

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11520 - L2 Version 2  
Chandra X-Ray Center

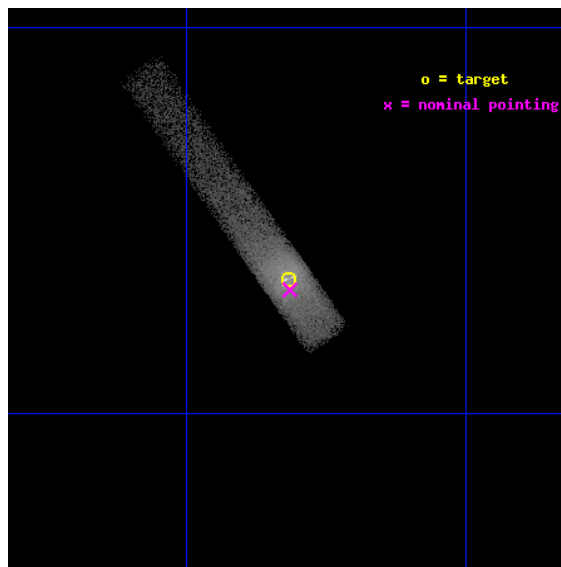
L2 Processing Date : Jun 25 2012

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# 1 Front

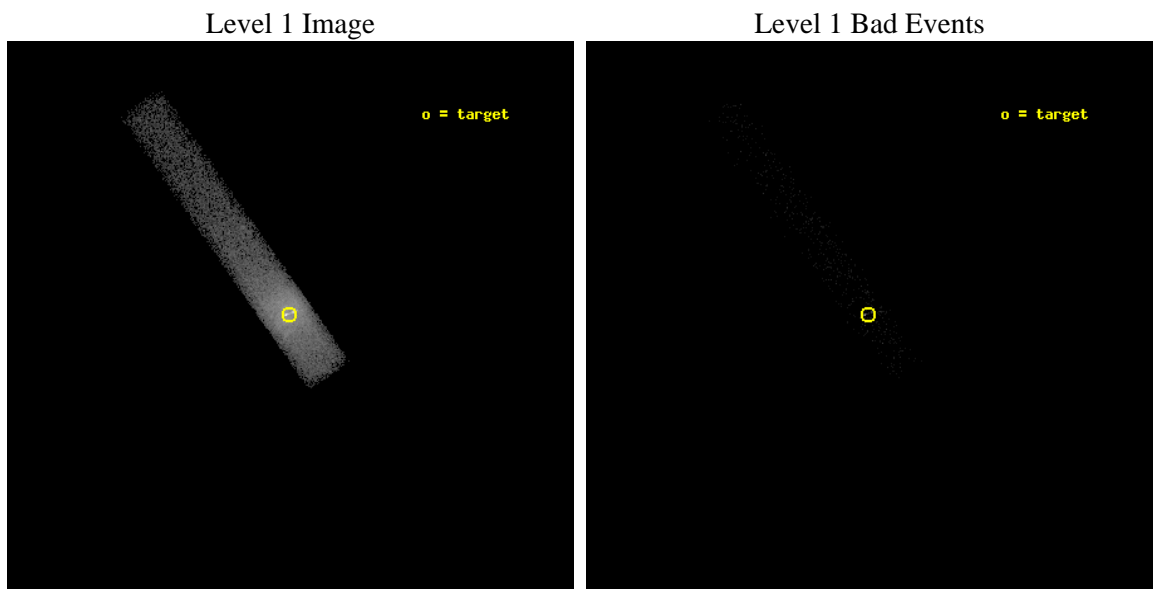
seq_num	702106	Sequence number
obs_id	11520	Observation id
title	The X-ray - TeV Connection in M87	Proposal title
observer	Dr. Daniel Harris	Principal investigator
object	M87	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.704167	Observer's specified target RA [deg]
dec_targ	12.391667	Observer's specified target Dec [deg]
ra_nom	187.7038653006	Nominal RA [deg]
dec_nom	12.3868252606	Nominal Dec [deg]
roll_nom	234.85519976394	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5066.7996979952	Sum of GTIs [s]
liveltime	4595.3198784647	Livetime [s]
ontime7	5066.7996979952	Sum of GTIs [s]
l2events	45813	Number of level 2 events



## 2 OBI

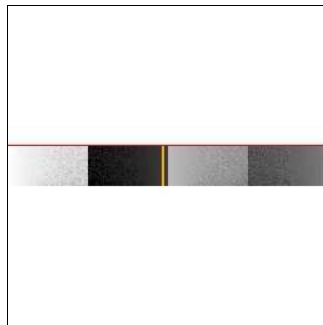
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4879.453000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	5066.7996979952	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime7	5066.7996979952	Sum of GTIs [s]
date	2012-06-25T23:29:22	Date and time of file creation	l1events	52089	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	52089
rejected events	5704
rejected %	10%

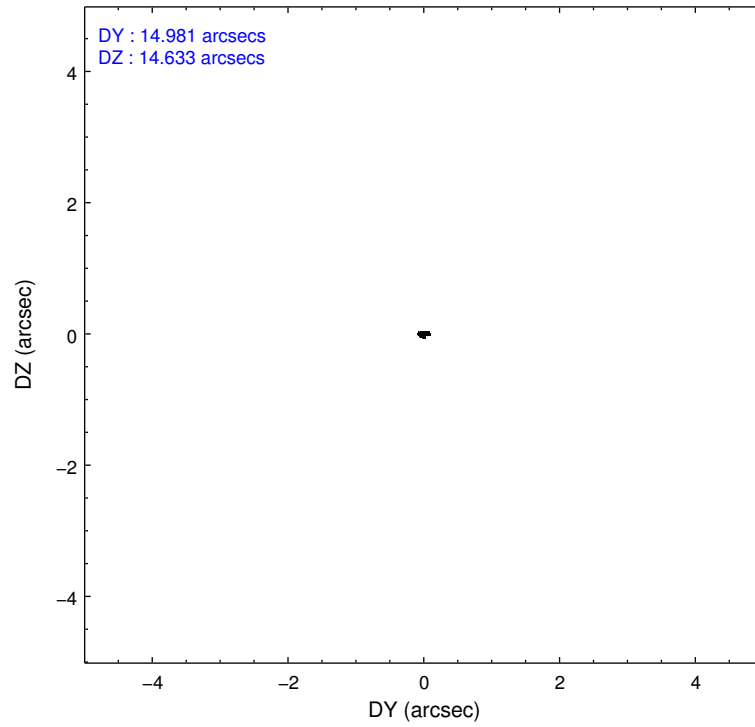
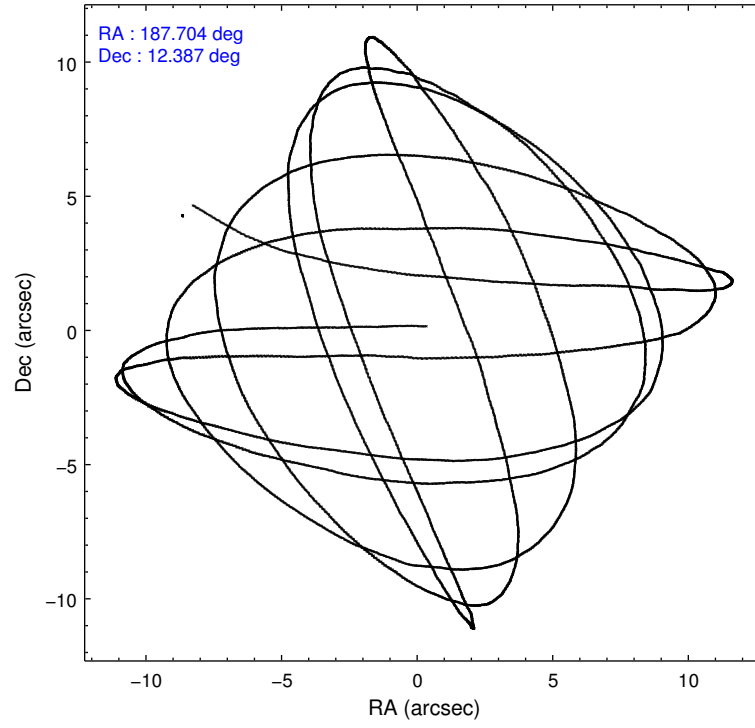
	<b>ccd 7</b>
grade 0 events	14437
	27%
grade 1 events	35
	0%
grade 2 events	12543
	24%
grade 3 events	5736
	11%
grade 4 events	5559
	10%
grade 5 events	1063
	2%
grade 6 events	9790
	18%
grade 7 events	2926
	5%

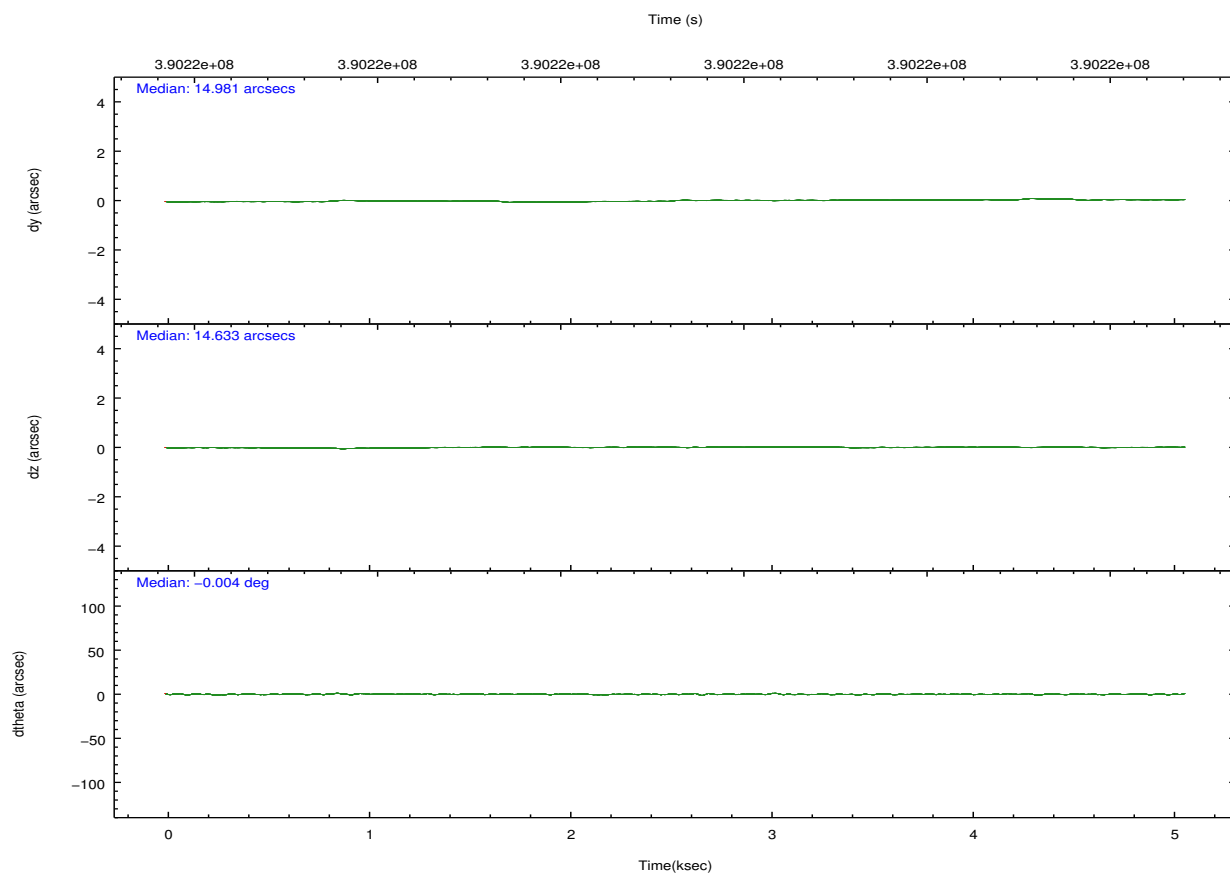
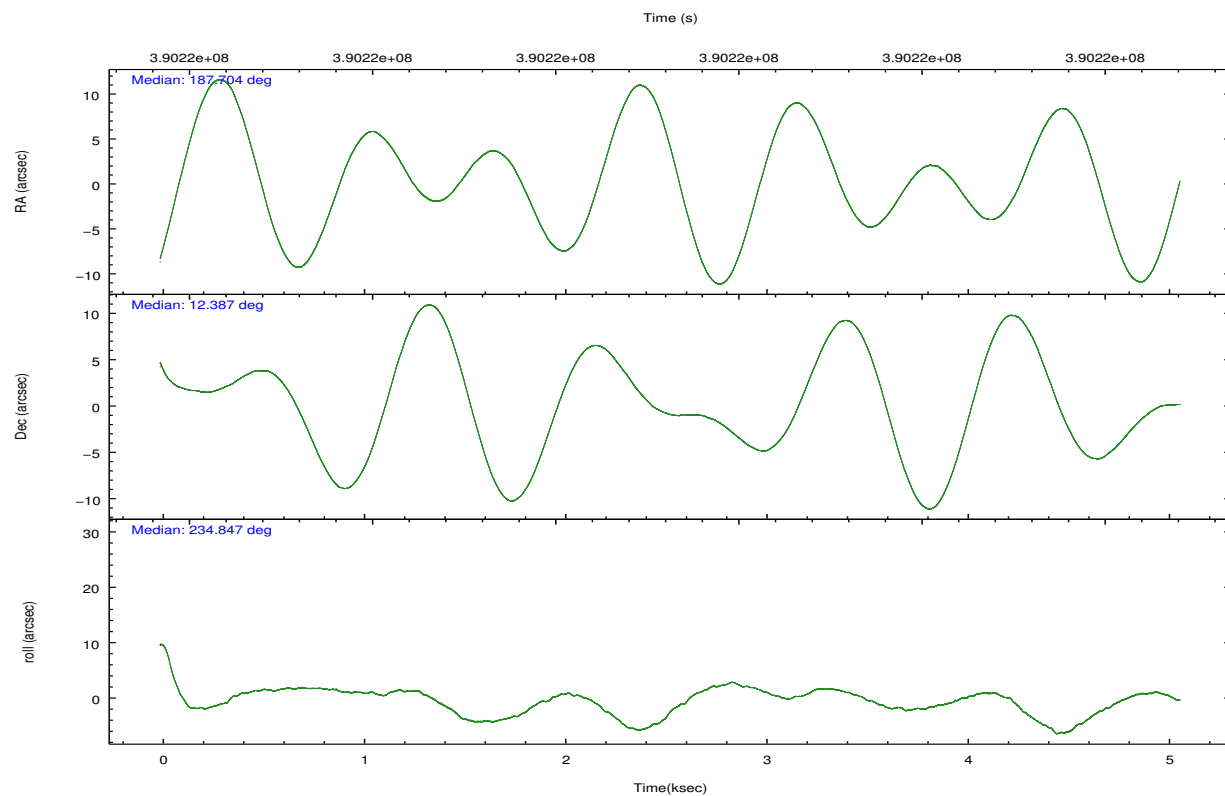


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	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	187.705993	187.7038653006012	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	12.414085	12.38682526059967	Subarray start row	449	449
[deg] Pointing Roll	234.698110	234.8551997639363	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.4
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	390216268.184000	390215099.50884			
Observation start date	2010-05-14T09:23:22	2010-05-14T09:04:59			
[s] Observation end time (MET)	390221147.184000	390221368.40916			
Observation end date	2010-05-14T10:44:41	2010-05-14T10:49:28			
Read mode	TIMED	TIMED			

## 2.3 Aspect



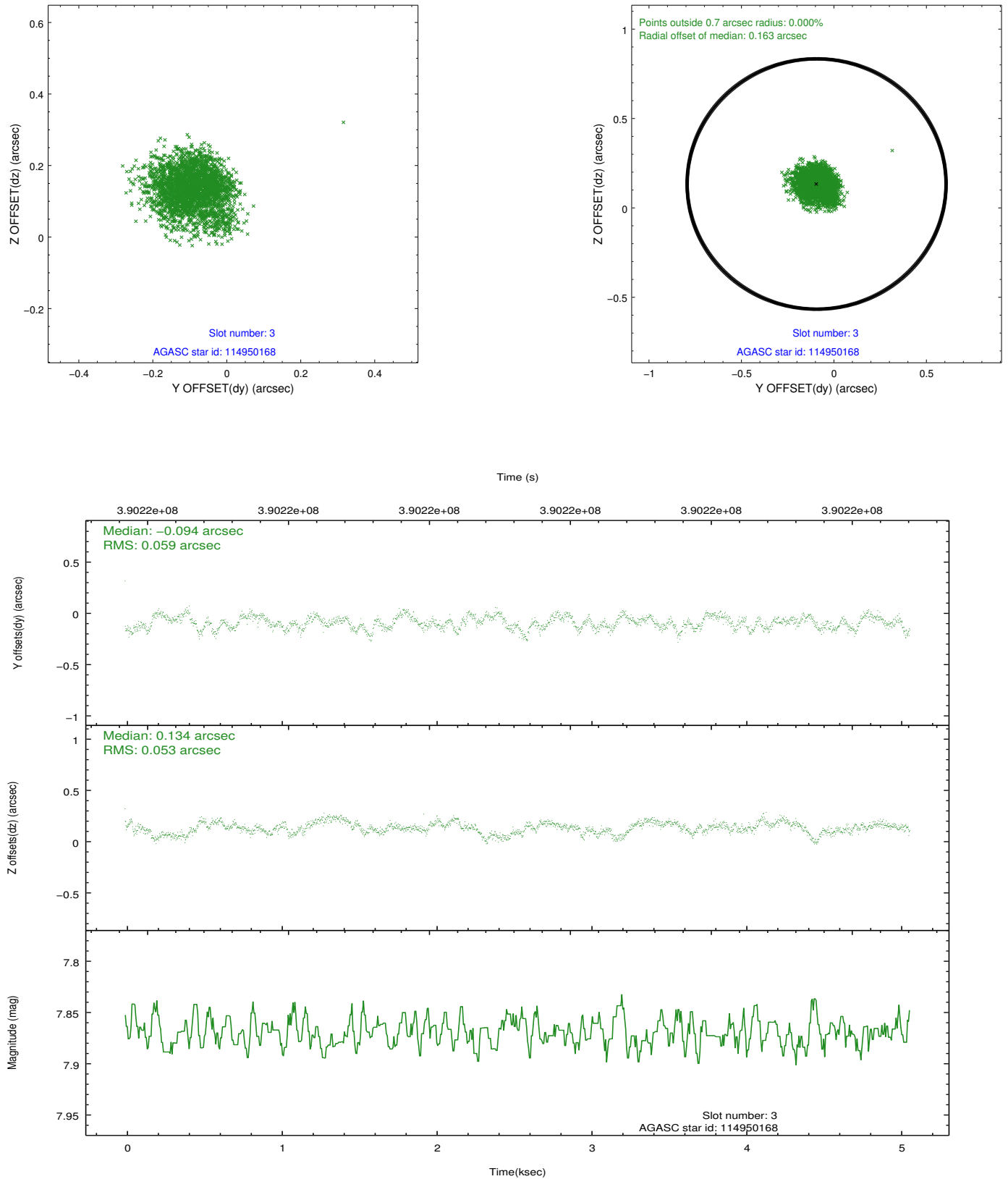


### Slot Statistics

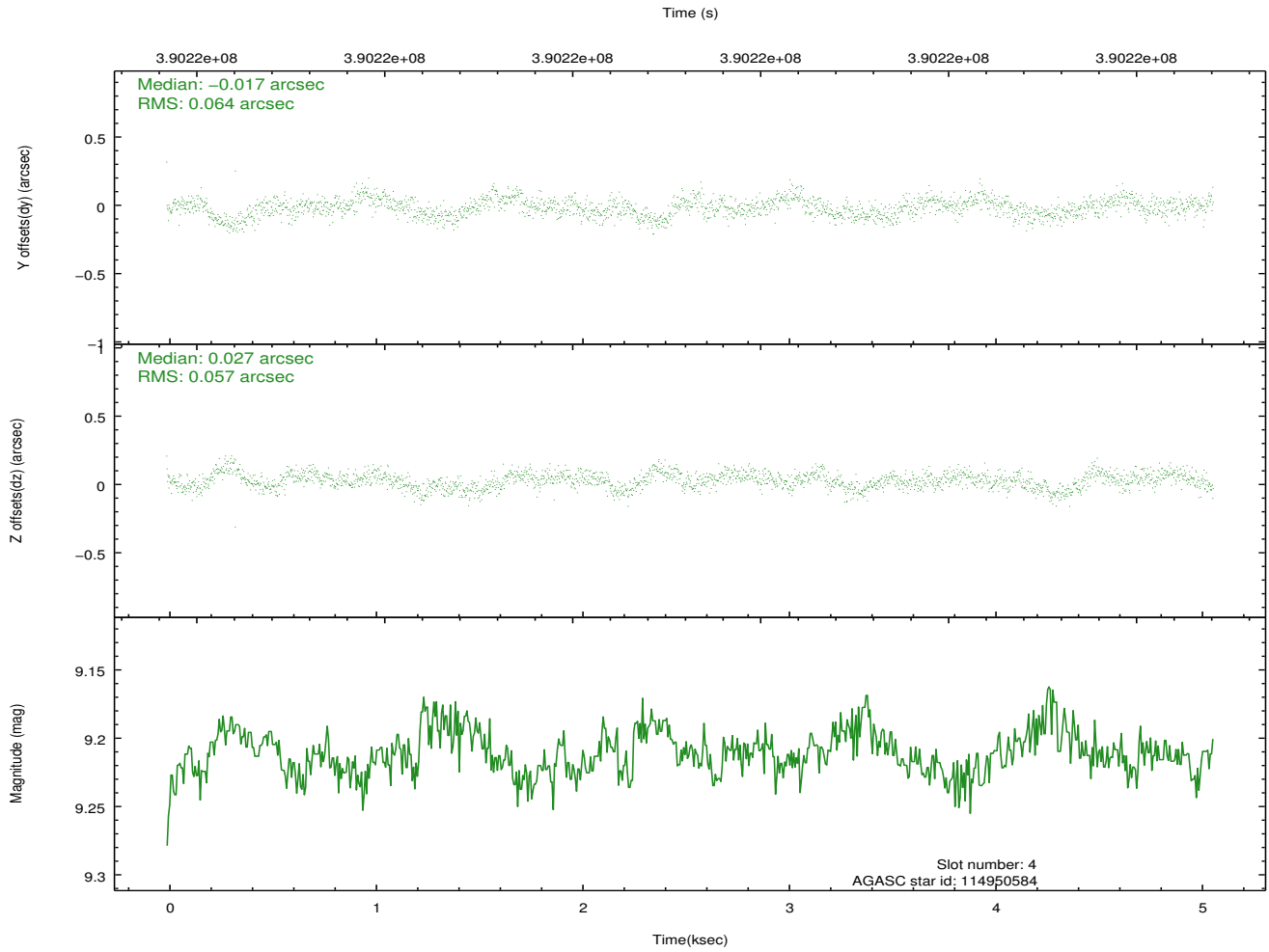
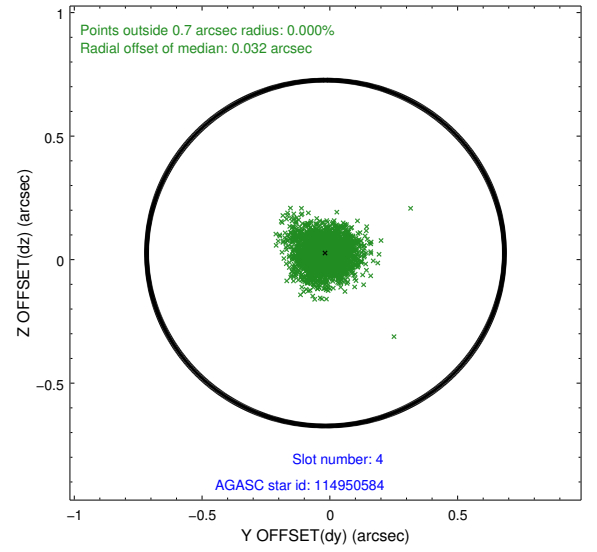
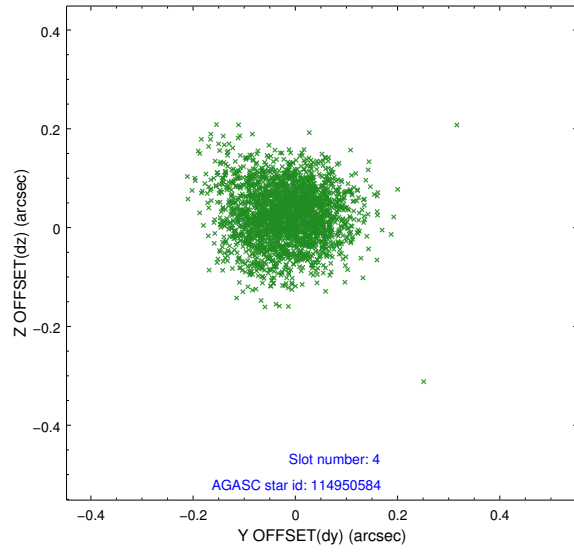
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.93	1237	-0.089	-0.038	0.006	0.011	0.000000	0.000000	-768.02	-1735.99
1	FID	ACIS-S-4	7.02	1237	0.190	0.053	0.006	0.009	0.000000	0.000000	2144.97	171.36
2	FID	ACIS-S-5	7.04	1237	-0.131	-0.006	0.006	0.011	0.000000	0.000000	-1819.38	166.31
3	GUIDE	114950168	7.87	2472	-0.094	0.134	0.085	0.133	187.143398	12.117441	2014.75	-999.57
4	GUIDE	114950584	9.21	2469	-0.017	0.027	0.090	0.146	187.487323	11.827248	2170.48	591.61
5	GUIDE	114952824	8.58	2470	-0.018	0.214	0.074	0.111	187.703904	12.486727	-207.65	-156.94
6	GUIDE	114954440	9.20	2469	0.062	-0.042	0.110	0.171	186.915066	12.219118	2177.92	-1866.77
7	GUIDE	114955056	8.32	2472	0.068	-0.331	0.070	0.108	187.914001	12.127854	418.83	1191.71

## 2.4 Star Slots

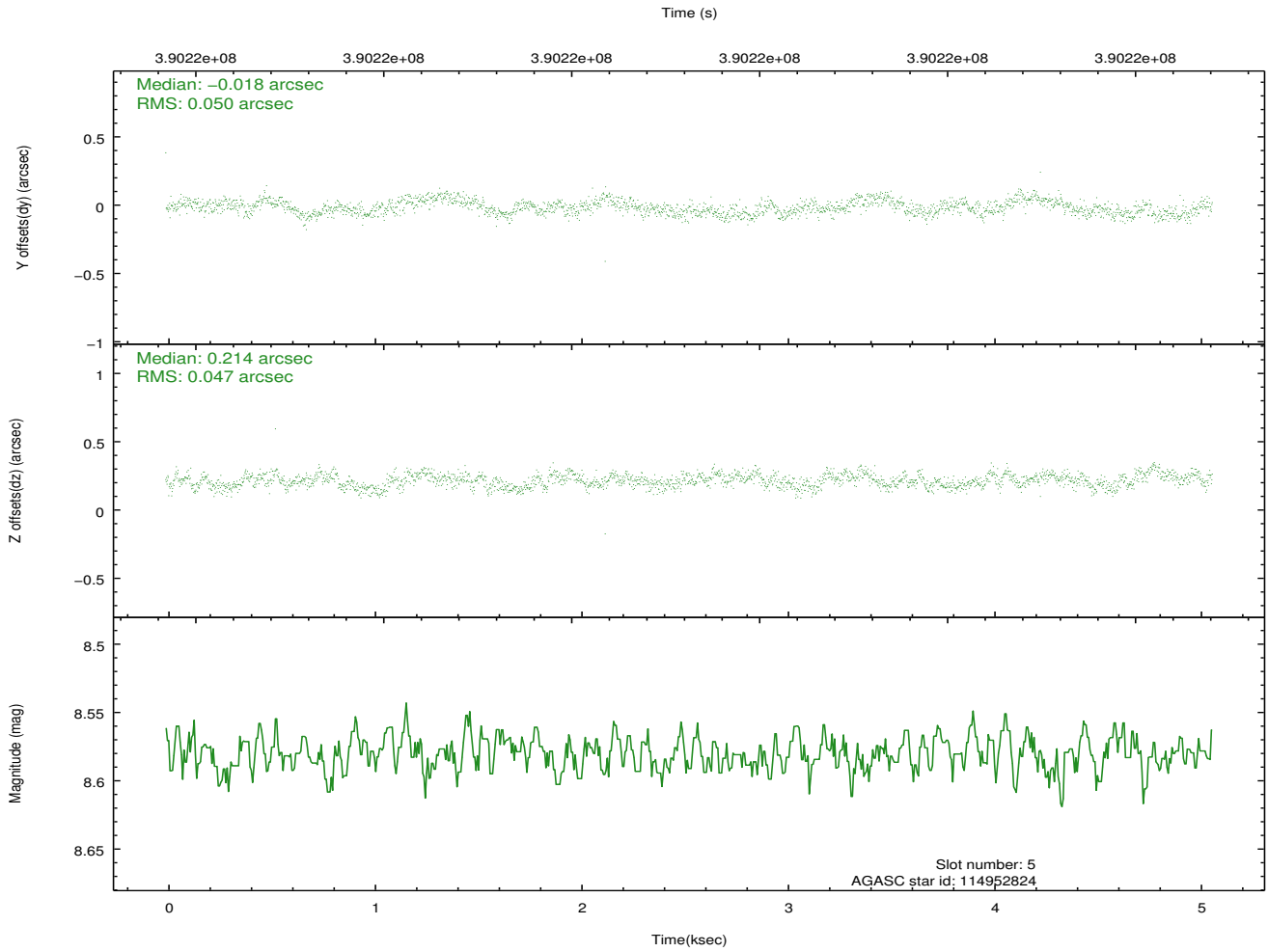
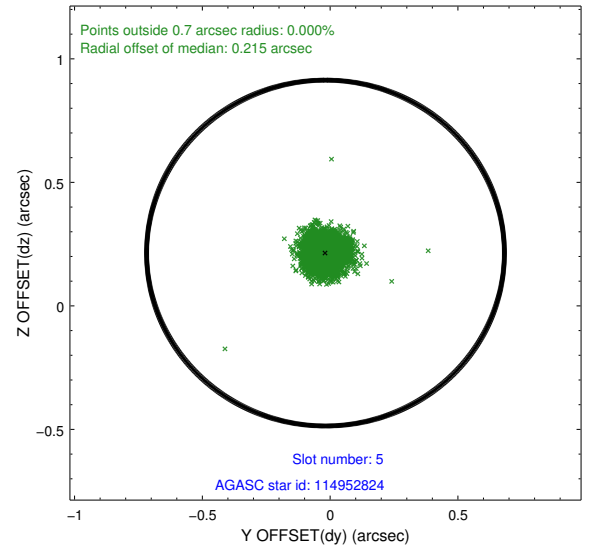
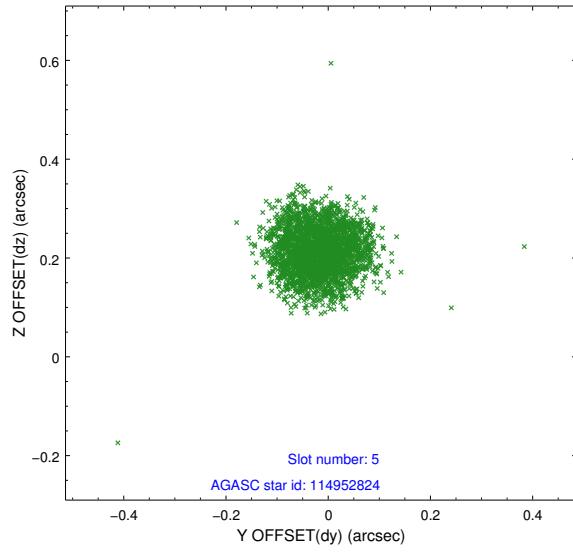
### 2.4.1 Slot 3



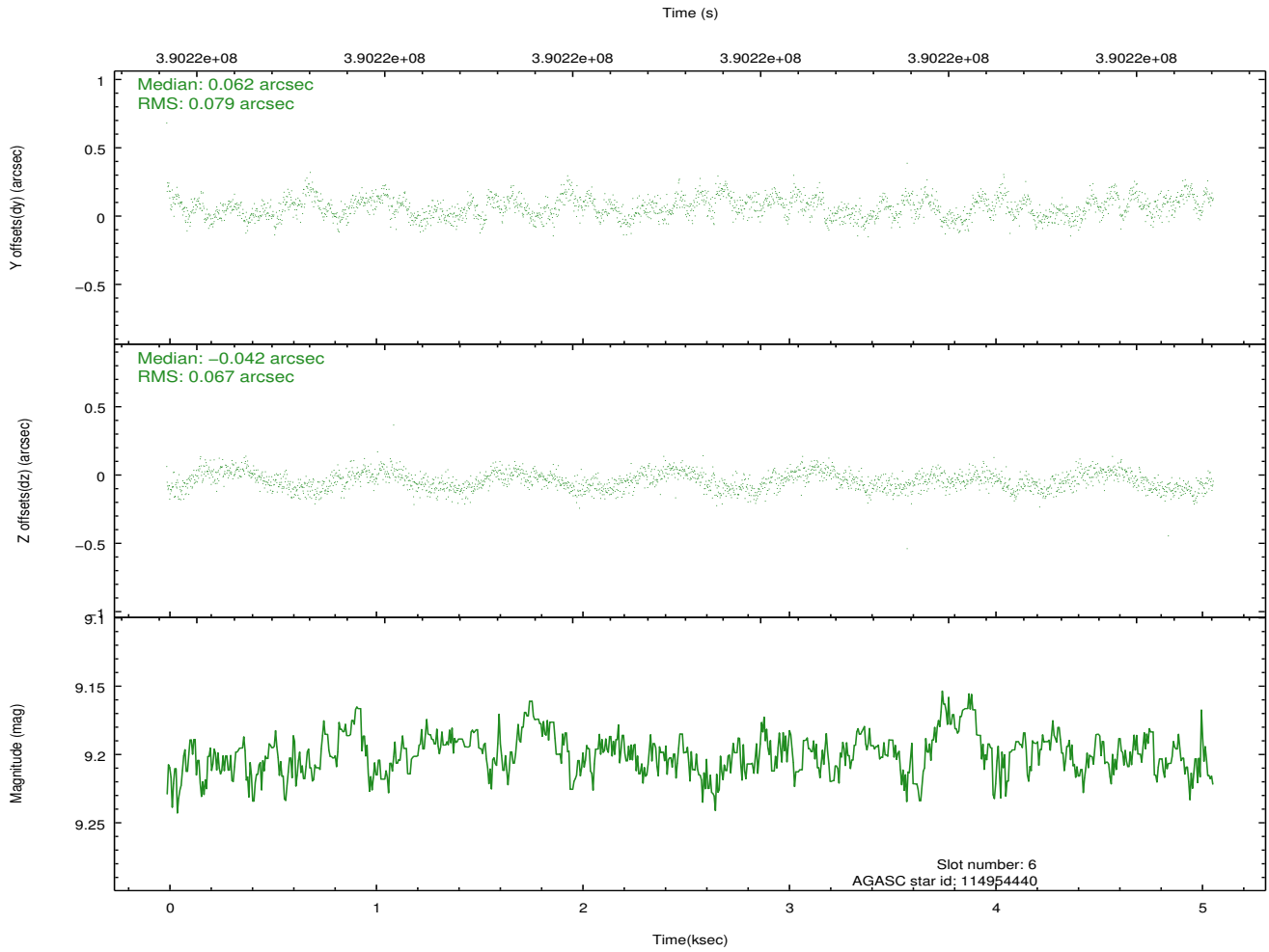
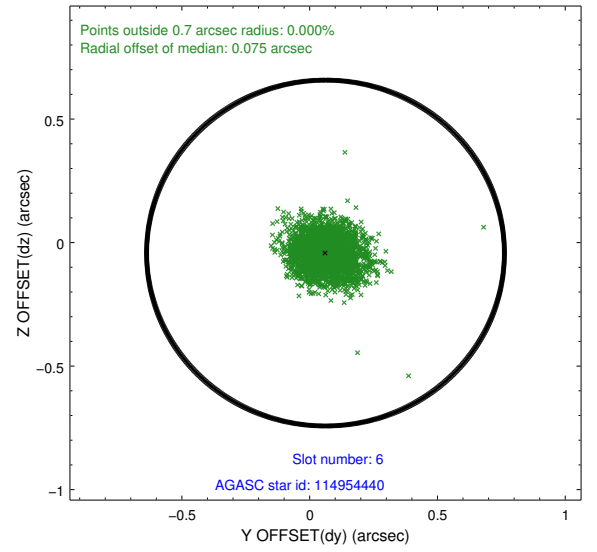
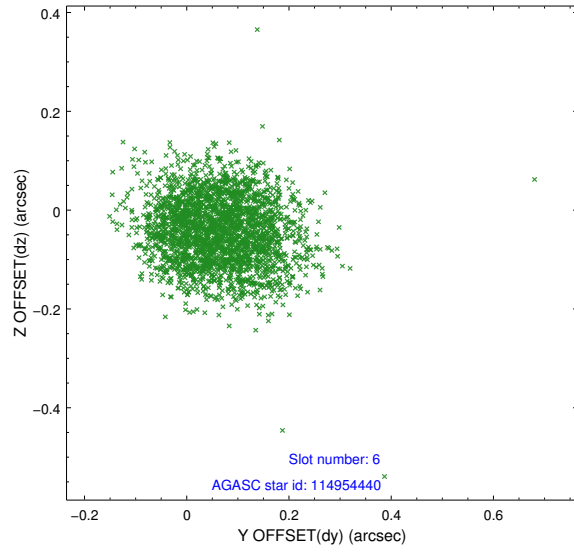
## 2.4.2 Slot 4



### 2.4.3 Slot 5

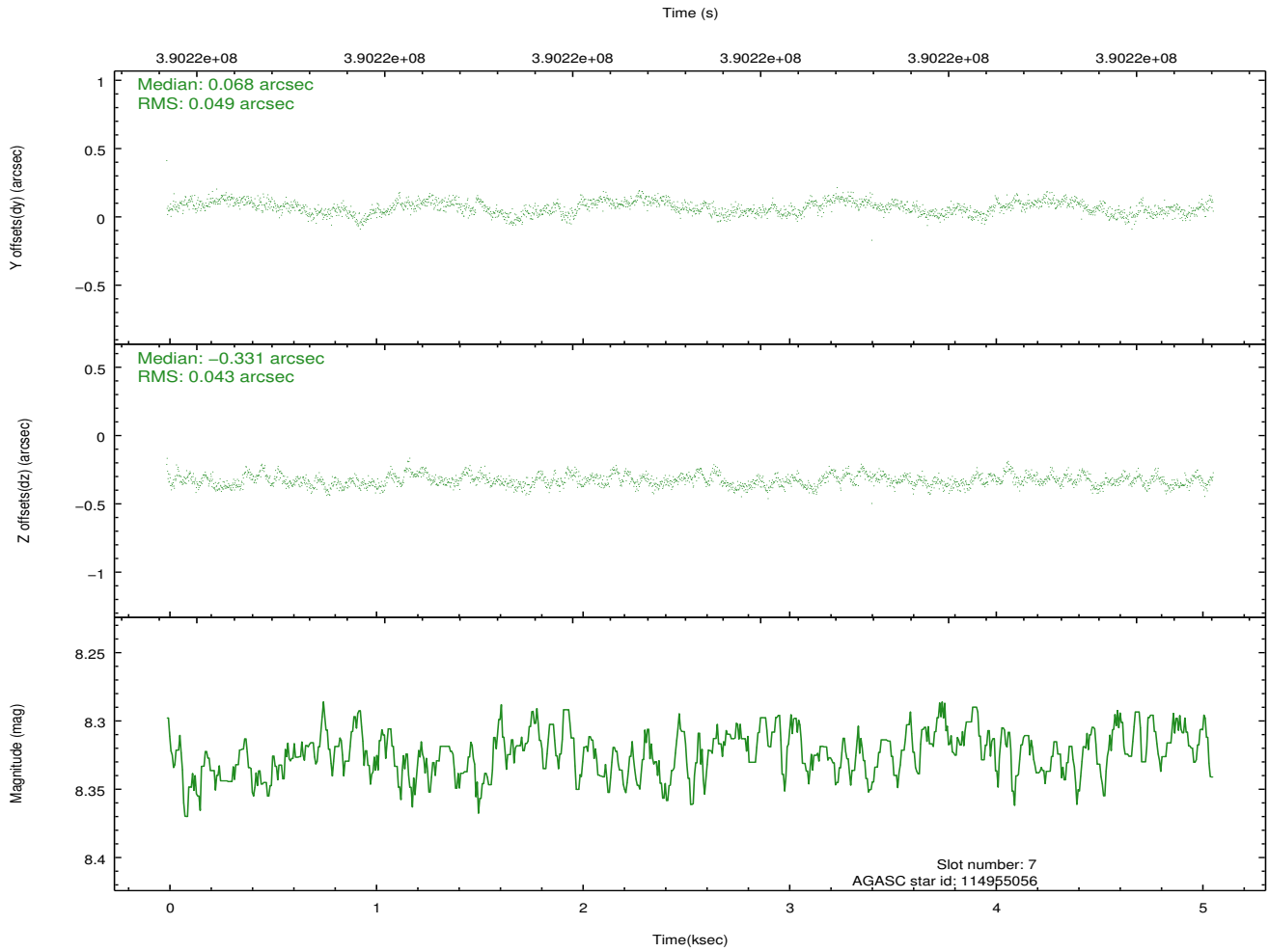
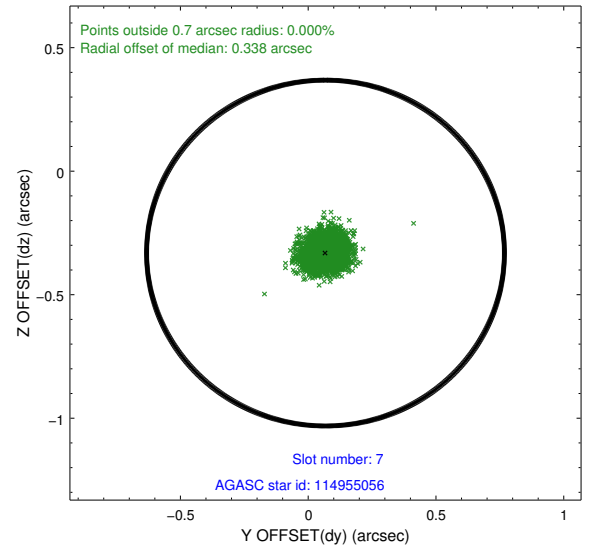
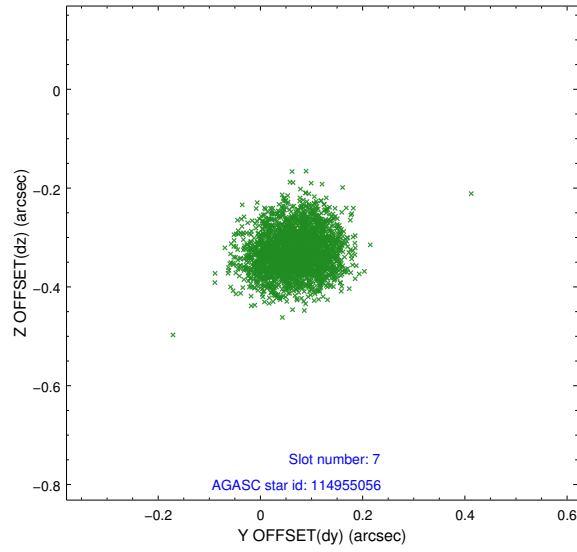


## 2.4.4 Slot 6



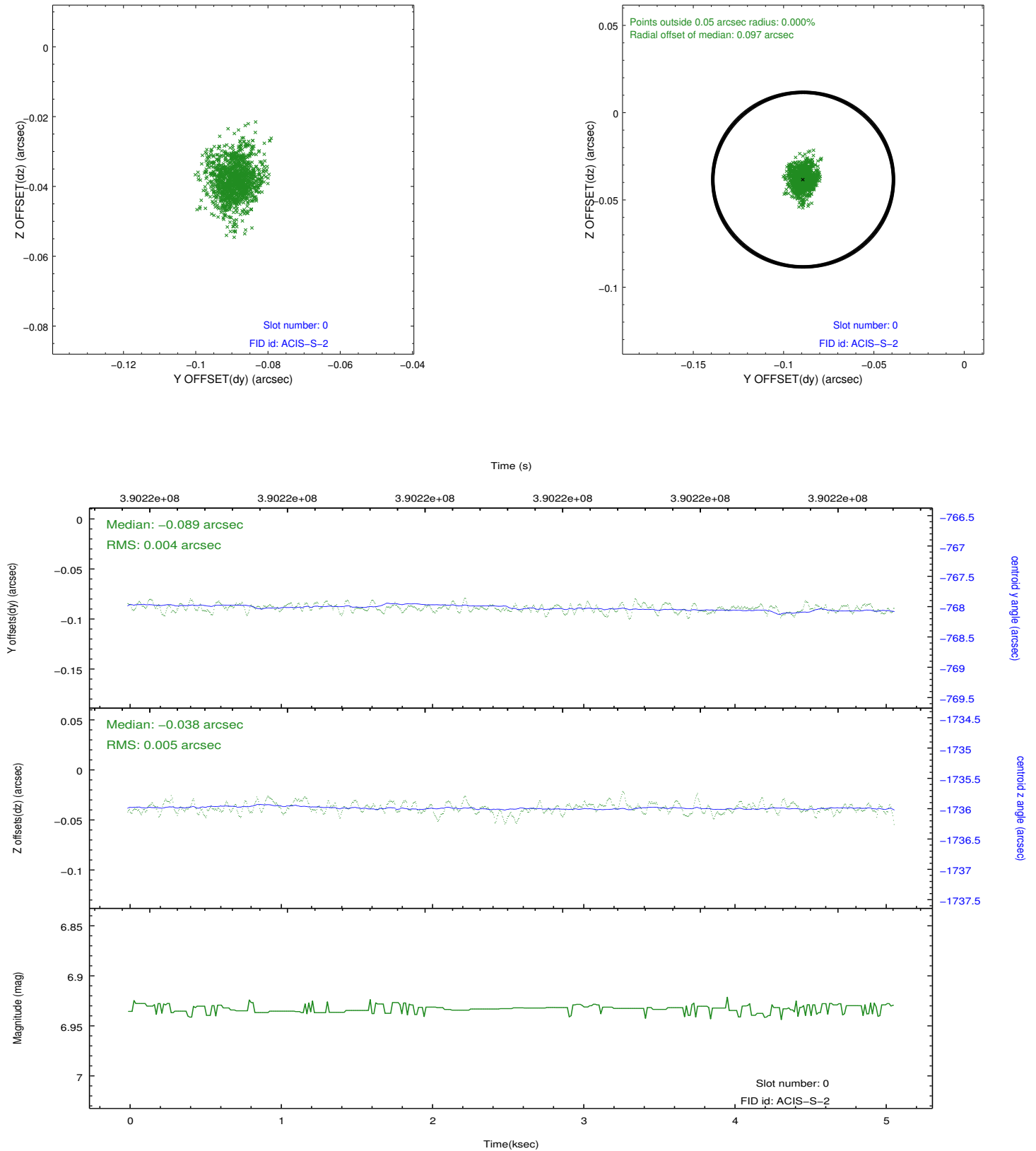


## 2.4.5 Slot 7

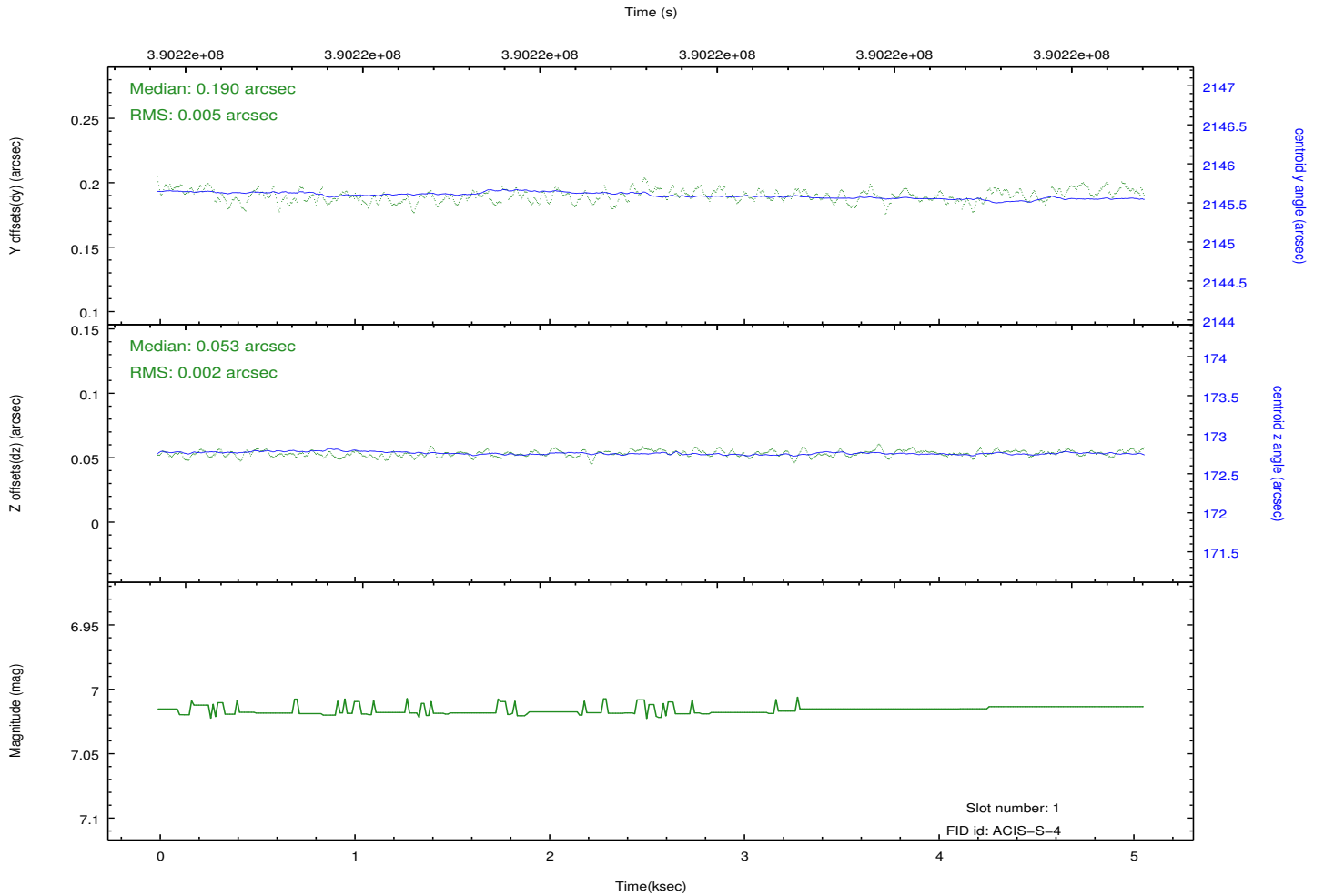
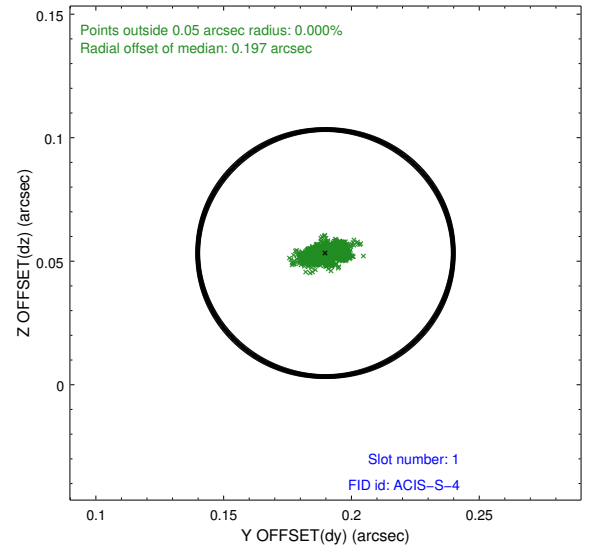
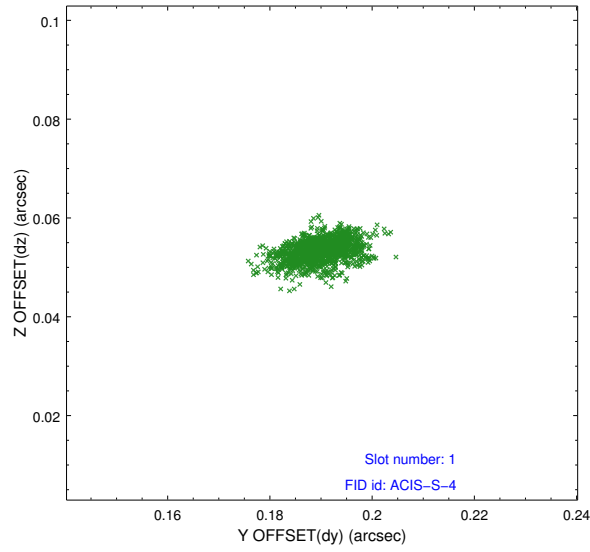


## 2.5 FID Slots

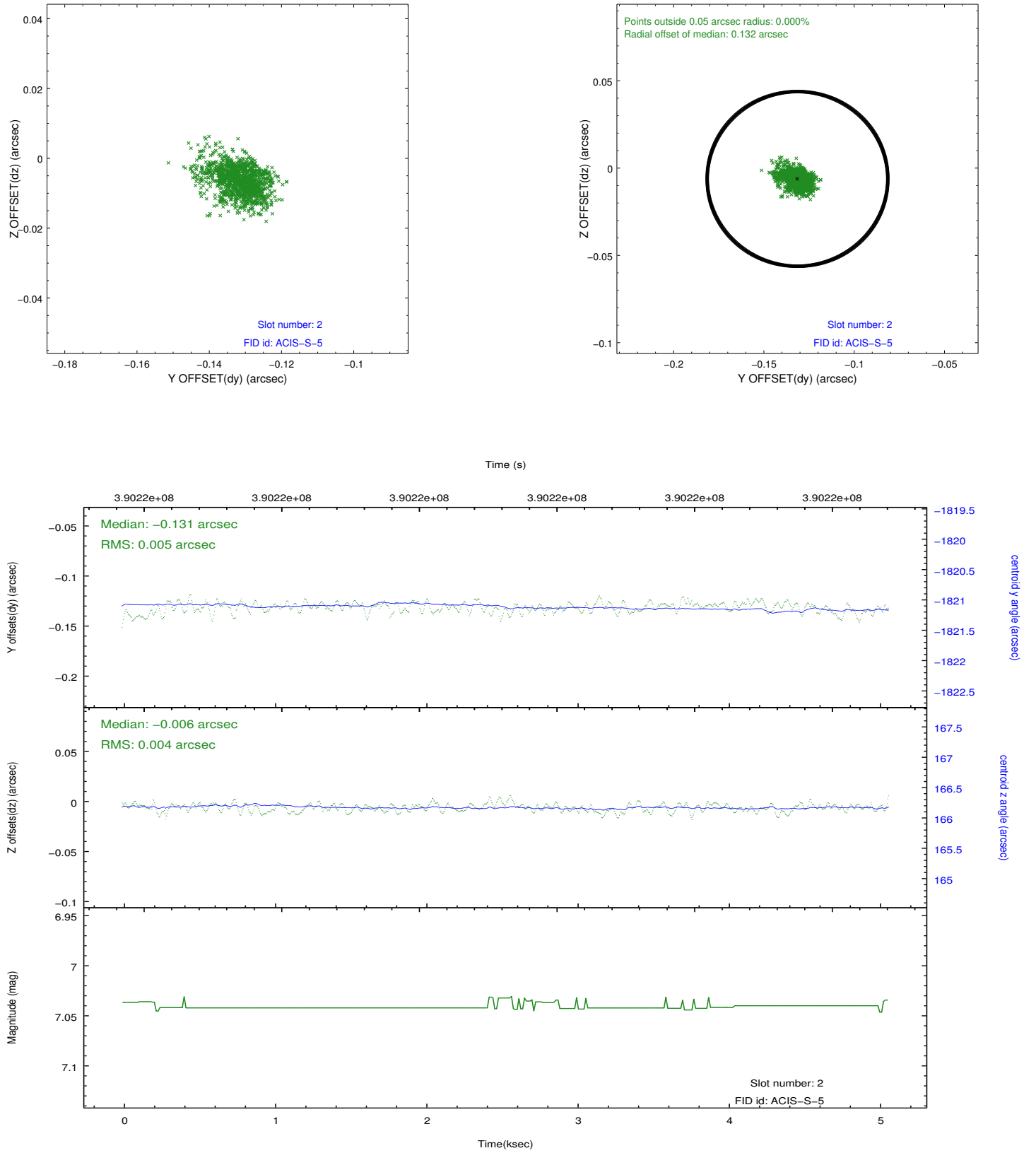
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.07.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.0667996979952

### A.2 Comments