

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12410 - L2 Version 2  
Chandra X-Ray Center

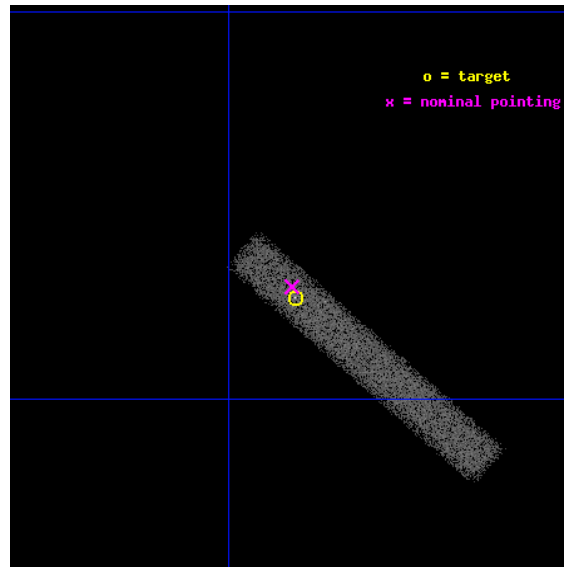
L2 Processing Date : Feb 10 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

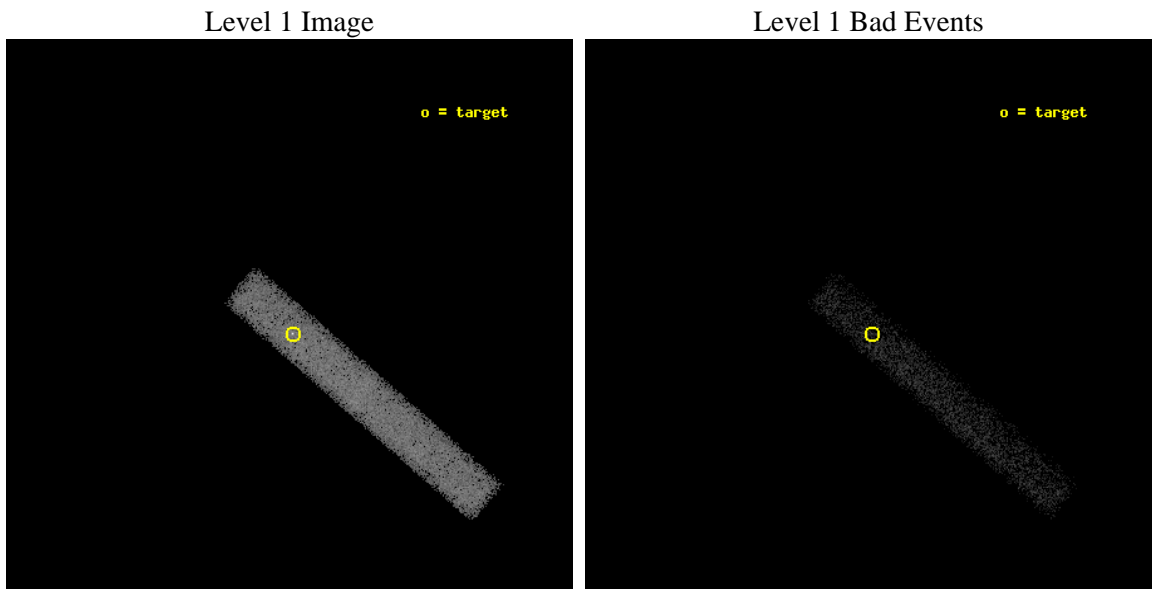
seq_num	401151	Sequence number
obs_id	12410	Observation id
title	X-Ray Jets in Microquasars	Proposal title
observer	Prof Stephane Corbel	Principal investigator
object	GX 339-4	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	255.705833	Observer's specified target RA [deg]
dec_targ	-48.789806	Observer's specified target Dec [deg]
ra_nom	255.70801231702	Nominal RA [deg]
dec_nom	-48.785181402211	Nominal Dec [deg]
roll_nom	41.082239412345	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30009.198211312	Sum of GTIs [s]
livetime	27216.7587623	Livetime [s]
ontime7	30009.198211312	Sum of GTIs [s]
l2events	17242	Number of level 2 events



## 2 OBI

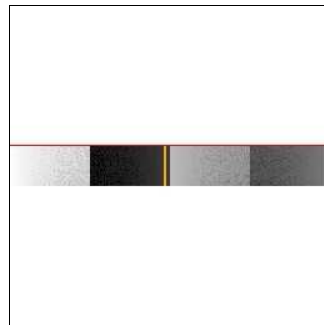
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	30009.198211312	Sum of GTIs [s]
caldbver	4.4.7	&#160	ontime7	30009.198211312	Sum of GTIs [s]
date	2012-02-10T06:46:14	Date and time of file creation	l1events	34794	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

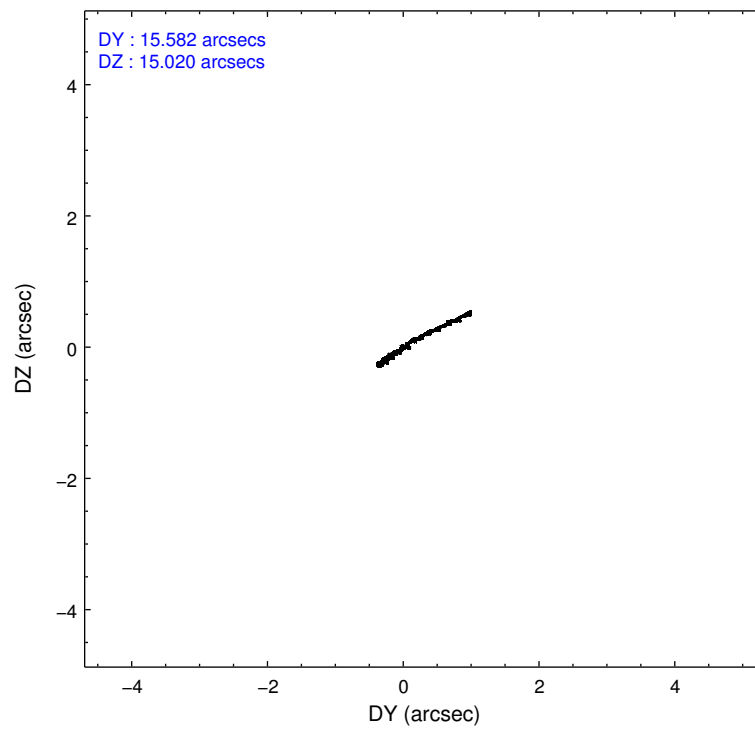
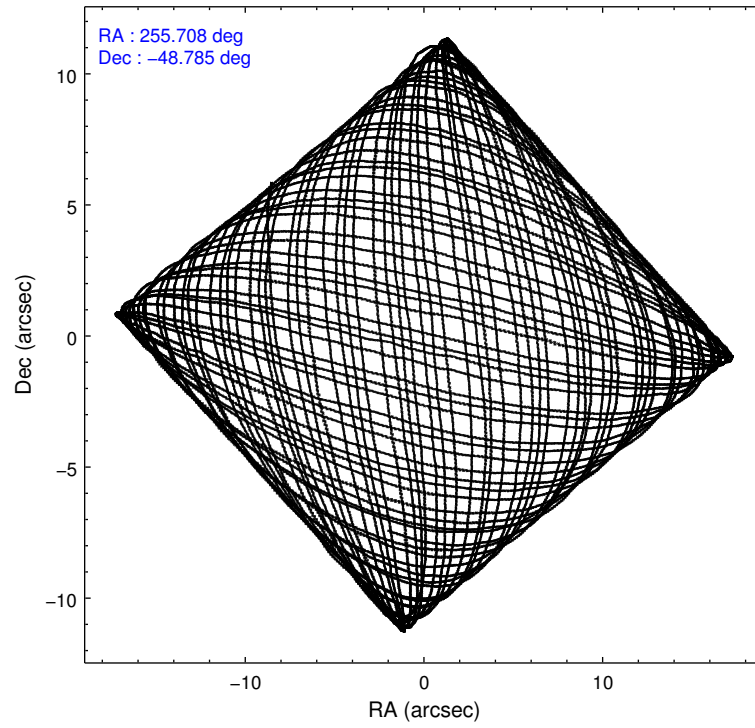
	<b>ccd 7</b>
level 1 events	34794
rejected events	16705
rejected %	<b>48%</b>

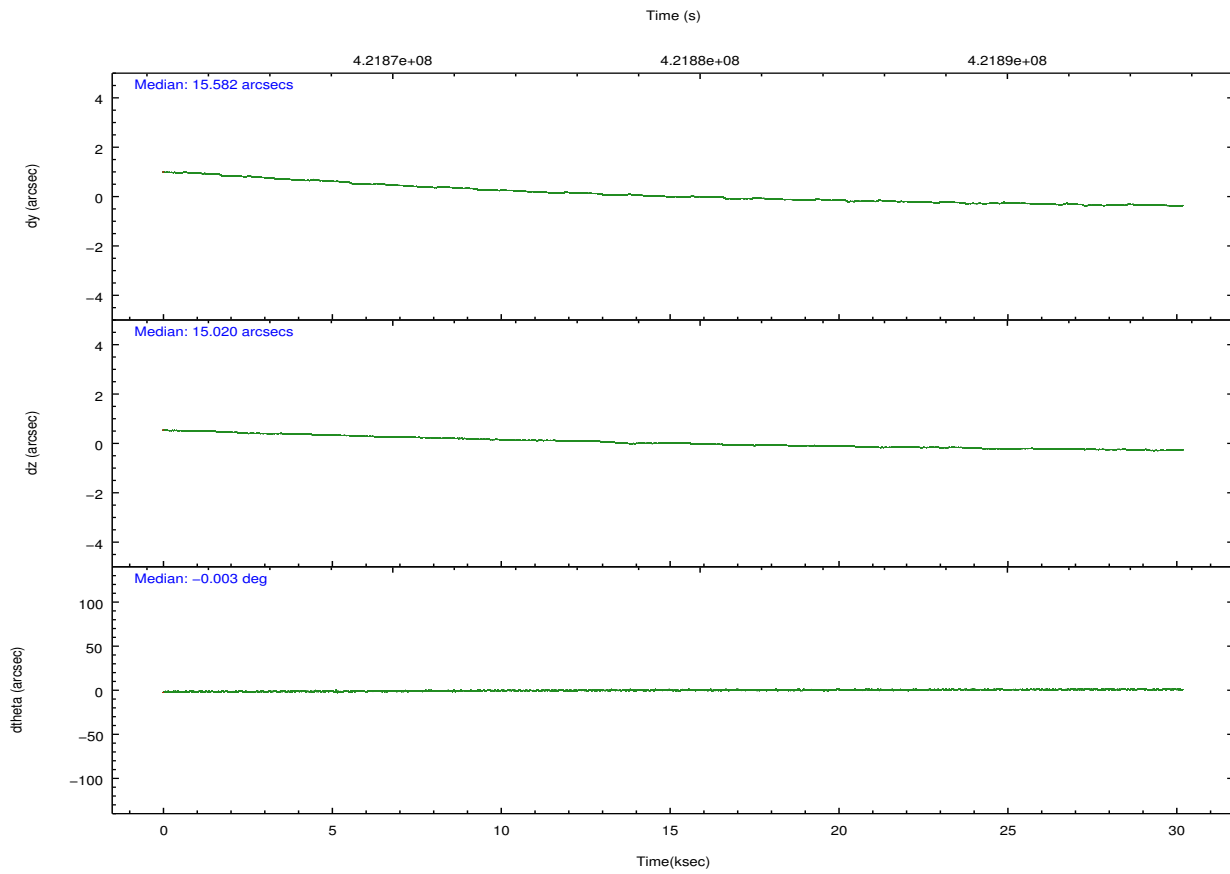
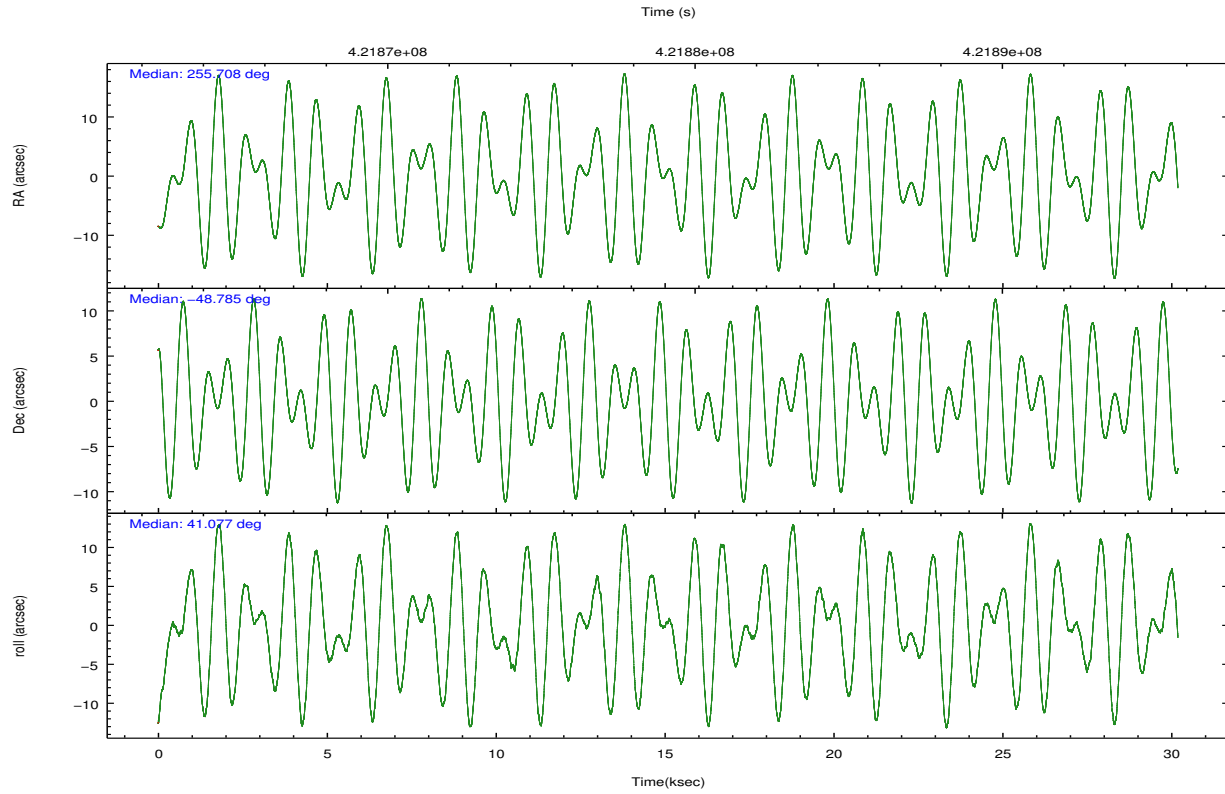
	<b>ccd 7</b>
grade 0 events	1995
	5%
grade 1 events	38
	0%
grade 2 events	3507
	10%
grade 3 events	2451
	7%
grade 4 events	2457
	7%
grade 5 events	3458
	9%
grade 6 events	7679
	22%
grade 7 events	13209
	37%

## 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	255.695091	255.7080123170161	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-48.811167	-48.78518140221128	Subarray start row	449	449
[deg] Pointing Roll	40.915886	41.08223941234503	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	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	421864214.184000	421863522.35035			
Observation start date	2011-05-15T16:29:08	2011-05-15T16:18:42			
[s] Observation end time (MET)	421894214.184000	421895116.43949			
Observation end date	2011-05-16T00:49:08	2011-05-16T01:05:16			
Read mode	TIMED	TIMED			

## 2.3 Aspect



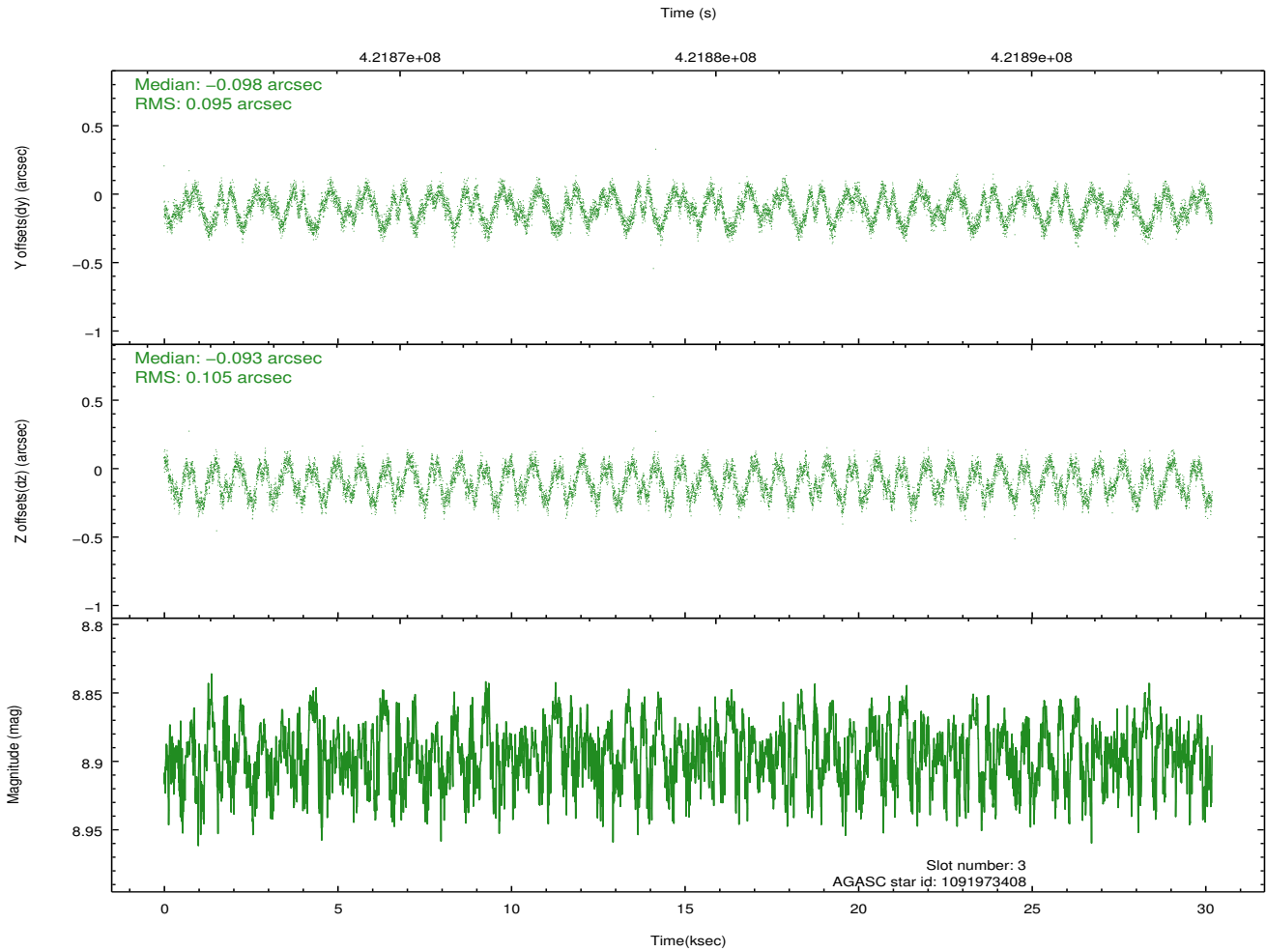
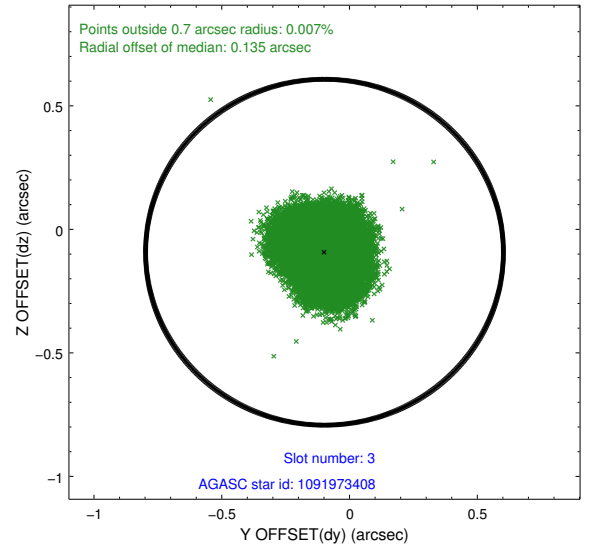
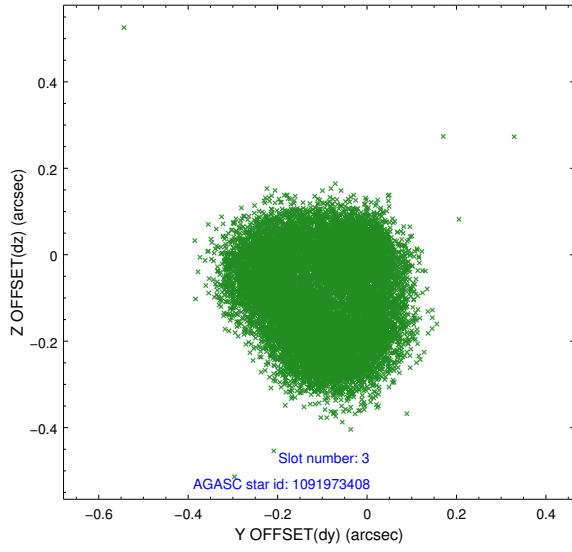


### Slot Statistics

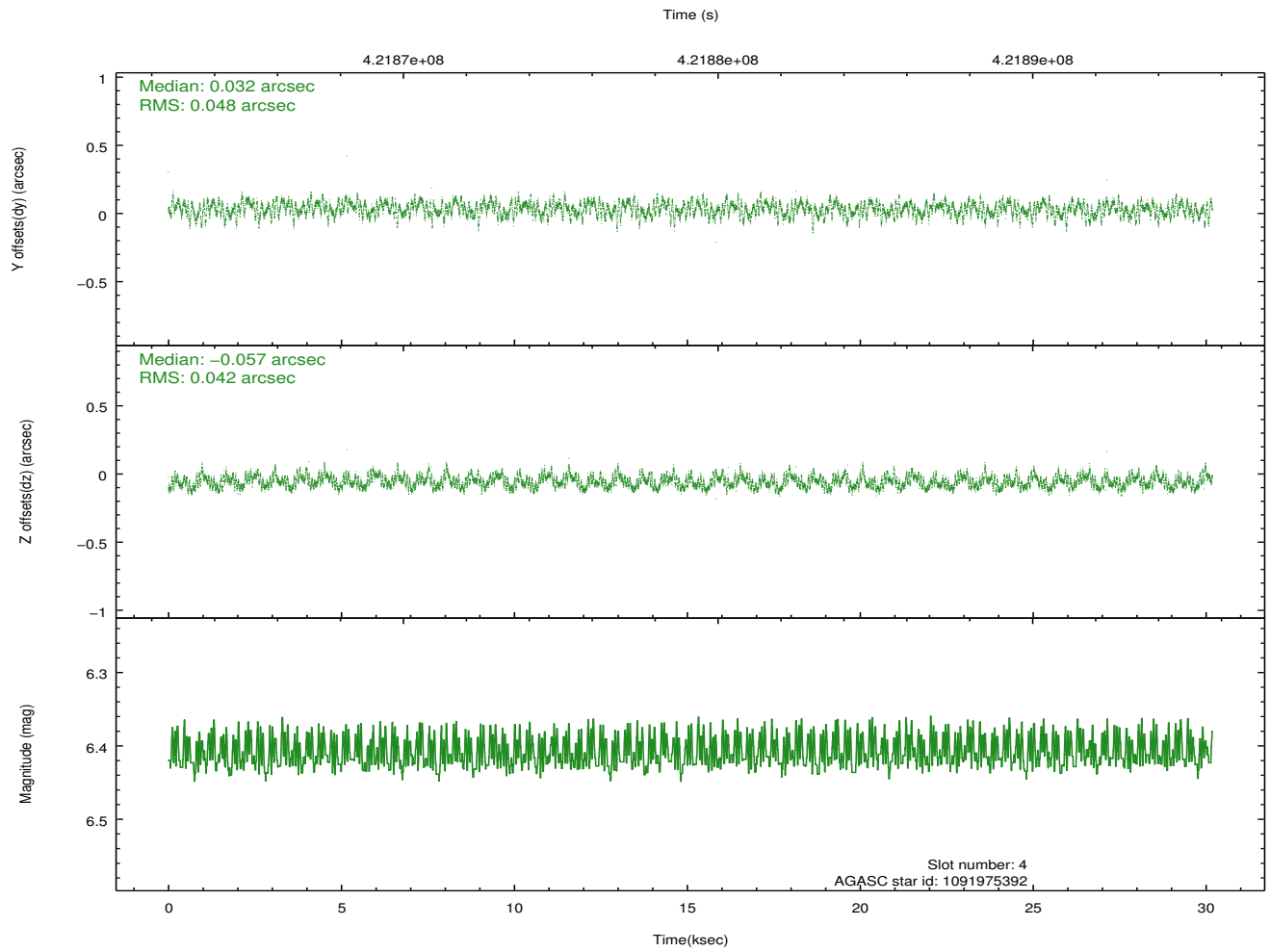
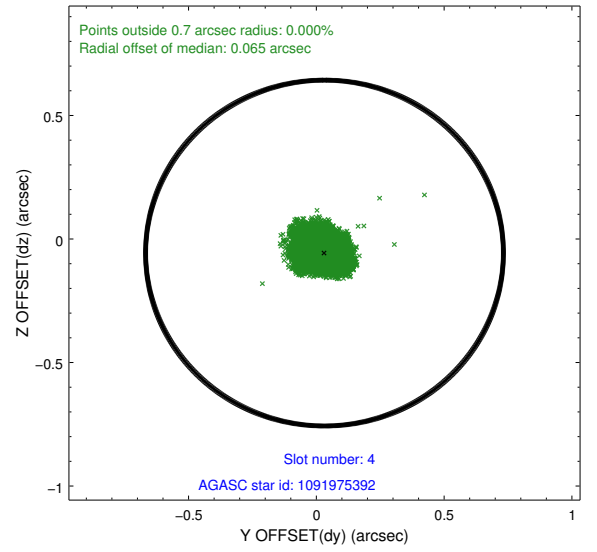
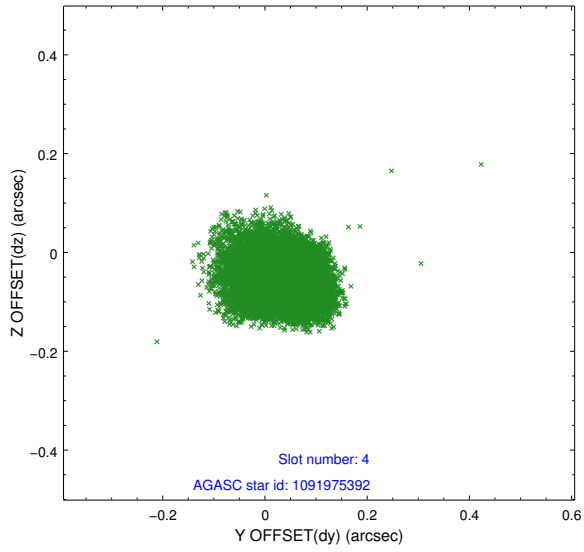
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.98	7364	-0.136	-0.093	0.009	0.023	0.000000	0.000000	-768.84	-1736.53
1	FID	ACIS-S-4	7.07	7364	0.160	0.067	0.013	0.027	0.000000	0.000000	2144.72	172.00
2	FID	ACIS-S-6	7.21	7363	-0.050	0.034	0.015	0.033	0.000000	0.000000	393.34	809.47
3	GUIDE	1091973408	8.90	14721	-0.098	-0.093	0.156	0.211	255.800233	-48.601800	682.80	405.66
4	GUIDE	1091975392	6.41	14728	0.032	-0.057	0.068	0.107	255.805002	-48.336791	1317.37	1118.38
5	GUIDE	1092485728	6.89	14727	0.133	-0.150	0.093	0.142	254.773222	-48.875124	-1808.52	1245.55
6	GUIDE	1092491384	9.11	14653	-0.084	0.162	0.078	0.133	254.923973	-49.184437	-2257.24	166.22
7	GUIDE	1092627912	6.52	14727	0.029	0.141	0.070	0.117	257.034537	-48.883770	2206.67	-2294.91

## 2.4 Star Slots

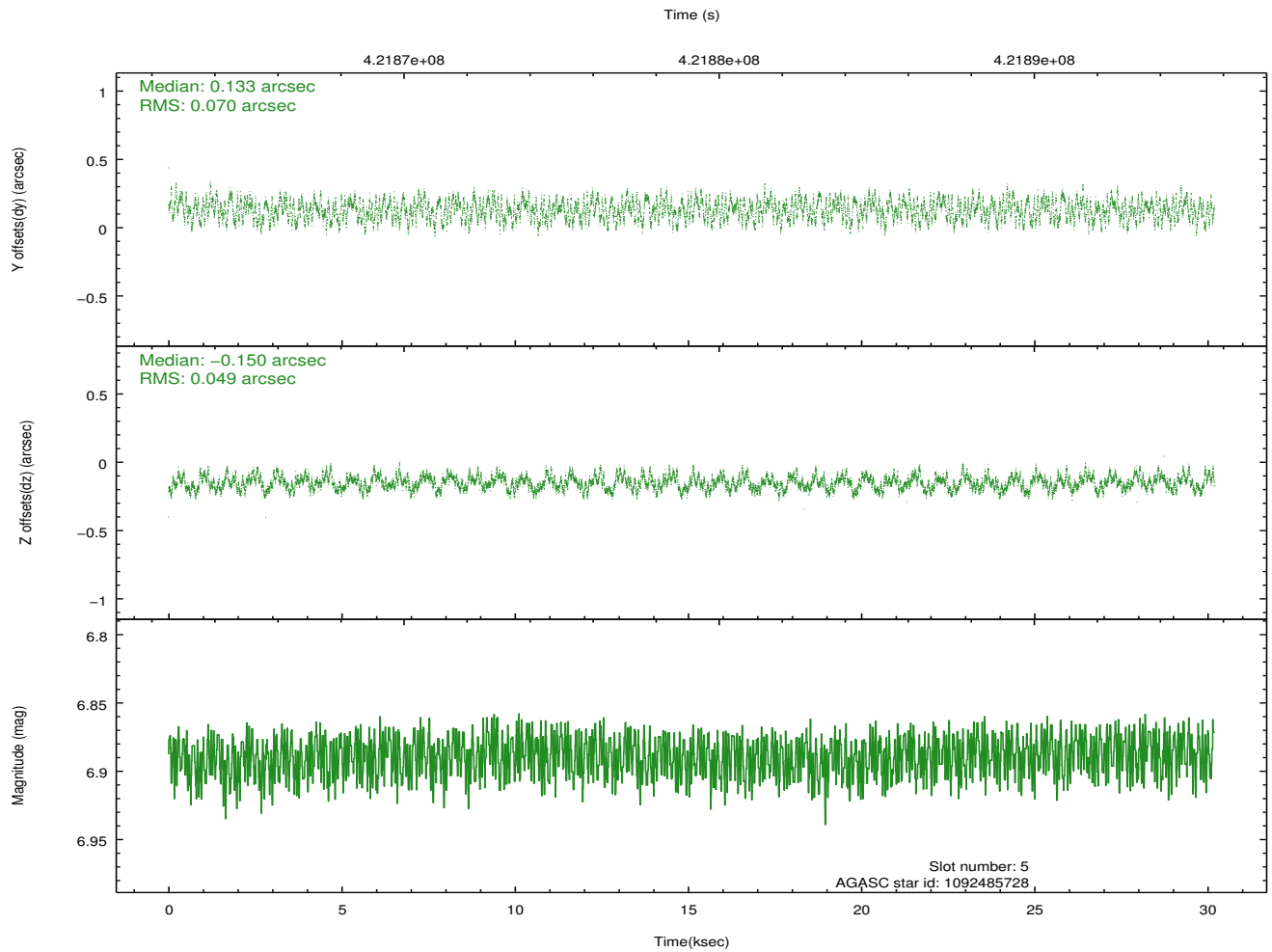
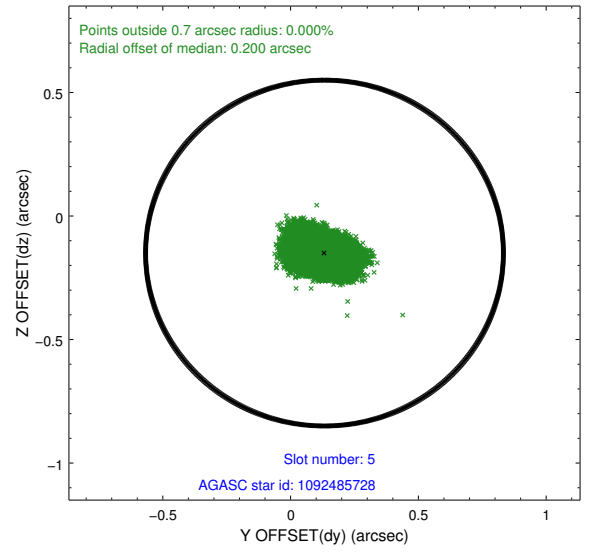
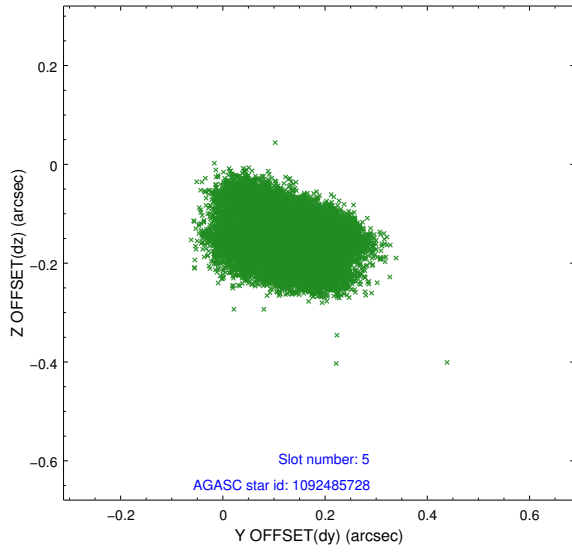
### 2.4.1 Slot 3



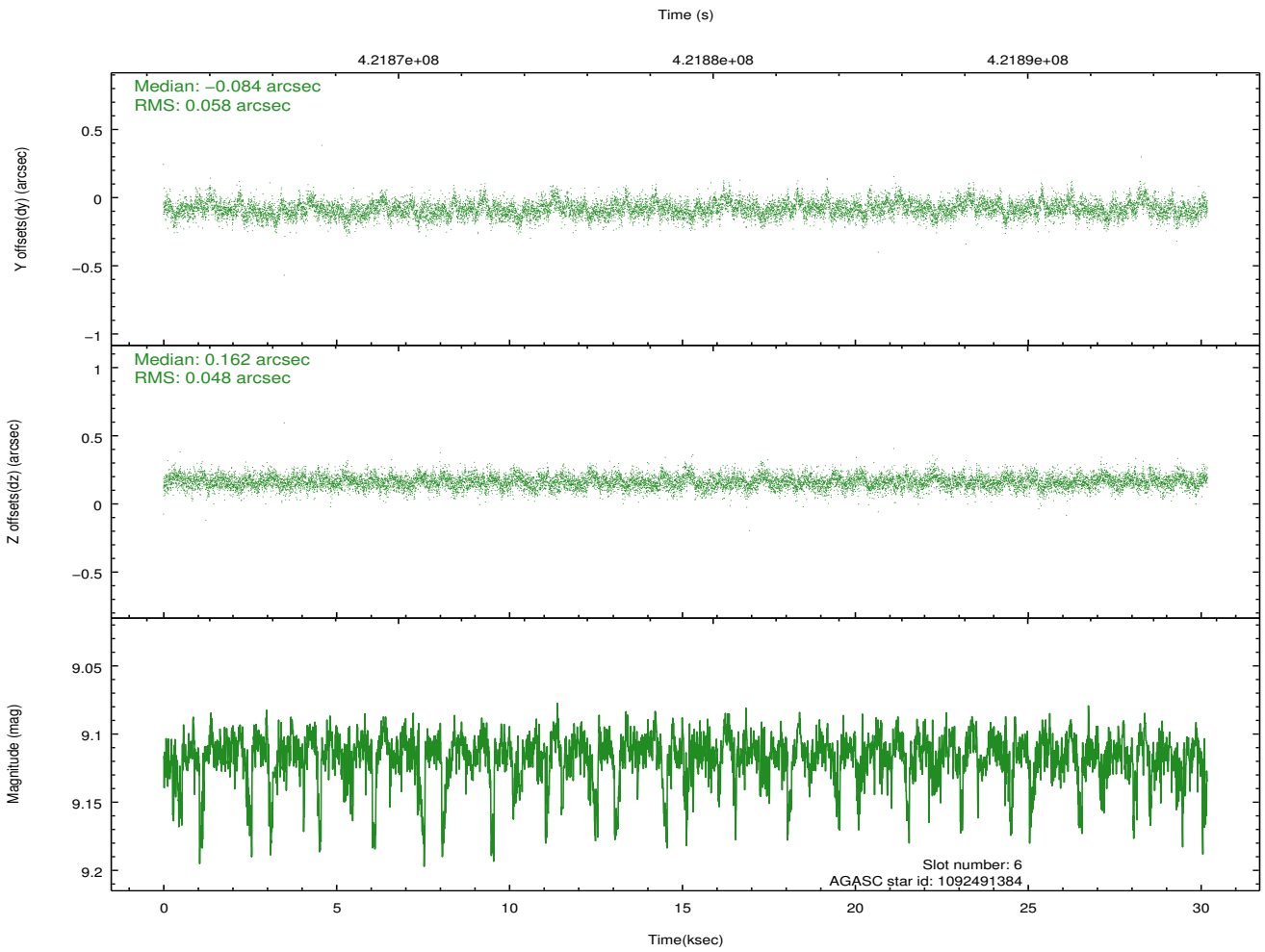
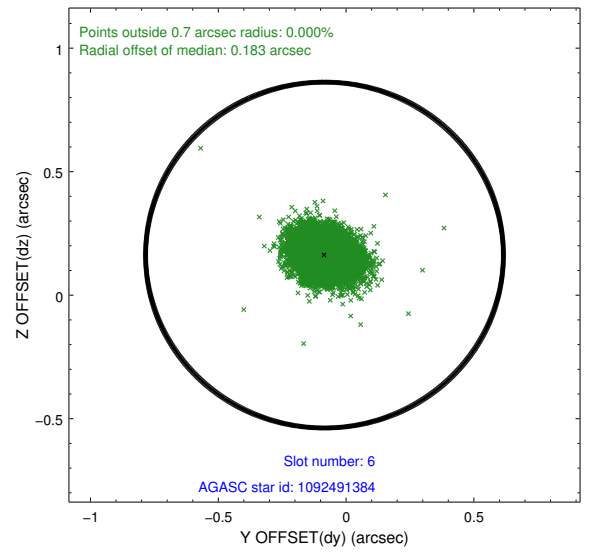
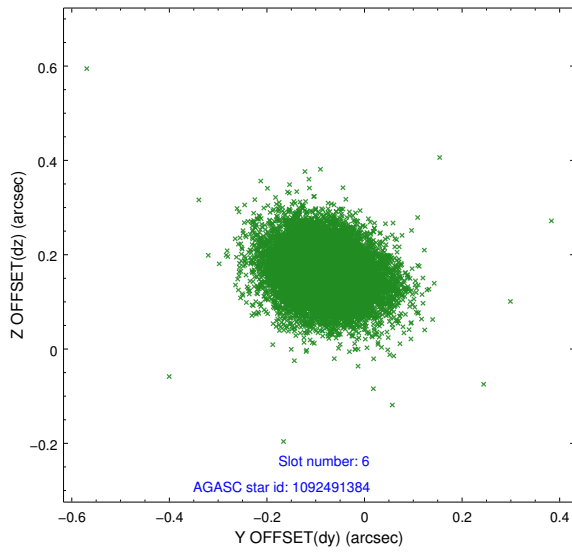
## 2.4.2 Slot 4



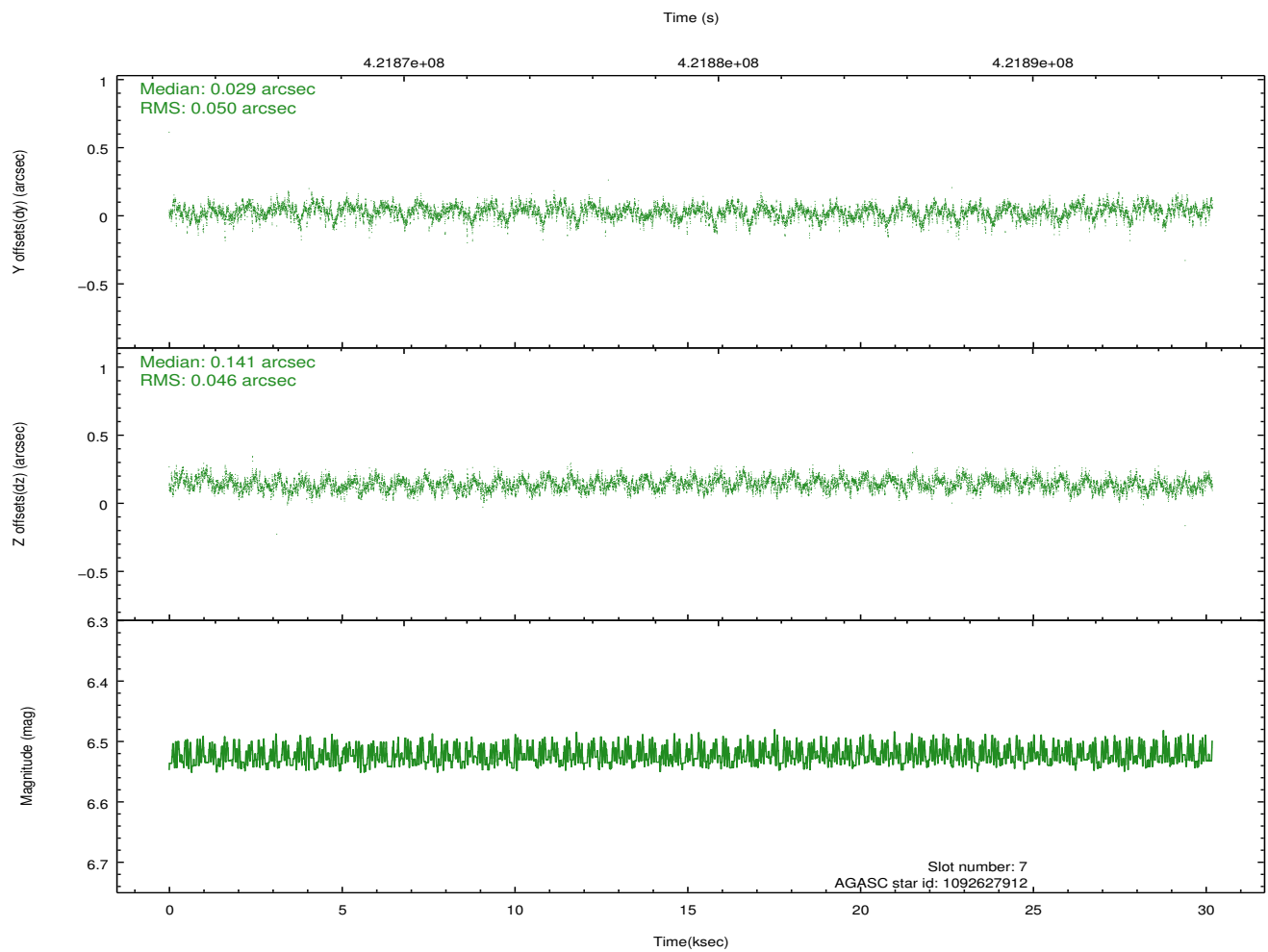
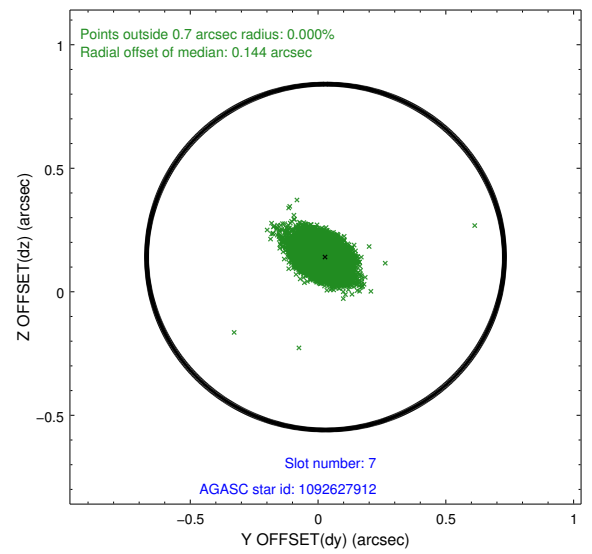
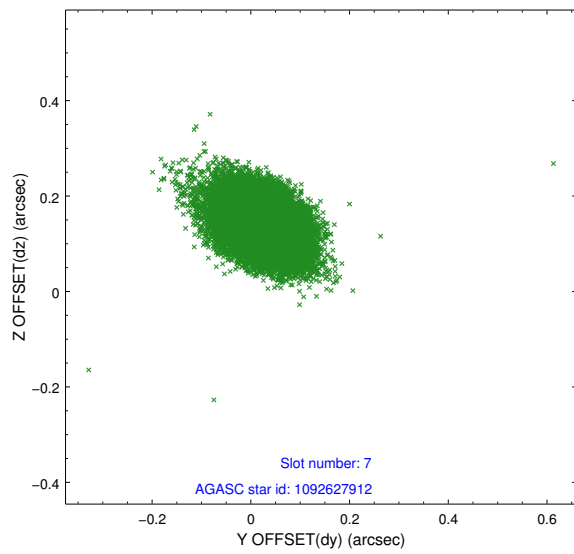
### 2.4.3 Slot 5



### 2.4.4 Slot 6

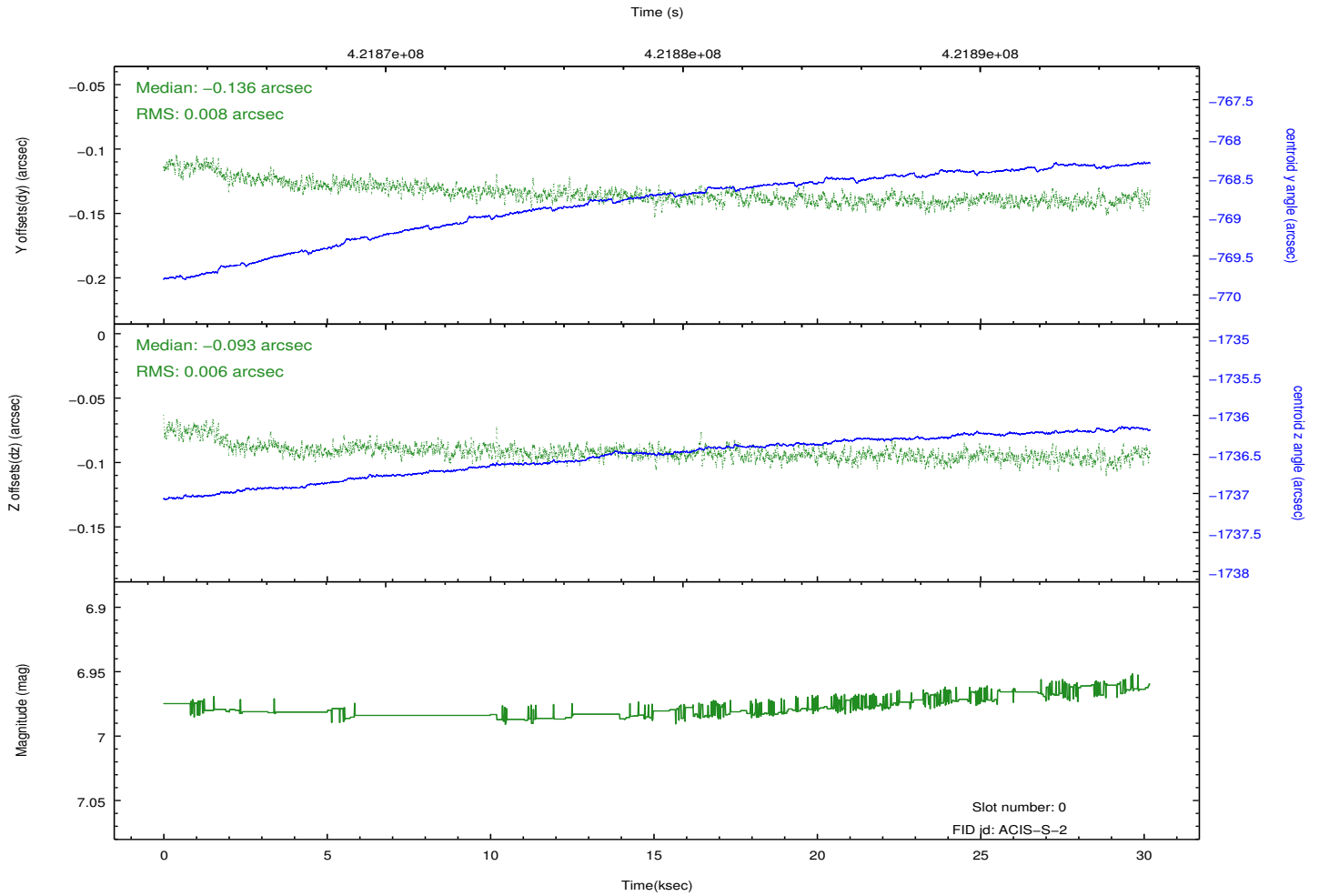
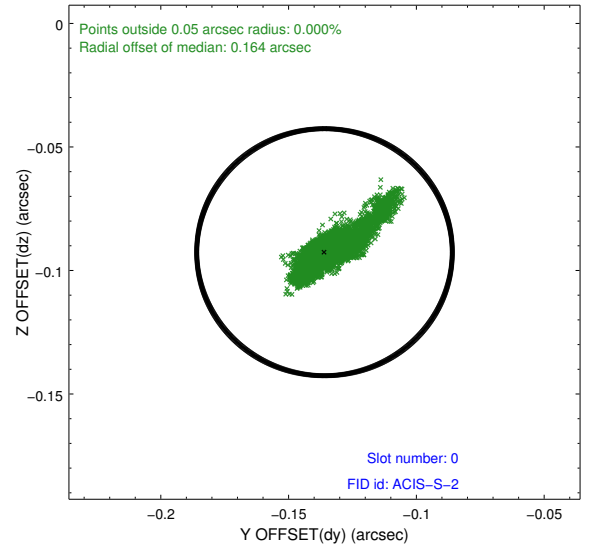
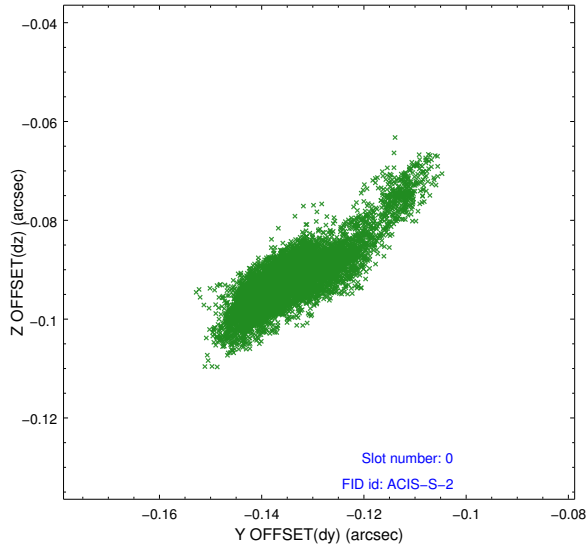


## 2.4.5 Slot 7

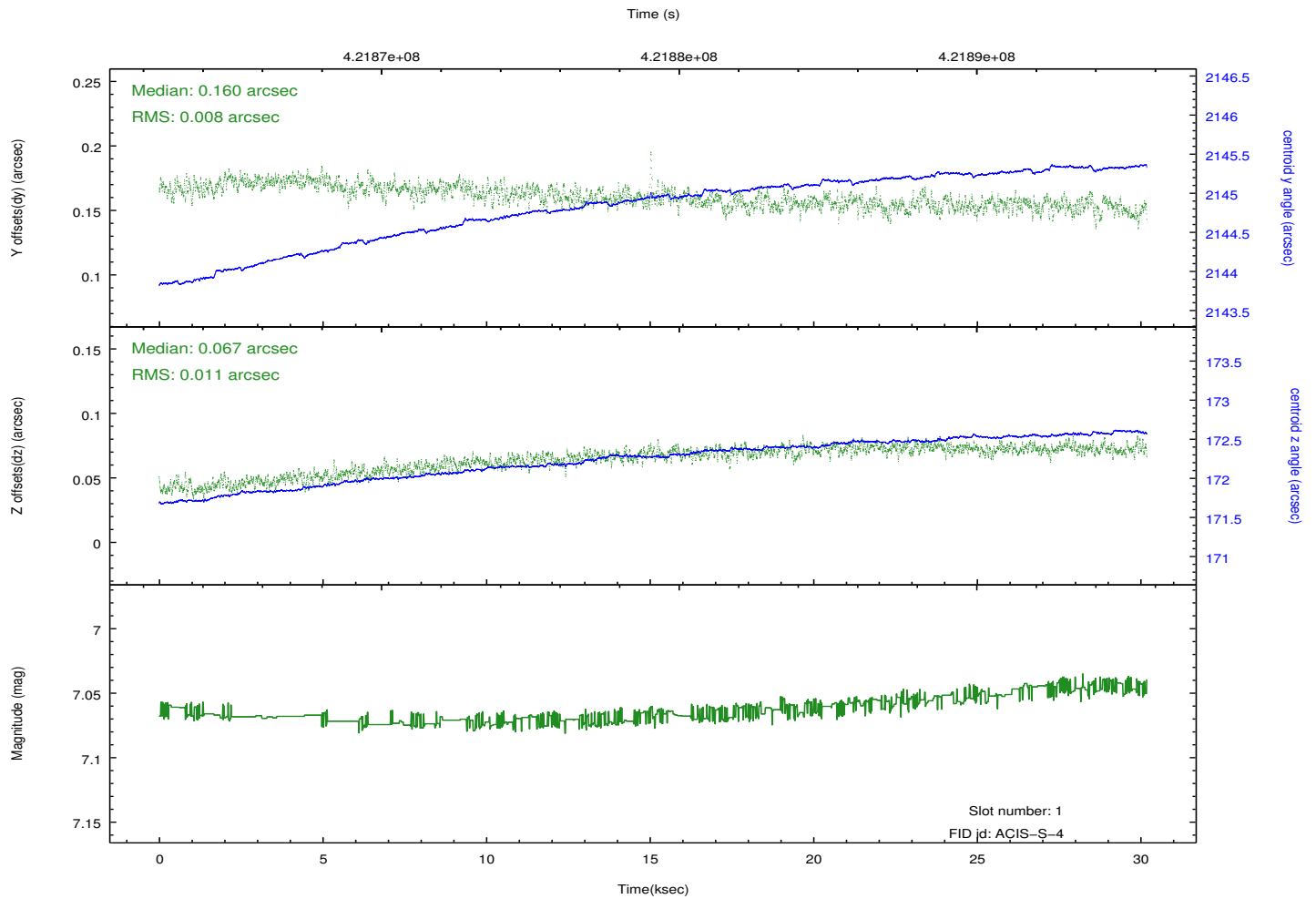
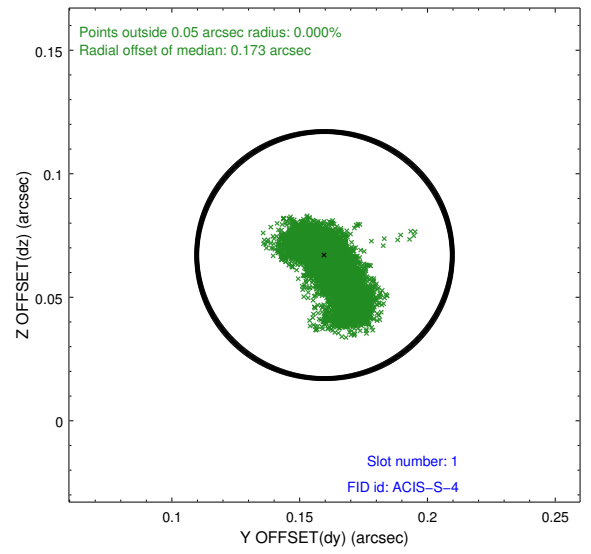
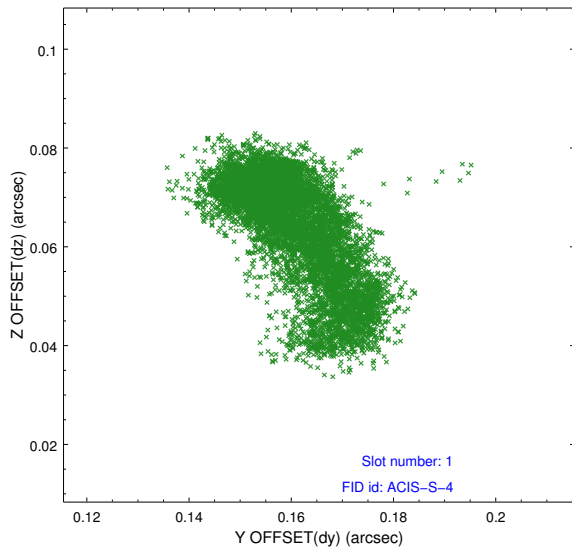


## 2.5 FID Slots

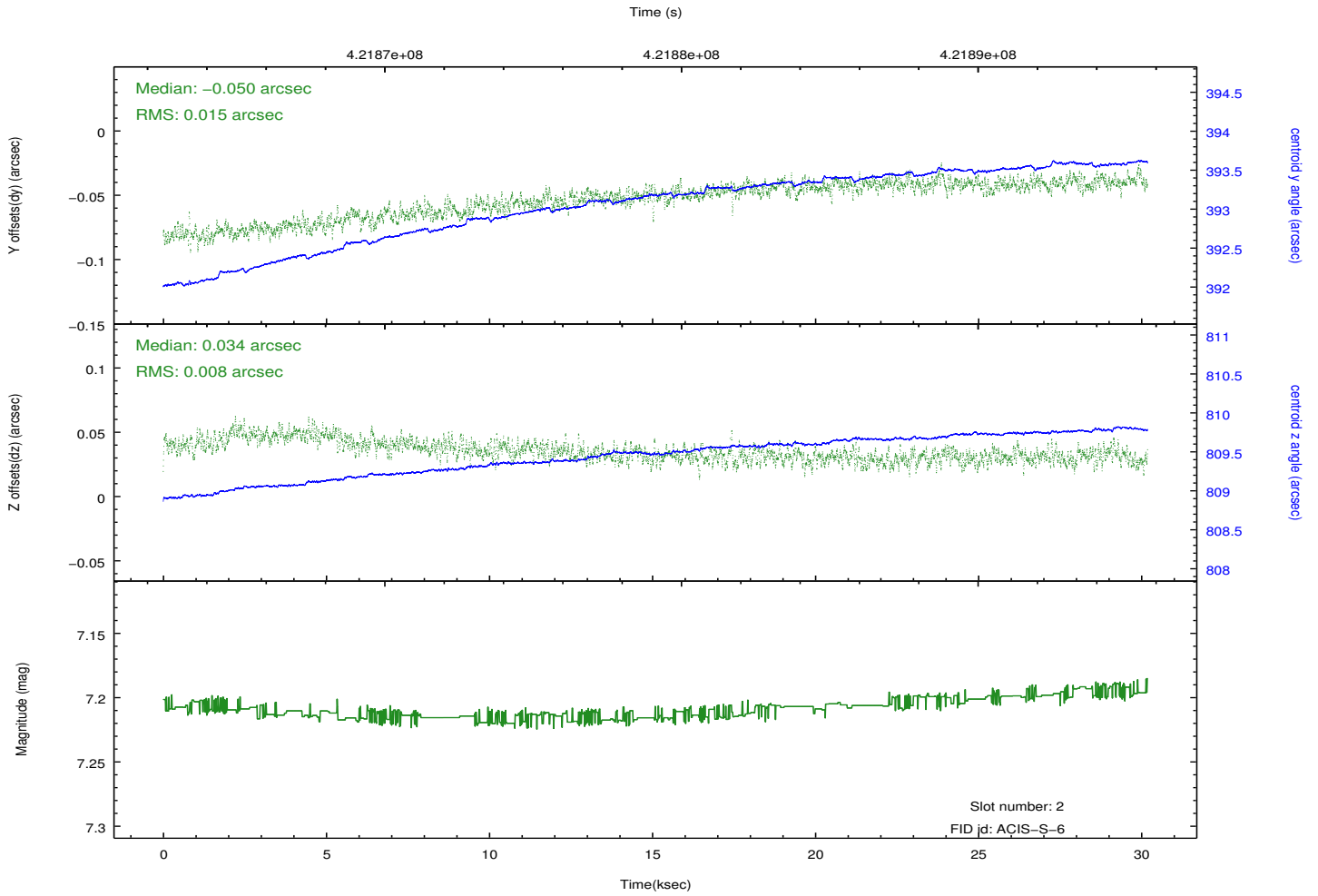
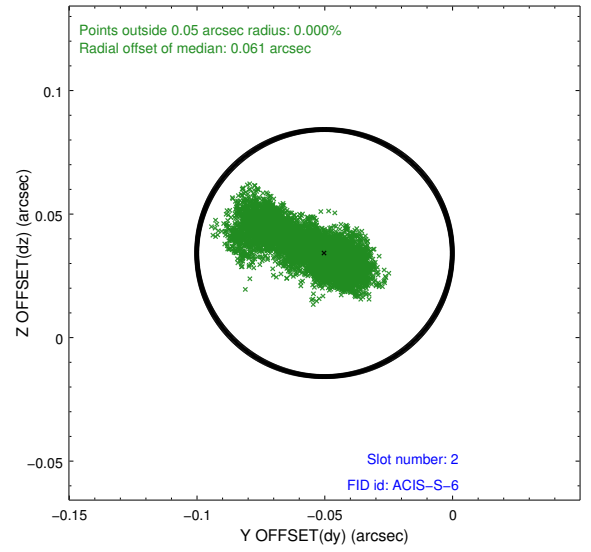
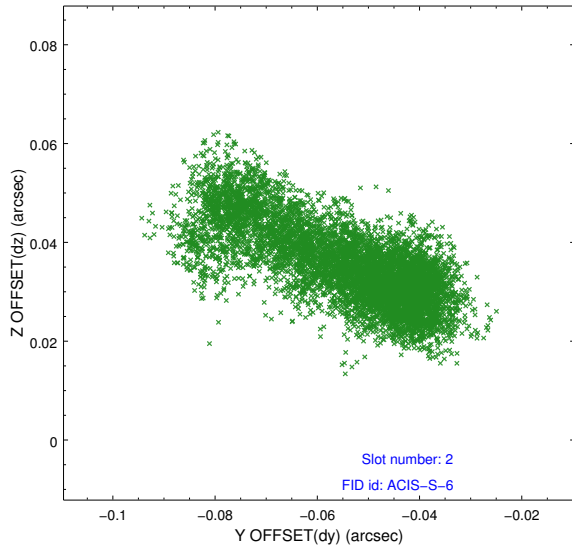
### 2.5.1 Slot 0



## 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)	2012.02.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.009198211312

## A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.

=====

Joint proposal: NRAO