

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 12458 - L2 Version 2  
Chandra X-Ray Center

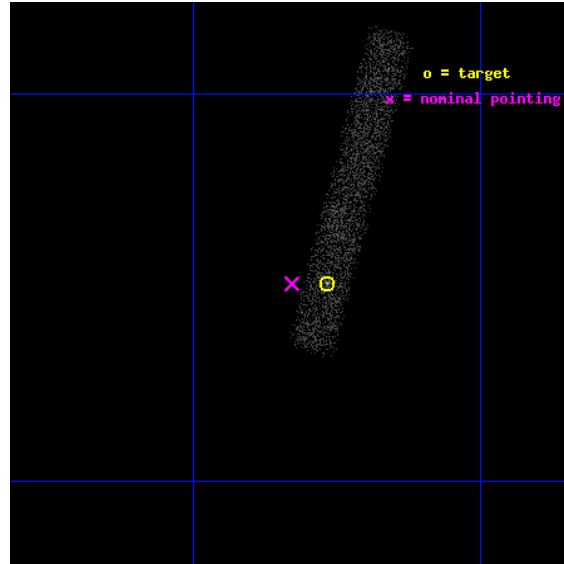
L2 Processing Date : Jul 5 2012

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# 1 Front

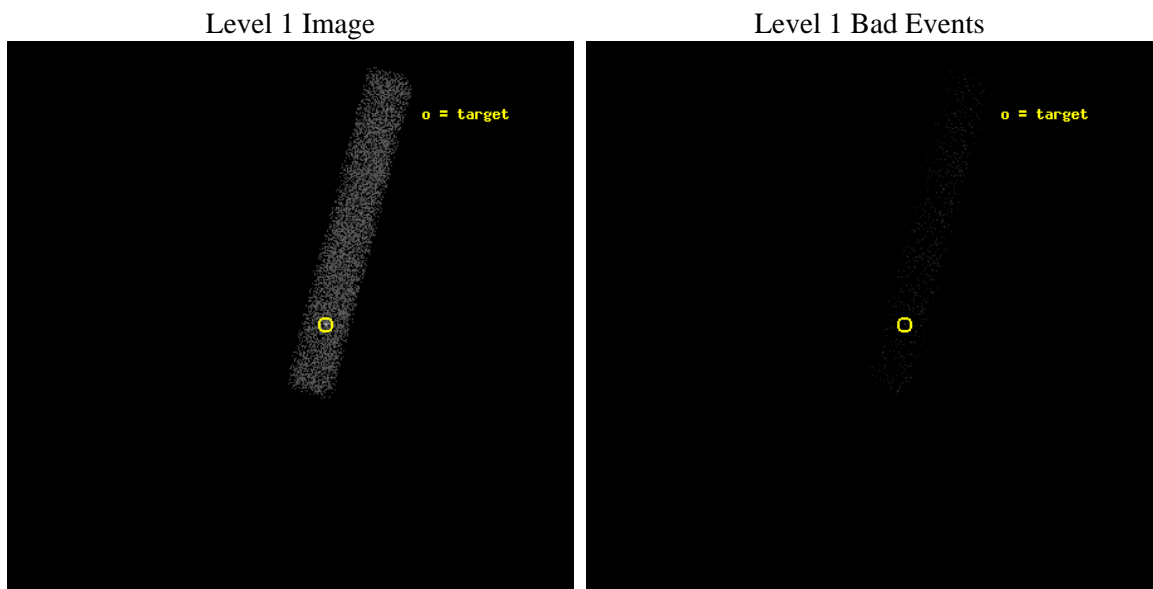
seq_num	401199	Sequence number
obs_id	12458	Observation id
title	Confirmation and Study of a Newly Discovered Nuclear Reaction, Identified in the Neutron Star Crust	Proposal title
observer	Prof. Robert Rutledge	Principal investigator
object	Aql X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	287.816667	Observer's specified target RA [deg]
dec_targ	0.584944	Observer's specified target Dec [deg]
ra_nom	287.8322951793	Nominal RA [deg]
dec_nom	0.58469590083213	Nominal Dec [deg]
roll_nom	284.58937874641	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7009.1995822191	Sum of GTIs [s]
livetime	6356.9740451833	Livetime [s]
ontime7	7009.1995822191	Sum of GTIs [s]
l2events	5248	Number of level 2 events



## 2 OBI

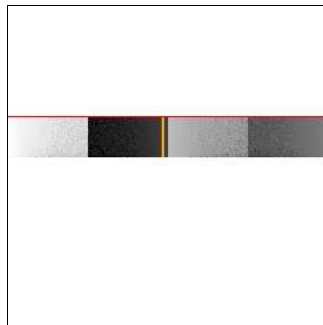
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7009.1995822191	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime7	7009.1995822191	Sum of GTIs [s]
date	2012-07-05T20:42:43	Date and time of file creation	l1events	9753	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

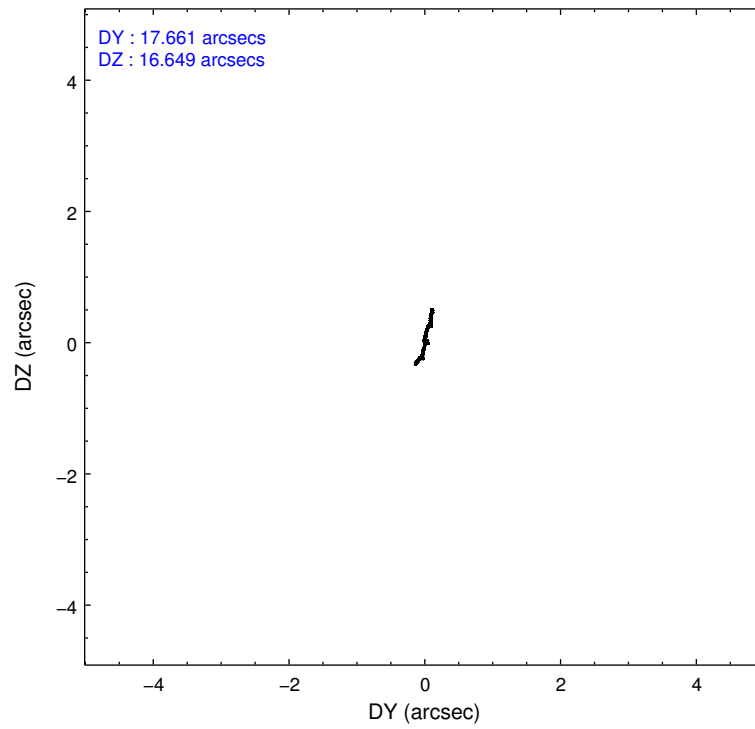
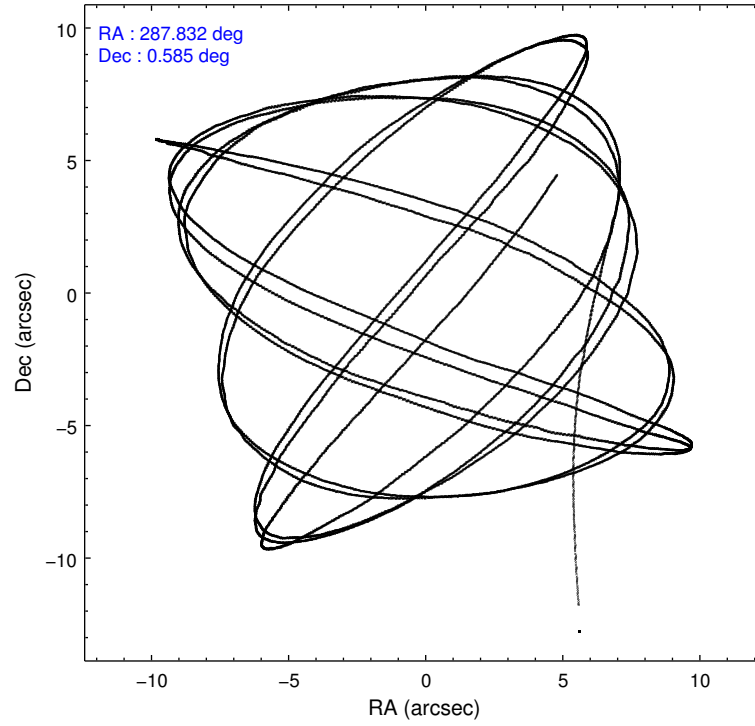
	<b>ccd 7</b>
level 1 events	9753
rejected events	4290
rejected %	43%

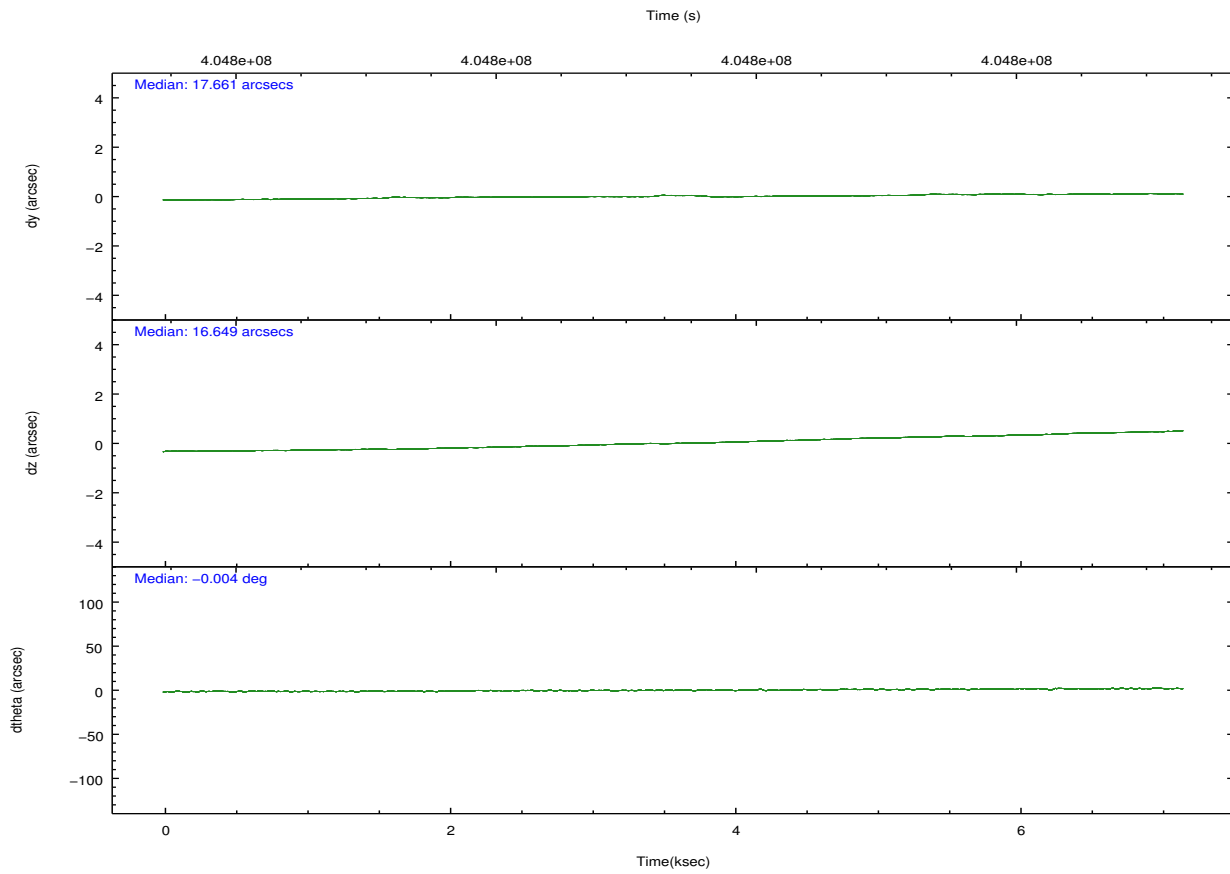
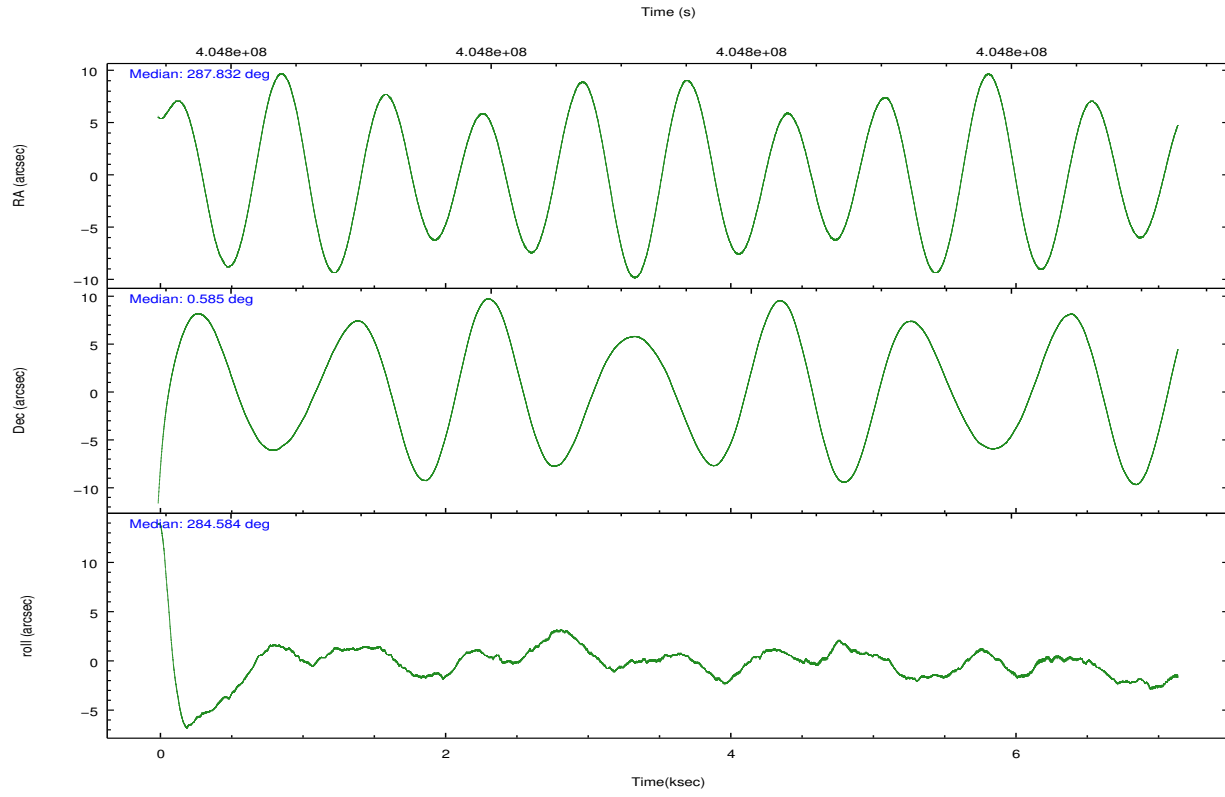
	<b>ccd 7</b>
grade 0 events	741
	7%
grade 1 events	14
	0%
grade 2 events	1114
	11%
grade 3 events	729
	7%
grade 4 events	685
	7%
grade 5 events	873
	8%
grade 6 events	2195
	22%
grade 7 events	3402
	34%

## 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	287.812816	287.8322951792986	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	0.603920	0.5846959008321306	Subarray start row	544	544
[deg] Pointing Roll	284.432937	284.5893787464098	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)	404797927.184000	404796781.00511			
Observation start date	2010-10-30T03:51:01	2010-10-30T03:33:01			
[s] Observation end time (MET)	404804927.184000	404806011.13059			
Observation end date	2010-10-30T05:47:41	2010-10-30T06:06:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect



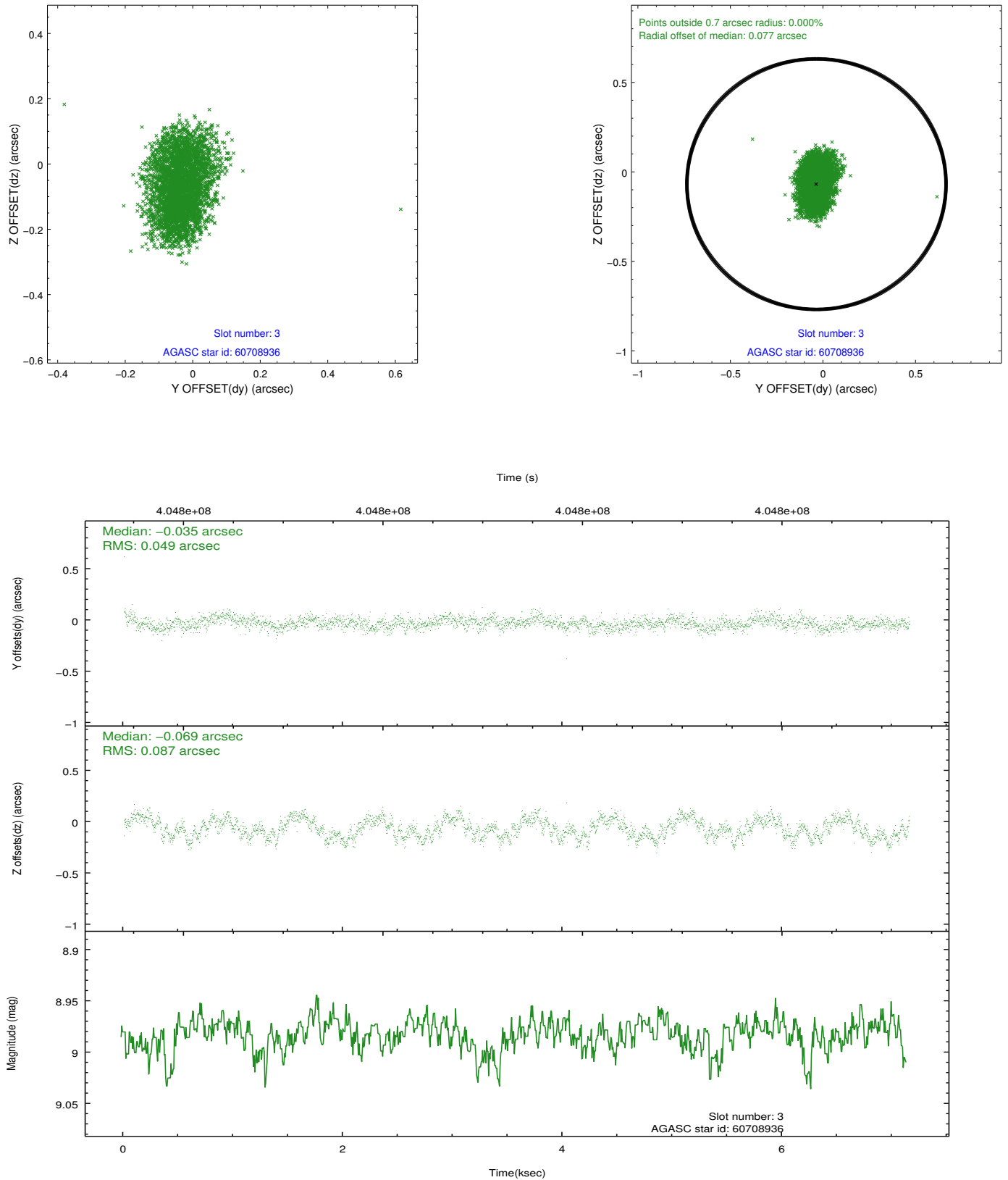


### Slot Statistics

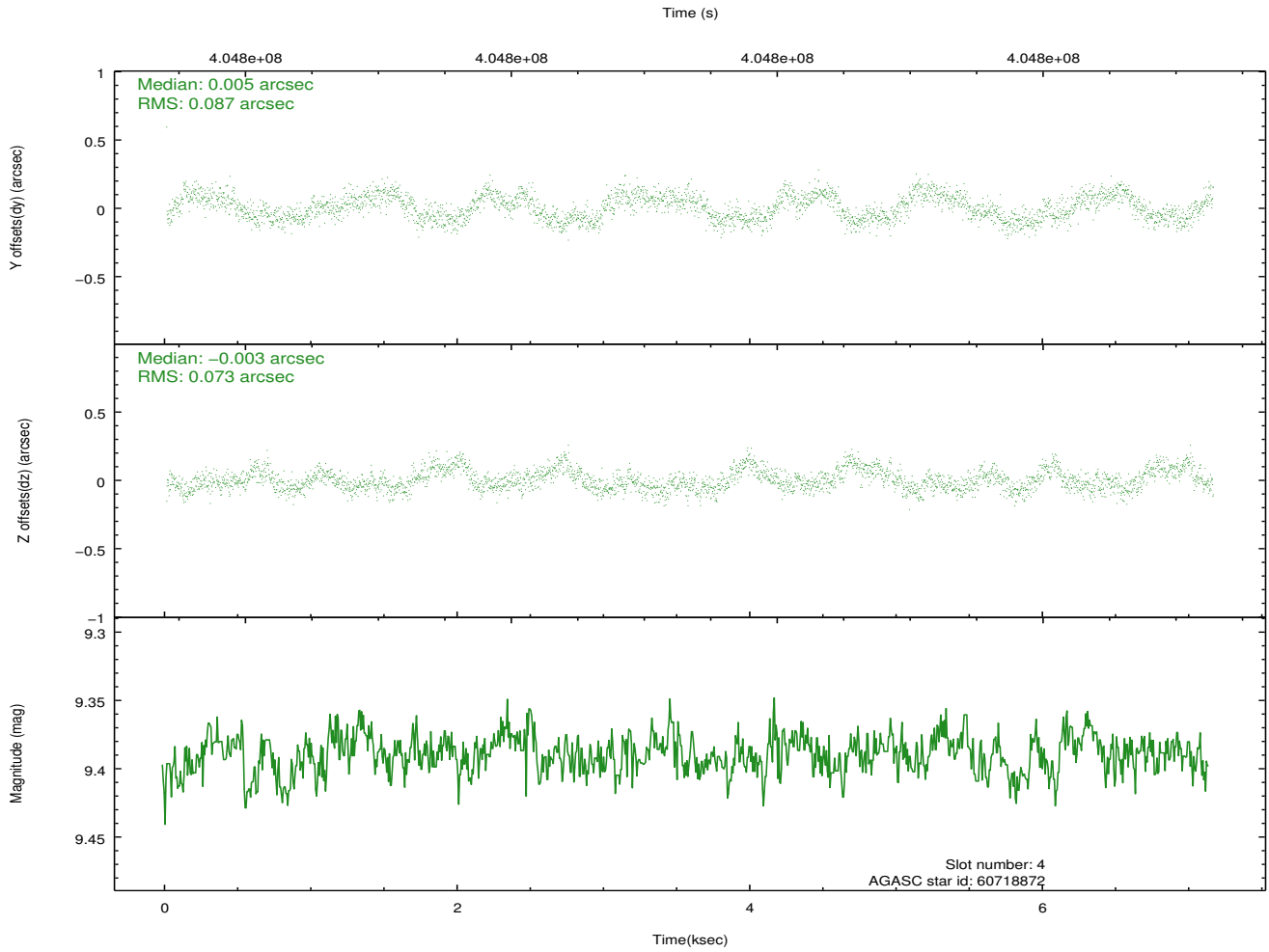
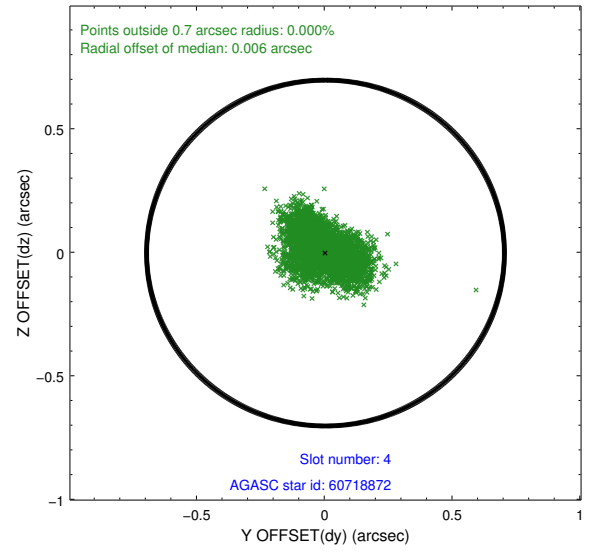
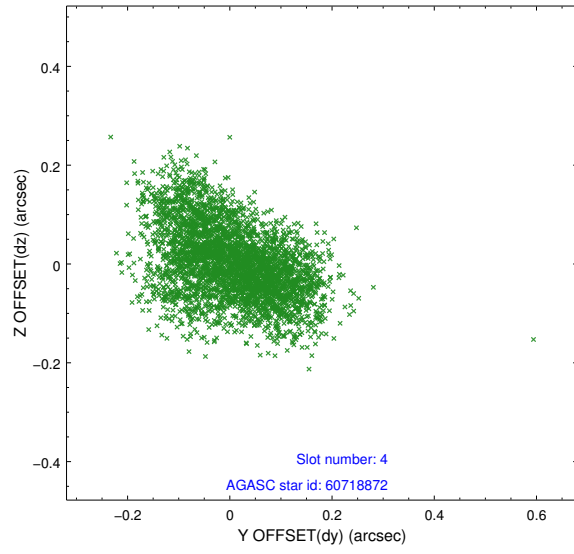
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.94	1745	-0.067	-0.012	0.012	0.020	0.000000	0.000000	-770.78	-1738.06
1	FID	ACIS-S-4	7.01	1744	0.175	0.035	0.005	0.010	0.000000	0.000000	2142.38	169.61
2	FID	ACIS-S-5	7.05	1745	-0.140	-0.015	0.012	0.020	0.000000	0.000000	-1822.66	164.18
3	GUIDE	60708936	8.98	3489	-0.035	-0.069	0.108	0.169	287.407925	0.924863	-1481.92	-1123.57
4	GUIDE	60718872	9.39	3474	0.005	-0.003	0.122	0.193	287.679270	0.108754	1606.46	-910.01
5	GUIDE	60712504	8.87	3488	0.088	0.029	0.077	0.124	288.588609	0.262689	1886.31	2398.64
6	GUIDE	60698168	9.24	3485	-0.031	-0.008	0.096	0.154	287.027982	1.024720	-2170.53	-2357.70
7	GUIDE	60711088	9.39	3478	-0.028	0.043	0.142	0.210	288.583441	0.300705	1748.02	2414.09

## 2.4 Star Slots

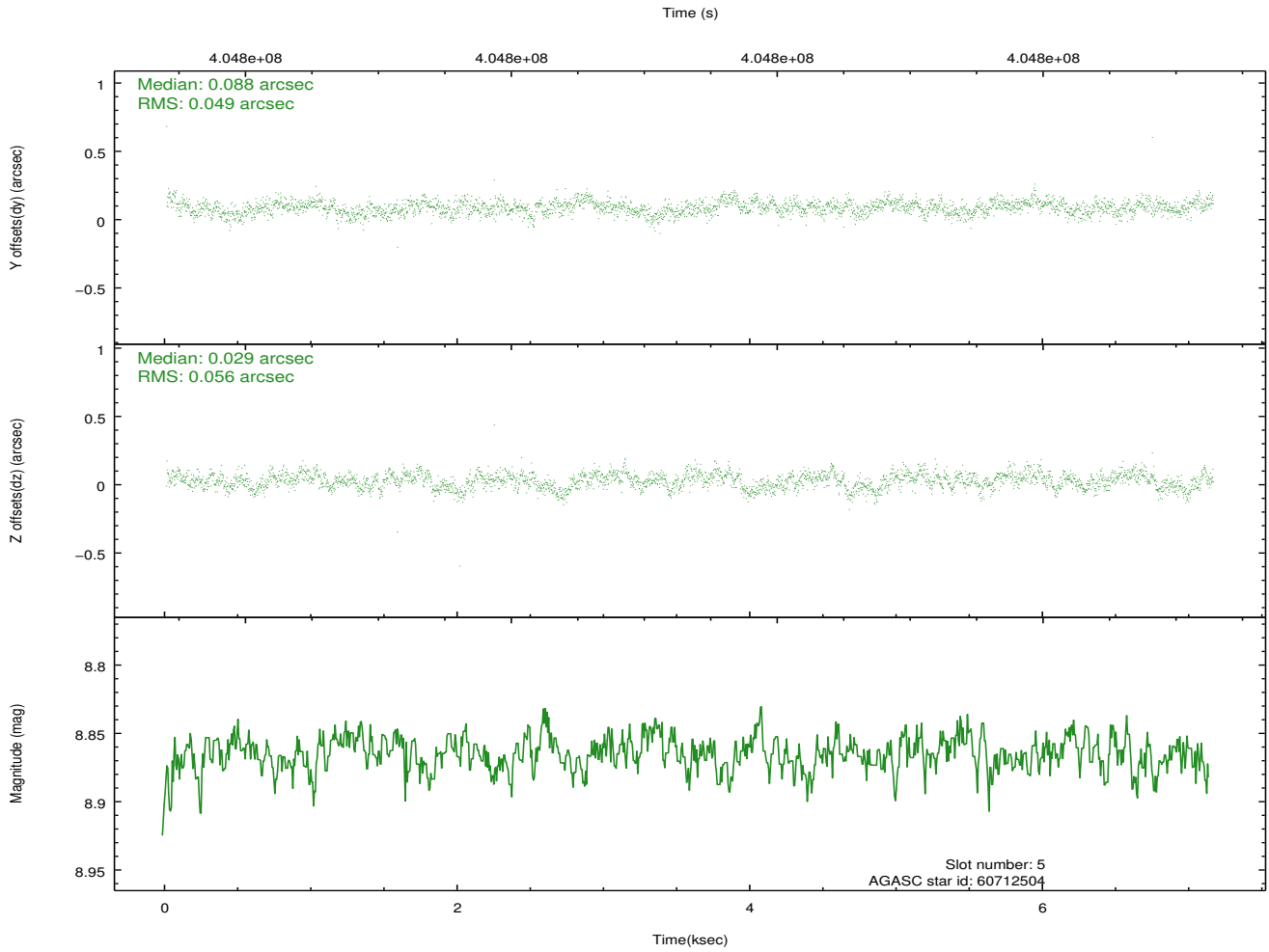
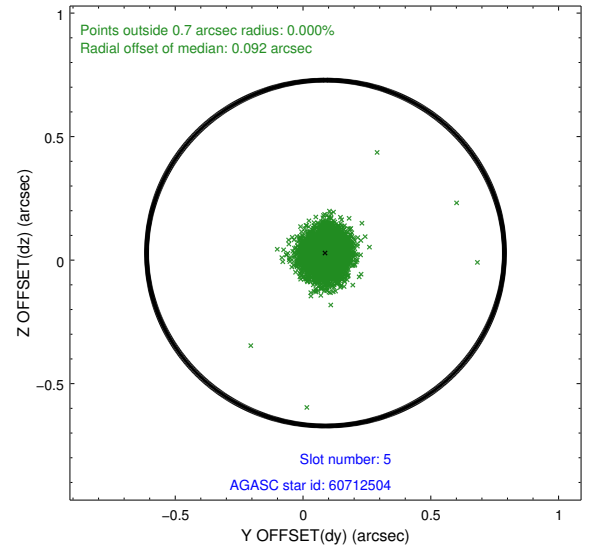
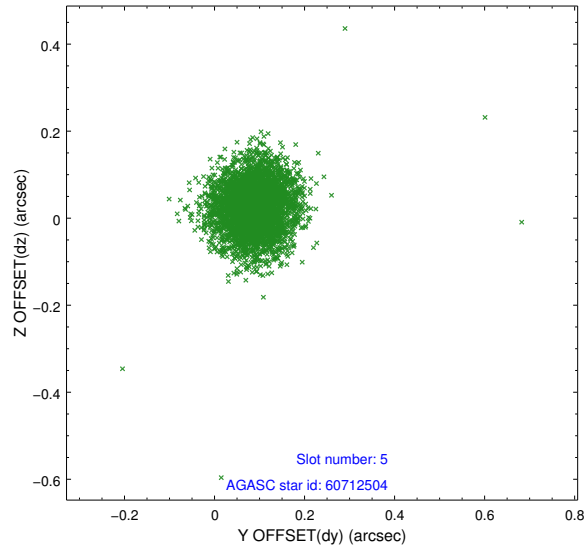
### 2.4.1 Slot 3



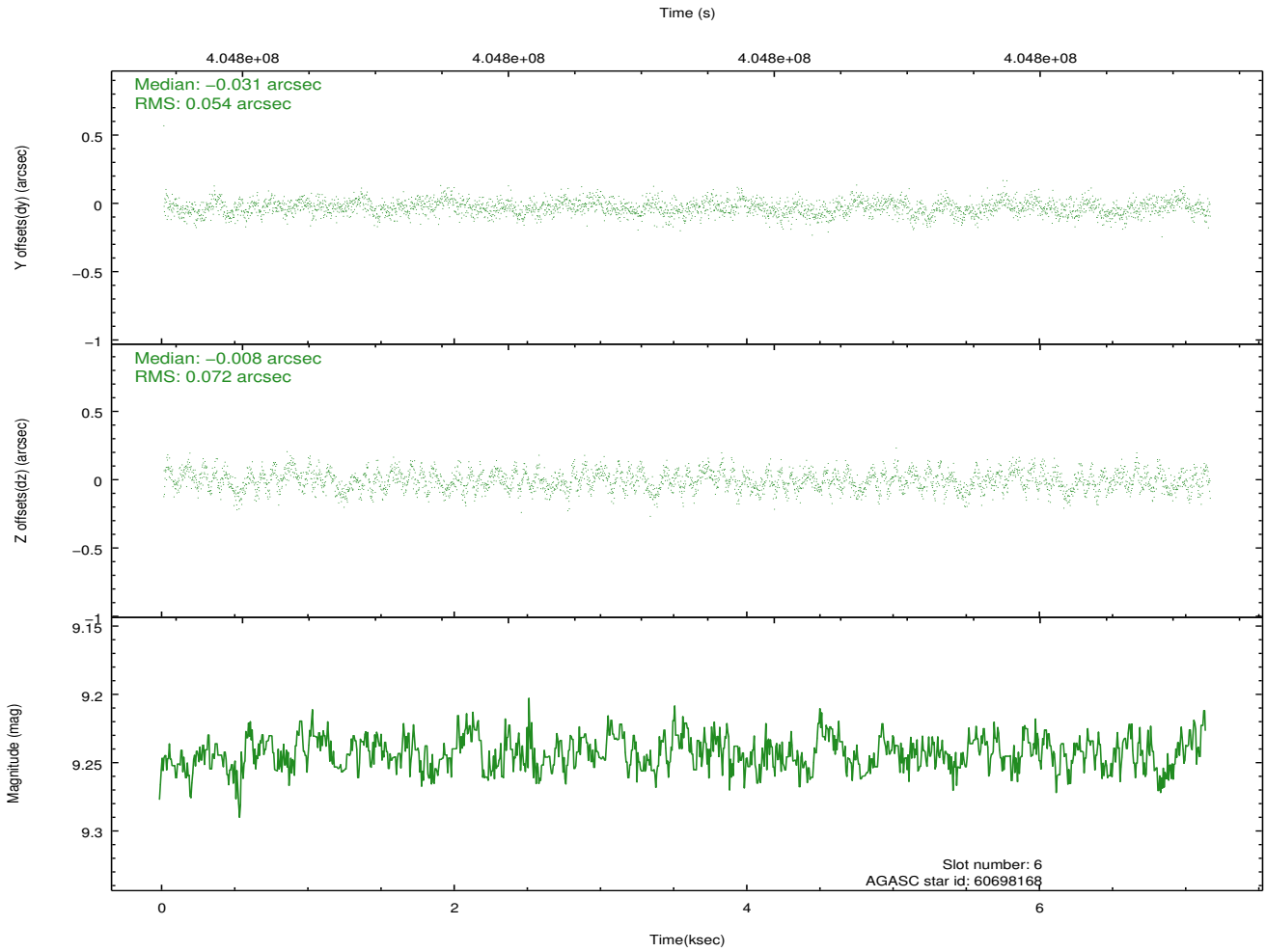
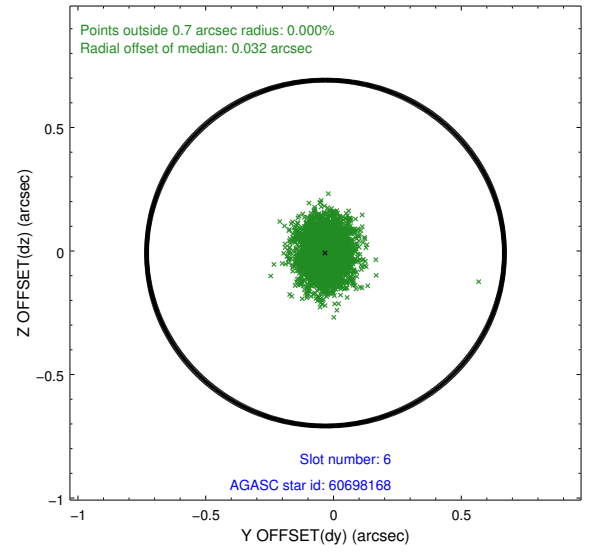
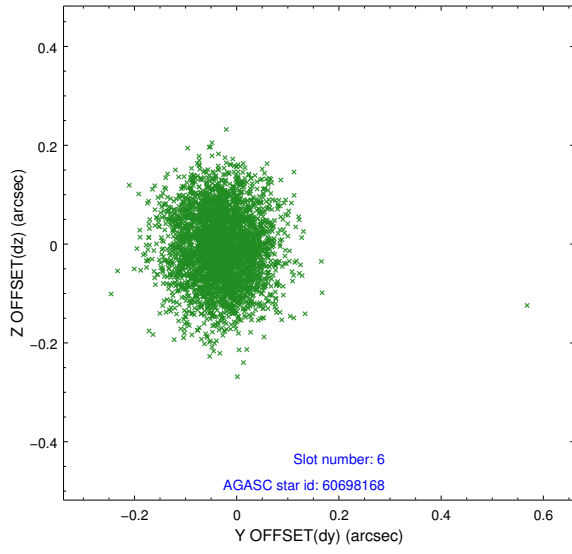
## 2.4.2 Slot 4



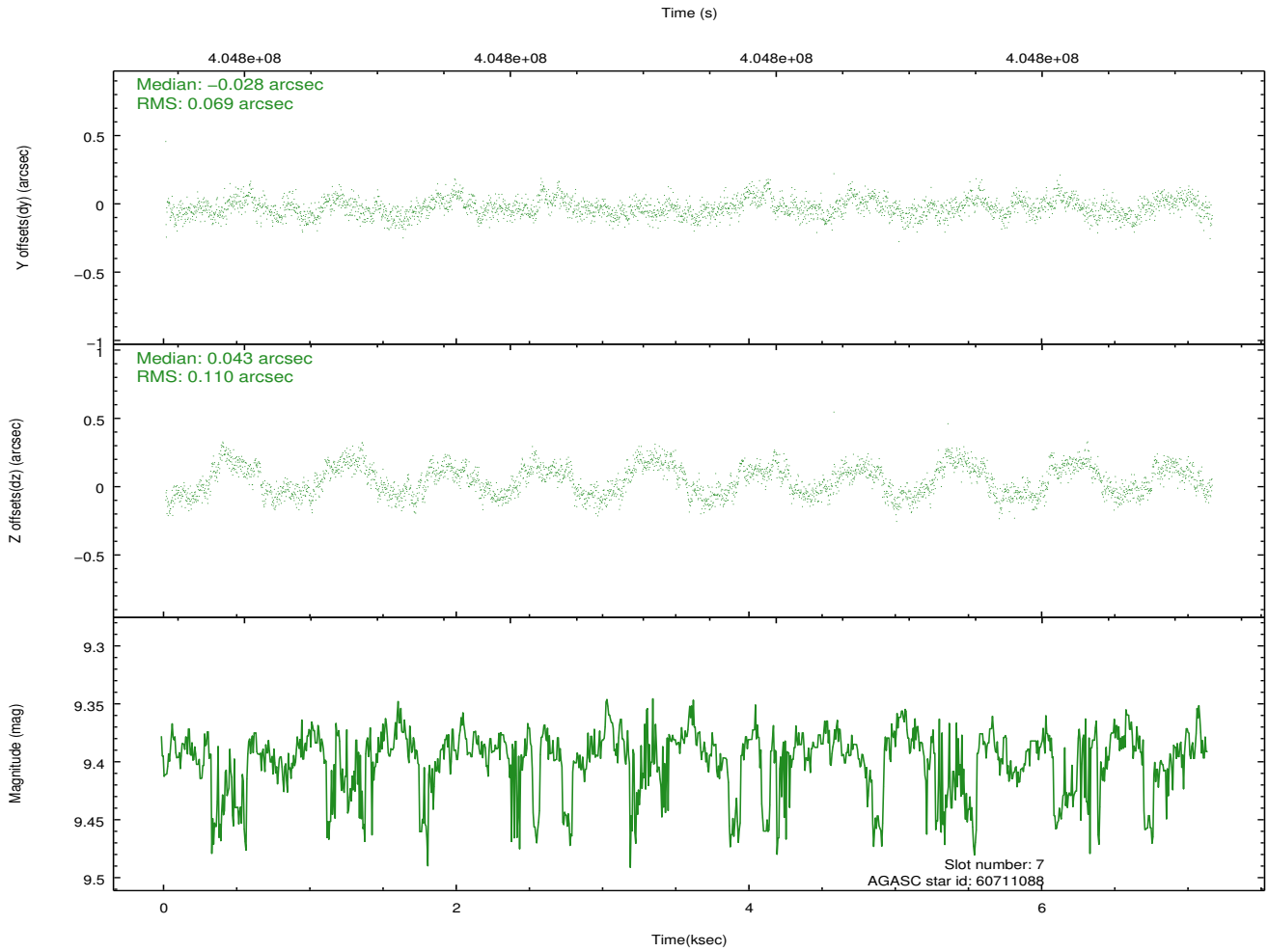
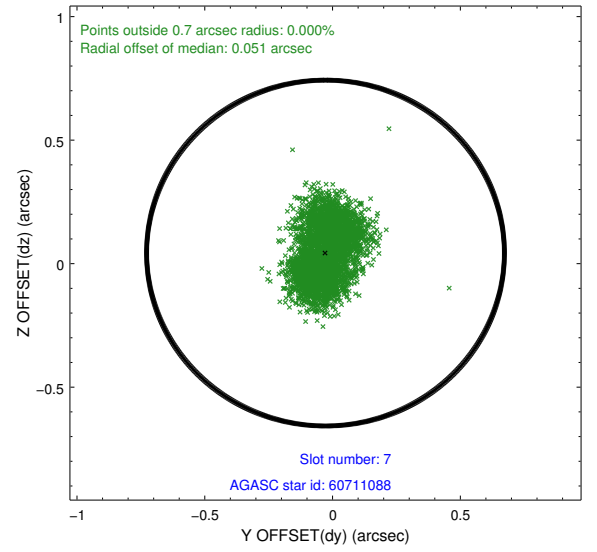
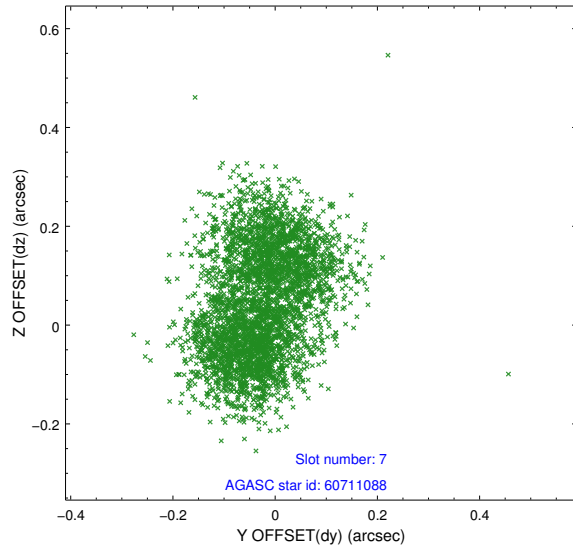
### 2.4.3 Slot 5



## 2.4.4 Slot 6

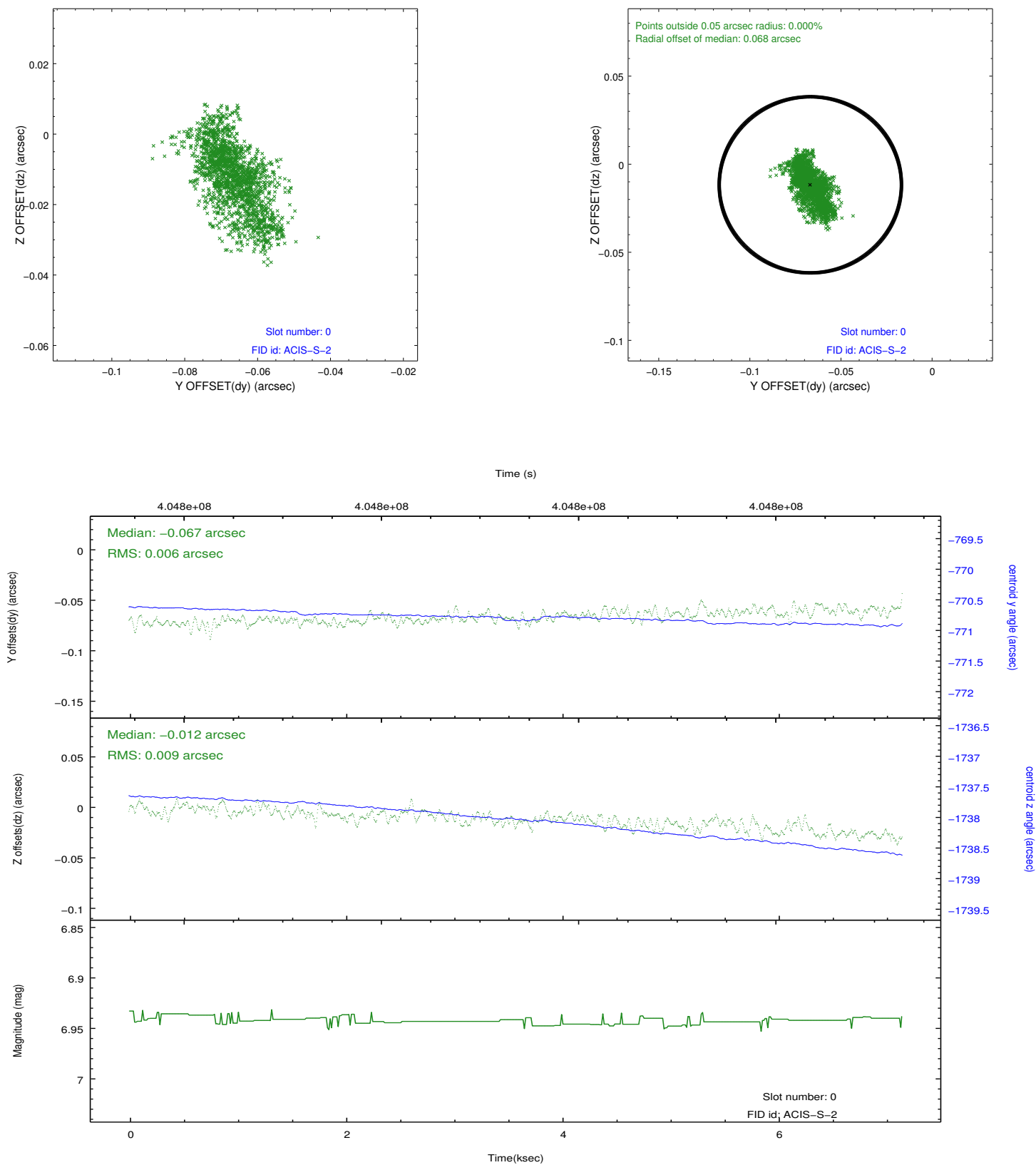


## 2.4.5 Slot 7

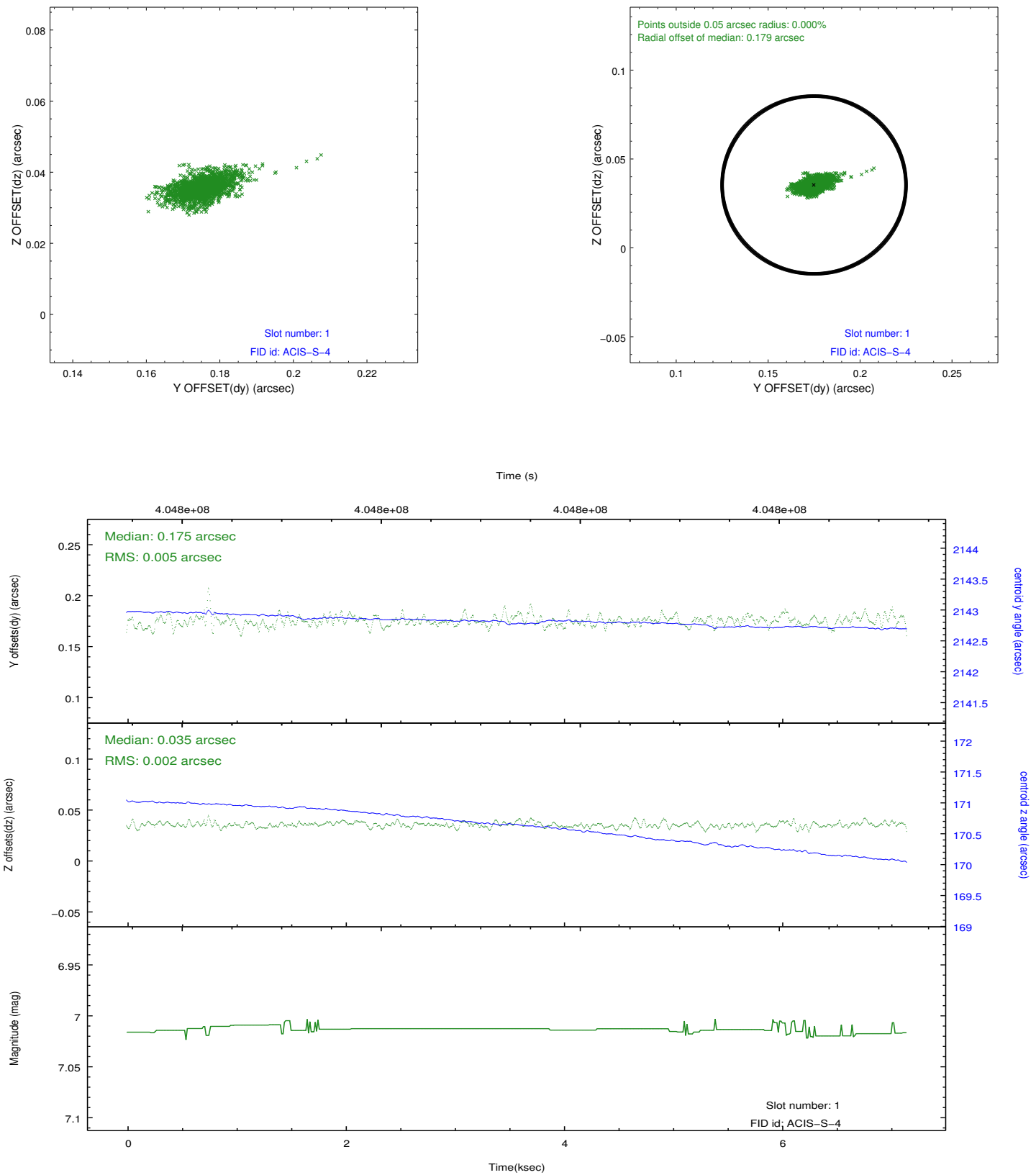


## 2.5 FID Slots

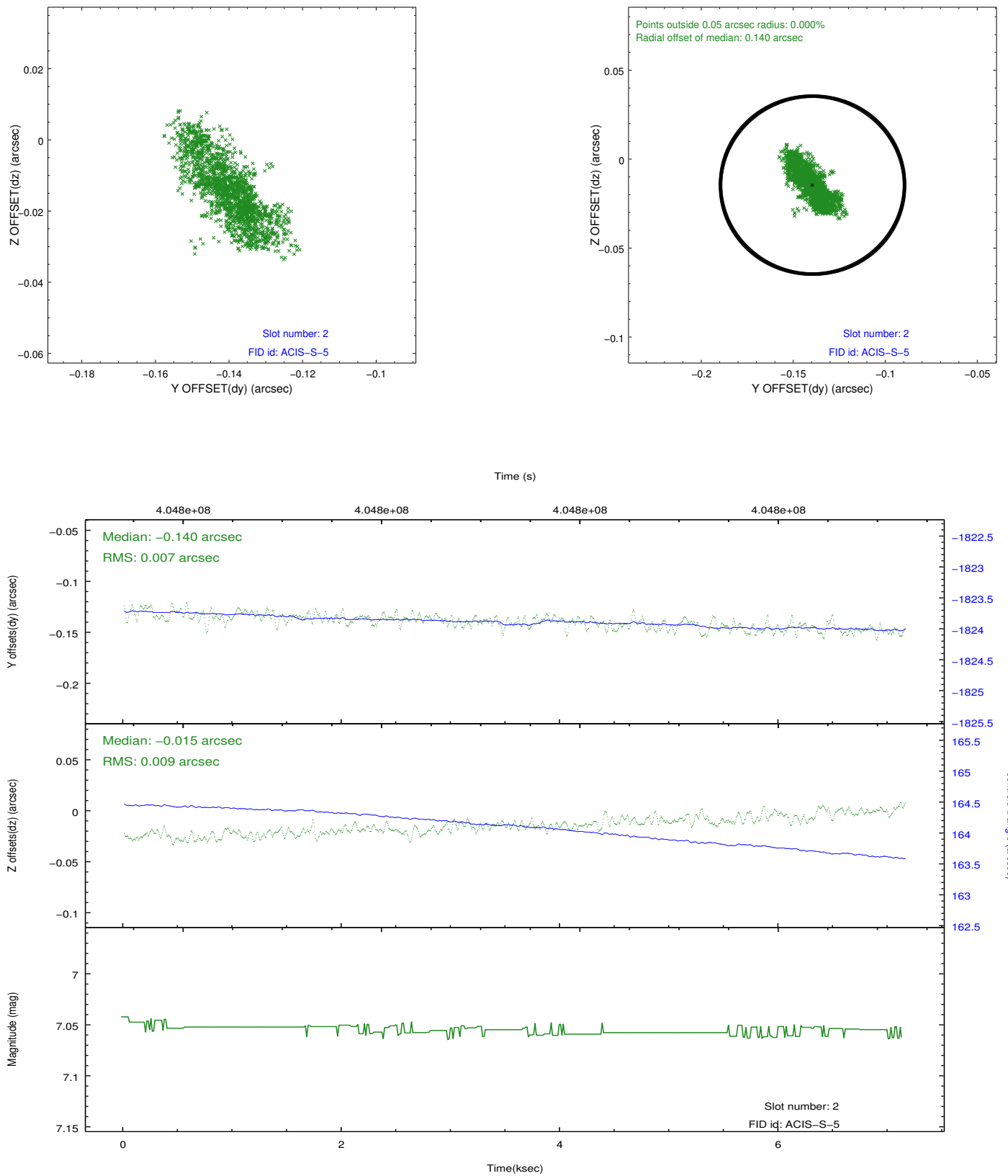
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.07.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.0091995822191

### A.2 Comments

Monitor constraint met: follows obs 12457 by 8 days