

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2949 - L2 Version 3  
Chandra X-Ray Center

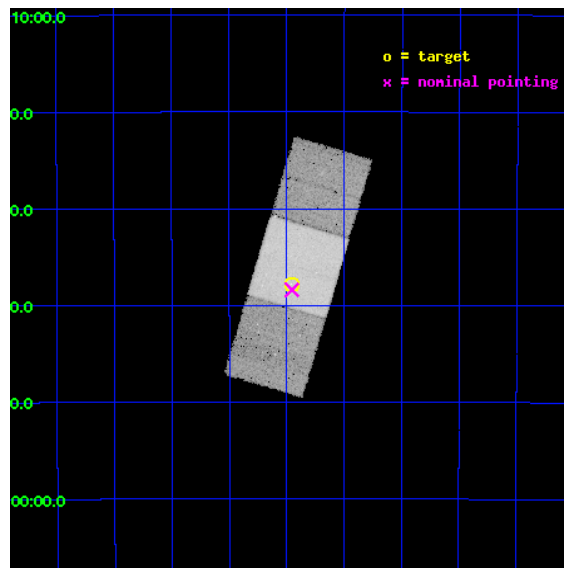
L2 Processing Date : Oct 8 2012

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# 1 Front

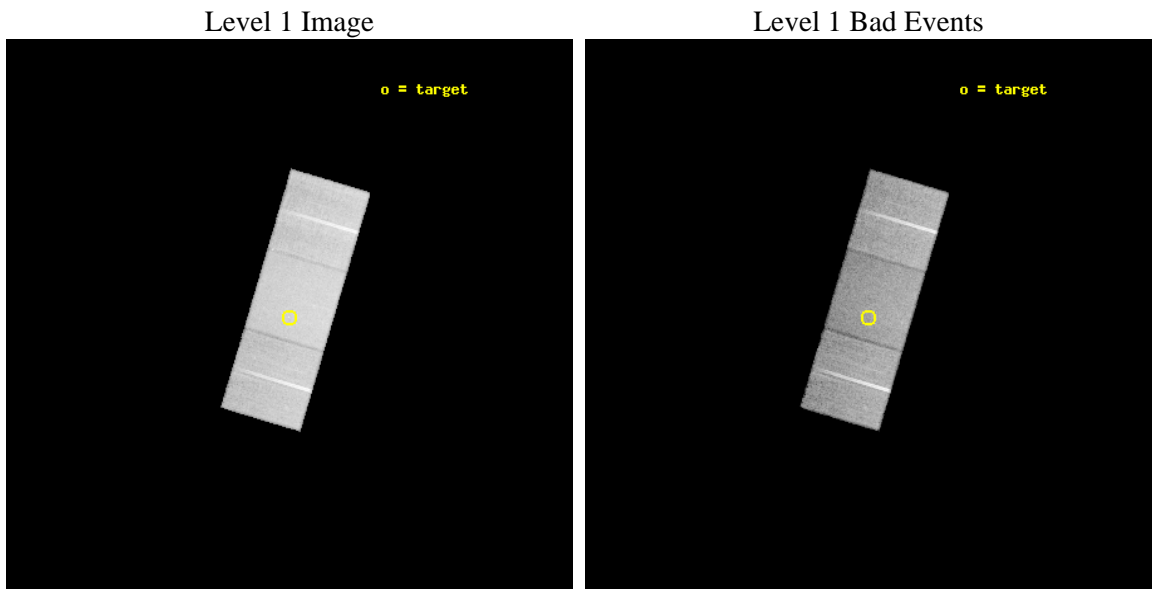
seq_num	600286	Sequence number
obs_id	2949	Observation id
title	MULTI-COMPONENT X-RAY EMISSION IN THE S0 GALAXY NGC 5102	Proposal
observer	Dr. Ralph Kraft	Principal investigator
object	NGC 5102	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	200.4875	Observer's specified target RA [deg]
dec_targ	-36.630278	Observer's specified target Dec [deg]
ra_nom	200.48885967532	Nominal RA [deg]
dec_nom	-36.63992851354	Nominal Dec [deg]
roll_nom	286.56961500603	Nominal Roll [deg]
revision	3	Processing version of data
ontime	34661.099933326	Sum of GTIs [s]
livetime	34208.227145567	Livetime [s]
ontime6	34657.958983034	Sum of GTIs [s]
ontime7	34661.099933326	Sum of GTIs [s]
ontime8	34661.099933326	Sum of GTIs [s]
l2events	164809	Number of level 2 events



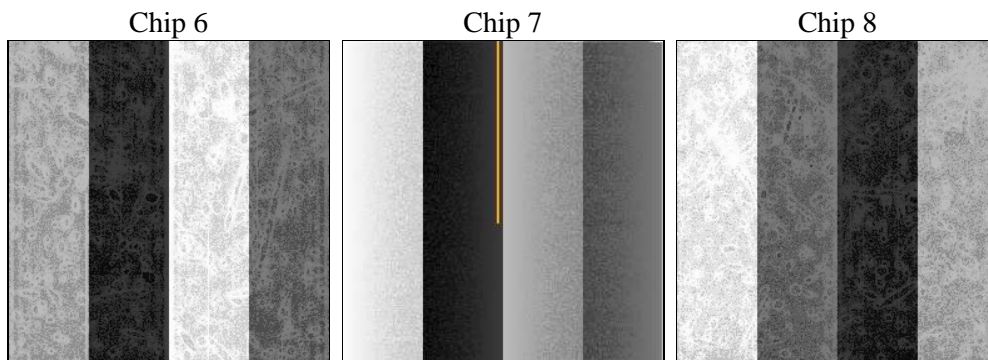
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	34300.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	34661.099933326	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime6	34657.958983034	Sum of GTIs [s]
date	2012-10-08T05:58:44	Date and time of file creation	ontime7	34661.099933326	Sum of GTIs [s]
revision	3	Processing version of data	ontime8	34661.099933326	Sum of GTIs [s]
			l1events	761132	Number of level 1 events

### 2.1.4 Events

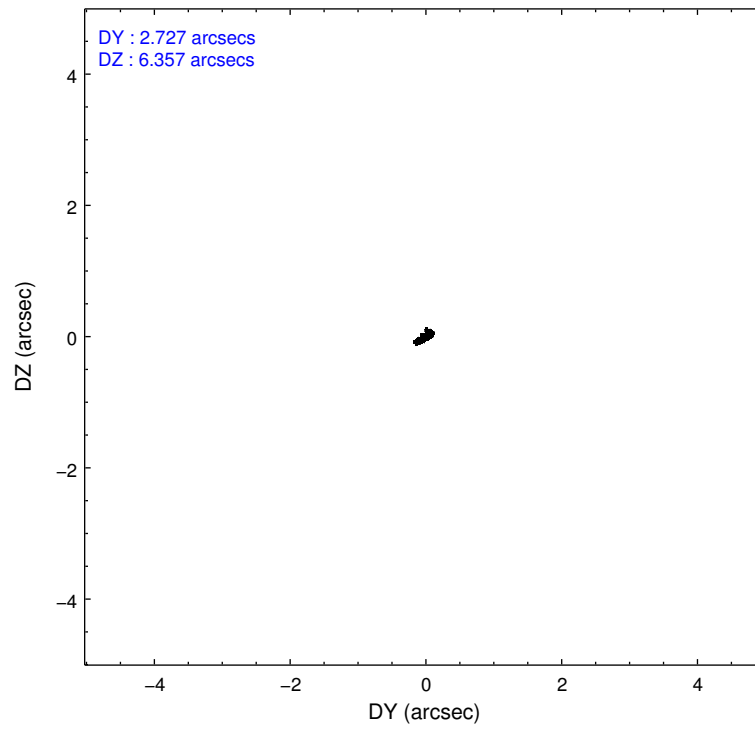
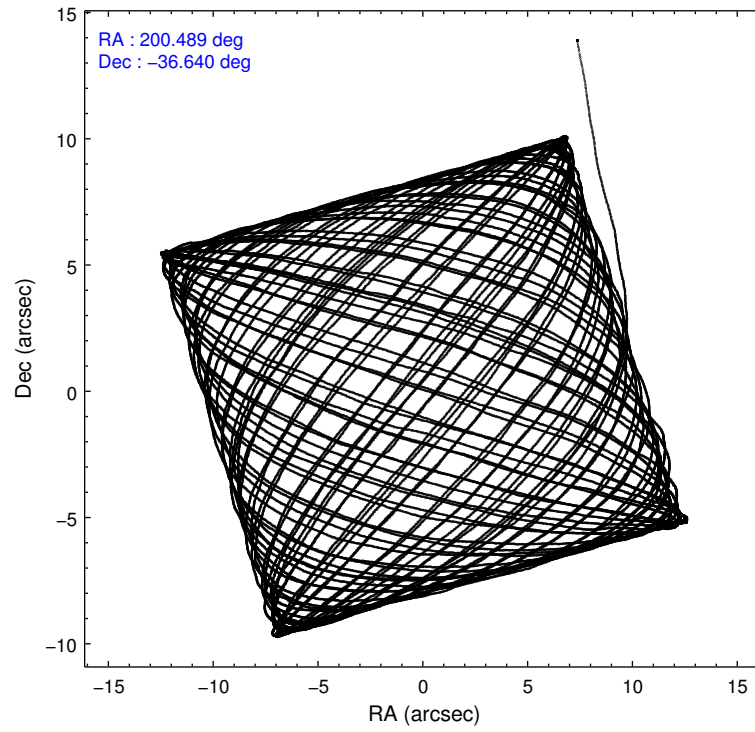
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	215469	279353	266310
rejected events	188805	159870	211374
rejected %	<b>87%</b>	<b>57%</b>	<b>79%</b>

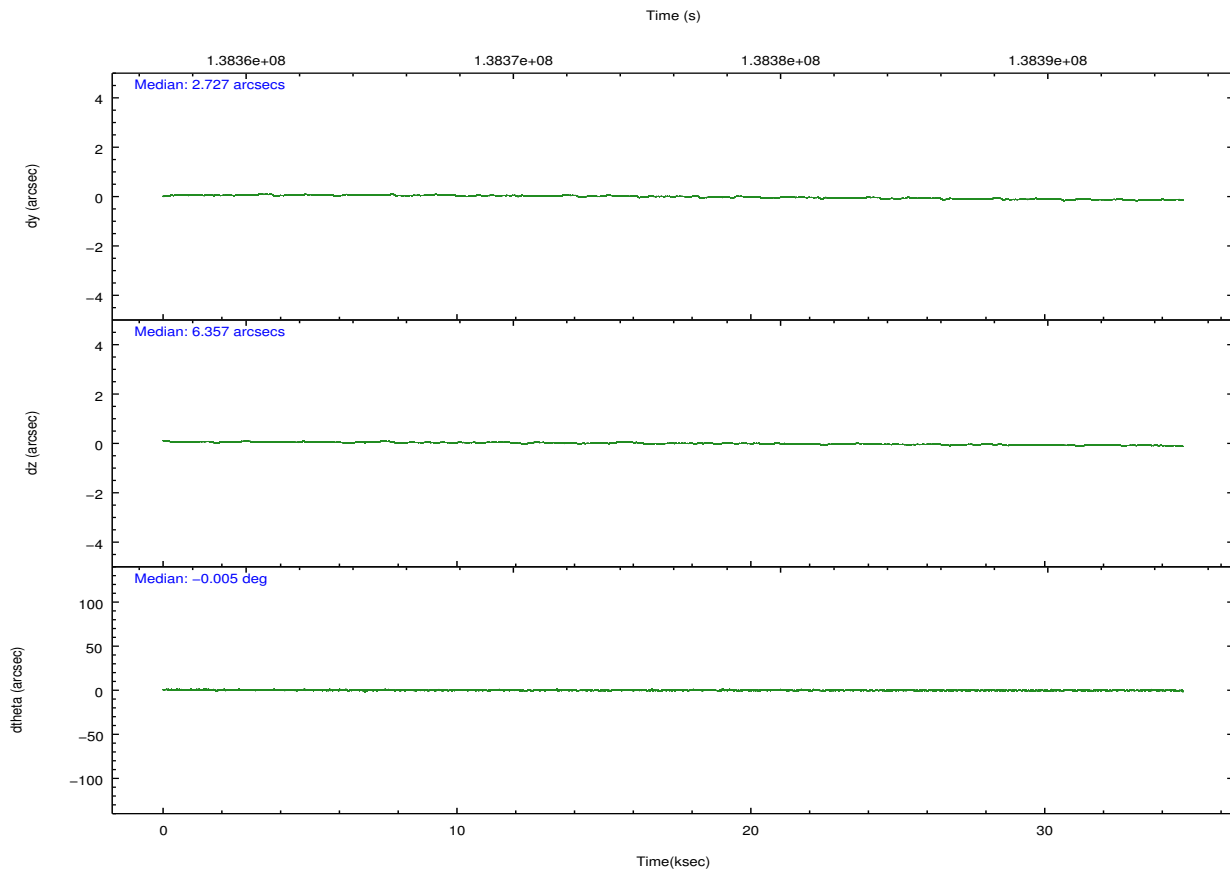
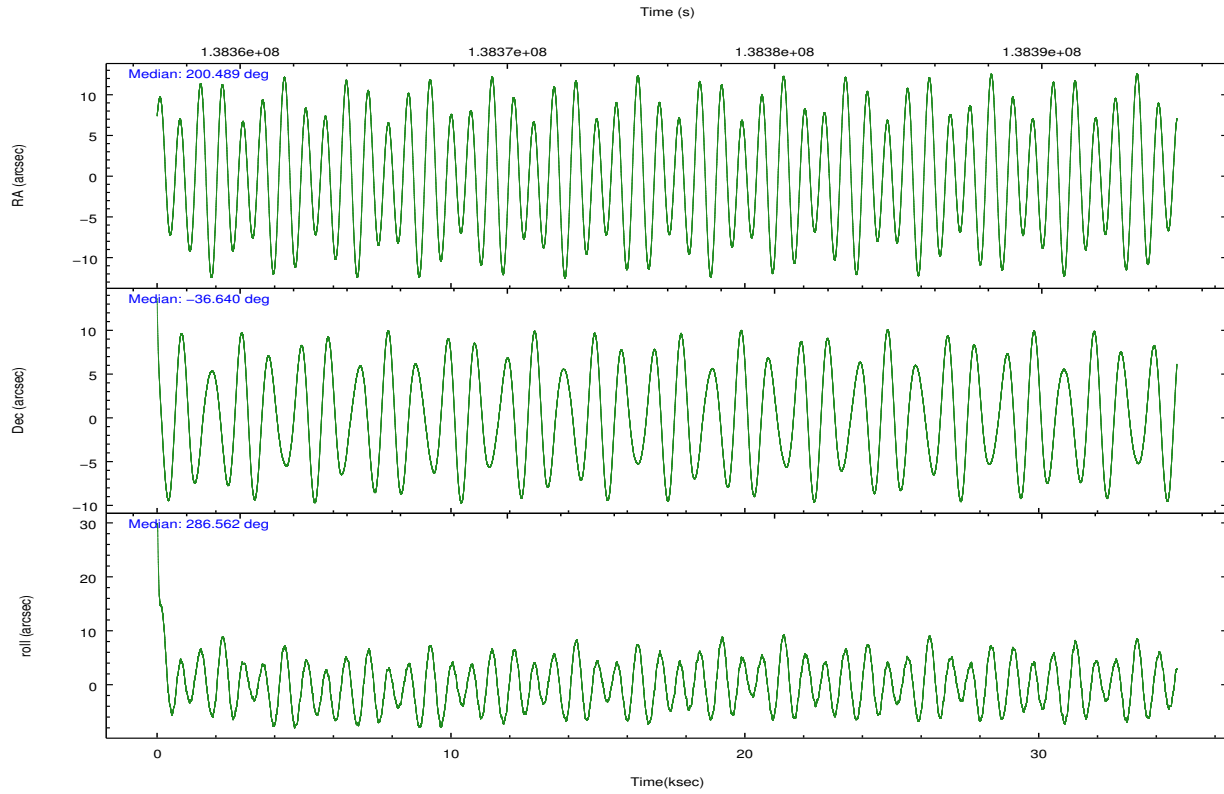
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	11371	12526	17510
	5%	4%	6%
grade 1 events	93	248	141
	0%	0%	0%
grade 2 events	5249	23684	11941
	2%	8%	4%
grade 3 events	2544	10921	5933
	1%	3%	2%
grade 4 events	2421	10796	5407
	1%	3%	2%
grade 5 events	9255	26521	11704
	4%	9%	4%
grade 6 events	5085	61579	14147
	2%	22%	5%
grade 7 events	179451	133078	199527
	83%	47%	74%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-678	ACIS-678	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	200.463898	200.4888596753176	Subarray requested	NONE	NONE
[deg] Pointing Dec	-36.621434	-36.63992851354033	Alternating exposures requested	N	N
[deg] Pointing Roll	286.398093	286.5696150060347	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	138359026.184000	138357938.75291			
Observation start date	2002-05-21T09:02:42	2002-05-21T08:45:38			
[s] Observation end time (MET)	138393326.184000	138394087.94188			
Observation end date	2002-05-21T18:34:22	2002-05-21T18:48:07			
Read mode	TIMED	TIMED			

## 2.3 Aspect



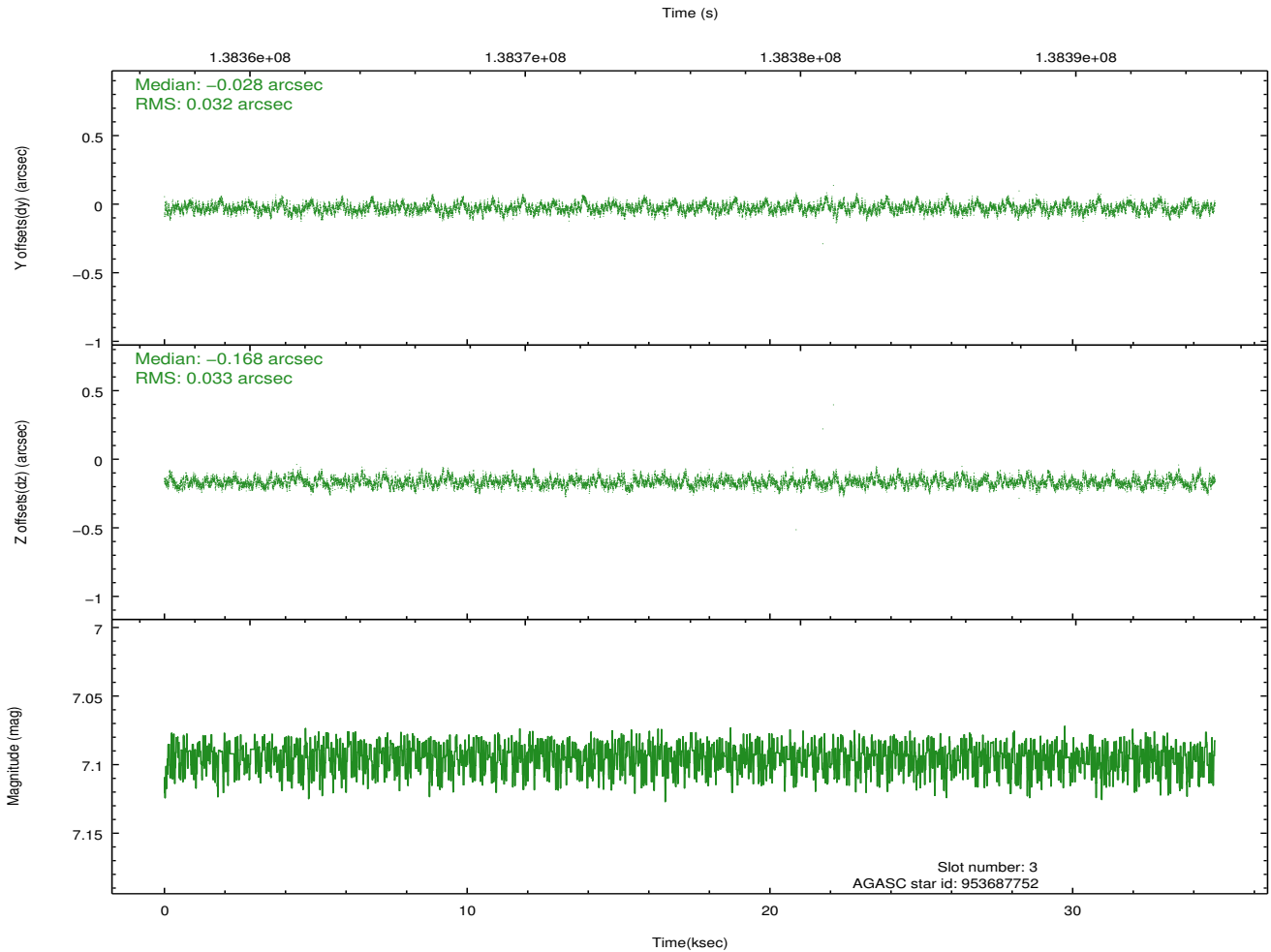
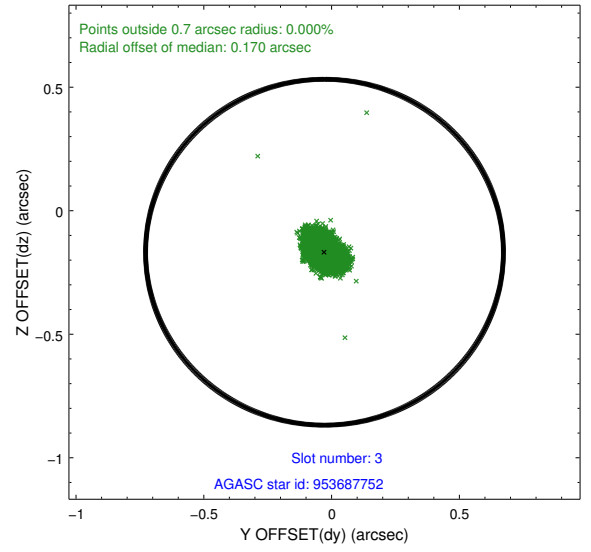
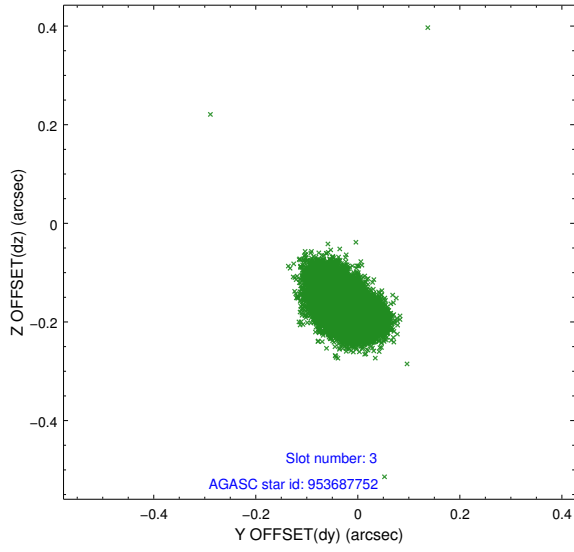


### Slot Statistics

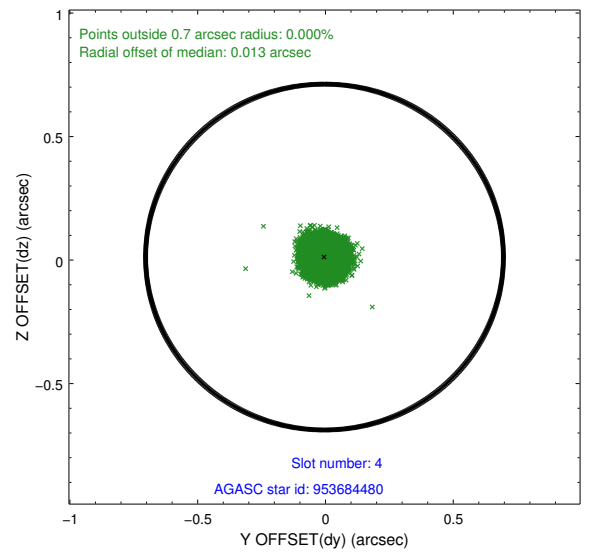
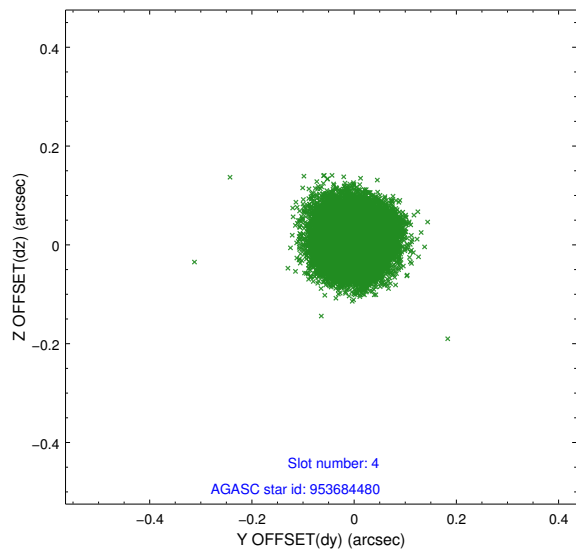
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	8463	-0.035	0.009	0.007	0.011	0.000000	0.000000	-755.34	-1727.46
1	FID	ACIS-S-4	7.21	8463	-0.018	0.015	0.006	0.011	0.000000	0.000000	2157.89	181.05
2	FID	ACIS-S-5	7.24	8464	0.022	-0.015	0.007	0.012	0.000000	0.000000	-1808.11	174.66
3	GUIDE	953687752	7.09	16928	-0.028	-0.168	0.048	0.080	201.056107	-36.243233	-814.99	2032.33
4	GUIDE	953684480	7.70	16927	-0.004	0.012	0.058	0.090	200.457323	-36.112232	-1763.10	499.12
5	GUIDE	953565040	8.64	16925	-0.008	0.002	0.066	0.105	199.878256	-37.002161	845.60	-2003.31
6	GUIDE	953552040	9.27	16925	-0.131	0.086	0.086	0.139	199.604803	-36.301560	-1796.53	-2069.29
7	GUIDE	953688744	9.57	16916	0.169	0.069	0.088	0.144	200.368021	-37.180617	1854.81	-831.81

## 2.4 Star Slots

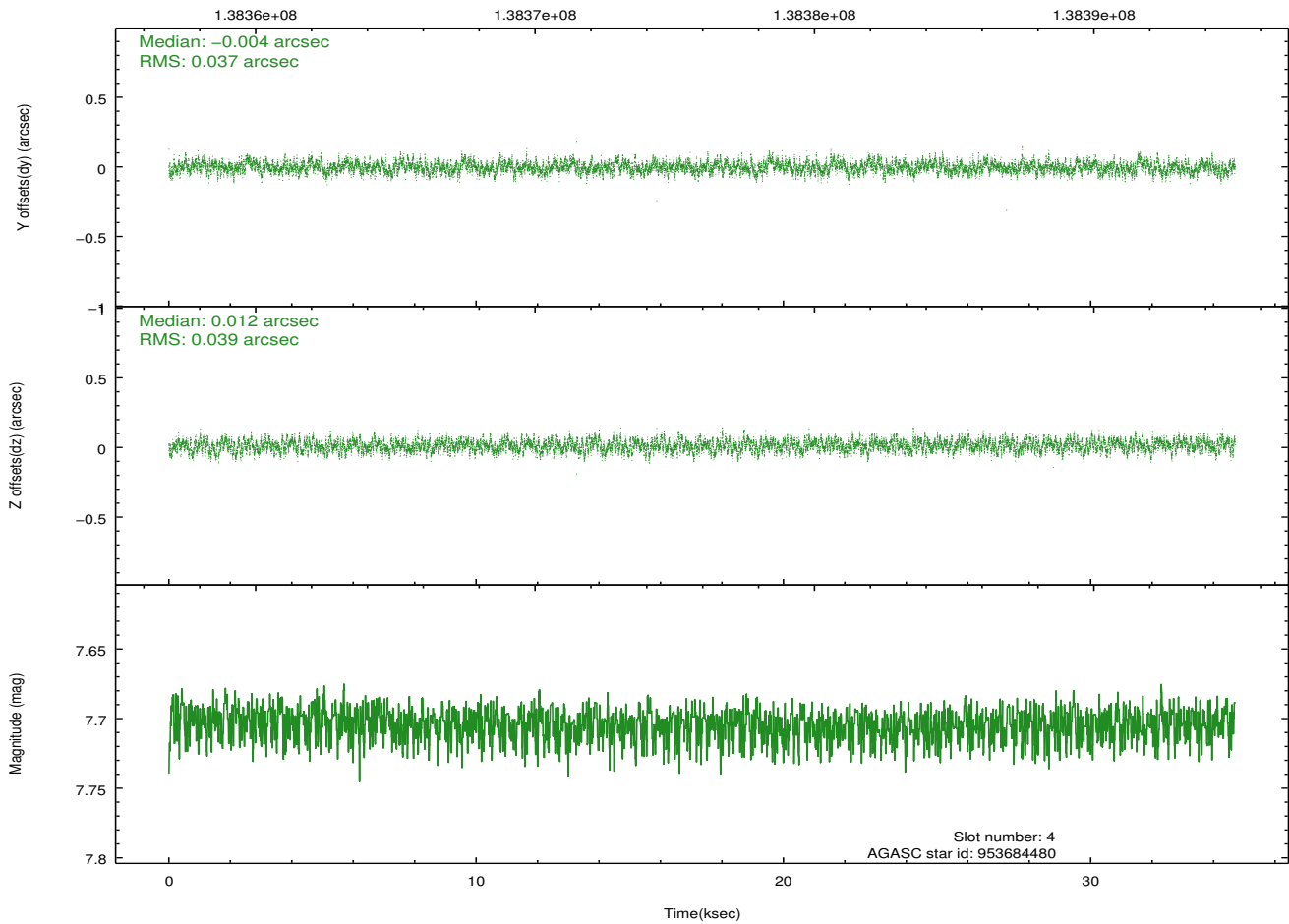
### 2.4.1 Slot 3



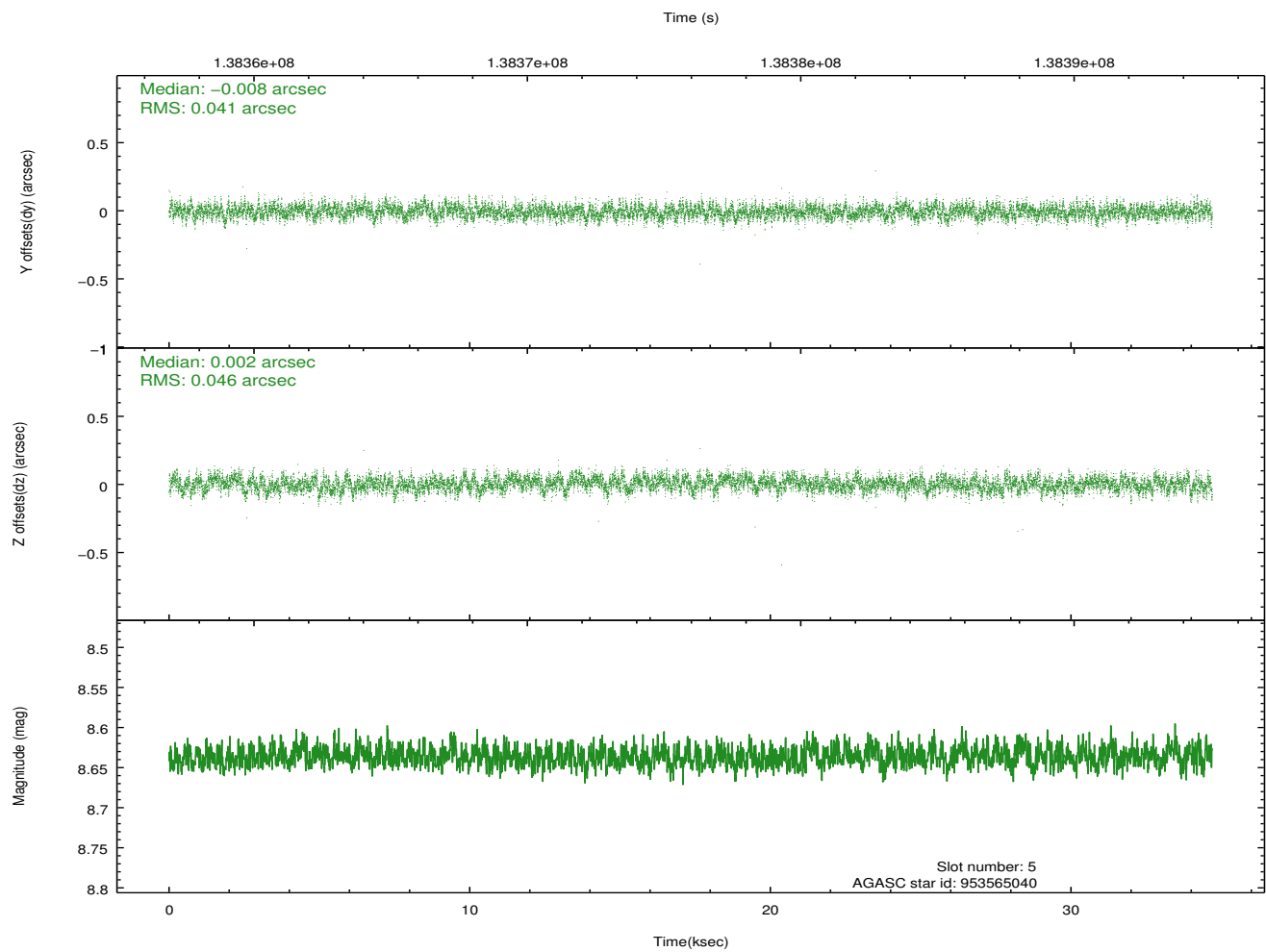
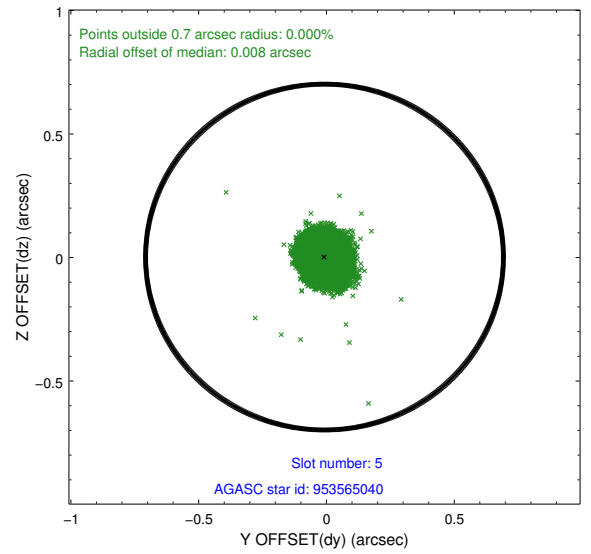
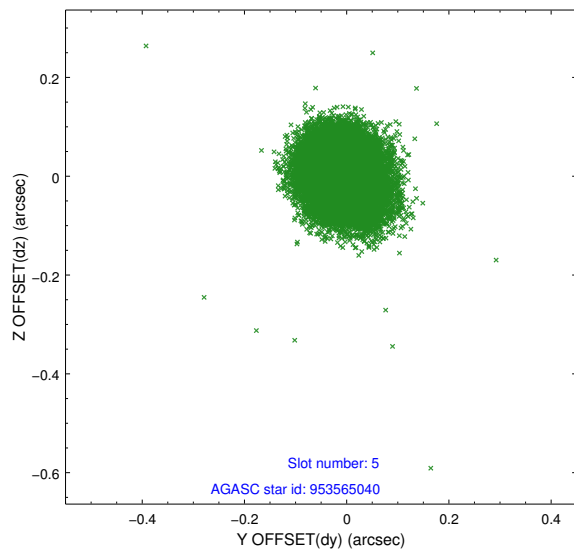
## 2.4.2 Slot 4



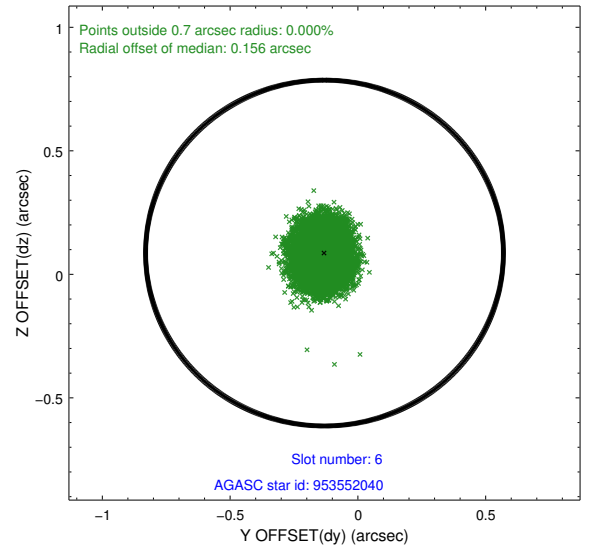
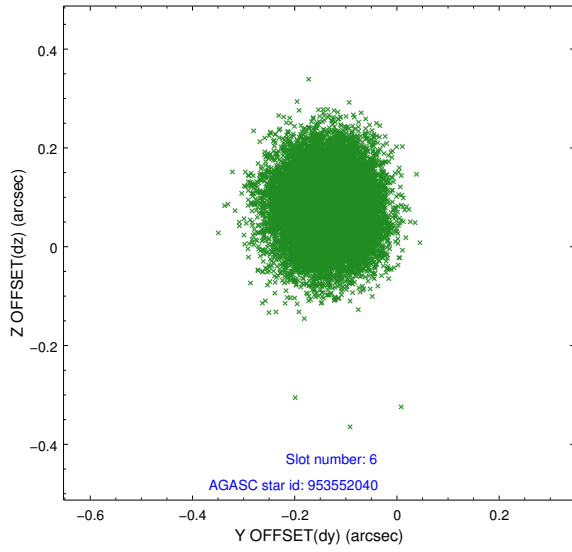
Time (s)



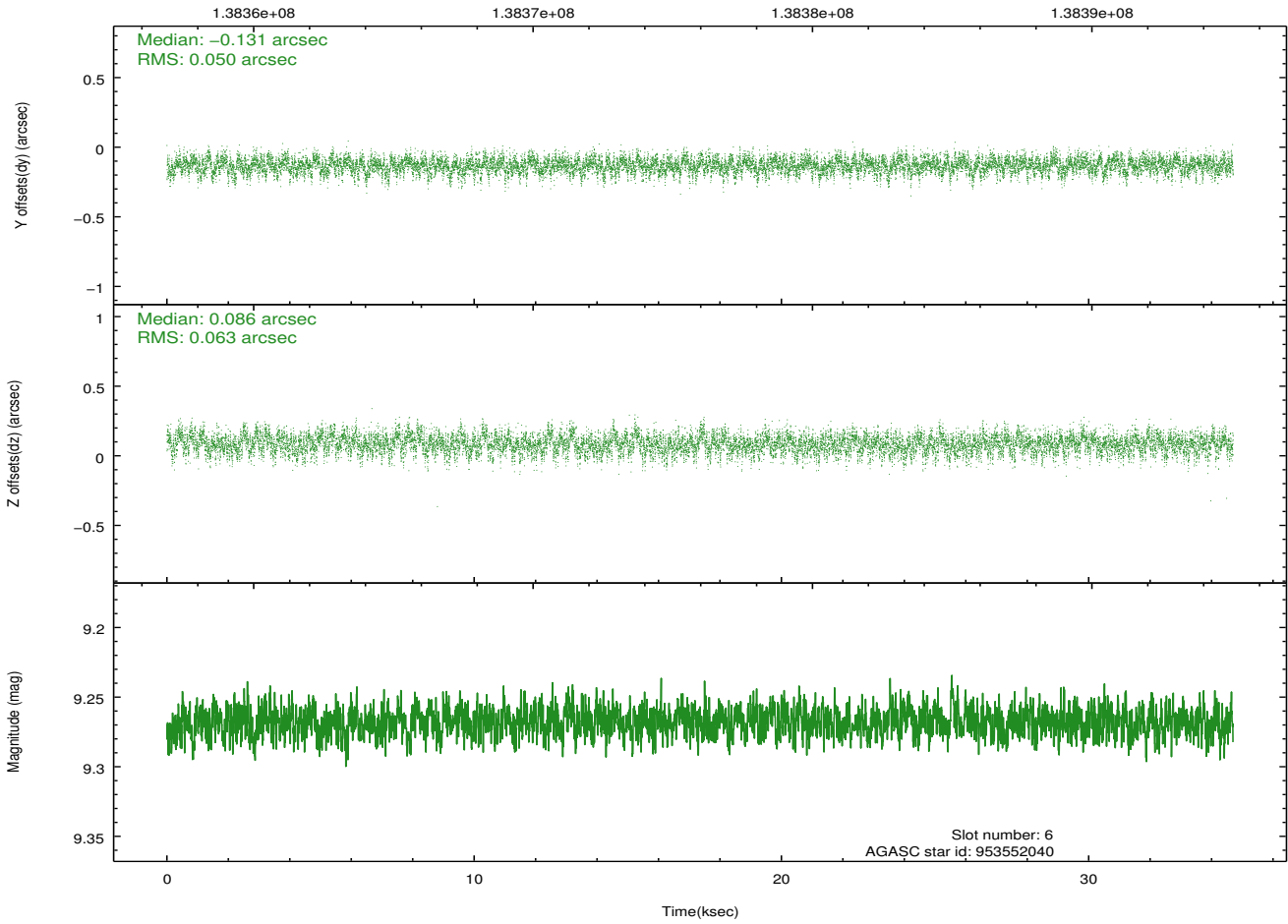
### 2.4.3 Slot 5



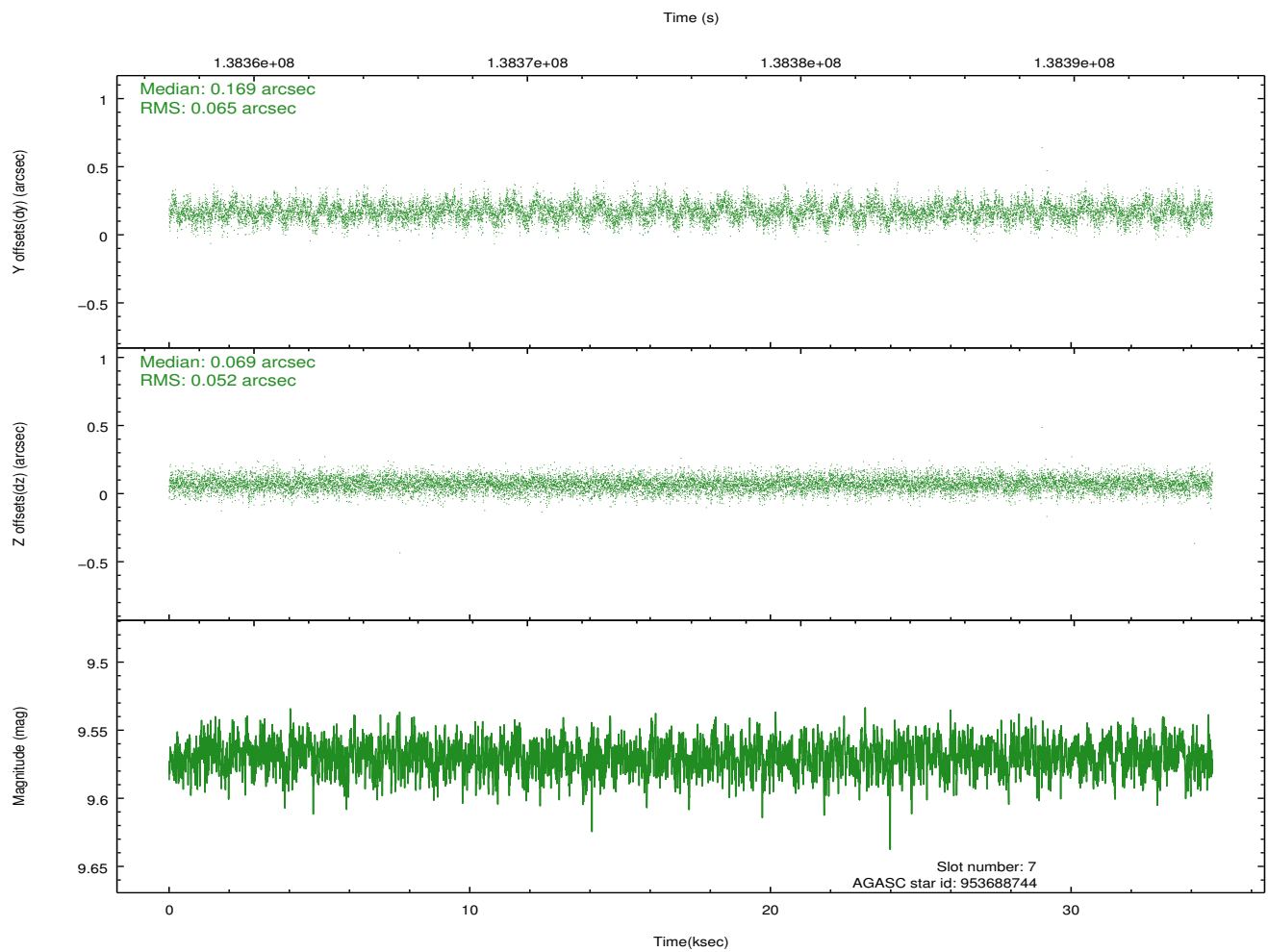
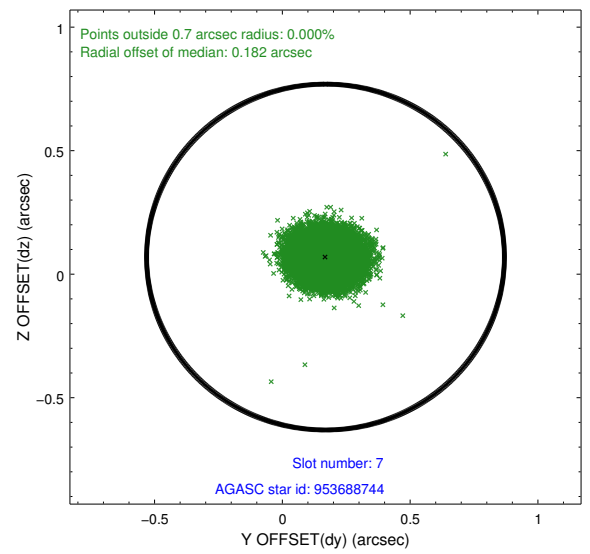
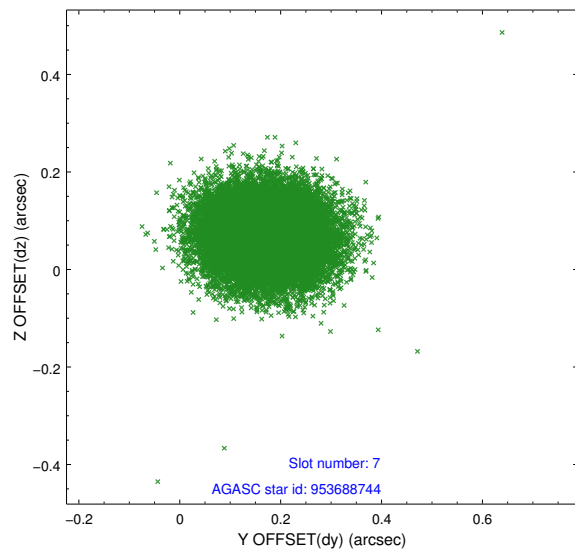
### 2.4.4 Slot 6



Time (s)

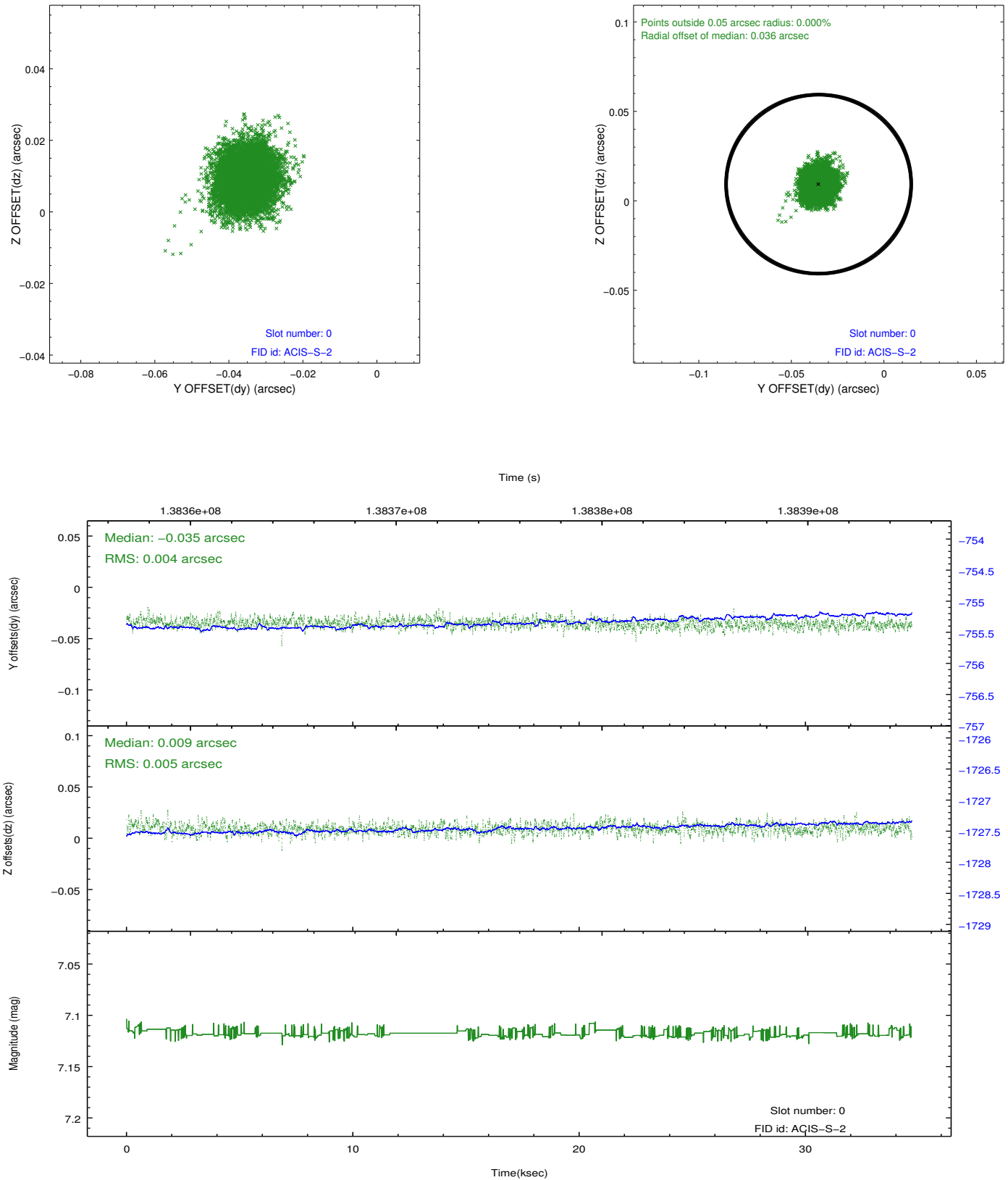


## 2.4.5 Slot 7

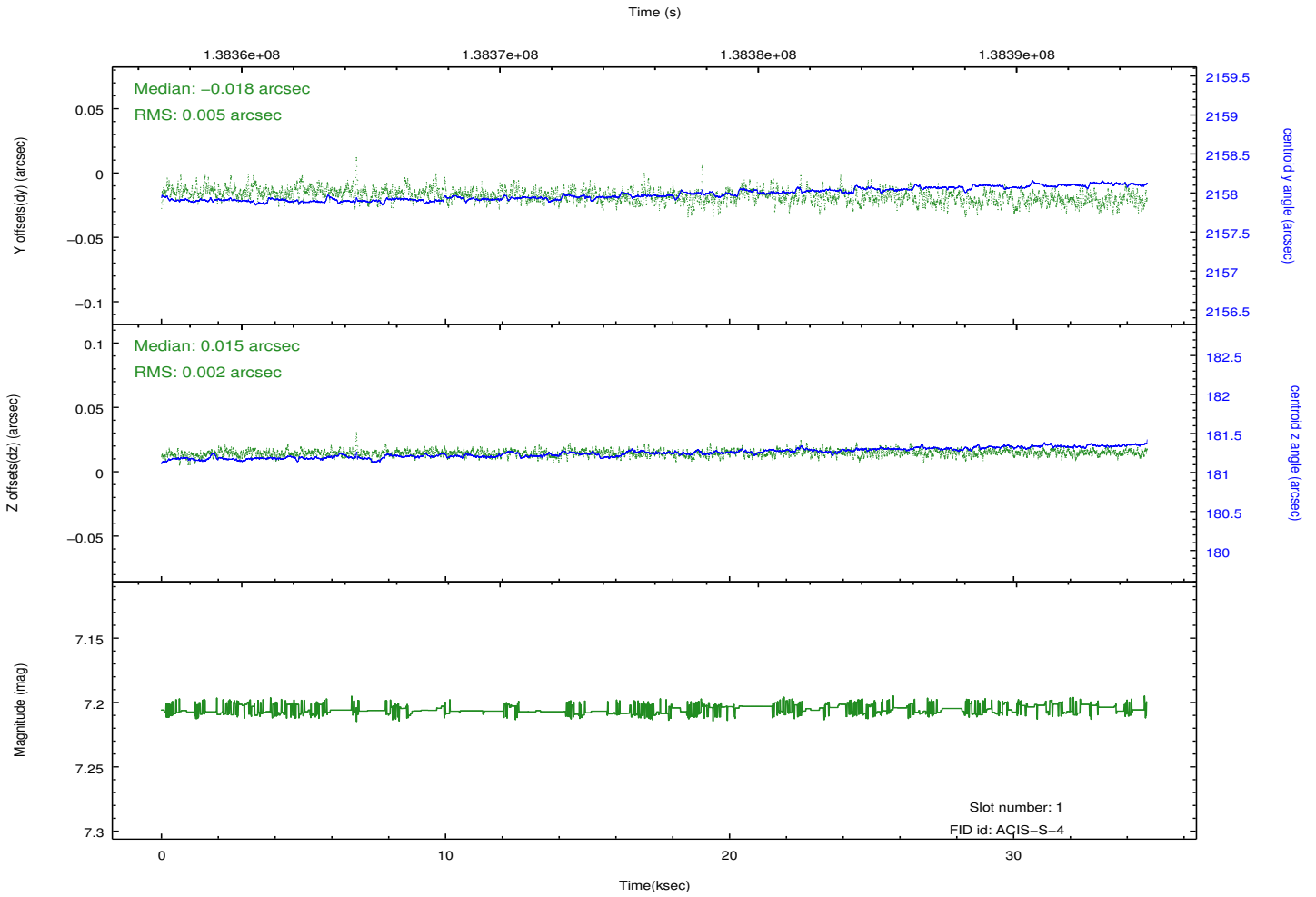
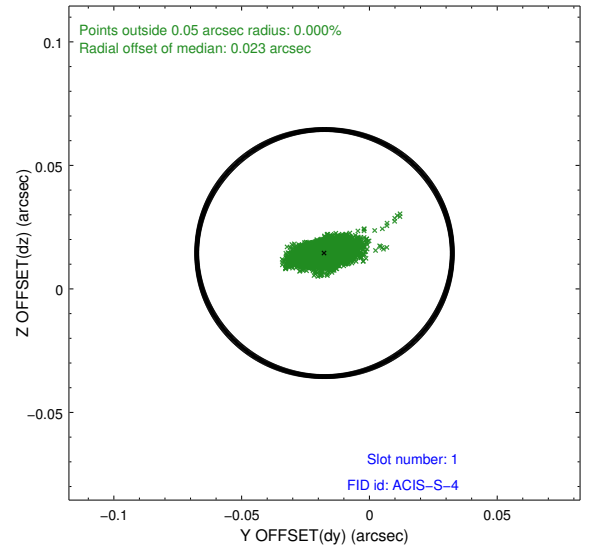
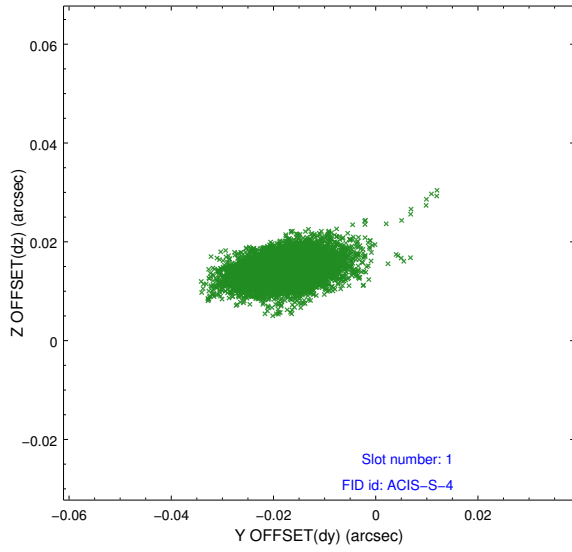


## 2.5 FID Slots

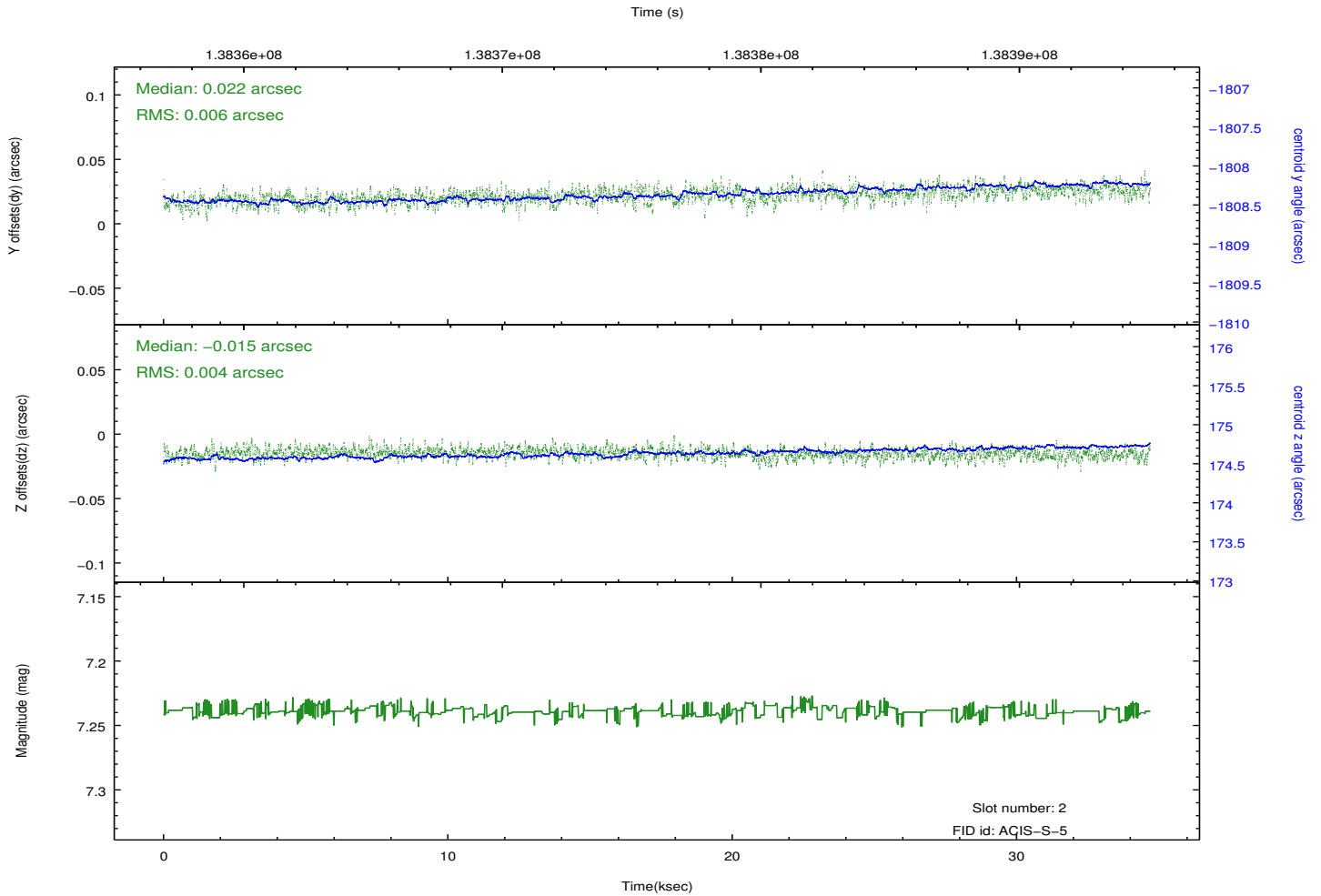
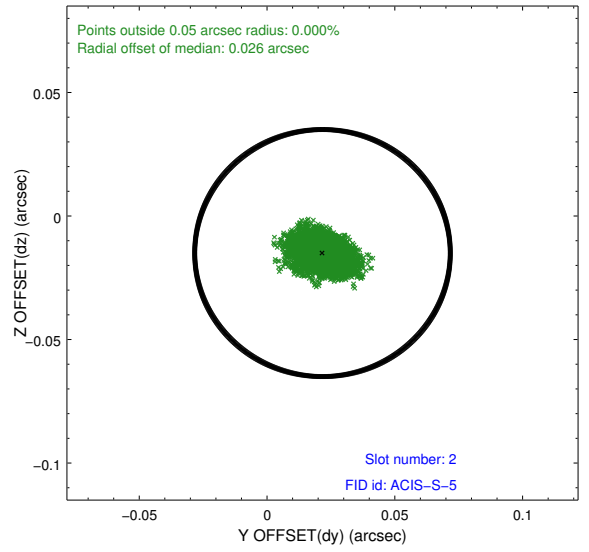
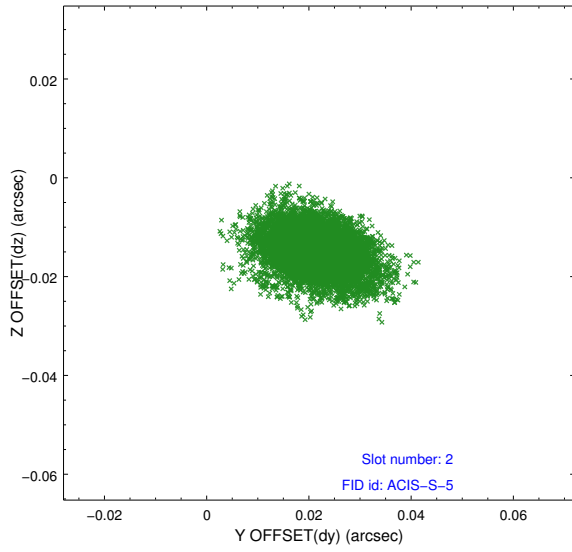
### 2.5.1 Slot 0



## 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)	2012.10.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.664

## A.2 Comments