

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 9142 - L2 Version 2  
Chandra X-Ray Center

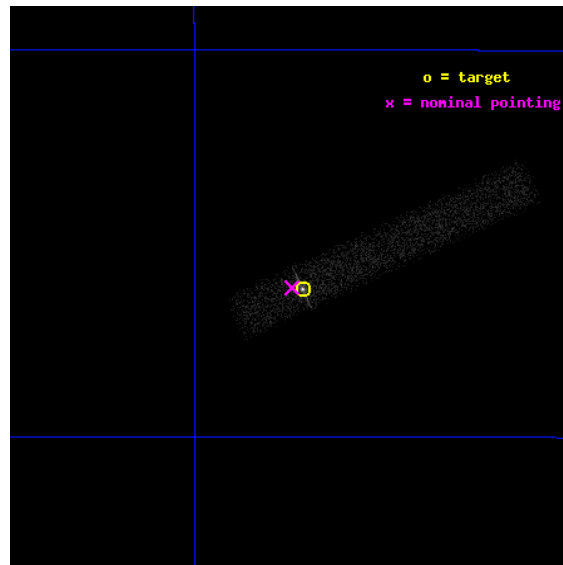
L2 Processing Date : May 7 2012

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# 1 Front

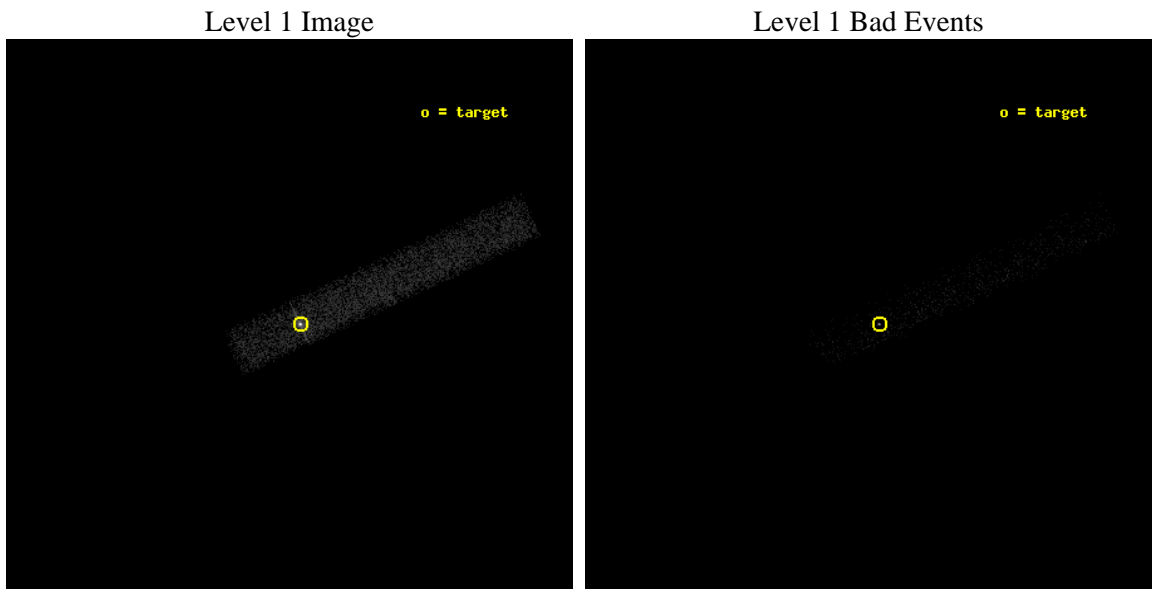
seq_num	501003	Sequence number
obs_id	9142	Observation id
title	AO9 Chandra Monitoring of SNR 1987A	Proposal title
observer	Prof. David Burrows	Principal investigator
object	SNR 1987A	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.866667	Observer's specified target RA [deg]
dec_targ	-69.26975	Observer's specified target Dec [deg]
ra_nom	83.880332731065	Nominal RA [deg]
dec_nom	-69.269162479162	Nominal Dec [deg]
roll_nom	335.16940455402	Nominal Roll [deg]
revision	2	Processing version of data
ontime	22182.25	Sum of GTIs [s]
livetime	6620.7766236867	Livetime [s]
ontime7	22182.25	Sum of GTIs [s]
l2events	14038	Number of level 2 events



## 2 OBI

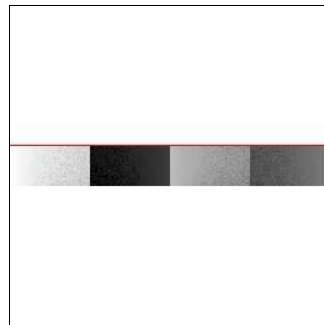
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	22000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	22182.25	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime7	22182.25	Sum of GTIs [s]
date	2012-05-07T17:50:11	Date and time of file creation	l1events	19698	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

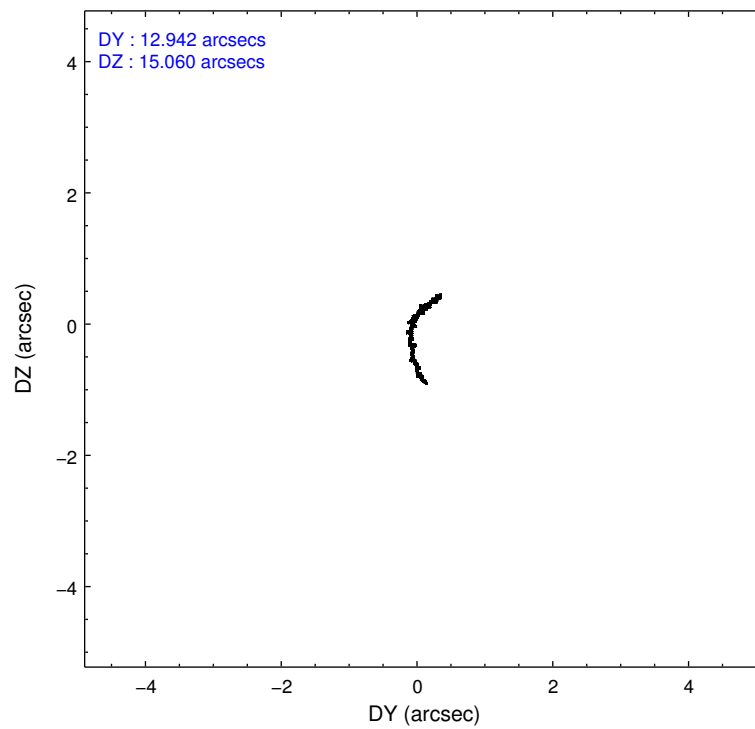
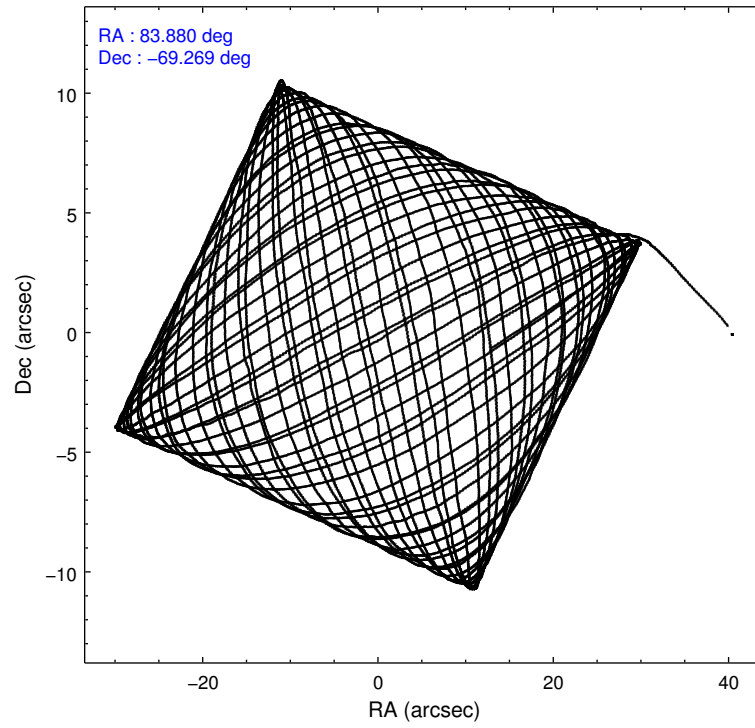
	<b>ccd 7</b>
level 1 events	19698
rejected events	5314
rejected %	26%

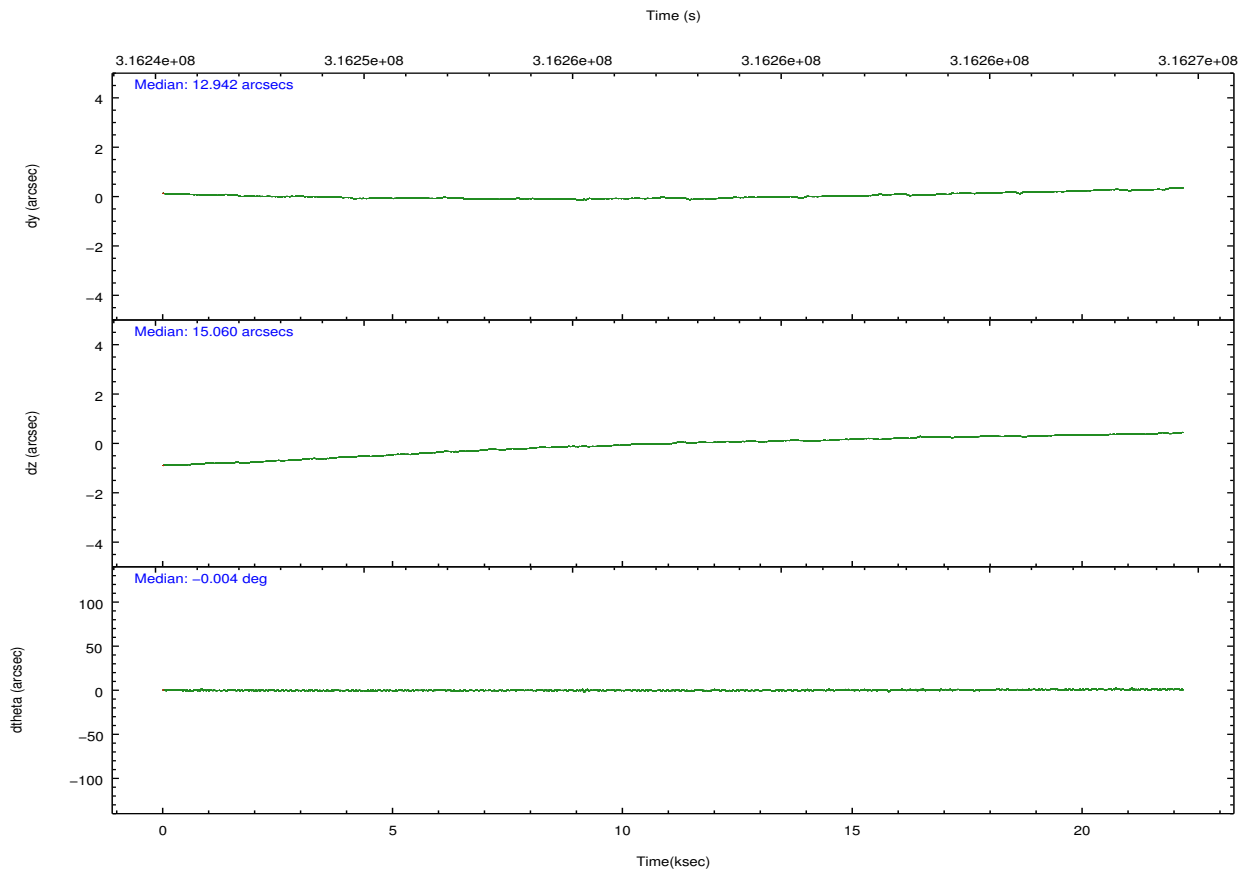
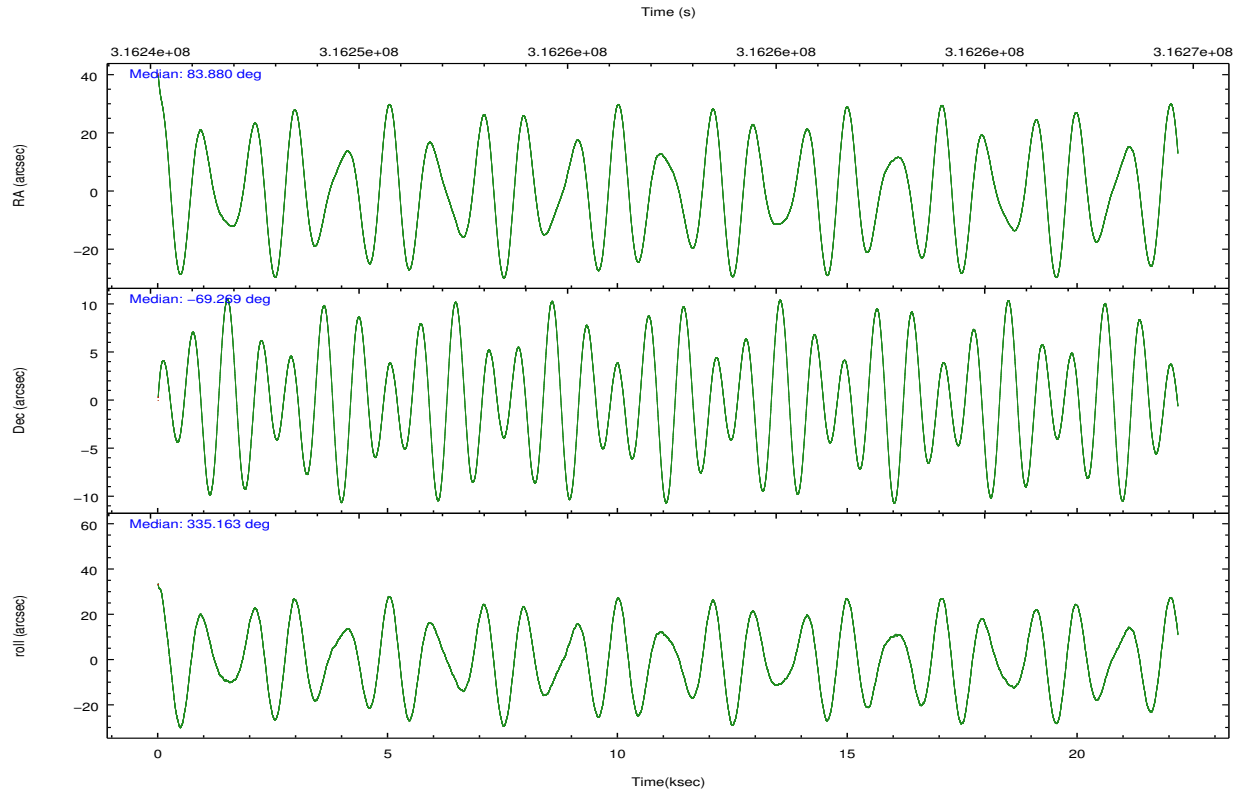
	<b>ccd 7</b>
grade 0 events	3499
	17%
grade 1 events	67
	0%
grade 2 events	3605
	18%
grade 3 events	2120
	10%
grade 4 events	1924
	9%
grade 5 events	1145
	5%
grade 6 events	3403
	17%
grade 7 events	3935
	19%

## 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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	83.803448	83.88033273106542	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-69.271975	-69.26916247916182	Subarray start row	449	449
[deg] Pointing Roll	334.940869	335.1694045540228	Subarray row count	128	128
[s] Window start time (MET)	315532865.184000	315532865.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	318124865.184000	318124865.184000	[s] Primary exposure time	0.000000	0.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	316246499.184000	316245463.1749			
Observation start date	2008-01-09T06:13:54	2008-01-09T05:57:43			
[s] Observation end time (MET)	316268499.184000	316269352.85106			
Observation end date	2008-01-09T12:20:34	2008-01-09T12:35:52			
Read mode	TIMED	TIMED			

## 2.3 Aspect



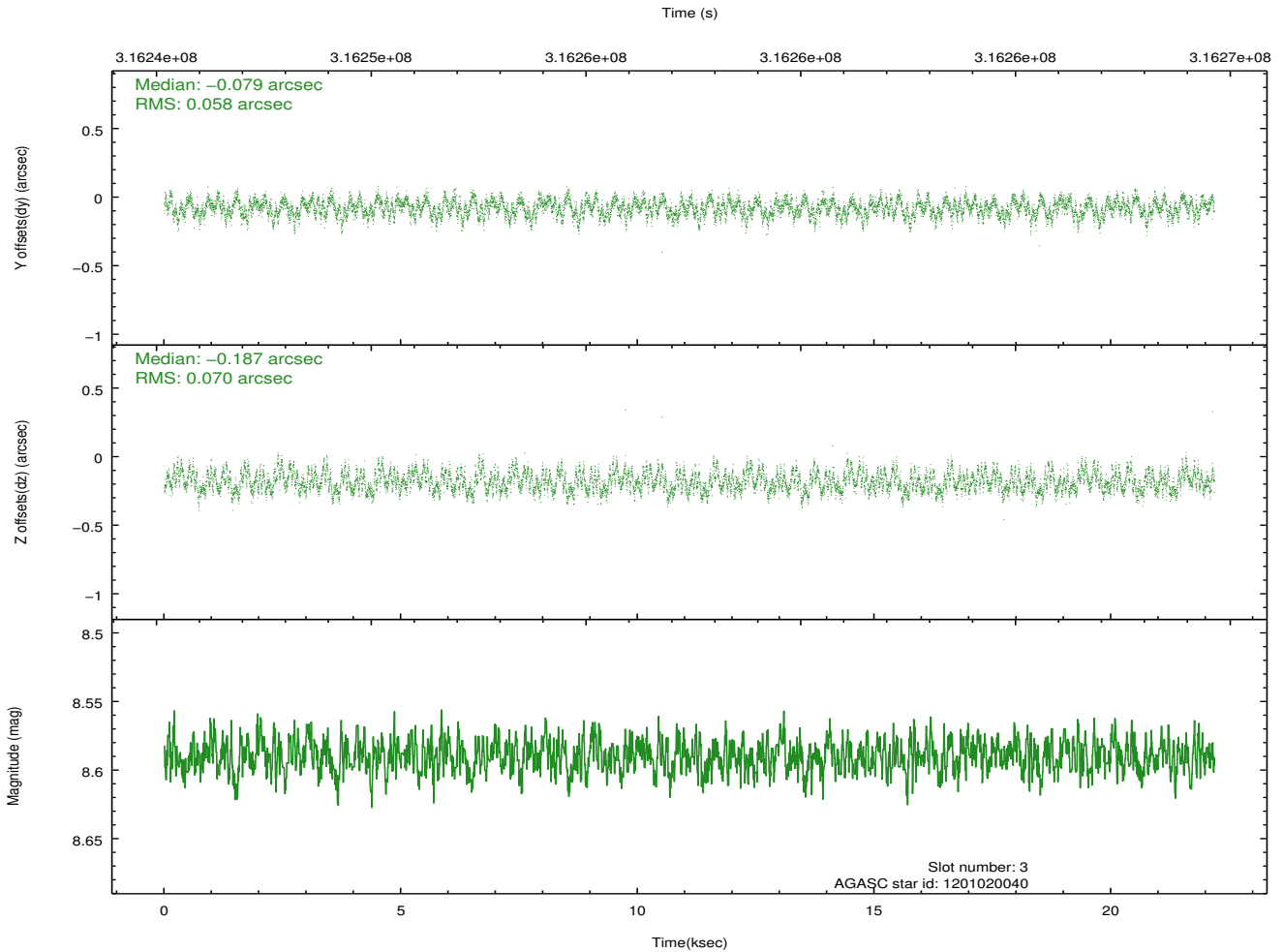
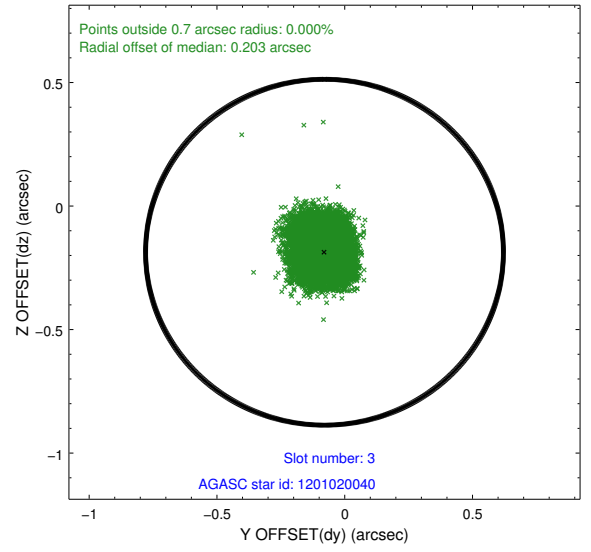
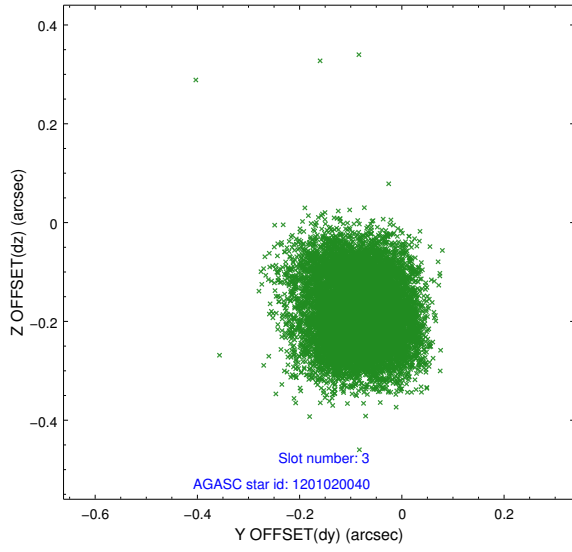


### Slot Statistics

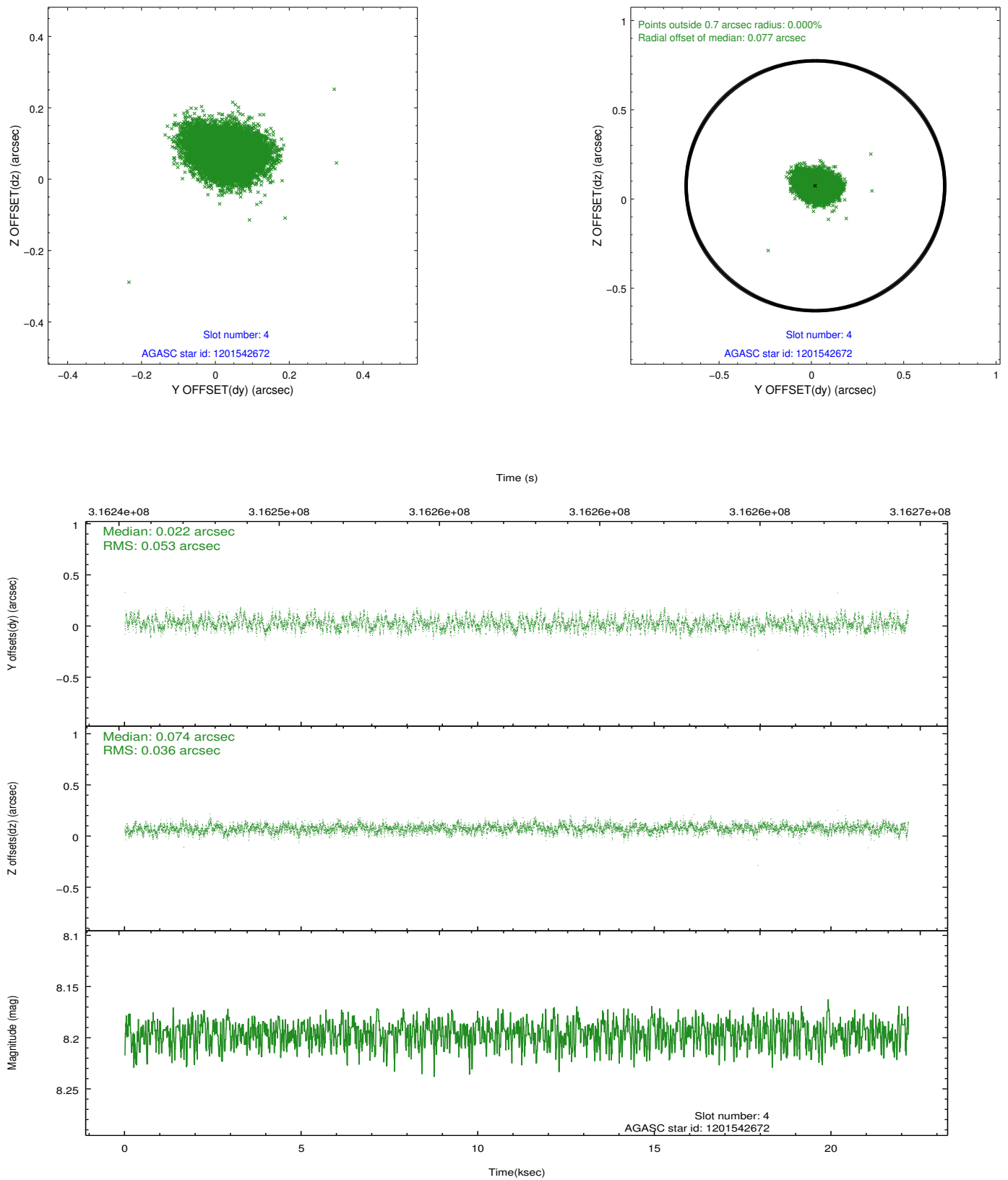
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	5411	-0.093	-0.066	0.007	0.012	0.000000	0.000000	-765.98	-1736.40
1	FID	ACIS-S-4	7.19	5411	0.111	0.039	0.007	0.012	0.000000	0.000000	2147.43	172.03
2	FID	ACIS-S-6	7.32	5409	-0.045	0.034	0.008	0.015	0.000000	0.000000	396.25	809.59
3	GUIDE	1201020040	8.59	10819	-0.079	-0.187	0.098	0.153	85.379163	-68.879396	1263.90	2122.42
4	GUIDE	1201542672	8.20	10816	0.022	0.074	0.068	0.110	84.492488	-69.957531	1817.94	-1877.80
5	GUIDE	1200884248	9.45	10809	0.013	-0.224	0.121	0.190	83.880915	-68.565170	-985.14	2348.16
6	GUIDE	1201411288	9.25	10810	-0.097	0.124	0.102	0.167	81.410076	-69.595403	-2202.60	-2379.36
7	GUIDE	1201410616	9.33	10807	0.144	0.200	0.117	0.197	82.516808	-69.784406	-660.93	-2364.02

## 2.4 Star Slots

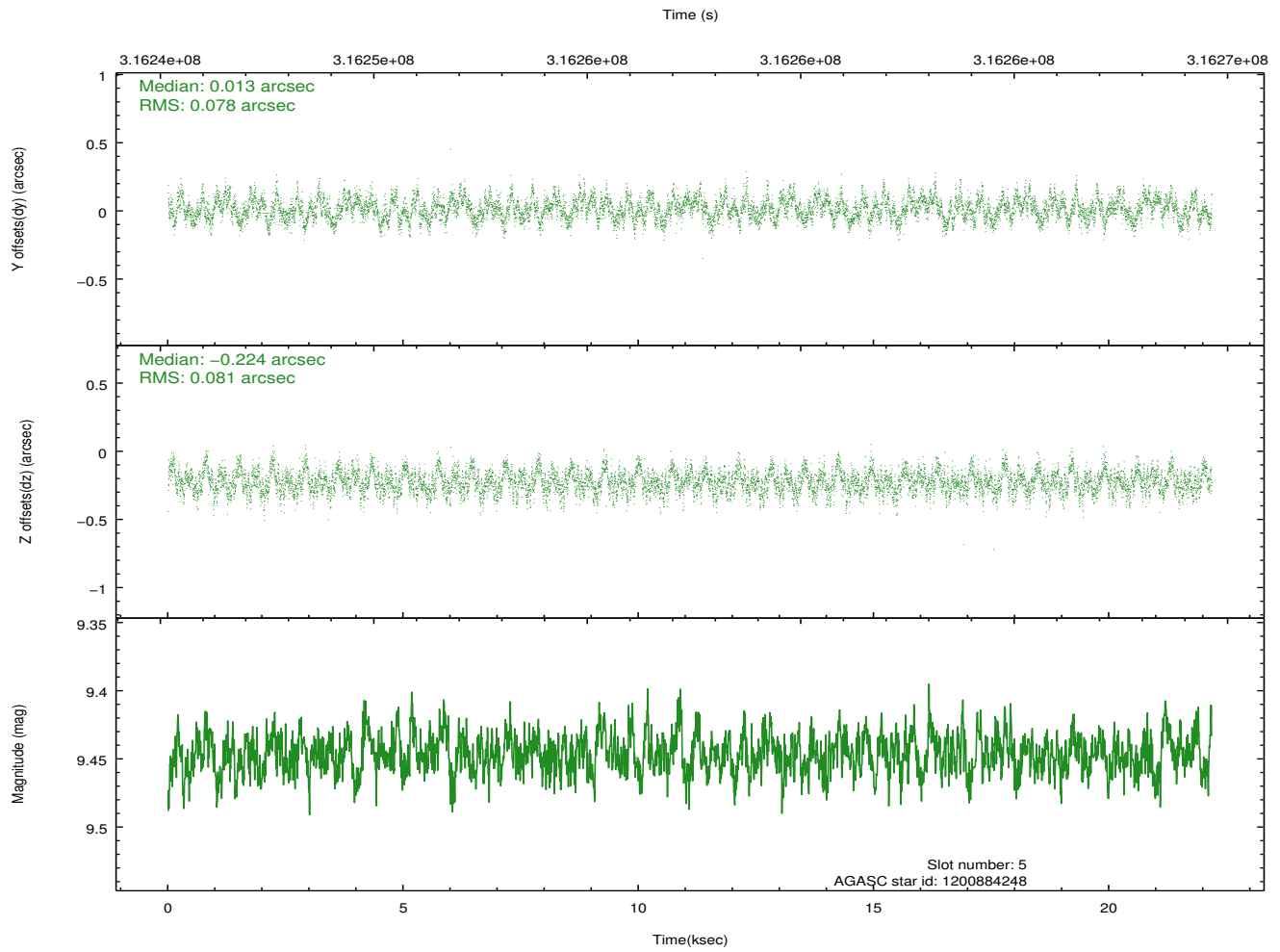
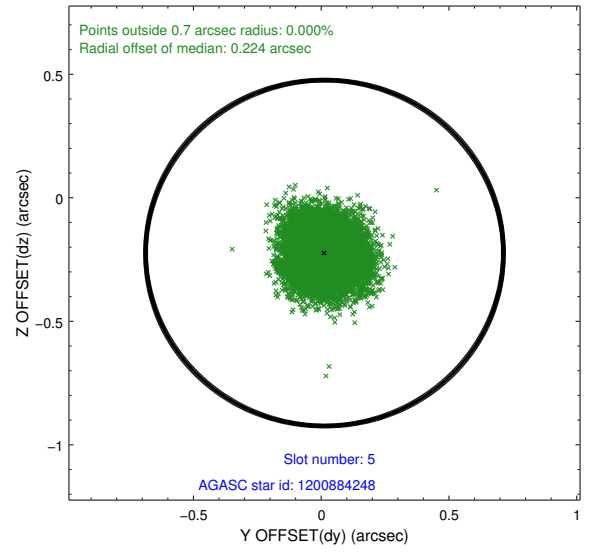
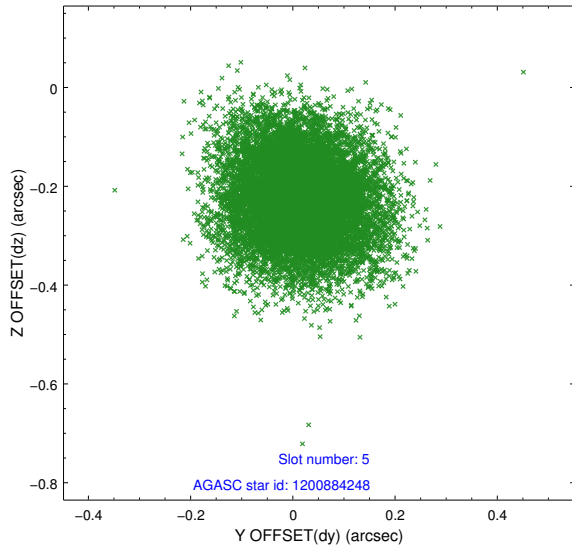
### 2.4.1 Slot 3



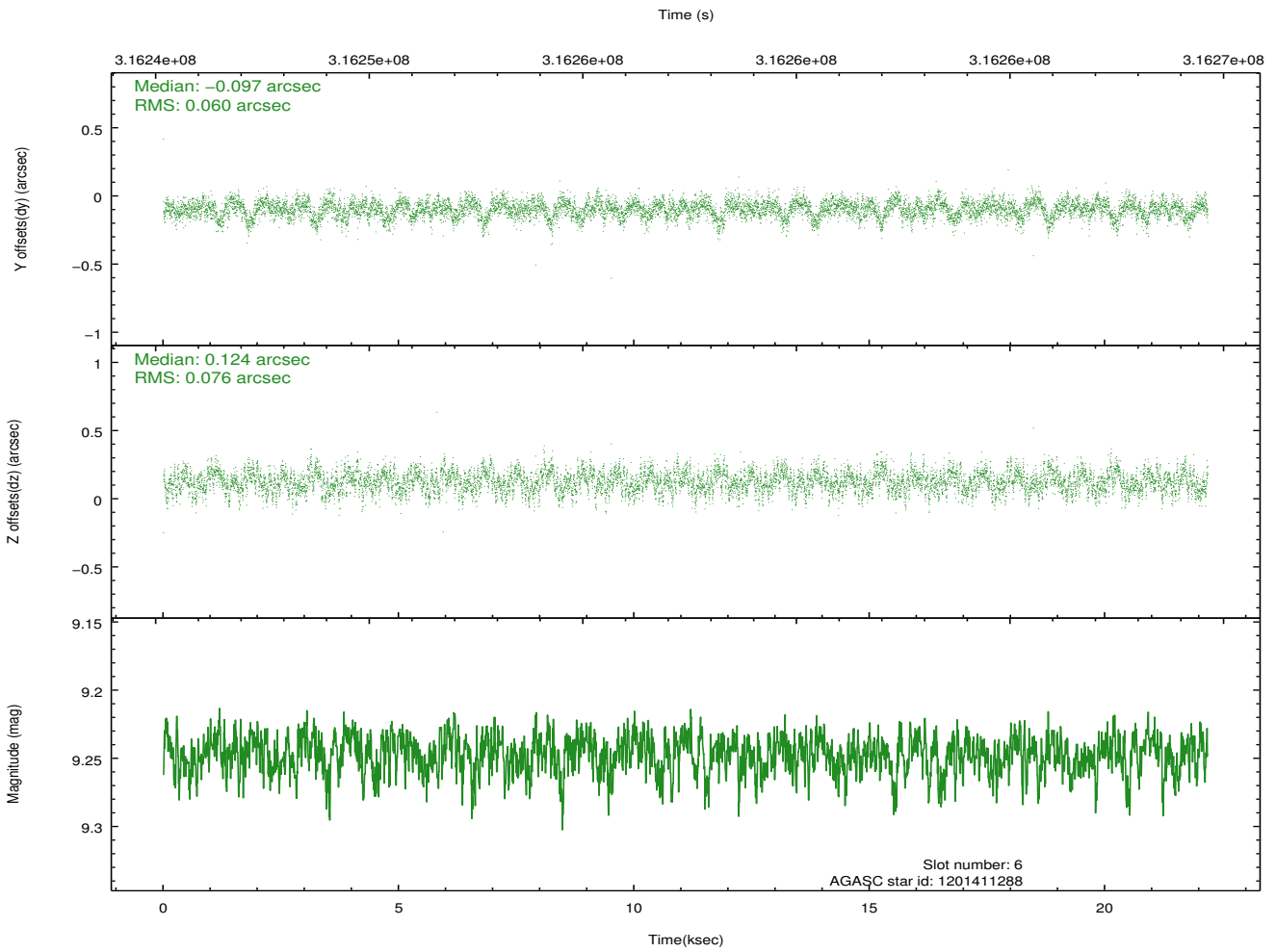
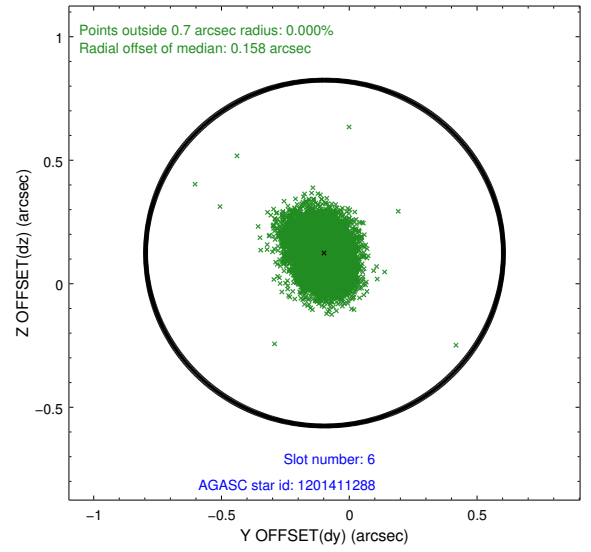
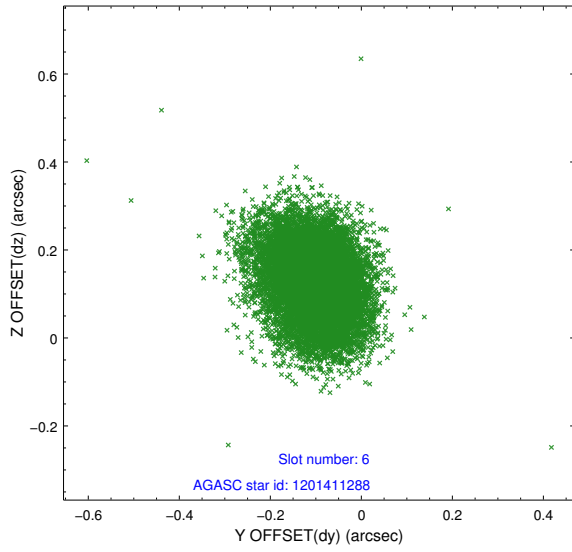
## 2.4.2 Slot 4



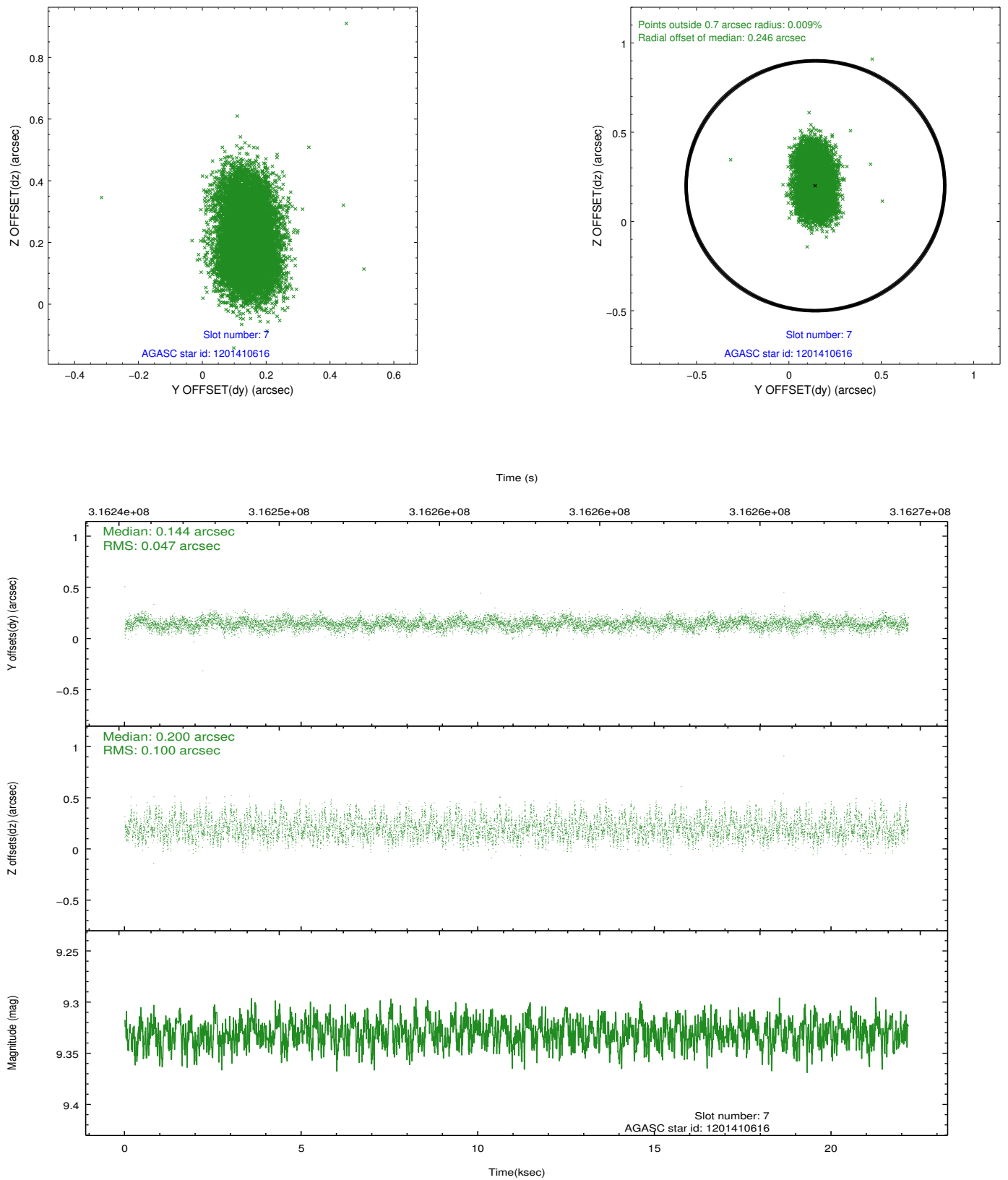
### 2.4.3 Slot 5



## 2.4.4 Slot 6

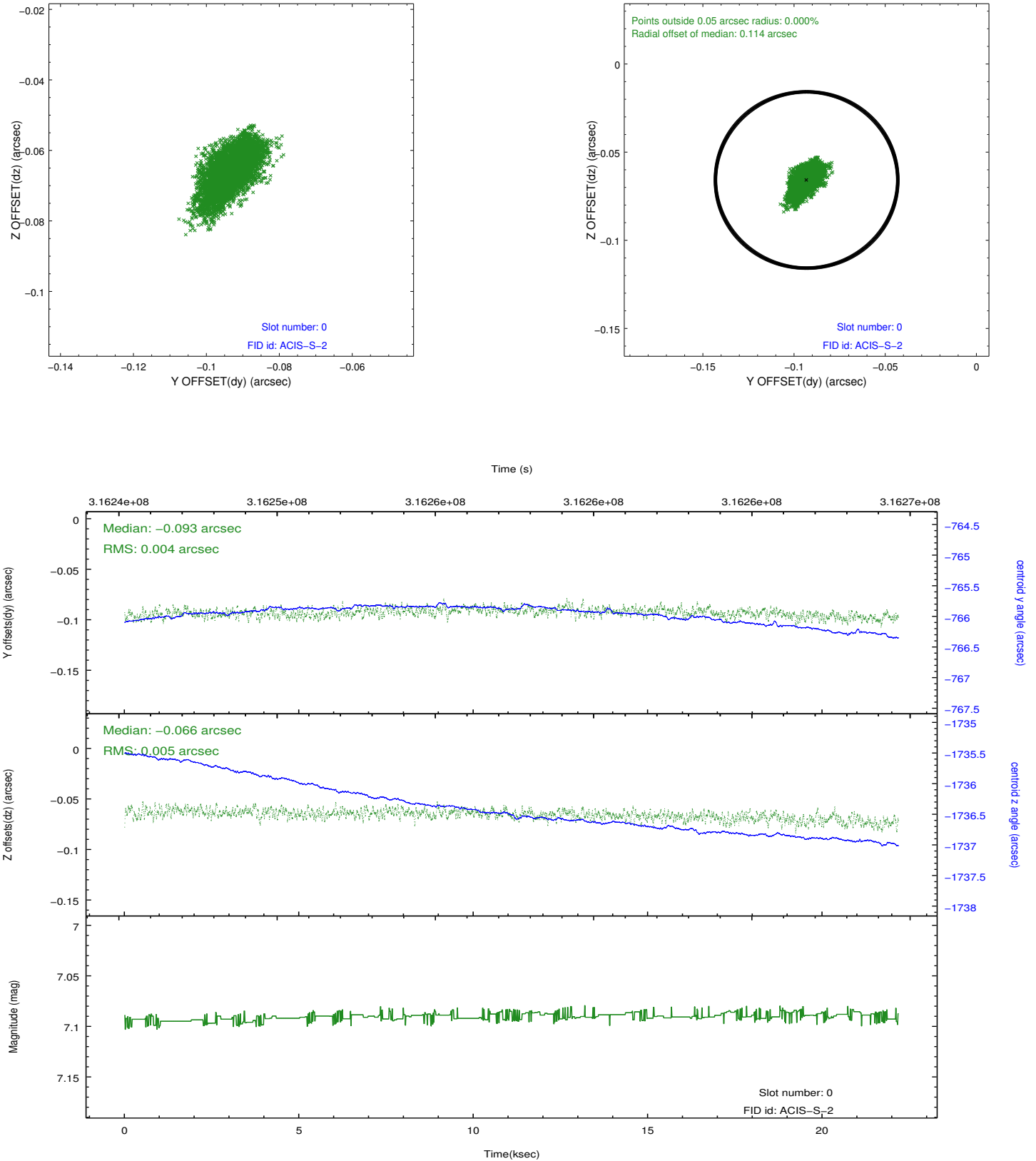


## 2.4.5 Slot 7

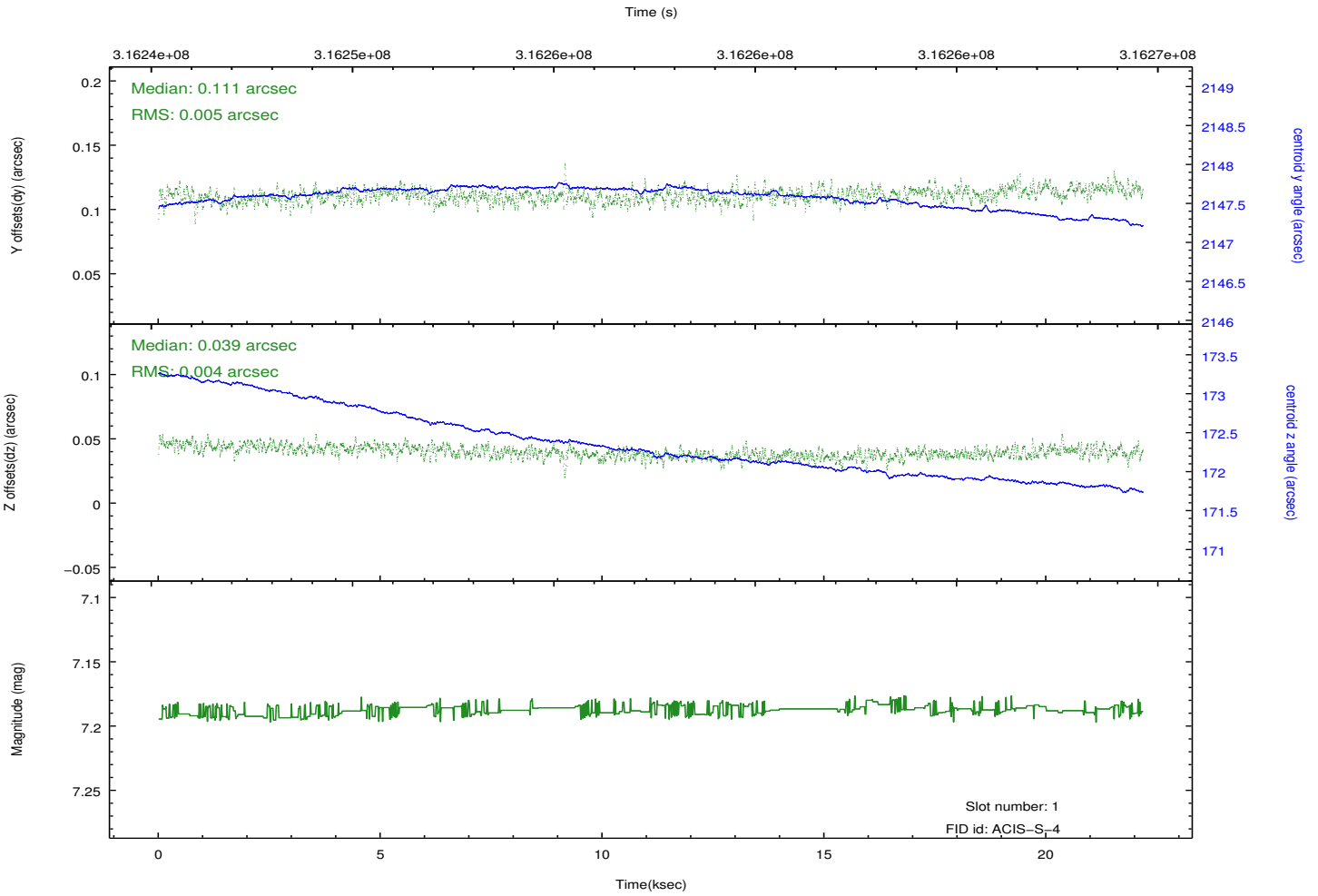
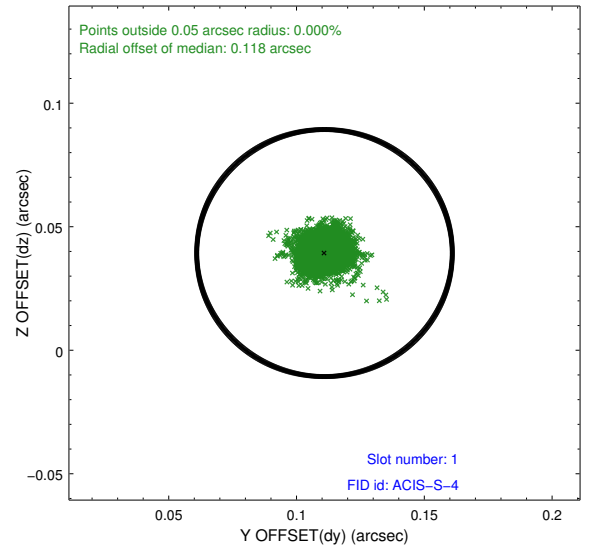
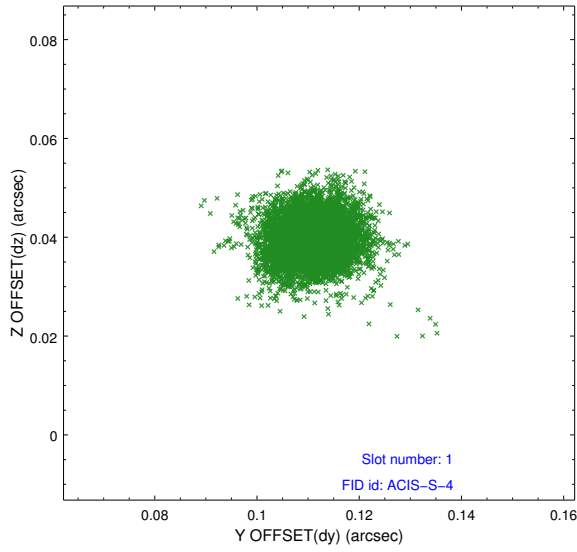


## 2.5 FID Slots

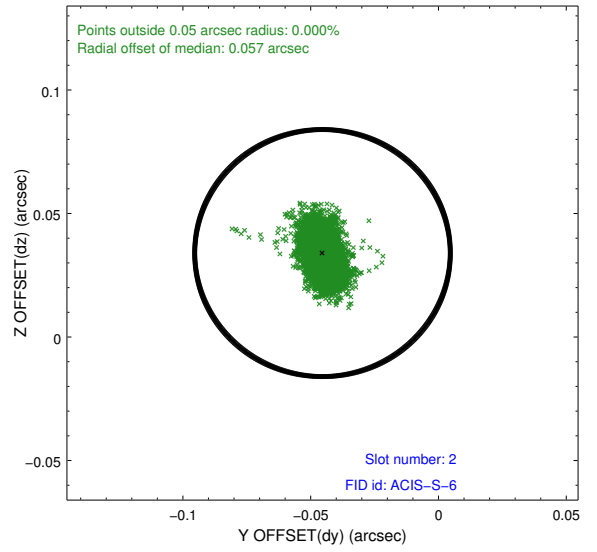
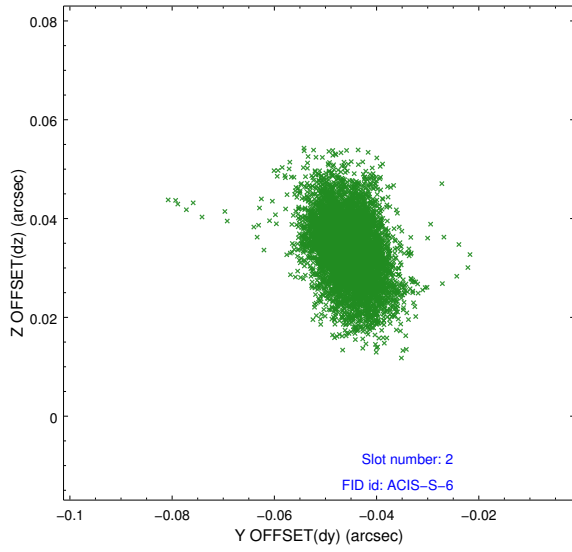
### 2.5.1 Slot 0



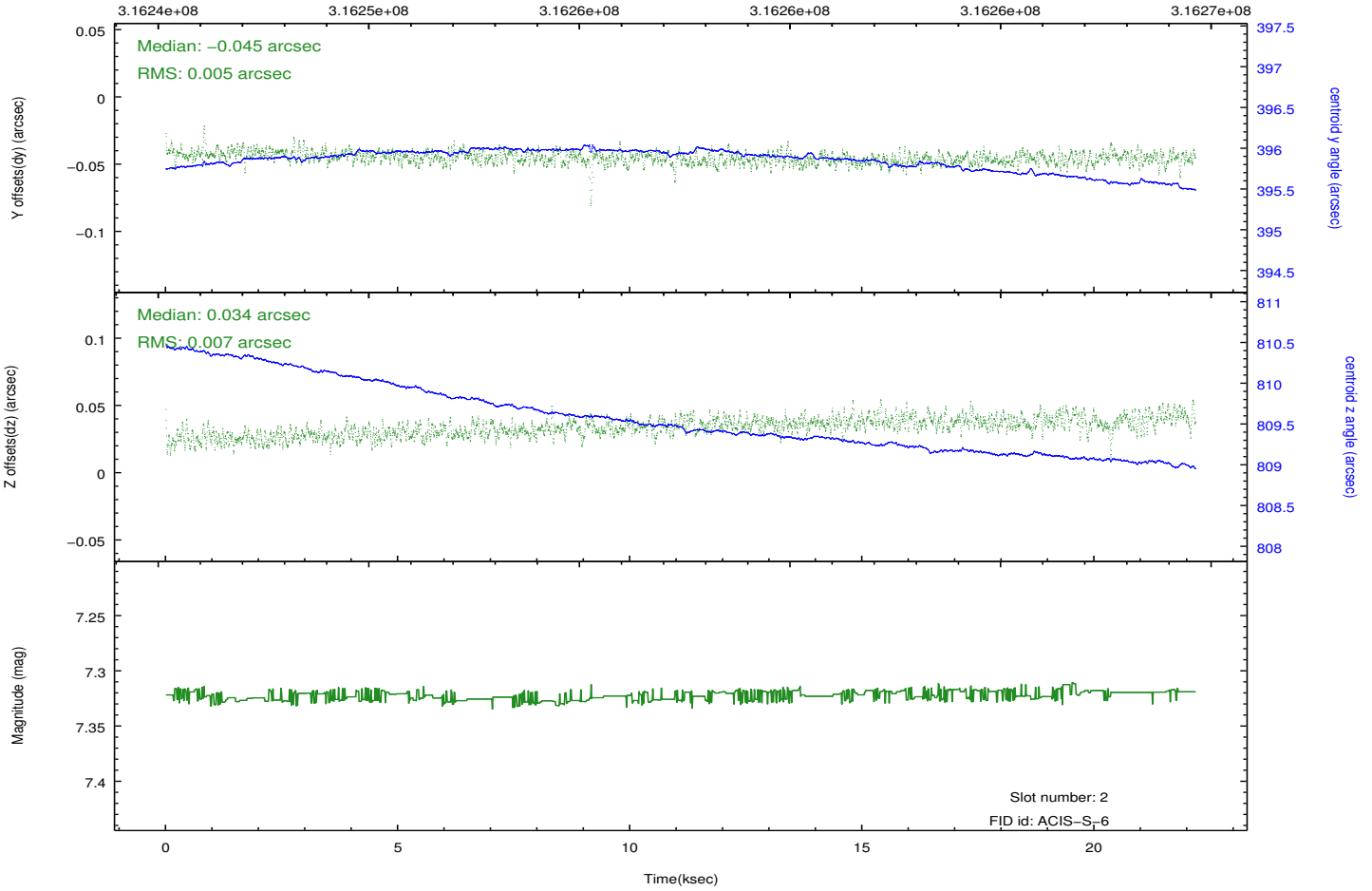
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.05.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.18225

## A.2 Comments

The EXPOSURE (and LIVETIME) are 6621 s, which is 30% (DTCOR) of the ONTIME of 22182 s. The reason that DTCOR is about 0.3 instead of about 0.99 is that the frame time is only 0.2 s. Since the frame transfer time is 0.04104 s, the fraction of the time spent in the static exposure is about  $0.2 / (0.2 + 0.04104 + 0.429 \text{ s (flushtime)})$ .