

# V&V Reference Report

## L2 ASCDS Version : 10.2.1

Observation 16589 - L2 Version 2  
Chandra X-Ray Center

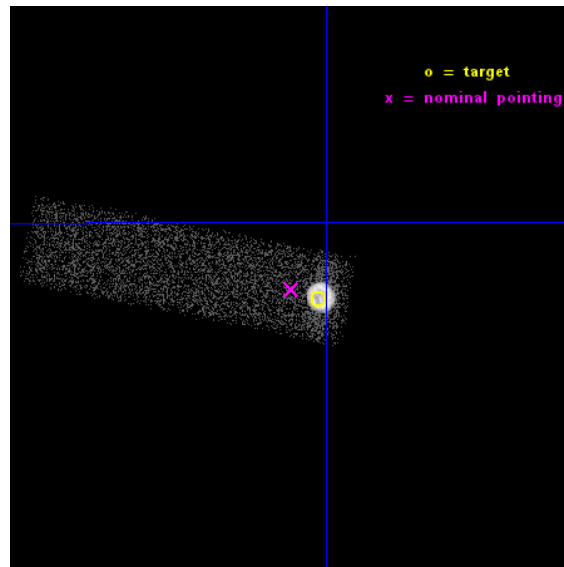
L2 Processing Date : Dec 10 2014

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# 1 Front

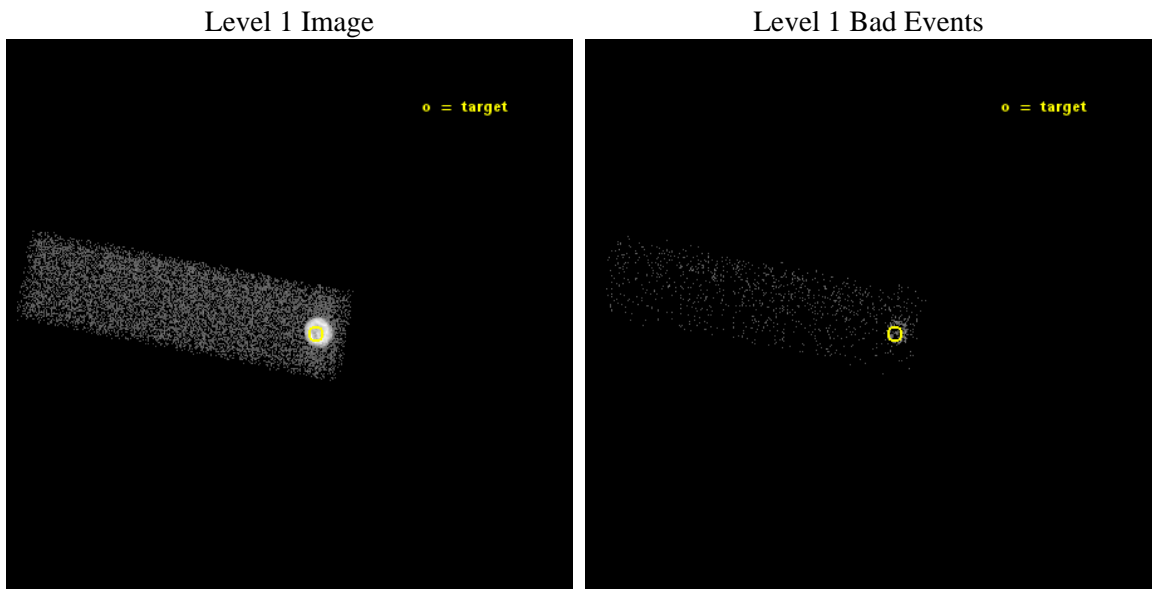
seq_num	590537	Sequence number
obs_id	16589	Observation id
title	AO-15 Calibration Observations of E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72 S3,-120,1,0,0	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.049193113289	Nominal RA [deg]
dec_nom	-72.028198522833	Nominal Dec [deg]
roll_nom	190.65321570875	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10060.000149965	Sum of GTIs [s]
livetime	9569.1050603684	Livetime [s]
ontime7	10060.000149965	Sum of GTIs [s]
l2events	48182	Number of level 2 events



## 2 OBI

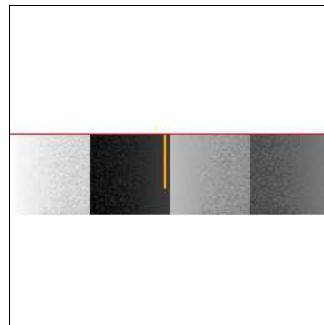
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	10060.000149965	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime7	10060.000149965	Sum of GTIs [s]
date	2014-12-10T18:52:53	Date and time of file creation	l1events	55147	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

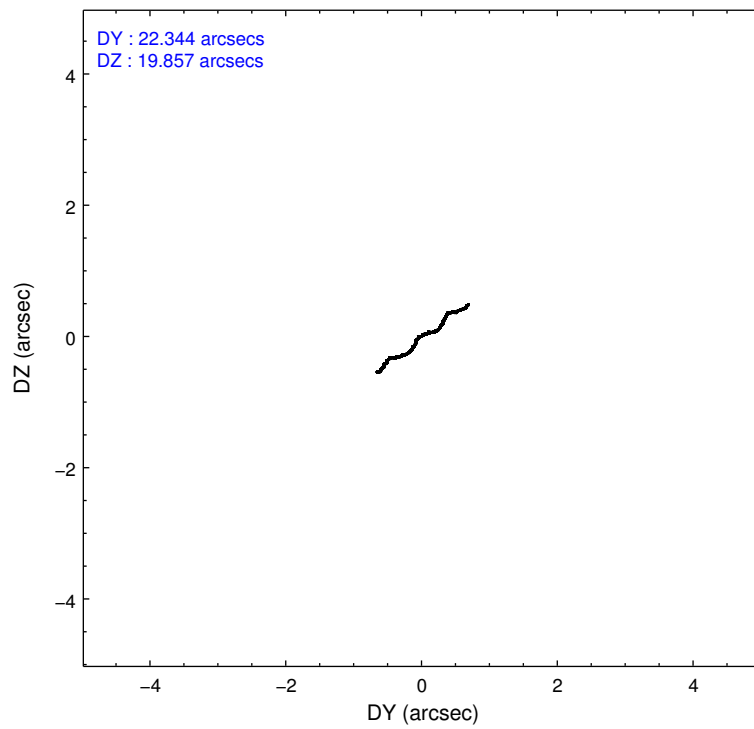
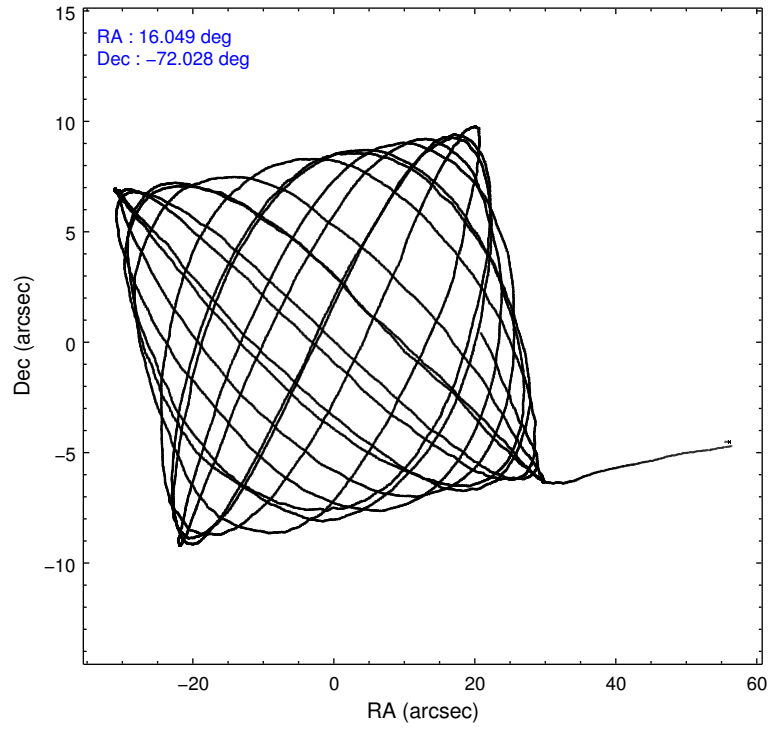
	<b>ccd 7</b>
level 1 events	55147
rejected events	6741
rejected %	12%

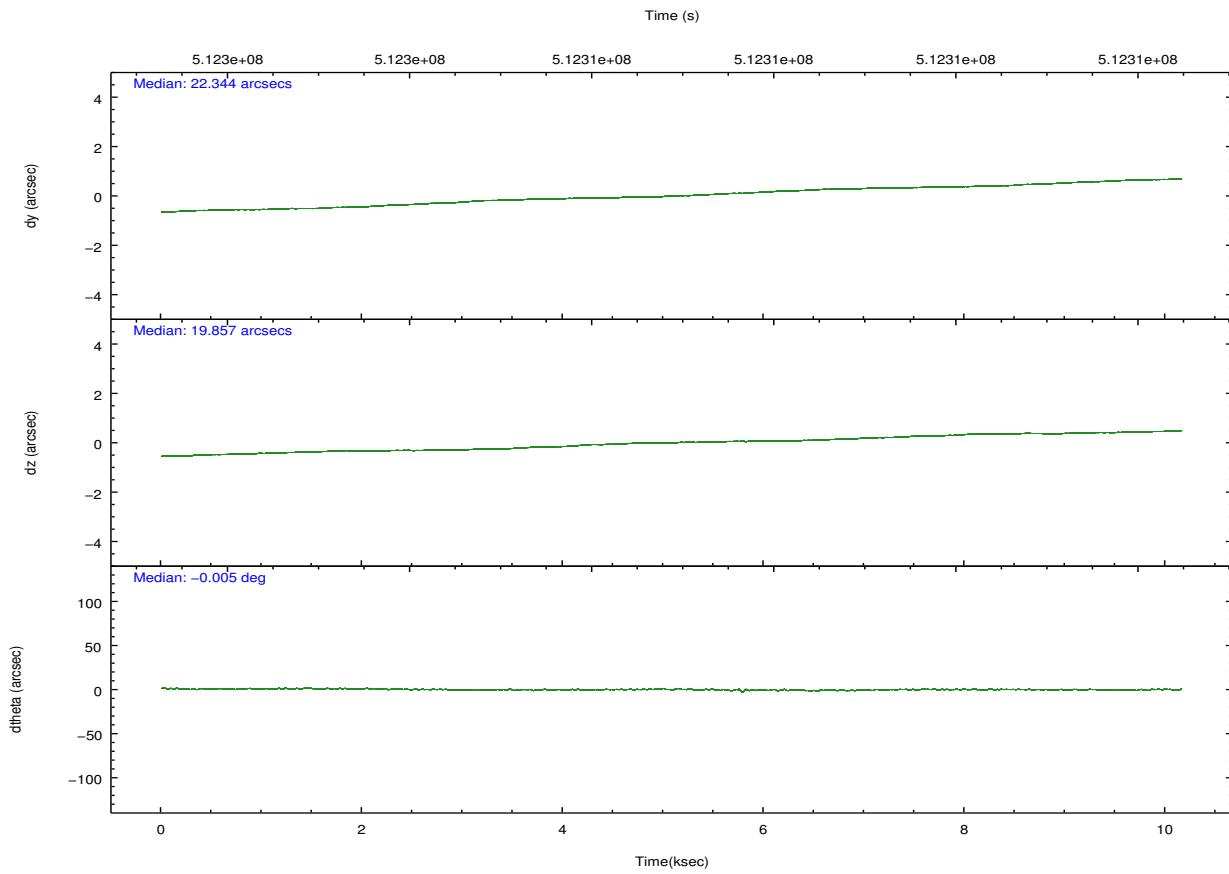
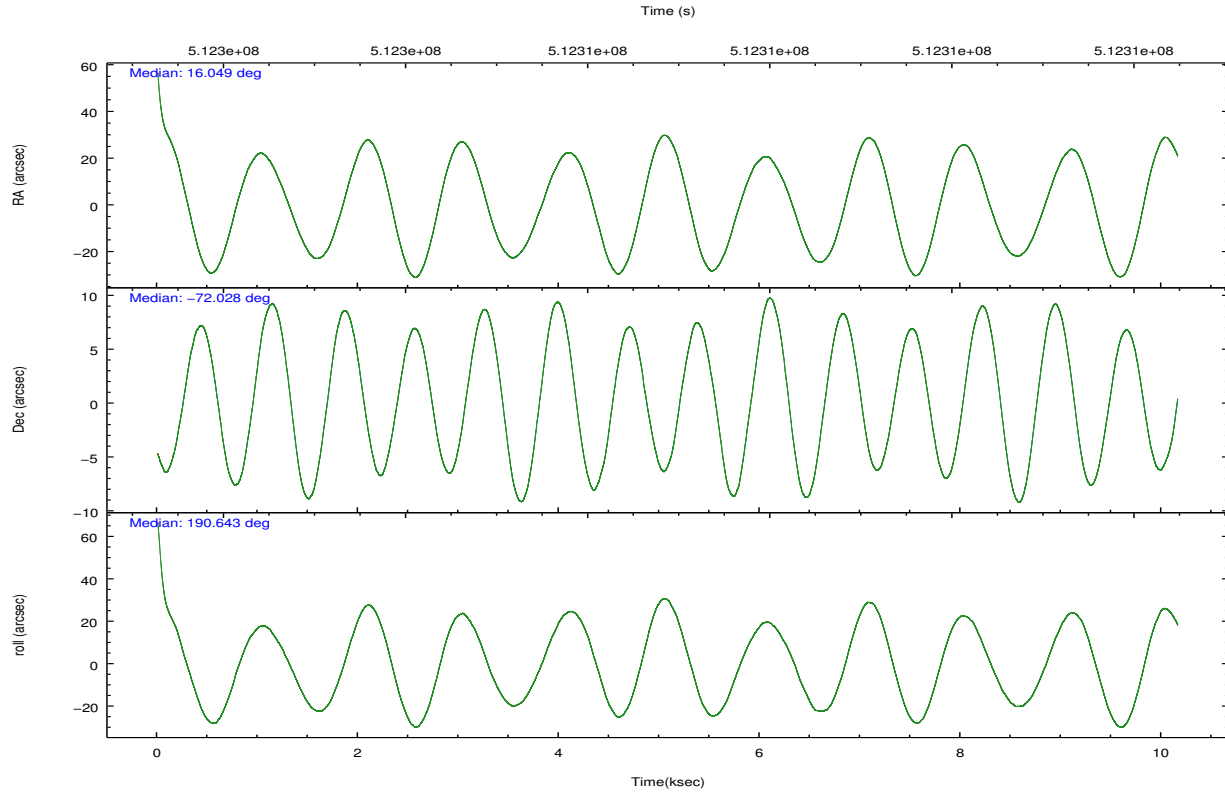
	<b>ccd 7</b>
grade 0 events	12957
	23%
grade 1 events	51
	0%
grade 2 events	13430
	24%
grade 3 events	5848
	10%
grade 4 events	5667
	10%
grade 5 events	1784
	3%
grade 6 events	10511
	19%
grade 7 events	4899
	8%

## 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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	16.115420	16.04919311328865	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	-72.010050	-72.02819852283264	Subarray start row	360	360
[deg] Pointing Roll	190.559569	190.6532157087534	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	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	512301961.184000	512301022.18759			
Observation start date	2014-03-27T10:04:54	2014-03-27T09:50:22			
[s] Observation end time (MET)	512311961.184000	512312283.35071			
Observation end date	2014-03-27T12:51:34	2014-03-27T12:58:03			
Read mode	TIMED	TIMED			

## 2.3 Aspect





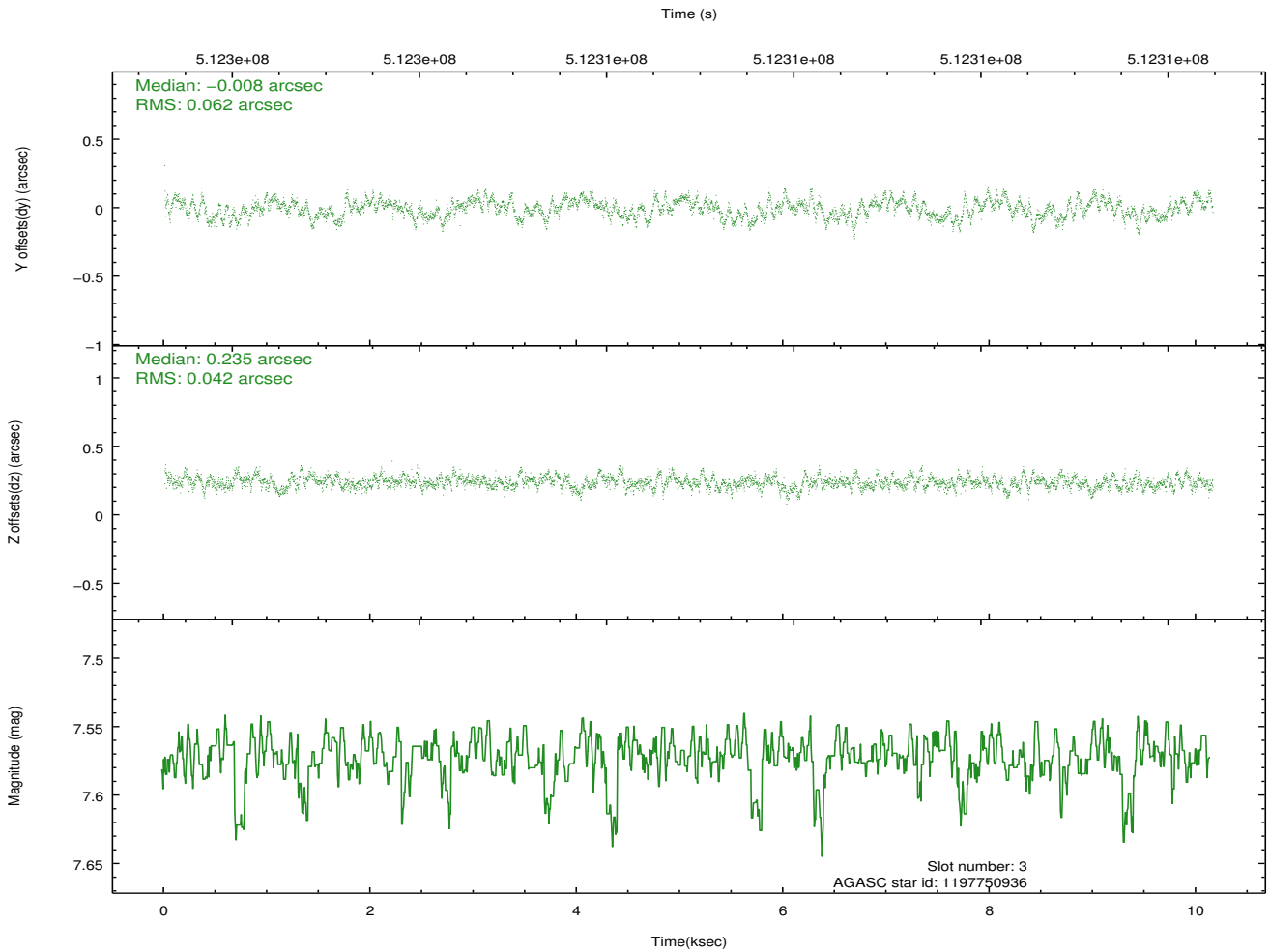
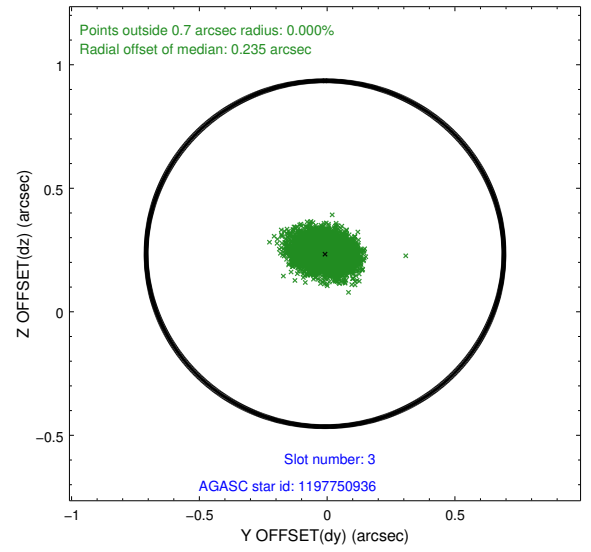
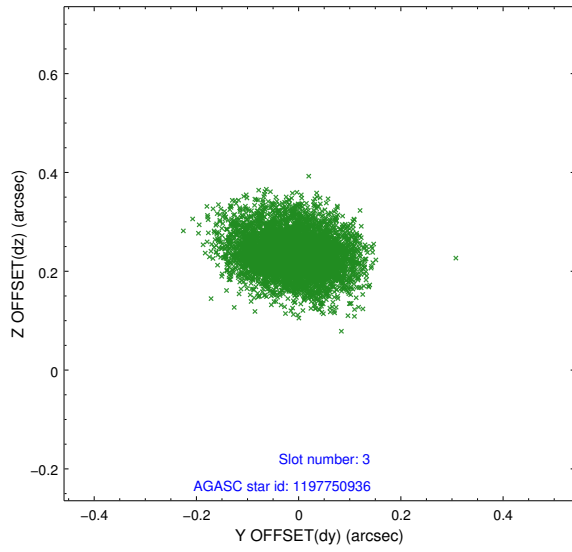
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.90	2478	-0.124	-0.015	0.008	0.013	0.000000	0.000000	-775.63	-1741.37
1	FID		ACIS-S-4	6.99	2478	0.279	0.064	0.021	0.038	0.000000	0.000000	2137.79	166.68
2	FID		ACIS-S-5	7.01	2478	-0.188	-0.040	0.020	0.029	0.000000	0.000000	-1827.89	160.80
3	GUIDE	used	1197750936	7.57	4955	-0.008	0.235	0.080	0.129	15.387940	-71.549550	512.90	-1776.03
4	GUIDE	used	1197884536	8.50	4951	0.162	0.169	0.076	0.118	17.160729	-71.835289	-1265.60	-394.21
5	GUIDE	used	1197884712	8.30	4954	-0.101	-0.123	0.095	0.155	16.087398	-72.252690	190.46	852.74
6	GUIDE	used	1197885328	7.25	4955	0.212	0.240	0.086	0.133	16.283090	-71.733943	-368.53	-942.55
7	GUIDE	used	1198189696	7.35	4954	-0.266	-0.527	0.081	0.124	15.223750	-72.697522	1393.16	2264.50

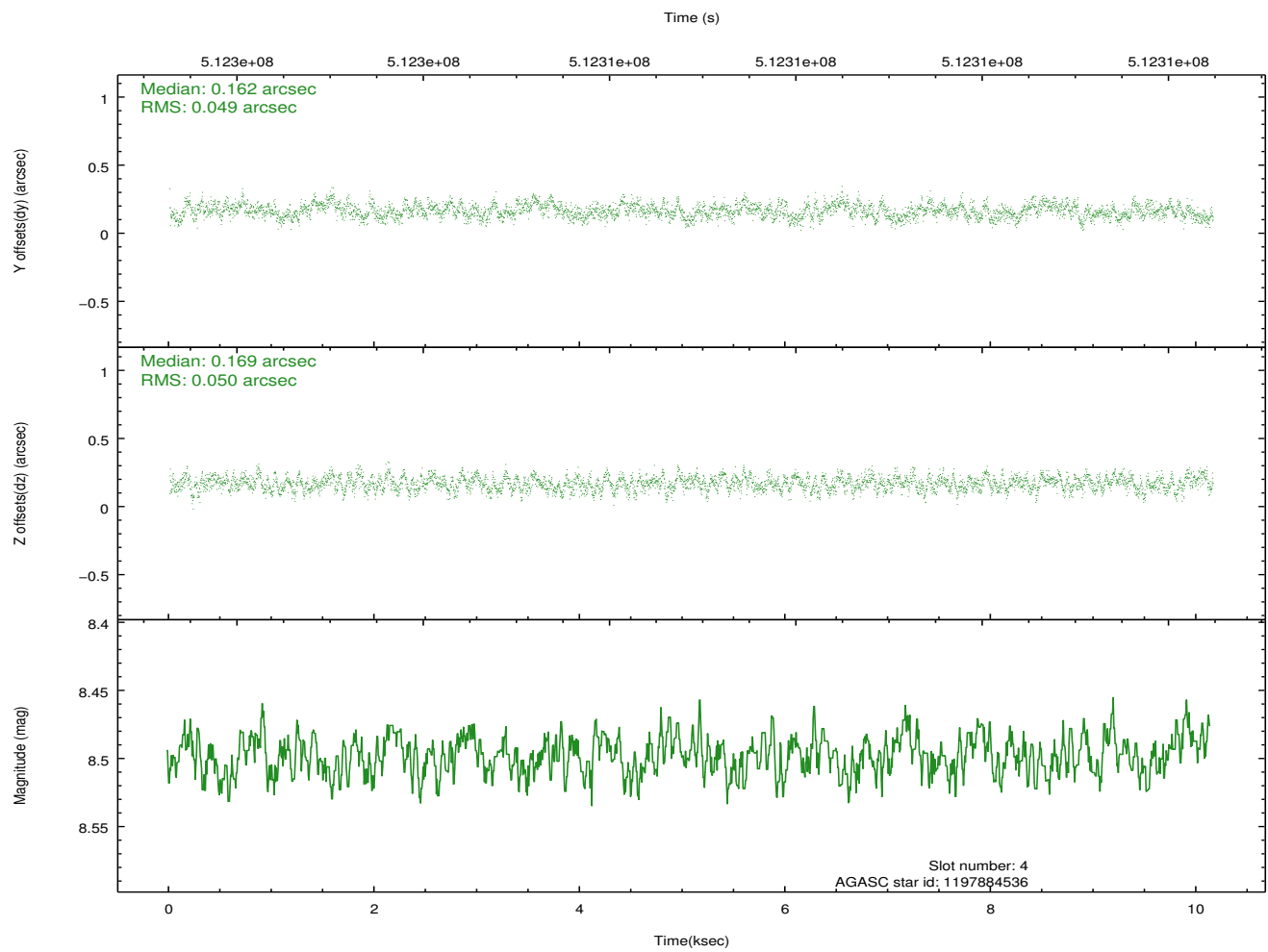
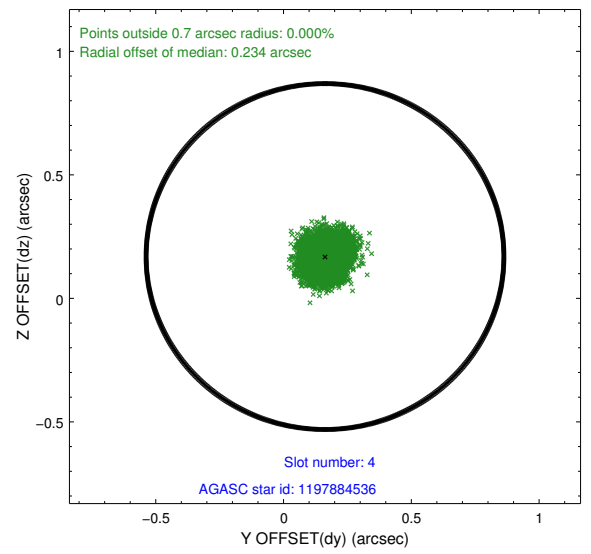
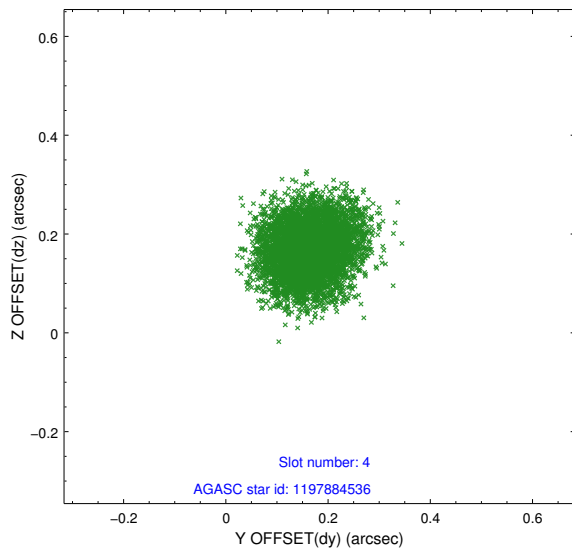
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## 2.4 Star Slots

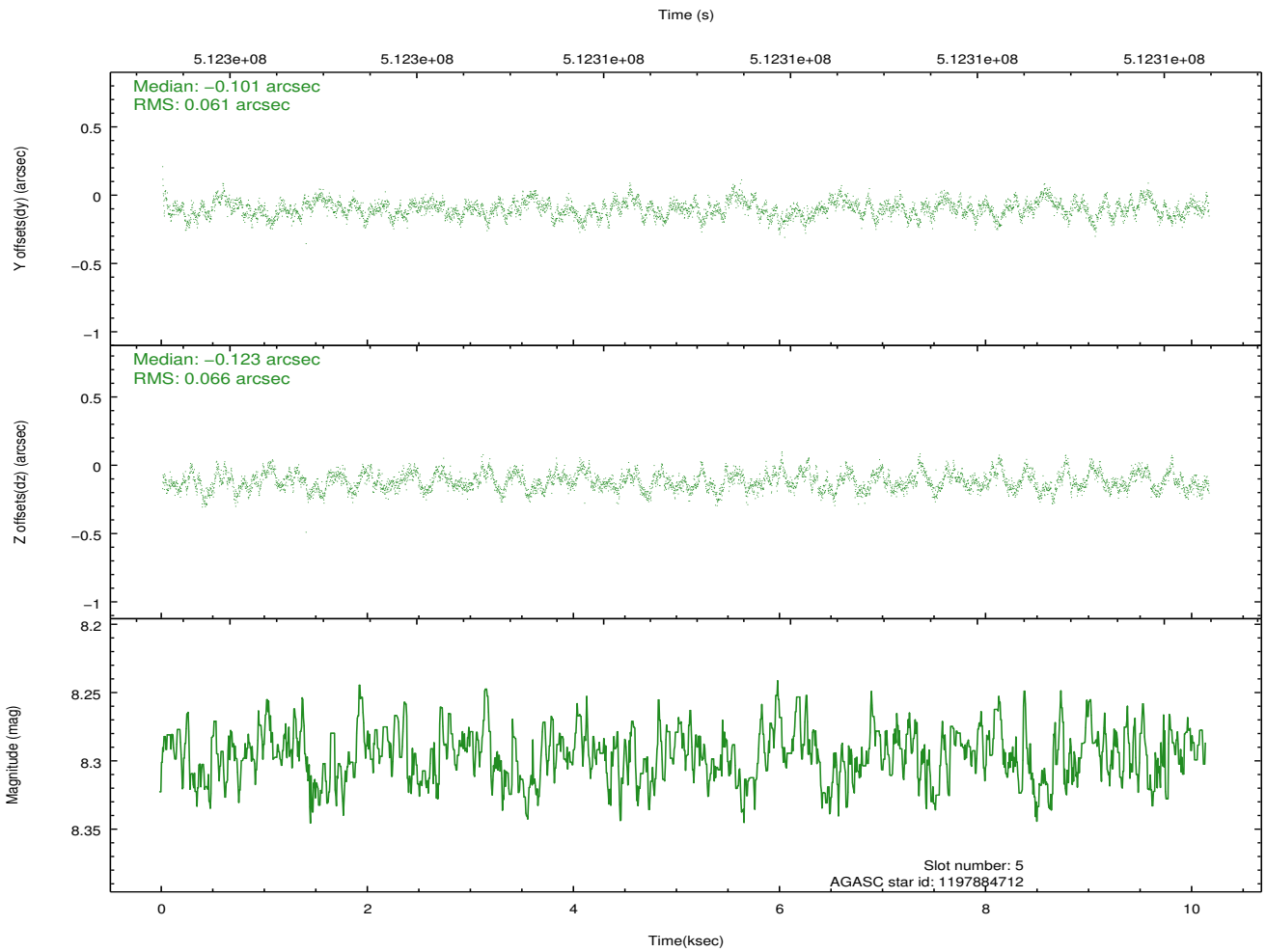
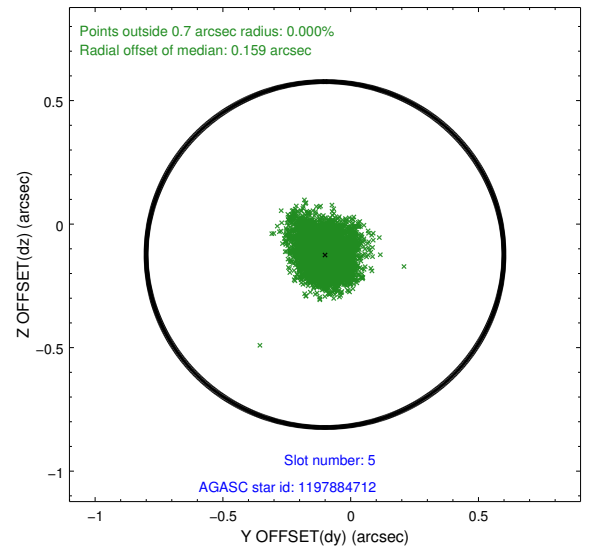
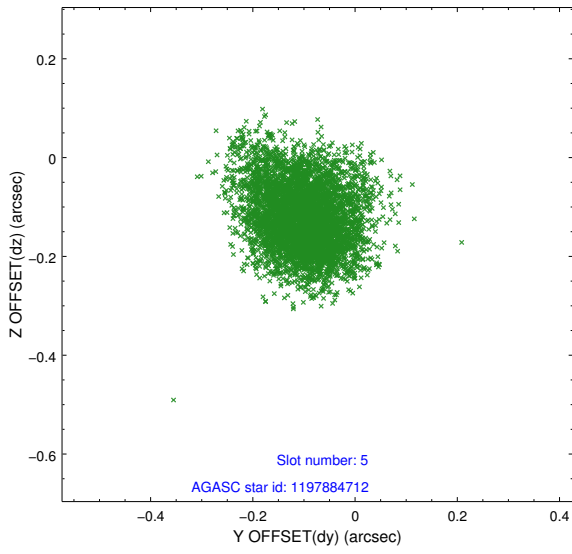
### 2.4.1 Slot 3



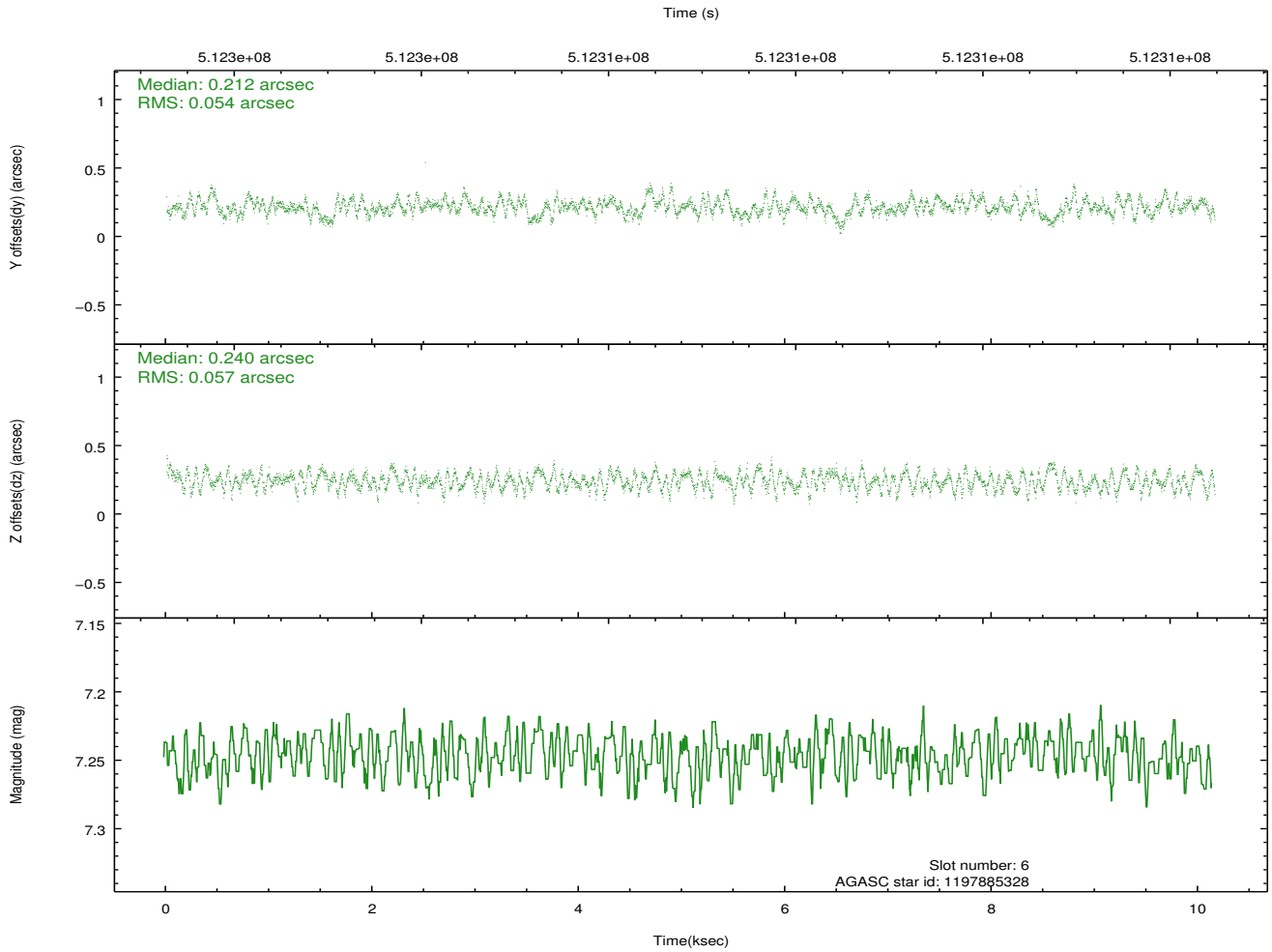
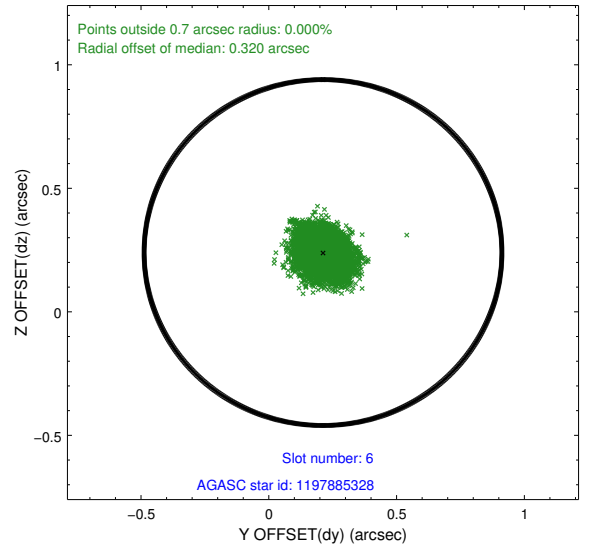
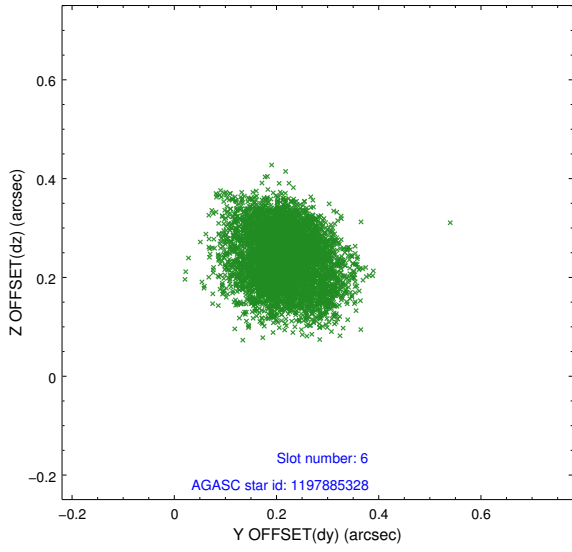
## 2.4.2 Slot 4



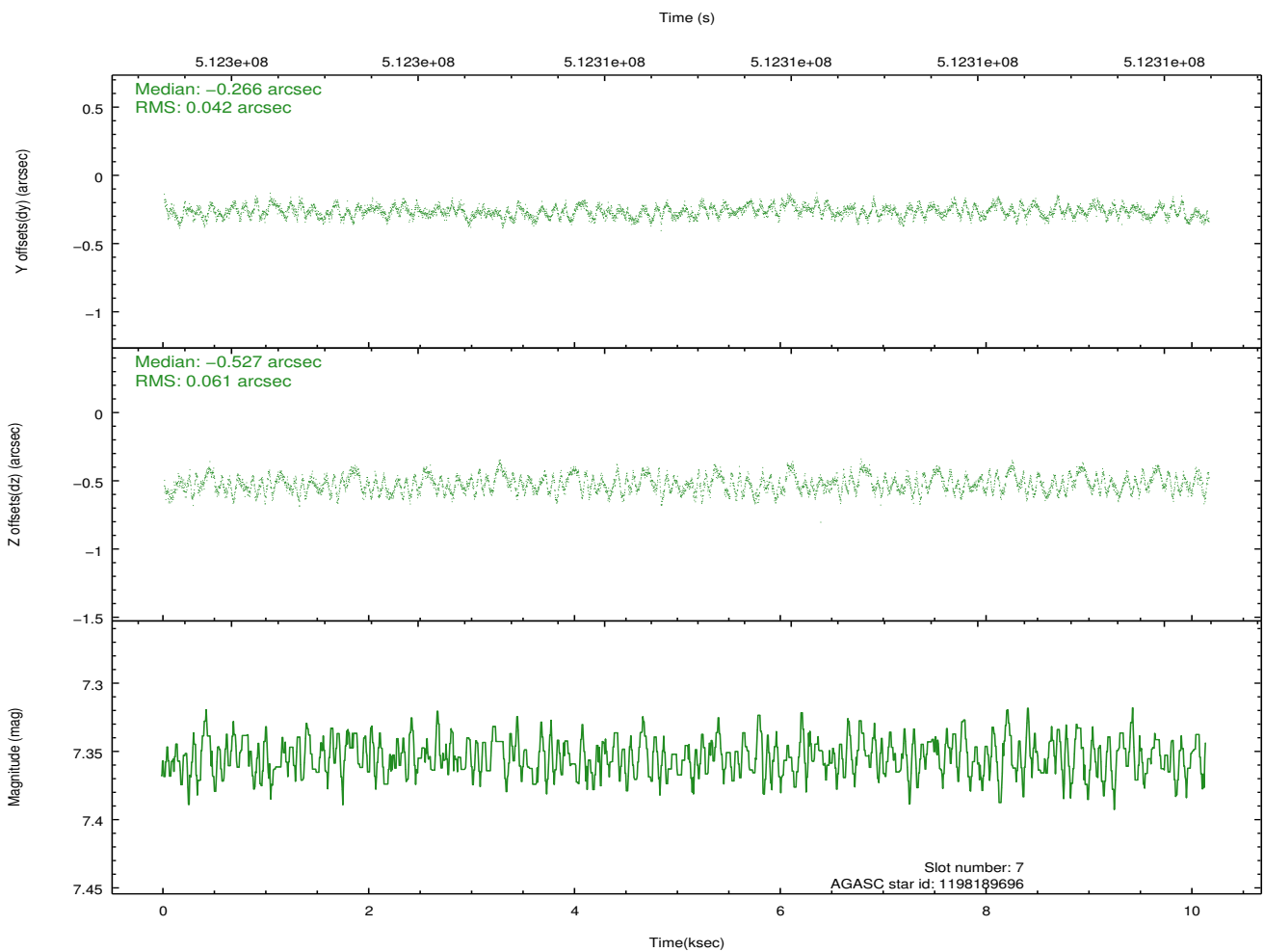
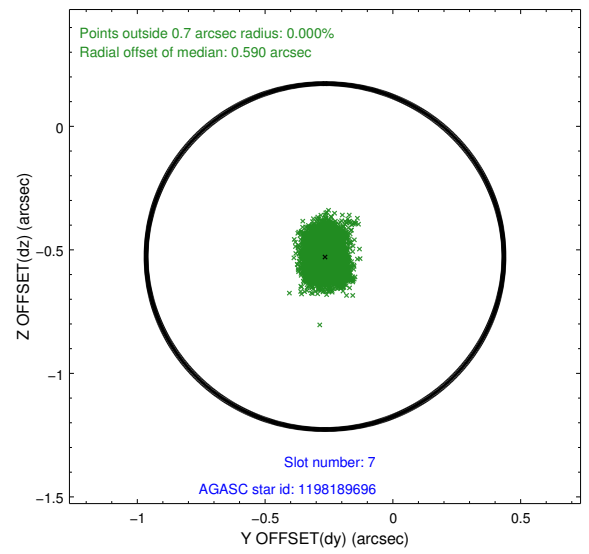
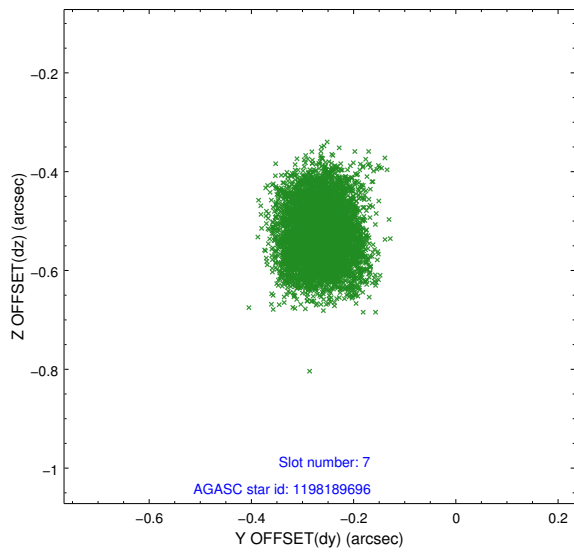
### 2.4.3 Slot 5



### 2.4.4 Slot 6

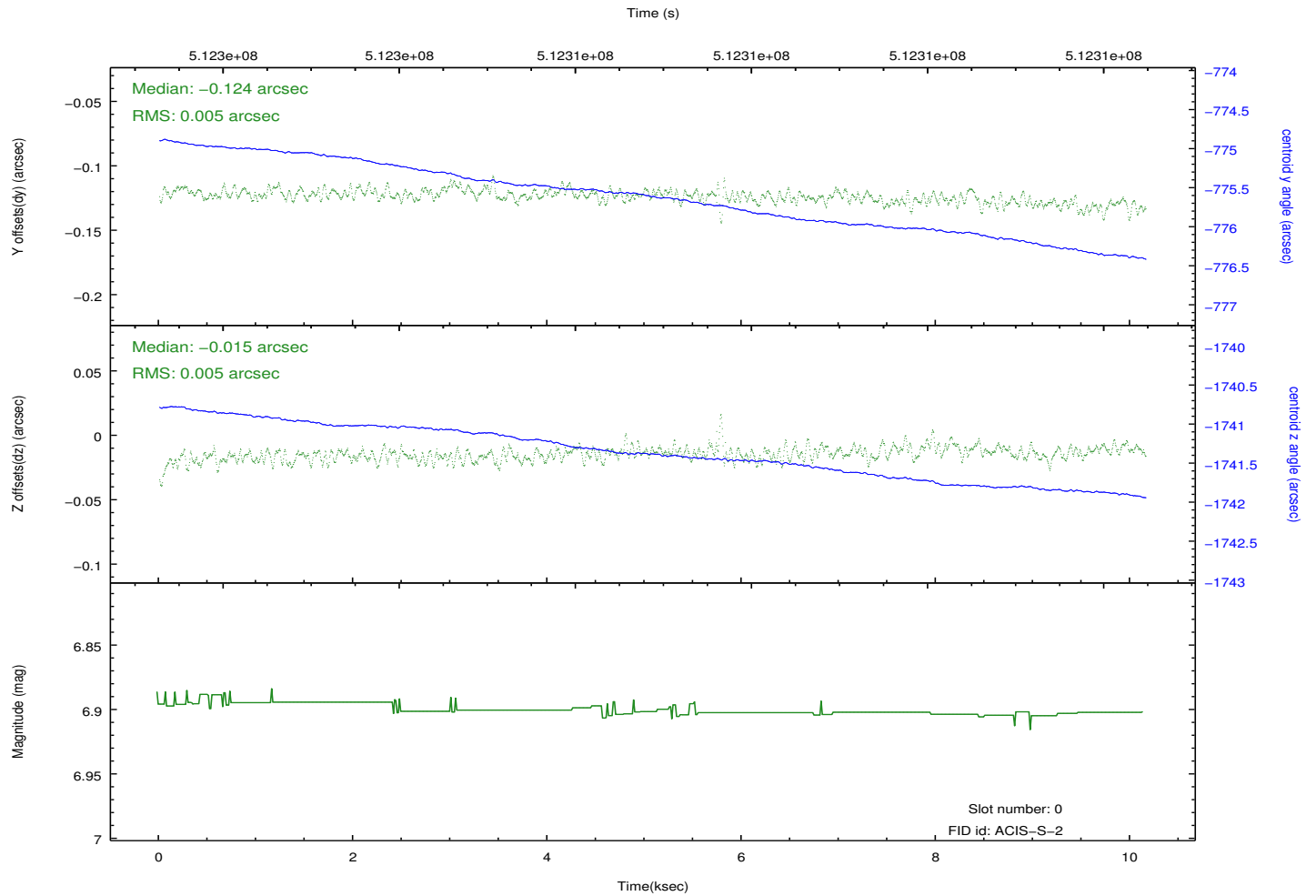
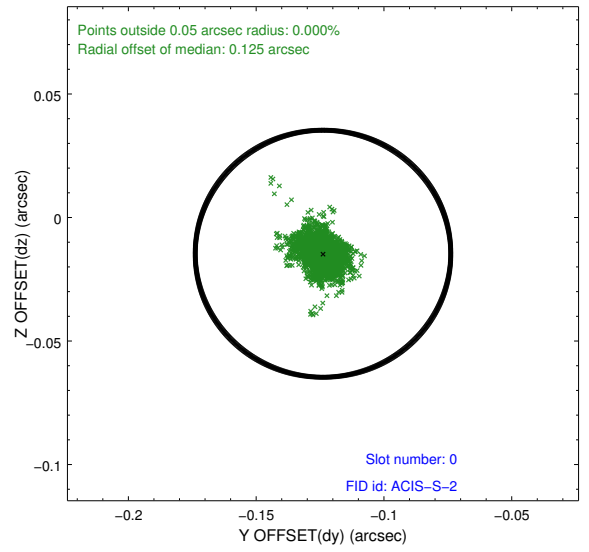
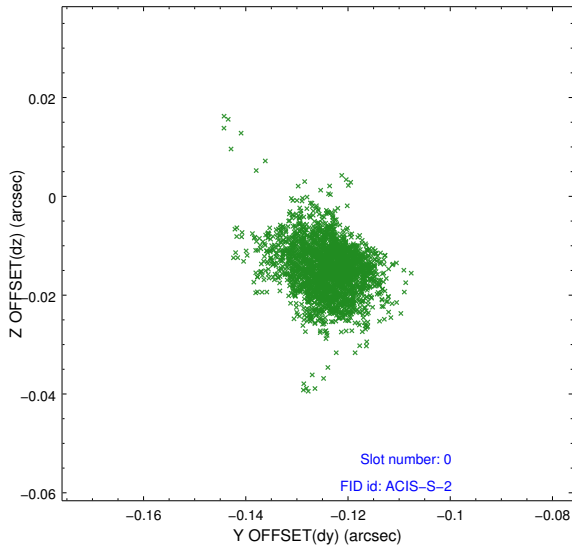


## 2.4.5 Slot 7

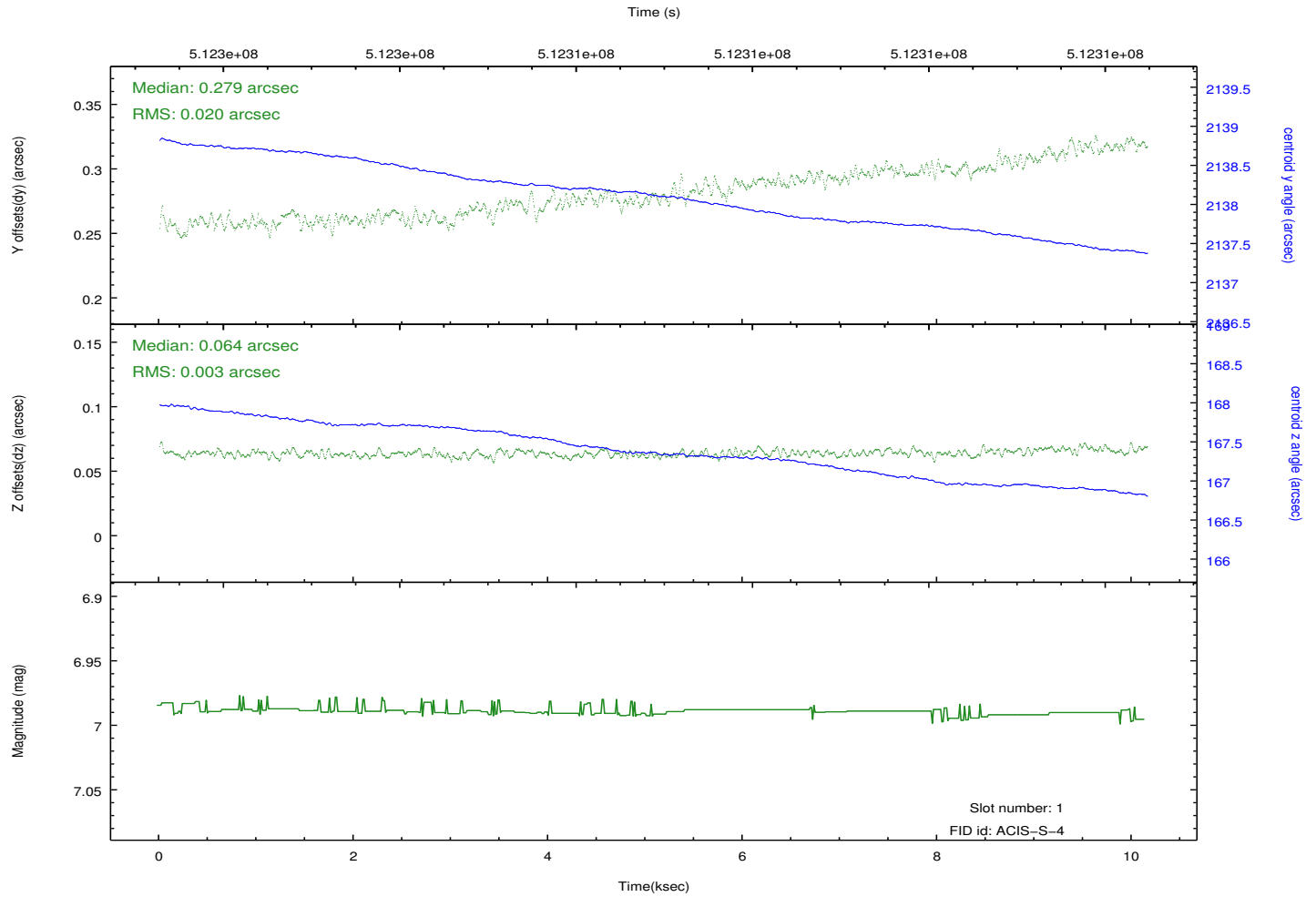
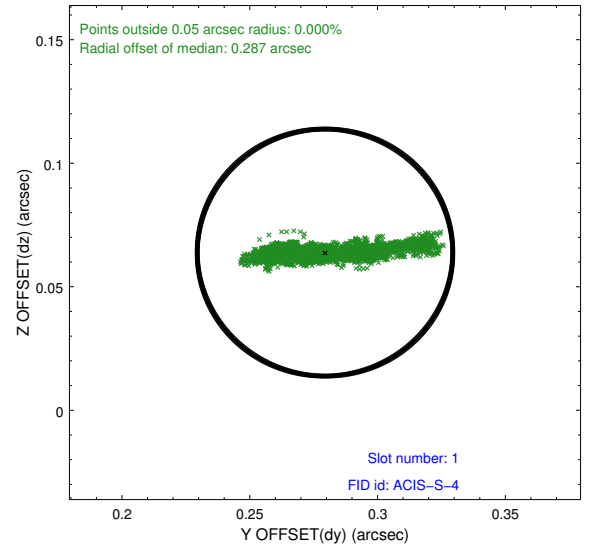
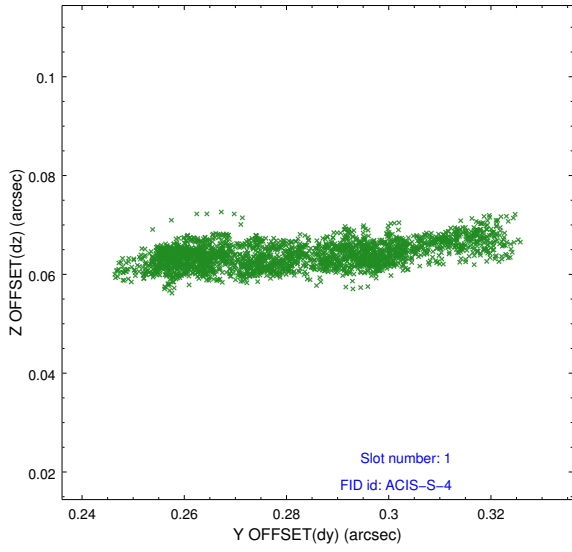


## 2.5 FID Slots

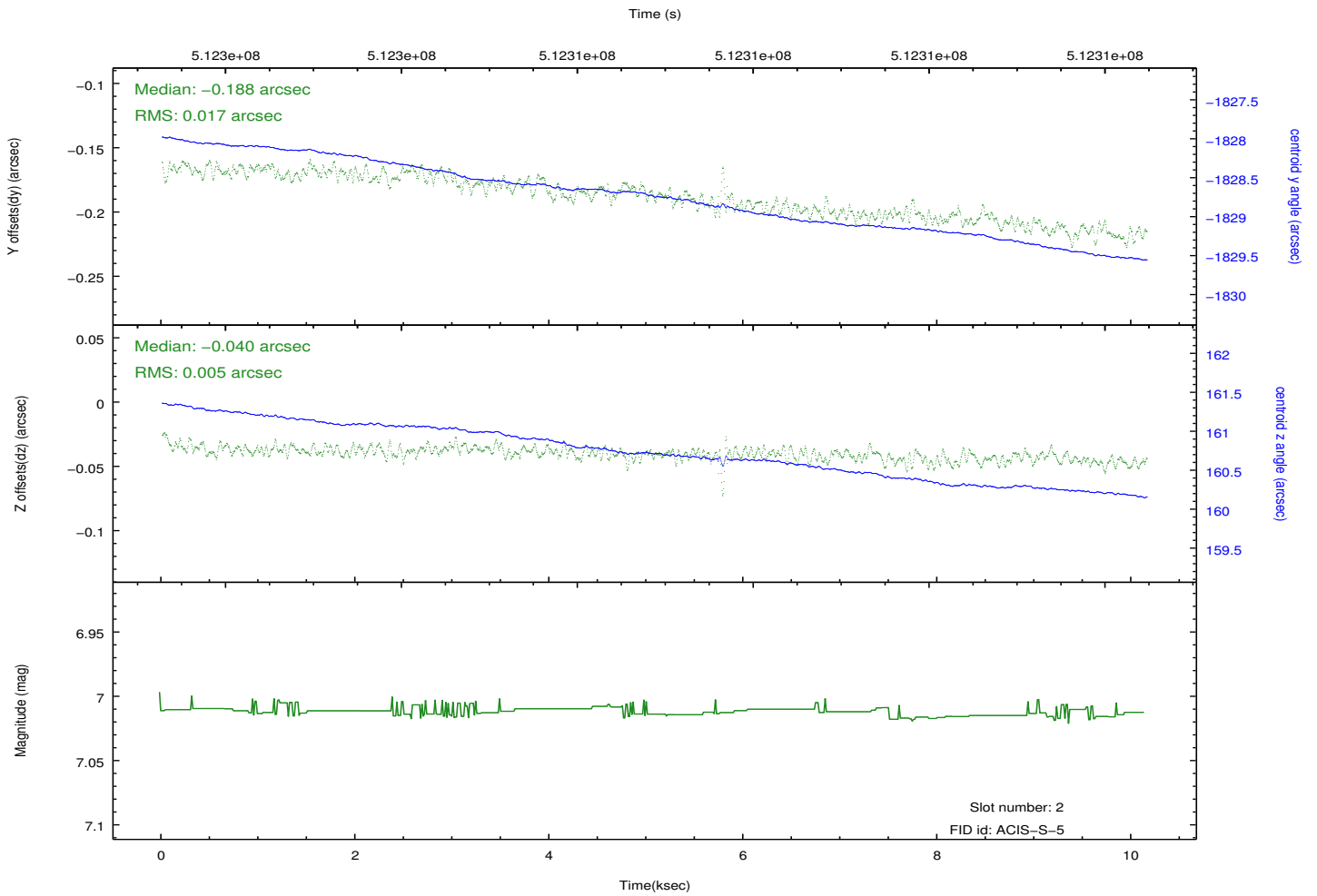
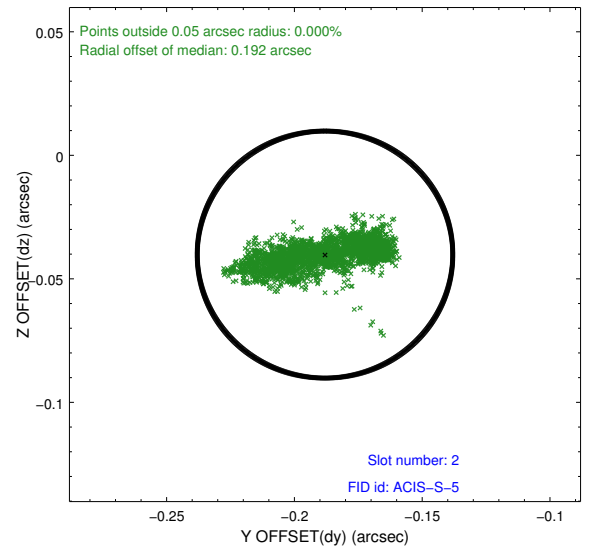
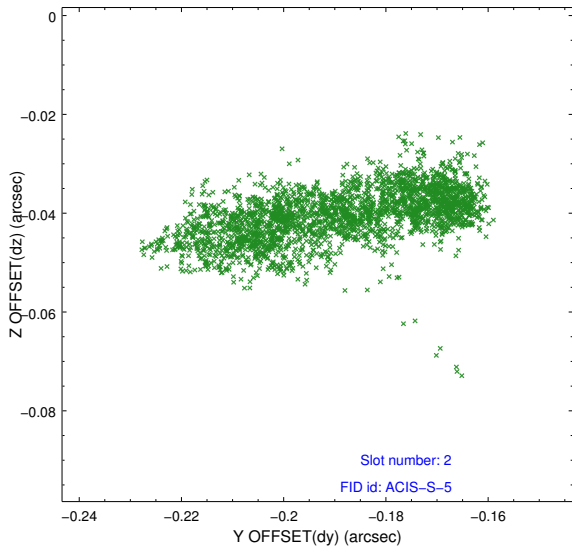
### 2.5.1 Slot 0



## 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	10.060000149965

## 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.