

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12439 - L2 Version 2  
Chandra X-Ray Center

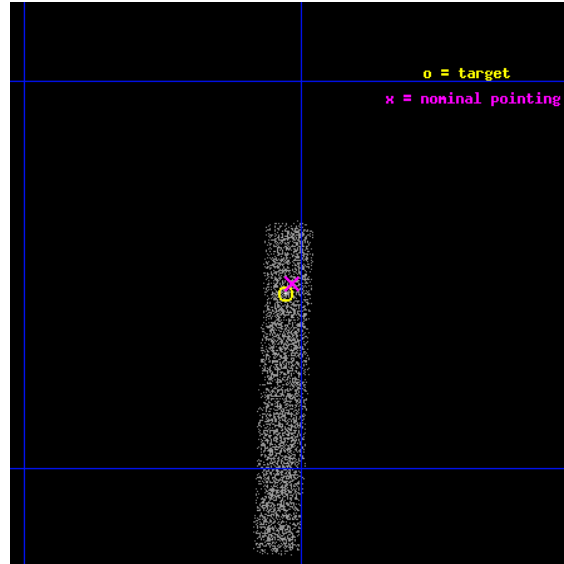
L2 Processing Date : Feb 8 2012

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# 1 Front

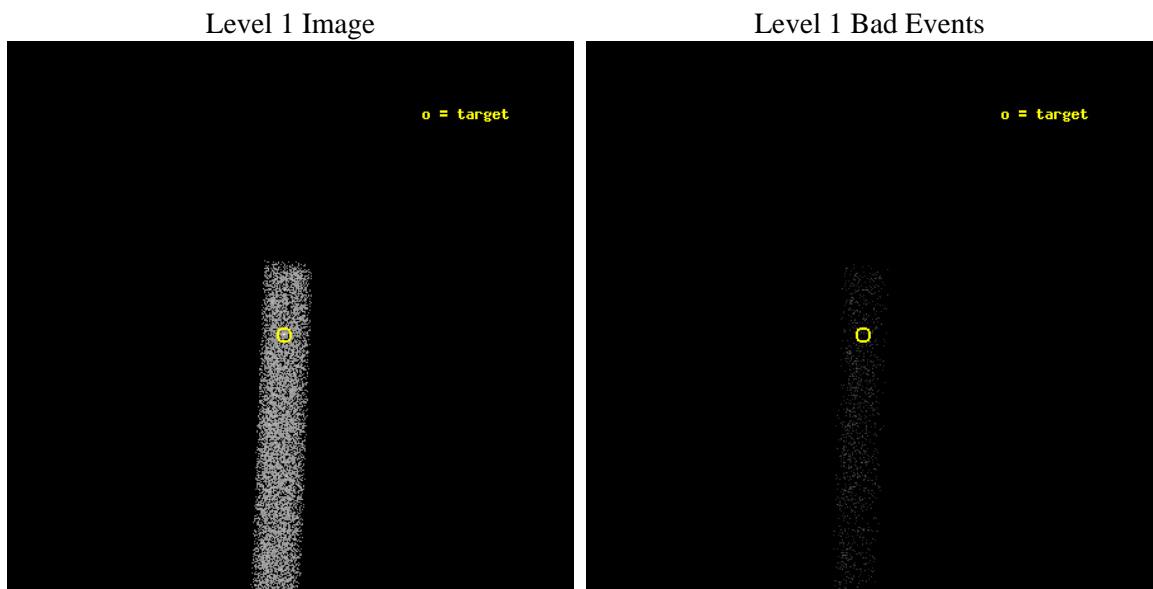
seq_num	401180	Sequence number
obs_id	12439	Observation id
title	Following a black hole candidate X-ray transient to quiescence	Pro
observer	dr P Jonker	Principal investigator
object	MAXIJ1659-152	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	254.757	Observer's specified target RA [deg]
dec_targ	-15.257972	Observer's specified target Dec [deg]
ra_nom	254.75413654513	Nominal RA [deg]
dec_nom	-15.253915976638	Nominal Dec [deg]
roll_nom	92.162852784554	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10009.999403358	Sum of GTIs [s]
livetime	9078.541087754	Livetime [s]
ontime7	10009.999403358	Sum of GTIs [s]
l2events	5269	Number of level 2 events



## 2 OBI

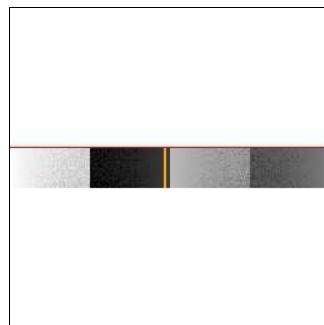
### 2.1 OBI

#### 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	8.4.3	Processing system revision	ontime	10009.999403358	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime7	10009.999403358	Sum of GTIs [s]
date	2012-02-08T21:58:36	Date and time of file creation	l1events	11262	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	11262
rejected events	5733
rejected %	50%

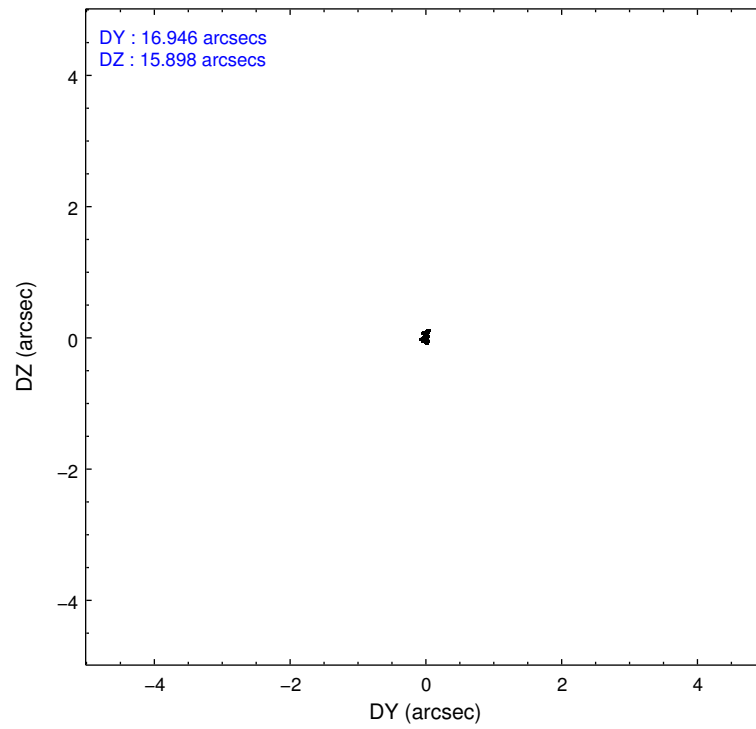
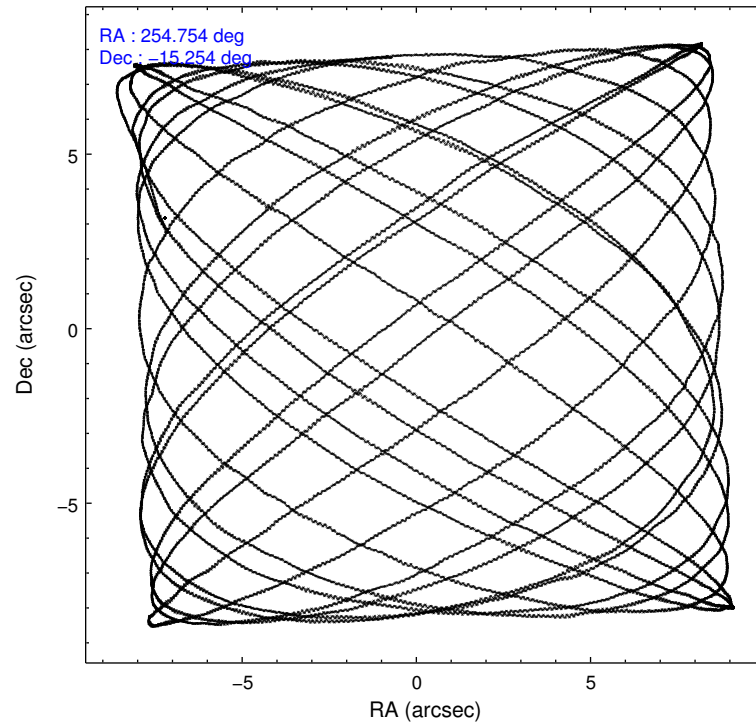
	<b>ccd 7</b>
grade 0 events	572
	5%
grade 1 events	17
	0%
grade 2 events	1072
	9%
grade 3 events	707
	6%
grade 4 events	757
	6%
grade 5 events	1150
	10%
grade 6 events	2421
	21%
grade 7 events	4566
	40%

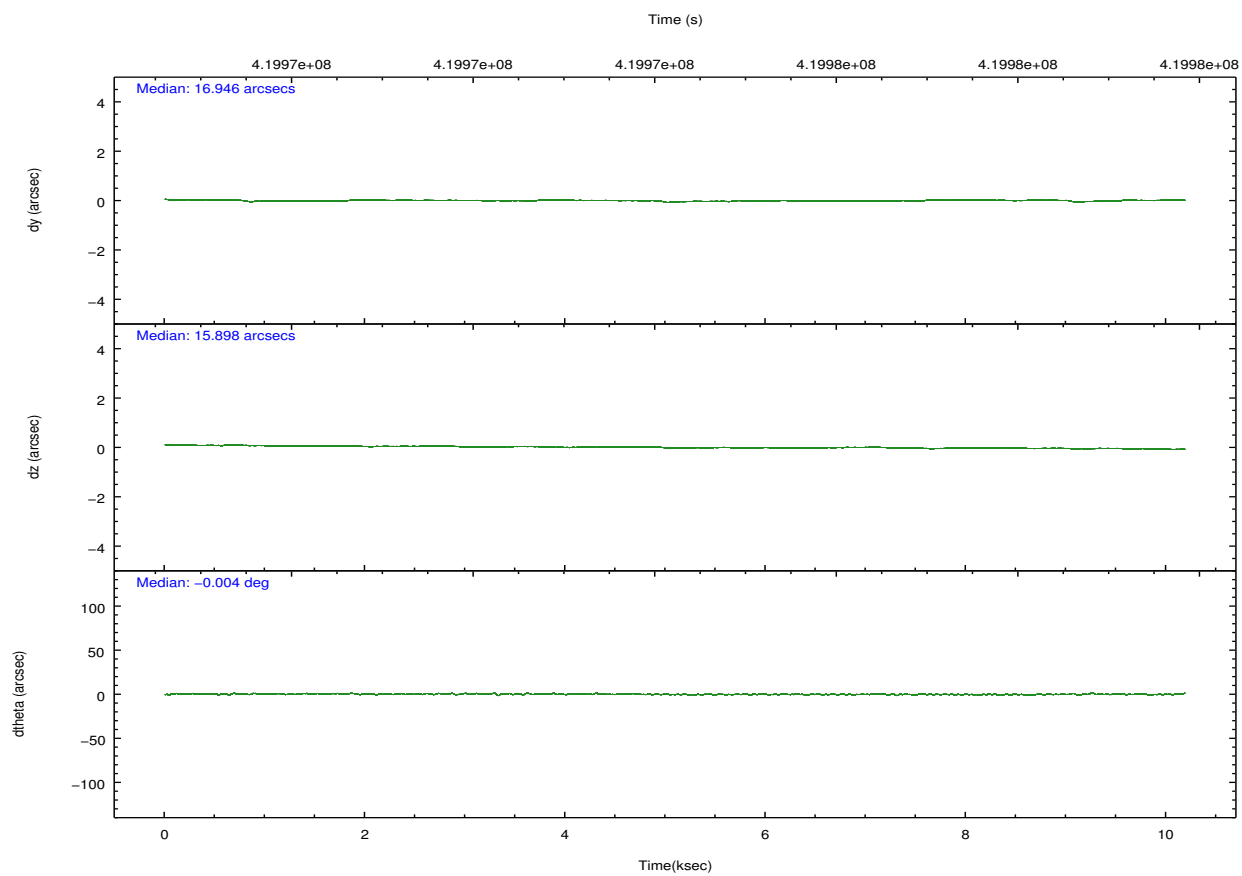
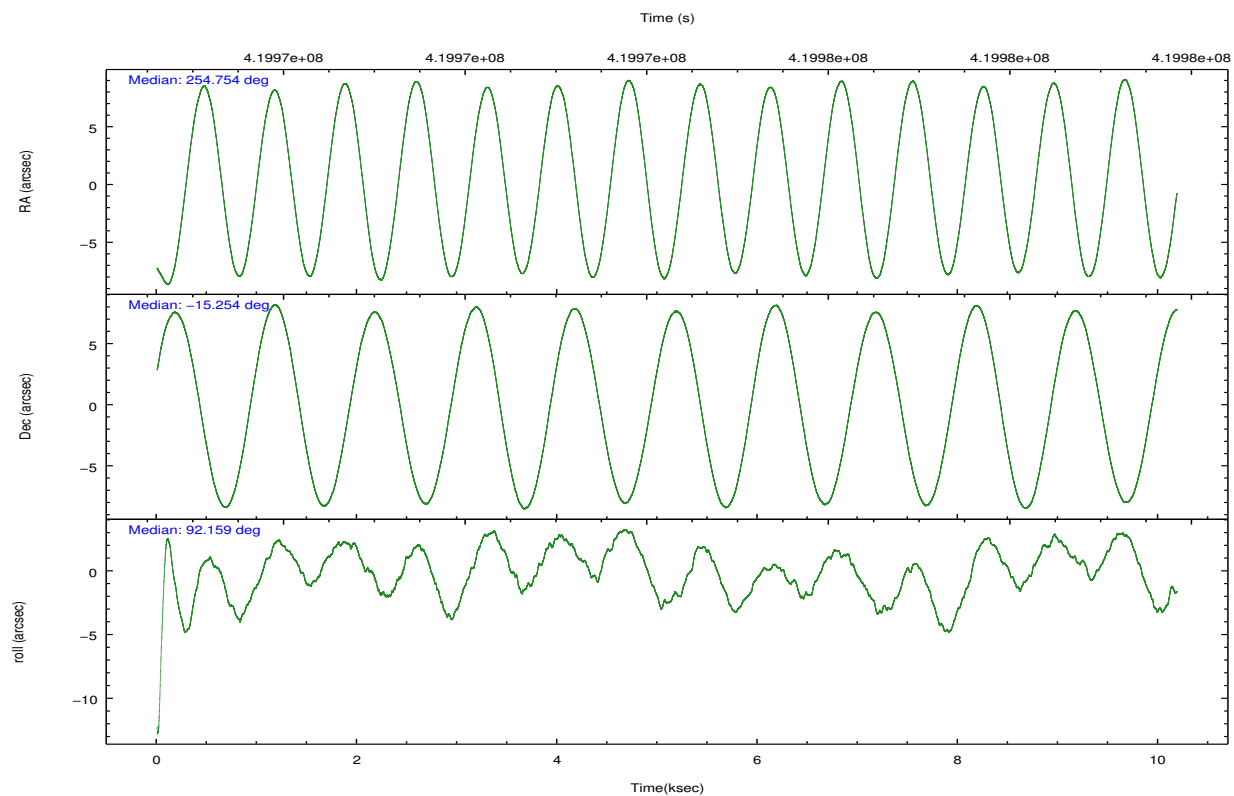


## 2.2 Compared Parameters

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	254.769616	254.7541365451262	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-15.276891	-15.2539159766377	Subarray start row	449	449
[deg] Pointing Roll	92.010322	92.16285278455385	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)	419969313.184000	419968751.83945			
Observation start date	2011-04-23T18:07:27	2011-04-23T17:59:11			
[s] Observation end time (MET)	419979313.184000	419980409.16506			
Observation end date	2011-04-23T20:54:07	2011-04-23T21:13:29			
Read mode	TIMED	TIMED			

## 2.3 Aspect



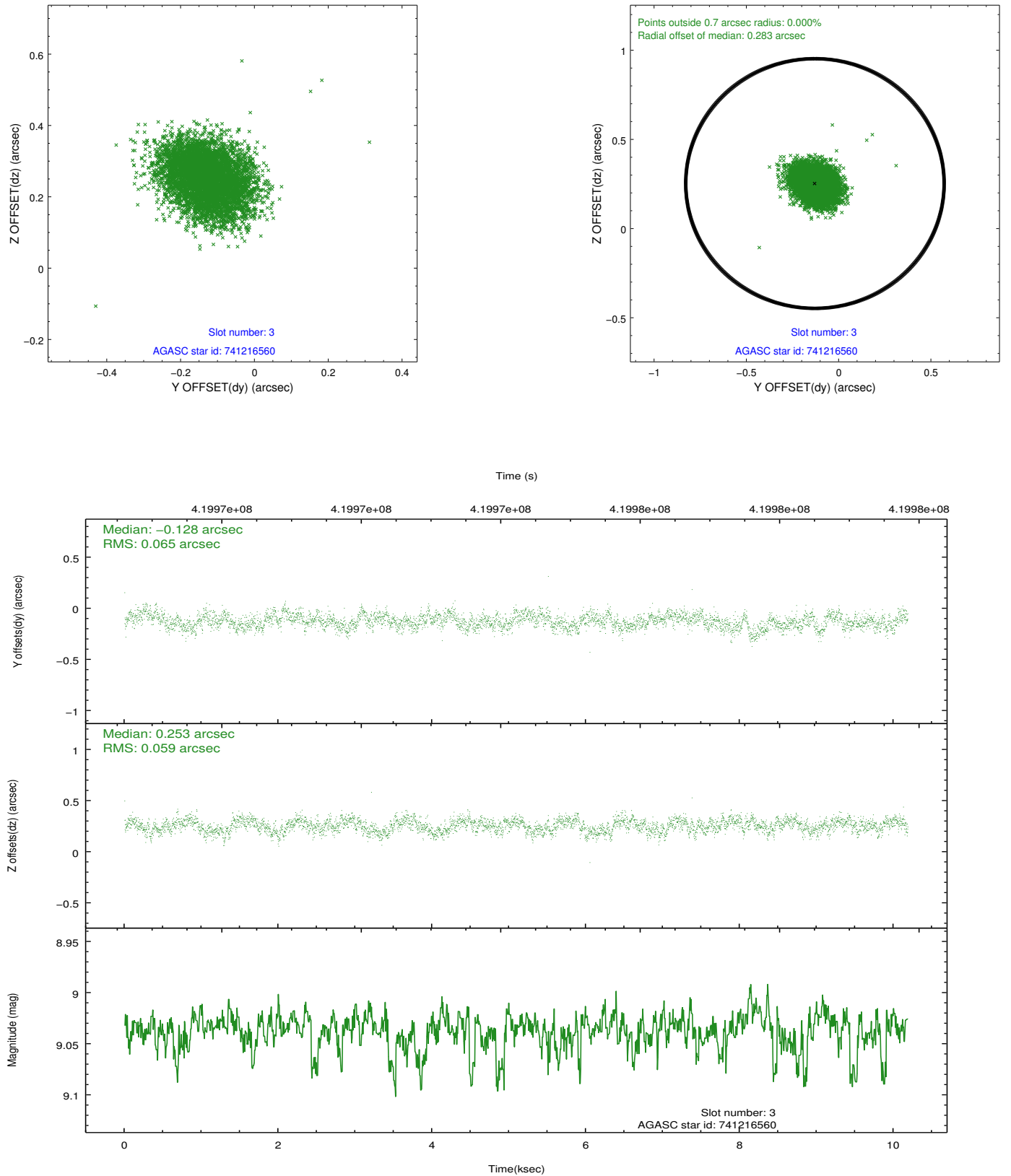


### Slot Statistics

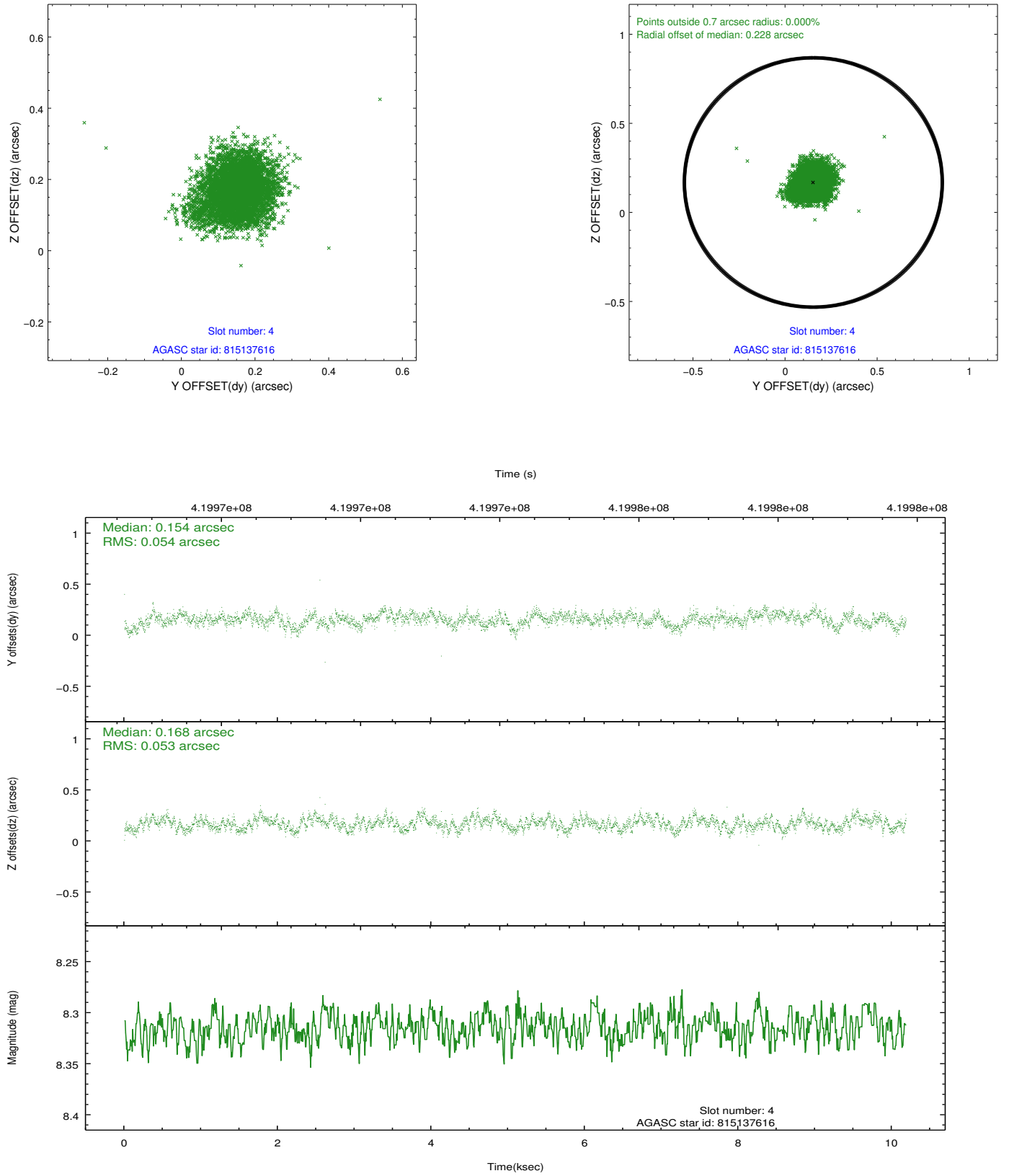
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.95	2484	-0.097	-0.059	0.006	0.011	0.000000	0.000000	-770.07	-1737.36
1	FID	ACIS-S-4	7.04	2484	0.155	0.033	0.006	0.010	0.000000	0.000000	2143.23	170.66
2	FID	ACIS-S-6	7.18	2484	-0.086	0.034	0.006	0.011	0.000000	0.000000	392.60	808.65
3	GUIDE	741216560	9.04	4965	-0.128	0.253	0.094	0.147	254.839054	-14.734715	1942.23	-309.90
4	GUIDE	815137616	8.32	4969	0.154	0.168	0.080	0.131	254.741671	-15.811997	-1921.90	164.38
5	GUIDE	815138728	6.69	4969	-0.056	-0.543	0.056	0.086	254.111345	-15.485495	-674.49	2308.17
6	GUIDE	815140808	8.47	4965	-0.092	-0.035	0.086	0.138	254.749682	-15.027918	897.36	37.11
7	GUIDE	815143040	9.09	4961	0.124	0.161	0.087	0.143	254.348135	-15.924918	-2281.55	1540.11

## 2.4 Star Slots

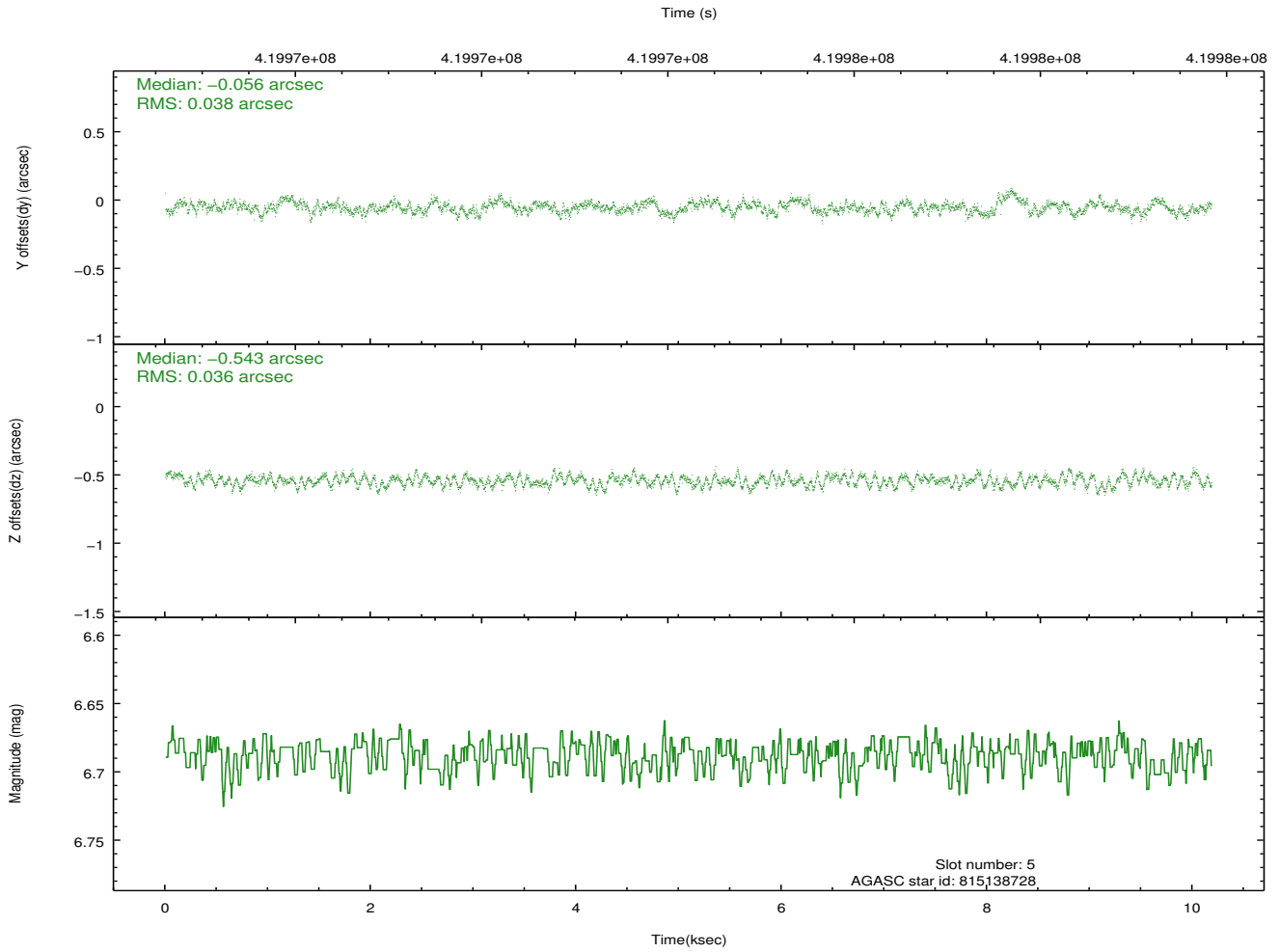
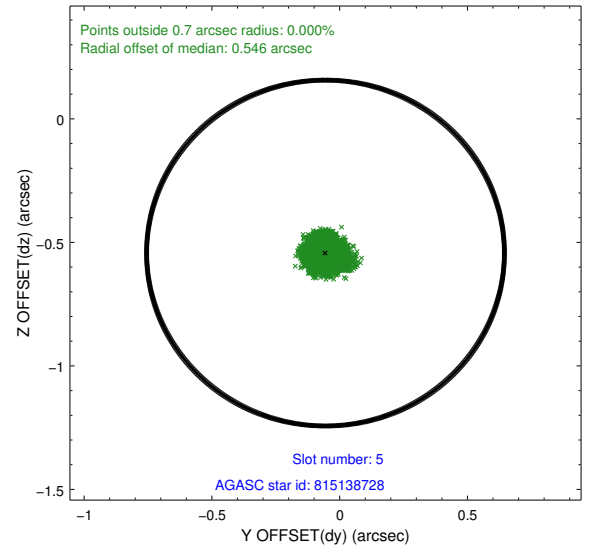
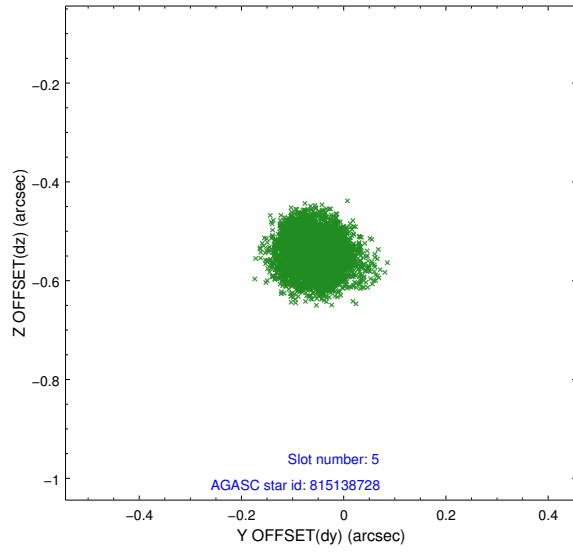
### 2.4.1 Slot 3



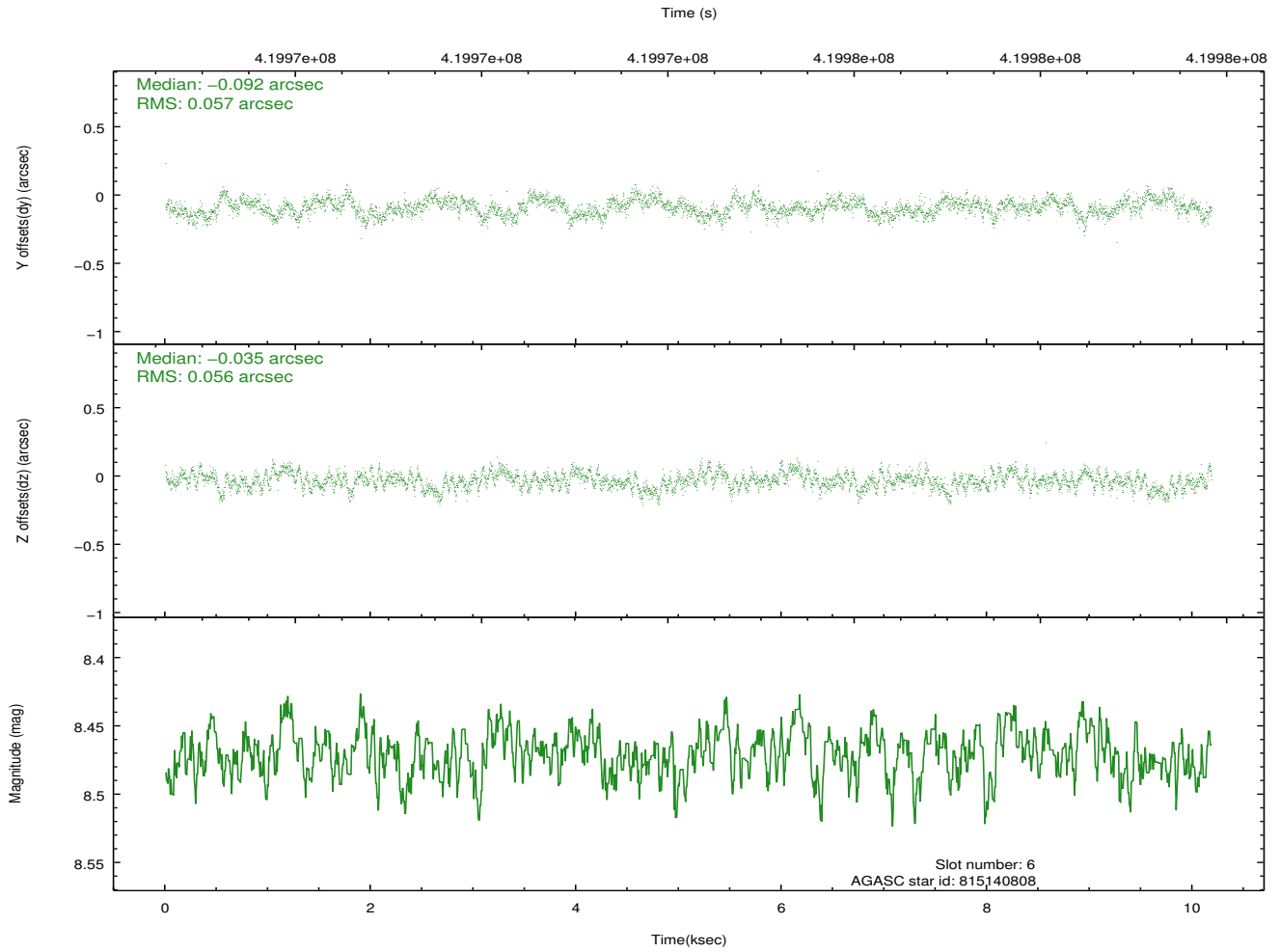
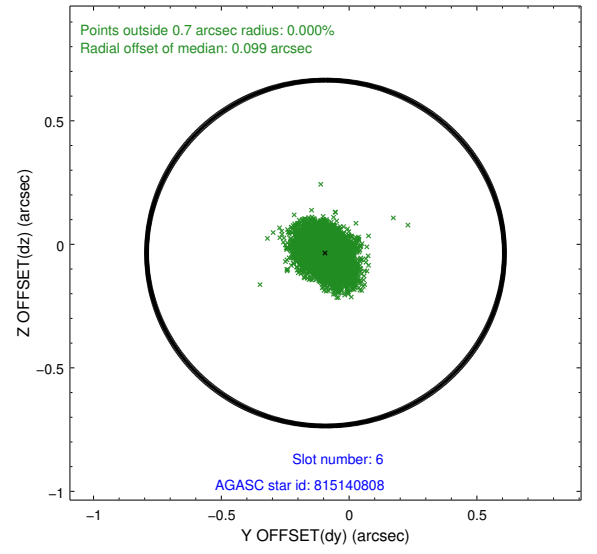
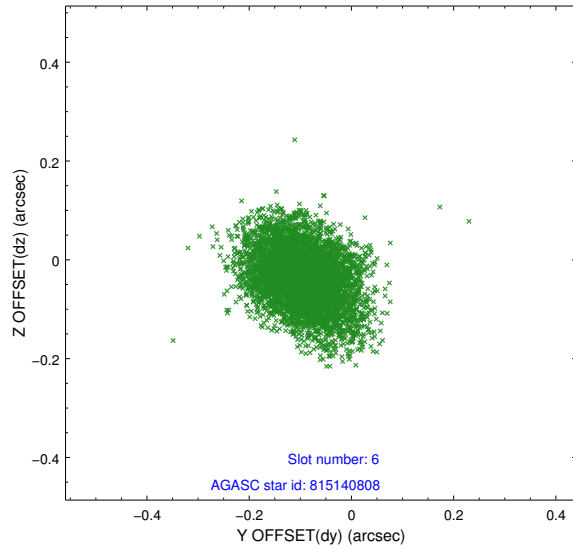
## 2.4.2 Slot 4



### 2.4.3 Slot 5

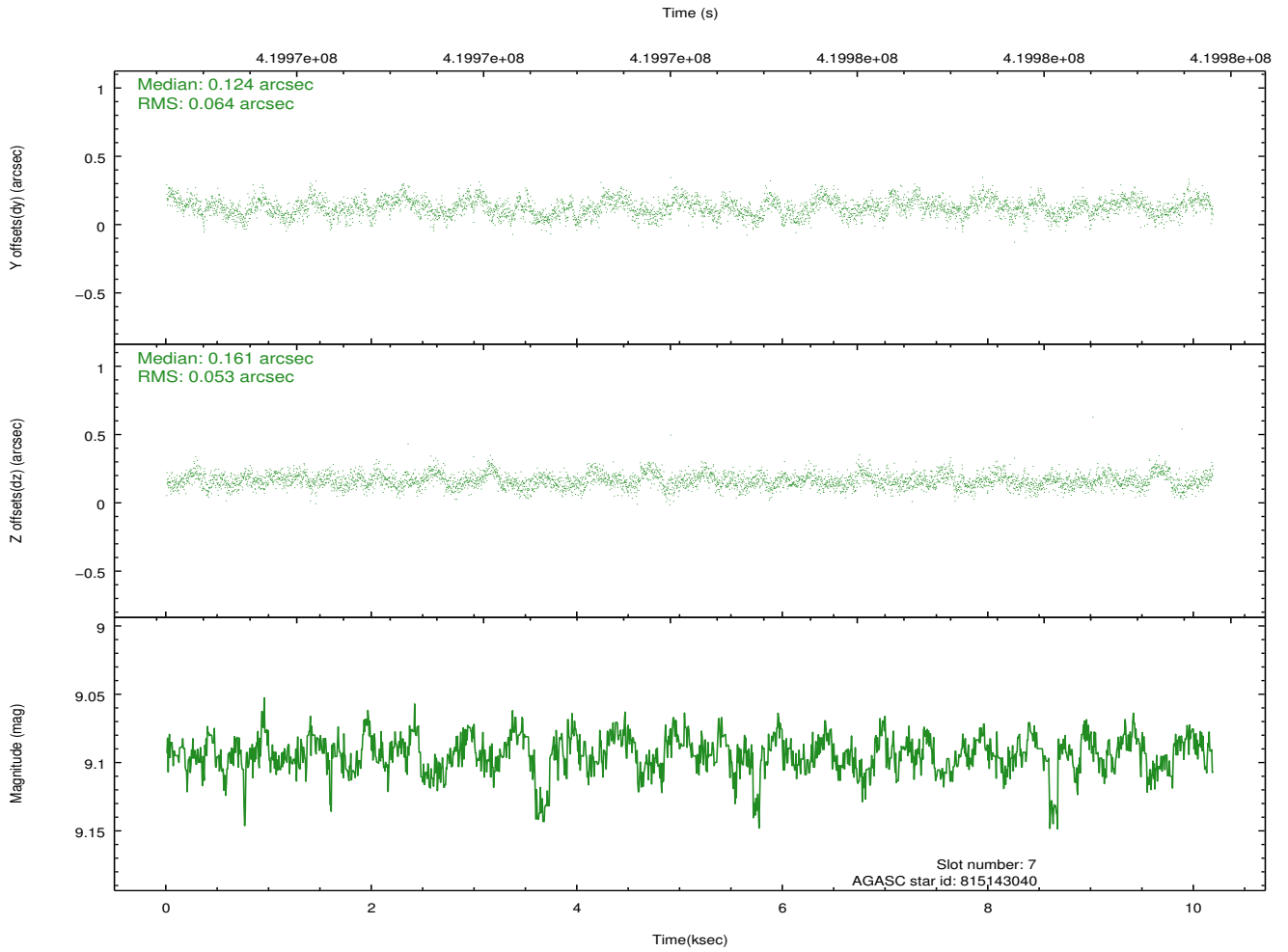
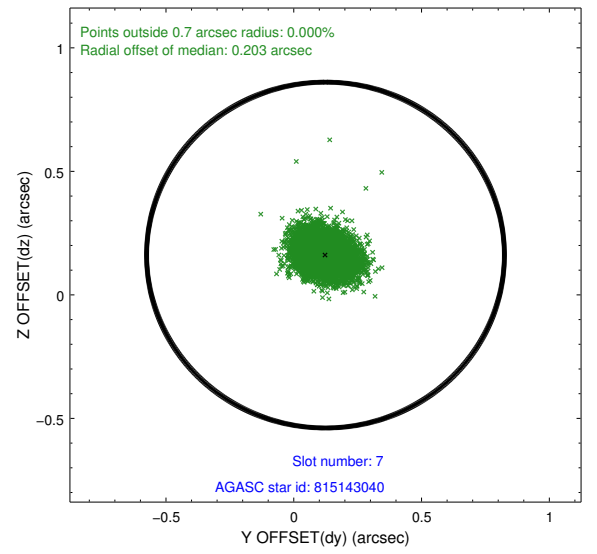
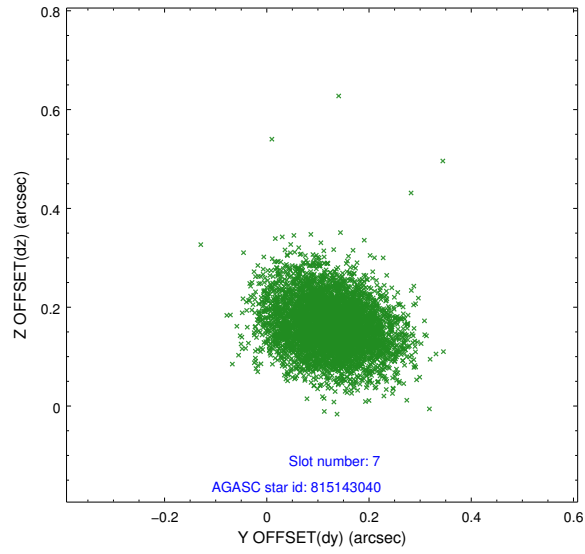


## 2.4.4 Slot 6



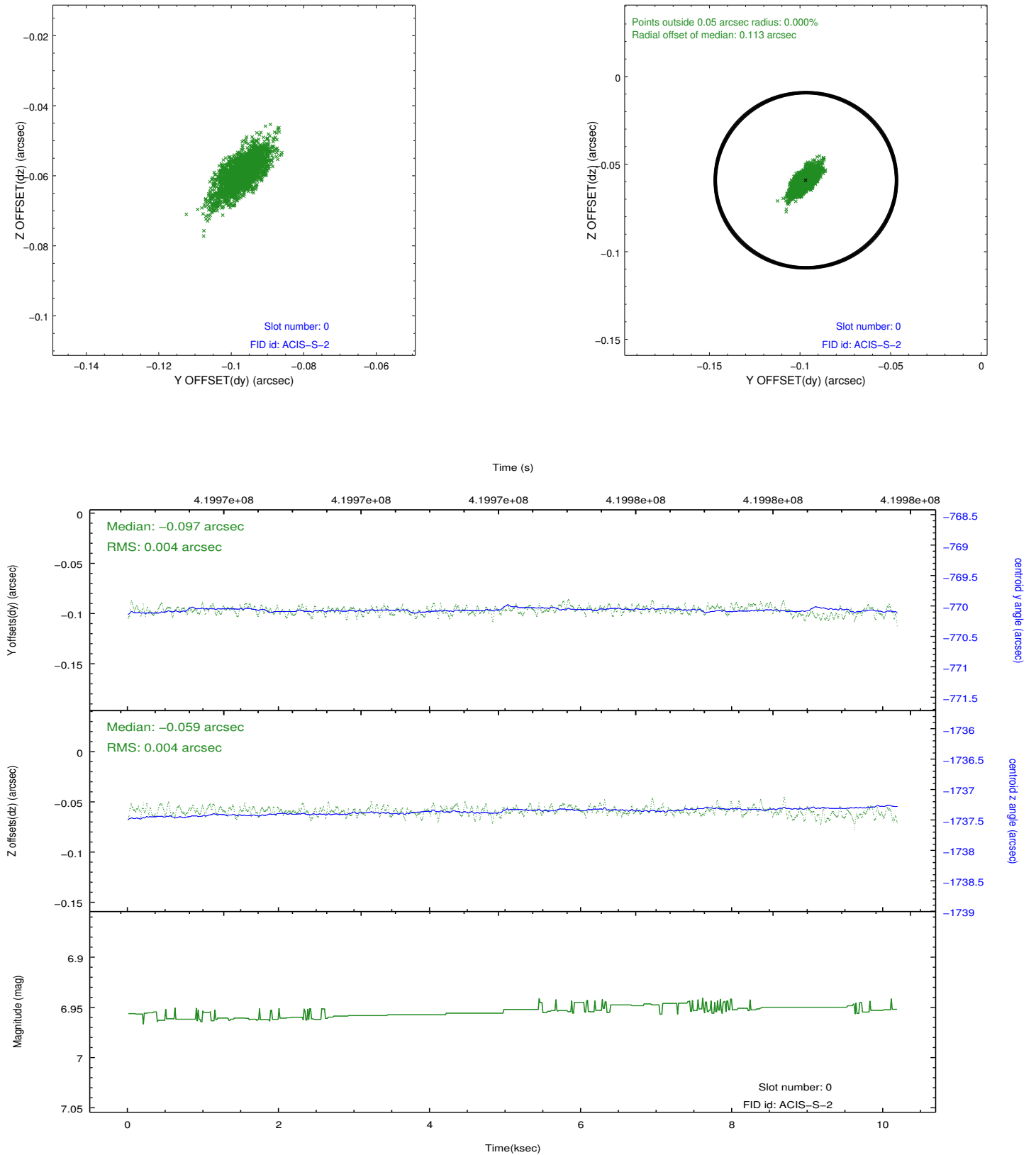


## 2.4.5 Slot 7

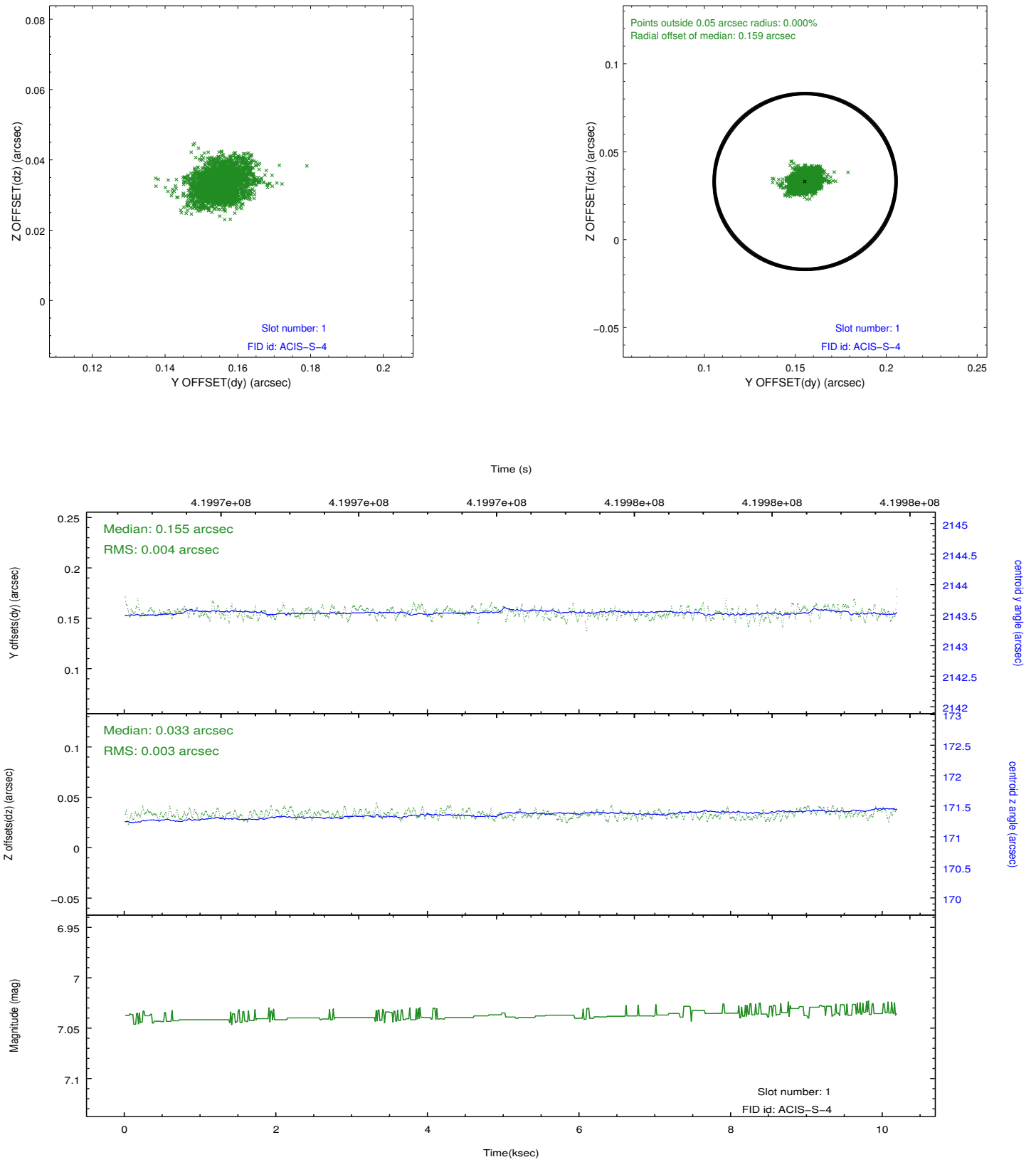


## 2.5 FID Slots

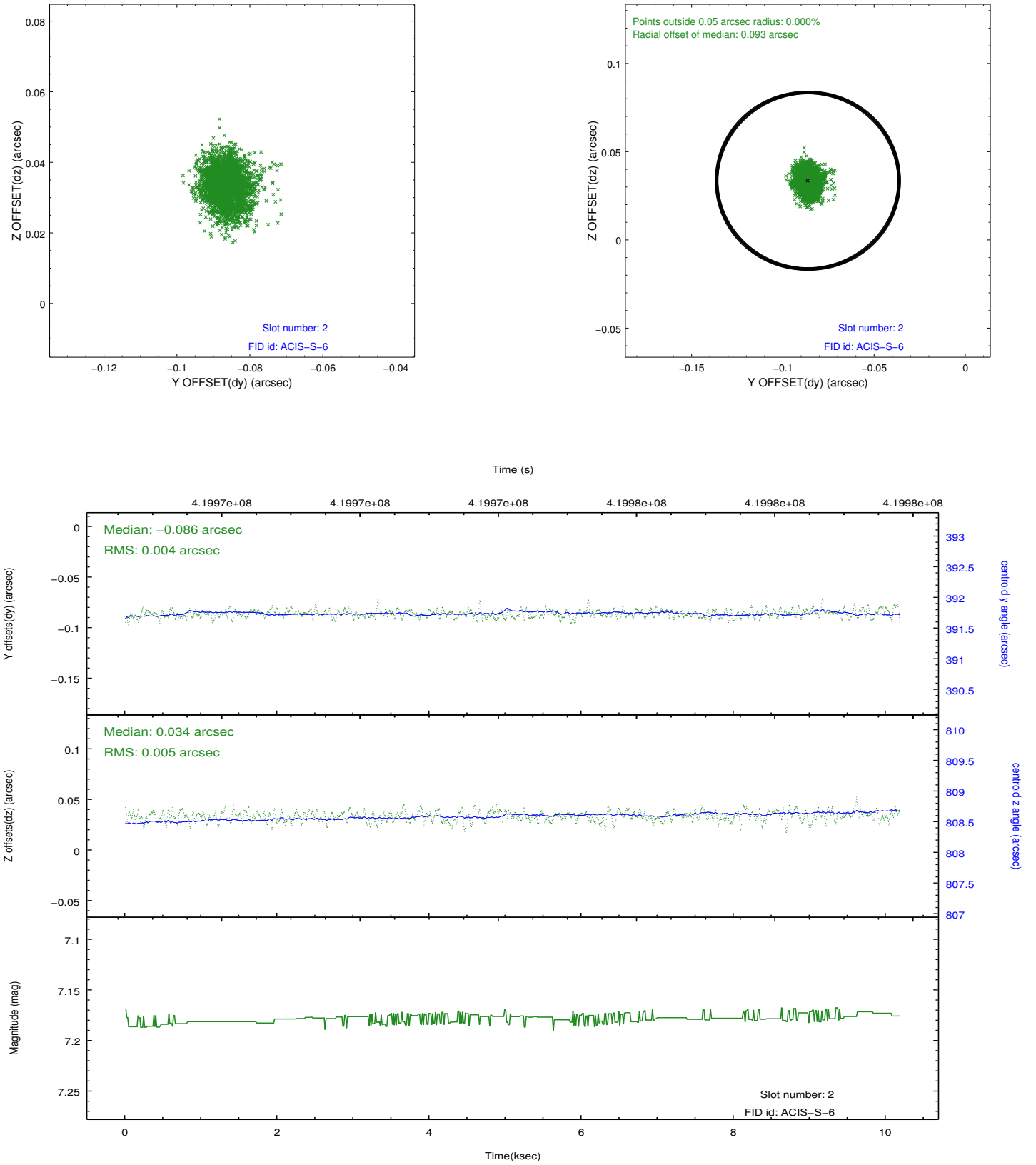
### 2.5.1 Slot 0



## 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)	2012.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.009999403358

## 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.

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Joint Proposal: NRAO. Monitor constraint met, follows obs12438 by 8 days.