

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 5162 - L2 Version 3  
Chandra X-Ray Center

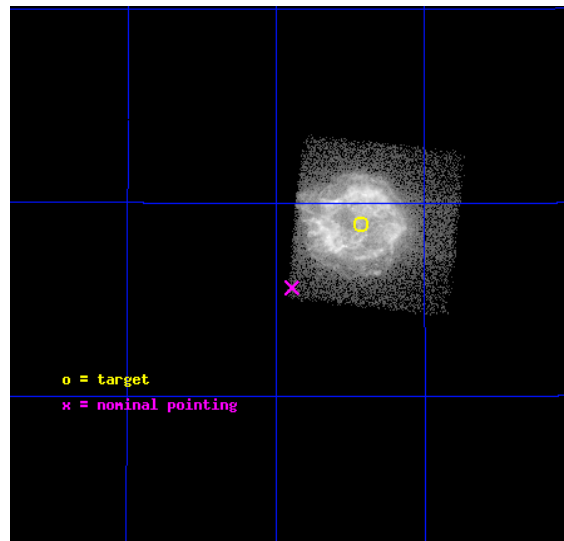
L2 Processing Date : Nov 13 2012

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# 1 Front

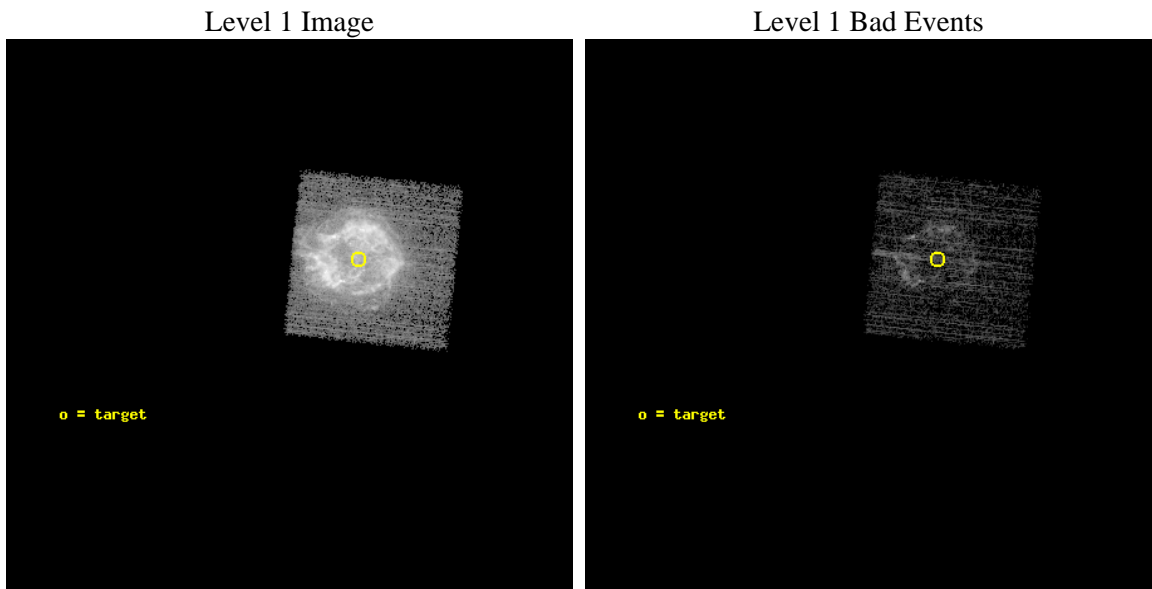
seq_num	590360	Sequence number
obs_id	5162	Observation id
title	AO5A Observations of the Standard Candles Cas A and G21.5-09	Propo
observer	Dr. CXC Calibration	Principal investigator
object	Cas A[I3,-120,-3.0,3.5,0]	Source name
dtycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	350.8575	Observer's specified target RA [deg]
dec_targ	58.814833	Observer's specified target Dec [deg]
ra_nom	350.97330065715	Nominal RA [deg]
dec_nom	58.760451344288	Nominal Dec [deg]
roll_nom	5.9524897523792	Nominal Roll [deg]
revision	3	Processing version of data
ontime	1449.6097379923	Sum of GTIs [s]
livetime	1431.2539066396	Livetime [s]
ontime0	1955.1999927163	Sum of GTIs [s]
ontime1	1955.1999927163	Sum of GTIs [s]
ontime2	1955.1999927163	Sum of GTIs [s]
ontime3	1449.6097379923	Sum of GTIs [s]
ontime6	1955.1999927163	Sum of GTIs [s]
ontime7	1955.1999927163	Sum of GTIs [s]
l2events	306450	Number of level 2 events



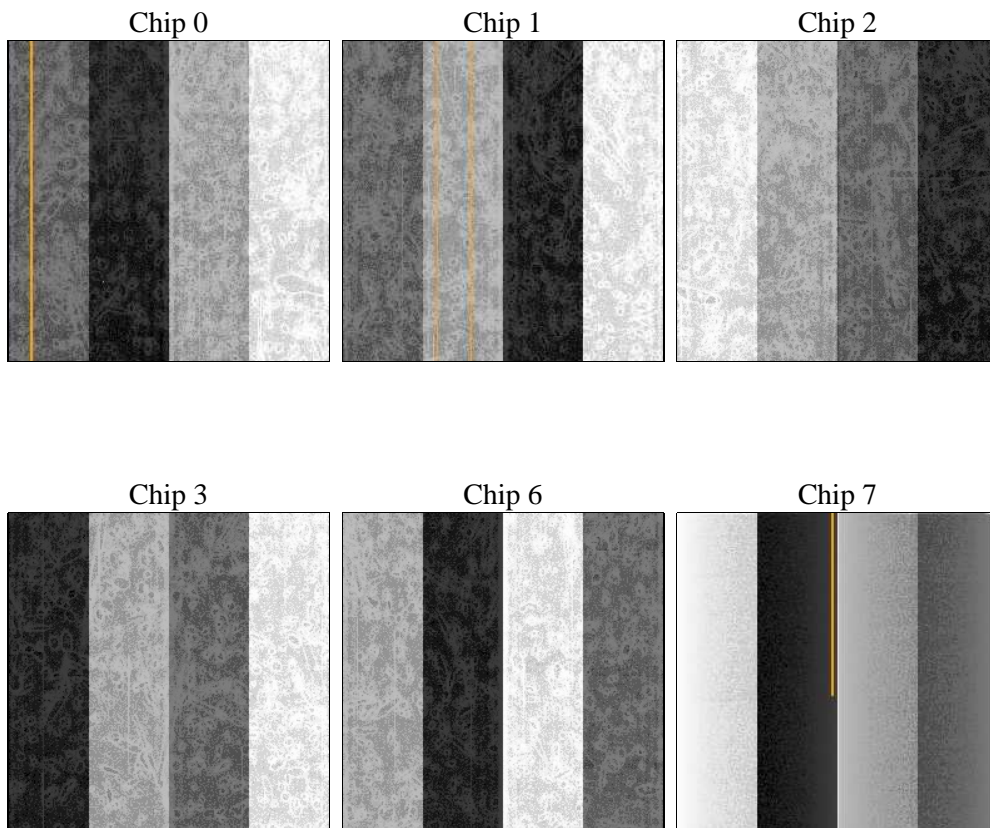
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	1449.6097379923	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime0	1955.1999927163	Sum of GTIs [s]
date	2012-11-13T20:12:35	Date and time of file creation	ontime1	1955.1999927163	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	1955.1999927163	Sum of GTIs [s]
			ontime3	1449.6097379923	Sum of GTIs [s]
			ontime6	1955.1999927163	Sum of GTIs [s]
			ontime7	1955.1999927163	Sum of GTIs [s]
			l1events	373195	Number of level 1 events

### 2.1.4 Events

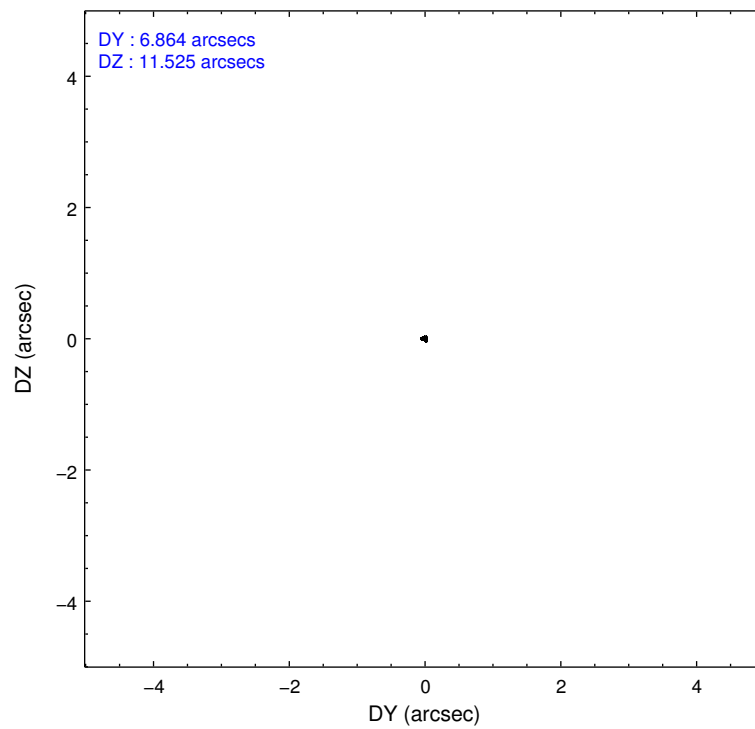
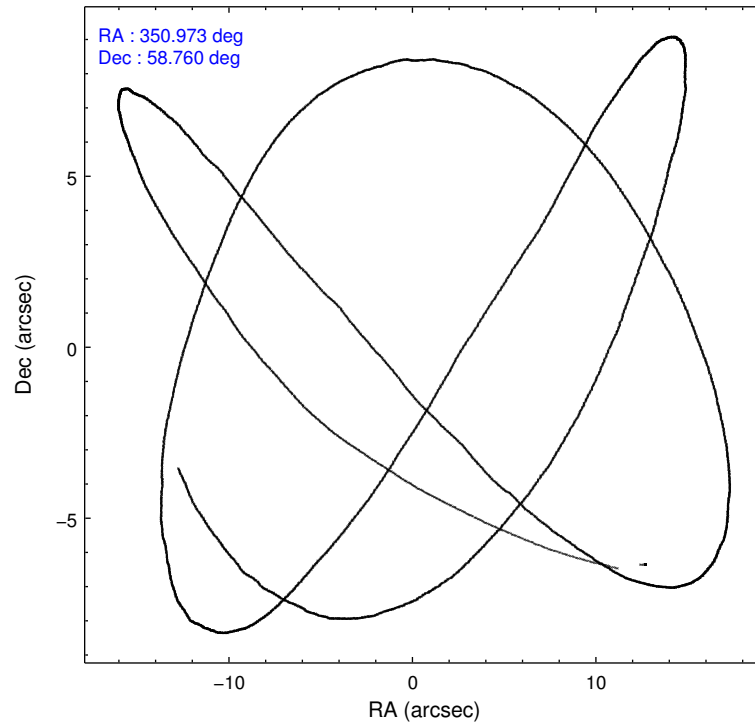
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	0	0	0	373195	0	0
rejected events	0	0	0	56888	0	0
rejected %	0%	0%	0%	15%	0%	0%

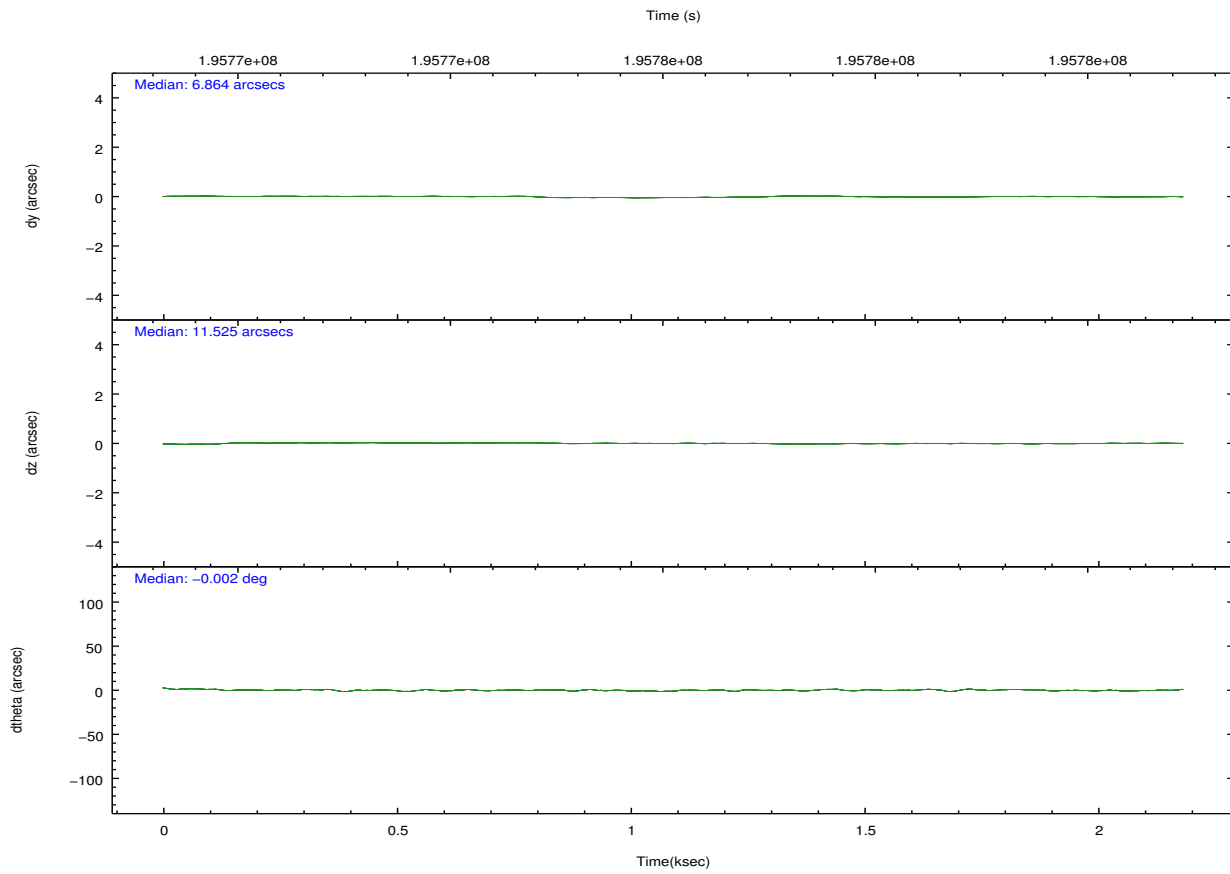
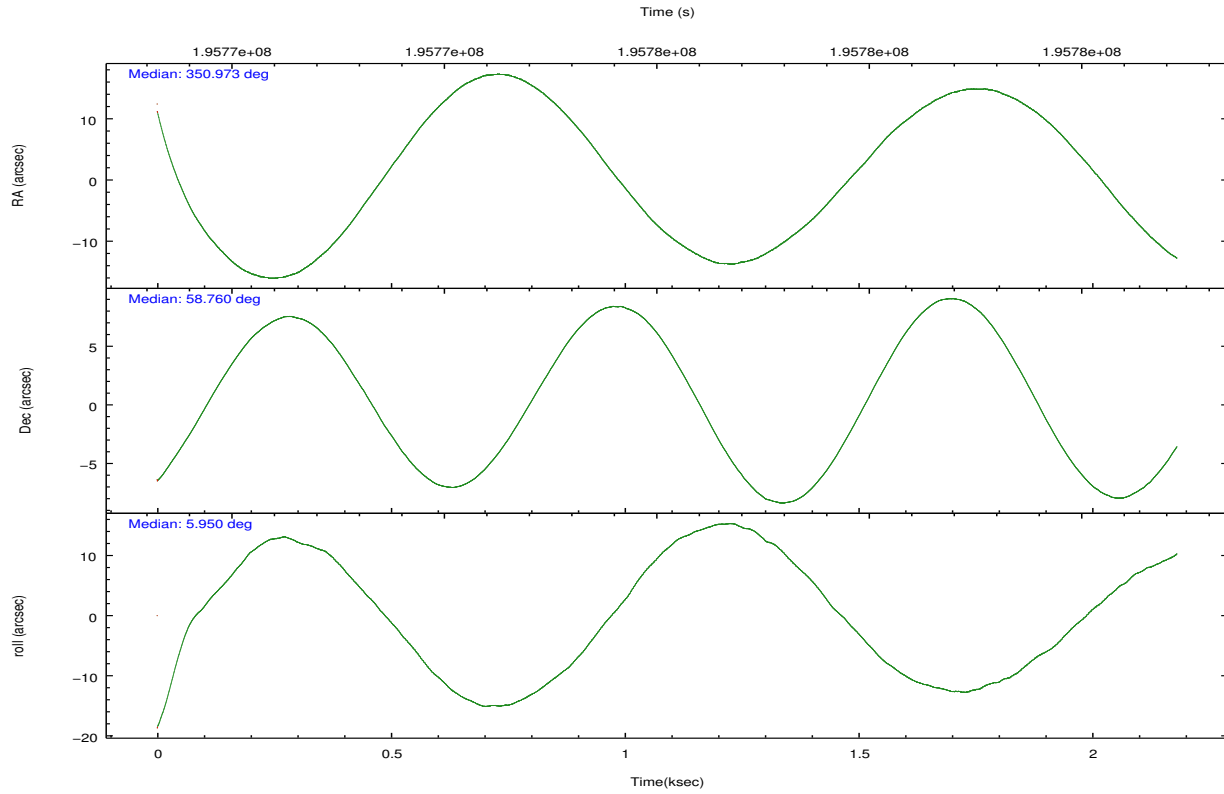
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	0	0	0	257556	0	0
	0%	0%	0%	69%	0%	0%
grade 1 events	0	0	0	4189	0	0
	0%	0%	0%	1%	0%	0%
grade 2 events	0	0	0	32281	0	0
	0%	0%	0%	8%	0%	0%
grade 3 events	0	0	0	10369	0	0
	0%	0%	0%	2%	0%	0%
grade 4 events	0	0	0	10398	0	0
	0%	0%	0%	2%	0%	0%
grade 5 events	0	0	0	2882	0	0
	0%	0%	0%	0%	0%	0%
grade 6 events	0	0	0	7117	0	0
	0%	0%	0%	1%	0%	0%
grade 7 events	0	0	0	48403	0	0
	0%	0%	0%	12%	0%	0%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
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
[deg] Pointing RA	350.930815	350.9733006571487	Subarray requested	NONE	NONE
[deg] Pointing Dec	58.744324	58.76045134428783	Alternating exposures requested	N	N
[deg] Pointing Roll	5.780164	5.952489752379207	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	194486464.184000	194486464.184000			
[s] Window stop time (MET)	197078464.184000	197078464.184000			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	195774116.184000	195773154.23075			
Observation start date	2004-03-15T21:40:52	2004-03-15T21:25:54			
[s] Observation end time (MET)	195776116.184000	195776266.64339			
Observation end date	2004-03-15T22:14:12	2004-03-15T22:17:46			
Read mode	TIMED	TIMED			

## 2.3 Aspect



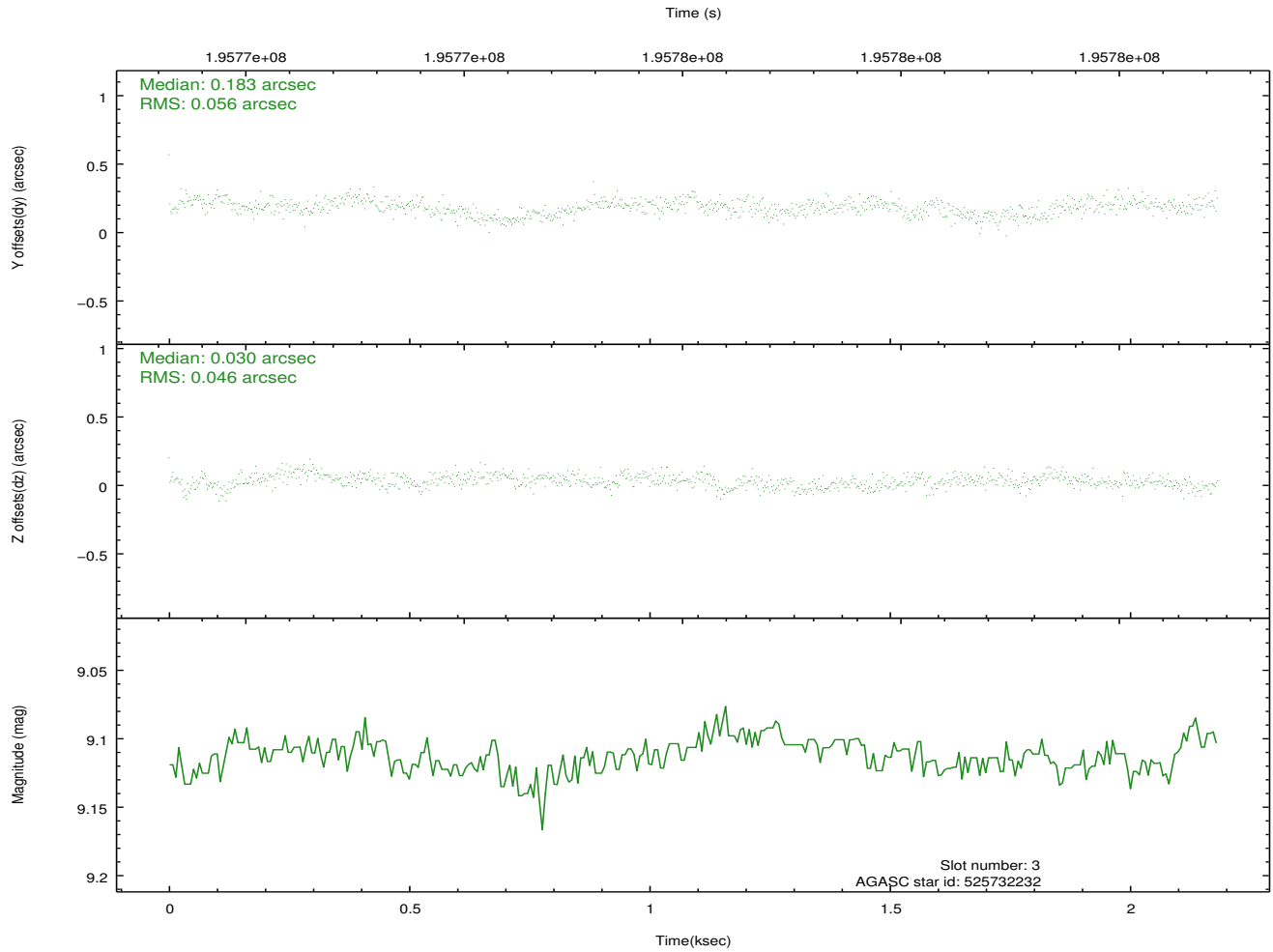
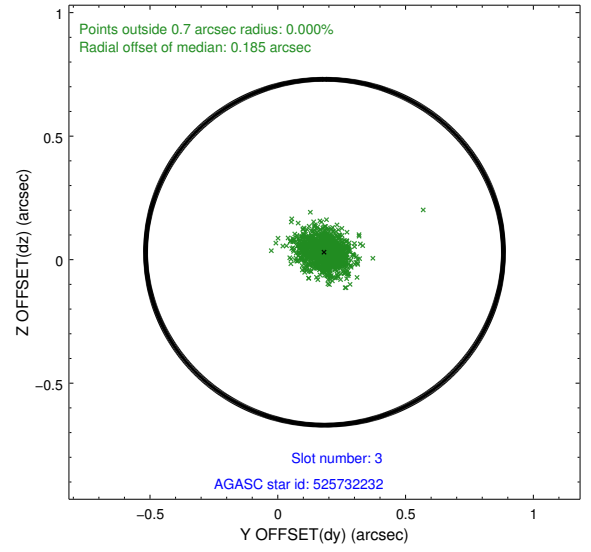
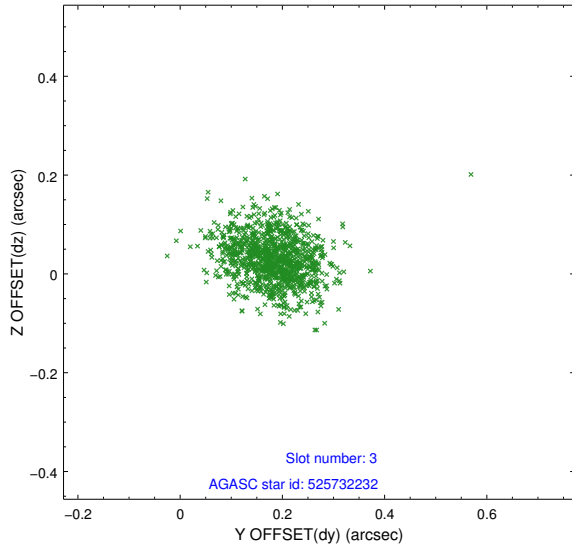


### Slot Statistics

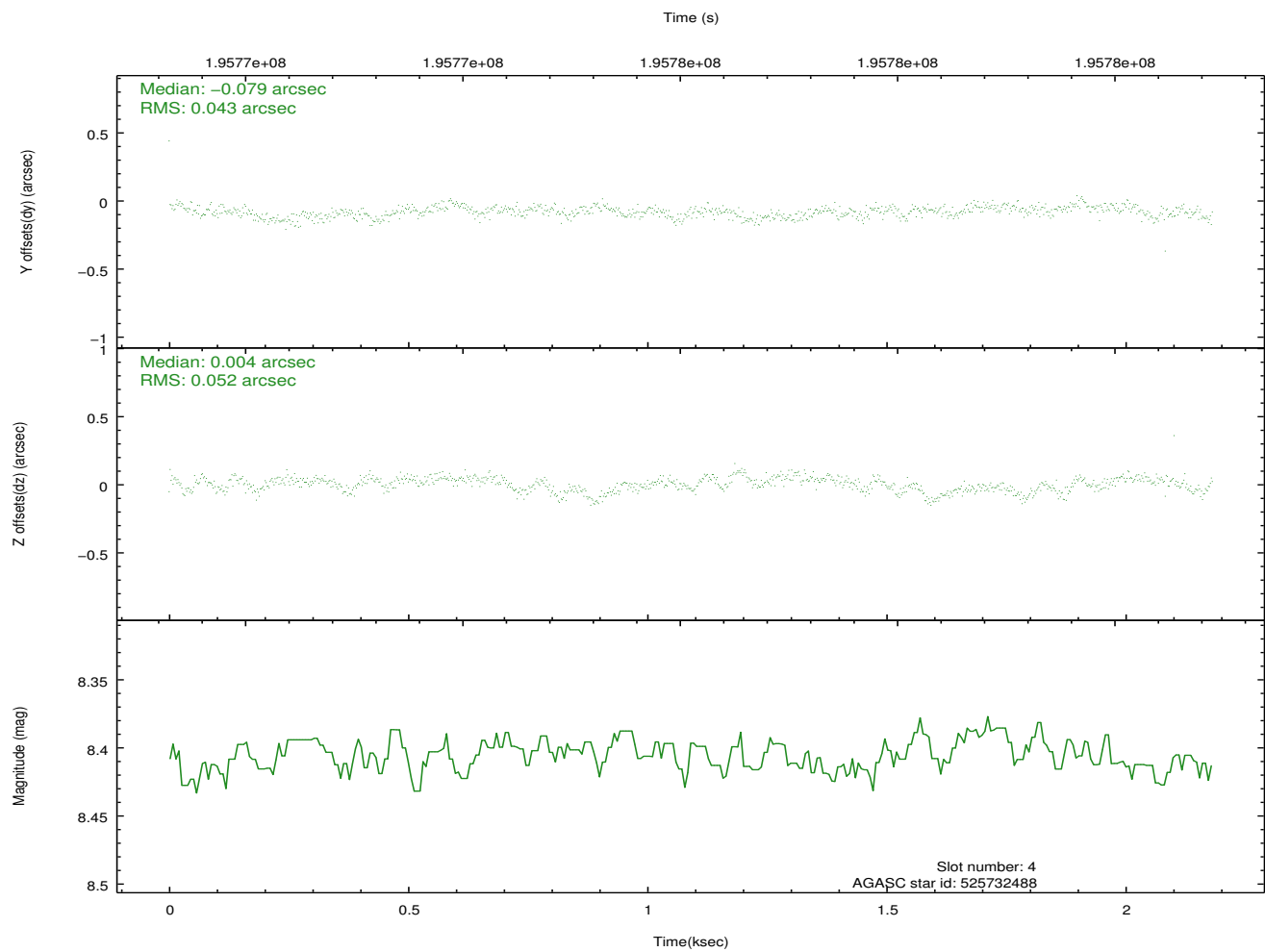
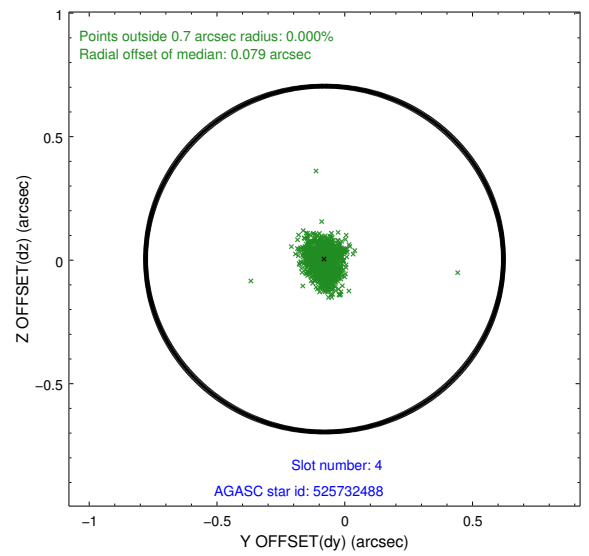
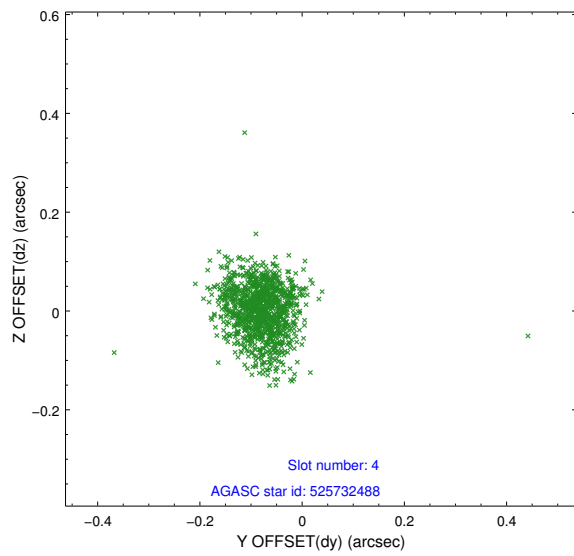
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	533	-0.017	-0.067	0.008	0.013	0.000000	0.000000	932.81	-835.11
1	FID	ACIS-I-4	7.18	533	0.070	0.078	0.008	0.013	0.000000	0.000000	2154.61	1063.35
2	FID	ACIS-I-5	7.23	532	-0.151	0.059	0.006	0.013	0.000000	0.000000	-1811.47	1064.59
3	GUIDE	525732232	9.11	1065	0.183	0.030	0.077	0.125	351.669550	58.757012	1378.77	-86.09
4	GUIDE	525732488	8.41	1065	-0.079	0.004	0.069	0.113	350.087090	58.516915	-1657.90	-644.74
5	GUIDE	525735976	8.89	1064	-0.073	-0.032	0.071	0.116	350.142956	58.277622	-1653.27	-1513.21
6	GUIDE	525736400	9.06	1064	-0.014	-0.001	0.076	0.133	350.974563	59.175145	235.25	1533.80
7	GUIDE	525732528	9.36	1062	-0.011	0.007	0.087	0.141	351.607241	59.298932	1439.21	1869.26

## 2.4 Star Slots

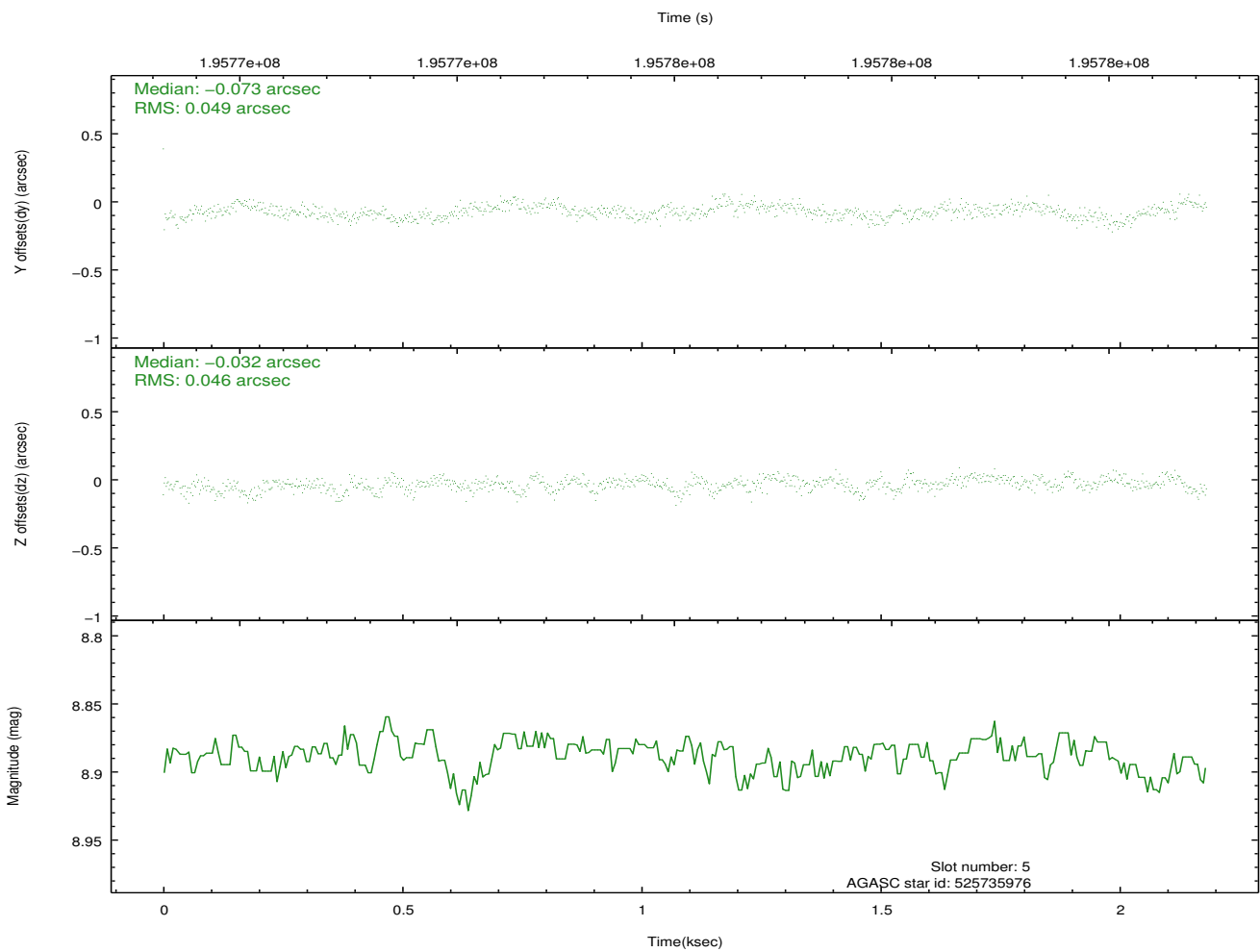
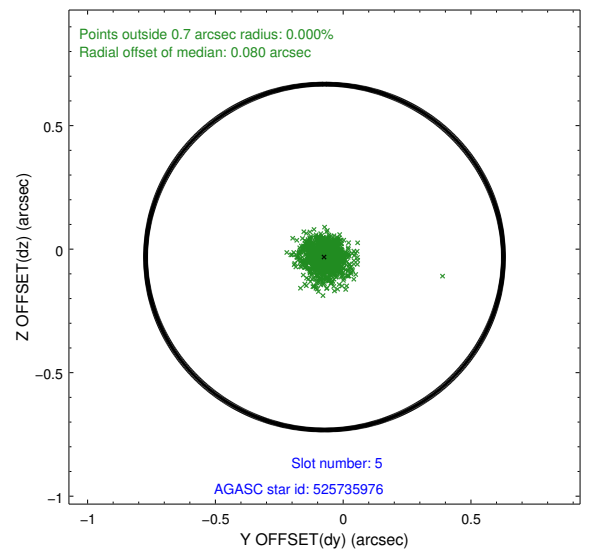
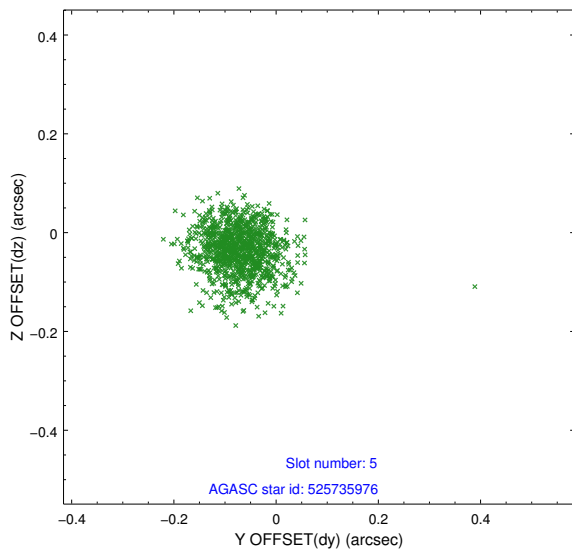
### 2.4.1 Slot 3



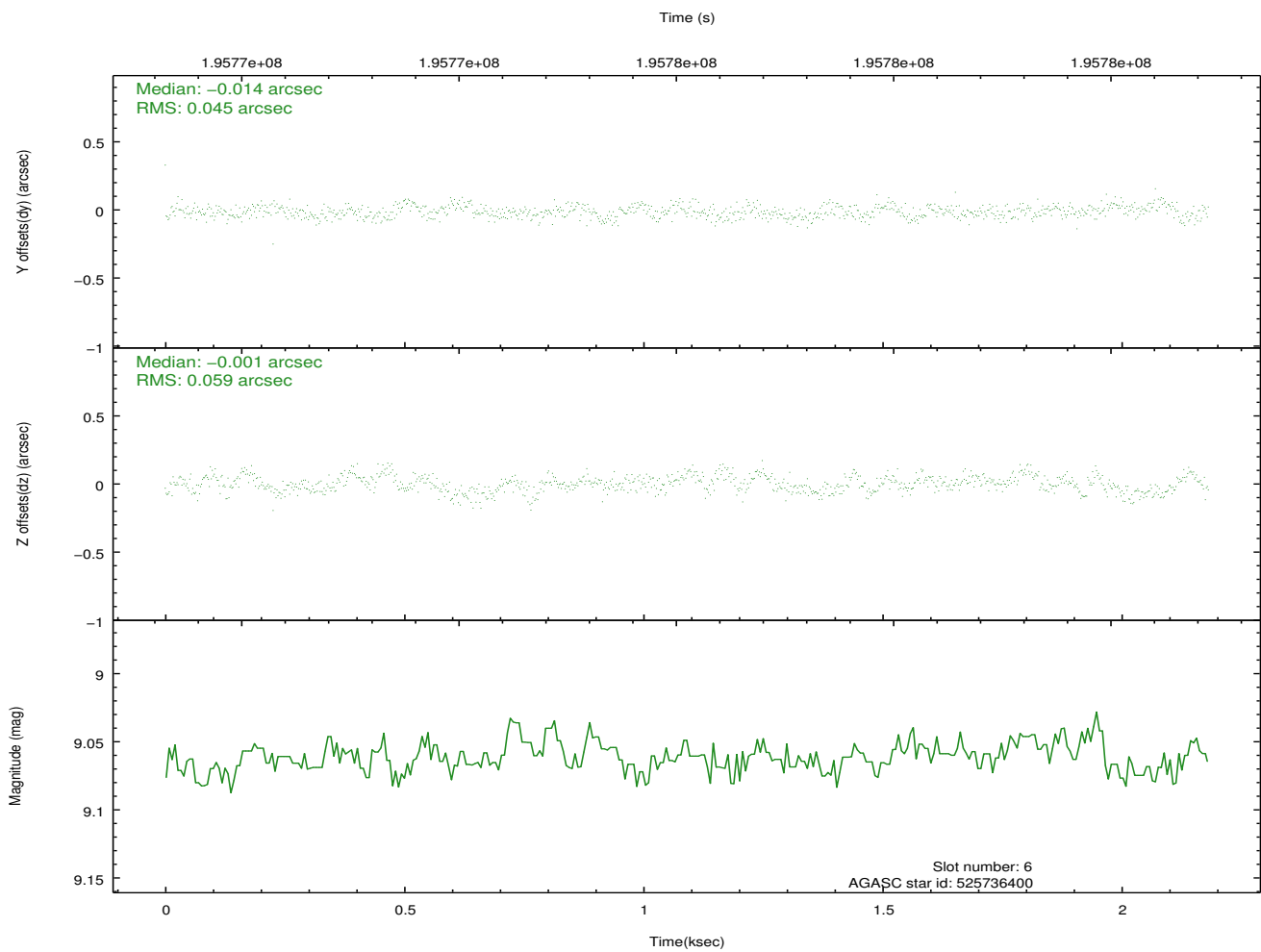
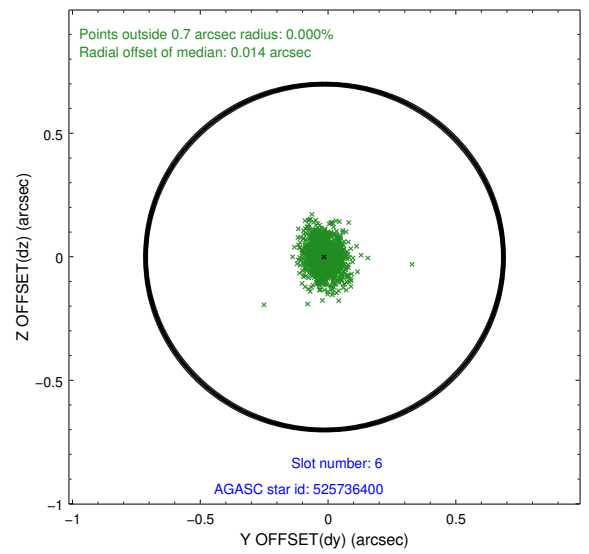
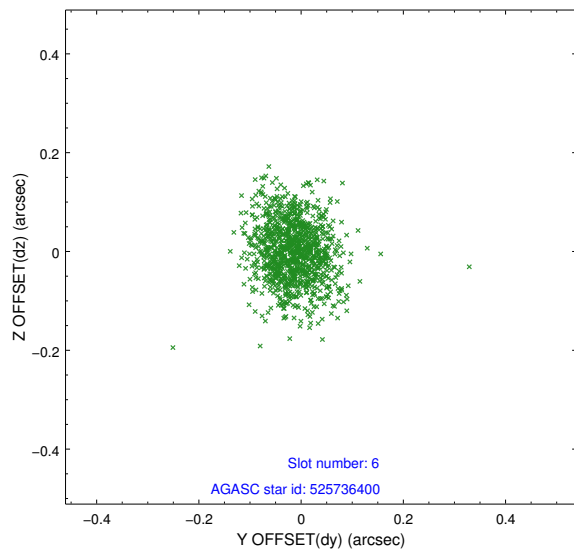
## 2.4.2 Slot 4



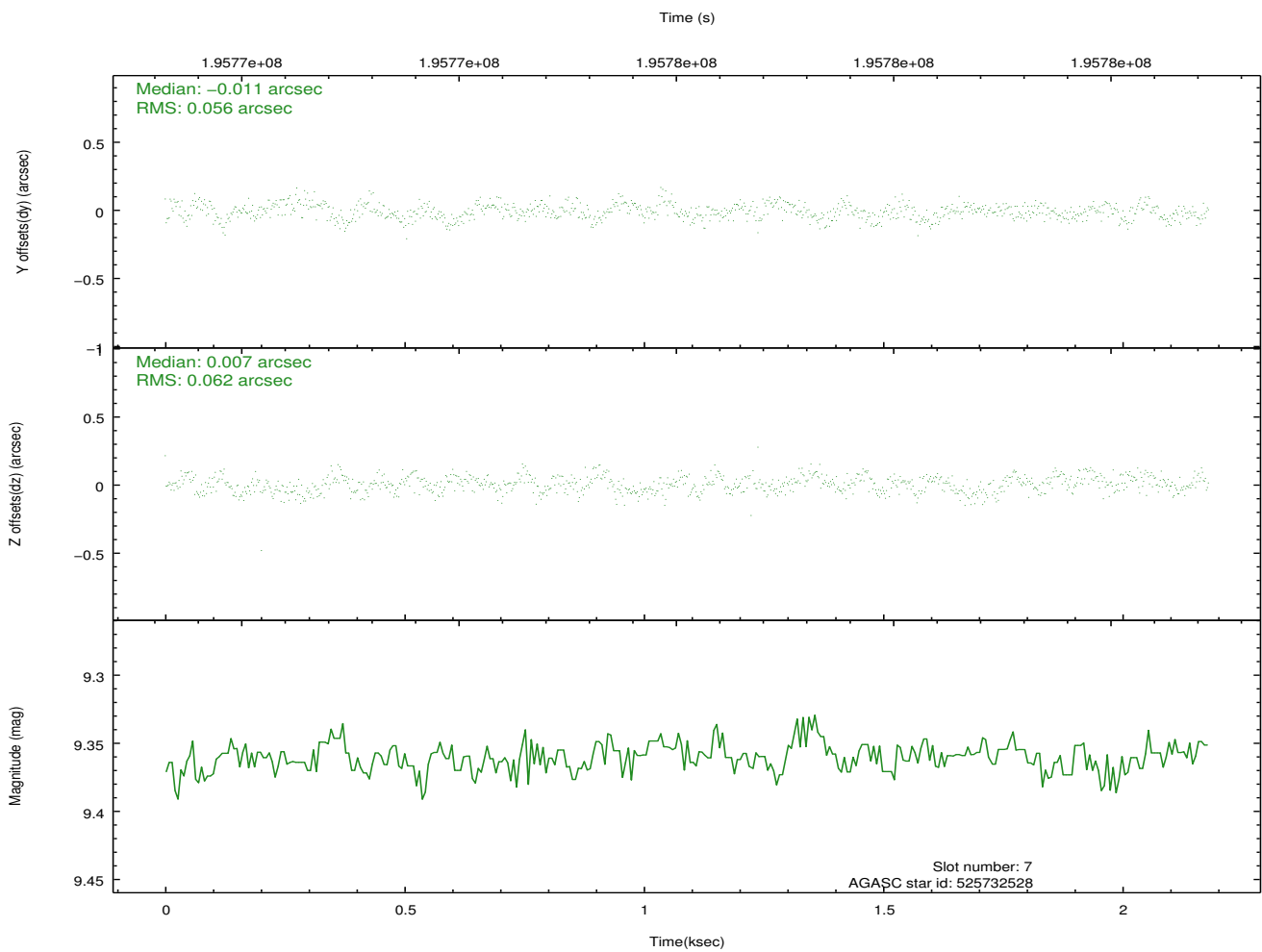
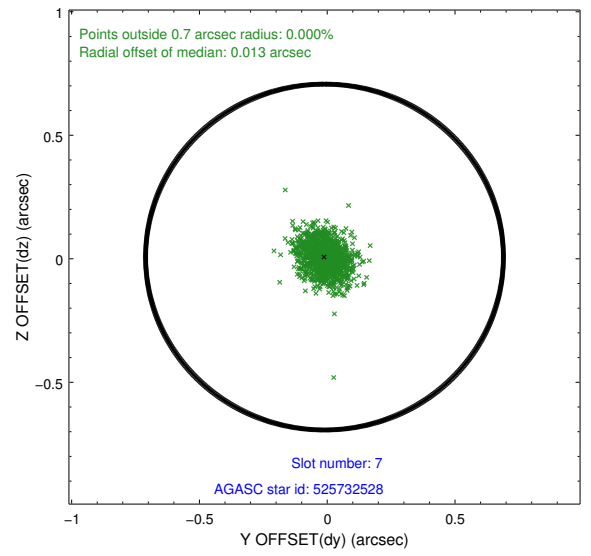
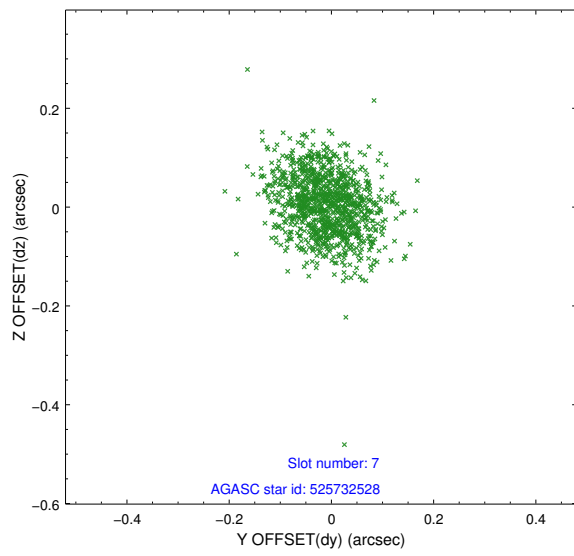
### 2.4.3 Slot 5



## 2.4.4 Slot 6

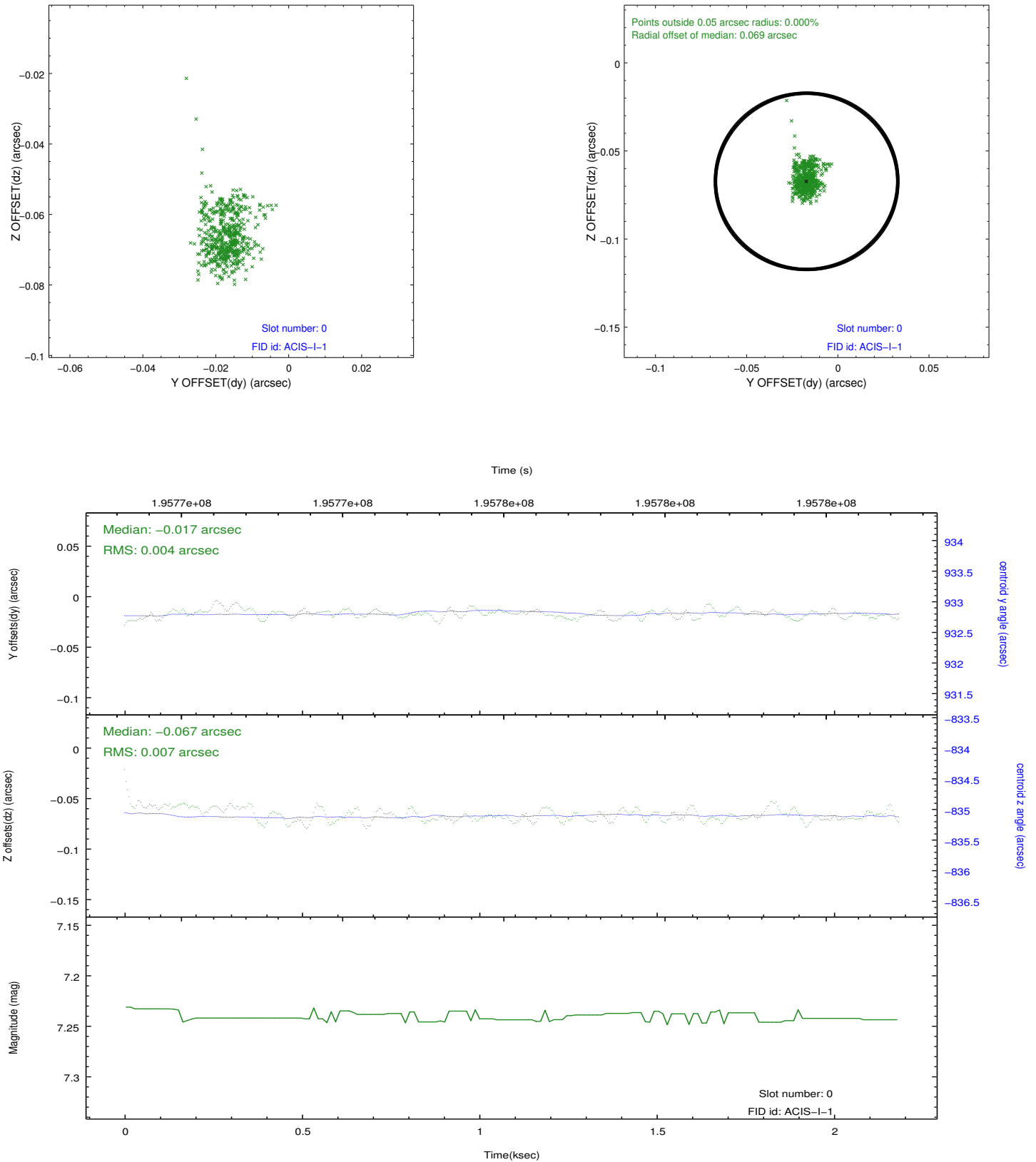


### 2.4.5 Slot 7

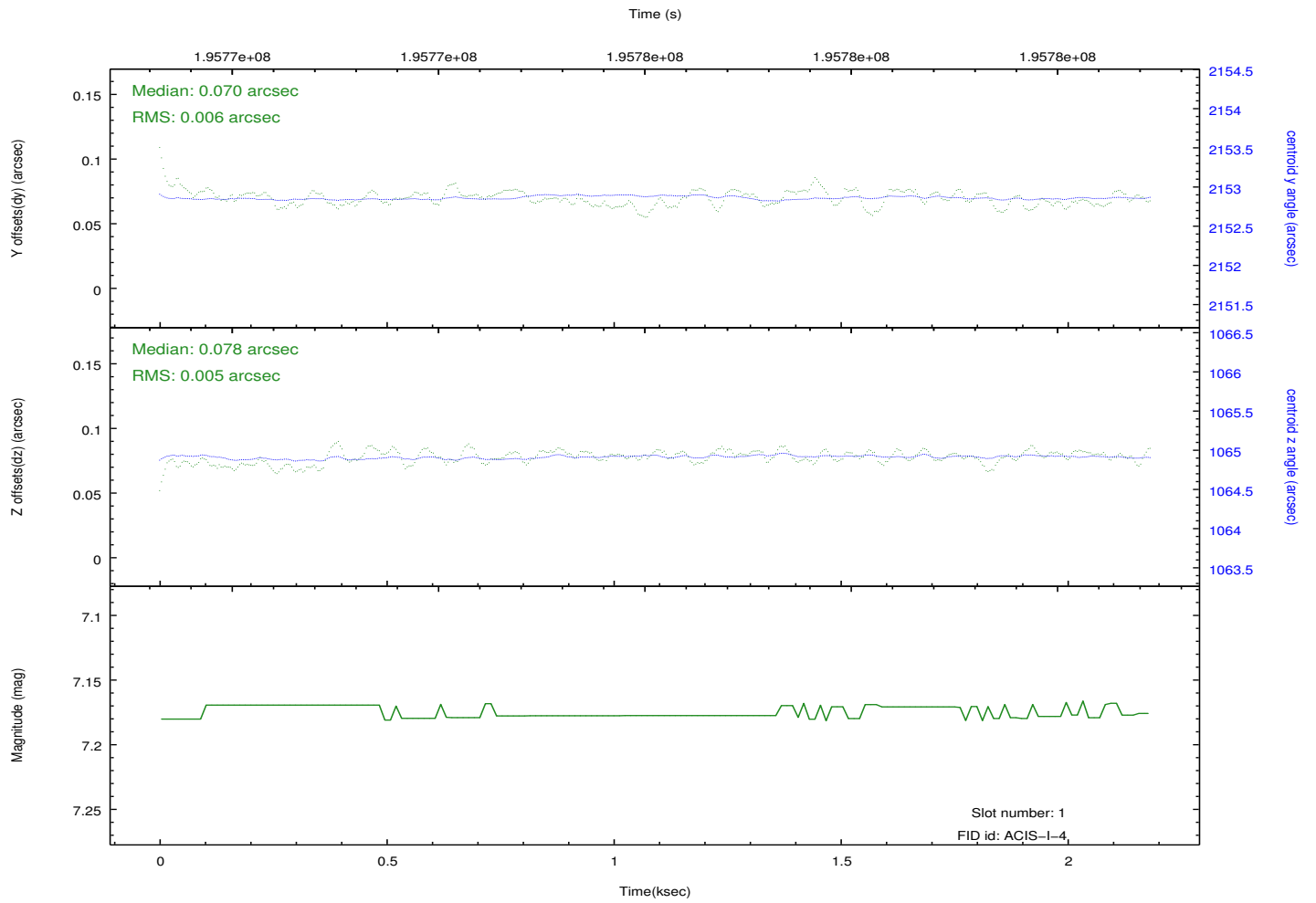
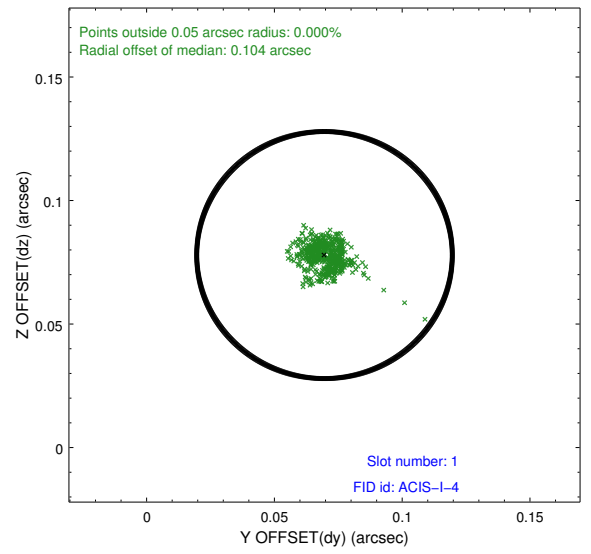
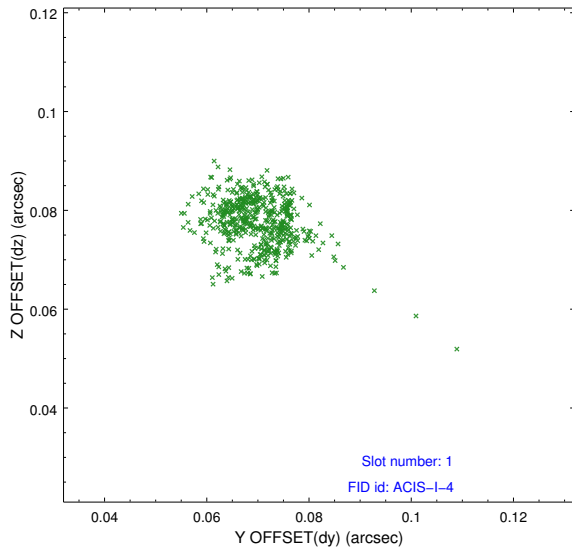


## 2.5 FID Slots

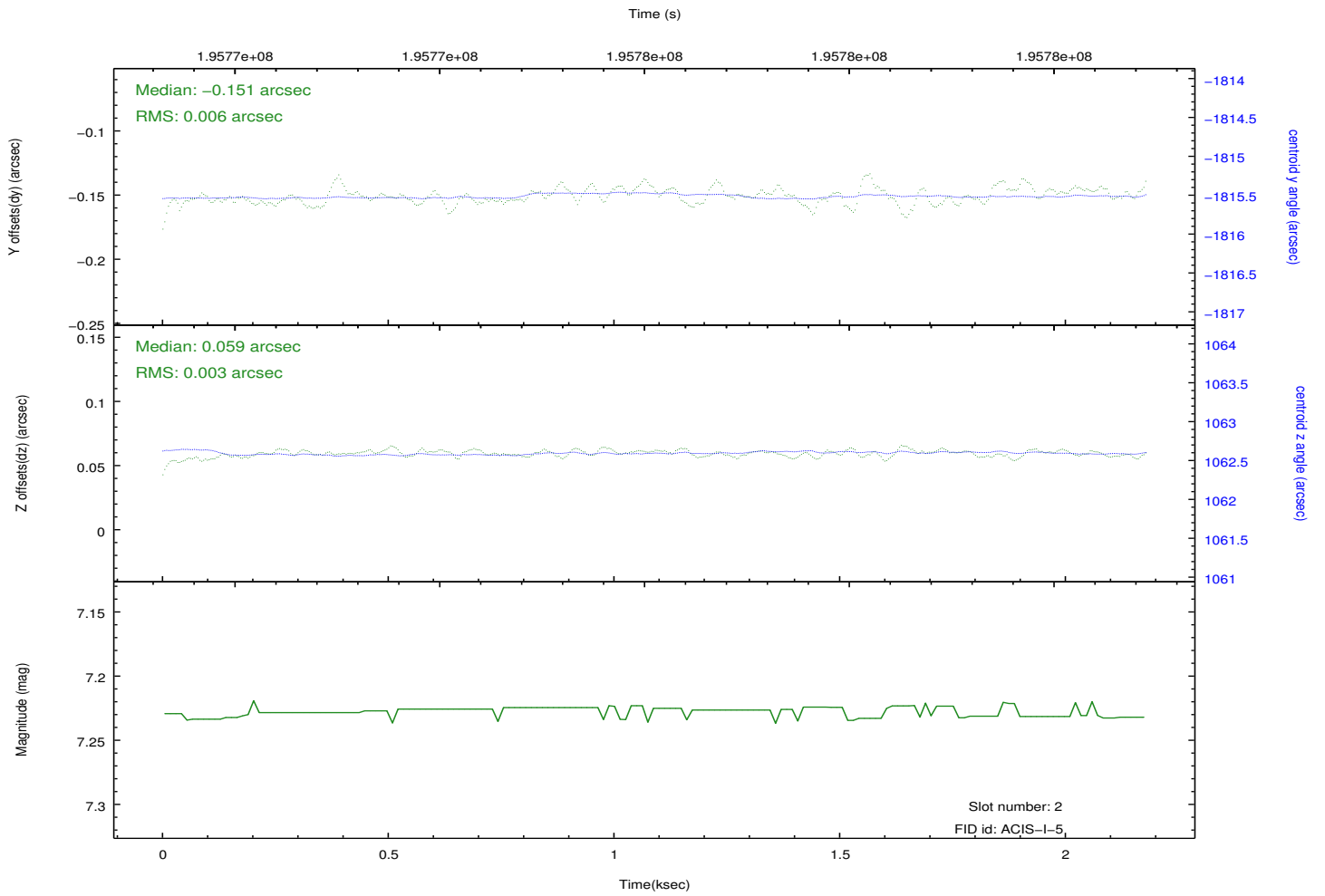
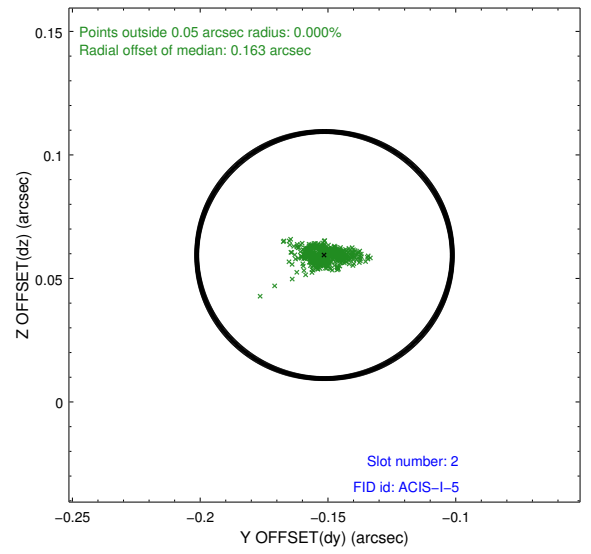
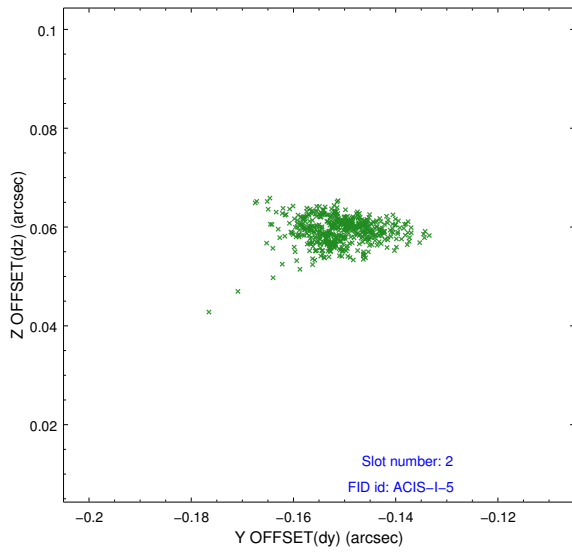
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.452

## A.2 Comments

Window constraint met. A spatial exclusion window was specified for this observation. Although 6 CCD chips were active, only events from chip 3 were telemetered.