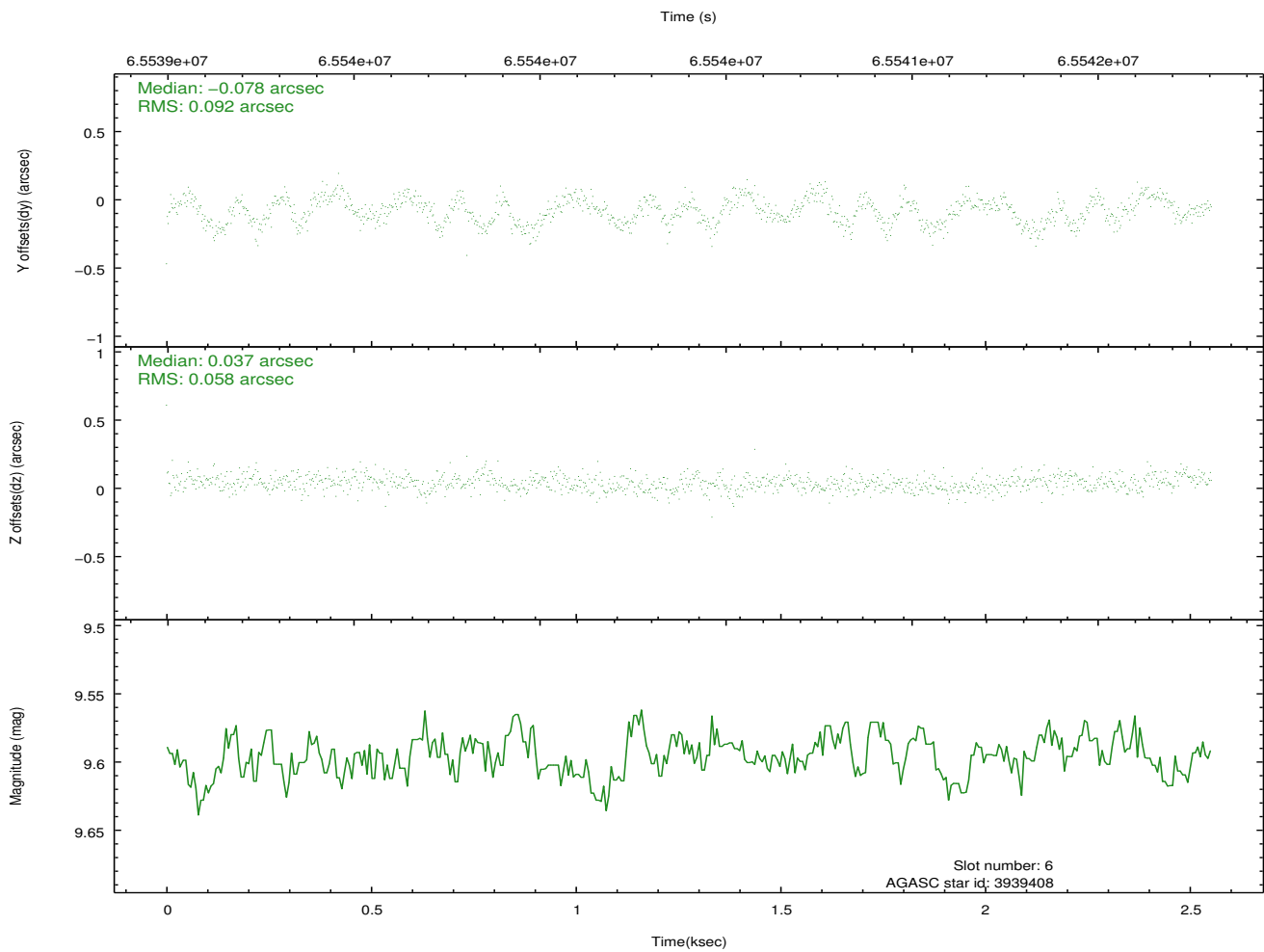
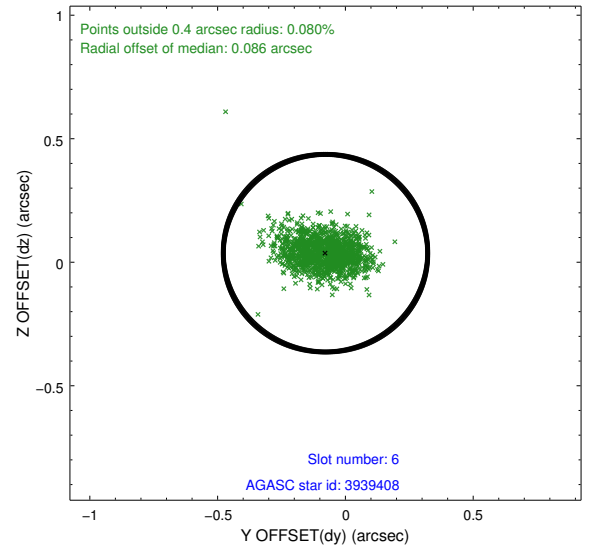
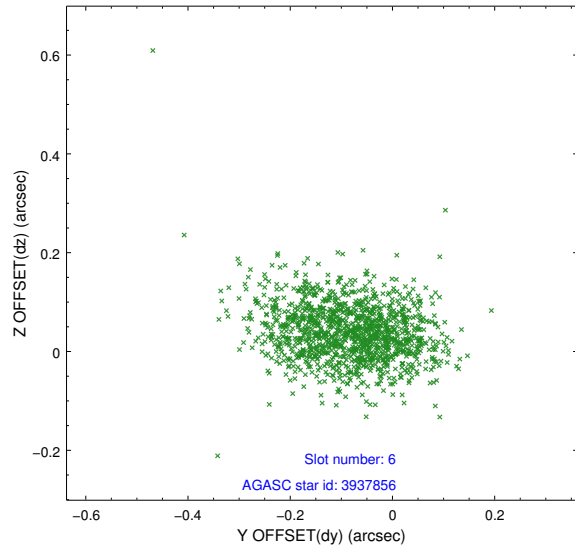
## 2.4.2 Slot 4



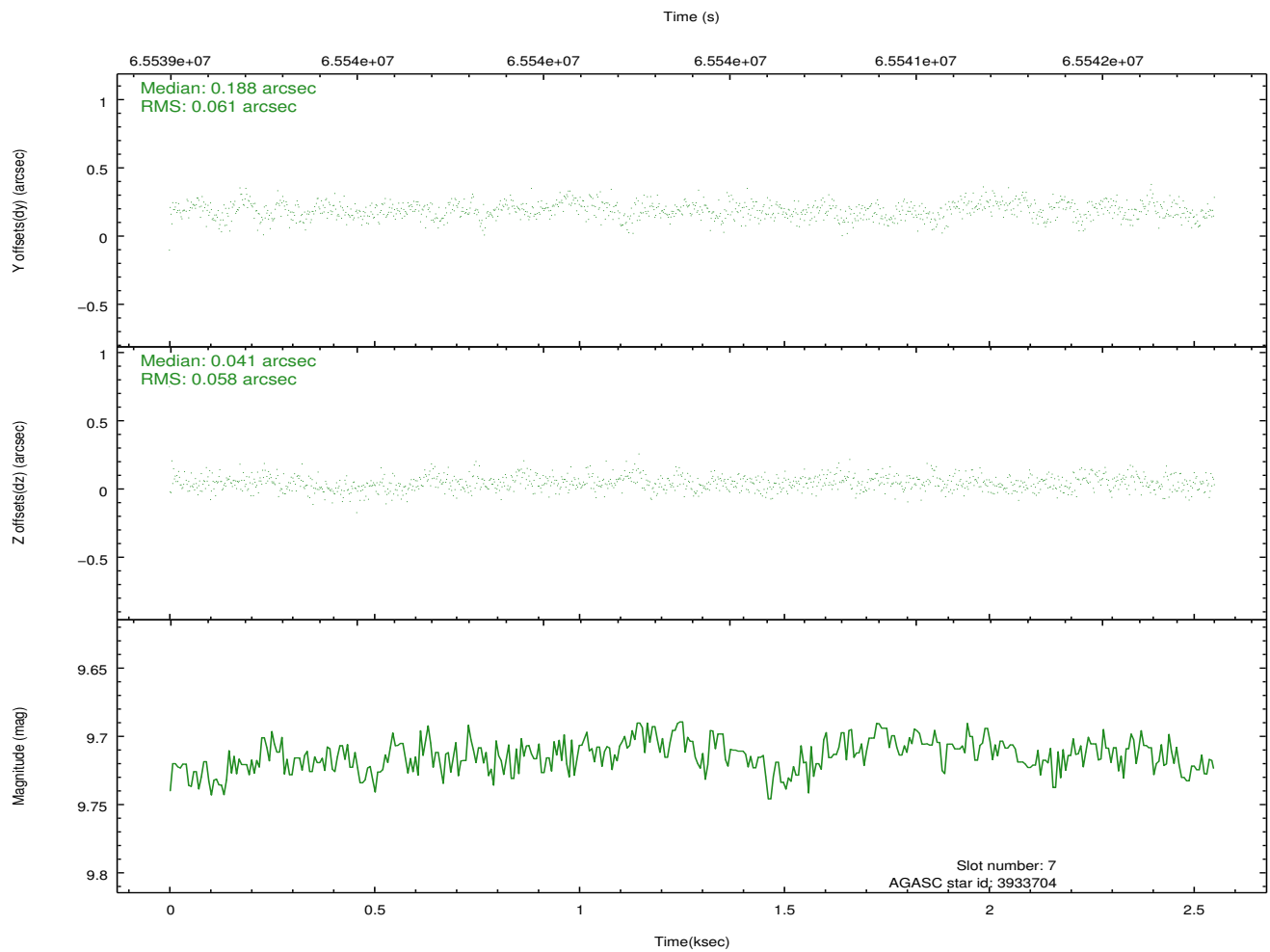
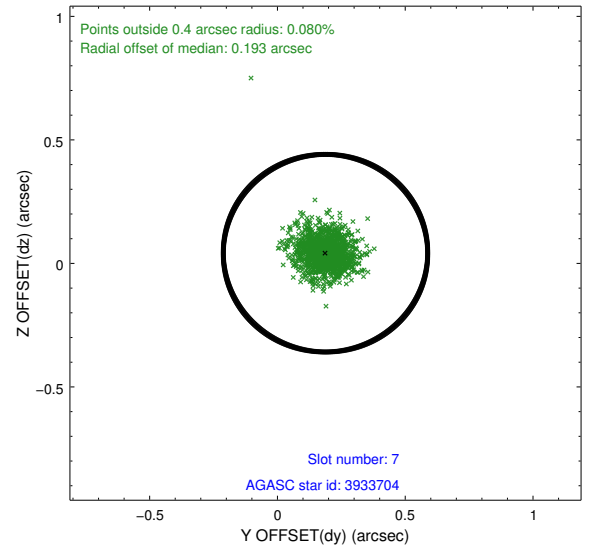
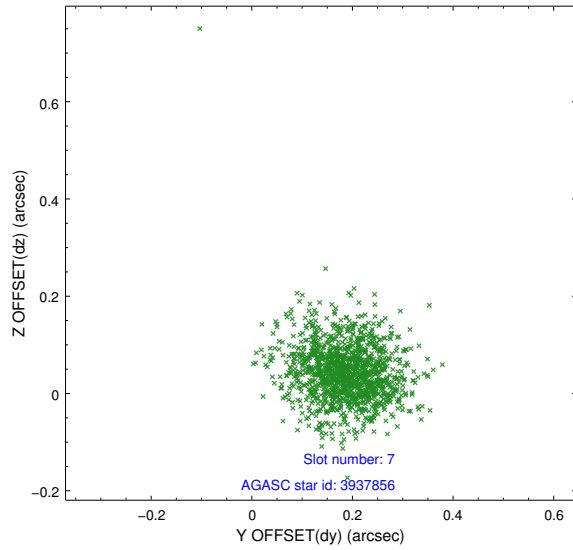
## 2.4.3 Slot 5



## 2.4.4 Slot 6

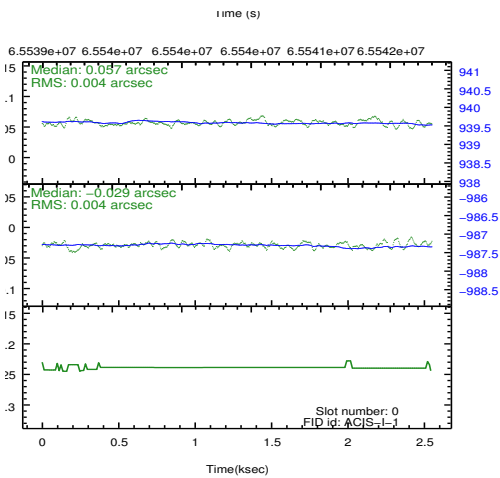
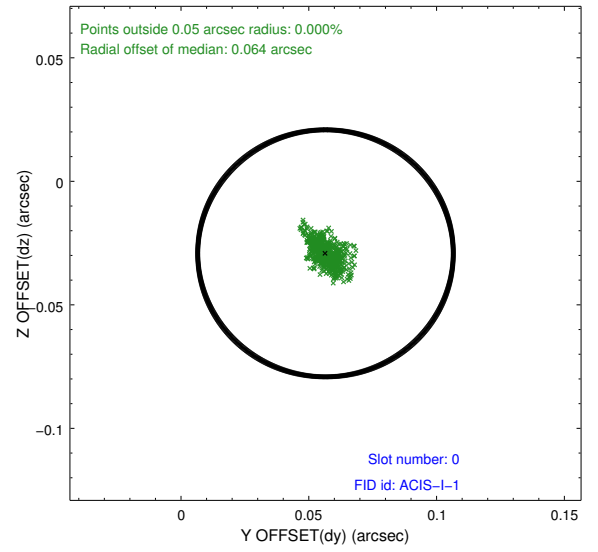
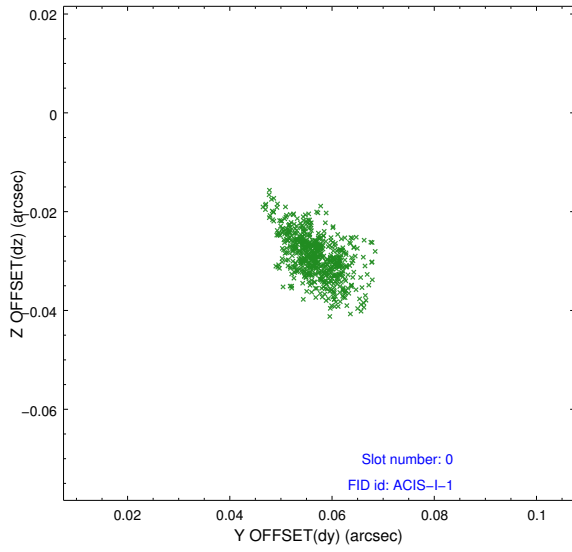


## 2.4.5 Slot 7

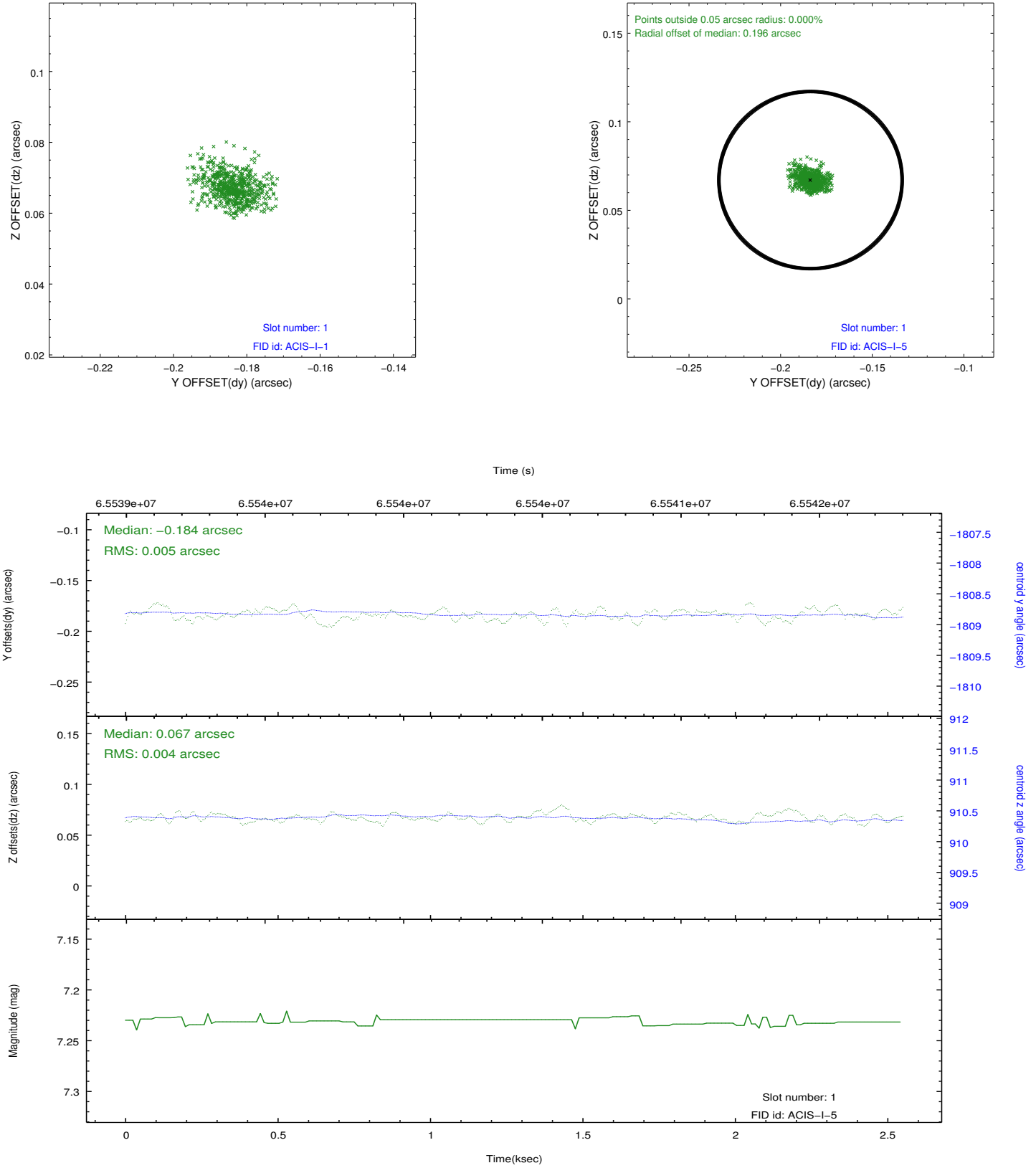


## 2.5 FID Slots

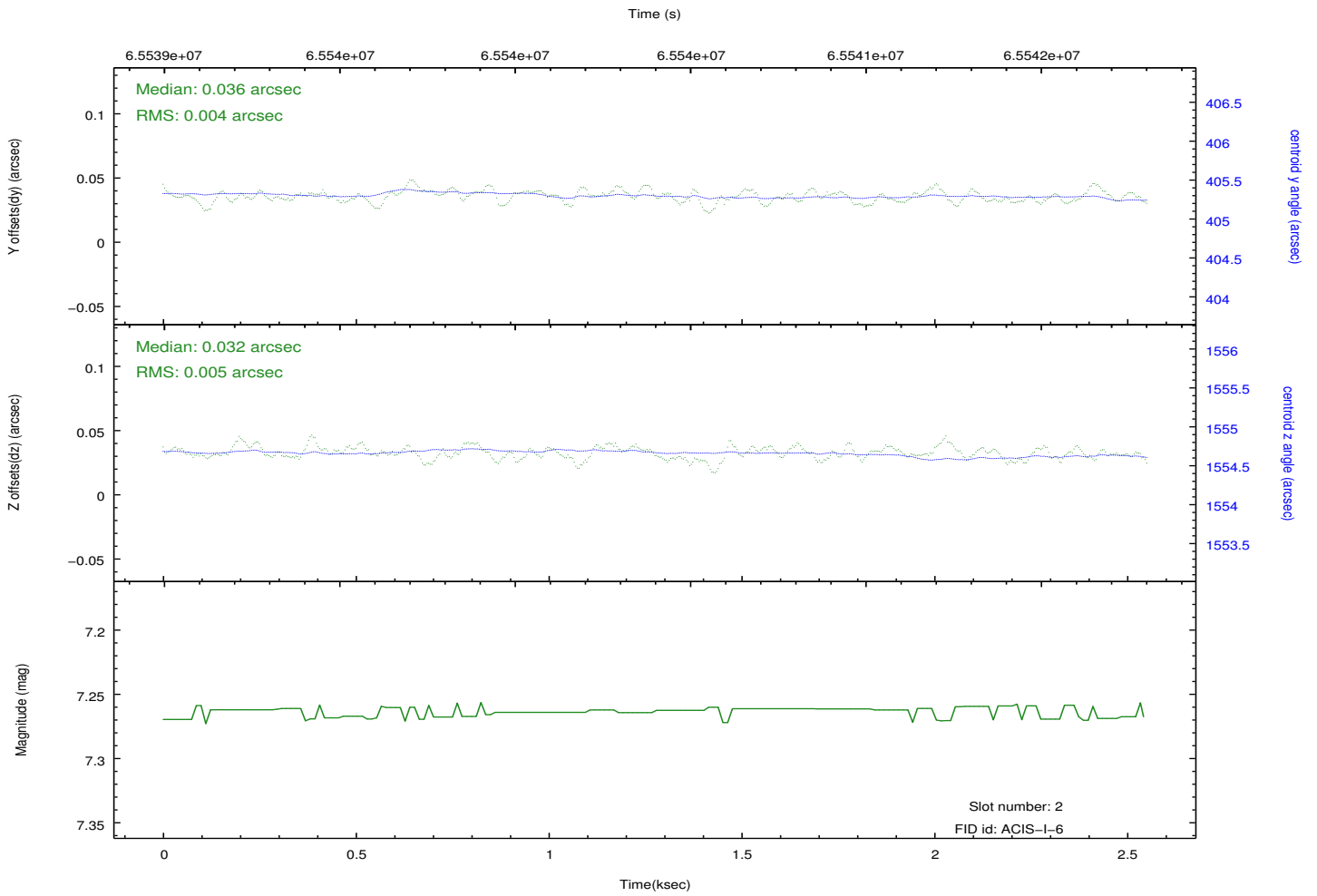
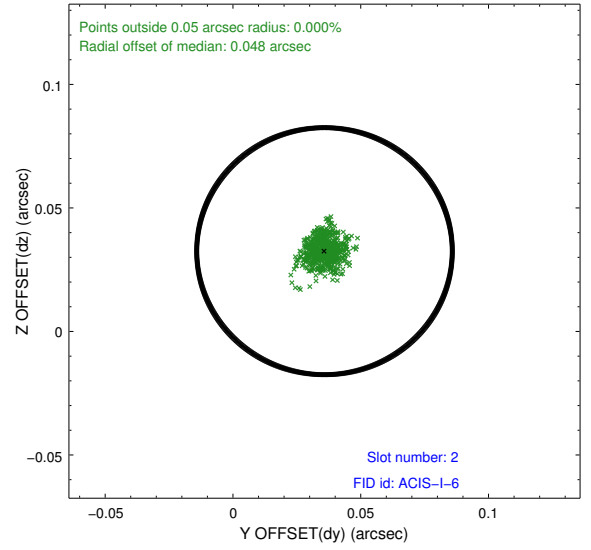
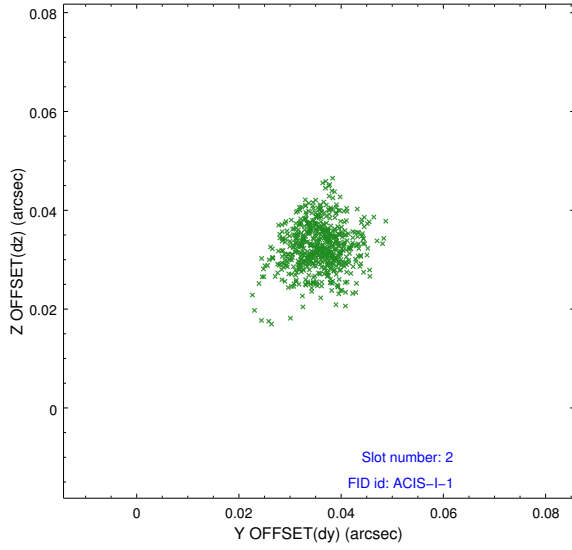
### 2.5.1 Slot 0



## 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)	2010.01.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.241

## A.2 Comments

Focal plane temperature is approximately -110 C degrees during this observation. ACIS has not been calibrated at this temperature, because the focal plan temperature of -119.7 C degrees became the standard shortly

after the start of the mission. Both front and back illuminated chips are affected.

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.

This reprocessing

of the data applies no CTI correction because none is available for this temperature.