

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12488 - L2 Version 2  
Chandra X-Ray Center

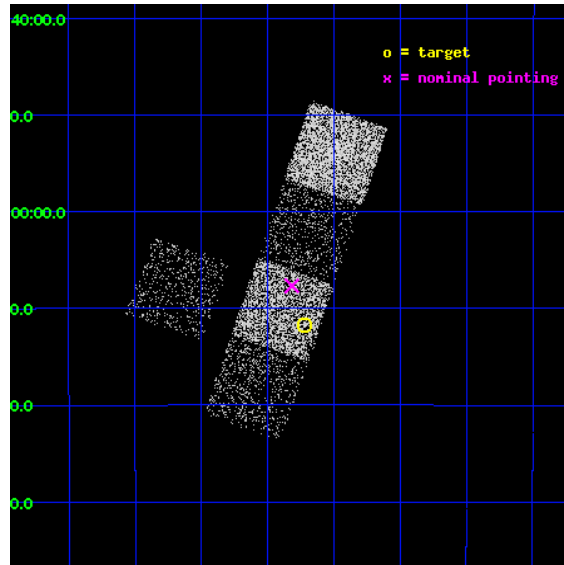
L2 Processing Date : Feb 9 2012

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# 1 Front

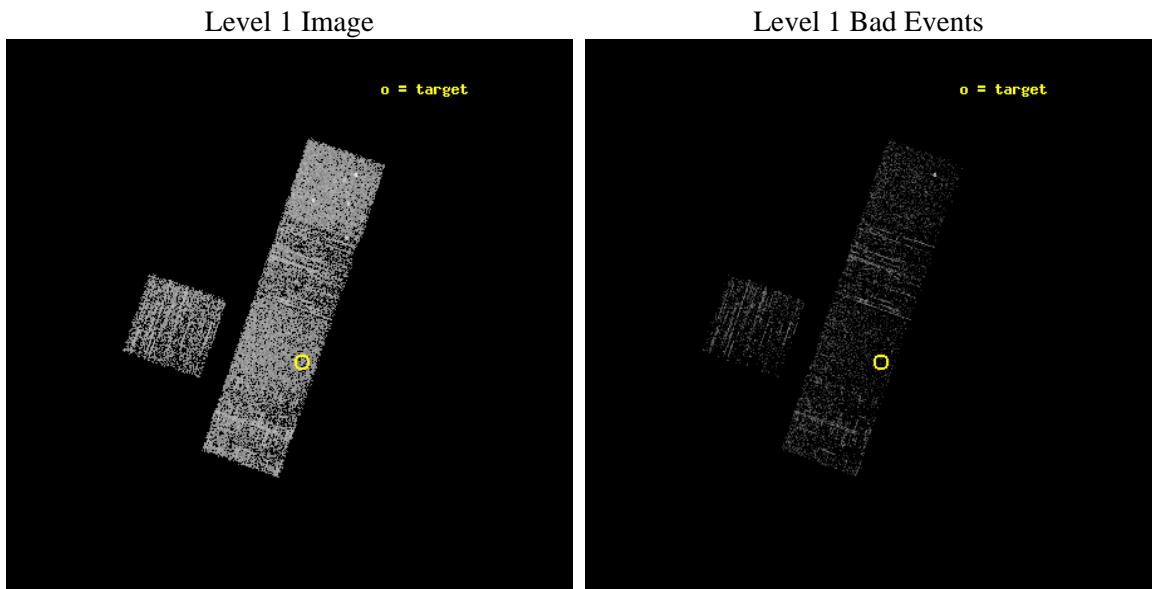
seq_num	401229	Sequence number
obs_id	12488	Observation id
title	The Nearest and Brightest Quiescent Low Mass X-ray Binaries	Propos
observer	Prof. Robert Rutledge	Principal investigator
object	1RXS J212743.5-221145	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	321.93125	Observer's specified target RA [deg]
dec_targ	-22.195833	Observer's specified target Dec [deg]
ra_nom	321.95429825841	Nominal RA [deg]
dec_nom	-22.128018659591	Nominal Dec [deg]
roll_nom	109.07936296125	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1041.6000080109	Sum of GTIs [s]
livetime	1027.9907370914	Livetime [s]
ontime3	1041.6000080109	Sum of GTIs [s]
ontime5	1041.6000080109	Sum of GTIs [s]
ontime6	1041.6000080109	Sum of GTIs [s]
ontime7	1041.6000080109	Sum of GTIs [s]
ontime8	1041.6000080109	Sum of GTIs [s]
l2events	10734	Number of level 2 events



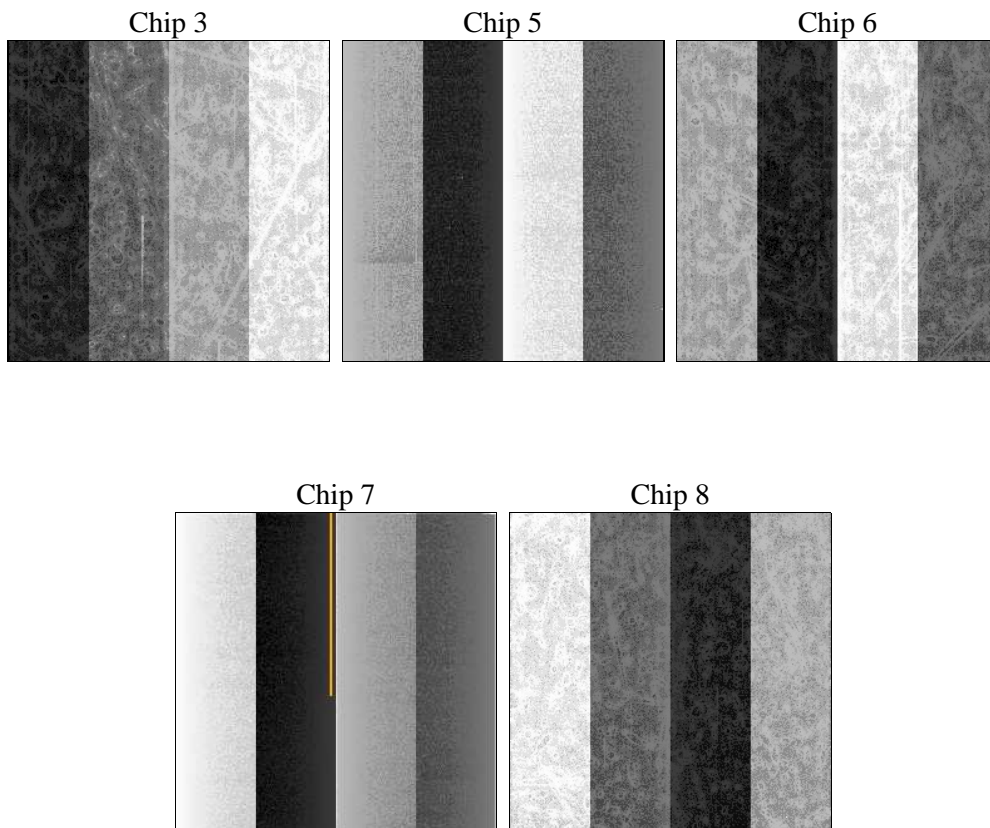
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	1041.6000080109	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime3	1041.6000080109	Sum of GTIs [s]
date	2012-02-09T14:09:11	Date and time of file creation	ontime5	1041.6000080109	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	1041.6000080109	Sum of GTIs [s]
			ontime7	1041.6000080109	Sum of GTIs [s]
			ontime8	1041.6000080109	Sum of GTIs [s]
			l1events	40897	Number of level 1 events

### 2.1.4 Events

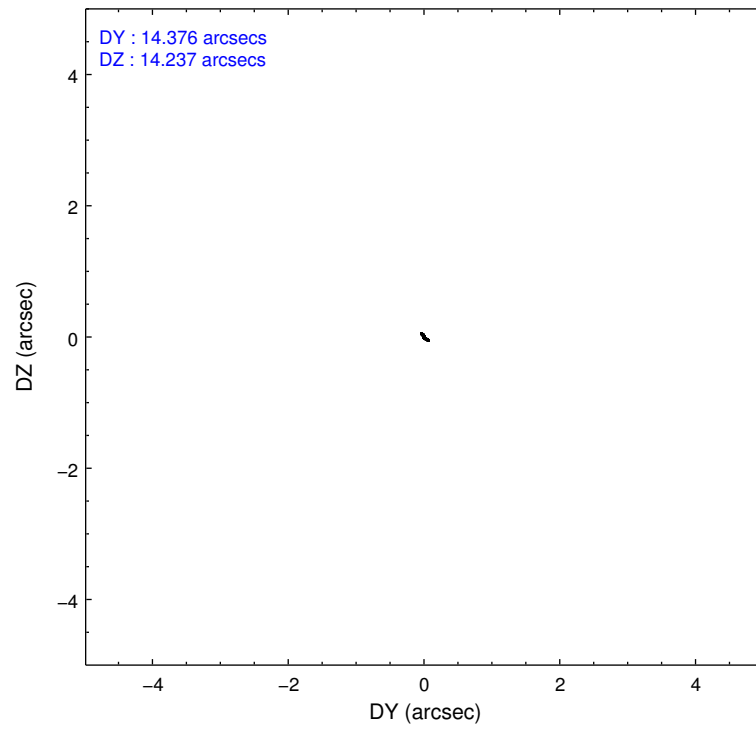
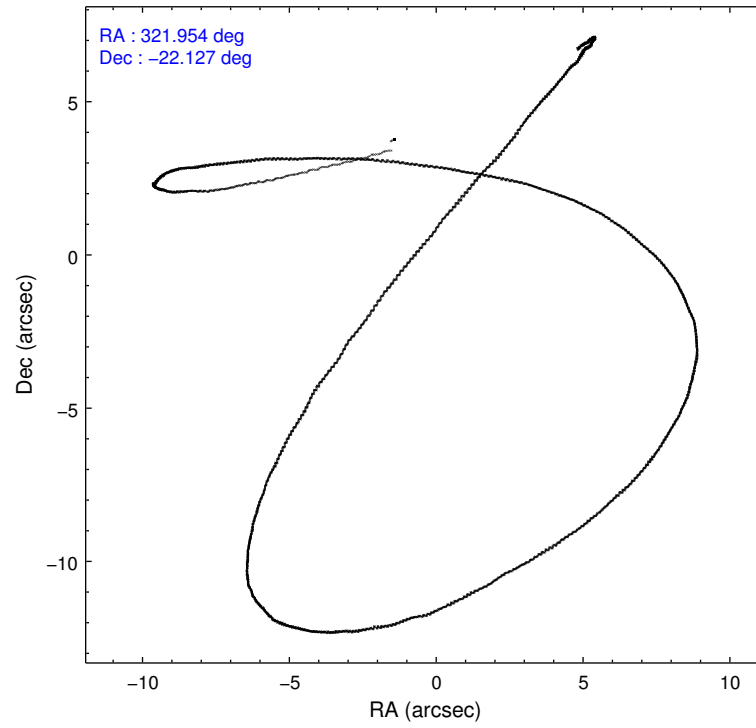
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	6469	11116	7090	8187	8035
rejected events	5820	5239	6333	4523	5917
rejected %	89%	47%	89%	55%	73%

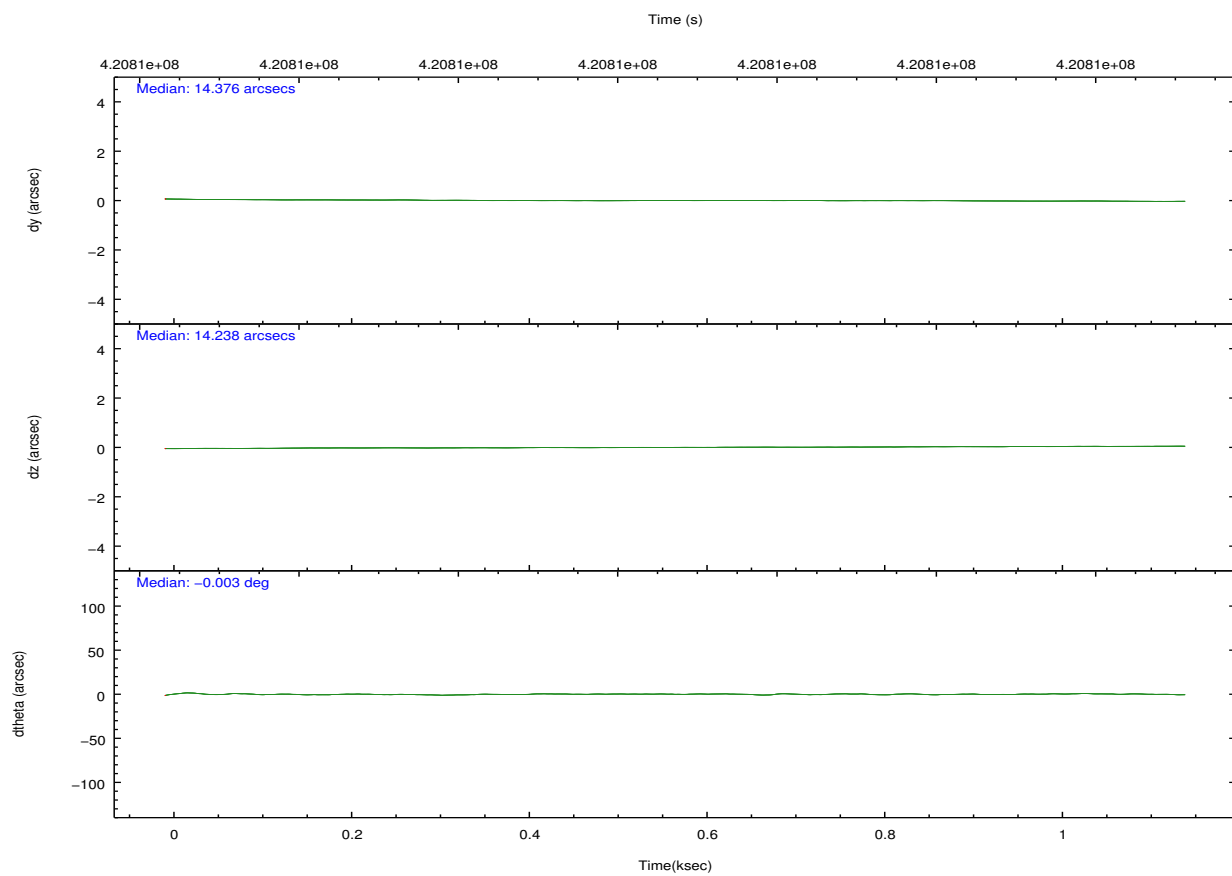
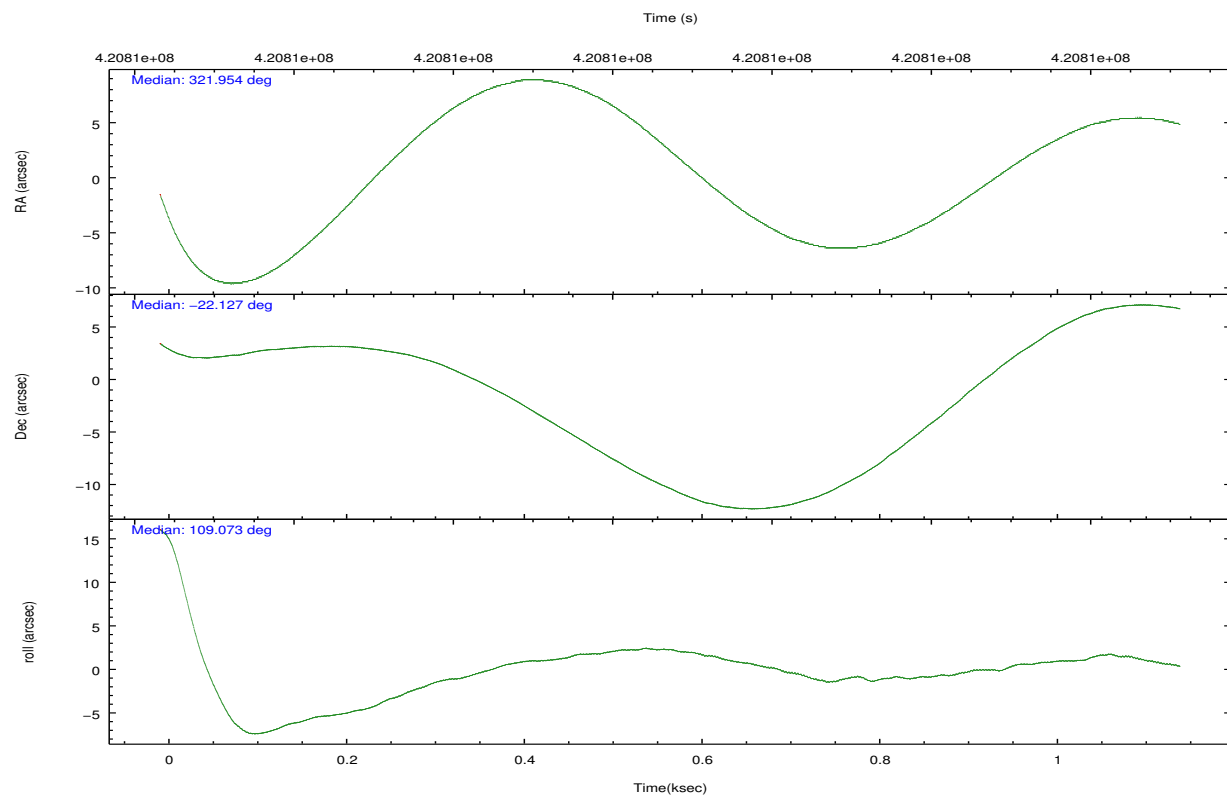
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	206	925	270	333	587
	3%	8%	3%	4%	7%
grade 1 events	5	34	7	10	7
	0%	0%	0%	0%	0%
grade 2 events	156	1794	175	752	505
	2%	16%	2%	9%	6%
grade 3 events	67	223	75	313	207
	1%	2%	1%	3%	2%
grade 4 events	74	225	69	318	199
	1%	2%	0%	3%	2%
grade 5 events	291	791	316	865	481
	4%	7%	4%	10%	5%
grade 6 events	150	2727	171	1954	634
	2%	24%	2%	23%	7%
grade 7 events	5520	4397	6007	3642	5415
	85%	39%	84%	44%	67%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	321.976891	321.9542982584102	CCD I2 on	N	N
[deg] Pointing Dec	-22.145927	-22.12801865959071	CCD I3 on	O1	Y
[deg] Pointing Roll	108.931029	109.079362961246	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	420812234.184000	420811219.3707	CCD S5 on	N	N
Observation start date	2011-05-03T12:16:08	2011-05-03T12:00:19	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	420813234.184000	420814461.44587	On-chip summing requested	N	N
Observation end date	2011-05-03T12:32:48	2011-05-03T12:54:21	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





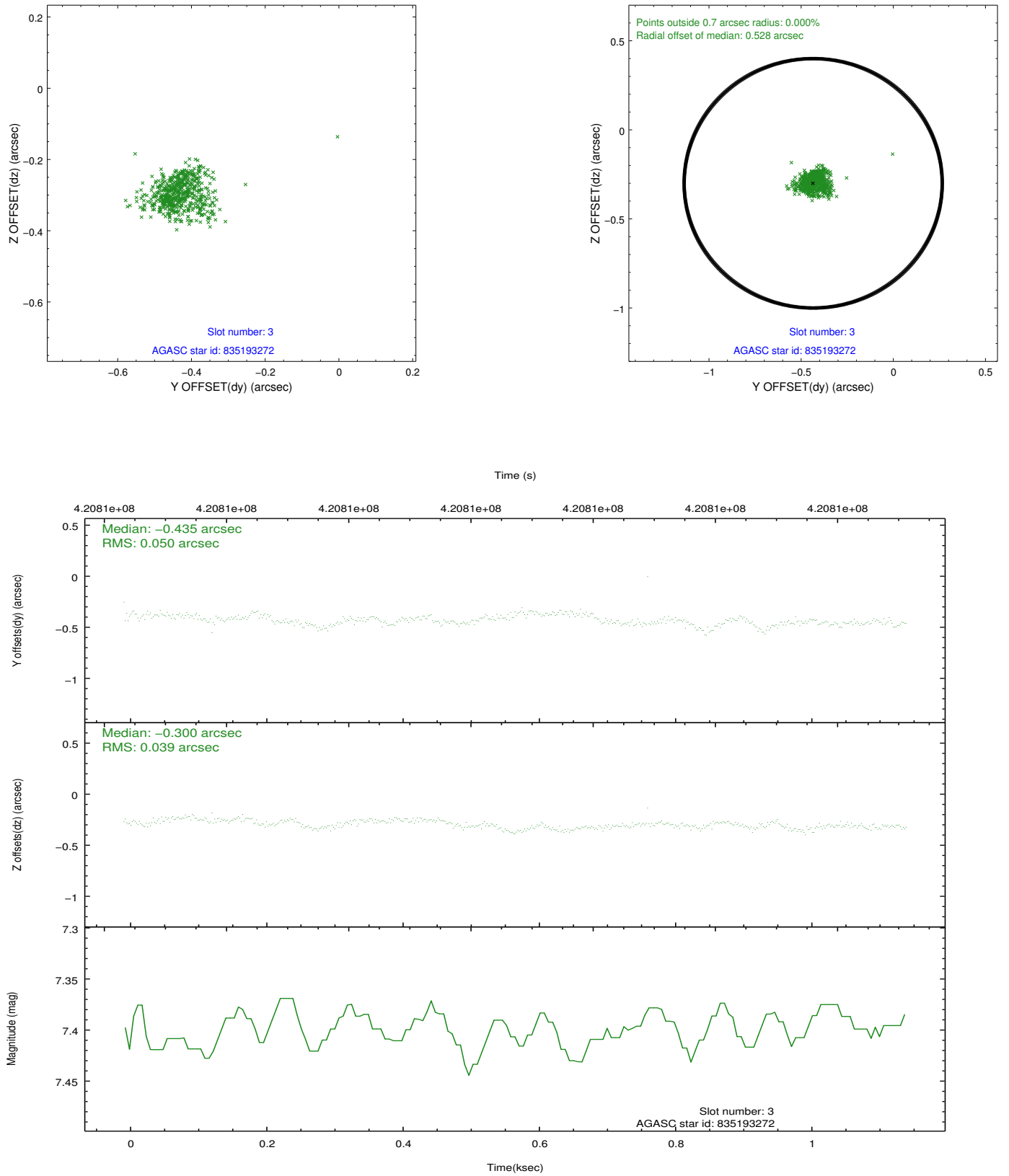
### Slot Statistics

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	281	-0.134	-0.093	0.005	0.009	0.000000	0.000000	-767.50	-1735.68
1	FID	ACIS-S-4	7.06	281	0.137	0.071	0.007	0.010	0.000000	0.000000	2143.42	166.90
2	FID	ACIS-S-6	7.22	281	-0.030	0.029	0.006	0.011	0.000000	0.000000	402.06	810.88
3	GUIDE	835193272	7.40	561	-0.435	-0.300	0.065	0.104	321.559288	-21.830140	1524.99	952.20
4	GUIDE	835193944	9.29	560	-0.099	-0.409	0.111	0.194	321.534731	-22.469230	-624.13	1771.38
5	GUIDE	835328080	9.00	561	0.066	0.049	0.088	0.133	322.281129	-21.958452	306.13	-1175.55
6	GUIDE	909378472	9.32	561	0.238	0.035	0.126	0.187	322.200053	-22.656798	-1980.90	-106.32
7	GUIDE	835326640	9.65	560	0.228	0.610	0.161	0.251	322.823475	-22.351013	-1624.21	-2423.54

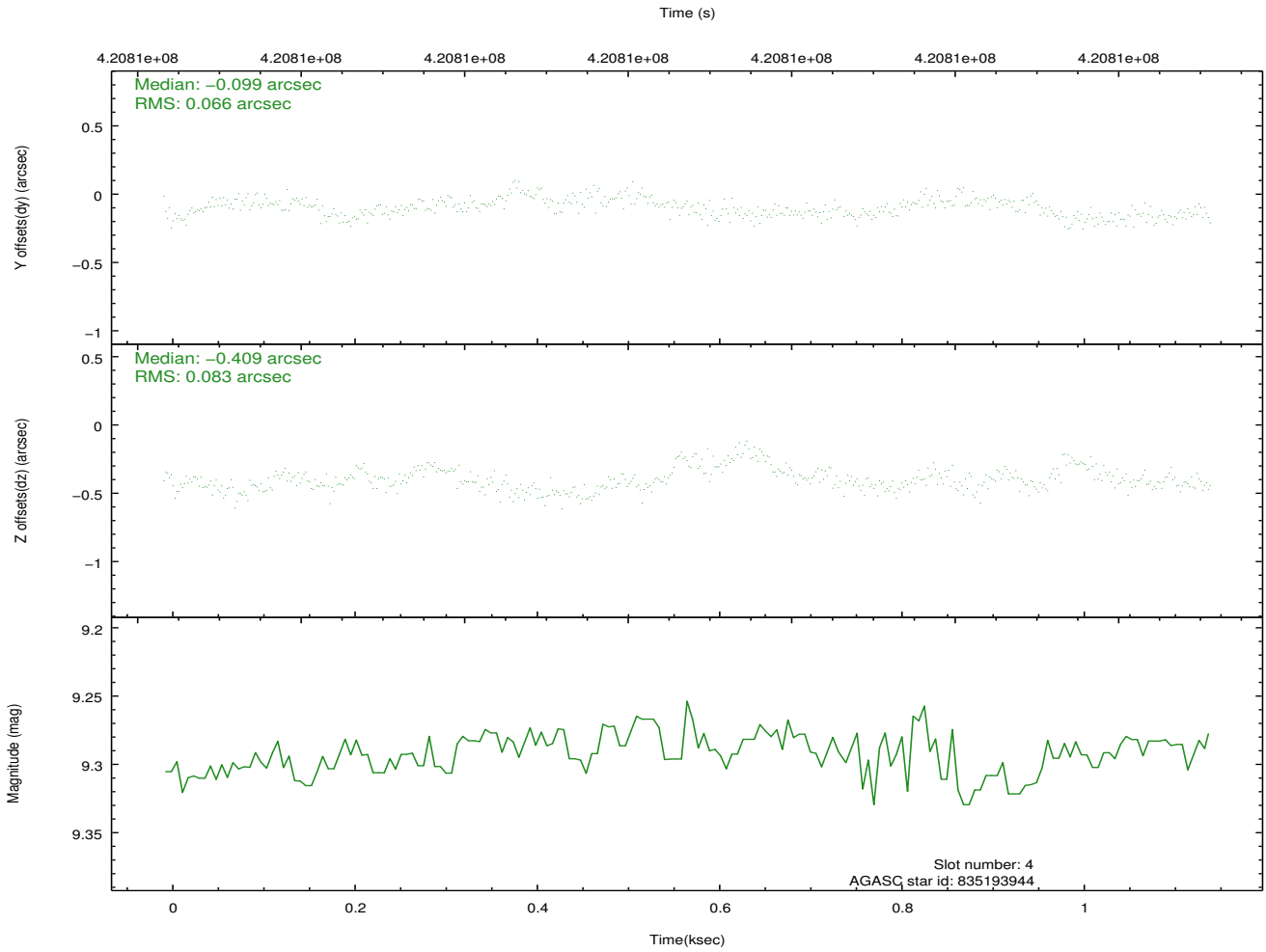
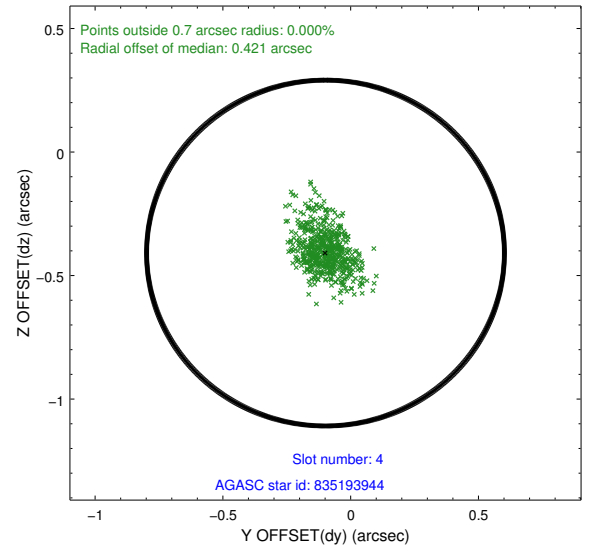
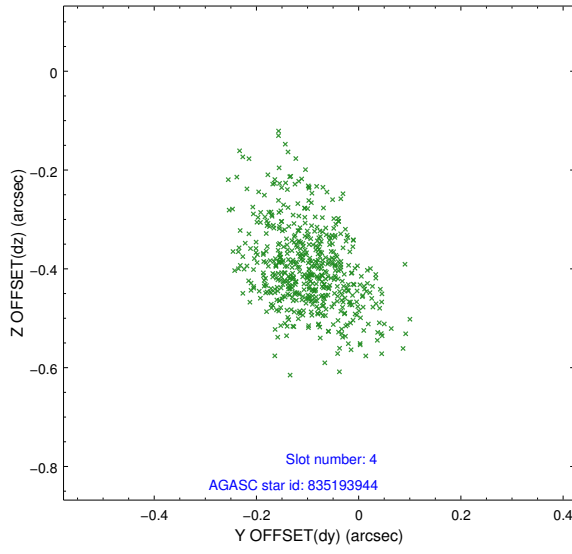


## 2.4 Star Slots

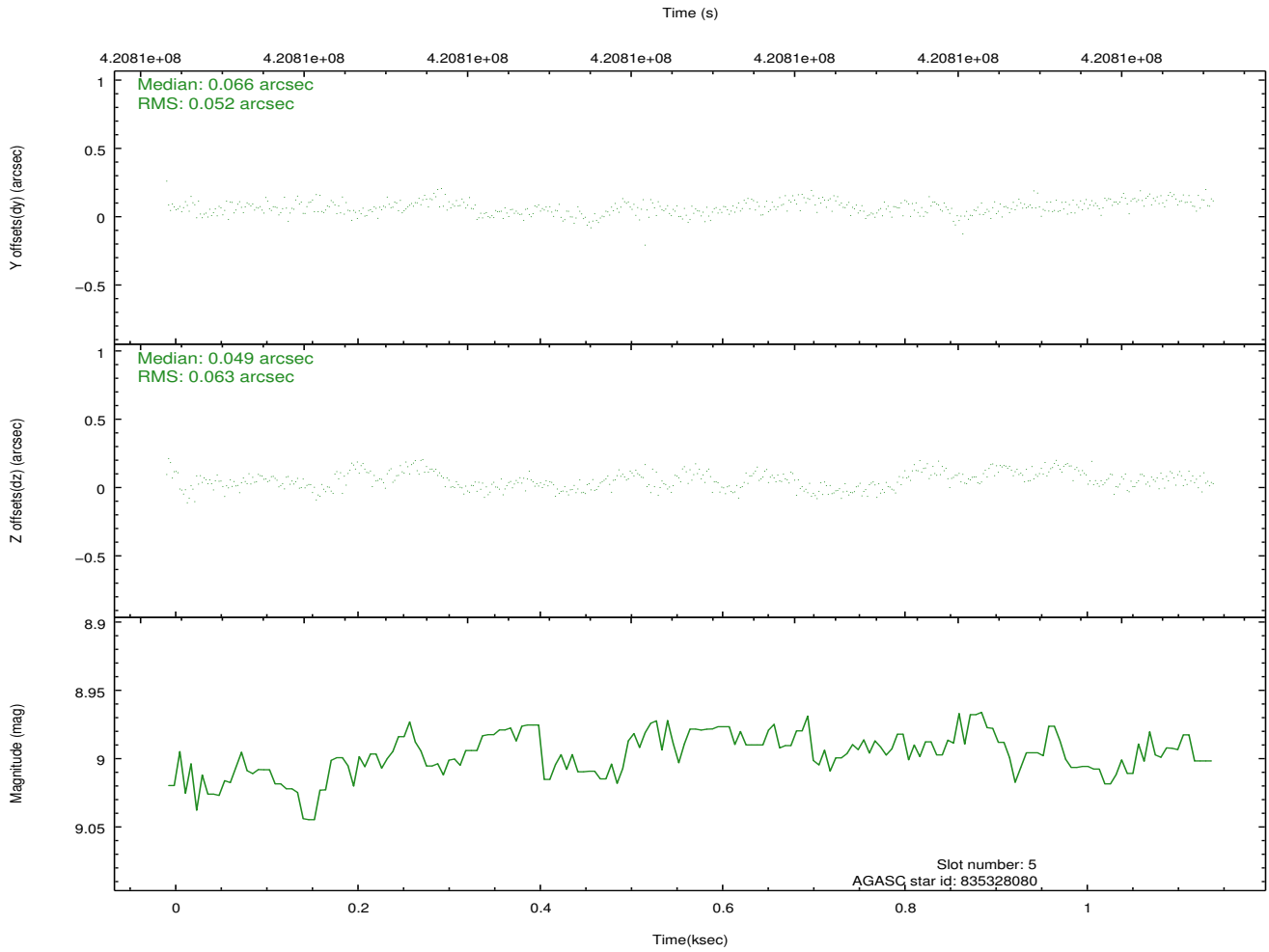
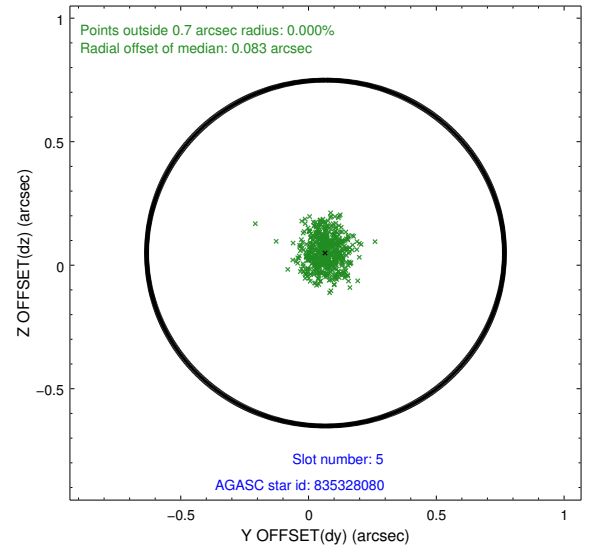
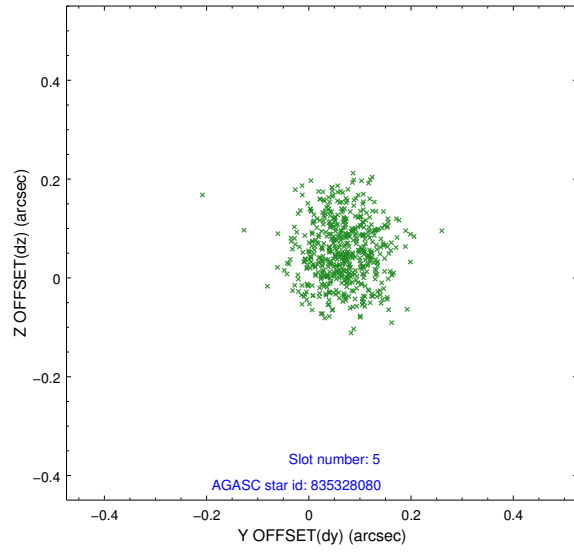
### 2.4.1 Slot 3



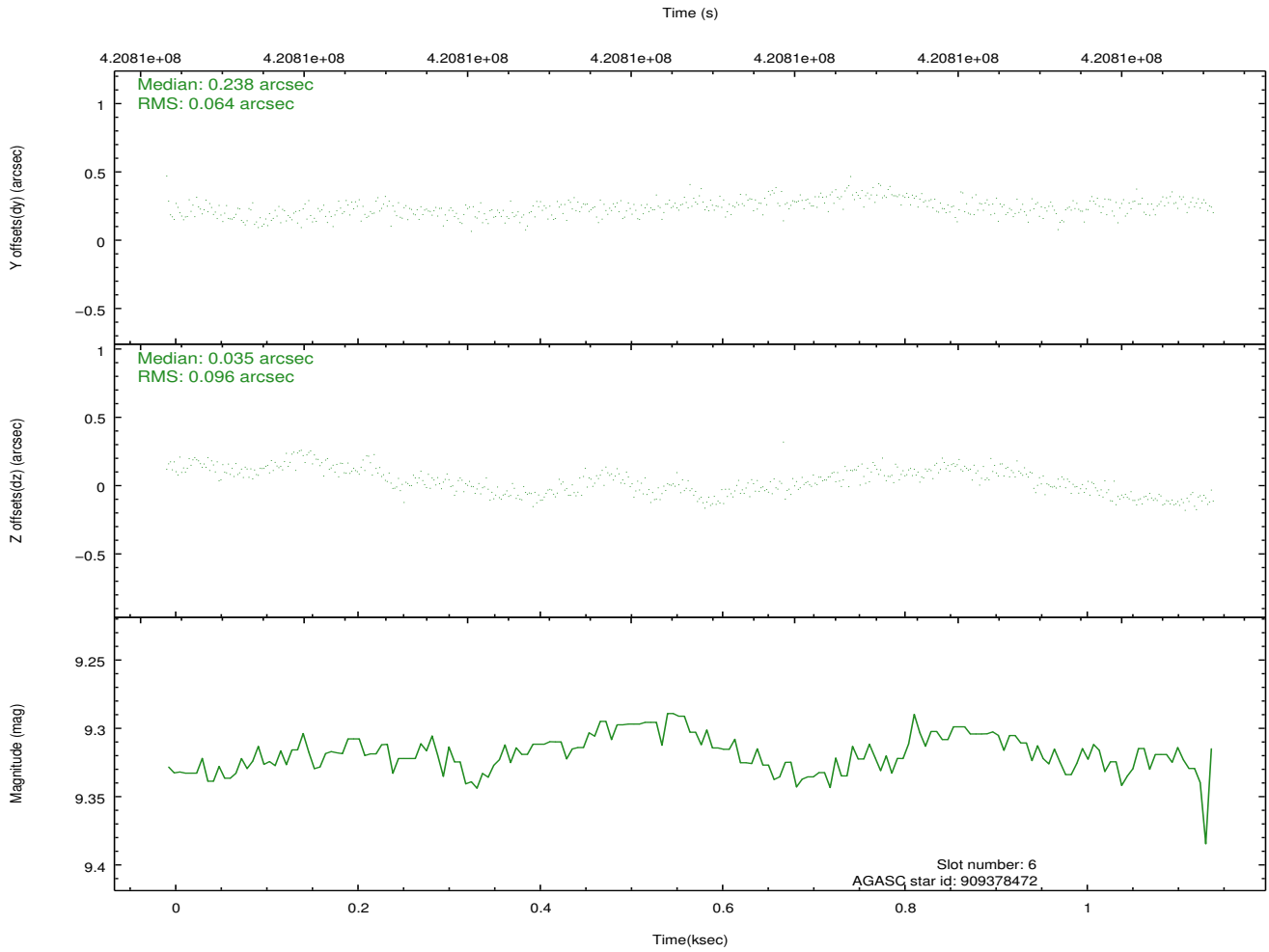
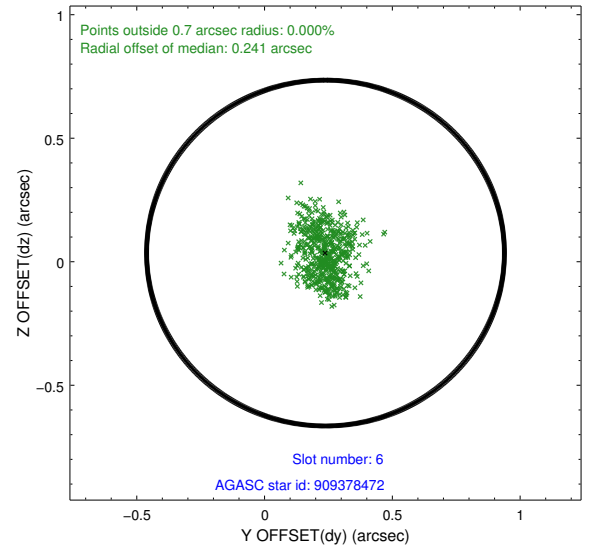
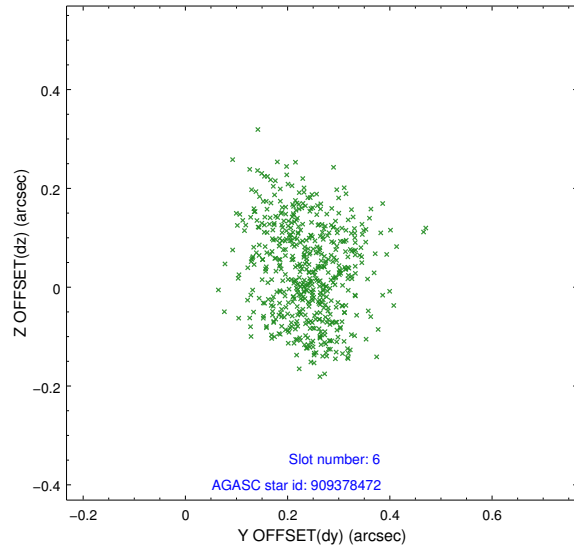
## 2.4.2 Slot 4



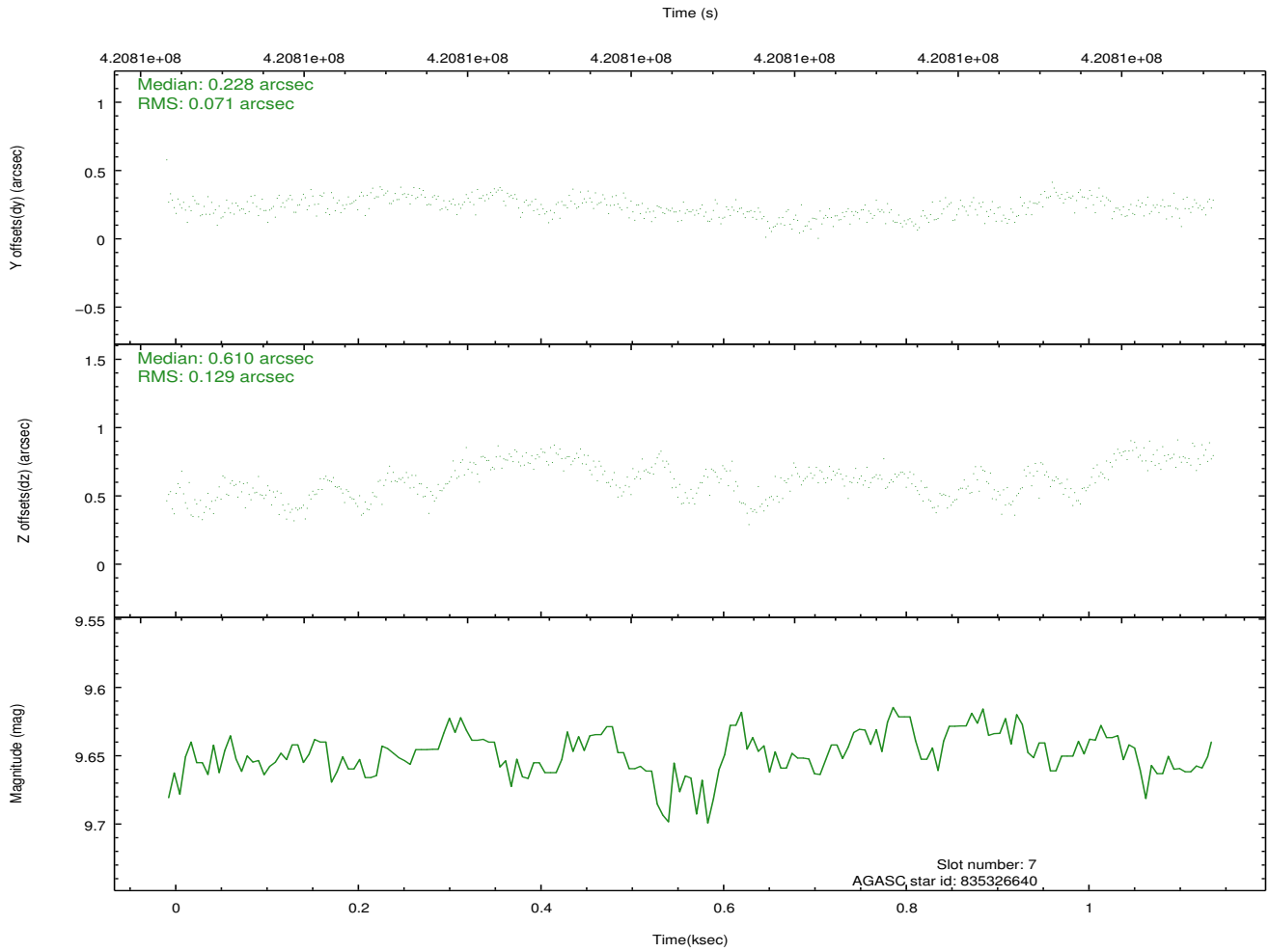
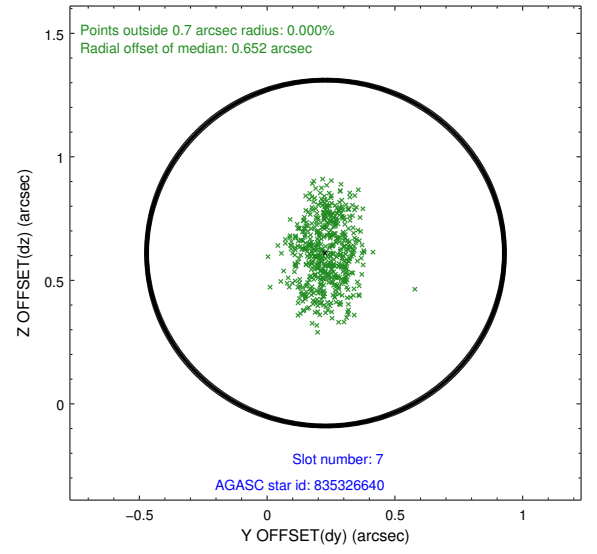
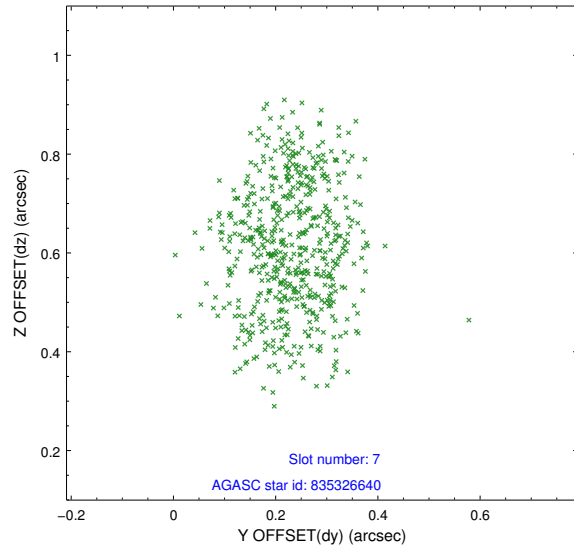
### 2.4.3 Slot 5



## 2.4.4 Slot 6

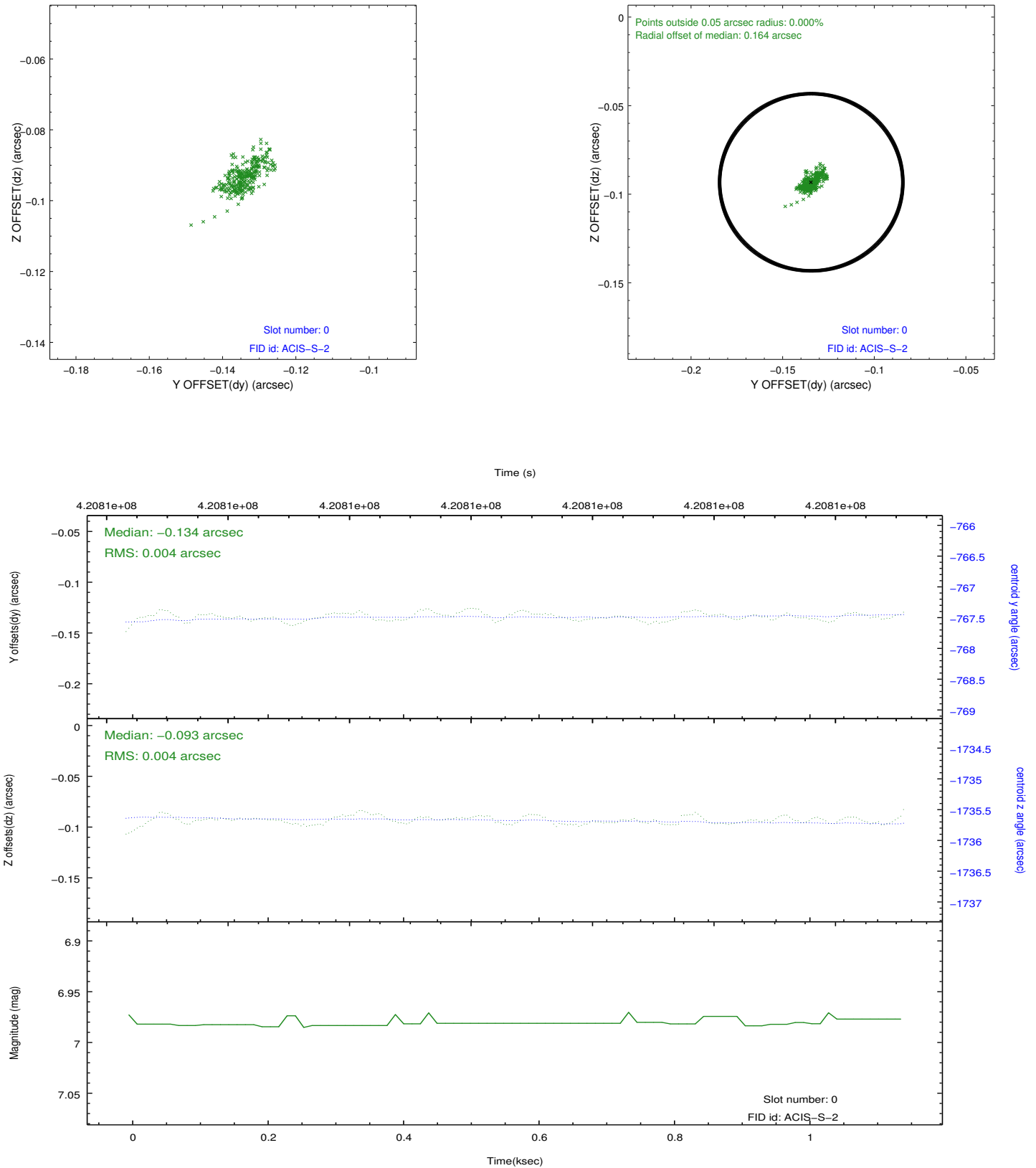


## 2.4.5 Slot 7

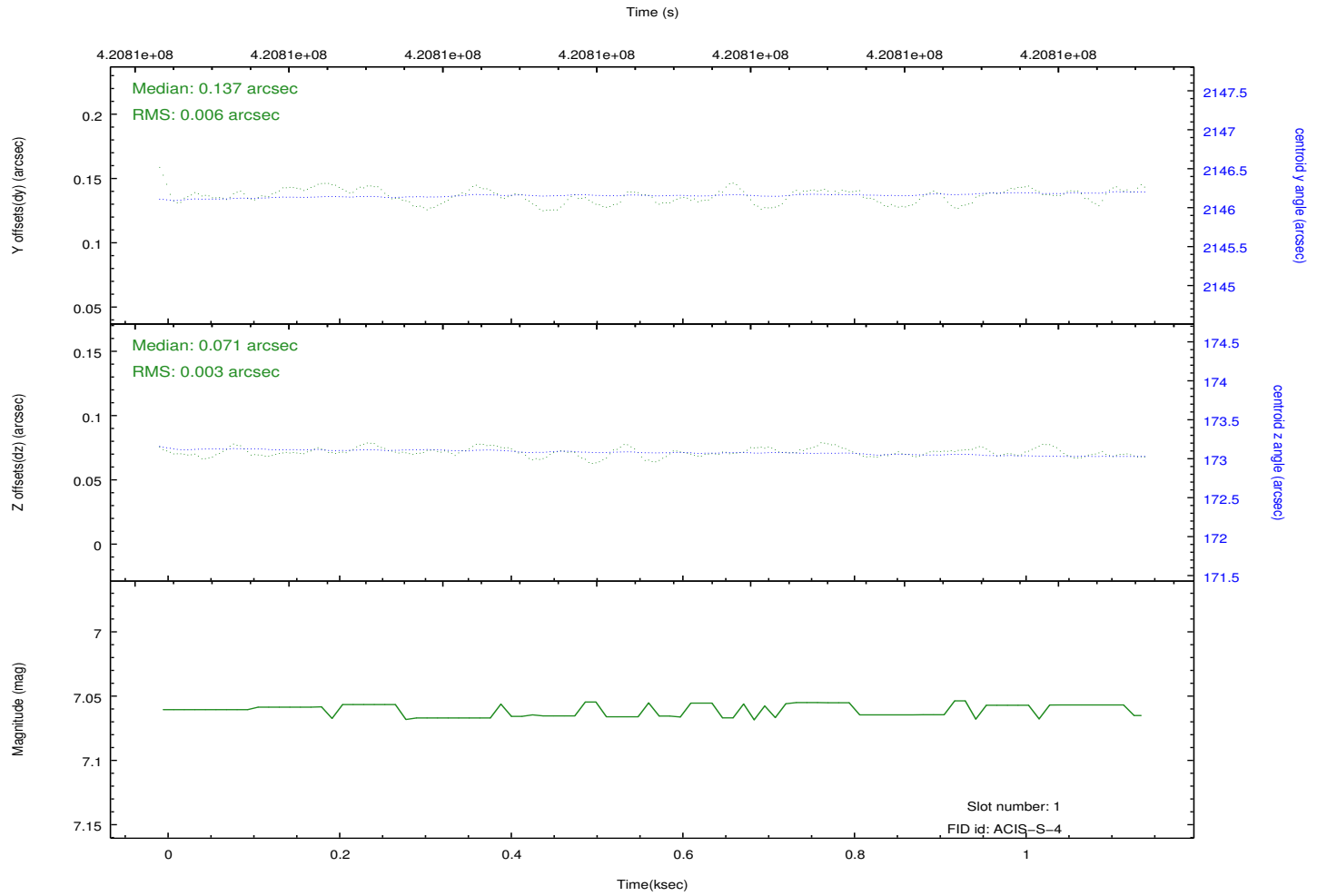
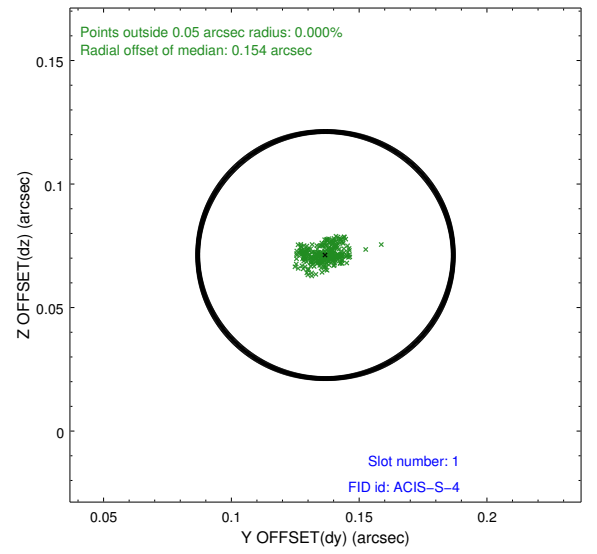
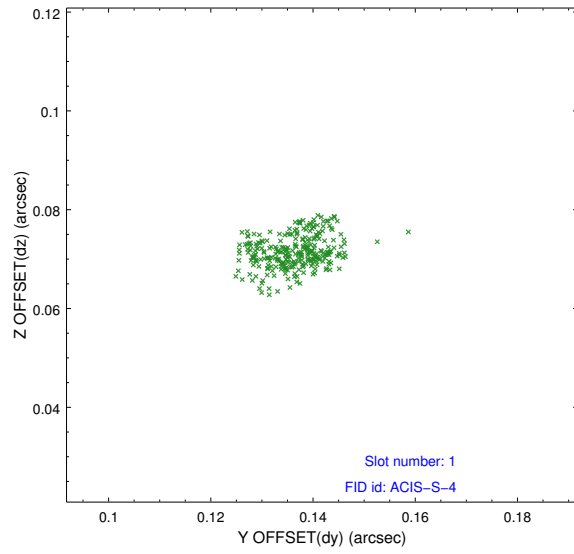


## 2.5 FID Slots

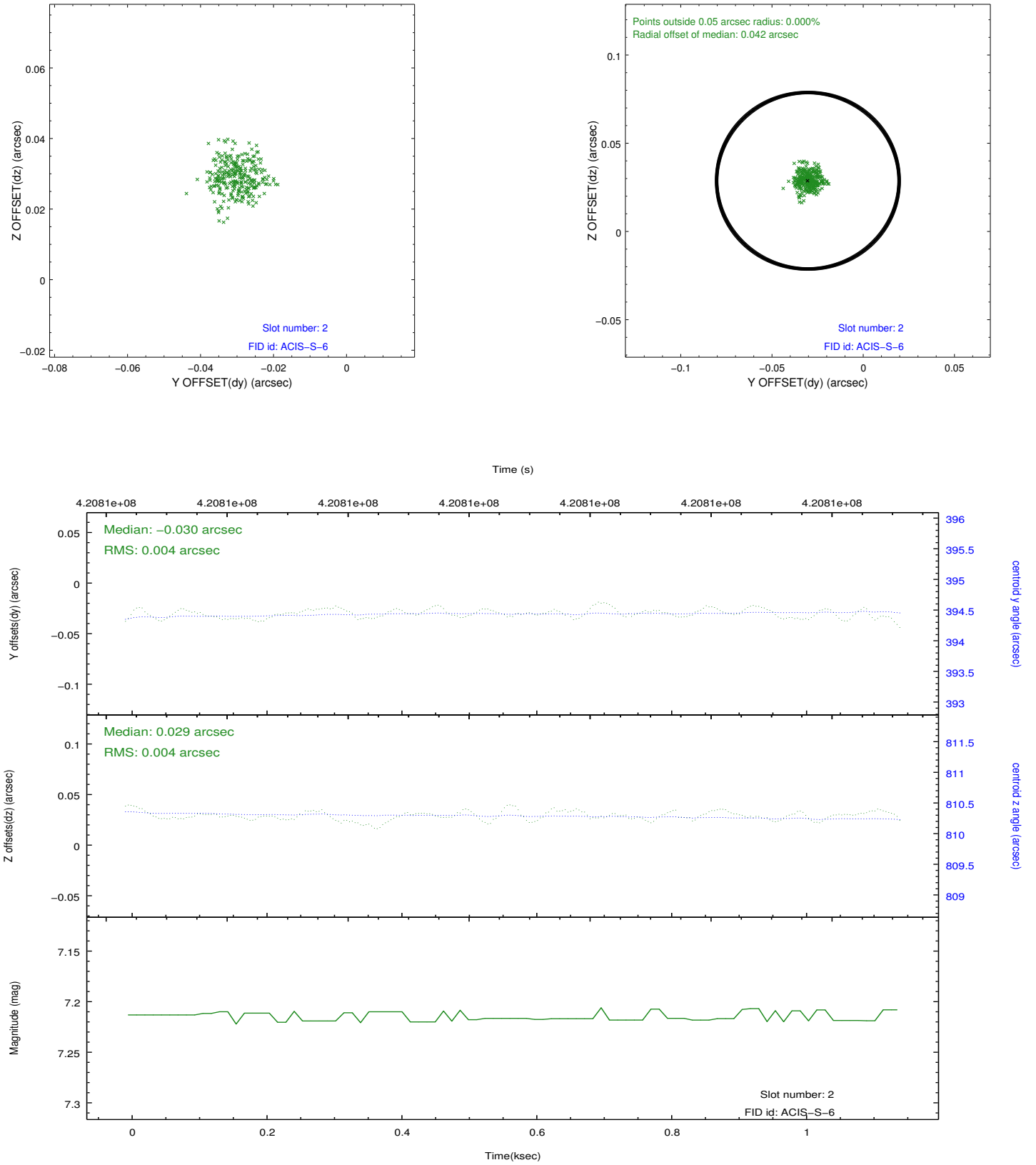
### 2.5.1 Slot 0



## 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)	2012.02.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.0416000080109

## 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.