

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 14663 - L2 Version 2  
Chandra X-Ray Center

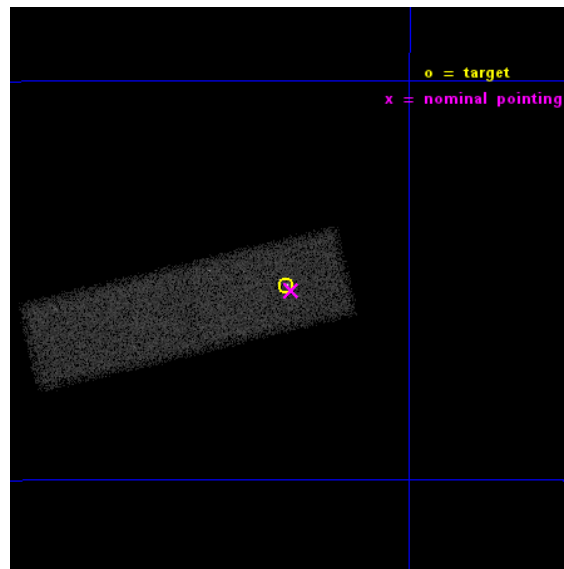
L2 Processing Date : Dec 4 2014

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# 1 Front

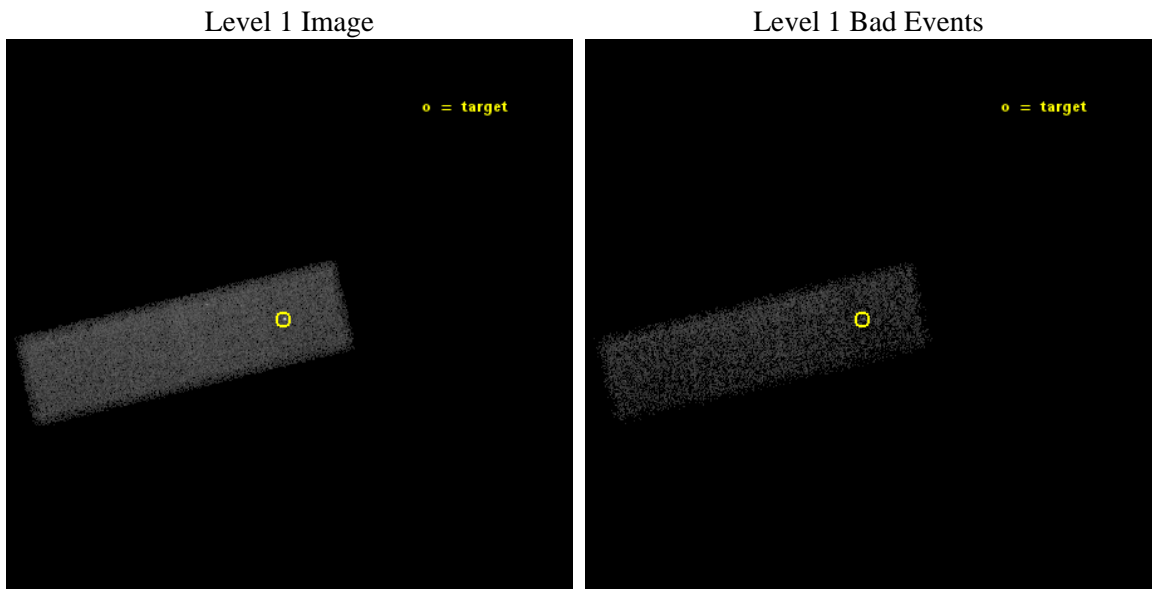
seq_num	401496	Sequence number
obs_id	14663	Observation id
title	The X-ray and UV spectra of the quiescent neutron star X-ray binary EXO 0748-676	Proposal title
observer	Dr Nathalie Degenaar	Principal investigator
object	EXO 0748-676	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	117.140833	Observer's specified target RA [deg]
dec_targ	-67.752389	Observer's specified target Dec [deg]
ra_nom	117.13510642359	Nominal RA [deg]
dec_nom	-67.754495625665	Nominal Dec [deg]
roll_nom	166.73971379794	Nominal Roll [deg]
revision	2	Processing version of data
ontime	45060.693217039	Sum of GTIs [s]
livetime	42861.878832911	Livetime [s]
ontime7	45060.693217039	Sum of GTIs [s]
l2events	39306	Number of level 2 events



## 2 OBI

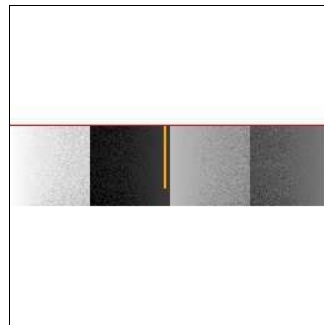
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	45060.693217039	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime7	45060.693217039	Sum of GTIs [s]
date	2014-12-04T21:59:35	Date and time of file creation	l1events	80642	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

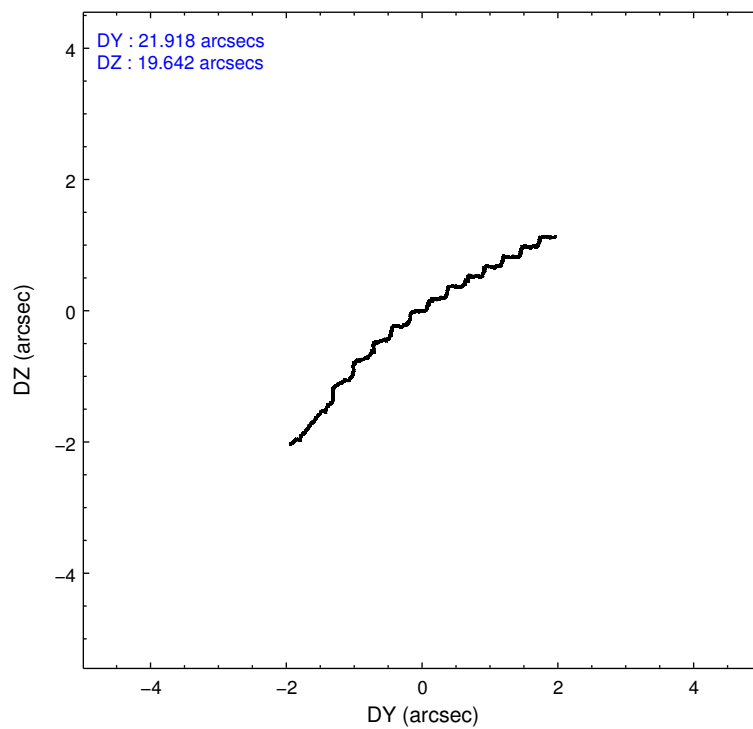
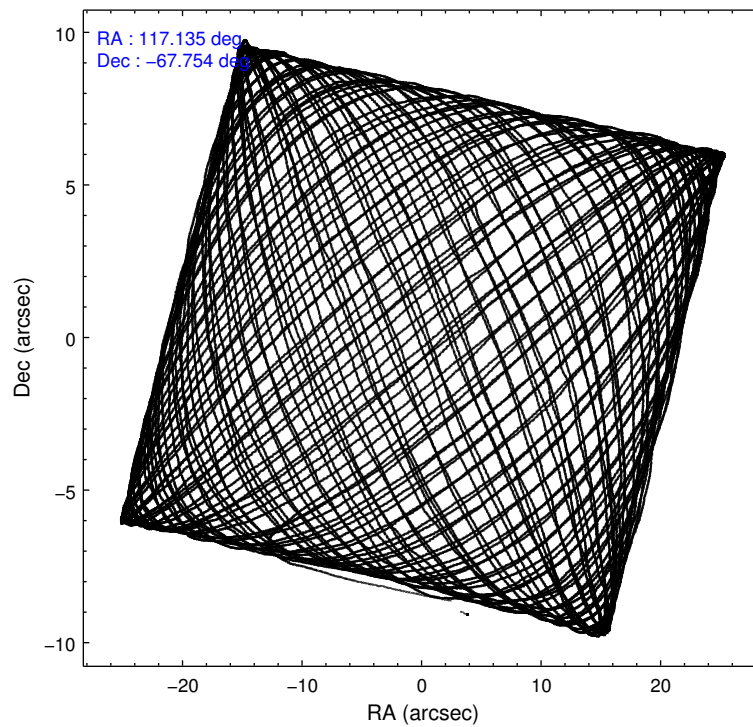
	<b>ccd 7</b>
level 1 events	80642
rejected events	40161
rejected %	49%

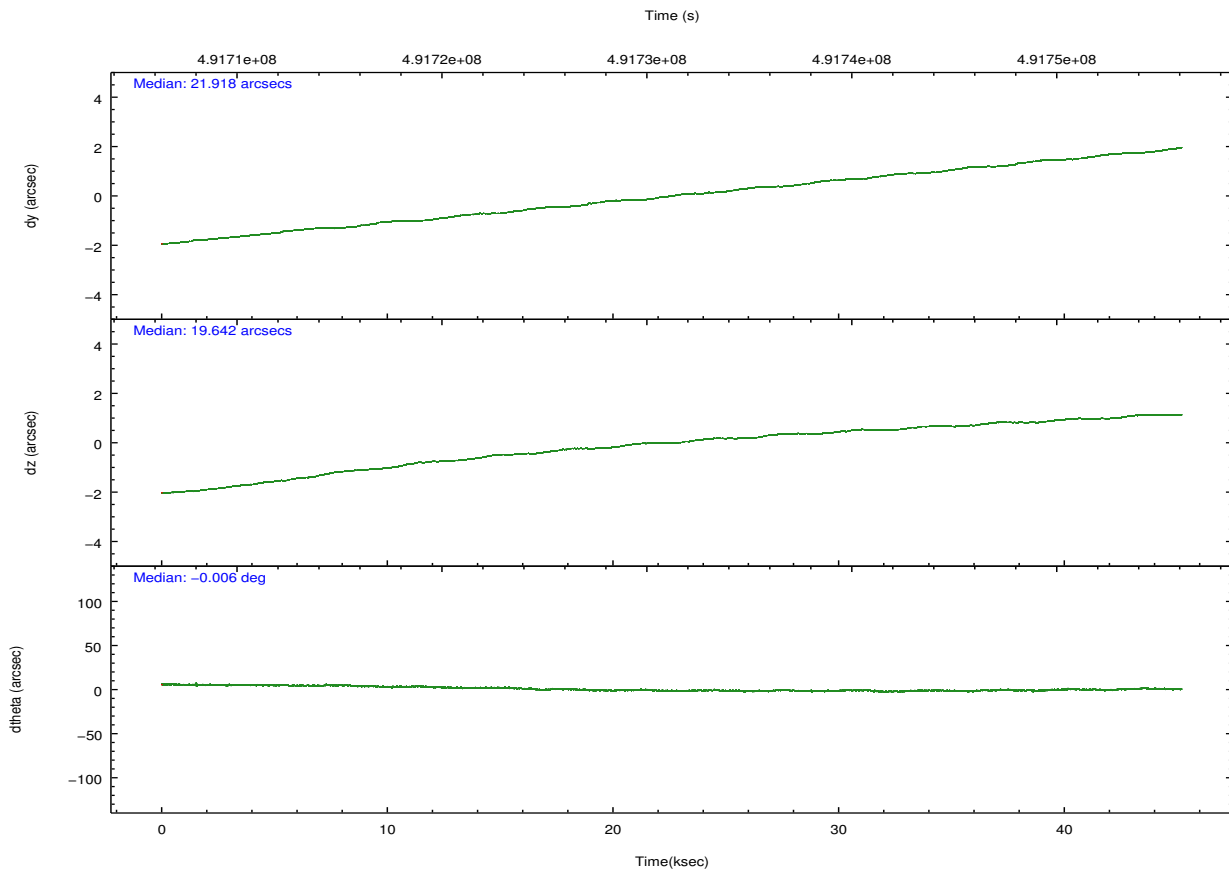
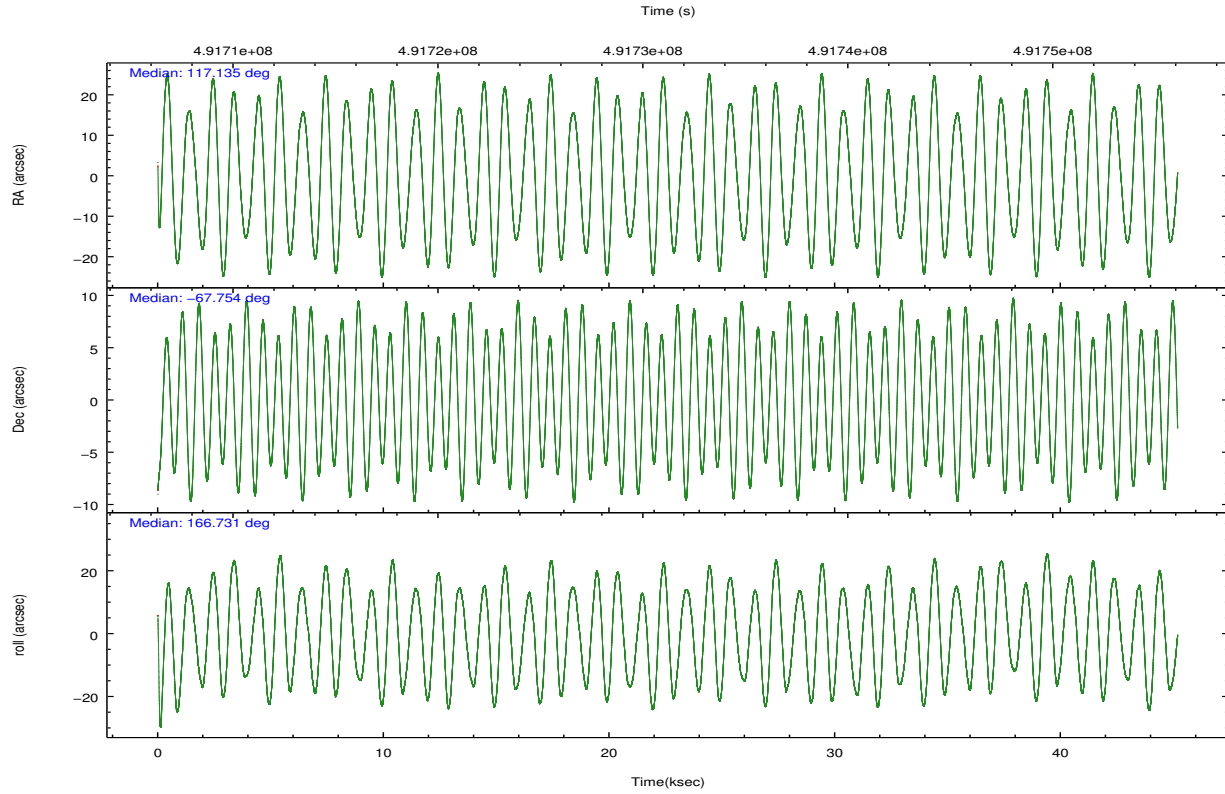
	<b>ccd 7</b>
grade 0 events	4867
	6%
grade 1 events	106
	0%
grade 2 events	8466
	10%
grade 3 events	4449
	5%
grade 4 events	4453
	5%
grade 5 events	8158
	10%
grade 6 events	18247
	22%
grade 7 events	31896
	39%

## 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	117.203944	117.1351064235945	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	-67.746262	-67.7544956256645	Subarray start row	385	385
[deg] Pointing Roll	166.646796	166.7397137979354	Subarray row count	256	256
[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	0.8
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	491708811.184000	491707897.75868			
Observation start date	2013-08-01T01:45:44	2013-08-01T01:31:37			
[s] Observation end time (MET)	491753811.184000	491754835.58624			
Observation end date	2013-08-01T14:15:44	2013-08-01T14:33:55			
Read mode	TIMED	TIMED			

## 2.3 Aspect





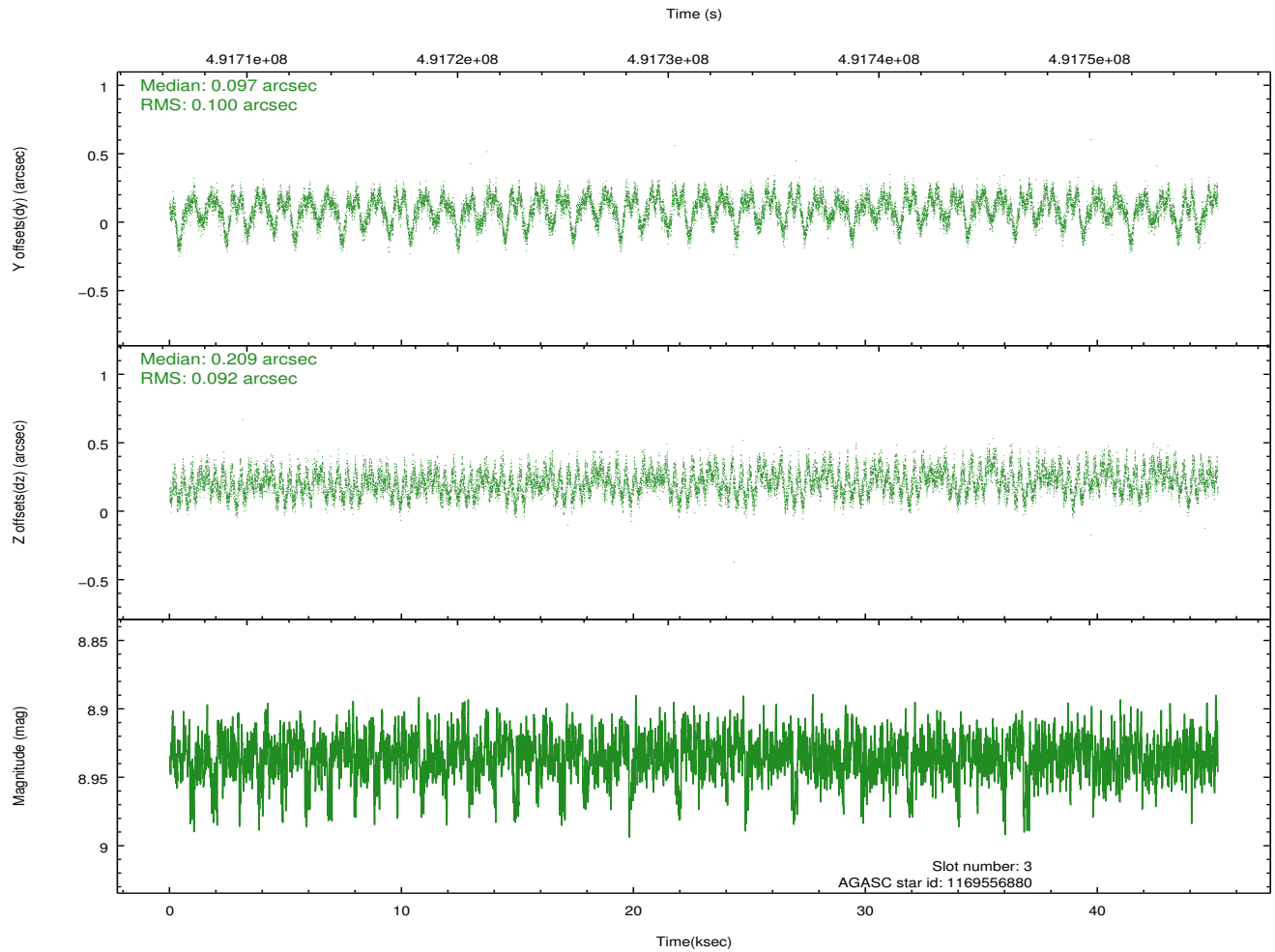
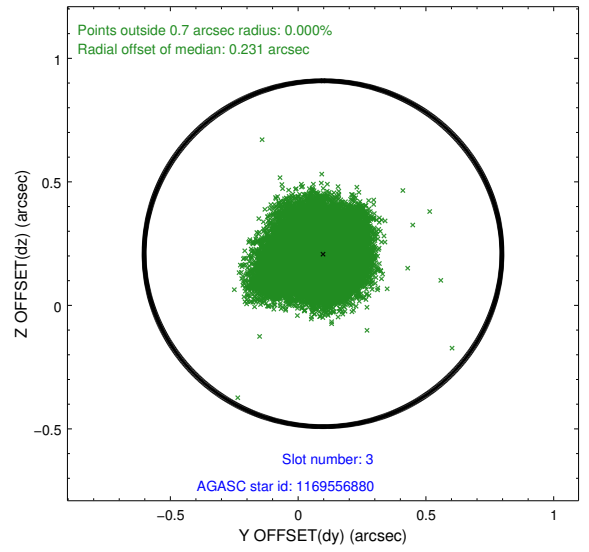
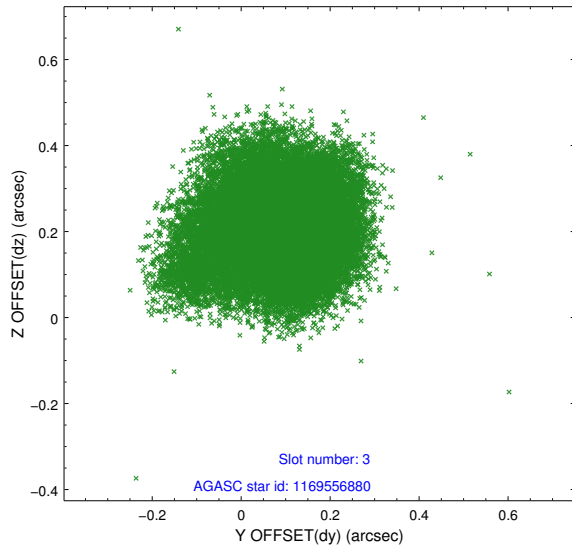
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	6.99	11023	0.031	-0.020	0.025	0.040	0.000000	0.000000	921.01	-1736.63
1	FID		ACIS-S-4	7.00	11023	0.196	0.002	0.034	0.076	0.000000	0.000000	2138.57	167.57
2	FID		ACIS-S-5	7.03	11023	-0.257	0.030	0.032	0.058	0.000000	0.000000	-1828.19	161.14
3	GUIDE	used	1169556880	8.93	22034	0.097	0.209	0.147	0.231	118.476472	-67.455164	-1470.76	-1407.66
4	GUIDE	used	1169559312	9.95	21854	-0.065	0.154	0.206	0.342	117.264973	-67.339053	256.56	-1444.51
5	GUIDE	used	1203245384	8.56	22038	-0.146	-0.261	0.101	0.162	117.096059	-68.354351	-366.51	2163.02
6	GUIDE	used	1203257328	9.70	21872	-0.032	-0.229	0.144	0.232	116.686345	-67.749877	683.22	179.11
7	GUIDE	used	1203258824	9.85	21901	0.156	0.114	0.166	0.279	118.613315	-67.511932	-1697.77	-1247.37

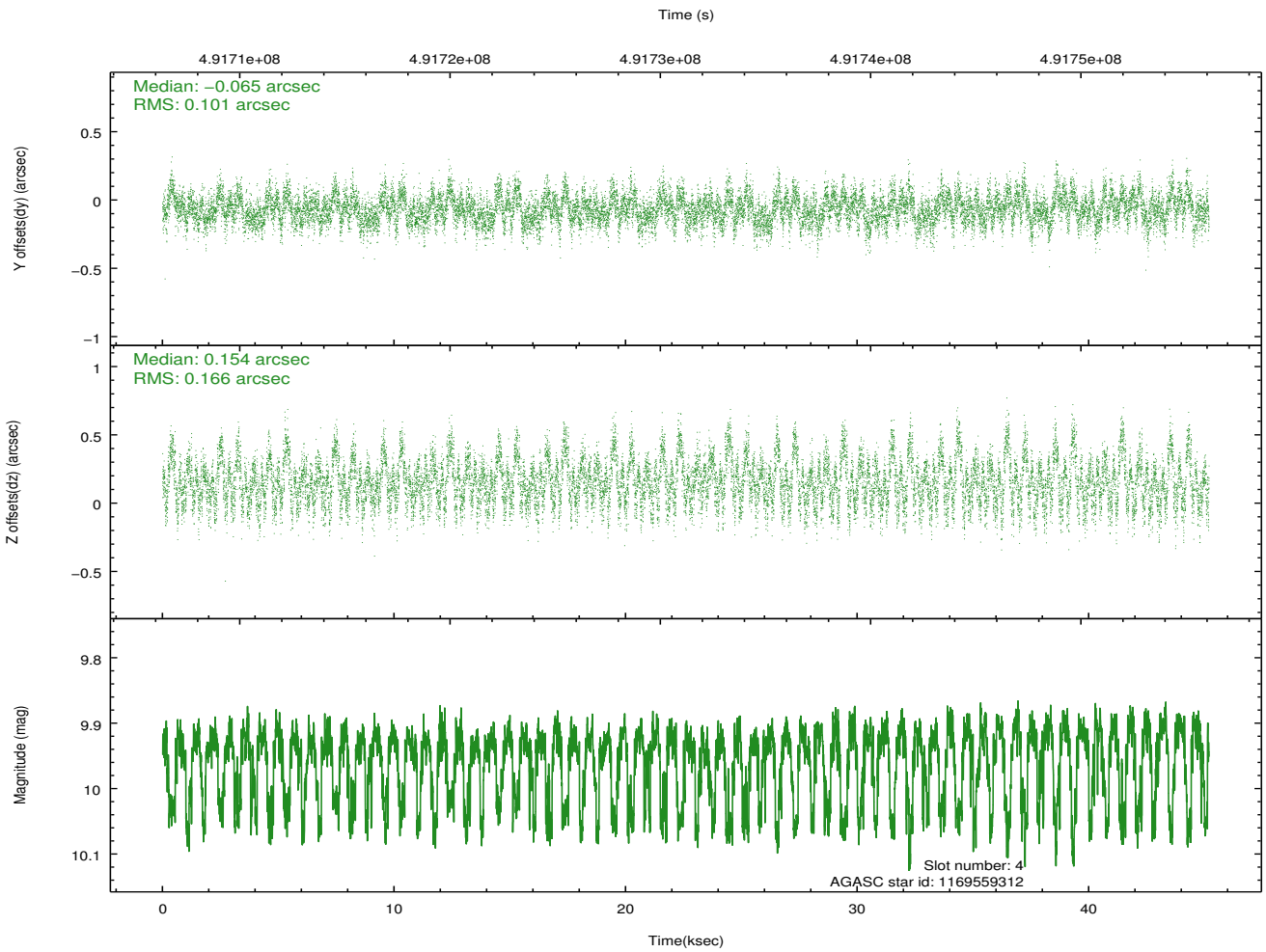
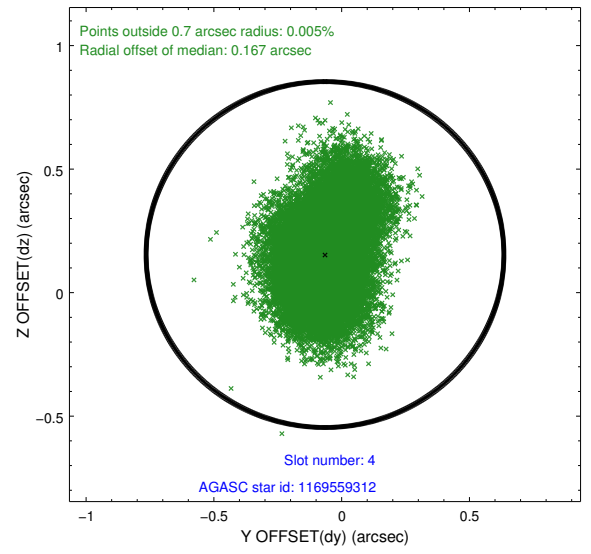
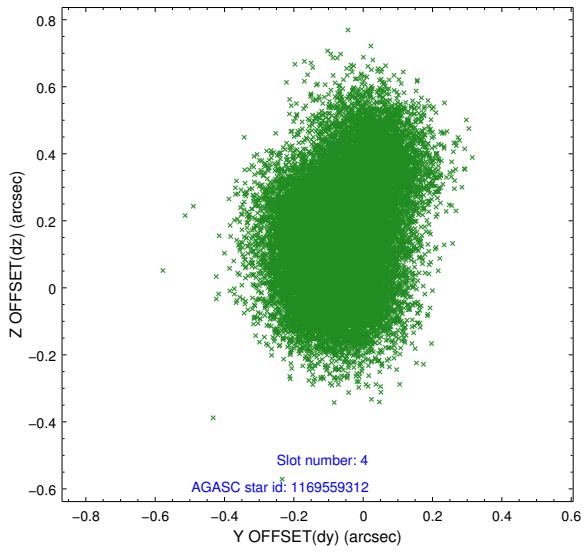
∞

## 2.4 Star Slots

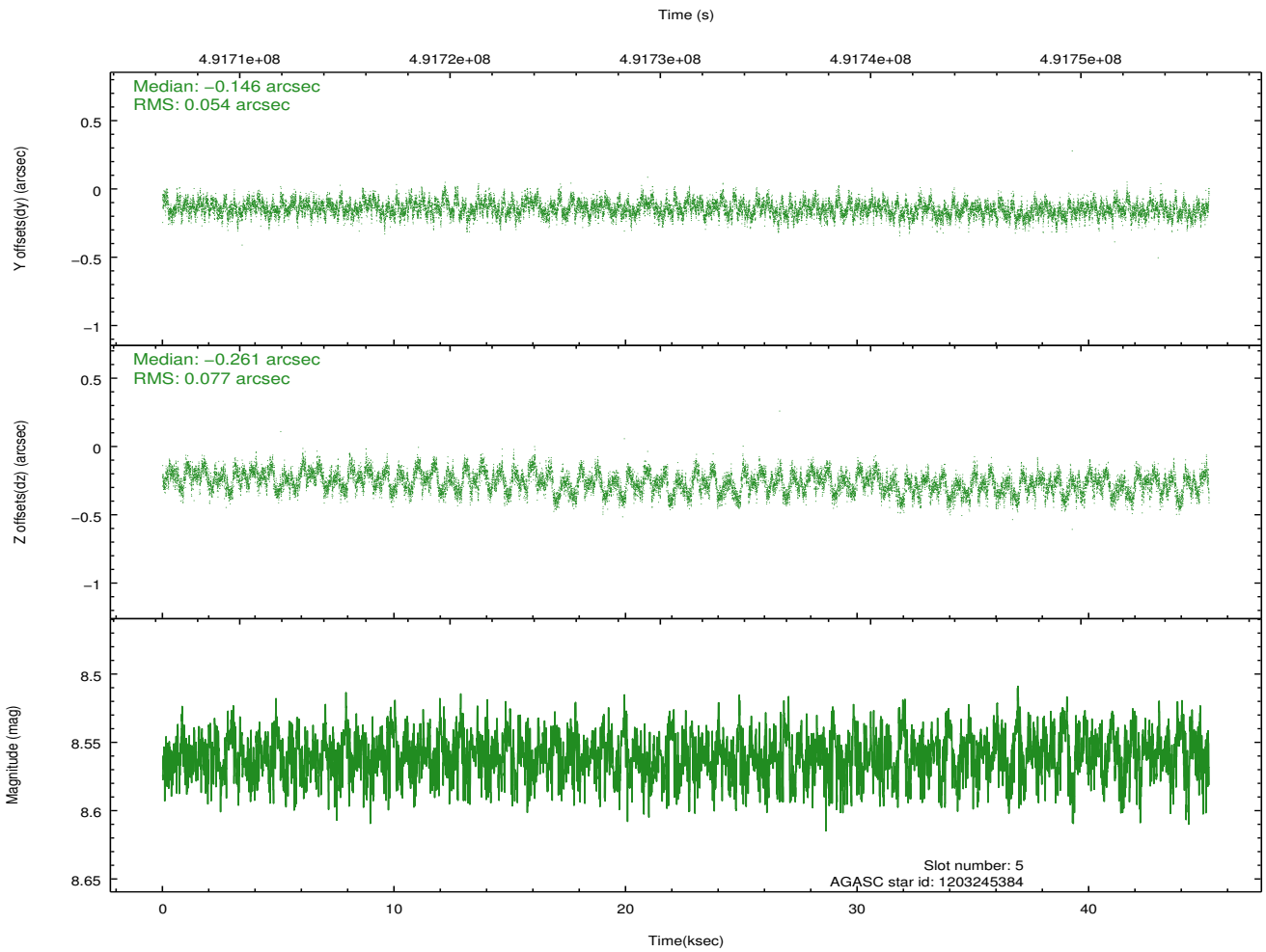
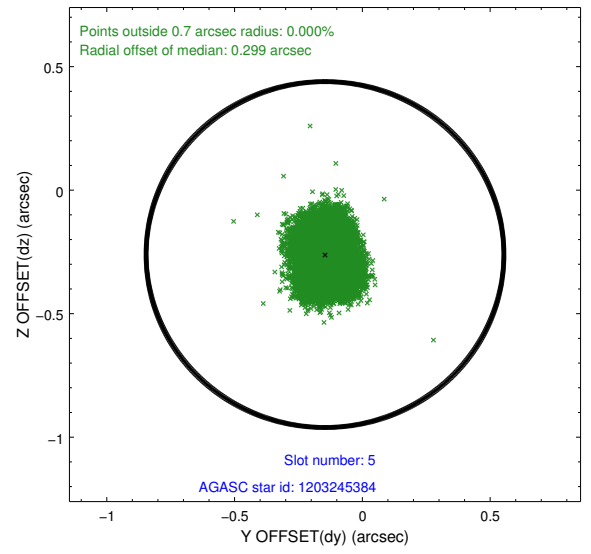
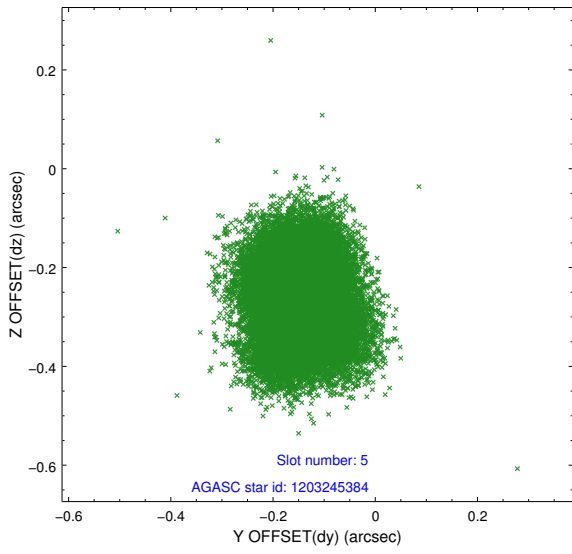
### 2.4.1 Slot 3



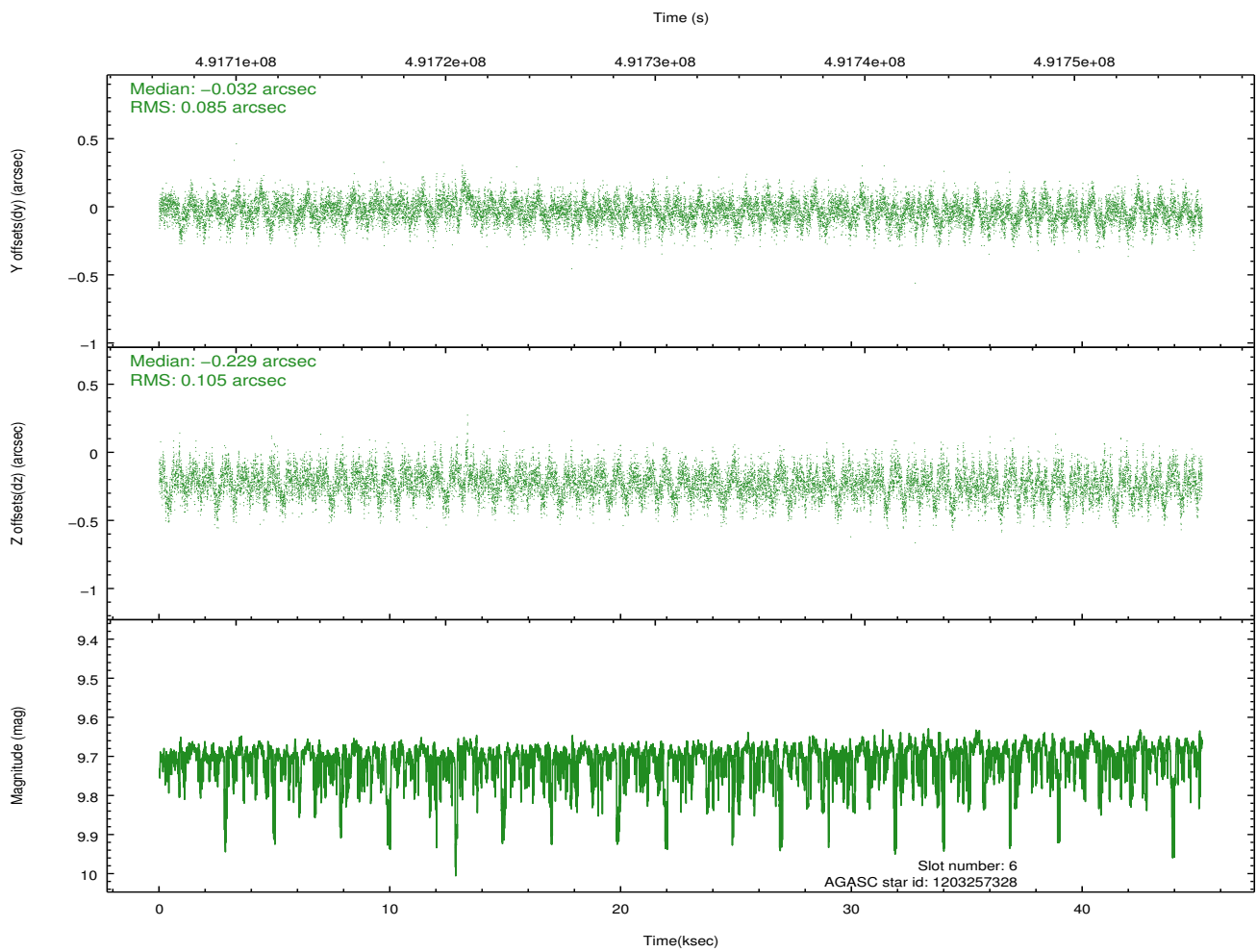
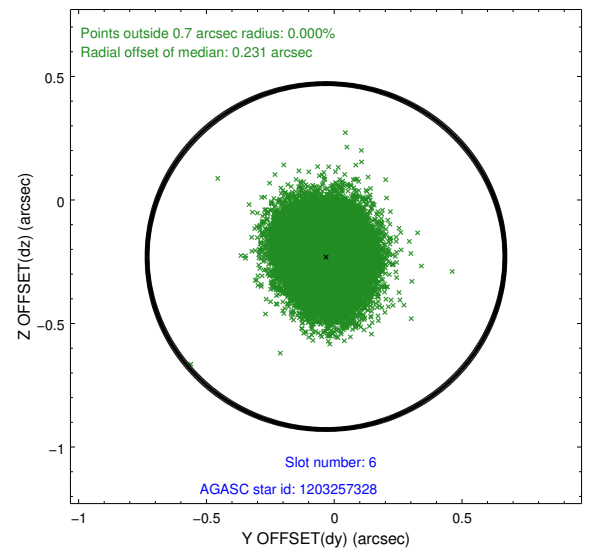
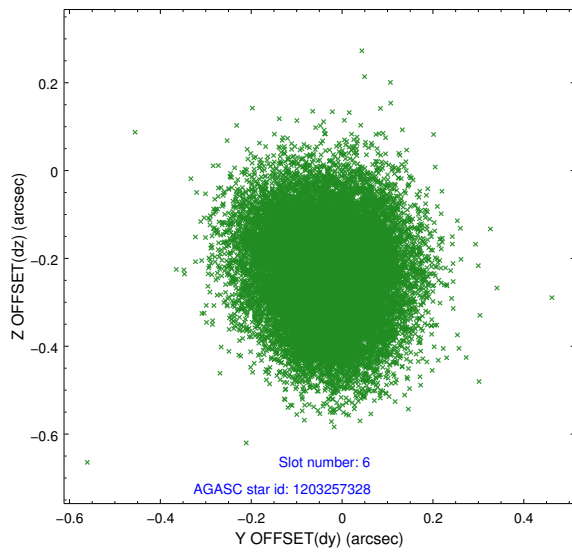
### 2.4.2 Slot 4



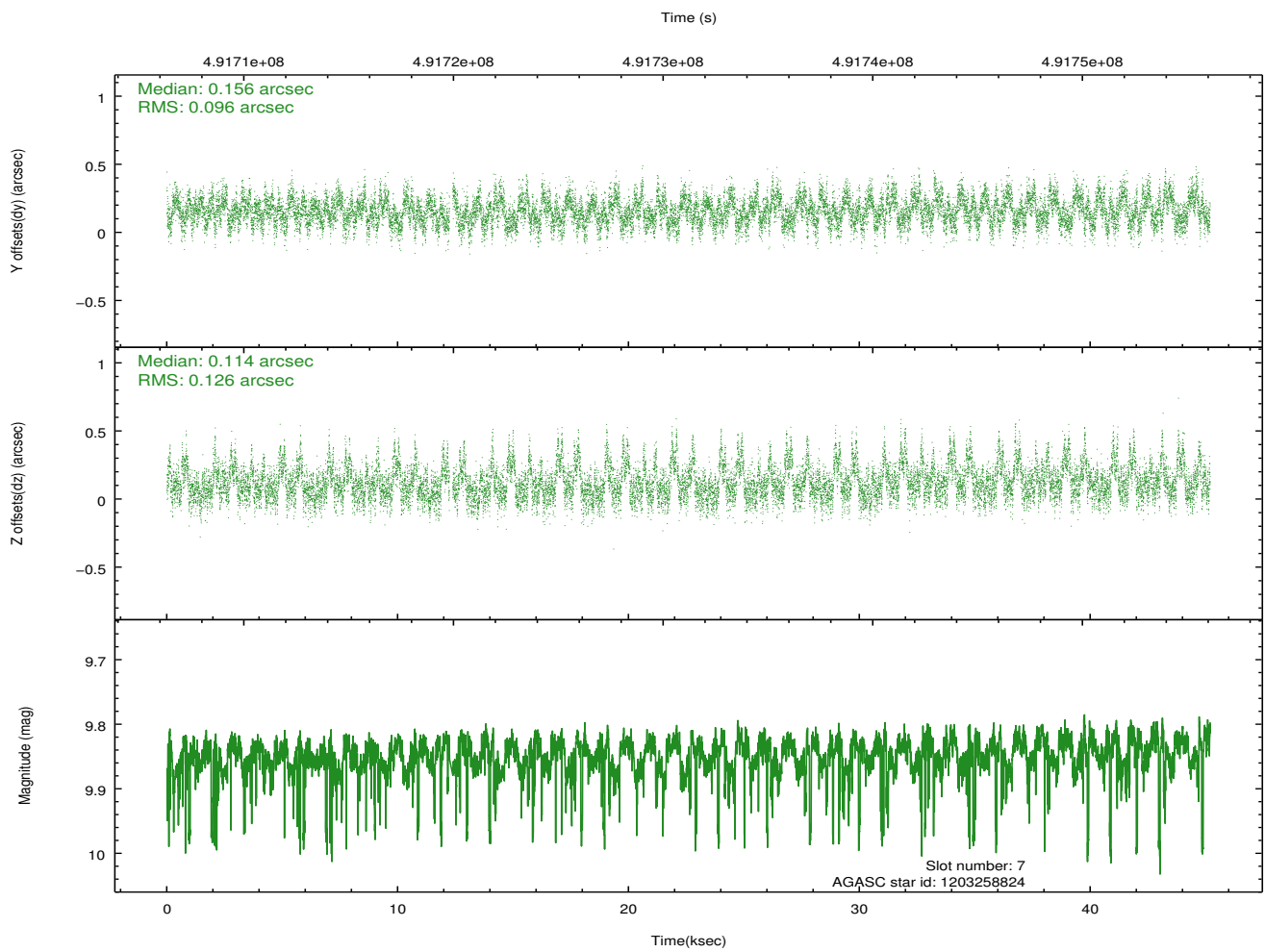
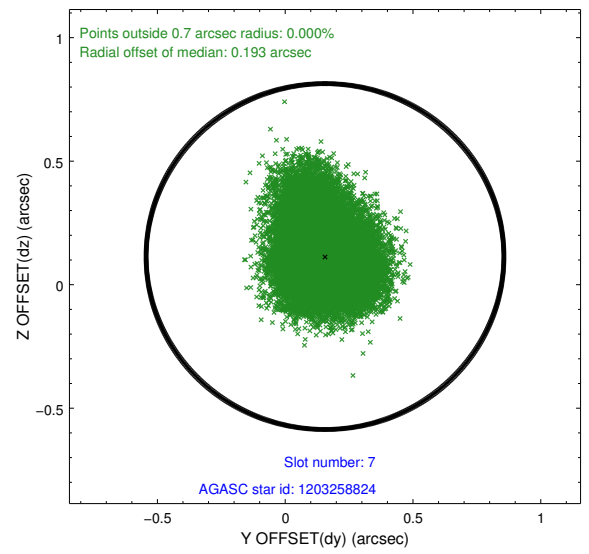
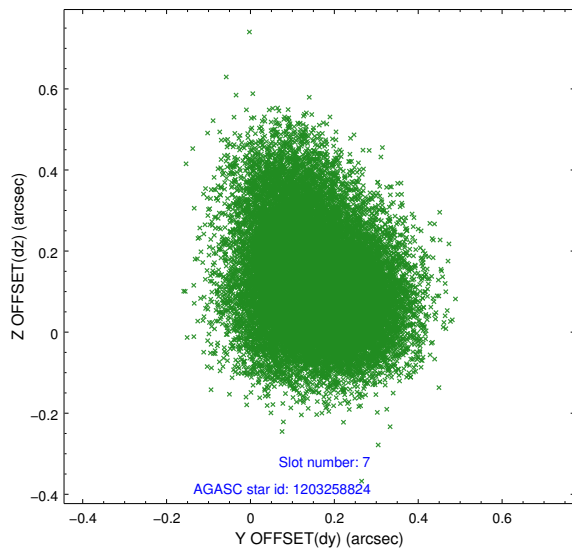
### 2.4.3 Slot 5



## 2.4.4 Slot 6

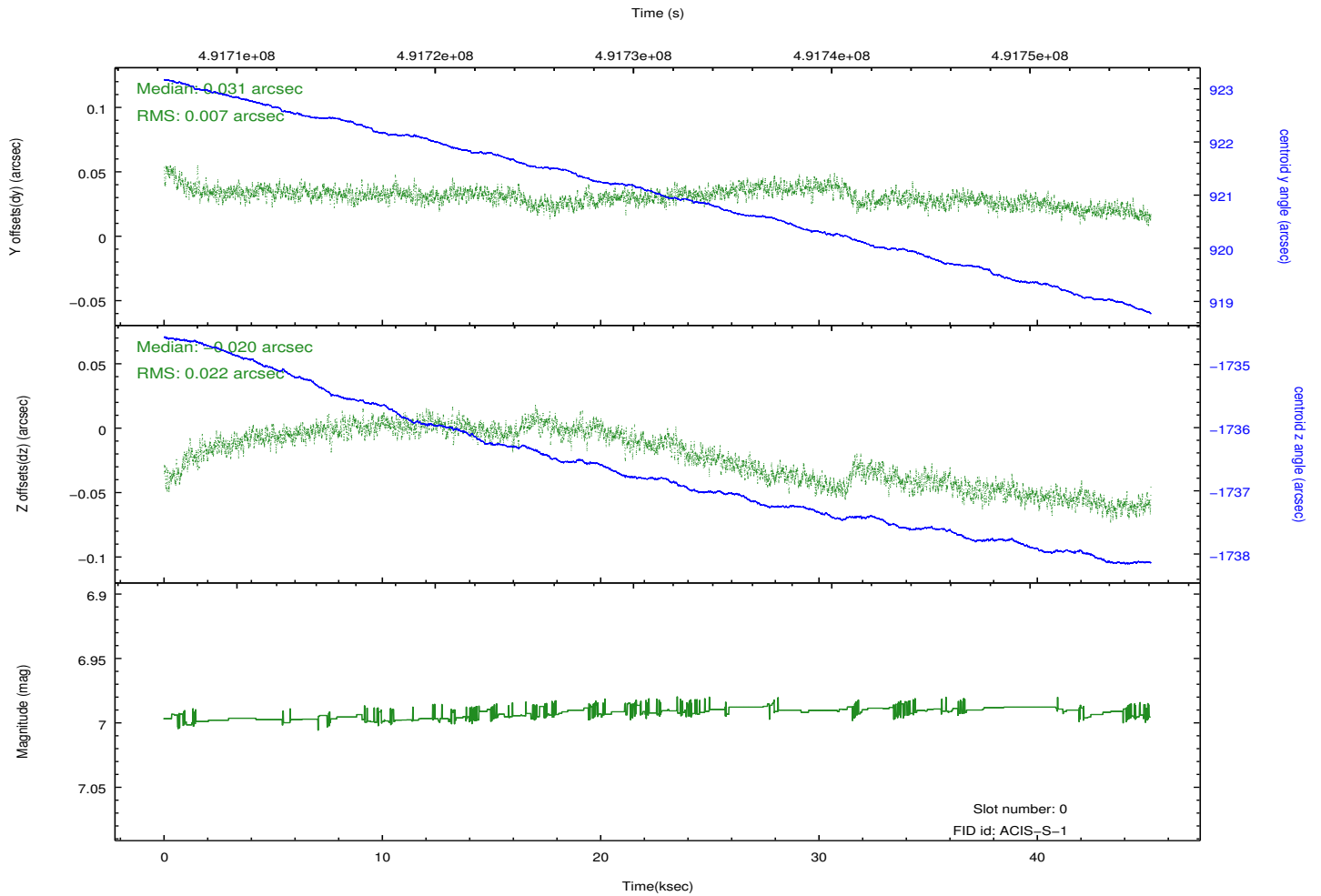
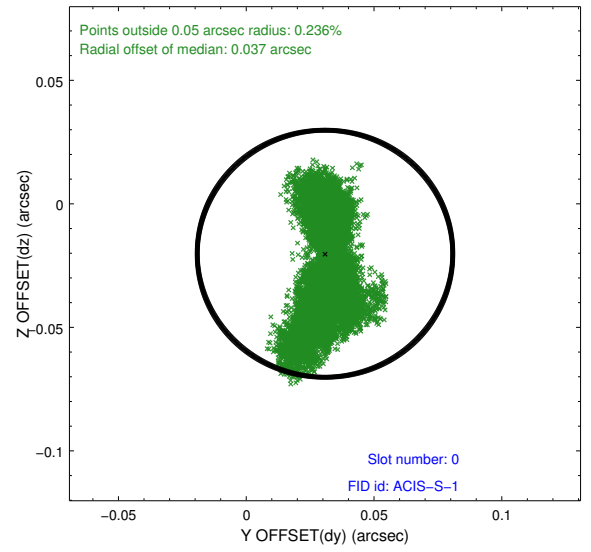
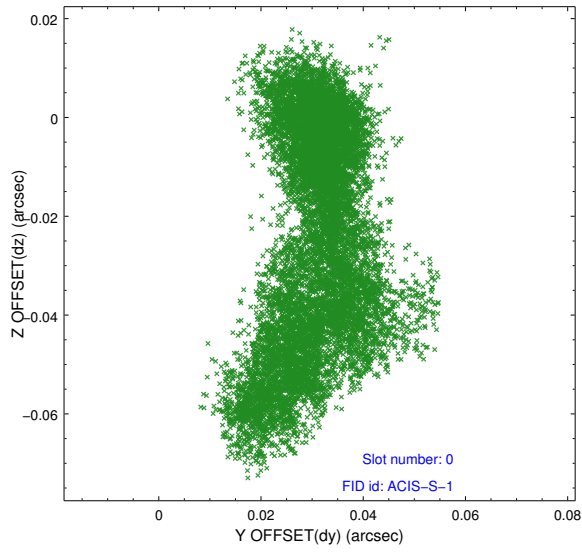


## 2.4.5 Slot 7

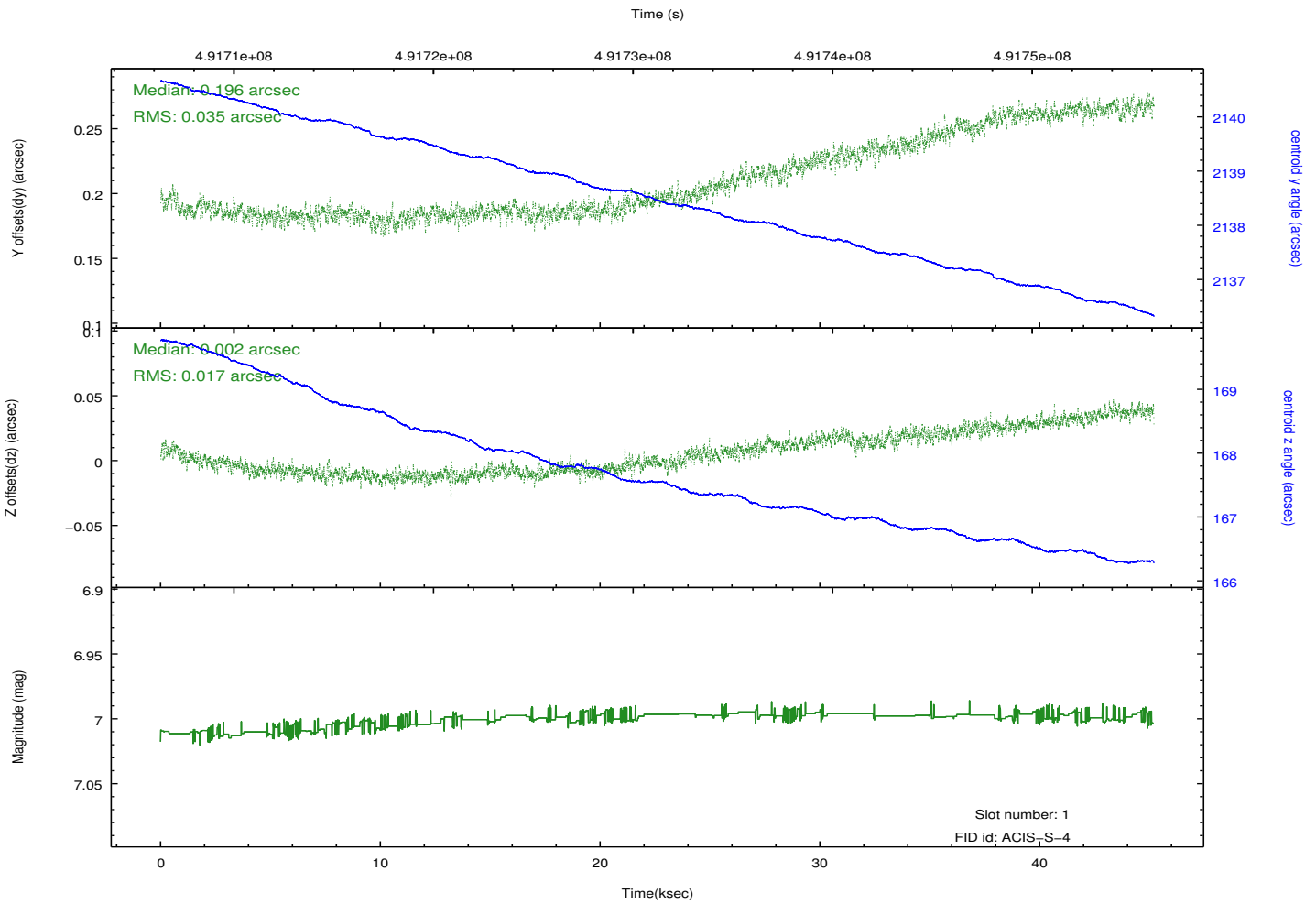
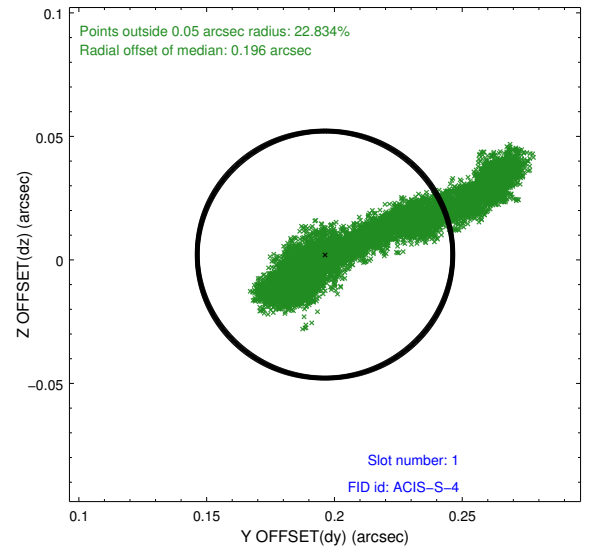
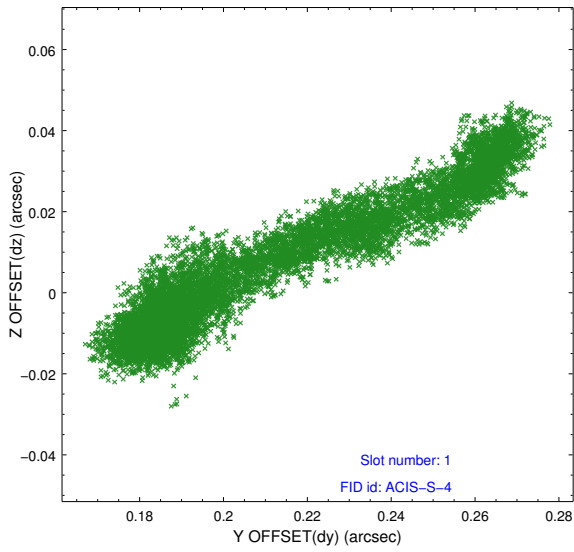


## 2.5 FID Slots

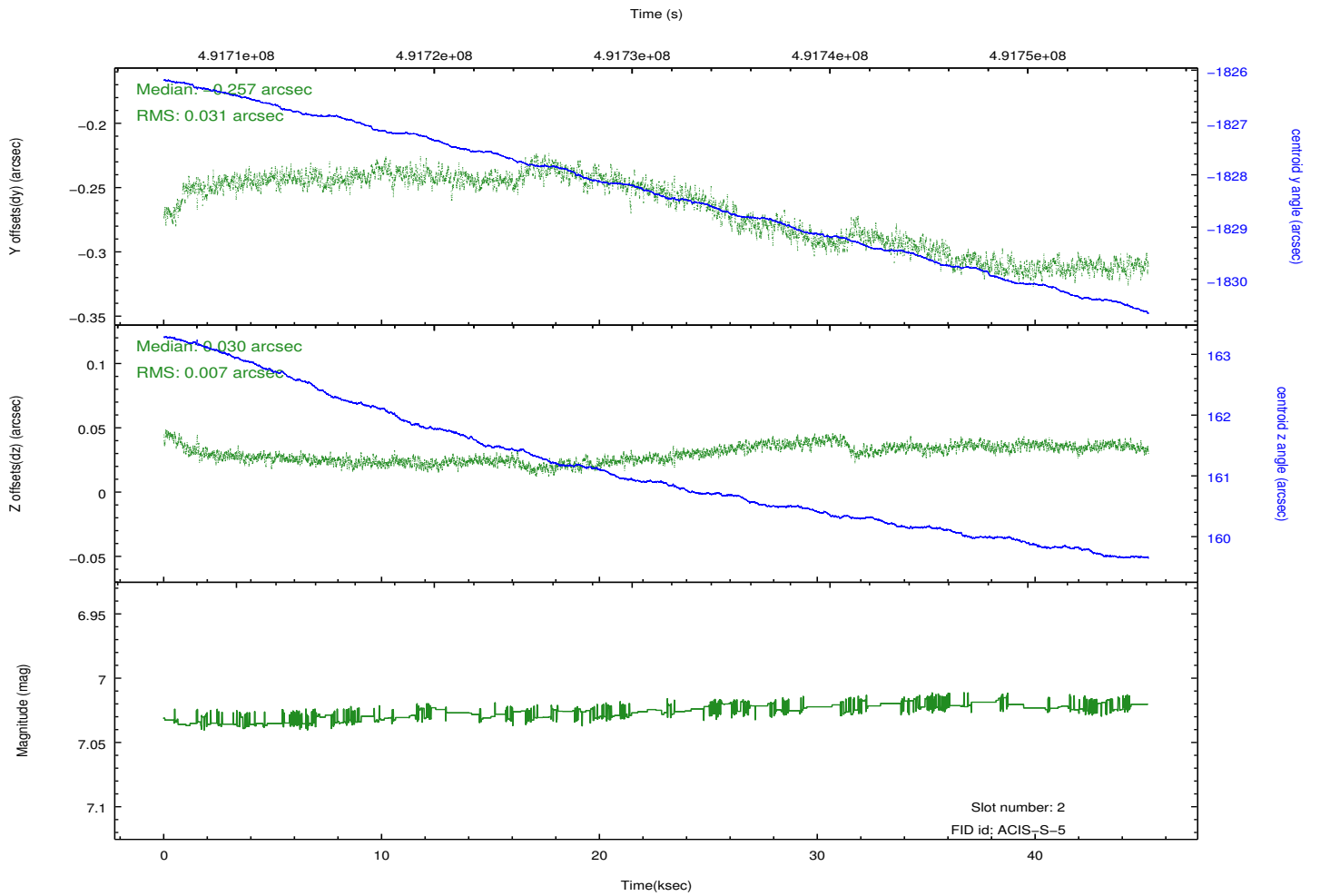
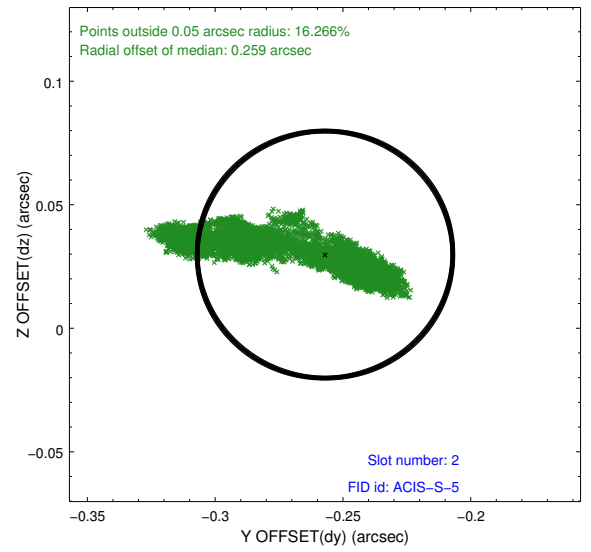
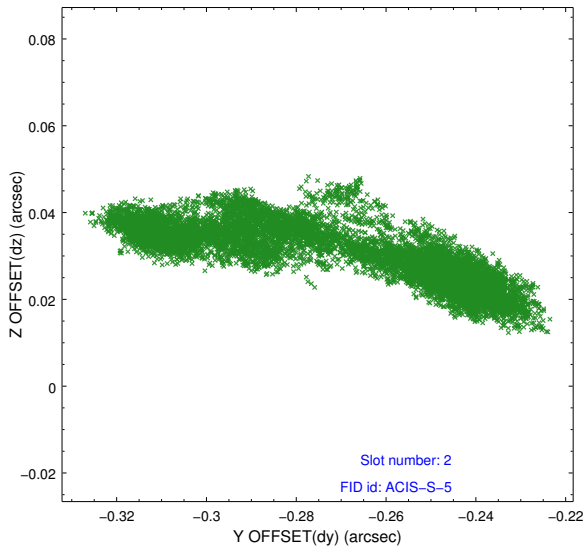
### 2.5.1 Slot 0



## 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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.060693217039

## A.2 Comments

Joint proposal with HST.

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.