

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15467 - L2 Version 2  
Chandra X-Ray Center

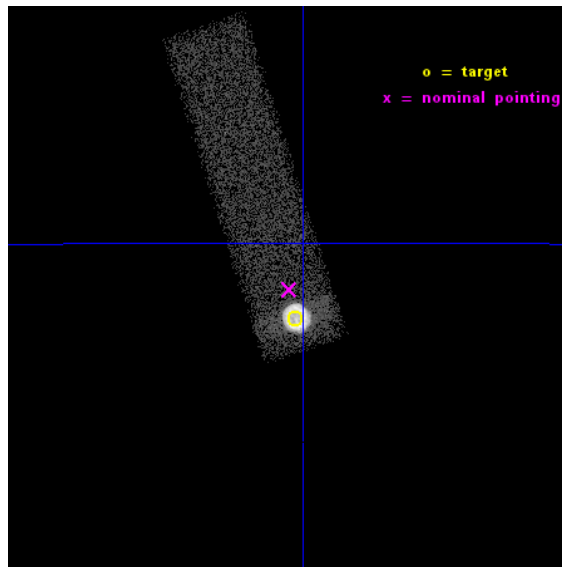
L2 Processing Date : Dec 1 2014

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# 1 Front

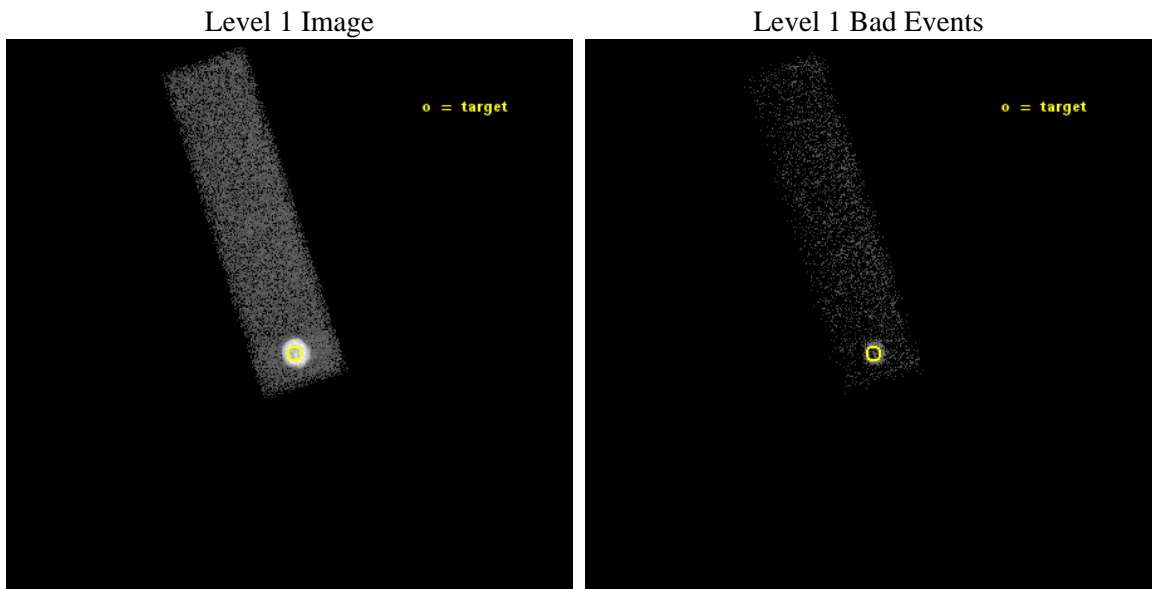
seq_num	590520	Sequence number
obs_id	15467	Observation id
title	AO-14 Calibration Observations of E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72 S3,-120,1,0,0	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.017871397104	Nominal RA [deg]
dec_nom	-72.019599524588	Nominal Dec [deg]
roll_nom	251.66805390981	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20060.713855088	Sum of GTIs [s]
livetime	19081.816660409	Livetime [s]
ontime7	20060.713855088	Sum of GTIs [s]
l2events	110674	Number of level 2 events



## 2 OBI

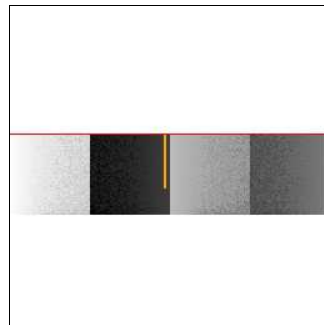
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	20060.713855088	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime7	20060.713855088	Sum of GTIs [s]
date	2014-12-01T11:58:50	Date and time of file creation	l1events	126420	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

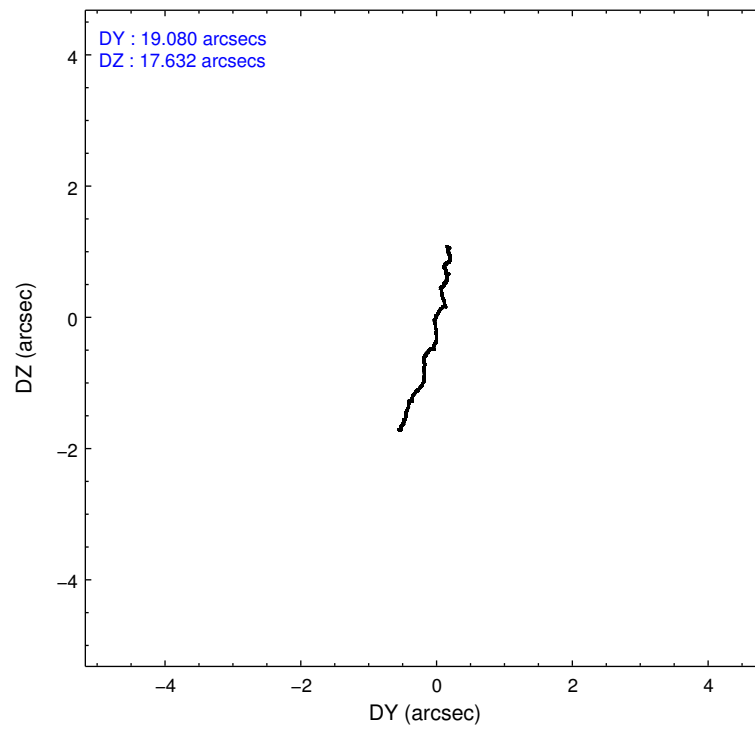
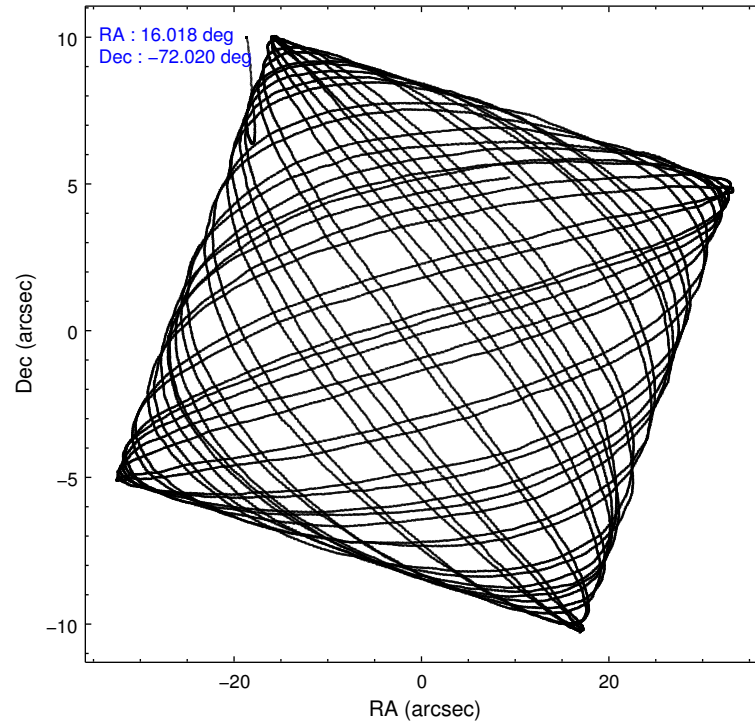
	<b>ccd 7</b>
level 1 events	126420
rejected events	15171
rejected %	<b>12%</b>

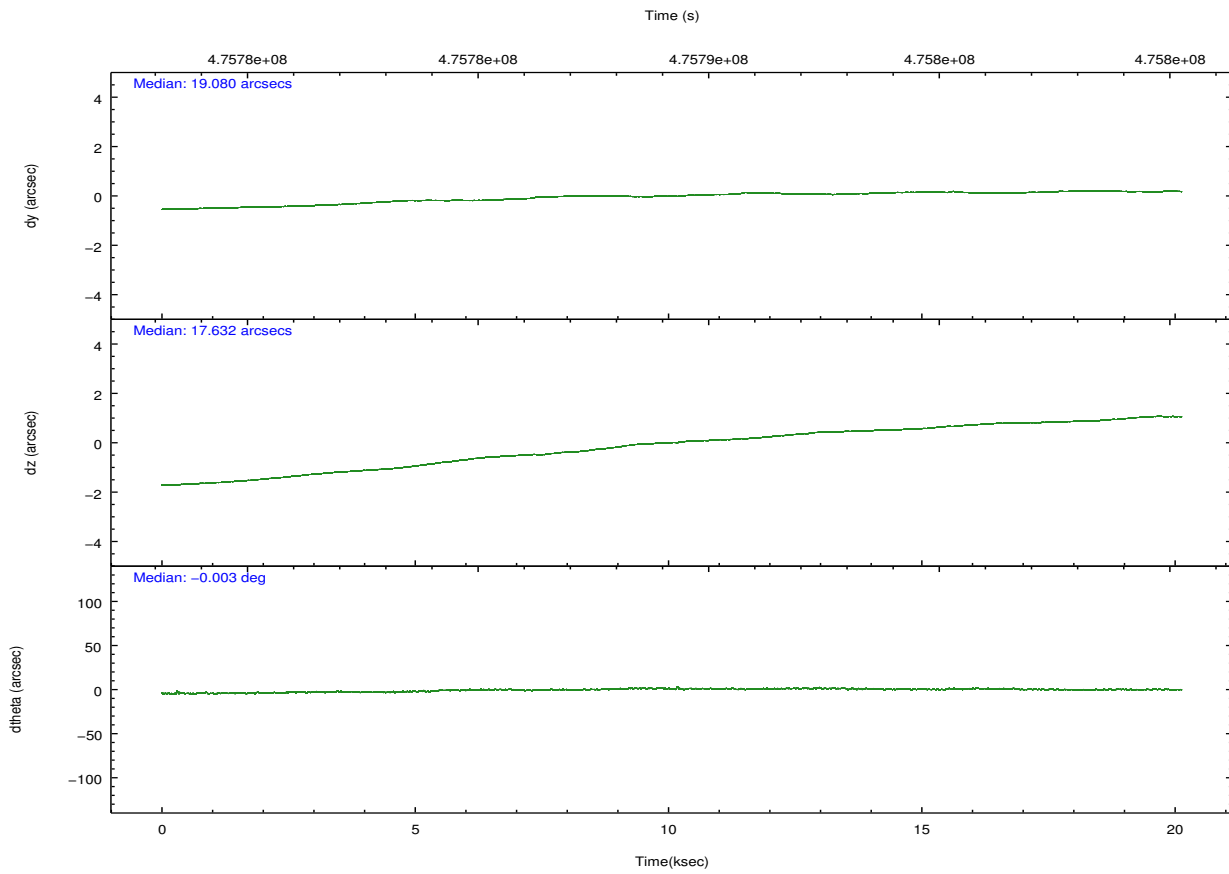
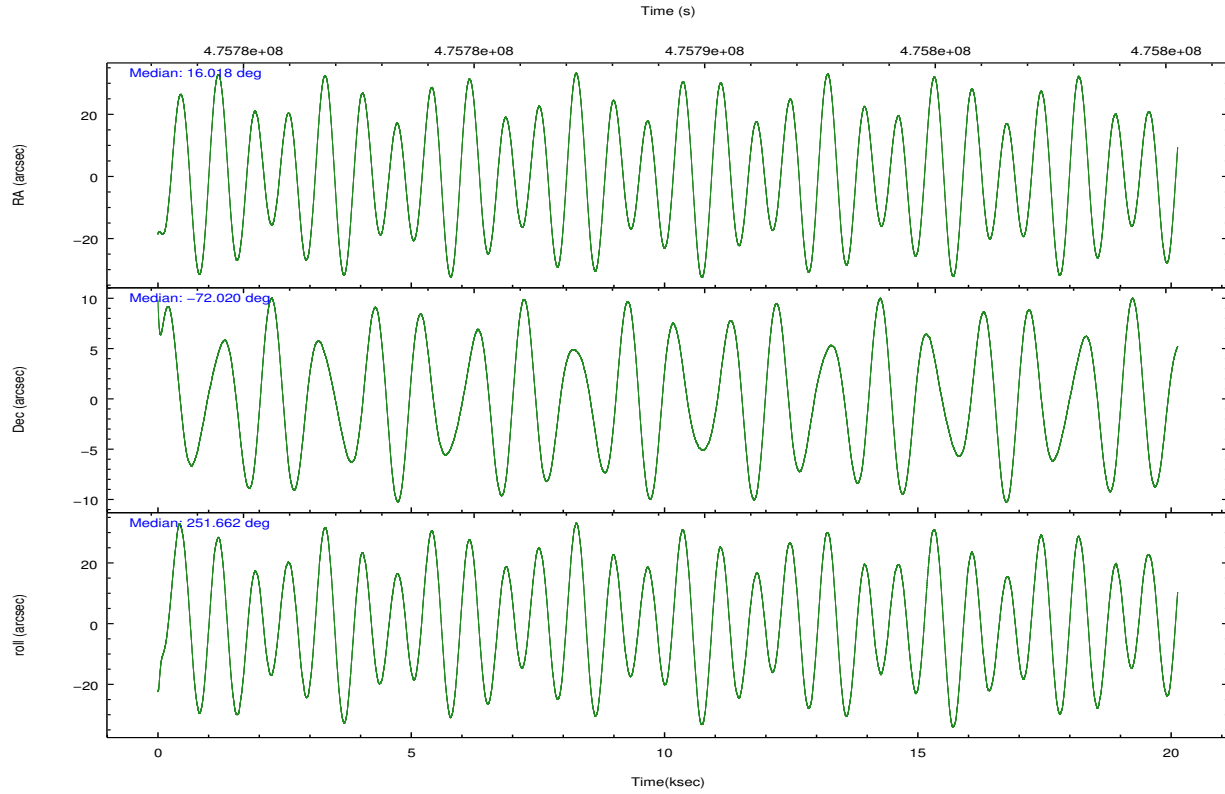
	<b>ccd 7</b>
grade 0 events	30191
	23%
grade 1 events	139
	0%
grade 2 events	30725
	24%
grade 3 events	13636
	10%
grade 4 events	13247
	10%
grade 5 events	3947
	3%
grade 6 events	23452
	18%
grade 7 events	11083
	8%

## 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	15.998881	16.01787139710419	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	-71.992934	-72.01959952458753	Subarray start row	360	360
[deg] Pointing Roll	251.493378	251.6680539098056	Subarray row count	256	256
[s] Window start time (MET)	470707267.184000	470707267.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	483667267.184000	483667267.184000	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	475779265.184000	475778099.24532			
Observation start date	2013-01-28T16:53:18	2013-01-28T16:34:59			
[s] Observation end time (MET)	475799265.184000	475799398.74647			
Observation end date	2013-01-28T22:26:38	2013-01-28T22:29:58			
Read mode	TIMED	TIMED			

## 2.3 Aspect





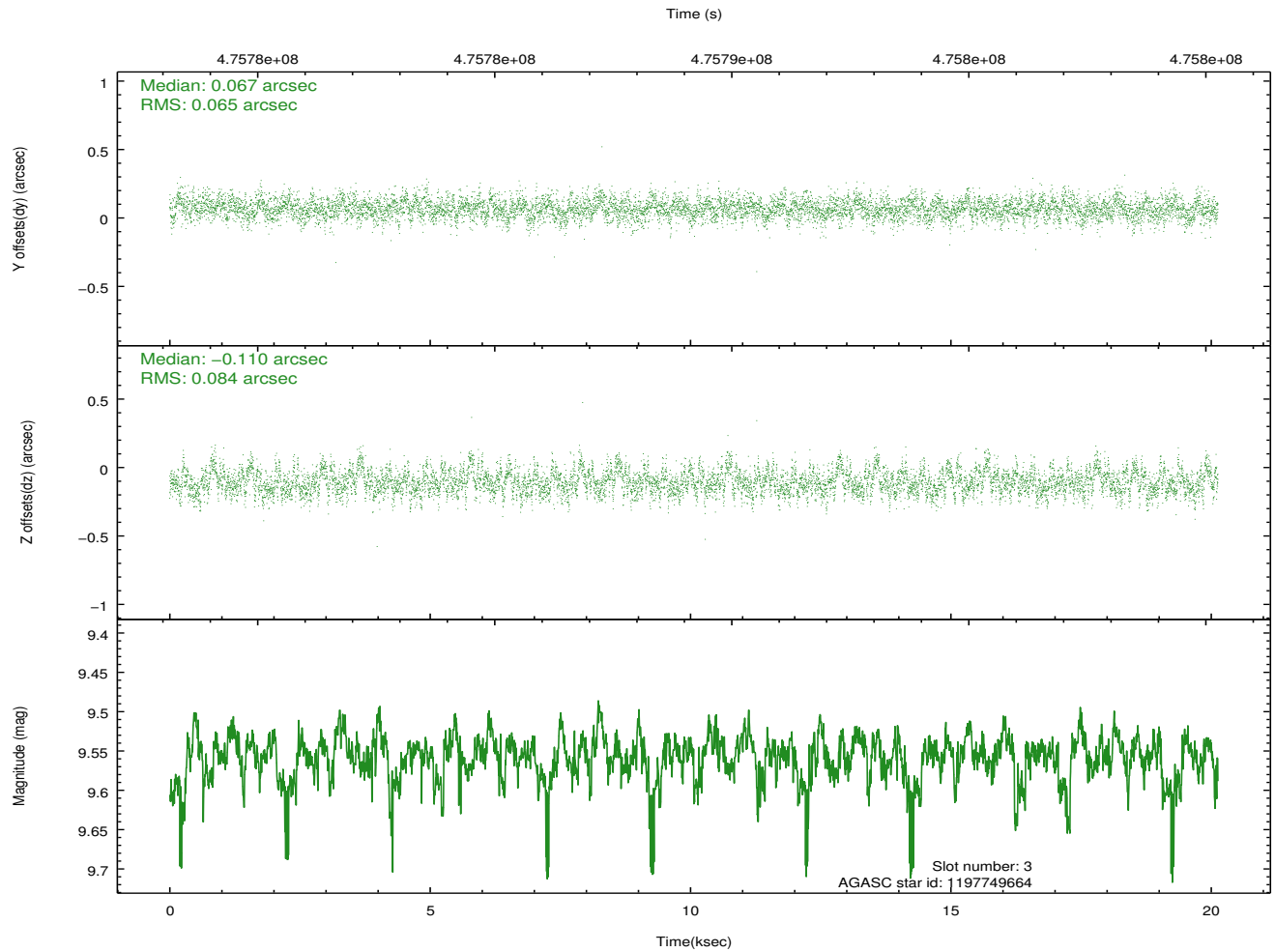
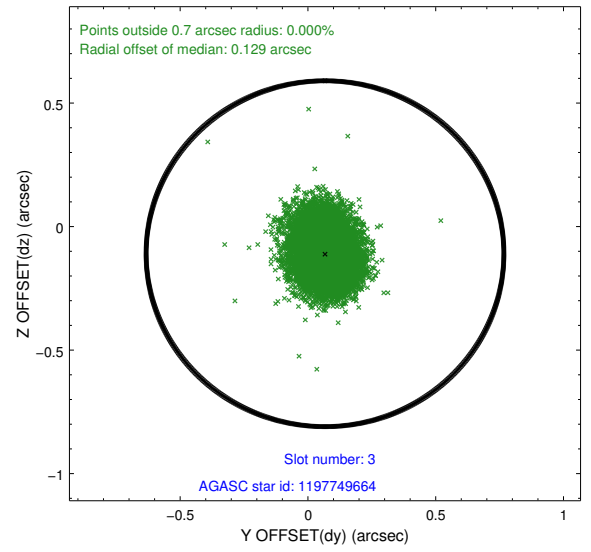
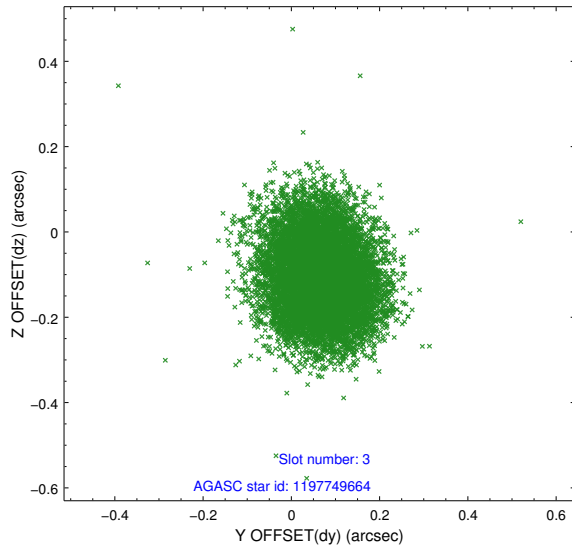
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.03	4909	-0.110	-0.061	0.019	0.048	0.000000	0.000000	-772.23	-1738.91
1	FID		ACIS-S-4	7.11	4909	0.286	0.067	0.009	0.017	0.000000	0.000000	2141.38	169.46
2	FID		ACIS-S-5	7.14	4909	-0.207	0.001	0.015	0.040	0.000000	0.000000	-1824.91	163.32
3	GUIDE	used	1197749664	9.56	9764	0.067	-0.110	0.113	0.184	15.809015	-72.366369	1341.22	230.95
4	GUIDE	used	1197750936	7.57	9821	0.186	0.225	0.071	0.110	15.387940	-71.549550	-1288.00	-1164.89
5	GUIDE	used	1197884536	8.49	9817	-0.074	0.047	0.068	0.109	17.160729	-71.835289	-939.98	1060.40
6	GUIDE	used	1197884712	8.29	9816	0.023	-0.089	0.072	0.113	16.087398	-72.252690	856.41	389.43
7	GUIDE	used	1198283128	7.71	9818	-0.201	-0.080	0.065	0.101	17.272580	-72.642428	1797.01	2044.38

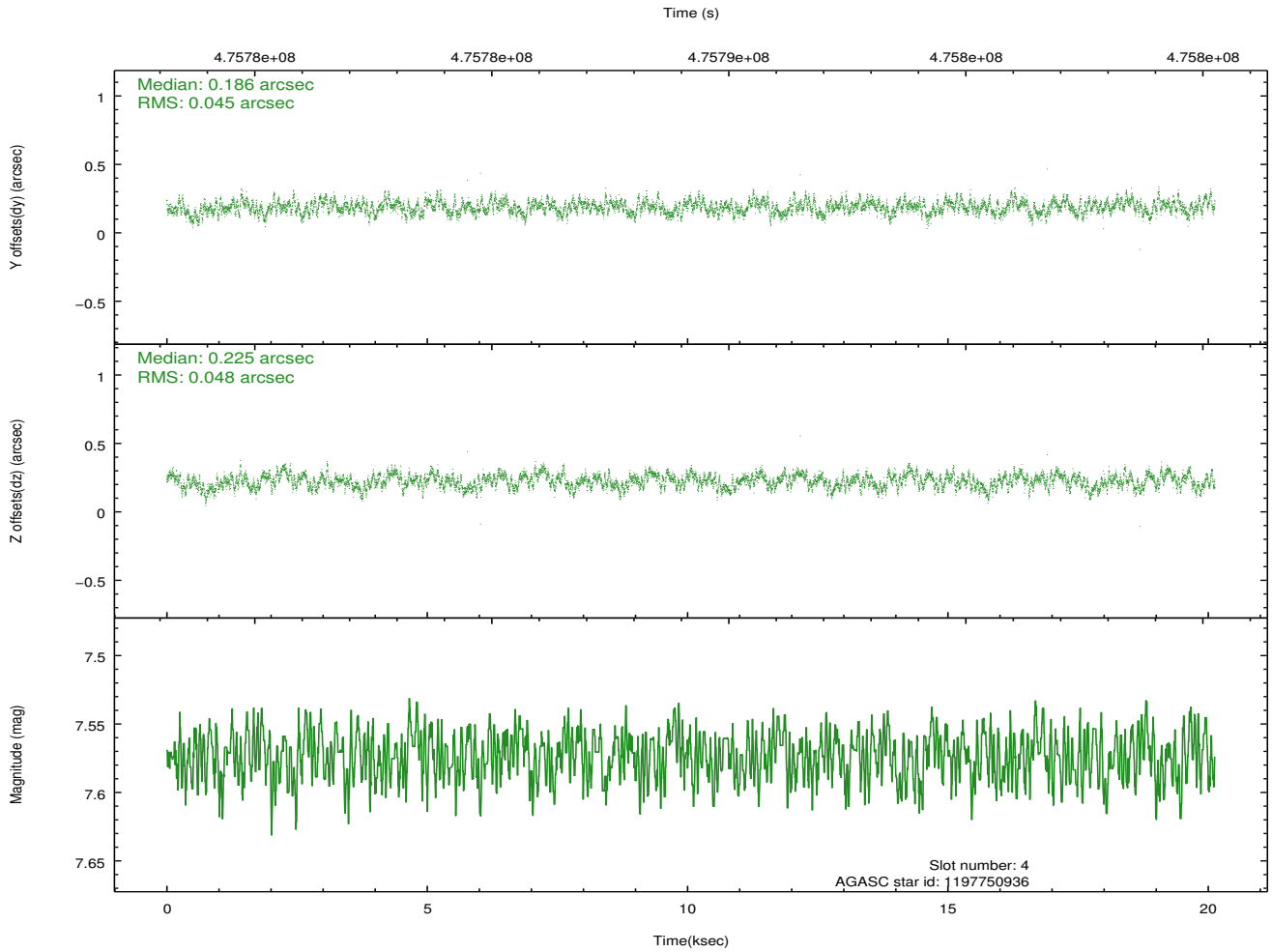
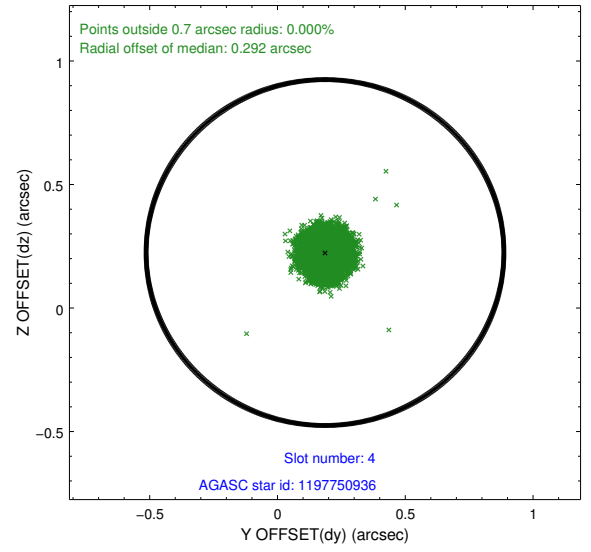
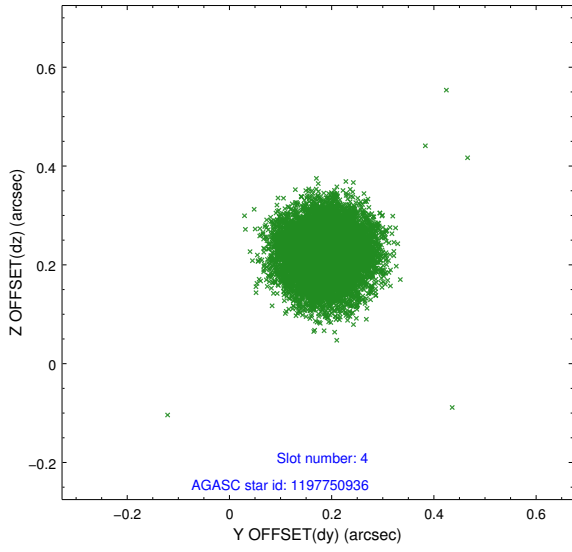
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## 2.4 Star Slots

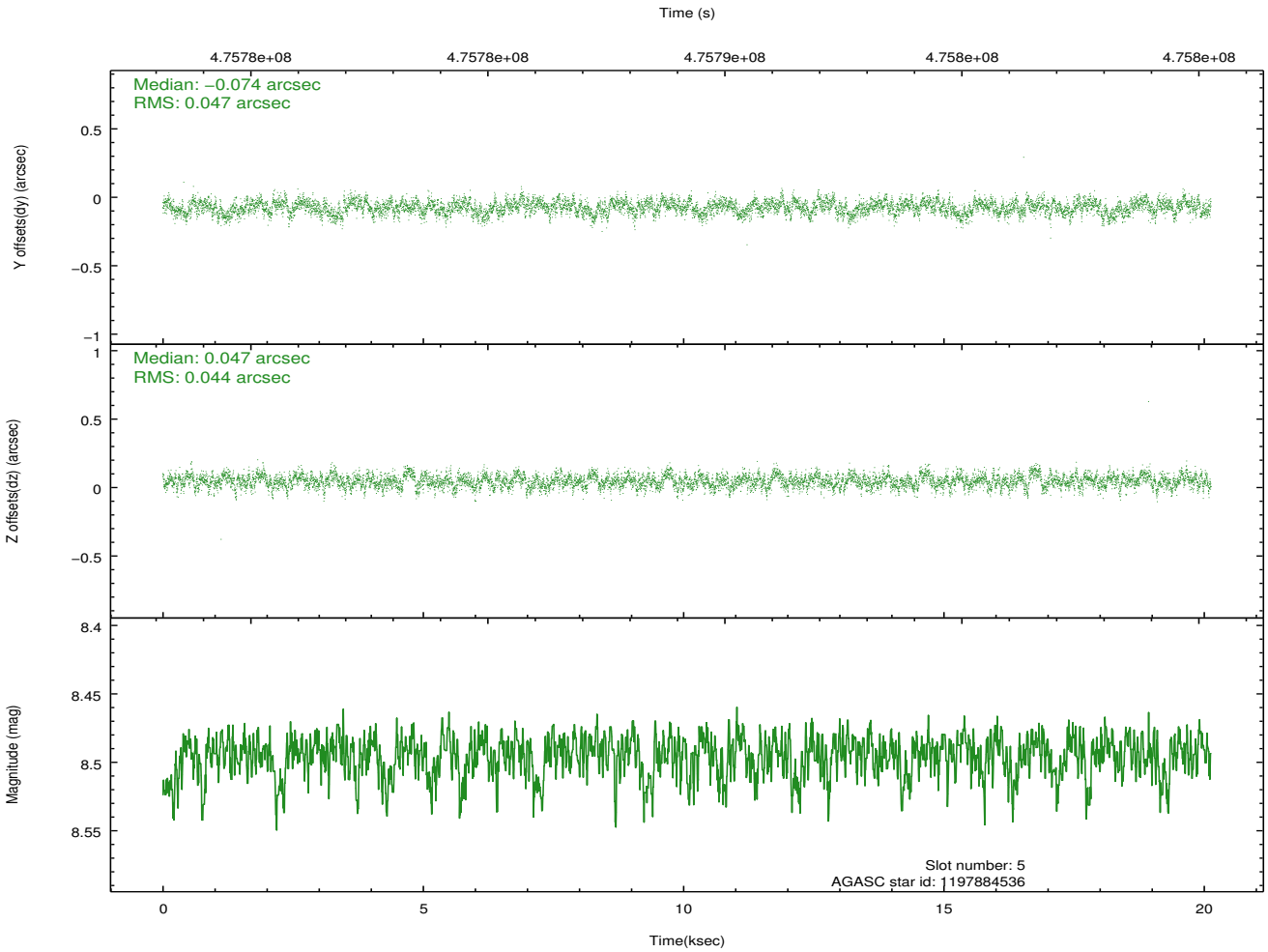
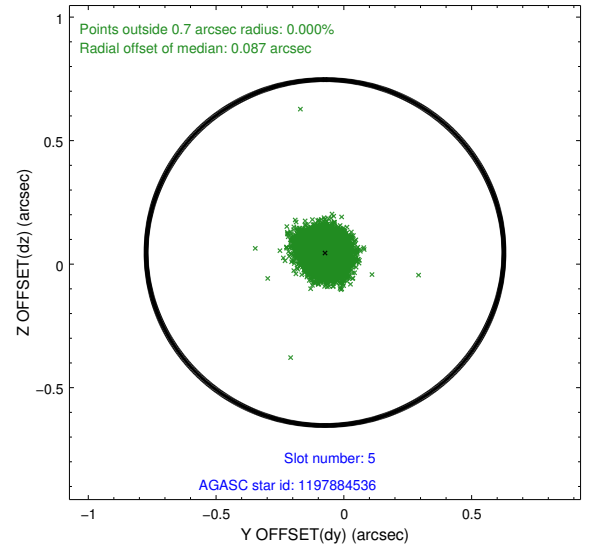
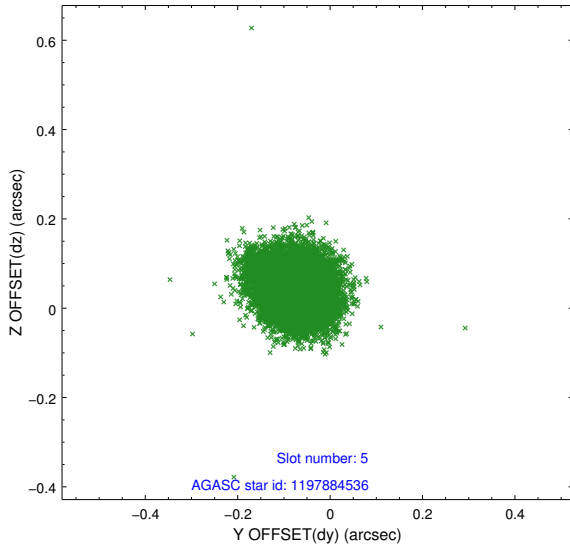
### 2.4.1 Slot 3



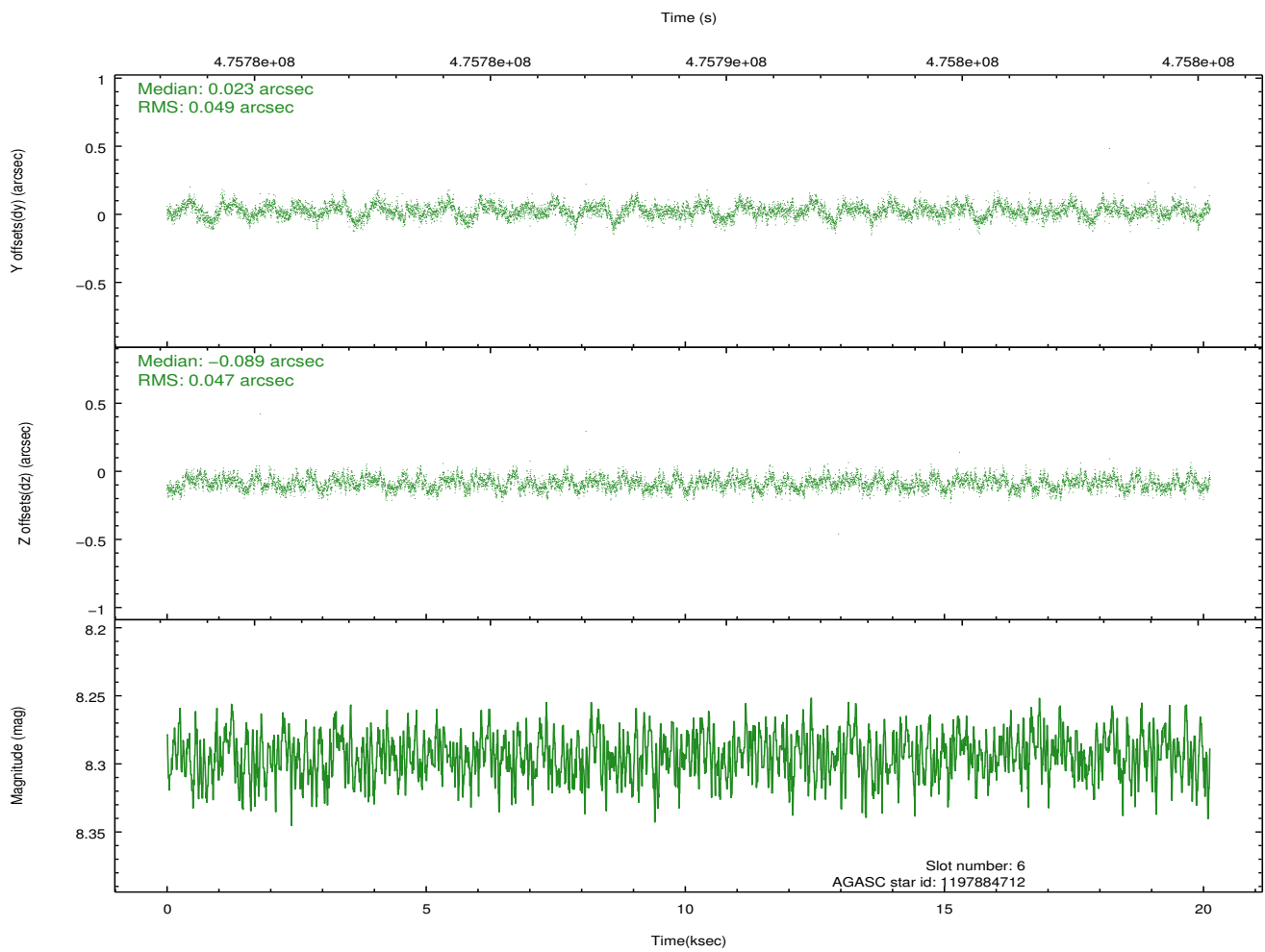
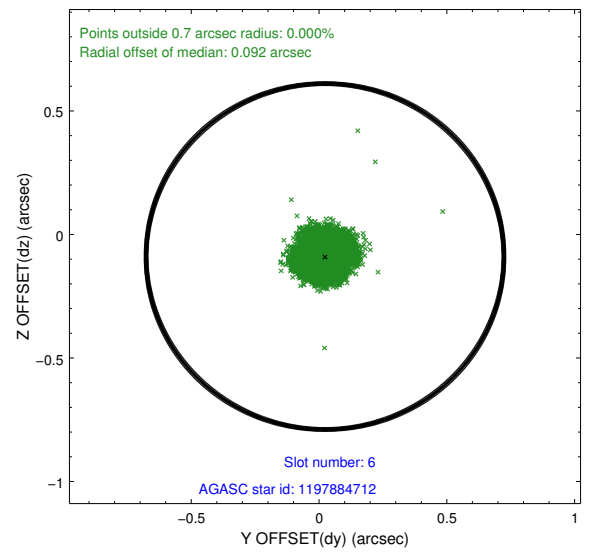
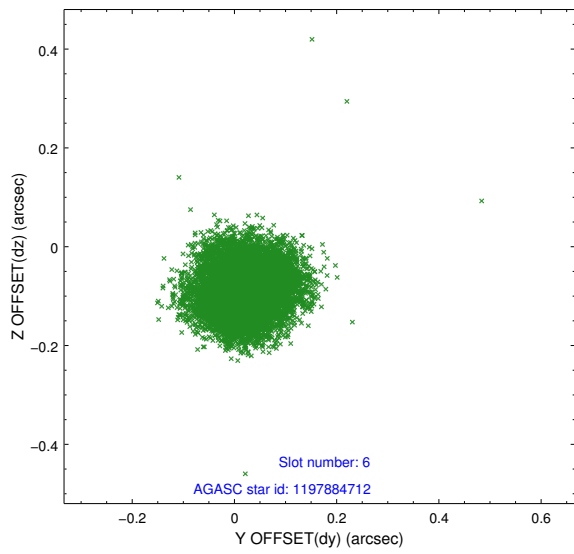
### 2.4.2 Slot 4



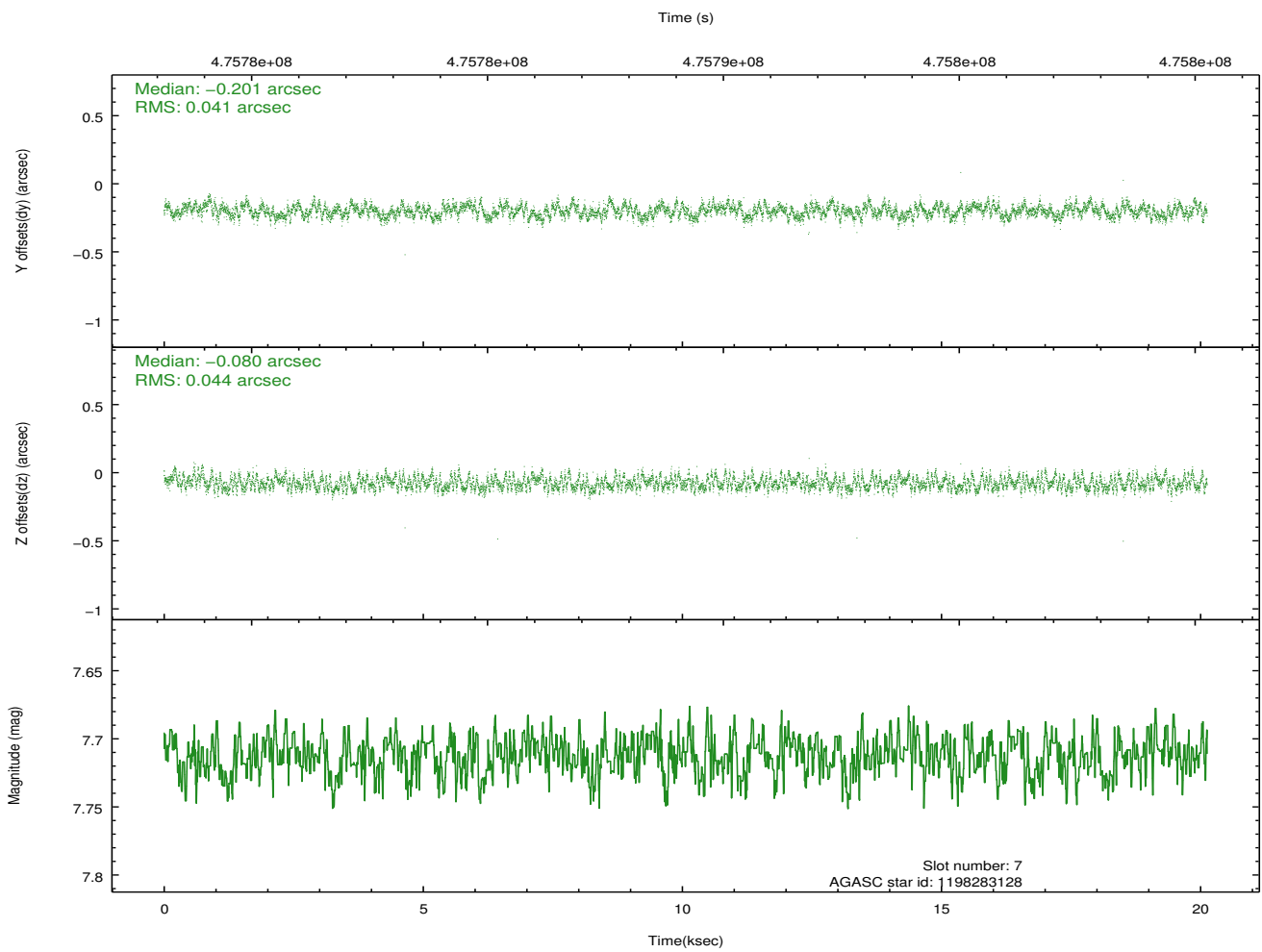
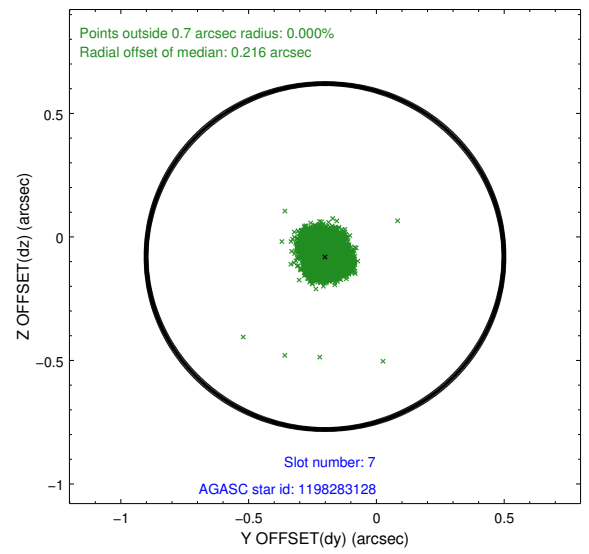
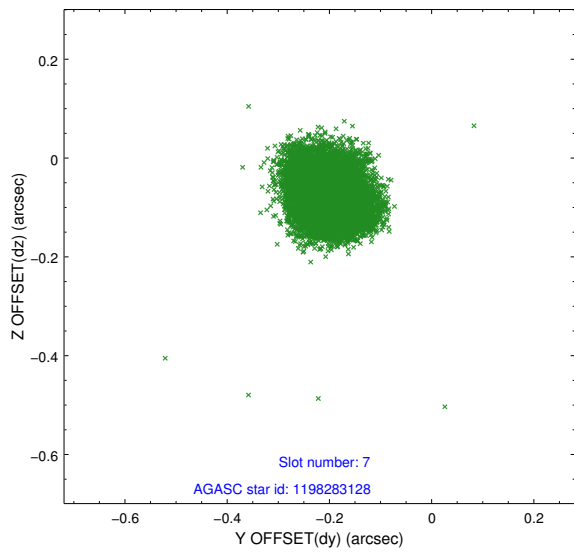
### 2.4.3 Slot 5



## 2.4.4 Slot 6

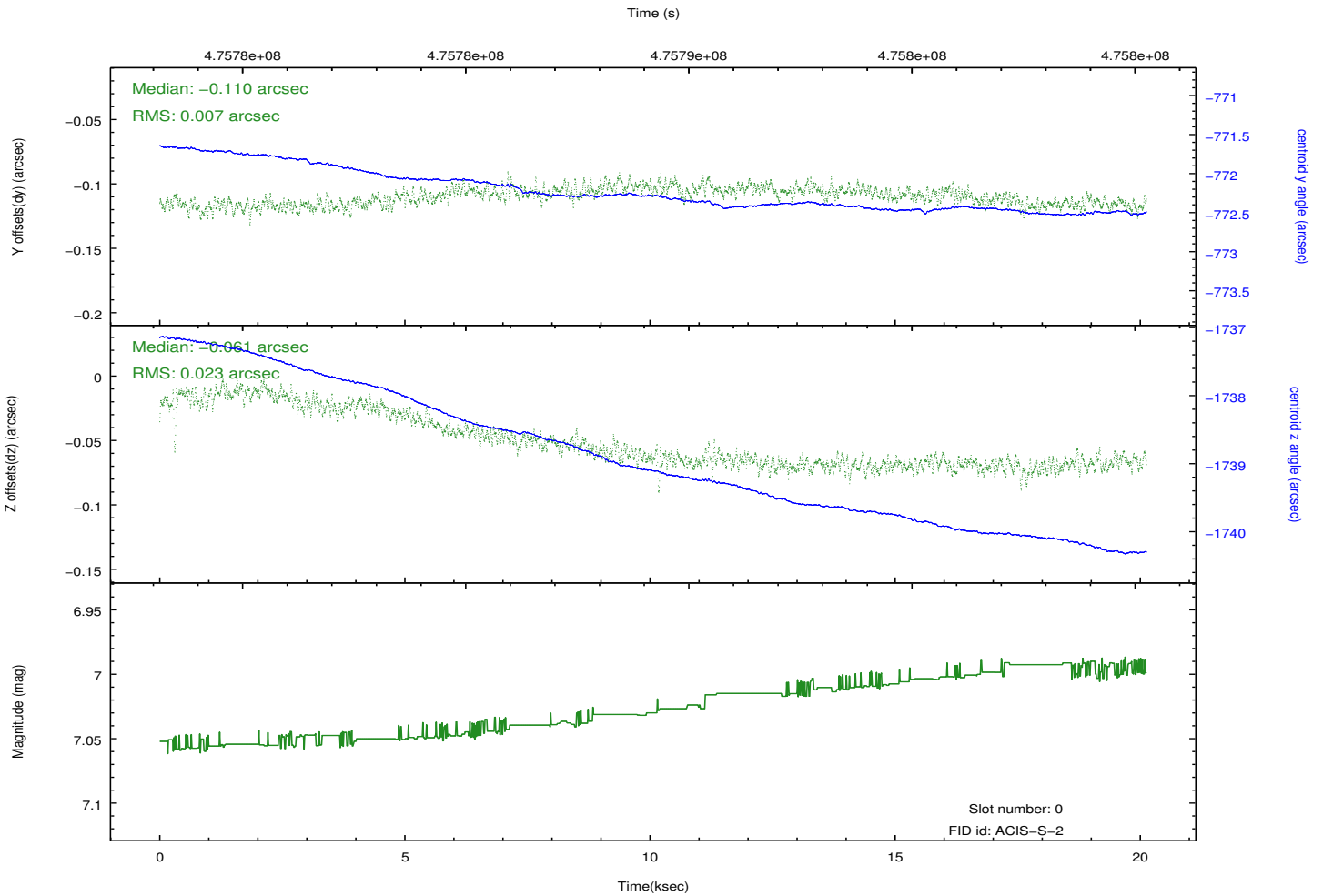
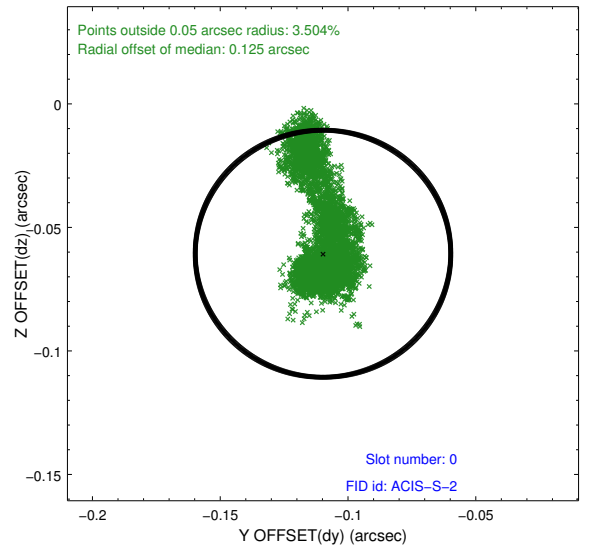
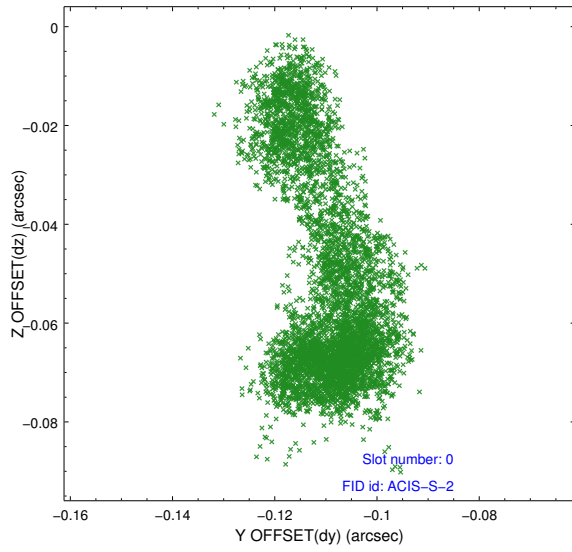


## 2.4.5 Slot 7

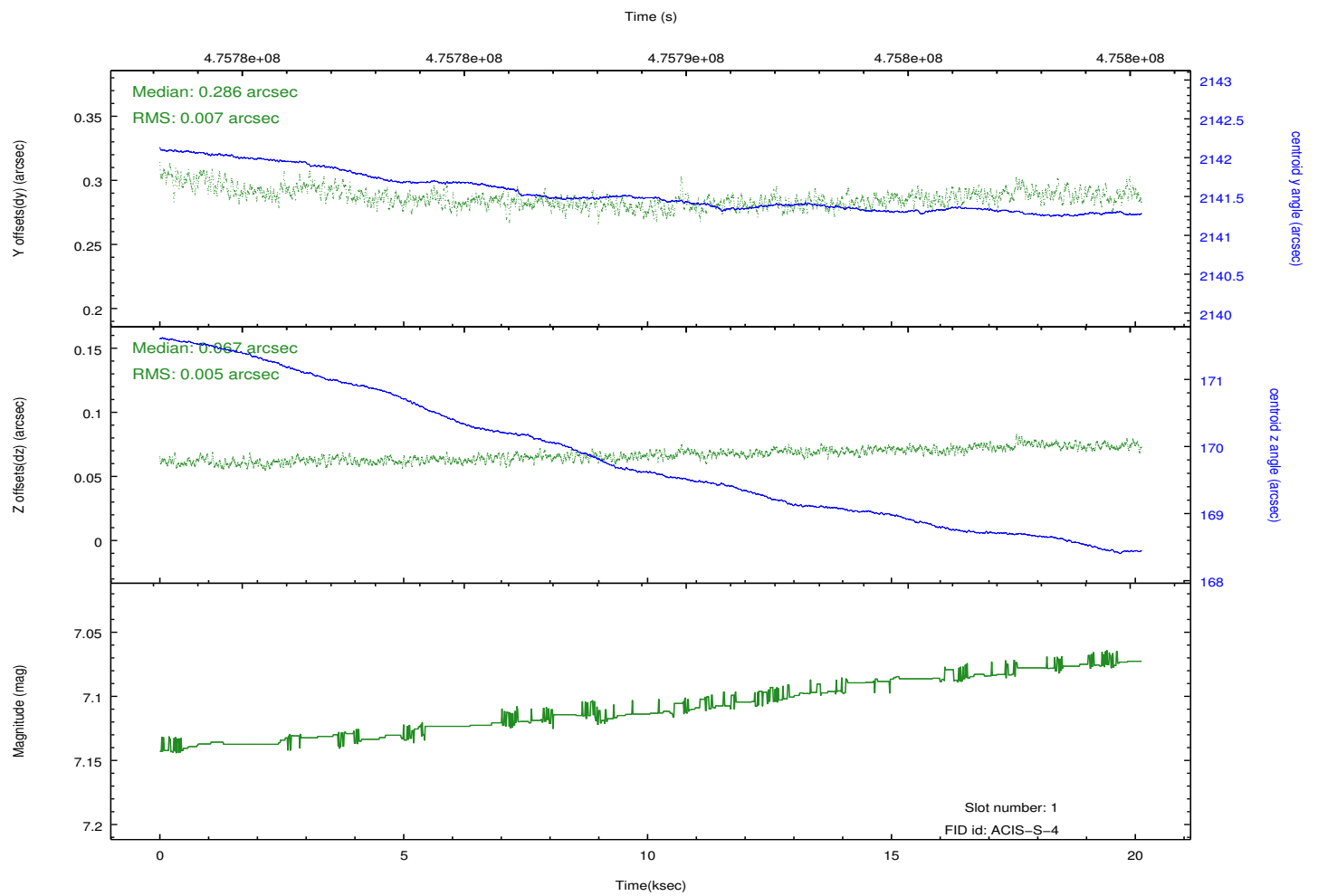
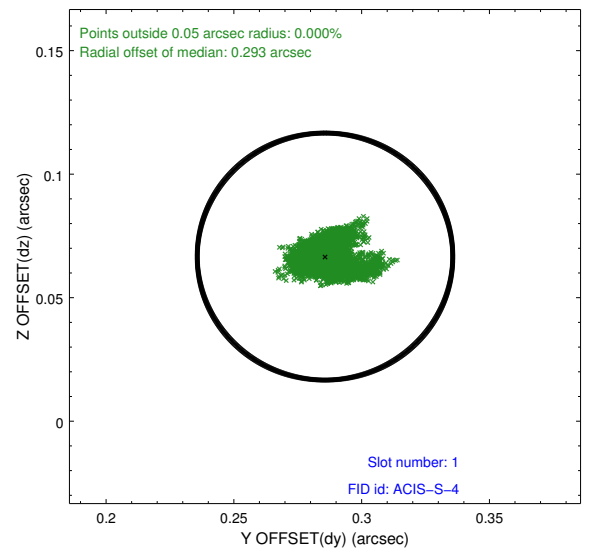
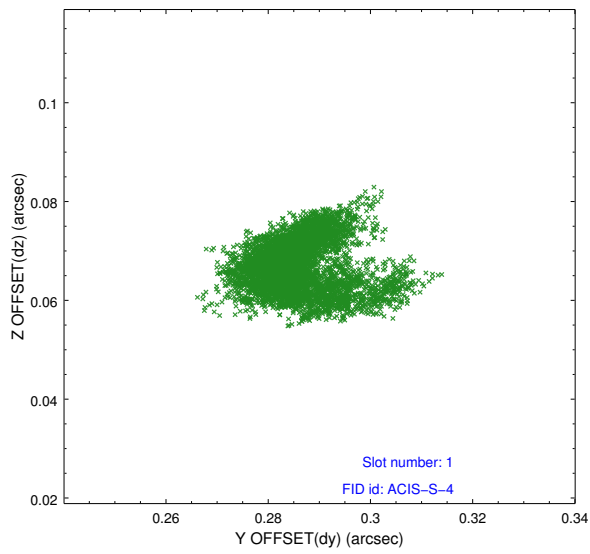


## 2.5 FID Slots

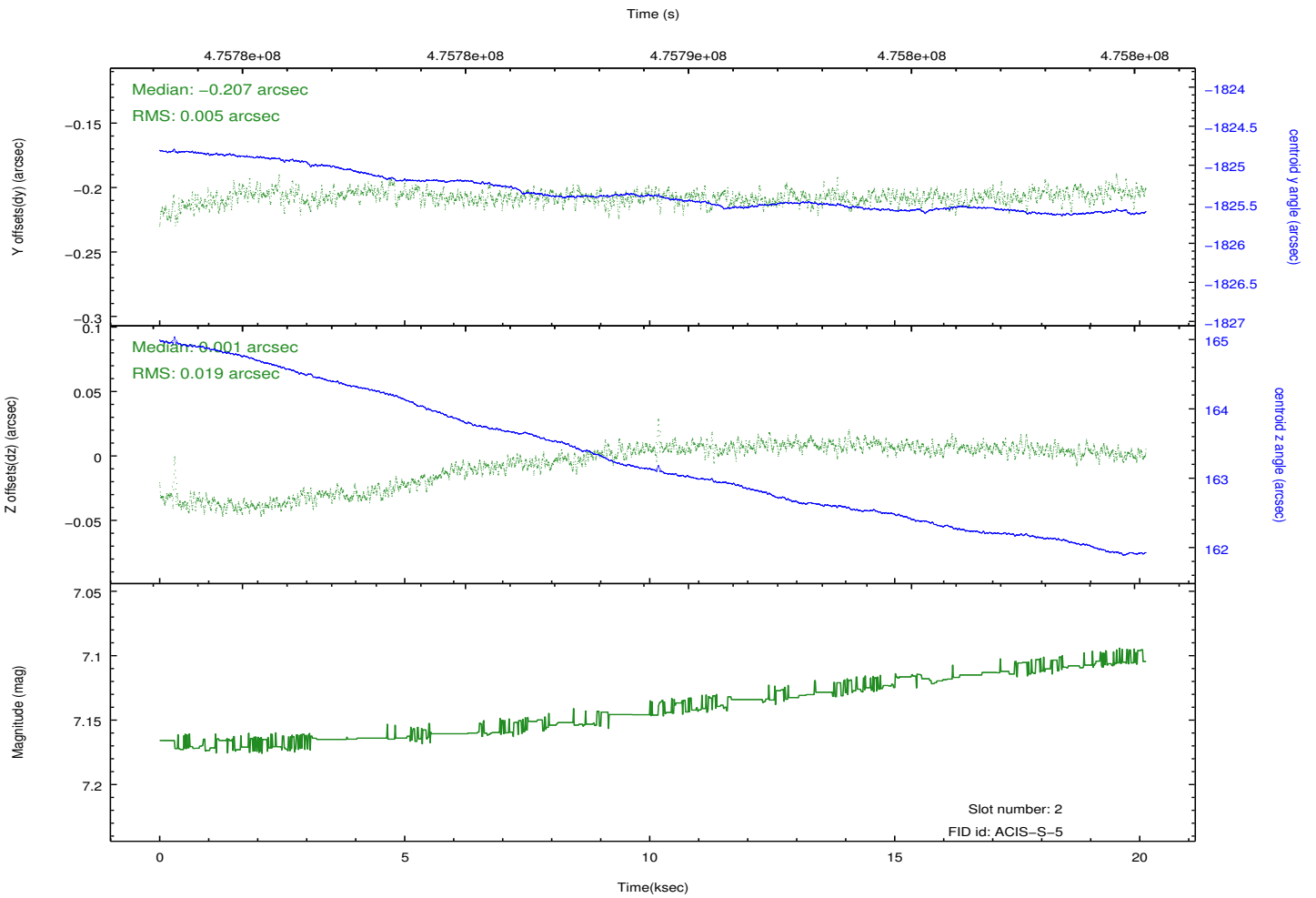
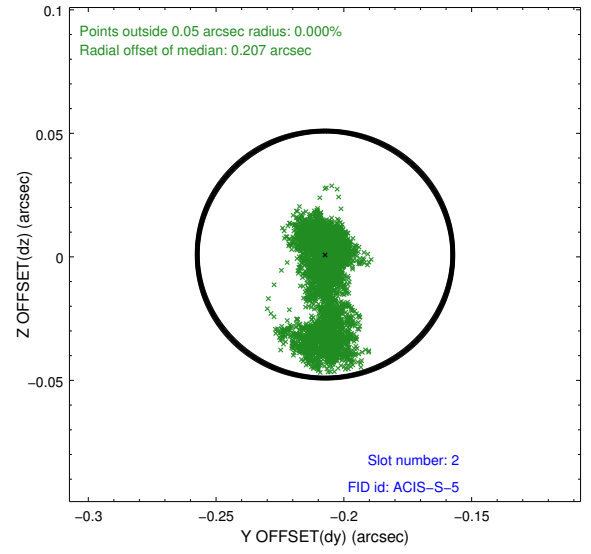
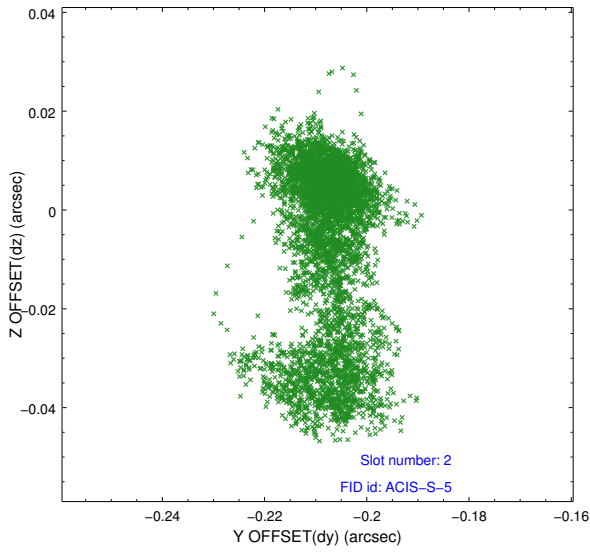
### 2.5.1 Slot 0



## 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)	2014.12.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.060713855088

## 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.