

# V&V Reference Report

## L2 ASCDS Version : 10.2.1

Observation 16588 - L2 Version 3  
Chandra X-Ray Center

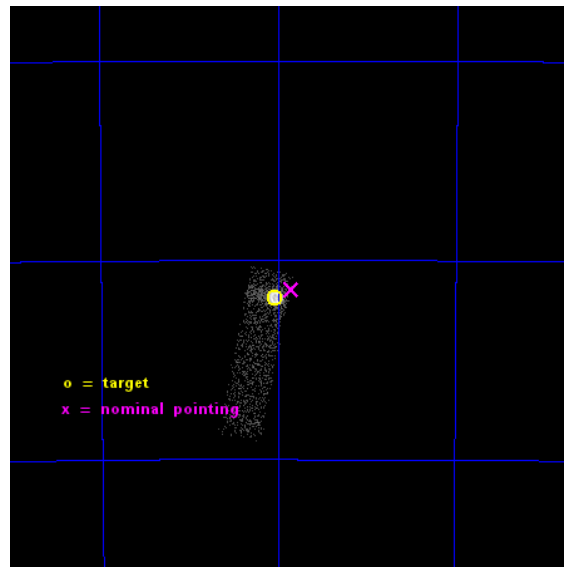
L2 Processing Date : Dec 10 2014

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# 1 Front

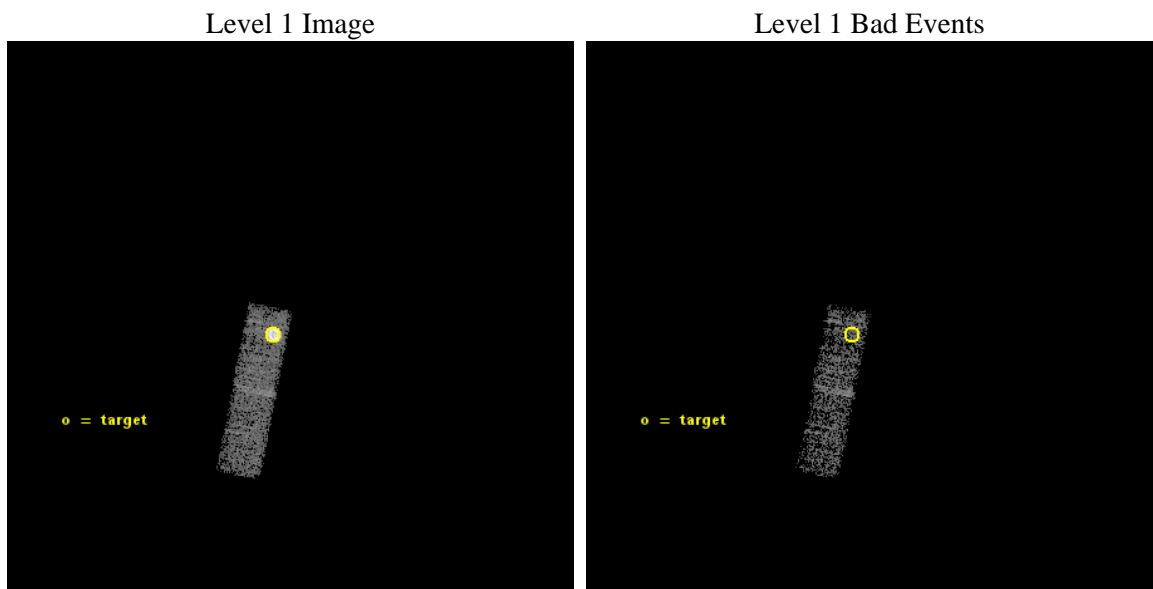
seq_num	590536	Sequence number
obs_id	16588	Observation id
title	AO-15 Calibration Observations of E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72 I3,-120,-0.5,0.5,0	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	15.96306593065	Nominal RA [deg]
dec_nom	-72.024648687095	Nominal Dec [deg]
roll_nom	191.52521237261	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10062.281463444	Sum of GTIs [s]
livetime	9571.2750532144	Livetime [s]
ontime3	10062.281463444	Sum of GTIs [s]
l2events	23686	Number of level 2 events



## 2 OBI

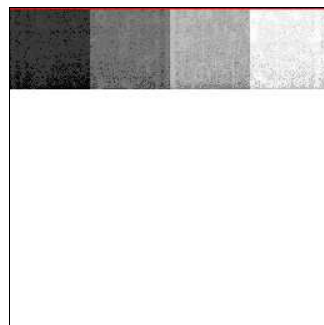
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 3



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.586000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	10062.281463444	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime3	10062.281463444	Sum of GTIs [s]
date	2014-12-10T19:22:04	Date and time of file creation	l1events	34720	Number of level 1 events
revision	3	Processing version of data			

### 2.1.4 Events

	<b>ccd 3</b>
level 1 events	34720
rejected events	10814
rejected %	31%

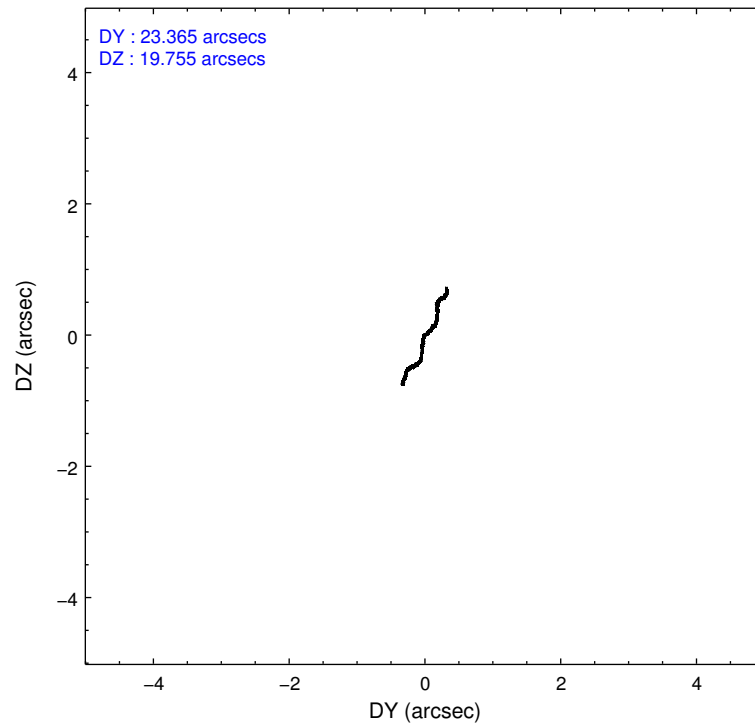
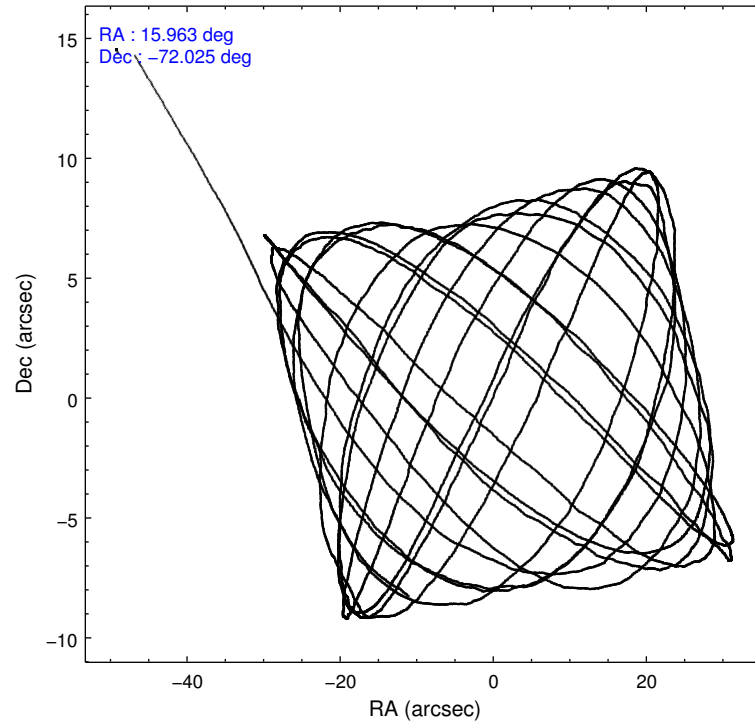
	<b>ccd 3</b>
grade 0 events	20711
	59%
grade 1 events	42
	0%
grade 2 events	1780
	5%
grade 3 events	527
	1%
grade 4 events	511
	1%
grade 5 events	563
	1%
grade 6 events	377
	1%
grade 7 events	10209
	29%

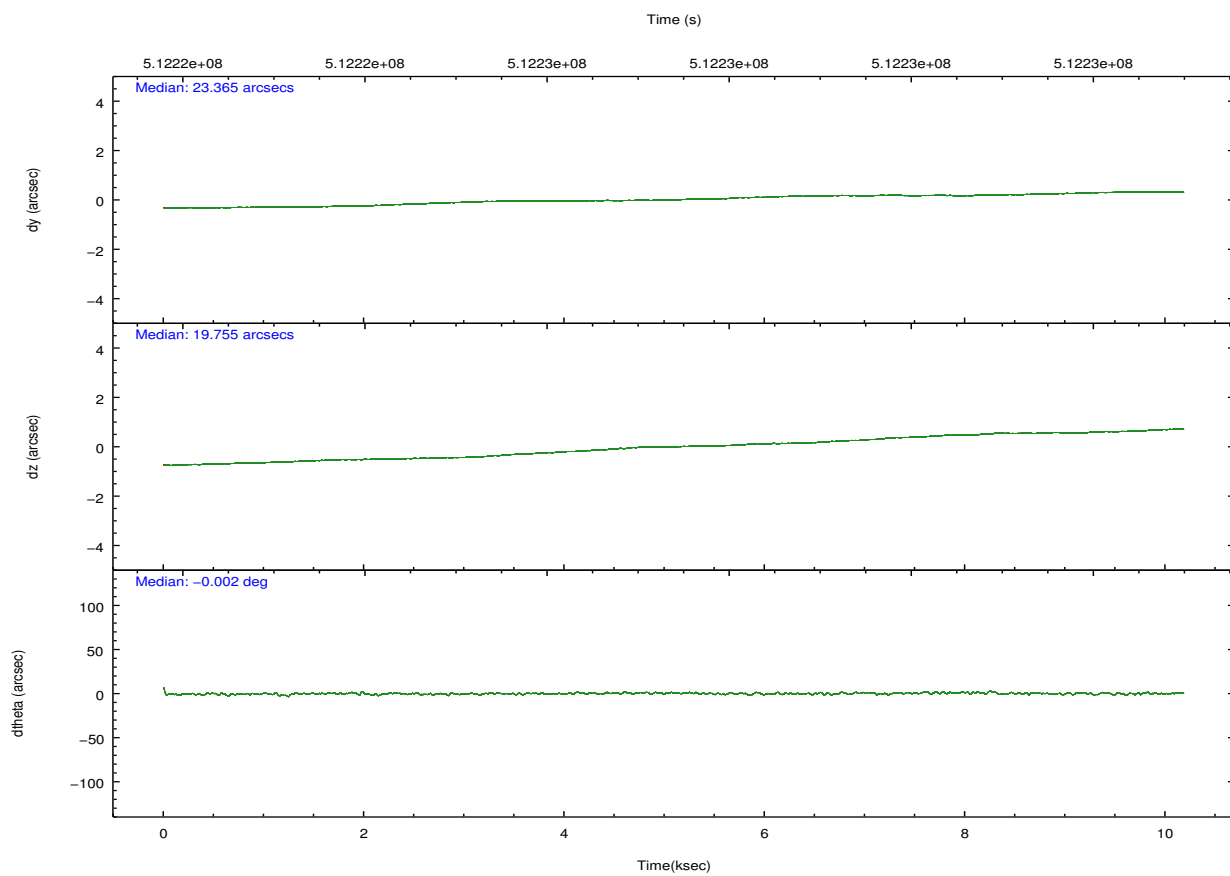
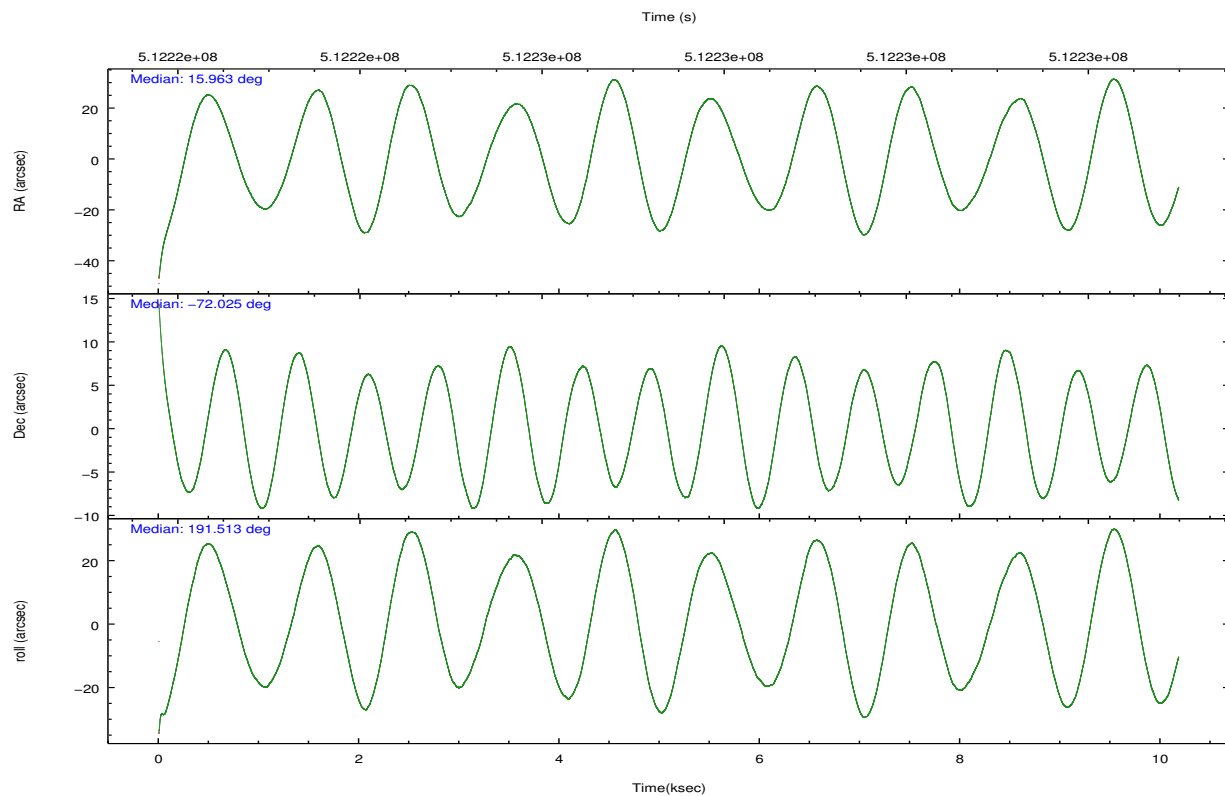


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-3	ACIS-3	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
[deg] Pointing RA	16.029609	15.96306593065042	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	-72.006331	-72.02464868709504	Subarray start row	768	768
[deg] Pointing Roll	191.379801	191.525212372612	Subarray row count	256	256
[s] Window start time (MET)	507600067.184000	507600067.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	512611267.184000	512611267.184000	[s] Primary exposure time	0.000000	0.8
[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)	512222490.184000	512221559.57071			
Observation start date	2014-03-26T12:00:23	2014-03-26T11:45:59			
[s] Observation end time (MET)	512232491.184000	512232727.97133			
Observation end date	2014-03-26T14:47:04	2014-03-26T14:52:07			
Read mode	TIMED	TIMED			

## 2.3 Aspect



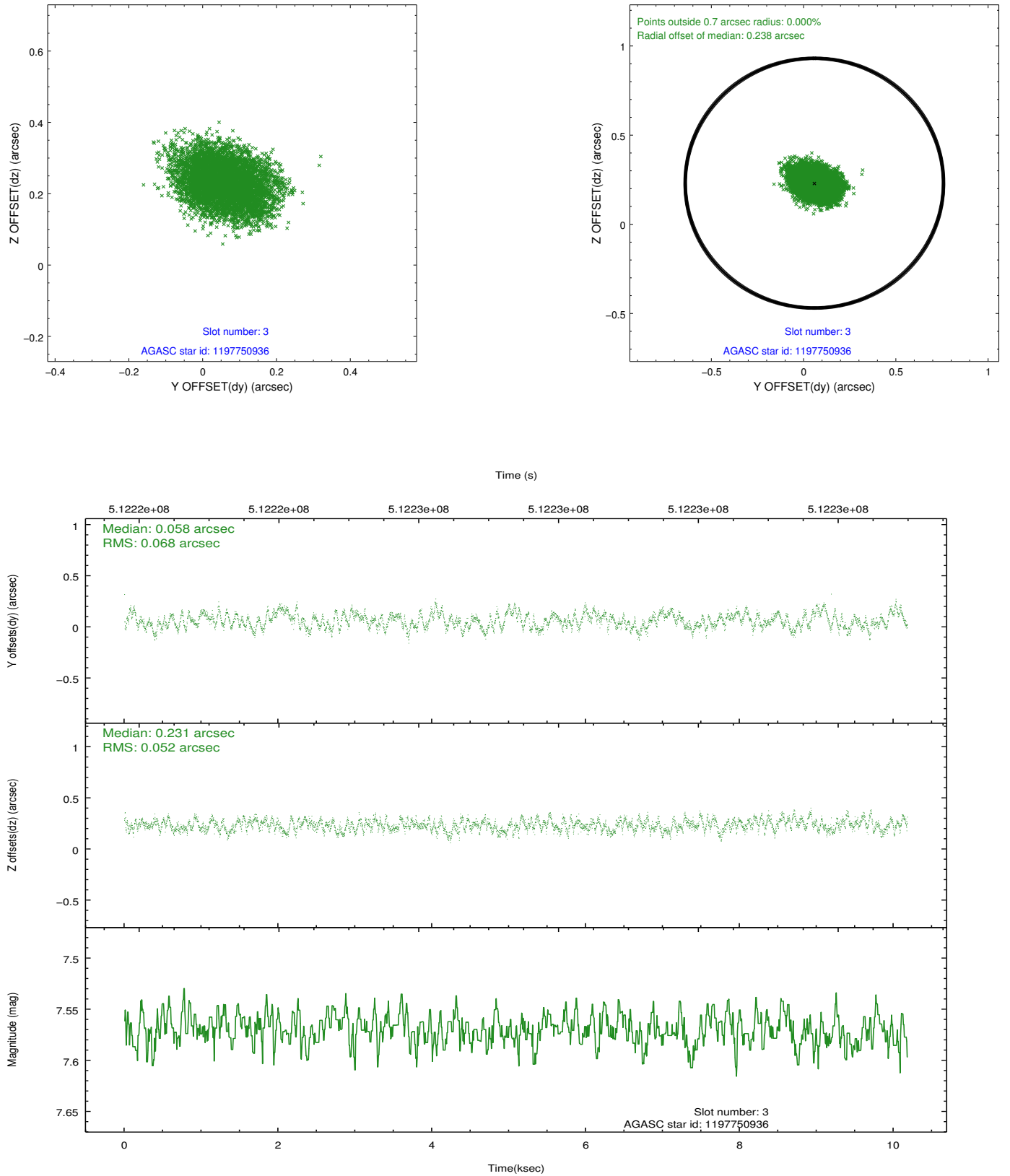


### Slot Statistics

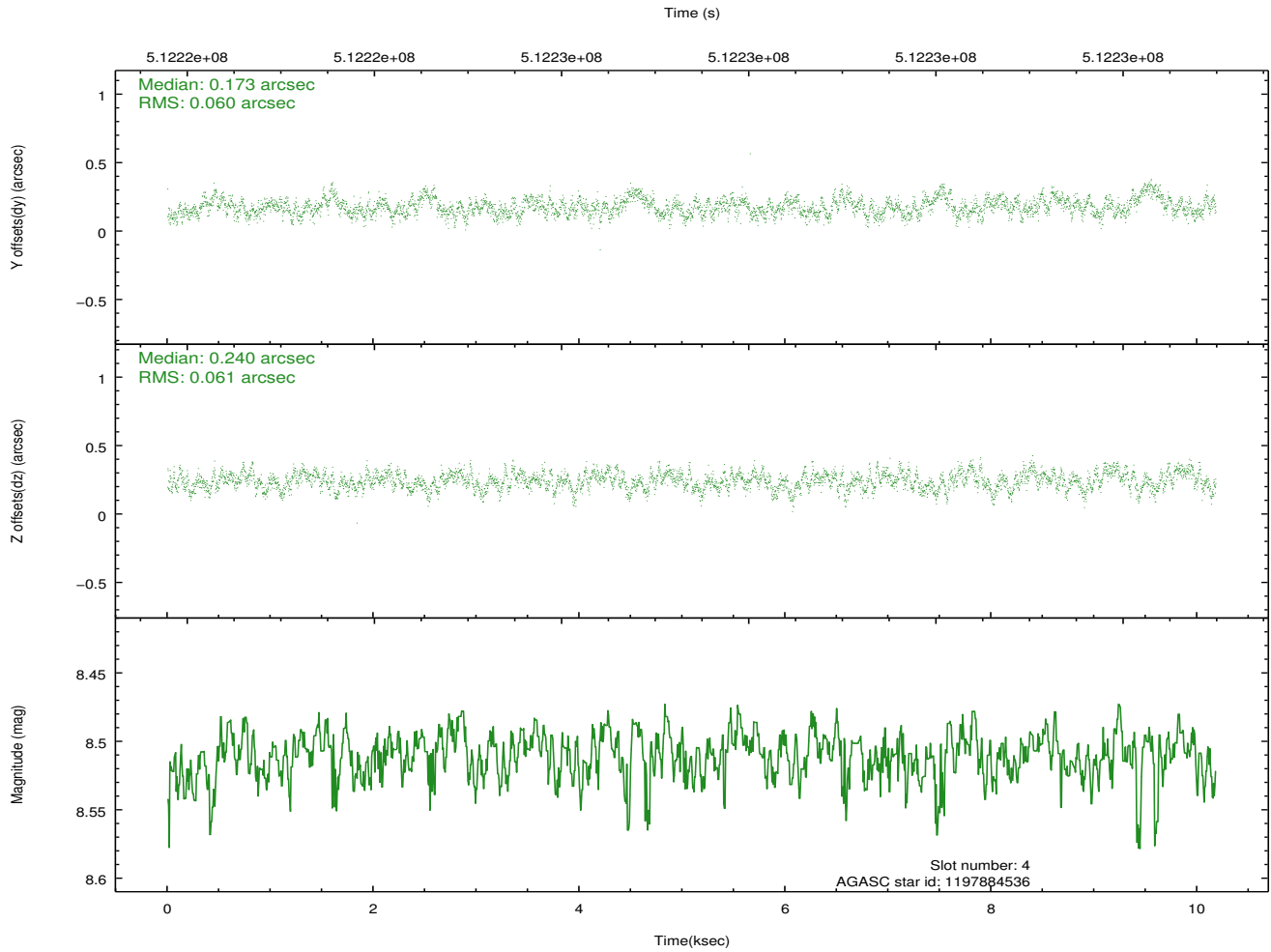
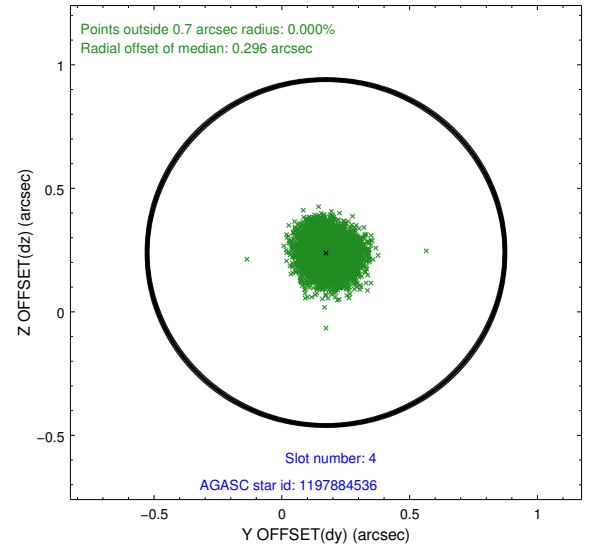
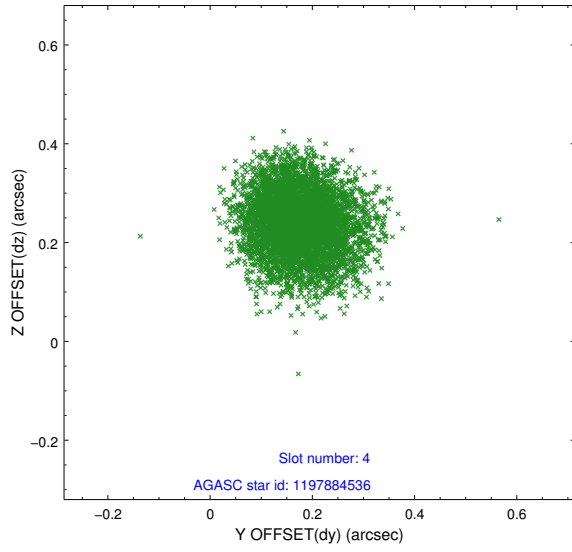
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	7.01	2483	-0.261	-0.146	0.012	0.019	0.000000	0.000000	-778.58	-849.96
1	FID		ACIS-I-4	7.06	2484	0.202	0.155	0.014	0.023	0.000000	0.000000	2135.69	1056.26
2	FID		ACIS-I-6	7.11	2483	-0.041	0.053	0.018	0.028	0.000000	0.000000	382.37	1698.93
3	GUIDE	used	1197750936	7.57	4966	0.058	0.231	0.091	0.145	15.387940	-71.549550	393.76	-1751.53
4	GUIDE	used	1197884536	8.51	4963	0.173	0.240	0.091	0.144	17.160729	-71.835289	-1362.88	-341.84
5	GUIDE	used	1197884712	8.29	4965	-0.121	-0.153	0.075	0.116	16.087398	-72.252690	112.58	881.96
6	GUIDE	used	1197885328	7.26	4967	0.190	0.255	0.086	0.139	16.283090	-71.733943	-474.57	-904.27
7	GUIDE	used	1198189696	7.35	4966	-0.305	-0.572	0.085	0.128	15.223750	-72.697522	1337.31	2274.63

## 2.4 Star Slots

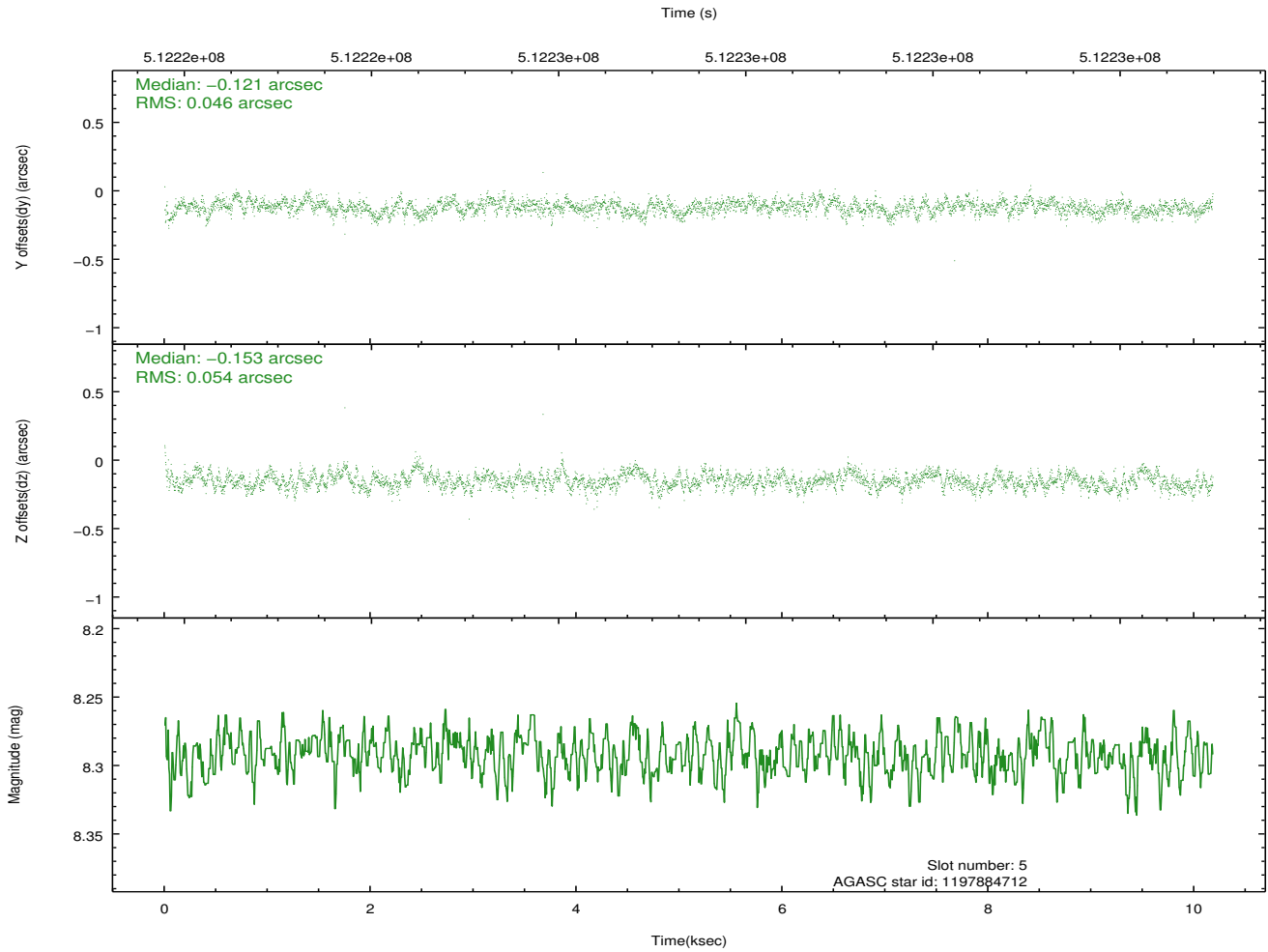
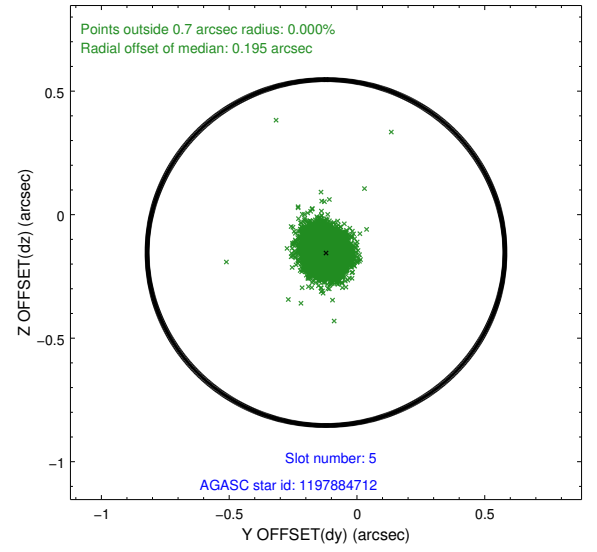
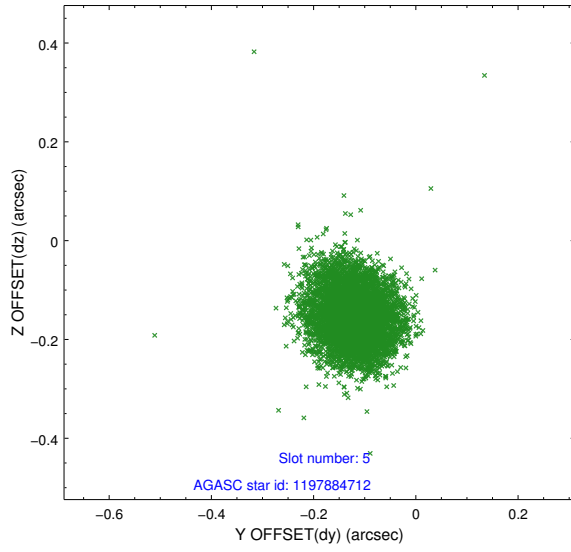
### 2.4.1 Slot 3



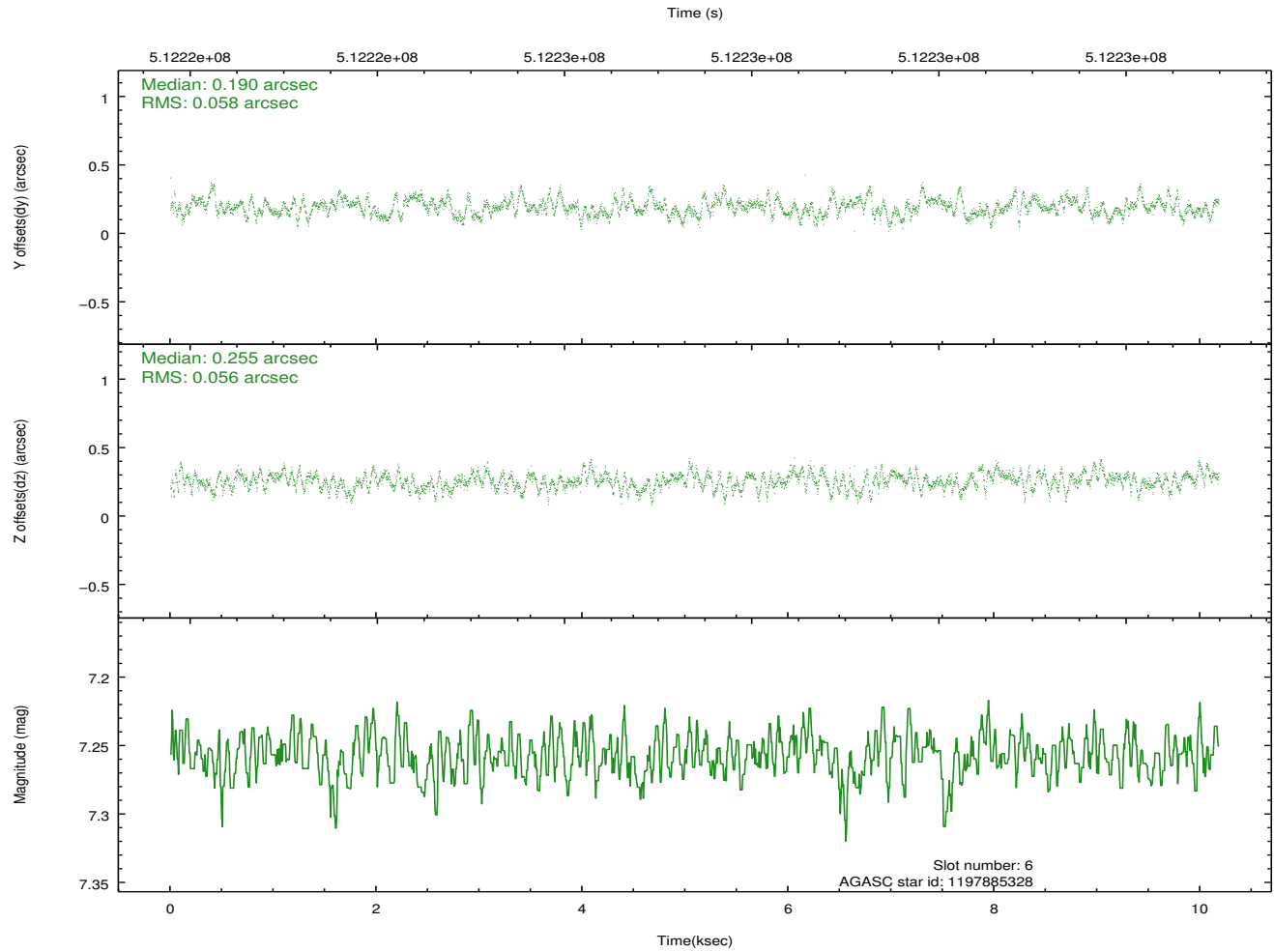
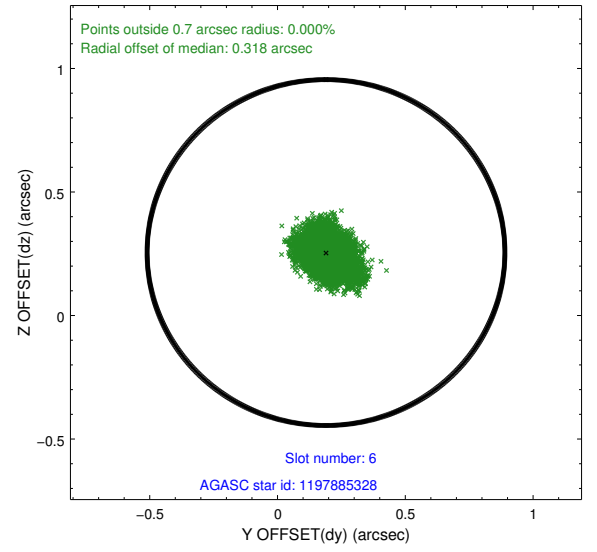
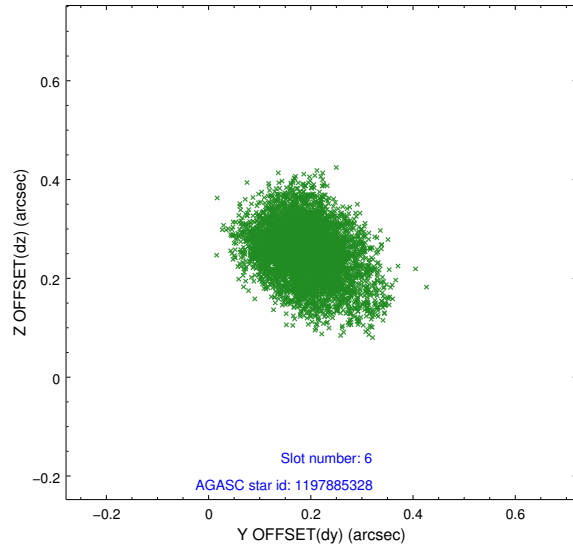
## 2.4.2 Slot 4



### 2.4.3 Slot 5

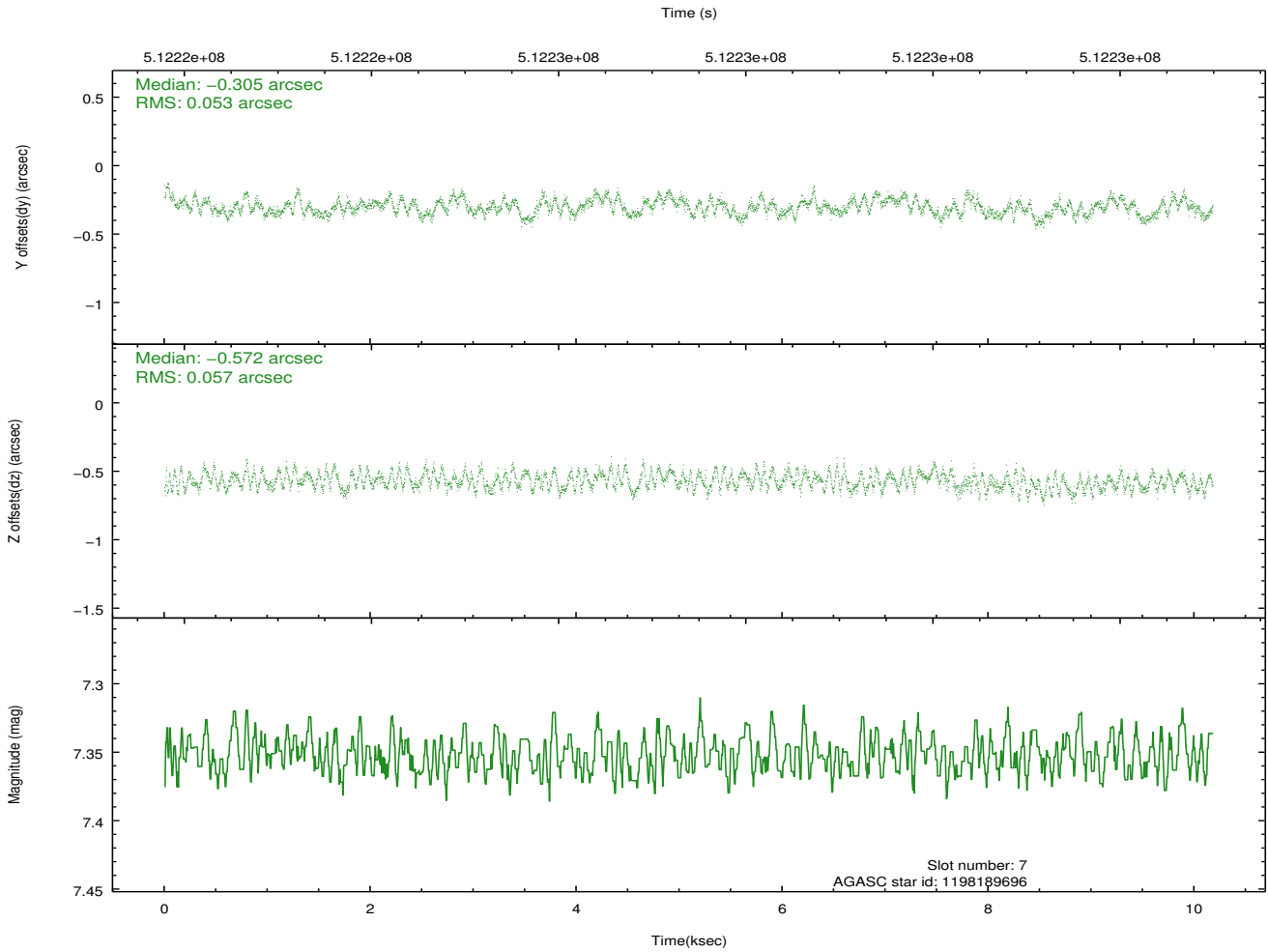
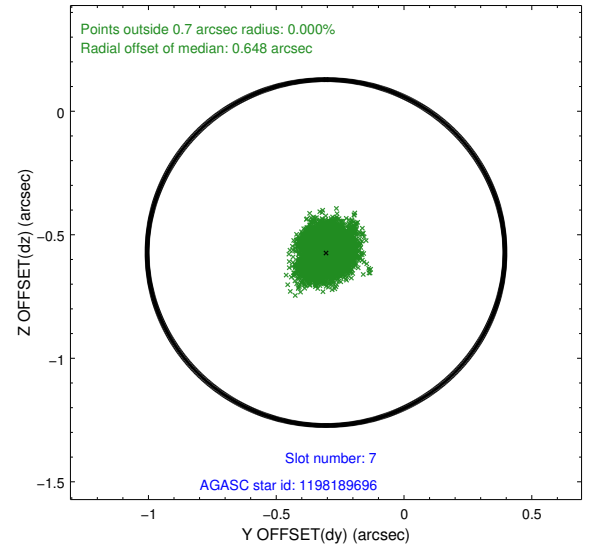
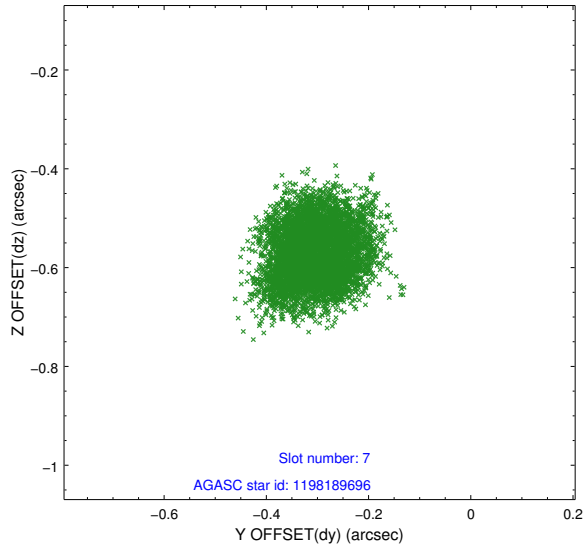


## 2.4.4 Slot 6



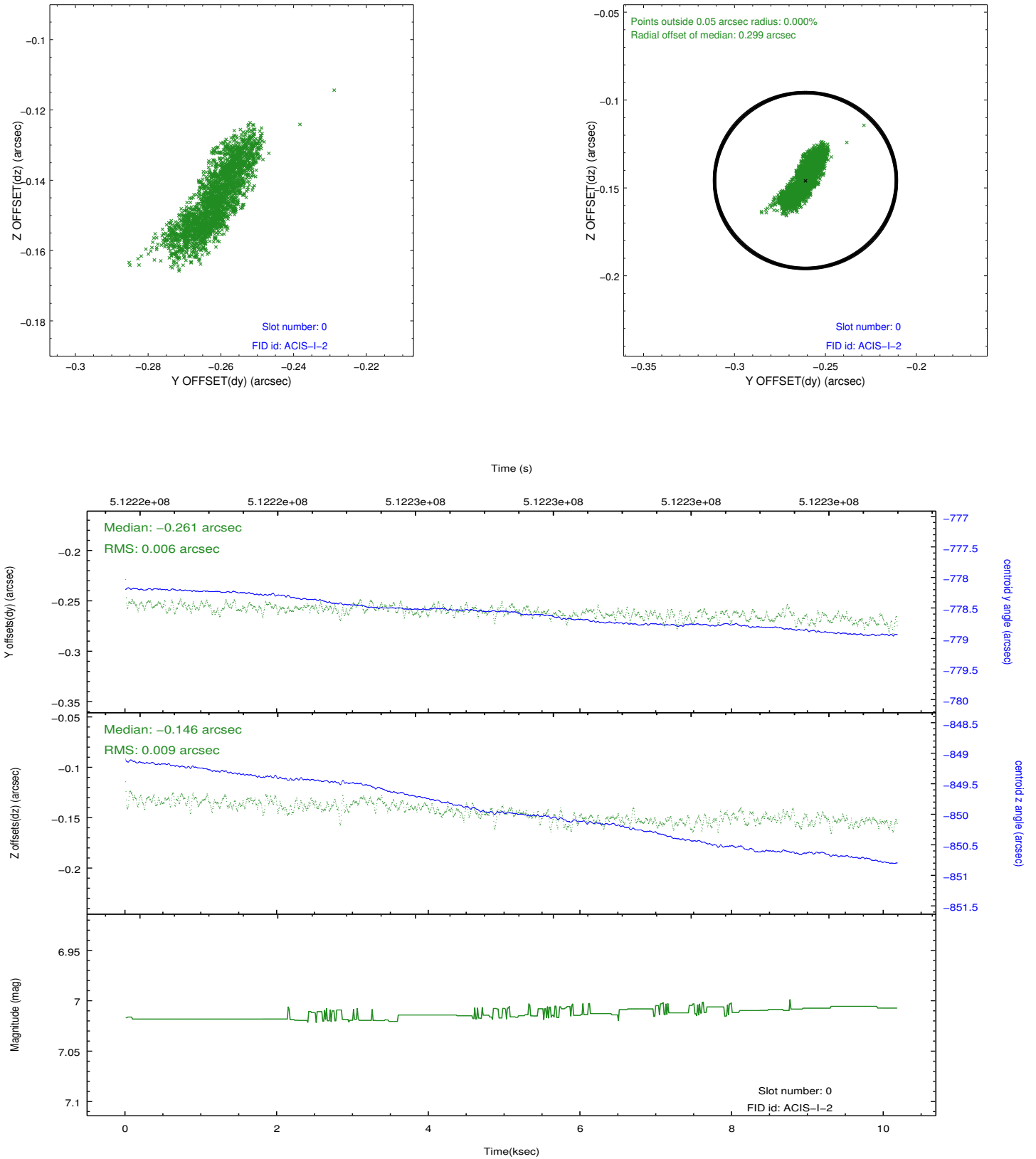


## 2.4.5 Slot 7

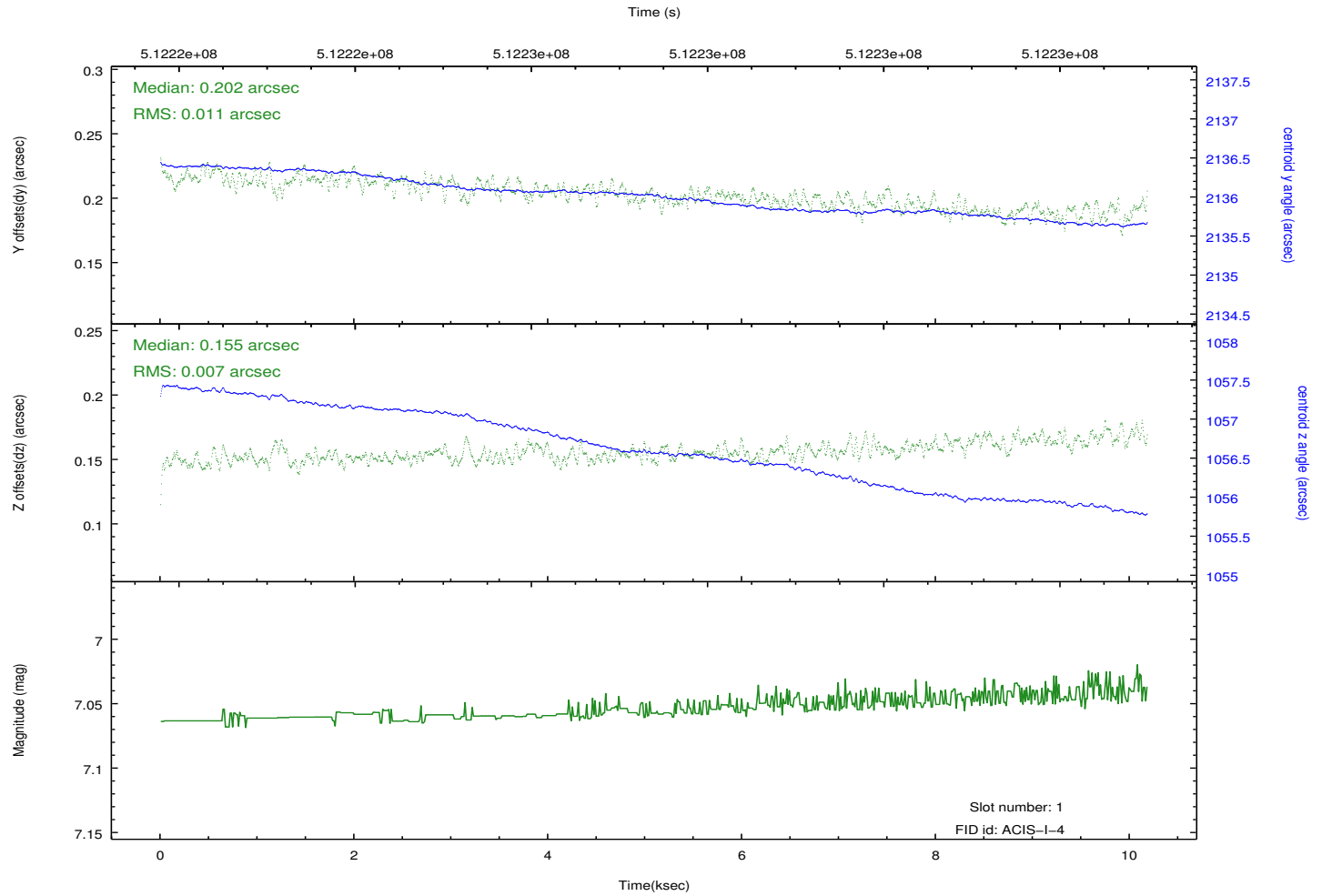
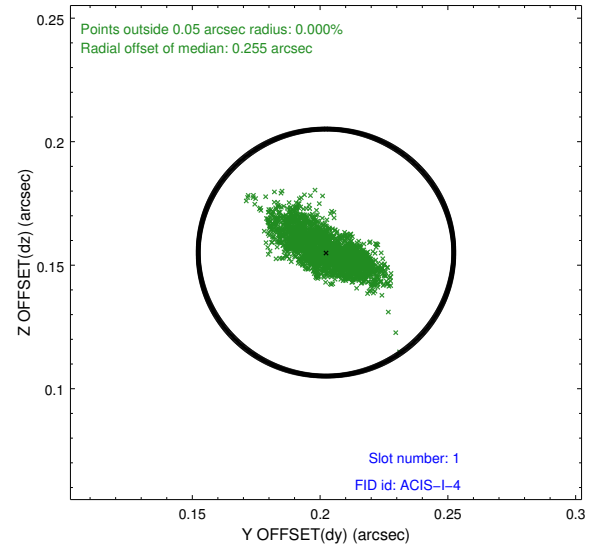
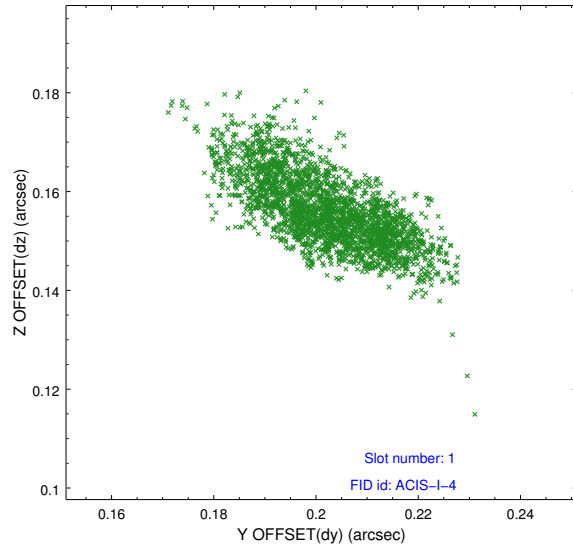


## 2.5 FID Slots

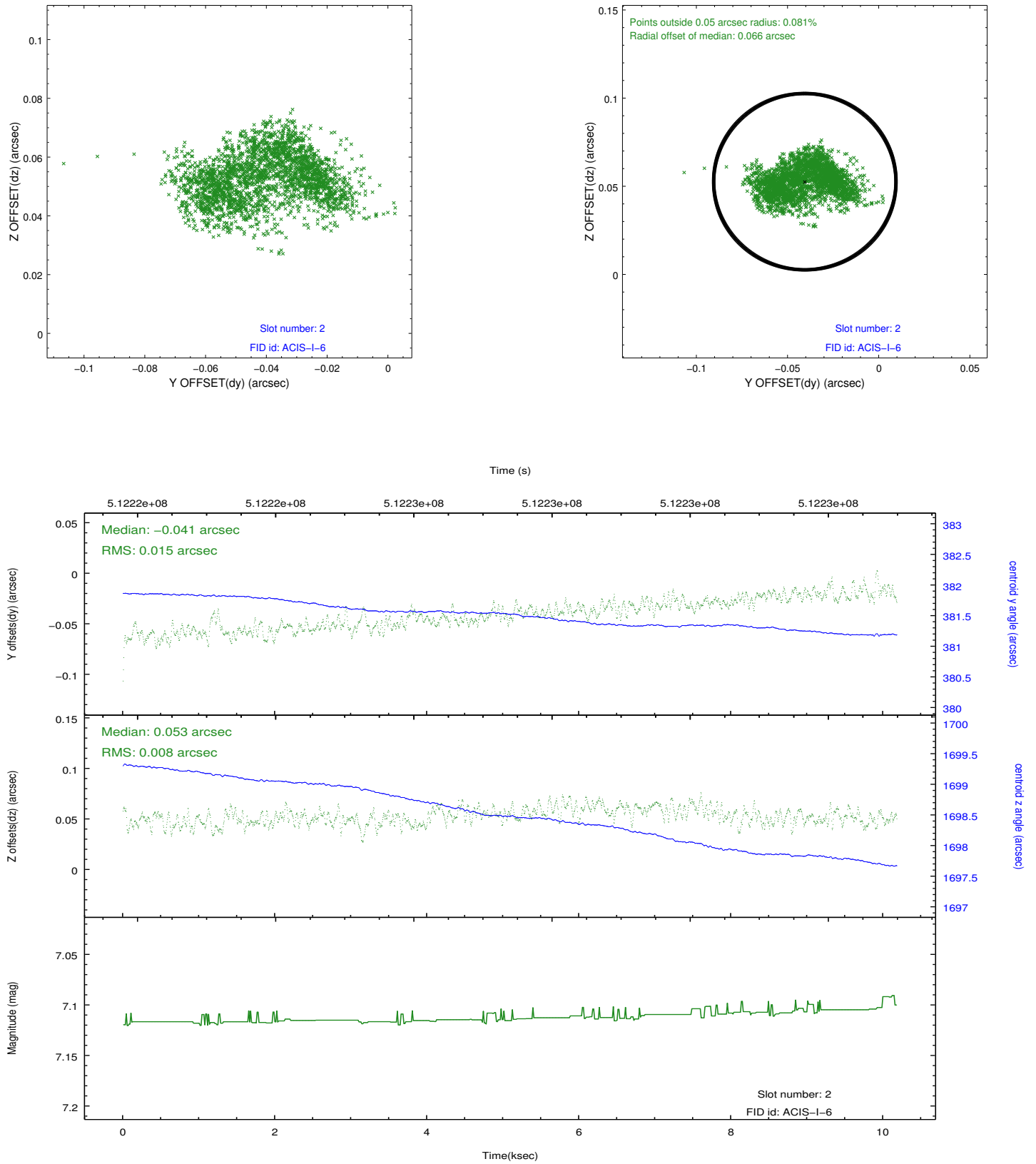
### 2.5.1 Slot 0



## 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)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.062281463444

## A.2 Comments

Window preference met.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.